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AMERICAN MEN OF SCIENCE

A BIOGRAPHICAL DIRECTORY

JUN 2 1945

EDITED BY
JAQUES CATTELL

SEVENTH EDITION

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American men of science;
a biographical

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PREFACE

IN spite of war conditions and the many difficulties involved it was decided to continue with the preparation of the seventh edition of *American Men of Science*. As a large number of scientific workers are temporarily engaged in war work and addresses are frequently changed, those given in the directory can not in many cases be considered as permanent addresses. However, the editor believes that the advantages of issuing a revised directory outweighed the disadvantages, and that, all things considered, it would be a contribution to the war effort.

The third edition of *American Men of Science* was in course of preparation at the time war was declared in 1914 when the work was postponed. It was resumed in 1916, only again to be interrupted by the entry of the United States in 1917, so that this edition did not appear until May, 1921.

The editor is under great obligations to a large number of scientific men who have assisted in the selection of names to be included in the book and to all those who have supplied the material and corrected proof of the biographical sketches. Among those who have assisted in the compilation are: Mrs. E. E. Ross, Miss Dorothy Bechtold, Mrs. Jane W. Bitzer, Mrs. Ruth H. Little, Mrs. Mary Jane McMullen and Miss Caroline M. Klein.

A selection has again been made by their colleagues of the two hundred and fifty who in the course of five years have attained a position among our leading scientific workers. These have been selected by the same methods as those used in previous editions. It had been planned that a committee appointed by the American Association for the Advancement of Science should make a thorough study of these methods, recommending any change that it would be desirable to make. However, owing to the work that the various members had undertaken for the government the committee was unable to function.

The directory, of which the first edition included 4,000 biographical sketches, includes about 34,000 names. Every effort has been made to make it as complete and authoritative as possible.

JAQUES CATTELL

February, 1944

PREFACE TO THE FIRST EDITION

This biographical directory of American men of science was begun as a manuscript reference list for the Carnegie Institution of Washington, which made a appropriation of $1,000 toward the clerical and office expenses. It is hoped that th publication will be a contribution to the organization of science in America. Ther is here given for the first time a fairly complete survey of the scientific activity o a country at a given period. As a reference book for the field it covers, it may be even more useful in academic circles than *Minerva* or *Who's Who in America.* But the chief service it should render is to make men of science acquainted with one another and with one another's work. There scarcely exist among scientific men the recognition of common interest and the spirit of cooperation which would help to give science the place it should have in the community. It is fully as important for the nation as for men of science that scientific work should be adequately recognized and supported. We are consequently in the fortunate position of knowing that whatever we do to promote our own interests is at the same time a service to the community and to the world.

There are included in the directory the records of more than four thousand men of science, and it is believed that the entries are tolerably complete for those in North America who have carried on research work in the natural and exact sciences. Some are admitted who are supposed to have advanced science by teaching, by administrative work, or by the preparation of text-books and compilations. There are also some whose work has been chiefly in engineering, medicine or other applied sciences, and a few whose work is in education, economics or other subjects not commonly included under the exact and natural sciences. But the book does not profess to cover these fields. The names are included because they are supposed to represent work that has contributed to the advancement of pure science—the term being used in the narrower sense—or because they are found in the membership lists of certain national societies. * * * * *

A star is prefixed to the subject of research in the case of about a thousand of the biographical notes. These are the thousand students of the natural and exact sciences in the United States whose work is supposed to be the most important. In each of the twelve principal sciences the names were arranged in the order of merit by ten leading students of the science. The average positions and the probable errors were then calculated, so that in each science the order of merit was determined together with its validity. The names were then combined in one list by interpolation, the numbers in each science being taken approximately proportional to the total number of workers in that science. The thousand are distributed among the sciences as follows: Chemistry, 175; physics, 150; zoology, 150; botany, 100; geology, 100; mathematics, 80; pathology, 60; astronomy, 50; psychology, 50; physiology, 40; anatomy, 25; anthropology, 20. The star means that the subject of the biographical sketch is probably among the leading thousand students of science of the United States; but its absence does not necessarily mean that the subject

of the sketch does not belong in this group, as the name may not have been considered in making the arrangements.

My object in determining the thousand leading American men of science was to secure a group for scientific study. I have also selected for this purpose the thousand leading men in the history of the world arranged in the order of eminence, and I am selecting a thousand students of Columbia University. My original interest in this work of reference was to secure data for a statistical study of the conditions, performance, traits, etc., of a large group of men of science, and I had intended to include the results of this study in the book. It seems, however, unwise to postpone the publication of the biographical sketches until the scientific study has been completed.[1]

I am under unusual obligations to a large number of men of science for assistance in this work. I should be glad to give a list of about two hundred to whom I am particularly indebted, but perhaps some of them would prefer not to have their names mentioned. I have been assisted in the compilation by Mr. Wm. Harper Davis, then assistant in psychology at Columbia University and now assistant professor in Lehigh University; by Dr. H. D. Marsh, then scholar in psychology at Columbia University and now instructor in Ohio Wesleyan University; by Miss M. C. Ennis; and most of all by Dr. Vivian A. C. Henmon, now lecturer in psychology at Columbia University. So much completeness and accuracy as the work may have is largely due to them.

January, 1906

[1] Two papers on the subject have been printed—'Homo Scientificus Americanus: Address of the president of the American Society of Naturalists,' *Science*, N.S., 17: 561–570, 1903, and 'Statistics of American Psychologists,' *Am. Jour. of Psychol.*, 14: 310–328, 1903. A further series of articles, which is now nearly ready, will probably be printed in *Science*. *Cf.* in regard to the other groups 'A Statistical Study of Eminent Men,' *Pop. Sci. Mon.*, 53: 359–378, 1903, and 'Physical and Mental Measurements of the Students of Columbia University,' *Psychol. Rev.*, 3: 618–648, 1896.

JUN 2 1945

AMERICAN MEN OF SCIENCE

Aamodt, Dr. Olaf S(verre), Bureau of Plant Industry, U. S. Department of Agriculture, Beltsville, Md. *Genetics, Agronomy.* St. Paul, Minn, Aug. 9, 92. B.S, Minnesota, M.S, 22, Ph.D, 27; Cornell, 22. Assoc. pathologist, cereal investigations, U. S. Dept. Agr, 17–28; instr. Minnesota, 24–27; plant breeding insts, Europe, 28–29; prof. genetics and plant breeding, Alberta, 28–35, head dept. field crops, 33–35; prof. agron. and chairman dept, Wisconsin, 35–39; *head agronomist in charge div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr,* 39– A.A; Genetic Asn; Soc. Agron; Phytopath. Soc; Can. Soc. Tech. Agr. Field crops; breeding for disease resistance in plants.

Aase, Prof. Hannah (Caroline), State College of Washington, Pullman, Wash. *Botany.* Elkpoint, S. Dak, July 12, 83. A.B, South Dakota, 06; Ph.D, Chicago, 14. Instr. *bot, State Col, Wash,* 14–19, asst. prof, 19–36, *assoc. prof, 36–* A.A; Bot. Soc. Cytology; histology.

Abbe, Dr. Ernst C(leveland), University of Minnesota, Minneapolis, Minn. *Botany.* Washington, D. C, Aug. 21, 05. B.S, Cornell, 28, M.S, 30; A.M, Harvard, 31, fellow, 32–33, Ph.D. 34. Asst. bot, Cornell, 27–30; Harvard, 31–32; nat. research fellow biol, Columbia and Cornell, 33–35; instr. *bot, Minnesota,* 35–37, asst. prof, 37–40, *assoc. prof, 40–* Research assoc, Harvard, 41–42; Guggenheim fellow, 41–42. Botanist, Grenfell-Forbes exped, Labrador, 31; mem, Arnold Arboretum exped, British Columbia and Alberta, 32; leader, Univ. Minnesota exped, Hudson Bay, 39. A.A; Bot. Soc; Genetics Soc; Soc. Nat; Torrey Bot. Club; New Eng. Bot. Club. Phylogeny of the Amentiferae; phytogeography of the eastern subarctic; morphogenesis in Zea mays.

Abbe, Dr. Truman, 3737 Huntington St, Washington, D. C. *Medicine.* Washington, D. C, Nov. 1, 73. A.B, Harvard, 95; M.D, Columbia, 99; Berlin. Instr. physics, physiol. and surg, Georgetown, 02–05; physiol, med. sch, George Washington, 06–10, surg, 10–20; *assoc. visiting surgeon, Columbia Hosp. for Women, 16–* Trustee, Nat. Parks Asn. Silver medal, Jamestown Expos. Am. Med. Asn. Radiotherapy; surgery; neoplastic diseases.

Abbitt, Prof. W(illiam) H(enry), 218 College Ave, Northfield, Minn. *Physics.* Richmond, Va, Jan. 30, 94. A.B, Virginia, 19; Ph.D, Chicago, 26. Instr, Bingham Mil. Sch, 19–20; asst. physics, Colorado, 20–21; prof, Texas Tech. Col, 26–41; mem. dept. eng. research, Michigan, 41–42; *assoc. prof. physics, Carleton Col, 42–* Lieut, F.A, 17–18. A.A; Physical Soc; Asn. Physics Teachers; Eng. Educ. Dielectric constants; atmospheric and sand storm electricity; quantitative spectrochemical analysis.

Abbot, Dr. C(harles) G(reeley), Smithsonian Institution, Washington, D. C. *Astrophysics.* Wilton, N. H, May 31, 72. B.S, Mass. Inst. Tech, 94, M.S, 95; D.Sc, Melbourne, 14; Sc.D, Case, 30, George Washington, 37; LL.D, Toronto, 33. Asst, *astrophys. observatory, Smithsonian Institution,* 95–96, aid, acting in charge, 96–07, *director, 07–,* asst. sec'y, *Smithsonian Institution,* 18–28, *sec'y, 28–* Director, Research Corp, New York, 28–; Fed. Am. Nat. Bank, Wash, D. C, 29–33. Draper medal, Nat. Acad, 10; Rumford medal, Am. Acad, 16; Goodrich award, N. Y. World's Fair, 40. Nat. Acad. (home sec'y, 19–23); A.A; Astron. Soc. (v. pres, 30); Am. Acad; Philos. Soc. Wash. (v. pres, 08–10); Wash. Acad; Royal Astron. Soc; Soc. astron. de France; Deuts. ... Soc. Astron. de Mex; Acad. Modena. Solar ... red solar spectrum; solar constant of radiation; ... anometer; osmotic pressure; absolute recording pyrheliometer; variability of sun and of terrestrial temperatures; utilization of solar heat.

Abbot, Dr. E(dward) Stanley, Wayland, Mass. *Psychiatry, Mental hygiene.* Beverly, Mass, Dec. 13, 63. A.B, Harvard, 87, M.D, 93. Asst. histol, Harvard Med. Sch, 90–92; house officer, Boston City Hosp, 92–94; asst. physician, McLean Hosp, 94–98; first asst. physician, Northampton State Hosp, 99; asst. supt, Boston City Hosp, 00–04; first asst. physician, McLean Hosp, 04–09; clin. pathologist, 09–17; med. director mental hygiene cmt, Pub. Charities Asn. Pa, 19–22. Major, M.C, 17, chief neuropsychiat. clinic, 17–18. A.A; Am. Med. Asn; Psychol. Asn; Psychiat. Asn; Orthopsychiat. Asn; New Eng. Soc. Psychiat; Mass. Soc. Psychiat; Mass. Soc. Mental Hygiene; Boston Soc. Psychiat. and Neur. (pres, 33). Fundamentals of psychology and psychiatry.

Abbott, Dr. A(ndrew) Do[illegible]e, 5105 Paddock Road, Cincinnati, Ohio. *Physical chemistry.* Waterville, Wash. B.S, Washington (Seattle), 37, Procter and Gamble scholar, 40–41, Ph.D, 42. *Research chemist, Procter and Gamble Co, 42–* Chem. Soc. Fat and oil chemistry.

Abbott, Prof. Cha(rle)s E(lliott), University of Florida, Gainesville, Fla. *Horticulture.* Gotha, Fla, Sept. 19, 92. B.S.A, Florida, 23; M.S, Mich. State Col, 27. Prin, pub. schs, Fla, 12–17, high sch, 19–20; instr. hort, *Florida,* 23–27, asst. prof, 27–33, *prof. fruits and vegetables, 33–* U.S.N.R, 17–18. Soc. Hort. Sci; Fla. Hort. Soc. Fruit-bud development in the tung-oil tree; fruiting habits of grapefruit, orange and satsuma.

Abbott, Prof. C(harles) H(arlan), University of Redlands, Redlands, Calif. *Zoology.* Antrim, N. H, March 1, 89. A.B, Brown, 13, A.M, 14, Ph.D, 18. Instr. zool, State Col. Wash, 14–15; biol, Haverford Col, 16–17; asst, Yale, 19; instr. *zool,* Mass. Col, 19–22; *prof, Redlands, 22–* 2nd lieut, Sanit. C, 18. A.A; Ecol. Soc; West. Soc. Nat; Oceanog. Soc. Pacific. Ecology; light reactions and ecology of land isopods; butterfly migrations.

Abbott, Clinton G(ilbert), Natural History Museum, Balboa Park, San Diego, Calif. *Ornithology.* Liverpool, Eng, April 17, 81. A.B, Columbia, 03. Confidential sec'y and ed, Conservation Cmn, N. Y, 18–21; in charge pub. educ, *Nat. Hist. Museum, Balboa Park,* 21–22, *director, 22–* Ornith. Union; Cooper Ornith. Club (pres, south. div, 34); Soc. Mammal; Linnaean Soc. N. Y. (sec'y, 04–11, v. pres, 11–14); fel. San Diego Soc. Nat. Hist. (pres, 23–25). Life histories of birds.

Abbott, Dr. Cyril E(dward), 9937 S. Prospect Ave, Chicago, Ill. *Ecology.* Elgin, Ill, Feb. 1, 02. A.B, Wisconsin, 25; Hopkins, 26–27; M.S, Kans. State Col, 28; Michigan, 29; Ph.D, Ohio State, 37. Teacher, high sch, Ill, 35–37; prof. science, Oakland City Col, 37–38; prof. biol. and director dept, Harding Col, 38–42; teacher, Independence Junior Col, Iowa, 42–43. Summer, malaria control, U. S. Pub. Health Service, 42. Ornith. Union; Wilson Ornith. Club; Ark. Acad; N. Y. Acad; Brooklyn Entom. Soc. Physiological ecology of insects; relationship between nutritive value of various sugars for Lucilia sericata and the gustatory perception of sugars; determination of the physiological effects of sulfur compounds upon Passalus cornutus; social rehabilitation.

Abbott, Dr. Ernest J(ames), Physicists Research Co, Ann Arbor, Mich. *Physics.* Battle Creek, Mich, Sept. 11, 00. B.S.E, Michigan, 24, M.S, 25, Ph.D, 32, L.E, 35. Research physicist, Michigan, 25–35; *manager, Physicists Research Co, 35–* Physical Soc; Acoustical Soc; Mech. Eng; Soc. Automotive Eng. Electronic equipment; surface measurement.

Abbott, Dr. E(rnest) V(ictor), U. S. Department of Agriculture, Houma, La. *Plant pathology.* Ashland, Oregon, July 9, 99. B.S, Oregon State Col, 22; M.S, Iowa State Col, 23, Ph.D, 25. Asst. plant pathologist, Exp. Sta, Louisiana, 25–26; asst. chief soil chem. and soil bacter, Exp. Sta, Iowa State Col, 26–27; plant pathologist, Estación Exp. Agr, Lima, Peru, 27–30; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Phytopath. Soc; Int. Soc. Sugar Cane Technol. Soil fungi; Peruvian plant pathology; sugar cane diseases.

Abbott, Dr. Frank R(iley), 3953 Wildwood Road, San Diego, Calif. *Physics.* Hailey, Idaho, Dec. 5, 05. A.B, Stanford, 27; Ph.D, Washington (Seattle), 39. Physicist, Gen. Elec. X-Ray Corp, Chicago, Ill, 39–42; *assoc. physicist, U. S. Navy Radio and Sound Lab, 42–* Physical Soc. Field currents; high vacuum.

Abbott, Prof. George A(lonzo), University of North Dakota, Grand Forks, N. Dak. *Chemistry.* Alma, Ill, July 7, 74. B.S, DePauw, 95, A.M, 96; fellow, Chicago, 04–05; Austin fellow, Mass. Inst. Tech, 05–06, Ph.D, 08. Teacher, high schs, Ind. and Minn, 96–04, 06–08; asst. prof. org. and indust. chem, N. Dak. Col, and asst. chemist,-Exp. Sta, 09–10; *prof. chem. and head dept, North Dakota, 10–*, chairman grad. dept, 21–27. Lecturer, Manitoba, 12; special water consultant, Nat. Resources Board, 34; chemist, N. Dak. Geol. Surv, 34–; consulting chemist; lecturer; radio broadcaster. Mem. water conservation cmn, N. Dak. Planning Board. State del, Int. Cong. Applied Chem, 12. Teacher, S.A.T.C, U.S.A. Chem. Soc; fel. Inst. Chem; Cent. Asn. Sci. and Math. Teachers (pres, 10); N. Dak. Acad. (permanent sec'y, 11–); fel. Ind. Acad. (press sec'y). Physical chemistry; biochemistry; toxicology; water purification.

Abbott, Prof. Harold E(lliott), 3439 Granada, Dallas, Texas. *Physical chemistry.* Concord, N. H, June 22, 04. B.S, New Hampshire, 28, M.S, 30; Ph.D, Columbia, 37. Instr. anal. chem, New Hampshire, 30–31; *chem,* Pa. Col. Women, 36–38, asst. prof, 38–39; instr, *Southern Methodist,* 40–41, *asst. prof, 41–* Chem. Soc. Phase rule; fats and oils.

Abbott, Dr. Howard (C), Olivet College, Olivet, Mich. *Botany.* Conquest, N. Y, Nov. 27, 95. B.S.A, Mich. State Col, 18; Ph.D, Illinois, 25. Instr, sch, Mich, 18–19; Del, 19–20; asst. bot, Illinois, 20–25; prof, South Dakota, 25–30; biol, Evansville Col, 30–31; asst. prof, Bessie Tift Col, 31–33; part-time instr. *bot,* Mich. State Col, 35–37; *instr, Olivet Col. (Mich), 37–* Summers, instr, Colo. State Teachers Col, 26; Ball State Teachers Col, Ind, 30. Bot. Soc; Ind. Acad; Ill. Acad; S. Dak. Acad. Plant pathology, physiology and ecology; over-wintering and spread of powdery mildew.

Abbott, John B, American Cyanamid Co, 30 Rockefeller Plaza, New York, N. Y. *Agriculture.* East Bethel, Vt, Jan. 5, 83. B.S, Vermont, 07; M.S, Purdue, 09. Deputy state chemist, Ind, 07–09; assoc. soil fertility, Exp. Sta, Purdue, 08–14; state county agent leader, N. H, 14–16; county agent, Middlesex County, Mass, 16–19; exten. prof. agron, Mass. State Col, 20–25; northeast. agronomist, Nat. Fertilizer Asn, 25–31; hayland and pasture specialist, *Am. Cyanamid Co,* 31–37, *director agr. research, 37–* Toxicity of soluble salts of aluminum in acid soils; grassland improvement.

Abbott, Dr. Lynn D(e Forrest), Jr, Medical College of Virginia, Richmond, Va. *Biochemistry.* Ithaca, N. Y, Nov. 23, 13. B.S, Wayne, 36, M.S, 37; Ph.D, Michigan, 40. Asst. chem, Wayne, 36–37, *biochem,* 37; Michigan, 37–40; *research assoc, Med. Col. Va, 40–* Research fellow, Henry Ford Hosp, Detroit, Mich, 37. A.A; Chem. Soc; Va. Acad. Blood chemistry and amino acid metabolism.

Abbott, Dr. Ouida Davis, University of Florida, Gainesville, Fla. *Nutrition.* Waverly, Mo, March 16, 92. B.S, Missouri, 21, A.M, 22, Ph.D, 25. *Head dept.* chem, Flat River Col, 22–24; *home econ, Florida, 25–* Chem. Soc; Home Econ. Asn. Iron metabolism in children; anemia of children; anemia in pregnancy; vitamins A and C in citrus fruits; pentose utilization; function of the thymus gland; deficiency diseases.

Abbott, Prof. R(aymond) B(arrington), 339 Sylvia St, West Lafayette, Ind. *Physics.* Newton, Kans, Dec. 25, 73. B.S, California, 08, M.S, 12, Ph.D, 19. Asst. instr. *physics,* California, 07–10, instr, 10–20; asst. prof, State Col. Wash, 20–21; *Purdue,* 21–30, assoc. prof, 30–34, *prof, 34–* A.A; Physical Soc; Acoustical Soc; Eng. Educ; Ind. Acad. Electricity; sound

Abbott, Prof. R(oscoe) C(onklin), 335 N. 33rd St, Lincoln, Nebr. *Chemistry.* Wood River, Nebr, Dec. 7, 85. B.S, Nebraska, 10, A.M, 18. Instr, *Nebraska,* 18–28, *assoc. prof. chem, 28–* Chem. Soc. (pres, local sect, 26). Determination of potassium; proteins; sulfur in proteins.

Abbott, Prof. Roy L(inn), State Teachers College, Cedar Falls, Iowa. *Entomology.* Muscatine, Iowa, May 5, [illegible] Iowa State Teachers Col, 15; M.S, Wisconsin, 1[illegible] *Prof. biol, Iowa State Teachers Col, Cedar Falls, 20–* Iowa Acad. Digestion in insects.

Abbott, Prof. Talbert W(ard), 1328 S. Thompson St, Carbondale, Ill. *Chemistry.* Otwell, Ind, Aug. 21, 92. A.B, Indiana, 18; A.M, Harvard, 22; Ph.D, Illinois, 28. Asst. chem, Harvard, 21–22; instr, Ga. Tech, 23–25; assoc. prof, *Southern Ill. Nor. Univ,* 28–39, *prof, 39–, director univ. exten, 37–* Catalytic hydrogenation of ethylene and acetylene compounds.

Abbott, Dr. William L(amont), 3500 Lake Shore Drive, Chicago, Ill. *Engineering.* Whiteside Co, Ill, Feb. 14, 61. M.E, Illinois, 84, M.M.E, 04, LL.D, 29. Machinist and draftsman, 84–87; pres, Nat. Elec. Construction Co, 87–94, chief engineer power house, 94–99, chief operating engineer, 99–36; *retired.* Trustee, Illinois, pres. board, 07–19, 21–25. Pres, Utilities Research Cmn, Inc. Chanute medal, 06. Hon. mem. Mech. Eng. (councilor, pres, 26); fel. Elec. Eng.; hon mem. West. Soc. Eng. (pres, 07). Power plant engineering; conservation and storage of coal.

Abbott, Dr. W(illiam) Osler, 1520 Spruce St, Philadelphia, Pa. *Medicine, Gastro-enterology.* New Bedford, Mass, July 26, 02. A.B, Pennsylvania, 25, M.D, 28. Fellow med, *Pennsylvania,* 30–31, instr, 31–37, pharmacol, 33–38, assoc. *med,* 37–41, *asst. prof, 41–, grad. sch. med, 43–, fellow surg. research, 43–, ward physician, med. clin, univ. hosp,* 30– Kirby fellow, Pennsylvania, 36; assoc. attending physician, Mem. Hosp, New York, 43– Corecipient, gold medal [illegible] Ray Soc, 35. Major, M.C. Am. Med. Asn; Enterol. Asn; Clin. and Climat. Asn; Asn. Physicians; Soc. Clin. Invest; Path. Soc. Phila; Physiol. Soc. Phila; Col. Physicians Phila. The diseases and functions of the gastro-intestinal tract; neoplastic diseases.

Abegg, Dr. F(red) A(nton), 1810 S. Main St, Salt Lake City, Utah. *Genetics.* Altdorf, Switzerland, Aug. 27, 96. B.S, Oregon State Col, 20; M.S, Syracuse, 22; Ph.D, Wisconsin, 28. Instr. bot, Syracuse, 22–23; *assoc. geneticist sugar plant investigations, U. S. Dept. Agr, 29–* A.A; Genetics Asn. Biochemistry of Mendelian characters; disease resistance and heredity of sugar beets.

Abel, Dr. Theodora Mead, Palisades, N. Y. *Psychology.* Newport, R. I, Sept. 9, 99. A.B, Vassar Col, 21; diploma, Paris, 23; A.M, Columbia, 24, Ph.D, 25. Clinical psychologist, pub. schs, N. Y, 23–24; Chapin Sch, 24–25; instr. *psychol,* Illinois, 25–26; nat. research fellow, Cornell, 26–27, fellow Sarah Lawrence Col, 29–35; Gen. Educ. Board research fellow, 35–36; instr, Miss Chapin's Sch, New York, director research, trade exten. classes, Board [illegible] *research psychologist, Letchworth Village, Thiells, N. Y, 40–* A.A; Psychol. Asn; Asn. Applied Psychol; Asn. Mental Deficiency; Asn. Research Child Develop. Mental testing in trade schools; national differences; tactual perception of movement; psychogalvanic reflex; cutaneous localization; individual differences in thinking processes; social facilitation at different intelligence levels; measuring dynamic aspects of behavior.

Abell, Dr. M(ax) F(lavel), Durham, N. H. *Agricultural economics.* Solvay, N. Y, Oct. 13, 88. B.S, Cornell, 14, Ph.D, 24. Asst. prof. field crops and farm management, Cornell Agr. Col, 17–20; farm management, Mass. Col, 20–26; *asst. economist, Exp. Sta, New Hampshire, 26–* Farm Econ. Asn. Costs and methods of production of potatoes; hay and silage; pasture management.

Abell, Dr. Richard G(urley), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Anatomy.* Philadelphia, Pa, Jan. 24, 04. A.B, Swarthmore Col, 26, John Lockwood Mem. fellow, 32–33; A.M, Pennsylvania, 30, Ph.D, 34. Instr. zool, *Pennsylvania. 28–30,* fellow *anat, sch. med,* 30–36, instr, 36–40, assoc, 40–42, *asst. prof, 42–* Asn. Anat; Physiol. Soc. Phila. Histophysiology.

Abello, Prof. Tomas P(adilla), University of the Philippines, Manila, P. I. *Physics.* Peñaranda, Nueva Ecija, P. I, April 28, 98. B.S, Philippines, 20; A.M, Harvard, 2[illegible]

Chicago, 28. Instr. *physics, Philippines,* 20–24, asst. prof, 24–35, *assoc. prof, 35–* Pensionado of the Philippine Govt, U. S, 24–28. A.A. Absorption of ultra-sonic waves by various gases.

Abelson, Dr. Philip Hauge, Naval Research Laboratory, Washington, D. C. *Physics.* Tacoma, Wash, April 27, 13. B.S, State Col. Wash, 33, M.S, 35; Ph.D, California, 39. Asst, radiation lab, California, 38–39; asst. physicist, Carnegie Institution, 39–41; assoc. physicist, *Naval Research Lab,* 41, *physicist, 42–* Consultant, Nat. Defense Research Cmt, 40–42. Physical Soc. Nuclear physics; radioactive tracers; fission products of uranium; characteristic x-rays emitted by radioactive substances; radioactive element 93.

Abercrombie, Prof. W(arren) Fulton, Box 162, Due West, S. C. *Zoology.* Leeds, Ala, June 8, 11. A.B, Howard Col. (Ala), 31; M.S, N. Y. Univ, 33, Ph.D, 35. Asst, N. Y. Univ, 31–35; asst. prof. *biol,* Howard Col, 35–41; asst. prof. and head dept, *Erskine Col,* 41–42, *assoc. prof, 42–* Research award, Ala. Acad. Science, 41. A.A; Micros. Soc; Asn. Anat; Southeast. Soc. Biol; Ala. Acad. (sec'y sect. biol. and med. sci, 38). Effects of iodine compounds on the thyroid gland; growth of Japanese beetle larvae; effect of chemicals on the cockroach.

Aberdeen, Prof. Esther (Jane), Wellesley College, Wellesley, Mass. *Paleontology, Geology.* Chicago, Ill, Jan. 6, 04. B.S, Northwestern, 28, M.S, 31; fellow, Chicago, 35–36, Ph.D, 37. Asst. geol, Northwestern, 29–31; instr. *geol. and geog,* Milwaukee-Downer Col, 34–35; *Wellesley Col,* 36–40, *asst. prof, 40–* Paleont. Soc. Precambrian Rocky Mountains; Paleozoic Radiolaria; modern sedimentation.

Aberle, Dr. S(ophie) B(ledsoe) D, Pueblo Agency, Albuquerque, N. Mex. *Obstetrics, Gynecology.* Schenectady, N. Y, July 21, 99. A.B, Stanford, 23, A.M, 25, Ph.D, 27; Alexander Brown Coxe fellow, Yale, 29–30, M.D, 30. Asst. histol, Stanford, 24–25, embryol. and neur, 25–26; inst. psychol, Yale, 27–29, Sterling fellow, sch. med, 30–31, instr, 31–34; assoc. research, Carnegie Institution, 34–35; *supt, Pueblo Indians, bur. Indian affairs, U. S. Dept. Interior, 35–* Mem. Upper Rio Grande drainage basin cmt, Nat. Resources Planning Board. Mem. White House Conf. Children in a Democracy, 40. Chief emergency med. services, State Council Nat. Defense, N. Mex. A.A; Asn. Anat; Eugenics Soc. Vital statistics of the Pueblo Indians; growth and development of Indian children.

Abernathy, Dr. G(eorge) E(lmer), 115 E. Williams, Pittsburg, Kans. *Economic geology.* Willow Springs, Mo, Aug. 4, 88. B.S, Mo. Sch. Mines, 14, E.M, 27; M.S, Kansas, 29, Ph.D, 36. Mining engineer, Los Dos Estrellas, 17–19; Butte and Superior Mining Co, 19–20; mine supt, Chataugay Iron and Ore Co, 20–21; prof. geol. and mining eng, Kans. State Teachers Col, 21–38; *geologist, Kans. State Geol. Surv, 38–* Min. and Metal. Eng; Asn. Petrol. Geol; Kans. Geol. Soc. Coal and mineral fuels; lead and zinc.

Abernathy, Prof. L(ewis) G(rover), Central College, Fayette, Mo. *Physics.* Longtown, Mo, April 29, 85. B.S, Cent. Col. (Mo), 12, M.S, 13; A.M, Missouri, 21; summers, Chicago, 14–16, 26, 36. Prin, high sch, Mo, 13–16; assoc. prof. physics, *Cent. Col. (Mo),* 16–17, prof, 17–29, math, 29–30, *prof. physics and head dept, 30–* Summers, assoc. prof, Missouri, 22, 23, 30. A.A; Physical Soc; Asn. Physics Teachers; Mo. Acad. (chairman physics div, 39). Wave-length of satellites of green mercury line 5461.

Abernethy, Prof. Ethel (Mary), Queens College, Charlotte, N. C. *Psychology.* Rutherford College, N. C, Aug. 25, 93. A.B, Trinity Col. (N. C), 13; Hopkins, 15–16; A.M, Chicago, 24, Ph.D, 33. Prof. psychol, Queens (N. C), 18–31; staff psychologist, lab. schs, Chicago, 31–33; *prof. psychol, Queens (N. C), 33–* Psychol. Asn; Soc. Study Educ. Child development; learning and retention; personality.

Abernethy, Dr. John Leo, University of Texas, Austin, Texas. *Organic chemistry.* San Jose, Calif, March 6, 15. A.B, California at Los Angeles, 36; M.S, Northwestern, 38, Ph.D, 40. Asst. *chem,* Northwestern, 37–40; *instr,* Texas Col. Mines, 40–41; *Texas, 41–* A.A; Chem. Soc. Conjugate unsaturated compounds; carbohydrates; biphenyls.

Abernethy, R(oy) F(ranklin), 625 Briarwood Ave, Pittsburgh, Pa. *Chemistry.* Hickory, N. C, Nov. 17, 05. B.S, North Carolina, 29, M.S, 30. Lab. asst. chem, North Carolina, 28–29, teaching instr. indust. chem, 29–30; from junior chemist to *chemist, Bur. Mines, 30–* Chem. Soc; Elisha Mitchell Sci. Soc. Fuel analysis; classification of coals; anti-rachitic properties and cholesterol content of shrimp oil.

Ablelter, J(ames) Kenneth, 4300 Clagett Pineway, Hyattsville, Md. *Soils.* Fennimore, Wis, Dec. 8, 99. B.S, Wisconsin, 28, M.S, 32. Instr, pub. schs, Wis, 21–22; Minn, 22–24; asst, Wis. Geol. and Nat. Hist. Surv, 28–30; asst. soil surv, Exp. Sta, N. Dak. Col, 32–34, instr. soils and acting head dept, col, 34–35; senior soil technologist, bur. chem. and soils, *U. S. Dept. Agr,* 35–42, *prin. soil scientist, bur. plant indust, soils and agr. eng, 42–* A.A; Soc. Agron; Soil Sci. Soc; Am. Geog. Soc; Asn. Geog; Int. Soc. Soil Sci. Rural land classification.

Aborn, Dr. R(obert) H(ollenbeck), U. S. Steel Corp, Kearny, N. J. *Metallurgy.* Battle Creek, Mich, Jan. 9, 97. A.B, Grinnell Col, 18; B.S, Mass. Inst. Tech, 20, Sc.D, 25. Research, blast furnace dept, Bethlehem Steel Co, 20–21; x-ray research, metal. lab, Watertown Arsenal, 23–25; staff x-ray research, lab. applied chem, Mass. Inst. Tech, 25–28; instr, eng. sch, Harvard, 28–30; *staff, research lab, U. S. Steel Corp, 30–* Min. and Metal. Eng; Soc. Metals; Welding Soc; Mech. Eng. Weldability of steels; stainless steels; low alloy steels.

Abraham, Herbert, 500 Fifth Ave, New York, N. Y. *Chemistry.* New York, N. Y, July 9, 83. B.S, Columbia, 03. Chemist, *Ruberoid Co,* 03, *pres. and director.* Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. Bitumens; oils.

Abrahams, Dr. Harold J(ustin), 1542 N. Franklin St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Jan. 1, 01. B.S, Pennsylvania, 26, Harrison and univ. scholars, 26–27, M.S, 28, Ph.D, 32. *Instr. chem, high schs, Phila, 27–* Asst, Pennsylvania, 30–31. Electrochemistry; arsenic-germanium mixtures.

Abrahamsen, Dr. Norman S(igurd) B(ertram), California Institute of Technology, Pasadena, Calif. *Organic chemistry.* Kathryn, N. Dak, Oct. 30, 11. B.S, N. Dak. Col, 33; M.S, Iowa, 37, Ph.D, 39. Asst. chem, Iowa, 37–39; *research asst. org. chem, Calif. Inst. Tech, 40–* Chem. Soc. Grignard reagents and nitrosyl chloride; organo-metallic compounds and monochloromine; indole-2 derivatives.

Abrahamson, Dr. E(manuel) M, 201 Eastern Parkway, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, June 25, 97. B.S, Columbia, 17, Chem.E, 19, A.M, 21, Ph.D, 22, M.D, 26. Asst. chem, Columbia, 18–21; house staff, *Jewish Hosp, Brooklyn,* 26–28, asst. attending physician, 28–35, *assoc. attending physician, 35–; lieut. commander, Med. Corps, U. S. Naval Reserve, 41–* A.A; Chem. Soc; Am. Med. Asn. Organic and physiological chemistry.

Abramovitch, Dr. B, Northwestern University, Evanston, Ill. *Organic chemistry.* Lachine, Que, Can, Nov. 23, 15. B.Sc, McGill, 38; Ph.D, Duke, 42. Teaching fellow, Duke, 41–42; *Abbott-Glidden-Upjohn research assoc, Northwestern, 42–* Chem. Soc. The Michael, Claisen and related condensations; polarography of steroid ketones.

Abrams, Dr. Allen, Wausau, Wis. *Chemistry.* Butler, Pa, Jan. 27, 89. A.B, Washington and Jefferson Col, 10, M.S, 15, Sc.D, 37; B.S, Mass. Inst. Tech, 15. Instr, Mass. Inst. Tech, 15–16; research chemist, Bemis Bros. Bag Co, 16–17, 19–20; research assoc, Mass. Inst. Tech, 20–21; research chemist, Cornell Wood Products Co, 21–25; *v. pres. in charge research and develop, Marathon Paper Mills Co, 25–; mem. staff, Office Strategic Services, 43–* Lieut, C.W.S, 17–19, chief develop. sect, defense div, 18–19, major, C.W.Res. Chem. Soc; Tech. Asn. Pulp and Paper Indust. (pres, 32–34); Oil Chemists Soc; Soc. Test. Mat; N. Y. Acad. Pulp and paper manufacture; testing of pulp and paper; waxed papers; waxes.

Abrams, Dr. Armand J, Magnolia Petroleum Co, Dallas, Texas. *Organic chemistry.* Berchem, Belgium, Nov. 28, 99. Ing. Com, Brussels, 22; Cmn. Relief Belgium Educational Foundation fellow, Mass. Inst. Tech, 23–25, M.S, 24, Ph.D, 25. Chemist, Bogalusa Paper Co, La, 25–26, chief chemist, 26–29; tech. supt. alcohols div, du Pont Ammonia Co, 29–33; assoc. chemist and senior chem. engineer, Tenn. Valley Authority, 33–37; *director field research dept, Magnolia Petrol. Co, 37–* A.A; Chem. Soc; Chem. Eng; Electrochem. Soc; Min. and Metal. Eng; Hist. Sci. Soc. Urea and guanidine series; pulp and paper; terpenes; nitrogen fixa-

tion; synthetic alcohols; catalysis; phosphorus; phosphoric acid and phosphate fertilizers; natural gas; oil and gas exploration and production.

Abrams, Duff A(ndrew), 801 Second Ave, New York, N. Y. *Civil engineering.* Grand Tower, Ill, April 25, 80. B.S, Illinois, 05, C.E, 09. Asst, eng. exp. sta, Illinois, 05–08, assoc, 08–14; prof. in charge struct. materials, research lab, Lewis Inst. (Ill), 14–25; director research, Portland Cement Asn, Chicago, 25–27; Int. Cement Corp, *New York,* 27–31; *consulting engineer, 31–* Wason medal, Concrete Inst, 19, Turner gold medal, 32; medal, Franklin Inst, 42. A.A; Civil Eng; Soc. Test. Mat. Cement; concrete and reinforced concrete; methods of testing; water-ratio strength law of concrete mixes.

Abrams, Dr. John W(erner), RCAF Officers Mess, Victoriaville, Que, Can. *Astronomy.* San Francisco, Calif, Dec. 15, 13. A.B, California, 33, Lick Observatory fellow, 38–39, Ph.D, 39; Harvard, 34–35; Tartu Observatory (Estonia), 36–37. Instr. astron, exten, California, 40; junior astronomer, U. S. Naval Observatory, 40–41; *flying officer, Royal Can. Air Force, 41–* Astron. Soc; Astron. Soc. Pacific. Stellar motions and magnitudes; luminosity function for giants and supergiants.

Abrams, Prof. LeRoy, Stanford University, Calif. **Botany.* Sheffield, Iowa, Oct. 1, 74. A.B, Stanford, 99, A.M, 02; fellow, Columbia, 04–05, Ph.D, 10. Acting prof. bot, Idaho, 99–00; asst. syst. bot, Stanford, 00–02, instr, 02–04; asst. curator div. plants, U. S. Nat. Museum, 05–06; asst. prof. syst. bot, *Stanford,* 06–11, assoc. prof. *bot,* 11–20, prof, 20–40, *emer. prof, 40–,* director nat. hist. museum, 34–40. Lecturer, California, 15; field asst, U. S. Dept. Agr, 18. A.A; Bot. Soc; fel. Am. Acad; Calif. Acad. Flora of the Pacific states.

Abramson, Dr. David I(rvin), O'Reilly General Hospital, Springfield, Mo. *Clinical medicine.* New York, N. Y, Oct. 14, 05. M.D, L. I. Col. Med, 29. Instr. physiol. and pharmacol, L. I. Col. Med, 30–36; fellow cardiovascular research, Michael Reese Hosp, 36; Mt. Sinai Hosp, 36–37; assoc. in charge, May Inst. Med. Research, 37–42; *capt, Med. Corps, U. S. Army, O'Reilly Gen. Hosp, 42–* Director dept. electrocardiography, Jewish Hosp, Cincinnati, Ohio, 38–42; instr, sch. med, Cincinnati, 41–42. A.A; fel. Col. Physicians; Physiol. Soc; Heart Asn; Soc. Exp. Biol. Rate of peripheral blood flow in man under normal and abnormal conditions and in various pathologic states, using the venous occlusion plethysmographic method.

Abramson, Prof. Harold A(lexander), Columbia University, New York, N. Y. *Chemistry, Physiology.* New York, N. Y, Nov. 27, 99. A.B, Columbia, 20, M.D, 23. Asst. chem, Columbia, 18–20; intern, Mt. Sinai Hosp, New York, 23–25; Libman traveling fellow, Univ. Col, London, 25–26; nat. research fellow, Kaiser Wilhelm Inst, 26–28; instr. research med, Hopkins, 28–29; instr. and tutor biochem. sciences, Harvard, 29–31, instr. gen. physiol, 30–31; assoc. bacter. and immunol, med. col, Cornell, 34–35; *asst. prof. physiol, col. physicians and surg, Columbia, 35–; assoc. med, Mt. Sinai Hosp, 42–; major, Med. Corps, U. S. Army, 42–* Summer, staff, biol. lab, Cold Spring Harbor, 34. Cmt. colloid science, Nat. Research Council, 36; sci. advisory council, biol. lab, Cold Spring Harbor. A.A; Chem. Soc. (exec. councilor, colloid div, 41); Am. Med. Asn; Physiol. Soc; Soc. Biol. Chem; Physical Soc; Soc. Study Allergy; Soc. Invest. Dermat; fel. N. Y. Acad. Med; N. Y. Acad; Kolloid-Gesell. Lactate utilization; electric mobility of cells; electrokinetic properties of surfaces and allergens; allergic reactions.

Abramson, Dr. Milton, University of Minnesota, Minneapolis, Minn. *Obstetrics, Gynecology.* Floodwood, Minn, March 30, 05. B.S, Minnesota, 26, M.B, 28, M.D, 29, Ph.D, 32. *Instr. obstet. and gynec, Minnesota, 32–; asst. physician, dept. obstet. and gynec, Minneapolis Gen. Hosp.* Mem. staff, Maternity Hosp. and Asbury Hosp, Minneapolis, Minn. Cent. Asn. Obstet. and Gynec; Minn. Soc. Obstet. and Gynec. Effects of pregnancy on the organ weights of the albino rat; ultra-violet therapy of gonococcal cervicitis; hemolytic transfusion reaction with death; technique of physical therapeutic methods in gynecology; factors affecting blood loss in the third stage of labor.

Abramson, Dr. Morris B, 200 E. 205th St, Bronx, New York, N. Y. *Physical chemistry.* New York, N. Y, July 8, 10. M.S, N. Y. Univ, 34, Ph.D, 39. Teaching fellow chem, N. Y. Univ, 32–34; lab. asst, Board Educ, New York, 34–36, *teacher* science, 36–40; *chem, Bronx High Sch. of Science, 40–; asst, N. Y. Univ, 42–* Chem. Soc. X-ray diffraction of alloys; rates of dissolution; catalysis in solution.

Abreu, Prof. Benedict E(rnest), University of Georgia School of Medicine, Augusta, Ga. *Pharmacology, Biochemistry.* Oakland, Calif, July 31, 13. B.S, California, 35, M.S, 37, Ph.D, 39. Asst. *pharmacol,* California, 35–37; instr, *sch. med,* West Virginia, 37–39; Oklahoma, 39–41; *asst. prof, Georgia, 41–* A.A; assoc. fel. Am. Med. Asn; Soc. Trop. Med; Soc. Pharmacol; W. Va. Acad; Int. Col. Anesthetists. Biochemorphology; anesthesiology; pharmacology of circulation; toxicology.

Abriol, Dr. Rufino, 722 Nebraska St, Manila, P. I. *Medicine.* Pampanga, P. I, April 7, 90. M.D, Illinois, 13; D.T.M, Philippines, 16; C.P.H, Hopkins, 21, Dr.P.H, 22. U. S. quarantine officer, *Manila, P. I,* 17–36; *chairman, Insular Board Med. Examiners, 36–* Major, M.C, U.S.A, 19. Fel. Am. Med. Asn; P. I. Med. Asn. (pres, 36); Manila Med. Soc. (pres, 35). Liver abscess among Filipinos; correlation of certain diseases and economic factors.

Abt, Prof. Isaac Arthur, 4700 S. Kenwood Ave, Chicago, Ill. *Medicine.* Wilmington, Ill, Dec. 18, 67. Hopkins, 89; M.D, Northwestern, 91; Vienna and Berlin, 92–94. Intern, Michael Reese Hosp, 91–92; instr. physiol. and histol, Northwestern, 94–97, prof. *diseases of children,* Woman's Med. Sch, 97–01; assoc. prof, Rush Med. Col, Chicago, 02–09; prof, *med. sch, Northwestern,* 09–41, *emer. prof, 41–* Am. Med. Asn; Pediat. Soc. Pediatrics.

Achilles, Dr. Edith Mulhall, Barnard College, Columbia University, New York, N. Y. *Psychology.* Boston, Mass, Aug. 6, 92. B.S, Barnard Col, Columbia, 14, A.M, 15, Ph.D, 18. Asst. psychol, Barnard Col, Columbia, 13–15; Vassar Col, 16–17; instr, exten. dept, *Columbia,* 18–21, supervisor psychol, home study dept, 21–34, *mem. war work information bur, 42–* Clin. psychologist, New York; consultant psychol, Oxford Sch, 25, 30. Trustee, Barnard Col, Columbia, 33–37. A.A; Psychol. Asn; Asn. Applied Psychol; N. Y. Acad. Med. Clinical and school psychology.

Achilles, Dr. Paul S(trong), Psychological Corp, 522 Fifth Ave, New York, N. Y. *Psychology.* Tacoma, Wash, Jan. 22, 90. A.B, Yale, 13; A.M, Columbia, 17, Ph.D, 23. Instr, Yale-in-China, Changsha, China, 13–14; psychol. examiner, Riverdale Sch, 19–20; lecturer psychol, Columbia, 20–22, instr, 22–23, lecturer, 27–41; field rep, *Personnel Research Federation,* 25–27, *sec'y,* 27–; sec'y-treas, *Psychol. Corp,* 26–31, managing director, 31–39, *v. pres. and gen. manager, 39–* Research worker, Am. Social Hygiene Asn, 20–21, 25–26; advertising dept, Eastman Kodak Co, 22–24, director, 39–Lieut, U.S.A, 17–19. A.A; Psychol. Asn. (sec'y, N. Y. branch, 31–34); Asn. Applied Psychol. (chairman, consulting psychol. sect, 41; indust. sect, 43). Industrial psychology; personnel; vocational guidance.

Achinstein, Dr. A(sher), 1030 Park Place, Brooklyn, N. Y. *Statistics.* New York, N. Y, Dec. 6, 00. B.S, Col. City of N. Y, 22; A.M, Columbia, 23, Ph.D, 27. Teacher economics, 24–26; Social Science Research Council fellow, 27–28; senior investigator, Personnel Classification Board, Washington, D. C, 28; research staff, Nat. Indust. Conf. Board, 29; chief statistician, State Board Housing, N. Y, 30–36; chief research sect. and asst. director in charge research, U. S. Housing Authority, 38–40; *exten. lecturer, Columbia, 40–; consultant, Office Production Management, 41–* A.A; Statist. Asn; Econ. Asn. Economics; business cycles; wages; cost of living; housing.

Acken, Dr. Marshall F(rancis), Mendenhall, Pa. *Chemistry.* Plainfield, N. J, Feb. 6, 05. B.S, Cooper Union, 27; M.S, Northwestern, 29; du Pont fellow, Pa. State Col, 30–31, Ph.D, 31. Asst. chem, Pa. State Col, 27–31; *with E. I. du Pont de Nemours and Co, 31–* Chem. Soc. X-ray and the structure of rubber.

Ackerman, Dr. Edward A(ugustus), 2141 Eye St, N.W, Washington, D. C. *Human geography, Climatology.* Post Falls, Idaho, Dec. 5, 11. A.B, Harvard, 34, A.M, 36, Ph.D, 39. *Instr. and tutor geog, Harvard, 39–; asst. chief in charge topog. intel, Europe-African div, Office Strategic Services, 41–* Field investigator, fish and wildlife service, U. S. Dept. Interior; consultant, Nat. Resources Planning Board. Geographic aspects of the New England fishing industry; climatological classification; European regional studies.

Ackerman, Dr. John W(right), 72 Lakeside Drive, Nutley, N. J. *Chemistry.* Brooklyn, N. Y, Dec. 23, 04. Ch.B, Cornell, 28, Ch.M, 29, Ph.D, 31. Research chemist, *Fine Colors Co, Paterson, N. J,* 31–38, v. pres, 38–40, *pres, 40–* Chem. Soc. Physical chemistry; chemistry of photography; preparation of lakes and pigments; light fastness of colors.

Ackerman, Dr. Joseph, Norwell, Mass. *Organic chemistry.* Chicago, Ill, Feb. 16, 14. B.S, Mass. Inst. Tech, 36, Ph.D, 39. Teaching fellow, Mass. Inst. Tech, 36–38; research and develop. chemist, Kimberly Clark Corp, 39–40, in charge sanit. products research, 41–42; *chief research chemist, Nat. Fireworks, Inc, 42–, instr, eng, science and management war training course explosives and ballistics, sch. munitions technol, 42–* Chem. Soc. (sec'y-treas, northeast Wis. sect, 41). Explosives; pyrotechnics; asymmetric photosynthesis; organosilicon compounds; pulp and paper chemistry.

Ackerman, Prof. Lloyd, 3912 Glenwood Road, Cleveland Heights, Ohio. *Hygiene.* Ridgewood, N. J, Nov. 6, 92. A.B, Colo. State Teachers Col, 17; A.B, Colorado, 20; M.S, Michigan, 24, fellow, 24–25, Ph.D, 25. Asst. *biol,* Colo. State Teachers Col, 18–19; assoc. prof, West Texas Nor. Col, 19–20; S. Dak. Sch. Mines, 20–24; instr, *Western Reserve,* 25–27, *asst. prof,* 27–, asst. dean, 26–27. A.A. Physiology of wing production in Aphids; health.

Ackermann, Dr. Philip G(ulick), 4528A Cleveland Ave, St. Louis, Mo. *Physical chemistry.* Waterville, Minn, May 3, 09. B.S, Oregon State Col, 31, 38; Ph.D, Hopkins, 36. *Chief chemist, Cole Chem. Co, 39–* A.A; Chem. Soc. Determination of molecular structure by electron diffraction.

Ackerson, Dr. C(lifton) W(alter), 3707 Holdrege St, Lincoln, Nebr. *Agricultural chemistry.* Elbow Lake, Minn, Dec. 29, 96. B.S, Minnesota, 21, M.S, 22; Ph.D, Nebraska, 26. Asst. agr. biochem, Minnesota, 20–22; *asst. chemist, Exp. Sta, Nebraska,* 22–41, *chemist, 41–,* asst. prof. *agr. chem, univ,* 28–39, assoc. prof, 39–41, *prof, 41–; major, Field Artil, U. S. Army, 40–* A.A; Chem. Soc. Biochemistry; animal nutrition; endogenous metabolism of hens; nitrogen requirements of poultry; cereal proteins for poultry; content of blood plasma and mineral and vitamin requirements of chicks; calcium and phosphorus requirements of growing turkeys.

Ackerson, Lieut. Luton, 9614 Olympic Blvd, Beverly Hills, Calif. *Psychology.* Elbow Lake, Minn, April 19, 92. A.B, Oregon, 15; Rhodes scholar, Oxford, 16, B.Sc, 24; A.M, Columbia, 22, Ph.D, 27. Asst. prof. psychol. and director psychol. clinic, Iowa, 24–26; research psychologist, Ill. Inst. Juvenile Research and Behavior Research Fund, 26–40; visiting asst. prof. psychol, N. Y. Univ, 40–42; lecturer, Col. City of N. Y, 41–42; *lieut, Adj. Gen's. Dept, Second Corps Area, U. S. Army, 42–* Psychologist, classification staff and mental health office, State Div. Criminol, Ill, 26–40. Psychol. Asn. (sec'y, clin. sect, 31–34); Soc. Psychol. Study Social Issues; Asn. Applied Psychol. Child behavior; social psychology; higher education.

Ackert, Prof. James E(dward), Kansas State College, Manhattan, Kans. **†Zoology.* Woosung, Ill, Aug. 31, 79. A.B, Illinois, 09, A.M, 11, fellow, 11–13, Ph.D, 13. Asst. *zool,* Illinois, 09–11; asst. prof, *Kans. State Col,* 13–16, assoc. prof, 16–18, *prof, 18–, parasitologist, Exp. Sta, 13–, dean grad. sch, 31–* Fellow by courtesy, Hopkins, 21; research, Molteno Inst. Parasitol, Cambridge, 30–31. Ed. board, 'Jour. Parasitol,' 32; collaborator, 'Rev. Med. Trop. Parasitol, Habana.' Exped, hookworm control, int. health board, Rockefeller Foundation, Trinidad, 21. Speaker, World's Poultry Cong, Ottawa, 27, del, London, 30; Int. Zool. Cong, Padua, 30. A.A. (councilor, 33–); Soc. Nat; Soc. Zool; Micros. Soc. (sec'y and ed, 31–); Soc. Parasitol. (v. pres, 34, councilor, 35–38, pres, 41); Soc. Trop. Med; cor. mem. Helminth. Soc. Wash; Kans. Acad. (pres, 25). Innervation of integumentary sense organs; life histories of cestodes and nematodes; morphology of hookworm; resistance of animals to parasitism as affected by vitamins, age and goblet cells; nutrition of nematodes.

Ackley, Prof. Alma B(ernice), 1000 Whitmore Road, Detroit, Mich. *Botany.* Waterloo, Mich, Jan. 23, 93. Certificate, Mich. State Nor. Col, 13; A.B, Michigan, 22, M.S, 24; Ph.D, Ohio State, 30. Teacher, pub. schs, Mich, 10–11, prin, high sch, 14–17; asst. prof, Berea Col, 17–20; instr, high sch, Mich, 20–21, 22–25; *bot,* Col. City of Detroit, 25–33, *Wayne,* 33–34, *asst. prof, 34–* A.A; Bot. Soc; Mich. Acad. Algae; Monilia.

Acquarone, Prof. Paul, University of Akron, Akron, Ohio. *Botany.* Buffalo, N. Y, May 31, 00. B.S, Pa. State Col, 24; Ph.D, Hopkins, 29. Instr. bot, Brown, 24–25; Pa. State Col, 25–26; bacter, Hopkins, 26–29; asst. prof. *bot,* Syracuse, 29–31; *Akron,* 31–37, *assoc. prof, 37–* Mem, Johns Hopkins trop. bot. exped, 26. A.A; Bot. Soc; Ohio Acad. Plant physiology; anatomy of Musaceae; brown algae.

Acree, Ruby Jarvis (Tiller), 3259 R St, N.W, Washington, D. C. *Plant pathology.* Richmond, Va, Jan. 18, 86. Wash. Law Col. Sci. asst, *bur. plant indust, U. S. Dept. Agr,* 07–25, junior pathologist, 25–36, *asst. pathologist, 36–* A.A. Endothia parasitica and related species; white pine blister rust; hydrogen ion and culture media; disinfecting power of colloidal wood preservatives; differential staining and hydrogen-ion values; cataphoretic mobility of spores.

Acree, Dr. S(olomon) F(arley), National Bureau of Standards, Washington, D. C. **†Chemistry.* McGregor, Texas, Dec. 18, 75. B.S, Texas, 96, M.S, 97; fellow, Chicago, 98–01, Ph.D, 02; Berlin, 03–04. Asst. chem, Texas, 96–97; instr, high sch, Texas, 97–98; asst, Chicago, 00–01; assoc. prof. chem, Utah, 01–04; Johnston scholar, Hopkins, 05–06, assoc, 06–07, assoc. prof, 07–14; chief chemist, Forest Products Lab, and prof. forest chem, Wisconsin, 14–17; Syracuse, 17–19; chemist, Hahnemann Hosp, Rochester, 19–20; tech. director and v. pres, Grahame Chem. Co. and Int. Chem. Products Co, 20–24; research prof. chem, George Washington, 24–26; senior chemist, *Bur. Standards,* 27–28, *chief sect. fiber structure and hydrogen ion concentration standards, 28–* Chem. Soc. (chairman, sect. org. chem, 09, councilor); Asn. Pulp and Paper Indust. (mem, sect. raw products); Texas Acad; fel. London Chem. Soc; Deuts. Chem. Gesell. Enzymes; tautomerism; catalysis; color changes in indicators and dye stuffs; alkyl halides; pinacone and pinacoline rearrangements; ions and molecules of electrolytes; influence of hydrogen ions on the growth of wood-destroying fungi; cataphoresis measurements; electrical conductivity of solutions; dilatometery; oxidation-reduction reactions; hydrogen and calomel electrodes; beechwood creosote; reclaimed clay scrap; mucic acid; industrial utilization of farm and wood wastes; resonance and hydrogen ion concentration changes of indicators; hydrogen ion concentration standards.

Adair, Dr. Frank E(arl), 75 E. 71st St, New York, N. Y. *Surgery.* Beverly, Ohio, April 9, 87. A.B, Marietta Col, 10, hon. Sc.D, 34; M.D, Hopkins, 15. Asst. surgeon, Ruptured and Crippled Hosp, 19–30; *Mem. Hosp,* 20–26, assoc. surgeon, 26–29, *attending surgeon, 29–, exec. officer, 35–;* asst. prof. *clin. surg, med. col, Cornell,* 34–38, *assoc. prof, 38–* Consultant surgeon, N. Y. Infirmary for Women and Children, 33–; U. S. Veterans Hosp. No. 81, 34–; St. Luke's Hosp, Newburgh, N. Y, 34–; Home for Incurables, New York, 34–; Caledonian Hosp, Brooklyn, 36–; St. Joseph's Hosp, Far Rockaway, 37; consultant, nat. inst. health, U. S. Pub. Health Service, 38– Director, Jackson Mem. Lab, Bar Harbor, 38– Mem, Cancer Council, 37–; Am. Board Surg; Am. Board Radiol. Staff surgeon, Base Hosp. No. 9 and No. 2, U.S.A, 17–19. Fel. Col. Surg. (chairman cancer cmt; governor, 38); Soc. Control Cancer (director, v. pres, chairman, exec. cmt); Am. Med. Asn; Clin. Research Soc. (pres, 25); Radium Soc; N. Y. Clin. Soc. (sec'y, 39–41); N. Y. Acad. Med. (consulting cmt. med. information, 41–); N. Y. Surg. Soc. Cancer; breast cancer; x-ray; radium; cancer control.

Adair, Dr. Fred L(yman), 5841 Maryland Ave, Chicago, Ill. *Obstetrics, Gynecology.* Anamosa, Iowa, July 28, 77. B.S, Minnesota, 98, A.M, 12; M.D, Rush, Chicago, 01. From asst. to assoc. prof. *obstet. and gynec,* Minnesota, 03–26, *prof,* 26–29; *Chicago, 29–, chairman dept, 31–, chief of service, Chicago Lying-in Hosp, 31–* Past chief obstet. and gynec. service, Gen, Asbury Methodist and Swedish Hosps, Minneapolis. Ed. cmt, 'Am. Jour. Obstet. and Gynec'; ed, 'The Mother.' V. pres, Am. Board Obstet. and Gynec; chairman, Am. Cmt. on Maternal Welfare; chairman cmt. on prenatal maternal care, White House Conf, 30; Am. Cong. Obstet. and Gynec, 39, 42. Red Cross, U.S.A, 18. Asn. Obstet, Gynec. and Abdom. Surg; Gynec. Soc. (past pres. and treas); Col. Surg; Am. Med. Asn. (past sec'y and chairman, sect. on obstet, gynec. and abdom. surg); Gynec. Club (pres); Minn. Acad. Med; Hennepin Co. Med. Soc. (past pres, sec'y, sect. on obstet, gynec. and abdom. surg, 29–31); Chicago Gynec. Soc. (past pres). Fetal anatomy and pathology; maternal welfare.

Adair, H(enry) S(teven), Adair's Insect Control Service, Montgomery, Ala. *Entomology.* Dumas, Miss, Nov. 7, 99. B.S, Miss. Agr. and Mech. Col, 23. Field asst, bur. entom, U. S. Dept. Agr, 23, junior entomologist, 23–29, asst. entomologist, 29–33; *entomologist, Adair's Insect Control Service, 33–* Asn. Econ. Entom. Black pit of pecan; pecan insect control

and pecan nut case-bearer in Texas; hickory or pecan shuckworm.

Adami, Prof. A(rthur) E(rnest), 926 W. Woolman St, Butte, Mont. *Mining engineering.* Helena, Mont, May 2, 86. E.M, Montana, 07. Instr. math, surv, metal. and mining, *Mont. Sch. Mines,* 08–11, asst. prof. *mining eng,* 11–19, assoc. prof, 19–26, *prof, 26–, v. pres, 28–* Min. and Metal. Eng; Mont. Soc. Eng. (pres). Location, representation and patenting of mineral lands in Montana.

Adams, Dr. A(lfred) Byron, 28 S. Maple Ave, East Orange, N. J. *Physical chemistry.* Boston, Mass, Nov. 24, 15. B.Sc, Mt. Allison, 36; Dr. T. Sterry Hunt fellow, McGill, 38–39, Ph.D, 39. Demonstrator chem, McGill, 37–39; lecturer and acting head dept, Mem. Univ. Col, Newfoundland, 39–40; *research and develop. chemist, Irvington Varnish and Insulator Co, 40–* Adiabatic calorimetry and the precision measurement of specific heats of liquids.

Adams, Prof. A(my) Elizabeth, Mt. Holyoke College, South Hadley, Mass. **6***Zoology.* Delaware, N. J, March 28, 92. A.B, Mt. Holyoke Col, 14; A.M, Columbia, 18; Ph.D, Yale, 23. Asst. *zool, Mt. Holyoke Col,* 14–15, instr, 15–17, 18–19, assoc. prof, 19–28, *prof, 28–,* acting head dept, 20–21, 29, 37, acting dean, 26–27. Investigator, Edinburgh, 30. A.A; Soc. Zool; Soc. Exp. Biol; Asn. Anat; Soc. Nat. Experimental embryology; endocrinology.

Adams, Prof. Arthur S(tanton), 1607 N. Garfield, Arlington, Va. *Mechanics.* Winchester, Mass, July 1, 96. Grad, U. S. Naval Acad, 18, U. S. Submarine Sch; A.M, California, 26; Sc.D, Colo. Sch. Mines, 27. Ensign and lieut, U.S.N, 18–21; teacher, pub. and private high schs, Colo, 21–25; Colo. Sch. Mines, 26–40, *prof. mech,* 31–40; *Cornell, 40–, asst. dean col. eng, 41–,* director eng, science and management, war training, 41; lieut. and later *lieut. commander, U. S. Naval Res, 42–,* officer in charge naval training sch, 42, *admin. sect, navy col. program, Navy Dept, 42–* Visiting prof, California, 29. A.A; Eng. Educ. (chairman mech. div); Mech. Eng. Adsorption of gases on solids; flotation of minerals.

Adams, Dr. Cha(rle)s C(hristopher), New York State Museum, Albany, N. Y. **2***Zoology.* Clinton, Ill, July 23, 73. B.S, Ill. Wesleyan, 95, hon. Sc.D, 20; M.S, Harvard, 99; fellow, Chicago, 00–03, Ph.D, 08. Asst. biol, Ill. Wesleyan, 95–96; asst. entomologist, state lab. nat. hist, Illinois, 96–98; curator univ. museum, Michigan, 03–06; director, Cincinnati Soc. Nat. Hist, 06–07; assoc. animal ecol, Illinois, 08–14; asst. prof. forest zool, N. Y. State Col. Forestry, Syracuse, 14–16, prof, 16–26, director, Roosevelt Wild Life Forest Exp. Sta, 19–26; N. Y. State Museum, Albany, 26–43; *retired.* Summer, asst, Chicago, 02; curator museum, Cincinnati, 06–07. A.A; Soc. Nat; Ecol. Soc. (pres, 23); Soc. Mammal; Fisheries Soc; Hist. Sci. Soc; Asn. Geog. (v. pres); Asn. Mus; British Ecol. Soc. Habitats, faunas and associations dynamically and genetically considered; general animal ecology; ecology of inland environments, prairies, lakes and forests; migration and evolution; geographical distribution; forestry and the food supply; relation of animal ecology to state and national parks; relation of ecological research to economics and sociology.

Adams, Dr. C(harles) F(rederick), State Board of Health, Jefferson City, Mo. *Entomology, Pathology.* Atherton, Mo, April 4, 77. B.S.A, Missouri, 97; M.D, Kansas City Med. Col, 02; A.M, Kansas, 03; Chicago, 26–27. Instr, Kansas City Med. Col. and Kansas City Dental Col, 99–03; asst. zool, Chicago, 04–05; prof. entom, Arkansas, 05–08, dean col. agr. and director, Exp. Sta, 08–13; farmer and dairyman, Atherton, Mo, 13–25; *director lab, State Board Health, Ind,* 27–34; *div. labs, Mo, 34–* Pathologist, St. Mary's Hosp, Jefferson City, Mo. Univ. Kans. expeds, Southwest, 03–05. Nat. Malaria Cmt. A.A; fel. Am. Med. Asn; fel. Entom. Soc. Amer; fel. Pub. Health Asn; fel. Soc. Clin. Path; Limnol. Soc; Asn. Econ. Entom; Soc. Trop. Med; South. Med. Asn; Mo. Pub. Health Asn; fel. Ind. Acad; Mo. Acad; Entom. Soc. Wash; St. Louis Acad; Can. Pub. Health Asn. Diptera; Chironomidae and Muscoidea; clinical pathology; medical entomology.

Adams, Dr. Chester Elgin, Highland, Ind. *Organic chemistry.* Myrtle Point, Oregon, June 7, 98. A.B, Oregon, 20, M.S, 21; Ph.D, Iowa State Col, 25. *Research chemist,* E. I. du Pont de Nemours and Co, 25–27; *Standard Oil Co. of Ind, 27–* Chem. Soc. Petroleum products.

Adams, Prof. C(larence) Raymond, 60 Intervale Road, Providence, R. I. **5***Mathematics.* Cranston, R. I, April 10, 98. A.B, Brown, 18, G.A.R. fellow, 18–19, M.S, 20; A.M, Harvard, 21, Ph.D, 22. Instr. *math, Brown,* 18–20, 23–25, asst. prof, 25–28, assoc. prof, 28–36, *prof, 36–* Sheldon traveling fellow, Rome and Göttingen, 22–23. Assoc. ed, 'Am. Jour. Math,' 40–42. Del, Int. Cong. Math, Zurich, 32. Math. Soc. (councilor, 32–34; v. pres, 39); Math. Asn; fel. Am. Acad. Analytic theory of difference equations; multiple series; real function theory.

Adams, Prof. Clifford R, Pennsylvania State College, State College, Pa. *Psychology.* N. C, Dec. 23, 02. A.B, North Carolina, 28, A.M, 36; Ph.D, Pa. State Col, 40. Teaching fellow, North Carolina, 31, 36; personnel manager, Collins and Aikman Corp, 31–35; director personnel, State Employment Relief Board, Pa, 35–36; asst. state director, State Employment Service, N. C, 37; *asst. prof. psychol, Pa. State Col, 37–* Consultant, State Employment Board, Pa, 40–42; State Civil Service Cmn, 43– Summer, teacher, North Carolina, 37. Fel. Asn. Applied Psychol; assoc. Psychol. Asn; Col. Personnel Asn; assoc. Pa. Asn. Clin. Psychol. Personality testing; frustration; marriage; civil service techniques and procedures.

Adams, Prof. C(lyde) S(tewart), Antioch College, Yellow Springs, Ohio. *Chemistry.* Newark, Ohio, Oct. 1, 93. B.S, Denison, 16; A.M, Ohio State, 18, Ph.D, 22; Columbia, 19; Toronto. Asst. prof. chem, Denison, 16–17; junior chemist, U. S. Bur. Mines, 17; instr, Ohio State, 17–18; research chemist, Cent. Dyestuff and Chem. Co, 19–20; lecturer *chem,* Toronto, 20–22; *prof. and head dept, Antioch Col, 22–,* director indust. research inst, 29–33. Chem. consultant. Lieut, C.W.S, 18–19. Chem. Soc. (councilor, Dayton sect, 31–35, chairman); Soc. Metals; Ohio Acad. (v. pres, 34). Absorption spectra in visible and ultra-violet of organic compounds; chemical education.

Adams, Prof. C(omfort) A(very), 417 W. Price St, Philadelphia, Pa. *Electrical engineering.* Cleveland, Ohio, Nov. 1, 68. B.S, Case, 90, E.E, 05, hon. D.E, 25; hon. D.E, Lehigh, 39. Elec. engineer, Brush Elec. Co, 90–91; instr. elec. eng, *Harvard,* 91–96, asst. prof, 96–06, prof, 06–16, Lawrence prof. *eng,* 14–35, *emer. prof, 35–,* Gordon McKay prof. *elec. eng,* 35–36, *emer. prof, 36–,* dean eng. sch, 19–20. Consulting engineer, Stone and Webster, 01–04; Am. Tool and Machine Co, 04–30; Okonite Co, 16–; Okonite-Callender Co, 24–; Babcock and Wilcox Co, 25–; Gen. Elec. Co; Edward G. Budd Mfg. Co, Phila, 33–; director, Am. Bur. Welding, 19–35; chairman welding research cmt, Eng. Foundation, 35– Miller medal, Am. Welding Soc, 27; Lamme medal, Am. Inst. Elec. Eng, 40. Chairman div. eng, Nat. Research Council, 19–21. Jury awards, St. Louis, 04; chairman board award, Edison medal, 21; pres. board award, Fritz medal, 22–23. Chairman gen. eng. cmt, Council Nat. Defense; welding cmt, Emergency Fleet Corp. Nat. Acad; A.A; Elec. Eng. (pres, 18); Mech. Eng; Civil Eng; Eng. Educ; Welding Soc. (pres, 19); Physical Soc; Am. Acad; Inst. Elec. Eng. Gt. Britain; Electrotech. Verein; Soc. française des Elec. Induction motors; alternator regulation; synchronous motors; dynamo design schedules; commutation; welding; high frequency inductive heating.

Adams, Prof. Donald K(eith), Duke University, Durham, N. C. *Psychology.* Millersburg, Pa, March 6, 02. A.B, Pa. State Col, 23; A.M, Harvard, 25; Ph.D, Yale, 27. Asst, inst. psychol, Yale, 25–28; instr. *psychol,* Wesleyan, 28–29; nat. research fellow, Berlin, 29–31; asst. prof, *Duke,* 31–38, *assoc. prof, 38–* Sterling fellow, Yale, 27–28; Guggenheim Mem. Foundation fellow, 37–38. Psychol. Asn. Comparative, theoretical and child psychology.

Adams, Dr. E(dgar) M, Dow Chemical Co, Midland, Mich. *Toxicology, Biochemistry.* Clinton, Ind, Dec. 29, 08. A.B, DePauw, 30; M.S, Cincinnati, 32, Ph.D, 34. *Research biochemist, Dow Chem. Co, 34–* Chemotherapy of pneumonia.

Adams, Prof. Edwin P(limpton), Princeton University, Princeton, N. J. **2***Physics.* Prague, Bohemia, Jan. 23, 78. B.S, Beloit Col, 99, Sc.D, 31; M.S, Harvard, 01, Ph.D, 04. Instr. *physics, Princeton,* 03–06, asst. prof, 06–09, *prof, 09–* A.A; Physical Soc; Math. Soc; Philos. Soc. Metallic conduction; Corbino effect in iron; theory of magnetism; relativity; the quantum theory.

Adams, Dr. Elizabeth, Queens College, Flushing, N. Y. *Organic chemistry.* Dalton, Mass, May 23, 06. B.S, Middlebury Col, 27; A.M, Smith Col, 29; Ph.D, Pa. State Col, 38. Asst. *chem,* Smith Col, 27–29; *instr,* Wells Col, 29–31; Sweet Briar Col, 32–39; *Queens Col. (N. Y), 39–* Chem. Soc. Rearrangement of the propyl group during the Friedel-Craft reaction.

Adams, Dr. Elliot Q(uincy), General Electric Co, Nela Park, Cleveland, Ohio. *Physical and organic chemistry.* Medford, Mass, Sept. 13, 88. B.S, Mass. Inst. Tech, 09; fellow, California, 12–13, Ph.D, 14. Asst, research lab, Gen. Elec. Co, Schenectady, 09–12; teaching fellow, California, 13–14, asst, 14–16, instr, 16–17; org. and physical chemist, color lab, bur. chem, U. S. Dept. Agr, 17–21; *physical chemist,* Nela research lab, *Gen. Elec. Co,* 21–28, *lamp develop. lab, 29–* A.A; Chem. Soc; Physical Soc; Optical Soc; Miner. Soc; Wash. Acad. Color and ionization of organic chromogens; transference in amalgams; ultimate rational units; absorption of chlorine by charcoal; photosensitizing dyes; color vision; residual rays; chemi-luminescence; photo-erythema; spread in physical measurements.

Adams, Dr. Elliott T(orrey), 744 Dudley St, Boston, Mass. *Biochemistry.* Boston, Mass, July 19, 99. B.S, Mass. Inst. Tech, 21; Ph.D, Harvard, 26. Asst, Wistar Inst, 22; instr. chem, dental sch, Harvard, 23–24, teaching fellow, Harvard Med. Sch, 24–26; asst. prof. physiol. chem, med. sch, Georgia, 26–32; *instr. biochem, med. sch, Tufts Col, 35–* Chem. Soc. Energy metabolism; analytical methods; physical chemistry of hemoglobin.

Adams, Dr. E(lmer) W(ade), 7443 Olcott Ave, Hammond, Ind. *Organic chemistry.* Deer Park, Texas, Oct. 7, 97. A.B, West. Ill. State Teachers Col, 18; B.S, Illinois, 19, M.S, 20; Iowa State Col, 21–22; Ph.D, Wisconsin, 24. Head dept. chem, Mo. Mil. Acad, 20–21; asst. prof, Kans. State Teachers Col, 24–25; *research chemist, Standard Oil Co. of Ind, 25–* Summers, prof, West. Ill. State Teachers Col, 22, 24. Chem. Soc. Catalysis in the formation of acetals; the relation of structure, affinity and reactivity in acetals; development and utilization of by-products of petroleum industry; insecticides; lubricants.

Adams, Prof. Francis J(oseph), 125 Salisbury St, Worcester, Mass. *Electrical engineering.* Maynard, Mass, Dec. 18, 80. B.S, Worcester Polytech, 04, E.E, 06. Asst. engineer, Westinghouse Elec. and Mfg. Co, 06–07; instr. elec. eng, Worcester Polytech, 07–13; asst. engineer, Worcester Elec. Light Co, 13–15; instr. *elec. eng, Worcester Polytech,* 15–17, asst. prof, 17–29, 30–31, *prof, 31–* Asst. engineer, New England Power Construction Co, 29–30. Elec. Eng. (chairman, Worcester sect, 22–); Eng. Educ. Electric power transmission and distribution engineering; tension and sag in spans; capacity of cables.

Adams, Prof. Frank, 1831 San Juan Ave, Berkeley, Calif. *Irrigation.* Chicago, Ill, Sept. 19, 75. A.B, Stanford, 01; A.M, Nebraska, 06. Irrig. investigator, U. S. Dept. Agr, 00–06, 10–30; *prof. irrig, California, 16–,* head div, 16–36. Consulting engineer, U. S. Bur. Reclamation, 26–40. Mem, Cmn. Agr. Colonization, Palestine, 27; consultant, Int. Water Cmn, U. S. and Mex, 28–30; chairman, Calif. Econ. Research Council, 30–32; consulting board, Rio Grande Joint Investigation, Nat. Resources Cmt, 36–38. Army Educ. Corps, France, 19. A.A; Civil Eng; Geophys. Union. Irrigation with special reference to institutions.

Adams, Dr. Frederic H(enry), 547 Central Ave, Bound Brook, N. J. *Chemistry.* Beirut, Syria, Sept. 23, 02. A.B, Wesleyan, 24, A.M, 28; A.M, Princeton, 31, fellow, 31–33, Ph.D, 33. Instr. chem, American Univ. Beirut, 25–27; asst, Wesleyan, 27–28; instr, Amherst Col, 28–30; asst, Princeton, 31–32; *research chemist, Calco Chem. Div, Am. Cyanamid Co, 33–* Chem. Soc; fel. Inst. Chem. Optical activity of organic compounds; azo dyes; diazo compounds.

Adams, Prof. F(rederick) J(oseph), University of Texas, Austin, Texas. *Educational psychology.* Manchester, N. H, Aug. 18, 98. A.B, California, 21, A.M, 22, D.Ed, 27. Instr. philos. of educ, *Texas,* 22–26, adj. prof. and later assoc. prof. *educational psychol,* 27–42, *prof, 42–; lieut, U. S. Army, 42–* A.A; assoc. Psychol. Asn; Statist. Asn; Asn. Applied Psychol; Vocational Guidance Asn; Texas Acad. Vocational guidance.

Adams, Dr. Frederick W(ildes), Pittsburgh Plate Glass Co, 4337 Fifth Ave, Pittsburgh, Pa. *Chemical engineering.* Canton, Mass, March 3, 01. B.S, Mass. Inst. Tech, 21, M.S, 22, Sc.D, 28. Dept. chem. eng, Mass. Inst. Tech, 22–36, director, Bangor field sta, sch. chem. eng. practice, 24–28, Boston field sta, 28–36, asst. prof. chem. eng, 26–36; senior indust. fellow, Mellon Inst, 36–42; *chem. engineer, Pittsburgh Plate Glass Co, 42–* Consulting chem. engineer. Chem. Soc; Chem. Eng; Electrochem. Soc; Ceramic Soc; Tech. Asn. Pulp and Paper Indust; Soc. Glass Technol; Soc. Chem. Indust; Soc. Test. Mat. Lime; pulp and paper; drying and ventilating; heavy chemicals; glass; paint and varnish.

Adams, Dr. George E(dward), P. O. Box 67, Kingston, R. I. *Agriculture.* North Kingston, R. I, May 12, 74. B.S, R. I. State Col, 94, M.Agr, 16; Cornell, 97, 99–00, Sc.D, 40. Asst. horticulturist, Exp. Sta, R. I. State Col, 94–01, assoc. agron, 01–08, director, 33–38, prof. agron, col, 07–33, dean dept. agr, 17–33, sch. agr. and home econ, 33–38, director exten. service, 35–38; *retired.* R. I. statist. agent, U. S. Dept. Agr, 01–14. A.A; Soc. Agron; Genetic Asn; Mass. Hort. Soc. Soil fertility.

Adams, Dr. Georgian, 2713 Chelsea Terrace, Windsor Hills, Baltimore, Md. *Chemistry.* Lead, S. Dak, Nov. 26, 97. B.S, Nebraska, 18, A.M, 19; Iowa State Col, 23–25; E. R. Squibb and Sons fellow, Hopkins, 25–28, Sc.D, 28. Head dept. chem, York Col, 19–23; asst, Iowa State Col, 23–24, instr, 24–25; research fellow, Hopkins, 28–29; assoc. specialist foods and nutrition, bur. home econ, *U. S. Dept. Agr,* 29–39, *assoc. home economist, office exp. stations, 39–* A.A; Chem. Soc. Chemistry of foods and nutrition.

Adams, Dr. Harold E(lwood), 916 New Holland Ave, Lancaster, Pa. *Physical chemistry.* Altoona, Pa, Dec. 10, 16. B.S, Dickinson Col, 38; Edward Hart fellow, Lafayette Col, 39, M.S, 39; Ph.D, Mass. Inst. Tech, 42. Teaching fellow qualitative and quantitative chem, Mass. Inst. Tech, 39–41; *research chemist, Armstrong Cork Co, 42–* Chem. Soc. Viscosity of solutions of sulfur dioxide in organic liquids; interrelationships between fluidity, volume, pressure and temperature in liquids; magnetism and the third law of thermodynamics; heat capacity of manganous fluoride.

Adams, Dr. H(arold) S(tanard), The Upjohn Co, Kalamazoo, Mich. *Chemistry.* Pittsfield, Mass, May 20, 88. A.B, Williams Col, 11; Ph.D, Chicago, 15. Asst. chem, Mass. Col, 11–12; instr. physiol. chem, Chicago, 14–16; physiol. chemist, E. R. Squibb and Sons, 16–17, asst. supt, 17–19, production manager, 19–20; director research, Naugatuck Chem. Co, 20–25, sales develop, 25–26; *supt, The Upjohn Co, 26–, board directors, 33–* Chem. Eng. Biochemistry; pharmaceutical and chemical manufacturing; respiration of nerve tissue; physiological standardization; internal secretion; chemical process patents.

Adams, Prof. Henry F(oster), 2000 Day St, Ann Arbor, Mich. *Psychology.* Oak Park, Ill, Nov. 11, 82. Ph.B, Wesleyan, 05; Ph.D, Chicago, 10. Asst. prof. *psychol,* Kansas, 10; asst, Chicago, 10–11; instr, *Michigan,* 11–18, asst. prof, 18–20, assoc. prof, 20–27, *prof, 27–* A.A; Psychol. Asn; Mich. Acad. Visual perception; memory; esthetics; advertising; personality and character; statistics; tests and measurements, discrimination; special skills.

Adams, Henry R(ichard), U. S. Department of Agriculture, Upper Darby, Pa. *Soils.* Mason, Mich, Jan. 29, 96. B.S, Mich. State Col, 21, M.S, 24; Nat. Fertilizer Asn. fellow, Rutgers, 26–27. Teacher, high sch, Mich, 21–22; asst. soils, Mich. State Col, 22–24; soil surv, Exp. Sta, Purdue, 24–26; instr. and asst. prof. agron, Syracuse, 27–34; soil expert, *soil conservation service, U. S. Dept. Agr,* 34–35, soil scientist, 35–37, *senior soil scientist, 37–* Summers, Exp. Sta, Cornell, 30, soil surv, 31–33. Soil Sci. Soc. Soil erosion; land use; soil survey.

Adams, Dr. J(ames) Alfred, New York Agricultural Experiment Station, Geneva, N. Y. *Zoology, Entomology.* Ventnor, Ont, Can, Sept. 2, 06. B.S.A, Ont. Agr. Col, 31; M.S, Iowa State Col, 33, Ph.D, 35. Instr. biol, Iowa State Col, 35–37; zool, Grinnell Col, 37–41, *asst. prof,* 41–43; *entom, N. Y. Exp. Sta, Geneva, 43–* A.A; Genetic Asn; Asn. Econ. Entom; Soc. Parasitol; Iowa Acad. Thysanuran insects; gregarine parasites of insects; limnology.

Adams, Dr. James E(dward), Soil Fertility Station, Austin, Texas. *Soils.* Lee's Summit, Mo, July 5, 98. A.B, William Jewell Col, 20; M.S, Purdue, 22; Ph.D, Iowa State Col, 36. Instr. chem, Purdue, 20–22; Exp. Sta, Indiana, 22–23; N. Dak. Col, 23–25; Iowa State Col, 25–28; *assoc. soil technologist, bur. plant indust, U. S. Dept. Agr, 28–* Soc. Agron; Chem. Soc; Soil Sci. Soc. Plant and soil biochemistry; availability of phosphates as plant food; determination of carbon in soils; fertilizers and the composition of the soybean plant; green manure in, and lysimeter measurements of sandy soils; fertilizer placement; nitrogen fertilizers on cotton soils; relation of fertilizers, tillage and management to biochemistry of the cotton plant and cotton root-rot.

Adams, Dr. J(ames) F(owler), 40 Rector St, New York, N. Y. *Botany.* Charlestown, Mass, March 5, 88. B.S, Mass. Col, 11; M.S, Pa. State Col, 14; fellow, Columbia, 17–18, Ph.D, 18. Asst. plant path, Mass. Col, 11; Pa. State Col, 12, asst. prof. bot, 14–18, assoc. prof. plant path, 18–20; Exp. Sta, Delaware, 20–37; *manager agr. chem, Gen. Chem. Co, 37–* Plant pathologist, State Board Agr, Del, 25–37. Chairman, Nat. Plant Board, 36– U. S. Army Med. Sch, 18–19. A.A; Crop Protection Inst. (v. chairman, board governors, 27–37); Peninsula Hort. Soc. (sec'y, 25–37). Plant pathology; cytology of Uredinales; rusts.

Adams, J(ames) Richard, 3600 Connecticut Ave, Washington, D. C. *Chemistry.* Troy, N. Y, April 11, 98. Ch.B, Cornell, 21, 21–22; fellow, Carnegie Inst. Tech, 22–23. Junior chemist, bur. soils, *U. S. Dept. Agr,* 23–24, asst. chemist and physicist, 24–29, *assoc. chemist,* bur. chem. and soils, 29–40, *bur. plant indust, 40–* Chem. Foundation grant, 21. Chem. Soc; fel. Inst. Chem. Physical chemistry; adsorption phenomena of dyes; corrosion of metals; physical and chemical properties of soils and fertilizers; preparation and improvement of fertilizers and fertilizer mixtures.

Adams, Dr. James R(ussell), Sir George Williams College, 1441 Drummond St, Montreal, Que, Can. *Animal ecology.* Independence, Pa, May 31, 14. B.Sc, McGill, 36, M.Sc, 37, Ph.D, 40. Lecturer *biol, Sir George Williams Col,* 37–40, *asst. prof, 40–* Summers, asst, Fisheries Research Board Can, 39–42. Limnology; oyster culture.

Adams, J(ohn), 68 Fairmont Ave, Ottawa, Ont, Can. *Botany.* Antrim, Ireland, Jan. 20, 72. Queen's (Ireland); B.A, Cambridge, 00, M.A, 03. Asst. prof. bot, Royal Col. Science, Dublin, 02–14; prof, Royal Vet. Col, 07–14; asst. Dom. botanist, Can, 14–39. Flora of Canada; bibliography of Canadian plant geography.

Adams, John Emery, Standard Oil Co, of Texas, Midland, Texas. *Geology.* Solon, Iowa, June 5, 99. A.B, Iowa, 22, M.S, 23; Chicago; Wisconsin; Texas. Instr. biol, Agr. and Mech. Col. Texas, 25–26; *geologist, Standard Oil Co. of Texas, 27–* Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Subsurface geology; sedimentation; geology of petroleum; Permian geology.

Adams, Prof. John Mead, University of California at Los Angeles, Los Angeles, Calif. *Physics.* Reading, Mass, June 6, 82. A.B, Harvard, 03, A.M, 05, Ph.D, 07. Asst. *physics,* Harvard, 04–08; instr, Simmons Col, 07–08; prof, Occidental Col, 09–12; asst. prof, Queen's (Can), 12–16; Saskatchewan, 16–19; *assoc. prof, California at Los Angeles, 19–; tech. aid, Nat. Defense Research project, U. S. Navy Radio and Sound Lab, San Diego, Calif, 41–* John Tyndall scholar, Harvard, 08–09. A.A; Physical Soc. Roentgen rays; ice crystals.

Adams, Prof. John Q(uincy), University of Missouri, Columbia, Mo. *Geography.* Bunceton, Mo, March 11, 00. A.B, Missouri, 23, A.M, 25, Ph.D, 30; Chicago; Wisconsin. Instr. geol. and geog, *Missouri,* 24–29, asst. prof. *geog,* 29–38, *assoc. prof, 38–* A.A; Am. Geog. Soc; fel. Royal Geog. Soc. London. Regional-economic and urban geography.

Adams, Prof. Joseph E(dison), University of North Carolina, Chapel Hill, N. C. *Botany.* Middletown, N. Y, Nov. 23, 03. Ph.G, Columbia, 25, Ph.C, 27, A.M, 32; B.S, Michigan, 29; Ph.D, California, 35. Instr. mat. med. and bot, Columbia, 25–32; teaching fellow, California, 33–35; instr. *bot, North Carolina,* 35–36, asst. prof, 36–41, *assoc. prof, 41–* Torrey Bot. Club; Elisha Mitchell Sci. Soc; Calif. Bot. Soc; N. C. Acad. Systematic botany; plant anatomy.

Adams, Prof. Kenneth H(oward), No. 7 Oakwood, Fenton, Mo. *Chemistry.* Elgin, Ill, July 7, 06. B.S, Chicago, 28, Ph.D, 32. Instr. and curator *chem,* Chicago, 30–39; *assoc. prof, Harris Teachers and Junior Col, 39–* Chem. Soc. Molecular rearrangements.

Adams, Dr. L(eason) H(eberling), Geophysical Laboratory, 2801 Upton St, N.W, Washington, D. C. **Chemistry.* Cherryvale, Kans, Jan. 16, 87. B.S, Illinois, 06; Sc.D, Tufts Col, 41. Tech. branch, U. S. Geol. Surv, 08–10; physical chemist, *geophys. lab, Carnegie Institution,* 10–36, acting director, 36–37, *director, 38–* Research on optical glass, W. I. B, 17–18; nitrate div, Ordnance Dept, 18. Nat. Acad; Chem. Soc; Physical Soc; Geol. Soc; Geophys. Union (v. pres, 41–); Philos. Soc. Wash. (pres, 29); Wash. Acad. (pres, 32). Physical and chemical constants of substances under high pressures; temperature measurements; gaseous equilibria and rate of reaction; optical glass; internal constitution of the earth.

Adams, Dr. Leon Milton, 235 E. Pittsburgh Ave, Milwaukee, Wis. *Organic chemistry.* Waco, Texas, March 11, 13. B.S, Agr. and Mech. Col. Texas, 33, M.S, 34; Ph.D, Nebraska, 37. Research fellow, Mellon Inst, 37–38; *research chemist, Pittsburgh Plate Glass Co, 38–* Chem. Soc. Paints, varnishes and resins.

Adams, Prof. L(everett) A(llen), University of Illinois, Urbana, Ill. *Anatomy.* Lawrence, Kans, Sept. 23, 77. A.B, Kansas, 03, A.M, 06; Ph.D, Columbia, 15. Museum instr. anat, Kansas, 04–05; asst. prof. biol, Colo. State Teachers Col, 06–12, head dept, 15–20; asst. prof. *zool, Illinois,* 20–35, assoc. prof, 35–38, *prof. and curator museum nat. hist, 38–* Frick scholar, Am. Museum Nat. Hist, 14. Univ. Kans. biol. exped, 06. A.A; Asn. Anat; Soc. Zool; Soc. Ichthyol. and Herp; Asn. Mus; Midwest Mus. Asn; Ill. Acad. Vertebrate anatomy; comparative osteology; phylogeny of muscles; otoliths of fishes.

Adams, Lowell, 408 Federal Bldg, Spokane, Wash. *Wildlife.* Kimberly, Idaho, March 14, 13. A.B, California at Los Angeles, 36; A.M, California, 39. Unit supervisor, Works Project Admin, *fish and wildlife service, U. S. Dept. Interior,* 41–42, *junior biologist, wildlife management on Indian reservations, 42–* Summers, ranger naturalist, Nat. Park Service, 37, 38, 39. Soc. Mammal; Soc. Ichthyol. and Herp; Cooper Ornith. Club; Northwest Bird and Mammal Soc; Yosemite Nat. Hist. Asn. Natural history and classification of the Mt. Lyell salamander; effects of rodents on range lands; wildlife research and management.

Adams, Prof. Mark H(ancock), New York University College of Medicine, New York, N. Y. *Biochemistry.* Franklin, Pa, April 21, 12. A.B, Columbia, 33, Ph.D, 39; fellow, Rockefeller Inst, 38–39. Asst, Rockefeller Inst, 39–42; *asst. prof. bacter, col. med, N. Y. Univ, 42–* Chem. Soc; Soc. Bact; N. Y. Acad. Carbohydrates; enzymes; immunochemistry.

Adams, Dr. Mildred, Takamine Laboratories, Clifton, N. J. *Chemistry.* Manchester, N. H, July 21, 99. A.B, Smith Col, 21; A.M, Columbia, 23, Ph.D, 27. Carnegie asst, Columbia, 23–29; instr. chem, Centenary Collegiate Inst, 29–30; consultant, metabolism dept, Mayo Clinic, 30–36; biochem, nat. inst. health, U. S. Pub. Health Service, 36–42; *research chemist, Takamine Labs, 42–* Chem. Soc; Soc. Biol. Chem. Metabolism; purification and properties of malt and pancreatic amylases; determination of citric acid by means of citric acid dehydrogenase, and its occurrence in biological fluids; oxygen dissociation curves for pathological conditions; purification and chemical nature of invertase; enzymes.

Adams, Prof. Norman I(sley), Jr, Yale University, New Haven, Conn. *Physics.* Winthrop, Mass, Sept. 20, 95. A.B, Yale, 17, Ph.D, 23. Research engineer, Am. Tel. and Tel. Co, 23–24; instr. *physics, Yale,* 25–27, asst. prof, 27–37, *assoc. prof, 37–* Physical Soc; Radio Eng. Thermodynamics; high frequency and radio communication.

Adams, Dr. Oscar S(herman), 727 Massachusetts Ave, N. E, Washington, D. C. *Applied mathematics.* Near Mt. Vernon, Ohio, Jan. 9, 74. B.S, Kenyon Col, 96, A.M, 15, Sc.D, 22. Supt. and prin, high schs, Ohio, 99–10; geod. computer, *U. S. Coast and Geod. Surv,* 10–24, geod. mathematician, 24–28, senior mathematician, 28–40, *prin. mathematician, 40–* A.A; Math. Asn. (sec'y-treas, Md-Va-D.C. sect, 19, pres, 21); Philos. Soc. Wash. (recording sec'y, 29, v. pres, 31, pres, 33); Wash. Acad. (recording sec'y, 37). Least squares and the adjustment of triangulation; theory of projections; elliptic functions applied to conformal world maps; computations by plane coordinates.

Adams, Dean O(tto) V(incent), Texas Technological College, Lubbock, Texas. *Engineering.* Cadiz, Ohio, Sept. 6, 84. B.S, Colo. Agr. Col, 18; M.S, Michigan, 24. Jr. engineer, U. S. Reclamation Service, 06–08; irrigation and drainage engineer, 08–16; drainage engineer, U. S. Dept. Agr, 18; asst. commissioner of works, Ft. Collins, Colo, 18; testing engineer, Exp. Sta, Colo. State Col, 19–27; assoc. prof. civil eng, *Texas Tech. Col,* 27–32, *dean eng, 32–* Assoc. Civil Eng; Eng. Educ. Engineering college administration.

Adams, Dr. Philip D(elmar), Andrew Jergens Co, Cincinnati, Ohio. *Biochemistry.* Wilkinsburg, Pa, Sept. 30, 01. B.S, Pa. State Col, 25, M.S, 30; Merrill fellow and Jergens fellow, Cincinnati, 32–35, Ph.D, 35. Instr. chem, American Univ. Beirut, 25–28; Pa. State Col, 28–30; research biochemist, Skin and Cancer Hosp, Phila, 30–32; *director research and*

control labs, Andrew Jergens Co, 35– A.A; Oil Chem. Soc; Chem. Soc. Chemistry of fungi, dermatology and cosmetics; biochemistry of skin; soap.

Adams, Dr. Rachel B(lodgett), 60 Intervale Road, Providence, R. I. *Mathematics.* Woburn, Mass, Oct. 13, 94. A.B, Wellesley Col, 16; A.M, Radcliffe Col, 19, Mary E. Horton fellow, 20–21, Ph.D, 21; Rome and Göttingen, 22–23. Instr. math, Wellesley Col, 21–22; tutor, Radcliffe Col, 26–41. Math. Soc. Approximate solution of integral equations.

Adams, Prof. R(ichard) L(aban), University of California, Berkeley, Calif. *Agriculture.* Dorchester, Mass, Aug. 27, 83. B.S, Mass. Col, 05; Boston, 05; M.S, California, 10. Plant pathologist, California, 06–07; director exp. sta, Spreckels Sugar Co, 07–12; asst. gen. manager, Miller and Lux, 12–14; *prof. farm management, California, 14–* Director 11th dist, Farm Credit Admin. A.A. Economics of farming.

Adams, Prof. Roger, University of Illinois, Urbana, Ill. **[3]*Chemistry.* Boston, Mass, Jan. 2, 89. A.B, Harvard, 09, A.M, 10, Ph.D, 12; Berlin and Kaiser Wilhelm Inst, 12–13; hon. Sc.D, Polytech. Inst. Brooklyn, 35. Instr. *org. chem,* Harvard, 13–16; asst. prof, *Illinois,* 16–19, *prof, 19–, head dept, 26–* Science Advisory Board, U. S. Govt, 34–35. Nichols medal, 27; Willard Gibbs medal, 36. Major, C.W.S, 18; mem, Nat. Defense Research Cmt, 41– Nat. Acad. (councilor, 30–36; chairman, chem. sect, 37–40); A.A. (chairman, C, 27; mem. exec. cmt, 40–); Chem. Soc. (assoc. ed, 'Jour,' 22–32, councilor, 23–29, director, 32–, pres, 35); fel. Am. Acad; Philos. Soc; hon. fel. London Chem. Soc; Deuts. Chem. Gesell. Alkali insoluble phenols; platinum oxide and platinum black as a catalyst; effect of promoters and poisons on catalysts; polyhydroxy and polyhydroxymethylanthraquinones; organic arsenic compounds; local anesthetics; chaulmoogric acid and derivatives; fatty acids bactericidal to acid-fast bacteria; stereochemistry of biphenyl derivatives, diphenyl benzenes, phenyl pyrrols, bipyrryls, aryl olefins, aryl amines and organic deuterium compounds; structure of natural products.

Adams, Prof. Roy H(enry), Stephen F. Austin State Teachers College, Nacogdoches, Texas. *Animal ecology.* Wingo, Ky, March 31, 05. B.S, Union, 26; A.M, Peabody Col, 29, Ph.D, 39. Teacher, high sch, Tenn, 26–27; prin, Ky, 27–28; instr. *biol,* West Tenn. Teachers Col, 29; *prof, Stephen F. Austin State Teachers Col, 29–* A.A; Ecol. Soc; Tenn. Acad; Texas Acad. Stratification, diurnal and seasonal migration of the animals in a deciduous forest.

Adams, Dr. Sidney, 242 N. Granada, Arlington, Va. *Psychology.* Mt. Vernon, Minn, May 1, 06. B.S, Washington (Seattle), 28, M.S, 30; Ph.D, California, 33. Asst, inst. child welfare, California, 32–33; dept. child develop, Wisconsin, 33–34; junior statistician, State Bur. Personnel, Wis, 34–35; specification writer, U. S. Occupational Research Program, 35–37; personnel research asst, Tenn. Valley Authority, 37–39, personnel officer, 39–41; *capt, Adjutant Gen's. Dept, classification officer, Camp Davis, N. C, 41–,* head test develop. and anal. unit, War Dept, 41–42. A.A; assoc. Psychol. Asn. Child and vocational psychology; psychology of language; industrial occupations; military psychology; tests.

Adams, Prof. Thomas C(aldwell), 242 S. 12th East St, Salt Lake City, Utah. *Hydrology.* Salt Lake City, Utah, May, 01. B.S, Utah, 22; Ph.D, Cornell, 27. *Consulting engineer, 25–; assoc. prof. civil eng, Utah, 28–* State rep, U. S. Coast and Geod. Surv, 34; v. chairman, Gt. Basin Authority, 35– A.A; Civil Eng; Econ. Asn; Meteorol. Soc; Utah Soc. Eng. (pres, 34); Utah Acad. Engineering productivity; hydrology and water supply of arid lands of the United States; hydrology of Great Salt Lake.

Adams, Col. Walter H(olbrook), 1633 Ard Eevin Ave, Glendale, Calif. *Mechanical engineering.* Worcester, Mass, April 17, 82. B.S, Mass. Inst. Tech, 03; M.S, Southern California, 36. Asst. mech. eng, Mass. Inst. Tech, 03–05; instr, Polytech. Inst. Brooklyn, 05–08; prof, Pei Yang Univ, Tientsin, 08–13; Calif. Inst. Tech, 13–19; *consulting civil and mech. engineer, 22–* Capt, C.Eng, 18–20, C.A.C, 20–21, Ordnance Dept, 21–22, major, Ordnance R.C, 22–30, lieut. col, 30–39, col, 39– Mech. Eng. Heat power and sanitary engineering.

Adams, Dr. Walter S(ydney), Mt. Wilson Observatory, Pasadena, Calif. **[3]*Astronomy.* Antioch, N. Syria, Dec. 20, 76. A.B, Dartmouth Col, 98, Sc.D, 13; A.M, Chicago, 00; Munich, 00–01; Sc.D, Columbia, 26, Southern California, 30; LL.D, Pomona Col, 26. Asst, Yerkes Observatory, Chicago, 01–03, instr. astrophys, 03–04; asst. astronomer, *Mt. Wilson Observatory, Carnegie Institution,* 04–09, astronomer and asst. director, 09–23, *director, 23–* Gold medal, Royal Astron. Soc, 17; Draper medal, Nat. Acad, 18; Janssen medal, Soc. astron. de France, 26; Bruce medal, Astron. Soc. Pacific, 28; Janssen medal, Acad. Sci, Paris, 35. Nat. Acad. (chairman, astron. sect, 26–29); A.A. (pres, Pacific div, 29); Astron. Soc. (pres, 31); Philos. Soc; Am. Acad; Astron. Soc. Pacific (pres, 23); fel. Royal Astron. Soc; for. assoc. Paris Acad; for. assoc. Upsala Acad; Int. Astron. Union (v. pres, 35–, acting sec'y, 41–, pres, cmt. on stellar radial velocities). Stellar motions in the line of sight; stellar spectroscopy; spectroscopic parallaxes.

Adams, Prof. W(illiam) Lloyd, 357 Morris St, Albany, N. Y. *Pharmacology.* White Oak, Ohio, Aug. 25, 06. B.S, Col. of Wooster, 30; A.M, Western Reserve, 31, Ph.D, 33. Teaching fellow biochem, Western Reserve, 31–33; instr. pharmacol, Emory, 33–39; *physiol and pharmacol, Albany Med. Col,* 39–40, *asst. prof, 40–* A.A; Soc. Pharmacol. Pharmacology of antacids; gastro-intestinal physiology.

Adams, Prof. W(illiam) R(itchie), 36 Overlake Park, Burlington, Vt. *Forestry, Botany.* Philadelphia, Pa, Feb. 17, 02. B.S, Syracuse, 26; M.S, Vermont, 28; Ph.D, Yale, 35. Instr. *forestry and bot, Vermont,* 26–29, asst. prof, 29–36, *assoc. prof, 36–,* asst. botanist, Exp. Sta, 26–40, *forester, 40–; capt, Inf, U. S. Army, 42–* A.A; Soc. Foresters (exec. cmt, northeast. sect, 39–42); Soc. Plant Physiol; Forestry Asn. Silviculture; tree physiology; thinning in conifers and hardwoods; tree growth and soil temperature; stand development and physical factors of site; root growth of planted trees.

Adamson, Dr. W(illiam) A(ugustus), 810 W. 21st St, Wilmington, Del. *Organic chemistry.* Jonesboro, Ga, Jan. 3, 83. A.B, Mercer, 07; Ph.D, Cornell, 17. Asst. org. chem, Cornell, 15–17; research chemist, *E. I. du Pont de Nemours and Co,* 17–33, *ed. patent and research reports, 33–* Chem. Soc. Benzoic and carboxylic acid; anthracene dyes.

Adamstone, Prof. F(rank) B(olton), University of Illinois, Urbana, Ill. *Biology.* Listowel, Ont, Can, Dec. 10, 96. B.A, Toronto, 21, Nat. Research Council Can. bursar, 21, student, 22, M.A, 22, fellow, 23–24, Ph.D, 24. Asst, Toronto, 21; instr. *zool, Illinois,* 24–27, assoc, 27–35, asst. prof, 35–39, *assoc. prof, 39–* Mem, Royal Ont. Museum paleont. exped, 19, 20; Lake Nipigon biol. exped, 21–23. A.A; Soc. Zool; Asn. Anat. Limnology; fauna of Lake Nipigon; embryology, histology and cytology of vitamin E deficiency in the chick; functional significance of vitamin E.

Addicks, Lawrence, Bel Air, Md. *Metallurgy.* Philadelphia, Pa, March 3, 78. Pennsylvania; B.S, Mass. Inst. Tech, 99. Draftsman, N. Mex, 99–00; in charge testing lab. and asst. to supt, Raritan Copper Works, 00; chief engineer and supt, U. S. Metals Ref. Co, 05–14; *consulting engineer, 14–* Naval Consulting Board. Min. and Metal. Eng; Min. and Metal. Soc; Electrochem. Soc. (pres, 15); fel. Elec. Eng; Mech. Eng; Soc. Test. Mat; Inst. Min. and Metal. Gt. Britain. Non-ferrous metallurgy.

Addicott, Prof. Fredrick T(aylor), Santa Barbara State College, Santa Barbara, Calif. *Plant physiology.* Oakland, Calif, Nov. 16, 12. A.B, Stanford, 34; Ph.D, Calif. Inst. Tech, 39. Teaching asst, Stanford, 34–37; teaching fellow, Calif. Inst. Tech, 37–39; instr. *bot, Santa Barbara State Col,* 39–41, *asst. prof, 41–* Sigma Xi grant in aid, 40. A.A; Soc. Plant Physiol; Bot. Soc; West. Soc. Nat. Root cultures; action of plant hormones.

Addinall, Dr. Carl R(upert), 746 Belvidere Ave, Westfield, N. J. *Organic chemistry.* Dewsbury, Eng, Dec. 1, 90. B.S, Harvard, 25, A.M, 26, Ph.D, 30. Asst. chem, Radcliffe Col, 26–27; instr, Harvard, 28–30; research chemist, 30–34; *director library service bur, Merck and Co, N. J, 34–* A.A; Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Deuts. Chem. Gesell; Swiss Chem. Soc. Nitrogen ring compounds; alkaloids; chemical literature.

Addington, Prof. Arch R(ombough), Fresno State College, Fresno, Calif. *Geology.* Randolph Co, Ind, Feb. 23, 94. A.B, Indiana, 22, A.M, 25. Instr. geol, Indiana, 23–28; asst. prof. *geol. and geog, Fresno State Col,* 28–33, *assoc. prof, 33–* Ind. Acad. Subterranean drainage features of Indiana; glacial terraces of the San Joaquin and Kings River Valleys.

Addis, Dr. Gilbert I(rving), 437 Fairview Ave, Bound Brook, N. J. *Chemistry.* Brooklyn, N. Y, Dec. 5, 18. M.E, Stevens Inst. Tech, 38; D.Eng, Hopkins, 42. *Research engi-*

neer, Calco Chem. Co, 42–; radio instr, Sig. Corps, U. S. Army, 43– Chem. Soc. Catalytic oxidation of butyl mercaptan.

Addis, Prof. T(homas), Lane Hospital, San Francisco, Calif. *[5]Pathology, Medicine.* Edinburgh, Scotland, July 27, 81. M.B, Edinburgh, 05, M.D, 08; Carnegie scholar, Edinburgh Royal Infirmary, 08–09, fellow, 09–11. Clin. asst, outpatient dept, Edinburgh Royal Infirmary, 10–11; asst. prof. *med, Stanford,* 11–13, assoc. prof, 13–20, *prof, 20–* Registrar, Leith Hosp, 11. Am. Physicians; Physiol. Soc; Soc. Exp. Biol; Asn. Path. and Bact; Soc. Clin. Invest; Edinburgh Royal Col. Physicians. Coagulation of blood; hereditary hemophilia; plasma; urobilin; hemoglobin pigment; glycosuria; urea excretion; regulation of renal activity.

Addison, Dr. William H(enry) F(itzgerald), University of Pennsylvania, Philadelphia, Pa. *Anatomy.* Whitby, Ont, Can, April 23, 80. B.A, Toronto, 02, M.B, 05, M.D, 17. Asst. biol, Toronto, 02–04; demonstrator *histol. and embryol, Pennsylvania,* 05–12, asst. prof, 12–19, *prof, 19–* A.A; Soc. Nat; Asn. Anat; Physiol. Soc; Path. Soc. Phila; Col. Physicians Phila; Acad. Nat. Sci. Phila. Regeneration and transplantation of tissues; histogenesis of cerebellar cortex, of eyelids, of incisor and molar teeth in rat; prenatal and neonatal lung; phagocytosis in spleen and peritoneal cavity; vomeronasal organ; rhinencephalon of dolphin; histology of standard albino rat; cerebellum of teleosts and mammals; measurements of cerebral cortex in man; carotid sinus and body.

Addlestone, Prof. J(acob) A, Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Leeds, Eng, Dec. 10, 02. B.S, Col. of Charleston, 24; M.S, North Carolina, 26, Ph.D, 33. Asst. *chem,* Col. of Charleston, 23–24; teaching fellow, North Carolina, 25–27; instr, *Va. Polytech,* 27–29, asst. prof, 29–37, *assoc. prof, 37–* Chem. Soc. Solutions; corrosion.

Addoms, Prof. Ruth M(argery), Duke University, Durham, N. C. *Botany.* Haworth, N. J, May 23, 96. A.B, Wellesley Col, 18, A.M, 21; Alice Freeman Palmer fellow, Wisconsin, 23–24, Ph.D, 26. Asst. bot, Wellesley Col, 18–21; instr, high sch, Ind, 21–23; asst. *bot,* Wisconsin, 24–25, instr, 25–30; *Duke,* 30–31, asst. prof, 31–40, *assoc. prof, 40–* A.A; Bot. Soc; Soc. Plant Physiol; N. C. Acad. Plant physiology and anatomy; microchemistry.

Adel, Dr. Arthur, Lowell Observatory, Flagstaff, Ariz. *Astrophysics.* Brooklyn, N. Y, Nov. 22, 08. A.B, Michigan, 31, fellow, 31–33, Ph.D, 33. Research assoc, Lowell Observatory, 33–35; instr. astron, Hopkins, 35–36; *mem. staff, Lowell Observatory, 36–* A.A; Physical Soc; Astron. Soc. Atmospheres of the solar system; infra-red spectra and molecular structure; far infra-red spectroscopy of the solar and terrestrial atmospheres.

Adelmann, Prof. Howard B(ernhardt), Cornell University, Ithaca, N. Y. *[7]Zoology, Histology.* Buffalo, N. Y, May 8, 98. A.B, Cornell, 20, A.M, 22, Ph.D, 24. Asst. *histol. and embryol, Cornell,* 19–21, instr, 21–25, asst. prof, 25–37, *prof, 37–* Nat. research fellow, 27–28. Asn. Anat; Soc. Zool; Hist. Sci. Soc; Asn. Hist. Med; Bibliog. Soc. London. History of embryology; morphology and development of neural tube and cranial ganglia in the rat, prechordal mesoderm of the chick and salamander, and eyes of the salamander; cyclopia and mesodermal somites; experimental embryology.

Adelson, Dr. David E, Shell Development Co, Emeryville, Calif. *Chemistry.* Chicago, Ill, March 21, 12. B.S, Florida, 32, Sparks mem. fellow, 32–33, M.S, 33, Ph.D, 35. Asst. chem, Florida, 30–32, 33–34, instr, 34–35; Fritzsche fellow org. chem, Columbia, 35–36, nat. research fellow chem, 36–37; *research chemist, Shell Develop. Co, 37–* Chem. Soc. Derivatives of piperazine; retene; synthetic organic chemistry; synthetic resins.

Ader, Prof. O(lin) B(lair), 492 N. Church St, Spartanburg, S. C. *Mathematics.* Amantha, N. C, Jan. 30, 05. A.B, Duke, 26, A.M, 28; Ph.D, Kentucky, 37. Teacher science and math, Brevard Inst, 28–30; prof. *math,* Lindsey Wilson Jr. Col, 32–35; instr, South. Methodist, 37–39; *asst. prof, Wofford Col, 39–* Math. Soc; N. C. Acad. Convex regions of metric space; extension and period of a conically wound spring.

Ades, Dr. Harlow W, Emory University, Ga. *Neuroanatomy, Neurophysiology.* Rockford, Ill, Dec. 31, 11. B.S, Illinois, 34, M.S, 35, Ph.D, 38. Asst. zool. and psychol, Illinois, 34–38; physiol. optics, *med. sch,* Hopkins, 38–39; instr. *anat, Emory,* 39–42, *asst. prof, 42–* Asn. Anat. Central auditory pathway; central visual pathway; extrapyramidal system.

Adkins, Dr. Dorothy C, 2032 Belmont Road, N. W, Washington, D. C. *Psychology.* Atlanta, Ohio, April 6, 12. B.S, Ohio State, 31, Ph.D, 37. Asst. psychol, Ohio State, 32–36; asst. examiner, board examiners, Chicago, 36–38, research assoc. psychol, 38–40; asst. chief, *research and test construction sect, state tech. advisory service, Social Security Board,* 40, *chief, 40–* Research assoc, Mooseheart Lab. Child Research, Mooseheart, Ill, 34. Asst. managing ed, 'Psychometrika,' 38–; assoc. ed, 'Jour. Educational and Psychol. Measurement,' 41– Assoc. Psychol. Asn; Psychometric Soc; Pub. Health Asn. (consulting psychometrician, merit system project, 43–). Quantitative psychology; methods of analyzing test items and test construction.

Adkins, Prof. Homer (Burton), University of Wisconsin, Madison, Wis. *[5]Chemistry.* Newport, Ohio, Jan. 16, 92. B.S, Denison, 15, Sc.D, 38; A.M, Ohio State, 16, Ph.D, 18. Instr. *org. chem,* Ohio State, 18–19; asst. prof, *Wisconsin,* 19–24, assoc. prof, 24–28, *prof, 28–* Nat. Acad; A.A; Chem. Soc. (chairman, org. div, 32); London Chem. Soc. Causation of organic chemical reactions; relations of catalysis, reactivity and structure of organic compounds; reactions of hydrogen with organic compounds; oxidation potentials.

Adkins, Dr. John N(athaniel), Massachusetts Institute of Technology, Cambridge, Mass. *Geophysics.* Spokane, Wash, July 23, 11. A.B, California, 36, univ. fellow, 36–38, Ph.D, 39. Teaching fellow, California, 38–39; *nat. research fellow, Mass. Inst. Tech, 39–* Seismol. Soc. Earthquake travel times; crustal structure of the earth; uplift of Fennoscandia.

Adkisson, Charles N(oble), 1112 Bell Ave, Denton, Texas. *Physics.* Shelbina, Mo, Nov. 16, 66. A.B, Cent. Col. (Mo), 83; A.M, South. Methodist, 27. Head dept. *physical science,* Polytech. Col. (Ft. Worth), 91–98; Granbury Col. (Texas), 98–99; director, Randolph Col, 99–01; Terrell Univ. Sch. (Texas), 01–03; *Texas State Col. for Women,* 03–39, *emer. prof, 39–* A.A; Asn. Physics Teachers; Texas Acad. (v. pres, 28). Applied physics.

Adkisson, Prof. V(irgil) W(illiam), 236 Buchanan St, Fayetteville, Ark. *Mathematics.* Santa Rosa, Mo, Sept. 5, 01. A.B, Drury Col, 25; Ph.D, Pennsylvania, 30. Instr. *math,* Drury Col, 25–26; Pennsylvania, 26–30; asst. prof, *Arkansas,* 30–35, assoc. prof, 35–39, *prof, 39–* Math. Soc; Math. Asn. Analysis situs.

Adler, Dr. Dan(iel) L(eslie), University of Rochester, Rochester, N. Y. *Psychology.* Cleveland, Ohio, Nov. 29, 13. A.B, Western Reserve, 35; A.M, Iowa, 36, Ph.D, 39. Research fellow, Inst. for Psychoanal. and Univ. Iowa, 39–41; *instr. psychol, Rochester, 41–* Assoc. Psychol. Asn; Iowa Acad. Substitution, rationalization and repression phenomena in psychoanalytic patients and in normal adults and children.

Adler, Prof. F(elix) T, University of Wisconsin, Madison, Wis. *Physics.* Zurich, Switzerland, Jan. 5, 13. M.S, Zurich, 35, Ph.D, 37; Fed. Inst. Tech; Col. de France, 38–40. Mem, Inst. Advanced Study, 41–42; *visiting asst. prof. physics, Wisconsin, 42–* A.A; Physical Soc; Math. Soc. Theoretical physics; nuclear physics.

Adler, Dr. Francis Heed, 313 S. 17th St, Philadelphia, Pa. *Ophthalmology.* Philadelphia, Pa, Feb, 95. A.B, Pennsylvania, 16, A.M, 18, M.D, 19. Assoc. physiol. and instr. ophthal, sch. med, and *prof. ophthal, sch. med, Pennsylvania; consulting surgeon, Wills Eye Hosp.* Ophthal. Soc; Acad. Ophthal. and Otolaryngol; fel. Col. Surg; fel. Col. Physicians Phila. Physiology of the eye.

Adler, Dr. Harry F(rank), 7828 Kingston Ave, Chicago, Ill. *Physiology.* Chicago, Ill, July 26, 14. B.S, Chicago, 37, M.S, 38; Ph.D, Northwestern, 41. *Instr. physiol. and pharmacol, med. sch, Northwestern, 42–* A.A. Physiology of the colon motility; aviation medicine.

Adler, Dr. Howard, Victor Chemical Works, Chicago Heights, Ill. *Chemistry.* New York, N. Y, Jan. 9, 96. B.S, Col. City of N. Y, 16; A.M, Columbia, 17, Ph.D, 21. Instr. chem, Chicago, 21–23; research chemist, *Victor Chem. Works,* 23–25, *chief chemist, 25–* C.W.S, U.S.A, 17–19. Chem. Soc; Chem. Eng. (chairman, Chicago sect, 35–37); Asn. Cereal Chemists. Theory of solutions; formates; phosphates; phosphorus compounds.

Adler, Dr. Joseph L(eopold), 901 Esperson Bldg, Houston, Texas. *Geology, Geophysics.* Chicago, Ill, Nov. 27, 96. B.S, Chicago, 17, Ph.D, 30. Petrol. geologist, 19–27; asst. prof. petrog. and geol, Mich. Col. Min. and Tech, 27–34; *manager, Independent Prospecting Co, 35–* Geologist, Mich. Geol. Surv, 29, 30. A.A; Asn. Petrol. Geol; Geophys. Union; Soc. Explor. Geophys; Min. and Metal. Eng; fel. Am. Geog. Soc. Petroleum geology; Precambrian stratigraphy; magnetic, gravimetric and science prospecting.

Adolph, Dr. Edward F(rederick), University of Rochester, Rochester, N. Y. ***Zoology, Physiology.* Philadelphia, Pa, July 5, 95. A.B, Harvard, 16, Ph.D, 20, traveling fellow at Oxford, 20–21; Yale, 16–18. Instr. zool, Pittsburgh, 21–24; nat. research fellow, Hopkins, 24–25; asst. prof. *physiol, sch. med, Rochester,* 25–28, *assoc. prof, 28–* Guggenheim Mem. Foundation fellow, Kaiser Wilhelm Inst, Berlin, 27. Summers, instr, Marine Biol. Lab, Woods Hole, 21–24; consulting physiologist, U. S. Bur. Mines, 22–24. A.A; Soc. Nat; Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Soc. Study Growth. Physical chemistry of oxyhemoglobin; regulation of body volume and water content; regulation in size; growth in bulk; body fluids; kidney function; water metabolism; physiological regulations.

Adolph, Prof. W(illiam) H(enry), Yenching University, Peiping, China. *Biochemistry.* Philadelphia, Pa, Sept. 1, 90. A.B, Pennsylvania, 12, Ph.D, 15. Asst. chem, Pennsylvania, 13–14; from instr. to prof, Cheeloo Univ, 15–26; assoc. prof, Nebraska, 27–29; *prof. biochem, Yenching Univ, 29–* Instr, Illinois, 20–21; lecturer, science inst, Tsinghua Univ, 24, 26; fellow, Yale, 27, 35–36. A.A; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition; Chinese Physiol. Soc; Chinese Sci. Soc; Chem. Soc. China. Nutritive value of Chinese food materials; metabolism on vegetarian diets in China; biochemistry of calcium and oxalic acid.

Adrian, Dr. A(lan) P(atrick), 127 Seward St, Detroit, Mich. *Chemistry.* Feb. 13, 16. A.B, Lawrence Col, 38, M.S, 40, Ph.D, 42. *Develop. chemist, Detroit Sulphite Pulp and Paper Co, 42–* Summers, operator, Appleton Water Works, Wis, 37, 38; control chemist, Munising Pulp and Paper Co, 39; Mosinee Pulp and Paper Co, 40; Detroit Sulphite Pulp and Paper Co, 41. Tech. Asn. Pulp and Paper Indust. Chemistry and technology in the pulp and paper field; evaluating the optical constants of pigments in paper.

Adriance, Prof. Guy W(ebb), College Station, Texas. *Horticulture.* Bryan, Texas, June 19, 95. B.S, Agr. and Mech. Col. Texas, 15; M.S, California, 17; Ph.D, Mich. State Col, 29. Horticulturist, United Fruit Co, 20–21; from asst. prof. to *prof. hort. and head dept, Agr. and Mech. Col. Texas, 21–* Nat. research fellow, Cornell, 31–32. A.A; Soc. Hort. Sci. Propagation of tropical and sub-tropical fruits; root stock studies with stone fruits.

Adriano, Dr. F(elipe) T, San Miguel Brewery, Manila, P. I. *Chemistry.* Hagonoy, Bulacan, P. I, May 1, 99. B. Agr, Philippines, 19; M.S, Wisconsin, 20; traveling fellow from Univ. Philippines, U. S. A. and Europe, 25–27; Ph.D, Cornell, 27. Asst. chem, Philippines, 18; planters chemist and rep, Calamba Sugar Estate, Canlubang, 21; analyst, Philippines, 24, asst. prof. chem, 24–28, senior asst. prof, 28–31, assoc. prof, 31–32; tobacco chemist and chief agr. chem. and soil technol, Bur. Plant Indust, P. I, 32–34, chief div, 34; tech. director, *San Miguel Brewery,* 34–41, *attorney-in-fact, 41–* Nat. Research Council, Philippines; Nutrition Board, Manila, 34– Hon. mem. Philippine Soc. Adv. Research; P. I. Sci. Soc; Philippine Econ. Asn; Los Baños Biol. Club, Philippines. Analytical, agricultural and industrial chemistry; food preservation; tobacco.

Adson, Dr. Alfred W, Mayo Foundation, Rochester, Minn. *Neurosurgery.* Terrill, Iowa, March 13, 87. B.S, Nebraska, 12, A.M, 18; M.D, Pennsylvania, 14; M.S, Minnesota, 18. *Prof. neurosurg. and chief dept, Mayo Foundation, 20–* Lieut. col, M.R.C. Fel. Col. Surg; Am. Med. Asn; Soc. Neur. Surg. (pres, 32); Neur. Asn; Am. Surg. Asn; Asn. Research Nervous and Mental Disease; Minn. State Neur. Asn; Minn. Med. Soc. (pres, 36–37); West. Surg. Asn; Cent. Neuropsychiat. Asn; Pan-Am. Med. Asn; hon. mem. Soc. Radioneurochirurg. Ital; Soc. int. de Chirurg; Int. Neur. Asn. Anatomy, physiology, pathology and surgery of the peripheral nerves and the sympathetic nervous system; indication for and the results of sympathectomy in vascular diseases.

Aebersold, Dr. Paul C, Radiation Laboratory, University of California, Berkeley, Calif. *Physics.* Fresno, Calif, July 7, 10. A.B, Stanford, 32; A.M, California, 34, fellow, 35–37, Ph.D, 38. Teaching fellow, *California,* 32–35, Finney-Howell Research Foundation fellow, radiation lab. and dept. roentgenol, 37–40, *research assoc, radiation lab, 40–* Nuclear physics; biophysics; properties of neutron radiation; properties of induced radioactive substances; biological effects of radiation; radiation therapy of cancer.

Aelony, Dr. D(avid), Monsanto Chemical Co, Dayton, Ohio. *Organic chemistry.* Odessa, Russia, Oct. 8, 07. B.S, Illinois, 29; M.S, Wisconsin, 32; Ph.D, Stanford, 38. *Research chemist,* Spreckels Sugar Corp, 29–31; Hecker Products Corp, 31–38; *Monsanto Chem. Co, 38–* Chem. Soc. Invert syrups; sugar resins; terpenes; artificial waxes; synthetic detergents; organic syntheses.

Aeschlimann, Dr. John A, 209 Christopher St, Montclair, N. J. *Chemistry.* B.A, Cambridge, 20, Ph.D, 25. Chemist, Shell-Mex, London, 21; asst. demonstrator, univ. lab, Cambridge, 21–24; asst, Chem. Warfare, 23–26; *research chemist,* Hoffmann-La Roche, Basle, 27–41; *Hoffmann-La Roche, Inc, N. J, 41–* Chem. Soc; Soc. Chem. Indust. Gt. Britain. Heterocyclics; arsenicals; synthetic drugs; prostigmin; vitamin E.

Afanasiev, Prof. M(ichel), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Forestry, Plant propagation.* Kiev, Russia, March 30, 99. B.S, Cornell, 33, Ph.D, 37. *Assoc. prof. hort, Okla. Agr. and Mech. Col, 38–* Dormancy, after-ripening and germination of forest tree seeds; establishment and maintenance of forest plantations.

Afanasiev, Dr. M(itrofan) M(ichailovich), Montana State College, Bozeman, Mont. *Plant pathology.* Russia, Nov. 21, 00. Agr. Eng, Higher Sch. Agr, Brno, Czechoslovakia, 27; Ph.D, Nebraska, 37. Manager agricultural estate, Maly Kiar, Czechoslovakia Admin, 28–30; asst. plant path, Nebraska, 30–36; *asst. botanist and bacteriologist, Exp. Sta, Mont. State Col, 36–* Phytopath. Soc. Plant physiology; soil microbiology.

Affel, H(erman) A(ndrew), 827 Morningside Road, Ridgewood, N. J. *Engineering.* Brooklyn, N. Y, Aug. 4, 93. B.S, Mass. Inst. Tech, 14. Asst. elec. eng, Mass. Inst. Tech, 14–16; eng. dept, Am. Tel. and Tel. Co, 16–19, dept. develop. and research, 19–34: *Bell Tel. Labs, 34–, asst. director transmission develop.* Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A; fel. Elec. Eng; Radio Eng; fel. Acoustical Soc. Telephone receivers; high frequency transmission on wires; multiplex carrier current communication systems; long distance telephone transmission.

Africa, Dr. Candido M, University of the Philippines, Manila, P. I. *Parasitology.* Lipa, Batangas, P. I, Oct. 3, 95. M.D, Philippines, 20; D.T.M, London Sch. Trop. Med, 29; fellow, Harvard, 29–30; fellow, Tropen Inst, Germany, 29; Hopkins, 30–31. Instr. *parasitol, Philippines,* 20–25, asst. prof, 25–32, *assoc. prof. and head dept, 32–* P. I. Nat. Research Council. Soc. Trop. Med; Soc. Parasitol; P. I. Sci. Soc; P. I. Med. Asn. Ascaris lumbricoides; Nippostrongylus muris; Gnathostoma spinigerum; heterophyidiasis.

Agar, Dr. William M(acdonough), Taconic, Conn. *Geology.* New York, N. Y, Feb. 14, 94. B.S, Princeton, 16, Ph.D, 22. Geol. dept, Anaconda Copper Mining Co, 22–23; instr. geol, Yale, 23–27, asst. prof, 27–28; Columbia, 28–35; headmaster, Newman Sch, 35–40; visiting lecturer, Columbia, 40–41; *educational director, Freedom House, 41–; special worker, U. S. Geol. Surv, 41–* Geologist, Conn. Geol. and Nat. Hist. Surv, 25–33. Fel. Geol. Soc; Soc. Econ. Geol. (treas, 30–35); fel. Miner. Soc; assoc. Min. and Metal. Eng. Economic and metamorphic geology; petrology.

Agard, Prof. H(arry) L(eslie), Williamstown, Mass. *Mathematics.* Waterbury, Conn, March 19, 83. A.B, Wesleyan, 04; A.M, Yale, 08, Ph.D, 11. Instr. *math,* Wesleyan Acad, 04–05; Phillips Andover Acad, 05–07; Hopkins Grammar, 07–10; Yale, 10–11; *Williams Col,* 11–15, asst. prof, 15–30, assoc. prof, 30–33, *prof, 33–,* asst. dean, 22–30, acting dean, 23–24, 26–27, dean, 30–35. A.A; Math. Soc; Math. Asn.

Agee, H(amilton) P(ope), P. O. Box 2990, Honolulu, Hawaii. *Agriculture.* Memphis, Tenn, Dec. 9, 84. B.S, Louisiana, 04. Various positions, sugar indust, Cuba, P. R. and La, 04–09; asst. director in charge, La. Sugar Exp. Sta, New Orleans, 09–11; agriculturist, Exp. Sta, Hawaiian Sugar Planters' Asn, 11–13, director, 13–35; *research and consultation agr, Castle and Cooke, Ltd, and Hawaiian Pineapple Co, Ltd, 35–* Mem, Board Agr. and Forestry, Hawaii, 25–35. A.A; Int. Soc. Sugar Cane Technol. (gen. chairman, 24–27). Sugar cane and pineapple agriculture.

Agersborg, Dr. H(elmer) P(arell de Wold) Kjerschow, Centralia, Ill. *Biology, Conservation.* Norway, Oct. 26, 81. B.S, M.S, Washington (Seattle), 16; Royal Fredericks Univ, Oslo, 17; A.M, Columbia, 20; Ph.D, Illinois, 23. Tutor biol, Col. City of N. Y, 17–18; asst. zool, Columbia, 18–20; asst. prof, Wyoming, 20–21; asst, Illinois, 21–22; instr, Nebraska, 22–23; biol, Williams Col, 23–24; Wheeler prof. and head dept, James Millikin, 24–28; aquatic biologist, State Dept. Conservation, Ill, 28–29; teacher, Shepherd Col. State Nor. Sch, W. Va, 29–30; prof. biol. and head dept, Atlantic, 30–32; biologist, State Dept. Fisheries and Game, N. H, and N. H. Planning Board, 32–34; chief biologist, state park div, Nat. Park Service, 34–37; *consulting biologist, 37–* A.A; Soc. Zool; Royal Soc. Trondhjem. Echinoderms; opisthobranchs; prosobranchs; parasitism; stream pollution; pond ecology; trout culture; wildlife management; the teaching of science and wildlife conservation; roadside management; nature lore.

Agg, Dean T(homas) R(adford), 707 Hodge Ave, Ames, Iowa. *Engineering.* Fairfield, Iowa, May 17, 78. B.S, Iowa State Col, 05, C.E, 14. Instr. drawing, Illinois, 05–06, mech, 06–08; road engineer, State Highway Dept, Ill, 08–13; prof. highway eng, *Iowa State Col,* 13–30, asst. dean *eng,* 30–32, *dean, 32–, director eng. exp. sta, 32–* In charge highway investigations, Iowa, 13–30. Nat. Research Council; Highway Research Board. George S. Bartlett award, 36. Civil Eng; Soc. Test. Mat; Eng. Educ; Iowa Eng. Soc. Load distribution on highway bridge floors; gravel surfacing; concrete road failures; weight of traffic; proportioning unscreened gravel; tractive resistance; economics of highway grades; highway transportation and vehicle operating costs; coefficients of friction rubber tires; economic cost of highways; engineering valuation.

Agnew, Dr. James H(oward), 2303 Sunset Blvd, Houston, Texas. *Internal medicine.* Pittsburgh, Pa, July 31, 84. A.B, Michigan, 07, A.M, 08, M.D, 10. Asst. hygiene, Michigan, 07–08, med, 10–12, instr. clin. micros, 12–13, physical diagnosis, 13–14; prof. med, sch. med, Alabama, 14–17; *internist, 19–* Visiting physician, St. Joseph's and City-County Hosps. Major, M.C, 17–19. Am. Med. Asn; Col. Physicians. Pulse wave; incoagulable blood nitrogen.

Agnew, Dr. P(aul) G(ough), 29 W. 39th St, New York, N. Y. **§Physics.* Hillsdale, Mich, July 3, 81. B.L, Hillsdale Col, 01; A.M, Michigan, 02; Ph.D, Hopkins, 11. Instr, high sch, Mich, 02–05; lab. asst, Bur. Standards, 06–07, from asst. physicist to physicist, 08–19; *sec'y, Am. Standards Asn, 19–* A.A; Elec. Eng; Wash. Acad. Electrical measurements; transformers; industrial standardization.

Agnew, Prof. Ralph P(almer), Cornell University, Ithaca, N. Y. *Mathematics.* Poland, Ohio, Dec. 29, 00. A.B, Allegheny Col, 23; M.S, Iowa State Col, 25; Ph.D, Cornell, 30. Asst, Iowa State Col, 23–25; instr. *math, Cornell,* 25–31, asst. prof, 31–38, *prof, 38–* Nat. research fellow, Cincinnati, Princeton and Brown, 30–32. A.A; Math. Soc. (councilor, 43–); Math. Asn. (governor, 42–). Infinite series and summability; analysis.

Agnew, Prof. R(obert) Gordon, West China Union University, Chengtu, West China. *Oral histology, Oral pathology.* Toronto, Ont, Can, Sept. 4, 98. B.A, Toronto, 20, D.D.S. and L.D.S, 21, fellow, 21–23, M.Sc, 33, Ph.D, 41; fellow, Peking Union Med. Col, 27–28; Vienna, 30. Assoc. prof. path. and bacter, *West China Union Univ,* 23–30, *prof. oral path, 33–* A.A; Int. Asn. Dental Research. (v. pres, 34–40); fel. Int. Col. Dentists. Oral pathology and diet in Tibetan and Chinese tribes; histology of the parodontium; application of periodontal physiology to orthodontic practice; experimental production of dental caries; oral examination for research purposes; dental caries in white rats.

Agrelius, Prof. Frank U(lysses) G(rant), Kansas State Teachers College, Emporia, Kans. *Botany.* Spring Green, Wis, July 30, 69. A.B, Kansas, 07, fellow, 07, A.M, 08. Asst. bot, Missouri, 08; asst. instr. and instr, Kansas, 08–11; instr. and *assoc. prof. biol, Kans. State Teachers Col, Emporia, 11–* Summers, in charge expeds, investigation of native plants, Kansas, 11–14. A.A; Ecol. Soc. (Kans. rep, cmt. on preservation of nat. conditions); Kans. Audubon Soc. (local v. pres, 25); Kans. Acad. (past pres, councilor, 30). Anatomy of spermatophytes; seasonal activities of plants; Kansas trees.

Agruss, Dr. M(eyer) S, 2849 W. Sherwin Ave, Chicago, Ill. *Chemistry.* St. Louis, Mo, Oct. 29, 06. B.S, Washington (St. Louis), 29; Ph.D, Chicago, 35. Titanium Pigment Co, 29–30; A. O. Smith Corp, 30–32; *research dept, Pure Oil Co, Chicago, 35–* A.A; Chem. Soc. Isolation of protactinium; radioactivity; artificial radioactivity produced by neutron bombardment; analytical methods; sulfur compounds in petroleum.

Aguayo, Prof. C(arlos) G(uillermo), 4 N. 554, Vedado, Habana, Cuba. *Zoology.* Habana, Cuba, Dec. 19, 99. Agr.Eng, Havana, 22, Sc.D. (Nat. Sci), 25, Sc.D. (Chem), 42. Asst. *zool, Havana,* 21–28, asst. prof, 28–42, *prof, 42–* Guggenheim Mem. Foundation fellow, 31, 32. Mem, Harvard-Havana Caribbean exped, 38, 39. Mem, Cuban Game Cmn, 37–; director, Havana Zool. Park, 40– Silver medal, Soc. Geog. de Cuba, 40. Malacol. Union; Soc. Cubana de Hist. Nat. (librarian, 25, ed, 25–43, sec'y, 33, v. pres, 38–); Soc. Cubana de Biol; Soc. Geog. de Cuba. Entomology; malacology; marine biology; mollusks; insects.

Agustin, Dr. Gregorio San, Bureau of Animal Industry, Manila, P. I. *Animal industry.* San Roque, Cavite, P. I, April 25, 94. D.V.M, Philippines, 16; Wisconsin; Illinois; Cornell. Veterinarian, Bur. Agr, P. I, 16; instr. vet. anat, col. vet. science, Philippines, 16–18, sec'y col, 21–24, acting dean, 24–25, asst. prof. vet. anat, 21–24, prof. and dean, 25–39; asst. director, *Bur. Animal Indust, P. I,* 33–35, *director, 36–* Asst. food administrator and head livestock div, Civilian Emergency Admin, 41. Mem. special cmt. anthrax eradication, Dept. Agr. and Nat. Resources, P. I, 23; mem. Governor Gen's advisory cmt. nutrition, 33–35; mem. trade relation cmt, Dept. Agr. and Commerce, 34, rice nationalization cmt, 35; chairman efficiency and econ. cmt, Bur. Animal Indust, 34–36; chairman cmt. animal indust, Nat. Econ. Council, 38; mem. Nat. Research Council of the Philippines. A.A; Vet. Med. Asn; Philippine Sci. Soc; Philippine Vet. Med. Asn. (pres). Animal husbandry; Philippine animal life.

Ahalt, Prof. H(enry) C(arlton), Virginia Polytechnic Institute, Blacksburg, Va. *Mathematics.* Lucketts, Va, Nov. 9, 01. B.S, Va. Polytech, 23, E.E, 25; A.M, Illinois, 31. Asst. prof. math, *Va. Polytech,* 26–40, *asst. prof. mil. science and tactics and asst. commandant of cadets, 40–; major, Inf, U. S. Army.* Elec. Eng. Interpretation of the growth curve of the human heart.

Ahearn, Dr. Arthur J(ohn), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* New London, Wis, June 20, 02. A.B, Ripon Col, 23; Ph.D, Minnesota, 31. Teacher, high sch, Wis, 23–24; teaching fellow, Minnesota, 24–29; *mem. tech. staff, research dept, Bell Tel. Labs, 29–* A.A; fel. Physical Soc. Secondary electrons from metals; field currents; thermionics and adsorption.

Ahern, Prof. M(ichael) J(oseph), S.J, Weston College, Weston, Mass. *Geology.* New York, N. Y, May 25, 77. A.B, St. Francis Xavier (N. Y), 96; A.M, Woodstock Col, 02; Innsbruck, Austria, 07–11; LL.D, Canisius Col, 40; hon. Sc.D, Tufts Col, 42. Instr. chem. and geol, Boston Col, 02–06; geol. and math, Woodstock Col, 06–07; prof. and director dept. science, Canisius Col, 11–14; prof. chem. and head dept. chem. and geol, Boston Col, 15–19; pres. and director chem. labs, Canisius Col, 19–23; prof. chem. and head dept, Col. of Holy Cross, 23–25; St. Joseph's Col, 25–26; chem. and geol, *Weston Col,* 26–31, *emer. prof. chem, 31–* A.A; Am. Chem. Soc. (chairman, northeast sect, 37–); Am. Acad; Boston Soc. Nat. Hist; Buffalo Soc. Nat. Sci. (v. pres, 20–23). Prehistoric archeology.

Ahlberg, Dr. J. E(lston), 400 W. 119th St, New York, N. Y. *Chemistry.* Philadelphia, Pa. B.S, California, 28, Ph.D, 31. Assoc. chem, California, 31–32; research assoc, Hopkins, 32–35; *research chemist,* U. S. Naval Research Lab, 35–36; *Universal Oil Products Co, 36–; mem, Office Sci. Research and Develop, Columbia, 42–* Physical chemistry; thermal excitation of electrons; low temperature calorimetry; hydrogen and helium liquefaction; electrode potentials; air rectification; adsorption; catalysis; pyrolysis of hydrocarbons.

Ahlfors, Prof. Lars V(alerian), 46 Shepard St, Cambridge, Mass. **§Mathematics.* Helsingfors, Finland, April 18, 07. Ph.D, Helsingfors, 30. Adjunct *math,* Helsingfors, 33–36; *asst. prof, Harvard, 36–* Field's medal, 36. Soc. Sci. Fennica. Meromorphic functions and conformal mapping.

Ahlgren, Dr. Gilbert H(arold), Rutgers University, New Brunswick, N. J. *Agronomy.* South St. Paul, Minn, Dec. 25, 13. B.S, Wisconsin, 36; M.S, Rutgers, 38, Ph.D, 41; Pa. State Col, 38–39. Asst. agron, Wisconsin, 36–37; Rutgers, 37–38; agent, regional pasture research lab, U. S. Dept. Agr, 38–39; asst. *agron, Rutgers,* 39–41, *instr, 41–* Plant breeding; im-

provement of economic crop species by plant breeding and physiological studies.

Ahlgren, Dr. Henry Lawrence, University of Wisconsin, Madison, Wis. *Agronomy.* Wyoming, Minn, Oct. 3, 08. B.S, Wisconsin, 31, M.S, 33, Ph.D, 35. Asst. agron. and soils, *Wisconsin,* 29–35, instr. *agron,* 35–37, asst. prof, 37–41, *assoc. prof, 41–* Traveling fellow, Europe, 36. Pasture improvement, particularly the fertilization, management and ecological aspects.

Ahlquist, Prof. R(aymond) P(erry), South Dakota State College, Brookings, S. Dak. *Pharmacology.* Missoula, Mont, July 26, 14. B.S, Washington (Seattle), 35, univ. fellow, 35–39, M.S, 37, Ph.D, 40. *Asst. prof. pharmacol. and pharmacog, S. Dak. State Col, 40–, pharmacologist, Exp. Sta, 40–* Experimental chronic alcoholism in rabbits; pharmacology of methylamino iso-octene; propagation and cultivation of Ephedra sinica in South Dakota.

Ahrens, Dr. Theodor G, Hardenbergstrasse 2, Berlin-Charlottenburg 2, Germany. *Biology.* Baltimore, Md, March 9, 70. A.B, Hopkins, 90; Ph.D, Halle, 11. *Collaborator, Reichsstelle für Natursehutz, 20–* A.A; Ornith. Union; Soc. Mammal; Deuts. Dendrol. Gesell; Bot. Verein der Provinz Brandenburg. Nature protection and conservation.

Ahrens, W(alter) E, 77 Burnham Road, Morristown, N. J. *Forest pathology.* Huntingburg, Ind, Aug. 28, 10. B.S.A, Purdue, 32. Asst, Ohio Exp. Sta, 32; junior forest pathologist, *Dutch elm disease lab, bur. plant indust, U. S. Dept. Agr,* 33–35, *asst. forest pathologist, 35–* Dutch elm disease.

Aicher, L(ouis) C(ornelius), Ft. Hays Experiment Station, Hays, Kans. *Agronomy.* Meeker, Colo, Jan. 16, 87. B.S.A, Kans. State Col, 10. Supt, Idaho Substa, Caldwell, 10–11; from agent to agronomist, cereal investigations, *U. S. Dept. Agr,* and *supt,* Aberdeen Exp. Sta, Idaho, 11–21, *Ft. Hays Exp. Sta, Kans. State Col, 21–* Soc. Agron; Kans. Acad. Growing grain on southern Idaho dry farms; production of clover seed, alfalfa seed, potatoes and grain under irrigation; feeding experiments; grain sorghums.

Aiken, Dr. Charles B(ayne Philemon), 75 West St, New York, N. Y. *Engineering.* New Orleans, La, Oct. 6, 02. B.S, Tulane, 23; M.S, Harvard, 24, A.M, 25, Ph.D, 33. Engineer, Mason, Slichter and Hay, Madison, Wis, 26–28; mem. tech. staff, Bell Tel. Labs, New York, 28–35; assoc. prof. elec. eng. in charge dept. communication eng, Purdue, 35–38; *consulting engineer, 38–* Lecturer, Columbia, 33–35; v. pres. and director research, Electro-Mech. Research, Inc, Texas, 42– Elec. Eng; Radio Eng; Physical Soc; Soc. Explor. Geophys. Communication engineering; high frequency measurements; common frequency broadcasting; effects of background noise in radio reception; tuned coupled circuit filters; airplane detection; electrical methods in geophysics; military applications of electronics.

Aikins, Prof. H(erbert) Austin, 2611 Edgehill Road, Cleveland, Ohio. *Clinical psychology.* Toronto, Ont, Can, March 1, 67. B.A, Toronto, 87; Ph.D, Yale, 91. Instr, Southern California, 88; lecturer, Yale, 90–91; prof. philos. and logic, Trinity Col. (N. C), 91–92; *philos, Western Reserve,* 93–37, *emer. prof, 37–* Hon. fellow, Clark, 92–93. A.A; Psychol. Asn; Philos. Asn; Asn. Univ. Prof. (v. pres, 19). Mental tensions and mental hygiene; stammering.

Aikman, Prof. J(ohn) M(ulvaney), Iowa State College, Ames, Iowa. *Botany.* Mason City, Nebr, March 24, 93. A.B, Nebr. Wesleyan, 17, A.M, 21; Ph.D, Nebraska, 28. Asst. prof. bot, Nebr. Wesleyan, 21–23, assoc. prof, 23–25, biol, 25–27; asst. prof. *bot, Iowa State Col,* 27–30, *assoc. prof, 30–* Project supervisor, soil conservation service, U. S. Dept. Agr, 37– Summers, asst. prof, Colo. State Teachers Col, 23, 26, 32; senior botanist, Shelterbelt Project, 34–35. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Soc. Agron; Soc. Nat; Iowa Acad. Ecology of native and crop plants; interactions of forest communities within the grassland formation; effect of plant cover on soil erosion; plant succession.

Aikman, Dr. (William) E(dward) P(ercy), Charcoal Hill, Westport, Conn. *Physics.* Montreal, Que, Can, Jan. 24, 11. B.Sc, McGill, 32, M.Sc, 33, Nat. Research Council Can. bursar, 33–34, student, 34–35, Ph.D, 35. *Research physicist, Gen. Chem. Co, 35–* Physical Soc. Raman effect of concentrated hydrogen peroxide and liquid ozone; Stark effect anomalies in hydrogen and deuterium; spectroscopy; manufacture of chemicals; physical measurements; microscopy; high voltage phenomena.

Ainslie, Prof. D(onald) S(tuart), 88 Chatsworth Drive, Toronto, Ont, Can. *Physics.* Comber, Ont, April 23, 93. B.A, Toronto, 15, M.A, 16, Nat. Research Council Can. scholar, 22–23, fellow, 23–24, Ph.D, 25. Demonstrator, Toronto, 15–18; physicist, dept. exp. and research, British Admiralty, 18–20; demonstrator, Toronto, 21–22, research worker, 22–24; lecturer, Saskatchewan, 24–25; from lecturer to *assoc. prof. physics,* Western Ontario, 25–30; *Toronto, 30–* Mem. staff, Nat. Research Council Can, 41–42. Asn. Physics Teachers; Royal Astron. Soc. Can. (2nd v. pres, 40–). Ultra-violet spectroscopy; short range firing unit; recovery of helium from natural gas; fine structure of spectral lines; fluorescent emission and absorption spectra; electromagnetic balance; exploring coil method for magnetic field measurements; commutator for the comparison of capacitances.

Airston, Prof. Margaret, 317 Georgina, Santa Monica, Calif. *Chemistry.* Auckland, New Zealand. Ph.G, Southern California, 20, B.S, 22, M.S, 27. Asst. prof. *pharmaceut. chem, Southern California,* 22–40, *assoc. prof, 40–* Chem. Soc; Pharmaceut. Asn. Chemical assays of the United States Pharmacopoeia; preservative action of violet rays on fruit juices; alkaloidal color tests; tests for ephedrine.

Aitchison, Dr. Beatrice, 1929 S St, N.W, Washington, 9, D. C. *Mathematical economics.* Portland, Oregon, July 18, 08. A.B, Goucher Col, 28; A.M, Hopkins, 31, Ph.D, 33; A.M, Oregon, 37. Acting assoc. prof. math, Richmond, 33–34; *lecturer statist, American Univ,* 34–39, *42–;* instr. econ, Oregon, 39–42; *economist, Interstate Commerce Cmn, 38–* Mem. faculty, grad. sch, U. S. Dept. Agr, 37–38. Math. Asn; Statist. Asn; Econometric Soc; Econ. Asn. Point set theory; mathematics applied to transportation.

Aitken, Prof. Robert G(rant), 1109 Spruce St, Berkeley, Calif. **Astronomy.* Jackson, Calif, Dec. 31, 64. A.B, Williams Col, 87, A.M, 92, Sc.D, 17; Pacific (Calif), 03; Arizona, 23; LL.D, California, 35. Instr. math, Livermore, 88–91; prof. math. and astron, Pacific (Calif), 91–95; asst. astronomer, *Lick Observatory, California,* 95–07, astronomer, 07–35, assoc. director, 23–30, director, 30–35, *emer. astronomer and emer. director, 35–* Prin. acad, Pacific (Calif), 93–95. Darwin lecturer, Royal Astron. Soc, 32. Lalande gold medal, French Acad, 06; Bruce gold medal, Astron. Soc. Pacific, 26; gold medal, Royal Astron. Soc, 32. Nat. Acad; A.A. (pres, Pacific div, 25, v. pres, D, 26); Astron. Soc. (pres, 37–40); Philos. Soc; Astron. Soc. Pacific (ed, 97–08, 11–, pres, 98, 15); Calif. Acad; assoc. Royal Astron. Soc. Double stars; faint satellites; comets; photometry; rapid binary stars; statistical studies relating to binary stars; orbits of binary stars.

Aitken, Dr. Thomas H(enry) G(ardiner), Department Laboratory, San Juan, P. R. *Medical entomology, Parasitology.* Porterville, Calif, Aug. 31, 12. B.S, California, 35, Ph.D, 40. Teaching and tech. asst. entom. and parasitol, California, 36–40; lieut. and *capt, Sanit. Corps, U. S. Army, and entomologist and parasitologist, Dept. Lab, P. R, 41–* A.A; Soc. Trop. Med; Pacific Coast Entom. Soc; Entom. Soc. Wash. Blood sucking Diptera, particularly mosquitoes; malaria.

Akelaitis, Prof. Andrew J(ohn) E(dward), 260 Crittenden Blvd, Rochester, N. Y. *Neuropsychiatry, Neuropathology.* Baltimore, Md, July 11, 04. A.B, Hopkins, 25, M.D, 29. Intern, Baltimore Church Home and Infirmary, 29–30; instr. *psychiatry, sch. med. and dentistry, Rochester,* 30–36, *asst. prof, 36–;* res, *Strong Mem. Hosp,* 30–31, *asst. psychiatrist, 31–* Am. Med. Asn; Psychiat. Asn. (cmt. research, 41). Correlation of clinical and pathoanatomical findings in neurology and psychiatry; corpus callosum.

Akeley, Dr. Lewis E(llsworth), Vermillion, S. Dak. *Physics.* Clarendon, N. Y, Feb. 22, 61. A.B, Rochester, 86, A.M, 88, LL.D, 12; Sc.D, South Dakota, 27. Prof. nat. and physical science, *South Dakota,* 87–88, physics and chem, 88–04, physics, 04–33, dean *col. eng,* 08–33, *emer. dean, 33–, lecturer philos, 33–* A.A.

Akerlof, Dr. Gosta Carl, Yale University, New Haven, Conn. *Physical chemistry.* Stockholm, Sweden, June 11, 97. Ph.D, Pennsylvania, 26. Instr. *chem, Sterling chem. lab, Yale,* 29–32, *asst. prof, 32–* Chem. Soc. Thermodynamic properties of strong electrolytes in aqueous and non-aqueous solutions; reaction rates in alkaline solutions; dielectric properties of mixtures of solvents.

Akerman, Prof. Alfred, Triplett, Va. *Forestry.* Bartow Co, Ga, July 3, 76. A.B, Georgia, 98; M.F, Yale, 02. Instr, forest sch, Yale, 02–04; state forester, Mass, 04–06; prof. for-

estry, Georgia, 06–14; dist. forester, Va, 21–26; research director, Ga. Forest Service, 26–28; *assoc. prof. forestry, Virginia, 28–, director, Seward Exp. Forest, 35–* Biltmore lecturer, 07–09. Soc. Foresters. Forest thinning; forest policy.

Akerman, Prof. J(ohn) D, University of Minnesota, Minneapolis, Minn. *Aeronautical engineering.* Mitau, Latvia, April 24, 97. B.S, Michigan, 25, 27. Teacher aeronautics, Detroit City Col, 27; aeronaut. engineer, Ford Stoud Airplane Co, 27–28; chief engineer, Hamilton Metaplane Co, 28; Mohawk Aircraft Corp, 28–29; assoc. prof. *aeronaut. eng, Minnesota,* 29–30, *prof, 30–,* acting head dept, 30–31, *head dept, 31–* Teacher, high sch, Mich, 26–28; aeronaut. engineer on construction of Guggenheim aerodyn. lab, Michigan, 27–28; consultant, aircraft corporations, 30–; Minneapolis Honeywell Regulator Co, 42; official investigator, Nat. Defense Research Council, 42. Summer, mem. flight research div, Boeing Aircraft Co, 40. 2nd lieut, Eng.C, Imp. Russian Army, 16; pilote de chasse, French Army, 17. Aeronaut. Asn; Eng. Educ; assoc. fel. Inst. Aeronaut. Sci. (advisory board); assoc. fel. Royal Aeronaut. Soc. London. Airplane structural analysis; polar diagrams for solution of axially loaded beams; use of liquid oxygen for high altitude flying.

Akers, Prof. O(scar) P(erry), Allegheny College, Meadville, Pa. *Mathematics.* Trenton, Mo, June 16, 72. A.B, Colorado, 00, A.M, 02; Ph.D, Cornell, 05. Asst. *math,* Cornell, 04–05; asst. prof, *Allegheny Col,* 05–07, *prof, 07–* Math. Soc; Math. Asn; Circolo Mat. di Palermo. Line geometry.

Akin, Dr. George A(lfred), Eastman Kodak Co, Rochester, N. Y. *Chemical engineering.* Princeton, Ky, Aug. 14, 12. B.S, Kentucky, 34; Sc.D, Mass. Inst. Tech, 38. Director sch. chem. eng. practice, Mass. Inst. Tech, 38–41, asst. prof. chem. eng, 39–41; *chem. engineer, Eastman Kodak Co, 41–* Chem. engineer, Pine Bluff Arsenal, U. S. War Dept. Chem. Soc. Heat transmission; iron and steel metallurgy; temperature measurements.

Alaoglu, Dr. Leon(idas), 17 Sumner Road, Cambridge, Mass. *Mathematics.* Red Deer, Alta, Can, March 19, 14. Alberta, 32–35; Ph.D, Chicago, 38. Instr. *math,* Pa. State Col, 38–39; *Peirce instr, Harvard, 39–* Math. Soc. Analysis.

Albanese, Dr. Anthony A(ugust), Johns Hopkins University School of Medicine, Baltimore, Md. *Biochemistry.* New York, N. Y, Feb. 12, 08. B.S, N. Y. Univ, 30; Am-Hungarian exchange fellow, Budapest, 30–32; Ph.D, Columbia, 40. Asst. path, Columbia, 33–40; research assoc. chem, nat. inst. health, U. S. Pub. Health Service, 40–41; *instr. pediat, sch. med, Hopkins, 41–* Corn Products Foundation fellow, 40–41. Chem. Soc. Biological action of x-rays; chemistry of the thyroid; amino acid chemistry; methods of analysis and deficiency studies in animals and humans.

Albaum, Dr. H(arry) G(regory), Brooklyn College, Brooklyn, N. Y. *Plant physiology.* Odessa, Russia, Feb. 9, 10. A.B, Brooklyn Col, 32, fellow, 32–34; M.S, N. Y. Univ, 34; Ph.D, Columbia, 38. Tutor *biol, Brooklyn Col,* 34–38, *instr, 38–* Nat. research fellow, Wisconsin, 42–43. Mem. corp, Marine Biol. Lab, Woods Hole. Bot. Soc. Physiology of growth in plants; interrelation between growth and metabolism.

Albee, Dr. Fred H(oudlett), 57 W. 57th St, New York, N. Y. *Surgery.* Alna, Maine, April 13, 76. A.B, Bowdoin Col, 99, hon. Sc.D, 17; M.D, Harvard, 03; hon. Sc.D, Vermont, 16, Rutgers, 40; LL.D, Colby Col, 30. Prof. and director orthop. surg, N. Y. Post-Grad. Med. Sch, Columbia, 10–35. Visiting orthop. surgeon, N. Y. Post-Grad. Hosp, 04–33; Reconstruction Hosp, New York, 29–; consulting surgeon, hosps, N. Y, N. J, Conn, Vt, Fla, France; Pa. R.R; Seaboard Airline Ry; New York Police Dept. Commissioner, rehabilitation, N. J, 18–; founder and director, Med. Center, Venice, Fla. Commendator de Isabel la Catolica; grand officer, Crown of Roumania; commander, Order of Merit, Hungary; cavaliere, Order of the Crown, Italy; commander, Order of Carlos P. Finlay, Cuba; chevalier, Légion d'honneur, France. Surgeon-in-chief, Gen. Hosp, No. 3, U.S.A, 18–19, mem. advisory council to surgeon gen. Fel. Col. Surg; Am. Med. Asn; Orthop. Asn. (pres, 29); N. Y. Acad. Med; Pan-Am. Med. Asn. (pres, 29); Pan-Pacific Med. Asn. (chairman, 30–); hon. fel. Royal Med. and Chirurg. Soc; hon. fel. Belgian Orthop. Soc; Brazilian Soc. Orthop. Surg. and Traumatology (hon. pres, 36); Int. Soc. Orthop. Surg. (founder); Int. Med. Club (pres, 30); Int. Col. Surg. (pres, 40–). Bone-graft surgery; orthopedic and reconstruction surgery; bacteriophage.

Alben, Dr. A(rthur) O(tto), 606 Courthouse, Shreveport, La. *Soils.* Vancouver, Wash, June 24, 95. B.S, Oregon State Col, 26; M.S, Iowa State Col, 27, Ph.D, 29. Asst. soil technologist, bur. chem. and soils and *bur. plant indust, U. S. Dept. Agr,* 28–36, *assoc. soil technologist, 36–* Soc. Agron; Soil. Sci. Soc; Chem. Soc; Soc. Hort. Sci. Soil fertility; electrodialysis of soils; pecan fertilizers; pecan rosette.

Alber, Dr. H(erbert) K(arl), 6 Windsor Circle, Springfield, Pa. *Chemistry.* Klagenfurt, Austria, April 4, 04. Ing.Ch, Tech. Hochschule, Graz, Austria, 26, Dr.Tech.Sc, 28. Asst. chem, Tech. Hochschule, Graz, Austria, 26–28, 29–31, inorg. and anal. chem, 28–29; fellow and teaching fellow, Wash. Sq. Col, N. Y. Univ, 34, asst. anal. and org. microanal, 34–36, instr, 36; chief microanalyst, Biochem. Research Foundation, Franklin Inst, 36–40; *research technologist, A. H. Thomas Co, 41–* Lecturer, Bern, Switzerland, 32, 33, Stockholm, 32. A.A; Chem. Soc; Microchem. Soc. General, analytical and applied microchemistry; inorganic and organic microanalysis.

Albers, Prof. C(arl) Clarence, 4715 Ave. C, Austin, Texas. *Pharmacy.* Lincoln, Texas, Jan. 4, 98. Ph.G, Texas, 23, B.S, A.B, 30; fellow, Wisconsin, 35–36, Ph.D, 36. Instr. *pharmacy, Texas,* 23–28, asst. prof, 28–37, *assoc. prof, 37–* A.A; Pharmaceut. Asn; Texas Acad. Plant chemistry; pharmacognosy; taxonomy; history of pharmacy.

Albers, Prof. Vernon M(artin), 502 Livermore St, Yellow Springs, Ohio. *Biophysics.* Northfield, Minn, May 6, 02. A.B, Carleton Col, 23; A.M, Illinois, 25, Ph.D, 28. Asst. *physics,* Illinois, 23–28; head dept, East. Ky. State Teachers Col, 28–29; nat. research fellow, Princeton, 29–30; asst. prof, *Antioch Col,* 30–34, *assoc. prof, 34–* Physical Soc. Photoelectricity; spectroscopy; photosynthesis.

Albert, Dr. A(braham) Adrian, University of Chicago, Chicago, Ill. **Mathematics.* Chicago, Ill, Nov. 9, 05. B.S, Chicago, 26, M.S, 27, Ph.D, 28. Nat. research fellow, Princeton and Chicago, 28–29; instr. *math,* Columbia, 29–31; asst. prof, *Chicago,* 31–37, assoc. prof, 37–41, *prof, 41–* Research worker, Inst. Advanced Study, 33–34. Cole prize, Am. Math. Soc, 39. A.A; Math. Soc. (councilor, 35–38; ed, 'Bul,' 39–43, 'Trans,' 43–); Math. Asn. Linear associative algebras; Riemann matrices; number theory.

Albert, Prof. A(rthur) R(obert), Hancock, Wis. *Soils.* Burnett Junction, Wis, Sept. 24, 91. B.S, Wisconsin, 15; Minnesota, 29–30. Asst. soils, Wisconsin, 15–17; fertilizer salesman, 19–21; from instr. to *assoc. prof. soils, Wisconsin, 21–, in charge soil fertility investigations, north. Wis. branch stations.* U.S.A, 17–19. A.A; Soc. Agron; Soil Sci. Soc. Fertilizers; crops on sand and peat soils; wind erosion control; soil organic matter; potato scab.

Albert, Prof. C(alvin) D(odge), Cornell University, Ithaca, N. Y. *Machine design.* White Haven, Pa, Nov. 17, 76. M.E. Cornell, 02. Designer machinery, Columbia Iron Works, Mich, 02–03; design work, Great Lakes Eng. Works, Detroit, 03–04; instr. exp. eng, *Cornell,* 04–06, *machine design,* 06–08, asst. prof, 08–16, *prof,* 16–17, *in charge dept, Sibley col, 19–* Exec. asst, Middle Atlantic dist, U. S. Shipping Board, Emergency Fleet Corp, Baltimore, 17–19. Mech. Eng; Soc. Metals; Gear Mfrs. Asn. Machine design drawing room problems; kinematics of machinery.

Albert, Dr. Charles E(lwood), 10 Boundary Ave, Elkins, W. Va. *Physics, Civil engineering.* Pen Argyl, Pa, Jan. 10, 83. C.E, Lafayette Col, 08, LL.D, 39; LL.D, Southwestern, 37. Prof. math. and physics, Davis and Elkins Col, 11–13; instr. mech. and materials, Pa. State Col, 13–16; civil engineer, Camden Iron Works, 16–20; prof. physics and civil eng. and dean, Davis and Elkins Col, 22–35, acting pres, 35–36, pres, 36–39. W. Va. Acad. (treas, 31–34, pres, 34). Calculus; applied mechanics; cooperative industrial education.

Albert, Dr. C(harles) G(erald), Edgar Brothers Co, Metuchen, N. J. *Chemistry.* Piper City, Ill, April 3, 12. Mary Carroll Garvan fellow, Hopkins, 31–35, Ph.D, 35. *Research chemist, Edgar Brothers Co, 35–* Chem. Soc; Tech. Asn. Pulp and Paper Indust; Leather Chem. Asn. Loading and coating of paper; refining of kaolin; applications of fillers.

Albert, Prof. J(ohn) Paul, 230 E. Church St, Oxford, Ohio. *Mathematics.* Mishawaka, Ind, April 17, 01. A.B, Miami (Ohio), 24; A.M, Ohio State, 29; Chicago. Instr. *math, Miami (Ohio),* 24–28, asst. prof, 29–42, *assoc. prof, 42–* Tetrahedrons, circumspheres and inspheres; surveying; civil engineering.

Albert, Prof. Odd (Per Leif), Box 66, East Orange, N. J. *Engineering.* Göteborg, Sweden, Sept. 2, 96. B.S, Chalmers Tech. Inst, 19, C.E, 20; M.S, Göteborg, 22. Struct. designer, Stone and Webster, Boston, Mass, 26–27, 29–30; Aberthaw Co, 28; bridge designer, State Highway Cmn, N. J, 31–35; promotional engineer, Brick Mfrs. Asn, 35–37; *asst. prof. struct. eng. and director publicity, Newark Col. Eng, 38–* Lecturer, N. Y. Univ, 32–36; Polytech. Inst. Brooklyn, 32, 35, 36; mem. faculty, Stevens Inst. Tech, 41–42. Eng. Educ; assoc. Civil Eng; Svenska Teknolog Foreningen. Continuous beams; reinforced concrete; new reinforced brick floor; circular tanks without reinforcement using inverted vertical arches and piers; house of health; design charts.

Albert, Prof. O(rrin) W(ilson), 629 Buena Vista St, Redlands, Calif. *Mathematics.* Mt. Pleasant, Pa, March 24, 89. A.B, Otterbein Col, 09; A.M, Columbia, 11; Chicago, 16–17, summers, 21, 22, 25; Ph.D, Washington (Seattle), 31. Instr, high sch, Pa, 09–10; *math,* Pittsburgh, 11–14; Purdue, 14–16; Grinnell Col, 17–19, asst. prof, 19–23; *prof, Redlands, 23–* A.A; Math. Soc; Math. Asn. (chairman, South. Calif. sect, 33, 41). Geometry; relations between the projective and metric differential geometries of surfaces.

Albert, Dr. Walter D(aniel), 435 Franklin St, Slippery Rock, Pa. *Organic chemistry.* Nebr, Oct. 13, 01. A.B, Nebr. State Teachers Col, 28; M.S, Nebraska, 32, Ph.D, 34. Teacher, sch, Nebr, 28–31; assoc. prof. physical science, Peru State Teachers Col, 34–39; *asst. prof.* chem, East. Ill. State Teachers Col, 39–42; *science, Pa. State Teachers Col, Slippery Rock, 42–* Chem. Soc. Solubility of compounds of the mannose series in alcohols; action of barium hydroxide on certain of the monobasic sugar acids.

Albert, Dr. W(illard) B(enjamin), Clemson Agricultural College, Clemson, S. C. *Plant physiology.* Horicon, Wis, Oct. 4, 99. B.S.A, Wisconsin, 23; M.S, 24, Ph.D, 26. Asst. plant physiologist, div. boll weevil control, Pee Dee Exp. Sta, *Clemson Col,* 26–28, *assoc. plant physiologist, Exp. Sta, 28–* A.A; Soc. Agron. Root reserves of alfalfa and grasses; cotton fruiting, mineral deficiencies and toxicity in soils; mineral nutrition of cotton.

Alberts, Dr. Arnold A, Washington and Jefferson College, Washington, Pa. *Chemistry.* Davis, S. Dak, May 28, 06. A.B, South Dakota, 28; M.S, Oklahoma, 30; Ph.D, Ohio State, 34. Instr. chem, Ohio State, 35–36, research asst. metal, eng. exp. sta, 35–37, investigator indust. problems, 36–37; instr. *chem, Washington and Jefferson Col,* 37–39, *asst. prof, 39–* Asst. prof, Otterbein Col, 37. Chem. Soc. Dehalogenation of alpha and beta di-bromo acids of the quinoline and pyridine series; condensations of the barbituric acid type; alkali degradation of legumes; visual aid methods in the teaching of chemistry.

Alberts, Dr. H(ugo) W(illiam), Box 48, R. 3, Watertown, Wis. *Plant physiology, Plant pathology.* Watertown, Wis, March 29, 89. B.S, Wisconsin, 18, M.S, 20, Ph.D, 26; Ph.D, Illinois, 26; Harvard, 26. Instr, Wisconsin, 18–24; asst. sec'y, Agr. Exp. Asn, Wis, 18–19; agent, div. cereal investigations, U. S. Dept. Agr, 19–21, director, Alaska Exp. Stations, 26–32; consulting specialist north. agr, Lenin Acad. Agr. Science, Leningrad, Russia, 33; asst. crop and live-stock estimator, div. crop and live-stock estimates, U. S. Dept. Agr, 34, agr. economist, land policy sect, div. program planning, agr. adjust. admin, 34–35, regional director soil conservation service, Ky, 35–36, assoc. agronomist, Ill, 36–37, agronomist, P. R, 37–42; consultant agronomist, U. S. Engineer Div, 42; *agr. adviser, Am. Embassy, Lima, Peru, 43–* A.A; Soc. Agron; Agr. Hist. Soc. Genetics; agricultural botany; linkage value in genetics; moisture content of corn in relation to humidity and temperature of the atmosphere; grasses of tropical America.

Albertson, Prof. F(red) W(illiam), Ft. Hays Kansas State College, Hays, Kans. *Botany.* Hill City, Kans, Jan. 1, 92. B.S, Ft. Hays Kans. State Col, 18; A.M, Missouri, 30; Ph.D, Nebraska, 37. Asst. prof. agr, *Ft. Hays Kans. State Col,* 18–20, assoc. prof, 20–35, *bot,* 35–37, *prof, 37–, chairman grad. div, 39–* A.A; Ecol. Soc; Kans. Acad. (treas, 41). Plant ecology; root relations; range ecology and management.

Albertson, Dr. Noel F(rederick), 35 E. Lane Ave, Columbus, Ohio. *Industrial chemistry.* New Haven, Conn, Oct. 29, 15. B.S, Polytech. Inst. Brooklyn, 36, M.S, 38; Ph.D, Ohio State, 41. Teaching fellow, Polytech. Inst. Brooklyn, 36–38; junior chemist, Merck and Co, 38–39; asst, *Ohio State,* 39–41, *research assoc, Univ. Research Foundation, 41–* Chem. Soc. Molecular addition compounds of sulphur dioxide; production of sulphur from natural gas.

Albertson, Dr. Walter E(dward), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Healdsburg, Calif, Oct. 5, 07. A.B, Stanford, 30; M.S, Mass. Inst. Tech, 33, Ph.D, 35. Asst. *physics,* Mass. Inst. Tech, 30–35; nat. research fellow, Mt. Wilson Observatory, Carnegie Institution, 35–36; instr, *Mass. Inst. Tech,* 36–37, research assoc, 37–38, *asst. prof, 38–; physicist, bur. ordnance, U. S. Navy, 41–* Physical Soc; Optical Soc. Spectroscopy; atomic structure.

Albrecht, Dr. Andrew C(hristoph), Louisiana State University, Baton Rouge, La. *Ethnology.* Frauensee, Germany, May 12, 00. A.B, California, 31; Absolutorium, Vienna, 34, Ph.D, 35. Researcher and translator, Hist. Records Surv, 36–38; ethnologist, Louisiana State University–Work Projects Admin. archeol. surv, La, 39; *instr. anthrop, Louisiana, 40–* Geol. and Min. Soc. Am. Univs; Southeast. Archeol. Conf. Indians of the Gulf States.

Albrecht, C(larence) J(ohn), Field Museum of Natural History, Chicago, Ill. *Zoology.* Waverly, Iowa, Sept. 28, 91. A.B, Iowa, 13. Curator zool, state museum, Washington (Seattle), 13; *dept. preparation, Field Museum Nat. Hist.* Hawaiian Bird Reservation exped, Laysan Island, 11; Carnegie Alaska-Siberia exped, 13; collector for Wash. game exhibit, Panama-Pacific Expos, 15; director, Field Museum exped, Olympic Mountains, 15, northwest coast, 26; Calif. Acad. exped; director, Iowa exped, northwest coast, 19; Am. Museum exped, 24; White-Coats Field Museum exped, Africa, 28–29; leader, Field Museum exped, Pribilof Islands, 37; Field Museum whaling exped, 41. Asn. Mus. Birds and mammals; mountain beavers.

Albrecht, Dr. H(erbert) R(ichard), Alabama Polytechnic Institute, Auburn, Ala. *Plant breeding, Genetics.* Kenosha, Wis, Nov. 14, 09. B.S, Wisconsin, 32, M.S, 33, Ph.D, 38. Asst. genetics, Wisconsin, 31–36; asst. agronomist, *Exp. Sta, Ala. Polytech,* 36–42, *assoc. agronomist, 42–* Soc. Agron; Genetic Asn. Improvement and seed production of forage and pasture legumes.

Albrecht, Dr. Sebastian, Dudley Observatory, Albany, N. Y. *Astrophysics.* Milwaukee, Wis, Aug. 22, 76. B.S, Wisconsin, 00; Lick Observatory fellow, California, 03–06, Ph.D, 06. Teacher, high sch, Wis, 00–02; asst, Lick Observatory, California, 06–08, asst. astronomer, 08–10; first astronomer, Cordoba Observatory, 10–12; acting junior prof. astron, Michigan, 12–13; astronomer, *Dudley Observatory, Union (N. Y),* 13–32, *Carnegie Institution research assoc, 32–* Crocker eclipse exped, Flint Island, 08; Mt. Whitney, 09. A.A; Astron. Soc; Soc. Astron. de Mex. Comets; satellites; Mars; variable stars; stellar spectral types and the intensities of lines in the spectra; distortions of photographic films; personal scale; anomalous dispersion in the sun; fundamental radial velocities; stellar wave-lengths.

Albrecht, Prof. W(illia)m A(lbert), University of Missouri, Columbia, Mo. *Soils.* Flanagan, Ill, Sept. 12, 88. A.B, Illinois, 11, B.S, 14, M.S, 15, Ph.D, 19. Instr. *soils, Missouri,* 16–19, asst. prof, 19–20, assoc. prof, 20–30, *prof, 30–,* chairman dept, 38. Soc. Agron; Soc. Bact; Soil Sci. Soc. (sec'y, 37, pres, 39); Bot. Soc; Int. Soc. Soil Sci. Soil bacteriology and fertility; nitrogen fixation; inoculation of legumes.

Albright, Dr. Alan R, 5839 Guilford Ave, Indianapolis, Ind. *Chemistry.* Boston, Mass, 85. Fellow, A.B, Ohio State, 09; Ph.D, Göttingen, 12. Bur. chem, U. S. Dept. Agr, 10–17; Dayton Metal Products Co, 17–18; E. I. du Pont de Nemours and Co, 18–23; S. Gumpert Co, 23–26; Koppers Research Corp, 26–32; coal research lab, Carnegie Inst. Tech, 32–36; *chief chemist, shoe polish div, Best Foods, Inc, 36–* Chem. Soc; Leather Chem. Asn. Essential oils; foods; motor fuels; dyes; pharmaceuticals; coal; leather finishes.

Albright, Prof. C(harles) L(eonard), University of Richmond, Richmond, Va. *Physics.* Cedar Rapids, Iowa, March 21, 01. B.S, Coe Col, 26; M.S, Iowa, 27, Ph.D, 29. Asst, Iowa, 27–29; *assoc. prof. physics, Richmond, 29–* A.A; Physical Soc; Va. Acad; Iowa Acad. Spectroscopy; hyperfine structure of spectral lines; thermoelectric properties of single crystal bismuth alloys.

Albright, Dr. Fuller, Massachusetts General Hospital, Boston, Mass. *Internal medicine.* Buffalo, N. Y, Jan, 00. A.B, Har-

vard, 21, M.D, 24. House officer; Mass. Gen. Hosp, 24–26; asst. med. res, Hopkins Hosp, 27–28; Moseley traveling fellow, *Harvard*, 28–29, instr. and assoc. *med, Harvard Med. Sch*, 31–39, asst. prof, 39–42, *assoc. prof, 42–* Asst. physician, Mass. Gen. Hosp, 29–37, assoc. physician, 37–, physician, 39; consulting physician, Mass. Eye and Ear Infirmary, 31–; Henry Pickering Walcott fellow, Harvard, 31–34. Soc. Clin. Invest; Asn. Physicians; Asn. Study Int. Secretions; Am. Acad. Parathyroid disease; endocrinology.

Albright, Prof. Guy H(arry), 1120 N. Tejon St, Colorado Springs, Colo. *Mathematics.* Lamar, Mo, Dec. 17, 76. Ph.B, Michigan, 99; A.B, Harvard, 00, A.M, 13; Polytech. Inst. Brooklyn; Sc.D, Colo. Col, 32. *Prof. math, Colo. Col, 07–* Exchange lecturer, Harvard, 13. Correspondent, W. Cent. Mil. Dist, War Personnel Staff, Y.M.C.A, 18–19. Math. Asn. Methods of distributing grades.

Albright, Prof. John G(rover), 1906 E. 105th St, Cleveland, Ohio. *Physics.* Ashville, Ohio, Oct. 3, 87. A.B, Ohio (Athens), 16; M.S, Ohio State, 24; Ph.D, Chicago, 33. Austin teaching fellow, Harvard, 24–25; assoc. prof. *physics,* Sweet Briar Col, 25–27; asst. prof, *Case,* 27–40, *assoc. prof, 40–* Lecturer, Western Reserve, 28–33. A.A; Physical Soc; Optical Soc; Meteorol. Soc. X-rays; crystal structure; meteorology; electric circuit controls; electric-driven pendulum; spider silk for use as cross hairs.

Albright, Prof. Penrose S(trong), 902 E. Ninth St, Winfield, Kans. *Physical chemistry.* Winfield, Kans, Dec. 14, 96. B.S, Rensselaer Polytech, 22; M.S, Wisconsin, 29, Ph.D, 36. Asst. prof. and assoc. prof. physics and chem, *Southwestern Col,* 25–35, *prof.* physics, 35–39, *physical chem, 39–, chairman nat. science div, 35–,* coordinator aeronautics and ground instr, 39–42, *coordinator, Civilian Aeronaut. Admin-War Training Service, 42–* A.A; Chem. Soc; Inst. Chem; Physical Soc; Eng. Educ; Kans. Acad. Dielectric constants of solutions of non-electrolytes; the salting-out effect; electroplating addition agents.

Albritton, Dr. Claude C(arrol), Jr, 3436 University Blvd, Dallas, Texas. *Geology.* Corsicana, Texas, April 7, 13. A.B, B.S, South. Methodist, 33; A.M, Harvard, 34, univ. fellow, 34–35, J. B. Woodworth fellow, 35–36, Ph.D, 36. Lecturer anthropogeog, *South. Methodist,* 33, instr. geol, 36–38, asst. prof, 38–42, *assoc. prof, 42–; asst. geologist, U. S. Geol. Surv, 42–* A.A; Paleont. Soc; Asn. Petrol. Geol; Soc. Research Meteorites; Soc. Econ. Paleont. and Miner; Geol. Soc; Texas Acad; New York Acad; Cuban Soc. Nat. Hist. Geology of western and central Texas; meteorite craters; deposits of strategic minerals.

Albritton, Dr. Errett C(yril), 1335 H St, Washington, D. C. *Physiology.* Mayfield, Ky, Dec. 14, 90. A.B, Missouri, 16; M.D, Hopkins, 21. Nat. research fellow physiol, Ohio State, 22–24; asst, sch. med, Buffalo, 24–26; *prof.* physiol. and biochem, Govt. Med. Sch, Bangkok, Siam, 26–32; *physiol, med. sch, George Washington, 32–* Instr, Tulane, 17–18; sch. med, Missouri, 18–19. Summers, field work, U. S. Pub. Health Service, 19; int. health board, Rockefeller Foundation, 20–22. A.A; Physiol. Soc; Asn. Study Int. Secretions; Wash. Acad; Wash. Acad. Med. (sec'y, 36–42). Carbohydrate, pituitary and water metabolism; statistical methods in physiology; self-selected diet.

Albro, Dr. Helen T(ucker), Spelman College, Atlanta, Ga. *Zoology.* South Kingston, R. I, March 10, 98. A.B, Brown, 19, A.M, 23, Morgan Edwards fellow, 26–27, Ph.D, 27. Asst. biol, Simmons Col. (Mass), 19–22; instr. zool, Mt. Holyoke Col, 23–25; biol, Brown, 25–26; asst. prof. zool. and physiol, Hood Col, 28–31; *head dept. biol, Spelman Col, 31–* A.A; Nat. Audubon Soc; R. I. Audubon Soc. Cytology.

Alburger, Dr. H(enry) R(ihl), 232 Buckingham Drive, Indianapolis, Ind. *Pathology.* Germantown, Pa, April 16, 74. M.D, Pennsylvania, 02. Demonstrator path, Pennsylvania, 05–07; junior prof, Indiana, 08, prof, 08–14; pathologist, *Methodist Hosp,* 13–19, *consulting pathologist, consultant internal med. and medico-legal expert, 19–* Pathologist, Indianapolis City Hosp, 11–16, 22–26; St. Francis Hosp, Indianapolis, Ind, 14–; St. John's Hosp, Anderson, 30– Soc. Clin. Path; Am. Med. Asn. Focal infections; vaccine therapy; diseases of the blood; serology.

Alcock, Dr. Frederick James, Geological Survey, Ottawa, Ont, Can. *Geology.* Griersville, Ont, Nov. 16, 88. B.A, Toronto, 12; Ph.D, Yale, 15; Wisconsin, 15–16. *Geol. Surv. Can, 11–* Lecturer, Queen's (Can), 20–21. Fel. Geol. Soc; fel. Royal Soc. Can; Can. Min. Inst. The Precambrian of northern Canada; geology of the Gaspé Peninsula and of New Brunswick; zinc and lead deposits of Canada.

Alcorn, Prof. Gordon D(ee), Grays Harbor Junior College, Aberdeen, Wash. *Botany, Ornithology.* Olympia, Wash, April 6, 07. B.S, Col. of Puget Sound, 30; M.S, Washington (Seattle), 33, Ph.D, 35. Asst. prof. biol, Col. of Puget Sound, 32–33; asst. bot, Washington (Seattle), 34–35; asst. prof, Idaho, 35–37; *v. pres. and head dept. biol, Grays Harbor Junior Col, 37–* Summers, prof, Col. Puget Sound, 30– Sec'y, Wash. State Junior Col. Asn. Limnol. Soc; Cooper Ornith. Soc. (chairman, membership cmt, 32–34, assoc. ed, 'The Murrelet,' 32–36, 41–); Pacific Northwest Bird and Mammal Soc; Calif. Bot. Soc. Algae.

Alden, Dr. A(rthur) M(axwell), 520 Frisco Bldg, St. Louis, Mo. *Otolaryngology.* Kans, June 15, 85. A.B, Oklahoma, 07, A.M, 09; M.D, St. Louis, 15. Asst. prof. and *assoc. prof. otolaryngol, sch. med, Washington (St. Louis), 28–* Asst. otolaryngologist, Barnes and St. Louis Children's Hosps; otolaryngologist, St. Louis Jewish Hosp; visiting otolaryngologist, St. Louis City Hosp. Acad. Ophthal. and Otolaryngol; Laryngol, Rhinol. and Otol. Soc; Otol. Soc; Col. Surg; Am. Med. Asn. Diagnosis and treatment of conditions affecting the nose, throat and ear.

Alden, Prof. Harold L(ee), Yale University Observatory, Southern Station, University of Witwatersrand, Johannesburg, S. Africa. **[6]Astronomy.* Chicago, Ill, Jan. 10, 90. A.B, Wheaton Col. (Ill), 12; M.S, Chicago, 13; fellow, Virginia, 14–17, Ph.D, 17. Asst. photog. photom, Yerkes Observatory, Chicago, 12–14; instr. *astron,* Virginia, 14–17, asst. prof, 18–24, assoc. prof, 24–25; *asst. prof, Yale, and astronomer in charge south. sta, Yale Univ. Observatory, Witwatersrand, 25–* Asst, McCormick Observatory, Virginia, 14–25. Instr. navig, U. S. Shipping Board, 18–19. A.A; Astron. Soc; Optical Soc; fel. Royal Astron. Soc; Soc. astron. de France; S. African A.A.S. (v. pres, A, 30, pres, 31); Astron. Soc. S. Africa (pres, 32). Stellar parallaxes and proper motions; visual and photographic photometry; variable stars; mass ratios; orbits of double stars.

Alden, Dr. H(oward) H(olston), New Mexico Military Institute, Roswell, N. Mex. *Mathematics.* Massillon, Ohio, June 5, 08. B.S, Carnegie Inst. Tech, 30; A.M, Ohio State, 31, fellow, 32–33, Ph.D, 33. Asst, Carnegie Inst. Tech, 28–30; Ohio State, 30–32; *head dept. math, N. Mex. Mil. Inst, 34–* Math. Soc. Differential equations; analysis.

Alden, Dr. Marjorie L(effler), New Mexico Military Institute, Roswell, N. Mex. *Mathematics.* Kyle, Ohio, Aug. 29, 09. A.B, Miami (Ohio), 30; A.M, Ohio State, 32, Ph.D, 34. Tutor *math,* Mills Col, 34–35; *instr, N. Mex. Mil. Inst, 36–* Analysis.

Alden, Dr. Roland H(errick), University of Tennessee College of Medicine, Memphis, Tenn. *Zoology, Anatomy.* Ill, Feb. 4, 14. A.B, Stanford, 36; Mary Miller fellow, Yale, 40–41, Ph.D, 41. *Instr.* zool, Yale, 41–42; *anat, col. med, Tennessee, 42–* Mammalian reproduction.

Alden, Dr. W(illiam) C(linton), U. S. Geological Survey, Washington, D. C. **[3]Geology.* Mitchell, Iowa, Sept. 27, 71. A.B, Cornell Col. (Iowa), 93; fellow, Chicago, 97–98, A.M, 98, Ph.D, 03. Asst. prin, high sch, S. Dak, 93–94, prin, schs, 94–95; special field asst, *U. S. Geol. Surv,* 96–01, asst. geologist, 01–10, *geologist,* 10–12, *in charge sect. glacial geol,* 12– Non-res. docent, Chicago, 03–11. Geol. Soc; Geol. Soc. Wash. Glacial geology of Wisconsin, Pennsylvania, Iowa, Montana, Wyoming, Idaho, Washington and New England; geomorphology of the United States.

Alderman, Dr. Van V, Hart Leather Finish Co, Chicago, Ill. *Organic chemistry.* Cohassett, Minn, Jan. 24, 09. B.S, Chicago, 30, Ph.D, 39; Michigan, 32–33. Chemist, Gunther Candy Co, Chicago, Ill, 30–32; E. I. du Pont de Nemours and Co, 37–40; instr, Norfolk div, Col. of William and Mary, 40–42; *chemist, Hart Leather Finish Co, 42–* Chem. Soc. Molecular rearrangement of alkamines; synthesis of new vinyl compounds.

Alderman, Prof. W(illiam) H(orace), 1380 Raymond Ave, St. Paul, Minn. *Horticulture.* Holley, N. Y, April 6, 85. B.S, Cornell, 08. Field agent, dept. pomol, Cornell, 08; asst. and assoc. horticulturist, N. Y. Exp. Sta, Geneva, 08–11; prof. hort, West Virginia, 11–19; acting dean col. agr. and director, Exp. Sta, 18–19; *prof. hort. and chief div, Minnesota, 19–* Mediterranean fruit fly cmn, U. S. Dept. Agr, 29

A.A; Soc. Hort. Sci. (pres, 20, pres, Great Plains sect, 23, sec'y, 34); Pomol. Soc. (exec. cmt); Minn. Hort. Soc. (pres, 24, 25). Breeding and production of hardy fruits; propagation of fruit plants; orchard culture.

Alderson, Dr. Victor C(lifton), La Jolla, Calif. *Mathematics, Technical education.* Plymouth, Mass, June 4, 62. A.B, Harvard, 85; hon. Sc.D, Beloit Col. and Armour Inst. Tech, 03; D.E, Colo. Sch. Mines, 38. Sch. supt, Ind, 85–87; instr, high sch, Ill, 87–93; prof. math, Armour Inst. Tech, 93–99, dean tech. col, 99–03; pres, Colo. Sch. Mines, 03–13, 17–24; *consulting engineer,* 13–17, *24–* Advisory cmt, Carnegie Tech. Schs, Pittsburgh, 01. Eng. Educ; Min. and Metal. Eng; Min. Cong; Inst. Petrol. Technol. London. Mining; metallurgy; oil shale.

Aldous, Clarence Moroni, Intermountain Forest and Range Experiment Station, Ogden, Utah. *Biology.* Huntsville, Utah, Nov. 2, 89. B.S, Utah Col, 17; M.S, Minnesota, 23. County agr. agent, Piute County, Utah, 19–21; instr, high sch, Idaho, 24–25; Utah, 25–29; asst. state leader, N. Mex, 29–31; junior biologist and asst. biologist, div. wildlife research, bur. biol. surv, U. S. Dept. Agr, 31–35, assoc. biologist, 35–36; project leader wildlife cooperative research sta, Univ. Maine, 36–40; *research biologist forest and range wildlife, fish and wildlife service, U. S. Dept. Interior, 40–* U.S.A, 17–19. Soc. Mammal. Forest wildlife; economic relation of snowshoe rabbits to forest production; big game range problems; economic relationship of rodents to high summer ranges.

Aldous, Shaler E(ugene), Lake States Forest Experiment Station, St. Paul, Minn. *Biology.* Huntsville, Utah, April 19, 00. A.B, Utah, 24; A.M, California, 27. Instr. zool, Utah, 24–26; dist. investigator control methods research, bur. biol. surv, U. S. Dept. Agr, 28–31, econ. ornith. and mammal, 31–36; *forest wildlife research,* U. S. Forest Service, 36–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Summer, range naturalist, Yosemite Nat. Park, 27. Soc. Mammal; Wildlife Soc. Food habits of birds and mammals; forest bioecology.

Aldred, Dr. J(acob) W(illiam) H(uber), 112 Village No 1, Sheffield, Ala. *Chemistry.* Perkinsville, Ind, April 23, 95 A.B, Indiana, 17, A.M, 20, Ph.D, 29. Analyst, Eli Lilly and Co, Indianapolis, 17–18; foreman nitrogen lab, Air Nitrates Corp, Muscle Shoals, 18–19; chemist, Roessler and Hasslacher Chem. Co, W. Va, 20–23; asst. prof. chem, Antioch Col, 29–33, research chemist, indust. research inst, 30–33; *prin. chemist, dept. chem. eng, Tenn. Valley Authority, 33–* A.A; Chem. Soc; Ind. Acad. Action of heat on perchlorates; pyridine homologs; constituents of desert plants; production of phosphorus and phosphate fertilizers; fixation of nitrogen; production of nitric acid and ammonium nitrate.

Aldrich, Dr. C(harles) Anderson, Children's Memorial Hospital, 707 W. Fullerton Ave, Chicago, Ill. *Pediatrics.* Plymouth, Mass, March 4, 88. B.S, Northwestern, 14, M.D, 15; Harvard, 21. *Practicing physician, 15–;* intern, N. Y. Nursery and Child's Hosp, 15; Evanston Hosp, *Ill,* 15–16, attending roentgenologist and junior attending physician med, 16–21, attending pediatrist, newly born service, 30–36, assoc. physician and chairman dept. pediat, 36–40; asst. attending physician, *Children's Mem. Hosp,* 21–22, assoc. attending physician, 22–40, *chief of staff, 41–;* assoc. *pediat, med. sch, Northwestern,* 34–35, asst. prof, 35–36, assoc. prof, 37–41, *prof, 41–* Consulting pediatrist, Munic. Tuber. Sanitarium, 25–27; consulting physician, Chicago Nursery and Half-Orphan Asylum, 41– Sec'y and director, Am. Board Pediat, Inc, 34–; mem, White House Conf. Children in a Democracy, 40; mem. cmt, Elizabeth McCormick Child Research Grant, 41–; hon. mem, Nat. Cmt. Mental Hygiene; mem. board, N. Shore Country Day Sch, Ill. Sec'y Am. cmt, Int. Pediat. Cong, London, 33. Am. Med. Asn. (advisory board med. specialties); Acad. Pediat. (past mem. exec. cmt); Pediat. Soc. (ed, 'Trans,' 31–35; councilor, 35–); Soc. Research Child Develop; Asn. Nursery Educ; Northwest Pediat. Soc; Ill. State Med. Soc; Ill. Children's Home Aid Soc. (trustee, 41–); Chicago Pediat. Soc. (pres, 37); Chicago Med. Soc. (pres, Evanston branch, 37); Chicago Soc. Int. Med; Chicago Soc. Personality Study; Inst. Med. Chicago (governor, 38–); Omaha Mid-West Clin. Soc.

Aldrich, Dr. H(enry) R(ay), Geological Society of America, 419 W. 117th St, New York, N. Y. *Geology.* Boston, Mass, June 8, 91. B.S, Mass. Inst. Tech, 14; M.S, Minnesota, 17; Ph.D, Wisconsin, 31. Instr. mining and metal, Northwestern, 14–16; asst, Minnesota, 16–17; chief field parties, Wis. Geol. Surv, 19–25, asst. state geologist, 25–34; asst. sec'y, *Geol. Soc. Amer,* 34–41, *sec'y, 41–* Instr, Mass. Inst. Tech, 20. Summers, geologist, Wis. Geol. Surv, 16, 17. Statistician, W.I.B, lieut, 18–19. Geol. Soc; Soc. Econ. Geol; Geophys. Union; Min. and Metal. Eng; Miner. Soc; N. Y. Acad. Precambrian of Wisconsin; magnetic survey; structural geology.

Aldrich, Prof. John A, Potomac State School, Keyser, W. Va. *Physics, Astronomy.* Clifford, Ont, Can, March 3, 78. A.B, Albion Col, 14; M.S, Michigan, 15, Ph.D, 23. Prof. physics and astron, Olivet Col. (Mich), 16–18; Washburn Col, 18–25; Oglethorpe, 25–42, dean sch. science, 37–42; *prof. math, Potomac State Sch, 42–* A.A; Astron. Soc. Astrophysics; Cepheid variables.

Aldrich, Dr. John W(arren), Fish and Wildlife Service, U. S. Department of the Interior, Washington, D. C. *Ornithology.* Providence, R. I, Feb. 23, 06. Ph.B, Brown, 28; A.M, Western Reserve, 33, Ph.D, 37. Gen. curatorial asst, Buffalo Museum Science, N. Y, 28–29; biol. asst, Cleveland Museum Nat. Hist, Ohio, 30–37, curator ornith, 38–40; *biologist, fish and wildlife service, U. S. Dept. Interior, 41–* Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Biol. Soc. Wash. (councilor, 41). Taxonomy, geographic distribution and ecology of birds.

Aldrich, L(oyal) B(laine), Smithsonian Institution, Washington, D. C. *Astrophysics.* Milwaukee, Wis, Nov. 20, 84. A.B, Wisconsin, 07, A.M, 09. Asst, *astrophys. observatory, Smithsonian Institution,* 09–30, *asst. director, 30–* Director, Smithsonian Institution Sta, Montezuma, Chile, 23–25. Smithsonian Institution expeds. to Mt. Wilson; director eclipse exped. to Kansas, 18. A.A; Optical Soc; Philos. Soc. Wash. Solar radiation; cloud reflection; instruments for solar constant work.

Aldrich, Prof. Samuel R(oy), Cornell University, Ithaca, N. Y. *Agronomy.* Fairgrove, Mich, June 12, 17. B.S, Mich. State Col, 38; Ph.D, Ohio State, 42. Asst. *agron,* Ohio State, 38–42, instr, 42; *asst. prof, exten, Cornell, 42–* Asst, Ohio Agr. Exp. Sta, 42; agent, U. S. Dept. Agr, 42. Soc. Agron. Maturity measurements in corn; grassland improvement.

Aldrich, Dr. W(illard) W(alker), Box 1081, Medford, Oregon. *Horticulture.* Port Deposit, Md, Nov. 9, 01. B.S, Hopkins, 23; fellow, Maryland, 25–26, M.S, 26, Ph.D, 30. Orchard manager, Am. Fruit Growers, Inc, 26–29; *asst. horticulturist, bur. plant indust, U. S. Dept. Agr, 29–* A.A; Soc. Hort. Sci. Apple and pear production; effects of irrigation, pruning and nitrogen upon set and growth of fruit.

Alexander, Dr. A(lexandre) E(mil), 136 W. 52nd St, New York, N. Y. *Mineralogy, Ceramics.* Leipzig, Germany, Feb. 8, 05. B.S, Cornell, 29, Ph.D, 33; univ. scholar, Harvard, 31–32. Mineralogist and petrographer, North Carolina, 30–31; petrographer, Spencer Lens Co, 34–35; ceramic petrographer, Elec. Auto-Lite Co, 36–38; indust. fellow, Mellon Inst, 38–40; *director, Bur. Natural Pearl Information, 40–; ceramic engineer, B. G. Corp, New York, 40–* Asst, Oceanog. Inst, Woods Hole, 32. Miner. Soc; N. Y. Acad. Petrography of ocean sediments; ceramic materials; industrial microscopy.

Alexander, Dr. C(harles) I(van), Magnolia Petroleum Co, Tyler, Texas. *Paleontology.* Manor, Texas, Aug. 28, 02. B.S, Texas Christian, 24, fellow, 24–26, M.S, 26; fellow, Princeton, 27–28, Ph.D, 28. Asst. geologist, Trinity River Water Surv, 25–26; asst. prof. geol, Texas Christian, 28–33; *paleontologist, Magnolia Petrol. Co, 33–* A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Geol. Soc. Micropaleontology and stratigraphy of the Texas Cretaceous; fossil Ostracoda and Foraminifera.

Alexander, Prof. Charles K(irkwood), Occidental College, Los Angeles, Calif. *Mathematics.* Chicago, Ill, Feb. 2, 11. A.B, Oberlin Col, 32; Yale, 32–33; Ph.D, Calif. Inst. Tech, 37. Instr. *math, Occidental Col,* 36–38, *asst. prof. and acting chairman dept, 38–,* coordinator of civilian pilot training, 40–41. A.A; Math. Asn. Vector analysis.

Alexander, Prof. Charles P(aul), Massachusetts State College, Amherst, Mass. *Entomology.* Gloversville, N. Y, Sept. 25, 89. B.S, Cornell, 13, Ph.D, 18. Asst. biol, Cornell, 11–14, instr. nat. hist, 15–17; curator Snow collection, Kansas, 17–19; syst. entomologist, Nat. Hist. Surv, Ill, 19–22; asst. prof. *entom,* Mass. Col, 22–30, *prof,* 30–31, *Mass. State Col, 31–, head dept. entom. and zool, 38–* Summer, special syst. entomologist, Exp. Sta, Maine, 13. A.A; Entom. Soc. (pres,

42). Biology, phylogeny and taxonomy of crane-flies; the crane-flies of Baltic amber.

Alexander, Clair C, Box 1291, Yakima, Wash. *Entomology.* Dayton, Ohio, Dec. 3, 12. B.S, Purdue, 38; M.S, Ohio State, 40. Field scout, U. S. Dept. Agr, Ohio, 31; pest mosquito control supervisor, C.W.A, 33–34; chinch bug control agent, *U. S. Dept. Agr,* Ind, 35, *junior entomologist, codling moth lab, bur. entom. and plant quarantine, 40–* Summers, field aid, codling moth lab, U. S. Dept. Agr, 38, 39. Asn. Econ. Entom. Codling moth biology and control.

Alexander, Prof. (Edward) Gordon, University of Colorado, Boulder, Colo. *Biology.* Rich Hill, Mo, Aug. 18, 01. A.B, Cent. Col. (Mo), 23; A.M, Princeton, 25, Ph.D, 31. Asst. prof. *biol,* Cent. Col. (Mo), 26–28; visiting prof, Chulalongkorn Univ, Siam, 28–30; assoc. prof, *Colorado,* 31–39, *prof. and head dept, 39–* Summer, asst. prof, Colorado, 27. A.A; Soc. Zool; Entom. Soc. Amer; Ecol. Soc; Soc. Ichthyol. and Herp. General ecology; ecology of Protozoa, Orthoptera, birds; fauna and flora of Siam; vertical distribution of life in mountains.

Alexander, E(dward) J(ohnston), New York Botanical Garden, Bronx Park, N. Y. *Botany.* Asheville, N. C, July 31, 01. B.S, North Carolina, 38. *Asst. curator, N. Y. Bot. Garden, 26–* South. Appalachian exped, N. Y. Bot. Garden; Rocky Mountain exped. Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; South. Appalachian Bot. Club. Taxonomy of flowering plants; phytogeography.

Alexander, Dr. Franz, Institute for Psychoanalysis, 43 E. Ohio St, Chicago, Ill. *Psychoanalysis.* Budapest, Hungary, Jan. 22, 91. B.A, M.D, Budapest, 12. Asst, hygiene inst, Budapest, 13, psychiat. clinic, 18–19; asst. and lecturer, Psychoanalytic Inst, Berlin, 20–29; visiting prof. psychoanalysis, Chicago, 30–31; research project criminal psychol, Judge Baker Foundation, Boston, 31–32; *director, Chicago Inst. Psychoanalysis, 32–; assoc. prof. psychiat, Illinois, 39–* Attending physician, Cook County Psychopath. Hosp, Chicago, Ill, 39– Sigmund Freud prize, 21. Head bacter, field lab, 18. A.A; fel. Orthopsychiat. Asn; Psychiat. Asn; Cent. Neuropsychiat. Asn; assoc. Nat. Cmt. Mental Hygiene; fel. Chicago Acad. Criminol; fel. Inst. Med. Chicago; Soc. Med. Hist. Chicago. Theory and technique of psychoanalysis; psychosomatic interrelations; psychology of criminals; social psychology.

Alexander, Prof. Harry L(ouis), Washington University School of Medicine, St. Louis, Mo. *Internal medicine.* New York, N. Y, Feb. 16, 87. A.B, Williams Col, 10; M.D, Columbia, 14. Instr. med, med. col, Cornell, 19–24; assoc. prof, *sch. med, Washington (St. Louis),* 24–41, *prof. clin. med, 41–* Ed, 'Jour. Allergy.' Fel. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Soc. Study Asthma (pres, 29); Am. Physicians; Soc. Study Allergy (pres, 38). Immunology; bacteriology; anaphylaxis.

Alexander, Prof. H(ugh) S(tuart), Macalester College, St. Paul, Minn. *Geology.* Sheldon, Iowa, Dec. 31, 75. A.B, Macalester Col, 99; A.M, Minnesota, 05, Ph.D, 32. *Prof. geol, Macalester Col, 06–* A.A; Minn. Acad. Erosion; temperature changes on mantle-rock; impact effect of precipitation.

Alexander, Dr. J(ames) C(harles), Virginia-Carolina Chemical Corp, Richmond, Va. *Chemical thermodynamics.* Scotland Neck, N. C, Oct. 27, 11. B.S, Wake Forest Col, 32; Ph.D, Virginia, 37. Teaching fellow, Virginia, 32–36; asst. prof. chem, Furman, 37–38; instr, Mary Washington Col, 38–40, asst. prof, 40–41; *asst. to tech. director chem. div, Virginia-Carolina Chem. Corp, 41–* Chem. Soc. Calorimetric determination of the difference in the heats of formation of the red and yellow lead monoxides.

Alexander, Dr. J(ames) W(addell), 29 Cleveland Lane, Princeton, N. J. *[4]*Mathematics.* Seabright, N. J, Sept. 19, 88. B.S, Princeton, 10, A.M, 11, Ph.D, 15; Paris; Bologna. Instr. *math,* Princeton, 11–12, 15–16, asst. prof, 20–26, assoc. prof, 26–28, *prof,* 28–33; *Inst. Advanced Study, 33–* Rouse Ball lecturer, Cambridge, 36. Bôcher prize, Am. Math. Soc, 29. Capt, Ordnance Dept, 17–18. Nat. Acad; A.A; Math. Soc; Math. Asn. (v. pres, 34); Philos. Soc. Analysis situs.

Alexander, Jerome, 50 E. 41st St, New York, N. Y. *[3]*Chemistry.* New York, N. Y, Dec. 21, 76. B.S, Col. City of N. Y, 96, M.S, 99. Treas. and chief chemist, companies, 96–21; *consulting chemist and engineer, 21–* Chairman colloid cmt, Nat. Research Council, 17–19. Officier de l'Instruction pub, France; chevalier, Légion d'honneur. A.A; Chem. Soc. (past councilor); Soc. Chem. Indust. (chairman, N. Y. sect, 16–18); Chem. Eng; Inst. Chem; Min. and Metal. Eng; Chemists' Club (past asst. treas, chairman, library cmt); Asn. Consulting Chem. and Chem. Eng; Inst. Social Sci; Asn. Textile Chem. and Colorists; N. Y. Acad; N. Y. Micros. Soc; Soc. Med. Jurisprudence; Soc. de Chim. indust. (sec'y, Am. sect). Colloid chemistry; ultramicroscopy; glue; gelatin; starch products; adhesives.

Alexander, Dr. John, University Hospital, Ann Arbor, Mich. *Surgery.* Philadelphia, Pa, Feb. 24, 91. B.S, Pennsylvania, 12, A.M, 13, M.D, 16, hon. Sc.D, 40; Lyons, 19. Asst. instr. *surg,* sch. med, Pennsylvania, 19–20; instr, *med. sch, Michigan,* 20–23, asst. prof, 23–30, assoc. prof, 30–32, *prof, 32–, surgeon in charge sect. thoracic surg, dept. surg, univ. hosp.* Consulting thoracic surgeon, Mich. State Sanatorium; Jackson Co. Sanatorium Mich; Sunshine Sanatorium, Grand Rapids; Fairmount Hosp, Kalamazoo; Detroit Tuber. Sanatorium; Calhoun Co. Pub. Hosp, Battle Creek; St. Luke's in the Desert, Tucson, Ariz; Franklin Co. Sanatorium, Columbus, Ohio. Mem. med. council, Veterans Admin. Ed. board, 'Jour. Thoracic Surg'; 'Int. Abstract of Surg'; 'Am. Rev. Tuber'; Am. collaborator, 'Punjab Med. Jour.' Mem, Am. Board Surg. Samuel D. Gross prize, Phila. Acad. Surg, 25; Henry Russel award, Michigan, 28; Trudeau medal, Nat. Tuber. Asn, 41. M.C, 17–19, lieut. Fel. Col. Surg; Asn. Thoracic Surg. (pres, 35); Am. Med. Asn; Tuber. Asn; Surg. Asn; Soc. Clin. Surg; Trudeau Soc; Cent. Surg. Asn; Mich. Med. Soc. (chairman, surg. sect, 32); Mich. Tuber. Asn; Mich. Trudeau Soc; hon. mem. Detroit Acad. Surg; hon. mem. Soc. Thoracic Surg. Gt. Britain and Ireland; hon. mem. Argentine Soc. Surg; Int. Soc. Surg. Surgery of the chest.

Alexander, Prof. Klem, Alabama Polytechnic Institute, Auburn, Ala. *Organic chemistry.* Lebanon, Tenn, July 8, 01. B.S, Middle Tenn. State Teachers Col, 27; A.M, Peabody Col, 28; Ph.D, Iowa, 38. Prin. and teacher, high sch, S. C, 25–27; instr. science, Ala. State Nor. Sch, Troy, 28–29; chem. and biol, W. Tenn. State Teachers Col, 29–35; asst. chem, Iowa, 35–39; assoc. prof, W. Texas State Teachers Col, 39–43; *asst. prof. org. chem, Ala. Polytech, 43–* Summer, instr, Delta State Teachers Col, Miss, 42. A.A; Chem. Soc; Texas Acad. Migration of the substituted carbamyl radical in o-aminophenol derivatives.

Alexander, Dr. Lee L(insley), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Bloomington, Ill, Dec. 10, 10. B.S, Ill. Wesleyan, 32; A.M, Illinois, 33, Ph.D, 36. *Research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Friedel-Craft reaction.

Alexander, Major Leo, Medical Corps, 65th General Hospital, care of Surgeon General, U. S. Army, Washington, D. C. *Neurology, Psychiatry.* Vienna, Austria, Oct. 11, 05. M.D, Vienna, 29. Instr. neur, Harvard, 34–41; *assoc. prof. neuropsychiat, Duke, 41–; major, Med. Corps, U. S. Army, and chief sect. neuropsychiat, 65th Gen. Hosp, 42–* Lecturer, Peiping Union Med. Col, 33; neuropathologist and junior visiting neurologist, Boston City Hosp, 34–41; assoc, Boston State Hosp, 35–41; visiting psychiatrist, Washingtonian Hosp, Boston, 38–41. Assoc. ed, 'Jour. Neuropath. and Exp. Neur.' Assoc. examiner, Am. Board Psychiat. and Neur, 37–42. Am. Med. Asn; Neur. Asn; Psychopath. Asn; Asn. Neuropath; Asn. Path. and Bact; Asn. Research Nervous and Mental Disease; New Eng. Path. Soc; N. C. Psychiat. Soc. Vitamin deficiency disease; electrical injuries; vascular supply and mineral content of brain and spinal cord; heredity and eugenics; therapy of nervous and mental diseases.

Alexander, Dr. Leonard J(ay), Ohio Agricultural Experiment Station, Wooster, Ohio. *Plant pathology.* Council Bluffs, Iowa, April 3, 03. B.S, Louisiana, 26; M.S, Wisconsin, 28, fellow, 29–30, Ph.D, 34. Asst. plant path, Wisconsin, 26–29; asst. plant pathologist, *Ohio Exp. Sta,* 30–38, *assoc. plant pathologist, 38–* A.A. Leaf mold resistance in tomato; Fusarium resistance in tomato and other diseases of tomato; absorption of nutrients from nutrient solutions.

Alexander, Prof. L(loyd) E(phraim), Fisk University, Nashville, Tenn. *Embryology.* Salem, Va, Aug. 17, 02. A.B, Michigan, 27, A.M, 28; Ph.D, Rochester, 36. Instr. *biol, Fisk,* 30–35, *asst. prof, 36–* Production of lenses in chick embryos; capacities of optic tissues of Gallus domesticus for induction and regeneration.

Alexander, Prof. L(owell) M(elville), University of Cincinnati, Cincinnati, Ohio. *Physics.* Sparta, Ill, Sept. 25, 91. E.E, Cincinnati, 15, A.M, 17, Ph.D, 25. Asst. manager, Royer Wheel Works, 17–20; instr. *physics, Cincinnati,* 20–22, asst. prof, 22–25, assoc. prof, 25–33, *prof, 33–* A.A; Physical Soc; Asn. Physics Teachers. Teaching methods in physics.

Alexander, Lucy M(aclay), 2801 Adams Mill Road, Washington, D. C. *Food chemistry.* Kishacoquillas Valley, Pa, March 5, 88. A.B, Vassar Col, 12; B.S, Illinois, 24. Teacher, private schs, 13–18; junior chemist, bur. chem. and later bur. agr. econ, *U. S. Dept. Agr,* 19–23, asst. specialist *in foods, food and nutrition div, bur. home econ,* 25–28, *assoc. specialist, 28–* A.A. Food preparation.

Alexander, Dr. Lyle T(homas), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Athens, Texas, Dec. 3, 03. B.S, Arkansas, 28; Ph.D, Maryland, 35. Junior physicist, *bur. chem. and soils, U. S. Dept. Agr,* 28–30, asst. chemist, 30–36, assoc. chemist, 36–39, *chemist, 39–* Mechanical analysis of soils; soil-forming minerals; soil colloids; organic matter in soils; clay minerals.

Alexander, Prof. M(ajor), 244 Sherbrooke St, Montreal, Que, Can. *Biology.* Quebec, Que, Feb. 2, 92. Licencié, Montreal, 29. *Prof. biol, Mt-St-Louis Col, 28–* A.A; Can. Soc. Nat. Hist. Technical botany drawings and illustrations; natural sciences.

Alexander, Prof. M(artin) A(dkisson), University of Nebraska, Lincoln, Nebr. *Animal husbandry.* Perry, Mo, May 14, 00. B.S, State Col. Wash, 23; M.S, Colo. Agr. Col, 24; Kans. State Col, 28–30; Nebraska, 32–38; Iowa State Col, 40. Instr. *animal husbandry,* col. agr, Arkansas, 24–27; asst. prof, Kans. State Col, 27–30; Wyoming, 30–31; *assoc. prof. in charge sheep exp. work, Nebraska, 31–* Soc. Animal Production. Lamb feeding tests.

Alexander, Dr. P(eter) P(opow), 79 Rockaway Ave, Marblehead, Mass. *Metallurgy.* Russia, Nov. 21, 86. E.E, Liége; Sc.D, Mass. Inst. Tech, 33. Research engineer, Thomson research lab, Gen. Elec. Co, Lynn, Mass, 19–34; consulting research engineer, Ventures, Ltd. (Can), 34–37; *pres, Metal Hydrides, Inc, Beverly, Mass, 37–* Chem. Soc; Army Ordnance Asn; Min. and Metal. Eng. Electrical engineering and metallurgy; nature of the welding arc; electric welding in hydrogen atmosphere; dissociation of ammonia; preparation of pure chromium; the hydride process; copper-titanium alloys; uranium and its alloys; calcium hydride; the iodine process.

Alexander, Prof. R(alph) S(amuel), Columbia University, New York, N. Y. *Economics.* Kingman, Kans, Feb. 17, 93. Ph.B, Col. of Wooster, 16; Ph.D, Chicago, 25. Asst. econ, Chicago, 20; *asst. prof,* Carnegie Inst. Tech, 20–22; *marketing, Columbia, 22–* Tech. adviser wholesale codes, Nat. Recovery Admin, 33–34; educational supervisor New York chap, Am. Inst. Banking, 37– Marketing Asn. (chairman, definitions cmt, 29–). Marketing.

Alexander, Dr. Robert S(pence), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Physiology.* Melrose, Mass, June 14, 17. A.B, Amherst Col, 38, A.M, 40; Ph.D, Princeton, 42. Asst. biol, Amherst Col, 38–40; *physiol,* Princeton, 40–42; *instr, med. col, Cornell, 42–* Harvey Soc. Embryonic heart rate; neuro-physiology of cardio-vascular regulation; firefly luminescence.

Alexander, Dr. (Robert) Stanley, Washburn Municipal University, Topeka, Kans. *Astronomy, Physics.* Topeka, Kans, Jan. 5, 09. B.S, Washburn Col, 36; A.M, Kansas, 38; Harrison fellow, Pennsylvania, 39–40, Ph.D, 41. Asst, Flower Observatory, Pennsylvania, 38–39; *instr. physics and astron, Washburn, 40–* Astronomical photographic photometry; eclipsing variable stars.

Alexander, Prof. Taylor R(ichard), University of Miami, Coral Gables, Fla. *Botany.* Hope, Ark, May 27, 15. A.B, Ouachita Col, 36; M.S, Chicago, 38, Ph.D, 41; Maryland, 38–39. Instr. *bot, Miami (Fla),* 40–41, *asst. prof, 41–* Fla. Acad. Carbohydrates of bean plants after treatment with indole-3-acetic acid; anatomical and physiological responses of squash to various levels of boron supply.

Alexander, Prof. Thomas R(ush), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Washington Co, Pa, Feb. 3, 85. A.B, Washington and Jefferson Col, 05, A.M, 06; Ph.D, Pennsylvania, 15. Chemist, Westinghouse Machine Co, 06–07; instr. *chem,* Pennsylvania, 09–16; *Carnegie Inst. Tech,* 16–18, asst. prof, 18–25, *assoc. prof, 25–* Chem. Soc. Inorganic chemistry.

Alexander, Dr. W(endal) A(rthur), Dominion Magnesium, Ltd, Haley, Ont, Can. *Physical metallurgy.* Shawville, Que, Dec. 17, 13. B.A, Queen's (Can), 35, fellow, 35–36, M.A, 36; Nat. Research Council Can. bursar, McGill, 36–37, fellow, 37–38, Ph.D, 38. Que. Prov. Govt. scholar, Johan Wolfgang Goethe Univ, 38–39, Princeton, 39–40; junior chemist chem. warfare, Nat. Research Council Can, 40–41, physical metal, 41–42; *plant metallurgist, Dom. Magnesium, Ltd, 42–* Catalysis; heterogeneous contact; physical chemistry; gas reactions; photochemistry.

Alexander, Prof. William F(ielder), University of Georgia School of Medicine, Augusta, Ga. *Neuroanatomy.* Canton, Ill, Dec. 24, 09. B.S, Knox Col, 33; M.S, St. Louis, 37, Ph.D, 39. Asst, *sch. med,* St. Louis, 34–39; instr, Louisiana, 39–41; *asst. prof. anat, Georgia, 41–* A.A; Asn. Anat. Anatomy and physiology of the autonomic nervous system.

Alexander, William H(enry), Normandie Hotel, Columbus, Ohio. *Meteorology, Climatology.* Near Cumby, Texas, Jan. 10, 67. A.B, A.M, Virginia, 92; Columbia. Prof. Latin, Decatur Col, 93–95; physics, Henry Col, 95–98; meteorologist and senior meteorologist, U. S. Weather Bur, 98–37; meteorologist, Md, 10–12; climatologist, Ohio, 20–37. A.A; fel. Meteorol. Soc; fel. Ohio Acad. (pres, 21, sec'y, 23–41). Climatological history of Ohio; West Indian hurricanes; thunderstorms in the United States; history of the Ohio Academy of Science.

Alexander-Jackson, Dr. Eleanor (Gertrude), 395 Riverside Drive, New York, N. Y. *Bacteriology.* New York, N. Y, July 1, 04. A.B, Wellesley Col, 25; A.M, Columbia, 28; Ph.D, N. Y. Univ, 34. Asst, Mt. Sinai Hosp, New York, 26–27, univ. hosp, Michigan, 28–30; instr. med. bacter. and immunol, col. med, N. Y. Univ, 34–36; special research bacteriologist, State Dept. Health, N. Y, 36–39; *mem. research dept. pub. health, med. col, Cornell, 41–* A.A; Soc. Bact; Pub. Health Asn. Tuberculosis; developmental morphology and dissociation of tubercle bacilli; improved stain techniques for tubercle bacilli; non-acid-fast forms of tubercle bacilli.

Alexanderson, E(rnst) F(redrik) W(erner), General Electric Co, Schenectady, N. Y. *Electrical engineering.* Upsala, Sweden, Jan. 25, 78. Lund, Sweden, 96–97; grad, Stockholm Polytech, 00; Tech. Hochschule, Berlin, 00–01. *Consulting engineer, Gen. Elec. Co.* Gold medal, Radio Eng, 19; John Ericsson medal, 28; Order Polonia Restituta; Order of North Star, Sweden. A.A; Elec. Eng; Radio Eng. (pres, 21); Royal Acad. Sweden. Electric motors; alternators; physiological tolerance of alternating current strengths; dielectric hysteresis at radio frequencies; magnetic properties of iron; magnetic amplifier; multiple tuned antennae; barrage receiver; simultaneous sending and receiving; transoceanic radio communication and wave propagation; radio-photography; television; the thyratron motor; eclipse of 1932 observed by radio facsimile.

Alexopoulos, Dr. Const(antine) J(ohn), Rubber Reserve Co, Brazil, S. Amer. *Plant pathology.* Chicago, Ill, March 17, 07. B.S, Illinois, 27, scholar, 27–28, M.S, 28, fellow, 31–32, Ph.D, 32. Asst. bot, Illinois, 29–30, 32–34, instr, 34–35; Kent, 35–36, asst. prof, 36–40, assoc. prof, 40–43; *assoc. field technician, Rubber Reserve Co, 43–* Plant pathologist, Inst. Ch. et d'Agr. 'N. Canel,' Piraeus, Greece, 38–39. Phytopath. Soc; Mycol. Soc; Ohio Acad; Torrey Bot. Club. Mycology; antibiosis between microorganisms; mycoflora of Greece; thiamine production by actinomycetes.

Alfend, Samuel, 5915 Cates Ave, St. Louis, Mo. *Food chemistry.* St. Louis, Mo, Sept. 6, 02. B.S, Washington (St. Louis), 23. *Food and drug chemist, food and drug lab, St. Louis sta, food and drug admin, U. S. Dept. Agr. and Fed. Security Agency, 23–, in charge food and drug lab, 27–* A.A; Chem. Soc; Agr. Chem. (assoc. referee, cereal products, 25–30, egg products, 27–32, gen. referee, eggs and egg products, 29–33, spices and other condiments, 39–). Methods of analysis, flour, spices, alimentary pastes, butter, feeds, peanut butter and eggs; chemical composition of cloves, pepper, paprika and eggs.

Alfonsus, Dr. Erwin C(arl), 634 Dayton Ave, St. Paul, Minn. *Apiculture.* Vienna, Austria, May 31, 00. M.V.C, Vienna, 23; B.S, Minnesota, 30; M.S, Wisconsin, 32, Ph.D, 35. Asst. beekeeping, Minnesota, 28–31; instr. entom, Wisconsin, 31–36; *apiculturist, Tanquary Honey Farms, 36–* Bee

behavior; dysentery and nutrition of honey-bees; honey chemistry; water metabolism; commercial honey production; stock improvements.

Alfredson, Prof. B(ernard) V(ictor), 211 N. Harrison, East Lansing, Mich. *Electrocardiography, Pharmacology.* Chicago, Ill, Aug. 18, 08. D.V.M, Mich. State Col, 31, M.S, 40. Asst. prof. *physiol. and pharmacol, Mich. State Col,* 35–43, *assoc. prof,* 43– Bovine electrocardiography; pharmacology of the barbiturates as applied to veterinary clinical medicine.

Alger, Philip L(angdon), 1758 Wendell Ave, Schenectady, N. Y. *Electrical engineering.* Washington, D. C, Jan. 27, 94. B.S, St. John's Col. (Md), 12, A.M, 16; B.S, Mass. Inst. Tech, 15; M.S, Union (N. Y), 20. Asst. instr. and asst, Mass. Inst. Tech, 16–17; engineer, induction motor and alternating currents, eng. depts, *Gen. Elec. Co,* 19–30, *staff asst. to v. pres. in charge eng,* 30– U. S. del, Int. Electrotech. Cmn, Torquay, England, 38. Lieut, Ordnance Dept, 17–19; capt, O.R.C, 19–31, major, 31–41. A.A; fel. Elec. Eng. (chairman, tech. program cmt; past chairman, elec. machinery cmt); Mech. Eng; Eng. Educ; Math. Soc; Army Ordnance Asn; Munic. League; Newcomen Soc. Electrical machinery; ordnance; city manager government.

Algire, Dr. Glenn H(orner), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Cytology.* Baltimore, Md, Nov. 5, 07. B.S, Columbia, 30; Weaver fellow, Maryland, 37–38, M.D, 40. Med. intern, Univ. Hosp, Baltimore, Md, 40–41; Finney-Howell Foundation fellow and guest worker, *nat. cancer inst, U. S. Pub. Health Service,* 41–43, *research fellow, 43–* Asn. Cancer Research. Cancer research; tumor growth.

Algren, Prof. A(xel) B(ernhardt), 5109 17th Ave, S, Minneapolis, Minn. *Engineering.* Minneapolis, Minn, Oct. 14, 93. B.S, Minnesota, 25, M.S, 31. Research engineer, 27–28; instr. *mech. eng, Minnesota,* 28–35, *asst. prof, 35–, asst. director exp. eng. labs, 28–* Eng. Educ; Heat. and Vent. Eng. (tech. advisory cmt. on heat transmission, 30, sec'y-treas, Minn. chap, 31). Thermal transmission of wall constructions; thermal resistance of air spaces; surface conductances as affected by air velocity, temperature and surface characteristics.

Alicante, Dr. Marcos Mondejar, Bureau of Science, Manila, P. I. *Soils.* Maasin, P. I, April 25, 95. B.S, Oregon State Col, 20, M.S, 21; Ph.D, Illinois, 23. Soil biologist, substa, Moro, Oregon, 20; soil analyst, dept. agron, Illinois, 22–23; *soil biologist, Bur. Science, P. I, 24–, soil technologist, 34–* Chemist, Philippine Sugar Asn, 29– Philippine Tech. Agr. Soc; Philippine Sci. Soc. (director, 26–). Viability of legume organisms outside of the plant; microbiological properties of the Philippine soil; specific bacteria concerned in the fermentation of Philippine tobacco.

Alicata, Dr. Joseph E(verett), University of Hawaii, Honolulu, Hawaii. *Parasitology.* Italy, Nov. 5, 04. A.B, Grand Island Col, 27; A.M, Northwestern, 28; Ph.D, George Washington, 34. Junior zoologist, zool. div, bur. animal indust, U. S. Dept. Agr, 28–35, instr. parasitol, grad. sch, 35; *parasitologist, Exp. Sta, Hawaii, 35–, assoc. prof. zool, univ, 35–* Parasitologist, Board Health, Hawaii, 36–37; director parasitol. project, pub. health cmt, Chamber Commerce, Honolulu, 40–42. Soc. Parasitol; Helminth. Soc. Wash; Wash. Acad. Taxonomy, morphology and life histories of nematodes, cestodes and trematodes; trichinosis; fasciola infections and control; immunity in parasitic diseases; protozoology; epidemiology of typhus; human, canine and murine leptospirosis.

Allan, Prof. D(enison) Maurice, Hampden-Sydney, Va. *Psychology.* Hull, Eng, Sept. 15, 97. A.B, A.M, Hampden-Sydney Col, 16; A.M, Harvard, 22, Ph.D, 26. *Prof. psychol. and philos, Hampden-Sydney Col, 23–* S. Soc. Philos. and Psychol; Va. Acad. (chairman, psychol. and educ. sect, 28–30, councilor, 33–, pres, 37). Mental tests; hypnosis.

Allan, Dr. Frank N(athaniel), 605 Commonwealth Ave, Boston, Mass. *Medicine.* Proton, Ont, Can, Dec. 26, 99. M.B, Toronto, 22, fellow, 22–23, B.Sc, 24, fellow, 24–25, M.D, 28; fellow, Minnesota, 25. Demonstrator physiol, Toronto, 23–24; intern, Toronto Gen. Hosp, 24–25; instr, Mayo Foundation, Minnesota, 27–32; assoc, Mayo Clinic, 29–32; *co-director, dept. med, Lahey Clinic, 32–* A.A; Am. Med. Asn; Col. Physicians; Soc. Clin. Invest; Soc. Exp. Path; Asn. Study Int. Secretions; Cent. Soc. Clin. Research. Endocrinology; carbohydrate metabolism; insulin; diabetes; hyperinsulinism.

Allan, Prof. John A(ndrew), University of Alberta, Edmonton, Alta, Can. *Geology.* Aubrey, Que, July 31, 84. B.A, McGill, 07, M.S, 08; Ph.D, Mass. Inst. Tech, 12. Asst. geol, Mass. Inst. Tech, 08–11; *prof. geol. and miner. and head dept, Alberta, 12–,* in charge dept. mining eng, 14–20. Field geologist, Geol. Surv. Can, 06–18; provincial geologist, Alta, 19– Research Council of Alta. Fel. Geol. Soc; Asn. Petrol. Geol; fel. Royal Soc. Can. (pres, geol. sect, 35); Can. Inst. Min. and Metal. (pres, 32); Eng. Inst. Can; Alta. Asn. Professional Eng. (pres, 30). Mineralogy; petrography; structural geology and physiography of the Canadian Rocky Mountains and foothills belt; oil; gas; coal; experimental ceramics; stratigraphy and sedimentation; the mineral resources of Alberta; dam foundations and water supply.

Allan, Philip F(arley), 6537 Broad St, Brookmont, Md. *Mammalogy.* Scranton, Pa, March 11, 09. B.S. and M.S, New Hampshire, 30; Michigan, 30–31, Harris fellow, 31–32. Asst. zool, New Hampshire, 28–30; mammal, univ. museum, Michigan, 30–31; asst. biologist, *U. S. Dept. Agr,* 36–38, assoc. biologist, 38–40, biologist, 40–42, *senior biologist, soil conservation service, 42–* Wildlife Soc; Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Cooper Ornith. Club. Recolonization of the common tern; zoogeographic studies on Peromyscus; ecological studies on birds at the Isles of Shoals.

Allanson, H(enry) E(mil), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Carpenter, Iowa, Sept. 8, 88. George Washington; B.S, Cornell, 17. Asst. plant introducer, office for. plant introd, *U. S. Dept. Agr,* 21, sci. asst, *bur. plant indust,* 17–21, asst. to chief, 21–27, asst. chief, 27–34, *business manager, 34–* Genus Lilium and Rhododendron; bureau administration.

Allard, H(arry) A(rdell), U. S. Department of Agriculture, Washington, D. C. *[5]Botany.* Oxford, Mass, Jan. 28, 80. B.S, North Carolina, 05. *Scientist, bur. plant indust, U. S. Dept. Agr, 06–* Ornith. Union; Ecol. Soc; Soc. Nat; South. Appalachian Bot. Club; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Acad. Plant breeding and nutrition; cotton; the distribution of Fowler's toad; musical Orthoptera; mosaic diseases of tobacco; day length and plant growth; Virginia and West Virginia botanical notes relating to new state records; ecology and floristics of Bull Run Mountain and other areas in Virginia.

Allard, Dr. Romeo P(aul), Loyola University of Los Angeles, Los Angeles, Calif. *Chemistry.* Franklin, N. H, Nov. 13, 06. B.S, Notre Dame, 31, M.S, 32, Ph.D, 34. *Chairman dept. chem, Loyola (Calif), 35–* Chem. Soc. Dipole moments.

Allardyce, Prof. (William) John, University of British Columbia, Vancouver, B. C, Can. *Physiology, Biochemistry.* Winnipeg, Man, Dec. 1, 97. B.A, British Columbia, 19, M.A, 21; Nat. Research Council Can. scholar, McGill, 29–30, Ph.D, 31. Demonstrator chem, British Columbia, 19–21, instr, 21–29; biochem, McGill, 30–31; asst. prof. chem, *British Columbia,* 31–32, *special lecturer to nurses, 34–, asst. prof. biol, 38–* Teacher, King Edward High Sch, 32–38. A.A. Ultra-violet and visible light and rate of oxime formation; catalytic dehydration of isopropyl alcohol; blood normals for cattle; fish oils as sources of vitamin D; parathyroid hormone; distribution of cholesterol between cells and plasma in anemia and polycythemia; factors in potency of thymus extracts; carotene in feed grasses; effects of visible radiations upon albino rats.

Allcut, Prof. E(dgar) A(lfred), 48 Foxbar Road, Toronto, Ont, Can. *Mechanical engineering.* Birmingham, Eng, June 30, 88. B.Sc, Birmingham, 08, Bowen scholar, 08–10, M.Sc, 09. Asst. engineer, Humphrey Pump Co, London, England, 10–12; manager eng. and testing machine depts, W. and T. Avery, Ltd, Birmingham, England, 13–17; chief inspector materials, Austin Motor Co, 17–21; assoc. prof. *mech. eng, Toronto,* 22–31, *prof, 31–* Herbert Ackroyd Stuart prize, Inst. Mech. Eng. Gt. Britain, 30; Plummer medal, Eng. Inst. Can, 42. Mech. Eng; Eng. Inst. Can; Inst. Mech. Eng. Gt. Britain; fel. Royal Aeronaut. Soc. Internal combustion; thermodynamics; heating and ventilating; heat transmission; industrial management.

Allee, Walter G(oldsberry), 208 Stella St, Metairie Ridge, New Orleans, La. *Inorganic chemistry.* Bloomingdale, Ind, Sept. 22, 82. B.S, Earlham Col, 13; Kans. State Col, 15–17. Instr. physics, Kans. State Col, 12–17; *head dept. science, Isidore Newman Sch, 17–* Chem. Soc. (v. pres, La. sect, 29); New Orleans Acad. (v. pres, 39; pres, 40). Physics; physical chemistry.

Allee, Prof. W(arder) C(lyde), University of Chicago, Chicago, Ill. **²Zoology.* Bloomingdale, Ind, June 5, 85. B.S, Earlham Col, 08, LL.D, 40; M.S, Chicago, 10, Ph.D, 12. Asst. zool, Chicago, 10–12; instr. bot, Illinois, 12–13; zool, Williams Col, 13–14; asst. prof, Oklahoma, 14–15; prof. biol, Lake Forest Col, 15–21; asst. prof. *zool, Chicago,* 21–23, assoc. prof, 23–28, *prof, 28–,* dean col. sciences, 25–27. Lecturer, California, 23. Summers, instr, Marine Biol. Lab, Woods Hole, 14–21, in charge invert. zool, 18–21; prof, Utah, 24, 25. Managing ed, 'Physiol. Zool.' Trustee, Earlham Col, 25–39; Marine Biol. Lab, Woods Hole, 32– A.A. (v. pres, F, 42); Soc. Nat; Soc. Zool. (treas, 18–21, sec'y, 18–24, v. pres, 26, pres, 36); Ecol. Soc. (v. pres, 25, pres, 29); fel. Entom. Soc. Amer. Animal ecology and behavior; animal aggregations; population physiology; sociology.

Alleman, Prof. Gellert, Wallingford, Pa. *Chemistry.* Littlestown, Pa, July 23, 71. B.S, Pa. Col, 93; Ph.D, Hopkins, 97; Sc.D, Gettysburg Col, 25. Instr. *chem,* Maine, 97–98; Washington (St. Louis), 98–02; prof, *Swarthmore Col,* 02–36, *emer. prof, 36–* A.A; Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Franklin Inst. (v. pres, 23–25); Deuts. Chem. Gesell. Diazo-compounds; phenol ethers; electrolysis; occluded gases in ferrous alloys; critical temperature and critical pressure of hydrocarbons; isolation and determination of the physical and chemical properties of eleven new acids obtained by the oxidation of petroleum hydrocarbons; organometallic compounds; colloidal metals.

Alleman, Dr. Ray S(tarr), U. S. Naval Underwater Sound Laboratory, Ft. Trumbull, New London, Conn. *Physics.* Springville, Utah, Jan. 22, 12. A.B, Brigham Young, 33, A.M, 34; Ph.D, Hopkins, 39. Asst. physics, Brigham Young, 33–34; junior instr, Hopkins, 34–38, research physicist, sch. med, 36–37; asst. prof. physics, St. John's Col. (Md), 38–41, tutor, 39–41; *physicist, Columbia Univ. div. nat. defense, U. S. Naval Underwater Sound Lab, 41–* Summer, instr, Pa. State Col, 41. Physical Soc; Acoustical Soc; Asn. Physics Teachers. Ultrasonics; interferometry.

Allen, Dr. Alexander J(ohn), 3 Brattle Circle, Cambridge, Mass. *Physics, Biophysics.* Glenwood Springs, Colo, Oct. 4, 00. A.B, Colorado, 23; A.M, N. Y. Univ, 26, Ph.D, 28. Instr. physics, N. Y. Univ, 26–28, research assoc, 29; Bartol Research Foundation, 29–30; sch. med, Pennsylvania, 30–35; Biochem. Research Foundation, Franklin Inst, 35–39; assoc. prof. physics, Pittsburgh, 39–41; *research assoc, Mass. Inst. Tech, 41–* Physical Soc; Optical Soc. Microwaves; nuclear physics; artificial radioactive tracers; chemical and biological effects of x-rays, gamma rays, neutrons and ultra-violet light.

Allen, Alice S(tandish), Room 4222, North Interior Bldg, Washington, D. C. *Geology.* Boston, Mass, Nov. 23, 07. A.B, Mt. Holyoke Col, 29; A.M, Wisconsin, 31; Northwestern, 31–36. Ed. asst, Geol. Soc. Amer, 36; *asst. geologist and sec'y cmt. geologic names, U. S. Geol. Surv, 36–* Geol. Soc. Wash. (treas, 39–41). Stratigraphic nomenclature.

Allen, Prof. Arthur A(ugustus), Cornell University, Ithaca, N. Y. *Zoology.* Buffalo, N. Y, Dec. 28, 85. A.B, Cornell, 07, A.M, 08, fellow, 08–09, Ph.D, 11. Instr. zool, *Cornell,* 09–15, asst. prof. *ornith,* 15–24, *prof, 24–* In charge, Nat. Grouse Investigation, 25–; chairman research conf, Am. Game Asn, 30, 31. Assoc. ed, 'Bird Lore,' 19–35. Am. Museum Nat. Hist. exped, S. Amer, 12. Outdoor Life medal, 24. Fel. Ornith. Union; Soc. Mammal; Wildlife Soc. (pres, 39); Soc. Nat; Wilson Ornith. Club; Cooper Ornith. Club. Ornithology; mammalogy; conservation; life histories of North American birds; diseases and artificial propagation of ruffed grouse; bird behavior.

Allen, A(rthur) W(atts), Apt. 1714, San José, Costa Rica. *Metallurgy, Chemistry.* Bickleigh, Devon, Eng, Feb. 22, 79. B.A, Cambridge, 02, M.A, 10. Work in biol, indust. chem, hydrometal. and ore dressing, New Guinea, Australia, Africa, N. and S. Amer, 02–17; asst. ed, 'Eng. and Mining Jour,' 17–18; consulting engineer, Penyon Syndicate and du Pont Nitrate Co, Chile, 18–21; asst. ed, 'Mining and Sci. Press,' 21–22; asst. ed, 'Eng. and Mining Jour.' and 'Chem. and Metal. Eng,' 22–25; consulting engineer, Gibbs and Co, Chile, Argentina and Europe, 25–27; ed, 'Eng. and Mining Jour,' 27–33; consulting engineer, Idaho, Oregon and Calif, 34–35; Chile, 35; metallurgist, S. Amer. Develop. Co, Ecuador, 35–36; *consulting engineer, 36–* Min. and Metal. Eng. Industrial chemistry; hydrometallurgy; ore dressing; technology of Chilean nitrate.

Allen, Dr. Augustine O(liver), Ethyl Corp, 1600 W. Eight Mile Road, Detroit, Mich. *Chemistry.* San Rafael, Calif, July 16, 10. B.S, California, 30; Sheldon traveling fellow, Harvard, 35–36, Ph.D, 38. *Research chemist, Ethyl Corp, 37–* Chem. Soc. Reaction kinetics in gases; photochemistry.

Allen, Prof. B(ennet) M(ills), 909 Micheltorena St, Los Angeles, Calif. **²Embryology.* Greencastle, Ind, July 4, 77. Ph.B, DePauw, 98; Ph.D, Chicago, 03. Instr. anat, Wisconsin, 03–08, asst. prof, 08–11, zool, 11–13; prof, Kansas, 13–22; assoc. prof. biol, *California at Los Angeles,* 22–24, *prof. zool, 24–* A.A; Soc. Nat; Soc. Zool; Soc. Exp. Biol; Asn. Anat. Embryonic development of ovary and testis of the mammals; anatomy of Hirudo; eye of Bdellostoma; development of rete cords, sex cords and sex cells of Chrysemys; origin of sex-cells; effect of extirpation of thyroid gland and hypophysis of amphibians on bodily growth; influence of glands of internal secretion on growth and differentiation.

Allen, Dr. Bruce B(ozarth), Tubize Chatillon Corp, Rome, Ga. *Organic chemistry.* Okmulgee, Okla, Sept. 17, 09. B.S, North Texas State Teachers Col, 34; A.M, Texas, 36, Ph.D, 38. Cotton Research Foundation fellow, Texas, 38–39; indust. fellow, Mellon Inst, 39–41; *research chemist, Tubize Chatillon Corp, 41–* Chem. Soc. Alpha-chloroethers; alkoxy ketones; substituted hydantoins; tertiary alkyl primary amines; high temperature–high pressure catalytic hydrogenation; artificial fibers and rayon technology.

Allen, C(alvin) Frank (Francis), 88 Montview St, West Roxbury, Mass. *Engineering.* Roxbury, Mass, July 10, 51. B.S, Mass. Inst. Tech, 72. Civil engineer, water works and sewerage, 72–78; railroad engineer, 79–85; attorney-at-law, 85–86; from asst. prof. to prof. railroad eng, Mass. Inst. Tech, 87–16; *retired.* Hon. mem. Civil Eng; Eng. Educ. (sec'y and pres); Ry. Eng; hon. mem. New Eng. R. R. Club (pres, 06); hon. mem. Mass. Highway Asn. (pres). Railroad engineering.

Allen, Dr. Caroline K(athryn), Arnold Arboretum, Jamaica Plain, Mass. *Botany.* Pawling, N. Y, April 7, 04. A.B, Vassar Col, 26; M.S, Washington (St. Louis), 29, Ph.D, 32. Teaching fellow, Washington (St. Louis), 28–29; fellow, Mo. Bot. Garden, 29–32; *herbarium asst, Arnold Arboretum, Harvard,* 26–28, *32–* Revision of the genus Halenia; Lauraceae.

Allen, Prof. Charles E(lmer), 2014 Chamberlin Ave, Madison, Wis. **³Botany.* Horicon, Wis, Oct. 4, 72. B.S, Wisconsin, 99, Ph.D, 04; hon. Sc.D, Chicago, 41. Instr. *bot, Wisconsin,* 01–04, asst. prof, 04–07, assoc. prof, 07–09, *prof, 09–* Asst, Carnegie Institution, 04–05. Ed. in chief, 'Am. Jour. Bot,' 18–26. Nat. Research Council, 25–31, chairman div. biol. and agr, 29–30. Nat. Acad; A.A. (v. pres, G, 28); Soc. Nat. (pres, 36); Micros. Soc; Bot. Soc. (pres, 21); Genetics Soc; Genetic Asn; Philos. Soc; Wis. Acad. (pres, 30–33). Middle lamella in thickened cell walls; spindle formation in pollen mother-cells of larch; nuclear division and chromosome reduction in pollen mother-cells of lily; germination and chromosome reduction in Coleochaete; spermatogenesis in mosses; inheritance in Sphaerocarpos; cytology of Sphaerocarpos.

Allen, Dr. Charles F(rancis) H(itchcock), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Milford, N. H, Aug. 12, 95. A.B, Boston, 19, A.M, 20; A.M, Ph.D, Harvard, 24; D.Sc, McGill, 37. Teaching fellow chem, Boston, 19–20, asst, 20–21; instr, Tufts Col, 24–29; asst. prof, McGill, 29–37; *asst. supt. in charge research in synthetic org. chem, Eastman Kodak Co, 37–* Sec'y, board editors, 'Org. Syntheses,' 29–37, ed. board, 37– Chem. Soc. Delta ketonic nitriles; diacylstyrenes; vinyl phenyl ketone; gamma ketonic esters; carbonyl-bridge compounds; polynuclear systems; anthraquinone dyes.

Allen, Prof. Charles M(etcalf), Worcester Polytechnic Institute, Worcester, Mass. *Hydraulic engineering.* Walpole, Mass, Dec. 12, 71. B.S, Worcester Polytech, 94, M.S, 99, hon. D.E, 29. Instr. mech. eng, *Worcester Polytech,* 94–02, asst. prof. exp. eng, 02–06, *prof,* 06–09, *hydraul. eng, 09–* A.A; Mech. Eng. (past v. pres); Eng. Educ; Civil Eng; Boston Soc. Civil Eng. (past pres). Absorption dynamometers; application of the steam-engine indicator to rowing; current meter rating stations; water-wheel testing and flow recorders; absorption dynamometers of large powers; large gears; rope and belt drivers; water measurement; hydraulic model tests; gear-testing apparatus.

Allen, Prof. Chauncey Newell, Hanover, N. H. *Psychology.* New York, N. Y, Aug. 15, 00. B.S, Dartmouth Col, 24, M.S, 27; Ph.D, Columbia, 31. Direct-by-mail advertiser, Am. Book

Co, New York, 24–25; instr. *psychol*, Dartmouth Col, 25–30; Columbia, 30–31; asst. prof, *Dartmouth Col*, 31–39, *prof*, *40–* Psychol. Asn. Child and abnormal psychology; sex differences; advertising.

Allen, C(hester) H(armon), 3735 Woodburn Ave, Cincinnati, Ohio. *Chemistry.* Grand Rapids, Mich, 89. A.B, Lawrence Col, 12; A.M, Illinois, 14. Research worker, Rockefeller Inst, 14–16; research and mfg. control, chem. works, Ault and Wiborg Co, Cincinnati, 16–29; investigator and consultant, Howard Ecker Chem. Labs, 29–32; *with Hilton-Davis Chem. Co, 32–, mem. board directors and director research lab.* Chem. Soc. (chairman, Cincinnati sect, 36–). Natural and synthetic resins and varnishes; printing ink vehicles; pigments, dyestuffs and intermediates; commercial organic and inorganic chemicals.

Allen, Dr. Clyve (Charles), P. O. Box 51, Cyril, Okla. *Organic chemistry.* Los Angeles, Calif. B.S, California, 27, M.S, 29, Ph.D, 30. Teaching fellow chem, California, 28–30; *research chemist*, Shell Develop. Co, Emeryville, Calif, 30–38; Winkler-Koch Eng. Co, Wichita, Kans, 38–40; *Anderson-Prichard Oil Corp, Oklahoma City, Okla, 40–* Physical properties of solutions; correlation of optical and electrical properties of the nitrogen atom in organic compounds.

Allen, Dr. Denver I(rving), University of Missouri, Columbia, Mo. *Plant physiology.* New Liberty, Mo, Feb. 7, 13. B.S, Missouri, 38, Ph.D, 42. *Agent, div. forage crops, U. S. Dept. Agr, 36–; instr. field crops, Missouri, 39–* Soybean Asn; Soc. Agron. Differential growth response of certain varieties of soy-beans to varied mineral nutrient conditions.

Allen, Dr. Doris Twitchell, Fountain Ave, Glendale, Ohio. *Psychology.* Old Town, Maine, Oct. 8, 01. A.B, Maine, 23, A.M, 26; Ph.D, Michigan, 30. Teacher, high sch, Maine, 23–24; instr. educ, Maine, 23–25; asst, dept. educ. investigations, Michigan, 26–31; research, Berlin, 31–32; instr. child psychol. and director educ. field lab, Child Educ. Foundation, New York, 32–35; *psychologist, Children's Hosp, Cincinnati, 36–; private consultant, 37–* Summers, Maine Biol. Sta, Bar Harbor, 24–26; Colorado, 27; Munich, 31; director, Out-of-Door Sch, 34, 35. A.A; assoc. Psychol. Asn; Child Study Asn; Nat. Asn. Nursery Educ; fel. Asn. Applied Psychol; Soc. Psychol. Study Social Issues; Council Women Psychol; Ohio Asn. Applied Psychol; N. Y. Acad. Biological survey; tropic reactions; higher thought processes; topological and vector psychology; clinical diagnosis and therapy.

Allen, Dr. Durward L(eon), Rose Lake Wildlife Experiment Station, East Lansing, Mich. *Vertebrate ecology.* Uniondale, Ind, Oct. 11, 10. A.B, Michigan, 32; fellow, Mich. State Col, 34–35, Mich. State Dept. Conservation fellow, 35–37, Ph.D, 37. *Biologist in charge*, Swan Creek Wildlife Exp. Sta, *State Dept. Conservation, Mich*, 37–39, *Rose Lake Wildlife Exp. Sta, 39–* Wildlife Soc; Ornith. Union; Ecol. Soc; Soc. Mammal; Wilson Ornith. Club; Mich. Acad. Ecological and management studies on the skunk, fox, squirrel, cottontail rabbit, ringneck pheasant and other farmland wildlife; relationship of farm practices to wildlife management and the development of practical methods of habitat improvement for small game in southern Michigan.

Allen, Dr. E(dward) R(iley), E. I. du Pont de Nemours and Co, 256 Vanderpool St, Newark, N. J. *Chemistry.* Pana, Ill, July 28, 84. B.S, Illinois, 06; Ph.D, Cornell, 13. Asst. org. chem, Cornell, 11–12; assoc. soil biol, Ohio Exp. Sta, 13–15, in charge soil technol, 15–17; assoc. biochem, Washington (St. Louis), 17–19; org. chemist, dye works, *E. I. du Pont de Nemours and Co*, 19–23, *director pigment research, Newark plant, 23–* Visiting investigator, Mo. Bot. Garden, 17–19. Chem. Soc. Organic and biological chemistry; dyes, lakes and pigments.

Allen, Prof. Edward S(witzer), Iowa State College, Ames, Iowa. *Mathematics.* Kansas City, Mo, Dec. 12, 87. A.B, Harvard, 09, A.M, 10, Ph.D, 14; Rome, 11–13; Göttingen, 12; Berlin, 31–32. Instr. *math*, Dartmouth Col, 13–14; Brown, 14–15; Michigan, 15–19; asst. prof, West Virginia, 19–21; *assoc. prof, Iowa State Col, 21–* Math. Soc; Iowa Acad; Deuts. Math. Verein; Circolo Mat. di Palermo. Algebraic geometry; probability.

Allen, Prof. Edwin B(rown), 4 Sheldon Ave, Troy, N. Y. *Mathematics.* Westerly, R. I, Nov. 3, 98. E.E, Rensselaer Polytech, 20, M.S, 30, Ph.D, 34; A.M, Harvard, 34. Instr. math. and civil eng, *Rensselaer Polytech*, 20–26, asst. prof. math, 26–34, *prof. math. and astron, 34–, head dept, 37–* Math. Soc; Math. Asn; Astron. Soc; Oriental Soc; Asn. Symbolic Logic. Pure and applied mathematics; history of mathematics in the Orient.

Allen, Prof. E(lbert) F(rank), 1409 College Ave, Stillwater, Okla. *Mathematics.* Cloverdale, Ind, Jan. 21, 90. A.B, Ind. State Nor. Sch, 15; A.M, Missouri, 21, Ph.D, 23. Pub. schs, Ind, 09–19; asst. prof. *math*, Missouri, 19–28; prof, Ky. State Teachers Col, Morehead, 28–29; assoc. prof, *Okla. Agr. and Mech. Col*, 29–36, *prof, 36–* Math. Asn. Analysis; contact transformations.

Allen, Dr. Ena A(lida), U. S. Department of Agriculture, Beltsville, Md. *Zoology.* San Marcos, Texas, Nov. 12, 75. A.B, Texas, 19; A.M, California, 25, Ph.D, 28. Head dept. biol, N. Texas Agr. Col, 19–21, 22–23; tutor bot, Texas, 21–22; teaching fellow zool, California, 23–24, asst, 27–29; *assoc. zoologist, zool. div, bur. animal indust, U. S. Dept. Agr, 29–* A.A; Soc. Parasitol; Micros. Soc; Bot. Soc; Soc. Trop. Med; Helminth. Soc. Wash. Protozoology; parasitic Protozoa; intestinal Protozoa of man; parasitic Protozoa of poultry and wild birds.

Allen, Esther C(ampbell), State Hospital, Camarillo, Calif. *Chemistry, Bacteriology.* Tecumseh, Okla, March 28, 05. A.B, Pomona Col, 26; M.S, California, 32. Asst. zool, Northwestern, 28–30; private research, Scripps Institution, California, 32–35; *clin. lab. technician and head lab, Camarillo State Hosp, 38–* A.A; Micros. Soc; Soc. Bact; Chem. Soc. Chemistry of sea water; marine bacteriology.

Allen, Ethel K(ullmann) (Mrs. O(scar) N(elson) Allen), University of Hawaii, Honolulu, Hawaii. *Bacteriology.* Milwaukee, Wis, July 13, 06. A.B. Wisconsin, 28, Herman Frasch fellow, 28–30, M.S, 30. Collaborator bacter. and histol, Exp. Sta, *Hawaii*, 32–39, research, 39–42, *analyst, water testing sta, U. S. Eng. Dept, 42–* Summer, tech. asst, Jacques Loeb lab, Hopkins Marine Sta, Stanford, 29. Fermentation of native tropical foods; legume bacteria; histological technique.

Allen, Dr. E(ugene) T(homas), 135 Pleasant St, Arlington, Mass. **Chemistry.* Athol, Mass, April 2, 64. A.B, Amherst Col, 87; Ph.D, Hopkins, 92; Harvard, 93–95. Assoc. chem, Woman's Col. of Baltimore, 90–91; acting prof, Colorado, 92–93; prof, Mo. Sch. Mines, 95–01; chem. geologist, U. S. Geol. Surv, 00–06; research chemist, geophys. lab, Carnegie Institution, 07–32, research assoc, 32–33. Summers, instr, Harvard, 93–95. Nat. Acad; Geol. Soc. Geochemistry; volcanology.

Allen, Prof. E(zra), R. D. 2, DeLand, Fla. *Zoology.* Coudersport, Pa, May 8, 70. A.B, Bucknell, 95, Sc.D, 22; fellow, Clark, 00–01; Chicago, 05; Ph.D, Pennsylvania, 14. Teacher science, Perkiomen Sem, 96–00; prof. biol, Mont. State Nor. Col, 03–07; Phila. Sch. Pedag, 07–18; Ursinus Col, 19–27; assoc. ed, 'Biol. Abstracts,' 27–28; assoc. prof. histol. and embryol, N. Y. Med. Col, 28–38; histol. technic, zool. dept, Pennsylvania, 39–40; *visiting prof, J. B. Stetson, 42–* Investigator, Wistar Inst, 10–18; hon. investigator, Pennsylvania, 15–19; research assoc, Carnegie Institution, 26–27. Educ. adviser, U.S.A, 19, lecturer, A.E.F. Univ. Beaune, 19. A.A; Soc. Nat; Soc. Zool; Asn. Anat; Soc. Exp. Biol. Cytology; mammalian nerve and germ cells; cytological methods; embryology of the mouse.

Allen, Dr. F(lorence) E(liza), 219 Lathrop St, Madison, Wis. *Mathematics.* Horicon, Wis, Oct. 4, 76. B.S, Wisconsin, 00, M.S, 01, Ph.D, 07. *Instr. math, Wisconsin, 01–* Math. Soc; Math. Asn. Cyclic involutions of third order; closure of the tangential process on the rational plane cubic.

Allen, Francis H(enry), 215 LaGrange St, West Roxbury, Mass. *Ornithology.* Jamaica Plain, Mass, Aug. 3, 66. Grad, Roxbury Latin Sch, 84. Ed. staff, Houghton Mifflin Co, 94–34. A.A; Ornith. Union; Nuttall Ornith. Club; Northeast. Bird-Banding Asn. Evolutionary problems; bird-song; habits of birds.

Allen, Prof. Frank, University of Manitoba, Winnipeg, Man, Can. *Biophysics.* Meductic, N. B, Feb. 6, 74. B.A, New Brunswick, 95, M.A, 97; A.M, Cornell, 00, fellow, 00–01, Ph.D, 02; LL.D, Manitoba, 24. Teacher, high schs, N. B, Can, 95–99; instr. *physics*, Cornell, 02–04; *prof, Manitoba, 04–* Optical Soc; fel. Royal Soc. Can. (pres, sect. physics and math, 28). Color and color vision; sound, touch and taste sensations; physiological optics; liquid air production; temperature; muscles; glands.

Allen, Prof. F(rank) W(isdom), College of Agriculture, University of California, Davis, Calif. *Horticulture.* Columbia, Mo, July 18, 87. B.S.A, Missouri, 10; M.S, Iowa State Col, 13. Instr. hort, Iowa State Col, 10–13; State Col. Wash, 13–14, asst. horticulturist, Exp. Sta, 14–17; bur. markets, U. S. Dept. Agr, 17–20; asst. prof. *pomol, col. agr, California,* 20–29, *assoc. prof, 38–, assoc. pomologist, Exp. Sta, 29–* Soc. Hort. Sci. Pomology; fruit handling, storage and transportation; optimum storage humidities.

Allen, Prof. Frank Worthington, 1650 Scenic Ave, Berkeley, Calif. *Biochemistry.* Harbor Beach, Mich, Sept. 3, 03. A.B, Stanford, 29; Ph.D, California, 32. Instr. and *asst. prof. biochem, med. sch, California, 33–* Chemistry and metabolism of nucleic acid and purine derivatives.

Allen, Dr. F(red) J(ohn), 118 E. Stadium Ave, West Lafayette, Ind. *Chemistry.* Elgin, Oregon, Nov. 21, 94. B.S, Oregon State Col, 17; M.S, Purdue, 21, Ph.D, 30. Asst. *chem,* Purdue, 17–18, 20–21; *instr,* Oregon State Col, 19–20, 21–22; *Purdue, 22–* A.A; Chem. Soc; Ind. Acad. Inorganic and physical chemistry; rare gases; purification and properties of krypton and xenon.

Allen, F(red) W(illiam), 222 N. Amhurst, Albuquerque, N. Mex. *Zoology.* Kansas City, Kans, Feb. 27, 02. A.B, Kansas, 26, A.M, 27, Ph.D, 33. Asst. prof. biol, New Mexico, 29–36, assoc. prof, 36–39; *supt, N. Mex. Indust. Sch. for Boys, 39–* V. pres, State Board Examiners in Basic Sciences, N. Mex, 41– Soc. Parasitol; Kans. Acad; N. Mex. Acad. Parasitology; immunity to parasitic infections; fish culture in conservancy ditches; distribution of human blood groups and inheritance of agglutinogens in Indians; temperature effect on antibody formation in cold-blooded animals; fish culture in conservancy ditches.

Allen, Dr. Frederick Madison, 1031 Fifth Ave, New York, N. Y. **[3]Medicine.* Des Moines, Iowa, March 16, 79. A.B, California, 02, M.D, 07. Fellow, Harvard Med. Sch, 09–12; assoc. med, Rockefeller Inst, 13–18; practising physician, 19–20; director, Physiatric Inst, Morristown, N. J, 20–33; *prof. internal med, N. Y. Polyclinic Hosp. and Med. Sch.* Lecturer, Harvey Soc, 16. A.A; Am. Med. Asn; Am. Physicians; Soc. Exp. Path; Physiol. Soc; Harvey Soc; N. Y. Acad. Med; Pan-Am. Med. Asn. Diabetes; nephritis; metabolism; surgical refrigeration.

Allen, Dr. H(arold) D(waine), 3415 Ninth St, Port Arthur, Texas. *Chemical engineering.* Allerton, Ill, Jan. 31, 06. B.S, Ill. Wesleyan, 28; M.S, Iowa, 29; Ph.D, Cornell, 32. Skelly Oil Co, Eldorado, Kans, 29, 32–33; *chem. engineer, Texas Co, 33–* Chem. Soc. Petroleum refining.

Allen, Dr. Harriet W(hitney), President Apts, 2141 Eye St, N. W, Washington, D. C. *Physics.* Chicago, Ill. A.B, Wellesley Col, 24; B.S, Mass. Inst. Tech, 27, Ph.D, 36. Mem. eng. staff, Gen. Elec. Co, Lynn, Mass, 24–25, Schenectady, N. Y, 27–31; teacher physics and math, Park Sch, Buffalo, 31–32; instr. physics, Hunter Col, 36–37; *asst. prof. math. and in charge dept, Hollins Col, 38–; tech. worker, Ordnance Bur, U. S. Navy Dept, 42–* Summer, instr, eng. defense training program, Pa. State Col, 41. Physical Soc; Math. Soc; Math. Asn. Electron temperatures and mobilities.

Allen, Dr. H(arry) W(illis), U. S. Department of Agriculture, Moorestown, N. J. *Entomology.* Pelham, Mass, Aug. 8, 92. B.S, Mass. Col, 13; M.S, Miss. Agr. and Mech. Col, 22; Ph.D, Ohio State, 26. Sci. asst, bur. entom, U. S. Dept. Agr, 13–17, 19–20; bacteriologist, U. S. Pub. Health Service, 19; from instr. to assoc. prof. entom, Miss. Agr. and Mech. Col, 20–26, assoc. entomologist, Exp. Sta, 23–26; assoc. entomologist and later *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 26–* U.S.A, 18–19. Entom. Soc. Amer; Entom. Soc; Asn. Econ. Entom. Biological control of insects; Tiphiidae.

Allen, Henry B(utler), Franklin Institute, Philadelphia, Pa. *Metallurgy.* Greenfield, Mass, July 20, 87. Met.E, Columbia, 11; hon. Sc.D, Temple, 38. U. S. examiner iron and steel, Port of New York, 12–13; metal. engineer, Henry Disston and Sons, Inc, 13–17, 22–26, chief metallurgist, 26–35; v. pres, Dodge Steel Co, 20–22; *sec'y and director, Franklin Inst, 35–* Chairman, Advisory Council Vocational Training for War Production Workers; deputy chief, div. one, Nat. Defense Research Cmt; v. pres, Am. Asn. Museums. Chevalier, Légion d'honneur, 38. Capt, Ordnance Dept, 17–20. A.A; Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Iron and Steel Inst; Franklin Inst; Newcomen Soc; Pa. Hist. Soc. The metallurgy of steel.

Allen, Dr. Ivey, Jr, 230 Grove St, Bloomfield, N. J. *Chemistry.* Louisburg, N. C, April 29, 06. A.B, Duke, 26, Ph.D, 29; Freiburg, 33–34. *Chemist, Bakelite Corp,* 29–33, *34–* Chem. Soc. Nitrogen bases; phenolic condensation products; polymeric compounds of high molecular weight.

Allen, Dr. James S(ircom), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Halifax, N. S, Can, Aug. 11, 11. A.B, Cincinnati, 33; Ph.D, Chicago, 37. Instr. *physics,* Kenyon Col, 36–37; asst, Minnesota, 37–39; *assoc. prof, Kans. State Col, 39–; staff mem. radiation lab, Mass. Inst. Tech.* Physical Soc. The application of electron multiplier tubes to nuclear physics.

Allen, John Eliot, 702 Woodlark Bldg, Portland, Oregon. *Geological sciences.* Seattle, Wash, Aug. 12, 08. A.B, Oregon, 31, A.M, 32; California, 32–35. Teaching fellow, California, 32–35; field geologist, Rustless Iron and Steel Corp, Baltimore, 35–37; *State Dept. Geol. and Min. Industries, Oregon,* 37–39, *chief geologist, 39–* Min. and Metal. Eng. (v. chairman Oregon sect, 39, chairman, 43). Field problems in Pacific Coast states; origin of the chromite deposits of the Pacific Coast.

Allen, Prof. J(ohn) Stanley, 1441 Drummond St, Montreal, Que, Can. *Physical and organic chemistry.* Montreal, Que, Nov. 19, 06. B.A, British Columbia, 27, M.A, 29; Nat. Research Council Can. bursar, McGill, 29–30, student, 30–31, Ph.D, 32. Teacher science, 27–29; instr. chem, McGill, 31–32; *senior prof. nat. science, Sir George Williams Col, 32–* Chem. Soc; Soc. Chem. Indust; Can. Chem. Asn. Oil; polymerization; dipolar moments and organic structure.

Allen, Dr. J(ohn) S(tanley) V(alentine), Bethany College, Bethany, W. Va. *Physics.* Painesville, Ohio, Feb. 14, 06. B.E, Ohio State, 28, Tau Beta Pi fellow, 29–30, M.S, 30, Charles A. Coffin fellow, 30–31, univ. fellow, 31–32, Ph.D, 34. Instr. physics and math, *Bethany Col. (W. Va),* 33–36, asst. prof, 37–42, *prof. physics and head dept, 42–* Spectroscopy; intensity relations in the chromium spectrum; artificial radioactivity of titanium 45.

Allen, Prof. John S(tuart), 50 University Ave, Hamilton, N. Y. *Astronomy.* Pendleton, Ind, May 13, 07. A.B, Earlham Col, 28; A.M, Minnesota, 29; Ph.D, N. Y. Univ, 36. Asst. astron, Minnesota, 28–29, instr, 30; Colgate, 30–36, asst. prof, 37–42, dean freshmen, 42; *acting director higher educ, State Educ. Dept, N. Y, 42–* A.A; Astron. Soc; Polit. Sci. Asn; Royal Astron. Soc. Can; Soc. astron. de France. Binary star orbits; atoms, rocks and galaxies; education.

Allen, Prof. Joseph, 9 Myrtle St, White Plains, N. Y. *Mathematics.* New Bedford, Mass, March 21, 70. A.B, A.M, Harvard, 92, 92–94. Instr. math, Cornell, 94–97; assoc. prof, Col. City of N. Y, 97–40; *retired.* Math. Soc; Math. Asn. Analytical geometry.

Allen, Dr. Lane, University of Georgia School of Medicine, Augusta, Ga. *Anatomy.* Ellijay, Ga, Aug. 14, 09. B.S, Georgia, 30, M.S, 32, M.D, 39; Ph.D, Georgetown, 35. Instr. zool, Georgia, 30–31; *anat,* George Washington, 32–33; Georgetown, 33–35; asst. prof, *sch. med, Georgia,* 35–40, *assoc. prof, 40–* Asn. Anat; Physiol. Soc. Anatomy and physiology of the lymphatic system.

Allen, Prof. Leah B(rown), Hood College, Frederick, Md. *Astronomy.* Providence, R. I, Nov. 6, 84. A.B, Brown, 07; A.M, Wellesley Col, 12. Computer, Lick Observatory, California, 07–09; asst. astrophys, Wellesley Col, 09–12, instr, 12–25, asst. prof, 25–28; *prof. astron, Hood Col, 28–* Pepper fellow, Pennsylvania, 19–20; Martin Kellogg fellow, Lick Observatory, California, 25. A.A; Astron. Soc; Asn. Variable Star Observers. Astrophysics; radial velocities of Me stars; spectroscopic study of T centauri; radial velocities; photometry.

Allen, Dr. Melvin C, 1254 Longfellow Ave, West Englewood, N. J. *Bacteriology.* Oak Grove, Oregon, Aug. 5, 08. B.S, Oregon State Col, 30; M.S, State Col. Wash, 31; Ph.D, Rutgers, 34. Asst, State Col. Wash, 30–31; N. J. Exp. Sta, 31–34; *bacteriologist, Nat. Biscuit Co, 34–* Asn. Cereal Chemists. Enzymes; fermentation.

Allen, Prof. Mildred, 88 Montview St, West Roxbury, Mass. *Physics.* Sharon, Mass, March 25, 94. A.B, Vassar Col, 16; A.M, Clark, 17, Ph.D, 22. Instr. *physics,* Mt. Holyoke Col, 18–20; Wellesley Col, 21, 22–23; Mt. Holyoke Col, 23–24, asst. prof, 24–26; fellow, Bartol Research Foundation, 27–30; research instr, Oberlin Col, 30–31; research, Harvard, 31–33;

assoc. prof, Mt. Holyoke Col, 33– A.A; Physical Soc; Asn. Physics Teachers; Optical Soc; Meteorol. Soc; N. Y. Acad. Sciences. Tension coefficients of resistance of single crystals.

Allen, Prof. Nat(haniel) N(ewton), University of Vermont, Burlington, Vt. *Dairy husbandry.* Keytesville, Mo, Aug. 28, 01. B.S, Missouri, 29; Ph.D, Minnesota, 35. Instr. dairy husbandry, Minnesota, 29–38, asst. prof, 38–42; *assoc. prof. dairy production, Vermont, 42–* Dairy Sci. Asn. Fat of milk in relation to food fat; lipides of the blood of dairy cattle.

Allen, Prof. O(scar) N(elson), University of Hawaii, Honolulu, Hawaii. *Bacteriology.* Corsicana, Texas, May 15, 05. A.B, A.M, Texas, 27; Ph.D, Wisconsin, 30. Asst. agr. bacter, Wisconsin, 27–29, instr, 29–30; asst. prof. *bacter. and plant path, Hawaii,* 30–35, assoc. prof, 35–40, *prof, 40–, bacteriologist, grad. sch. trop. agr, 31–,* collaborator, Exp. Sta, 32–39, acting head dept. bot, 34, 39, *chairman dept, 40–* Cooperating soil bacteriologist, Pineapple Producers Cooperative Asn, 31–39. Mem, Int. Cong. Soil Science. A.A; Soc. Bact; Phytopath. Soc; Mycol. Soc; Soil Sci. Soc; Pub. Health Asn; Hawaiian Bot. Soc. (treas, 31); Hawaiian Acad. Physiology of rhizobia; bacterial-plant symbiosis; structure of root nodules; bacteria of non-leguminous plants.

Allen, Prof. Paul, Jr, Lynchburg College, Lynchburg, Va. *Organic chemistry.* Litchfield, Conn, Sept. 2, 98. A.B, Harvard, 19, A.M, 22, Ph.D, 24. Instr. chem, N. Y. Univ, 23–24; research chemist, Marx and Rawolle, Brooklyn, 24–25; Vacuum Oil Co, Paulsboro, 25–29; asst. prof. *chem,* St. John's Col. (Md), 29–34, assoc. prof, 34–39; *Lynchburg Col,* 39–41, *prof, 41–* Summer, asst. prof, postgrad. sch, U. S. Naval Acad, 31, lecturer, 39. Chem. Soc; fel. Inst. Chem. Reactions of unsaturated ketones; aliphatic sulfonic acids and sulfur compounds.

Allen, Dr. Paul J(ames), University of Pennsylvania, Philadelphia, Pa. *Plant physiology.* Stockbridge, Mass, Sept. 28, 14. A.B, Harvard, 36; M.S, Rochester, 38; Ph.D, California, 41. Teaching asst. biol, Rochester, 36–38; *bot,* California, 38–41; *instr, Pennsylvania, 41–* Summers, field asst, State Dept. Agr, Calif, 39; supt. peach mosaic eradication project, U. S. Dept. Agr, 40. Nutrition and metabolism of powdery mildew and the relation between the metabolism of the host and parasite.

Allen, Prof. Paul W(illiam), University of Tennessee, Knoxville, Tenn. *Bacteriology.* Harford, N. Y, 83. B.S, 10, M.S, 14, Ph.D, 22. Assoc. bacter, Illinois, 14–18; chief chemist, Douglas Co, 18–20; chief bacteriologist, Exp. Sta, State Col. Wash, 22–23; *prof. bacter. and head dept, Tennessee, 23–* Lecturer, Coe Col, 19–20. Soc. Bact; Wash. Acad. Industrial fermentations; microbes; microbiology.

Allen, Dean Raymond B(ernard), University of Illinois College of Medicine, Chicago, Ill. *Medical education.* Cathay, N. Dak, Aug. 7, 02. B.S, Minnesota, 24, A.M, 25, M.D, 28, Mayo Foundation fellow, 30–34, Ph.D, 34. Teaching fellow anat, Minnesota, 24–27; asst. surg, Northwest Clinic, Minot, N. Dak, 28–30; assoc. dean in charge grad. study, col. physicians and surg, Columbia, 34–36; dean col. med, Wayne, 36–39; *exec. dean, Chicago cols. med, dentistry and pharmacy, Illinois, 39–* N. Y. Acad. Med. Medical sociology, economics and administration; anatomy, development, physiology and diseases of the kidney; urology.

Allen, Prof. R(aymond) C(layton), Cornell University, Ithaca, N. Y. *Floriculture.* Barre, Mass, Jan. 17, 07. B.S, Mass. State Col, 31; Ph.D, Cornell, 38. Asst. *floricult. and ornamental hort, Cornell,* 32–33, instr, 33–41, *asst. prof, 41–* Summers, research asst, Boyce Thompson Inst, 29–31. Soc. Hort. Sci. Hydrangeas; rose culture; peat; winter injury of roses and herbaceous ornamentals; herbaceous plant materials.

Allen, Dr. Raymond P(eck), National Rubber Machinery Co, Akron, Ohio. *Chemistry.* Lima, N. Y, Jan. 10, 97. A.B, Cornell, 20, Ph.D, 32. Molé Chem. Co, Rochester, 20–21; asst. chem, Cornell, 22–25; research chemist, B. F. Goodrich Co, 25–41; *manager plastics div, Nat. Rubber Machinery Co, 41–* Chem. Soc. Metallic luster; high temperature ozonizer; microscopy; rubber pigments; plastics machinery.

Allen, Rex W(ayne), U. S. Department of Agriculture, Beltsvile, Md. *Parasitology.* Brocton, Ill, Oct. 16, 08. B.S, Chicago, 38. Lay inspector, meat inspection div, *bur. animal indust, U. S. Dept. Agr,* 34–39, *zool. div,* 39–40, junior parasitologist, 40–43, *asst. parasitologist, 43–* Soc. Parasitol; Helminth. Soc. Wash. Parasites of domestic animals.

Allen, Dr. Richard D(ay), 9 Exchange Terrace, Providence, R. I. *Education, Psychology.* Milwaukee, Wis, May 18, 87. A.B, Brown, 10, A.M, 12, Ph.D, 21. Director *research and guidance, schs, Providence,* 18–25, *asst. supt. in charge, 25–* Lecturer, R. I. Col. Educ, 19–21; Harvard, 21–33; Brown, 22–; Boston, 32–38; consultant, U. S. Office Educ, 38–39; lecturer, Yale, 40. Mem. ed. board, 'Understanding the Child,' 37–; board cooperating editors, 'Educational and Psychol. Measurement,' 40– Mem. cmt. measurement and guidance, Am. Council Educ, 40– Nat. Vocational Guidance Asn. (pres, 29). Educational and psychological measurements applied to educational and vocational guidance; group guidance; organization and supervision of guidance.

Allen, Prof. R(ichard) S(weetnam), University of Kentucky, Lexington, Ky. *Physiology, Anatomy.* Pekin, Ill, Nov. 9, 96. B.S, Rochester, 22, M.S, 25; fellow, Chicago, 26–27, 36–37. Research assoc, Rochester, 22–23, asst, 23–25; instr, col. med, Tennessee, 25–26; asst. prof, *Kentucky,* 27–29, assoc. prof. *physiol. and anat,* 29–36, *prof, 36–, head dept, 31–* Physiological chemist, Wilson Research Lab, Chicago, 23; physical chemist, West. Elec. Co, Chicago, 24. Ky. Acad; Tenn. Acad. Effect of alkalization on muscular work; rôle of endocrines in heredity; exchange in hyperparathyroidism; chemistry of insulin; cellulose utilization; gastric digestion and yeast; effect of low pressures on the heart.

Allen, Prof. Robert Ivey, John B. Stetson University, Deland, Fla. *Physics, Radio engineering.* Sparta, Ga, May 17, 98. B.S, Georgia, 20, M.S, 22; fellow, Duke, 31–32, Ph.D, 33. Asst. prof. *physics,* Furman, 22–26; *prof. and head dept, J. B. Stetson, 26–* Summer, research engineer, Westinghouse Elec. and Mfg. Co, 29. A.A; Physical Soc; Elec. Eng; Asn. Physics Teachers; Southeast. Soc. Physicists; Fla. Acad. (pres). Electricity; film speed variation measurements; elementary physics; magnetism; electro-acoustics; physics laboratory manual.

Allen, Dean Roger (Williams), 219 Samford Ave, Auburn, Ala. *Organic chemistry.* Birmingham, Ala, March 29, 97. B.S, Ala. Polytech, 18, M.S, 19; A.M, Michigan, 21; Ph.D, Columbia, 27. Chemist, State Chem. Lab, Ala, 19; bur. entom. and plant quarantine, U. S. Dept. Agr, 21; prof. chem, Howard Col, 21–22, 23–26; chemist, Inecto, Inc, and Marinello Co, New York, N. Y, 26–28; prof. chem, *Ala. Polytech,* 28–41, *dean sch. science and lit, 41–* Summers, chemist, D. C. Pickard, Birmingham, Ala, 17; E. I. du Pont de Nemours and Co, Washburn, Wis, 18. C.W.S, 18. Chem. Soc. (chairman Ala. sect); Ala. Acad. (pres, 38). Synthetic dyestuffs.

Allen, R(olland) C(raten), Hanna Bldg, Cleveland, Ohio. *Geology.* Richmond, Ind, May 24, 81. A.B, Wisconsin, 05, A.M, 08; Michigan; hon. D.Eng, Rensselaer Polytech, 40. Instr. econ. geol, Michigan, 08–09, lecturer, 09–13; state geologist, Mich, 09–19; v. pres, *Lake Superior Iron Ore Asn,* 19–29, *pres, 29–; dept. chief iron and steel branch, War Production Board, 40–* First v. pres, Oglebay, Norton and Co, Cleveland, 23–; U. S. Excess Profits Tax Board, 18–19. Trustee, Battelle Mem. Inst, 39. A.A; Geol. Soc; Soc. Econ. Geol. (v. pres, 42); Min. and Metal. Eng. (pres, 37); Min. and Metal. Soc. Geology of the Iron River district of Michigan.

Allen, Dr. Ruth F(lorence), 2709 Dwight Way, Berkeley, Calif. *Plant pathology.* Sturgeon Bay, Wis, May 23, 79. A.B, Wisconsin, 05, A.M, 07, Ph.D, 09. Asst. bot, Wisconsin, 05–10; instr, Mich. State Col, 10–14; instr. and asst. prof, Wellesley Col, 14–18; assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 18–29, pathologist, 29–36; *retired.* A.A; Bot. Soc; Phytopath. Soc. Cereal diseases; cytology.

Allen, Prof. Samuel J(ames) M(cIntosh), University of Cincinnati, Cincinnati, Ohio. **²Physics.** Maitland, N. S, Can, Oct. 5, 77. B.Sc, McGill, 00, M.Sc, 01; fellow, Hopkins, 03–04, Ph.D, 06. Demonstrator physics, McGill, 00–03; instr, *Cincinnati,* 06–09, asst. prof, 09–14, assoc. prof, 14–19, *prof. exp. physics, 19–, head dept, 40–* A.A; Physical Soc. Radioactivity; passage of alpha rays of radium and x-rays through matter; radioactivity of smoky atmosphere; relations between x-ray wave-lengths, atomic numbers and absorption coefficients.

Allen, Prof. Shirley W(alter), University of Michigan, Ann Arbor, Mich. *Forestry.* Sherman, N. Y, Oct. 14, 83. B.S.A, Iowa State Col, 09, M.F, 29. Forest asst. and deputy forest supervisor, U. S. Forest Service, Calif, 09–13; from asst. prof. to prof. forest exten, N. Y. State Col. Forestry,

Syracuse, 14–18; indust. examiner forest products, Forest Products Lab, U. S. Forest Service, 18–19; forest supervisor, Angeles Nat. Forest, Calif, 20–21; forester, Am. Forestry Asn, 24–28; *prof. forestry, Michigan, 28–* Consultant, forestry branch, Nat. Park Service, 35–38. Sec'y, Am. forest week cmt, 28. Ed. board, 'Jour. Forestry,' 30. Del, Int. Forestry Cong, Budapest, 36. A.A; Soc. Foresters (chairman, Cent. States sect, 32, 36, councilor, 40–43, v. pres, 42); Wilderness Soc; Mich. Acad. Timber preservation; forest administration; recreational use of primitive areas and forest resources.

Allen, Dr. T(heodore) W, Pittsburgh Plate Glass Co, Barberton, Ohio. *Physical chemistry.* Budapest, Hungary, Nov. 28, 17. A.B, Columbia, 37, A.M, 38; Ph.D, Northwestern, 41. Asst, Northwestern, 38–39, teaching asst, 39–41; *research chemist,* Coffee X Corp, 41–42; *Columbia chem. div, Pittsburgh Plate Glass Co.* Calorimetry; theories of non-electrolytic solutions; physical chemistry of coffee plastics; kinetics of polymerization of vinyl type compounds; alkalies and inorganic compounds.

Allen, Dr. T(homas) C(ort), University of Wisconsin, Madison, Wis. *Entomology.* Newark, N. J, May 13, 99. B.S, Oregon State Col, 28, fellow, 28–29, M.S, 29; Ph.D, Wisconsin, 32. Asst. *entom, Wisconsin,* 30–32, instr, 33–37, asst. prof, 37–42, *assoc. prof, 42–* Asn. Econ. Entom; Phytopath. Soc. Economic entomology; entomology in relation to plant diseases; insect toxicology; plant resistance and susceptibility to insects.

Allen, Dr. Thomas D(yer), 122 S. Michigan Ave, Chicago, Ill. *Ophthalmology.* Omaha, Nebr, April 18, 88. A.B, Wisconsin, 13; M.D, Rush, Chicago, 15. *Asst. attending ophthalmologist, Presbyterian Hosp, Chicago, Ill, 24–; attending ophthalmologist, Ill. Eye and Ear Infirmary, 33–;* assoc. clin. prof. *ophthal, Rush Med. Col,* Chicago, 29–41, *assoc. prof, Illinois, 41–* Attending ophthalmologist, Cook County Hosp, Chicago, Ill, 31–34. Am. Med. Asn; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Asn. Research Ophthal; Col. Surg; Inst. Med. Chicago; Chicago Path. Soc; Chicago Ophthal. Soc. (sec'y, 34–36, pres, 37). Glaucoma; allergic eye conditions; cataract; disorders of ocular muscles.

Allen, Dr. Thomas Hunter, 4435 Clairmont Ave, Birmingham, Ala. *Physiology.* Davenport, Iowa, Sept. 24, 14. A.B, Iowa, 36, Ph.D, 41; Chicago, 40. Research assoc. zool, Iowa, 40–42; nat. research fellow, 42; *U. S. Army, 42–* Oxidative enzymes in embryonic development; protyrosinase; tyrosinase; cytochrome oxidase.

Allen, Prof. Victor T(homas), St. Louis University, St. Louis, Mo. *Geology.* Dubuque, Iowa, Oct. 28, 98. A.B, Minnesota, 21, M.S, 22; Ph.D, California, 28. Asst. *geol,* Minnesota, 21–22; instr, Western Reserve, 22–25; California, 25–27, lecturer, 27–28; asst. prof, *St. Louis,* 28–29, assoc. prof, 29–36, *prof, 36–; commodity geologist, U. S. Geol. Surv,* 42– Summers, Minn. Geol. Surv, 21–22; instr, Cleveland Sch. Educ, 22–25; Ill. Geol. Surv, 29–31; Mo. Geol. Surv, 32–36; prof, St. Louis, 36–37, 39–41; California, 38. Cmts, Nat. Research Council. A.A; fel. Geol. Soc; fel. Miner. Soc. Petrography and geology of the Ione formation of California; various bentonites, glacial deposits and underclays of Illinois; fullers' earth, flint, plastic and diaspore clays of Missouri; ceramic clay of Hawaii; anauxite clays and sands of California.

Allen, W(alter) S(tearns), 144–19 35th Ave, Flushing, N. Y. *Chemistry.* Acworth, N. H, Dec. 1, 77. A.B, Amherst Col, 00. Asst. geol, Amherst Col, 00–02; *anal. and research chemist, Gen. Chem. Co, 03–, in charge Laurel Hill lab,* 10–17, manager research lab, 26–29, chief control chemist, 29–38, *consulting chemist, 38–* Chem. Soc. Applied chemistry.

Allen, Dr. Willard M(yron), Washington University School of Medicine, St. Louis, Mo. *Obstetrics, Gynecology.* Macedon, N. Y, Nov. 5, 04. B.S, Hobart Col, 26, hon. Sc.D, 40; fellow, Rochester, 27–29, M.S, 29, M.D, 32. Nat. research fellow med. sciences and asst. path, sch. med. and dentistry, Rochester, 32–33, asst. obstet. and gynec, 34–36, instr, 36–38, asst. prof, 38–39; asst. res. pathologist, Strong Mem. Hosp, 32–33, intern obstet. and gynec, 33–34, Gen. Educ. Board fellow and asst. res. obstetrician and gynecologist, 34–36, res. obstetrician and gynecologist, 36–37; *prof. obstet. and gynec, sch. med, Washington (St. Louis), 40–* Eli Lilly award, 35. A.A; Am. Med. Asn; Asn. Anat; Physiol. Soc; Chem. Soc. Histology and physiology of female reproductive organs; physiology and chemistry of female sex hormones.

Allen, Prof. William F(itch), University of Oregon Medical School, Portland, Oregon. *Anatomy, Physiology.* Oneonta, N. Y, 75. A.B, Stanford, 00, A.M, 02; Ph.D, Minnesota, 15. Asst. to Dr. E. P. Allis, 01–06; physiol, California, 06–10; instr. embryol. and comp. anat, Illinois, 10–11; histol, embryol. and neur, Minnesota, 11–16; *prof. anat. and head dept, med. sch, Oregon, 16–* Asst, U. S. Fisheries Cmn, 99. A.A; Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Wash. Acad; N. Y. Acad; Anat. Geseli. Vascular systems in fish; morphology of the brain and nerves; conditioned olfactory, trigeminal, vagal and depressor reflexes; V ganglion; formatio reticularis; the olfactory system; cerebral association and correlation.

Allen, Prof. W(illiam) R(ay), University of Kentucky, Lexington, Ky. *Zoology.* Ossian, Ind, March 8, 85. A.B, Indiana, 13, A.M, 14, Ph.D, traveling fellow, 20; Cornell, 16–17. Instr. zool, Kans. State Col, 14–16; asst. *biol,* Cornell, 16–17; instr, Indiana, 17–18; asst. prof, Akron, 21–22; from asst. to *prof, Kentucky, 22–* Irwin exped. and traveling fellow, Illinois, S. Amer. A.A; Soc. Zool; Ecol. Soc; Micros. Soc; Soc. Ichthyol. and Herp; Fisheries Soc; Limnol. Soc; fel. Am. Geog. Soc; Malacol. Union; Ind. Acad; Ky. Acad; Sigma Xi (pres, 33). Physiology of fresh-water mussels; South American fishes.

Allen, Prof. W(infred) E(mory), Scripps Institution of Oceanography, La Jolla, Calif. *Biology.* West Newton, Ind, June 6, 73. B.L, Earlham Col, 98; A.M, Lawrence Col, 04; Nebraska, 99–00, 04–05; Illinois, 10–11. Athletic coach, Earlham Col, 96–99; asst. physical director, Nebraska, 99–00; physical director and registrar, Lawrence Col, 03–04; head dept. biol, high sch, Wash, 00–02; Nebr. State Nor. Sch, Kearney, 05–08; asst. zool, Illinois, 10–11; head dept. biol, high sch, Calif, 12–19; *asst. prof. biol, Scripps Institution, California, 19–* A.A; Ecol. Soc; Micros. Soc; Limnol. Soc; Bot. Soc; West. Soc. Nat; Calif. Bot. Soc. Morphology; regeneration; fresh-water plankton; marine phytoplankton.

Allenby, Dr. O(wen) C(lement) W(entworth), 186 Longueuil St, St. Johns, Que, Can. *Organic chemistry.* Franklin Centre, Que, Sept. 7, 17. B.Sc, McGill, 39, Nat. Research Council Can. bursar, 39–40, Ph.D, 42; Nat. Research Council Can. student, Toronto, 40–41, M.A, 41. *Chemist,* Richards Chemicals, 39; *R. and D. lab, Canadian Industries, Ltd, 42–* Reduction of alpha-bromoisobutyrophenone with aluminum isopropoxide; war research.

Allendoerfer, Dr. Carl B(arnett), Haverford College, Haverford, Pa. *Mathematics.* Kansas City, Mo, April 4, 11. B.S, Haverford Col, 32; Rhodes scholar, Oxford, B.A, 34, M.A, 39; fellow, Princeton, 35–37, Ph.D, 37. Instr. *math,* Wisconsin, 37–38; *Haverford Col,* 38–39, asst. prof, 39–42, *assoc. prof, 42–;* physicist, bur. ordnance, Navy Dept, 42; *consultant, Air Forces, U. S. Army, 43–* Math. Soc; Math. Asn. Differential geometry; immersion of Riemann spaces in Euclidean spaces; connections between differential geometry and topology.

Aller, Frank D, 1218 16th St, Golden, Colo. *Metallurgy.* Bushnell, Ill, June 5, 67. Met.E, Colo. Sch. Mines, 92. S. Am. rep, Am. Smelting and Ref. Co, 04–18; director exp. plant, Colo. Sch. Mines, 21–22; *consulting engineer.* A.A; Min. and Metal. Eng. (sec'y, N. Y. sect, 19). Refractory silver-lead ores; leaching copper ores.

Aller, Lawrence H(ugh), Harvard University, Cambridge, Mass. *Astrophysics.* Tacoma, Wash, Sept. 24, 13. A.B, California, 36; fellow, Harvard, 37–39; A.M, 38, Soc. of Fellows junior fellow, 39–42, Ph.D, 43. Lecturer astron, Tufts Col, 40; *instr. physics, Harvard, 42–, research assoc, observatory, 42–* Astron. Soc; Physical Soc; Astron. Soc. Pacific. Spectroscopic and theoretical studies of the gaseous nebulae and stellar atmospheres.

Allers, Dr. Rudolf, Catholic University of America, Washington, D. C. *Psychology, Philosophy.* Vienna, Austria, Jan. 13, 83. M.D, Vienna, 06; hon. M.D, Munich, 13; Ph.D, Univ. Cattolica del Sacro Cuore, Milan, 34. Privat-docent psychiat, med. sch, Munich, 13–18; Vienna, 27–38; *prof. psychol, sch. philos, Catholic Univ, 38–* A.A; Catholic Philos. Asn. (chairman cmt. psychol, 41); Mediaeval Acad. Normal, pathological, educational and philosophical psychology.

Alles, Dr. Gordon A(lbert), 770 S. Arroyo Parkway, Pasadena, Calif. *Organic chemistry, Pharmacology.* Detroit, Mich, Nov. 26, 01. B.S, Calif. Inst. Tech, 22, du Pont fellow, 24, M.S, 24, Ph.D, 26. Chemist, Riverside Portland Cement Co, 22; research chemist, The Celite Co, 22–23; research fellow, Harvard Med. Sch, 27–28; biochemist for George Piness, Los Angeles, 28–40; *lecturer pharmacol, med. sch, California, 32–; research assoc. biol, Calif. Inst. Tech, 39–* A.A; Chem. Soc;

Soc. Exp. Biol; Physiol. Soc; Inst. Chem; Soc. Pharmacol. Insulin and pernicious anemia liver principles; allergic protein preparations; amines and ammonium compounds related to choline, epinephrine and histamine; amphetamine and barbital derivatives; compounds related to cannabinol.

Alley, J(ohn) Dinsmore, 1705 McGee St, Berkeley, Calif. *Chemistry.* West Finley, Pa, May 8, 91. B.S, Muskingum Col, 13; A.B, Columbia, 17. Prof. chem, Muskingum Col, 19–20; Westinghouse Research Lab, 20–25; senior indust. fellow, Mellon Inst, 25–38; *assoc. metallurgist, Mare Island Navy Yard, 38–* Soc. Metals. Alloy steels; abrasives; low melting point solders; electrodeposition; air pollution; ferrous and non-ferrous metallurgy.

Alley, Dr. Otis E(dward), 80 E. Concord St, Boston, Mass. *Biochemistry.* Taunton, Mass, July 22, 99. B.S, Boston, 24, A.M, 26, Ph.D, 35; Harvard Med. Sch. *Head dept. science, high sch,* Methuen, *Mass,* 24–27, Winthrop, 27–30, *Winchester, 30–; lecturer biochem, sch. med, Boston, 30–* Teaching fellow, sch. med, Boston, 29–30; Evans Mem. fellow, Mass. Mem. Hosp, 30– Biology; immunology.

Allgood, Dr. Russell Warren, Ste. 9B, Curtis Apts, Winnipeg, Manitoba, Can. *Physical chemistry.* Toronto, Ont, Dec. 15, 15. B.A, Toronto, 38, M.A, 39, Ph.D, 41. *Mem. staff, Defense Industries, Ltd, 41–* Determination of the temperature coefficients of the transference numbers of dilute aqueous solutions.

Alliger, Lieut. Glen, 426 Ross Ave, Abilene, Texas. *Organic chemistry.* Leadville, Colo, March 13, 14. B.S, State Col. Wash, 37; M.S, Iowa, 39, Ph.D, 41. Asst, Iowa, 37–41; org. research chemist, Firestone Tire and Rubber Co, 41–42; *lieut, Inf, U. S. Army, 42–* Chem. Soc. Reactions of chloro ureas; synthetic rubber; chlorinated rubber.

Allin, Prof. Elizabeth J(osephine), University of Toronto, Toronto, Ont, Can. *Physics.* Blackwater, Ont, July 8, 05. B.A, Toronto, 26, M.A, 27, Nat. Research Council Can. bursar, 27–28, student, 28–29, fellow, 29–30, Ph.D, 31. Asst. demonstrator *physics,* Toronto, 26–27, demonstrator and asst, 30–33; Royal Soc. Can. fellow, Cambridge, 33–34; demonstrator, *Toronto,* 34–41, *asst. prof, 41–* Under-water spark spectra; hyperfine structure of spectral lines.

Alling, Prof. Harold L(attimore), 31 Barrington St, Rochester, N. Y. *Geology.* Rochester, N. Y, Feb. 7, 88. B.S, Rochester, 15; A.M, Columbia, 17, Ph.D, 20. Geologist, N. Y. State Museum, 17–20; instr. *geol, Rochester,* 20–23, asst. prof, 23–24, *prof. and head dept, 24–* Director, Ward's Nat. Science Estab, 31–40. Chairman feldspar cmt, Nat. Research Council, 27–32. A.A; Geol. Soc; Min. and Metal. Eng; Miner. Soc. (v. pres, 36); Geophys. Union; Chem. Soc; Seismol. Soc; N. Y. State Geol. Asn. (pres, 31, 41); Rochester Acad. (sec'y, 20). Interpretative petrology of the igneous rocks; crystallization of rock-forming minerals; the Adirondack Precambrian; sedimentary petrography; Silurian salt deposits; lavas of Fiji; structure of ore deposits.

Allington, Dr. William B, University of Illinois, Urbana, Ill. *Plant pathology.* Lodgepole, Nebr, July 28, 12. B.S, Nebraska, 33, A.M, 35; Ph.D, Wisconsin, 38. Asst. plant path, Nebraska, 33–35; Wisconsin, 35–38, instr. hort, 38–43; agent, div. tobacco investigations, bur. plant indust, *U. S. Dept. Agr,* 38–43, *asst. plant pathologist, div. forage crops and diseases, bur. plant indust, soils and agr. eng, 43–* Phytopath. Soc. Plant viruses; tobacco bacterial leaf spots; soybean diseases.

Allinson, Dr. M(orris) J(onathan) Carl, University of Arkansas School of Medicine, Little Rock, Ark. *Biochemistry, Physiology, Pharmacology.* New Haven, Conn, Feb. 20, 12. B.S, Yale, 32, 32–34; Ph.D, Boston, 38. Research biochemist, research lab, Sharp and Dohme, 34–35; fellow med, Chicago, 38–39; *instr.* biochem, Louisiana, 39–40; *physiol. and pharmacol, sch. med, Arkansas, 40–* Metabolism and specific colorimetric methods of determination of creatine and creatinine; relation of cyanamid to creatine and creatinine; action of bacterial enzymes on creatine; determination of inositol.

Allis, Dr. Edward Phelps, Jr, Milwaukee, Wis, or Palais de Carnolès, Menton, France. *[1]Vertebrate morphology.* Milwaukee, Wis, Sept. 14, 51. C.E, Del. Lit. Inst, 67; Antioch Col, 67–68; Mass. Inst. Tech, 68–69, 71; LL.D, Wisconsin, 03; hon. M.D, Groningen, 14. Mem. and officer, Edw. P. Allis Co, Milwaukee, 71–00. Assoc, museum zool, Harvard, 11. Laureat, Paris Inst, 98; officier d'Acad; chevalier, Légion d'honneur. A.A; Soc. Nat; Asn. Anat; Soc. Mil. Eng; fel. N. Y. Acad; Boston Soc. Nat. Hist; fel. Linnean Soc. London; Zool. Soc. London; Royal Micros. Soc; Royal Meteorol. Soc; London Soc. Arts; Anat. Soc. Gt. Britain and Ireland; British Inst. Philos. Studies; North British Acad; Soc. astron. de France; Soc. météorol. de France; Mus. French Art. The anatomy and development of the head of vertebrates.

Allis, Prof. William Phelps, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematical physics.* Menton, France, Nov. 15, 01.. B.S, M.S, Mass. Inst. Tech, 23; D.Sc, Nancy, 24. Research assoc. *math. physics, Mass. Inst. Tech,* 25–31, instr, 31–34, asst. prof, 34–40, *assoc. prof, 40–; major, U. S. Army, 42–* A.A; fel. Physical Soc; fel. Physical Soc. London. Collision of electrons and atoms; electrical discharges in gases.

Allisbaugh, Dr. H(oward) C(oss), R. R. 10, Box 13T, Indianapolis, Ind. *Immunology.* Sidney, Ind, July 28, 08. A.B, Manchester Col, 32; Eli Lilly fellow, Hopkins, 31–32, scholar, 32–34, Sc.D, 34. Asst. immunol, Hopkins, 34; *biol. dept, Eli Lilly and Co, 34–* Soc. Bact; Ind. Acad. Filterable viruses; fractional ultrafiltration; vaccinia virus; oral immunization against the common cold.

Allison, Dr. C(lyde) C(larence), Ohio State University, Columbus, Ohio. *Plant pathology.* Champlin, Minn, April 30, 05. B.S, Minnesota, 28, M.S, 30, Ph.D, 35. Instr. plant path, Minnesota, 30–36; agent and assoc. pathologist, U. S. Dept. Agr, 36–38; *assoc. prof. plant path. and exten. plant pathologist, Ohio State, 38–* Phytopath. Soc. (sec'y, 42).

Allison, Dr. F(ranklin) E(lmer), U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Oakland City, Ind, Nov. 10, 92. B.S, Purdue, 14; M.S, Iowa State Col, 15; Ph.D, Rutgers, 17. Nat. Canners Asn, 19–20; scientist, bur. soils, *U. S. Dept. Agr,* 17–18, biochemist, fixed nitrogen research lab. and bur. chem. and soils, 20–28, *senior chemist in charge biochem. investigations,* bur. chem. and soils and *bur. plant indust, 28–* Second lieut, U.S.A, 18–19. A.A; Chem. Soc; Soc. Bact; Soc. Agron; Soc. Plant Physiol; Int. Soc. Soil Sci. Biochemical fixation of nitrogen; soil microbiology; bacterial respiration; plant nutrition; soil organic matter; fertilizers.

Allison, Prof. Fred, Alabama Polytechnic Institute, Auburn, Ala. *Physics.* Glade Spring, Va, July 4, 82. A.B, Emory and Henry Col, 04, LL.D, 33; Hopkins, 07–08, 10–11; Chicago, 09; A.M, Virginia, 21, Ph.D, 22; Sc.D, Ala. Polytech, 31. Prof. *physics,* Emory and Henry Col, 11–20; instr, Virginia, 20–22; *head prof, Ala. Polytech, 22–* Pres. and visitors research prize, Virginia, 25; Herty research medal, 33. A.A; fel. Physical Soc. (chairman, southeast. sect, 41); Ala. Acad. (pres, 29). The effective wave-length of light in white light interferometry; magneto-optic phenomena with applications to a method of chemical analysis.

Allison, Dr. Henry J(ohnston), Jr, 210 Wilson St, Havre de Grace, Md. *Chemistry.* Charlotte, N. C, Aug. 25, 14. B.S, North Carolina, 36; M.S, Lawrence Col, 38, Ph.D, 40. Develop. engineer, Mead Corp, 40–42; *chem. engineer, tech. command, Chem. Warfare Service, U. S. Army, 42–* Tech. Asn. Pulp and Paper Indust. Pulp and paper technology; relation between fiber bonding strength and fiber surface activity.

Allison, Prof. Ira S(himmin), Oregon State Agricultural College, Corvallis, Oregon. *Geology.* Gardner, Ill, March 16, 95. A.B, Hanover Col, 17; Chicago; Ph.D, Minnesota, 24. Instr. and asst. prof. *geol,* Minnesota, 20–28; *prof, Oregon State Col, 28–* Summers, instr, Chicago, 21–22; geologist, Minn. Geol. Surv, 24–28; Columbia River project, U. S. Engineers, 30, 35. A.A; fel. Geol. Soc; Min. and Metal. Eng. Giants Range granite; Precambrian weathering; mineral resources and glacial drainage, Columbia River basin; geology and water supply of northwestern Minnesota; Pleistocene history of Willamette Valley; Quaternary lakes in south central Oregon.

Allison, Prof. James B(oyd), Rutgers University, New Brunswick, N. J. *Biochemistry.* Punxsutawney, Pa, Jan. 28, 01. B.S, Pa. State Col, 23; indust. fellow, Iowa State Col, 26–27, Ph.D, 27. Asst. chem, Iowa State Col, 23–26; instr. *biochem, Rutgers,* 27–29, asst. prof, 29–41, *assoc. prof, 41–* A.A; Chem. Soc; Inst. Chem; N. Y. Acad. Carbohydrate chemistry; chemical stimulation; body fluids of animals.

Allison, Prof. J(ohn) H(oward), University Farm, St. Paul, Minn. *Forestry.* East Granby, Conn, Sept. 25, 83. Ph.B, Yale, 05, M.F, 06; Am-Scandinavian Foundation fellow,

Sweden, 23–24. Forest asst. and forest examiner, U. S. Forest Service, 06–12, 18–19; *prof. forestry, Minnesota, 13–* Soc. Foresters. Forest management.

Allison, Prof. J(oseph) Lewis, University of Wisconsin, Madison, Wis. *Plant pathology.* Billings, Mont, Dec. 13, 11. B.S, Mont. State Col, 34; M.S, State Col. Wash, 36; Ph.D, Minnesota, 40. Teaching fellow bot, State Col. Wash, 34–36; asst. plant path, Minnesota, 36–39; instr, Louisiana, 39–40; agent, div. forage crops and diseases, *U. S. Dept. Agr,* 40–41, *assoc. pathologist, bur. plant indust, 42–; asst. prof. plant path, Wisconsin, 41–* Phytopath. Soc. Diseases of forage crops.

Allison, Prof. L(owell) E(dward), Purdue University, Lafayette, Ind. *Soil chemistry.* Stryker, Ohio, Sept. 19, 04. B.S.A, Purdue, 30; Ph.B, Illinois, 42. Asst. soil biol, Exp. Sta, Illinois, 30–37; *asst. prof. soils, Purdue, 37–* Summers, asst, Exp. Sta, Indiana, 37, 38. Trend of phosphate adsorption in inorganic soil colloids.

Allison, Dr. L(oy) W, 500 S. Pelham Road, Jacksonville, Ala. *Psychology.* Blairsville, Ga, 99. A.B, Lincoln Mem. Univ, 23; A.M, Peabody Col, 29, Ph.D, 30. Prof. psychol. and educ, Hiwassee Col, 23–28; *head dept. psychol, Ala. State Teachers Col, Jacksonville, 30–* A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Experimental psychology.

Allison, Dr. R(obert) V(errill), University of Florida, Gainesville, Fla. *Soils.* Stryker, Ohio, June 25, 95. B.S, Purdue, 20; M.S, Rutgers, 22, Ph.D, 23. Research, Rothamsted, Harpenden, England, 23–24; chemist and soil biologist, Trop. Plant Research Foundation, Washington, D. C, and Baragua, Cuba, 24–26; soils specialist, Everglades Exp. Sta, Florida, 26–34, in charge, 28–34; chief div. soil and water conservation investigations, bur. chem. and soils, U. S. Dept. Agr, 34–35, soil conservation service, 35–37; *head dept. soils, Florida, 37–* A.A; Soc. Agron; Soil Sci. Soc. (chairman, sect. VI, 36); Geophys. Union; Soil Sci. Soc. Fla. (pres, 39, sec'y-treas, 40–); Fla. Hort. Soc; Int. Soc. Soil. Sci. Soils; soil fertility and conservation.

Allison, Prof. Samuel K(ing), University of Chicago, Chicago, Ill. **[5]***Physics.* Chicago, Ill, Nov. 13, 00. B.S, Chicago, 21, Ph.D, 23. Nat. research fellow, Harvard, 23–25; research fellow, Carnegie Institution, 25–26; instr. *physics,* California, 26–28, asst. prof, 28–29, assoc. prof, 29–30; *Chicago,* 30–42, *prof, 42–* Mem. board editors, 'Physical Rev,' 40– Consultant, Nat. Defense Research Cmt, 40– A.A; Physical Soc. X-rays; nuclear physics.

Allison, V(ernon) C(harles), P. O. Box 2, Elkton, Md. *Chemistry.* Rice Co, Kans, Aug. 4, 90. B.S. and A.B, Kans. State Teachers Col, 14; A.M, Clark, 16. Research chemist, U. S. Bur. Mines, Pittsburgh, 16–27; Combustion Utilities Corp, Long Island City, N. Y, and Linden, N. J, 27–29; asst. chief chemist in charge research sect, Picatinny Arsenal, 29–39; *chief chemist, Triumph Explosives, Inc, 40–* Morrison prize, N. Y. Acad. Sci, 22. A.A; fel. Inst. Chem; Anthrop. Soc; Soc. Mammal. Explosive dusts; low temperature carbon; munitions research; geochronology.

Allman, Prof. Delmar I(saac), Oregon State College, Corvallis, Oregon. *Hygiene.* Remington, Ind, Oct. 3, 95. B.S, Mich. State Nor. Col, 28; M.S, Michigan, 31, Dr.P.H, 36. Teacher physical educ. and physiotherapy, Mich. State Nor. Col, 28–37; *assoc. prof. hygiene, Oregon State Col, 37–* Comparison of nutritional indices.

Allman, Dr. Richard Thomas, 78 Stibbard Ave, Toronto, Ont, Can. *Nutrition.* Toronto, Ont, March 29, 15. B.S.A, Toronto, 36; Ph.D, Cornell, 41. Animal nutritionist, Blatchford Feed Co, 36–37; teaching asst, Cornell, 37–41; animal nutritionist, Quaker Oats Co, 42; *officer in charge nutritional lab, Royal Can. Air Force, 42–* Effects of the lignin and protein content on the nutritional value of pasture herbage; factors affecting the vitamin content of Air Force rations.

Allport, Prof. F(loyd) H(enry), 485 Buckingham Ave, Syracuse, N. Y. **[4]***Psychology.* Milwaukee, Wis, Aug. 22, 90. A.B, Harvard, 13, Ph.D, 19. Instr. psychol, Harvard, 19–22; assoc. prof, North Carolina, 22–24; *prof. social and polit. psychol, Syracuse, 24–* U.S.A, 17–18. A.A; Psychol. Asn. (director, 28–30); Sociol. Soc. Experimental and social psychology; scientific methods in psychology and social science.

Allport, Prof. G(ordon) W(illard), Harvard University, Cambridge, Mass. **[6]***Psychology.* Montezuma, Ind, Nov. 11, 97. A.B, Harvard, 19, A.M, 21, Ph.D, 22; Berlin; Cambridge. Instr, Robert Col, Constantinople, 19–20; instr. and tutor *psychol,* Harvard, 24–26; asst. prof, Dartmouth Col, 26–30; assoc. prof. and later *prof, Harvard, 30–* Pres, Ella Lyman Cabot Foundation; mem, Nat. Research Council; director, Pub. Opinion Research Center. Trustee, Prospect Educational Union. Psychol. Asn. (director, 36–39, pres, 39); Soc. Psychol. Study Social Issues (v. chairman, 43); Am. Acad; East. Psychol. Asn. (pres, 43). Psychology of personality; social psychology.

Allyn, Prof. Harriett M(ay), Mt. Holyoke College, South Hadley, Mass. *Zoology, Anthropology.* New London, Conn, May 4, 83. A.B, Mt. Holyoke Col, 05; M.S, Chicago, 10, Ph.D, 12. Instr. zool, Lake Erie Col, 08–09; Vassar Col, 12–13; Hackett Med. Col, Canton, China, 13–19; Mt. Holyoke Col, 20–21; instr. zool. and dean, Hackett Med. Col, 15–19, 21–23; prof. zool, Monticello Sem, 23–24; instr, Vassar Col, 24–25, asst. prof, 25–28, assoc. prof, 28–29; *prof. anthrop. and academic dean, Mt. Holyoke Col, 29–* Board directors, Chan Kwang Sch, Canton, China, 21–23. U. S. sec'y, Cong. Int. des Sciences préhist. et protohist, 36. A.A; Anthrop. Asn; Nat. Asn. Deans of Women (pres, 37–); Soc. Woman Geog. Excavation in Old Stone Age sites.

Alm, Prof. O(scar) W(illiam), Kansas State College, Manhattan, Kans. *Psychology.* O'Neill, Nebr, 87. A.B, Nebraska, 17; A.M, Columbia, 18; Ph.D, Minnesota, 29. *Assoc. prof.* educ, Kans. State Teachers Col, Pittsburg, 19–26; *psychol, Kans. State Col, 29–* Summer, North Dakota, 27. Kans. Acad. Effect of habit interference upon performance in maze learning; relationship between brain lipids, minerals and learning ability of albino rats; negative criteria of learning ability of rats; olfactory cues in the maze learning of rats.

Almand, Prof. Joseph M(orris), Wesleyan College, Macon, Ga. *Chemistry.* Lithonia, Ga, Aug. 16, 03. B.S, Emory, 24, M.S, 25; Ph.D, Hopkins, 35. Asst. prof. *chem,* Emory Junior Col, 28–30; *Wesleyan Col. (Ga),* 30–34, *assoc. prof, 35–* Chem. Soc; Ga. Acad. Ethylation of benzene.

Almon, Dr. Lois, State Laboratory of Hygiene, Madison, Wis. *Bacteriology.* Milwaukee, Wis, April 28, 04. A.B, Wisconsin, 27, A.M, 29, Ph.D, 32. Asst, exten. dept, Milwaukee Pub. Museum, 23–25; teacher, high sch, Wis, 27–28; research asst. bot, Wisconsin, 28–29, agr. bacter, 29–32; *bacteriologist, State Lab. Hygiene, Wis, 32–* Soc. Bact; Pub. Health Asn. Root-nodule bacteria; pathogenic fungi; antigens of Eberthella typhosa.

Almquist, Prof. H(erman) J(ames), University of California, Berkeley, Calif. *Poultry husbandry.* Helena, Mont, March 3, 03. B.S, Mont. State Col, 25; Ph.D, California, 32. Asst. *poultry husbandry, California,* 34–35, asst. prof, 35–39, *assoc. prof, 39–,* junior poultry husbandman, *Exp. Sta,* 34–35, asst. poultry husbandman, 35–39, *assoc. poultry husbandman, 39–* Director, Annual Revs, Inc. Borden award, 39. Soc. Exp. Biol; Inst. Nutrition; Soc. Biol. Chem. Poultry nutrition; chicken eggs; autoxidation; the anti-hemorrhagic vitamin; identification of the rice factor; protein and amino acid requirements of chicks; bile acids in the chick.

Almquist, Dr. J(ohn) A(rthur), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Moscow, Idaho, Oct. 31, 96. B.S, Idaho, 19; Ph.D, California, 22. Teaching fellow, California, 19–22; *research chemist,* fixed nitrogen research lab, U. S. Dept. Agr, 22–26; *E. I. du Pont de Nemours and Co, 27–,* asst. chem. director, ammonia dept, 35–41, chem. director, *plastics dept,* 41–42, *asst. gen. manager, 43–* Chem. Soc. Heterogeneous catalysis; high-pressure synthesis; plastics.

Almy, Charles, Dewey and Almy Chemical Co, Cambridge, Mass. *Chemical engineering.* Cambridge, Mass, April 6, 88. A.B, Harvard, 08; B.S, Mass. Inst. Tech, 10. Research assoc. applied chem, Mass. Inst. Tech, 10–11; tech. director, Am. Vulcanized Fibre Co, 12–15; gen. manager and sec'y, Va. Red Oil Products Corp, 16–17; *v. pres, Dewey and Almy Chem. Co, 19–; pres, Browne and Nichols Sch, Inc, 32–* Lieut. col, C.W.S, 18–19. British Soc. Chem. Indust. Can-sealing compounds; soldering fluxes; adhesives; Darex shoe materials; bladders.

Almy, Prof. E(mory) F(rederick), 2632 Tremont Road, Columbus, Ohio. *Agricultural chemistry.* Greenwood, Nebr, July 6, 95. B.S, Nebraska, 16, M.S, 17; Ph.D, Ohio State, 29. Nestlé's Food Co, 19; asst. agr. chem. and soils, *Ohio State,* 19–21, instr. *agr. chem,* 21–25, asst. prof, 25–34, assoc. prof, 34–40, *prof, 40–* U.S.A, 17–19. Dairy Sci. Asn. Dairy chemistry; food analysis.

Almy, Dr. G(erald) M(arks), University of Illinois, Urbana, Ill. *Physics.* Ewing, Nebr, April 24, 04. B.S, Nebraska, 24, M.S, 26; Ph.D, Harvard, 30. Instr. *physics, Illinois,* 30–33, assoc, 33–35, asst. prof, 35–39, *assoc. prof, 39–* Physical Soc. Molecular spectra.

Almy, Prof. John E(dwin), 2300 A St, Lincoln, Nebr. *Physics.* Centralia, Ill, Oct. 13, 75. B.S, Nebraska, 96, A. M, 97; Ph.D, Berlin, 00. Instr. *physics, Nebraska,* 00–02, adj. prof, 02–05, asst. prof, 05–07, assoc. prof, 07–09, *prof, 09–,* chairman dept, 19–20. A.A; Physical Soc; Nebr. Acad. Accidental double refraction; spark potentials; discharge through gases; dielectric strength glasses and double refracting media; cathode potential; minimum spark potentials; corona-discharge currents.

Almy, Dr. L(loyd) H(uber), H. J. Heinz Co, Pittsburgh, Pa. *Chemistry.* Mendota, Ill, Dec. 14, 85. B.S, Illinois, 09; M.S, George Washington, 15; Ph.D, Columbia, 17. Asst. chemist, Mo. Pacific Ry. Co, 09–10; chemist, Vandalia Ry, 11–12; asst. chemist, bur. chem, U. S. Dept. Agr, 12–14; fish pathologist, Bur. Fisheries, 16–18; chemist, bur. chem, U. S. Dept. Agr, 19–26; *research chemist, H. J. Heinz Co, 26–* A.A; Chem. Soc. (chairman, Pittsburgh sect, 39); Inst. Food Tech; Pa. Chem. Soc. Food manufacturing.

Alonzo, Dean Agustin S(ikat), Northern Luzon Junior College, Vigan, Ilocos Sur, P. I. *Psychology, Education.* Palo, Leyte, P. I, April 13, 94. A.B, Silliman Inst, 15, B.S.E, 19; A.M, Philippines, 22; Ph.D, Chicago, 25. Asst. prof, Silliman Inst, 15–17, instr. psychol. and educ, 19–22; asst. prof. and acting head dept. psychol, col. educ, Philippines, 25–30, *assoc. prof. educ. and psychol. and dean, North. Luzon Junior Col, Univ. Philippines, 30–* Ed, 'Philippine Jour. Educ,' 20–21. Subcmt, Prison Surv. Board. Trustee, Silliman Inst. Nat. Fed. Teachers (sec'y-treas, 26–30); Ill. Acad; P. I. Sci. Soc; P. I. Acad. Social Sci. (director). Tests and measurements; psychology of learning; elements of statistics.

Alperin, Dr. David, New York Post-Graduate Medical School, Second Ave. and 20th St, New York, N. Y. *Biochemistry.* Bucharest, Roumania. M.S, Freiburg, 02; M.D, N. Y. Univ, 07; Ph.D, Columbia, 12. Lecturer physiol. chem. and director chem. and path. labs, Eclectic Med. Col, 03–12; *asst. prof. clin. ophthal, N. Y. Post-Grad. Med. Sch, Columbia.* Nucleoprotein metabolism; uricolysis and uricase.

Alpern, Prof. Dwight K, Brooklyn College, Brooklyn, N. Y. *Electrochemical engineering.* New York, N. Y, Aug. 21, 03. B.S, Mass. Inst. Tech, 25, M.S, 26; fellow, Columbia, 30–31, Ph.D, 32. Engineer, New York Tel. Co, 26–27; instr. elec. eng, N. Y. Univ, 27–29; asst. prof. elec. eng. and electronics, Swarthmore Col, 29–30; research, Columbia, 30–34; instr. chem. and electrochem, *Brooklyn Col,* 33–38, *asst. prof. in charge indust. and electrochem, 38–; consulting electrochem. engineer.* Photoelectric and ultrasonic equipment design; electrochemical production of inorganic and organic compounds; resins.

Alpers, Prof. Bernard J(acob), 111 N. 49th St, Philadelphia, Pa. *Neurology.* Salem, Mass, March 14, 00. M.D, Harvard, 23; Sc.D, Pennsylvania, 30. Asst. prof. *neur,* grad. sch. med, Pennsylvania, 30–38; *prof, Jefferson Med. Col, 38–; neurologist, Phila. Gen. Hosp, 32–, Pa. Hosp, 33–; hosp, Jefferson Med. Col, 38–* Commonwealth fellow, Pennsylvania, 26–29, George Harrison Frazier fellow, 30– Mem. subcmt. neur, Nat. Research Council. Assoc. ed, 'Archives Neur. and Psychiat'; ed. in charge sect. neur, 'Cyclopedia of Med.' Fel. Am. Med. Asn; Neur. Asn. (asst. sec'y); Psychiat. Asn; Asn. Research Nervous and Mental Disease; Asn. Neuropath; Phila. Neur. Soc; Pa. Psychiat. Soc; Col. Physicians Phila; Phila. Psychiat. Soc. Cerebrospinal fluid; brain tumors; reflexes; heat regulation; clinical neurology.

Alpert, Dr. D(aniel), Westinghouse Research Laboratories, East Pittsburgh, Pa. *Physics.* Hartford, Conn, April 10, 17. B.S, Trinity Col. (Conn), 37; Royall Victor fellow, Stanford, 37–39, Ph.D, 42. Teaching asst. physics, Stanford, 39–41, research assoc, 40; *research fellow, Westinghouse Elec. and Mfg. Co, 41–* Physical Soc. Microwaves.

Alrich, Dr. G(eorge) F(rederick), University of Maryland, College Park, Md. *Mathematics.* Brooklyn, N. Y, Jan. 26, 88. E.E, Lafayette Col, 10; M.S, Lehigh, 12; Union Col, 27–28; Ph.D, Maryland, 37. *Instr,* Lehigh, 12–17; U. S. Naval Acad, 17–22; Carnegie Inst. Tech, 22–24; Des Moines, 24–27; *math, Maryland, 28–* Hyperconformal transformations; linear algebras and their associated geometries.

Alsentzer, Prof. H(arry) A(ugust), Jr, University of Pennsylvania, Philadelphia, Pa. *Inorganic chemistry.* Philadelphia, Pa, Feb. 6, 98. B.S, Pennsylvania, 20, Ph.D, 26. Instr. *chem, Pennsylvania,* 20–27, asst. prof, 27–36, *assoc. prof, 36–* A.A; Chem. Soc. (chairman, Phila. sect, 42); Electrochem. Soc. (chairman, Phila. sect, 35). Cobalt amines; chromium amines; complex tungsten; molybdenum compounds.

Alt, Prof. Howard L(ang), 303 E. Chicago Ave, Chicago, Ill. *Hematology.* Chicago, Ill, July 28, 00. B.S, Northwestern, 23, M.D, 24, M.S, 33, Ph.D, 34. Res. physician, Peter Bent Brigham Hosp, Boston, Mass, 25–29; teaching fellow, Harvard Med. Sch, 27–29; asst, Kaiser Wilhelm Inst, Berlin, 29–30; assoc. *med, med. sch, Northwestern,* 30–35, *asst. prof, 35–* A.A; Am. Med. Asn; Soc. Exp. Biol; Cent. Soc. Clin. Research; Chicago Soc. Int. Med. Micro-respiration; nutritional aspects of hematology.

Altar, Dr. William, Robert College, Istanbul, Turkey. *Physics.* Vienna, Austria, Aug. 27, 00. Ph.D, Vienna, 23. Elec. research engineer, 27–29; instr. physics, Pa. State Col, 29–30, asst. prof, 30–35; fellow physical chem, Princeton, 35–37; *instr. math. and elec. eng, Robert Col, Istanbul, 37–* Theoretical physics; radio; communication engineering; molecular physics.

Altenburg, Prof. Edgar, Rice Institute, Houston, Texas. *Zoology.* Jersey City, N. J, June 11, 88. A.B, Columbia, 11, A.M, 12, Ph.D, 16. Instr. *biol, Rice Inst,* 16–20, *asst. prof, 20–* A.A; Soc. Nat; Soc. Zool. Genetics.

Alter, Prof. Chester M, Boston University, Boston, Mass. *Chemistry.* Rushville, Ind, March 21, 06. B.S, Ball State Teachers Col. (Ind), 27; Grasselli fellow, Indiana, 28, A.M, 28; Ph.D, Harvard, 36. Asst. chem, Pittsburgh, 29–30; Harvard, 30–32, assoc. geophys, 32–34; instr. *chem, Boston,* 34–37, asst. prof, 37–42, *prof, 42–* Chem. Soc. (nat. councilor, 41); Ind. Acad. Chromium plating; atomic weight of nitrogen, potassium, indium, lead and radium G; effect of alteration on lead-uranium ratios of radioactive minerals; determination of the age of the earth; analytical methods.

Alter, Dr. Dinsmore, Griffith Observatory, Los Angeles, Calif. *Astronomy, Meteorology.* Colfax, Wash, March 28, 88. B.S, Westminster Col. (Pa), 09; M.S, Pittsburgh, 10; Ph.D, California, 16; Sc.D, Monmouth Col, 41. Instr. physics and astron, Alabama, 11–12, asst. prof, 12–13, adj. prof, 13–14; instr. astron, California, 14–17; asst. prof, Kansas, 17–19, assoc. prof, 19–24, prof, 24–36; *research assoc, Calif. Inst. Tech, 35–; director, Griffith Observatory, 36–* Guggenheim Mem. Foundation fellow, England, 29–30. Col, C.A.Res. A.A; Astron. Soc; Meteorol. Soc. (v. pres, 25–27); Physical Soc; Geophys. Union; fel. Royal Astron. Soc. Orbits; astronomical meteorology; statistical methods.

Alter, J. Cecil, 206 Lafayette Circle, Clifton, Cincinnati, Ohio. *Meteorology.* Near Rensselaer, Ind. Purdue; Valparaiso. With *Weather Bur,* 02–12, asst. exhibits, 12–15, frost warning service, Medford, Ore, 16, office, Cheyenne, Wyo, 16–17, in charge Salt Lake City and Utah State Weather Service, 17–41, *in charge office, Cincinnati, 41–* A.A; Geophys. Union; Meteorol. Soc; Utah Hist. Soc. (mem. board control, 24–; ed, 'Quarterly,' 28–); Utah Acad. James Bridger; travelogs; documentary history of Utah; early Utah journalism.

Alter, Dr. Nicholas M, 410 Fairmount Ave, Jersey City, N. J. *Pathology.* Hungary, 92. M.D, Hungary, 13. Instr. anat, Hungary, 10–11, path, 11–13; pathologist, Montefiore Home and Hosp, New York, 14–15; Howard A. Kelly Hosp, 15–19; Yale, 19–20; West. Pa. Hosp, 20–23; instr. med, med. sch, Michigan, 23–24; prof. path, sch. med, Colorado, 24–26; pathologist, N. Y. Post-Grad. Med. Sch, Columbia, 26–30; *director labs, Margaret Hague Hosp, Jersey City, 31–* A.A; Asn. Path. and Bact; Am. Med. Asn; N. Y. Path. Soc; N. Y. Soc. Gynec. Path. Chronic and malignant diseases; pregnancy.

Althausen, Dr. Darrell, Technical Division, Edgewood Arsenal, Md. *Chemistry.* St. Marys, Ohio, Feb. 3, 01. B.S, Oklahoma, 26; Ph.D, Illinois, 32. Asst. chem, Oklahoma, 25–27; Illinois, 27–31, Chem. Foundation fellow, 32–33; research chemist, Nat. Aniline and Chem. Co, Buffalo, 33–34; research supervisor, Hiram Walker and Sons, 34–41; chief hemicellulose and lignin sect, north. regional research lab, U. S. Dept. Agr, 41; *major, Chem. Warfare Service, 42–* Chem. Soc. Pharmaceuticals; essential oils; liqueur manufacture; bio-colloids; lignin technology; chemical warfare agents.

Althausen, Dr. T(heodore) L(eonidowitch), 3811 Webster St, San Francisco, Calif. *Medicine.* St. Petersburg, Russia, July 25, 97. A.B, California, 22, A.M, 25, M.D, 26. Intern, San Francisco City and County Hosp, 25–26; asst. *med, med. sch, California,* 26–28, instr, 28–29, asst. prof, 29–36, *assoc. prof, 36–,* asst. res, *Univ. Hosp,* 26–27, res, 27–30, asst. visiting physician, 31–34, *assoc. visiting physician, 34–* Asst. visiting physician, Gastro-Intestinal Clinic, 27–32, visiting physician, 33–; Guggenheim Mem. Foundation fellow, Leipzig, Freiburg and Paris, 30–31; assoc. attending physician, San Francisco Hosp. Fel. Am. Med. Asn; Soc. Exp. Biol; Gastro-Enterol. Asn; Soc. Clin. Invest. Pathology of gestation in vitamin E deficiency; liver and the metabolism of carbohydrates; hepatic function in man and treatment of diseases of the liver; thyroid gland and absorption in the intestine and the kidneys; calcium balance in hyperthyroidism.

Altieri, A(ngelo) M(ichael), 451 Milk St, Fitchburg, Mass. *Chemical engineering.* Watertown, Mass, Oct. 11, 07. B.S, Mass. Inst. Tech. Research chemist, Dennison Mfg. Co, 29–31; foreman, U. S. Rubber Co, 31–32; *chem. engineer, Fitchburg Paper Co, 33–* Tech. Asn. Pulp and Paper Indust. Gelatin foils; adhesives; latex thread; paper making and converting; application of dyestuffs; water proofing processes.

Altland, Dr. Paul D, Gettysburg College, Gettysburg, Pa. *Zoology.* York, Pa, April 1, 13. B.S, Gettysburg Col, 34; A.M, Duke, 36, fellow, 36–37, Ph.D, 37; Iowa, 39. Asst. zool, Duke, 34–36; instr. *biol, Gettysburg Col,* 37–41, *asst. prof, 41–* Histology; endocrinology; histology and cytology of the hypophysis of reptiles; reproduction in reptiles; endocrinology in birds and reptiles.

Altmaier, Dr. Carl L(ewis), Jr, Trinity College, Hartford, Conn. *Psychology.* Lansdowne, Pa, Dec. 6, 00. A.B, Pennsylvania, 22, A.M, 26, Ph.D, 30. Asst. psychol, Pennsylvania, 22–23, 25–28, instr, 28–31; *psychol, Trinity Col. (Conn),* 31–36, *asst. prof, 36–, sec'y admissions, 38–* A.A; assoc. Psychol. Asn. (clin. sect); Asn. Applied Psychol; East. Psychol. Asn; Conn. Valley Asn. Psychologists. Clinical, experimental, general, vocational, personnel and educational psychology; psychological tests.

Altman, Peter, 17374 Fairfield Ave, Detroit, Mich. *Engineering.* Montreal, Que, Can, Feb. 24, 02. B.Ae.E, Detroit, 25. Asst, Elec. Welding Co, Montreal, 19–21; mech. and aeronaut, Detroit, 21–25, instr. aeronaut. eng, 25–28, prof, 28–40, *director* aeronaut. dept, 26–40; research div, Aviation Mfg. Corp, 40–41, *mfg. research div, Vultee Aircraft, Inc, 41–* Res. engineer, Aero Ins. Underwriters, 29–40; consulting engineer, Verville Aircraft Corp, 29–31; Stinson Aircraft div, Aviation Mfg. Corp, 32–40. Chairman rules cmt, Nat. Air Tour, 30–31; asst. chairman tech. cmt, Nat. Air Races, 31–33, 39–40. R.C.A.F. Res, 20–23. Soc. Automotive Eng. (chairman aircraft activity, Detroit sect, 30, 34, sect, 35; papers cmt, 34, 38; mem. cmt. Wright Brothers medal award, 41–; v. pres, aircraft sect, 42); assoc. fel. Inst. Aeronaut. Sci; Eng. Educ; Welding Soc. (aircraft cmt, automotive welding council); Arbitration Asn; Nat. Aeronaut. Asn. (mem. tech. cmt); Nat. Glider Asn. (director and subchairman tech. cmt, 28–30); Eng. Educ; Aeronaut. Activities Asn. Mich. (director); Detroit Inst. Arts Founders Soc; Detroit Soc. Automotive Eng. (chairman, aeronaut. div); Eng. Soc. Detroit (vocational guidance group, 37). Strength of materials; aerodynamics; propeller design; airplane design; airplane stress analysis; history of aviation in Michigan.

Altmann, Prof. Margaret, Hampton Institute, Va. *Biology, Animal husbandry.* Berlin, Germany, Oct. 6, 00. Ph.D, Bonn, 28, Cornell, 38. German Govt. fellow, United States, 31; asst. animal breeding, Cornell, 33–38, research assoc. psychobiol, 38–41; *assoc. prof. biol. and animal husbandry, Hampton Inst, 41–* A.A; Genetics Soc. Endocrinology; sex cycle in the female.

Alton, A(lvin) J(ohn), 1526 S. State St, Chicago, Ill. *Food chemistry.* Linden, Wis, March 31, 13. B.S, Wisconsin, 36, 37–38. Asst. dairy indust, Wisconsin, 36–37; *food chemist, Beatrice Creamery Co, 38–* Dairy Sci. Asn. Dairy and allied food products.

Altschul, Dr. Aaron M(ayer), 1118 Napoleon Ave, New Orleans, La. *Physical chemistry.* Chicago, Ill, March 13, 14. B.S, Chicago, 34, Ph.D, 37. Instr. chem, Chicago, 37–41; *mem. staff, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Spectroscopic methods in biochemical research; preparation and chemistry of hemoglobin; isolation of cytochrome C peroxidase and a cytochrome C reductase; plant enzymes; storage of agricultural products.

Altschul, Dr. Rudolf, University of Saskatchewan, Saskatoon, Sask, Can. *Medicine.* Prague, Feb. 24, 01. M.D, Prague, 25. Research work, Paris, 25–26; Royal Neur. Clinic, Rome, 26–29; specialist nervous and mental diseases, Prague, and research fellow, histol. inst, Univ. Prague, 29–39; *asst. prof. histol. and neur, Saskatchewan, 39–* Asn. Anat. Histology and histopathology of the central nervous system: clinical neurology.

Altshuler, Dr. Samuel S(imon), 313 David Whitney Bldg, Detroit, Mich. *Internal medicine.* Russia, June 4, 02. A.B, Michigan, 22, M.D, 25, Dr.P.H, 40. Res. med. physician, Detroit Harper Hosp, 25–28; *instr. internal med,* med. sch, Michigan, 28–30; *col. med, Wayne, 30–; major, Med. Corps, U. S. Army, 42–* A.A; Am. Med. Asn; Col. Physicians; Soc. Exp. Biol; Pub. Health Asn; Diabetes Asn. (sec'y, 40; trustee, 41–); Trudeau Soc; Soc. Study Int. Secretions. Influenza; tuberculosis; diabetes.

Altstatt, George E(dward), 63 S. Fifth St, San Jose, Calif. *Plant diseases.* Two Harbors, Minn, March 10, 05. B.B.A, Minnesota, 28; M.S, Iowa State Col, 34. Junior auditor, Price, Waterhouse and Co, 28, 29; cost and accounting clerk, West. Elec. Co, 29–31; technician forest path, erosion control work, U. S. Dept. Interior, 33; plant pathologist, div. plant path. and physiol, Exp. Sta, Agr. and Mech. Col. Texas, 34–42, acting chief div, 37–38; senior inspector bur. fruit and veg. standardization, State Dept. Agr, Calif, 42; *asst. marketing specialist, agr. marketing admin, U. S. Dept. Agr, 42–* Phytopath. Soc; Mycol. Soc; Soc. Plant Physiol; South. Agr. Workers; Texas Acad. Nematodes; Southern blight; diseases of vegetable crops, especially tomato, rice and garlic; wilt diseases of elm in Iowa.

Alty, Prof. T(homas), University of Glasgow, Glasgow, Scotland. *Physics.* Lancashire, Eng, 99. B.Sc, Liverpool, 20, D.Sc, 27, Oliver Lodge fellow, 21–23, M.Sc, 22; Ph.D, Cambridge, 24. Lecturer physics, Durham, 24–25; prof, Saskatchewan, 25–32, research prof, 32–35; *Cargill prof. applied physics, Glasgow, 35–* Fel. Royal Soc. Can; fel. Inst. Physics, England; Faraday Soc; fel. Cambridge Philos. Soc; fel. Royal Soc. Edinburgh. Surface physics; kinetic theory of liquids.

Alvarado, Dr. A(lfonso) M(iguel), E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* Cartago, Costa Rica, Sept. 19, 00. B.E, Tulane, 21; M.S, Iowa, 22, Ph.D, 24. Asst. chem, Iowa, 21–24; prof, Waukon Junior Col, 24–25; assoc. prof, Loyola Col. (La), 25–27; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Adsorption of vapors by metallic oxides; catalysis of ester formation; composition of Steffens waste; catalytic decomposition of ethanol; iodimetry of glucose; artificial leathers; synthetic resins; coating compositions.

Alvarez, Prof. Luis W(alter), Massachusetts Institute of Technology, Cambridge, Mass. ***Physics.* San Francisco, Calif, June 13, 11. B.S, Chicago, 32, M.S, 34, Ph.D, 36. Asst. *physics, California,* 36–37, research assoc, 37–38, instr, 38–39, asst. prof, 39–41, *assoc. prof, 41–* Research assoc, dept. elec. eng, Mass. Inst. Tech, 40–; consultant, Nat. Defense Research Cmt, 40– Fel. Physical Soc. Nuclear physics.

Alvarez, Prof. Walter C(lement), Mayo Clinic, Rochester, Minn. *Medicine.* San Francisco, Calif, July 22, 84. M.D, Cooper Med. Col, 05; Harvard, 13. Asst. path, Cooper Med. Col, 05–06; med, Stanford, 12–13; instr. research med, Hooper Foundation, California, 14–20, asst. prof, 20–24, assoc. prof, 24–26; *med, Mayo Foundation, Minnesota,* 26–34, *prof, 34–; consultant, div. med, Mayo Clinic.* Caldwell lecturer, Roentgen Ray Soc, 20. Ed, 'Gastroenterol.' A.A; Am. Med. Asn; Am. Physicians; Physiol. Soc; Soc. Exp. Biol; Gastro-Enterol. Asn. (pres, 28); Soc. Pharmacol; fel. Col. Physicians; Soc. Clin. Invest; Asn. Hist. Med; Anthrop. Asn; Asn. Physical Anthrop; Med. Library Asn; Cent. Soc. Clin. Research; Cent. Interurban Clin. Club; Minn. Soc. Int. Med; hon. mem. Des Moines Acad; cor. mem. Nat. Acad. Med. Spain; cor. mem. Soc. de gastro-enterol. de Paris. Physiology and pathology of digestion; intestinal peristalsis; high blood-pressure.

Alvarez-Tostado, Dr. Claudio, Box 1219, Stanford University, Calif. *Physical chemistry.* Durango, Mex, June 4, 12. B.S, Arizona, 34, M.S, 35; Ph.D, Stanford, 39. *Junior research assoc. chem. and med, Stanford, 39–,* acting instr. chem, 40–41. Electrophoresis, phase-rule diagram and ultracentrifuge methods of studying liver, serum and urinary proteins.

Alway, Prof. Frederick J(ames), 1386 Grantham Ave, St. Paul, Minn. **Chemistry.* Waterford, Ont, Can, May 28, 74. B.A, Toronto, 94, hon. D.Sc, 27; Ph.D, Heidelberg, 97. Prof. chem, Nebr. Wesleyan, 98–06; agr. chem, Nebraska, 06–13; *soil chem, Minnesota,* 13–42, *emer. prof, 42–,* and chief div. soils, Exp. Sta, 13–42. Mem. fertilizer subcmt, Nat. Research Council. A.A; Chem. Soc; Soc. Agron. (pres, 40); Soil Sci. Soc. (pres, 23); Swedish Peat Soc. Reduction of nitro-compounds; hydroxylamino- and nitroso-compounds; bleaching of flour; soils of northern steppes; humus; soil moisture; glacial, prairie, sandy and peat soils; phosphorus and sulfur content of plants.

Alyea, Prof. E(dwin) P(ascal), Duke Hospital, Durham, N. C. *Urology.* Clifton, N. J, Feb. 4, 98. B.S, Princeton, 19; M.D, Hopkins, 23. Instr. surg, Hopkins, 25, urol, 26–29; asst. prof. and assoc. prof. surg. in charge dept. urol, *sch. med, Duke,* 29–42, *clin. prof. urol, 42–* Mem. cmt. venereal diseases, Nat. Research Council, 40–42; Am. Board Urol. Urol. Asn; fel. Col. Surg. Genitourinary diseases.

Alyea, Prof. H(ubert) N(ewcombe), 4 College Road, Princeton, N. J. *Chemistry.* Clifton, N. J, Oct. 10, 03. A.B, Princeton, 25, A.M, 26, Ph.D, 28. Am-Scandinavian Foundation fellow, Sweden, 26; Charlotte Elizabeth Procter fellow, Princeton, 26–28; nat. research fellow, Minnesota, 29; int. research fellow, Berlin, 30; instr. *chem, Princeton,* 30–34, *asst. prof, 34–* Chem. Soc. Chain reactions; inhibition; heterogeneous and homogeneous catalysis; radiochemistry; plastics.

Amadon, Dr. Roger S(hirley), University of Pennsylvania, Philadelphia, Pa. *Veterinary physiology and pharmacology.* Waupun, Wis, Aug. 8, 90. D.V.M, Ohio State, 16. Asst. prof. physiol. and pharmacol, N. Dak. Col, 18–25; *prof. vet. physiol, sch. vet. med, Pennsylvania, 25–* Physiol. Soc. Phila. Gastric digestion in ruminants; pharmacology of the bovine stomach; blood typing and transfusion in the horse and ox; general anesthesia in the domestic animals.

Ambelang, Prof. Joseph C(arlyle), D'Youville College, Buffalo, N. Y. *Organic chemistry.* Bellevue, Ohio, Nov. 7, 14. B.S, Akron, 35; Ph.D, Yale, 38. Research asst, Yale, 38–40; *prof. chem, D'Youville Col, 40–* Chem. Soc. Pyrimidines and purines; synthesis and catalytic hydrogenation.

Amberg, Prof. Charles R(hodimer), Alfred, N. Y. *Ceramics.* Elmira, N. Y, Feb. 8, 05. B.S, Alfred, 27; fellow, Illinois, 27–29, M.S, 29. *Prof. ceramic eng, N. Y. State Col. Ceramics, Alfred, 29–* A.A; fel. Ceramic Soc; Eng. Educ. Applied petrography; x-rays.

Amberg, Dr. Emil, 1244 Boston Blvd, W, Detroit, Mich. *Aural surgery.* Santa Fe, N. Mex, May 1, 68. M.D, Heidelberg, 94; Berlin, 97, 98; Vienna, 95, 97, 07. *Practising physician, 98–* House surgeon, aural dept, Mass. Eye and Ear Infirmary, Boston, 96–97; aurist, Detroit Day Sch. Deaf; consulting otologist, Grace Hosp; consulting otolaryngologist, North End Clinic; adj. staff, Harper Hosp. A.A; Col. Surg; Otol. Soc; Am. Med. Asn; Acad. Ophthal. and Otolaryngol. The ear; the lateral sinus; instruments; influence of the work-pause on mental efficiency; warming up effect; interstate reciprocity for the license to practise medicine.

Amberg, Dr. Samuel, Mayo Clinic, Rochester, Minn. *Medicine.* Cannstatt, Germany, Aug. 15, 74. Gymnasium, Cannstatt; Berlin, 95–96; M.D, Heidelberg, 98. Asst. and instr. pediat, Hopkins, 99–03, assoc, 03–10, assoc. prof, 10–12; mem, Sprague Mem. Inst, and assoc. prof. exp. med, Rush Med. Col, Chicago, 12–21; *assoc. prof. pediat, med. sch, Minnesota, 21–; assoc, Mayo Clinic, 21–* Pharmacologist, C.W.S, 18. A.A; Am. Med. Asn; Pediat. Soc; Physiol. Soc; Soc. Biol. Chem; Soc. Pharmacol; cor. mem. Vienna Gesell. für Innere Med. und Kinderheilkunde. Pediatrics; pharmacology; physiological chemistry.

Amberson, Prof. J(ames) Burns, Jr, Bellevue Hospital, 415 E. 26th Street, New York, N. Y. *Medicine.* Waynesboro, Pa, June 8, 90. Ph.B, Lafayette Col, 13; M.D, Hopkins, 17. Consulting physician tuber, Dept. Health, Detroit, 26–27; chief physician, Loomis Sanatorium, Loomis, N. Y, 27–29; asst. prof. clin. med, *col. physicians and surg, Columbia,* 28–36, *prof. med, 36–* Asst. prof, col. med, N. Y. Univ, 34–37, prof, 37–38. A.A; Am. Med. Asn; Am. Physicians; fel. Col. Physicians; Tuber. Asn; Clin. and Climat. Asn; Harvey Soc; N. Y. Acad. Med. Tuberculosis; chronic pulmonary and chest diseases.

Amberson, Prof. William R(uthrauff), 16 Sherwood Road, Cockeysville, Md. *Physiology.* Harrisburg, Pa, June 17, 94. Ph.B, Lafayette Col, 15; fellow, Princeton, 19–22, Ph.D, 22. Instr. *physiol,* col. med, Tennessee, 21–22, asst. prof, 22–23; sch. med, Pennsylvania, 23–30; *prof,* Tennessee, 30–37; *Maryland, 37–* Guggenheim Mem. Foundation fellow, 28. Summers, instr, Marine Biol. Lab, Woods Hole, 23–34, research, 34– Assoc. ed, 'Jour. Cellular and Comp. Physiol.' Physiol. Soc. Blood substitutes; respiration; electrophysiology; glandular secretion.

Ambler, Dr. Joseph A(lfred), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Danbury, Conn, June 30, 89. Ph.B, Yale, 10, Ph.D, 13. Prof. chem, Acadia, 13–16; asst. petrol. chemist, color lab, bur. chem, *U. S. Dept. Agr,* 17–22, chemist in charge, 22–25, assoc. chemist, carbohydrate lab, 26–27, bur. chem. and soils, 27–39, *chemist, agr. chem. research div, bur. agr. chem. and eng, 39–; lecturer, George Washington, 27–* Exec. cmt, Cmn. on Standardization of Biol. Stains, 23–25, Chem. Soc. rep, 24–26. Chem. Soc; Wash. Acad. Coal-tar intermediates; pyrimidins; pseudothiohydantoins; amines; sulfonic acids; carbohydrates.

Ambrose, Dr. Anthony M(ichael), Stanford University School of Medicine, San Francisco, Calif. *Pharmacology, Biochemistry.* Connellsville, Pa, Sept. 8, 98. B.S, Phila. Col. Pharmacy, 24; M.S, Fordham, 27, Ph.D, 29. Instr, Phila. Col. Pharmacy, 23–24; research chemist, H. K. Mulford Co, 24–26; instr. physiol. chem, Fordham, 26–29, asst. prof. biochem, 29–33; consulting biochemist, New York, 33–34; assoc. toxicologist, bur. chem. and soils, U. S. Dept. Agr, 34–36, assoc. pharmacologist, 36–38; asst. prof. *pharmacol,* sch. med, Louisville, 38–42; *assoc. pharmacologist, U. S. Dept. Agr, 42–* Research assoc, Med. Col. of Va, 34–35; asst, sch. med, Stanford, 35–38. U.S.A, 18; capt, C.W.Res. A.A; Chem. Soc; Soc. Pharmacol. and Exp. Therapeut; Soc. Exp. Biol; Deuts. Chem. Gesell. The influence of capsicum on digestion; detoxication mechanisms; pharmacology and toxicology of derris, dinitrocresol and naphthyl isothiocyanate; toxicology and metabolism of derris constituents; toxicology of pyrethrum, rhodonates and antimony compounds; physiological effect of diethylene glycol; sulfamic acid and ammonium sulfamate; absorption of sulfonamides.

Ambrose, A(rthur) W(arren), 300 E. 11th St, Bartlesville, Okla. *Geology.* Lockeford, Calif, April 20, 89. A.B, Stanford, 14, E.M, 20. Geologist, Shell Co, Calif, 14–17; geol. engineer, Pomeroy and Hamilton, Houston, 17; petrol. technologist, U. S. Bur. Mines, Wash, D. C, 18–19, supt, Petrol. Exp. Sta, Bartlesville, 20, chief petrol. technologist, Washington, 21–22, asst. director, 22–23; manager land and geol. depts, Empire Gas and Fuel Co, 23–25; manager production, Empire Companies, 25–30, v. pres, *Empire Oil and Ref. Co,* 41, *exec. v. pres, 41–* Gas Asn; Asn. Petrol. Geol; Seismol. Soc; Petrol. Inst; Min. and Metal. Eng. (chairman, midcontinent sect, 27, petrol. div, 28, mem. exec. cmt, petrol. div, 29). Petroleum and gas technology.

Ambrose, Dr. H(enry) A(lfred), Gulf Research and Development Corp, Pittsburgh, Pa. *Chemical engineering.* Newton, Mass, Nov. 13, 02. B.S, Norwich, 24; Ph.D, Mass. Inst. Tech, 30. Junior fellow, Mellon Inst, 29–31, senior fellow, 31–34; *Gulf Research and Develop. Co,* 34–36, *asst. chief chemist, 36–* Chem. Soc; Soc. Automotive Eng. Rheology; petroleum production; lubrication and lubricants.

Ambrose, Dr. J(ohn) W(illis), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Pincher Creek, Alta, June 20, 04. A.B, Stanford, 32; Ph.D, Yale, 35. *Geologist,* temporary staff, *Geol. Surv. Can,* 34, *35–* Various phases of geology.

Ambrose, Dr. Warren, Princeton University, Princeton, N. J. *Mathematics.* Verdun, Ill, Oct. 25, 14. Fellow, Illinois, 36–38, Ph.D, 39. Instr, Alabama, 38–39; fellow, Inst. Advanced Study, 39–41; *Fine instr. math, Princeton, 41–* Math. Soc. Measure theory; ergodic theory; probability.

Ambrosia, Sister M(ary), Marygrove College, Detroit, Mich. *Spectroscopy.* Jackson, Mich. B.S, Michigan, 28, M.S, 31, Ph.D, 34. Teacher sci. and math, St. Mary Acad, Mich, 28–30; high sch, Mich, 30–32; asst. prof. and later *assoc. prof. physics and math, Marygrove Col, 33–* A.A; Physical Soc; Asn. Physics Teachers. Laboratory physics of home economics.

Amdur, Dr. I(sadore), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Pittsburgh, Pa, Jan. 24, 10. B.S, M.S, Pittsburgh, 30, Ph.D, 32. Nat. research fellow, *Mass. Inst. Tech,* 32–34, instr. *chem,* 34–40, *asst. prof,*

40– Summer, lecturer, Pittsburgh, 32. Physical chemistry; kinetic theory of gases; molecular beams.

Ameel, Dr. Donald J(ules), Kansas State College, Manhattan, Kans. *Zoology.* Detroit, Mich, April 24, 07. A.B, Wayne, 28; Bryant Walker scholar, Michigan, 29, A.M, 30, fellow, 32, Sc.D, 33. Assoc. prof. science, Augustana Col. (S. Dak), 33–35; research, helminthol, Michigan, 35–37, *instr. zool,* 36–37; *Kans. State Col, 37–* Soc. Zool; Soc. Parasitol; Micros. Soc. Helminthology; trematodes.

Amerine, Dr. Maynard A(ndrew), 242 Rice Lane, Davis, Calif. *Agriculture.* San Jose, Calif, Oct. 30, 11. B.S, California, 33, Ph.D, 36. Junior enologist, *col. agr, California,* 36–40, *asst. prof. enology, 40–; U. S. Army, 42–* A.A; Soc. Hort. Sci. Viticulture; photosynthesis; enology.

Ames, Prof. A(delbert), Jr, Dartmouth College, Hanover, N. H. *Optics.* Lowell, Mass, Aug. 19, 80. A.B, Harvard, 03, LL.B, 06; fellow, Clark, 14–17; hon. A.M, Dartmouth Col, 21. *Research prof. physiol. optics, Dartmouth Col, 21–* Cmt. physiol. optics, Nat. Research Council, 21, cmt. vision and photo. biol, 24– A.A; Optical Soc; Am. Acad; Asn. Research Ophthal. Physiological optics; technique of arts; aniseikonia.

Ames, Dr. Adeline, Sweet Briar College, Sweet Briar, Va. *Botany.* Henderson, Nebr, Oct. 6, 79. B.S, Nebraska, 03, A.M, 04; Ph.D, Cornell, 13. Asst. bot, Nebraska, 02–04; sci. asst, bur. plant indust, U. S. Dept. Agr, 04–11, asst. pathologist, 11–15; asst. prof. bot, *Sweet Briar Col,* 19–22, *prof. biol, 22–* A.A; Bot. Soc; Phytopath. Soc. Systematic mycology; plant pathology.

Ames, Dr. Dennis Burley, Rensselaer Polytechnic Institute, Troy, N. Y. *Mathematics.* Bristol, Eng, Sept. 6, 06. B.A, Bishop's Col. (Can), 27, M.A, 28; Ph.D, Yale, 31. Instr. *math,* Yale, 31–34; *Rensselaer Polytech,* 34–37, *asst. prof, 37–* Math. Soc. Celestial mechanics.

Ames, Prof. E(dward) S(cribner), University of Chicago, Chicago, Ill. *Philosophy.* Eau Claire, Wis, April 21, 70. A.B, Drake, 89, LL.D, 24; B.D, Yale, 92; Ph.D, Chicago, 95. Prof. philos, Butler, 97–00; *Chicago,* 00–35, *emer. prof, 35–, dean, Disciples Divinity House, 27–* A.A; Philos. Asn; Psychol. Asn; West. Philos. Asn. Psychology of religion.

Ames, Dr. L(ewis) D(arwin), 979 W. 36th St, Los Angeles, Calif. *Mathematics.* Keeseville, N. Y, July 11, 69. B.Litt, Missouri, 99; A.B, Harvard, 01, A.M, 02, Ph.D, 04. Instr. math, Mo. Nor. Sch, Chillicothe, 90–98, 99–00; Harvard, 01–03; Missouri, 03–06, asst. prof, 06–12, assoc. prof, 12–20; ranching, 20–25; assoc. prof, Texas Tech. Col, 25–26; *prof. math, Southern California, 26–* Summer, visiting instr, California, 26. Slowly convergent series; analysis situs; continuous groups.

Ames, Prof. Oakes, University Museum, Cambridge, Mass. ***Botany.* North Easton, Mass, Sept. 26, 74. A.B, Harvard, 98, A.M, 99; hon. Sc.D, Washington (St. Louis), 38. Asst. bot, *Harvard,* 98–00, instr, 00–10, asst. prof, 15–26, prof, 26–32, Arnold prof, 32–35, supervisor bot. museum, Atkins Institution, Arnold Arboretum, Cuba, chairman council bot. collections, univ, 23–35, research prof. *bot,* 35–41, *emer. research prof, 41–, director bot. museum, 35–* Asst. director bot. garden, Harvard, 99–09, director, 09–21. A.A; Soc. Nat; Bot. Soc; Am. Orchid Soc. (v. pres); Am. Acad; New Eng. Bot. Club (past v. pres); Mass. Hort. Soc; Boston Soc. Nat. Hist; Biol. Soc. Wash; N. Y. Acad; Wash. Acad; fel. Linnean Soc. London; C. Z. Orchid Soc. (hon. pres); Int. Asn. Bot. Economic botany; orchidology.

Amesse, Dr. J(ohn) W(illiam), 624 Metropolitan Bldg, Denver, Colo. *Medicine.* Eagle River, Mich, Jan. 15, 74. M.D, Michigan, 98. Sanit. officer, U. S. Pub. Health Service, Honolulu, 98–00, Manila, 00–04, Havana, 06–09, staff, hygienic lab, 07; asst. prof. pediat, *Colorado,* 10–36, assoc. prof, 36–41, *prof. clin. pediat, 41–* Ed, 'Denver Med. Times,' 13–14. Colo. Board Health, 18–; pres, Denver Pub. Health Council. Lieut. col, M.C, 17–19. Acad. Pediat; Denver Med. Soc. (pres). Pediatrics; diseases of the tropics; diseases of children; public health.

Amick, Chester A(lbert), 121 E. Maple St, Bound Brook, N. J. *Chemistry.* Scipio, Ind, April 19, 95. A.B, Indiana, 20, A.M, 21; Lyons; Cornell. Instr, high sch, Ind, 21–25; research chemist, Pacific Mills, Mass, 27–31; director chem. research, U. S. Finishing Co, Providence, 31–32; Glenlyon Print Works, Phillipsdale, R. I, 32–35; *research chemist, Calco Chem. Co, 35–* Chem. Soc; fel. Inst. Chem; Asn. Textile Chem. and Colorists; British Soc. Dyers and Colorists. Textile, colloid and carbohydrate chemistry; ultra-violet irradiation; textile printing; starches and gums; synthetic resins.

Amick, Dr. Erwin H(amer), Jr, 1027 University Terrace, Linden, N. J. *Chemical engineering.* Chicago, Ill, July 12, 10. B.S, Mont. State Col, 32; M.S, North Dakota, 33; D.Eng, Yale, 39. Instr. chem. eng, Yale, 37–38; research engineer, Standard Oil Develop. Co, 38–39; asst. prof. chem. eng, Pennsylvania, 39–41; *chem. engineer, Standard Oil Develop. Co, 41–* Chem. Soc; Inst. Chem. Eng. Pressure-volume-temperature relationships of binary hydrocarbon mixtures.

Amick, Prof. H(arold) C(lyde), University of Tennessee, Knoxville, Tenn. *Geography, Geology.* Greensboro, N. C, Jan. 22, 97. A.B, Elon Col, 20; A.M, North Carolina, 23. Teaching fellow, North Carolina, 22–23; foundation engineer, N. C. Highway Cmn, 23–24; instr. *econ. geog. and geol, Tennessee,* 24–28, *asst. prof, 28–* A.A; Soc. Econ. Geol; Tenn. Acad. Economic geography and geology; slates of east Tennessee; stone quarries of Tennessee; geography of Tennessee.

Amick, Dr. T(homas) C(icero), Louisburg College, Louisburg, N. C. *Mathematics.* Liberty, N. C, Feb. 14, 69. L. I, George Peabody Col, 91; Ph.D, Central (Ind), 01; Virginia, 16–17; Chicago, 17–19; A.B, North Carolina, 32, A.M, 33. Teacher, high sch, N. C, 91–06; Western Maryland Col, 06–09; *prof.* math. and business manager, Elon Col, 09–32; *math, Louisburg Col, 35–* Summers, prof, N. C. State Col, 17–23; N. C. State Nor. Col, Asheville, 25–26; Appalachian State Teachers Col, 30, 31. Math. Soc; Math. Asn; Elisha Mitchell Sci. Soc. Analytic geometry; advanced calculus.

Amis, Dr. Edward S(tephen), Louisiana State University, Baton Rouge, La. *Physical chemistry.* Himar, Ky, Nov. 9, 05. B.S, Kentucky, 30, M.S, 33; Chicago, 36; Ph.D, Columbia, 39. Prin. and teacher, rural schs, Knox and Harlan Counties, Ky, 23–27, prin, high sch, Knox Co, 30–31; asst. and instr. chem, Kentucky, 31–36; asst. and instr, Columbia, 36–39; instr. and later *asst. prof. physical chem, Louisiana, 39–* Chem. Soc. Glass electrodes; viscosities, densities and refractive indexes of pure organic substances and their mixtures; kinetics of reactions in isocomposition and isodielectric solvents; kinetics of reactions between ions and dipolar molecules.

Ammann, Dr. O(thmar) H(erman), 111 Eighth Ave, New York, N. Y. *Civil engineering.* Schaffhausen, Switzerland, March 26, 79. C.E, Swiss Fed. Polytech. Inst, Zurich, 02, hon. D.Sc, 30; D.E, N. Y. Univ, 31; M.S, Yale, 32; hon. D.E, Pa. Mil. Acad, 34; hon. Sc.D, Columbia, 41. Struct. draftsman, Wartman and Valette, Brugg, Switzerland, 02; asst. eng, Buckheim and Heister, Frankfurt, Germany, 03–04; designer steel bridges, Joseph Mayer, New York, 04; draftsman, Pa. Steel Co, Steelton, 04–06; designer steel bridges, Ralph Modjeski, Chicago, Ill, 06; asst. engineer, Pa. Steel Co, Steelton, 06–09; prin. asst. engineer, C. C. Schneider and F. C. Kunz, Phila, 09–12; prin. asst. engineer and asst. chief engineer, Gustave Lindenthal, New York, 12–23; consulting engineer, New York, 23–25; chief engineer bridges, *Port N. Y. Authority,* 25–30, chief engineer, 30–37, director eng, 37–40, *consulting engineer, 40–* Mem. board engineers, Golden Gate Bridge, San Francisco, 29–37; chief engineer, Triborough Bridge Authority, New York, 34–40; consulting engineer, 40– Thomas Fitch Rowland prize, Am. Soc. Civil Eng, 18. A.A; Civil Eng; Inst. Consulting Eng; Ry. Eng; Soc. Test. Mat; British Inst. Civil Eng. Engineering; design and construction of bridges and other engineering projects.

Ammons, Prof. Nell(l)e (Perrel), West Virginia University, Morgantown, W. Va. *Botany.* Rices Landing, Pa, May 23, 89. A.B, West Virginia, 17, A.M, 23; summers, Columbia, 22, Chicago, 24, 27, Michigan, 31; Ph.D, Pittsburgh, 37. Teacher, schs, Rices Landing, Pa, 09–13; bot, biol. and algebra, high sch, Fairmont, W. Va, 18–20; instr. *bot, West Virginia,* 20–37, *asst. prof, 37–* A.A; Sullivant Moss Soc; South. Appalachian Bot. Club (treas, 36–); W. Va. Acad. (treas, 40–). Bryophytes of West Virginia.

Amos, Dr. Carroll E, 46 Ninth St, Newark, Ohio. *Mathematics.* Fredericktown, Ohio, Jan. 26, 06. B.S, Denison, 28; univ. scholar, Ohio State, 31–32, Ph.D, 32. Asst. math, Ohio State, 28–30, physics, 30–31, hon. fellow, 32–33; head dept.

math, Whitworth Col, 33–34; emergency sch. supervisor, Licking County, Ohio, 34–36; dist. supt. adult educ, southeast. Ohio, Works Progress Admin, 36–39; instr. physics, high sch, Ohio, 39–42; *2nd lieut, Air Forces, U. S. Army, 42–* Civilian Aeronautics Admin. instr, 40–41; instr, Ohio State, 41. Summer, instr. eng, science and management war training, Pa. State Col, 41. Math. Asn. Applications of integral equations to potential and diffraction problems; the place of open forums in workers' education; adult education in southeastern Ohio.

Amos, John M(adison), University of Delaware, Newark, Del. *Entomology.* Mulberry, Ind, Aug. 10, 10. B.S.A, Purdue, 32, M.S.A, 33. Field aid, codling moth investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 34–35; fellow, Crop Protection Inst, 36–37; *asst. exten. entomologist, Exp. Sta, Delaware, 37–* Asn. Econ. Entom; Entom. Soc. Amer; Ind. Acad. Strawberry weevil.

Amoss, Dr. Harold L(indsay), Greenwich, Conn. ***Pathology.* Cobb, Ky, Sept. 8, 86. B.S, Kentucky, 05, M.S, 07; M.D, Harvard, 11, Dr.P.H, 12; hon. Sc.D, George Washington, 22. Chemist, Ky. Exp. Sta, 05–06; hygienic lab, U. S. Pub. Health Service, 06–07; bur. chem, U. S. Dept. Agr, 07–08; West. Pa. Hosp, 09; asst. prev. med, Harvard Med. Sch, 09–12; bacter. and path, Rockefeller Inst, 12–14, assoc, 14–19, assoc. mem, 19–22; assoc. prof. med, sch. med, Hopkins, and assoc. physician, Hopkins Hosp, 22–30; prof, Duke, 30–33; *practising physician, 33–* Visiting prof, Peiping Union Med. Col, 31; Rockefeller Inst, New York, 33–; med. consultant, Greenwich, White Plains, United and Grasslands Hosps. Assoc. ed, 'Medicine.' A.A; Soc. Exp. Path; Asn. Immunol; Soc. Clin. Invest; Soc. Exp. Biol; Am. Physicians; Col. Physicians; Col. Chest Physicians; Harvey Soc; Interurban Clin. Club. Internal medicine; acidity of gastric contents; oxidases in the blood; expired air; dysentery; poliomyelitis; meningitis; erysipelas; Brucella; infectious diseases; Streptococcus pneumoniae; tularemia; pneumococcus; encephalitis.

Amsden, Dr. George S(amuel), Acworth, N. H. *Psychiatry.* Ashtabula, Ohio, May 7, 70. A.B, Harvard, 01, M.D, 05; Munich, 09–10. Intern, Bloomingdale Hosp, 05–06, director lab, 07–14, senior asst. physician, 14–24; prof. clin. psychiat, Albany Med. Col, Union (N. Y), and director psychopath. dept, Albany Hosp, 24–29; prof. psychiat, N. Y. Post-Grad. Med. Sch, Columbia, 29–31; med. col, Cornell, 31–35; *retired.* Psychiatrist in chief, N. Y. Hosp, 31–35. A.A; Psychiat. Soc; Psychopath. Asn; Asn. Research Nervous and Mental Disease; Am. Med. Asn; Eugenics Research Asn; N. Y. Psychiat. Soc; N. Y. Acad. Med. Personality in its psychiatric and educational bearings.

Amsden, Prof. J(ohn) P(age), 4 Brewster Road, Hanover, N. H. *Chemistry.* Attleboro, Mass, May 23, 99. A.B, Dartmouth Col, 20; A.M, Columbia, 23, Ph.D, 25. Instr. *chem, Dartmouth Col,* 20–22, 25–30, asst. prof, 30–36, *prof, 36–* Chem. Soc; N. H. Acad. Colloidal chemistry; composition of colloidal gold hydrosols.

Amstutz, Prof. E(dward) D(elbert), Lehigh University, Bethlehem, Pa. *Organic chemistry.* New Athens, Ohio, May 1, 09. B.S, Col. of Wooster, 30; research scholar, Lawrence Col, 30–32, M.S, 31; Ph.D, Cornell, 36. Asst. *chem,* Cornell, 33–36; instr, Union (N. Y), 36–38; *Lehigh,* 38–41, *asst. prof, 41–* Chem. Soc. Synthetic organic chemistry; reaction mechanisms; heterocyclic compounds.

Amundsen, Prof. Lawrence H(ardin), University of Connecticut, Storrs, Conn. *Chemistry.* Pine River, Wis, Sept. 23, 09. B.S, Col. of Ozarks, 31; Ph.D, Florida, 35. Asst. org. chem, Florida, 31–35; instr. *chem,* Adelphi Col, 35–36; *Connecticut,* 36–38, asst. prof, 38–41, *assoc. prof, 41–* Summer, instr, Florida, 35. Nat. Defense Research Cmt. fellow, Purdue, 42–43. A.A; Chem. Soc; New Eng. Asn. Chem. Teachers (chairman, west. div, 40–42). Organic chemistry; amines and sulfonamides.

Anastasi, Prof. Anne, Queens College, Flushing, N. Y. *Psychology.* New York, N. Y, Dec. 19, 08. A.B, Columbia, 28, Ph.D, 30. Asst. *psychol,* Columbia, and lecturer, Barnard Col, 29–30, instr, 30–39; *asst. prof, Queens Col. (N. Y), 39–* A.A; Psychol. Asn; Psychometric Soc. (chairman, membership cmt, 39; mem, council directors, 41–); East. Psychol. Asn; N. Y. Acad. (sec'y, psychol. sect, 38, chairman, 39). Mental trait organization; psychological statistics; learning; judgment; art.

Anderegg, Dr. F(rederick) O(sband), Owens-Corning Fiberglas Corp, Newark, Ohio. *Chemistry.* Oberlin, Ohio, Sept. 20, 87. A.B, Oberlin Col, 10; A.M, Harvard, 12, Ph.D, 15. Chemist, Mallinckrodt Chem. Works, 14–16; instr. chem, Illinois, 16–18; asst. prof, Purdue, 18–25, assoc. prof, 25–26; senior indust. fellow, Mellon Inst, 26–30; *consulting specialist building materials, 30–* A.A; Chem. Soc; Soc. Test. Mat; Ceramic Soc; Ind. Acad. Silent discharge; lead corrosion; efflorescence and staining of Indiana limestone; soil colloids; cement; cement products; masonry; prefabricated housing.

Anders, Dr. Howard S, 260 S. 21st St, Philadelphia, Pa. *Medicine.* Norritonville, Pa, Nov. 12, 66. A.B, Cent. High Sch. Phila, 85, A.M, 92; M.D, Pennsylvania, 90. Intern, Presb. Hosp, Phila, 90–91; instr. clin. med, Medico-Chirurg. Col. Phila, 94–96, lecturer, 97–99, prof. physical diagnosis, 99–13; *practising physician.* Physician, Samaritan and Phila. Gen. Hosps; pioneer in founding Pa. State Hosp. for Tuberculous Poor. Am. Med. Asn; Pub. Health Asn; Pa. Soc. Tuber. (past pres); Phila. Soc. Arts (past pres); Royal Meteorol. Soc. Public health; epidemiology; physical diagnosis; street width in relation to mortality rate of pulmonary tuberculosis; dust-borne diseases; tuberculosis; the weather and epidemic influenza; heart disease; periodic health examinations.

Andersch, Dr. Marie A(melia), Children's Hospital, Pittsburgh, Pa. *Biochemistry.* Rock Island, Ill, April 4, 05. B.S, Illinois, 26; M.S, Iowa, 32, Ph.D, 34. Chemist, Michael Reese Hosp, Chicago, Ill, 26–31; assoc. med, Iowa, 34–35; asst. prof. biochem, Woman's Med. Col. of Pa, 35–38, assoc. prof, 38–41; *research fellow path, Pittsburgh, 41–* Chem. Soc; Soc. Bact; Soc. Biol. Chem. Effect of intravenous injections of colloids; mineral metabolism.

Andersen, Alice M, U. S. Department of Agriculture, Washington, D. C. *Plant physiology.* B.Mus, Nebraska, 16, A.B, 21, A.M, 22. *Scientist, bur. plant indust, U. S. Dept. Agr, 22–* A.A; Bot. Soc; Bot. Soc. Wash. Morphology.

Andersen, Prof. Allen E(mil), Harkness Road, Amherst, Mass. *Mathematics.* Viborg, S. Dak, Dec. 17, 99. A.B, Nebraska, 23, A.M, 24; Ph.D, Harvard, 34. Prin, high sch, Nebr, 21–22; teaching fellow *math,* Nebraska, 22–24; instr, Oklahoma, 24–25; asst. prof, Northeast Mo. State Teachers Col, 25–28; instr, Harvard, 29–32; Worcester Polytech, 32–33; prof. and chairman dept, Wagner Col, 33–37; *asst. prof, Mass. State Col, 37–* Topics in theory of binary forms.

Andersen, Dr. A(rie) A(ndrew), Institute for Medical Research, Christ Hospital, 2139 Auburn Ave, Mt. Auburn, Cincinnati, Ohio. *Bacteriological chemistry.* Hyrum, Utah, July 6, 05. B.S, Utah State Col, 32, M.S, 35; research fellow, Iowa State College, 35–38, Ph.D, 41. Asst. chem. and bacter, Utah State Col, 32–35; asst. chemist, Am. Smelting and Ref. Co, 35; instr. bacter. and biochem, Utah State Col, 38–40; asst. bacterial variation, Iowa State Col, 40–41; *instr. biol. chem, Cincinnati, 41–; research assoc. bacterial metabolism, inst. med. research, Christ Hosp, 41–* Soc. Bact. Bacteriology; biochemistry.

Andersen, Dr. A(xel) G(unerius) H(oljord), U. S. Army Air Forces, Venice, Fla. *Metallurgical engineering.* Chicago, Ill, 97. B.A, Norway, 17; B.S, Mass. Inst. Tech, 22, M.S, 32; Ph.D, Columbia, 36. Engineer and metallurgist, copper plants, 22–31; research engineer, R. Hoe and Co, New York, 30–31; research metallurgist, Union Carbide and Carbon Co, 35; Phelps Dodge Corp, Long Island City, 35–41; in charge heat treating, Aircraft Screw Products Co, 42; *Ordnance Dept, U. S. Army, 42–* Howe medal, Am. Soc. Metals, 37. A.A; Min. and Metal. Eng; Soc. Metals; Army Ordnance Asn; Norwegian Am. Hist. Asn; N. Y. Acad; Norwegian Eng. Soc. N. Y. Alloys and alloy systems; phase diagrams; metallography; x-ray diffraction.

Andersen, Dr. Carl N(orman), 61 Audubon Road, Wellesley, Mass. *Chemistry.* Anglesea, N. J, Aug. 12, 96. B.S, Pennsylvania, 21; Ferguson fellow, Columbia, 22–24, Ph.D, 24. *Research chemist,* Vacuum Oil Co, 24–26; Charles Pfizer, 26–27; Frazer Tablet Co, 27–28; *Lever Bros. Co, 28–* Chem. Soc. Soaps; oils; glycerine; organo-metallic compounds; synthesis of phenyl mercury compounds and their bacteriological and biochemical relations; biochemistry of fats; vitamins and fortified foods.

Andersen, Dr. Dorothy H(ansine), Babies Hospital, 167th St. and Broadway, New York, N. Y. *Pathology, Endocrinol-*

ogy, Pediatrics. Asheville, N. C, May 15, 01. A.B, Mt. Holyoke Col, 22; M.D, Hopkins, 26; Sc.D, Columbia, 35. Instr. anat, sch. med, Rochester, 26–27, intern, Strong Mem. Hosp, 27–28; instr. *path, col. physicians and surg, Columbia,* 29–35, *assoc, 35–; attending pathologist, Babies Hosp, 35–* E. Mead Johnson award, 33. Asn. Anat; Soc. Exp. Biol; Soc. Exp. Path; Soc. Pediat. Research; Harvey Soc; N. Y. Acad. Med. Physiology of endocrine glands; congenital pancreatic deficiency; celiac syndrome; glycogen disease.

Andersen, Dr. E(lias) M(lton), Homestead, Fla. *Horticulture.* Tremonton, Utah, March 31, 13. B.S, Utah State Col, 35; State Col. Wash, 35–36; Ph.D, Cornell, 41. Asst. hort, Utah State Col, 32–35; State Col. Wash, 35–36; veg. crops, Cornell, 36–41; *asst. horticulturist, Exp. Sta, Florida, 41–* Vegetable crops; plant physiology and breeding; production.

Andersen, Prof. Emma N(athalia), University of Nebraska, Lincoln, Nebr. *Botany.* Ames, Nebr. A.B, Nebraska, 10, A.M, 13; Ph.D, Chicago, 27. Teacher, high sch, Nebr, 13–17; *asst. prof. bot, Nebraska, 17–* A.A; Bot. Soc; Phytopath. Soc; Micros. Soc; Nebr. Acad. Plant morphology; microchemistry.

Andersen, Dr. Hans P(eter), The Upjohn Co, Kalamazoo, Mich. *Organic chemistry.* Lake Benton, Minn, Feb. 11, 04. A.B, St. Olaf Col, 27; M.S, Okla. Agr. and Mech. Col, 29; Ph.D, Iowa, 31. *Organic chemist, Upjohn Co, 31–* A.A; Chem. Soc. Homologs of apocynol and apocynin; zinc alkyls and chloroamines; organic mercurials.

Andersen, Dr. Holger Christian, Distillation Products, Inc, Rochester, N. Y. *Physical chemistry.* Chicago, Ill, March 6, 18. B.S, Northwestern, 38, Marcy scholar, 38; A.M. and Ph.D, Harvard, 42. Teaching fellow, Harvard, 40–42; *research chemist, Distillation Products, Inc, 42–* Chem. Soc. Kinetics of ethane photobromination; bond strengths in hydrocarbons; ionization gauges; Knudsen absolute manometer; high vacuum evaporation of salts and metals.

Andersen, Prof. Paul, University of Minnesota, Minneapolis, Minn. *Structural engineering.* Copenhagen, Denmark, Nov. 24, 00. B.S, Royal Polytech. Inst. Copenhagen, 23; M.S, Illinois, 32, Ph.D, 34. Struct. engineer, Am. Bridge Co, N. Y, 24–29; designer bridges, State Highway Dept, Ark, 29–31; instr. struct. eng, Minnesota, 34–35; struct. engineer, Panama Canal, 35–37; *assoc. prof. struct. eng, Minnesota, 37–* Civil Eng; Eng. Educ. Structural and elastic properties of concrete; torsion; structural analysis.

Anderson, Dr. Adolph G(abriel), University of Pittsburgh, Pittsburgh, Pa. *Physical chemistry.* Salem, S. Dak, Sept. 7, 13. B.S, Pittsburgh, 34, Ph.D, 40. Asst. *chem,* Pittsburgh, 34–37; *instr,* Geneva Col, 36–39; *Pittsburgh, 39–* Heat capacities and entropies of disaccharides.

Anderson, Dr. Alfred B(ernhard) C(ornelius), Radiation Laboratory, University of California, Berkeley, Calif. *Physics.* Los Angeles, Calif, July 25, 06. A.B, California at Los Angeles, 28; Ph.D, Calif. Inst. Tech, 33. Fellow, Calif. Inst. Tech, 33–34; physicist, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 35–36; teaching and research, col. agr, *California,* 36–42, *physicist, radiation lab, 42–* Structure and properties of extremely thin metallic films; physics of soil-moisture plant relations.

Anderson, Alfred C(onrad), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Church's Ferry, N. Dak, July 11, 87. B.S.A, N. Dak. Col, 12. N. Dak. Soil Surv, 12–16; asst. soil surveyor, *U. S. Dept. Agr,* 16–36, *assoc. soil scientist, bur. plant indust, 36–* A.A; Soc. Agron; Soil Sci. Soc. Soil classification and genesis.

Anderson, Prof. Alfred L(eonard), Cornell University, Ithaca, N. Y. *Geology.* Moscow, Idaho, Nov. 19, 00. B.S, Idaho, 22, M.S, 23; Ph.D, Chicago, 31. Asst. prof. chem, Idaho Tech. Inst, 24–26; geologist, Idaho Bur. Mines and Geol, 27–28; asst. prof. *geol,* Idaho, 28–32, prof, 32–38, head dept, 39; asst. prof, *Cornell,* 39–40, *assoc. prof, 40–; asst. geologist, U. S. Geol. Surv, 31–* A.A; Am. Geog. Soc; Min. and Metal. Eng; fel. Geol. Soc; Soc. Econ. Geol; Geophys. Union; Northwest Sci. Asn. Structural geology; physiography; petrology; mineral deposits.

Anderson, Prof. Amos C(arey), Ohio University, Athens, Ohio. *Psychology.* Centerville, Pa, June 25, 97. A.B, Michigan, 22, A.M, 24; Ph.D, Yale, 31. Instr, Mich. State Teachers Col, Mt. Pleasant, 22–23; head dept. *psychol,* N. Dak. State Teachers Col, Mayville, 24–25; from instr. to *prof, Ohio (Athens), 25–* Psychol. Asn; Midwest. Psychol. Asn. Feeling and recall; extraneous factors and learning; time discrimination in the white rat.

Anderson, Andrew W(allace), U. S. Department of the Interior, Washington, D. C. *Fisheries.* Dawson, Yukon, Can, April 25, 01. B.S, Washington (Seattle), 22. Construction, installation and design, fishery reduction plants, Calif, Norway, Iceland, Hawaii and British Columbia, 22–30; fishery statist. and marketing, Bur. Fisheries, 30, asst. fisheries technologist, 30–37, *chief market news sect,* 37–40, *fish and wildlife service, U. S. Dept. Interior, 40–* Lecturer, sch. fisheries, Washington (Seattle). Fishery production, distribution and marketing; fishery by-products.

Anderson, Prof. Arthur, University of Nebraska, Lincoln, Nebr. *Agronomy.* Ulysses, Nebr, June 29, 89. B.S, Nebraska, 16, M.S, 23; Ph.D, Ohio State, 32. Asst. *agron, Nebraska,* 17–18, instr, 18–19, asst. prof, 19–34, *assoc. prof, 34–, conservationist and economist, cooperation with soil conservation service, U. S. Dept. Agr.* A.A; Soc. Agron. Agricultural production and conservation.

Anderson, Dr. A(rthur) B(ernhardt), 7733 S. E. 13th St, Portland, Oregon. *Chemistry.* North Fond du Lac, Wis, Feb. 17, 07. A.B, Wisconsin, 29, U. S. Dept. Agr. fellow, 29–34, Ph.D, 33. Fellow biochem, Wisconsin, 33–34; chemist, Quaker Oats Co, Cedar Rapids, 34–37, research chemist, Chicago, 37–39, tech. sales, 39–41; *research chemist, West. Pine Asn, 41–* Wood and paint chemistry.

Anderson, Prof. Arthur L(awrence), Iowa State College, Ames, Iowa. *Animal husbandry.* Minneapolis, Minn, Nov. 5, 93. B.S, Minnesota, 16; M.S, Iowa State Col, 22. Asst. vet. med, Minnesota, 16–17; instr, high sch, Minn, 17–18; *animal husbandry,* Minnesota, 19–20; asst. prof. and *assoc. prof, Iowa State Col, 20–* Soc. Animal Production. Animal nutrition; animal breeding; pork production; live-stock judging.

Anderson, Dr. Arthur R(oland), 902 Main St, Riverton, N. J. *Engineering.* Tacoma, Wash, March 11, 10. B.S, Washington (Seattle), 34; M.S, Mass. Inst. Tech, 35, Sc.D, 38. Asst, Mass. Inst. Tech, 36–38; designing engineer, Aug. Klönne Steel Works, Dortmund, Germany, 38–39; research assoc, Mass. Inst. Tech, 39–41; *hull engineer, Cramp Shipbuilding Co, 41–* Soc. Naval Archit. and Marine Eng; Welding Soc; Soc. Civil Eng; British Northeast Coast Institution Shipbuilders. Subaqueous concrete; rapid tension tests using two-load method; lateral extensometer.

Anderson, Dr. Arthur (von) K(rogh), State College, Pa. *Biochemistry.* Montevideo, Minn, Feb. 27, 90. B.S.A, Minnesota, 13, M.S, 15, Shevlin fellow, 15–16, Ph.D, 23. Prof. chem, St. Olaf Col, 16–18; instr. anal. chem, Minnesota, 19–20, agr. biochem, 20–23; assoc. prof. *physiol. chem, Pa. State Col,* 23–29, *prof,* 29– 2nd lieut, Sanit. C, 18–19; lieut, Sanit. R.C, 20–40. Chem. Soc. (chairman, cent. Pa. sect, 31). Blood chemistry; fungus metabolism; physiological chemistry; essentials of physiological chemistry; laboratory experiments in physiological chemistry.

Anderson, Dr. Bert Geo(rge), Yale University, New Haven, Conn. *Dentistry.* Litchfield, Minn, Sept. 10, 88. D.D.S, Minnesota, 14. Instr. dentistry, Minnesota, 14–17, asst. prof, 18–22; assoc. oral surg, Peiping Union Med. Col, 22–26, asst. prof, 26–30; assoc. prof. dentistry, Columbia, 30–31; asst. prof. *surg, sch. med, Yale,* 31–40, *assoc. prof, 40–* Specialist oral diagnosis and oral surg, Earl Clinic, Minn, 20–22; assoc. dental surgeon, New Haven Hosp. and Dispensary, 31– Lieut, Dental C, U.S.A, 18–19. A.A; Dental Asn; Conn. State Dental Asn; Swedish Hist. Sci. Soc; Int. Asn. Dental Research; Int. Col. Dentists.

Anderson, Dr. Bertil G(ottfrid), West Virginia University, Morgantown, W. Va. *Zoology.* Escanaba, Mich, Jan. 5, 04. A.B, Augustana Col. (Ill), 26; M.S, Iowa, 29, Ph.D, 30. Asst. biol, Augustana Col. (Ill), 24–26; instr, high sch, Ill, 26–27; asst. zool, Iowa, 27–30; instr. biol, Western Reserve, 30–38, asst. prof, 38–41; research assoc, Franz Theodore Stone Lab, Ohio State, 41–42; *instr. zool, West Virginia, 42–* Summers, visiting prof, Transylvania Col, 33, 34; asst. prof, Franz Theodore Stone Lab, Ohio State, 38– A.A; Soc. Zool; Fisheries Soc; Limnol. Soc; Soc. Nat; W. Va. Acad; fel. Ohio Acad. Growth; regeneration; general physiology; physiology

of Cladocera; physiology of fishes; detection of toxic materials in water.

Anderson, C. Edward, 1519 Custer Ave, Laramie, Wyo. *Mechanical engineering.* Milwaukee, Wis, Oct. 10, 94. B.S, Wisconsin, 18, M.S, 28. Instr. steam and gas eng, Wisconsin, 19–28; asst. and assoc. prof. mech. eng, Nebraska, 28–30; petrol. production, Tulsa, 30–33; sales engineer, 33–34; assoc. prof. *mech. eng,* Iowa, 34–35; instr, Wisconsin, 35–36; Mich. State Col, 36–37; assoc. prof, Iowa, 37–41; *prof. and chairman div, Wyoming, 41–* Mech. Eng. (sec'y, mid-continent petrol. sect, 30); Eng. Educ; Soc. Mil. Eng. Power production and fuels.

Anderson, C. Travis, U. S. Bureau of Mines, Rolla, Mo. *Physical chemistry.* Iowa, June 17, 01. Stanford, 25. Junior chemist rare and precious metals, exp. sta, *U. S. Bur. Mines,* Reno, Nev, 25–28, asst. physical chemist, Pacific Exp. Sta, 28–37, assoc. physical chemist, Pittsburgh Exp. Sta, 37–39, exp. sta, College Park, Md, 39, senior metallurgist, Intermountain Exp. Sta, 39–42, *asst. regional engineer, cent. region, 42–* Soc. Metals; Chem. Soc. (v. chairman, northwest. Utah sect, 42). Electrolytic deposition of manganese; manganese alloys; hydrometallurgy of manganese; low temperature specific heats on organic compounds; metals, oxides, sulfides, carbonates and sulfates; metallurgy of iron and steel.

Anderson, Carl B(ernard), 1212 Lafayette Ave, Mattoon, Ill. *Geology.* Nebraska City, Nebr, Sept. 6, 89. Nebraska, 08–11; B.S, Washington (Seattle), 12; fellow, Chicago, 12–16. Geologist, Ill. Geol. Surv, 13–16; Gypsy Oil Co. and Gulf Oil Corp, 16–19; consulting geologist and petrol. engineer, New York, 19–23; Tulsa, 23–35; *zone geologist, Gulf Oil Corp, 35–* Consulting mining engineer, U. S. Bur. Mines, 21–22. Summers, U. S. Geol. Surv, 10–12, 34. A.A; Asn. Petrol. Geol. Stratigraphy; artesian waters of Illinois; the occurrence of petroleum and gas.

Anderson, Dr. Carl D(avid), California Institute of Technology, Pasadena, Calif. *[6]*Physics.* New York, N. Y, Sept. 3, 05. B.S, Calif. Inst. Tech, 27, Charles A. Coffin fellow, 27–28, Ph.D, 30. Teaching fellow *physics, Calif. Inst. Tech,* 27–30, research fellow, 30–33, asst. prof, 33–37, assoc. prof, 37–39, *prof, 39–* Gold medal, Am. Inst, 35; Nobel prize, 36; Cresson medal, Franklin Inst, 37. X-ray photoelectrons; cosmic and gamma rays; positive electrons; induced radioactivity.

Anderson, Prof. C(arl) L(eonard), Utah State College, Logan, Utah. *Physiology, Hygiene.* Ironwood, Mich, Feb. 28, 07. B.S, Michigan, 28, M.S, 31, Dr.P.H, 33. Director health educ, Grosse Ile, Mich, 28–31; pub. health admin, State Dept. Health, Mich, 31–32; rural health admin, State Dept. Health, Mich, and U. S. Pub. Health Service, 33–35; from asst. prof. to *prof. physiol. and pub. health, Utah State Col, 35–* A.A; Pub. Health Asn. Metabolism of the skin; artificial production of epilepsy; angina pectoris; physiological basis of temperament; mental health; hereditary transmission of cataract.

Anderson, Dr. Carrolle E(lizabeth), Adelphi College, Garden City, N. Y. *Plant anatomy.* Ashfield, Mass, Jan. 8, 08. B.S, Mass. State Col, 32, M.S, 35; Ph.D, Cornell, 40. Instr. bot, Mass. State Col, 32–36; asst, Cornell, 36–38, instr, 38–39; *biol, Adelphi Col,* 39–40, *acting chairman dept, 40–* A.A; Bot. Soc; Torrey Bot. Club; N. Y. Acad. The floral anatomy of the Liliales; the Ranales of Massachusetts.

Anderson, Prof. Charles A(lfred), University of California, Berkeley, Calif. *[7]*Geology.* Bloomington, Calif, June 6, 02. A.B, Pomona Col, 24; Ph.D, California, 28. Assoc. *geol, California,* 26–28, instr, 28–30, asst. prof, 30–38, *assoc. prof, 38–* Fel. Geol. Soc. (sec'y Cordilleran sect, 36–); Geophys. Union; fel. Miner. Soc. Ore deposits; petrology; volcanology.

Anderson, Prof. Charles H(erbert), University of Kentucky, Lexington, Ky. *Engineering.* Birmingham, Eng, Sept, 68. Private schs, England. Chief engineer, Seattle, Renton and South. R.R; Cincinnati Car Co; Westinghouse Elec. and Cincinnati Car Co; *prof. eng. design, Kentucky, 19–* Engineering design; constant pressure internal combustion motors.

Anderson, Dr. Claude M(atthews), Jr, U. S. Merchant Marine Cadet Basic School, San Mateo, Calif. *Astronomy.* Denver, Colo, April 17, 07. A.B, California, 29, A.M, 30, Ph.D, 33. Research assoc. astron, California, 34–37; *instr,* McCormick Observatory, Virginia, 37–42; *cadet basic sch, U. S. Merchant Marine, 42–* Astron. Soc; Astron. Soc. Pacific; Va. Acad. Perturbations of minor planets; stellar parallaxes; navigation.

Anderson, Clifford N(orman), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Radio engineering.* Scandinavia, Wis, Sept. 22, 95. Ph.B, Wisconsin, 19, M.S, 20; Am-Scandinavian Foundation fellow, Norway, 21–22. Prin, schs, Wis, 13–17; instr. eng. physics, Wisconsin, 19–20; engineer, standardizing lab, Gen. Elec. Co, Mass, 20–21; *radio engineer,* dept. develop. and research, Am. Tel. and Tel. Co, 22–34; *Bell Tel. Labs, 34–* Ensign, U.S.N.R, 17–19. Radio Eng; Geophys. Union. Radio transmission.

Anderson, Dr. David Allen, Equitable Life Assurance Society, Minneapolis, Minn. *Education, Psychology.* Lamoni, Iowa, Aug. 19, 74. A.B, Iowa, 08, A.M, 10, traveling fellow, 10–11, Ph.D, 12. Prof. educ, Lacrosse State Nor. Sch, 12–13; teacher and prin, schs, Iowa and Ill; asst. prof. educ, Washington (Seattle), 13–16, assoc. prof, 16–17; prof. educ. and head dept. educ. and psychol, Pa. State Col, 17–26; pres, Ohio State Nor. Col, Kent, 26–28; North. Nor. and Indust. Sch, S. Dak, 28–33; *insurance underwriter, Equitable Life Assurance Soc. of the U. S, 33–* Summer schs, 11–26. Soc. Study Educ. Duration of tones; time interval; direction of sound; darkness and quiet; pitch discrimination; curricula for secondary education.

Anderson, Prof. D(ean) A(lbert), Brigham Young University, Provo, Utah. *Soil microbiology.* Pleasant Grove, Utah, Sept. 27, 05. B.S, Brigham Young, 29; M.S, Iowa State Col, 30, fellow, 30–33, Ph.D, 32. Teaching fellow, Iowa State Col, 29–30; head dept. *bacter,* Weber Col, 33–41; *asst. prof, Brigham Young, 41–* Summers, research assoc, Intermountain Forest and Range Exp. Sta, U. S. Forest Service, 36–38. A.A; West. Soc. Soil Sci; fel. Utah Acad. (chairman, applied biol. sci. sect, 40). Physiology of rhizobium; microbial longevity; erosional effects induced by irrigation.

Anderson, Prof. Donald B(enton), College of Agriculture, University of North Carolina, Raleigh, N. C. *Plant physiology.* Schoolcraft, Mich, Sept. 1, 99. A.B, B.S, Ohio State, 20, A.M, 22, fellow, 24–25, Ph.D, 25. Instr. *bot,* Wisconsin, 23–24; asst. prof, *N. C. State Col,* 25–29, assoc. prof, 29–36, *prof, 36–, cotton fiber investigator, U. S. Dept. Agr, North Carolina, 36–* Int. Educ. Board fellow, Vienna, 27–28. A.A; Soc. Plant Physiol; Bot. Soc; N. C. Acad. Plant microchemistry; cell wall structure.

Anderson, Dr. Douglas S(mith), Mandeville, La. *Electrical engineering.* Lexington, Va, Sept. 6, 71. A.B, Washington and Lee, 90, hon. Sc.D, 33; A.M, Tulane, 92, LL.D, 37; Polytech. Sch, Zurich, 06–07. Asst. prof. physics, Tulane, 93–97, assoc. prof, 97–00; prof. *elec. eng,* Mississippi, 00–01; assoc. prof, *Tulane,* 01–06, prof. and head dept, 07–36, *emer. prof, 36–,* dean *col. eng,* 19–36, *emer. dean, 36–* A.A; Elec. Eng; Eng. Educ.

Anderson, Prof. E(arl) J(ennings), State College of Washington, Pullman, Wash. *Plant pathology.* Roy, Wash, June 8, 08. B.S, State Col. Wash, 32, M.S, 34; Ph.D, Maryland, 37. Asst. bot, Maryland, 34–35, Exp. Sta, 35–37; nat. research fellow, Minnesota, 37–38; instr. bot, N. Dak. Col, 38–39; assoc. pathologist, Pineapple Research Inst, 39–43; *prof. plant path. and head dept, State Col. Wash, and plant pathologist and head div, Exp. Sta, 43–* Powdery mildew of legumes; physiological aspects of root-rot diseases; fungous diseases of pineapple; virus diseases of potato.

Anderson, Prof. Edgar, Missouri Botanical Garden, St. Louis, Mo. *[6]*Botany, Genetics.* Forestville, N. Y, Nov. 9, 97. B.S, Mich. State Col, 18; M.S, Harvard, 20, Sc.D, 22. Asst. genetics, Harvard, 21–22; asst. prof. bot, Washington (St. Louis), 22–30, assoc. prof, 30–31; geneticist, Mo. Bot. Garden, 22–31; arborist, Arnold Arboretum, Harvard, 31–35; prof. *bot, Washington (St. Louis),* 35–38, *Engelmann prof, 38–; geneticist, Mo. Bot. Garden, 35–* Nat. research fellow, 29–30; Jessup lecturer, Columbia, 41. Order Yugoslavian Crown, 37. A.A; Herb Soc; Genetics Soc; Soc. Nat; Am. Acad. Self-sterility; geographical variation; genetics of species crosses.

Anderson, E(dmund) A(rnold), Circle Drive, Palmerton, Pa. *Metallurgy.* Bridgeport, Conn, July 27, 99. Ph.B, Yale, 20, M.S, 23. *Metallurgist, research div, N. J. Zinc Co, 23–* Min. and Metal. Eng. Zinc and zinc alloys; electroplating on zinc; x-ray of zinc and zinc alloys.

Anderson, Prof. E(dward) E(ric), Wilson College, Chambersburg, Pa. *Psychology.* Stanberry, Mo, April 6, 05. A.B, Illinois, 29, A.M, 30, fellow, 30–31, Ph.D, 34. Asst. psychol, Illinois, 31–34; nat. research fellow biol. science,

Stanford, 34–35; instr. and tutor *psychol*, Harvard, 35–39; *prof, Wilson Col, 39–* Psychol. Asn. Motivation; individual differences; animal behavior.

Anderson, Prof. Edward X, University Station, N. Dak. *Chemistry.* Minneapolis, Minn, Feb. 9, 85. B.S, Minnesota, 08, M.S, 09; Ph.D, Iowa, 15. Asst. *chem*, Minnesota, 04–09; instr, Iowa, 09–13; instr, *North Dakota*, 13–17, asst. prof, 17–25, *assoc. prof, 25–* Electrical conductivity of salts in pyridine; nucleation of vapors, pure and mixed, in dust-free air; chemical etymology.

Anderson, Prof. Edwin J(oseph) A(rthur), Pennsylvania State College, State College, Pa. *Entomology.* St. Marys, Pa, April 19, 00. B.S, Pa. State Col, 24; M.S, Cornell, 25. Asst. apicult, Pa. State Col, 21–24; instr. entom, Clemson Col, 25–26; *asst. prof, Pa. State Col, 26–42, apicult, 42–* Ed, 'Pa. Beekeeper,' 27– A.A; Asn. Econ. Entom. (v. pres, sect. apicult, 37); Entom. Soc. Amer. Pathological changes in the tissues of the honey-bee infested with the mite, Acarapis woodi; diseases and enemies of the honey-bee; bee-keeping in Pennsylvania; honey extracting equipment.

Anderson, Prof. Elda E(mma), Milwaukee-Downer College, Milwaukee, Wis. *Physics.* Green Lake, Wis, Oct. 5, 99. A.B, Ripon Col, 22; A.M, Wisconsin, 24, Ph.D, 41. Dean physics, chem. and math, Estherville Junior Col, 24–27; instr, high sch, 27–29; *prof. physics, Milwaukee-Downer Col, 29–* A.A; Physical Soc; Asn. Physics Teachers. Low terms in the spark spectra of cobalt and nickel.

Anderson, Prof. E(lmer) O(lin), University of Connecticut, Storrs, Conn. *Dairy industry.* Dassel, Minn, Aug. 18, 97. B.S, Minnesota, 20, M.S, 22. Asst. *dairy indust*, Minnesota, 20–22; instr, Nebraska, 22–25; asst. prof, *Connecticut*, 25–28, *assoc. prof, 28–* Dairy Sci. Asn. (chairman, east. sect, 30). Soft curd milk; changes in milk during freezing; associated organisms, methods of control and detection and diathermy of bovine infectious mastitis.

Anderson, Prof. Ernest, University of Arizona, Tucson, Ariz. *Chemistry.* Kaufman, Texas, 81. B.S, Texas, 03, M.S, 04, fellow, 04–05; fellow, Chicago, 06–09, Ph.D, 09. Research instr. chem, Chicago, 09–12; asst. prof, Mass. Col, 12–14, assoc. prof, 14–17; *prof.* agr. chem, Transvaal, 17–20; *chem*, Nebraska, 20–23; *Arizona, 23–* A.A; Chem. Soc; Royal Soc. S. Africa. Organic and physical chemistry; sugars; aldehydes; calorimeter; alkali soils of South Africa; physical properties of arsenic trioxide; benzoin condensation; hydrolysis of plant gums; chemistry of the hemicelluloses.

Anderson, Prof. E(rnest) G(ustaf), California Institute of Technology, Pasadena, Calif. **Botany.* Concord, Nebr, 91. B.S, Nebraska, 15; Ph.D, Cornell, 20. Research assoc, Carnegie Institution, 20–22; instr. biol, Col. City of N. Y, 22–23; nat. research fellow, Michigan, 23–26, asst. prof. bot, 26–27, Lloyd fellow science, 27–28; *assoc. prof. genetics, Calif. Inst. Tech, 28–* A.A; Soc. Nat; Genetic Asn; Bot. Soc. Genetics of maize and Drosophila.

Anderson, Dr. E(rnest) W(illard), Iowa State College, Ames, Iowa. *Applied mathematics.* Fargo, N. Dak, Aug. 23, 05. B.S, N. Dak. Col, 26; M.S, Iowa State Col, 28, Ph.D, 33. Instr. *math, Iowa State Col, 27–37, asst. prof, 37–* Physical Soc; Iowa Acad. Elasticity; aerodynamics.

Anderson, Dr. Esther S(anfreida), University of Nebraska, Lincoln, Nebr. *Geography.* Lincoln, Nebr. B.S, Nebraska, 15, A.M, 17; fellow, Wisconsin, 20–21; Clark, 29–30, Ph.D, 32. Instr. *geog*, Nebraska, 19–20; asst, Wisconsin, 20–21; instr, *Nebraska*, 21–29, 30–34, *asst. prof, 35–; geographer, mil. intel. service, U. S. War Dept, 42–* Summer, prof, Sam Houston State Teachers Col, 25. Del, Int. Geog. Cong, Warsaw, 34. A.A; Nat. Council Geog. Teachers (director, Nebr. chap, 32–; 2nd v. pres, 41); Nebr. Acad; Int. Geog. Union. Regional, economic and industrial phases of geography; the sugar beet industry and other agricultural crops in the United States.

Anderson, Dr. Evelyn M. (Mrs. Webb Haymaker), University of California Medical School, San Francisco, Calif. *Physiology.* Willmar, Minn, March 20, 99. A.B, Carleton Col, 21, A.M, 22; M.D, California, 28; nat. research fellow, McGill, 31–32, Ph.D, 34. Res. physician, univ. hosp, California, 30–31; lecturer biochem, McGill, 34–35; instr. *med, med. sch, California*, 35–36, *asst. prof, 36–, research assoc, inst. exp. biol, 35–* Gov. Gen. silver medal, McGill, 35. Asn. Study Int. Secretions; Physiol. Soc. Pituitary and adrenocortical physiology; physiology of the endocrines; clinical endocrinology.

Anderson, Major Forrest N(elson), Winter General Hospital, Topeka, Kans. *Neuropsychiatry.* Galesburg, Ill, Sept. 17, 94. A.B, Kansas, 16, M.D, 21; Commonwealth fellow, Pennsylvania, 25–28, Sc.D, 30. Instr. bacter, Kansas, 22–23, neuropsychiat, 23–24, 28–29; asst. surgeon, U. S. Pub. Health Service, 24–25; *director child guidance clinic, Los Angeles and Pasadena, 29–; lecturer social psychiat, Southern California, 38–; asst. prof. pediat, Col. Med. Evangelists, 32–; major, Med. Corps, U. S. Army, 42–* Lecturer, Southern California, 38– Psychiatrist, Mental Hygiene Surv. of Problem Indian Children, Okla, 35. Am. Med. Asn; Psychiat. Asn; Orthopsychiat. Asn; Los Angeles Soc. Neur. and Psychiat; Phila. Neur. Soc. Child guidance; child psychiatry; thalamus in relation to behavior.

Anderson, Dr. Frank M, 58 Hillcrest Road, Berkeley, Calif. *Geology.* Phoenix, Oregon, June 4, 63. A.B, Willamette, 89; A.B, Stanford, 95, Ph.D, 30; M.S, California, 97. Teacher, high sch, Calif, 95–96; instr. miner, California, 97–98; geologist, Calif. Mining Bur, 99–01; South. Pacific and oil companies, 02–24; *consulting geologist, 20–* Curator paleont, Calif. Acad, 03–17. Geol. Soc; Paleont. Soc. Oil geology; paleontology; economic geology of northern California; Cretaceous paleontology of the Pacific coast; lower Cretaceous deposits of California and Oregon.

Anderson, Dr. Gaylord W(est), University of Minnesota, Minneapolis, Minn. *Public health.* Minneapolis, Minn, Dec. 31, 01. A.B, Dartmouth Col, 22; Sorbonne and Zurich, 22–23; M.D, Harvard, 28. Epidemiologist, State Dept. Pub. Health, Mass, 29–30, asst. director div. communicable diseases, 30–31, director div. communicable diseases and deputy commissioner pub. health, 31–37; *prof. prev. med. and pub. health and head dept, Minnesota, 37–; major, Med. Corps, U. S. Army, 42–* Asst, sch. pub. health, Harvard, 31–37; exec. sec'y, Legislative Cmn. to Investigate Pub. Health Laws and Policies, Mass, 35–37. A.A; Epidemiol. Soc; Pub. Health Asn; Am. Med. Asn. Epidemiology and public health practices; communicable disease control.

Anderson, Dr. George H(arold), Texas Power and Light Co, Dallas, Texas. *Mineralogy.* Elko, Nev, Nov. 21, 93. A.B, Stanford, 17, A.M, 20; Harvard, 22, 23; Colorado, 27–29; Ph.D, Calif. Inst. Tech, 33. Instr, high sch, Calif, 19–20; v. prin, Nev, 20–27; instr. geol, Colorado, 28–29; teaching fellow, Calif. Inst. Tech, 29–33, curator, 34–38; *director* Calif. ilmenite research, E. I. du Pont de Nemours and Co, 37–40; *indust. research, Texas Power and Light Co, 40–* Instr, California at Los Angeles, 34–35, 36–37. Summer, instr, Nevada, 25. A.A; Min. and Metal. Eng; fel. Miner. Soc.; Asn. Petrol. Geol; assoc. N. Y. Acad. Economic mineralogy; mineragraphy; geology of the White Mountain quadrangle of California-Nevada; granitization of sediments; albitization and other post-consolidation phenomena in igneous rocks.

Anderson, Prof. G(eorge) R, University of Toronto, Toronto, Ont, Can. *Physics.* Shetland Islands, 68. B.Sc, Toronto, 93, M.A; A.M, Harvard, 05. Instr. physics, *Toronto*, 99–03, *prof. eng. physics and head dept, 04–, consulting engineer on sound problems and director photog. dept, 08–* Fel. Acoustical Soc; Illum. Eng. Soc. (pres, Toronto chap, 26). Engineering physics; architectural acoustics; sound and heat insulation.

Anderson, Dr. George W(ashington), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* Gainesville, Fla, Oct. 7, 13. B.S, Florida, 35, Ph.D, 39. *Research chemist, Am. Cyanamid Co, 39–* Chem. Soc. Pharmacological chemistry; aminoalcohols.

Anderson, Dr. Hamilton H(olland), Peiping Union Medical College, Peiping, China. *Pharmacology, Tropical medicine.* Sacramento, Calif, Oct. 20, 02. A.B, California, 26, fellow, 29–31, M.D, 30, M.S, 31. Asst. pharmacol, med. sch, California, 29, instr, 31–34, asst. clin. prof, 34–37; mem. staff, council med. educ. and hosps, Am. Med. Asn, 37–40; *prof. pharmacol, Peiping Union Med. Col, 40–* Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Asn. (council med. educ. and hosps, 37–); Soc. Trop. Med. Chemotherapy of amebiasis and leprosy; tropical therapeutics; toxicology.

Anderson, Dr. Harlan D(wight), State Public Health Laboratories, Lansing, Mich. *Biochemistry.* Plankinton, S. Dak, March 21, 14. B.S, S. Dak. State Col, 37; M.S, Wisconsin, 39, fellow, 39–40, Ph.D, 41. Student analyst, S. Dak. State Col, 36–37, assoc. agr. chemist, 40–42; asst, Wisconsin, 37–39; *biochemist, State Pub. Health Labs, Mich, 42–*

A.A; Chem. Soc; Poultry Sci. Asn; S. Dak. Acad. Nutritive value of commercial milks; vitamin E deficiency in dogs; selenium poisoning; citrated human plasma.

Anderson, Dr. Harold H(omer), 705 W. Michigan Ave, Urbana, Ill. *Psychology.* Dakota City, Nebr, Oct. 23, 97. B.S, Harvard, 22, 22–23; diplôme, Inst. J. J. Rousseau, Switzerland, 28; Ph.D, Geneva, 29. Psychol. work with problem children, U. S. and Switzerland, 25–29; asst. prof. *psychol,* child welfare research sta, Iowa, 29–36; *Illinois,* 36–40, *assoc. prof, 40–* A.A; Psychol. Asn; Soc. Research Child Develop; Nat. Asn. Nursery Educ. (v. pres, 33–35); Orthopsychiat. Asn; Ed. Res. Asn; Midwest Psychol. Asn. Child psychology; personality; mental hygiene.

Anderson, Prof. Harold V(ictor), Lehigh University, Bethlehem, Pa. *Chemistry.* Manistique, Mich, April 4, 90. B.Ch.E, Michigan, 12; M.S, Lehigh, 25; Illinois, 28–29. Chemist, Dixie Portland Cement Co, 14–18; instr. *chem, Lehigh,* 18–21, asst. prof, 21–30, assoc. prof, 30–41, *prof, 41–* Summer, chemist, Air Nitrates Corp, Muscle Shoals, 18. Soc. X-Ray and Electron Diffraction. X-ray diffraction.

Anderson, Prof. H(arold) W(illiam), 2622 Hunt St, Ames, Iowa. *Electrical engineering.* Albany, Wis, April 5, 99. B.S, Kansas, 21, E.E, 29; M.S, Mass. Inst. Tech, 31, fellow, 33–34, Sc.D, 34. Develop. and research dept, Am. Tel. and Tel. Co, New York, 21–22; dept. *elec. eng,* Kansas, 22–31; asst. prof, *Iowa State Col,* 31–39, *assoc. prof, 39–; mem. staff, radiation lab, Nat. Defense Research Cmt, Mass. Inst. Tech, 41–* Radio Eng; Elec. Eng. Electronics; high-voltage research.

Anderson, Harry G(eorge), 624 Green St, Champaign, Ill. *Ornithology.* Janesville, Wis, Jan. 26, 10. A.B, Wisconsin, 36, A.M, 37. Biol. aid, fish and wildlife service, U. S. Dept. Interior, 37–38; *junior biologist, Ill. Natural Hist. Surv, 39–* Wildlife Soc; Wilson Ornith. Club; Wis. Soc. Ornith. Aquatic, emergent and moist-soil plants in relation to waterfowl foods.

Anderson, Prof. H(arry) W(arren), 811 Michigan Ave, Urbana, Ill. *Botany.* Ladoga, Ind, Oct. 14, 85. A.B, Wabash Col, 07, A.M, 10; fellow, Washington (St. Louis), 10–11; Ph.D, Illinois, 17. Instr. bot, Wabash Col, 08–10; pathologist, Exp. Sta, Illinois, 11–12; prof. bot, Wabash Col, 12–17; assoc. prof. *pomological path, Illinois,* 17–31, *prof, 31–, head div. hort. path, 41–* A.A; Phytopath. Soc. (pres); fel. Ind. Acad. Plant pathology; chestnut blight fungus; fruit diseases.

Anderson, Dr. Herbert H(ale), 1932 Commonwealth Ave, Auburndale, Mass. *Inorganic chemistry.* Dayton, Ohio, Nov. 6, 13. A.B, Harvard, 34; Ph.D, Mass. Inst. Tech, 37; Heidelberg, 37–38. Private asst, Harvard, 38–42; *research assoc, Nat. Defense Research Cmt, Mass. Inst. Tech, 42–* Chem. Soc. Fluorohalides of silicon; cyanates and thiocyanates of elements; meteoric and terrestrial iron.

Anderson, I(rvin) V(ictor), 435 S. Fourth St, W, Missoula, Mont. *Forestry.* Whitehall, Mich, May 14, 98. B.S, Mich. State Col, 20. Forest guard, *U. S. Forest Service,* 18, forest ranger, 20–21, forest asst, 22–23, forest examiner, 24–25, asst. forest supervisor, 26–27, assoc. forester, *forest products research, North. Rocky Mt. Forest and Range Exp. Sta,* 28–35, forester, 35–36, *senior forester, 36–* Soc. Foresters (sec'y-treas, North. Rocky Mt. sect, 31). Wood waste in logging; effect of fire on lumber produced from fire-damaged timber; selective logging in the larch-Douglas fir region of northwestern Montana; ponderosa and Idaho white pine types of the Inland Empire; trends in stumpage prices in the Inland Empire.

Anderson, Dr. J(acob) P(eter), Iowa State College, Ames, Iowa. *Botany.* Glenwood, Utah, April 7, 74. Nebraska, 93–95; B.S, Iowa State Col, 13, M.S, 16; Sc.D, Alaska, 40. Instr. science, Graceland Col, 02–06; horticulturist, Exp. Sta, U. S. Dept. Agr, Sitka, 14–16; *florist; research, dept. bot, Iowa State Col, 41–* Summer, instr, Iowa State Col, 13. A.A; Bot. Soc; Genetic Asn; Iowa Acad. Horticulture; mycology; local floras; plant diseases; flora of Alaska.

Anderson, John A(nker), West Central School of Agriculture, Morris, Minn. *Horticulture.* Ft. Ransom, N. Dak, May 21, 92. B.S, N. Dak. Col, 16; California at Los Angeles, 40. *Horticulturist, west cent. sch. agr, Minnesota, 17–* Summer, field foreman, N. Dak. Col, 17. Minn. Hort. Soc. Hardy fruits, trees and ornamentals; variety trials of vegetables; perennials; windbreak investigations.

Anderson, Dr. J(ohn) Ansel, Grain Research Laboratory, Grain Exchange Bldg, Winnipeg, Man, Can. *Cereal chemistry.* Sidcup, Kent, Eng, Aug. 16, 03. B.Sc, Alberta, 26, M.Sc, 28; diploma, Graz, 30; Ph.D, Leeds, 30. Grad. asst, Nat. Research Council Can, 26–30; biologist, Nat. Research Labs, Ottawa, Can, 30–39; *chief chemist, Board Grain Commissioners, Can, 39–* Chem. Soc; Asn. Cereal Chem; Can. Soc. Tech. Agr; fel. Can. Inst. Chem; Chem. Soc. London; Biochem. Soc. London. Biochemistry of rust resistance; yellow coloring matter of wheat leaves; methods of experimental malting; varietal differences in barleys and malts; quality of red spring and amber durum wheats.

Anderson, Prof. J(ohn) Arlington, Rutgers University, New Brunswick, N. J. *Bacteriology.* Marathon Co, Wis, Aug. 23, 93. B.S, Wisconsin, 20, M.S, 22, Ph.D, 26; Benjamin Franklin fellow of Am-Scandinavian Foundation, Sweden, 23–24; Int. Educ. Board fellow, Sweden, 24–25. Asst. agr. chem. and agr. bacter, Wisconsin, 19–23, 25–26; instr. *bacter, Rutgers,* 26–28, asst. prof, 28–34, *assoc. prof, 34–* A.A; Soc. Bact; Dairy Sci. Asn. Biochemical activities of bacteria; fermentations and enzyme actions.

Anderson, Dr. J(ohn) A(rthur), Standard Oil Co. of Indiana, Whiting, Ind. *Chemistry.* Chicago, Ill, Jan. 24, 00. B.S, Illinois, 22; Oberlin Col, 23; Ph.D, Yale, 26. *Research chemist,* Pure Oil Co, 26–27; *Standard Oil Co. of Ind, 27–* Chem. Soc. Colloids; petroleum chemistry; silica gel; refining of gasoline; wax in mineral oils; patent research.

Anderson, Dr. J(ohn) A(ugust), Mt. Wilson Solar Observatory, Pasadena, Calif. *[3]*Astronomy.* Rollag, Minn, Aug. 7, 76. B.S, Valparaiso, 00; Ph.D, Hopkins, 07. Instr. *astron,* Hopkins, 08–09, assoc, 09–11, assoc. prof, 11–15; *staff, Mt. Wilson Observatory, Carnegie Institution, 16–* Asst, U. S. Naval Observatory eclipse exped, Spain, 05; asst, Carnegie Institution, 07. A.A; Astron. Soc; Seismol. Soc; Physical Soc; Optical Soc; Chem. Soc. Spectroscopy; ruling of gratings; seismometers.

Anderson, Dr. John E(dward), University of Minnesota, Minneapolis, Minn. *[5]*Psychology.* Laramie, Wyo, June 13, 93. A.B, Wyoming, 14, LL.D, 42; A.M, Harvard, 15, Ph.D, 17. Instr. and asst. prof. psychol, Yale, 19–25; *prof. psychol. and director inst. child welfare, Minnesota, 25–* Chairman cmt. on child develop, Nat. Research Council, 28–32, mem, 32–, mem. anthrop. and psychol. div, 31–34, 43– Chairman cmt. infant and pre-sch. child, White House Conf. Child Health and Protection, 29; mem, White House Conf. Children in a Democracy, 39. A.A. (sec'y, I, 29–33, v. pres. and chairman, 34); Psychol. Asn. (sec'y, 23–25, councilor, 26–28, 34–37, pres, 42, ed, 'Psychol. Bul,' 42–); Soc. Exp. Biol; Soc. Research Child Develop. (councilor, 40–42; chairman, 42–). Experimental, animal and child psychology.

Anderson, Dr. John E(dward), Suomi College and Theological Seminary, Hancock, Mich. *Botany.* Ironwood, Mich, May 21, 94. A.B, Michigan, 23, A.M, 24, Cole fellow, 30–31, Ph.D, 33. Prin, pub. sch, 12–13; instr, high sch, 15–18, 19–20; exten. work, Mich. Agr. Col, 20–21; instr. bot, Coe Col, 24–25, asst. prof, 25–30; head asst, bot. gardens, Michigan, 31–33; prof. bot, Pa. State Teachers Col, 33–38; special instr. bot, physiol. and anat, Wayne, 38–40; *head dept. science, Suomi Col. and Theol Sem, 40–* Bot. Soc; Pa. Acad; Mich. Acad; fel. Iowa Acad. Cytology; genetics; microbiology.

Anderson, Dr. John F, 195 College Ave, New Brunswick, N. J. *Bacteriology.* Fredericksburg, Va, March 14, 73. M.D, Virginia, 95; Vienna; Paris; Sch. Trop. Med, Liverpool. Asst. surgeon, U. S. Pub. Health Service, 98–03, passed asst. surgeon, 03–12, surgeon, 12–15, asst. director hygienic lab, 02–09, director, 09–15; director research and biol. labs, *E. R. Squibb and Sons,* 15–42, *v. pres, 19–* Lecturer, Rutgers, 16–23; prof, Georgetown, 12–15; Cutter lecturer, Harvard; lecturer, Harvey Soc, 07. A.A; Asn. Path. and Bact. (pres, 15); Am. Physicians; Soc. Exp. Biol; Soc. Exp. Path. (v. pres); Pub. Health Asn. (pres, 15); Am. Med. Asn. Hygiene; sanitation; immunology; anaphylaxis; serum therapy; etiology of typhus and measles.

Anderson, Prof. J(ohn) M(urray), University of Toronto, Toronto, Ont, Can. *Physics.* London, Ont, April 24, 05. M.A, Toronto, Ph.D, 33. *Asst. prof. physics, Toronto, 41–* Nitrogen afterglow; duration of metastable states.

Anderson, Dr. J(udson) L(owell), Johns Hopkins University, Baltimore, Md. *Geology.* Philadelphia, Pa, July 17, 02. A.B, Hopkins, 24, Ph.D, 28. Petrographer, Lago Petrol. Co,

Maracaibo, Venezuela, 28–30; geologist and petrographer, Sinclair Explor. Co, Loanda, Angola, Portuguese W. Africa, 30–31; asst. in charge *geol*, Trop. Oil Co, Colombia, S. Amer, 32–38, in charge, Int. Petrol. Co, Peru, 38–40; *lecturer, Hopkins, 40–* Research, Hopkins, 31–32. Sedimentary petrography and the physical character of oil-producing sands; mineralogy; petrology; petroleum geology.

Anderson, Dr. Katherine, Vanderbilt University Medical School, Nashville, Tenn. *Bacteriology.* Williamsport, Tenn, Oct. 26, 09. A.B, Vanderbilt, 32, Ph.D, 40. *Instr. bacter, med. sch, Vanderbilt, 40–* Chick embryo technique; infectious diseases.

Anderson, Dr. Lauren D(avis), Virginia Truck Experiment Station, Norfolk, Va. *Entomology.* Morganville, Kans, April 10, 09. A.B, Kansas, 30, A.M, 31; Ph.D, Ohio State, 41. Asst. entom. museum technician, Kansas, 27–31; asst. entomologist, *veg. insect control, Va. Truck Exp. Sta,* 32–42, *assoc. entomologist, 42–* Summer, asst. hort. inspector, Kansas, 30. Entom. Soc. Amer; Asn. Econ. Entom; Kans. Entom. Soc; Va. Acad. Vegetable crop insect control.

Anderson, Prof. Leigh C(harles), 1120 Lincoln Ave, Ann Arbor, Mich. *Chemistry.* Muskegon, Mich, March 28, 99. B.S, Michigan, 21, M.S, 22, Ph.D, 24. Instr. *org. chem, Michigan,* 24–28, asst. prof, 28–37, *assoc. prof, 37–* Chem. Soc. Tautomerism of hydroxytriaryl carbinols and quinone oximes; absorption spectra of triphenylmethane derivatives; halochromism of ketones; deuterium compounds.

Anderson, Dr. L(eo) Dewey, 4640 S. Fifth St, Arlington, Va. *Psychology.* Laramie, Wyo, July 8, 98. A.B, Wyoming, 20; A.M, Carnegie Inst. Tech, 21; Ph.D, Columbia, 29. Asst. prof. psychol. and chief investigator mech. ability project, Minnesota, 23–27; psychologist, Bur. Educ. Experiments, New York, 27–29; assoc. prof. psychol, Western Reserve, and research director, Brush Foundation, 29–38; *air traffic examiner, Civil Aeronautics Admin, 41–* Summers, instr, Rutgers, 29; lecturer, Wyoming, 30. Assoc. Psychol. Asn. Mental and physical growth; transfer of training; measurement of school success; socio-economic environment and mechanical ability; statistics.

Anderson, Dr. Leroy, 269 Saratoga Ave, San Jose, Calif. *Horticulture.* Magee, N. Y, Dec. 4, 66. B.S, Cornell, 96, fellow, 96–97, M.S.A, 97, Ph.D, 02. Asst. dairy husbandry, Cornell, 97–00; instr. animal and dairy indust, California, 00–02; director, Calif. Polytech. Sch, 02–08; prof. agr. practise and supt. farm schs, California, 08–13; pres, Santa Clara Valley Water Conservation Dist, 29–33, sec'y, 33–37. A.A. Cooperative marketing of farm products; water conservation.

Anderson, Dr. Lewis E(dward), Duke University, Durham, N. C. *Botany.* Batesville, Miss, June 16, 12. B.S, Miss. State Col, 31; A.M, Duke, 33; Morris fellow, Pennsylvania, 33–35, Ph.D, 36. Asst. *bot,* Duke, 31–33; asst. instr, Pennsylvania, 36; instr, *Duke,* 36–42, *asst. prof, 42–; lieut, U. S. Naval Res, 42–* Summers, instr, Duke, 33– Bot. Soc; Genetic Asn; Sullivant Moss Soc. (curator, mosses, 36–); N. C. Acad; Phila. Bot. Club. Bryophytes of North Carolina; rock succession; mitochondria in the life cycle of higher plants; fertilization in plants; effects of sulfa drugs on higher plants.

Anderson, Dr. L(indson) P(ryor), 660 Harding, Detroit, Mich. *Endocrinology.* Winchester, Ky, Oct. 16, 10. B.S, Kentucky, 32, M.S, 33; Ph.D, Mich. State Col, 40. Asst. instr. parasitol, Mich. State Col, 34–36; asst. research biochemist, *Parke, Davis and Co,* 36–42, *supervisor processing human blood plasma to dried state, 42–* Human blood plasma.

Anderson, Dr. Lucile Russell, University of Southern California School of Medicine, Los Angeles, Calif. *Pathology.* Knoxville, Tenn, Feb. 2, 05. A.B, Carson-Newman Col, 26; Sc.D, Hopkins, 30; M.D, Vanderbilt, 33. Asst. path, Children's Hosp, 36–39, asst. pathologist, 39–41; *instr. path, sch. med, Southern California, 41–* Bacteriology; convalescent serum.

Anderson, Prof. Marlowe G(eorge), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Zoology.* Oakland, Nebr, July 8, 08. A.B, Nebr. Wesleyan, 28; A.M, Northwestern, 30, Ph.D, 34. Instr. *zool,* Northwestern, 31–36; *asst. prof,* North. Mont. Col, 36–37; *N. Mex. Col,* 37– Investigator, Shedd Aquarium, Chicago, 33. A.A; Soc. Parasitol; Micros. Soc. Taxonomy and morphology of Cestoda; germ cell cycles and physiology of Trematoda.

Anderson, Dr. Melvin E(llason), Rogers Brothers Seed Co, Idaho Falls, Idaho. *Plant pathology.* Logan, Utah, June 25, 03. B.S, Utah State Col, 25, M.S, 30; Ph.D, Wisconsin, 32. Asst, Wisconsin, 29–34; *plant pathologist, Rogers Brothers Seed Co, 34–* Agent, U. S. Dept. Agr, 29–30, asst, bur. forest path, 33–34. Cabbage yellows disease; disease-resistant varieties in the pea and bean.

Anderson, Dr. M(yron) S(allee), 1433 Manchester Lane, N. W, Washington, D. C. *Chemistry.* Stanhope, Iowa, Nov. 13, 87. A.B, Simpson Col. (Iowa), 13; M.S, Iowa State Col, 16; Ph.D, George Washington, 22. In charge chem, Penn Col. (Iowa), 13–14; asst, Iowa State Col, 16–17; scientist, bur. soils, *U. S. Dept. Agr,* 17–24, assoc. chemist, 24–30, chemist, bur. chem. and soils, 30–38, *senior chemist, bur. plant indust, 38–* A.A; Chem. Soc. (asst. ed, 'Abstracts,' 31–); Soc. Agron; Soil Sci. Soc; Inst. Chem. Soil chemistry; soluble salts in soil; colloids; soil organic matter.

Anderson, Major Nelson J(ay), 626 Thomas St, Ft. Leavenworth, Kans. *Chemistry.* Burchard, Nebr, Dec. 19, 94. B.S, Kans. State Col, 20; M.S, Illinois, 22; Ph.D, Chicago, 34. Instr, Illinois, 21–22; director dept. physical science, Parsons Junior Col, Kans, 22–25; dept. chem, Waukegan Township High Sch, Waukegan, Ill, 25–36; instr. chem, Mont. State Col, 36–39; prof. and head dept, Billings Polytech, 39–40; capt, *Chem. Warfare Service,* 40–42, *major, 42–* Analyst, Board Health, Parsons, Kans, 23–25; lecturer, Abbott Labs, North Chicago, 36. Chem. Soc. Thermodynamics; physical chemistry; emollients.

Anderson, Dr. O(scar) D(aniel), Cornell University Medical College, Ithaca, N. Y. *Psychobiology.* Anderson, S. C, June 3, 03. B.S, Wake Forest Col, 24; Ph.D, Cornell, 29. Asst. psychol, *Cornell,* 28–29, physiol, 29–30, instr, 30–31, nat. research fellow, 31–33, Rockefeller Foundation fellow, *med. col,* 33–37, *asst. prof,* 37–38, *psychobiol, 38–* Soc. Exp. Biol; Physiol. Soc; N. Y. Acad. Conditioned reflexes; animal neuroses; endocrinology and behavior.

Anderson, Prof. O(scar) E(lmer), University of California, Berkeley, Calif. *Physics.* Vancouver, B. C, Can, Sept. 1, 08. B.A, British Columbia, 29, M.A, 31; Ph.D, California, 34. Teaching fellow, British Columbia, 29–31; California, 31–34; instr, Educ. Dept, B. C, Can, 34–35; *physics,* California, 35–36; assoc. prof, Humboldt State Col, Calif, 36–37; asst. prof, British Columbia, 37–39; *instr, San Francisco Junior Col, 39–; physicist, Nat. Defense Research Cmt, 42–; senior instr. premeteorol, U. S. Army Air Force Tech. Training Center, California, 43–* Summer, instr, California, 42. Nuclear mechanical and magnetic moments of elements by spectroscopic means; hyperfine structure of spectral lines.

Anderson, O(scar) G(ustaf), Tobacco By-Products and Chemical Corp, Louisville, Ky. *Horticulture.* Gardner, Mass, Aug. 5, 88. B.S, Mass. Col, 13. Instr, sch, Mass, 13–14; pomol, Purdue, 14–17, asst. prof. hort, 17–19, assoc. prof, 19–22, prof, 22–31; Kay Labs, 31–32; *Tobacco By-Products and Chem. Corp, 32–* Summers, Am. Cyanamid Co, N. Y; Japanese Beetle Lab, Riverton, N. J; Ohio Exp. Sta. Soc. Hort. Sci; Ind. Hort. Soc. Spray materials and appliances; control of the Japanese beetle and codling-moth.

Anderson, Prof. Paul A(lexander), State College of Washington, Pullman, Wash. *Physics.* Chicago, Ill, Nov. 26, 97. A.B, Illinois, 20; London, 20–21; Ph.D, Harvard, 25. Eastman Kodak Research Lab, 23–25; asst. prof. *physics,* Yenching Univ, 25–28; *prof, State Col. Wash, 31–* Nat. research fellow, Harvard and Berlin, 29–31. Physical Soc. Contact differences of potential between metals; crystal growth and adsorption on metal crystals; thermodynamic properties of metal alloys.

Anderson, Dr. Paul H(amilton), John Carroll University, Cleveland, Ohio. *Mathematical statistics.* Barberton, Ohio, Aug. 27, 11. A.B, Ohio (Athens), 37; scholar, Illinois, 37–38, M.S, 38, fellow, 38–40, Ph.D, 40; summers, Akron, 37, 38, Michigan, 39. *Instr.* math, Illinois, 40–41; Louisiana, 41–42; *math. and statist, John Carroll, 42–; prin. admin. asst, War Production Board, 42–* Statist. Asn; Math. Soc; Math. Asn; Inst. Math. Statist. Stratified sampling.

Anderson, Dr. P(aul) J(ohnson), Connecticut Agricultural Experiment Station, Windsor, Conn. *Botany.* Ladoga, Ind, March 27, 84. A.B, Wabash Col, 10; fellow, Cornell, 10–12, Ph.D, 14. Instr. bot, Mass. Col, 15–16, asst. prof, 16–17, assoc. prof, 18–19, prof, 20–25, assoc. plant pathologist, Exp.

Sta, 17–25; *director tobacco substa, Conn. Exp. Sta, 25–* Field pathologist, State Chestnut Blight Cmn, Pa, 12–14. Bot. Soc; Phytopath. Soc. Injury to fruit trees; diseases of rose, cauliflower, onion and tobacco; North American phyllostictas.

Anderson, Prof. Phillip Arthur, 1343 Cleveland Ave, St. Paul, Minn. *Animal husbandry.* St. Paul, Minn, May 1, 90. B.S, Minnesota, 14. Instr. *animal husbandry, Minnesota,* 15–17, *asst. prof, 17–*

Anderson, Dr. Philip P(endleton), Jr, 2118 E. Chandler Ave, Evansville, Ind. *Physical chemistry.* Calvert, Texas, Sept. 20, 10. B.S, Texas, 31, M.S, 32, Ph.D, 36. *Research engineer, Servel, Inc, 36–* Chem. Soc. Conductivity measurements; corrosion; absorption refrigeration.

Anderson, Prof. R. L(ucile), 145 E. 32nd St, New York, N. Y. *Mathematics.* Jamestown, N. Y, Oct. 22, 00. A.B, Mt. Holyoke Col, 22; Ph.D, Bryn Mawr Col, 30. Instr. *math,* Rochester, 26–28; Bryn Mawr Col, 29–30; *Hunter Col,* 28–29, 30–36, *asst. prof, 36–* Math. Soc; Math. Asn. Analysis.

Anderson, Richard J(asper), 4759 14th Ave, S, Minneapolis, Minn. *Geology.* St. Petersburg, Russia, Oct. 25, 13. A.B, Columbia, 35, A.M, 38. Asst. *geol,* Columbia, 35–37; *instr, Minnesota, 38–* Ordovician paleogeography; paleogeography of the Paleozoic.

Anderson, Dr. R(ichard) L, North Carolina State College, Raleigh, N. C. *Mathematical statistics.* North Liberty, Ind, April 20, 15. A.B, DePauw, 36; M.S, Iowa State Col, 38, Ph.D, 41. *Instr.* math, *N. C. State Col,* 41–42, *exp. statistics, 42–, senior statistician, Exp. Sta, 42–* Inst. Math. Statist; Statist. Asn. (sec'y, N. C. chap, 42); Econometric. Soc. Economic statistics; serial correlation as applied to economic time series; sampling projects.

Anderson, Dr. Richmond K(arl), Duke University School of Medicine, Durham, N. C. *Physiological chemistry, Medicine.* Bangalore, India, Dec. 6, 07. A.B, Cornell Col, 29; M.S, Northwestern, 31, Ph.D, 34, fellow, 34–35, M.D, 37. Asst. chem, med. sch, Northwestern, 29–34; instr, Tulane, 35–38; intern, Alameda County Hosp, 38–39; instr. med, Buffalo, 39–42; special fellow, Rockefeller Foundation, 42; *sch. med, Duke, 42–* Assoc. director labs. and res. med, Buffalo City Hosp, 39–42. Peptic ulcer; blood alcohol; gastric mucin; sucrose in body fluids; thyreotropic hormone; phosphatase.

Anderson, Prof. Robbin C(olyer), University of Texas, Austin, Texas. *Physical chemistry.* DeRidder, La, June 8, 14. B.S, Louisiana, 34, M.S, 36; Ph.D, Wisconsin, 39. Instr. *chem, Texas,* 39–41, *asst. prof, 41–* Chem. Soc. Kinetics of reaction in solution.

Anderson, Dr. Robert J(ohn), 1780 E. 90th St, N. E, Cleveland, Ohio. *Metallurgy, Metallography.* Cleveland, Ohio, July 10, 92. B.S, Case, 14, Met.E, 17; Sc.D, Mass. Inst. Tech, 25. Instr. metal, Mo. Sch. Mines, 14–15; asst, Henry M. Howe, 15–16; chief metallurgist, Cleveland Metal Products Co, 17; metal. engineer and chief non-ferrous metals sect, U. S. Bur. Mines, Pittsburgh, 19–24; *consulting engineer, 24–;* chairman conserv. cmt. and prin. metal. engineer, planning and control div, Quartermaster Gen. Office, War Dept, 40–42; *metal. engineer, Goodyear Tire and Rubber Co, 42–* Lecturer, Carnegie Inst. Tech, 23–24; research metallurgist, Bur. Aircraft Production, 18; consultant, Soviet Govt, 29. MacFadden gold medal, Foundrymen's Asn, 25. British Inst. Metals. Light metals.

Anderson, Robert van V(leck), Room 1700, 26 Broadway, New York, N. Y. *Geology.* Galesburg, Ill, April 18, 84. A.B, Stanford, 06. Field asst. and geol. aid, U. S. Geol. Surv, 06–09, asst. geologist, 09–12, geologist, 12–13; S. Pearson and Son, 13–18; director, Whitehall Petrol. Corp, Ltd, 19–23, chief geologist, 23–26; *research, 26–;* collaborator, Service de la Carte géol. de l'Algerie, 30–32; Geol. Soc. Amer. research grant, Algeria, 33–34; *Socony-Vacuum Oil Co, 34–* Sci. exped, Japan, 05; W. T. B. rep. and Am. del. on Inter-Allied Trade Cmt, Stockholm, 18–19. Geol. Soc. (chairman, Cordilleran sect, 28); Asn. Geog; Paleont. Soc; Soc. Econ. Geol; Archeol. Inst; Calif. Acad; Soc. géol. de France. Cretaceous and Cenozoic geology of California, India and North Africa; geology of oil fields.

Anderson, Dr. Rose G(ustava), 522 Fifth Ave, New York, N. Y. *Psychology.* Gothenburg, Nebr. A.B, Nebraska, 17, A.M, 18; Ph.D, Columbia, 25. Asst, psychol. clinic, Board Educ, Cleveland, 18–19; asst. and mental examiner, research bur, State Board Control, Minn, 19–23; psychologist, Minneapolis Child Guidance Clinic, 25–30; bur. educ. adjust, Westchester County Children's Asn, N. Y, 30–32; *director children's div. and consultant to women, Psychol. Service Center, New York, 32–, director center, 42–* Instr, N. Y. Univ, 31–32; univ. exten, Columbia, 41–42. Summers, instr, Teachers Col, Columbia, 36–37, California, 40–42. Orthopsychiat. Asn; Progressive Educ. Asn; Psychol. Asn; fel. Asn. Applied Psychol. (exec. cmt, 34–); N. Y. Acad. Intelligence tests; behavior; vocational and educational guidance.

Anderson, Dr. R(oss) P(eter), 50 W. 50th St, New York, N. Y. *Chemistry.* Savannah, N. Y, Feb. 22, 87. A.B, Cornell, 08, Ph.D, 12. Asst. chem, Cornell, 07–11, instr, 11–14, asst. prof, 14–17; chief chemist, United Nat. Gas Co, 17–24; *technologist, Am. Petrol. Inst, 24–* Capt, C.W.S, 18. A.A; Chem. Soc; Soc. Test. Mat. Petroleum.

Anderson, Dr. Rubert S(igfred), Memorial Hospital, 444 E. 68th St, New York, N. Y. *Chemistry.* Spokane, Wash, June 12, 98. B.S, Washington (Seattle), 21; A.M, Columbia, 23, Ph.D, 25. Asst. chem, Cooper Union, 21–23; Columbia, 23–24, instr. physiol, col. physicians and surg, 24–27; Yale, 27–31; *research assoc. biol,* Princeton, 31–39; *Mem. Hosp, New York, 39–* Chem. Soc. Enzymes; potential measurements; bioluminescence; chemical and biological effects of radiation.

Anderson, Prof. Rudolph J(ohn), Yale University, New Haven, Conn. ***Biochemistry.* Härna, Sweden, Sept. 13, 79. B.S, Tulane, 06; Upsala, Berlin and London; Ph.D, Cornell, 19. Biochemist, N. Y. Exp. Sta, Geneva, 11–20; chief in research biochem. and prof, Cornell, 20–27; *prof. chem, Yale,* 27– Ed. board, 'Jour. Biol. Chem.' Capt, Sanit.C, 17–19, major, O.R.C, 19. A.A; Soc. Biol. Chem; Chem. Soc. (sec'y, div. biol. chem, 24, 25, chairman, 25, 26). Nutrition; calorimetry; organic phosphorus compounds of plants; metabolism of inosite; plant chemistry; pigments; sterols; chemistry of bacterial lipoids.

Anderson, Dr. Rudolph M(artin), National Museum of Canada, Ottawa, Ont, Can. *Zoology.* Winneshiek Co, Iowa, June 30, 76. Ph.B, Iowa, 03, Ph.D, 06. Asst, museum, Iowa, 01–06: instr, Blees Mil. Acad, 06–08; field agent, Am. Museum Nat. Hist, 08–12, asst. mammal, 13; *mammalogist, Nat. Museum Can, 13–, chief biol. div, 20–; consulting zoologist, lands, parks and forests branch, Can. Dept. Mines and Resources, 20–* Chairman library cmt, bur. geol. and topography, and Nat. Museum Can. Assoc. ed. mammal, 'Can. Field-Naturalist,' 17– Stefansson-Anderson exped. to Arctic regions, Am. Museum Nat. Hist. and Geol. Surv. Can, 08–12; chief south. party, Can. Arctic exped, 13–16, gen. ed, 'Report,' 19–; zool. expeds, Sask. and Alta, 19, northeast. N. B, 21, Gaspé Peninsula, Que, 22–23, Cape Breton Island and Prince Edward Island, 24, East. Townships, Que, 25, Gatineau Valley, Que, 26, Wood Buffalo Park, N. W. T. and Alta, 27, Greenland and East. Arctic Islands, 28, Kootenay dist, south. B. C, 29; biol. invests, Crowsnest Pass, B. C, Waterton Lakes, Banff and Jasper Nat. Parks, 38; Jasper Nat. Park, Alta, Prince Albert Nat. Park, Sask, and Riding Mt. Nat. Park, Man, 39. Advisory board, wildlife protection, Can, 17–, north. advisory board, 25– Inf. Vols, Spanish-Am. War, 98. A.A; Soc. Mammal. (director, 19–40); Ornith. Union; Soc. Ichthyol. and Herp; Wildlife Soc; Cooper Ornith. Club; Biol. Soc. Wash; fel. Can. Geog. Soc; fel. Royal Soc. Can; cor. mem. Provancher Soc. d'hist. nat. Can; Ottawa Field Nat. Club (pres, 21, 22); cor. mem. Zool. Soc. London; hon. fel. Dresden Ornith. Verein. Mammalogy; ornithology; taxonomy; zoological collecting methods; Arctic history and bibliography; distribution, ecology and life histories of Arctic, sub-Arctic and Canadian animals; wildlife conservation.

Anderson, Dr. Russell H(oward), 2151 Maple Road, Homewood, Ill. *Agriculture.* Jewett, Ill, March 19, 96. B.S, Illinois, 23, A.M, 25, Ph.D, 29. Asst. hist, Illinois, 25–27, 28–29; prof, Nebr. State Teachers Col, Peru, 27–28; *curator agr. and forestry, Museum Science and Indust, Chicago, 29–* A.A; Agr. Hist. Soc. (pres, 38); Am. Hist. Asn; Soc. Am. Archivists. Technological, social and economic history of agriculture.

Anderson, Prof. R(ussell) L(loyd), Johnson C. Smith University, Charlotte, N. C. *Zoology.* Pittsburgh, Pa, Jan. 12, 07. B.S, Pittsburgh, 28, M.S, 30, Ph.D, 33. Instr. *biol, J. C. Smith Univ,* 30–31, asst. prof, 31–33, assoc. prof, 33–34, *prof, 34–* A.A; Genetics Soc. Tissue transplantation; physiological genetics.

Anderson, Dr. S(amuel) Herbert, 1222 S. Wanamassa Drive, Asbury Park, N. J. *Physics.* Berrien Springs, Mich, Aug. 21, 80. A.B, Park Col, 02, A.M, 03; Ph.D, Illinois, 12. Prof. physics and chem, Albany Col. (Oregon), 05–07; asst. prof. physics, Occidental Col, 07–10; from instr. to assoc. prof, Washington (Seattle), 12–28; physicist, Daniel Guggenheim Fund Promotion Aeronautics, 28–30; *prin. physicist, Signal Corps Labs, 30–* Physical Soc. Effect of frequency on capacity; photoelectric cells; photoelectric properties of vapors of alkali metals; catenary loaded at one point; overtones of tuning forks; design and calibration of phonodeik; tungsten arc characteristics; end corrections of organ pipes; x-ray radiography of light metal alloys; transmission of radiation through fog.

Anderson, Dr. Sarah Ferrall, Wilson College, Chambersburg, Pa. *Psychology.* Leetonia, Ohio, July 18, 05. A.B, Illinois, 29; A.M, 30, Ph.D, 35. Asst. *psychol,* Illinois, 30–36; tutor, Radcliffe Col, 36–39; *instr, Wilson Col, 39–* Assoc. Psychol. Asn. Experimental, clinical and mental testing.

Anderson, Dr. Scott, 333 Charles Ave, New Kensington, Pa. *Physics.* Johnsonville, Ill, June 26, 13. B.S, Ill. Wesleyan, 35; univ. fellow, Illinois, 35–37, 39–40, M.S, 36, Ph.D, 40. Asst. physics, Illinois, 37–39; *assoc. physicist, Aluminum Research Labs, 40–* Summers, physicist, Gulf Research and Develop. Co, 36, 37; asst. physicist, regional soybean lab, U. S. Dept. Agr, 39. Fluorescence and photochemistry; reversion in soybean oils; electronic processes in ionic crystals, especially excess semiconductors.

Anderson, Prof. Stewart W(lse), Virginia Military Institute, Lexington, Va. *Electrical engineering.* Portsmouth, Va, 86. B.S, Va. Mil. Inst, 08; M.S, Wisconsin, 14. Teacher, Charlotte Hall Sch, Md; engineer, construction dept, U. S. Navy Yard, Va; instr, Va. Mil. Inst. and Wisconsin; asst. prof. and *prof. elec. eng, Va. Mil. Inst, academic exec, 41–* V. pres, State Board Eng. Examiners, Va, 37. U.S.A, 17–19, capt, major, Eng.R.C. Fel. Elec. Eng; Eng. Educ.

Anderson, Sumner M(organ), 702 Ingraham St, N. W, Washington, D. C. *Geology.* Charleston, Ill, Aug. 19, 03. B.S, Illinois, 25. Geologist, Standard Oil Co. of N. J, Okla. and Venezuela, 25–26; Cerro de Pasco Copper Corp, Peru, 27–30; asphalt chemist, Flintkote Corp, N. J, 31–32; foraminiferal research and special museum work, N. Y. Univ. and Columbia, 33–34; geologist, Nat. Park Service, Va, West Coast Rocky Mt. States, 35–40; *non-ferrous metals and minerals specialist, U. S. Bur. For. and Domestic Commerce, 40–* Volcanism in northern California; development of water supplies; industrial diamonds; surveys of copper industry; world distribution and development of non-ferrous metal and mineral resources.

Anderson, Prof. T(heodore) G(ustave), Pennsylvania State College, State College, Pa. *Bacteriology.* New Haven, Conn, Nov. 6, 02. Ph.B, Brown, 31; Ph.D, Yale, 35. Assoc. dairy husbandry, California, 36–37; instr. and later *asst. prof. bacter, Pa. State Col, 37–* Dairy Sci. Asn. Dairy bacteriology; cheese; milk cooling; dental caries.

Anderson, Dr. Thomas F(oxen), University of Pennsylvania, Philadelphia, Pa. *Physical chemistry.* Manitowoc, Wis, Feb. 7, 11. B.S, Calif. Inst. Tech, 32, Ph.D, 36; Munich, 32–33. Asst. physical chem, Calif. Inst. Tech, 34–36; instr, Chicago, 36–37; investigator plant physiol, Wisconsin, 37–39, instr. physical chem, 39–40; RCA fellow, Nat. Research Council, 40–42; *assoc, Johnson Foundation, Pennsylvania, 42–* Sec'y cmt. application electron microscope, Nat. Research Council A.A; Chem. Soc; Soc. X-Ray and Electron Diffraction; Soc. Bact; Physiol. Soc; N. Y. Acad. Molecular spectra and structure; surface chemistry; effects of ultra-violet light and heat on microorganisms; applications of the electron microscope to chemistry and biology; electron microscopy.

Anderson, Prof. W(alter) S(ewell), University of Kentucky, Lexington, Ky. *Genetics.* Academy, W. Va, 67. A.B, A.M, Randolph-Macon Col; Cold Spring Harbor. Prin, Alderson Collegiate Inst, 96–03; prof. biol, Ky. Wesleyan Col, 03–13; *genetics, Kentucky,* 13–37, *emer. prof, 37–* Genetic Asn. Inheritance of coat color in horses; sterility in males of mammals; vitality of spermatozoa of domestic and marine animals; fertile mare mules.

Anderson, Dr. W(ells) F(oster), 300 W. Adams St, Chicago, Ill. *Geology.* Tomah, Wis, July 14, 02. A.B, Wisconsin, 26, M.S, 28, Ph.D, 30. Geologist, U. S. Gypsum Co, 30; quarry supt. Windsor plant, *Can. Gypsum Co,* 31–32, works manager plant, Windsor, N. S, 32–36, production manager, Can. div, 36–39, gen. tech. director, *Chicago, Ill,* 39–41, *manager gypsum operations, 42–* Summers, field geologist, Consol. Mining and Smelting Co, 28, 29. Geology and origin of gypsum deposits of western New York and Ontario; structural features in formation of certain gypsum deposits of the Maritime Provinces, Canada.

Anderson, Prof. W(illiam) A(braham), University of Manitoba, Winnipeg, Man, Can. *Physics.* Forest, Ont, May 31, 90. B.Sc, Manitoba, 23, B.A, 24, M.Sc, 25; A.M, Chicago, 28, 30, 31. Prin, Virden Collegiate Inst, 24–29; lecturer *physics, Manitoba,* 29–32, *asst. prof, 32–* Mem, Advisory Board Educ, Man, 27–29. Man. Teachers Federation (pres, 28); Winnipeg Sci. Soc. (exec. cmt, 39–41). Reflex visual sensations and anomalous trichomatism; university examinations statistics.

Anderson, Prof. W(illiam) A(rthur), 530 Ferson Ave, Iowa City, Iowa. *Botany.* Ballard Co, Ky, Jan. 25, 00. A.B, Kentucky, 23, A.M, 24; Ph.D, Harvard, 31. Microscopist, Exp. Sta, Kentucky, 25–27; instr. bot, Tennessee, 27–29; Austin teaching fellow, Harvard, 29–30, asst. taxonomic bot, 30–31; instr. *bot, Iowa,* 31–36, assoc, 36–42, *asst. prof, 42–* Summer, assoc, Iowa Lakeside Lab. Bot. Soc; Fern Soc; Soc. Plant Taxon; New Eng. Bot. Club. Plant taxonomy; floristics; flora of Iowa and prairie region; Monocotyledonae.

Anderson, Prof. W(illiam) B(allantyne), 310 N. 26th St, Corvallis, Oregon. *Physics.* Rockford, Ill, Oct. 8, 67. B.S, Wisconsin, 01, M.S, 03, Ph.D, 06. Asst. *physics,* Wisconsin, 04–05; from instr. to assoc. prof, Iowa State Col, 05–14; *prof, Oregon State Col, 14–* A.A; Physical Soc; Asn. Physics Teachers; Astron. Soc. Pacific. Spark spectrum in gases at high pressure; physics for technical students.

Anderson, Prof. W(illiam) E(lijah), Miami University, Oxford, Ohio. *Mathematics.* Arcadia, Ohio, Oct. 2, 75. A.B, Wittenberg Col, 02; Chicago, summers, 05, 08, 09; Harrison fellow, Pennsylvania, 11–12, Ph.D, 13; Cambridge, 29–30. Teacher, high sch, Ohio, 02–05; prof. *math,* Midland Col, 05–08; Wittenberg Col, 08–18; instr, Pennsylvania, 12–13; assoc. prof, *Miami (Ohio),* 18–21, *prof, 21–* A.A; Math. Soc; Math. Asn; Astron. Soc; fel. Royal Astron. Soc. Astronomy; college mathematics.

Anderson, Dr. William H(enry), Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, Washington, D. C. *Entomology.* Chesterfield, Mass, Nov. 21, 08. B.S, Maryland, 31, M.S, 32, Ph.D, 36. Field asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 36–37, asst. entomologist, 37–39, *entomologist, div. insect identification, 39–* Entom. Soc. Amer; Entom. Soc. Wash. Coleopterous larvae.

Anderson, Dr. W(illia)m T(heodore), Jr, Hanovia Chemical and Manufacturing Co, Newark, N. J. *Physics, Physical chemistry.* Trenton, N. J, Jan. 2, 99. B.S, Princeton, 21, du Pont fellow, 21, 22–23, Ph.D, 23. *Research director, Hanovia Chem. and Mfg. Co; lieut, U. S. Naval Res, 42–* Chem. Soc; Optical Soc. Ultra-violet radiations.

Anderson, Dr. Wilmer C(layton), 49–09 Hanford St, Douglaston, N. Y. *Physics.* Waco, Texas, Nov. 24, 09. A.B, Baylor, 29, A.M, 30; Texas, 30–31; Ph.D, Harvard, 36. Instr. physics, chem. and math, Lamar Col, 31–33; physics, Harvard, 35–38, research fellow, 38–40; *physicist,* The Texas Co, 41–42; *div. research, Columbia, 42–* Bayard Cutting fellow, Harvard, 37. A.A; Physical Soc; Optical Soc; Radio Eng; Asn. Physics Teachers. Light; radiation.

Anderson, Pres. Winslow S(amuel), Whitman College, Walla Walla, Wash. *Chemistry.* Portland, Maine, July 28, 98. B.S, Bates Col, 21; M.S, Minnesota, 23; N. C. State Col, 23–25; LL.D, Southern Col. (Fla), 33; Sc.D, Rollins Col, 42. Asst. chem, Bates Col, 18–21; assoc. prof, Rollins Col, 21–22; asst, Minnesota, 22–23; instr. and asst. prof, N. C. State Col, 23–25; prof, Rollins Col, 28–42, dean, 29–42, dean men, 28–29; *pres, Whitman Col, 42–* Trustee, Webber Col. A.A; Chem. Soc; Inst. Chem; Electrochem. Soc; Am. Geog. Soc; Asn. Academic Deans of South. States (pres, 36); Fla. Acad; Inst. littéraire et artistique de France. Inorganic and industrial chemistry; qualitative analysis; colored lithopones; cottonseed hulls.

Anderton, Dr. Ethel L(ouise), High School, West Haven, Conn. *Mathematics.* Dover, N. H, Sept. 23, 88. A.B, Wellesley Col, 11; A.M, Yale, 22, Ph.D, 25. Teacher, high schs, 11–24; instr. *math,* Wellesley Col, 24–27; asst. prof, Mt.

Holyoke Col, 28–31; Goucher Col, 31–32; *teacher, high sch, West Haven, Conn, 33–* Math. Soc; Math. Asn. Geometry.

Anderton, Dr. W(alter) P(almer), 59 E. 77th St, New York, N. Y. *Clinical medicine.* New York, N. Y, April 15, 86. A.B, Harvard, 08; M.D, Columbia, 11. Instr. clin. med, *col. physicians and surg, Columbia,* 16–17, med, 17–22, assoc, 22–29, *asst. prof. clin. med, 29–* Intern, Bellevue Hosp, 11–13; with N. Y. and Manhattan Eye, Ear and Throat Hosps, 14; Seton Hosp, 15, asst. visiting physician, 15–16; with Riverside Tuber. Sanatorium, 15, Vanderbilt Clinic, 15–17, 28–30; asst. visiting physician, Presb. Hosp, 20–29, assoc. attending physician, 29–, outpatient dept, 16–28. Trustee, Francis Asbury Palmer Fund, New York, v. pres, 17–39, pres, 39– Fel. Am. Med. Asn; fel. Am. Col. Physicians; Tuber. Asn; Heart Asn; N. Y. Gastro-Enterol. Asn. (v. pres, 33, pres, 34); fel. N. Y. Acad. Med. (sec'y, sect. med, 22, chairman, 23); N. Y. Co. (N. Y) Med. Soc. (pres, 40; trustee, 41–). Aortitis.

Andervont, Dr. Howard B(ancroft), 7825 Rayburn Road, Bethesda, Md. *Biology.* Canton, Ohio, March 8, 98. B.S, Mt. Union Col, 23; Sc.D, Hopkins, 26. Asst. filterable virus, sch. hygiene and pub. health, Hopkins, 23–26; fellow, Hopkins and Carnegie Institution, 26–27; instr. epidemiol. and prev. med, sch. pub. health and med, Harvard, 27–30; biologist, *U. S. Pub. Health Service,* 30–42, *prin. biologist, 42–* A.A; Asn. Cancer Research; Soc. Exp. Path. Filterable viruses; cancer.

Andes, Dr. Jerome E(ll), Hercules Powder Co, Sunflower Ordnance Works, Lawrence, Kans. *Medicine, Biochemistry.* Lebeck, Mo, March 18, 04. B.S, Mont. State Col, 29; M.S, Iowa State Col, 31; fellow, Western Reserve, 30–32, Ph.D, 32; B.M, Louisiana, 35, M.D, 36. Asst. chem, Iowa State Col, 29–30; instr. biochem, sch. med, Louisiana, 32–35; intern, Charity Hosp, New Orleans, 35–36; asst. prof. path, sch. med, West Virginia, 36–38; director health and med. adviser, Arizona, 38–42; *med. director, Sunflower Ordnance Works, Hercules Powder Co, 42–* Col. Physicians; Am. Med. Asn. Blood; pathological chemistry; preventive medicine.

Andes, Dr. Ralph V(erne), Westvaco Chlorine Products Corp, South Charleston, W. Va. *Physical chemistry.* Lebeck, Mo, April 17, 07. B.S, Mont. State Col, 30; Ph.D, Iowa State Col, 35. Asst. chem, Iowa State Col, 30–35; instr, Graceland Col, 35–36; chem. and math, North. Mont. Col, 36–37; *chemist, research dept,* Universal Atlas Cement Co, 37–40; *Westvaco Chlorine Products Corp, 40–* A.A; Chem. Soc. Chemical thermodynamics; Portland cement; chlorohydrocarbons; electrolytic sodium hydroxide.

Andre, Dr. Floyd, Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C. *Entomology.* New Sharon, Iowa, Sept. 13, 09. B.S, Iowa State Col, 31, M.S, 33, Ph.D, 36. Asst, Iowa State Col, 32–34, instr. entom. and zool, 36–38, asst. entomologist, Exp. Sta, 34–38; assoc. entomologist, bur. entom. and plant quarantine, *U. S. Dept. Agr,* 38–40, *entomologist and exp. sta. administrator, office exp. stations, 40–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash; Biol. Soc. Wash. Economic entomology; insect ecology; Thysanoptera.

Andreas, Dr. John M(oore), 120 N. Madison Ave, Pasadena, Calif. *Chemical engineering.* New York, N. Y, June 17, 12. B.S, Princeton, 35; M.S, Mass. Inst. Tech, 37, Sc.D, 38. *Mem. research staff, Technicolor Motion Picture Corp, 38–* A.A; Chem. Soc; Soc. Motion Picture Eng; Chem. Eng; Army Ordnance Asn. Color photography; friction for air flow across banks of staggered tubes; measurement of surface tension and interfacial tension by the method of pendant drops.

Andres, Dr. David, 17302 E. Park Drive, Cleveland, Ohio. *Chemical engineering.* Dallas, Texas, Dec. 3, 18. B.S, Texas, 37, M.S, 38, fellow, 41–42, Ph.D, 42. Instr. chem. eng, Texas, 39–41; *chem. engineer, Lubri-Zol Corp, 42–* Chem. Soc. Distillation; liquor-vapor equilibrium.

Andres, Prof. Paul G(erhard), 10811 S. Fairfield Ave, Chicago, Ill. *Electrical engineering.* Kitchener, Ont, Can, May 14, 92. B.S, Mich. State Col, 18, E.E, 23. Instr. elec. eng, Mich. State Col, 18, asst. prof, 18–21; research engineer, Automatic Elec. Co, Chicago, 21–25; chief engineer, Newcomb Hawley, St. Charles, Ill, 25–27; Temple Radio, Chicago, 27–30; research engineer, P. R. Mallory, Indianapolis, 31–34; chief state radio engineer, Ind, 34–36; consulting engineer, 37–39; *assoc. prof. elec. eng, Ill. Inst. Tech, 39–* Elec. Eng; Radio Eng. Operating time of relays and magnets; loud speakers; radio field intensity surveys; electrical and ignition contact metal transfer.

Andresen, Dr. Kurt H(einrich), Bradford, Pa. *Petroleum engineering.* Kassel, Germany, Feb. 21, 10. Dipl.Ing, Tech. Hochschule, Berlin, 33, D.Ing, 35. Asst, Berlin, 33–35; advising chemist, Julius Piutsch A. G, 35–36; junior research assoc, Stanford, 36–37; research assoc, Pa. State Col, 37–39; *research and develop. eng, Case, Pomeroy and Co, 39–* Min. and Metal. Eng; Chem. Soc. Theoretical fundamentals for oil manufacturing; colloidal solutions; apparatus for the oil industry; surface problems in oil production from oil-sands; oil production by secondary recovery methods.

Andress, Prof. Frank J(ullan), 625 Crown St, Walnut Hills, Cincinnati, Ohio. *Biochemistry, Organic chemistry.* Cincinnati, Ohio, Nov. 15, 89. A.B, Cincinnati, 28, M.S, 31, Ph.D, 34. Asst. chemist and bacteriologist, Cincinnati Water Works, 12–16; instr. chem, Ohio Mech. Inst, Cincinnati, 16–17; pres, Andress-Mitchel Chem. Co, 19–21; instr. prev. med, col. med, Cincinnati, 21–34; *prof. biochem. and prev. med, Eclectic Med. Col, 31–* Sergt, M.C, 17–19. Chem. Soc; fel. Inst. Chem. Chemistry of the brain with reference to aminolipids and phosphatides; quantitative analytical control studying synthetic processes in organic chemistry.

Andrew, Dr. Dorothy M(abel), Pennsylvania College for Women, Pittsburgh, Pa. *Psychology.* Minneapolis, Minn, Nov. 11, 09. A.B, Minnesota, 30, A.M, 31, Ph.D, 35. Asst, Employment Stabilization Research Inst, 31–33; teaching asst. *psychol,* Minnesota, 33–35; instr, *Pa. Col. for Women,* 35–37, *asst. prof, 37–* Psychol. Asn; Asn. Applied Psychol; East. Psychol. Asn. Aptitude testing; abilities of clerical workers; achievement testing.

Andrew, Dr. Victor J(ohn), 363 E. 75th St, Chicago, Ill. *Physics.* Medina Co, Ohio, Aug. 31, 02. B.S, Col. of Wooster, 26; M.S, Chicago, 28, Ph.D, 32. Radio engineer, U. S. War Dept, 26–27; Westinghouse Elec. and Mfg. Co, 28–30; x-ray engineer, Westinghouse Lamp Co, 33–34; chief engineer, Doolittle and Falknor, 34–35; *consulting engineer and manufacturer, 37–* Compton cosmic ray exped, Colo, 31. Radio Eng. Precision frequency control; transmitting antennas; x-ray spectroscopy.

Andrew, Dr. W(arren), Baylor University College of Medicine, Dallas, Texas. *Zoology, Anatomy.* Portland, Oregon, July 19, 10. A.B, Carleton Col, 32; Arnold fellow, Brown, 32–33, M.S, 33; Yale, 33–34; Ph.D, Illinois, 36; M.D, Baylor, 43. Asst. instr. zool, Yale, 33–34; Illinois, 34–36; fellow anat, sch. med, Georgia, 36–37, instr. and fellow, 37–39; instr. *histol. and embryol, col. med, Baylor,* 39–41, *asst. prof, 41–* A.A; Soc. Zool; Asn. Anat. Age changes in the nervous system; neuronophagia in starvation, pathological conditions and old age; Purkinje cells; nerve cells; role of the oligodendroglia and amphicytes in pathological states; chromatin formation in nerve cells; senile involution of the thyroid gland.

Andrews, Dr. A(lbert) LeRoy, Cornell University, Ithaca, N. Y. *Botany.* Williamstown, Mass, Dec. 27, 78. A.B, Williams Col, 99; A.M, Harvard, 03; Ph.D, Kiel, 08. *Instr. German,* West Virginia, 03–04; Dartmouth Col, 04–05; *Cornell, 09–* Systematic botany, especially bryology; North American Sphagnaceae, Bryaceae and Mniaceae.

Andrews, Prof. A(ndrew) I(rving), University of Illinois, Urbana, Ill. *Ceramic engineering.* Baraboo, Wis, June 10, 95. B.S, Wisconsin, 20, M.S, 21; U. S. Bur. Mines fellow, Ohio State, 23–24, Ph.D, 24. Asst. chem, Wisconsin, 20–22; Ohio State, 22–24; prof. *ceramic eng,* Alfred, 24–25; asst. prof, *Illinois,* 25–28, assoc. prof, 28–32, *prof, 32–, head dept.* Consulting engineer, A. O. Smith Corp, 26–33, 39– E. I. du Pont de Nemours and Co, 35–39; Harshaw Chem. Co, 41– Ensign, U.S.N, 18–19. Fel. Ceramic Soc. (v. pres, 37, pres, 38); Chem. Eng. Porcelain enamels and refractories.

Andrews, Prof. A(rthur) C(linton), Kansas State College, Manhattan, Kans. *Physical chemistry.* Bloomer, Wis, Oct. 16, 00. B.S, Wisconsin, 24, Ph.D, 38; M.S, Kans. State Col, 29. Teacher science, schs, Tonopah, Nev, 24–25; instr. *chem, Kans. State Col,* 26–38, *asst. prof, 38–* Physical chemistry of proteins; colloidal and surface chemistry.

Andrews, Prof. Carl B(owers), 405 Charles St, East Lansing, Mich. *Engineering.* Pahala, Hawaii, April 17, 79. B.S, Rose Polytech, 08, M.S, 09, C.E, 17; M.S, Mass. Inst. Tech, 28. With Baldwin and Alexander, surveyors, 08–09;

asst. engineer, Hawaii, 09; engineer, Oahu Ry, 10–18; chief engineer, Pampanga Sugar Develop. Co, P. I, 19–20; *prof.* eng, Hawaii, 20–43; *assoc. prof. civil eng, Mich. State Col, 43–* Capt, C.Eng, 18. Assoc. Civil Eng; Eng. Educ.

Andrews, Dr. C(harles) Luther, State College for Teachers, Albany, N. Y. *Physics.* Berkshire, N. Y, May 6, 08. A.B, Cornell, 30, Ph.D, 38. *Instr. physics, N. Y. State Col. for Teachers, 31–* Physical Soc. Experimental physics; absorption of x-rays.

Andrews, David A(rthur), U. S. Geological Survey, Washington, D. C. *Geology.* Jacksonville, Mo, April 6, 06. A.B, Missouri, 27, A.M, 28; Yale, 28–30. Asst. geol, Missouri, 27–28; Yale, 28–30; junior geologist, *U. S. Geol. Surv,* 29–34, asst. geologist, 34–38, assoc. geologist, 38–42, *geologist, 42–* A.A; fel. Geol. Soc; Geol. Soc. Wash. Stratigraphy; physiography; oil, gas and coal in Rocky Mountain region.

Andrews, Dr. Donald H(atch), Johns Hopkins University, Baltimore, Md. *[5]*Chemistry.* Southington, Conn, June 11, 98. A.B, Yale, 20, Ph.D, 23. Asst, Yale, 23–24; research assoc, California, 24–25; nat. research fellow, Leiden, Holland, 25–26; research fellow, Bartol Research Foundation, Franklin Inst, 26–27; assoc. *chem, Hopkins,* 27–29, assoc. prof, 29–30, *prof, 30–, chairman chem. dept. and director chem. lab, 36–* Mem. première cmn, Inst. Int. du Froid. A.A; Soc. Chem. Indust; Chem. Soc; fel. Physical Soc; Philos. Soc; N. Y. Acad. Sciences; fel. London Chem. Soc. Application of thermodynamics to organic chemistry; cryogenics; infra-red spectra.

Andrews, Prof. E(than) A(llen), Johns Hopkins University, Baltimore, Md. *[5]*Zoology.* New York, N. Y, Sept. 10, 59. Ph.B, Yale, 81, 82; Polytech, Hanover, 83; fellow, Hopkins, 84–86, Ph.D, 87. Asst, U. S. Fish Cmn, 79–81; *biol, Hopkins,* 87–92, assoc. prof, 92–08, prof, 08–30, *emer. prof, 30–* A.A; Soc. Nat; Soc. Zool. (v. pres, 91, pres, 04). Natural history of invertebrates.

Andrews, F(lood) S(hields), Cornell University, Ithaca, N. Y. *Horticulture, Botany.* Charlotte Co, Va, May 6, 98. B.S, Va. Polytech, 24; M.S, Mich. State Col, 28; Wisconsin, 29. Asst, Mich. State Col, 26–28; assoc. prof. hort, Clemson Col, 28–37; *asst. veg. crops, Cornell, 37–* Soc. Hort. Sci. Pomology; factors influencing size of apples; sterility of the apple; physiological factors influencing fruiting of bush lima beans.

Andrews, Prof. F(rederick) N(ewcomb), Purdue University, Lafayette, Ind. *Physiology.* Boston, Mass, Feb. 5, 14. B.S, Mass. State Col, 35, M.S, 36; Ph.D, Missouri, 39. Instr. animal husbandry, Mass. State Col, 36; cooperative agent, Missouri and U. S. Dept. Agr, 36–40; *asst. prof. animal husbandry and assoc, Exp. Sta, Purdue, 40–* Genetic Asn; Soc. Animal Production. Reproductive and endocrine physiology; the physiological mechanisms governing ovulation, spermatogenesis, fertility, lactation and growth; endocrine influences on vitamin C metabolism.

Andrews, Dr. Henry N(athaniel), Jr, Washington University, St. Louis, Mo. *Paleobotany.* Melrose, Mass, June 15, 10. B.S, Mass. Inst. Tech, 34; Mass. State Col, 34–35; Cambridge, 37–38; M.S, Washington (St. Louis), 37, Ph.D, 39. Special fellow, Belgian Am. Educational Foundation, 38; instr. *bot, Washington (St. Louis),* 39–43, *asst. prof, 43–* Bot. Soc. (sec'y, paleobotanical sect, 40–). Fossil flora of Illinois; Mesozoic and Tertiary floras of Wyoming.

Andrews, Horace, 3634 Bay-View Road, Coconut Grove, Miami, Fla. *Civil engineering.* New Haven, Conn, March 19, 52. Ph.B, Yale, 71, C.E, 72. U. S. Coast and Geod. Surv, 72–78; N. Y. State Trigonometric Surv, 78–84; inspecting engineer, State Board Health, N. Y, 84–86; city engineer, Albany, 86–00; consulting engineer; *retired.* Instr, Sheffield Sci. Sch, Yale, 72–73; Albany Board Health, 86–00; examiner for eng. positions, N. Y. State Civil Service, 88–94. A.A; Civil Eng. (director, 08–10); Soc. Munic. Improv. Geodetic and higher surveying; municipal engineering.

Andrews, H(orace) J(ustin), U. S. Forest Service, Portland, Oregon. *Forestry.* Sidnaw, Mich, Oct. 31, 92. A.B, Michigan, 15, M.S. (Forestry), 16. Instr. and asst. prof, Michigan, 16–18; Iowa State Col, 21–23; in charge Land Econ. Surv, Mich, 24–26; state fire warden and in charge state land office, Mich, 27–29; regional director forest surv, *Pacific Northwest Forest Exp. Sta, U. S. Forest Service,* 30–38, *asst. regional forester, 38–* Prof, Michigan, 38–39. U.S.A, 18–19. Soc. Foresters; Mich. Eng. Soc; Mich. Acad. Land economics.

Andrews, Dr. Howard L(ucius), U. S. Public Health Service Hospital, Lexington, Ky. *Biophysics.* Davisville, R. I, Oct. 27, 06. B.S, Brown, 27, M.S, 28, Charles A. Coffin fellow of Gen. Elec. Co, 28–29, Ph.D, 31. Instr. physics, Brown, 29–34, research assoc. psychol, 34–37; assoc. physicist, *U. S. Pub. Health Service,* 37–41, *biophysicist, 41–* Bradley Home, 34–37. Physical Soc; assoc. Radio Eng. High frequency oscillations; action currents; drug addiction.

Andrews, Prof. James C(larence), University of North Carolina, Chapel Hill, N. C. *Physiological chemistry.* Colfax, Ind, March 8, 92. B.S, Iowa, 15; Ph.D, Columbia, 18. Asst. chem, Columbia, 15–18; research chemist, E. I. du Pont de Nemours and Co, 18–22; instr. physiol. chem, sch. med, Pennsylvania, 22–26, asst. prof, 26–37; *prof. biol. chem. and head dept, North Carolina, 37–* Chem. Soc; Soc. Biol. Chem; Malaria Soc; Elisha Mitchell Sci. Soc; N. C. Acad. Amino acids; biochemistry of sulfur and of sulfur-containing amino acids and their derivatives; cystinuria; biochemistry of quinine metabolism.

Andrews, Dr. James M(adison), Navy Department, Washington, D. C. *Physical anthropology.* Schenectady, N. Y, Oct. 21, 05. A.B, Harvard, 29, A.M, 33, Ph.D, 39. Research assoc. *physical anthrop, Peabody Museum, Harvard,* 34–39, *asst. curator somatol, 39–; lieut. (jg), U. S. Naval Reserve, 41–* Leader, Harvard-Siam joint exped, 34–35. Mem. Lab. Anthrop, 40– Asn. Physical Anthrop. Statistical techniques for research in effects of heredity and environment on human physique; statistics of biometry.

Andrews, John S(cott), U. S. Department of Agriculture, Tifton, Ga. *Parasitology.* New Palestine, Ind, Oct. 1, 05. B.S, Purdue, 27, M.S, 29, Paul F. Williams fellow, 29–30; D.Sc, Hopkins, 38. Asst. gen. biol, Purdue, 27–29; junior zoologist, *zool. div, bur. animal indust, U. S. Dept. Agr,* 30–36, asst. zoologist, 36–38, parasitologist, Exp. Sta, P. R, 38–41, *assoc. parasitologist, zool. div, Coastal Plain Exp. Sta, 41–* Soc. Parasitol; Helminth Soc. Wash. Parasites of swine; parasites of domestic animals.

Andrews, Dr. John S(outhard), 1374 Raymond Ave, St. Paul, Minn. *Chemistry.* Gray, Maine, March 2, 04. B.S, Maine, 26; A.M, Harvard, 27; Ph.D, Hopkins, 36. Instr. chem, Delaware, 27–28; research chemist, Pilot Labs, N. J, 28–30; research chemist, research labs, Gen. Mills, Minn, 30–34; research assoc, Hopkins, 35–36; *research chemist, research labs, Gen. Mills, Minn, 36–* Organic phosphorus compounds; amylases and proteases; porphyrin chemistry; vitamins.

Andrews, J(ohn) T(homas) R(eed), 6401 Paddock Road, Bond Hill, Cincinnati, Ohio. *Chemistry.* Island Pond, Vt, April 18, 94. B.S, Vermont, 20. *Research chemist, Procter and Gamble Co, Ivorydale, Ohio, 20–* Chem. Soc. (sec'y-treas, Cincinnati sect, 28–30, trustee, 30–, chairman, 33); Oil Chemists Soc. Analytical methods for oils, fats, soaps and other detergents; glycerin.

Andrews, Dr. Justin (Meredith), State Department of Public Health, Atlanta, Ga. *Public health biology.* Providence, R. I, Aug. 28, 02. Ph.B, Brown, 23; Sc.D, Hopkins, 26. Tech. asst. med. zool, sch. hygiene and pub. health, Hopkins, 23–24, asst. protozool, 24–26, instr, 26–27, assoc, 27–30, assoc. prof, 31–38; *director div. malaria and hookworm service, State Dept. Pub. Health, Ga, 38–;* senior zoologist and special consultant, U. S. Pub. Health Service, 41–42; major, *Sanit. Corps, U. S. Army,* 42–43, *lieut. col, 43–* Visiting prof, Philippines, 30–31. Summers, Cold Spring Harbor, 24–28; lecturer, Harvard Med. Sch, 41. Mem. Nat. Malnutrition Cmt. A.A; Soc. Parasitol. (treas, 32–36, councilor, 37–41; v. pres, 41); fel. Pub. Health Asn; Soc. Trop. Med; Acad. Trop. Med; Soc. Nat; Asn. Southeast. Biologists; Ga. Acad. Parasitic protozoology; intestinal and venereal flagellates; coccidiosis; trypanosomes; balantidiasis; amebiasis; public health parasitology; malaria control; hookworm disease control.

Andrews, Dr. L(oring) B(eal), Harvard University, Cambridge, Mass. *Astronomy.* Boston, Mass, July 30, 06. A.B, Harvard, 25, A.M, 27, Ph.D, 33. Asst. *astron,* Harvard, 25–28; Radcliffe Col, 26–28; *instr, Harvard and Radcliffe Col, 28–* A.A; Astron. Soc; Physical Soc; Math. Soc; Astron. Soc. Pacific; Royal Astron. Soc. Occultations; dark nebulosities.

Andrews, Prof. Lyle V(ernon), 503 Morehead St, Chadron, Nebr. *Physical chemistry.* Presho, S. Dak, March 17,

06. A.B, Nebr. State Nor. Col, 26; M.S, Nebraska, 29, fellow, 31–32, Ph.D, 32. Instr. *chem, Nebr. State Nor. Col, Chadron, 27–28, prof, 32–* Chem. Soc. Electrochemistry; isoelectric points; conductivity of solutions.

Andrews, Dr. R(oy) C(hapman), American Museum of Natural History, New York, N. Y. *Zoology.* Beloit, Wis, Jan. 26, 84. A.B, Beloit Col, 06, hon. Sc.D, 28; A.M, Columbia, 13; hon. Sc.D, Brown, 26. Leader, Cent. Asiatic expeds, *Am. Museum Nat. Hist,* 16–32, v. director, 31–35, *in charge explor. and research, 31–,* director, 35–42, *hon. director, 42–* Am. Museum Nat. Hist. exped, Alaska, 08; St. Lawrence, 09; special naturalist, 'Albatross' exped, Orient, 09–10; exped, Korea, 11, 12; naturalist, Borden exped, Alaska, 13. Kane medal, Geog. Soc. Phila, 29; Hubbard medal, Nat. Geog. Soc, 31; Explorers Club medal, 32; Chas. P. Daly medal, Am. Geog. Soc, 36; Vega medal, Royal Geog. Soc. Sweden, 37; Loczy medal, Hungarian Geog. Soc, 37. A.A; Soc. Mammal; Philos. Soc; Biol. Soc. Wash; N. Y. Acad; Calif. Acad; cor. mem. Zool. Soc. London. Asiatic exploration.

Andrews, Prof. T(homas) G(ayleon), University of Alabama, University, Ala. *Geology.* Jackson, Tenn, May 4, 03. A.B, Vanderbilt, 25, A.M, 27; Ph.D, Minnesota, 32. Asst. *geol,* Vanderbilt, 26–28; instr, Lincoln Mem. Univ, 28–29; asst, Minnesota, 29–32; instr, *Alabama,* 32–34, asst. prof, 34–38, assoc. prof, 38–42, *prof, 42–; asst. geologist, U. S. Geol. Surv, 37–* Summers, field and office asst, Tenn. Geol. Surv, 27, 29, 30, 31; museum asst, Ala. Museum Nat. Hist, 28; field asst, U. S. Geol. Surv, 35, 36. A.A; Am. Geog. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Miner. Soc; Geophys. Union; Soc. Econ. Paleont. and Miner; Ala. Acad. (sec'y, geol. div, 33–35, v. pres, 35); assoc. N. Y. Acad. Insoluble residues as an aid in correlation; red iron ores of northeastern Alabama.

Andrews, Dr. T(om) Gaylord, Barnard College, Columbia University, New York, N. Y. *Psychology.* Minden, Nebr, Nov. 16, 13. A.B, Southern California, 37; A.M, Nebraska, 39, Ph.D, 41. Teaching asst. *psychol,* Nebraska, 38–40; lecturer, *Barnard Col, Columbia,* 40–42, *instr, 42–* Instr, Wagner Col, 41–42; Brooklyn Col, 42. Statist. Asn; assoc. Psychol. Asn; Psychometric Soc. General experimental psychology; physiological psychology; psychometric methods.

Andrews, Dr. T(roy) M(onroe), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Chapel Hill, N. C, Dec. 14, 93. A.B, North Carolina, 14, M.S, 17, Ph.D, 21. Chemist, E. I. du Pont de Nemours and Co, 17–19; Forest Products Lab, U. S. Forest Service, 21–23; Texas Co, 23–25; A. E. Staley Mfg. Co, 25–27; *research fellow, Mellon Inst, 27–* Dyes; carbohydrates; pulp; cellulose; petroleum; plastics; by-products.

Andrus, C(harles) Fred(erick), U. S. Department of Agriculture, P. O. Box 844, Charleston, S. C. *Plant pathology.* Ill, Jan. 21, 06. A.B, George Washington, 30, A.M, 31; Maryland, 36–37. Asst. sci. aide, *bur. plant indust, U. S. Dept. Agr,* 28–31, junior pathologist, 31–37, asst. pathologist, 37–38, assoc. pathologist, 38–41, *pathologist, 41–* Phytopath. Soc; Mycol. Soc; S. C. Acad. Cytology; sex in fungi; mycology; plant breeding; disease resistance.

Andrus, Dr. D(onald) W(illiam), Box 576, Wenonah, N. J. *Organic chemistry.* Hartford, Conn, Sept. 19, 14. A.B, Dartmouth Col, 36; Ph.D, Cornell, 40. Asst. org. chem, Cornell, 36–40; *research chemist, Socony-Vacuum Oil Co, 40–* Chem. Soc. Alkyl borines and boronic acids; oil additives.

Andrus, Dr. E(dwin) Cowles, Johns Hopkins Hospital, Baltimore, Md. *Physiology.* Kaatsbon, N. Y, Feb. 28, 96. A.B, Oberlin Col, 16, A.M, 17, hon. Sc.D, 41; M.D, Hopkins, 21. House officer, Hopkins Hosp, 21–22, asst. res. physician, 22–23; nat. research fellow *med,* 23–25; from instr. to *assoc. prof, Hopkins, 25–,* asst. dean med. faculty, 29–34, res. physician, *Hopkins Hosp,* 25–27, assoc. physician, 29–34, *asst. visiting physician, 34–* Physiol. Soc; Soc. Clin. Invest. (treas, 37–40); Am. Med. Asn; Col. Physicians; Asn. Physicians; Clin. and Climat. Asn; Heart Asn; Soc. Exp. Biol; Interurban Clin. Club; South. Med. Asn; Med. and Chirurg. Faculty Md. Physiology of the heart; hyperthyroidism.

Andrus, L(uclus) B(uckley), Indianapolis Athletic Club, Indianapolis, Ind. *Electrical engineering.* Columbus, Ohio, Sept. 22, 75. Ohio State; E.E, 10; M.S, Notre Dame, 16. Supt. fire alarm, telegraph and police signal systems, Columbus, Ohio, 00–02; Westinghouse Elec. and Mfg. Co, 02–04; gen. supt, Ind. and Mich. Elec. Co, 04–17; operating v. pres. and chief engineer, Am. Pub. Utilities Co, Mich, 17–23; *pres, North. Ind. Power Co; v. pres, Cent. Power Co, 24–; pres, Ind. Gas Light Co; Ind. Railways and Light Co; Noblesville Water and Light Co; v. pres, Ind. Hydro-Elec. Power Co; Pub. Service Co. of Ind; Terre Haute Elec. Co.* Past. pres, Wabash Valley Elec. Co; Ind. Elec. Corp. Lecturer, Notre Dame. A.A; Elec. Eng; Mech. Eng; Franklin Inst; Ind. Eng. Soc. Effect of synchronous motors on line regulation; effect of inertia on speed regulation; water wheel tests in place.

Andrus, Dr. Ruth, State Education Department, Albany, N. Y. *Psychology.* Syracuse, N. Y, March 12, 86. A.B, Vassar Col, 07, A.M, 08; fellow, Columbia, 23–24, Ph.D, 24. Teacher, prep. schs, 09–13; academic dean and dean women, Ky. Col. for Women, 14–22; director child guidance clinic, Monmouth County Organization for Social Service, N. J, 24–26; asst. prof. educ. and research assoc, Teachers Col, Columbia, 26–27, assoc. prof. educ. and acting director inst. child welfare research, Columbia, 27–28; *chief child develop. and parent educ. bur, State Educ. Dept, N. Y, 28–* Lecturer, Teachers Col, Columbia, 24–26. Summer, director child study, inst. euthenics, Vassar Col, 25. Mem. governing board, Nat. Council Parent Educ, 26–30, 34–38; chairman, State Cmt. Child Care, Develop. and Protection, N. Y, 41–42, mem, 42– Trustee, Russell Sage Col, 33–38; Little Red Schoolhouse, New York, 31– Mem. White House Conf. Child Health and Protection, chairman sect. III, White House Conf. Children in a Democracy, 39. Psychol. Asn; Asn. Applied Psychol; Asn. Childhood Educ; Council Parent Educ; Educ. Research Asn; Nat. Asn. Nursery Educ. (pres, 35–37); N. Y. Acad. Habits of children; parent-child relationships; curriculum guides for teachers.

Andrus, Prof. William DeW(itt), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Surgery.* Saugerties, N. Y, Feb. 28, 96. A.B, Oberlin Col, 16, A.M, 17, hon. Sc.D, 41; M.D, Hopkins, 21. Asst. *surg,* Hopkins, 21–22; instr, Cincinnati, 22–26, asst. prof, 26–31; *assoc. prof, med. col, Cornell, 31–* Nat. research fellow, 22–25. Asn. Thoracic Surg; Soc. Clin. Surg; Surg. Asn; Soc. Exp. Biol. Physiology of surgical pneumothorax and pneumectomy; cancer of the esophagus; angina pectoris; fractures of the femur; surgery of the chest, blood-vessels, sympathetic nervous system, thyroid and spleen; intestinal obstruction; esophageal obstruction and fistula; surgical shock; diseases of liver and biliary tract; vitamin K and prothrombin; liver function; surgery of the stomach.

Angell, Dr. James R(owland), New Haven, Conn. *[1]Psychology.* Burlington, Vt, May 8, 69. A.B, Michigan, 90, A.M, 91, LL.D, 31; A.M, Harvard, 92; Berlin and Halle, 93; Litt.D, Vermont, 15; LL.D, Yale, Harvard, Princeton, Columbia, Chicago, Union (N. Y), Cincinnati, McGill, Wesleyan, Middlebury Col, Brown, Ill. Col, Wabash Col, California, 34, N. Y. Univ, Williams Col, Dartmouth Col, 36, Rutgers, 37, Pennsylvania, 38, Univ. State of N. Y, 38; hon. Ph.D, Rensselaer Polytech. Instr. philos, Minnesota, 93–94; asst. prof. psychol. and director lab, Chicago, 94–01, assoc. prof, 01–05, prof. and head dept, 05–19, senior dean, 08–11, dean faculties arts, lit. and science, 11–19, acting pres, 18–19; chairman, Nat. Research Council, 19–20; pres, Carnegie Corp, 20–21; *Yale,* 21–37, *emer. pres, 37–; educ. director, Nat. Broadcasting Co, 37–* Lecturer, California, 03; Wellesley Col, 04; Ichabod Spencer lecturer, Union, 11; lecturer, Sorbonne, Paris, 14; Elihu Root lecturer, Carnegie Institution, 35. Trustee, Am. Museum Nat. Hist, 37–; Museum Science and Industry, Chicago, Ill. V. pres, Nat. Cmt. Mental Hygiene. Director, N. Y. Life Ins. Co. Officier, Légion d'honneur; grand officer, Order of the Crown, Italy; Blue Grand Cordon, Order of the Jade, China. Gold medal, Nat. Inst. Social Sci, 37. U.S.A, 17–19. Nat. Acad; Psychol. Asn. (pres, 06); Philos. Soc; fel. Am. Acad; Eng-Speaking Union (pres); West. Philos. Asn. (v. pres, 06); hon. mem. British Psychol. Soc. Psychology of attention; organic accompaniments of conscious processes; auditory localization; reaction time; effect of partial tones on localization of sound; dermal space-perception; memory and development in motor coordination; animal intelligence; rhythm; vision; affection.

Angello, Dr. S(tephen) J(ames), Westinghouse Research Laboratories, East Pittsburgh, Pa. *Physics.* Haddonfield, N. J, March 2, 18. B.S, Pennsylvania, 39, M.S, 40, Ph.D, 42. *Research engineer, Westinghouse Research Labs.* Physical Soc; Elec. Eng. Hall effect in semiconductors, especially cuprous oxide.

Angelo, Dr. Ernest, Bureau of Plant Industry, U. S. Department of Agriculture, Bogalusa, La. *Horticulture.* New

York, N. Y, Jan. 6, 94. B.S. (Agr), West Virginia, 19; M.S, Cornell, 25; Ph.D, Minnesota, 34. Instr. hort, West Virginia, 19–28; chief game protector, W. Va. Game and Fish Cmn, 28–29; instr. hort, Minnesota, 29–36, asst. prof, 36–38; *pomologist, bur. plant indust, U. S. Dept. Agr, 38–* Summer, plant disease surv, U. S. Dept. Agr, 19. A.A; Soc. Hort. Sci. Grape pruning and hardiness; pollination; inheritance in fruits; strawberry hardiness; potato wart; breeding and selecting of tung.

Angerer, Dr. C(lifford) A(ckermann), Ohio State University, Columbus, Ohio. *Physiology.* Philadelphia, Pa, 05. A.B, Columbia, 29; scholar, Pennsylvania, 32–33, Harrison fellow, 33–35; Ph.D, 37. *Instr.* zool, Pennsylvania, 35–39; *physiol, Ohio State, 39–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Soc. Zool; Ohio Acad. Action of copper salts, mechanical pressure, temperature and electric current on physical properties of protoplasm; adrenal cortical insufficiency on permeability.

Angevine, Dr. D(aniel) Murray, Alfred I. du Pont Institute, Wilmington, Del. *Pathology.* St. John, N. B, Can, Oct. 8, 03. B.A, Mt. Allison, 24; M.D, McGill, 29. Demonstrator biol, Mt. Allison, 24; instr. path, med. col, Cornell, 32–38, asst. prof, 38–41, instr. med, 38–40; *pathologist and bacteriologist, Alfred I. du Pont Inst, 41–; visiting asst. prof. path, Pennsylvania, 41–* Asst. pathologist, New York Hosp, 32–41, physician to out-patients, 38–40. Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Soc. Clin. Invest; Rheumatism Asn; Harvey Soc; N. Y. Path. Soc. (sec'y, 40); N. Y. Trop. Med. Soc. Infection and immunity; rheumatic diseases.

Angier, Prof. Roswell P(arker), R.F.D. Route 4, Box 686, Tucson, Ariz. *Psychology.* St. Paul, Minn, Oct. 21, 74. A.B, Harvard, 97, A.M, 01, Ph.D, 03; Berlin, 04–06; LL.D, Franklin and Marshall Col, 22. Asst, physiol. lab, Berlin, 05–06; instr. *psychol, Yale,* 06–08, asst. prof, 08–17, prof, 17–41, *emer. prof, 41–,* acting director *psychol. lab,* 09–14, director, 14–41, *emer. director, 41–,* assoc. dean grad. sch, 37–41, dean freshmen, 20–25, chairman, Inst. Psychol, 24–29, dept. psychol, 28–41, mem. exec. cmt, Inst. Human Relations, 29–31. Psychol. Asn; Physiol. Soc; Philos. Asn. Motivation; personality; history.

Angst, Dr. Laura, Mt. Vernon Junior College, Mt. Vernon, Wash. *Botany.* Ont, Can, 84. A.B, Washington (Seattle), 15, M.S, 25, Ph.D, 30. Teacher, high sch, Wash, 19–27; *instr. bot, Mt. Vernon Junior Col, 27–* Calif. Bot. Soc. Brown algae.

Angstrom, Lieut. Clement I, U. S. Army Pigeon Breeding and Training Center, CSCRTC, Camp Crowder, Mo. *Veterinary bacteriology.* Fairmont, Minn, Oct. 17, 12. D.V.M, Iowa State Col, 38; Cornell. Research instr. poultry diseases, Cornell, 38–41; *lieut, Vet. Corps, U. S. Army, 41–,* food inspector, Ft. Monmouth, 41, *veterinarian, pigeon breeding and training center, Sig. Corps Sch, 41–* Pigeon diseases.

Angulo (y Gonzalez), Dr. A(rmando) W(andegercito), 418 Beverly Blvd, Upper Darby, Pa. *Anatomy.* Gibara, Cuba, July 22, 00. B.L, B.S, Inst. Prov. de Oriente, Santiago de Cuba, 20; A.B, Kansas, 22, A.M, 24, Ph.D, 26. Asst. instr. anat, Kansas, 22–25, instr, 25–26; fellow, Wistar Inst, 26–30, head tech. lab, 28–29, assoc, 30–31, assoc. mem, 31–40; *biologist and pathologist, Biochem. Research Foundation, Newark, Del, 40–* A.A; Asn. Anat; Soc. Zool; Micros. Soc; N. Y. Acad. Motor nuclei in the cervical cord at birth; motor cell column in the cervical region before birth; prenatal and somatic activity development of the albino rat; myelinogeny and behavioral capability; fetal behavior; the sensory system in relation to the local sign; correlation of structure and function; metabolism of nervous tissue by radio-active tracer technique.

Angyal, Dr. A(ndrás), Worcester State Hospital, Worcester, Mass. *Psychiatry.* Debrecen, Hungary, June 21, 02. Ph.D, Vienna, 27; M.D, Torino (Italy), 32. Research worker, psychol. inst, Vienna, 23–28; psychol. lab, Univ. Torino, Italy, 28–29; Psychiat. Hosp, Torino, 29–32; Rockefeller fellow, Yale, 32–33; psychiatrist and later *res. director research, research service, Worcester State Hosp, 33–* Fel. Psychiat. Asn; Sociol. Soc; assoc. Psychol. Asn; New Eng. Psychiat. Soc; Boston Soc. Psychiat. and Neur. Psychology of dream and hypnagogic states; orientation in space by man; sensory neurology, especially kinesthesis; psychiatric study of schizophrenia; theory of personality.

Anigstein, Dr. Ludwik, University of Texas School of Medicine, Galveston, Texas. *Medical microbiology.* Warsaw, Poland, Feb. 2, 91. Ph.D, Heidelberg, 13; Dipl. Med, Dorpat, 15; M.D, Poznan, 23; London Sch. Trop. Med, 23. Head div. parasitol, State Inst. Hygiene, Warsaw, 19–39; lecturer pub. health, State Sch. Hygiene, 26–39; asst. prof. parasitol, Warsaw, 29–39; research assoc, California, 40; assoc. *prev. med, sch. med, Texas,* 40–42, *asst. prof, 42–* Research student, British Colonial Service, Malay States, 29–31; malaria expert, Siamese Govt, 31; med. and sanit. adviser, Govt. Liberia, 35–36. Mem. malaria cmn, League of Nations, 24–39, typhus experts cmn, 37. Chairman typhus sect, Int. Cong. Trop. Med, Amsterdam, 38. A.A; Malaria Soc; Soc. Trop. Med; Pub. Health Asn; Texas Pub. Health Asn; fel. Royal Soc. Trop. Med. and Hygiene. Typhus fever; epidemiology of spotted fever in Texas; viruses; tropical diseases; rickettsiology.

Annand, Dr. P(ercy) N(icol), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Telluride, Colo, Nov. 16, 98. B.S, Colo. Agr. Col, 20; A.M, Stanford, 22, Ph.D, 28. Asst. entomologist, Great West. Sugar Co, 20–21; asst, Stanford, 21–22; head dept. biol, San Mateo Junior Col, 22–29; sugar beet insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–32, asst. leader div. truck crop and garden insects, 32–34, leader div. cereal and forage insects, 34–37, special research asst. to chief, 37–39, asst. chief, 39–41, *chief, 41–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. (pres, 42); Entom. Soc. Wash. (v. pres, 42). Taxonomy of adelgids; ecology and control of sugar beet insects; thrips and flower pollination; administration of plant quarantines and entomological research.

Anning, Prof. Norman H(erbert), University of Michigan, Ann Arbor, Mich. *Mathematics.* Holland, Ont, Can, Aug. 28, 83. B.A, Queen's (Can), 05, M.A, 06; Clark, 06–09. Teacher and prin, schs, and construction engineer, 09–16; instr. *math,* Maine, 19–20; *Michigan,* 20–23, *asst. prof, 23–* Asst. ed, 'Am. Math. Monthly,' 23–26. 7th Can. Ry. Troops, France, 17–19. Higher geometry.

Ansbacher, Dr. H(einz) L(udwig), Brown University, Providence, R. I. *Psychology.* Frankfurt, Germany, Oct. 21, 04. Ph.D, Columbia, 37. *Research assoc. psychol, Brown, 40–* Asst. ed, 'Psychol. Abstracts,' 40– A.A; assoc. Psychol. Asn. Perception; military psychology.

Ansbacher, Dr. S(tefan), Research Laboratory, International Vitamin Corp, Richmond Hill, N. Y. *Medical chemistry.* Frankfurt-am-Main, Germany, Jan. 27, 05. B.Sc, Frankfurt, 23; Heidelberg, 23; Tübingen, 23–24; Freiburg, 24–25; M.Sc, Geneva, 29, D.Sc, 33. Asst, path. inst, Geneva, 29–30; research chemist, State Food Research Cmn, S. C, 30–31; research lab, Borden Co, 31–36; Squibb Inst, 37–41; *director research and med. relations, Int. Vitamin Corp, 41–* Mem. advisory board, 'Dictionary of Dietetics,' 41– Am. Med. Asn. medal, 36. A.A; Chem. Soc; Pub. Health Asn; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Study Int. Secretions; Soc. Med. Jurisprudence; N. Y. Acad; Chemists' Club; Deuts. Chem. Gesell; Schweiz. Chem. Gesell. Biological and medicinal chemistry; chemotherapy of tuberculosis; toxicology; trace elements; vitamin D and irradiation of foods; milk and by-products; riboflavin; biotin and other water-soluble vitamins; prothrombinogenic compounds; chromotrichial substances; enzymes; hormones.

Anslow, Prof. Gladys A(melia), 72 Dryads Green, Northampton, Mass. *Physics.* Springfield, Mass, May 22, 92. A.B, Smith Col, 14, A.M, 17; Chicago, 21; Smith Col. fellow, Yale, 22–24, Ph.D, 24. Demonstrator *physics, Smith Col,* 14–15, asst, 15–17, instr, 17–24, asst. prof, 24–30, assoc. prof, 31–37, *prof, 37–, chairman grad. sch, 41–* Research fellow, California, 38–39. A.A; fel. Physical Soc. (chairman, northeast. sect, 41–); Asn. Physics Teachers. Spectral series; ionization by electron and neutron collisions; absorption spectra of biological molecules.

Anson, Prof. B(arry) J(oseph), 303 E. Chicago Ave, Chicago, Ill. *Anatomy.* Muscatine, Iowa, March 21, 94. A.B, Wisconsin, 17; fellow, Harvard, 22–26, A.M, 23, Ph.D, 27. Sci. asst, Bur. Fisheries, 17–22; nat. research fellow, 22–26; instr. *anat, med. sch, Northwestern,* 26–27, assoc, 28–30, assoc. prof, 30–42, *prof, 42–* Investigator, bur. research, Am. Otological Soc. Summers, sci. aid, Bur. Fisheries, 15–17. Asn. Anat. Life history of fresh-water fishes and their ecological relation to the malaria-bearing mosquito; parasitism in the Unionidae; human otic capsule and stapes; gross anatomy of surgically important areas; histopathology of human temporal bone; history of sixteenth and seventeenth century medicine; variation in vascular pattern in man.

Antevs, Dr. Ernst (Valdemar), The Corral, Globe, Ariz. **5** *Geology.* Vartofta, Sweden, Nov. 20, 88. Ph.D, Stockholm,

17. Docent, Stockholm, 17–35; *private research.* Research assoc, Am. Geog. Soc, 21–22; Carnegie Institution, 22–23, 28–29, 34–40; Geol. Surv. Can, 23–24, 29–30; Harvard, 24–26. Geol. exped, Bear Island, 16; Spitsbergen, 18. Research Corp. N. Y. awards, 30. A.A; Geol. Soc; Ecol. Soc; Soc. Archeol; Meteorol. Soc; cor. mem. Acad. Nat. Sci. Phila; Stockholm Geol. Soc. Glacial geology; tree growth as climatic indicator; Mesozoic plants; late Quaternary geology and climate of the Southwest; age of man in North America.

Anthes, Capt. John A(llen), Atmospheric Nitrogen Corp, Hopewell, Va. *Organic chemistry.* Janesville, Wis, Aug. 18, 13. B.Ch.E, Minnesota, 34, Ph.D, 39. Teaching asst, Minnesota, 35–38; research chemist, Union Oil Co, Calif, 39–40; *capt, Ordnance Dept, U. S. Army, 41–* A.A; Chem. Soc. Compounds related to peri-naphthenone; compounded lubricating oils.

Anthony, Charles, Springcroft, Les Croutes, St. Peter Port, Guernsey, Channel Islands. *Engineering.* Hereford, Eng, Oct. 10, 65. Royal Sch. Mines, Bristol; Cambridge. Asst. engineer, Bateman and Parsons, 90–91; engineer first class, Argentine Govt, 91–93; prin. res. engineer, Buenos Aires Sanit. Improv. Works Commissioners, 93–02; consulting engineer chosen by Cape Colonial Govt, E. London Water Supply Scheme, 03–06; legal rep. and chief engineer, Dirks and Dates, 06–08; gen. manager, Bahia Blanca Water Works Co, Argentina, 09–25; *retired.* Civil Eng; fel. London Chem. Soc; fel. Royal Astron. Soc; British Inst. Civil Eng; fel. British Sanit. Inst; fel. Royal Soc. Edinburgh; fel. Royal Meteorol. Soc. Hydraulic and sanitary engineering; sewage disposal; color and turbidity determination; chemical treatment and filtration.

Anthony, Prof. Ernest L(ee), Michigan State College, East Lansing, Mich. *Dairy husbandry.* Comstock, Nebr, Sept. 6, 88. B.S.A, Missouri, 12; M.S.A, Pa. State Col, 14. Asst. *dairy husbandry,* Pa. State Col, 12–13, instr, 13–15, asst. prof, 15–18, assoc. prof, 18–19; prof. and head dept, West Virginia, 19–28; *prof, Mich. State Col, 28–, dean div. agr, 33–* Am-Scandinavian Foundation fellow, Copenhagen, 23–24. Dairy Sci. Asn. History, feeding and breeding of dairy cattle.

Anthony, Dr. H(arold) E(lmer), American Museum of Natural History, New York, N. Y. *Zoology.* Beaverton, Oregon, April 5, 90. B.S, Columbia, 15, A.M, 20; Sc.D, Pacific (Oregon), 34. Asst. zool. and chem, Pacific (Oregon), 10–11; *mammal, Am. Museum Nat. Hist,* 11–19, assoc. curator, 19–26, *curator, 26–, chairman dept, 42–, dean sci. staff, 42–* Summers, field asst, U. S. Biol. Surv, 10, 11. Sci. expeds. to west. states, Mex, Ecuador, Peru, Bolivia, Chile, Argentina, Venezuela, Panama, Isthmus of Darien, P. R, Cuba, Jamaica, Virgin Islands, St. Martins Islands, Alaska, Arctic Ocean, Africa and Burma. Mem. cmt. on wildlife, Nat. Research Council, 32–36, chairman cmt. preservation nat. conditions, 36–; director, Nat. Asn. Audubon Societies, 35–41. F.A, 17–19, capt. Soc. Mammal. (v. pres, 26, 31–35, director and trustee, pres, 35–37); Ecol. Soc; Soc. Vert. Paleont; fel. N. Y. Zool. Soc; fel. N. Y. Acad. (treas, 34–37); hon. mem. Bogota Col. de Cien. Nat. Mammalogy; mammals of the Western Hemisphere, especially of South America and the West Indies; Pleistocene Mammalia of the West Indies.

Anthony, Dr. M(yron) V(ernon), Stauffer Chemical Co, 420 Lexington Ave, New York, N. Y. *Entomology.* Louisville, Ohio, Jan. 15, 09. B.S, Ohio State, 30, M.S, 32, scholar, 33–34, Ph.D, 35; Crop Protection Inst. fellow, Conn. Exp. Sta, 34–35. Asst. entomologist, Exp. Sta, Tennessee, 29–30; asst. zool, Ohio State, 32–33; *entomologist, Stauffer Chem. Co, 35–, plant manager, 37–* Summers, field asst, bur. entom, U. S. Dept. Agr, 31, 32, 33. A.A; Asn. Econ. Entom. Fluorine compounds as insecticides; sulfur and carbon disulfide as insecticides; leafhoppers as pests of alfalfa.

Anthony, Prof. Richard L(ewis), 28 Oak Ave, Metuchen, N. J. *Thermodynamics.* Lewiston, Maine, Dec. 24, 03. B.S, Yale, 25, M.E, 30, 32–35. Asst. engineer, The Conn. Co, 25–27; instr. mech. eng, Yale, 27–35; mech. engineer, Westcott and Mapes, Inc, 35–37; prof. *mech. eng.* and chairman dept, Bucknell, 37–42; *prof. and head dept, Rutgers, 42–* Mech. Eng; Soc. Automotive Eng; Eng. Educ. Applied thermodynamics; combustion; heat transfer.

Anthony, Prof. Robert (Louis), University of Notre Dame, Notre Dame, Ind. *Physics.* Ft. Recovery, Ohio, May 6, 12. A.B, Miami (Ohio), 33; Ph.D, Yale, 36. Asst. *physics,* Yale, 36–37; instr, *Notre Dame,* 37–40, *asst. prof, 40–* Physics of rubber and plastic materials.

Anthony, Dr. R(oy) D(avid), State College, Pa. *Horticulture.* Rochester, N. Y, April 2, 84. B.S, Rochester, 08; B.S.A, Cornell, 10, M.S.A, 13, Ph.D, 20. Asst. pomol, Cornell, 10–11, instr, 12–13; assoc. horticulturist, N. Y. Exp. Sta, Geneva, 13–19; *research horticulturist, Pa. State Col, 19–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Fruit stocks, nutrition and storage.

Antonoff, Prof. G(eorge), Fordham University, New York, N. Y. *Physical chemistry.* Warsaw, Russia, May 18, 80. Magister Chemiae, St. Petersburg, 14; D.Sc, Manchester, 20. Teaching and research, Acad. Sciences, Russia; St. Petersburg; Med. Acad, St. Petersburg; Ural Mining Inst; *prof. physical chem, Fordham, 38–* Chem. Soc; Physical Soc. Radioactivity; uranium Y; liquids and surface tension of liquids and solids; Antonoff's rule; electrical properties of matter.

Antopol, Dr. William (Arnold), 24 Stengel Ave, Newark, N. J. *Pathology, Experimental medicine.* Brooklyn, N. Y, April 6, 03. B.S, Col. City of N. Y, 23; M.D, L. I. Col. Med, 27. George Blumenthal, Jr, fellow path, Mt. Sinai Hosp, 28–29, Theodore Escherich fellow, 29–30; pathologist, Bayonne Hosp, 30–35; *pathologist and director labs, Beth Israel Hosp, 35–; major, Med. Corps, U. S. Army.* Consulting pathologist, Hudson County Tuber. Hosp, 32–36; asst. path, Mt. Sinai Hosp, 29–38; Herbert L. Celler fellowship grant, 30; Emanuel Libman fellowship grant, 32; Am. Med. Asn. grant, 35. A.A; Soc. Exp. Biol; fel. Soc. Clin. Path; Asn. Path. and Bact; Pub. Health Asn; fel. Am. Med. Asn; Harvey Soc; N. Y. Acad; fel. N. Y. Acad. Med; N. Y. Path. Soc; Essex Co. (N. J) Anat. and Path. Soc; Acad. Med. North. N. J; Biochem. Soc. Gt. Britain. Cardiac pathology; glycogenosis; heart failure after pitressin; Lycopodium granuloma; acetylcholine and blood amylase; cholinesterase in thyroid and liver disease and its inhibition by thiamine; sulfanilamide derivatives; toxicity, urolithiasis and urinary crystal morphology; concentration of serum and plasma; riboflavin and pyridoxin hypervitaminosis.

Anzulovic, Dr. James V(enceslav), 4904 Indian Lane, Daniels Park, Berwyn, Md. *Bacteriology.* Yugoslavia, Nov. 22, 95. B.S, Iowa State Col, 28; M.S, Maryland, 31; Ph.D, Georgetown, 40. Instr, sch. med, Georgetown, 35–39; asst. curator, Am. Type Culture Collection, 39–41; *bacteriologist, fish and wildlife service, U. S. Dept. Interior, 41–* Soc. Bact. Technological bacteriology of fishery products; preservation of fish.

Apfel, Prof. Earl T(aylor), 210 Buffington Road, Syracuse, N. Y. *Geology.* Waterloo, Iowa, Nov. 6, 92. A.B, Cornell, 23; M.S, Iowa, 25, Ph.D, 26. Asst, Iowa, 23–26; prof. *geol,* Ill. Wesleyan, 26–28; assoc. prof, *Syracuse,* 28–36, *prof, 36–* Iowa Geol. Surv, 24–28; Ill. Geol. Surv, 29–30. Geologist, Syracuse Museum exped, Venezuela, 30–31. A.A; Asn. Petrol. Geol. Water supply; Pleistocene physical history; sedimentation.

Apfelbaum, Prof. P(ercy) Max, College of the City of New York, New York, N. Y. *Chemistry.* Paris, France, Dec. 15, 00. B.S, Col. City of N. Y, 23, Chem.E, 24, fellow, 24–28; A.M, Columbia, 27, Ph.D, 33. Tutor *chem, Col. City of N. Y,* 28–34, instr, 34–36, *asst. prof, 36–* A.A; Chem. Soc. Organic chemistry; odor and constitution of organic compounds; hydroaromatic compounds.

Apgar, Dr. Charles S(chierer), R.D. 3, Harrisburg, Pa. *Zoology.* Pittsburgh, Pa, Aug. 6, 02. B.S, Pittsburgh, 26, M.S, 27, Ph.D, 30. Instr. zool, Pittsburgh, 26–30; fellow, Wistar Inst, 30–33; Pa. Game Cmn, 33–36; instr. anat, med. col, Cornell, 36–40; *Quartermasters' Corps, U. S. War Dept, 40–* A.A; Soc. Mammal; Biol. Photog. Asn. Morphology; wildlife management; photography of wildlife.

Apker, Dr. Le Roy (Woodard), General Electric Co, Schenectady, N. Y. *Physics.* Rochester, N. Y, June 11, 15. A.B, Rochester, 37, Coffin fellow, 40–41, Ph.D, 41. *Physicist, research lab, Gen. Elec. Co, 41–* Summer, physicist, Gen. Elec. Co, 39. Physical Soc. Photoelectricity in semiconductors; microwaves.

Aplington, Dr. H(enry) W(ebster), Jr, Colby College, Waterville, Maine. *Zoology.* New York, N. Y, Oct. 24, 09. A.B, Amherst Col, 30, 33–34; Wesleyan, 34–35; A.M, Columbia, 37; Ph.D, Cornell, 39. Instr. *biol, Colby Col,* 39–42, *asst. prof, 42–* A.A. Cytology and development of the hypophysis of Necturus.

Apostle, Dr. Basil G(eorge Gerapostolou), 565 W. 190th St, New York, N. Y. *Chemical engineering.* Tyrnavos, Greece, Dec. 19, 02. B.A, Nat. and Capodistrian Univ, Athens, 25; Chem.E, Columbia, 30, Ph.D, 35. Asst. to Prof. Ralph H. McKee, dept. chem. eng, Columbia, 31–35, 38–40, asst. chem. eng, 40–41; research chemist, Barbieri Pilot Plant, Brooklyn, 35–36; Calco Chem. Co, Bound Brook, N. J, 36–38; Plastics Finishing Corp, Brooklyn, 41–42; *research assoc. to Prof. S. P. Burke, dept. chem. eng, Columbia, 42–* Chem. Soc; Electrochem. Soc. Electro-organic chemistry; composition of electro-deposited silver-cadmium alloys; development of a process for the production of aliphatic amines; chemical reduction of nitro compounds in hydrotropic solvents; electrolytic reduction of nitro compounds in concentrated aqueous salt solvents; laminations and coatings with plastic materials.

App, Dr. Frank, Bridgeton, N. J. *Agronomy.* Buffalo Roads, Pa, Jan. 26, 86. B.S, Pa. State Col, 11; Ph.D, Cornell, 19. Asst. agron, Pa. State Col, 11; asst. prof, New Hampshire, 11–14; Rutgers, 14–15, head dept, 15–18; chief div. agron. and agr. econ, N. J. Exp. Sta, 18–23, prof. agr. econ, 19–23; v. pres. and managing director, Minch Brothers, 23–27; *consulting agr. economist, 27–* Collaborator, U. S. Dept. Agr, 18–19, 22–23; consulting agr. economist, N. J. Dept. Agr, 20–23; chairman fresh, dried and frozen fruit and veg. cmt, Food Indust. Advisory Cmt, 42– Mem. exec. cmt, Farm Bur. Federation, 23; sec'y, N. J. Federation County Boards Agr, 20–23, treas, 23–27; agr. marketing adviser, Puerto Rican Improv. Fruit Cmt, 29–30; mem, N. J. Farm Relief Cmn, 29–30; Govt. Farm Mortgage Cmn, 33–; pres, N. J. Farm Bur, 34– Asst. ed, 'Jour. Farm Econ'; agr. ed, 'Camden Post,' 27. A.A; Soc. Agron; Asn. Farm Management and Farm Econ. (chairman, research cmt, 18–20); Nat. Planning Asn. (agr. cmt, 42–). Agricultural economics; management and distribution.

Appel, Prof. F(rederick) W(hipple), St. John's College, Annapolis, Md. *Biology.* Washington, D. C, Dec. 25, 99. Ph.B, Chicago, 24, Ph.D, 27. Nat. research fellow, Chicago, 27–28; asst. prof. *biol, St. John's Col. (Md),* 28–29, *assoc. prof, 29–* A.A; Soc. Zool; Genetic Asn; Popul. Asn; Asn. Anat; Biol. Soc. Wash. General embryology and physiology; zoology.

Appel, Dr. Kenneth Ellmaker, Ardmore, Pa. *Psychiatry.* Lancaster, Pa, May 15, 96. A.B, Franklin and Marshall Col, 15, hon. Sc.D, 35; A.M, Harvard, 16, Ph.D, 18, M.D, 24. Res. physician, Univ. Hosp, Pennsylvania, 24–26; asst. physician, Pa. Hosp. Nervous and Mental Diseases, *Phila,* 26–29; *psychiatrist and chief out-patient dept, Pa. Hosp, 29–, psychiatrist, inst. mental hygiene; asst. prof. psychiat, sch. med. and chief clinic, Pennsylvania, 29–* Psychiat. Asn; Neur. Asn; Col. Physicians; Phila. Psychiat. Soc; fel. Col. Physicians Phila. Mental hygiene; physiology and chemistry of psychosis; neurosis; behavior disorders following encephalitis.

Appel, W(illiam) D(unford), 3365 Runnymede Place, Washington, D. C. *Chemistry.* Washington, D. C, Dec. 21, 92. B.S, Chicago, 17. Asst. econ. ornith, bur. biol. surv, U. S. Dept. Agr, 12–13; zool, Chicago, 14–17; chemist in charge anal. lab, Fed. Dyestuff and Chem. Corp, Tenn, 17–18; research chemist, Ault and Wiborg Co, Ohio, 18–20; Newport Co, Wis, 20–22; dye chemist, *Bur. Standards,* 22–28, *chief textile sect, 28–* Chem. Soc; Soc. Test. Mat; Asn. Textile Chem. and Colorists; U. S. Inst. Textile Research; Wash. Biol. Field Club; Wash. Acad. Spectrophotometric transmission measurements of dye solutions; commercial evaluation of dyes; action of light on dyed textiles; textile test methods.

Appelrot, Dr. Samuel, 22 Merzlia St, Haifa, Palestine. *Internal medicine.* Lublin, Poland, Dec. 13, 98. Hebrew baccalaureate, Hebrew Col. (Palestine), 19; M.D, American Univ. Beirut, 27; Rockefeller fellow, Chicago, 29–30, Ph.D, 30. Instr. physiol. and pharmacol, med. sch, American Univ. Beirut, 27–29, adj. prof. physiol, 30–35; *practising physician, 35–* Cardiac inhibition and tonus; vitamin D and blood pressure; pilocarpine and glycemia; internal medicine; electrotherapy.

Apperly, Prof. Frank L(ongstaff), Medical College of Virginia, Richmond, Va. *Pathology.* Shepparton, Victoria, Australia, July 26, 88. B.A, Oxford, 12, M.A, M.B, 15, M.D, 20; M.D, Melbourne, 22, fellow, Queens Col, 23, D.Sc, 24. Med. supt, Royal North. Hosp, London, 18–20; senior lecturer *path,* Melbourne, 20–32; *prof, Med. Col. of Va, 32–* Junior pathologist, Royal Melbourne Hosp, 21–32; physician, St. Vincent's Hosp, Melbourne, 26–32. Australian Alps physiol. exped, 31. Armytage med. research prize, Melbourne, 22; Syme sci. research prize, Australia, 23. Capt, Royal Army Med. Corps, 15–18. A.A; Soc. Exp. Path; Asn. Path. and Bact; Va. Acad; British Med. Asn; fel. Royal Col. Physicians; Royal Col. Surg; Australian Asn. Physicians. Pathological physiology and chemistry relating to gastric, blood and respiratory functions.

Apple, Dr. R(ichard) S(eymour), 3 Delaware Ave, Newport, Del. *Chemical engineering.* Columbus, Miss, July 4, 09. B.S, Iowa State Col, 30, M.S, 31, Ph.D, 36. *Research chemist, Krebs pigment dept, E. I. du Pont de Nemours and Co, 35–* Tau Beta Pi fellow and asst, Iowa State Col. Chem. Soc; Tech. Asn. Pulp and Paper Indust. Coal carbonization; antifreeze; white pigment.

Applebaum, Dr. Edmund, 630 W. 168th St, New York, N. Y. *Dentistry.* New York, N. Y. D.D.S, N. Y. Col. Dentistry, 22. Instr. *dental histol, sch. dental and oral surg, Columbia,* 28–34, *asst. prof, 35–* A.A. Dental pathology; dental caries; polarized light and hard dental tissues and embryology.

Applebaum, S(amuel) B(ernard), 25 W. 54th St, New York, N. Y. *Chemistry.* New York, N. Y, Feb. 18, 91. B.S, Col. City of N. Y, 10, fellow, 10–13; C.E, Columbia, 13. With *Permutit Co,* 13–28, *v. pres, 28–* Mech. Eng; Water Works Asn; Chem. Soc. Water purification and conditioning.

Appledorn, Prof. Herman H(iskias), Jr, University Club, State College, Pa. *Chemistry.* Norwich, Conn, June 15, 92. A.B, Clark, 13; A.M, Yale, 18, 19, 20–21. Master mod. langs. and physical science, Univ. Sch, Bridgeport, Conn, 14–17; asst. *chem,* Yale, 17–18, 19, instr, 19–20, 21; asst. prof, *Pa. State Col,* 21–39, *assoc. prof, 39–* C.W.S, 18, sergt. Chem. Soc. Inorganic chemistry.

Appleman, Prof. C(harles) O(rville), University of Maryland, College Park, Md. ***Plant physiology.* Millville, Pa, Dec. 6, 78. B.E, Pa. State Nor. Sch, 97, B.P, 98; Ph.B, Dickinson Col, 03; Ph.D, Chicago, 10. Instr, Swarthmore Prep. Sch, 03–04; prof. biol, Lombard Col, 04–08; *plant physiologist, Exp. Sta, Maryland, 10–, prof. plant physiol, univ, 18–, dean grad. sch, 19–* A.A; Soc. Nat; Soc. Plant Physiol. (v. pres, 32, pres, 33); Bot. Soc. (chairman, physiol. sect, 20, 27); Chem. Soc; Potato Asn. (chairman, research cmt, 21–23); Wash. Acad; Bot. Soc. Wash. Botany; physiology and biochemistry of plants.

Appleman, Prof. David, University of California at Los Angeles, Los Angeles, Calif. *Plant physiology.* Russia, Sept. 11, 99. B.S, California, 27, Ph.D, 35. Asst. *plant nutrition, California,* 27–33, instr, 34–38, *asst. prof, 39–* Chem. Soc; Soc. Plant Physiol. Chlorophyll formation in plants.

Appleton, Dr. John B(argate), 621 S.E. Peacock Lane, Portland, Oregon. *Geography.* Durham, Eng, 92. B.Sc, London, 22; M.S, Chicago, 24, Ph.D, 25; London; Oxford; Besançon. Asst. *geog,* Chicago, 23–25; asst. prof, Illinois, 25–29; assoc. prof, Scripps Col, 29–37, prof. geog. and chairman social science div, 37–38; assoc. prof. geog, Claremont Cols, 29–37, prof, grad. sch, 37–38; asst. director, *Northwest Regional Council Educ, Planning and Pub. Admin,* 38–41, *director, 41–* Visiting prof. and Seeley Mudd research fellow, Col. Chinese Studies, Peiping, China, 35–36; lecturer, Reed Col, 41– Summers, visiting prof, George Peabody Col, 23, 25; British Columbia, 28; North Carolina, 29; Claremont Col, 31, 33, 35; Southern California, 32; Michigan, 38. British Army, 14–19. Am. Geog. Soc; Asn. Geog; Soc. Planning Officials; Social Sci. Research Conf. Pacific Coast; Pacific Coast Geog. Asn. (v. pres); Northwest Sci. Asn. (v. pres). Regional, economic and political geography; international relations; regional planning.

Appleton, Prof. J(oseph) L(uke) T(easdale), University of Pennsylvania, Philadelphia, Pa. *Bacteriology.* Albany, N. Y, Sept. 18, 88. B.S, Hamilton Col, 09, hon. Sc.D, 35; D.D.S, Pennsylvania, 14. Instr. chem, Pa. State Col, 10, zool, 10–11; from instr. to *prof. bacteriopath, sch. dentistry, Pennsylvania, 14–,* dean, 41. Consultant, U. S. Pub. Health Service, 37. A.A; Soc. Bact; Am. Dental Asn. (research cmn); Acad. Stomatol. (pres, 30); Path. Soc. Phila; Physiol. Soc. Phila; Int. Asn. Dental Research (pres, 34). Factors influencing kinds and numbers of bacteria in the mouth.

Appling, Dr. John W(illiam), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Microbiology.* Urbana, Ill, Aug. 25, 99. B.S, Illinois, 21, M.S, 25, Ph.D, 40; fellow, Lawrence Col, 39–40. Prof. chem, MacKenzie Col. (Brazil), 25–37; asst. animal nutrition, Illinois, 37–39; *instr.*

microbiol. and research assoc, Inst. Paper Chem, Lawrence Col, 40– Microbiological problems related to the pulp and paper industry.

Appuhn, Prof. William E(rnest) F(red), 8419 86th St, Woodhaven, L. I, N. Y. *Mathematics.* Brooklyn, N. Y, Nov. 30, 96. E.E, Polytech. Inst. Brooklyn, 18; A.M, Columbia, 30. Instr. *math, Stevens Inst. Tech,* 19–21, *asst. prof, 21–* Ensign, U.S.N.R; capt, Special Res, U.S.A, 31– A.A; Math. Soc; Elec. Eng. Differential equations.

Aradine, Dr. Paul W(illiam), University of Rochester, Rochester, N. Y. *Inorganic and analytical chemistry.* Bergen, N. Y, Jan. 25, 10. B.S, Rochester, 32, M.S, 34, Ph.D, 36. Asst. *chem, Rochester,* 32–36, *instr,* 36–38, *exten. div,* 38, *40–; chemist, Taylor Instrument Companies, 38–* Chem. Soc. Determination of quartz in the presence of silicates; composition of fluoboric acid; analytical chemistry.

Arant, Prof. F(rank) S(elman), Wright's Mill Road, Auburn, Ala. *Zoology, Entomology.* McKenzie, Ala, July 9, 04. B.S, Ala. Polytech, 26, M.S, 29; Ph.D, Iowa State Col, 37. Instr. *zool. and entom,* Ala. Polytech, 26–30; teaching fellow, Iowa State Col, 30–31; asst. prof, *Ala. Polytech,* 31–37, *assoc. prof, 38–* Asn. Econ. Entom; Soc. Parasitol; Wildlife Soc; Ala. Acad. Cotton and corn insects; life history methods; rearing and mounting hookworm larvae; game animals in Alabama; vegetable insects; rotenone and fluorine insecticides.

Arbuckle, Prof. H(oward) B(ell), Davidson, N. C. *Chemistry.* Lewisburg, W. Va, Oct. 5, 70. A.B, Hampden-Sydney Col, 89, fellow, 89–90, A.M, 90; Virginia; Ph.D, Hopkins, 98. Instr, Hampden-Sydney Col, 89–90; chem. and physics, Florida, 91–96; asst. chem, Hopkins, 96–98; chem. and biol, Agnes Scott Col, 98–06, *prof. chem,* 06–13; *Davidson Col, 13–* Chem. Soc. (pres, Ga. sect, 07); N. C. Acad. (pres, 16, 24). Artificial incubation; toxic effects of fertilizers on tobacco; variation of protein in corn; distillation of cellulose; viscosities of common lubricating oils; zinc spot in Marsh's test for arsenic; fatal cases of poisoning with sodium nitrite.

Arbuckle, Prof. Wendell S(herwood), Agricultural and Mechanical College of Texas, College Station, Texas. *Dairy chemistry.* Scottsburg, Ind, March 16, 11. B.S.A, Purdue, 33; A.M, Missouri, 37, Ph.D, 40. Asst. *dairy husbandry,* Missouri, 36–37, asst. instr, 38–39, instr, 40; *asst. prof, Agr. and Mech. Col. Texas, 40–* Milk analysis; optical analysis of crystalline structure of ice cream; optical properties of lactose.

Arceneaux, George, U. S. Department of Agriculture, Houma, La. *Agronomy.* Lafayette, La, March 8, 95. Southwest. La. Inst; B.S, Peabody Col, 20; Ph.D, Cornell, 39. Teacher and prin, high sch, La, 20–22; county agr. agent, Houma, La, 22–25; agronomist and assoc. manager, Scully Reclamation and Farming Project, La, 25–27; *agronomist, sugar-plant field sta, div. sugar plants, bur. plant indust, U. S. Dept. Agr, 28–* A.A; Soc. Agron; Int. Soc. Sugar Cane Technol. (cmt. technique field experiments). Sugar-cane variety and milling tests; field practises, sampling and maturity of sugar cane; theoretical sugar yield calculations; plot technique.

Arceneaux, Dean T(homas) J(oseph), 217 St. Joseph St, Lafayette, La. *Agronomy.* Lafayette, La, June 13, 08. B.S, Southwest. La. Inst, 29; M.S, Agr. and Mech. Col. Texas, 31; fellow, Iowa State Col, 32–34, Ph.D, 35. Instr, high sch, La, 29–32; asst. prof. agron, Southwest. La. Inst, 34–35; asst. prof, Louisiana, 35–41; *prof. agron. and dean col. agr, Southwest. La. Inst, 41–* Soc. Agron; Genetic Asn; La. Acad; Int. Soc. Sugar Cane Technol. Crop breeding; physiology of crop plants.

Archbold, Richard, Archbold Biological Station, Box 628, Lake Placid, Fla. *Mammalogy.* New York, N. Y, April 9, 07. Columbia. *Research assoc. mammals, Am. Museum Nat. Hist, 32–, pres, Archbold expeds, 35–* Mammalogist, Mission Zool. Franco-Anglo-Americaine a Madagascar, 29–31; leader and sponsor, New Guinea exped, 33–34, 36–37; leader, Indisch-Amerikasnsche exped, cooperation with Netherlands Indies Govt, 38. Trustee, John D. Archbold Mem. Hosp, Ga. Officer, Order of the Orange-Nassau, 40. Inst. Aeronaut. Sci; Ornith. Union; Soc. Mammal; N. Y. Acad. Animal behavior; exploration.

Archer, Dr. Allan F(rost), Alabama Museum of Natural History, University, Ala. *Zoology.* Roxbury, Mass, Jan. 22, 08. A.B, Harvard, 31; A.M, Michigan, 33, Ph.D, 36. Asst, Ala. Geol. Surv, 35; dept. Mollusca, Michigan, 36–37; Horace B. Rackham fellow, 37–38; *curator Mollusca and Arachnida, Ala. Museum Nat. Hist, 38–; director research, State Dept. Conservation, Ala, 39–; U. S. Army.* Field expeds, south. states, Texas and West Indies. A.A; Ecol. Soc; Limnol. Soc; Entom. Soc. Amer; Malacol. Union; Ala. Acad. Sci; Mich. Acad. Sci; Conchol. Soc. Gt. Britain and Ireland. Taxonomy and ecology of mollusks and arachnids; plant ecology; zoogeography.

Archer, R(obert) S(amuel), Republic Steel Corp, Chicago, Ill. *Metallurgy.* Denver, Colo, June 20, 95. B.Ch.E, Michigan, 16, M.S, 17, hon. M.E, 39. Research engineer, Detroit Edison Co, 16–17; research metallurgist, Aluminum Castings Co, 19–20; Aluminum Co. of Amer, 20–30; director metal, A. O. Smith Corp, 30–34; *chief metallurgist, Chicago dist, Republic Steel Corp, 34–* Bur. Aircraft Production, U.S.A, 17–18. Min. and Metal. Eng; Soc. Metals (v. pres, 34, pres, 35); Soc. Test. Mat; British Inst. Metals. Annealing of malleable castings; metallurgy of aluminum alloys and of steel.

Archer, Dr. Sydney, Winthrop Chemical Co, Rensselaer, N. Y. *Organic chemistry.* New York, N. Y, Jan. 23, 17. A.B, Wisconsin, 37; Ph.D, Pa. State Col, 40. Procter and Gamble fellow, Northwestern, 40–41; Eli Lilly fellow, Chicago, 41–42; *research chemist,* Sun Oil Co, 42–43; *Winthrop Chem. Co, 43–* Hydrogen fluoride; organic sulfur compounds; Grignard reactions.

Archer, Prof. V(incent) W(illiam), University of Virginia, Charlottesville, Va. *Roentgenology.* Chicago, Ill, Aug. 3, 95. B.S, Virginia, 20, M.D, 23. Instr. *roentgenol, Virginia,* 24, asst. prof, 26–28, assoc. prof, 28–34, *prof, 34–* Bronze medal, science exhibit, Am. Med. Asn, 30, certificate merit, 34. A.A; Roentgen Ray Soc. (chairman, sci. exhibit cmt, 41); Col. Radiol. (chancellor, 37–; chairman board chancellors, 40–41); Radiol. Soc. N. Amer; Am. Med. Asn; South. Med. Asn. (state councilor, Va, 35–40; chairman council and exec. cmt, 39). Hypertrophic pyloric stenosis; roentgen demonstration of intestinal ascariasis; osteochondritis dissecans; x-ray treatment of infections; massive collapse of the lung; unusual condition of the duodenum; ascariasis; radiology.

Archer, Dr. W(illiam) Andrew, National Arboretum Herbarium, Washington, D. C. *Botany.* Torreon, Mex, Nov. 7, 94. B.S, N. Mex. Col, 20; Ph.D, Michigan, 26. Asst. biologist, N. Mex. Col, 21; asst. bot, Michigan, 21–25; instr, Oberlin Col, 25–26; asst. plant pathologist, U. S. Dept. Agr, 26–29; head dept. bot. and plant path, Escuela de Agr, Medellín, Colombia, 30–31; explorer, Colombian jungles, 31–34; plant explorer, div. plant explor. and introd, bur. plant indust, U. S. Dept. Agr, Mex, S. and Cent. Amer, 34–37; *custodian, Nat. Arboretum Herbarium, 38–; mem. staff office for. agr. relations, U. S. Dept. Agr, 42–* Economic botany.

Archibald, Prof. E(benezer) H(enry), University of British Columbia, Vancouver, B. C, Can. *[#2]Chemistry.* Brookvale, N. S, Sept. 27, 73. B.Sc, Dalhousie, 97, M.Sc, 98; A.M, Harvard, 00, Ph.D, 02. Demonstrator chem, McGill, 02–04; instr, Syracuse, 04–06, asst. prof, 06–09, assoc. prof, 09–12, prof, 12–15; asst. prof, *British Columbia,* 15–17, assoc. prof, 17–20, prof. and head dept, 20–27, *prof. anal. chem,* 27– Chem. Soc; fel. Royal Soc. Can; fel. Royal Soc. Edinburgh. Conductivity of salt solutions; freezing-point of dilute solutions; atomic weight of caesium, rubidium, potassium and platinum; the electric conductivity of organic bodies dissolved in the liquefied halogen hybrids; basic properties of oxygen; compounds of the halogen acids and organic substances containing oxygen; separation of platinum from iridium; separation of iron manganese by means of nitrosophenylhydroxylamine; phase relationships of magnesium and sodium sulfates; pure inorganic substances.

Archibald, Dr. E(dgar) S(pinney), Central Experimental Farm, Ottawa, Ont, Can. *Agriculture.* Yarmouth, N. S, May 12, 85. B.A, Acadia, 05, D.Sc, 30; B.S.A, Toronto, 08; LL.D, Manitoba, 28. Prof. agr, N. S. Agr. Col, 09–12; Dom. animal husbandman, *Cent. Exp. Farm, Can. Dept. Agr,* 12–19, *director exp. farms, 19–* Can. Soc. Tech. Agr. (pres, 31); Can. Geog. Soc. Agricultural economics.

Archibald, Dr. Edward, Headquarters Medical Services, Elgin Bldg, Ottawa, Ont, Can. *Surgery.* Montreal, Que, Aug. 5, 72. B.A, McGill, 92, M.D, 96; Montpellier; Freiburg; hon. Dr, Paris. Surgeon and later chief surgeon, Royal Victoria Hosp, 04–36; from demonstrator to prof. surg. and director dept, McGill, 02–37; *col, Med. Corps, Royal Can. Army.*

Trudeau medal, Nat. Tuber. Asn, 36; Henry Jacob Bigelow gold medal, Boston Surg. Soc, 37. Fel. Surg. Asn; Asn. Thoracic Surg; fel. Col. Surg; Tuber. Asn; Clin. and Climat. Asn; Soc. Clin. Surg. (consultant); Interurban Surg. Soc; hon. fel. N. Y. Acad. Med; hon. fel. Phila. Col. Med; hon. fel. Phila. Col. Surg; Royal Col. Surg. Can; Can. Med. Asn; hon. fel. Royal Col. Surg; cor. mem. Soc. surg. de Paris; Reale Accad. Med. di Rome. Pancreatitis; cerebral injuries; thoracic surgery; intestinal and pulmonary tuberculosis.

Archibald, Prof. J(ohn) G(eddie), North Amherst, Mass. *Chemistry.* Cavendish, P. E. I, Can, June 11, 94. B.S.A, Ont. Agr. Col, 16; M.S, Mass. Col, 24. Asst. chemist, N. S. Agr. Col, 16–20; research chemist, Int. Nickel Co, Copper Cliff, Ont, 20; asst. research prof. chem, *Exp. Sta, Mass. State Col,* 21–34, *animal husbandry,* 34–36, *research prof,* 36– A.A; Dairy Sci. Asn; Soc. Animal Production. Animal nutrition.

Archibald, Prof. K(alman) D(ale), Ouachita College, Arkadelphia, Ark. *Ichthyology, Embryology.* Brockton, Mass, Jan. 19, 10. A.B, Denison, 33; A.M, Ohio State, 34, scholar, 34, student, 34–36, 39, 40–41. Asst. zool, Ohio State, 35–36; *assoc. prof. science, Ouachita Col, 36–* Instr, Ohio State, 41. Histogenesis of blood cells in fresh-water fishes; age determination of Ictalurus and Noturus.

Archibald, Prof. Ralph G(eorge), Queens College, Flushing, N. Y. *Mathematics.* Sackville, N. B, Can, May 23, 01. B.A, Manitoba, 22; fellow, Toronto, 23–25, M.A, 24; fellow, Chicago, 25–27, Ph.D, 27; Göttingen, 30–31. Demonstrator physics, Manitoba, 21–22; lecturer *math,* Wesley Col. (Can), 22–23; assoc, Columbia, 27–28, *asst. prof,* 28–38; *Queens Col. (N. Y), 38–* Math. Soc; Math. Asn. Theory of numbers; linear algebras; algebraic numbers.

Archibald, Prof. Raymond Clare, Brown University, Providence, R. I. *[3]Mathematics.* South Branch, N. S, Can, Oct. 7, 75. B.A, Mt. Allison, 94, teacher's diploma in violin, conservatory of music, 94, artist's diploma, 95, LL.D, 23; A.B, Harvard, 96, A.M, 97, 97–98; Berlin, 98–99; Ph.D, Strassburg, 00; Paris, 09–10; Rome, 22; hon. D.Univ, Padua, 22. Teacher *math,* Mt. Allison Ladies' Col, 94–95, prof, 00–07; prof. and head dept, Acadia, 07–08; instr, *Brown,* 08–11, asst. prof, 11–17, assoc. prof, 17–23, prof, 23–43, *emer. prof, 43–* Librarian and head violin dept, Mt. Allison Ladies' Col, 00–07; lecturer, California, 24; Harvard, 30–31; Columbia, 39–40. Ed. in chief, 'Am. Math. Monthly,' 19–21, co-editor, 17–18; assoc. ed, 'Rev. semestrielle publ. math'; 'Isis,' 24–; ed, 'Math. Tables and Aids to Computation,' 42– Mem. div. physical science, Nat. Research Council, 28–31, 40– A.A. (sec'y, A, 24–27, chairman and v. pres, 29, v. pres, L, 37); Math. Soc. (librarian, 21–41, ed. board, 'Bul,' 14–20, councilor, 18); Math. Asn. (councilor, 16, 23–30, v. pres, 21, pres, 22); Hist. Sci. Soc. (trustee, 24–41); fel. Am. Acad; British Asn; London Math. Soc; British Math. Asn; Edinburgh Math. Soc; Math. Verein; Soc. math. de France; Circolo Mat. di Palermo; Unione Mat. Ital; for. fel. Masarykova Acad, Práce, Prague; hon. mem. Soc. de Stiinte din Cluj, Roumania; hon. mem. Polish Math. Soc. The cardioid and some of its related curves; mathematical instruction in France; training of teachers of mathematics in secondary schools of foreign countries; restoration of Euclid's book on division of figures; bibliography of Simon Newcomb; biography and bibliography of Benjamin Peirce; Egyptian mathematics; history of mathematics; outline history of mathematics.

Archibald, Dr. Raymond C(lare), Shell Development Co, Emeryville, Calif. *Chemistry.* Canning, N. S, Can, June 20, 07. B.S, California, 28, M.S, 31, Ph.D, 34. *Research chemist.* inst. exp. biol, California, 28–32; *Shell Develop. Co, 34–* Physical chemistry.

Archibald, Dr. R(eginald) M(ac Gregor), Rockefeller Institute Hospital, 66th St. and York Ave, New York, N. Y. *Biochemistry.* Syracuse, N. Y, March 2, 10. B.A, British Columbia, 30, M.A, 32; Ph.D, Toronto, 34, M.D, 39. Asst, British Columbia, 30–32; Toronto, 32–33, fellow pathological chem, 33–35; intern, Toronto Gen. Hosp, 39–40; *asst. res, Rockefeller Inst. Hosp, 41–* Nat. research fellow, 40–42. Federation Clin. Research; Harvey Soc. Organic and bio- chemistry; lipase activation; sugar of normal urine; arginase kinetics; nephrosis.

Ardagh, Prof. E(dward) G(owan) R(ussell), University of Toronto, Toronto, Ont, Can. *Chemical engineering.* B.A.Sc, Toronto, 01. Assoc. prof. chem. eng. and later *prof. applied chem, Toronto.* Soc. Chem. Indust. (chairman, Toronto branch, 18–20, past asst. ed, 'Abstracts'); fel. Can. Inst. Chem; fel. Royal Soc. Can. Natural gases; activated carbon; distillation of acetate of lime; assay of zinc ores; iodometric and colorimetric determinations; mechanism of iron corrosion; adsorption by precipitated barium sulfate; hydrazone and osazone reactions; removal of thiophene from benzene.

Ardrey, Prof. William B(oyle), University of Idaho, Moscow, Idaho. *Bacteriology.* Denver, Colo, Feb. 2, 12. B.S, Monmouth Col, 34; M.S, Mich. State Col, 36, Ph.D, 39. Instr. *bacter, Idaho,* 39–40, *asst. prof, 40–, asst. bacteriologist, 39–* Poultry diseases; Brucellosis; measurement of germicidal chlorine.

Arendshorst, Dr. William, Jr, 707 Ballantine Road, Bloomington, Ind. *Organic chemistry.* Holland, Mich, May 24, 16. A.B, Hope Col, 38; M.S, Ohio State, 40, Ph.D, 42. Asst, Ohio State, 38–42; *research chemist,* Rohm and Haas Co, Inc, 42; *Nat. Defense Research Cmt, Indiana, 42–* Chem. Soc. Synthesis of two trisaccharides of mannose and glucose; structure of some common polysaccharides.

Arenson, Prof. Saul B(ryan), 3811 Edge Hill Place, Cincinnati, Ohio. *Chemistry.* Lincoln, Nebr, June 21, 95. Ph.C, B.S, A.M, Nebraska, 18, Ph.D, 24. Instr. chem, Nebraska, 19–24; *inorg. chem, Cincinnati,* 24–26, asst. prof, 26–30, assoc. prof, 30–35, *prof, 35–* Instr, M.O.T.C, and research chemist, C.W.S, 18. A.A; Chem. Soc. (sec'y-treas, Nebr. sect, 21–24, v. pres, Cincinnati sect, 30); fel. Inst. Chem; N. Y. Acad; Ohio Acad. Physico-organic chemistry; electromotive forces of organic oxidation-reduction reactions; zeolites.

Arentz, Fred B, U. S. Industrial Chemicals, Inc, Newark, N. J. *Chemistry.* Ocala, Fla, Aug. 27, 92. B.S, Rochester, 14. Asst. chemist, Art in Buttons, Inc, Rochester, N. Y, 15–16; indust. research fellow, Columbia, 16–17; research and develop. chemist, *U. S. Indust. Chemicals, Inc,* 17–26, *supt. Newark div, 26–* Chem. Soc. Organic chemistry.

Arey, Prof. Leslie B(rainerd), 303 E. Chicago Ave, Chicago, Ill. *[5]Zoology, Anatomy.* Camden, Maine, Feb. 15, 91. A.B, Colby Col, 12, hon. Sc.D, 37; Ph.D, Harvard, 15; LL.D, Chicago, 34. Austin teaching fellow, Harvard, 13–15; instr. anat, *med. sch, Northwestern,* 15–16, assoc. prof, 17–19, prof. micros. anat, 19–24, *Robert L. Rea prof. anat. and chairman div, 24–* Investigator, Bur. Fisheries, 16–24. Assoc. ed, 'Jour. Morphol,' 43– Asn. Anat. (exec. cmt, 30–34, v. pres, 42–); Soc. Zool. (treas, 25–30, sec'y, 28). Experimental anatomy; physiology of the sense organs and sensory behavior; mammalian histology and embryology.

Argersinger, Dr. William J(ohn), Jr, Cornell University, Ithaca, N. Y. *Physical chemistry.* Chittenango, N. Y, April 14, 18. A.B, Cornell, 38, Schluderberg-Teeple fellow, 41–42, Ph.D, 42. Asst. *chem, Cornell,* 38–41, *instr, 42–* Chem. Soc. Theoretical and experimental problems in surface tension and electrokinetic properties of dilute electrolyte solutions.

Argue, Dr. G(eorge) H(erbert), Wyandotte Chemicals Corp, Wyandotte, Mich. *Physical chemistry.* Crystal City, Man, Can, April 22, 05. B.Sc, Alberta, 31, M.Sc, 32; Nat. Research Council Can. scholar, McGill, 34–35, Ph.D, 35. Research chemist, Fraser Co, 35–36; div. chemist, Fraser Paper, Ltd, 37–41; *research chemist, Wyandotte Chem. Corp, 42–* Tech. Asn. Pulp and Paper Indust. Gaseous reactions under high pressure; adsorption of cellulose; printing; inorganic synthesis.

Arguelles, Dr. A(ngel) S(evero), Bureau of Science, Manila, P. I. *Chemistry, Soils.* Manila, P. I, Aug. 2, 88. B.S, Illinois, 09, hon. Sc.D, 39. Asst. chemist and chemist, inorg. chem. div, *Bur. Science, P. I,* 10–17, chief inorg. analyst, 18–22, chief div. soils and fertilizers, 23–29, asst. director, 30–34, *director, 34–* U. S. Dept. Agr, 19–20; acting director, Nat. Museum, 29–30. Lecturer, Nat. Univ, 22–24; professorial lecturer, Philippines, 22. Mem, Coordination Board on Agr. Activities, 22; Rubber Cmt, 26; Nat. Research Council P. I, 34–, chairman, 37–38, chem. div, 35–; chairman, Indust. Cmt. and Soil Surv. Cmt, 35; mem, Educ. Surv. Cmt, 35; Cmt. Trade Relations, 35; chairman, Board Examiners Chem. Engineers, 38, 41; director, Cebu Portland Cement Co, 39– Del, Int. Cong. Chem. Fertilizers, Rome, 38. A.A; Chem. Soc; Philippine Soc. Tech. Agr. (pres, 26–29); P. I. Sci. Soc. (pres, 27); Philippine Research Inst. (sec'y, 30); Int. Soc. Sugar Cane Technol. Philippine soils; fertilizers; galvanized iron roofing in the Philippines; the coconut oil industry.

Aries, Dr. Leon J(udah), 30 N. Michigan Ave, Chicago, Ill. *Surgery.* Chicago, Ill, Feb. 25, 09. M.S, Illinois, 31, M.D, 33;

Ph.D, Northwestern, 41. *Assoc. surg, col. med, Northwestern, 39–* Assoc. attending surgeon, Cook County, Univ, Michael Reese and Mt. Sinai Hosps. Am. Med. Asn; Col. Surg. Bone grafting; surgery of bone.

Ark, Dr. P(eter) A(lexander), 1319 Henry St, Berkeley, Calif. *Plant pathology.* Blagoveschensk, Russia, May 16, 99. A.B, California, 30, Ph.D, 34. Bacteriologist, health center, Monterey County, Calif, 30; asst. plant path, *California,* 30–34, assoc, Exp. Sta, 34–35, junior plant pathologist, 35–39, *asst. prof. plant path, 39–* Phytopath. Soc. Phytobacteriology; the relation of insects to bacterial plant diseases; associations of microorganisms.

Arkin, Prof. Aaron, 200 E. Chestnut St, Chicago, Ill. *Internal medicine.* Libau, Latvia, Sept. 6, 88. B.S, Chicago, 09, fellow, 09, 11–12, M.D, 12, Ph.D, 13; A.M, Wisconsin, 10. Instr. pharmacol, Wisconsin, 09–10; inst. infectious diseases, Chicago, 10–12, Sprague Mem. Inst, 13–14; prof. path. and bacter, sch. med, West Virginia, 14–22; intern and roentgenologist, 1st med. clinic, Vienna, 22–25; *assoc. prof. med, Rush Med. Col, Chicago; prof. and chairman dept, Cook County Grad. Sch.* Chief bacteriologist and pathologist, State Hygienic Lab, W. Va, 14–17. Attending physician, Cook County Hosp; Mt. Sinai Hosp; Wesley Mem. Hosp; director, Chicago Lab. A.A; Am. Med. Asn; Physiol. Soc; Asn. Path. and Bact; Soc. Pharmacol; Pub. Health Asn; Soc. Bact; Radiol. Soc. N. Amer; fel. Col. Physicians; Int. Asn. Med. Mus. Syphilis of the bowel; catalytic activity of blood and tissue; phagocytosis; immune reactions; sodium salts of iodoxybenzoic acid; rat bite fever; right-sided aorta; hypernephroma; lymphogranuloma; bronchus carcinoma; periarteritis nodosa; pulmonary tuberculosis; gastro-intestinal lesions; nephritis.

Arlitt, Prof. Ada Hart, University of Cincinnati, Cincinnati, Ohio. *Psychology.* New Orleans, La, July 28, 90. A.B, Tulane, 13; Ph.D, Chicago, 17. Fellow, Sprague Mem. Inst, Chicago, 17; assoc. educ. psychol, Bryn Mawr Col, 17–23; psychologist, Cent. Clinic, Cincinnati, 23–25; *prof. child care and training and head dept, Cincinnati, 25–* A.A; Psychol. Asn; S. Soc. Philos. and Psychol. Educational and animal psychology; mental tests; child psychology.

Arlton, Prof. A(lexander) V, Pacific Lutheran College, Parkland, Wash. *Biology.* Roland, Iowa, 80. B.S, St. Olaf Col, 09; M.S, Wisconsin, 18; Ph.D, Nebraska, 31. Head dept. *biol,* Wartburg Col, 12–13; asst, Wisconsin, 17–18; Carthage Col, 18–19; Iowa, 19–22; head dept, Dakota Wesleyan, 22–29; asst, Nebraska, 29–30; head dept, Sterling Col, 30–31; *prof. and head dept,* Dakota Wesleyan, 31–41; *Pacific Lutheran Col, 42–* Summer, South Dakota, 32. Exec. cmt, Upper Miss. Conservation Conf, 35–36. S. Dak. Acad. (pres, 33). Regeneration of animal fragments; ecology of the mole; bird list of South Dakota; pitfalls in teaching science; new factor in lymph flow; functions of blood; college text books in zoology, botany and laboratory medical histology.

Armacost, Prof. Richard R(alph), Syracuse University, Syracuse, N. Y. *Plant physiology.* St. Bernard, Ohio, Feb. 27, 14. A.B, Miami (Ohio), 36; M.S, Iowa, 38, Ph.D, 40. Asst. morphol. and bot, Iowa, 36–40; *asst. prof. science and educ, Syracuse, 40–* Bot. Soc; N. Y. State Sci. Teachers Asn. (pres, 43). The structure, function and development of the border parenchyma of certain dicotyledon leaves.

Armbruster, Dr. Marion H(elen), U. S. Steel Corp, Kearny, N. J. *Chemistry.* Folsomdale, N. Y, March 17, 10. A.B, Mt. Holyoke Col, 30; scholar, Bryn Mawr Col, 30–31, fellow, 31–33, A.M, 32, Huff fellow, 33–34, Ph.D, 34. Asst. chem, Barnard Col, Columbia, 34–35; *physical chemist, research lab, U. S. Steel Corp, 35–* Chem. Soc. Chemical thermodynamics; electrochemistry; physico-chemical properties of metals; surface chemistry.

Armes, Prof. Henry P(ercy), University of Manitoba. Winnipeg, Man, Can. *Chemistry.* Nottingham, Eng, Sept. 27, 84. B.Sc, Leeds, 05; Ph.D, Strassburg, 09. Demonstrator *chem, Manitoba,* 09–10, lecturer, 10–14, asst. prof, 14–28, *assoc. prof, 28–* Fel. Can. Inst. Chem. Organic chemistry.

Armi, Dr. Edgar L, Alabama Polytechnic Institute, Auburn, Ala. *Physics.* Munich, Germany, Oct. 14, 09. M.S, Calif. Inst. Tech, 39, Ph.D, 41. *Instr. physics, Ala. Polytech, 42–* Physical Soc. Electrical conductivity of thin metal films.

Arms, Dr. B(urdett) L(oomis), Farmington, Maine. *Public health.* Springfield, Vt, Sept. 27, 69. M.D, Vermont, 05. Bacteriologist, lab, Board Health, Boston, 06–08, asst. director, 08–10, director, 10–13; lecturer munic. lab. methods, Mass. Inst. Tech, 10–13; state bacteriologist, Oregon, 13–14; prof. prev. med, Texas, 14–16; state bacteriologist, Ala, 16–17; director div. diagnostic labs, State Board Health, Fla, 17–25, state health officer, 25–29; director, Cooperative Health Union, 29–41; *dist. health officer, State Bur. Health, Maine, 41–* Am. Med. Asn; Pub. Health Asn; Asn. Sch. Physicians. Laboratory studies of diphtheria, tuberculosis, glanders and hookworm.

Armsby, Henry H(orton), 3525 Davenport St, N.W, Washington, D. C. *Civil engineering.* State College, Pa, March 12, 91. B.S, Pa. State Col, 11, C.Eng. 16. Prof. surveying, math. and drawing, Wis. Mining Sch, 15–17; from instr. to assoc. prof. civil eng, Mo. Sch. Mines, 17–21, registrar and student adviser, 21–41; *field coordinator, eng, science and management war training, U. S. Office Educ, 41–* Eng. Educ. (sec'y Mo. sect, 32, pres, 37; councilor, 38–41). College testing programs.

Armstrong, Prof. Alice H(all), Wellesley College, Wellesley, Mass. *Physics.* Waltham, Mass, Dec. 8, 97. A.B, Wellesley Col, 19; A.M, Radcliffe Col, 23, Ph.D, 30. Asst, Bur. Standards, 19–20, asst. physicist, 20–22; instr. physics, Wellesley Col, 25–26; asst. biophys, Rockefeller Inst, 27–29; lab. asst, Huntington Hosp, Boston, 29–30; asst. prof. *physics, Wellesley Col,* 30–36, *assoc. prof, 36–* Fel. Physical Soc; Asn. Physics Teachers; Acoustical Soc. X-ray spectroscopy.

Armstrong, Dr. Beulah (May), University of Illinois, Urbana, Ill. *Mathematics.* Sterling, Kans, Nov. 18, 95. A.B, Baker, 17; A.M, Kansas, 18; fellow, Illinois, Ph.D, 21. Instr. *math, Illinois,* 21–31, *assoc, 31–* Math. Soc; Math. Asn. Mathematical induction in group theory.

Armstrong, Dr. Charles, U. S. Public Health Service, Washington, D. C. **6*Pathology, Medicine.* Alliance, Ohio, Sept. 25, 86. B.S, Mt. Union Col, 10, Sc.D, 33; M.D, Hopkins, 15. Sch. supt, Ohio, 10–11; intern, New Haven Gen. Hosp, 15–16; asst. surgeon, *U. S. Pub. Health Service,* 16–20, passed asst. surgeon, 20–24, surgeon, 24–29, senior surgeon, 29–41, *med. director, 41–* Botulism; influenza; dengue fever; tetanus following vaccination; experimental syphilis; pasteurization; pollen-extracts; psittacosis; post-vaccination encephalitis; poliomyelitis; lymphocytic chorio-meningitis.

Armstrong, Dr. C(harles) W(illiam) J(ames), 48 Jackes Ave, Toronto, Ont, Can. *Physiology.* Toronto, June 16, 15. B.A, Toronto, 36, fellow, 36–37, M.A, 39, Ph.D, 41. Demonstrator exp. biol, Toronto, 37–41; *Med. Corps, Royal Can. Army, 43–* Cortical adrenal insufficiency; respiratory inhibition by cyanide and azide.

Armstrong, Dr. Clairette P, 114 E. 40th St, New York, N. Y. *Psychology.* A.B, Barnard Col, Columbia, 08, A.M, Columbia, 09; Ph.D, N. Y. Univ, 31. Psychol. extern, Bellevue Hosp, 23–24, chief psychologist, 24–26; Boston Psychopathic Hosp, 26; psychologist, Children's Court, *New York,* 26–33, *chief psychologist, Domestic Relations Court, 33–* Instr, Brooklyn Col, 40– Chief child welfare cmt, Am. Red Cross Cmt, Montenegro, 19–20. A.A; Psychol. Asn; Sociol. Soc; Asn. Applied Psychol. (treas, 31–34); Eugenics Research Asn; Asn. Mental Deficiency; Council Women Psychol. (pres, N. Y. unit, 42–); assoc. fel. N. Y. Acad. Med; fel. N. Y. Acad. (sec'y, psychol. sect, 32). Clinical psychology; juvenile delinquency.

Armstrong, Dr. Don L(eigh), 3833½ S. Flower Drive, Los Angeles, Calif. *Chemistry.* Alhambra, Calif, June 7, 16. A.B, California at Los Angeles, 37; M.S, Southern California, 38, Ph.D, 42. Teaching fellow, *Southern California,* 38–41; *research assoc. chem, 41–* Inorganic chemistry; sulfur nitride.

Armstrong, Dr. Donald B(udd), 1 Madison Ave, New York, N. Y. *Public health.* Bangor, Pa, Dec. 19, 86. Ph.B, Lafayette Col, 08, hon. Sc.D, 23; A.M, M.D, Columbia, 12; M.S, Mass. Inst. Tech, 13. Dept. social welfare, N. Y. Asn. Improving Condition of the Poor, 13–16; exec. officer, Framingham Community Health and Tuber. Demonstration, 16–23; exec. officer, Nat. Health Council, 21–24; asst. sec'y welfare div, *Metropolitan Life Ins. Co,* 24–28, fourth v. pres, 29–31, *third v. pres, 31–* Lecturer, Teachers Col, Columbia; Col. City of N. Y; Univ. of Bellevue Hosp. Med. Col; Simmons Col; N. Y. Sch. of Social Work. Sec'y tech. board, Milbank Mem. Fund, 21–23; senior surgeon, reserve corps, U. S. Pub. Health Service, 42–; pres, Am. Museum Safety, 41– Mem. pub. health cmt, Commonwealth Fund, 30–; gen. advisory cmt, pneumonia control, State Dept. Health, N. Y, 36–; U. S. Pub. Health

Service, 37–; cmt. virus research, Nat. Foundation Infantile Paralysis, 38, cmt. educ, 40; v. chairman, State Cmt. Tuber. Control Project, N. Y, 41– Sec'y, Nat. Health Council, 34, pres, 36–39, mem. exec. cmt, 34– Mem. gen. conf. and sect. nutrition for workers in defense industries, President's Nat. Nutrition Conf. for Defense, 41. A.A; fel. Pub. Health Asn. (chairman, sociol. sect, health inst, 22, past pres, N. Y. sect); Am. Med. Asn; Tuber. Asn. (director); N. Y. Tuber. and Health Asn. (v. pres); N. Y. Acad. Med. (med. information bur, 38–); N. Y. Pub. Health Asn. (past pres). Pneumonia and tuberculosis control; infantile paralysis virus; causes of home accidents.

Armstrong, Prof. Edwin Howard, Columbia University, New York, N. Y. *Radio.* New York, N. Y, Dec. 18, 90. E.E, Columbia, 13, Trowbridge fellow, 15, Sc.D, 29; Sc.D, Muhlenberg Col, 41.. Asst, dept. elec. eng, *Columbia,* 14, radio research with Prof. M. I. Pupin, 14–36, *prof. elec. eng, 36–* Medal of honor, Inst. Radio Engineers, 17; Egleston medal, Columbia, 39, Class of 1889 medal, 41; award, Nat. Asn. Manufacturers, 40; Holley medal, Am. Soc. Mech. Engineers, 40; Franklin medal, Franklin Inst, 41; Chevalier, Légion d'honneur, 19. Capt. and major, Sig.C, 17–19. Fel. Radio Eng; hon. mem. Franklin Inst. Radio research and invention.

Armstrong, Dr. Elizabeth (Jean), Columbia University, New York, N. Y. *Mineralogy, Petrology.* New York, N. Y, Oct. 19, 12. A.B, Columbia, 33, 35–37; A.M, Bryn Mawr Col, 34, Ph.D, 39. Demonstrator geol, Bryn Mawr Col, 34–35, 37–38; asst, Barnard Col, *Columbia,* 35–37, lecturer, 38–41, asst. to Prof. Kerr, *univ,* 41–42, *nat. research fellow, 42–* Miner. Soc; N. Y. Acad. Metamorphic rocks; mylonization of hybrid rocks near Philadelphia; conditions governing the formation of quartz crystals in nature.

Armstrong, Dr. Geo(rge) M(iller), Clemson Agricultural College, Clemson, S. C. *Botany.* Appleton, S. C, Nov. 13, 93. B.S, Clemson Col, 14; A.M, Wisconsin, 17; Ph.D, Washington (St. Louis), 21. Asst, Wisconsin, 15–17; instr. bot, Clemson Col, 17–18; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18–19; instr, Shaw Sch. Bot, Washington (St. Louis), 21–22, asst. prof, 22–24; head div. boll weevil control, *Clemson Col,* 24–28, *head div. bot. and bacter, 28–* Chairman, Cotton Disease Council, 36–37. A.A; Bot. Soc; Asn. Plant Path; Soc. Plant Physiol; Phytopath. Soc. (chairman, south. sect, 39); S. C. Acad. Physiology in fungi; fruiting in cotton; development of cotton fibers; cotton diseases, especially cotton wilt.

Armstrong, Dr. H(erbert) S(toker), McMaster University, Hamilton, Ont, Can. *Geology.* Toronto, Ont, Nov. 23, 15. B.A, Toronto, 38, M.A, 39; Ph.D, Chicago, 42. Asst. *geol,* Toronto, 38–39; asst, Chicago, 40–41; *lecturer, McMaster, 41–* A.A; Min. and Metal. Eng; Can. Inst. Min. and Metal. Invertebrate paleontology; economic geology; bryozoa; paragenesis of gold ores; Precambrian geology.

Armstrong, John C(harles), American Museum of Natural History, 77th St. and Central Park West, New York, N. Y. *Marine biology, Oceanography.* Greenwich, Conn, Oct. 5, 13. A.B, Yale, 36; Harvard, 37–39. Assoc. marine invertebrates, *Am. Museum Nat. Hist,* 39–42, *asst. curator dept. living invertebrates, 42–;* 2nd lieut, *Air Forces, U. S. Army, 42–,* asst. oceanographer, 42, *assoc. oceanographer, 42–* Asst. physiologist, nat. inst. health, U. S. Pub. Health Service, 42. Mem. Santo Domingo exped, 32, 33; 'Askoy' exped, 41; 'Thetis' exped, 41. A.A; Am. Geog. Soc; Geophys. Union; N. Y. Acad. (sec'y sect. oceanog. and meteorol, 41). Taxonomy and distribution of Crustacea.

Armstrong, Dr. J(ohn) E(dward), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Cloverdale, B. C, Feb. 18, 12. M.A.Sc, British Columbia, 35, Carnegie scholar, 35, Nicholson scholar, 36; Ph.D, Toronto, 39. Asst. geol, Toronto, 35–37; *asst. geologist, Geol. Surv. Can, 36–* Ultramafic rocks; chromite; mercury.

Armstrong, Dr. J(ohn) M(axwell), Central Experimental Farm, Ottawa, Ont, Can. *Agronomy.* St. Marys, Ont, Feb. 24, 99. B.Sc, Saskatchewan, 29, M.Sc, 31; Nat. Research Council Can. student, McGill, 31–32, Ph.D, 33. Asst. agron, Saskatchewan, 29–30; Nat. Research Council Can, 30–32; *cytogeneticist, forage crops div, Cent. Exp. Farm, Ottawa, 33–* Instr, McGill, 32–33. Can. Soc. Tech. Agr. Wheat breeding for rust resistance; cytology of wheat crosses; cytology of Matthiola incana; seed production in alfalfa; hybridization of Triticum and Agropyron.

Armstrong, Dr. P(hilip) B(rownell), Syracuse University College of Medicine, Syracuse, N. Y. *Anatomy.* Rutherford, N. J, March 26, 98. B.S, Mass. Col, 21; M.D, Cornell, 26. Asst. *anat,* med. col, Cornell, 25–27, instr, 27–30, asst. prof, 30–37; *prof,* sch. med, Alabama, 37–38; *col. med, Syracuse, 38–* Gen. Educ. Board fellow, 34–35; anatomist, Nat. Board Med. Exam, 40– Soc. Nat; Zool. Soc; Asn. Anat; Harvey Soc. Functional-structural correlations.

Armstrong, Dr. Robert T(hexton), U. S. Rubber Co, Passaic, N. J. *Chemistry.* Chadron, Nebr, Dec. 27, 09. B.S, Mass. Inst. Tech, 31, Ph.D, 35. Asst. chem, Mass. Inst. Tech, 30–35, instr. org. chem, 35–37; *chemist, U. S. Rubber Co, 37–* Chem. Soc. Organic chemistry; absorption spectra; photochemistry; rubber chemistry; polymerization.

Armstrong, Dr. S(amuel) T(reat), Hillbourne Farms, Katonah, N. Y. *Neuropsychiatry.* St. Louis, Mo, Nov. 2, 59. Ph.B, St. Louis, 79, Ph.D, 86; M.D, Washington (St. Louis), 79. U. S. Marine Hosp. Service, 81–90; neur. dept, N. Y. Polyclinic, 91–94; chief surgeon, Dept. Puerto Principe, 98–00; 3rd dist, S. Luzon, 00–01; med. dept, Wash. Life Ins. Co, 01–05; gen. med. supt, Bellevue and allied hosps, 05–08; *med. director, Hillbourne Farms, 10–* A.A; Psychiat. Asn; Am. Med. Asn; N. Y. Acad. Med; N. Y. Acad. Functional nervous conditions.

Armstrong, Dr. W(allace) D(avid), University of Minnesota, Minneapolis, Minn. *Physiological chemistry.* Celeste, Texas, July 8, 05. A.B, Texas, 26; fellow, N. Y. Univ, 28, M.S, 28; Ph.D, Minnesota, 32, M.D, 37. Tutor, Texas, 26–27; Nat. Research Council asst, 27–28; research chemist, The Texas Co, 28–29; asst. *physiol. chem, Minnesota,* 29–33, instr, 33–37, asst. prof, 37–40, *assoc. prof, 40–, director lab. dental research, 40–* Soc. Biol. Chem; Chem. Soc; Int. Asn. Dental Research. Analysis for fluorine; biological rôle of fluorine; nitrogen compounds in petroleum; synthesis of choline derivatives; composition of teeth; radioactive tracers; relation of fluorine to resistance to dental caries.

Armstrong, Dr. Williamina E(lizabeth), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Nutrition.* Spokane, Wash, March 4, 12. B.S, Idaho, 33, M.S, 34; Ph.D, Iowa State Col, 39. Instr. nutrition, Illinois, 39–41; *prof. home econ. research, Okla. Agr. and Mech. Col, 41–* Pregnancy disease in rats; calcium requirement of adults; vitamin C.

Arnason, Dr. A(rni) P(all), Dominion Entomological Laboratory, Saskatoon, Sask, Can. *Economic entomology.* Brown, Man, Nov. 29, 03. B.Sc, Saskatchewan, 29, M.Sc, 31; Ph.D, Illinois, 42. Insect pest investigator, *Dom. Entom. Lab,* 27–28, junior entomologist, 28–31, asst. entomologist, 31–37, *asst agr. scientist, 37–* Ecol. Soc; Can. Soc. Tech. Agr; Entom. Soc. Ont. Ecology; populations of insects in cultivated fields and in native situations; field crop and garden insect control.

Arnason, Prof. T(homas) J(ohann), University of Saskatchewan, Saskatoon, Sask, Can. *Genetics, Cytology.* Brown, Man, Nov. 25, 05. B.Sc, Saskatchewan, 31, M.Sc, 32; fellow, Wisconsin, 32–34, Ph.D, 34. Instr. *biol, Saskatchewan,* 34–36, *asst. prof, 36–* A.A; Bot. Soc. Location of genes in wheat chromosomes; extent of correspondence of chromosomes of maize and annual teosinte; sterility in potatoes.

Arnaud, Joseph J(ohn), 5301 Glen Cove Parkway, Friendship P. O, Washington, D. C. *Mathematics, Physics.* New York, N. Y, Sept. 22, 70. B.S, Col. City of N. Y, 89; N. Y. Univ. Surveyor, New York, 89–91; asst. engineer, City Dept. Street Improvements and City Board Pub. Improvements, 91–03; prof. math. and in charge dept, schs. tech. science, Cooper Union, 03–11; asst. astronomer, U. S. Naval Observatory, 12–18; master computer, tech. staff, ordnance dept, War Dept, 18–22; physicist, optical div, Bur. Standards, 22–24; consulting physicist and patent attorney, 24–40; *retired.* Lecturer, Marquette, 26–29. A.A. Differential equations; trajectory computations for shells; image curvature; logarithmic formula for areas of circular segments; formulas in a calculus of operations; methods of interpolating, differentiating and integrating functions known only by tabulated values; solution of algebraic equations and transcendental equations by logarithms.

Arndt, Dr. Charles H(omer), Clemson Agricultural College, Clemson, S. C. *Plant physiology.* Jonestown, Pa, Oct. 14, 92. A.B, Lebanon Valley Col, 14; M.S, Purdue, 16; Ph.D, Pennsylvania, 21. Prof. biol, Lebanon Valley Col, 16–17; instr. bot, Agr. and Mech. Col. Texas, 17–18; inspector, bur. plant

indust, U. S. Dept. Agr, 18–19; instr. plant path. and physiol, Pennsylvania, 22–25; director, Coffee Exp. Sta, Port au Prince, Haiti, 25–30; *assoc. botanist, Exp. Sta, Clemson Col, 30–* Harrison fellow, Pennsylvania, 21–22. A.A; Bot. Soc; Phytopath. Soc; Soc. Plant Physiol. Ionic requirements of plants; seedling diseases of cotton; diseases and physiology of corn and cotton seedlings; pathology and physiology of corn and cotton seedlings.

Arnett, Dr. V(itold), University of Illinois College of Medicine, Chicago, Ill. *Physiology.* Worcester, Mass, May 9, 14. A.B, Clark, 35, A.M, 37; fellow, Rochester, 37–38; Ph.D, Cornell, 41. Asst. *physiol,* Cornell, 38–41; *research asst, col. med, Illinois, 41–* Nerve electrolytes and conductivity; adrenals and insulin convulsions.

Arnim, Dr. S(umter) S(mith), Medical College of Virginia School of Dentistry, Richmond, Va. *Pathology.* Hallettsville, Texas, Oct. 9, 04. A.B, Rice Inst, 26; D.D.S, Northwestern, 30; Rockefeller Foundation fellow, Yale, 30–35, Ph.D, 35. Asst. attending surgeon dentistry, New Haven Hosp, 35–37; *asst. prof. operative dentistry,* Illinois, 37–39; *sch. dentistry, Med. Col. Va, 39–* A.A; Dental Asn; Int. Asn. Dental Research. The relation of biologic principles to operative dentistry.

Arnold, Dr. Aaron, National Oil Products Co, Harrison, N. J. *Biochemistry.* Milwaukee, Wis, Jan. 3, 10. B.S, Wisconsin, 33, indust. fellow, 34–39, M.S, 36, Ph.D, 37. *Head water soluble div, vitamin chem. lab, Nat. Oil Products Co, 39–* Chem. Soc; Inst. Food Tech. Amino acid requirements of chicks; vitamin requirements of rats, chicks and dogs; fright disease in dogs; nutritive value of canned dog foods; vitamin B complex in rice bran concentrate and related natural source materials.

Arnold, Dr. C(harles) R(ichard), 7833 State Line Ave, Munster, Ind. *Chemical engineering, Industrial bacteriology.* Boise, Idaho, Feb. 28, 11. B.S, Idaho, 34; M.S, Iowa State Col, 36, Ph.D, 38. Research fellow, Am. Bottlers of Carbonated Beverages, 35–39; *bacteriologist and chem. engineer, Am. Maize Products Co, 39–* Chem. Soc. Plant sanitation; products from corn.

Arnold, Dr. Chester A(rthur), University of Michigan, Ann Arbor, Mich. *Paleobotany.* Leeton, Mo, June 25, 01. B.S, Cornell, 24, Ph.D, 29. From instr. to *assoc. prof. bot. and curator fossil plants, Michigan, 28–* A.A; Bot. Soc; Paleont. Soc; Mich. Acad. Fossil plants of the Devonian and Carboniferous periods.

Arnold, Dr. E(arl) L(ee), Apt. D431, 3004 N. Lee Highway, Arlington, Va. *Agricultural engineering.* Leeton, Mo, Feb. 1, 07. B.S, Cornell, 30, M.S, 36, Ph.D, 40. Instr. agr. eng, Cornell, 30–37; exten. agr. engineer, Arkansas, 37–41; head plumbing unit, rural electrification admin, U. S. Dept. Agr, 41–42, mech. engineer, bur. agr. chem. and eng, 42; *tech. adviser farm machinery, War Production Board, 42–* Soc. Agr. Eng. Farm refrigeration.

Arnold, Prof. E(ric) A(nderson), 19075 Meredith Ave, Euclid, Ohio. *Physical chemistry.* Cleveland, Ohio, April 1, 96. B.S, Case, 19; M.S, Illinois, 24; Ph.D, Western Reserve, 31. Develop. engineer, Nat. Carbon Co, 19–22; asst, Illinois, 22–24; instr. chem, *Case,* 24–31, asst. prof. anal. chem, 31–37, *assoc. prof. chem, 37–* Chem. Soc; Soc. Test. Mat; Faraday Soc. Reaction velocity and catalysis.

Arnold, F(rank) T(hompson), State Board of Health, Columbia, S. C. *Medical entomology.* Anderson, S. C, April 15, 16. B.S, Clemson Col, 39; Agr. and Mech. Col. Texas, 38; M.S, Tennessee, 40. Teaching fellow, Tennessee, 39–40; *med. entomologist,* State Board Health, *S. C,* 40–41; State Pub. Service Authority, 41–42; *State Board Health, 42–* Malaria control; typhus control; winter activities of anopheline mosquitoes of South Carolina; habits and control of Mansunia perturbans.

Arnold, Dr. George B(enjamin), Texas Co, Beacon, N. Y. *Chemistry.* North Platte, Nebr, June 25, 14. B.S, Nebr. State Teachers Col, 35; M.S, Nebraska, 38, Avery fellow, 39–40, Ph.D, 40. *Research and develop. chemist, Texas Co, 40–* Chem. Soc; Chemists' Club. Extraction; petroleum chemistry; chemical engineering; organic compounds of phosphorus; phase rule.

Arnold, Dr. H(arold) W(ilfred), Lynhurst Ave, McDaniel Heights, Wilmington, Del. *Chemistry.* Sterling, Nebr, April 18, 11. A.B, Wittenberg Col, 31; Ph.D, Ohio State, 36. *Chemist, exp. sta, E. I. du Pont de Nemours and Co, 36–* Carbohydrates; synthetic resins.

Arnold, Pres. H(enry) J, 428 Main St, Oneonta, N. Y. *Psychology.* Sterling, Nebr, Feb. 11, 87. A.B, Nebraska, 17; A.M, Iowa, 24; Ph.D, Ohio State, 29. Prin, Wartburg Acad, 15–23; instr. psychol, Iowa, 23–25; Ohio State, 27–28; asst. prof, Wittenberg Col, 25–29, assoc. prof, 29–34, prof, 34–39; *pres, Hartwick Col, 39–* Oberlaender Trust fellow, 32. Pres, Ohio Conf. Adult Educ, 32–39. Psychol. Asn. College administration.

Arnold, Prof. Herbert E(li), Wesleyan University, Middletown, Conn. *Mathematics.* Brooklyn, N. Y, March 13, 96. B.S, Wesleyan, 21, A.M, 23; Ph.D, Yale, 28. Asst. prof. *math, Wesleyan,* 22–36, *assoc. prof, 36–* Math. Soc; Math. Asn; Inst. Math. Statistics. Algebraic geometry.

Arnold, Lieut. Herbert J(ullus), U. S. Naval Academy, Annapolis, Md. *Science education.* Woodside, N. Y, Jan. 31, 05. B.S, Col. City of N. Y, 26; A.M, Columbia, 27, Ph.D, 36. Teacher, pub. schs, N. Y, 23–27; tutor geol, Col. City of N. Y, 27–28; teacher science and math, Lincoln Sch, Teachers Col, Columbia, 28–32, instr. nat. sciences, 32–36, asst. prof, 36–43; *lieut, U. S. Naval Res, 42–* Assoc, New Col, Columbia, 33–36. A.A; Asn. Research Sci. Teaching; N. Y. Miner. Soc. Science education; geology.

Arnold, Dr. Hubert Andrew, 2480 Lake St, Lincoln, Nebr. *Mathematics.* Chicago, Ill, Nov. 15, 12. A.B, Nebraska, 33; Paris, 33–34; Ph.D, Calif. Inst. Tech, 39. Asst. instr. math, Calif. Inst. Tech, 35–39; instr, Minnesota, 39–40; visiting research scholar, Virginia, 40–41; instr, Princeton, 41–42; *lieut, U. S. Naval Reserve, 42–* A.A; Math. Soc; Math. Asn. Operational and functional equations in Banach and Kantorovitch spaces; combinatorial topology in compact and bicompact spaces.

Arnold, Prof. J(erome) Howard, State University of Iowa, Iowa City, Iowa. *Chemical engineering.* Montevideo, Minn, April 14, 07. B.S, Minnesota, 27; Iowa State Col, 27; Minnesota, 27–28; Sc.D, Mass. Inst. Tech, 31. Asst. chem, Minnesota, 27–28; instr. chem. eng, Mass. Inst. Tech, 30–31; fellow, Minnesota, 31–33; prof. *chem. eng,* Linsly Inst. Tech, 33–36; *asst. prof,* North Dakota, 36–37; *Iowa, 37–* Chem. Soc; Chem. Eng. Diffusion; psychrometry; theory of the liquid state.

Arnold, Prof. John G(eorge), Jr, 2328 Lowerline St, New Orleans, La. *Parasitology.* Cincinnati, Ohio, Oct. 16, 09. A.B, Ohio State, 30; A.M, Wesleyan, 32; Ph.D, N. Y. Univ, 34. Asst. *biol,* Wesleyan, 30–31; teaching fellow, N. Y. Univ, 32–34; *prof. and head dept, Loyola (La), 34–, director dept. med. technol, 35–* Summers, asst, State Conservation Dept. Biol. Surv, N. Y, 31, 32; instr, Col. City of N. Y, 34. A.A; Soc. Parasitol; Micros. Soc; Catholic Educational Asn; New Orleans Acad; New Orleans Soc. Plant Science. Fish and rabbit helminths.

Arnold, Lieut. Col. John W(illiam), 111th Coast Artillery Battalion, Ft. Bliss, Texas. *Engineering.* Paulding, Ohio, Sept. 13, 99. A.B, Illinois, 21, A.M, 23; Columbia; N. Y. Univ. Asst. math, Illinois, 21–23; eng. asst, West. Union Tel. Co, 23–41; *lieut. col, Coast Artil, U. S. Army.* A.A; Radio Eng; Math. Soc. Apparatus design; transmission theory; magnetic materials; earth potentials.

Arnold, Dr. Kenneth A(lan), 122 Clarke St, Berlin, N. H. *Chemical engineering.* Buffalo, N. Y, Feb. 23, 16. B.S, Syracuse, 38; M.S, Lawrence Col, 40, Ph.D, 42. Tech. develop. engineer, Union Bag and Paper Corp, Ga, 41; chem. engineer, *Brown Paper Co,* 42–43, *tech. supt, 43–* Summers, research chemist, Scott Paper Co, 39; chem. engineer, Ohio Boxboard Co, 40. Tech. Asn. Pulp and Paper Indust. Kraft pulping with low sulphidity; viscosity of coating clays at high rates of shear.

Arnold, Dr. Kenneth J(ames), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematical statistics.* Pawtucket, R. I, Aug. 20, 14. B.S, Mass. Inst. Tech, 37, Ph.D, 41. Asst, *Mass. Inst. Tech,* 38–39, 40–41, *instr. math, 41–* Math. Soc; Inst. Math. Statist; Statist. Asn; Asn. Sci. Workers. Probability distributions in a spherical space.

Arnold, Dr. Lionel K(enneth), 635 Pearson Ave, Ames, Iowa. *Chemical engineering.* Bristow, Iowa, Dec. 30, 95. A.B, Ellsworth Col, 20; B.S, Iowa State Col, 21, M.S, 26, Ph.D, 30. Instr, Ellsworth Col, 22; asst. and relief foreman, Corn Products Ref. Co, Ill, 22–25; asst. chief chemist, Iowa Valley Operating Co, 25; asst. *chem. eng, Iowa State Col,* 26–27,

eng. exp. sta, 27–32, *research assoc. prof, 32–* Tech. consultant, 'Paper Trade,' Chicago, 27. Chem. Soc; Chem. Eng. Production of paper and lumber substitutes from cornstalks; manufacture of refined corn sugar; fighting methods for fires involving chemicals; plastics from agricultural by-products; solvent extraction of vegetable oils.

Arnold, Prof. Lloyd, 1817 W. Polk St, Chicago, Ill. *Bacteriology, Public health.* Kimmundy, Ill, July 8, 88. A.B, Texas Christian, 08, A.M, 18; M.D, Vanderbilt, 19; München, Göttingen and Tübingen, 11–14. Asst. anat, Tulane, 08–10, physiol, 15–16; director lab, City Hosp, Nashville, 19–20; asst. med, med. sch, Vanderbilt, 19–20; asst. prof. bacter, Loyola Col. (Ill), 21–22, *prof.* path, bacter. and prev. med, 22–25; *bacter. and prev. med, col. med, Illinois, 25–* Director lab, Mercy Hosp, 21–25; pathologist, Misericordia Hosp, 21–25; bacteriologist, State Dept. Pub. Health, Ill, 26–38; mem, Board Health, Chicago, 38–41. A.A; Soc. Bact; Asn. Path. and Bact; Am. Med. Asn; Chicago Path. Soc; Chicago Soc. Int. Med. Classification of streptococci; Twort-d'Herelle's phenomenon of bacteriophagy; gastro-intestinal bacterial flora.

Arnold, Dr. Luther B(ishop), Jr, Fairville, Pa. *Chemistry.* Duluth, Minn, Aug. 9, 07. A.B, Carleton Col, 29; A.M, Harvard, 30, Ph.D, 33. Asst, Harvard, 33; *research chemist, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Gas reaction kinetics; textile processing.

Arnold, Dr. Magda B(londiau), University of Toronto, Toronto, Ont, Can. *Psychology.* Mahr-Trubau, Czecho-Slovakia, Dec. 22, 03. B.A, Toronto, 39, M.A, 40, David Dunlap scholar, 40–41, Ph.D, 42. Reader *psychol, Toronto,* 39–40, class asst, 40–42, *instr, 42–* Consultant, Y.W.C.A, Toronto, Ont, Can, 39–42. Psychol. Asn; Can. Psychol. Asn; Ont. Vocational Guidance Asn. Psycho-physiological factors in emotion; abnormal psychology; experimental neurosis.

Arnold, Prof. Norman K(iefer), Dartmouth College, Hanover, N. H. *Zoology, Anatomy.* East Hampton, Conn, Sept. 4, 06. B.S, Wesleyan, 28; Ph.D, Yale, 32. Asst. *zool,* Yale, 29–31; instr, *Dartmouth Col,* 32–36, asst. prof, 36–42, *prof, 42–* Summer, instr, Marine Biol. Sta, Isles of Shoals, New Hampshire, 34–37. A.A; N. H. Acad. Experimental embryology.

Arnold, Dr. Orlan M(cGrew), Rensselaer Polytechnic Institute, Troy, N. Y. *Physical and colloid chemistry.* York, Nebr, May 14, 04. A.B, Grinnell Col, 28; Ph.D, Wisconsin, 34. Asst. and instr. chem, Wisconsin, 28–35; instr. chem. and chem. eng, *Walker lab, Rensselaer Polytech. Inst,* 35–38, *asst. prof. chem, 38–* A.A; Chem. Soc. Electrical dispersion of conductance and dielectric constant with high frequency currents; structure and behavior of proteins and high molecular weight polymers; viscosity; adsorption; ultra centrifuge.

Arthur, Dr. P(aul), Jr, 11 Brandywine Blvd, Edgewood Hills, Wilmington, Del. *Organic chemistry.* Detroit, Mich, June 20, 15. B.S, Loyola (Ill), 35; Ph.D, Mass. Inst. Tech, 38. *Research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 38–* Chem. Soc. Friedel-Crafts reaction.

Arnold, Dr. Ralph, 417 S. Hill St, Los Angeles, Calif, and 120 Broadway, New York, N. Y. *²*Paleontology, Geology.* Marshalltown, Iowa, April 14, 75. Throop, 94–96; A.B, Stanford, 99, A.M, 00, Ph.D, 02; Sc.D, Pittsburgh, 21; D.Eng, Southern California, 25. Asst. miner, Stanford, 99; instr. chem. and physics, Hoitt's Sch, Menlo Park, Calif, 99–00; field asst, mining surv, Wash. Sch. Mines, 00; asst. geol, Stanford, 00–02; aid, U. S. Geol. Surv, 03–05, paleontologist, 05–08, geologist, 08–09; *consulting geologist and engineer, 09–* Temporary field asst, U. S. Geol. Surv, 00–03; chief oil, gas and mines sect, Bur. Int. Revenue, 17–19. Lecturer, Chicago, 14; Harvard and Mass. Inst. Tech, 15. Summer, lecturer, Columbia, 25. Pres, Int. Agencies. Geol. Soc; Paleont. Soc; Soc. Econ. Geol; Seismol. Soc. (chairman, South. Calif. sect, 24); Min. and Metal. Eng. (chairman, southwest. sect, chairman, petrol. cmt, 19–22); Min. and Metal. Soc. (councilor, 18–); Asn. Petrol. Geol; Astron. Soc. Pacific; Cooper Ornith. Club; LeConte Geol. Soc. (sec'y, 01); Geol. Soc. of Am. Univ. (pres, 02); Geol. Soc. Wash. (sec'y, 07); Biol. Soc. Wash; Wash. Acad; Geol. Soc. London; London Malacol. Soc; Royal Geog. Soc. Pleistocene and Tertiary paleontology and stratigraphy of the western coast of North America; geology, paleontology and technology of the California oil fields and Coast Ranges; Tertiary and Quaternary Pectens of California; the Santa Clara Valley, Puente Hills and Los Angeles oil districts; geology and oil resources of the Summerland district and of the Santa Maria oil district of Santa Barbara County; Santa Cruz folio, California; the McKittrick-Sunset oil region; oil resources of the world; taxation of mines; petroleum in the United States and possessions.

Arnold, Dr. Richard T(homas), 1573 Fulham St, St. Paul, Minn. *Organic chemistry.* Indianapolis, Ind, June 18, 13. B.Ed, South. Ill. State Teachers Col, 34; M.S, Illinois, 35, Ph.D, 37. *Asst. prof. org. chem, Minnesota, 37–* Chem. Soc. Mechanism of organic reactions.

Arnold, Prof. S(amuel) T(omlinson), Brown University, Providence, R. I. *Chemistry.* Fall River, Mass, Aug. 23, 92. A.B, Brown, 13, M.S, 14, Ph.D, 16. Instr. *chem, Brown,* 16–17, asst. prof, 17–22, assoc. prof, 22–30, *prof, 30–,* acting dean, 29–30, *dean* undergraduates, 37, *col, 37–* Director arts program, Asn. Am. Cols, 40–43; chairman cmt. institutions of higher educ, New Eng. Asn. Cols. and Secondary Schs, 40– Chem. Soc. (sec'y, R. I. sect, 17, v. chairman, 18–21, chairman, 21–24); East. Asn. Deans and Advisers Men (v. pres, 34, pres, 36); Providence Eng. Soc. Analytical and industrial chemistry.

Arnold, Major Weld, 100 Court St, Reno, Nev. *Astronomy, Geography.* New York, N. Y, June 9, 95. A.B, Harvard, 18; diploma, Royal Geog. Soc. Austin teaching fellow astron, Harvard, 19–21; instr, sch. surv, Am. Geog. Soc, New York, 23–31; geog. surv. and field astron, sch. geog, Harvard, 31–36; *astrophys. lab, Calif. Inst. Tech, 36–; U. S. Army, 41–* Topographer, 7th Hamilton Rice exped, north Brazil, 24–25; Harvard eclipse exped, Sumatra, 25–26; U. S. Naval Observatory eclipse exped, Tonga, 30. A.A; Astron. Soc; Am. Geog. Soc; Horol. Inst; Soc. Mil. Eng; Inst. Aeronaut. Sci; Aeronaut. Asn; Geophys. Union; fel. Royal Astron. Soc; Royal Geog. Soc. Maps; surveying; improvement in present methods of latitude and longitude determination in the field.

Arnold, Prof. William A(rchibald), Hopkins Marine Station, Stanford University, Pacific Grove, Calif. *Physiology.* Douglas, Wyo, Dec. 6, 04. B.S, Calif. Inst. Tech, 31; Ph.D, Harvard, 35. Sheldon fellow biol, Harvard, 35–36; Gen. Educ. Board fellow, Hopkins Marine Sta, Stanford, 36–37, asst, 37–38; Rockefeller fellow, inst. theoret. physics, Copenhagen, 38–39; research assoc. *biol, Hopkins Marine Sta, Stanford,* 39–40, 41, *asst. prof, 41–* Photosynthesis of green plants.

Arnold, Dr. William S(hannon), 511 Nottingham Road, Ten Hills, Baltimore, Md. *Chemistry.* Baltimore, Md, July 15, 97. Baltimore City Col; Hopkins; Maryland; M.S, 22, fellow, 23, Sc.D, 30. *Chief chemist, C. M. Pitt and Sons Co, 20–, director, 27–* A.A; Chem. Soc; fel. Inst. Chem; fel. Am. Int. Acad; Md. Acad. (academician with medal, 19, chairman, food chem, 22–24, governor, 26–, senator, 28–). Food chemistry; chemical changes in dried eggs, with special reference to lecithin; preservation of fruits with sugars.

Arnon, Prof. Daniel I(srael), University of California, Berkeley, Calif. *Plant physiology.* Poland, Nov. 14, 10. B.S, California, 32, Ph.D, 36. Instr. truck crops, *California,* 36–41, *asst. prof. plant nutrition, 41–,* jr. plant physiologist, *Exp. Sta,* 36–41, *asst. plant physiologist, 41–* Shared Am. Asn. Adv. Science prize, 40. A.A; Soc. Plant Physiol. (sec'y, west. sect, 41–); Bot. Soc; Chem. Soc. Inorganic nutrition of plants; hydrogen-ion effects; micronutrients.

Arnow, Dr. L(eslie) Earle, Sharp and Dohme, Inc, Glenolden, Pa. *Physiological chemistry.* Micanopy, Fla, June 22, 09. Ph.G, B.S, Florida, 30; Ph.D, Minnesota, 34, M.B. and M.D, 40. Asst. physiol. chem. and biophys, Minnesota, 31–34, instr. physiol. chem, 34–40, asst. prof, 40–42; *director biochem. research, med-research div, Sharp and Dohme, Inc, 42–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Protein and amino acid chemistry.

Arnquist, Dr. W(arren) N(elson), Box 2038, Pittsburgh, Pa. *Physics.* New Richmond, Wis, Aug. 12, 05. B.S, Whitman Col, 27; Ph.D, Calif. Inst. Tech, 30. Asst. prof. physics, Ala. Polytech, 30–34, assoc. prof, 34–35; *physicist, Gulf Research and Develop. Co, 35–; research fellow, Nat. Defense Research Cmt, Calif. Inst. Tech, 41–* Teaching fellow, Calif. Inst. Tech. Physical Soc. Scattering of electrons by gases; the flow of fluids through porous media; dielectric phenomena; physical properties of reservoir fluids.

Arnspiger, Dr. V(arney) C(lyde), 4445 Post Road, New York, N. Y. *Technical education.* Grayson Co, Texas, May 23, 96. A.B, Texas Christian, 17; Chicago; Ph.D, Columbia, 33. Teacher, high sch, Okla, 19–27, sch. supt, 27–29; *v. pres. in charge research and production, Erpi Classroom Films, Inc, 29–* Lecturer, Teachers Col, Columbia. Auditory and visual

perception; effectiveness of sound films in instruction; psychology of sound film presentation; production of scientific films.

Arnstein, Dr. Karl, 817 Delaware Ave, Akron, Ohio. *Aeronautics.* Prague, Czechoslovakia, March 24, 87. Karl Ferdinand's and Tech. Univ, Prague, 10, Dr.Tech.Sci, 12; hon. D.Ing, Tech. Univ. Aachen, Germany, 26. Dept. bridges and structures, Tech. Univ, Prague, 09–11; chief engineer in charge struct. research, Ed. Zublin and Co, Strasbourg, Alsace, 11–14; chief constructor and in charge theoret. and exp. struct. research, Luftschiffbau Zeppelin, 15–24; *chief engineer and director, research develop,* Goodyear Zeppelin Corp, 24–39; *Goodyear Aircraft Corp, 39–* Subcmt. on airships, Nat. Advisory Cmt. Aeronautics. Fel. Inst. Aeronaut. Sci. Applied mechanics; theory of structures; performance of aircraft; aerodynamics applied to airships and large structures.

Arny, Prof. A(lbert) C(edric), 2117 Dudley St, St. Paul, Minn. *Agriculture.* Washington Co, Minn, Nov. 4, 77. B.S.A, Minnesota, 09, M.S, 17. Asst. prof. *agr, Minnesota,* 09–16, *assoc. prof, 16–,* asst. agriculturist, *Exp. Sta,* 09–25, *assoc. agronomist, 26–* Soc. Agron; Soc. Plant Physiol. Agronomy; forage and pasture crops; flax improvement; crop rotation.

Arny, Dr. H(enry) V(inecome), 115 W. 68th St, New York, N. Y. *Pharmacy.* Philadelphia, Pa, Feb. 28, 68. Ph.G, Phila. Col. Pharmacy, 89, Ph.M, 19; Ph.D, Göttingen, 96. Prof. pharmacy, Western Reserve, 97–11; chem, col. pharmacy, Columbia, 11–37, dean, 30–37; *retired.* A.A; Pharmaceut. Asn. (councilor, 30); Chem. Soc; Franklin Inst. Pharmaceutical chemistry; revision of the United States Pharmacopoeia and of the National Formulary.

Arolan, Dr. Leo A(vedis), Hunter College, 68th St. and Park Ave, New York, N. Y. *Mathematical statistics.* Holden, Mass, May 10, 07. A.B, Michigan, 28, A.M, 29, univ. fellow, 38–39, Ph.D, 40. Teacher *math,* high sch, Mich, 29–30, asst. prof, Colo. State Col, 30–39; *instr, Hunter Col, 39–* Math. Soc; Inst. Math. Statist; Math. Asn; Statist. Asn. Fisher's z distribution; continued fractions; Gram-Charlier Type B series.

Aronoff, Dr. S(am), University of California, Berkeley, Calif. *Biochemistry.* New York, N. Y, Feb. 27, 15. A.B, California at Los Angeles, 36; Ph.D, California, 42. Asst. agr, *California,* 41–42, *research assoc. chem, 42–* Chem. Soc. Plant biochemistry.

Aronovsky, Dr. S(amuel) I(saac), 204 W. Armstrong Ave, Peoria, Ill. *Biochemistry.* Kovno, Lithuania, May 30, 00. B.S, Minnesota, 21, Chem.E, 22, Ph.D, 29. Chemist in charge control and exp. work, Northwest Paper Co, Cloquet, Minn, 22–27; Cloquet Wood Products fellow, Minnesota, 27–35; Northwest Paper Co. res. fellow, Inst. Paper Chem, Lawrence Col, 35–37; assoc. chemist, agr. by-products lab, bur. chem. and soils, *U. S. Dept. Agr,* 37–38, acting chief, *bur. agr. chem. and eng,* 38–41, *senior chem. engineer and head pulp and paper sect, agr. residues div, North. Regional Research Lab, 41–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Chemistry of the pulping processes.

Aronson, Prof. Joseph D(avid), Henry Phipps Institute, University of Pennsylvania, Philadelphia, Pa. *Medicine.* Russia, Jan. 1, 89. M.D, Medico-Chirurg. Col. Phila, 08. Prof. bacter. and path, med. dept, Arkansas, 11–14; asst, Bur. Health Lab, Phila, 14–17; asst. prof. *bacter, Henry Phipps Inst, Pennsylvania,* 20–37, *assoc. prof, 37–*; major, *Med. Corps, U. S. Army,* 41–42, *lieut. col. and chief lab, sta. hosp, Ft. Belvoir, Va, 42–* Chief lab, Base Hosps, Ft. Sill and No. 85, 17–19. A.A; Asn. Path. and Bact; Soc. Bact; Asn. Immunol; Path. Soc. Phila. Experimental pathology and bacteriology; tuberculosis.

Arrington, Dr. Luther B(ailey), N. J. State Agricultural Experiment Station, New Brunswick, N. J. *Plant physiology.* Swampscott, Mass, Dec. 11, 02. B.S, Mass. State Col, 23; M.S, Rutgers, 32, Ph.D, 34. Instr. ornamental hort, Mass. State Col, 25–27; floricult, Pa. State Col, 27–28; Rutgers, 28–30, asst. plant physiol, 30–34; dept. librarian, Columbia, 38–40; *librarian, N. J. Exp. Sta. and col. agr, Rutgers, 40–*

Arrington, Dr. Ruth E(velyn), R. F. D. 1, Manassas, Va. *Sociology.* Salem, Mass, Sept. 2, 99. A.B, Radcliffe Col, 20; Ph.D, Columbia, 32. Research assoc, Child Develop. Inst, Columbia, 30–31; asst, Inst. Human Relations, Yale, 30–32, research assoc, 32–37; *exec. asst. to sec'y, Am. Statist. Asn, 42–* A.A; Sociol. Soc; Statist. Asn; Soc. Research Child Develop. Time sampling; observational methods; social behavior of children.

Arroyo, Rafael, P. O. Box 136, Rio Piedras, P. R. *Industrial chemistry.* Mayaguez, P. R, Oct. 24, 92. B.S, Louisiana, 16; Inst. Fermentology, Copenhagen, 37. Chief chemist, Armour Fertilizer Works, 17–19; chief chemist and supt, Staier Chem. Co, 19–22; supt, Mayaguez Sugar Co, 23–29; chemist, U. S. Indust. Alcohol Co, 30–31; *chief research chemist, Exp. Sta, Puerto Rico, 31–* V. pres. and tech. director, Borinquen Associates, Inc; pres, Borinquen Associates Distillery; tech. adviser, Destileria Trop. Asn. Agr. Sciences; Int. Asn. Sugar Cane Tech. Fermentation industries, especially butanol-acetone, butyric acid, alcohol and rum.

Arsem, William C(ollins), Civilian Supply Division, War Production Board, Washington, D. C. *Chemistry.* Chelsea, Mass, May 1, 80. B.S, Mass. Inst. Tech, 01. Chem. engineer, Gen. Elec. Co, 01–18; pres. and treas, Org. Products Corp, 16–21; *pres, Indust. Tech. Corp, 18–; practising research and consulting engineer;* mem. staff, Office Price Admin. and Civilian Supply, 41; Office Production Management, 41–42, *chief miscellaneous minerals sect, civilian supply div, War Production Board, 42–* Electrochem. Soc; Chemists' Club. Electro-chemistry; organic chemistry; electric furnaces; catalysis; insulating materials; paints and varnishes; sugars; synthetic resins; carbon; foods; minerals; metals; alloys.

Arsenian, Prof. Seth, International Y. M. C. A. College, Springfield, Mass. *Psychology.* Van, Armenia, April 2, 02. A.B, Robert Col, Istanbul, 26; A.M, Columbia, 32, Ph.D, 37. Instr. math. and asst. registrar, Robert Col, Istanbul, 26–30; jr. exec. in admissions office, Teachers Col, Columbia, 33–38; *prof. psychol, Int. Y. M. C. A. Col, 38–* A.A; assoc. Psychol. Asn; Soc. Study Ed. Psychology of language; bilingualism; measurement of intelligence and attitudes; student personnel.

Arthur, Charles Walter, Health Department, Pasadena, Calif. *Bacteriology.* Manchester, N. H, Jan. 11, 97. Ph.B, Brown, 18; Yale. Instr. prev. med, Missouri, 19–20; *city bacteriologist, Pasadena, 20–,* assoc. health officer, 29–41, *acting health officer, 41–* Mem. staff, med. sch, Southern California; sch. nursing, Huntington Mem. Hosp. U.S.A, 18–19. A.A; Soc. Bact; Pub. Health Asn. Sensitivity and specificity of antigens in the serology of syphilis; function of the laboratory in the epidemiological control of syphilis; staphylococcus food poisoning.

Arthur, Dr. John M(orris), Boyce Thompson Institute, Yonkers, N. Y. *†*Botany, Biochemistry.* Paris, Ill, Nov. 12, 93. B.S, Chicago, 19, Ph.D, 26. Asst. plant physiol, Iowa State Col, 16–17; asst. physiologist, Exp. Sta, Maryland, 17–18; asst. plant physiol, Chicago, 19–21; *biochemist, Boyce Thompson Inst, 21–* Sanit.C, U.S.A, 18–19. A.A; Bot. Soc; Chem. Soc; Optical Soc; Torrey Bot. Club; Am. Inst. Effects of light, temperature and carbon dioxide pressure on growth of plants; plant physiology.

Arthur, Dr. M(ary) Grace, 35 North Grotto, St. Paul, Minn. *Psychology.* St. Paul, Minn, May 22, 83. B.S, Hamline, 17; A.M, Minnesota, 19, Ph.D, 24. Psychol. examiner and teacher, pub. schs, Minn, 17–20, psychologist, 20–23; teaching fellow psychol, Minnesota, 23–24; psychologist, Child Guidance Clinic, *St. Paul,* 24–42; *consulting psychologist, 42–* Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn. Relation of mental age to elementary school achievement; construction of point scales for the measurement of intelligence; relation of intelligence quotient to position in family; construction of tests for reading disability; stability of the intelligence quotient; tutoring as therapy; intelligence of Indian children.

Artin, Prof. Emil, Indiana University, Bloomington, Ind. *†*Mathematics.* Ph.D, Leipzig, 21. *Prof. math, Indiana, 39–*

Artom, Dr. C(amillo), Wake Forest College, Winston-Salem, N. C. *Biochemistry.* Asti, Italy, June 5, 93. Royal Univ. Rome, 11–16; M.D, Royal Univ. Padua, 17. Instr. physiol, Royal Univ. Messina, 20–23; Royal Univ. Palermo, 23–26, assoc. prof. biochem, 27–30, *prof.* physiol. and biochem, 35–38; Royal Univ. Cagliari, 30–35; *biochem,* sch. med. sciences, *Wake Forest Col,* 39–41, *Bowman Gray Sch. Med, 41–* A.A; Chem. Soc; N. C. Acad; Soc. de Chim. biol. Endocrinology; enzymology; metabolism of fats and phospholipids.

Artschwager, Dr. Ernst, U. S. Department of Agriculture, Washington, D. C. *Botany.* Linkuhnen, Germany, July 9, 89. B.S, Colorado, 15; Ph.D, Cornell, 18. Sci. asst, bur. plant indust, U. S. Dept. Agr, 16–17; asst. plant physiol, Cornell,

18–20; assoc. pathologist and later *senior plant anatomist, bur. plant indust, U. S. Dept. Agr, 20–* Collaborator, bur. plant indust, U. S. Dept. Agr, 17–20. A.A; Bot. Soc; Wash. Acad. Plant morphology, anatomy and cytology of sugar beet, sugarcane and rubber plants.

Artz, Prof. Neal E(llsworth), Syracuse University, Syracuse, N. Y. *Organic chemistry.* Lancaster, Ohio, June 18, 01. A.B, Ohio Wesleyan, 23; M.S, Syracuse, 26, Ph.D, 30. Teacher, high sch, Ohio, 23–25; instr. org. chem, *Syracuse, 25–26, physiol. chem, 26–30,* asst. prof, 30–37, *assoc. prof, 37–* Chem. Soc. (sec'y, Syracuse sect, 28–34, chairman, 34–). Chemistry of inositol and phytin.

Arveson, M(aurice) H(enshaw), Flossmoor, Ill. *Chemistry.* Antigo, Wis, Nov. 28, 02. A.B, Lawrence Col, 24; Wisconsin; Chicago; Northwestern. Asst. instr, Lawrence Col, 20–24; chemist, *Standard Oil Co. Ind,* 24–30, physicist, 30–31, patent adviser, 31–35, *tech. adviser, 35–* Chem. Soc; Soc. Rheol. Flow of plastics.

Asbury, R(obert) S(umner), 1846 Glendale Ave, Baton Rouge, La. *Chemistry.* Portland, Maine, Aug. 20, 04. B.S, Brown, 28; M.S, Mass. Inst. Tech, 30. Asst, research lab. applied chem, Mass. Inst. Tech, 28–31; *research chemist,* coal research lab, Carnegie Inst. Tech, 31–37; *Ethyl Gasoline Corp,* Detroit, Mich, 37–40, *Baton Rouge, 40–* Chem. Soc. Coal constitution; solvent treatment of bituminous coals; high pressure gas reactions.

Asch, Dr. S(olomon) E(liot), 956 E. 31st St, Brooklyn, N. Y. *Psychology.* Warsaw, Poland, Sept. 14, 07. A.B, Col. City of N. Y, 28; A.M, Columbia, 30, Ph.D, 32. Asst, Columbia, 30–31; instr. *psychol, Brooklyn Col,* 31–39, *asst. prof, 39–* Summers, Gen. Educ. Board field trip, Hopi reservation, 36; research fellow, Bellevue Psychiat. Hosp, New York, 37; fellow, Guggenheim Mem. Foundation, 41–42. Psychol. Asn. Psychology of thinking and learning; social psychology; experimental psychology.

Asdell, Prof. S(ydney) A(rthur), Cornell University, Ithaca, N. Y. *Physiology.* Bramhall, Cheshire, Eng, Aug. 23, 97. B.A, Cambridge, 22, M.A, 26, Ph.D, 25. Asst, animal nutrition inst, Cambridge, 22–28; lecturer nutrition and physiol, Massey Col, New Zealand Univ, 28–30; asst. prof. *animal physiol, Cornell,* 30–36, *prof, 36–* Int. Educ. Board fellow, 26–27. A.A; Asn. Anat; Soc. Exp. Biol; Soc. Animal Production. Reproduction and lactation in mammals.

Asenjo, Prof. Conrado F(ederico), Columbia University School of Tropical Medicine, San Juan, P. R. *Chemistry.* San Juan, P. R, Dec. 6, 08. Chem.E, Rensselaer Polytech, 33; Guggenheim Mem. Foundation fellow, Wisconsin, 37–39, M.S, 38, Ph.D, 40; guest fellow, Chicago, 40. Asst. chem, Columbia Sch. Trop. Med, Puerto Rico, 33–35; asst. chemist, Insular Dept. Agr, P. R, 35–36; instr. *chem, Columbia Sch. Trop. Med, Puerto Rico,* 36–39, assoc, 39–42, *asst. prof, 42–* A.A; Chem. Soc; Pharmaceut. Asn; Oil Chemists Soc; Inst. Hist. Pharmaceut; Soc. de Quimicos de P. R; Britton Stahl Bot. Club P. R. Phytochemistry; proteolytic enzymes; fatty oils; nutrition.

Ash, Col. J(ames) Earle, Army Medical Museum, Washington, D. C. *Pathology.* Philadelphia, Pa, Sept. 8, 84. M.D, Pennsylvania, 05; Army Med. Sch, 16–17. Instr. path, Harvard Med. Sch, 13–16; Army Med. Sch, 26–30; curator, Army Med. Museum, 29–31; assoc. prof. gross path, sch. med, Georgetown, 29–31; Sternberg Gen. Hosp, Manila, P. I, 31–34; Letterman Gen. Hosp, 34–37; *curator, Army Med. Museum, 37–* Asn. Path. and Bact; Am. Med. Asn; Col. Physicians; Asn. Mil. Surg; Wash. Soc. Path. (sec'y and treas, 28–31); Int. Asn. Geog. Path; Int. Asn. Med. Mus. (sec'y-treas, 40–).

Ash, Prof. Roy P(hillip), Powell St, Williamsburg, Va. *Biology.* Clarksburg, W. Va, Jan. 11, 07. A.B, Marietta Col, 30; A.M, Brown, 32, Ph.D, 35. *Asst. prof. biol, Col. of William and Mary, 35–; lieut, Sanit. Corps, U. S. Army, 42–* A.A; Va. Acad. Relations between certain heterophile antibodies and antigens; spermatoxins; genetics of Impatiens balsamina.

Ashbrook, Dr. Donald S(inclair), 320 Broadway, New York, N. Y. *Chemistry.* Philadelphia, Pa, 80. B.S, Pennsylvania, 02, Ph.D, 04. Gen. supt, Joseph Bancroft and Sons Co, Del; v. pres, Bradford Dyeing Asn, Bradford, R. I; *pres, Decorative Textiles Co.* A.A; Chem. Soc. Textile chemistry.

Ashbrook, Frank G(etz), 36 Winston Drive, Bethesda, Md. *Biology.* York, Pa, Oct. 20, 92. B.S, Pa. State Col, 14. Investigator, bur. animal indust, U. S. Dept. Agr, 14–18, supt. cattle shipments, French High Cmn, 19–21; *biologist in charge fur resources, fish and wildlife service, U. S. Dept. Interior, 21–* Lieut, U.S.A, 18–19. Wildlife Soc. Production, conservation and utilization of fur animals.

Ashburn, Dr. H(oward) G(ilmer), Tennessee Polytechnic Institute, Cookeville, Tenn. *Organic chemistry.* Reedsville, W. Va, Nov. 8, 09. A.B, West Virginia, 31, Ph.D, 36; Michigan, 38; Cornell, 39. Asst. chem, West Virginia, 31–36; res. chemist, Exp. Sta, West Virginia, 36–37; *assoc. prof. chem, Tenn. Polytech, 37–, acting head dept, 41–* A.A; Chem. Soc; Tenn. Acad. Beta-alkoxy ethyl esters of chlorocarbonic acid and carbamic acid; determination of sodium in plant materials.

Ashby, Dr. Carl T(ollver), Servel, Inc, Evansville, Ind. *Physical chemistry.* Vale, Ark, June 26, 05. A.B, Texas, 29, A.M, 31, Ph.D, 34. Tutor chem, Texas, 29–32, instr, 33–34; *research engineer, Servel, Inc, 34–* Chem. Soc. Extent and heat of adsorption of ammonia and the methylamines on various adsorbents; absorption refrigeration.

Ashby, Wallace, 3746 Jocelyn St, N. W, Washington, D. C. *Agricultural engineering.* Des Moines, Iowa, Aug. 23, 90. B.S, Iowa State Col, 13, A.E, 24. Instr, Iowa State Col, 13–14; barn architect, U. S. Dept. Agr, 14–17; agr. engineer and supt. land develop. operation, Duluth and Iron Range R. R, 19–28; assoc. agr. engineer, div. agr, bur. pub. roads, *U. S. Dept. Agr,* 28–31, chief div. structures, bur. agr. chem. and eng, 31–41, *chief farm equipment and supplies sect, div. war board services, Agr. Adjust. Agency, 42–, asst. director hemp div, Commodity Credit Corp, 42–* C.Eng, 17–19, capt. Agr. Eng. Farm structures; land development; farm machinery.

Ashby, Dr. Winifred (Mayer), St. Elizabeth's Hospital, Washington, D. C. *Bacteriology, Immunology.* London, Eng, 79. B.S, Chicago, 03; M.S, Washington (St. Louis), 05; Ph.D, Minnesota, 21. Research, div. exp. bacter, Mayo Foundation, Minnesota, 21–23, div. med, Mayo Clinic, 23–24; *med. bacteriologist, St. Elizabeths Hosp, 24–* A.A; Soc. Bact; Soc. Immunol. Physiology of the blood; blood destruction; mechanism of variation in fragility of blood corpuscles; blood volume; fluctuations in metabolism; colloidal gold; viability of the red blood corpuscle in vitro; carbonic anhydrase in the dental nervous system.

Ashcraft, Dr. D(erwin) W(illoughby), 40 Brevoort Road, Columbus, Ohio. *Physiology.* Norwich, Conn, Feb. 16, 96. D.V.M, Ohio State, 23, M.S, 28, Ph.D, 32. Instr. vet. anat, *Ohio State,* 24–30, physiol, 27–37, asst. prof. *pharmacol. and physiol, col. vet. med,* 37–40, *assoc. prof, 40–* Vet. Med. Asn; Ohio Acad. Physiology of the digestive system; decerebration of the domestic fowl; effects of feeding upon the hydrogen ion concentration of the intestinal contents of domestic fowls.

Ashcraft, Dr. E(lmer) Bruce, Westinghouse Research Laboratories, East Pittsburgh, Pa. *Physical chemistry, Analytical chemistry.* Chanute, Kans, Dec. 6, 07. B.S, Kansas, 30; M.S, Carnegie Inst. Tech, 34; Westinghouse Elec. and Mfg. Co. Lamme scholar, Cornell, 35–37, Ph.D, 37. Asst. instr, Kansas, 30; *research engineer, Westinghouse Research Labs, 30–* Chem. Soc; Soc. Test. Mat. Physical and electrochemistry; spectrographic analysis; infra-red absorption spectroscopy; x-ray diffraction; microanalysis; microscopy.

Ashcraft, Dr. J(acob) Osborn, Jr, 1165 Delaware Ave, Buffalo, N. Y. *Organic chemistry.* St. Anthony, Idaho, Sept. 6, 11. B.S, Idaho, 34, M.S, 36; Ph.D, Pa. State Col, 41. Teaching asst. chem, Idaho, 36–38; *research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 41–* Reactions of alpha bromo-anilides; preparation of aliphatic ketenes.

Ashcraft, Prof. T(homas) B(ryce), 34 Pleasant St, Waterville, Maine. *Mathematics.* Marshville, N. C, Nov. 27, 82. A.B, Wake Forest Col, 06; Ph.D, Hopkins, 11. Prin, high sch, N. C, 06–07; assoc. prof. *math, Colby Col,* 11–13, *prof, 13–* Math. Soc; Math. Asn. Quadratic involutions on the plane rational quartic.

Ashdown, Prof. Avery A(llen), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* North Collins, N. Y, Oct. 28, 91. A.B, Rochester, 14, A.M, 16; Grasselli fellow, Mass. Inst. Tech, 23–24, Ph.D, 24. Asst. biol, Rochester, 15–16, instr. chem, 16–20; asst. org. chem, *Mass. Inst. Tech,* 21–23, Moore fellow to Switzerland, 24–25, research

assoc. *org. chem*, 25–30, instr, 30–34, asst. prof, 34–40, *assoc. prof, 40–, master grad. house, 33–* Acting city chemist, Rochester, 19–20. A.A; Chem. Soc. (chairman, northeast. sect, 41; councilor, 43); Hist. Sci. Soc. Organic chemistry.

Ashe, Dr. Benjamin I, 889 Lexington Ave, New York, N. Y. *Internal medicine.* Sept. 1, 00. B.S, Col. City of N. Y, 20; M.D, Cornell, 24. Intern, N. Y. Post-Grad. Hosp, 24–26, res. physician, 26; instr. med, N. Y. Post-Grad. Med. Sch, Columbia, 27–30, assoc, 30–33; instr. *clin. med*, med. col, Cornell, 33–41, *asst. prof, 42–; N. Y. Post-Grad. Med. Sch, Columbia,* 36–38, *assoc. prof, 38–; lieut. col, Med. Corps, U. S. Army, 42–* Chief clinic, metabolic div, N. Y. Post-Grad. Hosp, 28–, asst. attending physician and assoc. attending physician, 30–, chief diagnostic clinic; Willard Parker Hosp, 29–31; adj. asst. visiting physician, Reconstruction Hosp, 30–33; asst. visiting physician and assoc. visiting physician, Bellevue Hosp, 33–; visiting physician, Welfare Hosp. A.A; Am. Med. Asn; fel. Col. Physicians. Measles; hypoglycemia; blood count and transfusion in Bright's disease and hypertension; diabetes mellitus; average food intake.

Asher, Prof. E(ston) J(ackson), University of Kentucky, Lexington, Ky. *Psychology.* London, Ky, June 25, 01. A.B, Kentucky, 23, A.M, 24. Instr. *psychol*, Texas, 24–28; *Kentucky,* 28–29, asst. prof, 29–37, *assoc. prof, 37–* Psychologist, bur. home econ, U. S. Dept. Agr, 31; consultant, U. S. Pub. Health Service, 39. Director, State Cooperative Testing Service, Ky. Asn. Applied Psychol; Psychol. Asn. Mental measurements; statistics; child psychology.

Ashford, Dr. Theo(dore) A(skounes), 6120 University Ave, Chicago, Ill. *Chemistry.* Greece, Feb. 27, 08. B.S, Chicago, 32, M.S, 34, Ph.D, 36. Chemist, Rapid Roller Co, 30–32; teacher, high schs, Ill, 32–36; *instr. chem, Chicago, 36–, examiner, 38–* Chem. Soc. Organo-metallic compounds; coordination compounds; chemical education; tests and examinations.

Ashley, Dr. Geo(rge) H(all), The Capitol, Harrisburg, Pa. *[2]Geology.* Rochester, N. Y, Aug. 9, 66. M.E, Cornell, 89; A.M, Stanford, 92, Ph.D, 94. Paleontologist, Ward's Nat. Science Estab, Rochester, N. Y, 89–91; asst. geologist, Ark. Geol. Surv, 91–93; teacher, high schs, Calif, 94–96; asst. state geologist, Ind, 96–00; prof. biol. and geol, Col. of Charleston, 00–03; asst. geologist, U. S. Geol. Surv, 01–05, geologist, 05–12, administrative geologist, 12–19; *state geologist, Pa, 19–* Prof. pharmacog, Med. Col. State of S. C, 01–03; state geologist, Tenn, 10–12; acting prof, Vanderbilt, 17. Mem. juries awards, S. C. I. and W. I. Expos, 02. A.A; Geol. Soc; Min. and Metal. Eng; hon. mem. S. C. Pharmaceut. Asn; cor. mem. Ind. Acad; hon. mem. Tenn. Acad; Pa. Acad. (pres, 37). Geology of coal; sources of power.

Ashley, Prof. R(aymond) Harman, 9 Jay St, Canton, N. Y. *Chemistry.* London, Eng, March 29, 81. B.S, Rutgers, 03, M.S, 06; A.M, Yale, 05, Ph.D, 06. Instr. and asst. prof. *chem*, Maine, 13–16; *prof. and head dept*, premed. sch, Tufts Col, 16–29; *St. Lawrence, 29–* Lecturer, Forsyth Dental Infirmary, Boston, Mass. Chem. Soc. Analytical and organic chemistry; chemical calculations.

Ashley, Dr. Warren C(otton), 4851 S. St. Louis Ave, Chicago, Ill. *Organic chemistry.* Yorkville, Ill, Dec. 25, 04. B.S, Illinois, 29, M.S, 30, Ph.D, 35; fellow, Iowa State Col, 31. Org. chemist, Eastman Kodak Co, 34; *research org. chemist,* Battelle Mem. Inst, 35–38; *Pyroxylin Products, Inc, 38–* Chem. Soc. Coal briquetting; synthetic resins and plastic compositions; lacquer type and hot melt specialties.

Ashman, Dr. G(eorge) C(romwell), 306 Barker Ave, Peoria, Ill. *Chemistry.* Frankfort, Ind, Aug. 19, 69. B.S, Wabash Col, 95, A.M, 06; M.S, Chicago, 05, fellow, 07–08, Ph.D, 08. Asst. chem, Wabash Col, 95–96; instr, high sch, Ind, 96–01; State Nor. Sch, Ill, 01; from instr. to prof. *chem, Bradley Polytech. Inst,* 02–40, *emer. prof, 40–* A.A; Chem. Soc; Cent. Asn. Sci. and Math. Teachers; Ill. Asn. Chem. Teachers (pres); Ill. Acad, Determination of the radium emanation in the atmosphere; preparation of urano-uranic oxide and a standard of activity; the specific radioactivity of thorium and its products.

Ashman, Prof. Richard, Louisiana State University School of Medicine, New Orleans, La. *Physiology.* Philipsburg, Pa, Aug. 13, 90. Litt.B, Rutgers, 15; M.S, Tulane, 20, Ph.D, 25. Asst. zool, Rutgers, 16–17; physiol, Illinois, 17–18; instr, Tulane, 18–24, asst. prof, 24–30; Vanderbilt, 30–31; *prof. physiol, sch. med, Louisiana, 31–* A.A; Physiol. Soc; Soc. Exp. Biol. Conductivity and excitability of cardiac muscles; electrocardiography; pulse wave velocity.

Ashton, Fred(eric) W(illiam), 7817 S. Ridgeland, Chicago, Ill. *Chemistry.* Saguache, Colo, July 27, 87. A.B, Washington (Seattle), 12, M.S, 15, teacher's life diploma, 22. Chemist, Wash. Geol. Surv, 12–13; teaching fellow, Washington (Seattle), 12–15; from instr. to prof. chem, Philippines, 15–21; teacher, high sch, Wash, 21–22; research chemist, Portland Cement Asn, Chicago, 22–23; petrographer and fellow, Portland Cement Asn, Bur. Standards, 23–29, assoc. chemist, 29–30; director chem, L. D. Caulk Co, Del, 30–32; state soils analyst and soil surveyor, Wash, 34–35; field clerk, U. S. Dept. Agr, 35, asst. agr. and project manager, soil conservation service, 35–36; *petrographer, Universal Atlas Cement Co, Buffington, Ind, 36–* Chem. Soc; Soc. X-Ray and Electron Diffraction. Petrography; optical properties of organic compounds and of substances related to Portland and alumina cement.

Ashworth, Dr. Ural S(tephen), State College of Washington, Pullman, Wash. *Chemistry.* Walla Walla, Wash, Sept. 11, 05. A.B, Missouri, 29, Ph.D, 33. Asst. agr. chem, Missouri, 29–34, research instr, 34–35; Alexander Brown Coxe fellow, Yale, 35–37; asst. prof, med. sch, Arkansas, 37–39; *research dairy chemist, State Col. Wash, 39–* A.A; Chem. Soc. Energy and protein metabolism during growth; nutrition; protein and enzyme chemistry; use of milk in baking; methods of analysis for dairy products.

Aslakson, Lieut. Col. Carl I(ngman), 5907 Wilson Lane, Bethesda, Md. *Geodesy.* Park River, N. Dak, April 23, 96. B.S, Minnesota, 23. Material testing engineer, State Highway Dept, Minn, 20–23; from aid to lieut. commander, U. S. Coast and Geod. Surv, 23–42; *lieut. col, weather directorate, Air Forces, U. S. Army, 42–* In charge U. S. delegation, Cmn. for Cooperative Gravimetric Observations, Peru and Colombia, 40, 41. A.A; Geophys. Union; Civil Eng; Soc. Mil. Eng. Sextant methods of topography; theodolite circle and micrometer errors; base measuring methods; precision alinement; cartography of weather charts.

Asling, Prof. C(larence) Willet, University of Kansas School of Medicine, Lawrence, Kans. *Microscopic anatomy.* Duluth, Minn, June 17, 13. A.B, Kansas, 34, A.M, 37, M.D, 39. Asst. instr. micros. anat, Kansas, 34–37; intern, Huntington Mem. Hosp, Pasadena, Calif, 39–40; instr. anat, *sch. med,* Vanderbilt, 40–41; *Kansas,* 41–42, *asst. prof. anat. and lecturer surg. anat, 42–* Histology of intestine and nervous system; medical history.

Asmundson, Prof. V(igfus) S(amundur), College of Agriculture, University of California, Davis, Calif. *Poultry husbandry.* Reykjavik, Iceland, Sept. 24, 95. B.S.A, Saskatchewan, 18; M.S.A, Cornell, 20; Ph.D, Wisconsin, 30. Instr. *poultry husbandry,* British Columbia, 20–21, asst. prof, 21–27, assoc. prof, 27–32; assoc, *California,* 32–33, asst. prof, *col. agr,* 33–38, *assoc. prof, 38–, assoc. poultry husbandman, Exp. Sta, 38–* Summer, prof, Agr. and Mech. Col. Texas, 41. Poultry science research prize, 31; Borden award and gold medal, 42. A.A; Poultry Sci. Asn; Genetic Asn; Soc. Exp. Biol. Genetics of poultry; formation of the hen's egg.

Aspinall, Dr. Samuel R(usmisell), Office of Scientific Research and Development, 1530 P St, N.W, Washington, D. C. *Organic chemistry.* Philippi, W. Va, June 27, 15. A.B, West Virginia, 35; Ph.D, Yale, 38. Instr. chem, Swarthmore Col, 38–41; *tech. aid, div. B, Nat. Defense Research Cmt, Office Emergency Management, 41–* Chem. Soc. Aliphatic diamines.

Assadourian, Dr. F(red), 333 Third Ave, New York, N. Y. *Mathematics.* Panderma, Turkey, April 13, 15. B.S, N. Y. Univ, 35, M.S, 36, Ph.D, 40. *Instr. math, col. eng, N. Y. Univ, 37–* Math. Soc. Almost-translation groups of almost-periodic functions.

Assmuth, Rev. Joseph, S.J, Fordham University, New York, N. Y. *Biology.* Bockwitz, Germany, Feb. 21, 71. Leipzig, 06; Ph.D, Berlin, 10. *Prof.* zool, Bombay Univ, India, 10–16; *biol, Fordham, 24–* A.A; Micros. Soc; N. Y. Zool. Soc; Deuts. Zool. Gesell; Deuts. Entom. Gesell; Bombay Soc. Nat. Hist. (managing cmt, 11–15). Termites; termitophilous insects.

Astin, Dr. Allen V(arley), 5008 Battery Lane, Bethesda, Md. *Physics.* Salt Lake City, Utah, June 12, 04. A.B, Utah,

25; Ph.D, N. Y. Univ, 28. Teaching fellow physics, N. Y. Univ, 25–28; nat. research fellow, Hopkins, 28–30; research assoc, *Bur. Standards*, 30–32, assoc. physicist, 32–36, physicist, 36–42, *senior physicist, 42–, lecturer, grad. sch, 36–* Physical Soc. Dielectrics; radiometeorography; precise electrical measurements.

Astle, Dr. Melvin J(ensen), University of Kentucky, Lexington, Ky. *Organic chemistry.* Afton, Wyo, May 8, 10. B.S, Utah, 32, M.S, 34; Ph.D, Purdue, 42. Asst. chem, Utah, 32–34; instr. physics and chem, high sch, Utah, 35–38; asst. chem, Purdue, 38–41; *instr. org. chem, Kentucky, 41–* Chem. Soc. Polarographic investigations in anhydrous media; applications of the dropping mercury cathode to organic chemistry, particularly in the determination of structure of organic molecules.

Aston, Prof. J(ohn) G(eldart), 201 High St, State College, Pa. **7Chemistry.* Barrow-in-Furness, Eng, Dec. 30, 02. B.S, California, 23, M.S, 24, Ph.D, 26. Research assoc, Harvard, 26–28; instr, Northwestern, 28–29; physical chem, *Pa. State Col*, 29–31, asst. prof. chem, 31–35, assoc. prof, 35–36, *prof. org. chem, 36–, director cryogenic lab, 38–* Chem. Soc. Organic and physical chemistry; organic nitrogen compounds; low temperature thermal data on organic compounds.

Astrachan, Prof. Max, 240 E. Whiteman St, Yellow Springs, Ohio. *Mathematics.* Rochester, N. Y, March 30, 09. A.B, Rochester; A.M, Brown, 30, Ph.D, 35; Pa. State Col, 41. Instr. *math*, Brown, 29–35; *Antioch Col*, 35–37, asst. prof, 37–42, *assoc. prof. and chairman dept, 42–* Math. Soc; Math. Asn. Summability of Fourier series.

Astwood, Prof. Edwin B(ennett), Harvard Medical School, Boston, Mass. *Endocrinology, Internal medicine.* Bermuda, Dec. 29, 09. B.S, Washington Missionary Col, 29; Col. Med. Evangelists, 29–31; M.D, McGill, 34; fellow, Hopkins, 35–37; Rockefeller fellow, Harvard, 37–39, fellow, 38–39, Ph.D, 39. Med. house officer, Royal Victoria Hosp, Montreal, Que, Can, 34–35; assoc. obstet, Hopkins, and asst. obstetrician, Hopkins Hosp, 39–40; *asst. prof. pharmacotherapy, Harvard Med. Sch, 40–* Assoc, Peter Bent Brigham Hosp, 40– A.A; Chem. Soc; Physiol. Soc; Soc. Study Int. Secretions. Mammary gland development; ovarian hormones; reproductive physiology; hormones of the adrenal cortex and anterior pituitary; glucose metabolism; thyroid gland.

Atack, Dr. F(rederick) W(illiam), Dye and Chemical Co, Kingston, Ont, Can. *Chemistry.* Boston, Lincolnshire, Eng, Jan. 3, 92. B.Sc, London, 12; M.Sc.Tech, Manchester, 12, D.Sc, 21. Staff, faculty technol, Manchester, 11–15; director research, British Alizarine Co, 19–21; v. pres, E. C. Klipstein Co, New York, 22–23; *pres, Dye and Chem. Co. of Can, 23–; pres, Indust. Processes Develop, Ltd, 26–; pres, Prodorite, Ltd, 30–* Consulting chemist, Kingston. Chem. Soc; fel. Inst. Chem. London. Dyestuffs; organic and analytical chemistry.

Atanasoff, Prof. John V(incent), 3439 Woodland St, Ames, Iowa. *Mathematical physics.* Oct. 4, 03. B.S, Florida, 25; M.S, Iowa State Col, 26; Ph.D, Wisconsin, 30. Instr. *math*, Iowa State Col, 26–29; Wisconsin, 29–30; asst. prof, *Iowa State Col*, 30–36, *assoc. prof, 36–* Physical Soc; Math. Soc. Quantum theory; crystal dynamics; mechanized computation; approximate solution of differential equations.

Atchley, Prof. Dana W(inslow), 262 Oakwood Road, Englewood, N. J. *Medicine.* Chester, Conn, July 8, 92. B.S, Chicago; M.D, Hopkins, 15. Instr. *med*, Hopkins, 19–21, assoc, 21–25; asst. prof, *col. physicians and surg, Columbia*, 25–28, *assoc. prof, 28–* A.A; Am. Med. Asn; Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc. Physiological chemistry; chemical problems in internal medicine; edema; nephritis.

Athy, Dr. L(awrence) F(erdinand), 612 McFadden Drive, Ponca City, Okla. *Geology, Geophysics.* Bryan, Ohio, June 1, 98. B.S, Denison, 19; Ph.D, Chicago, 25. Research geologist, Marland Oil Co, 25–28; asst. supt. *geophys. dept, Continental Oil Co, Ponca City*, 28–30, *supt, 30–, chief geophysicist, 30–* Summers, Ill. Geol. Surv, 23, 24. A.A; Asn. Petrol. Geol; Soc. Explor. Geophys; Seismol. Soc; Okla. Acad. Geology and mineral resources of the Herscher quadrangle in Illinois; compaction of sediments; physical properties of rock and their relation to petroleum geology and geophysics; applied geophysics.

Atkeson, Prof. F(loyd) W(arnick), Kansas State College, Manhattan, Kans. *Dairy husbandry.* Butler, Mo, Nov. 28, 93. B.S. (Agr), Missouri, 18; M.S, Kans. State Col, 29. Asst. dairy husbandry, Kans. State Col, 18–20; field rep, southwest, states, Am. Jersey Cattle Club, 20–21; *prof. dairy husbandry and head dept*, Idaho, *and dairy husbandman, Exp. Sta*, 21–35; *Kans. State Col, 35–* Summer, instr, Mo. Nor. Sch, Cape Girardeau, 18. Accredited judge, Am. Jersey Cattle Club and Holstein-Friesian Asn. Amer; mem. cmt. official inspectors of Holstein and Jersey cattle for type. Soc. Animal Production; Dairy Sci. Asn. (chairman, west. div, 25); Genetic Asn. Breeding of dairy cattle; inheritance of specific characters; value of certain feeds; pasture studies; mastitis control; fly spray; cooperative cream pools; sterilization of dairy utensils.

Atkin, Dr. Lawrence, 810 Grand Concourse, New York, N. Y. *Biochemistry.* New York, N. Y, Nov. 4, 08. B.S, Col. City of N. Y, 32; Ph.D, N. Y. Univ, 41. *Research chemist, Fleischmann Labs, Standard Brands, Inc, 32–* Chem. Soc; fel. Inst. Chem; Asn. Cereal Chem. Vitamins; enzymes; yeasts; molds; fermentation.

Atkins, Prof. C(yril) F(itzgerald), 2220 Douglas St, Charlotte, N. C. *Organic chemistry.* Barbados, B. W. I, July 15, 99. B.S, Tufts Col, 24; M.S, Iowa, 25, Ph.D, 35. *Prof. chem*, Negro Agr. and Tech. Col. N. C, 26–29; Wiley Col, 29–31; *J. C. Smith Univ, 31–* Chem. Soc. Relative activity of alcoholic and phenolic hydroxides; rearrangement of formyl radical in o-aminophenols.

Atkins, Dr. I(rvin) M(ilburn), U. S. Department of Agriculture, Denton, Texas. *Plant breeding, Agronomy.* Corning, Kans, July 24, 04. B.S, Kans. State Col, 28, M.S, 36; Ph.D, Minnesota, 43. Asst. supt. and junior agronomist, field sta, *U. S. Dept. Agr*, San Antonio, Texas, 28–30, *assoc. agronomist and asst. supt. Texas sub-sta. no. six, div. cereal crops and diseases, 30–* Soc. Agron. Plant breeding; improved varieties of wheat, oats and barley for Texas conditions; effects of rust on yield; lodging of small grains; varietal resistance to rust and loose smut.

Atkins, Prof. Kenneth N(oel), Hovey Lane, Hanover, N. H. *Bacteriology.* Middletown, Conn, Dec. 25, 86. Ph.B, Wesleyan, 08, A.M, 10; Chicago, 10–13; A.M, Dartmouth Col, 28. Asst. bacteriologist, State Board Health, Conn, 08–10; state bacteriologist, Ga, 13–15; instr. *bacter, Dartmouth Med. Sch*, 15–18, asst. prof, 18–28, *prof, 28–* Bacteriologist, Mary Hitchcock Hosp, 16–; assoc. epidemiologist, State Board Health, N. H. Soc. Bact. Bacteriological technique.

Atkinson, Prof. A(lbert) A(lgernon), Athens, Ohio. *Physics, Electrical engineering.* Nelsonville, Ohio, March 7, 67. B.S, Ohio (Athens), 91, M.S, 95; Michigan, 92–93. Sch. supt, Ohio, 91–92; assoc. prof. physics, *Ohio (Athens)*, 93–95, *prof. physics and elec. eng, 95–*, dean *col. applied science*, 36–37, *emer. dean, 41–* Physical Soc; Elec. Eng; Eng. Educ; Ohio Acad. The relative actinic power of the spectrum colors; surface tension and osmotic pressure; deposition of copper and silver; elongation of nickel in transverse magnetic fields; electrical and magnetic calculations; physics of common things.

Atkinson, Pres. Alfred, University of Arizona. Tucson, Ariz. *Agriculture.* Seaforth, Ont, Can, Oct. 6, 79. Ont. Agr. Col, 99–02; B.S.A, Iowa State Col, 04, Sc.D, 20; M.S, Cornell, 12. Asst. agron, Exp. Sta, Iowa State Col, 02–04; prof, Mont. State Col, 04–19, *pres*, 19–37; *Arizona, 37–* State food administrator, Mont, 17–19. A.A; Soc. Agron; Genetic Asn; Asn. Land-Grant Cols. and Univs. (pres, 36). Dry farming; soil moisture control and nitrate formations; crops.

Atkinson, Prof. Edward R(edmond), University of New Hampshire, Durham, N. H. *Organic chemistry.* Boston, Mass, Feb. 15, 12. B.S, Mass. Inst. Tech, 33, Ph.D, 36. Teaching fellow chem, Mass. Inst. Tech, 33–36; instr. org. chem, Trinity Col. (Conn), 36–38; *asst. prof. chem, New Hampshire, 38–* Chem. Soc; Asn. Textile Chem. and Colorists. Diazonium compounds; history of chemistry.

Atkinson, Prof. Ernst A(lbert), Montana State University, Missoula, Mont. *Psychology.* Adrian, Mo, July, 94. A.B, Denver, 20; A.M, Montana, 22. Asst. prof. *psychol, Montana*, 22–33, assoc. prof, 33–34, *prof, 34–* Psychol. Asn. Abnormal psychology; mental hygiene.

Atkinson, F(rederick) C(ornelius), 213 E. South St, Indianapolis, Ind. *Chemistry.* Newton, Ala, Jan. 13, 81. B.S, Ala. Polytech, 02, M.S, 03. Exp. Sta, Clemson Col, 05; asst, dist, assoc. chemist and chemist, South. Cotton Oil Co. and other companies, 03–12; *chief chemist, Am. Hominy Co, 13–; consulting chemist and engineer.* Chem. Soc. (v. pres, Ind.

sect, 13, pres, 16–18, councilor, 15, 16, 19, 20); Soc. Chem. Indust; Electrochem. Soc; Oil Chemists Soc; Asn. Eng. (director, Indianapolis chap, 23); Ind. Eng. Soc. (director, 24); Scientech Club (pres, 21, director, 22–26). Biological and industrial chemistry; cereals and cereal products; destructive distillation; nitrocellulose lacquers; incandescent lamps; colors; process development.

Atkinson, Dr. H(ammond) J(ohnson), Central Experimental Farm, Ottawa, Ont, Can. *Soils.* Newcastle, N. B, June 15, 05. B.A, New Brunswick, 25; M.S, McGill, 26, Ph.D, 34. Asst. chemist, Bathurst Co, Bathurst, N. B, 26–28; instr. pulp and paper, Edmundston Vocational Sch, Edmundston, N. B, 28–29; chemist, Restigouche Co, Campbellton, N. B, 30; asst, Macdonald Col, McGill, 30–35; soil investigator, Trail smelter smoke project, Nat. Research Council Can, 35–36; *asst. chemist, div. chem, Dept. Agr, Ottawa, 36–* Assoc. Can. Inst. Chem; Can. Soc. Tech. Agr. Food chemistry; soil chemistry; microbiology.

Atkinson, Mrs. Lenette R(ogers), 405 S. Pleasant St, Amherst, Mass. *Botany.* South Carver, Mass, March 30, 99. A.B, Mt. Holyoke Col, 21; A.M, Wisconsin, 22, Ph.D, 25. Asst. bot, Wisconsin, 21–25; Cmn. Relief Belgium fellow, Belgium, 25–27; acting prof. bot, Mt. Holyoke Col, 27–28; *private research.* Cytology of pteridophytes.

Atkinson, R(alph) W(aldo), General Cable Corp, Perth Amboy, N. J. *Electrical engineering.* Smithland, Iowa, June 16, 87. B.S, Iowa State Col, 06, E.E, 11. Eng. apprentice, Westinghouse Elec. and Mfg. Co, 06–08; asst. chief engineer, Standard Underground Cable Co, 08–24, chief elec. engineer, 24–30; *director high tension labs, Gen. Cable Corp, 31–* Mem. cmt. on elec. insulation, Nat. Research Council. A.A; Standards Asn; fel. Elec. Eng. (sec'y, Pittsburgh sect, 11, mem, exec. cmt, 12, standards cmt, research cmt); assoc. Inst. Elec. Eng. Gt. Britain. Current carrying capacity of electric power cables; properties of insulating materials; dielectric field in electric power cables; oil-filled cables and accessories; control of dielectric field in cable joints and terminals; signal cables; dielectrics.

Atkinson, Robert, Shipley School, Bryn Mawr, Pa. *Mathematics.* Lodi, N. J, Feb. 1, 00. B.S, Haverford Col, 21, A.M, 23; fellow, N. Y. Univ, 23–24. Provident Mutual Life Ins. Co, 24–25; teacher math, col. div, Hampton Inst, 25–38; *head dept. math. and science, Shipley Sch, 38–* Math. Asn.

Atkinson, Dr. Robert G(eorge), Shamrock Oil and Gas Corp, Sunray, Texas. *Chemical engineering.* Allegheny Co, Pa, Oct. 23, 07. B.S, Pittsburgh, 29, Ph.D, 34. Chem. engineer, Pure Oil Co, 34–36; research chem. engineer, U. S. Bur. Mines, 36–38; *refinery supt, Shamrock Oil and Gas Corp, 38–* Petrol. Inst; Chem. Soc. Petroleum refining; coal carbonization.

Atkinson, Dr. Spencer R(oane), 407 Professional Bldg, 65 N. Madison Ave, Pasadena, Calif. *Orthodontics.* Camden Co, Ga, Sept. 2, 86. D.D.S, South Dental Col, 17; Angle Col. Orthodontia, 20; hon. M.D.S, Southern California, 36. Teacher, Angle Col. Orthodontia, 20–28; *prof. orthodontics and director grad. orthodontics, col. dentistry, Southern California, 36–* Mem. staff, Atlanta South. Dental Col, 17–24; visiting prof, Nat. Univ. Mexico, 37–; Guadalajara; Col. Physicians and Surg, San Francisco, 38– Trustee, col. dentistry, Southern California. Hon. pres, Medico-Dental Conf, Mexico City, 38. Fel. Col. Dentists; Dental Asn; Asn. Orthodontists; Pacific Coast Asn. Orthodontists; South. Calif. Dental Asn; Asn. Mexicano de Ortodonca (hon. pres); hon. mem. Asn. Guadalajara Ortodoncia; Int. Col. Dentists. Embryological and osteological developmental anatomy of the head and neck of children.

Atkinson, Prof. W(illiam) Bryce, 1494 Marin Ave, Berkeley, Calif. *Analytical and inorganic chemistry.* Campbell, Calif, April 16, 04. B.S, California, 26, M.S, 27. Instr. *chem, San Francisco,* 27–29, asst. prof, 29–33, *assoc. prof, 33–* Micro-chemical analysis; equilibria in solutions; solubilities in non-aqueous solvents.

Atkinson, Prof. W(illiam) R(udolph), Southwestern, Memphis, Tenn. *Psychology.* Clarksville, Tenn, Sept. 17, 94. B.S, Peabody Col, 19, Ph.D, 27; A.M, Columbia, 20. *Prof. psychol, Southwestern (Tenn), 22–* Assoc. Psychol. Asn; S. Soc. Philos. and Psychol; Tenn. Acad. Relation of intelligence and mechanical speeds to learning ability; color preference with variations in hue, chroma and value.

Atlas, Dr. Meyer, 77 Linden Blvd, Brooklyn, N. Y. *Zoology.* New York, N. Y, Dec. 13, 07. B.S, Col. City of N. Y, 28; A.M, Columbia, 30, Ph.D, 35. Asst. zool, Columbia, 30–34; *instr. biol,* Col. City of N. Y, 34–35; *Yeshiva Col, 36–* A.A. Experimental embryology; temperature and rate of development; metabolism during development.

Atlee, Prof. H(arold) B(enge), 119 S. Park St, Halifax, N. S, Can. *Obstetrics.* Pictou, N. S, Nov. 24, 90. M.D, Dalhousie, 11. Demonstrator anat, *Dalhousie,* 21–23, *prof. obstet. and gynec, 23–* Can. Med. Asn; fel. Royal Col. Surg. Can; N. S. Med. Soc; fel. Royal Col. Surg. Edinburgh. Gynecology.

Atsatt, Prof. Sarah R(ogers), University of California at Los Angeles, Los Angeles, Calif. *Zoology.* Mattapoisett, Mass, 88. A.B, Pomona Col, 10; M.S, California, 12, Ph.D, 31. Mills Col, 12–15; Calif. State Nor. Sch, Los Angeles, 15–19; California at Los Angeles, 19–27; assoc. prof. biol, Scripps Col, 27–33; *asst. prof. zool, California at Los Angeles, 33–* A.A; Soc. Ichthyol. and Herp. Reptiles; physiology.

Attix, Dr. J(ames) C(onner), 2355 N. 13th St, Philadelphia, Pa. *Chemistry, Metallurgy.* Near Kenton, Del, Feb. 28, 70. B.S, Lafayette Col, 95, M.S, 98; D.D.S, Medico-Chirurg. Col. Phila, 01, M.D, 04; Pharm.D, Temple, 12. Asst. chem, Lafayette Col, 95–96; Pa. State Col, 96; chemist, various iron and steel works, 96–98; asst. chem. and metal, Medico-Chirurg. Col. Phila, 98–01; supt, St. Ignace Furnace, Mich, and Goshen Furnace, Va, 01–03; *prof. chem. and toxicol, Temple, 04–* Am. Med. Asn; Phila. Roentgen Ray Soc; Phila. Clin. Soc. Volatile combustible matter in coal and coke; poisons; poisoning by permanganate of potash; utilization of fine ore and flue dust in the blast furnace; hippuric acid secreted and excreted in certain infections; blood pressure instruments; diabetes; ivy poisoning; administration of salicylates.

Attwood, Prof. Stephen S(tanley), 1411 Wells St, Ann Arbor, Mich. *Electrical engineering.* Cleveland, Ohio, May 29, 97. B.S.E, Michigan, 18, M.S, 23. Engineer, Packard Motor Car Co, 19–20; instr. *elec. eng, Michigan,* 20–25, asst. prof, 25–33, assoc. prof, 33–38, *prof, 38–* Mem. cmt. on elec. insulation, Nat. Research Council, 33– Ensign, U.S.N, 18–19. Elec. Eng. (cmt. on basic sciences, 32–42); Eng. Educ. Electric arcs and surges; insulation; electrical theory; electric and magnetic fields; electric breakdown of dielectrics.

Atwater, Dr. Helen W(oodard), Mills Bldg, Washington, D. C. *Home economics.* Somerville, Mass, May 29, 76. B.L, Smith Col, 97, hon. Sc.D, 43. Personal ed. asst. to Prof. W. O. Atwater, Wesleyan, 97–04; expert, sci. asst. and in charge ed. work, office home econ, U. S. Dept. Agr, 09–23; ed, 'Jour. Home Econ,' 23–41. Chairman, Women's Joint Congressional Cmt, 26–28. Exec. chairman food production and home econ. dept, women's cmt, Council Nat. Defense. A.A; Home Econ. Asn. The value of foods.

Atwater, Dr. Reginald M(yers), 1790 Broadway, New York, N. Y. *Public health.* Canon City, Colo, Aug. 6, 92. A.B, Colo. Col, 14; John Harvard fellow, Harvard, 16–18, M.D, 18; C.P.H, Hopkins, 20, Dr.P.H, 21. Med. house officer, Peter Bent Brigham Hosp, Boston, 18–19; assoc. prof. hygiene, col. med, Hunan-Yale, China, 21–25; instr. prev. med. and hygiene, Harvard Med. Sch, 25–27; commissioner health, Dept. Health, Cattaraugus County, N. Y, 27–35; *exec. sec'y, governing council, and sec'y all standing cmts, Pub. Health Asn, 35–* Instr, sch. pub. health, Harvard, 25–27. Mem. advisory council, Milbank Mem. Fund, N. Y, 27–35; mem. tuber. cmt, Governor's Health Cmn, 30. Commander, Order of Carlos J. Finlay, Cuba, 39. A.A; fel. Pub. Health Asn; fel. Am. Med. Asn. Preventive medicine; public health administration; epidemiology of pneumonia and acute rheumatic fever.

Atwell, E(rnest) A(lleyne), 52 Willard Ave, Ottawa, Ont, Can. *Timber pathology.* Barbados, B. W. I, March 17, 99. B.S.A, McGill, 23, M.Sc, 25. Investigator plant disease, Can. Dept. Agr, 23–27; *asst. to timber pathologist, forest products labs, Can. Dept. Mines and Resources, Ottawa, 27–; Royal Can. Air Force, 41–* A.A; Mycol. Soc; Can. Phytopath. Soc. Timber pathology; blue stain in softwoods.

Atwood, Dr. C(arl) E(dmund), Department of Agriculture, Ottawa, Ont, Can. *Forest entomology.* Clyde River, N. S, June 19, 06. B.S.A, McGill, 31; M.Sc.A, Toronto, 33, Ph.D, 37. Asst, demonstrator and senior demonstrator, Toronto, 31–36; *asst. entomologist, Dept. Agr, Ottawa, 37–* Can. Soc. Forest Eng; Entom. Soc. Ont. Ecology, biology and physiology of forest insects; population fluctuations in insects.

Atwood, F(rancis) Clarke, 104 Atwood Ave, Newtonville, Mass. *Chemistry.* Salem, Mass, May 7, 93. B.S, Mass. Inst. Tech. Instr, Mass. Inst. Tech, 14–16; res. engineer, Exolon Co, 16–17; junior partner, Kalmus, Comstock and Westcott, Inc, 17–25; v. pres, Bonnar-Atwood, Inc, 25–30; chief chemist, Craftex Co, 27–34; v. pres. and *director research, Atlantic Research Associates, 31–, pres, 36–* V. pres. and director, Aralac, Inc. 'Am. Paint Jour.' award, 31. A.A; Chem. Soc; fel. Inst. Chem; Electrochem. Soc; Nat. Paint, Varnish and Lacquer Asn; Federation Paint and Varnish Production Clubs (pres, 33); Acoustical Soc; Soc. Rheol; Asn. Textile Chem. and Colorists; Soc. Food Tech; New Eng. Paint and Varnish Production Club (pres, 30). Paint; casein; machinery; apparatus; motion pictures; proteins; building materials; prolon; chemurgic products.

Atwood, Horace, Stuart, Fla. *Agriculture.* Summer Hill, N. Y, Aug. 1, 68. B.S.A, Cornell, 91, M.S.A, 97. Asst. agr, Exp. Sta, *West Virginia,* 97–14, chief poultry research dept, 18–33, *emer. prof. poultry husbandry, 33–* A.A; fel. Poultry Sci. Asn. Feeding; soil fertility; breeding; egg weight in domestic fowl; fertilizers for crops; dairying; poultry husbandry.

Atwood, Dr. Kenton, 1505 Central Ave, Louisville, Ky. *Physical chemistry.* Cincinnati, Ohio, June 11, 16. B.S, Wilmington Col, 36; scholar, Haverford Col, 36–37, A.M, 37; Ph.D, California, 40. Teaching asst. chem, California, 37–40; *research chemist, Joseph E. Seagram and Sons, Inc, 41–* Photochemical reactions in solution; production of butadiene from 2–3 butanediol.

Atwood, Dr. Rollin S(alisbury), American Embassy, Quito, Ecuador. *Geography.* Chicago, Ill, June 19, 03. B.S, Chicago, 24; A.M, Clark, 25, Ph.D, 28. Teacher, high sch, N. J, 25–26; asst. prof. econ. geog, Florida, 28–29, assoc. prof, 29–35, prof, 35–41, asst. dean col. commerce and journalism, 30–32, chairman social science course, gen. col, 35–40, div. geog. and geol, 41; *econ. analyst, Am. Embassy, Ecuador, 41–* Acting director, Inst. Inter-Am. Affairs, Fla, 30–40, director, 40–; research assoc, Carnegie Institution, 31–32. Summers, prof, Bucknell, 26, 28; acting dean col. business admin, Florida, 35, prof, Iowa, 40. Prof. in charge, Clark transcontinental field trip, 29. Mem. advisory cmt. adjustment for. students in U. S, U. S. Dept. State, 40– Mem, State Land Use Planning Cmt. Nat. Council Geog. Teachers; Am. Geog. Soc; Pan Am. Soc; Fla. Acad. (council; chairman, social science div, 37–38); Geog. Asn. Eng; hon. fel. Swedish Anthrop. and Geog. Soc. Economic geography; cotton industry of England; social science; Latin America.

Atwood, Dr. Sanford S(overhill), U. S. Regional Pasture Research Laboratory, State College, Pa. *Cytology, Genetics.* Janesville, Wis, Dec. 3, 12. A.B, Wisconsin, 34, A.M, 34, Alumni Research Foundation fellow, 34–35, univ. fellow, 35–37, Ph.D, 37. Asst. geneticist, *U. S. regional pasture research lab, Pa. State Col,* 37–40, *assoc. geneticist, 40–* Summers, asst, Wisconsin, 34, 35. Bot. Soc; Genetics Soc; Soc. Agron. Cytogenetics fundamental to breeding pasture plants.

Atwood, Dr. Wallace W(alter), Clark University, Worcester, Mass. **[3]***Physical geography.* Chicago, Ill, Oct. 1, 72. B.S, Chicago, 97, Ph.D, 03. Instr. physiog, Lewis Inst. Chicago, 97–99; geol, Chicago Inst, 99–00, director, 00; asst. physiog, Chicago, 01–02, assoc, 02–03, instr. geol, 03–08, asst. prof. physiog. and gen. geol, 08–10, assoc. prof, 10–13; prof. physiog, Harvard, 13–20; *pres. and prof. physical geog, Clark, 20–, director grad. sch. geog, 21–* Asst. geologist, U. S. Geol. Surv, 01–09, geologist, 09– Trustee, Children's Museum, Boston, 14; director, Children's Museum, Cambridge, 15– A.A; Am. Geog. Soc; Asn. Geog. (pres, 33); Geol. Soc; Antiq. Soc; Council Geog. Teachers (pres, 20); Nat. Parks Asn. (pres, 29–33); Am. Acad; Pan. Am. Inst. Geog. and Hist. (pres, 32–35); Ill. Acad; Chicago Acad; Chicago Geog. Soc; for. mem. Swedish Anthrop. and Geog. Soc. (diploma, 29); hon. mem. Mex. Acad. Glaciation; ancient glaciers among the Rocky Mountains; structural and economic geology; coal resources of Alaska; physiography of San Juan Mountains; the new geography; series of wall maps; physiographic provinces of North America.

Atwood, Prof. Wallace W(alter), Jr, Clark University, Worcester, Mass. *Geology, Geography.* Chicago, Ill, June 7, 06. B.S, Chicago, 26; A.M, Clark, 27, Ph.D, 30; fellow, Zurich, 28–29; Paris, 29–30. Asst. chief, branch research and educ, Nat. Park Service, 30–32; asst. prof. *physiog. and regional geog, Clark,* 32–40, *assoc. prof, 40–; chief topog. model sect, U. S. Office Strategic Services, 43–* Geographer, Babson Inst, 38–41. Mem. landforms cmt, Nat. Research Council, 41– A.A; Asn. Geog; Geophys. Union (cmt. on glaciers, 31, assoc. ed, 'Econ. Geog,' 36–); Am. Geog. Soc; Geol. Soc. Wash; Geol. Soc. Boston. Physiographic history of the Rocky Mountains of North America; glacial geology; cartography and relief model construction.

Atwood, Col. W(illiam) G(reene), 211 E. Canton Ave, Winter Park, Fla. *Engineering.* Fredonia, N. Y, Aug. 4, 72. C.E, Cornell, 92. Chief engineer, L. E. and W. Ry, 09–14; asst. dist. engineer, bur. valuation, Interstate Commerce Cmn, 14–17; manager rail transportation, Am. Relief Admin, Europe, and Am. transportation rep, Supreme Econ. Council, Paris, 19; tech. adviser, Kingdom of Serbs, Croats and Slovenes, 20; director cmt. on marine piling investigations, Nat. Research Council, 22–24; *consulting engineer, 24–* Lecturer, Cornell. Ry. explorer and builder, 97–09. C.Eng, 17–19, col, U.S.A, 18– Civil Eng; Ry. Eng; Soc. Mil. Eng. Wood preservation; cement uses; marine structures; rail and water terminals.

Atwood, Prof. W(illia)m Henry, State Teachers College, Milwaukee, Wis. *Biology.* Grand View, S. Dak, March 21, 86. A.B, Hope Col, 12; A.M, Washington (St. Louis), 16; M.S, Wisconsin, 16. Teacher, high sch, Ill, 12–17; *prof. science, State Teachers Col, Milwaukee, 17–* Marquette Dental Col, 19–22. Civic, economic and educational biology; comparative vertebrate dissection; the anatomy of snakes; vertebrate zoology.

Atwood, Prof. W(infred) M(cKenzie), 214 N. Seventh St, Corvallis, Oregon. *Botany.* Aurelia, Iowa, July 25, 83. A.B, Cornell Col. (Iowa), 07, A.M, 10; M.S, Chicago, 11, fellow, 12–13, Ph.D, 13. *Prof. plant physiol, Oregon State Col, 13–* A.A; Bot. Soc. Delay of germination of seeds; respiration of fruits.

Aub, Dr. Joseph C(harles), Massachusetts General Hospital, Boston, Mass. *Medicine.* Cincinnati, Ohio, May 13, 90. A.B, Harvard, 11, M.D, 16. Intern, Mass. Gen. Hosp, 14–15; asst. physician, Russell Sage Inst. Path, 15–16; res. physician, Mass. Gen. Hosp, 16–17; instr. physiol, *Harvard Med. Sch,* 19–20, asst. prof, 20–24, *med,* 24–28, *assoc. prof, 28–, physician in chief, Collis P. Huntington Mem. Hosp, 28–* Physician, Mass. Gen. Hosp, 23–28, 42–, consultation board, 33–, physician, 42–; senior assoc. physician, Peter Bent Brigham Hosp, 28–40, physician, 40–42. Am. Med. Asn; Physiol. Soc; Am. Physicians; Soc. Endocrinol. (pres, 31); Soc. Clin. Invest; Soc. Exp. Biol; Am. Acad. Clinical medicine; metabolism; glands of internal secretion; inorganic salts; cancer.

Aubel, Prof. C(liff) E(rrett), Kansas State College, Manhattan, Kans. *Animal husbandry.* Sharon, Pa, Dec. 10, 90. B.S, Pa. State Col, 15; fellow, Kans. State Col, 16–17, M.S, 17; Ph.D, Minnesota, 35. Instr. and asst. prof. *animal husbandry,* Kans. State Col, 19–28, assoc. prof, 28–31; asst, Minnesota, 31–32; assoc. prof, *Kans. State Col,* 32–38, *prof, 38–* A.A; Soc. Animal Production; Kans. Acad. Animal nutrition; live stock production; animal genetics; inheritance of fecundity; importance of vitamins in rations; effects of low phosphorus rations; minimum requirements of phosphorus and calcium.

Auchter, Dr. E(ugene) C(urtis), U. S. Department of Agriculture, Washington, D. C. **[7]***Botany.* Elmgrove, N. Y, Sept. 14, 89. B.S.A, Cornell, 12, M.S, 18, Ph.D, 23. Asst. pomol, Cornell, 11; instr. hort. and asst. horticulturist, West Virginia, 12–14, asst. prof. hort, 14–17, assoc. prof, 18; prof. and head dept, Maryland, and horticulturist, Exp. Sta, 18–28; prin. horticulturist, *bur. plant indust, U. S. Dept. Agr,* 28–38, asst. chief, 35–38, chief, 38–42, *administrator agr. research, 42–* A.A; Soc. Hort. Sci. (pres, 26); Pomol. Soc; Soc. Plant Physiol; Phytopath. Soc; Genetic Asn; hon. fel. Royal Hort. Soc. Economic crop plants and soils; plant introduction and exploration; handling, storage and transportation of perishable products; development of crops in Latin-American countries.

Auchy, George, 1532 Ashton Road, Manoa, Upper Darby, Pa. *Chemistry.* Pottstown, Pa, April 23, 62. Lafayette Col, 78–82. Chemist, Durham Iron Works, 82–86; Nashua Iron and Steel Co, 94–97; Keystone Saw Works, 97–11; *private research polit. econ, 11–* Chemical analysis of iron and steel; properties of iron and steel; industrial depressions.

Aucoin, Dr. Anthony A(ndrew), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Houston, Texas, May 14, 10. A.B, Rice Inst, 34, fellow, 35–36, A.M, 36; fellow, Louisiana, 36–37, Ph.D, 40. Asst. *math,* Louisiana, 37–40; *instr, Hous-*

ton, 40–; lieut, U. S. Naval Reserve, 41– Math. Soc; Math. Asn. Diophantine analysis.

Aude, Prof. H(erman) T(heodor) R(endtorff), 50 Broad St, Hamilton, N. Y. *Mathematics.* Herning, Denmark, May 20, 80. B.S, Colgate, 05, M.S, 07; Chicago, 25–26. Instr. and later assoc. prof. *math,* Carnegie Inst. Tech, 07–20; assoc. prof, *Colgate,* 20–26, *prof, 26–* Math. Soc; Math. Asn. Theory of numbers; rational triangles; elementary mathematics.

Audrieth, Prof. L(udwig) F(rederick), University of Illinois, Urbana, Ill. *Inorganic chemistry.* Vienna, Austria, Feb. 23, 01. B.S, Colgate, 22; Ph.D, Cornell, 26. Fellow, Cornell, 26–28; assoc. *inorg. chem, Illinois,* 28–35, asst. prof, 35–38, *assoc. prof, 38–; capt, Ordnance Dept, U. S. Army, 42–* Nat. research fellow, Univ. Rostock. Assoc. ed, 'Inorg. Synthesis.' Chem. Soc; Ill. Acad. Non-aqueous solvents; nitrogen compounds; electrodeposition from non-aqueous solvent; reactions in liquid ammonia; rare earths.

Auer, Prof. John, St. Louis University School of Medicine, St. Louis, Mo. **²Physiology, Pharmacology.* Rochester, N. Y, March 30, 75. B.S, Michigan, 98; M.D, Hopkins, 02. Fellow, Rockefeller Inst, 03–05, asst, 05–06; instr. physiol, Harvard Med. Sch, 06–07; assoc. mem, Rockefeller Inst, 08–21; *prof. pharmacol. and director dept, sch. med, St. Louis, 21–* House officer, Hopkins Hosp, 02–03. Major, M.R.C, 17–22. A.A; Physiol. Soc; Soc. Pharmacol. (sec'y, 12–17, pres, 24–27); Am. Physicians; Soc. Exp. Biol; Harvey Soc; St. Louis Acad. Anaphylaxis; motor phenomena of the gastro-intestinal tract; respiration; functional effects of epinephrin, magnesium salts, antiseptics and war gases; blood; bladder and kidney.

Auger, Dr. Paul-E, 914 Chemin Ste. Foye, Quebec City, Que, Can. *Geology.* Ste. Croix, Que, Sept. 30, 08. B.A, Laval, 29, B.Sc, 33; B.Sc, Queen's (Can), 36; Sc.D, Mass. Inst. Tech, 39. Instr. physical chem, Superior Sch. of Chem, 34; scout geologist, Ont. Paper Co, 36; *geologist, Que. Bur. Mines, 37–; lecturer econ. geol, Laval, 41–* The lower Laflamme River area; zoning and district variations of the minor elements in pyrites of the Canadian gold deposits; Olga-Mattagami area; Siscoe map-area; Bourlamaque Township; Devaux Lake map-area.

Auger, Dr. Pierre V(ictor), University of Chicago, Chicago, Ill. *Physics.* Paris, France, May 14, 99. Agrégation, Ecole Nor, Paris, 22; Dr, Paris, 26. Asst. *physics, Paris,* 27–32, chef de travaux, 32–37, maitre de conferences, 37–39, *prof, 39–; research assoc, Chicago, 41–* Sec'y, Annual Tables of Constants, 36–41. Fel. Physical Soc; for. mem. Acad. Bohemia; Soc. française de Physique (sec'y, 36). X-rays; photo-electric effect; Auger effect; nuclear physics; neutrons; cosmic rays.

Aughanbaugh, J(ohn) E(dward), State Department of Forests and Waters, Mt. Alto, Pa. *Forestry.* Jersey Shore, Pa, Nov. 30, 00. B.S.F, Pa. State Col, 26; M.F, Cornell, 28. *Research forester, div. research, Pa. Dept. Forests and Waters, 27–* Soc. Foresters; Pa. Forestry Asn. Mensuration; silviculture.

Augustine, Prof. D(onald) L(eslie), 15 Palmer Road, Waban, Mass. *Parasitology.* Kasson, Minn, Jan. 1, 95. B.S, Macalester Col, 18, hon. Sc.D, 42; Sc.D, Hopkins, 23; hon. A.M, Harvard, 42. Adj. prof. biol, Macalester Col, 19–20; asst. helminthol, sch. hygiene and pub. health, Hopkins, 20–23; director field hookworm research lab, int. health div, Rockefeller Foundation, Andalusia, Ala, 23–24; instr. helminthol, *Harvard Med. Sch. and sch. pub. health, Harvard,* 24–25, asst. prof, 25–41, *assoc. prof. comp. path. and trop. med, 41–* Hookworm investigations, U. S, West Indies, Cent. Amer. and Egypt, 21–27. A.A; Soc. Parasitol; Soc. Trop. Med; Mass. Pub. Health Asn; Royal Soc. Trop. Med. and Hygiene. Biology of free-living stages of hookworm; hookworm disease; prenatal infection with parasitic worms; trichinosis; filariasis; trypanosomiasis.

Aull, Prof. W(illiam) B(arre), Clemson College, S. C. *Bacteriology.* Newberry, S. C, March 24, 87. B.S, Clemson Col, 07. Asst. to botanist, *Clemson Col,* 11–15, asst. prof. *bacter,* 15–17, assoc. prof, 17–41, *prof, 41–, v. dean res. teaching, sch. agr, 36–* A.A; Soc. Bact; fel. S. C. Acad.

Ault, Prof. E(ugene) Stanley, Purdue University, Lafayette, Ind. *Mechanical engineering.* Baltimore, Md, June 9, 98. B.E, Hopkins, 20; M.E, Cornell, 21, M.M.E, 24. Instr. machine design, Cornell, 20–24; mech. eng, Rice Inst, 24–27; asst. prof. machine design, Lehigh, 27–30; engineer, West. Elec. Co, Baltimore, Md, 30; assoc. prof. *machine design,* Case, 30–37; *prof. in charge, Purdue, 37–* Asst. foreman, Edison Lamp Works, 20; asst, West. Elec. Co, New York, 21; asst. engineer, Pa. Power and Light Co, Allentown, 22; statistician, Adirondack Power and Light Co, Schenectady, N. Y, 23; asst. engineer bridge dept, Houston, Texas, 25–27; engineering consultant, 27–; tool engineer, Kingsbury Ordnance Plant, 41. Mech. Eng. (past chairman, machine design div; sec'y, chairman, Cleveland sect); Eng. Educ. Machine design fundamentals; production; management; hardness of metals; stress analysis; education.

Ault, Dr. Waldo C(lifford), 7708 Cheltenham Ave, Chestnut Hill Station, Philadelphia, Pa. *Chemistry, Biochemistry.* Ohio City, Ohio, Aug. 21, 05. A.B, Ohio State, 30, Ph.D, 34. Research chemist, Thomas and Hochwalt labs. div, Monsanto Chem. Co, 34–38; United Gas Improvement Co, 38–41; senior chemist, north. regional research lab, *bur. agr. chem. and eng, U. S. Dept. Agr,* 41, *prin. chemist, east. regional research lab, 42–* Fats, oils and fatty acids; unsaturated hydrocarbons; polymerization; synthetic resins and elastomers.

Aungst, Prof. R(euben) H(arper), 175–47 114th Ave, St. Albans, N. Y. *Chemistry.* Suedberg, Pa, April 17, 79. B.S, Pa. State Col, 05, M.S, 19. Instr. *chem,* Pratt Inst, 06–14; *prof, Adelphi Col, 14–*

Aurin, Fritz L(ove), Southland Royalty Co, Ft. Worth, Texas. *Geology.* Prescott, Ark, Dec. 18, 91. A.B, Oklahoma, 14, A.M, 15. From geol. chemist to asst. director, Okla. Geol. Surv, 15–18; geologist, Empire Gas and Fuel Co, 18–19; asst. chief geologist, Marland Oil Co, 19–23, chief geologist, 23–28; *Southland Royalty Co, 38–, pres. and director.* Geol. Soc; Asn. Petrol. Geol; Kans. Geol. Soc. General petroleum geology, especially structure and stratigraphy.

Ausemus, Dr. Elmer R(ex), 2201 Carter Ave, St. Paul, Minn. *Agronomy.* Cherokee, Kans, Jan. 22, 95. B.S, Kans. State Col, 23; M.S, State Col. Wash, 24; Ph.D, Minnesota, 32. Junior agronomist, *U. S. Dept. Agr,* North. Great Plains field sta, N. Dak, 25–28, asst. agronomist, 28–29, *assoc. agronomist, Exp. Sta, Minnesota, 29–* A.A; Soc. Agron; Genetic Asn. Plant breeding and genetics; plant breeding with wheat for the development of stem rust resistant varieties.

Austin, Prof. Charles Reuben, Pennsylvania State College, State College, Pa. *Metallurgy.* Manchester, Eng, Oct. 8, 94. B.Sc, Manchester Col. Tech, 18, M.Sc, 20; Ph.D, Wales, 23, D.Sc, 42. Asst. metal. chem, Widnes, Eng, 18–19; metal, Victoria Univ, 19–20; Univ. Col. Swansea, Wales, 20–24; Nat. Physical Lab, London, 24–27; chief research metallurgist, Nat. Tube Co, Pittsburgh, 27–30; section engineer, research labs, Westinghouse Elec. and Mfg. Co, 30–34; assoc. prof. *metal, Pa. State Col,* 34–37, *prof, 37–* Lecturer, Carnegie Inst. Tech, 29–34. Soc. Metals; Min. and Metal. Eng; British Inst. Metals; Iron and Steel Inst. Gt. Britain; fel. Inst. Chem. Gt. Britain and Ireland. Phase equilibria of ternary alloys; hydrogen decarburization of steels; properties and heat treatment of steels; pressure welding; annealing of metals and alloys; controlled heat treating atmospheres; high temperature alloys; creep of metals; properties and treatment of special high strength grey cast irons.

Austin, C(hester) R(onald), Battelle Memorial Institute, Columbus, Ohio. *Ceramics.* Bellefontaine, Ohio, 07. B.Cer.E, Ohio State, 28, Dry Press Elec. Porcelain Mfg. fellow, 28–29, M.S, 29. Senior research engineer, eng. exp. sta, Ohio State, 29–33; ceramic engineer, *Battelle Mem. Inst,* 33–39, asst. supervisor *ceramics,* 39–42, *supervisor, 42–* Fel. Ceramic Soc. (sec'y, cent. Ohio sect, 35, chairman, 36; cmt. struct. clay, 40). Properties of shales and clays; scum preventatives for brick; de-airing of clay products; kiln firing; production of sewer-pipe; ruby glass and black glass; expanded clay products; open-hearth furnace bottoms.

Austin, C(lift) F(ay), 665 Kalamazoo St, South Haven, Mich. *Horticulture.* South Haven, Mich, Oct. 23, 73. B.S, Mich. State Col, 99. Asst. horticulturist, Ala. Exp. Sta, 00–02; assoc. prof. hort, Maryland, 02–04; chief dept. hort, Estacion Cent. Agron, Cuba, 04–09; asst. administrator, Cent. Nueva Luisa Sugar Estate, 09. Pomol. Soc; Genetic Asn. Fruit and vegetable culture.

Austin, F(rank) E(ugene), Route 1, Box 84B, Winter Park, Fla. *Electrical engineering.* Amesbury, Mass, 73. B.S, Dartmouth Col, 95, fellow, 96–97, E.E, 15. Prof. elec. eng, Dartmouth Col, 02–28, mech, Thayer Sch, 18; physics, Norwich, 06–08, elec. eng, 08–14, head dept, 14–28; *director,*

The Austin Workshops, 28– Eng. Educ. Hydraulics; mechanical engineering; automatic mapper; transformers; alternating currents; direct currents; induction coils; battery engineering; magnetism; ant, cricket and spider houses; conidorms; coniforts; right-angle hurdles and practice hurdles; water skis.

Austin, Dr. J(ames) B(liss), U. S. Steel Corp, Kearny, N. J. *Physical chemistry.* Washington, D. C, July 16, 04. Ch.E, Lehigh, 25; Ph.D, Yale, 28. *Physical chemist, research lab, U. S. Steel Corp, 28–* Chem. Soc; Optical Soc; Ceramic Soc; Soc. Metals. Emission spectra of organic compounds; chemical thermodynamics; thermal expansion measurements on metals and refractories; adsorption of gases on plane surfaces of metals.

Austin, Prof. J(ames) Harold, University of Pennsylvania, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Sept. 22, 83. B.S, Pennsylvania, 05, M.D, 08. Assoc. research med, sch. med, Pennsylvania, 11–14, assoc. med. and asst. physician, univ. hosp, 12–17; asst, Rockefeller Inst, 19–20, assoc, 20–21; *prof. research med, sch. med, Pennsylvania, 22–* Ed, 'Jour. Clin. Investigation,' 26–35. A.A; Am. Med. Asn; Am. Physicians; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Invest. (sec'y, 24–26); Soc. Biol. Chem; Col. Physicians Phila. (sec'y, 36–). Nephritis; physiology of the spleen; blood chemistry.

Austin, Prof. James M(urdoch), 50 Massachusetts Ave, Cambridge, Mass. *Meteorology.* Dunedin, N. Z, May 25, 15. B.A, New Zealand, 35, M.A, 36; Sc.D, Mass. Inst. Tech, 41. Asst. meteorologist, Apia Observatory, West. Samoa, 37–39; asst, *Mass. Inst. Tech,* 40–41, *asst. prof. meteorol, 41–* Meteorol. Soc. Aspects of fronts and frontogenesis; development of quantitative forecasting methods; climatology.

Austin, Dr. Janet Evans (Mrs. James Bliss Austin), 415 Linden Ave, Westfield, N. J. *Chemistry.* St. Louis, Mo, May 30, 03. A.B, Mt. Holyoke Col, 25, fellow, 25–27, A.M, 27; Ph.D, Yale, 29. Asst. chem, Mt. Holyoke Col, 25–27; Yale, 27–29; instr, Mt. Holyoke Col, 29–30; *private research, 30–* Abstractor, 'Chem. Abstracts.' Organic chemistry; ultra-violet absorption spectra and synthesis of hydantoins and pyrimidines.

Austin, Dr. J(oseph) Perry, Abbott Laboratories, North Chicago, Ill. *Botany.* Waukegan, Ill, May 5, 08. B.S, Michigan, 31, F. C. and Susan Eastman Newcombe fellow, 32–35, M.S, 33, Ph.D, 35. Asst. bot, Michigan, 27–32; junior agr. aide, Wis. nursery, soil conservation service, U. S. Dept. Agr, 36; *tech. asst, biol. div, Abbott Labs, 37–* Bot. Soc. Plant physiology; photoperiodism.

Austin, Lloyd, Institute of Forest Genetics, Placerville, Calif. *Forest genetics.* Westfield, Mass, Aug. 25, 98. B.S, California, 20. Asst. pomol, California, 20–25; director, *Inst. Forest Genetics,* 25–40, *senior forest geneticist, 40–* A.A; Soc. Foresters; Soc. Hort. Sci; Genetic Asn; Soc. Agron; Bot. Soc; Calif. Bot. Soc. Forest genetics; progeny tests and provenience studies with pines at elevational transect stations; influence of size of cones and seeds and germination time on growth rate; characteristics of pine species; resistance of pine species to insects and diseases.

Austin, Prof. Mary L(ellah), 666 Washington St, Wellesley, Mass. *Protozoology.* Austinburg, Ohio, 96. A.B, Wellesley Col, 20, A.M, 22; Ph.D, Columbia, 27. Asst. and custodian *zool,* Wellesley Col, 20–22; asst, Barnard Col, Columbia, 25–26, lecturer, 26–28; instr, *Wellesley Col,* 28–31, asst. prof, 31–40, *assoc. prof, 40–* Exchange prof, Isabella Thoburn Col, India, 32–33, 35–36. A.A; Genetic Asn. Attempts to prolong the life cycle of Uroleptus mobilis and factors inducing conjugation; Trachelius ovum.

Austin, Dr. O(liver) L(uther), Jr, Wellfleet, Cape Cod, Mass. *Ornithology, Ecology.* Tuckahoe, N. Y, May 24, 03. B.S, Wesleyan, 26; Ph.D, Harvard, 31. Asst. biologist, bur. biol. surv, U. S. Dept. Agr, 30–35; *lieut, U. S. Naval Res, 43–* Ornith. Union; Ecol. Soc; Soc. Mammal; Northeast Bird Banding Asn. (councilor, 29–). Zoogeography; the distribution and origin of the avifauna of Newfoundland Labrador.

Austin, Dr. Paul R(olland), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Monroe, Wis, Dec. 9, 06. A.B, Wisconsin, 27; fellow, Northwestern, 27–28, M.S, 29; Ph.D, Cornell, 30. Asst. chem, Cornell, 28–30; nat. research fellow, Illinois, 30–32; *research chemist,* Rockefeller Inst, 32–33; *exp. sta, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Organometallic compounds; hormones of the anterior pituitary; dye intermediates; synthetic resins.

Austin, Dr. Richard S(isson), Cincinnati General Hospital, Cincinnati, Ohio. *Pathology.* Providence, R. I, April 18, 85. Ph.B, Brown, 07; M.D, Harvard, 11. Asst. path, Boston City Hosp, 11–13; instr. bacter, Harvard Med. Sch, 13–15; asst. prof. path, Rush Med. Col, Chicago, and pathologist, Children's Mem. Hosp, 15–20; *prof. path, col. med, Cincinnati, and pathologist, Cincinnati Gen. Hosp, 20–* A.A; Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn; Chicago Path. Soc; Chicago Inst. Med. Bacteriology; tuberculosis in children; experimental tuberculosis; hereditary syphilis; arteriosclerosis.

Austin, Dr. Robert R(oy), 1442 N. 53rd St, Milwaukee, Wis. *Inorganic chemistry.* Lincoln, Idaho, Jan. 25, 04. A.M, Utah, 31; Ph.D, Wisconsin, 35. Teaching fellow, Utah, 29–31; teaching asst, Wisconsin, 31–34; *research chemist, Gudmundsen Stratton Labs, Inc, 34–* Chem. Soc. (chairman, Milwaukee sect, 41). Decomposition of potassium ferrocyanide by concentrated sulfuric acid; water conditioning by base exchange materials; automatic domestic laundering operations.

Austin, Prof. Russell H(ayden), Arkansas State College, State College, Ark. *Chemistry.* Clinton, Mo, Feb. 20, 92. B.S.A, Arkansas, 17; M.S, Mich. State Col, 25, Ph.D, 28. Instr. agron. and asst. agronomist, Arkansas, 17–24; asst, Mich. State Col, 24–26; asst. prof. agron, Tennessee, 27–30; asst. prof. soils and chemist, state soils lab, Wisconsin, 30–32; prof. chem. and agron, William Jennings Bryan Univ, 32–35; agr, John Brown Univ, 35–39; agr. and agron, *Ark. State Col,* 39–42, *head dept. chem, 42–* Soc. Agron; Int. Soc. Soil Sci. Solubility of phosphorus in soils; salt treatments and soil reactions; fertilizers and soils and the composition of plants; exchangeable bases of soils by types.

Austin, Dr. Stanley (William), McGregor, Iowa. *Plant physiology.* Freeland Park, Ind, Dec. 5, 05. A.B, Iowa, 29, M.S, 30, Ph.D, 33. *Foreman, Erosion Control Works Camp, McGregor, 34–* A.A; Soc. Plant Physiol; Iowa Acad. Plant growth and reproduction.

Austin, William E(phraim), 2446 University Ave, New York, N. Y. *Chemistry.* New York, N. Y, Sept. 18, 96. B.S, Col. City of N. Y, 16. Chief chemist and v. pres, Harris and Reichard Fur Dyers, Inc, 28–37; *chief chemist and pres, Encol Dye and Chem. Co, Inc, 37–* A.A; Chem. Soc; Leather Chem. Asn; Tech. Asn. Fur Indust. (pres, 29). Fur dressing, dyeing and bleaching; dyes; dye intermediates.

Austrian, Prof. Charles Robert, 1417 Eutaw Place, Baltimore, Md. *Medicine.* Baltimore, Md, 85. A.B, Hopkins, 04, M.D, 09. Asst. instr. and assoc. med, *Hopkins,* 10–14, assoc. *clin. med,* 15–23, *assoc. prof, 23–* Visiting physician, Hopkins Hosp; physician in chief, Sinai Hosp. Trustee, Peabody Conserv. Music; Park Sch. Am. Physicians; Asn. Path. and Bact; Soc. Clin. Invest; Clin. and Climat. Asn; Med. and Chirurg. Faculty Md. (councilor). Bacteriology; immunology; internal medicine; infectious diseases; tuberculosis; etiology of angio-neurotic edema.

Auten, Dr. John Thompson, U. S. Forest Service, Columbus, Ohio. *Forestry.* White Hall, Ill, Nov. 6, 87. B.S, Illinois, 16; M.S, Iowa State Col, 23, Ph.D, 29. Soil analyst, Iowa State Col, 20–23; prof. soils and chem, Pa. State Forest Sch, 23–29; *silviculturist, Cent. States Forest Exp. Sta, U. S. Forest Service, 29–* Soc. Foresters; Soil Sci. Soc. (chairman, forest soil cmt, 34–37). Organic phosphorus of soils; soils of Mont Alto state forest; litter in forest practise; base exchange calcium and magnesium of forest soil profiles; porosity and water absorption of forest soils; soil profile-tree species relations; forest tree nursery soil.

Auten, Dr. Robert W(ilson), Apt. B-5, Daingerfield House, Highland and Summit, Jenkintown, Pa. *Organic chemistry.* Princeville, Ill, June 6, 12. B.S, Illinois, 33; fellow, Brown, 33–34, 35–37, Ph.D, 37. Teaching asst, Brown, 34–35; research chemist, *Resinous Products and Chem. Co,* 37–40, *research group leader, 41–* Chem. Soc. Synthetic resins; optically active inorganic complex compounds; dibutyl boron compounds; thermosetting resins from polyfunctional nitrogenous compounds.

Autenrieth, Dr. John S(tork), 2309 Macdonough Road, Wilmington, Del. *Organic chemistry.* Weehawken, N. J, Dec. 28, 16. B.S, Col. City of N. Y, 37; Ph.D, Mass. Inst. Tech, 41. *Research chemist, exp. sta, Hercules Powder Co, 41–* Chem. Soc. Identification of aromatic hydrocarbons.

Autrey, Prof. K(enneth) M(axwell), University of Georgia, Athens, Ga. *Dairying.* Mansfield, La, Nov. 11, 17. B.S, Louisiana, 38; M.S, Iowa State Col, 39, Ph.D, 41. *Asst. prof. dairying, Georgia, 41–* Dairy Sci. Asn. Dairy cattle nutrition; physiologic and economic efficiency of rations containing different amounts of grain for dairy cattle; a double change-over design for dairy cattle feeding experiments.

Avann, Dr. S(herwin) P(arker), Washington University, St. Louis, Mo. *Mathematics.* Seattle, Wash, March 11, 13. B.S, Washington (Seattle), 38; M.S, Calif. Inst. Tech, 40, Ph.D, 42. Teaching fellow *math,* Calif. Inst. Tech, 38–42; *instr, Washington (St. Louis), 42–* Abstract algebra.

Avedikian, Dr. S(ouren) Z(acharia), Chemical Warfare Service, N. Y. Procurement District, 292 Madison Ave, New York, N. Y. *Chemical engineering.* Sivas, Armenia, July 3, 11. A.B, Columbia, 32, A.M, 33, Ph.D, 34. Asst. anal. chem, Columbia, 32–33, consulting, research in and develop. of chem. processes, 33–36; *chem. engineer,* munitions develop. div, Edgewood Arsenal, *Chem. Warfare Service,* 36–40, *N. Y. Procurement Dist, 40–* Lecturer, Columbia, 35. Chem. Soc; Chem. Eng; Electrochem. Soc; Inst. Chem; Armenian Sci. Asn. (chairman, membership cmt, 35, v. pres, 36). Process development and plant design; chlorine; aluminum; bleaching of flour; bleaching and treatment of tobacco; sulfuric acid, nitric acid and nitrates; barium and its compounds; manufacture of organic chemicals; chemical warfare agents; unit operations.

Avens, Dr. Alfred W(illiam), N. Y. State Agricultural Experiment Station, Geneva, N. Y. *Agricultural chemistry.* Water Mill, N. Y, March 31, 01. B.S, Colgate, 23, M.S, 26; Ph.D, Cornell, 35. Instr. chem, Colgate, 23–26; asst. chem, Cornell, 26–30, instr, 30–35; asst, *N. Y. Exp. Sta, Geneva,* 36–41, *investigator chem, 41–* Chem. Soc. Qualitative analysis; chemical and physical properties of insecticides and fungicides.

Avent, Prof. Jos(eph) E(mory), University of Tennessee, Knoxville, Tenn. *Educational psychology.* Wake Co, N. C, 78. A.B, North Carolina, 01; A.M, Columbia, 13, Ph.D, 25. Sch. supt, N. C, 01–12; prof. educ, Va. State Teachers Col, 13–21; pres, Martha Washington Col, 22–23; *prof. educ. psychol, Tennessee, 23–* Progressive Ed. Asn. Beginning teaching; the excellent teacher; excellences and errors in teaching methods and in classroom management; standard testing reduced to lowest terms.

Averell, James L(awrence), Ozark National Forest, Russellville, Ark. *Forestry.* Oakland, Calif, Jan. 22, 03. B.S, California, 24, 31–33; Forest Products fellow, Yale, 25–26, M.F, 26; Am-Scandinavian Foundation fellow, 26–27; fellow, Royal Forest Acad, Stockholm, 27. Junior forester, Lake States Forest Exp. Sta, *U. S. Forest Service,* 27–30, asst. silviculturist, South. Forest Exp. Sta, 30–31, *asst. forest supervisor, Ozark Nat. Forest, 35–* Soc. Foresters. Microtechnique for woody tissues; silviculture of Connecticut hardwoods; ecology and management of northern swamp forests.

Averill, Dr. Harold P(aul), Aberdeen, Md. *Chemistry.* Du Bois, Pa, Aug. 25, 03. B.S, Pittsburgh, 24, M.S, 26, Ph.D, 27. Asst, Pittsburgh, 24–27; *assoc. chemist, Chem. Warfare Service, 28–* Chem. Soc. Foodstuffs; chemistry of fats; destruction of war gases.

Averill, Prof. Lawrence A(ugustus), Massachusetts State Teachers College, Worcester, Mass. *Psychology.* Alna, Maine, May 1, 91. A.B, Clark, 13, A.M, 14, Ph.D, 15. *Prof. psychol, Mass. State Teachers Col, Worcester, 15–* Pres, Child Guidance Clinic, Worcester, 28– A.A; Psychol. Asn; Asn. Applied Psychol; Asn. Col. Teachers Educ; Asn. Adv. Educ; East. Psychol. Asn; N. Y. Acad; Mass. Soc. Mental Hygiene. Mental hygiene; adolescent and educational psychology.

Averitt, Paul, U. S. Geological Survey, Washington, D. C. *Geology.* Lexington, Ky, Sept. 1, 08. B.S, Kentucky, 30, M.S, 31; Northwestern, 31–33; Hopkins, 33–34. Asst, Northwestern, 31–33; instr. geol, Kentucky, 34–38; junior geologist, *U. S. Geol. Surv,* 37–40, asst. geologist, 40–42, *assoc. geologist, 42–* Summers, asst, Ky. Geol. Surv, 29; Va. Geol. Surv, 30, 33; field asst, U. S. Geol. Surv, 34, 35. Geol. Soc. Wash. Geology of fuels; quicksilver deposits.

Averitt, S(axe) D(abney), University of Kentucky, Lexington, Ky. *Chemistry.* Caledonia, Ky, July 31, 71. B.S, Bethel Col. (Ky), 93; M.S, Kentucky, 00. Teacher, private schs, 95–97; instr, Decatur Baptist Col, 00–01; asst. chemist, *Exp. Sta, Kentucky,* 01–06, *chemist,* 06– A.A; Chem. Soc. (sec'y, Lexington sect, 21, pres, 22); Ky. Acad. Soils; insecticides; waters.

Avers, H(enry) G(odfrey), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy.* Elmore, Ohio, March 6, 86. A.B, George Washington, 13. Geod. computer, *U. S. Coast and Geod. Surv,* 08–24, *chief mathematician, div. geod, 24–* A.A; Math. Asn; Civil Eng; Astron. Soc; Geophys. Union; Wash. Acad. (treas, 30–40); Philos. Soc. Wash; Wash. Soc. Eng. Precise leveling.

Avery, A(mos) G(eer), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Genetics.* Ledyard, Conn, Feb. 18, 02. B.S, Conn. State Col, 25, M.S, 26. *Assoc. geneticist, sta. for exp. evolution, Carnegie Institution, 26–* Genetics of Datura.

Avery, Prof. Bennett F(ranklin), Boston University School of Medicine, Boston, Mass. *Anatomy.* Vassar, Mich, Sept. 21, 01. B.S, Michigan, 23, M.D, 25, Rockefeller fellow, 25–26, M.S, 26; Rockefeller fellow, Chicago, 29–30. Adj. prof. anat, med. sch, American Univ. Beirut, 26–29, assoc. prof, 30–39, prof, 39–41; *Waterhouse prof. anat. and dean, sch. med, Boston Univ, 41–* A.A; Soc. Exp. Biol; N. Y. Acad. Cell metabolism; cell injury by bacteria; medical education.

Avery, Prof. George S(herman), Jr, Connecticut College, New London, Conn. **Botany.* Benton Harbor, Mich, Aug. 3, 03. B.S, Tulane, 24; M.S, Dartmouth Col, 26; Ph.D, Wisconsin, 27. Instr. bot, Duke, 27–29, asst. prof, 29–31; *prof. bot. and director arboretum, Conn. Col, 31–* Nat. research fellow, 30–31; for. fellow, Rockefeller Foundation, 38. A.A; Bot. Soc. (sec'y, 37–39, v. pres, 43); Soc. Plant Physiol; Soc. Growth and Develop; Torrey Bot. Club. Plant morphology and development; phytohormones and growth.

Avery, Prof. George True, 401 E. Laurel St, Ft. Collins, Colo. *Psychology.* Georgetown, Colo, April 17, 80. A.B, Colorado, 15; A.M, Harvard, 17; Ph.D, Stanford, 24. Head dept. English, high sch, Colo, 15–17; asst. prof. *educ. and psychol, Colo. State Col,* 17–19, assoc. prof, 19–32, *prof, 32–,* director *summer session,* 19–40, *dean, 40–* Acting prof, San Jose State Teachers Col, Calif, 23–24. Summers, assoc. prof, Colorado, 16, 17. A.A; Psychol. Asn. (pres, Rocky Mt. branch, 34); Nat. Educ. Asn. (v. pres, 36); Asn. Applied Psychol; Colo-Wyo. Acad. (exec. sec'y psychol. sect); Colo. Psychol. Asn; Colo. Child Study Asn. (pres, 29); Colo. Soc. Mental Hygiene (director); Colo. Educ. Asn. (pres, 33). Comparative and animal psychology; college administration; heredity and environment; administration in vocational and general education; Stanford-Binet and Herring-Binet examinations; intelligence of eleven year old children; congenital behavior; the preschool child; responses of fetal guinea pigs; sex behavior of the guinea pig.

Avery, John L(awrence), Research Center, U. S. Department of Agriculture, Beltsville, Md. *Veterinary parasitology.* Washington, D. C, April 19, 18. B.S, Maryland, 37; A.M, George Washington, 39. Sci. aid, *U. S. Dept. Agr,* 38–41, *junior parasitologist, 41–* Soc. Parasitol; Micros. Soc; Helminth. Soc. Wash. Diagnostic methods in trichinosis; protozoan diseases of swine.

Avery, Dr. Oswald T(heodore), Rockefeller Institute, New York, N. Y. **Bacteriology.* Halifax, N. S, Can, Oct, 77. A.B, Colgate, 00, hon. Sc.D, 21; M.D, Columbia, 04; LL.D, McGill, 35. Assoc. director dept. bact, Hoagland Lab, 07–13; from assoc. to mem, *Rockefeller Inst,* 13–43, *emer. mem, 43–* J. Mather Smith prize, Columbia; John Phillips mem. medal, Col. Physicians; Paul Ehrlich gold medal. Nat. Acad; A.A; Soc. Bact. (pres, 41); Asn. Path. and Bact. (pres, 34); Soc. Exp. Path; Soc. Exp. Biol; Asn. Immunol. (pres, 30); Pub. Health Asn; Soc. Clin. Invest; Am. Physicians; Harvey Soc; N. Y. Acad. Med; Acad. royale de Méd de Belg; Det Norske Videnskaps Akad. Oslo. Bacteriology and immunology of respiratory diseases.

Avery, Prof. Roy C(rowdy), Hoods Hill Road, Nashville, Tenn. *Bacteriology, Immunology.* Halifax, N. S, Can, Dec. 17, 85. B.S, Conn. State Col, 14; M.S, Mass. State Col, 21; Ph.D, Vanderbilt, 28. Asst. microbiol, Mass. State Col, 15–17, instr. asst, 19–24; volunteer worker, Rockefeller Inst, 17–18; asst. bacter, Manchester (Eng), 19; asst. prof, col. physicians and surgeons, Columbia, 24–25; *bacter. and immunol, med. sch, Vanderbilt,* 25–31, *assoc. prof, 31–* Lieut, Sanit.C, Bellvue Base Hosp, Vichy, France, 18–19. Soc. Exp. Biol; Tenn. Acad. Bacteriology of infectious diseases.

Avery, Dr. W(illiam) H(inckley), Shell Oil Co, Inc, Houston, Texas. *Physical chemistry.* Ft. Collins, Colo, July 25, 12. A.B, Pomona Col, 33; scholar, Harvard, 33–34, A.M, 35, Ph.D, 37. Asst. chem, Harvard, 34–39; *research chemist, Shell Oil Co, 39–; research assoc, Nat. Defense Research Cmt, 43–* Chem. Soc. Photochemistry; spectroscopy; spectrographic analysis; chemical kinetics.

Avey, Prof. H(arry) T(hompson), 2729 N. Stowell Ave, Milwaukee, Wis. *Mechanical engineering.* Blockton, Iowa, Jan. 10, 79. B.M.E, Iowa State Col, 05; M.E, Cornell, 12. Teaching and gen. eng, Ewing Christian Col, 05–10, 12–19; asst. prof. *mech. eng, exten. div, Wisconsin,* 21–36, *assoc. prof, 36–* Exp. steam turbines, Gen. Elec. Co, Schenectady, 05, steam turbine drafting room, Lynn, Mass, 20. Mech. Eng.

Avinoff, Prof. A(ndrey), Carnegie Museum, Pittsburgh, Pa. *Entomology.* Tulchin, Russia, Feb. 14, 84. LL.B, Moscow, 05; hon. Sc.D, Pittsburgh, 27; L.H.D, Washington and Jefferson Col, 34. Assoc. curator entom, *Carnegie Museum,* 22–26, *director, 26–; advisory prof. biol, Pittsburgh, 28–, advisory prof. fine arts, 29–* Sci. explor, Pamir, 08; India and W. Tibet, 12. Gold medal, Imp. Geog. Soc. Russia, 17. A.A; Asn. Mus. (councilor, 27, exec. cmt, 30). Lepidoptera; history of art.

Avrami, Dr. Melvin, Columbia University, New York, N. Y. *Physics.* Palestine, March 27, 13. B.S, Chicago, 33, M.S, 35, Ph.D, 38. Metallurgist, Carnegie Ill. Steel Corp, 37–38; assoc. metal, *Columbia,* 38–40, *instr,* 40–42, *physics,* 42– A.A; Physical Soc; Min. and Metal. Eng. Physics and metallurgy; theory of x-ray structure analysis; theory of populations; diffusion and heat conduction; theory of colloids and liquids; phase dynamics.

Axe, Dr. W(illiam), 508 E. Fourth, Bartlesville, Okla. *Organic chemistry.* Pulaski, Pa, Dec. 19, 09. B.S, Westminster Col. (Pa), 31; Western Reserve, 31–32; Ph.D, Texas, 38. Instr. chem, Texas, 36–38; *senior chemist, Phillips Petrol. Co, 38–* Chem. Soc. Chemistry of petroleum nitrogen compounds and of petroleum hydrocarbons.

Axtmayer, Prof. Jos(eph) H(erman), Ponce de Leon Ave. No. 3, Santurce, P. R. *Chemistry.* New York, N. Y, Nov. 5, 93. B.S, Puerto Rico, 17; A.M, Columbia, 26, Ph.D, 27. Prin, high sch, P. R, 17–20; asst. prof. physics and chem, Puerto Rico, 20–23; prin, high sch, P. R, 23–24; prof. chem. and dean col. arts and sciences, *Puerto Rico,* 24–31, assoc. prof, Columbia Sch. Trop. Med, 31–41, prof, 41–42, *dean faculty science and v. chancellor, 42–* Mem, Board Examiners of Chemists, 32–, pres, 37– A.A; Inst. Nutrition; Asn. de Quimicos de P. R. (v. pres. and pres, 35–37). Vitamin B complex; nutrition; multiple nature of vitamin B; vitamin A and B complex determinations in Puerto Rican vegetables; dietary studies; nutritive values and analyses of Puerto Rican grasses.

Ayars, William Stewart, 400 W. 117th St, New York, N. Y. *Engineering.* Wilkes-Barre, Pa, Oct. 28, 73. M.E, Lehigh, 96; Purdue; Stevens Inst. Tech. Marine engineer, Int. Navigation Co, Red Star and Am. Lines, U.S.N, and eng. draftsman, New York Shipbuilding Co, Camden, N. J, 96–01; instr. machine design, Pratt Inst, 01–05; asst. prof. mech. eng, Pa. State Col, 05–08, assoc. prof, 08–10; chief marine engineer, Moran Shipbuilding Co, Seattle, 10–11; prof. elec. eng. and mech. eng, N. S. Tech. Col, 11–16; re-educ. prin, dept. soldiers' civil rehabilitation, Govt. Can, 16–17; senior performance engineer, Emergency Fleet Corp, U. S. Shipping Board, 17–19; chief estimator and chief marine engineer drafting and design, Pusey and Jones Corp, Wilmington, 19–22; assoc. prof. indust. eng, Columbia, 22–40, sec'y faculty, sch. eng; *retired; consulting engineer, eng. dept, Am. Locomotive Co, 41–; consulting engineer.* Mech. Eng; N. S. Soc. Eng. (past pres). Machine design; engineering problems; machine shop methods; pumps; estimating; power plants.

Aycock, Dr. W(illiam) L(loyd), Harvard Medical School, Boston, Mass. *Medicine.* Ga, Feb. 25, 89. M.D, Louisville, 14. Instr. bacter, N. Y. Post-Grad. Med. Sch, 15–19; director research lab, Dept. Pub. Health, Vt, 19–31; assoc, *Harvard Med. Sch. and sch. pub. health, Harvard,* 23–26, asst. prof. prev. med. and hygiene, 26–41, *assoc. prof. prev. med, 41–* Prof, col. med, Vermont, 20–23; director research, Infantile Paralysis Cmn, Harvard. Fellow, Hopkins Hosp, 23. Am. Med. Asn; Soc. Bact; Pub. Health Asn. Acute anterior poliomyelitis.

Ayer, Dean Fred(eric) E(ugene), Municipal University of Akron, Akron, Ohio. *Engineering education.* Sheshequin, Pa, Oct. 24, 76. C.E, Lafayette Col, 00. Draftsman, Pa. Steel Co, 00–02; Am. Bridge Co, Conn, 02–03; chief draftsman, N. J. Bridge Co, 03–04; field draftsman and office engineer, U. S. Reclamation Service, 04–06; from instr. to assoc. prof. civil eng. and asst. to dean eng. col, Cincinnati, 06–14; *dean col. eng, Akron, 14–* Summers, draftsman, Pa. Steel Co, 98, 99; chief draftsman, N. J. Bridge Co; office engineer, U. S. Reclamation Service, Great Falls, Mont; draftsman and timekeeper, Great Falls Iron Works, 04. Cmn. to survey Carnegie Inst. Tech; Munic. Univ. Omaha. Civil Eng; Eng. Educ. (councilor, 33–36).

Ayer, Capt. G(uy) D(arrell), Jr, O'Reilly General Hospital, Springfield, Mo. *Pathologic anatomy.* Atlanta, Ga, Oct. 15, 08. B.S, Va. Mil. Inst, 29; M.D, Emory, 33. Instr. path, Harvard Med. Sch, 37–40; pathologist, Mary Imogene Bassett Hosp, 40; director, Otsego County Pub. Health Lab, 40; *pathologist, O'Reilly Gen. Hosp, U. S. Army, 42–* A.A; Asn. Path. and Bact; N. Y. Acad. Kidney disease.

Ayer, Dr. James B(ourne), 319 Longwood Ave, Boston, Mass. *Medicine.* Boston, Mass, Dec. 28, 82. A.B, Harvard, 03, M.D, 07. Prof. neur, Harvard Med. Sch; *neurologist, Mass. Gen. Hosp.* A.A; Am. Med. Asn; Asn. Path. and Bact; Neur. Asn. (pres, 30); Boston Soc. Psychiat. and Neur; Royal Soc. Med. Neurology.

Ayers, Dr. Alvin D, Regional Salinity Laboratory, U. S. Department of Agriculture, Riverside, Calif. *Soil science, Plant physiology.* Alvin, Texas, April 27, 09. B.S, Arizona, 32, M.S, 34; Ph.D, California, 39. Asst. agr. chemist, Exp. Sta, Arizona, 32; chemist, Salt River Valley Water Users Asn, Phoenix, Ariz, 34; Association Lab, Anaheim, Calif, 35; asst. plant nutrition, California, 37–38; agent, *regional salinity lab, bur. plant indust, U. S. Dept. Agr,* 38–41, *asst. chemist, 41–* Soil colloids and plant nutrition; factors affecting the salt tolerance of plants.

Ayers, Prof. John C(arr), University of South Carolina, Columbia, S. C. *Biology.* Marcellus, Mich, Oct. 4, 12. A.B, Kalamazoo Col, 34; M.S, Kans. State Col, 36; Ph.D, Duke, 39. Instr. *biol, South Carolina,* 39–41, *adjunct prof, 41–* Cytology and histology of hypophysis; cytology of pituitary; aquatic physiology.

Ayers, Joseph Williams, C. K. Williams and Co, Easton, Pa. *Chemistry.* Easton, Pa, Jan. 6, 04. Ch.B, Cornell, 27. *Director research, C. K. Williams and Co, 27–* Chem. Soc. (exec. cmt, New York sect); Chem. Eng; Inst. Chem. Pigments; colors; fillers; molded plastics; rubber; paints; varnishes; lacquers; printing inks and paper.

Ayers, Dr. Theodore T(homas), Louisiana State University, University, La. *Plant pathology.* Taylor, Pa, Aug. 4, 00. B.S, Pa. State Col, 24; Mass. State Col, 24–26; A.M, Harvard, 29, Thayer fellow, 29–30, Ph.D, 30. Asst. bot, Mass. State Col, 24, investigator, Exp. Sta, 24–26, research fellow, Crop Protection Inst, 34–35; asst. plant pathologist, Exp. Sta, Maine, 26–27; asst. bot, Harvard, 28–29; agent forest path, div. forest path, *bur. plant indust, U. S. Dept. Agr,* 30–34, 35–36, agent and assoc. mycologist, 36–38, asst. pathologist, div. forage crops and diseases, 38–39, *assoc. pathologist, div. fruit and veg. crops and diseases, 39–* Mycol. Soc; La. Acad. Diseases of sweet potato.

Ayres, Arthur S(miley), Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Chemistry, Soils.* San Francisco, Calif, Sept. 16, 01. B.S, California, 27; M.S, Hawaii, 41. Asst. chemist, *Exp. Sta, Hawaiian Sugar Planters' Asn,* 27–41, *assoc. chemist, 41–; asst. chemist, Exp. Sta, Hawaii, 40–, acting head dept. chem. and soils, 43–* Lieut, Ordnance R. C, 31– Soil Sci. Soc; Hawaiian Sugar Tech; Hawaiian Acad. Base exchange; plant chemistry.

Ayres, Prof. Edmund D(ale), 2595 Berwyn Road, Columbus, Ohio. *Engineering.* Hamilton, Ohio, Dec. 28, 98. A.B, Miami (Ohio), 20; B.S. and M.S, Mass. Inst. Tech, 23. Proposal engineer, switchboard dept, Gen. Elec. Co, 24; engineer, Jackson and Moreland, Boston, Mass, 24–30; asst. prof. elec. eng, Wisconsin, 30–34, steam and gas eng, 32–34; special utilities engineer, Pub. Service Cmn, Wis, 34–35; assoc. prof. eng. econ. and chairman dept, Wisconsin, 35–40, assoc. prof. *elec. eng,* 40–43; *prof, Ohio State, 43–* Elec. Eng; Eng. Educ. (chairman cmt. eng. econ, 40). Electrical engineering; engineering economy; electric power distribution.

Ayres, Dr. Erle B(ingham), Bucknell University, Lewisburg, Pa. *Organic chemistry.* Quincy, Mass, July 17, 10.

B.S, Boston, 37, Jacob Sleeper fellow, 37–38, A.M, 38; Ph.D, Duke, 42. Instr. chem, East. Nazarene Col, 38–39; asst, Duke, 39–41, *instr.* inorg. and org. chem, 41–42; *org. and biol. chem, Bucknell, 42–* Chem. Soc. Rearrangement and elimination reactions.

Ayres, Eugene (Edmond), Evergreen Hamlet, Babcock Blvd, Pittsburgh, Pa. *Chemical engineering.* Summerton, S. C, March 28, 91. A.B, Swarthmore Col. Research chemist, E. I. du Pont de Nemours and Co, 13–14; chem. engineer, Sharples Specialty Co, 15–23; manufacturer org. chem, 24–28; asst. manager petrol. technol, Gulf Ref. Co, 29–33; *staff chemist, Gulf Research and Develop. Corp, 34–* Centrifugal engineering; colloid chemistry; organic synthesis.

Ayres, Prof. Frank, Jr, 426 S. Pitt St, Carlisle, Pa. *Mathematics.* Rock Hall, Md, Dec. 10, 01. B.S, Washington Col. (Md), 21; M.S, Chicago, 27, Ph.D, 38. Instr. *math,* Ogden Col, 21–24; Agr. and Mech. Col. Texas, 24–28; *Dickinson Col,* 28–36, *assoc. prof, 36–* Math. Soc; Math. Asn. N + 2 mutually orthogonal hyperspheres.

Ayres, Dr. Fred D(onald), Reed College, Portland, Oregon. *Physical chemistry.* Kansas City, Mo, Dec. 25, 06. B.S, Florida, 29, M.S, 30; Ph.D, Northwestern, 35. Asst, Florida, 29; Northwestern, 30, instr. chem, 35–37; research chemist, Columbia Chem. Div, Pittsburgh Plate Glass Co, 37–40; *instr. chem, Reed Col, 40–* Chem. Soc. Thermochemistry; specific heats of aqueous solutions; phase rule.

Ayres, Dr. Gilbert B(allou), American Cyanamid Co, Stamford, Conn. *Biochemistry.* Woonsocket, R. I, Dec. 14, 09. B.S, Mass. Inst. Tech, 31, Ph.D, 34. Asst. biol. and pub. health, Mass. Inst. Tech, 31–34; fellow physiol, Harvard Med. Sch, 34–36, Squibb fellow, 34–35, biochemist, mem. foundation neuro-endocrine research, 34–36; research assoc. biol. and pub. health, Mass. Inst. Tech, 36–37; *research biochemist and bacteriologist, Am. Cyanamid Co, 37–; U. S. Army, 42–* A.A; Chem. Soc; Pub. Health Asn; Soc. Bact. Fermentations; enzymes; internal secretions; analytical methods; pharmaceuticals; peroxides; toxicology.

Ayres, Prof. Gilbert H(aven), 56 Forbes Ave, Northampton, Mass. *Chemistry.* Upland, Ind, Aug. 29, 04. A.B, Taylor, 25; Ph.D, Wisconsin, 30. Instr. *chem,* Taylor, 25–27; asst, Wisconsin, 27–30, instr, 30–31; asst. prof, *Smith Col,* 31–37, *assoc. prof, 37–* A.A; Chem. Soc; New Eng. Asn. Chem. Teachers. Influence of hydrolysis temperature on some properties of colloidal ferric oxide; cataphoresis measurements on colloidal ferric oxide; influence of temperature on certain properties of zirconium oxide sols; colloidal chromic hydroxide; general chemistry; colorimetric determination of nickel; thermoelectric absorptiometer for analytical work.

Ayres, Dr. H(iram) D(outhitt), Municipal University of Wichita, Wichita, Kans. *Physics.* College Hill, Ky, May 30, 78. A.B, DePauw, 02; A.M, Cornell, 04, Ph.D, 13. Asst. physics, DePauw, 02–03; instr, Ohio State, 04–05; physicist, Carnegie Institution, 05–10; chief physicist, B. F. Goodrich Rubber Co, 13–26; prof. *physics, Wichita,* 26–38, *emer. prof, 38–* A.A; Physical Soc; Asn. Physics Teachers. Coefficients of expansion of metals and indices of refraction of gases at low temperatures; elasticity of metals; rubber products.

Ayres, Prof. Horace C(rookham), University of Nevada, Reno, Nev. *Mathematics.* Carlisle, Iowa, Feb. 7, 09. B.S, Washington (Seattle), 31; M.S, California, 31. Instr. *math, Nevada,* 35–36, *asst. prof, 36–* Math. Soc. Calculus of variations; differential equations.

Ayres, Dr. Leonard P(orter), Cleveland Trust Co, Cleveland, Ohio. *Economics, Statistics.* Niantic, Conn, Sept. 15, 79. Ph.B, Boston, 02, A.M, 09, Ph.D, 10, D.C.S, 23; Columbia, 07–09; LL.D, Rochester, 30; D.Litt, Portia Law Sch, 38. Sch. supt, P. R, 03–04; San Juan, 04–06; gen. supt, P. R, and chief div. statist, 06–08; director div. statist. and div. educ, Russell Sage Foundation, 08–21; *v. pres, Cleveland Trust Co, 21–; brig. gen, U. S. War Dept, 41–* Lecturer, Boston, 09; N. Y. Univ, 12; Illinois, 13; Colorado, 13; Chicago, 20; director educ. surveys, various cities, 12–15. Statistician, Am. Peace Cmn; econ. adviser, Dawes Cmn, 24. Col, Gen. Staff, U.S.A, 17–19; chief statist. officer, War Dept. A.A. (v. pres, 16, 30); Statist. Asn. (pres, 26); Econ. Asn. (v. pres, 34).

Ayres, Dr. Philip W(heelock), Delafield Lane, Riverdale, New York, N. Y. *Forestry.* Winterset, Iowa, May 26, 61. Ph.B, Cornell, 84; fellow, Hopkins, 87–88, Ph.D, 88; hon. Sc.D, New Hampshire, 26, Middlebury Col, 36. *Forester and consulting forester, Soc. Protection N. H. Forests, 01–* Ed, 'Manual of Mt. Sunapee,' 20. Medal, Scenic and Hist. Preservation Soc. N. Y, 35. Del, Int. Forestry Cong, Rome, 26. Soc. Foresters; Forestry Asn; Appalachian Mt. Club (pres, 20–22).

Ayres, Com. Quincy C(laude), 914 Brookridge Ave, Ames, Iowa. *Civil and agricultural engineering.* Columbus, Miss, May 30, 91. Univ. of the South, 08–09; B.S, B.E, Mississippi, 12, C.E, 20. Surveyor and office engineer, drainage, flood control and hydroelec, Muscle Shoals, 12–16; drainage engineer, U. S. Dept. Agr, 16–17; asst. prof. civil eng, Mississippi, 19–20; *agr. eng, Iowa State Col,* 20–21, *assoc. prof, 21–, sec'y-manager research foundation, 35–;* lieut-commander, design div, *bur. yards and docks, Navy Dept,* 41–42, *commander, war plans div, 42–* Director erosion control, Fed. Emergency Relief Admin, Iowa, 34. Summer, director, Erosion Control Works, Iowa, 33. Lieut, C.Eng, 17–19, lieut. commander, 36–42. Agr. Eng. (chairman, reclamation div, 28); Civil Eng. (pres, Iowa sect, 30); Eng. Educ; Iowa Eng. Soc. (chairman, program cmt, 29–, v. pres, 34–36, pres, 36); Royal Soc. Arts London. Drainage engineering; soil erosion and flood control; land development; gully control; passive protection against bombing.

Ayres, Prof. W(illiam) L(eake), 126 W. Lutz Ave, West Lafayette, Ind. *Mathematics.* Gatesville, Texas, June 26, 05. A.B, Southwestern (Texas), 23; Texas, 23–25; Ph.D, Pennsylvania, 27. Nat. research fellow, 27–29; asst. prof. *math,* Michigan, 29–33, assoc. prof, 33–41; *prof. and head dept, Purdue, 41–* Henry Russel prize, Michigan, 32. Math. Soc. (councilor, 37–; assoc. sec'y, 38–); Math. Asn. (governor, 41–). Topology; theory of sets and functions.

Azorlosa, Dr. J(ulian) L(ouis), 1536 Lee St, Charleston, W. Va. *Chemistry.* Mexico City, Mex, Aug. 21, 17. A.B, California at Los Angeles, 38, A.M, 39; Ph.D, Northwestern, 42. Teaching asst. chem, California at Los Angeles, 38–39; junior technician, Shell Oil Co, 39–40; asst. chem, Northwestern, 40–42; *research chemist, Carbide and Carbon Chem. Corp, 42–* Synthetic organic chemistry.

B

Baade, Dr. Walter, Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. **6*Astronomy.* Schroettinghausen, Germany, March 24, 93. Univ. Münster; Ph.D, Göttingen, 19. Asst, Hamburger Sternwarte, 19–27, observator, 27–31; privatdocent, Hamburg, 29–31; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 31–* Cor. mem. Göttingen Gesell. Wissensch. Stellar astronomy; nebulae.

Babb, Prof. M(aurice) J(efferis), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Marshalton, Pa, Oct. 20, 70. B.S, Haverford Col, 05; Ph.D, Pennsylvania, 10. Prof. *math,* Dickinson Sem, 96–00; Bellefont Acad, 00–01; instr, Pa. State Col, 01–05; *Pennsylvania,* 05–10, asst. prof, 10–24, *prof, 24–* Math. Soc. History of mathematics; theory of numbers.

Babb, M(yron) F(rancis), U. S. Department of Agriculture, Cheyenne, Wyo. *Horticulture.* New Sharon, Maine, April 23, 97. B.S, Maine, 26, M.S, 29; Mich. State Col, 30. Instr. hort, Maine, 26–29, asst. prof, 29–30; instr. and asst. research, Mich. State Col, 30–31; agent in charge veg. investigations, *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 31–37, *assoc. physiologist, 37–* Ethylene gas and the vitamin B content of celery; forcing of rhubarb and witloof; plant forcing and hardening off while in the seedling stage; vitamin content of forced witloof.

Babbitt, Prof. H(arold) E(aton), University of Illinois, Urbana, Ill. *Sanitary engineering.* East Orange, N. J, Jan. 7, 88. B.S, Mass. Inst. Tech, 11; M.S, Illinois, 17. Asst, sewage testing sta, Sanit. Dist, Chicago, 11–13; asst. engineer, State Board Health, Ohio, 13; from instr. to *prof. sanit. eng, Illinois, 13–* Civil Eng; Eng. Educ; Water Works Asn; Pub. Health Asn; Chem. Soc; Nat. Soc. Professional Eng; Ill. Soc. Eng. (pres, 22, sec'y, 23–). Plumbing; sewage treatment; water works.

Babbitt, Dr. James A(ddison), 1912 Spruce St, Philadelphia, Pa. *Otolaryngology.* Waitsfield, Vt, Oct. 22, 69. A.B, Yale, 93; A.M, Haverford Col, 96; M.D, Pennsylvania, 98. Prof. and *emer. prof. hygiene and physical educ, Haverford Col;* prof. and *emer. prof. clin. otolaryngol, sch. med, and assoc. prof, grad. sch. med, Pennsylvania.* Laryngologist and aurist, Lankenau Hosp; laryngologist, Children's Hosp. of Mary J. Drexel Home; consulting otolaryngologist, Children's Hosp;

Misericordia Hosp; Mercy-Fitzgerald Hosp; mem. courtesy staff, Bryn Mawr Hosp; Presbyterian Hosp; Episcopal Hosp; Chestnut Hill Hosp. Fel. Laryngol. Asn. (treas, 33–35, sec'y, 35–39, pres, 39); Col. Surg. (governor, 39–); Otol. Soc; Laryngol, Rhinol. and Otol. Soc. (pres, 41); Acad. Ophthal. and Otolaryngol. (historian, 34–41, pres, 42); Col. Physicians Phila. Rhinology.

Babbitt, Dr. J(ohn) D(avid), National Research Council, Ottawa, Ont, Can. *Physics.* Fredericton, N. B, Feb. 2, 08. B.A, New Brunswick, 29; B.A, Oxford, 32, Ph.D, 35. *Junior research physicist, Nat. Research Council Can, 35–* Low temperature; thermal insulation; diffusion of water vapor.

Babcock, Dr. C(larence) L(loyd), 1718 Potomac Drive, Toledo, Ohio. *Physics.* Paoli, Ind, Aug. 30, 04. B.S, Ball State Teachers Col, Ind, 28; Corning Glass research fellow, Purdue, 30–35, M.S, 31, Ph.D, 36. Instr, high sch, Ind, 28–30; asst. and instr. physics, Purdue, 30–35; *supervisor fundamental glass research, Owens-Ill. Glass Co, 35–* Physical Soc; Ceramic Soc. Physical and chemical properties of glass; experimental melting, chemical analysis, liquidus measurement, density, surface tension, viscosity, light transmission, Young's modulus, refractive index, chemical durability and thermal expansion of glass.

Babcock, Dr. Dale F(riend), 711 River Road, Wilmington, Del. *Chemistry.* Minneapolis, Kans, Oct. 5, 06. B.S, Kans. State Teachers Col, 24; Ph.D, Illinois, 29. Asst. chem, Illinois, 26–29; chemist, exp. sta, *E. I. du Pont de Nemours and Co, Wilmington,* 29–39, *research supervisor,* nylon div, 39–42, *explosives dept, 42–* Chem. Soc. Magnetic moment of iodine atom.

Babcock, Dr. Donald E(ric), 486 W. King Ave, Columbus, Ohio. *Physical chemistry, Metallurgy.* Canton, Ohio, Nov. 10, 07. A.B, Ohio State, 31, A.M, 33, Ph.D, 35. Asst. chem, Ohio State, 31–35; physical chemist, Republic Steel Corp, Youngstown, 35–38; research metallurgist, Pittsburgh Steel Co, 38–40; Owens-Corning Fiberglas Corp, 40–42, research manager, 41–42; *mem. staff, univ. research foundation, Ohio State, 42–* Indust. fellow, Mellon Inst, 38–40. Welding Soc; Min. and Metal. Eng; Am. Geog. Soc; Inst. Chem. Eng; Chem. Soc; Soc. Metals. Tetany; electro-organic reductions; fundamental nature of arc and resistance welding; resins and plastics; glass fibers and Fiberglas products; synthetic rubber.

Babcock, Prof. Ernest B(rown), University of California, Berkeley, Calif. ***Plant genetics.* Edgerton, Wis, July 10, 77. B.S, California, 05, M.S, 11. Teacher biol. and nature study, Los Angeles Nor. Sch, 06–07; instr. plant path, *California,* 07–08, asst. prof, 08–09, agr. educ, 09–12, *prof. genetics, 13–* A.A; Soc. Nat. (v. pres, 34); Genetics Soc; Genetics Asn; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; West. Soc. Nat; Calif. Bot. Soc. (pres, 40); Calif. Acad; Wash. Acad. Genetics; taxonomy; evolutionary processes.

Babcock, Harold D(elos), Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. ***Physics, Astronomy.* Edgerton, Wis, Jan. 24, 82. B.S, California, 07. Asst. physics, California, 05–06; lab. asst, Bur. Standards, 06–08; *physicist, Mt. Wilson Observatory, Carnegie Institution, 09–* Solar eclipse expeds, 18, 23, 30, 32. Pacific div, A.A.A.S, prize, 29. Nat. Acad; A.A. (exec. cmt, Pacific div, 31–36); Astron. Soc; Astron. Soc. Pacific (pres, 37); assoc. Royal Astron. Soc; Int. Astron. Union (pres, cmt. standards of wave-length, 24–28). Standard resistances; Zeeman effect; iron arc spectrum; standards of wave-length; pressure effect in iron spectrum; isotopes of oxygen; solar spectrum; diffraction gratings.

Babcock, Dr. H(arold) L(ester), Woodleigh Road, Dedham, Mass. *Herpetology.* Holliston, Mass, May 30, 86. Worcester Polytech, 05–06; M.D, Boston, 10; Berlin, 11. *Hon. curator reptiles, Boston Soc. Nat. Hist.* Mem. corp, Bermuda Biol. Sta. Soc. Ichthyol. and Herp; cor. mem. Zool. Soc. London. Turtles and snakes of New England.

Babcock, Dr. Harriet (Mrs. H. Hobart), 15 Gramercy Park, New York, N. Y. *Psychology.* Westerly, R. I. B.S, Columbia, 22, A.M, 23, Ph.D, 30. Psychologist, Manhattan State Hosp, 23–26; chief psychologist, *Bellevue Hosp,* 26–28, *director research abnor. psychol, 29–; consulting psychologist, Vocational Adjust. Bur, 34–* A.A; Psychol. Asn; Acad. Polit. and Social Sci; Asn. Applied Psychol. (fel, clin. sect); Psychologists League; N. Y. Acad. Measurement of mental deterioration; dementia praecox; the short army scale in clinical practise; the mental functioning of exceptional children; personality and efficiency of mental functioning; the level-efficiency theory of intelligence; time and the mind.

Babcock, Dr. H(orace) W(elcome), 6 Garden Court, Cambridge, Mass. *Astronomy.* Pasadena, Calif, Sept. 13, 12. B.S, Calif. Inst. Tech, 34; Ph.D, California, 38. Asst. *astron,* Lick Observatory, California, 38–39; *instr, McDonald Observatory, Chicago-Texas, 39–* Research assoc, radiation lab, Mass. Inst. Tech, 41– Nebular spectroscopy; solar physics; extra-galactic nebulae.

Babcock, O(rville) G(orman), P. O. Box 5452, Sonora, Texas. *Entomology.* Denver, Colo, July 21, 85. B.S, Colo. Agr. Col, 10, 15; Colo. State Nor. Sch, 14. Entom, Exp. Sta, Md. Agr. Col, 10–12; Exp. Sta, Minnesota, 12–14; commercial fumigation, 14–15; U. S. Reclamation Service, 15–16; codling moth investigations, Exp. Sta, Colo. State Col, 16–17; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 17–40, *assoc. entomologist, 40–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Insects affecting man and animals; economic status of corn bill-bugs in Minnesota; control of peach lecanium or terrapin scale; sheep scab; goat lice; screw worm; blow flies; nose bot of sheep; cattle lice; poultry lice fumigation; sheep fly.

Babcock, Dean Rodney W(hittemore), 1928 Leavenworth St, Manhattan, Kans. *Mathematics.* Milton, Vt, July 22, 90. A.B, Missouri, 12; Pennsylvania; A.M, Wisconsin, 15, Ph.D, 24. Instr. math, Pennsylvania, 15–16; Wisconsin, 16–25, asst. prof, 25–29; prof, DePauw, 29–30; *dean sch. arts and sciences, Kans. State Col, 30–* Math. Soc; Math. Asn. Applied mathematics; mathematical physics; motions of viscous fluids.

Babcock, Prof. S(idney) H(enry), Jr, 16 Oak Ave, Davis, Calif. *Organic chemistry.* Atoka, Okla, April 4, 09. A.B, Vanderbilt, 30, M.S, 31; Ph.D, Illinois, 34. Asst. *chem,* Illinois, 34–36; instr, *col. agr, California,* 36–41, *asst. prof, 41–* Chem. Soc. Stereochemistry; local anesthetics; vitamin B complex.

Babcock, Dr. W(illiam) Wayne, 1720 Spruce St, Philadelphia, Pa. *Surgery.* East Worcester, N. Y, June 10, 72. Col. Physicians and Surg. Baltimore, 93; M.D, Pennsylvania, 95; Medico-Chirurg. Col. Phila, 00; hon. A.M, Gettysburg Col; LL.D, Temple, 32. Intern, St. Mark's Hosp, Salt Lake City; Polyclinic Hosp, Phila; Kensington Hosp. for Women, Phila; chief surg. service, sch. med, Temple; *surgeon, Phila. Gen. Hosp; prof. surg. and clin. surg. and chief dept, sch. med, Temple.* Chief surg. service, U. S. Gen. Hosp. No. 6, 17–19. A.A; fel. Col. Surg; Asn. Obstet, Gynec. and Abdom. Surg. (v. pres, 27, pres, 34); Am. Med. Asn; fel. Therapeut. Soc. (pres, 17); Soc. de Chirurg. Paris.

Babel, Dr. Fred J(ohn), Iowa State College, Ames, Iowa. *Dairy industry.* Traverse City, Mich, Oct. 22, 11. B.S, Mich. State Col, 35; M.S, Purdue, 36; Ph.D, Iowa State Col, 39. Research chemist and bacteriologist, N. Am. Creameries, Inc, Minn, 39–40; *research assoc. dairy bacter, Iowa State Col, 40–* Bacteriology and enzymology of cheese ripening; bacteriology of Swiss-type cheese made from pasteurized milk; significance of laboratory tests in the control of ice cream.

Baber, Dr. E(rl) A(rmitage), Longview Hospital, Cincinnati, Ohio. *Psychiatry.* Griggsville, Ill, May 3, 83. M.D, Louisville, 09. *Supt,* Dayton State Hosp, 11–23; *Longview Hosp, 23–;* instr. *psychiat, col. med, Cincinnati, asst. prof, 37–* A.A; Psychiat. Asn. (councilor); Am. Med. Asn.

Babiy, Dr. Paul Peter, Cornell University, Ithaca, N. Y. *Zoology.* Mödling, Austria, July 25, 94. Ph.D, Vienna, 24. Asst. curator *invert. zool, dept. entom, N. Y. State Col. Agr, Cornell,* 24–25, *curator, 25–* A.A; Entom. Soc. Amer; Deuts. Entom. Gesell; Zool-Bot. Gesell. Wien. Entomology; Hymenoptera; Psammocharidae; color problem in bumblebees.

Babkin, Prof. B(oris) P(eter), McGill University, Montreal, Que, Can. *Physiology.* Koursk, Russia, Jan. 5, 77. M.D, Mil. Med. Acad, St. Petersburg, 04; D.Sc, London, 25. Asst. physiol, Inst. Exp. Med, St. Petersburg, 01–12; prof. animal physiol, Agr. Inst, Novo-Alexandria, 12–15; *physiol,* med. faculty, Odessa, 15–22; Dalhousie, 24–28; *research prof, McGill,* 28– Lecturer, Mil. Med. Acad, 01–12; Med. Research Council, London, 22–24. Physiol. Soc; fel. Royal Soc. Can; British Physiol. Soc. Conditioned reflexes; digestion; secretion; movements of the alimentary tract.

Babler, Dr. B(ernard) J, De Paul University, Chicago, Ill. *Analytical chemistry.* Humbird, Wis, March 19, 14. B.S,

Wisconsin, 35, M.S, 36; Ph.D, Louisiana, 40. Asst. limnol, Wisconsin, 35–36; teaching fellow, Louisiana, 36–39; *instr. chem, De Paul, 40–* Lithium and lithium compounds; polarographic determination of lithium in lake waters.

Babor, Dr. Joseph A, College of the City of New York, New York, N. Y. *Physical and industrial chemistry.* New York, N. Y, March 5, 95. B.S, Col. City of N. Y, 16; A.M, Columbia, 19, Ph.D, 24. From instr. to *assoc. prof. chem, Col. City of N. Y, 16–* Chem. Soc. General and elementary chemistry; concentration of dilute nitric acid; volatility of liquids; insulation; perfumes; how to solve chemical problems.

Baccus, Prof. Ira B(ishop), Michigan State College, East Lansing, Mich. *Electrical engineering.* Plano, Texas, April 25, 03. B.S, Agr. and Mech. Col. Texas, 24, E.E, 39; M.S, Texas, 33, summers, 35–37; Southern California, 36. Electrical engineer, Texas Power and Light Co, Dallas, Texas, 24–27; instr. eng. drawing, Agr. and Mech. Col. Texas, 27–28; elec. engineer, Cent. Power and Light Co, San Antonio, Texas, 28–32; instr. electrical subjects, San Antonio Vocational and Tech. Sch, 33–37; *asst. prof. elec. eng,* Okla. Agr. and Mech. Col, 37–40; *Mich. State Col, 40–* Elec. engineer, Pub. Works Admin. Underground Elec. Dist. System, Okla. Agr. and Mech. Col, 38–39. Summers, elec. engineer, Burns and McDonnel Eng. Co, 34; Midwest. Eng. and Construction Co, Tulsa, Okla, 39–40; Commonwealth and South. Corp, Jackson, Mich, 41. Elec. Eng. Design and construction of electrical equipment, switchboards and substations; electrical machinery.

Bach, Walter J(ohnston), Bach Agricultural Service, Weslaco, Texas. *Plant pathology.* Spokane, Wash, April 22, 99. B.S, State Col. Wash, 21, M.S, 22; Rufus J. Lackland fellow, Washington (St. Louis), 24–25. Junior pathologist, bur. plant indust, U. S. Dept. Agr, 22–27; *plant pathologist,* Exp. Sta, Agr. and Mech. Col. Texas, 27–37; *Bach Agr. Service, 37–* A.A; Phytopath. Soc. Fruit and truck crop diseases; citrus melanose and scab fungi; thread blight of citrus and pomaceous fruits; Phymatotrichum root-rot as affecting fruit and truck crops; black-rot of cabbage; downy mildew of cucurbits; late blight of potatoes and tomatoes; storage of citrus fruits.

Bacharach, Prof. George, 736 W. 173rd St, New York, N. Y. *Organic chemistry.* Berne, Switzerland, Oct, 88. Zurich; B.Sc, Geneva, 10, diplôme, 11; Sc.D, Fordham, 26. Teacher, schs, Switzerland, 11–20; chemist, U. S, 20–21; asst. prof. org. chem, Fordham, 21–28, *prof,* 28–31; *chem, Brooklyn Col, 31–* Summers, lecturer, Fordham. Chem. Soc; Soc. chim. néerlandaise. Nitrations of aromatic compounds with metallic nitrates; action of pyridine in Perkin's synthesis of cinnamic acid; dibenzalacetone.

Bachem, Prof. A(lbert), 1337 Winona St, Chicago, Ill. *Biophysics.* Bonn, Germany, Feb. 26, 88. Ph.D, Bonn, 10. Asst. prof, Bonn, 18–19; Frankfurt, 20–24; *prof. biophys, col. med, Illinois, 24–* Am. Cong. Physiotherapy. Soc. Exp. Biol; Physiol. Soc. X-rays; ultra-violet; light penetration through skin; diathermy; relativity theory; physiotherapy; spectroscopy; acoustics.

Bacher, Dr. Robert F(ox), Cornell University, Ithaca, N. Y. **⁶Physics.* Loudonville, Ohio, Aug. 31, 05. B.S, Michigan, 26, Ph.D, 30. Nat. research fellow *physics,* Calif. Inst. Tech, 30–31; Mass. Inst. Tech, 31–32; Alfred Lloyd fellow, Michigan, 32–33; instr, Columbia, 34–35; *Cornell,* 35–37, asst. prof, 37–40, *assoc. prof, 40–* Research assoc, radiation lab, Mass. Inst. Tech, 41– Nuclear physics; nuclear moments and hyperfine structure; atomic spectra.

Bache-Wiig, Prof. Sara, 36 Prospect Ave, Northampton, Mass. *Mycology.* Bon, Norway, Oct. 4, 94. A.B, Smith Col, 18; M.S, Cornell, 19, Ph.D, 39; Sorbonne, 23–25. Asst. *bot, Smith Col,* 19–21, instr, 21–27, asst. prof, 27–34, *assoc. prof, 34–,* chairman dept, 34–37. Bot. Soc; Mycol. Soc; Soc. mycol. de France; Soc. de Path. vég. et d'Entom. agr; Soc. linn. de Lyon.

Bachman, Dr. Cha(rle)s H(erbert), General Electric Co, Schenectady, N. Y. *Physics.* Cedar Falls, Iowa, Dec. 8, 08. B.S, Iowa State Col, 32, M.S, 33, fellow, 33–35, Ph.D, 35. *Physicist,* Hygrade Sylvania Corp, 35–39; *electronic lab, Gen. Elec. Co, 39–* Assoc. Radio Eng; Soc. X-Ray and Electron Diffraction. Electronics; spectroscopy; microscopy.

Bachman, Dr. George W(illiam), Germantown, Ohio. *Parasitology.* Germantown, Ohio, May 12, 90. B.S, Heidelberg Col, 17; A.M, Columbia, 23; Ph.D, Chicago, 27. Prof. biol, Huping Col, China, 18–22, acting pres, 23–25; instr. parasitol, Chicago, 27–28; asst, sch. hygiene and pub. health, Hopkins, 28–29; assoc. prof. and prof, Columbia, 30–42, acting director and director, Columbia Sch. Trop. Med, Puerto Rico, 31–42; *field director, Am. Bur. Med. Aid to China, 42–* Ricketts prize, Chicago, 28. A.A; Soc. Parasitol; Soc. Trop. Med; Acad. Trop. Med; N. Y. Acad; Royal Soc. Trop. Med. and Hygiene. Medical zoology; serology and immunity of parasites.

Bachman, Prof. Gustav, 5124 Thomas Ave, S, Minneapolis, Minn. *Pharmacy.* Lemberg, Austria, Jan. 2, 78. Ph.C, Minnesota, 00, Pharm.M, 01, Pharm.D, 03. Asst. *pharmacy, Minnesota,* 03–05, instr, 05–15, asst. prof, 15–20, *prof, 20–* Mem. revision cmt, Nat. Formulary; State Board of Health, Minn, 37– Pharmaceut. Asn; Minn. Pharmaceut. Asn. (sec'y, 20–). Adulteration of drugs and chemicals.

Bachman, Prof. G(ustave) B(ryant), Purdue University, Lafayette, Ind. *Chemistry.* Kansas City, Mo, Aug. 18, 05. A.B, Colorado, 26; Munich, 29–30; Ph.D, Yale, 30. Instr. chem, Ohio State, 30–33, asst. prof, 33–36; research chemist, Eastman Kodak Co, 36–39; assoc. prof. *chem, Purdue,* 39–41, *prof, 41–* Mem. board editors, 'Jour. Org. Chem.' Chem. Soc. Higher acetylenes and their derivatives; dehalogenation of bromo acids; polycyclic hydrocarbons; cellulose derivatives and plastics; polarography.

Bachman, Dr. P(aul) W(illiam), Commercial Solvents Corp, Terre Haute, Ind. *Chemistry.* Newport News, Va, Aug. 28, 99. B.S, Hopkins, 23, Ph.D, 26. Research chemist, du Pont Co, 26–28; Gen. Chem. Co, Long Island City, 28–31; Victor Chem. Works, 31–37; Gen. Chem. Co, 37–42; *asst. director research, Commercial Solvents Corp, 42–* du Pont fellow. Chem. Soc.

Bachmann, Dr. Freda M, 2705 Sherbrooke Road, Toledo, Ohio. *Bacteriology.* Genoa, Ohio, Nov. 7, 78. A.B, Miami (Ohio), 07, A.M, 08; fellow, Wisconsin, 08–09, Ph.D, 12. Asst. bot. and plant path, Wisconsin, 09–12; asst. prof. bot. and bacter, Milwaukee-Downer Col, 12–14; instr. agr. bacter, Wisconsin, 14–24; prof. bacter, Stout Inst, 24–40; *research.* A.A; Soc. Bact; Wis. Acad. Cytology; morphology and physiology of bacteria; yeast; molds.

Bachmann, Prof. (Jean) G(eorge), 1088 Lullwater Road, Atlanta, Ga. *Physiology.* Mulhouse, Alsace, July 18, 77. M.D, Jefferson Med. Col, 07; M.S, Emory, 22. Res. physiologist and lecturer hygiene, Jefferson Hosp, 07–09; demonstrator *physiol,* Jefferson Med. Col, 09–10; *prof,* Atlanta Med. Col, 10–15; *Emory, 15–* A.A; Physiol. Soc; fel. Col. Physicians; Ga. Acad; N. Y. Acad. Venous pulse; action of strophanthus in heart block; interauricular time interval; distribution of vagus nerves to the sino-auricular junction of the mammalian heart; effects of sugars on respiratory exchange; metabolism of glucose and fructose; metabolism of calcium and phosphorus of caffeine.

Bachmann, Prof. W(erner) E(mmanuel), University of Michigan, Ann Arbor, Mich. **⁶Chemistry.* Detroit, Mich, Nov. 13, 01. B.S.E, Michigan, 23, M.S, 24, Ph.D, 26. Instr. *org. chem,* Michigan, 25–28; Rockefeller Foundation fellow, Zurich, 28–29; asst. prof, *Michigan,* 29–35, assoc. prof, 35–39, *prof, 39–* Guggenheim Mem. Foundation fellow, London and Munich, 35–36. Mem. ed. board, 'Jour. Org. Chem,' 36–; 'Org. Syntheses,' 38– Henry Russel award, 33. Nat. Acad; Chem. Soc. (chairman org. div, 39; assoc. ed, 'Jour,' 41–). Organic chemistry; reduction by magnesium monohalide; free radicals; lycopene; Grignard reaction; pinacol-pinacolone rearrangement; phenanthrene derivatives; carcinogenic and oestrogenic compounds; penta-arylethanes.

Bachmeyer, Prof. Arthur C(harles), University of Chicago, Chicago, Ill. *Medicine.* Cincinnati, Ohio, Dec. 6, 86. M.D, Cincinnati, 11, hon. Sc.D, 35. Supt. and med. director, Gen. Hosp, Cincinnati, Ohio, 14–34; *prof, director courses hosp. admin, director clinics and assoc. dean div. biol. sciences, Chicago, 35–* Supt. and med. director, Tuberculosis Sanatorium, Cincinnati, Ohio, 14–34; Christian R. Holmes Hosp, 29–34; prof, Cincinnati, 20–34, dean col. med, 25–34. Director, Chicago Hosp. Council. Pres, Am. Hosp. Asn, 26. Am. Med. Asn; Pub. Health Asn; fel. Col. Hosp. Admins. (pres, 40); Asn. Mil. Surg; Cincinnati Acad. Med; Inst. Med. Chicago. Hospital administration; medical education.

Bacigalupi, Dr. Rimo (Charles), 2445 Filbert St, San Francisco, Calif. *Botany.* San Francisco, Calif, March 24, 01. A.B, Stanford, 23, A.M, 25; California, 26, 38–39; Ph.D, Harvard, 31. Asst, Stanford, 23–24; teaching fellow, Califor-

nia, 26; instr. bot. and Italian, Mills Col, 25–28; research, Dudley herbarium, Stanford, 31–33; botanist, Calif. Forest Exp. Sta, U. S. Forest Service, 33–38; teacher, high schs. and jr. col, San Francisco County, Calif, 39–40; *transport service, U. S. Army, 42–* Summer, curatorial asst, Dudley herbarium, Stanford, 42. A new genus of the saxifrage family; Saxifragaceae of the Pacific states; Perezia; taxonomy of Cuphea.

Back, Dr. E(rnest) A(dna), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Northampton, Mass, Oct. 7, 80. B.S, Mass. Col. and Boston, 04; Ph.D, Mass. Col, 07. Deputy state nursery inspector, Mass, 02–06; instr. entom, Mass. Col, 04–06, bot, 06–07; white-fly investigations, bur. entom, U. S. Dept. Agr, Fla, Cuba and Mex, 07–10; entomologist and plant pathologist, State Crop Pest Cmn, Virginia, and Exp. Sta, Va. Polytech, 10–12; fruit-fly investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* Hawaii, Bermuda and Spain, 12–17, entomologist in charge stored product and household insect investigations, 17–34, *prin. entomologist, div. man and animals, 34–* A.A; Asn. Econ. Entom; Entom. Soc; Wash. Acad; Entom. Soc. Wash. Biology and control of citrus white flies; fruit-flies in Hawaii; protection from insect attack of food and other stored agricultural and manufactured products; Asilidae; household insects.

Back, Robert, The Wahl Co, 3753 N. Fremont Ave, Chicago, Ill. *Engineering.* Chicago, Ill, Dec. 13, 89. B.S, Illinois, 13. U. S. Bur. Mines, 12–13; Haegar Potteries, Ill, 18–19; *tech. engineer, The Wahl Co, 20–* Mech. Eng; Ceramic Soc; Chem. Soc. Leads for the mechanical pencil.

Backus, Dr. Edward J(ames), Lederle Laboratories, Inc, Pearl River, N. Y. *Mycology.* Madison, Wis, March 10, 16. A.B, Wisconsin, 37, A.M, 39, fellow, 40–41, Ph.D, 41. Asst. bot, Wisconsin, 37–39, plant path, 39–40; *mycologist, Lederle Labs, Inc, 41–* Torrey Bot. Club. Mycology in relation to mold fermentation.

Backus, Prof. Myron P(ort), University of Wisconsin, Madison, Wis. *Botany.* Madison, Wis, April 14, 08. A.B, Wisconsin, 28, A.M, 29, fellow, 29–31, Ph.D, 31. Nat. research fellow bot, N. Y. Bot. Garden and Columbia, 31–33; assoc. mycol, Boyce Thompson Inst, 33–34; instr. *bot, Wisconsin,* 34–37, *asst. prof, 37–* Summers, agent, U. S. Dept. Agr, 28; asst, Wisconsin, 29–31. Mycol. Soc; Phytopath. Soc; Torrey Bot. Club. Morphology and cytology of fungi reproduction in spermatium-producing ascomycetes; Coccomyces hiemalis; Neurospora.

Bacon, Arthur A(very), 235 Tenth Ave. N, St. Petersburg, Fla. *Physics.* Laconia, N. H, Oct. 26, 75. A.B, Dartmouth Col, 97, A.M, 01. Tutor physics, Oberlin Col, 97–98; asst, Dartmouth Col, 98–00, instr. math. and astron, 00–01; prof. physics, Hobart Col, 03–19, sec'y and registrar, 07–17; prof. physics, American Univ. Beirut, 19–40; *retired.* A.A; Physical Soc. Equilibrium of vapors at curved surfaces of liquids.

Bacon, Prof. C(harles) S(umner), 2333 Cleveland Ave, Chicago, Ill. *Medicine.* Spring Prairie, Wis, July 30, 56. Ph.B, Beloit Col, 78, hon. Sc.D, 25; M.D, Northwestern, 84. *Prof.* gynec, *Chicago Polyclinic,* 91–94, *obstet, 95–; col. med, Illinois,* 03–28, *emer. prof, 28–* Consulting obstetrician and gynecologist, Munic. Tuber. Sanatorium, 15; Grant Hosp, 17–32; chief med. staff, Salvation Army Hosp, 25– A.A; Am. Med. Asn. (chairman, sect. obstet, 05); Col. Surg; Asn. Obstet, Gynec. and Abdom. Surg; Chicago Med. Soc. (pres, 03); Chicago Gynec. Soc. (pres, 01, 23); Inst. Med. Chicago. Pathology of pregnancy; tuberculosis.

Bacon, Prof. Charles S(umner), Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Geology.* Chicago, Ill, Dec. 13, 01. B.S, Chicago, 22, M.S, 23; Ph.D, Vienna, 26. Petrol. geologist, Huasteca Petrol. Corp, Mex, 26–27; gas measurement dept, Pure Oil Co, Chicago, 27–28; instr. *geol,* Riverside Junior Col, 28–36; *Agr. and Mech. Col. Texas,* 36–41, *assoc. prof, 41–; assoc. geologist, U. S. Geol. Surv, 43–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng. Volcanic succession in the region of Alpine, Texas; stratigraphy and structure of the Confusion and Conger Ranges in western Utah.

Bacon, Cha(rle)s V(incent), 117 Liberty St, New York, N. Y. *Chemistry.* New York, N. Y, March 24, 85. Grad, Cooper Union, 04, B.S, 19, Chem.E, 32; Columbia, 12; Chem.E, St. Mary Col, 19; N. Y. Univ; Polytech. Inst. Brooklyn. *Consulting chemist and chem. engineer, 02–* Director, Oil Trades Asn. N. Y. Major, C.Eng, 17–19. Chem. Soc; fel. Inst. Chem; Asn. Consulting Chem. and Chem. Eng. (trustee); Soc. Test. Mat; Oil Chemists Soc; N. J. Chem. Soc; Int. Asn. Test. Mat. Experimental, analytical and industrial research; surveying and inspection of organic products; petroleum; fatty oils; process development and plant supervision; preparation of technical work for court testimony and presentation; marine work; transportation and handling of oils in bulk; operation of automotive and Diesel equipment; lubrication; fuels.

Bacon, Dr. Charles W(alter), 4312 Yuma St, N. W, Washington, D. C. *Chemistry, Plant physiology.* Worcester, Mass, March 11, 86. A.B, Clark, 06, A.M, 07, Ph.D, 11. Asst. chem, Clark, 07–09; assoc. physiologist, *bur. plant indust, U. S. Dept. Agr,* 10–35, *physiologist, 35–* A.A; Chem. Soc; Wash. Acad. Tobacco curing; physiological plant diseases; biochemistry.

Bacon, Prof. Clara Latimer, 2316 N. Calvert St, Baltimore, Md. *Mathematics.* Hillsgrove, Ill, Aug. 13, 66. A.B, Wellesley Col, 90; A.M, Chicago, 04; Ph.D, Hopkins, 11. Teacher, secondary schs, 90–97; instr. *math, Goucher Col,* 97–05, assoc. prof, 05–14, prof, 14–34, *emer. prof, 34–* A.A; Math. Soc; Math. Asn.

Bacon, Dr. Egbert K(ing), Union College, Schenectady, N. Y. *Chemistry.* Sault Ste. Marie, Mich, Aug. 20, 00. B.S, Michigan, 22, M.S, 23, Ph.D, 26. Asst. quantitative analysis, Michigan, 20–22, gen. chem, 22–26; instr. *chem,* Brown, 26–30; *Union (N. Y),* 30–32, *asst. prof, 32–* City chemist, Schenectady, N. Y, 41– A.A; Chem. Soc. (sec'y-treas, R. I. sect, 29, east. N. Y. sect, 30–). Diffusion potentials; equivalent weight of gelatin; viscosity gelatin.

Bacon, Dr. Franklin J(ames), Western Reserve University, Cleveland, Ohio. *Pharmacognosy, Botany.* New London, Wis, Nov. 11, 96. Ph.G, Wisconsin, 18, B.S, 20, fellow, 22–23, M.S, 23, Hollister fellow, 23–25, Ph.D, 25. Pharmacognosist, Eli Lilly and Co, 20–22; prof. pharmacog. and pharmacol. and head dept, Florida, 25–27; *prof.* pharmacog, *Western Reserve,* 27–36, *bot, 36–* A.A; Pharmaceut. Asn; Soc. Plant Physiol; Torrey Bot. Club; Ohio Acad. Cultivation of medicinal plants.

Bacon, Frederick S(ayford), Watertown, Mass. *Chemistry.* Newton, Mass, Oct. 28, 93. A.B, Harvard, 15, A.M, 17. Research chemist, Fed. Dyestuff and Chem. Co, 17–18; Monsanto Chem. Co, 19; pres, Puritan Dye and Chem. Co, 20–25; research chemist, A. D. Little, Inc, 26–29; supervisor, Monsanto Chem. Works, 29–30; research chemist, Boston Blacking and Chem. Co, 30–37; G. J. Esselen, Inc, 37–40; *chem. research and consultation, 40–* A.A; Chem. Eng; Chem. Soc. (treas, northeast. sect, 35–41, chairman, 42); Chem. Eng. Chemical development.

Bacon, Dr. H(arold) M(alle), Box 1144, Stanford University, Calif. *Mathematics.* Los Angeles, Calif, Jan. 13, 07. A.B, Stanford, 28, A.M, 29, Ph.D, 33. Acting instr. *math, Stanford,* 31–32, instr, 32–36, *asst. prof, 36–* Instr, Calif. State Teachers Col, San Jose, 35. Math. Soc; Math. Asn. (sec'y north. Calif. sect, 38–; governor, 41); Inst. Math. Statist; Council Teachers Math. Diophantine approximations; statistics.

Bacon, Dr. Harry E(llicott), 2031 Locust St, Philadelphia, Pa. *Coloproctology.* Philadelphia, Pa, Aug. 25, 00. Ursinus Col, 18–20; Villanova Col, 20–22; M.D, Temple, 25. Assoc. prof. *proctology,* grad. sch. med, Pennsylvania, 34–41; *prof. and head dept, sch. med, Temple, 41–* Head dept. proctology, St. Mary's Hosp; consultant proctologist, Mercy Hosp; Nat. Stomach Hosp; Douglas Hosp; Rush Hosp; Paul Kimball Hosp, Lakewood, N. J. Fel. Am. Med. Asn; fel. Col. Surg; fel. Proctologic Soc; Phila. Proctologic Soc; fel. Int. Col. Surg. Diseases of the anus, rectum and colon.

Bacon, Dr. Leslie R(andolph), 115 Emmons Blvd, Wyandotte, Mich. *Chemistry.* Henniker, N. H, March 16, 03. B.S, New Hampshire, 24; M.S, N. Y. Univ, 25, fellow, 26–27, Ph.D, 27. Asst. chem, N. Y. Univ, 24–26; research chemist, Am. Doucil Co, 27–31; Phila. Quartz Co, 31–39; *research supervisor, Wyandotte Chem. Corp, 39–* Instr, evening sch, Drexel Inst, 36–39. Chem. Soc. Phase rule; water treatment; glass and silicate chemistry; industrial cleaning and sanitation; mineralogy.

Bacon, Dr. Ralph H(oyt), 5331 Castor Ave, Philadelphia, Pa. *Physics.* Kenosha, Wis, July 16, 07. A.B, Fordham, 29; fellow, Col. City of N. Y, 29–32; A.M, Columbia, 32; Ph.D, N. Y. Univ, 40. Asst. physics, Drew, 35–36; instr, St. Joseph's Col. for Women (N. Y), 36–37; Wash. Sq. Col, N. Y. Univ, 37–39; *ballistician, U. S. War Dept, Frankford Arsenal,*

39– Instr, Adelphi Col, 36. Physical Soc; Asn. Physics Teachers. The radioactivity of Mn^{56} and of I^{128}; ballistics of small arms ammunition; statistical methods of quality control.

Bacon, Dr. R(aymond) Charles, 126 Woodside Village, Stamford, Conn. *Chemistry.* Manila, P. I, Jan. 12, 08. B.S, Princeton, 30; Ph.D, Stanford, 33. Am-Scandinavian Foundation fellow, Copenhagen, 33–35; *research chemist,* Calco Chem. Co, 35–41; *Am. Cyanamid Co, 41–* Chem. Soc; Inst. Chem. Colloid chemistry; dyestuff formulation; wetting agent structure; adsorption of war gases.

Bacon, Dr. Raymond F(oss), 500 Fifth Ave, New York, N. Y. ****3***Chemistry.* Muncie, Ind, June 29, 80. B.S, DePauw, 99, A.M, 00, hon. Sc.D, 19; fellow, Chicago, 01–04, Ph.D, 04; hon. Sc.D, Pittsburgh, 18. Instr. chem, DePauw, 99–00; prof, Vincennes, 00–01; commercial chemist, Chicago, 04–05; chemist, Bur. Science, P. I, 05–10; asst. chemist, bur. chem, U. S. Dept. Agr, 10–11; senior fellow, Mellon Inst, 11–12, assoc. director, 12–14, director, 14–22; *chem. engineer, 22–* Sci. adviser to Philippine Govt, 38–39. Assoc. mem, Naval Consulting Board. D.S. medal. Col, C.W.S. A.A; Chem. Soc; Electrochem. Soc; Chem. Eng; Min. and Metal. Eng; Ceramic Soc; Soc. Chem. Indust; London Chem. Soc; Soc. chim. de Paris; Soc. de Chim. indust. Industrial research of sulfur; petroleum.

Bade, Dr. Paul H(inkley), Cleveland College, Western Reserve University, Cleveland, Ohio. *Zoology, Anatomy.* Gibsonburg, Ohio, Oct. 5, 12. A.B, Col. of Emporia, 34; A.M, Western Reserve, 39, Ph.D, 42; Cleveland Clinic Foundation fellow, 38–42. Teaching fellow zool, Taylor, 32–33; teaching fellow zool. and lab. instr. comp. anat, Col. of Emporia, 33–34; instr, high sch, Kans, 34–36; *lecturer biol, Cleveland Col, Western Reserve, 39–* A.A; Ohio Acad. Organ and gland weights and the metabolic rate of passerine birds; size, weight and spatial relations of human celiac ganglion.

Baden, Dr. M(artin) W(illiam), 1219 E. Ninth Ave, Winfield, Kans. *Geology, Engineering.* Independence, Kans, Nov. 25, 78. A.B, Southwestern Col; hon. Sc.D, Pittsburgh, 30. Mech. engineer, Winfield Ice and Cold Storage Co, 99–01; consulting engineer, 01–04; mech. and elec. research, 04–14; petrol. engineer, Cowley County Gas Co, 14–15; field and consulting geologist and petrol. engineer, 15–18; consulting geologist, 18–21; v. pres. and chief geologist, Trees Oil Co, 21–31; *consulting geologist and engineer, 31–* Chief geologist, Grace Oil and Gas Co, 14–15. A.A; Asn. Petrol. Geol; Chem. Soc; Mech. Eng; Elec. Eng; Min. and Metal. Eng; Kans. Eng. Soc; Kans. Acad. Geochemistry; photoelectric colorimetric methods for chemical analysis; brines from oil fields; geophysics.

Badertscher, A(mos) Edison, McCormick and Co, Baltimore, Md. *Entomology.* Dalton, Ohio, June 30, 98. A.B, Bluffton Col, 23; M.S, Rutgers, 30. Prin, high sch, S. Dak, 24–28; asst, Ohio State, 28–29; Rutgers, 29–31; *chief entomologist, McCormick and Co, 31–* Asn. Econ. Entom; Nat. Asn. Insecticide and Disinfectant Mfrs. (mem, standardization cmt. household insecticides). Insecticides; pyrethrum; rotenone; effect of soap on the toxicity of a pyrethrum product.

Badertscher, Dr. Darwin E(arl), Socony-Vacuum Oil Co, Paulsboro, N. J. *Organic chemistry.* Beaverdam, Ohio, Sept. 10, 08. A.B, Indiana, 29; fellow, Pa. State Col, 30–33, M.S, 31, Ph.D, 34. Research chemist, Hercules Powder Co, 29–30; asst, Pa. State Col, 33–34; *research org. chemist, research and develop. dept, Socony-Vacuum Oil Co, 34–* Chem. Soc. Aliphatic Grignard reagents; organic chemical problems related to the petroleum industry.

Badertscher, Prof. J(acob) A, Bloomington, Ind. *Histology.* Bluffton, Ohio, Jan. 11, 79. Ph.B, Ohio (Athens), 09, Ph.M, 10; Ph.D, Cornell, 14. Asst. biol, Ohio (Athens), 08–09, instr, 09–10; asst. histol. and embryol, Cornell, 10–11, instr, 11–14; *anat, Indiana,* 14–15, asst. prof, 15–17, assoc. prof, 17–21, *prof, 21–* A.A; Asn. Anat; fel. Ind. Acad. Muscle degeneration; the thymus; the ultimobranchial bodies; the pineal gland.

Badger, Dr. A(lfred) E(arl), University of Illinois, Urbana, Ill. *Ceramics.* Cleveland, Ohio, Nov. 25, 99. B.S, Case, 22; M.S, Illinois, 29, Ph.D, 38. Mem. staff, Gen. Elec. Co, 19–27; from research assoc. to *research assoc. prof. ceramic eng, Illinois, 27–* Ceramic Soc; Soc. Glass Technol. Glass technology.

Badger, Dr. George F(ranklin), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Biostatistics.* Everett, Mass, May 14, 07. B.S, Mass. Inst. Tech, 29; C.P.H, Hopkins, 32; M.D, Michigan, 38. Assoc. epidemiologist, Dept. Pub. Health, Detroit, Mich, 29–34; *assoc. biostatist, Hopkins, 38–; mem. cmn. acute respiratory diseases, U. S. Army, 42–* Statist. Asn; Popul. Asn. Epidemiology of communicable diseases; the family as an epidemiological unit; statistical evaluation of clinical and laboratory procedures.

Badger, Dr. L(ucius) F(ranklin), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Public health.* Groveland, N. Y, Jan. 29, 93. A.B, Carleton Col, 16; M.D, Minnesota, 21. Director leprosy investigations, *U. S. Pub. Health Service,* 35–39, *asst. director nat. inst. health, 42–* Soc. Trop. Med; Int. Leprosy Asn. Typhus fever; Rocky Mountain spotted fever; leprosy.

Badger, Dr. Richard M(cLean), 215 Highland Place, Monrovia, Calif. *Physical chemistry, Physics.* Elgin, Ill, May 4, 96. B.S, Calif. Inst. Tech, 21, Ph.D, 24. Fellow physical chem, Calif. Inst. Tech, 24–28; nat. research fellow, Germany, 28–29; asst. prof. *chem, Calif. Inst. Tech,* 29–38, *assoc. prof, 38–* Chem. Soc; Physical Soc. The free energy of hydrogen cyanide; absorption spectra in the infra-red; band spectra, binding forces and dissociation energies of homopolar molecules; spectroscopic studies of the hydrogen bond.

Badger, Walter Lucius, 1055 Cedar Bend Drive, Ann Arbor, Mich. *Chemical engineering.* Minneapolis, Minn, Feb. 18, 86. A.B, Minnesota, 07, B.S, 08, M.S, 09. Chemist, Great West. Sugar Co, 09; instr. chem, Minnesota, 10; lab. asst, Bur. Standards, 10–12; prof. chem. eng, Michigan, 12–37; *manager consulting eng. div, Dow Chem. Co, 37–* Director research, Swenson Evaporator Co, 17–29, 33– Cmt. on heat transfer, div. eng, Nat. Research Council, 23–, exec. cmt, div. chem. and chem. technol, 30–31. Chem. Eng. (director, 24–26, 29–31, chairman, evaporator test code cmt, 22–33, mem, cmt. on chem. eng. educ, 30–35); Chem. Soc. Design of chemical machinery; evaporator design; heat transfer.

Badgley, Dr. Carl E(gbert), University of Michigan, Ann Arbor, Mich. *Surgery.* Cayuga, N. Y, Oct. 8, 93. B.S, Michigan, 17, M.D, 19. Acting intern orthop, Michigan, 18–19, intern surg. service, 19–20, instr. surg, Univ. Hosp, Ann Arbor, 20–22; asst. prof, med. sch, Michigan, 24–27, assoc. prof, 28–29; surgeon in charge orthop. surg, Henry Ford Hosp, 29–32; *prof. surg. in charge orthop. surg, Michigan, 32–* Consulting orthop. surgeon, Henry Ford Hosp, 32– Fel. Col. Surg; Orthop. Asn; Cent. States Orthop. Asn; Mich. Orthop. Asn. Coalition of calcaneus and navicular; two stage transplantation of fibula in gap fractures of tibia; coxa vara; displacement of the upper femoral epiphysis; birth injuries; osteomyelitis of ilium; tuberculosis; pulmonary infarctions and embolism; septic hips; low back pain.

Badollet, Marion Smith, 109 Madison Ave, Fanwood, N. J. *Chemistry.* Vincennes, Ind, Nov. 27, 95. B.S, Missouri, 20, M.S, 21, Chem.E, 26. Instr. chem, Pa. State Col, 21–23; research, carbohydrate lab, U. S. Dept. Agr, 23–29; *in charge research asbestos fiber, Johns-Manville Corp, Manville, 29–* Chem. Soc. Colloids in sugar manufacture; sugar refinery investigations; sugar technology.

Baechler, Dr. Roy H(erman), U. S. Forest Service, Madison, Wis. *Chemistry.* Fountain City, Wis, March 9, 97. B.S, Wisconsin, 21, M.S, 24, Ph.D, 27. Asst. chemist, Wilhoit Labs, Minneapolis, 21–22; junior chemist, *Forest Products Lab, U. S. Forest Service,* 22–27, asst. chemist, 27–35, assoc. chemist, 35–36, *chemist, 36–* Chem. Soc; Wood Preservers Asn. Pharmacology; relation of chemical constitution to toxicity; wood preservatives; fire retardants.

Baehr, Dr. George, 110 E. 80th St, New York, N. Y. *Pathology, Internal medicine.* New York, N. Y, April 16, 87. M.D, Columbia, 08; Freiburg, 11–12; Vienna, 12–13. Assoc. path, *Mt. Sinai Hosp, New York,* 11–27, assoc. attending physician and *attending physician, 19–; clin. prof. med, Columbia, 36–; med. director, U. S. Pub. Health Service and chief med. officer, U. S. Office Civilian Defense, 41–* Admin. consultant, Dept. Hosps, New York, 34– Consulting physician, Monmouth Mem. Hosp, Long Branch, N. J, and St. Joseph's and Rockaway Beach Hosps, N. Y; research fellow, Mt. Sinai Hosp, 10–11, 14–17, 19–20. Chairman tech. advisory board, Dept. Health, New York, 35–; mem, State Pub. Health Council, N. Y, 36– Mem, Red Cross Sanit. Cmn, Serbia and Russia, 15–16; lieut.

col, M.C, 17–19. A.A; Am. Med. Asn; Asn. Path. and Bact; Soc. Clin. Invest; Soc. Exp. Biol; Col. Physicians; Harvey Soc; Am. Physicians; Pub. Health Asn; N. Y. Acad. Med. (trustee, 33–, chairman, cmt. pub. health relations, 37); Int. Asn. Med. Mus. Experimental medicine; nephritis; public health.

Baekeland, George, Bakelite Corp, 30 E. 42nd St, New York, N. Y. *Geology.* Yonkers, N. Y, Feb. 8, 95. E.M, Colo. Sch. Mines; A.B, Cornell. Mine examination and geol. explor, 20–23; geol. explor, Standard Oil Co. of N. J, Africa and Europe; *v. pres, Bakelite Corp.* A.A; Min. and Metal. Eng; fel. Am. Geog. Soc.

Baekeland, Dr. L(eo) H(endrik), 30 E. 42nd St, New York, N. Y. *******Chemistry.* Ghent, Belgium, Nov. 14, 63. B.S, D.Sc, Ghent, 84; hon. Ch.D, Pittsburgh, 16; hon. Sc.D, Columbia, 29; hon. D.A.Sc, Brussels, 34; hon. LL.D, Edinburgh, 37. Asst. prof. chem, Ghent, 82–88, assoc. prof, 88–89; prof. chem. and physics, Higher Nor. Sch, Bruges, 85–87; mfg. and consulting chemist, New York, 89–99; *research chemist, 99–; hon. prof. chem. eng, Columbia, 17–* Chandler lecturer, Columbia, 14. Mem. chem. advisory cmt, U. S. Dept. Commerce; Naval Consulting Board, 15–; Nitrate Supply Cmn, 17; Nat. Research Council; admin. board, Inst. Int. Educ; mem, Belgian Am. Educational Foundation, 35. Nichols medal, Chem. Soc, 09, Gibbs medal, 13; Scott medal, Franklin Inst, 10; Chandler medal, Columbia, 14; grand prize, Panama-Pacific Expos, 15; Perkin medal, Soc. Chem. Indust, 16; Messel medal, Soc. Chem. Indust, London, 38. Order of the Crown, Belgium, 19; officier, Légion d'honneur, 23; commander, Order of Leopold, Belgium, 24. Nat. Acad; A.A; Chem. Soc. (pres, 24); Electrochem. Soc. (pres, 09); Chem. Eng. (pres, 12); Philos. Soc; Franklin Inst; Chemists' Club (pres, 04); London Soc. Chem. Indust. (v. pres, 05); Royal Soc. Arts; hon. mem. Royal Soc. Edinburgh; Soc. chim. de France; Soc. de Chim. indust; hon. mem. Soc. belge des Elec. Physical, general, industrial and organic chemistry; synthesis of resinoids and intermediate bodies resulting from the action of phenols upon formaldehyde; photographic processes; electrical insulation; Velox; Bakelite.

Baender, Dr. F(red) G(ottlieb), 409 Bank of America Bldg, Glendale, Calif. *Mechanical engineering.* Moberly, Mo, 82. B.S. (M.E), Iowa, 08; M.M.E, Cornell, 16, Ph.D, 36. Head dept. mech. eng, Arkansas, 16–23; research engineer, Hays Corp, designing engineer, Mack Truck Co, and research engineer, De Laval Separator Co, N. Y, 23–28; prof. mech. eng. and head dept, Oregon State Col, 28–36; pres, Thermo-Air Conditioning Inst, 37–39; *consulting engineer, 39–* Mech. Eng; Eng. Educ; Agr. Eng. Flameless combustion; Diesel engine injection systems; lubrication problems; heat transfer.

Baer, Clarence E(ugene), 71 W. Fifth St, Oswego, N. Y. *Science education.* Edinburg, Pa, May 6, 86. A.B, Cornell, 08; A.M, Columbia, 26. Teacher, high sch, Pa, 09–10, 15–27; Wash, 10–15; state supervisor science, N. Y, 27–28; science ed, Eastman Teaching Films, 28–33; head dept. science, State Nor. Sch, Oswego, 33–38. Summers, instr, Rochester, 30; Tenn. State Teachers Col, Memphis, 39. Science ed, 'High Sch. Teacher,' 25–27. A.A; Chem. Soc; Nat. Asn. Research Sci. Teaching; Soc. Adv. Educ. Science curricula; visual aids.

Baer, Prof. Erich, 100 College St, Toronto, Ont, Can. *Organic chemistry.* Berlin, Germany, March 8, 01. Ph.D, Berlin, 27. Asst, Berlin, 27–32; Basel, 32–36, privat-docent chem, 36–37; *asst. prof. org. chem, Toronto, 37–* Asst, Kaiser Wilhelm Inst. Arbeitsphysiol, 27–28. A.A; Chem. Soc; Soc. Biol. Chem; Royal Can. Inst; Deuts. Chem. Gesell. Carbohydrates; optically active glycerol derivatives; oxidative cleavage; terpenes; thrombine; intermediaries of carbohydrate metabolism.

Baer, Prof. R(einhold), University of Illinois, Urbana, Ill. *Mathematics.* Berlin, Germany, July 22, 02. Hanover Inst. Tech, 20–21; Freiburg, 21–22; Ph.D, Göttingen, 25; Kiel, 24–25. Asst, Freiburg, 26–28, privat-docent, 28; Halle, 28–33; hon. research fellow, Victoria Univ, Manchester, 33–35; mem, Inst. Advanced Study, 35–37; asst. prof. *math,* North Carolina, 37–38; *assoc. prof, Illinois, 38–* Math. Soc; London Math. Soc. Algebra; theory of sets; topology; geometry.

Baer, Dr. Lieut. Reuben A(lbert), 32nd Ave. Apts, Apt. C-2, 32nd and West End Aves, Nashville, Tenn. *Psychology.* Whitmire, S. C, March 12, 13. B.S, Hopkins, 34, A.M, 37, Ph.D, 40. Director intramural sports, Hopkins, 34–42; *lieut, Air Corps, U. S. Army, and psychol. research, 42–* Director activities, training center, Nat. Youth Admin. Baltimore-Wash. Psychol. Asn. Motor learning; personality; retention; self-confidence.

Baerg, Prof. W(illiam) J, University of Arkansas, Fayetteville, Ark. *Entomology.* Hillsboro, Kans, Sept. 24, 85. A.B, Kansas, 15; Ph.D, Cornell, 22. Instr. *entom,* Cornell, 17–18; asst. prof, *Arkansas,* 18–20, *prof, 20–, entomologist, Exp. Sta, 18–* Entom. Soc. Amer; Asn. Econ. Entom. Poisonous arthropods; strawberry insects; crop pests; birds.

Baernstein, Dr. H(arry) D(aniel), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physiological chemistry.* Chicago, Ill, July 19, 96. B.S, Wisconsin, 21, M.S, 26, Ph.D, 29. Instr. physiol. chem, Wisconsin, 25–38; *biochemist, div. indust. hygiene, nat. inst. health, U. S. Pub. Health Service, 38–* Soc. Exp. Biol; Soc. Biol. Chem. Proteins; enzymes; sulfur; metabolism; fatigue; lead poisoning; organic toxicology.

Baetjer, Dr. Anna M(edora), 4900 Roland Ave, Baltimore, Md. *Physiology.* Baltimore, Md, 99. A.B, Wellesley Col, 20; Sc.D, Hopkins, 24. Asst, *sch. hygiene and pub. health, Hopkins,* 23–24, instr, 24–26, *assoc, 26–* Physiol. Soc; Pub. Health Asn; Indust. Hygiene Asn. Sympathetic nervous system and fatigue; physiological effects of environmental temperature and humidity; effect of potassium and calcium on cardiac and skeletal muscles; environmental and industrial hygiene.

Baeyertz, Dr. M(ary), 3017 E. 78th St, Chicago, Ill. *Chemistry.* Los Angeles, Calif, Sept. 14, 99. A.B, Smith Col, 21; A.M, Columbia, 22, fellow, 23–24, Ph.D, 25. Asst. chem, Columbia, 24–25; research chemist, Prudential Life Ins. Co, 25; engineer, West. Elec. Co, 25–31; *research metallurgist, Carnegie-Ill. Steel Corp, 31–* Chem. Soc; Soc. Metals; Min. and Metal. Eng. Metallurgy.

Bagby, Dr. B(athurst) B(rowne), State Department of Health, Richmond, Va. *Public health.* Stevensville, Va, June 3, 79. M.D, George Washington, 04. Biochem. div, bur. animal indust, U. S. Dept. Agr, 00–03; private practise, 04–23; health officer, Henrico County, Va, 23; Richmond, Va, 24–25; Athens and Clark Counties, Ga, 26–29; Southampton County, Va, 30; *director child health bur, State Dept. Health, Va, 30–* Pub. Health Asn; Va. Pub. Health Asn. (pres, 12, 30); Va. Med. Soc. (v. pres, 07). Hookworm; changes in small town brought about by health department work.

Bagby, Prof. English, University of North Carolina, Chapel Hill, N. C. *Psychology.* Baltimore, Md, May 9, 91. A.B, Princeton, 13, A.M, 14; Ph.D, Hopkins, 18. Asst. psychologist, U. S. Bur. Mines, 17; adj. prof. *psychol,* Va. Mil. Inst, 19–20; asst. prof, Yale, 20–25; assoc. prof, *North Carolina,* 25–28, *prof, 28–* Summers, instr, Hopkins; Columbia. Psychol. Asn; S. Soc. Philos. and Psychol. Psychiatry; psychopathology; social psychology.

Bagg, Dr. Halsey J(oseph), Cornell University Medical College, New York, N. Y. *Biology.* Utica, N. Y, Oct. 23, 89. B.S, Columbia, 14, A.M, 15, Ph.D, 18. Asst. biol, Rockefeller Inst, 10–11; instr, N. Y. Univ, 14–17; *research fellow, Huntington fund for cancer research, med. col, Cornell, 17–,* assoc. anat, 26–27. Biologist, Mem. Hosp, N. Y, 20– A.A; Soc. Nat; Soc. Exp. Biol; Soc. Zool; Asn. Cancer Research (councilor, 35–); assoc. Radium Soc; fel. N. Y. Acad. Heredity of animal behavior; hereditary structural defects; irradiation and mammalian development; irradiation of thyroid gland in relation to ovarian activity; radium lesions in the brain; origin of defects of the limbs; modification of germ plasm; biological measure of x-ray and gamma ray effects; etiology of experimental mammary cancer and teratoma testis.

Bagg, Dr. Rufus M(ather), 16 Brokaw Place, Appleton, Wis. *Geology.* West Springfield, Mass, April 19, 69. A.B, Amherst Col, 91; Ph.D, Hopkins, 95; hon. A.M, Lawrence Col, 34. Prin, high sch, Maine, 91–92; asst. geol, Hopkins, 95–97; asst, N. Y. State Museum, 97; prof. geol. and miner, Colo. Col, 98–99; instr, high sch, Colo, 99–00; sub-master, high sch, Mass, 01–03; prof. miner. and petrog, N. Mex. Sch. Mines, 03–04; mining engineer and geologist, 04–07; instr. geol, Illinois, 07–11; prof. *geol. and miner, Lawrence Col,* 11–34, *emer. prof, 34–* Consulting geologist, Elk Island gold mines, Man, Can, 34–35. Instr, Worcester Summer Sch. for Boys, 91, 92. Md. Geol. Surv, 96–98. Diploma and bronze medal, Paris Expos, 00. Inst. Min. and Metal. Eng. del, Int.

Geol. Cong, S. Africa, 29. Geol. Soc; Min. and Metal. Eng; Paleont. Soc; Geol. Soc. Wash; Wis. Acad. (v. pres, 30, pres, 33–36). Cretaceous and Tertiary Foraminifera; artesian water and oil supplies.

Baggenstoss, Dr. A(rchie) H(erbert), Mayo Clinic, Rochester, Minn. *Pathology.* Richardton, N. Dak, April 13, 08. A.B, North Dakota, 30, B.S, 31; B.M, Cincinnati, 33, M.D, 34; M.S, Minnesota, 38. *Consultant path. anat, Mayo Clinic, 38–* Lieut, M.C, U.S.N.R. Am. Med. Asn; Asn. Path. and Bact. Pathologic anatomy; kidney; hematopoietic system; heart; tuberculosis.

Bagley, Dr. Dale, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Salt Lake City, Utah, Aug. 19, 14. B.S, Utah, 34, M.S, 35; Ph.D, California, 40. *Research assoc, radiation lab,* California, 40–41; *Mass. Inst. Tech, 41–* Specific ionization of cosmic rays; cosmic rays; nuclear physics.

Bagley, Lieut. Col. James W(arren), 2 Divinity Ave, Cambridge, Mass. *Aerophotography.* Fayetteville, Tenn, Oct. 31, 81. B.S, Washington and Lee, 03. Topog. engineer, U. S. Geol. Surv, 05–17; officer, U. S. Army, 17–36; *lecturer aerophotog, Harvard, 37–* Asn. Geog; Soc. Photogrammetry; Soc. Mil. Eng; Eng. Educ. Aerial mapping instruments and methods; aerophotography; aerosurveying.

Bagley, Prof. William C(handler), Southfield Point, Stamford, Conn. *Education, Psychology.* Detroit, Mich, March 15, 74. B.S, Mich. State Col, 95, LL.D, 41; M.S, Wisconsin, 98; Ph.D, Cornell, 00; Ed.D, R. I. State Col, 19. Teacher, pub. schs, Mich, 95–97; asst. psychol, Cornell, 00–01; prin, pub. schs, Mo, 01–02; v. pres. and director training, Mont. State Nor. Col, 02–06; supt. training dept, N. Y. State Nor. Sch, Oswego, 06–08; prof. educ, Illinois, 08–17, director sch. educ, 09–17; prof. *educ, Teachers Col, Columbia,* 17–40, *emer. prof, 40–; ed, 'School and Society,' 39–* A.A; Psychol. Asn; Soc. Study Educ. Apperception of the spoken sentence; correlation of mental and motor ability in school children; factors of the educative process; educational values; minimal essentials in elementary school subjects; curriculum problems in elementary and normal schools; mass measures of mass education; education and crime; professional education of teachers.

Bahlke, Dr. W(illiam) H(erbert), Standard Oil Co. of Indiana, Whiting, Ind. *Physical chemistry.* Baltimore, Md, Nov. 7, 95. B.S, Richmond, 16; Ph.D, Hopkins, 21. Chemist, N. J. Zinc Co, 21–22; *Standard Oil Co. of Ind,* 22–26, asst. director Whiting lab, 26–34, assoc. director, 34–35, director, 35–39, *assoc. director research, 39–* Petrol. Inst; Chem. Soc. Chemical engineering; petroleum refining; corrosion; physical and thermal properties of pure compounds and mixtures.

Bahner, Prof. Carl Tabb, Carson-Newman College, Jefferson City, Tenn. *Organic chemistry.* Conway, Ark, July 14, 08. A.B, Hendrix Col, 27; M.S, Chicago, 28; Th.M, South. Baptist Theol. Sem, 31; Ph.D, Columbia, 36. Asst. prof. chem. and head dept. physics, Union (Tenn), 36–37; *prof. chem, Carson-Newman Col, 37–* Summers, instr, Hendrix Col, 30, 31; Tennessee, 41. A.A; Chem. Soc. Industrial organic chemistry; vitamin A; reactions of organic halides; development of processes for production of nitroparaffin derivatives; hydrotropic solutions.

Bahney, Luther William, Scomet Engineering Co, Carteret, N. J. *Metallurgy.* Red Bluff, Calif, Dec. 25, 78. Met.E, Stanford, 11. Asst. prof. metal, Stanford, 07–11; Yale, 11–17; metal. engineer, research dept, Scovill Mfg. Co, Waterbury, Conn, 17–28; metal. engineer, 28–32; manager oxygen-free copper dept, U. S. Metals Ref. Co, 32–39; *plant designer, Scomet Eng. Co, 39–* Copper and brass; refractories; methods of reclamation; casting shop metallurgy; especially oxygen-free copper.

Bahnsen, Dr. M(onroe) J(ohn), 1614 Onondago Ave, Lakewood, Ohio. *Inorganic chemistry.* Port Clinton, Ohio, March 5, 06. B.S, Case, 29; Cushman fellow, Western Reserve, 30–34, Ph.D, 34. Chemist, Grasselli Chem. Co, *Cleveland,* 29–30; research chemist, *Ferro Enamel Corp,* 34–41, *asst. lab. director, 41–* Inst. Chem; Chem. Soc; Ceramic Soc. Anhydrous silicate systems; ceramics.

Bahrs, Dr. Alice M(atilda), St. Helen's Hall Junior College, Portland, Oregon. *Animal nutrition.* Sacramento, Calif, Dec. 28, 99. A.B, California, 24, A.M, 26; Ph.D, Oregon, 30. Instr. animal biol, Oregon, 30–31, research assoc. animal nutrition, med. sch, 31–33; *head dept. science, St. Helen's Hall Junior Col, 33–* A.A; Physiol. Soc; Soc. Exp. Biol; Pub. Health Asn. Reflexes in newly born animals; vertebrate and invertebrate nutrition.

Bahrt, George M(artin), P. O. Box 625, Fairhope, Ala. *Soil chemistry.* Tamaqua, Pa, April 16, 96. B.S, Pa. State Col, 21; M.S, Nebraska, 25. Asst, Exp. Sta, Nebraska, 23–26, analyst agr. chem, 25–26, soil analyst, 26–29; asst. soil scientist, *soil fertility investigations,* bur. chem. and soils, *U. S. Dept. Agr,* 29–30, asst. soil technologist, 30–35, *assoc. soil technologist, bur. plant indust, 35–* U.S.A, 18–19. A.A; Chem. Soc; Int. Soc. Soil Sci. Wet method for determining nitrates; citrus bronzing; effect of acid and basic fertilizers, with and without rare chemicals, on citrus and truck crops; effect of soil temperature, drought and rare elements on nitrate production; less rare elements in tung.

Baier, Dr. D(onald) E(verett), New Jersey State Hospital, Trenton, N. J. *Psychology.* Philadelphia, Pa, March 27, 10. B.S, Princeton, 32, A.M, 33, Ph.D, 35. Asst. psychol, Princeton, 33–34; *asst. psychologist, N. J. State Hosp, 35–; lieut, classification officer, Camp Croft, S. C, U. S. Army, 41–* Assoc. Psychol. Asn. Clinical and industrial psychology.

Baier, Dr. Joseph G(eorge), Jr, 623 W. State St, Milwaukee, Wis. *Zoology.* Feb. 12, 08. B.S, Rutgers, 28, M.S, 29; Ph.D, Wisconsin, 32. Asst. *zool,* Rutgers, 28–29; *Wisconsin,* 29–32, instr, *Milwaukee center, exten. div,* 32–35, asst. prof, 35–38, *assoc. prof, 38–* A.A; Soc. Zool; Eugenics Soc; Genetic Asn. Serology and phylogeny; animal relationships; anatomy; physiology; eugenics.

Baier, Prof. Leo J(acob), St. Mary's University, San Antonio, Texas. *Biology.* Chicago, Ill, Oct. 3, 95. B.S, Dayton, 18, B.S. (Ed), 23; Ph.D, Fribourg, 29. Asst, biol. lab, Fribourg, 28–29; chem. dept, St. Mary's Univ. San Antonio, 32–33; prof. chem, Dayton, 34–36; v. pres, Chaminade Col, 36–38; *prof. biol. and head dept, St. Mary's Univ. San Antonio, 38–* Lecturer, Mt. St. John Nor. Sch, Ohio, 35–36. Texas Acad; Sci. Soc. San Antonio (v. pres, 38–41, pres, 41). Insect physiology.

Baier, W(illard) E(wing), 303 Princeton St, Ontario, Calif. *Chemistry.* St. Louis, Mo, July 30, 02. B.S, Calif. Inst. Tech, 23. Research chemist, Calif. Fruit Growers Exchange, 23–26; plant supt, Exchange Orange Products Co, 27–28; *manager research dept, Calif. Fruit Growers Exchange, 29–* Chem. Soc. Food products; agricultural chemistry.

Bailar, Dr. John C(hristian), Jr, University of Illinois, Urbana, Ill. *Chemistry.* Golden, Colo, May 27, 04. A.B, Colorado, 24, fellow, 24–25, A.M, 25; fellow, Michigan, 25–26, Ph.D, 28. Asst. *chem,* Michigan, 26–28; instr, *Illinois,* 28–30, assoc, 30–35, asst. prof, 35–39, assoc. prof, 39–43, *prof, 43–, sec'y dept, 37–,* counselor, univ. personnel bur, 38–40. Chem. Soc. Organic and inorganic chemistry; molecular rearrangements; isomerism of inorganic molecules; stereochemistry of complex inorganic compounds.

Bailes, Dr. Richard H(azel), 977 Regal Road, Berkeley, Calif. *Physical and organic chemistry.* Hinton, W. Va, April 10, 15. B.S, Antioch Col, 38; Ph.D, California, 42. *Research assoc, California, 41–* Reduction of metal chelate compounds.

Bailey, Dr. A(lan James), University of Washington, Seattle, Wash. *Chemistry.* Tacoma, Wash, Feb. 16, 09. B.S, Washington (Seattle), 33, Anderson fellow, 33–35, M.S, 34, Pack fellow, 35–36, Ph.D, 36. Supervising technician, bur. plant indust, U. S. Dept. Agr, 34; in charge wood technol, Inst. Paper Chem, Lawrence Col, 36–37; asst. prof. forestry, Minnesota, 37–39; *assoc. prof. chem. and director lignin and cellulose research, Washington (Seattle), 39–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Technology and chemistry of wood, cellulose, lignin and hemicelluloses; fiber structure and wood morphology, pulp and paper.

Bailey, Alfred M(arshall), Colorado Museum of Natural History, City Park, Denver, Colo. *Ornithology, Mammalogy.* Iowa City, Iowa, Feb. 18, 94. A.B, Iowa, 16. Curator birds and mammals, La. State Museum, 16–19; rep, bur. biol. surv, U. S. Dept. Agr, Alaska, 19–21; curator birds and mammals, Colo. Museum Nat. Hist, 21–26; dept. zool, Field Museum Nat. Hist, 26–27; *director,* Chicago Acad. Sciences, 27–36; *Colo. Museum Nat. Hist, 36–* Bur. biol. surv, U. S. Dept. Agr. exped, Laysan Islands, Hawaii, 12–13; leader, Arctic exped, Colo. Museum Nat. Hist, 21–22; mem. Abyssinian

exped, Field Museum Nat. Hist-Chicago Daily News, 26–27. Fel. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Soc. Mammal; Forestry Asn; Pacific-Northwest. Bird and Mammal Soc; Ill. Audubon Soc; Ill. Acad; Chicago Ornith. Soc; Geog. Soc. Chicago. Bird life of Alaska and Louisiana; mammals of the Arctic coast of Alaska; filming of wildlife.

Bailey, Prof. Alson H(unnicutt), Georgia School of Technology, Atlanta, Ga. *Mathematics.* Wilmington, Ohio, Aug. 17, 08. B.S, Wilmington Col, 30; A.M, Haverford Col, 31; Ph.D, Ohio State, 36. Head dept. *math,* Cent. Nor. Col, Ind, 36–37; instr, Purdue, 37–42; *asst. prof, Ga. Sch. Tech, 42–* Math. Asn. Projective geometry.

Bailey, A(lton) E(dward), 2100 Robert E. Lee Blvd, New Orleans, La. *Chemistry.* Midland, Texas, May 24, 07. B.S, New Mexico, 27. Chemist, Atchison, Topeka and Santa Fe Ry. Co, 27–29; research chemist, Cudahy Packing Co, 29–41; *chem. technologist, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc; Oil Chem. Soc. Chemistry and technology of fats and oils; processing of edible fats and oils; utilization of fats in baked products; production of synthetic oils and fats.

Bailey, Dr. Austin, American Telephone and Telegraph Co, 195 Broadway, New York, N. Y. *Physics.* Lawrence, Kans, June 9, 93. A.B, Kansas, 15; Ph.D, Cornell, 20. Supt. apparatus div, Corning Glass Works, 20–21; asst. prof. physics, Kansas, 21–22; tel. engineer, Am. Tel. and Tel. Co, 22–34; mem. tech. staff, Bell Tel. Labs, 34–36; *engineer, Am. Tel. and Tel. Co, 37–* 2nd lieut, Sig.C, 18. Radio Eng. (director, 40–42); Elec. Eng. Telephone engineering; high frequency electric currents; radio transmission measurements.

Bailey, Dr. Basil E(dwin), Pacific Fisheries Experimental Station, 898 Richards St, Vancouver, B. C, Can. *Biochemistry.* London, Eng, Sept. 11, 06. B.A.Sc, British Columbia, 30, M.A.Sc, 36; Ph.D, Wisconsin, 40. Asst. chem. engineer, Can. Fishing Co, Ltd, Vancouver, B. C, 30–31; *sci. asst. biochem, Pacific Fisheries Exp. Sta, Biol. Board Can, 31–* Vitamins A and D; enzymes and fat-soluble pigments in Pacific Coast fish; chemistry and biochemistry of fish oils.

Bailey, Prof. Benj(amin) F(ranklin), University of Michigan, Ann Arbor, Mich. *Electrical engineering.* Sheridan, Mich, Aug. 7, 75. B.S, Michigan, 98, A.M, 00, Ph.D, 07. Instr. *elec. eng, Michigan,* 01–06, asst. prof, 06–09, junior prof, 09–13, *prof, 13–, head dept, 25–* Designing, constructing and chief engineer, companies. Fel. Elec. Eng. (sec'y, Detroit-Ann Arbor sect, 11); Elec. Mfrs. Asn; Soc. Automotive Eng. X-ray; Wehnelt interrupters; electrolytic rectifiers; induction coils; induction motors; dynamo electric machinery; the capacitor motor.

Bailey, Prof. Cameron V(ernon), New York Post-Graduate Medical School, 303 E. 20th St, New York, N. Y. *Medicine.* Toronto, Ont, Can, Nov. 25, 84. M.D, McGill, 09; L. R.C.P, L.R.C.S, Edinburgh and Glasgow, 13. Asst. prof. clin. med, *N. Y. Post-Grad. Med. Sch, Columbia,* 15–20, biochem, 20–21, assoc. prof, 22–23, *prof.* applied physiol, 24–34, *clin. med, 34–* A.A; Am. Med. Asn; Soc. Exp. Biol; Soc. Biol. Chem; Inst. Nutrition; Harvey Soc. Applied physiology; carbohydrate metabolism; toxic jaundice; animal calorimetry; cardio-respiratory function.

Bailey, Dr. C(harles) F(rederick), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* High River, Alta, Can, Feb. 3, 06. B.S, Illinois, 27; fellow, Wisconsin, 29–30, Ph.D, 30. Asst. chem, Wisconsin, 27–29; private research asst. to Prof. J. B. Conant, Harvard, 30–32; indust. fellow, *Mellon Inst,* 32–35. *senior indust. fellow, 35–* Summer, research chemist, Eli Lilly and Co, 28. Chem. Soc. Organic chemistry; tobacco chemistry; synthetic organic chemistry; chlorophyll; organic compounds of aluminum.

Bailey, Charles Rudd, Room 3249, New Department of Interior Bldg, Washington, D. C. *Physical chemistry, Chemical engineering.* Pittsburg, Texas, Feb. 1, 09. A.B, Simmons (Texas), 29; M.S, Agr. and Mech. Col. Texas, 30, Mass. Inst. Tech, 40; Michigan, summers, 32, 34. Instr. chem, Oklahoma, 30–37; asst. chem. eng, Mass. Inst. Tech, 37–40; asst. educ. analyst, *U. S. Office Educ,* 41, assoc. specialist eng. educ, 41–42, liaison officer, 42, *specialist eng. educ, 42–* Chem. Soc; Soc. Mil. Eng. Volatile products and water soluble proteins as affected by the conditions of cooking cottonseed meats; breaking strength of lyogels; new instrument for rheological studies of plastic substances.

Bailey, Dean C(lyde) H(arold), University Farm, St. Paul, Minn. *Biochemistry.* Minneapolis, Minn, April 15, 87. B.S, N. Dak. Col, 13; M.S, Minnesota, 16; Ph.D, Maryland, 21. Asst. grain standardization, U. S. Dept. Agr, 07–11; instr. and asst. prof. agr. chem, Minnesota, and cereal technologist, Exp. Sta, 11–16; chemist, Grain Inspection Dept, Minn, 16–17; assoc. prof. *agr. biochem, Minnesota,* 17–20, *prof, 20–,* assoc. agr. biochemist, *Exp. Sta,* 17–20, *agr. biochemist, 20–,* v. director, 38–41, *director, 41–,* acting dean, 41–42, *dean, 42–* Ed, 'Cereal Chem,' 23–31. Director research, Biscuit and Cracker Mfrs. Asn, 24. Thomas Burr Osborne medal, 32. Mem, State Defense Council, Minn, 41– A.A; Chem. Soc; Soc. Plant Physiol; Asn. Cereal Chemists (v. pres, 36; pres, 37); Inst. Food Technol. (councilor, 42–); Soc. Nat; Deuts. Akad. der Naturforscher. Chemical technology of cereal industries; biochemistry of flour milling; respiration of cereals; chemistry of carbohydrates.

Bailey, Dr. D(ixon) L(loyd), University of Toronto, Toronto, Ont, Can. *Plant pathology.* Winchester, Ont, Sept. 9, 96. B.A, Queen's (Can), 18; M.S, Minnesota, 21, Ph.D, 23. Asst. pathologist, Can. Dept. Agr, 19–20; agent, U. S. Dept. Agr, Minn, 20–22; pathologist, Can. Dept. Agr, 22–26, senior pathologist, 26–28; assoc. prof. *plant path, Toronto,* 28–40, *prof, 41–* A.A; Phytopath. Soc; fel. Royal Soc. Can. Cereal and fruit diseases; root-rots; physiological specialization.

Bailey, Prof. Donald W, University of Kansas City, Kansas City, Mo. *Psychology.* Rockwell City, Iowa, March 2, 06. B.S, Southern California, 27, A.M, 28; Vienna, 30; Ph.D, Yale, 37. Instr. biol. science and admin, American Univ. (Egypt), 28–31; admin, Kamehameha Schs, Hawaii, 34–35; instr. psychol, Yale, 35–36; Mt. Holyoke Col, 36–38; prof, Mary Baldwin Col, 38–41; *asst. prof. psychol. and registrar, Univ. Kansas City, 41–* A.A; assoc. Psychol. Asn. Psychological adjustment in transition from school to college; personnel procedures.

Bailey, E(arl) H(icks), State College, Miss. *Botany.* Vardaman, Miss, Jan. 10, 02. B.S, Miss. Agr. and Mech. Col, 27, M.S, 30; Agr. and Mech. Col. Texas, 27; Wisconsin, 30, 34. Asst. prof. agron, Miss. Agr. and Mech. Col, 27–28, bot, 28–31, agron, 31–32, Miss. State Col, 32–36; *field agronomist, Am. Potash Inst, Miss, 36–* Bot. Soc. Cytology.

Bailey, Dr. Edgar H(erbert), U. S. Geological Survey, Washington, D. C. *Geology, Mineralogy.* Washington, D. C, Aug. 3, 14. A.B, Redlands, 34; Ph.D, Stanford, 41. Teaching fellow miner, Stanford, 37; junior geologist, *U. S. Geol. Surv,* 38–42, *asst. geologist, 42–* Instr, Stanford, 39. Geology and mineralogy of Santa Catalina Island, California; geology of quicksilver deposits in California, Nevada and Idaho; minerals at Crestmore, California.

Bailey, Mrs. Edna W(atson), 1022 Spruce St, Berkeley, Calif. *Education.* Parkersburg, W. Va, July 30, 83. B.S, California, 06, M.S, 07, Ph.D, 10. Teacher science, high sch, Calif, 12–13, supervisor science, 16–26; lecturer *educ, California,* 18–26, assoc. prof, 27–40, *prof, 40–, assoc. director student teaching, 26–* A.A; fel. Pub. Health Asn. Child development; school health; education and human biology; philosophical biology.

Bailey, Dr. E(dward) M(onroe), Box 1106, New Haven, Conn. *Chemistry.* New London, Conn, Aug. 27, 79. Ph.B, Yale, 02, M.S, 05, Ph.D, 10. Asst. chemist, *Conn. Exp. Sta,* 02–17, *chemist in charge anal. chem, 17–; state chemist, Conn, 19–* Mem. food standard cmt, U. S. Dept. Agr, 22–38. Chem. Soc; Agr. Chem. (pres, 30); Am. Med. Asn. (mem, council pharmacy, chem. and foods, 30–38). Agricultural chemistry; chemistry, bacteriology and enzymes of the banana; carbohydrates and enzymes of the soy-bean; vitamin potency of commercial yeast preparation; food and drugs.

Bailey, Emerson Dudley, 51 S. Cannon Drive, Edgemoor Gardens, Del. *Physics.* Eveleth, Minn, Dec. 22, 02. B.S, Calif. Inst. Tech, 25. Junior physicist, Naval Research Lab, 28–29; research physicist, exp. sta, *E. I. du Pont de Nemours and Co,* 29–37, *develop. physical tests for textile materials,* 37– Ultracentrifugal research on colloids.

Bailey, Prof. E(rnest) A(ubrey), La Grange College, La Grange, Ga. *Mathematics.* Atlanta, Ga, April 6, 93. A.B, Georgia, 14; M.S, Emory, 26. Tutor physics, Georgia, 14–15; teacher, prin. and sch. supt, Ga, 15–20; instr. math, U. S. Naval Acad, 20–22; *prof.* math. and science, *La Grange Col,* 22–25, *math, 25–, dean and registrar, 24–*

Bailey, Ethel H, 17 Montclair Ave, Montclair, N. J. *Mechanical engineering.* Houlton, Maine, Aug. 18, 96. George Washington, 20; Rutgers, 27–29, 30–31; Newark Tech. Sch, 29–30; Columbia, 40. Tech. service rep, Cadillac Automobile Co, Boston, 19; asst. to engineer in charge specifications and materials sect, bur. construction and repair, aircraft div, U. S. Navy, 19–21; aeronautic material engineer, L. W. F. Eng. Co, L. I, 23–24; automotive engineer, research dept, Soc. Automotive Eng, New York, 24–26; mech. engineer, Art Metal Works, N. J, 26–28; Gen. Elec. Co, 29–34; personnel div, State Emergency Relief Admin, N. J, 34–36; mech. engineer, Montclair Pub. Library, 36–42; *admin. officer, ground sig. service, Sig. Corps, U. S. Army, 42–* Inspector, Sig. C. and Bur. Aircraft Production, 18–19. A.A; Mech. Eng; Soc. Mil. Eng; Soc. Professional Eng; Am. Library Asn. Conservation of material and labor; application of engineering principles to library practice.

Bailey, Ethel Zoe, Sage Place, Ithaca, N. Y. *Botany.* Ithaca, N. Y, Nov. 17, 89. A.B, Smith Col, 11. *Asst. to L. H. Bailey, 12–, curator, Bailey Hortorium, N. Y. State Col. Agr, Cornell, 35–* Botanical collecting trips to Venezuela, Brazil, W. Indies, Panama and U. S. Systematic botany of cultivated plants.

Bailey, Florence (Augusta) Merriam (Mrs. Vernon Bailey), 1834 Kalorama Road, Washington, D. C. *Ornithology.* Locust Grove, N. Y, Aug. 8, 63. A.B, Smith Col, 86; LL.D, New Mexico, 33. Brewster award, 31. Fel. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Biol. Soc. Wash. Birds of village and field; birds of New Mexico and western United States.

Bailey, Dr. F(rancis) M(eade), 29 Commerce St, Scotia, N. Y. *Electronics.* West China, Jan. 10, 16. B.S, Rochester, 37; M.S, Iowa State Col, 39, Ph.D, 40. Radio engineer, *Gen. Elec. Co,* 40–42, *physicist, electronics lab, 42–* Physical Soc; Radio Eng. Electron microscopy for emission studies; ultra high frequency electronic tubes and circuits.

Bailey, Prof. Frederick H(arold), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Leominster, Mass, April 24, 65. A.B, Harvard, 87, A.M, 89. Asst. *math,* Harvard, 89–91; instr, *Mass. Inst. Tech,* 91–93, asst. prof, 93–04, assoc. prof, 04–07, prof, 07–35, *emer. prof, 35–* Instr, Radcliffe Col, 90–91; Simmons Col, 02–03. Math. Soc. Analytic geometry; calculus.

Bailey, Prof. G(arland) Howard, 615 N. Wolfe St, Baltimore, Md. *Immunology.* Giatto, W. Va, Nov. 6, 90. B.S, West Virginia, 15; M.D, Hopkins, 20, Dr.P.H, 21. Instr. path, Wisconsin, 21–22; epidemiol, Harvard, 22–23, prev. med. and hygiene, 23–25; assoc. *immunol, Hopkins,* 25–26, *assoc. prof, 26–* Summer, deputy state health officer, Md, 21. Soc. Bact; Pub. Health Asn. Fatigue and susceptibility to infection; diphtheria and pneumococcus immunity; respiratory immunity in rabbits; accessory etiological factors of infection; cold and influenza immunity; measles; heterophile antigen and antibody; infectious mononucleosis; anaphylaxis.

Bailey, Dr. George Corbin, 260 W. Jersey St, Elizabeth, N. J. *Organic chemistry.* Eureka, Kans, Dec. 1, 85. A.B, Wisconsin, 09; A.M, Yale, 14, Ph.D, 16. Chemist, Winchester Arms Co, 16; research lab, Barrett Co, 17–21; chief chemist, Marcus Hook plant, Nat. Aniline and Chem. Co, 21–22, group leader, research dept, Buffalo plant, 22–26; research chemist, Roessler and Hasslacher Chem. Co, 26–32; *manager, Perth Amboy plant, electrochem. dept, E. I. du Pont de Nemours and Co, 32–* Chem. Soc. Pyrimidines; amines; coal tar products; resins; perfumes; catalytic oxidation products; benzene dye, naphthalene and vat color intermediates; indigo; phthalic anhydride; maleic and malic acids; anthraquinone; rubber accelerators; formaldehyde.

Bailey, Dr. Grant C(arter), 2005 Dewey, Bartlesville, Okla. *Physical chemistry.* Cedar Falls, Iowa, Nov. 27, 10. B.S, Wisconsin, 32; M.S, State Col. Wash, 33; Ph.D, Iowa, 38. Teaching fellow, State Col. Wash, 33; chemist, Zapon-Brevolite Lacquer Co, 34–35; asst, Iowa, 35–38; *research chemist, Phillips Petrol. Co, 38–* Chem. Soc. Surface tension of solutions of potassium thiocyanate in liquid sulphur dioxide; hydrocarbon chemistry.

Bailey, Dr. H(arold) E(dwards), 18806 Gainsborough Road, Detroit, Mich. *Botany.* Salt Lake City, Utah, July 26, 06. A.B, California at Los Angeles, 30, Ph.D, California, 35. Teaching fellow bot, California, 31–34; asst. forester, Nat. Park Service, 35–38; instr. bot, Tennessee, 38; jr. park naturalist, Grand Canyon Nat. Park, 39–40; Glacier Nat. Park, 40–41; Isle Royale Nat. Park, 41–42; *research asst, Parke, Davis and Co, 43–* Forest pathology; biological decomposition of wood; vegetation types in the western national parks.

Bailey, Dr. H(arold) W(ood), University of Illinois, Urbana, Ill. *Mathematics.* Chicago, Ill, 01. B.S, Ottawa (Kans), 21, LL.D, 41; A.M, Illinois, 24, fellow, 25–26, Ph.D, 26. Instr. math, Ottawa (Kans), 21–22; asst, *Illinois,* 22–25, instr, 26–28, assoc, 28–31, asst. prof, 31–42, *assoc. prof, 42–,* exec. sec'y dept, 34–38, acting director *personnel bur,* 38–39, *director, 39–* A.A; Math. Soc; Math. Asn; Col. Personnel Asn. Analysis.

Bailey, Herbert S(tevens), Exchange Orange Products Co, Ontario, Calif. *Chemistry.* Bethlehem, Pa, Sept. 12, 80. A.B, Kansas, 02; B.S, Mass. Inst. Tech, 06. Chemist, Armour Packing Co, 03–04; asst. oils, Mass. Inst. Tech, 05–06; instr. chem, Mich. State Col, 07–08; chief oil, fat and wax lab, bur. chem, U. S. Dept. Agr, 09–18; chemist, E. I. du Pont de Nemours and Co, 18–20; director research, South. Cotton Oil Co, 20–24; supt, *The Exchange Orange Products Co,* 24–25, *manager, 25–* Chem. ed, 'Cotton Oil Press,' 19–24; ed, 'Jour. Oil and Fat Indust,' 21–24. Chairman interdepartmental cmt. on fats and oils, Food Admin, 17–18. Chem. Soc. (sec'y, Wash. sect, 09); Soc. Test. Mat; Oil Chemists Soc; Chem. Eng; Inst. Food Tech. Oils for artificial leather; paints; varnishes; animal and vegetable oils; citrus oils and juices; foods.

Bailey, Prof. Howland H(askell), 52 Trowbridge St, Cambridge, Mass. *Physics.* Boston, Mass, April 5, 12. A.B, Haverford Col, 32; Duke, 32–34; Ph.D, Calif. Inst. Tech, 41. Teacher science, American Col. (Turkey), 34–36; instr. *physics,* Wyoming, 40–41; *asst. prof, Oklahoma, 41–; staff mem, radiation lab, Mass. Inst. Tech, 43–* Asn. Physics Teachers. X-rays; optical instruments.

Bailey, Prof. Irving W(idmer), Harvard University, Cambridge, Mass. ****Botany.* Tilton, N. H, Aug. 15, 84. A.B, Harvard, 07, M.F, 09; hon. Sc.D, Wisconsin, 32. Asst. bot, *Harvard,* 08–09, instr. forestry, 09–12, asst. prof, 12–20, assoc. prof, 20–27, *prof. plant anat,* 27– Mem. advisory board, U. S. Forest Products Lab, 14–16; exec. cmt, div. biol. and agr, Nat. Research Council, 21–23, 30–31, v. chairman, 26–27; research assoc, Carnegie Institution, 30–40. In charge wood sect, materials eng. dept, Bur. Aircraft Production, 18. Nat. Acad; A.A; Soc. Nat; Bot. Soc. (ed. board, 'Am. Jour. Bot,' 15–18, treas, 21–24, v. pres, 28–); Biol. Soc. (exec. cmt, 25–); Soc. Foresters (ed. board, 'Proc,' 14–16); Philos. Soc; Am. Acad. (councilor, 23–26). The cambium and its derivative tissues; structure, optical properties and chemical composition of the cell wall.

Bailey, James, 95 Steele Road, West Hartford, Conn. *Engineering, Physics.* Gowanda, N. Y, Jan. 17, 90. M.E, Lehigh, 12. Ceramic dept, Corning Glass Works, 12–15, asst. supt. blowing room, 15–16, develop. engineer, 16–29; v. pres, Bailey and Sharp Co, Hamburg, N. Y, 29–37; manager, *Plax Corp,* 37–43, *director research, 43–* Mech. Eng. Physical properties of glass and refractories; physical tests for glass; internal stresses in composite glasses; annealing; design of automatic machinery; action of glass on metals and refractories at high temperature; machinery for working plastics and manufacturing plastic shapes.

Bailey, Dr. John Hays, Winthrop Chemical Co, Rensselaer, N. Y. *Bacteriology.* Chicago, Ill, May 3, 00. B.S, Chicago, 24, Ph.D, 28; Dr.P.H, Michigan, 38. Asst. anat, Chicago, 26–28; fellow, Nelson Morris Inst, 28–29; Huesman fellow, James Whitcomb Riley Hosp, and mem. dept. pediat, sch. med, Indiana, 29–32; res, Munic. Contagious Disease Hosp, Chicago, 32–35; senior bacteriologist, State Dept. Health, Ill, 35–38; asst. prof. bacter. and director div. bacter, dept. prev. med, pub. health and bacter, sch. med, Loyola (Ill), 38–41; *research bacteriologist, Winthrop Chem. Co, Rensselaer, N. Y, 42–* A.A; Soc. Bact; Pub. Health Asn; N. Y. Acad. Snake venoms; pertussis; scarlet fever.

Bailey, Prof. John S(earls), Box 137, North Amherst, Mass. *Pomology.* East Aurora, N. Y, March 25, 99. B.S, Mich. State Col, 22; M.S, Iowa State Col, 23. Investigator *pomol, Exp. Sta,* Mass. Col, 23–26, *asst. research prof,* 26–31, *Mass. State Col, 31–* Soc. Hort. Sci. Peach breeding and hardiness; propagation and culture of high bush blueberries; propagation and culture of beach plums.

Bailey, Prof. John Wendell, University of Richmond, Richmond, Va. *Zoology.* Winona, Miss, Jan. 9, 95. B.S, Miss. Agr. and Mech. Col, 15, M.S, 17; A.B, Cornell, 16, A.M, 25; Austin scholar, Harvard, 26–27, A.M, Ph.D, 27. Field asst, bur. entom, U. S. Dept. Agr, 14; asst. prof. zool. and entom, Miss. Agr. and Mech. Col, 16–17; sci. asst, bur. entom, U. S. Dept. Agr, 17; alumni sec'y and research worker, Miss. Agr. and Mech. Col, 19–24; asst. entom, Cornell, 24–25; *prof. biol,* Miss. Col, 25–29; *Richmond, 29–* Director biol. research, Chesapeake Corp, 37– Mem, Cmt. Cultural Relations with Latin Amer, 41. Cornell biol. exped, 16. Entom. control, U.S.N, 18–19. A.A; Soc. Zool; Entom. Soc. Amer; Soc. Ichthyol. and Herp; Soc. Mammal; Eugenics Soc; Asn. Econ. Entom; Ornith. Union; Biol. Soc. Wash; Va. Acad; Va. Wildlife Federation (director). Herpetology; natural history of Virginia; industrial waste disposal; oyster culture.

Bailey, Dr. L(iberty) H(yde), Ithaca, N. Y. *[1]*Botany, Horticulture.* South Haven, Mich, March 15, 58. B.S, Mich. State Col, 82, M.S, 85; LL.D, Wisconsin, 07, Alfred, 08; Litt.D, Vermont, 19; D.Sc, Puerto Rico, 32. Prof. hort. and landscape gardening, Mich. State Col, 84–88; hort, *Cornell,* 88–03, *emer. prof. agr, 21–,* dean and director, *N. Y. State Col. Agr,* 03–13, *director, Bailey Hortorium, 37–* Chairman, Roosevelt Cmn. on Country Life, 08. Wilder medal, Pomol. Soc, 85, 21; Veitchian silver medal, Royal Hort. Soc, 97, gold medal, 27; George Robert White medal, Mass. Hort. Soc, 27; gold medal, Nat. Inst. Social Science, 28; grande medaille, Soc. nat. d'Acclimatation de France, 28; gold medal, Garden Club Amer, 31; Arthur Hoyt Scott medal and award, 31; distinguished service award, Am. Asn. Nurserymen, 31. Nat. Acad; A.A. (v. pres, 15, pres, 26); Bot. Soc. (pres, 26); Soc. Hort. Sci. (pres, 07); Pomol. Soc. (past pres); Philos. Soc; Am. Acad; cor. Acad. Nat. Sci. Phila; hon. mem. Royal Hort. Soc; cor. mem. Soc. lyonnaise d'Hort; cor. mem. Royal Acad. Agr. di Turin; hon. mem. Hort. Soc. Norway; hon. mem. Japan Agr. Soc; hon. mem. Hort. Soc. Japan; hon. mem. Chinese Soc. Hort. Sci; hon. mem. New Zealand Inst. Hort. Systematic botany; cultivated plants.

Bailey, L(orin) H(arvey), 3904 McKinley St, N. W, Washington, D. C. *Chemistry.* Beloit, Ohio, April 14, 76. A.B, Michigan, 06. Chemist, Union Pacific R. R, 06–07; *assoc. chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 07–* Chem. Soc; Asn. Cereal Chemists. Chemistry of cereals and allied products; baking powder; standard baking tests for bread; rye bread and cake; methods of analysis of cereal products; soy-bean flour; moisture and ash determinations.

Bailey, Dr. L(owell) F(rederick), University of Kentucky, Lexington, Ky. *Plant chemistry, Plant physiology.* Holton, Kans, June 15, 11. B.Ed, South. Ill. State Teachers Col, 32; Newcombe fellow, Michigan, 35–38, Ph.D, 39. Instr. bot, Grand Rapids Junior Col, Mich, 38–42; *asst. plant chemist, Exp. Sta, Kentucky, 42–* Water relations of plants; minor elements in plant nutrition.

Bailey, Dr. M(ary) Irene, Columbia University, New York, N. Y. *Chemistry.* Mills Co, Iowa. B.S, Nebraska, 27; M.S, Kans. State Col, 28; Ph.D, Columbia, 32. *Research chem, Columbia, 28–* Summers, asst, Columbia, 32, 33, 35. Chem. Soc; Home Econ. Asn. Food and colloid chemistry.

Bailey, Dr. M(aurice) E(ugene), 1995 Delaware Ave, Buffalo, N. Y. *Physical chemistry.* Portsmouth, Ohio, March 14, 16. A.B, Ohio Wesleyan, 37; M.S, Purdue, 39, fellow, 40–41, Ph.D, 41. *Research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 41–* Vapor-phase catalytic oxidation; resolution of enantiomorphs by rectification.

Bailey, Neil P(hillips), 1079 Maryland Ave, Schenectady, N. Y. *Mechanical engineering.* Canon City, Colo, Nov. 13, 00. B.S, Colorado, 24; M.S, Idaho, 27; advanced eng. course, Gen. Elec. Co, 25. Gen. Elec. Co, 24–25; instr. mech. eng, Idaho, 25–27, asst. prof, 27–29; North Carolina, 29–30, assoc. prof, 30–34; prof. and head dept, Iowa State Col, 34–35; Rutgers, 35–42; *research engineer, research lab, Gen. Elec. Co, 42–* Summers, eng. dept, Wash. Water Power Co, 26, 28, 29. Mech. Eng; Eng. Educ. Steady state and transient heat flow and transfer; temperature measurement; measurement of pulsating air flow; vibration of machinery; aerodynamics.

Bailey, Prof. Paul F(rederick), 725 Napoleon Ave, New Orleans, La. *Inorganic chemistry.* Abbeville, La, Feb. 11, 04. B.S, Loyola (La), 26, M.S, 40; St. Louis, 28–29. Prof. *chem,* high sch, 26–28; asst. prof, *Loyola (La),* 30–41, *assoc. prof, 41–* Fel. Inst. Chem; Chem. Soc; N. Y. Acad. Dental caries.

Bailey, Dr. Percival, 912 S. Wood St, Chicago, Ill. *Neurology.* Mt. Vernon, Ill, May 9, 92. B.S, Chicago, 14, Ph.D, 18; M.D, Northwestern, 18. *Prof. neur,* Chicago, 34–39; *Illinois, 39–* Neur. Asn; Asn. Anat; Asn. Path. and Bact; Physiol. Soc. Pathology of brain tumors; physiology of the hypophysis.

Bailey, Prof. P(ercy) L(aurance), Jr, College of the City of New York, New York, N. Y. *Biology, Physiology.* Newport, R. I, March 14, 03. A.B, Brown, 26, fellow, 27–29, Ph.D, 29. Asst. biol, Brown, 24–26, demonstrator comp. anat, 26–27; instr. gen. physiol, *Col. City of N. Y,* 29–36, *asst. prof. biol, 36–* A.A; Soc. Zool; fel. N. Y. Acad. Regeneration in annelids.

Bailey, Dr. Ralph J(ordan), 703 Hastings St, Pittsburgh, Pa. *Zoology, Anatomy.* Pittsburgh, Pa, Dec. 2, 05. B.S, Pittsburgh, 28; M.S, Wisconsin, 30, fellow, 31–32, Ph.D, 32; Chicago, 42– Asst. zool, Wisconsin, 28–31; instr, George Washington, 32–34; asst. prof. biol, Huron Col, 35–36; instr. anat, sch. med, Arkansas, 36–39, asst. prof, 39–42. Asn. Anat. Histology; embryology; anatomy of reproductive tract of fish.

Bailey, Reed W(arner), U. S. Forest Service, Ogden, Utah. *Geology.* Nephi, Utah, Jan. 29, 96. B.S, Chicago, 24, M.S, 27. Instr. and asst. prof. geol, Utah State Col, 24–30, assoc. prof, 30–34, prof, 34–35; *director, Intermountain Forest and Range Exp. Sta, U. S. Forest Service, 35–* A.A; Utah Acad. (director, 35–; pres, 41). Geology of Bear River Range, Utah; Bonneville and post-Bonneville erosion and sedimentation, Utah; erosion and sedimentation in the valleys of the Colorado Plateau Province; floods and accelerated erosion in Utah; watershed factors; dynamics of soil erosion.

Bailey, Dr. Reeve M(aclaren), Iowa State College, Ames, Iowa. *Zoology.* Fairmont, W. Va, May 2, 11. A.B, Michigan, 33, Ph.D, 38. Asst, biol. surv, N. Y. Conserv. Dept, 35–37; biologist, biol. surv, N. H. Fish and Game Dept, 38; instr. *zool, Iowa State Col,* 38–42, *asst. prof, 43–* Expede, east. and south. U. S, 30–; leader, Iowa Fisheries Research Unit, 41– A.A; Soc. Ichthyol. and Herp; Fisheries Soc; Biol. Soc. Wash; Mich. Acad; Iowa Acad. Ichthyology; taxonomy, variation, distribution, life history, ecology and hybridization of fresh-water fishes; herpetology; distribution of Iowa amphibians and reptiles.

Bailey, R(ussell) M(anley), University of Maine, Orono, Maine. *Biology.* Sidney, Maine, Dec. 4, 01. B.S, Maine, 28; Iowa State Col, 28–29; Minnesota, 29–31. Agent, U. S. Dept. Agr, 29–31; *assoc. biologist, Exp. Sta, Maine, 31–* A.A. Plant breeding and nutrition.

Bailey, Dr. S(amuel) D(avid), Montour Court Apt, Montour St. and Adams Ave, Philadelphia, Pa. *Physical chemistry.* Cedar Falls, Iowa, July 14, 15. A.B, Iowa State Teachers Col, 37; M.S, Iowa, 40, Ph.D, 42. Instr. chem, Iowa State Teachers Col, 41–42; *research chemist, Rohm and Haas Co, 42–* Chem. Soc. Hydrolysis of maltose and related disaccharides.

Bailey, Prof. Stanley F(uller), College of Agriculture, University of California, Davis, Calif. *Agricultural entomology.* Middleboro, Mass, Aug. 1, 06. B.S, Mass. Col, 29; Ph.D, California, 32. Asst. entom, *col. agr, California,* 29–32, *junior entomologist, 32–,* instr. *entom,* 34–41, *asst. prof, 41–; lieut, bur. med. and surg, U. S. Naval Res.* Thysanoptera; malaria.

Bailey, Dr. Thomas L(aval), Shell Oil Co, Houston, Texas. *Geology.* Berkeley, Calif, Oct. 5, 97. A.B, South Carolina, 17; A.M, California, 21, Ph.D, 26. Instr. geol. and biol, Univ. of the South, 17–18; geol, Pomona Col, 21–22; assoc. geologist, bur. econ. geol, Texas, 22–24; instr. geol, California, 24–25; dist. geologist, Shell Oil Co, 25–34; geologist, Bataafsche Petrol. Mij, The Hague, Netherlands, 34–35; *chief research geologist, Shell Oil Co, 35–* A.A; Geol. Soc; Asn. Petrol. Geol. General and structural geology; sedimentation; stratigraphy.

Bailey, Prof. T(homas) L(eonard), Oklahoma Baptist University, Shawnee, Okla. *Chemistry.* Strasburg, Mo. Mo. Nor. Col, Warrensburg; A.B, Okla. Baptist Univ, 18; A.M, Oklahoma, 23; Colorado, 28, 30, 32. Prin, schs, Okla, 09–17; teacher math. and science, *Okla. Baptist Univ,* 19–22, *prof. chem. and agr, 20–* Chem. Soc; Am. Acad; Okla. Acad. Household, general inorganic and sanitary chemistry; toxicology; soils; qualitative analysis; foods; water.

Bailey, Dr. Willard F(rancis), Skelly Oil Co, Pampa, Texas. *Geology.* Savannah, Mo, April 30, 04. A.B, Missouri, 25, A.M, 26, Ph.D, 34. Asst. geol, Missouri, 25–27, 31–34; asst.

state geologist, Tenn, 27–30; *petrol. geologist, Skelly Oil Co, 34–* Tenn. Acad. Petroleum; subsurface stratigraphy and sand and gravel resources of Tennessee.

Bailey, Dr. W(illia)m A(quila), Jr, Shell Development Co, Emeryville, Calif. *Organic chemistry.* Macon, Ga, March 14, 10. A.B, Emory, 32, A.M, 33; Washington (St. Louis), 33–35; du Pont fellow, Hopkins, 36–37, Ph.D, 37. *Chemist,* Cellulose Research Corp, 35, 36; *Shell Develop. Co, 37–* Molecular weights of cellulose; the pyrrole series; catalyzed hydrolytic fission of carbon-carbon bonds; chlorination; hydration; hydrolysis; ketone condensations; dehydrogenation; catalytic cracking.

Bailey, Prof. W(illiam) F(leming), MacMurray College, Jacksonville, Ill. *Chemistry.* Albia, Iowa, March 13, 01. B.S, Monmouth Col, 24; M.S, Illinois, 25, Ph.D, 33. Instr. *chem,* Washington and Lee, 25–26, asst. prof, 26–30; asst, Illinois, 30–33; *prof, MacMurray Col, 33–* Chem. Soc. Analysis of halides and alkali metals.

Bailey, Dr. W(illiam) M(arshall), 506 S. Poplar St, Carbondale, Ill. *Botany.* Troy Mills, Iowa, Sept. 25, 77. A.B, Campbell Col, 01, B.S, 02; M.S, Chicago, 13, Ph.D, 32. Head dept. biol, Campbell Col, 04–13; assoc. prof, *South. Ill. State Nor. Univ,* 14–21, *head dept,* 21–29, *bot, 29–* A.A; Soc. Plant Physiol; Asn. Biol. Teachers; Ill. Acad. Plant physiology.

Baillie, Prof. W(illiam) H(arold) T(revorrow), University of Toronto, Toronto, Ont, Can. *Biology.* Toronto, Ont, Aug. 11, 88. B.A, Toronto, 11, fellow, 11–12, M.A, 12, M.B, 15, M.D, 28; L.C.P.S, 15. Demonstrator and asst. biol, *Toronto,* 12–15, lecturer comp. anat, 15–16, *mammal. anat,* 19–24, asst. prof, 24–28, *assoc. prof, 28–* Capt, C.M.C, 16–19; C.O.R.C, 19– Ont. Col. Physicians and Surg; assoc. fel. Toronto Acad. Med; Soc. Biol. Toronto; Royal Can. Inst. Comparative anatomy; Annulata polychaeta; mammalian anomalies; blood vascular system in elasmobranchs; peritoneal reactions in Mammalia; life histories in Cladocera and viability of the sexes; abdominal musculature in vertebrates; effect of light on pigment and visual apparatus; conjugate deviation and its origin; circulation of blood in amphibia.

Baillif, Dr. Ralph N(orman), 1542 Tulane Ave, New Orleans, La. *Cytophysiology.* Minneapolis, Minn, May 5, 09. A.B, St. Olaf Col, 30; A.M, Minnesota, 33, Ph.D, 35. Teaching asst. zool, Minnesota, 31–35, teaching fellow *anat,* 35–37; *instr, med. sch, Louisiana, 37–* Asn. Study Int. Secretions; Asn. Anat. Cytophysiology of endocrines during secretion; cellular changes in phagocytes during phagocytosis.

Bailor, Prof. Edwin Maurice, Dartmouth College, Hanover, N. H. *Psychology.* Nebraska, 90. Simpson Col. (Iowa), 07–09; A.B, State Col. Wash, 14, A.M, 16; Ph.D, Columbia, 25. Teacher and pub. sch. supervisor, Wash, 09–13, 14–15; instr. educ, State Col. Wash, 15–18; psychol. expert, U.S.A, 19–21; training officer, U. S. Veterans Bur, 21–23; asst. educ. psychol, Teachers Col, Columbia, 23–24, instr, 24–25; asst. prof. *psychol, Dartmouth Col,* 25–28, *prof, 28–* 2nd lieut, Sanit.C, 18–19. A.A; assoc. Psychol. Asn; Eugene Field Soc. Educational psychology; measurement; content and form in tests of intelligence; students' knowledge before and after course; developed lessons in psychology.

Baily, Dr. Joshua L(ongstreth), Jr, 4435 Ampudia St, San Diego, Calif. *Biology.* Philadelphia, Pa, Jan. 29, 89. A.B, Haverford Col, 12, A.M, 13; B.Mus, Pennsylvania, 15; fellow, Hopkins, 26–28, Sc.D, 38. With Am. Red Cross, 19–21; Union Title Ins. Co, 21–26; with research inst, San Diego Zool. Soc, 28–34; *research assoc, San Diego Soc. Nat. Hist, 39–* Am. Friends Service Cmt, 18–19. A.A; Malacol. Union (v. pres, 35, pres, 36); Meteor Soc; Micros. Soc; West. Soc. Nat; Calif. Acad; Acad. Nat. Sci. Phila; Wyo. Geol. and Hist. Soc; San Diego Soc. Nat. Hist. (pres, fellows, 32); San Diego Zool. Soc. Biometrical and experimental investigation of land and fresh-water Mollusca; recent and fossil Mollusca of San Diego and Imperial counties and Lower California; land and fresh-water Mollusca.

Baily, William Lloyd, Ardmore, Pa. *Ornithology.* Philadelphia, Pa, Dec. 26, 61. B.S, Haverford Col, 83. Prof. archit, Pennsylvania, 90; *practising architect, 91–; U. S. inspector birds and animals, Port of Phila, 00–* Fel. Ornith. Union; Inst. Archit; State Asn. Archit. Pa. (sec'y, 09–); Del. Valley Ornith. Club (pres, 90); Pa. Audubon Soc. (treas, 02); Pa. Hort. Soc; Acad. Nat. Sci. Phila. Bird photography; birds of Maine, New Jersey, North Dakota and the Magdalen Islands.

Bain, Edgar C(ollins), U. S. Steel Corp, 436 Seventh Ave, Pittsburgh, Pa. *Physics, Metallurgy.* La Rue, Ohio, Sept. 14, 91. B.S, Ohio State, 12, M.S, 16, 23; Chem.E, D.E, Lehigh, 36; Columbia. Instr. metallog, Wisconsin, 16–17; chem. engineer, B. F. Goodrich Rubber Co, 17–18; metallurgist, Nat. Lamp Works, Gen. Elec. Co, 19–23; research metallurgist, Atlas Steel Corp, 23–24; Union Carbide and Carbon Research Labs, 24–28; metallurgist, research lab, *U. S. Steel Corp,* 28–35, *asst. to v. pres, 35–* Howe mem. lecturer and Campbell mem. lecturer, 32. Robert W. Hunt medal, 29; Henry Marion Howe medal, 31; Benjamin C. Lamme medal, Ohio State, '37. Lieut, C.W.S, 18–19. Fel. Physical Soc; Min. and Metal. Eng. (iron and steel cmt); Soc. Test. Mat. (cmt. on metallog); Soc. Metals (pres, 37). X-ray crystal structure; allotropy in metals; alloy steels; high speed steel.

Bain, Prof. Geo(rge) W(illiam), 22 Hitchcock Road, Amherst, Mass. *Geology.* Lachute, Que, Can, May 8, 01. B.Sc, McGill, 21, M.Sc, 23; A.M, Columbia, 23, Ph.D, 27. Asst. prof. *geol,* Vermont, 25–26; instr, *Amherst Col,* 26–31, asst. prof, 31–37, assoc. prof, 37–41, *Hitchcock prof, 41–* Gold medal, Can. Inst. Min. and Metal, 26. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Miner.. Soc; N. Y. Acad; Can. Inst. Min. and Metal. Structural and metamorphic geology; petrology; mineral deposits.

Bain, Dr. H(arry) Foster, 93 Jane St, Hartsdale, N. Y. *[1]*Geology, Mining.* Seymour, Ind, Nov. 2, 71. B.S, Moore's Hill Col, 90; Hopkins, 91–93; Ph.D, Chicago, 97. Asst. state geologist, Iowa, 93–00; special asst, U. S. Geol. Surv, 00–01; manager, Consol. Franklin Mines Co, 01–02; geologist, U. S. Geol. Surv, 02–08; state geologist, Ill, 05–09; ed, Mining and Sci. Press, 09–15; ed, 'Mining Magazine,' London, 15–16; explorations, Far East, 16–18; asst. director, U. S. Bur. Mines, 18–19; N. Y. Orient Mines Co, 19–20; director, U. S. Bur. Mines, 20–25; sec'y, Am. Inst. Min. Eng, 25–31; managing director, Copper and Brass Research Corp, 31–34; *consulting geologist.* Lecturer, Iowa, 98; Chicago, 99, 02, 03. Geol. Soc; Min. and Metal. Eng; Min. and Metal. Soc. Structural geology; ore deposits; mining methods; lead and zinc deposits.

Bain, Henry F(ranklin), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Knoxville, Tenn, Dec. 25, 93. A.B, Tennessee, 16; M.S, Brown, 17. Plant quarantine inspector, fed. hort. board, U. S. Dept. Agr, 19–22, asst. pathologist, fruit disease investigations, 22–26; cranberry specialist, State Dept. Agr, Wis, 26–28; *senior pathologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 28–* A.A; Phytopath. Soc; Bot. Soc. Wash. Cranberry diseases.

Bain, Prof. J. Watson, University of Toronto, Toronto, Ont, Can. *Chemistry.* London, Eng, Nov. 14, 75. B.A.Sc, Toronto, 97, fellow, 97–99; Zurich, 01. Demonstrator chem, *Toronto,* 99–02, lecturer, 02–05, assoc. prof. applied chem, 05–16, *prof. chem. eng, 16–* Fel. Inst. Chem; Soc. Chem. Indust; fel. Can. Inst. Chem; fel. Royal Soc. Can. Industrial chemistry; chemical engineering.

Bain, Dr. J(oseph) P(aul), Glidden Co, Box 389, Jacksonville, Fla. *Organic chemistry.* Richmond, Va, May 3, 14. B.S, Florida, 35, Ph.D, 39. *Director research, naval stores div, Glidden Co, 39–* Chem. Soc. Piperazine derivatives; catalytic alkylation; terpenes and resin acids.

Bain, Dr. W(illiam) A(llen), Jr, General Aniline and Film Corp, Easton, Pa. *Chemical engineering.* Newport News, Va, July 11, 15. B.S, N. C. State Col, 36; univ. fellow, Wisconsin, 36–37, M.S, 38, fellow, 42–43, Ph.D, 43. Instr. chem. eng, Wisconsin, 37–39; asst. prof, N. C. State Col, 39–42; *chem. engineer, research div, Gen. Aniline and Film Corp, 43–* Jr. mem. Chem. Eng. Flooding velocities in packed towers.

Bainbridge, Dr. Kenneth T(ompkins), Harvard University, Cambridge, Mass. *[2]*Physics.* Cooperstown, N. Y, July 27, 04. B.S, Mass. Inst. Tech, 25, M.S, 26; A.M, Princeton, 27, Ph.D, 29. Nat. research fellow *physics,* 29–31; fellow, Bartol Research Foundation, 31–33; Guggenheim Mem. Foundation fellow, 33–34; asst. prof, *Harvard,* 34–39, *assoc. prof, 39–* Consultant, Nat. Defense Research Cmt, 40–42; Wagner Inst. lecturer, 40. Assoc. ed, 'Physical Rev,' 37–40. Louis Edward Levy medal, Franklin Inst, 33. Physical Soc. Electromagnetic forces in liquid conductors; photoelectric effect; positive ray analysis; photographic effect of positive ions; mass-spectrography and isotopes; nuclear physics.

Bainbridge, Dr. W(illia)m Seaman, 34 Gramercy Park, New York, N. Y. *Surgery.* Providence, R. I, Feb. 17, 77.

M.D, Columbia, 93; hon. A.M, Shurtleff Col; hon. M.S, Washington and Jefferson Col; hon. Sc.D, West. Univ. of Pa; hon. Litt.D. and LL.D, Lincoln Mem. Univ; LL.D, Coe Col; hon. M.D, San Marcos. Prof. operative gynec, N. Y. Post-Grad. Med. Sch, Columbia, 02–06; surg, N. Y. Polyclinic Med. Sch, 06–18; *practising surgeon, 19–* Surgeon, N. Y. Skin and Cancer Hosp, 03–18; N. Y. Polyclinic Hosp, 06–18; N. Y. Children's Hosp; surg. director, Manhattan State Hosp; consulting surgeon, Wassaic State Sch; Murray Hill Hosp; Tarrytown Hosp; Central Islip State Hosp; Hosp. for Joint Diseases; Booth Mem. Hosp; Dobbs Ferry Hosp; Bergen County Hosp, N. J; S. County Hosp, R. I; consulting gynecologist, St. Andrew's Convalescent Hosp, N. Y; Ossining Hosp, N. Y; consulting surgeon, 3rd naval dist; U. S. Pub. Health Service, N. Y; director, Equitable Life Assurance Soc; Americas Foundation; hon. prof, Mil. Med. Sch, Poland. Mem, Govt. Mission Cent. and S. Amer, 41–42. Various medals and orders, U. S. and Europe. Hon. pres, Int. Cong. Study Tumors and Cancers, 06; official del, Int. Cong. Mil. Med. and Pharmaceut. Service, 21; pres, Int. Cong. Mil. Med. and Pharmacy, Luxembourg, 38. Lieut. (j.g), M.C, U.S.N.R, 13–17, lieut. commander, 17–19, commander, 19–34, capt, 34– Fel. Am. Med. Asn; fel. Asn. Obstet, Gynec. and Abdom. Surg. (1st v. pres, 17); Therapeut. Soc; Soc. Med. Jurisprudence; Asn. Study Int. Secretions; Anesthesia Research Soc; Soc. Control Cancer; Asn. Study Goiter; Asn. Mil. Surg. (pres, 34); hon. mem. Acad. Physical Med. (pres, 41–); hon. mem. Electrotherapeut. Asn; fel. N. Y. Acad. Med; fel. Royal Inst. Pub. Health; Newcomen Soc; fel. Royal Soc. Med; hon. mem. Acad. Sciences and Arts, Mex; cor. mem. Nat. Acad. Med, Mex; hon. mem. Asn. Mil. Surg, Mex; for. cor. mem. Acad. Med, Venezuela; hon. mem. Acad. Surg, Peru; Union Med. Latine; fel. Int. Col. Surg. (nat. regent for malignant disease). Operative gynecology; the cancer problem; medical and surgical developments of the World War.

Baine, Prof. (James) Ogden, Southwestern College, Winfield, Kans. *Organic chemistry.* Ackerman, Miss, Oct. 11, 09. B.S, Southwestern Col. (Kans), 31; M.S, N. Y. Univ, 34, Ph.D, 35; summers, Iowa State Col, 39, 40, Mass. Inst. Tech, 41. Asst. prof. *chem, Southwestern Col. (Kans),* 35–40, *assoc. prof, 40–* Toxicology; organometallic compounds.

Bainer, Prof. Roy, Box 474, Davis, Calif. *Agricultural engineering.* Ottawa, Kans, March 7, 02. B.S, Kans. State Col, 26, M.S, 29. Instr. agr. eng, Kans. State Col, 26–27, asst. prof. agr. eng. and asst. agr. engineer, Exp. Sta, 27–29; asst. prof. *agr. eng, California,* 29–35, *assoc. prof, 35–,* asst. agr. engineer, *Exp. Sta,* 29–35, *assoc. agr. engineer, 35–* Soc. Agr. Eng; Eng. Educ; Soc. Sugar Beet Tech. Sugar beet production machinery; harvesting and drying of rice; equipment for threshing beans; rural fire fighting equipment; internal combustion nut cracker; segmented sugar beet seed; flax harvesting equipment.

Baines, Prof. R(ichard) C(ecil), Purdue University, Lafayette, Ind. *Plant pathology.* Birkenhead, Eng, June 13, 05. B.S, California, 27; M.S, Purdue, 31, Ph.D, 37. Asst. *bot, Exp. Sta, Purdue,* 31–38, *asst. prof. and assoc, 38–* Phytopath. Soc. Diseases of fruit crops and fungicides; phytophthora canker of apple trees.

Bair, Dr. George J(oshua), Corning Glass Works, Corning, N. Y. *Ceramics.* Emporium, Pa, Aug. 26, 05. B.S, Pa. State Col, 27, M.S, 30; Sc.D, Mass. Inst. Tech, 36. Asst. supt, Keystone Brick Co, Watsontown, Pa, 27; instr. ceramics, Pa. State Col, 27–31, asst. prof, 31–36; indust. fellow, Mellon Inst, 36–42; *research chemist, Corning Glass Works, 42–* Teaching asst, Mass. Inst. Tech, 34–35. Ceramic Eng; fel. Ceramic Soc; Chem. Soc. Mineral products; glass, its constitution and properties; properties of Pennsylvania clays; properties and new uses for fine silica; high temperature furnaces; refractories; resistance to abrasion; beneficiation of ceramic raw materials; pottery; concrete.

Bair, Dr. Roy A(lbert), Everglades Experiment Station, Belle Glade, Fla. *Plant physiology, Agronomy.* Blanchard, Iowa, Jan. 12, 05. A.B, Simpson Col, 27; M.S, Iowa State Col, 37, fellow, 36–40, Ph.D, 40. Asst, Iowa State Col, 40–41; *asst. agronomist, Everglades Exp. Sta, Florida, 41–* Soc. Plant Physiol; Soc. Agron. Relationship of weather to growth and yield of economic plants; pollen germination; plant breeding.

Baird, A(lfred) B(riggs), 228 Dundas St, East Belleville, Ont, Can. *Entomology.* Chipman, N. B, Oct. 11, 91. B.S.A, Toronto, 16; M.S, Cornell, 21. *Dom. entom. branch, Can. Dept. Agr,* 11–16, asst. entomologist, 16–24, *entomologist in charge parasite work, 24–* Entom. Soc. Amer; Asn. Econ. Entom; Can. Soc. Tech. Agr; Entom. Soc. Ont; N. S. Entom. Soc. (sec'y-treas, 22–24). Parasitic and predaceous insects; biological control of insects; corn borer; oriental fruit moth; wheat stem sawfly; larch sawfly; pine shoot moth; woolly apple aphis; earwigs; white fly; satin moth; lecanium scales; spruce sawfly; balsam woolly aphis; codling moth; imported cabbage worm; larch casebearer; pine sawfly.

Baird, Dr. Don O(tto), 1418 Ave. K, Huntsville, Texas. *Biology.* Russellville, Ohio, Nov. 30, 88. B.S, Ohio (Athens), 16; A.M, Columbia, 28, Ph.D, 30. Teacher, rural schs, Ohio, 08–12, supt. township sch, 12–14, supervising prin, 16–17; head dept. *biol,* high sch, Va, 19–22; acting head dept, *Sam Houston State Teachers Col,* 22–24, assoc. prof, 24–32, *prof, 32–* Ed, 'Science Educ,' 38– A.A; Pub. Health Asn; Social Hygiene Asn; Asn. Biol. Teachers; Asn. Research in Sci. Teaching; Council Sci. Teachers; Council Elementary Sci; Nature Asn; Sci. Teachers Asn. (director, 37–); Texas Folk-Lore Soc; Texas Pub. Health Asn; fel. Texas Acad. (v. pres, chairman, biol. sect, 35, exec. v. pres, 36, pres, 37, ed, 40). Health; social hygiene; popular science.

Baird, Dr. E(dgar) A(lan), 1735 N. Ashland Ave, Chicago, Ill. *Botany.* River Falls, Wis, Nov. 4, 86. A.B, Wisconsin, 14, A.M, 15, Ph.D, 20. Instr, Wisconsin, 15–17, 20–22; assoc. prof. and prof. bot, North Dakota, 22–34; *biologist, Chicago Apparatus Co, 34–* Officer, U.S.A, 17–19. A.A; Bot. Soc. Mycology; cytology.

Baird, Dr. John, 402 Pine St, Boulder, Colo. *Geophysics.* Boulder, Colo, Sept. 15, 12. B.S, Colorado, 33, M.S, 34; Sc.D, Colorado Sch. Mines, 40. Junior engineer, U. S. Bur. Reclamation, 36, asst. engineer, 40–42; teaching fellow, Colo. Sch. Mines, 39–40; *assoc. engineer, U. S. Navy Dept, 42–* Soc. Explor. Geophys. Electrical methods of geophysical exploration.

Baird, Parker K(arns), 2210 Fox Ave, Madison, Wis. *Chemistry.* Monroe, Wis, Jan. 31, 94. A.B, Lawrence Col, 16; A.M, Ohio State, 18; Wisconsin, 22–24. Asst, Ohio State, 16–17, asst. instr, 17; junior chem. engineer gas research, eng. exp. sta, U. S. Bur. Mines, American Univ, 18; tech. director, Inland Empire Paper Co, Spokane, Wash, 19–22; chemist, *pulp and paper sect, Forest Products Lab, U. S. Forest Service,* 22–27, *senior chemist, 27–* Lecturer, Wisconsin, 31– C.W.S, U.S.A, 18. Tech. Asn. Pulp and Paper Indust. (chairman, use requirements cmt, 30–). Bleaching of wood pulp; fundamental and technical researches on paper; use requirements of papers.

Baitsell, Prof. George A(lfred), Yale University, New Haven, Conn. ***Zoology.* Wright, Iowa, Oct. 2, 85. B.S, Cent. Col. (Iowa), 08; A.M, Yale, 09, Seessel fellow, 13–14, Ph.D, 14. Prof. biol. and chem, Cent. Col. (Iowa), 09–10, biol. and acting dean, 12–13; instr. zool, *Yale,* 14–18, asst. prof, 18–25, assoc. prof, 25–28, *prof. biol, 28–* Instr, Marine Biol. Lab, Woods Hole, 13–19. Asst. physiologist, Army-Navy gas investigation, 17–18, capt, C.W.S. A.A. (sec'y, F, 37); Soc. Nat; Soc. Zool; Soc. Exp. Biol; Genetics Soc; Asn. Anat; Physiol. Soc; Sigma Xi (pres, 38, exec. sec'y, 40–); Conn. Acad. Life history of Protozoa; tissue culture; micro-dissection; wound healing; fibrin; connective-tissue formation; fibrous tissue in tubercular tissues.

Baity, Prof. H(erman) G(lenn), University of North Carolina, Chapel Hill, N. C. *Sanitary engineering.* Davie Co, N. C, Sept. 2, 95. A.B, North Carolina, 17, B.S. (C.E), 22; Paris, 19; fellow, Rockefeller Foundation, 24–26; M.S, Harvard, 25, Sc.D, 28. Asst. physics, North Carolina, 15–17, instr. math, 20–22; asst. engineer, State Board Health, N. C, 22–24, assoc. engineer, 26–31; assoc. prof. *sanit. and munic. eng, North Carolina,* 26–29, *prof, 29–,* head dept. civil eng, 28–36, dean sch. eng, 31–36. State engineer, Fed. Emergency Admin. Pub. Works, 33–35, state director, 35–36; special engineer, 38; special asst. to commissioner pub. works, Fed. Works Agency, 41–; project manager, Walterboro, S. C, Air Base, 42; chief engineer, Brazil Inst. Inter-Am. Affairs, C. I. A. A, 43– Consultant, Nat. Resources Planning Board, 37–; special consultant, U. S. Pub. Health Service, 41– Chairman, State Board Examiners for Plumbing and Heating Contractors, N. C, 31–; engineer mem, State Board Health, N. C, 31–; chairman cmt. agr. and indust. research, The N. C. Plan, Inc. Lieut, Ordnance Dept, 17–19. Civil Eng; Pub. Health Asn; Eng. Educ; Water Works Asn; Elisha Mitchell Sci. Soc; Federation Sewage Works Asn; N. C. Soc. Eng; British Inst. Sewage Purification. Factors governing aerobic and anaerobic decomposition of sewage sludge; the use of chlorine in sewage

treatment; the characteristics and treatment of industrial wastes; stream sanitation; limnology; water purification.

Baizer, Dr. Manuel, Brooklyn College, Brooklyn, N. Y. *Organic chemistry.* Philadelphia, Pa, May 20, 14. B.S, Pennsylvania, 34, M.S, 37, Ph.D, 40. Asst. research chemist, Phila. Inst. Med. Research, 38–39; *tutor chem, Brooklyn Col, 41–; research, Nat. Defense Research Cmt, 42–* Chem. Soc. Activating influence of quaternary ammonium group.

Bajkov, Dr. Alexander D, University of Manitoba, Winnipeg, Man, Can. *Ichthyology.* Moscow, Russia, June 27, 94. Moscow Agr. Col, 13–17; Ing. Agr, Agr. and Forest Col, Brno, Czechoslovakia, 24; M.Sc, Manitoba, 27, Ph.D, 31. Naturalist, Russian Far East Siberian fisheries exped, 14; Caspian sea fisheries exped, 15; Arctic Ocean fish exped, Archangel, 18; asst. in charge biol. sta, Lednice, Czechoslovakia, 24–25; ichthyologist, sci. exped, Jasper Park, Alta, 26; investigator fisheries, Can. Biol. Board, west. Can, 26–31; *provincial investigator fisheries, Lake Winnipeg biol. sta, Manitoba, 32–* Biologist, Atlantic Biol. Sta, St. Andrews, N. B, 33; private Arctic exped, Hudson Bay region and private Arctic research sta, Churchill, Man, Can, 36–38; aquatic biologist, Ducks Unlimited, 38–40. Fish cmt, Indust. Develop. Board, Man. Fisheries expeds, west. and north, Can. and Hudson Bay, 27–32. Soc. Ichthyol. and Herp; Nat. Hist. Soc. Man. (chairman, ichthyol. sect, 32). Fisheries investigations; hydrobiology; water biology; plankton; fisheries industry; food and growth of fishes.

Bakenhus, R(euben) E(dwin), 142 Maiden Lane, New York, N. Y. *Civil engineering.* Chicago, Ill, Sept. 10, 73. B.S, Mass. Inst. Tech; grad, U. S. Naval War Col. Rear Admiral, C.E.C, U.S.N; staff, U. S. Navy War Col, 24–27; pub. works officer, Third Naval Dist. Headquarters, 34–37; *consulting engineer, 37–* Asst. chief bur. yards and docks, Navy Dept, 18–23, manager shipyard plants, Emergency Fleet Corp, 20. Navy cross; Mil. Order World War. A.A; Civil Eng. (board of direction); Inst. Consulting Eng. (pres); Soc. Mil. Eng. (past pres); Shore and Beach Preservation Asn. (v. pres); Permanent Int. Asn. Navig. Congs.

Baker, Dr. A(be) B(ert), University of Minnesota, Minneapolis, Minn. *Neurology, Psychiatry, Neuropathology.* Minneapolis, Minn, March 27, 08. A.B, Minnesota, 28, M.D, 31, fellow, 31–34, M.S, 32, Ph.D, 34. Asst. neur. and psychiat, *Minnesota,* 34–37, instr, 37–38, asst. prof. *neur, psychiat. and neuropath,* 38–41, *assoc. prof, 41–* Fel. Am. Med. Asn; Neur. Asn; Asn. Neuropathologists; Asn. Cancer Research; Asn. Exp. Path; Cent. Neuropsychiat. Asn; Minn. Soc. Neur. and Psychiat; Minn. State Path. Soc. Encephalitis; hypoglycemia; metastatic tumors of the nervous system; tetanus.

Baker, Prof. A(lbert) W(esley), College Heights, Guelph, Ont, Can. *Entomology.* Walkerton, Ont, Nov. 1, 91. B.S.A, Toronto, 11, 19, 20. Demonstrator entom. and zool, *Ont. Agr. Col,* 11–14, lecturer, 14–18, assoc. prof, 18–20, prof. syst. entom. and zool, 20–41, *prof. entom. and zool. and head dept, 41–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Royal Can. Inst; Entom. Soc. Ont. (sec'y, 11–25, v. pres, 25–27, pres, 27–29); Federation Ont. Nat. Systematic entomology; taxonomy of Mallophaga.

Baker, Dr. Arthur A(lan), U. S. Geological Survey, Washington, D. C. *Geology.* New Britain, Conn, Oct. 31, 97. Ph.B, Yale, 19, Ph.D, 31. Geol. aid, *U. S. Geol. Surv,* 21–24, asst. geologist, 24–26, assoc. geologist, 26–29, geologist, 29–35, *senior geologist, 35–* Geol. Soc; Asn. Petrol. Geol; Geophys. Union; Geol. Soc. Wash; Wash. Acad. Geology of fuels; stratigraphy and structural geology.

Baker, Dr. A(rthur) C(hallen), Laboratorio Entomologico, Apartado 3, Colonia Anahuac, Mex, D. F. *Entomology.* Belleville, Ont, Can, Feb. 5, 85. B.S.A, Ont. Agr. Col. and Toronto, 11; Ph.D, George Washington, 18. Expert, bur. entom, *U. S. Dept. Agr,* 11–14, asst. entomologist, 15–18, entomologist, fruit insect investigations, 19–25, senior entomologist in charge trop. and subtrop. fruit insect investigations, 26–27, *prin. entomologist* in charge trop, subtrop. and ornamental plant insect investigations, 28–32, plant quarantine and control admin, 29–30, special fruit-fly investigations, 32–35, in charge div. fruit-fly investigations, *bur. entom. and plant quarantine, 36–* Mem, Int. Mixed Cmn. Pests and Plant Diseases U. S. and Mex. Entom. Soc. Amer. (v. pres, 41); Asn. Econ. Entom. (advisory cmt. and cmt. on nomenclature, 24–26, cmt. on training entomologists, 29–); Entom. Soc. Wash. (ed, 'Proc,' 18–23, pres, 31); Biol. Soc. Wash; Wash. Acad; Entom. Soc. Ont; Acad. Nac. de Cien. de Mex; Soc. Mex. de Hist. Nat. Classification and biology of Aphidae; tropical entomology; fruit-flies; methods for treating crop products.

Baker, Dr. Benj(amin) May, Jr, 9 E. Chase St, Baltimore, Md. *Medicine.* Norfolk, Va, Nov. 20, 01. B.S, Virginia, 22; B.A, Oxford, 25; M.D, Hopkins, 27. Intern and asst. res, *Hopkins Hosp,* 27–30, res. physician, 30–31, *asst. visiting physician, 31–,* instr. *med, Hopkins,* 28–35, *assoc, 35–* Asn. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn. Medical sciences.

Baker, Dr. B(urton) L(owell), University of Michigan, Ann Arbor, Mich. *Endocrinology.* Fife Lake, Mich, April 2, 12. B.S, Kalamazoo Col, 33; M.S, Kans. State Col, 35; univ. fellow, Columbia, 35–36, Ph.D, 41. Asst. zool, Kans. State Col, 33–35; *instr. anat,* Columbia, 36–38, 40–41; *Michigan, 41–* Asn. Study Int. Secretions. Cytology.

Baker, Charles Laurence, Agricultural and Mechanical College, College Station, Texas. *Geology.* Cordova, Ill, Oct. 10, 87. Monmouth Col, 03–05; Oberlin Col, 05–07; B.S, Chicago, 08, fellow, 08–10; fellow, California, 10–11, A.M, 16. Asst. biol, Monmouth Col, 04–05; comp. anat. and vert. histol, Oberlin Col, 05–07; instr. geol, California, 11; Texas, 16; asst. geologist, South. Pacific Ry. Co, 12–13, 17–18; geologist, bur. econ. geol, Texas, 14–17, 22; L. E. Hanchett, 17–21, 23; oil companies, 21–24; E. Coast Oil Co, 24–25, chief geologist, 25–26; *South. Pacific Ry,* Mex, 25–26, *Texas and La, 26–;* Rio Bravo Oil Co, 26–31; State Bur. Econ. Geol, Texas, 31–35; *prof. geol. and head dept, Agr. and Mech. Col. Texas, 35–* Field asst, U. S. Geol. Surv, 08, 10. Geol. Soc; Asn. Petrol. Geol; fel. Am. Geog. Soc; Paleont. Soc; fel. Royal Scottish Geog. Soc. Economic geology; geology of western United States, Mexico and River Plata Basin of South America.

Baker, Dr. Charles P(arker), Cornell University, Ithaca, N. Y. *Physics.* Leominster, Mass, Aug. 2, 10. A.B, Denison, 33; A.M, Cornell, 35, Ph.D, 41. *Research assoc. physics, Cornell, 40–* Physical Soc. Nuclear physics; slow neutron energies; cyclotron ion source.

Baker, Dr. Charles P(reston), Nebraska Methodist Hospital, 36th and Cuming Sts, Omaha, Nebr. *Medicine.* Edgerton, Minn, Sept. 2, 03. A.B, Park Col, 26; B.S, Nebraska, 30, M.D, 30, A.M, 32. Fellow, Mayo Foundation, Minnesota; *asst. prof. path, med. col, Nebraska, 37–; pathologist, Nebr. Methodist Hosp, 37–* Physiology and pathology of the gastrointestinal tract; spinal anesthesia; sodium ricinoleate; pathogenesis of cholecystitis; experimental fat embolism; treatment of wounds.

Baker, Chester L, 121 S. Third St, Philadelphia, Pa. *Chemical engineering.* Fairmont, N. Dak, June 22, 01. B.S, California, 25. Asst. chief chemist and superintendent of mill room, Pacific Sanit. Mfg. Co, Richmond, Calif, 25–26; chief chemist and asst. plant manager, Westend Chem. Co, Calif, 26–27; chief chemist and chem. engineer, *Phila. Quartz Co,* Berkeley, 27–35, tech. adviser, *Phila,* 35–40, *chem. director, 40–, v. pres. and head mfg. and eng.* Chem. Soc. (chairman, San Francisco sect, 31); Chem. Eng; Inst. Chem; Franklin Inst. Phase equilibria of Searles Lake brine with development of process for commercial production of soda ash and borax; the system sodium oxide, silicon dioxide and water; discovery and description of several crystalline sodium silicates; development of processes of commercial manufacture of crystalline alkali metal silicates; detergency and adhesives.

Baker, Dr. C(larence) E(verett), 112 De Hart St, West Lafayette, Ind. *Horticulture.* Champaign, Ill, Nov. 1, 96. B.S, Illinois, 20; M.S, Purdue, 29, Ph.D, 36. *Hort. research, Exp. Sta, Purdue, 20–* Soc. Hort. Sci. Pomology; pruning of apple trees; management of orchard soils; cold storage and keeping qualities of produce; types of farm storages for fruits and vegetables.

Baker, C(larence) M(ulford), 1 W. Main St, Madison, Wis. *Sanitary engineering.* Ithaca, N. Y, Aug. 19, 82. C.E, Cornell, 08, M.C.E, 17. Instr. civil eng, Cornell, 11–14; asst. engineer, State Dept. Health, N. Y, 14–18; assoc. engineer, U. S. Pub. Health Service, 18–19; state sanit. engineer, Dept. Health, Wis, 19–27; *engineer, Am. Paper and Pulp Asn. and Nat. Paperboard Asn, 27–* Pub. Health Asn; Water Works Asn; Tech. Asn. Pulp and Paper Indust; Cent. States Sewage Asn; Eng. Soc. Wis. (past pres). Chlorination of water supplies and pollutional effect of sewage and industrial wastes.

Baker, Prof. Clinton L(yle), Southwestern, Memphis, Tenn. *Zoology, Limnology.* Hamburg, Ark, Aug. 5, 05. B.S, Emory,

25, M.S, 26; Ph.D, Columbia, 32. Asst. prof. biol, Millsaps Col, 26–28; asst, N. Y. Univ, 29; zool, Columbia, 29–31; assoc. prof. *biol*, Detroit, 31–32; *Southwestern (Tenn)*, 32–41, *prof. and head dept, 41–* Summers, instr, Hunter Col, 29; Columbia, 31. Director, Reelfoot Biol. Sta, Tenn, 36– A.A; Tenn. Acad. (pres, 39). Cytology of the Euglenidae; ichthyology.

Baker, Prof. C(rosby) F(red), 53 Johnson Ave, West Medford, Mass. *Chemistry.* Hampden, Maine, Feb. 15, 87. B.S, M.S, Tufts Col. Instr. *chem, Tufts Col*, 11–16, asst. prof, 16–23, *prof, 23–* Chem. Soc; Min. and Metal. Eng; Soc. Metals; Soc. Chem. Indust. Metallurgy of non-ferrous metals; analytical chemistry.

Baker, Dr. Dan D(ysart), Louisiana State University School of Medicine, New Orleans, La. *Anatomy.* Santa Fe, Mo, Jan. 4, 03. A.B, Missouri, 25, A.M, 27; M.D, Rush, Chicago, 31. Instr. anat, Missouri, 27–29; intern, Wesley Mem. Hosp, Chicago, Ill, 30–31; asst. prof. *anat, sch. med, Louisiana*, 31–41, *assoc. prof, 41–* Asn. Anat. Suprarenal glands of dogs; periosteal grafts in man in repair of direct inguinal hernia; special anatomy of the human diaphragm.

Baker, Donald M(cCord), 108 W. Sixth St, Los Angeles, Calif. *Hydraulic engineering.* Poway, Calif, Nov. 25, 90. B.S, California, 13. Asst. engineer, U. S. Indian Irrig. Service, 13–16; hydraul. engineer, State Water Cmn. and div. water rights, State Dept. Pub. Works, Calif, 17–24; consulting engineer, 24–42; *partner, Ruscardon Engineers, 42–* Pres, Board of City Planning Commissioners, Los Angeles, 29–30; State Board Registration for Civil Engineers, Calif, 29–31; Los Angeles Eng. Council, 33–34; engineer consultant, Nat. Resources Planning Board, 35– Officier Ordre du Ouissam Alaouite, Morocco. Civil Eng. (chairman, cmt. on meteorol. data, 31–, mem, cmt. nat. water policy, 35–38, cmt. hydrol, 40–); Asn. Eng. (director, 24–26, 2nd v. pres, 26, 1st v. pres, 27–29); Geophys. Union; Acad. Polit. and Social Sci; Pacific Geog. Soc; Pacific Southwest Acad. Hydrology; traffic engineering; planning; water supply; engineering economics; population.

Baker, Dr. Edward B(igelow), 725 Calvert Ave, Detroit, Mich. *Physics.* Detroit, Mich, Aug. 31, 06. B.S, Michigan, 26, M.S, 27, Ph.D, 30. Instr. physics, Illinois, 30; *head physics div, research dept, Detroit Edison Co, 30–* Physical Soc. Electrical insulation; infra-red spectroscopy.

Baker, Prof. Edward (George), Newark College of Engineering, Newark, N. J. *Mathematics.* New York, N. Y, Oct. 20, 08. A.B, Columbia, 30, A.M, 31, D.Ed, 39. Instr. *math, Newark Col. Eng*, 31–37, asst. prof, 37–40, *assoc. prof, 40–* Eng. Educ. The teaching of calculus to engineers.

Baker, Dr. Edward W(illiam), Apartado Number 3, Colonia Anahuac, Mex, D. F. *Entomology.* Porterville, Calif, Dec. 29, 14. B.S, California, 36, Ph.D, 38. *Mexican fruit-fly lab, bur. entom. and plant quarantine, U. S. Dept. Agr, 39–, junior entomologist.* Asn. Econ. Entom. Biology of fruit flies; fumigation of immature forms of fruit flies; biology and taxonomy of mites; fumigation of potato insects.

Baker, Prof. E(lis) C(rain), 801 Monroe St, Stillwater, Okla. *Mechanical engineering.* Brandon, Miss, Feb. 1, 89. B.S. (M.E), Miss. Agr. and Mech. Col, 11; M.S. (M.E), Iowa State Col, 30. Efficiency engineer, Meridian Light and Ry. Co, Miss, 11–12; instr. mech. eng, Miss. Agr. and Mech. Col, 12–13, asst. prof, 13–14; prof, Okla. Sch. Mines and Metal, 14–17; asst. prof, Agr. and Mech. Col. Texas, 17–19; chief engineer and asst. supt, boiler plant, Int. Ship Building Co, Miss. and Texas, 19–21; asst. prof. *mech. eng, Okla. Agr. and Mech. Col*, 21–23, assoc. prof, 23–28, *prof. in charge dept, 28–* Mech. Eng; Eng. Educ. Gas and oil fired internal combustion engines.

Baker, Ernest L, Pyramid Process Co, East Rochester, N. Y. *Chemistry.* Portland, Maine, 80. B.S, Maine, 03. Asst. chemist, N. Y. Exp. Sta, Geneva, 05–07, assoc. chemist, 07–14; chief chemist, Patent Cereals Co, 14–20; Schreiber Products Corp, 20–22; *pres, Pyramid Process Co, 22–* A.A; Chem. Soc. Cereal foods; cattle foods; dextrins; starches; sugars; vegetable oils; sugars from cereal starches; adhesives.

Baker, Prof. Frances E(llen), Vassar College, Poughkeepsie, N. Y. *Mathematics.* Anna, Ill, Dec. 19, 02. A.B, Iowa, 23, M.S, 25; fellow, Chicago, 32–33, Ph.D, 34. Tabor Col. 25–27; Jefferson City Junior Col, Mo, 27–28; Creston Junior Col, Iowa, 29–31; Vassar Col, 35; instr. *math*, Mt. Holyoke Col, 35–40, asst. prof, 40–42; *assoc. prof, Vassar Col, 42–* Hist. Sci. Soc; Math. Soc; Math. Asn. Finite combinatorial analysis.

Baker, Prof. F(rederick) S(torrs), University of California, Berkeley, Calif. *Forestry.* Bridgeport, Conn, June 3, 90. F.E, Colo. Col, 12. Officer, U. S. Forest Service, 12–25; assoc. prof. *forestry, California*, 26–36, *prof, 36–* Soc. Foresters; Ecol. Soc. Silvicultural phases of forestry.

Baker, Dr. George A(llen), College of Agriculture, University of California, Davis, Calif. *Mathematics.* Robinson, Ill, Oct. 31, 03. B.S, Illinois, 26, Ph.D, 29. Assoc. statistician, U. S. Pub. Health Service, 29; fellow, Columbia, 29–30; statistician, State Dept. Health, New York, 30–31; head dept. math, Shurtleff Col, 31–34; prof. and head dept, Miss. Woman's Col, 34–36; with consumers' purchase study, bur. home econ, U. S. Dept. Agr, 36–37; *instr. math. and junior statistician, col. agr, California, 37–* Summers, statist. asst, Cornell, 31, statistician, Tennessee, 35. Math. Soc; Math. Asn; Inst. Math. Statistics; South. Intercollegiate Math. Asn. (exec. councilor, 35–). Mathematical statistics; random sampling variations of means; variances; correlation coefficients; biological applications.

Baker, Prof. George J(acob), 1117 12th St. Fargo, N. Dak. *Animal husbandry.* Alma Center, Wis, April 9, 80. B.S.A, Minnesota, 09, M.S.A, 10. Asst, demonstration farms, Minnesota, 09–13; acting county agent leader, 13–15; supt. demonstration farms, Minnesota, 15–18; animal husbandman, *exten. div, N. Dak. Col*, 21–28, asst. animal husbandry and acting chairman dept, 28–30, *prof. animal husbandry and exten. animal husbandman, 30–, acting director exten. service, 37–* Dist. supervisor, agr. adjust. admin, U. S. Dept. Agr, 33–36. Soc. Animal Production; Percheron Soc; Shorthorn Breeders Asn; N. Dak. Livestock Breeders Asn. (sec'y-treas, 22–, ed, 'Jour'). Milking shorthorns.

Baker, Dean Geo(rge) L(eRoy), University of Toledo, Toledo, Ohio. *Pharmacy.* Bottineau, N. Dak, Nov. 16, 06. Ph.C, Colorado, 31, B.S, 32; M.S, Florida, 33; Ph.D, Purdue, 35. Anal. pharmaceut. chemist, Burroughs Wellcome and Co, Inc, 35–36; instr. pharmacy, Ohio Northern, 36–37; asst. prof. pharmaceut. chem. and director div. pharmacy, *Toledo*, 37–38, *prof. pharmaceut. chem. and dean col. pharmacy, 38–* Pharmaceut. Asn. Alkaloids; aconite.

Baker, Dr. G(erald) C(lifford), 1012 N. Glen Oak Ave, Peoria, Ill. *Sanitary chemistry.* Bement, Ill, March 1, 94. A.B, Illinois, 17, M.S, 19; Ph.D, Iowa, 22. Chemist and bacteriologist, State Water Surv, Ill, 17–20; supervising chemist, Newport Chem. Co, 20–21; instr. chem, Iowa, 22–25; *tech. director, Pabst Brewing Co, 25–* Summer, chemist, Borromite Co. of Amer, 21. Consulting sanit. chemist, 22–25. Chem. Soc; Water Works Asn. Water chemistry; water softening; malt products; sugars; syrups; feeds; beverages; fermentology.

Baker, Dr. Gladys E(lizabeth), Vassar College, Poughkeepsie, N. Y. *Botany.* Iowa City, Iowa, July 22, 08. A.B, Iowa, 30, scholar, 30–31, M.S, 32; Jessie R. Barr fellow, Washington (St. Louis), 33–35, Ph.D, 35. Asst. bot, Washington (St. Louis), 35–36; instr. biol, Hunter Col, 36–40; *plant science, Vassar Col*, 40–42, *asst. prof, 42–* A.A; Torrey Bot. Club; Mycol. Soc. Mycology; morphology and cytology of Heterobasidiomycetes; lichens.

Baker, Dr. Harry J(ay), 453 Stimson Ave, Detroit, Mich. *Educational psychology.* Kinsman, Ohio, July 31, 89. A.B, Michigan, 13, A.M, 18, Ph.D, 20. Sch. supt, Ohio, 13–17; *clin. psychologist, 20–* Summers, prof, Missouri, 21–23, 25; Wisconsin, 28–31. A.A; Psychol. Asn; Soc. Study Educ. Intelligence tests; mechanical aptitudes examinations; characteristic differences in bright and dull pupils; educational disability and case studies in remedial teaching; diagnosis and treatment of behavior-problem children; the art of understanding.

Baker, Dr. H(enry) D(ean), Columbia University, New York, N. Y. *Physics, Mechanical engineering.* Kaukauna, Wis, Feb. 29, 04. A.B, Wisconsin, 32, Ph.D, 38. Engineer, Briggs and Stratton Corp, Milwaukee, Wis, 31–32; *instr.* physics, Agr. and Mech. Col. Texas, 38–39; *mech. eng, Columbia, 39–* Physical Soc; Texas Acad. Joule effect in air.

Baker, Dr. Henry H(eaton), Jr, U. S. Naval Academy, Annapolis, Md. *Chemistry.* Altoona, Pa. April 21, 07. A.B, Dartmouth Col, 29; M.S, N. Y. Univ, 32, Ph.D, 36. Teaching fellow chem, N. Y. Univ, 29–32, asst, 32–36; gen. man-

ager, Hoke, Inc, New York, N. Y, 37–38; *instr. chem*, Trinity Col, 39; *Queens Col. (N. Y)*, 39–; *U. S. Naval Res, 42–* Chem. Soc. (councilor, N. Y. sect, 41). Electronics applied to physico-chemical measurements; photoelectric photometry.

Baker, Dr. Horace Burrington, University of Pennsylvania, Philadelphia, Pa. *Zoology.* Sioux City, Iowa, Jan. 25, 89. B.S, Michigan, 10, Ph.D, 20. Instr. *zool*, Colo. Col, 13–17, asst. prof, 17; instr, *Pennsylvania*, 20–26, asst. prof, 26–29, assoc. prof, 29–39, *prof, 39–* Research fellow, Acad. Nat. Sciences Phila, 25–; Bishop Museum fellow, Yale, 35; assoc, Bishop Museum, 39– Summers, Mich. Biol. Surv, 08–10; instr, Marine Biol. Lab, Woods Hole, 24–26. Managing ed, 'The Nautilus,' 32– Univ. Mich. Museum exped, Mex, 10, 26; Venezuela, 20; Curaçao, 22; Jamaica, 33; Puerto Rico, 39. Soc. Nat; Soc. Zool; Ecol. Soc; Malacol. Union (councilor, 37–, pres, 39); London Malacol. Soc; Deuts. Malakozool. Gesell. Molluscan morphology and systematics; animal distribution.

Baker, H(orace) G(reeley), 1716 Tacoma Ave, S, Tacoma, Wash. *Genetics.* Near Altoona, Kans, March 5, 73. A.B, Iowa, 24, A.M, 25; American Univ. Asst. prof. biol, Southwestern Col, 25–27, assoc. prof, 27–29; prof, Dakota Wesleyan, 29–31; manager, Econ. Publishers, 31–41; *research in genetics, 41–* Lecturer, Eugenics Exhib. Bldg, Topeka Free Fair, 28. Eugenics Soc. Speculative biology; evolution; mutation; mental hygiene.

Baker, Pres. H(ugh) P(otter), Massachusetts State College, Amherst, Mass. *Forestry, Education.* St. Croix Falls, Wis, Jan. 20, 78. B.S, Mich. State Col, 01; M.F, Yale, 04; D.Oec, Munich, 10; LL.D, Syracuse, 33, R. I. State Col, 42. Forest asst, U. S. Forest Service, 01–06; assoc. prof. in charge forestry, Iowa State Col, and forester, Exp. Sta, 04–07; prof. forestry, Pa. State Col, and forester, Exp. Sta, 07–12; dean, N. Y. State Col. Forestry, and prof. silviculture, Syracuse, 12–20; sec'y, Am. Paper and Pulp Asn, 20–28; manager, trade assoc. dept, U. S. Chamber of Commerce, 28–30; dean, N. Y. State Col. Forestry, Syracuse, 30–33; *pres, Mass. State Col, 33–* Asst, Forest Surv, Nebr. and Wyo, 01; chief, Iowa Forest Surv, 05; in charge forestry short course, Colo. Agr. Col, 07. A.A; Soc. Foresters; fel. Royal Geog. Soc. Sand dunes along Columbia River; public lands of central Idaho; silviculture in New Mexico; forest surveys of Idaho and Iowa; adaptability of prairie states to growing of trees for commercial purposes; forest economics.

Baker, Prof. I(da) M(ay), 2196 Ambleside Drive, Cleveland, Ohio. *Mathematics.* College City, Calif, Nov. 3, 88. B.S, Columbia, 23, A.M, 24; Ph.D, Ohio State, 37. Teacher, sch, Calif, 09–18; instr. and supervisor *math*, Calif. State Teachers Col, Fresno, 18–20, 24–25; asst. prof, sch. educ, *Western Reserve*, 25–29, *assoc. prof, 29–* A.A; Math. Asn; Nat. Council Math. Teachers. Radio lessons in arithmetic; developing evaluation materials for checking on thinking in quantitative situations.

Baker, Dr. James A(ndrew), Rockefeller Institute, Princeton, N. J. *Animal pathology.* Garland, La, Dec. 16, 10. B.S, Louisiana, 32, M.S, 34; Ph.D, Cornell, 38, D.V.M, N. Y. State Vet. Col, 40. Asst, Louisiana, 32–35; bacter, N. Y. State Vet. Col, Cornell, 37–40; fellow, *animal path. div, Rockefeller Inst*, 40–41, *asst, 41–* Soc. Bact; Vet. Med. Asn. Bacteriology; animal diseases.

Baker, James H(annington), 110 W. 18th St, New York, N. Y. *Chemistry.* Himrods, N. Y, July 1, 06. B.A, Acadia, 29; A.M, Columbia, 30. *Chemist*, Seil, Putt and Rusby, Inc, 29; *Gar-Baker Labs, Inc, 31–* Chem. Soc. Pharmaceuticals; foods; emulsions; germicides; bacteriological assays; phosphorescent and luminescent pigments and lacquers; organic synthesis and fermentation processes.

Baker, Prof. J(esse) Allen, 1101 N. C St, Indianola, Iowa. *Inorganic chemistry.* McMinnville, Oregon, July 23, 83. B.S, Linfield Col, 05; A.B, Denison, 07, A.M, 08; Ph.D, Iowa, 26; Wisconsin, 14; Illinois, 19–20; Chicago, 21. Linfield Col, 06; Simpson Col, 08–17; Iowa Wesleyan Col, 19; *prof. chem, Simpson Col, 20–* Chief army inspector ordnance, Atlas Powder Co, N. J, 18. Chem. Soc. Determination of tin in Babbitt and other alloys; solubilities of inorganic salts in sulfur monochloride; chemical reactions of sulfur monochloride with inorganic salts.

Baker, Dr. John B(abcock), 929 Concord Ave, Drexel Hill, Pa. *Mechanical engineering.* Pontiac, Ill, June 23, 97. B S, Illinois, 21, M.S, 24, Ph D, 36. Chemist, Exp. Sta, Illinois, 21–23, asst. mech. eng, eng. exp. sta, 23–26; instr, Lafayette Col, 26–27; assoc. prof. and head dept, New Mexico, 27–31; asst. materials engineer, State Highway Dept, N. Mex, 31–34; *asst. prof. mech. eng, Drexel Inst, 35–; instr, Eng. Organized Reserves, U. S. Army, 40–* Mech. Eng. Thermodynamics of gas reactions; mechanism of metallic failure.

Baker, Dr. John C(lark), 10 Crestmont Road, Montclair, N. J. *Chemistry.* Ridgeway, Iowa, Aug. 11, 84. B.S, Upper Iowa, 10, hon. Sc.D, 33; A.M, Columbia, 15, Ph.D, 16. Asst, Upper Iowa, 10; head dept. science, N. Mex. Nor. Univ, 10–13; asst. chem, Columbia, 14–16; assoc. chemist, N. Y. Exp. Sta, Geneva, 16–19; *chief chemist, Wallace and Tiernan Products Co, 19–, v. pres, 23–* Trustee, Upper Iowa, 35. Mod. Pioneer award, Nat. Asn. Mfrs. A.A; Chem. Soc; Asn. Cereal Chemists. Diastatic enzymes; casein; milk control; fruit and water sterilization; applications of chlorine; flour and textile bleaching; condenser cleaning; electrolytic cells.

Baker, Prof. Kenneth F(rank), University of California at Los Angeles, Los Angeles, Calif. *Plant pathology.* Ashton, S. Dak, June 3, 08. B.S, State Col. Wash, 30, Ph.D, 34. Asst. plant path, State Col. Wash, 30–34; nat. research fellow bot, Wisconsin, 34–35; junior pathologist, div. forest path, U. S. Dept. Agr, 35–36; assoc. pathologist, Exp. Sta, Pineapple Producers Cooperative Asn, 36–39; asst. prof. *plant path, California at Los Angeles*, 39–42, *assoc. prof, 42–; asst. plant pathologist, Exp. Sta*, 39–42, *assoc. plant pathologist, 42–* Supervising technician, div. forest path, U. S. Dept. Agr, 34. Bot. exped, east. S. Amer, 38–39. A.A; Bot. Soc; Phytopath. Soc. Storage decays of apples; diseases of ornamental plants.

Baker, Dr. Kenneth H(ammond), University of Minnesota, Minneapolis, Minn. *Psychology.* Randolph Center, Vt, April 5, 07. A.B, Ohio Wesleyan, 29, A.M, 30; Northwestern, 30–31; Ph.D, Ohio State, 34. *Instr. psychol,* Ohio State, 31–35; *Minnesota, 35–* Assoc. Psychol. Asn. Physiological psychology; human behavior.

Baker, Dr. L(awrence) M(anning), Berea College, Berea, Ky. *Psychology.* Laurel Creek, Ky, Jan. 23, 07. A.B, Berea Col, 29; fellow, Kentucky, 31–33, A.M, 32, Ph.D, 33. Teacher, high sch, Ky, 30–31; assoc. prof. *psychol, Berea Col*, 33–37, *prof. and head dept, 37–, acting dean, 41–* Assoc. Psychol. Asn. Experimental and general psychology; physiological factors involved and the changes taking place during learning.

Baker, Dr. Lillian E(loise), 182 East End Ave, New York, N. Y. *Chemistry.* Wheaton, Ill, 90. A.B, Wellesley Col, 14; A.M, Columbia, 19, fellow, 21–22, Ph.D, 22. Instr. physics and chem, Pratt Inst, 14–18; chem, Wellesley Col, 18–21; asst, *Rockefeller Inst*, 22–31, assoc, 31–39, *fellow, 39–* Chem. Soc; Soc. Exp. Biol. and Med. Factors affecting growth, maintenance and function of normal and malignant cells and whole organs cultivated in vitro; organic synthesis; organic chemistry and cell physiology.

Baker, Dr. Lynn E, 312 N. Oxford St, Arlington, Va. *Psychology.* Tacoma, Wash, Jan. 25, 09. A.B, Wisconsin, 33, A.M, 34, Ph.D, 37. Instr. psychol, Wisconsin, 37–40; assoc. psychologist, div. research, *U. S. Bur. Census*, 40–42, *special agent psychol. research, 42–; chairman dept. psychol, National Univ, 41–; regional personnel director, Fed. Pub. Housing Authority, 42–* Summer, lecturer, Brooklyn Col, 39. Assoc. Psychol. Asn; East. Psychol. Asn; Midwest. Psychol. Asn; Wis. Asn. Applied Psychol. (director, 41). Sensation and psycho-physics; condition response and learning; personnel selection problems and testing; public opinion measurement.

Baker, Prof. M(anley) B(enson), 120 University Ave, Kingston, Ont, Can. *Geology.* Stratford, Ont, March 29, 77. B.A, Queen's (Can), 00, B.Sc, 02; Heidelberg, 07; Cambridge, 09. Lecturer *geol, Queen's (Can)*, 00–05, acting prof, 06–08, *prof. and head dept, 08–* Field work, Ont. Dept. Mines, 00– Fel. Geol. Soc; Can. Inst. Min. and Metal. (councilor, 13–17); Royal Soc. Can. Precambrian geology of Ontario.

Baker, Prof. Marvel L(eon), University of Nebraska, Lincoln, Nebr. *Animal husbandry.* Coles Co, Ill, Jan. 3, 95. B.S, Kans. State Col, 24, M.S, 24; Iowa State Col, 26, 39. Asst. animal husbandry, sch. agr, *Nebraska*, 24–28, animal husbandman, North Platte substa, Exp. Sta, 30–41, *prof. animal husbandry, 41–* A.A; Soc. Animal Production. Animal breeding; beef cattle feeding; swine feeding and breeding.

Baker, Prof. Merle P(orter), Iowa State College, Ames, Iowa. *Dairying.* Marengo, Iowa, Jan. 17, 99. B.S, Iowa State Col, 21, M.S, 23, Ph.D, 31. Asst, Exp. Sta, *Iowa State*

Col, 22–26, asst. prof. dairy indust, col, 26– Wisconsin Alumni Research Foundation, 34–35. Dairy Sci. Asn; Soc. Bact; Int. Asn. Milk Sanitarians. Dairy bacteriology.

Baker, M(oses) N(elson), 53 Oakwood Ave, Upper Montclair, N. J. *Engineering.* Enosburgh, Vt, Jan. 26, 64. Ph.B, Vermont, 86, C.E, 99. Assoc. ed, 'Eng. News,' 87–17; 'Eng. News Record,' 17–32; *retired.* Mem, Board Health, Montclair, 94–04, pres, 04–15; v. pres, State Dept. Health, N. J, 15. Water Works Asn; Nat. Munic. League (chairman, exec. cmt, 13–18); New Eng. Water Works Asn. Civil and sanitary engineering; public health; water and sewage treatment; garbage and refuse disposal; municipal administration; history of water treatment.

Baker, Dr. O(liver) E(dwin), College Park, Md. *Geography, Economics.* Tiffin, Ohio, Sept. 10, 83. B.S, Heidelberg Col. (Ohio), 03, M.S, 04, Sc.D, 37; A.M, Columbia, 05; Ph.D, Wisconsin, 21; hon. Ph.D, Göttingen, 37. Senior agr. *economist, bur. agr. econ, U. S. Dept. Agr,* 12–42; *prof. agr. econ, Maryland, 42–* Prof, Clark, 23–26; lecturer, Maryland. Summers, Wis. Soil Surv, 10–12. V. chairman, div. geog. and geol, Nat. Research Council, 32. Del, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, 37. Asn. Geog. (v. pres, 23, pres, 32); Meteorol. Soc; Sociol. Soc; Farm Econ. Asn; Popul. Asn. Land utilization; agricultural geography; climatology; ecology; sociology; population changes.

Baker, Prof. Perley D(ustin), Norwich University, Northfield, Vt. *Chemistry.* Bow, N. H, May 8, 97. B.S, Norwich, 20; A.M, Columbia, 26, Ph.D, 40. Instr. *chem, Norwich,* 20–23, asst. prof, 23–29, assoc. prof, 29–39, *prof, 39–* Major, C.W.Res. Chem. Soc. Organic chemistry; colloid chemistry.

Baker, Dr. Ralph D(oris), University of Utah, Salt Lake City, Utah. *Aerodynamics.* Teton City, Idaho, April 5, 99. B.S, Utah, 27; M.S, Kansas, 31; Ph.D, Calif. Inst. Tech, 38. Engineer, drafting and power plant design, U. S. Smelter, Ref. and Mining Co, Salt Lake City, Utah, 27–28; instr. mech. eng. in charge heat power lab. and aeronautics lab, Kansas, 28–34; engineer and asst. in charge model pump testing for Los Angeles Aqueduct, Metrop. Water Dist. South. Calif, 36–37; asst. prof. mech. eng. in charge aeronautics, *Utah,* 37–41, *assoc. prof. mech. eng, 41–, coordinator, Civilian Aeronautics Admin-War Training Service, 42–* Summers, senior stress analyst, Consol. Aircraft Corp, 39, research engineer, 40. Mem. eng. cmt, Colo. River-Great Basin project, Utah, 39. A.A; Mech. Eng. (hon. chairman student branch, 37–40; sec'y-treas, Utah branch, 41–43); Inst. Aero. Sci; Eng. Educ; Aeronaut. Asn; Utah Acad.

Baker, R(aymond) F(rank), 135 E. 42nd St, New York, N. Y. *Geology.* New Haven, Conn, Jan. 11, 92. Ph.B, Yale, 12. Geol. aid, U. S. Geol. Surv, 15–16; geologist, *The Texas Co,* 16–22, *chief geologist, 22–* A.A; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng.

Baker, Prof. R(aymond) K(emp), 4350 Osler Ave, Vancouver, B. C, Can. *Poultry husbandry.* Trenton, Ont, Nov. 17, 76. B.A, Manitoba, 00. Sch. teacher, farmer and commercial poultryman, 00–13; asst. prof. animal husbandry, *Saskatchewan,* 13–16, prof. *poultry husbandry,* 16–42, *emer. prof, 42–* Poultry Sci. Asn; Can. Soc. Tech. Agr. Breeding to increase production; conditions in poultry houses during winter.

Baker, Dr. R(ichard) E(lwin), University of Nebraska, Lincoln, Nebr. *Horticulture.* San Jose, Calif, Aug. 18, 10. B.S, California, 32, M.S, 34; Ph.D, Nebraska, 42. *Instr. hort, Nebraska, 37–* Soil moisture relationships and stock-scion relationships of apple trees; testing of spray materials for trees and small fruits; cytological and genetical studies of raspberries.

Baker, Dr. R(ichard) F(religh), RCA Laboratories, Princeton, N. J. *Physics.* Westfield, Pa, Feb. 14, 10. B.S, Pa. State Col, 32, M.S, 33; Ph.D, Rochester, 38. Asst. physics, Minnesota, 37–38; assoc. anat, Hopkins, 40–41; *electronic engineer, RCA Labs, 41–* Photoelectricity in the far ultra-violet; mass spectrometry; ultra-violet microscopy; electron microscopy.

Baker, Prof. Robert H(enry), Northwestern University, Evanston, Ill. *Organic chemistry.* Central City, Ky, June 14, 08. B.S, Kentucky, 29, M.S, 31; Ph.D, Wisconsin, 40. Instr. *chem,* Kentucky, 31–40, *asst. prof,* 40–41; *Northwestern, 41–* Chem. Soc. Reactions of carbonyl compounds; organic analyses; aluminum alkoxides; distillation.

Baker, Prof. Robert H(orace), University of Illinois, Urbana, Ill. *Astronomy.* Northampton, Mass, March 29, 83. A.B, Amherst Col, 04, A.M, 05; Ph.D, Pittsburgh, 10; Sc.D, Oglethorpe, 36. Asst, observatory, Amherst Col, 04–06; Allegheny Observatory, Pittsburgh, 06–10; asst. prof. *astron,* Brown, 10–11; prof, Missouri, 11–23; *prof, Illinois, and director observatory, 23–* Research assoc, Harvard, 31–32. A.A; Astron. Soc. Stellar spectroscopy; photographic and photoelectric photometry.

Baker, Roger C(rane), 714 Trenton Trust Co. Bldg, Trenton, N. J. *Geology.* Delaware Co, Ohio, April 26, 10. A.B, Ohio Wesleyan, 32; Ohio State, 33–34; M.S, Iowa, 38. Junior geologist, *U. S. Geol. Surv,* 38–41, *asst. geologist, 41–* Geology and ground-water hydrology in New Jersey and Pennsylvania.

Baker, Dr. Roger D(enio), Duke Hospital, Durham, N. C. *Pathology.* East Lansing, Mich, April 10, 02. A.B, Wisconsin, 24; M.D, Harvard, 28. Asst. res. house officer, Hopkins Hosp, 28–30, asst. path, Hopkins, 28–29, instr, 29–30; anat, *Duke,* 30–32, path, 32–34, asst. prof. *path, sch. med,* 34–42, *assoc. prof, 42–, asst. pathologist, Duke Hosp, 34–* Guest, path. inst, Kiel, 32. Summer, prof, col. med, Tennessee, 41. A.A; Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn; South. Med. Asn. Cellular content of chyle; reticulo-endothelial system; pathological anatomy and surgical pathology; case method in teaching pathology; cardiac tuberculosis and blastomycosis; human and experimental fungous diseases; staphylococcal pneumonia; medico-legal autopsy.

Baker, Prof. R(ollo) C(lyde), Ohio State University, Columbus, Ohio. *Anatomy.* Middlebourne, Ohio, Oct. 2, 88. A.B, Ohio State, 15, A.M, 17; Ph.D, Chicago, 27. Instr. *anat, Ohio State,* 17–21, asst. prof, 21–27, assoc. prof, 27–32, *prof, 32–, chairman dept. and sec'y col. med.* Asn. Anat. Neurology and embryology of the central nervous system of urodeles.

Baker, Prof. Ross Allen, 140 E. 28th St, New York, N. Y. *Chemistry.* Greencastle, Ind, Nov. 13, 86. A.B, DePauw, 06, A.M, 07, Sc.D, 37; Ph.D, Wisconsin, 14. Instr, high sch, Ill, 07–08; prof. chem, Baker, 08–10; instr, Wisconsin, 10–14; Minnesota, 14–16, asst. prof, 17–18; prof. inorg. chem, Syracuse, 19–30; *prof. chem. and in charge dept, commerce center, Col. City of N. Y, 30–* Prof, Maryland, 24–25. Mem, Nat. Senate Chem. Educ, 25–30, sec'y, 27–30; Sci. Council, New York, 31– Dept. ed, 'Jour. Chem. Educ,' 26–37. Del, Int. Union Pure and Applied Chem, 28; Int. Cong. Chem, 38. Major, C.W.S, and commandant, U. S. Gas Sch, 18. A.A; Chem. Soc. (councilor, 19–30, 32–35, 40–; chairman, Syracuse sect, 23; sec'y, div. chem. educ, 27–32, chairman, 34); Inst. Chem. (chairman, N. Y. sect, 34; councilor, 34–40); N. Y. Acad; N. Y. Chem. Teachers Club (pres, 34). Metals; chemical education.

Baker, Dr. S(ara) Josephine, Trevenna Farm, Belle Mead, N. J. *Child hygiene.* Poughkeepsie, N. Y, Nov. 15, 73. M.D, Woman's Med. Col. N. Y, 98; Dr.P.H, N. Y. Univ, 17. Med. inspector, Dept. Health, New York, 01–07, asst. commissioner, 07–08, director bur. child hygiene, 08–22. Lecturer, Teachers Col, Columbia; Univ. and Bellevue Hosp. Med. Col; consultant, U. S. Pub. Health Service; children's bur, U. S. Dept. Labor. Mem. State Board of Health, N. J. Child Hygiene Asn. (pres, 18); Pub. Health Asn; Am. Med. Asn; fel. N. Y. Acad. Med. Health of children.

Baker, T(heodore) C(harles), 41 Crestview Drive, Newington, Conn. *Physics.* Constantinople, Turkey, March 27, 13. B.S, Michigan, 35. *Research physicist,* F. W. Preston Labs, 37–40; *Hartford-Empire Co, 40–* Strength of glass, especially glass containers.

Baker, Prof. T(homas) A(lexander), University of Delaware, Newark, Del. *Dairy husbandry.* Dalton, Ga, Jan. 17, 93. B.S, Cornell, 14, Ph.D, 33. Instr. *animal husbandry,* Cornell, 14–17; N. Y. State Sch. Agr, Cobleskill, 17–18; *prof, Delaware, 19–* Dairy Sci. Asn. Heredity in dairy cattle.

Baker, Prof. T(homas) Nelson, Jr, Virginia State College, Ettrick, Va. *Organic chemistry.* Pittsfield, Mass, July 6, 06. A.B, Oberlin Col, 29, scholar, 29–30, A.M, 30; Gen. Educ. Board fellow, Ohio State, 37–38, univ. fellow, 38–39, Ph.D, 41. Instr. *chem,* Tougaloo Col, 30–31; acting asst. prof, Talladega Col, 31–32; *assoc. prof, Va. State Col, 32–* Chem. Soc. Determination of the molecular size glycogen and of mannan A by the mercaptalation method.

Baker, Prof. Weldon N(icholas), Rose Polytechnic Institute, Terre Haute, Ind. *Chemistry.* Mt. Vernon, Iowa, July

15, 09. A.B, Morningside Col, 30; M.S, Iowa, 31; Ph.D, Columbia, 35. Instr. chem, Allegheny Col, 35–36; junior sea food inspector, food and drug admin, U. S. Dept. Agr, 36–37; instr. chem, Morningside Col, 37; *chem. eng, Rose Polytech,* 37–40, *asst. prof, 40–* Chem. Soc. Physico-chemical properties of heavy water.

Baker, W(illiam) A(lphonso), 1920 Parkwood Ave, Toledo, Ohio. *Entomology.* Dorchester, Mass, Aug. 14, 98. B.S, Mass. Col, 20. *Div. cereal and forage insects, bur. entom. and plant quarantine, U. S. Dept. Agr,* San Antonio, Texas, 20–24, Dallas, Texas, 25–26, Arlington, Mass, 26–28, Monroe, Mich, 28–33, *Toledo, Ohio, 33–, senior entomologist in charge European corn borer research, 34–* Asn. Econ. Entom. General cereal and forage insect investigations; sorghum midge and web worm; grasshoppers and green bug; parasites.

Baker, Dr. W(illiam) O(liver), Spring Valley Road, Morristown, N. J. *Physical chemistry.* Chestertown, Md, July 15, 15. B.S, Washington Col. (Md), 35; Harvard fellow, Princeton, 37–38, Ph.D, 38. Procter fellow, Princeton, 38–39; *research chemist, Bell Tel. Labs, 39–* Assoc. mem. conf. elec. insulation, Nat. Research Council. Chem. Soc. Analysis of lithium salts; dielectric properties, structure and theory of melting of molecular solids; x-ray determinations of structure and order in high polymers; viscosity and size of macromolecules; physical properties of plastics.

Baker, William W(illard), Box 30, Puyallup, Wash. *Entomology.* Stillman Valley, Ill, March 17, 97. B.S, N. Dak. Agr. Col. Entomologist, West. Wash. Exp. Sta, 27–30; *junior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–* Asn. Econ. Entom; Northwest Sci. Asn; Puget Sound Entom. Soc; Pacific Northwest Bird and Mammal Soc. Insect pests of berries and truck crops.

Baker, Willis M(iles), Tennessee Valley Authority, Norris, Tenn. *Forestry.* Warren, Pa, April 24, 92. B.S. (Forestry), Pa. State Col, 14. Forest asst, nat. forest, Ariz, U. S. Forest Service, 14–17; state forest ranger, Dept. Conservation and Develop, N. J, 17–18, asst. forester, 18–22, assoc. state forester, 22–30, supt. state forests, 26–30; *director,* Pa. Forest Research Inst, Mont Alto, 30–31; Cent. States Forest Exp. Sta, U. S. Forest Service, 31–38; *dept. forestry relations, Tenn. Valley Authority, 38–* Soc. Foresters (chairman, Allegheny sect, 29, cent. states sect, 35; exec. councilor, 38; v. chairman, Ky-Tenn. sect, 43). Silviculture.

Baker, Prof. W(oolford) B(ales), Emory University, Ga. *Biology, Cytology.* Las Vegas, N. Mex, Dec. 30, 92. A.B, Henderson-Brown Col, 13; M.S, Emory, 20; Ph.D, Columbia, 26. Instr. science, Henderson-Brown Col, 13–14, head master acad, 14–15, prof. biol. sciences and head dept, 15–19; instr. biol, Emory, 19–21, asst. prof, 21–24; acting prof. biol. and head dept, Agnes Scott Col, 22–24; asst. zool, Columbia, 24–25; assoc. prof. *biol, Emory,* 25–26, *prof, 26–* Rosenwald fellow, Kaiser Wilhelm Inst, 31–32. Summer, instr, Marine Biol. Lab, Woods Hole, 26. A.A; Bot. Soc; Torrey Bot. Club; Ga. Acad. (pres, 41). Cytology and physiology of Euglenoidina; sex determination in aroids.

Bakhmeteff, Prof. Boris A(lexander), Columbia University, New York, N. Y. *Civil engineering.* Tiflis, Russia, May 14, 80. C.E, St. Petersburg, 03, D.E, 12. Docent and prof, Polytech. Inst, St. Petersburg, 07–15; *prof. civil eng, Columbia, 31–; consulting engineer.* Chairman board, Lion Match Co, 24– Civil Eng; Mech. Eng; Inst. Aeronaut. Sci; Eng. Inst. Can. Fluid mechanics; hydraulics.

Bakke, Dr. A(rthur) L(awrence), 701 Ash Ave, Ames, Iowa. *Plant physiology.* Horace, N. Dak, June 26, 86. B.S, Iowa State Col, 09, M.S, 11; Ph.D, Chicago, 17. Asst. bot, Iowa State Col, 08–09; instr, Elgin Acad, 09–10; *Iowa State Col,* 10–11, asst. prof. bot. and plant physiol, 11–17, assoc. prof. *plant physiol,* 17–25, prof, 25–38, *research prof, Exp. Sta,* 25– Assoc, desert lab, Carnegie Institution, 13, 14; collaborator and asst. pathologist, bur. plant indust, U. S. Dept. Agr, 14, 18, 19, 34, agent, 36–38, collaborator, 38–, plant physiologist, Copenhagen, 29; Cent. Exp. Sta, Stockholm, 29. A.A; Soc. Plant Physiol; Bot. Soc; Ecol. Soc; Soc. Agron; fel. Iowa Acad. City smoke and vegetation; transpiring power of plants; determination of wilting; hardiness of plants; respiration in plants; action of herbicides; noxious weeds.

Bakken, Prof. Henry H(arrison), 2218 Chadbourne Ave, Madison, Wis. *Agricultural economics.* March 24, 96. A.B, Wisconsin, 22, A.M, 23. Asst. prof. and *assoc. prof. agr. econ, Wisconsin, 23–* Econ. Asn. Marketing agricultural products.

Bakken, Herman E, Aluminum Co. of America, New Kensington, Pa. *Metallurgy, Chemistry.* Faribault, Minn, Sept. 13, 92. A.B, St. Olaf Col, 15; Minnesota, 16–18. Supt, Am. Magnesium Corp, Niagara Falls, 24–28; asst. director *research, Aluminum Co. of Amer,* 28–42, *assoc. director, 42–* Director, Am. Magnesium Corp, Pittsburgh. 2nd lieut, C.W.S, 18–19. Chem. Soc; Min. and Metal. Eng. Purification of magnesium and other metals; preparation of barium and strontium; manufacture of phosgene.

Balamuth, Dr. Lewis, College of the City of New York, New York, N. Y. *Physics.* New York, N. Y, Dec. 31, 05. B.S, Col. City of N. Y, 27; Ph.D, Columbia, 34. *Instr. physics, Col. City of N. Y, 27–* Solid state.

Balamuth, Dr. William, Northwestern University, Evanston, Ill. *Protozoology.* New York, N. Y, Jan. 16, 14. B.S, Col. City of N. Y, 35; Washington (Seattle), 38; fellow, California, 38–39, Ph.D, 39. Teaching asst. *zool,* California, 35–38; *instr,* Missouri, 39–40; *Northwestern, 40–* Assoc. Soc. Zool. Morphological and physiological bases of protozoan organization; regenerative responses and their control in Protozoa.

Balch, Francis N(oyes), Massachusetts Bldg, 60 State St, Boston, Mass. *Biology.* Boston, Mass, Nov. 23, 73. A.B, Harvard, 96, A.M, 97, LL.B, 00; Woods Hole, 96; U. S. Fish Cmn, 97; Cold Spring Harbor, 98, 99; Bermuda, 10. Mem, Mass. Constitutional Convention, 16–19; Mass. Legislature, 19–20; assoc. prof. legal aspects of business, grad. sch. business admin, Harvard, 30–35; Boston Finance Cmn. A.A; Soc. Nat; Soc. Zool; fel. Am. Acad; Nuttall Ornith. Club; Boston Soc. Nat. Hist; Boston Malacol. Club (v. pres. and past pres); London Malacol. Soc; Conchol. Soc. of Gt. Britain and Ireland. Coloration and distribution of Mollusca; bird migration and coloration; chromatophores of cephalopods; the Nudibranchiata; heredity, eugenics and crime; anthropology and pre-history.

Balch, Prof. Walter B(uswell), Kansas State College, Manhattan, Kans. *Horticulture.* Chicago, Ill, Oct. 1, 95. B.S, Cornell, 19; M.S, Kans. State Col, 25; Chicago, 26, 29–32. N. Y. Bot. Garden, 19–21; from instr. to *assoc. prof. hort. in charge olericulture and floricul, Kans. State Col, 21–* U.S.N, 17–19. Kans. State Florists Asn. (sec'y-treas, 26). Olericulture; floriculture; soil sterilization; enzymatic and respiratory activities of roots while dormant and after treatment to break rest period; evaporation studies with recording atmometers; vegetable variety trails.

Balderston, Dr. Mark, Lafayette College, Easton, Pa. *Physics.* Colora, Md, 89. A.B, Haverford Col, 12; Harvard, 12–13; Ph.D, Columbia, 25. Asst. physics, Lafayette Col, 13–15; prof, Guilford Col, 15–22, dean, 17–22; instr. *physics, Lafayette Col,* 24–26, asst. prof, 26–30, assoc. prof, 30–38, *prof, 38–* A.A; Physical Soc; Asn. Physics Teachers. X-rays; radio.

Baldes, Dr. Edward J(ames), Mayo Clinic, Rochester, Minn. *Biophysics.* Fairfield, Nebr, July 5, 98. B.A, Saskatchewan, 18; A.M, Harvard, 20, Ph.D, 24; Ph.D, London, 36. Asst. physics, Saskatchewan, 18–19; Radcliffe Col, 21–24; instr, Harvard, 23–24; asst. prof. *biophys, Mayo Foundation, Minnesota,* 24–34, *assoc. prof, 34–, mem. div. physics and biophys. research, 24–; Mayo Clinic, 24–* Physical Soc; Physiol. Soc; Inst. Physics. Blood flow; osmotic pressure; electrophysiology; aviation medicine.

Baldeschwieler, E(mile) L(ouis), 7 W. Holly St, Cranford, N. J. *Chemistry.* Switzerland, March 1, 90. Ch.B, Cooper Union, 13, B.S, 20. Chemist in charge lab, Bishop Gutta Percha Co, New York, 10–13; asst. chief chemist, Int. Nickel Co, New York, 13–22; *chemist in charge analysis and inspection work, research labs, Standard Oil Develop. Co, Linden, N. J, 22–* Chem. Soc; N. Y. Acad. Organic and analytical chemistry.

Baldinger, Dr. Lawrence H(enry), 814 E. Corby Blvd, South Bend, Ind. *Pharmacy.* Galion, Ohio, Jan. 12, 07. Ph.C, Western Reserve, 28, B.S, 29; M.S, Notre Dame, 31, Ph.D, 33. Instr. pharmacy, *Notre Dame,* 29–37, asst. prof, 37–39, *assoc. prof. chem, 39–* Auxiliary mem. sub-cmt. essential oils, U. S. Pharmacopoeia. A.A; Pharmaceut. Asn; Chem. Soc; Ind. Acad; Ind. Chem. Soc. Oil of peppermint and synthetic medicinals.

Baldock, Prof. Russell, Box 551, Blacksburg, Va. *Electrical engineering.* Lynchburg, Va, June 2, 09. A.B, Lynchburg Col, 29; M.S, Va. Polytech, 33; A.M, Cornell, 33, Ph.D, 43.

Asst. physics, Lynchburg Col, 27–28; teaching fellow, Va. Polytech, 29–30, instr, 30–37; teaching fellow, Cornell, 38–39, 40–41; *asst. prof. elec. eng, Va. Polytech, 41–* Physical Soc; Va. Acad. Positive ion production by electron bombardment of solid calcium and relative abundance measurements; 6100A absorption band of liquid water; x-ray spectrometer design; mass spectroscopy; band spectroscopy.

Balduf, Prof. W(alter) V(alentine), 610 Michigan Ave, Urbana, Ill. *Entomology.* La Carne, Ohio, Sept. 28, 89. A.B, Ohio Wesleyan, 15; M.S, Ohio State, 20, Ph.D, 22. Instr, high sch, Ohio, 15–18; zool. and entom, Ohio State, 18–20; asst. entomologist, Ohio Exp. Sta, 20–22; asst. prof. *entom, Illinois,* 22–39, *assoc. prof, 39–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ill. Acad; Ohio Acad; Entom. Soc. Wash. General entomology; bionomics of entomophagous insects; internal structures of Hemiptera; nutrition of predacious bugs.

Baldwin, Dr. Edward R, Saranac Lake, N. Y. *³*Medicine.* Bethel, Conn, Sept. 8, 64. M.D, Yale, 90, hon. A.M, 14; Sc.D, Dartmouth Col, 37. Asst, sch. med, Yale, 89–90; intern, Hartford Hosp, 90–92; asst, Saranac Lab, 94–15; director, Trudeau Foundation, 15–40; *retired.* Am. Med. Asn; Asn. Path. and Bact; Am. Physicians; Tuber. Asn; Clin. and Climat. Asn. Tuberculosis; immunity and infection; tuberculin.

Baldwin, Prof. E(rnest) J(oy), 540 S. Ninth Ave, Pocatello, Idaho. *Chemistry.* Hewins, Kans, Dec. 24, 90. B.S, Kansas, 15, M.S, 16; Ph.D, Stanford, 31. Instr. chem, South Dakota, 16–18; state food and drug chemist, S. Dak, 18; asst. prof. *chem, Idaho,* 19–27, *prof, South. Branch, 27–, director div. letters and science, 33–, acting exec. dean, 42–* Consulting physical chemist, U. S. Bur. Mines, 22. Chem. Soc. Conductance of electrolytes in non-aqueous solutions; optical determination of volatile oils in emulsions; photochemical determination of quantum efficiency of the oxygen-ozone reaction; inorganic and analytical chemistry.

Baldwin, Dr. Francis Marsh, University of Southern California, Los Angeles, Calif. *Zoology.* West Upton, Mass, Jan. 16, 85. A.B, Clark, 06, A.M, 07; Ph.D, Illinois, 17. Instr. nature and science, Ky. Nor. Sch, Louisville, 08–11; prof. biol, Western Maryland Col, 11–15; asst. zool, Illinois, 15–17; asst. prof, Iowa State Col, 17–19, assoc. prof, 19–20, *prof.* physiol, 20–27; *zool, Southern California, 27–, chairman dept, 29–,* biol. div, director, Marine Biol. Sta, 28–38. Bur. Fisheries, Woods Hole, 15. Summers, Illinois, 16; Marine Biol. Lab, Woods Hole, 19; Lakeside Lab, 24, 25. A.A; Physiol. Soc; fel. Iowa Acad. Earthworms; Amblystoma; carotid, aorta and subclavian arteries of the rabbit; permeability of sea-urchin eggs; consumption of oxygen in marine forms and snakes; body temperature in turtles; photochemical distribution on retina; metabolism; digital sphygmograph; simple spirometer; ultraviolet assay; interphysiology.

Baldwin, G(eorge) Clyde, 419 First National Bank Bldg, Great Falls, Mont. *Civil engineering.* Kinsman, Ohio, April 14, 84. B.S, Kansas, 06. Surveyor, Alaska Boundary Surv, 06–09; junior engineer, asst. engineer and hydraul. engineer, U. S. Geol. Surv, 10–30; *gen. agent for Mont. and north. Wyo, Northwest. Mutual Life Ins. Co. of Milwaukee, 30–* Aid, U. S. Coast and Geod. Surv, 03–04, 05. Trustee, pub. schs, Idaho Falls, 24–27. Civil Eng; Asn. Eng. Hydrometry; stream measurements; water distribution.

Baldwin, Dr. Gordon C(ordis), 636 California Ave, Boulder City, Nev. *Archeology.* Portland, Oregon, June 5, 08. A.B, Arizona, 33, A.M, 34; scholar, Lab. Anthrop, 34; Ph.D, Southern California, 41. Archeologist, C.W.A. excavations, Tuzigoot Pueblo, Clarkdale, Ariz, 33–34; asst. tree ring research, Carnegie Institution, and instr. tree rings, Arizona, 34–36, instr. archeol, univ, 36–37, asst. Ariz. State Museum, 37–40; *asst. park archeologist, Boulder Dam nat. recreational area, Nat. Park Service, 40–* Soc. Archeol; Anthrop. Asn; Tree Ring Soc; Ariz. Archeol. and Hist. Soc. (sec'y, 36–39). Southwestern archeology; the prehistoric Basket Maker; Pueblo and Patayan cultures; the Paiute, Mohave and Walapai cultures.

Baldwin, Dr. Henry I(ves), Hillsboro, N. H. *Forestry.* Saranac Lake, N. Y, Aug. 23, 96. A.B, Yale, 19, M.F, 22, Ph.D, 31; Cornell, 20; Am-Scandinavian Foundation fellow, Sweden, 23–24; Germany, 27–29. Instr, high sch, N. Y, 19; asst. to dean, sch. forestry, Yale, 22–23; research forester, Brown Co, N. H, 24–32; visiting prof. forestry, Pa. State Col, 32–33; *asst. forester, State Forestry and Recreation Dept, N. H, and res. forester, Caroline A. Fox Research and Demonstration Forest, Hillsboro, 33–; capt, Air Corps, U. S. Army.* Mem. ed. board, 'Ecol.' Mem. advisory board, Mt. Washington Observ. and biol. inst, New Hampshire. Mem. subcmt. on forestry. Nat. Research Council, 34–, mem. cmt. preservation nat. conditions. Int. Union Forest Research Organizations, 29– A.A. (councilor, 34–); Soc. Foresters (exec. councilor, New Eng. sect, 28–30); Ecol. Soc; Bot. Soc; Soc. Protection N. H. Forests; N. H. Acad. (pres, 38); Svenska Skogsvårdsförening. Silviculture; seed germination; meteorology; climatology.

Baldwin, Prof. I(ra) L(awrence), University of Wisconsin, Madison, Wis. *Bacteriology.* Oxford, Ind, Aug. 20, 95. B.S.A, Purdue, 19, M.S.A, 21; Ph.D, Wisconsin, 26. Instr. bacter, Purdue, 19–24, asst. prof, 24–25, assoc. physiol, Exp. Sta, 26; asst. prof. *agr. bacter, Wisconsin,* 27–29, assoc. prof, 29–32, *prof, 32–, head dept, 41–,* asst. dean col. agr, 32–42. A.A; Soc. Bact. (sec'y-treas, 36–); Soc. Agron; Wis. Acad; Ind. Acad. General and soil bacteriology.

Baldwin, Dr. Jane North, Vassar College, Poughkeepsie, N. Y. *Hygiene.* Keeseville, N. Y, Feb. 10, 76. M.D, Cornell, 00. Asst. physician, *Vassar Col,* 04–14, asst. physiol, 05–06, assoc. physician, 14–25, *physician and prof. hygiene, 25–* Asst, Neur. Inst, New York. Am. Med. Asn; Col. Physicians; Asn. Study Int. Secretions; Student Health Asn. (v. pres, 28–30, pres, N. Y. sect, 32-34); Women's Med. Soc. N. Y. Student health; endocrinology; pelvic histories of women after graduation.

Baldwin, Dr. J(ohn) T(homas), Jr, University of Michigan, Ann Arbor, Mich. *Cytogenetics.* Chase City, Va, Sept. 5, 10. A.B, Col. William and Mary, 32; fellow, Virginia, 32–37, Ph.D, 37. Gen. Educ. Board fellow, Cornell, 37–38; asst. prof. biol, Col. William and Mary, 37–39; *instr. bot, Michigan, 39–* Bot. Soc; Genetic Asn; Calif. Bot. Soc; Va. Acad; Mich. Acad. Geographic variation of plants.

Baldwin, J(ullan) T(ownsend), Armstrong Cork Co, Lancaster, Pa. *Chemistry.* Berkeley, Calif, July 11, 01. B.S, Princeton, 23; M.S, Mass. Inst. Tech, 24. Chemist, Sandura Co, Inc, 24–28, chief chemist, 28–36; Del. Floor Products, 36–37; mfg. manager, Paulsboro Mfg. Co, 37–41; *chemist, cent. tech. lab, Armstrong Cork Co, 41–* Chem. Soc; Soc. Rheol; Franklin Inst. Resins; plastics and protective coatings; pigment vehicle relationships; production and modification of vegetable oil gels.

Baldwin, Dr. Mark, 3614 N. Abingdon St, Arlington, Va. *Soils.* Ellis, Kans, June 8, 89. B.S, Earlham Col, 12, hon. Sc.D, 33. Soil surveyor, Ind, 11; *soil scientist, bur. chem. and soils, U. S. Dept. Agr, 12–, inspector, 1st dist, soil surv, 23–* Mem. Fed. Board Survs. and Maps. A.A; Soc. Agron; Am. Geog. Soc; Soil Sci. Soc; Int. Soc. Soil Sci. Soil science.

Baldwin, Dr. M(aynard) M(artin), Battelle Memorial Institute, Columbus, Ohio. *Organic chemistry.* Walla Walla, Wash, April 25, 04. B.S, Whitman Col, 26; Ph.D, Washington (Seattle), 35. Teacher, high schs, Wash. and Idaho, 26–30; teaching fellow, Washington (Seattle), 30–35; asst, mineral industs. exp. sta, Pa. State Col, 35–38; *research chemist, Battelle Mem. Inst, 38–* Chem. Soc. The condensation of aliphatic aldehydes with ketones; coal hydrogenation; synthetic organic chemistry; industrial chemistry; hydrogenation.

Baldwin, Dr. Ralph B(elknap), 9540 Avers Ave, Evanston, Ill. *Astrophysics.* Grand Rapids, Mich, June 6, 12. B.S, Michigan, 34, M.S, 35, fellow, 36–37, Ph.D, 37. Asst. *astron,* Michigan, 35–36; asst, Flower Observatory, Pennsylvania, 37–38; *instr, Dearborn Observatory, Northwestern, 38–; senior physicist, Office Sci. Research and Develop, applied physics lab, Hopkins, 42–* Lecturer, Adler Planetarium, Chicago, Ill, 41– A.A; Astron. Soc. Be stars; stellar atmospheres; spectral classification; novae; eclipsing binaries.

Baldwin, Dr. W(esley) M(anning), P. O. Box 441, York Beach, Maine. *Anatomy.* Troy, N. Y, Aug. 18, 79. A.B, Cornell, 07, A.M, 09, M.D, 11; Bonn and Würzburg, 11–13; Sorbonne, 26. Asst. anat, med. col, Cornell, 04–06, asst. demonstrator, 06–07, instr, 07–14, asst. prof, 14–15; prof, Albany Med. Col, Union (N. Y), 15–36; anatomist, Albany Hosp, 29–36. A.A; Asn. Anat; Anat. Gesell. Human anatomy and histology; experimental embryology; pancreas; muscle structure; syphilis; biological effects of x-rays and electromagnetic energy on cells and tissues.

Baldwin, Dr. W(illis) H(arford), 7240 S. Constance Ave, Chicago, Ill. *Organic chemistry.* Havre de Grace, Md, Nov. 13, 14. B.S, Maryland, 35, M.S, 37, U. S. Bur. Fisheries fellow, 35–38, Ph.D, 42. Research fellow, Nat. Cottonseed Products Asn, Memphis, Tenn, 38–39; *research chemist,* fish and wildlife service, U. S. Dept. Interior, 39–42; *E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Proteins; carbohydrates; cottonseed hulls; fish oils.

Bale, Dr. William F(reer), Strong Memorial Hospital, 360 Crittenden Blvd, Rochester, N. Y. *Biophysics.* Augusta, N. J, Jan. 2, 11. A.B, Cornell, 32; fellow, Rochester, 32–36, Ph.D, 36. Research asst, *Rochester,* 36–39, *assoc. radiol, 39–* X-ray diffraction of tooth and bone tissues; physiological effects of radiation; utilization of labeled isotopes as tracers in biological processes.

Bales, Prof. P(aul) D(obson), 7772 Second Ave, S, Birmingham, Ala. *Physics.* Greeneville, Tenn, Feb. 25, 02. B.S, Chattanooga, 25; A.M, Indiana, 28. Asst. *physics,* Chattanooga, 22–25, instr, 25–27; asst. instr, Indiana, 27–28; *prof, Howard Col, 29–; mem. staff, radiation lab, Mass. Inst. Tech, Nat. Defense Research Cmt, 41–* Coordinator student flight program, Civil Aeronaut. Admin, 40–41. A.A; Physical Soc; Asn. Physics Teachers; Ala. Acad. (pres, 42). Reflection characteristics of ultraviolet radiation; high frequency measurements.

Balfour, Prof. Donald C(hurch), 427 Sixth Ave, S. W, Rochester, Minn. *Surgery.* Toronto, Ont, Can, Aug. 22, 82. M.B, Toronto, 06, M.D, 14, LL.D, 41; LL.D, Carleton Col, 34; hon. D.Sc, McMaster, 41, Northwestern, 42. Asst. path, *Mayo Clinic,* 07–08, clin. asst, 08–09, jr. surgeon, 09–12, *head sect, div. surg, 12–; prof. surg, grad. sch, Minnesota, 23–,* assoc. director, *Mayo Foundation,* 35–37, *director, 37–, chief div. surg.* Hon. consultant, med. dept, U. S. Navy. Mem. ed. board, 'Surg, Gynec. and Obstet,' 31–; 'Surg.' Mem. cmt. surg, Nat. Research Council; Advisory Board Med. Specialties. Am. Board Surg. Elector, Hall of Fame, N. Y. Univ. Mem, Asn. Am. Med. Cols. A.A; fel. Col. Surg. (pres, 35, regent); Am. Med. Asn. (chairman surg. sect, 28); Surg. Asn. (v. pres, 22); Soc. Clin. Surg; hon. mem. Asn. Mil. Surg; Interurban Surg. Asn; Inter-State Postgrad. Med. Asn. N. Amer; South. Surg. Asn; West. Surg. Asn; Cent. Surg. Asn; Southeast Surg. Cong; Minn. Acad. Med; Minn. Acad; hon. mem. Pan-Am. Med. Asn; hon. mem. Asn. Surg. Gt. Britain and Ireland; hon. fel. Royal Col. Surg; hon. fel. Royal Col. Surg. Australia; hon. mem. Argentine Soc. Surg. Abdominal surgery.

Balfour, Dr. Marshall C(oulter), Rockefeller Foundation, New York, N. Y. *Public health.* Marlboro, Mass, Oct. 14, 96. B.S, Mass. Inst. Tech, 18; M.D, Harvard, 26. Asst. director div. popular health instruction, League Red Cross Societies, Geneva, 20–22; field director, int. health div, *Rockefeller Foundation,* 26–30, *regional director in Far East,* Shanghai, China, 39–40, Manila, P. I, 40–41, *Delhi, India,* 42– Tech. adviser, Ministry of Health, and director div. malaria, Sch. Hygiene, Athens, Greece, 30–39. A.A; Pub. Health Asn; Am. Med. Asn; Soc. Trop. Med; Acad. Trop. Med. Malaria.

Balinkin, Prof. Isay A(lexander), 2300 Auburn Ave, Cincinnati, Ohio. *Physics.* Odessa, Russia, Sept. 14, 00. B.S, (M.E), Robert Col, Constantinople, 25; Hanna fellow, Cincinnati, 26, M.S, 26, Ph.D, 29. Instr. *physics, Cincinnati,* 29–41, *asst. prof, 41–* Designer, Cent. Sci. Co, Chicago, 30–31. Summer, asst. sec'y science advisory cmt, Nat. Research Council, 29; research physicist, Cambridge Tile Mfg. Co, Cincinnati, 36. A.A; Asn. Physics Teachers; Optical Soc. Optical determination of axial stresses; radiation from crystalline substances under high potentials; mercury and mercury-amalgam vapor lamps; wave-machines; transverse vibrations of long rods; flexible crystal models; physics of clays; colorimetry; measurement and designation of small color differences.

Ballis, Dr. Earl W(illiam), General Electric Co, Schenectady, N. Y. *Chemistry.* Colo, July 9, 11. B.S, Colo. State Col, 32; J. T. Baker fellow, Ohio State, 40–41, Ph.D, 41. Asst. chemist, chem. sect, Exp. Sta, Colo. State Col, 32–37; asst. chem, Ohio State, 37–40; *chemist, research lab, Gen. Elec. Co, 41–* Chem. Soc; Metrop. Microchem. Soc. General and physical chemistry; polarography; microanalytical methods; corrosion; feeds; soil.

Balk, Prof. R(obert), Mt. Holyoke College, South Hadley, Mass. ***Geology.* Reval, Estonia, May 31, 99. Ph.D, Breslau, 24. Assoc, N. Y. Geol. Surv, 25–26; asst. prof. *geol,* Hunter Col, 25–35; assoc. prof, *Mt. Holyoke Col,* 35–37, *prof,* 37–, *head dept, 35–* Acting asst. prof, Stanford, 34. Geol. Soc; Geophys. Union; Geol. Verein; Norsk Geol. Förening. Structural geology.

Balke, Dr. Clarence W(illiam), 40 Deere Park Drive, S, Highland Park, Ill. ***Chemistry.* Auburn, Ohio, March 29, 80. A.B, Oberlin Col, 02; Ph.D, Pennsylvania, 05. Acting prof. physics and chem, Kenyon Col, 03–04; fellow, Pennsylvania, 05–06; instr. chem, 06–07; assoc, Illinois, 07–10, asst. prof. and prof. inorg. chem, 10–16; *research director, Fansteel Metal. Corp, North Chicago, Ill, 16–* Summer, instr, Oberlin Col, 03. Longstreth medal, Franklin Inst, 38. Chem. Soc; Electrochem. Soc; British Inst. Metals. Atomic weights; metallic cerium, tungsten and molybdenum; tantalum; columbium; tantalum carbide; hard carbides; powder metallurgy.

Balken, Dr. Eva Ruth, University of Chicago, Chicago, Ill. *Psychology.* Pittsburgh, Pa, Dec. 31, 05. A.B, Pittsburgh, 22, A.M, 23; Ph.D, Chicago, 30. Consultant psychologist, Levindale, Baltimore, 23–24; psychologist, mental hygiene clinic, Michael Reese Hosp, Chicago, 25–26; S. Side and Lower N. Side Child Guidance Centers, Chicago, 26–30; consultant psychologist, Lake Forest Day Sch, Ill, 28–31; research psychologist, *Sprague Mem. Inst, Chicago,* 32–39, instr. *psychol,* 39–42, *asst. prof, 42–,* instr, *div. psychiat, univ,* 39–42, *asst. prof, 42–* Asst, Pittsburgh; research psychologist, Pa. Reformatory, 25; asst, Lewis Inst. (Ill); lecturer, high sch, Chicago, Ill; clin. psychologist, Elgin State Hosp, Elgin, Ill. Assoc. Psychol. Asn. Reaction times and the consciousness of deception; affective, volitional and galvanic factors in learning; vitamins and intelligence; dynamics of emotions; vitamin deficiencies in psychoses; psycho-somatics; psychodynamic mechanisms in neuroses and psychoses; language and thought in schizophrenia.

Ball, Prof. Albert, Cooper Union, New York, N. Y. *Physics.* Perrysburg, N. Y, July 14, 73. A.B, Cornell, 01. Instr. *physics,* Pratt Inst, 01–05; *Cooper Union,* 05–07, asst. prof, 07–12, *prof. in charge, 12–* A.A; Physical Soc; Elec. Eng; Eng. Educ.

Ball, Dr. A(lpheus) M(esserly), Hercules Powder Co, Radford, Va. *Chemical engineering.* Lincoln, Nebr, Feb. 13, 05. B.S, Calif. Inst. Tech, 26; Ph.D, Yale, 29. Asst. chem. eng, Calif. Inst. Tech, 26–27; chem, Yale, 27–28; *with exp. sta, Hercules Powder Co, 29–* Chem. Soc; Chem. Eng. Cellulose and derivatives; explosives; naval stores; synthetic resins.

Ball, Dr. Carleton R(oy), U. S. Department of Agriculture, Washington, D. C. *Agronomy, Botany.* Little Rock, Iowa, June 12, 73. B.S, Iowa State Col, 96, M.S, 99, hon. Sc.D, 20. Asst. bot, Iowa State Col, 96–98, asst. botanist, Exp. Sta, 97–98; asst. agrostologist, U. S. Dept. Agr, 99–05, agronomist, bur. plant indust, 06–18, cerealist in charge office cereal investigations, 18–24, senior agronomist in charge, 24–26, prin. agronomist in charge, 26–30; research assoc, bur. pub. admin, California, 31–35; *chief agriculturist and exec. sec'y coordinating cmt, U. S. Dept. Agr, Tenn. Valley Authority and South. Asn. Land-Grant Cols, U. S. Dept. Agr, 35–* Acting director grad. sch, U. S. Dept. Agr, 25–26. Agron. adviser, Nat. Research Council, 28–30. A.A; Soc. Agron. (sec'y, 10–14, pres, 16, ed. board, 27–); Bot. Soc; Soc. Pub. Admin; Soc. Plant Taxon; Agr. Hist. Soc; Calif. Bot. Soc; Wash. Acad; Bot. Soc. Wash. Agronomy and botany of cereals and grain sorghum; taxonomy of willows and grasses; federal-state relationships in administration of agriculture and natural resources.

Ball, Prof. C(harles) D(odson), Jr, 647 Sunset Lane, East Lansing, Mich. *Biochemistry.* Philadelphia, Pa, Oct. 15, 89. B.S, Pa. State Col, 15; M.S, Minnesota, 24. Instr. *chem, Mich. State Col,* 15–17, 19–21, asst. prof, 21–30, *assoc. prof, 30–* C.W.S, U.S.A, 17–19. Chem. Soc; Soc. Plant Physiol. Wheat oil; biochemical relations of phenols; plant sterols; influence of sugars on protein coagulation.

Ball, Dr. C(harles) Olin, Owens-Illinois Can Co, Ohio Bank Bldg, Toledo, Ohio. *Chemistry, Physics.* Abilene, Kans, March 30, 93. A.B, George Washington, 20, M.S, 22, Ph.D, 26. Chemist, Nat. Canners Asn, Washington, D. C, 19–22; Am. Can Co, 22–30, asst. manager research dept, 30–35, asst. to director research, 35–42; *tech. director, Owens-Ill. Can Co, 42–* C.A.C, 17–19; capt. A.A; Chem. Soc; Inst. Chem; Pub. Health Asn; Inst. Food Tech; Dairy Tech. Soc; N. Y. Acad. Food technology; thermal sterilization of canned food; temperature distribution in retorts; technological phases of canning.

Ball, Dr. Clayton G(arrett), 307 N. Michigan Ave, Chicago, Ill. *Geology.* Wauconda, Ill, Dec. 16, 06. B.S, Northwestern, 28; A.M, Harvard, 32, Ph.D, 35. Geologist, Ziegler Coal Co, Chicago, 28–29; asst. geologist, Ill. Geol. Surv, 29–35; geologist, Bell and Zoller Coal Co, *Chicago,* 35–37; *associated, Paul Weir, Mining Engineer,* 37– Assoc. ed, 'Mechanization,' 37–; ed, 'Mechannual,' 39– Min. and Metal. Eng; Ill. Mining Inst. Coal petrography; mineral matter in coal; consulting practice mining and preparation of bituminous coal.

Ball, Prof. E(lmer) D(arwin), University of Arizona, Tucson, Ariz. *Entomology.* Athens, Vt, Sept. 21, 70. B.S, Iowa State Col, 95, M.S, 98; Ph.D, Ohio State, 07. Asst. zool. and entom, Iowa State Col, 95–97; Colo. Agr. Col, 97–01; prof, Utah State Col, 02–07, director, Exp. Sta, and dean agr, 07–16; state entomologist, Wis, 16–18; prof. zool. and entom, Iowa State Col, 18–21; director sci. work, U. S. Dept. Agr, 21–25; in charge celery insect investigations, State Plant Board, Fla, 25–28; dean col. agr. and director, *Exp. Sta, Arizona,* 28–31, *prof. zool. and econ. entomologist, 31–* Asst. sec'y agr, U. S. Dept. Agr, 20–21. A.A; Entom. Soc. Amer; Asn. Econ. Entom. (pres, 18); Ecol. Soc; Entom. Soc. Wash; Biol. Soc. Wash; Iowa Acad; Utah Acad. (pres, 10); Ohio Acad; Wash. Acad. Taxonomy and life histories of Hemiptera-Homoptera; North American Cercopidae, Membracidae, Fulgoridae, Cicadellidae; codling moth and beet leaf-hopper; insect carriers of plant diseases; biology of celery tyer and range grasshoppers.

Ball, Dr. Eric G(lendinning), 25 Shattuck St, Boston, Mass. *Physiological chemistry.* Coventry, Eng, July 12, 04. B.S, Haverford Col, 25, fellow, 25–26, A.M, 26; Ph.D, Pennsylvania, 30. Asst, sch. med, Pennsylvania, 26–28; nat. research fellow *med,* Hopkins, 29–30, instr, 30–33, assoc, 33–40; asst. prof, *Harvard Med. Sch,* 40–41, *assoc. prof, 41–* Int. Physiol. Cong. fellow, Rome, 32; Guggenheim Mem. Foundation fellow, 37–38. Eli Lilly award, 40. Soc. Biol. Chem; Chem. Soc. Composition of pancreatic juice; oxidation-reduction potentials of biological systems; biological oxidations; xanthine oxidase.

Ball, Dr. Ernest, Harvard Forest, Petersham, Mass. *Botany.* Mangum, Okla, Dec. 22, 09. B.S, Oklahoma, 37, M.S, 38; Ph.D, California, 41. Asst. bot, California, 38–41; nat. research fellow, Yale, 41–42; *research asst,* Carnegie Institution, 42–43; *Harvard Forest, Harvard, 43–* A.A; Bot. Soc; Torrey Bot. Club. Physiology of plant meristems.

Ball, Prof. Gordon H(arold), University of California at Los Angeles, Los Angeles, Calif. *Zoology.* Warren, Pa, Sept 20, 99. B.S, Pittsburgh, 20, M.S, 21; fellow, California, 23–24, Ph.D, 24. Asst. biol, Pittsburgh, 20–21; teaching fellow *zool,* California, 21–23, instr, *California at Los Angeles,* 24–27, asst. prof, 27–36, *assoc. prof, 36–* A.A; Soc. Zool; Soc. Exp. Biol. (sec'y south. Calif, 36, chairman, 37); Soc. Trop. Med; Soc. Parasitol; West. Soc. Nat. (pres, 41). Protozoology; variation in fresh-water mussels; conjugation and division-rate in paramecium; parasitology; marine protozoa; hydrogen-ion concentration of living tissue.

Ball, Dr. H(oward) A(lonzo), 233 A St, San Diego, Calif. *Pathology, Physiology.* Rutland, Vt, Sept. 3, 04. A.B, Emmanuel Missionary Col, 23; M.D, Col. Med. Evangelists, 28. Asst. pathologist, Los Angeles County Gen. Hosp, 28–30; research pathologist, W. K. Kellogg Foundation, 30–31; *pathologist, San Diego County Gen. Hosp, 31–* Instr. and later fellow, Col. Med. Evangelists, 29– Prize, Calif. Med. Asn, 33. Asn. Path. and Bact; Asn. Cancer Research; Soc. Exp. Path; Soc. Exp. Biol; Soc. Clin. Path; Asn. Study Int. Secretions. Relationship of pituitary to tumor growth; carbohydrate metabolism following hypophysectomy; hypophysis and detoxification; coccidioidal granuloma; torulosis; leptospiral jaundice.

Ball, Dr. John D(udley), Mt. Mary College, Milwaukee, Wis. *Engineering.* Seneca, Ill, Dec. 8, 82. B.S, Illinois, 07, E.E, 15; Ph.D, Marquette, 28. Testing dept, Gen. Elec. Co, Schenectady, 07–08, standardizing lab, 08–13, consulting eng. dept, 13–17; prof. elec. eng, Sch. Eng. Milwaukee, 17–18, dean, 18–20; organization supt. and manager planning dept, Ed. Schuster and Co, 20–25; v. pres. and educ. director, Sch. Eng. Milwaukee, 26–34; *prof. physics and business admin, Mt. Mary Col, 33–* Edward Longstreth medal, Franklin Inst, 16. A.A; Interprofessional Inst. (director; pres, Milwaukee sect); fel. Elec. Eng. (chairman, Milwaukee sect, 28); Eng. Soc. Milwaukee (pres, 42). Magnetism; electrical machinery; permeability with alternating current; reluctivity of silicon steel; eddy current losses and resistivity; magnetic laws; unsymmetrical hysteresis loop; magnetism and the commercial application of magnets; demagnetization methods on the energy required to magnetize steel; education.

Ball, Prof. John R(ice), Northwestern University, Evanston, Ill. *Geology, Paleontology.* Fremont, Ohio, June 26, 81. A.B, Northwestern, 13, A.M, 19; B.D, Garrett Biblical Inst, 13; Ph.D, Chicago, 27. Instr. geol. and geog, *Northwestern,* 18–21, 23–25, asst. prof, 25–28, *assoc. prof. geol. and paleont, 28–* A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; fel. Geol. Soc; Am. Geog. Soc; Ill. Acad; Chicago Acad. (hon. curator and sci. governor). Shoreline topography, west shore of Lake Michigan; Silurian stratigraphy and faunas of southeastern Missouri; areal geology of Illinois; Silurian fauna of the Chicago region; Silurian correlation.

Ball, Dr. Josephine, Cornell University, Ithaca, N. Y. *Psychology.* Chicago, Ill, 98. A.B, Columbia, 22; Ph.D, California, 29. Asst. psychol, Minnesota, 23–26; anat, California, 26–27, psychol, 27–29; asst. psychobiol, Phipps Psychiat. Clinic, Hopkins, 29–42; *research assoc, col. home econ, Cornell, 42–* Summer, asst, anthropoid exped, Cuba, 24. A.A; Psychol. Asn. Learning in the rat; physiological mechanism of sex behavior; afferent impulses from the sex organs; sex hormones in relation to sex and general activity; psychosomatic relationships in the menstrual cycle of women.

Ball, Max W(alte), Credit Foncier Bldg, Edmonton, Alta, Can. *Geology.* Munson, Ill, Sept. 9, 85. E.M, Colo. Sch. Mines, 06; LL.M, Nat. Univ, 14. Field asst, U. S. Geol. Surv, 06–07, geol. aid, 07–08, junior geologist, 08–09, asst. geologist, 09–14, geologist, 15–16; mining engineer and law officer, U. S. Bur. Mines, 16–17; chief geologist, Rocky Mt. region, Royal Dutch Shell Co, 17–18, gen. manager, 18–21; pres, West. Pipe Line Co, 21–26; Argo Oil Co, 22–28; *consulting petrol. engineer, 28–* Chairman oil board, U. S. Geol. Surv, 10–16; pres, Milmac Oil Co, 29, chairman, 30–33; pres, Abasand Oils, Ltd, 30–43, consultant, 43–; Royal Royalties, Ltd, 31– Geol. Soc; Asn. Petrol. Geol. (v. pres, 21, pres, 22); Min. and Metal Eng; Petrol. Inst; Can. Inst. Min. and Metal. Eng; Can. Inst. Int. Affairs; Alta. Soc. Petrol. Geol. Economic geology; conservation; petroleum industry; Wyoming coal fields; oil and gas fields; Canadian oil sands; economics; international relations.

Ball, Dr. Meridian R(uth Greene) (Mrs. Gordon H. Ball), University of California at Los Angeles, Los Angeles, Calif. *Bacteriology, Immunology.* San Francisco, Calif, Nov. 11, 03. A.B, California, 26; Sc.D, Hopkins, 32. Bacteriologist, Gen. Hosp, San Bernardino, Calif, 26–29; research assoc, Jewish Hosp, Brooklyn, N. Y, 32–35; *instr. bacter, California at Los Angeles, 35–* A.A; fel. Pub. Health Asn; Soc. Bact. (sec'y, south. Calif. sect, 37); Calif. Asn. Med. Technicians. Vitamin deficiencies; experimental tuberculosis; antibody production and resistance; metabolism and distribution of leptospira.

Ball, Dr. Ralph H(enry), 17 Dunham Ave, Cranford, N. J. *Organic chemistry.* Kelowna, B. C, Can, May 24, 05. B.A, British Columbia, 26, M.A, 28; Nat. Research Council Can. bursar, McGill, 28–29, student, 29–30, Ph.D, 31. Demonstrator inorg. and agr. chem, British Columbia, 26–28; anal. chem, McGill, 30–31; research chemist, *Celluloid Corp, Newark,* 31–41, *asst. tech. director, 41–; chief thermoplastics unit, chem. div, War Production Board, 42–; asst. tech. director plastics div, Celanese Corp. Amer, 43–* Cellulose chemistry; replacement of halogen atoms substituted in the aromatic nucleus; halogen at the cathode by electrolysis; cellulose ethers; the applications of cellulose acetate to the field of plastics; raw material supplies for plastic manufacture.

Ball, Dr. Robert W(illam), 7107 Gloster Road, Wood Acres, Friendship Post Office, D. C. *Inorganic chemistry.* Sandwick, B. C, Can, April 27, 04. B.A, British Columbia, 25, M.A, 27; Illinium fellow, Illinois, 29–30, Ph.D, 31. Asst. chem, British Columbia, 25–27; Illinois, 27–29; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 30–32; Krebs Pigment and Color Corp, 32–35; *E. I. du Pont de Nemours and Co,* 35–40, *patent counsel, legal dept, patent div, 40–* Fel. Inst. Chem; Chem. Soc. Rare earths; white pigments; paper; chemical patents.

Ball, Prof. S(tanley) C(rittenden), Yale University, New Haven, Conn. *Zoology.* Shelburne Falls, Mass, Nov. 19, 85. Ph.B, Yale, 11, Ph.D, 15. Draftsman, marine biol. lab, Carnegie Institution, Tortugas, Fla, 13–14; asst. curator zool, Peabody Museum, Yale, 15–16; instr, Mass. Col, 16–18; prof. biol, Springfield Col, 18–21; curator, Bishop Museum, Honolulu,

21–26; asst. curator *zool, Peabody Museum, Yale*, 26–27, *curator*, 27–, asst. prof. *biol, univ*, 27–33, *assoc. prof*, 33– Head sci. party, Bishop Museum, Honolulu, Kaimiloa exped, 24–25. A.A; Ecol. Soc; Soc. Zool; Ornith. Union. Anatomy; entomology; migration of insects; ornithology; animal coloration; herpetology.

Ball, Dr. Sydney H(obart), 26 Beaver St, New York, N. Y. *Geology.* Chicago, Ill, Dec. 11, 77. A.B, Wisconsin, 01, Ph.D, 10. Asst. geologist, Mo. Bur. Mines and Geol, 01–02; asst. geol, Wisconsin, 03–04; geol. aid, U. S. Geol. Surv, 04–05, asst. geologist, 05–07; chief geologist, Soc. int. forestière et minière du Congo, 07–09; *consulting mining geologist, 09–; mining consultant, War Production Board, 42–* Consulting mineralogist, U. S. Bur. Mines. Director, Cmn. Relief Belgium Educ. Fund. Officier Royal Order of the Lion, Belgium, 19. Geol. Soc; Soc. Econ. Geol. (pres, 30); Min. and Metal. Eng. (past director); hon. mem. Gemol. Inst. Amer. (advisory board); Min. and Metal. Soc. (v. pres, 24, pres, 33); Soc. belge de Géol; hon. mem. Chem, Metal. and Min. Soc. S. Africa. Geology of Miller County, Missouri, and Nevada; areal geology; geology of the Belgian Congo; precious stones.

Ball, Prof. T(heodore) R(olly), 7533 Westmoreland Ave, Clayton, Mo. *Chemistry.* Marshalltown, Iowa, July 29, 83. B.S, Drake, 08; Harvard, 08–09; M.S, Illinois, 14, fellow, 15–16, Ph.D, 16. Instr. *chem*, Drake, 10–13; Illinois, 16–17; asst. prof, *Washington (St. Louis)*, 17–21, *assoc. prof, 21–* A.A; Chem. Soc. (sec'y, St. Louis sect, 19, chairman, 26). Inorganic chemistry; physical chemistry; ionization in mixed electrolytes; the preparation of titanous chloride from titanic oxides; the color in the sulfocyanate test for iron; optimum acidity for precipitation of zinc phosphate; acidity of the ammonium phosphates; induced reactions; magneto-optic method of chemical analysis.

Ball, Lieut. Commander Thomas F(auntleroy), U. S Naval Academy, Annapolis, Md. *Electrical engineering.* Richmond, Va, April 18, 94. B.S, South Carolina, 15; M.S, Virginia, 19. Adj. prof. physics, Virginia, 21–25; prof. *elec. eng.* and head dept, South Carolina, 25–41; *prof, U. S. Naval Acad, 41–* Consulting engineer. Lieut. commander, U. S Naval Res. Elec. Eng. (chairman, publicity cmt, 31, faculty counselor, Univ. S. C. Branch); Eng. Educ; S. C. Soc. Eng. (pres, 31); S. C. Acad. High voltage transmission; public utilities; mathematical physics; direct and alternating currents.

Ball, Dr. W(illiam) L(ee), 355 Alfred St, Kingston, Ont, Can. *Biochemistry.* North Hatley, Que, July 18, 08. B.Sc, McGill, 31, Ph.D, 35. With Pigment and Chem. Co, Montreal, 34–35; Abbott Labs, Montreal, 35; Ayerst, McKenna and Harrison, 35–41; *tech. supervisor, nylon div, Can. Industries, Ltd, 41–* Endocrinology; organic chemistry; certain derivatives of diphenyl; Grignard reagents; the action of ammonia on α-benzoyl-butyric ester.

Ballachey, Prof. E(gerton) L(eopold), Michigan State College, East Lansing, Mich. *Psychology.* Ireton, Iowa, Aug. 7, 08. A.B, Morningside Col, 29; A.M, Minnesota, 31; Ph.D, California, 34. Instr, exten. div, California, 34; *psychol, Mich. State Col*, 35–40, *asst. prof, 40–* Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues. Animal learning.

Ballantine, Dr. J(ohn) P(erry), 1802 Ravenna Blvd, Seattle, Wash. *Mathematics.* Rahuri, India, Feb. 23, 96. A.B, Harvard, 18; fellow, Chicago, 22–23, Ph.D, 23. Instr. *math*, Maine, 19–20; Pa. State Col, 20–21; Michigan, 21–22; Columbia, 23–26; asst. prof, *Washington (Seattle)*, 26–30, assoc. prof, 30–38, *prof, 38–* Math. Soc; Math. Asn. Interpolation.

Ballantine, Stuart, Ballantine Laboratories, Boonton, N. J. *Acoustics, Electrophysics.* Philadelphia, Pa, Sept. 22, 97. Harvard, 20–21, Tyndall scholar, 23–24. Research engineer, Radio Frequency Labs, Boonton, 22–23; private investigations, 24–27; supt. research div, Radio Frequency Labs, *Boonton*, 27–29; *pres*, Boonton Research Corp, 29–35; *Ballantine Labs, 35–* Liebmann mem. award, 31; Elliott Cresson medal, Franklin Inst, 34. Expert radio aid, U.S.N, 17–20. Fel. Acoustical Soc; fel. Physical Soc; fel. Radio Eng. (pres, 35); Elec. Eng; Radio Club; Franklin Inst. Radio; electroanesthetical instruments; throat microphones; vacuum tubes; ultra-high-frequency phenomena; antennas.

Ballantyne, Dr. E(lliott) N(ichol), 141 Kent St, Hamilton, Ont, Can. *Pathology.* Alexander, Man, Sept. 6, 90. B.A, Western Ontario, 10, M.D, 17, M.Sc, 27. Instr. path. and bacter, sch. med, Western Ontario, 20–22, 23–27, anat, 27–29; *pathologist, St. Joseph's Hosp, Hamilton, 29–* Asn. Study Neoplastic Diseases; Can. Med. Asn; Ont. Asn. Path; Int. Asn. Med. Mus. Histology; bacteriology; pathology.

Ballard, Prof. Charles W(illiam), 115 W. 68th St, New York, N. Y. *Pharmacognosy.* New York, N. Y, July 6, 87. Ph.C, Columbia, 07, Phar.D, 08, A.M, 11, Ph.D, 26. Instr. pharmacog, *Columbia*, 07–18, assoc. prof. *mat. med*, 18–32, *prof, 32–, dean col. pharmacy, 37–* Pharmacognosist, S. B. Penick Co, 14–17; micro-analyst, bur. foods and drugs, Health Dept, New York, 17–37. Assoc. mem. revision cmt, U. S. Pharmacopoeia, 20–; Nat. Formulary Revision Cmt. A.A; Pharmaceut. Asn; Torrey Bot. Club; N. Y. Micros. Soc. Food and drug botany; microscopy of food and drug products.

Ballard, Dr. Donald A(rthur), 926 Wawona St, San Francisco, Calif. *Organic chemistry.* Seattle, Wash, Aug. 26, 08. B.S, Washington (Seattle), 30, M.S, 31, Ph.D, 35. Teaching fellow chem, Washington (Seattle), 30–34; *analyst, food and drug admin, Fed. Security Agency, 35–* Reactions of aliphatic aldehydes and ketones.

Ballard, Dr. James W(illiam), 567 Crystal Drive, Mt. Lebanon, Pittsburgh, Pa. *Physics.* Cincinnati, Ohio, Sept. 28, 00. A.B, Illinois, 29; M.S, Pittsburgh, 32, Ph.D, 35. Asst, Pittsburgh, 29–30; instr, Carnegie Inst. Tech, 30–34; Westinghouse research lab, Westinghouse Elec. and Mfg. Co, 34–35; in charge x-ray and spectros. lab, U. S. Bur. Mines, 35–42; *chief physicist, Fisher Sci. Co, 42–* Instr, night sch, Carnegie Inst. Tech, 30– Summers, Gen. Elec. Co, Ind, 26–27; Westinghouse Elec. and Mfg. Co, Pittsburgh, 29; E. A. Myers and Sons, 35. Physical Soc; Optical Soc; Soc. X-Ray and Electron Diffraction. Photoelectricity; x-ray and spectrographic analysis; electronics, instrument design and development.

Ballard, Dr. Ruth G(ilden Mason) (Mrs. Foster King Ballard), 636 Wellington Ave, Chicago, Ill. *Mathematics.* Chicago, Ill, April 24, 06. A.B, Wellesley Col, 26; M.S, Chicago, 28. univ. fellow and Horton-Hallowell fellow, Wellesley Col, 30–31, Ph.D, 32. *Instr. math*, Wellesley Col, 35; Hood Col, 35–36; Illinois, 36–38; *Wright Junior Col, 38–* Math. Soc; Math. Asn. Theory of numbers.

Ballard, Lieut. Commander Stanley S(umner), Bureau of Ordnance, Navy Department, Washington, D. C. *Physics.* Los Angeles, Calif, Oct. 1, 08. A.B, Pomona Col, 28; A.M, California, 32, Ph.D, 34. Asst. physics, Dartmouth Col, 28–30; teaching asst, California, 30–34, fellow, 34–35; instr, Hawaii, 35–37, asst. prof, 37–42; lieut, *U. S. Naval Res*, 41–43, *lieut. commander, 43–* Collaborator, Hawaii Agr. Exp. Sta, 39–42; research assoc, Hawaii Nat. Park, 36–; consultant, Exp. Sta, Hawaiian Sugar Planters Asn, 37–40. A.A; fel. Physical Soc; Optical Soc; Asn. Physics Teachers; N. Y. Acad; Hawaiian Acad. Spectroscopy; hyperfine structure; spectrochemical analysis; applications of physics to agriculture and volcanology; naval ordnance optical instruments.

Ballard, W(alter) R(aymond), College Park, Md. *Horticulture.* Towanda, Ill, May 8, 78. B.S, Kans. State Col, 05. Asst. horticulturist, Exp. Sta, Maryland, 06–11, pomologist, 12–18; garden specialist, States Relations Service, 18–19; asst. prof. pomol, *Maryland*, and in charge small fruits investigations, Exp. Sta, 19–20, specialist veg. and landscape gardening, exten. service, 20–29, *exten. horticulturist, 30–* Hort. Soc; Amaryllis Soc; Md. Veg. Growers Asn. (sec'y-treas). Plant breeding; small fruits; home vegetable gardens; landscape gardening.

Ballard, Prof. William C(yrus), Jr, Cornell University, Ithaca, N. Y. *Electrical engineering.* Baltimore, Md, Sept. 1, 88. M.E, Cornell, 10. From instr. to *prof. elec. eng, Cornell, 10–* Consulting elec. engineer. Assoc. Elec. Eng; Radio Eng. Radio communication; radio and sound pictures.

Ballard, W(illiam) S(alisbury), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Platteville, Wis, May 29, 81. A.B, Illinois, 04. Asst. bot, Illinois, 04–06; from sci. asst. to *senior pathologist, fruit disease investigations, div. fruit and vegetable crops and diseases, bur. plant indust, U. S. Dept. Agr, 06–* A.A; Phytopath. Soc; Soc. Hort. Sci; Chem. Soc. Horticultural crops and diseases; parasitic and physiological diseases of fruits.

Ballard, Prof. W(illiam) W(hitney), Dartmouth College, Hanover, N. H. *Zoology.* Griswoldville, Mass, April 4, 06. B.S, Dartmouth Col, 28; Ph.D, Yale, 33. Asst. biol, Yale, 28–30; instr. zool, *Dartmouth Col*, 30–35, embryol, *med. sch*,

34–35, asst. prof. *zool. and anat*, 35–42, *prof*, 42– Instr, Marine Biol. Lab, Woods Hole, 38– A.A; Soc. Zool; N. H. Acad. Experimental embryology; anatomy; Amphibia.

Ballentine, Dr. Robert, 133 Buckingham Road, Upper Montclair, N. J. *Zoology*. Orange, N. J, March 6, 14. A.B, Princeton, 37, Ph.D, 40. Procter fellow, Princeton, 40–41; nat. research fellow *zool*, Rockefeller Inst, 41–42; *lecturer, Columbia, 42–* Mem. corp, Marine Biol. Lab, Woods Hole, 41– Chem. Soc; N. Y. Acad. Cell oxidations in embryological development; molecular structure of the cell surface and its relation to cell permeability.

Baller, Prof. Warren R(obert), 3045 N. 52nd St, Lincoln, Nebr. *Educational psychology*. Trenton, Nebr, June 19, 00. A.B, York Col, 23; A.M, Nebraska, 27, Ph.D, 35. Prin, high schs, Nebr, 23–27; prof. *psychol*, York Col. 27–33; instr, *Nebraska*, 35–36, asst. prof, 36–38, *assoc. prof, 38–* Am. Council Educ. fellow, Chicago, 40–41. Assoc. Psychol. Asn; fel. Asn. Applied Psychol. Measurements; social adjustment of the mentally deficient.

Balloch, Dr. Edward A(rthur), Wyoming Apartments, Washington, D. C. *Medicine*. Somersworth, N. H, Jan. 2, 57. A.B, Princeton, 77, A.M, 94; M.D, Howard, 79, Sc.D, 28. Demonstrator anat, *sch. med, Howard*, 79–82, lecturer minor surg, 90–99, asst. prof. surg, 99–04, prof, 04–19, dean, 10–28, *emer. dean, 28–* Fel. Col. Surg; fel. S. Surg. and Gynec. Asn; D. C. Med. Soc. (pres, 08). Surgery.

Ballon, Dr. David H(erbert), 1471 Crescent St, Montreal, Que, Can. *Otolaryngology*. Saad, Lithuania, 88. B.A, McGill, 08, M.D, 09. Asst. demonstrator *otolaryngol, McGill*, 14–20, demonstrator, 20–31, lecturer, 31–37, *asst. prof, 37–* Chief otolaryngologist, Royal Victoria Hosp; consulting otolaryngologist, Alexandra Hosp. Asn. Thoracic Surg; Acad. Ophthal. and Otolaryngol; fel. Col. Surg; fel. Royal Col. Surg. Can. Bronchoscopy; esophagoscopy; pneumography; bronchiectasis; mastoiditis; malignant disease of the nasal accessory sinuses.

Ballon, Dr. Harry C(larence), 3980 Cote des Neiges St, Montreal, Que, Can. *Surgery*. Montreal, Que, Dec. 6, 01. M.D, McGill, 23; Pathological Inst, Frankfort, 26–27; path. and anat. insts, Budapest, 27–28; Rockefeller fellow, Washington (St. Louis), 28–29. Instr. surg, Washington (St. Louis), 28–31, asst. prof, 32; *practising physician, 33–; assoc. surgeon, Jewish Gen. Hosp.* A.A; fel. Col. Surg; Asn. Thoracic Surg; Tuber. Asn; Cent. Soc. Clin. Research; Montreal Medico-Chirurg. Soc; Can. Physiol. Soc. Anatomy; physiology of mediastinum and diaphragm; clinico-pathological aspects of lung suppuration; physiology of cough; anatomy of coeliac plexus; effects of retention of pancreatic secretion; bronchography; chemotherapy and acid fast bacilli.

Ballou, Prof. Charles H(erbert), Estación Experimental de Agricultura y Zootecnica, Caracas, Venezuela. *Entomology*. Jacksonville, Fla, March 29, 90. B.S, Cornell, 14. Dept. Agr, Cuba, 17–21, entomologist, 21–23; agent, Japanese beetle lab, bur. entom, U. S. Dept. Agr, 27–29; prof. and chief dept. entom, Escuela de Agr, Medellín, Colombia, 30; Escuela and Centro Nacional de Agr, Costa Rica, 31–38; *entomologist, Estación Exp. de Agr, Caracas, 38–*, acting director, 39; *prof. entom, Escuela Superior de Agr, 39–* Mem. Venezuela cmt, Inst. Int. Educ, 42– A.A; Asn. Econ. Entom; Entom. Soc; Entom. Soc. Amer; N. Y. Entom. Soc; N. Y. Acad; Soc. Venezolana de Ciencias Nat. (sec'y, 40; director sect. zool, 41–); hon. mem. Soc. Geog. e Hist. de Honduras; cor. mem. Soc. Geog. de Cuba. Host plants of insects; insect pest surveys of Costa Rica and Venezuela.

Ballou, Prof. Donald H(enry), Middlebury College, Middlebury, Vt. *Mathematics*. Chester, Vt, March 28, 08. A.B, Yale, 28; A.M, Harvard, 31, Ph.D, 34. Instr, Harvard, 33–34; *math*, Ga. Tech, 34–35, *asst. prof*, 35–42; *Middlebury Col, 42–* Math. Soc; Math. Asn. Laplace-Stieltjes integrals and completely monotonic functions.

Ballou, Dr. Gerald A(bbott), 291 Leland Ave, Palo Alto, Calif. *Biochemistry*. Oakland, Calif, Aug. 11, 07. A.B, California at Los Angeles, 36; Taussig traveling fellow from California to Heidelberg, 36–37; Abraham Rosenberg fellow, Stanford, 37–39, Ph.D, 41. Teaching asst. biochem, Stanford, 39–40, junior research assoc, 40–41; *asst. chemist, west. regional research lab, U. S. Dept. Agr, 41–* A.A; Chem. Soc. Enzyme and protein chemistry.

Ballou, Dr. Willard A(lger), Junior College of Connecticut, Bridgeport, Conn. *Mathematics*. Providence, R. I, July 12, 81. B.S, R. I. State Col, 04; A.B, Columbia, 13, A.M, 15; Ph.D, Pennsylvania, 32. Prof. math. and anal. mech, Pratt Inst, 07–18; dean, Pa. State Nor. Sch, West Chester, 22–27; *prof. math. and physics, Junior Col. of Conn, 28–* Research ballist.c an, Ordnance Dept, 17–19, consultant gen. staff, U.S.A, 19–22. A.A; Math. Soc; Mech. Eng. Fundamental formulae for small gun fire; fire tables for Browning machine gun; education.

Balls, Prof. Arnold Kent, George Washington University, Washington, D. C. *Biochemistry*. Toronto, Ont, Can, April 2, 91. B.S, Pennsylvania, 12; Ph.D, Columbia, 17, Prague, 29. Asst. chemist, U. S. Dept. Agr, 12–14; research and consulting chemist, yeast indust, 19–26; assoc. chem. pharmacol, Pennsylvania, 23–28; Prague, 28–30; privat-docent biochem, Deuts. Technische Hochschule, Prague, 30–31; head chemist, enzyme research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 31–41; *adj. prof. enzymology, George Washington, 35–* Enzyme chemistry.

Bally, Prof. L(ouis) H(enry), 519 Summit Ave, Tahlequah, Okla. *Bacteriology*. Andover, Kans, Nov. 10, 97. A.B, Fairmount Col, 20; fellow, Kansas, 21, A.M, 21, Ph.D, 29. *Prof. biol, Northeast. State Col, 22–* Asn. Biol. Teachers. Immunology; effect of peptone on circulation and the site of action; physiology of the eye.

Balmer, F(rank) E(verett), State College of Washington, Pullman, Wash. *Agriculture*. Woodston, Kans, Oct. 29, 83. B.S. (Agr), Kans. State Col, 05, 09; Minnesota, 24–26. Instr, consol. rural schs, Minn, 09–11; prin, Lacrosse County Agr. Sch, Wis, 11–13; supervisor county agents in west cent. Minn, Univ. Minn, 13–14, asst. state leader and state leader county agents, 14–30; *director agr. exten, State Col. Wash, 30–* Mem, State Agr. Conservation Cmt, Wash; State Soil Conservation Cmt; State Farm Tenancy Cmt; chairman, State Land Use Cmt; State Bur. Farm Develop. Agr. Hist. Soc; Farm Econ. Asn. Agricultural extensions.

Balmer, H(arold) F(rederick), Museum of Science and Industry, Chicago, Ill. *Astrophysics*. Toronto, Ont, Can, May 11, 99. B.A, Toronto, 22, M.A, 24. Demonstrator astron, Toronto, 23–24; asst, Lick Observatory, California, 24–26; instr, Michigan, 26–27; astron. and math, Carleton Col, 27–29; astron. and physics, Kansas, 29–30; asst. physical science, Buffalo Museum Science, 30–32; physics, A Century of Progress Expos, Chicago, 33–34; sci. adviser, Griffith Observatory, Los Angeles, 34–35; *with Museum Science and Indust, 37–* A.A; Astron. Soc; Royal Astron. Soc. Can. (recorder, 23, 34).

Balsbaugh, Prof. Jayson C(lair), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering*. Hershey, Pa, Jan. 8, 02. B.S, Pa. State Col, 21; M.S, Mass. Inst. Tech, 24. Engineer, Gen. Elec. Co, 21–22; instr. *elec. eng*, Mass. Inst. Tech, 22–27; asst. prof, California, 27–28; *Mass. Inst. Tech*, 28–36, *assoc. prof, 36–* Engineer, Jackson and Moreland, Boston, 25–30; indust. research, Eng. Foundation; consulting engineer, Pacific Mills; Godfrey L. Cabot, Inc. A.A; Elec. Eng; Eng. Educ. Electric power generation, distribution, cables and rates; dielectrics; electrical measurements.

Balsley, James R(obinson), Jr, U. S. Geological Survey, Washington, D. C. *Geology, Geophysics*. Pittsburgh, Pa, Dec. 27, 16. B.S, Calif. Inst. Tech, 38; A.M, Harvard, 41. Austin teaching fellow, Harvard, 39–41; *junior geologist, U. S. Geol. Surv, 41–* Min. and Metal. Eng. Ore geology; high pressure research in geophysics.

Baltazar, Prof. Eulalio P(erez), College of Agriculture, University of the Philippines, Laguna, P. I. *Agronomy, Plant physiology*. San Fernando, La Union, P. I, Feb. 12, 97. B.S, Philippines, 22, M.S, 24; Philippine fellow, Texas, 31–33, Ph.D, 33. Nurseryman and asst. instr, col. agr, Philippines, 22–25, orchardman, 25–25; teacher, sch, P. I, 25–26, head dept. science, 26–28; instr. *agron, col. agr, Philippines*, 28–31, 33–34, *asst. prof, 34–, in charge* farm crops div, 28–29, fiber and oil div, 29–31, *div. tobacco, cotton and gen. textiles, 33–* Nat. Research Council P. I. Texas Acad; Philippine Soc. Adv. Research; Los Baños Biol. Club. Textile industry and dye materials of the Philippines; respiration and form of root system of cotton; introduction, acclimatization, variety, fertilization, green manuring, intercropping and spacing tests of cotton and tobacco; manufacture of cigarette, chewing and pipe tobaccos; seed storage.

Balthis, Dr. Joseph H(endrickson), Jr, Westwood Manor, Wilmington, Del. *Chemistry.* Washington, D. C, Jan. 25, 07. B.S, Randolph-Macon Col, 29; M.S, West Virginia, 31; fellow, Illinois, 33–34, Ph.D, 34. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. Chemistry of organo-complex compounds of chromium; industrial applications of high polymeric materials.

Baltzer, Dr. Otto J(ohn), 3 Crawford St, Cambridge, Mass. *Physics.* St. Louis, Mo, Dec. 24, 16. A.B, Washington (St. Louis), 38, M.S, 39, Ph.D, 41. *Research assoc. elec. eng, radiation lab, Mass. Inst. Tech, 41–* Non-Laue x-ray reflections.

Baltzly, Dr. Richard, Burroughs Wellcome and Co, Tuckahoe, N. Y. *Organic chemistry.* Hudson, Mass, Aug. 6, 06. A.B, Harvard, 26, A.M, 28, Ph.D, 31. Research assoc. pharmacol, sch. med, Vanderbilt, 31–34; asst. biochem, col. physicians and surg, Columbia, 34–36; Pease Labs, 36–37; *research chemist, Burroughs Wellcome and Co, 37–* Stereochemistry; synthetic medicinals; amines.

Balz, Dr. Emil H(arold), The Plaskon Co, Toledo, Ohio. *Chemistry.* Columbus, Ohio, May 28, 92. B.S, 14; M.S, Pittsburgh, 16, Ph.D, 19. Instr. org. chem, Pittsburgh, 16–19; prof, Westminster Col, 21–22; indust. fellow, Mellon Inst, 22–27; director research and plant supt, Fries and Fries Co, 27–30; tech. director, Multicolortype Co, 30–31; director research, Duplate Corp, Creighton, Pa, 31–33; research fellow, Mellon Inst, 33–37; *production supt, Plaskon Co, 37–* Chem. Soc. Synthetic organic chemistry; essential oils; aromatics; printing inks; varnishes; printing processes; plastics; safety glass.

Bambach, Dr. Karl, 3813 14th St, N, Arlington, Va. *Chemistry.* Bethel, Ohio, Jan. 17, 08. B.A, Ohio State, 30, M.S, 32; Ph.D, Cincinnati, 42. Chemist in charge production control, Wm. S. Merrell Co, 33–37; research chemist, Kettering lab, Cincinnati, 37–42; *capt, Sanit. Corps, U. S. Army, 42–* Chem. Soc. Analytical and biological chemistry; pharmaceutical and biological analysis; pharmacopoeial revision; lead metabolism; polarography; photometry.

Bambas, Dr. L(ouis) L(udwig), 1058 Roslyn Road, Grosse Pointe Woods, Mich. *Chemotherapy.* Ill, Dec. 6, 07. B.S, Wisconsin, 32, M.S, 33; Ph.D, Pittsburgh, 37. Asst. bacter. and chem, inst. path, West. Pa. Hosp, 33–37; *research chemist, Parke, Davis and Co, 37–* Chem. Soc. Antibacterials such as sulfanilamide type compounds.

Bamberg, Dr. Rayburn H(olmes), U. S. Department of Agriculture, Bozeman, Mont. *Plant pathology.* Winona, Miss, June 22, 05. B.S, Miss. Agr. and Mech. Col, 27; M.S, Minnesota, 29, Ph.D, 33. Instr. plant path, Minnesota, 28–29; agent, *field sta, bur. plant indust, U. S. Dept. Agr,* 29–37, *assoc. pathologist, 37–* Phytopath. Soc; Soc. Agron. Wheat breeding.

Bamford, Prof. R(onald), 7 Holly St, College Heights, Hyattsville, Md. *Botany.* Rochdale, Lancashire, Eng, Nov. 1, 01. B.S, Conn. Agr. Col, 24; M.S, Vermont, 26; fellow, Columbia, 29–30, Ph.D, 31. Asst. bot, Vermont, 24–26, instr. and asst. botanist, Exp. Sta, 26–29; asst. *bot,* Columbia, 30–31; asst. prof, *Maryland,* 31–32, assoc. prof, 32–39, *prof, 39–* Bot. Soc. Cytology; chromosomes; behavior of cells in toxic solutions.

Bamforth, Prof. F(rederic) R(ichard), Ohio State University, Columbus, Ohio. *Mathematics.* Kingston, Ont, Can, May 19, 99. B.A, Queen's (Can), 21, M.A, 22; fellow, Chicago, 26–27, Ph.D, 27. Albert Col, 22–25; instr. *math,* Chicago, 27–28; nat. research fellow, Harvard, 28–29; *asst. prof,* Cornell, 29–30; *Ohio State, 30–* Differential equations; surface transformations.

Banck, Prof. L(eo) J(ohn), St. Mary's University, San Antonio, Texas. *Biology.* Dubuque, Iowa, March 17, 96. B.S, Dayton, 19; Ph.D, Fribourg, 27. *Prof. biol, St. Mary's Univ. San Antonio, 27–* Sci. Soc. San Antonio (v. pres, 33–36, pres, 36–). Myrmicophily.

Bancroft, Dr. Dennison, Cabin John, Md. *Physics.* Newton, Mass, Oct. 3, 11. A.B, Amherst Col, 33; Ph.D, Harvard, 39. Research assoc. geophys, Harvard, 36–41; *physicist, David W. Taylor Model Basin, U. S. Navy Dept, 41–* Physical Soc. Velocity of sound in nitrogen at high pressures; elastic constants of solids at high pressures and high temperatures.

Bancroft, Dr. Edith S(usan) W(hitaker), Hamilton, N. Y. *Botany.* North Conway, N. H, Nov. 19, 93. A.B, Radcliffe Col, 16, A.M, 17, Ph.D, 22; Alice Freeman Palmer fellow, Wellesley Col, 20–21. Instr. biol, Maine, 18–20. Summer, asst, Harvard, 19. A.A. Plant anatomy and morphology.

Bancroft, Dr. George, West Waldheim Road, Aspinwall, Pa. *Chemistry.* Ithaca, N. Y, Jan. 29, 05. A.B, Harvard, 27; Ph.D, Cornell, 31. Research chemist, cancer research labs, grad. sch. med, Pennsylvania, 30–37; *director research, Zemmer Co, Pittsburgh, 37–* Chem. Soc. Glycogen-lactic acid equilibrium; peroxidase; radiation.

Bancroft, Prof. Geo(rge) R(ussell), Jefferson Medical College, Philadelphia, Pa. *Chemistry.* Weymouth, N. S, Can, July 7, 78. B.A, Acadia, 06, D.Sc, 34; A.B, Yale, 14, Silliman fellow, 15–17, Ph.D, 17. Prin, pub. schs, N. S, Can, 98–99, 00–03, 06–07; science master, Halifax Acad, 07–13; asst. instr. chem, Yale, 14–17; prof. chem. and physics, Transylvania Col, 17–18; asst. prof. org. chem, Kentucky, 18–20; assoc. prof, West Virginia, 20–23; *prof. physiol. chem,* sch. med, West Virginia, 23–31; *Jefferson Med. Col, 31–* A.A; Chem. Soc. (sec'y, Lexington, Ky, sect, 18); fel. Inst. Chem. (chairman Pa. chap, 38); Franklin Inst; Pa. Chem. Soc; W. Va. Sci. Soc. (sec'y, 22, v. pres, 23, pres, 24); W. Va. Acad. (pres, 24); Ky. Acad; N. S. Inst. Organic chemistry; esters derived from substituted aliphatic alcohols; laboratory experiments and review questions in physiological chemistry.

Bancroft, Dr. J(oseph) Austen, Anglo American Corp. of South Africa, Ltd, Box 4587, Johannesburg, S. Africa. *Geology.* North Sydney, N. S, Can, April 8, 82. B.A, Acadia, 03; Yale, 04, A.M, 06; Ph.D, McGill, 10. Demonstrator geol, McGill, 05–08, lecturer, 08–10, asst. prof, 10–11, assoc. prof, 11–13, Dawson prof, 13–28; *consulting geologist,* Anglo Am. Corp. of S. Africa, Ltd, 27–31; British S. Africa Co, 31–36; *Anglo Am. Corp. of S. Africa, Ltd, 36–* Asst. gen. manager, Granby Consol. Mining and Smelting Co, B. C, Can, 21–22. Geol. Soc; Can. Min. Inst; fel. Royal Soc. Can. Petrography and economic geology; geology of coast and islands between the Strait of Georgia and Queen Charlotte Sound, British Columbia; geology of northern Quebec; gold, copper, zinc, lead and bauxite deposits.

Bancroft, Prof. M(erle) F(owler), Acadia University, Wolfville, N. S, Can. *Geology.* North Sydney, N. S, Nov. 2, 90. B.A, Acadia, 11; A.B, Yale, 13, fellow, 13–15. Engineer, Price Bros. and Co, 11–12; asst. geologist, Geol. Surv. Can, 16–23; *prof. geol, Acadia, 23–, head dept, 24–* Summers, field asst, Geol. Surv. Can, 10–16, B. C, 26; scouting geologist, McIntyre Porcupine Mines, Ltd, Ont, 28; Gregory River Area, Norseman Corp, 29. A.A; Can. Inst. Min. and Metal. Geology of the Kootenay Lake, Slocan, Lardeau and Windermere districts; artesian water supply; gold-bearing deposits on the west coast of Vancouver Island; economic geology of Hudson Bay Mountain; Pleistocene walrus skulls.

Bancroft, Prof. Wilder D(wight), 7 East Ave, Ithaca, N. Y. *[1]Physical chemistry.* Middletown, R. I, Oct. 1, 67. A.B, Harvard, 88; Ph.D, Leipzig, 92; hon. Sc.D, Lafayette Col, 19, Cambridge, 23; hon. LL.D, Southern California, 30. Asst. chem, Harvard, 88–89, 93–94, instr, 94–95; asst. prof. *physical chem, Cornell,* 95–03, prof, 03–37, *emer. prof, 37–* Visiting Tallman prof, Bowdoin Col, 37. Ed, 'Jour. Physical Chem,' 96–32. Chairman div. chem, Nat. Research Council, 19; board visitors, Bur. Standards, 22–25; mem. advisory cmt, cancer research fund, Pennsylvania, 28. Nat. Acad; Chem. Soc. (pres, 10); Physical Soc; hon. mem. Electrochem. Soc. (pres, 05, 19); Philos. Soc; Am. Acad; hon. mem. London Chem. Soc; hon. mem. Soc. chim. de France; hon. mem. Polish Chem. Soc. Phase rule; electrochemistry; irreversible reactions; chemistry of light; colloid chemistry; biochemistry.

Banfield, Dr. W(alter) M(iller), U. S. Department of Agriculture, Morristown, N. J. *Plant pathology.* Paterson, N. J, Aug. 27, 02. B.S, Rutgers, 25; Ph.D, Wisconsin, 30. Agent, bur. plant indust, U. S. Dept. Agr, 26–30; nat. research fellow biol, Chicago, 30–33; *forest path. lab, U. S. Dept. Agr, 33–* Phytopath. Soc; Torrey Bot. Club. Crown-gall and forest-tree diseases; cellular pathology.

Bang, Prof. Haakon, State College of Washington, Pullman, Wash. *Pharmaceutical chemistry.* Devils Lake, N. Dak. Ph.C. and B.S, State Col. Wash, 27, M.S, 31; Michigan, 33; Ph.D, Purdue, 42. Asst. manager, Owl Drug Co, Spokane, Wash, 31–32; instr. *pharm, State Col. Wash,* 32–

37, asst. prof, 38–42, *assoc. prof, 42–* Iodination of azonaphthalene sulfonic acid derivatives.

Bangham, Prof. R(alph) V(andervort), College of Wooster, Wooster, Ohio. *Zoology, Parasitology.* Wilmington, Ohio, Feb. 26, 95. A.B, Wilmington Col, 15; B.S, Haverford Col, 16, fellow, 16–17, A.M, 17; fellow, Ohio State, 22–23, Ph.D, 23. Asst, Haverford Col, 16–17, instr. biol, 17–18; prof, Agr. and Mech. Col. Texas, 18–19; asst. prof. anat, Baylor, 19–20, *biol,* 20–22; *Col. of Wooster,* 23–24, *prof. and head dept, 24–* Summers, Ohio Fish and Game Div, 26–30, 37; prof, Stone lab, Ohio State, 39, 40, 42. A.A; Soc. Zool; Soc. Parasitol; Ecol. Soc; Fisheries Soc; Micros. Soc; Limnol. Soc; fel. Ohio Acad. (v. pres, zool. sect, 25). Ecology and life history of parasites of black bass; parasites of fresh-water fish; stream surveys.

Bangham, W(alter) N(icholas), Goodyear Rubber Plantations Co, Apt. 2050, San Jose, Costa Rica. *Genetics.* Wilmington, Ohio, May 4, 03. B.S, Ohio State, 26; M.S, Harvard, 29; Sheldon traveling fellow, Cent. Amer, 29. Firestone Rubber Plantations Co, Monrovia, Liberia, 26–28; botanist, *Goodyear Rubber Plantations Co,* 29–32, *in charge plant research, 33–* A.A; Genetics Soc; fel. Am. Geog. Soc. Cytology and breeding of Hevea; improvement and distribution of tropical plants.

Bangson, Prof. John S(tuver), Berea College, Berea, Ky. *Genetics.* Oriole, Pa, June 28, 89. B.S, Susquehanna, 15, A.M, 17; Ph.D, Pa. State Col, 40. *Prof. biol,* Talladega Col, 21–22; Benedict Col, 22–25; *Berea Col, 25–* A.A; Genetics Soc; Genetic Asn; Ky. Acad. (pres, 33). Genetics of Phlox; human heredity.

Banks, Dr. C(larence) Kenneth, Parke, Davis and Co, Detroit, Mich. *Organic chemistry.* Kansas City, Mo, June 1, 14. A.B, Kansas City, 36; M.S, Nebraska, 38, Ph.D, 40. Research chemist, Parke, Davis and Co, 40; research chemist and asst. to director, Nat. Defense Research Council project, Nebraska, 40–41; *research chemist, Parke, Davis and Co, 41–* Chem. Soc. Organometallic compounds; arsenicals; selenicals; sulfonamides.

Banks, Prof. Floyd R(egan), Jr, Morgan State College, Baltimore, Md. *Physics.* Philadelphia, Pa, March 14, 13. A.B, Temple, 34; A.M, Pennsylvania, 35, Frazier fellow, 38–39, Ph.D, 39. Instr. physics and chem, *Morgan State Col,* 39–40, *asst. prof. physical sciences, 40–; staff mem, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Radioactive isotopes as indicators in metallic diffusion; use of radioactive isotopes in adsorption studies in quantitative chemistry.

Banks, Prof. Harlan P(arker), Acadia University, Wolfville, N. S, Can. *Paleobotany.* Cambridge, Mass, Sept. 1, 13. A.B, Dartmouth Col, 34; Ph.D, Cornell, 40. Instr. bot, Dartmouth Col, 34–36; asst, Cornell, 37–38, instr, 38–40; *biol, Acadia,* 40–42, *asst. prof, 42–* Devonian plants of southeastern New York; fossil plants from the Carboniferous era.

Banks, Dr. Jeff, University of Arkansas, Little Rock, Ark. *Anatomy.* Johnson, Ark, July 2, 04. B.S, Arkansas, 31, M.D, 34. Asst. prof, Arkansas, 34–39; lecturer *gross anat,* McGill, 39–40; *assoc. prof, Arkansas, 40–* Human anatomy.

Banks, John Edwin, American Bridge Co, Ambridge, Pa. *Engineering.* Knoxville, Iowa, Oct. 15, 67. A.B, Iowa State Col, 89; C.E, Cornell, 92. Prin, Anglo-Chinese Sch, Singapore; engineer, Bur. Standards, 04–12; *asst. engineer, Am. Bridge Co,* 00–04, *12–* Manganese explorations, Gold Coast, Africa, 26–27. Assoc. Civil Eng; Royal Asiatic Soc. Standards for detailing; hip and valley designs.

Banks, Prof. Nathan, Holliston, Mass. *²*Entomology.* Roslyn, N. Y, April 13, 68. B.S, Cornell, 89, M.S, 90. Agent, div. entom, U. S. Dept. Agr, 90–92, asst. entomologist, 96–16; *curator insects, museum comp. zool, Harvard, 16–,* assoc. prof. *zool, univ,* 28–35, *emer. assoc. prof, 35–* A.A; Entom. Soc. Amer. (pres, 18); Am. Acad; Cambridge Entom. Club; Entom. Soc. Wash; Phila. Entom. Soc; assoc. Acad. Nat. Sci. Phila. Systematic American arachnology; neuropterology; geographical distribution and habits of insects; catalogues of Neuroptera of the world and of American Arachnida and Heteroptera and fossorial Hymenoptera; mimicry and protective resemblance in insects.

Bannan, Dr. M(arvin) W(illiam), University of Toronto, Toronto, Ont, Can. *Botany.* Parry Sound, Ont, March 23, 08. B.A, Toronto, 29, Ph.D, 33. Asst. *bot, Toronto,* 29–39, senior demonstrator and research asst, 39–41, *lecturer, 41–* Bot. Soc. Plant morphology.

Bannerman, Prof. H(arold) M(acColl), Dartmouth College, Hanover, N. H. *Geology, Mineralogy.* Barney's River, N. S, Can, April 9, 97. B.Sc, Acadia, 24; fellow, Princeton, 26, Ph.D, 27. Asst. *geol,* Princeton, 24–25; instr, *Dartmouth Col,* 27–28, asst. prof, 28–34, *prof, 34–* Asst. geologist, Geol. Surv. Can, 27–30. Consulting geologist, State Planning and Develop. Cmn, N. H, 40– Soc. Econ. Geol; Geol. Soc; Miner. Soc; Geophys. Union. Precambrian geology; mineral deposits.

Banning, Dr. Mary, University of Rochester, Rochester, N. Y. *Physics.* Duluth, Minn, Oct. 1, 15. A.B, Vassar Col, 37; Ph.D, Hopkins, 41. *Research assoc. physics, Rochester, 41–* Physical Soc; Optical Soc. Optical constants of metals in far ultraviolet; evaporation of thin films.

Banta, Dr. A(rthur) M(angun), Brown University, Providence, R. I. or Cold Spring Harbor, L. I, N. Y. *²*Zoology.* Greenwood, Ind, Dec. 31, 77. A.B, Indiana, 03, A.M, 04; Ph.D, Harvard, 07. Instr, pub. schs, 95–97; prin, high sch, 99–01; asst. zool, Indiana, 03–05; Harvard, 05–07; prof. biol, Marietta Col, 07–09; res. investigator, sta. for exp. evolution, Carnegie Institution, 09–30, research assoc, 30–33, 36–37; acting prof. *biol, Brown,* 29–30, *research prof, 30–* Am. Soc. Zool. alternate rep, div. biol. and agr, Nat. Research Council, 32, mem. board on fellowships in biol. sciences, 34–37. Mem. cmt. of one hundred, Int. Cong. Genetics, Ithaca, 32. A.A; Soc. Nat. (sec'y, 35–37); Soc. Zool; Soc. Exp. Biol; Ecol. Soc; Genetics Soc; Limnol. Soc; Eugenics Research Asn; Eugenics Soc. Speleology; animal behavior; inhibition of development of melanin pigment in animals; effects of selection; comparative physiology and effects of changed environment on cavernicolous and non-cavernicolous animal species; sex control; genetics, physiology of development and factors in longevity and evolution of Cladocera.

Banta, Prof. A(rthur) Perry, 159 Sierra View Road, Pasadena, Calif. *Sanitary science.* Brooklyn, N. Y, June 29, 04. A.B, Stanford, 26; fellow, Calif. Inst. Tech, 26–27, M.S, 28. Consulting physicist, Celite Co, 26–27; designing engineer, Quinton, Code and Hill, 27; research engineer, *Los Angeles County Sanitation Dists,* 28–39, *sanit. engineer, 39–; asst. prof. eng, Calif. Inst. Tech, 39–; major, Corps of Engineers, U. S. Army.* James Laurie prize, Am. Soc. Civil Eng, 41. Assoc. Civil Eng; Pasadena Eng. Soc. (director). Chemistry and bacteriology and design of sewage and water treatment; hydrogen ion concentration and bicarbonate equilibrium of bacterially digesting solids.

Banta, Dr. Clifford, Swarthmore, Pa. *Chemistry.* Marshall, Ind, Nov. 24, 92. A.B, Wabash Col, 15; A.M, Colorado, 16; Grasselli fellow, Mass. Inst. Tech, 20, Savage fellow, 21, Ph.D, 22. Research chemist, E. I. du Pont de Nemours and Co, 17, 19; Standard Oil Co. of Ind, 22–24; Barrett Co, Frankford, Pa, 24–30; Vacuum Oil Co, 31–33; *petrol. technologist, E. I. du Pont de Nemours and Co, 33–* Research chemist, C.W.S. 18. Chem. Soc; Petrol. Inst; Petrol. Technol; Soc. Automotive Eng. Motor fuels; lubricants.

Banus, Prof. M(arlo) Garcia, Tufts College Medical School, Boston, Mass. *Physiology.* Valencia, Spain, July 6, 93. B.A, Madrid, 09, M.S, 14, D.Sc, 15. Spanish nat. research fellow, 16–18; fellow, Rockefeller Inst, 18; Yale, 18–19, instr. *physiol,* sch. med, 19–20; demonstrator, sch. med, Western Reserve, 24–25, instr, 25–29; asst. prof, *med. sch, Tufts Col,* 29–31, *assoc. prof, 31–* Physiol. Soc. Microscopical anatomy; regeneration; chemistry of nucleoproteids; semipermeability of membranes; acid-base equilibrium and buffering of blood; high body temperature and blood composition.

Barach, Dr. Alvan L(eroy), 929 Park Ave, New York, N. Y. *Internal medicine.* Newcastle, Pa, Feb. 22, 95. Col. City of N. Y, 12–15; M.D, Columbia, 19. Intern, Presb. Hosp, 19–20; *asst. med,* Harvard Med. Sch. and Mass. Gen. Hosp, 20–21; *Presb. Hosp, New York, 22–, asst. attending, 35–; col. physicians and surg, Columbia,* 22–25, instr, 25–28, assoc, 28–36, asst. prof. clin. med, 36–42, *assoc. prof, 42–* Fel. Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Am. Physicians; N. Y. Acad. Med. Pneumonia; heart disease; tuberculosis; asthma; development of oxygen tents and oxygen chambers; physiology of anoxemia in clinical disease and aviation medicine; effects of oxygen treatment in

atelectasis of the lung; congestive heart failure; coronary thrombosis; emphysema and fibrosis of the lung; helium as a therapeutic gas in asthma and obstructive lesions in the respiratory tract.

Barach, Dr. Joseph H(ayem), University of Pittsburgh School of Medicine, Pittsburgh, Pa. *Medicine.* Kalvaria, Lithuania, March 12, 82. M.D, Pittsburgh, 03. Res. physician, West. Pa. Hosp, 03–04, res. pathologist, 05; pathologist, Eye and Ear Hosp, 04–09; South Side Hosp, 10; *consulting physician, dept. health, Carnegie Inst. Tech, 10–; asst. prof. med, sch. med, Pittsburgh, and med. director, Falk clinic, 30–, prof. clin. med, sch. dentistry, 34–* Visiting physician, Presb. Hosp, 10– Cong. Sch. Hygiene, Buffalo, 11; Int. Cong. Hygiene and Demography, Washington, 10. Capt, M.C, 18–19. A.A; Am. Med. Asn; fel. Col. Physicians; Diabetes Asn. (v. pres, 42). Morphology of the blood; physical diagnosis; the cardio-vascular system; nephritis and diabetes.

Barall, Dr. Louis C, American Society of Biophysics and Cosmobiology, 8 W. 66th St, New York, N. Y. *Biophysics.* LL.B, Paris, 14, Ph.B, 15, M.S, 17, M.D, 22, D.D.S, 23; D.E.E, Geneva, 35. Director dept. biophys, N. Y. Inst. Research, 36–39; dermatologist, Skin and Cancer Hosp, New York, 36–41; director research and production, Barosel Corp, 41; vitamin and food research and testing, U. S. Testing Co, 41–43; *biophysicist and pres, Am. Soc. Biophys. and Cosmobiol, 42–* Dermatologist, N. Y. Post-Grad. Med. Sch, Columbia, 36–41, lecturer, univ, 38–39; N. Y. Univ, 36; Fordham, 38–39. Belgian Combattant Cross medal, 17; Verdun medal, 18; silver star, French War Cross, 18; French Combattant Cross medal, 18; Interallied medal, 18; gold medal, Int. Red Cross, 35; gold medal, Commander Nat. Humanitarian Merit, 35; Chevalier Interallied Veterans medal, 35; Silver Medal Social Foresight, 35; gold medal, Commander Int. Human Merit, 39. Pres, Pan-Am. Symposium of Biophys, 38. Pres, Int. Cong. Biophys, Biocosmics and Biocracy, New York, 39; mem, Am. Cong. Physical Therapy, 36; hon. mem. Am. Cong. Stomatol; mem. Nat. Cong. Physiotherapy, 38. Soc. Biophys. and Cosmobiol. (pres); Asn. Adv. Educ. (sec'y); Asn. Medico-Physical Research; Inst. Food Technol; N. Y. Elec. Soc; Int. Soc. Biophys. (pres); Int. Acad. Hygiene; Int. Acad. Odontol. Electronosmosis; mercury vapor lamp electrodes; automatic negatoscope; action of negaeroionization on respiratory and sexual organs; action of sun's spots and atmospheric electricity on the brain cells; impacted light; action of electrical currents on drugs, vitamins and hormones; colloids; physical chemistry; electrophysics.

Barb, Prof. Clark F(red), Colorado School of Mines, Golden, Colo. *Petroleum engineering.* Alton, Kans, July 5, 97. P.E, Colo. Sch. Mines, 25, M.S, 28. Instr. petrol. eng, Colo. Sch. Mines, 25–28, asst. prof, 28–29; petrol. research, Pa. State Col, 29–31; *assoc. prof. petrol. eng. and head dept. petrol, Colo. Sch. Mines, 36–* Filtering clays and mineral oils; production data on oil fields; porosity-permeability relations in Pennsylvania oil sands; oil field waters of Pennsylvania.

Barbeau, Dr. C(harles) Marius, National Museum, Ottawa, Ont, Can. *Anthropology.* Beauce, Que, March 5, 83. B.A, Laval, 03, LL.D, 07; B.Sc, Oxford, 10; Sorbonne, 10. Asst. anthropologist, *Geol. Surv. Can,* 11, assoc. anthropologist, 19–22, *anthropologist and folk-lorist, 22–* Assoc. ed, 'Jour. Am. Folk-Lore,' 16– Folk-Lore Soc; Wash. Acad; Royal Soc. Can; Can. Hist. Asn; cor. mem. Soc. des Américanistes de Paris. Wyandot, Huron, Iroquoian and Tsimshian ethnography; French and English folk-lore of Canada.

Barbella, Nicholas G(eorge), U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Taylorstown, Pa, Aug. 21, 97. A.B, George Washington, 28, M.S, 30. Junior pharmacologist, food, drug and insecticide admin, *U. S. Dept. Agr,* 27–31, *assoc. biochemist, animal husbandry div, bur. animal indust, 31–; senior biochemist, div. health and sanit, Inst. Inter-Am. Affairs, 42–* Assoc. chem, George Washington, 28–29. Agr. Chem; Pharmaceut. Asn; Chem. Soc. Drugs; ergot; digitalis; pituitary pharmacology of tin, lead arsenate and sulfur dioxide; food colors; anterior pituitary; thyroid; isolation and identification of flavoring constituents of meat; muscle proteins; growth; meat dehydration.

Barber, Prof. B(ertram) A(lpha), 350 West St, N, Hillsdale, Mich. *Biology.* Grayling, Mich, July 16, 85. A.B, Hillsdale Col, 12; State Col. fellow, Michigan, 12–13, A.M, 13; hon. Sc.D, Ottawa (Kans), 27, Colgate, 28. *Prof. biol,* Defiance Col, 13–15; *Hillsdale Col, 15–, director, Slayton Arboretum, 25–* Ornith. Union; Wilson Ornith. Club; Mich. Audubon Soc. (councilor); Mich. Acad. (v. pres, zool. sect, 22). Ornithology; botany.

Barber, Clifford L(amatte), Kester Solder Co, 4201 Wrightwood Ave, Chicago, Ill. *Chemistry.* West Jersey, Ill, March 29, 94. B S, Chicago, 23, M.S, 25. Analyst, Swift and Co, 19–23; *research chemist, Kester Solder Co, 25–* Soft solders; soldering fluxes.

Barber, Prof. Clifford W(arren), New York State Veterinary College, Ithaca, N. Y. *Pathology.* Sharpsburg, Iowa, May 29, 01. D.V.M, Colo. Agr. Col, 31; Ph.D, Cornell, 35. Instr. vet. path, Cornell, 31–35; asst. prof, Exp. Sta, Colo. State Col, 35–37; *research asst. prof. poultry diseases, N. Y. State Vet. Col, Cornell, 37–* Vet. Med. Asn. Hyaline degeneration of skeletal muscle; fowl paralysis and leucosis; museum technique.

Barber, D(eLoss) H(arold), P. O. Box 56, Montgomery, Ala. *Engineering.* Vermilion, S. Dak, July 27, 94. B.E, Iowa, 17. Asst. engineer, Cent. States Eng. Co, Iowa, 19–20; drainage engineer, 20–25; from junior engineer to *dist. engineer, water resources branch, U. S. Geol. Surv, 25–; lieut. col, Field Artil, U. S. Army, 41–* Teacher, high sch, Iowa, 20–24. Capt, C.Eng, 17–19. Civil Eng; Soc. Mil. Eng. Data of stream flow; East Gulf drainage of Alabama, Mississippi and Louisiana.

Barber, E(rnest) R, 1200 S. Broad St, New Orleans, La. *Entomology.* Liverpool, Eng, Oct. 12, 84. Ont. Agr. Col, 03. Bur. entom, U. S. Dept. Agr, 11–22; *pres. and gen. manager, Barber Labs, Inc, 23–* A.A; Asn. Econ. Entom. Control of insect pests.

Barber, Dr. Geo(rge) W(are), 56 Hillhouse Ave, New Haven, Conn. *Entomology.* Hyde Park, Mass, Aug. 3, 90. B.S, Mass. Col, 13; M.S, Harvard, 25, Sc.D, 27. Sci. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 14–24, asst. entomologist, 24–27, assoc. entomologist, 27–41, *entomologist, 41–* Lieut, U.S.A, 17–19. A.A; Asn. Econ. Entom; Entom. Soc. Amer; Ornith. Union; Entom. Soc. Wash; N. Y. Entom. Soc. European corn borer; corn ear worm; corn insects; ecology of Lepidoptera; ecology of birds.

Barber, H(arry) G(ardner), 143 E. Third Ave, Roselle, N. J. *Entomology.* Hiram, Ohio, April 20, 71. A.B, Nebraska, 93, A.M, 95; A.M, Harvard, 98. Teacher high sch, 98–30; asst. and later assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–42. Investigator, Am. Museum Nat. Hist, 14–16. Fel. Entom. Soc. Amer; N. Y. Entom. Soc. (sec'y, 02–10, pres, 16–18); Entom. Soc. Wash. Hemiptera; Heteroptera.

Barber, H(erbert) S(pencer), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Yankton, S. Dak, April 12, 82. Pub. schs. Asst. preparator, U. S. Nat. Museum, 98–02; U. S. Dept. Agr, 02–04; U. S. Nat. Museum, 04–08; asst. and later *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 08–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Wash. Acad; Entom. Soc. Wash. Coleoptera.

Barber, Dr. H(ervey) H(ubbard), University of Minnesota, Minneapolis, Minn. *Inorganic chemistry.* East Jewett, N. Y, March 2, 85. A.B, Cincinnati, 18; Ph.D, Minnesota, 26. Instr. *inorg. chem, Minnesota,* 18–27, asst. prof, 27–41, *assoc. prof, 41–* Chem. Soc. (sec'y, Minn. sect, 37–39). Specific reagent for rapid gravimetric determination of sodium; separation of sodium from rubidium, cesium, potassium and lithium; gravimetric determination of lithium and sodium by the uranyl zinc acetate method; special apparatus for semimicro qualitative analysis; separation of calcium and strontium nitrates; semimicro qualitative analysis.

Barber, Dr. I(ra) G(arnett), Western Electric Co, Chicago, Ill. *Physics.* Villa Nova, Ont, Can, Feb. 12, 98. B.A, Queen's (Can), 16; Ph.D, Chicago, 20. Instr. physics, Ohio State, 18; physics and elec. eng, Rensselaer Polytech, 18–19; *physicist,* Linde Air Products Co, Buffalo, 20–22; *West. Elec. Co, 22–* A.A. Secondary electron emission from metals; improved magnetic materials for telephone work.

Barber, Lena A(melia), 3401 Clark Ave, R. F. D. 6, Raleigh, N. C. *Botany.* Lenawee Co, Mich, April 22, 75. B.S, Adrian Col, 98; A.B, Michigan, 04, M.S. 11; fellow, Missouri, 14–15. Teacher, sch, Mich, 91–93, 98, high sch, 99–01; Ohio, 01–03; S. Dak, 04–07; Iowa, 07–10; head dept. science,

Christian Col, 10–14; prof. biol, Lindenwood Col, 17–18; Woman's Col. of Ala, 18–22; prof. and head dept, Meredith Col, 22–40; *retired.* Fungous flora of silage; mycology; mosses.

Barber, Dr. M(arshall) A(lbert), Missouri City, Mo. *Malariology.* Crown Point, Ind, Nov. 22, 68. A.B, Kansas, 91; A.B, Harvard, 92, A.M, 94, Ph.D, 07. Asst. bot, Harvard, 92–93; asst. and assoc. prof. bot. and bacter, Kansas, 94–06, prof. bacter. and path, med. sch, 06–11; research, Bur. Science, P. I, 11–15; int. health board, Rockefeller Foundation, 15–17; med. research, Rockefeller Inst, 18–19; special expert, malaria research, U. S. Pub. Health Service, 20–29; int. health div, Rockefeller Foundation, 29–39; *retired.* Mem. Nat. Malaria Cmn. John Scott medal; Theobold Smith medal; Mary Kingsley medal, Liverpool Sch. Trop. Med. Major, Sanit.C, 17–18. A.A; Acad. Trop. Med. (pres, 40). Medicine; malaria.

Barber, Raymond J(enness), College, Alaska. *Engineering.* Epping, N. H, Aug. 12, 84. B.S, Mass. Inst. Tech, 06. Mine rodman, Bingham Canyon, Utah, 06; gen. manager, Roxbury Gold Mines, Calif, 16–18, pres. and manager, 20–21; consulting engineer, Gilboa Dam, N. Y, 19; San Francisco, Calif, 21–37; consultant geol, State Div. Highways, 34–35; lecturer, Stanford, 35–36; prof. geol. and mining and dean sch. mines, Alaska, 37–40; *mem. Territorial Board Engineers and Architects Examiners, Alaska, 40–* Lecturer, Stanford, 27–29. Director, Hydro-Carbon Companies, San Francisco, Calif. Consulting engineer to shipyards, U. S. Shipping Board, 18–19. Min. and Metal. Eng; Eng. Educ; Nat. Highways Asn. Heat treatment of duralumin for aircraft structures; separation of vanadium from phosphorus in the distillation of phosphate rock.

Barber, Dr. Sherburne F(rederick), College of the City of New York, New York, N. Y. *Mathematics.* Nunda, N. Y, Oct. 25, 07. A.B, Rochester, 29, A.M, 30; Ph.D, Illinois, 33. Nat. research fellow, Hopkins, 33–34; Princeton and Inst. Advanced Study, 34–35; assoc. *math,* Iowa, 35–38, *instr, Col. City of N. Y, 38–* Math. Soc. Cremona and birational transformations.

Barber, T(homas) C(aldwell), Box 67, Mesa, Ariz. *Entomology.* Liverpool, Eng, July 27, 81. B.A.Sc, Toronto, 04. Hort. inspector, Ill, 06–07; asst. entomologist, La, 07–10; in charge sugar-cane insect investigations, bur. entom, U. S. Dept. Agr, 11–12; entomologist, Sugar Exp. Sta, Tucumán, Argentina, 12–14; Delta Lab, Tallulah, La, 14–16; fed. hort. board, Texas, *U. S. Dept. Agr,* 17–18, in charge sugar-cane investigations, 18–24, cotton insect investigations, 24–27, *asst. entomologist, div. cotton insects, bur. entom. and plant quarantine, 27–*

Barber, Prof. W(illiam) Harley, 621 Ransom St, Ripon, Wis. *Physics.* Black Earth, Wis, Aug. 28, 78. B.S, Wisconsin, 01, A.M, 09; Chicago, 11–13, 14. Asst. prin. and prin, high sch, Wis, 01–05; asst, Bur. Standards, 05–06; *prof. physics, Ripon Col, 06–, registrar,* 10–15, *40–,* dean, 15–24, acting pres, 17–18. Instr, Wisconsin, 24–26. Summers, asst, Chicago, 13. Mem, Basic Science Board, Wis. Physical Soc; Wis. Acad. Oil-drop falling in hydrogen gas.

Barber, Dr. W(illiam) Howard, 121 E. 60th St, New York, N. Y. *Surgery.* New York, N. Y, 86. A.B, Columbia, 09, M.D, 11. Instr. surg, N. Y. Polyclinic, 14–16; Univ. and Bellevue Hosp. Med. Col, 15–19, lecturer and director dept. exp. surg, 19–23, clin. prof. *surg,* 23–35, *col. med, N. Y. Univ,* 34, *assoc. prof, 35–* Asst. attending surgeon, Bellevue Hosp, 18–21, attending surgeon, 21; senior attending surgeon, Jamaica Hosp, N. Y; past director surg, N. Y. Neur. Hosp; director surg, Goldwater Mem. Hosp, 37– Fel. Col. Surg; Am. Med. Asn; Soc. Exp. Biol; Harvey Soc; N. Y. Surg. Soc; fel. N. Y. Acad. Med. General and abdominal surgery.

Barborka, Dr. Clifford J(oseph), 700 N. Michigan Ave, Chicago, Ill. *Medicine.* Clinton, Iowa, July 19, 94. B.S, Chicago, 16, M.D, Rush, 20; M.S, Minnesota, 28; Sc.D, Simpson Col, 32. Consulting physician, staff, Mayo Clinic, 21–32; from instr. to *asst. prof. med, med. sch, Northwestern, 32–* Consultant gastroenterologist and gastroscopist, Hines Veterans Hosp. Am. Med. Asn; Asn. Study Int. Secretions; fel. Col. Physicians; Gastro-Enterol. Asn; Cent. Soc. Clin. Research. Diabetes mellitus; obesity; epilepsy; migraine; the ketogenic diet; nutrition.

Barbour, Prof. Erwin H(inckley), University of Nebraska, Lincoln, Nebr. *Paleontology.* Springfield, Ind. A.B, Yale, 82, Ph.D, 87. Asst. paleontologist, U. S. Geol. Surv, under Prof. O. C. Marsh at Yale, 82–89; prof. geol, Grinnell Col, 89–91; research prof. *paleont, Nebraska,* 91–41, *emer. research prof, 41–,* director, *State Museum,* 91–41, *emer. director, 41–* Head, State Geol. Surv, Nebr, 91–26. U. S. Geol. and Hydrog. Surv. A.A; Geol. Soc; Paleont. Soc; Soc. Vert. Paleont; Asn. Mus; Nebr. Acad; Nebr. Ornith. Union. Vertebrate paleontology.

Barbour, Dean George B(rown), University of Cincinnati, Cincinnati, Ohio. *Geology.* Edinburgh, Scotland, Aug. 22, 90. Marburg; M.A, Edinburgh, 10; B.A, Cambridge, 16, M.A, 18; Ph.D, Columbia, 29. Prof. geol, Peking Univ, China, 20–22; Peiyang Univ, 22–23; Yenching Univ, 23–32; lecturer, Cincinnati, 32–33; visiting physiographer, Cenozoic Lab, 33–34; hon. lecturer *geol,* London, 34–37; assoc. prof, *Cincinnati,* 37–38, *prof, 38–, dean col. lib. arts, 38–* Lecturer, Columbia, 28–29. Acting prof, Stanford, 35. Cor. mem, Geol. Surv. China. Gill mem. award, Royal Geog. Soc, 37. Mil. service, 14–19. Fel. Geol. Soc; Asn. Geog; Ohio Acad. (v. pres, geol. sect, 41); fel. Geol. Soc. London; fel. Royal Geog. Soc; fel. Royal Soc. Edinburgh; Soc. géol. de France; cor. mem. Soc. Belge d'hydrol. et geol; fel. Geol. Soc. China; fel. Finland Geol. Soc. Geomorphology.

Barbour, Dr. Henry G(ray), Yale University School of Medicine, New Haven, Conn. **[4]*Physiology, Pharmacology.* Hartford, Conn, March 28, 86. A.B, Trinity Col. (Conn), 06; M.D, Hopkins, 10, fellow, 10–11; Freiburg, 11; Vienna, 12; London, 13. Asst. prof. pharmacol, Yale, 12–21; prof, McGill, 21–23; physiol. and pharmacol, Louisville, 23–31; assoc. prof. *pharmacol. and toxicol, sch. med, Yale,* 31–40, *research assoc. and prof, 40–* Revision cmt, U. S. Pharmacopoeia, 20–30, 40– Assoc. ed, 'Arch Int. de Pharmacodynamie et de Thér,' 37–; consulting ed, 'Anesthesiol,' 40– A.A; Physiol. Soc; Soc. Pharmacol. (assoc. ed, 'Jour,' 21–34, councilor, 22–26, 30); Soc. Biol. Chem; Soc. Exp. Biol; Am. Med. Asn; Soc. Anesthetists; Cent. Soc. Clin. Invest; fel. Int. Col. Anesthetists. Body temperature; fever; periodic respiration; drug effects on mammalian arteries; pyretic and antipyretic drug action; amines; anesthetics; blood and serum specific gravity; heat regulation and water exchange; morphine addiction and withdrawal; magnesium in drug combinations; brain hydration; pituitary and water exchange; heavy water effects in mammals.

Barbour, Dr. Thomas, Harvard University, Cambridge, Mass. **[3]*Zoology.* Martha's Vineyard, Mass, Aug. 19, 84. A.B, Harvard, 06, A.M, 08, Ph.D, 11, hon. Sc.D, 39; hon. Sc.D, Havana, 30, Dartmouth, 36. Curator and mem. council, library, *Harvard,* 08–42, curator reptiles and amphibians, museum comp. zool, 10–27, *director museum comp. zool. and univ. museum, 27–,* lecturer and later *prof. zool, 22–, mem. faculty, Peabody Museum, 13–* Custodian, Atkins Institution, Cuba, Arnold Arboretum, in charge, Barro Colo. Island Lab, C. Z. Trustee, Radcliffe Col, 30–34; Carnegie Institution, 35. Advisory board, Guggenheim Mem. Foundation. Gold medal, Harvard Travelers Club, 07. Del, Pan-Am. Sci. Cong, Santiago, Chile, 07–08. Nat. Acad;. A.A; Soc. Zool; Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp. (past pres); Soc. Trop. Med; Explorers Club; Am. Acad; cor. mem. Hispanic Soc. Amer; Nuttall Ornith. Club; New Eng. Zool. Club (pres); Wash. Acad. (non-res. v. pres, 37); fel. N. Y. Zool. Soc; hon. mem. Zool. Soc. Phila; Acad. Nat. Sci. Phila; Boston Soc. Nat. Hist. (pres, 25–, trustee, 30); Biol. Soc. Wash; fel. Royal Geog. Soc; Royal Asiatic Soc; Soc. Preserv. Fauna British Empire; for. mem. Zool. Soc. London; Nederland. Dierkundige Vereen Amsterdam; hon. fel. Acad. Nat. Phys. Med. Sci. Cuba. Herpetology; geographical distribution of fishes and reptiles.

Barbour, William R(ichard), U. S. Forest Service, Atlanta, Ga. *Forestry.* Ridgway, Pa, June 9, 90. Ph.B, Yale, 11, M.F, 12. Forest asst, examiner and supervisor, U. S. Forest Service, 12–18; forest engineer, Cent. Leather Co, 19–20; asst. state forester, Tenn, 21; consulting forester, 22–24; forester, Republic of Haiti, 25–29; Trop. Plant Research Foundation, 30; Virgin Islands, 31; gen. supt. forests, P. R, and supervisor, Luquillo Nat. Forest, 31–35; *assoc. forester, U. S. Forest Service, 36–* Soc. Foresters. Tropical forestry.

Barbrow, L(ouis) E, National Bureau of Standards, Washington, D. C. *Physics.* Pittsburgh, Pa, March 15, 05. B.S, Carnegie Inst. Tech, 26. Junior physicist, *Bur. Standards,* 27–31, asst. physicist, 31–36, assoc. physicist, 36–41, *physicist, 41–* Elec. Eng; Illum. Eng. Soc; Optical Soc; Philos. Soc. Wash. Photometry and illumination; lamp testing; specifications for electrical supplies.

Barclay, Prof. B(ertram) D(onald), 1539 S. Florence Ave, Tulsa, Okla. *Botany.* Champaign, Ill, Nov. 9, 98. B.S, Col. of Wooster, 23; Syracuse, 23–24; M.S, West Virginia, 26; fellow, Chicago, 26–28, Ph.D, 28. Asst. forest bot. and path, N. Y. State Col. Forestry, Syracuse, 23–24; instr. *bot,* West Virginia, 24–26; *prof, Tulsa, 28–* A.A; Ecol. Soc; Okla. Acad. (v. pres, sect. A, 30, 34, pres, F, 36). Plant morphology; origin and development of tissues in stem of Selaginella wildenovii; organography of Elephantella groenlandica at varying altitudes.

Barclay, Dr. Earle H(erbert), Kupfer Brothers Co, Riverdale, Northbridge, Mass. *Chemistry.* Portsmouth, Va, June 20, 94. Chem.E, Virginia, 16; Ph.D, Hopkins, 22. Research chemist, Silica Gel Corp, Baltimore, 22–29; asst. supt, Champion Paper and Fibre Co, Hamilton, Ohio, 29–40; *mill manager, Kupfer Brothers Co, 40–* Instr, Y.M.C.A, Baltimore, 21–29. U.S.N.R, 18–19, lieut. A.A. Adsorption.

Barclay, Dr. Harriet G(eorge), 1539 S. Florence Ave, Tulsa, Okla. *Botany.* Minneapolis, Minn, Aug. 31, 01. A.B, Minnesota, 23, A.M, 24; fellow, Chicago, 25–28, Ph.D, 28. Asst. *bot,* Minnesota, 23–25; Chicago, 27–28; acting instr, *Tulsa,* 29–30, acting asst. prof, 31–35, 36–39, *lecturer, 39–; ecol. staff, Rocky Mt. Biol. Lab, 35–* Ecol. Soc; Okla. Acad. Plant ecology; flood plain succession of the Mississippi River; germination of native herbaceous seeds; alpine meadow successions at varying altitudes; vegetational history of an alpine meadow; plant communities and their successional relations near Gothic, Colorado.

Bard, Dr. John William, 713 McClellan, Wausau, Wis. *Chemistry.* Antigo, Wis, Aug. 21, 14. B.S, Iowa State Col, 36; M.S, Lawrence Col, 38, Ph.D, 40. *Chem. engineer, Marathon Paper Mills Co, 40–* Cellulose chemistry.

Bard, Prof. Philip, Johns Hopkins University School of Medicine, Baltimore, Md. *[6]*Physiology.* Hueneme, Calif, Oct. 25, 98. A.B, Princeton, 23; A.M, Harvard, 25, Ph.D, 27. Instr. *physiol,* Harvard Med. Sch, 26–28; asst. prof, Princeton, 28–31; Harvard Med. Sch, 31–33; *prof, sch. med, Hopkins, 33–* Div. med. sciences, Nat. Research Council; Nat. Board Med. Examiners, 35– A.A; Physiol. Soc. (councilor, 36–39, sec'y, 39–41, pres, 41); Am. Acad; Neur. Asn; hon. mem. Harvey Soc. Neural basis of emotional reactions; central control of the sympathetic nervous system; functions of hypothalamus; temperature regulation; postural reactions; localization of function in cerebral cortex; neural basis of sexual behavior.

Bardeen, Prof. John, University of Minnesota, Minneapolis, Minn. *Physics.* Madison, Wis, May 23, 08. B.S, Wisconsin, 28, M.S, 29; Ph.D, Princeton, 36. Geophysicist, Gulf Research and Develop. Corp, 30–33; jr. fellow, Soc. Fellows, Harvard, 35–38; *asst. prof. physics, Minnesota, 38–; mem. staff, Naval Ordnance Lab.* Physical Soc. Geophysics; theoretical physics.

Bardell, Dr. Ross H(arvey), 623 W. State St, Milwaukee, Wis. *Mathematics.* S. Dak, June 10, 03. B.S, South Dakota, 25; M.S, Chicago, 26, Ph.D, 36. Instr. math, South Dakota, 26–27; Northwestern, 28–35; math. and astron, *Univ. Wis. in Milwaukee,* 35–38, *asst. prof. math, 38–, asst. director, 41–* Math. Soc; Math. Asn; Milwaukee Astron. Soc. (director). Calculus of variations.

Barden, Dr. Robert B(radshaw), Cornell University, Ithaca, N. Y. *Embryology, Histology.* Mishawauka, Ind, May 30, 10. A.B, Wabash Col, 35; univ. fellow, Stanford, 40–41, Ph.D, 41. Tech. asst, Stanford, 35–37, grad. teaching asst, 37–40; *instr. zool, Cornell, 41–* Experimental embryology of the amphibia; embryonic transplantation; chromatophores of the eye; changes in the pigmentation of the iris at metamorphosis; degeneration in the eyes of the cave salamander.

Bardin, Collis M(atterson), 3115 Nevada Ave, Fresno, Calif. *Chemistry, Physics.* Utica, N. Y, Aug. 19, 04. B.Ch, Cornell, 24; M.S, Wisconsin, 25; California, 25–26, 29–30; Wisconsin, 24, 25; Cornell, 31. Prof. physics, Dubuque, 26–27; *instr,* junior col. science, San Rafael Mil. Acad, Calif, 27–30; *science, Wash. Union High Sch, Fresno, 30–* Asn. Physics Teachers. Trinitrides.

Bardsley, Prof. C(larence) E(dward), 4520 Georgia Ave, Apt. 2, Washington, D. C. *Civil engineering.* St. Louis, Mo, April 23, 94. B.S, Mo. Sch. Mines, 20, C.E, 22; M.S, Missouri, 24; Nat. Slag Asn. fellow, Michigan, Sc.D, 26; Northwestern, 27–28; Technische Hochschule, Charlottenburg, Berlin, 28–29. Eng. dept, Mo. Pacific Ry, 13–14; topog. branch, U. S. Geol. Surv, 17–19; from instr. to prof. civil and hydraul. eng, Mo. Sch. Mines, 20–38; *prof. civil eng, Okla. Agr. and Mech. Col, 38–; specialist eng. educ, U. S. Office Educ, 41–; lecturer civil eng, George Washington, 41–* Consulting engineer, 24–41; John R. Freeman traveling scholar of Am. Soc. Civil Eng, Europe, 28–29; city engineer, Rolla, Mo, 27–29; engineer, Phelps County, Mo, 31; state rep, U. S. Coast and Geod. Surv, 33–34; consultant, Union Elec. Light and Power Co, 35–36. Summers, eng. dept, Wabash R. R, 15, 16; Pa. R. R, 17; assoc. prof, Michigan, 26; hon. mem. faculty, Northwestern, 27–28; U. S. C. Eng, 30–31; U. S. Waterways Exp. Sta, 31; engineer, Skaggs Dam, 33–34. Civil Eng. (special cmt. hydraul. research, 34–; sec'y-treas, Okla. sect); Soc. Mil. Eng; Eng. Educ; Nat. Soc. Professional Eng. (v. pres); Nat. Surveying Cong. (director); Astron. Soc; Mo. Acad; Okla. Acad; Verein Deuts. Ing; Int. Asn. Road Congs; Int. Asn. Hydraulic Structures Research. Geodesy; astronomy; civil, hydraulic and highway engineering; engineering education.

Bardwell, Dr. D(wight) C(ooley), Allied Chemical and Dye Corp, Morristown, N. J. *Physical chemistry.* Aspen, Colo, Jan. 20, 97. B.S, California, 19, Ph.D, 21. Asst. physical chemist, U. S. Bur. Mines, 21–24, assoc. physical chemist, 24–25; fixed nitrogen research lab, U. S. Dept. Agr, 25–26; Atmospheric Nitrogen Corp, 26–35; nitrogen div, *Solvay Process Co,* 35–43, *lab. director, Allied Chem. and Dye Corp, 43–* A.A; Chem. Soc. Radium; chemical effects of the alpha radiation from radon in gas systems; industrial research direction.

Bardy, Dr. Joseph, 301 S. 15th St, Philadelphia, Pa. *Psychology.* Russia, Dec. 23, 88. M.D, Pennsylvania, 11, A.B, 18, A.M, 21, Ph.D, 23. *Instr. physics and biol, Olney Senior High Sch, Phila.* A.A; Soc. Study Educ. Educational psychology; tests and measurements.

Bare, C(larence) O(wen), P. O. Box 7062, Richmond, Va. *Entomology.* Protection, Kans, Nov. 14, 89. A.B, Kansas, 23, fellow, 23–24, A.M, 24. Teacher and prin, pub. schs, Kans, intermittently, 07–20; *asst. entomologist, truck crop insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 26–* Biol. surv, Univ. Kans, 23. Summers, inspector, Entom. Cmn, Kans, 23, 24. U.S.A, 18–19. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Kans. Entom. Soc; Fla. Entom. Soc; Va. Acad; Entom. Soc. Wash. Notonectidae; parasites of celery insects; celery cutworms; arsenical residues on cabbage; substitutes for arsenicals as cabbage insecticides; parasites of stored tobacco insects; cigarette beetle.

Bare, Dr. Paul Orville, 1303 N. Van Buren St, Wilmington, Del. *Organic chemistry.* Chadron, Nebr, July 4, 09. B.S, Nebr. State Teachers Col, 31; M.S, Nebraska, 34, Ph.D, 37. Instr. chem. and physics, Nebr. State Teachers Col, Chadron, 35–36; *chemist, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Organic arsenicals; synthetic rubber.

Bareis, Prof. Grace M(arie), Canal Winchester, Ohio. *Mathematics.* Canal Winchester, Ohio. A.B, Heidelberg Col. (Ohio), 97; Bryn Mawr Col, 97–99, 02–06; fellow, Ohio State, 06–08, Ph.D, 09. Teacher, Miss Roney's Sch, Bala, Pa, 00–06; *asst. prof. math, Ohio State, 08–* Trustee, Heidelberg Col. (Ohio), 34– A.A; Math. Soc; Math. Asn. Groups.

Barer, Dr. Adelaide Pauline, 106 S. Dodge St, Iowa City, Iowa. *Medicine.* Iowa City, Iowa, Aug. 31, 97. A.B, Iowa, 19, Ph.D, 28; M.S, Ohio State, 21. Asst. home econ, Ohio State, 19–21; instr, Illinois, 21–24; asst. metabolism, *Iowa,* 24–27, *assoc. med, 28–* Summer, instr, Colorado, 25. Soc. Exp. Biol. Metabolism.

Barghoorn, Dr. Elso S(terrenberg), Amherst College, Amherst, Mass. *Botany, Microbiology.* New York, N. Y, June 30, 15. A.B, Miami (Ohio), 37; A.M, Harvard, 38, Ph.D, 41. Asst. *biol,* Harvard, 38–40, teaching fellow, 40–41; *instr, Amherst, 41–* Summer, research assoc, Lankenau Hosp. Research Inst, 41. A.A; Bot. Soc; Mycol. Soc; New Eng. Bot. Club; Int. Asn. Wood Anatomists. Anatomical, chemical and physical changes in the decomposition of wood and submerged vegetation; aquatic wood-destroying fungi and bacteria; physiological processes in the decomposition of vegetation.

Barham, Dr. H(arold) N(athan), 820 Bluemont Ave, Manhattan, Kans. *Organic chemistry.* Almena, Kans, Aug. 5, 97. Univ. Caen, 19; A.B, Bethany Col. (Kans), 21; M.S, Ohio State, 22; Ph.D, Kansas, 28. Prof. chem, Mont. Wesleyan Col, 22–23; instr, high sch, Kans, 23–24; prof. chem,

Bethany Col. (Kans), 24–26; research chemist, Cities Service, 28–29; *assoc. prof. chem, Kans. State Col, 29–* Chem. Soc. Calculation of flash points of pure organic substance; the electrodeposition of metals from their liquid ammonia solutions; petroleum derivatives; fermentation of xylose solutions by Aspergillus flavus; kojic acid as a dye intermediate; chemistry of starch.

Barieau, Dr. Robert Eugene, 151 Tunnel Road, Berkeley, Calif. *Physical chemistry.* Lindsay, Calif, March 12, 15. B.S, California, 37, univ. fellow, 38–39, Ph.D, 40. Teaching asst, *California,* 37–38, 39–40, instr. chem, 40–41, *investigator, Nat. Defense Research Cmt, 41–* Tests of the third law of thermodynamics; low temperature calorimetry; viscosity of liquid helium; electrical resistance of gold and silver at liquid helium and hydrogen temperatures as a function of magnetic fields.

Barll, Prof. Oller L(udger), 91 Eureka St, Worcester, Mass. *Organic chemistry.* Spencer, Mass, July 21, 98. A.B, Col. of Holy Cross, 20, A.M, 23, M.S, 27. Teacher, high sch, Mass, 20–21; People's Acad, Vt, 21–22; instr. chem, *Col. of Holy Cross,* 22–25, lecturer, 25–27, *prof. org. analysis, 27–* Chem. Soc. Catalysis in organic chemistry; preparation of derivatives for the identification of ethers; physical properties of picrates; microdetermination of oxygen.

Baringer, John W(illiam), 27 W. California Ave, Columbus, Ohio. *Plant pathology.* Jamestown, Ind, Aug. 30, 95. A.B, Wabash Col, 18; M.S, Ohio State, 24. Assoc. pathologist in charge European barberry eradication in Ohio, bur. plant indust, U. S. Dept. Agr, 18–30; plant parasitologist and nursery inspector, *State Dept. Agr, Ohio,* 30–38, specialist in charge sect. insect and plant disease control, 39–43, *chief div. plant indust, 43–* Phytopath. Soc; Ohio Acad. Common barberry and black stem rust of wheat.

Barkan, Prof. Georg, 79 E. Concord St, Boston, Mass. *Biochemistry, Pharmacology, Toxicology.* Polotzk, Russia, March 22, 89. Freiburg, 08; Breslau, 08–10; M.D, Munich, 14; Dr.habil, Frankfurt, 27. Asst. physiol, Munich, 19–22; med, Wurzburg, 22–23; asst. and later senior asst. pharmacol, Frankfurt, 23–28, privat-docent pharmacol. and toxicol, 27–35; prof. pharmacol. and director pharmacol. inst. and head dept. pharmacol, inst. drug assay, Univ. Tartu-Dorpat, 29–37, director physiol. inst, 35; teaching fellow biochem, *sch. med, Boston Univ,* 38–39, instr. pharmacol, 39–40, *asst. prof. biochem, 40–* Mem. ed. staff, Naunyn-Schmiedeberg's 'Archiv. Exp. Path. und Pharmakol,' 32–; 'Biochem. Zeitschrift,' 37– Mem, Estonian Pharmacopoea Cmt. A.A; Soc. Pharmacol; N. Y. Acad; Boston Soc. Biol. Iron and hemoglobin metabolism; bile pigment formation; physiological and pathological hemoglobin derivatives; carbon monoxide toxicology; sulfa nilamide and related drugs.

Barkan, Dr. Hans, Stanford University Hospital, San Francisco, Calif. *Medicine.* San Francisco, Calif, July 26, 82. A.B, Stanford, 06; M.D, Harvard, 10. Asst. path, Harvard, 10–11, instr, 11–12; intern, eye clinic, Vienna, 12–14; asst. *ophthal, sch. med, Stanford,* 14–16, instr, 16–18, asst. prof, 18–28, *prof, 28–* Pathologist, L. I. Hosp, N. Y, 10–12; trustee, Mills Col. A.A; Am. Med. Asn; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Pacific Coast Oto-ophthal. Soc; Ophthal. Gesell. Ophthalmology.

Barkas, Dr. W(alter) H(enry), Staff Headquarters, Thirteenth Naval District, Seattle, Wash. *Physics.* Portland, Oregon, Sept. 3, 12. B.S, Washington (Seattle), 32, Ph.D, 36. Teaching fellow physics, Washington (Seattle), 32–36; instr, Columbia, 36–38; mem, Inst. Adv. Study, 38–40; *senior physicist, Thirteenth Naval Dist, 40–* Fel. Physical Soc. Nebular redshift; potential functions; nuclear physics; national defense projects.

Barkenbus, Dr. C(harles), 125 Shawnee Place, Lexington, Ky. *Organic chemistry.* Kalamazoo, Mich, July 7, 94. B.S, Kalamazoo Col, 17; Ph.D, Yale, 20. Asst, Yale, 17–18; asst. prof. *chem, Kentucky,* 20–30, *prof, 30–* Chem. Soc. Analysis of naturally occurring drugs; synthetic organic chemistry.

Barker, Prof. A(ugustus) L(awrence), 302 Elm St, Ripon, Wis. *Chemistry.* Cedar Bluff, Ala, Feb. 10, 88. B.S, Alabama, 10, fellow, 10–11, M.S, 11; fellow, Chicago, 14–15; Ph.D, Wisconsin, 22. Instr. biol, Alabama, 11–13; asst. prof. chem, Mississippi, 15–16; instr. physiol, Emory, 16–17; prof. *chem,* Ripon Col, 17–20; instr, Wisconsin, 20–21; *prof, Ripon Col, 21–; major, Chem. Warfare Service, U. S. Army, and chief inspection and tech. div, Dallas, Texas, procurement div, 42–* Chem. Soc; Wis. Acad. Organic chemistry; deaminization of esters of amino acids; qualitative analysis.

Barker, Prof. C(harles) B(urton), University of New Mexico, Albuquerque, N. Mex. *Mathematics.* Santa Fe, N. Mex, Feb. 21, 11. B.S, New Mexico, 33, A.M, 36; Michigan, 37; Ph.D, California, 41. Asst. chem, *New Mexico,* 36–37, instr. *math,* 37–42, *asst. prof, 42–* A.A; Math. Soc; Math. Asn. The Lagrange multiplier rule for two independent and two dependent variables.

Barker, Dr. E(lmer) Eugene, U. S. Treasury Department, Washington, D. C. *Landscape architecture.* Crown Point, N. Y, Dec. 31, 86. A.B, Cornell, 10, Ph.D, 14; M.L.A, Harvard, 25. Sci. aid, sta. for exp. evolution, Carnegie Institution, 11; asst. prof. plant breeding, Cornell, 14–19; plant breeder, Insular Exp. Sta, P. R, 19–20, chief agronomist, 20–21; asst. prof. bot, Georgia, 21–22; investigator, State Dept. Agr, Mass, 23–25; landscape architect, Westchester County Park Cmn, 26–28; State Div. Archit, N. Y, 28–36; *with procurement div, U. S. Treasury Dept, 36–* Nat. Indust. Conf. Board. Breeding of native Puerto Rican plants; physiography; the brook sticklebacks; food supply and agricultural industry of New England; regional planning; landscape architecture.

Barker, Prof. E(rnest) F(ranklin), 18 Ridge Way, Ann Arbor, Mich. *Physics.* Listowel, Ont, Can, March 16, 86. B.S, Rochester, 08; A.M, Michigan, 13, fellow, 13–14, Ph.D, 15. Instr. math, Rochester, 10–12; asst. *physics,* Michigan, 14–15; prof, Western Ontario, 15–19; nat. research fellow, *Michigan,* 19–22, asst. prof, 22–31, *prof, 31–, chairman dept, 41–* A.A; fel. Physical Soc; Asn. Physics Teachers. Infrared spectra.

Barker, Dr. George E(rnest), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Organic chemistry.* Cortland, N. Y, Aug. 8, 07. B.S, Mass. Inst. Tech, 30, Ph.D, 35. Asst, Mass. Inst. Tech, 30–34; research chemist, Nat. Aniline and Chem. Co, 34–38; indust. fellow, *Mellon Inst,* 38–42, *senior indust. fellow, 42–* Chem. Soc. Application of spectroscopy to organic chemistry; development of industrial chemical products; development of lubricants for fine mechanisms including watches, clocks and aircraft instruments; industrial utilization of the products of the sugar industry.

Barker, Dr. Harold C(harles), University of Pennsylvania, Philadelphia, Pa. *Physics.* Philadelphia, Pa, Dec. 3, 75. B.S, Pennsylvania, 03, A.M, 05, Ph.D; 07. Asst. chem, Drexel Inst, 96–98; *physics, Pennsylvania,* 03–04, instr, 04–10, asst. prof, 10–19, *prof, 19–* Physical Soc. Peltier electromotive force.

Barker, Dr. Henry D, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Tamassee, S. C, Nov. 30, 93. B.S, Clemson Col, 15; M.S, Wisconsin, 17; Ph.D, Minnesota, 23. Agent, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 17–18, 19–23; instr. plant path, Minnesota, 19–23; assoc. plant pathologist, Miss. Agr. and Mech. Col, 23–24; botanist and plant pathologist, Service Technique, Haiti, 24–36; *prin. pathologist, bur. plant indust, U. S. Dept. Agr, 36–* Wilt resistance in flax; inheritance in timothy; fruitlet black-rot of pineapples; cotton breeding; flora of Haiti; yellow disease of beans and related plants in Haiti; cotton diseases.

Barker, Prof. H(orace) Albert, University of California, Berkeley, Calif. *Microbiology.* Oakland, Calif, Nov. 29, 07. A.B, Stanford, 29, Ph.D, 33. Asst. zool, Chicago, 30–31; nat research fellow, Hopkins Marine Sta, Pacific Grove, 33–35; Gen. Educ. Board fellow, Tech. Univ. Delft, Holland, 35–36; *instr. soil microbiol, California,* 36–41, *asst. prof, 41–,* junior soil microbiologist, *Exp. Sta,* 36–41, *asst. soil microbiologist, 41–* Guggenheim Mem. Foundation fellow, 41–42. Soc. Bact; West. Soc. Nat. Soil microbiology; physiology and biochemistry of bacteria, protozoa and lower algae.

Barker, Prof. John W(illiam), Wittenberg College, Springfield, Ohio. *Chemistry.* Cassville, Mo, Sept. 4, 94. B.S, Kans. State Col, 20; M.S, Kansas, 23, Ph.D, 25. Control chemist, Larabee Flour Mills Corp, Kans, 20–21; asst. instr. *chem,* Kansas, 23–24; prof, Junior Col, Flat River, Mo, 24–27; assoc. prof, *Wittenberg Col,* 27–32, *prof. and head dept, 32–* Chem. Soc. Electrophysical chemistry; super-heating in the Brown-Duval moisture tester; electrolytic valve action; absolute value of an electrode potential.

Barker, Dean J(oseph) W(arren), Columbia University, New York, N. Y. *Electrical engineering.* Lawrence, Mass, June 17, 91. Chicago; B.S, Mass. Inst. Tech, 16, M.S, 25;

Sc.D, Northeastern, 40; LL.D, Bucknell, 40; D.E, Case, 42. From 2nd lieut. to major, Coast Artil. Corps, 16–25; assoc. prof. elec. eng, Mass. Inst. Tech, 25–29; prof. and head dept, Lehigh, 29–30; *dean faculty eng, Columbia, 30–; special asst. to U. S. Asst. Sec'y Navy, 41–* Director, Research Corp. Trustee, Knickerbocker Hosp. A.A. (chairman, M, 37); fel. Elec. Eng. (v. pres, 40–42); Civil Eng; Illum. Eng. Soc. (v. pres, 29, pres, 32); Mech. Eng; Min. and Metal. Eng; Eng. Educ. Education; technique of illumination in industry.

Barker, Dr. M. Herbert, 303 E. Superior St, Chicago, Ill. *Medicine.* Villisca, Iowa, Aug. 20, 99. B.S, South Dakota, 23; M.D, Rush, Chicago, 25; Elizabeth Ward fellow, Northwestern, 29–31, M.S, 30. Research, Peter Bent Brigham Hosp. and Harvard Med. Sch, 27–30; instr. *med, med. sch, Northwestern,* 30–31, assoc, 31–35, *asst. prof, 35–, director renal-vascular clinic, 31–, director lab. cardio-renal-vascular research, 31–; attending staff, Passavant Mem. Hosp, 31–; lieut. col, med. corps, U. S. Army, 42–* Consultant, diagnostic center, Edward Hines Mem. Hosp, 31–36. Mem, State Pneumonia Control Cmt, Ill. Fel. Col. Physicians; Am. Heart Asn. (cmt. nomenclature for cardio-renal-vascular disease, cmt. standardization of blood pressure readings); Am. Med. Asn; Cent. Soc. Clin. Research; Cent. Clin. Research Club. Mineral and nitrogen metabolism in edema of cardiac and renal disease; factors in cholesterol metabolism; effects of anoxia with special reference to clinical and experimental pneumonia, epilepsy and altitude; effects of renal tissue extract on hypertension.

Barker, Col. M(aurice) E(ugene), Edgewood Arsenal, Md. *Chemistry.* Humboldt, Tenn, May 20, 94. B.S, Valparaiso, 15; A.M, South Carolina, 24; Sc.D, Mass. Inst. Tech, 30. Teacher, high schs, P. I, 16–17; battery officer, heavy artil, U.S.A, 17–20, troop duty, 20–21, special instr, Coast Artil, 21–24; instr. chem. and war gases, Chem. Warfare Service Sch, 24–25, tech. director, Chem. Warfare Service, 25–27; research work on activated charcoal, 27–30; instr, Chem. Warfare Service Sch, 30–35; chem. officer, 2nd div, *U. S. Army,* Ft. Sam Houston, 35–38, *chief tech. staff, Chem. Warfare Service, 38–* Chem. Soc. Chemical warfare; air purification; research administration.

Barker, Dr. Paul S(hirmer), University Hospital, Ann Arbor, Mich. *Internal medicine.* St. Louis, Mo, Aug. 22, 95. A.B, Westminster Col. (Mo), 15; M.D, Washington (St. Louis), 20. Intern, Presb. Hosp, New York, 20–22; asst. *med,* Washington (St. Louis), 22–24, instr, 24–25; asst. prof, *Michigan,* 25–29, *assoc. prof, 29–* A.A; Am. Med. Asn; Soc. Clin. Invest; Cent. Soc. Clin. Research. Cardiac physiology; diseases of the heart.

Barker, Dr. Prince P(atanilla), Veterans Administration Facility, Tuskegee, Ala. *Neurology, Psychiatry.* Barbados, B. W. I, Dec. 15, 97. A.B, Col. City of N. Y, 18; M.D, Howard, 23. *Neuropsychiatrist, Veterans Admin. Facility, 24–, chief acute service.* Consultant, John A. Andrew Mem. Hosp, Tuskegee Inst. 1st Int. Cong. Mental Hygiene. A.A; fel. Psychiat. Asn; Asn. Mil. Surg; Nat. Med. Asn. Personality changes in physical disorders; the influence of neuropsychiatry on general medicine; syphilis; insulin shock therapy.

Barker, R(eginald) Wright, Shell Oil Co, Inc, 641 M. and M. Bldg, Houston, Texas. *Paleontology, Geology.* Ollerton, Eng, Nov. 3, 07. B.A, Cambridge, 30, M.A, 35. Asst. junior geologist, Anglo-Ecuadorean Oilfields, Ltd, 30–31; asst. paleontologist and later senior paleontologist, Compañia Mexicana de Petroleo 'El Aguila,' Royal Dutch Shell Group, 32–38; senior paleontologist, Shell Subsidiary, Colombia, S. Amer, 38–39; *research paleontologist, Shell Oil Co, Inc, 39–* Fel. Geol. Soc; Soc. Econ. Paleont. and Miner; fel. Geol. Soc. London. Tertiary stratigraphy of the Caribbean region; correlation by means of Foraminifers; taxonomic and structural studies of the Foraminifera.

Barker, Dr. Roger G(arlock), Stanford University, Calif. *Psychology.* Macksburg, Iowa, March 31, 03. A.B, Stanford, 28, A.M, 30, Ph.D, 34. Asst, Stanford, 32–33, research assoc, 33–35; Gen. Educ. Board fellow, Iowa, 35–37; instr, Harvard, 37–38; asst. prof. educ, Illinois, 38–42; *acting assoc. prof. psychol, Stanford, 42–* A.A; Psychol. Asn; Soc. Research Child Develop. Personality in children and adolescents; animal psychology; psychology of individual differences; child psychology; social psychology.

Barker, Dr. S(amuel) B(ooth), University of Tennessee, Memphis, Tenn. *Physiology.* Montclair, N. J, March 3, 12. B.S, Vermont, 32; Yale, 32–33; Ph.D, Cornell, 36. Asst. physiol, med. col, Cornell, 37–40, fellow med, 38–41; *instr. physiol, col. med, Tennessee, 41–* A.A; Am. Med. Asn; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; Harvey Soc. Fat, carbohydrate and protein metabolism; tissue metabolism; effect of endocrines on metabolism.

Barker, Dr. W(illiam) H(alsey), Johns Hopkins University School of Medicine, Baltimore, Md. *Medicine.* Jan. 3, 07. A.B, Princeton, 28; M.D, Hopkins, 32. Asst. *med,* Hopkins, 33–35; hosp, Rockefeller Inst, 35–37; instr, *sch. med, Hopkins,* 37–41, *assoc, 41–, asst. dean, 38–* Harvey Soc. Blood diseases; nutritional disorders.

Barkley, Dr. Fred A(lexander), Montana State University, Missoula, Mont. *Botany.* Hobart, Okla, Nov. 4, 08. A.B, Oklahoma, 30, M.S, 32, 32–34; Ray M. Balyeat fellow, Oklahoma and Washington (St. Louis), 34–38; Ph.D, Washington (St. Louis), 37. Prin. and sci. teacher, high sch, Maysville, Okla, 30–31; asst. bot, Washington (Seattle), 34–37; *instr. bot. and curator herbarium, Montana, 37–* Penrose Fund grant-in-aid, Am. Philos. Soc, 39. Summer, instr, Oklahoma, 34. A.A; Soc. Plant Taxon; Ecol. Soc; Bot. Soc; Fern Soc; Sullivant Moss Soc; Ed. Asn; Torrey Bot. Club; Northwest Sci. Asn; Calif. Bot. Soc; Mont. Acad. (sec'y, 40). Systematic morphology; Anacardiaceae; foliar organs in Paeonia officinalis; pollen analysis; a short history of Rhus; keys to the phyla of organisms.

Barkley, Dr. J(ohn) E(lbert), Tennessee Valley Authority, Wilson Dam, Ala. *Chemistry.* Ransom, Kans, Dec. 4, 16. A.B, Ft. Hays Kans. State Col, 39; Nat. Aluminate Corp. fellow, Ohio State, 39–41, M.S, 40, Ph.D, 42. Asst. bot, Ft. Hays Kans. State Col, 35–38; chemist, Cent. Kans. Power Co, 38–39; asst. anal. chem, Ohio State, 41–42; *asst. chemist, Tenn. Valley Authority, 42–* Chem. Soc. Film forming properties of highly purified liquids; experimental investigation of two-bubble apparatus; foaming and priming of boiler water; electric charges on bubbles; flotation; mineral dressing; development of analytical methods; ion-exchange resins.

Barkley, J(ohn) F(erdinand), 541 Maple Ridge Road, Bethesda, Md. *Engineering.* Chanute, Kans, Jan. 21, 88. Kansas; B.S, Mich. Col. Mines, 10. Instr, N. Mex. Sch. Mines, 10–11; asst, Westinghouse Elec. and Mfg. Co, Pittsburgh, 11–13; junior engineer, U. S. Bur. Mines, 13–17; asst. efficiency engineer, Carnegie Steel Co, Pittsburgh, 17–23; *supervising engineer, U. S. Bur. Mines, 23–* Mech. Eng; Min. and Metal. Eng; hon. mem. Smoke Prevention Asn. Fuels and utilization; heat transmission; blast furnace gas.

Barkley, Prof. Key L(ee), 1207 W. Market St, Greensboro, N. C. *Psychology.* Statesville, N. C, Feb. 24, 00. A.B, Berea Col, 26; A.M, North Carolina, 27, Ph.D, 30. Instr. *psychol,* North Carolina, 27–30; Illinois, 30–31; asst. prof, *Woman's Col, North Carolina,* 31–35, *assoc. prof, 35–* Assoc. Psychol. Asn. Psychology of advertising.

Barksdale, Henry C(ompton), 714 Trenton Trust Bldg, Trenton, N. J. *Hydraulic engineering.* Carters Bridge, Va, July 26, 98. C.E, Virginia, 22. Instrumentman and computer, Albemarle Co, Va, 22; asst. city engineer, Charlottesville, 23; junior engineer, U. S. Geol. Surv, 24–26; asst. hydraul. engineer, State Dept. Conservation and Develop, N. J, 27–29, asst. engineer, State Water Policy Cmn, 29–39; assoc. hydraulic engineer, *U. S. Geol. Surv,* 39–41, *hydraulic engineer in charge cooperative ground-water investigations, N. J, 41–* Summer. rodman, topographic branch, U. S. Geol. Surv, 21. Assoc. Civil Eng; Geophys. Union. Ground-water hydrology; salt-water intrusion into aquifers normally yielding fresh water; ground-water resources of New Jersey.

Barksdale, Prof. Julian D(evreau), University of Washington, Seattle, Wash. *Geology.* Beaumont, Texas, Sept. 28, 04. A.B, Stanford, 30; Ph.D, Yale, 36. Field geologist, H. L. Doherty, Cities Service, 30–32; instr. *geol,* Yale, 35–36; *asst. prof, Washington (Seattle), 36–* Summers, asst. director, Stanford Geol. Surv, 35, director, 36, 37. Petrology and structural geology.

Barlett, Dr. Helen Blair, AC Spark Plug Co, Flint, Mich. *Petrography.* Butler Co, Pa, Dec. 14, 01. A.B, Ohio Wesleyan, 27; U. S. Bur. Standards fellow, Ohio State, 27–28, Ph.D, 31. *Petrographer, AC Spark Plug Co, 28–* A.A; Ceramic Soc; Chem. Soc; Miner. Soc. Phase relations in fused silicate mixtures.

Barlow, Dr. Claude Heman, Public Health Laboratories, Cairo, Egypt. *Tropical medicine.* Lyons, Mich, Oct. 13, 76.

Michigan; M.D, Northwestern, 06; certificate, London Sch. Trop. Med, 14; Sc.D, Hopkins, 29. Health officer, Mich, 07; supt. hosp, Am. Baptist For. Mission Soc, Huchow, China, 08–19, Shaohsing, 19–26, Ningpo, 26; *head hookworm studies, Rockefeller Foundation, Egypt, 29–* Chinese Maritime Customs; port physician, Port of Ningpo. Soc. Trop. Med; Helminth. Soc; Soc. Parasitol. (China branch); Ornith. Soc. Mich; Royal Soc. Trop. Med; Med. Soc. China. Surgery; helminthology; Fasciolopsis buski; Schistosoma mansoni and Schistosoma haematobium.

Barlow, Prof. H(oward) W(alter), 304 Hereford Ave, College Station, Texas. *Aeronautical engineering.* Buffalo, N. Y, July 27, 03. B.S, Purdue, 27; M.S, Minnesota, 34; Sc.D, N. Y. Univ, 41. Staff engineer, Glenn L. Martin Co, 27–30; chief engineer, Gazley and Lasha, 30; pres. and chief engineer, Nat. Aircraft Engineers, 30–32; from instr. to assoc. prof, Minnesota, 32–40; *prof. aeronautical eng. and head dept, Agr. and Mech. Col. Texas, 40–* Visiting lecturer, N. Y. Univ, 38–39. Meteorol. Soc; Eng. Educ; Inst. Aeronaut. Sci; Soc. Aero. Weight Eng. (nat. chairman); Soc. Automotive Eng; Royal Aero Soc. Aircraft structures and structural materials.

Barlow, Dean John, Rhode Island State College, Kingston, R. I. *Zoology.* Amenia, N. Y, Nov. 28, 72. B.S, Middlebury Col, Sc.D, 32; A.M, Brown. *Prof.* science, Fairmount Col, 98–01; *zool, R. I. State Col, 01–, dean men, 25–, v. pres, 30–,* acting pres, 30–31, 40–41, *dean sch. science and business, 31–* A.A; Entom. Soc. Amer.

Barlow, Prof. M(yron) C(all), University of Utah, Salt Lake City, Utah. *Psychology.* Idaho, Sept. 18, 87. A.B, Utah, 14; A.M, Peabody Col, 24; Ph.D, Chicago, 26. *Prof. psychol, Utah, 26–* Factors of learning in higher mental processes; measurement of character and personality.

Barlow, Prof. O(rpheus) W(illiam), Winthrop Chemical Co, Rensselaer, N. Y. *Pharmacology.* Webb City, Mo, Oct. 30, 97. A.B, Missouri, 20, A.M, 23; Ph.D, Chicago, 26, M.D, Rush, 35. Instr. physiol. and pharmacol, Missouri, 21–24; pharmacol, Western Reserve, 24–29, asst. prof, 29–34, *assoc. prof, 34–36; biochem, Albany Med. Col, Union (N. Y), 36–; director research labs, Winthrop Chem. Co, 36–* A.A; Pharmaceut. Asn; Physiol. Soc; Soc. Trop. Med; Soc. Exp. Biol; Asn. Study Int. Secretions; Chem. Soc. Cardiac poisons; barbitals and opium derivatives; nutritional anemia; anti-asthmatics; chemotherapy; antimalarials.

Barmack, Dr. Joseph E, 305 Convent Avenue, New York, N. Y. *Physiological psychology.* New York, N. Y, Sept. 20, 10. B.S, Col. City of N. Y, 30, M.S, 31; Ph.D, Columbia, 37. *Instr. psychol, Col. City of N. Y, 31–* Research grant, Josiah Macy Jr. Foundation. Lieut, Sanit.C, 40. Assoc. Psychol. Asn; East. Psychol. Asn. Psychophysiology of boredom; the effect of anti-hypnotics on work attitudes.

Barmore, Dr. Mark A(lfred), 1310 Fremont St, Manhattan, Kans. *Chemistry.* Orangeville, Ill, Dec. 10, 05. A.B, Whittier Col, 27; A.M, Stanford, 29, Am. Petrol. Inst. junior fellow, 29–31, Ph.D, 31. Asst. chem, Whittier Col, 25–27; biochem, Stanford, 27–29; control engineer, Fox Film Corp, 31; sound technician, Warner Brothers and First Nat. Studios, 32; research assoc, div. home econ, Exp. Sta, Colo. Agr. Col, 32–36, Colo. State Col, 36–38; *chemist in charge hard winter wheat quality lab, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 38–* Inst. Food Technol; Asn. Cereal Chemists; Chem. Soc. Chemistry of the bread baking process and of the proteins and starches present in wheat.

Barnard, Dr. Daniel P(addock), 4th, Standard Oil Company of Indiana, Whiting, Ind. *Chemistry.* Wilmington, Del, June, 98. B.S, Delaware, 19, Ch.E, 30; M.S, Mass. Inst. Tech, 21, Sc.D, 25. Div. director research lab. applied chem, Mass. Inst. Tech, 23–25; asst. director and later *assoc. director research, Standard Oil Co. of Ind, 25–* Chem. Soc; Soc. Automotive Eng. (chairman, Chicago sect, 29, v. pres, 35); Inst. Aeronaut. Sci. Automotive and aviation fuels and lubricants.

Barnard, Dr. H(arry) E(verett), H. E. Barnard, Inc, Indianapolis, Ind. *Chemistry, Public health.* Dunbarton, N. H, Nov. 14, 74. B.S, New Hampshire Col, 99, Sc.D, 28; hon. Ph.D, Hanover Col, 14. Asst. chemist, Exp. Sta, New Hampshire Col, 00; U. S. Naval Smokeless Powder Factory, Md, 01; chemist, State Board Health, N. H, 01–05; Ind, 05–19, state food and drug commissioner, 07–19; pres, Am. Inst. Baking, 19–27; *food consultant, H. E. Barnard, Inc, 28–* Director, Corn Indust. Research Foundation, 32–34; director research, Farm Chemurgic Council, 35–; food and drug inspection chemist, U. S. Dept. Agr. Standards cmt, U. S. Govt; Lake Mich. Water Cmn, 08–09. Chem. Soc. (pres, Ind. sect, 06, director, 17–); Chem. Eng; Agr. Chem. (referee food adulteration); Ind. Sanit. and Water Supply Asn. (pres). Food adulteration; sanitation; water supply; fruit syrups; beer analysis; benzoate of soda in foods; technical problems of the food industries; child health and protection.

Barnard, Dr. John W(alter), Oglethorpe University School of Medicine, Oglethorpe, Ga. *Anatomy.* Asbestos, Que, Can, Feb. 12, 12. B.S, Michigan, 32, M.S, 33, Ph.D, 35. Asst. *anat,* Michigan, 33–36, instr, 36–38; med. sch, Georgetown, 38–39, asst. prof, 39–41; *prof. and head dept, sch. med, Oglethorpe, 41–* A.A; Asn. Anat. Phylogeny of visceral areas in the nervous system.

Barnard, Prof. R(aymond) W(alter), University of Chicago, Chicago, Ill. *Mathematics.* Ont, Can, May 31, 90. A.B, Michigan, 16, M.S, 18; Ph.D, Chicago, 26. Instr. *math,* Michigan, 17–23; *Chicago, 25–, assoc. prof.* Math. Soc; Math. Asn.

Barnard, Dr. William H(erschel), Taylor University, Upland, Ind. *Psychology.* Arab, Ala, June 26, 92. B.S, Alabama, 22; A.M, Columbia, 26, fellow, 27; Ed.D, Indiana, 35. Prof. educ. and dean, Athens Col, 28–31, prof. psychol. and director summer sch. and exten, 31–33; *prof. educ. and head dept, Taylor, 35–* Ind. Acad. Emotional life; length of study and achievement in English; achievements of pupils attending short and long terms; teaching improvement; analysis of vocabulary and language usage tests.

Barnard, Prof. W(illia)m N(ichols), Cornell University, Ithaca, N. Y. *Mechanical engineering.* Canton, Ill, April 24, 75. M.E, Cornell, 97. Instr. machine design, Cornell, 97–00; chief draftsman, The Russell Engine Co, Massillon, Ohio, 01–03; asst. prof. machine design, *Cornell,* 03–05, *power eng,* 05–07, *prof, 07–,* acting director *mech. eng, col. eng,* 37–38, *director, 38–* Mech. Eng; Eng. Educ. Machine design; steam machinery; heat-power engineering.

Barnes, Dr. A(rlie) R(ay), 508 Ninth Ave, S. W, Rochester, Minn. *Internal medicine.* Paris Crossing, Ind, April 24, 92. A.B, Indiana, 15, A.M, 16, M.D, 19; M.S, Minnesota, 29. Instr. anat, sch. med, Indiana, 16–17; fellow, Mayo Clinic, 20–22, consultant internal med, 25; assoc. prof. *med, Minnesota,* 30–36, *prof, 36–* Am. Med. Asn; fel. Col. Physicians; Am. Heart Asn; Am. Physicians; Cent. Soc. Clin. Research (pres, 42); Cent. Interurban Clin. Club; Minn. Soc. Int. Med; Minn. Heart Soc. (pres, 30). Cardiology; clinical, pathological and electrocardiographic investigations of heart disease.

Barnes, Dr. B(entley) T(iffany), 16272 Glynn Road, E, Cleveland, Ohio. *Physics.* New York, N. Y, Jan. 23, 01. A.B, Park Col, 21; fellow, Rice Inst, 21–23, A.M, 23; Loomis fellow, Yale, 24–25, Ph.D, 25. Asst, Yale, 23–24; *research physicist, Gen. Elec. Co, Cleveland, 25–* Physical Soc; Optical Soc. Conductivity of flames; pressure shifts in the nickel arc spectrum; carbonized tungsten; total radiation from nickel; sources of ultra-violet radiation; discharges in mercury vapor; colorimeters.

Barnes, Bertram S(oules), U. S. Weather Bureau, San Francisco, Calif. *Hydrology.* Santa Rosa, Calif, April 24, 97. B.S, California, 22. Hydraulic engineer, U. S. Geol. Surv, 24–36; hydrologic supervisor, upper Mississippi region, *U. S. Weather Bur,* 36–42, *regional engineer, 42–* Assoc. director, Inst. Hydraulic Research, Univ. Iowa, 38–42. Soc. Civil Eng; Meteorol. Soc. Analysis of discharge hydrographs; relation of precipitation rates to infiltration; surface runoff; subsurface flow.

Barnes, Dr. Carl E(dmund), The Norton Co, Worcester, Mass. *Organic chemistry.* Lewiston, Maine, Feb. 16, 08. B.S, Bates Col, 30; A.M, Harvard, 33, Ph.D, 35. Asst. chem, Harvard, 30–35; *research chemist, Norton Co, 36–* Chem. Soc. Sensitization of photographic latent image; addition of Grignard reagents to mesitylenic ketones; tautomerism of metallic enolates; preparation, chemical structure and properties of high polymers.

Barnes, Dr. Charles R, 1018 Cathedral St, Baltimore, Md. *Inorganic chemistry.* Mercer Co, Pa, Nov. 10, 00. Ph.D, Pa. State Col, 41. *Research chemist,* Champion Paper and Fibre Co, 41–42; *Davison Chem. Corp, 42–* Chem. Soc. Silica gel.

Barnes, Dr. Clifford A(drian), Oceanographic Institution, Woods Hole, Mass. *Chemistry.* Goldendale, Wash, Oct. 14,

05. B.S, Washington (Seattle), 30, Ph.D, 36. Teaching fellow anal. chem, Washington (Seattle), 30–36; research chemist, fuels div, Battelle Mem. Inst, 36–40; *assoc. physical oceanographer, U. S. Coast Guard, 40–* Summers, oceanographer, exped. to Aleutian Islands, U.S.N, 33, oceanographic cruise of U. S. Coast Guard cutter 'Chelan,' 34. Geophys. Union; Chem. Soc. Ocean currents; chemistry of sea water; combustion of solid fuels.

Barnes, Major D(onald) P(orter), 940th Engineers Camouflage Battalion, Davis Monthan Field, Tucson, Ariz. *Civil engineering.* New York, N. Y, Jan. 31, 07. B.S, Oregon State Col, 28; M.S, Calif. Inst. Tech, 30. Designer, Morris Dam, Water Dept, Pasadena, 30–31, 32, 33; instr. civil eng, Mo. Sch. Mines, 31–32; John R. Freeman traveling scholar, Soc. Civil Eng, Germany, 32–33; asst. engineer, struct. research, Metropolitan Water Dist, S. Calif, 33–34; earth dam research, bur. reclamation, U. S. Dept. Interior, 34–36, assoc. engineer, hydraulic research, 36–37; engineer, Grand Coulee Pump Tests, Calif. Inst. Tech, 37–40; ed, 'Civil Eng,' 40–41; *major, Corps. of Engineers, U. S. Army, 41–* Civil Eng. Soil mechanics; hydraulic laboratory practise; stresses in concrete gravity dams; soil mechanics pertaining to earth dams; hydraulic structures; centrifugal pumps.

Barnes, Dwight F(letcher), U. S. Department of Agriculture, 712 Elizabeth St, Fresno, Calif. *Entomology.* Hubbardston, Mass, Jan. 23, 90. B.S, Mass. Col, 16. State deputy nursery inspector, Mass, 16–17; insecticide salesman, Devoe and Raynolds Co, New York, 20–22; sci. asst, gipsy moth lab, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 17, 19–20, 22–23, *asst. entomologist,* 23–30, *dried fruit insect lab, Fresno, 30–* U.S.A, 17–19. Asn. Econ. Entom. Insects of fruit and stored products.

Barnes, Dr. Earl E(lmer), Ohio Agricultural Experiment Station, Wooster, Ohio. *Agronomy.* Waterford, Pa, April 17, 92. B.S. (Agr), Ohio State, 17, M.S, 23, Ph.D, 29. Asst. agr. chem, Ohio State, 17–18; county agr. agent, Sandusky County, Ohio, 18–20; exten. agronomist, Ohio State, 20–27, asst. prof. soils, 27–29; asst. agronomist, *Ohio Exp. Sta,* 27–29, *assoc. agronomist, 29–* A.A; Soc. Agron. Pasture rejuvenation; soil reaction; fertilizers.

Barnes, Prof. Elinor J(ulia), Beaver College, Jenkintown, Pa. *Psychology.* Newark, Ohio, Feb. 25, 02. B.S, Ohio State, 22, A.M, 29, Ph.D, 31. Prof. *psychol,* Otterbein Col, 30–31; *head dept, Beaver Col, 31–* Vocational consultant, Altrusa Int, Chicago, Ill, 40–41. A.A; Psychol. Asn; Asn. Applied Psychol; Soc. Col. Teachers Ed; Vocational Guidance Asn. Educational psychology; vocational guidance; tests and measurements; personnel problems; oral examinations; Latin tests.

Barnes, Dr. F(arrell) F(rancis), Alaska Railroad, U. S. Department of Interior, Anchorage, Alaska. *Geology.* Prineville, Oregon, 05. A.B, Oregon, 29, A.M, 30; Ph.D, Northwestern, 35. Instr. geol, Oregon, 29–30; Northwestern, 31–33; Cincinnati, 34–35; asst. geologist, U. S. Engineers, War Dept, 35; junior soil conservationist, soil conservation service, U. S. Dept. Agr, 35–37, asst. geologist, 37–39; *geologist, Alaska R. R, U. S. Dept. Interior, 39–* Soc. Econ. Geol. Precambrian of Sawatch Range, Colorado; structure of coal measures; Matanuska field, Alaska.

Barnes, Prof. Fred Asa, Cornell University, Ithaca, N. Y. *Railroad engineering.* Stockbridge, Mass, June 17, 76. C.E, Cornell, 97, M.C.E, 98. Rodman, D. C, 98; draftsman, U.S.N, 99; asst. res. engineer, Santiago de Cuba, 99–01; engineer, Ponupo Mining Co, Cuba, 01; H. J. Reilly Co, Cienfuegos, Cuba, 02; instr. *ry. eng, Cornell,* 02–05, asst. prof, 05–15, *prof, 15–,* director civil eng, 21–30. A.A; Ry. Eng; Civil Eng; Asn. Professional Eng; Eng. Educ. Railroad surveying and construction.

Barnes, Prof. G(arnett) F(reeman), 102 Clay St, Marion, Ala. *Physics.* Graves Co, Ky, 87. A.B, A.M, Indiana, 20, Ph.D, 31; Chicago, 24, 36, 37. Asst. prof. physics, Miss. Agr. and Mech. Col, 17–20, assoc. prof, 20–30; asst, Indiana, 30–31; *prof. math. and physics, Judson Col, 31–* A.A; Math. Asn; Asn. Physics Teachers; Ala. Acad. Absorption of x-rays; velocity of sound in gases and mixtures of gases.

Barnes, Prof. George E(ric), Case School of Applied Science, Cleveland, Ohio. *Civil engineering.* Washington, D. C, April 17, 98. B.S, Mass. Inst. Tech, 23; hon.C.E, Case, 35. From instr. to assoc. prof. civil eng, Florida, 23–29; designing engineer, Fuller and McClintock, New York, 29–32; sanit. dept, New York, 32–33; *prof. hydraul. and sanit. eng. and head dept. civil eng, Case, 33–* Construction engineer, Boston Metropolitan Dist. Cmn, 23; assoc. engineer, Main Eng. Co, Daytona, Fla, 24–25; designing engineer, Metcalf and Eddy, Boston, Mass, 27; consulting engineer, Fla, Honduras and Nicaragua, 27–28; hydraulic eng. and sanitation consultant. Civil Eng; Eng. Educ; Water Works Asn; Sewage Works Asn. Hydraulic models for dams built for flood control; design of treatment plants for water and sewage.

Barnes, Dr. Harry Elmer, Auburn, N. Y. *History of science.* Auburn, N. Y, June 15, 89. A.B, Syracuse, 13, fellow, 13–15, A.M, 14; Harvard, 16–17; fellow, Columbia, 15–16, Ph.D, 18; Cutting fellow, Harvard, 16–17. Instr. sociol, Syracuse, 13–15; lecturer hist, Columbia and Barnard Col, 17–18; assoc. prof, Clark, 18–19; prof, New Sch. for Social Research, 19–20; hist. thought and culture, Clark, 20–23; hist. sociol, Smith Col, 23–30; ed. writer, Scripps-Howard Newspapers, 29–40. Prof, Amherst Col, 23–25; lecturer, New Sch. for Social Research, 22–24, 26–; Springfield Col, 23; Teachers Col, Columbia, 37–38. Summers, prof, Syracuse, Montana, 19; Oregon, 20; California, 23, 41; Wisconsin, 24; Cornell, 25; Kentucky, 37, 39. Investigator, State Prison Inquiry Cmn, N. J, 17–18; mem. State Cmt. to Investigate Penal Systems, Pa, 18–19. Hist. Sci. Soc; fel. Ethnol. Soc; Anthrop. Soc; Am. Hist. Asn; Econ. Asn; Sociol. Soc; Polit. Sci. Asn; Acad. Polit. Sci; N. Y. Acad; London Sociol. Soc; fel. Royal Econ. Soc; fel. Gesell. für Soziol; fel. Soc. de Sociol. Masaryk; fel. Inst. int. de Sociol. History of science, culture and social thought; methodology of the social sciences; criminology.

Barnes, Dr. H(arry) M(ilford), 19 Irving Place, Summit, N. J. *Organic chemistry.* North Brookfield, N. Y, Sept. 15, 09. B.S, Antioch Col, 34; Ph.D, Wisconsin, 38. *Chemist, cent. labs, Gen. Foods Corp, 39–* Chem. Soc. Organic synthesis.

Barnes, Dr. H(oward) T(urner), McGill University, Montreal, Que, Can. *Physics.* Woburn, Mass, July 21, 73. B. A.Sc, McGill, 93, M.A.Sc, 96, D.Sc, 00. Demonstrator physics, *McGill,* 95–98, lecturer, 00–01, asst. prof, 01–06, assoc. prof, 06–07, Macdonald prof, 07–19, director, Macdonald Physics Bldg, 09–19, *emer. prof. physics, 19–* Assoc. ed, 'Jour. Physical Chem.' Joule studentship, Royal Soc. London, 00. Pres, Can. nat. cmt, Int. Electrotech. Cmn; sec'y, sect. A, Int. Elec. Cong, St. Louis, 04. A.A; fel. Physical Soc; Can. Inst. Eng; fel. Royal Soc. Can. (pres, math. and physics sect, 09); fel. Royal Soc; fel. Royal Meteorol. Soc. Standards of electromotive force; continuous electric calorimetry; specific heats of water and mercury; variation of the specific heat of liquids with temperature; critical velocity of liquids; thermal and electrical measurements; ice formation and prevention; ice navigation; iceberg research.

Barnes, Dr. James, Franklin Institute, Parkway at 20th St, Philadelphia, Pa. *²*Physics.* Halifax, N. S, Can, Dec. 11, 78. B.A, Dalhousie, 99, M.A, 00, 1851 Exhib. scholar, 00–03; fellow, Hopkins, 03–04, Ph.D, 04; Cambridge, 14; Manchester, 15. Instr. physics, Hopkins, 04–06; assoc, Bryn Mawr Col, 06–10, assoc. prof, 10–17, prof, 17–31; head physics sect. and *tech. adviser, Franklin Inst, 31–* A.A; Physical Soc; Franklin Inst; Newcomen Soc. Electrical conductivity and freezing points of mixtures of electrolytes; spectrum analysis with interferometers; emission and absorption spectra.

Barnes, Dr. James C(rowell), Kendall Mills, Paw Creek, N. C. *Physics.* Geneseo, N. Y, June 1, 16. A.B, Colgate, 37; A.M, Virginia, 39, Ph.D, 41. Teaching fellow, Virginia, 37–39; *mem. research staff, Kendall Mills, 41–* Physical Soc. Transient arc discharge to a moving medium; impulse ion accelerator; physical properties of cotton fibers.

Barnes, Prof. John L(andes), 16 Ardley Road, Winchester, Mass. *Mathematics. Electrical engineering.* Haddonfield, N. J, Oct. 16, 06. B.S, Mass. Inst. Tech, 28, M.S, 29; fellow, Princeton, 29–30, A.M, 30, Ph.D, 34. Asst. math, Princeton, 32–33, asst. elec. eng, 33–34; instr, Mass. Inst. Tech, 34–35; asst. prof. *math, Tufts Col,* 35–39, assoc. prof, 39–41, *prof, 41–, chairman dept. applied math, 39–,* acting chairman dept. elec. eng, 40–41; *research mathematician, Bell Tel. Labs,* 42– Radio engineer, RCA Mfg. Co, 39–40; consultant, Hazeltine Service Corp, 41–42. Math. Soc; Radio Eng. Application of the Laplace transformation to integral and differential equations of mathematical physics; electric wave filters; frequency modulation; electro-magnetic wave propagation.

Barnes, Prof. Kenneth B(oyd), 52 Ohio Ave, Tiffin, Ohio. *Chemistry.* Rockford, Ill, July 28, 96. B.S, Beloit Col, 20; M.S, Chicago, 24. Instr. *chem,* Beloit Col, 20–25; asst, Chicago, 25–26; asst. prof, Des Moines, 26–27; *Heidelberg Col. (Ohio),* 27–28, *prof, 29–, head dept, 31–* A.A; Chem. Soc. Inorganic complex compounds.

Barnes, Dr. L(a Verne) A(lmon), 375 South St, Jamaica Plain, Boston, Mass. *Bacteriology.* St. John, Wash, July 13, 01. B.S, State Col. Wash, 25, M.S, 28, Ph.D, 29. Demonstrator bacter, sch. med, Western Reserve, 25–26; teaching fellow, State Col. Wash, 26–29; senior instr, sch. med, Western Reserve, 29–31; *senior bacteriologist, State Dept. Pub. Health, Mass, 31–* Soc. Bact; Asn. Immunol; Pub. Health Asn. General and medical bacteriology and immunology; local immunity; dormancy in bacteria; anthrax infection; inhibitory culture filtrates; antipneumococcic serum production and testing.

Barnes, Prof. LeRoy Lesher, Cornell University, Ithaca, N. Y. *Physics.* Wakeman, Ohio, Oct. 23, 02. A.B, Oberlin Col, 26; Ph.D, Cornell, 32. Asst. physics, Amherst Col, 26–27; *Cornell,* 27–28, instr, 28–37, *asst. prof. biophysics, 37–* Physical Soc. Thermionics; positive ion emission from heated substances; biophysics; nutrition.

Barnes, Dr. Marion D(avid), Apt. 91, 423 W. 120th St, New York, N. Y. *Physical organic chemistry.* Junction City, Ark, May 20, 13. B.S, Arkansas, 36; A.M, Columbia, 39, Ph.D, 42. Teaching fellow *chem,* Col. City of N. Y, 36–37, tutor, 37–40; asst, *Columbia,* 40–42, *instr, 42–* Chem. Soc. Kinetics and equilibria of carbinol formation of phenol phthalein.

Barnes, Prof. Milford E(dwin), State University of Iowa, Iowa City, Iowa. *Public health.* Columbus Junction, Iowa, Nov. 28, 83. A.B, Monmouth Col, 05; B.S, Chicago, 12, M.D, Rush, 14; grad, London Sch. Trop. Med, 19; Dr.P.H, Hopkins, 25. Director for Siam, int. health div, Rockefeller Foundation, 16–25, Straits Settlements and Siam, 25–26; director, Ohio Training Sta. for Health Officers, 27–29; Mich. Training Sta. for Health Workers, 29; *prof. hygiene and prev. med. and head dept, Iowa, 30–* Pub. Health Asn; Am. Med. Asn; Soc. Trop. Med; British Med. Asn; Royal Soc. Trop. Med. and Hygiene (local sec'y, 20–25); Nat. Hist. Soc. Siam. Preventive medicine; epidemiology.

Barnes, Prof. O(tis) A(very), Colorado College, Colorado Springs, Colo. *Chemistry.* Auburn, Ill, April 15, 94. B.S, Illinois, 16, M.S, 18, Ph.D, 22. Asst. *chem,* Illinois, 16–22; instr, Utah, 22–25; asst. prof. and *assoc. prof, Colo. Col, 25–; chemist, Alexander-Industries, 29–; lieut. col. and div. officer, 38th Inf. Div, U. S. Army.* Summers, State Highways Lab, Ill, 17, 23–26. Lieut. col, C.W.S.R. Chem. Soc. (sec'y-treas, northwest. Utah sect, 23). Chlorine and crenothrix; piperidine derivatives of cocaine and procaine; catalytic reduction; analysis of photographic developers.

Barnes, Prof. Ralph M(osser), 107 Engineering Bldg, Iowa City, Iowa. *Mechanical engineering.* Clifton Mills, W. Va, Oct. 17, 00. B.S, West Virginia, 23, M.E, 28; M.S, Cornell, 24, Ph.D, 33. Mech. engineer, Bausch and Lomb Optical Co, Rochester, N. Y, 24–25; indust. engineer, Gleason Gear Works, Rochester, N. Y, 25–26; instr. indust. management, Illinois, 26–28; asst. prof. *indust. eng, Iowa,* 28–30, assoc. prof, 30–34, *prof, 34–, director personnel, col. eng, 37–, summer management course, 39–* Summers, indust. engineer, Eastman Kodak Co, Rochester, N. Y, 27–30, 34–35, Kodak, Ltd, London, 36; consulting engineer, Dow Chem. Co, 42. A.A; Mech. Eng. (chairman, tri-cities sect, 34–37); Eng. Educ; Management Asn; Soc. Adv. Management; Nat. Inst. Psychol. Gt. Britain. Industrial engineering and management; time and motion study; wage incentives; standard costs; personnel administration; motion and time study applications.

Barnes, Prof. R(ichard) H(enry), University of Minnesota, Minneapolis, Minn. *Physiological chemistry.* La Jolla, Calif, June 29, 11. A.B, San Diego State Teachers Col, Calif, 33; Ph.D, Minnesota, 40. Research chemist, Scripps metabolic clinic, California, 33–37; teaching asst. *physiol. chem, Minnesota,* 37–40, instr, 40–42, *asst. prof, 42–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Metabolism of carbohydrates, fats and protein; nutrition.

Barnes, Dr. R(obert) Bowling, American Cyanamid Co, Stamford, Conn. *Physics.* Montgomery, Ala, June 9, 06. A.B, Birmingham-Southern Col, 25; Ph.D, Hopkins, 29. Instr. physics, Hopkins, 28–30; nat. research fellow, Berlin, 30–32; instr, Hopkins, 32–33; Princeton, 33–36; *director physics div, Stamford research labs, Am. Cyanamid Co, 36–* Fel. Physical Soc; Chem. Soc. (chairman west. Conn. sect, 42); Optical Soc. (assoc. ed, 'Jour'); Soc. Test. Mat; N. Y. Acad. Spectroscopy; plastics; electron microscopy; radioactivity.

Barnes, Prof. Robert Percy, 131 16th St, N.E, Washington, D. C. *Chemistry.* Washington, D. C, Feb. 26, 98. A.B, Amherst Col, 21; A.M, Harvard, 30, Ph.D, 33. Asst. *chem,* Amherst Col, 21–22; asst. prof. and later *assoc. prof, Howard, 22–* Reactions and keto-enol equilibria of an alpha diketone; oxime cleavages; steric hindrance in alpha diketones.

Barnes, Dr. Roger W(illiam), 1216 Wilshire Blvd, Los Angeles, Calif. *Medicine.* Colo, Sept. 22, 97. A.B, Pacific Union Col, 22; M.D, Col. Med. Evangelists, 22; M.S, Southern California, 36. *Prof. clin. urol, Col. Med. Evangelists, 34–* Am. Med. Asn; Urol. Asn; fel. Col. Surg; Neisserian Med. Soc. (exec. cmt, 41). Pharmacology of prostatic fluid.

Barnes, Dr. Sidney W(illson), University of Rochester, Rochester, N. Y. *Physics.* Chicago, Ill, 02. A.B, Oberlin Col, 24; A.M, Amherst Col, 25; Ph.D, Cornell, 30. Heckscher asst. *physics,* Cornell, 27–34; research assoc, *Rochester,* 34–41, *assoc. prof, 41–* Physical Soc. Nuclear physics; x-ray line widths.

Barnes, Prof. T(homas) Cunliffe, Hahnemann Medical College and Hospital, Philadelphia, Pa. *Physiology.* Montreal, Que, Can, June 4, 04. McGill, 22–24; A.B, Cornell, 26; Sc.D, Harvard, 28; Cambridge, 29–30. Asst. gen. physiol, Harvard, 27–29, tutor biol, 28–29; instr, Yale, 30–35, asst. prof, 35–40; research assoc. pharmacol, Hahnemann Med. Col. and Hosp, Pa, 40–42; prof. physiol. and pharmacol. and head dept, sch. med, Oglethorpe, 42–43; *assoc. prof. physiol, Hahnemann Med. Col. (Pa), 43–* A.A; Soc. Zool; Bot. Soc; Physiol. Soc. Tropisms of ants; impulses in crustacean nerve; physiology of water; bioelectricity.

Barnes, Dr. Virgil E(verett), University of Texas, Austin, Texas. *Geology.* Chehalis, Wash, June 11, 03. B.S, State Col. Wash, 25, M.S, 27; Ph.D, Wisconsin, 30. Teaching fellow, State Col. Wash, 25–27; research fellow, Am. Petrol. Inst, 30–31; U. S. Geol. Surv, 34–35; *geologist, bur. econ. geol, Texas, 35–* Summers, asst. geologist, Wash. Geol. Surv, 24–27; geologist, Wis. Geol. Surv, 28; Dom. Explorers, Ltd, Can, 29. Geol. Soc. Changes in hornblende; oil field waters; earth temperatures; salt dome cap rock minerals; North American tektites; meteorites; economic geology of Texas; building stones, graphite, barite, bismuth-molybdenum and serpentine and associated minerals.

Barnes, Dr. W(illiam) C(arroll), P. O. Box 337, Charleston, S. C. *Horticulture.* Brunson, S. C, Jan. 18, 08. B.S, Clemson Col, 31; Ph.D, Cornell, 35. Asst, Cornell, 31–35, research instr, 35–37; *supt, S. C. Truck Exp. Sta, 37–* Soc. Hort. Sci. Nutrition, physiology and breeding of vegetable crops.

Barnes, Prof. William H(oward), McGill University, Montreal, Que, Can. *Chemistry.* Montreal, Que, Jan. 9, 03. B.Sc, McGill, 24, M.Sc, 25, Nat. Research Council Can. fellow, 26–27, Ph.D, 27. Demonstrator chem, McGill, 24–26; Ramsay mem. fellow, Royal Institution, London, 27–29; sessional lecturer physics, *McGill,* 29–30, lecturer *chem,* 30–35, asst. prof, 35–39, *assoc. prof, 39–* Fel. Royal Soc. Can. Adiabatic calorimetry; x-ray crystallography.

Barnes, Dr. William H(utt), Chico, Calif. *Urology.* Gratiot Co, Mich, Sept. 7, 87. A.B, Stanford, 16; A.M, California, 17, M.D, 21. Teacher, high sch, P. I, 11–13; bacteriologist, Cutter Labs, 15–17; instr. bacter, California, 17–20; asst. urologist, Calif. Infirmary, 21–32; *practising physician.* Assoc. gynec, Merritt Hosp, 22–30. Am. Med. Asn; Butte County Med. Soc. (pres, 34); Butte County Tuber. and Health Asn. (pres, 38). Surgery; medicine.

Barnett, Prof. Albert, Texas Technological College, Lubbock, Texas. *Psychology, Education.* Brush Creek, Tenn, Nov. 1, 86. B.S, Peabody Col, 16, A.M, 17, Gen. Educ. Board fellow, 23, 24, Ph.D, 26. Prof. agr, Tenn. Polytech, 16–19; assoc. prof. agr. educ, Clemson Col, 19–20; itinerant teacher trainer, Tennessee, 20–22; supervisor, State Dept. Educ, Ariz, 22–25; prof. educ, W. Texas State Teachers Col, 25–33; *prof. educ. and psychol, Texas Tech. Col, 33–, asst. dean div. arts and sciences, 39–* Asst. prof, Arizona, 22–23; prof. Peabody Col, 30. Organized community activities of agriculture teachers; agricultural education.

Barnett, Dr. C(harles) E(dward), New Jersey Zinc Co, Palmerton, Pa. *Physical chemistry.* Chicago, Ill, Aug. 23, 05. A.B, Hiram Col, 26; Heckscher fellow, Cornell, 28–30, Ph.D, 30. Asst. chem, Cornell, 26–28; *physical chemist, research div, N. J. Zinc Co, 30–, chief physics sect, 39–* Chem. Soc; Optical Soc. Physical chemistry of the proteins; adsorption on crystals; properties of pigments in rubber and paint; infra-red spectra; luminescence.

Barnett, Claribel R(uth), 1661 Crescent Place, N. W, Washington, D. C. *Library economy.* Kent, Ohio, March 26, 72. Ph.B, Michigan, 93; B.L.S, N. Y. Library Sch, 20. Cataloguer, library, U. S. Dept. Agr, 95–01, asst. librarian, 01–07, librarian, 07–40; *retired.* Library advisory wage cmt, U. S. Congressional Joint Cmn. Assoc. ed, 'Agr. Hist,' 32–40. A.A; Agr. Hist. Soc; Library Asn. (2nd v. pres, 21, chairman, Oberly Mem. Fund cmt, 23–34, agr. libraries sect, 10–14, 27); Library Inst; Wash. Acad; N. Y. Library Sch. Asn. (2nd v. pres, 21); D. C. Library Asn. (2nd v. pres, 12, 19, pres, 29). Library economy; agricultural biography.

Barnett, Dr. George D(e Forest), Stanford University, Calif. *Medicine.* Santa Rosa, Calif, July 12, 84. A.B, Stanford, 06, A.M, 09, M.D, 13; Hopkins, 10–12. Instr. chem, *Stanford,* 09–10, *med,* 15–19, assoc. prof, 24–26, *prof, 26–* Lieut, M.C, 17–19. Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest. Renal function; hydrogen ion concentration.

Barnett, Dr. Harold M(ontgomery), Barnett Laboratories, Long Beach, Calif. *Biochemistry.* Pawnee City, Nebr, Sept. 7, 03. A.B, Nebr. Wesleyan, 25; M.S, Minnesota, 27, Ph.D, 31. Asst. agr. biochem, Minnesota, 25–27; instr. org. chem. and biochem, Valparaiso, 27–28; research chemist, S. M. A. Corp, 29–36; *director, Barnett Labs, 36–* Summers, bur. plant indust, U. S. Dept. Agr, Utah and Ariz, 25, 26. A.A; Chem. Soc. Physical-chemical properties of plant saps; proteins; isolation and purification of amino acids; chemical condiments; isolation and properties of carotene; vegetable juices.

Barnett, Dr. H(omer) G(arner), University of Oregon, Eugene, Oregon. *Anthropology.* Bisbee, Ariz, April 25, 06. A.B, Stanford, 27; Ph.D, California, 38. Asst. and research assoc. anthrop, California, 38; instr, New Mexico, 39; *instr. anthrop, Oregon, 39–,* chairman dept, 40–41, *asst. curator, Oregon State Museum Anthrop, 39–,* acting director, 40–41. Director Jamez Archeol. Field Sch, 39. A.A; Ethnol. Soc; Soc. Am. Archeol. The processes of cultural change.

Barnett, Prof. H(orace) L(eslie), New Mexico State College, State College, N. Mex. *Mycology, Plant pathology.* Indianapolis, Ind, Feb. 19, 09. A.B, DePauw, 31; M.S, N. Dak. Agr. Col, 33; Ph.D, Mich. State Col, 37. Instr. bot, Mich. State Col, 37–38, asst. prof, 39–40; instr. *biol, N. Mex. State Col,* 38–39, 40–41, *asst. prof, 41–* Mycol. Soc; Phytopath. Soc. Basidiomycetes.

Barnett, Prof. I(saac) A(lbert), University of Cincinnati, Cincinnati, Ohio. *Mathematics.* London, Eng, May 7, 94. B.S, Chicago, 15, M.S, 16, Ph.D, 18. Instr. *math,* Washington (St. Louis), 18–19; Pierce fellow, Harvard, 19–20; asst. prof, Saskatchewan, 20–23; *Cincinnati,* 23–28, *assoc. prof, 28–* Math. Soc; Math. Asn. Calculus variations; continuous groups in function space; diophantine equations.

Barnett, Prof. Joseph, Jr, Apt. 5, 520 Maple Ave, Stillwater, Okla. *Mathematics.* Jarvisville, W. Va, Dec. 27, 83. A.B, West Virginia, 14; A.M, Columbia, 23. Teacher, high sch, W. Va, 14–20; La, 23–24; *asst. prof. math, Okla. Agr. and Mech. Col, 25–* Math. Soc; Math. Asn; Okla. Acad.

Barnett, Lelia Jefferson Harvie (Mrs. S. J. Barnett), 939 Thayer Ave, Westwood Hills, Los Angeles, Calif. *Physics.* Amelia Co, Va. A.B, Cornell, 01. Teacher math. and physics, Va. State Nor. Sch, 93–00; computer, U. S. Naval Observatory, 01–02; U. S. Coast and Geod. Surv, 02–04; collaborator with S. J. Barnett, 06–26. A.A. Geodesy; experimental electricity and magnetism.

Barnett, Prof. R(obert) J(ohn), Manhattan, Kans. *Pomology.* Denison, Kans, Jan. 16, 74. B.S, Kans. State Col, 95, M.S, 11. *Prof.* pomol, State Col. Wash, 14–20; *hort, Kans. State Col, 20–,* head dept, 30–38. A.A; Soc. Hort. Sci. Agricultural teaching; own-rooted apple trees; soil frost relations.

Barnett, Prof. S(amuel) J(ackson), 939 Thayer Ave, Westwood Hills, Los Angeles, Calif. *[1]Physics.* Woodson Co, Kans, Dec. 14, 73. Col. of Emporia, 89–91; Chicago, 92–93; A.B, Denver, 94; Virginia, 95–96; univ. scholar and Pres. White fellow, Cornell, 96–98, Ph.D, 98. Instr. physics and biol, Denver, 94–95; asst, astron. observatory, Virginia, 95–96; from instr. to prof. physics, Colo. Col, 98–00; Stanford, 00–05; Tulane, 05–11; Ohio State, 11–18; physicist, dept. terrestrial magnetism, Carnegie Institution, 18–24, research assoc, 24–26; *prof. physics, California at Los Angeles, 26–* Research assoc, Calif. Inst. Tech, 24– Magnetic observer, U. S. Coast and Geod. Surv, 02–04. Nat. Research Council. Comstock prize, Nat. Acad, 18. Mem, Int. Réunion sur le magnétisme, Strasbourg, 39. A.A. (exec. cmt, Pacific div); Physical Soc; Geophys. Union; Am. Acad; Philos. Soc. Wash; Wash. Acad. Experimental and theoretical electricity and magnetism.

Barney, Dr. A(rchie) F(ay), 2657 Alden St, Salt Lake City, Utah. *Agronomy.* Kanosh, Utah, July 4, 92. B.S, Utah Col, 20; Ph.D, Cornell, 24. Plant breeding, Exp. Sta, Utah Col, 24; *agronomist, dept. agr. research, Am. Smelting and Ref. Co, 25–* The inheritance of smut resistance in oats; the effects of smelter fumes and gases on vegetation.

Barney, Dr. I(da), 110 Linden St, New Haven, Conn. *Astronomy.* New Haven, Conn, Nov. 6, 86. A.B, Smith Col, 08; Ph.D, Yale, 11. Prof. math, Rollins Col, 11–12; asst, Smith Col, 12–13, instr, 13–17; prof, Lake Erie Col, 17–19; Meredith Col, 19–20; asst. prof, Smith Col, 20–21; *research asst, observatory, Yale, 22–* A.A; Astron. Soc; Royal Astron. Soc. Formation of star catalogues by means of photography.

Barnhart, Prof. C(harles) A(nthony), 115 S. Maple St, Albuquerque, N. Mex. *Mathematics.* Mansfield, Ill, Jan. 4, 83. A.B, Illinois, 05, A.M, 11. Prof. *math,* Carthage Col, 12–16; instr, Colo. Col, 17–18; *prof, New Mexico, 18–* Math. Soc; Math. Asn. Graphical differentiation and integration in engineering and scientific problems.

Barnhart, Dr. Edward N(orton), 1813 N. Rhodes Ave, Arlington, Va. *Psychology.* Berkeley, Calif, Sept. 15, 09. A.B, California, 33, A.M, 34, Ph.D, 37. Research assoc, Cleveland Museum Art, 37–40; instr. psychol, Reed Col, 40–42; *films information channels analyst, bur. intel, Office War Information, 42–* Supervisor children's classes, Portland Art Museum, 40–42. Assoc. Psychol. Asn. Experimental esthetics; developmental analysis of children's abilities and interests in art; educational theory and practice in teaching art to children.

Barnhart, Dr. John Hendley, Southampton, N. Y. *Botany.* Brooklyn, N. Y, Oct. 4, 71. A.B, Wesleyan, 92, A.M, 93; M.D, Columbia, 96. Ed. asst, *N. Y. Bot. Garden,* 03–12, librarian, 06–12, bibliographer, 13–42, *emer. bibliographer, 42–* N. Y. Bot. Garden del, Int. Bot. Cong, Vienna, 05; Brussels, 10; Cambridge, England, 30. A.A; Soc. Nat; Torrey Bot. Club (ed. in chief, 03–07, v. pres, 08–26, 32, pres, 37–); Conn. Bot. Soc; Vt. Bot. Club; Phila. Bot. Club; cor. mem. Acad. Nat. Sci. Phila; fel. N. Y. Acad. (ed, 37). Botanical bibliography and nomenclature; taxonomy of flowering plants; Lentibulariaceae; local floras of North America.

Barnhart, P(ercy) S(pencer), Scripps Institution of Oceanography, La Jolla, Calif. *Biology.* Berkley Heights, N. J, Sept. 17, 81. A.B, Southern California, 11, A.M, 14. Asst. biol, Southern California, 07–11, instr. zool, 11–13; asst. prof. marine biol, Venice Marine Biol. Sta, 13–14; sci. asst, Bur. Fisheries, 14; *assoc. oceanog. and curator, Scripps Institution, California, 14–* West. Soc. Nat. Marine biology.

Barnum, Clyde C, 1024 Brown St, Martinez, Calif. *Agriculture, Genetics.* French Corral, Calif, Dec. 24, 86. B.S, California, 21. Asst. pathologist, Exp. Sta, Hawaiian Sugar Planters' Asn, Honolulu, 24–29, assoc. pathologist, 29–33; land bank appraiser, Fed. Land Bank, Berkeley, Calif, 33–34; island rep, Exp. Sta, Hawaiian Sugar Planters' Asn, 34–36; *asst. farm adviser, Contra Costa County, 36–* Sugar cane pathology; rat control in cane fields; penicillium decay of apples; stem end rot of apples; control of the wild morning glory.

Barnum, Dr. Cyrus P(aine), Jr, University of Minnesota, Minneapolis, Minn. *Physiological chemistry.* Minneapolis, Minn, May 18, 14. A.B, Minnesota, 36, Ph.D, 40. Teaching asst. physiol. chem, Minnesota, 38–40; research fellow, Scripps Metabolic Clinic, California, 40; Carnegie research fellow dentistry, *Minnesota,* 40–42, *instr. physiol. chem, 42–* Chem. Soc. Polarographic investigations of physiologically important systems; intermediate fat metabolism; calcium and phosphorus metabolism of teeth and bones; protein investigations on malignant tumor tissue.

Barnum, Dr. E(mmett) R(aymond), 1831 Arch St, Berkeley, Calif. *Organic chemistry.* Rushville, Nebr, May 4, 13. B.S, Nebr. State Teachers Col, 37; Parke, Davis and Co. fellow, Nebraska, 38–41, M.S, 39, Ph.D, 42. Asst, Nebraska, 37–38; *research chemist, Shell Develop. Co, 42–* Derivatives of benzo(f)quinoline.

Barnum, Dr. Glenn L(ewis), 707 St. John Ave, Pasadena, Calif. *Biochemistry.* Canton, Kans, Jan. 10, 05. B.S, George Washington, 30, A.M, 31, M.D, 37; Sc.D, Hopkins, 37. Junior chemist, U. S. Dept. Agr, 30–33; asst. biochem, med. sch, George Washington, 33–35; *instr. med, sch. med, Southern California, 38–; lieut, Med. Corps, U. S. Naval Res, 40–* Res. physician, Los Angeles County Hosp, 38–40. Am. Med. Asn. Bioassay of the vitamins; nutrition.

Barnwell, Dr. John B(lair), University Hospital, Ann Arbor, Mich. *Internal medicine.* Selma, Ala, March 15, 95. A.B, Trinity Col. (Conn), 17; M.D, Pennsylvania, 23. Research instr. pediat, Pennsylvania, 25–26; asst. res, Trudeau Sanatorium, 26–28; from instr. to *assoc. prof. int. med, Michigan, 28–* Bell medal, Pennsylvania, 23. A.A; Clin. and Climat. Asn; fel. Am. Med. Asn; Asn. Thoracic Surg; Trudeau Soc. (v. pres, 39, pres, 43); Miss. Valley Sanatorium Asn. (sec'y, 36, v. pres, 38, pres, 39). Physiology of the kidney; tuberculin and tuberculin proteins; tuberculosis of the lungs; artificial pneumothorax; pulmonary collapse.

Baron, Dr. A(braham) Louis, 213 W. 16th St, New York, N. Y. *Genetics.* Brooklyn, N. Y, June 27, 07. B.S, N. Y. Univ, 28, M.S, 30, Ph.D, 34. Asst. instr, N. Y. Univ, 28–33; *asst. prof. biol, First Inst. Podiatry, 34–* Genetics Soc. Developmental genetics in Drosophila; variation in bacteria.

Baroody, Dr. E(ugene) M(ichael), University of Missouri, Columbia, Mo. *Physics.* Richmond, Va, Oct. 26, 15. B.S, Richmond, 35; Ph.D, Cornell, 40. *Instr. physics,* N. Dak. Col, 40–41; *Missouri, 41–* Theoretical physics; the directional dependence of electrical conductivity in metals.

Barott, Herbert G(eorge), Apt. 310, 5112 Connecticut Ave, N. W, Washington, D. C. *Physics.* Burton, Ohio, July 13, 81. E.E, Syracuse, 09. Asst. physicist, Bur. Standards, 10–17; *physicist in charge respiration calorimeter lab, U. S. Dept. Agr, 17–* Inst. Nutrition; Poultry Sci. Asn; Philos. Soc. Heat measurements; physics of incubation of hen's eggs; energy metabolism and gaseous metabolism of birds; specific dynamic action of feeding stuffs.

Barr, Dr. C(alvin) G(uinn), Michigan State College, East Lansing, Mich. *Plant physiology.* Lineville, Iowa, March 26, 04. B.S, Iowa State Col, 31, fellow, 31–34, M.S, 33, Ph.D, 35. Teacher science, high sch, 26–30; plant physiologist and asst. botanist, Colo. State Col, 34–37, assoc. botanist, 37–40; asst. *plant physiol, Exp. Sta, Mich. State Col,* 40–41, *research assoc, 41–* Plant chemistry; transpiration; vegetable and crops physiology.

Barr, Prof. Clarence F(oster), 563 N. Eighth St, Laramie, Wyo. *Mathematics.* Ind, March 12, 93. A.B, 20; M.S, Chicago, 23. Secondary teaching and admin. work, 12–23; instr. *math,* Purdue, 23–26; asst. prof, *Wyoming,* 26–36, assoc. prof, 36–40, *prof, 40–* Summers, teacher, Southwest. State Nor. Sch, Pa, 24–27; Ind. State Teachers Col, 30. Math. Asn. (v. pres, Rocky Mt. sect, 30, 37, pres, 38). Algebraic errors of college freshmen; placement of college freshmen in mathematics; the imaginary in geometry.

Barr, Prof. D(avid) P(reswick), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Internal medicine.* Ithaca, N. Y, Aug. 23, 89. A.B, Cornell, 11, M.D, 14. Instr. *med,* Cornell, 16–23, asst. prof, 23–25; *prof,* sch. med, Washington (St. Louis), 25–41; *med. col, Cornell, 41–* Research fellow, Russell Sage Inst, 16–24; asst. physician, Bellevue Hosp, 21–24; consultant, Barnard Free Skin and Cancer Hosp; Jewish Hosp; physician in chief, Barnes Hosp, St. Louis, Mo, 25–41; New York Hosp, 41. Soc. Clin. Invest. (treas, 23–25); Soc. Exp. Biol; Harvey Soc; Am. Physicians; Col. Physicians (regent); N. Y. Acad. Med. Cardiac diseases; muscular exercise; fever; calcium metabolism.

Barr, Dr. E(rnest) Scott, 2518 Audubon St, New Orleans, La. *Physics.* Lincolnton, N. C, Nov. 27, 05. A.B, North Carolina, 26, A.M, 33, Ph.D, 36. Instr. *physics,* North Carolina, 35–36; *Tulane,* 36–37, asst. prof, 37–40, *assoc. prof, 40–* Physical Soc. (sec'y southeast. sect, 40–); Asn. Physics Teachers. Infra-red studies of solutions.

Barr, Dr. Eugene (Aloysius), P. O. Box 605, Bound Brook, N. J. *Organic chemistry.* Philadelphia, Pa, Nov. 20, 15. B.S, Villanova Col, 37; Chem. Foundation fellow, Pennsylvania, 37–38, M.S, 38, univ. scholar, 38–40, Ph.D, 41. Chem. engineer, Allied Chem. Corp, 37; instr. org. chem, Villanova Col, 37–40; asst, Rohm and Haas Co, 40–41; *research chemist, Bakelite Corp, 41–* Chem. Soc. Synthesis of thioindigo dyes; reactions of beta substituted sulfones; structure and reactions of phenolic resins.

Barr, Dr. Frank T(homas), Standard Oil Development Co, Elizabeth, N. J. *Chemical engineering.* Elwood, Ind, July 1, 10. B.S, Washington (St. Louis), 29, M.S, 31; Ph.D, Illinois, 34. Asst. chem, Washington (St. Louis), 29–31; chem. eng, Illinois, 31–34; instr, Armour Inst. Tech, 34–36; *chem. engineer,* Standard Oil Co. of La, 36, *Standard Oil Develop. Co, 36–* Chem. Soc; Chem. Eng. (sec'y-treas, Chicago sect, 36). Applied physical chemistry; heat transmission; temperature measurement; hydrocarbon processing; hydrogen manufacture; high pressure reactions; engineering and chemical thermodynamics.

Barr, Lieut. Col. P(ercy) M(unson), 1831 San Juan Ave, Berkeley, Calif. *Forestry.* Watertown, Conn, July 22, 97. B.A.Sc, British Columbia, 24; M.F, Yale, 25, fellow, 27–28, Ph.D, 29. Asst. forester in charge research, Forest Service, B. C, Can, 27–32; asst. prof. forestry, California, 32–35, assoc. prof, 35–41; capt, *Air Forces, U. S. Army,* 41–43, *lieut. col, 43–* Soc. Foresters; Can. Soc. Forest Eng. Silviculture of Douglas fir; silviculture of pine forests; forest management; financial aspects of forestry practise.

Barr, Dr. Richard A(lexander), Vanderbilt University, Nashville, Tenn. *Surgery.* Sumner Co, Tenn, Sept. 8, 71. A.B, Vanderbilt, 92, M.D, 94. *Prof. surg, Vanderbilt, 03–* Major surgeon, 1st Tenn. Vol. Inf, 98–99; lieut. col, U.S.A, 17–18. Fel. Am. Med. Asn; fel. Am. Col. Surg; South. Surg. Asn; Tenn. Acad. Teaching of surgery.

Barr, Dr. William M(ilton), 120 S. 51st St, Omaha, Nebr. *Chemistry, Chemical engineering.* West Union, Iowa, Aug. 26, 78. B.S, Iowa, 02; A.M, Grinnell Col, 04; Harrison fellow, Pennsylvania, 07–08, Ph.D, 08. Instr. chem, Grinnell Col, 02–05; asst, Pennsylvania, 05–06; chemist, Mallinckrodt Chem. Works, Mo, 07, 08–09, 12; assoc. prof. in charge eng. chem, Iowa State Col, 09–11; manager, Mallinckrodt Chem. Works, N. J, 13–16; consulting chemist, *Union Pacific System,* 16–32, asst. to v. pres. operations, 32–33, *asst. to exec. v. pres, 33–, chief chem. and metal. engineer, 37–* U. S. Geol. Surv, 05–08. 'Ry. Rev.' prize, 26. Chem. Soc; Chem. Eng; Ry. Eng; Soc. Test. Mat. (pres, 40); Welding Soc. The spectrum and bromides of columbium; the disintegration of concrete in septic tanks; the treatment of railway water supplies; pitting and corrosion in locomotives; alloy steels in locomotive construction; metallurgy.

Barre, Dr. Henry J(ohn), Purdue University, Lafayette, Ind. *Agricultural engineering.* Tampa, Kans, April 11, 05. B.S, Kans. State Col, 30; M.S, Iowa State Col, 33, Ph.D, 38. Asst, Iowa State Col, 30–37, research asst. prof, 37–43, agent in charge grain storage invests, bur. agr. chem. and eng, U. S. Dept. Agr, 38–43; *head dept. agr. eng, Purdue, 43–* A.A; Agr. Eng; Iowa Eng. Soc. Condensation of moisture within building walls; grain storage.

Barre, H(enry) W(alter), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Lexington, S. C, May 5, 81. B.S, Clemson Agr. Col, 05, Sc.D, 37; B.S, Nebraska, 07, A.M, 10. Agent, Crop Pest and Disease Bur, Nebr, 07; assoc. prof. bot. and bacter, Clemson Col, 07–08, prof, 11–29, botanist and plant pathologist, Exp. Sta, 08–29, director, 17–34; *prin. pathologist, bur. plant indust, U. S. Dept. Agr,* 35–40, *head pathologist, 40–, in charge, div. cotton and other fiber crops and diseases, 35–* Plant pathologist, War Emergency Board, 18–19. A.A. (G cmt, 23–); Phytopath. Soc. (assoc. ed, 14–16, councilor, 16–18, advisory board, 19–21); Bot. Soc; Soc. Test. Mat. (chairman, cmt. on raw cotton, 27–31); Asn. South. Agr. Workers (sec'y-treas, 23–26, v. pres, 26, pres, 27, chairman, cotton research correlation cmt, 25–30); S. C. Acad. (v. pres, 26). Plant diseases; cotton anthracnose; water requirements of cotton; factors influencing quality and use values of cotton.

Barre, Prof. Roger, 4290 Notre-Dame E, Montreal, Que, Can. *Organic chemistry.* Montreal, Que, Nov. 6, 99. B.A, Montreal, 19, B.Ph, 23, L.Sc, 25; D.Sc, Paris, 27. Rockefeller fellow, 25–28; research worker, Prof. Kohler, Harvard, 28; *prof. chem, Montreal, 28–* Fel. Can. Inst. Chem; Soc. de Physique

et de Chim. Montreal (v. pres, 35, pres, 36); Soc. chim. de France. Synthesis of alpha and beta ketonic acids; analysis and coloring matter of beeswax; organic mercury antiseptics; reducing sugars combinations; anesthetics; sulfamides.

Barrera, Dr. S(evero) Eugene, 722 W. 168th St, New York, N. Y. *Psychiatry, Neurology.* New York, N. Y, Dec. 24, 00. A.B, Columbia, 25, M.D, 29. Asst. neuropath, *N. Y. State Psychiat. Inst. and Hosp,* 30–37, *prin. research psychiatrist, 37–;* from asst. to *asst. prof. psychiatry, col. physicians and surg, Columbia, 30–* Mem. clin. staff, N. Y. Post Grad. Med. Sch. and Hosp, 30–37. Neur. Asn; Psychiat. Asn; Asn. Neuropath; Physiol. Soc; Am. Med. Asn; Genetic Asn; Harvey Soc; N. Y. Neur. Soc; N. Y. Soc. Clin. Psychiat. Clinical psychiatry and neurology and related basic sciences including neuroanatomy, neuropathology and neurophysiology.

Barrett, Dr. Charles S(anborn), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Vermilion, S. Dak, 02. B.S, South Dakota, 25; Charles A. Coffin fellow, Chicago, 27–28, Ph.D, 28. Asst. physicist, Naval Research Lab, 28–32; *metallurgist, metal. research lab, Carnegie Inst. Tech, 32–,* lecturer *metal,* 32–41, *assoc. prof, 41–* Soc. X-Ray and Electron Diffraction; Physical Soc; Min. and Metal. Eng; Soc. Metals. Crystal physics; x-ray scattering and reflection; radiography with gamma rays; crystal structure of alloys; physical metallurgy; internal stresses; deformation of metals; aging of alloys; structure of metals.

Barrett, Dr. Dorothy M(oss), 22 E. 38th St, New York, N. Y. *Psychology.* Oct. 29, 08. B.S, Conn. Col, 30; A.M, Columbia, 31, Ph.D, 38. Mem. personnel dept, Aetna Life Ins. Co, Hartford, Conn, 31–34; asst. psychol, Barnard Col, Columbia, 34–38; *instr,* exten, univ, 38; *psychol. and philos, Hunter Col, 38–* A.A; assoc. Psychol. Asn; East. Psychol. Asn. Memory in relation to hedonic tone.

Barrett, Edward P(hillip), Shirley Hills, Mound, Minn. *Metallurgy.* Ft. McPherson, Nebr, Aug. 22, 83. B.S, Mo. Sch. Mines, 09, Met.E, 22. Instr. chem, Mo. Sch. Mines, 09–10; Okla. Sch. Mines, 10–11, mining, 11–12, acting pres, 13–15; chemist, *U. S. Bur. Mines,* Salt Lake City, 16–18, Seattle, 19, metal. chemist in charge chloride volatilization, Salt Lake City, 20–21, asst. metallurgist, Seattle, 22–23, acting supt, 24, *metallurgist,* Minneapolis, 25–33, 36–42, Tuscaloosa, 34, Pittsburgh, 35–36, *dist. engineer, Minn, Wis. and Mich, 42–, supervising engineer, 42–* Analytical chemistry; chloride volatilization; sponge iron; manganese; rates of deoxidation of iron oxides in ores; sinters; briquettes; laboratory equipment; exploration and development of strategic minerals.

Barrett, Dr. Elliott P(ierce), Mellon Institute, Pittsburgh, Pa. *Physical chemistry.* New York, N. Y, Aug. 12, 02. A.B, Columbia, 24, A.M, 26, Ph.D, 33. Asst. chem, Columbia, 22–25, 26–30; Wash. Sq. Col, N. Y. Univ, 25–26; develop. engineer, West. Elec. Co, 30–31; asst. fuel technol, Pa. State Col, 31–32, research assoc, 32–35; *indust. fellow, Mellon Inst, 35–* A.A; Chem. Soc; Pa. Chem. Soc. (sec'y-treas, 39–). Calorimetry of slow reactions; sorption of water vapor by solids; design of telephone cable sheath and laboratory gas furnaces; condition of moisture in bituminous coal; mineralogical components of coal; fusion and clinkering of coal ash; bone glue; bone-black; bone-black pigments.

Barrett, Dr. Harold J(ames), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Frankton, Ind, Sept. 10, 98. A.B, West Virginia, 19, M.S, 20; Ph.D, Ohio State, 27. Instr. chem, Iowa State Col, 20–21; chemist, Exp. Sta, West Virginia, 21–22; asst. chem, Ohio State, 22–25; asst. prof, S. Dak. Col, 25–26; research chemist, exp. sta, *E. I. du Pont de Nemours and Co,* 26–35, research supervisor, Roessler and Hasslacher chem. dept, 35–36, develop. div, 36–37, sales research manager, 37–42, *tech. asst. to director sales, electrochem. dept, 42–* Chem. Soc. Polyvinyl resins; sodium; chlorinated hydrocarbons; peroxygen compounds; cyanides.

Barrett, Prof. J(ames) T(heophilus), University of California, Berkeley, Calif. *Plant pathology.* Butler, Ill, Nov. 14, 76. A.B, Illinois, 03, A.M, 07; fellow, Cornell, 08–10, Ph.D, 10. Asst. bot, Exp. Sta, Illinois, 03–08; Cornell, 08–10; assoc, Illinois, and asst, Exp. Sta, 10–13; prof. plant path, sch. trop. agr, *California,* and plant pathologist, Citrus Exp. Sta, 13–19, acting dean grad. sch. trop. agr. and acting director, Citrus Exp. Sta, 19–22, assoc. director, 22–26, *prof. plant path, 26–, plant pathologist, Exp. Sta, 26–* A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc; West. Soc. Nat. Mycology; Phycomycetes.

Barrett, Leonard I(hrig), 1722 Bedford Road, Columbus, Ohio. *Forestry.* Chicago, Ill, Sept. 21, 01. B.S. (Forestry), Michigan, 24, M.S. (Forestry), 26. Junior forester, South. Forest Exp. Sta, *U. S. Forest Service,* 26–28, junior forester and asst. silviculturist, Cent. States Forest Exp. Sta, 28–30, assoc. silviculturist, Appalachian Forest Exp. Sta, 31–35, silviculturist, 35–38, senior silviculturist in charge forest management research, 38–42, *director, Cent. States Forest Exp. Sta, 42–* Soc. Foresters; Soc. Mammal. Silviculture; timber growth; forest management.

Barrett, Prof. Leslie B(urns), University of Connecticut College of Pharmacy, New Haven, Conn. *Botany.* Winsted, Conn, Sept. 3, 95. Ph.G, Mass. Col. Pharmacy, 20, Ph.C, 22; Duquesne, 27–30. Instr. chem, Mass. Col. Pharmacy, 20–22; bot. and mat. med, col. pharmacy, Columbia, 23–25; *prof.* mat. med, Duquesne, 25–31; *bot. and mat. med, col. pharmacy, Connecticut, 31–* C.W.S, U.S.A, 18. A.A; Pharmaceut. Asn. Materia medica; histology of medicinal plants.

Barrett, L(eslie) P(ark), Jones and Laughlin Steel Corp, Pittsburgh, Pa. *Geology.* Boston, Mass, June 20, 87. B.S, Michigan, 13. Geologist, Mich. Geol. Surv, 13–17; asst. state geologist and state mine appraiser, Mich, 19–27; *geologist, Jones and Laughlin Steel Corp, 27–, v. pres, iron mining subsidiaries, 35–* U.S.A, 17–19, capt. A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Lake Superior Min. Inst. Economic geology; iron and manganese ores; economics of iron mining industry.

Barrett, Dr. O(tis) W(arren), North Clarendon, Vt. *Agriculture.* North Clarendon, Vt, April 18, 72. B.S, Vermont, 96, Sc.D, 34. W. India Improv. Co, 94; hon. curator entom. collections, Museo de la Comisión Geografico-Exploradora, Tacubaya, Mex, 98–00; botanist and entomologist, Exp. Sta, Puerto Rico, 01–05; plant introducer, U. S. Dept. Agr, 05–08; director agr, Mozambique, 08–10; chief div. hort, Bur. Agr, Manila, P. I, 10–14; horticulturist, C. Z, 14–17; agr. adviser, Liberian Govt, 20–22; director agr, Insular Dept. Agr. and Labor, P. R, 23–29; horticulturist, Hawaii, 29–30. Mex. agente viagero, Paris Expos, 00. C.W.S. and U. S. Dept. Agr, 17–19. Soc. Mammal; Entom. Soc. Wash; Philippine Acad; Ateneo de P. R. Tropical agriculture; zootechny; coconut, cacao and coffee culture; pomology; the tropical crops; the animals on postage stamps; foods America gave the world.

Barrett, Prof. Richard L(eland), Case School of Applied Science, Cleveland, Ohio. *Mineralogy, Petrography.* Avon, Ohio, Sept. 11, 03. A.B, Ohio State, 27, Ph.D, 41. Instr. *geol. and miner, Case,* 31–42, *asst. prof, 42–* Am. Geog. Soc; Miner. Soc. Equilibrium relationships in silicate melts.

Barrett, Prof. S(ampson) K(irby), New York University, New York, N. Y. *Physics, Electrical engineering.* Saratoga Springs, N. Y, Sept. 7, 86. E.E, Polytech. Inst. Brooklyn, 10; N. Y. Univ, 13–16. Instr. physics and elec. eng, Polytech. Inst. Brooklyn, 10–15, asst. prof, 15–17; *elec. eng, N. Y. Univ,* 19–22, assoc. prof, 22–27, *prof, 27–,* director evening eng. div, 27–36, *asst. dean in charge evening div, 36–; consulting engineer, 15–* Lieut, U.S.N.R, 19. A.A; Elec. Eng; Illum. Eng. Soc. (chairman, finance cmt, 27–32, chairman, N. Y. sect, 27, councilor, 28–33); Mech. Eng; Eng. Educ; Naval Inst. Brownian movements; commutation phenomena; induction motors; shading coils; single-phase and polyphase relays; ozonators; electrical dryers; magnetos for aeroplanes; insulating paints and varnishes; oscillograph; naval fire control apparatus; gunnery; automotive starting and lighting systems; illumination and production.

Barrett, Dr. S(amuel) A(lfred), Public Museum, Milwaukee, Wis. *Anthropology.* Little Rock, Ark, Nov. 12, 79. California, 00–04, B.S, 05, LeConte fellow, 05–06, M.S, 06, Ph.D, 08; Sc.D, Lawrence Col, 29. Asst. anthrop, California, 06–08; ethnologist, George G. Heye exped, S. Amer, 08–09; curator anthrop, *Pub. Museum, Milwaukee,* 09–20, director, 20–40, *emer. director, 40–* Anthrop. Asn; Ethnol. Soc; Folk-Lore Soc; Asn. Mus; Explorers Club; Wis. Archeol. Soc; Wis. Hist. Soc; Wis. Acad; fel. Royal Geog. Soc; fel. Royal Astron. Soc. Indians of Ecuador, California and Wisconsin; Wisconsin archeology.

Barrett, Dr. Willard R(ehlman), 2100 Elston Ave, Chicago, Ill. *Chemistry.* Tully, N. Y, Dec. 18, 99. Ch.B, Cornell, 20, fellow, 22–23, Ph.D, 23. Chem. research dept, *E. I.*

du Pont de Nemours and Co, 23–27, production dept, 27– Chem. Soc. Phthaleins.

Barrett, Prof. W(illiam) C(lark), Jr, Western Reserve University School of Medicine, Cleveland, Ohio. *Histology, Embryology.* Norfolk, Va, Sept. 12, 06. B.S, Virginia, 29, M.S, 30; Ph.D, Harvard, 34. Asst. biol, Virginia, 28–30; Austin teaching fellow, Harvard, 30–31, asst. zool. and tutor biol, 31–34, Parker traveling fellow, 34–35; instr. *histol. and embryol, sch. med, Western Reserve,* 35–37, senior instr, 37–39, *asst. prof, 39–* Asn. Anat; assoc. Soc. Zool; cor. mem. Soc. philomat. Paris. Cytology; comparative hematology; osteogenesis.

Barrick, Dr. L. D, 612 Benson Place, Westfield, N. J. *Organic chemistry.* Cisco, Texas, Nov. 6, 09. A.B, Texas Tech. Col, 31; A.M, Texas, 33, Ph.D, 36. Instr. chem, Texas, 33–36; research chemist, Gulf Oil Co, 36; *Gen. Aniline Works,* 37–39, *chemist, dyestuff production, 39–* Chem. Soc. Surface tension of aliphatic hydrazines; reactions of conjugated Schiff bases; catalytic polymerization and depolymerization of petroleum hydrocarbon; synthesis of vat dyes and pigments.

Barrick, Dr. P(aul) L(atrell), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Villa Grove, Ill, Aug. 22, 14. B.S, Illinois, 35; Sage fellow, Cornell, 38–39, Ph.D, 39. Asst. org. chem, Cornell, 35–38; *chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Asymmetric nitrogen compounds; organic derivatives of hydrazine.

Barringer, L(awrence) E(ugene), 1 River Road, Schenectady, N. Y. *Ceramics.* Washington, D. C, March 1, 76. E.M, Ohio State, Cer.E, 33; hon. Sc.D, Alfred, 41. Chemist, Columbus Brick and Terra Cotta Co, 00–02; *Gen. Elec. Co, Schenectady,* 02–09, *engineer insulations, 09–* Director, Locke Insulator Corp. Silver medal, Panama-Pacific Expos, 15; Lamme medal, Ohio State, 40. Fel. Ceramic Soc. (pres, 16); Soc. Test. Mat. (mem. cmt. D–9); N. Y. Soc. Ceramic Arts. Electrical insulating materials; porcelain; enamels; varnishes; mica.

Barris, Prof. Ralph W(aldo), 1631 Euclid St, N. W, Washington, D. C. *Anatomy.* Omaha, Nebr, March 6, 06. A.B, Grinnell Col, 28; M.S, Northwestern, 32, Ph.D, 34. Teaching asst. zool, Iowa, 28–29; instr. chem, Bucknell, 29–31; asst, inst. neur, med. sch, Northwestern, 31–34, nat. research fellow med, 34–35; instr. *anat,* med. center, Louisiana, 35–36; *asst. prof, sch. med, George Washington, 36–* A.A; Asn. Anat; Soc. Exp. Biol. Optic connections of mid-brain and thalamus; hypothalamus and carbohydrate metabolism.

Barron, Prof. Donald H(enry), 17 N. Glenwood Ave, Columbia, Mo. *Anatomy.* Ward, S. Dak, April 9, 05. A.B, Carleton Col, 28; M.S, Iowa State Col, 29; Ph.D, Yale, 32; M.A, Cambridge, 35. Instr. anat, Albany Med. Col, Union (N. Y), 32–33, asst. prof, 34–35; nat. research fellow, 33–34; asst. to Prof. Barcroft and demonstrator anat, Cambridge, 35–37, lecturer, 37–40, fellow and supervisor anat. and physiol, St. John's Col, 37–40; *asst. prof. zool, Missouri, 40–* Rockefeller Foundation traveling fellow, 37; Sterling fellow, Yale, 40. Summer, instr, L. I. Biol. Lab, Cold Spring Harbor, 40. Asn. Anat; Anat. Soc. Gt. Britain and Ireland; Physiol. Soc. Gt. Britain and Ireland. Physiology of the spinal cord; function development of nervous system; fetal circulation.

Barrón, Dr. E. S. Guzmán, University of Chicago, Chicago, Ill. *Biochemistry.* Huari, Peru, 98. M.D, Univ. San Marcos, Peru, 24. Peruvian Govt. fellow, Europe, 24–26; Rockefeller Foundation fellow, 27–28; fellow, Hopkins, 29–30; research assoc. *med, Chicago,* 30–31, asst. prof, 31–42, *assoc. prof, 42–* A.A; Soc. Exp. Biol; Soc. Biol. Chem; Soc. Clin. Invest; Chem. Soc. Jaundice; cell metabolism; biological oxidations.

Barron, Prof. John H, Cornell University, Ithaca, N. Y. *Agriculture.* Mt. Morris, N. Y, June 28, 83. B.S.A, Cornell, 06. Agronomist, Pa. State Col, 07–09; county agr. agent, Broome Co, N. Y, 11–13; *exten. prof. field crops, Cornell, 14–* A.A; Soc. Agron. Field crop production; soil fertility.

Barron, Dr. Louis E(dward), 101 N. Common St, Lynn, Mass. *Surgery.* Cambridge, Mass, Feb. 22, 06. A.B, Harvard, 28; M.D, Chicago, 32. Intern, Billings Hosp, Chicago, 32–33; asst. res. surg. research, Ohio State, 33–34, res, 34–35, asst, 35–36; New Haven Hosp, 36–37; *junior asst. surg. Beth Israel Hosp, Boston, Mass, 37–* Am. Med. Asn; assoc. Gastro-Enterol. Asn; Asn. Study Int. Secretions. Anoxemia: thirst; gastric motility in hyperthyroidism; iodine metabolism; blood iodine; urinary iodine; amyloidosis; gastric motility in man; vagotonia; applied physiology of the innervation of the stomach.

Barron, Prof. Moses, 2101 Pillsbury Ave, Minneapolis, Minn. *Internal medicine.* Kovno, Russia, Nov. 8, 83. B.S, Minnesota, 10, M.D, 11. Demonstrator path. and bacter, *Minnesota,* 12–13, instr. path, 13–16, asst. prof, 16–20, *med,* 20–25, assoc. prof, 25–33, *prof, 33–* Director path. lab, City Hosp, Minneapolis, 13–14; City and County Hosp, St. Paul, 14–17; staff, outpatient dept, Univ. Hosp, 24–26; St. Mary's Hosp, 21–; Asbury Hosp, 26–; City Hosp, 27–; Eitel Hosp, 28–M.C, 17–19, major, chief lab, Base Hosp, Allery. A.A; Am. Med. Asn; Asn. Path. and Bact; Asn. Cancer Research; fel. Col. Physicians; Cent. Soc. Clin. Research; Minn. Acad. Med; Minn. Path. Soc. (pres, 25); Minn. Soc. Int. Med. (pres, 39); Hennepin County (Minn) Med. Soc. (pres, 31); Minneapolis Acad. Med. (pres, 30). Pathology; lymphogranulomatosis; carcinoma of lung; organ weights in disease; islands of Langerhans and diabetes; heart.

Barrons, Prof. Keith C, Michigan State College, East Lansing, Mich. *Horticulture.* Detroit, Mich, April 6, 11. B.S, Minnesota, 32, M.S, 35; Mich. State Col, 39– Plant breeder, W. Atlee Burpee Co, Phila, 33–36; veg. breeder, Exp. Sta, Alabama, 36–39; *assoc. prof. hort, Mich. State Col, 39–* Vegetable breeding.

Barrow, Prof. David F(rancis), University of Georgia, Athens, Ga. *Mathematics.* Athens, Ga, Nov. 14, 88. A.B, B.S, Georgia, 10; A.M, Harvard, 11, Ph.D, 13. Instr. *math,* Texas, 14–16; Sheffield Sci. Sch, Yale, 16–18; *prof, Georgia, 20–* Math. Asn; Ga. Acad. (past sec'y).

Barrow, Prof. Elva E(udora), Woman's College, University of North Carolina, Greensboro, N. C. *Physiological chemistry.* Danville, Va, 89. A.B, Randolph-Macon Woman's Col, 11; M.S, Chicago, 23; Columbia; Cornell; California. Teacher science, Blackstone Inst, Va, 11–13; Cent. Col. (Mo), 14–16; *assoc. prof. chem, Woman's Col, North Carolina, 16–* Chem. Soc; N. C. Acad. Maltose and the invertase activity of growing yeast.

Barrow, Dr. W(ilmer) L(anier), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Baton Rouge, La, Oct. 25, 03. B.S, Louisiana, 26; M.S, Mass. Inst. Tech, 29; Redfield Proctor traveling fellow, 29–30; D.Sc, Technische Hochschule, Munich, 31. Instr. elec. eng, *Mass. Inst. Tech,* 28–29, 31–36, asst. prof. *elec. communications,* 36–41, *assoc. prof, 41–* Consulting engineer. Elec. Eng; fel. Radio Eng; Int. Sci. Radio Union. Radio engineering; ultrahigh-frequency and microwave radio and applications.

Barrows, Prof. E(dward) Fletcher, 140 N. Echols St, Monmouth, Oregon. *Biology.* Brattleboro, Vt, April 8, 00. Ph.B, Brown, 23, Ph.D, 32; A.M, Harvard, 28. Grad. asst. English, Oregon, 28–29; *biol,* Brown, 29–30; instr, *Oregon Col. Educ, Monmouth,* 32–35, *assoc. prof, 35–* Genetics Soc. Genetics; body temperature and the absorption of ether.

Barrows, Dr. Florence L(oulse), Mistaire Laboratories, 152 Glen Ave, Millburn, N. J. *Botany.* Providence, R. I, March 19, 88. A.B, Smith Col, 11; M.S, Conn. Agr. Col, 27; Ph.D, Columbia, 35. Teacher, high schs, N. Y, N. J. and Conn, 12–19; teaching fellow chem, Conn. Col, 19–20, instr, 20–21, bot, 21–26; asst, Conn. Agr. Col, 26–27; instr, Conn. Col, 30, asst. prof. and director bot. garden, 30–32; asst. plant physiologist, Boyce Thompson Inst, 33–36, microscopist, cellulose lab, 36–40; *microscopy and research, Mistaire Labs, 41–* Librarian, dept. genetics, Carnegie Institution, Cold Spring Harbor. A.A; Bot. Soc; Genetics Soc; Torrey Bot. Club. Propagation of Pteridophytes and Orchidaceae; clover and nodule bacteria; inheritance of Cucurbita pollen.

Barrows, Prof. Harlan H, University of Chicago, Chicago, Ill. *Geography.* Armada, Mich, 77. B.S, Chicago, 03; hon. Pd.M, Mich. Nor. Col, 12. Asst. geol, *Chicago,* 03–07, instr. geol. and geog, 07–08, asst. prof, 08–10, assoc. prof. *geog,* 10–14, prof, 14–42, head dept, 19–42, *emer. prof, 42–* Mem, Miss. Valley cmt, Pub. Works Admin, 33–34; water planning cmt, Nat. Resources Board, 34–35; Water Resources Cmn, 35–41; chairman consulting board, Rio Grande Joint Investigation, 35–38; mem, President's Great Plains Cmt, 36; chairman, North. Great Plains Cmt, 38–40; consulting board, Pecos River Joint Investigation, 39–41; planning consultant, U. S. Bur. Reclamation, 39–, director Central Valley project, 42– Head country sect, bur. research, W.T.B, 18. Asn. Geog. (v.

pres, 20, pres, 22). Historical geography; geographical textbooks; conservation of natural resources.

Barrows, Prof. H(arold) K(ilbrith), 6 Beacon St, Boston, Mass. *Hydraulic engineering.* Melrose, Mass, Nov. 9, 73. B.S, Mass. Inst. Tech, 95. Asst. and assoc. prof. civil eng, Vermont, 01–04; dist. engineer, U. S. Geol. Surv, 04–09; *consulting hydraul. engineer, 07–;* assoc. prof. *hydraul. eng, Mass. Inst. Tech,* 09–21, prof, 21–40, *emer. prof, 40–* Civil Eng; Inst. Consulting Eng; Eng. Educ; Am. Acad; New Eng. Water Works Asn; Boston Soc. Civil Eng. Water power engineering.

Barrows, Prof. W(illiam) E(dward), 40 Myrtle St, Orono, Maine. *Electrical engineering.* Ludlow, Vt, Feb. 20, 78. B.S, Maine, 02, E.E, 08. Student engineer, Gen. Elec. Co, 02–04; instr. *elec. eng,* Pennsylvania, 04–06; asst. prof, Armour Inst. Tech, 06–12; *prof, Maine, 12–* Elec. Eng; Eng. Educ. Light; photometry; illuminating engineering.

Barrows, Prof. William Morton, Ohio State University, Columbus, Ohio. *Zoology.* Rochester, N. Y, April 7, 83. B.S, Mich. State Col, 03; M.S, Harvard, 06, Sc.D, 20. Teacher, sch, Ind, 06–07; instr. *zool,* New Hampshire, 07–09; asst. prof, *Ohio State,* 09–23, *prof, 23–* A.A; Soc. Zool. Reactions of Drosophila to odorous substances; reactions of spiders to vibrations of web; color in cocker-spaniels; spiders of Ohio.

Barrows, Prof. W(illiam) M(orton), Jr, Florida State College for Women, Tallahassee, Fla. *Physics.* Columbus, Ohio, March 27, 10. A.B, Ohio State, 29, M.S, 31, Ph.D, 34. Fellow physiol, Rochester, 34–35, research assoc. vital econ, 35–37; *asst. prof. physics and curator physics labs, Fla. State Col. for Women, 37–* Biophysics; spectroscopy; physiological calorimetry.

Barrus, Prof. M(ortier) F(ranklin), Forest Home Drive, Ithaca, N. Y. *Plant pathology.* Forestville, N. Y, March 17, 79. A.B, Wabash Col, 08; Ph.D, Cornell, 11. Asst. bot, Wabash Col, 07–08; *plant path, Cornell,* 08–10, instr, 10–11, asst. prof, 11–14, *prof, 14–* Part-time specialist, U. S. Dept. Agr, 16, path. adviser, 17–19; in charge potato inspection, N. Y. State Col. Agr, Cornell, 19–24; Nat. Research Council, 24–26; specialist, Dept. Agr. and Labor, P. R, 27–28; director agr. exten, Puerto Rico, 34–36; unofficial agr. adviser to Ministry Agr, Venezuela, 39–40. U.S.A, 18–19. A.A; Phytopath. Soc. (councilor, 22–23, advisory board, 23–27, chairman, 24–27, v. pres, 25, pres, 27); Potato Asn. (chairman, cmt. on seed improv. and certification, 15–18); Crop Protection Inst. (governor, 24–26). Bean and potato diseases.

Barry, Dr. Alexander, University of Michigan, Ann Arbor, Mich. *Embryology.* Ayer, Mass, March 5, 13. A.B, Harvard 34, A.M, 37, Ph.D, 38. *Instr. anat, Michigan, 38–* Soc. Zool. Embryology of heart and blood pressure.

Barry, Dr. Arthur J(ohn), 2718 Ashman St, Midland, Mich. *Organic chemistry, Physical chemistry.* Buffalo, N. Y, March 11, 09. B.S, Syracuse, 32, Ph.D, 36. Acting prof. org. and carbohydrate chem, N. Y. State Col. Forestry, Syracuse, 36–37; *research chemist, Dow Chem. Co, 37–* Chem. Soc. Cellulose derivatives; plastics; polysilicone resins; non-aqueous systems.

Barry, Prof. H(erbert), Jr, 14 Kirkland Place, Cambridge, Mass. *Psychology.* New York, N. Y, Nov. 14, 98. A.B, Harvard, 20, Ph.D, 29. Asst, psychol. clinic, Harvard, 28–29; instr. *psychol, Tufts Col,* 29–32, *asst. prof, 32–* Assoc. Psychol. Asn. Individual differences in humor; negativism and compliance; hypnotizability; affective influence of repetition; euphoria; bereavement in psychoses.

Barry, John G(erald), 808 Mills Bldg, El Paso, Texas. *Geology.* Boston, Mass, April 9, 84. B.S, Mass. Inst. Tech, 07. Topman, Red Top Mine, Nev, 07; instr. miner. and ore deposits, North Dakota, and asst. state geologist, N. Dak, 07–09; sci. asst, Ray Construction Copper Co, 09–10; chief engineer and geologist, Cortez Associated Mines, 10–11; geologist and engineer, J. E. Spurr, 11–15; traveling engineer, Cia Minera de Peñoles, 15–16; instr. miner. and field geol, Mass. Inst. Tech, 16–20; chief geologist, A. S. and R. Co, 20–24; consulting mining geologist and engineer, 24–31; pres, col. mines and metal, Texas, 31–34; *practising geologist, 34–* U.S.A, 17–18, lieut. col. A.A; Asn. Eng. (pres, El Paso chap, 26); Min. and Metal. Eng; Soc. Mil. Eng; Min. and Metal. Soc; Am. Geog. Soc; Reserve Officers Asn; Am. Min. Cong. Limestone deposits of northern Mexico.

Barry, Dr. J(ohn) Griffiths, Princeton University, Princeton, N. J. *Electrical engineering.* Albany, N. Y, April 9, 15. B.S, George Washington, 35; M.S, Pennsylvania, 36, Ph.D, 38. Asst. cosmic rays, Bartol Research Foundation, 38–40; *instr. elec. eng, Princeton, 40–* A.A; assoc. Elec. Eng; assoc. Radio Eng; Physical Soc; Eng. Educ. Communications; cosmic rays; radio stratosphere balloon flights; effects of variable excitation on synchronous motor oscillation.

Barry, Dr. Lee W(illis), 814 Lowry Medical Arts Bldg, St. Paul, Minn. *Obstetrics, Gynecology.* Elbridge, Mich, Feb. 19, 86. M.D, Michigan, 11; fellow, Minnesota, 16–19, Ph.D, 19. Intern, St. Francis Hosp, Pittsburgh, Pa, 11–12; assoc. path, Indiana, 12–14; *asst. prof. obstet. and gynec, Minnesota, 19–* Fel. Am. Med. Asn; fel. Col. Surg. Effect of inanition on size of offspring of the pregnant albino rat.

Barschall, Dr. H(einrich) H(ermann), University of Kansas, Lawrence, Kans. *Physics.* Berlin, Germany, April 29, 15. Fellow, Princeton, 38–40, A.M, 39, Ph.D, 40. *Instr. physics,* Princeton, 40–41; *Kansas, 41–* Physical Soc. Nuclear physics; properties of fast neutrons; fission of uranium.

Barsky, Dr. George, 202 E. 44th St, New York, N. Y. *Chemistry.* New York, N. Y, Aug. 26, 96. B.S, Columbia, 16, Ch.E, 18, Bridgham fellow, 19–21, A.M, Ph.D, 22. Research chemist, Am. Cyanamid Co, 22–26, research director, 26–33; *consulting chemist and chem. engineer, 33–; lieut. commander, U. S. Naval Res.* A.A; Chem. Soc. Industrial chemistry; cyanides; cyanamid; synthetic resins.

Barss, Prof. A(lden) F(orrest), University of British Columbia, Vancouver, B. C, Can. *Horticulture.* Hoosick, N. Y, March 29, 88. A.B, Rochester, 10; B.S.A, Cornell, 12; M.S, Oregon State Col, 14; Ph.D, Chicago, 29. Asst. hort, Oregon State Col, 14–17, asst. prof. pomol, 17–18; assoc. prof. *hort, British Columbia,* 18–26, acting head dept, 20–26, *prof. and head dept, 26–* A.A; Soc. Hort. Sci; Can. Soc. Tech. Agr; fel. Royal Hort. Soc.

Barss, Howard P(hillips), U. S. Department of Agriculture, Washington, D. C. *Botany, Plant pathology.* Victoria, B. C, Can, April 20, 85. A.B, Rochester, 07; M.S, Harvard, 09; Wisconsin, 27–28. Austin teaching fellow, Harvard, 09–10; instr. bot. and asst. plant path, State Col. Wash, 10–12; asst. plant pathologist, Exp. Sta, Oregon State Col, 12–14, assoc. pathologist, 14–15, plant pathologist, 15–34, prof. bot. and plant path. and head dept. col, 15–34; *prin. botanist and exp. sta. administrator, office exp. stations, U. S. Dept. Agr, 34–, chairman biol. dept, grad. sch, 41–* Summer, instr, Dartmouth, 10. Corresponding ed, 'Chronica Botanica,' 38– Trustee, 'Biol. Abstracts,' 38– Mem. div. biol. and agr, Nat. Research Council, 35–38, 41–; governor, Crop Protection Inst, 37–; councilor, Union Am. Biol. Socs, 38–40. A.A; Bot. Soc. (chairman, Pacific div, 30); Soc. Nat; Phytopath. Soc. (v. pres, 27, pres, 28, sec'y, 35–37); Soc. Agr. Sci; Biol. Soc; New Eng. Bot. Club; Northwest Sci. Asn; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Acad. Coordination of research.

Barss, Dr. W(alter) M(alcomson), National Research Council, Ottawa, Ont, Can. *Physics.* Corvallis, Oregon, Jan. 29, 17. B.A, British Columbia, 37, Carnegie Corp. scholar, 38, M.A, 39; Ph.D, Purdue, 42. Asst, British Columbia, 38–39; Purdue, 40–42; *junior research physicist, Nat. Research Council Can, 42–* Physical Soc. X-rays and electron diffraction.

Barta, Lieut. Col. Edward J, II Armored Corps, San Jose, Calif. *Chemical engineering.* Linn Co, Iowa, Nov. 16, 99. B.S, Iowa, 21, M.S, 22, Ph.D, 25. Head dept. chem, Midland Col, 25–27; instr. chem. eng, Cincinnati, 27–32, asst. prof, 32–40; Chem. Warfare Service rep, Armored Force Board, *U. S. Army,* 40–42, *chem. officer, II Armored Corps, 42–* Chem. Soc; Chem. Eng. Utilization of beet sugar wastes; orthophenylphenol condensations; thermal conductivities of solutions; dehydration of ethyl alcohol by means of trichlorethylene; liquid to liquid counter current extraction.

Bartel, Dr. A(rthur) T(heodore), U. S. Department of Agriculture, Tucson, Ariz. *Agronomy.* Newton, Kans, June 13, 05. B.S, Idaho, 28; M.S, Kans. State Col, 30; Ph.D, Arizona, 41. Junior agronomist, west. irrig. agr, *bur. plant indust, U. S. Dept. Agr,* Bard, Calif, 29–30, *div. cereal crops and diseases, Tucson, Ariz,* 30–35, *asst. agronomist, 35–* Soc. Agron. Production and improvement of small grains; plant physiology.

Bartel, F(rank) O(ctave), Soil Conservation Service, Spartanburg, S. C. *Agricultural engineering.* Blue Earth, Minn, July 15, 93. C.E, Notre Dame, 15. Asst. engineer, Jones and Curtis, Fairmont, Minn, 16–17; junior drainage engineer, U. S. Dept. Agr, 17–18; drainage engineer, State Dept. Agr, N. C, 18–21; assoc. drainage engineer, *U. S. Dept. Agr,* 21–30, agr. engineer, Piedmont soil erosion exp. sta, *soil conservation service,* 30–35, supt, 35–39, in charge preliminary flood control surveys, *region two,* 39–41, agr. engineer, 41–42, *zone technician, 42–* Acting city engineer, Blue Earth, Minn, 15–16; tech. adviser, U. S. Forest Service, 33. Assoc. Agr.'Eng; N. C. Soc. Eng. (director, 33–). Ground-water in eastern North Carolina; tile drainage; run-off; silting in dredged Piedmont streams; engineering phases of soil erosion.

Bartelink, Dr. E(verhard) H(endrik) B(ernard), R. D. 3, Ballston Spa, N. Y. *Engineering.* Holland, June 13, 04. M.Sc, Tech. Hoogeschool Delft, 28; Ph.D, Munich, 36. Engineer communications develop, Telephone Co, Holland, 29–36; *engineer and physicist,* gen. eng. lab, *Gen. Elec. Co,* 37–41, *research lab, 41–* Radio Eng; assoc. Elec. Eng; Royal Inst. Eng, Holland. Television development; ultra high frequency development.

Bartell, Prof. F(loyd) E(arl), University of Michigan, Ann Arbor, Mich. *[6]Chemistry.* Concord, Mich, June 16, 83. A.B, Albion Col, 05; A.M, Michigan, 08, Ph.D, 10. Instr. chem, Simpson Col, 05–07; *gen. and physical chem, Michigan,* 10–16, asst. prof, 16–18, assoc. prof, 18–24, *prof, 24–; gen. consultant, Office Sci. Research and Develop, 40–* Capt, nitrate div, Ordnance Dept, 17–18, consultant, 28– A.A; Chem. Soc. Permeability of membranes and osmotic pressure; colloids; nitrogen fixation; adsorption; interfacial tension; adhesion; wetting of solids by liquids.

Bartelmez, Dr. George W(illiam), University of Chicago, Chicago, Ill. *[5]Anatomy.* New York, N. Y, March 23, 85. B.S, N. Y. Univ, 06; fellow, Chicago, 07–10, Ph.D, 10. Asst. biol, N. Y. Univ, 06–07; instr. *anat, Chicago,* 10–19, assoc. prof, 19–29, *prof, 29–* Lecturer, California, 25. Asn. Anat. (2nd v. pres); Soc. Zool. Development and structure of the nervous system; development of the human embryo and placenta; histology of the uterus.

Bartels, Dr. Henry A(rthur), 57 W. 57th St, New York, N. Y. *Bacteriology.* New York, N. Y, Jan. 22, 95. B.S, R. I. State Col, 17; B.S, Columbia, 25, D.D.S, 27. Asst, research lab, Health Dept, New York, 17; bacteriologist, U. S. Pub. Health Service, 18–19; *asst. bacter, div. labs. and research, State Dept. Health, N. Y, 19–;* asst. *oral path, Columbia,* 27–28, instr, 28–36, *asst. prof, 36–, lecturer bacter, sch. oral hygiene, 27–* Attending dental surgeon, Bryson Day Nursery, 28– A.A; Dental Asn; N. Y. State Dental Soc; Int. Asn. Dental Research. Staining of spirochetes; sterilization and germicides; etiology of oral infections.

Barter, Dr. Cyril, Shell Oil Co, Wilmington, Calif. *Physical chemistry.* Cleveland, Ohio, June 15, 17. A.B, Ohio State, 39; Allied Chem. and Dye Corp. fellow, California, 41–42, Ph.D, 42. Teaching fellow, California, 39–41; *mem. tech. dept, Shell Oil Co, 42–* Properties of radio-hydrogen and radio-bromine and their employment as chemical tracers.

Barth, Prof. L(ester) G(eorge), Columbia University, New York, N. Y. *[7]Zoology.* Detroit, Mich, 05. A.B, A.M, Michigan, 27; Ph.D, Chicago, 29. Nat. research fellow, Chicago, 29–31; instr. *zool, Columbia,* 31–35, *asst. prof, 35–* A.A; Soc. Zool; Soc. Exp. Biol. Experimental embryology.

Bartholomew, Earl, 1600 W. Eight Mile Road, Detroit, Mich. *Engineering.* Norman, Okla, Jan. 1, 01. A.B, Oklahoma, 21, B.S, 22, M.S, 23. Instr. mech. eng, Oklahoma, 22–23; Harvard, 23–26; *director eng. labs, Ethyl Corp, 26–* Soc. Automotive Eng; Mech. Eng; Petrol. Inst; Soc. Test. Mat. Fuels for and design of internal combustion engines.

Bartholomew, Dr. E(lbert) T(homas), Citrus Experiment Station, Riverside, Calif. *Botany.* Stockton, Kans, Oct. 18, 78. A.B, Kans. State Teachers Col, 09; fellow, Wisconsin, 10–11, Ph.D, 14. Asst. prof. bot, Kans. State Teachers Col, 09–10; instr, Wisconsin, 11–15, asst. prof, 15–20; asst. prof. plant path, *Citrus Exp. Sta, California,* 20–25, assoc. plant pathologist, 25–28, assoc. plant physiologist, 28–37, *prof. plant physiol. and plant physiologist, 37–, head div. plant physiol, 35–* Acting instr, Stanford, 17–18. A.A. (chairman, physiol. sect, Pacific div, 22–24, sec'y, bot. sect, 30, chairman, 31); Bot. Soc; Phytopath. Soc; Soc. Plant Physiol; West. Soc. Nat; S. Calif. Bot. (director). Diastase; pathological and physiological diseases of the lemon; acidity, water content and growth rate of lemon fruits; physiological effect of hydrogen cyanide on citrus; transpiration; physiological maladies of the Valencia orange.

Bartholomew, Dr. L(ucille) K(eene), Citrus Experiment Station, Riverside, Calif. *Plant pathology.* St. Louis, Mo, July 23, 88. B.S, Missouri, 09, A.B, 10, A.M, 12, Ph.D, 16; fellow, Wisconsin, 13–14. Asst. bot, Missouri, 10–13, instr, 14–16; asst. pathologist, cereal disease investigations, bur. plant indust, U. S. Dept. Agr. Cytology of fungi; cereal diseases; smuts.

Bartholomew, Prof. R(obert) P(ercival), 604 Whitham St, Fayetteville, Ark. *Agronomy.* Lancaster, Pa, July 7, 99. B.S, Pa. State Col, 21; M.S, Wisconsin, 23, Ph.D, 26. Instr. soils, Wisconsin, 21–26; asst. prof. *agron, Arkansas,* 26–35, assoc. prof, 35–39, *prof. and head dept, 39–* Potassium in plant nutrition; soil chemistry; availability of rock phosphate.

Bartholomew, Tracy, 1545 Beechwood Blvd, Pittsburgh, Pa. *Engineering.* Austin, Texas, Nov. 14, 84. Ohio State; E.M, Colo. Sch. Mines, 06. Construction and metal. engineer, Fed. Lead Co, Mo, 06–07; Nev. Consol. Copper Co, 07–09; gen. manager alkali-proof dept, Colo. Portland Cement Co, 09–11; manager, *Rico Trop. Fruit Co, P. R,* 12–21, *pres, 21–; senior indust. fellow, Mellon Inst, 21–; manager research, Duquesne Slag Products Co, 29–* Soc. Munic. Eng; Ceramic Soc; Mech. Eng; Soc. Test. Mat; Concrete Inst; Eng. Soc. West. Pa. Utilization of blast-furnace slag; concrete; roads.

Bartky, Prof. Walter, University of Chicago, Chicago, Ill. *Mathematics.* Chicago, Ill, Sept. 21, 01. B.S, Chicago, 23, Ph.D, 26. Instr, Lewis Inst. (Ill), 20–23; asst. astron, *Chicago,* 23–26, instr, 26–27, asst. prof, 27–33, assoc. prof, 33–42, *prof. applied math. and assoc. dean physical sciences, 42–* Math. consultant, West. Elec. Co, 26–30. A.A; Astron. Soc; Math. Soc; Math. Asn; Inst. Math. Statist; Statist. Asn. Mathematical astronomy; mathematics; probability.

Bartle, Dean Glenn G(ardner), University of Kansas City, Kansas City, Mo. *Geology.* Borden, Ind, Feb. 7, 99. A.B, Indiana, 21, A.M, 23, Ph.D, 32; Chicago, 24–25. Sch. supt, Ill, 22–24; asst, Chicago, 24–25; instr. geol, Kansas City Junior Col, 25–33; *consulting geologist, Panhandle East. Pipe Line Co, 29–;* chairman dept. geol. and geog, *Univ. Kansas City,* 33–38, *prof. geol. and dean lib. arts, 38–; lieut, U. S. Naval Res, 42–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Mo. Acad; Ind. Acad. Economic geology of Missouri and Kansas; stratigraphy and paleobotany of Missouri and Indiana; natural gas reserves.

Bartlett, Prof. Boyd W(heeler), 183 Maine St, Brunswick, Maine. *Physics.* Castine, Maine, June 20, 97. A.B, Bowdoin Col, 17; grad, U. S. Mil. Acad, 19; B.S, Mass. Inst. Tech, 21; A.M, Columbia, 26, Ph.D, 33; Munich, 34–35. Lieut, C. Eng, 19–22; physicist, Bell Tel. Labs, 22–27; asst. prof. *physics, Bowdoin Col,* 27–29, assoc. prof, 29–31, *prof, 31–, coordinator civil pilot training, 40–* A.A; Physical Soc; Asn. Physics Teachers; assoc. mem. Optical Soc. Measurement of capacitance in terms of resistance and frequency; shielded bridge for the measurement of inductance in terms of capacity and resistance; rotating sectored disc; principal susceptibilities of crystals; change of resistance in magnetic fields.

Bartlett, Dr. C(harles) J(oseph), 183 Bishop St, New Haven, Conn. *Medicine, Pathology.* Sutton, Vt, Dec. 18, 64. A.B, Yale, 92, A.M, 94, M.D, 95. Asst. and instr. *path, Yale,* 95–97, asst. prof, 97–00, prof, 00–17, *emer. prof, 17–;* director labs, State Dept. Health, Conn, 17–24; attending physician, *Grace Hosp, New Haven,* 19–26, *director labs, 21–* Pathologist, New Haven Hosp, 00–17. A.A; Am. Med. Asn; Asn. Path. and Bact; Pub. Health Asn; Col. Physicians; N. Y. Path. Soc; Conn. Acad. Phagocytosis in vivo; fate of bacteria in the blood stream; blood spots; family pernicious anemia; acute trichiniasis without eosinophilia; rabies; bacterial vaccines in the treatment of disease; medical missions history; osteitis deformans; effect of commercial pasteurization on tubercle bacilli in milk; medical licensure in Connecticut; intestinal tissue in the umbilical cord.

Bartlett, Dr. Edward P(ayson), E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* Belchertown, Mass, Oct. 17, 84. A.B, Dartmouth Col, 08; A.M, Harvard, 13, Ph.D, 15. Teacher science, Blees Mil. Acad,

08–09; instr. chem, Pomona Col, 09–11; Austin teaching fellow, Harvard, 11–13; asst. prof, Pomona Col, 14–19, assoc. prof, 19–24; assoc. chemist, fixed nitrogen research lab, U. S. Dept. Agr, 24–27, chemist, 27–28, senior chemist, 28–29; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–* Acting dean, Pomona Col, 16–18. Capt, U.S.A, 18–19. A.A; Chem. Soc. Piezo-chemistry; development and improvement of plant processes.

Bartlett, Dr. Emily M(ary), University of California at Los Angeles, Los Angeles, Calif. *Zoology.* Orono, Maine. A.B, A.M, Maine, 17; Ph.D, Stanford, 25. Asst, sta. for exp. evolution, Carnegie Institution, 16–17; technician anat, Minnesota, 17–18; asst, Stanford, 19–23, *bot.* and acting instr, 24–25; *instr,* Wellesley Col, 25–26; *California at Los Angeles, 26–* Base Hosp, Texas, 18–19. A.A; Bot. Soc. Cytology; microtechnique.

Bartlett, Prof. Harley Harris, University of Michigan, Ann Arbor, Mich. **Botany.* Anaconda, Mont, March 9, 86. A.B, Harvard, 08. Asst, Gray Herbarium, Harvard, 05–08; chem. biologist, bur. plant indust, U. S. Dept. Agr, 09–15; asst. prof. bot, Michigan, 15–17; botanist, Hollandsch-Amerikaansche Plantage Maatschappij, Sumatra, 18; assoc. prof. *bot, Michigan,* 19–21, *prof, 21–, chairman dept, 23–, director bot. gardens, 19–* Exchange prof, Univ. Philippines, 35; agent rubber investigations, U. S. Dept. Agr, 40–41. A.A; Soc. Nat; Bot. Soc. (sec'y, 15–17, v. pres, 19, pres, 27); Philos. Soc; East Indies Inst. Amer; New Eng. Bot. Club; Mich. Acad. (pres, 24); Wash. Acad. Genetics of Oenothera; systematic botany, especially Maya area and Indonesia.

Bartlett, Prof. James H(olley), Jr, University of Illinois, Urbana, Ill. *Physics.* Brooklyn, N. Y, Nov. 2, 04. B.C.E, Northeastern, 24; A.M, Harvard, 26, Parker traveling fellow, 28–30, Ph.D, 30. Asst. prof. *theoret. physics, Illinois,* 30–37, *assoc. prof, 37–* Fellow, Rockefeller Foundation, 40–41. Fel. Physical Soc; Math. Soc. Ionization; quadrupole radiation; chemical valency; nuclear structure; properties of fast electrons; biophysics.

Bartlett, Dr. J(effrey) Hobart, 814 Oak Ave, Westfield, N. J. *Organic chemistry.* Laurel Hill, Tenn, Sept. 9, 00. B.S, Utah State Col, 24; M.S, Mich. State Col, 26; fellow, Columbia, 29–30, Ph.D, 31. *Research chemist, Standard Oil Develop. Co, Elizabeth, 30–* Peri-napthothiazines.

Bartlett, Prof. J(ohn) F(rank), Marshall College, Huntington, W. Va. *Organic chemistry.* Flatwoods, W. Va, Aug. 25, 02. A.B, West Virginia, 25, A.M, 27, Ph.D, 32. Teacher, high sch, W. Va. 25–26, 27–28, prin, 28–30; from instr. to *prof. chem, Marshall Col, 32–* A.A; Chem. Soc; W. Va. Acad. Alkyl phenols.

Bartlett, Prof. John W(alden), 130 N. Sixth Ave, New Brunswick, N. J. *Dairy husbandry.* Granville, N. Y, Aug. 1, 91. B.S, Vermont, 14; A.M, Columbia, 28; Ph.D, N. Y. Univ, 33. Exten. specialist dairy husbandry, N. J. Exp. Sta, 16–21; field sec'y, N. J. Holstein Breeders Asn, 21–22; *prof. dairy husbandry, Rutgers, and dairy husbandman, N. J. Exp. Sta, 22–, director north. branch.* Dairy Sci. Asn. Animal breeding; nutrition and growth of animals; genetics; use of fly repellants in relation to milk production.

Bartlett, Dr. Kenneth A(lden), U. S. Department of Agriculture, Mayaguez, P. R. *Entomology.* Dorchester, Mass, March 26, 07. B.S, Mass. Col, 28; M.S, Harvard, 29, Ph.D, 31. Asst. entomologist, bur. entom. and plant quarantine, *U. S. Dept. Agr,* 30–36, assoc. entomologist and later entomologist, office of exp. stations, *P. R. Exp. Sta,* 36–41, acting director, 41–43, *director, 43–* Asn. Econ. Entom. Insect parasites; fungus diseases of insects.

Bartlett, Prof. Marion R(achel), Western Maryland College, Westminster, Md. *Psychology.* Oct. 30, 98. B.S, Columbia, 24, A.M, 25, Ph.D, 35; Paris, 27–28. Prof, Va. State Teachers Col, Fredericksburg, 25–27; research, N. Y. State Psychiat. Inst. and Hosp, and med. center, Columbia, 32–34; Yale, 34–35; instr. psychol. and educ, Wagner Col, 36–37, asst. prof, 37–38, prof, 38–41, *asst. prof. psychol, Western Maryland Col, 41–* Assoc. Psychol. Asn. Abnormal psychology; audition; suggestibility; personality; sleep.

Bartlett, Dr. Neil R(iley), Box 45, U. S. Submarine Base, New London, Conn. *Psychology.* Underhill, Vt, Aug. 10, 17. B.S, Vermont, 37; M.S, Brown, 39, Ph.D, 41. *Research psychologist, Nat. Defense Research Cmt, Brown, 41–* A.A; assoc. Psychol. Asn. Vision; experimental psychology.

Bartlett, Dr. Paul D(oughty), Harvard University, Cambridge, Mass. **Chemistry.* Ann Arbor, Mich, Aug. 14, 07. A.B, Amherst Col, 28; A.M, Harvard, 29, Ph.D, 31. Nat. research fellow *chem,* Rockefeller Inst, 31–32; instr, Minnesota, 32–34; *Harvard,* 34–37, asst. prof, 37–40, *assoc. prof, 40–* Am. Chem. Soc. award, 38. Chem. Soc. Stereochemistry; kinetics and mechanism of organic reactions; molecular rearrangements; polymerization.

Bartlett, Dr. P(erry) G(oodell), 8359 Cadwalader Ave, Elkins Park, Pa. *Inorganic chemistry.* Holyoke, Mass, 03. B.S, Mass. Col, 24; M.S, Pa. State Col, 26, Ph.D, 29. Instr. chem, Pa. State Col, 26–29; *research chemist,* Nat. Carbon Co, 29–30; *Chas. Lennig Co, 30–* Chem. Soc. Adsorption of electrolytes; porcelain enamels.

Bartlett, Dr. Russell S(turgis), The Gunnery School, Washington, Conn. *Physics.* New York, N. Y, Sept. 25, 96. A.B, Yale, 17, Ph.D, 24. Instr. physics, Yale, 24–26, asst. prof, 28–32; instr. science, Phillips Exeter Acad, 32–40; director surv. student selection and guidance, Engineers Council Professional Develop, Newark Col. Eng, 40–42; *headmaster, Gunnery Sch, 42–* A.A; fel. Physical Soc; Am. Geog. Soc; N. Y. Acad. Electrical conduction in thin metallic films; thermionic emission; vocational and educational testing and guidance.

Bartley, H(astings) N(ewcomb), U. S. Department of Agriculture, 144 Moody St, Waltham, Mass. *Entomology.* Sandwich, Mass, Jan. 15, 92. B.S, Mass. Col, 15. *Entomologist,* East Highlands Orange Co, Calif, 16–17; *in charge Japanese beetle and gipsy moth inspection and certification, New Eng. states, bur. entom. and plant quarantine, U. S. Dept. Agr, 19–* U.S.N, 17–19. Entom. Soc. Amer; Asn. Econ. Entom. European corn borer.

Bartley, Dr. S(amuel) Howard, Dartmouth Medical School, Hanover, N. H. *Psychology, Physiology.* Pittsburgh, Pa, June 19, 01. A.M, Kansas, 28, Ph.D, 31. Asst. instr. psychol, Kansas, 26–28, instr, 28–31; nat. research fellow biol, dept. ophthal, sch. med, Washington (St. Louis), 31–32, research assoc. psychol. and biophys, 32–42; *asst. prof. research in physiol. optics, eye inst, med. sch, Dartmouth Col, 42–* Optical Soc; Soc. Research in Psychosomatic Problems; Psychol. Asn; Physiol. Soc; Soc. Exp. Biol; S. Soc. Philos. and Psychol; Midwest. Psychol. Asn. Vision; physiological psychology; theory, vision and electrophysiology of the brain.

Barton, Prof. Arthur W(illis), Ft. Hays Kansas State College, Hays, Kans. *Biochemistry.* Abilene, Kans, June 8, 73. Ph.C, Washington (Seattle), 97, A.B, 02; Ph.D, Northwestern, 18. Instr, high schs, Wash, 02–04, 07–16, 22–25; prof. chem. and biol, Col. of Puget Sound, 04–07; bot. and pharmacog, Northwestern, 13–14, 16–17, instr. chem, med. sch, 17–18; asst. prof, Washington (Seattle), 18–22; v. pres. and biochemist, J. G. Robinson Lettuce Farms, Inc, Snohomish, Wash, 25–27; director biochem. lab, Seattle, 23–29; *prof. biol, Ft. Hays Kans. State Col, 29–* A.A; Chem. Soc; Soc. Plant Physiol; Kans. Acad. (councilor, 30). Proteolytic enzymes; autolysis; hydrogen ion content.

Barton, Dr. B(ernard) C(harles), 119 Merrill Road, Clifton, N. J. *Physical chemistry.* Crawfordsville, Ind, Jan. 14, 12. A.B, Wabash Col, 34; Ph.D, Brown, 39. *Research chemist, U. S. Rubber Co, 39–* Chem. Soc. Cryoscopic studies of polar organic compounds in benzene; aging and vulcanization of natural and synthetic rubber.

Barton, Dr. Charles J(ulian), 2235 Columbia Road, Westlake, Ohio. *Analytical chemistry.* Jellico, Tenn, Jan. 16, 12. B.S, Tennessee, 33, M.S, 34; Baker fellow, Virginia, 38–39, Ph.D, 39. Junior physical science aide, Tenn. Valley Authority, 34–36; *chemist,* Chesapeake and Ohio Ry. Co, 39–40; Nat. Aluminate Corp, 40; *Indust. Rayon Corp, 40–* Chem. Soc; Optical Soc. Photoelectric spectrophotometry applications in analytical chemistry.

Barton, G(eorge) E(stes), 227 Pine St, Millville, N. J. *Chemistry.* Worthington, Mass, May 9, 71. B.S, Worcester Polytech, 91; M.S, George Washington, 95. Asst. chemist, Naval Torpedo Sta, Newport, R. I, 91–92; chemist, Aetna Powder Co, Chicago, 92–94; chief chemist and later chem. engineer, Whitall Tatum Co, 96–38, chief chemist, *Whitall Tatum div, Armstrong Cork Co,* 38–42, *consulting chemist, 42–* Asst. ed, 'Chem. Abstracts,' 07–; assoc. ed, 'Jour. Indust. and Eng. Chem,' 09–11. A.A; Chem. Soc. (councilor, 08–, chairman, Phila. sect, 21); Chem. Eng; Soc. Chem. Indust; fel. Ceramic Soc. (chairman, glass div, 24); British Soc. Glass Technol; Soc. de Chim. indust. Glass and glass manufacture.

Barton, Dr. G(eorge) S(amuel) H(orace), Department of Agriculture, Ottawa, Ont, Can. *Animal husbandry.* B.S.A, Toronto; hon. D.Sc.A, Laval. Lecturer animal husbandry, Macdonald Col, McGill, 07–11, prof, 11–32, dean faculty agr, 25–32; *deputy minister agr, Dom. Can, 32–* Commander, Order Agr. Merit, Que, 29; companion, Order of St. Michael and St. George, 35. A.A; Can. Soc. Tech. Agr. (pres, 23–25). Social and economic problems in agriculture.

Barton, Prof. Helen, Woman's College, University of North Carolina, Greensboro, N. C. *Mathematics.* Baltimore, Md, Aug. 9, 91. A.B, Goucher Col, 13; Harvard, 20; A.M, Hopkins, 22, Ph.D, 26. Asst. physics, Goucher Col, 13–14; head dept. physics and chem, Salem Col, 15–19; instr. *math,* Wellesley Col, 19–21; assoc. prof. and dean women, Albion Col, 21–25; *prof. and head dept,* Ala. Col, 26–27; *Woman's Col, North Carolina, 27–* Degenerate curve; a circle attached to a collapsible four-bar; Kronecker's relation among the minors in a symmetric determinant; Grassman's tensor analysis.

Barton, Dr. Henry A(skew), American Institute of Physics, 175 Fifth Ave, New York, N. Y. ***Physics.* Pittsburgh, Pa, June 27, 98. B.S, Princeton, 19, E.E, 21, A.M, 24, Ph.D, 25. Engineer, Am. Tel. and Tel. Co, 21–23; nat. research fellow physics, 25–27; Bartol Research Foundation fellow, 27–29; asst. prof, Cornell, 29–31; *director, Am. Inst. Physics, 31–* V. chairman, div. physical sciences, Nat. Research Council, 33– A.A. (sec'y, B, 32–); Physical Soc; Optical Soc; Acoustical Soc; Asn. Physics Teachers. Ionization of gases; emission of ions from surfaces; x-rays; the atomic nucleus.

Barton, Prof. J(oseph) Wesley, University of Idaho, Moscow, Idaho. *Psychology.* Greenville, Utah, 81. B.S, Utah, 15; Ph.D, Peabody Col, 23. Prof. psychol. and educ, Branch Nor. Sch, Utah, 09–13; instr, Utah, 13–15; *prof. psychol, Idaho, 20–* Psychol. Asn; Northwest Sci. Asn. The psychology of learning; effects of endocrine feeding on ability to learn.

Barton, Dr. Lela V(iola), 1086 N. Broadway, Yonkers, N. Y. *Plant physiology.* Farmington, Ark, Nov. 14, 01. A.B, Arkansas, 22; A.M, Columbia, 27, Ph.D, 39. Teacher, high sch, Ark, 22–27; *asst. plant physiologist, Boyce Thompson Inst, 28–* Bot. Soc; Torrey Bot. Club. Seed physiology.

Barton, Sister M. Xaveria, Marygrove College, Detroit, Mich. *Organic chemistry.* Detroit, Mich, May 25, 10. A.B, Michigan, 31, M.S, 37, Ph.D, 38; Catholic Univ, 34–35. Teacher, Mich, 32–34; *head dept. chem, Marygrove Col, 38–* Chem. Soc. Relative proportions of isomeric ketoximes.

Barton, Prof. Millard V(ernon), University of Texas, Austin, Texas. *Engineering.* Weiser, Idaho, April 16, 10. B.S, Calif. Inst. Tech, 32; M.S, Colorado, 37; Ph.D, Cornell, 40. Junior engineer, U. S. Bur. Reclamation, 34–37; instr. machine design, Cornell, 37–40, asst. prof. eng. mech, 40–41; asst. prof. and head aeronaut. lab, Maryland, 41–42; *prof. aeronaut. eng, Texas, 42–* Mech. Eng; Inst. Aeronaut. Sci. Aircraft structures; applied elasticity; vibration.

Barton, Prof. O(ria) A(very), North Dakota Agricultural College, Fargo, N. Dak. *Poultry husbandry.* Mexico, N. Y, July 7, 76. B.S, N. Dak. Col, 25. Teacher, pub. schs, N. Y, 96–00; high sch, Iowa, 04–05; manual training and math, N. Dak. State Nor. Sch, Valley City, 05–09; county supt. schs, N. Dak, 09–18; state leader 4H junior clubs, N. Dak, 18–21; *prof. poultry husbandry, N. Dak. Col, 21–* Poultry Sci. Asn; Poultry Asn. (sec'y, N. Dak. branch, 20–); hon. mem. Inst. Poultry Indust; N. Dak. Poultry Asn. (sec'y, 29); N. Dak. Sci. Asn. Shrinkage in dressing turkeys; rate of growth and cost of growing turkeys; rations for laying hens.

Barton, Dr. Paul C(anfield), American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Medicine.* Lakewood, Ohio, Sept. 27, 02. B.S, Ohio State, 25; M.D, Maryland, 31. Intern, St. Alexis Hosp, Cleveland, Ohio, 31–32; med. consultant, office council pharm. and chem, *Am. Med. Asn,* 34–38, *director bur. investigation, 38–, sec'y cmt. cosmetics, 40–, asst. to sec'y, 41–, assoc. ed, 'Useful Drugs,' 42–; asst. director procurement and assignment service for physicians, dentists and veterinarians, War Manpower Cmn, 42–* Am. Med. Asn. Medical fraud; pseudo medicine; quackery; patent medicines; fake devices.

Barton, Prof. Samuel G(oodwin), 33 N. 61st St, Philadelphia, Pa. *Astronomy.* Ivyland, Pa, Jan. 1, 82. A.B, Temple, 03; fellow, Pennsylvania, 05–06, Ph.D, 06. Fellow, Pennsylvania, 06–07; prof. math, Clarkson Tech, 07–11; asst. prof, Swarthmore Col, 11–13; instr. *astron, Pennsylvania,* 13–14, asst. prof, 14–31, *assoc. prof, 31–, instr, U. S. Navy Pre-flight Sch, 43–* Director, Flower Observatory, Pennsylvania, 20–28. Summers, asst, U. S. Naval Observatory, 07, 08, 11. Director, U. S. Shipping Board Navig. Sch, 17–19. A.A; Astron. Soc. Double stars; orbits of asteroids; star positions.

Barton, Prof. T(homas) F(rank), 807 W. Mill St, Carbondale, Ill. *Geography, Geology.* Dec. 3, 05. Ed.B, Ill. State Nor. Univ, 30; Ph.M, Wisconsin, 31; Ph.D, Nebraska, 35. Asst. geog, Wisconsin, 30–32; Nebraska, 32–34; assoc. prof. social science, Nebr. State Teachers Col, Kearney, 34–35; *prof. geog. and geol. and chairman dept, South. Ill. State Nor. Univ, 35–* Summers, prof, West. Tenn. State Teachers Col, 32, 33. A.A; Council Geog. Teachers (sec'y, 41); Ill. Educ. Asn; Ill. State Archeol. Soc. (director, 40, 41); Ill. Acad. Conservation in Illinois; the Sudbury nickel area.

Barton, Prof. Vola Price, 2500 Ken Oak Road, Station E, Baltimore, Md. *Physics.* Baltimore, Md, Dec. 19, 93. A.B, Goucher Col, 15; A.M, Mt. Holyoke Col, 17; Ph.D, Hopkins, 23. Asst. *physics,* Mt. Holyoke Col, 15–17; *Goucher Col,* 17–19, instr, 19–23, asst. prof, 23–26, assoc. prof, 26–31, *prof, 31–, chairman dept, 32–* Summers, asst, Bur. Standards, 18, asst. physicist, 20, research assoc, 24, 25. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers (pres, D. C. chap, 42–); Md. Acad. Soft x-rays; light sensitivity of cuprous oxide and selenium; molecular dimensions of celluloid; dependence of secondary structure in x-ray absorption on crystal form.

Bartoo, Prof. D(orr) R(aymond), E. Broad St, Cookeville, Tenn. *Botany.* Mills, Pa, Aug. 25, 88. B.S, Grove City Col, 23, M.S, 24; Ph.D, Chicago, 28. *Prof. bot, Tenn. Polytech, 28–* A.A; Tenn. Acad. Plant morphology; root structures of the Schizaeaceae, including Schizaea rupestris, Schizaea pusilla and Lygodium palmatum.

Bartow, Prof. Edward, State University of Iowa, Iowa City, Iowa. ***Chemistry.* Glenham, N. Y, Jan. 12, 70. A.B, Williams Col, 92, Sc.D, 23; Ph.D, Göttingen, 95. Asst. *chem,* Williams Col, 92–94, instr, 95–97; Kansas, 97–99, assoc. prof, 99–05; prof, Kansas City Med. Col, 02–05; assoc. prof, Illinois, 05–06, prof, 06–20; prof. and head dept, *Iowa,* 20–40, *emer. prof, 40–* Research consultant, Johns Manville Corp, 40–41. Director, State Water Surv, Ill, 05–17, chief, 17–20; acting assoc. prof, Kansas, 97. Cmn. on Coal Mine Explosions, Kans; sec'y-treas, Lake Mich. Water Cmn; Cmn. on Standards of Water for Common Carriers in Interstate Commerce. Major, Sanit. C, 18, lieut. col, 19. A.A; Chem. Soc. (pres, 36); Soc. Chem. Indust; Chem. Eng. (director, 23–25, 36–38, chairman, sanit. div, 33); Soc. Munic. Eng; Eng. Educ; Pub. Health Asn; Water Works Asn. (v. pres, 20, pres, 21); Franklin Inst; Iowa Eng. Soc; Ill. Water Supply Asn. (sec'y-treas); Iowa Acad. (v. pres, 34, pres, 35); Ill. Acad; Kans. Acad. (v. pres, 02, pres, 04); Soc. de Chim. indust; Int. Chem. Union (councilor, v. pres, 34–38). Crystals of white arsenic; formation of amids in anhydrous ammonia; derivatives of m-isocymene; synthetical preparation of quinolin derivatives; Kansas petroleum; water supplies of southeastern Kansas; derivatives of m-ethyltoluene; water analysis and treatment; activated sludge method of sewage treatment; disposal of organic trade wastes.

Bartow, Prof. Virginia, University of Illinois, Urbana, Ill. *Chemistry.* Rochester, N. H, Dec. 20, 96. A.B, Vassar Col, 18; A.M, Illinois, 21, Ph.D, 23. Asst. *chem,* Goucher Col, 18–20; instr. Rockford Col, 23–24; Iowa, 24–25; *Illinois,* 25–31, assoc, 31–39, *asst. prof, 39–* A.A; Chem. Soc; Hist. Sci. Soc; Ill. Acad; Ill. Asn. Chem. Teachers. Organic chemistry; chemical literature; history of chemistry.

Bartram, Edwin B(unting), Bushkill, Pa. *Botany.* Philadelphia, Pa, July 28, 78. *Hon. curator mosses, Farlow herbarium, Harvard.* A.A; Torrey Bot. Club; Sullivant Moss Soc. (pres, 30–); New Eng. Bot. Club; Phila. Bot. Club. Mosses.

Bartram, John G(reer), 2740 E. 22nd St, Tulsa, Okla. *Geology.* Lakeville, Conn, Nov. 27, 93. A.B, Williams Col, 14, 14–15; Hopkins, 15–16. Asst. geol, Williams Col, 14–15; asst. geologist, Md. Geol. Surv, 15; *geologist,* Roxana Petrol. Corp, 16–23; Midwest Ref. Co, 23–32; *Stanolind Oil and Gas Co, 32–* Fel. Geol. Soc; Asn. Petrol. Geol. Petroleum geology; geology of the Rocky Mountain area; oil fields in Oklahoma and Wyoming.

Bartsch, Dr. A(lfred) F(rank), 623 W. State St, Milwaukee, Wis. *Botany.* Kaukauna, Wis, Nov. 30, 13. A.B, Minnesota, 36; Ph.D, Wisconsin, 39. *Instr. bot, Milwaukee Center, exten. div, Wisconsin, 39–* Mycol. Soc. Lower fungi; aquatic Chytridiales.

Bartsch, Dr. C(harles) E(dward), R.F.D. 1, Box 218, New Brunswick, N. J. *Physical chemistry.* Neenah, Wis, May 2, 10. A.B, Lawrence Col, 31; Ph.D, Minnesota, 35. Instr. chem, Minnesota, 31–35; *research chemist, E. I. du Pont de Nemours and Co, Parlin, N. J, 35–* Chem. Soc. Thermodynamic properties of solutions; solubility of electrolytes in mixed solvents; nitrocellulose and nitrocellulose lacquers.

Bartsch, Dr. Paul, U. S. National Museum, Washington, D. C. *[1]Biology.* Tuntschendorf, Germany, Aug. 14, 71. B.S, Iowa, 96, M.S, 99, Ph.D, 05; hon. Sc.D, George Washington, 37. Aid, div. mollusks, *U. S. Nat. Museum,* 96–05, asst. curator, 05–14, *curator* div. marine invertebrates, 14–20, *div. mollusks, Cenozoic invertebrates, helminths and corals, 20–;* prof. *zool, George Washington,* 99–39, *emer. prof, 39–* Director histol. lab. and lecturer med. zool, sch. med, Howard, 01–30, prof. histol. and parasitol, 30–33. Walter Rathbone Bacon fellow, 28–30; assoc, Carnegie Institution. Assoc. ed, 'Osprey,' 00– In charge pearl mussel inquiry, Miss. Valley, Bur. Fisheries, 07; Smithsonian Inst. rep, Philippine exped, 07–09, 'Albatross' exped, Gulf Calif, 11, Bahamas, 12; director, Johnson-Smithsonian deep-sea exped, Puerto Rican Deep, 33; Smithsonian-Roebling explor. exped, 37. Del, Pan-Am. Sci. Cong, Washington, D. C, 16; Smithsonian del, Pan-Pacific Sci. Cong, Honolulu, 20. War gas experiments, U. S. Bur. Mines; lecturer, Y.M.C.A, U.S.A; biol. rep, U. S. Bur. Efficiency, 19. A.A; Malacol. Union (v. pres, 31, pres, 32); Wild Flower Preservation Soc. (pres, 20–24); Biol. Soc. Wash. (pres, 13–15); Wash. Acad. (v. pres, 13–15).

Bartunek, Prof. Paul F(ranklin), Allegheny College, Meadville, Pa. *Physics.* St. Paul, Nebr, Nov. 7, 03. B.S, Nebraska, 30, M.S, 32; Ph.D, Michigan, 35. Asst. *physics,* Nebraska, 30–32; Michigan, 34–35; Mass. Inst. Tech, 35–37; instr, Rensselaer Polytech, 37–43; *asst. prof, Allegheny Col, 43–* A.A; Physical Soc; Asn. Physics Teachers. Zeeman effect; infra-red spectroscopy; far ultra-violet spectroscopy; nuclear physics; internal friction in solids.

Bartz, Dr. Fritz Willi, Reed College, Portland, Oregon. *Geography.* Themar, Germany, April 8, 08. Berlin, 26–27; Vienna, 27; Kiel, 28–30; M.A, Bonn, 35, Ph.D, 34. Junior research assoc, Stanford, 35–37; *instr. econ, Reed Col, 37–* Animal geography; fisheries of the Pacific coast; human and economic geography.

Bartz, Dr. Quentin (Royal), 17111 Chandler Park Drive, Detroit, Mich. *Chemistry.* Near Rockville, Mo, Jan. 25, 09. A.B, Tarkio Col, 30; M.S, Nebraska, 31; Ph.D, Illinois, 35. Research assoc, inst. exp. biol, California, 34–38; *research chemist, Parke, Davis and Co, 38–* Research, Rockefeller Inst, 37. Chem. Soc. Rearrangement of ethers; hypophyseal hormones; enzymes.

Barwick, Dr. Arthur R(ichardson), 10 Wessex Road, Silver Spring, Md. *Geology.* New York, N. Y, March 9, 96. B.S, Col. City of N. Y, 17; M.S, N. Y. Univ, 22, Ph.D, 26. Chief chemist, Secaw Chem. Co, 19–21; asst. instr. geol, N. Y. Univ, 21–24, instr, 24–29; assoc. prof, Catholic Univ, 29–41, acting head dept, 35–39, head dept, 39–41; *indust. specialist, non-ferrous div, Office Price Admin, 41–* Instr, Col. City of N. Y, 21–24. Summer, British-Am. Chem. Co, 17. U.S.A, 17–19. A.A; Paleont. Soc; Min. and Metal. Eng; Soc. Metals; Geol. Soc. Wash. Economic geology; paleontology.

Bascom, Dr. F(lorence), 51 Park St, Williamstown, Mass. *[1]Geology.* Williamstown, Mass, July 14, 62. A.B, B.L, Wisconsin, 82, B.S, 84, A.M, 87; Ph.D, Hopkins, 93. Instr. geol. and petrog, Ohio State, 93–95; lecturer and assoc. prof. *geol, Bryn Mawr Col,* 95–06, prof, 06–28, *emer. prof, 28–;* geol. asst, U. S. Geol. Surv, 96–01, asst. geologist, 01–09, geologist, 09–32; *retired.* Div. geol. and geog, Nat. Research Council, 36. Assoc. ed, 'Am. Geologist,' 96–05. Nat. Acad; A.A; Geol. Soc. (councilor, 24–27, v. pres, 30); Seismol. Soc; Am. Geog. Soc; Geophys. Union; Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad; Geog. Soc. Phila; Acad. Nat. Sci. Phila. Ancient lavas and the crystalline schists; geology of eastern Pennsylvania; petrography of the Neponset area, Boston basin; geologic folios of the Pennsylvania Piedmont province.

Bascom, Dr. K(ellogg) F(inley), 426 Houston St, Manhattan, Kans. *Histology, Embryology.* Fargo, N. Dak, Sept. 22, 91. A.B, Fargo Col, 16; M.S, Chicago, 19, fellow, 20–22, Ph.D, 22; M.B, M.D, Minnesota, 29. Instr. biol, Allegheny Col, 19–20; asst. zool, Chicago, 20–22; asst. prof. biol. and acting head dept, Allegheny Col, 22–23; instr. anat, Pennsylvania, 23–24; assoc. prof, Med. Col. of Va, 24–28; Northwest Clinic, Minot, N. Dak, 30–35; *practicing physician, 35–* Asn. Anat; Am. Med. Asn. Interstitial cells of the gonads in cattle; structure and growth of the testis.

Bashour, Dr. Joseph T(amir), 1950 Andrews Ave, New York, N. Y. *Organic chemistry.* Hartford, Conn, Jan. 6, 06. B.S, Trinity Col. (Conn), 27; Ph.D, N. Y. Univ, 34. Chemist, food and drug admin, U. S. Dept. Agr, 27–30; asst. chem, N. Y. Univ, 30–34; research chemist, dept. surg, col. physicians and surg, Columbia, 34–39, asst. chem, 39–40; *research chemist,* Endo Products Inc, Richmond Hill, N. Y, 40–42; *E. R. Squibb and Sons, 42–* Instr, evening eng. div, N. Y. Univ, 35–38. A.A; Inst. Chem; Chem. Soc. Condensation reactions in organic chemistry; bile acids; pharmaceuticals; hormones.

Basinger, A(lmon) J(ay), Citrus Experiment Station, Riverside, Calif. *Entomology.* Mahoning Co, Ohio, March 23, 86. A.B, Ohio State, 18, M.S, 20. Beet leaf-hopper investigations, Alameda Sugar Co, 20–21; asst. entomologist, State Dept. Agr, Calif, 21–23; asst. and *assoc. entom, Citrus Exp. Sta, California, 23–* Nat. Geog. Soc. exped, Valley of Ten Thousand Smokes and Mount Katmai, Alaska, 19. A.A; Entom. Soc. Amer; Asn. Econ. Entom; West. Soc. Nat. Biological control of insect pests.

Baskervill, Prof. W(illiam) H(urt), University of Tennessee, Knoxville, Tenn. *Chemical engineering.* Macon, Miss, Jan. 21, 12. B.S, Ala. Polytech, 32; M.S, North Carolina, 33. Assoc. prof. chem. eng. and later *asst. director eng. exp. sta, Tennessee.* Inst. Chem. Eng. Development of processes for the manufacture of phosphate fertilizers.

Baskett, Dr. E(dgar) D(rane), 16 S. Tenth St, Columbia, Mo. *Internal medicine.* McFall, Mo, Feb. 15, 91. A.B, Missouri, 15, A.M, 16; M.D, Hopkins, 19. Asst. physiol, Missouri, 15–16; instr, Iowa, 16–17; asst. med, Yale, 20–21; res. physician, Univ. Hosp, Minnesota, 21–22; instr. bacter, Missouri, 24–25, asst. prof. psychiat, 31–32; *practising physician, 24–* Am. Med. Asn. Hypothyroidism in young women.

Baskett, Dr. Thomas S(ebree), 900 Park Road, Fayette, Mo. *Wildlife.* Liberty, Mo, Jan. 23, 16. A.B, Cent. Col. (Mo), 37; M.S, Oklahoma, 39; fellow, Iowa State Col, 38–42, Ph.D, 42. State exten. expert wildlife, Iowa, 42; *ensign, U. S. Naval Res, 42–* Wildlife conservation; game management; ring-necked pheasant in northern Iowa; meadow lark in Oklahoma.

Basoco, Prof. Miguel A(ntonio), University of Nebraska, Lincoln, Nebr. *Mathematics.* Mex, July 10, 00. A.B, California, 24; fellow, Chicago, 25–26, M.S, 26; fellow, Calif. Inst. Tech, 27–29, Ph.D, 29. Assoc. *math,* California at Los Angeles, 24–25, 26–27; research fellow, Calif. Inst. Tech, 29–30; asst. prof, *Nebraska,* 30–33, assoc. prof, 33–41, *prof, 41–* Math. Soc; Math. Asn. Doubly periodic and pseudo-periodic functions and their applications to theory of numbers.

Basore, Prof. C(leburne) A(mmen), 113 Mitchem Ave, Auburn, Ala. *Chemical engineering.* Broadway, Va, May 13, 93. B.S, Ala. Polytech, 14, M.S, 15; Ph.D, Columbia, 29. Chemist, Tenn. Coal, Iron and R. R. Co, 15; research chemist, Koppers Co, 17–20; asst. prof. *chem. and chem. eng, Ala. Polytech,* 20–29, *prof, 29–, head dept. chem. eng, 38–, asst. director eng. exp. sta, 37–* Chem. Eng; Chem. Soc. (state chairman, Ala, 40); Eng. Educ; Ala. Acad. (v. pres, 34). Purification of ammonia still waste; fuel briquettes from southern pine sawdust and Alabama lignite; cotton by-products; glass from blast furnace slag; coal industry; metal wastes; utilization of low-grade manganese ores; iron and steel processing; industrial utilization of agricultural wastes in Alabama.

Basquin, Dr. Olin H(anson), 225 Kedzie St, Evanston, Ill. *[2]Physics.* Dows, Iowa, Jan. 30, 69. A.B, Ohio Wesleyan, 92, Harvard, 94; A.M, Northwestern, 95, Ph.D, 01, hon. Sc.D, 30. Assoc. prof. physics, Northwestern, 01–09, prof. applied mechanics, 09–26; *engineer, Haskelite Mfg. Corp, Chicago, 26–, v. pres, 28–*

Bass, Dr. A(braham), 808 N. Cross St, Wheaton, Ill. *Biochemistry.* Baltimore, Md, Oct. 28, 06. B.S, Chicago, 27,

Ph.D, 33. Asst. plant control, Cudahy Packing Co, 27–29; chief chemist, Chicago Mercantile Exchange, 34–37; research, Chicago, 38–40; *chief chemist, Harold N. Simpson Co, 42–* Proteins; bacterial nutrition; animal nutrition.

Bass, Prof. C(harles) C(assedy), 3318 Coliseum St, New Orleans, La. **³Medicine.* Carley, Miss, Jan. 28, 75. M.D, Tulane, 99; hon. Sc.D, Cincinnati, 20; LL.D, Duke, 37. Instr. med, *sch. med, Tulane,* 05–07, *lab. clin. med,* 07–09, *director, 09–, prof. exp. med, 12–, dean, 22–* Head, Tulane exped. study of malaria, 12– A.A; Am. Med. Asn. (cmt. on sci. researches, 13); Am. Physicians; Soc. Bact; Soc. Trop. Med. (pres, 17); Soc. Clin. Invest. (pres, 25); Micros. Soc; South. Med. Asn. (pres, 26); New Orleans Acad. Hookworm; pellagra; typhoid fever; malaria; pyorrhea alveolaris; intestinal flora; laboratory methods; medical education; propagation of game birds; diseases of quail; loss of teeth.

Bass, Prof. Frederic (Herbert), University of Minnesota, Minneapolis, Minn. *Engineering.* Hyde Park, Mass, June 19, 75. B.S, Mass. Inst. Tech, 01. Eng. asst, Metropolitan Water Works, Mass, 96–99, 01; instr. and asst. prof. civil eng, *Minnesota,* 01–11, *prof. munic. and sanit. eng, 11–, chairman dept. civil eng, 18–* Engineer and director eng. div, State Board Health, Minn, 06–15, v. pres, 31–36, pres, 36–38; mem. board engineers, Minneapolis-St. Paul sanit. dist, Pub. Works Admin, 34–36. Civil Eng. (past pres, northwest. sect); Eng. Educ; Water Works Asn.

Bass, Dr. Lawrence W(ade), New England Industrial Research Foundation, Statler Bldg, Boston, Mass. *Chemical engineering.* Streator, Ill, June 18, 98. Ph.B, Yale, 19, Loomis fellow, 21–22, Ph.D, 22. Asst, Yale, 19–21, nat. research fellow chem, 22–23; Am. Field Service fellow and Int. Educ. Board fellow, Lille, Paris and Pasteur Inst, 23–25; asst, Rockefeller Inst, 25–27, assoc, 27–29; exec. asst, Mellon Inst, 29–31; asst. director research, Borden Co, 31, director, 32–36; asst. director, Mellon Inst, 37–42; *director, New Eng. Indust. Research Foundation, 42–* Lecturer, Pittsburgh, 39–42. Consulting ed. board, 'Chem. Industries.' A.A; Chem. Soc. (chairman cmt. econ. status, 41); Inst. Chem; Chem. Eng; Soc. Professional Eng; Soc. Chem. Indust; Econ. Asn; Statist. Asn; Pub. Health Asn; Inst. Food Technol; Dairy Sci. Asn; Pa. Acad; Chemists' Club. Complex salts; nucleic acids; proteins; stereochemistry; electrolytic dissociation of organic compounds; dairy products; chemical economics; industrial research administration; food technology; textiles; plastics.

Bass, N(athan) W(ood), U. S. Geological Survey, Tulsa, Okla. *Geology.* Bourbon Co, Kans, June 8, 93. M.S, George Washington, 22. U. S. Geol. Surv, 17–29; *geologist,* Pure Oil Co, 29–31; *U. S. Geol. Surv, 31–* Asn. Petrol. Geol; Geol. Soc; Geol. Soc. Wash; Kans. Geol. Soc. Geology of coal, oil and gas deposits; Rocky Mountain and mid-continent regions; geology of helium-bearing gas fields.

Bass, Dr. Shailer L(inwood), Dow Chemical Co, Midland, Mich. *Organic chemistry.* A.B, Butler, 26; Ph.D, Yale, 29. Asst, Yale, 28–29; *research chemist, Dow Chem. Co, 29–* Chem. Soc. Pharmaceutical chemicals; antiseptics; plasticizers; cellulose ethers; silicon resins and polymers.

Basset, Dr. G(ardner) C(heney), Gettysburg College, Gettysburg, Pa. *Psychology.* Boston, Mass, June 17, 73. A.B, Clark, 11; fellow, Hopkins, 12–13, Ph.D, 13; hon. A.M, Dartmouth Col, 22. Res. investigator psychol. and neur, sta. for exp. evolution, dept. genetics, Carnegie Institution, 13–14; prof. psychol, Pittsburgh, 14–19; asst. prof, Stanford, 19–20; prof, Reed Col, 20–21; vocational counselor, Dartmouth Col, 21–23; assoc. prof. and prof. psychol, Kentucky, 26–30; assoc. prof. philos, Gettysburg Col, 30–43; *retired.* Psychol. Asn; Eugenics Research Asn. Neurology; eugenics.

Bassett, Prof. Charles F(ernando), University of Kansas City, Kansas City, Mo. *Geology.* Castile, N. Y, May 13, 00. A.B, Cornell, 22; A.M, Illinois, 24; Ph.D, Michigan, 33. Geologist, Lago Petrol. Corp, Maracaibo, Venezuela, 26–31; Mich. Conservation Dept, 33–35; *asst. prof. geol, Univ. Kansas City, 35–* Field work, Ill. Geol. Surv. and Ky. Geol. Surv; asst, Cornell and Illinois. Asn. Petrol. Geol; Paleont. Soc; Min. and Metal. Eng. The Devonian formations of the Alto Pass, Illinois Quadrangle; the stratigraphy and paleontology of the Dundee limestone of southeastern Michigan; Paleozoic section in the vicinity of Dotsero, Colorado.

Bassett, Dr. David L(ee), Stanford University, Calif. *Anatomy.* Palo Alto, Calif, Dec. 31, 13. A.B, Stanford, 34; M.D, 39. Asst. instruction and research, dept. *anat, Stanford,* 39–40, *instr, 40–; nat. research fellow anat, Harvard Med. Sch, 42–* A.A; fel. Am. Med. Asn. Ovarian circulation; circulatory changes in shock and anesthesia.

Bassett, Dr. Lewis G(ordon), 33 Newman St, Mechanicville, N. Y. *Analytical chemistry.* Mechanicville, N. Y, Sept. 22, 02. Ch.E, Rensselaer Polytech, 23, Ph.D, 35; A.M, Columbia, 31. Instr. math, *Rensselaer Polytech,* 23–24, chem. and chem. eng, 24–38, *asst. prof. anal. chem, 38–* Chem. Soc. (v. chairman, east. N. Y. sect, 33–35). Analytical chemistry of tin and antimony; new methods in analytical chemistry.

Bassett, Dr. Samuel H(opkins), 260 Crittenden Blvd, Rochester, N. Y. *Internal medicine.* Coleman's Station, N. Y, Dec. 7, 97. A.B, Cornell, 20, M.D, 24. Asst. anat, med. col, Cornell, 20–21; intern, Reconstruction Hosp, 24–25; intern, junior asst. physician and house physician, New York Hosp, 25–27; instr. *med, sch. med. and dentistry, Rochester,* 27–30, asst. prof, 30–41, *assoc. prof, 41–,* res. med, *Strong Mem. Hosp,* 27–28, asst. physician, 28–41, *assoc. physician, 41–* Asst. res, Lane Hosp, 27. Mineral metabolism; water metabolism; Bright's disease; idiopathic steatorrhea.

Bassler, Prof. R(ay) S(mith), U. S. National Museum, Washington, D. C. **³Geology.* Philadelphia, Pa, July 22, 78. A.B, Cincinnati, 02; M.S, George Washington, 03, Ph.D, 05, Sc.D, 32. Asst. curator stratig. paleont, *U. S. Nat. Museum,* 03–07, curator, 07–29, *head curator geol, 29–;* asst. prof. and *prof, George Washington, 04–* A.A; Geol. Soc. (v. pres, 31); Paleont. Soc. (sec'y, 10, pres, 31); Wash. Acad; Geol. Soc. Wash; for. cor. Geol. Soc. London. Ordovician and Silurian stratigraphy and paleontology; fossil Bryozoa and Ostracoda.

Bast, Prof. T(heodore) H(ieronymus), University of Wisconsin, Madison, Wis. *Histology, Neurology.* Rockfield, Wis, Sept. 1, 90. A.B, Ripon Col, 12; Ph.D, Chicago, 21. Prof. biol, Piedmont Col, 15–19; asst. *anat,* Chicago, 19–20; asst. prof, *Wisconsin,* 20–25, assoc. prof, 25–33, *prof, 33–* A.A; Soc. Exp. Biol; Asn. Anat. Structure, function, growth and repair of bone cells; the maxillary sinus; traumatic muscle injuries; morphology of Nissl bodies, the thyroid gland and adrenal in extreme fatigue; osteogenesis and ossification centers of the otic capsule; the structure and function of the utriculo-endolymphatic valve; pitch localization in the ear by the Wever and Bray method; structure and pathology of the growing otic capsule.

Bastedo, Dr. Walter A(rthur), 33 E. 68th St, New York, N. Y. *Medicine.* Newmarket, Ont, Can, March 8, 73. Ph.G, Columbia, 94, M.D, 99, hon. Sc.D, 29, hon. Ph.M, 34. Curator, N. Y. Bot. Garden, 97–98; instr. pharmacol, Cornell, 01–03; from instr. to asst. prof. pharmacol. and therapeut, *Columbia,* 03–21, *asst. prof. clin. med, 21–* Asst. and attending physician, St. Luke's Hosp, 04–27, consulting physician, 27–; attending physician, City Hosp, 16–22; consulting physician, Staten Island Hosp. and St. Vincent's Hosp, 12– Lecturer, Torrey Bot. Club, 96–98. Mem. advisory council, Health Dept, New York, 14–18. V. pres, U. S. Pharmacopoeial Convention, 10–30, pres, 30–40. Trustee and mem. revision cmt, U. S. Pharmacopoeia; trustee, col. pharmacy, Columbia. Mem. Int. Med. Cong; Int. Physiol. Cong. Am. Med. Asn. (chairman, pharmacol. and therapeut. sect, 19); Gastro-Enterol. Asn. (pres, 19); fel. Col. Physicians; hon. assoc. Proctologic Soc; Asn. Mil. Surg; N. Y. Acad. Med; N. Y. Gastro-Enterol. Asn. (pres, 20–22). Action of drugs on the heart and the gastro-intestinal tract, and in treating pneumonia; materia medica, pharmacology and therapeutics; Bastedo's test for chronic appendicitis; certified pharmacies; Bastedo's rule for dosage in children; Bastedo's position for sigmoidoscopy.

Basterfield, Dean Steward, Regina College, Regina, Sask, Can. *Chemistry, Pharmacology.* Halesowen, Eng, Oct. 22, 84. B.Sc, London, 08; Ph.D, Chicago, 20. Instr. chem, *Saskatchewan,* 14–19, prof. org. chem, 20–40, *dean, Regina Col, 40–* Fel. Can. Inst. Chem. (councilor, 28–31, v. pres, 29); Can. Chem. Asn; fel. Royal Soc. Can. Iso-ureas and urethanes; condensation reactions; history and philosophy of science.

Bastin, Prof. Edson S(underland), University of Chicago, Chicago, Ill. **³Geology.* Chicago, Ill, Dec. 10, 78. A.B, Michigan, 02, hon. Sc.D, 41; M.S, Chicago, 03, Ph.D, 09. Geologist, U. S. Geol. Surv, 05–20; *prof. econ. geol, Chicago, 20–, chairman dept. geol. and paleont, 22–; geologist, U. S. Geol. Surv, 43–* Board Conservation and Natural Resources, Ill; chairman, geol. and geog. div, Nat. Research Council, 34–37. A.A. (v. pres, E, 30); Geol. Soc. (v. pres, 35); Soc. Econ.

Geol. (pres, 33); Min. and Metal. Eng. Chemical composition as a criterion in identifying metamorphosed sediments; geology of Rockland and Eastport quadrangles, Maine; origin of graphite deposits; genesis of the ores of Tonopah, Nevada; silver ores of Cobalt and South Lorraine, Ontario; metallic minerals as precipitants of gold and silver; economic geology of Gilpin County, Colorado; geology of Braden Copper Mine, Chili; sulfate reducing bacteria in oil field waters; fluorspar deposits of Illinois; criteria of mineral paragenesis; origin of Mississippi Valley lead and zinc deposits.

Bastress, Prof. Alfred W(illis), College, Alaska. *Chemistry.* Pittsburgh, Pa, July 29, 00. B.S, Pa. State Col, 22, M.S, 27; Ph.D, Yale, 35. Instr, American Univ. Beirut, 22–25; asst, Yale, 27–28; *prof. chem,* Alaska Agr. Col, 28–35, *Alaska, 35–* Chem. Soc. Derivatives of thiophen.

Basye, Dr. R(obert) E(ugene), Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics.* Kansas City, Mo, Sept. 25, 08. A.B, Missouri, 29; A.M, Princeton, 31; Ph.D, Texas, 33. *Instr. math,* Texas, 32–36; *Agr. and Mech. Col. Texas, 40–* Math. Soc. Point set theory.

Batchelder, Dr. Alan C(oleman), Harvard Medical School, Boston, Mass. *Chemistry.* Pasadena, Calif, Aug. 4, 14. A.B, Pomona Col, 35; Ph.D, California, 39. Asst. med, Hopkins Hosp, 39–40; *tutor biochem. sciences, Harvard Col, and research fellow physical chem, Harvard Med. Sch, 40–* Chem. Soc. Protein chemistry; physical chemistry of amino acids; allergens; osmotic pressure of proteins; viscosity of proteins; salt effect on the dissociation of amino acids; physical chemistry of ragweed allergens; protein purification.

Batchelder, Charles Foster, Peterborough, N. H. *Ornithology.* Cambridge, Mass, July 20, 56. A.B, Harvard, 78, C.E, 82. *Research fellow mammal. and ornith, museum comp. zool, Harvard.* A.A; fel. Ornith. Union (past pres); Soc. Mammal; fel. Am. Acad.

Batchelder, Dr. C(harles) H(oward), 56 Hillhouse Ave, New Haven, Conn. *Entomology.* Amesbury, Mass, 91. B.S, New Hampshire, 13, M.S, 15; Ph.D, Cornell, 25. Instr, New Hampshire, 14–17; Maine, 19, assoc. prof, 20–25, prof, 26; *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 27–* Sci. asst, bur. entom, U. S. Dept. Agr, 20. A.A; Entom. Soc; Asn. Econ. Entom. Ecology; morphology; migration of Mollusca; the life-history of Ostrea virginica; distribution of the Colorado potato beetle; arsenic ingestion in insects; fixed nicotine insecticides; control of the European corn borer.

Batchelder, Dr. Esther L(ord), Bureau of Home Economics, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Hartford, Conn, May 19, 97. B.S, Conn. Col, 19; A.M, Columbia, 25, Ph.D, 29. Chemist, East Malleable Iron Co, 19–20; Henry Souther Eng. Co, 20–24; asst. chem, Columbia, 24–25, food chem, 25–29; nutrition specialist, 'Delineator,' 29–32; asst. prof. nutrition, State Col. Wash, 32–34; Arizona, 34–36; head dept. home econ, R. I. State Col, 36–42; *chief div. foods and nutrition, bur. home econ, U. S. Dept. Agr, 42–* Chem. Soc; Inst. Nutrition; Home Econ. Asn; Dietetic Asn. Nutrition; vitamins A and C.

Batchelder, Prof. P(aul) M(ason), 910 W. 22nd St, Austin, Texas. *Mathematics.* Portsmouth, N. H, Jan. 10, 86. A.B, Dartmouth Col, 08; A.M, Princeton, 10; Ph.D, Harvard, 16. Instr. *math,* Northwestern, 13–15; *Texas,* 16–23, adj. prof, 23–30, *assoc. prof, 30–* Acting asst. prof, Brown, 24–25. A.A; Math. Soc; Math. Asn. Difference equations.

Batchelor, Prof. Harold W(inthrop), Ohio Agricultural Experiment Station, Wooster, Ohio. *Soil biology.* Victoria, Kans, June 30, 97. B.S, Kans. State Col, 22; Ph.D, Wisconsin, 38. Asst. bacteriologist, Idaho, 22–24; asst, Wisconsin, 24–26; asst. agronomist, *Ohio Exp. Sta,* 26–27, *assoc. agronomist, 27–; asst. prof. agron, Ohio State, 29–; capt, Sanit. Corps, U. S. Army, 43–* Soil Sci. Soc; Soc. Agron; Soc. Bact; Pub. Health Asn; Int. Soc. Soil Sci. Biochemical activities of forest and alkali soils; nitrogen fixing bacteria; physical factors in soils affecting the enumeration of bacteria; physical chemistry of silica jellies.

Batchelor, H(arry) D(avid), National Carbon Co, Cleveland, Ohio. *Chemistry.* Garland, Maine, Aug. 13, 80. B.S, New Hampshire, 03. Asst. chemist, Exp. Sta, New Hampshire, 03; chem. engineer, New Eng. Gas and Coke Co, Everett, Mass, 04–05; chief chemist and chem. engineer, by-product coke dept, Carnegie Steel Co, Farrell, Pa, 05–10; chem. engineer, asst. director and director research and develop. labs, Nat. Carbon Co, Cleveland, 10–19; Union Carbide and Carbon Research Labs, N. Y, 20–25; *director research, Nat. Carbon Co, 25–* A.A; Chem. Soc. (chairman, indust. sect, 12, Cleveland sect, 19); Chem. Eng; Chemists' Club. Gas mask absorbent carbon.

Batchelor, Jackson M(ilton), Soil Conservation Service, U. S. Department of Agriculture, Washington, D. C. *Horticulture.* Herkimer, N. Y, April 23, 10. B.S, Cornell, 31. Horticulturist, private industry, 28–34; horticulturist and nursery manager in charge production and research, *soil conservation service, U. S. Dept. Agr,* 34–37, horticulturist, *hillculture div,* 37–42, *soil conservationist, 42–* Soc. Hort. Sci. Field selection and evaluation of erosion resistant plants of economic value.

Batchelor, Prof. L(eon) D(exter), Citrus Experiment Station, Riverside, Calif. *Agriculture.* Upton, Mass, May 8, 84. B.S, New Hampshire Col, 07; Ph.D, Cornell, 11. Instr. hort, Cornell, 07–10; horticulturist, Utah Col, 10–15; *prof.* plant breeding, *California,* 15–19, *orchard management, 19–, director, Citrus Exp. Sta. and grad. sch. trop. agr, and horticulturist, Exp. Sta, 29–* Mem. Utah Agr. Cmn, 10–15. A.A; Soc. Hort. Sci. Orchard management; variation and yield of fruit trees; field trials; citrus root stocks.

Batdorf, Prof. S(amuel) B(urbridge), 1220 Washington St, Reno, Nev. *Physics.* China, March 31, 14. A.B, California, 34, M.A, 36, Ph.D, 38. Instr. *physics,* Utah, 38; asst. prof, *Nevada,* 38–42, *assoc. prof, 42–* Cosmic rays.

Bateman, Prof. Alan M(ara), Yale University, New Haven, Conn. *[5]Geology.* Kingston, Ont, Can. B.A, B.S, Queen's (Can), 10; Ph.D, Yale, 13. Mining and field geologist, 05–10; asst. geologist, Geol. Surv. Can, 11–12; geologist, secondary enrichment investigation, Harvard, 13–15; instr. geol, *Yale,* 15–16, asst. prof, 16–21, assoc. prof, 22–25, *prof. econ. geol, 25–* Consulting geologist, Kennecott Copper Corp; special rep, Metals Reserve Co. and Dept. of State, Mex, 42; chief metals and minerals, Board Econ. Warfare, U. S. Ed, 'Jour. Econ. Geol'; 'Am. Jour. Sci.' Geol. Soc; Soc. Econ. Geol. (pres, 41); Asn. Petrol. Geol; Min. and Metal. Eng; Min. and Metal. Soc; Am. Acad; Wash. Acad. Economic geology; ore deposits; ore formation; field investigations, Alaska, Canada, United States, Mexico, South America, Africa and Europe; economic mineral deposits.

Bateman, Dr. George Monroe, Tempe, Ariz. *Chemistry.* Bloomington, Idaho, Sept. 12, 97. B.S, Utah Col, 21; M.S, Cornell, 26, Ph.D, 27. Instr. chem, Utah Col, 21; high sch, Idaho, 21–22, sch. supt, 22–24; instr. chem, Cornell, 24–27; *head dept. science, Ariz. State Teachers Col, Tempe, 27–; capt, Chem. Warfare Service, U. S. Army, 41–* A.A; Chem. Soc. Apparent viscosity of milk as influenced by physical factors; consistency of cream and ice cream mixtures; trends in science teaching.

Bateman, Prof. H(arry), California Institute of Technology, Pasadena, Calif. *[3]Mathematics.* Manchester, Eng, May 29, 82. Cambridge, 00–05, fellow, 05–11; Göttingen and Paris, 05–06; Johnston scholar, Hopkins, 12–15, Ph.D, 13. Lecturer, Liverpool, 06–07; reader math. physics, Manchester, 07–10; lecturer math, Bryn Mawr Col, 10–12; Hopkins, 15–17; *prof. math, physics and aeronautics, Calif. Inst. Tech, 17–* Nat. Acad; Math. Soc. (councilor, 24–27, v. pres, 35–); Math. Asn; Physical Soc; Acoustical Soc; Philos. Soc; Astron. Soc. Pacific; British Asn; Royal Soc. London; London Math. Soc. Geometry; mathematical physics; definite integrals; partial differential and integral equations; functions of Legendre and Bessel; electromagnetism; theory of relativity; dynamical meteorology; probability; seismology; sound; hydrodynamics; aeronautics.

Bateman, Dr. J(esse) Fremont, Columbus State Hospital, Columbus, Ohio. *Neurology, Psychiatry.* Columbus, Ohio, Dec. 28, 97. A.B, Ohio (Athens), 22; A.M, Cornell, 24; M.B, Cincinnati, 27, M.D, 28. Instr. biol, Ohio (Athens), 20–22; neur, Cornell, 22–24; anat, Cincinnati, 24–26, lecturer clin. psychiat, 29–35; clinician neuropsychiat, Cincinnati Gen. Hosp, 29–35; clin. director, Longview Hosp, 30–36; *director mental hygiene clinic, Mercy Hosp, Hamilton, 30–; asst. attending neurologist, Christ Hosp, Cincinnati, 32–; supt, Columbus State Hosp, 36–* Lecturer, Miami (Ohio); prof, Ohio State; state commissioner mental hygiene, Ohio, 38–39. Summers, assoc. prof, Ohio (Athens), 22, 23. Trustee, St. Edmund's Home for Boys, Cincinnati. Nat. Cmt. Mental

Hygiene. Lieut, U.S.A, 17–18. Am. Med. Asn; Psychiat. Asn; Ohio State Med. Asn. (sec'y, sect. nervous and mental diseases, 31–32, chairman, 32–33); Cent. Neuropsychiat. Asn; Asn. Asst. Physicians of Ohio (pres, 30); Columbus Neuropsychiat. Soc. Organic neurology; the anatomy and physiology of the cerebrospinal fluid system; meningitis; the organic phase of psychiatry; the organic schizophrenic reaction types; effects of various endogenous and exogenous toxins on the central nervous system; personality changes associated with organic conditions of the central nervous system.

Bateman, Dr. John Burraston, University of Toronto, Toronto, Ont, Can. *Physical chemistry, Biophysics.* Nottingham, Eng, May 26, 08. B.Sc, London, 28, Ph.D, 30. Von Portheim fellow, Heidelberg, 32–34; George Henry Lewes fellow, Cambridge, 34–35; hon. lecturer physiol, London Hosp. Med. Sch, 35–38; Commonwealth Fund fellow, Pennsylvania, Calif. Inst. Tech. and Harvard Med. Sch, 38–40; mem. staff, Johnson Foundation Med. Physics, Pennsylvania, 40; *research worker, Banting-Best dept. med. research, Toronto and Nat. Research Council Can, 40–* Physiol. Soc; N. Y. Acad; Marine Biol. Asn. United Kingdom. Photochemistry; osmotic regulation and secretion; mitogenetic radiation; dielectric properties of proteins and peptides; physical and immunological properties of protein monolayers.

Bateman, Prof. John H(enry), Louisiana State University, Baton Rouge, La. *Civil engineering.* Huron, Mich, March 20, 92. B.S, Michigan, 15, C.E, 22. Engineer, State Highway Dept, Mich, 15–24; assoc. prof. civil eng, Michigan. 19–24; prof. highway eng, Louisiana, 25–29; engineer, Barrow-Agee Labs, Memphis, Tenn, 29–30; consulting engineer, Mich. Tax Relief Cmn, Ann Arbor, 31; engineer-manager, Berrien Co. Road Cmn, Mich, 32–36; *prof. civil eng, Louisiana, 36–* Concrete Inst. Engineering materials.

Bateman, Dr. R(obert) L(ake), Carbide and Carbon Chemicals Corp, 30 E. 42nd St, New York, N. Y. *Chemistry.* Port Norris, N. J, Oct. 19, 09. B.S, Ursinus Col, 31; M.S, Pennsylvania, 33, Ph.D, 35. Asst. instr. chem, Pennsylvania, 31–35; fellow org. synthesis, Mellon Inst, 35–37; *tech. div, Carbide and Carbon Chem. Corp, 37–* Chem. Soc. Medicinals; synthesis of aliphatic organic chemicals.

Bateman, Prof. W(illiam) G(eorge), University of Montana, Missoula, Mont. *Chemistry.* Salt Lake City, Utah, April 1, 83. A.B, Stanford, 07, A.M, 09; Ph.D, Yale, 16. Asst. and instr. *chem,* Stanford, 05–10; *prof,* Pei Yang Univ, Tientsin, 10–12; *Montana, 12–* Chem. Soc. Toxicity of thallium salt; copper in plants and soils of smelter regions; salts of the halogen acids; development of speech in children; digestibility of proteins.

Baten, Prof. William Dowell, 411 Marshall Ave, East Lansing, Mich. *Mathematics, Statistics.* Ft. Worth, Texas, 92. A.B, Baylor, 14; A.M, Texas, 18; Ph.D, Michigan, 29. Head dept. math. and science, schs, Texas, 14–18; math, N. Texas Junior Agr. and Mech. Col, 19–22; instr, Agr. and Mech. Col. Texas, 23–24; head dept, Bessie Tift Col, 24–27; assoc. prof, Tennessee, 27–28; instr, Michigan, 28–30, asst. prof. math. and statist, 31–36; *assoc. prof. math, Mich. State Col, and research assoc. statist, Exp. Sta, 37–* A.A; Soc. Agron; Math. Asn; fel. Inst. Math. Statist; Statist. Asn; Mich. Acad. Probability; biometry; correlation and sampling; elementary mathematical statistics.

Bates, Dr. A(bram) Allan, 400 Long Road, Wilkinsburg, Pa. *Metallurgy.* Elyria, Ohio, July 28, 01. A.B, Ohio Wesleyan, 23; B.S, Case, 25, M.S, 29; Am. Field Service fellow, univs, France, 30–31; D.Sc, Nancy, 31. Research metallurgist, Nat. Malleable and Steel Castings Co, 25–26; instr. metal, Case, 27–30, prof, 31–37; *manager chem. and metal. research, Westinghouse Elec. and Mfg. Co, 37–* Metal. engineer, Rotary Elec. Steel Co, Detroit, Mich, 33– Mem. program cmt, Int. Cong. Min. and Metal. Eng, Liége, Belgium, 30. Soc. Metals; Min. and Metal. Eng; Eng. Educ. Physical metallurgy and metallography of ferrous alloys; fundamentals of ferrous metallurgy.

Bates, Prof. A(rthur) C(rocker), Lehigh University, Bethlehem, Pa. *Machine design, Applied mechanics.* Montclair, N. J, Jan. 5, 05. B.S, Purdue, 29; M.S, Michigan, 33; Ph.D, Pennsylvania, 41. Tech. asst. and junior engineer, Bell Tel. Labs, Inc, 23–27, 28; asst. *mech. eng,* Exp. Sta, Purdue, 29–31; instr. and asst. prof, Pennsylvania, 31–41; *asst. prof, Lehigh, 41–* Consulting engineer, 33–; Roller-Smith Co, Bethlehem. Mech. Eng; Soc. Automotive Eng. Vibration of crankshafts; riding qualities of automobiles; behavior of needle bearings; interaction constant for moist air.

Bates, C(arlos) G(lazier), U. S. Forest Service, St. Paul, Minn. *Forestry.* Topeka, Kans, Oct. 14, 85. B.S, Nebraska, 07. Forest asst, Rocky Mountain Region, *U. S. Forest Service,* 07–13, forest examiner, 13–19, silviculturist, 19–27, *Lake States Forest Exp. Sta,* 27–35, *prin. silviculturist, 35–* Assoc. ed, 'Jour. Forestry,' 25–31. Soc. Foresters; Meteorol. Soc; Minn. Acad. Ecology and forest influences; shelterbelt research.

Bates, Prof. C(linton) O(wen), Coe College, Cedar Rapids, Iowa. *Chemistry.* Lincoln, Ark, June 4, 58. A.B, Arkansas, 83; Michigan, 85–86; Chicago, 94; hon. Ph.D, Coe Col, 94. Teacher, Male Sem, Okla, 83–85; high sch, Mich, 86–89; prof. *chem, Coe Col,* 89–24, *emer. prof, 24–* City chemist, Cedar Rapids, 24. Water Works Asn; Iowa Acad. (pres, 06). Clay for paving brick; water for engines; physiological effects of sulfur dioxide on the human system; market milk; city water supply; sewage analysis.

Bates, Frederick (John), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Marysville, Kans, Jan. 2, 77. B.S, Kansas, 00; A.M, Nebraska, 02. Lab. asst, *Bur. Standards,* 03–08, *chief* magneto optical and carbohydrate sect, 03–41, *optics div, 41–,* physicist, 08–24, senior physicist, 24–28, *prin. physicist, 28–* Prin. physicist and supervisor, govt. sugar labs, customs service, U. S. Treasury Dept, special agent, 05. Pres, Int. Cmn. for Uniform Methods Sugar Analysis, 32–; Int. Union Pure and Applied Chem. Chem. Soc. (sec'y, sugar div, 20–27, chairman, 28); Physical Soc; Optical Soc; Philos. Soc. Wash; Int. Soc. Sugar Cane Technol. Natural and magnetic rotary polarization; sensitive strip polarizing system; quartz wedge polariscope with adjustable sensibility; cadmium-vapor arc lamp; new Baumé scale; inversion of quartz; new point on the thermometric scale; electrolytic method for calcium gluconate.

Bates, H(arry) Clifford, Research Enterprises Ltd, Toronto, Ont, Can. *Physics.* Glanford, Ont, 93. B.A, Toronto, 20, Nat. Research Council Can. student, 22–23, M.A, 23. Instr, De Veaux Acad, Niagara Falls, 20–21; demonstrator physics, Toronto, 21–22; instr, Lafayette Col, 23–24; asst, Toronto, 24–25; physical lab, Corning Glass Works, 25–36, chief fiber products lab, 36–38; manager new products develop, Owens-Corning Fiberglas Corp, 38–40; *director glass making, Research Enterprises Ltd, 40–* Ceramic Soc. Compressibility of solids; thermal conductivity of pyrex; glass wool as insulator for refrigeration; thermal expansion of glasses; spectral transmission, especially in ultra-violet; optical glass making.

Bates, Harry H(oward), 300 Glenloch Road, Ridley Park, Pa. *Mechanical engineering.* Middleway, W. Va, Aug. 10, 89. B.S, Va. Polytech, 13, M.E, 14. Test dept, Norfolk and West. Ry. Co, 14–17; asst. chief engineer, *Westinghouse Elec. and Mfg. Co,* 19–26, *works engineer in charge construction and maintenance, 26–* V. pres. and director, Taylor Hosp. Lieut, Ry. Artil, 17–19. Mech. Eng. Combustion of coal; coal-burning equipment; industrial use of x-rays; management of plant maintenance work.

Bates, Dr. Herbert T(empleton), Case School of Applied Science, Cleveland, Ohio. *Chemical engineering.* Ames, Iowa, Sept. 9, 13. B.S, Iowa State Col, 35, Ph.D, 41; M.S, Va. Polytech, 38. *Instr. chem. eng, Case, 41–* Chem. Soc; Chem. Eng; Eng. Educ. Heat transfer and fluid flow; velocity distribution of fluids in turbulent flow; chemical engineering applications of a modified Archimedean screw; rapid method of correcting fuel value determinations using the oxygen bomb calorimeter.

Bates, Prof. J(ames) C(harles), Kansas State College, Manhattan, Kans. *Botany.* Fairdale, Kans, Jan. 24, 98. A.B, Kansas, 27, A.M, 33, Ph.D, 35. Instr. biol, Caney Junior Col, Ky, 28–29; asst. instr. *bot,* Kansas, 30–35; instr, *Kans. State Col,* 35–42, *asst. prof, 42–* Soc. Plant Physiol; Kans. Acad. Plant anatomy, physiology and microtechnique.

Bates, Dr. John R(eginald), 649 N. Chester Road, Swarthmore, Pa. *Physical chemistry.* St. Ann's Bay, Jamaica, B. W. I, Dec. 17, 02. A.B, Amherst Col, 24; A.M, Princeton, 25, Ph.D, 27. Nat. research fellow, Hopkins, 27–28; Rockefeller Foundation Int. Educ. Board fellow, Berlin, 28–29; research assoc. physical chem, Princeton, 29–32; asst. prof. gen. and physical chem, Michigan, 32–35, assoc. prof, 35–36; research, Catalytic Develop. Co, 36–41, director research, 41–42; *engineer, Sun Oil Co, 42–* Assoc. ed, 'Jour. Chem. Physics,' 34–36. Cmt. on deuterium research, Nat. Research Council,

34– Chem. Soc. Photochemistry; photosensitization by mercury; kinetics; effective cross section in second kind collisions; molecular properties and the bonds between atoms; mechanism of reactions and reactions of radicals; photo-oxidations; deuterium; properties of isotopic compounds; reactions of hydrogen and deuterium atoms; catalytic cracking of petroleum fractions; petroleum technology.

Bates, Dr. Marston, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Zoology.* Grand Rapids, Mich, July 23, 06. B.S, Florida, 27; A.M, Harvard, 33, Ph.D, 34. Entomologist and director, Servicio Tecnico de Cooperacion Agr, United Fruit Co, 28–31; Sheldon traveling fellow, Harvard, 34–35, research asst, museum comp. zool, 35–37; *mem. staff, int. health div, Rockefeller Foundation, 37–* Fel. Entom. Soc. Amer. Tropical ecology; animal behavior; species problem; virus transmission.

Bates, Prof. O(scar) Kenneth, 44 E. Main St, Canton, N. Y. *Physics, Mathematics.* Dorchester, Mass, Dec. 23, 00. B.S, Mass. Inst. Tech, 21, M.S, 22, Sc.D, 32. Instr. physics, Mass. Inst. Tech, 21–33; *prof. and head dept. math, St. Lawrence, 33–, co-ordinator civilian pilot training program, 41–* Consulting physicist. Math. Soc; Inst. Math. Statist; Mech. Eng. (standing cmt. thermo-physical properties, heat transfer professional group, 40–42). Temperature and thermal conductivity composition data of liquids; heat and temperature measurements.

Bates, P(haon) H(ilborn), National Bureau of Standards, Washington, D. C. *Chemistry.* Sipesville, Pa, Aug. 1, 79. A.B, Cent. High Sch. Phila, 98; B.S, Pennsylvania, 02. Asst. chemist, Pa. R.R, 02–06; struct. materials chemist, U. S. Geol. Surv, 06–10; *chemist, Bur. Standards, 10–* Director, Edward Orton Ceramic Foundation. Marburg lecturer, Am. Soc. Testing Materials, 40. Turner gold medal, Am. Concrete Inst. A.A; Chem. Soc; Ceramic Soc; Soc. Test. Mat. (exec. cmt, 37–); Concrete Inst. (director, 26–41, pres, 34). Hydraulic properties of silica-lime-alumina compounds; Portland cement; concrete.

Bates, Dr. Philip K(night), United Drug Co, Boston, Mass. *Bacteriology.* Cohasset, Mass, July 2, 02. B.S, Mass. Inst. Tech, 24, Ph.D, 29. Head dept. bacter, Frigidaire Corp, Dayton, Ohio, 28–32; research assoc, Mass. Inst. Tech, 33–35; bacteriologist, *United Drug Co,* 35–40, *director research, 41–* Pub. Health Asn; Soc. Bact; Chem. Soc; Inst. Food Technol. Bacteriology of frozen foods and of refrigeration of foods; bacteriology of fibers; antiseptics; vitamins.

Bates, Prof. Robert E(llery), Indiana University, Bloomington, Ind. *Geomorphology.* Providence, R. I, Aug. 21, 11. A.B, Indiana, 32, A.M, 32; Ph.D, Columbia, 39. Asst. physiog, Columbia, 34–36; instr. geol, Western Reserve, 36–39, asst. prof. geol. and dean students, 39–41; *asst. prof. geol. and assoc. dean men, Indiana, 41–* Summer, asst, U. S. Geol. Surv, 36. Geophys. Union. Stream mechanics; meander development; erosion cycles; karst topography.

Bates, Dr. Robert L(atimer), New Mexico School of Mines, Socorro, N. Mex. *Geology.* Brookings, S. Dak, June 17, 12. A.B, Cornell, 34; M.S, Iowa, 36, Ph.D, 38. Asst, dept. geol, Iowa, 34–38; jr. geologist, The Texas Co, 38–40; *geologist, Bur. Mines and Mineral Resources, N. Mex, 41–*; instr. and later *asst. prof. geol, N. Mex. Sch. Mines, 41–* A.A; Asn. Petrol. Geol. Areal geology in parts of southwestern Virginia; occurrence and origin of limonite concretions; Middle Permian stratigraphy in southeastern New Mexico; oil and gas resources of New Mexico.

Bates, Prof. Robert L(ee), Virginia Military Institute, Lexington, Va. *Psychology.* Middleway, W. Va, Nov. 7, 86. LL.B, West Virginia, 12, A.B, 16; A.M, Hopkins, 20, fellow, 20–21, Ph.D, 24. Asst. prof. *psychol, Va. Mil. Inst,* 21–22, assoc. prof, 22–25, *prof, 25–* Summers, prof, Duke, 26–29, 30; Arkansas, 29; Col. of William and Mary, 31, 32; Virginia, 33. Lieut, Sanit. C, 18–20, capt, O.R.C, 24. A.A; Psychol. Asn; S. Soc. Philos. and Psychol. (councilor, 28–30). Psychological problems of tobacco smoking; intelligence characteristics; personnel studies.

Bates, Dr. Robert W(esley), Difco Laboratories, 920 Henry St, Detroit, Mich. *Physiological chemistry.* Columbia, Iowa, Jan. 31, 04. A.B, Simpson Col, 25; Ph.D, Chicago, 31. Asst. prof. chem, Simpson Col, 26–27; physiol. chemist, E. R. Squibb and Sons, 27–29; research assoc, sta. for exp. evolution, Carnegie Institution, 31–32, investigator, 33–41; *biol. chemist, Difco Labs, 41–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Study Int. Secretions. Internal secretions; enzymes.

Bates, Dr. Roger G(ordon), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Cummington, Mass, May 20, 12. B.S, Mass. State Col, 34; A.M, Duke, 36, fellow, 36–37, Ph.D, 37. Asst. chem, Duke, 34–36; Sterling fellow, Yale, 37–39; asst. chemist, *Bur. Standards,* 39–41, *assoc. chemist, 41–* A.A; Chem. Soc; N. Y. Acad. Electrode potentials; homogeneous equilibria; ionization; thermodynamics of electrolyte solutions; standards for hydrogen-ion concentration.

Bates, Prof. Stuart J(effery), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Toronto, Ont, Can, May 9, 87. B.A, McMaster, 07, M.A, 09; fellow, Illinois, 10–12, Ph.D, 12. Asst, McMaster, 09–10; research assoc. physical chem, Illinois, 12–13, instr. anal. chem, 13–14; *prof. physical chem, Calif. Inst. Tech, 14–* Asst, Bur. Standards, 13; research assoc, Mass. Inst. Tech, 22–23. A.A; Chem. Soc; Faraday Soc; London Chem. Soc. Value of the faraday; iodin coulometer; thermodynamic properties of solutions.

Bateson, Dr. Sydney, Duplate Canada, Ltd, Oshawa, Ont, Can. *Physics.* Bradford, Eng, Feb. 27, 06. B.Sc, Dalhousie, 30, M.Sc, 32; Ph.D, Toronto, 36. *Research physicist, Duplate Can, Ltd, 37–* Assoc. Optical Soc. Physics and technology of glass and plastics.

Bath, Dr. John A, Adjutant General's School, Ft. Washington, Md. *Psychology.* Brownville, Nebr, Sept. 28, 10 A.B, Nebr. State Teachers Col, 32; A.M, Nebraska, 33, Ph.D, 42. Prin. and teacher, high sch, Nebr, 33–35; asst. prof. educ. and supervisor junior high sch. teaching, Nebr. State Teachers Col, Peru, 35–38; ed. supervised correspondence study courses, exten. div, Nebraska, 38–40, asst. educational psychol. and measurements, 40–41, instr, 41–42; psychol. asst, Air Corps, *U. S. Army,* 42–43, *officer candidate, Adj. Gen. Dept, 43–* Educational psychology and measurements; study of selected Lincoln, Nebraska, public school pupils with special reference to the efficiency program.

Bathurst, Prof. J(ames) E(lmer), 944 Sixth St, W, Birmingham, Ala. *Psychology, Education.* Alton, Kans, June 10, 98. A.B, McPherson Col, 22; A.M, Iowa, 23, fellow, 25, Ph.D, 26. Instr. educ. and dean men, Cent. Acad. and Col, Kans, 20–22; prof. and pres, Wessington Springs Junior Col, 23–25; prof, Dakota Wesleyan, 26–27; research assoc, Bur. Pub. Personnel Admin, 27–29; *prof. psychol. and educ. and head dept, Birmingham-Southern Col, 29–* Psychol. Asn; Soc. Study Educ; Soc. Col. Teachers Educ; S. Soc. Philos. and Psychol. Testing; personnel; vocational guidance; integrity.

Batjer, Dr. L(awrence) P, Agricultural Experiment Station, Kearneysville, W. Va. *Horticulture.* Abilene, Texas, June 6, 07. B.S, Agr. and Mech. Col. Texas, 28; M.S, Mich. State Col, 30; Ph.D, Cornell, 33. Instr, Cornell, 30–33, research and exten. horticulturist, 33–35; *asst. horticulturist, Exp. Sta, West Virginia, 35–, exten. horticulturist, agr. exten, 35–* Soc. Hort. Sci. Orchard soil; morphology and chemistry of pear fruits; rootstock.

Batson, Dr. Herbert C, Bureau of Laboratories, Biologic Products Division, State Department of Health, Lansing, Mich. *Bacteriology.* Redwood Falls, Minn, Oct. 28, 09. B.S, S. Dak. State Col, 32, M.S, 34; Mich. State Col; Nebraska; Ph.D, Minnesota, 42. Asst. bacter, S. Dak. State Col, 32–34, instr, 34–36, asst. prof, 36–40; *bacteriologist, bur. labs, biol. products div, State Dept. Health, Mich, 40–* Consulting bacteriologist, State Dept. Game and Fish, S. Dak, 38. Soc. Bact. Botulism; immunology; biologic products manufacture.

Batson, Dr. Oscar V(ivian), University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa. *Anatomy.* Sedalia, Mo, Nov. 10, 94. A.B, Missouri, 16, A.M, 18; M.D, St. Louis, 20. Asst. anat, Missouri, 15–17; instr. path, St. Louis, 19–20; *anat,* Wisconsin, 20–21; asst. prof, Cincinnati, 21–24, assoc. prof, 24–27, *prof,* 27–28; *grad. sch. med, Pennsylvania, 28–,* instr. *otolaryngol, sch. med,* 36–42, *asst. prof, 42–* Prof, Ohio Col. Dental Surg, 23–26. A.A; Asn. Anat; Acad. Ophthal. and Otolaryngol; fel. Am. Med. Asn; Laryngol. Asn; Col. Physicians Phila; Soc. d'Anthrop. de Paris. Gross anatomy; clinical applied anatomy; vertebral veins.

Batson, Prof. William H(oward), University of South Dakota, Vermillion, S. Dak. *Psychology.* Martinsville, Ohio, Sept. 18, 81. A.B, Antioch Col, 07; Ph.D, Michigan, 15. Sch.

supt, Ohio, 07–11; prof. educ, Texas Christian, 13–17; prof. educ. and director training sch, Southwest. State Teachers Col, Okla, 17–18; *prof. educ, South Dakota, 19–. director sch. educ. and summer session, 28–* Psychol. Asn; S. Dak. Educ. Asn. (pres, 30). Acquisition of skill.

Batt, Dr. Henry T(homas), Ontario Veterinary College, Guelph, Ont, Can. *Veterinary physiology.* North Battleford, Sask, Dec. 29, 07. B.V.Sc, Ont. Vet. Col, 33; M.V.Sc, Toronto, 35, D.V.Sc, 40; Ecole Veterinaire d'Alfort, France, 36; M.S, Cornell, 38, Ph.D, 41. Asst, Vet. Research Sta, Lethbridge, Alta, Can, 31–33; Animal Diseases Research Institute, Hull, Que, 33; instr. vet. physiol, N. Y. State Vet. Col, Cornell, 36–41; *head dept. physiol, Ont. Vet. Col, 41–* Vet. Med. Asn; Ont. Vet. Asn. Carbohydrate metabolism.

Batt, Dr. William G(eorge), Biochemical Research Foundation, Newark, Del. *Microchemistry.* Eng, Dec. 1, 06. B.S, Phila. Col. Pharmacy, 34, M.S, 35, D.Sc, 38. Asst. microanalyst, *Biochem. Research Foundation, Franklin Inst,* 37–40, *head microanal. lab, 40–* Chem. Soc. (councilor, Phila. sect, 42). Microanalytical procedures.

Battle, Prof. Helen I(rene), 132 Mamelon St, London, Ont, Can. *Zoology.* London, Ont, Aug. 31, 03. B.A, Western Ontario, 23, M.A, 24; Ph.D, Toronto, 28. Demonstrator *zool, Western Ontario,* 23–24, instr, 24–27, 28–29, asst. prof, 29–33, *assoc. prof, 33–* A.A. Marine biology; embryology of teleosts; lethal temperatures and temperature coefficients for duration of life; spawning periodicity of teleosts and mollusks; teleostean digestion.

Baty, Dr. Joseph A, 354 High St, Fair Lawn, N. J. *Physical chemistry.* Coalgate, Okla, Dec. 5, 04. A.B, Montana, 30; Ph.D, Cornell, 35. Research chemist, *gen. labs, U. S. Rubber Co,* 35–36, *head anal. lab, 37–* Chem. Soc. (chairman subcmt. tests for properties of rubber and rubber-like materials in liquids); Soc. Test. Mat. Colors of gems and minerals; chemical reaction in the silent discharge.

Bauder, Prof. Arthur R(ussell), University of Alabama, University, Ala. *Electricity, Physics.* Cleveland, Ohio, June 23, 65. B.S, Case, 89, E.E, 18; A.M, Columbia, 96. Instr. math, Lafayette Col, 97–99; physics, Pennsylvania, 99–00; prof. physics and eng. and dean, J. B. Stetson, 03–06; elec. engineer, Boyd Elec. Co, New Haven, 06–07; asst. elec. engineer, New Haven R. R, 07–18; *prof. physics and elec. eng. and head dept. elec. eng, Alabama, 18–* Measurement of the electrical resistance of all substances found in the earth's surface except compounds of the rare elements.

Baudisch, Dr. Oskar, 44 Fifth Ave, Saratoga Springs, N. Y. *Chemistry.* Maffersdorf, Austro-Hungary, June 3, 81. B.A, Zurich, 03, Ph.D, 04. Asst, Zurich, 05–06; research assoc, Manchester, 06–07; privat-docent, Zurich, 09–14; research director, Strahlenforschungs Inst, Hamburg, 15–19; research assoc, Yale, 21–23; assoc, Rockefeller Inst, 23–29; research assoc. org. chem, Yale, 29–34; *research director, N. Y. State Research Inst. Balneol. and Hydrotherapy, 34–* Summers, Bologna, Italy, 12; Mosso Inst, Monte Rosa, 13; Stockholm Biochem. Inst, 28, 34. Scheele medal, Stockholm Chem. Soc, 34. A.A; Chem. Soc; Harvey Soc; Soc. Biol. Chem; Deuts. Chem. Gesell. Diazo and nitroso compounds; introduction of cupferron and neo-cupferron in analytical chemistry; photochemistry; biochemistry; chemistry of complex salts; catalytic oxidation; magneto chemistry; geochemistry.

Baudouin, Dr. Joseph Albert, University of Montreal, Montreal, Que, Can. *Public health.* Farnham, Que, March 18, 75. B.A, Col. of Montreal, 96; M.D, Laval, 00, D.P.H, 12; D.Social Sci, Montreal, 38. Med. officer health, Lachine, Que, Can, 09–17; asst. inspector-gen. and asst. sec'y, Provincial Board of Health, 17–22; *prof. hygiene and pub. health, Montreal, 20–* Their Majesties' Coronation medal, 37. Can. Pub. Health Asn. (pres, 23–25); Soc. Med. de Montreal (pres, 27). Bacillus Calmette Guérin vaccination against tuberculosis.

Bauer, Prof. C(harles) W, 8 Woodlawn Oval, Wellesley Hills, Mass. *Biochemistry.* Hastings, Nebr, June 6, 99. Ph.G, Ph.C, Valparaiso, 21; Idaho, 23; B.S, Creighton, 27, A.M, 29; Chicago, 30; Ph.D, Iowa, 37. Purity chemist, Utah-Idaho Sugar Co, 21–22; anal. chemist, U. S. Steel Corp, Gary, Ind, 22; head dept. science, schs, Idaho, 22–24; prof. *chem,* Creighton, 24–37; *assoc. prof, Mass. Col. Pharmacy, 37–* Mem. med. research exped. among Eskimos, Lower Yukon and Bering Sea, 34. Chem. Soc; Pharmaceut. Asn; New Eng. Asn. Chem. Teachers. Relationship of chemical structure to pharmacological action; borax on glycerine; pharmacological action of secondary alcohols; enzymes; hormones; pharmaceutical preparation of active enzyme preparations.

Bauer, Dr. C(lifford) D(avid), 4210 Peterson Ave, Chicago, Ill. *Biochemistry.* Washington, Iowa, Aug. 15, 09. B.S, Iowa Wesleyan Col, 32; M.S, Iowa, 36, Ph.D, 40. *Chief chemist, Nutrition Research Labs, 40–* Chem. Soc. Amino acid metabolism; vitamins.

Bauer, Dr. C(lyde) Max, Yellowstone Park, Wyo. *Geology.* Bristol, Ind, April 5, 86. B.S, Chicago, 08; Ph.D, Colorado, 32. Teacher and prin, high schs, Colo, 09–11; asst. geologist, U. S. Geol. Surv, 11–16; geologist, Empire Gas and Fuel Co, 16–18; consulting geologist, Bauer and Clark, Okla, 19–20; geologist, Midwest Ref. Co, 21–22; chief geologist, Midnorth. Oil Co, Mont, 22–25; Midwest Explor. Co, Texas, 25–29; instr. geol, Colorado, and consulting geologist, Midwest Ref. Co, 29–32; *head naturalist, Yellowstone Nat. Park, Nat. Park Service, 32–* Exec. sec'y, Yellowstone Library and Museum Asn, 33– A.A; fel. Geol. Soc; Asn. Petrol. Geol; Colo-Wyo. Acad. Stratigraphy; coal and oil deposits; geodynamics.

Bauer, Prof. Edward L(ouis), 1609 Spruce St, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Dec. 9, 90. M.D, Jefferson Med. Col, 14. *Prof. diseases of children, Jefferson Med. Col, 26–* Physician, Lutheran Orphanage, 15–34; immunologist, Dept. Pub. Health, Phila, 18–32; consulting pediatrist, Germantown Hosp, 21–, Mem. Hosp, 25–, St. Christopher's Hosp. for Children, 35–; pediatrist, Phila. Hosp. for Contagious Diseases, 20–, Girard Col, 34–; asst. visiting pediatrist, Phila. Gen. Hosp, 24–26, Children's Hosp. of M. J. Drexel Home, 18–26. Lecturer, Pennsylvania. Mem. Phila. Milk Cmn. Am. Med. Asn; Acad. Pediat; Phila. Pediat. Soc. (pres, 25–27); Col. Physicians Phila; hon. fel. Pediat. Soc. Uruguay. Diphtheria; scarlet fever; erysipelas; rheumatic infections; heart disease; chorea; celiac disease; functional nervous diseases; appendicitis; encephalitis; care of the newborn.

Bauer, Dr. Eldon E(ugene), 719 Park Ave, Rochester, N. Y. *Physical chemistry.* St. Louis, Mo, Dec. 17, 17. B.S, McKendree Col, 38; M.S, Iowa, 40, Ph.D, 42. Asst, Iowa, 38–42; *research chemist, Eastman Kodak Co, 42–* Mem, Nat. Defense Research Cmt. Bartow award, Iowa, 41. Chem. Soc. Iodine monochloride; the system potassium chloride-iodine monochloride.

Bauer, Prof. Frank S(tanley), 944 Lincoln Place, Boulder, Colo. *Mechanical engineering.* Blue Mound, Ill, Nov. 27, 88. B.S, Illinois, 11; M.E, Colorado, 15. Instr. mech. eng, *Colorado,* 11–14, asst. prof, 14–19, assoc. prof, 19–22, prof, 22–36, *prof. eng. drawing and machine design and head dept, 36–* Mech. Eng; Eng. Educ. Machine design.

Bauer, Prof. F(rederick) C(harles), University of Illinois, Urbana, Ill. *Soils.* Blue Mound, Ill, May 7, 86. B.S, Illinois, 09, M.S, 18; Ph.D, Wisconsin, 20. Instr, high sch, Idaho, 09–11; soils, *Illinois,* 11–18, in charge soils exten, 20–32, *chief exp. fields, 23–, prof. soil fertility, 32–* A.A; Soc. Agron. Availability of mineral phosphates; productive levels of soils.

Bauer, Prof. Geo(rge) N(eander), University of New Hampshire, Durham, N. H. *Statistics. Mathematics.* Jordan, Minn, Jan. 8, 72. B.S, Minnesota, 94; M.S, Iowa, 98; Ph.D, Columbia, 00. Teacher, high sch, Minn, 94–95; instr. *math,* Iowa, 95–98; Minnesota, 00–02, asst. prof, 02–07, *prof,* 07–20; *New Hampshire, 24–* State chairman, War Savings Societies, Minn; assoc. director, War Loan Organization, 9th Fed. Reserve Dist. A.A; Math. Soc; Circolo Mat. di Palermo. The parallax of μ Cassiopeiae and the positions of fifty-six neighboring stars; analytic geometry; trigonometry; algebraic and transcendental numbers and equations; transcendental curves and numbers; mathematics preparatory to statistics and finance.

Bauer, Dr. George Taylor, 306 Orchard, East Lansing, Mich. *Physical chemistry.* Le Sueur, Minn, Aug. 28, 09. B.S, Mich. State Col, 31, Ph.D, 37. Instr. colloidal chem, Mich. State Col, 36–37; chem. engineer, Coplay Cement Co, 37; asst. chief chemist, Standard Portland Cement Co, 38–40; research chemist, State Highway Research, Mich, 40–42; *chief chemist, Nash-Kelvinator Corp, 42–* Heat of wetting of activated silica gel.

Bauer, Dr. Harry L(loyd), Santa Monica Junior College, Santa Monica, Calif. *Botany.* Blue Mound, Ill, June 14, 92. B.S, Illinois, 14; A.M, Colorado, 22; M.S, Southern California, 28, Ph.D, 34. Sch. supt, Newell, S. Dak, 19–20; instr, high sch, Tacoma, Wash, 21–23; Kern County Junior Col,

Bakersfield, Calif, 24–28; *biol*, Long Beach Junior Col, 29–30; *head dept, Santa Monica Junior Col, 31–* Summers, ranger naturalist, Yellowstone Nat. Park, 38–41; Sequoia Nat. Park, 42– Ecol. Soc; Calif. Bot. Soc; S. Calif. Acad; S. Calif. Bot; Federation Nat. Sci. S. Calif. Plant ecology; taxonomy.

Bauer, Dr. John C(onrad), Bunting Chemical Co, Baltimore, Md. *Chemistry.* Baltimore, Md, Feb. 21, 02. B.S, Maryland, 28, M.S, 30, Ph.D, 33. Instr. chem, sch. pharmacy, Maryland, 26–36, lecturer physiol. chem, 28–36, food and drug anal, 33–36; chief chemist, Noxzema Chem. Co, 36–39; *exec. v. pres, Bunting Chem. Co, 39–* Chem. Soc; Inst. Chem; Pharmaceut. Asn; Md. Pharmaceut. Asn. Chemotherapy; syntheses of aliphatic sulfonic acids; medicinal ointments; cosmetics.

Bauer, Dr. L(aVerne) N(orman), 1813 E. Napfle Ave, Philadelphia, Pa. *Organic chemistry.* Attica, N. Y, July 26, 08. B.S, Alfred, 32; univ. fellow, Northwestern, 35–36, Ph.D, 36. Engineer and foreman, Morley Construction Co, Mo, 32–33; *research chemist, Rohm and Haas Co, 36–* Chem. Soc. Synthesis and reactions of p-dioxene; use of zinc and cadmium chlorides in the Grignard synthesis of 2,3-dialkyl-1,4-dioxanes; synthetic resins; plastics.

Bauer, Dr. S(imon) H(arvey), Cornell University, Ithaca, N. Y. *Physical chemistry.* Kovno, Lithuania, Oct. 12, 11. B.S, Chicago, 31, Ph.D, 35. Fellow, Calif. Inst. Tech, 35–37; *instr.* fuel technol, Pa. State Col, 37–39; *chem, Cornell, 39–* Chem. Soc. Processes of ionization by electron impact; the photographic infrared; hydrogen bonding in organic liquids; electron diffraction investigations of the hydrides of boron and other compounds; the density of energy states.

Bauer, Dr. Walter, Massachusetts General Hospital, Boston, Mass. *Medicine.* Crystal Falls, Mich, June 7, 98. B.S, Michigan, 20, M.D, 22. Intern, L. I. Col. Hosp, Brooklyn, 22–23, asst. res. med, 23–24; res. physician, Mass. Gen. Hosp, 24–27; nat. research fellow, England, 27–28; instr. med, *Harvard Med. Sch,* 28–30, *med. tutor, 28–*, faculty instr. *med,* 30–32, asst. prof, 32–36, *assoc. prof, 36–* Asst. physician, Mass. Gen. Hosp, 28–33, assoc. physician, 33–37, physician, 37–; director, Robert W. Lovett Mem. Foundation. Ed, 'Jour. Clin. Invest,' 34– Am. Cmt. Control Rheumatism, 34– A.A; Am. Med. Asn; Col. Physicians; Physiol. Soc; Soc. Clin. Invest. (councilor, 34–); Asn. Study Int. Secretions; Am. Acad; Boston Biol. Soc; hon. mem. Liga Argentina contra el Reumatismo. Internal medicine; diseases of calcium and phosphorus metabolism; acid-base metabolism in disease; mode of action of irradiated ergosterol; synovial fluid in health and disease; diseases of joints.

Bauer, Prof. Walter H(erman), Rensselaer Polytechnic Institute, Troy, N. Y. *Physical chemistry.* Red Oak, Iowa, Sept. 9, 07. B.S, Oregon State Col, 29; Ph.D, Wisconsin, 33. Asst. instr. chem, Wisconsin, 29–34; instr. *physical chem, Rensselaer Polytech,* 34–38, *asst. prof, 38–* Chem. Soc. Photobromination.

Bauer, Prof. W(illia)m Cha(rle)s, Northwestern University, Evanston, Ill. *Electrical engineering.* Cincinnati, Ohio, Dec. 26, 73. B.S, Cincinnati, 96, 96–97; Chicago, 05; Sc.D, Baker, 08. Instr, Cincinnati, 96–97; prof. physics and chem, Baker, 99–08; physics and elec. eng, Denver, 08–09; *elec. eng, sch. eng, Northwestern,* 09–39, *emer. prof, 39–*, acting director, 12–13, 17–18, 24–26, dean, 26–39, consulting engineer, business office, 26–32. Director, Baldwin Magnetic Observatory, U. S. Coast and Geod. Surv, 00–02; consulting engineer, 03–; consulting engineer, City of Baldwin, 05–08, supt. city light plant, 06–08; consulting engineer, Baker Univ, 06–08. Elec. Eng; Eng. Educ. Physics; applied electrochemistry; primary batteries; rectifiers; chemical fire extinguishers; synchronous machinery characteristics.

Bauer, Prof. W(illiam) M(alcolm), University of South Carolina, Columbia, S. C. *Electrical engineering.* Baldwin, Kans, Jan. 10, 06. B.S, Northwestern, 27, E.E, 28; M.S, Harvard, 29. Sc.D, 40. Instr. *elec. eng,* Northwestern, 29–37; asst, Harvard, 37–38; lecturer, Minnesota, 39–41; *prof. and head dept, South Carolina, 41–* Elec. Eng; Eng. Educ. Dielectric recovery strength of alternating-current arcs at high pressure.

Bauernfeind, Dr. J(acob) C(hristopher), Hiram Walker and Sons, Inc, Peoria, Ill. *Nutrition, Biochemistry.* North Branch, N. Y, April 30, 14. B.S, Cornell, 36, M.S, 39, Ph.D, 40. Asst. nutrition, Cornell, 36–40; *nutritionist and research chemist, Hiram Walker and Sons, Inc, 40–* Poultry Science Research award, 40. Chem. Soc; Poultry Sci. Asn. Vitamin content by chemical and microbiological assay; utilization of by-products of the fermentation industry by farm animals.

Baugh, Prof. Ruth E(mily), 889 Victoria Drive, Pasadena, Calif. *Geography.* Bedford, Ind, Jan. 10, 89. A.B, California, 21; A.M, Clark, 26, Ph.D, 29. Assoc. *geog, California at Los Angeles,* 19–28, *asst. prof, 28–* Lecturer, Clark, 31. A.A; Meteorol. Soc; fel. Anthrop. Asn; Nat. Council Geog. Teachers; fel. Am. Geog. Soc; fel. Pacific Geog. Soc. Geographical interpretation of the location and distribution of population in California; geographical aspects of the Los Angeles water supply.

Baugher, Prof. A. C(harles), 348 S. Market St, Elizabethtown, Pa. *Chemistry.* Lineboro, Md, Sept. 8, 93. A.B, Elizabethtown Col, 22; B.S, Franklin and Marshall Col, 22; M.S, Pennsylvania, 28; Ph.D, N. Y. Univ, 37. Instr, Elizabethtown Acad, 16–22; prof. physics and chem, *Elizabethtown Col,* 22–28, *prof. chem. and dean,* 28– Trends in higher education in the church-related arts college since 1900, especially organization, finance and enrolment.

Baughman, Dr. Imo P, 638 N. Kenmore Ave, Los Angeles, Calif. *Chemistry.* Hanson Co, S. Dak, Aug. 26, 96. A.B, Stanford, 18, A.M, 19, Ph.D, 22. Asst. *chem,* Stanford, 18, teaching fellow, 19–20; instr, Reed Col, 20–23; assoc. prof, Okla. Col. for Women, 23–24, 27–30; *instr, Los Angeles City Col, 30–* A.A; Chem. Soc; fel. Inst. Chem. Flocculation of gelatin solutions by colloidal arsenious sulfide; tannin-gelatin reaction; elementary chemistry.

Bauguess, Dr. Lyle C(lyde), Lambuth Blvd, Jackson, Tenn. *Organic chemistry.* New Boston, Ill, Dec. 30, 10. A.B, Iowa, 31, M.S, 32, Ph.D, 34. Asst. zool, Iowa, 30–31, chem, 31–34, research assoc. bot, 34–35; instr. agr. chem, Missouri, 35–37; Chas. Pfizer and Co, Inc, research fellow, Wayne, 37–38; *prof. physical science, Lambuth Col, 41–* Chem. Soc; Iowa Acad. Biochemistry of amino acids; bacterial metabolism; plant growth substances; sex hormones; chemistry of natural products.

Baum, Prof. H(arry), 270 Riverside Drive, New York, N. Y. *Electrical engineering.* Cracow, Austria, July 11, 82. B.S, Col. City of N. Y, 02; E.E, Columbia, 08. Engineer, Gen. Elec. Co, 09–14; engineer, Rich Marine Fire Indicating System, 15–16; manager eng. dept, James Milaw, Inc, 17–18; supervisor rehabilitation work, disabled world war veterans, U. S. Veterans Admin, 18–24; instr. *elec. eng, Col. City of N. Y,* 18–24, asst. prof, 24–28, assoc. prof, 28–35, *prof, 35–, chairman dept, 38–* Consulting engineer, Polymet Mfg. Co, 26–27; Godward Gas Generator, Inc, 27–31; Phila. Rapid Transit Co, 27–31; lecturer, Col. City of N. Y, 17–20; engineer and tech. adviser, City Board Higher Educ, New York. Elec. Eng; Eng. Educ; Nat. Soc. Professional Eng. Electric power.

Bauman, Dr. John E(dmiston), 10 N. Tenth St, St. Louis, Mo. *Biology.* Allentown, Pa, Sept. 27, 91. A.B, Muhlenberg Col, 11, C.E, 15, B.S, 20; M.S, Lehigh, 20, A.M, 21; Pittsburgh, 24–25; Ph.D, Nebraska, 29. Prof. science, Cedarville Col, 17–18; head dept. biol, Augustana Col. (S. Dak), 23–24; Omaha, 25–26; Midland Col, 26–28; Lincoln Col, 29–30; Wartburg Col, 30–31; mem. U. S. Dist. Engineers, Jefferson Barracks, St. Louis, Mo, 41, junior inspector ordnance materiel, 42; junior sanit. engineer and later *control engineer, ordnance dept, U. S. Army, 43–* A.A; Soc. Mammal. Kinesiology of man and the anthropoid apes.

Bauman, Prof. Louis, Presbyterian Hospital, New York, N. Y. *Biochemistry.* New York, N. Y, Sept. 10, 80. M.D, Columbia, 01; Berlin, 05, 07–08; Breslau, 07. Lecturer biochem, McGill, 09–11; asst. prof. med. and director research lab, Iowa State Col, 11–19; *asst. prof. med, Columbia, 19–* Asst. visiting physician, Presb. Hosp, 19– A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Am. Med. Asn. Muscle extractives; scurvy; amino acids; hyperthyroidism; acidosis; gall-stones; obesity; pathological physiology of the pancreas.

Baumann, Prof. Carl A(ugust), University of Wisconsin, Madison, Wis. *Biochemistry.* Milwaukee, Wis, Aug. 10, 06. B.S, Wisconsin, 29, M.S, 31, Ph.D, 33. Asst. *biochem, Wisconsin,* 29–34, research assoc, 36–38, asst. prof, 38–41, *assoc. prof, 41–* Gen. Educ. Board fellow, Heidelberg, Cambridge and Copenhagen, 34–36. Inst. Nutrition; Soc. Biol. Chem; Chem. Soc; Asn. Cancer Research; Soc. Exp. Biol. Biochemical aspects of the tumor problem; vitamins; nutrition; respiration.

Baumann, Dr. Emil J(acob), Montefiore Hospital, New York, N. Y. *Physiological chemistry.* New York, N. Y, Feb. 5, 91. B.S, Col. City of N. Y, 12; Ph.D, Yale, 15. Asst. physiol. chem, Yale, 14–16; lecturer, Toronto, 16–17; *physiol. chemist, Montefiore Hosp, 19–* Lieut, Sanit. C, 17–19. A.A; Soc. Biol. Chem; Chem. Soc; fel. Inst. Chem; Soc. Exp. Biol. Metabolism; suprarenal; thyroid; biochemical methods.

Baumberger, Prof. J(ames) Percy, Stanford University, Calif. *Physiology.* San Leandro, Calif, Sept. 17, 92. B.S, California, 14; M.S, Harvard, 16, Sc.D, 18. Asst. zool, Harvard, 14–19, Austin teaching fellow, 17–18, asst. bot, 18; instr. *physiol, Stanford,* 19–21, asst. prof, 21–28, assoc. prof, 28–35, *prof, 35–* Instr, Lowthorpe Hort. Sch, 16–18; asst, Radcliffe Col, 17–18; Cmn. Relief Belgium Educ. Foundation fellow, Brussels, 25–26; Am-Scandinavian fellow, Lund and Copenhagen, 26; research assoc, Harvard, 32–33; Barnard Free Skin and Cancer Hosp, 41; visiting prof, med. sch, Washington (St. Louis). Sergt, M.C, 18–19. A.A; Physiol. Soc; Soc. Exp. Biol; West. Soc. Nat. Insect physiology; relationship of insects to microorganisms; hibernation; longevity; industrial fatigue; tobacco smoke; molting of Crustacea; tissue metabolism; blood clotting; biological oxidation-reductions; oxygen transport; cancer; dermatology; respiratory pigments.

Baumeister, Prof. Theodore, Columbia University, New York, N. Y. *Mechanical engineering.* New York, N. Y, July 19, 97. B.S, Col. City of N. Y, 18; M.E, Columbia, 22. Asst. engineer tests, Ingersoll-Rand Co, 18–19; from asst. to assoc. prof. *mech. eng, Columbia,* 31–41, *prof. and exec. officer dept, 41–* Consulting mech. engineer, 22– A.A; Eng. Educ; Mech. Eng. (chairman, metropolitan sect, 36–38; exec. cmt, power div, 39–; power test codes cmt, 40–); Inst. Consulting Eng; Inst. Mech. Eng. Gt. Britain. Power and power machinery; fluid acceleration machinery.

Baumgarten, Dr. Walter, 3720 Washington Blvd, St. Louis, Mo. *Medicine.* St. Louis, Mo, Oct. 31, 73. A.B, Hopkins, 94; M.D, Washington (St. Louis), 96. Asst. physiol, Harvard Med. Sch, 97–98; med, *sch. med,* Hopkins, 02–03; clin. chem. and micros, *Washington (St. Louis),* 03–08, *instr. med, 11–* Director med. service, St. Luke's Hosp, St. Louis, 20–41. Fel. Am. Med. Asn; fel. Col. Physicians; South. Med. Asn. (councilor, 31); St. Louis Acad. Internal medicine.

Baumgarten, Dr. Werner, Hiram Walker and Sons, Inc, Peoria, Ill. *Organic chemistry.* Berlin, Germany, Feb. 14, 14. Dipl, Munich, 37; Ph.D, Calif. Inst. Tech, 41. *Research chemist, Hiram Walker and Sons, 41–* Chem. Soc. Sugar chemistry; heat of combustion of organic compounds; vitamins.

Baumgartner, Dr. F(rederick) M(ilton), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Wildlife conservation.* Indianapolis, Ind, June 5, 10. A.B, Butler, 31; A.M, Kansas, 33; Ph.D, Cornell, 37. Ornithologist, State Dept. Conservation, Mich, 36–39; *assoc. prof. wildlife conservation, Okla. Agr. and Mech. Col, 39–* Ornith. Union; Wilson Ornith. Club; Wildlife Soc. Ecology of the great horned owls and the bob-white quail; management of the bob-white quail; bird distribution in Oklahoma.

Baumgartner, Dr. Leona, 125 Worth St, New York, N. Y. *Pediatrics, Public health.* Chicago, Ill, Aug. 18, 02. A.B, Kansas, 23, A.M, 25; fellow, Kaiser Wilhelm Inst, 28–29; Sterling fellow, Yale, 31–32, Ph.D, 32, Pi Beta Phi fellow, 32–33, M.D, 34. Instr. bacter, Montana, 26–28; intern pediat, N. Y. Hosp, 34–35; asst, med. col, Cornell, 35–36; consultant, U. S. Pub. Health Service, 36–37; med. instr. child and sch. hygiene, *Dept. Health, New York,* 37–38, director pub. health training, 38–39, dist. health officer, 39–40, acting director *bur. child hygiene,* 41–42, *director, 42–; asst. prof. pub. health and prev. med. and instr. pediat, med. col, Cornell, 39–* John Lovett Morse pediat. prize, 34. Soc. Bact; Hist. Sci. Soc; Am. Med. Asn; Am. Soc. Hist. Med; Pub. Health Asn. (assoc. ed, 41–); Soc. Child Develop; Bibliog. Soc. Amer; N. Y. Acad. Med. Age and immunological reactions; public health; scarlet fever streptococci; brucellosis; medical history.

Baumgartner, Dr. Luther L(eRoy), State Department of Conservation, Lansing, Mich. *Wildlife ecology.* Chatfield, Ohio, Sept. 30, 13. B.S, Capital, 35; A.M, Ohio State, 36, fellow, 36–40, Ph.D, 40. Mammal ecologist, State Wildlife Research Sta, Ohio, 36–40; *mammalogist, State Dept. Conservation, Mich, 40–; Air Corps, U. S. Army.* A.A; Wildlife Soc; Soc. Mammal; Ornith. Union; Wilson Ornith. Club. Ecology of fox squirrels in Ohio; muskrat habitats in Michigan; taxonomy; biology.

Baumgartner, Prof. W(illiam) J(acob), University of Kansas, Lawrence, Kans. *Zoology.* Excelsior, Mo, May 14, 71. A.B, Kansas, 00, A.M, 01; fellow, Chicago, 02–04; Ph.D, Munich, 29. Instr. zool, *Kansas,* 04–05, asst. prof. *histol. and zool,* 05–13, assoc. prof, 13–30, *prof, 30–* Staff, Puget Sound Marine Sta, 09–16. Managing ed, 'Univ. Kans. Science Bul,' 10–14, 19–21. Asst, Univ. Kans. paleont. exped, Oregon, 05, entom. exped, Ariz, 07, director zool. exped, Texas, 08, Wash, 09. A.A; Soc. Zool. Chromosome individuality in Gryllus; spermatogenesis and centrioles in the Gryllidae; living tissues; pseudopodia on dividing cells.

Baur, Arnold J, Soil Conservation Service, Upper Darby, Pa. *Soils.* Unionville, Mich, Nov. 15, 05. B.S, Mich. State Col, 29; Ph.D, Cornell, 33. Asst. soil surv, Exp. Sta, Cornell, 33; asst. soil conservation surveys, *soil conservation service, U. S. Dept. Agr,* 34, chief soil expert, 35–37, *soil scientist, 37–* Soc. Agron; Soil Sci. Soc. Soil conservation.

Baur, Dr. L(orenz) S(imon), 585 Cleveland Ave, Columbus, Ohio. *Chemistry.* Unionville, Mich, July 6, 08. B.S, Mich. State Col, 30; Ph.D, Wisconsin, 35. Asst. chem, Mich. State Col, 30–32; *research chemist,* Gen. Foods Corp, 35–39; *M & R Dietetic Labs, Inc, 39–* A.A; Chem. Soc. Structure of pectin; synthesis of galacturonic acid derivatives; foods; milk products.

Bausch, Carl L(ouis), 8 Parson's Lane, Rochester, N. Y. *Mechanical engineering.* Syracuse, N. Y, June 20, 87. M.E, Syracuse, 09. *Bausch and Lomb Optical Co,* 09–15, supt, 16–26, *manager research and eng, 26–, v. pres, 37–* A.A; Mech. Eng. (manager, 37–); Optical Soc; Soc. Mil. Eng. Application of optics to industry; coordination of research with production and sales.

Bausch, Dr. Edward, Bausch and Lomb Optical Co, Rochester, N. Y. *[1] *Optics.* Rochester, N. Y, Sept. 26, 54. Cornell, 75; hon. LL.D, Rochester, 31. *Chairman board, Bausch and Lomb Optical Co.* Medal, Am. Soc. Mech. Eng, 36. A.A; Optical Soc; hon. mem. Micros. Soc. Manipulation of the microscope.

Bausor, Dr. S(ydney) C(harles), 57 Morton St, New York, N. Y. *Botany.* New York, N. Y, May 29, 10. A.B, Columbia, 31, A.M, 33, Ph.D, 37. Asst. bot, Columbia, 30–37; instr. biol, Lehigh, 37–40; research *bot,* Chicago, 40–41; *instr, Conn. Col, 41–* Bot. Soc; Torrey Bot. Club. Morphology; plant physiology; economic botany; fasciation; growth substances.

Baver, Dr. L(eonard) D(avid), 1902 Stone St, Raleigh, N. C. *Agronomy.* Miamisburg, Ohio, Dec. 8, 01. B.S, Ohio State, 23, M.S, 26; fellow, Missouri, 28–29, Ph.D, 29. Asst. agron, Ohio Exp. Sta, 23–28; assoc. soils chemist, Exp. Sta, Ala. Polytech, 29–31; asst. prof. soils, Missouri, 31–35, 36–37; senior soil conservationist, soil conservation service, U. S. Dept. Agr, 35–36; prof. agron, Ohio State, 37–40; prof. and head dept, *N. C. State Col,* 40–41, assoc. director, *Exp. Sta,* 40–41, *director, 41–* Geophys. Union; Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Soil fertility, physics, acidity, weathering, structure and erosion.

Bavetta, Dr. Lucien Andrew, 2319 Baxter St, Los Angeles, Calif. *Biochemistry.* New York, N. Y, June 4, 07. B.S, N. Y. Univ, 30; A.M, Southern California, 33, Ph.D, 42. Asst. zool, *Southern California,* 33–35, *lecturer and instr. chem. and physiol, col. dentistry, 40–* Effect of adrenalectomy on fat absorption; effect of adrenalectomy on the absorption of hydrogenated cottonseed oil, corn oil, tributyrin and sodium butyrate.

Bawden, Dr. A(rthur) T(albot), Stockton Junior College, Stockton, Calif. *Chemistry.* Rochester, N. Y, Nov. 21, 97. B.S, Denison, 20; M.S, Ohio State, 21, Ph.D, 24. Asst, Ohio State, 20–23; *head dept. chem,* Ottawa (Kans), 23–26; Baylor Col. for Women, 26–29; Univ. Shanghai, 29–31; Col. of Pacific, 31–42; *Stockton Junior Col, 36–, chairman science div, 42–, pres, 43–* Chem. Soc. Analytical and food chemistry; chemical education.

Baxter, Prof. C(harles) H(omer), 1407 College Ave, Houghton, Mich. *Mining.* Detroit, Mich, Feb. 12, 79. B.S, E.M, Mich. Col. Mines, 02. Asst. mining engineer, Quincy Mining Co, 02–03; mining engineer, Republic Iron and Steel Co, 03–04; county road engineer, Dickinson County, Mich, 04–05; instr. mining, Mich. Col. Mines, 05–06; consulting engineer, 06–07; supt, Loretto Iron Co, 07–27; *prof. mining eng, civil eng. and econ. and head depts, Mich. Col. Min. and*

Tech, 27–; consulting engineer. Min. and Metal. Eng; Lake Superior Min. Inst. (manager, 13, pres, 27). Economics.

Baxter, Prof. Dow V(awter), University of Michigan, Ann Arbor, Mich. *Forest pathology.* Hillsboro, Ill, Jan. 16, 98. B.S.F, Michigan, 21, M.S.F, 22, fellow, 23–24, Ph.D, 24. Asst. bot, Michigan, 19–21, forest path, 22–23; instr. bot, Wisconsin, 24–26; asst. prof. *forest path. and silvics, sch. forestry and conservation, Michigan,* 26–31, *assoc. prof, 31–* Nat. research fellow, Alaska, 33; Sweden, 34; Charles Darwin lecturer, Mich. State Col, 34. Summers, special asst, Michigan, 20; office blister rust control, U. S. Dept. Agr, 19, 21–23, field asst, office forest path, 18–19, asst. pathologist, 24–25. Mem. exped, Alaska, 32, 33, 35–42. Phytopath. Soc; Mycol. Soc; Soc. Foresters; Ecol. Soc; Mich. Acad. (sec'y, 29, 30); N. Y. Explorers Club; Wash. Acad; Soc. Foresters Gt. Britain. Pine rusts; hardwood heart rots; preservative treatment of wood products; black ash and chestnut decay; resupinate polypores of North America; Alaskan forest fungi; succession of fungi and diseases in forest plantations.

Baxter, Prof. Gregory P(aul), Harvard University, Cambridge, Mass. **²Chemistry.* Somerville, Mass, March 3, 76. A.B, Harvard, 96, A.M, 97, Ph.D, 99; hon. Sc.D, Michigan, 29. Asst. chem, Harvard, 95–97, instr, 97–99; Haverford Col, 99–00; asst. prof, Swarthmore Col, 00–02; instr. anal. chem, *Harvard,* 02–05, asst. prof. *chem,* 05–15, prof, 15–25, *Theodore William Richards prof, 25–* Summers, instr, Harvard, 97, 02–21; Radcliffe Col, 02– Chairman, Int. Cmt. Atomic Weights. Richards medal, 34. Nat. Acad; A.A; Chem. Soc; Am. Acad. Analytical and inorganic chemistry; atomic weights and other physico-chemical constants.

Baxter, Dr. Mildred Frances, 9732 Logan Court, Cleveland, Ohio. *Psychology.* Springfield, Mass, June 16, 94. A.B, Vassar Col, 16; Harvard, 16; Columbia, 20; A.M, Michigan, 22, fellow, 22–24, Ph.D, 25. Asst, psychol. lab, Training Sch. for Feeble-Minded, Vineland, N. J, 17–18; psychologist and director child study, Sleighton Farm, Darling, Pa, 18–19; psychol. examiner child study, dept. pub. instruction, Rochester, 19–21; *psychologist, Board Educ, Cleveland, 24–* Field worker, Associated Charities, Minneapolis, Minn, 19. A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol; Ohio Asn. Applied Psychol; Int. Council Exceptional Children. Affective processes; temperament; intelligence and school placement.

Baxter, Prof. Robert A(ddison), Colorado School of Mines, Golden, Colo. *Chemical engineering.* Monticello, Kans, April 25, 94. B.S, Wisconsin, 20, Ch.E, 26; fellow, Colo. Sch. Mines, 22, M.S, 23. Chemist, Swift and Co, Kansas City, 11–13; du Pont Co, Hopewell, Va, 16; asst. engineer, Consol. Gas Co. of N. J, Long Branch, 19–21; instr. *chem, Colo. Sch. Mines, 23–24,* asst. prof, 24–26, *assoc. prof, 26–* Summer, chemist, The Texas Co, 26. U.S.N, 18–19, ensign; lieut, U.S.N.R, 28. Chem. Soc; Eng. Educ; Am. Petrol. Inst; Colo-Wyo. Acad; Colo. Sci. Soc. Gas analysis; oil shale technology.

Bay, Dr. Emmet B(lackburn), 5743 Harper Ave, Chicago, Ill. *Medicine.* Aurora, Ill, 01. B.S, Chicago, 20, M.D, Rush, 23. Asst. director health service, *Chicago,* 27–34, asst. clin. prof. *med,* 27–30, assoc. clin. prof, 30–34, assoc. prof. 34–36, *prof, 36–,* assoc. dean div. biol. sciences, Rush Med. Col, 36–39. Heart disease.

Bay, Dr. H(arry) X, The Texas Co, Houston, Texas. *Geology.* Florence, Mo, March 18, 06. A.B, Drury Col, 27; M.S, Iowa, 29, Ph.D, 31. Instr, Iowa, 27–31; petrol. geologist, Eastman, Gardiner and Co, Laurel, Miss, 32–34; investigator bleaching clays in southeast, U. S. Geol. Surv, 34–35; asst. geologist, subsurface div, Ill. Geol. Surv, 35–36; *petrol. geologist, Texas Co, 36–* Asn. Petrol. Geol; Iowa Acad. Sedimentary studies of Pennsylvania conglomerates of Texas; Cambro-Ordovician and Carboniferous stratigraphy and physiography of Benton County, Missouri; bleaching clays; Pennsylvanian sedimentation; Cretaceous and Eocene stratigraphy.

Bayes, Dr. Alfred L(ee), 1478 Sheridan Drive, Kenmore, N. Y. *Inorganic chemistry.* Springfield, Mo, Nov. 7, 14. A.A, Cent. Y.M.C.A. Col, 33; B.S, Chicago, 34, Ph.D, 41. Research chemist, lab, Linde Air Products Co, Tonawanda, N. Y, 35–38; asst. chem, Chicago, 38–41; *research chemist, lab, Linde Air Products Co, 41–* Chem. Soc; Chemists' Club. Alkali and alkaline earth metal dihydrogen arsenides.

Bayfield, Dr. Edward G(eoffrey), Kansas State College, Manhattan, Kans. *Cereal chemistry, Agronomy.* Annapolis Royal, N. S, Can, Jan. 24, 00. B.S.A, Alberta, 23; Macdonald scholar, McGill, 23–24, M.S.A, 24; Minnesota, 28–29; Ph.D, Ohio State, 31. Asst. irrig. investigator, Can. Pacific Ry, 20–22; agronomist and instr, Provincial Sch. Agr, Alta, 24–28; assoc. agron, Ohio Exp. Sta, 31–39, cereal technologist in charge fed. soft wheat lab, U. S. Dept. Agr, 36–39; *prof. milling industry and head dept, Kans. State Col, 39–, cereal technologist, Exp. Sta, 39–* Nat. Milling Co. fellow, Ohio Exp. Sta. and Ohio State, 29–34. A.A; Soc. Agron; Asn. Cereal Chemists (methods of anal. cmt, 31–, chairman, 41–); Chem. Soc; Agr. Chem. (assoc. referee soft wheat bread baking tests, 37–39); Soil Sci. Soc; Asn. Operative Millers; Genetic Asn. Cereal chemistry; milling industry; wheat quality.

Bayles, B(urton) B(ernard), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Manhattan, Kans, Jan. 10, 00. B.S. (Agr), Kans. State Col, 22, M.S, 26; Ph.D, Wisconsin, 36. Junior agronomist, cereal investigations, *bur. plant indust, U. S. Dept. Agr,* Ft. Hays Branch Exp. Sta, Kans, 22, Sherman County Branch Sta, Oregon, 23–27, asst. agronomist, Judith Basin Branch Sta, Mont, 27–30, assoc. agronomist, wheat investigations, *div. cereal crops and diseases,* 30–36, agronomist, 36–41, *prin. agronomist wheat investigations and asst. to head agronomist in charge div, 41–* Soc. Agron. Wheat agronomy and physiology; cereal production and improvement.

Bayley, Colin H(ahnemann), 400 Friel St, Ottawa, Ont, Can. *Chemistry.* Barbados, B. W. I, Aug. 18, 01. Harrison Col, B. W. I; B.A.Sc, Toronto, 24, fellow, M.A.Sc, 25, M.A, 26, Nat. Research Council Can. bursar, 26–27, student, 27–28. Asst, Toronto, 27–28; Ont. Research Foundation, 28–29; chemist, W. E. Phillips Mfg. Co, Ont, 29–30; *asst. research chemist, Nat. Research Council Can, Ottawa, 30–* Fel. Can. Inst. Chem. Theories of catalysis; catalytic reduction of sulfur dioxide; thermal treatment of paraffin hydrocarbons; chemistry of laundering and dry cleaning processes; detergency; serviceability of textiles; hypochlorite bleaching; chemical finishing of cotton; mildew-proofing, water-proofing and flame-proofing of textiles.

Bayley, Dr. Nancy, 2739 Bancroft Way, Berkeley, Calif. *Psychology.* The Dalles, Oregon, Sept. 28, 99. B.S, Washington (Seattle), 22, M.S, 24; Ph.D, Iowa, 26. Teaching fellow, Washington (Seattle), 22–24; asst, Iowa, 24–26; instr. psychol, Wyoming, 26–28; *research assoc, inst. child welfare, California, 28–* Research assoc, Stanford, 39–40. Psychol. Asn; Soc. Research Child Develop; Educational Research Asn. Mental tests; development of infants and children; emotions; anthropometrics of children; motor tests; skeletal development of children.

Bayley, Prof. P(aul) L(everne), Lehigh University, Bethlehem, Pa. *Physics.* Wichita, Kans, 90. A.B, Arkansas, 13; A.M, Illinois, 14; Ph.D, Cornell, 23. Asst, Illinois, 14–17; instr, Cornell, 19–24; sci. staff, Bausch and Lomb Optical Co, 24–25; asst. prof, Rochester, 25–27; assoc. prof. *physics, Lehigh,* 27–37, *prof, 37–* A.A; Physical Soc; Optical Soc. Coloration of chemicals and crystals by x-rays.

Baylis, John R(obert), 1643 E. 86th St, Chicago, Ill. *Chemistry, Sanitary engineering.* Eastabuchie, Miss, May 11, 85. B.S, Miss. Agr. and Mech. Col, 05. Civil eng, R.R, Texas, 05–07; munic. and hydraul. eng, Miss. and Tenn, 08–09; asst. engineer, Internation and Great North. Ry. Co, 09–11; consulting eng, 11–14; manager, water works, Jackson, Miss, 15–16; bacteriologist, City Water Dept, Baltimore, Md, 17, prin. sanit. chemist, 18–26; *physical chemist in charge exp. filtration plant, Chicago, Ill, 26–* James Laurie prize, Civil Eng, 27; John M. Gooddell award, Water Works Asn, 32; Dexter Brackett Mem. award, New Eng. Water Works Asn, 37, 40. Civil Eng; Chem. Soc; Water Works Asn; Munic. Eng; Soc. Test. Mat; Pub. Health Asn; West. Soc. Eng. Water purification; treatment of water for preventing corrosion; elimination of taste and odor in water; filtering materials; deterioration of concrete.

Bayliss, Dr. Millward, University of Illinois College of Medicine, Chicago, Ill. *Bacteriology.* Chicago, Ill, March 24, 08. A.B, Minnesota, 29, M.S, 31, Ph.D, 34; M.D, Chicago, 41. Asst. bacteriologist, State Dept. Health, Md, 34–35; instr. bacter, col. med, Nebraska, 35–38; sch. hygiene and pub. health, Hopkins, 38–40; *asst. prof. bacter. and pub. health, col. med, Illinois, 41–* Soc. Bact. Detoxification; germicides; sulfonamides; staphylococcus toxins; public health bacteriology.

Bayne-Jones, Prof. S(tanhope), Yale University, New Haven, Conn. *[5]Bacteriology, Pathology.* New Orleans, La, Nov. 6, 88. A.B, Yale, 10; M.D, Hopkins, 14, A.M, 17. Intern med, Hopkins Hosp, 14–16, instr. path, Hopkins, 15–16, assoc. prof. path. and bacter, 22–23; *prof. bacter, sch. med,* Rochester, 23–32; *Yale, 32–,* master, Trumbull Col, 32–38, *assoc. fellow, 38–,* dean sch. med, 35–40. Med. advisory board, Leonard Wood Mem, 37–41; director board sci. advisers, Jane Coffin Childs Mem. Fund Med. Research, Yale, 37–; sci. director, int. health div, Rockefeller Foundation, 38–41; director, Josiah Macy Jr. Foundation, 38–41. M.C, O.R.C, col. A.A; Soc. Bact. (pres, 30); Asn. Path. and Bact. (pres, 40); Soc. Exp. Biol; Asn. Immunol. (pres, 31); Am. Med. Asn. (councilor, pharm. and chem, 32). Pathology; immunology.

Bayroff, Dr. A(bram) G(ustavus), Box 423, Chapel Hill, N. C. *Psychology.* Newark, N. J, June 8, 06. B.S, N. Y. Univ, 27; A.M, North Carolina, 29, Ph.D, 31. Asst, N. Y. Univ, 26–27; teaching fellow, North Carolina, 27–30, asst, 30–31, nat. research fellow *psychol,* 31–32; California, 32–33, instr, 33–34; *North Carolina, 35–37, asst. prof, 37–* Summers, instr, California, 34; North Carolina, 35–42. A.A; Psychol. Asn; Elisha Mitchell Sci. Soc; South. Soc. Philos. and Psychol. Animal behavior; learning; apparatus; military psychology.

Bays, Dr. Carl A(ndrew), 1007 W. Oregon, Urbana, Ill. *Geology.* Rockport, Ind, June 20, 14. A.B, Wisconsin, 34, Ph.D, 37. Geologist, Sun Oil Co, 37–39; consulting geologist and engineer, Evansville, Ind, 39–42; *geologist, Ill. Geol. Surv, 42–* Paleont. Soc; Min. and Metal. Eng. Ground water; petroleum geology.

Bazett, Prof. H(enry) C(uthbert), University of Pennsylvania, Philadelphia, Pa. *[5]Physiology.* Gravesend, Eng, June 25, 85. B.A, Oxford, 08, M.B, B.Ch, 11, Radcliffe traveling fellow, 12–14, M.A, 13, M.D, 19; L.R.C.P, 11; F.R.C.S, 11. Demonstrator physiol, St. Thomas Hosp, 10–11; fellow, Magdalen Col, Oxford, 12–20, demonstrator path, 13–15, Christopher Welch lecturer clin. physiol, 19–21; *prof. physiol, Pennsylvania, 21–* Cheselden medal, St. Thomas Hosp, 11; Mil. Cross, Gt. Britain, 15; Order of British Empire, 18. A.A; Physiol. Soc. (publication trustee); Col. Physicians Phila; British Physiol. Soc. The circulation of the blood; chronic aortic lesions in animals; chronic decerebrate animals; temperature gradients in the skin; control of body temperature in mammals; adaptation to climate and effects on blood volume; aviation medicine.

Bazzoni, Prof. C(harles) B(lizard), Randal Morgan Laboratory, University of Pennsylvania, Philadelphia, Pa. *Physics.* Newburgh, N. Y, Jan. 28, 86. B.S, Pennsylvania, 11, A.M, 13, Ph.D, 14. Instr. physics, Pennsylvania, 11–17; asst. research, King's Col, London, 16–17; asst. prof, *Pennsylvania,* 19–21, *prof. exp. physics, Randal Morgan lab, 21–* Harrison research fellow, London, 15–16. Capt, C.Eng, 17–19. A.A; Physical Soc; Optical Soc. Photoelectric and thermionic emissions; ionization potentials.

Beaber, Dr. N(athaniel) J(ohn), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Fort Wayne, Ind, Sept. 13, 97. B.S, Kalamazoo Col, 20; M.S, Chicago, 21; Ph.D, Iowa State Col, 25. *Asst,* Iowa State Col, 21–26; *Mellon Inst, 26–* Chem. Soc. Reaction of Grignard reagents with aryl thio esters; sulfonation of benzene; synthesis of phenol and of alkyl aryl sulfide; impregnating compounds for transformer coils; nicotine; refining lubricating oils; soybean products.

Beach, Prof. B(urr) A(braham), Route 3, Madison, Wis. *Agriculture.* Chesterland, Ohio, Oct. 11, 83. D.V.M, Ohio State, 09. Instr, Minnesota, 09–11; *prof. vet. science, Wisconsin, 11–* Vet. Med. Asn; Conf. Research Workers Animal Diseases N. Amer; Wis. Vet. Med. Asn. (sec'y, 27–42). Mastitis; Bang's disease; tuberculosis; trichomoniasis; Johne's disease.

Beach, Dr. Eliot F(rederick), Children's Fund of Michigan, 660 Frederick St, Detroit, Mich. *Physiological chemistry.* Fairfield, Conn, May 26, 11. B.S, Brown, 33; Ph.D, Yale, 37. Asst. biochem, Yale, 34–37; *research assoc. metabolism and proteins, Children's Fund Mich, 37–* Summers, research assoc, Oceanog. Institution, Woods Hole, 31–33. A.A; Soc. Biol. Chem; Inst. Nutrition; Chem. Soc; Mich. Acad; Detroit Physiol. Soc. Nutritive role of amino acids; amino acid composition of blood stroma, globin, common food and tissue protein.

Beach, Dr. Frank A(mbrose), American Museum of Natural History, New York, N. Y. *Psychobiology.* Emporia, Kans, April 13, 11. B.S, Kans. State Teachers Col, 32, fellow, 32–33, M.S, 34; scholar, Chicago, 33–34, fellow, 34–35, Ph.D, 40. Asst. neuropsychol, Harvard, 35–36; asst. curator exp. biol, *Am. Museum Nat. Hist,* 37–41, assoc. curator, 41–42, *chairman and curator dept. animal behavior, 42–* A.A; Psychol. Asn; Soc. Nat; Soc. Ichthyol. and Herp; fel. N. Y. Acad. (councilor). Animal behavior; neuropsychology; instincts in vertebrates; sexual and maternal behavior in birds, fish and mammals; evolution of human behavior.

Beach, Prof. F(rank) H(ainer), Ohio State University, Columbus, Ohio. *Horticulture.* Geneva, N. Y, July 6, 93. B.S, Iowa State Col, 15. Asst. hort, Purdue, 15–16, exten. horticulturist, 16–17; *exten. specialist, Ohio State,* 17–18, *19–, prof. hort, 25–* Hort. ed, 'Ohio Farmer.' U.S.A, 18–19. Soc. Hort. Sci; Ohio State Hort. Soc. (sec'y, 24–).

Beach, Dr. H(ugh) H(amilton), Geological Survey of Canada, Victoria Museum, Ottawa, Ont, Can. *Geology.* Gleichen, Alta, April 29, 09. B.Sc, Alberta, 32, M.Sc, 34; univ. fellow, Toronto, 34–35; Yale, 37–39, Ph.D, 39. *Geologist, Geol. Surv. Can, 35–* Asn. Petrol. Geol; fel. Can. Geog. Soc. Structural and stratigraphical geology of the Rocky Mountains in Canada, with emphasis on the petroleum occurrences in the foothills belts.

Beach, Prof. J(erry) R(aymond), 13 Kingston Road, Berkeley, Calif. *Veterinary science.* West Danby, N. Y, Dec. 21, 88. D.V.M, Cornell, 13. Asst. vet. diagnosis, Cornell, 13–14; *vet. science, California,* 14–16, instr, 16–21, asst. prof, 21–28, assoc. prof, 28–31, *prof, 31–,* assoc. veterinarian, *Exp. Sta,* 24–29, *veterinarian, 29–* Guest worker, Rockefeller Inst, 30–31. Del, World's Poultry Cong, The Hague, 21, Leipzig, 36. A.A; Vet. Med. Asn; Soc. Bact; Poultry Sci. Asn. (v. pres, 21). Diseases and physiology of poultry; nutritional diseases; vitamin deficiencies.

Beach, Dr. J(ohn) Y(oungs), Standard Oil Co, Richmond, Calif. *Physical chemistry.* Washington, D. C, Nov. 19, 12. B.S, California, 33; Ph.D, Calif. Inst. Tech, 36. Nat. research fellow chem, Princeton, 36–38, instr, 38–41; *research chemist, research lab, Standard Oil Co. of Calif, 41–* Physical Soc; Chem. Soc. Electron diffraction by gas molecules; x-ray studies of solid reactions.

Beach, Lansing H(oskins), 690 Bradford St, Pasadena, Calif. *Engineering.* Dubuque, Iowa, June 18, 60. U. S. Mil. Acad; Eng. Sch. Application. Commissioner to determine boundary between Texas and Indian Territory, 85–87; engineer commissioner, D. C, 98–01; all grades, Corps of Engineers, U. S. Army, major gen. and chief engineers, 20–24; commissioner to determine distribution of waters of Rio Grande between U. S. and Mex, 25–30. Senior mem. board to determine conditions of navigation, U. S. and Europe, 10–14; board on flood prevention, 15. Civil Eng; Soc. Mil. Eng. (pres, 23). River and harbor improvement; resistance of vessels; waterflow; methods of warfare in the sixteenth and seventeenth centuries; durability and heat-retaining qualities of materials for city streets and highways; heat-transmitting qualities of roof coverings; flushing waves.

Beach, Dr. L(eland) K(enneth), Standard Oil Development Co, Linden, N. J. *Chemistry.* Holland, Mich, March 13, 13. A.B, Hope Col, 35; M.S, Washington (St. Louis), 37; Univ. Research Foundation fellow, Purdue, 37–39, Ph.D, 40. Asst. chem, Washington (St. Louis), 35–37; *research chemist, Standard Oil Develop. Co, 39–* Synthesis of 4-iodophenanthrenequinone; production of drying oils by chlorination and dehydrochlorination of high-molecular hydrocarbons.

Beach, Prof. Robin, 145 Lafayette Ave, Brooklyn, N. Y. *Electrical engineering.* Robin's Island, L. I, N. Y, Aug. 30, 89. B.S, New Hampshire, 13, E.E, 22; M.S, N. Y. Univ, 22. Asst. prof. *elec. eng,* Agr. and Mech. Col. Texas, 14–17; head dept, Norwich, 17–18; assoc. prof, *Polytech. Inst. Brooklyn,* 18–25, *prof, 25–, head dept, 29–* Consulting engineer. Fel. Elec. Eng; Eng. Educ. Electricity and magnetism; static electricity on rubber-tired vehicles.

Beach, Dr. Ted De Vinne, Federal Bureau of Investigation, Washington, D. C. *Parasitology.* Lakeport, Calif, Oct. 12, 02. B.S, Nevada, 30; M.S, Kans. State Col, 32; Ph.D, Tulane, 35. Asst, dept. zool, Kans. State Col, 30–32; parasitol. lab, dept. trop. med, Tulane, 32–35; lab. aid, *tech. lab, Fed. Bur. Investigation,* 36–37, assoc. anal. chemist, 37–38, anal. chemist, 38–40, prin. anal. chemist, 40–41, senior anal. chemist, 41–42, *chief chem. and micros. sect, 42–* Resistance to parasitism; free-living phase of life cycle of Strongyloides; grouping of blood stains.

Beach, Prof. W(alter) S(purgeon), State College, Pa. *Plant pathology.* Brownton, Minn, Jan. 24, 90. B.S, Minnesota, 14; fellow, Mich. State Col, 14–15, M.S, 15; fellow, Illinois, 17–18, Ph.D, 18. Asst. bot, Illinois, 15–17; instr. *plant path, Pa. State Col,* 18–19, asst. prof, 19–23, *assoc. prof, 23–* Phytopath. Soc; Pa. Acad. Fusarium wilt of China asters; biological specialization in Septoria; diseases of vegetables and mushrooms; wildfire and other leaf-spot diseases of tobacco; control of damping-off.

Beachell, Dr. H(arold) C(harles), Experimental Laboratory, E. I. du Pont de Nemours and Co, 3092 Broadway, Cleveland, Ohio. *Physical chemistry.* Carlyle, Sask, Can, Nov. 20, 15. B.A, Queen's (Can), 37, William Neish fellow, 37–38, M.A, 38; Ph.D, N. Y. Univ, 41. Asst, N. Y. Univ, 38–41; *research chemist, E. I. du Pont de Nemours and Co, 41–* Chem. Soc; assoc. Can. Inst. Chem. Thermal decomposition of n-butylamine.

Beachley, Dr. R. G, 3119 17th St, N, Arlington, Va. *Public health.* Hagerstown, Md, Aug. 12, 95. Hopkins, 14–16; M.D, George Washington, 20; Dr.P.H, Georgia, 26. County health officer, S. C, 23–26; deputy state health officer, Md, 26–36; deputy director rural health, *Va,* 36–38; *director health and welfare, Arlington Co, 38–* Prof, Washington Col. (Md), 30–36; asst. prof, Med. Col. of Va, 38–; George Washington, 38– Chairman med. cmt, north. Va, Nat. Defense Council, 41– Fel. Pub. Health Asn; Am. Med. Asn; Sch. Health Asn; Int. Soc. Med. Health Officers. Public health administration; nasal myiasis due to a botfly larva.

Beadle, Dr. B(uell) W(esley), 947 E. 58th St, Chicago, Ill. *Chemistry.* Port Barre, La, Sept. 9, 11. B.S, Kans. State Col, 35, M.S, 38; Gen. Foods Corp. fellow, Purdue, 40–42, Ph.D, 42. Asst. chemist, Exp. Sta, Kans. State Col, 35–42; *research chemist, Am. Meat Inst, 42–* Absorption spectrophotometry of fats and oils.

Beadle, C(hauncey) D(elos), Biltmore, N. C. *[1]*Botany.* St. Catharines, Ont, Can, Aug. 5, 66. Ont. Agr. Col, 84; Cornell, 89. Director, Biltmore Herbarium, 90–16. Botany of the southern states; Crataegus; Philadelphus; Rudbeckia; Marshallia; Rhododendron; Azalea; Fothergilla.

Beadle, Prof. G(eorge) W(ells), Stanford University, Calif. *[1]*Zoology, Biology.* Wahoo, Nebr, Oct. 22, 03. B.S, Nebraska, 26, M.S, 27; Ph.D, Cornell, 30. Asst, N. Y. State Col. Agr, Cornell, 28–30; nat. research fellow biol, Calif. Inst. Tech, 30–32, inst. fellow, 32–35, instr, 35–36; asst. prof. genetics, Harvard, 36–37; *prof. biol, Stanford, 37–* Guest, Inst. de Biol. physicochim, 35. Summer, prof, Illinois, 39. A.A; Genetics Soc; Soc. Zool; Soc. Nat; Bot. Soc. Genetics, cytology and physiological genetics of Zea, Drosophila and Neurospora.

Beal, Dr. Arthur F(loyd), U. S. Bureau of Labor Statistics, Washington, D. C. *Economics.* Arlington, Colo, Sept. 25, 88. A.B, Kansas, 11, A.M, 12; fellow, Pittsburgh, 14–16, Ph.D, 17. Magnetic observer, U. S. Coast and Geod. Surv, 12–14; instr. physics, Albion Col, 16–17; asst. physicist, Bur. Standards, 17–20, assoc. physicist, 20–23; physicist, U. S. Pub. Health Service, 23–27; Chem. Warfare Service, 28–29; special agent manufacturers, Bur. Census, 29–32; *econ. analyst, Bur. Labor Statist, 32–* Horol. Inst. (exec. cmt, 21–24); Statist. Asn; Wash. Acad; Philos. Soc. Wash. Weights and measures; variation of latitude; natural illumination of interiors; technological unemployment; wages and hours.

Beal, Carl H(ugh), 5658 Wilshire Blvd, Los Angeles, Calif. *Geology.* A.B, Stanford, 13, A.M, 15, E.M, 20. Asst. geologist, K. T. and O. Co, 13; field geologist, 13–14; instr. geol. and mining, Stanford, 14–15; oil and gas inspector, U. S. Bur. Mines, 15–16; valuation engineer, bur. internal revenue, U. S. Treasury Dept, 18–19; consulting geologist and engineer, 19–24; v. pres, Marland Oil Co, Calif, 23–28; *consulting geologist and engineer, 29–* Asst. prof, Stanford, 19. Min. and Metal. Eng; Asn. Petrol. Geol. Petroleum geology.

Beal, Dr. Fred(erick) W(ahn), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Hamilton, N. Y, July 18, 79. Ph.B, Colgate, 02, A.M, 05; fellow, Princeton, 09–10, Ph.D, 11. Instr. *math,* Pa. State Col, 05–08; Brown, 10–11; Pennsylvania, 11–18; acting prof, Tennessee, 18–19; asst. prof, *Pennsylvania,* 19–28, *prof, 28–* Math. Soc. Normal congruences determined by centers of geodesic curvature; a congruence of circles.

Beal, Dr. Geo(rge) D(enton), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Scio, Ohio, Aug. 12, 87. Pharm.D, Scio Col, 07, Ph.B, 08; A.M, Columbia, 10, Ph.D, 11; hon. Pharm.M, Phila. Col. Pharmacy, 33; hon. Sc.D, Mt. Union Col, 33, Rutgers, 43. Asst. chem, Scio Col, 06–08; instr, Illinois, 11–14, assoc, 14–18, asst. prof, 18–20, assoc. prof, 20–24, prof. anal. and food chem, 24–26; *asst. director, Mellon Inst, 26–* Nat. Conf. Pharmaceut. Research; revision cmt, U. S. Pharmacopoeia, 30–, first v. chairman, 40– Director col. pharmacy, Pittsburgh. Trustee, Phila. Col. Pharmacy; Mt. Union Col. Ebert prize, Pharmaceut. Asn, 20, Remington medal, 41. A.A. (sec'y, C, 17); Chem. Soc. (sec'y, div. pharmaceut. chem, 15–19; chairman div. med. chem, 38; councilor at large, 39–); Soc. Test. Mat; Pharmaceut. Asn. (research cmt, 18–, 1st v. pres, 35, pres, 37, councilor, 42–); Pub. Health Asn; Soc. Test. Mat; Inst. Food Technol; Pa. Pharmaceut. Asn; Pa. Chem. Soc. (pres-elect, 43). Quantitative organic analysis; alkaloids; fatty acids; anthraquinone drugs.

Beal, Prof. J(ames) A(llen), Duke University, Durham, N. C. *Entomology.* Clifty, Ark, May 30, 98. B.S, Mass. Col, 23; M.S, Syracuse, 25, Ph.D, 35. Asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 26–34, entomologist in charge forest insect lab, 35–39; *prof. forest entom, Duke, 39–* Soc. Foresters; Asn. Econ. Entom; Forestry Asn; Wildlife Soc; Entom. Soc. Wash; Entom. Soc. Ont. Forest entomology.

Beal, Dr. J(ames) H(artley), Ft. Walton, Fla. *Pharmacy.* New Philadelphia, Ohio, Sept. 23, 61. B.S, Scio Col, 84, A.B, 88; LL.B, Cincinnati Law Sch, 86; Ph.G, Ohio Med. Col, 94; Sc.D, Mt. Union Col, 95; hon. Pharm.D, Pittsburgh, 02; hon. Ph.M, Phila. Col. Pharmacy, 13. Prof. chem. and dean, dept. pharmacy, Scio Col, 87–07; prof. applied pharmacy, Pittsburgh, 02–11; gen. sec'y and ed, 'Jour. Am. Pharmaceut. Asn,' 11–14; director pharmacy research, Illinois, 14–18. Chairman board trustees, U. S. Pharmacopoeia, 10–40. Nat. Drug medalist, 19. Mem. W.I.B, 18. A.A; Pharmaceut. Asn. (pres, 04); Am. Conf. Pharmaceut. Faculties (pres, 07); Chem. Soc; Ohio Pharmaceut. Asn. (pres, 98). Food and drug laws; poison and habit-forming drug legislation.

Beal, Prof. John L(inden), Montana State College, Bozeman, Mont. *Chemical engineering.* Albert Lea, Minn, June 30, 05. B.S, Minnesota, 27, M.S, 29, Ph.D, 34. Chem. research div, B. F. Goodrich Rubber Co, 29–30; instr. *chem. eng,* Iowa, 34–36; asst. prof, *Mont. State Col,* 36–37, assoc. prof, 37–42, *prof. and head dept, 42–* Chem. Soc; Chem. Eng; Electrochem. Soc. Electrochemistry; ventilation.

Beal, Prof. J(ohn) M(ann), University of Chicago, Chicago, Ill. *Botany.* Red Oak, N. C, April 18, 88. B.S, N. C. State Col, 11; M.S, Miss. Agr. and Mech. Col, 13; Ph.D, Wisconsin, 27. Instr. bot, Miss. Agr. and Mech. Col, 11–13, asst. prof, 13–15, prof. and botanist, Exp. Sta, 15–29; assoc. prof. *bot, Chicago,* 29–31, *prof, 31–* Gen. Educ. Board fellow, John Innes Hort. Inst. and Louvain, 34. A.A; Bot. Soc; Soc. Nat. Morphology; cytology; genetics.

Beal, Prof. Juna Lutz (Mrs. Arthur George Beal), 3262 Broadway, Indianapolis, Ind. *Mathematics.* Indianapolis, Ind, June 19, 95. A.B, Butler, 17; A.M, Chicago, 23. Instr. *math, Butler,* 18–22, *asst. prof, 23–, acting head dept, 33–* Math. Asn. (v. pres, Ind. sect, 32, pres, 33); Council Teachers Math.

Beal, Prof. Rob(er)t W(illia)m, Iowa State College, Ames, Iowa. *Mechanics, Engineering.* Mt. Hood, Oregon, Nov. 6, 10. B.S, Oregon State Col, 36; M.S, Iowa State Col, 37. Asst. *theoretical and applied mech, Iowa State Col,* 36–37, instr, 37–41, *asst. prof, 41–; lieut, Engineers, U. S. Army, 41–* Summers, surveys and materials research, State Highway Dept, Oregon, 31–36. Eng. Educ; Concrete Inst. (sec'y cmt. 115, 39–). Lubricating oils; plain and reinforced concrete.

Beal, W(alter) H(enry), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Hanover Co, Va, Dec. 9, 67. A.B, M.E, Va. Polytech, 86. Asst. chemist, Exp. Sta, Mass. Col, 87–91; *U. S. Dept. Agr, 91–, assoc. exp. sta. admin, office exp. stations.* U. S. Dept. Agr. del, Int. Cong. Agr, Liége, 05. A.A; Agr. Hist. Soc. Methods and results of agricultural research.

Beale, Dr. Frank S(wan), 316 W. Packer Ave, Bethlehem, Pa. *Mathematics.* Eastport, Maine, Nov. 28, 98. B.S, Maine, 21, M.S, 23; Ph.D, Michigan, 31. Instr. *math,* Maine, 21–26; asst. prof, Hamilton Col, 26–27; *instr,* Michigan, 27–30; *Lehigh, 30–* Math. Soc; Statist. Asn. Difference equations; polynomials.

Beale, Dr. H(elen) P(urdy) (Mrs. J. H. Beale), Sunset Drive, Croton-on-Hudson, N. Y. *Plant pathology.* Croton-on-Hudson, N. Y, Sept. 19, 93. A.B, Columbia, 18, Ph.D, 29; Am-Scandinavian Foundation fellow, Copenhagen, 20–21; Bishop Museum fellow of Yale, Honolulu, 23–24. Asst. plant path, Cornell, 18–19; instr. bot, Vassar Col, 19–20; asst. mycol, N. Y. Bot. Garden, 22–23; plant path, Boyce Thompson Inst, 24–27, 28–29; bacter, *col. physicians and surg, Columbia,* 27–28, nat. research fellow, 29–30, *research assoc. bacter, 30–;* asst. plant pathologist and later *assoc. plant pathologist, Boyce Thompson Inst, 30–* A.A; Phytopath. Soc; N. Y. Acad. Tobacco mosaic disease; serum reactions of plant viruses.

Beall, Dr. Desmond, Ayerst, McKenna and Harrison, Montreal, Que, Can. *Biochemistry.* Germiston, S. Africa, Feb. 2, 10. B.A, British Columbia, 32; Open fellow, Toronto, 32–33, War Mem. fellow, 33–34, Ph.D, 35. Asst, Connaught labs, Toronto, 34–35; Nat. Inst. Med. Research, London, England, 35–37; Beit Mem. fellow med. research, British Post-Grad. Med. Sch, 37–39, lecturer path, 39–41; *research chemist, Ayerst, McKenna and Harrison, 41–* Summers, asst, Biol. Board Can, 28–33. Biochem. Soc. Gt. Britain. Fisheries; oceanography; fish reduction by-products; sex hormones; steroids; vitamins.

Beall, Dr. Geoffrey, 416 Queen St, Chatham, Ont, Can. *Ecology.* Johannesburg, S. Africa, Feb. 14, 08. B.A, British Columbia, 31, grad. research scholar; grad. research scholar, Illinois, M.S, 32; bursar, London, Ph.D, 38. Insect pest investigator, *Dom. Dept. Agr, Can, 28–, asst. entomologist.* Inst. Math. Statist; Ecol. Soc. (chairman cmt. quantitative methods); Entom. Soc. Ont. Statistics in ecology; estimating populations in the field; analyzing experimental results; relation of biological response to physical conditions; theory of the dispersion of organisms.

Beall, Dr. Ruth (Mrs. Rogers McVaugh), University of Georgia, Athens, Ga. *Plant physiology.* West River, Md, Aug. 17, 03. A.B, Goucher Col, 24; univ. fellow, Hopkins, 25–26, A.M, 28; Morris fellow, Pennsylvania, 33–36, Ph.D, 36. Asst. biol, Goucher Col, 24–25, physiol, 26–29; dean women and instr. biol, Williamsport Dickinson Sem, 29–30; instr. biol. and chem, MacMurray Col, 30–31; asst. to Dr. B. E. Livingston, Hopkins, 31–33; *instr. bot, Georgia, 36–* Summer, ed. asst, 'Am. Men of Science,' 36. Soc. Plant Physiol. Stomatal movements; the soil as a possible source of carbon dioxide for plants; absorption and loss of electrolytes by plants.

Beals, Dr. Carlyle S(mith), Dominion Astrophysical Observatory, Victoria, B. C, Can. *Physics, Astrophysics.* Canso, N. S, June 29, 99. B.A, Acadia, 19; M.A, Toronto, 23; D.I.C, Imp. Col. Science and Tech, 25; Ph.D, London, 26, D.Sc, 34. Asst. prof. physics, Acadia, 26–27; astronomer, *Dom. Astrophys. Observatory,* 27–40, *asst. director, 40–* Fel. Royal Soc. Can; fel. Royal Astron. Soc. Analysis of laboratory spectra; spectrophotometry; stellar emission bands; stellar temperatures; interstellar absorption; P Cygni type spectra.

Beals, Dr. Ernest L(eslie), 78 Lincoln Ave, Tuckahoe, N. Y. *Pharmaceutical chemistry.* Porterville, Calif, June 6, 03. B.S, Oregon State Col, 28, M.S, 32; Ph.D, Purdue, 40. Instr. pharmacy, South. Branch, Idaho, 28–30, asst. prof, 32–36; teaching fellow, Oregon State Col, 30–31, asst. prof, 38–41; assoc. prof. pharmaceut. chem, Ohio State, 41–42; *research chemist, Burroughs Wellcome and Co, Inc, 42–* Ephedrine; iodination of sulfamido compounds.

Beals, Dr. Ralph L(eon), 568 Dryad Road, Santa Monica, Calif. *Anthropology.* Pasadena, Calif, July 19, 01. A.B, California, 26, Ph.D, 30. Teaching fellow, California, 28–30, hon. research assoc. and nat. research fellow biol, 30–32, research assoc, 32–33, lecturer, 35; museum technician, Nat. Park Service, 33–35; instr. *anthrop, California at Los Angeles,* 36–39, asst. prof, 39–42, *assoc. prof, 42–* Soc. Am. Archeol; Anthrop. Asn; Southwest. Archeol. Federation (pres, 39); Inter-Am. Soc. Anthrop. and Geog. Ethnology and social anthropology of Mexico; southwest archeology and ethnology; California ethnology.

Beam, Prof. A(dam) L(eland), 141 Ridge Ave, State College, Pa. *Dairy husbandry.* Kincaid, Kans, Feb. 26, 91. B.S, State Col. Wash, 15; M.S, Pa. State Col, 16. *Prof. dairy production and director short courses, Pa. State Col.* Teaching methods.

Beamer, Prof. R(aymond) H(ill), 1000 Missouri St, Lawrence, Kans. *Entomology.* Hallowell, Kans, Oct. 20, 89. A.B, Kansas, 13, A.M, 17, Ph.D, 27. *Asst. curator Snow entom. collection, Kansas,* 14–17, 22–, asst. *entom, univ,* 21–22, asst. prof, 22–35, assoc. prof, 35–39, *prof, 39–* Colo. Biol. Surv, 14; in charge annual entom. collecting parties, Snow entom. collection, Kansas. Entom. Soc; Kans. Entom. Soc. (pres, 31).

Beamish, Prof. F(red) E(arl), University of Toronto, Toronto, Ont, Can. *Chemistry.* Hanover, Ont, Oct. 31, 01. B.A, McMaster, 28, M.A, 29. Asst. *chem, Toronto,* 28–31, lecturer, 31–35, asst. prof, 35–37, *assoc. prof, 37–* Chem. Soc; Can. Inst. Chem. Extraction from ores of the platinum group of metals; inorganic chemistry of the precious and semi-precious metals.

Beams, Prof. H(arold) W(illiam), State University of Iowa, Iowa City, Iowa. **Zoology.* Belle Plaine, Kans, Aug. 3, 03. A.B, Fairmount Col, 25; A.M, Northwestern, 26; Ph.D, Wisconsin, 29. du Pont fellow histol. and embryol, dept. med, Virginia, 29–30; asst. prof. *zool, Iowa,* 30–34, assoc. prof, 34–35, *prof, 35–* Rockefeller traveling fellow, 34–35. A.A; Soc. Zool; Micros. Soc; Soc. Nat; Asn. Anat; Iowa Acad; Wis. Acad. Cytology; spinning glands of insects; milk secretion; Cabot rings; segregation; hepatectomy; hemopoiesis; Golgi apparatus; polarity; sex chromosomes and spermatogenesis of man; salivary gland chromosomes; cytology of human ovary; effects of ultracentrifuging upon various types of cells; colchicine studies upon cells; viscosity studies.

Beams, Prof. J(esse) W(akefield), University of Virginia, Charlottesville, Va. **Physics.* Belle Plaine, Kans, Dec. 25, 98. A.B, Fairmount Col, 21; A.M, Wisconsin, 22; Ph.D, Virginia, 25; hon. Sc.D, Col. of William and Mary, 41. Instr. physics and math, Ala. Polytech, 22–23; teaching fellow, Virginia, 23–25, nat. research fellow *physics,* 25–26; Yale, 26–27, instr, 27–28; assoc. prof, *Virginia,* 28–30, *prof, 30–* Potts medal, Franklin Inst, 42. A.A; Physical Soc; Optical Soc; Philos. Soc. The measurement of very short time intervals; the Kerr effect; electrical discharges; ultracentrifuges.

Bean, Dr. Elizabeth S(mith) (Mrs. R. J. Bean), 28 Chestnut St, Halifax, N. S, Can. *Zoology.* A.B, Cincinnati, 10; A.M, Wisconsin, 12, Ph.D, 15. Asst. zool, Wisconsin, 11–13, instr, 14–17, asst. prof, 17–23; *instr. histol. and embryol, Dalhousie, 27–* Instr, Marine Biol. Lab, Woods Hole, 19–23. A.A. Cytology; genetics.

Bean, E(rnest) F, University of Wisconsin, Madison, Wis. *Geology.* Zearing, Iowa, Jan. 30, 82. A.B, Wisconsin, 09, A.M, 11. Asst. geol, Wisconsin, 08–09, instr, 11–15, asst. prof, 15–17; geologist, Wis. Geol. Surv, 11, chief of parties, 13–15; asst. state geologist, *Wis,* 16–25, acting state geologist, 25–26, *state geologist, 26–* Asst, Nat. Geog. Soc. exped, Alaska, 09–10. A.A; fel. Geol. Soc; Soc. Econ. Geol; Wis. Eng. Soc; Wis. Acad. Economic geology of the Precambrian; areal and glacial geology; road materials.

Bean, Dr. Frederic R(oland), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Elnora, Ind, Dec. 1, 04. A.B, DePauw, 27; Ph.D, Cornell, 31. Asst. chem, DePauw, 26–27; Cornell, 27–31; *research and develop. chemist, Eastman Kodak Co, 31–* Chem. Soc. Antiseptics; photographic developers; antioxidants; dyes; catalytic hydrogenation and oxidation; high pressure autoclave synthesis; synthetic chemistry; amination and hydrolysis; electrolytic oxidation and reduction.

Bean, Howard S(tewart), 18 Prospect St, Kensington, Md. *Mechanical engineering.* Santa Clara Co, Calif, Oct. 23, 93. B.S, California, 17. Inspector weights and measures, gage sect, *Bur. Standards,* 17–19, chief, New York branch gage sect, 18–19, inspector, gage sect, 20, *chief gas measuring instruments sect, 20–* In charge test on orifice meters, gas measurement cmt, nat. gas dept, Am. Gas Asn, 27–31. Mech. Eng. (in charge flow nozzle research and asst. research on volumeters, special research cmt. on fluid meters); Soc. Test. Mat. (chairman subcmt. measurement gaseous samples, cmt. gaseous fuels). Measurement of fluids, especially gases.

Bean, Prof. John W(illiam), 810 W. Davis, Ann Arbor, Mich. *Physiology.* Attercliffe, Ont, Can, Sept. 8, 01. A.B, Michigan, 24, M.S, 25, Ph.D, 30, M.D, 36. Asst. *physiol, med. sch, Michigan,* 26–29, instr, 29–31, asst. prof, 31–41, *assoc. prof, 41–* A.A; Physiol. Soc; Soc. Exp. Biol. Oxygen poisoning; respiration and circulation; action of oxygen at increased pressures on mammalian and lower organisms; isolated tissues; pupillary control.

Bean, Prof. R(aymond) J(ackson), 28 Chestnut St, Halifax, N. S, Can. *Histology, Embryology.* Laconia, N. H,

May 24, 91. B.S, New Hampshire Col, 15, M.S, 16. Asst. zool, New Hampshire Col, 14–15, instr, 16–17; instr. histol. and physiol, Western Reserve, 19–23; assoc. prof. *histol. and embryol, Dalhousie*, 23–28, *prof*, 28–, acting asst. dean med. sch, 28–30, *sec'y med. faculty*, 30– Med. service, U.S.N, 18–19. Ecol. Soc; N. S. Inst. (pres, 39–42); Int. Asn. Dental Research (pres, Halifax sect, 32). Histological technique; experimental embryology; morphology.

Bean, Prof. R(obert) Bennett, University, Va. *Anatomy, Anthropology.* Gala Water, Va, March 24, 74. B.S, Va. Polytech, 00; M.D, Hopkins, 04. Asst. *anat*, Hopkins, 04–05; instr, Michigan, 05–07; asst. prof, Philippines, 07–08, assoc. prof, 08–10; Tulane, 10–14, *prof*, 14–16; *Virginia, 16–* Lecturer, Teachers' Assembly, Baguio, 08; govt. investigator, Benguet Igorotos, 08. A.A. (exec. cmt, sect. H, 25, chairman, 26); Asn. Anat; Anthrop. Asn. (councilor, 19); Va. Acad; New Orleans Acad. (pres, 15); cor. mem. Soc. Romana Anthrop. Distribution, development and evolution of man; Filipinos; American Negroes; growth; weight of organs; sitting height; ear form; teeth; mongoloid dwarfs; pulse of growth; human types; races of man; the peopling of Virginia.

Bean, Lieut. Ross S(moot), 2335 Spaulding St, Berkeley, Calif. *Plant physiology.* Provo, Utah, March 17, 90. B.S, Brigham Young, 21; Ph.D, California, 40. Instr. chem. and math, Gila Col, 21–23, business agent, 23–24, pres, 24–25; teaching fellow plant nutrition, California, 26–27; instr. bot, Hawaii, 27–29, asst. prof, 29–37; *lieut, U. S. Army, 41–* Ordnance Dept, 17–19, lieut. A.A; Chem. Soc; Soc. Plant Physiol. Biochemistry.

Beans, Prof. Hal T(rueman), Columbia University, New York, N. Y. *Chemistry.* Pleasanton, Kans, Aug. 20, 76. B.S, Nebraska, 99, A.M, 00; Ph.D, Columbia, 04. Instr. *chem*, Idaho, 00–02; *Columbia*, 02–11, asst. prof. and assoc. prof, 11–21, *prof, 21–* Asn. Consulting Chem. and Chem. Eng. (pres, 27–30, director, 29–); Franklin Inst. Inorganic, physical and analytical chemistry; colloids; chemical spectroscopy.

Bear, Prof. Firman E(dward), 57 Nichol Ave, New Brunswick, N. J. *Agriculture.* Germantown, Ohio, May 21, 84. B.S, Ohio State, 08, M.S, 10; Ph.D, Wisconsin, 17. Instr. agr. chem. and soils, Ohio State, 08–10, asst. prof, 10–13; prof. soils in charge soil investigations, West Virginia, 14–16; prof. agr. chem. and soils, Ohio State, 16–28; director agr. research, Am. Cyanamid Co, New York, 28–38; science ed, 'Country Home Mag,' 38–40; *prof. agr. chem, Rutgers, and head soils and crops, N. J. Exp. Sta, 40–* A.A; Soc. Agron; Chem. Soc. Fertilizers; soils.

Bear, Prof. Richard S(cott), 41 Lebanon St, Winchester. Mass. *Biophysical chemistry.* Miamisburg, Ohio, June 8, 08. B.S, Princeton, 30; Ph.D, California, 33. Nat. research fellow chem, Princeton, 33–34; research asst. zool, Washington (St. Louis), 34–38; asst. prof. chem, Iowa State Col, 38–41; *assoc. prof. biol, Mass. Inst. Tech, 41–* Chem. Soc. Absorption spectra of rare earth salts at low temperatures; chemistry and physics of nerve; x-ray diffraction of starch.

Bear, Prof. Robert M(urray), Dartmouth College, Hanover, N. H. *Educational psychology.* Chinkiang, China, Feb. 3, 01. A.B, Washington and Lee, 22, A.M, 24; Ph.D, Ohio State, 30; Michigan, 32; Chicago, 36. Prin, sch, Miss, 22–23; prof. educ. and head dept, Centre Col, 25–29; asst. prof, *Dartmouth Col*, 29–36, asst. prof. *psychol*, 36–42, *prof, 42–, director reading clinic, 36–* Summers, prof, Louisville, 35; Berea Col, 36, 37; Idaho, 29; Plymouth Teachers Col, N. H, 40. Assoc. Psychol. Asn; Asn. Applied Psychol. Reading processes; retardation; remediation.

Bearce, Henry W(alter), 6308 Ridgewood Ave, Chevy Chase, Md. *Physics, Mechanical engineering.* Hebron, Maine, Oct. 5, 81. B.S, Maine, 06. Instr. physics, Maine, 06–08; *Bur. Standards, 08–*, co-chief *div. weights and measures*, 21–40, *chief, 40–* Sec'y, Nat. Screw Thread Cmn. Philos. Soc. Wash; Wash. Acad. Density and thermal expansion of ethyl alcohol, American petroleum oils, linseed oils, turpentine and other liquids; standardization of nuts, bolts, screw-threads and gages; the application of tolerances; principles of limit gaging; precise length measurements.

Beard, Prof. Charles N(oble), Fresno State College, Fresno, Calif. *Geography, Physiography.* Oaktown, Ind, Dec. 27, 06. A.B, Indiana, 35, A.M, 36; Ph.D, Illinois, 41. Teaching asst. geol, Illinois, 36–37; instr. *geol. and geog, Fresno State Col*, 37–40, *asst. prof, 40–* Asn. Pacific Coast Geog. Oceanography; drainage development in the vicinity of Monterey Bay, California.

Beard, Dr. E(arl) E(dson), E. I. du Pont de Nemours and Co, Carrollville, Wis. *Chemistry.* Bowling Green, Ohio, April 30, 03. B.S. (Educ), Ohio State, 25, A.M, 26, fellow, 28–29, Ph.D, 29. Asst. chem, Ohio State, 26–28; *research chemist*, Jackson lab, *E. I. du Pont de Nemours and Co*, 29–31, *Carrollville, 31–* Chemistry of the organic compounds of titanium; use of titanium tetrachloride as a catalyst in the Friedel-Craft reaction; anthraquinone vat dyes; new syntheses.

Beard, Dr. Frances Clark (Mrs. Raimon L. Beard), Brooksvale Road, Mt. Carmel, Conn. *Genetics, Cytology.* Medina, N. Y, Aug. 23, 12. A.B, Rochester, 34, M.S, 36; Missouri, 36–38; Ph.D, Yale, 41. Asst. bot, Missouri, 36–38; agr. research aid, Conn. Agr. Exp. Sta, 38–42. Summer, asst, N. Y. Exp. Sta, Geneva, 36. Genetics Soc; Bot. Soc. Cytogenetics of Zea mays.

Beard, Dr. Fred J, Food Distribution Administration, U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Cleburne, Texas, Sept. 10, 93. B.S, Okla. Agr. and Mech. Col, 20; M.S, Iowa State Col, 24, Ph.D, 42. Instr. *animal husbandry*, Okla. Agr. and Mech. Col, 20–21, asst. prof, 22–28, assoc. prof, 28–32; *asst. prof, Iowa State Col, 32–; acting chief market news and grading div, livestock and meats branch, food distribution admin, U. S. Dept. Agr, 42–* Inst. Food Technol; Soc. Animal Production; Okla. Acad. Meat investigations.

Beard, Dr. G(eorge) Victor, University of Utah, Salt Lake City, Utah. *Physical chemistry.* Coalville, Utah, Aug. 10, 08. A.B, Utah, 28, A.M, 33; Southern California, 34; California, 35; Calif. Inst. Tech, 36–37; Ph.D, Purdue, 41. Teaching fellow *chem*, Utah, 30–31; Calif. Inst. Tech, 36–37; Purdue, 38–40; *instr, Utah, 40–* Chem. Soc. (sec'y-treas northwest Utah, 40–42). A new method for the determination of heat capacities of liquids.

Beard, Prof. H(arold) C(hatfield), Cedar Crest College, Allentown, Pa. *Chemistry.* Shelton, Conn, June 27, 98. A.B, Oberlin, 21; A.M, Columbia, 25; M.S, Pa. State Col, 31, Ph.D, 32. Instr. chem, Carnegie Inst. Tech, 21–22; asst. chemist, Pittsburgh Water Plant, 22–23; instr. chem, N. C. State Col, 25–26; prof, Western Maryland Col, 26–29; asst, Pa. State Col, 29–32; instr, Louisiana, 32–33; State Teachers Col, Shippensburg, Pa, 33–34; Phila. Commercial Museum, 34–35; exten. div, Pa. State Col, Du Bois, 35–37; prof. physical sciences, State Teachers Col, Kutztown, 37–42; *prof. chem. and head dept, Cedar Crest Col, 42–* Chem. Soc. Hydrogen ion concentration measurement with antimony and other metal electrodes; adsorption salt dyes.

Beard, Harry R(andall), New England Fish Co, Seattle, Wash. *Chemistry.* Denver, Colo, Aug. 31, 92. A.B, Colorado, 17; M.S, Wisconsin, 20. Instr. chem, Wisconsin, 19–20; asst. technologist, Bur. Fisheries, 20–24, chief technologist, 24–27; in charge sci. research, *New Eng. Fish Co*, 27–39, production manager, 39–41, *research director, 42–* Chemist, State Oil Lab, Colo, 16; asst, Colorado, 16–17; chemist, Wilson and Co, 20. Asst. chemist, Puget Sound Navy Yard, 17; Ordnance Dept, U.S.A, 17–19, research chemist, 19. Chem. Soc; Can. Chem. Asn. Fisheries technology; the preparation of fish for canning; refrigeration of fish.

Beard, Prof. Howard H(orace), Louisiana State University School of Medicine, New Orleans, La. *Biochemistry.* York, S. C, May 5, 94. B.S, South Carolina, 14; A.M, Columbia, 21; Porter fellow, Yale, 25, Ph.D, 25. Asst. state chemist, State Dept. Agr, S. C, 18–22; prof. physical science, Chicora Col, 22–23; asst. physiol. chem, *sch. med*, Yale, 24; senior instr. *biochem.* and acting head dept, Western Reserve, 25–27, asst. prof, 27–31; *prof, Louisiana, 31–* Mem, State Nutrition Cmt, La. A.A; Chem. Soc; Soc. Biol. Chem; Am. Med. Asn; Soc. Exp. Biol. and Med; Inst. Chem; Inst. Nutrition; Asn. Cancer Research; Soc. Biol. Chem; Gastro-Enterol. Asn; Pacific Asn. Railway Surg; La. Acad; N. Y. Acad; New Orleans Acad. (v. pres, 34–37). Nutrition; creatine and creatinine metabolism; diseases of blood; cancer.

Beard, Prof. J(ohn) G(rover), University of North Carolina, Chapel Hill, N. C. *Pharmacy.* Kernersville, N. C, April 5, 88. Ph.G, North Carolina, 09; Ph.M, Phila. Col. Pharmacy, 30. Instr. *pharmacy, North Carolina*, 09–13, asst. prof, 13–17, assoc. prof, 17–19, *prof, 19–*, sec'y *sch. pharmacy*, 16–31, *dean, 31–* Chairman, Pharmaceut. Syllabus Cmt, 28–39. Pharmaceut. Asn. (local sec'y, 23, chairman, sect. educ. and

legis, 25, v. pres, 31, pres, nat. conf, 31); Asn. Cols. Pharm. (v. pres, 25, pres, 30); Elisha Mitchell Sci. Soc. (pres, 17–19); N. C. Pharmaceut. Asn. (sec'y-treas, 12–40). Percolation under reduced pressure; filtration rates; manual of biological products; Latin for pharmacists.

Beard, Prof. J(oseph) Howard, 1005 S. Race St, Urbana, Ill. *Hygiene, Public health.* Linden Hill, Md, Jan. 12, 83. A.B, St. John's Col. (Md), 02, A.M, 12; M.D, Hopkins, 12. Instr. physiol, *Illinois,* 12–18, *prof. hygiene and univ. health officer, 18–* A.A; Pub. Health Asn; Am. Med. Asn. Physiology; internal medicine; health education; mental and school hygiene.

Beard, Dr. J(oseph) W(illis), Duke University School of Medicine, Durham, N. C. *Surgery.* Athens, La, Nov. 5, 01. B.S, Chicago, 26; M.D, Vanderbilt, 29. Intern, asst. res. and res, surg. service, hosp, Vanderbilt, 29–32; asst. path, Rockefeller Inst, 32–35, assoc, 35–37; asst. prof. surg, *sch. med. and univ. hosp, Duke,* 37–42, *assoc. prof, 42–, in charge exp. surg, 37–* A.A; Soc. Exp. Path; Soc. Exp. Biol; Asn. Immunol; Soc. Univ. Surg; Harvey Soc. Physiology of blood cells and of endothelium of blood vessels; surgical shock; tumors; filtrable viruses.

Beard, Dr. Leslie C(arrington), Jr, 59 W. 12th St, New York, N. Y. *Chemistry.* Hagerstown, Md, Jan. 28, 98. A.B, Hopkins, 19, Ph.D, 22. Instr. chem, Hopkins, 22–23; research chemist, Standard Oil Co. of N. Y, 23–30, supervisor research, 30–33; *asst. to head gen. labs, Socony-Vacuum Oil Co, 33–* A.A; Chem. Soc; Soc. Test. Mat. Vapor tension of aqueous solutions; petroleum.

Beard, Prof. Paul J, Stanford University, Calif. *Bacteriology.* Creston, Iowa, July 29, 96. B.S, Iowa State Col, 26, M.S, 27; Ph.D, Stanford, 29. Teaching fellow, Iowa State Col, 26, asst, 27–28; asst. prof. *sanit. sciences, Stanford,* 29–36, *assoc. prof, 36–;* asst. prof. *nat. sciences, San Jose State Col,* 29–31, *assoc. prof, 31–* Consultant, San Jose Water Co, 36– Soc. Bact. (chairman, north. Calif. branch, 35–37, councilor, 37–); Pasteur Soc. (pres, 36); Soc. Exp. Biol; Pub. Health Asn; Calif. Sewage Works Asn. General and sanitary bacteriology.

Beard, Dr. Raimon L(ewis), Connecticut Agricultural Experiment Station, New Haven, Conn. *Entomology.* Longmont, Colo, April 7, 12. A.B, Wesleyan, 35; Ph.D, Yale, 39. Asst. biol, Yale, 35–38; *agr. research asst. entom, Conn. Agr. Exp. Sta, 39–* Visiting instr, Wesleyan, 41–42. A.A; Asn. Econ. Entom; Entom. Soc. Amer. Insect bionomics.

Beard, Dr. R(alph) F(inney), Canada Dry Ginger Ale, Inc, 1900 S. Maywood Drive, Maywood, Ill. *Chemistry.* Seattle, Wash, May 12, 89. B.S, N. Dak. Col, 12; Ph.D, Minnesota, 29. Asst. chemist, Oregon State Col, 13–16; asst. agr. chemist, N. Dak. Col, 16–17, cereal chemist, 19–22; asst. physical chem, Minnesota, 22–28; indust. fellow, Mellon Inst, 28–33; research chemist, *Can. Dry Ginger Ale, Inc,* 33–34, *plant manager, 34–* Physical chemistry; food chemistry; chemical kinetics.

Beard, Dr. Rodney R(au), 2330 Clay St, San Francisco, Calif. *Industrial hygiene, Epidemiology.* Calif, Dec. 27, 11. A.B, Stanford, 32, M.D, 38; M.P.H, Harvard, 40. Asst. res. pub. health and prev. med, hosps, Stanford, 38–39; Rockefeller fellow med. sci, sch. pub. health, Harvard, 39–40; instr. *pub. health and prev. med, sch. med, Stanford,* 40–41, *asst. prof, 41–* Instr, nursing sch, Stanford, 38–39. Med. director, Pacific div, Pan American Airways, 40– Summer, lecturer, med. sch, Tennessee, 40. Am. Med. Asn; Pub. Health Asn; Indust. Hygiene Asn; Asn. Indust. Physicians and Surg. Epidemiology of Coccidioides immitis; maintenance of health in tropical environments and of industrial workers; aviation medicine.

Bearden, Prof. J(oyce) A(lvin), Johns Hopkins University, Baltimore, Md. *[5]Physics.* Greenville, S. C, Oct. 19, 03. A.B, Furman, 23; fellow, Chicago, 25, Ph.D, 26. Asst, Chicago, 23–25, instr, 26–29; assoc. *physics, Hopkins,* 29–32, assoc. prof, 32–39, *prof, 39–, physicist, applied physics lab, 42–* Consultant, Nat. Defense Research Cmt, 40–; physicist, Carnegie Institution, 41–42. A.A; fel. Physical Soc. Absolute x-ray intensities and electron distributions; the Compton effect; x-ray wavelengths by ruled and crystal gratings; refraction of x-rays; determination of charge on electron and of other fundamental constants; nuclear physics and radioactivity.

Beardslee, H(enry) C(urtis), Johnson Apts, Painesville, Ohio. *Botany.* Painesville, Ohio, Sept. 28, 65. A.B, Western Reserve, 89, A.M, 92. Teacher science, Univ. Sch, Cleveland, 90–01; senior master, Asheville Sch, 01–20. A.A; Bot. Soc; Torrey Bot. Club; Phytopath. Soc; Ohio Acad. (trustee, 97–00); N. C. Acad. Fleshy fungi; fungous flora of North Carolina.

Beardsley, J(ames) W(allace), 214 Comstock Ave, Syracuse, N. Y.. *Civil engineering.* Coventry, N. Y, Sept. 11, 60. C.E, Cornell, 91. Asst. engineer, sanit. dist, Chicago, 92–98; Deep Waterways Cmn, 98–00; canal and harbor works, C.Eng. U.S.A, 00–02; consulting engineer, Philippine Cmn, and director pub. works, P. I, 02–08; investigator irrig, Java, Burma, India and Egypt, 08–09; chief engineer, Irrig. Service, P. R, 10–16; asst. chief eng. surveys, Grand Canal, China, 18–19; engineer, Highway Cmn, Panama, 20–21; consulting engineer, 21–24; designing engineer, Int. Sewer Board, Syracuse, 25–26; consulting engineer on ports, Santo Domingo, 26–29; *consulting engineer, 29–* Consulting engineer, Ordnance Dept, U.S.A, 18. Civil Eng; West. Soc. Eng.

Beardsley, Dr. Niel F(reeborn), 6109 Kimbark Ave, Chicago, Ill. *Physics.* Wadsworth, Ohio, Feb. 23, 92. B.S, Hiram Col, 13; M.S, Northwestern, 20; Ph.D, Chicago, 32. Assoc. prof. *physics,* Ga. Tech, 20–29; instr, *Chicago,* 29–40, research assoc, 40–43, *asst. prof, 43–* A.A; Physical Soc. Wave mechanics; calculations in theoretical physics; cosmic rays.

Bearse, Dr. Arthur E(verett), 1186 W. First Ave, Columbus, Ohio. *Organic chemistry.* Attleboro, Mass, Sept. 27, 11. B.S, Mass. State Col, 33; Ph.D, Mass. Inst. Tech, 36. *Research chemist,* Jackson Lab, E. I. du Pont de Nemours and Co, 36–38; Arthur D. Little, Inc, 38–39; *Battelle Mem. Inst, 39–* Chem. Soc. Organic reaction rates; dyes; synthetic organic chemistry; organic sulfur compounds.

Beasley, Dr. James O(tis), Agricultural and Mechanical College of Texas, College Station, Texas. *Cytogenetics.* Wells, Texas, Sept. 7, 09. B.S, Agr. and Mech. Col. Texas, 32, M.S, 34; Ph.D, Harvard, 39. Asst. agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 35; agent, bur. plant indust, U. S. Dept. Agr, 38–39; *agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 39–* A.A; Genetics Soc. Plant breeding; cytogenetics and breeding of Gossypium.

Beasley, Dr. W(illis) C(arter), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Public health.* Gilliam, Mo, Nov. 12, 01. A.B, Missouri, 26, A.M, 28; Ph.D, Ohio State, 32. Instr. math, Stephens Col, 26–27; psychol, Ohio State, 28–31; Hopkins, 31–35; regional supervisor, *U. S. Pub. Health Service,* 35–36, senior admin. officer, 36–37, *psychophysiologist, nat. inst. health, 38–* A.A; Soc. Hard of Hearing (manager, 41–); Soc. Research Child Develop; fel. Pub. Health Asn; Psychol. Asn; Acoustical Soc; Ohio Acad. Development in newborn infants; physiological acoustics; physiological optics; audiometric standards; statistical methods; radiography and clinical photography; invention and design of acoustical, optical and x-ray instruments.

Beath, Prof. O(rville) A(ndrew), 815 University, Laramie, Wyo. *Organic chemistry.* Wis, Nov. 9, 84. A.B, Wisconsin, 08, A.M, 12. Instr, high sch, Wis, 08–10; asst. chemist, Forest Products Lab, U. S. Forest Service, 10–11; instr. chem, Kansas, 12–14; *research chemist, Wyoming, 14–, prof. research chem.* Fritzsche fellow, Wisconsin, 22; special poisonous plant investigator, Midwest Ref. Co, 20. Chem. Soc; Soc. Prom. Agr. Research. Plant chemistry; poisonous constituents of western range plants; activation by selenium of poisonous plants occurring on Cretaceous and post-Cretaceous shales.

Beaton, Dr. Lindsay E(ugene), 914 B Crain St, Evanston, Ill. *Neuroanatomy.* Chicago, Ill, Jan. 25, 11. A.B, Dartmouth Col, 32; M.S. and M.D, Northwestern, 40. Instr. anat, med. sch, Northwestern, 37–39, nat. research fellow med, inst. neurol, 40–42; intern, Passavant Hosp, 39–40; *capt, Med. Corps, U. S. Army, 42–* A.A; Asn. Anat; Am. Med. Asn. Neurophysiology; gross anatomy; localization of central nervous system mechanisms concerned with regulation of body temperature; localization of respiratory centers in the brain stem.

Beaton, Dr. N(ell) S(tewart), 44 Victoria St, Toronto, Ont, Can. *Economic geology.* Ouray, Colo, Dec. 10, 04. B.Sc, Queen's (Can), 27, M.Sc, 31; Ph.D, Mass. Inst. Tech, 35. Field geologist, Rhodesian Anglo-American Corp, Africa, 27–30; *with* N. Am. Mines, Inc, 34–38; *North. Can. Mines, Ltd, 38–* Asst, Mass. Inst. Tech, 32, 33, 34–35. Summers, Geol. Surv. Can, 31, 32; J. H. C. Waite Co, 33. Min. and Metal.

Eng; Can. Inst. Min. and Metal; Professional Engineers Ont. Wall rock alteration; private geological mapping and examinations.

Beattie, Prof. H(arold) G(oldsmith), New York State Agricultural Experiment Station, Geneva, N. Y. *Chemistry.* Hall, N. Y, March 27, 96. B.S, Colgate, 21. Chemist, Ansco Co, Binghamton, N. Y, 21–22; N. Y. Exp. Sta, Geneva, 22–24; Niagara Sprayer and Chem. Co, Middleport, N. Y, 24–28, plant supt, 28–31; research assoc. and later *asst. prof. chem, N. Y. Exp. Sta, Geneva, 31–* Chem. Soc; Inst. Food Technol. Production and preservation of fruit and vegetable products.

Beattie, Prof. James A(lexander), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Louisville, Ky, July 24, 95. B.S, Mass. Inst. Tech, 17, M.S, 18, fellow, 19–20, Ph.D, 20. Research chemist, Am. Writing Paper Co, 16; asst. chem, Mass. Inst. Tech, 17–18, research assoc, 20–23; nat. research fellow, 21–23; cryogenic lab, Leiden, Holland, 22–23; asst. prof. physico-chem. research, *Mass. Inst. Tech,* 23–29, assoc. prof, 29–38, *prof. physical chem, 38–* Chem. Soc; Physical Soc; Am. Acad. Physical chemistry; ionic theory; thermodynamics; equations of state; specific heats; gas and resistance thermometry; cryogenic measurements.

Beattie, J(ames) H(erbert), U. S. Department of Agriculture, Beltsville, Md. *Horticulture.* Zanesville, Ohio, June 4, 82. B.S, Ohio State, 04; M.S, American Univ, 30. Bur. entom, *U. S. Dept. Agr,* 04–06, bur. soils, 06–12, *bur. plant. indust, 12–,* assoc. horticulturist, *senior horticulturist and supt. sta.* Soc. Hort. Sci; Bot. Soc. Wash. Ecology of crop plants; injurious organic soil compounds; biometry of vegetable crops; sweet potatoes; peanuts; cucumbers; tomatoes.

Beattie, Dr. R(obert) W(alter), 2419 Greensburg Pike, Wilkinsburg, Pa. *Chemistry.* Owen Sound, Ont, Can, March 12, 02. B.Sc, Queen's (Can), 24, Milton Hersey fellow, 24–25, M.Sc, 25, Nat. Research Council Can. bursar, 25–26; Pub. Health Inst. fellow, Northwestern, 26–27, Halowax fellow, 28–29; Halowax fellow, Pa. State Col, 29–31, Ph.D, 32. Demonstrator chem. eng. and applied chem, Toronto, 27–28; org. research, Halowax Corp, 31–41; *research fellow, Mellon Inst, 41–* Metallic thorium and thorium alloys; reactivity of methylene groups; halogenated naphthalenes; mercuriated naphthalene; chlorination studies; extreme pressure lubricants.

Beattie, R(olla) Kent, U. S. Department of Agriculture, Beltsville, Md. *Botany.* Ashland, Ohio, Jan. 14, 75. A.B, Cotner Col, 95; B.S, Nebraska, 96, A.M, 98. Instr, high sch, Colo, 96–97; Wyo, 98–99; bot, State Col. Wash, 99–03, prof. and head dept. and botanist, Exp. Sta, 03–12; forest pathologist, *U. S. Dept. Agr,* 12–14, path. inspector, fed. hort. board, 14–19, pathologist in charge for. plant quarantines, 19–27, senior pathologist, *div. forest path, bur. plant indust,* 27–28, *prin. pathologist, 28–* Summers, instr, Cotner, 93, Nebr. State Nor. Sch, 98. Phytopath. Soc; Bot. Soc. Wash. (pres, 25). Plant pathology; flora of Palouse region, Washington and Oregon; geography of plant disease; the chestnut in the Orient; introduced forest tree diseases.

Beattie, W(illiam) R(enwick), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Zanesville, Ohio, Dec. 17, 70. B.S, M.S, Ohio State. Asst. bot, Ohio State, 96–98; asst. horticulturist, U. S. Dept. Agr, 99–12; agr. and indust. commissioner, St. Louis and Southwest. Ry, 12–18; horticulturist, *bur. plant indust, U. S. Dept. Agr,* 18–29, senior horticulturist, 29–40, *collaborator, 40–* A.A; Veg. Growers Asn; Biol. Soc. Wash; Wash. Biol. Field Club. Horticulture.

Beatty, Prof. A(lvin) V(on Erl), University of Alabama, University, Ala. *Botany.* Continental, Ohio, Jan. 7, 09. A.B, Oberlin Col, 32; Blandy Exp. Farm fellow, Virginia, 32–36, Ph.D, 36. Instr. *bot, Alabama,* 37–41, *asst. prof, 41–* Bot. Soc; Genetics Soc; Ala. Acad. (v. pres, 41; chairman cmt. publications, 41). Genetics; cytology; plant respiration.

Beatty, Dr. Harold A(shton), Ethyl Gasoline Corp, Detroit, Mich. *Chemistry.* Lexington, Ky, Sept. 27, 04. B.S, Princeton, 26, A.M, 27, Ph.D, 31. *Research chemist, Ethyl Gasoline Corp, 31–* A.A; Chem. Soc. Autoxidation; tetraethyl lead.

Beatty, Prof. H(arry) M(illard), 200 Tibet Road, Columbus, Ohio. *Mathematics.* Darbyville, Ohio, Feb. 9, 83. A.B, Ohio Wesleyan, 08; A.M, Ohio State, 17. Sch. supt, Ohio, 08–11; instr, high sch, Ohio, 11–17, prin, 17–18; instr. *math, Ohio State,* 18–19, *asst. prof, 19–* Math. Asn.

Beatty, Prof. Hugh Gibson, 150 E. Broad St, Columbus, Ohio. *Otolaryngology.* Washington C. H, Ohio, Sept. 12, 80. Ph.C, Ohio State, 04; M.D, Starling-Ohio Med. Col, 10; Vienna, 26. Asst. ear, nose and throat, *Ohio State,* 14–16, instr. *otolaryngol,* 16–20, asst. prof, 20–28, assoc. prof. and later *prof. and chairman dept, col. med, 28–* Acad. Ophthal. and Otolaryngol; Laryngol, Rhinol. and Otol. Soc; Am. Med. Asn; fel. Col. Surg; Broncho-esophagological Soc. Cleft palate and lip; plastic surgery.

Beatty, Prof. (Isaac) Croom, III, Rollins College, Winter Park, Fla. *Organic chemistry.* Birmingham, Ala, June 9, 14. B.S, Univ. of the South, 35; A.M, Oberlin Col, 37; Ph.D, Yale, 40. Asst, Oberlin Col, 35–37; Yale, 37–40; instr. *chem, Rollins Col,* 40–41, *asst. prof, 41–* A.A; Chem. Soc; Fla. Acad. Amidines; imino-esters; imide chlorides; local anesthetics; Kjeldahl technique.

Beatty, Prof. Stanley Albert, 48 Chestnut St, Halifax, N. S, Can. *Biochemistry.* Thomasburg, Ont, Sept. 4, 98. B.A, Queen's (Can), 25, M.A, 26; Ph.D, McGill, 31. Asst, McGill, 27–29; asst. prof. and *assoc. prof. biochem, fisheries exp. sta, Dalhousie, 30–; director, Atlantic Fisheries Exp. Sta, 40–* Chemistry of soluble proteins of fish muscle.

Beaty, Prof. E(dward) B(enjamin), Oregon State College, Corvallis, Oregon. *Mathematics.* Walkerton, Ind, Dec. 5, 76. B.S, Oregon State Col, 03; A.M, California, 16, 29. Teacher, Bishop Scott Acad, Portland, 03–04; prin, high sch, Wash, 04–08; instr. *math, Oregon State Col,* 08–12, asst. prof, 12–15, assoc. prof, 15–27, *prof, 27–* Math. Asn. Pascal configurations.

Beaty, Dr. Marjorie (Louise) H(eckel) (Mrs. Donald W. Beaty), 717 E. Main St, Vermillion, S. Dak. *Mathematics.* Buffalo, N. Y, Jan. 21, 06. A.B, Rochester, 28, A.M, 29; Brown, 29–31; univ. fellow, Colorado, 35–36, fellow, 36–37, Ph.D, 39. Asst. math, Brown, 29–31; instr, South Dakota, 31–35; asst, Colorado, 35–36, 37–38; instr, South Dakota, 38–39, asst. prof, 39–41, acting dean women, 41. Math. Soc. Algebra; theory of numbers; the complex roots of algebraic equations.

Beauchamp, Prof. R(obert) O(wens), Peabody College, Nashville, Tenn. *Science education.* Edmonton, Ky, Dec. 5, 97. B.S, Peabody Col, 24, A.M, 26, Ph.D, 40; Vanderbilt, 30–31. *Instr. science, demonstration sch, Peabody Col, 23–, registrar, 37–, asst. prof. science educ, col, 42–,* asst. chem, summers, 23–40. Tenn. Acad. Relation of science achievement to certain academic and social factors.

Beaudette, Prof. F(red) R(obert), 194 College Ave, New Brunswick, N. J. *Poultry pathology.* Wichita, Kans, April 15, 97. D.V.M, Kans. State Col, 19. Instr. bacter, Kans. State Col, 19–21, asst. prof, 21–23; *poultry pathologist, N. J. Exp. Sta, 23–;* assoc. prof. *poultry path, Rutgers,* 26–29, *prof, 29–* Reporter, Int. Vet. Cong, London, 30. Poultry Sci. Asn; Soc. Parasitol; Micros. Soc; Vet. Med. Asn. Epidemiology of fowl cholera; pullorum disease; typhoid, plague and infectious bronchitis in fowls; avian paratyphoids; infectious laryngotracheitis.

Beaumont, Dr. A(rthur) B(ishop), 285 Amity St, Amherst, Mass. *Agronomy.* Waco, Texas, Jan. 21, 87. B.S, Kentucky, 08; Ph.D, Cornell, 18. Teacher, high sch, Oregon, 09–10; Oregon Nor. Sch, Monmouth, 11–13; asst. soils, Cornell, 13–17; assoc. prof. agron. and acting head dept, Mass. Col, 17–19, prof. soils, 19–31, Mass. State Col, 31–35, head dept, 19–33; head land classification unit, Resettlement Admin, U. S. Dept. Agr, 36–37, field agent, bur. agr. econ, 38; *specialist, soil conservation, Mass. State Col, 39–* Soils; crops; soil conservation; fertilizers.

Beaumont, Dr. D(avis) W(ortham), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Amherst, Mass, Aug. 15, 17. B.S, Mass. State Col, 38; Ph.D, Mass. Inst. Tech, 42. Instr. chem, *Mass. Inst. Tech,* 41–42, *2nd lieut, develop. lab, Chem. Warfare Service, U. S. Army, 42–* Freezing point measurements in aqueous solutions.

Beaumont, Prof. Henry, University of Kentucky, Lexington, Ky. *Psychology.* The Hague, The Netherlands, June 7, 02. A.B, Stanford, 28; Ph.D, Vienna, 29. Asst. prof. *psychol, Kentucky,* 30–39, *assoc. prof, 39–,* exec. sec'y, personnel bur, 30–39; *major, U. S. Army, 42–* Asst, office educational investigations, Michigan, 37–38. Summers, director summer sch. in psychol, Vienna, 32, 34, lecturer, Michigan, 38–41. Psychol. Asn; Ky. Acad. Child psychology; psychology of perception; student personnel; educational administration; personnel administration.

Beaumont, Prof. J(ohn) H(erbert), University of Hawaii, Honolulu, Hawaii. *Horticulture.* Wheeling, W. Va, March

23, 94. B.S.A, West Virginia, 17; Ph.D, Minnesota, 25. Instr, Minnesota, 19–25, asst. prof, 26–28; prof. *hort.* and head dept, N. C. State Col, 28–32; Maryland, 32–36; *prof, Hawaii, 36–*, prin. horticulturist, *Exp. Sta, 36–38, director and horticulturist, 38–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Hawaiian Acad. Nutrition and reproduction in coffee; variety selection and propagation of Macadamia ternifolia.

Beaumont, Dr. Ross A(llen), University of Washington, Seattle, Wash. *Mathematics.* Dallas, Texas, July 23, 14. A.B, Michigan, 36, scholar, 36–37, M.S, 37; fellow, Illinois, 37–39, Ph.D, 40. Asst. *math,* Illinois, 39–40; *instr, Washington (Seattle), 40–* Math. Soc. Theory of groups.

Beavens, Dr. E(lmer) Arthur, Fruit and Vegetable Chemistry Laboratory, 148 S. Mission Road, Los Angeles, Calif. *Bacteriology.* Washington, D. C, June 15, 03. B.S, Maryland, 27, M.S, 29; Ph.D, Cornell, 40. Asst, Maryland; Mich. State Col; from asst. bacteriologist to *bacteriologist, fruit and veg. chem. lab, bur. agr. and indust. chem, U. S. Dept. Agr, 31–* Food chemistry; pasteurization; chemical sterilization; microbial thermogenesis; food spoilage and preservation; dehydration.

Beaver, Dr. D(avid) J(ohn), St. Albans, W. Va. *Chemistry.* Schenectady, N. Y, Feb. 23, 93. B.S, Union (N. Y), 15; A.M, Columbia, 17, Ph.D, 21. Asst. anal. chem, Columbia, 18–21; research chemist, Firestone Tire and Rubber Co, 22–23; assoc. director research, Combustion Utilities Corp, 23–32; research chemist, *Monsanto Chem. Co, Nitro,* 33–36, *asst. director research, 36–* Research chemist, Gas Warfare Service, 17–19. A.A. The properties of colloid gold sols; the temperature of thermostats; thermal changes during vulcanization; abrasion tests of rubber stocks; carbon blacks and physical properties of rubber; pigment mixtures on rubber compounds; air-bomb aging test for tread compounds; effect of hydrogen sulfide on the rate of vulcanization.

Beaver, Prof. J. Lynford, 402 High St, Bethlehem, Pa. *Electrical engineering.* Near Phoenixville, Pa, Aug. 25, 82. E.E, Lehigh, 04, M.S, 21; Sc.D, Harvard, 32. Elec. inspector, N. Y. Fire Ins. Exchange, 04–05; instr. elec. eng, Pennsylvania, 05–07; senior instr, Drexel Inst, 07–17; dist. dept, Phila. Elec. Co, 17–18; asst. prof. *elec. eng, Lehigh,* 18–26, assoc. prof, 26–32, *prof, 32–* A.A; fel. Elec. Eng. (nat. v. pres, 27–29, mem, nat. cmts, chairman, Lehigh Valley sect, 26); Lehigh Valley Eng. Club (mem. cmts). Alternating current; alternating current machinery.

Beaver, Prof. J(acob) J, 75 Myrtle Blvd, Larchmont, N. Y. *Chemistry.* Schenectady, N. Y, Feb. 23, 93. B.S, Union (N. Y), 15; A.M, Columbia, 16, Ph.D, 21. Instr. *chem, Columbia,* 21–29, *asst. prof, 29–* A.A; Chem. Soc. Compound formation in phenolcresol mixtures; control of thermostats; photochemistry of phosgene.

Beaver, Prof. Paul C(hester), Lawrence College, Appleton, Wis. *Parasitology.* Glenwood, Ind, March 10, 05. A.B, Wabash Col, 28; M.S, Illinois, 29, Ph.D, 35. Asst. zool, Illinois, 28–29, 31–34; instr, Wyoming, 29–31; *biol,* Oak Park Junior Col, 34–37; *asst. prof, Lawrence Col, 37–* Summers, instr, Montana, 35–37. A.A; Soc. Parasitol; Micros. Soc; Ill. Acad. Helminthology; pathology; bacteriology.

Beaver, Dr. Ralph A(lexander), New York State College for Teachers, Albany, N. Y. *Mathematics.* Esopus, N. Y, Dec. 17, 02. B.S, N. Y. State Col. for Teachers, 24; A.M, Columbia, 28; Ph.D, Cornell, 32. Teacher, high sch, N. Y, 24–25; instr. *math, N. Y. State Col. for Teachers,* 25–32, *asst. prof, 32–* Math. Soc; Math. Asn. Determinants.

Beaver, Prof. W(illiam) C(arl), Wittenberg College, Springfield, Ohio. *Biology.* Whipple, Ohio, Dec. 29, 96. A.B, Marietta Col, 19; M.S, Ohio State, 20, Ph.D, 28. Instr. *biol,* Marietta Col, 20–21; asst. prof, Lafayette Col, 21–23; *prof, Wittenberg Col, 23–* Summer, bacteriologist, State Div. Conservation, Ohio, 29, 39, 40. A.A; Pub. Health Asn; fel. Ohio Acad. Bacteriology; zoology; ichthyology.

Beazell, Dr. J(ames) M, 303 E. Chicago Ave, Chicago, Ill. *Physiology.* San Francisco, Calif, Feb. 28, 09. B.S, Northwestern, 36, fellow, 36–38, M.D, 38, M.S, 37, Ph.D, 38. Instr. *physiol, Northwestern,* 38–39, *asst. prof, 39–* A.A; Physiol. Soc. Physiology of the gastro-intestinal tract.

Bebb, Dr. Robert L(loyd), 1074 Cadillac Blvd, Akron, Ohio. *Organic chemistry.* Columbus, Ohio, Jan. 21, 13. A.B, Ohio State, 34; Ph.D, Iowa State Col, 38. *Research organic chemist, Firestone Tire and Rubber Co, 38–* Synthetic rubber.

Beber, Dr. Meyer, 631 Medical Arts Bldg, Omaha, Nebr. *Medicine, Biochemistry.* Minsk, Russia, Dec. 27, 99. B.S, Nebraska, 20, fellow, 21–23, Ph.D, 25, M.D, 33; Harvard, 25. Instr. biochem, *Nebraska,* 23–27, asst. prof, 27–33, *instr. internal med, 35–* Enzymes; catalase; hormones.

Beble, Dr. Jules, 4207 Magnolia Ave, St. Louis, Mo. *Organic chemistry, Chemical engineering.* Zurich, Switzerland, April 9, 77. Chem.E, Fed. Polytech, Zurich, 99; Ph.D, Zurich, 01. Director research, Monsanto Chem. Co, 20–30; *consulting chem. engineer, 30–* Lecturer, Washington (St. Louis), 39–41. Chem. Soc. (chairman St. Louis sect, 38); Chem. Eng. (chairman St. Louis sect, 35). Nitrocelluloses; pharmaceutical products; dyestuff intermediates.

Bechdel, Prof. S(amuel) I(rvin), State College, Pa. *Dairy husbandry.* Blanchard, Pa, July 9, 86. B.S, Pa. State Col, 11, M.S, 16; Shevlin fellow, Minnesota, 22–23, Ph.D, 25. Bur. animal indust, U. S. Dept. Agr, 11–13; instr. *dairy husbandry, Pa. State Col,* 13–17, asst. prof, 17–19, assoc. prof, 19–26, *prof, 26–,* acting head dept, 35, *in charge dairy production research, 26–* Collaborator, regional pasture research lab. for northeast. states, U. S. Dept. Agr, 37. Dairy Sci. Asn. Dairy cattle feeding; silage; vitamin requirements; pasture fertilization and management.

Bechtel, Prof. A(lbert) R(eiff), Wabash College, Crawfordsville, Ind. *Botany.* Royersford, Pa, March 21, 82. B.S, A.M, Pennsylvania, 12; Ph.D, Cornell, 20. Teacher and prin, schs, Pa, 03–08; asst. instr. *bot,* Pa. State Col, 13, instr, 14; N. Y. State Col. Agr, Cornell, 14–20; *prof, Wabash Col, 20–* Bot. Soc; Mycol. Soc. Taxonomy of seed plants.

Bechtel, Dr. H(enry) Ernest, 345 N. 15th St, Manhattan, Kans. *Dairy husbandry.* Collegeville, Pa, May 17, 09. B.S, Pa. State Col, 31; M.S, Mich. State Col, 33, Ph.D, 35. Asst. dairying, Mich. State Col, 31–33, tech. asst, 33–35; research dept, Larrowe Milling Co, 35–39; *assoc. prof. dairying, Kans. State Col, 39–* Dairy Sci. Asn. Vitamin D milk; histopathological changes in rickets; etiology of perosis; dairy cattle feeding; silage; sorghums.

Bechtold, Frank, Jr, 8 Columbia Ave, Cranford, N. J. *Chemistry.* Brooklyn, N. Y, Aug. 5, 96. B.S, Polytech. Inst. Brooklyn, 18. Anal. chemist, Doehler Die Casting Co, 18–19, supervising chemist, 19–20; asst. chief chemist, U. S. Aluminum Co, 20–28, *chief chemist,* 28–33; *Garwood plant, Aluminum Co. of Amer, 33–* Chem. Soc; Soc. Metals.

Bechtold, Dr. Max F(redrick), Experiment Station, E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* North Manchester, Ind, Jan. 3, 15. B.S, Manchester Col, 35; Ph.D, Purdue, 39. *Chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Vapor pressures of salt solutions.

Beck, Prof. Carl A(loysius), Catholic University of America, Washington, D. C. *Spectroscopy.* Dubuque, Iowa, July 19, 03. A.B, Loras Col, 24; M.S, Iowa, 26; Ph.D, Northwestern, 31. Instr, Northwestern, 29–33; *physics, Catholic Univ,* 34–40, *asst. prof, 40–* Physical Soc; Optical Soc; Philos. Soc. Wash. Near ultra-violet spectra of substituted benzenes.

Beck, Dr. Claude S(chaefer), Lakeside Hospital, Cleveland, Ohio. *Medicine.* Shamokin, Pa, Nov. 8, 94. A.B, Franklin and Marshall Col, 16, hon. Sc.D, 37; M.D, Hopkins, 21. Res. house officer, Hopkins Hosp, 21–22; asst. res. surgeon, New Haven Hosp, 22–23; Arthur Tracy Cabot fellow, Harvard Med. Sch, and assoc. surg, Peter Bent Brigham Hosp, 23–24; G. W. Crile fellow, *sch. med, Western Reserve,* 24–25, instr. surg, 25–28, asst. prof, 28–33, assoc. prof, 33–40, *prof. neurosurg, 40–,* res. surgeon, *Lakeside Hosp,* 25–26, attending surgeon, 26–27, *assoc. surgeon, 27–; lieut. col, Med. Corps, U. S. Army, 42–* Prof. pro tem, Emory, 30. Am. Med. Asn; Col. Surg; Surg. Asn; Soc. Clin. Surg; Asn. Thoracic Surg; Soc. Exp. Path; Soc. Exp. Biol; East. Surg. Soc. Surgery of the heart and thorax; mitral stenosis; suture of wounds; renal counter-balance; lymph pressure; cardiovalvulotome; the pericardium; spindle cell sarcoma; effect of abrasion on surface of heart upon intercoronary communications; compression triads; tumors of the heart; repair of skull defects by ready-made vitallium plates.

Beck, Dr. D. E(lden), Brigham Young University, Provo, Utah. *Zoology.* Spanish Fork, Utah, April 11, 06. A.B,

Brigham Young, 29, fellow, 29–30, A.M, 30; fellow, Iowa State Col, 31, Ph.D, 33. Asst, Brigham Young, 30; head dept. biol, Dixie Junior Col, 33–38; *asst. prof. zool. and entom, Brigham Young, 38–* Summer, prof, Brigham Young, 35. Leader, Brigham Young expeds, Chihuahua, Mex, 32, Mexico City, 34. Utah Acad. Insect morphology; copulatory organs of male Hymenoptera; distribution of larger fauna of southwestern and southeastern Utah; life history of the California gull.

Beck, Prof. F(rederick) J(ohn), Jr, 51 Day Spring Ave, Hamden, Conn. *Electrical engineering, Physics.* E.E, Polytech. Inst. Brooklyn, 25; Ph.D, Yale, 32. With Westinghouse Elec. and Mfg. Co, 25–26; Bell Tel. Labs, 26–28; *asst. prof. elec. eng, Yale, 28–* Elec. Eng; Physical Soc. Magnetism.

Beck, Prof. George Frederick, Central Washington College, Ellensburg, Wash. *Paleobotany.* Alvord, Iowa, Dec. 26, 92. B.S, State Col. Wash, 31. Instr. science, *Cent. Wash. Col,* 25–35, asst. prof. nat. science, 35–39, assoc. prof, 39–41, *prof. geol, 41–, acting chairman dept. science, 42–* Ed, 'Fossil Woods.' Paleont. Soc; Northwest Sci. Asn. Tertiary petrified woods.

Beck, Prof. G(lenn) H(ans), Kansas State College, Manhattan, Kans. *Dairy husbandry.* Chester, Utah, July 27, 15. B.S, Idaho, 36; M.S, Kans. State Col, 38; Cornell, 41–42. Asst, Kans. State Col, 36–37, instr. *dairy husbandry,* 37–41; asst, Cornell, 41–42; *asst. prof, Kans. State Col, 42–* Dairy production; artificial insemination.

Beck, Prof. Herbert H(uebener), Franklin and Marshall College, Lancaster, Pa. *Chemistry.* Lititz, Pa, Nov. 15, 75. B.S, Lehigh, 96; Königliche Technische Hochschule. Berlin, 04; hon. Sc.D, Franklin and Marshall Col, 35. Pa. Soap Co, 96–01; from instr. to *prof. chem. and miner. and head dept, Franklin and Marshall Col, 09–* Trustee, Linden Hall Sem, Lititz, Pa, 20– Chem. Soc; assoc. mem. Ornith. Union; assoc. mem. Delaware Valley Ornith. Club; Lancaster County Hist. Soc. (pres, 24–); Newcomen Soc. Mineralogy, ornithology and history of Lancaster County; occult sense of birds.

Beck, Dr. Jay V(ern), 1010 Dutton Ave, San Leandro, Calif. *Biochemistry, Microbiology.* American Fork, Utah, Jan. 15, 12. A.B, Brigham Young, 33, A.M, 36; Ph.D, California, 40. Instr. chem. and math, high sch, Utah, 35–36; Dixie Junior Col, 36; technician plant nutrition, California, 36–39; junior chemist, *food and drug admin, Fed. Security Agency,* 39–40, *asst. chemist, 41–* Special instr, San Francisco, 38. Bacterial fermentation of uric acid; uric acid as an index of filth in foods; minor element deficiency in plants; Utah sorgo syrup.

Beck, Prof. L(ester) F(red), University of Oregon, Eugene, Oregon. *Psychology.* Hildebrand, Oregon, April 27, 09. A.B, Oregon, 30, A.M, 31; Sharpe fellow, Brown, 32–33, Ph.D, 33. Instr. *psychol,* Brown, 33–34; asst. prof, *Oregon,* 34–38, *assoc. prof, 38–; mem. staff, Office Chief Signal Officer, U. S. War Dept, 42–* West. Psychol. Asn. (sec'y-treas, 43). Genetic and abnormal psychology.

Beck, Dr. L(yle) V(ibert), Hahnemann Medical College, Philadelphia, Pa. *Physiology.* Lebanon, Ind, April 19, 06. A.B, Wabash Col, 28; M.S, Washington (St. Louis), 30; Ph.D, Pittsburgh, 33. Asst. anat, Washington (St. Louis), 28–30; physiol, N. Y. Univ, 30–31; Pittsburgh, 31–33; Lilly fellow, N. Y. Univ, 33–34; research biologist, Pennsylvania, 34–35; Van Cott fellow, L. I. Col. Med, 35–36; research fellow, sch. med, Pennsylvania, 36–38; *instr. physiol, Hahnemann Med. Col, 38–* A.A; Physiol. Soc; Asn. Sci. Workers. Intracellular oxidation-reduction phenomena; cell permeability; physiology of the kidney and small intestine.

Beck, Dr. S(amuel) J(acob), 5429 Greenwood Ave, Chicago, Ill. *Psychology.* Tecuci, Rumania, July 19, 96. A.B, Harvard, 26; A.M, Columbia, 27, Ph.D, 32. Fellow psychol, Inst. Child Guidance, New York, 27–28; psychologist, Board Guardians, N. Y, 28–29; senior res. psychologist, Boston Psychopath. Hosp, 29–32; research assoc. psychol, dept. psychiat, Harvard Med. Sch, 32–33, 35–36; research fellow psychiat, Rockefeller Foundation, 33–35; *head psychol. lab, Michael Reese Hosp, 36–; assoc. prof. psychol, Northwestern, 42–* Ed. board, 'Jour. Orthopsychiat.' A.A; Psychol. Asn; fel. Orthopsychiat. Asn. (v. pres, 43). Personality; interaction of affective with intellectual traits as measured by the Rorschach test.

Beck, Dr. Thomas M(ilton), Flossmoor, Ill. *Chemistry.* Holton, Kans, July 1, 07. A.B, Kansas, 28; Ph.D, Chicago, 32. *Chemist,* Girdler Corp, Louisville, Ky, 29–30; *Victor Chem. Works, Chicago Heights, Ill, 35–* Science ed, 'Chicago Tribune,' 34–38. Chem. Soc.

Beck, Prof. W(illiam) A(nthony), University of Dayton, Dayton, Ohio. *Plant physiology.* Pittsburgh, Pa, Dec. 17, 83. B.S, St. Mary's Col. (Ohio), 09; M.S, Freiburg, Switzerland, 12, Ph.D, 26. *Prof.* physics, St. Mary's Col. (Ohio), 12–24; *bot, Dayton, 26–* Exchange prof, St. Gregory Sem, Cincinnati, Ohio, 33–34; mem. staff, Institutum Divi Thomae, 35–41. Diploma and gold medal, Int. Expos. Inventions, N. Y, 23. A.A; Soc. Plant Physiol; Micros. Soc. Microscopy; physics; osmotic quantities; permeability of cells; plasmolysing agents; effect of physical factors on Og in plant tissues and on pigment production; the quantitative determination of plant pigments; growth by cell enlargement; growth-promoting substances; growth phenomena; geotropism.

Beck, Dr. William W(oolverton), 5 Willing Way, Westhaven, Wilmington, Del. *Organic chemistry.* Portland, Oregon, May 17, 14. B.S, Ala. Polytech, 34; Parke, Davis fellow, Nebraska, 34–37, M.S, 35, Ph.D, 37. *Research chemist, ammonia dept, E. I. du Pont de Nemours and Co, Inc, 37–* Chem. Soc. Arsenicals containing the furan nucleus.

Beckenbach, Prof. E(dwin) F(ord), University of Texas, Austin, Texas. *Mathematics.* Dallas, Texas, July 18, 06. A.B, Rice Inst, 28, fellow, 28–31, A.M, 29, Ph.D, 31. Nat. research fellow *math,* Princeton, Ohio State and Chicago, 31–33; instr, Rice Inst, 33–40; asst. prof, Michigan, 40–43; *assoc. prof, Texas, 43–* A.A; Math. Soc; Math. Asn. Hermitian determinants; minimal surfaces; surfaces of negative curvature; convex, harmonic and subharmonic functions; complex variable theory.

Beckenbach, Dr. J(oseph) R(iley), Vegetable Crops Laboratory, Bradenton, Fla. *Horticulture.* Cleveland, Ohio, May 3, 08. A.B, Antioch Col, 32; fellow, Ohio State, 32–33, 33, M.S, 33; Ph.D, Rutgers, 37. Agent Dutch elm disease, U. S. Dept. Agr, 34; asst. plant physiol, Rutgers, 35–37; assoc. truck horticulturist, Everglades Exp. Sta, *Florida,* 37–39, *truck horticulturist in charge veg. crops lab, Exp. Sta, 39–* Soc. Hort. Sci; Soc. Plant Physiol. Major and minor element nutrition of vegetable crop plants; breeding of vegetable crop plants for Florida conditions.

Becker, Dr. A(lbert) J(ohn), Ohio Valley Hardware and Roofing Co, Evansville, Ind. *Applied mechanics.* Evansville, Ind, Oct. 6, 77. B.S, Michigan, 03, M.E, 07; Ph.D, Illinois, 15. Instr. mech. eng, North Dakota, 04–06, asst. prof, 06–07, prof. applied math, 07–19; *sec'y-treas, Ohio Valley Hardware and Roofing Co, 20–* Mech. Eng; Eng. Educ; Asn. Sheet Metal Distributors (pres, 40); Wholesale Hardware Asn. (v. pres, 40). Strength of materials; bi-axial loading of mild steel; effect of temperature on the strength of concrete.

Becker, Dr. A(rman) E(dward), Standard Oil Development Co, 26 Broadway, New York, N. Y. *Physics.* Lowell, Ohio, Sept. 1, 86. A.B, Marietta Col, 09; A.M, Harvard, 10, Ph.D, 17. Instr. physics, eng. sch, Tufts Col, 11–12; physicist, Aluminum Castings Co, 19–20; *fuel and lubrication, Standard Oil Develop. Co, 20–* Physicist, Nat. Advisory Cmt. Aeronautics, 17–18. A.A; Physical Soc; Soc. Automotive Eng. (v. pres, 33); Soc. Test. Mat; Petrol. Inst. Engineering and development; Zeeman effect and series spectra; lubrication; automotive fuels and detonation.

Becker, Dr. C(harles) B(runner), 978 Peerless Ave, Akron, Ohio. *Chemistry.* Peru, Ill, Aug. 25, 06. B.S, Chicago, 28, M.S, 29; fellow, Illinois, 30–31, Ph.D, 32. Teaching scholar, Chicago, 28–29; instr, Illinois, 29–30; research chemist, Shell Petrol. Corp, 32–36; indust. fellow, Mellon Inst, 36–38; *research chemist, Columbia Chem. Div, Pittsburgh Plate Glass Co, 39–* Summer, asst, Inst. Paper Chem, Lawrence Col, 36. A.A; Chem. Soc. Plastics.

Becker, Prof. Elery R(onald), Iowa State College, Ames, Iowa. *Zoology.* Sterling, Ill, Dec. 5, 96. A.B, Colorado, 21; Sc.D, Hopkins, 23. Instr. *biol,* Princeton, 23–25; assoc. prof, *Iowa State Col,* 25–31, *prof, 35–; capt, Sanit. Corps, U. S. Army, 43–* Ed. board, 'Jour. Parasitol,' 34–39. Soc. Zool; Micros. Soc. (exec. cmt, 33–36); Soc. Parasitol. (v. pres, 38, councilor, 38–42); Soc. Exp. Biol. Protozoology; parasitology; coccidia; host-parasite relationships.

Becker, George G(rover), U. S. Department of Agriculture, Hoboken, N. J. *Entomology.* Baltimore, Md, Feb. 2, 89. B.S.A, Cornell, 10. Asst. entomologist, Exp. Sta, Arkansas, 10–12, acting entomologist, 12–13, entomologist, 14–18; chief inspector, State Plant Board, Ark, 19–26; *senior entomologist, div. for. plant quarantines, bur. entom. and plant quarantine, U. S. Dept. Agr, 26–* A.A; Asn. Econ. Entom; Entom. Soc.

Wash; N. Y. Entom. Soc. Round-headed apple-tree borer; peach-tree borer; woolly aphis; plant quarantine problems.

Becker, Prof. H(enry) F(loyd), Florida State College for Women, Tallahassee, Fla. *Geography.* White Rock, S. Dak, April 30, 98. B.S, Chicago, 24, M.S, 25. Instr. *geog,* Marshall Col, 25–26; high sch, Univ. Chicago, 26–28; assoc. prof, *Fla. State Col. for Women,* 28–41, *prof, 41–* Summers, instr, Marshall Col, 25–28; prof, Florida, 40. Fel. Am. Geog. Soc; Council Geog. Teachers (exec. board, 40–41). Geography of Florida; geography techniques; world geography; land utilization in Guanacaste Province of Costa Rica.

Becker, Dr. Joseph A(dam), 463 West St, New York, N. Y. ****Physics.* Saar Dist, Germany, Jan. 24, 97. A.B, Cornell, 18, Ph.D, 22. Instr. physics, Cornell, 19–22; nat. research fellow and instr, Calif. Inst. Tech, 22–24; *research physicist, Bell Tel. Labs, 24–* Acting asst. prof, Stanford, 24. Assoc. ed, 'Rev. Sci. Instruments,' 32–, acting ed, 40. A.A; Physical Soc. (membership cmt, 32–38). Thermionics; adsorption; magnetism; x-rays; semi-conductors and variators.

Becker, Joseph A(loysius), 220 Baltimore Ave, Takoma Park, Md. *Statistics.* Hurley, Wis, Feb. 18, 91. B.S.A, Wisconsin, 14, M.S, 16. Farm help specialist for Wis, U. S. Office Farm Management, 17; field agent, Ohio Bur. Crop Estimates, 18; U. S. Bur. Crop Estimates and statistician, State Dept. Agr, Wis, 19–22; from agr. statistician to *prin. agr. statistician, div. agr. statistics, agr. marketing service, U. S. Dept. Agr, 23–* Del, gen. assembly, Int. Inst. Agr, 24. Sergt. major, U.S.A, 18. Statist. Asn; Farm Econ. Asn. Statistical methods in crop estimating and forecasting.

Becker, Dr. R(aymond) B(rown), University of Florida, Gainesville, Fla. *Animal husbandry.* Clermont, Iowa, Dec. 13, 92. B.S, Iowa State Col, 16, M.S, 20; Ph.D, Minnesota, 25. In charge official testing and state institutional herds and instr. dairy husbandry, Kans. State Col, 20–23; instr, Minnesota, 24–25; assoc. prof, Okla. Agr. and Mech. Col, and assoc. dairy husbandman, Exp. Sta, 25–28; assoc. dairy husbandry, *Exp. Sta, Florida,* 29–32, specialist, 32–34, *dairy husbandman, 34–, prof. dairy husbandry and animal nutrition, univ, 35–* Sergt, U.S.A, 17–18. Soc. Animal Production; Dairy Sci. Asn. (sec'y, production sect, 28, v. chairman, south. sect, 30, 41, chairman, 31). Mineral nutrition in cattle; relative value of feeds; improvement of dairy cattle breeds; life-expectancy in cattle.

Becker, Dr. Robert A(dolph), University of Washington, Seattle, Wash. *Physics.* Tacoma, Wash, Feb. 10, 13. B.S, Col. of Puget Sound, 35; M.S, Calif. Inst. Tech, 37, Ph.D, 41. Asst. physics, Col. of Puget Sound, 33–35; asst, teaching fellow and asst. nuclear physics, Calif. Inst. Tech, 35–41; asst. physicist, dept. terrestrial magnetism, Carnegie Institution, 41; Bur. Standards, 41–42, assoc. physicist, 42–43, physicist, 43; radiation lab. California, 43; *mem. dept. physics, Washington (Seattle), 43–* A.A; Physical Soc. Nuclear physics; electronics; particle spectrum obtained upon bombarding fluorine with protons; half-life measurement of radioactive B^{12}; deuteron and proton bombardment of C^{12} and C^{13}; war research.

Becker, Dr. R(oland) Frederick, Northwestern University Medical School, Chicago, Ill. *Physiology.* Methuen, Mass, Aug. 12, 12. B.S, Mass. State Col, 35, M.S, 37; research scholar, Iowa, 37–38; Ph.D, Northwestern, 40. Asst. psychol, Mass. State Col, 35–37; asst. anat, *med. sch, Northwestern,* 38–40, *instr. micros. anat, 40–* A.A; Physiol. Soc; Asn. Anat. The development of behavior during pre-natal life; effects of asphyxia neonatorum upon nervous system and subsequent post-natal behavior; development of behavior in the neonate.

Becker, Prof. S(amuel) William, University of Chicago, Chicago, Ill. *Dermatology.* Benton Harbor, Mich, July 11, 94. B.S, Michigan, 18, M.D, 21; M.S, Minnesota, 28. Asst. prof. *dermat, Chicago,* 27–30, assoc. prof, 30–42, *clin. prof, 42–* Soc. Investigative Dermat. (sec'y, 37–). Melanin pigmentation; neurogenic dermatoses.

Becker, Prof. Sylvanus A, Lehigh University, Bethlehem, Pa. *Civil engineering.* Northampton, Pa. C.E, Lehigh, 03, M.S, 09. Asst. engineer, maintenance of way dept, Baltimore and Ohio R.R, 03–04; struct. drafting, Am. Bridge Co, Pa, 04–05; Mo. Pacific Ry, 05–06; instr. *civil eng, Lehigh,* 06–13, asst. prof, 13–20, *assoc. prof, 20–; consulting engineer, 09–* Civil Eng; Road Builders Asn; Lehigh Valley Eng. Club. Problem layouts in descriptive geometry; street paving; sewerage systems; earthen dam and storage reservoir; flood damages; failure of coke ovens; water supply purification; land improvements; soil stabilization.

Beckham, Dr. Leland J(ames), The Solvay Process Co, Solvay, N. Y. *Organic chemistry.* Pluma, S. Dak, June 20, 08. P.E, Colo. Sch. Mines, 30; Ph.D, Wisconsin, 34. Instr. chem, Wisconsin, 30–34; *research chemist, Solvay Process Co, 34–* Chem. Soc. Methods for hydrocarbon vapor analysis; alcoholysis of 1–3 diketones and beta keto esters.

Becking, Prof. L(ourens Gerhard Marinus) B(aas–), University of Leiden, Leiden, Holland. *Physiology.* Deventer, Holland, Jan. 4, 95. A.B, Utrecht, 18, A.M, 19, D.Sc, 21; Ph.D, Stanford, 21. Instr. bot, Stanford, 21–22, asst. prof. econ. biol, 22–25, *prof.* biol, 25–30; *bot. and director bot. inst, Leiden, 30–* Consultant, bur. chem, U. S. Dept. Agr, 24–25. Bot. Soc; Soc. Plant Physiol; Soc. Exp. Biol; Chem. Soc; Utrecht Acad; Netherlands Bot. Soc; Royal Acad. Science, Netherlands; Netherlands Zool. Soc. Physiology of the cell; microbiology.

Beckman, Dr. A(rnold) O(rville), 2166 E. Crescent Drive, Altadena, Calif. *Chemistry.* Cullom, Ill, April 10, 00. B.S, Illinois, 22, M.S, 23; Ph.D, Calif. Inst. Tech, 28. Research engineer, Bell Tel. Labs, 24–26; instr. chem, Calif. Inst. Tech, 28–29, asst. prof, 29–40; v. pres, *Nat. Tech. Labs,* 37–39, *pres, 39–* Consulting chemist, 29–40. Electrochem. Soc; Chem. Soc; Pub. Health Asn. Applied chemistry; development of scientific instruments.

Beckman, Prof. Harry, Marquette University School of Medicine, Milwaukee, Wis. *Pharmacology.* Louisville, Ky, Aug. 14, 92. M.D, Louisville, 21. Instr. physiol. and pharmacol, *sch. med, Marquette,* 23–24, asst. prof, 24–25, assoc. prof. *pharmacol.* and acting director dept, 25–26, *prof. and director dept, 26–* A.A; fel. Am. Med. Asn; Asn. Study Allergy; Therapeut. Soc; Soc. Pharmacol; Soc. Exp. Biol; Soc. Trop. Med; Cent. Soc. Clin. Research; Milwaukee Acad. Med. Synergism; colonic anesthesia; ferments; allergy; therapeutics; malaria.

Beckman, H(enry) C(laus), P. O. Box 138, Rolla, Mo. *Engineering.* Muscatine, Iowa, Feb. 15, 88. B.S, Iowa State Col, 12, C.E, 17. Instrumentman, Chicago and Northwest. Ry, 12–13; eng. inspector, Railroad Cmn, Wis, 13–16; hydraul. engineer, water resources branch, U. S. Geol. Surv, 16–19; engineer, Cent. States Eng. Co, Iowa, 19–23; *dist. engineer, water resources branch, U. S. Geol. Surv, 23–* Civil Eng; Mo. Acad. (cmt. conservation, 37–). Stream-flow.

Beckman, John W(oods), 7157 Chabot Road, Oakland, Calif. *Chemistry.* Stockholm, Sweden, Dec. 26, 81. Chem.E, Tech. Högskolan, Stockholm. Formerly research chemist, Gen. Elec. Co, Aluminum Co. of Amer. and Am. Cyanamid Co; *consulting chemist, 10–* Chem. Soc; Electrochem. Soc. (v. pres, 17). Biochemistry; electrochemistry; inorganic chemistry; metallurgy; thermodynamics; electrometallurgy.

Beckmann, Dr. Charles O(tto), 895 Sterling Place, Brooklyn, N. Y. *Chemistry.* New York, N. Y, Feb. 21, 04. B.S, Polytech. Inst. Brooklyn, 24, A.M, 25; Ph.D, Columbia, 29; Munich, 29–30. *Instr.* anal. chem, Polytech. Inst. Brooklyn, 27–29; *chem, Columbia, 30–* Chem. Soc. Chemistry of corn starch; derivatives of furfuryl alcohol and furoic acid; refractions of ions in dilute solution; dipole moments and molecular structure; solvent action on optical rotatory power; theory of liquids.

Becknell, Prof. G(uy) G(aillaird), 6900 Dixon Ave, Tampa, Fla. *Physics.* Milford, Ind, April 16, 78. B.S, Northwestern, 04, fellow, 05, M.S, 05; hon. fellow, Clark, 08–09, senior fellow, 09–11, Ph.D, 11. Instr. *physics,* Purdue, 05–08; asst, Clark, 08–09; prof, Mt. Allison, 11–12; instr, Syracuse, 12–14; Northwestern, 14–15; Pittsburgh, 16–17, asst. prof, 17–20, *prof,* 20–24; *Tampa, 33–* A.A; Physical Soc. Residual electromotive force in carbon arcs; demagnetization of iron and steel; diffraction evolutes.

Becks, Prof. H(ermann), 154 Yerba Buena Ave, San Francisco, Calif. *Pathology.* Wesel am Rhein, Germany, Aug. 24, 97. Dr. med. dent, Rostock, 22, M.D, 24. Instr, dental col, Freiburg, 24–28; research assoc. med, *Hooper Foundation, California,* 28–30, *asst. prof. path, 30–, dental col,* 32–34, *assoc. prof. dental med, 34–* Fel. Col. Dentists; hon. mem. Southwest. Dental Soc; Southwest. Soc. Orthodontists; Pacific Soc. Orthodontists; Pacific Soc. Prosthodontists; Calif. Acad. Periodontol; Nebr. State Dental Asn; Oregon State Dental Asn; Swiss Asn. Paradentosis Research. Dental pathology;

histopathology of bone and oral tissue; determination of electrolytes in body fluid under normal and pathologic conditions; nutrition in animals; experimental biological studies of endocrine dysfunctions on bone and teeth.

Beckstrand, Prof. E(lias) H(yrum), 244 Douglas St, Salt Lake City, Utah. *Engineering.* Meadow, Utah. B.S. (E.E), Michigan, 00; M.M.E, Cornell, 01. Prof. *mech. eng, Utah,* 02–41, *emer. prof, 41–* Engineer, Yampa tramway, Bingham, Utah. Mech. Eng; Soc. Test. Mat. Testing of brick and macadam rock; testing and value of lubricating oils; effect of alkalies on concrete; low temperature carbonization of coal by means of superheated steam.

Beckstrom, R(obert) C(arl), 3168 S. Woodward, Tulsa, Okla. *Petroleum engineering.* Axtell, Nebr, Sept. 22, 88. A.B, Oklahoma, 20, A.M, 21. Instr. in charge petrol. technol, Oklahoma, 22–23; prof. and head petrol. eng, Colo. Sch. Mines, 23–28; *consulting petrol. engineer.* Lecturer, Denver Inst. Tech, 25–26; consulting petrol. engineer, Russian Govt, 29–31. Petrol. Inst; Min. and Metal. Eng; Asn. Petrol. Geol. Recovery of oil from oil sands; migration, accumulation and origin of petroleum; action of clays in contact filtration; paraffin in oil production.

Beckwith, Angie M(arla), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Grand Rapids, Mich, Jan. 27, 81. A.B, Michigan, 04; Chicago, 04–05. Asst, biol. lab, Vassar Col, 06–08; expert xylotomist, U. S. Forest Service, 08–10; junior pathologist, bur. plant indust, *U. S. Dept. Agr,* 10–33, *bur. entom. and plant quarantine, 33–* A.A; Phytopath. Soc. Rubus and grape diseases; control of insect pests and plant diseases.

Beckwith, Charles S(tewart), Pemberton, N. J. *Entomology.* Olean, N. Y, May 16, 91. B.S; Rutgers, 14, M.S, 24. Asst. entomologist, *N. J. Exp. Sta,* 14–27, assoc. entomologist, 27–31, cranberry specialist, 20–31, *chief cranberry and blueberry investigations, 31–* A.A; Asn. Econ. Entom; Cranberry Growers' Asn. (sec'y-treas, 23–); Blueberry Asn. (sec'y, 30–35). Mosquito control; cranberries; blueberries.

Beckwith, Prof. Cora J(ipson), Vassar College, Poughkeepsie, N. Y. *Zoology.* Grand Rapids, Mich, March 24, 75. B.S, Michigan, 00; A.M, Columbia, 08, Ph.D, 14. Asst. biol, *Vassar Col,* 00–02, instr. *zool,* 02–13, asst. prof, 14–15, assoc. prof, 15–28, prof, 28–40, *emer. prof, 40–,* chairman dept, 37–40. A.A; Soc. Nat; Soc. Zool. Lateral line organ in Amia calva; cytology of hydroid germ cells; lens removal in eye of Amblystoma.

Beckwith, Prof. Ethelwynn R(ice) (Mrs. William E. Beckwith), Milwaukee-Downer College, Milwaukee, Wis. *Mathematics.* Hartford, Conn, Jan. 7, 78. Ph.B, Oberlin Col, 00; A.M, Western Reserve, 09; Ph.D, Radcliffe Col, 25. Instr. *math,* Western Reserve, 10–17, asst. prof, 17–20; acting asst. prof, Vassar Col, 21–22; acting head dept, col. for women, Western Reserve, 24–25; *prof. and head dept, Milwaukee-Downer Col, 25–* A.A; Statist. Asn; Math. Soc; Math. Asn.

Beckwith, Prof. R(adcliffe) H(arold), University of Wyoming, Laramie, Wyo. *Geology.* Burlington, Iowa, May 20, 00. B.A, Oxford, 23; Ph.D, Columbia, 28. Geologist, Cent. Asiatic exped, Am. Museum Nat. Hist, 26–27; instr. geol, Ohio State, 27–28; Wyoming, 28–31, asst. prof, 31–34, assoc. prof, 34–38, prof, 38–42; *capt, U. S. Marine Corps, 42–* Mem, Wyo. Geol. Surv, 33–42. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol. Structural geology.

Beckwith, Prof. T(heodore) D(ay), University of California at Los Angeles, Los Angeles, Calif. *Bacteriology.* Utica, N. Y, Dec. 8, 79. B.S, Hamilton Col, 04, Root fellow, 04, M.S, 07; Ph.D, California, 20. Sci. asst, U. S. Dept. Agr, 04–07; asst. prof. bacter. and plant path, N. Dak. Col, 07–10, prof. bacter, 10–11, asst. botanist, Exp. Sta, 07–11; head dept. bacter, Oregon Col, and bacteriologist, Exp. Sta, 11–20; assoc. prof. *bacter,* California, 20–32, *California at Los Angeles, 32–34, prof, 34–, chairman dept, 35–, research assoc, Exp. Sta, California, 33–* Capt, Sanit. C, 18. A.A; Soc. Bact. (chairman, south. Calif. sect, 37); Soc. Exp. Biol. (sec'y, Pacific Coast sect, 25–32, pres, South. Calif. sect, 35); Pub. Health Asn; Inst. Food Technol; Calif. Acad; West. Soc. Nat. Water supplies; germicides; experimental pathology; medical and dental bacteriology; pulp and paper disintegration; bacterial corrosion of iron and steel.

Bedell, E(ual) H(udson), Western Electric Co, Kearny, N. J. *Acoustics.* Jasper, Mo, April 10, 02. B.S, Drury Col, 24. Asst. physics, Missouri, 24–25; mem. tech. staff, Bell Tel. Labs, 25–37; *mfg. engineer, West. Elec. Co, 37–* Acoustical Soc. Sound transmission and absorption; acoustic impedance; architectural acoustics.

Bedell, Prof. Frederick, 1147 Lura St, Pasadena, Calif. *[1]*Physics, Electrical engineering.* Brooklyn, N. Y, April 12, 68. A.B, Yale, 90; M.S, Cornell, 91, fellow, 91–92, Ph.D, 92. Instr. *physics, Cornell,* 92–93, asst. prof, 93–04, prof, 04–37, *emer. prof, 37–* Assoc. ed, 'Physical Rev,' 93–12, managing ed, 13–22. A.A. (sec'y, B, 97, sec'y council, 98, gen. sec'y, 99); Physical Soc; Elec. Eng. (manager, 14–16, v. pres, 17). Alternating currents; aerodynamics; electronics; audition; biophysics.

Bedford, Dr. C(lifford) L(evi), State College of Washington, Pullman, Wash. *Horticulture.* Cheney, Wash, Feb. 9, 12. B.S, California, 32, M.S, 34, Ph.D, 41. Asst, California, 38–41; *instr. and asst. horticulturist, State Col. Wash, 41–* A.A; Chem. Soc; Inst. Food Technol; Mycol. Soc. Preservation of fruit and vegetable products; locker storage of fruit and vegetable products; utilization of Washington fruits in fermented beverages.

Bedford, Prof. M(atthew) Hume, 217 University Ave, Lexington, Ky. *Chemistry.* Bourbon Co, Ky, Jan. 6, 83. A.B, Cent. Univ. of Ky, 03; Ph.D, Pennsylvania, 05. Instr. chem, Maine, 05–07; Illinois, 08; adj. prof, Virginia, 08–09; chemist, prospecting party, A. C. Burrage, Ariz, 09; E. I. du Pont de Nemours Powder Co, 10–13; consulting gas chemist, C. C. Tutwiller, 13; instr. *physical chem, Kentucky,* 13–17, asst. prof, 19–28, assoc. prof, 28–31, *prof, 31–* Inspector, bur. steam eng, U.S.N, 17–19. A.A; Chem. Soc. Columbates; electrolytic determination of lead; determination of zinc in treated wood; double fluorides of titanium and zirconium; electrometric titrations of arsenates, phosphates and arsenites; kinetics of reactions.

Bedouklian, Dr. Paul Z(areh), 3457 Park Ave, Montreal, Que, Can. *Organic chemistry.* Armenia, June 12, 12. B.Eng, McGill, 36, M.Sc, 38, Ph.D, 41. *Chemist, W. J. Bush and Co, Ltd, 36–* Soc. Chem. Indust. High pressure hydrogenation of terpene alcohols; cyclization of dienes; inactivity of bromine in bromacetal; perfumery chemicals.

Bedwell, Dr. J(esse) L(eonard), 1908 N. E. Schuyler St, Portland, Oregon. *Forest pathology.* Grand Junction, Colo, Dec. 8, 92. B.S. (Forestry), Idaho, 20; M.S, Oregon State Col, 24; Ph.D, Yale, 32. Field asst. grazing studies, U. S. Forest Service, 14–17, dist. forest ranger, 17, 19–22; asst. bot. and path, Oregon State Col, 22–24; asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 24–30, assoc. pathologist, *div. forest path,* 30–35, *pathologist, 35–* 2nd lieut, Inf, 17–19. A.A; Soc. Foresters; Phytopath. Soc. General forest pathology; grazing; white pine blister rust; chestnut blight.

Beebe, B(yron) W(arren), 236 S. Belmont, Wichita, Kans. *Petroleum geology.* Udall, Kans, July 25, 13. A.B, Munic. Univ. Wichita, 35; Calif. Inst. Tech, 40–41. Geologist and asst. to v. pres. explor, Shell Petrol. Corp, 35–38; dist. geologist, British Am. Oil Producing Co, 38–39; consulting geologist, Kans, 39–41; *chief geologist, Bay Petrol. Corp, 42–* Asn. Petrol. Geol; Kans. Geol. Soc. Structural and geologic history and paleogeography of northern midcontinent oil producing area.

Beebe, C(larence) W(alter), 409 Oreland Mill Road, Oreland, Pa. *Chemistry.* King City, Calif, Sept. 23, 93. B.S, California, 17. *Chemist,* Kullman, Salz and Co, 17–28; *bur. chem. and soils, U. S. Dept. Agr, 29–* Leather Chemists Asn. Leather chemistry; comparative resistance of different types of leather to acid deterioration; increased life of leather due to changes in tanning and finishing.

Beebe, Dr. Elinor Lee, University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Udall, Kans, April 15, 92. A.B, Fairmount Col, 14; A.M, Columbia, 28; nat. research scholar, Hopkins, 28–30, Ph.D, 32. State advisory nurse, educ. program, State Dept. Health, Kans, 24; asst. director, home hygiene service, nat. headquarters, Am. Red Cross, 25; half-time instr. nursing educ, Columbia, 26–27; director child develop. and parent educ, Board Educ, Albany, N. Y, 30–35; *asst. prof. pub. health nursing,* sch. nursing, Yale, 36–37; *California at Los Angeles, 37–* Summers, director teacher training program, Am. Red Cross, Colo. State Col, 24–28; California at Los Angeles, 30, 33–37. Assoc. Psychol. Asn; Nurses Asn; Pub. Health Asn; Nat. League Nursing Educ; Nat. Organization Pub. Health Nursing. Nursing education; child development; motor learning of children in relation to nutrition; pre-

school children's interest in books; educational activities of the preschool period; development of clinical and public health aspects in nursing education; changing needs in education of women for family life and for professional contributions.

Beebe, Dr. James M(erten), University of Arizona, Tucson, Ariz. *Bacteriology.* Des Moines, Iowa, April 16, 06. B.S, Allegheny Col, 30; Ph.D, Iowa State Col, 41. *Instr. bacter,* Iowa State Col, 41–42; *Arizona, 42–* Soc. Bact; Iowa Acad. Physiology and taxonomic relationships of the family Myxobacteriaceae.

Beebe, Murray C(harles), Lea Manufacturing Co, Waterbury, Conn. *Electrical engineering.* Racine, Wis, Feb. 25, 76. B.S, Wisconsin, 97. Instr. elec. eng, Wisconsin, 97–00; research dept, Nernst Lamp Co, 00–04; assoc. prof. elec. eng, Wisconsin, 05–07, prof, 07–18; West. Elec. Co, 19; chief engineer, Wadsworth Watch Case Co, 20–25; director lab, Scovill Mfg. Co, 25–42; *chief of research, Lea Mfg. Co, 42–* Elec. Eng; Chem. Soc. Electric lighting; chemistry of rare earths; metallurgy; photographic and printing processes; metal finishes.

Beebe, Prof. Ralph A(lonzo), Amherst College, Amherst, Mass. *Chemistry.* Monson, Mass, March 8, 98. A.B, Amherst Col, 20; Ph.D, Princeton, 23. Instr. *chem, Amherst Col,* 23–25, assoc. prof, 25–37, *prof, 37–* Chem. Soc. Adsorption theory of catalysis; heat of adsorption.

Beebe, Dr. William, New York Zoological Park, New York, N. Y. ****Ornithology, Oceanography, Evolution.* Brooklyn, N. Y, July 29, 77. Columbia, 96–99; Sc.D, Colgate, 28; LL.D, Tufts Col, 28. *Curator ornith, N. Y. Zool. Park, 99–; hon. curator and director dept. trop. research, N. Y. Zool. Soc, 19–* N. Y. Zool. Soc. exped, Bermuda, 37. Elliot medal; Burroughs medal; medal, N. Y. Zool. Soc, 29; medal, Soc. d'Acclimat. de France. A.A; fel. Ornith. Union; Soc. Mammal; Ecol. Soc; Linnaean Soc. N. Y; fel. N. Y. Zool. Soc; fel. N. Y. Acad; N. Y. Audubon Soc; cor. mem. Zool. Soc. London. Ecology of land and marine vertebrates of neotropical regions; oceanography in Bermuda; tropical research.

Beebe-Center, Dr. J(ohn) G(ilbert), 152 Puritan Road, Swampscott, Mass. *Psychology.* Boston, Mass, March 19, 97. A.B, Harvard, 19, Ph.D, 26. Sheldon fellow, *Harvard,* 26–27, *instr. psychol, 27–* Psychol. Asn; Am. Acad. Affectivity.

Beecher, Dr. C(larence) H(enry), 266 Main St, Burlington, Vt. *Internal medicine.* Granville, N. Y, Oct. 9, 77. M.D, Vermont, 00. *Prof. med, col. med, Vermont, 11–* Am. Med. Asn; fel. Col. Physicians. Electrocardiographic findings in trichinosis.

Beecher, Prof. Henry K(nowles), Harvard Medical School, Boston, Mass. *Medicine.* Wichita, Kans, Feb. 4, 04. A.B, Kansas, 26, A.M, 27; M.D, Harvard, 32; Copenhagen, 35. Surg. intern and asst. res, Mass. Gen. Hosp, 32–34, 35; Moseley traveling fellow, Harvard, 34–35; *anesthetist in chief, Mass. Gen. Hosp, 36–; Dorr prof. research in anesthesia, Harvard Med. Sch, 41–* U. S. Dept. State lecturer, Nat. Univ. Colombia, 41. Warren prize, 31, 37. A.A; Am. Med. Asn; Soc. Anesthetists; Soc. Clin. Invest; Soc. Pharmacol; New Eng. Soc. Anesthesiology; N. Y. Acad; Boston Soc. Biol; St. Louis Med. Soc; Int. Anesthesia Research Soc. Anesthesia.

Beeck, Dr. Otto (A), 969 Miller Ave, Berkeley, Calif. *Physics.* Stettin, Germany, Oct. 21, 04. Dipl. Eng, Danzig Inst. Tech, 28, D.Ing, 30; research fellow, Calif. Inst. Tech, 30–33. Teaching asst, Danzig Inst. Tech, 26–28, instr, 28–30; research physicist, *Shell Develop. Co,* 33–36, *head dept. physics, 36–, assoc. director research, 42–* Lecturer, Western Reserve, 42. Cmt. catalysis, Nat. Research Council, 42– Advisory councilor, Am. Inst. Physics, 41– A.A; fel. Physical Soc; Petrol. Inst. (cmt. physical constants). Chemical physics; fundamental phenomena in gas discharges; physics and chemistry of surface phenomena.

Beekhuis, Dr. H(erman) A(lbert), Jr, 1767 Westover Ave, Petersburg, Va. *Chemistry.* San Jose, Calif, July 16, 01. B.S, California, 23; Ph.D, Yale, 26. Research metallurgist, Jones and Laughlin Steel Co, 25–26; research chemist, Atmospheric Nitrogen Corp, 26–35; *nitrogen div, Solvay Process Co, 35–, chief process chemist.* Chem. Soc; Chem. Eng. Low temperature coal tar; fixed nitrogen products.

Beekley, Dr. John S(herman), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* West Chester, Ohio, Dec. 7, 94. A.B, Miami (Ohio), 15; A.M, Illinois, 17; Ph.D, Princeton, 24. Asst. prof. math, Miami (Ohio), 19–21; research chemist, *E. I. du Pont de Nemours and Co,* 24–41, *asst. chem. director ammonia dept, 41–* 2nd lieut, A.S, F.A, 17–19. Chem. Soc; Chem. Eng. Adsorption of ions; catalysis; organic syntheses.

Beeman, Dr. Norvil, 330 N. Ridgeland Ave, Oak Park, Ill. *Chemistry.* Temple, Texas, June 1, 90. A.B, Oberlin Col, 15, A.M, 19, Charles M. Hall fellow, 31–32; Ph.D, Chicago, 32. Prof. chem, Fukien Christian Univ, Foochow, China, 19–31, business manager, 29–31, dean col. science, 30–31; research assoc. *chem,* Oberlin Col, 31–34; prof, Oak Park Junior Col, 34–37; *head dept, Oak Park and River Forest Township High Sch, 37–* Chem. Soc. Emulsions; sedimentation of clay; removal of sulfur from petroleum distillates; removal of thiophene from benzene.

Beeman, Dr. W(illiam) W(aldron), University of Wisconsin, Madison, Wis. *Physics.* Detroit, Mich, Oct. 21, 11. B.S, Michigan, 37; Ph.D, Hopkins, 40. Research physicist, labs, Gen. Motors Corp, 40–41; *instr. physics, Wisconsin, 41–* Physical Soc. X-ray spectroscopy; x-ray absorption spectra of metals and solutions.

Beenken, Dr. May M(argaret), Wisconsin State Teachers College, Oshkosh, Wis. *Mathematics.* Philadelphia, Pa, Oct. 22, 01. B.Ed, California at Los Angeles, 23; A.M, Chicago, 26, fellow, 26–28, Ph.D, 28. Assoc. *math,* California at Los Angeles, 24–25; *head dept, Wis. State Teachers Col, Oshkosh, 28–* A.A; Math. Soc; Math. Asn. (sec'y, Wis. sect, 34). Projective differential geometry of surfaces in five-dimensional space.

Beer, Prof. James A, Ohio State University, Columbus, Ohio. *Medicine.* Ashland, Ohio, May 5, 79. B.S, Ohio State, 03, A.M, 06; Starling Med. Col, 02, 03; Rush, summers, Chicago, 03, 04; M.D, Ohio Med. Univ, 06. Asst. path. and physiol, Ohio State, 04–06, fellow and asst. anat. and physiol, 03–07; bacteriologist, City Dept. Health, Columbus, Ohio, 08–22, health commissioner, 22–29; assoc. physician, student health service, *Ohio State,* 30–34, *asst. prof. med, univ. health service, 34–* Control of communicable diseases.

Beerman, Dr. H(erman), 255 S. 17th St, Philadelphia, Pa. *Dermatology, Syphilology.* Johnstown, Pa, Oct. 13, 01. A.B, Pennsylvania, 23, M.D, 27, Abbott fellow, 32, Sc.D, 35. Asst. instr. *dermat. and syphilol, sch. med, Pennsylvania,* 29–30, instr, 30–36, assoc, 36–37, *asst. prof, 37–, grad. sch. med, 40–* Field asst, bur. entom, U. S. Dept. Agr, 25–26; dermatologist and chief out-patient dermat. clinic, Pa. Hosp; dermatologist, radium clinic, Phila. Gen. Hosp; consultant, U. S. Pub. Health Service. Acad. Dermat. and Syphilol. (director); Col. Physicians Phila; Phila. Dermat. Soc. (sec'y, 38–40, chairman, 40). Physiological properties of hydrogen sulfide; effect of various ions on amebocyte tissue; chemotherapy of syphilis; new drugs; sensitization tests; treatment resistance; dermatology, especially leather dermatitis and rosacea; antisyphilitic drug reactions; citrus fruit dermatoses; lymphogranuloma venereum; psychoneurogenous dermatoses.

Beers, Prof. Catherine V(irginia), University of Southern California, Los Angeles, Calif. *Zoology.* Chicago, Ill, June 3, 92. A.B, Northwestern, 14, A.M, 15; California, 18; Columbia, 24–25. Asst. zool, Northwestern, 12–15; instr, high sch, Ill, 15–16; asst. prof. *zool, Southern California,* 16–42, *assoc. prof, 42–* Instr, Wash. Sq. Col, N. Y. Univ, 24–25; exten. dept, Hunter Col, 24–25. Summers, Puget Sound Biol. Sta, 12; Marine Biol. Lab, Woods Hole, 13, 24; Cold Spring Harbor, 14. A.A; Genetic Asn; Genetics Soc; Eugenics Soc; West. Soc. Nat. Genetics.

Beers, Prof. C(harles) Dale, University of North Carolina, Chapel Hill, N. C. *Zoology.* Arcanum, Ohio, April 4, 01. A.B, North Carolina, 21, A.M, 22; Ph.D, Hopkins, 25. Instr. biol, Yale, 25–26; fellow, Hopkins, 26–27; asst. prof. *zool, North Carolina,* 27–29, assoc. prof, 29–37, *prof,* 37– Instr, Marine Biol. Lab, Woods Hole, 24–25; lecturer, Stanford, 38–39. Soc. Zool. Life histories and physiology of conjugation and encystment in Protozoa.

Beers, Dr. Yardley, Winthrop Hall, St. John's Road, Cambridge, Mass. *Physics.* Philadelphia, Pa, April 2, 13. B.S, Yale, 34, 34–35; A.M, Princeton, 37, Ph.D, 41. Instr. physics, N. Y. Univ, 40–41; Smith Col, 41–42; *mem. staff, radiation*

lab, Mass. Inst. Tech, 42– Physical Soc. Direct determination of the charge of the beta-particle; a precision method of measuring Geiger counter resolving times.

Beery, Prof. Pauline G(racia) (Mrs. Warren B. Mack), State College, Pa. *Chemistry.* Norborne, Mo, Dec. 19, 91. A.B, Missouri, 13; A.M, Columbia, 19; Ph.D, Pa. State Col, 32. Teacher, high schs, Mo, 13–19; instr. *chem, Pa. State Col,* 19–20, asst. prof, 20–31, assoc. prof, 31–35, *prof. textile chem, 35–, director, Ellen H. Richards Inst, 40–* Ed, 'Chem. Leaflet.' A.A; Chem. Soc; Soc. Test. Mat; fel. Inst. Chem; Asn. Textile Chem. and Colorists; Home Econ. Asn; fel. Soc. Research Child Develop; Am. Acad. Polit. and Social Sci; Standards Asn. (cmt. standardization ultimate consumer goods); Faraday Soc. Chemistry applied to home and community; the science of materials in the service of man.

Beese, Dr. N(orman) C(arl), Lamp Division, Westinghouse Electric and Manufacturing Co, Bloomfield, N. J. *Physics.* Toledo, Ohio, Dec. 3, 01. B.S, Kentucky, 23, M.S, 24; Charles A. Coffin fellow, Michigan, 25–26, Ph.D, 26. Asst. eng. research, Michigan, 26–27; party chief, Geophys. Research Corp, 27–29; *research physicist, lamp div, Westinghouse Elec. and Mfg. Co, 29–* Physical Soc. Thermionics; x-rays; vapor lamps; fluorescence.

Beeskow, Prof. Herbert C(harles), Michigan State College, East Lansing, Mich. *Plant physiology, Botany.* Chicago, Ill, June 6, 02. B.S, Chicago, 23, M.S, 24. Instr. bot, Cincinnati, 29; instr. bot. and research asst. plant physiol, *Mich. State Col,* 29–38, *asst. prof. bot, 38–* A.A; Soc. Plant Physiol; Bot. Soc; Chem. Soc; Bot. Gesell. Physiological effect of ultra-violet rays upon plants; plant nutrition.

Beeson, Dr. C(arrol) M(enefee), 1050 Wooster St, Los Angeles, Calif. *Physical chemistry.* Jacksonville, Ala, Dec. 13, 03. A.B, California at Los Angeles, 35; Ph.D, Calif. Inst. Tech, 39. Proprietor, Beeson Brothers Ice Distributors, 24–41; chemist, *Gen. Petrol. Corp, Calif,* 38–39, *supervisor production research div, labs. dept, 39–* Flow of fluids through porous media.

Beeson, Kenneth C(rees), U. S. Plant, Soil and Nutrition Laboratory, Ithaca, N. Y. *Agricultural chemistry.* Clinton, Iowa, March 27, 03. B.S, Iowa, 25, M.S, 27. Water analyst, State Hygienic Lab, Iowa, 25–27; asst. chemist, State Chem. Lab, S. Dak, 27–30; *research chemist,* bur. chem. and soils, *U. S. Dept. Agr,* 30–37, *bur. plant indust,* 37–40, *regional plant, soil and nutrition lab, 40–* Chem. Soc; Soc. Agron; Soil Sci. Soc. Water purification with monochloroamine; determination of available phosphates and free acids in superphosphates; reactions of liming materials in fertilizers; soils and nutritive quality of crops.

Beeson, Dr. M(alcolm) A(lfred), 311 Duck St, Stillwater, Okla. *Agronomy.* Gadsden, Ala, June 20, 79. B.S, Ala. Polytech, 00; Hopkins, 01–03; hon. Sc.D, Meridian Col, 10; LL.D, Okla. City Univ, 33. Prof. science, E. Miss. Female Col, 00–01; pres. and proprietor, Meridian Col, 03–14; prof. agron. and agronomist, Okla. Agr. and Mech. Col, 15–21, dean agr. div. and sch. agr, 21–23, director, Exp. Sta, 23; pres, B. K. and T. Co, 23–31; Cent. State Teachers Col, Okla, 31–35; field rep, George Peabody Col, 35–37; *private business enterprises, 37–* A.A.

Beeson, Dr. W(illia)m M(alcolm), University of Idaho, Moscow, Idaho. *Animal nutrition.* Meridian, Miss, Feb. 3, 11. B.S, Okla. Agr. and Mech. Col, 31; M.S, Wisconsin, 32, Ph.D, 35. Asst. *animal husbandry,* Wisconsin, 31–35; instr, Agr. and Mech. Col. Texas, 35–36; asst. prof, Idaho, 36–37; *assoc. prof,* Arizona, 37–38; *Idaho, 38–* Phosphorus requirement for fattening beef cattle and sheep; urinary calculi in sheep; composition of range forage plants as related to animal nutrition; biological value of the protein of peas.

Beetle, Dr. A(lan) A(ckerman), 2526 College Ave, Berkeley, Calif. *Agronomy.* Princeton, N. J, June 8, 13. A.B, Dartmouth Col, 36; Harvard, 36–37; A.M, Wyoming, 37; Ph.D, California, 41. *Instr. agron, California, and junior agronomist, Exp. Sta, 41–* Bot. Soc; Calif. Bot. Soc. Taxonomy of flowering plants; grasses of California.

Beeuwkes, Col. Henry, Headquarters, Valley Forge General Hospital, Phoenixville, Pa. *Medicine.* Jamesburg, N. J, 81. A.B, Hopkins, 02, M.D, 06; grad, Army Med. Sch, 10. Intern, Hudson St. Hosp, 06–07; N. Y. Hosp, 08–09, 20–21; med. director, Am. Relief Admin, Russia, 21–23; director W. African yellow fever cmn, int. health div, Rockefeller Foundation, 24–40; asst. prof. med, med. col, Cornell; *retired; col, Med. Corps, U. S. Army, 42–,* instr. trop. diseases, sch. aviation med, Randolph Field, Texas, 42, *commanding officer, Valley Forge Gen. Hosp, Phoenixville, Pa.* Mem. med. board, Harbord Mission to Armenia, 19; asst. attending physician, N. Y. Hosp, 34– M.C, 09–24; asst. to chief surgeon, inspector gen. aide and physician to commander-in-chief, surgeon headquarters. Fel. Col. Surg; fel. Royal Soc. Trop. Med. Radiography; epidemiology of tuberculosis.

Beezer, Prof. Gerald R(enaut), S.J, 900 Broadway, Seattle, Wash. *Organic chemistry.* Altoona, Pa, Oct. 30, 97. A.B, Gonzaga, 21, A.M, 22, M.S, 34; Fordham, 25; Washington (Seattle), 35–37. Instr. *chem,* Gonzaga, 22–25, *prof,* 30–35; *Seattle Col, 37–* A.A; Chem. Soc. (v. chairman Puget Sound sect, 41); Northwest Sci. Asn; N. Y. Acad. The stibines.

Begeman, Prof. Louis, 2315 Iowa St, Cedar Falls, Iowa. *Physics.* Evansville, Ind, March 1, 65. B.S, Michigan, 89, M.S, 97; Ph.D, Chicago, 10. Sch. supt, Iowa, 89–95; *prof.* physics and chem, Parsons Col, 95–99; *physics, Iowa State Teachers Col, Cedar Falls, 99–* A.A; Iowa Acad. (pres, 12). Charge of the electron by the cloud method.

Begeman, Prof. M(yron) L(ouis), University of Texas, Austin, Texas. *Mechanical engineering.* Corydon, Iowa, Sept. 9, 93. A.B. and B.M.E, Michigan, 15, M.S, 22. Apprentice, machine shops, Studebaker Co, 15–17; asst. supt, Ransom-Randolph Co, Toledo, Ohio, 16–17; Wagner Mfg. Co, Cedar Falls, Iowa, 19–21; instr. mech. eng, Michigan, 21–23, asst. prof, 23–24; with Carey and Esselstyn, Detroit, Mich, 24–25; in charge eng. dept, Miss. Glass Co, St. Louis, Mo, 25–32; *prof. mech. eng. and supt. eng. shop labs, Texas, 32–* Summers, engineer, Richards-Wilcox Co, Aurora, Ill, 22; Ford Motor Co, Detroit, Mich, 23. U.S.A, 17–18, 2nd lieut, A.S. Mech. Eng; Eng. Educ. Metal processing; hard surfacing materials.

Beghtel, Prof. F(loyd) E(ldon), Evansville College, Evansville, Ind. *Botany.* Huntington, Ind, Dec. 22, 86. A.B, Ind. Cent. Col, 12; A.M, Indiana, 17; Ph.D, Cincinnati, 24. Instr. bot, Cincinnati, 18–24, asst. prof, 24–25; *prof,* Ind. Cent. Col, 25–31; *biol, Evansville Col, 31–* Bot. Soc. Plant morphology.

Beguin, Dr. A(lbert) E(mil), 9 Florenton Drive, Rochester, N. Y. *Organic chemistry.* Rushville, Nebr, Dec. 15, 02. B.S, Nebr. State Teachers Col, 33; S. Dak. State Sch. Mines, 30–31; M.S, Nebraska, 36, Ph.D, 38. *Research and develop. in photog, Eastman Kodak Co, 38–* Chem. Soc. Arsenical derivatives of meta-amino phenol.

Behle, Prof. William H(arroun), University of Utah, Salt Lake City, Utah. *Vertebrate zoology.* Salt Lake City, Utah, May 13, 09. A.B, Utah, 32, A.M, 33; Ph.D, California, 37. Teaching fellow zool, Utah, 32–33; asst, museum vert. zool, California, 33–37; instr. *biol, Utah,* 37–41, *asst. prof, 41–* Soc. Mammal; Wildlife Soc; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Geographic variation and distribution of birds; variation in Otocoris; birds of Utah.

Behnke, Dr. A(lbert) R(ichard), Navy Department, Washington, D. C. *Medicine.* Chicago, Ill, Aug. 8, 03. A.B, Whittier Col, 25; M.D, Stanford, 30; fellow, Harvard, 32–35. *Mem. U. S. Naval Med. Corps, 29–* Physiology of high pressures of oxygen and carbon dioxide; effects of air at high pressures; measurements of molecular nitrogen in man and animals.

Behr, Dr. Letha A(llison Davies), 27 Manchester Road, Tuckahoe, N. Y. *Chemistry.* Shamokin, Pa, Sept. 12, 01. A.B, Mt. Holyoke Col, 21; M.S, Illinois, 26, Ph.D, 28. Teacher, sch, Ky, 21–23; instr. physiol. chem, Woman's Med. Col. of Pa, 23–25; asst. chem, Illinois, 26–28; asst, col. physicians and surg, Columbia, 28–33. Organic chemistry.

Behr, O(tho) M(oring), W. C. Hardesty Co, Los Angeles, Calif. *Chemical engineering.* Davenport, Iowa, 94. B.S, California, 20. Research lab, Standard Oil Co. of Calif, 21–24; supt. varnish dept, Mathews Paint Co, Los Angeles, 24–28; paint eng, Glidden Co. of Calif, 28–33; research and develop, Veg. Oil Products Co, 33–39; Ault and Wiborg, Can, Ltd, 40–42; *manager domestic drying oils div, W. C. Hardesty Co, 42–* Chem. Soc; Federation Paint and Varnish Production Clubs. Synthetic drying oils, made under the Behr process patents, derived from domestic vegetable and marine oils for paint and varnish work.

Behre, C(harles) Edward, U. S. Forest Service, Washington, D. C. *Forestry.* Brooklyn, N. Y, Sept. 24, 95. Ph.B,

Yale, 15, M.F, 17. Assoc. prof. lumbering, Idaho, 19–23; assoc. silviculturist, Northeast. Forest Exp. Sta, *U. S. Forest Service*, 23–27, director, 29–42, *asst. to chief, 42–* 2nd lieut, C.Eng, 18–19. A.A; Soc. Foresters. Forest mensuration.

Behre, Prof. Charles H(enry), Jr, Columbia University, New York, N. Y. **6*Geology*. Atlanta, Ga, March 16, 96. B.S, Chicago, 18, Ph.D, 25. Geologist, Wis. Geol. Surv, 17–18; asst. zool, Chicago, 18–20, geol, 20–21; instr, Lehigh, 21–23; asst. prof, Cincinnati, 24–30; assoc. prof. *econ. geol*, Northwestern, 30–35, prof, 33–41, chairman dept, 33–37; *prof, Columbia, 41–* Guggenheim Mem. Foundation fellow, 37–38. From asst. geologist to senior geologist, U. S. Geol. Surv, 21–; cooperative geologist, Pa. Geol. Surv, 22–; exchange lecturer, Washington (St. Louis), 33; Cincinnati, 34. A.A; Geol. Soc. (councilor, 40–42); Soc. Econ. Geol. (councilor, 37–39, sec'y, 42–); Asn. Petrol. Geol; Min. and Metal. Eng. (mem. min. geol. tech. cmt; exec. cmt, indust. minerals div); Asn. Geog; Miner. Soc; Geophys. Union; Colo. Sci. Soc; Ill. Acad. (pres, 34); Ohio Acad. (v. pres, 29). Structural geology; geology of mineral deposits; regional geology of Idaho, Colorado, Pennsylvania, Illinois and Wisconsin; mineral economics.

Behre, Prof. E(linor) H(elene), Louisiana State University, Baton Rouge, La. *Zoology*. Atlanta, Ga, Sept. 28, 86. A.B, Radcliffe Col, 08; Tulane, 13–15; Ph.D, Chicago, 18. Instr. in charge dept. biol, Newcomb Col, Tulane, 12–15; asst. zool, Chicago, 15–18; sta. for exp. evolution, Carnegie Institution, 18–19; instr. biol, Newcomb Col, Tulane, 19–20; asst. prof. *zool, Louisiana*, 20–23, assoc. prof, 23–32, *prof, 32–*, director marine lab. Lecturer, Mt. Holyoke Col, 36. A.A; Soc. Zool; Soc. Ichthyol. and Herp; La. Acad. (pres, 35–37); New Orleans Acad. Physiological zoology; anatomy; pigmentation; color changes; structure and behavior of chromatophores.

Behre, Dr. J(eanette) A(llen), Apt. 61, 39 Claremont Ave, New York, N. Y. *Biochemistry*. Cincinnati, Ohio, 91. A.B, Vassar Col, 13; fellow, Chicago, 18–19; fellow, Cornell, 20–22, Ph.D, 22. Asst. zool, Cincinnati, 17–18; instr. chem, med. col, Cornell, 22–24, 25–37; research assoc, med. col, Northwestern, 36–40, instr, 40–41; visiting scholar, *col. physicians and surg, Columbia*, 41–43, *assoc. biochem, 43–* Research chemist, lab, Union Cent. Life Ins. Co, 24– A.A; Soc. Biol. Chem; Soc. Exp. Biol. Blood and urine chemistry; creatine and creatinine; urea; uric acid; thioneine; blood sugar; acetone bodies.

Behrens, Prof. Charles A(ugust), Purdue University, West Lafayette, Ind. *Bacteriology*. Grand Rapids, Mich, Jan. 5, 85. B.S, Michigan, 09, M.S, 10, Ph.D, 13. Instr. *bacter*, Michigan, 10–14; asst. prof. *in charge dept, Purdue*, 14–16, assoc. prof, 16–18, *prof, 18–* A.A; Soc. Bact; fel. Ind. Acad. (pres, 23). Protozoology; immunology; serology.

Behrens, Dr. Evelyn E(mma), Barnard College, Columbia University, New York, N. Y. *Chemistry*. New York, N. Y, May 18, 05. A.B, Columbia, 27, A.M, 28; Ph.D, Radcliffe Col, 31. *Instr. chem, Barnard Col, Columbia, 31–* Analytical chemistry.

Behrens, Dr. Otto K(arl), Lilly Research Laboratories, Indianapolis, Ind. *Biochemistry*. Evansville, Ind, Aug. 22, 11. A.B, DePauw, 32, Rector fellow, 32–33; A.M, Illinois, 33, Ph.D, 35. Asst, George Washington, 35–37; Rockefeller Inst, 37–39; Lalor Foundation fellow, Cambridge, 39, med. col, Cornell, 39–40; *research chemist, Lilly Research Labs, 40–* A.A; Chem. Soc; Harvey Soc; Ind. Acad. Chemistry and metabolism of amino acids, proteins and enzymes; chemotherapy.

Behrman, A(braham) Sidney, International Filter Co, 325 W. 25th Place, Chicago, Ill. *Chemistry*. Covington, Ky, Dec. 15, 92. B.S, Kentucky, 14. Educ. Dept, P. I, 15–16, Bur. Science, 16–17; chief chemist, *Int. Filter Co*, 19–27, *chem. director, 27–* Capt, Q.M.C, 17–18, Sanit. C, 18–19. Chem. Soc; Water Works Asn. Water purification; Philippine water supplies; field methods of water examination; zeolites; activated carbon; halide preparation; halogen recovery; gels.

Behrmann, Dr. V(ivian) G(ould), Henry Ford Hospital, Detroit, Mich. *Physiology*. Flushing, N. Y, Aug. 17, 12. A.B, Hope Col, 34; M.S, Michigan, 35, Ph.D, 39. Asst. physiol, med. sch, Michigan, 34–38; instr. physiol. chem, Woman's Med. Col. of Pa, 38–40, assoc, 40–41; *research assoc. physiol, Henry Ford Hosp, 41–* Chem. Soc. Continuous blood and urinary hydrogen-ion concentration; acid-base balance; strontium metabolism; anoxia.

Beij, K(arl) Hilding, 3428 Porter St, Washington, D. C. *Hydraulics*. Hartford, Conn, Nov. 10, 93. B.S, Trinity Col. (Conn), 14. Junior engineer, Hartford, 14–16; surveyor, Pub. Buildings Cmn, Washington, D. C, 17, 19–20; asst. engineer, Bur. Standards, 20–25; research assoc, Copper and Brass Research Asn, 25–29; assoc. engineer and *hydraul. engineer, Bur. Standards, 29–* Radio officer, U.S.A, 18–19. Geophys. Union (sec'y, hydrol. sect, 33–); Wash. Acad. Aerial navigation and navigating instruments; corrosion and physical properties of copper roofings.

Beilby, Prof. George Everett, 149½ Washington Ave, Albany, N. Y. *Surgery*. Harpersfield, N. Y, April 10, 76. M.D, Albany Med. Col, Union (N. Y), 99. *Assoc. prof. surg, Albany Med. Col, Union (N. Y), 14–* Attending surgeon, Albany Hosp; St. Peter's Hosp. Fel. Col. Surg; Asn. Path. and Bact; Asn. Study Goiter. Pathology and surgery of the thyroid gland.

Beller, Dr. A(dam) C(larke), 1423 Walnut St, Edgewood, Pa. *Physics*. Berlin, Germany, July 8, 12. B.S, Allegheny Col, 33; M.S, Illinois, 36, Ph.D, 41. Instr, Arkansas, 40–41; *materials engineer, Westinghouse Elec. and Mfg. Co, 41–* Physical Soc. Molecular spectra; alkali hydrides.

Beinhart, E(rnest) G(eorge), Chestnut Hill, Philadelphia, Pa. *Agriculture*. Cincinnati, Ohio, Sept. 24, 87. B.S, Iowa State Col, 10. Asst, chem. sect, Exp. Sta, Iowa State Col, 06–08, tobacco experiments, 08–09; in charge plant improv, Sunnybrook Tobacco Co, 09–10; asst. in charge New Eng. tobacco investigations, bur. plant indust, U. S. Dept. Agr, 11–19; asst. manager, H. Zering Mfg. Co, 19–22; in charge farm dept. and advertising, Lippincott Co, 22–23; research, Fla-Ga. Tobacco Growers Asn, and research work, Am. Sumatra and Wedeles Tobacco Companies, 23–27; nicotine production studies, Tobacco By-products and Chem. Corp, 27–32; develop. fertilizer usages for tobacco by-products, 32–33; tobacco sect, agr. adjust. admin, *U. S. Dept. Agr*, 33–39, *senior tobacco technologist, East. Regional Research Lab, bur. agr. chem. and eng, 40–* A.A; Chem. Soc; Asn. Econ. Entom; Bot. Soc. Wash. Tobacco technology; nicotine production and development.

Beisler, Prof. Walter H(erman), University of Florida, Gainesville, Fla. *Chemical engineering*. Newark, N. J, April 21, 96. B.S, Rutgers, 18, Van der Poel fellow, 18–19, M.S, 19; M.S, Princeton, 21, Sc.D, 22. Chemist, du Pont Eng. Co, Tenn, 18; asst. chem, Princeton, 19–22; asst. prof, Florida, 22–23, prof. chem. eng, 23–34; research, Crown Cork and Seal Co, 34–36; prof. *chem. eng, Florida*, 36–39, *head prof, 39–* Summers, plant operation, Noil Color and Chem. Co, 20–22. Chem. Soc. (sec'y, Fla. sect, 26, 27, councilor, 30, chairman, 34); Chem. Eng; Eng. Educ; Fla. Eng. Soc. Chinese wood oil; tin decorating products; heat transfer.

Beitel, Dr. Robert J(ames), Jr, Dartmouth Medical School, Hanover, N. H. *Optics*. Catasauqua, Pa, Dec. 4, 08. O.D, Pa. State Col. Optometry, 28; A.B, Temple, 32; A.M, Clark, 33, Ph.D, 35. Research physiol. opticist, Am. Optical Co, 35–42; *research assoc, Dartmouth Eye Inst, Dartmouth Med. Sch, 42–* A.A; Optical Soc; assoc. Psychol. Asn. Physiologic optics; psychology; visual physiology; retinal synaptic functions; ocular measurements and methods of refraction.

Beitler, Prof. S(amuel) R(eid), Ohio State University, Columbus, Ohio. *Mechanical engineering*. Carey, Ohio, March 19, 99. B.M.E, Ohio State, 20, M.E, 30. Eng. apprentice, Whiting Corp, 20–21; asst. mech. eng, *Ohio State*, 22, instr, 22–30, asst. prof, 30–39, *assoc. prof. hydraulic eng, 39–* Consulting engineer, Bailey Meter Co, 29–; Am. Gas Asn, 31–; Ohio Fuel Gas Co, 38–; Brush Develop. Co, 39– Mech. Eng; Eng. Educ. Hydraulics; thermodynamics; fluid flow in pipes and past measuring devices; measurement of natural gas.

Bekkedahl, Dr. Norman, National Bureau of Standards, Washington, D. C. *Physical chemistry*. Shelly, Minn, March 16, 03. B.S, Minnesota, 25; M.S, George Washington, 29; Ph.D, American Univ, 31. Junior chemist, bur. chem, U. S. Dept. Agr, 26–28; *Bur. Standards*, 28–31, asst. chemist, 31–36, assoc. chemist, 36–41, *chemist, 41–; chief div. rubber technol, Instituto Agr. do Norte, Belem, Para, Brazil, 42–* A.A; Chem. Soc; Chem. Soc. Wash. (treas, 38, sec'y, 40, pres, 42); Wash. Acad. Electrochemistry; electrotyping; chemical thermodynamics and phase changes of rubber and similar compounds; chemistry of rubber latex.

Belasco, Dr. Irvin J(oseph), 1458 S. Third St, Louisville, Ky. *Biological chemistry*. Philadelphia, Pa, Sept. 14, 16.

B.S, Pa. State Col, 36, scholar, 36–37, M.S, 38; fellow, Rochester, 37–40, Ph.D, 40. Asst. animal nutrition, Cornell, 40–41, research chemist, U. S. nutrition lab, 41; *research biochemist, Jos. E. Seagram Sons, Inc, 41–* A.A; Chem. Soc. Animal metabolism; nutrition; thyroid and pituitary physiology; vitamins; clinical chemistry.

Belcher, Dr. Donald, Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Physical chemistry.* Brooklyn, N. Y, Oct. 28, 92. B.S, Mass. Inst. Tech, 15; Ph.D, Cambridge, 37. Instr, Mass. Inst. Tech, 15–17; indust. research, 17–30; mem. staff, Rockefeller Inst, 30–34; fellow, N. Y. Univ, 39–41; *guest worker, Rockefeller Inst, 41–* Mem. faculty, Sarah Lawrence Col. Chem. Soc; N. Y. Acad. Solutions; electrochemistry.

Belda, Prof. Walter H(enry), 3257 S. Lake Drive, St. Francis, Wis. *Zoology.* De Forest, Wis, Sept. 4, 03. A.B, St. Francis Sem, 24, A.M, 27; Marquette, 30–37; Ph.D, Hopkins, 40. *Prof. biol, St. Francis Sem,* 31–36, *40–* Summers, assoc. prof, Fordham, 41, 42. Assoc. N. Y. Acad. Physiology of the protozoa.

Belden, Dr. Burton C(handler), Standard Oil Development Co, Elizabeth, N. J. *Chemistry.* Fredonia, N. Y, May 21, 06. A.B, Hamilton Col, 27; Ph.D, Cornell, 31. Asst. chem, Cornell, 27–31; *chemist,* United Color and Pigment Co, Newark, N. J, 31–36; *Standard Oil Develop. Co, 36–* Chem. Soc. Physical chemistry of proteins; chemistry of inorganic pigments; petroleum chemistry.

Belding, Prof. David L(awrence), Main St, Hingham, Mass. *Pathology, Bacteriology.* Dover Plains, N. Y, July 24, 84. A.B, Williams Col, 05; M.D, Boston, 13; M.D, Harvard, 14, A.M, 15. Biologist, div. fisheries and game, State Dept. Conservation, Mass, 05–23; *mem. research staff, Evans Mem. Hosp, Boston, 19–;* director routine labs, Mass. Mem. Hosps, 26–40; asst. prof. bacter, *sch. med, Boston,* 20–22, assoc. prof, 22–26, *prof.* path. and bacter, 26–36, *bacter. and exp. path, 36–* Pathologist, Haynes Mem. and Robinson Mem. Hosps, Boston, 16–17. Capt, M.C, 18–19. Asn. Path. and Bact; Soc. Exp. Path; Soc. Bact; Soc. Exp. Biol; Am. Med. Asn; Fisheries Soc. (pres, 30). Syphilis serology; mollusk fisheries; anadromous fishes; fish diseases.

Belding, Prof. Harwood S(eymour), University of Connecticut, Storrs, Conn. *Physiology.* Simsbury, Conn, May 22, 09. A.B, Wesleyan, 31; A.M, Connecticut, 35; Ph.D, Stanford, 38. Asst. animal diseases, Storrs Exp. Sta, *Connecticut,* 31, asst. instr. *zool,* 32–34, instr, 34–38, *asst. prof, 38–* Summer, acting asst. prof, Stanford, 39. Respiratory metabolism of Mammalia and Crustacea; physical efficiency testing; carbohydrate metabolism of fowl.

Belkin, Dr. Morris, Yale University School of Medicine, New Haven, Conn. *Biology.* Simferopol, Crimea, Russia, June 17, 01. A.B, Harvard, 23, A.M, 28, Ph.D, 35. Asst. biol, Wash. Sq. Col, N. Y. Univ, 28–29, instr, 29–32; research biologist, cancer research project, U. S. Pub. Health Service, Harvard Med. Sch, 34–38; *research asst. path, sch. med, Yale, 38–* A.A; Asn. Cancer Research. Experimental cytology; cellular physiology; micro-dissection and micro-injection; staining of cells with vital dyes; cancer.

Belknap, Prof. R(alph) L(eroy), University of Michigan, Ann Arbor, Mich. *Geology.* St. Clair, Mich, Nov. 22, 99. B.S. (C.E), Michigan, 23, A.M, 24, Sc.D, 29. Instr. *geol, Michigan,* 23–30, asst. prof, 30–35, *assoc. prof, 35–* Summers, engineer, State Highway Dept, Mich, 23, geologist, 24. Geologist and geodesist, Univ. Mich. Greenland exped, 26, asst. director, geologist and geodesist, 27–29, director, Michigan-Pan Am. Airways exped, Greenland, 32–33. Asn. Petrol. Geol; Geophys. Union; Meteorol. Soc; Mich. Acad. Meteorology; Creelsboro Natural Bridge; Greenland sand dunes; physiography of the Holstensborg district, Greenland; occurrence of hematite at Cape York, Greenland.

Bell, Dr. Alan, 2061 Ridge Road, W, Rochester, N. Y. *Organic chemistry.* Vancouver, B. C, Can, July 12, 11. B.A, British Columbia, 33, M.A, 34; Ph.D, McGill, 37. Instr. chem, British Columbia, 33–34; demonstrator, McGill, 34–35; *research chemist, Eastman Kodak Co, 37–* Chem. Soc. Lignin; diene synthesis; polynuclear hydrocarbons and quinones.

Bell, Dr. Alfred H(annam), Illinois Geological Survey, Urbana, Ill. *Geology.* Simcoe, Ont, Can, June 28, 95. B.A, Toronto, 17, Nat. Research Council Can. scholar, 20–21; Ph.D, Chicago, 26. Asst, Geol. Surv. Can, 14, 20–23; geologist, Texas Co, 24–26; petrol. geologist, *Ill. Geol. Surv,* 26–30, *geologist and head oil and gas div, 30–* A.A; Asn. Petrol. Geol; fel. Geol. Soc; Geophys. Union; Min. and Metal. Eng; Ill. Acad. Petroleum geology; geology of the Whitehorse district, Yukon; improved recovery methods for petroleum.

Bell, Dr. A(rchibald) W(eir), 365 S. Hoover St, Los Angeles, Calif. *Zoology.* Los Angeles, Calif, Oct. 6, 99. A.B, California, 22, A.M, 27, Ph.D, 36. Teaching fellow, California, 22–24; instr, Sacramento Junior Col, 24–29; *instr. biol. and chairman dept, Los Angeles Junior Col, 29–* A.A; Genetic Asn; Nature Asn; Eugenics Asn; Eugenics Research Asn; fel. South. Calif. Acad; Federated Nat. Sci. South. Calif. (sec'y). Cytology; enchytraeid worms.

Bell, Dr. Cha(rle)s E(dward), 234 University Terrace, Gainesville, Fla. *Chemistry.* Kinston, N. C, April 20, 83. B.S, N. C. State Col, 11, M.S, 24; Ph.D, Iowa State Col, 32. Asst. chemist, State Dept. Agr, N. C, 12–19; *Exp. Sta, Florida,* 21–32, *assoc. chemist, 32–* Chem. Soc; Soc. Agron; Asn. South. Agr. Workers. Food analysis; soil fertility; decomposition of organic matter.

Bell, Prof. Clifford, 10514 Rochester Ave, Los Angeles, Calif. *Mathematics.* Windsor, Calif, Sept. 19, 98. B.S, California, 22, Ph.D, 25. Teaching fellow *math,* California, 23–25, instr, *California at Los Angeles,* 25–30, asst. prof, 30–39, *assoc. prof, 39–* A.A; Math. Soc; Math. Asn. Geometry.

Bell, Dr. Earl H(oyt), Bureau of Agricultural Economics, Washington, D. C. *Anthropology.* Shellrock, Iowa, March 27, 03. A.B, Iowa State Teachers Col, 25; Ph.D, Wisconsin, 32. Asst, Wisconsin, 28–30; instr. anthrop, Nebraska, 31–32, asst. prof, 32–40, director archeol. surv, 32–40; leader area II, div. farm population and rural welfare, *bur. agr. econ, U. S. Dept. Agr,* 40–42, *senior social scientist, 42–* Research, Carnegie Institution, 34–35; asst. director Ark. Valley planning project, Nat. Resources Planning Board, 42. Milwaukee Pub. Museum archeol. expeds, 29–30; Univ. Nebraska expeds, 32–34, 36–38. U. S. Nat. Museum exped, Alaska, 35. Anthrop. Asn. (exec. cmt, cent. sect, 34–36). American archeology; contemporary anthropology.

Bell, Prof. E(lexious) T(hompson), University of Minnesota, Minneapolis, Minn. *²*Pathology.* Hatch, Mo, Aug. 30, 80. B.S, Missouri, 01, fellow, 01–02, M.D, 03; Bonn, 05–06. Asst. anat, Missouri, 02–03, instr, 03–07, asst. prof, 07–11; *path, Minnesota,* 11–16, assoc. prof, 16–20, *prof, 20–, director dept, 21–* Asn. Path. and Bact. (pres, 33); Am. Med. Asn; Soc. Exp. Biol; Asn. Cancer Research (pres, 34, councilor, 36). Experimental morphology; histogenesis of the thymus; adipose tissue; fatty metamorphosis; endocarditis, hypertension; nephrosis; nephritis.

Bell, Prof. E(ric) T(emple), California Institute of Technology, Pasadena, Calif. *⁴*Mathematics.* Aberdeen, Scotland, Feb. 7, 83. A.B, Stanford, 04; A.M, Washington (Seattle), 08; Ph.D, Columbia, 12. Asst. *math,* Washington (Seattle), 07–08, instr. and asst. prof, 12–20, assoc. prof, 20–21, *prof,* 21–27; *Calif. Inst. Tech, 27–* Colloquium lecturer, 27; visiting lecturer, Harvard, 26. Summers, visiting prof, Chicago, 24–28. Assoc. ed, 'Jour. Philos. Science.' Bôcher prize, 21. Nat. Acad; A.A. (v. pres, A, 30); Math. Soc. (councilor, 23–, v. pres, 26, assoc. ed, 'Trans.' and 'Am. Jour. Math'); Math. Asn. (pres, 31–33); Philos. Soc; Circolo Mat. di Palermo; Calcutta Math. Soc. Theory of numbers; numerical functions; analytical theorems in arithmetic; multiply periodic functions.

Bell, Ernest L(ayton), 150–17 Roosevelt Ave, Flushing, N. Y. *Lepidoptera.* Flushing, N. Y, Nov. 21, 76. *Research assoc. Lepidoptera, Am. Museum Nat. Hist.* Fel. Entom. Soc. Amer; Entom. Soc; N. Y. Entom. Soc. (past pres); fel. N. Y. Acad; South. Calif. Acad; Brooklyn Entom. Soc. (past sec'y). New world Hesperiidae.

Bell, F(rederick) Heward, Fisheries Hall No. 2, University of Washington, Seattle, Wash. *Zoology.* Swansea, S. Wales, July 3, 02. B.A, British Columbia. Biol. asst, British Columbia, 24–25; *scientist, Int. Fisheries Cmn, 25–* Fisheries Soc. Taxonomy of hydroids; life history of Pacific halibut.

Bell, Dr. Frederick K(eller), University of Maryland School of Medicine, Baltimore, Md. *Chemistry.* Cincinnati, Ohio, March 27, 95. A.B, Hopkins, 16, Ph.D. 20. Asst. chem, Hopkins, 20–21, pharmacol, 21–22, instr, 22–27, chem, 27–36; *research, cmt. revision, U. S. Pharmacopoeia, sch. med, Mary-*

land, 37– Copper and the rate of solution of iron in acids; ultra-violet and infra-red absorption spectra of imidazol derivatives; infra-red absorption spectra of organic derivatives of ammonia, organic sulfur compounds and the alkaloids; penetration of animal tissues by ultra-violet light; methods of assay and tests for impurities in medicinal gases.

Bell, Prof. Hugh M(cKee), 415 Arcadian St, Chico, Calif. *Psychology.* Frostburg, Pa, July 9, 02. A.B, Willamette, 26; A.M, Stanford, 28, Ph.D, 41. Exec. sec'y, Oregon Col. Educ, 26–27; asst. prof. psychol, *Chico State Col,* 28–34, *assoc. prof. psychol. and dean lower div, 35–; lieut, U. S. Army.* Summer, assoc. prof, Minnesota, 38. Assoc. Psychol. Asn; Asn. Applied Psychol. Psychology of learning; personality testing; spaced practice in motor learning in relation to Snoddy's hypothesis of mental growth.

Bell, Prof. Hugh P(hilip), Dalhousie University, Halifax, N. S, Can. *Botany.* Halifax, N. S, Feb. 22, 89. B.Sc, Dalhousie, 12, M.Sc, 14; Nat. Research Council Can. student, Toronto, 19–20, Ph.D, 22. Asst. prof. biol, Dalhousie, 20–21; demonstrator *bot,* Toronto, 21–22; assoc. prof. and *prof, Dalhousie, 22–* Capt, Royal Can. Regiment, 14–19. Bot. Soc; British Ecol. Soc. Plant histology.

Bell, Prof. J(ames) Carleton, 1032A Sterling Place, Brooklyn, N. Y. *Psychology, Education.* Mt. Vernon, Ohio, Dec. 11, 72. A.B, Denison, 96; A.M, Harvard, 03, Ph.D, 04. Instr, Boston Latin Sch, 04–05; asst. philos, Harvard, 05–06; instr. exp. psychol, Wellesley Col, 05–07; *prof.* educ. psychol, Brooklyn Training Sch. for Teachers, 07–12; art of teaching, Texas, 12–16; *psychol. and educ,* Brooklyn Training Sch. for Teachers, 16–24; *Col. City of N. Y, 24–* Founder, 'Jour. Educ. Psychol.' A.A; Psychol. Asn; N. Y. Soc. Exp. Study Educ. Animal psychology; movement; visual perception; mental tests; educational measurements.

Bell, Prof. J(ames) E(dgar), California Institute of Technology, Pasadena, Calif. *Chemistry.* B.S, Chicago, 05; Ph.D, Illinois, 13. Instr. *chem,* Washington (Seattle), 10–11, 13–16; assoc. prof, *Calif. Inst. Tech,* 16–18, *prof, 18–* A.A; Chem. Soc.

Bell, Dr. James H(enry), Field Station, Billings Bridge, Ont, Can. *Algebra.* London, Eng, July 10, 17. B.A, Western Ontario, 37; Alumni research scholar, Wisconsin, 37–38, A.M, 38, Alumni fellow, 38–39, Ph.D, 41. Asst, Wisconsin, 39–41; senior research asst, *Nat. Research Council Can,* 41–42, *junior research engineer radio, 42–* Factorization of matrices; ultra-high-frequency antennas.

Bell, John Hume, 411 Tillou Road, South Orange, N. J. *Electrical engineering.* Aberdeenshire, Scotland, Sept. 6, 79. *Telegraph engineer,* British Post Office, 04–11; West. Elec. Co, 11–25; *Bell Tel. Labs, 25–* Elec. Eng. Land and submarine telegraphs; printing telegraphs; telegraph transmission.

Bell, Dr. Joseph A(sbury), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Public health.* Trinidad, Colo, March 27, 04. M.D, Colorado, 29; M.P.H, Hopkins, 37. Intern, U. S. Marine Hosp, 29–30; asst. surgeon, *U. S. Pub. Health Service,* 30–33, passed asst. surgeon, 33–42, *surgeon, 42–* Am. Med. Asn; Pub. Health Asn; Soc. Epidemiol. Epidemiology; whooping cough; common communicable diseases of children.

Bell, Dr. L(eslie) V(ictor), Box 264, Haileybury, Ont, Can. *Geology.* Man, Aug. 11, 01. B.Sc, Alberta, 25; Nat. Research Council Can. bursar, Toronto, 26–27, student, 27–28, M.A, 28, Ph.D, 30. *Geologist,* Que. Bur. Mines, 29–37; *Consol. Mining and Smelting Co, Can, Ltd, 39–* Geologist, Nat. Research Council Can. Soc. Econ. Geol; Can. Inst. Min. and Metal. Gold areas in Quebec and Ontario.

Bell, Dr. Paul H(adley), 1937 W. Main St, Stamford, Conn. *Physical chemistry.* Cornerville, Ohio, Aug. 3, 14. A.B, Marietta Col, 36; M.S, Pa. State Col, 38, Ph.D, 40. Asst, Pa. State Col, 37–40; *research chemist, Am. Cyanamid Co, 40–* Summers, research chemist, Am. Cyanamid Co, 37–40. Chem. Soc. Quantitative spectrographic analysis; x-ray studies in liquids; chemotherapeutics.

Bell, Prof. P(hilip) O(sborne), 2201 New Hampshire St, Lawrence, Kans. *Mathematics.* Sampsel, Okla, Dec. 9, 08. A.B, Kansas, 30, A.M, 31; Brown, 32–33; Stanford, 33–35; Ph.D, California, 36. Instr. *math, Kansas,* 36–39, *asst. prof, 39–* Lecturer, Princeton. Projective differential geometry of curves and surfaces.

Bell, Prof. Raymond M(artin), Washington and Jefferson College, Washington, Pa. *Physics.* Weatherly, Pa, March 21, 07. A.B, Dickinson Col, 28; A.M, Syracuse, 30; Ph.D, Pa. State Col, 37. Asst. *physics,* Syracuse, 28–30; Pa. State Col, 30–37; instr, *Washington and Jefferson Col,* 37–39, *asst. prof, 39–* A.A; Physical Soc; Asn. Physics Teachers. Raman spectra; propagation of radio waves; Allison magneto-optic effect.

Bell, Dr. R(aymond) W(illiam), 4409 Greenwich Parkway, N. W, Washington, D. C. *Dairying.* Brasher Falls, N. Y, Jan. 25, 98. B.S, Cornell, 20, M.S, 21, Ph.D, 24. Instr. dairying, Cornell, 21–24; assoc. dairy mfg. specialist, *bur. dairy indust, U. S. Dept. Agr,* 24–31, chief div. dairy mfg. investigations and introduction, 31–36, *senior dairy mfg. specialist, 36–* Dairy Sci. Asn; Chem. Soc. Milk; milk products; milk sugar; casein; lactalbumin.

Bell, Dr. Richmond T(homas), Northfield Laboratory, The Pure Oil Co, Box 266, Winnetka, Ill. *Chemistry.* Milwaukee, Wis, Oct. 9, 05. B.S, Wisconsin, 27; Ph.D, Virginia, 30. Teaching fellow chem, Virginia, 27–30, instr, 30–35; math, Andrew Lewis Sch, 35–37; *research chemist, Pure Oil Co, 37–* A.A; Chem. Soc. Petroleum products; chemical education; reaction kinetics; adsorption; catalysis.

Bell, Dr. Robert S(mith), Rhode Island State College, Kingston, R. I. *Agronomy.* Greenwich, N. Y, Feb. 10, 11. B.S, Cornell, 34, Ph.D, 39. *Instr. agron. and hort, R. I. State Col, 40–* Soc. Agron. The use of organic bases as fertilizers.

Bell, Dr. T. Donald, Ysleta, Texas. *Animal husbandry.* Hagerman, Idaho, Oct. 24, 10. B.S, Idaho, 32, M.S, 36; State Col. Wash, 32–33; Ph.D, Wisconsin, 39. Asst. animal husbandman, N. Mex. Col, 39–42; *animal husbandman, substa. no. 17, Exp. Sta, Agr. and Mech. Col. Texas, 42–* Genetic Asn. Endocrinology; physiology of reproduction in sheep.

Bell, Dr. Walter A(ndrew), Victoria Museum, Ottawa, Ont, Can. *Paleobotany, Geology.* St. Thomas, Ont, Jan. 4, 89. B.Sc, Queen's (Can), 11, 1851 Exhib. scholar, 11–13; Dana fellow, Yale, 14, Ph.D, 20. Student asst, *Geol. Surv. Can,* 10–15, asst. paleobotanist, 20–22, assoc. paleobotanist, 22–24, *paleobotanist, 24–* Royal Soc. Can. Carboniferous stratigraphy of the Maritime Provinces of Canada.

Bell, Dr. W(illiam) B(onar), 2244 Cleveland Ave, Chicago, Ill. *Biology.* Milton, Iowa, June 2, 77. M.Di, Iowa State Nor. Sch, 99; Marine Biol. Lab, Woods Hole, 01; A.B, Iowa, 02, fellow, 03–05, M.S, 03, Ph.D, 05; Smithsonian table, Naples Zool. Sta, 05. Asst. prof. zool. and physiol, N. Dak. Col, 05–08, prof, 08–16; biologist, bur. biol. surv, U. S. Dept. Agr, 16–27, prin. biologist, in charge div. biol. investigations, 27–34, *chief div. wildlife research,* 34–40, *fish and wildlife service, U. S. Dept. Interior, 40–* A.A; Soc. Mammal; Soc. Foresters; Ornith. Union; N. Dak. Acad. (pres, 15); Biol. Soc. Wash. (pres, 38); Wash. Acad. Biological survey of North America; birds and mammals and their relationship to agriculture, forestry; parks and Indian reservations.

Bell, Dr. W(illiam) Charles, University of Texas, Austin, Texas. *Geology, Paleontology.* Missoula, Mont, Nov. 1, 11. A.B, Montana, 34, A.M, 36; fellow, Michigan, 37–39, Ph.D, 39. *Instr. geol,* Mo. Sch. Mines, 39–40; *Texas, 40–; lieut, Air Corps, U. S. Army, 42–* Summers, asst. geologist, Mont. Bur. Mines and Geol, 34; Texas Bur. Econ. Geol, 42. Paleont. Soc. Cambrian and lower Ordovician paleontology; Cambrian inarticulate brachiopods.

Bell, William Howard, R. F. D, Milford, Ohio. *Chemistry, Bacteriology.* Newport, Ind, Sept. 2, 97. A.B, Ind. State Teachers Col, 17; fellow, Indiana, 17–18, A.M, 18; Baldwin fellow, Cincinnati, 19–21, 22–23; LL.B, Xavier, 32. Chemist, Ault and Wiborg Co, Cincinnati, *Ohio,* 18–19; *sec'y-treas, Coleman and Bell Co, Norwood, 20–* Soc. Bact. Electrodeposition of tin from alkaline solutions; syntheses of biological stains; chemical indicators; fine chemicals.

Bell, Prof. Willis H, University of New Mexico, Albuquerque, N. Mex. *Botany.* North Washington, Pa, Jan. 29, 08. B.S, Grove City Col, 27; M.S, Chicago, 30, Ph.D, 32. Instr. bot, Duke, 29–30; *assoc. prof. biol, New Mexico, 31–* Physiological plant anatomy; ethnobiology of the Indians of the American Southwest.

Bellamy, Prof. A(lbert) W(illiam), University of California at Los Angeles, Los Angeles, Calif. *Zoology.* Yukon, Okla, June 20, 92. B.S, Kans. State Col, 14; Ph.D, Chicago, 19. Asst. zool, Kans. State Col, 12–14, zool. and genetics, 14–

16; zool, Chicago, 17–18, assoc, 18–19, instr. zool. and genetics, 19–23, asst. prof. *zool*, 23–24; *California at Los Angeles*, 24–27, assoc. prof, 27–37, *prof, 37–* Genetics; experimental evolution; sex determination.

Bellis, Dr. Carroll J(oseph), O'Reilly General Hospital, Springfield, Mo. *Surgery.* Shreveport, La, May 11, 08. M.S, Minnesota, 32, Ph.D, 34, M.B. and M.D, 36, Ph.D, 41. Teaching fellow physiol, med. sch, Minnesota, 30–33, research, univ. hosp, 33–37, fellow surg, 37–41; *mem. surg. staff, O'Reilly Gen. Hosp, Med. Corps, U. S. Army, 41–* Green prize, Minnesota, 34. Relation of erythrocytes to plasma proteins; blood coagulation; respiratory metabolism; reaction time; kidney filtration; venous circulation time; effects of cyanides; intestinal obstruction.

Bellows, Prof. John, 720 N. Michigan Ave, Chicago, Ill. *Ophthalmology.* Aug. 22, 03. B.S, Illinois, 30, M.D, 36; Ph.D, Northwestern, 33, M.S, 39. *Asst. prof. ophthal, med. sch, Northwestern, 33–, research fellow, 34–,* clin. asst, 36–39, instr, 40. Lucien Howe medal, Buffalo, 38. Am. Med. Asn; Acad. Ophthal. and Otolaryngol; Asn. Research Ophthal; Chicago Ophthal. Soc. Biochemistry of the eye; cataract.

Bellows, Dr. John M(orton), Jr, 2526 Ernest St, Apt. 5, Orlando, Fla. *Genetics.* Boston, Mass, May 31, 13. B.S, Vermont, 36; M.S, Maryland, 37, Ph.D, 40. Junior agronomist, U. S. Eng. Dept, Ft. Greene, R. I, 40–41; *asst. plant geneticist, subtrop. fruit field sta, U. S. Dept. Agr, 41–; asst. agronomist and head concealment and camouflage sect, U. S. Engineers, War Dept, 42–* Improvement of subtropical fruit crops by breeding.

Bellows, Capt. Roger M(arion), Personnel Research Section, Adjutant General's Office, Washington, D. C. *Psychology.* Springfield, Ohio, Jan. 9, 05. A.B, Ohio State, 27, A.M, 31, Ph.D, 35. Asst, Ohio State, 32–35; tech. asst, occupational research program, U. S. Employment Service, 35–37, supervisor worker analysis sect, 37–38; asst. prof. *psychol, Maryland*, 38–39, *assoc. prof, 39–;* consultant to Sec'y of War on classification of mil. personnel, *War Dept*, 41, *officer in charge field studies, personnel research sect, Adj. Gen. Office, 41–* Prof, Baltimore, 37–38. A.A; Psychol. Asn; Asn. Applied Psychol. Techniques for selecting and counseling professional school students; techniques for classification of military personnel.

Belt, Prof. A(rthur) Elmer, 1893 Wilshire Blvd, Los Angeles, Calif. *Urology.* Chicago, Ill, April 10, 93. A.B, California, 16, A.M, 17, M.D, 20; LL.D, Pacific Col. Law, 30. Fellow, Hooper Foundation, California, 17–18, 20–22, asst. urol, California, 20–21, res. urol, hosp, 21–22; asst. res. surg, Peter Bent Brigham Hosp, Boston, 22–23; *assoc. prof. surg. and urol, Col. Med. Evangelists, 22–* Clin. instr, California, 20–22. Consultant, U. S. Mil. Hosp, Sawtelle, Calif, 22– Gold medal for sci. exhibit, Am. Med. Asn, 22. A.A; Urol. Asn; Am. Med. Asn; Pan-Am. Med. Asn. (pres, Los Angeles div, 35); Pan Pacific Med. Asn; Los Angeles Symposium Soc; Int. Med. Club, Los Angeles (pres, 31); Int. Mus. Asn. Circuit design to produce a standardized current for electrosurgical prostatic resection; hydronephrosis; uretero-intestinal anastamosis; surgical shock; red blood cell increase at high altitudes; clinical study of suprarenal sympathetic syndrome.

Beltrán, Prof. Enrique, P. O. Box 1079, Mexico, D.F, Mex. *Zoology.* Mexico, D.F, Mex, April 26, 03. B.Sc, Mexico, 21, D.Sc, 26, hon. M.Sc, 39. Instr. bot, *Univ. Mexico*, 21–23, asst. prof. *zool*, 24–28, *prof, 30–;* microbiologist, Dept. Agr, Mex, 23–25, director, Marine Biol. Lab, Veracruz, 26–27, Inst. Biotecnico, 34–35; tech. adviser, Dept. Educ, 35–36, *chief* secondary educ, 37–38; *lab. protozool, Inst. Pub. Health and Trop. Diseases, 39–* Guggenheim Mem. Foundation fellow, 32–33. Palmes Academiques (France). A.A; Micros. Soc; Soc. Parasitol; Soc. zool. de France; Soc. Mexicana de Hist. Nat. (permanent sec'y); Acad. Nat. de Med; Acad. Nacional de Ciencias (sec'y, 29); cor. mem. Acad. de Ciencias (Colombia). Teaching of biology, general zoology, hydrobiology and protozoology.

Beltz, Dr. J(ohn) Carl, Apt. 1, 3943 Newdale Road, Chevy Chase, Md. *Organic and physical chemistry.* Marietta, Ohio, Jan. 18, 97. A.B, Marietta Col, 20; M.S, Ohio State, 33, Ph.D, 38. Teacher, high sch, Ohio, 21–31, 33–37; asst. chem, Ohio State, 31–33, 37–38, Am. Petrol. Inst. research chemist, 38–39; prof. chem, Minn. State Teachers Col, St. Cloud, 39–41; *research chemist, fuels and explosives service, Bur. Mines, 41–* U. S. Army, 18. A.A; Chem. Soc; N. Y. Acad; Minn. Acad. Use of allylic type compounds in the nuclear synthesis of olefins; preparation of type IV olefins; trialkyl derivatives of ethylene.

Belyea, A(rthur) R(ussell), 45 France St, Norwalk, Conn. *Chemical engineering.* Taunton, Mass, Dec. 24, 01. B.S, Mass. Inst. Tech, 23, M.S, 24. Combustion engineer, Bethlehem Steel Co, 24–25; chemist, Consol. Gas Co. of N. Y, 25–26, control chemist, Hunt's Point plant, 26–29, supt. gen. labs, 29–36; research chemist in charge, *Consol. Edison Co. of N. Y*, 36–37, test engineer in charge, 37–38, *chem. engineer, 38–* Chem. Soc; Soc. Test. Mat; Gas Asn. (chairman, chem. cmt, tech. sect, 32); Chem. Eng; Soc. Chem. Indust. Gas manufacturing processes; coal carbonization; by-products recovery; gas distribution, measurement and purification; tar processing and blending.

Belyea, Prof. Harold Cahill, New York State College of Forestry, Syracuse, N. Y. *Forestry.* St. John, N. B, Can, Sept. 28, 87. B.A, Mt. Allison, 08, M.A, 11; B.S.F, New Brunswick, 11; M.F, Yale, 16. Instr. forest eng, *N. Y. State Col. Forestry, Syracuse*, 17–19, asst. prof, 19–32, *assoc. prof. forest management, 32–* Soc. Foresters. Silviculture; mensuration; forest growth and management; forest measurement.

Bemmels, Prof. W(illiam) David, Ottawa University, Ottawa, Kans. *Physics.* Winona, Minn, Oct. 25, 13. A.B, Colo. Col, 34; A.M, Syracuse, 36; Ph.D, Colorado, 41. Asst. physics, Syracuse, 34–36; Colorado, 36–40; *prof. math. and physics,* Lambuth Col, 40–41; *Ottawa (Kans), 41–* Physical Soc; Math. Asn. Conduction of electricity through gases at high pressures.

Benac, Dr. Theodore J(oseph), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Lisbon, Conn, Jan. 12, 12. B.S, St. Michael's Col, 33; M.S, Connecticut, 34; Ph.D, Yale, 41. *Instr.* math. and physics, St. Michael's Col, 35–38; *math,* Yale, 38–41; *U. S. Naval Acad, 41–* Math. Soc. Algebra.

Benade, Prof. J(ames) M(artin), Forman Christian College, Lahore, India. *Physics.* Punxsutawney, Pa, March 12, 89. B.S, Grove City Col, 11; A.M, Princeton, 16. Teacher, high sch, Pa, 11–12; *prof. physics, Forman Christian Col, 12–* Cosmic ray measurements expeds. for Univ. Punjab to high lakes of Kashmir. A.A; Physical Soc. Electrons and radiation; motion of electrons through gases; thermoelectric effects in single metals; construction of an automatic self-recording electrometer and cosmic ray observations; electrical conditions in the atmosphere during dust storms.

Benbrook, Charles H(arpster), Woodland Road, New Canaan, Conn. *Physical and organic chemistry.* Cooper, Texas, Jan. 13, 05. B.S, Nebraska, 29; M.S, Colorado, 33. Instr. indust. chem, Colorado, 29–33; *research chemist,* Calco Chem. Div, *Am. Cyanamid Co*, 33–41, *Stamford Res. Labs, 41–* Raman effect; azo dyes; kinetics of reactions of diazo compounds; theory of dyeing.

Benbrook, Prof. E(dward) A(ntony), Iowa State College, Ames, Iowa. *Pathology.* South Orange, N. J, May 15, 92. D.V.M, Pennsylvania, 14. Instr. vet. path, Pennsylvania, 15; Okla. Agr. and Mech. Col, 15–18; assoc. prof. vet. investigation, *Iowa State Col*, 18–19, *prof. vet. path. and head dept, 19–* Sec'y, State Board Examiners Basic Sciences, Iowa, 35–37. A.A; Vet. Med. Asn. (assoc. ed, 'Jour,' 38–); Soc. Parasitol; Biol. Photog. Asn; U. S. Live Stock Sanit. Asn. (chairman, cmt. parasitic diseases, 32, 33); Iowa Vet. Med. Asn. Veterinary parasitology and pathology.

Benda, Dr. Clemens Ernst, State School, Wrentham, Mass. *Neuropsychiatry.* Berlin, Germany, May 30, 98. Jena; Heidelberg; M.D, Berlin, 22. Assoc. neurologist, Red Cross Hosp, Berlin, Germany, 29–35; *clin. director, State Sch, Mass, 36–;* research fellow and later *instr, Harvard Med. Sch, 36–* Neur. Asn; Asn. Path. and Bact; Asn. Mental Deficiency (chairman cmt. research, 41). Neuropathology of mental deficiency; mongolism; congenital syphilis; brain tumors; psychology of language.

Bendaña-Brown, Prof. Adelaida M, University of the Philippines, Manila, P. I. *Biological chemistry.* Tanay, Rizal, P. I, Jan. 2, 06. Ph.C, Philippines, 26, B.S, 28, M.S, 31; Philippines fellow and Barbour scholar, Michigan, 31–35, Ph.D, 35. Instr, Philippine Womens Univ, 27–31; asst. instr. *chem, Philippines*, 26–31, instr, 35–38, *asst. prof, 38–* Tech. consultant, Nat. Econ. Council of the Philippines in Nutrition, 38. Assoc. mem. nutrition sect, Nat. Research

Council of the Philippines. Chem. Soc. Philippines. Utilization of inulin by rats; available minerals of Philippine foodstuffs.

Bender, Prof. Andrew, 532 Maple St, Annville, Pa. *Chemistry.* Dillsburg, Pa, March 20, 80. A.B, Lebanon Valley Col, 06; Ph.D, Columbia, 14. Chief chemist, Aetna Explosives Co, 15–17; chem. director, British Am. Chem. Co, 17–18; director control lab, Barrett Co, 21; *prof. chem, Lebanon Valley Col, 21–* Chem. Soc.

Bender, Prof. C(arl) B(eltel), 116 N. Second Ave, Highland Park, N. J. *Animal nutrition.* Bethlehem, Pa, July 19, 98. B.S, Pa. State Col, 18; M.S, Rutgers, 24; N. Y. Univ, 28–33. County exten. work, N. J. Agr. Exten. Service, 21–23; *prof. dairy husbandry, Rutgers.* State collaborator, U. S. Regional Pasture Research Lab. Nat. Champion Farmer award, 39. U. S. Dept. Agr. del, Int. Grassland Cong, 37. Dairy Sci. Asn. (chairman New Eng. sect, 32–); Soc. Animal Production; N. B. Sci. Soc. Grass silage; pasture; dairy cattle nutrition; nutritive value of silages and pasture grass; preservation of grass silages; pasture management; mineral studies in animal nutrition.

Bender, Dr. D(avid) F(ulmer), Louisiana State University, Baton Rouge, La. *Physics.* Reno, Nev, Feb. 10, 13. B.S, Calif. Inst. Tech, 33, M.S, 34, Ph.D, 37. *Instr. physics, Louisiana, 37–* Physical Soc; Optical Soc. Spectroscopy.

Bender, Dr. Harold B(ohn), One Reynal Road, White Plains, N. Y. *Mycology, Plant pathology.* Annville, Pa, Nov. 6, 02. A.B, Lebanon Valley Col, 22; Carroll Cutler fellow, Yale, 27–28, Daniel E. Eaton scholar, 28–29, Ph.D, 31. Instr, high sch, Pa, 22–23; asst. instr. biol, Yale, 23–25; acting head dept, Trinity Col. (Conn), 25; head dept. and premed. adviser, Yale-in-China, Changsha, 25–27; prof. bot. and physiol, Conn. Col. Pharmacy, 28–29, head dept. mat. med, 29–31; *head dept. science,* John Fitch High Sch, Windsor, Conn, 32–39; *high sch, Scarsdale, N. Y, 39–* State inspector plant nurseries, Conn, 27–30; asst, Conn. Exp. Sta, 28–30. Summer, collector, Carnegie Institution, Dry Tortugas, Fla, 24; Cornell, 34; Colorado, 41. A.A; Mycol. Soc; Bot. Soc; Micros. Soc; Pharmaceut. Asn; Conn. Pharmaceut. Asn. North American species and hosts of genera of Fungi imperfecti, with particular reference to Connecticut; mycological and taxonomic aspects of Fungi imperfecti.

Bender, Dr. Harry, 455 W. 34th St, New York, N. Y. *Physical chemistry.* London, Eng. B.S, Col. City of N. Y, 34; A.M, Columbia, 37; Ph.D, N. Y. Univ, 41. *Research engineer, Tung Sol Lamp Works, 41–* Chem. Soc. Pyrolysis of formaldoxime; rates of solution of metals in acids with applied potentials.

Bender, Dr. H(arry) A(lbert), University of Akron, Akron, Ohio. *Mathematics.* Uhrichsville, Ohio, Oct. 6, 95. A.B, Ohio, 18; A.M, Illinois, 21, Ph.D, 23. Prof. *math,* Muskingum Col, 19–20; asst, Illinois, 20–23, instr, 23–25, assoc, 25–28; asst. prof, *Akron,* 28–37, *assoc. prof, 37–* Math. Asn. Group theory.

Bender, Dr. Howard L(eonard), 7 Carteret St, Bloomfield, N. J. *Chemistry.* Williamstown, W. Va, Sept. 14, 93. A.B, Marietta Col, 17, A.M; Drury fellow, Case, 18–19, B.S, 19; Bakelite fellow, Columbia, 22, Ph.D, 23. Research chemist, Dow Chem. Co, 19–21; instr. chem, Marietta Col, 21; *research chemist, Bakelite Corp, 22–* A.A; Chem. Soc; fel. Inst. Chem. Aldehydes; synthetic resins; phenols; rubbers.

Bender, Prof. Irving E(dison), Dartmouth College, Hanover, N. H. *Psychology.* Buffalo, N. Y, Aug. 27, 93. A.B, Michigan, 15; A.M, Dartmouth Col, 27; Ph.D, Syracuse, 35. Instr. *psychol,* Dartmouth Col, 26–28; instr. and teaching fellow, Syracuse, 28–30; asst. prof, *Dartmouth Col,* 30–39, *prof, 39–* Psychol. Asn. Personality; social psychology.

Bender, Prof. Jacob Roy, University of Idaho, Moscow, Idaho. *Mathematics.* Uhrichsville, Ohio, Nov. 13, 90. A.B, Ohio (Athens), 16; M.S, Washington (Seattle), 18. Instr. *math,* Iowa Wesleyan, 19–20; Bradley Polytech, 20–21; asst. prof, *Idaho,* 21–39, *assoc. prof, 39–* Math. Soc; Northwest Sci. Asn.

Bender, Prof. Morris B, 16 E. 98th St, New York, N. Y. *Neurology.* Russia, June 8, 05. B.S, Pennsylvania, 27, M.D, 31. Hon. research fellow physiol, Yale, 36–37; instr. *neur, med. sch, N. Y. Univ,* 38–42, *asst. prof, 42–,* head lab. exp. neur, 42. Adjunct neurologist, Mt. Sinai Hosp, 37–; instr, grad. sch, Columbia, 38–41. Neur. Asn; Soc. Exp. Biol; Federation Clin. Research. Neurophysiology.

Bender, Prof. Paul, Goshen College, Goshen, Ind. *Physics.* Springs, Pa, June 26, 99. A.B, Hesston Col, 21; M.S, Iowa, 25, fellow, 28–29, Ph.D, 31. Instr, Hesston Col, 21–24; asst. chem, Iowa, 24–25; *prof.* physical sciences, Hesston Col, 25–28, 30–32; *physics, Goshen Col, 32–, registrar, 36–,* personnel director, 37–39. Physical Soc; Asn. Physics Teachers. Effect of gases on the optically excited cadmium I spectrum; optical excitation of cadmium hydride and zinc hydride bands; formation of sulfur trioxide during the burning of sulfur.

Bender, Dr. R(aymond) C(layton), Norwich Pharmacal Co, Norwich, N. Y. *Biochemistry.* Waynesboro, Pa, May 24, 99. B.S, Pa State Col, 24; Ph.D, Cornell, 31. Asst. research, N. Y. Exp. Sta, Geneva, 24–26, Cornell, 26–30; research chemist, research div, Borden Co, Bainbridge, 30–41; chem. and plant manager, Harris Labs, 41–42; nutritionist, Food Research Lab, 42–43; *research biochemist, Norwich Pharmacal Co, 43–* A.A; Chem. Soc; Dairy Sci. Asn; Pub. Health Asn. Foods; nutrition; vitamins; dairy products.

Bender, Dr. W(illia)m, Visking Corp, 6733 W. 65th St, Chicago, Ill. *Physics.* Philadelphia, Pa, Oct. 4, 00. B.S, Colorado, 25, M.S, 27; Ph.D, Yale, 31. Instr. physics, Colorado, 25–27; Lehigh, 27–28; Yale, 28–31; consulting physicist, 31–35; *research physicist,* E. I. du Pont de Nemours and Co, 35–40; *Visking Corp, 40–* Physical Soc; Soc. Rheol. Physical chemistry; engineering physics; physical properties of high polymeric substances; operational physics; macroscopic quantum formulations.

Bendixen, Prof. H(ans) A(dolf), 308 Howard St, Pullman, Wash. *Dairy husbandry.* Hamburg, Germany, March 6, 94. B.S, Iowa State Col. 19, M.S, 20, Ph.D, 37. Asst. prof. dairy husbandry, Idaho, 20–23, *assoc. prof.* dairy mfg, 23–27; *dairy husbandry and assoc. dairy husbandman, State Col. Wash, 27–* Oberlaender Trust fellow from Carl Schurz Mem. Foundation, Phila, Kiel, 32–33. Dairy Sci. Asn. (sec'y-treas, west. div, 24, pres, 25). Dairy manufacturing; value of hydrogen ion determination of butter serum in scoring of butter; early biological and chemical changes in butter as possible indices of keeping quality; physical changes involved in rennet coagulation of milk and subsequent firming of curd; development of special varieties of cheese suitable to Washington conditions; ice cream stabilizers.

Bendove, Dr. Raphael A(ron), 65 Central Park West, New York, N. Y. *Internal medicine.* Russia, March 25, 97. M.D, Albany Med. Col, 22; Hopkins, 27–28. Instr. *med, post-grad. med. sch, Columbia,* 34–35, assoc, 35–37, *asst. prof, 37–* Asst. clin. prof, L. I. Col. Med, 36– A.A; fel. Am. Med. Asn; Am. Heart Asn; Col. Chest Physicians; fel. Am. Acad. Tuber; fel. N. Y. Acad. Med. Roentgenology, stethophonography and phonocardiography in relation to physical signs of diseases of chest; collapse therapy in pulmonary diseases; tuberculosis; bronchiectasis; circulatory changes and vital capacity alterations in diseases of the chest.

Bendrat, Dr. T(homas) A(lbert), 207 Charles St, Beckley, W. Va. *Geology, Biology.* Danzig Free State, Dec. 12, 68. B.A, Real Gymnasium, Danzig, 94; B.D, Theol. Sem, Kropp, Germany, 98; M.S, New Mexico, 00; Chicago, 04–06, 28; Hamburg, 16–17; Ph.D, Berlin, 30. Instr. econ. geol, miner. and petrog, North Carolina, 12; head dept. geol. and oil geol, Phillips, 20–21; geol. and biol, J. B. Stetson, 21–24; consulting and petrol. geologist, 24–28; head dept. science, Potomac State Junior College, W. Va, 27–28; Europe, 29–30; Venezuela, 30–31; *head dept.* science, Armstrong Col. (W. Va), 32–34; *biol, Beckley Col, 34–* N. Mex. Geol. Surv, 99–00; S. Dak. Geol. Surv, 00–02; N. Y. Geol. Surv, 07–08; expeds, S. Amer. and the W. Indies, 08–09, 12–13, 15–17, 24–25; Geol. and Biol. Surv, Mex, 26, biol. research, 27. A.A; Asn. Petrol. Geol; fel. Am. Geog. Soc; Asn. Med. Progress; Psychol. Asn; Okla. Acad. Physiography; botany; zoology; neur-electro-magnetic theory of nerve reactions, including thinking; paleobotany.

Benedek, Dr. T(ibor), 25 E. Washington St, Chicago, Ill. *Dermatology.* Nagykörös, Hungary, May 8, 92. M.D, Budapest, 19, Leipzig, 22. Asst. clin. dermat. and syphilis, Leipzig, 20–22; instr. *dermat, med. sch, Northwestern,* 36–37, *staff mem, 41–; Mandel Clinic, Michael Reese Hosp, 38–; attending dermatologist, Salvation Army Free Dispensary, 40–* Mem. advisory board, Am. Type Culture Collection. Fellow director, 'Mycopathologia.' Bronze medal, Int. Cong. Dermat, Budapest, 35. Fel. Acad. Dermat. and Syphilol; Am. Med.

Asn; Soc. Investigative Dermat; Mycol. Soc; hon. mem. Asn. des Diplômés de Microbiol, Nancy, France.. Mycology; bacteriology.

Benedetti-Pichler, Prof. A(nton) A(lexander), Queens College, Flushing, N. Y. *Chemistry.* Vienna, Austria, April 1, 94. Chem.E, Technische Hochschule, Graz, Austria, 20, Dr. Tech. Sc, 22. Asst. chem, Technische Hochschule, Graz, Austria, 22–27, privat-docent anal. chem, 27–29; instr. *chem,* Wash. Sq. Col, N. Y. Univ, 29–31, *asst. prof,* 31–40; *Queens Col. (N. Y.), 40–* Summer, California at Los Angeles, 37. Co-editor, 'Mikrochemie,' Vienna, 28, English ed, 36– Fritz Pregl prize, Akad. der Wissensch. in Wien, 32. Chem. Soc. (chairman, microchem. sect, 36); Soc. Test. Mat. Analytical chemistry; microchemistry; microanalysis.

Benedict, Dr. A. L, 377 Elmwood Ave, Buffalo, N. Y. *Physiology, Archeology.* Buffalo, N. Y, Aug. 25, 65. Rochester, 83–85; A.B, Michigan, 87; M.D, Buffalo, 88; M.D, Pennsylvania, 89; hon. A.M, Ohio Wesleyan, 91. Instr. therapeut, dept. med, Buffalo, 90–96, prof. physiol. and digestive diseases, dental dept, 95–01. Ed, 'Buffalo Med. Jour,' 11–18. Supt. ethnol. and archeol, Pan-Am. Expos, 01. Prize, N. Y. State Med. Soc, 95, 96; gold medal, Am. Med. Asn, 00. Capt, M.C, 17–18; capt, M.C, N. Y. G, 19–20, major, 20–24; O.R.C, 24– Assoc. fel. Buffalo Soc. Nat. Sciences. Physical diagnosis; physiologic chemistry and physics of the digestive organs; the Seneca Indians; archeology of the Niagara frontier; dietetics; factors determining sex.

Benedict, Prof. A(riel) A(mos), Iowa State College, Ames, Iowa. *Physics.* Marengo, Ohio, July 17, 88. A.B, Ohio Wesleyan, 13; A.M, Ohio State, 15. Instr. physics, Pittsburgh, 15–17; assoc. prof, South Carolina, 17–18; asst. physicist, Bur. Standards, 18–19; *asst. prof. physics, Iowa State Col, 19–* Iowa Acad. Color blindness; meat tests.

Benedict, Dr. C. H(arry), Lake Linden, Mich. *Metallurgy.* Pittsburgh, Pa, Sept. 24, 76. B.S, Cornell, 97; D.Eng, Mich. Col. Mines, 32. Instr, Cornell, 97–98; *metallurgist, Calumet and Hecla Consol. Copper Co, 98–* Lecturer, Mich. Col. Mines, 23– A.A; Min. and Metal. Eng; Chem. Soc. Ammonia leaching of copper.

Benedict, Don M(arion), Temple University, Philadelphia, Pa. *Biology.* Portland, Mich, Oct. 29, 86. B.S, Michigan, 17, A.M, 31. Asst. prof. forest bot, N. Y. State Col. Forestry, Syracuse, 21–30; *instr. biol, Temple, 31–* Bot. Soc; Torrey Bot. Club. Forestry; pathology; wood decay; mycology.

Benedict, Dr. Francis G(ano), Machiasport, Maine. *[1]Chemistry.* Milwaukee, Wis, Oct. 3, 70. A.B, Harvard, 93, A.M, 94; Ph.D, Heidelberg, 95; hon. Sc.D, Wesleyan, 11, Maine, 24; hon. M.D, Würzburg, 32. Instr. chem, Mass. Col. Pharmacy, 92–94; Wesleyan, 96–01, assoc. prof, 01–05, prof, 05–07; director nutrition lab, Carnegie Institution, 07–37; *retired.* Physiol. chemist, nutrition investigations, U. S. Dept. Agr, 95–07; chemist, Storrs Exp. Sta, Conn. Agr. Col, 96–01. Nat. Acad; Soc. Biol. Chem; Physiol. Soc; Am. Acad; Halle Akad. der Naturforscher; cor. mem. Vienna Soc. Med; Soc. royale des Sci. med. et nat. de Bruxelles; cor. mem. Budapest Royal Med. Soc. Analytical methods; metabolism in man and animals; respiration calorimeters.

Benedict, Dr. Harris M(iller), P. O. Box 1250, Cheyenne, Wyo. *Plant physiology.* Cincinnati, Ohio, Aug. 13, 07. A.B, Cincinnati, 29, A.M, 30; Ph.D, Chicago, 32. Asst. hort, Purdue, 33–34; asst. plant physiologist in charge soil conservation service nursery, *bur. plant indust, U. S. Dept. Agr,* 34–36, *assoc. physiologist in charge forage crops investigations, 36–* A.A; Soc. Plant Physiol; Soc. Agron. Plant responses to ultra-violet and x-irradiation; photoperiodism; light filters; seed germination.

Benedict, Lieut. H(oward) C(ourtney), Naval Air Station, Los Alamitos, Calif. *Chemistry.* New York, N. Y, June 20, 03. A.B, Stanford, 23, A.M, 24; Ph.D, Northwestern, 31. Asst. chem, Stanford, 23–25; instr, dental sch, Northwestern, 25–27, asst. prof, 27–32; research chemist, Standard Oil Co. of Calif, 32–36; instr, Placer Junior Col, 36–39; assoc. prof. chem, Chico State Col, 39–42; *lieut, U. S. Naval Res, 42–* A.A; Chem. Soc. Local anesthetics; dental caries; synthesis of amino acids; chemical microscopy; photography; petroleum; navigation.

Benedict, Dr. Manson, 465 Topping Hill Road, Westfield, N. J. *Physical chemistry.* Lake Linden, Mich, Oct. 9, 07. B.Chem, Cornell, 28; M.S, Mass. Inst. Tech, 32, Ph.D, 35. Research chemist, Nat. Aniline and Chem. Co, 29–30, 37–38; nat. research fellow, 35–36; research assoc. geophys, Harvard, 36–37; *research chemist, M. W. Kellogg Co, 38–* Chem. Soc. Thermodynamics of gases; physical properties of hydrocarbons.

Benedict, Dr. Marjorie A(llen), 465 Topping Hill Road, Westfield, N. J. *Physical chemistry.* Cincinnati, Ohio, July 24, 09. A.B, Mt. Holyoke Col, 31, 1905 fellow, 33–34; Henry Saltonstall fellow, Mass. Inst. Tech, 34–35, Ph.D, 35. Asst. chem, Mt. Holyoke Col, 31–32; research fellow physical chem, Harvard Med. Sch, 35–36. .The freezing points of aqueous solutions; solubility of glycine in mixtures of alcohol, salt and water.

Benedict, Prof. R(alph) C(urtiss), Brooklyn College, Brooklyn, N. Y. *Botany.* Syracuse, N. Y, June 14, 83. Ph.B, Syracuse, 06; Columbia, 08–09, fellow, 09–10, Ph.D, 11. Aid, N. Y. Bot. Garden, 06–08; instr. bot, Fordham, 10–11; high schs, N. Y, 12–31; assoc. prof. *biol, Brooklyn Col,* 31–38, *prof, 38–* Res. investigator, Brooklyn Bot. Garden, 14– Summers, instr, N. Y. Univ, 10, 11. A.A; Hist. Sci. Soc; Torrey Bot. Club (treas, 25, 26); Fern Soc. (ed, 'Jour,' 10–); N. Y. Asn. Biol. Teachers (pres, 24, 25). Genetics; science education; history of biology; phylogeny and classification of ferns.

Benedict, Prof. Ruth (Fulton), Columbia University, New York, N. Y. *[5]Anthropology.* New York, N. Y, June 5, 87. A.B, Vassar Col, 09; Ph.D, Columbia, 23. Lecturer *anthrop, Columbia,* 23–31, asst. prof, 31–37, *assoc. prof, 37–* Ed, 'Jour. Am. Folk-Lore,' 23–40. Expeds. to Indians of Southwest, 24, 26, 27, 31; expeds. to Indians of the Plains, 39. Anthrop. Asn; Ethnol. Soc. (pres, 27–29); Folk-Lore Soc. Cultural ethnology; primitive religion; mythology; Indians of the Southwest.

Benedict, Wayne L(eClaire), 272 Shenstone Road, Riverside, Ill. *Petroleum.* Geneva, Nebr, June 2, 06. B.S, Nebraska, 27; J.D, De Paul. Research chemist and later *asst. manager patent dept, Universal Oil Products Co, Chicago,* 28– Chem. Soc; Chem. Eng. Color stability of gasolines; treating of petroleum distillates; hydrocarbon conversions; catalysis.

Benedict, Prof. W(illiam) L(emuel), Mayo Clinic, Rochester, Minn. *Ophthalmology.* Springport, Ind, Feb. 13, 85. M.D, Michigan, 12. *Prof. ophthal, Minnesota, and chief sect, Mayo Clinic, 17–* A.A; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Asn. Research Ophthal. (trustee, 30–); Am. Med. Asn; Col. Surg; Minn. Acad. Med; Minn. Acad. Ophthal. and Otolaryngol.

Benedict, Dr. William S(idney), 2122 Tunlaw Road, Washington, D. C. *Physical chemistry.* Lake Linden, Mich, July 4, 09. A.B, Cornell, 28, A.M, 29; Ph.D, Mass. Inst. Tech, 33. Nat. research fellow chem, Princeton, 33–35; research chemist, Gen. Chem. Co, 36–42; *physical chemist, geophys. lab, Carnegie Institution, 42–* Physical Soc. Structure of polyatomic molecules; infra-red spectroscopy; quantitative spectroscopic analysis.

Benesi, Dr. Oscar, Wayne University College of Medicine, Detroit, Mich. *Anatomy.* Budapest, Hungary, April 21, 78. M.D, Vienna, 04. Chief asst, ear dept, Poliklinik Vienna, 12–32; head, ear, nose and throat dept, First Children Institution, 33–38; *research assoc. anat, col. med, Wayne, 41–* Otosclerosis; embryology of the ear; treatment of head colds.

Benfield, Dr. A(dalbert) E(dwin), Williams College, Williamstown, Mass. *Geophysics.* Paris, France, Nov. 30, 11. B.S, Mass. Inst. Tech, 34; Ph.D, Cambridge, 38. Instr. geog, Cambridge, 38–39; *physics, Williams Col,* 39–42, *asst. prof, 42–* Mem. Harvard-Mass. Inst. Tech. eclipse exped, Ak Bulak, U.S.S.R, 36; Seligman Jungfraujoch exped, Switzerland, 38. A.A; Physical Soc; fel. Royal Astron. Soc. Heat flow in the earth.

Benford, Frank (A), 1643 Rugby Road, Schenectady, N. Y. *Physics.* Johnstown, Pa, July 10, 83. B.E.E, Michigan, 10. *Physicist,* illum. eng. lab, *Gen. Elec. Co,* 10–28, *research lab, 28–* Lecturer, Case; Union (N. Y). Optical Soc. rep, U. S. div, Int. Cmn. on Illum. A.A; Optical Soc. (assoc. ed). Theory of integrating sphere and hemisphere; searchlights; reflectometers; interface reflections in multiple optical filters; law of anomalous numbers; Blackbody theory; time analysis of sunshine; metallic reflection; isocandles; temperature corrections in optical pyrometry; refractometer; irradiation through a diffusion medium; monochromator; illuminagraphic camera.

Benger, Dr. Ernest B(aden), Nemours Bldg, Wilmington, Del. *Chemistry.* Belvidere, Ill, Dec. 20, 85. B.S, Grinnell Col, 07, hon. Sc.D, 37; M.S, Wisconsin, 13, fellow, 14–15, 16–17, Ph.D, 17. Teacher, high schs, Minn. and Ky, 07–14; instr. chem, Wisconsin, 15–16; research chemist and lab. director, E. I. du Pont de Nemours and Co, 17–24; chem. director, du Pont Rayon Co. and du Pont Cellophane Co, 24–27, asst. gen. manager, tech. dept, 27–30; gen. asst. chem. director, *E. I. du Pont de Nemours and Co,* 30–39, asst. manager *tech. div, rayon dept,* 39–42, *gen. asst. manager, 42–* Chem. Soc. (chairman, west. N. Y. sect, 28). Physical and inorganic chemistry; photochemistry; pyroxylin compositions; artificial leather; rayon; cellulose films; viscose nylon.

Bengis, Dr. R(obert) O(liver), 2100 Connecticut Ave, Washington, D. C. *Chemistry.* New Haven, Conn, May 2, 90. Ph.B, Yale, Ph.D, 13. Biochemist, pharmacol. lab, bur. chem, U. S. Dept. Agr, 14–16; asst. chief chemist, Calco Chem. Co, 16–19; chief chemist, Heyden Chem. Co, 19–22; chem. director, T. H. Quinn and Co, 22–25; tech. director, The Cott-a-lap Co, 25–28; chem. director, T. H. Quinn and Co, 28–30; Standard Brands fellow, Yale, 30–40; *explosives engineer, ordnance office, War Dept, 40–* Chem. Soc. Organic, pharmaceutical and biological chemistry; dyes and intermediates; wood distillation; explosives.

Bengtson, Dr. Ida A(lbertina), National Institute of Health, Bethesda, Md. *Bacteriology.* Harvard, Nebr, Jan. 17, 81. A.B, Nebraska, 03; M.S, Chicago, 13, Ph.D, 19. Bacteriologist, Dept. Health, Chicago, 15–16; from asst. bacteriologist to *senior bacteriologist, U. S. Pub. Health Service, 16–* A.A; Soc. Bact; Pub. Health Asn; Soc. Trop. Med; Soc. Exp. Biol; Wash. Acad. Rickettsial and virus diseases.

Bengtson, Dean N(els) A(ugust), 1919 E. St, Lincoln, Nebr. *Geography.* Winslof, Sweden, May 22, 79. A.B, Nebraska, 07, A.M, 08; Ph.D, Clark, 27. Prof. geog, Nebr. State Nor. Sch, Peru, 03–04, 05–06; instr, *Nebraska,* 08–09, asst. prof, 09–12, assoc. prof. and prof. geol. and geog, 13–29, *prof. geog. and chairman dept, 29–, dean univ. junior div, 40–* U. S. Soil Surv, 14; Nebr. Geol. Surv, 15; collaborator, bur. soils, U. S. Dept. Agr, 14–18; geologist, Honduras, Ecuador, Venezuela and England. Summers, instr, Cornell, 12; prof, Virginia, 13; Wisconsin, 25; Columbia, 29–39. Bur. research, W.T.B, 18; trade commissioner, U. S. Dept. Commerce, 19. A.A; Asn. Geog. (v. pres, 23, 42); Meteorol. Soc; Nat. Council Geog. Teachers (pres, 29–30); Nebr. Acad. (pres, 35); Int. Geog. Union (U. S. nat. cmt). Economic geography; geology; soils; Pennsylvanian and Permian stratigraphy of Nebraska; economic geography of Norway; geology of Honduras, Santa Elena Peninsula, Ecuador, district of Colón and Venezuela.

Benham, Dr. Rhoda W(illiams), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Mycology.* Cedarhurst, L. I, N. Y, Dec. 5, 94. A.B, Columbia, 17, A.M, 19, Ph.D, 31. Asst. bot, Barnard Col, Columbia, 18–25; *mycologist, Vanderbilt Clinic, 26–;* asst. *dermat, col. physicians and surg, Columbia,* 27–30, assoc, 30–36, *asst. prof, 36–* A.A; Mycol. Soc; Bot. Soc; Torrey Bot. Club; Pub. Health Asn. Medical mycology; fungi parasites of man.

Beniams, Dr. Herman N(origaard), 2644 Dwight Way, Berkeley, Calif. *Physical biochemistry.* Park City, Utah, May 4, 10. A.B, Brigham Young, 32, A.M, 34; Ph.D, Colorado, 42. Struct. materials testing, Bur. Standards, 26; asst. anal. chem, Colorado, 39–42; *research chemist, Cutter Labs, 42–* Technic of precise micro-electrophoresis measurements.

Benioff, Prof. (Victor) Hugo, Seismological Laboratory, 220 N. San Rafael Ave, Pasadena, Calif. *Physics.* Los Angeles, Calif, Sept. 14, 99. A.B, Pomona Col, 21; Calif. Inst. Tech, 21–22, 24, Ph.D, 35. Asst, Lick Observatory, California, 23–24; asst. physicist, Carnegie Institution, 24–37; asst. prof. *seismol, Calif. Inst. Tech,* 37–38, *assoc. prof, 38–* Physical Soc; Acoustical Soc; Seismol. Soc; Radio Eng. Instrumental seismometry; sonics; supersonics; musical instruments.

Benjamin, Dr. Earl W(hitney), Washington Cooperative Egg and Poultry Association of New York, Inc, 178 Duane St, New York, N. Y. *Poultry husbandry.* Almond, N. Y, Oct. 16, 89. B.S.A, Cornell, 11, M.S.A, 12, Ph.D, 14. Instr. poultry husbandry, Cornell, 11–14, asst. prof, 15–19, prof, 20–22; sales manager, Pacific Egg Producers, N. Y, 22–25, gen. manager and treas, 25–41; *manager and director, Wash. Cooperative Egg and Poultry Asn, N. Y, Inc, 41–* Marketing of poultry products.

Benjamin, Dr. Helen R(ivkin), 845 Park Place, Brooklyn, N. Y. *Biochemistry.* New York, N. Y, May 5, 00. A.B, Barnard Col, Columbia, 21, A.M, Columbia, 22, Ph.D, 33. Asst. to Dr. Alfred F. Hess, Columbia, 27–34; chemist, Lebanon Hosp, 34–36; asst, N. Y. Univ, 34–36; Cornell, 37–39; Babies Hosp, 39–41; N. Y. Hosp, 41–42. The mechanism of calcification of bone; electrolyte metabolism.

Benjamin, Lieut. Jack R(alph), 8312 24th N.W, Seattle, Wash. *Civil engineering.* Olympia, Wash, July 24, 17. B.S, Washington (Seattle), 40, M.S, 40; Sc.D, Mass. Inst. Tech, 42. Asst, Mass. Inst. Tech, 41–42; *lieut, Coast Artil. Corps, U. S. Army, 42–* Civil Eng. Impact research.

Benjamin, Prof. James W(infred), New York Medical College, New York, N. Y. *Neuroanatomy.* Chester, Pa, Sept. 13, 99. A.B, Grand Island Col, 23; M.S, Northwestern, 33, Ph.D, 36. Teacher, schs, Nebr, 23–28; asst. zool, Northwestern, 29–33, asst. prof, 33–38; *assoc. prof. histol, embryol. and neuroanat, N. Y. Med. Col, 38–* A.A; Asn. Anat. Diabetes insipidus; adrenal medullary tumor; nucleus of the oculomotor nerve with special reference to innervation of the pupil and fibers from the pretectal region.

Benjamin, Dr. Julien E(mil), 3635 Washington Ave, Cincinnati, Ohio. *Internal medicine.* Cincinnati, Ohio, July 29, 89. B.S, Michigan, 10; M.D, Cincinnati, 12. Asst. prof. *med, Cincinnati,* 16–39, *assoc. prof, 39–; col, Med. Corps, U. S. Army.* Attending physician, Jewish Hosp, Cincinnati; director outpatient dept. and attending physician, Cincinnati Gen. Hosp; past pres, Pub. Health Federation and Cent. Clinic; director heart clinics. A.A; Am. Med. Asn; fel. Col. Physicians; Asn. Charities (director); Cent. Soc. Clin. Invest. Cardiology; diseases of circulation; public health.

Benne, Dr. Erwin J(ohn), Michigan State College, East Lansing, Mich. *Agricultural chemistry.* Washington Co, Kans, May 21, 02. B.S, Kans. State Col, 28, M.S, 31, Ph.D, 37. Instr, high schs, Kans, 28–30; instr. *chem,* Kans. State Col, 30–38; *research asst, chem. sect, Exp. Sta, Mich. State Col, 38–* Lieut, Inf. Res, 28–38. Chem. Soc. (treas, local sect, 39, chairman, 42); Soc. Agron. Soil and plant chemistry; analytical methods pertaining to the analysis of agricultural materials.

Benner, Prof. J(acob) Alfred, 522 Parsons St, Easton, Pa. *Mathematics.* Hopewell, Pa, Oct. 8, 00. A.B, Pa. State Col, 22; A.M, Lafayette Col, 25; Columbia, 29. Instr. *math, Lafayette Col,* 22–27, asst. prof, 27–32, *assoc. prof, 32–* Math. Soc; Math. Asn; Eng. Educ. Geometric aspects of differential equations; modern synthetic geometry.

Benner, Dr. James W(illiam), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Veterinary medicine.* Hamlin, Kans, June 24, 87. D.V.M, Kans. State Col, 11; M.S, Cornell, 20. Instr, Kans. State Col, 14–17; asst. prof, Mich. State Col, 17–19; investigation animal diseases, N. Y. State Vet. Col, Cornell, 21–32, swine diseases, Fontana Farms Co, 32–34; live-stock growing, 34–37; *veterinarian, N. Mex. Col, 37–* Vet. Med. Asn. Diseases of swine.

Benner, Dr. R(aymond) C(alvin), The Carborundum Co, Niagara Falls, N. Y. *Chemistry.* Minneapolis, Minn, May 13, 82. B.S, A.B, Minnesota, 02; A.M, Wisconsin, 06, Ph.D, 09. Instr. chem, Mich. State Col, 02–03; Wisconsin, 03–06; asst. prof, Arizona, 06–11; prof. electrometal, Pittsburgh, 11–13; director Fremont lab, Nat. Carbon Co, 13–25; research engineer, Gen. Chem. Co, 25–27; *director research and patent dept, Carborundum Co, 27–* Chemist, Wis. Geol. Surv, 03–06; in charge smoke investigation, Pittsburgh, 11–13; U. S. Assay Cmn, 12, 13. A.A; Chem. Soc; Electrochem. Soc; Ceramic Soc; Min. and Metal. Eng; Chemists' Club; Can. Ceramic Soc; British Ceramic Soc; British Soc. Glass Technol. Electrochemistry; metallurgy; primary and secondary cells; corrosion; catalysis; chromium; active lead; lead peroxide; ceramics; abrasives; refractories; sulfur recovery.

Benner, Dr. W(alter) M, 5636 Loretta Ave, Philadelphia, Pa. *Botany.* Souderton, Pa, Dec. 16, 88. B.S, Muhlenberg Col, 20; A.M, Pennsylvania, 26, Ph.D, 31. *Teacher biol, high schs, Philadelphia, Pa, 22–; research assoc. bot, Acad. Nat. Sciences, Phila, 28–* A.A; Phila. Bot. Club (pres, 28–32). Annotated flora of Bucks County, Pennsylvania; Lycopus; taxonomy and phytogeography of flowering plants and ferns.

Bennett, Prof. Albert A(rnold), Brown University, Providence, R. I. **³***Mathematics.* Yokohama, Japan, June 2, 88. A.B, A.M, Brown, 10, M.S, 11; Ph.D, Princeton, 15; Göt-

tingen; Paris; Bologna; Chicago. Instr. *math*, Princeton, 14–16; adj. prof, Texas, 16–18, assoc. prof, 18–25; prof. and head dept, Lehigh, 25–27; *prof, Brown, 27–* Asst. ed, 'Annals of Math,' 16–29; ed. in chief, 'Am. Math. Monthly,' 22. Math. and dynamics expert, Ordnance Dept, U.S.A, 19–22. Math. Soc. (councilor, 27–29); Math. Asn. (trustee, 21, v. pres, 25); fel. Am. Acad. Algebra.

Bennett, Alva H(erschel), 107 Southwood Drive, Kenmore, N. Y. *Physics.* Troy, Ohio, Oct. 2, 95. A.B, Ohio State, 18; A.M, George Washington, 26. Asst. physics, Ohio State, 17–18; lab. asst, Bur. Standards, 18–20, asst. physicist, 20–22, assoc. physicist, 22–29; chief physicist and asst. sci. director, *Spencer Lens Co, Buffalo, 29–37, director research dept, 37–* Physical Soc; Optical Soc. Optical glass and instruments; aberrations of optical systems; optical instrument and lens design.

Bennett, Prof. A(rthur) L(awrence), University of Nebraska College of Medicine, Omaha, Nebr. *Physiology.* Oconto, Wis, June 25, 05. A.B, Lawrence Col, 27; Ph.D, Chicago, 33, M.D, Rush, 37. Adj. prof, sch. med, Texas, 30–31; asst. prof. *physiol. and pharmacol, col. med, Nebraska*, 34–41, *prof, 41–* A.A; Physiol. Soc. Blood flow; electro-physiology of nerve.

Bennett, Dr. Arthur L(owell), 2918 First Road, N. Arlington, Va. *Astronomy.* Williamson, N. Y, May 28, 04. B.S, Union (N. Y), 26; Ph.D, Princeton, 32. Asst, Lowell Observatory, 26–28; McCormick Observatory, Virginia, 30–31; observatory, *Yale*, 31–32, *instr. astron, 32–; bur. ordnance, U. S. Navy, 40–* Photographic and photoelectric photometry; parallax; instruments.

Bennett, Dr. C(arlyle) W(ilson), U. S. Department of Agriculture, Riverside, Calif. *Plant pathology.* Narrows, Ky, June 8, 95. B.S, Kentucky, 17; M.S, Mich. State Col, 19; Ph.D, Wisconsin, 26. Asst. bot, Mich. State Col, 17–19, instr, 19–21, asst. prof, 21–22, asst, 22–28; research assoc, Ohio Exp. Sta, 28–29; *pathologist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–* A.A; Bot. Soc; Phytopath. Soc. Celery and fruit diseases; virus diseases.

Bennett, C(harles) A(bel), Box 428, Leland, Miss. *Agricultural engineering.* Tecumseh, Nebr, Nov. 14, 89. B.S, Nebraska, 11. Consulting mech. engineer, 14–17; chargeman draftsman, U. S. Navy Yard, Puget Sound, 18–22; asst. to chief engineer, Am. Liquid Meter Co, 24–26; assoc. mech. engineer, *U. S. Dept. Agr, 26–30, senior mech. engineer in charge cotton ginning investigations, bur. agr. chem. and eng, 30–* Agr. Eng. Drying seed cotton; ginning cotton; pressing and packaging cotton.

Bennett, Prof. C(hester) W(allace), 216 N. Ward St, Macomb, Ill. *Organic chemistry.* Vernon, Iowa, Feb. 17, 04. B.S, Illinois, 26, Ph.D, 30; M.S, Northwestern, 27. *Asst. prof. chem, West. Ill. State Teachers Col, Macomb, 30–* Chem. Soc. Pyrolysis of organic compounds; optically active diazo compounds.

Bennett, Prof. Clarence E(dwin), 22 Myrtle St, Orono, Maine. *Physics.* Providence, R. I, May 23, 02. Ph.B, Brown, 23, M.S, 24, Ph.D, 30. Asst. *physics*, Brown, 23–24, instr, 24–31; Mass. Inst. Tech, 31–34; asst. prof, *Maine*, 34–38, assoc. prof, 38–40, *prof, 40–*, acting head dept, 37–39, *head dept, 39–* A.A; Physical Soc; Asn. Physics Teachers; Eng. Educ. Capillary electrometer; displacement interferometry; refractive index and dispersion measurements for gases over ranges of densities; engineering physics.

Bennett, Prof. D(onald) M(enzies), University of Louisville, Louisville, Ky. *Physics.* Milwaukee, Wis, Nov. 24, 97. A.B, Wisconsin, 21, A.M, 23, Ph.D, 26. Asst. *physics*, Wisconsin, 20–22, 24–26; instr, Colorado, 22–24; asst. prof, *Louisville, 26–29, assoc. prof, 29–* A.A; Physical Soc; Eng. Educ. (cmt. on physics); Ky. Asn. Physics Teachers. Emission of positive electricity from metal plates by ultra-violet light; x-ray absorption spectrum of calcium halides.

Bennett, D(wight) G(ranville), 440 Fifth Ave, Pittsburgh, Pa. *Ceramics.* Mt. Carroll, Ill, Oct. 1, 94. B.S, Illinois, 30. Research engineer, Metal and Thermit Corp, 30–31; *indust. fellow, Mellon Inst, 31–* Development and control of porcelain enamels; standardization of tests in the porcelain enamel industry.

Bennett, E(dmund) R, State House, Boise, Idaho. *Horticulture.* Geneva, Mich, June 3, 74. B.S, Mich. State Col, 02, M.Hort, 08. Asst. hort, Conn. Col, 03–06; asst. horticulturist, Exp. Sta, Colo. Agr. Col, 06–09, prof. hort, 09–13; horticulturist, Chicago, Rock Island and Pacific Ry. Co, 13–14; *field horticulturist, exten. div, Idaho, 16–*

Bennett, Prof. Edward, University of Wisconsin, Madison, Wis. *Electrical engineering.* Pittsburgh, Pa, Oct. 26, 76. E.E, Pittsburgh, 97. Engineer, Nernst Lamp Co, 99–02, chief engineer, 03–04, consulting engineer, 04–05; head engineer, Nat. Elec. Signaling Co, 05–06; engineer, Telluride Power Co, 06–09; assoc. prof. *elec. eng, Wisconsin*, 09–13, *prof, 13–*, chairman dept, 18–40. A.A; Elec. Eng. (v. pres, 24–26); Eng. Educ. (v. pres, 29); Physical Soc; Radio Eng; Hist. Sci. Soc; Philos. Sci. Asn; Acad. Polit. Sci. Nernst lamp development; lightning arresters; radio communication; power transmission; induction heating.

Bennett, Prof. Emmett, Massachusetts State College, Amherst, Mass. *Biochemistry.* Goshen, Ohio, Sept. 16, 04. B.S, Ohio State, 29; M.S, Mass. State Col, 34. Asst. *chem, Mass. State Col, 30–36, asst. research prof, 36–* Carbohydrates; organic chemistry of plant products.

Bennett, Prof. F(rederick) D(ewey), University of New Hampshire, Durham, N. H. *Physics.* Miles City, Mont, June 2, 17. A.B, Oberlin Col, 37; Stipend scholar, Pa. State Col, 37–38, M.S, 39, Ph.D, 41. Asst. *physics*, Pa. State Col, 38–41; instr, *New Hampshire, 41–42, asst. prof, 42–* Physical Soc. The sorption of hydrogen by palladium near the melting point; diffusion of hydrogen through alloys, in particular binary alloys of iron, nickel and cobalt.

Bennett, Prof. George E(ll), 4 E. Madison St, Baltimore, Md. *Surgery.* Claryville, N. Y, April 15, 85. M.D, Maryland. Intern, Univ. Md. Hosp, 08–09; house surgeon, Ruptured and Crippled Hosp, New York, 09–10; instr. and assoc. *clin. orthop. surg, sch. med, Hopkins*, 14–28, assoc. prof, 28–42, *adj. prof, 42–* Col. Surg; Orthop. Asn; Am. Med. Asn; Acad. Orthop. Surg; South. Surg. Asn; South. Med. Asn; Med. and Chirurg. Faculty Md. Lengthening of the quadriceps tendon; fascia for the reenforcement of relaxed joints; operation for hypertrophied patella; non-spinal psoas abscesses; tumors of cauda equina and spinal cord.

Bennett, Prof. George W(ayland), Washington and Jefferson College, Washington, Pa. *Chemistry.* Philadelphia, Pa, March 29, 98. B.S, Denison, 22; M.S, Washington and Jefferson Col, 24; Ph.D, Ohio State, 27. Assoc. prof. *chem*, Grove City Col, 27–31, prof, 31–37; asst. prof, *Washington and Jefferson Col, 37–39, prof, 39–, director Jesse W. Lazear chem. lab, 40–* Adsorption of dyes at the crystal-solution interface.

Bennett, Dr. George W(illiam), Illinois Natural History Survey, Natural Resources Bldg, Urbana, Ill. *Aquatic biology.* Verdon, Nebr, July 8, 08. A.B, Doane Col, 29; A.M, Nebraska, 31; Ph.D, Wisconsin, 39. Instr. zool, McCook Junior Col, Nebr, 31–34, 35–36; *limnologist, Ill. State Nat. Hist. Surv, 38–* Summers, research, State Game, Forestation and Parks Cmn, Nebr, 30–32, 36, 37. Limnology; fish management; fish populations in artificial lakes.

Bennett, Dr. Granville A(llison), Tulane University School of Medicine, New Orleans, La. *Medicine.* Hiawatha, Kans, Sept. 23, 01. B.S, Iowa, 23, M.D, 25; hon. A.M, Harvard, 42. Intern surg, Iowa Hosp, 25–26, clin. asst. surg. and path, 26–27; instr. path, Harvard Med. Sch, 27–34, faculty instr, 34–35, assoc, 35–37, asst. prof, 37–42, assoc. prof, 42–43; *prof. path. and bacter, sch. med, Tulane, 43–* Res. pathologist, Peter Bent Brigham Hosp, 27–29. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Clin. Invest; fel. Am. Med. Asn; Rheumatism Asn; New Eng. Path. Soc; Int. Asn. Med. Mus. Disease of bones and joints; physiology of normal and pathological joints; normal and pathological synovial fluid; anatomical and physiological alterations from an environment of compressed air.

Bennett, H(arry), 230 King St, Brooklyn, N. Y. *Chemistry.* New York, N. Y, May 28, 95. B.S, N. Y. Univ, 17. E. I. du Pont de Nemours and Co, 18–19; *research, Glyco Products Co, 22–* Ed, Chem. Publishing Co, 33–; Editorial Tecnica Unida, 41– Ed. in chief, 'Chem. Formulary'; 'Cosmetic Formulary'; 'Standard Chem. and Tech. Dictionary.' A.A; Chem. Soc; Soc. Test. Mat; Asn. Textile Chem. and Colorists; Inst. Chem; Soc. Chem. Indust; Electrochem. Soc; Army Ordnance Asn; Pan Am. Soc; Latin Amer. Econ. Inst. Emulsions; water-soluble resins; synthetic waxes; synthetic resins; flame-proofing, poison-gas proofing and water-proofing compounds.

Bennett, Prof. H(arry) J(ackson), Box 376, Louisiana State University, Baton Rouge, La. *Zoology.* Bernice, La, Aug. 1, 04. B.S, Louisiana, 26; M.S, Illinois, 28, fellow, 32–33, Ph.D, 35. Instr, *Louisiana,* 29–32, 33–35, asst. prof. *zool,* 35–38, *assoc. prof, 38–, asst. to dean col. arts and sciences, 39–; capt, malaria surv. unit, Sanit. Corps, U. S. Army.* Soc. Parasitol; Micros. Soc; Soc. Zool; La. Acad. Parasitology.

Bennett, H(arry) T(homas), Mid-Continent Petroleum Corp, Tulsa, Okla. *Chemistry.* Wilmington, Del, Jan. 8, 93. B.S, Delaware, 15; M.S, Nebraska, 16; Missouri, 16. Asst. chem, Nebraska, 15–16; Missouri, 16–17; chemist, Okla. Exp. Sta, 17; Cosden and Co, 17–19; chief chemist, Transcontinental Oil Co, 19–20; chief research chemist, *Mid-Continent Petrol. Corp,* 20–26, *chief chemist,* 26– Chem. Soc. (councilor, Okla. sect, 24, v. pres, 25, pres, 26); Soc. Test. Mat; Soc. Automotive Eng. Petroleum.

Bennett, Dr. H(enry) Stanley, Harvard Medical School, Boston, Mass. *Anatomy, Endocrinology, Physiology.* Tottori, Japan, Dec. 22, 10. A.B, Oberlin Col, 32; M.D, Harvard Med. Sch, 36. Intern med, Hopkins Hosp, 36–37; nat. research fellow and research fellow *anat, Harvard Med. Sch,* 37–39, instr, 39–41, *assoc, 41–, instr. pharmacol, 39–* Lieut, U.S.N.R, 39. Am. Med. Asn; Asn. Anat. Circulatory physiology; cytology of endocrines and placenta; embryology of the heart.

Bennett, Dr. Hugh H(ammond), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Wadesboro, N. C, April 15, 81. B.S, North Carolina, 03, LL.D, 36; Sc.D, Clemson Col, 37. Asst. chem, North Carolina; soil scientist and later prin. scientist in charge soil erosion investigations, bur. chem. and soils, U. S. Dept. Agr, 03–33; director soil erosion service, U. S. Dept. Interior, 33–35; *chief soil conservation service, U. S. Dept. Agr, 35–* Agr. exped, Canal Zone, 09; in charge agr. exped, Alaska, 14; Chugach Nat. Forest Cmn, 16; mem, Guatemala-Honduras Boundary Cmn, 19; soil specialist, Rubber Cmn, Cent. and S. Amer, 23–24; special investigator soils and cane culture, Trop. Plant Research Foundation, Cuba, 26–28, 30–32. Cmt. on sedimentation, Nat. Research Council. Southwest. Soil and Water Conservation Conf. Lieut, C.Eng, 18, capt, O.R.C, 24– A.A; Soc. Agron; Asn. Geog; Soil Sci. Soc; Forestry Asn; Can. Conservation Asn. Soils; soil erosion; sedimentation; land classification; floods and flood control; conservation of natural resources; tropical agriculture.

Bennett, J(ames) L(eroy), Hercules Powder Co, Wilmington, Del. *Chemistry.* Toms River, N. J, April 14, 87. Kansas, 10–13. Supervisor chem. operations, *Hercules Powder Co,* Mo, Utah and Calif, 14–19, heavy chem. operations, home office, 19–33, *manager chem. operations, explosives dept, 34–* Chem. Eng. (pres, 43); Chem. Soc. Manufacture of acids and commercial explosives.

Bennett, Prof. James Percy, University of California, Berkeley, Calif. *Botany.* Pender, Nebr, Oct. 25, 86. A.B, Missouri, 11, A.M, 13; Ph.D, Wisconsin, 18. Instr. bot, Wisconsin, 15–18; pomol, *California,* 19–21, asst. prof, 21–26, assoc. prof. *plant physiol,* 26–42, *prof, 42–,* assoc. plant physiologist, *Exp. Sta,* 26–42, *plant physiologist, 42–* A.A; Bot. Soc; Soc. Plant Physiol; Chem. Soc. General plant physiology; tree physiology.

Bennett, Prof. J(oseph) Gardner, Near East College Association, 50 W. 50th St, New York, N. Y. *Civil engineering.* Waverly, Iowa, Nov. 17, 89. B.S, Cornell Col. (Iowa), 12; B.S. (C.E), Wisconsin, 18, C.E, 25, 39–40. Practising civil engineer, 12–16; State Highway Cmn, Wis, 17–22; instr, Wisconsin, 20–21; asst. prof. civil eng. in charge dept, Marquette, 22–24; prof, Denison, 24–26; prof. and head dept, Lewis Inst. (Ill), 26–38; structural designer, 38–39; *prof. civil eng. and head dept, Robert Col. (Istanbul), 40–* Lieut, U.S.N.R, 17. Civil Eng; Asn. Eng; Soc. Test. Mat; West. Soc. Eng. Structures; hydraulics; materials.

Bennett, Dr. Landis S(eawell), U. S. Department of Agriculture, Fayetteville, Ark. *Plant breeding.* Jackson Springs, N. C, March 16, 08. B.S, N. C. State Col, 30; M.S, West Virginia, 32, Ph.D, 35. Instr. agron, West Virginia, 34–36; *assoc. geneticist, bur. plant indust, U. S. Dept. Agr, 36–* Soc. Agron. Inheritance of wilt resistance in watermelons.

Bennett, Dr. Leslie L(atty), University of California Hospital, San Francisco, Calif. *Endocrinology.* Portland, Oregon, Nov. 15, 08. A.B, California, 33, Ph.D, 37, M.D, 40. *Instr. med. and physiol, med. sch, California.* Pituitary physiology; relation of the anterior pituitary to carbohydrate metabolism.

Bennett, Dr. Logan J, Pennsylvania State College, State College, Pa. *Wildlife.* Festus, Mo, Aug. 29, 07. B.S, Cent. Col. (Mo), 30; M.S, Iowa State Col, 32, Ph.D, 37. Asst. wildlife, Iowa State Col, 31–34; game technician, State Conservation Cmn, Iowa, 34–35; assoc. biologist, bur. biol. surv, U. S. Dept. Agr, 35–40; *biologist, fish and wildlife service, U. S. Dept. Interior, 40–; lieut, U. S. Naval Res, 43–* Wildlife Soc; Soc. Mammal; Ecol. Soc; Wilson Ornith. Club; Cooper Ornith. Club; Iowa Ornith. Union. Ecology of North American waterfowl and upland game birds.

Bennett, Dr. Mary A(delia), Lankenau Hospital, Philadelphia, Pa. *Biochemistry.* Washington, D. C, March 19, 97. A.B, Smith Col, 20; A.M, Pennsylvania, 23, Ph.D, 26. H. K. Mulford and Co, 20–21; blood chem. lab, *Lankenau Hosp,* 21–26, *research inst, 26–* A.A; Soc. Biol. Chem; Asn. Cancer Research; Chem. Soc; Physiol. Soc. Phila. Hemorrhage and its effect on the acid-base equilibrium of the body; chemistry of cystine; intermediary metabolism of the sulfur-containing amino acids and some of their derivatives.

Bennett, Prof. Mary A(llison), Western Illinois State Teachers College, Macomb, Ill. *Zoology.* Ogallala, Nebr, Sept. 16, 88. B.S, West. Ill. State Teachers Col, 21; A.M, Chicago, 26, Ph.D, 40. Instr. *biol, West. Ill. State Teachers Col,* 21–26, asst. prof, 26–40, *assoc. prof, 40–* Soc. Zool; Ecol. Soc. Animal behavior; social hierarchy in ring doves; effect of testosterone propionate upon the social hierarchy in ring doves.

Bennett, Dr. M(errill) K(elley), 1103 Ramona St, Palo Alto, Calif. *Agricultural economics.* Killingly, Conn, Feb. 13, 97. Ph.B, Brown, 20, A.M, 21; Weld fellow, Harvard, 25–26, A.M, 26; Ph.D, Stanford, 27. Asst. and instr. English, Brown, 20–22; instr, Stanford, 22–23, junior research assoc. and later research assoc. and economist, food research inst, 23–41; *chief statistician, Office Food Control, Hawaii, 41–; exec. director, Food Research Inst, 42–* Guggenheim Mem. Foundation fellow, 41–42. Farm Econ. Asn; Statist. Asn. (sec'y-treas, San Francisco chap, 29, pres, 36). Farm costs in the United States; international trade, prices, stocks, production and consumption of wheat and other foodstuffs; international comparisons of standards of living.

Bennett, Prof. Ralph D(ecker), Massachusetts Institute of Technology, Cambridge, Mass. *Physics, Electrical engineering.* Williamson, N. Y, June 30, 00. B.S, Union Col. (N. Y), 21, M.S, 23; Ph.D, Chicago, 25. Instr. math, Union Col, 21–23, asst. prof. physics, 25–26; nat. research fellow, Princeton, 26–27; Calif. Inst. Tech, 27–28; research assoc, Chicago, 28–31; assoc. prof. *elec. measurements, Mass. Inst. Tech,* 31–37, *prof, 37–; commander, U. S. Naval Res, 40–* Research assoc, Carnegie Institution. Mem. advisory cmt. on microfilm, Cmt. Sci. Aids to Learning. Fel. Physical Soc; fel. Elec. Eng. (rep, cmt. revision code for electricity meters, Am. Standards Asn); Eng. Educ. X-rays; dielectric properties of matter; cosmic rays and instruments for their measurement; electrical measuring instruments and circuits.

Bennett, Dr. Ralph E(dgar), Joseph E. Seagram and Sons, Inc, Louisville, Ky. *Botany, Mycology.* Grant, Mich, Feb. 17, 09. A.B, Michigan, 33, A.M, 34, Ph.D, 40; London, 38–39. Instr. bot, Michigan, 40–41; *mem. dept. research and develop, Joseph E. Seagram and Sons, Inc, 42–* Soc. Plant Physiol; Bot. Soc; Mycol. Soc. Physiology and cytology of fungi; physiology and cytology of perithecial production by Pseudoplea.

Bennett, Prof. Theodore, Marietta College, Marietta, Ohio. *Mathematics.* Geneseo, N. Y, Sept. 24, 99. A.B, Cornell, 21; A.M, Illinois, 23, Ph.D, 25. Instr. *math,* Illinois, 21–28; nat. research fellow, Princeton. 28–29; *asst. prof,* Wisconsin, 29–37; *Marietta Col, 37–* Math. Soc; Math. Asn. Algebraic geometry.

Bennett, Walter J(ames), U. S. Weather Bureau, Jacksonville, Fla. *Meteorology.* Cincinnati, Ohio, Sept. 10, 79. Cincinnati; B.S, George Washington, 05. *In charge* office, *U. S. Weather Bur,* Charlotte, N. C, 05–08, Canton, N. Y, 09–13, Tampa, Fla, 14–32, *Fla. sect, 33–, senior meteorologist and dist. forecaster, 35–* Lecturer, St. Lawrence, 10–12. Meteorol. Soc. Cold waves and frosts; climatology of Florida; Masonic symbolism and history.

Bennett, Prof. Wendell C(lark), Yale University, New Haven, Conn. *Archeology, Ethnology.* Marion, Ind, Aug, 05. Ph.B, Chicago, 27, A.M, 29, Ph.D, 30. Research staff, Bishop

Museum, Honolulu, 28–29; asst, Chicago, 30–31; asst. curator *anthrop*, Am. Mus. Nat. Hist, 31–38; *assoc. prof*, Wisconsin, 38–40; *Yale, 40–* Univ. Chicago anthrop. exped. to Tarahumaras, Chihuahua, Mex; Am. Museum Nat. Hist. archeol. exped, Bolivia, 32, 34; Venezuela, 32; Peru, 36, 38; Yale archeol. exped, Colombia, 41. Archeology and ethnology of South America, especially the Andean region.

Bennett, Major Willard H(arrison), Wright Field, Dayton, Ohio. *Physics.* Findlay, Ohio, June 13, 03. Carnegie Inst. Tech, 21–22; A.B, Ohio State, 24; M.S, Wisconsin, 26; Ph.D, Michigan, 28. Instr. physics, Michigan, 26–28; nat. research fellow, Calif. Inst. Tech, 28–30; instr, Ohio State, 30–33, asst. prof, 33–38; director research, Electronic Research Corp, Newark, Ohio, 38–41; *major, Signal Corps, U. S. Army, 41–* Fel. Physical Soc. Infra-red spectra; cold emission; negative atomic ions; corona discharge; corona in free electron gases and application in rectifiers.

Bennett, Dr. W(illia)m E(rnest), Rice Institute, Houston, Texas. *Physics.* Sutton's Bay, Mich, Oct. 1, 07. Leonard Mem. fellow, Queen's (Can), 33–34, M.A, 34; 1851 Exhib. scholar and Dom. Exhib. scholar, Cambridge, 34–37, Ph.D, 37. *Instr. physics, Rice Inst, 38–* A.A; Physical Soc. Radioactivity and nuclear disintegrations.

Bennighof, Prof. C(loyd) L(awrence), 31 Ridge Road, Westminster, Md. *Biology.* Ashland, Ohio, Sept. 19, 87. B.S, Hiram Col, 11; M.S, Chicago, 22. Instr, high schs, 11–19; prof. science, Franklin Col, 19–21; Mission House Col, 21–27; *asst. prof. biol, Western Maryland Col, 27–* Summers, research, Ohio State, 26, 30–33. A.A. Life and behavior of certain Mayflies.

Bennington, Prof. N(eville) L(ynne), Beloit College, Beloit, Wis. *Zoology.* Canton, Ohio, Aug. 8, 06. A.B, Col. of Wooster, 28; A.M, Northwestern, 30, Ph.D, 34. Instr. zool, Northwestern, 30–36; biol, Col. of Wooster, 36–37; assoc. prof. *bot. and zool, Beloit Col,* 37–43, *prof, 43–* Cytology and reproductive rhythms of teleosts.

Bennitt, Prof. Rudolf, Columbia, Mo. *Zoology.* Springfield, Mass, Dec. 22, 98. B.S, Boston, 20, A.M, 21; A.M, Ph.D, Harvard, 23. Austin teaching fellow, Harvard, 20–22; asst. prof. biol, DePauw, 23–24; instr, Tufts Col, 24–27; assoc. prof. *zool, Missouri, 27–37, prof, 37–* A.A; Soc. Zool; Ecol. Soc; Soc. Mammal; Wildlife Soc. (pres, 37); Ornith. Union; Wilson Ornith. Club; Mo. Acad. Physiology of vision in arthropods; wildlife ecology.

Bennot, Maude, Stevens Hotel, Chicago, Ill. *Astronomy.* Thornton, Ill, June 5, 92. B.S, Northwestern, 19, A.M, 27. Instr, Northwestern, 25; asst, Dearborn Observatory, 26–29; asst. director, *Adler Planetarium and Astron. Museum,* 29–37, *acting director, 37–* Lecturer and demonstrator with planetarium instrument. Astron. Soc. Double stars; stellar motions; stellar parallax.

Benoit, Dr. George J(ullen), Jr, Hercules Powder Co, Wilmington, Del. *Biochemistry.* Marshalltown, Iowa, Oct. 2, 17. B.S, Washington (Seattle), 37, Ph.D, 42. *Research chemist, exp. sta, Hercules Powder Co, 42–* Chem. Soc. Biological significance of trimethylamine oxide.

Benoy, Dr. Marjorie P(ickard), 4663 Stenton Ave, Philadelphia, Pa. *Chemistry.* Mount Vernon, Ohio, March 13, 95. B.S, 18, M.S, 21; Ph.D, Ohio State, 26. Analyst, Atlas Crucible Steel Co, Dunkirk, N. Y, 18–20; instr. chem, Kans. State Col, 26–27; assoc. prof, Okla. Agr. and Mech. Col, 27–29; in charge anal. lab, Battelle Mem. Inst, Columbus, 29–31, special research analyst, 31–33; *research chemist,* biochem. research foundation, Franklin Inst, 34–41; *Nat. Drug Co, 42–* Chem. Soc. Alkaline decomposition of the carbohydrates; respiration of vegetables; analysis of metallurgical products; carbohydrate metabolism of cancer tissue; nucleic acid; theory of sulfanilamide action; pharmaceuticals.

Bensley, Prof. R(obert) R(ussell), University of Chicago, Chicago, Ill. *Anatomy.* Hamilton, Ont, Can, Nov. 13, 67. B.A, Toronto, 89; M.B, 92, hon. D.Sc, 10. Asst. demonstrator biol, Toronto, 92–99, demonstrator, 99–01; asst. prof. *anat, Chicago,* 01–05, assoc. prof, 05–07, prof, 07–33, *emer. prof, 33–* Director, Hull lab. anat, Chicago, 05–33. Visiting prof, Washington (St. Louis), 30–31. Soc. Nat; Asn. Anat. (pres, 18); Soc. Exp. Biol; British Asn. Microchemistry; gastric glands of mammals; glands of Brunner; the human stomach and the pancreas; the salivary and thyroid glands; structure and function of the kidney; chemistry of cell constituents; the application of the freezing-drying method to biological problems; fibrous proteins in protoplasm; chemistry of protoplasmic constituents.

Bensley, Dr. S(ylvia) H(olton), 5469 Drexel Ave, Chicago, Ill. *Anatomy.* Madura, India, Oct. 16, 03. A.B, Mt. Holyoke Col, 25; M.D, Chicago, 30. Asst. *anat, Chicago,* 26–29, instr, 29–41, *asst. prof, 41–* Asn. Anat. Kidney; connective tissue; the lung; microscopic technique; pancreas; cytology.

Benson, Dr. Andrew A(lm), University of California, Berkeley, Calif. *Organic chemistry.* Modesto, Calif, Sept. 24, 17. B.S, California, 39; Ph.D, Calif. Inst. Tech, 42. *Instr. org. chem, California, 42–* Chem. Soc. Fluorinated thyroxine analogs; structure of sphingosine; peripheral inhibition in mollusks; photosynthesis; biological chemistry.

Benson, Prof. C(harles) E(mile), 32 Waverly Place, New York, N. Y. *Educational psychology.* Clinton, Iowa, Sept. 9, 81. B.Ed, Nebr. State Teachers Col, 11; A.B, Nebraska, 11, A.M, 12; Ph.D, Columbia, 22. Sch. supt, Wash, 04–05; Nebr, 07–09, 12–14; asst. psychol, Nebraska, 10–12; prof. psychol. and educ, Nebr. State Teachers Col, Kearney, 14–15; head dept. psychol. and educ, Mo. State Teachers Col, Cape Girardeau, 15–22; acting dean sch. educ, Oklahoma, 22–23; asst. prof. *educ. psychol, N. Y. Univ,* 23–24, assoc. prof, 24–25, *prof. and chairman dept, 25–* Summer, director sch. educ, Oklahoma, 23. Clin. psychologist, U.S.A, 18–19. A.A; Psychol. Asn; Asn. Applied Psychol; Soc. Study Educ; Soc. Col. Teachers Educ; N. Y. Acad. Pub. Educ; assoc. fel. N. Y. Acad. Med. Clinical psychology; mental hygiene; teacher training; thinking processes; professional schools for teachers; psychology for teachers.

Benson, Prof. C(lara) C(ynthia), University of Toronto, Toronto, Ont, Can. *Biochemistry.* Port Hope, Ont, June 5, 75. B.A, Toronto, 99, fellow, 99–03, Ph.D, 03. Instr. science, Lillian Massey Sch. Household Science, 03–05; lecturer physiol. chem, *Toronto,* 05–06, assoc. prof, 06–26, *prof. food chem, 26–, sec'y faculty household science.* A.A; Chem. Soc; Soc. Biol. Chem; Can. Inst. Chem. Physiological and food chemistry; rates of chemical reactions; chemistry of physiological fluids; chemistry of fish; vitamin B; colloid chemistry of foods.

Benson, Prof. Henry K(reitzer), 2501 22nd Ave, N. Seattle, Wash. *Chemistry, Chemical engineering.* Lebanon, Pa, Jan. 3, 77. A.B, Franklin and Marshall Col, 99, A.M, 02, Sc.D, 26; fellow, Columbia, 06–07, Ph.D, 07. Instr, high sch, Wash, 00–03; assoc. prof. *chem, Washington (Seattle),* 04–19, *prof. and head dept, 19–* Asst. soil surv, Wash. Geol. Surv. and bur. soils, U. S. Dept. Agr, 09–; commercial agent, U. S. Dept. Agr, 09–, agent, U. S. Forest Service, 12; commercial agent, U. S. Dept. Commerce, 14; state director, U. S. Naval Consulting Board, 16; director, Bur. Indust. Research, 15–19; consulting chemist, Am. Nitrogen Products Co, 17–20. Chairman chem. div, Nat. Research Council, 31–32. Del, Int. Conf. Chem, Rome, 38. Capt, Ordnance Dept, 18–19. Chem. Soc. (pres, Puget Sound sect, 09); Chem. Eng; Asn. Pulp and Paper Indust. Industrial chemistry; molten hydrates as solvents; the soils of western Washington; resins in coal; low temperature distillation; by-products of lumber industry; pulp and paper; sea water pollution; chemical utilization of wood.

Benson, Dr. Lyman (David), University of Arizona, Tucson, Ariz. *Systematic botany.* Kelseyville, Calif, May 4, 09. A.B, Stanford, 30, A.M, 31, Royall Victor fellow, 34–35, Ph.D, 40. Teaching asst, Stanford, 30–31, 34–35; instr, Bakersfield Jr. Col, 31–38; *asst. prof. bot, Arizona, and asst. botanist, Exp. Sta, 38–* Collaborator, N. Y. Bot. Garden, 35–Summers, teaching asst, Stanford, 32, acting instr, 37; research fellow, N. Y. Bot. Garden, 35. Bot. Soc; Soc. Plant Taxon; Soc. Study Speciation; Torrey Bot. Club; Calif. Bot. Soc. Taxonomy and distribution of vascular plants; Ranunculus for North America; cacti of Arizona and the Southwest; Pleuropogon; Prosopis; Cercidium; Parkinsonia; plants of Arizona, California and the Pacific Northwest.

Benson, Dr. Robert L(ouis), 406 Medical-Dental Bldg, Portland, Oregon. *Allergy.* Flint, Mich, May 30, 80. A.B, Michigan, 02, A.M, 04; M.D, Rush, Chicago, 10. Bacteriologist, State Board Health, Fla, 10–12; prof. path, *Oregon,* 13–29, *asst. clin. prof. med, 29–; private practise, 29–* City bacteriologist, Portland, Oregon, 21–33; consultant, U. S. Veterans' Hosp, 26–34. Mem, State Board Health, Oregon, 33–40; State Relief Cmt, Oregon, 34–41. A.A; Am. Med. Asn; Col.

Physicians; Asn. Study Allergy (pres, 40). Allergic diseases; pathology of the heart and allergy.

Benson, Dr. S(amuel) R(odney), Lincolnshire, Crete, Ill. *Chemistry.* Houston, Minn, April 2, 09. A.B, Carleton Col, 31; A.M, Wisconsin, 33, Ph.D, 35. Asst. chem, Wisconsin, 31–35; *research chemist, pigment, color and chem. div, Sherwin-Williams Co, 36–* Chem. Soc. Investigation of natural fatty oils; synthetic pigment dyestuffs.

Benson, Dr. Seth B(ertram), University of California, Berkeley, Calif. *Vertebrate zoology.* Bakersfield, Calif, May 5, 05. A.B, California, 28, Ph.D, 33. Teaching fellow zool, California, 28–29, asst, museum vert. zool, 29–32, *asst. curator mammals,* 32–34; museum zool, Michigan, 34–35; *museum vert. zool, California, 35–,* instr. *vert. zool,* 35–40, *asst. prof, 40–* A.A; Wildlife Soc; Soc. Mammal.; assoc. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Taxonomy and ecology of mammals.

Benson, Dr. Simon, Wisconsin School of Massage and Hydrotherapy, 720 N. Jefferson St, Milwaukee, Wis. *Physiology.* Ed, Vermland, Sweden, Oct. 24, 90. Ph.C, Valparaiso, 19, A.B, 20; B.S, Chicago, 25, M.S. 29, Ph.D, 31. Teacher, high sch, 20–23; metal. chemist, Miehle Mfg. Co, Chicago, Ill, 23–24; prof. chem, Vincennes, 24–25; Valparaiso, 25; athletic trainer and physiol. research, Chicago, 25–34, asst. physiol, 34–35, research assoc, 35–36, instr. and research assoc, 36–37; dean pharmacy, Ferris Inst, 37–41; *v. pres. and director, Wis. Sch. Massage and Hydrotherapy, 41–* Director physical therapy research, Michael Reese Hosp, 35–36. Silver medal, Am. Cong. Physical Therapy, 34. Physical therapy; effects of heat and cold upon the heart rate; volume changes in normal and traumatic tissues and deep tissue heating, from external heat, diathermy and short wave; iontophoresis; suction-pressure therapy; physiology of exercise; weight fluctuations.

Bent, Arthur Cleveland, Taunton, Mass. *Ornithology.* Taunton, Mass, Nov. 25, 66. A.B, Harvard, 89. *Assoc. ornith, museum comp. zool, Harvard.* Ornith. Union (v. pres, 29–34, pres, 34); Nat. Audubon Soc; Nuttall Ornith. Club; Wilson Ornith. Club; Cooper Ornith. Club. Distribution and life histories of American birds.

Bent, Dean Henry E(dward), 116 Westwood Ave, Columbia, Mo. *[*7]Physical chemistry.* Oglesby, Ill, Oct. 6, 00. A.B, Oberlin Col, 22; M.S, Northwestern, 23; Ph.D, California, 26. Instr. *chem,* Harvard, 26–32, asst. prof, 32–36; assoc. prof, *Missouri,* 36–38, *prof, 38–, dean grad. faculty, 38–* A.A; Chem. Soc. (director, northeast. sect, 32–36; pres, Missouri sect, 39); Physical Soc. Amalgams; free radicals; absorption spectra.

Bentall, Ray, G5 State Office Bldg, Nashville, Tenn. *Geology.* Grand Rapids, Mich, June 28, 17. B.S, Michigan, 38; fellow, Tennessee, 38–40, M.S, 40; Vanderbilt, 40–42. *Geologist, State Div. Geol, Tenn, 40–* A.A; Tenn. Acad. Spores in coal; correlation of seams.

Bentley, Prof. F(ranklin) L(ee), State College, Pa. *Animal husbandry.* Albany, Mo. B.S. (Agr), Missouri, 13; M.S, Pa. State Col, 18. Asst, Missouri, 13–16; various positions to *prof. animal husbandry and head dept, Pa. State Col, 16–* Live stock ed, 'Pa. Farmer.' Soc. Animal Production. Beef cattle; swine; sheep; horses.

Bentley, Dr. George P(atterson), 146 Wickham Road, Garden City, N. Y. *Aeronautical engineering.* Astoria, N. Y, April 24, 13. B.S, Mass. Inst. Tech, 33, M.S, 34, Sc.D, 37. Asst, Mass. Inst. Tech, 34–37; senior product engineer, Sperry Gyroscope Co, 37–39; chief research engineer, Waltham Watch Co, 39–41, tech. director, 41–42; *senior product engineer, Sperry Gyroscope Co, 42–* Inst. Aeronaut. Sci; Army Ordnance Asn. Development and production of instrumentation for specialized purposes.

Bentley, Prof. Gordon M(ansir), University of Tennessee, Knoxville, Tenn. *Entomology.* Great Barrington, Mass, Sept. 23, 76. B.S.A, Cornell, 00, A.M, 01; M.S, Tennessee, 28. Prof. bot. and zool, Union Acad, Belleville, N. Y, 01–04; instr. entom, N. C. State Col, and asst. state entomologist, 04–05; instr. zool. and entom, *Tennessee,* 05–08, assoc. prof, 08–25, *entomologist, 08–, prof. entom, 25–,* head dept, 26–43; asst. state entomologist, 05–09, *state entomologist and plant pathologist, 09–* Pres, South. Plant Quarantine Board, 29, 40–42, 43. A.A. (v. pres, 18, councilor, 34–36); Entom. Soc. Amer; Asn. Econ. Entom. (sec'y, apicult. sect, pres, plant quarantine and inspection sect, 25, apicult. sect, 29, 1st v. pres, 36); Asn. Nurseries; Cotton States Entom. Soc. (sec'y, 23–27); Izaak Walton League; Tenn. Bee Keepers Asn. (sec'y-treas); Tenn. Acad; Tenn. Nurserymen's Asn. (sec'y-treas, 05–); Tenn. Ornith. Soc; Tenn. Hort. Soc. (sec'y, 05–). Destructive insects and methods for control; forests, orchards, gardens, livestock and man; household and stored products; laboratory manual of economic entomology.

Bentley, Prof. John Edward, 4529 Lowell St, Washington, D. C. *Education, Psychology.* Knottingley, Eng, Nov. 25, 87. A.M, Clark, 16, fellow, 18–20; Harvard, 16–17; S.T.B, Boston, 17, M.R.E, 20; Th.D, McGill, 24. Prof. relig. educ, Iliff Sch. Theol, Denver, 20–24; *head dept. educ. and psychol, col. lib. arts, American Univ, 24–, prof. philos.* Lecturer, Denver, 21–24; Hopkins, 29– Psychol. Asn; Philos. Asn; Schweiz. Psychol. Gesell. Clinical aspects of child mental abnormalities; psychology of learning and religion.

Bentley, Dr. Madison, Cornell University, Ithaca, N. Y. *[*2]Psychology.* Clinton, Iowa, June 18, 70. B.S, Nebraska, 95, LL.D, 35; Ph.D, Cornell, 98. Asst. *psychol,* Cornell, 97–98, instr, 98–02, asst. prof, 02–12; prof. and director lab, Illinois, 12–28; Sage prof, *Cornell,* 28–38, *emer. prof, 38–, lecturer, 42–* Psychol. consultant, Library of Congress, 38–40. Chairman div. anthrop. and psychol, Nat. Research Council, 30–31. Ed, 'Am. Jour. Psychol.' A.A; Psychol. Asn. (pres, 25). General, comparative and social psychology; psychology of the abnormal.

Bentley, Dr. William B(urdelle), Morris Ave, Athens, Ohio. *Chemistry.* Maple Valley, N. Y, Aug. 8, 66. A.B, Harvard, 89, A.M, 90, Ph.D, 98. Asst. chem, Harvard, 90–91; adj. prof. chem. and physics, Arkansas, 91–94, assoc. prof, 94–99; prof. chem, Ohio (Athens), 99–36. Asst, U. S. Torpedo Sta, Newport, R. I, 90; capt, Ordnance Dept, 18–19. Derivatives of symmetrical tribrom benzene.

Benton, Dr. Alva H(artley), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Mendon, Ohio, 86. B.S, Ohio State, 12; M.S, Pa. State Col, 13; Ph.D, Wisconsin, 21. Asst. prof. farm management, Minnesota, 23–18; prof. farm management and rural econ, Manitoba, 18–22; head dept. marketing and rural organizations, N. Dak. Col, 22–34; *prin. social scientist, bur. agr. econ, U. S. Dept. Agr, 34–* Grad, sch, Harvard, 29–30. Farm Econ. Asn; Econ. Asn. Marketing agricultural products; farm tenancy; rural credit.

Benton, Dr. Anne G(ertrude) (Mrs. C. E. Riebeth), 2421 Sheridan Ave. S, Minneapolis, Minn. *Bacteriology.* Madelia, Minn, March 10, 88. A.B, Wellesley Col, 08; A.M, Minnesota, 18, Ph.D, 34. Instr. bacter, Minnesota, 17–23; assoc. bacteriologist, bur. dairying, U. S. Dept. Agr, 23–27; prof. bacter, Vassar Col, 27–35. A.A; Soc. Bact. Metabolism of bacteria; bacteria in milk and its products; chitinovorous bacteria.

Benton, Prof. Arthur F(erguson), University of Virginia, University, Va. *[*6]Chemistry.* Cranford, N. J, May 7, 95. A.B, Princeton, 16, A.M, 19, Ph.D, 20. Nat. research fellow *chem,* 20–24; asst. prof, *Virginia,* 24–27, assoc. prof, 27–28, *prof, 28–, chairman chem. faculty, 28–* Summers, chemist, senior chemist and prin. chemist, fixed nitrogen research lab, U. S. Dept. Agr, consulting chemist, 26–38. Junior chemist, U. S. Bur. Mines, 17–18; 2nd lieut, C.W.S, 18–19. A.A; Chem. Soc. (councilor, 29–33); Va. Acad. Reaction kinetics, catalysis and adsorption; fluid flow; nitrogen fixation.

Benton, Dr. Arthur L(ester), College of the City of New York, New York, N. Y. *Psychology.* Brooklyn, N. Y, Oct. 16, 09. A.B, Oberlin Col, 31, A.M, 33; Ph.D, Columbia, 35. Asst. psychol, Oberlin Col, 31–33; N. Y. State Psychiat. Inst. and Columbia, 34–36; psychologist, Payne Whitney Psychiat. Clinic, N. Y. Hosp, 36–39; *instr, student personnel bur, Col. City of N. Y, 39–; lieut. (j.g), U. S. Naval Reserve, Aviation Base, Oakland, Calif, 41–* Asst, med. col, Cornell, 37–39; attending psychologist, Westchester div, New York Hosp, White Plains, 39– A.A; Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn; N. Y. State Asn. Applied Psychol. (treas, 40). Educational psychology; psychopathology; mental tests; selection and training of aviation personnel.

Benton, Prof. F(rancis) L(ee), University of Notre Dame, Notre Dame, Ind. *Organic chemistry.* Moxahala, Ohio, Feb. 12, 12. B.Ch.E, Ohio State, 35, M.S, 36, Ph.D, 40. Instr.

chem, Notre Dame, 40–42, *asst. prof, 42–* Chem. Soc. Cleavage of ethers with boron bromide.

Benton, Dr. Joseph G(eorge), 343 Bradford St, Brooklyn, N. Y. *Physiology.* New York, N. Y, Jan. 20, 15. A.B, Brooklyn Col, 36; M.S, N. Y. Univ, 38, univ. fellow, 38–39, Blumenthal fellow, 39–40, Ph.D, 40. Instr. anat, col. dentistry, N. Y. Univ, 36–41, asst. *physiol,* col. med, 41–42; *lecturer, exten. div, Hunter Col, 42–; research asst, Commonwealth Fund, 42–* Venereal disease div, U. S. Pub. Health Service, 40–42. Asn. Anat. The kidneys; hepatic physiology as affected by endocrines.

Benz, Prof. H(arry) E(dward), 38 Fairview Ave, Athens, Ohio. *Education, Mathematics.* Hokah, Minn, May 9, 99. A.B, Morningside Col, 22; A.M, Iowa, 25, Ph.D, 27. Teacher, pub. sch, Iowa, 21–25; assoc. prof. educ, West Virginia, 26–27; asst. prof. math, *col. educ, Ohio (Athens),* 27–29, assoc. prof, 29–36, *prof. educ, 36–* Summers, lecturer, N. Y. State Col. for Teachers, 36; Pennsylvania, 41. A.A; Soc. Study Educ; Educational Research Asn. Teaching of arithmetic and algebra; secondary education.

Bequaert, Dr. Joseph C(harles), Harvard Medical School, Boston, Mass. *Zoology, Botany.* Thourout, Belgium, May 24, 86. Ph.D, Ghent, 08. Research assoc. Congo zool, Am. Museum Nat. Hist, 17–22; instr. *entom, Harvard Med. Sch,* 23–25, *asst. prof, 25–, assoc. curator insects, museum comp. zool, Harvard, 29–* Entomologist, Belgian Sleeping Sickness Cmn, Belgian Congo, 10–12; in charge bot. explorations, Belgian Congo, 13–15; mem. special staff, int. health div, Rockefeller Foundation, 35. Fel. Entom. Soc. Amer; Acad. Trop. Med; cor. mem. Entom. Soc; N. Y. Entom. Soc; Brooklyn Entom. Soc; Cambridge Entom. Club; Boston Malacol. Club; Soc. zool. de France; Soc. entom. de France; cor. mem. Soc. de Path. exot; Soc. entom. de Belg; Soc. belge de Méd. trop; assoc. mem. Inst. royal colonial belg; Biol. Genootschap Dodonaea; Kon. Vlaamsche Acad; Soc. d'Hist. nat. de l'Afrique du Nord; Cercle zool. congolais; cor. mem. Acad. Colombiana Cienc. Medical entomology; malacology; Hymenoptera; Diptera; African mollusks.

Beranek, Dr. Leo L(eroy), Harvard University, Cambridge, Mass. *Physics, Communication engineering.* Solon, Iowa, Sept. 15, 14. A.B, Cornell Col, 36; M.S, Harvard, 37, Sc.D, 40. *Instr. physics and communication eng, Harvard, 40–* Sec'y and project research director, cmt. sound control, Nat. Research Council, 40– Fel. Acoustical Soc; Radio Eng. Architectural acoustics; electro-mechanico-acoustical devices.

Bérard, Dr. Henri L(ouis), Department of Agriculture, Ottawa, Ont, Can. *Dairy science.* Manville, R. I, Dec. 23, 00. B.A, Montreal, 20, B.S.A, 26; Ph.D, Cornell, 30. Dairy specialist, Dept. Agr, Que, 30–31; prof. and chief bacter. and chem. labs, Provincial Dairy Sch, St. Hyacinthe, 31–36; *dairy specialist, Dept. Agr, Ottawa, 36–* Lecturer, Ste. Anne de la Pocatière Agr. Col, 33–36. Inspector, Que. Dairy Cmn, 34–36; mem. bur. examiners, Provincial Dairy Sch, 34–35. Can. Pub. Health Asn; Can. Soc. Tech. Agr; Soc. Sci. de l'Ont. Dairy starters.

Berberich, Dr. Leo J(oseph), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Electrical engineering.* Petersburg, Va, Nov. 19, 06. B.E, Hopkins, 28, D.E, 31. Test engineer, Westinghouse Elec. and Mfg. Co, 29; junior engineer, Bur. Standards, 30; asst, Hopkins, 31; *research engineer,* research and develop. div, Socony-Vacuum Oil Co, Inc, 32–37, in charge cable oil research, 34–37; *research lab, Westinghouse Elec. and Mfg. Co, 37–, in charge physical sect, insulation dept, 41–* Mem. cmt. elec. insulation, Nat. Research Council. A.A; Elec. Eng. (cmt. elec. machinery); Chem. Soc. Electrical measurements and measuring equipment for insulating materials; electric discharge effects on hydrocarbons and insulating oils; properties of high voltage cable and capacitor liquids; electrical insulation theory; high voltage machine insulation; corona suppression.

Berchet, Dr. Gerard J(ean), R.F.D. 2, Wilmington, Del. *Organic chemistry.* Lyons, France, Dec. 3, 02. Licencié, Lyons, 23; fellow, Col. de France, 24–26; fellow, Colorado, 26–29, Ph.D, 29. *Research chemist, E. I. du Pont de Nemours and Co, 29–* Chem. Soc; Soc. chim. de France. Autoxidation; unsaturated aromatic hydrocarbons; Wurtz reaction in liquid ammonia; polymerization; unsaturated aliphatic halogenated compounds.

Bercovitz, Dr. Z(acharias), 30 E. 72nd St, New York, N. Y. *Physiology, Clinical parasitology, Gastro-enterology.* April 9, 95. B.S. and M.S, Chicago, 20, Ph.D, 24, M.D, Rush, 24. Physician in charge, Presbyterian Mission Hosp, Andong, Korea, 24–29; research fellow, N. Y. Post-Grad. Med. Sch, Columbia, 29–30; consultant in int. med, Pyengyang Union Christian Hosp, Korea, 30–34; *physician in charge parasitol. service, bur. labs, Dept. Health, New York, N. Y, 34–; U. S. Army.* Asst. attending physician, Presbyterian Hosp, N. Y, 38–40; N. Y. Post-Grad. Hosp. and Med. Sch, Columbia, 38–; consultant trop. med, Ellis Island Hosp, 38–; instr, med. col, Cornell, 38–, asst. visiting physician, Bellevue Hosp, 38– Soc. Trop. Med; Am. Med. Asn; fel. Col. Physicians; fel. Gastro-Enterol. Asn; fel. N. Y. Acad. Med; fel. N. Y. Gastro-Enterol. Soc; N. Y. Soc. Trop. Med; fel. Royal Soc. Trop. Med. and Hygiene. Physiology of the stomach; pupillary reactions in pregnancy; chronic ulcerative colitis; parasitology.

Berenda, Dr. Carlton W(arren), College of the City of New York, New York, N. Y. *Physics.* Atlantic City, N. J, April 17, 11. B.S, Villanova Col, 32; A.M, Columbia, 35, Ph.D, 37. Lecturer foundations of physical science, Muhlenberg Library, New York, 38–41; *instr. physics, Col. City of N. Y, 41–* A.A; Philos. Asn. Relativity; accelerative motion; gravitational fields; foundations of physical science; relativity physics.

Berens, Dr. Conrad, 35 E. 70th St, New York, N. Y. *Ophthalmology.* Philadelphia, Pa, Dec. 2, 89. M.D, Pennsylvania, 11. *Practising physician.* Consultant, U. S. Veterans Hosp. No. 81, 21–; pathologist, New York Eye and Ear Infirmary, 24–, ophthalmic surgeon, 27–, director dept. motor anomalies and dept. research, 34–; directing ophthalmologist, Midtown Hosp, 26–; consultant, New York Infirmary for Women and Children, 29–; prof, N. Y. Univ; managing director, Ophthalmological Foundation, Inc; pres, Snyder Ophthalmic Foundation. V. chairman, Am. Board Ophthal, 36, chairman, 37– A.A; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Asn. Research Ophthal; Am. Med. Asn. (chairman sect. ophthal, 43); Asn. Research Nervous and Mental Disease; Asn. Mil. Surg; Optical Soc; Col. Surg; Soc. Prevention Blindness (director, 26–); Air Med. Asn. (pres, 30); N. Y. Asn. Blind (director, 35–); N. Y. Acad. Med; Med. Soc. County of N. Y. (pres. elect, 43); Pan-Am. Med. Asn; Soc. des Chirurg. de Paris. Changes in the fundus and in blood pressure in the retinal arteries; orthoptic training; social service; operations on the eyes; prevention of blindness; the eye and its diseases.

Berg, Dr. B(enjamin) N(athan), 12 E. 88th St, New York, N. Y. *Pathology.* New York, N. Y, Dec. 8, 97. A.B, Col. City of N. Y, 16; M.D, Columbia, 20. *Assoc. path, Columbia,* 27– Assoc. attending surgeon, Harlem Hosp, 30–; Hosp. Joint Diseases, 38– Blumenthal fellow, Columbia, 28. Fel. Col. Surg; Asn. Exp. Path; Soc. Exp. Biol; Harvey Soc; fel. N. Y. Acad. Med. Pathological physiology of the stomach, liver, gall bladder and pancreas.

Berg, Prof. Clarence P(eter), 528 N. Dubuque St, Iowa City, Iowa. *Biochemistry.* Mead, Nebr, Aug. 30, 00. A.B, Augustana Col, 24; A.M, Illinois, 25, Ph.D, 29. Instr. *biochem, Iowa,* 29–32, assoc, 32–35, asst. prof, 35–39, *assoc. prof, 39–* A.A; Soc. Biol. Chem; Chem. Soc. (sec'y, Iowa sect, 32, chairman, 33); Inst. Nutrition; Soc. Exp. Biol. (sec'y, Iowa sect, 36, chairman, 37); fel. Iowa Acad. Influence of optical isomerism on intermediary metabolism of amino acids; detoxication.

Berg, Dr. J(ohn) Robert, 2301 N. Tenth St, Terre Haute, Ind. *Geology, Chemistry.* Chicago, Ill, Feb. 18, 15. A.B, Augustana Col, 38; M.S, Iowa, 40, Ph.D, 42. Asst. miner, petrol. and econ. geol, Iowa, 39–42; *supervisor mil. explosives, E. I. du Pont de Nemours and Co, 42–* Summers, instr, Iowa, 40, 41. A.A; Chem. Soc; Iowa Acad. Mineralogical and chemical characters of igneous and metamorphic rocks and ore deposits.

Berg, Dr. William D(arragh), State University of Iowa, Iowa City, Iowa. *Applied mathematics.* Gary, Ind, Oct. 24, 16. A.B, Hanover Col, 38; M.S, Iowa, 40, Ph.D, 41. *Instr. math, Iowa, 41–* Math. Soc; Inst. Actuaries; Iowa Acad. Actuarial mathematics.

Berg, Dr. William N(athan), 789 West End Ave, New York, N. Y. *Pathological chemistry.* Hungary, Sept. 22, 81. B.S, Columbia, 04, Ph.D, 07. Asst. physiol. chem, col. physicians and surg, Columbia, 04–07; tutor biochem, 07–08; chemist, dairy div, bur. animal indust, U. S. Dept. Agr, 08–12;

path. div, 12–22; *biochemist, Berg Biol. Lab, 22–* Capt, Sanit.C, 18–19. A.A; Soc. Biol. Chem; Soc. Bact; Soc. Exp. Biol. Biochemistry of foods and nutrition; preparation and testing of anthrax, diphtheria and tetanus antitoxins; chemical nature of antitoxin; anaerobes; metabolism calculations; statistical methods in tuberculosis research.

Bergeim, Prof. Olaf, University of Illinois College of Medicine, Chicago, Ill. *Physiological chemistry.* Watertown, S. Dak, Nov. 6, 88. B.S, S. Dak. State Col, 08; M.S, Illinois, 12; Ph.D, Jefferson Med. Col, 14. Instr. physiol. chem. and toxicol, Jefferson Med. Col, 12–14, demonstrator physiol. chem, 14–16, org. and physiol. chem, 15–17, assoc, 17–19, asst. prof, 19–23; *physiol. chem, col. med, Illinois,* 23–27, *assoc. prof,* 27– Research div, C.W.S, 18. A.A; Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Soc. Exp. Biol; Inst. Med; Int. Asn. Dental Research. Digestion and metabolism.

Berger, Prof. C(harles) A(lbert), S.J, Fordham University, New York, N. Y. *Biology.* Passaic, N. J, Oct. 29, 01. A.B, Boston Col, 25, A.M, 26; Ph.D, Hopkins, 37. *Prof.* biol. and embryol, Loyola Col. (Md), 26–29; biol, Woodstock Col. (Md), 29–40; *prof. cytol. and director biol. lab, Fordham, 40–* A.A; Genetics Soc; Soc. Zool; Torrey Bot. Club. Cytology; genetics.

Berger, Dr. E(dward) W(illiam), State Plant Board, Gainesville, Fla. *Zoology, Entomology.* Berea, Ohio, Nov. 29, 69. A.B, German Wallace, 91; Ph.B. Baldwin, 94; Ph.D, Hopkins, 99. Prof. science, Baldwin, 99–01; Lincoln High Sch, Cleveland, 01–02; entomologist, Exp. Sta, Florida, 06–11, univ, 11–15; state inspector of nursery stock, Fla, 11–15; entomologist, State Plant Board, 15–43; *retired.* Silver medal, Royal Int. Hort. Exhib, London, 12. A.A; fel. Entom. Soc. Amer; Asn. Econ. Entom; Fla. Entom. Soc. (pres, 17); hon. mem. Fla. Hort. Soc; Ohio Acad. Physiology and histology of Cubomedusae; Pseudoscorpionida; habits of Hyphantria cunea; biology and control of Aleyrodidae; insects of Florida; quantity production of entomogenous fungi and the Vedalia, Rodolia cardinalis; biological control.

Berger, Henry G(eorge), 436 W. Center St, Woodbury, N. J. *Organic chemistry.* Chicago, Ill, Aug. 27, 98. B.S, Illinois, 21; M.S, Carnegie Inst. Tech, 22. Asst. chemist, Bur. Mines, 22–24; manager research heat insulation, Armstrong Cork and Insulation Co, 24–27; *research chemist,* United Gas Improvement Co, 27–29; *Socony-Vacuum Oil Co, Inc, 29–* Chem. Soc. (councilor, 41–). Low temperature carbonization; gas meter deposits; heat insulation; coking properties of coals; organic petroleum research; lubricant additives.

Berger, Dr. Julius, Connecticut College, New London, Conn. *Biochemistry.* Hamilton, Ont, Can, Nov. 28, 13. B.A, McMaster, 33, M.A, 34; M.S, Wisconsin, 36, Ph.D, 38. Asst. biochem. and bacter, Wisconsin, 35–37, research fellow biochem, 37–38, asst, 38–40; *research assoc. bot, Conn. Col, 40–* Chem. Soc. Proteolytic enzymes of microorganisms; plant hormones and their possible enzyme relations.

Berger, Dr. K(ermit) C(arl), R.F.D. 2, Mendota Beach Heights, Madison, Wis. *Soils.* Waterford, Wis, April 30, 10. B.S, Wisconsin, 37, indust. fellow, 38–40, Ph.D, 41. Asst. *soils, Wisconsin,* 40–41, *instr, 41–* Fertilizer requirements of canning peas, corn, red beets, sugar beets and potatoes.

Berger, Dr. Louis F, Laval University, Quebec, Que, Can. *Pathology.* Strasbourg, France, Nov. 26, 95. B.A, Strasbourg, 13, M.D, 24. Asst. path, med. faculty, Strasbourg, 19–23, gynec, 21–22; chief pathological lab, radium inst, Paris, 23–24; *prof. gen. path, Laval, 25–, pathological anat, 39–, director anticancer center, 30–* Pathologist, St. Michael Hosp, 24–34; Enfant-Jesus Hosp, 34– Mem. Am. Board Pathologists. C.M.C, 14–19. Asn. Path. and Bact; Asn. Study Int. Secretions; fel. Royal Col. Physicians Can; Can. Med. Asn; Nat. Acad. Sci, Paris (laureate, 31); Asn. des Anat; Asn. française pour l'Etude du Cancer. Sympathicotropic cells; esthesioneuromas; tumors of the eye; blood diseases; synovial sarcomas.

Berggren, Miss Ruth E(ina) L(illian), 15 Adams St, Winter Hill, Mass. *Chemistry.* Somerville, Mass, May 18, 00. A.B, Radcliffe Col, 22, A.M, 23. Asst, Harvard Med. Sch, 23–26, fatigue lab, Harvard, 27–30; research fellow, Yale, 30–31, 36–37; research assoc, Fifth Ave. Hosp, New York, 32–35; research chemist, Kind and Knox Gelatin Co, 37–38; *abstractor, 'Chem. Abstracts,' 31–; 'Jour. Dairy Science,' 41–* A.A; Chem. Soc; Dairy Sci. Asn; Inst. Chem. Physical chemistry of the proteins; composition of serum in work and rest; phosphorus in casein; curd tension and peptic digestion of milk; peptic digestion of gelatin; calcium and phosphorus metabolism.

Berggren, Prof. W(illard) P(aul), College of Agriculture, University of California, Davis, Calif. *Mechanics.* Pittsburg, Calif, Aug. 20, 12. B.S, California, 31, M.S, 32, Ph.D, 34. Asst. mech. eng, *California,* 32–35, instr. *physics, col. agr,* 35–41, *asst. prof, 41–,* junior physicist, *Exp. Sta,* 38–41, *asst. physicist, 41–,* supervisor eng-science-management defense training, San Diego, 41–42. Eng. Educ. Applied elasticity; vibration; heat conduction.

Bergman, Dr. Elmer O(tto), C. F. Braun and Co, Alhambra, Calif. *Civil engineering.* Kimball, Nebr, Jan. 21, 92. A.B, Creighton, 20; B.S, Colorado, 25, M.S, 26, C.E, 32; univ. fellow, Stanford, 37–38, Ph.D, 38. Instr. civil eng, Colorado, 24–26, asst. prof, 26–32, assoc. prof, 32–37; research engineer, *C. F. Braun and Co,* 38–40, *tech. adviser, 40–* Summers, acting bridge engineer, State Highway Dept, Wyo, 28; research assoc, Bur. Standards, 29–30; consultant, U. S. Bur. Reclamation, Colorado, 31–36. Civil Eng. Theory of elasticity; model testing of arch and gravity dams; fluid flow; heat transfer; stresses in rectangular plates.

Bergman, Prof. H(enry) D(ale), Iowa State College, Ames, Iowa. *Physiology, Pharmacology.* Newton, Iowa, Nov. 22, 86. D.V.M, Iowa State Col, 10. Asst. vet. med, *Iowa State Col,* 10–11, asst. prof. *vet. physiol. and pharmacol,* 11–13, assoc. prof, 13–16, *prof. and head dept, 16–* Chairman subcmt. vet. items, Revision Nat. Formulary, 30– A.A; Vet. Med. Asn. (chairman, cmt. on educ, 20–22, proprietary pharmaceuticals, 27–38, policy, 38, exec. board, 37–39, pres, 38); Iowa Vet. Med. Asn. (sec'y, 18–22, pres, 24); Iowa Acad. Veterinary pharmacology and therapeutics; physiology of the duodenal glands of domestic animals; blood of swine; digestion in ruminants.

Bergman, Dr. H(erbert) F(loyd), U. S. Department of Agriculture, Massachusetts State College, Amherst, Mass. or East Wareham, Mass. *Plant pathology.* Medicine Lodge, Kans, Sept. 15, 83. B.S, Kans. Col, 05; M.S, Minnesota, 15, Ph.D, 18. Asst. bot, Kans. Col, 06–08; asst. prof, N. Dak. Col, 08–12; Minnesota, 12–17; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 17–19; prof. bot, Hawaii, 19–29; *senior pathologist, bur. plant indust, U. S. Dept. Agr, 29–* Seessel fellow, Yale, 25–26. A.A; Phytopath. Soc; Soc. Plant Physiol; Ecol. Soc; Bot. Soc; Eugenics Soc; Genetic Asn; Mycol. Soc; Soc. Plant Taxon; New Eng. Bot. Club; Hawaiian Bot. Soc. (pres, 27). Plant physiology and ecology; flora of North Dakota; aeration of roots; plant succession; respiration; effects of copper on growth and yield of cranberries; cranberry fruit rots; oxygen deficiency injury in cranberries.

Bergman, Dr. H(yman) C(haim), 1648 E. 72nd St, Chicago, Ill. *Pharmacology.* Russia, Oct. 10, 05. A.B, California at Los Angeles, 28; Ph.D, Southern California, 37. Junior chemist, bur. animal indust, U. S. Dept. Agr, 28–29; biochemist, Scripps Metabolic Clinic, 29–33; Hormone Assay Lab, 37–38; *pharmacologist, Wilson Labs, 38–* A.A; Chem. Soc. Carbohydrate metabolism; hormones; anterior pituitary; adrenal cortex; pharmacology of tissue extracts.

Bergmann, Dr. Max, 205 E. 78th St, New York, N. Y. *[6]*Chemistry, Biochemistry.* Fuerth, Germany, Feb. 12, 86. B.S, Munich, 07; Ph.D, Berlin, 11. Asst, chem. inst, Berlin, 15; v. director and head dept. org. chem, Kaiser Wilhelm Inst. for Fiber Chemistry, 20; privat-docent, Berlin, 20; hon. prof, Tech. Hochschule, Dresden, 21; director, Kaiser Wilhelm Inst. for Leather Research, 21–34; assoc. mem, *Rockefeller Inst,* 34–37, *mem, 37–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Leather Chemists Asn; hon. mem. Harvey Soc; N. Y. Acad; Chem. Soc. London; Int. Soc. Leather Chem. (pres, 28–33). Organic chemistry.

Bergmann, Dr. Peter Gabriel, Lehigh University, Bethlehem, Pa. *Physics.* Berlin, Germany, March 24, 15. Dresden, 31–32; Freiburg, 32–33; Ph.D, Prague, 36. Mem. sch. math, Inst. Advanced Study, 36–41; *asst. prof. physics,* Black Mountain Col, 41–42; *Lehigh, 42–* Physical Soc; Math. Soc. Theory of relativity; field theory; electron optics; theory of iridescent layers.

Bergmann, Dr. W(erner), Yale University, New Haven, Conn. *Chemistry.* Bielefeld, Germany, April 30, 04. Ph.D, Göttingen, 28. Liebig fellow, Göttingen, 29–30; Rockefeller fellow, Edinburgh, 30–31, Heidelberg, 31; asst, *Yale,* 31–34, Textile Foundation fellow, 34–39, asst. prof. *chem,* 39–43,

assoc. prof, 43– A.A; Chem. Soc; Soc. Biol. Chem; Soc. Cancer Research. Sterols; chemistry of marine products and insects; carcinogens and peroxides.

Bergner, Dr. A(nna) Dorothy, U. S. Department of Agriculture, Box 1708, Salinas, Calif. *Genetics, Cytology.* Baltimore, Md, Sept. 22, 98. A.B, Goucher Col, 20; A.M, Columbia, 27, Ph.D, 28. Asst. biol, Goucher Col, 20–21; Carnegie Institution, Cold Spring Harbor, 21–23, cytologist, 28–42; *mem. guayule research project, bur. plant indust, U. S. Dept. Agr, 42–* Shared A. Cressy Morrison prize, N. Y. Acad, 36. A.A; Soc. Nat; Genetic Asn; Bot. Soc. Crossing-over in Drosophila melanogaster; cytology of Datura stramonium.

Bergquist, Prof. S(tanard) G(ustaf), Michigan State College, East Lansing, Mich. *Geology.* Ironwood, Mich, Aug. 13, 92. A.B, Michigan, 15, M.S, 26, Ph.D, 33. Assoc. prof. *geol, Mich. State Col,* 16–33, *prof, 33–, head dept, 30–* Consulting geologist, Engineers' Research Asn, 36–37. Summers, soil surv, Mich, 21–24; marl surys, State Geol. Surv, 25–26; geologist, Land Econ. Surv, 28–33. Mem, Governor's Nat. Gas Fact Finding Cmt, Mich, 37. A.A; fel. Geol. Soc; Oil and Gas Asn. Mich; Mich. Geol. Soc. (business manager, 36, 40); Mich. Acad. (chairman, geol. sect, 27, pres, 37). Glacial geology of Michigan; sand dunes on Lake Superior; drumlins.

Bergren, Dr. William R(aymond), Post Hospital, Ft. Benning, Ga. *Bio-organic chemistry.* Tacoma, Wash, July 25, 10. B.S. Calif. Inst. Tech, 32, Ph.D, 41. Teaching fellow biochem, Calif. Inst. Tech, 33–35, asst. animal physiol, 35–37; develop. chemist, fisheries indust, 40–41; director research, Truesdail Labs, 41–42; *food and nutrition officer, Sanit. Corps, U. S. Army, 42–* Chem. Soc. Plant hormones; muscle chemistry; enzyme mechanisms; vitamins.

Bergsmark, Prof. Daniel Rockman, University of Cincinnati, Cincinnati, Ohio. *Geology, Geography.* Drammen, Norway, Aug. 21, 98. B.S, Minnesota; fellow, Chicago, 26. Asst. geog, Minnesota, 25; instr, *Cincinnati,* 27–28, mem. resource surv, 29, asst. prof. *geog,* 30–39, *assoc. prof, 39–* Summer, instr, Minnesota, 27, prof, 37; asst. prof, Ohio State, 32. Ill. Acad. Geography of Norway, Costa Rica, Imerina and Asia; geographical regions of India; relative humidity and forest fires; general college geography; land utilization in Denmark; economic geography of Asia; modern world geography.

Bergsteinsson, Dr. I(ngolfur), Yale Oil Co, Billings, Mont. *Organic chemistry.* Alameda, Sask, Can. B.Sc, Saskatchewan, 29, M.Sc, 31; Ph.D, Stanford, 34. Asst. chem, Saskatchewan, 29–31; Stanford, 32–34; *chemist,* Shell Develop. Co, 34–42; *Yale Oil Co, 42–* The saponin and sapogenin of the manroot.

Bergstresser, Prof. Karl S(amuel), 1027 S. Hickory St, Ottawa, Kans. *Chemistry.* Bangor, Pa, Sept. 23, 09. A.B, North Cent. Col, 31; M.S, Washington (St. Louis), 33, fellow, 34–35, Ph.D, 35. Asst. *chem,* Washington (St. Louis), 31–33; instr, N. Dak. Col, 35–36; *prof, Ottawa (Kans), 36–* Chem. Soc; Kans. Acad. Antimony electrodes; induced reactions.

Bergstrom, Prof. F(rancis) W(illiam), 585 Salvatierra St, Stanford University, Calif. *Chemistry.* Bloomington, Ind, Jan. 10, 97. A.B, Stanford, 18, Ch.E, 19, Ph.D, 22. Nat. research fellow chem, Stanford, Clark and Brown, 22–25; from instr. to *prof. org. chem, Stanford, 25–* Guggenheim Mem. Foundation fellow, Oxford, 34. A.A; Chem. Soc. Inorganic and organic chemistry; the ammonia system of acids, bases and salts; use of liquid ammonia in organic synthesis; alkali and alkaline earth amides; heterocyclic compounds of nitrogen.

Bergy, Prof. Gordon A(lger), West Virginia University, Morgantown, W. Va. *Pharmacy.* Caledonia, Mich, May 1, 90. Ph.C, Michigan, 13, B.S, 15, M.S, 16. Asst. *pharmacy,* Michigan, 13–16; *prof, West Virginia, 16–* A.A; Pharmaceut. Asn. (sec'y, sect. educ. and legis, 23, chairman, 24); Chem. Soc. (sec'y, north. W. Va. sect, 25, chairman, 38); W. Va. Pharmaceut. Asn. (sec'y, 23); W. Va. Sci. Soc; W. Va. Acad. (sec'y, chem. sect, 40, chairman, 41). Quantitative determination of alkaloids by the use of hydrated aluminum silicates; pharmaceutical applications of the alkyl and aryl amines; sulfated alkyl and aryl alcohols; ethyl and methyl celluloses.

Berhenke, Dr. Luther F(rederick), Dow Chemical Co, Midland, Mich. *Organic chemistry.* Lena, Ill, Aug. 14, 09. A.B, Carthage Col, 31; Ph.D, Iowa, 34. *Org. research chemist, Dow Chem. Co, 34–* Chem. Soc. Development of industrial organic chemical processes.

Berk, A(braham) A(lbert), R. F. D. 1, Berwyn, Md. *Chemistry.* New York, N. Y, Aug. 1, 07. B.S, Cooper Union, 28; M.S, N. Y. Univ, 31. Mem. staff, *U. S. Bur. Mines,* 31–41, *assoc. chemist, 41–* Soc. Metals; Chem. Soc. Analytical methods for cement; non-metallic mineral extraction; high temperature solubility; effect of solutions on steel at elevated temperatures; general water engineering and boiler-water chemistry; embrittlement of boiler metal; analytical methods for industrial waters.

Berkeley, Dr. Garven H(ugh), Niagara St, St. Catharines, Ont, Can. *Plant pathology.* Belleville, Ont, Nov. 30, 94. B.A, Queen's (Can), 19; M.A, Toronto, 21, Ph.D, 23. *Officer in charge plant path. lab, Can. Dept. Agr.* Phytopath. Soc. (councilor, 31); Can. Phytopath. Soc; Can. Soc. Tech. Agr. (v. pres, Niagara sect, 26). Botrytis; utilization of sulfite liquor; verticillium wilt; raspberry mosaic, leaf curl and root-rot; plum diseases; strawberry root-rot and leaf roll; root rots; virus diseases of tomatoes.

Berkeley, Dr. W(illia)m N(oland), 30 Fairview St, Yonkers, N. Y. *Chemistry.* Aldie, Va. B.S, St. John's Col. (Md), 96; Ph.D, Hopkins, 99. Insular chemist, San Juan, P. R, 99–05; chemist in charge food lab, U. S. Dept. Agr, Phila, 05–06; prof. chem. and physics, Sweet Briar Col, 06–07; chemist, Exp. Sta, U.S.N, 08–19; ed, 'Fuel Eng. Bul,' U. S. Fuel Admin, 19–25; consulting chemist, 26–37; *director, Yonkers Museum Science and Art, 37–* Chem. Soc; Soc. Chem. Indust. The small community museum.

Berkelhamer, Louis H(arry), 28 University Circle, Tuscaloosa, Ala. *Ceramics, Mineral technology.* Chicago, Ill, April 23, 12. B.S, Illinois, 33; U. S. Bur. Mines fellow, Washington (Seattle), 35–36, M.S, 36. Research ceramic engineer, Ill. State Geol. Surv, 34; research engineer, ceramics div, Battelle Mem. Inst, 36–38; research engineer and petrographer, Saranac lab, E. L. Trudeau Foundation, N. Y, 38–41; *assoc. mineral technologist, U. S. Bur. Mines, 41–* Tech. ed, 'Ceramic Catalogs and Cyclopedia,' 34. Ceramic Soc; Inst. Ceramic Eng; Miner. Soc. Clays; ceramic and non-metallic materials and products; mineralogical aspects of silicosis and pneumoconiosis problems.

Berkey, Prof. Charles P(eter), Columbia University, New York, N. Y. *[3]*Geology.* Goshen, Ind, March 25, 67. B.S, Minnesota, 92, M.S, 93, Ph.D, 97, Sc.D, 40; hon. Sc.D, Columbia, 29. Instr. miner, Minnesota, 93–03; tutor *geol, Columbia,* 03–07, instr, 07–10, asst. prof, 10–14, assoc. prof, 14–16, prof, 16–29, Newberry prof, 29–38, *emer. prof, 38–,* exec. officer, dept. geol. and miner. Asst, Minn. and Wis. Geol. Surveys; special geologist, N. Y. Geol. Surv; geologist, Board Water Supply, New York; Metropolitan Dist. Water Supply Cmn, Mass; Port of New York Authority; Triborough Bridge Authority; New York Tunnel Authority; mem. U. S. Colo. River Board; consulting board, Dept. Pub. Works, Calif; Dept. Water and Power, Los Angeles; consulting geologist on Bonneville Dam, U. S. War Dept; consulting engineer, U. S. Bur. Reclamation, Tenn. Valley Authority. Board sci. directors, N. Y. Bot. Garden. Chief geologist, Cent. Asiatic exped, Am. Museum Nat. Hist, 22, 25–; research assoc, Am. Museum Nat. Hist. Nat. Acad; A.A. (councilor, 16); Geol. Soc. (sec'y, 22–40, v. pres, 37, pres, 41); Min. and Metal. Eng; hon. mem. Civil Eng; Philos. Soc; fel. N. Y. Acad. (v. pres, 13, pres, 28, 29); Minn. Acad. (cor. sec'y, 97–03); for. mem. Geol. Soc. London; Geol. Soc. China. Engineering and applied geology; the geology and mineralogy of Keweenawan and Cambrian areas in Minnesota and Wisconsin; structural and stratigraphic features of the Highlands of New York; structural and engineering geology of New York City; geology of the Catskill aqueduct; the St. Peter sandstone of the Mississippi Valley; reconnaissance of Puerto Rico; geology of the West Point quadrangle, New York; exploratory reconnaissance of the Gobi desert region; geology of Mongolia.

Berkey, Dr. Donald Keith, Colgate University, Hamilton, N. Y. *Physics.* Mt. Ayr, Iowa, June 23, 04. B.S, Antioch Col, 29; Baldwin fellow, Cincinnati, 29–30, Hanna fellow, 30–32, A.M, 31, Ph.D, 32. Physicist, Beech-Nut Packing Co, 32–40; *instr. physics, Colgate, 40–* Summers, physicist, Beech-Nut Packing Co, 40, 41. A.A; Physical Soc; Soc. Rheol. (chairman membership cmt, 40); Soc. Test. Mat. X-rays; plasticity; spectroscopy; rheology.

Berkey, W(illiam) E(ugene), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Electricity.* Humeston, Iowa, 04. B.S, Iowa State Col, 28. *Elec. research, research labs, Westinghouse Elec. and Mfg. Co, 28–* Elec. Eng;

Physical Soc. Arcs in vacua; cathode ray oscillograph investigations; lightning arresters.

Berkley, Dr. Earl E(sco), U. S. Department of Agriculture, Beltsville, Md. *Fiber technology.* Clayton, W. Va, July 9, 02. A.B, West Virginia, 29; M.S, Washington (St. Louis), 30, Ph.D, 33. Chemist, Cellulose Research Corp, East Alton, Ill, 35–36; assoc. cotton technologist, *bur. plant indust, U. S. Dept. Agr,* 36–41, *cotton technologist, 41–* Cell wall structure as related to the physical properties of cotton fibers.

Berkman, Prof. Anton H(elmer), College of Mines and Metallurgy, El Paso, Texas. *Botany.* Round Rock, Texas, April 10, 97. A.B, Texas, 24, A.M, 26; Ph.D, Chicago, 36. Asst. prof. biol, Agr. and Mech. Col. Texas, 26–27; assoc. prof, *col. mines and metal, Texas,* 27–35, *prof. biol. science, 35–* A.A; Bot. Soc; Texas Acad. Ecology; hydrogen ion concentration value of soils and its relationship to woody plants; morphology; seedling anatomy of Cannabis sativa.

Berkman, Dr. Sophia, 426 Surf St, Chicago, Ill. *Chemistry.* Russia, April 4, 99. Higher Tech. Col, Moscow, 18–22; Dr. Ing, Univ. Moscow, 22. Asst. prof. physical chem. and electrochem, Univ. Moscow, 22–25, lecturer chem. thermodyn, 23–25; research assoc, Kaiser Wilhelm Inst, Berlin-Dahlem, 25–28; guest, Chicago, 29–30; research assoc, Universal Oil Products Co, Chicago, 30–41. Research assoc, Univ. Moscow, 19–25; Chicago, 31–35. A.A; Chem. Soc. Electrochemistry; physical, colloid and industrial chemistry; emulsions; catalysis.

Berkner, L(loyd) V(iel), Department of Terrestrial Magnetism, Carnegie Institution, 5241 Broad Branch Road, N.W, Washington, D. C. *Physics.* Milwaukee, Wis, Feb. 1, 05. B.S, Minnesota, 27. Elec. engineer, U. S. Bur. Lighthouses, 27–28; Bur. Standards, 28–33; *physicist, dept. terrestrial magnetism, Carnegie Institution, 33–; lieut. commander, bur. aeronaut, U. S. Navy, 41–* Consultant, Nat. Defense Research Cmt, 40–41. Mem. Byrd Antarctic exped, 28–30. Congressional gold medal, U. S, 30. Physical Soc; Elec. Eng; Radio Eng. (board editors; cmt. wave propagation); Geophys. Union; Wash. Acad. Radio wave propagation; structure of the high upper atmosphere; ionization measurements of the ionosphere; relation of upper atmospheric ionization to terrestrial magnetism; aviation radio development.

Berkson, Prof. Joseph, Mayo Clinic, Rochester, Minn. *Biometry.* New York, N. Y, May 14, 99. B.S, Col. City of N. Y, 20; A.M, Columbia, 22; M.D, Hopkins, 27, Sc.D, 28. Assoc. mem. inst. biol. research, Hopkins, 29–30; asst. surgeon, U. S. Pub. Health Service, 31; Macy Foundation fellow physiol, *Mayo Clinic,* 31–32, *head div. biometry and med. statist, 32–, assoc. prof. biometry, Minnesota, 32–* A.A; Pub. Health Asn; Physiol. Soc; Statist. Asn. Physiology; medical statistics.

Berkwitz, Dr. N(athaniel) J(oseph), 518 Medical Arts Bldg, Minneapolis, Minn. *Neuropsychiatry.* Minneapolis, Minn, Aug. 2, 99. B.S, Minnesota, 22, A.B, 23, M.D, 24, Ph.D, 29. *Instr. nervous and mental diseases, Minnesota, 30–; major, U. S. Army.* A.A; Am. Med. Asn; Psychiat. Asn; Cent. Neuropsychiat. Soc; Minn. Soc. Psychiat. and Neur. Faradic nonconvulsive shock therapy for mental disorders.

Berky, Prof. H(erbert) W(eller), 246 College Ave, Bluffton, Ohio. *Chemistry.* Clayton, Pa, Sept. 23, 87. A.B, Princeton, 13; Chicago, 13–16; A.M, Cincinnati, 29. Instr. physical sciences, *Bluffton Col,* 13–16, asst. prof, 16–21, *prof. chem, 21–, dean science, 30–* Chem. Soc. Action of calcium carbide on ethylene glycol and on polyatomic alcohols; mechanism of the reactions involving the carbide radical; reactions of the halogens on sodium and potassium hydroxide in anhydrous benzene.

Berl, Prof. Ernst, Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Freudenthal, Czechoslovakia, July 7, 77. Chem.E, Tech. Univ, Vienna, 98; Ph.D, Zurich, 01. Asst. to Alfred Werner, George Lunge and Richard Lorenz, Zurich, 01–04; asst. prof, Tech. Univ, Zurich, 04–10; chief chemist, Nitro Rayon Plant, Tubize, Belgium, 10–14; prof. chem. technol. and electrochem, Tech. Hochschule, Darmstadt, Germany, 19–33; *research prof. chem, Carnegie Inst. Tech, 33–* Chief chemist, Austro-Hungarian War Ministry, Vienna, 14–19. A.A; Chem. Soc; Inst. Chem; Chem. Eng; Faraday Soc. Chemical technology; analytical chemistry; origin of coal, oil and asphalts; rayon; explosives; heavy chemicals; flotation; activated carbon; attack of water and salt solutions on boiler material; history of chemistry; water purification; electrochemistry.

Berliner, Dr. J(ulius) F(rederick) T(homas), E. I. du Pont de Nemours and Co, Inc, Wilmington, Del. *Chemical engineering.* Santa Cruz, Tenerife, Canary Islands, July 16, 02. B.S, M.S, George Washington, 23, Ph.D, 26. Asst. physicist, Bur. Standards, 18–23; org. and physical chemist, bur. chem, U. S. Dept. Agr, 23–26, assoc. chemist, U. S. Bur. Mines, 26–27, 29; consulting engineer, potash mines, Blair and Co, 28; *develop. engineer, ammonia dept, E. I. du Pont de Nemours and Co, Inc, 29–* Instr, George Washington, 24–29. Chem. Soc; Phila. Miner. Soc. (v. pres, 39). Metallography; hydrofluoric acid; synthetic ammonia and alcohols; water purification; motor fuels; product development; foreign potash deposits; synthetic urea; chemical seasoning and treatment of lumber.

Berliner, Prof. Victor R, Mississippi State College, State College, Miss. *Physiology.* Moscow, Russia, Dec. 24, 01. Dipl. Agr, Berlin, 29; M.Sc, Alberta, 34; Ph.D, Missouri, 36. *Assoc. prof. animal and dairy husbandry, Miss. State Col, assoc, Exp. Sta.* Physiology of reproduction; nutrition; artificial insemination; efficiency of work stock; vitamin A, C and E requirement of dairy cattle.

Berly, J(oel) A(nderson), Clemson College, S. C. *Entomology.* Pomaria, S. C, Aug. 19, 92. B.S, Clemson Col, 14. Asst. entom, Clemson Col, 14–15; expert asst, S. C. Exp. Sta, 15–18; *asst. state entomologist, State Crop Pest Cmn, S. C, 18–* Collaborator, U. S. Dept. Agr, 15–23. A.A; Entom. Soc. Amer; Asn. Econ. Entom; S. C. Acad.

Berman, Dr. Abraham B(oyd), 957 Ocean Parkway, Brooklyn, N. Y. *Clinical psychology.* Jan. 28, 00. B.S, Col. City of N. Y, 21, fellow, 21–23, A.M, 27; M.S, Columbia, 26; Ph.D, N. Y. Univ, 34. Special lecturer psychol, Brooklyn Child Guidance Clinic, 36–42; *chief psychologist, Brooklyn Jewish Hosp, 38–* Res. doctor psychol, Cornell, 40. Fel. Asn. Applied Psychol. Behavior reactions of high school boys who stammer or stutter; pelvic musculature of Phoca vitulina; Zalophus californianus and Felis domestica; psychological aspects of recovery from cerebral hemorrhage.

Berman, Dr. Alvin L(eo), General Hospital, Army Air Base, Orlando, Fla. *Physiology, Medicine.* Cleveland, Ohio, Feb. 19, 14. A.B, Western Reserve, 35; M.S, Ohio State, 36; fellow, Northwestern, 38–41, M.D. and Ph.D, 41. Intern, Cincinnati Gen. Hosp, 41–42; *lieut, Med. Corps, Air Forces, U. S. Army, 42–,* aero med. lab, Wright Field, 42–43, *sch. applied tactics, sch. air med, Orlando, Fla, 43–* Gold medal, Am. Med. Asn, 40. Mechanisms of bile choleresis; rationale of bile salt therapy.

Berman, Prof. Harry, Harvard University, Cambridge, Mass. *Mineralogy.* Boston, Mass, Feb. 16, 02. A.A, Harvard, 31, A.M, 35, Ph.D, 36. Asst, *miner. museum, Harvard,* 24–36, *curator, 40–,* research assoc. *miner, univ,* 36–40, *assoc. prof, 40–* Fel. Miner. Soc; fel. Geol. Soc; fel. Miner. Soc. Gt. Britain and Ireland. Mineral chemistry; physical mineralogy.

Berman, Dr. Lawrence, Wayne University College of Medicine, Detroit, Mich. *Pathology, Hematology.* St. Paul, Minn, Feb. 17, 09. A.B, Minnesota, 34, M.D, 37, M.S, 40. Camp surgeon, Civilian Conservation Corps, 37–38; teaching fellow *path,* Minnesota, 38–41; *asst. prof, col. med, Wayne, 41–* Am. Med. Asn. Extragenital chorionepithelioma; pathologic nature of mycosis fungoides; primary tumor of inferior vena cava with clinical features suggestive of Chiari's disease; cancer as a cause of death; cultures of lymphoid tissue on dry films.

Berman, Dr. Louis, San Francisco Junior College, San Francisco, Calif. *Astronomy.* London, Eng, March 21, 03. A.B, Minnesota, 25, A.M, 27; Lick Observatory fellow, California, 27–29, 29. Asst, observatory, Minnesota, 25–27; *instr.* astron, Carleton Col, 29–31; *astron. and math,* San Mateo Junior Col, 31–35; *San Francisco Junior Col, 35–* A.A; Astron. Soc; Astron. Soc. Pacific. Comet positions and orbits; spectroscopic and visual binaries; variable stars; nebular and stellar spectroscopy; galactic rotation.

Berman, Dr. Nathan, 240 W. 75th St, New York, N. Y. *Bacteriology.* New Haven, Conn, Dec. 17, 93. Ph.B, Yale, 14, M.S, 16, Ph.D, 17. Fellow, Hopkins, 18–19; *Arlington Chem. Co, 19–* Summers, Eli Lilly and Co, 17; U. S. Pub. Health Service, 18. Red Cross sanit. service, 17–18. Soc. Bact. Bacterial metabolism; allergy.

Bernard, W(olfgang) E, 1207 E. 21st St, Tulsa, Okla. *Geology.* Chicago, Ill, Oct. 16, 93. E.M, Pittsburgh, 14. Geologist, Empire Oil and Gas Co, 15–18; *geologist and asst. chief geologist, Gypsy div, Gulf Oil Corp, 18–* Asn. Petrol. Geol; Tulsa Geol. Soc. Geologic structure and stratigraphy with reference to oil accumulation in the Central Interior Basins; interpretation of geophysical surveys.

Berner, Dr. Fred(eric) W(aldemar), Coolidge Drive and Hadley Road, Dayton, Ohio. *Electrochemistry.* Dayton, Ohio, April 15, 05. B.S, Dayton, 27; Ph.D, Cornell, 33. Chemist, Duriron Co, 28–29; instr. chem, Cornell, 29–33; research, Nat. Cash Register Co, 33–42; *mem. materials conservation unit, materiel center, Air Forces, U. S. Army, Wright Field, 42–* Electrochem. Soc; Faraday Soc; Electroplaters Asn. Plating; corrosion; inhibitors for the corrosion of aluminum in alkaline solutions.

Bernhard, Prof. H(ermann) R(udolf) L(udwig), 176 Prince George St, Annapolis, Md. *Chemistry.* St. Petersburg, Russia, March 16, 85. Ph.D, Berlin, 13. Instr. *chem,* Swarthmore Col, 23–25; asst. prof, *St. John's Col. (Md),* 25–26, assoc. prof, 26–30, *prof, 30–* Chem. Soc. Organic chemistry.

Bernhard, Dr. R(udolf) K(arl), 492 Greenwood Ave, Trenton, N. J. *Engineering.* Berlin, Germany, July 24, 94. London; Dresden; C.E. and D.E, Berlin, 22. Chief civil engineer, K. Bernhard, Berlin, Germany, 18–26; chief research engineer, German Railroad, 26–36; consulting engineer, Baldwin Southwark Corp, 36–38; head dept. eng. mech, Pa. State Col, 38–42; *consulting engineer, Heineman Elec. Co, 43–* Soc. Test. Mat; Civil Eng; Eng. Educ. Mechanical vibrations; testing materials; stress analysis of structures.

Bernhardt, Prof. H(arvey) A(dolphus), Clemson Agricultural College, Clemson, S. C. *Physical chemistry.* Salisbury, N. C, May 17, 15. A.B, Catawba Col, 37; Ph.D, North Carolina, 41. Asst. prof. *chem,* Furman, 41; *assoc. prof, Clemson Agr. Col, 42–* Summer, asst. prof, Tennessee, 41. Chem. Soc. Determination of the entropy of the chloride ion.

Bernhardt, Prof. Karl S(chofield), University of Toronto, Toronto, Ont, Can. *Psychology, Child development.* Toronto, Ont, Oct. 14, 01. B.A, Toronto, 26, M.A, 29; Ph.D, Chicago, 33. Lecturer *psychol, Toronto,* 30–35, asst. prof, 35–42, *assoc. prof, 42–,* instr, *inst. child study,* 36–40, *asst. director, 40–* Assoc. Psychol. Asn; Council Parent Ed; Council Family Relations; Soc. Research Child Develop; Can. Psychol. Asn. Animal behavior; learning.

Bernhart, Dr. F(inn) W(estellus), Cleveland Clinic, 93rd and Euclid, Cleveland, Ohio. *Biochemistry.* Sioux Falls, S. Dak, July 5, 07. Ph.C, South Dakota, 29, B.S, 32; M.S, Minnesota, 34, Ph.D, 38. Practicing pharmacist, 29–31; asst. *biochem,* Minnesota, 33–35, teaching fellow, 35–38; instr, Tulane, 38–41; *research assoc, Cleveland Clinic, 41–* Soc. Exp. Biol. Protein irradiation; amino acid analyses; protein denaturation.

Bernheim, Prof. Bertram M(oses), 1814 Eutaw Place, Baltimore, Md. *Surgery.* Paducah, Ky, Feb. 15, 80. A.B, Hopkins, 01, M.D, 05. Asst. surg, *Hopkins,* 12–14, instr. clin. surg, 14–24, assoc, 24–34, *assoc. prof. surg, 34–* Visiting surgeon, infirmary and hosps, Md; Union Mem. Hosp; Church Home and Infirmary; Hosp. for Women of Md; asst. visiting surgeon, Hopkins Hosp. Major, M.C, 17–19. A.A; fel. Col. Surg; fel. Am. Med. Asn; Surg. Research Club; South. Med. Asn; Med. and Chirurg. Faculty Md. Surgery of the vascular system; blood transfusion; gangrene of the extremities; blood vessel disorders.

Bernheim, Prof. Frederick, Duke University School of Medicine, Durham, N. C. *Physiology.* West End, N. J, Aug. 18, 05. A.B, Harvard, 25; Ph.D, Cambridge, 28. Nat. research fellow, 29–30; asst. prof. *physiol, sch. med, Duke,* 30–34, *assoc. prof, 34–* Oxidative processes in the animal body.

Bernheim, Prof. Mary L(ilias) C(hristian), Duke University School of Medicine, Durham, N. C. *Biochemistry.* Gloucester, Eng, June 28, 03. B.A, Cambridge, 25, M.A, 28, Ph.D. 29, fellow, Newnham Col, 27–29. Instr. *biochem, sch. med, Duke,* 30–33, *asst. prof, 33–* Biological oxidations.

Bernheimer, Dr. Alan W(eyl), New York University College of Medicine, New York, N. Y. *Bacteriology.* Philadelphia, Pa, Dec. 9, 13. B.S, Temple, 35, A.M, 37; Ph.D, Pennsylvania, 42. Asst. biol, Temple, 35–37; *instr. bacter,* Pa. State Col. Optometry, 37–39; *col. med, N. Y. Univ, 41–* A.A; Soc. Bact; Micros. Soc. Bacterial nutrition and toxin-production.

Bernheimer, Charles L(eopold), 1200 Fifth Ave, New York, N. Y. *Archeology.* Ulm, Germany, July 18, 64. Thudichmu's Col, Switzerland. Pres, *Bear Mill Mfg. Co,* 07–28, *chairman board directors, 28–* Various expeds, N. Am. Southwest, Am. Museum Nat. Hist. Chairman arbitration cmt, Chamber Commerce, N. Y, 11–; director and hon. v. pres, New York Board Trade. Trustee, Valeria Home; Baron de Hirsch Fund. Am. Geog. Soc; Am. Arbitration Asn. (director). Commercial arbitration; explorations in American Southwest, Yucatan and Guatemala; location and excavation of graves of the Basket Makers; natural bridges; dinosaur foot tracks; cliff ruins.

Bernier, Dr. Charles L(lewellyn), Ohio State University, Columbus, Ohio. *Chemistry.* Winona, Minn, Sept. 23, 07. B.S, Mont. State Col, 30; M.S, Ohio State, 33, Ph.D, 35. Indexer, *'Chem. Abstracts,'* 35–39, asst. ed, 39–41, *assoc. ed, 41–* Chem. Soc. The indexing of chemical literature.

Bernotavicz, Dr. John William, 117 Bellevue Ave, Brockton, Mass. *Food, Nutrition.* Brockton, Mass, June 24, 13. B.S, Providence Col, 35; M.S, Mass. State Col, 37, fellow, 37–38, 39–40, Ph.D, 41. Research director animal nutrition, Old Trusty Dog Food Co, 41–43; *assoc. marketing specialist, U. S. Dept. Agr, 43–* Chem. Soc. Utilization of semi-solid and dry buttermilk in animal feeds; nutritive properties of cocoa shell with possible utilizations in animal and human foods; development of dry dog foods.

Bernreuter, Prof. Robert G(ibbon), Pennsylvania State College, State College, Pa. *Psychology.* Tampico, Ill, Dec. 9, 01. A.B, Col. of Pacific, 24; Ph.D, Stanford, 31. Asst, psychol. clinic, Hawaii, 26–28; instr. *psychol,* Washington (St. Louis), 29–30; asst. prof, *Pa. State Col,* 31–35, assoc. prof, 35–36, 37–39, *prof, 39–; major, Army Service Forces, U. S. Army, 42–* Chief div. special educ, State Dept. Pub. Instruction, Pa, 36–37. A.A; Psychol. Asn; Pa. Asn. Clin. Psychol. (v. pres, 35, pres, 36). Racial psychology; clinical psychology; estimation of the attributes of personality.

Bernstein, Prof. B(enjamin) A(bram), University of California, Berkeley, Calif. *Mathematics.* Posvol, Lithuania, May 20, 81. Baltimore City Col, 97–02; A.B, Hopkins, 05; Ph.D, California, 13. Instr. *math, California,* 07–19, asst. prof, 19–23, assoc. prof, 23–29, *prof,* 29– A.A; Math. Soc; Math. Asn; Philos. Soc; Asn. Symbolic Logic. The foundations of mathematics.

Bernstein, Dr. Dorothy L(ewis), University of California, Berkeley, Calif. *Mathematics.* Chicago, Ill, April 11, 14. A.B. and A.M, Wisconsin, 34; Ph.D, Brown, 39. *Instr. math,* Mt. Holyoke Col, 37–40; Wisconsin, 41–42; *California, 42–* Math. Soc; Math. Asn. Theory of integration.

Bernstein, Dr. Felix, 949 Broadway, New York, N. Y. *Biometry.* Halle, Germany, Feb. 24, 78. Ph.D, Göttingen, 01. Privat-docent, Halle, 04–08; prof. math. statist. and actuarial math, Göttingen, 08–33, director inst. math. statist, 16–33; visiting prof. math, Columbia, 33–36; *prof. biometry, N. Y. Univ, 36–* Math. Soc; Asn. Physical Anthrop. Theory of aggregates; theta functions; human heredity; presbyopia and aging; mathematical statistics; social insurance.

Bernstein, Prof. Herbert I(rving), 3300 Federal St, Chicago, Ill. *Organic chemistry.* Philadelphia, Pa, Oct. 1, 14. A.B, Swarthmore Col, 36; fellow, Pa. State Col, 36–39, M.S, 37, Ph.D, 40. Asst. *chem,* Pa. State Col, 36–39, instr, 39–40; nat. research fellow, Princeton, 40–41; instr, *Ill. Inst. Tech,* 41–42, *asst. prof, 42–* Chem. Soc. Molecular rearrangements; organic phosphorus compounds.

Bernstein, Dr. Ralph, 1816 Pine St, Philadelphia, Pa. *Dermatology.* Columbia, Pa, April 12, 77. M.D, Pennsylvania, 03; M.D, Hahnemann Med. Col. (Pa), 04; Hopkins, 07; Hahnemann Med. Col. (Ill), 07. Clin. asst. *dermat, Hahnemann Med. Col. and Hosp. (Pa),* 04–07, clin. instr, 08–12, clin. prof, 13–15, *prof, 16–,* asst. to dean, 14–16, sec'y faculty, 17–24, lecturer homeop. principles, 19–27. Consulting dermatologist, Hahnemann, Broad St. and Womens Homeop. Hosps and Shriners Hosp. for Crippled Children, Philadelphia, Pa. Med. examiner, draft boards, Selective Service System, Pa, 17; U. S. Army, 17. A.A; fel. Col. Physicians; Am. Med. Asn; fel. Acad. Dermat. and Syphilol; Soc. Forensic Med; Am. Med. Editors' Asn; Soc. Investigative Dermat; Acad. Polit. Sci. Solidified carbon dioxide cutaneous neoplasms; ultra-violet rays in dermatology; elementary dermatology.

Bernthal, Prof. Theo(dore) G(eorge), Vanderbilt University School of Medicine, Nashville, Tenn. *Physiology.* Grand Rapids, Mich, May 5, 04. A.B, Michigan, 25, M.S, 27, M.D, 30. Asst. physiol, med. sch, Michigan, 26–29, instr, 29–30; intern, Rochester Gen. Hosp, 30–31; instr. *physiol,* med. sch, Michigan, 31–32, asst. prof, 32–40; *sch. med, Vanderbilt,* 40–41, *assoc. prof, 41–* A.A; Physiol. Soc; Soc. Exp. Biol; Mich. Acad. Chemical regulation of vasomotor reactions and respiration; carotid body.

Bernton, Dr. Harry S(aul), 1925 Eye St, N. W, Washington, D. C. *Hygiene.* Jan. 15, 84. A.B, Harvard, 04, M.D, 08. Director, Bender Lab, Albany, N. Y, 09–14; pathologist, State Board Health, R. I, 14–18; instr. path, Harvard, 16–18; director, Child Welfare Soc, Washington, 19–22; special expert, U. S. Pub. Health Service, 22–24; assoc. prof. *hygiene and prev. med, Georgetown,* 24–29, *prof, 29–; clin. specialist allergy, bur. chem. and soils, U. S. Dept. Agr, 36–* Prof, George Washington, 18–25. A.A; Asn. Path. and Bact; Asn. Study Allergy (pres, 28); fel. Col. Physicians; Int. Asn. Med. Mus. Hygiene of hay fever and asthma; protein sensitization.

Berolzheimer, D(aniel) D(eronda), 50 E. 41st St, New York, N. Y. *Chemistry.* New York, N. Y, June 30, 77. Col. City of N. Y, 93–95; N. Y. Univ, 95–97; Wurzburg, 97–00. Chemist in charge, Daland Biochem. Lab, Phila, 00–04; director, Biochem. Lab, N. Y, 04–06; anal. lab, Arlington Chem. Co, Yonkers, 06–10; librarian, Chemists' Club, 10–15; The Barrett Co, 15–19; asst. tech. ed, The Chem. Catalog Co, 19–22; *consulting chemist, bibliographer and patent searcher, 23–* Manager tech. information service, 'Chem. Eng. Catalog,' 20–22; ed, 'The Percolator,' Chemists' Club, 07–14, 26–28, 29–32, historian, 33– Chem. Soc. (librarian, 10); Soc. Chem. Indust; Ohio Archeol. Soc. Carbonyl chlorid; poison war gases; bibliographies and patent searches.

Berrey, Dr. Ivan C(olumbus), 2801 Rhodes Circle, Birmingham, Ala. *Anatomy.* Salitpa, Ala, Jan. 22, 99. B.S, Alabama, 23; M.D, Rush, Chicago, 27. Instr. anat, sch. med, Alabama, 23–25; assoc, sch. med, Loyola (Ill), 25–26; asst. prof, sch. med, Buffalo, 32–37; *practising physician, 37–* Mem. staff, Hillman, Baptist and South. Highland Hosps. Am. Med. Asn; Jefferson Co. (Ala) Med. Soc. (v. pres, 41). Internal medicine; gross anatomy.

Berridge, Dr. W(illiam) A(rthur), 1 Madison Ave, New York, N. Y. *Statistics, Economics.* Lynn, Mass, April 13, 93. A.B, Harvard, 14, A.M, 19, Sheldon traveling fellow, 22, Ph.D, 22. Instr. math, Harvard, 15–17, instr. and tutor econ, 20–22; asst. prof, Brown, 22–24, assoc. prof, 24–27, director research, bur. business research, 23–27; consulting economist, *Metropolitan Life Ins. Co,* 24–27, *economist, 27–* Adviser, President's Conf. on Unemployment, 21–22; Fed. Census Unemployment, 30. Mem. econ. advisory council, Nat. Indust. Conf. Board; Economists' Nat. Cmt. Monetary Policy. Francis D. Pollak prize, 22; David A. Wells prize, 24; J. Walter Thompson prize, 24. Fel. Statist. Asn; Econ. Asn; Acad. Polit. and Social Sci; Acad. Polit. Sci; Farm Econ. Asn; Marketing Asn; Tax Asn; Economy League (studies cmt); Royal Statist. Soc; Royal Econ. Soc. Economic cycles; unemployment; markets; finance; currency; life insurance economics and other quantitative measurements in economics.

Berrien, Dr. F(rederick) K(enneth), Colgate University, Hamilton, N. Y. *Psychology.* Philadelphia, Pa, Dec. 22, 09. A.B, Colgate, 31; A.M, Ohio State, 32, Ph.D, 38. Asst. psychologist, Colony for Feebleminded, New Lisbon, N. J, 32; research fellow psychol, Pa. State Hosp, Allentown, 33; teacher, high sch, Hightstown, N. J, 33–35; asst. *psychol,* Ohio State, 35–36; *instr,* Pennsylvania, 37–38; *Colgate, 38–* Summer, psychologist, Mich. State Hosp, Ypsilanti, 37. Assoc. Psychol. Asn. Applied psychology; measurement of emotions with particular regard to detecting deception; psychology of crime; advertising.

Berrill, Prof. N(orman) J(ohn), McGill University, Montreal, Que, Can. *Zoology.* Bristol, Eng, April 28, 03. B.Sc, Bristol, 24; fellow, Marine Biol. Lab, Plymouth, 24–25; Rockefeller Foundation traveling fellow, 27; Ph.D, London, 28, D.Sc, 32. Asst. zool, Univ. Col, London, 25–27; lecturer comp. physiol, med. sch, Leeds, 27–28; asst. prof. *zool, McGill,* 28–30, *assoc. prof, 30–,* in charge dept, 37–40, *chairman dept, 40–* Fel. Royal Soc. Can; Marine Biol. Asn. United Kingdom; Challenger Soc. Oceanog. Research. Embryology of teleosts and of ascidians; regeneration in annelids; digestion in ascidians; tunicate development; cellular basis of growth in vertebrates.

Berry, Prof. Andrew C(ampbell), Lawrence College, Appleton, Wis. *Mathematics.* Somerville, Mass, Nov. 23, 06. A.B, Harvard, 25, A.M, 26, Ph.D, 29. Instr. *math,* Harvard, 26–27, 28–29; nat. research fellow, Brown, 29–31; Princeton, 31; instr, Columbia, 31–35, asst. prof, 35–41; assoc. prof, *Lawrence Col,* 41–43, *prof, 43–* A.A; Math. Asn; Math. Soc. Analysis; probability.

Berry, Prof. C(harles) Harold, Harvard University, Cambridge, Mass. *Mechanical engineering.* Brooklyn, N. Y, June 8, 89. M.E, Cornell, 12, M.M.E, 16. Instr. and asst. prof, Cornell, 13–18; Detroit Edison Co, 19–25; assoc. ed, 'Power,' 25–28; *prof. mech. eng, Harvard, 28–* Mech. Eng. Steam power plant engineering.

Berry, Dr. Charles Miles, 1300 York Ave, New York, N. Y. *Physiology, Anatomy.* Dixon, Ill, Aug. 25, 17. A.B, DePauw, 38; fellow, Northwestern, 38–41, M.S, 39, Ph.D, 41. *Instr. anat, med. col, Cornell, 41–* Harvey Soc. Role of the hypothalamus and medulla in cardiovascular control; sympathetic efferent pathways from the hypothalamus; hypothalamus and heat loss mechanisms; functions of the corpus striatum.

Berry, Prof. Charles Scott, Ohio State University, Columbus, Ohio. *Psychology, Education.* Hamlin, Kans, May 23, 75. A.B, Hiram Col, 03; A.M, Harvard, 05, Ph.D, 07, James Walker fellow at Berlin, 07–08. Asst. econ, Hiram Col, 03–04; philos. and psychol, Harvard, 06–07; acting asst. prof. educ, Michigan, 08–09, asst. prof, 09–15, assoc. prof, 15–19, *prof,* 19–30; *psychol. and director bur. special and adult educ, Ohio State, 30–* Director psychol. clinic. pub. schs, Detroit, 19–20, special educ, 20–29, consultant, 29–30; State Dept. Educ, Ohio, 30–31. Sanit C, 17–19, major. A.A; Psychol. Asn; Nat. Cmt. Mental Hygiene; Soc. Study Educ; Soc. Crippled Children; Asn. Social Workers; Int. Council Exceptional Children. Imitation in animals; psychology and education of exceptional children.

Berry, Dr. Charles T(hompson), Johns Hopkins University, Baltimore, Md. *Paleontology.* Baltimore, Md, Nov. 6, 06. Ph.D, Hopkins, 34. Asst, Md. Geol. Surv, 30–41; *instr, col. for teachers, Hopkins, 34–, research asst. paleont, univ, 39–* Geologist, State Board Nat. Resources and State Dept. Geol, Mines and Water Resources, Md, 41– Summers, instr, Hopkins, 35– A.A; fel. Geol. Soc. Invertebrate paleontology; Tertiary and recent Ophiuroidea; Pleistocene of South America.

Berry, Prof. Charles W(illiam), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Charlestown, Mass, May 21, 72. B.S, Mass. Inst. Tech, 95, Swett fellow at Göttingen, 95–97. Asst. instr. *heat eng, Mass. Inst. Tech,* 99–00, instr, 00–08, asst. prof, 08–12, assoc. prof, 12–20, prof, 20–40, *emer. prof, 40–* A.A; Soc. Refrig. Eng. (director, 31–33); Eng. Educ. Application of thermodynamics to engineering problems; refrigeration; heat transmission; temperature-volume and temperature-entropy indicators.

Berry, Prof. D(eloss) W(oodson), State Colored Normal, Industrial, Agricultural and Mechanical College of South Carolina, Orangeburg, S. C. *Morphological embryology.* July 4, 10. A.B, Morris Brown Col, 35; M.S, Atlanta, 38. Teacher, high schs, Ga, 36–38; prof. biol, Kittrell Col, 38–39; *prof. biol, State Agr. and Mech. Col. S. C, 39–* Embryology; anatomy; factors dealing with regeneration in the caudal fin of the tadpole.

Berry, Dr. Edward C(oln), Missouri Botanical Garden, 2315 Tower Grove Ave, St. Louis, Mo. *Botany.* Weatherby, Mo, Oct. 11, 98. B.S, Mo. State Teachers Col, 25; A.M, Missouri, 36; Ph.D, Washington (St. Louis), 41. Teacher, high sch, 24–30; instr. biol, Mo. State Teachers Col, Warrensburg, 30–35, 36–37; asst. bot, Washington (St. Louis), 38–39; *asst. to curator, Mo. Bot. Garden, 40–* Bot. Soc; Mycol. Soc. Taxonomy of lichens; phylogeny of parasitic plants; physiological relations of symbiotic organisms.

Berry, Prof. Edward F(ranklin), 207 Lansdowne Road, Dewitt, N. Y. *Civil engineering.* Fredericton, N. B, Can, Oct. 1, 89. B.Sc. (C.E), New Brunswick, 13. Mem. surveys, 09–12; instr, surveying camp, Univ. New Brunswick, 13; instrumentman, Brownville div, Can. Pacific Ry, 13–14; chief draftsman fed. valuation, Maine Cent. R.R, 14–16; instr. civil eng, Lehigh, 16–19; ed, 'Lubrication,' 19–20; from asst. prof. to *prof. civil eng. and head dept, Syracuse, 20–, director materials testing lab, 23–* Inspector, Modjeski and Angier, 17–19; designer and estimator, Concrete Steel Co, 22–25; Union Struct. Steel Co, Syracuse, 25–30. Summers, asst. res. engineer, St. John and Que. Ry, 12; draftsman and in-

strumentman, Que. Cent. Ry, 13; valuation work, Maine Cent. R.R, 17; struct. designer, Atlantic Loading Co, N. J, 18; Moran, Maurice and Proctor, New York, 21. Civil Eng. (pres, Syracuse sect, 33–); Soc. Test. Mat; Eng. Educ. (chairman upper N. Y. sect, 41); Concrete Inst; Syracuse Technol. Club. Structural engineering; materials testing; applied lubrication; concrete technology; history of bridges.

Berry, Prof. Edward W(ilber), Johns Hopkins University, Baltimore, Md. **3*Paleontology.* Newark, N. J, Feb. 10, 75. Hopkins, 05–06. Asst. *paleont, Hopkins,* 06–08, instr, 08–10, assoc, 10–13, assoc. prof, 13–17, *prof, 17–,* dean, 29–42, provost, 35–42. Asst. state geologist, Md, 17–; geologist and senior geologist, U. S. Geol. Surv, 10– Walker prize, Boston Soc. Nat. Hist, 01. Nat. Acad; A.A; Soc. Nat; Paleont. Soc. (pres, 24); Geol. Soc. (v. pres, 24); Philos. Soc; Torrey Bot. Club (sec'y); Am. Acad; N. Y. Acad; Wash. Acad; Soc. géol. de France; Acad. Nacional de Ciencias en Cordoba; Soc. Geol. del Peru. Historical geology; floras and geological history of southeastern North America, equatorial and South America; geological and geographical distribution of flowering plants.

Berry, Prof. (Edward) Willard, 1003 N. Gregson St, Durham, N. C. *Paleontology.* Passaic, N. J, Nov. 24, 00. A.B, Hopkins, 23, Ph.D, 29. Micropaleontologist, Int. Petrol. Co, Peru, 25–28; instr. *geol,* Ohio State, 29–36; asst. prof, *Duke,* 36–38, *assoc. prof, 38–, chairman dept, 36–* Asst, Md. Geol. Surv, 21–; field asst, U. S. Geol. Surv, 21, 23; asst. geologist, State Bur. Econ. Geol, Texas, 24; Ohio Geol. Surv, 30– Correspondent, 'Revue de Géol,' Belgium. V. pres. paleobot. sect, Int. Bot. Cong, 35. A.A; fel. Geol. Soc; fel. Paleont. Soc; fel. Am. Geog. Soc; Bot. Soc; Min. and Metal. Eng; Geophys. Union; S. C. Geol. Soc. (sec'y, 37–); fel. Ohio Acad. (v. pres, 35); Ind. Acad; N. C. Acad; Soc. géol. de France; Schweiz. Geol. Gesell; Schweiz. Paleont. Gesell; for. cor. Geol. Soc. Peru. Micropaleontology; invertebrate paleontology; Tertiary and Carboniferous paleobotany; flora of Ohio; Eocene of Italy.

Berry, Prof. Eugene M(anasseh), State Teachers College, Chadron, Nebr. *Mathematics.* West Sumner, Maine, Feb. 19, 91. A.B, Colgate, 15; M.S, Iowa, 17, fellow, 19–20, Ph.D, 20. Asst. physics, Iowa, 15–19; instr. math, Purdue, 20–26; *prof,* Lynchburg Col, 26–30, math. and physics, 30–34; math, Presb. Col. (S. C), 35; math, physics and econ, Bluefield Col, 35–38; *math, Nebr. State Teachers Col, 38–* A.A; Math. Asn. Mathematical physics; reflection of light; localization of sound.

Berry, George M(agruder), 661 Allen St, Syracuse, N. Y. *Metallurgy.* Leonardtown, Md, Feb. 18, 78. B.S, George Washington, 99. Chemist, Park Steel Co, 99–03; Willson Aluminum Co, 03–04; consulting chemist, Wyckoff, Seamens and Benedict, 04–05; chief chemist, Halcomb Steel Co, 05–28; *consulting metallurgist and chem. engineer, 28–; tech. sec'y, Elec. Metals Asn, Inc, 29–* Lecturer, Syracuse, 16–Chem. Soc. (sec'y, Syracuse sect, 11–13, v. pres, 15, pres, 16–18, councilor, 19); Electrochem. Soc; Min. and Metal. Eng. Metallurgy; electric furnaces; effect of gases on steels when heated; melting and refining of fine steels; non-corrosive and heat-resisting steel alloys.

Berry, Prof. George Packer, University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Bacteriology, Medicine.* Troy, N. Y, Dec. 29, 98. A.B, Princeton, 21; M.D, Hopkins, 25. Res. house officer med, Hopkins Hosp, 25–26, surg, 26–27, asst. res. med, 27–29; asst, Hopkins, 27–28, instr, 28–29; asst, Rockefeller Inst, 29–31, assoc, 31–32; *prof. bacter, head dept. and assoc. prof. med, sch. med. and dentistry, Rochester, 32–, asst. dean, 41–; lieut. commander, M.C-V(S), U.S. Naval Reserve.* Asst. res. physician, Rockefeller Hosp, 29–32; consultant, Rochester Gen. Hosp, 32–Summer, res. house officer, Conn. State Hosp. Insane, Middletown, 23, Bellevue Hosp, 24. Mem. ed. board and assoc. ed, 'Jour. Immunol,' 36–; ed. board, 'Jour. Bacter,' 39–; assoc. ed, 'Bacter. Rev,' 40–; ed. board, 'Jour. Investigative Dermat.' Mem. exec. cmt, Int. Cong. Microbiol, 38–39. A.A; fel. Pub. Health Asn; fel. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Chem. Soc; Soc. Bact. (chairman cent. N. Y. branch, 34; councilor, 35–; chairman program cmt, 37–40; councilor at large, 40–); Asn. Immunol. (councilor, 38–, pres, 39); Asn. Cancer Research; Soc. Exp. Path; Asn. Path. and Bact; Asn. Hist. Med; Calif. Soc. Prom. Med. Research; Harvey Soc; fel. Rochester Museum Arts and Sciences; Rochester Acad. Med. Filterable viruses; infectious diseases.

Berry, Prof. Grace E(lla), 353 W. 11th St, Claremont, Calif. *Mathematics.* Worcester, Mass, Dec. 23, 70. B.S, Mt. Holyoke Col, 93, A.M, 99; Cornell, 00; Illinois, 28. Instr. math, West. Col. for Women, 93–97; asst, Mt. Holyoke Col, 97–99; assoc. prof. physics, West. Col. for Women, 99–00; Mt. Holyoke Col, 00–02; dean women, Colby Col, 02–09; *Pomona Col,* 09–27, assoc. prof. *math,* 27–35, *emer. prof, 35–* Math. Asn.

Berry, Dr. Herbert W(eaver), Case School of Applied Science, Cleveland, Ohio. *Physics.* Syracuse, N. Y, Dec. 17, 13. A.B, Syracuse, 37, A.M, 39; Ph.D, Washington (St. Louis), 42. *Instr. physics, Case, 42–* Ionization of gases.

Berry, Prof. H(erman) C(laude), University of Pennsylvania, Philadelphia, Pa. *Engineering.* Near Zionsville, Ind. A.B, Indiana, 97; B.S, Purdue, 02. T, St. L. and W. Ry, 02; instr, Colo. Sch. Mines, 02–03; U. S. Reclamation Service, 03–04; instr. civil eng, Cornell, 04–05; *prof. materials of construction, Pennsylvania, 05–* Civil Eng; Soc. Test. Mat; Eng. Club Phila. Reinforced concrete; beams; columns; arches.

Berry, James A(lexander), U. S. Department of Agriculture, Albany, Calif. *Bacteriology.* Aberdeen, Scotland, Dec. 3, 89. B.S, Mich. State Col, 16, M.S, 17. Serologist, State Dept. Health, Mich, 17–19; bacteriologist, St. Elizabeth's Hosp, Youngstown, Ohio, 20–21; instr. bacter, Oregon State Col, 21–29; assoc, Washington (Seattle), 29–31; agent, frozen pack lab, bur. chem. and soils, *U. S. Dept. Agr,* 31–37, assoc. bacteriologist, 37–40, bacteriologist, 41, *senior bacteriologist, west. regional research lab, bur. agr. chem. and eng, 41–* A.A; Soc. Bact; Pub. Health Asn; Inst. Food Technol. Influence of low temperatures on bacteria, yeasts and molds; natural microflora and microbial spoilage of fruits and vegetables preserved by freezing.

Berry, Prof. J(ames) Brewton, University of Missouri, Columbia, Mo. *Anthropology.* Orangeburg, S. C, Aug. 9, 01. A.B, Wofford Col, 22; B.D, Yale, 25; fellow, Edinburgh, 25–27, Ph.D, 29. Asst, Ohio State, 29–31; asst. prof. sociol, *Missouri,* 31–37, *assoc. prof. sociol. and director anthrop. collection, 37–* Sociol. Soc; Anthrop. Asn; Soc. Am. Archeol; Mo. Archeol. Soc. (sec'y, 34–). Race problems; folklore; archeology of Missouri.

Berry, Dr. John W(illiam), American Cyanamid Co, Stamford, Conn. *Chemistry.* Indianapolis, Ind, Jan. 21, 16. A.B, Indiana, 37; M.S, Iowa, 41, Ph.D, 42. Analytical spectrographer, Dow Chem. Co, 37–38; *chem. physicist, Am. Cyanamid Co, 42–* Summer, analytical chemist, Eli Lilly and Co, 41. Chem. Soc. Analytical and physical chemistry; analytical spectrographic determinations.

Berry, Dr. L(eonard) G(ascolgne), 89 Dewson St, Toronto, Ont, Can. *Mineralogy.* Toronto, Ont, Aug. 17, 14. B.A, Toronto, 37, M.A, 38, Ph.D, 41. Asst, Geol. Surv. Can, 35–36; Ont. Dept. Mines, 36–37, geologist, 38–40; asst. miner, Toronto, 37–40; *engineer, optical shops, Research Enterprises, Ltd, 40–* Fel. Miner. Soc; Soc. X-ray and Electron Diffraction; Miner. Soc. London. Roentgenographic and other observations on minerals with a view to obtaining definitive data, chiefly on a number of imperfectly known species of the sulpho-salt minerals.

Berry, Prof. L(eroy) N(ahum), State College, N. Mex. *Poultry husbandry.* South Bridgeton, Maine, 93. B.S, Maine, 17. Asst. prof, Colo. Agr. Col, 20–23; instr. vocational poultry, *N. Mex. Col,* 23–25, *prof. poultry husbandry, 25–* U.S.A, 17–19. Poultry nutrition; egg marketing.

Berry, Prof. L(evette) Joe, Bryn Mawr College, Bryn Mawr, Pa. *Biophysics.* North Birmingham, Ala, June 17, 10. B.S, Southwest Texas Teachers Col, 30; Ph.D, Texas, 39. Instr. zool, Texas, 39–40; *asst. prof. biol, Bryn Mawr Col, 40–* A.A; Soc. Plant Physiol. Bioelectrics in plant tissue.

Berry, Dr. Maxwell (Rufus), Medical College of Virginia Hospital, Richmond, Va. *Internal medicine.* Atlanta, Ga, June 7, 10. A.B, Cornell, 31, M.D, 35; fellow, Mayo Clinic, 38–42, H. V. Jones fellow, 40; Ph.D, Minnesota, 42. Bursar, Knickerbacker Foundation, Cornell, 33, 34, 35; intern med, Bellevue Hosp, New York, 35–37, res. physician, 37–38; *assoc. med, Med. Col. Va. Hosp, 42–* Assoc. Col. Physicians; Am. Med. Asn; Med. Soc. Va. Circulation of blood; a plethysmokymographic method for determining blood flow through human extremities; postural adaptation of blood pressure; action of histamine; blood flow through rabbit's ear.

Berry, Prof. M(yron) H(erbert), University of Maryland, College Park, Md. *Dairy husbandry.* Sauquoit, N. Y, Feb. 1, 06. B.S, Pa. State Col, 28; fellow, Maryland, 28–29, M.S, 29.

Asst. prof. *dairy husbandry, Maryland,* 29–35, *assoc. prof,* 35– Dairy Sci. Asn. Soft curd milk; calf feeding; value of fish meal and kelp meal for dairy animals; relation of input to output in milk production; feeding value of grass silage.

Berry, Dr. N(orton) E(llsworth), R. R. No. 5, Evansville, Ind. *Chemistry.* Hartman, Wash, Dec. 2, 02. B.S, California, 26, Ph.D, 31. Control chemist, Calumet Chem. Co, 26–27, chief chemist, 31–33; research chemist, Frigidaire Corp, 27–28; research director, Diamond Crystal Salt Co, 33–39; director eng. research, Gen. Foods Corp, 39–42; supervisor process design and develop, Barrett div, Allied Chem. and Dye Corp, 42–43; *director research, Servel, Inc, 43–* Chem. Soc. Photochemistry; refrigeration; fine and heavy chemicals; food engineering; coal tar chemicals.

Berry, Dr. R(aymond) O(rvil), Agricultural and Mechanical College of Texas, College Station, Texas. *Animal cytology.* Chico, Texas, Oct. 28, 02. B.S, N. Texas State Teachers Col, 29; M.S, Agr. and Mech. Col. Texas, 32; Ph.D, Hopkins, 39. Instr. and asst. prof. biol, *Agr. and Mech. Col. Texas,* 31–36, *assoc. geneticist, Exp. Sta, 38–* A.A; Soc. Zool; Soc. Animal Production; Genetic Asn. Cytology of sheep and their near relatives; genetics of disease resistance in animals.

Berry, Dr. S(amuel) Stillman, 1145 W. Highland Ave, Redlands, Calif. *Zoology.* Unity, Maine, March 16, 87. A.B, Stanford, 09, Ph.D, 13; A.M, Harvard, 10. Asst. zool, Stanford, 10–11; asst. and librarian, Scripps Institution, California, 13–16, research zoologist, 16–18; *asst, Bur. Fisheries, 08–* A.A; cor. mem. North. Ariz. Soc. Sci. and Art; London Malacol. Soc. Western American Mollusca; cephalopods of America, Japan, Australia and the Hawaiian and Kermadec Islands; chitons of western North America and the North Pacific; beavers; biophotogenesis; horticulture of genera Iris and Narcissus; Californian Pleistocene and Pliocene.

Berry, Dr. William, University of Rochester, Rochester, N. Y. *Psychology.* Manchester, Eng, Nov. 1, 84. B.A, Alberta, 16, M.A, 18; Ph.D, Chicago, 22. Lecturer psychol. and philos, Alberta, 16–20; instr, Chicago, 20–22; asst. prof. *psychol, Rochester,* 22–27, *prof, 27–* Visiting fellow, Yale, 37–38. A.A; assoc. Psychol. Asn. Physiological psychology; psychology of vision.

Berry, Prof. W(illiam) J(ohnston), 224 St. Johns Place, Brooklyn, N. Y. *Mathematics.* Brooklyn, N. Y, May 3, 83. C.E, Polytech. Inst. Brooklyn, 03, M.S, 04; A.M, Harvard, 08. Instr. *math,* Polytech. Inst. Brooklyn, 04–07; Harvard, 08–09; asst. prof, *Polytech. Inst. Brooklyn,* 09–17, assoc. prof, 17–25, *prof, 25–, head dept, 28–* Sec'y faculty, Polytech. Inst. Brooklyn, 09–17. A.A; Math. Soc; Math. Asn; Eng. Educ; Soc. Adv. Educ. Systems of linear partial differential expressions.

Bert, Prof. O(tto) F(rederick) H(erman), 28 N. Lincoln St, Washington, Pa. *Mathematics.* New Brighton, Pa, Feb. 21, 77. B.S, Geneva Col, 95, A.M, 03; Sc.D, Thiel Col, 35; Harvard; Mass. Inst. Tech. Teacher, 98–14; *prof. applied math, Washington and Jefferson Col, 14–* Mem. board educ, United Lutheran Church. A.A; Math. Asn; Astron. Soc. The theory of numbers.

Bertetti, Dr. J(ohn) W(illiam), Root Petroleum Co, El Dorado, Ark. *Chemical engineering.* Springvalley, Ill, Feb. 20, 05. B.S, Illinois, 31; M.S, Michigan, 32, Ph.D, 34. *Chem. engineer,* Standard Oil Co. of Ind, 34–36; Pan-Am. Ref. Corp, 36–42; *Root Petrol. Co, 42–* Chem. Eng. Thermal properties of sodium hydroxide solutions; high pressure phase equilibria; petroleum refining; theoretical flooding velocities in packed columns.

Bertholf, Dean Lloyd M(illard), Westminster, Md. *Zoology.* Kechi, Kans, Dec. 15, 99. A.B, Southwestern Col. (Kans), 21; A.M, Hopkins, 25, Ph.D, 28. Instr. *biol,* N. C. Col. for Women, 22–24; *prof, Western Maryland Col, 24–, dean* freshmen, 33–39, *faculty, 39–* Nat. research fellow, Germany, 30–31. Summers, bee culture lab, U. S. Dept. Agr, 22–30. Chairman dept. research and educ, State Board Nat. Resources, Md, 41– A.A; Soc. Zool; Asn. Econ. Entom. Molts, digestion of carbohydrates and reactions to light in honey bees; physiological and stimulative effect of ultra-violet in insects; effects of insecticides on honey bees.

Bertramson, Capt. B. R(odney), Seventh Company, O.C.S. Reg't, Tank Destroyer School, Camp Hood, Texas. *Soils.* Potter, Nebr, Jan. 25, 14. B.S, Nebraska, 37, M.S, 38; Ph.D, Oregon State Col, 41. Asst. soil physics and asst. instr. soils, Nebraska, 37–38; asst. soil fertility, Oregon State Col, 38–41; instr. soils, soils lab, Colo. State Col, 41–42; *capt, O.C.S. Reg't, Tank Destroyer Sch, U. S. Army, 42–* Summer, junior soil scientist and soil surveyor, soil conservation service, U. S. Dept. Agr, 41. Soil physics; physical properties of the soil as affected by manuring and fertilizers; irrigation efficiency; phosphorus analyses; soil fertility; comparative efficiency of organic phosphorus and of superphosphate.

Bertrand, Prof. Kenneth (John), 3520 29th St, N.W, Washington 16, D.C. *Geography.* Green Bay, Wis, Jan. 29, 10. B.S, Wisconsin, 32, Ph.D, 40; Syracuse, 32–33. Instr. geol, exten. div, Wisconsin, 35–37; *Okla. Agr. and Mech. Col,* 37–39, asst. prof, 39–42, *assoc. prof, 42–; regional geographer, U. S. Board Geog. Names, 43–* A.A; Am. Geog. Soc; Council Geog. Teachers; Southwest. Social Sci. Asn; Wis. Acad; Okla. Acad. Regional geography of southwestern United States.

Beshgetoor, A(lonzo) W(allace), Dow Chemical Co, Midland, Mich. *Chemistry.* Newberry, Mich, Nov. 30, 93. B.S, Alma Col, 16; Purdue, 16–17. Anal. chemist and asst. to chief gen. lab, *Dow Chem. Co,* 19–26, *director gen. lab, 26–* C.W.S, U.S.A, 17–18. A.A; Chem. Soc. Methyl bromide; reforestation; magnesium alloys.

Besley, Dr. A(rthur) K(irkland), 4310 Clagett Road, University Park, Hyattsville, Md. *Bacteriology.* Washington, D. C, Nov. 9, 02. B.S, 23, M.S, 24; Ph.D, Maryland, 31. Lab. director, Chevy Chase Dairy, Washington, D. C, 26–28; Nat. Dairy, Md, 28–29; *assoc. bacteriologist, animal husbandry div, bur. animal indust, U. S. Dept. Agr, Beltsville, Md, 29–* Soc. Bact; Pub. Health Asn; Soc. Animal Production. Nutrition; biochemistry; meats.

Besley, Dr. F(red) W(ilson), 303 Wendover Road, Baltimore, Md. *Forestry.* Vienna, Va, Feb. 16, 72. A.B, Maryland, 92, Sc.D, 15; M.F, Yale, 04. Forest asst, U. S. Forest Service, 04–06; state forester, Md, 06–42; prof. forestry, Maryland, 23–42. Mem, State Board Nat. Resources, Md; State Develop. Bur. Forestry Asn. (director, 22–40); Soc. Foresters (exec. councilor, 22–24). The forests of Maryland.

Besley, H(arold) J, 1105 K St, N. W, Washington, D. C. *Agricultural economics.* Waukegan, Ill, June 25, 84. A.B, Wisconsin, 07. In charge soils lab, agron. dept, Exp. Sta, S. Dak. State Col, 08–09; *U. S. Dept. Agr, 19–, in charge grain div, bur. agr. econ, 21–, asst. chief field investigation sect, agr. adjust. admin, 33–* Grain marketing standardization of grades.

Besley, Prof. Lowell, West Virginia University, Morgantown, W. Va. *Forestry.* Baltimore, Md, Aug. 20, 09. B.S, Cornell, 31; M.F, Yale, 32. Field asst, surys. and forest fire research, State Dept. Forestry, Md, 25–31; silviculture and forest management, Northeast. Forest Exp. Sta, U. S. Forest Service, 31, 32; forest research asst. silvics and management, Duke, 32–33; supt. forest management, Civilian Conservation Corps Camps, Md, 33; technician forest management, Appalachian Forest Exp. Sta, U. S. Forest Service, 33–34; instr. forestry, Pa. State Col, 34–36, asst. prof, 36–37; *forest management, West Virginia,* 37–38, *assoc. prof, 38–* Chairman Allegheny sect, Forest Types Cmn, 36–37; mem. Forest Practices Cmn, 36–37, membership cmt, 38–39, exec. cmt, 39–40. Soc. Foresters. Forest management and economics; preliminary volume tables for some of the tree species used for pulpwood; practical forest management for cut-over hardwood lands; forest taxation.

Bess, Dr. Henry A(lver), 56 Hillhouse Ave, New Haven, Conn. *Entomology.* Newville, Ala, Jan. 21, 07. B.S, Ala. Polytech, 27; M.S, Florida, 31; Ph.D, Ohio State, 34. Teacher, Ala, 27–29; asst, Florida, 29–31; Ohio State, 31–34; nat. research fellow, Citrus Exp. Sta, California, 35–36; asst. entomologist and later *assoc. entomologist, div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 36–* Summers, field asst, bur. entom. and plant quarantine, U. S. Dept. Agr, 38–35. Entom. Soc. Amer. Biological control of insect pests; immunity of insects to entomophagous parasites; parasitic Diptera; internal morphology.

Bessey, Dean Ernst A(thearn), Michigan State College, East Lansing, Mich. ***Botany.* Ames, Iowa, Feb. 20, 77. A.B, Nebraska, 96, B.S, 97, A.M, 98; Ph.D, Halle, 04. Asst. veg. pathologist, U. S. Dept. Agr, 99–01, asst. in charge seed and plant introd, 01–02, veg. pathologist, 04–06, pathologist in charge subtrop. lab, Miami, Fla, 06–08; *prof.* bot.

and bacter, Louisiana, 08–10; *bot, Mich. State Col, 10–, dean grad. sch, 30–* Visiting prof, Hawaii, 39–40. Summers, asst, Colorado, 94–96; field collector, N. Y. Bot. Garden, 97; div. agrost, U. S. Dept. Agr, 98, agr. explor, 02–04. A.A. (sec'y, G, 01); Bot. Soc; Genetic Asn; Phytopath. Soc; Mycol. Soc. (pres, 41); Torrey Bot. Club; Mich. Acad. (pres, 15); Bot. Gesell. Mycology; plant pathology; Florida strangling figs; flora of Louisiana and Michigan; plant diseases due to nematodes; phylogeny of fungi.

Bessey, Dr. O(tto) A(rthur), Public Health Research Institute of the City of New York, New York, N. Y. *Biochemistry.* Niotaze, Kans, Oct. 7, 04. A.B, Montana, 28; Ph.D, Pittsburgh, 32. Asst, Pittsburgh, 28–32, fellow, 33–34; Columbia, 34–35; research fellow path, Harvard Med. Sch, 35–37, research assoc. biol. chem. and path, 37–38, assoc. biol. chem. and research assoc. path, 39–41; *director div. physiol. and nutrition, Pub. Health Research Inst. City of New York, 41–* Soc. Biol. Chem. Chemistry of nutrition; vitamin preparation and biological assay; deficiency diseases.

Bessey, Dr. William H(iggins), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* East Lansing, Mich, March 18, 13. B.S, Chicago, 34; M.S, Carnegie Inst. Tech, 35, Sc.D, 40. Teaching asst, Carnegie Inst. Tech, 35–39; *instr. physics,* S. Dak. Sch. Mines, 39–40; N. C. State Col, 40–42; *Carnegie Inst. Tech, 42–* A.A; Physical Soc; Asn. Physics Teachers; Eng. Educ. Diffraction of molecular beams.

Best, Prof. C(harles) H(erbert), University of Toronto, Toronto, Ont, Can. *Physiology.* West Pembroke, Maine, Feb. 27, 99. B.A, Toronto, 21, M.A, 22, M.D, 25; D.Sc, London, 28, Chicago, 41. Asst. prof. and research assoc, Banting and Best dept. med. research, *Toronto,* 24–41, *prof. physiol. and head dept, 29–,* acting head dept. physiol. hygiene, sch. hygiene, 29–41, *director Banting and Best dept. med. research, 41–,* assoc. director, Connaught Labs, 32–41; *Royal Can. Navy, 41–, surg. commander and director med. research unit.* Sci. director int. health div, Rockefeller Foundation, 41– Physiol. Soc; Soc. Biol. Chem; Can. Physiol. Soc. (pres, 37); fel. Royal Soc. Can; fel. Royal Col. Physicians; fel. Royal Soc; Biochem. Soc. Gt. Britain. Insulin; carbohydrate metabolism; histamine; choline; heparin.

Best, Dr. Russell R(olland), 527 Medical Arts Bldg, Omaha, Nebr. *Anatomy.* Omaha, Nebr, Aug. 24, 97. B.S, Nebraska, 20; M.D, Harvard, 22. Instr. *anat, Nebraska,* 24–29, *asst. prof, 29–,* clin. asst. *surg, col. med,* 25–31, instr, 31–33, asst. prof, 33–38, *assoc. prof, 38–* Asn. Anat; fel. Col. Surg; Proctologic Soc; West. Surg. Asn; Int. Soc. Gastro-Enterol. Abdominal surgery and proctology.

Beth, Dr. Eric W(alter), Company A, 27th Medical Training Battalion, Medical Training Replacement Center, Camp Grant, Ill. *Physics.* Vienna, Austria, June 7, 12. Göttingen, 31–32; Munich, 32–33; Ph.D, Vienna, 34; Copenhagen; Utrecht; Cambridge; California; Reed Col. Asst. physics, Vienna, 36–37; research fellow, California, 37–38, teaching asst, 38; asst. physics, Reed Col, 39–40; visiting instr. physics and math, Mills Col; *U. S. Army.* Assoc. Radio Eng. Wave mechanics; gas theory; astrophysics; electronics; quantum theory of the non-ideal gas; cosmic radiation; thermal ionization of stellar matter; construction of a device to produce short radio waves.

Beth, Prof. Richard A(lexander), National Defense Research Committee, Palmer Physical Laboratory, Princeton, N. J. *Physics, Mathematics.* New York, N. Y, Jan. 14, 06. B.S, Worcester Polytech, 27, M.S, 29; Am. exchange fellow, Germany, 29–32; Alexander von Humboldt Foundation fellow, 30–32; Dr.Phil.Nat, Frankfurt, 32. Instr. physics, Worcester Polytech, 27–29, asst. prof, 32–39; *assoc. prof. applied math, Mich. State Col, 39–; consultant, div. two, Nat. Defense Research Cmt, Princeton, 40–, dept. head, 42–* Research assoc, Princeton, 34–35; consultant, Waugh Labs, New York. Mem. cmt. fundamental physical constants, Nat. Research Council, 41– A.A; fel. Physical Soc; Math. Soc; Asn. Physics Teachers. Applied mathematics; orthogonal functions; graphical and numerical methods; mechanics; mechanical effects of light; fundamental physical constants; terminal ballistics; electrical and magnetic measurements.

Bethe, Prof. H(ans) A(lbrecht), 20 E. Remington Road, Ithaca, N. Y. ***⁶***Theoretical physics.* Strasbourg, France, July 2, 06. Frankfurt, 24–26; Ph.D, München, 28. Asst, Frankfurt, 28–29; Stuttgart, 29; privat-docent, München, 30–33; acting asst. prof, Tübingen, 32–33; lecturer, Manchester, 33–34; fellow, Bristol, 34; acting asst. prof. *physics, Cornell,* 34, asst. prof, 35–37, *prof, 37–* Rockefeller Foundation fellow, Cambridge and Rome, 30–32. Physical Soc. Theory of atomic collisions, metals, atomic nuclei, absorption spectra of crystals and atomic spectra; quantum electrodynamics; properties of very fast particles; cosmic rays.

Bethea, Dr. Oscar W(alter), 1453 State St, New Orleans, La. *Internal medicine.* Marion Co, S. C, April 27, 78. Ph.G, Atlanta Col. Pharmacy, 01; M.D, Miss. Med. Col, 07, Tulane, 11; hon. Pharm.M, Phila. Col. Pharmacy, 35. *Prof.* pharmacol, Miss. Med. Col, 06–09, chem, 07–09; *clin. med, sch. med, Tulane, 19–* Senior visiting physician, Charity Hosp, 19–; senior in med, South. Baptist Hosp, 26– Revision cmt, U. S. Pharmacopoeia, 30–40. Sprague medal, Ga. Board Pharmacy, 00. A.A; fel. Am. Med. Asn; fel. Col. Physicians; Therapeut. Soc. (pres, 34); Heart Asn; South. Med. Asn; fel. Chem. Soc. Gt. Britain. Materia medica and prescription writing; clinical medicine; therapeutics.

Bethel, Prof. James (Samuel), Box 121, Blacksburg, Va. *Wood technology.* New Westminster, B. C, Can, Aug. 13, 15. B.S.F, Washington (Seattle), 37; M.F, Duke, 39. Instr. *forestry,* Pa. State Col, 39–41; *asst. prof, Va. Polytech, 41–* Soc. Foresters; Va. Acad. Relationship of environment to the structure of wood in forest trees.

Bethell, Dr. Frank H(artsuff), University of Michigan, Ann Arbor, Mich. *Internal medicine.* New York, N. Y, April 11, 03. A.B, Princeton, 25; Cambridge, 25–27; M.D, Hopkins, 29. Research assoc, *Simpson Mem. Inst, Michigan,* 31–42, *asst. director, 43–, asst. prof. internal med, med. sch, 36–* Henry Russel award, Michigan, 40. Am. Med. Asn; Col. Physicians; Soc. Clin. Invest; Soc. Exp. Path; Cent. Soc. Clin. Research; Mich. Acad. Hematology.

Bethke, Dr. Roland M(artin), 257 W. Henrietta St, Wooster, Ohio. *Animal husbandry.* Elkhart Lake, Wis, July 20, 96. B.S, Wisconsin, 20, M.S, 21, Ph.D, 23. Asst. agr. chem, Wisconsin, 20–23; *in charge nutritional investigations, Ohio Exp. Sta, 23–* Soc. Biol. Chem; Inst. Nutrition (councilor, 36); Chem. Soc; Soc. Animal Production; Poultry Sci. Asn. Biochemistry; nutrition.

Betten, Dean Cornelius, 104 Corson Place, Ithaca, N. Y. *Biology.* Orange City, Iowa, Nov. 13, 77. A.B, Lake Forest Col, 00, A.M, 01; fellow, Cornell, 04–05, Ph.D, 06. Instr. biol, Buena Vista Col, 01–03; Lake Forest Col, 05–06, asst. prof, 06–07, prof, 07–15; sec'y and registrar, *N. Y. State Col. Agr, Cornell,* 15–20, director res. instruction, 20–40, acting dean, 24–26, 31–32, *dean univ. faculty, 32–* A.A; Entom. Soc. Entomology; Trichoptera.

Bettman, Dr. Bernard, Atlantic Refining Co, Philadelphia, Pa. *Organic chemistry.* Cincinnati, Ohio, 03. A.B, Harvard, 25; A.M, Cincinnati, 31; Ph.D, California, 34. *Research chemist,* Liberty Cherry and Fruit Co, Covington, Ky, 26–29; *Atlantic Ref. Co, 36–* Chem. Soc. The dissociation constants of organic derivatives of boric acid as contributions to the theory of molecular resonance.

Betts, Anson G(ardner), West Cummington, Mass. *Metallurgy.* Troy, N. Y, April 14, 76. Ph.B, Yale, 97; A.M, Columbia, 98. Min. and Metal. Eng. Electrochemical and metallurgical processes.

Betts, Prof. Edwin M(orris), Box 1203, University, Va. *Biology.* Raleigh, N. C, Nov. 2, 92. Ph.B, Elon Col, 19; M.S, Virginia, 24, Ph.D, 27. *Asst. prof. biol, Virginia, 27–* Bot. Soc. (sec'y gen. sect); Va. Acad. Fungi; Jefferson and agriculture.

Betts, H(arold) S(cofield), National Forest Service, Washington, D. C. *Forestry.* New York, N. Y, July 27, 76. M.E, Stevens Inst. Tech, 00. Sprague Elec. Co, New York, 00–01; Ravenswood Gas Co, L. I, 01–02; *Nat. Forest Service, 02–, senior engineer.* Soc. Foresters. Utilization of forest products; strength, seasoning and grading of timber; properties and utilization of wood.

Betts, Dr. Philander, 100 Tenth Ave, Belmar, N. J. *Engineering.* Nyack, N. Y, May 28, 68. B.S, Rutgers, 91, M.S, 95; E.E, Columbian, 03, Ph.D, George Washington, 14, D.E, 32. Asst. prof. elec. eng. and mech. eng, George Washington, 00–10; chief engineer, Pub. Utilities Cmn, N. J, 10–34; *consulting engineer, 34–* Major, Eng. R.C, 17–18, lieut. col, 18–22, col, 22– Elec. Eng; Mech. Eng; Transit Asn. Public utilities; economics; electrometallurgy; electro-chem-

istry; valuations; rates; gas, water and electric service standards; street railways; industrial power electrification.

Betz, C(arl) E(gmont), Magnaflux Corp, 25 W. 43rd St, New York, N. Y. *Chemistry, Metallurgy.* Kansas City, Mo, Feb. 13, 93. Chem.E, Missouri, 13. Chemist, Pittsburgh Testing Lab, 13–22, chief chemist, 22–32, consulting chemist, 32–35; *tech. director, Magnaflux Corp, 35–* Welding Soc; Soc. Test. Mat; Soc. Metals. Analytical chemistry; chemical engineering; magnetic inspections.

Betz, Dr. Ebon E(lbert), 1106 Maple St, Annapolis, Md. *Mathematics.* Sept. 3, 14. A.B, Albion Col, 34; State Col. fellow, Michigan, 34–35, A.M. 35; Harrison fellow, Pennsylvania, 38–39, Ph.D, 39. Asst. instr. *math,* Pennsylvania, 35–38; *instr,* Haverford Col, 39–41; *U. S. Naval Acad, 41–* Math. Soc. Accessibility and separation by simple closed curves; topology.

Betz, Dr. Frederick, Jr, U. S. Bureau of Mines, Washington, D. C. *Geology.* Rochester, N. Y, March 11, 15. A.B, Columbia, 34; Ph.D, Princeton, 38. Asst. geol, Princeton, 36–38, research assoc. miner. and asst. curator, 38–40; asst. mineral economist, *U. S. Bur. Mines,* 41–42, *assoc. mineral economist, 42–* Asst. geologist, Newfoundland Geol. Surv, 36–41. Miner. Soc; Geophys. Union; Geol. Soc. Wash. Geology and mineral deposits of Newfoundland; floor of the North Pacific Ocean; mineral resources.

Betz, Prof. Herman, University of Missouri, Columbia, Mo. *Mathematics.* Rochester, N. Y, Sept. 30, 92. B.S, Rochester, 12; Göttingen, 12–16; Ph.D, Yale, 24. Instr. *math,* Cornell, 16–17; Michigan, 17–18; Yale, 18–25; asst. prof. and later *assoc. prof, Missouri, 25–* Math. Soc. Dynamics; mathematical physics.

Betz, L(eRoy) Drew, W. H. and L. D. Betz, Gillingham and Worth Sts, Frankford, Philadelphia, Pa. *Colloid chemistry.* Philadelphia, Pa, Dec. 9, 94. Drexel Inst, 14–16. Chem. director and v. pres, E. F. Drew and Co, 16–25; *mem. firm, W. H. and L. D. Betz, 25–* Mod. Pioneer award, Nat. Asn. Mfrs. Chem. Soc; Water Works Asn; Soc. Test. Mat; Mech. Eng. Application of colloids to water purification.

Betz, Dr. Margaret D(orothy), R. F. D. 2, Castleton, N. Y. *Physical chemistry.* Albany, N. Y, June 29, 00. B.S, N. Y. State Col. for Teachers, 22; A.M, Columbia, 27; Ph.D, Stanford, 35. *Instr. chem, N. Y. State Col. for Teachers, 22–* Chem. Soc. Properties of solutions of sulfonic acids.

Betz, Dr. P(aul) L(e Roy), 413 E. Lake Ave, Baltimore, Md. *Electrical engineering.* Baltimore, Md, June 6, 02. B.E, 24, D.E, 27. *Research physicist, Consol. Gas, Elec. Light and Power Co, Baltimore, 27–* Elec. Eng. Physics; quadrant electrometer; electric arc.

Beuschlein, Prof. W(arren) L(ord), 2160 Hamlin, Seattle, Wash. *Chemical engineering.* Mont, 95. B.S. (Ch.E), Calif. Inst. Tech, 20; M.S. (Ch.E), Washington (Seattle), 25, Ch.E, 30. Chem. engineer, Am. Nitrogen Products Co, Seattle, 20–22; asst. prof. *chem. eng, Washington (Seattle),* 22–32, assoc. prof, 32–37, *prof, 37–* Chem. Eng; Chem. Soc. Pulping studies on Douglas fir; hydrogenation of coal; properties of sulfur dioxide; manufacture of soft wood charcoal.

Beutner, Dr. R(einhard) H, Hahnemann Medical College and Hospital, Philadelphia, Pa. *Pharmacology.* Berlin, Germany, April 10, 85. Heidelberg; Dr.Ing, Karlsruhe, 08; Ph.D, M.D, Berlin, 26. Asst. to Dr. J. Loeb, Rockefeller Inst, 11–14; chemist, indust. and research labs, 14–21; asst, Pharmaco-Therapeut. Inst, Leiden, 22–23; asst. prof. *pharmacol,* Louisville, 24–31, *prof,* 31–36; *Hahnemann Med. Col, 36–* A.A; Soc. Exp. Biol; Soc. Pharmacol; Physiol. Soc; Chem. Soc; N. Y. Acad. Electrophysiology; artificial reproduction of vital phenomena; physical chemistry of living tissues and life processes; pharmacology of local anesthetics; binding of alkaloids by serum proteins.

Bevan, Arthur, Tropical Forest Experiment Station, Rio Piedras, P. R. *Forestry.* Eng, Sept. 9, 87. B.S, Washington (Seattle), 20. In charge flood control survs, Allegheny Forest Exp. Sta, *U. S. Forest Service,* 37–39, *director, Trop. Forest Exp. Sta, Insular Exp. Sta, 39–* A.A; Soc. Foresters; Soc. Americana de Ciencias Agricolas. Tropical forest research.

Bevan, Dr. Arthur (Charles), University, Va. *Geology.* Delaware, Ohio, Aug. 8, 88. B.S, Ohio Wesleyan, 12, hon. D.Sc; Chicago, 14–17, Ph.D, 21. Asst. *geol,* Ohio Wesleyan, 12–13, instr, 13–14; asst, Chicago, 14–17; instr, Ohio State, 17–19; asst. prof, Montana, 19–21; Illinois, 21–29; *state geologist, Va, 29–* Asst. geologist, Mont. Bur. Mines, 20–21; geologist, Ill. Geol. Surv, 23–28. Summer, asst. prof, Chicago, 24. A.A; Geol. Soc; Soc. Econ. Geol; Am. State Geologists (sec'y and ed, 'Jour,' 34–36, pres, 36); Ceramic Soc; Min. and Metal. Eng; Geol. Soc. Wash; Va. Acad; Ill. Acad; fel. Ohio Acad. Geology of the Montana Rockies, Beartooth Mountains and Virginia; history of the Appalachian Mountains; non-metallic mineral deposits; educational geology.

Bevan, William A(lfred), 247 N. Monroe St, Mooresville, Ind. *Aeronautics.* Skewen, S. Wales, Dec. 11, 76. B.S, Iowa State Col, 04, Purdue, 26; M.S, Mass. Inst. Tech, 21. Asst. chem, Iowa State Col, 04–05; instr, high sch, Wash, 05; Civil Service, 06–09; instr. physics, Iowa State Col, 09–12; instr. and asst. prof, Oregon State Col, 12–18; instr. aeronaut, Culver Mil. Acad, 23–25; asst. prof. aeronaut. eng, Purdue, 26–27, assoc. prof, 27–29; prof. aeronaut. and mech. eng, Iowa State Col, 29–40; assoc. prof. aeronaut. eng, Purdue, 41; lieut. and capt, A.S, *U. S. Army,* 18–22, capt, A. S. Res, 23–24, major, 24–30, *lieut. col, 30–* Mem. aeronaut. cmt, Asn. Land-Grant Cols. and Univs. Assoc. fel. Inst. Aeronaut. Sci; Eng. Educ. Aeronautics; airplane and airplane engine developments; future trends in commercial aviation.

Bevelander, Dr. G(errit), 477 First Ave, New York, N. Y. *Anatomy.* West Sayville, N. Y, April 6, 05. A.B, Hope Col, 26; A.M, Michigan, 28; Ph.D, Hopkins, 32. Assoc, Bur. Fisheries, 28–29; instr. biol, Union (N. Y), 31–33; assoc, *col. dentistry, N. Y. Univ,* 33–34, instr. *anat,* 34–37, *asst. prof, 37–* Soc. Zool; Asn. Anat; Soc. Physical Anthrop; Int. Asn. Dental Research. Comparative physiology; anatomy of fishes; comparative histology; epithelial tissues; secretory cells; comparative histology of teeth; effect of diet, endocrines and fever on tooth metabolism and development; physiological and structural studies in relation to calcification of teeth; tissue reactions in experimental tooth fractures; histology; dental histology.

Bever, Dr. Wayne M(elville), University of Illinois, Urbana, Ill. *Plant pathology.* Lewiston, Idaho, March 5, 04. B.S.Agr, Idaho, 27, M.S.Agr, 28; Ph.D, Wisconsin, 40. Junior pathologist, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29–36, asst. pathologist, 36–42, *assoc. pathologist, 42–* Phytopath. Soc. Cereal diseases; loose smut of wheat; physiological specialization; varietal resistance; environmental relationships; bunt of wheat; covered smut of barley.

Beverage, H(arold) H(enry), 66 Broad St, New York, N. Y. *Radio engineering.* North Haven, Maine, Oct. 14, 93. B.S, Maine, 15. Testman, Gen. Elec. Co, 16, radio lab. asst, 17–20; in charge receiver develop. transoceanic communication, Radio Corp. Amer, 20–29; chief research engineer, *Radio Corp. Amer. Communications,* 29–40, *v. pres. in charge research and develop, 40–* Liebmann mem. prize, Inst. Radio Eng, 23. Fel. Radio Eng. (pres, 37); Elec. Eng; fel. Radio Club. Directive receiving antennas; diversity reception for eliminating fading on short waves; propagation of radio frequencies.

Beveridge, Prof. H(ugh) R(aymond), 1043 E. Detroit Ave, Monmouth, Ill. *Mathematics.* Sandwich, Ill, Dec. 21, 99. B.S, Monmouth Col, 23; A.M, Illinois, 27, fellow, 28–29, Ph.D, 29. Instr, Monmouth Col, 23–25; asst, Illinois, 25–28; *prof. math, Monmouth Col, 29–* Math. Soc; Math. Asn. Analysis.

Beveridge, Dr. J(ames) M(acDonald) R(ichardson), Banting Institute, Toronto, Ont, Can. *Biochemistry.* Dunfermline, Scotland, Aug. 17, 12. B.Sc, Acadia, 37; Ph.D, Toronto, 40. *Research asst, dept. med. research, Banting Inst, 37–* Toronto Biochem. and Biophys. Soc. Analysis of proteins; choline and fatty liver problem.

Bevier, Dr. George, c/o Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Public health.* New Ulm, Minn, Aug. 7, 87. A.B, Stanford, 12, M.D, 19; Phila. Gen. Hosp, 19–23. Instr. physiol, Stanford, 15–16; asst. chief res. physician, Phila. Gen. Hosp, 22–23; *int. health div, Rockefeller Foundation, 23–* A.A; Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; Royal Soc. Trop. Med. and Hygiene. Tropical medicine; public health education; yellow fever; malaria.

Bewley, L(oyal) V(ivian), Lehigh University, Bethlehem, Pa. *Engineering.* Republic, Wash, Dec. 19, 98. B.S, Wash-

ington (Seattle), 23; M.S, Union (N. Y), 28. Engineer, Gen. Elec. Co, 23–40; *prof. elec. eng, head dept. and director curriculum, Lehigh, 40–; lieut. col, Field Artil, U. S. Army.* Charles A. Coffin award, Gen. Elec. Co; prize, Am. Inst. Elec. Eng, 31. Traveling waves; electric transients; electrical machine theory.

Beyer, Harold G(eorge), 8848 212th Place, Queens Village, New York, N. Y. *Nuclear physics.* New York, N. Y, March 9, 13. A.B, Columbia, 34. *Instr. physics, Vanderbilt, 41–* A.A; Physical Soc. Interference effects with slow neutrons with applications to ferro-magnetism and order-disorder phenomena in iron-nickel alloys.

Beyer, Prof. H(enry) Otley, University of the Philippines, Manila, P. I. *Anthropology.* Edgewood, Iowa, July 13, 83. A.B, Denver, 04, A.M, 05. Field work, U. S. Geol. Surv, 04–05; ethnologist, P. I, 05–14; asst. prof. *anthrop, Philippines,* 14–23, *prof. and head dept, 23–* Del, Int. Eng. Cong, Batavia, 19; Pacific Science Cong, 26, 29; P. I. del, Far-East Prehist. Cong, Hanoi, 32; pres, Cong. for Prehist. Research in Far East, Manila, 35. Hist. Asn; Pacific Research Inst; P. I. Geol. Soc; P. I. Acad. Geology; archeology; Philippine and Far-Eastern archeology; ethnology; recent geology; tektites.

Beyer, Dr. Karl H, University of Wisconsin, Madison, Wis. *Medical physiology.* Henderson, Ky, June 19, 14. B.S, West. Ky. State Col, 35; Ph.M, Wisconsin, 37, Ph.D, 40, M.D, 43. *Instr.* chem, West. Ky. State Col, 35–36; *physiol, Wisconsin, 39–* Physiol. Soc. The mode of action of sympathomimetic compounds in the body and their inactivation or elimination; the role of vitamins in liver function and metabolism.

Bezman, Dr. I(rving) I(srael), Tennessee Valley Authority, Wilson Dam, Ala. *Physical chemistry.* Brooklyn, N. Y, April 22, 18. B.S, Col. City of N. Y, 38; M.S, Ohio State, 39, Ph.D, 42. Asst. physical chem, Ohio State, 39–41, Nat. Defense Research project, 41–42; *asst. chemist, Tenn. Valley Authority, 42–* Chem. Soc. Electrical conductivity; ionization constants; ionic diameters of strong and weak electrolytes in ethanol and ethanol-water mixtures; explosives.

Bhagwat, M(adhav) R(amachandra), 60 E. 42nd St, New York, N. Y. *Chemistry, Chemical engineering.* Gherdi, India, June 16, 98. B.Sc, Bombay, 20; A.M, Columbia, 23. Asst, Columbia, 21–23; Nat. Aniline Chem. Co, Buffalo, 23–24; indust. research on paper pulp and heavy chemicals, 24–27; chem. engineer, Combustion Utilities Corp, N. J, 27–31; Doherty Research Co, 31; sec'y, Cmt. Unemployment and Relief Chemists and Chem. Engineers, 31–38; *sec'y-gen. manager, Chemist Advisory Council, Inc, 38–* Chem. Soc; Inst. Chem. Chemical technology; utilization of low temperature tar products; gasoline; inventions; synthetic resins from low temperature tar phenol; industrial application of organic and inorganic products; personnel and welfare problems in the chemical profession.

Biale, Dr. Jacob B, 405 Hilgard Ave, Los Angeles, Calif. *Agriculture.* Poland, Feb. 25, 08. B.S, California, 31, Ph.D, 34. Research asst. agr, California, 31–33; technician and assoc. hort, *California at Los Angeles,* 35–39, instr. *subtrop. hort,* 39–42, *asst. prof, 42–* Soc. Plant Physiol; Bot. Soc; Soc. Hort. Sci. Plant respiration and transpiration.

Bibb, Prof. Samuel F(letcher), Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Ripley, Tenn, June 2, 91. B.S, Chicago, 20, M.S, 23. Instr. math. and physics, Mich. Col. Min. and Tech, 20–22; *math,* North Dakota, 23–24; asst. prof, *Ill. Inst. Tech,* 24–34, *assoc. prof, 34–* 2nd lieut, Inf, 19. A.A; Eng. Educ; Math. Soc; Math. Asn. Geometry; differential equations.

Bibber, Prof. Harold W(hitney), Union College, Schenectady, N. Y. *Electrical engineering.* Gloucester, Mass, March 12, 99. B.S, Mass. Inst. Tech, 20; Besançon, 20; Ecole Supérieure d'Elec, Paris, 21. Instr, Mass. Inst. Tech, 20–23; office engineer, Int. Gen. Elec. Co, Schenectady, 23, Tokyo and Osaka, Japan, 24–27, Schenectady, 27–29; cent. sta, eng. dept, Gen. Elec. Co, 29–31; assoc. prof. elec. eng, Ohio State, 31–34, prof, 34–42; *prof. elec. eng. and admin. head eng. div, Union Col. (N. Y), 42–* Exchange instr, Ecole Cent. des Arts et Mfrs, Paris, 20–21. Elec. Eng; Eng. Educ; Soc. française des Elec. Methods of engineering education; theory of synchronous machines; application of symmetrical components to power systems.

Bibbins, Dr. Francis E(ugene), 150 W. 64th St, Indianapolis, Ind. *Pharmacy.* Beloit, Wis, Sept. 29, 83. Ph.G, Purdue, 04, Sc.D, 42; B.S, Indianapolis Col. Pharmacy, 31. *Pharmacist, Eli Lilly and Co, 04–* Pres, Indianapolis Col. Pharmacy. A.A; Pharmaceut. Asn. (chairman, sci. sect, 34, sec'y, 35–43); Chem. Soc. Development and stabilization of pharmaceutical products.

Bibby, Dean Basil G(lover), Tufts College Medical School, Boston, Mass. *Bacteriology, Dentistry.* Waipawa, N. Z, 04. B.D.S, Otago (N. Z), 27; Rockefeller fellow, Rochester, 30–33, 33–35, Ph.D, 35, Carnegie senior fellow, 35–36; D.M.D, Tufts Col, 39. Asst, Christchurch Hosp, N. Z, 28; instr. operative dentistry, Otago, 29; assoc, Rochester Dental Dispensary, 32–33; asst. prof. dentistry, sch. med. and dentistry, Rochester, 36–40; *prof. bacter, med. sch, Tufts Col, 40–, dean dental sch, 40–* Benjamin Lord prize and medal, N. Y. Dental Soc, 34. A.A; Soc. Bact; Dental Asn; Int. Asn. Dental Research. Dental caries; oral bacteriology.

Bibby, F(rancis) F(lavius), U. S. Naval Hospital, Pensacola, Fla. *Entomology.* Smithville, Miss, Feb. 12, 94. B.S, Miss. Agr. and Mech. Col, 14. Asst. entom, Miss. Agr. and Mech. Col, 15; asst. nursery inspector and asst. entomologist, State Plant Board, Fla, 16–17; diagnostic lab. asst, U.S.N, Charleston, S. C, and Santo Domingo, 18–19; field supt. insect control, bur. entom, U. S. Dept. Agr, Tallulah, La, 20, plant quarantine inspector, fed. hort. board, Durango, Mex, 21–23; asst. entomologist, State Board Entom, Ga, 24; entomologist, div. entom, Exp. Sta, Agr. and Mech. Col. Texas, 27–36; Soc. Nac. Agr, Lima, Peru, 38; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 39–42; *chief pharmacist's mate, U. S. Navy, 43–* Entom. Soc. Amer; Asn. Econ. Entom; Texas Entom. Soc. Cotton insects; cicadas; coccoids.

Bice, Prof. C(harles) M(ountjoy), University of Hawaii, Honolulu, Hawaii. *Agriculture.* Hancock, Mich, July 19, 98. B.S, Wisconsin, 27. Instr. *poultry husbandry, Hawaii,* 27–30, *asst. prof. and poultry husbandman, Exp. Sta, 30–* Hawaiian Acad. Poultry husbandry; poultry disease control; nutrition; poultry houses for Hawaii.

Bicek, Dr. Edward J(ohn), Illinois Institute of Technology, Chicago, Ill. *Chemistry.* Tracy, Minn, Aug. 17, 15. A.B, Carleton Col, 37; univ. fellow, Illinois, 40–41, Ph.D, 41. Asst. *chem,* Illinois, 37–40; *instr, Ill. Inst. Tech, 41–* Summer, asst, Gen. Motors Corp, 40. Asst. ed, 'Chem. Bul,' 42– Chem. Soc. Microradiography; x-ray diffraction; cellulose; polymers.

Bichowsky, Dr. F(rancis) Russell, Catholic University of America, Washington, D. C. **5*Physical chemistry.* San Gabriel, Calif, Feb. 19, 89. A.B, Pomona Col, 12; M.S, California, 14, Ph.D, 16. Physical chemist, geophys. lab, Carnegie Institution, 16–19; nat. research fellow physical chem, California, 19–23; assoc, Hopkins, 24–27; supt. div. physical chem, Naval Research Lab, 27–33; Surface Combustion Corp, Toledo, 34–37; consulting div, Dow Chem. Co, Ann Arbor, 37–40; *partner, Bichowsky and Rice, 40–; visiting prof, Catholic Univ, 42–* Asst. ed, 'Int. Critical Tables.' Chem. Soc; fel. Physical Soc. Free energy of sulfur compounds; electromagnetic interpretation of the quantum theory; kinetic theory of gases; psychology; mechanism of consciousness.

Bickerdike, Prof. Ernest L(awrence), P. O. Box 121, Santa Barbara, Calif. *Theoretical chemistry.* Bakersfield, Calif, March 17, 08. Ph.D, Southern California, 37. *Asst. prof. science, Santa Barbara State Col, 38–* A.A; Chem. Soc. The double sulfates of some rare earth elements with sodium, potassium, ammonium and thallium.

Bickerton, Dr. Jack M(ayson), Innis Speiden and Co, 117 Liberty St, New York, N. Y. *Plant pathology.* Victoria, B. C, Can, April 30, 13. B.S.A, British Columbia, 34; Carnegie scholar, British Columbia and Cornell, 34–36; fellow, Cornell, 35–40, Ph.D, 41. Instr. biol, British Columbia, 34–35; *plant pathologist, Innis Speiden and Co, 41–* Nat. Research Council Can. award, 35. Phytopath. Soc; Mycol. Soc. Alternaria blight of carnations caused by Alternaria Dianthi Ster. and Hull and its control; Fusarium wilt of carnations caused by Fusarium Dianthi Prill. and Del. and its control.

Bickford, C(harles) A(llen), 2134 St. Charles Ave, New Orleans, La. *Silviculture.* Gorham, N. H, May 25, 05. B.S, Dartmouth Col, 25; M.S, Idaho, 31. *Asst, South. Forest Exp. Sta, U. S. Forest Service, 31–,* junior forester, 31–35, asst. silviculturist, 35–38, assoc. silviculturist, 38–41, *silviculturist, 41–* Soc. Foresters. Methods of thinning; natural regeneration; management of stands; fire effects; fire behavior and uses of fire; silviculture of Southern pines.

Bickford, Dr. W(illiam) G(lenn), Southern Regional Research Laboratory, U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Winfield, Kans, Sept. 24, 06. A.B, Southwestern Col. (Kans), 27; Ph.D, Iowa State Col, 36. Instr, pub. schs, Kans, 27–29, prin, 29; instr. chem, Iowa State Col, 29–36; asst. chemist, regional soy-bean indust. products lab, bur. chem. and soils, *U. S. Dept. Agr*, 36–41, *assoc. chemist, south. regional research lab, bur. agr. chem. and eng, 41–* Stability and chemistry of vegetable oils.

Bickley, Prof. Aubrey W(oodruff), Marshall College, Huntington, W. Va. *Psychology.* Athens, Ala, Aug. 25, 04. A.B, Emory, 28, A.M, 30; Ph.D, Peabody Col, 39. Instr. *psychol*, Emory, 30–32; Alabama, 37–38; asst. prof, Louisiana Polytech, 38–39; prof, King Col, 39–41; *asst. prof, Marshall Col, 41–* Assoc. Psychol. Asn. Intelligence diagnostics of certain animal learning problems adapted to human subjects; psychology of learning; animal psychology.

Bickley, Dr. E(than) Allen, 1028 Bompart Ave, Webster Groves, Mo. *Chemistry.* St. Louis, Mo, Jan. 5, 16. A.B, Washington (St. Louis), 36, scholar, 36–38, M.S, 37, fellow, 38–39, Ph.D, 39. *Research chemist, Blue Line Chem. Co, 39–* Summer, asst, Monsanto Chem. Co, 38. Chem. Soc. Organic and pharmaceutical chemistry; action of heavy metal salts on Grignard reagents; condensation of succinic anhydride with phenols.

Bickley, Dr. William E(lbert), 300 Essex Bldg, Norfolk, Va. *Entomology.* Knoxville, Tenn, Jan. 20, 14. B.S, Tennessee, 34, M.S, 36; Ph.D, Maryland, 40. Teacher, schs, Tenn, 35–37; teaching fellow entom, Maryland, 37–40, instr, 40–42; *asst. entomologist, malaria control in war areas, U. S. Pub. Health Service, 42–* Summers, field aid, bur. entom. and plant quarantine, U. S. Dept. Agr, 38, 39. Asn. Econ. Entom; Entom. Soc. Amer; Entom. Soc. Wash. Chrysopidae of Tennessee; insect morphology; stomodaeal nervous system of insects; Japanese beetle; mosquitoes.

Biddle, Dr. Anna E(leanora), 1045 Drexel Ave, Drexel Hill, Pa. *Psychology.* Philadelphia, Pa, Jan. 9, 89. A.B. Cornell, 10; A.M, Pennsylvania, 17, Ph.D, 27. Teacher, schs, Pa, 11–21; *counselor and sch. psychologist, S. Phila. High Sch. for Girls, 22–* A.A; Psychol. Asn; Asn. Applied Psychol; Soc. Study Educ; Nat. Cmt. Mental Hygiene. Clinical psychology; school counseling; mental hygiene in high schools.

Biddle, Prof. R(ussell) L(ee), College of the City of New York, New York, N. Y. *Biology, Genetics.* Donora, Pa, April 27, 03. B.S, Pittsburgh, 25; A.M, Columbia, 28; Ph.D, Calif. Inst. Tech, 31. Asst, Pittsburgh, 25–27; teaching fellow, N. Y. Univ, 27–28; Calif. Inst. Tech, 28–31; instr. *biol, Col. City of N. Y*, 31–35, *asst. prof, 35–* Summer, Univ. Pittsburgh exped, British Guiana, 25. A.A; Genetics Soc. Hybrids between Drosophila melanogaster and Drosophila simulans; chromosomes of the hybrids for somatic pairing.

Biddulph, Dr. Clyde, Basic Flying School, Cochran Field, Macon, Ga. *Zoology.* Hooper, Utah, March 8, 12. A.B, Brigham Young, 36; Ph.M, Wisconsin, 39, Ph.D, 40. Asst. zool, Wisconsin, 36–40, fellow, 40–41; junior biologist, State Conservation Dept, Wis, 41; instr. zool, Connecticut, 42; *aviation physiologist, Air Forces, U. S. Army, 42–* Physiology of the pituitary gland, gonads and thyroid.

Biddulph, Prof. Orlin, State College of Washington, Pullman, Wash. *Botany.* Hooper, Utah, Jan. 27, 08. B.S, Brigham Young, 29, M.S, 33; Ph.D, Chicago, 34. Asst. prof. *bot.* and head dept, South Dakota, 34–37; asst. prof, *State Col. Wash*, 37–41, *assoc. prof, 41–* Nat. research participating fellow, 41–A.A; Soc. Plant Physiol; Bot. Soc. Physiology of photoperiodism, translocation and phosphorus metabolism.

Bidwell, Prof. Charles C(larence), Lehigh University, Bethlehem, Pa. *Physics.* Rochester, N. Y, Oct. 23, 81. A.B, Rochester, 04; Ph.D, Cornell, 14. Teacher, high sch, N. J, 08–10; asst. *physics*, Cornell, 10–12, instr, 12–17, asst. prof, 17–25, prof, 25–27; *prof. and head dept, Lehigh, 27–* Acting prof, Union (N. Y), 23–24; Carnegie fellow, Cornell, 15. Physicist, U. S. Naval Exp. Sta, New London, 18. A.A; fel. Physical Soc; Optical Soc. (sec'y, 25–29). Actual and black body temperatures of various metals; thermoelectric power of oxides; resistance and thermoelectric power of germanium and of the alkali metals; thermal conductivity and specific heats of the alkali metals; thermal conductivity through change of state for zinc, lead and tin.

Bieber, Prof. C(harles) L(eonard), 214 N. Huffman St, Naperville, Ill. *Geology.* Reinbeck, Iowa, Aug. 22, 01. A.B, Cornell Col, 24; A.M, Iowa, 32; Ph.D, Northwestern, 42. *Prof. geol. and geog, North Central Col, 37–* Ill. Acad. Stratigraphy and paleontology of the Trenton rocks of the upper Mississippi Valley.

Bieberdorf, Prof. Frederick W(ilhelm), St. Olaf College, Northfield, Minn. *Botany.* Stillwater, Okla, March 1, 00. B.S, Okla. Agr. and Mech. Col, 26; fellow, Iowa State Col, 26–28, M.S, 27, Ph.D, 33. *Assoc. prof. biol, St. Olaf Col, 28–* A.A. Comparative cytological development of some legume nodules.

Bieberdorf, Prof. G(ustav) A(dolph), 1730 W. Third Ave, Stillwater, Okla. *Entomology.* Indian Territory, Jan. 28, 98. B.S, Okla. Agr. and Mech. Col, 22, M.S, 36. Instr. *entom, Okla. Agr. and Mech. Col*, 22–23, *asst. prof. and asst. entomologist, 24–* Okla. Acad. Beekeeping; orchard and garden pests.

Biefeld, Dr. L(awrence) P(aul), Owens-Corning Fiberglas Corp, Newark, Ohio. *Chemistry.* Akron, Ohio, Aug. 30, 09. A.B, Denison, 30; Ph.D, Ohio State, 34. Prof. *chem*, Shurtleff Col, 34–37; instr, Purdue, 37–40, asst. prof, 40–42; *mem. staff, chem. research lab, Owens-Corning Fiberglas Corp, 42–* Chem. Soc; Ind. Acad. X-ray analysis of crystal structures; organic analytical reagents; color nomenclature in chemistry; chemical education; qualitative analysis.

Biefeld, Prof. P(aul), Denison University, Granville, Ohio. *Astronomy.* Königswalde, Germany, March 22, 67. B.S, Wisconsin, 94; Ph.D, Zurich, 00. Asst, high sch, Wis, 94–97; asst. physics to Prof. H. F. Weber, Zurich, 99–00; prof. physics, math. and elec. eng, Tech. Hildburghausen, Germany, 00–06; physics and astron, Buchtel Col, 06–11; prof. astron. and director, Swasey Observatory, *Denison*, 11–36, *emer. prof. astron, 36–* Summer, asst, Yerkes Observatory, Chicago, 19. Solar eclipse exped, Colo, 18; Catalina Island, 23. A.A; Astron. Soc; hon. mem. Sta. Eng; Astron. Soc. Pacific. Physics; electrical engineering; electrolysis; constant of diffusion of zinc sulfate at varying concentrations.

Biegler, Dean Philip S(heridan), University of Southern California, Los Angeles, Calif. *Electrical engineering.* St. Paul, Minn, Jan. 30, 80. B.S, Wisconsin, 05, E.E, 15; M.S, Illinois, 16. Eng. dept, Chicago Edison Co, 05–06; instr. and asst. prof. elec. eng, Iowa, 06–09; eng. dept, Wash. Water Power Co, 09–10; asst. prof. elec. eng, Purdue, 10–11; prof, Montana, 11–13; asst. prof, Illinois, 13–18; assoc. ed, 'Elec. World,' 18–21; assoc. prof. *elec. eng*, State Col. Wash, 21–23; *prof. and dean col. eng, Southern California, 23–* Fel. Elec. Eng. (mem, nat. cmt. on educ, 29–31; chairman, Los Angeles sect, 31); Eng. Educ. Constant current devices for street lighting; deep well pumping; testing of large electric generators; engineering education.

Biekart, Prof. Henry M(ichael), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Horticulture.* Netherlands, Aug. 15, 87. Hort. Col, Frederiksoord, Netherlands, 07; B.S, Rutgers, 24. Asst, Mo. Bot. Garden, 14–15; state florist, *N. J. Exp. Sta*, 17–25, *asst. ornamental horticulturist, 25–, asst. prof. ornamental hort, Rutgers, 26–* Ornamental horticulture; bulbs; sand-culture of carnations in greenhouses; roses; gardenias.

Biel, Prof. Erwin R(einhold), Rutgers University, New Brunswick, N. J. *Climatology, Meteorology.* Vienna, Austria, Jan. 7, 99. Ph.D, Vienna, 26. Asst, inst. geog, Vienna, 27–29; climatologist and head dept, Meteorol. Observatory, Breslau, 29–33, docent climat, univ, 32–33; meteorol, climat. and geog, Volkshochschule Vienna, 35–38; visiting prof. *meteorol. and climat, col. agr, Rutgers*, 38–42, *prof, 42–* Visiting assoc. prof, Chicago, 42. General and regional climatology; climates of the earth, Austria, Dalmatia, Istria, Japan, New Jersey, Silesia and Switzerland.

Biel, Prof. William C(ollins), Miami University, Oxford, Ohio. *Experimental psychology.* Granite City, Ill, Aug. 18, 09. A.B, Oberlin Col, 31; A.M, Western Reserve, 33; Ph.D, Stanford, 37. Instr. *psychol*, Ohio State, 37–40; *asst. prof, Miami (Ohio), 40–* Psychol. Asn. Effects of malnutrition on learning ability in rats; effects of brain lesions on emotional behavior in rats; effects of attitude upon retention.

Biely, Jacob, University of British Columbia, Vancouver, B. C, Can. *Poultry pathology, Nutrition.* Bogopol, Russia, Jan. 2, 03. B.S.A, British Columbia, 26, M.S.A, 29; M.S, Kans. Col,

28. Technician, West. Wash. Exp. Sta, 26–27; Nat. Research Council Can. asst, depts. bacter. and poultry husbandry, *British Columbia*, 27–29, 30–33, special asst, 33–35, asst, *dept. poultry husbandry*, 29–30, instr, 35–43, *asst. prof, 43–* Poultry Sci. Asn; Can. Soc. Tech. Agr; B. C. Acad. Effect of pullorum disease on egg production; accuracy of agglutination test for the detection of pullorum disease carriers; inheritance of resistance to fowl paralysis; blood of fowls; British Columbia fish oils as sources of vitamins A and D; vitamin and protein requirements of growing chickens; riboflavin content of feedstuffs.

Bienfang, Prof. Ralph (David), University of Oklahoma, Norman, Okla. *Pharmacognosy.* Jefferson, Wis, Jan. 15, 05. Colorado, 22–23; B.S, Wisconsin, 26, M.S, 27, Ph.D, 29. Prof. pharmacy, Conn. Col. Pharmacy, 29–30; asst. prof. pharmacog, *sch. pharmacy, Oklahoma*, 30–37, assoc. prof, 37–41, *prof*, 41–42, *pharmacy, 42–* Pharmaceut. Asn; Asn. Cols. Pharmacy; Wis. Hist. Soc. Pharmacy; odors; sense of smell; olfaction; noses.

Bier, Dr. John E(rtel), Division of Botany and Plant Pathology, Dominion Department of Agriculture, Victoria, B. C, Can. *Forest pathology.* Ont, May 3, 09. B.Sc.F, Toronto, 32, M.A, 36, Ph.D, 38. *Mem. staff, div. bot. and plant path, Dom. Dept. Agr, 35–* Forest pathology in British Columbia.

Bierbaum, C(hristopher) H(enry), 197 Lathrop St, Buffalo, N. Y. *Engineering, Metallurgy.* Garnavillo, Iowa, Feb. 14, 64. B.S, North. Ill. Nor. Sch, 86; M.E, Cornell, 91. Instr. exp. eng, Cornell, 92–96; consulting engineer, Am. Stoker Co, Dayton, Ohio, 96–98; mem, Bierbaum and Merrick, Engineers, Cincinnati, Ohio, 98, Buffalo, N. Y, 01; consulting engineer, Buffalo, 03–28; *v. pres, director research and consulting engineer, Lumen Bearing Co, Buffalo, 01–* Am. Soc. Mech. Eng. rep, advisory cmt. metal. research, Bur. Standards. A.A; fel. Mech. Eng; Min. and Metal. Eng; Soc. Metals; Micros. Soc; Buffalo Eng. Soc. (past pres); hon. mem. Buffalo Soc. Nat. Sci. Bearing design, lubrication, alloys and construction; metallurgy of bearing materials; microhardness of substances; microcharacter; corroding effects of oxidized lubricants on bearing surfaces; the phosphor nickel bearing alloys.

Bierman, Dr. William, 471 Park Ave, New York, N. Y. *Physical therapy.* New York, N. Y, Dec. 10, 93. A.B, Columbia, 15, M.D, 17. Director dept. physical therapy, Beth Israel Hosp, New York, 28–35; lecturer physical therapy, *col. med, N. Y. Univ*, 34–35, *asst. clin. prof. therapeut, 36–* Instr, Columbia, 33–36, lecturer, 36–37, assoc, 37–; attending physician, Mt. Sinai Hosp, 35– Chevalier, Légion d'honneur, 37. Gold key award, Am. Cong. Physical Therapy, 41. Pres, Am. Cong. Physical Therapy, 36–37; sec'y, Int. Conf. on Fever Therapy, 37. Am. Med. Asn; Soc. Physical Therapy Physicians (pres, 40); fel. N. Y. Acad. Med. The use of artificial fever therapy in the treatment of disease; diseases of the circulation; physical therapeutic procedures; short wave current.

Bierring, Dr. Walter L(awrence), 1210 Bankers Trust Bldg, Des Moines, Iowa. *Pathology.* Davenport, Iowa, July 15, 68. M.D, Iowa, 92; Vienna and Heidelberg, 92; Vienna, 93, 96, 01; Pasteur Inst, Paris, 94. Prof. path. and bacter, Iowa, 93–03, theory and practise of med. and clin. med, 03–10; med, Drake, 10–13; pres, State Board Health, Iowa, and med. examiner, Iowa, 13–22; *Nat. Board Med. Examiners, 16–* Health commissioner, State Board Health, Iowa, 33–; chairman, Am. Board Internal Med, 36–39; sec'y-ed, Federation State Med. Boards, U. S, 15– A.A; Asn. Path. and Bact; Am. Med. Asn. (chairman, sect. path. and physiol, 07, sect. med, 19, pres, 34); Col. Physicians (regent, 30–36); Am. Heart Asn; Pub. Health Asn; hon. mem. Royal Col. Physicians Edinburgh. Bacteriology; hematology; pernicious anemia; chloroma; cardiovascular diseases; medical education; public health.

Biesele, Dr. F(erdinand) C(harles), University of Utah, Salt Lake City, Utah. *Mathematics.* New Braunfels, Texas, June 14, 12. A.B, Texas, 32, A.M, 33, Ph.D, 41; Brown, 37–38. Teacher, high schs, Texas, 33–35, 38–39; *instr. math*, San Antonio Junior Col, 35–37; *Utah, 41–* Math. Soc; Math. Asn. Group theory; abstract algebra.

Biesele, Dr. J(ohn) J(ulius), 2308 Bridle Path, Austin, Texas. *Cancer cytology.* Waco, Texas, March 24, 18. A.B, Texas, 39, Ph.D, 42. *Int. Cancer Research Foundation fellow, 42–* A.A. Polytene chromosomes in cancers; nuclear changes in protozoa affected by carcinogens.

Biester, Prof. Alice, University Farm, St. Paul, Minn. *Home economics.* Belvidere, Ill. A.B, Illinois, 12, A.M, 13; Minnesota, 19; Columbia, 18, 23; Yale, 22–23, 25–26. Instr. home econ, Purdue, 13–15; asst. prof. *nutrition, Minnesota*, 15–21, assoc. prof, 21–43, *prof, 43–* A.A; Home Econ. Asn; Dietetic Asn; Chem. Soc; Pub. Health Asn; Minn. Acad. Nutrition; infant feeding; vitamins; carbohydrates; blood regeneration.

Biester, Prof. H(arry) E(dward), Iowa State College, Ames, Iowa. *Animal pathology.* Chicago, Ill, Dec. 13, 92. D.V.M, Pennsylvania, 19, 19–20. Asst. path, Pennsylvania, 19–20; instr, Iowa State Col, 20–21; assoc. *animal path*, Illinois, 21–22; asst. prof. and *assoc. prof, Iowa State Col*, 22–Bur. animal indust, U. S. Dept. Agr, 19. Chairman cmt. med. problems common to animals and man, Nat. Research Council. Vet. Med. Asn; Conf. Research Workers Animal Diseases N. Amer; Iowa Acad; Osborne Research Club. Animal diseases; enteric diseases of swine; coccidiosis; swine nutrition; equine encephalomyelitis and listerellosis.

Bieter, Prof. Raymond N(icholas), 2015 Dayton Ave, St. Paul, Minn. *Pharmacology.* Heron Lake, Minn, Oct. 9, 00. B.S, Minnesota, 21, M.B, M.D, M.S, 24, Ph.D, 29. Instr. *pharmacol, med. sch, Minnesota*, 25–29, asst. prof, 29–31, assoc. prof, 31–40, *prof, 40–* Assoc, sch. med, Hopkins, 30–31. Summer, prof, Chicago, 41. A.A; Soc. Pharmacol. (sec'y, 41–); Soc. Exp. Biol. (board eds, pharmacol, 41–); Minn. Acad. Physiology and pharmacology of the kidney; pharmacology of diuretics and of local anesthetics; chemotherapy of sulfonamides; pharmacology of Indian medicinal plants.

Biffen, Frank M(oody), Foster D. Snell, Inc, 305 Washington St, Brooklyn, N. Y. *Chemistry.* London, Eng, July 18, 97. B.Sc, London. Chemist, Govt. Labs, London, 17–27; plant chemist, Vultex Products Ltd, London, 28–29; asst. director and later *director lab, Foster D. Snell, Inc, 29–* Chem. Soc; assoc. Inst. Chem. Gt. Britain and Ireland. Analytical chemistry.

Bigelow, Prof. H(arold) E(ugene), Sackville, N. B, Can. *Chemistry.* Spencer's Island, N. S, Oct. 7, 81. B.A, Mt. Allison, 03; A.M, Harvard, 08, Ph.D, 11. Prof. chem, Mt. Allison, 11–14; dean, McClellan Sch. Applied Science, 13–14; asst. prof. *chem*, Brown, 14–15; *prof, Mt. Allison, 15–, director dept, 37–* Mem. Nat. Research Council Can, 36– Chem. Soc; Can. Chem. Asn. (pres, 38); fel. Can. Inst. Chem. (pres, 37); fel. Royal Soc. Can; Deuts. Chem. Gesell. Replacement of hydrogen in benzene substituted compounds; barium; azoxy compounds; sodium arsenite as a reducing agent.

Bigelow, Prof. Henry B(ryant), Museum of Comparative Zoology, Cambridge, Mass. **²Zoology.* Boston, Mass, Oct. 3, 79. A.B, Harvard, 01, A.M, 04, Ph.D, 06; Sc.D, Yale, 41. Asst. invert. zool, *museum comp. zool, Harvard*, 06–13, curator coelenterates, 13–25, research curator zool, 25–27, *curator oceanog, 27–*, lecturer, 21–27, assoc. prof. *zool*, 27–31, *prof, 31–* Director, Oceanog. Inst, Woods Hole, 30–39. Agassiz exped, Maldive Islands, 01–02; Brown-Harvard exped, Labrador, 00; 'Albatross' E. Pacific exped, 04–05; Agassiz exped, W. Indies, 07. Chairman, N. Am. Council on Fisheries Investigations. Agassiz medal, 31. Nat. Acad; A.A; Soc. Nat; Philos. Soc; Geophys. Union (sci. adviser, Int. Ice Patrol); fel. Am. Acad; cor. mem. Acad. Nat. Sci. Phila; Boston Soc. Nat. Hist; fel. Royal Geog. Soc; Norske Videnskaps Akad, Oslo; cor. mem. State Russian Geog. Soc. Medusae; cytology; oceanography; Siphonophorae; Philippine Medusae; cytology of the Coelenterata; plankton; elasmobranchs.

Bigelow, Prof. Lucius (Aurelius), Duke University, Durham, N. C. *Organic chemistry.* Boston, Mass, Jan. 31, 92. B.S, Mass. Inst. Tech, 15; Harvard, 16–17; Howard fellow, Yale, 18–19, Ph.D, 19. Asst. chem, Mass. Inst. Tech, 15–16; Yale, 17–18; instr, St. Lawrence, 19–20; *org. chem*, Brown, 20–24, asst. prof, 24–29; *Duke*, 29–35, assoc. prof, 35–41, *prof, 41–* Exchange lecturer, Edinburgh, 33–34. A.A; Chem. Soc. (sec'y-treas, R. I. sect, 23–25, v. chairman, 25–26, chairman, 26–29, chairman, N. C. sect, 30–32); Inst. Chem; N. C. Acad; N. Y. Acad. Action of elementary fluorine on organic compounds.

Bigelow, Prof. Maurice A(lpheus), Teachers College, Columbia University, New York, N. Y. **¹Zoology.* Union Co, Ohio, Dec. 8, 72. B.S, Ohio Wesleyan, 94, LL.D, 30; M.S, Northwestern, 96; Ph.D, Harvard, 01; Sc.D, Columbia, 29. Instr. biol, Ohio Wesleyan, 94–95; zool, Northwestern, 96–98; *biol, Teachers Col, Columbia*, 99–03, adj. prof, 03–07, prof, 07–39, *emer. prof, 39–, prof. and director*, sch. practical arts, 15–35, practical science research, 35–39. A.A. (sec'y, F, 08–13); Soc. Nat; Soc. Zool. The early development of lower

Crustacea; the teaching of biological science; social biology and health education.

Bigelow, Dr. Maurice H(ubbard), 2112 Sylvan Ave, Toledo, Ohio. *Chemistry.* New Haven, Conn, Oct. 25, 03. B.S, Northeastern, 24; Ph.D, Pittsburgh, 33. Head dept. science, Am. Col, Greece, 25–28; instr. chem, Pittsburgh, 29–33; indust. fellow, Mellon Inst, 33–35; director tech. service, Plaskon Co, Inc, 35–42; *capt, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc; Soc. Test. Mat; Illum. Eng. Soc. Glass; synthetic resins.

Bigelow, Dr. Robert P(ayne), 72 Blake Road, Brookline, Mass. *[1]Zoology.* Baldwinsville, N. Y; July 10, 63. B.S, Harvard, 87; Bruce fellow, Hopkins, 91–93, Ph.D, 92. Instr. biol, *Mass. Inst. Tech,* 93–12, asst. prof. zool, 12–15, assoc. prof, 15–22, prof. *zool. and parasitol,* 22–33, *emer. prof, 33–* Librarian, Mass. Inst. Tech, 95–25; lecturer, Harvard, 22. Ed, 'Am. Naturalist,' 97–98; 'Tech. Quarterly,' 95–08. A.A; Soc. Nat; Asn. Anat; Am. Acad. (cor. sec'y, 26–30; ed, 34); Boston Soc. Nat. Hist. Embryology of Medusae; Crustacea; Stomatopoda from the Pacific Ocean; history of biology.

Bigelow, Prof. R(oyal) G(ilbert), 2644 Lawndale Ave, Evanston, Ill. *Mechanical engineering.* Gills' Pier, Mich, June 6, 88. B.S. (Eng), Mich. State Col, 16, M.E, 29. Instr. mech. eng, Mich. State Col, 16–19; automotive mfg. plant, 19–20; asst. prof. mech. eng, *Northwestern,* 20–40, *assoc. prof. indust. eng, 40–* U.S.A, 18. Soc. Metals; West. Soc. Eng.

Bigelow, Prof. S(amuel) Lawrence, 30 E. 60th St, New York, N. Y. *[2]Chemistry.* Boston, Mass, Feb. 23, 70. A.B, Harvard, 91; B.S, Mass. Inst. Tech, 95; Ph.D, Leipzig, 98. Instr. gen. chem, *Michigan,* 98–01, asst. prof. and acting director lab, 01–04, junior prof, 04–05, *gen. and physical chem,* 05–07, prof, 07–37, *emer. prof, 37–* A.A; Chem. Soc; Electrochem. Soc; Franklin Inst; Mich. Acad; Wash. Acad. Catalysis; decomposition point of electrolytes; polarization with low voltages and the residual current; colloidal solutions; capillarity; osmosis; surface tension.

Bigger, Dr. I(saac) A(lexander), 1200 E. Broad St, Richmond, Va. *Surgery.* Bethel, S. C, June 25, 93. Erskine Col, 09–10; Davidson Col, 10–11, 12–13; M.D, Virginia, 19. Instr. *surg,* dept. med, Virginia, 22–23, asst. prof, 23–27; assoc. prof, Vanderbilt, 27–30; *prof. and surgeon in chief, Med. Col. of Va, 30–* Surg. Asn; Asn. Thoracic Surg; Am. Med. Asn; fel. Col. Surg; South. Surg. Asn; East. Surg. Soc; South. Soc. Clin. Surg; South. Med. Asn. (chairman, surg. sect, 35–36); Va. Med. Asn; Va. Acad. (chairman, med. sect, 33–34). Operative surgery; wounds of the heart, thorax and intrapericardial vessels; pericarditis; carcinoma of the lung and the breast; surgical treatment of pulmonary tuberculosis and chronic empyema; surgical conditions of the lungs; burns; exophthalmic goiter.

Bigger, J(ohn) H(enry), 1018 W. John St, Champaign, Ill. *Entomology.* New York, N. Y, Oct. 31, 98. B.S, Conn. Agr. Col, 21; M.S, Illinois, 41. *Assoc. entomologist, Ill. Nat. Hist. Surv, 22–* Summer, scout and quarantine agent, U. S. Dept. Agr, N. J. and Pa, 20. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ill. Acad. Fruit tree leaf roller; clover root curculio; grape colaspis; corn root worm; seed corn beetle; insects affecting sweet clover; chinch bug; red clover seed insects; corn resistant to insects; cutworm insect resistance in farm crops.

Biggs, Dr. Barnard S(torey), Bell Telephone Laboratories, Summit, N. J. *Chemistry.* San Marcos, Texas, Sept. 10, 07. A.B, Southwest Texas State Teachers Col, 27; A.M, Texas, 31, Ph.D, 33. *Mem.* staff, coal research lab, Carnegie Inst. Tech, 33–36; *tech. staff, Bell Tel. Labs, 36–* Chem. Soc. Nitrogen compounds in petroleum; chemistry of coal extracts; dielectric and insulating materials; synthetic plastics.

Biggs, Dr. George P(atten), 16 Rockledge Road, Montclair, N. J. *Pathology.* Trumansburg, N. Y, Oct. 26, 67. M.D, N. Y. Univ, 89. Asst. pathologist, N. Y. Hosp, 91–96, pathologist, 96–06; Health Dept, New York, 94–21. Prof, N. Y. Vet. Col, 92–97; lecturer, Univ. and Bellevue Hosp. Med. Col, 98–03. N. Y. Path. Soc; N. Y. Acad. Med.

Bigler, Dr. John A, 400 N. Sheridan Road, Highland Park, Ill. *Pediatrics.* Chippewa Falls, Wis, Nov. 27, 96. B.S, Wisconsin, 21; M.D, Rush, Chicago, 23. *Asst. prof. pediat, sch. med, Northwestern, 30–* Attending physician and med. director outpatient dept, Children's Mem. Hosp, 33–, assoc. and director lab, Otho S. A. Sprague Mem. Inst, 37– Pediat. Soc; Acad. Pediat; Soc. Pediat. Research. Tetanus immunization; carbohydrate and fat intolerance and pancreatic insufficiency in children.

Biguria, Prof. Fernando, Tufts College Medical School, Boston, Mass. *Clinical physiology.* Guatemala City, Guatemala, Nov. 19, 03. A.B. and B.S, Nat. Inst, Guatemala, 21; M.D, Nat. Univ, Guatemala, 29; Harvard Med. Sch, 29. Asst. med, *med. sch, Tufts Col,* 31, research fellow physiol, 32, instr. med, 33–37, lecturer physiol, asst. prof. med. and director clin. teaching, 38–41, *clin. prof. med, 41–* Fel. Am. Med. Asn. Gastroenterology; quantitative determination of globulin in the blood serum.

Bihler, Prof. H(ugh) J(oseph), Woodstock College, Woodstock, Md. *Psychology.* Buffalo, N. Y, April 15, 98. A.B, Woodstock Col. (Md), 23, A.M, 24; Ph.D, Vienna, 37. *Prof. exp. psychol, Woodstock Col. (Md), 37–* Exec. board, Catholic Anthrop. Conf, 41– Assoc. Psychol. Asn. Experimental thought psychology.

Bijou, Dr. Sidney W(illiam), 415 Stone St, Kalamazoo, Mich. *Psychology.* Baltimore, Md, Nov. 12, 08. B.S, Florida, 33; A.M, Columbia, 36; Ph.D, Iowa, 41. Psychologist, Board Educ, New York, 36–37; Del. State Mental Hygiene Clinic and Hosp, 37–39; asst. psychol, Iowa, 40–41; research assoc, Wayne County Training Sch, 41–42; *lieut, Adj. Gen. Dept, U. S. Army, 42–* A.A; Psychol. Asn; Asn. Mental Deficiency; Asn. Applied Psychol; Midwest. Psychol. Asn; Mich. Psychol. Asn; Mich. Acad. Experimental analysis of personality structure and mechanisms; learning and adjustment; mental measurements.

Bilger, Prof. Earl M(atthias), University of Hawaii, Honolulu, Hawaii. *Chemistry.* Meriden, Conn, June 10, 98. B.S, Wesleyan, 20, A.M, 21; Ph.D, Yale, 25; Cincinnati, 28–29; Cambridge, 35. Assoc. prof. *chem.* and head dept, Berea Col, 24–25; asst. prof. and assoc. prof, *Hawaii,* 25–43, *prof, 43–* Chem. Soc. (pres, Hawaii sect, 40); Hawaiian Acad. Organic and physical chemistry; thermolysis of organic compounds; iodine in Hawaiian foods.

Bilger, Prof. Leonora Neuffer, University of Hawaii, Honolulu, Hawaii. *Chemistry.* Boston, Mass. A.B, Cincinnati, A.M, Ph.D, 16; Cambridge, 24, 35. Prof. chem, Sweet Briar Col, 16–18; instr. and asst. prof, Cincinnati, 18–25, director chem. research, basic science research lab, 24–29; dean women, *Hawaii,* 29–37, head chem. research, exp. sta, 29–37, *prof. chem, univ, 37–, head dept, 43–* Prof, Hawaii, 25–27. Sara Berliner fellow. A.A; Chem. Soc; Hawaiian Acad. Asymmetric structures; hydroxylamines and hydroxamic acids; toxicity study of substances used in cancer treatment; pigments of red peppers; radiation and asymmetric molecules; sterols of tropical oils.

Bilgery, Prof. Conrad, S.J, Regis College, Denver, Colo. *Mathematics.* Güttingen, Switzerland, May 12, 80. A.B, Campion, 05; A.M, St. Louis, 12. Instr. math, St. Ignatius Col. (Ohio), 05–09; St. John's Col. (Ohio), 09–10; supt, Creighton, 15–20; *prof.* math, Carroll, 20–24; *math. and geol, Regis Col, 26–* Soc. Am. Archeol; Asn. Jesuit Scientists; Math. Soc; Catholic Anthrop. Conf. Archeology; Folsomoid points; mammoth bones; evidences of Pleistocene man in the Denver Basin.

Bilhuber, Dr. Ernst, Orange, N. J. *Chemistry.* New York, N. Y, Aug. 26, 91. Princeton; Columbia, 10–13; D.Sc, Tübingen, 15. Chemist and plant manager, C. M. Childs, Brooklyn, 17–20; chemist, Imp. Color Works, 20–22; *chemist and pres, E. Bilhuber, Inc, 22–* Chem. Soc; Pharmaceut. Asn; N. Y. Acad. Aldol condensations; colloidal color chemistry; medicinal chemistry; morphine derivatives.

Bill, Dean E(arl) Gordon, Dartmouth College, Hanover, N. H. *Mathematics.* Billtown, N. S, Can, June 23, 84. B.A, Acadia, 02; A.B, Yale, 05, A.M, 06, Ph.D, 08; Bonn, 10–11; hon. D.C.L, Acadia, 35. Asst. *math,* Sheffield Sci. Sch, Yale, 07–08, instr, 08–10; Purdue, 11–12; asst. prof, *Dartmouth Col,* 12–20, *prof, 20–, dean* freshmen and director admissions, 20–33, *faculty, 33–* Col. Ent. Exam. Board. Math. Soc; Math. Asn; Math. Verein. Calculus of variations; non-Euclidean geometry.

Billhartz, Prof. W(illiam) H(enry), 347 E. King St, Franklin, Ind. *Physical optics.* Pittsburgh, Pa, Aug. 30, 08. B.S, Pittsburgh, 30, M.S, 34, Ed.M, 36, Ph.D, 38. Teacher, high sch, Pa, 34–36; director visual educ, Ohio, 36–42; prof. *physics,* South. Col. Optometry, 42; *prof. and head dept, Franklin Col. (Ind), 42–* Research, Am. Window Glass Co, 35–41. Physical Soc; Asn. Physics Teachers; Ind. Acad; Tenn.

Acad. Filter design for visual indicating noise meter; velocity of sound in ethylene dichlorid vapor; college success of students from junior high schools.

Billig, Prof. Florence Grace, Wayne University, Detroit, Mich. *Natural science.* Harper, Ill, Jan. 2, 90. B.S, Chicago, 15; A.M, Columbia, 19, Ph.D, 30; Marine Biol. Lab, Woods Hole, 19; Stanford, 22–23; Hopkins Marine Sta, 23. Teacher, pub. schs, Ill, 06–08, 10–11; Iowa, 11–13; instr, Kans. State Teachers Col, Emporia, 15–18, 19–22; supervisor, pub. schs, Sacramento, Calif, 23–27, 29–31; asst. prof. *nat. science, col. educ,* Detroit Teachers Col, 31–33, *Wayne,* 33–37, *assoc. prof, 37–* Summers, instr, Calif. State Col, Arcata, 25; Teachers Col, Columbia, 29; Kent State Teachers Col, 31; special lecturer, Nebraska, 34. A.A; Council Supervisors Sci. (pres, 34); Asn. Research Sci. Teaching (v. pres, 41, pres, 42); Cent. Asn. Sci. and Math. Teachers (chairman, elementary sci. sect, 35). The teaching of science.

Billing, Dr. W(yly) M(cGehee), Hercules Powder Co, Wilmington, Del. *Biochemistry.* Montgomery, Ala, 96. B.S, Ala. Polytech, 16; A.M, Columbia, 20; Ph.D, Cincinnati, 25. Research chemist, Hercules Powder Co, 17–19; Wm. S. Merrell Co, 21–24, director labs, 22–26; pres, La Verne, Inc, 26–28; research chemist, *Hercules Powder Co,* 28–30, chief chemist, Va. cellulose dept, 32–35, asst. director, Exp. Sta, 35–36, *manager synthetic dept, 36–* Chem. Soc; Chemists' Club. Synthetic resins; dibasic acids; rosin esters.

Billinger, Prof. R(obert) D(ominick), Lehigh University, Bethlehem, Pa. *Chemistry.* Reading, Pa, Oct. 17, 99. Chem.E, Lehigh, 21, M.S, 25; Ph.D, Cincinnati, 29. Chemist, Bartlett-Hayward Co, Baltimore, 21–23; instr. *chem,* Lehigh, 23–26; asst, Yale, 26–27; Cincinnati, 27–29; asst. prof, *Lehigh,* 29–39, *assoc. prof, 39–* Ed, 'Octagon,' 41– 2nd lieut, Inf, 18, eng. defense training, 41, 42. Chem. Soc; Newcomen Soc. Metallography; alchemy; physical, inorganic and historic chemistry.

Billings, Erle M(onroe), 64 Monteroy Road, Rochester, N. Y. *Chemistry.* Canton, N. Y, March 4, 89. B.S, St. Lawrence, 11; M.S, Rochester, 15. V. prin, Lowville Acad, 11–12; teacher, high sch, N. Y, 12–18; org. research chemist, *Eastman Kodak Co,* 18–19, sec'y, research lab, 19–26, asst. business manager, teaching film dept, 26–28, business manager, Eastman Teaching Films, Inc, 28–29, head dept. men's training, 29–34, *business and tech. personnel director, 34–* Consultant, nat. roster sci. specialized personnel, Nat. Resources Planning Board. Business manager, 'Jour. Chem. Educ,' 24–28. Major, O.R.C, 27–37. Chem. Soc. (director, council policy cmt, 29–, sec'y-treas, Rochester sect, 18–28, chairman, 29, sec'y-treas, div. indust. and eng. chem, 22–, sec'y, div. officers group, 22–24, chairman, 24–31; mem. cmt. professional training of chemists, 34–, sec'y, 36–); West. N. Y. Physics Club (pres, 16); N. Y. Teachers Asn. (organizer and pres, science sect, 16). Business chemistry; personnel.

Billings, Dr. F(rederick) H(oratio), 260 High Drive, Laguna Beach, Calif. *Botany.* Chicago, Ill, May 26, 69. A.B, Stanford, 96; A.M, Harvard, 97; Ph.D, Munich, 01. Asst. prof, nat. science, Pomona Col, 91–93; prof. bot, Louisiana, 01–07; assoc. prof. bot. and bacter, Kansas, 07–13, prof. bacter, 13–17; bot. and bacter, Redlands, 21–40. A.A. Plant morphology.

Billings, Howard J(ames), Arthur D. Little, Inc, Cambridge, Mass. *Chemistry.* Acton, Mass, Oct. 10, 95. Lowell Textile Inst, 16. *Research chemist,* U. S. Cartridge Co, 16–19; Oxweld Acetylene Co, 19–20; *Arthur D. Little, Inc, 20–* Chem. Soc; Chem. Eng; Tech. Asn. Pulp and Paper Indust. Textiles; plastics; paper.

Billings, Prof. J(ohn) Harland, Drexel Institute, Philadelphia, Pa. *Mechanical engineering.* Orono, Ont, Can, April 4, 88. B.A.Sc, Toronto, 12; M.S, Mass. Inst. Tech, 15, Harvard, 15. Designer, Can. Machinery Corp, 12–13; instr. mech. eng, Missouri, 13–14; Hopkins, 15–16; lecturer machine design, Toronto, 16–19; *prof. mech. eng, Drexel Inst, 19–* Summers, gauge inspector, Russel Motor Car Co, 16; gauge production rep, Imp. Munitions Board, 17; production engineer, Willys Overland Co, 18. A.A; Mech. Eng. (sec'y-treas, Phila. sect, 26, chairman, 28); Eng. Educ. Applied kinematics; machine design; power plant machinery; industrial engineering.

Billings, Prof. M(arion) L(eRoy), 1039 Broadway, Bowling Green, Ky. *Psychology.* Adrian, Mich, Nov. 21, 82. A.B, Michigan, 09, A.M, 10, Ph.D, 31; Chicago, 17. Teacher, sch, Mich, 01–03; asst. prof. psychol. and educ, Cent. Mich. State Teachers Col, 10–20; production manager of a visible gasoline pump factory, 20–25; *prof. psychol, West. Ky. State Teachers Col, 25–* Asst, Michigan, 10, 29–30. Summer, exchange prof, Berea Col, 27. Assoc. Psychol. Asn; Midwest. Psychol. Asn. Duration of attention; comparison of the ability for solving problems in different fields of endeavor; change in heart rate with attention; inverted writing and drawing.

Billings, Prof. Marland P(ratt), Harvard University, Cambridge, Mass. *[*7]Geology.* Jamaica Plain, Mass, March 11, 02. A.B, Harvard, 23, A.M, 25, Ph.D, 27. Asst. *geol,* Harvard, 22–25, instr, 25–28; assoc, Bryn Mawr Col, 28–29, assoc. prof, 29–30; asst. prof, *Harvard,* 30–39, *assoc. prof, 39–* Summers, asst. geologist, U. S. Geol. Surv, 29, 30, 40, 42. A.A; fel. Geol. Soc; fel. Miner. Soc; Am. Acad; Soc. géol. de France. Petrology, structural geology and metamorphism.

Billings, Dr. M(artin) Hewett, War Production Board, Washington, D. C. *Geophysics.* Minneapolis, Minn, Oct. 11, 07. A.B, Minnesota, 29; M.S, Pittsburgh, 31; Ph.D, Illinois, 34. Asst, Pittsburgh, 29–31; Illinois, 31–34; geophysicist, Texas Co, 34–39; senior petrol. geologist, Nat. Develop. Co, P. I, 39–41; *deputy branch chief mica graphite branch, War Production Board, 41–* Geology; petroleum geology; sand analysis.

Billings, Prof. W(illiam) D(wight), University of Nevada, Reno, Nev. *Botany.* Washington, D. C, Dec. 29, 10. A.B, Butler, 33; A.M, Duke, 35, Ph.D, 36. Teaching fellow, Duke, 35–36; instr. *bot,* Tennessee, 36–37; *Nevada,* 38–40, *asst. prof, 40–* A.A; Ecol. Soc; Nev. Acad. (v. pres, 40). Quantitative forest ecology; reciprocal effects of vegetation and the soil; virgin forests of North America; taxonomy and distribution of woody plants and grasses.

Billingsley, Dr. L(awrence) Winston, 181 Maple Lane, Rockcliffe Park, Ont, Can. *Biochemistry.* Montreal, Que, May 16, 09. B.Sc, McGill, 32, M.Sc, 33, Ph.D, 37. Demonstrator biochem, McGill, 33–37; lecturer biol, Sir George Williams Col, 37–38; research biologist, Nat. Research Council Can, 38–42, biol. ed, 'Can. Jour. Research,' 38–40, sec'y med. research cmt, 40–42; *officer, nutritional lab, Royal Can. Air Force, 42–* Can. Physiol. Soc. Carotene and vitamin A; metabolism of small mammals.

Billingsley, Paul, Burton, Wash. *Geology.* New York, N. Y, Nov. 30, 87. A.B, Columbia, 08, A.M, 09. Asst. geologist, Anaconda Copper Mining Co, 10–17; consulting geologist, Calumet-Ariz. Mining Co, 17; Anaconda Copper Mining Co, 19–20; Int. Smelting Co, 21–24; S. Am. Develop. Co, 24, 31–41; Chile Explor. Co, 24; Int. Smelting Co, 25–31; Anaconda Copper Mining Co, 27–31; Tintic Standard Mining Co, 27–37; chief, Consol. Mining Co, 27–37; *consulting mining geologist, 27–* Kelowna Explor. Co, B. C, 32–43; East. Explor. Co, 35–37; Copper Range Co, 35–39; Cotopaxi Explor. Co, Ecuador, 36–43; Fed. Mining and Smelting Co, 39–40; Am. Smelting and Ref. Co, 39–40. Lieut, Gen. Staff, U.S.A, 18–19; state director aircraft warning service, Wash, 42–43. A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Am. Geog. Soc; N. Y. Acad; Can. Inst. Min. and Metal. Geology of Boulder batholith of Montana; Montana ore deposits; oil geology of Rocky Mountain states; ore deposits of British Columbia and of Zaruma district, Ecuador; mining industry of Utah; ore hunting; controls of ore deposits in western North America; regional correlation of mountain structures.

Billington, Dr. Douglas Sheldon, 4933 Kutztown Road, Temple, Pa. *Metallurgy.* Spearfish, S. Dak, June 5, 12. A.B, Yankton Col, 35; M.S, Iowa, 41, Ph.D, 42. Chemist, Utah and Idaho Sugar Co, S. Dak, 34; Beryllium Corp, Pa, 35–37, chief chemist, 37–39; asst. chem, Iowa, 39–42; *research metallurgist, Beryllium Corp, Pa, 42–* Summer, instr, eng, science and management war training, Iowa, 41. Bartow's award, Am. Chem. Soc, 42. Chem. Soc; Soc. Metals. Copper, cobalt and beryllium alloys.

Billington, Paul S(hepard), Longview, Wash. *Chemistry.* Portland, Oregon, July 1, 04. A.B, Oregon, 26. Instr, Idaho, 27–29; org. chemist, bur. chem. and soils, U. S. Dept. Agr, 29; Forest Products Lab, U. S. Forest Service, 29–37; *research dept, Weyerhaeuser Timber Co, 37–* Asn. Pulp and Paper Indust. Physical chemistry of woods, pulps and papers; fiber processing; recovery and use of waste pulping liquors; new pulping agents; sulfite pulping of various wood species; pulp purification; chemistry of bleaching.

Billman, Dr. J(ohn) H(enry), Indiana University, Bloomington, Ind. *Organic chemistry.* Brooklyn, N. Y, Feb. 8, 12. B.S, Virginia, 34; A.M, Princeton, 35, Ph.D, 37. *Instr.* gen. chem, Illinois, 37–39; *org. chem, Indiana, 39–* Chem. Soc. Pharmaceutical chemistry; organic synthesis; compounds for use as root hormones, plant stimulants and the prevention of fruit drop.

Billmyer, Prof. Carroll D(avis), Rhode Island State College, Kingston, R. I. *Engineering.* Shepherdstown, W. Va, Aug. 13, 92. B.S. (M.E), Va. Polytech, 14. Draftsman, N. and W. Ry, 14–16; instr. mech. eng, Throop Col. Tech, 16–18; sales engineer, Worthington Pump and Machinery Corp, 19; designer and asst. engineer, Atlas Portland Cement Co, 19–20, 24–30; asst. prof. and assoc. prof. machine design, Ga. Tech, 20–24; *asst. prof. eng. and supt. construction, R. I. State Col, 30–* U.S.A, 18–19, capt, Ordnance R.C. A.A; Mech. Eng; assoc. Civil Eng; Eng. Educ; Army Ordnance Asn.

Bills, Prof. Arthur G(ilbert), University of Cincinnati, Cincinnati, Ohio. *Psychology.* Rochester, N. Y, Jan. 19, 95. A.B, Rochester, 16; Ph.D, Chicago, 26. Asst, Chicago, 24–26; asst. prof. *psychol,* Minnesota, 26–27; Chicago, 27–37; *prof. and head dept, Cincinnati, 37–* Am. Psychol. Asn. rep, Nat. Research Council, 42–43. A.A. (councilor, 35); Psychol. Asn; Inst. Psychol; Midwest. Psychol. Asn. (sec'y-treas, 34–37, pres, 37–); Ohio Acad. Work and fatigue; learning; thought; mental work.

Bills, Dr. Charles E(verett), Mead Johnson and Co, Evansville, Ind. *Biochemistry.* Natick, Mass, Feb. 9, 00. B.S, Hopkins, 20, A.M, 23, Ph.D, 24. Asst. chem, Hopkins, 19–21; lecturer biochem, Alberta, 21–22; *research director, Mead Johnson and Co, 25–* Vitamin cmt, U. S. Pharmacopoeia, 31. Vitamin conf, League of Nations, London, 31. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition. Nutrition; vitamins; cholesterol ethers; opium alkaloids; isomerization and activation of ergosterol; yeasts and Protozoa; fish oils; multiple nature of vitamin D.

Bills, Dr. Marion A(lmira), Aetna Life Insurance Co, Hartford, Conn. *Psychology.* Allegan, Mich, 90. A.B, Michigan, 08; Ph.D, Bryn Mawr Col, 17. Asst. psychol, Michigan, 15–17; prof, Oxford Col. (Ohio), 17–18; asst. prof, Kansas, 18–19; asst. director bur. personnel research, Carnegie Inst. Tech, 19–23; Life Ins. Sales Research Bur, 23–24; *asst. sec'y, Aetna Life Ins. Co, 24–* A.A; Psychol. Asn. Personnel in business.

Bilsing, Prof. S(herman) W, College Station, Texas. *Entomology.* Crestline, Ohio, Dec. 8, 85. B.S, Otterbein Col, 12; A.B, Ohio State, 12, fellow, 12–13, A.M, 13, fellow, 23–24, Ph.D. 25. Instr. *entom, Agr. and Mech. Col. Texas,* 13–15, assoc. prof, 16, acting prof, 16–18, *prof. and head dept, 18–* A.A. (sec'y acad. conf, 30–40, v. chairman, 41, chairman, 42); fel. Entom. Soc. Amer; fel. Asn. Econ. Entom. (1st v. pres, 37; chairman sect. apicult, 31; cotton states branch, 35; sec'y sect. teaching, 41, chairman, 42); Texas Entom. Soc. (pres, 29–32); fel. Texas Acad. Pecan insects; insect food of spiders.

Binder, Dr. Laurence O(scar), Jr, Montana State College, Bozeman, Mont. *Organic chemistry.* Englewood, N. J, Feb. 19, 15. A.B, Wesleyan, 36, A.M, 38; Ph.D, Illinois, 41. *Instr. chem, Mont. State Col, 41–* Stereochemistry; pharmaceuticals; organic synthesis.

Binford, Dr. Raymond, Guilford College, N. C. *Zoology.* Carthage, Ind, July 15, 76. B.S, Earlham Col, 01; M.S, Chicago, 06; Ph.D, Hopkins, 12. Prof. biol, Guilford Col, 01–14; zool, Earlham Col, 14–18; pres, *Guilford Col,* 18–34, *emer. pres, 34–, prof. biol, 18–* Summers, investigator, U. S. Fisheries Lab, Beaufort, N. C, 08–11; instr, Marine Biol. Lab, Woods Hole, 12–17. A.A; Soc. Zool; N. C. Acad. Sporangium in ferns; life histories of crabs; fertilization in crustaceans.

Bing, Dr. Franklin C(hurch), 1135 Fullerton Ave, Chicago, Ill. *Biochemitsry.* North Wales, Pa, Dec. 29, 02. A.B, Pennsylvania, 24; Ph.D, Yale, 30. Instr, Davis and Elkins Col, 24–25; physiol. chem, Med. Col. State of S. C, 25–26; biochem, sch. med, Western Reserve, 29–34, asst. prof, 34–36; sec'y, council on foods and nutrition, Am. Med. Asn, 36–43; *asst. prof. physiol, med. sch, Northwestern, 38–; director, Am. Inst. Baking, 43–* A.A; assoc. fel. Am. Med. Asn; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition. Physiological chemistry and nutrition.

Bing, Dr. Richard J(ohn), 477 First Ave, New York, N. Y. *Physiology.* Nuremberg, Bavaria, Oct. 12, 09. B.S, Realgymnasium, Nuremberg, 29; Vienna, 29–31; M.D, Munich, 34, Berne, 35. Intern, univ. hosp, Munich, 34–35; research fellow, Carlsberg Inst, Copenhagen, 35–36; Rockefeller Inst, 36–37; intern, dept. surg, Columbia, 37–38, *instr. physiol,* 38–41; *N. Y. Univ, 41–* Physiol. Soc; Soc. Exp. Biol. Physiology of the kidney; renal hypertension.

Binger, Dr. Carl (Alfred Lanning), 125 E. 73rd St, New York N. Y. *Medicine, Psychiatry.* Long Branch, N. J, Aug. 26, 89. A.B, Harvard, 10, M.D, 14. Intern, Mass. Gen. Hosp, 14–15; Sheldon fellow, sch. med, Hopkins, 15–16, asst. pharmacol, 15–17; asst. med. and asst. res. physician, Rockefeller Hosp, 19–22, assoc. med, 22–26, assoc. mem, Rockefeller Inst, 26–29; *private practise internal med. and psychiat, 29–; asst. prof. clin. med, med. col, Cornell.* Assoc, Columbia, 30–33. Ed, 'Psychoanal. Quart'; advisory board, 'Psychosomatic Med.' Royal Soc. exped, Peruvian Andes. M.C, U.S.A, 17–19. A.A; Soc. Clin. Invest; Soc. Research Nervous and Mental Disease; Harvey Soc; Psychoanal. Asn; Physiol. Soc; N. Y. Acad. Med; N. Y. Soc. Clin. Psychiat; N. Y. Psychoanal. Asn. Problems in psychosomatic medicine with particular reference to hypertension.

Bingham, Prof. Eugene C(ook), Lafayette College, Easton, Pa. **3*Physical chemistry.* Cornwall, Vt, Dec. 8, 78. A.B, Middlebury Col, 99, Sc.D, 36; Ph.D, Hopkins, 05. Prof. chem, Richmond, 06–15; asst. physicist, Bur. Standards, 15–16; *prof. chem, Lafayette Col, 16–* Chemist, Bur. Standards, 18. Assoc. ed, 'Physics'; ed, 'Rheol. Memoirs.' A.A; Chem. Soc; Physical Soc; Soc. Test. Mat; Chem. Eng; Soc. Rheol; Inst. Physics (governor); hon. mem. Va. Chemists Club; Deuts. Chem. Gesell. Fluidity and plasticity; viscosity; solubility.

Bingham, Dr. Harold C(lyde), Sanbornton, N. H. *Psychology.* Rowan, Iowa, Jan. 21, 88. A.B, Ellsworth Col, 10; A.M, Harvard, 12; Ph.D, Hopkins, 23. Prof. educ. and psychol, Ellsworth Col, 12–17; sci. assoc, Nat. Research Council, 19–23; lecturer, Wesleyan, 23–24, acting prof, 24–25; research assoc, inst. psychol, Yale, 25–30; *state director, Nat. Youth Admin, N. H, 35–* In charge Yale-Carnegie Institution African exped, 29–30. U.S.A, 18–19, major; O.R.C. A.A; Psychol. Asn; Soc. Mammal. Animal behavior; life history and mentality of apes; visual perception of the chick; classification of research personnel; methods of measurement in Primates; ontogenesis of sexual behavior in chimpanzees; gorillas.

Bingham, Dr. Hiram, Halcyon Farm, Salem, Conn. *Geography, Aeronautics.* Honolulu, Hawaii, Nov. 19, 75. A.B, Yale, 98; A.M, California, 00; A.M, Harvard, 01, Ph.D, 05; D.Litt, Cuzco, 15. Austin teaching fellow, Harvard, 01–02, 04–05, asst. hist, 03–04; preceptor, Princeton, 05–07; lecturer S. Am. geog. and hist, Yale, 07–08, Latin Am. hist, 08–10, asst. prof. and curator Latin Am. collections, 10–15, prof, 15–24; lieut. governor, Conn, 23–25, governor, 25; U. S. senator, 25–33. Shaw lecturer, Hopkins, 10. Director, Yale and Nat. Geog. Soc. exped, Peru, 11–15. A.S, 17–19, lieut. col; reserve mil. aviator. Nat. Aeronaut. Asn. (pres, 28–34); Antiq. Soc; Am. Hist. Asn; fel. Royal Geog. Soc; Acad. Hist. Venezuela; Hispanic Soc; Nat. Acad. Hist. Bogotá; Soc. Geog. de Lima.

Bingham, Prof. Lloyd A(rthur), University of Nebraska, Lincoln, Nebr. *Electric engineering.* Central Falls, R. I, May 16, 03. B.E.E, Northeastern, 24; B.S, Mass. Inst. Tech, 27, M.S, 28. Instr. *elec. eng,* Northeastern, 24–25; teaching asst, Mass. Inst. Tech, 26–28, instr, 28–29; *Nebraska,* 29–31, *asst. prof, 31–* Summer, engineer, Jackson and Moreland, Consulting Engineers, 27. Elec. Eng. (counselor, Nebraska branch, 35–; chairman, Nebraska sect, 40); Eng. Educ. Electric power transmission; electrical transients in circuits, machines and power transmission lines.

Bingham, Dr. Millicent Todd (Mrs. W(alter) V(an Dyke) Bingham), 1661 Crescent Place, Washington, D. C. *Geography.* Washington, D. C, 80. A.B, Vassar Col, 02; Paris, 05–06; A.M, Radcliffe Col, 17, Ph.D, 23; Grenoble, 18–19. Asst. French, Vassar Col, 02–03, instr, 03–04; asst, Wellesley Col, 06–07; lecturer geog, Grenoble, 19; exten. div, Columbia, 28–29. Contributor, 'Encyclop. Britannica.' Amherst eclipse exped, Singkep, D. E. I, 01; Tripoli, Barbary, 05; Russia, 14; Lowell exped, Andes, 07. Army Educ. Corps, U.S.A, 18. Fel. Am. Geog. Soc; Soc. Geog. de Lima. Geography of France; principles of human geography; geographic controls in Peru; Miami and southeastern Florida.

Bingham, Dr. W(alter) V(an Dyke), Cosmos Club, Washington, D. C. **3*Psychology.* Swan Lake, Iowa, Oct.

20, 80. A.B, Beloit Col, 01, Sc.D, 29; fellow, Chicago, 05–06, Ph.D, 08; A.M, Harvard, 07. Instr, high schs, 01–05; assoc. psychol, Chicago, 06–07; instr. educ. psychol, Teachers Col, Columbia, 08–10; asst. prof. psychol. and educ, Dartmouth Col, 10–15; prof. psychol. and director div. applied psychol, Carnegie Inst. Tech, 15–24; director, Personnel Research Federation, Inc, 24–35; prof. psychol, Stevens Inst. Tech, 30–40; *chief psychologist, personnel classification branch, Adj. Gen's. Office, U. S. War Dept, 40–* Pres, Psychol. Corp, 26–28. Ed, 'Personnel Jour.' Chairman div. anthrop. and psychol, Nat. Research Council, 19–20, cmt. classification mil. personnel advisory to Adj. Gen's. Office, 40– Exec. sec'y, cmt. on classification of personnel in army, 17–18; lieut. col, U.S.A, 18–19. A.A. (sec'y, council, 19); Psychol. Asn. (sec'y, 11–13, councilor, 17–19); Nat. Vocational Guidance Asn. (trustee, 30–32); fel. Asn. Applied Psychol. (pres, 41). The psychology of music; industrial psychology; aptitudes and aptitude testing.

Bingley, Prof. George A(lthoff), Brice House, Annapolis, Md. *Mathematics.* Nov. 12, 88. A.B, Princeton, 10, A.M, 16; Göttingen, 14–15. Teacher, Japan, 10–13; instr, Ga. Tech, 18–19; U. S. Naval Acad, 19–23; asst. prof. *math, St. John's Col. (Md),* 23–24, assoc. prof, 24–31, *prof, 31–* A.A; Math. Asn.

Binkley, Prof. A(lmond) M, 1644 S. College Ave, Ft. Collins, Colo. *Horticulture.* Franktown, Colo, May 23, 00. B.S, Colo. State Col, 22; M.S, Iowa State Col, 23; Cornell, 34–35. Inspector fruit and veg, Fed-State Bur. Markets, 23; agriculturist, Am. Crystal Sugar Co, 24–28; assoc. horticulturist, *Exp. Sta, Colo. State Col,* 28–35, *horticulturist, 35–, prof. hort. and head dept, col, 35–* State horticulturist, Colo. A.A; Soc. Hort. Sci. Plant physiology; vegetable crops; plant nutrition.

Binkley, Dr. Francis, Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Biochemistry, Immunochemistry.* Scottland, Ill, July 11, 15. B.S, Illinois, 38; M.S, Michigan, 39; fellow, Cornell, 39–42, Ph.D, 42. *Asst, Rockefeller Inst, 42–* Chem. Soc. Sulfur metabolism.

Binkley, Dr. S(tephen) B(ennett), Parke, Davis and Co, Detroit, Mich. *Biochemistry.* Scottland, Ill, Jan. 24, 10. B.S, Eureka Col, 34; M.S, Nebraska, 36, Ph.D, 38. Mem. senior research staff, Parke, Davis and Co, 38–39; senior instr. biochem, sch. med, St. Louis, 40–42; *mem. senior research staff, Parke, Davis and Co, 42–* A.A; Chem. Soc; Soc. Biol. Chem. Organic chemistry; arsenicals; steroids; vitamins.

Binnewies, Prof. Edw(ard) R(alph), 803 Ninth Ave, Brookings, S. Dak. *Organic chemistry.* Dakota Territory, March 28, 81. B.S, S. Dak. State Col, 13, M.S, 15; Chicago, 15. Instr. *chem, S. Dak. State Col,* 15–18, asst. prof, 18–23, *assoc. prof, 23–* Chem. Soc; S. Dak. Ed. Asn; S. Dak. Acad. Proso oils.

Binney, Prof. J(ohn) H(enry), Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics.* Willis, Texas, July 2, 95. B.S, Sam Houston State Teachers Col, 24; A.M, Texas, 25; Ph.D, Rice Inst, 33. Asst. prof. *math, Agr. and Mech. Col. Texas,* 25–34, assoc. prof, 34–37, *prof, 37–* Math. Asn. (v. chairman, Texas sect, 36, chairman, 37). Elliptic system of integral equations on summable function.

Binnington, D(onald) S(tanley), 3131 Benjamin St, N.E, Minneapolis, Minn. *Cereal chemistry.* Grimsby, Eng, Aug. 3, 02. Manitoba, 26. Asst. agr. biochem, Manitoba, 18–20, 25–28, research analyst, 30–32; chemist, Int. Labs, Ltd, Man, Can, 20–24; research chemist, Milton Hersey Co, Winnipeg, 24–25; chemist and tech. director, Van-Kel Cleansers, Ltd, Sask, 28–30; assoc, cmt. grain research, Nat. Research Council Can, 32–38; *research chemist, Gen. Mills Inc, 38–* Asst. lecturer, evening classes, Kelvin Tech. Sch, Winnipeg, Man, Can, 17–21, lecturer, 22; Dunwoody Inst, 40. Chem. Soc; Asn. Cereal Chem; fel. Can. Inst. Chem. Vitamin E; vegetable oils; antioxidants.

Biot, Prof. Maurice Anthony, Columbia University, New York, N. Y. *Physics, Mechanics, Aeronautics.* Antwerp, Belgium, May 25, 05. Min.C.E, Louvain, 27, E.E, 30, D.Sc, 31; Belgian-Am. Educational Foundation fellow, Calif. Inst. Tech. and Michigan, 31–32; Ph.D, Calif. Inst. Tech, 32. Tech. officer, Belgium Air Corps, 30–31; Nat. Research Council Belgium fellow, Delft, Göttingen, Louvain and Zurich, 33–34; instr. applied mech, Harvard, 34–35; prof. mech, Louvain, 35–37; *asst. prof. physics, Columbia, 37–* Belgian Am. Educational Foundation fellow, Calif. Inst. Tech, 35–37, research assoc, 40– Physical Soc; assoc. fel. Inst. Aeronaut. Sci; Math. Soc; Mech. Eng; Seismol. Soc. Vibrations; aerodynamics; hydrodynamics; theory of elasticity; strength of materials.

Birch, Prof. (Albert) Francis, 5708 Broad Branch Road, Washington, D. C. *Physics, Geophysics.* Washington, D. C, Aug. 22, 03. B.S, Harvard, 24, A.M, 29, fellow, 29–31, Ph.D, 32; Strasbourg, 26–28. Instr. and tutor physics, *Harvard,* 31–32, research assoc. *geophys,* 32–37, *asst. prof, 37–; lieut. commander, U. S. Naval Res, 42–* Geol. Soc; Geophys. Union; Seismol. Soc; Physical Soc; Am. Acad. Phenomena at high pressures and high temperatures; experimental geophysics.

Birch, Dr. Carroll L(a Fleur), 2045 Sedgwick St, Chicago, Ill. *Medicine.* Baltimore, Md, Dec. 29, 96. B.S, Pennsylvania, 20; M.D, Illinois, 26, M.S, 27. *Asst. prof. med, col. med, Illinois.* Am. Med. Asn; Cent. Soc. Clin. Research; Inst. Med. Chicago; Chicago Soc. Int. Med. Hematology; hemophilia.

Birch, Raymond E(mbree), 1800 Farmers Bank Bldg, Pittsburgh, Pa. *Ceramic engineering.* McConnelsville, Ohio, Dec. 18, 05. B.Cer.E, Ohio State, 27, Cer.E, 37. Ceramic engineer, Carlyle-Labold Co, 27–28; *research engineer,* eng. exp. sta, Ohio State, 28–30; *Harbison-Walker Refractories Co, 30–* A.A; fel. Ceramic Soc. (chairman, refractories div, 36; Pittsburgh sect, 35; trustee, 38–40); Soc. Glass Technol; Soc. Test. Mat; Min. and Metal. Eng; Inst. Ceramic Eng. (exec. cmt, 38–40). Refractories processing; magnesium silicates; magnesite; chrome ore; phase rule application.

Birch, Prof. R(aymond) R(ussell), Cornell University, Ithaca, N. Y. *Veterinary medicine.* Manhattan, Kans, March 30, 81. B.S, Kans. State Col, 06; D.V.M, Cornell, 12, Ph.D, 16. Agr. inspector, Bur. Agr, P. I, 06–08, specialist, animal indust, 09; from instr. to *prof. vet. research, Cornell, and in charge vet. exp. sta, 12–* Int. Educ. Board scholar, Europe, 26. Vet. Med. Asn; U. S. Live Stock Sanit. Asn. Hog cholera; tuberculosis and infectious abortion in cattle.

Bircher, Prof. Louis J(acob), Vanderbilt University, Nashville, Tenn. *Physical chemistry.* St. Louis, Mo, Feb. 1, 92. A.B, B.S, Missouri, 15, A.M, 17; Ph.D, Chicago, 24. Instr. chem, Iowa State Col, 16–18; Washington (St. Louis), 19–21; asst. prof. *physical chem, Vanderbilt,* 21–24, assoc. prof, 24–27, *prof, 27–* Summers, visiting prof, Mass. Inst. Tech, 30–32. Inspector explosives, U. S. A, 18–19. A.A; Chem. Soc; Tenn. Acad. (pres, 37). Electrochemistry; over-voltage and the temperature effect; electrochemical preparation of semicarbazine; effect of temperature on the potentials of reference electrodes; normal density of ammonia.

Bird, Byron M(atthew), 505 King Ave, Columbus, Ohio. *Engineering.* Waterville, Wash, March 14, 92. B.S, Washington (Seattle), 18. Exp. mill, Washington (Seattle), 19–20; junior engineer, northwest exp. sta, U. S. Bur. Mines, 20–25, supervising engineer, 25–28, south. exp. sta, 28–30; *chief concentration engineer, Battelle Mem. Inst, 30–* Lieut, C.Eng, 18–19. Min. and Metal. Eng. Ore dressing and coal preparation; agglutinating value of coal; iron ore beneficiation.

Bird, Prof. Charles, University of Minnesota, Minneapolis, Minn. *Psychology.* Birkenhead, Eng, March 23, 93. A.M, Clark, 17, Ph.D, 20. Instr. *psychol, Minnesota,* 20–23, asst. prof, 23–28, assoc. prof, 28–34, *prof, 34–* U.S.A, 18–19. A.A; Psychol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn. Animal psychology; social psychology.

Bird, Prof. Emerson W, Iowa State College, Ames, Iowa. *Dairying.* Philadelphia, Pa, Aug. 20, 01. B.S, Pa. State Col, 23; Ph.D, Iowa State Col, 29. Asst. chem, *Iowa State Col,* 23–25, instr, 25–28, asst. prof. dairy indust, 28–37, *assoc. prof. dairy indust. and chem, 37–,* asst. chief sect. dairy indust, 28–37. A.A; Chem. Soc; Dairy Sci. Asn. Dairy chemistry.

Bird, Prof. Grace E(lecta), 157 Cypress St, Providence, R. I. *Psychology.* Brooklyn, N. Y. Ph.B, Chicago; A.M, Columbia, 16; Ph.D, Brown, 18. Prof. *educ. psychol, R. I. Col. Educ,* 14–42, *emer. prof, 42–* A.A; Psychol. Asn; fel. Asn. Applied Psychol; R. I. Soc. Mental Hygiene (director, 28–, pres, 31–33). Educational psychology; tests and measurements; mental hygiene; child psychology; humor.

Bird, Prof. Harold C(rusius), 1209 Virginia Ave, Durham, N. C. *Civil engineering.* Litchfield, Conn, June 3, 88. Ph.B, Yale, 08, C.E, 11. Eng. work, 08–10; asst, Sheffield Sci. Sch, Yale, 10–11; asst. prof. civil eng, Pa. Mil. Col, 11–14, assoc.

prof, 14–17, prof. in charge, 17–23; engineer, Aird-Don Co, 23, engineering and purchasing agent, 24–26; *prof. civil eng, Duke, 26–, chairman dept. civil eng, 29–* Summers, instr, Yale, 11, 30. Capt, R.O.T.C, 18. A.A; Civil Eng. (sec'y, N. C. sect, 32–41, pres, 41); Eng. Educ. (sec'y, civil eng. div, 35, director, 35–38, chairman, 37, ed. 'Bul,' 37). Locomotive loadings; application of mechanics to strength of materials and structures.

Bird, Henry, Milton Road, Rye, N. Y. *Entomology.* Rye, N. Y, Oct. 12, 69. Pub. schs. *Consulting entomologist.* A.A; fel. Entom. Soc; Ethnol. Soc; N. Y. Entom. Soc. (pres, 27); fel. N. Y. Acad. Economic entomology; noctuid moths of North America; Papaipema and allies; acid soil plants; insect parasitism; ecology of a new type of American garden; insect fauna of the native Floridian fig.

Bird, Prof. H(erbert) R(oderick), 438 Cecil Ave, Riverdale, Md. *Nutrition, Biochemistry.* Madison, Wis, Jan. 7, 12. B.S, Wisconsin, 33, M.S, 35, Ph.D, 38. Asst. agr. chem, Wisconsin, 33–38; *assoc. prof. poultry nutrition, Maryland, 38–* A.A. Poultry nutrition; vitamin requirements; assay methods.

Bird, J(oseph) Norman, Macdonald College, Que, Can. *Agronomy.* Norval, Ont, May 6, 99. B.A, Toronto, 23, M.A, 26; M.S.A, McGill, 29. Lecturer zool, Ont. Agr. Col, 23–24; asst. bot, Toronto, 25–26; science specialist, Cornwall Collegiate Inst, 26–28; Scarboro Collegiate Inst, 29–30; *lecturer agron, Macdonald Col, McGill, 30–* Soc. Agron; Can. Soc. Tech. Agr. Agronomy; plant science.

Bird, Junius B(outon), American Museum of Natural History, 77th St. and Central Park West, New York, N. Y. *American archeology.* Rye, N. Y, Sept. 21, 07. Columbia, 26–29, 30–33. *Asst. curator anthrop, Am. Museum Nat. Hist, 37–* A.A. Primitive cultures.

Bird, Prof. Marion T(aylor), Utah State Agricultural College, Logan, Utah. *Mathematics.* Carterville, Ill, Oct. 7, 04. B.S, Ill. Wesleyan, 28; scholar, Illinois, 28–29, A.M, 29, Ph.D, 34. Asst. math, Illinois, 29–34; asst. prof. math. and astron, Southwestern Col. (Kans), 34–35, assoc. prof, 35–36; instr. *math,* Wisconsin, 36–37; *Utah State Col,* 37–38, *asst. prof, 38–* Math. Soc; Math. Asn. Difference equations; integral functions.

Bird, Dr. Norma, American University, Washington, D. C. *Psychology.* Elmira, N. Y, Aug. 23, 00. A.B, Ohio Wesleyan, 22; A.M, Toledo, 24; Ph.D, Columbia, 31. Instr, Toledo, 22–25; director personnel for women and psychol. testing, Cities Service Co, New York, 27–29; instr, Sarah Lawrence Col, 29–32; psychologist and vocational educator, Am. Woman's Asn, 32–34; dean, Briarcliff Junior Col, 34–37; instr, Toledo, 37–39; *asst. prof. psychol, sch. social sciences and pub. affairs, American Univ, 39–* Assoc. Psychol. Asn. Psychology of adjustment; general and social psychology.

Bird, Dr. O(rson) D(avid), Research Laboratory, Parke, Davis and Co, Detroit, Mich. *Biological chemistry.* Romulus, Mich, March 18, 05. B.S, Mich. State Col, 26, Calumet Baking Powder Co. fellow, 26–28, M.S, 28, Ph.D, 41. *Research biochemist, Parke, Davis and Co, 28–* Chem. Soc; Detroit Physiol. Soc. Chemistry of tubercle bacillus; development of halibut liver oil; biological activity of vitamin A alcohols and esters; microbiological and chemical methods for assaying vitamins; antioxidants.

Bird, Dr. P(aul) G(raham), 4044 Johnson St, Western Springs, Ill. *Chemistry.* Frederika, Iowa, Feb. 14, 03. B.S, Iowa State Col, 28, M.S, 30, Ph.D, 32. Instr. chem. eng, Iowa State Col, 30–34; *director research, Nat. Aluminate Corp, 34–* Chem. Soc; Chem. Eng. Zeolites; water treatment.

Bird, Dr. Ralph D(urham), Dominion Entomological Laboratory, Brandon, Man, Can. *Entomology.* Man, May 20, 01. B.Sc, Manitoba, 24, M.Sc, 26; fellow, Illinois, 26–27, Ph.D, 29. Demonstrator zool, Manitoba, 24–26; asst, Illinois, 28–29; instr, Oklahoma, 29, asst. prof, 29–33; *entomologist in charge, Dom. Entom. Lab, 33–* Summers, asst. entomologist, Treesbank entom. lab, Can. Dept. Agr, 24–27; in charge field parties, Univ. Okla. Biol. Surv, 29–33. A.A; Asn. Econ. Entom; Can. Soc. Tech. Agr. (pres. west. Manitoba sect, 40); Entom. Soc. Ont. Economic entomology; ecological survey of Manitoba; biology and control of Orthoptera.

Birdsall, Dr. Clair M(allery), Yale University, New Haven, Conn. *Chemistry.* Susquehanna, Pa, Jan. 12, 15. B.S, Syracuse, 36; A.M, Wesleyan, 38; Ph.D, Yale, 42. Asst. chem, Wesleyan, 36–38; instr, Gilbert Sch, Conn, 38–39; asst. chem, *Yale,* 39–42, mem. staff, Office Sci. Research and Develop, 42, *instr. anal. chem, 42–* Physical and analytical chemistry.

Birdsall, Lewis I(saac), General Chemical Co, 105 W. Madison St, Chicago, Ill. *Sanitary science.* Patterson, N. Y, Oct. 16, 84. A.B, Williams Col, 07; A.M, Illinois, 09. Chemist, State Water Surv, Ill, 07–09; commercial chemist and bacteriologist, 10–11; supt. filtration, Rock Island, Ill, 11–12; Minneapolis, Minn, 13–22; *sales dept, Gen. Chem. Co, 22–* A.A; Water Works Asn; Chem. Eng; Chem. Soc; Minneapolis Eng. Club (pres, 18). Water purification; Lake Michigan water; some practical problems in filtration plant operation; coagulants for water and sewage.

Birdsell, Dr. Joseph B(enjamin), State College of Washington, Pullman, Wash. *Physical anthropology, Archeology.* South Bend, Ind, March 20, 08. B.S, Mass. Inst. Tech, 31; Ph.D, Harvard, 41. *Instr. anthrop, State Col. Wash, 41–* Soc. Physical Anthrop; Archeol. Asn; Anthrop. Asn. (councilor, 42–). Racial biology of the Australian aborigines; genetical analysis of Australian-white hybrid population; early man in southeastern Washington.

Birdseye, Clarence, Eastern Point Blvd, Gloucester, Mass. *Chemistry.* Brooklyn, N. Y, Dec. 9, 86. Amherst Col, 10, hon. A.M, 41. Field naturalist, U. S. Biol. Surv, 08–12; fur trading, Labrador, 12–17; asst, purchasing dept, Stone and Webster, Washington, D. C, 17–18; purchasing agent, U. S. Housing Bur, 18–19; investigator, U. S. Fisheries Asn, 19–20; pres, Birdseye Seafoods Corp, 22–24; v. pres, Gen. Seafoods Corp, 24–30; v. pres. in charge research and develop, Birdseye Packing Co, *Boston and Gloucester,* 31–34, *director, Birdseye Labs, pres, Birdseye Elec. Co, Inc.* Consultant, Frosted Foods Co, Inc. Chem. Soc; Fisheries Soc. (v. pres, div. commercial fishing); Soc. Refrig. Eng. (pres, Boston chap, 30, councilor); Mech. Eng; Illum. Eng. Soc; Soc. Mammal; Inst. Refrig. Low temperature food preservation; ornithology; mammalogy; rodent control; incandescent reflector lamps; food dehydration.

Birge, Dr. E(dward) A(sahel), University of Wisconsin, Madison, Wis. *[*2]Zoology, Limnology.* Troy, N. Y, Sept. 7, 51. A.B, Williams Col, 73, A.M, 76, LL.D, 03; Ph.D, Harvard, 78; Leipzig, 80–81; hon. Sc.D, Pittsburgh, 97; LL.D, Wisconsin, 05, Missouri, 19; hon. Ph.D, Rensselaer Polytech, 24. Instr. nat. hist, *Wisconsin,* 75–79, prof. zool, 79–11, dean col. letters and science, 91–19, acting pres, 00–03, pres, 18–25, *emer. pres, 25–* Commissioner fisheries, Wis, 95–15; director, Wis. Geol. and Nat. Hist. Surv, 97–19, pres. commissioners, 19–25; commissioner forestry, Wis, 07–15; Wis. Conservation Cmn, 08–15. A.A; Soc. Nat; Soc. Zool. (pres, cent. branch, 08, 10); Ecol. Soc; Micros. Soc. (pres, 02); Fisheries Soc. (pres, 07); Philos. Soc; Limnol. Soc; Wis. Acad. (pres, 90, 18–21); N. Y. Acad; Wash. Acad; Acad. Nat. Sci. Phila. Lakes, temperature and light; plankton; Cladocera.

Birge, Prof. R(aymond) T(hayer), University of California, Berkeley, Calif. *[*4]Physics.* Brooklyn, N. Y, March 13, 87. A.B, Wisconsin, 09, A.M, 10, Ph.D, 14. Instr. *physics,* Syracuse, 13–15, asst. prof, 15–18; instr, *California,* 18–20, asst. prof, 20–22, assoc. prof, 22–26, *prof, 26–, chairman dept, 33–* Mem. div. physical sciences, Nat. Research Council, 30–37, chairman cmt. on physical constants, 30–37. Nat. Acad; A.A. (cmt, B, 30–33); Physical Soc. (councilor, 27–30); Optical Soc; Asn. Physics Teachers; Eng. Educ; Philos. Soc. Spectroscopy; band and line series relations in spectra; carbon and oxygen isotopes; probable values of general physical constants; statistics.

Birkeland, Prof. Jorgen M(aurice), Ohio State University, Columbus, Ohio. *Bacteriology.* Fergus Falls, Minn, Nov. 15, 98. B.S, N. Dak. Col, 27, fellow, 27–28, M.S, 28; fellow, Chicago, 31–32, Ph.D, 33. Bacteriologist and chemist, Chicago Board Educ, 28–30; nat. research fellow, Rothamsted Exp. Sta, Harpenden, England, 33–34; asst. prof. *bacter, Ohio State,* 35–42, *assoc. prof, 42–* A.A; Soc. Bact; Phytopath. Soc. Serology; wheat hybrids; plant viruses; disinfectants; bacterial variation.

Birkhaug, Dr. Konrad E(lias), Geofysik Institutt, Bergen, Norway. *Bacteriology.* Bergen, Norway, Oct. 12, 92. A.B, Jamestown Col, 17; M.D, Hopkins, 24, Charlton fellow, 24–25; M.S, Rochester, 27. Intern, Sydenham Hosp, Baltimore, 23–24; asst. med, Hopkins Hosp, 24–25; assoc. bacter, sch. med. and dentistry, Rochester, 25–26, asst. prof, 26–28, assoc. prof, 28–32; *mem,* Pasteur Inst, Paris, 32–35; *Christian Michelsens*

Inst, Bergen, Norway, 35– Civic award, Rochester, N. Y, 25; Am. Med. Asn. European grant, 28. A.A; Soc. Bact; Am. Med. Asn; Asn. Path. and Bact; Soc. Exp. Biol; Asn. Immunol; Col. Physicians; Soc. philomat. de Paris; Norwegian Soc. Path; hon. mem. Norwegian Med. Soc; Norwegian Acad. Erysipelas; rheumatic fever; scarlet fever; tuberculosis; disinfectants.

Birkhoff, Prof. Garrett, 45 Fayerweather St, Cambridge, Mass. **6Mathematics.* Princeton, N. J, Jan. 10, 11. A.B, Harvard, 32, junior prize fellow, 33–36; Cambridge, 32–33. Instr. *math, Harvard,* 36–38, asst. prof, 38–41, *assoc. prof, 41–* A.A; Math. Soc. Abstract algebra; group theory.

Birkhoff, Prof. George David, 987 Memorial Drive, Cambridge, Mass. **2Mathematics.* Overisel, Mich, March 21, 84. A.B, Harvard, 05, A.M, 06; Ph.D, Chicago, 07, hon. Sc.D, 41; hon. Sc.D, Brown, 23, Wisconsin, 27, Harvard, 33, Pennsylvania, 38; hon. Dr, Poitiers, 33, Paris, 36, Athens, 37, Univ. Nat. de San Marcos, Lima, 42, Santiago, 42, Buenos Aires, 42. LL.D, St. Andrews, 38. Instr. *math,* Wisconsin, 07–09; preceptor, Princeton, 09–11, prof, 11–12; asst. prof, *Harvard,* 12–19, prof, 19–32, *Perkins prof, 32–,* dean faculty arts and sciences, 35–39. Querini-Stampalia prize, 19; Bôcher prize, 23; A.A.A.S. prize, 26; Pontificia Accad. delle Scienze prize, 33; officier, Légion d'honneur, 36. A.A.A.S. del, British A.A.S, 37. Nat. Acad; A.A. (pres, 37); Math. Soc. (pres, 25); Philos. Soc; Am. Acad; hon. mem. London Math. Soc; hon. mem. Edinburgh Math. Soc; Göttingen Gesell. Wissensch; cor. mem. French Acad; Inst. Bologna; Reale Accad. dei Lincei; for. fel. Pontificia Accad. delle Scienze; Royal Danish Acad; Lima Acad; Argentine Acad. Differential and difference equations; dynamics; relativity; esthetics.

Birmingham, Dr. J(ohn) F(rancis), Jr, 23 Lincoln Ave, Glens Falls, N. Y. *Physical chemistry.* New York, N. Y, March 10, 10. A.B, Dartmouth Col, 30; Ph.D, Columbia, 35. Asst. chem, Dartmouth Col, 30; Columbia, 30–35; research chemist, *Imp. Paper and Color Corp,* 35–42, *director org. colors research lab, 42–* Chem. Soc. Acidity in non-aqueous media; azo pigments and intermediates.

Birnbaum, Dr. Nathan, College of the City of New York, New York, N. Y. *Chemistry.* New York, N. Y, July 14, 07. A.B, Col. City of N. Y, 29; A.M, Columbia, 32, Ph.D, 37. *Instr. chem, Col. City of N. Y, 29–; capt, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Analytical and physical chemistry.

Birnbaum, Prof. Z. W(illiam), University of Washington, Seattle, Wash. *Mathematics, Statistics.* Lwow, Poland, Oct. 18, 03. LL.M, Lwow, 25, Ph.D, 29; Göttingen, 29–31. Chief actuary, Life Ins. Co. Phoenix in Poland, 31–36; asst. biometry, dept. anat, grad. sch, N. Y. Univ, 37–39; *asst. prof. math, Washington (Seattle), 39–* Math. Soc. Conformal mapping; inequalities; calculus of probabilities.

Birnie, Prof. James H(ope), State College, Orangeburg, S. C. *Embryology.* Augusta, Ga, Oct. 11, 09. A.B, Morehouse Col, 30; A.M, Brown, 32. Instr. *biol,* Morehouse Col, 33–35; *prof, S. C. State Col, 35–* Hydrogen ion studies during insect metamorphosis; regeneration in fish embryos.

Bisch, Dr. L(ouis) E(dward), 515 Madison Ave, New York, N. Y. *Neuropsychiatry.* Brooklyn, N. Y, March 10, 85. A.B, Columbia, 07, M.D, 11, Ph.D, 12. Intern, Manhattan State Hosp, 11–13; lecturer educ. psychol, Teachers Col, Columbia, 13–15, assoc, 15–16; instr. neuropath, N. Y. Post-Grad. Med. Sch, 14–15; organizer and director, Psychopathic Lab, New York, 16; Mental Hygiene Clinic, Norfolk, Va, 18–19; Asheville, N. C, 23–24; med. director, Hillcrest Manor, 19–24; *practising neuropsychiatrist, New York, 24–; prof. neuropsychiat, N. Y. Polyclinic Med. Sch. and Hosp, 26–* Physician, Clearing House for Mental Defectives, New York, 12–15; N. Y. Neur. Inst, 12–16. Director psychiat. div, 5th naval dist, U.S.N.R, 17–19. A.A; Psychiat. Asn; Am. Med. Asn; Eugenics Research Asn; Anthrop. Asn; N. Y. Acad. Clinical psychology; biochemistry; psychoanalysis.

Bischoff, Dr. Fritz E(mil), Cottage Hospital, Santa Barbara, Calif. *Organic chemistry, Biochemistry.* Milwaukee, Wis, May 21, 99. B.S, Wisconsin, 20, M.S, 22, fellow, 23, du Pont fellow, 24, Ph.D, 24. Plant supervisor and research chemist, Newport Co, 20–21; research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 24–25; *chief chemist, Potter metabolic lab, Cottage Hosp, 25–, director research, research inst, 39–* Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; Soc. Cancer Research. Contact catalysis; organic titanium; volatile oils; sulfur dyes; insulin; chemotherapy in cancer; carbohydrate metabolism; hyperthermia; pituitary; clinical research on the acid-base balance of man; cancer as related to hormones; sex hormones; chemistry of protein hormones; chemistry of lead poisoning.

Bishop, Prof. Carlton T(homas), 284 Alden Ave, New Haven, Conn. *Structural engineering.* Avon, Conn, Nov. 4, 82. Ph.B, Yale, 03, C.E, 11. Draftsman and engineer, Am. Bridge Co, Pa, 03–08; chief draftsman, Hay Foundry and Iron Works, N. J, 08–09; from instr. to *assoc. prof. civil eng, Yale, 09–* Civil Eng. (past pres, Conn. sect); Eng. Educ; Concrete Inst; Sigma Xi (past sec'y and v. pres); Conn. Soc. Civil Eng. Civil engineering; structural details of hip and valley rafters; structural drafting and design; problems in structural design.

Bishop, Dr. David W(akefield), Swarthmore College, Swarthmore, Pa. *Zoology.* Philadelphia, Pa, May 23, 12. A.B, Swarthmore Col, 34; Colorado, 34–35; Ph.D, Pennsylvania, 42. Instr. zool, Pennsylvania, 35–42; *agent, fish and wildlife service, U. S. Dept. Interior, Swarthmore Col, 42–* A.A; Genetics Soc. Chromosome aberrations from x-rays in insects; spermatogenesis in fox; oxygen consumption of sperm.

Bishop, Edna R(osena) (Mrs. C. E. Otto), 430 College Road, Orono, Maine. *Chemistry.* San Francisco, Calif, Oct. 3, 94. A.B, California, 20, A.M, 21. Teaching fellow, California, 19–22; teacher, high sch, Calif, 22–30; assoc. prof. home econ. research, Ala. Polytech, 30–33; asst. technol, Exp. Sta, Maine, 33–37. A.A; Chem. Soc. Inorganic and physical chemistry; hydrogen electrode; alabamine and virginium; Allison magneto-optic apparatus; mineral analysis of foods; radioactivity.

Bishop, Dr. E(ugene) L(indsay), Tennessee Valley Authority, Chattanooga, Tenn. *Public health.* Nashville, Tenn, 86. M.D, Vanderbilt, 14; M.P.H, Hopkins, 39. Field director, State Board Health, Tenn, 16–18, director rural sanit, 18–22, asst. commissioner pub. health, 23–24, commissioner, 24–34; lecturer, *Vanderbilt,* 23–24, *asst. prof. med, 24–; director health, Tenn. Valley Authority, 35–* Conf. State and Provincial Health Authorities of N. Amer; past chairman, Nat. Malaria Cmt; past exec. sec'y, interdepartmental coordinating cmt. on health and welfare, U. S. Treasury Dept; past mem. Nat. Advisory Health Council. A.A; Soc. Trop. Med; Social Hygiene Asn; Pub. Health Asn. (councilor; past pres; chairman, health officers sect, cmt. on admin. practise, chairman, subcmt. on rural health work; past pres, south. branch); fel. Am. Med. Asn; South. Med. Asn; Nashville Acad. Med. Preventive medicine.

Bishop, Prof. F(rederic) L(endall), University of Pittsburgh, Pittsburgh, Pa. *Physics.* St. Johnsbury, Vt, Aug. 26, 76. B.S, Mass. Inst. Tech, 98; Ph.D, Chicago, 05. Head dept. *physics,* Bradley Polytech, 98–09; *prof, Pittsburgh, 09–,* dean schs. eng. and mines, 09–25. Consulting physicist, Am. Window Glass Co, 14– Ed, 'Jour. Eng. Educ.' Treas, Highway Educ. Board. A.A; Physical Soc; Elec. Eng; Eng. Educ. (sec'y). Thermal conductivity; heat of dilution; variation of wave-length with pressure; surface tension; high temperature; viscosity; glass technology.

Bishop, Prof. G(eorge) H(olman), Washington University School of Medicine, St. Louis, Mo. **5Physiology.* Durand, Wis, June 27, 89. A.B, Michigan, 12; Ph.D, Wisconsin, 20. Instr. zool, Northwestern, 19–20; asst. prof. histol, Tennessee, 20–21; assoc. physiol, *Washington (St. Louis),* 21–24, assoc. prof, 24–30, *prof.* applied physiol. in ophthal, 30–33, *biophys, 33–* Physiol. Soc. Nerve action currents; cell metabolism in insects; nervous physiology of the optic tract and brain.

Bishop, Prof. Harlow, University of Louisville, Louisville, Ky. *Botany.* Cleveland, Ohio, Sept. 23, 02. A.B, Harvard, 25, A.M, 26, 26–28, Thayer fellow, 28–29, Ph.D, 37. Austin teaching fellow, Harvard, 29–30; instr. bot, Tennessee, 30–31; *biol, Louisville,* 31–38, *asst. prof, 38–* Austin Labrador exped, 28. Bot. Soc; Mycol. Soc; New Eng. Bot. Club. Cryptogamic botany; sexuality in Leptomitaceae.

Bishop, Dr. H(omer) G(uy), Lorton, Va. *Psychology.* Rosseau, Ohio, Oct. 26, 87. B.S, Ohio, 11, M.S, 12; Ph.D, Cornell, 20. Asst. psychol, Ohio, 10–11, instr, 11–12, asst. prof, 12–13; asst, Cornell, 13–18, 19–21, instr, 21–24; asst. prof, Smith Col, 24–26; assoc. prof, Wittenberg Col, 26–32; occupational research, U. S. Dept. Labor, 35–36; occupational testing, U. S. Employment Service, 36–39; *supervisor classifi-*

cation, D. C. Penal Institutions, 39– Psychol. Asn. The psychology of audition.

Bishop, Howard B(erkey), 33 Prospect Hill Ave, Summit, N. J. *Chemistry.* Bloomington, Ill, Jan. 24, 78. B.S, Michigan, 00. Chief chemist, anal. lab, Gen. Chem. Co, 02–10, research chemist, 10–17; chief chemist, Nat. Aniline and Chem. Co, 17–19; consulting chemist, 20–21; *pres,* John C. Wiarda and Co, 21–29; Sterling Products Co, 08–39; *Human Eng. Foundation, 40–* W. H. Nichols medal, Chem. Soc, 07. A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng; Inst. Chem; Chemists' Club. Human engineering.

Bishop, J Paul, 124 Eastern Ave, Clarendon Hills, Ill. *Chemical engineering.* Glasgow, Iowa, Feb. 3, 98. B.S, Iowa State Col, 21, Chem.E, 22. Process foreman, *Corn Products Ref. Co, Argo, Ill,* 22–27, manager special products dept, 27–30, customer service dept, 30–34, asst. director *research dept,* 34–38, *director, 38–* Asn. Cereal Chem. (chairman, midwest sect, 37); Chem. Soc. Commercial utilization of corn cobs; commercial production of furfural; decolorizing and gas adsorbing carbons.

Bishop, Dr. John B(urtt), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Auburn, N. S, Can, Sept. 9, 00. B.Sc, Acadia, 21; Ph.D, Cornell, 26. Instr. physics, Cornell, 23–24, Heckscher asst, 24–26; engineer vacuum tube develop, Westinghouse Lamp Co, N. J, 26–28; *radio engineer, Bell Tel. Labs, 28–* Radio Eng. Polarization of characteristic x-rays.

Bishop, Dr. K(atharine) Scott, 1508 La Loma Ave, Berkeley, Calif. *Histology, Pathology.* New York, N. Y, 89. A.B, Wellesley Col, 10; M.D, Hopkins, 15. Asst. anat, California, 15–16, instr, 16–21, assoc, 21–24, histopathologist, Hooper Foundation, 24–29, research assoc, 29–30. Soc. Exp. Biol; Asn. Anat. Connective tissue cells and vital dyes; nutrition in reproduction in the rat.

Bishop, Dr. Louis B(ennett), 450 Bradford St, Pasadena, Calif. *Ornithology.* Guilford, Conn, June 5, 65. A.B, Yale, 86, M.D, 88. Head dept. pediat, New Haven Dispensary, 96–08; instr, Yale, 96–08. A.A; fel. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Conn. Acad; Linnaean Soc. N. Y; Biol. Soc. Wash.

Bishop, Prof. Mabel Lowell, Hood College, Frederick, Md. *Zoology.* Bridgeport, Conn, 81. A.B, Wellesley Col, 05; fellow, Smith Col, 07–09, A.M, 08; Wellesley fellow, Chicago, 16–17, Ryder fellow, 22–23, Ph.D, 23. Asst. path, Cornell, 05–07; instr. biol, Goucher Col, 09–11; asst. embryol. and histol, Michigan, 12–13; head dept. biol, Rockford Col, 14–19; *prof. zool. and head dept. biol, Hood Col, 19–* In charge embryol, Cold Spring Harbor, 08–12. A.A; Soc. Zool; Eugenics Soc; Genetic Asn. Embryology; nervous and circulatory systems.

Bishop, Dr. M(argaret) K(incaid), City Department of Public Assistance, Philadelphia, Pa. *Psychology.* Brooklyn, N. Y, Oct. 21, 96. A.B, Vassar Col, 17; A.M, Cornell, 18; Ph.D, Minnesota, 22. Asst. psychol, Vassar Col, 18–19; teaching fellow, Minnesota, 19–22; instr, Smith Col, 22–25, asst. prof, 25–26; assoc. prof, Wittenberg Col, 26–32; social surv, city planning cmn, *Phila,* 36–37; *statistician, City Dept. Pub. Assistance, 38–* The psychology of learning.

Bishop, Prof. Sherman C(hauncey), University of Rochester, Rochester, N. Y. *Zoology.* Sloatsburg, N. Y, Nov. 18, 87. B.S, Cornell, 13, Ph.D, 25. Asst. entom, Cornell, 09–13, plant path. and entom, 14–15, biol, 15–16; zoologist, N. Y. State Museum, 16–28; asst. prof. biol, *Rochester,* 28–33, *prof.* zool, 33–41, *vertebrate zool, 41–* Cornell Okefinokee exped, 12. A.A; Soc. Zool; Soc. Mammal; Entom. Soc; assoc. Ornith. Union; Fisheries Soc; Soc. Ichthyol. and Herp. (v. pres, 32–); N. Y. Acad; Rochester Acad; Biol. Soc. Wash. Spiders; reptiles; amphibians.

Bishopp, Dr. F(red) C(orry), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Virginia Dale, Colo, Jan. 14, 84. B.S, Colo. Agr. Col, 02, fellow, 02–03, M.S, 26; Ph.D, Ohio State, 32. Asst. prof. entom. and zool, Maryland, and asst. state entomologist, 03–04; special field agent, bur. entom, *U. S. Dept. Agr,* 04–08, agent and expert, 08–11, entom. asst, 11–16, entomologist, 16–34, in charge insects affecting man and animals, 26–34, *bur. entom. and plant quarantine,* 34–41, *asst. chief in charge research, 41–* Entom. Soc. (v. pres); Asn. Econ. Entom. (v. pres, pres, 37); Soc. Parasitol. (councilor, pres, 38); Soc. Trop. Med; Acad. Trop. Med; Malaria Soc; Entom. Soc. Wash. (pres, 32); Biol. Soc. Wash; Wash. Acad; Texas Acad. Veterinary and medical entomology; cotton insect pests.

Biskind, Lieut. Col. Gerson R(avinson), 2200 Post St, San Francisco, Calif. *Pathology, Endocrinology.* Cleveland, Ohio, June 18, 08. A.B, California, 28, M.D, 32. Nat. research fellow path, Hopkins, 37–39; instr. path, med. sch, California, 39–41; *pathologist, Letterman Gen. Hosp, U. S. Army, 41–* Assoc. chief pathologist, Mt. Zion Hosp, San Francisco, Calif, 39–41. Am. Med. Asn; Asn. Path. and Bact; Asn. Study Int. Secretions; Soc. Exp. Biol. The inactivation of sex steroids in rats; the distribution of vitamin C in tissues.

Bissell, Dr. Bradford, Thurston Apts, Ithaca, N. Y. *Medicine.* New York, N. Y, Nov. 6, 07. A.B, Cornell, 29, M.S, 30; North Carolina, 32–33; M.D, Duke, 36. Instr. miner, *Cornell,* 29–30, *attending physician, infirmary, and instr. prev. med, 40–* Preventive and internal medicine.

Bissell, Dr. G(eorge) W(elton), Monrovia, Calif. *Mechanical engineering.* Poughkeepsie, N. Y, July 14, 66. M.E, Cornell, 88; hon. D.E, Mich. State Col, 30. Instr. exp. eng, Cornell, 88–91; prof. mech. eng, Iowa State Col, 92–07, v. dean eng, 04–07; dean eng, Mich. State Col, 07–30; *retired.* Chairman, Mich. Board Boiler Rules, 17–27. Mech. Eng; Eng. Educ; Mich. Eng. Soc; Detroit Eng. Soc. Properties of lubricants; steam-engine economics; engineering education.

Bissell, Prof. Malcolm H(avens), University of Southern California, Los Angeles, Calif. *Geography.* Norwalk, Conn, Oct. 11, 89. Ph.B, Yale, 11, A.M, 18, Ph.D, 21. Westinghouse Elec. and Mfg. Co, 11–13; instr. eng, Pittsburgh, 13–14; geol, Bryn Mawr Col, 18–21, assoc, 21–25, assoc. prof, 25–27; fellow, Clark, 27–28; assoc. prof, *Southern California,* 29–35, *prof. geog, 35–* Asst. geologist, Pa. Geol. Surv, 20–22, 25–29. A.A; Am. Geog. Soc; Meteorol. Soc; Asn. Pacific Coast Geog. Economic and regional geography; climatology; paleoclimatology.

Bissell, Theo(dore) L(emuel), Experiment, Ga. *Entomology.* St. Mary's, Ohio, Dec. 9, 99. B.S, Maryland, 20; M.S, Cornell, 36. Quarantine inspector, State Bur. Plant Indust, Pa, 20; plant quarantine inspector, bur. entom, U. S. Dept. Agr, 21–24, asst. entomologist, 25–33; *entomologist, Ga. Exp. Sta, 34–* Entom. Soc. Amer; Asn. Econ. Entom; Ga. Entom. Soc. (pres, 38); Entom. Soc. Wash. Mediterranean fruit-fly parasites; hickory aphids; pecan insects; cowpea curculio; insects of legumes.

Bissinger, George H(enry), P. O. Box 1493, Manila, P. I. *Agronomy.* San Francisco, Calif, Oct. 14, 89. B.S, Cornell, 12. Chief agr. research dept, Calamba Sugar Estate, 27–30; asst. director research, *Philippine Sugar Asn,* 30–33, *director research, 33–* A.A; Chem. Soc; Soc. Agron; Bot. Soc; Soc. Plant Physiol; Asn. Hawaiian Sugar Technol. Chemistry; cane breeding and agronomy of sugar-cane in the Philippine Islands.

Bissinger, Dr. William E(lis), Pittsburgh Plate Glass Co, Barberton, Ohio. *Organic chemistry.* Alton, Ill, Aug. 6, 12. B.S, St. Louis, 35, M.S, 36; Ph.D, Pa. State Col, 40. *Research chemist, Columbia chem. div, Pittsburgh Plate Glass Co.* Chem. Soc. Synthetic resins.

Bissonnette, Prof. T(homas) Hume, Trinity College, Hartford, Conn. *[*6]Zoology, Embryology.* Dundas, Ont, Can, June 27, 85. M.A, Queen's (Can), 13; Ph.D, Chicago, 23. Junior master, Galt Collegiate Inst, 06–09; prin, pub. sch, Can, 13; science master, Regina Collegiate Inst, 14–16; lecturer biol, Queen's (Can), 19–20; asst. zool; Chicago, 21–23; *prof. biol,* Coe Col, 23–25; *Trinity Col. (Conn), 25–* Y.M.C.A, Col. Lib. Arts, Chicago, 22–23; instr, Marine Biol. Lab, Woods Hole, 26–41; Can. Khaki Col, England, 19. C.E.F, 16–18, B.E.F, 18–19. A.A; Soc. Zool; Genetic Asn; Iowa Acad. Embryology and sex in the freemartin; fleshy fungi; multiple pregnancies in cows; freemartins in cats; Bryozoa; modification of sexual cycle in birds with light, diet and exercise; biological effects of radiations in the visible spectrum; physiology of sex and reproduction; light and sexual cycles in mammals; light and the pituitary and other endocrines; light and pelt cycles in weasels and mink.

Biswell, Dr. Charles B(edford), Woodstown, N. J. *Chemistry.* Fayette, Mo, Feb. 16, 05. A.B, Cent. Col. (Mo), 29; M.S, Nebraska, 31, Parke, Davis fellow, 32–34, Ph.D, 34. Instr. chem, Cent. Col. (Mo), 29–30; asst, Nebraska, 30–32; *research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. Organic chemistry; chemical process patents.

Biswell, Dr. Harold H(ubert), Appalachian Forest Experiment Station, Asheville, N. C. *Ecology.* Fayette, Mo, Nov. 8, 05. A.B, Cent. Col. (Mo), 30; A.M, Nebraska, 32, Ph.D, 34. Asst. bot, Nebraska, 34; junior range examiner, Calif. Forest and Range Exp. Sta, *U. S. Forest Service,* 34–36, asst. conservationist, 36–37, San Joaquin Exp. Range, 36–40, assoc. forest ecologist, 40, forest ecologist, *Appalachian Forest Exp. Sta,* 40–42, *senior forest ecologist, 42–, in charge range research, 40–* A.A. (cmt. range research methods); Ecol. Soc. Forest range management; range ecology; root development of trees.

Bitancourt, A(gesilau) A(ntonio), Caixa Postal 119-A, Sao Paulo, Brazil, S. Amer. *Plant pathology.* Manaos, Brazil, S. Amer, June 6, 99. Inst. Nat. Agronomique, Paris, 19; Sorbonne, Paris, 19. Asst. phytopath, Instituto Biologico, Rio de Janeiro, 20–26; prof. bot. and phytopath, Escola Superior de Agr, Univ. São Paulo, 26–28; director da estacão exp. de agrostologia, Rio de Janeiro, 28–31; *phytopathologist, Instituto Biologico de São Paulo, 31–,* sub-director, 33–41. Guggenheim Mem. Foundation fellow, 41–42. A.A; Phytopath. Soc; Mycol. Soc. Elsinoaceae diseases of citrus and of the coffee tree.

Bittenbender, Dr. W(illiam) A(lbert), 9 Meadowbrook Village, Plainfield, N. J. *Organic chemistry.* Ames, Iowa, Sept. 7, 14. A.B, Wittenberg Col, 36; M.S, Purdue, 38, du Pont fellow, 40–41, Ph.D, 41. Asst, Purdue, 36–40; *research chemist, Merck and Co, Inc, 41–* Chem. Soc. Organic synthesis; organic fluorides; antiseptics.

Bitter, Prof. Francis, Massachusetts Institute of Technology, Cambridge, Mass. **[9]*Physics.* Weehawken, N. J, July 22, 02. A.B, Columbia, 24, Ph.D, 28; Berlin, 25–26. Nat. research fellow, Princeton and Calif. Inst. Tech, 28–30; research engineer, Westinghouse Elec. and Mfg. Co, East Pittsburgh, Pa, 30–34, consultant, 34–42; *assoc. prof. physics of metals, Mass. Inst. Tech, 34–; commander, U. S. Naval Res, 40–* Guggenheim Mem. Foundation fellow, Univ. Cambridge, 33–34. A.A; Physical Soc. Low temperatures; magnetism; metals.

Bitting, Dr. A(rvill) W(ayne), St. Elizabeth Hospital, Lafayette, Ind. *Chemistry.* Bourbon, Ind, May 24, 70. B.S, Purdue, 91; D.V.S, Iowa Col, 95; M.D, Indiana, 00. Comp. pathologist, Exp. Sta, Florida, 91–93; Purdue and Exp. Sta, 93–07; food technologist, bur. chem, U. S. Dept. Agr, 07–13; Nat. Canners Asn, 13–18; director research, Glass Container Asn, 19–22; *consulting food technologist, 22–;* in charge food exhibits, A Century of Progress Expos, Chicago, 31–34. Exec, subsistence div, Q.M.C, 18–19. A.A; Chem. Soc; Am. Med. Asn; Soc. Bact. Food technology.

Bittinger, Charles, 3403 O St, N. W, Washington, D. C. *Physics.* Washington, D. C, June 27, 79. Mass. Inst. Tech, 97–99; Ecole des beaux arts, Sorbonne, France, 01–03. *Portrait painter and director, Duxbury Color Lab, Duxbury, Mass, 19–; commander, U. S. Naval Reserve and camouflage technicist, U. S. Navy, 41–* Nat. Geog. Soc-U. S. Navy eclipse exped, 37. La. Purchase Expos. medal, 04; Pan-Pacific Expos. medal, 15; Clark medal, Nat. Acad. Design. A.A; Nat. Acad. Design; Optical Soc; The Colorists (pres, 34–); Arts Club Wash. (pres, 33–35). Physical and physiological optics.

Bittner, Dr. John J(oseph), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Genetics.* Meadville, Pa, Feb. 25, 04. A.B, Columbia, 25; M.S, Michigan, 29, Ph.D, 30. Asst. biol, St. Stephen's Col, 23–25; master, Donaldson Sch, 25–26; asst. *cancer research,* Michigan, 27–30; *research assoc, Roscoe B. Jackson Mem. Lab, 30–, mem. board directors, 34–,* asst. treas, 34–36, treas, 36–38, *asst. director and v. pres, 40–* Special cancer investigator, U. S. Pub. Health Service, 32–37; research fellow, nat. cancer inst, U. S. Pub. Health Service, 38–40; George Christian Chase lecturer, Minnesota, 40. Ed. board, 'Cancer Research,' 40– Alvarenga prize award, Col. Physicians, Phila, 41. Soc. Control Cancer (asst. ed, 'Bul,' 34); Asn. Cancer Research. Genetics of transplantable cancer in mice; hybridization; transplantation of normal tissue; inheritance of susceptibility to breast cancer; influence in milk of females of cancerous stocks; induced estrogenic tumors; filtrates and viruses.

Bittner, Capt. Reign H(arry), 411 N. Glebe Road, Arlington, Va. *Psychology.* Nashville, Ohio, July 22, 07. A.B, Hiram Col, 29; A.M, Nebraska, 38; Ph.D, Ohio State, 41. Teacher, high schs, Ohio, 29–37; asst. psychol, Nebraska, 37–38; instr. and asst, Ohio State, 38–41; chief *statist, analysis unit, Adj. Gen's Office, U. S. War Dept,* 41–42, *officer in charge, 43–, capt, U. S. Army.* Psychol. Asn; Psychometric Soc; Midwest. Psychol. Asn. Development of tests and other measurements for the selection, classification and adjustment of military and civilian personnel.

Bixby, Dr. E(mily) May, State School, Wrentham, Mass. *Chemistry.* North Andover, Mass, Jan. 7, 03. B.S, Tufts Col, 24; M.S, Mass. Inst. Tech, 27; Ph.D, Western Reserve, 31. Analyst, Gillette Safety Razor Co, South Boston, 24–26; research labs, Dry Milk Co, N. Y, 27–28; clin. research lab, N. Y. Skin and Cancer Hosp, New York, 28–29; chem. technician, physiol. dept, Harvard Med. Sch, 31–32; technician, Reformatory for Women, Framingham, Mass, 33–34; Faulkner Hosp, Jamaica Plain, 34–36; *junior chemist, State Sch, 36–* Chem. Soc; Inst. Chem; Asn. Mental Deficiency; Mass. Soc. Research in Psychiat. Biochemistry of mongolism; organic fluoride gases.

Bixby, Prof. Frederick L(ouis), University of Nevada, Reno, Nev. *Civil engineering.* Moorhead, Minn, July 1, 80. B.S. (C.E), California, 05; C.E, Nevada, 18. Leveler and transitman, Oregon Shortline R. R, 05–07; field surveys, Owen H. Gray, 07; agent, U. S. Dept. Agr, 08, office engineer, irrig. investigations, 08–09, irrig. engineer, office pub. roads and rural eng, 10–16; prof. civil eng, N. Mex. Col, 10–13; irrig. engineer, N. Mex. Exp. Sta, 10–16; senior irrig. engineer, bur. pub. roads, U. S. Dept. Agr, 16–28; assoc. prof. *civil eng, Nevada, 22–26, prof, 26–,* acting head dept, 39–40, *head dept, 40–* Fed. supervisor irrig. census, N. Mex, 10–11. A.A; Civil Eng; Eng. Educ; Soc. Automotive Eng. Reservoirs and dams for irrigation purposes; tests of submerged orifices for irrigation purposes; tests of deep-well turbine pumps.

Bixby, Dr. F(rederick) Lovell, Federal Reformatory, Chillicothe, Ohio. *Psychology.* Gardner, Mass, May 28, 01. A.B, Clark, 22; Ph.D, Cornell, 26. Instr. psychol, Cornell, 23–27; asst. prof, Rice Inst, 27–29; psychologist, mental hygiene bur, Trenton State Hosp, 29–30; asst. director div. classification and parole, Dept. Institutions and Agencies, N. J, 30–31, director div. classification and educ, 31–33; field and research sec'y, Osborne Asn, Inc, 33–34, 37–38; asst. director bur. prisons, U. S. Dept. Justice, 34–37, chief probation and parole, 38–39; *warden, Fed. Reformatory, Ohio, 39–* Correctional treatment and penal administration.

Bixler, Dr. M(ilo) E(verett), 513 S. Main St, North Canton, Ohio. *Chemistry.* Clarence, Iowa, July 29, 07. A.B, Iowa State Teachers Col, 30; M.S, Iowa State Col, 33; Service fellow, Illinois, 35–36, Ph.D, 36. Research chemist, Frigidaire Corp, Ohio, 30–31; asst, Illinois, 33–35; *research engineer, Hoover Co, 36–* Indust. Radium and X-ray Soc. Vapor pressure; vapor specific heats; molecular ray and dipole moments; absorption refrigeration; industrial x-ray radiography.

Bizzell, Prof. James A(drian), Cornell University, Ithaca, N. Y. *Chemistry.* Glenwood, N. C, April 13, 76. B.S, N. C. State Col, 95, M.S, 00; fellow, Cornell, 01–02, Ph.D, 03. Instr. chem, N. C. State Col, and asst. chemist, Exp. Sta, 95–01; asst. chemist, Exp. Sta, *Cornell,* 03–07, asst. prof. *soil technol,* 07–12, *prof, 12–* Fel. Soc. Agron. Soil technology and fertility.

Bjerknes, Prof. J(acob Aall Bonnevie), University of California at Los Angeles, Los Angeles, Calif. *Meteorology.* Stockholm, Sweden, Nov. 2, 97. Ph.D, Oslo, 24. Meteorologist, Bergens Meteorol. Observatorium, 18–20; supt, Vervarslingen På Vestlandet, Bergen, 20–31; *prof,* Det Geofysiske Inst, Bergen, 31–40; *physics, California at Los Angeles, 40–* Consulting meteorologist, Zurich, 22–23; London, 25–26, 35–36; lecturer, 33, 34, 39–40. Symons medal, London, 40. A.A; Meteorol. Soc; hon. mem. Royal Meteorol. Soc; Geofysisk Forening, Oslo; Int. Union Geophys. (sec'y meteorol. asn, 36–). Meteorology; scientific foundation of weather forecasting.

Bjork, Dr. Carold F(reeman), Potomac Heights, Indian Head, Md. *Chemistry.* Frederic, Wis, Nov. 9, 11. B.S, Mont. State Col, 34; M.S. and Ph.D, Iowa, 39. Instr, high sch, 35–36; science aide, Civil Service Cmn, 39; prof. chem, John Brown, 40–42; *research assoc, Nat. Defense Research Cmt, 42–* Chem. Soc; Ark. Acad. Electrode surfaces and polarization.

Bjorksten, Dr. Johan (Augustus), The Pepsodent Co, 919 N. Michigan Ave, Chicago, Ill. *Chemistry.* Tammerfors, Finland, May 27, 07. M.S, Helsingfors, 27, Ph.D, 31; Stockholm, 27–28. Int. Educ. Board fellow, Minnesota, 31–32; research chemist, Felton Chem. Co, 33–34, chief chemist, 34–35; *research chemist, Pepsodent Co, 35–* A.A; Chem. Soc; Finnish Chem. Soc; Soc. pro Fauna et Flora Fennica. Pro-

tein chemistry; chemistry of aromatics and essential oils; industrial biochemistry.

Blacet, Dr. Francis E(dward), University of California at Los Angeles, Los Angeles, Calif. *Physical chemistry.* Greenville, Ill, Feb. 25, 99. A.B, Pomona Col, 22, A.M, 25; du Pont fellow, Stanford, 30–31, Ph.D, 31. Instr. chem, Pomona Col, 22–27; business, 27–29; instr. *chem,* Stanford, 31–32; from instr. to *assoc. prof, California at Los Angeles, 32–; with Nat. Defense Research Cmt, tech. inst, Northwestern, 42–* Summer, acting asst. prof, Stanford, 38. Chem. Soc. Photochemistry of gases; microanalysis of gases; analytical chemistry; absorption spectra.

Black, Dr. Albert Gain, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Peoria, Ill, April 2, 96. Bradley Polytech, 10–14; B.S, Illinois, 20; A.M, Minnesota, 25, Ph.D, 27. Agr. economist, Fed. Farm Loan Bur, 21–22; with Joint Stock Land Bank, Dayton, Ohio, 22–24; asst. prof. agr. econ, Minnesota, 24–29; prof. and chief agr. econ, Exp. Sta, Iowa State Col, 29–35, chairman dept. econ. and sociol, 30–35; chief corn and hog production sect, agr. adjust. admin, *U. S. Dept. Agr,* 33–35, director div. live stock and feed grain, 35, chief bur. agr. econ, 35–38, director marketing and regulatory work, office of Sec'y of Agr, 38–39, *governor, farm credit admin, 39–, assoc. director food production admin, 43–* 2nd lieut, Inf, 17–18. Econ. Asn; Farm Econ. Asn; Statist. Asn. Production organization.

Black, Prof. Alex, Pennsylvania State College, State College, Pa. *Animal nutrition.* Richmond, Ky, Nov. 16, 06. A.B, Kentucky, 29; M.S, Pa. State Col, 33; fellow, Rochester, 37–38, Ph.D, 38. Asst. *animal nutrition, Pa. State Col,* 29–34, instr, 34–38, *asst. prof, 38–; capt, food and nutrition div, Sanit. Corps, U. S. Army, 42–* A.A; Soc. Animal Production. Human and animal nutrition; energy metabolism; proteins; vitamins; minerals.

Black, Prof. A(lvin) P(ercy), University of Florida, Gainesville, Fla. *Agricultural chemistry.* Blossom, Texas, Aug. 30, 95. A.B, Southwestern (Texas), 17; Iowa State Col; Harvard; Ph.D, Iowa, 33. Prof. chem, Wesley Col, 17–18; asst. chemist, Bur. Standards, 18–19; asst. prof. chem. eng, *Florida,* 19–24, *prof. agr. chem, 24–* Austin teaching fellow, Harvard, 24–25. Capt, C. W. Res. Chem. Soc. (chairman, Fla. sect, 26, v. chairman, water, sewage and sanit. div, 33–35); Chem. Eng; Water Works Asn. (chairman, Fla. sect, 30). Analytical and water chemistry; the preparation of phenyln tro-methane; water purification; hydrogen ion activity of unbuffered solutions; the chemistry of floc formation; fluorine in water supplies.

Black, Dr. A(mos) H(ale), Lebanon Valley College, Annville, Pa. *Mathematics.* Elizabeth, W. Va, Nov. 16, 02. A.B, Marietta Col, 25; A.M, West Virginia, 27; Ph.D, Cornell, 32. Asst. *math,* West Virginia, 25–27, instr, 27–30; Cornell, 30–36; *assoc. prof, Lebanon Valley Col, 36–* Math. Soc. Cremona transformations.

Black, Dr. Archie, 35 N. Sixth Ave, Highland Park, N. J. *Biochemistry.* Ft. Atkinson, Wis, April 3, 97. B.S, Wisconsin, 21, M.S, 23, Ph.D, 25. *Head vitamin lab, E. R. Squibb and Sons, New Brunswick, 26–* Chem. Soc. Ultraviolet light and vitamin D; vitamin B complex; nutrition.

Black, Dr. Arthur P(roctor), Naval Medical Research Institute, Bethesda, Md. *Pediatrics, Organic chemistry.* Thedford, Nebr, June 16, 00. A.B, Amherst Col, 21; M.D, Hopkins, 26. Intern and asst. res, Harriet Lane Home for Invalid Children, Hopkins Hosp, 26–29; practising physician, El Paso, Texas, 29–31; *assoc. prof. pediat, Peiping Union Med. Col, 31–; commander, Med Corps, U. S. Naval Res, 41–* A.A; Am. Med. Asn; Asn. Mil. Surg; Acad. Pediat; Tri-State Med. Soc. Preparation of dichloracetic acid; infectious diseases.

Black, Prof. Charles S(purgeon), Wake Forest College, Wake Forest, N. C. *Chemistry.* Charlotte, N. C, Nov. 3, 95. A.B, Wake Forest Col, 18, A.M, 20; A.M, Virginia, 23; fellow, Wisconsin, 27–28, Ph.D, 28. Instr. *chem,* Wake Forest Col, 19–20; Virginia, 20–23; asst. prof, Miss. Agr. and Mech. Col, 23–25; *Wake Forest Col,* 25–28, assoc. prof, 28–29, *prof, 29–, head dept, 30–; capt, Chem. Warfare Service, U. S. Army, 42–* Summer, instr, Asheville Nor. Sch. N. C, 23. A.A; Chem. Soc. (councilor, N. C. sect, 39, v. pres, 41); fel. Inst. Chem; N. C. Acad. Lake deposits.

Black, Prof. Clarence J(ay), Upper Iowa University, Fayette, Iowa. *Chemical engineering.* Danville, Ohio, Oct. 25, 89. B.S, Kenyon Col, 13, A.M, 23; M.S, Missouri, 28; Ph.D, Ohio State, 31. Asst. engineer, Diamond Match Co, 14–16; research, Willard Storage Battery Co, 16–18; asst. chemist, Am. Steel and Wire Co, 18–20; prof. chem, Lincoln Col, 20–23; Southwest. State Teachers Col. Okla, 23–26; Adrian Col, 26–27; prof. chem. and physics, Huntington Col. (Ind), 35–37; chemist, Exp. Sta, Ohio State, 37–38; *prof. chem, Upper Iowa, 38–* A.A; Chem. Soc. Value of phosphoric acid.

Black, Dr. Crayton K(nox), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Sault Ste. Marie, Mich, June 4, 05. A.B, Ohio State, 26, M.S, 27, Ph.D, 29. *Research chemist, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Paint pigments and vehicles; dyestuffs.

Black, Dr. Edgar C(lark), University of Toronto, Toronto, Ont, Can. *Experimental biology.* Davidson, Sask, Aug. 14, 08. B.A, McMaster, 31; M.A, British Columbia, 35; Toronto, 36–37; Ph.D, Pennsylvania, 40. Research assoc. zool, Swarthmore Col, 37–40; asst, *Banting and Best dept. med. research, Toronto,* 40–41, *research assoc, 42–* Assoc. Soc. Zool; Limnol. Soc; Can. Physiol. Soc. Respiration of freshwater fish.

Black, Mrs. Fern Barber, 6033 Woodlawn Ave, Chicago, Ill. *Psychology.* Charles City, Iowa, April 18, 96. Ph.B, Chicago, 19, A.M, 20. Clin. psychologist, bur. child study, Board Educ, *Chicago,* 22–33, teacher gen. science, Farragut High Sch, 33–34, Hyde Park High Sch. Branch, 34–36, *clin. psychologist, bur. child study, Board Educ, 36–* Assoc. Psychol. Asn; Chicago Psychol. Club. Tests.

Black, Prof. Harold L(yle), Westminster College, New Wilmington, Pa. *Mathematics.* Holton, Mich, April 22, 02. A.B, Albion Col, 23; A.M, Illinois, 24, Ph.D, 26. Instr. *math,* Illinois, 26–28; *prof. and head dept, Westminster Col. (Pa), 28–* Math. Soc; Math. Asn. Geometry.

Black, H(arold) S(tephen), 6309 Alderton St, Elmhurst, N. Y. *Electrical engineering.* Leominster, Mass, April 14, 98. B.S, Worcester Polytech, 21. Eng. dept, West. Elec. Co, 21–25; *mem. tech. staff, systems develop. dept, Bell Tel. Labs, 25–* Prize, Am. Inst. Elec. Eng, 34. Elec. Eng; Radio Eng. Single channel carrier telephone systems; stabilized feedback amplifiers.

Black, Dr. H(oward) C(harles), Swift and Co, Chicago, Ill. *Organic chemistry.* Warsaw, Ind, Sept. 20, 12. A.B, DePauw, 34; A.M, Illinois, 36, Ph.D, 38. Research chemist, *Swift and Co,* 37–41, *in charge fat and oil research div, research labs, 41–* Chem. Soc; Oil Chemists Soc. Amino acid metabolism; glycerides; fats and oils.

Black, Dr. J(ames) G(ilbert), University of Michigan, Ann Arbor, Mich. *Physics.* Harrodsburg, Ky, Aug. 4, 98. B.S, Kentucky, 21, M.S, 22; Ph.D, Michigan, 29. Asst, Kentucky, 20–21, instr, 21–22; asst, Wisconsin, 22–23; instr, Purdue, 23–25; Mich. State Col, 25–28; assoc. prof, Kentucky, 28–29; head dept. math. and physics, Ky. State Teachers Col, Morehead, 29–41; defense research, Michigan, 41; asst. prof, grad. div. applied science, Cincinnati, 41–42; *research physicist war research, Michigan, 42–* A.A; Physical Soc; Asn. Physics Teachers. Atomic structure; spectra; instrument design.

Black, Prof. J(ames) H(arvey), 1405 Medical Arts Bldg, Dallas, Texas. *Bacteriology, Immunology.* Huntington, W. Va, March 27, 84. M.D, South. Methodist, 07. Prof. bacter. and histol, South. Methodist, 07–08, bacter. and physiol, 08–12, bacter. and path, 12–15, dean med. faculty, 14–15; *prof.* bacter. and prev. med, *Baylor,* 15–20, prev. med, 20–36, *clin. med, 36–* A.A; Am. Med. Asn. (chairman, physiol. and path. sect, 32); Asn. Study Allergy (pres, 34); Soc. Clin. Path. (pres, 29); fel. Pub. Health Asn. Chemistry of pollen; allergy.

Black, Dr. J(ames) J, N. J. State Poultry Laboratory, Landis and Brewster, Vineland, N. J. *Poultry husbandry.* Prosperity, Mo, Nov. 7, 92. D.V.M, Kans. Col, 23. Exten. veterinarian, Kansas, 24; *assoc. poultry pathologist, N. J. Exp. Sta, 24–* Vet. Med. Asn; Soc. Parasitol; N. J. Vet. Med. Asn. Poultry pathology.

Black, Dr. John D(avid), Alabama Polytechnic Institute, Auburn, Ala. *Entomology, Zoology.* Winslow, Ark, July 2, 08. A.B, Kansas, 35; A.M, Indiana, 37; Julius Rosenwald fellow, Michigan, 38–40, Ph.D, 40. Asst. mammals, museum nat. hist, Kansas, 31–35; asst. instr. zool, Indiana, 35–37; instr, Arkansas, 37–38; prof. science, Anderson Col, 40–41; *instr. zool, Ala. Polytech, 41–* Special investigator, State Conserva-

tion Cmn, Ind, 35–37. Distribution and taxonomy of Arkansas fishes; life histories of forage fishes; distribution, taxonomy and ecology of southern vertebrates.

Black, Prof. John D(onald), Lambert Road, Belmont, Mass. *Economics.* Jefferson Co, Wis, June 6, 83. A.B, Wisconsin, 09, A.M, 10, Ph.D, 18. Instr, Western Reserve, 10–11; Mich. Col. Mines, 11–13, asst. prof, 13–15; Minnesota, 18–19, assoc. prof, 19–21, *prof.* agr. econ. and chief div, 21–27; *econ, Harvard, 27–* Consulting specialist, U. S. Dept. Agr, 22, exec. economist, 37–40; chairman advisory cmt. on agr, Social Science Research Council; cmn. on popul. and food supply, Int. Popul. Union. Farm Econ. Asn; Econ. Asn; Statist. Asn. Agricultural production and land economics; national agricultural policies; population and food supply.

Black, Dr. K(nox) Charlton, 62 Tower Hill Road, Mountain Lakes, N. J. *Physics.* Cambridge, Mass, April 23, 05. A.B, Harvard, 24, A.M, 26, Ph.D, 27; Polytech. Inst. Brooklyn, 29–30. Instr, Harvard, 24–26, 27–29; with Boonton Research Corp, N. J, 29–30; *communication eng, Bell Tel. Labs, 30–* Physical Soc; Acoustical Soc; Radio Eng. Magnetostriction and magnetostriction oscillators.

Black, L(eroy) G(eorge), Box 378, Trona, Calif. *Chemical engineering.* Orange, Calif, March 18, 05. B.S, Southern California, 26, M.S, 27. Teaching fellow, Southern California, 26–27; research chemist, Union Oil Co. of Calif, 28–29; research engineer, *Am. Potash and Chem. Corp,* 30–39, asst. factory supt, 39–41, *staff engineer, 42–* Chem. Soc; Chem. Eng. Dehydration and fusion of borax with subsequent crystallization of the melt; utilization of invariant system as a constant temperature cooling medium; application of rate and metastable equilibria to inorganic chemical processes.

Black, Dr. L(indsay) M(acLeod), Rockefeller Institute, Princeton, N. J. *Plant pathology.* Edinburgh, Scotland, April 20, 07. B.S.A, British Columbia, 29; Ph.D, Cornell, 36. Asst, British Columbia, 29–30; Cornell, 30–36; nat. research fellow *biol. sciences, Rockefeller Inst,* 36–37, asst, 37–41, *assoc, 41–* Summers, plant disease investigator, div. bot, Can. Dept. Agr, 28–29. A.A; Phytopath. Soc; Can. Phytopath. Soc. Virus diseases of plants.

Black, Prof. Loren T, Long Beach Junior College, Long Beach, Calif. *Mathematics.* Peru, Ind, Sept. 26, 98. A.B, Ashland Col, 23; A.M, Michigan, 28. Instr. *math,* Ashland Col, 25–28, *prof,* 28–34; *Long Beach Junior Col, 35–* Math. Asn; Eng. Educ.

Black, Dr. Luther A(llen), U. S. Public Health Service, Washington, D. C. *Bacteriology.* Macon, Ill, March 14, 03. B.S, Illinois, 24, M.S, 25, Ph.D, 28. Asst. bacter, Illinois, 25–26; bacteriologist, State Dept. Health, Ill, 26–27; instr. bacter, State Col. Wash, and assoc. dairy bacteriologist, Exp. Sta, 28–30, asst. prof. and assoc. dairy bacteriologist, 30; assoc. prof. bacter, Maryland, 30–35, prof, 35–41; *bacteriologist, sanit. sect, states relations div, U. S. Pub. Health Service, 41–* A.A; Soc. Bact; Dairy Sci. Asn; Pub. Health Asn. Thermophilic bacteria; Lactobacillus acidophilus; dairy and food bacteriology; physiology of bacteria.

Black, Prof. N(ewton) Henry, South Tamworth, N. H. *Physics.* Putney, Vt, May 3, 74. A.B, Harvard, 96, A.M, 06; Berlin, 12–13; Cambridge, 30–31. Instr, St. George's Sch, Newport, R. I, 96–98; high sch, N. H, 98–00; master physics and chem, Roxbury Latin Sch, 00–24; asst. prof. educ, *Harvard,* 24–32, *physics,* 32–40, *emer. asst. prof, 40–* New Eng. rep, Col. Ent. Exam. Board. A.A; Physical Soc; Chem. Soc; Elec. Eng. Physical chemistry; refractive index of solutions; Brownian movement; science teaching in the United States, England, Germany and France; practical farming.

Black, Dr. Otis D(eitz), 38 Washington Ave, Mt. Ephraim, N. J. *Physical chemistry.* Etowah, Tenn, June 5, 13. A.B, Ohio State, 38, M.S, 39, Ph.D, 42. Asst. chem, Ohio State, 38–42; *research engineer, RCA Victor Div, 42–* Activity coefficients of thallous chloride in mixed solvents.

Black, Prof. Ralph P(eters), 858 Oakdale Road, N. E, Atlanta, Ga. *Civil engineering.* Sylvania, Ga, Feb. 22, 81. A.B, Univ. of the South, 01; M.S, Ga. Tech, 29, C.E, 30. Engineer, K. and M. Ry, 08–13; *consulting engineer, 13–*; univ. engineer and prof. civil eng, Univ. of the South, 16–23; *assoc. prof. civil eng, Ga. Tech, 23–* Chief engineer and manager, Chancellorsville Homestead Community, Inc, Monticello, Ga, 34. Major, C.Eng. Civil Eng. (pres, Ga. sect, 35); Soc. Mil. Eng. City engineering.

Black, Prof. Robert M(offitt), University of Pittsburgh, Pittsburgh, Pa. *Mining engineering.* Meyersdale, Pa, April 10, 79. A.B, Harvard, 01; B.S, Mich. Col. Mines, 03, E.M, 03. Civil eng, 03–05; mining engineer, Ill, Iowa, Okla. and W. Va, 05–11; instr. civil eng, Iowa, 11–12; asst. prof, *Pittsburgh,* 12–17, assoc. prof, 17–20, *prof. mining, 20–, head dept.* A.A; Min. and Metal. Eng; Eng. Educ. (mining cmt, 29–31, 34–36); Coal Min. Inst. (managing director, 35–39); Eng. Soc. West. Pa. (director, mineral indust. sect, 25–27, 29–33). Mine haulage; explosives; mining economics.

Black, Dr. W(illiam) C(ormack), 4200 E. Ninth Ave, Denver, Colo. *Pathology.* Denver, Colo, May 18, 01. M.D, Colorado, 25. Instr. clin. path, *Colorado,* 25–30, *path,* 30–32, asst. prof, 32–37, assoc. prof, 38–39, *prof, 39–* Tuberculosis; allergy; oncology.

Black, W(illiam) H(enry), U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Fort Dodge, Iowa, Aug. 30, 88. B.S, Iowa State Col, 10. Prof. animal husbandry, Ark. Agr. and Mech. Col, 10–12; animal husbandry exten. specialist, *bur. animal indust, U. S. Dept. Agr,* Florida, 18–20, animal husbandman beef cattle investigations, 20–22, acting in charge, 22–25, in charge, 25–28; *senior animal husbandman in charge beef cattle investigations, 28–* Soc. Animal Production. Beef cattle production in Venezuela and the Union of South Africa.

Black, Dr. W(illiam) L(awrence), Portales, N. Mex. *Veterinary medicine.* Jackson, Ohio, May 11, 91. Wyoming, 20; D.V.M, Colo. Agr. Col, 24. Asst. bacter, Colo. Agr. Col, 20–24; vet. div, Exp. Sta, Agr. and Mech. Col. Texas, 26–28; animal husbandman, exten. div, N. Mex. Col, 28–37; *practising veterinarian, 37–* Instr, East. N. Mex. Col, 39–42. Vet. Med. Asn; Soc. Parasitol; N. Mex. Vet. Med. Asn; Texas Vet. Med. Asn. Internal parasites of sheep; goat lice; beef cattle, sheep and wool improvement; animal sanitation; carcinoma and other tumors of cattle; range management.

Blackberg, Dr. S(olon) N(athaniel), 4210 Peterson Ave, Chicago, Ill. *Nutrition, Pharmacology.* Ellenville, N. Y, April 2, 97. D.V.M, Cornell, 18; B.S, Agr. and Mech. Col. Texas, 26; Ph.D, Tulane, 28; M.D, Arkansas, 39. Prof. physiol. and pharmacol, Agr. and Mech. Col. Texas, 18–26; instr. pharmacol, sch. med, Tulane, 26–29; col. physicians and surg, Columbia, 29–37; arthritis dept, Hosp. Special Surgery, New York, 39–40; *med. director and director research, Nutrition Research Labs, 40–* Jane Miller prize, Cornell, 18. A.A; Am. Med. Asn; Vet. Med. Asn; Int. Asn. Dental Research. Dietary deficiencies; barbiturates; dental caries; endocrine disturbances; metallic poisoning; carcinogenic substances; melanin-melanuria; new method for dopa reaction; disturbances of calcium-phosphorus metabolism and their effect on cataract and myopia; factors influencing the action of anesthetics; arthritis.

Blackman, Dr. L(eslie) E(verett), Kansas State Teachers College, Emporia, Kans. *Chemistry.* McPherson, Kans, April 18, 01. A.B, B.S, McPherson Col, 22; M.S, Kans. Col, 23; Wisconsin, 29, 30, 32, 33; Ph.D, Iowa, 34. Asst. chem, McPherson Col, 20–22; Kans. Col, 22–23; head dept. chem, high sch, Kans, 23–24; science, Highland Col, 24–25; research chemist, Delaware, 25–26; head dept. chem. and physics, Upper Iowa, 26–32; asst. *chem,* Iowa, 33–34; *prof. and head dept, Kans. State Teachers Col, Emporia, 34–* Summer, research chemist, Kans. State Col, 23. Chem. Soc; Kans. Asn. Physical Sci. Teachers; fel. Iowa Acad; Kans. Acad. Oxygen and animal life; interfacial tensions of diphasic emulsions; fruit jellies; surface tension of drugs; soil colloids; activity coefficients of ions in alcohol-water mixtures; effect of electrolytes on conductivity of glyptal resins; vapor pressures and activity coefficients of aqueous solutions of calcium nitrate and aluminum nitrate.

Blackman, Dr. M(aulsby) W(illett), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Lawrence, Kans, March 26, 76. A.B, Kansas, 01, A.M, 02; Austin fellow, Harvard, 04–05, Ph.D, 05. Instr. zool. and histol, Kansas, 01–04; comp. anat. and embryol, Western Reserve, 05–07, lecturer histol, 07–09; asst. prof. zool, Syracuse, 09–11, assoc. prof, 11–13; prof. forest entom, N. Y. State Col. Forestry, Syracuse, 13–29; *senior entomologist, div. insect identifications, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–* Investigator, State Plant Board, Miss, 19–20. Summers,

special investigator, Univ. Maine, 19; bur. entom, U. S. Dept. Agr, 24–27. A.A; fel. Entom. Soc. Amer; Entom. Soc. Wash. Forest entomology; spermatogenesis of myriapods; histology of scent glands of Mephitus; Pityogenes; boring insects; ecology of boring insects; biology and control of insects affecting forest trees; biology and taxonomy of Scolytidae.

Blackman, Dr. S(amuel) S(hirley), Jr, Johns Hopkins Hospital, Baltimore, Md. *Pathology.* Tullahoma, Tenn, May 15, 01. A.B, Vanderbilt, 22; M.D, Hopkins, 26. Instr. and asst. *path, Hopkins, 27–30, assoc, 30–39, assoc. prof, 39–, surg. pathologist, Hopkins Hosp, 40–* Pathologist, Baltimore City Hosp, 30–37. Nephritis; nuclear inclusion bodies; lead encephalitis; urinary proteins in Bright's disease; stenosis of renal arteries in hypertension; electrophoretic analysis of urinary proteins.

Blackmer, Dr. L(eroy) L(ewis), 5 Hawthorne Park, Cambridge, Mass. *Electronics.* Greenwich, Mass, Dec. 25, 16. B.S, Mass. State Col, 37; M.S, Maine, 39; Ph.D, Brown, 42. *Mem. staff ultra-high frequency research, Mass. Inst. Tech, 42–* Effect of backing on the photo electric work function of silver films deposited in high vacuum.

Blackmon, G(ulie) H(argrove), 332 E. Columbia St, Gainesville, Fla. *Horticulture.* Waco, Texas, Feb. 21, 86. B.S, Agr. and Mech. Col. Texas, 10; M.S, Florida, 27. Asst. prof. hort, Agr. and Mech. Col. Texas, 10–14; commercial horticulturist, Texas, 14–23; pecan culturist, *Fla. Exp. Sta,* 23–34, *horticulturist, 34–,* acting head dept. *hort,* 36–37, *head dept, 37–* A.A; Soc. Hort. Sci; Nat. Pecan Asn; Fla. Hort. Soc; Fla. Rose Soc; Fla. Acad; Soil Sci. Soc. Fla; Southeast. Pecan Growers Asn. Pecan horticulture; nutrition and culture in tung oil production; deciduous fruits and ornamentals.

Blackwelder, Prof. Eliot, Stanford University, Calif. ****Geology.* Chicago, Ill, June 4, 80. A.B, Chicago, 01, fellow, 02–04, Ph.D, 14. Instr. geol, Chicago, 02–03; Wisconsin, 05–06, asst. prof, 06–09, assoc. prof, 09–10, prof, 10–16; prof. and head dept, Illinois, 16–19; acting prof, Stanford, 19; chief geologist, Argus Oil Co, 19–21; lecturer, Harvard, 21–22; *prof. geol. and head dept, Stanford, 22–* Asst, U. S. Geol. Surv, 01–02, asst. geologist, 06–09, geologist, 09–18. Asst, Carnegie exped, China, 03–04. Calif. Petrol. Cmn, 17. Nat. Acad; A.A. (v. pres, 21); Geol. Soc. (v. pres, 34, pres, 40); Asn. Petrol. Geol; Asn. Geog; Ornith. Union; Wash. Acad; Calif. Acad; Soc. géol. de Belg; Geol. Soc. China. Glacial, stratigraphic, geomorphic and historical geology; sedimentation, Pleistocene history and geologic processes of deserts; ornithology.

Blackwelder, Dr. Richard E(liot), U. S. National Museum, Washington, D. C. *Entomology.* Madison, Wis, Jan. 29, 09. A.B, Stanford, 31, Ph.D, 34. Walter Rathbone Bacon traveling scholar, Smithsonian Institution, 35–38; asst. curator entom, Am. Museum Nat. Hist, 39–40; *insects, U. S. Nat. Museum,* 40–42, *assoc. curator, 42–* Agent, white-fringed beetle identification unit, U. S. Dept. Agr, 38. A.A; Pacific Coast Entom. Soc; N. Y. Entom. Soc; Wash. Acad; Soc. linn. de Lyon. Morphology and classification of the coleopterous family Staphylinidae.

Blackwell, Dean A(shby) C(arlyle), Morris Harvey College, Charleston, W. Va. *Chemistry.* Lynchburg, Va, Aug. 4, 96. A.B, Randolph-Macon Col, 18, A.M, 19; Princeton, 20–21; Chicago, summers, 22, 23, 36, 37; Sc.D, Morris Harvey Col, 41. Instr. math, Randolph-Macon Col, 16–19; math. and science, Randolph-Macon Acad, 19–20; asst. *chem,* Princeton, 20–21; *prof, Morris Harvey Col, 21–, v. pres, 33–,* chairman div. nat. sciences, 38–41, *dean, 41–* A.A; Chem. Soc. (chairman Kanawha Valley sect, 41); W. Va. Acad. Meta- and para-xylene sulfonic acids and derivatives; West Virginia self-glazing clay.

Blackwell, Dr. David (Harold), Southern University and Agricultural and Mechanical College, Scotlandville, La. *Mathematics, Statistics.* Centralia, Ill, April 24, 19. A.B, Illinois, 38, A.M, 39, fellow, 39–41, Ph.D, 41. Rosenwald fellow, Inst. for Advanced Study, 41–42; asst. statistician, Office Price Admin, 42; *instr. math. and physics, South. Univ. and Agr. and Mech. Col, 42–* Math. Soc. Markoff chains; theory of probability.

Blackwell, Otto B(ernard), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Bourne, Mass, Aug. 21, 84. B.S, Mass. Inst. Tech, 06. Engineer in charge transmission develop, Am. Tel. and Tel. Co, 14–34; director transmission develop, *Bell Tel. Labs,* 34–35, manager staff depts, 35–36, *v. pres, 36–* A.A; fel. Elec. Eng. (v. pres, 36–38); fel. Radio Eng; fel. Acoustical Soc; Physical Soc. Transmission of speech and other communication signals over wire circuits and by radio.

Blackwood, Prof. O(swald) H(ance), 251 Lothrop St, Pittsburgh, Pa. *Physics.* Clay Center, Kans, April 24, 88. A.B, Boston, 09; Ph.D, Chicago, 20. Instr. *physics,* Reid Christian Col, India, 09–12; Philippines, 12–14; asst, Chicago, 17; asst. prof, Arkansas, 19–20; *Pittsburgh,* 20–25, assoc. prof, 25–27, *prof,* 27– Physicist, Koppers Co, 25–31. A.A; fel. Physical Soc; Asn. Physics Teachers. Industrial, atomic and experimental physics; gaseous ionization.

Blades, Mrs. Leslie B. (Dr. Edith Hawley), West Acton, Mass. *Food economics.* Percival, Iowa, Jan. 14, 85. Tabor Col, 04–06; Calif. State Nor. Sch, Santa Barbara, 14–15; B.S, Columbia, 19, A.M, 20; fellow, Stanford, 22–23, Ph.D, 24. Teacher, schs, Iowa, Okla, Mo, Wash. and Calif, 07–14, 15–17; research, Asn. Improving Condition of the Poor, Columbia, 19–22; research asst, food research inst, Stanford, 23–24; specialist and senior specialist, bur. home econ, U. S. Dept. Agr, 24–30; *asst. director, Longview Farm, Mass, 32–* Writer and compiler research, Pease Labs, Inc, 29–30. Calcium and phosphorus metabolism in childhood; calcium and phosphorus in the diet; nutritive value of food; sound teeth for children; economics of food consumption; food habits; nutritional factors in correction of delinquency problems.

Blain, Dr. Alexander W(illiam), 2201 Jefferson Ave, E, Detroit, Mich. *Surgery.* March 4, 85. M.D, Detroit Col. Med, 06; M.S, Col. City of Detroit, 37. *Prof. clin. surg, col. med, Wayne.* Prof. and dean, Detroit Post-Grad. Sch. Med; chief of staff, Jefferson Clinic; attending surgeon, Alexander Blain Hosp, consulting surgeon, St. Mary's, Detroit Receiving, Eloise County and St. Francis Hosps. and Detroit Tuber. Sanatorium; mem, State Cmn. Conserv, Mich. Trustee, Gorgas Mem. A.A; fel. Col. Surg. (governor); Am. Med. Asn; Soc. Mammal; Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; N. Y. Acad; Mich. Acad; Detroit Acad. Surg. (past pres). Thyroid surgery; gastrointestinal physiology of birds, snakes and fish.

Blain, Prof. Walter L(eroy), 1317 W. Elm St, Durant, Okla. *Plant pathology.* Columbia City, Ind, July 6, 92. A.B, Wabash Col, 16; A.M, Illinois, 21, Ph.D, 26. Asst. plant pathologist, State Plant Board, Miss, 21–22; assoc. plant pathologist and assoc. prof. plant path, Ala. Polytech, 24–27; *prof. biol. and head dept. science, Southeast. State Col, Okla, 27–* A.A. The genus Helminthosporium.

Blair, Dr. Albert P(atrick), American Museum of Natural History, 77th St. and Central Park West, New York, N. Y. *Zoology.* Dayton, Texas, Nov. 3, 13. B.S, Tulsa, 36; Ph.D, Indiana, 40. Nat. research fellow, 40–41; *asst. curator dept. animal behavior, Am. Museum Nat. Hist, 43–* Soc. Zool; Genetics Soc; Soc. Ichthyol. and Herp. Sex behavior and isolating mechanisms in Amphibia; geographic variation.

Blair, Prof. A(ugustine) W(ilberforce), 1904 S. Main St, High Point, N. C. *Agricultural chemistry.* Archdale, N. C, Sept. 12, 66. B.S, Guilford Col, 90; B.S, Haverford Col, 92, A.M, 96. Teacher, Friends' Boarding Sch, Jenkintown, Pa, 92–95; Guilford Col, 96–97; asst. chemist, N. C. Exp. Sta, 97–98; state chemist, N. C, 98–99; asst. chemist, Fla. Exp. Sta, 99–06; chemist, 06–11; assoc. soil chemist, *N. J. Exp. Sta,* 11–22, *soil chemist, 22–,* assoc. prof. *agr. chem, Rutgers,* 13–17, prof, 17–40, *emer. prof, 40–* Soil fertility; the chemical composition of soils.

Blair, Dr. Charles M(abry), Carbide and Carbon Chemicals Corp, Texas City, Texas. *Organic chemistry.* Bartlett, Texas, Feb. 19, 11. A.B, Trinity (Texas), 29; A.M, Texas, 31, Ph.D, 33. Instr, Texas, 32–34; research chemist, *Carbide and Carbon Chem. Corp,* 34–37, production engineer, 37–42, *asst. supt, 42–* Chem. Soc. Calculation of isomeric paraffins and derivatives; synthesis of industrial organic chemicals.

Blair, Major Edgar A, Hq. A.F, Medical Research Laboratory, Ft. Knox, Ky. *Physiology.* Nashville, Tenn, Oct. 31, 02. A.B, Vanderbilt, 25, M.S, 27; Ph.D, Washington (St. Louis), 38. Asst, sch. med, Vanderbilt, 27–30; asst. prof. physiol, sch. med, Washington (St. Louis), 30–40; *major, Sanit. Corps, U. S. Army, 40–* Physiol. Soc. Peripheral nerve.

Blair, F(rancis) W(esley), Box 46, Compton Road, Wyoming, Ohio. *Chemistry.* Ware, Mass, Aug. 23, 92. B.S, Amherst Col, 15; A.M, Princeton, 17. Chemist, *chem. div,*

Procter and Gamble Co, Ivorydale, Ohio, 17–28, *director,* 28– V. chairman, Indust. Research Inst, 41, chairman, 41. A.A; Chem. Soc; Oil Chemists Soc.

Blair, Prof. G(ilbert) B(ruce), 1059 Sierra St, Reno, Nev. *Physics, Astronomy.* Blairsburg, Iowa, Sept. 13, 79. A.B, Tabor Col, 02; A.M, Washburn Col, 04; fellow, Lick Observatory, 06–07; Kansas, 10–12. Asst. physics and astron, Washburn Col, 04–05; Allegheny Observatory, 05–06; prof. physics, Morningside Col, 07–09; instr. and asst. prof, Oregon Col, 12–19; asst. prof, *Nevada,* 19–23, *assoc. prof,* 23–36, *physics and astron,* 36– A.A; Astron. Soc. Pacific. Observations of Halley's comet and comet A, 1910.

Blair, Prof. H(enry) A(lexander), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Physics, Physiology.* Winnipeg, Man, Can, Jan. 6, 00. B.Sc, Manitoba, 25, M.Sc, 27; Ph.D, Princeton, 30. Instr. biophys, sch. med, Western Reserve, 30–32; *physiol, sch. med. and dentistry, Rochester,* 32–34, asst. prof, 34–39, *assoc. prof,* 39– Physical Soc; Physiol. Soc. Spectroscopy; nerve, muscle and heart physiology.

Blair, Dr. James S(tuart), 903 S. Seventh Ave, Maywood, Ill. *Chemistry.* Monmouth, Ill, Dec. 18, 97. A.B, Kansas, 19, A.M, 20; Ph.D, Stanford, 24. Research chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20–23; instr. chem, Oregon State Col, 24–25; Stanford, 25–30; *chemist, research dept, Am. Can Co,* 33– Chem. Soc. Chemistry of cyanamide derivatives; mixed aquo ammono carbonic acids; chemistry of foods.

Blair, Dr. John E(dward), 26 Paulin Blvd, Leonia, N. J. *Bacteriology.* Monroe, Maine, May 30, 99. A.B, Clark, 20; M.S, Brown, 21, Arnold fellow, 22–23, Ph.D, 23. Instr. biol, Brown, 21–22; bacter, Stanford, 23–26; *bacteriologist, Hosp. for Joint Diseases,* 27– A.A; Soc. Bact; Soc. Exp. Biol. Bacteriophage; tuberculosis; arthritis; staphylococci; staphylococcal infection.

Blair, Prof. J(oseph) C(ullen), University of Illinois, Urbana, Ill. *Horticulture.* Truro, N. S, Can, April 26, 71. B.S, Cornell, 96; hon. M.S.A, Iowa State Col, 06; hon. Sc.D, Col. of Wooster, 19. Prof. *hort, Illinois,* 96–39, *emer. prof,* 39–, head dept, 01–39, dean *col. agr,* 38–40, *emer. dean,* 42–, director, Exp. Sta. and exten. service, 38–40. A.A; Pomol. Soc. (past pres). Plant breeding; pomology.

Blair, Prof. Julian M(acFarlane), University of Colorado, Boulder, Colo. *Physics.* Watertown, Tenn, 92. B.S, Vanderbilt, 14, A.M, 20; Ph.D, Stanford, 31. Prof. chem. and physics, Rollins Col, 17–21; *assoc. prof. physics, Colorado,* 21– Lecturer, Stanford. A.A; Optical Soc; Asn. Physics Teachers; fel. Physical Soc; fel. Royal Photog. Soc. Practical and theoretical photography.

Blair, Prof. Robert V(irgil), Vanderbilt University, Nashville, Tenn. *Mathematics.* Donelson, Tenn, July 15, 87. B.S, George Peabody Col, 15, A.M, 17, Ph.D, 36; Chicago, 27–30. Teacher *math,* Montgomery Bell Acad, Tenn, 15–17; prof, Rollins Col, 17–18; instr, Kentucky, 21–23; asst. prof, *Vanderbilt,* 23–39, *assoc. prof,* 39– Math. Asn; Tenn. Acad. Projective geometrics; the learning curve; acnodal cubic and its inflections; phases of the modern theory of conics and their professional treatment; algebraic analysis of quadric surfaces; algebraic curves.

Blair, Prof. Thomas A(rthur), Weather Bureau Office, Lincoln, Nebr. *Meteorology.* Milford, Mo, Feb. 28, 79. A.B, Stanford, 04. Teacher, high schs, Calif, 04–06; asst. observer, *U. S. Weather Bur,* 07–10, observer, 10–19, meteorologist, 19–24, *Lincoln, Nebr,* 24–28, *senior meteorologist,* 28–; asst. prof. *meteorol, Nebraska,* 24–37, *assoc. prof,* 37– A.A; Meteorol. Soc; Geophys. Union; Nebr. Acad. Correlation of weather and wheat yields; temperature correlations; seasonal pressure anomalies; weather elements; climatology.

Blair, Prof. Vilray Papin, Metropolitan Bldg, St. Louis, Mo. *Anatomy.* St. Louis, Mo, 71. A.B, Christian Brothers Col, 90, A.M, 94; M.D, Washington (St. Louis), 93. From instr. practical anat. to clin. prof. surg, sch. med, *Washington (St. Louis),* 94–12, assoc. surg. and clin. surg, 12–22, prof. *clin. surg, sch. med, and oral surg, sch. dentistry, emer. prof,* 42– Assoc. surgeon, Barnes, St. Louis Children's and St. Louis Maternity Hosps. Mem, Am. Clin. Cong. Chief sect. oral and plastic surg, U.S.A, 17–18, 19, col, M.R.C. A.A; Asn. Anat; Surg. Asn; Col. Surg; Am. Med. Asn; Laryngol. Asn; Soc. Control Cancer; Asn. Oral and Plastic Surg; Asn. Mil. Surg; Archeol. Inst; South. Med. Asn; S. Surg. Asn; West. Surg. Asn; Soc. int. de Chirurg.

Blair, Dr. W(illiam) Frank(lin), University of Michigan, Ann Arbor, Mich. *Zoology, Ecology.* Dayton, Texas, June 25, 12. A.B, Tulsa, 34; M.S, Florida, 35; Ph.D, Michigan, 38. Asst, mammal div, museum zool, *Michigan,* 35–37, *research assoc, lab. vert. biol,* 37– Expeds, Okla, 35–37; Davis Mountains of Texas, 37; N. Mex, 38, 40; Upper Peninsula of Mich, 40. Soc. Mammal; Ecol. Soc; Genetics Soc; Wildlife Soc; Fla. Acad; Mich. Acad. Ecology, life history, faunal relations and geographical distribution of mammals; genecology; dynamics of mammalian populations; variation and genetics of Peromyscus; biotic districts of Oklahoma.

Blair, Dr. W(illiam) Reid, N. Y. Zoological Park, New York, N. Y. *Zoology.* Philadelphia, Pa, Jan. 27, 75. D.V.S, McGill, 02, hon. LL.D, 28. Veterinarian and pathologist, *N. Y. Zool. Park,* 02–22, asst. director, 22–26, director, 26–40, *emer. director,* 40– Prof, N. Y. Univ, 05–19; lecturer, Toronto, 13–14. Exec. sec'y, Int. Wildlife Protection, 38– Major, V.C, 17–19. A.A; Soc. Mammal; Vet. Med. Asn. (v. pres, 13); fel. N. Y. Zool. Soc; N. Y. Vet. Med. Asn. (pres, 10); N. Y. Vet. Med. Soc. (pres, 22); fel. N. Y. Acad. (councilor); cor. mem. Zool. Soc. London; cor. mem, Zool. Soc. Ireland. Zoology; mammalogy; diseases of wild animals in confinement; tuberculosis; osteomalacia in Primates.

Blair, Dr. W(illia)m R(ichards), Ft. Monmouth, Oceanport, N. J. *Physics.* Coleraine, Ireland, Nov. 7, 74. B.S, Chicago, 04, Ph.D, 06. Prin, high sch, Kans, 97–99; assoc. physics and math, Wis. State Nor. Sch, Oshkosh, 00–02; asst, Chicago, 02–06; research director, Mt. Weather Observatory, Va, 06–14; chief div. aerol. investigations, U. S. Weather Bur, 14–17; major and officer in command meteorol. sect, *Sig.C,* 17–19, lieut. col, 19–21, major, 21–34, *lieut. col, 34–;* Student Sig. Sch, 22–23; meteorol, communication and navig, 'World Flight,' 23–24; director dept. communication, Eng. Sig. Sch, 24–25; Student Command and Gen. Staff Sch, 25–26; chief research and eng. div, Office Chief Sig. Officer, 26–30; *officer in charge, Sig. C. Labs, Ft. Monmouth, N. J,* 30– Interallied Cmt. for Aerial Navig, Paris, 19; Int. Wireless Cmn, Paris, 19; Radio Protocol, Wash, 20; Int. Radio Conf, 27. Geophys. Union; Physical Soc; Meteorol. Soc; Soc. Aeronaut. Eng. (exec. board); Inst. Aeronaut. Sci; Philos. Soc. Wash; Wash. Acad; Royal Meteorol. Soc; Int. Sci. Radio Union; Int. Cmn. Meteorol. for Aeronaut. Convection systems; change of phase; indices of refraction; mountain and valley temperatures and circulation; radio, wire and other means of rapid communication.

Blaisdell, Dr. (Baalis) Edwin, 124 Brookings St, Medford, Mass. *Physical chemistry.* Lynn, Mass, May 11, 11. B.S, Mass. Inst. Tech, 32, Ph.D, 35. *Research worker, Mass. Inst. Tech,* 35– Chem. Soc; Physical Soc. Precise thermometry on international and thermodynamic temperature scales.

Blaisdell, Dr. F(rank) E(llsworth), Stanford University School of Medicine, San Francisco, Calif. *Biology.* Pittsfield, N. H, March 13, 62. M.D, Cooper Med. Col, 89. County entomologist, San Diego, 86; demonstrator anat. and instr. biol, embryol. and histol, assoc. prof. and prof. anat, Cooper Med. Col, 00–10; asst. prof. anat. and prof. *surg, sch. med, Stanford,* 10–27, *emer. prof,* 27– A.A; Entom. Soc; Pacific Coast Entom. Soc. (sec'y, 01–20); Calif. Acad. Anatomy and development of animals; life histories of insects; taxonomy of Coleoptera.

Blake, Dr. Archie, 2812 Cathedral Ave, N.W, Washington, D. C. *Applied mathematics.* Washington, D. C, Nov. 24, 06. B.S, Chicago, 29, M.S, 31, Ph.D, 37. Instr. physics, Ga. Tech, 29–30; junior mathematician, U. S. Coast and Geod. Surv, 31–35, asst. mathematician, 35–39, assoc. mathematician, 39–41; *engineer, Nat. Inventors Council, 41–; instr. statistics, grad. sch, U. S. Dept. Agr,* 42– Consultant, Mech. Research Corp, 39–41. Collaborator, 'Math. Revs.' Asn. Symbolic Logic; Inst. Math. Statist; Math. Soc; Math. Asn; Geophys. Union; Seismol. Soc; Philos. Soc. Wash (recording sec'y, 42). Boolean algebra; statistical methods; mathematical seismology; ordnance.

Blake, Prof. Charles H(enry), Massachusetts Institute of Technology, Cambridge, Mass. *Zoology.* Berkeley, Calif, June 11, 01. B.S, Mass. Inst. Tech, 25, Ph.D, 29. Asst. *zool, Mass. Inst. Tech,* 24–29, instr, 29–34, asst. prof, 34–40, *assoc. prof,* 40– Biol. surv, Mount Desert region, 26–32. A.A; Soc. Zool; Am. Acad. (ed, 37–40); Boston Soc. Nat.

Hist. (assoc. curator and later curator mollusks, 33–, trustee, 35–, sec'y, 39–). Terrestrial arthropods, especially household insects.

Blake, Doris H(olmes) (Mrs. Sidney F. Blake), 2817 First Road N, Arlington, Va. *Entomology.* Stoughton, Mass, 92. A.B, Boston, 13; A.M, Radcliffe Col, 17. Intern, Boston Psychopathic Hosp, 16–17; sci. asst, bur. entom, *U. S. Dept. Agr,* 19–22, junior entomologist, 22–28, asst. entomologist, 28–34, *collaborator, bur. entom. and plant quarantine, 34–* Coleoptera; Chrysomelidae.

Blake, Dr. E(dwin) M(ortimer), 145 St. James Place, Brooklyn, N. Y. *[1]Mathematics.* New York, N. Y, June 16, 68. E.M, Columbia, 90, Ph.D, 93. Instr. math, Purdue, 96–98; California, 00–04; prof. math. and mech, Arizona, 04–10. A.A; Math. Soc; Econ. Asn. Kinematics; geometric decorative design.

Blake, Emmet R(eid), Field Museum of Natural History, Chicago, Ill. *Ornithology.* Abbeville, S. C, Nov. 29, 08. A.B, Presb. Col. (S. C), 28; M.S, Pittsburgh, 33. Asst. zool, Pittsburgh, 31–32; tech. asst, Nat. Geog. Soc. exped, Brazil and Venezuela, 30–31; leader, Mandel-Field Museum exped, Orinoco River, 31–32; ornithologist, Field Museum exped, Guatemala, 33–34; leader, Carnegie Museum exped, British Honduras, 35; asst. ornithologist, *Field Museum,* 35–37, *asst. curator ornith, 37–; U. S. Army, 42–* Field Museum Nat. Hist. zool. exped, British Guiana and Brazil, 37; Field Museum British Guiana exped, 38; Field Museum Southwest. Zool. exped, 41. A.A; fel. Am. Geog. Soc. Ornith. Union; Wilson Ornith. Club; Chicago Ornith. Soc. Animal ecology; taxonomy; distribution.

Blake, Dr. Francis G(ilman), New Haven Hospital, New Haven, Conn. *[4]Internal medicine.* Mansfield Valley, Pa, Feb. 22, 87. A.B, Dartmouth Col, 08, hon. Sc.D, 36; M.D, Harvard, 13; hon. A.M, Yale, 21. House officer, Peter Bent Brigham Hosp, 13–14, assoc. res. physician, 14–15, res. physician, 15–16; Moseley traveling fellow, Harvard, 16–17; asst. prof. med, Minnesota, 17–19; assoc, Rockefeller Hosp, 19–20, assoc. mem, Rockefeller Inst, 20–21; John Slade Ely prof. *med, Yale,* 21–27, *Sterling prof, 27–, dean sch. med, 41–* Physician in chief, New Haven Hosp, and chief service, med. clinic, New Haven Dispensary. Sec'y board sci. directors, Rockefeller Inst, 24–35; div. med. sciences, Nat. Research Council, 25–32, chairman, 33–36, med. fellowship board, 27– A.A; Am. Med. Asn; Am. Physicians (recorder, 33–41); fel. Col. Physicians (regent, 39–); Soc. Exp. Biol; Asn. Path. and Bact; Soc. Exp. Path; Soc. Bact; Asn. Immunol. (pres, 35); Soc. Clin. Invest. (pres, 31); Harvey Soc; Conn. Acad. Pneumonia; measles; influenza; scarlet fever; chemotherapy.

Blake, Prof. F(rederic) C(olumbus), Ohio State University, Columbus, Ohio. *[3]Physics.* Decatur, Ill, Oct. 30, 77. Ph.B, Colorado, 01; John Tyndall fellow, Columbia, 04–07, Ph.D, 05; Cambridge, 05–06; Berlin, 06–07. Asst. prof. *physics, Ohio State,* 07–12, *prof, 12–* A.A; Physical Soc; Asn. Physics Teachers; Ohio Acad. (pres, 20). Electric waves; resistance of metals in a magnetic field; standing waves in a Lecher wire system; value of 'h' from x-rays; critical absorption and precision measurements of x-rays; crystal structure of solid solutions and alloys; self and mutual elastance; intensity relations of the scattered energy in the several methods of x-ray analysis of crystals; generalization of the mixed crystals theory; space-group theory of sub-microscopic twinning.

Blake, Prof. I(rving) H(ill), University of Nebraska, Lincoln, Nebr. *Zoology.* Augusta, Maine, Feb. 15, 88. A.B, Bates Col, 11; A.M, Brown, 12; Ph.D, Illinois, 25. Asst. comp. anat, Brown, 12–13; instr. zool. and physiol, Oregon Col, 13–16; zool, Syracuse, 16–18; assoc. prof. biol, Maine, 18–25; zool, Idaho, 25–26; *prof. zool. and anat, Nebraska, 26–* A.A; Limnol. Soc; Ecol. Soc. Animal ecology; histology of teleost digestive tract.

Blake, Dr. J(ohn) T(witss), 79 Sidney St, Cambridge, Mass. *Chemistry.* Boston, Mass, May 16, 01. B.S, Tufts Col, 21; Ph.D, Mass. Inst. Tech, 24. Instr, Tufts Col, 20–21; Northeastern, 22–23; research chemist, *Simplex Wire and Cable Co, 24–, director* chem. develop, 35–40, *research, 40–* Summers, research chemist, Ordnance Dept, 21–23. Mem. insulation cmt, Nat. Research Council. A.A; Chem. Soc. (v. chairman rubber div); Chem. Eng; fel. Inst. Chem; N. Y. Acad; fel. Inst. Rubber Indust. England. Organic and rubber chemistry; technology; activity of organic radicals; explosives; water absorption of rubber; pigment reenforcement; kinetics, thermochemistry and theory of vulcanization; oxidation of rubber; chemistry and technology of rubber.

Blake, Dean Lynn S(tanford), Alabama Polytechnic Institute, Auburn, Ala. *Pharmacy.* Coloma, Mich, April 16, 89. Ph.C, B.S, Michigan, 13, M.S, 29. Head prof. pharmacy, *Ala. Polytech,* 13–41, *dean sch. pharmacy, 41–* Pharmaceut. Asn. Pharmaceutical testing; drug assay; dispensing pharmacy.

Blake, Prof. Maurice A(din), New Brunswick, N. J. *Horticulture.* Millis, Mass, Dec. 1, 82. B.S, Mass. Col, 04; hon. M.S, Rutgers, 31. Asst. horticulturist, R. I. Col. and Exp. Sta, 04–05; instr. hort, Mass. Col, 05–06; horticulturist, *N. J. Exp. Sta,* 06–18, instr. short courses agr, *Rutgers,* 06–11, assoc. prof. *hort,* 11–13, *prof, 13–, chief div. hort, 21–,* acting director div. physical educ, 31–32. State supt. farm demonstration, N. J, 18–21. Soc. Hort. Sci. (pres, 16); N. J. Hort. Soc. (pres, 19, ed, 'News,' 20–). Peach culture; growth status of fruit trees, especially the apple; agricultural extension.

Blake, Dr. S(idney) F(ay), U. S. Department of Agriculture, Washington, D. C. *[5]Botany.* Stoughton, Mass, Aug. 31, 92. A.B, Harvard, 12, A.M, 13, Sheldon traveling fellow, 13–15, Ph.D, 17. Asst, Gray Herbarium, Harvard, 16–17; asst. botanist, *bur. plant indust, U. S. Dept. Agr,* 17–24, assoc. botanist, 24–28, botanist, 28, *senior botanist, 28–* Prof, Stanford, 27. Bot. Soc; New Eng. Bot. Club; Calif. Bot. Soc; Biol. Soc. Wash. (recording sec'y, 23–); Wash. Biol. Field Club (pres, 31–34); Wash. Acad. Taxonomy of phanerogams; Compositae; Polygalaceae; bibliography of floras of the world.

Blakely, Prof. William A(rthur), Colorado College, Colorado Springs, Colo. *Psychology.* Mt. Ida, Ark, 93. B.S, Oklahoma, 24, M.S, 28; Ph.D, Illinois, 33. Prin, high sch, Okla, 24–25; asst, Oklahoma, 26–29; instr, Illinois, 29–31; assoc. prof. *psychol, Colo. Col,* 31–37, *prof, 37–* Summer, instr, Oklahoma, 29. Assoc. Psychol. Asn; Colo-Wyo. Acad. Rhythm; time perception; physiological psychology.

Blaker, Dr. Ernest, B. F. Goodrich Co, Akron, Ohio. *Physics.* Newtown, Pa, Sept. 14, 70. B.S, Kansas, 93; Ph.D, Cornell, 01. Asst. physics, Cornell, 98–01, instr, 01–03, asst. prof, 03–17, prof, 17–19; develop. dept, *B. F. Goodrich Co,* 19–27, manager tech. dept, Pacific plant, Los Angeles, 28–29, research physicist, 30–39, *consultant indust. applications of physics, 39–* In charge airplane div. and meteorol, Cornell, 17–18. Spectrophotometric radiation from carbon; absorption of carbon; atmospheric conduction between high tension transmission wires; effects of compounding ingredients in rubber.

Blakeslee, Prof. A(lbert) F(rancis), Smith College, Northampton, Mass. *[2]Botany.* Geneseo, N. Y, Nov. 9, 74. A.B, Wesleyan, 96, hon. Sc.D, 31; A.M, Harvard, 00, Ph.D, 04; hon. Sc.D, San Marcos, Peru, 25. Asst. bot, Harvard, 99–00; instr, Radcliffe Col, 00–02; teaching fellow, Harvard, 01–03, collector, Venezuela, crypt. herbarium, 03; investigator for Carnegie Institution, Europe, 04–06; instr. bot, Harvard, 06–07; prof. bot. and director summer sch. agr, Conn. Agr. Col, 07–14, prof. bot. and genetics, 14–15; res. investigator plant genetics, sta. for exp. evolution, Carnegie Institution, 12–13, 15–23, asst. director, 23–34, acting director dept. genetics, 34–35, director, 36–41; William Allan Neilson prof, *Smith Col,* 42–43, *guest prof, 43–* Assoc, Columbia, 40–42. Summers, asst, biol. lab, Cold Spring Harbor, 01–02. Mem. board managers, N. Y. Bot. Garden, 33–34; director, Nat. Science Fund. Mem. div. biol. and agr, Nat. Research Council, 31–33. Trustee, 'Biol. Abstracts,' 31–, pres, 42– Bowdoin medal, Harvard, 05; A. Cressy Morrison prize, N. Y. Acad, 26, 36; Henry de Jouvenel prize, Palais de la Decouverte, 38. Carnegie Inst. del, Pan Am. Sci. Cong, Lima, Peru, 24–25. Nat. Acad; A.A. (sec'y, G, 16, v. pres, 18, pres, 40); Soc. Nat. (v. pres, 16, pres, 30); Bot. Soc. (v. pres, 24); Phytopath. Soc; Genetic Asn; Eugenics Soc; Genetics Soc; Torrey Bot. Club (assoc. ed, 'Bul,' 24–, pres, 33); Philos. Soc; Inst. Social Sci; New Eng. Bot. Club; cor. mem. Acad. Nat. Sci. Phila; for. mem. Linnean Soc. London; cor. mem. Acad. Sci. Inst. de France; assoc. Soc. de Biol. de Paris; assoc. Soc. royale de Bot. Belg; hon. mem. Soc. Nat. Moscow; hon. mem. Mycol. Soc. Leningrad; cor. mem. Neder. Bot. Vereen; for. mem. Royal Danish Acad; for. mem. Royal Physiog. Soc. Lund. Genetics; sexual reproduction in mucors; trees in winter; pigmentation criteria for laying in poultry; inheritance in jimson weed; genetics of taste and smell; cytogenetics.

Blakeslee, Howard Walter, 50 Rockefeller Plaza, New York, N. Y. *General science.* New Dungeness, Wash, March 21, 80.

Michigan, 00-01, 02-03, 04-05, hon. M.S, 35. *Associated Press, 05–*, correspondent, New Orleans, La, and Dallas, Texas, news ed, Atlanta, Ga, Chicago and New York, *science ed, 28–* Shared Pulitzer award, 37; Wilson L. Fairbanks award, Am. Col. Publicity Asn, 39; Nat. Headliners Club award, 40. Fel. Am. Inst; Nat. Asn. Sci. Writers (pres, 37).

Blakey, Harold L(eslie), Room 737, New Federal Bldg, St. Louis, Mo. *Biology.* Fayette, Mo, June 9, 05. A.B, Cent. Col. (Mo), 29; Missouri. Admin. and teacher, pub. sch, Mo, 26-30; asst. zool, Missouri, 30-31; game bird investigator, State Game and Fish Dept, Mo, 32-33, biologist, 33-34; *asst. conservationist,* U. S. Forest Service, 35-36; *bur. biol. surv, U. S. Dept. Agr, 36–* Upland game survey of Missouri; diseases and pathological conditions in wild turkey and pheasants; predatory hawks and owls; life history and management of the wild turkey.

Blalock, Prof. Alfred, Johns Hopkins Hospital, Baltimore, Md. *Surgery.* Culloden, Ga, April 5, 99. A.B, Georgia, 18; M.D, Hopkins, 22. House staff, Hopkins Hosp, 22–25; res, Vanderbilt Hosp, 25–27; asst. prof. *surg,* Vanderbilt, 27–30, assoc. prof, 30–37, *prof,* 37–41; *sch. med, Hopkins, 41–, surgeon in chief, Hopkins Hosp, 41–* Surg. Asn; Soc. Clin. Surg; Soc. Thoracic Surg; Soc. Clin. Invest. Regulation of the circulation; surgical shock.

Blalock, Prof. Grover C(leveland), Purdue University, Lafayette, Ind. *Electrical engineering.* Wingo, Ky, Dec. 26, 84. B.S, Michigan, 10; E.E, Purdue, 17. From instr. to *assoc. prof. elec. eng, Purdue, 15–* Elec. Eng; Eng. Educ; Ind. Acad. Principles of electrical engineering.

Blanc, Dr. L(ouis) A(lec), Caterpillar Tractor Co, Peoria, Ill. *Chemistry.* Tobago, B.W.I, May 9, 06. B.S, Ga. Tech, 33; Ph.D, California, 37. Instr, Ga. Tech, 33-34; teaching asst, California, 34-37; research chemist, *Caterpillar Tractor Co,* 37–41, *in charge physical and chem. lab, 42–* Chem. Soc. Diesel engine combustion and lubrication.

Blanchard, Prof. Arthur A(lphonzo), Massachusetts Institute of Technology, Cambridge, Mass. *[*2]Chemistry.* Boston, Mass, May 4, 76. B.S, Mass. Inst. Tech, 98, fellow, 00–02; Ph.D, Leipzig, 02. Asst. theoret. chem, Mass. Inst. Tech, 98-00; instr, New Hampshire, 02-03; *inorg. chem, Mass. Inst. Tech,* 03-08, asst. prof, 08-13, assoc. prof, 13-31, prof, 31-41, *emer. prof, 41–* Lecturer, Harvard, 29-30. A.A; Chem. Soc; Forestry Asn; Am. Acad; New Eng. Asn. Chem. Teachers. Synthetic and analytical chemistry; migration ratios; decomposition of ammonium nitrite; viscosity of solutions; metal carbonyls; atomic structure and valence.

Blanchard, Dr. Barbara D(ewing), University of California College of Agriculture, Davis, Calif. *Physiological zoology.* San Francisco, Calif, May 14, 12. A.B, California, 33, Ph.D, 38. Teaching asst. zool, California, 33-35, 36-37, univ. fellow, 35-36; Alice Freeman Palmer fellow, Wellesley Col, 38-39; instr. life sciences, Placer Junior Col, 39-42; *instr. zool, col. agr, California, and junior zoologist, Exp. Sta, 42–* Physiological cycles of native vertebrate animals.

Blanchard, Prof. Edward R(ichmond), Johns Hopkins University, Baltimore, Md. *Physical chemistry.* East Orange, N. J, July 12, 04. A.B, Amherst Col, 25; A.M, Harvard, 30; Grafflin fellow, Hopkins, 33-35, Ph.D, 34. Asst. instr. chem, Trinity Col. (Conn), 28-30; instr. *physical chem, Hopkins,* 35-37, assoc, 37-40, *assoc. prof, 40–* Chem. Soc. Thermodynamics; low temperature production; specific heats; physical organic chemistry.

Blanchard, Dr. Ernest W(esley), Research Laboratories, Schieffelin and Co, 16 Cooper Square, New York, N. Y. *Physiology.* Providence, R. I, Oct. 31, 04. Ph.B, Brown, 27; M.S, Iowa, 29; Ph.D, Princeton, 30. Instr. zool, Iowa, 29; asst, Princeton, 29-30; asst. prof. physiol, Maryland, 30-31; assoc. biol, Bryn Mawr Col, 31-33, assoc. prof, 33-37; *director physiol. research, research labs, Schieffelin and Co, 37–* Endocrinology; pharmacology; biochemistry.

Blanchard, Dr. Evelyn L(yman), 425 Battery St, San Francisco, Calif. *Nutrition.* Chariton, Iowa, May 30, 09. B.S, Iowa State Col, 32; M.S, Arizona, 34; fellow, Iowa, 35-38, Ph.D, 38. Asst, Arizona, 32-34; instr. home econ, col. agr, California, 38-41; *head exp. kitchen and biol. research, Golden State Co, Ltd, 41–* Vitamin A and night blindness in humans; nutritional value of dairy products.

Blanchard, Dr. Frieda Cobb, University of Michigan, Ann Arbor, Mich. *Genetics.* Sydney, Australia, Oct. 2, 89. A.B, Illinois, 16; Ph.D, Michigan, 20. Asst. to N. A. Cobb, 12-15; *asst. director bot. gardens, Michigan, 19–* Bot. Soc; Soc. Ichthyol. and Herp; Mich. Acad. Genetics of Oenothera and Thamnophis.

Blanchard, Dr. Julian, 463 West St, New York, N. Y. *Physics.* Hertford, N. C, Nov. 10, 85. A.B, Trinity Col. (N. C), 05; A.M, Columbia, 09, Ph.D, 17. Instr. applied math, Trinity Col. (N. C), 05-06; asst. physics, Columbia, 06-09; prof. eng, Trinity Col. (N. C), 09-12; asst, Columbia, 12-15; physicist, research lab, Eastman Kodak Co, 15-17; *research engineer,* West. Elec. Co, 17-24; *Bell Tel. Labs, 24–* Optical Soc. Ionization of gases; retinal sensibility; diameter of the pupil; vacuum tubes; radio.

Blanchard, Prof. Kenneth C(lark), New York University, Washington Square, New York, N. Y. *Biochemistry.* Malden, Mass, Feb. 11, 00. A.B, Clark, 21; Grasselli fellow, Mass. Inst. Tech, 24-25, Ph.D, 29. Chemist, Wamesit Chem. Co, 21-22; asst, Mass. Inst. Tech, 22-24; instr. *chem, N. Y. Univ,* 25-27, asst. prof, 27-30, assoc. prof, 30-42, *prof, 42–* Consultant, oxygen research fund, N. Y. Univ, 27-30, dept. exp. med, 29-30. A.A; Chem. Soc; N. Y. Acad. Med. Tissue formation; urea derivatives; chemistry of marine eggs; pneumonia; bacterial metabolism.

Blanchard, Dr. L(oring) W(ebber), Jr, Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Quincy, Mass, Aug. 27, 09. B.S, Bates Col, 30; Ph.D, Harvard, 34. *Research chemist, Eastman Kodak Co, 34–* Chem. Soc. Steric hindrance; cellulose derivatives.

Blanchard, Dr. Phyllis (Mrs. Walter W. Lucasse), Child Guidance Clinic, 1711 Fitzwater St, Philadelphia, Pa. *Psychology.* Epping, N. H, March 14, 95. A.B, New Hampshire, 17; A.M, Clark, 18, Ph.D, 19. Asst. to Pres. G. Stanley Hall, Clark, 19-20; *psychologist,* N. Y. State Reformatory for Women, 20; psychopathic service, Bellevue Hosp, 20–22; child guidance clinic No. 3, *Nat. Cmt. for Mental Hygiene,* 22-24, child guidance clinic No. 1, 24-27, *child guidance clinic, Phila, 27–; instr. psychol, grad. sch. med, Pennsylvania, 25–* A.A; Psychol. Asn; fel. Asn. Applied Psychol; fel. Orthopsychiat. Asn; Phila. Psychoanal. Soc. Abnormal psychology; clinical methods and therapy; psychology of childhood and adolescence.

Blanchard, R(alph) A(rthur), Box 32, Federal Bldg, Urbana, Ill. *Entomology.* Greenville, Ill, Dec. 23, 00. A.B, Washington (St. Louis), 24. Field asst. insect control, bur. entom, U. S. Dept. Agr, Mo, 20-24; teacher, high sch, Mo, 25-26; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* Mich, 26-27, Ariz, 27-28, assoc. entomologist, Calif, 28-36, *entomologist, 36–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Resistance of crop plants to insects.

Blanchard, Prof. W(illiam) O(scar), University of Illinois, Urbana, Ill. *Geography.* Hilbert, Wis, Jan. 13, 86. Ph.D, Wisconsin, 21. Asst. *geog,* Wisconsin, 17-18, instr, 18-21; asst. prof, *Illinois,* 21-25, assoc. prof, 25-30, *prof, 30–* Asn. Geog. Economic geography; geography of Europe.

Blanche, Dr. Ernest E(vred), Michigan State College, East Lansing, Mich. *Mathematics, Statistics.* Passaic, N. J, Oct. 22, 12. A.B. and A.M, Bucknell, 38; Ph.D, Illinois, 41. Teaching asst. math, Illinois, 38-41; *instr. math. and statist, Mich. State Col, 41–* Summers, statist. director, dept. agr. eng, Illinois, 40, statistician, dept. psychol, 41. Math. Soc; Math. Asn; Statist. Asn. (sec'y, Ill. chap, 40); Inst. Math. Statist. Karl Pearson's system of frequency curves; frequency distributions by the Edgeworth method.

Blanck, Dr. Fred(erick) C(onrad), H. J. Heinz Co, Pittsburgh, Pa. *Chemistry.* Baltimore, Md, Oct. 14, 81. A.B, Hopkins, 03, Ph.D, 07. Asst, Hopkins, 04-05; physiol. chem, Harvard Med. Sch, 07-08; scientist, bur. soils, U. S. Dept. Agr, 09-11; chemist and director bur. food and dairying, Health Dept, Baltimore, 11-15; org. chemist, bur. chem, U. S. Dept. Agr, 15-17; assoc. chem, Hopkins, 18-20; director, Md-Del. inspection service, Nat. Canners Asn, 20-21; senior chemist in charge food control lab, bur. chem, U. S. Dept. Agr, 21-27, prin. chemist in charge food research div, bur. chem. and soils, 27-39; *chief research chemist, H. J. Heinz Co, 39–* State food and drug commissioner, Md, 18-20. Asst. sec'y, Joint Cmt. on Definitions and Standards of Foods, 17, mem, 19-20, 21-27. A.A; Chem. Soc. (chairman, Md. sect, 19, div. agr. and food chem, 28, 29); Agr. Chem; fel. Pub. Health Asn. (chairman, food and drug sect, 19, 24). Food; analysis, technology, composition and purity of foods.

Blandau, Dr. Richard J(ulius), Harvard Medical School, Boston, Mass. *Experimental embryology, Endocrinology.* Erie, Pa, Aug. 5, 11. A.B, Linfield Col, 35; Yale, 37–38; Ph.D, Brown, 39. *Instr.* biol, embryol. and histol, Brown, 39–41; *anat, Harvard Med. Sch, 41–* Soc. Zool. Significance of ovum and spermatozoan age on development; correlation of reproductive behavior and ovulation in rodents.

Blank, Prof. Grace J(osephine), College of William and Mary, Williamsburg, Va. *Bacteriology.* Chicago, Ill, Dec. 27, 03. A.B, Maryville Col, 27; M.S, Michigan, 38, 38– Instr. algebra, Maryville Prep. Sch, 24–26; lab. asst, Maryville Col, 25–27; teacher biol, Washington Col. (Tenn), 27–28; med. technologist and x-ray technician, student health service, Tennessee, 28–31; instr. *biol, Col. of William and Mary,* 31–34, *asst. prof, 34–* Public health, coagulase production by staphylococci; effects of intestinal parasites in making rats carriers of typhoid; chemotactic effects of various organisms upon the corpuscles of the blood.

Blank, Dr. Horace R(ichard), Soil Conservation Service, P. O. Box 26, Waco, Texas. *Geology.* Philadelphia, Pa, Aug. 8, 98. B.S, Pennsylvania, 19, Ph.D, 24. Instr. chem, Pennsylvania, 19–26; miner, Columbia, 26–29; asst. geologist, City Board Water Supply, New York, 29–33; junior and asst. geologist, U. S. Geol. Surv, 34–35; asst. and *assoc. geologist, soil conservation service, U. S. Dept. Agr, 35–* Miner. Soc; Asn. Petrol. Geol; Geophys. Union. Ground water hydrology; an experimental watershed to learn the effect of land use and soil conservation practices on the disposal of precipitation.

Blank, Dr. Irvin H(aas), Harvard Medical School, Boston, Mass. *Dermatology, Physiology.* Mt. Carmel, Ill, Feb. 20, 02. Ch.E, Cincinnati, 24, M.S, 27, Ph.D, 28. Research chemist and bacteriologist, A. C. Lawrence Leather Co, Peabody, Mass, 28–31; research assoc. bacter, dept. leather research, Cincinnati, 31–34; visiting research fellow mycol, Harvard, 34–36, *research fellow dermat, Harvard Med. Sch, 36–* A.A; Soc. Invest. Dermat. Physiology of the normal and abnormal skin; action of detergents on the skin; vehicles for the application of medicaments to the skin and the action of these medicaments on the skin.

Blank, Dr. Lester M(arion), North Oakwood, Bryan, Texas. *Plant pathology.* Topeka, Kans, March 15, 04. A.B, Washburn Col, 25; M.S, Wisconsin, 27, fellow, 27–29, Ph.D, 30. Teacher, high sch, Kans, 25–26; asst. pathologist, div. hort. crops and diseases, *bur. plant indust, U. S. Dept. Agr,* 30–36, assoc. pathologist, *div. cotton and other crops and diseases,* 36–41, *pathologist, 41–* A.A. Diseases of truck crops, onions, cabbage and cotton; physiology of fungi.

Blankenhorn, Dr. M(arion) A(rthur), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Internal medicine.* Orrville, Ohio, Nov. 13, 85. Ph.B, Col. of Wooster, 09, hon. Sc.D, 39; M.D, Western Reserve, 14, A.M, 20. Instr. med, Western Reserve, 19–23, assoc. prof, 26–28, *prof.* clin. med, 28–35; *med, col. med, Cincinnati, 35–* Vol. asst, Rockefeller Inst, 25–26; director med. services, Gen. Hosp, Cincinnati, 35–; responsible investigator aviation med, Office Sci. Research and Develop. Summer, lecturer, West Virginia, 24; Wisconsin, 30. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Path. Hepatic and blood diseases; physiology of biliary pigments; deficiency diseases.

Blanks, R(obert) F(ranklin), U. S. Bureau of Reclamation, Denver, Colo. *Engineering.* Maplehill, Kans, Sept. 4, 00. B.S, Kans. State Col, 24, C.E, 36. Instr, high schs, Idaho, 24, 27, 28; engineer, Salmon River Canal Co, 25–27; Indian Irrigation Service, 28; U. S. Army Engineers, Seattle, Wash, 29–30; *materials, testing and research engineer, U. S. Bur. Reclamation, 30–* Mem, Int. Cmn. Large Dams, 36–; tech. cmt. awards, war production drive branch, War Production Board, 42, Am. Soc. Testing Materials advisory cmt. on cement, 42. Concrete research cmt, Nat. Research Council, 42. Concrete Inst. (director, 41); Soc. Test. Mat; Civil Eng; Portland Cement Asn. (advisory cmt, 40–43). Concrete and concrete materials; protective coatings; hydraulics; earth materials and soils mechanics; engineering design.

Blanton, Dr. Smiley, 115 E. 61st St, New York, N. Y. *Psychiatry, Psychoanalysis.* Unionville, Tenn, May 7, 82. B.S, Vanderbilt, 04; Harvard, 06–07; M.D, Cornell, 14; diploma, Royal Col. Physicians and Surg, London, 23. Instr. speech, Cornell, 07–11; from instr. to prof. speech and mental hygiene, Wisconsin, 14–24; asst. prof. clin. med, Minnesota, 24–27; prof. child study, Vassar Col, and director nursery sch, 27–31; *private practise, 31–; assoc. prof. clin. psychiat, sch. med, Vanderbilt, 43–* Director, Minneapolis Child Guidance Clinic, 24–27; asst. prof, med. col, Cornell, 33–38; psychiat. consultant, Marble Collegiate Church, New York, 37– Am. Med. Asn; Psychiat. Asn; N. Y. Acad. Med; N. Y. Psychoanal. Soc. Child guidance; speech training for children; mental hygiene.

Blanton, Dr. Wyndham Bolling, 828 W. Franklin St, Richmond, Va. *Internal medicine.* Richmond, Va, June 3, 90. A.B, Hampden-Sydney Col, 10, D.Litt, 33; A.M, Virginia, 12; M.D, Columbia, 16, fellow, 16; Edinburgh, 26. Chief lab. service, hosp. div, *Med. Col. Va,* 19–20, assoc. med, 20, asst. prof, 25–30, assoc. prof, 30–33, *prof.* hist. of med, 33–39, *clin. med, 39–,* asst. physician, hosp. div, 25–30, visiting physician, 30, *chief immunol. clinic, 36–* Ed, 'Va. Med. Monthly'; assoc. ed, 'Annals Med. Hist.' Trustee, Union Theol. Sem. (Va). Fel. Col. Physicians; Am. Med. Asn; Asn. Hist. Med; Clin. and Climat. Asn; South. Med. Asn; Tri-State Med. Asn; Va. Acad; Richmond Acad. Med. (pres, 29). Allergy.

Blasdale, Prof. W(alter) C(harles), 2514 College Ave, Berkeley, Calif. *Chemistry, Botany.* Jericho, N. Y, Jan. 10, 71. B.S, California, 92, Ph.D, 00. Instr. *chem, California,* 95–03, asst. prof, 03–19, prof, 19–41, *emer. prof, 41–* A.A; Chem. Soc. Analytical chemistry; equilibrium in salt solutions.

Blaser, Dr. H(enry) Weston, Cornell University, Ithaca, N. Y. *Botany.* Pitman, N. J, May 1, 10. B.S, Temple, 31, A.M, 33; Ph.D, Cornell, 40. Asst. biol, Temple, 31–34, instr, 34–38; asst. *bot, Cornell,* 38–40, *instr, 40–* A.A; Bot. Soc. Floral morphology; anatomy.

Blaser, R(oy) E(mil), University Station, Gainesville, Fla. *Agronomy.* Duncan, Nebr, March 3, 12. B.S, Nebraska, 34; M.S, Rutgers, 36. Teaching asst, Rutgers, 34–35, instr, 35–36, asst, 36–37; asst. agronomist, *Exp. Sta, Florida,* 37–40, *assoc. agronomist, 40–* A.A; Soc. Agron; Soil Sci. Soc; Soil Sci. Soc. Fla. Grazing value of grasses and legumes on various soil types and with sources of phosphorus and calcium; adaptation of forage species.

Blatherwick, Dr. N(orman) R(obert), Metropolitan Life Insurance Co, 1 Madison Ave, New York, N. Y. *Physiological chemistry.* Rock Valley, Iowa, Feb. 19, 87. B.S, Grinnell Col, 09, hon. Sc.D, 29; M.S, Illinois, 12; Currier fellow, Yale, 12–14, Ph.D, 14. Asst. chem, Illinois, 10–11; asst. chemist, Montefiore Home and Hosp, New York, 14–15; physiol. chemist, bur. animal indust, U. S. Dept. Agr, 15–20; biochemist, Potter Metabolic Clinic, 20–28; *director biochem. lab, Metropolitan Life Ins. Co, 28–* Capt, Sanit.C. A.A; Physiol. Soc; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Harvey Soc; Asn. Study Int. Secretions; Inst. Nutrition. Water drinking; foods in relation to composition of urine; parathyroidectomy; experimental nephritis; milk secretion; carbohydrate and fat metabolism; insulin.

Blatt, Prof. A(lbert) H(arold), Queens College, Flushing, N. Y. *Chemistry.* Cincinnati, Ohio, Jan. 9, 03. B.S, Harvard, 23, A.M, 25, Ph.D, 26. Assoc, Harvard, 26–28; Buffalo, 30–32; *assoc. prof. chem,* Howard, 32–38; *Queens (N. Y), 39–* Chem. Soc. Organic chemistry.

Blattner, D(avid) G(eorge), 165 Laurel Hill Road, Mountain Lakes, N. J. *Engineering.* Jetmore, Kans, Feb. 26, 92. B.S, Kans. State Col, 11. Instr. physics, Kans. State Col, 11–13; eng. dept, West. Elec. Co, 13–25; *communication engineer, transmission instruments, Bell Tel. Labs, 25–* Fel. Acoustical Soc; Elec. Eng. Art of recording sound for theater purposes; loud-speaker systems for use in theaters; sound transmission system for television.

Blatz, Prof. W(illiam) E(met), University of Toronto, Toronto, Ont, Can. *Psychology.* Hamilton, Ont, June 30, 95. B.A, Toronto, 16, M.A, 17, M.B, 21; fellow, Chicago, 21–22, Ph.D, 24. Instr. physiol, Toronto, 16–17; *psychol,* Chicago, 22–24; asst. prof. and later *prof. and director research mental hygiene, Toronto, 24–, director, inst. child study.* Lecturer, State Inst. for Nursing, Ill, 23–25. Summers, lecturer, Northwestern, 23, 24; Iowa, 26, 29; Chicago, 27, 28; Western Ontario, 31; Oregon State Col, 34, 35; Hawaii, 36; Utah State Agr. Col, 37; Denver, 38; Colo. State Col. Educ. and Colo. State Col, 39; Colo. State Col, 40; Michigan, 41 Mental hygiene.

Blau, Dr. Henry H(ess), 241 Ashbourne Road, Bexley, Columbus, Ohio. *Physical chemistry.* Dayton, Ohio, May 16

97. B.S, Carnegie Inst. Tech, 19, Chem.E, 28; du Pont fellow, Mass. Inst. Tech, 19–20, M.S, 20; Ph.D, Pittsburgh, 35. Macbeth-Evans Glass Co, Charleroi, Pa, 25–27, research director, 27–36, research and mfg. exec, Corning Glass Works, 36–41; *director research, Federal Glass Co, 41–* Chairman joint cmt. on illum. glass, Am. Ceramic Soc, Illum. Eng. Soc. and Illum. Glassware Guild, 34–41. Am. rep, Int. Glass Cong. Chem. Soc; Chem. Eng; fel. Ceramic Soc. (pres, Pittsburgh sect, 31, 35, chairman glass div, 32, 34); Illum. Eng. Soc; fel. British Soc. Glass Technol; German Glass Technol. Soc. Glass technology; illuminating and technical glasses; freezing points of solutions; refractories; opal glasses; heat and chemical resisting glasses; color filters; glass furnaces.

Blau, Dr. L(udwig) W(ilhelm), 2027 Colquitt Ave, Houston, Texas. *Geophysics.* Graben, Baden, Germany, Aug. 9, 94. A.B, W. Texas State Teachers Col, 25; A.M, Texas, 26, Ph.D, 29. Tutor physics, Texas, 25–26, instr, 26–29; research geophysicist, *Humble Oil and Ref. Co,* 29–30, director geophys. research, 30–37, head geophys. and production research, 37–42, *research consultant, 42–* Summer, assoc. prof, W. Texas State Teachers Col, 25. A.A; Physical Soc; Asn. Petrol. Geol; Soc. Explor. Geophys; Math. Asn; Min. and Metal. Eng; Texas Acad. Hygrometry; interferometry; forced vibrations; torsion balance; seismology; gravitational, seismic and electrical, chemical and magnetic methods of prospecting; well spacing; drilling mud treatment; estimations of petroleum reserves; development of drilling and producing equipment.

Blauvelt, Prof. William E(rnest), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Economic entomology.* Mt. Vernon, N. Y, July 2, 03. B.S, Cornell, 26, Ph.D, 35. Exten. instr. *entom, N. Y. State Col. Agr, Cornell,* 28–35, *exten. asst. prof, 35–* Asn. Econ. Entom; Entom. Soc. Amer. Control of pests of ornamentals; control of pests of greenhouse florists' crops.

Blaydes, Prof. Glenn W(illiam), 214 Westwood Road, Columbus, Ohio. *Botany.* Roachdale, Ind, Sept. 30, 00. A.B, Indiana, 24; A.M, Ohio State, 26, Ph.D, 31. Instr. *bot,* Ohio Wesleyan, 24–26, asst. prof, 26–28; instr, *Ohio State,* 28–32, asst. prof, 32–37, *assoc. prof, 37–* Ed, 'Ohio Jour. Science.' A.A; Bot. Soc. Transpiration; morphology; water-vapor loss from plants as measured by the cobalt chloride method; new methods in microtechnique; plant anatomy; methods and materials for teaching biological sciences.

Blayney, Prof. J(ames) Roy, 950 E. 59th St, Chicago, Ill. *Therapeutics.* Alexis, Ill, July 28, 89. D.D.S, Northwestern, 13; B.S, Lewis Inst, 24, M.S, Chicago, 28. Instr. dental path. and therapeut, col. dentistry, Illinois, 18–23, assoc. prof, 23–31, *prof,* 31–36; *dental surg. and director Walter G. Zoller mem. dental clinic, Univ. Chicago, 36–* Dental Asn; Ill. Dental Soc. (pres, 41); Odontographic Soc. Chicago; Chicago Path. Soc; Inst. Med. Chicago. Dental pathology; dental therapeutics.

Bleakney, Prof. Walker, Princeton University, Princeton, N. J. **[3]Physics.* Shelocta, Pa, Feb. 8, 01. B.S, Whitman Col, 24; Ph.D, Minnesota, 30. Nat. research fellow *physics, Princeton,* 30–32, instr, 32–35, asst. prof, 35–38, *assoc. prof, 38–* Fel. Physical Soc. Ionization in gases; isotopic constitution of the elements; nuclear physics.

Bledsoe, Dr. Roger W(illiam), Barrett Division, Allied Chemical and Dye Corp, Rutgers University, New Brunswick, N. J. *Horticulture.* Pickens, W. Va, Jan. 18, 08. A.B, West Virginia, 36; M.S, Iowa, 39, Ph.D, 41. Asst. bot, Iowa, 37–41; *investigator, Barrett div, Allied Chem. and Dye Corp, 41–* Nitrogen availability.

Bledsoe, R(osewell) P(age), Agricultural Experiment Station, Experiment, Ga. *Agronomy.* Staunton, Va, July 15, 88. A.B, Washington and Lee, 08; A.M, Wisconsin, 14. Instr. agron, Kans. Col, 14–17; asst. prof, West Virginia, 19–20; *agronomist, Exp. Sta, Georgia, 20–* Soc. Agron; S. Agr. Workers Asn. (sec'y and chairman, agron. sect, 25). Crops; soils; plant breeding.

Bleick, Dr. W(illard) E(van), 8 Taney Ave, Annapolis, Md. *Mathematical physics.* Newark, N. J, Dec. 8, 07. M.E, Stevens Inst. Tech, 29; nat. fellowship plan, Hopkins, 29–33, Ph.D, 33. Sch. math, Inst. Advanced Study, 33–34, 35–36; actuarial student, Prudential Ins. Co, 36–38; engineer, Gibbs and Cox, Inc, 38–40; *instr. math,* Cooper Union, 39–40; *U. S. Naval Acad, 40–; lieut. commander, U. S. Naval Res, 41–* Math. Soc; Math. Asn; Physical Soc. Quantum mechanics of the repulsive potential of closed shells; stress analysis; crystal lattice energies.

Bleininger, Dr. A(lbert) V(ictor), Newell, W. Va. **[3]Chemistry.* Polling, Germany, July 9, 73. B.S, Ohio State, 01, Cer.E, 31; Sc.D, Alfred, 33. Shop experience, clay industries, 89–96; instr. ceramics, Ohio State, 01–05, asst. prof, 05–06, assoc. prof, 06–07; asst. prof, Illinois, 07–10, prof. ceramics and director dept, 10–12; in charge clay products labs, technol. branch, U. S. Geol. Surv, 08–10; chief ceramics products div, Bur. Standards, 12–21; *chemist, Homer Laughlin China Co, 21–* Asst, Ohio Geol. Surv, 00–04; in charge ceramic investigations, Ill. Geol. Surv, 08; deputy dist. chief, Fuel Admin, 18. Assoc. ed, 'Indust. and Eng. Chem,' 12–16. Chairman, ceramics cmt, Nat. Research Council, 18–20; chairman advisory cmt. on ceramics, Bur. Standards, 26. Lamme medal, Ohio State, 32. A.A; Ceramic Soc. (pres, 08, mem. cmt. on publication and ed, 'Trans'); Chem. Soc. (asst. ed, 'Chem. Abstracts,' 08); Potters Asn. (chairman, research cmt). Technology of clay, glass and cement silicates; manufacture of optical glass; special porcelains and refractories.

Blengsli, Dr. H(elmer) L(udvig), Sound Beach Ave, Old Greenwich, Conn. *Chemical engineering.* Overhalla, Norway, Feb. 11, 98. B.Sc, Trondheim, 19; Ch.E, Arnstadt, 24; A.M, Columbia, 34, Ph.D, 34. Consulting chem. engineer, Norway, 24–28; plant research engineer, Wood Chem. Products Co, Jacksonville, Fla, 28–29; research chemist, Braden Copper Co, Chile, 29–32; private research, Columbia, 33–34; semi-plant and process development engineer, exp. sta, Hercules Powder Co, 35–37; process research engineer, Am. Cyanamid Co, 37–39; *chem. engineer, M. W. Kellogg Co, 39–* Chem. Soc. Chemical technology of forest products; fatty acids, resins and phytosterins from wood; thermodynamics and kinetics of high pressure reactions; chemical engineering education.

Bless, Prof. A(rthur) A(aron), University of Florida, Gainesville, Fla. *Physics.* Russia, May 25, 93. B.S, Cornell, 18, M.S, 21, Ph.D, 27. Instr. and asst. prof. *physics,* Maine, 20–24; instr, Cornell, 24–28; asst. prof, *Florida,* 28–29, assoc. prof, 29–36, *prof, 36–* Subcmt. on dielectrics, Nat. Research Council, 29–, cmt. on insulation, 30– A.A; Physical Soc; Asn. Physics Teachers. Dielectrics; recoil electrons; biological effects of radiation; diffraction with x-rays.

Bletzinger, Dr. J(ohn) C(alvin), 847 Oxford Ave, Eau Claire, Wis. *Chemistry.* Coraopolis, Pa, Jan. 22, 14. A.B, Allegheny Col, 36; fellow, Lawrence Col, 36–40, M.S, 38, Ph.D, 40. Chief chemist, Sterling Pulp and Paper Co, 40–42; *process engineer, Eau Claire ordnance plant, U. S. Rubber Co, 42–* Tech. Asn. Pulp and Paper Indust. Chemical structure of cellulose as it affects paper properties; effect of acetylation on the water-binding properties of cellulose; a process for the preparation of acetylated papers.

Blewett, Dr. John P(aul), Research Laboratory, General Electric Co, Schenectady, N. Y. *Physics.* Toronto, Ont, Can, April 12, 10. B.A, Toronto, 32, M.A, 33; Charlotte Elizabeth Procter fellow, Princeton, 35, Ph.D, 36. Royal Soc. of Can. fellow, Cambridge, 36–37; *research physicist, Gen. Elec. Co, 37–* Fel. Physical Soc. X-ray crystal analysis; mass spectrography; nuclear physics; oxide coated cathodes; microwaves.

Blichfeldt, Prof. H(ans) F(rederik), Stanford University, Calif. **[1]Mathematics.* Denmark, Jan. 9, 73. A.B, Stanford, 96, A.M, 97; Ph.D, Leipzig, 98. Instr. *math, Stanford,* 98–01, asst. prof, 01–06, assoc. prof, 06–13, prof, 13–38, *emer. prof, 38–* Draftsman, Eng. Dept, City and County of Whatcom, Wash, 92–94. Summers, assoc. prof, Chicago, 11; prof, Columbia, 24, 25. Div. physical sciences, Nat. Research Council, 24–27. Nat. Acad; A.A; Math. Soc. (v. pres, 12); Math. Asn. Continuous groups; linear homogeneous substitution groups; geometry of numbers; quadratic forms.

Blicke, Prof. F(rederick) F(ranklin), 906 Granger Ave, Ann Arbor, Mich. *Organic chemistry.* Bucyrus, Ohio, April 26, 91. Tech. Hochschule, Berlin-Charlottenburg, 12–15; B.S, Ph.D, Michigan. Research assoc. *chem,* Chicago, 17–18; instr, *Michigan,* 21–25, asst. prof, 25–29, assoc. prof, 29–35, *prof, 35–* Chem. Soc; Pharmaceut. Asn. Trivalency of carbon; organic derivatives of arsenic, antimony and bismuth; Grignard reagent; diaryl phthalides; anthrones; local anesthetics; antispasmodics; hypnotics; mydriatics.

Blickle, Dr. A(rthur) H(arry), 9 Northwood Drive, Athens, Ohio. *Paleobotany.* Pittsburgh, Pa, Dec. 13, 11. A.B,

Marietta Col, 34; A.M, Cincinnati, 36, Ph.D, 40. Visiting lecturer, Cincinnati, 38–39, asst, 39–40; *instr. bot, Ohio (Athens), 40–*, curator univ. museum, 43. Summer, lecturer, Ohio (Athens), 40. The fossil flora of Ohio; the anatomy and morphology of the Paleozoic tree-fern fossils, particularly Psaronius.

Blincoe, Prof. Homer (Raymond), 3 Andrew Circle, Emory University, Ga. *Anatomy.* Columbus, Kans, April 20, 90. A.B, Kansas, 15, fellow, 15–16, M.S, 16; M.D, Tulane, 20. Instr. anat, Tulane, 17–19, asst. prof, 21–23; *prof.* gross anat, *Emory, 23–39, anat, 39–* Summers, visiting prof, col. med, Tennessee, 32, 33. A.A; Asn. Anat; fel. Am. Med. Asn; fel. Col. Physicians; Ga. Acad. Anatomy of the forelimb of the albino rat at approximately the time in fetal life when somatic movement begins; correlation of structural development with development of behavior.

Blinks, Prof. L(awrence) R(ogers), Stanford University, Calif. *Plant physiology.* Michigan City, Ind, April 22, 00. B.S, Harvard, 23, A.M, 25, Ph.D, 26. Asst, div. gen. physiol, Rockefeller Inst, 26–29, assoc, 29–33; assoc. prof. plant physiol, *Stanford, 33–36, prof. biol, 36–, director, Hopkins Marine Sta, 43–* Guggenheim Mem. Foundation fellow, 39–40. A.A. Electrical phenomena in single cells; physiology of Algae; photosynthesis; permeability; salt accumulation.

Blish, Dr. M(orris) J(oslin), Amino Products Co, Rossford, Ohio. *Biochemistry.* Lincoln, Nebr, April 21, 89. B.S, Nebraska, 12, A.M, 13; Ph.D, Minnesota, 15. Asst. agr. biochem, Minnesota, 13–15; asst. chemist, food research lab, U. S. Dept. Agr, 15–16; Exp. Sta, Mont. State Col, 16–22; chemist, Exp. Sta, Nebraska, 22–39; prin. chemist in charge protein div, West. Regional Research Lab, bur. agr. chem. and eng, U. S. Dept. Agr, 39–43; *supervisor protein research, Amino Products Co, 43–* Ed. in chief, 'Cereal Chem,' 38– Thomas Burr Osborne medal, 36. 2nd lieut, Sanit.C, 18. A.A; Chem. Soc; Asn. Cereal Chemists (pres, 23–25). Industrial utilization of proteins; cereal proteins and enzymes; wheat and flour technology; poultry nutrition; sunflower silage.

Bliss, Dr. Allen D(ouglass), 100 Devonshire Road, Waban, Mass. *Analytical chemistry.* Colchester, Vt, July 3, 03. A.B, Middlebury Col, 23; A.M, Harvard, 28, Ph.D, 34. *Asst. to ed, 'Jour. Am. Chem. Soc,' 27–; asst. prof. chem, Simmons Col, 41–* Private research asst, Harvard, 32–36; instr, Northeastern, 35–39; Yale, 39–41. A.A; Chem. Soc. Atomic weights; mineral analysis; geochemistry.

Bliss, Dr. Charles B(emis), West Brookfield, Mass. *Psychology.* Triangle, N. Y, Jan. 23, 68. A.B, Yale, 90, Ph.D, 93; B.D, Hartford, 03. Asst, psychol. lab, Yale, 93–94; prof. exp. psychol, N. Y. Univ, 94–98; pastor, Congregational Church, Hampden, Mass, 03–13; McIndoes, Vt, 13–23; Shoreham, Vt, 24–27; *private study, 27–* A.A; Psychol. Asn; fel. N. Y. Acad. Reaction-time and attention; relation between the Trinities of psychology and theology.

Bliss, Dr. C(hester) I(ttner), Box 1106, New Haven, Conn. *Biometry.* Springfield, Ohio, Feb. 1, 99. A.B, Ohio State, 21; A.M, Columbia, 22, fellow, 23–25, Ph.D, 26. Assoc. entomologist, bur. entom, U. S. Dept. Agr, 26–28, entomologist, 28–33; research student, Galton Lab, Univ. Col, London, 33–35; mem. Inst. Plant Protection, Leningrad, 36–38; *consulting biometrician, 38–; biometrician, Conn. Exp. Sta. and Storrs Exp. Sta, Connecticut, 40–; lecturer biometry, Yale, 42–* Auxiliary mem, subcmt. on bioassay, U. S. Pharmacopoeia. A.A; Asn. Econ. Entom; fel. Statist. Asn. (chairman, biometrics sect, 40–; v. pres, 43); Inst. Math. Statist. Statistical methods in experimental entomology and pharmacology; biological assay; experimental design in biology.

Bliss, Dr. Collins P, Eton Hall, Scarsdale, N. Y. *Mechanical engineering.* Carlisle, Pa, April 28, 66. A.B, Princeton, 88, A.M, 91; Ph.B, Columbia, 91; D.E, Stevens Inst. Tech, 36. Draftsman and engineer, various iron works, 91–97; instr. *mech. eng, N. Y. Univ,* 97–00, asst. prof, 00–02, prof, 02–30, dean, 30–36, *emer. dean, 36–* Mech. Eng; Eng. Educ.

Bliss, Dr. Donald E(verett), 3528 Beechwood Place, Riverside, Calif. *Plant pathology.* Greeley, Colo, May 14, 03. B.S, Colo. Agr. Col, 25; fellow, Iowa State Col, 26–29, M.S, 27, Ph.D, 31. Instr, high sch, Colo, 25–26; asst. bot. and plant path, Iowa Exp. Sta, 29–31; asst. research, *plant path. sect, Citrus Exp. Sta, California,* 31–32, junior plant pathologist, 32–35, asst. plant pathologist, 35–42, *assoc. plant pathologist, 42–* A.A; Phytopath. Soc; Mycol. Soc. Sclerospora graminicola; cedar-apple rust fungi; nursery crop pathology in Iowa; fungus diseases of date and ornamental palms; Armillaria mellea in Southern California.

Bliss, Dr. Eleanor A(lbert), 1026 N. Calvert St, Baltimore, Md. *Bacteriology.* Jamestown, R. I, Aug. 16, 99. A.B, Bryn Mawr Col, 21; Sc.D, Hopkins, 25. Fellow med, *sch. med, Hopkins,* 26–40, *assoc. and fellow prev. med, 40–* Soc. Bact; Asn. Immunol. Haemolytic streptococci; sulfanilamide.

Bliss, Prof. G(ilbert) A(mes), University of Chicago, Chicago, Ill. **²*Mathematics.* Chicago, Ill, May 9, 76. B.S, Chicago, 97, M.S, 98, Ph.D, 00; Göttingen, 02–03; hon. Sc.D, Wisconsin, 35. Instr. *math,* Minnesota, 00–02; assoc, Chicago, 03–04; asst. prof, Missouri, 04–05; Princeton, 05–08; assoc. prof, *Chicago,* 08–13, prof, 13–33, Martin A. Ryerson distinguished service prof, 33–41, chairman dept, 27–41, *emer. prof, 41–* Lecturer, Wisconsin, 06; Princeton, 09; Harvard, 11. Assoc. ed, 'Annals of Math,' 06–08. Research fellowship board, Nat. Research Council. Sci. expert, range firing sect, U.S.A, 18. Nat. Acad; A.A; Math. Soc. (v. pres, 11, councilor, 07–09, 16, 18; chairman, Chicago sect, 17–19, assoc. ed, 'Trans,' 08–16, pres, 20–22); Math. Asn; Philos. Soc; Am. Acad; Ill. Acad; London Math. Soc; Math. Verein; Circolo Mat. di Palermo. Differential equations; calculus of variations; theory of functions of lines.

Bliss, Prof. Mary Campbell, Wellesley College, Wellesley, Mass. *Botany.* Newburyport, Mass, April 19, 77. A.B, Wellesley Col, 99, fellow, 02–04, A.M, 04; Ph.D, Radcliffe Col, 22. Teacher, high sch, Mass, 00–01; asst. *bot, Wellesley Col,* 04–05, instr, 05–15, asst. prof, 15–22, assoc. prof, 22–40, *prof, 40–* A.A; Bot. Soc. Plant morphology; the vessel in seed plants; tracheal elements in ferns.

Bliss, Prof. R(obert) Harding, Yale University, New Haven, Conn. *Chemical engineering.* St. Louis, Mo, July 14, 11. B.S, Illinois, 32; Conn. State Water Cmn. fellow, Yale, 32–35, Ph.D, 35. Director semi-works, Rohm and Haas Co, 35–37; asst. prof. *chem. eng,* Pennsylvania, 37–39; *Yale,* 39–42, *assoc. prof, 42–* Consultant, State Water Cmn, Conn, 39–; chem. div, U. S. Rubber Co, Naugatuck, 41–; Nat. Defense Research Cmt, 41– A.A; Chem. Soc. (sec'y, New Haven sect, 41, chairman elect, 43); Chem. Eng. Vapor-phase hydration of ethylene; industrial waste disposal; compressibilities of gas mixtures; liquid-liquid extraction; boiling liquids; heat transmission.

Bliss, Prof. Sidney (William), Tulane University, New Orleans, La. *Biochemistry.* Cleveland, Ohio, Sept. 23, 92. B.S, Ohio State, 17; fellow, Yale, 21–22; Ph.D, Harvard, 25. Research assoc, Physiatric Inst, 22; teaching fellow *biochem,* Harvard Med. Sch, 22–25; asst. prof, McGill, 25–28, assoc. prof, 28–29; *prof, sch. med, Tulane, 29–; major, Sanit. Corps, U. S. Army.* Trench-fever investigation exped, Red Cross, France. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Ammonia formation; carbohydrate metabolism; metabolism of iron; pellagra.

Bliss, Prof. Zenas R(andall), 75 Upton Ave, Providence, R. I. *Hydraulics.* Cranston, R. I, March 3, 98. Ph.B, Brown, 18, M.S, 19. Inspector, Assoc. Factory Mutual Fire Ins. Companies, 19–21; inspector and engineer, What Cheer and Hope Mutual Fire Ins. Companies, 21–22; from instr. to assoc. prof. eng, *Brown,* 22–40, *prof. applied mech, 40–* Mech. Eng; Eng. Educ; Soc. Metals; Providence Eng. Soc. Materials; applied and engineering mechanics.

Blitch, Prof. Lee W(esley), Emory University, Ga. *Chemistry.* Cairo, Ga, Jan. 31, 02. B.S, Emory, 22; Ph.D, Hopkins, 25. Instr. *chem, Emory,* 25–26, asst. prof, 26–27, Valdosta div, 34–42, *assoc. prof, 42–* Chem. Soc; Ga. Acad.

Blizzard, Dr. A(lpheus) W(esley), State Public Service Authority, Charleston, S. C. *Biology.* Baltimore, Md, May 23, 84. B.S, Ohio, 13; Chicago, 14; A.M, Cornell, 16; Ph.D, Columbia, 23, 24. Prof. biol, Jamestown Col, 13–15; instr. zool, Iowa State Col, 16–17; asst. prof, N. Y. Univ, 17–26; prof. biol, Coker Col, 26–35; res. doctor, Cornell, 35–36; research botanist, 36–38; *State Pub. Service Authority, S. C,* 38–41, *acting director health and sanit. div, 41–* Summers, research staff, Biol. Lab, Cold Spring Harbor, 28–34. A.A; Pub. Health Asn; Soc. Trop. Med; Nat. Malaria Cmt; Bot. Soc; fel. S. C. Acad. (v. pres, 33, pres, 34). Cytology; mycology; ecology; malariology; onion smut; nuclear phenomena of Urocystis cepulae; development of agarics; plant sociology; vegetational change.

Blizzard, Dr. Ronald H, 547 Mellon St, S.E, Washington, D. C. *Physical organic chemistry.* Cedarville, N. J, Aug. 16, 17. B.S, Washington Col, 39; Cornell, 39; Ph.D, McGill, 42. Asst. chem, Washington Col, 37–39; chemist, E. Pritchard, Inc, 40; *research chemist,* Nat. Research Council, Can, 40–42; *U. S. Naval Research Lab, 42–* Demonstrator, McGill, 39–42. Chem. Soc. Petroleum; catalysis; fractionation; aviation fuels; synthetics; analysis; organic syntheses; lactones; cyclic diketones; high pressure hydrogenation.

Blizzard, Prof. W(arren) L(ale), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal husbandry.* McPherson, Kans, April 8, 88. B.S, Kans. State Col, 10. Asst. animal husbandry, Kans. State Col, 11–14; livestock fieldman, Capper Publishing Co, 14; assoc. prof. *animal husbandry,* exten. service, Iowa State Col, 14–15; *Okla. Agr. and Mech. Col,* 15–19, *prof. and head dept, 19–, dean agr. and director, Exp. Sta, 39–* Soc. Animal Production (mem. cmt); South. Livestock Asn. (v. pres, 27–); South. Agr. Workers (mem, cmt. animal husbandry sect). Beef cattle.

Bloch, Prof. F(elix), Stanford University, Calif. *[6]Physics.* Zurich, Switzerland, Oct. 23, 05. Tech. Hochschule, Zurich, 24–27; Ph.D, Leipzig, 28. Lorentz-Fonds fellow, Utrecht, 30; Orsted-Fonds fellow, Copenhagen, 31; privat-docent, Leipzig, 32; Int. Educ. Board fellow, Rome, 33; *prof. physics, Stanford, 34–* Lecturer, Inst. Henri Poincaré, Paris, 33. Fel. Physical Soc; Schweiz. Natur. Gesell. Electron theory of metals; quantum theory of ferromagnetism; stopping power of matter; x-ray phenomena; quantum-electrodynamics; neutrons.

Bloch, Dr. Konrad E(mil), Columbia University, New York, N. Y. *Biological chemistry.* Neisse, Germany, Jan. 21, 12. Chem.E, Tech. Hochschule, Munich, 34; Ph.D, Columbia, 38. *Instr. biochem, Columbia, 41–* Metabolism of amino acids; metabolism of steroids.

Bloch, Dr. Robert, Yale University, New Haven, Conn. *Botany.* Berlin, Germany, Oct. 9, 98. Jena; Rostock; Ph.D, Berlin, 25; Leeds, 33–37. *Research asst,* Columbia, 38–40; *Yale, 40–* A.A; Bot. Soc; Torrey Bot. Club. Morphogenesis; developmental and pathological plant anatomy.

Bloch, Dr. R(obert) G(ustav), 950 E. 59th St, Chicago, Ill. *Medicine.* Nuremberg, Germany, March 3, 94. Erlangen; Halle; M.D, Munich, 22. Asst. physician, univ. clinics, Munich, 22–23; res, Montefiore Hosp, New York, 24–25; instr. *med,* Illinois, 26–27; *Chicago,* 27–28, asst. prof, 28–30, assoc. prof, 30–42, *prof, 42–* A.A; fel. Soc. Clin. Invest; fel. Soc. Exp. Biol; Asn. Thoracic Surg; Cent. Soc. Clin. Research; Inst. Med. Chicago; Chicago Soc. Int. Med. Artificial lung collapse; reinfection in tuberculosis; lipiodol; ultra-violet light; roentgenological group examinations; tuberculosis calcification.

Blocher, Prof. John Milton, 379 Beach St, Berea, Ohio. *Chemistry.* Gettysburg, Pa, Feb. 24, 91. B.S, Gettysburg Col, 13; Ph.D, Hopkins, 16. Asst, Hopkins, 16–17; *prof. chem, Baldwin-Wallace Col, 17–* Chem. Soc. Physical and colloidal chemistry.

Block, Dr. H(arry) W(illiam), 210 Central Ave, Orange, N. J. *Chemistry.* Groveton, N. H, Dec. 2, 05. B.S, Mass. Col, 26; M.S, Purdue, 29; Ph.D, Boston, 40. Junior chemist, Chem. Warfare Service, 27; asst. research chemist, Purdue, 27–29; anal. chemist, Reed and Carnrick, 29–30; *research chemist,* Gen. Seafoods Corp, 30–32; E. L. Patch Co, 33–38; Birdseye Labs, 38–39; N. Y. State Exp. Sta, Geneva, 39–40; *Continental Foods, 41–* Inst. Food Technol. Nutrition and biochemistry of fats; technology of fats and oils; food processing; vitamin concentrates.

Block, Dr. Matthew, 5482 Greenwood, Chicago, Ill. *Embryology, Hematology.* Brooklyn, N. Y, Dec. 13, 15. B.S, Col. City of N. Y, 37; M.S, Michigan, 38; fellow, Chicago, 38–39, Ph.D, 41, Wilder fellow, 41, M.D, 43. *Asst.* anat, *Chicago,* 40–41, 42, *med, 43–* Embryology of blood-forming organs.

Block, Dr. Richard J(oseph), Dunleer House, Cooper Road, Scarsdale, N. Y. *Chemistry.* New York, N. Y, 06. B.S, Yale, 28, Ph.D, 31. From Yale fellow to *research assoc. chem, N. Y. State Psychiat. Inst. and Hosp; assoc, N. Y. Med. Col; consultant chemist.* Lab, Prof. F. von Müller, Munich, 31. A.A; Soc. Biol. Chem; Chem. Soc; Inst. Nutrition; Inst. Chem; N. Y. Acad; Biochem. Soc. Gt. Britain. Basic amino acids in proteins; proteins of the brain; serum proteins; intermediary metabolism of cystine and methionine; cystinuria; vitamin B; hormones and mental disease; amino acids in plant and animal tissue proteins.

Block, Dr. S(eymour) S(tanton), 219 W. Woodlawn Ave, Louisville, Ky. *Biochemistry.* New York, N. Y, May 16, 18. B.S, Pa. State Col, 39, fellow, 39–42, M.S, 41, Ph.D, 42. *Research chemist, Jos. E. Seagram and Sons, Inc.* Chem. Soc. Industrial fermentations; butylene glycol; ethyl alcohol fermentation; tobacco aging; tobacco quality.

Block, Dr. Walter David, University of Michigan, Ann Arbor, Mich. *Biological chemistry.* Dayton, Ohio, Oct. 16, 11. B.S, Dayton, 33; M.S, Michigan, 34, Ph.D, 38. *Instr. biol. chem, Michigan, 38–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Amino acid and protein research; purine metabolism.

Blocker, Rev. Hubert W(illiam), St. Benedict's College, Atchison, Kans. *Zoology.* Seneca, Kans, Sept. 28, 95. A.B, St. Benedict's Col, 21, A.M, 24; M.S, Iowa, 27; Ph.D, Michigan, 33. Instr. chem, *St. Benedict's Col,* 27–28, *prof. zool, 28–* A.A; Mich. Acad. Embryology.

Blodgett, Prof. E(arle) C(omstock), University of Idaho, Moscow, Idaho. *Plant pathology.* Logan, Iowa, Sept. 1, 06. B.S, Idaho, 29, M.S, 30; Ph.D, Wisconsin, 34. Asst. *plant path,* Idaho, 29–30; Wisconsin, 30–35; *asst. prof, Idaho, and assoc. plant pathologist, Exp. Sta, 35–* Diseases of fruits.

Blodgett, Prof. F(orest) M(ilo), 217 Bryant Ave, Ithaca, N. Y. *Plant pathology.* Brocton, N. Y, July 15, 85. B.S.A, Cornell, 10, fellow, 10–14, Ph.D, 14. Assoc. botanist, N. Y. Exp. Sta, 13–15; asst. prof. *plant path, Cornell,* 15–37, *prof, 37–* A.A; Phytopath. Soc; Potato Asn. (pres, 41). Hop mildew control; dusting and spraying apples; perithecia of Sphaerotheca humili; potato diseases.

Blodgett, Dr. Katharine B(urr), 18 N. Church St, Schenectady, N. Y. *[7]Physics.* Schenectady, N.Y, Jan. 10, 98. A.B, Bryn Mawr Col, 17; M.S, Chicago, 18; Ph.D, Cambridge, 26. *Research physicist, research lab, Gen. Elec. Co, 18–* Physical Soc. Discharges in gases; surface chemistry.

Blodgett, Dr. Robert B(ell), 1315 Hampton St, Richmond, Va. *Chemistry.* Milwaukee, Wis, Feb. 2, 16. B.S, Northwestern, 37; Alumni Research Foundation scholar, Wisconsin, 37–38, fellow, 38–39, Ph.D, 40. *Research chemist, rayon dept, E. I. du Pont de Nemours and Co.* Chem. Soc. Rayon technology; high-tenacity rayon for fabric uses.

Bloedorn, Dean Walter Andrew, 1835 Eye St, N. W, Washington, D. C. *Internal medicine.* Platte Center, Nebr, Nov. 22, 86. M.D, Creighton, 09; A.B, George Washington, 15, A.M, 16. Chief med. service, Naval Hosp, Annapolis, Md, 19–22; U. S. S. hosp. ship, 'Mercy,' 23–25; *prof.* med, *sch. med,* Howard, 26–29; trop. med, *George Washington,* 27–29, *med, 30–,* asst. dean, 30–38, *dean, 38–, med. director univ. hosp.* Grant, cmt. sci. research, Am. Med. Asn, 37. Exec. officer, Naval Med. Sch, Washington, D. C, 27–28. Commander, M.C, U.S.N, retired. A.A; Am. Med. Asn; fel. Col. Physicians. Drug addicts and drug addiction; occurrence of abnormal leucocytes in acute infections; bronchial spirochetosis; electrocardiographic studies as regards prognosis; teleroentgen studies of normal hearts; role of hexamethylenamina in production of hematuria.

Bloesch, Dr. Ed(ward), 1410 Philtower, Tulsa, Okla. *Geology.* Laufenburg, Switzerland, Aug. 13, 84. Ph.D, Zurich, 10; Basle. Asst. geol, Zurich, 07–11; collaborator, Swiss Geol. Surv, 08–11; geologist and chief geologist, Union de Pétroles d'Okla, 11–15; *consulting geologist, 15–* Asn. Petrol. Geol; Tulsa Geol. Soc. (v. pres, 21, pres, 35); Swiss Geol. Soc; Swiss Soc. Nat. Hist; Geol. Soc. Zurich; Soc. Nat. Hist. Aargau. Geology of Pleistocene deposits; structural and petroleum geology.

Blom, Frans, Antigua, Guatemala, Cent. Amer. *Archeology.* Copenhagen, Denmark, Aug. 9, 93. Ph.B, A.M, Harvard. *Director dept. middle Am. research, Tulane, 25–* Geographer five expeds. for Eagle Oil Co, south. Mex, 20–23; in charge, Mex. Govt. expeds. to ruins of Palenque, 23; Carnegie Institution exped, Uaxactun, Guatemala, 24; asst, Nat. Geog. Soc. exped, Pueblo Bonito, N. Mex, 24; in charge, 1st Tulane exped, Cent. Amer, 25; John Geddings Gray Mem. exped, Cent. Amer, 4th Tulane exped, 28; Chicago World's Fair exped. to ruins of Uxmal, 5th Tulane exped, 30; Tulane Univ. Danish Nat. Museum exped, Honduras, 35, Guatemala, 37. A.A. Archeology and history of Mexico and the Central American republics; the Maya.

Blomquist, Prof. H(ugo) L(eander), Duke University, Durham, N. C. *Botany.* Sorsele, Sweden, June 5, 88. B.S, Chicago, 16, Ph.D, 21. Asst. prof. biol, Trinity Col. (N. C), 20–23, *prof. bot, Duke, 23–* A.A; Bot. Soc; Sullivant Moss Soc. Anatomy of pteridophytes; taxonomy and morphology of bryophytes and algae; flora of North Carolina; tropical marine algae.

Blomquist, Dr. John H(oward), 819 N. Harrison, Wilmington, Del. *Chemistry.* Mankato, Minn, Jan. 20, 16. A.B, Coe Col, 37; Ph.D, Ohio State, 41. *Research chemist, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Adsorption at crystal solution interfaces; electron diffraction; synthetic textile fibers.

Blomquist, Dr. Richard F(rederick), U. S. Forest Service, Madison, Wis. *Organic chemistry.* Mankato, Minn, Nov. 25, 12. A.B, Coe Col, 34; scholar, Iowa, 34–37, M.S, 36, Ph.D, 37. Prof. chem. and chairman dept, Doane Col, 37–42; *asst. chemist, div. wood preservation, Forest Products Lab, U. S. Forest Service, 42–* Summer, instr, Iowa Wesleyan Col, 37. Chem. Soc; Nebr. Acad. The reactions of monochloroamine with dialkylmagnesiums and with Grignard reagents; chemistry and properties of synthetic resin adhesives.

Blood, Prof. Frank R(aymond), University of Denver, Denver, Colo. *Chemistry, Biochemistry.* Denver, Colo, Sept. 13, 10. B.S, Denver, 34; fellow, Michigan, 38–39, Ph.D, 40. Asst. chem, Denver, 34–35; junior biochemist, Haskell lab. indust. toxicol, E. I. du Pont de Nemours and Co, 35–36; asst. biochem, Michigan, 36–38; biochemist, Haskell lab. indust. toxicol, E. I. du Pont de Nemours and Co, 40–42; *asst. prof. chem, Denver, 42–* Chem. Soc. Formation of oxalic acid from ethylene glycol and related solvents; bladder tumors; metabolism of sulfur; quantitative methods for air analysis.

Blood, Dr. H(eber) Loran, Utah State Agricultural College, Logan, Utah. *Plant pathology.* Kaysville, Utah, Dec. 14, 00. B.S, Utah Col, 26, M.S, 28; fellow, Wisconsin, 28–30, Ph.D, 30. Instr. plant path, Utah Col, 25–28, asst. plant pathologist, *Exp. Sta,* 26–28, asst. prof. and assoc. plant pathologist, *Utah State Col,* 30–31, plant pathologist, 31–41, agent, *U. S. Dept. Agr,* 28–30, 31–41, *plant pathologist, 41–* A.A; Phytopath. Soc; Hort. Soc; Physiol. Soc; Utah Acad. Mosaic and bacterial canker; diseases of the tomato-curly top; Verticillium wilt; psyllid-yellows.

Bloodgood, Prof. (Mary) Adeline, Milwaukee-Downer College, Milwaukee, Wis. *Chemistry.* Sioux Falls, S. Dak, Aug. 4, 07. A.B, South Dakota, 27; Ph.D, Chicago, 31. Chemist, Kroger Food Foundation, 31; research asst, Chicago, 33–37; instr. *chem, Milwaukee-Downer Col,* 37–40, *asst. prof, 40–* Addition reactions of unsaturated compounds; arsenicals.

Bloom, Dr. Mortimer C(harles), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Boston, Mass, Dec. 13, 99. B.S, Mass. Inst. Tech, 22, Ph.D, 38. Chem. engineer and research chemist, Hollingsworth and Vose Paper Co, 22–25; director research dept, Tide Water Oil Co, 25–28; asst. inorg. chem, Mass. Inst. Tech, 29–30, physical chem, 33–34, research assoc. miner, 35–37; lecturer qualitative analysis, Franklin Union Tech. Inst, 34–35; *tech. director, Bloomite Corp, 39–; research assoc. metal rectifiers, Mass. Inst. Tech, 40–* Research consultant, 29–31. Chem. Soc; Electrochem. Soc. Polymorphism; crystal growth; metal rectifiers; electroplating.

Bloom, Prof. William, University of Chicago, Chicago, Ill. *[7]Anatomy.* Baltimore, Md, Sept. 15, 99. A.B, Hopkins, 19, M.D, 23. Assoc. pathologist, Michael Reese Hosp, Chicago, 23–25; Douglas Smith Foundation fellow, *Chicago,* 26–28, asst. prof. *anat,* 29–33, assoc. prof, 33–41, *prof. and chairman dept, 41–* A.A; Soc. Exp. Path; Soc. Exp. Biol; Asn. Anat; Soc. Zool. Tissue culture; hematology; histology.

Bloomenthal, Dr. S(idney), Associated Electric Laboratories, 914 Carmen Ave, Chicago, Ill. *Physics.* Oct. 22, 05. B.S, Chicago, 26, scholar, 26–29, M.S, 27, Ph.D, 29. Research dept, RCA, 29–30; research and eng. depts, RCA Victor Co, 30–34; assoc. physicist, Ordnance Div, U. S. War Dept, 34–37; dept. physics, Chicago, 37–40; *mem. staff,* Chicago Atmospheric Pollution Surv, 39–40; Automatic Elec. Co, Inc, 40–41; *Associated Elec. Labs, Inc, 41–* A.A; Physical Soc; Acoustical Soc; Radio Eng; Asn. Sci. Workers; Ill. Acad. Band spectra of isotopic lead oxide molecules; piezo-electric properties of isomorphous mixed crystals of the Rochelle salt group; nonmetallic resistors used in the radio field; aircraft detectors and anti-aircraft fire control apparatus; atmospheric pollution.

Bloomer, Dr. Robert O(liver), Box 1428, University Station, Charlottesville, Va. *Petrology.* New York, N. Y, May 3, 12. B.S, Virginia, 37, M.S, 38; Ph.D, North Carolina, 41. *Instr. geol, Virginia, 41–* Instr, North Carolina, 39–41; geologist, Va. Geol. Surv, 39– Va. Acad. (sec'y geol. sect, 42). Geology of the Buena Vista Quadrangle, Virginia.

Bloomfield, Dr. Arthur L(eonard), Stanford University Hospital, San Francisco, Calif. *Medicine.* Baltimore, Md, May 30, 88. A.B, Hopkins, 07, M.D, 11. From asst. to assoc. prof. *med,* Hopkins, 11–26; *prof, Stanford, 26–* Asn. Physicians; Soc. Clin. Invest. Clinical and experimental medicine.

Bloor, Prof. W(alter) R(ay), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *[8]Biochemistry.* Ingersoll, Ont, Can, July 2, 77. M.A, Queen's (Can), 02; grad, Ont. Nor. Col, 03; A.M, Harvard, 08, Ph.D, 11. Instr. chem, State Col. Wash, 03–05, asst. prof, 05–07; asst. *biochem,* Harvard, 08–10; assoc, Washington (St. Louis), 10–14, assoc. prof, 14; asst. prof, Harvard, 14–18; *prof,* California, 18–22; *sch. med. and dentistry, Rochester, 22–* A.A; Soc. Biol. Chem. (pres, 29, 30); Chem. Soc; Soc. Exp. Biol; Federation Societies Exp. Biol. (chairman, 30); Physiol. Soc; Melzer Verein. Clay; carbohydrate esters; saccharin in urine; fat in blood and milk; fat absorption; phosphatids in blood; phosphate distribution in blood; lipid metabolism.

Blossom, Philip M, University of Michigan, Ann Arbor, Mich. *Zoology.* Evanston, Ill, May 19, 03. Michigan, 30–32. *Hon. assoc. curator mammals, museum zool, Michigan, 32–* Expeds, Arizona, 30–31, 32, 33, 36–37, 40–41, Nebraska, 35, Idaho, 36–37, Michigan, 40. Ecol. Soc; Soc. Mammal. (chairman, membership cmt, 33, 34); Mich. Acad. Sci, Arts and Letters. Taxonomy; genetics; mammal ecology.

Blount, Mary P(utnam), Byron, Ill. *Embryology.* Byron, Ill, May 13, 69. B.S, Michigan, 95; Ph.D, Chicago, 08. Instr, Chicago Nor. Col, 12–35. A.A; fel. Asn. Anat. Human embryology; early development of the pigeon's egg.

Blount, Dr. R(aymond) F(rank), University of Minnesota, Minneapolis, Minn. *Anatomy.* LaGrange, Ill, Oct. 24, 00. B.S.A, Arizona, 24, M.S, 26; Ph.D, Yale, 31. Instr. zool, Arizona, 26–27; asst, Yale, 27–29, *anat,* sch. med, 29–30; instr, *med. sch, Minnesota,* 31–35, *asst. prof, 36–* A.A; Asn. Anat; Soc. Exp. Biol; Soc. Zool; Asn. Study Int. Secretions; Minn. Acad; N. Y. Acad. Interstitial tissue of the reptilian testis; transplantation of the pituitary rudiment in the urodele embryo; the pituitary and size relationships; vascular and glomerular change.

Blubaugh, Dr. Louis V(incent), 3853 Kirkup Ave, Kennedy Heights, Cincinnati, Ohio. *Bacteriology.* Ft. Scott, Kans, May 16, 09. B.S, Kans. State Teachers Col, 30; M.S, Brown, 32, Ph.D, 35. *Chief bacteriologist, Wm. S. Merrell Co, 36–* Soc. Bact. Antibacterial substances; biological preparations.

Blue, Prof. Arthur H(arold), 800 Third Ave, S. E, Le Mars, Iowa. *Mathematics.* Washta, Iowa, July 22, 01. A.B, West. Union Col, 23; M.S, Iowa, 24, fellow, 24–25, Ph.D, 28. Asst, Iowa, 25–27; *prof. math. and head dept, West. Union Col, 27–* Theory of sets of points.

Blue, Dr. R(ichard) W(hiting), Catalytic Development Co, Linwood, Pa. *Chemistry.* Vinita, Okla, Feb. 25, 06. A.B, Kansas, 27, A.M, 29; Ph.D, California, 32. Nat. research fellow, Hopkins, 32–34; research chemist, Humble Oil and Ref. Co, 35; research assoc. chem, Mass. Inst. Tech, 36–39; *research chemist, Catalytic Develop. Co, 39–* Chem. Soc. Measurements at low temperatures; molecular spectra; petroleum catalysis.

Blue, Dr. Rupert, U. S. Public Health Service, Washington, D. C. *Hygiene.* Richmond Co, N. C, May 30, 67. Virginia, 89–90; M.D, Maryland, 92, Sc.D, 08; grad, London Sch. Trop. Med, 10; Dr.P.H, Michigan, 13; Sc.D, Wisconsin, 13. Asst. surgeon, *U. S. Pub. Health Service,* 93, passed asst. surgeon, 97, surgeon, 09, surgeon gen, 12–20, asst. surgeon gen, 20–30, *med. director, 30–* Detailed to Genoa, Italy, cholera and plague prev. work, 99–00; to S. Amer. to investigate epidemic diseases, 10. Provisional pres, Int. Sanit. Bur. of Am. Republics, 12; mem, Permanent Int. Cmn. of Congs. on Hygiene and Demography; Am. delegation, Int. Opium Confs, Geneva, 23, 24; chairman cmt. on sanit, med. sect, Council Nat. Defense, 17–18. Chevalier, Légion d'honneur. Pub. Health Asn; Am. Med. Asn. (pres, 16); fel. Am. Col. Surg; Asn. Mil. Surg; Nat. Cmt. Mental Hygiene. Epi-

demiology; bubonic plague; malaria, yellow and typhoid fevers.

Bluestein, Dr. Ben A, 1509 S. Christiana Ave, Chicago, Ill. *Organic chemistry.* Chicago, Ill, July 5, 18. B.S, Chicago, 38, Ph.D, 41. *Research instr. chem, Chicago, 41–* Chem. Soc. Reactions of 9-formylfluorene; synthesis of organo-metallic resins.

Blum, Dr. Harold F(rancis), National Naval Medical Center, Bethesda, Md. *Physiology.* Escondido, Calif, Feb. 12, 99. A.B, California, 22, Ph.D, 27; Harvard, 23–24. Asst. *physiol,* California, 24–27; asst. prof, Oregon, 27–28; instr, Harvard Med. Sch, 28–30; asst. prof, med. sch, California, 30–36, assoc. prof, 36–38; research fellow, nat. cancer inst, nat. inst. health, U. S. Pub. Health Service, 38–41, senior pharmacologist, 41–43; *prin. biologist, Naval Medical Research Inst, 43–* Guggenheim Mem. Foundation fellow, 36–37; biophysicist, Wash. Biophys. Inst, 38. Biologist, San Francisco Bay Marine Piling Cmt, 22. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Soc. Cancer Research; Calif. Acad; Asn. des Physiol. de la langue française; Soc. Philomatique de Paris; Soc. de Chim. biol. General and medical physiology; biological effects of light; photodynamic action; diseases caused by light; cancer.

Blum, Dr. Theodor, 101 E. 79th St, New York, N. Y. *Surgery.* Vienna, Austria, Sept. 25, 83. Gymnasium and Matura, Austria, 04; D.D.S, Pennsylvania, 09, M.D, 11; M.D, Vienna, 12. *Lieut. commander (D. C) U. S. Naval Reserve.* A.A; fel. Col. Surg; Am. Dental Asn; fel. Col. Dentists; fel. N. Y. Acad. Med; fel. N. Y. Inst. Clin. Oral Path; fel. Int. Col. Dentists. Oral surgery; conductive anesthesia.

Blum, Dr. William, National Bureau of Standards, Washington, D. C. *[4]*Chemistry.* Philadelphia, Pa, Dec. 28, 81. B.S, Pennsylvania, 03, Ph.D, 08. Instr. chem, Utah, 03–09; asst. chemist, *Bur. Standards,* 09–18, *chemist, 18–* Medal, Inst. Chem, 26. A.A; Chem. Soc; Electrochem. Soc. (pres, 26); Soc. Test. Mat; hon. mem. Electroplaters Soc; Electrodepositors Tech. Soc; Chemists' Club. Atomic weight of cadmium; complex inorganic acids; electrochemistry; electrodeposition; electrotyping; electroplating; electroforming.

Blumberg, Dr. Harold, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Biochemistry.* Fairmont, W. Va, June 19, 09. Sc.D, Hopkins, 33. Asst. pediat, sch. med, Hopkins, 33–35, instr, 35–36; assoc. biochemist, office child hygiene, U. S. Pub. Health Service, 36–38; *research biochemist, dept. biochem, sch. hygiene and pub. health, Hopkins, 38–* Nat. research fellow, sch. hygiene and pub. health, Hopkins, 34–35. Chairman ed. board, 'Child Develop. Abstracts,' 38–41. A.A; Chem. Soc; Pub. Health Asn; Soc. Exp. Biol; Soc. Research Child Develop; Inst. Nutrition. Vitamin E; minerals in nutrition; lead poisoning; vitamin A deficiency; choline and cirrhosis of liver.

Blumberg, Prof. Henry, Ohio State University, Columbus, Ohio. *[3]*Mathematics.* Zhagory, Russia, May 13, 86. A.B, Columbia, 07, A.M, 08, fellow, 09–10; Göttingen, Paris and Zurich, 10–12; Ph.D, Göttingen, 12. Instr. *math,* Nebraska, 13–14, asst. prof, 14–18; assoc, Illinois, 18–19, asst. prof, 19–25; *prof, Ohio State, 25–* Assoc. ed, 'Annals of Math,' 16–26; 'Am. Math. Monthly,' 19–20; 'Zentralblatt,' 31–39; 'Math. Revs,' 39– A.A; Math. Soc; Math. Asn. Algebraic properties of linear homogeneous differential expressions; general function theory; point sets; real functions; mathematical controversies.

Blumenberg, Dr. Karl E(dward), Hammonds Ferry and Shipley Roads, Linthicum Heights, Md. *Inorganic chemistry.* Bellaire, Ohio, Oct. 1, 14. A.B, Ohio State, 36, M.S, 39, Ph.D, 40. Asst. chem, Ohio State, 36–40; *research chemist, pigments dept, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Reaction of various elements with molten sodium amide; titanium dioxide manufacture.

Blumenfeld, Dr. Charles M(orris), Western Reserve University, Cleveland, Ohio. *Pathology.* Minneapolis, Minn, Oct. 7, 05. A.B, Minnesota, 26, A.M, 28, Ph.D, 32, M.B, M.D, 34. Teaching fellow, Minnesota, 27–31, instr. anat, 31–32; assoc. prof, Utah, 32–38; rés. *path,* City Hosp, Cleveland, Ohio, 38–42; *senior instr, Western Reserve, 42–* Endocrinology; tumors.

Blumenstock, Dr. J(ullus), 72 S. La Grange Road, La Grange, Ill. *Physiology.* Ludington, Mich, Feb. 15, 98. B.S, Chicago, 22, M.S, 23, M.D, 29. Instr, Chicago, 24–25; assoc. prof. physiol, George Washington, 25–26; *practising physician, 29–* Physiol. Soc; Am. Med. Asn. The parathyroid glands.

Blumenthal, Dr. H(erman) T(heodore), Jewish Hospital, St. Louis, Mo. *Pathology.* New York, N. Y, April 8, 13. B.S, Rutgers, 34; M.S, Pennsylvania, 36; Ph.D, Washington (St. Louis), 38, M.D, 42. Asst. *path,* sch. med, Washington (St. Louis), 39–42; *res, Jewish Hosp, 42–* Alexander Berg prize, 41. Asn. Cancer Research. Cancer; endocrinology; aging; transplantation.

Blumenthal, Prof. Leonard M(ascot), University of Missouri, Columbia, Mo. *Mathematics.* Athens, Ga, Feb. 27, 02. B.S, Ga. Tech, 23; M.S, Chicago, 24; Ph.D, Hopkins, 27. Instr. *math,* Michigan, 24–25; asst, Hopkins, 26–27, instr, 27–29; Rice Inst, 29–33; nat. research fellow, Inst. for Advanced Study, 33–34; Vienna, 34–35; asst, Inst. for Advanced Study, 35–36; asst. prof, *Missouri,* 36–39, *assoc. prof, 39–* A.A; Math. Soc; Math. Asn. Geometry; distance geometry; abstract spaces.

Blumenthal, Dr. Philip L(ee), Apt. 1, 1910 S. Third St, Louisville, Ky. *Chemistry.* Owensboro, Ky, June 9, 89. B.S, Kentucky, 09; A.M, Yale, 11, Ph.D, 12; Berlin, 12–13. Asst. chem, Yale, 10–12; asst. chemist, Exp. Sta, Iowa State Col, 13–15; research chemist, Exp. Sta, Kentucky, 15–19; junior partner, Babcock Testing Lab, 19–20; sec'y-treas, Lacteal Anal. Lab, 21–37; pres-treas, Purity Yeast Co, 35–37; *retired.* Treas, Elec. City Box Co, 33–34. C.W.S, 18. Chem. Soc. (sec'y, Lexington sect, 17); Agr. Chem; Ky. Acad. Inorganic, analytical and industrial chemistry; soils; milk and milk products.

Blumenthal, Dr. Reuben R, S. B. Penick and Co, Lyndhurst, N. J. *Biochemistry, Physiology.* Philadelphia, Pa, Nov. 5, 04. B.S, Pennsylvania, 26, M.S, 27, Harrison fellow, Ph.D, 30. Physiologist and biochemist, research and biol. labs, E. R. Squibb and Sons, 30–40; *director hormone div, S. B. Penick and Co, 40–* Summers, investigator, Marine Biol. Lab, Woods Hole, 25–30. Chem. Soc; Soc. Zool; Physiol. Soc. Phila. Physiological effects of cyanides; anesthetics; chemistry and therapeutics of ovarian hormones; liver concentrates; insulin; statistics of biological assays; pneumococcus polysaccharides.

Blumer, Dr. D(onald) R(obert), Phillips Petroleum Co, Bartlesville, Okla. *Chemistry, Physics.* Mantorville, Minn, June 17, 06. A.B, South Dakota, 27; Ph.D, Minnesota, 31. Asst. math, South Dakota, 26–27; chem, Minnesota, 27–30; anal. chemist, works lab, Gen. Elec. Co, Pittsfield, Mass, 31–33; Pa. Nat. Gas Men's Asn. fellow and research assoc, mineral indust. exp. sta, Pa. State Col, 33–37; *senior research chemist, research dept, Phillips Petrol. Co, 37–* Chem. Soc. Physical and inorganic chemistry; thermodynamics of aqueous solutions; chemical utilization of natural gas; methane conversion; production of diolefins and intermediates for synthetic rubber.

Blumer, Prof. George, 65 N. Madison Ave, Pasadena, Calif. *[2]*[1]Medicine, Pathology.* Darlington, Eng, March 16, 72. M.D, Cooper Med. Col, 91; hon. A.M, Yale, 07. Intern, City and County Hosp, San Francisco, 92–93; asst. surg, Hopkins Hosp, 93–94, med, 94–95, path, Hopkins, 95–96; director, Bender Hygienic Lab, 96–03; prof. path. and bacter, Albany Med. Col, Union (N. Y), 02–03; assoc. prof. path, Cooper Med. Col, 03–04; asst. med, California, 05–06; John Slade Ely prof. theory and practise of med, *Yale,* 06–20, dean med. faculty, 10–20, David P. Smith clin. prof. *med,* 20–39, *emer. prof, 39–* Pathologist, Albany Hosp; St. Peter's Hosp. and Child's Hosp; director bur. path. and bacter, State Dept. Health, N. Y. Trustee, Mansfield State Training Sch, Conn. A.A; Am. Physicians; Soc. Clin. Invest; New Eng. Acad; N. Y. Acad. Med. Tuberculosis of aorta and of the stomach; typhoid fever; noma; malignant neoplasms; anthrax; thymustod; thrombosis and embolism; tumor metastases in Douglas' pouch; carcinoma of the prostate; medical education; endocarditis; undulant fever; infectious jaundice; agranulocytosis; trichinosis; coronary occlusion.

Blumer, J(acob) C(orwin), Clinton, Minn. *Botany.* Engi, Switzerland, Dec. 4, 72. B.S.A, Iowa State Col, 01, 02; Michigan, 04–06. U. S. Forest Service, 01–05; asst, desert lab, Carnegie Institution, 07–08; asst. forester, Cmn. of Conservation, Can, 13–16; *landscape gardener.* Bot. explorations, 06–07, 08–13. A.A; Ecol. Soc; Iowa Acad. Forestry; agriculture; plant geography; plant collections; pine seeds; phytogeography of Chiricahua Mountains; forests of Saskatchewan; ecology of local crop plants; weeds; fungi; insects; weather; glaciation; hybrid corn.

Blumgart, Dr. Herrman L(udwig), Beth Israel Hospital, Boston, Mass. *Medicine.* Newark, N. J, July 19, 95. B.S, Harvard, 17, M.D, 21. Intern, Peter Bent Brigham Hosp, 21–22; Moseley traveling fellow of Harvard, Europe, 23; asst. *med, Harvard Med. Sch,* 24–27, faculty instr, 27–28, asst. prof, 28–29, *assoc. prof, 29–* Asst, Thorndike mem. lab, Boston City Hosp, 24–28; director med. research and visiting physician, Beth Israel Hosp, 28– A.A; Am. Med. Asn; Soc. Exp. Biol; Am. Physicians; Soc. Clin. Invest; Physiol. Soc. Diabetes insipidus; velocity of the blood flow; water metabolism; the cardiovascular system.

Blundell, Dr. George P(helan), Jefferson Medical College, Philadelphia, Pa. *Bacteriology, Immunology.* Yazoo City, Miss, July 29, 14. A.B, Mississippi, 36, grad. scholar, 36–37, A.M, 37; M.S, Vanderbilt, 38; Ph.D, Yale, 41. Teaching fellow biol, Vanderbilt, 37–39; asst. *bacter. and immunol,* sch. med, Yale, 39–41; *assoc, Jefferson Med. Col, 41–* Soc. Bact; Physiol. Soc. Phila. Virulence and toxicity of streptococci; action of sulfonamides.

Blundell, Prof. L(yle) L(incoln), Massachusetts State College, Amherst, Mass. *Horticulture.* Ottumwa, Iowa, Feb. 4, 97. B.S, Iowa State Col, 24. With Olmsted Brothers, Landscape Architects, Brookline, Mass, 24–31; *prof. hort, Mass. State Col, 31–* Ornamental horticulture.

Blunn, Dr. Cecil T(homas), Bureau of Animal Industry, U. S. Department of Agriculture, Fort Wingate, N. Mex. *Genetics.* Wichita, Kans, March 22, 07. B.S, California, 28, Ph.D, 34; M.S, Kans. State Col, 29. Asst, Kans. State Col, 28–29; technician, div. animal husbandry, California, 29–31, asst, 34–37, instr, 37–38; asst. animal husbandman, *southwest. range and sheep breeding lab, bur. animal indust, U. S. Dept. Agr,* 38–40, *assoc. animal husbandman, 40–* A.A; Soc. Animal Production; Genetic Asn. Embryological basis of size inheritance in chickens; color mutations in rats and horses; inheritance and anatomy of hydrocephaly in rats and swine; relation of genetic constitution to age of sexual maturity in rats; improvement of Navajo sheep.

Blunt, Pres. Katharine, Connecticut College, New London, Conn. *Chemistry, Home economics.* Philadelphia, Pa, May 28, 76. A.B, Vassar Col, 98; Mass. Inst. Tech, 02–03; fellow, Chicago, 06–07, Ph.D, 07; LL.D, Wesleyan, 36, Mt. Holyoke Col, 37. Asst. chem, Vassar Col, 03–05; instr, Pratt Inst, 07–08; Vassar Col, 08–13; asst. prof. food chem. and home econ, Chicago, 13–18, assoc. prof. home econ, 18–25, prof, 25–29, chairman dept, 18–29; *pres, Conn. Col, 29–* Mem, State Board Educ, Conn, 31–40. Ed. in chief, col. sect, Food Admin, 18. A.A; Home Econ. Asn. (ed. board, 'Jour,' pres, 24–26); Chem. Soc; Soc. Biol. Chem. Basal, mineral and acid metabolism; ultra-violet light and vitamin D in nutrition; college education of women.

Boak, Dr. Ruth A(lice), Rochester University School of Medicine and Dentistry, Rochester, N. Y. *Medicine.* Auburn, N. Y, 06. B.S, M.S, Cornell, 27, Ph.D, 29; fellow, Rochester, 30–33, M.D, 40. Asst. bacter, Cornell, 27–28; asst. bacteriologist, Albany Hosp, and instr. bacter, Albany Med. Col, Union (N. Y), 28–30; research assoc, sch. med. and dentistry, Rochester, 33–40; intern, Hopkins Hosp, 40–41; *research assoc, sch. med. and dentistry, Rochester, 41–* Pub. Health Asn. Undulant fever; syphilis; gonorrhoea; effects of artificially induced fevers.

Boardman, Dr. Edward T(horpe), Cranbrook Institute of Science, Bloomfield Hills, Mich. *Invertebrate zoology.* New York, N. Y, July 23, 04. Oberlin Col, 22–24; B.S, Florida, 28, M.S, 29; Sc.D, Hopkins, 33. Asst, Hopkins, 29–31; curator aquatic biol, *Cranbrook Inst. Science,* 33–34, *zoologist, 34–* Collaborator, museum zool, Michigan, 34– Summer, instr, Florida, 29. Mem. advisory board, Midwest Museums Conf, 41– Soc. Parasitol; Limnol. Soc; Asn. Museums; Mich. Acad; Mich. Audubon Soc. (pres, 41–); Detroit Audubon Soc; fel. Detroit Acad. Nat. Sciences. Distribution and biology of Florida ticks; culture and behavior of pre-parasitic nematode larvae; relationships between population fluctuations in certain rodents and in the numbers of their helminth parasites; aquatic ecology of Oakland County, Michigan.

Boardman, Dr. Harold Sherburne, University of Maine, Orono, Maine. *Engineering.* Bangor, Maine, March 31, 74. B.C.E, Maine, 95, C.E, 98, D.E, 22; Mass. Inst. Tech, 95–96; D.E, R. I. Col; LL.D, Colby Col, 27, Bates Col, 29. Tutor drawing, Maine, 96–99; draftsman, Union Bridge Co, Pa, 99–00; Am. Bridge Co, 00–01; instr. civil eng, Maine, 01–03, assoc. prof. and head dept, 03–04, prof, 04–26, dean col. technol, 10–26, acting pres, 25–26, pres, 26–35; *retired.* Water investigations, Maine, 03–05; U. S. Geol. Surv, 05–11; consulting engineer, State Highway Cmn, Maine, 13–17; in charge materials testing labs, 13–26. Civil Eng; Eng. Educ. (v. pres, 23, pres, 30, chairman, div. deans and administrative officers, 24–26, sec'y, New Eng. sect, 25, pres, 30); Asn. Land-Grant Cols. and Univs. (chairman, eng. sect, 25); Maine Asn. Eng.

Boardman, H(arry) C(low), 10357 S. Hoyne Ave, Chicago, Ill. *Engineering.* Plainfield, Ill, April 29, 87. B.S, Illinois, 10, C.E, 26; hon. D.E, S. Dak. State Sch. Mines, 43. Draftsman and chief draftsman, Chicago Bridge and Iron Co, 10–16; in business, 19–22; engineer and supt. construction, Int. Filter Co, Chicago, 22–24; instr. civil eng, Illinois, 24–26; *research engineer, Chicago Bridge and Iron Co, 26–* Mem. div. eng. and indust. research, Nat. Research Council; chairman univ. research cmt, welding research council, Eng. Foundation. F.A, 16–19, major. A.A; Civil Eng; Welding Soc. (pres, 38); Mech. Eng. (boiler code cmt); Soc. Metals; West. Soc. Eng. Arcs, chords and versines.

Boardman, Prof. H(orace) P(rentiss), University of Nevada, Reno, Nev. *Civil engineering.* Menasha, Wis, Jan. 21, 69. B.S, Wisconsin, 94, C.E, 11. Engineer, sanit. dist. of Chicago, 94–96; asst. engineer, Chicago and Alton Ry, 97–01; C. M. and St. Paul Ry, 01–04; designing engineer, 05; supt, Savage Construction Co, 04, 06; prof. *civil eng, Nevada,* 07–39, *emer. prof, 39–, director eng. exp. sta, 21–* Civil Eng; Eng. Educ; West. Soc. Eng. Cement and concrete; wind pressures on roofs; snow surveys for forecasting steam runoff; dam design.

Boardman, Dr. Leland J, Colesville Road, 8728 Silver Springs, Md, *Physics.* New York, N. Y, May 15, 84. A.B, Oberlin Col, 10; Nebraska; Ph.D, Cornell, 22. Asst. physics, Nebraska, 10–13; instr, Stevens Inst. Tech, 13–20; Cornell, 20–23, Heckscher research asst, 33–34; prof, Houghton Col, 23–28; physicist, RCA Radiotron Co, 30–32; calculator and mathematician, Am. Locomotive Co, 34–36; teacher, Scranton-Keystone Junior Col, Pa, 41–42; *physicist, Hopkins, 42–* Optical Soc; Physical Soc. Fluorescence; cando-luminescence; ballast lamps.

Boardman, Dr. William W(alter), Jr, Care of Mrs. Walker, 518 Rose Hill Ave, Cumberland, Md. *Physical chemistry.* Rugby, N. Dak, June 2, 16. A.B, Coe Col, 38; M.S, Iowa, 40, Ph.D, 42. Lab. asst. gen. chem, Coe Col, 37–38; asst. physical chem, Iowa, 38–40, chem, 40–42; *instr. chem. and head physical div, S. Dak. State Sch. Mines, 42–* Chem. Soc; Iowa Acad. The streaming potential and electrokinetics of the flow of dilute potassium acetate through platinum capillary; determination of electrokinetic potential in the flow of a semiconducting liquid through a single capillary; effect of electrostatic forces on electrokinetic potential.

Boarts, Prof. Robert M(arsh), Jr, University of Tennessee, Knoxville, Tenn. *Chemical engineering.* Kittanning, Pa, Feb. 2, 04. B.S, Lafayette Col, 26; M.S, Michigan, 32, univ. fellow, 33–34, Ph.D, 37. Senior inspector of construction, Detroit Water Board, 27–29; chem. engineer and chief draftsman, Comstock and Westcott, Inc, Niagara Falls, N. Y, 29–31; asst, Michigan, 32–34; from asst. prof. *chem. eng. to prof. and head dept, Tennessee, 34–* From asst. chem. engineer to senior chem. eng. in charge cooperative chem. eng. research lab, Tenn. Valley Authority, 34–; consulting engineer, Bur. Mines, 39– Chem. Eng; Eng. Educ. Heat transfer; phosphate technology; manganese technology.

Boas, Dr. Ernst P(hilip), 1185 Park Ave, New York, N. Y. *Medicine.* Worcester, Mass, Feb. 4, 91. B.S, Columbia, 10, A.M, 12, M.D, 14. Instr. path, Columbia, 17, physiol, 19–20; med. director, Montefiore Hosp, 21–28; *assoc. physician, Mt. Sinai Hosp, 28–; asst. clin. prof. med, Columbia, 31–* Trustee, N. Y. Tuber. and Health Asn, 28– Chief med. service, Base Hosp. No. 63, U.S.A, 17–19. Am. Med. Asn; Soc. Clin. Invest; Harvey Soc; N. Y. Acad. Med; N. Y. Heart Asn. (chairman, 32–42). Diseases of the heart and arteries; chronic diseases.

Boas, Dr. R(alph) P(hilip), Jr, 2708 Legion Ave, Durham, N. C. *Mathematics.* Walla Walla, Wash, Aug. 8, 12. A.B, Harvard, 33, Sheldon traveling fellow, 33–34, Ph.D, 37. Instr. math, Harvard, 36–37; nat. research fellow, Princeton and Cambridge, 37–39; *instr. math,* Duke, 39–42; *U. S. Navy Pre-Flight Sch, Chapel Hill, N. C, 42–* Math. Soc; Math. Asn; N. C. Acad; London Math. Soc. Laplace integrals;

moment problems; harmonic analysis; functions of a complex variable.

Boast, Prof. W(arren) B(enefield), 1115 Curtiss, Ames, Iowa. *Electrical engineering.* Topeka, Kans, Dec. 13, 09. B.S, Kansas, 33, M.S, 34; Ph.D, Iowa State Col, 36. Instr. *elec. eng, Iowa State Col,* 36–40, *asst. prof,* 40– Summers, city eng. depts, Ames and Webster City, Iowa. Elec. Eng; Eng. Educ; Illum. Eng. Soc. Conductometric analyses of Portland cements; illumination engineering.

Boatman, Dean A(rchie) O(scar), Carthage College, Carthage, Ill. *Physics.* Olney, Ill, Oct. 23, 85. A.B, Indiana, 22, A.M, 27. Teacher, high schs, 13–15; *instr. physics, Carthage Col,* 18–20, 22–, *dean men, 24–, chairman faculty, 42–* Asn. Physics Teachers; Math. Soc; Ill. Acad. Formulae of interpolation.

Boatner, Dr. Charlotte H(arriet), U. S. Department of Agriculture, New Orleans, La. *Chemistry.* New Orleans, La, Dec. 3, 08. B.S, Tulane, 30; French Govt. fellow, Inst. de Biol. physicochim, Paris, 30–31, diploma, 31; Ph.D, Michigan, 36. Lab. asst. chem, Newcomb Col, Tulane, 31–34, asst. prof, 36–42; *assoc. chemist, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* A.A; Chem. Soc; La. Acad; New Orleans Acad. Organic and physico-organic chemistry; organo-metallic and phenanthrene derivatives and reactions; Beckmann rearrangement; history of chemistry; isolation and properties of allergens; cotton seed pigments.

Boatright, Dr. Byron B(lackburn), 1906 Second National Bank Bldg, Houston, Texas. *Petroleum engineering.* Colorado Springs, Colo, Feb. 10, 00. E.M, Colo. Sch. Mines, 22; Ph.D, Colorado, 36. Roustabout and toolie, Midwest Ref. Co, 22–25; junior asst. and assoc. engineer, U. S. Bur. Mines, 25–26; dist. engineer, Marland Oil Co, 26–28; prof. petrol. production and head dept. petrol. eng, Colo. Sch. Mines, 28–36; *partner, Foran, Boatright and Dixon, 36–* Consulting petrol. and nat. gas engineer, 36– Petroleum development and production; recycling and repressuring oil and gas fields.

Bobb, Prof. (Thomas) Newton, 1008 Second Ave, W, Ashland, Wis. *Zoology, Botany.* Muscoda, Wis, Dec. 11, 85. A.B, Northland Col, 12; A.M, Wisconsin, 22, 29. *Prof. biol, Northland Col, 12–* Marine Biol. Lab, Woods Hole, 13. A.A; Genetic Asn; Wis. Acad. Protozoa and herbarium of northern Wisconsin; Typhaceae of Lake Wingra.

Bobbitt, Dr. Blanche G(authier), 1506 Linda Rosa Ave, Los Angeles, Calif. *Biochemistry.* Hopkinton, N. H, June 20, 01. A.B, Southern California, 22, M.S, 27, Ph.D, 41, 41–Instr. chem, Southern California, 20–22, asst. biochem, med. sch, 37–39; *teacher chem. and physics, City Board Educ, Los Angeles, 27–* Critic teacher, City Board Educ, Los Angeles and Southern California, 39– Chem. Soc. Isolation of sterols from cottonseed stearin; effect of glycogen on the oxidation of butyrate by rat liver slices; gas warfare manual for civilian defense; design of fresh-tissue sectioning knife.

Bobbitt, Prof. Joseph M(atthew), Michigan State College, East Lansing, Mich. *Psychology.* St. Joseph, Mo, Oct. 26, 08. A.B, Southern California, 31, A.M, 32; Ph.D, Northwestern, 37. Instr. *psychol, Mich. State Col,* 37–41, *asst. prof, 41–* Assoc. Psychol. Asn. Perception.

Bobonis, Prof. Augusto, University of Puerto Rico, Rio Piedras, P. R. *Mathematics.* Humacao, P. R, June 20, 07. A.B, Puerto Rico, 27, M.S, 34; Ph.D, Chicago, 39. Instr. math. and physics, St. Augustine Mil. Acad, P. R, 27–30; critic teacher physics, *Puerto Rico,* 30–34, instr, 34–39, asst. prof, 39–40, *assoc. prof. math, 40–* Math. Soc. Boundary value problems.

Bobrovnikoff, Prof. N(icholas) T(heodore), Perkins Observatory, Delaware, Ohio. *Astronomy.* Starobielsk, Russia, April 29, 96. Inst. Min. Eng, Petrograd, 14–17; Kharkov, 17–18; certificate, Prague, 21–24; Ph.D, Chicago, 27. Kellogg fellow, Lick Observatory, California, 27–29, nat. research fellow physics, 29–30; asst. prof. astrophys, *Ohio Wesleyan,* 30–34, *assoc. prof. astron, 34–; Ohio State, 35–,* acting director, *Perkins Observatory, Ohio Wesleyan and Ohio State,* 34–37, *director, 37–* Summer, asst, Yerkes Observatory, Chicago, 27. A.A; Astron. Soc; Hist. Sci. Soc; Astron. Soc. Pacific. Physical theory of comets; minor planets; stellar spectroscopy.

Boche, Dr. Robert D(eVore), University of Pennsylvania, Philadelphia, Pa. *Cytogenetics.* Prairie City, Oregon, Feb. 11, 12. B.S, Calif. Inst. Tech, 34, Ph.D, 38. Asst. cytogenetics, Carnegie Institution, 37–39; asst. prof. *zool,* North Carolina, 39–40; *instr, Pennsylvania, 40–, research fellow, Harrison dept. surg. research, sch. med, 42–* Genetics Soc; assoc. Soc. Zool. Mechanism of chromosome aberration; physiology of the nucleus; chromosome electron micrography.

Bochner, Prof. S(alomon), Princeton University, Princeton, N. J. ***Mathematics.* Podgorze, Poland, Aug. 20, 99. Ph.D, Berlin, 21. Lecturer, Munich, 27–32; assoc, *Princeton,* 33–34, asst. prof. *math,* 34–39, *assoc. prof, 39–* Int. Educ. Board fellow, Copenhagen, Oxford, Cambridge, 25–27. Math. Soc. Almost periodic functions; difference equations; Fourier integrals; abstract spaces.

Bock, Dr. A(rlie) V(ernon), Massachusetts General Hospital, Boston, Mass. *Medicine.* New Albin, Iowa, Dec. 30, 88. A.B, Upper Iowa, 10; M.D, Harvard, 15; Ph.D, Cambridge, 29. Moseley traveling fellow, *Harvard Med. Sch,* 20–21, asst. prof. med, 24–31, assoc. prof, 31–35, *Henry K. Oliver prof. hygiene, 35–* Assoc, Mass. Gen. Hosp, 25–26, assoc. physician, 26–27, physician, 27– Peruvian high altitude exped, 22. A.A; Am. Med. Asn; Soc. Clin. Invest; Am. Physicians. Blood volume and flow; acid-base equilibrium in diabetic coma; physico-chemical system of the blood; physiology of muscular exercise and of reactions to high external temperature.

Bock, Dr. Charles D(ickens), 1 Christopher St, New York, N. Y. *Physics.* Mishawaka, Ind, Jan. 11, 08. A.B, Kalamazoo Col, 29; Loomis fellow, Yale, 30–31, Ph.D, 33. Sterling fellow, Yale, 34–35; *physicist,* Cooperative Distributors, New York, 35–36; *Arma Corp, Brooklyn, 36–* A.A; Physical Soc. Ions in gases; instruments; voltage regulator.

Bock, Prof. Joseph C(arl), Marquette University School of Medicine, Milwaukee, Wis. *Physiological chemistry.* Vienna, Austria, June 18, 84. Chem. Eng, Polytech, Vienna, 09; Ph.D, Cornell, 17. Chemist, Swift and Co, 09–11; instr. physiol. chem, Mich. State Col, 11–12; research chemist, nutrition lab, Carnegie Institution, 12–13; instr. chem, med. col, Cornell, 13–18; *prof. physiol. chem, Marquette, 18–* Soc. Biol. Chem. Urine analysis; colorimetry; micro blood analysis; micro analytical methods; interferometry.

Bock, Dr. Robert O(liver), 1 Christopher St, New York, N. Y. *Physics.* Kalamazoo, Mich, Jan. 12, 12. A.B, Kalamazoo Col, 34; M.S, Iowa, 36; Ph.D, Cornell, 42. Instr. physics and applied math, Westminster Col. (Utah), 36–38; asst. physics, Cornell, 38–42; *develop. engineer, Arma Corp, 42–* Summers, instr, Ariz. State Teachers Col, 40, 41. Optical constants of metals.

Bockstahler, Dr. L(ester) I(rving), Northwestern University, Evanston, Ill. *Physics.* Santa Claus, Ind, July 22, 95. A.B, Indiana, 20, A.M, 21; Ph.D, Northwestern, 24. Instr. *physics, Northwestern,* 21–27, asst. prof, 27–34, *assoc. prof, 34–* Lieut, A.S, 18–19. A.A; Physical Soc; Asn. Physics Teachers. Thermionics; ionization potentials; electrical discharge in gases; structure of films; electron diffraction; low temperatures; liquid hydrogen.

Bodansky, Dr. Aaron, Hospital for Joint Diseases, 1919 Madison Ave, New York, N. Y. *Biochemistry.* Elizabethgrad, Russia, May 25, 87. B.S, Cornell, 15, fellow, 15–16, Ph.D, 21. Asst. biochem, Cornell, 16–17, instr, 17–26; *research chemist,* Upjohn Co, 26–27; *Hosp. for Joint Diseases, 28–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc; Harvey Soc; assoc. fel. N. Y. Acad. Med. Enzymes; effects of thyroxin and insulin on carbohydrate metabolism; parathyroid function; mineral and bone metabolism; phosphatase; experimental pathology of liver.

Bodansky, Dr. Oscar, 15 Bank St, New York, N. Y. *Medicine, Biochemistry.* Russia, Aug. 21, 01. A.B, Columbia, 21, A.M, 22, Ph.D, 25; M.D, Chicago, 38. Asst. chem, Columbia, 25–26; research assoc. biochem, California, 26–27; instr. pharmacol, Texas, 27–28, asst. prof, 28–29, assoc. prof, 29–30; instr. pediat, N. Y. Univ, and chemist, children's med. div, Bellevue Hosp, 30–37; *lecturer biochem, Brooklyn Col, 39–; capt, Med. Corps, U. S. Army, 42–* A.A; Am. Med. Asn; Soc. Pharmacol; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. Kinetics of enzyme action; tissue phosphatases; blood phosphorus compounds; bromide excretion; clinical aspects of vitamin A and D deficiencies; biochemistry of disease; pediatrics.

Bodé, Prof. Donald D(enby), University of Tampa, Tampa, Fla. *Chemistry.* Memphis, Tenn, Oct. 30, 06. B.S, Southwestern (Tenn), 29; M.S, Virginia, 33, Ph.D, 34. Chief

chemist, Cooper Products, Cleveland, 33-35; consulting chemist, Memphis, Tenn, 35; asst. prof. *chem, Tampa, 35-36, prof, 36–* Solvay system; cellulose for rayon from the Australian pine.

Bode, Prof. Francis D(ashwood), California Institute of Technology, Pasadena, Calif. *Geology.* Laramie, Wyo, April 2, 05. B.S, Calif. Inst. Tech, 30, M.S, 31, Ph.D, 34. Asst. geol, *Calif. Inst. Tech,* 30-31, teaching fellow, 31-34, asst. curator vert. paleont, 34-36, instr. *geol,* 36-41, *asst. prof, 41–* Vert. paleontologist in charge expeds, Calif. Inst. Tech, north. Mex, 35-36; geologist, for. service, Standard Oil Co. of Calif, 37-39. Asn. Petrol. Geol. Structural geology; stratigraphy; petroleum geology.

Bode, Dr. Hendrik W(ade), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Engineering.* Madison, Wis, Dec. 24, 05. A.B, Ohio State, 24, A.M, 26; Ph.D, Columbia, 35. Asst. math, Ohio State, 25-26; *research dept, Bell Tel. Labs, 26–* A.A; Radio Eng; Elec. Eng; Math. Soc. Communication engineering; electrical wave filters and other networks.

Bode, I(rwin) T(heodore), 1002 Adams St, Jefferson City, Mo. *Forestry.* Keokuk, Iowa, Feb. 15, 91. B.S, Iowa State Col, 15, M.S, 21. Prof. forestry, Iowa State Col, 19-21; state exten. forester, Iowa, 21-32; director, Am. Sch. Wildlife Protection, McGregor, Iowa, 30-31; chief exec, Iowa Fish and Game Cmn, 32-35; conservationist, div. wildlife research, bur. biol. surv, *U. S. Dept. Agr,* 35-36, senior exten. biologist, exten. service, 36-37; *director, State Conserv. Cmn, Mo, 37–* Soc. Mammal; Soc. Foresters; Ecol. Soc; Wildlife Soc. Conservation; biology.

Bödecker, Prof. Charles F(rancis), Columbia University School of Dental and Oral Surgery, 630 W. 168th St, New York, N. Y. *Dentistry.* New York, N. Y, Sept. 2, 80. Sachs Collegiate Inst; D.D.S, Buffalo, 00; Berlin, 00-07. Asst. prof. *oral histol. and embryol, sch. dental and oral surg, Columbia,* 23-24, assoc. prof, 24-26, *prof, 26–* Assoc. ed, 'Jour. Dental Educ.' A.A; fel. Col. Dentists; assoc. fel. N. Y. Acad. Med; Int. Asn. Dental Research (pres, 42). Oral histology; causes of dental caries and their relation to systemic conditions.

Bodemann, Prof. Elsie, East Texas State Teachers College, Commerce, Texas. *Zoology.* Lockhart, Texas, Jan. 17, 99. A.B, Southwest Texas State Teachers Col, 29; A.M, Texas, 32, Ph.D, 36. Tutor zool, Texas, 31-36; asst. prof. *biol,* Ala. Col, 36-39; *prof, E. Texas State Teachers Col, 39–* Embryology.

Bodenberg, Dr. E(mmett) T(heodore), Wittenberg College, Springfield, Ohio. *Plant physiology.* Napoleon, Ind, July 14, 00. B.S, Capital Univ, 25; M.S, Ohio State, 26; Loretta Denny fellow, Washington (Seattle), 27-28, Ph.D, 28. Instr. biol, Capital Univ, 25-26; *asst. prof,* Whitman Col, 28-30; bot, Oklahoma, 30-31; *biol, Wittenberg Col, 31–* Summer, ranger naturalist, U. S. Nat. Park Service, Yellowstone Nat. Park, 29, 31-35, Mt. Rainier Nat. Park, 36– A.A; Ohio Acad. Tissues concerned in the movement of mineral salts in plants; lateral transfer of mineral salts in stems; conduction in Nereocystis luetkeana; cryptogamic botany; moss flora and fungi of Mt. Rainier National Park.

Bodenstein, Dr. William G(eorge), Babylon, N. Y. *Entomology.* Woodhaven, N. Y, Nov. 24, 13. B.S, Cornell, 36, M.S, 38, Dow Chem. Co. fellow, 40, Ph.D, 41. *Instr. entom, Cornell, 38–* Entom. Soc; Brooklyn Entom. Soc. Economic entomology; taxonomy and biology of Chrysididae.

Boder, Prof. D(avid) P(ablo), 4880 Sheridan Road, Chicago, Ill. *Psychology.* Libau, Russia, Nov. 9, 86. Psycho-Neurol. Inst, St. Petersburg, Russia; A.M, Chicago, 27; Ph.D, Northwestern, 34. Prof. *psychol,* Mexico, 21-25; instr, *Ill. Inst. Tech,* 28-30, *prof, 30–,* acting head dept. psychol. and philos, 35-37, head dept, 37-40. Chief psychotechnique and mental hygiene dept, Mex. Fed. Dist. Govt, 22-25; in charge psychol. investigations, Nat. Sch. Agr. and Mil. Col, Mexico City, 22-25; research psychologist, Inst. Juvenile Research, 27; staff psychologist, Michael Reese Hosp, 27-33. Trustee and exec. director, psychol. museum, Ill. Inst. Tech, 37– Mem. permanent cmt, Nat. Cong. Criminol, Mexico City, 23. A.A; Psychol. Asn; Chicago Psychol. Club (v. pres, 34, pres, 35). Adaptation of Stanford-Binet scale for Mexico; intelligence and achievement rating of the Mexican population; motor and perceptual skill; reciprocal movement; fatigue; concomitant activity; visual space perception; wants of adolescents; auditory localization.

Bodian, Dr. D(avid), 2109 Adelbert Road, Cleveland, Ohio. *Neuroanatomy.* St. Louis, Mo, May 15, 10. B.S, Chicago, 31, William Wilder Jr. fellow, 33-34, Ph.D, 34, M.D, 37. Asst. anat, Chicago, 34-35, senior asst, 35-38; nat. research fellow, Michigan, 38; research fellow, Hopkins, 39-40; *asst. prof. anat, Western Reserve, 40–* Lecturer, Hopkins, 41. A.A; Asn. Anat. Visual mechanisms in mammals; mammalian thalamus; comparative neurology; nerve tissue staining methods; synapse; neural mechanisms in poliomyelitis.

Bodily, Dr. Howard L(ynn), University of Maryland, College Park, Md. *Bacteriology.* Whitney, Idaho, Nov. 21, 11. B.S, Idaho, 35; res. fellow, Iowa State Col, 35-36, M.S, 36; Ph.D, Colorado, 38. Asst. *bacter,* med. sch, Colorado, 36-38; *instr, Maryland, 38–* Soil Sci. Soc; Soc. Bact. Soil microbiology; microbiology of decomposing soil organic matter.

Bodine, Prof. E(ddie) W(alter), Colorado State College, Ft. Collins, Colo. *Plant pathology.* Denver, Colo, Jan. 5, 06. B.S, Colo. State Col, 28, M.S, 29; California, 39. Asst. prof. *bot. and plant path, Colo. State Col,* 30-34, *assoc. prof, 35–* Phytopath. Soc. (special cmt. nomenclature and classification of plant viruses); Colo-Wyo. Acad. Vegetable and cereal diseases; virus diseases of stone fruits; peach mosaic; apricot ring spot; golden-net disease of peach; x-disease of peach; rasp leaf disease of cherry.

Bodine, Prof. J(oseph) H(all), State University of Iowa, Iowa City, Iowa. ***Zoology.* Lake Hopatcong, N. J, Sept. 19, 95. A.B, Pennsylvania, 15, Ph.D, 20. Instr. zool, Pennsylvania, 15-16, 20-25, asst. prof, 25-28, prof, 28-29; *prof. zool. and head dept, Iowa, 29–* Director, Iowa Lakeside Lab. Ed. board physiol. and zool, 'Jour. Morphol.' Chairman sci. advisory cmt, Biol. Lab, Cold Spring Harbor; mem. exec. cmt, div. agr. and biol, Nat. Research Council, 33, v. chairman div, 34; mem, State Basic Science Board, Iowa, 35– M.C, U.S.A, 17-20. A.A; Soc. Zool. (v. pres, 33); Soc. Exp. Biol; Soc. Nat. (v. pres, 38, pres, 40); Physiol. Soc; Micros. Soc; Physiol. Soc. Phila. General physiology.

Bodle, Ralph R(obinson), 424 Farragut St, N. W, Washington, D. C. *Seismology.* Owego, N. Y, June 3, 95. A.B, Hamilton Col, 21; Cornell, 24. In charge magnetic observatory and seismograph sta, Vieques, P. R, *U. S. Coast and Geod. Surv,* 21-24, magnetic field work, magnetic observatory, Tucson, and office work, Washington, D. C, 24-28, *magnetic observer, sect. seismol, 28–* Ed, 'Earthquake Notes,' 29-37. Seismol. Soc. (chairman east. sect, 41); Philos. Soc. Wash. Earthquakes in the United States.

Bodman, Prof. G(eoffrey) B(aldwin), University of California, Berkeley, Calif. *Soils.* Barking, Eng, Oct. 11, 94. B.S.A, Saskatchewan, 19; M.S, Minnesota, 24, Ph.D, 27. Instr. soil technol, *California,* 27-29, asst. prof, 29-31, assoc. prof, 31-39, *prof. soil physics, 39–* Summer, asst. prof, Minnesota, 27. A.A; Soil Sci. Soc. (chairman soil-physics sect, 39); Soc. Agron; Geophys. Union; West. Soc. Soil Sci. (pres, 41). Soil profile; physical properties of soils; water movement through soils.

Bodman, J(ohn) W(hittlesey), 18 Wedgemere Ave, Winchester, Mass. *Chemical engineering.* Knoxville, Tenn, Oct. 4, 88. B.S, Mo. Sch. Mines, 10; Ch.E, Missouri, 17. Chem. director and manager of mfg, N. K. Fairbanks Co. and Am. Cotton Oil Co, 10-18; gen. manager, William Garrigue Co, 18-25; *research director, Lever Brothers Co, 25–* A.A; Chem. Eng; Chem. Soc; Inst. Chem; Indust. Research Inst. Effect of traces of iron and copper in soaps on discoloration and rancidity; spray drying; hydrogenation of edible oils; hydrogen purification; phase conditions of soaps; process developments in soaps and edible oils; glycerin distillation; fatty acid distillation.

Bodo, Dr. Richard C(harles) de, 477 First Ave, New York, N. Y. *Pharmacology.* Brasso, Hungary, 95. Gymnasium, Budapest; M.D, Budapest, 20. Asst. prof. pharmacol, Univ. Pecs, Hungary, 20-25, assoc. prof, 25-26, physiol, 26-29; asst. prof. *pharmacol,* Univ. and Bellevue Hosp. Med. Col, 29-34, *assoc. prof, col. med, N. Y. Univ, 34–* Rockefeller fellow, univ. col, London, and Nat. Inst. Med. Research, Hempstead, 25-27. A.A; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; Harvey Soc; N. Y. Acad; N. Y. Acad. Med. Carbohydrate metabolism; physiology and pharmacology of the heart and pharmacology of the pituitary gland; pharmacology of morphine and barbiturates.

Boeder, Dr. Paul (Anton Kurt), Hillside Road, Southbridge, Mass. *Optics.* Hamburg, Germany, April 25, 02

A.M, Pennsylvania, 26; Ph.D, Göttingen, 31. Instr. math, Delaware, 26–27; prof, Susquehanna, 32–35; *research mathematician, Am. Optical Co, 35–* Math. Soc; Math. Asn; Optical Soc. Mechanical birefringence; ophthalmic lenses.

Boegehold, A(lfred) L(indley), General Motors Research Laboratories, Detroit, Mich. *Metallurgy.* Mt. Vernon, N. Y, Oct. 31, 93. M.E, Cornell, 15. Machine operator, Remington Arms and Ammunition Co, 15–16, time study engineer, 16, machinist, 16, brass mill foreman, 17, metallographer, 17–18, metallurgist, small arms, 18–19, cutlery, 19–20; *research labs. div, Gen. Motors Corp,* 20–25, *head metal. research dept, 25–* Campbell Mem. lecturer, Am. Soc. Metals, 38. J. H. Whiting prize, Am. Foundrymen's Asn, 29; Mod. Pioneer award, Nat. Asn. Mfrs, 40; J. H. Whiting gold medal, Am. Foundrymen's Asn, 42. Metallurgist, Ordnance Dept, U.S.A, 19. Soc. Metals (sec'y, Detroit chap, 37, chairman, 38); Soc. Test. Mat. (v. chairman, cmt. on cast iron); Foundrymen's Asn. (v. chairman, cmt. on alloy cast iron; chairman, cmt. cupola research, 40); Min. and Metal. Eng. Cast iron; pig iron; fatigue testing of steel; wear testing; hardenability of steel; malleable iron; bearing metals.

Boehmer, Norris, 246 Parkland Ave, Kirkwood, Mo. *Organic chemistry.* Salt Lake City, Utah, May 5, 97. B.S, Utah, 18. Research chemist, Ellis Labs, 20–25; Van Schaack Brothers Chem. Works, 25–31, chief chemist, 31–36; *operation supt, Monsanto Chem. Co, 36–* Chem. Soc. Chlorinated rubber; esterification; dehydrogenation; synthesis from olefins.

Boehnlein, Prof. Charles (Thompson), 2004 Grand Ave, S, Minneapolis, Minn. *Aeronautical engineering.* Minneapolis, Minn, Sept. 1, 93. B.S, Minnesota, 17, M.E, 19. Instr. math. and mech. and later *assoc. prof. aerodynamics, Minnesota, 19–* U.S.N, 17–18. A.A; Inst. Aeronaut. Sci. Aerodynamics; hydraulics; reaction of a nozzle on a flat plate; integration of the theoretical expression for drag; air density tables.

Boeker, Prof. G(ilbert) F, 37 Washington Square West, New York, N. Y. *Physics.* New York, N. Y, April 29, 05. A.B, Columbia, 25, B.S, 26, M.E, 27, Tyndall fellow, 31–33, Ph.D, 33. Research engineer, Foster Wheeler Co, 27–28; asst. and instr. physics, Columbia, 29–31; *instr. math, Col. City of N. Y, 33–;* res. procurement manager, underwater sound labs, U. S. Navy, 41–42; *research engineer, Office Sci. Research and Develop, 42–* Physical Soc; Math. Soc; Mech. Eng. Magnetism; thermodynamics.

Boell, Prof. E(dgar) J(ohn), Yale University, New Haven, Conn. *Zoology.* Rudd, Iowa, Oct. 30, 06. A.B, Dubuque, 29; Ph.D, Iowa, 35. Research assoc. zool, Iowa, 34–37; Rockefeller Foundation fellow, Cambridge, 37–38; instr. *biol, Yale,* 38–40, asst. prof, 40–41, *assoc. prof, 41–* Summer, assoc. prof, California, 41. A.A; Soc. Zool; Soc. Study Growth and Develop; Physiol. Soc. Respiratory metabolism in orthopteran development; enzymes in ontogenesis; morphogenesis and metabolism in amphibian development; metabolism of the protozoa.

Boelter, Prof. Llewellyn M. K, University of California, Berkeley, Calif. *Mechanical engineering.* Winona, Minn, Aug. 7, 98. B.S, California, 17, J. W. Mackay, Jr, fellow, 17–19, M.S, 18. Instr. elec. eng, *California,* 19–23, asst. prof. exp. eng, 23–27, assoc. prof, 27–30, *mech. eng,* 30–34, *prof, 34–,* agr. engineer, Exp. Sta, 40. Testing agent, State Dept. Motor Vehicles, Calif, 19– Mech. Eng. (exec. cmt, heat transfer div); Chem. Soc; Chem. Eng; Eng. Educ; Acoustical Soc; Soc. Automotive Eng; Illum. Eng. Soc. (headlight cmt). Heat transfer; thermodynamics.

Boelter, Dr. Muriel (Daphne Diana), 2638 Fulton St, Berkeley, Calif. *Biochemistry.* Berkeley, Calif, Feb. 6, 15. A.B, California, 36, fellow, 36–41, Abraham Rosenberg fellow, 39–40, Ph.D, 40. *Instr. chem, San Francisco Junior Col, 41–* A.A; Chem. Soc. Dietary mineral deficiencies.

Boerner, E(mil) G, U. S. Department of Agriculture, Beltsville, Md. *Agricultural economics.* Buffalo, Minn, Feb. 27, 78. B.S. (Agr), Minnesota, 05. *Food distribution admin, U. S. Dept. Agr, 06–, senior market specialist, grain investigations.* Bot. Soc. Wash. Grain and rice grade standardization, handling, harvesting, storage and transportation; moisture testing; mechanical separation of grain and rice.

Boerner, Dr. Frederick, Graduate Hospital, 18th and Lombard Sts, Philadelphia, Pa. *Veterinary medicine.* April 27, 89. D.V.M, Pennsylvania, 12. Director div. labs, State Bur. Animal Indust, Pa, 12–23; *bacteriologist, grad. hosp. and grad. sch. med, Pennsylvania, 23–, assoc. prof. clin. bacter, grad. sch. med, and asst. prof, sch. med, 32–* Serological field director, State Dept. Health, Pa, 39– Soc. Bact; Soc. Clin. Path; Vet. Med. Asn; Pa. State Vet. Med. Asn. Serology; complement fixation and flocculations tests for the diagnosis of syphilis and other diseases; hematology; laboratory technique.

Boese, Dr. A(lbert) B(ernard), Jr, Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Chemistry.* Newark, N. J, Dec. 14, 06. B.S, Princeton, 28, A.M, 29, Ph.D, 31. Asst. chem, Princeton, 28–30; research chemist, Merck and Co, Rahway, N. J, 30–33; indust. fellow, Mellon Inst, 33–40; *research chemist, Carbide and Carbon Chem. Corp, 40–* Alkyl derivatives of hydroxylamine; local anesthetics; organic arsenicals; synthetic aliphatic chemistry; ketene and diketene.

Boesel, Prof. M(arion) W(aterman), R. R. 2, Oxford, Ohio. *Entomology, Zoology.* Columbus, Ohio, March 25, 01. A.B, Ohio State, 25, A.M, 29, Ph.D, 39. Asst. zool. and entom, Ohio State, 25–28; instr. *zool, Miami (Ohio),* 28–29, asst. prof, 29–41, *assoc. prof, 41–* Asst. biologist, State Conserv. Div, Ohio, 29–31; asst. entomologist, State Nat. Hist. Surv. Div, Ill, 38–39. Summers, asst. prof, Stone Lab, Ohio State, 40– A.A; Entom. Soc. Amer; Ornith. Union; fel. Ohio Acad. Ohio midges; insect food of lake fishes; fossil Chironomidae and Ceratopogonidae.

Boeshore, Prof. Irwin, University of Pennsylvania, Philadelphia, Pa. *Botany.* Lickdale, Pa, Nov. 12, 83. B.S, Pennsylvania, 15, Ph.D, 20. Asst. *bot, Pennsylvania,* 13–16, instr, 16–25, *asst. prof,* 25– A.A; Bot. Soc; Pa. Bot. Soc. (sec'y, 25–28, pres, 42–). Morphology; paleobotany.

Boetticher, Prof. Albert W(esley), 26 W. Mulberry St, Athens, Ohio. *Botany.* Clarington, Ohio, Dec. 29, 85. B.S, Ohio (Athens), 17; M.S, Ohio State, 29. Teacher, schs, Ohio, 05–10, supervisor, high schs, 11–14; *assoc. prof. civic biol. and bot, Ohio (Athens), 16–* Asst, white pine surv, Nat. Forest Service. A.A. Ecological forest survey of southern Ohio.

Boettiger, Dr. Edward G(eorge), University of Maryland Medical School, Baltimore, Md. *Endocrinology.* Long Island City, N. Y, Jan. 7, 11. A.B, Brown, 33, A.M, 35; Ph.D, Harvard, 39. Asst. biol, Harvard, 35–39; instr. *physiol,* med. sch, *Maryland,* 39, fellow, 40–41, *instr, med. and dental schs, 41–* Sex physiology.

Bogardus, Dr. James F(urnas), 114 Cornell Ave, Swarthmore, Pa. *Geography.* New York, N. Y, March 26, 96. A.B, Swarthmore Col, 21; Ph.D, Pennsylvania, 27. Instr. econ, Cincinnati, 21–22; Swarthmore Col, 22–23; geog. and indust, *Pennsylvania,* 23–30, *asst. prof. geog, 30–; price exec, Office Price Admin, 41–* Deputy sec'y forests and waters, Pa, 35–36, sec'y, 36–39. Asn. Geog; Nat. Council Geog. Teachers. Economic geography of western Europe; conservation of resources of the United States.

Bogart, Dr. Ralph, University of Missouri, Columbia, Mo. *Animal husbandry.* Lawson, Mo, Nov. 30, 08. B.S, Missouri, 34; M.S, Kans. State Col, 36; Ph.D, Cornell, 40. Asst. genetics, Kans. State Col, 34–36; animal physiol. and genetics, Cornell, 36–38; *instr. animal husbandry, Missouri, and agent, U. S. Dept. Agr, 38–* Asn. Anat; Soc. Animal Production; Genetics Soc; Genetic Asn; Mo. Acad. Inheritance and physiology of reproduction in farm animals.

Bogen, Dr. Emil, Olive View, Calif. *Biology, Medicine.* New York, N. Y, Sept. 8, 96. A.B, 19; M.D, Cincinnati, 23, fellow, M.S, 27. Res. physician, Los Angeles Hosp, 24–26; Cincinnati Gen. Hosp, 26–27; fellow, Harvard, 28; asst. prof. bacter, Cincinnati, 28–29; *pathologist and research director, Olive View Sanatorium, Calif, 29–; lieut. commander, Med. Corps, U. S. Naval Res. and lab. officer, Norfolk Naval Hosp, 42–* Alvarenga prize, Phila, 27; research prize, Calif. Med. Asn, 23, 27, 30. A.A; Pub. Health Asn; Soc. Exp. Biol; Tuber. Asn; Am. Med. Asn; Soc. Clin. Path. Experimental biology and medicine; biochemistry; pharmacology; physiology; bacteriology; pathology; chemotherapy; arachnidism; alcoholism; tuberculosis; cancer.

Bogert, Charles M(itchill), American Museum of Natural History, New York, N. Y. *Herpetology.* Mesa, Colo, June 4, 08. A.B, California at Los Angeles, 34, A.M, 36. Teaching asst, California at Los Angeles, 34–36; asst. curator dept. herpetol, *Am. Museum Nat. Hist,* 36–41, asst. curator in charge, 41–42, assoc. curator *in charge dept. amphibians and reptiles,* 42–43, *curator, 43–* Carnegie Corp. grant in aid, Mex,

39. Summer, instr, California at Los Angeles, 42. Soc. Ichthyol. and Herp. (v. pres, 41); fel. N. Y. Acad. Behavior, distribution, taxonomy and morphology of the reptiles of southwestern deserts; African reptiles; morphology, taxonomy, relationships, distributions and habits of cobras; phylogeny of snakes.

Bogert, Prof. Marston T(aylor), Columbia University, New York, N. Y. **'Chemistry.* Flushing, N. Y, April 18, 68. A.B, Columbia, 90, fellow, Ph.B, 94, hon. Sc.D, 29; LL.D, Clark, 09; R.N.D, Charles Univ, Czechoslovakia, 28. Asst. *org. chem, Columbia,* 94-97, tutor, 97, instr, 97-01, adj. prof, 01-04, prof, 04-40, *emer. prof, 40–*, head dept, 10-11. Lecturer, N. Y. Univ, 19-20; consultant, U. S. War Dept, 26–; 1st visiting Carnegie prof, Charles Univ, Czechoslovakia, 27-28; v. pres, Am. Year Book Corp, 36–, pres, 42–; mem. referee board, War Production Board, 42–; nat. advisory board, Masaryk Inst, 42– Chairman, Am. Cmn. Org. Chem. Nomenclature, 12; organizer and chairman div. chem. and chem. technol, Nat. Research Council, 16-17, mem, 28–; collaborator, bur. chem. and soils, U. S. Dept. Agr, 28– Ed, 'Jour. Org. Chem,' 36– Trustee, N. Y. Museum Science and Indust, 15–; mem. sci. cmt, board managers, N. Y. Bot. Garden, 28–; mem. consulting board, Inst. Cancer Research. Nichols medal, Chem. Soc, 03, Priestley gold medal, 38; medals, Charles Univ, Czechoslovakia, and Bratislava Univ, Czechoslovakia, 28; Am. Inst. Chemists, 36. White House Conf. on Conservation Nat. Resources, 08; v. chairman exec. cmt, Int. Cong. Applied Chem, Wash, D. C, and N. Y, 12. Col, C.W.S, 18-19. Nat. Acad; A.A. (gen. cmt, 01-16); Chem. Soc. (chairman, New York sect, 01, sect. org. chem, 05, pres, 07, 08, councilor, 08–, director, 14, assoc. ed, 'Jour,' 28-30); hon. mem. Soc. Chem. Indust. (v. pres, 02-04, pres, 12); Philos. Soc; Am. Acad; Am. Inst. (trustee, 34–); Chemists' Club (sec'y, 98-01, pres, 08); London Chem. Soc; hon. fel. Royal Soc. Edinburgh; Deuts. Chem. Gesell; Soc. chim. de France (pres, Am. sect, 20); hon. mem. Soc. de Chim. indust. (pres, Am. sect, 20, councilor, 21–); Schweiz. Chem. Gesell; Nederlandsche Chem. Vereen; hon. mem. Polish Chem. Soc; for. mem. Royal Soc. Bohemia; Int. Union Chem. (pres, 38–42). Synthetic organic chemistry.

Boggs, Hugh M(cAndrew), 303 Old Post Office Bldg, Pittsburgh, Pa. *Chemistry.* Bentonville, Ark, Feb. 1, 04. A.B, Arkansas, 26; M.S, Emory, 28; Iowa State Col, 28-29; Polytech. Inst. Brooklyn, 36-39. Asst. agr. chem, Arkansas, 26-27; junior chemist, food and drug admin, U. S. Dept. Agr, 29-30, asst. chemist, bur. chem. and soils, 30-35, bur. plant indust, 35-36; *food and drug admin, Fed. Security Agency,* New York, 36-40, *Pittsburgh, Pa,* 40-42, *assoc. chemist, 42–* Chem. Soc. Foods; soils; fertilizers; hydrogen ion concentration of soils; determination of zinc in soils.

Boggs, Prof. (Nannie) Isabel, Randolph-Macon Woman's College, Lynchburg, Va. *Physics.* Moore, S. C, April 29, 90. A.B, Chicora Col, 07, West. Col. for Women, 11; A.M, Randolph-Macon Woman's Col, 24; Chicago, 24, 28, 30. Asst. math, Western Col, 11-12; instr, Winthrop Col, 12-18, bookkeeper, 18-20; instr. *physics, Randolph-Macon Woman's Col,* 20-24, adj. prof, 24-38, *assoc. prof, 38–* A.A; Physical Soc; Va. Acad.

Boggs, S(amuel) W(hittemore), 219 Elm St, Chevy Chase. Md. *Geography.* Coolidge, Kans, March 3, 89. B.L, Berea Col, 09; A.M, Columbia, 24. Ed. of maps, World Missionary Atlas, 21-24; *geographer, U. S. Dept. State, 24–* Summers, mem. faculty, Columbia, 39-42. U. S. Geog. Board, 24-34, chairman exec. cmt, 27-34; Fed. Board Surveys and Maps, 26-42. Mem. nat. cmt, Int. Geog. Union, 31–; cmt. areas int. concern, div. geol. and geog, Nat. Research Council, 37-42; sec'y-treas, Am. Council Learned Socs, 41– Tech. adviser, Am. delegation, Conf. for the Codification of Int. Law, The Hague, 30; del, Int. Geog. Cong, Cambridge, 28, Paris, 31, Warsaw, 34; del. and chairman cmt. I, Pan-Am. Inst. Geog. and Hist, Lima, 41. A.A; Am. Geog. Soc; Asn. Geog. (councilor, 41–); Royal Geog. Soc; cor. mem. Geog. Soc. Lima. Political geography; territorial waters; cartography; international boundaries.

Bogin, Dr. Maxwell, 144 Golden Hill St, Bridgeport, Conn. *Medicine.* Brooklyn, N. Y, Dec. 26, 01. B.S, Yale, 23, M.D, 26. Intern, *Jewish Hosp, Brooklyn,* 26-28, res. pediat, 29-30, *asst. pediatrician, dispensary, 30–* A.A. Gangrene produced by dietary means; idiopathic cardiac enlargement associated with status thymicolymphaticus; encephalography and empyema in children; amyloidosis.

Bogrow, Alexander, 313 Allston St, Brookline, Mass. *Chemical engineering.* Russia, March 15, 11. B.S, Drexel Inst. Tech, 31; M.S, Pennsylvania, 33. Chem. engineer, Casmite Co, Calif, 33-34; research chemist, United Gas Improv. Co, Pa, 34-36; *chem. engineer,* Cent. Inst. Aviation Fuels and Oils, Moscow, 36-38; Winkler-Koch Eng. Co, Kans, 39-40; *Arthur D. Little, Inc, 41–* Chem. Soc. Chemistry of petroleum refining; hydrocarbons; fuels; manufacture of gasoline and carbon black; improvement of analytical methods; extraction of butadiene; rates of reaction in a blast furnace; application of catalysis to petroleum refining.

Bogue, Dr. R(obert) H(erman), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Boston, Mass, Sept. 27, 89. B.S, Tufts Col, 12; M.S, Mass. Col, 15; Ph.D, Pittsburgh, 20. Asst. chem, Mass. Col, 12-14, instr, 14-15; asst. prof, Mont. Col, 15-17; fellow, Mellon Inst, 17-22; assoc. prof, Lafayette Col, 22-24; *research director, Portland Cement Asn. fellowship, Bur. Standards, 24–* Cmt. on colloids, Nat. Research Council. Chem. Soc. (sec'y-treas, Lehigh Valley sect, 23, ed, 'Octagon,' 23); Inst. Chem; Concrete Inst; Wash. Acad. Ion adsorption; hydrolysis; sodium silicates; colloidal phenomena; glues and gelatines; constitution, phase equilibria, thermal reactions and hydration of Portland cement.

Bogusch, E(dwin) R(obert), Texas College of Arts and Industries, Kingsville, Texas. *Botany.* Mason, Texas, June 6, 05. A.B, A.M, Texas, 28. Syst. botanist, Illinois, 28-30; instr. bot. and curator herbarium, State Col. Wash, 30-34; agent, U. S. Dept. Agr, 34-36; teacher *biol,* schs, Texas, 36-41; *instr, Texas Col. Arts and Indust, 41–* Summer, asst, U. S. Nat. Herbarium, 28; assoc. botanist, div. for. plant introd, bur. plant indust, U. S. Dept. Agr. A.A; Bot. Soc. Plant physiology.

Boguslavsky, Prof. Boris W(illiam), University of Akron, Akron, Ohio. *Civil engineering.* Vladivostok, Russia, Sept. 21, 09. B.S, Washington (Seattle), 34, M.S, 35; Sc.D, Mass. Inst. Tech, 38. Bridge designer, Seattle, Wash, 35-36; State Dept. Highways, 37, 38; instr. and asst. prof. civil eng, Utah, 38-42; assoc. prof. and *prof. struct. eng, Akron, 42–* Civil Eng. Prediction of airplane wing weights.

Bohart, Dr. Richard M(itchell), 408 Hilgard Ave, Los Angeles, Calif. *Entomology.* Palo Alto, Calif, Sept. 28, 13. B.S, California, 34, M.S, 35, Ph.D, 38. Asst, California, 35-37; assoc. entom, *California at Los Angeles,* 38-39, *instr. entom. and junior entomologist, Exp. Sta, 39–; malariologist and ensign, Med. Corps, U. S. Naval Res, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Pacific Coast Entom. Soc. Entomology with respect to floriculture; insects affecting ornamental plants; taxonomy and biology of Strepsiptera and Vespidae.

Bohlin, Prof. Howard Grenville, 43 W. 93rd St, New York, N. Y. *Geology, Machine design.* Jersey City, N. J, Oct. 9, 92. E.M, Columbia, 16, A.M, 25; Ph.D, N. Y. Univ, 35. Mining engineer and geologist, 15-17; junior engineer, U. S. S. 'Nansemond,' 17-18; mining engineer and geologist, Midvale Steel Co, 19-20; Mexico Transcontinental Oil Co, El Aguila Oil Co. and Am. Smelting and Ref. Co, 20-22; instr. vocational guidance and machine design, Col. City of N. Y, 22-25; dean freshmen, Columbia Grammar Sch, 25-29; asst. curator in charge bldgs. and grounds, *Col. City of N. Y,* 34-42, lecturer *mech. drawing,* 29-34, asst. prof, 34-36, *assoc. prof, 36–* Chairman, Pub. Improv. Cmt, and director. Uptown Chamber of Commerce, New York, 36. A.A; Eng. Educ; Soc. Mil. Eng; Munic. Eng; Min. and Metal. Eng; Asn. Professional Eng. Pensauken formation; Cretaceous sands and clays of New Jersey.

Bohn, Dr. G(uy) W(eston), P. O. Box 1250, Cheyenne, Wyo. *Plant pathology.* Jefferson City, Mo, Sept. 18, 09. A.B, Missouri, 30, A.M, 33, Ph.D, 40. Asst. plant path. and bot, Missouri, 31-37; instr. genetics, Agr. and Mech. Col. Texas, 38; agent, *Cheyenne hort. field sta, bur. plant indust, U. S. Dept. Agr,* 38-40, *asst. plant pathologist, 40–* Instr, Stephens Col, 36. Disease-resistance in crop plants.

Bohn, Prof. J(acob) Lloyd, Temple University, Philadelphia, Pa. *Physics.* Lickdale, Pa, Nov. 16, 96. B.S, Pa. State Col, 24; Harvard, 24-26; Ph.D, Calif. Inst. Tech, 28. Asst, Pa. State Col, 23-24; Harvard, 24-26; Calif. Inst. Tech, 26-28; instr. *physics, Temple,* 28-31, asst. prof, 31-36, assoc. prof, 36-43. *prof, 43–* A.A; Physical Soc; Aeronaut. Asn; Asn. Physics Teachers. X-rays and radioactivity; Flemish technique; electricity.

Bohnenblust, Dr. (Henri) Frédéric, Princeton University, Princeton, N. J. *Mathematics.* Neuchâtel, Switzerland, March 22, 06. Licencié, École polytech, Zurich, 28; Ph.D, Princeton, 31. Instr. *math, Princeton,* 31–33, asst. prof, 33–39, *assoc. prof, 39–* Ed, 'Annals of Math.' A.A; Math. Soc; Math. Asn. Analysis.

Bohnson, Dr. V(an) L(orens), 2328 Pennsylvania Ave, Wilmington, Del. *Chemistry.* Clinton, Iowa, March 19, 91. B.S, Wisconsin, 13, M.S, 16, Ph.D, 20. Chemist, Clinton Sugar Ref. Co, 13–14; instr. chem, Pa. State Col, 14; asst, Wisconsin, 14–17, instr, 19–21, asst. prof, 21–23; research chemist, Oldbury Electrochem. Co, Niagara Falls, 23–27; research chemist and supervisor, du Pont Rayon Co, 27–34, manager chem. research, rayon dept, *E. I. du Pont de Nemours and Co,* 34–40, asst. director *acetate research,* 40, *director, 40–* C.W.S, 17–19, major. Chem. Soc. (sec'y, Wis. sect, 22; chairman, west. N. Y. sect, 27; councilor, Va. sect, 40). Physical and inorganic chemistry; catalysis and promoter action in homogeneous systems; acetic anhydride; cellulose acetate and rayon.

Bohren, Dr. B(ernard) B(enjamin), Purdue University, Lafayette, Ind. *Poultry genetics.* Omaha, Nebr, Aug. 15, 14. B.S, Illinois, 37; M.S, State Col. Wash, 40; Ph.D, Kans. State Col, 42. Instr. vocational agr, schs, Ill, 37–38; *asst,* State Col. Wash, 38–39; poultry husbandry, Kans. State Col, 39–43; *poultry husbandry and agr. chem, Purdue, 43–* Poultry Sci. Asn; Genetics Soc. Poultry physiology.

Bohstedt, Dr. G(ustav), University of Wisconsin, Madison, Wis. *Animal industry.* Gnissau, Holstein, Germany, June 22, 87. B.S, Wisconsin, 15, M.S, 16, Ph.D, 25. Asst. animal husbandry, Wisconsin, 15–16; Iowa State Col, 16–17; instr. and asst. prof, Wisconsin, 17–21; chief dept. animal indust, Ohio Exp. Sta, 21–28; *prof. animal and dairy husbandry, col. agr, Wisconsin, 28–, chairman dept. animal husbandry, 43–* Soc. Animal Production (sec'y-treas, 21–23, v. pres, 23–25, pres, 25). Animal nutrition.

Bois, Prof. Elphège, Laval University, Quebec, Que, Can. *Biochemistry.* St. Gabriel de Stratford, Que. B.A, Laval, 20, L.Sc, 24; D.Sc, Fribourg, 27. *Prof. biochem. and bact. and head dept, faculty sciences, Laval, 28–,* prof. chem, faculty med, 29–35. Fed. official analyst, 30. Inst. Food Tech; Can. Chem. Asn; fel. Can. Inst. Chem; Que. Chem. Soc; Soc. de Chim. biol. Spectrography; fluorescence; maple sugar; amylases.

Boissevain, Prof. Charles H(ercules), Colorado College, Colorado Springs, Colo. *Bacteriology.* Amsterdam, Holland, Oct. 18, 93. M.D, Amsterdam, 19; Pasteur Inst, Brussels, 21–23. *Director lab, Colo. Foundation Research Tuber, 24–; research prof. biol, Colo. Col, 24–* A.A. Immunology; biochemistry of bacteria; water chemistry.

Boisvert, Dr. Paul L(eo), 789 Howard Ave, New Haven, Conn. *Pediatrics.* Keene, N. H, Oct. 29, 07. B.S, Hobart Col, 30; M.D, Rochester, 34; fellow, Yale, 36–37. Intern, Strong Mem. Hosp, 34–35; junior res, St. Louis Children's Hosp, 35–36; asst. *pediat, sch. med, Yale,* 37–38; instr, 38–42, *asst. prof, 42–; mem. cmn. hemolytic streptococcal infections, U. S. Army, 42–* Asst. res. pediatrician, New Haven Hosp, 37–38, res. pediatrician, 38–39, assoc. pediatrician, 39–42. Soc. Bact; Soc. Pediat. Research. Infectious diseases.

Bok, Prof. Bart J(an), Harvard University, Cambridge, Mass. ***Astronomy.* Hoorn, Holland, April 28, 06. Agassiz fellow, Harvard, 29–30; Leiden, 26; Ph.D, Groningen, 32. Asst, Kapteyn lab, Groningen, 27–29; R. W. Willson teaching fellow, *Harvard,* 30–33, asst. prof. *astron,* 33–39, *assoc. prof, 39–* Asn. Sci. Workers; Astron. Soc. Stellar statistics.

Boke, Dr. Noeman (Hill), Johns Hopkins University, Baltimore, Md. *Biology.* Mobridge, S. Dak, March 14, 13. A.B, South Dakota, 34; M.S, Oklahoma, 36; Ph.D, California, 39. Instr, bot, California, 39–40, exp. work in genetics and cytol, bot. gardens, 40–41; *instr. biol,* New Mexico, 41–42; *Hopkins, 42–* Developmental plant morphology, particularly of the Cactaceae.

Bold, Prof. H(arold) C(harles), Barnard College, Columbia University, New York, N. Y. *Botany.* New York, N. Y, June 16, 09. A.B, Columbia, 29, fellow, 31–32, Ph.D, 33; M.S, Vermont. Instr. bot. and asst. botanist, Exp. Sta, Vermont, 29–31; instr. *bot,* Vanderbilt, 32–39; visiting lecturer, *Barnard Col, Columbia,* 39–40, *asst. prof, 40–; lieut, U. S. Naval Res, 42–* Instr, Marine Biol. Lab, Woods Hole, 30; staff mem, Chesapeake Biol. Lab, 34–37. A.A; Soc. Plant Taxon; Sullivant Moss Soc; Bot. Soc; Torrey Bot. Club (cor. sec'y, 41). Cytology; algae.

Boldyreff, Dr. Alexander W(illiam), 2309 E. Fifth St, Tucson, Ariz. *Chemistry, Mathematics.* Petrograd, Russia, Sept. 30, 03. B.S, Michigan, 26, M.S, 27, fellow, 28–30, Ph.D, 30. Asst. physiol, Battle Creek Sanitarium, 23–25; anal. chem, Michigan, 26–28; asst. prof. chem. *Arizona,* 30–32, *math,* 32–36, *assoc. prof, 36–* A.A; Math. Soc; Math. Asn; Edinburgh Math. Soc. Quantitative determination of mercury and calcium; potentiometric titration methods and electrode systems; analytical organic reagents; differential equations; infinitely continued radicals; number theory.

Boldyreff, Dr. W(illiam) N(icolas), 124 Manchester St, Battle Creek, Mich. *Physiology.* Voronezh, Russia, Jan. 10, 73. M.D, Mil. Med. Acad, Russia, 98. Assoc. prof, Mil. Med. Acad, Russia, 02–12; prof. anat. and pub. health, Imperial Lyceum, St. Petersburg, 11–12; pharmacol. and toxicol, Kazan Univ, 12–18; lecturer, Japanese univs, 20–21; assoc. physiologist, Western Reserve, 22; *director Pavlov physiol. inst, Battle Creek Sanitarium, 23–* Pokrovsky prize, 03; Pavlov prize, 06; Int. Hygienic Exhib. prize, Dresden, 11; Order of the Rising Sun, Japan. Hon. mem. Esthonian Med. Soc; Int. Soc. Med. Hydrol. Physiology of digestive systems and brain; pathology of the pancreas; periodical activity of the digestive system; regurgitation of pancreatic juice into the stomach; pancreatic triad; cerebral activity; physiological essence of diabetes and its treatment; hemophilia; general law of pathology; a simple and exact spirometer; digestive ferments; etiology of anemia; etiology of acute yellow atrophy of the liver.

Bole, B(enjamin) P(atterson), Jr, 1712 Sheridan Road, South Euclid, Ohio. *Mammalogy, Ecology.* Bratenahl, Ohio, Sept. 9, 08. A.B, Harvard, 31; A.M, Western Reserve, 36. *Assoc. in charge mammal, Cleveland Museum Nat. Hist, 31–* Mem. and leader, Cleveland Museum Nat. Hist. expeds. Trustee, Hawken Sch; mem. admin. board, Holden Mem. Arboretum, chairman, 38–; mem. board managers, Cleveland Museum Nat. Hist, 38– Am. Geog. Soc; Soc. Mammal; Ecol. Soc; Ornith. Union; fel. Ohio Acad. Plant and animal ecology; ornithology; northeastern Ohio ecology; mammalogy of Ohio and western United States and Panama.

Bole, Prof. G(eorge) A(ddison), 30 Jeffrey Place, Columbus, Ohio. *Ceramic engineering.* Beaver Falls, Pa, Feb. 29, 84. B.S, Geneva Col, 06, Sc.D, 35; Pres. Barnard fellow, Columbia, 11, M.S, 11; Sc.D, Alfred, 29. Teacher, high sch, P. R, 07–09; prof. chem, Alfred, 12–17; N. Y. State Sch. Ceramics, 17–21; physical chemist, U. S. Bur. Mines, 21–22, supt. ceramics sta, 22–24, supervising ceramist, 24–26; *prof. ceramic research, Ohio State, 26–* Manager, Orton Ceramic Foundation. Ceramic Soc. (pres. and trustee, 29); Soc. Test. Mat; Inst. Chem; Eng. Educ; Refractories Inst; Ohio Ceramic Indust. Asn. (sec'y, 26–29). Ceramics; fuels; sorel cements; refractories; cyanite; cellular clay products.

Bole, Prof. Simeon James, Taylor University, Upland, Ind. *Biology.* Mich, March 25, 75. A.B, Michigan, 07; A.M, Illinois, 12; Ph.D, Iowa State Col, 34. Sch. supt, Mich, 02–06; Wis, 07–09; assoc. pomol, Illinois, 09–18; prof. biol, Wheaton Col. (Ill), 19–33; U. S. Nat. Parks, 34–35; *prof. biol,* John Fletcher Col, 36–43; *Taylor, 43–*

Bolen, Dr. Homer R(oscoe), Southeast Missouri State Teachers College, Cape Girardeau, Mo. *Zoology.* Shirley, Ind, July 30, 01. A.B, Indiana, 23, A.M, 25; Ph.D, Texas, 33. Asst. zool, Indiana, 23–25; instr. biol, Southeast Mo. State Teachers Col, 25–28; zool, Texas, 29–32; *prof. biol, Southeast Mo. State Teachers Col, 32–* A.A; Audubon Soc. Mo. (treas, 34–); Mo. Acad. (chairman, biol. surv. cmt, 40–). Genetics; cellular respiration; specific dynamic action; growth rate of fishes; chromosomal translocations.

Boliek, Dr. (Mildred) Irene, Florida State College for Women, Tallahassee, Fla. *Zoology.* Hickory, N. C, April 18, 07. A.B, N. C. Col. for Women, 29; A.M, North Carolina, 33, Ph.D, 36. Teacher, high sch, N. C, 29–31; asst. zool, North Carolina, 32–35; asst. prof. biol, Ala. Col, 35–36; instr. and later *asst. prof. zool, Fla. State Col. for Women, 36–* A.A; N. C. Acad; Fla. Acad. Cellular behavior; degeneration phenomena in sponge larvae; syncytial structures in sponge larvae and of lymph plasmodia of sea urchins.

Bolin, Dr. Rolf L(ing), Hopkins Marine Station, Pacific Grove, Calif. *Ichthyology.* New York, N. Y, March 22, 01.

A.B, Utah, 25; A.M, Stanford, 29, fellow, 29–30, Ph.D, 34. Asst. *oceanog, Hopkins Marine Sta,* 30–34, instr, 34–37, asst. prof, 37–40, *assoc. prof, 40–,* acting director, 36, *asst. director, 37–* Soc. Ichthyol. and Herp. (v. pres, west. div, 30–36, pres, 37); West. Soc. Nat; Calif. Acad. Taxonomy, morphology and embryology of fishes.

Boling, Prof. Leroy R(obb), 4559 Scott Ave, St. Louis, Mo. *Anatomy.* Willapa, Wash, Jan. 1, 05. A.B, Linfield Col, 28; M.S, Washington (St. Louis), 30, Ph.D, 35. Teaching fellow, *Washington (St. Louis),* 28–30, instr. biol. and histol, *sch. dentistry,* 30–35, *asst. prof. anat. and histol, 35–, sec'y faculty, 39–* Asst. ed, 'Jour. Dental Research,' 39–A.A; Int. Asn. Dental Research. Tissue regeneration; dental histology and pathology.

Bollay, Dr. W(illiam), 11 Garfield Road, Belmont, Mass. *Aeronautics.* Stuttgart, Germany, Jan. 14, 11. B.S, Northwestern, 33; M.S, Calif. Inst. Tech, 34, Ph.D, 36. Wind-tunnel asst, Calif. Inst. Tech, 33–34, teaching fellow and math. asst. to Dr. Th. von Kármán, 34–36, instr. aeronaut. eng, 36–37; applied mech, Harvard, 37–41; *reserve officer, bur. aeronautics, U. S. Navy, 41–;* consulting engineer, United Aircraft Corp, 40–41. Assoc. fel. Inst. Aeronaut. Sci. Aerodynamics; wing theory; compressibility effects; wing flutter; superchargers; propellers; applied mathematics; theory of thin shells.

Bollen, Dr. W(alter) B(eno), Oregon State Agricultural College, Corvallis, Oregon. *Soil chemistry, Bacteriology.* Portland, Oregon, April 18, 96. B.S, Oregon State Col, 21, M.S, 22; Gypsum Industries research fellow, Iowa State Col, 22–24, Ph.D, 24. Asst. bacter, Oregon Col, 21–22; asst. chemist, Idaho and Exp. Sta, 25–30; asst. prof. *bacter, Oregon State Col,* 29–37, *assoc. prof, 37–, assoc. bacteriologist, Exp. Sta, 30–* Chem. Soc. Sulfur oxidation in soils; analysis of soil solutions; hydrogen ion determination; organic decomposition in soils; microbial characteristics of forest soil horizons; bacterial growth stimulants; oxidation-reduction potentials in soils.

Bolles, Dr. M(ary) Marjorie, 722 W. 168th St, New York, N. Y. *Psychology.* New York, N. Y, March 1, 13. A.B, Vassar Col, 34; A.M, Columbia, 35, Ph.D, 37. Asst. psychol, Columbia. 35–36; *research fellow, N. Y. Psychiat. Inst,* 37–Assoc. Psychol. Asn. Psychosexual factors in the personality development of normal, neurotic, psychotic and physically handicapped individuals; psychological processes of abstraction in schizophrenic patients; abnormal psychology.

Bolley, Prof. Henry L, Fargo, N. Dak. *[1]*Botany, Bacteriology.* Holman, Ind, Feb. 1, 65. B.S, Purdue, 88, M.S, 89. Instr. biol, Purdue, 89–90; *prof. bot. and zool, N. Dak. Col, 90–, dean div. biol, 08–, botanist, Exp. Sta, 90–* State seed commissioner, N. Dak, 09–29. Columbian Expos, 93. A.A; Bot. Soc; Soc. Agron; Phytopath. Soc. Bacteriology of milk, water and soil; phytopathology of smuts and rusts of cereal grains; seed and soil-infesting fungi of cropping plants; breeding for disease resistance.

Bolling, George E(verett), City Hall, Brockton, Mass. *Bacteriology.* Brockton, Mass, June 17, 75. Mass. Inst. Tech; Harvard. Asst. city chemist, *Brockton, Mass,* 96–97, *city chemist and bacteriologist, 98–* Lecturer, Mass. Inst. Tech, 14–15; chief lab. service, Camp Fremont, 17–18. Soc. Bact; Chem. Soc; Pub. Health Asn; Int. Asn. Dairy and Milk Inspectors (pres, 23). Serology; diagnostic and milk bacteriology.

Bollinger, Prof. C(lyde) J(ohn), University of Oklahoma, Norman, Okla. *Geography.* Charlotte, Mich, Oct. 24, 88. A.B, Michigan, 15; M.S, Chicago, 22. *Head dept. geog, Oklahoma, 22–,* asst. prof. and *assoc. prof.* A.A. Humidity provinces of Oklahoma; geography of Oklahoma; distribution of population in central Oklahoma; climatic and crop yield cycles in the Southwest.

Bollman, Dr. Harry T(homas), 6632 Merry Lane, Houston, Texas. *Chemistry.* Springfield, Ill, June 4, 05. B.S, Eureka Col, 27; M.S, Northwestern, 28, Ph.D, 31. Asst, Northwestern; bibliographer and research chemist, Universal Oil Products Co, Chicago, 30–34; St. Louis sales rep, Wilkens-Anderson Co, 36–37; technologist, *Shell Oil Co, Inc,* Wood River Refinery, 37–38, *research chemist, Houston Refinery, 38–* Chem. Soc; fel. Am. Petrol. Inst. Electrolysis in non-aqueous solution; thermal decomposition of hydrocarbons.

Bollman, Dr. Jesse L, Mayo Clinic, Rochester, Minn. *Pathology.* Springfield, Ill, Feb. 19, 96. A.B, Illipois, 17, B.S, 22, M.D, 23; M.S, Michigan, 18. Instr. bacter, med. sch, Michigan, 17–18; asst. physiol. chem, Illinois, 19–22; 1st asst. and instr. *exp. path, Mayo Foundation, Minnesota,* 23–26, asst. prof, 26–31, *assoc. prof, 31–* Soc. Exp. Path. (councilor, 38; v. pres, 40, pres, 41); Am. Med. Asn; Soc. Exp. Biol; Cent. Soc. Clin. Research. General physiology and pathology; cirrhosis of the liver; peptic ulcer.

Bollman, Dr. V(ernon) L(eroy), 1600 Campus Road, Los Angeles, Calif. *Physics.* Omaha, Nebr, April 26, 08. B.S, Nebraska, 31, M.S, 33; Ph.D, Calif. Inst. Tech, 36. Teaching fellow math, Nebraska, 31–33; asst. *physics, Calif. Inst. Tech,* 34–36, *research fellow, 36–; instr, Occidental Col, 36–* Physical Soc. Physical constants; x-rays; crystal structure.

Bolser, Prof. C(harles) E(rnest), 18 Rope Ferry Road, Hanover, N. H. *Organic chemistry.* Amesbury, Mass. A.B, Dartmouth Col, 97; Ph.D, Göttingen, 01. Instr. *org. chem, Dartmouth Col,* 01–04, asst. prof, 04–14, *prof, 14–* Chem. Soc. Organic and physiological chemistry.

Bolt, Dr. Richard A(rthur), Cleveland Child Health Association, 1001 Huron Road, Cleveland, Ohio. *Public health.* St. Louis, Mo, March 12, 80. Washington (St. Louis), 99–00; A.B, Michigan, 04, M.D, 06; grad. P.H, California, 17, Dr.P.H, 24; fellow, Hopkins, 24–25, Dr.P.H, 25. Intern, St. Vincent's Charity Hosp, Cleveland, 07–08, pathologist and visiting physician, 07–09; acting med. director, Babies' Dispensary and Hosp, 09–10; med. director, U. S. Indemnity Col, Pekin, 11–16; chief bur. child hygiene, Dept. Health, Cleveland, 17–18; instr. and assoc. pediat, Western Reserve, 17–20; lecturer, Hopkins, 20–25, sch. hygiene and pub. health, 23–25; asst. prof. child hygiene, California, 25–29; *assoc. pub. health and pediat, Western Reserve,* 29– Director, Cleveland Child Health Asn, 29– Oberlaender award from Carl Schurz Mem. Foundation Phila, Germany and Austria, 33. Summers, lecturer, California, 20–; Stanford, 23. Advisory board, 'Living Age.' Gen. director, Am. Child Hygiene Asn, and sec'y-treas, Nat. Child Health Council, 20–22; hygiene reference board, Life Exten. Inst. Fel. Pub. Health Asn; Am. Med. Asn; Cleveland Acad. Med; hon. mem. Cleveland Dental Soc; Med. Missionary Asn. China; Int. Soc. Crippled Children (cmt. on prevention and research); Asn. int. de Pédiat. prév. Child welfare; health.

Bolt, Dr. Richard H(enry), 10 Mott St, Arlington, Mass. *Physics, Acoustics.* Peking, China, April 22, 11. A.B, California, 33, A.M, 37, Ph.D, 39; Berlin, 33–34; Hattie Heller scholar, California at Los Angeles, 37–38, univ. fellow, 38–39. Nat. research fellow *physics,* Mass. Inst. Tech, 39–40; *assoc, Illinois, 40–; research assoc, Mass. Inst. Tech, Nat. Defense Research Cmt, 41–* Biennial award, Acoustical Soc. Amer, 42. Fel. Acoustical Soc; Physical Soc. Wave acoustics; normal modes of vibration in room acoustics; sound distribution in irregular rooms; acoustic impedance and other properties of sound-absorbing materials.

Bolton, Dr. E(lmer) K, 2310 W. 11th St, Wilmington, Del. *[6]*Chemistry.* Philadelphia, Pa, June 23, 86. A.B, Bucknell, 08, Sc.D, 32; A.M, Harvard, 10, Ph.D, 13; Kaiser Wilhelm Inst, 13–15. Director chem. sect, dyestuffs dept, *E. I. du Pont de Nemours and Co,* 21–29, gen. asst. chem. director, 29–30, *chem. director, 30–* Trustee, Bucknell, 37– Chem. Soc. (director, 40–); Soc. Chem. Indust; Chem. Eng.

Bolton, Prof. Euri Belle, Box 97, Milledgeville, Ga. *Psychology.* Parrott, Ga, Feb. 22, 95. Gen. Educ. Board fellow, Peabody Col, 22–25, B.S, 23, A.M, 24, Ph.D, 30. Prin, sch, 15–16; high sch, 16–18; exten. worker, *Ga. State Col. for Women,* 18–22, *prof.* psychol, 25–28, *psychol. and educ, 28–* A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Relation of memory to intelligence; measurement of social attitudes; measurement of attitudes towards mathematics; predictive value of placement tests in the guidance program.

Bolton, Dean F(rank) C(leveland), College Station, Texas. *Electrical engineering.* Pontotoc, Miss, March 24, 83. B.S, Miss. Agr. and Mech. Col, 05; Chicago; Cornell; Wisconsin; M.S, Ohio State, 28; LL.D, Austin Col, 32. Instr. physics, Miss. Agr. and Mech. Col, 05–09; assoc. prof. *elec. eng, Agr. and Mech. Col. Texas,* 09–10, *prof, 10–,* director, 17–19, *dean* sch. eng, 22–37, *col, 31–, v. pres, 37–* Elec. Eng; Eng. Educ.

Bolton, Prof. Frederick E(lmer), University of Washington, Seattle, Wash. *Education, Psychology.* Tomah, Wis, May 9, 66. B.S, Wisconsin, 93, M.S, 96; Leipzig, 96–97; hon. fellow, Clark, 97–98, Ph.D, 98. Teacher and prin, rural and high schs, Wis, 85–93; prof. psychol. and pedag, Wis.

State Nor. Sch, Milwaukee, 98–00; head dept. *educ*, Iowa, 01–12, director sch. educ, 06–12; *prof, Washington (Seattle), 12–*, dean, 13–28, *emer. dean, 28–* State inst. conductor, Wis, 93–00. Summers, lecturer, Wisconsin, 99; Chicago, 12; California, 25; Hawaii, 30; Texas, 40; Syracuse, 41. Chairman cmt. to revise sch. laws of Iowa, 07–09. A.A; Psychol. Asn; Soc. Col. Teachers Educ. (sec'y, 04–10); Soc. Sci. Educ; West. Philos. Asn; Wis. State Teachers Asn. (pres, nor. dept, 99); Wis. Child Study Soc. (sec'y and treas, 99); Iowa State Teachers Asn; Iowa Child Study Soc. (pres, 00–). Genetic psychology and the science of education; dramatic instinct; genetic study of morality; individual differences; adolescence.

Bolton, Dr. Lloyd L(awrence), University of Santa Clara, Santa Clara, Calif. *Histology, Embryology.* Ont, Can, Dec. 19, 98. B.A, British Columbia, 22, M.A, 24; Nat. Research Council Can. bursar, Toronto, 24–25, student, 25–26; Ph.D, Cornell, 32. Asst. biol, British Columbia, 22–24; instr, Saskatchewan, 28–29; zool, Washington (Seattle), 29–31; asst. histol. and embryol, Cornell, 27–28, 31–32; *prof. biol, Santa Clara, 32–* Sci. investigator, Int. Fisheries Cmn, U. S. and Can, 26–27. A.A. Histological structure of digestive tracts of fishes.

Bolton, Prof. Thaddeus L(incoln), Temple University, Philadelphia, Pa. *[1]Psychology, Philosophy.* Sonora, Ill, July 27, 65. A.B, Michigan, 89; Ph.D, Clark, 94. Teacher, nor. sch, Worcester, Mass, 93–96; San Jose, Calif, 96–97; prof. philos. and educ, Washington (Seattle), 97–98; asst. prof. psychol, Nebraska, 98–04, prof, 04–10; director training sch, Tempe, Ariz, 10–12; prof. philos. and psychol, Montana, 12–17; *psychol, Temple, 17–37, emer. prof, 37–;* lecturer, Phila. Sch. Occupational Therapy, 19–37. Univ. Exten. Asn. lecturer, Pennsylvania. A.A; Psychol. Asn; West. Philos. Asn. Rhythm; growth of memory; fatigue; space sense of the skin; the ergograph; motor power and intelligence; social laws of personal conduct; genetic view of make-believe; efficacy of consciousness; relation of muscle sense to pressure sense; inheritance of special traits.

Bolyard, Dr. N(elson) W(ayne), 6020 Drexel Ave, Chicago, Ill. *Chemistry.* Terra Alta, W. Va, May 4, 01. B.S, Okla. Agr. and Mech. Col, 22, M.S, 25; Ph.D, Wisconsin, 28; M.D, Chicago, 40. Asst. chem, Okla. Agr. and Mech. Col, 21–22, 24–26; Purdue, 22–23; instr, high schs, Okla, 23–26; asst. chem, Wisconsin, 26–28, instr, 28–29; research chemist, Standard Oil Co. of Ind, 29–37; research asst. pharmacol, Chicago, 41; *assoc. tech. director, labs, Armour and Co, 42–* Chem. Soc. Piperidine derivatives; synthesis of local anesthetics; cracking of petroleum; pharmaceuticals.

Bomhard, Dr. Miriam L(ucile), U. S. Forest Service, Washington, D. C. *Botany.* Bellevue, Ky. B.S, Pittsburgh, 21, A.M, 21, Ph.D, 26. Asst. and instr. bot, Pittsburgh, 21–25; instr. biol, Newcomb Col, Tulane, 26–27, asst. prof, 27–32; junior plant pathologist, bur. plant indust, U. S. Dept. Agr, 33–34; botanist, *U. S. Forest Service, 34–38, assoc. forest ecologist, 38–* A.A; Bot. Soc; Ecol. Soc; Soc. Plant Taxon; Soc. Foresters; Wash. Acad; Bot. Soc. Wash. (cor. sec'y, 40); Bot. Soc. New Orleans (sec'y, 30, pres, 31). Taxonomy; ecology; palms.

Bonar, Prof. Lee, University of California, Berkeley, Calif. *Botany.* Belleville, W. Va, Aug. 26, 91. A.B, Michigan, 18, A.M, 20, fellow, 20–22, Ph.D, 22. Asst. *bot*, Michigan, 19–20; instr, *California*, 22–27, asst. prof, 27–32, *assoc. prof, 32–* Summers, field asst, bur. plant indust, U. S. Dept. Agr, 19–22; instr, Michigan, 22; asst, Carnegie Institution, 23–26. A.A; Bot. Soc; Phytopath. Soc. Mycology; plant physiology; plant diseases; medical mycology.

Bonar, Dr. Martin L(oxley), 1021 Quarrier St, Charleston, W. Va. *Dermatology.* Moundsville, W. Va, Sept. 26, 89. B.S, West Virginia, 13, M.S, 15; M.D, Western Reserve, 19. Bacteriologist, Board Health, W. Va, 15–17; assoc. prof. pharmacol, West Virginia, 20–21, prof, 21–31; Hyde fellow, Chicago, 31–32; Vienna, 32–34; *practising physician.* Am. Med. Asn; fel. Col. Physicians. Local anesthetics; autonomic drugs; locally acting drugs.

Bond, Dr. Charles S, Richmond, Ind. *Medicine.* Richmond, Ind, June 8, 56. M.D, N. Y. Univ, 83; M.S, Earlham Col, 87. *General practitioner, 83–* County coroner, 84–88. Health officer, Richmond. Int. Tuber. Cong, London, 01; Tuber. Cong, Washington, 08; Am. Med. Asn; Am. Physicians; Miss. Valley Med. Soc. (v. pres); Ind. Med. Soc. (pres); Ind. Acad. Photomicrographic work in blood; bacteria and pathological specimens; tuberculosis; excreta of chronic Bright's disease patients; blood corpuscles in health and disease.

Bond, Prof. Earl D(anford), 4401 Market St, Philadelphia, Pa. *Psychiatry.* St. Paul, Minn, 79. A.B, Harvard, 00, M.D, 08. Instr. neuropath, Harvard, 12–14; *med. director research, Pa. Hosp, 13–; prof. psychiat, grad. sch. med, Pennsylvania, 19–, sch. med, 30–, v. dean, grad. sch. med, 37–* Clin. director and pathologist, Danvers State Hosp, Mass, 12–13; mem. board, Phila. Child Guidance Clinic. Mem, State Cmt. Welfare, Pa. Psychiat. Asn. (pres, 29); Phila. Psychiat. Soc. (pres, 23–); Phila. Neur. Soc; Boston Soc. Psychiat. and Neur. Personality and outcome in mental diseases; behavior disturbances in children following encephalitis.

Bond, Dr. Elden A, 109 College St, New Haven, Conn. *Psychology.* Bellingham, Wash, Oct. 13, 08. A.B, Washington (Seattle), 34; A.M, Columbia, 35, Ph.D, 40. Asst. prof. psychol, Alabama, 38; *instr*, Harvard, 39–40; *clin. psychol, Yale, 40–* Summers, prof, Teachers Col, Columbia, 38, 39, Minnesota, 40, 41. Assoc. Psychol. Asn. Clinical and educational psychology; reading; intelligence.

Bond, Dr. Glenn C(arl), 1942 Oakland, Kalamazoo, Mich. *Bacteriology, Immunology.* Braman, Okla, Sept. 15, 06. A.B, Phillips, 27; A.M, Kansas, 33, Ph.D, 38; M.D, Chicago, 41. Instr. biol, Phillips, 26–27; bacter, Kansas, 36–38, asst. prof, 38–42; *asst. director bacter. research, Upjohn Co, 42–* A.A. Blood grouping factors in the reptiles; serological and biochemical studies on the Pasteurella organisms.

Bond, Prof. H(arley) D(onovan), 126 Liberty St, Salem, W. Va. *Biology.* Lost Creek, W. Va, Sept. 26, 97. A.B, Salem Col. (W. Va), 23; A.M, West Virginia, 30. Teacher, high sch, 23–27, prin, 27–29; *prof. biol, Salem Col. (W. Va), 30–* W. Va. Acad. Amphibians and reptiles of Monongalia County, West Virginia.

Bond, James, Academy of Natural Sciences, 19th St. and The Parkway, Philadelphia, Pa. *Taxonomic ornithology.* Philadelphia, Pa, Jan. 4, 00. B.A, Cambridge, 22. Research assoc, *Acad. Nat. Sciences, Phila*, 33–38, research fellow *birds of Amer*, 38–39, *assoc. curator, 39–* Ornith. Union; fel. Del. Valley Ornith. Club. Birds of tropical America.

Bond, Prof. M(aurice) C(hester), Cornell University, Ithaca, N. Y. *Agricultural economics.* Thetford, Vt, July 5, 97. B.S, Vermont, 20, fellow, 24–25, M.S, 26; Ph.D, Cornell, 28. In charge teaching dairy and animal husbandry, N. Y. State Sch. Agr, Morrisville, 20–23; sec'y and manager, N. Y. Holstein-Friesian Asn, 23–24; research fellow, Agr. Exp. Sta, Vt, 24–25; instr. farm management, *N. Y. State Col. Agr, Cornell*, 25–26, *marketing*, 26–28, exten. asst. prof, 28–34, *exten. prof, 34–* Head dept. agr. econ, Puerto Rico, 36–37. Variations in the consumption of ice cream; sources of milk-fat used in ice cream; prices for milk used in ice cream; cost of milk products per gallon of ice cream; marketing of milk through ice cream; dairy cow cycle; livestock prices; marketing farm products through roadside markets; cost of producing canning factory tomatoes; farm management and marketing.

Bond, Prof. Perry A(very), University of Iowa, Iowa City, Iowa. *Chemistry.* Storm Lake, Iowa, July 28, 78. B.S, Iowa, 01, M.S, 08, fellow, 08–09, Ph.D, 15. Instr. chem, Iowa, 08; Armour Inst. Tech, 08–11; prof, Iowa State Teachers Col, 11–18; asst. prof. *inorg. chem, Iowa*, 18–25, *assoc. prof*, 25–A.A; Chem. Soc. (sec'y, Iowa sect, 15, pres, 17, councilor, 18). Nitroxylene sulfonic acids and oxidation of products; solubilities of salts in sulfur dioxide and other inorganic solvents; double layer systems.

Bond, Dr. Richard M(arshall), Soil Conservation Service, Portland, Oregon. *Zoology.* New York, N. Y, Nov. 5, 03. Ph.B, Yale, 26, Bishop Museum fellow, 30–31, Ph.D, 32. Instr. biol, Yale, 32–33, nat. research fellow, 33–34; teacher, Santa Barbara Sch, 34–35; assoc. wildlife technician, Nat. Park Service, 35–38; *regional biologist, region 7, soil conservation service, U. S. Dept. Agr, 38–* Summer, fellow, Oceanog. Inst, Woods Hole, 34. Mem. exped, Hispaniola, 33–34. A.A; Soc. Mammal; Ornith. Union; Cooper Ornith. Club (v. pres, north. div, 41); Limnol. Soc; Wilson Ornith. Club; Wildlife Soc; West. Soc. Nat. Marine and freshwater ecology; taxonomy of phyllopod Crustacea; diurnal birds of prey; vertebrate ecology.

Bond, Dr. Rolston L(yman), Lake Charles, La. *Organic chemistry.* Sioux Falls, S. Dak, July 27, 13. A.B, Sioux Falls Col, 34; M.S, Pa. State Col, 35, Ph.D, 40. Asst. and

instr. chem, Pa. State Col, 35–38; research chemist, Tidewater Associated Oil Co, 38–41; Nat. Oil Products Co, 41–43; *chief chemist, butadiene lab, Cities Service Ref. Corp, 43–* Chem. Soc; fel. Inst. Chem. Organic fluorine compounds; lubricating oil additives; textile assistants; butadiene.

Bond, W(alter) E(dwin), Tenth Floor, Federal Office Bldg, New Orleans, La. *Forestry.* Charleston, Ill, April 9, 91. A.B, Michigan, 14, M.S. (Forestry), 16. Forest asst, U. S. Indian Service, 16–18; civil engineer, Henry Ford Organization, 19–21; asst. state forester, Vt, 21–24; Texas, 24–30; forest economist and *senior forest economist, div. forest econ, South. Forest Exp. Sta, U. S. Forest Service, 30–* C.Eng, U.S.A, 18–19. Soc. Foresters. Forest economics; financial possibilities of southern forestry.

Bond, Dr. W(illiam) R(hea), Schering Corp, Bloomfield, N. J. *Pharmacology.* Bondtown, Va, Nov. 2, 99. Ph.G, Med. Col. of Va, 21, M.D, 28, B.S, 31. Director professional lab, Richmond, 22–24; asst. physiol, Med. Col. of Va, 24–26, assoc. physiol. and pharmacol, 26–28, asst. prof, 28–34, chairman dept. physiol, 29–34; *with* Rare Chemicals, Inc, 34–38; *Schering Corp, 38–* A.A; Am. Med. Asn; Va. Acad; Richmond Acad. Med. Physiology; phenol and arsenic poisoning; digitalis assay and deterioration; chloride determinations in body fluids; local anesthetics; cocaine and muscular fatigue; chloretone as a laboratory anesthetic; blood chlorides.

Bonde, Dr. Reiner, Maine Experiment Station, Orono, Maine. *Plant pathology.* Minneapolis, Minn, Jan. 27, 96. B.S, Minnesota, 22, Ph.D, 38; M.S, Maine, 26. Asst. plant pathologist, U. S. Dept. Agr, 23; with Nebr. Potato Improv. Asn, 24; asst. plant pathologist, *Exp. Sta, Maine,* 24–29, *assoc. plant pathologist, 29–* A.A; Phytopath. Soc; Potato Asn; Can. Phytopath. Soc. Virus diseases and disease resistance of the potato; potato seed treatment; dusting and spraying for the control of potato diseases; insect transmission of plant diseases; bacterial diseases of the potato.

Bondi, Dr. Amedeo, Jr, Temple University School of Medicine, Philadelphia, Pa. *Bacteriology.* Springfield, Mass, Dec. 13, 12. B.S, Connecticut, 35; M.S, Mass. State Col, 37; Ph.D, Pennsylvania, 42. *Instr. bacter, sch. med, Temple, 38–* Soc. Bact; Human Serum Asn. Immunization against Brucella infections; immunology of H. pertussis.

Bondurant, Dr. Eugene D(uBose), 1109 Government St, Mobile, Ala. *Pathology.* Hale Co, Ala, Jan. 26, 62. Southern, 77–80; M.D, Virginia, 83; Heidelberg and Vienna, 90–91. Asst. physician, N. Y. Insane Hosp, 85; Ala. Insane Hosp, 85–92, asst. supt, 92–97; prof. nervous diseases and path, Alabama, 97–15; *practising physician.* Neur. Asn; Psychiat. Asn; Am. Med. Asn. Neurology.

Boner, Prof. C(harles) P(aul), 1508 Hardouin Ave, Austin, Texas. *Physics.* Nocona, Texas, Feb. 8, 00. A.B, Texas, 20, A.M, 22, Ph.D, 29; Whiting fellow, Harvard, 27–28. Asst. *physics, Texas,* 19–21, tutor, 21–22, instr, 22–27, adj. prof, 28–35, assoc. prof, 35–36, *prof, 36–* A.A; Physical Soc; Acoustical Soc. High frequency measurements, vacuum tubes and sound.

Bongiorni, Dr. D(omenic) F(rank), Columbia University, New York, N. Y. *Physical-organic chemistry.* Ivoryton, Conn, June 19, 08. B.S, Conn. State Col, 33; Ph.D, Hopkins, 36; Fordham. Research chemist, Gen. Chem. Co, 36–39; patent attorney, Union Carbide and Carbon Research Labs, Inc, 41–42; chemist, Bakelite Corp, 42; *chemist and research asst, war research div, Columbia, 42–* Chem. Soc. Mechanism of chemical reactions; preparation of the methylene free radical from diazomethane; photochemical decomposition of acetone at elevated temperatures, to detect evidence of the existence of chain reactions therein.

Bonham, Dr. K(elshaw), 5815 17th N. E, Seattle, Wash. *Fisheries.* Seattle, Wash, March 19, 09. B.S, Washington (Seattle), 31, M.S, 35, Ph.D, 37. Temporary asst. aquatic biologist, Bur. Fisheries, Sacramento, Calif, 38; asst. prof. fisheries, Agr. and Mech. Col. Texas, 38–41; *asst. biologist, fish and wildlife service, U. S. Dept. Interior, Washington (Seattle), 41–* A.A; Fisheries Soc; Soc. Ichthyol. and Herp; Limnol. Soc; Texas Acad. Monogenea parasitic on fishes of the northeastern Pacific Ocean; fish-pond utilization; systematics of fishes in Texas; food of gars; marine mammal ecology.

Bonilla, Prof. C(harles) F(rancis), Johns Hopkins University, Baltimore, Md. *Chemical engineering, Electrochemistry.* Albany, N. Y, July 11, 09. A.B, Madrid, 25; A.B, Columbia, 28, B.S, 30, Chem.E, 32, Ph.D, 33. Asst. physics, Columbia, 28; instr, Lawrence-Smith Sch, 29; research asst. to Dr. Colin G. Fink, Columbia, 30–36; *consulting engineer, 33–*; assoc. *gas and chem. eng, Hopkins,* 37–40, *assoc. prof, 40–*; *prin. consultant, Board Econ. Warfare, 42–* Fellow and tutor, Col. City N. Y, 32–37; assoc, sch. eng, Hopkins, 37–38; research engineer, Aerovox Corp, Brooklyn, 37, 38; U. S. Indust. Chem. Corp, 39. Mem, U. S. Indust. Mission, Brazil, 42; Bur. Econ. Warfare Tech. Mission, Cuba, 43. Chem. Soc; Electrochem. Soc; Chem. Eng. Thermodynamics; unit operations.

Bonine, Charles E(dward), 1718 Cherry St, Philadelphia, Pa. *Engineering.* Emporium, Pa, July 1, 74. Drexel Inst. Asst. supt. and asst. chief engineer, Electro-Dynamic Co, 96–04, chief engineer, 04–06; pres. and gen. manager, Rossmassler-Bonine Elec. Co, 06–10; consulting engineer, 10–30; assoc. director in charge eng, Franklin Inst. Museum, 30–35; *consulting mech. and elec. eng, 35–* A.A; Mech. Eng; assoc. Elec. Eng; Electrochem. Soc; Franklin Inst. (chairman, sci. and arts cmt, 16, mem, board managers, 21–30). Mechanical and electrical engineering.

Bonine, Prof. C(hesleigh) A(rthur), R. F. D. 1, State College, Pa. *Geology.* Sorrento, Fla. M.E, Lehigh, 12; Hopkins, 15–17. Geol. aid, U. S. Geol. Surv, 12–14, asst. geologist, 14–16; instr. *geol,* Lehigh, 17–18; asst. prof, *Pa. State Col,* 18–19, assoc. prof, 19–22, *prof. and head dept,* 22–Consulting geologist and cooperating geologist, Pa. Geol. Surv. Soc. Econ. Geol; Min. and Metal. Eng. The stratigraphic significance of bentonite in the Ordovician of Pennsylvania; anticlines in the Clinton sand; Elliston, Montana, phosphate field.

Bonisteel, Prof. William J(ohn), Mount Ross Road, Pine Plains, N. Y. *Botany.* Port Huron, Mich, Nov. 30, 92. Ph.C, Michigan, 18, B.S, 22; A.M, Columbia, 27, Ph.D, 38. Asst, Michigan, 17–18; instr. *mat. med,* col. pharmacy, Columbia, 20–23, asst. prof, 23–25; assoc. prof, *col. pharmacy, Fordham,* 25–26, *prof. and head dept, 27–, prof. bot, grad. sch.* Ed, 'Torreya,' 41– Mem. Corp, N. Y. Bot. Garden. M.C, U. S. N, 18–19. A.A; Pharmaceut. Asn; fel. Am. Geog. Soc; Rocks and Minerals Asn; Torrey Bot. Club; Taxon. Soc; N. Y. Micros. Soc. Applied botany; plant breeding; genus Aconitum; cultivation for alkaloidal, morphological and chemical differences.

Bonn, N(orman) E(ugene), 5207 N. 16th St, Philadelphia, Pa. *Electrical engineering, Physics.* Russia, Nov. 25, 89. B.S, Pittsburgh, 19. Research engineer, Leeds and Northrup Co, 18–29; *director research, Rubicon Co, 29–* A.A; Franklin Inst. Electrical measurements, methods and apparatus; curve tracers; potentiometers; galvanometers; direct current and alternating current bridge networks; colorimeters; vacuum tube applications; constant speed and synchronization; automatic control; metal detectors.

Bonnell, Clarence, Harrisburg, Ill. *Biology.* Owaneco, Ill, Feb. 1, 73. Ill. State Nor. Univ, 99; Illinois. Teacher, sch, 93–98; prin, high sch, *Ill,* 99–04; *asst. prin. and head dept. science, Township High Sch, Harrisburg, 04–* Summers, teacher, Ill. State Nor. Univ; South. Ill. State Nor. Univ. A.A; Ill. Acad. (pres, 28). Geography and folk-lore of the southern Illinois Ozark region.

Bonnell, Capt. D(aniel) E(rnest), Office of the Port Surgeon, Ft. Mason, San Francisco, Calif. *Medical entomology.* Little Rock, Ark, April 12, 11. B.S, Washington (Seattle), 36, fellow, 36–38, M.S, 38; Ph.D, Oregon State Col, 41. Entomologist, Exp. Sta, Oregon State Col, 39; asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 40; instr. entom, Oregon State Col, 41–42; *Sanit. Corps, U. S. Army, 42–, capt.* Entom. Soc. Amer; Asn. Econ. Entom; Puget Sound Entom. Soc; Oregon Entom. Soc; Entom. Soc. B. C. Parasitology; sanitation; medical inspection; port sanitation.

Bonner, Dr. D(avid) M(ahlon), Stanford University, Calif. *Bio-organic chemistry.* Salt Lake City, Utah, May 15, 16. A.B, Utah, 36; Ph.D, Calif. Inst. Tech, 40. Teaching fellow, Calif. Inst. Tech, 36–40, asst. biol, 40–42; *research assoc, Stanford, 42–* Visiting lecturer, Utah, 40. Leaf growth factors; relation of chemical structures to physiological activity of plant growth hormones; chemistry of the flower hormone; growth factors for plants and microorganisms; biochemistry of genetically controlled reactions in Neurospora.

Bonner, Dr. James (Fredrick), California Institute of Technology, Pasadena, Calif. *Plant physiology.* Ansley, Nebr, Sept. 1, 10. A.B, Utah, 31; fellow, Calif. Inst. Tech, 31–34,

Ph.D, 34. Nat. research fellow, Utrecht and Zurich, 34–35; asst. biol, *Calif. Inst. Tech*, 35–36, instr. *plant physiol*, 36–37, asst. prof, 38–42, *assoc. prof*, 42– Physiology of plant growth; chemical plant physiology.

Bonner, Dr. Lyman G(aylord), Duke University, Durham, N. C. *Physics.* Kingston, Ont, Can, Sept. 16, 12. A.B, Utah, 32; Ph.D, Calif. Inst. Tech, 35. Nat. research fellow *chem*, Princeton, 35–37; instr, *Duke*, 37–42, *asst. prof*, 42– Chem. Soc. Constant boiling acids; spectra of crystals; structure and constants of molecules.

Bonner, Dr. T(om) W(ilkerson), Rice Institute, Houston, Texas. *Physics.* Greenville, Texas, Oct. 19, 10. B.S, South. Methodist, 31; A.M, Rice Inst, 32, Ph.D, 34. Nat. research fellow, Calif. Inst. Tech, 34–36; instr. *physics, Rice Inst*, 36–38, *asst. prof*, 38– Guggenheim Mem. Foundation fellow, Cambridge, 38–39. A.A; fel. Physical Soc. Nuclear disintegrations; neutron energies; nuclear resonances.

Bonner, Prof. W(alter) D(aniel), 1278 E. 13th South St, Salt Lake City, Utah. *Chemistry.* Osceola, Nebr, Oct. 27, 78. B.S, Nebr. Wesleyan, 06; A.M, Princeton, 08; Ph.D, Toronto, 11. Lecturer *chem*, Queen's (Can), 09–11, asst. prof, 11–15; *prof, Utah, 15–* U. S. Bur. Mines, Berkeley, 22–23; Calif. Inst. Tech, 29–30. Chem. Soc; Utah Acad. (councilor, 19, pres, 30). Oil shales and solid hydrocarbons; sulfites; sulfurous acid; dithionic acid; constant boiling hydrochloric, hydrobromic and formic acids; cyanide solutions of copper salts; the brines of Great Salt Lake.

Bonnet, Dr. David D(udley), University of Hawaii, Honolulu, Hawaii. *Zoology.* Worcester, Mass, Oct. 28, 14. B.S, Harvard, 37, A.M, 39, Ph.D, 41. Teaching fellow *zool*, Harvard, 38–41; *instr, Hawaii, 41–* A.A. Embryology; marine ecology; invertebrate zoology.

Bonnet, Dr. Frederic, Jr, 9 du Pont St, Ridley Park, Pa. *Physical chemistry.* St. Louis, Mo, Feb. 28, 78. B.S, Washington (St. Louis), 99; M.S, Harvard, 02, Ph.D, 03. Instr. chem, Iowa, 03–04; Worcester Polytech, 04–09, asst. prof, 09–13, prof, 13–18; chief chemist, U. S. Ammonium Nitrate Plant, 18; *director* Forcite exp. lab, Atlas Powder Co, 19–21, Wilmington exp. lab, 21–25; *textile and research standards lab, Am. Viscose Corp, 26–* A.A; Chem. Soc. Hydrolytic equilibrium of dissolved chromium sulfate; compressibility of metals; the rare earths and ceramics; decolorizing carbons; cellulose; rayon.

Bonnet, Dr. Juan Amédée, Box 591, Rio Piedras, P. R. *Soils.* Vieques, P. R, June 24, 99. B.S, Michigan, 20; M.S, Rutgers, 30; hon. scholar, Wisconsin, 38–39, Ph.D, 39. Sugar chemist, Central España, Cuba, 20–21; sugar supt, Benitez Sugar Co, P. R, 21–24; fertilizer chemist, P. R. Dept. Agr, 24–29; research chemist, *Exp. Sta, Puerto Rico*, 29–31, *chief soils div, 31–* Soil Sci. Soc; Asn. Amer. de Ciencias Agr. (sec'y, 40); Asn. Quimicos de P. R. (director, 39–; v. pres). Soil chemistry, fertility and physics.

Bonnett, Howard T(hompson), Merck and Co, Rahway, N. J. *Chemistry.* Eureka, Kans, Aug. 26, 06. A.B, Baker, 28; M.S, Nebraska, 31, Ph.D, 32. Teaching fellow, Nebraska, 28–32; *research chemist, Merck and Co, 32–* Chem. Soc. Carbohydrates; choline derivatives; patent investigations.

Bonnett, O(rville) T(homas), 706 S. Webber St, Urbana, Ill. *Agronomy.* Winfield, Kans, June 21, 94. B.S, Kans. State Col, 18, M.S, 27; Ph.D, Illinois, 33. County agr. agent, Kans, 19–21; instr. vocational agr, high sch, Kans, 21–26; agron, Wyoming, 27–28; from asst. to *asst. prof. plant breeding, Illinois, 28–* Soc. Agron. Plant breeding; genetics, breeding and physiology of crop plants; development of the inflorescence of certain crop plants; aspects of seed yield in small-grained cereals.

Bonney, Dr. Donald T(heodore), Calvert Court Apts, Baltimore, Md. *Chemical engineering.* Union City, Pa, March 21, 04. B.E, Hopkins, 26, Ph.D, 35. Research asst. gas eng, Hopkins, 26–33, 35–37; *research assoc. chem. eng, Maryland, 37–* Junior instr, 34–35. Total eclipse of the sun exped, Camptonville, Calif, 30, Gorham, N. H, 32. Chem. Soc. Fuel chemistry; determination of hydrogen.

Bonney, R(obert) D(aland), Congoleum-Nairn, Inc, 195 Belgrove Drive, Kearny, N. J. *Chemistry.* Wakefield, Mass, Aug. 18, 92. B.S. (Ch.E), Mass. Inst. Tech, 13, 13–15. Asst. and instr. anal. chem, Mass. Inst. Tech, 13–15; chemist, Bird and Son, Mass, 15–18; chief chemist, Congoleum Co, 18–28; director research, *Congoleum-Nairn, Inc*, 28–34, *asst. manager mfg, 34–* Chem. Soc; Soc. Test. Mat. (chairman, subcmt. linseed oil, 25–, advisory cmt. protective coatings, 31–; mem. exec. cmt, 39–41; standards cmt, 41–); N. Y. Paint and Varnish Production Club (exec. cmt, 41); Phila. Paint and Varnish Production Club (pres, 27). Surface coatings and coverings; plastics; development of linoleum.

Bonney, Victor B(igelow), 38 Woodland Ave, Takoma Park, Md. *Food chemistry.* Tacoma, Wash, May 18, 89. B.S, State Col. Wash, 12. Instr. chem, State Col. Wash, 12–13; U. S. Bur. Mines, Pittsburgh, 14; *chemist, food control div, food and drug admin, Fed. Security Admin, 15–* Agr. Chem. Chemistry of fruits and vegetables, especially canned.

Booge, Dr. James (Elliot), E. I. du Pont de Nemours and Co, Newport, Del. *Chemistry.* Sioux City, Iowa, April 27, 90. Ph.G, Iowa, 09, Ph.C, 10, A.B, 14; fellow, Columbia, 15–16, Ph.D, 16. Instr. chem, Iowa, 10–14; asst, Columbia, 14–15, instr, 16–17; chemist, E. I. du Pont de Nemours and Co, 17–27, research director lithopone, 27–31; *chem. director*, Krebs Pigment and Color Corp, 31–35, *Krebs pigments dept, E. I. du Pont de Nemours and Co, 35–* Chem. Soc; Soc. Test. Mat.

Booher, Dr. Lela E(vangeline), General Mills, Inc, Minneapolis, Minn. *Chemistry.* Dayton, Ohio, March 9, 98. B.S, Ohio State, 20; M.S, Iowa, 22; Ph.D, Columbia, 28. Instr. biochem, N. Y. Post-Grad. Med. Sch, 22–24; asst, Columbia, 24–28; biochemist, St. Luke's Hosp, Cleveland, 28–29; instr. chem, Columbia, 30–36; chief foods and nutrition, bur. home econ, U. S. Dept. Agr, 36–41; director inst. nutrition, Milwaukee Children's Hosp, 41–43; *chief nutritionist, Gen. Mills, Inc, 43–* Ed. board, 'Jour. Nutrition,' 39– A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; Soc. Exp. Biol; assoc. Ornith. Union. Biochemistry; nutrition; mineral metabolism; chemical nature of pancreatic amylase and of riboflavin; nutrient requirements; vitamin concentration; vitamin content of foods.

Bookhout, Dr. C(azlyn) G(reen), Duke University, Durham, N. C. *Zoology.* Gilboa, N. Y, 07. A.B, St. Stephen's Col, Columbia, 28; A.M, Syracuse, 29; fellow, Duke, 32–34, Ph.D, 34. Instr. biol, Woman's Col, North Carolina, 29–31; asst. zool, Duke, 31–32; assoc. prof. biol, Elon Col, 34–35; instr. *zool, Duke*, 35–40, *asst. prof, 40–* A.A; Soc. Zool; N. C. Acad. Germ cells of mammals; blood of invertebrates.

Bookman, Dr. S(amuel), 624 Madison Ave, New York, N. Y. *Physiological chemistry.* New York, N. Y, Dec. 11, 69. Columbia, 86–91; Ph.D, Berlin, 95. Chemist, N. J. Zinc and Iron Co, 95–96; assoc. physiol. chem, N. Y. State Hosp, 96–02; physiol. chemist, *Mt. Sinai Hosp*, 02–27, *consulting chemist, 27–* A.A; Soc. Biol. Chem. Pathological chemistry; normal and pathological metabolism; industrial biological chemistry.

Boomer, Prof. E(dward) H(erbert), University of Alberta, Edmonton, Alta, Can. *Chemistry.* Vancouver, B. C, May 26, 00. B.Sc, British Columbia, 20; M.Sc, McGill, 21, Ph.D, 23. Ramsey Mem. fellow, Cambridge, 23–25; lecturer *chem, Alberta*, 25–27, asst. prof, 27–32, *assoc. prof, 32–* Fel. Can. Inst. Chem. (councilor, 30–33); fel. Royal Soc. Can. Physical and high pressure chemistry; physical properties and chemical constitution; activity of helium; oxidation of methane; decomposition of alcohol; pyrolysis of natural gas; hydrogenation of coal and tar; high pressure reactions in carbon monoxide-hydrogen and carbon dioxide-hydrogen mixtures; liquid-vapor equilibrium in two-phase poly-component hydrocarbon systems; pressure polymerization of hydrocarbons.

Boomhour, Prof. J(oshua) Gregory, 3402 Hillsboro Road, Raleigh, N. C. *Physics.* Delhi, N. Y, Feb. 10, 73. A.B, Colgate, 97; A.M, Chicago, 07. Teacher science, Stamford Sem, N. Y, 98–99; Hiawatha Acad, 99–00; *prof*, Lenox Col, 01–03; Huron Col, 03–04; *physics, Meredith Col, 04–*, dean, 08–15, 18–41. N. C. Acad. The value of the charge on the negative ion.

Boomsliter, Prof. G(eorge) P(aul), West Virginia University, Morgantown, W. Va. *Mechanics.* Grand Haven, Mich, Oct. 10, 79. B.S, Mich. State Col, 06; M.S, Illinois, 14. Draftsman and designer bridges, 06–09; instr. and assoc. theoret. and applied mech, Illinois, 09–20; *prof. mech, West Virginia, 20–* Eng. Educ. (director); Civil Eng. (pres, W. Va. sect). Hoisting ropes; bronzes; timber; bridge floors; welded rails.

Boon, Prof. Leonard F(rancis), 1617 E. River Terrace, Minneapolis, Minn. *Civil engineering.* Wis, March 22, 80.

B.S, Wisconsin, 10, C.E, 12. Tax and R.R. Cmn, Wis, 10–15; instr. ry. eng, Wisconsin, 15–17; ry. valuation engineer, Sloan, Huddle, Feustel and Freeman, 17–18; construction concrete ships, U. S. Shipping Board, 18–19; concrete engineer, Am. Chain Co, 19–20; instr. *civil eng, Minnesota,* 21–24, *asst. prof, 24–* Surveying.

Boone, Prof. E(noch) M(ilton), Ohio State University, Columbus, Ohio. *Electrical engineering, Electronics.* Millersburg, Ky, Feb. 17, 03. A.B, Colorado, 26, M.S, 32; M.S, Michigan, 37. Instr. eng. math, Colorado, 26–28, physics, 28–30; research physicist, Pittsfield works, Gen. Elec. Co, 30–32; head dept. eng, math. and physics, Amarillo Col, 32–37; *asst. prof. elec. eng. and electronics, Ohio State, 37–* Inst. Elec. Eng; Radio Eng.

Boone, Dr. Lee, American Museum of Natural History. New York, N. Y. *Marine biology.* Va. A.B, George Washington, 19, M.S, B.Ed, 20, Ph.D, 23. Mem. sci. staff, U. S. Nat. Museum, 14–22; in charge marine biol. lab, Aquarium and Biol. Lab, Miami, Fla, 22–23; biol. scientist, U. S. Dept. Agr, 23–24; mem. sci. staff, Bingham Oceanog. Foundation, 24–26; *research assoc, N. Y. Zool. Soc, 26–; mem. sci. staff, Vanderbilt Marine Museum, 22–* Carter fellow, 30– Ed, 'Jour. Agr. Research,' 24–25. Mem. sci. expeds, Greenland, S. Amer, Cent. Amer, West Indies, Polynesia and Can. Rockies. Carter, Stull and Legge gold medals. A.A; Biol. Soc. Wash; N. Y. Zool. Soc; Pestalozzi Soc. Child psychology; Crustacea, life histories, ecology and taxonomy; echinoderms; coelenterates; mollusks; marine annelids; colonial history of Virginia, Maryland and Kentucky.

Boor, Dr. Alden K(inney), University of Chicago, Chicago, Ill. *Biochemistry.* Sandusky, Ohio, April 24, 92. B.S, Stetson, 14, M.S, 23; M.S, Chicago, 23; Ph.D, Illinois, 30. Instr. chem, J. B. Stetson, 15–16; med. dept, Georgia, 16–18; chemist in head lab, South. Cotton Oil Co, Savannah, 18–20; prof. chem. in charge dept, Birmingham-Southern Col, 20–26; physiol. chem, col. med, Illinois, 26–30; research assoc. and later *asst. prof. biochem, dept. med, Chicago, 30–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Proteins; hemoglobin; bacterial chemistry; immunology.

Boord, Prof. Cecil E(rnest), Ohio State University, Columbus, Ohio. *Chemistry.* Veedersburg, Ind, June 29, 84. A.B, Wabash Col, 07; fellow, Ohio State, 07–09, A.M, 09, Ph.D, 12. Asst. *chem, Ohio State,* 09–12, instr, 12–14, asst. prof, 14–24, *prof, 24–* Cmts, div. chem. and chem. technol, Nat. Research Council, 24–26. Director, Ohio State research div, Gas W.S, 17–19. Petrol. Inst. (supervisor hydrocarbon research project); Chem. Soc. Organic accelerators in the vulcanization of rubber; absorption spectra of organic compounds; mechanism of organic reactions; synthesis of olefines.

Boorse, Dr. Henry A(braham), Barnard College, Columbia University, New York, N. Y. *Physics.* Norristown, Pa, Sept. 18, 04. U. S. Naval Acad, 26; A.M, Columbia, 33, Barnard fellow, 33–34, Ph.D, 34. Ensign, U. S. Navy, 26–28; asst, Columbia, 28–31, instr, 31–33, Lydig fellow, Cambridge, 34–35; instr. *physics,* Col. City of N. Y, 35–37; *asst. prof. and head dept, Barnard Col, Columbia, 37–* Adams fellow, Columbia, 38–40. Asn. Physics Teachers; Physical Soc. Low temperature physics.

Boos, Prof. Margaret Fuller, University of Denver, Denver, Colo. *Geology.* Beatrice, Nebr, June 17, 93. B.S, Northwestern, 13; M.S, Chicago, 19, Ph.D, 24. Instr. and asst. prof. geol, Northwestern, 21–27, 31; acting park naturalist, Rocky Mt. Nat. Park, 28–30; geologist, Phillips Petrol. Co, 33–35; *assoc. prof. geol, Denver, 35–* Fel. Geol. Soc. Precambrian geology; igneous rocks, especially granites; geology of the Front Range, Colorado and Wyoming; paleontology of the Permian of Kansas and Oklahoma.

Booth, Dr. Alfred W(haley), University of Illinois, Urbana, Ill. *Geography.* Milwaukee, Wis, Oct. 7, 08. B.Ed, Wis. State Teachers Col, 29; Ph.M, Wisconsin, 32, Ph.D, 36; Chicago, 33–34. *Instr. geog, Illinois, 36–* Summer, prof, W. Texas State Teachers Col, 39. Fel. Am. Geog. Soc; Ill. Acad. Regional geography.

Booth, Dr. Eugene T(heodore), Columbia University, New York, N. Y. *Physics.* Rome, Ga, Sept. 28, 12. B.S, Georgia, 32, M.S, 34; Ph.D, Oxon, 37. *Lecturer physics, Columbia, 37–* Fel. Physical Soc. Nuclear physics.

Booth, Prof. H(arold) S(immons), Western Reserve University, Cleveland, Ohio. *[8]*Chemistry.* Cleveland, Ohio, Jan. 12, 30, 91. A.B, Western Reserve, 15, A.M, 16; Sage fellow, Cornell, 17–18, du Pont fellow, 18–19, Ph.D, 19. Instr. *chem, Western Reserve,* 19–24, asst. prof, 24–30, assoc. prof, 30–37, *prof, 37–, chairman dept, 42–, head div. physical sciences, Cleveland Col, 25–, div. science and math, 39–* Ed, 'Inorg. Syntheses,' 39. A.A; Chem. Soc. (sec'y-treas, Cornell sect, 17, Cleveland sect, 20–24, chairman, 25–); Electrochem. Soc. (sec'y-treas, div. physical and inorg. chem, 35, v. chairman, 36, chairman, 37); fel. Am. Acad. Inorganic chemistry; chemical microscopy; fluoride gases; gas densities and physical constants of gases; barium, beryllium and mercury compounds.

Booth, Dr. Robert B(en), American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Chemistry.* Johnston, R. I, Jan. 19, 09. A.B, Brown, 30, M.S, 31, H. A. Rice fellow, 33, Ph.D, 34. *Research chemist, Am. Cyanamid Co, 34–* Chem. Soc. Metallo-organic chemistry; metallurgical chemicals and processes.

Booth, Dr. W(illiam) E(dwin), Montana State College, Bozeman, Mont. *Plant ecology.* St. Francis, Kans, April 2, 09. A.B, Nebr. State Teachers Col, 30; M.S, Oklahoma, 32; Ph.D, Kansas, 41. Instr. biol, Wis. State Teachers Col, Oshkosh, 36–37; *bot,* N. Dak. Agr. Col, 37–38; Kansas, 39–40; *asst. prof, Mont. State Col, 41–* A.A; Ecol. Soc. Microorganism in soil conservation and fertility.

Boothby, Prof. Walter M(eredith), Mayo Clinic, Rochester, Minn. *Medicine.* Boston, Mass, July 28, 80. A.B, Harvard, 01, M.D, 06, A.M, 07. Assoc. prof. med. and *prof. exp. metabolism, Mayo Foundation, Minnesota, head sect. clin. metabolism and lab. research in aviation med.* Assoc. ed, 'Am. Jour. Physiol.' Am. Med. Asn; assoc. Am. Physicians; Col. Physicians; Col. Surg; Soc. Exp. Path; Soc. Clin. Invest; Physiol. Soc; Soc. Pharmacol; Inst. Nutrition (treas, 34); Soc. Biol. Chem; Soc. Exp. Biol; Inst. Aeronaut. Sci. Metabolism.

Boothroyd, Prof. S(amuel) L(atimer), Cornell University, Ithaca, N. Y. *Astronomy.* Loveland, Colo, Aug. 10, 74. B.S, Colo. Agr. Col, 93, M.S, 04; Chicago, 94–95; Cornell, 04–07. Prof. math. and astron, Mt. Morris Col, 95–97; asst, Lowell Observatory, 97–99; assoc. prof. physics and eng, Colo. Agr. Col, 02–04; instr. civil eng, Cornell, 04–08, asst. prof. geod. and topog. eng, 08–12; assoc. prof. math. and astron, Washington (Seattle), 12–17, astron, 17–21; prof. astron. and geod, *Cornell,* 21–42, *emer. prof. astron, 42–, teacher navigation, Naval Training Sta, 42–* Summers, investigator, Colo, 04, asst. surveyor, Alaskan Boundary Cmn, 05–09. In charge field work, Ariz. meteor exped, 31–32; in charge exped. to secure ultra-violet spectra of typical stars, 33. A.A; Astron. Soc. (councilor, 36); Asn. Variable Star Observers; Astron. Soc. Pacific. Double star measures; spectroscopic binaries; variable stars; meteoric astronomy; ultra-violet spectroscopy.

Booze, M(acdonald) C(harles), The Charles Taylor Sons Co, Cincinnati, Ohio. *Ceramics.* Bethany, Ill, Dec. 10, 92. B.S, Illinois, 15. Supt, Medal Paving Brick Co, 15–18; ceramic engineer, U. S. Bur. Mines, 18–20; in charge ceramic div, research labs, Norton Co, 20–23; senior fellow refractories, Mellon Inst, 23–26; *v. pres. in charge research and develop, Chas. Taylor Sons Co, 26–* Ceramic Soc. (v. pres, 27, pres, 28); Soc. Test. Mat. Refractories.

Borchardt, Lester F(erdinand), 5508 15th Ave, S, Minneapolis, Minn. *Physics.* Minneapolis, Minn, May 30, 07. B.E.E, Minnesota, 29, 29–33. *Physicist, research labs, Gen. Mills, Inc, 33–* A.A; Physical Soc. Chemical changes in electrical discharges, especially the synthesis of vitamin D.

Borchers, Dr. Raymond (Lester), Creighton University School of Medicine, Omaha, Nebr. *Biochemistry.* Juniata, Nebr, April 13, 16. B.S, Nebr. State Teachers Col, 38; M.S, Iowa, 40, Ph.D, 42. Asst. chem, Nebr. State Teachers Col, 36–38; *biochem,* Iowa, 38–42; *instr, sch. med, Creighton, 42–, acting head dept, 42–* Chem. Soc. Protein and amino acid chemistry; metabolism of the amino acids.

Borden, Arthur D(ickie), University of California, Berkeley, Calif. *Entomology.* Point Arena, Calif, July 14, 87. A.B, Stanford, 13, A.M, 14. Entomologist, bur. entom, U. S. Dept. Agr, 14–21; commercial work, 21–26; *asst. entomologist, div. entom. and parasitol, Exp. Sta, California, 26–* Asn. Econ. Entom. Agricultural entomology; deciduous fruit insects; insecticides.

Borden, Prof. Avis, Tulane University, New Orleans, La. *Physics.* Fall River, Mass, Jan. 5, 10. A.B, Vassar Col, 31;

A.M, Yale, 33; Ph.D, Michigan, 38. Instr. *physics*, Conn. Col, 38–41; *asst. prof, Newcomb Col, Tulane, 41–* Physical Soc. Infra-red absorption spectrum of methyl alcohol; calculation of energy levels for hindered rotation in methyl alcohol.

Borden, Frank S(paulding), U. S. Coast and Geodetic Survey, Washington, D. C. *Engineering.* Mehoopany, Pa, Sept. 19, 88. C.E, Lehigh, 11. *Hydrog. and geod. engineer, U. S. Coast and Geod. Surv, 11–, chief* sect. field work, div. hydrog. and topog, 28–40, *div. charts, 40–* Civil Eng; Soc. Mil. Eng; Wash. Soc. Eng. Hydrographic and geodetic engineering; hydrographic surveying.

Borden, R(alph) J(ames), Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Agriculture.* Fall River, Mass, June 1, 92. B.S, Mass. State Col, 13; M.S, Hawaii, 22. Agriculturist, Kamehameha Schs, Hawaii, 13–24; director agr. educ, Hawaii Nor. Sch, 25–27; dist. manager, Chilean Nitrate Educational Bur, 27–32; assoc. agriculturist, *Exp. Sta, Hawaiian Sugar Planters' Asn,* 32–34, *agriculturist, 34–* Hawaiian Acad; Asn. Hawaiian Sugar Technol. (pres, 35); Int. Soc. Sugar Cane Technol. Sugar-cane agriculture; technique of field experiments; differential fertilization; sugar-cane soil-plant relationships.

Bordenca, Dr. Carl, 204 S. Gay St, Auburn, Ala. *Organic chemistry.* Birmingham, Ala, Aug. 13, 16. B.S, Howard Col, 36; M.S, Ga. Tech, 38; research fellow, Purdue, 39–40, Ph.D, 41. Asst. chem, Howard Col, 33–36; Ga. Tech, 36–38; Purdue, 38–39, 40–41; *instr. org. chem, Ala. Polytech, 41–* Instr, South. Col. Pharmacy, 37–38. Chem. Soc. Chlorinolysis of hydrocarbons and their partially chlorinated derivatives; utilization of pine products.

Bordley, Dr. James, 3rd, Brooklandville, Md. *Medicine.* Centreville, Md, Dec. 7, 00. Ph.B, Yale, 23; M.D, Hopkins, 27. Instr. med, sch. med, Hopkins, 28–30; nat. research fellow pharmacol, Pennsylvania, 30–32; assoc. *med, sch. med, Hopkins,* 33–37, *assoc. prof, 37–,* res. physician, Hopkins Hosp, 32–34; *lieut. col, Med. Reserve, U. S. Army, 40–* Mem. Nat. Research Council, 40– A.A; Soc. Clin. Invest; Physiol. Soc; Am. Physicians; Heart Asn; Clin. and Climat. Asn. (sec'y, 41–).

Bordner, Prof. Earl R(aymond), State College, Pa. *Physics.* Columbia City, Ind, July 10, 95. A.B, Wabash Col, 22, A.M, 23. Asst. *physics,* Illinois, 22–23; instr. and *asst. prof, Pa. State Col, 23–* Physical Soc. Fluorescence of mercury at different temperatures; Raman spectra of organic compounds.

Borek, Dr. Ernest, College of the City of New York, New York, N. Y. *Chemistry.* Hungary, May 25, 11. B.S, Col. City of N. Y, 33; A.M, Columbia, 34, Ph.D, 38. *Instr. chem, Col. City of N. Y, 34–* Biochemistry; intermediate metabolism.

Borell, A(drey) E(dwin), R.F.D. 2, Box 600, Albuquerque, N. Mex. *Vertebrate biology.* Minn, Oct. 8, 01. A.B, California, 28, A.M, 31. Asst. curator field and museum biol. work, California, 24–25; curator, Ralph Ellis, Jr, Private Research Museum, 25–31; ranger-naturalist, Nat. Park Service, 31–33, asst. park naturalist, 33–34, asst. and assoc. wildlife technician, 34–38; *regional chief biol. div, soil conservation service, U. S. Dept. Agr, 38–* Soc. Ichthyol. and Herp; Soc. Mammal; Wildlife Soc; Wildlife Inst; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Wildlife management.

Boreman, Prof. Rob(er)t W(ells), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Middlebourne, W. Va. M.E. (E.E), Ohio State, 12, M.S, 19. Cent. Dist. Telephone Co, 12–14; high sch, W. Va, 14–17; Bur. Standards, 17–18; Ga. Tech, 19–20; *asst. prof. physics, Carnegie Inst. Tech, 20–* U. S. Naval Aviation, 18–19. A.A; Physical Soc; Asn. Physics Teachers; Astron. Soc; Physical Soc. Pittsburgh. Variation in wave form of alternating current generators with change in load; vacuum tubes; determination of standard wave lengths for some of the metallic elements.

Borgeson, Dr. R(euben) W(aldemar), Pennsylvania Salt Mfg. Co, Philadelphia, Pa. *Chemistry.* Bloomington, Ill, March 11, 98. A.B, Denver, 19; M.S, Iowa State Col, 24, Ph.D, 28. Anal. chemist, Ore Products Corp, 20–21; instr. chem, Iowa State Col, 22–28, asst. prof, 28–36; develop. director, Fisher Sci. Co, 36–38; *mem. staff, Pa. Salt Mfg. Co, 38–* Surface tension; liquid hydrogen sulfide; hypochlorites; cryolite.

Borgman, Dr. William M(artin), Jr, Wayne University, Detroit, Mich. *Mathematics.* Detroit, Mich, Nov. 20, 03. B.S, Michigan, 24; M.S, Chicago, 31, Ph.D, 34. Instr. and later *asst. prof. math,* Col. City of Detroit, 25–33, *Wayne, 33–* Math. Soc; Math. Asn. Projective differential geometry.

Borgmann, Dr. C(arl) W(illiams), University of Colorado, Boulder, Colo. *Chemical engineering.* Kansas City, Mo, June 3, 05. B.S, Colorado, 27, Chem.E, 31; Ph.D, Cambridge, 34. Tech. staff, Bell Tel. Labs, 27–31; Am-Scandinavian fellow to Sweden, 33–34; asst. prof. chem. eng, North Carolina, 35–36; dept. research and metal, Nat. Tube Co, 36–38; *prof. chem. eng. and head dept, Colorado, 38–; mem, Chem. Warfare Service, Rocky Mountain Arsenal, 43–* Assoc. Chem. Eng; Eng. Educ; Chem. Soc. Corrosion of metals; passivity; unit operations.

Borgquist, Prof. E(rasmus) S(wan), University of Arizona, Tucson, Ariz. *Civil engineering.* Salt Lake City, Utah, April 19, 87. B.S. (C.E), 11, C.E, 17. Engineer, U. S. Reclamation Service, 11–13; State Highway Cmn, Utah, 13–26; assoc. prof. and *prof. civil eng, Arizona, 26–, head dept.* Instr, Utah, 24–25. Civil Eng. (pres, Ariz. sect, 35); Eng. Educ. Highway and concrete construction; hydraulics and sanitary engineering.

Borgstrom, Dr. P(arry), Naval Research Laboratory, Washington, D. C. *Chemistry.* St. Paul, Minn, Oct. 11, 90. B.S, Whitman Col, 15; M.S, California, 16, Ph.D, 19. Instr, Nevada, 19–20; research assoc, Mass. Inst. Tech, 20–21; instr, Tulane, 21–24, asst. prof, 24–26; research assoc, Am. Petrol. Inst, Hopkins, 26–28; *chemist, Naval Research Lab, 29–* A.A; Chem. Soc. Sulfur and petroleum products; fuel oil; organic metal compounds.

Boring, Prof. Alice M(iddleton), Yenching University, Peiping, China. *Zoology.* Philadelphia, Pa, Feb. 22, 83. A.B, Bryn Mawr Col, 04, A.M, 05, fellow, 06–07, Ph.D, 10; fellow, Pennsylvania, 05–06; Wurzburg, 08–09; Naples Zool. Sta, 08–09. Instr. zool, Vassar Col, 07–08; Maine, 09–11, asst. prof, 11–13, assoc. prof, 13–18; asst. biol, Peking Union Med. Col, 18–20; assoc. prof. *zool,* Wellesley Col, 20–23; *prof, Yenching Univ, 23–* A.A; Soc. Nat; Soc. Zool; Peking Nat. Hist. Soc. Cytology; regeneration; histology; Amphibia.

Boring, Prof. Edwin G(arrigues), Harvard University, Cambridge, Mass. **Psychology.* Philadelphia, Pa, Oct. 23, 86. M.E, Cornell, 08, A.M, 12, Ph.D, 14; hon. A.M, Harvard, 42. Asst. psychol, Cornell, 11–13, instr, 13–18; prof. exp. psychol, Clark, 19–22, director lab, 21–22; assoc. prof. *psychol, Harvard,* 22–28, *prof, 28–, director lab, 24–* Capt, psychol. service, U.S.A, 18–19. Nat. Acad; A.A; Psychol. Asn. (councilor, 20–25, sec'y, 20–22, pres, 28); Soc. Exp. Psychol; Am. Acad. Theoretical psychology; history of psychology; perception.

Boring, Mrs. Edwin G. (Dr. Lucy Day), 21 Bowdoin St, Cambridge, Mass. *Psychology.* Framingham, Mass, Aug. 27, 86. A.B, Mt. Holyoke Col, 08; Ph.D, Cornell, 12. Asst. psychol, Mt. Holyoke Col, 08–09; Cornell, 10; Vassar Col, 13–14; instr, Wells Col, 14–15; hon. fellow, Clark, 19–22. A.A; Psychol. Asn.

Borkon, Prof. E(li) L(eroy), Southern Illinois Normal University, Carbondale, Ill. *Physiology.* Chicago, Ill, Aug. 11, 08. B.S, Chicago, 31, Henry Strong Dennison fellow, 33–35, Ph.D, 36, M.D, 37. Asst. physiol, Chicago, 32–36; *assoc. prof. physiol. and health, South. Ill. Nor. Univ, 39–* Physiology and endocrinology of the kidney, thyroid and large bowel; motor activity of the large bowel; thyroid-parathyroid apparatus of the albino rat.

Borland, Prof. A(ndrew) A(llen), 310 S. Burrows St, State College, Pa. *Dairy husbandry.* Sandy Lake, Pa, June 11, 78. B.S, Pa. State Col, 09, John W. White fellow; M.S, Wisconsin, 10. Asst. dairy research, Pa. State Col, 10–11; head dept. animal and dairy husbandry, Vermont, 11–15; in charge dairy exten, *Pa. State Col,* 15–19, *prof. dairy husbandry and head dept, 19–* Mem. cmt. management, 'Jour. Dairy Sci'; contributing ed, 'Pa. Farmer.' Trustee, Westminster Foundation, Pa. State Col. Pres, Col. Feed Conf. Board, 31. U. S. del, Int. Dairy Cong, London, 28; U. S. judge, 4H Int. Dairy Cattle Judging Contest, Kent, 28. A.A; Dairy Sci. Asn. (v. pres, 20–22, pres, 22–24, pres, east. div, 24); Pa. Dairymen's Asn. (pres, 25–27). Dairy rations; protein requirements of dairy cows; nutrition of dairy cattle.

Borland, Dr. John R(aymond), Hofstra College, Hempstead, L. I, N. Y. *Endocrinology.* Weehawken, N. J, Nov. 18, 14. B.S, N. Y. Univ, 36, A.M, 38, Ph.D, 42. Lab. asst,

N. Y. Univ, 35–37, teaching fellow *biol*, 37–38, asst, 38–39; *instr, Hofstra Col, 39–* Amphibian endocrinology.

Borland, Whitney M(cNair), U. S. Bureau of Reclamation, Ft. Collins, Colo. *Engineering.* Holyoke, Colo, Nov. 6, 05. B.S, Nebraska, 28; M.S, California, 31. Junior engineer, *bur. reclamation, U. S. Dept. Interior*, 31–34, asst. engineer, 35, *assoc. engineer, 35–* Civil Eng; Geophys. Union. Discharge coefficient of rounded crest weirs; hydraulic models.

Borman, Earle K(irkpatrick), 150 Whitman Ave, West Hartford, Conn. *Bacteriology.* New York, N. Y, Oct. 11, 03. B.S, Rutgers, 23; M.S, Kentucky, 30. Junior bacteriologist, State Board Health, N. J, 23–24; asst. bacteriologist, pub. service labs, Ky. Exp. Sta, 24–27, chief bacteriologist, 27–32; *asst. director bur. labs, State Dept. Health, Conn, 32–* Conn. Asn. Pub. Health and Clin. Labs. (sec'y-treas, 34–). Public health laboratory methods; action of cations on bacteria; bacteriology of water, milk and cream; Enterobactereaceae.

Born, Kendall E(ugene), Tennessee Geological Survey, Nashville, Tenn. *Geology.* Chester, Ill. Feb. 15, 08. B.S, McKendree Col, 30; M.S, Vanderbilt, 31; Washington (St. Louis), 32–35. Asst. geologist and later *geologist, Tenn. Geol. Surv, 35–* Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner; Tenn. Acad. (sec'y-treas, 40–). Geology of Clay County, Tennessee; subsurface correlations; cryptovolcanic structures; iron ores; Mississippian stratigraphy of Tennessee; subsurface stratigraphy of western Tennessee; limestone resources of Tennessee.

Born, Dr. Sidney, 252 E. 27 Place, Tulsa, Okla. *Chemistry.* New York, N. Y, 89. B.S, Columbia, 10, Ph.D, 13. Chief chemist, Empire Refineries, Inc, and Empire Gas and Fuel Co, 16–20; asst. gen. supt, Transcontinental Oil Co, 20–30, Marathon Oil Co, 30–31; *prof. petrol. research, Tulsa, 31–* Chem. Soc. (past councilor and v. pres, Okla. sect); Soc. Test. Mat; fel. Inst. Chem; Chemists' Club; Eng. Club Tulsa. Petroleum chemistry; synthesis of alcohols from petroleum; cracking of hydrocarbons.

Bornemann, Prof. Alfred, 531 River St, Hoboken, N. J. *Chemical engineering.* Montclair, N. J, April 6, 06. M.E, Stevens Inst. Tech, 27; D.Ing, Sächsische Tech. Hochschule, Dresden, 30. Asst. prof. *eng. chem, Stevens Inst. Tech*, 30–41, *assoc. prof, 41–, director Peirce metals lab, 40–* Min. and Metal. Eng; Chem. Soc; Soc. Metals. Analytical chemistry; corrosion; physical metallurgy.

Bornmann, J(ohn) H(enry), 8036 Exchange Ave, Chicago, Ill. *Chemistry.* Quincy, Ill, July 10, 88. B.S, Illinois, 10, M.S, 12. Assoc. chemist and later *chemist, food and drug admin, Fed. Security Agency, 12–* Food chemistry.

Bornstein, Hyman, Deere and Co, Moline, Ill. *Chemical engineering.* Sept. 3, 91. B.S, Armour Inst. Tech, 11; LL.B, John Marshall Law Sch, 15. Chemist, Union Pacific R. R, 11–12; city eng. chemist, Chicago, Ill, 13–17; *director testing and research labs, Deere and Co, 20–* Capt, Ordnance Dept, 17–19. Chem. Soc; Soc. Test. Mat. (chairman, cmt. on cast iron, 30–36); Foundrymen's Asn. (director, 32–35, v. pres, 36, pres, 37); Soc. Automotive Eng; Soc. Metals (director, 25–27); Min. and Metal. Eng. Cast iron.

Borofsky, Dr. S(amuel), 245 Lenox Road, Brooklyn, N. Y. *Mathematics.* New York, N. Y, March 15, 07. A.B, Columbia, 26, A.M, 27, fellow, 29–30, Ph.D, 31. Asst. *math*, Columbia, 27–29, instr, 30–34; *Brooklyn Col*, 34–37, *asst. prof, 37–* Math. Soc; Math. Asn. Mathematical analysis.

Borror, Dr. Donald J(oyce), Ohio State University, Columbus, Ohio. *Entomology.* Columbus, Ohio, Aug. 24, 07. B.S, Otterbein Col, 28; M.S, Ohio State, 30, Ph.D, 35. Asst. zool, *Ohio State*, 28–30, instr. *zool. and entom*, 30–42, *asst. prof, 42–* Aid, div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 35; instr, Audubon Nature Camp, 38–41; research entomologist, Atlas Powder Co, 42. A.A; Ornith. Union; Entom. Soc. Amer; Wilson Ornith. Club; fel. Ohio Acad. Taxonomy, ecology and morphology of Odonata.

Borrowman, Dr. George, 9 S. Clinton St, Chicago, Ill. *Chemistry.* Stillwater, Minn, June 4, 80. B.S, Minnesota, 05; A.M, Nebraska, 07, Ph.D, 16. Asst. chem, Minnesota, 04–05; from instr. to prof. tech. and indust. chem, Nebraska, 05–18; research chemist, J. E. Teeple, 18–20; *consulting chemist, 20–* William Gibbs juror, 30–32. Chem. Soc. (chairman, Nebr. sect, 18). Chemistry of minerals and waters; water purification; glauconite; lignite.

Borsook, Prof. Henry, 1121 Constance St, Pasadena, Calif. *Biochemistry.* London, Eng, Nov. 8, 97. B.A, Toronto, 21, M.A, 22, fellow, 20–24, Ph.D, 24, M.B, 27, M.D, 40. Lecturer *biochem*, Toronto, 28–29; asst. prof, *Calif. Inst. Tech*, 29–35, *prof, 35–* Mickle fellow, Toronto, 27. Mem. food and nutrition board and cmt. nutrition in indust, Nat. Research Council. Soc. Biol. Chem; Soc. Exp. Biol; Asn. Sci. Workers (v. pres); assoc. N. Y. Acad. Application of thermodynamics to physiology and biochemistry; energy transfer in biological systems; nitrogen metabolism in animals and plants; nutrition; vitamins.

Borst, Dr. Harold L(amont), 1936 Hazel Ave, Zanesville, Ohio. *Agronomy.* Independence, Iowa, March 6, 89. B.S.A, Minnesota, 14, M.S, 20; Ph.D, Ohio State, 27. Teacher, high schs, 14–17; seed analyst, Minn. Exp. Sta, 17–18; instr, Minnesota, 19; Ohio State, 20–28, asst. prof. agron, 28–33, asst, Exp. Sta, 27–33; supt. erosion control work, U. S. Dept. Interior, 33–35; regional technician agron, soil erosion service, U. S. Dept. Agr, 35–36; *supervisor, Northwest. Appalachian Soil Conservation Exp. Sta, 36–* A.A; Soc. Agron; Soil Sci. Soc; Geophys. Union. Soil conservation.

Borst, Dr. Lyle B(enjamin), University of Chicago, Chicago, Ill. *Nuclear physics.* Chicago, Ill, Nov. 24, 12. A.B, Illinois, 36, A.M, 37; Ph.D, Chicago, 41. Asst. *physics, Chicago*, 40–41, *instr, 41–* Structure of atomic nuclei; nuclear reaction produced by a cyclotron.

Borthwick, Dr. H(arry) A(lfred), Bureau of Plant Industry Station, Beltsville, Md. *Botany.* Otsego, Minn, Jan. 7, 98. A.B, Stanford, 21, A.M, 23, Ph.D, 30. Teaching fellow, Stanford, 21–22; asst, col. agr, California, 22–30, asst. prof. bot, 30–36; *morphologist, bur. plant indust, U. S. Dept. Agr, 36–* Bot. Soc. Morphology and physiology of seeds; photoperiodism.

Boruff, Dr. C(lair) S, 902 Linn St, Peoria, Ill. *Chemistry, Bacteriology.* Joy, Ill, Sept. 21, 01. B.S, Monmouth Col, 23; M.S, Illinois, 25, Ph.D, 30. Instr. chem, staff, State Water Surv, Ill, 23–24; assoc. prof, Monmouth Col, 24–28; research chemist, State Water Surv, Ill, 28–34; *tech. director, Hiram Walker and Sons, Inc, 34–* Chem. Soc. Sanitary chemistry; general fermentology; water and sewage; chlorination; anerobic fermentation of cellulose and cellulosic materials with formation of methane; distilling and rectifying problems; feeds and vitamins.

Bosart, Dr. L(ouis) W(illiam), 3505 Telford St, Cincinnati, Ohio. *Chemistry.* St. Marie, Ill, Jan. 10, 74. A.B, Wittenberg Col, 93, A.M, 96; Heidelberg, 93, 95; Geneva, 94; Ph.D, Berlin, 98. U. S. Cast Iron Pipe and Foundry Co, Ohio, 98–01; Goldsmith Bros, Chicago, 01; research chemist, *Procter and Gamble Co*, Ivorydale, Ohio, 01–07, chief chemist, Staten Island, N. Y, 07–18, *research chemist and perfumer, Ivorydale, 18–* Chem. Soc. (chairman, Cincinnati sect, 25). Glycerin; fats; soap; perfume.

Bosch, Prof. Walter C(hristian), Tulane University, New Orleans, La. *Physics.* New Orleans, La, Sept. 22, 02. B.S, Tulane, 24, M.S, 26. Asst. *physics, Tulane*, 23–24, instr, 24–30, asst. prof, 30–36, *assoc. prof, 36–* Physical Soc; Asn. Physics Teachers; New Orleans Acad. Photoelectric effect; radioactivity measurement; photoelectric spectrophotometry.

Boshes, Dr. Benjamin, 30 N. Michigan Ave, Chicago, Ill. *Neuropsychiatry.* Chicago, Ill, Feb. 15, 07. M.D, Northwestern, 31, Elizabeth Ward fellow, 32–36, M.S, 34, Ph.D, 38; visiting fellow, Illinois, 34–36. Adj. *nervous and mental diseases*, Michael Reese Hosp, Chicago, Ill, 32–36; instr, *med. sch, Northwestern*, 35–38, assoc, 38–41, *asst. prof, 41–; major, Med. Corps, and chief neuropsychiat. sect, 12th gen. hosp, 42–* Psychiatrist, Inst. Juvenile Research, 36–41; consulting psychiatrist, Mooseheart Sch. Children, Ill, 36–41; consulting neuropsychiatrist, Ill. Eye and Ear Infirmary, 39–; asst. attending neuropsychiatrist, St. Luke's Hosp, Chicago, Ill, 40–; Passavant Mem. Hosp, 41– Visiting neuropsychiatrist, local draft boards, Chicago, Ill, 41– Am. Med. Asn; Psychiat. Asn; Asn. Research Nervous and Mental Disease; Cent. Neuropsychiat. Asn; Ill. Psychiat. Soc; Chicago Med. Soc. Parkinsonism; epilepsy; comparative physical studies in delinquency.

Boss, Prof. Andrew, University Farm, St. Paul, Minn. *Agronomy.* Wabasha Co, Minn, June 3, 67. Minnesota; Sc.D, Kans. State Col, 27. Asst. agriculturist, *Minnesota*, 94–02, assoc. prof. agr, 02–05, agr. and animal husbandry, 05–10, prof. *agr. and farm management*, 10–36, *emer. prof, 36–* V.

director, Exp. Sta, Minnesota, 16–36. Agron. Soc; Farm Econ. Asn. Crop rotation; farm management.

Boss, Dr. A(rthur) Evan, 840 Chalmers Place, Mt. Lebanon, Pa. *Chemistry.* Great Village, N. S, Can, Nov. 4, 01. B.A, British Columbia, 21, M.A, 23; Ph.D, Illinois, 27. Asst. chem, British Columbia, 21–24; Illinois, 24–27; Charles M. Hall research instr, Oberlin Col, 27–28; research chemist, B. F. Goodrich Co, 28–32; Columbia chem. div, Pittsburgh Plate Glass Co, 32–33; tech. sales, Columbia Alkali Corp, Barberton, Ohio, 33–35, asst. manager special products sales, 35–37, *manager* tech. service dept, 37–41; *pigment sales, Columbia chem. div, Pittsburgh Plate Glass Co, 41–; consultant synthetic rubber compounding research, Office Rubber Director, War Production Board, 43–* Chem. Soc. Colloid chemistry; rare earths; rubber pigments.

Boss, Benjamin, Dudley Observatory, Albany, N. Y. *******Astronomy.* Albany, N. Y, Jan. 9, 80. A.B, Harvard, 01. Asst, Dudley Observatory, Union (N. Y), 01–05; U. S. Naval Observatory, 05–06; in charge, U. S. Naval Observatory, Tutuila, Samoa, 06–08; sec'y, *dept. meridian astron, Carnegie Institution,* 08–12, acting director, 12–15, *director, 15–;* acting director, *Dudley Observatory, Union (N. Y),* 12–15, *director, 15–* Total solar eclipse exped, 08. Ed, 'Astron. Jour,' 12– A.A; Astron. Soc. The proper motions of stars; statistics.

Boss, Prof. William, 1439 Raymond Ave, St. Paul, Minn. *Agricultural engineering.* Zumbro Falls, Minn, Oct. 7, 69. Diploma, Minnesota, 04. Carpenter and builder, 87–90; steam engineer and carpenter, univ. farm, Minnesota, 90–92, instr. steam eng. and carpentry and in charge buildings, 92–06, prof. farm structures and mech, 06–10; managing owner, Specialty Mfg. Co, 10–18; acting chief div. agr. eng, *Minnesota,* 18–19, prof. farm eng, chief div. agr. eng. and chairman agr. eng. group, 19–38, *emer. prof. agr. eng, 38–; chief counselor, Boss Eng. Co, 29–* A.A; Agr. Eng. (past pres); Eng. Educ; Minn. Soc. Professional Eng; Eng. Soc. St. Paul. Motor power on the farm; mechanical training; the engineer and civilization; traction and stationary engines; threshing.

Bossart, Dr. Paul N(athaniel), Union Switch and Signal Co, Swissvale, Pa. *Physics.* Buffalo, N. Y, May 10, 96. B.S, Carnegie Inst. Tech, 16; E.E, Columbia, 20; Ph.D, Pittsburgh, 33. Asst. inspector eng. materials, develop. lab, Willard Storage Battery Co, 20–24; *research dept, Union Switch and Signal Co, 24–* Bur. steam eng, U.S.N, 17–19. Radio Eng. (chairman, Pittsburgh sect, 41); Physical Soc. Pittsburgh (v. pres, 26–37). Electrical apparatus and circuits; high temperature properties of tungsten-molybdenum alloys; railroad communication and signaling.

Bossert, Dr. Roy G(arner), Ohio Wesleyan University, Delaware, Ohio. *Chemistry.* Monongahela, Pa, Feb. 21, 08. B.S, Col. of Wooster, 30; M.S, Ohio State, 33, Ph.D, 36. Chemist, aluminum research labs, Aluminum Co. of Amer, New Kensington, Pa, 30–31; asst. *chem,* Ohio State, 32–36; instr, Kentucky, 36–37; *Ohio Wesleyan,* 37–38, *asst. prof, 38–* Summer, visiting asst. prof, Ohio State, 39; chem. research, Inst. Paper Chem, Lawrence Col, 41. Chem. Soc. Synthetic organic chemistry; medicinals; metal alkyls.

Bost, Prof. R(alph) W(alton), 215 Hillsboro St, Chapel Hill, N. C. *Chemistry.* Rockwell, N. C, Jan. 5, 01. A.B, Newberry Col, 23; A.M, North Carolina, 24, Ph.D, 28. Asst. *chem,* North Carolina, 23–24; instr, Tulane, 24–26; *North Carolina,* 26–28, asst. prof, 28–34, assoc. prof, 34–37, *prof, 37–, head dept, 39–* Physical Soc; Soc. Chem. Indust; Elisha Mitchell Sci. Soc; Chem. Soc; N. C. Acad; London Chem. Soc; Soc. chim. de France; Deuts. Chem. Gesell. Reactions of semicarbazides; p-cymene; metabolism and diet; organometallic and organic sulfur compounds; identification of organic compounds; cellulose degradation products; hydrocarbon stabilities.

Bost, W(illiam) Dale, 318 W. Superior St, Chicago, Ill. *Chemistry.* Matthews, N. C, Oct. 14, 89. Phar.D, Ph.C, Phila. Col. Pharmacy, 10; Washington (St. Louis), 12; California, 14. Chief chemist, Peroxide Specialty Co, St. Louis, 12–14; chemist in charge production, Langley and Michaells Co, San Francisco, 15–18; chief chemist and asst. director, Nat. Canners Asn, Los Angeles, and lab. and inspection service, Calif. div, 18–20; *chief chemist and director production, Orange-Crush Co, 20–, director, 21–,* v. pres, 21–30, *pres, 30–; Bost, Inc, New York.* Food investigation, State Board Health, Calif. Chem. Soc; Inst. Chem; Inst. Food Tech; Ill. Acad. Food preparation and preservation; production.

Bostian, Prof. C(arey) H(oyt), College Station, Raleigh, N. C. *Zoology.* China Grove, N. C, March 1, 07. A.B, Catawba Col, 28; M.S, Pittsburgh, 30, Ph.D, 33. Asst. zool, Pittsburgh, 28–30; asst. prof, *N. C. State Col,* 30–36, *assoc. prof. zool. and assoc. poultry genetics, 36–* A.A; Genetics Soc; Genetic Asn; Poultry Sci. Asn; N. C. Acad. Genetics; genetics of poultry.

Bostick, Dr. Winston Harper, 6 Lawler Road, West Medford, Mass. *Physics.* Freeport, Ill, March 5, 16. B.S, Chicago, 38, Ph.D, 41. Instr, Chicago, 40; *staff mem, radiation lab, Mass. Inst. Tech, 41–* Physical Soc; Asn. Sci. Workers. Heavy components of cosmic radiation; cloud chamber photographs of mesotron pair production at 29,000 feet altitude and of mesotron showers on Mt. Evans, Colorado.

Boston, Dr. Alvin Dale, 112 Finley St, Jacksonville, Ill. *Inorganic chemistry.* Pawnee, Ill, May 13, 02. A.B, Ill. Col; M.S, Tulane; Ph.D, Ohio State, 36. Instr, Tulane, 27–29; prof. science and head dept, Rio Grande Col, 29–35; asst. chem, Ohio State, 35–36; asst. prof, Otterbein Col, 36–37; assoc. personnel director, Antioch Col, 37–38; *Strawn prof. chem. and head dept, Ill. Col, 38–* Chem. Soc; Ill. Acad. Mesomorphic compounds of cholesterol; surface tension of substances in the mesomorphic state; oxidation in liquid ammonia.

Boston, Prof. Orlan W(illiam), 2021 Vinewood Blvd, Ann Arbor, Mich. *Engineering.* Nashville, Mich, July 16, 91. B.M.E, Michigan, 14, M.S.E, 17, M.E, 26. Instr. eng. mech, Michigan, 14–17; indust. engineer and asst. to v. pres, Cleveland Tractor Co, 19–21; *prof. metal processing, Michigan, 21–, chairman dept, 22–, director univ. instrument shop.* U. S. rep, Cong. Testing Materials, London, 37. Ensign-lieut, Ordnance Dept, 17–19. Mech. Eng. (hon. chairman, Univ. Michigan student branch, 33–35, chairman various cmts, 34–, subcmt. cutting fluids; subcmt. bibliog; mem. subcmt. cutting tool materials; research cmt. cutting metals); Eng. Educ. (cmt. mfg. processes, 38, 39, chairman, 40); Standards Asn. (sec'y cmt. standardization of small tools and machine tool elements; chairman and sec'y tech. cmt, 17, chairman, 21, sec'y, 19); Soc. Metals (mem, cmt. on hardness testing, 27, chairman, cmt. on machinability of steel, 30–); Inst. Weights and Measures (trustee, 30–36); Army Ordnance Asn; Soc. Tool Eng; Detroit Eng. Soc. Art of cutting metals; machinability of various metals; performance of cutting fluids; materials of aircraft construction; machine shop practise and elements of production; metal processing; machine tool design; measuring, gaging and inspection.

Bostrom, Dr. Ernest F(ritiof), 90 Marcy Ave, East Orange, N. J. *Biology.* V. Emtervik, Sweden, Oct. 23, 86. Univ. Lund, 07; Stockholm, 07–08; A.B, Minnesota, 16; Ph.D, N. Y. Univ, 23. Prof, Upsala Col, 17–20; instr. and asst. prof. physiol, N. Y. Univ, 20–24; *prof,* med. sch, George Washington, 24–25; *biol, Upsala Col, 33–* Hematology, especially the physico-chemical properties of the blood.

Bostwick, L(ee) G(ordon), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Acoustics.* Jericho, Vt, Feb. 3, 00. B.S, Vermont, 22. Develop. and research dept, Am. Tel. and Tel. Co, 22–26; *mem. tech. staff, research dept, Bell Tel. Labs, 26–* A.A; Acoustical Soc; Radio Eng. Electro-acoustic instruments; acoustic measurements; distortionless transmission of sound.

Boswell, Dr. Charles L(eland), 1465 N. Linwood Ave, Indianapolis, Ind. *Organic chemistry.* Buncombe, Ill, Jan. 31, 17. B.S, S. Dak. State Col, 38; Eli Lilly and Co. fellow, Purdue, 38–41, M.S, 39, Ph.D, 41. *Research chemist, Eli Lilly and Co, 41–* Lehn and Fink medal, 38. Pharmaceut. Asn. Development of stable combinations of vitamins for medicinal use.

Boswell, Prof. Foster P(artridge), Hobart College, Geneva, N. Y. *Psychology.* Rochester, N. Y, Feb. 14, 79. A.B, Hobart Col, 01; A.M, Harvard, 02, Ph.D, 04. Asst. philos, Harvard, 03–04; psychol, Wisconsin, 04–05; Missouri, 05–06; vol. asst, Berlin, 07; asst. prof, *Hobart Col,* 08–12, *prof.* psychol. and educ, 12–23, *philos. and psychol, 23–, head dept. philos, psychol. and educ.* Lieut. and psychol. examiner, Sanit.C, 17–19. A.A; Psychol. Asn; Philos. Asn. Psychology and physiology of vision; after-images and contrast phenomena; irradiation; aims and defects of college education; forms.

Boswell, Prof. M(aitland) C(rease), University of Toronto, Toronto, Ont, Can. *Chemistry.* Cannington, Ont, May 24, 79. B.A.Sc, Toronto, 02, Ph.D, 07; A.M, Harvard, 06.

Asst. analyst, Toronto, 02–03; asst. *chem*, Cornell, 03–04; demonstrator, *Toronto*, 06–08, lecturer, 08–12, *prof*, 12– A.A; Chem. Soc; Soc. Chem. Indust; Can. Inst; fel. Royal Soc. Can. Organic compounds; mechanism of reactions; gas reactions in plants.

Boswell, Dr. Victor R(ickman), Bureau of Plant Industry Station, Beltsville, Md. *Horticulture*. Joplin, Mo, Aug. 8, 00. B.S. (Agr), Missouri, 22; M.S, Maryland, 23, Ph.D, 26. Asst, Mo. Exp. Sta, 22; instr, Maryland, and asst, Exp. Sta, 22–26, asst. prof. hort. and asst. olericulturist, 26–27, assoc. prof, 27, prof. olericulture and olericulturist, 28; senior horticulturist in charge veg. investigations, *bur. plant indust, U. S. Dept. Agr*, 28–35, *prin. horticulturist, 35–, asst. head div, 41–* Soc. Hort. Sci. Physiological and breeding problems relating to growth, development and quality of vegetable crop plants and their products.

Bosworth, Alfred W(illson), R.F.D. 4, Circleville, Ohio. *Biochemistry*. Warren, R. I, Feb. 1, 79. B.S, R. I. Col, 99; Yale; A.M, Harvard, 13; hon. fellow, Ohio State, 30–34. Asst. chem, R. I. Exp. Sta, 99–04; expert, U. S. Dept. Agr, 04–05; asst. and assoc. chemist, N. Y. Exp. Sta, Geneva, 05–16; director research labs, Boston Floating Hosp, 16–21; fellow pediat, Harvard, 17–21; *consulting chemist, 21–* Asst, Harvard, 12–13. Instr, Ohio State, 34–36, asst. prof, 36–40. A.A; Chem. Soc; Inst. Nutrition; Soc. Biol. Chem. Milk and foods; infant metabolism.

Bothman, Prof. Louis, 310 S. Michigan Ave, Chicago, Ill. *Ophthalmology*. St. Louis, Mo, Nov. 16, 93. B.S, Chicago, 15, M.D, Rush, 17; Illinois, 21–26; Vienna, 26–27. Asst. ophthal, Illinois, 21–23, instr, 23–25, assoc, 25–27; asst. prof, Chicago, 27–30, assoc. prof, 30–37, clin. prof, 37–42; *senior attending ophthalmologist, St. Luke's Hosp, 42–* Col. Surg; Am. Med. Asn; Acad. Ophthal. and Otolaryngol; Chicago Ophthal. Soc. (ed, 'Year Book,' 31–). Physiology of the eye and refraction.

Botkin, Prof. C(layton) W(infield), State College, N. Mex. *Chemistry*. La Fontaine, Ind, Oct. 13, 79. A.B, Indiana, 08; A.M, Wisconsin, 14. Prof. chem, Wheaton Col, 15–18; Colo. Sch. Mines, 18–20; research chemist, Am. Shale and Petrol. Co, Colo, 20–21; *prof. chem. and head dept, N. Mex. Col, 21–* A.A; Chem. Soc; West. Soc. Soil Sci. Composition of shale oils; alkali and plant food in relation to irrigation; permeability of fine-textured soils; influence of irrigation agriculture on soil profiles; composition and food value of piñon nuts; fiber of native desert plants.

Botset, Holbrook G(orham), W. Waldheim Road, Fox Chapel, Pittsburgh, Pa. *Physical chemistry*. Plymouth, Ind, Oct. 23, 00. B.S, Purdue, 22. Physicist, Standard Chem. Co, 22–26; asst. chief chemist, Radium Dial Co, 26–28; indust. fellow, Mellon Inst, 28–29; *physical chemist, Gulf Research Lab, 30–* Instr, Carnegie Inst. Tech, 25–29. A.A; Chem. Soc; Min. and Metal. Eng; Physical Soc. Pittsburgh. Permeability measurements; flow of fluids through porous materials; radioactivity.

Botsford, Prof. E(mily) Frances, Connecticut College, New London, Conn. *Physiology*. Newtown, Conn, Sept. 10, 93. A.B, Mt. Holyoke Col, 17; M.S, Yale, 22, Sterling fellow, 24–25, Ph.D, 25. Asst. physiol. and biol, Goucher Col, 17–18; physiol, Mt. Holyoke Col, 18–20, instr, 20–21; high sch, Conn, 22–26; from instr. to *assoc. prof. zool, Conn. Col, 26–* Summer, instr, N. C. Col. for Women, 18; Marine Biol. Lab, Woods Hole, 23. A.A; Soc. Zool. Protozoology; life history and contractile vacuole of amoeba; neuro-muscular responses in earthworm.

Botsford, Prof. H(arold) E(ugene), Cornell University, Ithaca, N. Y. *Poultry husbandry*. Bridgeport, Conn, July 18, 87. B.S, Cornell, 18. From asst. to *exten. prof. poultry husbandry, Cornell, 16–* Manager div. information, Pacific Egg Producers, New York, 26–27; assoc. marketing specialist, U. S. Dept. Agr, 29–30. Chairman marketing cmt, Northeast. Poultry Producers Council, 33–37. A.A; Poultry Sci. Asn; World Poultry Sci. Asn. Relation of the appearance of unbroken eggs to their broken-out condition; poultry house ventilation; consumer habits and preferences in buying eggs; practical poultry management.

Botsford, Dr. J(ames) L(awrence), Army Air Corps Training Detachment, Ellensburg, Wash. *Mathematics*. Seattle, Wash, Dec. 28, 06. A.B, Washington (Seattle), 28; Ph.D, Calif. Inst. Tech, 33. Asst, Washington (Seattle), 28–29; teaching fellow, Calif. Inst. Tech, 29–32; instr. math. and dean men, East. Wash. Col. Educ, 33–43; *instr. physics, training detachment, Air Corps, U. S. Army, 43–* Tensor analysis and modern differential geometry.

Bott, Prof. Edward A(lexander), University of Toronto, Toronto, Ont, Can. *Psychology*. Ingersoll, Ont, April 11, 87. B.A, Toronto, 12. Instr. *psychol, Toronto*, 16–26, *prof. and director lab, 26–* Visiting assoc. prof, Yale, 25–26. Psychol. Asn. Experimental psychology; vision; muscle action.

Bott, Dr. P(hyllis) A(dele), 6445 Greene St, Philadelphia, Pa. *Physiological chemistry*. Milwaukee, Wis, Aug. 21, 99. A.B, Wisconsin, 23, M.S, 24; Ph.D, Pennsylvania, 30. Instr. chem. and biol, Hampton Inst, 25–27; asst. physiol. chem, Pennsylvania, 29–30; research assoc. biol, Princeton, 30–33; pharmacol, Pennsylvania, 33–41; *assoc. prof. physiol. chem. and consultant clin. chem, Woman's Med. Col. Pa, 41–* Soc. Biol. Chem; Chem. Soc; N. Y. Acad. Intermediary carbohydrate metabolism; functional studies on adrenal cortex and kidney; ultramicro analysis.

Bottom, Prof. V(irgil) E(ldon), Colorado State College, Ft. Collins, Colo. *Physics*. Douglass, Kans, Jan. 6, 11. A.B, Friends, 31; M.S, Michigan, 38. Prof. *physics* and head dept, Friends, 38–42; *asst. prof, Colo. State Col, 42–* Physical Soc; Asn. Physics Teachers; Kans. Acad.

Bottoms, R(obert) R(oger), 1 Overhill Road, Birmingham, Ala. *Organic chemistry*. Jonesboro, Ga, Dec. 26, 90. Michigan. Lieut. commander helium div, bur. eng, U. S. Navy, 17–27; director research, Helium Co, Louisville, 27–36; *chem. director, Swann and Co, 36–* Chem. Soc; U. S. Naval Inst. Occurrence and production of helium; uses of organic bases in separation of acidic constituents of gases; dissociation constants of acids and bases; thermodynamics of gas liquefaction; synthesis of amines, amino acids and other nitrogen compounds.

Bottorff, Dr. Edmond (Milton), 5025 Akron St, Philadelphia, Pa. *Organic chemistry*. Milroy, Ind, Sept. 14, 16. A.B, Hanover Col, 37; Ph.D, Illinois, 41. *Research chemist, Resinous Products and Chem. Co, 41–* Chem. Soc. Action of the Grignard reagent on sterically hindered esters.

Botts, Dr. Adelbert K(enneth), 1920 Pennington Road, Trenton, N. J. *Geography*. Frazee, Minn, May 2, 03. A.B, N. Dak. State Teachers Col, 26, A.M, 31; Ph.D, Clark, 34. Teacher, jr. high sch, Litchfield, Minn, 27–29, Albert Lea, 29–30; acting asst. prof. geog, Miami (Ohio), 31–32; geographer, N. Y. State Nor. Sch, Cortland, 34–38, 39–40; visiting lecturer *geog*, Teachers Training Col, Auckland, N. Z, 38–39; *assoc. prof, N. J. State Teachers Col, Trenton, 40–* Climatologist, soil conservation service, U. S. Dept. Agr, 36. Summer, mem, faculty, Clark, 38. Council Geog. Teachers (director); Meteorol. Soc. Economic geography; New Zealand; climate.

Botts, Prof. E(lbert) D, 2056 Alameda Way, San Jose, Calif. *Chemistry*. Lancaster, Mo, 93. A.B, Albany, 18; M.S, Wisconsin, 21, Ph.D, 24. Asst. prof. physiol. chem, Louisville, 22–23; research chemist, Am. Marine Paint Co, San Francisco, Calif, 24–28; *prof. chem, San Jose State Col, Calif, 28–* Consulting chemist, San Francisco. Electrochemistry of metallic titanium; anti-grass marine paints.

Bottum, Prof. Frances R(anney), George Peabody College, Nashville, Tenn. *Botany*. New York, N. Y, Dec. 11, 90. B.S, George Peabody Col, 20, A.M, 26, Ph.D, 41. Instr. *biol, George Peabody Col*, 26–30, *assoc. prof, 30–* A.A; Tenn. Ornith. Soc; Tenn. Acad. (chairman bot. sect, 42). Plant ecology and plant morphology.

Boucek, Dr. Charles M(ichael), 1534 Termon Ave, Pittsburgh, Pa. *Pathology, Anatomy*. Pittsburgh, Pa, Jan. 13, 03. B.S, Pittsburgh, 26, M.D, 28; Yale, 30–31. Asst. res. surg, Yale, 31–33; asst. anat, Pittsburgh, 24–28, demonstrator, 29–30, 33–36, instr, 36–41; *lieut. col, Med. Corps, U. S. Army, 42–* Pathologist, Pittsburgh Bur. Smoke Regulation, 33–40. Surgery; placental permeability; anesthetics; pathological effects of smoke in relation to tuberculosis and pneumonia.

Boucher, Prof. Paul E(dward), 2312 N. Cascade, Colorado Springs, Colo. *Physics*. Bayard, Iowa, Feb. 2, 93. A.B, Colo. Col, 18; fellow, Rice Inst, 20–21, A.M, 21, Ph.D, 28; Dartmouth Col. Instr. and asst. prof. *physics*, Colo. Col, 21–24; instr, Rice Inst, 24–25; assoc. prof, *Colo. Col*, 25–28, *prof, 28–* Summers, Colo. Col; research, Bell Tel. Labs, 20. Instr, Army Service Sch, Colo. Col, 18. A.A; Asn. Physics Teachers; Colo-Wyo. Acad. (exec. cmt, 27–30; pres, 38). The measurements of the resonance, radiation and ionization potentials of gases and vapors; mobility of negative ions in gaso-

line, hydrogen and hydrogen-chlorine flames; drop of potential at the cathode in flames; control of photographic contrast by time of development and intensification; photovoltaic cells; photography; fundamentals of photography.

Boucher, Prof. Robert V(aughan), Pennsylvania State College, State College, Pa. *Biochemistry.* Colorado Springs, Colo, Nov. 19, 01. A.B, Missouri, 27, A.M, 29, Ph.D, 33. Asst. agr. chem, Missouri, 27–33, instr, 34; nat. research fellow, Yale, 34–35; biochemist, research dept, Am. Can Co, 36–37; assoc. prof. *biochem, Pa. State Col,* 37–42, *prof, 42–* A.A; Chem. Soc; Poultry Sci. Asn. Biological chemistry; poultry nutrition.

Boudreau, Dr. Frank G(eorge), 40 Wall St, New York, N. Y. *Medicine.* New Glasgow, Que, Can, July 18, 86. M.D, McGill, 10. Intern, Royal Victoria Hosp, Montreal, 10; pathologist, Charity Hosp, Cleveland, 11; epidemiologist, State Board Health, Ohio, 11–25, director div. communicable diseases and div. local health organization, 13–25; epidemiologist-statistician, health sect, League of Nations, Geneva, 25–33, director, 33–34, chief service epidemiol, intel. and pub. health statist, 34–37; *exec. director, Milbank Mem. Fund,* 37– Instr. and asst, Ohio State, 15–16. Assoc. ed, 'Ohio Pub. Health Jour,' 13–16, Trustee, N. Y. Sch. Social Work; mem. advisory council, Princeton Sch. Pub. Int. Affairs. Chairman cmt. food and nutrition and chairman subcmt. nutrition in indust, Nat. Research Council. M.C, 17–19, major. Pub. Health Asn; League of Nations Asn. (pres); N. Y. Pub. Health Asn; Community Service Soc. New York (trustee); Columbus Acad. Med. Epidemiology; acute poliomyelitis; typhoid fever; pathology; international cooperation in hygiene; hospital organization and administration; nutrition; public health administration.

Boudreaux, Dr. L(ucille) Grace, Scott, La. *Organic chemistry.* Scott, La, Aug. 11, 13. B.S, Southwest. La. Inst, 32; M.S, Louisiana, 36, Ph.D, 41. Teacher, high sch, La, 32–34; teaching fellow chem, Louisiana, 34–39; instr, Miss. State Col. for Women, 39–42; *chemist, Lone Star Defense Corp, 42–* A.A; Chem. Soc. Preparation and antiseptic properties of some phenolic derivatives of diphenyl; removal of chlorides and sulphates by synthetic resins.

Boughton, Dr. Donald C(larke), U. S. Bureau of Animal Industry, Beltsville, Md. *Zoology.* Warren, Ohio, Feb. 17, 05. B.S, Pittsburgh, 26; M.S, Minnesota, 28; Ph.D, Wisconsin, 32. Asst. zool, Minnesota, 26–29; instr, Wisconsin, 29–31, asst. prof, 31–34; asst, dept. animal and plant path, Rockefeller Inst, 34–37; asst. prof. zool. and poultry husbandry, Georgia, 37–39; assoc. protozoologist, regional animal disease research lab, *bur. animal indust, U. S. Dept. Agr,* Ala, 39–42, *protozoologist, Md, 42–* Nat. research fellow, 32–34; fellow by courtesy, Hopkins, 32–33; research fellow, Harvard, 33–34. A.A; Soc. Zool; Soc. Parasitol; Poultry Sci. Asn; Asn. Southeast. Biol. (sec'y-treas, 39–43); Wash. Acad. Protozoology; avian and bovine coccidiosis; parasite periodicity.

Boughton, Dr. I(van Bertrand), Box 526, Sonora, Texas. *Veterinary medicine.* Defiance, Ohio, Jan. 5, 93. D.V.M, Ohio State, 16. Asst. prof. animal path, Illinois, 19–25; *veterinarian,* Service Technique d'Haiti, 25–31, director, Exp. Sta, 29–31; *veterinarian, Exp. Sta, Agr. and Mech. Col. Texas, 32–* Vet. Med. Asn; Soc. Parasitol; U. S. Live Stock Sanit. Asn. Goat and sheep diseases; diseases and parasites of live stock.

Boughton, Prof. Lloyd L, University of Kansas, Lawrence, Kans. *Physiology, Pharmacology.* Gettysburg, S. Dak, May 20, 95. B.S, Iowa, 26; M.S, Kansas, 36, Ph.D, 40. Custodian, service of supplies, univ. hosps, Iowa, 25–26; *assoc. prof. pharmaceut. chem. and mat. med. and faculty adviser hosp. dispensing, Kansas, 26–; analyst, State Drug Lab, 26–* Lieut, U.S.A, 17–20. Chemistry of the blood in measles; effects of life-cycle therapeutic dose administration of drugs to albino rats.

Boughton, Dr. R(ex) V(ivian), Pacific Biological Station, Nanaimo, B. C, Can. *Marine research.* Bletchley, Eng, Aug. 20, 06. B.Sc, Manitoba, 30, M.Sc, 32; Ph.D, Minnesota, 35. Demonstrator, Manitoba, 29–32; asst, Minnesota, 32–35; *fisheries investigator, Pacific Biol. Sta, Biol. Board Can, 38–* Nat. Research Council Can. grant, 30–32. Factors governing the commercial herring fishery of British Columbia.

Boughton, Willis A(rnold), 12 Oxford St, Cambridge, Mass. *Chemistry.* Ann Arbor, Mich, May 30, 85. A.B, Harvard, 07, A.M, 19. Asst. to director and later asst. director chem. lab, Harvard, 07–40; *retired.* Research consultant, New Eng. Mica Co, 22–; pres, Bennett Box Co, 26–35. Editor's asst, 'Jour. Am. Chem. Soc,' 17–27. Mem. cmt. on nomenclature in inorg. chem, Int. Union Pure and Applied Chem, 33. A.A; Chem. Soc. Small amounts of arsenic; metaphosphates; inorganic lubricants; mica products; chemical terminology and lexicography.

Bouknight, Dr. Joseph W(ard), Agricultural and Mechanical College of Texas, College Station, Texas. *Inorganic chemistry.* Irmo, S. C, Dec. 29, 07. B.S, South Carolina, 30; M.S, Northwestern, 33; Ph.D, Washington (Seattle), 38. Acting instr, Washington (Seattle), 38–39; *instr. chem, Agr. and Mech. Col. Texas, 39–* Chem. Soc. Investigation of complex compounds.

Boultbee, Dr. A(rthur) H(allam), Shell Oil Co, Wilmington, Calif. *Chemical engineering.* Kenora, Ont, Can, Feb. 6, 08. B.A.Sc, Toronto, 29, M.A.Sc, 30, Ph.D, 33; D.I.C, London, 33. *Chem. engineer, Shell Oil Co, 35–* Physical chemistry; chemical engineering.

Boulton, (Wolfrid) Rudyerd, (Jr), Field Museum of Natural History, Chicago, Ill. *Ornithology.* Beaver, Pa, April 5, 01. Amherst Col; B.S, Pittsburgh, 24. Research asst, Am. Museum Nat. Hist, intermittently, 22–25; asst. curator, Carnegie Museum, 27–31; *Field Museum Nat. Hist,* 31–36, *curator, 37–* Exped, Am. Museum Nat. Hist, west. Panama, 24, Vernay exped, Angola, 25, Straus exped, Africa, 29; Carnegie Museum exped, Africa, 29–30, Pulitzer exped, Angola, 30–31; Field Museum Nat. Hist, Straus exped, W. Africa, 34; Mandel expeds, West Indies, 37, Caribbean, 40, Galapagos, 41. Ornith. Union (treas, 38–); Ecol. Soc; fel. Am. Geog. Soc; Linnaean Soc. N. Y; fel. Royal Geog. Soc; British Ornith. Union. Anatomy of birds; distribution and taxonomy of African birds.

Boundy, Ray H(arold), Dow Chemical Co, Midland, Mich. *Chemistry.* Brave, Pa, Jan. 10, 03. B.S, Grove City Col, 24; B.S, Case, 26, M.S, 30. *Physical chemist and exec, Dow Chem. Co, 30–* Insulation cmt, Nat. Research Council. Chem. Soc; Electrochem. Soc; Detroit Eng. Soc. Production and use of metallic sodium; electrometric analysis; automatic control; production of bromine from seawater; utilization of olefine derivatives; plastic development.

Bouquet, Prof. A(rthur) G(eorge), 118 N. 21st St, Corvallis, Oregon. *Horticulture.* Sutton, Surrey, Eng, March 9, 85. B.S, Oregon State Col, 06; Mass. Col, 08–09; M.S, Cornell, 30. Instr. hort, *Oregon State Col,* 09–11; asst. veg. crops, 11–12, asst. prof. *hort,* 12–15, assoc. prof, 15–16, *prof, 16–* Asst, Cornell, 29–30. Soc. Hort. Sci. Cauliflower; tomatoes; broccoli; irrigation of vegetables.

Bourgin, Dr. D(avid) G(ordon), University of Illinois, Urbana, Ill. *Mathematical physics.* New York, N. Y, Nov. 6, 00. Ph.D, Harvard, 26. Instr, Lehigh, 25–27; assoc. *math, Illinois,* 27–37, *asst. prof, 37–* Fel. Physical Soc. Hydrogen chloride fundamental band; approximation methods; theory of sound; differential equations; operators; elasticity; linear topological spaces.

Bourland, Dr. James F(agan), Caleo Chemical Division, American Cyanamid Co, Bound Brook, N. J. *Chemistry.* Ft. Smith, Ark, June 3, 15. B.S, Arkansas, 36; M.S, Purdue, 38, Ph.D, 41. Asst. org. chem, Purdue, 36–39; research fellow, 39–41, *mem. staff, Calco chem. div. Am. Cyanamid Co, 41–* Chem. Soc. Industrial production of sulfonamide drugs; industrial organic chemistry.

Bourland, Dr. L(angford) T(odd), 162 Chesapeake St, S. W, Washington, D. C. *Physics.* Pontiac, Ill, Sept. 4, 04. Bradley Polytech, 21–24; B.S, Illinois, 26, M.S, 28, fellow, 28–30, Ph.D, 30. Research engineer, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 30–38; *Naval Research Lab,* 38–40, radio engineer, 41–43, *senior physicist, 43–* Summers, Bell Tel. Labs, 26; radio receiving engineer, Radio Corp. Amer, 28. A.A; Radio Eng; Physical Soc. Magnetic measurements; copper oxide rectifier; radio engineering.

Bourn, Dr. Janet M(acfarlane), 1023 Short St, East Lansing, Mich. *Bacteriology.* North Providence, R. I, Aug. 10, 94. Ph.B, Brown, 15; Ph.D, Chicago, 28. Bacter. and serol. work, path. lab, R. I. Gen. Hosp, 15–17; asst. bacter, Rockefeller Inst. Hosp, 17–20; in charge Saratoga County Lab, N. Y, 20–21; asst. hygiene and bacter, Chicago, 22–26; fellow and asst. bacteriologist, Nelson Morris inst, Michael Reese Hosp, Chicago, 26–28; asst. immunol, sch. hygiene and pub. health, Hopkins, and bacteriologist on the common cold, John J. Abel Fund, 28–31; bacteriologist and immunolo-

gist, Abington Mem. Hosp, Pa, 31–33; *bacteriologist, State Dept. Health, Mich, 36–* A.A; Pub. Health Asn. Hemophilic bacilli; febrile reactions following intravenous injections; bacteriology of distilled water; etiology of common cold; Pfeiffer's bacillus in throats during epidemic and interepidemic periods in Chicago; Hemophilus influenzae in upper respiratory disease and in health; Streptococcus hemolyticus (beta) in the presence and absence of acute minor upper respiratory disease.

Bourn, Dr. W(arren) S(cudder), 115 Randolph Ave, Alexandria, Va. *Plant physiology.* Frametown, W. Va, Jan. 22, 96. A.B, West Virginia, 23, A.M, 25; Ph.D, Columbia, 33. Instr, West Virginia, 25–26; investigator, Boyce Thompson Inst, 26–31, plant physiologist, 31–35; asst. aquatic biologist, bur. biol. surv, U. S. Dept. Agr, 35–40; *biologist, fish and wildlife service, U. S. Dept. Interior, 40–* A.A; Bot. Soc; Ecol. Soc; Torrey Bot. Club; W. Va. Acad. Rhizoctonia disease of certain aquatic plants; destruction of duckfood plants in Currituck Sound, North Carolina, and Back Bay, Virginia; gaseous requirements of aquatic seed plants; ecology and physiology of certain aquatic angiosperms; sea-water tolerance of aquatic seed plants.

Bourne, Prof. A(rthur) I(srael), 72 E. Pleasant St, Amherst, Mass. *Entomology.* Kennebunkport, Maine, Oct. 29, 86. A.B, Dartmouth Col, 07; Mass. Col. Conn. Exp. Sta, 09; bur. entom, U. S. Dept. Agr, 09–10; asst. research prof. and *research prof. entom, Exp. Sta,* Mass. Col, 10–31, *Mass. State Col, 31–* A.A; Asn. Econ. Entom. (sec'y, 32–36). Economic entomology.

Bourne, Dr. B(enjamin) A(rthur), 705 Poinsettia St, Clewiston, Fla. *Plant pathology and physiology.* Bridgetown, Barbados, B. W. I, May 25, 97. B.S, Syracuse, 19, M.S, 24; Ph.D, Cornell, 33. Asst. director agr, Barbados, B. W. I, 19–23; prof. plant path, Puerto Rico, 23–25; asst. pathologist in charge, U. S. Sugar Cane Breeding Sta, Canal Point, Fla, 26–29; chief research dept, South. Sugar Co, Fla, 29–30; plant physiologist in charge sugar-cane investigations, Exp. Sta, Florida, 30–34; *v. pres. div. research, U. S. Sugar Corp, 34–* Lecturer, Harrison Col, Barbados, 19. Phytopath. Soc; Bot. Soc; Soil Sci. Soc. Fla; Int. Soc. Sugar Cane Technol. The genetics, diseases, agronomy and physiology of sugar-cane, sweet potatoes, peanuts, lemon grass and other field crops.

Bourne, Prof. R(ichard) F(ranklin), 505 Gordon St, Ft. Collins, Colo. *Veterinary physiology, Histology.* Delphos, Kans, Feb. 7, 81. B.S, Kans. State Col, 03; D.V.S, Kansas City Vet. Col, 06. *Prof.* physiol, Kansas City Vet. Col, 06–18; *vet. physiol,* Colo. Agr. Col, 18–35, *Colo. State Col, 35–* Veterinarian, bur. animal indust, U. S. Dept. Agr, 08. Vet. Med. Asn; Colo. Vet. Med. Asn. (sec'y, 27–29; pres, 40). Animal parasites; physiological advancement; laboratory guides in histology, physiology and pharmacy.

Bourne, Dr. Wesley, McGill University, Montreal, Que, Can. *Pharmacology.* Barbados, B. W. I, April 24, 86. M.D, McGill, 11, M.Sc, 24. *Lecturer pharmacol, McGill, 21–* Anesthetist, Montreal Gen, Royal Victoria, Shriners, St. Mary's, Children's Mem, Grace Dart and Verdun Protestant Hosps. 'British Jour. Anesthesia' prize, 34; Hickman medal, Royal Soc. Med, 35. V. pres, sect. anesthesia, British Med. Asn, centenary meeting, London, 32. Lieut. col, M.C, R.C.A.A.A; Soc. Pharmacol; Soc. Anesthetists (pres, 42); Associated Anesthetists U. S. and Can. (pres, 25); Can. Physiol. Soc; Can. Med. Asn. (pres, sect. anesthesia, 32–38); fel. Royal Col. Physicians Can; cor. mem. Asn. Anesthetists Gt. Britain and Ireland; cor. mem. Royal Soc. Med; cor. for. mem. Soc. française d'Anesthésie et d'Analyésie. Anesthesia; urine secretion; pure ether; impurities in ether; acidosis; heat regulation and water exchange; liver and kidney function; circulation; ephedrine; blood gases; obstetrics; vinyl ether; cyclopropane; sedatives on conditioned reflexes and on neuroses; spinal anesthesia; chemical changes in blood.

Bourque, Dr. Joseph E(dward), 3961 Buckingham, Detroit, Mich. *Physiology.* Somersworth, N. H, Oct. 18, 08. B.S, New Hampshire, 29, M.S, 30; Ph.D, Cornell, 39. Instr. zool, New Hampshire, 35; teaching fellow comp. anat, Cornell, 35–39; instr. physiol, embryol. and comp. anat, Loyola (La), 39–40; teaching fellow *physiol, col. med, Wayne,* 40–41, *instr, 41–* Detroit Physiol. Soc. Gastric motility and secretion; traumatic shock.

Bourquin, Prof. Anne, Syracuse University, Syracuse, N. Y. *Nutrition.* Aspen, Colo, April 30, 97. B.S, Chicago, 19, M.S, 23; Ph.D, Columbia, 30. Instr. chem, N. C. Col. for Women, 24–26; asst. food chem, Columbia, 29–30; *prof. nutrition, Syracuse, 30–* Chem. Soc; Home Econ. Asn; Dietetic Asn. Quantitative determination of vitamin $G(B_2)$; metabolism.

Bourquin, Dr. Helen, 923 Nevada Ave, Colorado Springs, Colo. *Physiology.* Aspen, Colo, June 1, 93. A.B, Colo. Col, 15; M.S, Chicago, 16, Ph.D, 22. Prof. biol, Agnes Scott Col, 16–19; instr, Colorado, 21–22; prof. physiol, South Dakota, 22–28; asst. prof. pharmacol, Michigan, 28–31; Europe, 31–35. Physiol. Soc. The kidney; placental permeability; diabetes insipidus; secretion of urine.

Bousfield, Prof. W(eston) A(shmore), University of Connecticut, Storrs, Conn. *Psychology.* Sao Ching, China, April 22, 04. B.M.E, Northeastern, 27; A.M, Boston Univ, 28; A.M, Harvard, 32, Ph.D, 33. Instr. *psychol,* Tufts Col, 29–39; asst. prof, *Connecticut,* 39–41, *assoc. prof, 41–, head dept, 39–* A.A; Psychol. Asn; East. Psychol. Asn. Motivation; sleep; affectivity.

Bouslog, Dr. John S(amüel), 304 Republic Bldg, Denver, Colo. *Radiology.* Logan, Ill, Oct. 13, 90. A.B, Colorado, 14, M.D, 16. *Asst. prof. radiol, sch. med, Colorado, 40–* A.A; fel. Col. Radiol; Radiol. Soc. N. Amer; Roentgen Ray Soc; Radium Soc; fel. Am. Med. Asn; Asn. Study Neoplastic Diseases; Colo. State Med. Soc. (constitutional sec'y, 33–, chairman board trustees, 37–); Denver Radiol. Club (pres, 38). Roentgenologic studies of the gastro-intestinal tract in children.

Bousquet, Dr. E(uclid) W(ilfred), 2334 W. 18th St, Wilmington, Del. *Organic chemistry.* Attawaugan, Conn, Dec. 7, 99. A.B, Illinois, 25, M.S, 26, Ph.D, 29. Asst. instr. org. chem, Illinois, 25–29; *research chemist, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Hypnotics and agricultural poisons.

Bouton, C(raig) M(iller), 2811 Hillegass Ave, Berkeley, Calif. *Chemistry.* Lake City, Colo, April 1, 82. A.B, Colorado, 04, M.S, 16. U. S. Bur. Mines, 17–27; research physical chemist, Union Switch and Signal Co, Pa, 27–31; *with Shell Develop. Co, Emeryville, 36–* The determination of mercury; silver in chloride volatilization; reduction of ferric oxide by methane; dust explosions; microchemistry in manufacturing problems; petroleum products; production of petroleum.

Boutwell, John M(ason), Continental National Bank, Salt Lake City, Utah. *Geology.* St. Louis, Mo, May 1, 74. Amherst Col, 93–94; A.B, Harvard, 97, B.S, 98, M.S, 99, 99–00. Asst. physiog, Harvard, 97–00; asst. geologist, U. S. Geol. Surv, 00–04, geologist, 04–08; *consulting mining geologist, 08–* Summers, asst, Harvard, 96–98; field asst, U. S. Geol. Surv, 98–99. A.A; Geol. Soc; Soc. Econ. Geol; Seismol Soc; Min. and Metal. Eng. (chairman, Utah sect, 29, v. chairman, nat. cmt. on mining geol, 34–, director, 37–); Min. and Metal. Soc. (councilor, 34–36); Wash. Acad; Soc. Geog. de Lima. Physiographic and geologic studies in New England, Dakota, Utah and California; geology of ore deposits in the western United States, Mexico and Peru.

Boutwell, Prof. P(aul) W(inslow), Beloit College, Beloit, Wis. *Chemistry.* Lyndeborough, N. H, Feb. 6, 88. B.S, Beloit Col, 10; A.M, Wisconsin, 12, Ph.D, 16. Asst. chem, Wisconsin, 12–16; instr, Del. Col, 16–17; agr. chem, Wisconsin, 17–18, asst. prof, 18–20; assoc. prof. *chem, Beloit Col,* 20–21, *prof. and head dept, 21–* A.A; Chem. Soc; Wis. Acad. (pres, 39–42). Organic and biological chemistry.

Bouyoucos, Prof. George J(ohn), Michigan State College, East Lansing, Mich. *Soils.* Tripolis, Greece. B.S, Illinois, 09; Ph.D, Cornell, 11; Göttingen; Paris; London, 12–14. Research assoc. *soils, Mich. State Col,* 11–20, *research prof, 20–* U. S. Govt. and Am. Red Cross Cmn. to Greece, 18–20. The Great Cross, Greece. Soc. Agron; Chem. Soc. The physics and physicochemistry of soils.

Bovard, Prof. John F(reeman), University of California at Los Angeles, Los Angeles, Calif. *Zoology.* Los Angeles, Calif, 81. B.S, California, 03, M.S, 06, Ph.D, 17. Instr. zool, Oregon, 03–08, asst. prof. biol, 08–16, prof. zool, 16–20, physical educ, 20–37, head dept, 16–20, dean sch. physical educ, 20–37; *with dept. physical educ, California at Los Angeles, 37–, chairman dept, 39–* Asst, California, 03; asst, San Diego Marine Biol. Lab, 03–06; investigator, Bur. Fisheries, 10. Summers, prof, Washington (Seattle), 17, 18; lecturer, California at Los Angeles, 27, 31, California, 28. A.A; Physical Educ. Asn. (v. pres, west. dist, 21, pres, northwest sect, 35–); Social Hy-

giene Asn; fel. Acad. Physical Educ; Oregon State Physical Educ. Asn. (pres, 22, 25–27). Nervous system and locomotion in invertebrates; physiology of exercise; tests and measurements in physical education.

Böving, Dr. Adam G(iede), U. S. National Museum, Washington, D. C. *Entomology.* Säby, Denmark, July 31, 69. B.A, Copenhagen, 89, M.S, 94, Ph.D, 06. Asst. curator entom. div, zool. museum, Copenhagen, 02–13; entomologist and senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 13–39; *retired.* Assoc, Smithsonian Institution, 39– Govt. exped, Iceland, 08. Knight, Order Dannebrog, Denmark. Fel. Entom. Soc. Amer; Entom. Soc. Wash. (pres, 23); Biol. Soc. Wash; Wash. Acad. (v. pres, 24–30); hon. mem. Copenhagen Entom. Soc; hon. mem. Copenhagen Nat. Hist. Soc; hon. mem. Stockholm Entom. Soc; cor. mem. Finnish Zool-Bot. Soc. Insect morphology; immature stages of coleopterous larvae.

Bow, Dr. M(alcolm) R(oss), 9544 Riverside Drive, Edmonton, Alta, Can. *Public health.* Vernon, Ont, July 13, 87. B.A, Queen's (Can), 08, M.D, 11; D.P.H, Toronto, 21. Asst. to director, Provincial Lab, Regina, Sask, Can, 11–12; city med. officer health, 12–27; *deputy minister health, Alta, 27–;* lecturer and *assoc. prof. pub. health, Alberta, 27–* Med. supt, Regina Gen. Hosp, 21–26. V. chairman hosp. board, Alberta, 29–36, mem, 36–, King George V silver jubilee medal, 35; King George VI coronation medal, 37. V. pres, Conf. State and Provincial Health Authorities N. Amer, 33. Fel. Pub. Health Asn; Can. Pub. Health Asn. (pres, 38); Can. Med. Asn. (chairman cmt. pub. health, 41). Public health administration; epidemiology.

Bowden, Prof. A(berdeen) O(rlando), University of Southern California, Los Angeles, Calif. *Anthropology, Sociology.* Fulton, Ky, Dec. 13, 81. A.B, Kentucky, 08, A.M, 10; A.M, Harvard, 12; Chicago; Ph.D, Columbia, 29. Prin, high sch, Ky, 08–09; Tenn, 09–11; S. Dak, 14–18, sch. supt, 19–20; head dept. and prof. educ. and philos, Baylor Col, 20–22; pres, N. Mex. State Teachers Col, 22–34; *head dept. and prof. anthrop, Southern California, 34–; director, Calif. Branch Sch. Am. Research, 34–* Director, Jemez archeol. exped, 35. Pres, N. Mex. Sci. Cmn, 31–32. Anthrop. Asn; Sociol. Soc; Nat. Soc. Col. Teachers Educ; Southwest. Archeol. Federation (pres, 36); N. Mex. Educ. Asn. (pres, 28–29); N. Mex. Asn. Col. Pres. (pres, 31–32); N. Mex. Asn. Sci. (pres, 30–31). Educational sociology; social psychology of education; man and civilization.

Bowden, Prof. Joseph, 21 Carleton Place, Baldwin, N. Y. *Mathematics.* St. Day, Eng, Feb. 10, 69. A.B, Yale, 91, Ph.D, 97. Asst. *math,* Sheffield Sci. Sch, Yale, 92–93, tutor, univ, Yale, 93–97; asst. prof, *Adelphi Col,* 98–99, prof, 99–39, *emer. prof, 39–* Westminster Sch, 98; Col. City of N. Y, 17–30; Brooklyn Col, 30–31. Treas, Simplified Spelling Board, 29– Math. Soc; Math. Asn. Elements of theory of integers; theoretical arithmetic; permutation and combination functions; symbolic logic; foundations of mathematics.

Bowden, Dr. Wray M(errill), 109 Erie Ave, Brantford, Ont, Can. *Cytogenetics.* Brantford, Ont, April 28, 14. B.A, McMaster, 36, 36–37; research fellow, Virginia, 37–41, Ph.D, 41. Herbarium technician, McMaster, 35–36, senior asst. biol, 36–37; demonstrator bot, Western Ontario, 41–42; rubber investigations, Dom. Dept. Agr, 42–43; *Royal Can. Army, 43–* A.A; Genetics Soc; Bot. Soc; Genetic Asn; Soc. Study Speciation. Chromosome number and winter hardiness relationships in higher plants; cyto-taxonomy of the paw-paw family; biology of perennial, North American species of the genus Lobelia; hybridization of cold-resistant and cold-susceptible varieties of chrysanthemums.

Bowdish, Beecher S, Demarest, N. J. *Biology.* Phelps, N. Y, Feb. 27, 72. *Importation inspector, fish and wildlife service, U. S. Dept. Interior.* Am. Museum Nat. Hist. Ornith. Union; Soc. Mammal; Nat. Audubon Soc; Wilson Ornith. Club; Cooper Ornith. Club; East. Bird Banding Asn; Del. Valley Ornith. Club; Linnaean Soc. N. Y; N. J. Audubon Soc. (sec'y-treas. and exec. officer); Mass. Audubon Soc; N. H. Audubon Soc.

Bowen, Arnold E(verett), 151 River Road, Red Bank, N. J. *Electrical engineering.* Lowell, Mass, 00. Ph.B, Yale, 21. Asst. physics, Yale, 22–24; *engineer,* Am. Tel. and Tel. Co, 24–34; *Bell Tel. Labs, New York, 34–* Elec. Eng. Inductive coordination of power and communication systems; electromagnetic waves in closed spaces.

Bowen, Charles F, 1231 E. Fourth St, Salt Lake City, Utah. *Geology.* Idaho, 71. A.M, Wisconsin, 03. Geologist, U. S. Geol. Surv, 10–19; Standard Oil Co. (N. J), 19–39; *retired.* A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. Oil geology.

Bowen, Prof. I(ra) S(prague), California Institute of Technology, Pasadena, Calif. ***Physics.* Seneca Falls, N. Y, Dec. 21, 98. A.B, Oberlin Col, 19; Ph.D, Calif. Inst. Tech, 26. Instr. *physics, Calif. Inst. Tech,* 21–26, asst. prof, 26–28, assoc. prof, 28–31, *prof, 31–* Morrison research assoc, Lick Observatory, California, 38. Nat. Acad; fel. Physical Soc; Astron. Soc; Philos. Soc; Astron. Soc. Pacific. Extreme ultraviolet spectroscopy; nebular spectra.

Bowen, Prof. Norman L(evi), University of Chicago, Chicago, Ill. ***Geology.* Kingston, Ont, Can, June 21, 87. M.A, Queen's (Can), 07, B.Sc, 09, 1851 Exhib. scholar, 10–11, LL.D, 41; Ph.D, Mass. Inst. Tech, 12; hon. Sc.D, Harvard, 36. Geol. field investigator, Ont. Bur. Mines, 07–10; Geol. Surv. Can, 11–12; asst. petrologist, geophys. lab, Carnegie Institution, 12–19; prof. miner, Queen's (Can), 19–20; petrologist, geophys. lab, Carnegie Institution, 20–37; *Charles L. Hutchinson distinguished service prof. petrol, Chicago, 37–; coordinator research and official investigator, geophys. lab, Office Sci. Research and Develop, 43–* Prin. petrologist, U. S. Bur. Mines, 42. Assoc. ed, 'Min. u. pet. Mitteil,' Leipzig. Bigsby medal, Geol. Soc. London, 31; Penrose medal, Geol. Soc. Amer, 41; Willet G. Miller medal, Royal Soc. Can, 43. Nat. Acad; Geol. Soc. (v. pres, 38); Geophys. Union; Philos. Soc; Miner. Soc. (pres, 37); Geol. Soc. Wash; for. fel. Geol. Soc. London; for. fel. Geol. Soc. Liége; for. fel. Geol. Soc. Brussels; for. fel. Min. Soc. Russia; Halle Akad. der Naturforscher; hon. fel. Indian Acad. Geology of Ontario and British Columbia; physico-chemical petrology and mineralogy; refractories.

Bowen, Dr. Paul R(oss), Beaver College, Jenkintown, Pa. *Biology.* Catlin, Ind, July 13, 03. A.B, DePauw, 25; Sterling scholar, Yale, 28–29, M.S, 29, Eaton scholar, 29–30, Ph.D, 31. Teacher, high sch, Wash, 25–27, Mont, 27–28; asst. bot, Yale, 29–31; Sterling fellow, 31–32; head dept. *biol,* High Point Col, 32–37; *assoc. prof, Beaver Col, 37–* Summers, field and lab. asst, Conn. Agr. Exp. Sta, 29, 32; prof, Asheville Nor. and Teachers Col, N. C, 34–37; Beaver Col, 38, 41– Bot. Soc; Pa. Acad. Maple leaf disease caused by Cristulariella depraedans; chemical treatment to shorten the rest period of sugar maple trees; the development of Cenangium abietis and Brunchorstia destruens on pines; Cenangium abietis; Brunchorstia destruens; Crumenula abietina.

Bowen, Prof. (Rufus) Earl, Gettysburg College, Gettysburg, Pa. *Zoology.* Attica, Ark, Feb. 23, 99. A.B, Hendrix Col, 19; Jeffries Wyman scholar, Harvard, 27–28, A.M, 29, Ph.D, 31. Teacher biol. and prin, high schs, Ark. and Fla, 19–27; Austin teaching fellow, Harvard, 28–30, asst. zool, Harvard and Radcliffe Col, 30–31; asst. prof. biol, Long Island, 31–39; *research assoc, Am. Museum Nat. Hist, 36–; prof. biol. and head dept, Gettysburg Col, 39–* Summer, Col. of Charleston, 36. A.A; Soc. Zool; fel. N. Y. Acad; Pa. Acad. Histology; embryology; structure and function of the sense organs, especially the ear; ampullar organs; the cochlea.

Bowen, W(ilfrid) Wedgwood, Dartmouth College, Hanover, N. H. *Ornithology.* Barbados, B. W. I, Nov. 28, 99. B.A, Cambridge. Asst. entomologist, Sudan Govt, 21–24; lecturer biol, Lord Kitchener Mem. Med. Sch, Sudan, 25–26; asst. curator birds, Acad. Nat. Sciences Phila, 30–33; *curator museum, Dartmouth Col, 34–, asst. prof. biol.* Ornithologist, Acad. Nat. Sciences Phila. Gray African exped, 29. A.A; Ornith. Union; British Ornith. Union. Systematic and regional ornithology; natural history.

Bowen, Prof. W(illiam) J(ones), University of North Carolina, Chapel Hill, N. C. *Zoology.* Wallace, N. Y, Sept. 14, 11. A.B, Buffalo, 34, A.M, 35; Ph.D, Hopkins, 38. Bruce fellow, Hopkins, 38–39, instr. *zool,* 39–40; *North Carolina,* 40–41, *asst. prof, 41–* Soc. Zool; Elisha Mitchell Sci. Soc. Culture of insects and Protozoa; effects of heavy metals on rate of growth of Protozoa.

Bower, Dr. E(rnest) C(lare), 3346 Wood Terrace, Los Angeles, Calif. *Astronomy.* Leonidas, Mich, Aug. 21, 90. B.S, California, 12, Ph.D, 31. Computer, U. S. Naval Observatory, 13–14, from junior to assoc, 14–24, assoc. astronomer, 24–26; asst. prof. astron. and math, Ohio Wesleyan, 26–29; Martin Kellogg fellow, California, 29–30, Alexander F. Morrison fellow, 30–32, research assoc. astron, 32–36; astrono-

mer-lecturer, planetarium, Griffith Observatory, 35–42; *research analyst in eng, Douglas Aircraft Co, 42–* A.A; Astron. Soc. Visual and photographic equatorial observations; theoretic astronomy; orbits of asteroids, comets and Pluto; perturbations; interpolation; planetarium lecturing; computation by punched card methods; flutter analysis of airplanes.

Bower, John H(all), 1320 Delafield St, N. W, Washington, D. C. *Chemistry.* Myerstown, Pa, June 3, 78. B.S, Lehigh, 00. *Chemist,* Empire Steel and Iron Co, 01–03; Warwick Iron and Steel Co, 03–08; bur. chem, U. S. Dept. Agr, 09–14; *Bur. Standards, 14–* Chem. Soc. Methods of soap analysis; comparison of drying agents used for drying gases.

Bower, Prof. Julia Wells, Connecticut College, New London, Conn. *Mathematics.* Reading, Pa, Dec. 27, 03. A.B, Syracuse, 25, A.M, 26; Ph.D, Chicago, 33. Instr. *math,* Vassar Col, 26–27; Sweet Briar Col, 27–30; *Conn. Col,* 33–38, asst. prof, 38–42, *assoc. prof, 42–* Summers, Syracuse, 27–31. A.A; Math. Soc; Math. Asn. Calculus of variations.

Bower, Dr. O(liver) K(enneth), 505 W. John St, Champaign, Ill. *Mathematics.* Hindsboro, Ill, May 12, 02. A.B, Illinois, 24, A.M, 27, fellow, 28–29, Ph.D, 29. Asst. instr. *math, Illinois,* 25–28, *instr, 29–* Analysis.

Bowers, Dr. Clement G(ray), Maine, Broome Co, N. Y. *Genetics.* Binghamton, N. Y, Dec. 22, 93. B.S, Cornell, 23, M.S, 25; N. Y. Bot. Garden, 26–29; Ph.D, Columbia, 30. *Tech. consultant to hort. trade, 26–; conductor private plant breeding lab, Maine, N. Y, 30–* War transportation administrator and chairman, Broome Co. Planning Board, N. Y, 41– In charge floricul. exhibits, Int. Cong. Genetics, 32. A.A; Genetic Asn; Hort. Soc; Torrey Bot. Club; Royal Hort. Soc. Floriculture; cytology; pollen development and viscin strands in rhododendron; sterilities; hybridization; chromosomes in rhododendrons and azaleas; a heritable abnormality in zinnia; plant breeding technique.

Bowers, Dean E(lsworth) V(achel), Marshall College, Huntington, W. Va. *Psychology.* Westerville, Ohio, Jan. 21, 79. Ph.B, Otterbein Col, 01; A.M, Ohio State, 22, Ph.D, 29. Teacher and sch. supt, Ohio, 01–24; *prof. psychol, Marshall Col, 24–, dean col. arts and sciences, 39–* Assoc. Psychol. Asn; Midwest. Psychol. Asn; W. Va. Acad. Clinical psychology; reclassification to semi-annual promotions.

Bowers, Pres. George W(infield), College Place, Wash. *Chemistry.* Worcester, Mass, April 3, 95. A.B, Union Col. (Nebr), 17; A.M, Nebraska, 24, Ph.D, 35. Asst. biol, Union Col. (Nebr), 20–23; asst. instr. zool, Nebraska, 23–25; *prof. chem, Walla Walla Col, 25–, pres, 38–* Teaching fellow, Nebraska, 33–34. Trustee, Walla Walla Col. Chem. Soc. Organic chemistry; parazitology.

Bowers, Prof. H(arold) R(oss), 210 S. Larchmont Blvd, Los Angeles, Calif. *Chemistry.* Sherburne, N. Y, June 4, 98. Ph.C, Michigan, 25, B.S, 27; M.S, Southern California, 30. Instr. *pharmacy,* Michigan, 25–26; *Southern California,* 27–29, *asst. prof, 29–* California oil of lemon; solution of magnesium citrate.

Bowers, Dr. Nathan A(bbott), 68 Post St, San Francisco, Calif. *Civil engineer.* San Francisco, Calif, Dec. 5, 86. B.S. (C.E), Rose Polytech, 10, C.E, 21; Ph.D, Stanford, 26. Asst. to county surveyor, Sonoma County, Calif, 02–04; assoc. ed. in charge dept. hydraul, 'Eng. Record,' N. Y, 10–12; northwest. rep, McGraw-Hill tech. jours, Vancouver, 12–14; *Pacific Coast ed,* 'Eng. Record,' 14–17, *'Eng. News-Record,' 17–* Director, McGraw-Hill Co. of Calif, 29–33, v. pres, 29, v. pres. and gen. manager, 30–33. Pacific Coast ed, 'Chem. and Metal. Eng,' 14–19; 'Elec. World,' 14–20. Mem, Int. Jury Award, Pan-Pacific Int. Expos, 15; sec'y-treas, San Francisco Joint Council Eng. Societies, 19–21; examiner, State Civil Service Cmn, Calif, 23. Annual award, Associated Business Papers of Amer, 28. Assoc. Civil Eng. (sec'y-treas, San Francisco sect, 17–21, v. pres, 31, pres, 34); San Francisco Eng. Club (pres, 27). Failures of engineering works, primarily dams, hydraulic power plants and hydraulic equipment.

Bowers, Dr. Paul C(romer), 7 Ziegler Tract, Penns Grove, N. J. *Chemistry.* Muncie, Ind, Dec. 13, 87. B.S, Vanderbilt, 10, M.S, 11, Sc.D, 13. Chemist, Tenn. Geol. Surv, 13–17; *research chemist, E. I. du Pont de Nemours and Co, 19–* 2nd lieut, C.W.S, 17–19. Chem. Soc. Tellurium; phthalic anhydride; sulfur colors.

Bowers, Dr. R(oss) E(ldon), 37 Prospect Terrace, Cortland, N. Y. *Animal nutrition.* Martinsburg, Pa, May 29, 90. A.B, Gettysburg Col, 10, A.M, 21; Syracuse, 12; Pittsburgh, 15; Ph.D, Cornell, 40. *Prof. biol. and head dept. science, N. Y. State Teachers Col, 20–* A.A; Nature Study Soc. Vitamin and lipid requirements of Blattela germanica L.

Bowers, Prof. Roy A(nderson), University of Kansas, Lawrence, Kans. *Pharmacy.* Racine, Wis, May 11, 13. B.S, Wisconsin, 36, Ph.D, 40. Asst. *pharmacy,* Wisconsin, 37–40; *asst. prof,* Toledo, 40–41; *Kansas, 41–* Pharmaceutical chemistry; drug plants; fats; waxes.

Bowers, Dr. Wayne A(lexander), Rockefeller Hall, Ithaca, N. Y. *Physics.* Bilbao, Spain, March 1, 19. A.B, Oberlin Col, 38; Ph.D, Cornell, 43. Asst. *physics, Cornell,* 38–42, *instr, 42–* Physical Soc. Theoretical physics; energy levels and wave functions in metallic sodium.

Bowers, Dr. W(illiam) G(ray), 1117 19th St, Greeley, Colo. *Chemistry.* Near Franklin, W. Va, June 16, 79. B.S, Ohio Wesleyan, 05; A.M, Indiana, 11; Ph.D, Ohio State, 19. Teacher, pub. schs, W. Va, 95–99; asst. biol, Ohio Wesleyan, 05; prin, high sch, Colo, 06–07; Ohio, 07–08; teacher chem, State Nor. and Indust. Sch, N. Dak, 08–18, v. pres, 14, 16; prof. food and sanit. chem, N. Dak. Col, and state food chemist; *head dept. chem, Colo. State Col. Educ.* Summer, teacher, Ind. State Nor. Sch, Muncie, 08. A.A; Chem. Soc; Colo. Sci. Soc. Food chemistry; nutrition; chemical education; soybeans in the human diet; fruit extract analysis; storage batteries.

Bowersox, Prof. Ralph B(ertram), University of Toledo, Toledo, Ohio. *Physics.* Sandpoint, Idaho, Sept. 4, 11. B.S, Chicago, 33, M.S, 34, Ph.D, 38. Teaching asst, Chicago, 34–38; *asst. prof. physics, Toledo, 38–, head dept, 41–* Physical Soc; Asn. Physics Teachers. Measurement of wave lengths in the spectrum of thorium; efficiency of production of short-range particles from lithium and of alpha-particles from boron under proton bombardment.

Bowie, Clifford P(inckney), 2120 Los Angeles Ave, Berkeley, Calif. *Petroleum engineering.* Philipsburg, Mont, June 28, 79. B.S, California, 04, C.E, 23. Asst. city engineer, Hayward, Calif, 04; asst. engineer, office of city engineer, street and sewer work, San Francisco, 04–06; city engineer and partner, Luey and Bowie, Chico, Calif, 06–07; asst. engineer and chief engineer, Associated Pipe Line Co, 07–16; *supervising engineer in charge petrol. sta, San Francisco, U. S. Bur. Mines, 16–* Consulting engineer, U. S. Fuel Admin, 17–18. Civil Eng; Min. and Metal. Eng. (director, San Francisco sect, 25). Refining of crude oil; preventing oil and gas fires; oil storage tanks and reservoirs; oil camp sanitation; transportation of gasoline by pipe lines; improvements in mud-ladened fluids used in oil well drilling.

Bowie, Dr. D(onald) J(ames), University of Manitoba, Winnipeg, Man, Can. *Microscopic anatomy.* Midland, Ont. B.Sc, Toronto, 22, M.A, 24, Ph.D, 27. Asst, Toronto, 22–27; lecturer *anat,* McGill, 27–37; *asst. prof, Manitoba, 37–* Mem, Dept. Anat, Bern, Switzerland; Atlantic Biol. Sta. Microscopy of gastro-intestinal tract, especially pancreas and stomach.

Bowie, Dr. R(obert) M(cNeil), Sylvania Electric Products, Inc, Emporium, Pa. *Physics.* Tablerock, Nebr, Aug. 24, 06. B.S, Iowa State Col, 29, M.S, 31, Ph.D, 33. Asst, Iowa State Col, 29–33; *physicist, Sylvania Elec. Products, Inc, 33–, director* physical lab, 35–40, *research dept, 40–* Radio Eng; Physical Soc. Thermionic work function; cathode ray development; evacuation; microwaves.

Bowles, Dr. Edgar, Republic Mining and Manufacturing Co, 230 Park Ave, New York, N. Y. *Geology.* Minneapolis, Minn, May 24, 11. George Washington, 28–32; Ph.D, Hopkins, 39. Field work, U. S. Geol. Surv, Ala, Fla, Miss, La, Texas, Ariz. and Utah, 35–37, Calif, 41–42; geologist, Ala. Geol. Surv, 38–41; Bur. Mines, Alaska, 42; *asst. geologist, Republic Mining and Mfg. Co, 42–* Summers, field work, U. S. Geol. Surv, 32; geol. field work, Penrose Fund, Geol. Soc. of Amer, 34. Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Econ. Paleont. and Miner; Paleont. Soc; Ala. Acad; Geol. Soc. Wash. Tertiary paleontology and stratigraphy; ores of aluminum.

Bowles, Prof. Edward L(indley), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Westphalia, Mo, Dec. 9, 97. B.S, Washington (St. Louis), 20; M.S, Mass. Inst. Tech, 22. *Staff, dept. elec. eng, Mass. Inst. Tech, 20–,* assoc. prof. *elec. communications, prof. in charge div, 37–,* director Round Hill research div. Consulting engineer. Mem. sect. microwaves, Nat. Defense Research

Cmt; radio advisory cmt, Bur. Standards; radio tech. cmt. aeronaut. and science advisory cmt, subcmt. safety at sea, Civil Aeronaut. Admin. A.A; fel. Elec. Eng; Radio Eng; Physical Soc; Am. Acad; Eng. Educ. Vacuum tube circuits and their applications; iron reactor and non-linear transformer design; historical background of vacuum tube and communication art.

Bowles, Prof. Gordon T, 134 Hilldale Road, Lansdowne, Pa. *Physical anthropology.* Tokyo, Japan, June 25, 04. A.B, Earlham Col, 25; Pennsylvania, 27–28; Ph.D, Harvard, 35. Lecturer Eng, Dai Ichi Koto Gakko, Tokyo, Japan, 25–27; asst. *anthrop,* Harvard, 32–35, research assoc, 35–38; *asst. prof, Hawaii, 38–; mem, Govt. Mission to China, 42–* Asn. Physical Anthrop. Racial anthropology of Central Asia, India and the Far East; comparative racial anatomy of the Hawaiians, especially skeletal anatomy.

Bowles, Dr. J(ohn) A(rmand) C(linton), 33 Barnes St, Claremont, N. H. *Chemistry.* Wilder, Vt, July 7, 04. B.S, New Hampshire, 27; M.S, N. Y. Univ, 29, fellow, 28–34, Ph.D, 34. *Assoc. director, United Drug Co, 36–* Rare earths and metals; hydrogen ion concentration.

Bowles, Dr. Lester L(lewellyn), University of Georgia School of Medicine, Augusta, Ga. *Anatomy.* Ind, Feb. 1, 07. Notre Dame, 32–33; A.B, Franklin Col. (Ind), 34; M.D, Indiana, 38. Research assoc. *anat, sch. med, Georgia,* 38–39, instr, 39–40, *asst. prof, 40–* Ind. Acad. Microscopic anatomy; neuro-embryology.

Bowles, Dr. Oliver, U. S. Bureau of Mines, Washington, D. C. *Mineralogy, Geology.* Ont, Can, Jan. 10, 77. B.A, Toronto, 07, fellow, 07–08, M.A, 08; Ph.D, George Washington, 22. Instr. petrog, Michigan, 08–09; geol. and miner, Minnesota, 09–14; quarry technologist, *U. S. Bur. Mines,* 14–17, mineral technologist, 17–23, supt. non-metallic minerals, exp. sta, New Brunswick, N. J, 23–28, supervising engineer, bldg. materials sect, 28–37, asst. chief engineer, *non-metal econ. div,* 37–42, *chief, 42–* Miner. Soc; Min. and Metal. Eng; N. Y. Acad. Economics of non-metallic minerals; quarrying of marble, sandstone, cement materials, limestone and slate.

Bowling, Prof. G(eorge) A(ugustus), West Virginia University, Morgantown, W. Va. *Dairy husbandry.* Lewisburg, W. Va, July 8, 02. B.S, West Virginia, 26; M.S, Mich. State Col, 30. Instr. vocational agr, high sch, Summersville, W. Va, 26–28; asst. dairy husbandry, Mich. State Col, 28–30, exten. dairyman, 30–31; asst. prof. *dairy husbandry, West Virginia,* 31–38, *assoc. prof, 38–* Dairy production; dairy cattle breeding.

Bowls, Dr. Woodford E(ugene), California Polytechnic School, San Luis Obispo, Calif. *Physics.* Lewistown, Mo, Jan. 9, 10. A.B, California, 32, A.M, 35, Ph.D, 37. Teaching fellow physics, California, 32–33, asst, 33–37; instr, *Calif. Polytech. Sch,* 37–40, *head dept. physical sci, 40–* Physical Soc. Effect of cathode material on the second Townsend coefficient for ionization by collision in pure and contaminated nitrogen.

Bowlus, Fred D(rexel), 614 Franklin St, Whittier, Calif. *Engineering.* Ohio, Ill, Nov. 14, 85. B.S, Purdue, 09. Surveyor and chief surveyor, Los Angeles County surveyor's office, 09–16; locating engineer, Calif. Highway Cmn, 16–17; irrig. engineer, U. S. Dept. Agr, 18–19; highway engineer, U. S. Forest Service, 19–25; *res. engineer, Los Angeles County Sanit. Districts, 25–* Sanitation; adaptation of Venturi flumes to flow measurements.

Bowman, Prof. Albert E(lijah), University of Wyoming, Laramie, Wyo. *Agriculture.* Ogden, Utah, Jan. 23, 81. B.S, Utah Col, 11. Asst. agronomist, Utah Col, 11–13; asst. state leader exten, *Wyoming,* 13–14, *director agr. exten. and exten. prof. agr, 14–,* director exten, P. R, 36–37. Chairman, State Land Use Cmt, Wyo; State Soil Conservation Cmt; mem. state cmt, agr. adjust. admin, U. S. Dept. Agr; State Nat. Defense Board; state advisory board, Farm Security Admin. Soc. Agron; Farm Management Asn. Farm surveys.

Bowman, Dr. Donald E(dwin), Western Reserve University School of Medicine, Cleveland, Ohio. *Biochemistry.* Orrville, Ohio, Nov. 12, 08. A.B, Western Reserve, 33, A.M, 35, fellow, 35–36, Ph.D, 37. Asst. biol, Adelbert Col, *Western Reserve,* 33–35, teaching fellow *biochem, sch. med,* 36–37, *instr, 37–* A.A; Chem. Soc. Ascorbic acid; chorionic gonadotropic hormone; biological oxidation and reduction; acid-base studies.

Bowman, Dr. Donald H(outs), Ohio Agricultural Experiment Station, Wooster, Ohio. *Plant pathology.* Osage City, Kans, May 18, 11. B.S, Kans. State Col, 33, M.S, 35; Ph.D, Wisconsin, 39. *Asst. pathologist, div. cereal crops and diseases, U. S. Dept. Agr, and asst. plant path, Ohio Exp. Sta, 39–* A.A; Phytopath. Soc. Corn diseases; disease resistance.

Bowman, Prof. D(onald) W(hitney), Hendrix College, Conway, Ark. *Physics.* Alliance, Ohio, Feb. 6, 07. A.B, Mt. Union Col, 29; A.M, Ohio State, 30, Ph.D, 40. Asst. prof. *physics,* Bluffton Col, 30–38; asst, Ohio State, 38–40; assoc. prof, *Hendrix Col,* 40–42, *prof, 42–* Director develop. lab, Triplett Elec. Instrument Co, 36–38. Asn. Physics Teachers; Ark. Acad. Zeeman effect and Paschen-Back effect of krypton.

Bowman, Prof. Ethel, 15 Border St, Cohasset, Mass. *Psychology.* Somerville, Mass, Oct. 1, 78. A.B, Wellesley Col, 00, A.M, 07; Ph.D, Clark, 17. Instr. philos. and psychol, Wellesley Col, 12–14; asst. prof. *psychol, Goucher Col,* 17–20, assoc. prof, 20–22, prof, 22–42, *emer. prof, 42–* A.A; Psychol. Asn; South. Soc. Philos. and Psychol. Imagination; memory; thought; experimental psychology.

Bowman, Prof. H(arry) L(ake), Drexel Institute, Philadelphia, Pa. *Engineering.* Philadelphia, Pa, May 17, 89. B.S, Pa. State Col, 11; M.S, Mass. Inst. Tech, 14. Am. Bridge Co, 11–15; asst. to C. E. Smith, 15–18; asst. engineer, Phila. and Reading Ry, 18–19; asst. prof. struct. eng, Mass. Inst. Tech, 19–26; *prof. civil eng, Drexel Inst, 26–* Consultant, Nat. Défense Research Cmt. Concrete Inst; Eng. Educ; Civil Eng. Structural engineering; structural theory.

Bowman, Prof. H(oward) H(estand) M(innich), University of Toledo, Toledo, Ohio. *Biology.* Lancaster, Pa, Nov. 3, 86. Ph.B, Franklin and Marshall Col, 13, M.S, 14; Ph.D, Pennsylvania, 17. Instr. bot, Franklin and Marshall Col, 14–15; asst. prof, Pennsylvania, 15–17; prof. *biol,* Heidelberg Col. (Ohio), 17–18; *prof. and head dept, Toledo, 19–* Research assoc, sta. for exp. evolution and dept. marine biol, Carnegie Institution. M.C, U.S.A, 18–19. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Genetic Asn; fel. Geneal. Asn; fel. Ohio Acad. (v. pres, 24, exec. cmt, 36; chairman finance, 40); Mich. Acad. (v. chairman, bot. sect, 35, chairman, 36). Physiological botany; mangroves; sea-grasses; botanical ecology of the Tortugas; hibernating structure in plants; marine phanerogams; physiological causes of responses in plants; biological jurisprudence; eastern Pennsylvania families; hereditary family traits; soil biology.

Bowman, Pres. Isaiah, Johns Hopkins University, Baltimore, Md. *[3]*Geography.* Waterloo, Ont, Can, Dec. 26, 78. B.S, Harvard, 05, LL.D, 36; Ph.D, Yale, 09, hon. A.M, 21; hon. M.Ed, Mich. State Nor. Col, 27; hon. Sc.D, Bowdoin Col, 31, Cuzco, Arequipa, 41; LL.D, Pennsylvania, Col. of Charleston, Dartmouth Col, Dickinson Col, 35, Wisconsin, 36, Queen's (Can), 37, Western Ontario, 37, Harvard, 37, Washington Col. (Md), 40. Instr. geog, Mich. State Nor. Col, Ypsilanti, 03–04; asst. physiog, Harvard, 04–05; instr. geog, Yale, 05–09, asst. prof, 09–15; director and ed, Am. Geog. Soc, 15–35; *pres, Hopkins, 35–* Leader, Yale exped, S. Amer, 07, geographer and geologist, Yale-Peruvian exped, 11; leader, Am. Geog. Soc. exped, Cent. Andes, 13. Director, Am. Tel. and Tel. Co, 42–V. chairman, div. geol. and geog, Nat. Research Council, 24–26, chairman, Nat. Research Council, 33–35; chairman, Nat. Cmt. on Geog. in U. S, 28–31; pres. and chairman board, 'Social Science Abstracts,' 29–31; v. chairman and director, Science Advisory Board, U. S. Govt, 33–35. Am. mem, Int. Cmn. China-U. S, 40– Gold medals, Paris Geog. Soc, 17; Chicago Geog. Soc, 27; Livingstone gold medal, Royal Scottish Geog. Soc, 28; Jovan Cvijić medal, Beograd Geog. Soc, 35; Bryant medal, Geog. Soc. Phila, 37; D. S. award, Nat. Council Geog. Teachers, 36; Patron's medal, Royal Geog. Soc. London, 41. Chief territorial adviser, Am. Cmn. to Negotiate Peace, 19. Nat. Acad. (v. pres, 41–); A.A. (pres, 43); Am. Geog. Soc. (councilor, 35–); Asn. Geog. (pres, 31); Explorers Club (sec'y, 17–25); fel. Geog. Soc; Philos. Soc. (councilor, 35–); Am. Acad; cor. mem. Hispanic Soc. Amer; hon. mem. Geog. Societies of Stockholm, Vienna, La Paz, Yugoslavia, Rome, Berlin, Madrid and London; assoc. mem. Nat. Acad. Sciences, Peru; Int. Geog. Union (v. pres, 28–31, pres, 31–34). Physiography; regional geography; political geography.

Bowman, Jay, 8145 Avalon Ave, Chicago, Ill. *Chemistry.* Minneapolis, Minn, Feb. 13, 86. Hamline; B.S, Valparaiso, 17. Research chemist, United Chem. and Org. Products Co.

div, Wilson and Co, *Chicago*, 18–25, chief chemist, 25, tech. supt, 25–37, asst. director research, Wilson and Co, 37–39; *research chemist, Am. Meat Inst, 40–* A.A; fel. Inst. Chem; Soc. Chem. Indust; Inst. Food Tech; Chemists' Club; Chicago Chemists Club. Gelatine, collagen and related products of the packing industry.

Bowman, Dr. John R(idgway), 5261 Wilkins Ave, Pittsburgh, Pa. *Physical chemistry, Entomology.* New York, N. Y, Jan. 27, 10. B.S, Pittsburgh, 28, Ph.D, 34; Calif. Inst. Tech, 29–31. Instr, Pittsburgh, 31–34; *indust. fellow, Mellon Inst, 34–* Chem. Soc. Petroleum chemistry; Coleoptera.

Bowman, Prof. J(oseph) L, McPherson College, McPherson, Kans. *Physics.* Quinter, Kans, 90. A.B, McPherson Col, 18; B.S, Chicago, 24. Ripon Col, 24–25; Juniata Col, 25–26; *prof. math. and physics, McPherson Col, 26–* Asn. Physics Teachers. The problem of producing a square wave of radio frequency.

Bowman, Dr. Karl M(urdock), University of California Medical School, San Francisco, Calif. *Psychiatry.* Topeka, Kans, Nov. 4, 88. A.B, Washburn Col, 09; M.D, California, 13. Asst. physician, Bloomingdale Hosp, 15–21; attending physician, outpatient dept, N. Y. Neur. Inst, 20–21; instr. psychiat, Harvard Med. Sch, 21–26, asst. prof, 26–36; clin. instr, sch. med, Boston, 21–31, asst. prof. clin. psychiat, 31–36; *prof,* col. med, N. Y. Univ, 36–41; *psychiat, med. sch, California, 41–* Head dept. psychiat. social work, sch. social work, Simmons Col, 23–36; attending specialist neuropsychiat, U. S. Veterans Bur, 22–31; chief med. officer, Boston Psychopathic Hosp, 21–36; director div. psychiat, dept. hosps, New York, 36–41; med. supt, Langley Porter Clinic, 41– Summer, special instr, sch. social work, Smith Col, 32, 35. Mem. ed. board, 'Quarterly Jour. Study of Alcohol'; advisory council, 'Jour. Criminal Law and Criminol.' Chairman exec. cmt, Research Council on Problems of Alcohol, 39, sci. cmt, 40–; director, Nat. Cmt. Mental Hygiene. Wellcome prize, Asn. Mil. Surg. Lieut, M.C, 16–17, capt, 17–18; lieut. commander, U.S.N.R, 34. Psychiat. Asn. (assoc. ed, 'Jour'); Am. Med. Asn; Asn. Research Nervous and Mental Disease (v. pres, 38, 41); New Eng. Psychiat. Soc; Mass. Psychiat. Soc; N. Y. Psychiat. Soc; North. Calif. Neuropsychiat. Soc; North. Calif. Mental Hygiene Soc; Boston Psychiat. and Neur. Soc. (sec'y-treas, 33–36). Biochemistry; endocrinology; mental hygiene.

Bowman, Dr. Paul E(mil), Mt. Hermon, Mass. *Chemistry.* Mahanoy City, Pa, Nov. 11, 97. Ch.E, Lehigh, 22, M.S, 26; Baldwin fellow, Cincinnati, 27–29, Ph.D, 29. Westinghouse Lamp Co, 22–23; instr, Shaw, 23–24; Lehigh, 24–27; Lafayette Col, 29–35; *with Mt. Hermon Sch, 36–* Chem. Soc. Organic tungsten compounds; reduction of aromatic compounds.

Bowman, Prof. Paul W(illiam), 2304 Wilson Blvd, Arlington, Va. *Biology.* Reading, Pa, May 17, 97. A.B, Pennsylvania, 24; A.M, George Washington, 28; Ph.D, Virginia, 30. Instr. bot, George Washington, 24–29; teaching fellow biol, Virginia, 29–30; asst. prof. bot, *George Washington,* 30–34, *biol,* 34–37, *assoc. prof, 37–* Ranger naturalist, Nat. Park Service, 36. A.A; Bot. Soc; Genetic Asn; Biol. Soc. Wash; Bot. Soc. Wash; Wash. Acad; Wash. Genetic Club (sec'y, 40, v. pres, 41); Va. Acad. Cytogenetics; irradiation effects.

Bowman, Dr. Russel O(scar), Rhode Island Hospital, Providence, R. I. *Biochemistry.* Stayner, Ont, Can, Nov. 15, 08. B.A, Saskatchewan, 28; Ph.D, Western Reserve, 33. Provincial analyst, Sask, 29–30; teaching fellow biochem, sch. med, Western Reserve, 30–32; biochemist, Cleveland City Hosp, 32–34; *research biochemist, R. I. Hosp, 34–* A.A. Blood and tissue chemistry; chemistry of cancer; pharmacology; fluid administration; pentosuria.

Bowman, Dr. W(endell) E(lsley), 2020 E. 93rd St, Cleveland, Ohio. *Biochemistry.* Dolgeville, N. Y, June 23, 07. B.S, Clarkson Col, 30; M.S, Pittsburgh, 33; Ph.D, Western Reserve, 40. Research fellow, Cleveland Clinic Foundation; *chemist, dept. endocrinol, Cleveland Clinic.* Pituitary hormones; sex hormone excretion.

Bowman, Dr. W(illia)m H(enry), 5100 Chrysler Bldg, New York, N. Y. *Chemical engineering.* Ingersoll, Ont, Can, Feb. 19, 10. B.A.Sc, Toronto, 32, M.A.Sc, 36, Ph.D, 40; M.S, N. Y. Univ, 35; Case, 37–40. Teaching fellow chem, N. Y. Univ, 32–34; demonstrator chem. eng, Toronto, 34–37; mem. plant research dept, Shawinigan Chem, Ltd, 37–38; instr. chem. eng, Case, 37–40; cent. tech. lab, Armstrong Cork Co, 40–41; *tech. service dept, Westvaco Chlorine Products Corp, 41–* Asst, sch. eng. research, Toronto, 35, 36, 38, 39. Assoc. Chem. Eng; Chem. Soc; fel. Can. Inst. Chem; Soc. Chem. Indust. Gt. Britain; assoc. Inst. Chem. Eng. London. Chemical applications in industry; industrial organic chemistry; catalysts; process control technology.

Bown, Dr. M(ax) Duane, Whitman College, Walla Walla, Wash. *Psychology.* Gunnison, Utah, March 24, 11. A.B, Brigham Young, 37; Ph.D, Columbia, 41. *Instr. psychol, Whitman Col, 41–* Assoc. Psychol. Asn. Psychological tests and measurements.

Bown, Dr. Ralph, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics, Electrical engineering.* Fairport, N. Y, Feb. 22, 91. M.E, Cornell, 13, M.M.E, 15, Ph.D, 17. Instr. physics, Cornell, 13–17; engineer, Am. Tel. and Tel. Co, 19–34; assoc. radio research director, *Bell Tel. Labs,* 34–36, radio research director, 36–37, *director radio and television research, 38–* Mem, Nat. Television Systems Cmt; microwave sect, Nat. Defense Research Cmt. Morris Liebmann prize, Inst. Radio Eng. Int. Union for Sci. Radio Telegraphy. Capt, Sig.C, 17–19. A.A; fel. Elec. Eng; fel. Radio Eng. (director, 26–29, 37–39; v. pres, 26, pres, 27). Radio telephony and radio wave transmission.

Bowstead, Prof. J(ohn) E(dleston), Apt. 12, Algonquin, Edmonton, Alta, Can. *Animal husbandry.* Milwaukee, Wis, Feb. 17, 94. B.S, Wisconsin, 20, M.S, 21, Ph.D, 29. Asst. prof. *animal husbandry, Alberta,* 21–28, *assoc. prof, 28–* Can. Soc. Tech. Agr; West. Can. Soc. Animal Production. Animal breeding and nutrition; cobalt in nutrition; dairy feed problems.

Boyajian, A(ram), 55 Stratford Ave, Pittsfield, Mass. *Electrical engineering.* Talas, Armenia, March 15, 88. B.A, Anatolia Col, 08; A.B, Swarthmore Col, 15, E.E, 20. *Develop. engineer, Gen. Elec. Co, 15–; non-res. instr. elec. eng, Mass. Inst. Tech, 27–* Fel. Elec. Eng. Electric circuit characteristics; transformer characteristics; complex functions; tensor analysis.

Boyce, Prof. A(lfred) M(ullikin), Citrus Experiment Station, Riverside, Calif. *Entomology.* Centerville, Md, May 2, 01. B.S, Cornell, 26, M.S, 27; Ph.D, California, 31. Exten. specialist entom, Cornell, 26–27; junior entomologist, *grad. sch. trop. agr. and Citrus Exp. Sta, California,* 27–31, asst. prof. *entom,* 31–39, assoc. prof, 39–43, *prof, 43–,* asst. entomologist, 31–39, assoc. entomologist, 39–43, *entomologist, 43–* A.A; Asn. Econ. Entom. (v. pres, 41; chairman, Pacific slope branch, 41); Entom. Soc. Amer. Biology and control of subtropical fruit insects and mites; insecticides.

Boyce, Prof. Earnest, 1714 Indiana St, Lawrence, Kans. *Sanitary engineering.* Winterset, Iowa, July 11, 92. B.S, (C.E), Iowa State Col, 17, C.E, 30; M.S. (Eng), Harvard, 32. Asst. engineer, *State Dept. Health, Kans,* 20–24, *chief engineer, 24–;* assoc. prof. *sanit. eng, Kansas,* 24–34, *prof, 34–; senior sanit. engineer, U. S. Pub. Health Service, 41–* Civil Eng; fel. Pub. Health Asn; Water Works Asn; Eng. Educ. Public health engineering.

Boyce, Prof. Fannie W(ilson), Wheaton College, Wheaton, Ill. *Mathematics.* Shelby Co, Mo, March 16, 97. A.B, Penn Col, 21; A.M, Wisconsin, 28; Ph.D, Chicago, 38. Instr, high schs, Iowa, 18–20; *math,* Olivet Col. (Ill), 21–22; Marion Col, 22–27; asst. prof, *Wheaton Col. (Ill),* 30–41, *assoc. prof. 41–* Math. Asn. Nilpotent algebras.

Boyce, Dr. Frederick F(itzherbert), 1413 Union Bldg, New Orleans, La. *Surgery.* Barbados, B.W.I, Sept. 22, 03. B.S, Harvard, 27; M.D, Yale, 30. Instr. surg, sch. med, Louisiana, 32–35, asst. prof, 35–39; *private practicing surgeon, 39–* Miss. Valley Med. Soc. medal, 38; Samuel D. Gross Quinquennial prize, 40. Fel. Col. Surg; Soc. Exp. Biol; Am. Med. Asn; South. Med. Asn; hon. mem. Miss. Valley Med. Soc; fel. Southeast. Surg. Cong. Liver in surgery; biliary tract disease.

Boyce, Dr. J(ohn) S(haw), Yale University, New Haven, Conn. *Forest pathology.* Belfast, Ireland, Nov. 9, 89. B.S, Nebraska, 11, M.F, 12; Ph.D, Stanford, 17; hon. A.M, Yale, 29. Forest asst, U. S. Forest Service, 11–12; sci. asst. and asst. pathologist, bur. plant indust, U. S. Dept. Agr, 13–20, pathologist, office forest path, 20–28, director, Northeast. Forest Exp. Sta, 28–29; *prof. forest path, Yale, 29–* Chairman cmt. forestry, Nat. Research Council, 40–42. A.A; Soc. Foresters; Phytopath. Soc; Bot. Soc; Mycol. Soc; New Eng. Bot. Club; Conn. Acad. Pathology of forest trees.

Boyce, Prof. Joseph C(anon), 119 Walker St, Cambridge, Mass. *Physics.* Pittsburgh, Pa, Jan. 23, 03. A.B, Princeton, 22, A.M, 23, Ph.D, 26; London, 23–24; Cambridge, 24–25.

Instr. *physics*, Princeton, 26–29, research assoc, 29–31; *Mass. Inst. Tech*, 31–34, asst. prof, 34–38, *assoc. prof, 38–* Research assoc, Carnegie Institution, 39– Ed. board, 'Rev. Sci. Instruments,' 33– Tech. aide, Nat. Defense Research Cmt, 41– Mem, Harvard-Mass. Inst. Tech. eclipse exped, Soviet Cent. Asia, 36. A.A; Physical Soc. (sec'y-treas, New Eng. sect, 36–41; councilor, 41–); Astron. Soc; fel. Royal Astron. Soc. Spectroscopy of the vacuum ultra-violet with applications to astrophysics.

Boyce, Prof. M(offatt) G(rier), Western Reserve University, Cleveland, Ohio. *Mathematics.* Atoka, Tenn, Feb. 3, 00. A.B, Erskine Col, 22; M.S, Chicago, 26, Ph.D, 30. Instr. *math*, Bryson Col, 22–25; *Western Reserve*, 27–35, *asst. prof, 35–* Math. Soc; Math. Asn. Calculus of variations.

Boyd, Prof. Edith, University of Minnesota, Minneapolis, Minn. *Anatomy.* Edgerton, Kans, Nov. 5, 95. A.B, Colorado Col, 17; M.D, Hopkins, 21. Intern, St. Luke's Hosp, San Francisco, 21–22; house officer pediat, Stanford Hosp, 22–24; fellow, Mayo Foundation, *Minnesota*, 24–25, instr. pediat, 25–27, *asst. prof*, inst. child welfare, 27–34, *anat, 34–* A.A; Asn. Anat; Asn. Physical Anthrop; Soc. Research Child Develop; Acad. Pediat. Development anatomy.

Boyd, Prof. Eldon M(athews), Queen's University, Kingston, Ont, Can. *Pharmacology.* Kingston, Ont, Sept. 1, 07. B.A, Queen's (Can), 28, M.A, 29, M.D, 32. Res. fellow, Rochester, 32–34; lecturer *pharmacol, Queen's (Can)*, 34–37, asst. prof, 37–38, *prof. and head dept, 38–* Soc. Exp. Biol; Soc. Pharmacol; Can. Med. Asn; Can. Physiol. Soc. Influence of endocrines on lipid metabolism; posterior pituitary extracts and water metabolism; expectorant drugs.

Boyd, George A, Biochemical Research Foundation, Newark, Del. *Physics.* Ambia, Texas, Nov. 17, 07. A.B, Austin Col, 29, A.M, 30; M.S, Iowa, 35; Delaware, 42. Research chemist, Phillips Petrol. Co, Okla, 30–33; manager information div, develop. and patent dept, Standard Oil Co. of Ind, 35–37; asst. to v. pres. in charge develop, Sharples Chem. Co, 37–39; *director research, Ozone Processes Co, 40–, head cyclotron and nuclear research dept.* A.A; Chem. Soc. Thermodynamics of biological large molecules such as ordinary proteins, virus, hormones and enzymes; cyclotron; radioactive measurements; radio chemistry; radioactive biology.

Boyd, Dr. G(eorge) E(dward), University of Chicago, Chicago, Ill. *Physical chemistry.* Evansville, Ind, Sept. 1, 12. B.S, Chicago, 33, Ph.D, 37. *Instr. physical chem, Chicago, 38–* Surface chemistry; colloids.

Boyd, Prof. Geo(rge) H(ugh), 200 Westview Drive, Athens, Ga. *Parasitology.* Fairburn, Ga, Sept. 9, 91. A.B, Emory, 17, M.S, 22; Sc.D, Hopkins, 24. Instr. zool, Emory, 20–22, asst. prof, 24–25; assoc. prof. biol, Ga. Tech, 25–26; *prof. zool, Georgia, 26–, chairman div. biol. sciences, 35–* A.A; Soc. Parasitol; Ga. Acad. (sec'y, 29–41). Avian malaria.

Boyd, Prof. Ivan L(ouis), Box 182, Baldwin, Kans. *Plant ecology, Zoology.* Spaulding, Iowa, Aug. 4, 04. A.B, Simpson Col, 31; M.S, Iowa State Col, 39. Instr, junior high sch, Iowa, 28–37, high sch, 37–38; *research asst, soil conservation service, U. S. Dept. Agr, 38–; asst. prof. biol. and head dept, Baker, 41–* Kans. Acad; Iowa Acad. Establishment of native prairie grasses on eroded soils in southeastern Iowa; tannin content of native Iowa sumacs and their value in soil conservation.

Boyd, Lieut. Col. James, Office of Assistant Chief of Staff for Materiel, Headquarters Services of Supply, Washington, D. C. *Geology.* Kanowna, West. Australia. B.S, Calif. Inst. Tech, 27; M.S, Colo. Sch. Mines, 32, Sc.D, 34. Field engineer, Radiore Co, 27–29; instr. geol, Colo. Sch. Mines, 29–35, asst. prof, 35–39, assoc. prof, 39–41; chief metals and minerals sect, commodities branch, resources div, Headquarters Services of Supply, 41–42; *U. S. Army rep, program adjust. cmt, War Production Board, 42–* Geophys. Union; Min. and Metal. Eng; Rocky Mt. Asn. Petrol. Geol. Applied geophysics; Precambrian ore deposits of Colorado.

Boyd, Prof. James E(llsworth), Ohio State University, Columbus, Ohio. *Mechanics, Physics.* Muskingum Co, Ohio, Nov. 6, 63. B.S, Ohio State, 91; M.S, Cornell, 96. Asst. physics, *Ohio State*, 91–95, asst. prof, 96–01, assoc. prof. math, 01–06, prof. *mech*, 06–36, *emer. prof, 36–*, chairman dept, 06–34. Asst. to judges elec, Columbian Expos, 93. Summer, asst, Bur. Standards, 17. A.A; Mech. Eng; Eng. Educ. Alternating currents; resistance of the human body; timing shutters; water jets; acceleration apparatus; flow in pipes; reinforced concrete; secondary stresses in bridges; elasticity of porcelain; tapered struts.

Boyd, Prof. James E(mory), 2081 Dellwood Drive, Atlanta, Ga. *Physics.* Tignall, Ga, July 18, 06. A.B, Georgia, 27; fellow, Duke, 27–28, A.M, 28; Loomis fellow, Yale, 32–33, Ph.D, 33. Instr. physics, Georgia, 28–30; asst, Yale, 30–32; prof. science, W. Georgia Col, 33–35; asst. prof. *physics, Ga. Tech*, 35–37, *assoc. prof, 37–; lieut, bur. ordnance, U. S. Navy Dept, 42–* Physical Soc; Ga. Acad. X-rays; polarized light.

Boyd, Dr. James H(arrington), Jr, Atlantic Refining Co, 3144 Passyunk Ave, Philadelphia, Pa. *Chemical engineering.* Portland, Maine, Nov. 29, 02. B.S, Kenyon Col, 24; M.S, Mass. Inst. Tech, 26, Sc.D, 30. Asst, Mass. Inst. Tech, 26–29; chemist, *Atlantic Ref. Co*, 29–35, *asst. manager research and develop. dept, 35–* Chem. Soc; Chem. Eng; Petrol. Inst. Viscosity of compressed gases; petroleum.

Boyd, Prof. Julian D(eigh), Children's Hospital, Iowa City, Iowa. *Pediatrics, Physiology.* Hastings, Nebr, May 9, 94. B.S, Idaho, 16; M.S, Iowa, 19, M.D, 21. Instr. physiol, *Iowa*, 24–25, *pediat*, 25–28, asst. prof, 28–30, *assoc. prof, 30–* Pediat. Soc; Soc. Pediat. Research; Diabetes Asn; Cent. Soc. Clin. Research. Diabetes in children; dietary control of dental caries; disturbances of nutrition; late rickets; calcium and phosphorus metabolism.

Boyd, Dr. Linn J(ohn), 1 E. 105th St, New York, N. Y. *Medicine, Pharmacology.* Detroit, Mich, Sept. 30, 95. M.D, Michigan, 18. Assoc. prof. homeop. med, Michigan, 21–26, director homeop. research labs, 23–26; *prof. med, pharmacol. and homeop. therapeut*, N. Y. Homeop. Med. Col, 27–35, *N. Y. Med. Col, 35–* Endowment lecturer, Am. Inst. Homeop, 31; director med. and pres. med. board, Metrop. Hosp, New York. Ed, 'Jour. Am. Inst. Homeop,' 28–34, assoc. ed, 34– Mem. advisory council for research, Dept. Hosps, New York. A.A; fel. Col. Physicians; Inst. Homeop. (bur. chairman, sect. med, 29, clin. med, 30, and homeop, 31); Am. Med. Asn; Soc. Study Int. Secretions; Col. Physicians; Soc. Study Rheumatic Diseases; Harvey Soc; N. Y. State Homeop. Soc; N. Y. Heart Asn; N. Y. Acad. Med; N. Y. Soc. Hist. Med; British Homeop. Soc; Soc. de Homeop. de France. Cardiovascular diseases; clinical electrocardiography; phase effects of drugs; history of medicine.

Boyd, Dr. Mark F(rederick), 49 W. 49th St, New York, N. Y. *Epidemiology.* St. Paul, Minn, May 21, 89. M.D, Iowa, 11, M.S, 13; Folsom fellow, Harvard, 13–14; C.P.H, Harvard and Mass. Inst. Tech, 14. Assoc. prof. bacter, Nevada, 14–15; prev. med, Iowa, 15–17; prof. bacter. and prev. med, Texas, 17–21; *field staff, int. health div, Rockefeller Foundation, 21–* Epidemiologist, Iowa, 15–17; visiting bacteriologist, Sealy Hosp, 17–21; director plague lab, U. S. Pub. Health Service, Galveston, 20; stations for field studies of malaria, Rio de Janeiro, Brazil, 22–25, Leesburg, Ga, 25, Edenton, N. C, 26–28, Tallahassee, Fla, 31; director bur. malaria control, State Board Health, Miss, 29–30; visiting lecturer, Army Med. Sch. Mem. subcmt. trop. diseases, div. med. science, Nat. Research Council. State Board Health, Nev, 14; mem. malaria cmt, health sect, League Nations; board malaria consultants, Tenn. Valley Authority; adviser malaria cmt, Pan-Am. Sanit. Bur; mem. cmt. trop. diseases, board study epidemic diseases, U. S. Army; mem. advisory board, Gorgas Mem. Inst. U. S. del, Int. Cong. Trop. Med. and Malaria, Amsterdam, 38; Pan-Am. Sanit. Conf, Bogota, 38. A.A; Pub. Health Asn; Soc. Trop. Med. (pres, 38); Acad. Trop. Med; Malaria Soc. (sec'y-treas, 30–); Iowa Acad; Fla. Acad; Royal Soc. Trop. Med. Malariology.

Boyd, Dr. M(ilford) J(ohn), 2347 Fairview Ave, Cincinnati, Ohio. *Biochemistry.* Genesee Co, Mich, June 9, 02. B.S, Antioch Col, 28; M.S, Cincinnati, 29, Ph.D, 32. Instr. *biochem, col. med, Cincinnati*, 32–38, *asst. prof, 38–* Asst. director biol. chem. service, Cincinnati Gen. Hosp, 42– A.A; Chem. Soc. Enzyme chemistry; immunochemistry; analytical methods in biological chemistry.

Boyd, Dr. O(ran) C(ecil), Massachusetts State College, Amherst, Mass. *Plant pathology.* Diamond, Mo, March 16, 94. B.S, Okla. Agr. and Mech. Col, 16; fellow, Cornell, 20–23, Ph.D, 23. Asst. bot, Missouri, 16–17, 19–20; plant pathologist, State Board Entom, Ga, 23–29; *exten. plant pathologist*, Mass. Col, 30–31, *Mass. State Col, 31–* Phytopath. Soc. Relative efficiency of some copper fungicides in the control of potato diseases and insect pests.

Boyd, Prof. O(scar) F(isher), Wilmington College, Wilmington, Ohio. *Biochemistry.* Martinsville, Ohio. A.B, Ohio State, 13, M.S, 21, Ph.D, 30. *Prof. chem, Wilmington Col, 15–* Chem. Soc. Utilization of calcium soaps by the white rat.

Boyd, Dean Paul P(rentice), University of Kentucky, Lexington, Ky. *Mathematics.* Cameron, W. Va, Feb. 26, 77. A.B, Oberlin Col, 98; A.M, Cornell, 05, fellow, 05–06, Ph.D, 11; LL.D, Park Col, 42. *Prof.* math. and astron, Park Col, 03–04; *math,* Hanover Col, 06–12; *Kentucky, 12–, head dept, 13–, dean col. arts and sciences, 17–* Acting pres, Kentucky, 17. Mem. cmt. institutions higher educ, South. Asn. Cols. and Sec. Schs, 20–40; sec'y-treas, Ky. Asn. Cols. and Sec. Schs, 36–; mem. advisory cmt, South. Study Sec. Schs, 39–; consultant, Educational Policies Cmt. A.A; Math. Soc; Math. Asn; Asn. Deans Lib. Arts Cols. in State Univs. (chairman, 21, 43); Ky. Acad. (exec. cmt, 14, treas, 16–18, v. pres, 18–20, pres, 20). Geometric transformations; analytic geometry.

Boyd, Prof. Robert Neilson, Antioch College, Yellow Springs, Ohio. *Chemical physics.* Chicago, Ill, July 18, 14. B.S, Chicago, 36; Abraham Rosenberg research fellow, California, 38–39, Ph.D, 39. Teaching asst. *chem,* California, 36–38; instr, *Antioch Col,* 39–41, *asst. prof, 41–* The effect of temperature on the structure of mercury.

Boyd, Prof. T(heodore) E(lliott), 706 S. Wolcott Ave, Chicago, Ill. *Physiology.* Ashland City, Tenn, Dec. 14, 93. B.S, Chicago, 21, Ph.D, 23. Asst. physiol, Chicago, 21–23; asst. prof, sch. med, *Loyola (Ill),* 23–24, assoc. prof, 24–28, *prof. physiol. and pharmacol. and chairman dept, 28–* A.A; Physiol. Soc; Soc. Exp. Biol; Inst. Med. Chicago. Physiology of the gastro-intestinal tract; parathyroids; muscle-nerve physiology; reflex control of respiration.

Boyd, Dr. Thomas, Monsanto Chemical Co, Springfield, Mass. *Organic chemistry.* Akron, Ohio, Dec. 24, 13. B.S, Akron, 36; fellow, Purdue, summers, 36–38, M.S, 38, Purdue Research Foundation and Commercial Solvents Corp. fellow, 39–41, Ph.D, 41. Asst, Purdue, 36–39; *research chemist, Monsanto Chem. Co, 41–* Summer, lab. asst, B. F. Goodrich Co, 32. Chem. Soc. Halogenation of aliphatic and aromatic compounds; nitration of aliphatic hydrocarbons and syntheses from nitro paraffins; preparation of mixed aryl-alkyl ethers; dehydrogenation alkylation; synthesis of plastics intermediates.

Boyd, T(homas) A(lvin), General Motors Corp, Detroit, Mich. *Chemistry.* Fairview, Ohio, Oct. 10, 88. B.Ch.E, Ohio State, 18, Ch.E, 38. *Research div,* Dayton Metal Products Co, 18–19; *Gen. Motors Corp, 19–* A.A; Chem. Soc; Soc. Test. Mat; Soc. Automotive Eng; Petrol. Inst; Mich. Acad; Eng. Soc. Detroit. The chemistry of motor fuels and the mechanics of their combustion.

Boyd, Dr. William, University of Toronto, Toronto, Ont, Can. *Pathology.* Portsoy, Scotland, June 21, 85. M.D, Edinburgh, 08. *Prof. path,* med. col, Manitoba, 15–37; *Toronto, 37–* Pathologist, Winnipeg Gen. Hosp, 15–37. Asn. Path. and Bact. (pres, 34); Med. Mus. Asn. (pres, 34); Can. Med. Asn; Royal Col. Physicians, Edinburgh; fel. Royal Col. Physicians, London. Diseases of the gall bladder; lethargic encephalitis; carcinoma of the lung; physiology and pathology of the cerebrospinal fluid; surgical pathology; medical science; pathology of internal diseases.

Boyd, Prof. William C(louser), Evans Memorial Hospital, 80 E. Concord St, Boston, Mass. *Biochemistry.* Dearborn, Mo, March 4, 03. A.B, Harvard, 25, A.M, 26; Ph.D, Boston, 30. Teaching fellow *biochem, sch. med, Boston,* 26–29, asst. prof, 35–38, *assoc. prof, 38–;* research fellow, *Evans Mem. Hosp,* 29–30, research chemist, 30–35, *assoc. mem, 35–* Guggenheim Mem. Foundation fellow, Europe, 35–36, 37–38. A.A; Asn. Physical Anthrop; Genetic Asn; Asn. Immunol. Blood grouping; immunochemistry; anthropology; immunology.

Boyden, Prof. Alan (Arthur), Rutgers University, New Brunswick, N. J. **7Zoology.* Milwaukee, Wis, June 16, 97. A.B, Wisconsin, 21, Ph.D, 25. Asst. *zool,* Wisconsin, 21–25; instr, *Rutgers,* 25–26, asst. prof, 26–30, *assoc. prof, 30–,* chairman bur. biol. research, 36–39. Lecturer, California, 29–30. Nat. Research Council grant-in-aid, 30, 31; Sigma Xi grant-in-aid, 38. A.A; Soc. Zool; Soc. Nat; Eugenics Soc; Genetics Soc; N. Y. Zool. Soc; fel. N. Y. Acad. Animal relationship; serology and phylogeny; serology and ontogeny; genetics and taxonomy; serological relationship in Mammalia, Amphibia and Crustacea.

Boyden, B(oyd) L(ester), 724 Earlham Drive, Whittier, Calif. *Entomology.* Cumberland, Wis, Dec. 22, 85. A.B, Pomona Col, 12. Sci. asst. and assoc. entomologist, truck crop insect investigation, bur. entom, *U. S. Dept. Agr,* 14–28, *senior entomologist, bur. entom. and plant quarantine, 28–* A.A; Asn. Econ. Entom. Insect eradication; insect biology and control.

Boyden, Prof. Edward A(llen), University of Minnesota, Minneapolis, Minn. **5Anatomy, Embryology.* Bridgewater, Mass, March 20, 86. A.B, Harvard, 09, A.M, 11, Ph.D, 16; Freiburg, 11–12. Asst. zool, Harvard, 08–11, teaching fellow histol. and embryol, Harvard Med. Sch, 12–16, instr. comp. anat, 16–19, asst. prof, 19–26; assoc. prof. *anat,* col. med, Illinois, 26–28, prof, 29; head dept, Alabama, 29–31; *prof, Minnesota, 31–, chairman dept, 40–* Acting assoc. prof, Stanford, 21–22. Managing ed, 'Anat. Record,' 28– Gold medal, South. Minn. Med. Asn, 37. A.A; Asn. Anat. (exec. cmt, 28–32, 39–); Soc. Zool; Soc. Exp. Biol; Physiol. Soc; Am. Acad; Minn. Path. Soc. (pres, 43). Experimental embryology of urogenital system; volumetric analysis of young human embryos; anatomy and physiology of human gall bladder and biliary tract; history of anatomy.

Boyden, Dr. Mabel (Josephine) Gregg (Mrs. Alan Boyden), Rutgers University, New Brunswick, N. J. *Zoology.* Albuquerque, N. Mex, Nov. 20, 99. A.B, Wisconsin, 21, A.M, 22, Ph.D, 25. Asst. *zool,* Wisconsin, 21–22, *research asst,* 22–25; *Rutgers, 25–* A.A; Genetic Asn; Eugenics Research Asn. Eugenics; serology.

Boydston, Prof. R(aymond) W(illis), Culver-Stockton College, Canton, Mo. *Physics.* St. Joseph, Mo, March 15, 03. A.B, Park Col, 26; M.S, Iowa, 27; Chicago, 28; Ohio State, 30; Michigan, 31, 32, 35. Asst, Iowa, 26–27; asst. prof. physics, Miami (Ohio), 27–36; research dept, Champion Paper and Fiber Co, Hamilton, Ohio, 36–37; *prof. physics, Culver-Stockton Col, 37–* Asst, Park Col, 25–26. Asn. Physics Teachers; Math. Soc; Ohio Acad; Iowa Acad. Thermoelectric effect in single crystal bismuth; medical research problems; Zeleny electroscope; laboratory arts.

Boyer, Alden Scott, 2700 Wabash Ave, Chicago, Ill. *Chemistry.* Cresco, Iowa, Jan. 29, 87. Ph.G, Northwestern, 08. *Pres. and chief chemist, Boyer Chem. Lab. Co, Chicago, Ill, and Paris, France, 12–* Soc. de Chim. indust. History of drug manufacture.

Boyer, Prof. Carl B(enjamin), Brooklyn College, Brooklyn, N. Y. *Mathematics.* Hellertown, Pa, Nov. 3, 06. A.B, Columbia, 28, A.M, 29, Ph.D, 39. Tutor *math, Brooklyn Col,* 28–33, instr, 34–40, *asst. prof, 41–* Lecturer, Rutgers, 35– A.A; Math. Soc; Math. Asn; Hist. Sci. Soc. History of science; the concepts of the calculus.

Boyer, Dr. E(dward Everett) H(ale), Jane Lamb Hospital, Clinton, Iowa. *Pathology.* Lynn, Mass, Feb. 15, 93. Fellow, Ohio State, 19, Ph.D, 20. *Pathologist,* Mt. Carmel Hosp, Columbus, 20–25; State Bur. Juvenile Research, Ohio, 25–28; *Jane Lamb Hosp, 28–* Am. Med. Asn. Clinical pathology.

Boyer, Dr. Esther L(ydia), University of Missouri, Columbia, Mo. *Anatomy.* Reddick, Ill, March 27, 02. A.B, West. Union Col, 23; A.M, Wisconsin, 30, Ph.D, 33, M.D, 39. *Asst.* zool, Wisconsin, 29–34, anat, med. sch, 34–39; intern, Madison Gen. Hosp, Wis, 39–40; instr. anat, Woman's Med. Col. Pa, 40–42; *asst. physician, student health service, Missouri, 42–* Vertebrate morphology.

Boyer, M(arion) W(illard), Standard Oil Co. of Louisiana, Box 551, Baton Rouge, La. *Chemistry.* Muncie, Ind, Aug. 14, 01. B.S, Mass. Inst. Tech, 25, M.S, 26. Asst. and assoc, research lab. applied chem, Mass. Inst. Tech. 26–27; asst. director develop. and research dept, *Standard Oil Co. of La,* 27–30, director, 30–31, in charge tech. div, 31–33, gen. supt, 33–35, asst. gen. manager, 35–36, *gen. manager and v. pres, 36–* Chem. Soc; Chem. Eng.

Boyer, R(obert) L(uther), 4403 Center Ave, Pittsburgh, Pa. *Physics.* Elizabethville, Pa, Sept. 24, 10. A.B, Ursinus Col, 30; A.M, Lafayette Col, 32. Instr. physics, Lafayette Col, 30–33; junior physicist, *U. S. Bur. Mines,* 37–40, *asst. physicist, 40–* Physical Soc. Coal hydrogenation.

Boyle, Dr. A(lbert) C(larence), Jr, 906 E. 45th South St, Salt Lake City, Utah. *Mining engineering, Geology.* Salt Lake Co, Utah, March, 80. A.B, Utah, 02, B.S, 06; Cornell,

05–06; A.M, Columbia, 10, Ph.D, 13. Instr. physics, Utah, 97–01, foreman mech. arts, state sch. mines, 01–07; asst. instr. geol, Columbia, 07–10; prof. mining, metal. and geol, sch. mines, Wyoming, 10–20; chief geologist, Union Pacific Ry. System, 20–33; geologist and archeological engineer, Dinosaur Nat. Monument, Nat. Park Service, 33–40, acting custodian and project supt, 36–40; consulting geologist, Denver Rio Grande Ry, 36–40; city geologist, Laramie, Wyo, 41–42; *consulting geologist, Coalville, Utah, 42–* Summer, instr, Columbia, 13. Consulting geologist, U. P. Coal Co. and U. P. Water Co, 14–18; Bully Hill Mining and Smelting Co, 07–13; state assayer and mineralogist, Wyo, 10–21. State Board Coal Mine Inspectors, Wyo, 10–22; Nat. Research Council. A.A; Min. and Metal. Eng; Eng. Educ; Asn. Petrol. Geol; Am. Geog. Soc; Seismol. Soc. Metallurgy; mining; preparation of thin sections of rocks, minerals and ores; forced cupellation; extraction of potassium oxide from leucite; flotation; geology of oil, coal, gas, underground water and ore deposits; copper, iron and lead mines.

Boyle, Dr. A(lbert) J(ulius), Basic Magnesium, Inc, Las Vegas, Nev. *Chemistry.* Jackson, Mich, Nov. 23, 10. B.S, Battle Creek Col, 34; M.S, Michigan, 35, Ph.D, 38. Res. chemist, St. Joseph Lead Co, 37–39; *chief chemist,* Basic Refractories, Inc, 39–41; *Basic Magnesium, Inc, 41–* Instr, Wayne, 39–41. Chem. Soc. Physical and analytical chemistry; alkalies; periodates; chrome ore; physical apparatus; micro-analysis.

Boyle, Prof. A(ndrew) J(oseph), University of Notre Dame, Notre Dame, Ind. *Chemistry.* Cannanea, Mex, Dec. 21, 06. B.S, Notre Dame, 28, M.S, 29, Ph.D, 31. Asst. *chem, Notre Dame,* 28–31, instr, 31–34, asst. prof, 34–37, *assoc. prof, 37–* Chem. Soc; Soc. Metals. Metallurgy; analytical chemistry.

Boyle, Dr. Lytton W(esley), Bureau of Plant Industry, U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Tacoma, Wash, July 10, 99. B.S, State Col. Wash, 23, M.S, 24; Ph.D, Wisconsin, 32. *Asst. plant pathologist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 26–* A.A; Phytopath. Soc. Cereal crops; flax diseases; foot-rot of wheat; virus diseases.

Boyle, Prof. Paul E(dmund), 25 Shattuck St, Boston, Mass. *Pathology.* Somerville, Mass, April 20, 00. Dartmouth Col, 18–19; D.M.D, Harvard, 23. Asst. operative dentistry, *Harvard Dental Sch,* 26–28, instr, 28–41, path, 32–41, *asst. prof. oral path. and clin. dentistry, 41–* Stomatologist, Children's Hosp, 36– Dental Asn; Soc. Exp. Path. Oral pathology and clinical dentistry; nutrition and dental disease.

Boyle, Dr. R(obert) W(illiam), National Research Council, Ottawa, Ont, Can. *Physics.* Carbonear, Newfoundland, Oct. 2, 83. St. John's Col. (Newfoundland); B.Sc, McGill, 05, M.Sc, 06, Ph.D, 09, 1851 Exhib. scholar, 09. Demonstrator physics, McGill, 05–07, senior demonstrator and special lecturer math, 07–09; research radioactivity, Manchester, 09–11; lecturer physics, McGill, 11, asst. prof, 12; prof, Alberta, 12–29, dean faculty applied science, 21–29; *director div. physics and elec. eng, Nat. Research Labs, Ottawa, 29–* Research, Board Inventions and Research, and Anti-Submarine Div, British Admiralty, 16–19; advisory board, Royal Mil. Col, 28–29, chairman, 35. Flavelle medal, Royal Soc. of Can, 40. A.A; fel. Physical Soc; Eng. Educ; fel. Acoustical Soc; Royal Soc. Can. (past pres, sect. 3); Alta. Asn. Professional Eng. (past pres); Eng. Inst. Can. (chairman, Ottawa branch, 35, councilor, 37–). Properties of matter; adsorption, solution and volatilization of radioactive emanations; ultrasonics.

Boyle, Prof. Robert W(illiam), University of Arkansas School of Medicine, Little Rock, Ark. *Physiology, Pharmacology.* St. Paul, Minn, Feb. 11, 08. Hamline, 24–26; B.P.E, Y.M.C.A. Col, 29, M.P.E, 31; Ph.B, Chicago, 30; M.S, Col. City of Detroit, 32; Ph.D, Minnesota, 36; M.D, Arkansas, 40. Special lecturer, Col. City of Detroit, 31–32; teaching fellow physiol, Minnesota, 33–36; asst. prof. *physiol. and pharmacol, sch. med, Arkansas,* 36–41, assoc. prof. and acting head dept, 41–42, *prof. and head dept, 42–* Physiology of exercise; effects of toxins on the heart.

Boylston, A(rthur) C(larence), 3600 N. Second St, St. Louis, Mo. *Chemistry.* Milton, Mass, June 23, 82. A.B, Harvard, 03, A.M, 06. Austin teaching fellow, Harvard, 06–08; chemist and supt, *Mallinckrodt Chem. Works,* 08–25, v. pres. and gen. manager, 25–41, *pres, 41–* A.A; Chem. Soc. (chairman, St. Louis sect, 17, 18); Chem. Eng; Am. Drug Manufacturers Asn. (pres, 35–37). Physical chemistry; pharmacology.

Boynton, Prof. Damon, Cornell University, Ithaca, N. Y. *Pomology.* Chicago, Ill, Sept. 27, 08. B.S, Cornell, 31, Ph.D, 37. Instr. *pomol, Cornell,* 35–38, asst. prof, 38–42, *assoc. prof, 42–,* traveling fellow, col. agr, 39. A.A; Soc. Hort. Sci; Soil Sci. Soc; Soc. Agron. Relation between the physical and chemical properties of orchard soils and fruit tree behavior.

Boynton, Dr. H(enry) C(ook), 935 Carteret Ave, Trenton, N. J. *Metallurgy.* Willsborough, N. Y, April 16, 74. A.B, Harvard, 00, Austin fellow, 00–03, M.S, 01, Sc.D, 04. Asst. to dean grad. sch, Harvard, 94–96, instr. metal. and metallog, 03–06; metallurgist, J. A. Roebling's Sons Co, 06–30, consulting metallurgist, 30–40. Carnegie scholar, British Iron and Steel Inst, 05–06, 07–08. Min. and Metal. Eng; Soc. Test. Mat; Soc. Metals (chairman, Phila. sect, 31); British Iron and Steel Inst. Metallography; a definite hardness for the microconstituents of iron and steel; grain size of acid and basic open hearth steels; manufacture and uses of extra high strength steel wire.

Boynton, Prof. John E(dson), Forsythe Place, Belle Meade, Nashville, Tenn. *Mechanical engineering.* Jerseyville, Ill. B.S, Wisconsin, 05. Instr. mech. drawing and descriptive geometry, Wisconsin, 07–08; asst. to hydraulic engineer, Arnold Co, 08–10; instr. and asst. prof. steam eng, Iowa, 10–13; prof. mech. eng. and head dept, Lafayette Col, 13–14; chief engineer, Malinite Co, 14–18; develop. engineer, Corning Glass Works, 19–22; develop. engineer and div. head, West. Elec. Co, 22–31; *prof. mech. eng. and head dept, Vanderbilt, 31–* Capt, Combatant Eng, 18–19. Mech. Eng; Eng. Educ. Automatic glass ware manufacturing machinery; cable sheathing; continuous extrusion of metals.

Boynton, Dr. Lyman C(rowell), 199 Penfield Road, Rochester, N. Y. *Medicine.* Ashtabula, Ohio, Nov. 4, 93. B.S, Michigan, 16; A.M, Columbia, 22, Ph.D, 24; M.D, Rochester, 31. Asst. food chem, Columbia, 21–24; instr. physiol. chem, Washington (Seattle), 24–25, asst. prof, 25–27; assoc, Rochester, 27–29; intern, Lakeside Hosp, Cleveland, 31–32; Lahey Clinic, 32–33; *instr. med, Rochester, 33–* Acting instr, Stanford, 23. A.A; Am. Med. Asn; Asn. Study Int. Secretions; Rochester Acad. Med. Clinical investigation; nutrition; biochemistry; digestive diseases.

Boynton, Pres. Paul L(ewis), Stephen F. Austin State College, Nacogdoches, Texas. *Psychology.* Llano, Texas, July 24, 98. A.B, Sam Houston State Teachers Col, Texas, 20; fellow, Peabody Col, 22–23, A.M, 23, Ph.D, 27. Prin, high sch, Texas, 20–21; instr. psychol, Kentucky, 23–24, asst. prof, 24–27, assoc. prof, 27–30, acting head dept, 28–29; prof. educ. psychol, Peabody Col, 30–36, psychol, 36–42, head dept, 40–42; *pres. and prof. psychol, Stephen F. Austin State Col, 42–* Mental hygiene consultant, State Dept. Institutions, Tenn, 38; consulting psychologist, Cent. State Hosp, Tenn, 40–42. Summer, instr, Appalachian Training Sch, Boone, N. C, 22. Ed, 'Cumberland Educational Series,' 36– Chairman, Governor's Cmn. to Study Mental Hosps, Tenn, 36, mem, 40. Psychol. Asn. Child psychology; nature, function and testing of intelligence; learning.

Boynton, Dr. W(illia)m H(utchins), College of Agriculture, University of California, Berkeley, Calif. *Veterinary medicine.* Grass Valley, Calif, April 18, 81. California; D.V.M, Cornell, 08. Instr. gen. path, Cornell, 09–10; comp. pathologist, P. I, 10–24; dean vet. col, Philippines, 14–18; chief research lab, Bur. Agr, P. I, 18–24; *prof. vet. science, col. agr, California, 24–* Lecturer, Philippines, 10–14. A.A; Vet. Med. Asn; Calif. State Vet. Med. Asn; Philippine Vet. Med. Asn; Bay Counties Vet. Med. Asn. Rinderpest; contagious pleuro-pneumonia, anaplasmosis, anthrax; kidney worm disease in swine; vaccine for hog cholera; bacteriophage; new method of diagnosing hog cholera.

Boynton, Prof. W(illiam) P(ingry), 546 W. Beverly Blvd, Whittier, Calif. ***Physics.* Weathersfield, Vt, Oct. 28, 67. A.B, Dartmouth Col, 90, A.M, 93; fellow, Clark, 95–97, Ph.D, 97; hon. Sc.D, Oregon, 37. Asst. *physics,* Dartmouth Col, 88–90, 93–94; prof, Southern California, 90–93; instr, California, 97–01; asst. prof, Oregon, 03–06, prof, 06–32; *Oregon State Col,* 32–37, *emer. prof, 37–* Acting prof, Whittier Col, 40–41. Trustee, Linfield Col, 33–37. A.A; Physical Soc; Asn. Physics Teachers. The high frequency induction coil;

thermodynamic potentials; measurement of high oscillatory potentials; transient electrical phenomena.

Bozell, Harold V(eatch), 80 Broad St, New York, N. Y. *Electrical engineering.* Beloit, Kans, May 31, 86. B.S, Kansas, 08, E.E, 15. Asst. prof. elec. eng, Oklahoma, 08–09, assoc. prof, 09–11, prof, 11–16; asst. prof, Yale, 16–21; ed, 'Elec. Ry. Jour,' 20–22; 'Elec. World,' 22–25; Bonbright and Co, 25–32; exec. v. pres, Associated Telephone Utilities Co, New York, 32–35, v. pres, *Gen. Tel. Corp,* 35–40, *pres,* 40– Elec. Eng; Mech. Eng.

Bozicevich, John, National Institute of Health, U. S. Public Health Service, Washington, D. C. *Zoology.* Sunnyside, Utah, Dec. 19, 05. B.S, George Washington, 29, A.M, 30. Junior zoologist, bur. animal indust, U. S. Dept. Agr, 30–36; assoc. zoologist, *nat. inst. health, U. S. Pub. Health Service,* 36–40, *zoologist,* 40– Soc. Exp. Biol; Soc. Bact; Soc. Parasitol; Helminth. Soc. Wash. Anthelmintics; immunology; bacteriology.

Bozler, Prof. E(mil), Ohio State University, Columbus, Ohio. *Biophysics.* Steingebronn, Germany, April 5, 01. Tübingen; Ph.D, Munich, 23. Asst. and privat-docent, zool. inst, Munich, 24–31; fellow, Rockefeller Foundation, 28–29; visiting fellow, sch. med, Rochester, 29; fellow med. physics, Johnson foundation, sch. med, Pennsylvania, 32–36; asst. prof. and later *assoc. prof. physiol, Ohio State, 36–* A.A; Physiol. Soc; Soc. Exp. Biol. Nervous system of coelenterates; nature of neurofibrils; physiology of non-striated muscles; conduction of impulses and rhythmicity of visceral muscles.

Bozorth, Dr. Richard M(ilton), 463 West St, New York, N. Y. *******Physics, Chemistry.* Salem, Oregon, April 10, 96. A.B, Reed Col, 17; du Pont fellow, Calif. Inst. Tech, 21–22, Ph.D, 22. Teaching fellow chem, Calif. Inst. Tech, 19–21, research fellow, 22–23; *research physicist,* West. Elec. Co, 23–25; *Bell Tel. Labs, 25–* Cmt. on elec. insulation, Nat. Research Council. Assoc. ed, 'Jour. Applied Physics,' 37–39. Min. and Metal. Eng; fel. Physical Soc; Soc. Metals. Conduction in strong electrolytes; crystal structure by means of x-rays; solid dielectrics; theoretical and applied ferromagnetism.

Braasch, Dr. William F(rederick), Mayo Clinic, Rochester, Minn. *Urology.* Lyons, Iowa, July 6, 78. B.S, Minnesota, 00, M.D, 03; Vienna, 04–05. Pathologist, Minneapolis City Hosp, 03–04; asst. city physician, Minneapolis, 04–07; *consulting physician, Mayo Clinic, 07–,* head sect. urol, 14–39, *consulting urologist, 39–; prof. urol, Mayo Foundation and grad. sch. med, Minnesota, 15–* Am. Med. Asn. (trustee); Asn. Genito-Urinary Surg. (pres, 26); Urol. Asn. (pres, 21); Col. Surg; Clin. Soc. Genito-Urinary Surg. (pres, 35); Minn. Med. Asn. (pres, 27); Minn. Acad. Med; South. Minn. Med. Asn. (pres); cor. mem. Deuts. Gesell. für Urol; cor. mem. Asn. française d'Urol; cor. mem. Soc. Ital. di Urol; cor. mem. Asn. Española de Urol; cor. mem. Soc. Argentina de Urol; cor. mem. Soc. Urol. de Bogota; cor. mem. Soc. Venezolana de Urol; cor. mem. Soc. Cubana de Urol. Urography; pyelography.

Bracken, Prof. Aaron Francis, Utah State Agricultural College, Logan, Utah. *Agronomy.* Freedom, Wyo, Oct. 11, 90. B.S, Utah State Col, 14, M.S, 24; Minnesota, 26–27. Asst. agronomist, Utah State Col, 14–18; sci. asst, bur. plant indust, U. S. Dept. Agr, 18–20; asst. agronomist, *Utah State Col,* 20–34, *assoc. agronomist, 34–, assoc. prof. agron.* State land planning consultant, Nat. Resources Board, Utah, 34–35. A.A; Soc. Agron; Utah Acad. Dry land agriculture; nitrogen and organic matter changes in dry farm soil with concretion.

Brackett, Prof. F(rank) P(arkhurst), Balboa Island, Calif. *Astronomy.* Provincetown, Mass, June 16, 65. A.B, Dartmouth Col, 87, A.M, 90, Sc.D, 27; hon. fellow, Clark, 02–03. Instr. math, *Pomona Col,* 88–90, prof, 90–33, astron. and director observatory, 08–33, *emer. prof. astron. and emer. director observatory, 33–* Chairman faculty, Claremont Cols, 30–33. Director, Cmn. Relief Belgium Educ. Foundation. Smithsonian astron. exped, Algeria, 11, Calif, 13; director eclipse exped, Catalina, 23; Ramm's Ranch and Honey Lake, Calif, 30. Del, Cmn. Relief Belgium, 16–17. A.A; Astron. Soc; Math. Soc; Astron. Soc. Pacific; S. Calif. Acad; Royal Astron. Soc. Can. Solar spectroscopy.

Brackett, Dr. F(rank) Parkhurst, Jr, 922 N. Croft Ave, Hollywood, Calif. *Physical chemistry.* Pomona, Calif, Oct. 9, 06. A.B, Pomona Col, 28; A.M, Harvard, 30, Emerson scholar, 31–32, Ph.D, 33; fellow, Claremont Cols, 32–33. Asst. chem, Harvard, 28–31; asst. sensitometrist, Paramount Productions, Inc, 33–35; *control dept, Technicolor, Inc, 35–* Leonid photog. exped, Mt. Wilson, 33. Cryoscopic systems of camphor; photochemical processes in the ultra-violet.

Brackett, Dr. F(rederick) S(umner), 11 E. Woodbine St, Chevy Chase, Md. *Physics.* Claremont, Calif, Aug. 1, 96. A.B, Pomona Col, 18; Ph.D, Hopkins, 22. Lab. asst, Bur. Standards, 18–19, asst. physicist, 21–22; observer, Mt. Wilson Observatory, 19–20; instr. physics, Hopkins, 20–22; asst. prof, California, 22–25, assoc. prof, 25–29; senior physicist, fixed nitrogen research lab, U. S. Dept. Agr, 29; director div. radiation and organisms, Smithsonian Institution, 29–33, consultant, 33–34; consultant prin. technologist, div. cotton marketing, U. S. Dept. Agr, 34–36; sec'y and director lab, Research Associates, Inc, 35–36; senior physicist, div. indust. hygiene, *U. S. Pub. Health Service,* 36–38, *prin. physicist,* 38–40, nat. cancer inst, 40–41, *div. indust. hygiene, 41–; major, Sanit. Eng. Corps, U. S. Army, and mem. staff, med. research lab, Armored Force, Ft. Knox, Ky, 42–* Consultant, Research Corp, 33–34. A.A; Physical Soc; Optical Soc; Philos. Soc. Wash; Wash. Acad. Infra-red spectroscopy; atomic structure; spectral intensity relations; structure of organic molecules; biological photochemical relations.

Brackett, Prof. (George) Sterling, University of North Carolina, Chapel Hill, N. C. *Parasitology.* Sioux Falls, S. Dak, Nov. 15, 11. A.B, Minnesota, 35, A.M, 37; Ph.D, Wisconsin, 40. Teaching asst. zool, Minnesota, 35–37; asst, Wisconsin, 37–40; instr. *med. zool, sch. pub. health, North Carolina,* 40–41, *asst. prof, 41–* Summers, parasitologist, Stream Control Cmn, Mich, 40, 41. A.A; Soc. Parasitol. Medical entomology; malariology.

Bradbury, Prof. Dorothy, Oklahoma College for Women, Chickasha, Okla. *Botany.* Kansas City, Mo, Feb. 2, 99. A.B, Wisconsin, 20, A.M, 22, Ph.D, 25. Asst. hort, Wisconsin, 20–25, instr, 25–26; *biol, Okla. Col. for Women,* 29–30, asst. prof, 30–35, *assoc. prof, 35–* A.A; Bot. Soc; fel. Okla. Acad. Developing and aborting fruits of Prunus cerasus.

Bradbury, Dr. J(ames) T, 7008 Wake Forest Drive, College Park, Md. *Endocrinology.* Cody, Wyo, April 7, 06. B.S, Mont. State Col, 28; M.S, Michigan, 30, Sc.D, 32. Research asst, dept. obstet. and gynec, Univ. Hosp, Michigan, 32–37, instr, 37–40; *endocrinologist, bur. dairy indust, U. S. Dept. Agr, 40–* Physiol. Soc; Asn. Nat. Endocrine factors in reproduction and lactation.

Bradbury, Prof. Norris E(dwin), Stanford University, Calif. *Physics.* Santa Barbara, Calif, May 30, 09. A.B, Pomona Col, 29; Ph.D, California, 32. Nat. research fellow *physics,* Mass. Inst. Tech, 32–34; asst. prof, *Stanford,* 34–37, assoc. prof, 37–42, *prof, 42–; U. S. Naval Res, U. S. Naval Proving Ground, Dahlgren, Va, 41–, lieut. commander.* A.A; fel. Physical Soc; Meteorol. Soc; Geophys. Union. Conduction of electricity in gases; properties of ions; atmospheric electricity.

Bradbury, Prof. O(ra) C(lare), Wake Forest College, Wake Forest, N. C. *Zoology.* McPherson, Kans, July 17, 90. B.S, Ottawa (Kans), 14; A.M, Nebraska, 15, Ph.D, 19. Asst. prof. zool, Baylor, 17, prof, 18–23; asst. prof, Denver, 23–25; *prof. biol, Wake Forest Col, 25–* A.A. Animal ecology; embryology; parasitology.

Bradbury, Dr. Robert H(art), Colonial Village, Wayne, Pa. *Chemistry.* Philadelphia, Pa, Sept. 25, 70. Ph.D, Pennsylvania, 93. Asst. chemist, Cambria Iron Co, 90–91; chemist, S. P. Wetherill Paint Co, 91–02; prof. chem, Cent. Manual Training Sch, Phila, 93–07; head dept. science, South. High Sch, 07–30; *chemist, Am. Chem. Paint Co, 19–* Lecturer, Pennsylvania, 94–95. A.A; Chem. Soc; Franklin Inst. Elementary and inductive chemistry; molybdic and tungstic acids.

Braddock, Dr. J(ames) C(onger), 1407 Laramie St, Manhattan, Kans. *Zoology.* New York, N. Y, Sept. 20, 13. A.B, Williams Col, 35; Ph.D, Chicago, 42. *Instr. zool,* exten, Indiana, 38–42; *Kans. State Col, 42–* Ecology; social behavior of fishes.

Braddock-Rogers, Dr. K(enneth), 617 W. Miner St, West Chester, Pa. *Inorganic chemistry.* Rochester, N. Y, Dec. 15, 00. B.S, Haverford Col, 22; M.S, Pennsylvania, 25, Ph.D, 28. Instr. chem, Pennsylvania, 24–32; Drexel Inst, 30–31; science dept, Haddonfield Mem. High Sch, 35–38; *chem. dept, Pa. State Teachers Col, 38–* Summers, chemist, U. S. Dept. Agr, 25–27; asst. prof, Villanova, 37. A.A; Franklin Inst.

Analytical inorganic chemistry; history of chemistry and chemical industries in southern New Jersey.

Bradfield, Prof. Richard, Cornell University, Ithaca, N. Y. *Soil chemistry.* West Jefferson, Ohio, April 29, 96. A.B, Otterbein Col, 17, hon. Sc.D, 41; Ph.D, Ohio State, 22. Instr. soils, Missouri, 20–22, asst. prof, 22–23, assoc. prof, 23–29; *prof,* Ohio State, and assoc. agron, Exp. Sta, 30–37; *soil technol. and head dept. agron, Cornell, 37–, soil technologist, Exp. Sta, 37–* Guggenheim Mem. Foundation fellow, Kaiser Wilhelm Inst, Berlin, 27–28. U. S. del, Int. Cong. Soil Science, Oxford, England, 35. A.A. (chairman, O, 40); Chem. Soc. (chairman colloid div, 37); Soil Sci. Soc. (pres, 36); fel. Soc. Agron. (pres, 41); Int. Soc. Soil Sci. Soil colloids; physical chemistry of soils; soil structure.

Bradford, Dr. C(larence) G(ray), 401 17th St, Santa Monica, Calif. *Psychology.* Pine Bluff, Ark, Sept. 15, 89. A.B, Arkansas, 11; Pd.M, N. Y. Univ, 13, Ph.D, 14. Supervisor training sch, E. Cent. State Nor. Sch, Okla, 14–17, prof. psychol, 17–20; high sch, Calif, 22–26; dist. supt. schs, Calif, 26–28; prin, high sch, Calif, 28–30; *dept. philos. and psychol, Santa Monica Junior Col, 30–* Psychol. Asn. Experimental psychology; habit formation.

Bradford, F(rederick) C(harles), U. S. Plant Introduction Garden, Glenn Dale, Md. *Horticulture.* Lowell, Mass, Feb. 4, 87. B.S, Harvard, 08; M.S, Maine, 11. Asst. hort, Exp. Sta, Oregon State Col, 11–14; head master, high sch, N. H, 14–17; office farm management, U. S. Dept. Agr, 17–19; asst. prof. hort, Missouri, 19–22; assoc. prof, Mich. State Col, 22–37; *senior horticulturist, plant explor. and introd, U. S. Dept. Agr, 37–* Hort. ed, 'Biol. Abstracts.' Soc. Hort. Sci. (pres, 41). Winter injury; root-stocks; growth and variety.

Bradford, Prof. James M(cClellan), 6050 Ingleside Ave, Chicago, Ill. *Physics.* Media, Ill, May 24, 04. A.B, Monmouth Col, 25; M.S, Chicago, 26, 27–29. Asst. prof. *physics,* Miami (Ohio), 26–27; acting prof. and acting head dept, Muskingum Col, 29–31; asst, Chicago, 31–33; instr. and later *asst. prof, Cent. Y. M. C. A. Col, 33–* Prof, George Williams Col, 33–37. A.A. Dielectric properties of Rochelle salt; x-rays and crystal structure.

Bradford, Prof. Louis J(acquelin), 602 Pugh St, State College, Pa. *Mechanical engineering.* Dinard, France, June 1, 88. B.S, Swarthmore Col, 11; M.E, Cornell, 16. Asst. mech. eng, Swarthmore Col, 11–12; instr. *machine design,* Cornell, 12–17, acting asst. prof, 17–18; asst. prof, *Pa. State Col,* 19–22, assoc. prof, 22–24, *prof, 24–* In charge testing sect, Naval Aircraft Factory, 18–19. Mech. Eng. (sec'y, cent. Pa. sect, 22–24; mem, special research cmt. on lubrication, 25–36). Machine design; lubrication.

Bradford, Dr. William Leslie, Strong Memorial Hospital, Rochester, N. Y. *Pediatrics, Bacteriology.* Sedalia, Mo, June 8, 98. A.B, Missouri, 20; M.D, Washington (St. Louis), 23. Intern, St. Louis Gen. Hosp, 23–24; asst. health commissioner, Mo, 24–26; instr. pediat, *sch. med. and dentistry, Rochester,* 26–27, asst. bacter, 27–28, instr. *pediat,* 28–30, asst. prof, 30–34, *assoc. prof, 35–,* res. pediatrician, *Strong Mem. Hosp,* 26–27, asst. res. bacteriologist, 27–28, asst. pediatrician, 28–34, *assoc. pediatrician, 35–* Pub. Health Asn; Soc. Exp. Biol; Am. Med. Asn; Soc. Pediat. Research. (v. pres, 40); Pediat. Soc; Am. Acad. Pediat; Soc. Bact. Vitamin deficiency; infectious diseases.

Bradley, Prof. Amos Day, 66 Villard Ave, Hastings on Hudson, N. Y. *Mathematics.* Wakefield, Pa, Oct. 9, 05. A.B, Pa. State Col, 27; A.M, Columbia, 29, Ph.D, 33. Teacher, pub. sch, Pa, 23–25; instr. *math, Hunter Col,* 29–41, *asst. prof, 41–* Math. Soc; Math. Asn; Hist. Sci. Soc. History of mathematics; cartography.

Bradley, Dr. Aubrey O(ttarson), 2015 Monroe Place, Wilmington, Del. *Organic chemistry.* Wickliffe, Ohio, April 26, 96. A.B, Ohio Wesleyan, 17; M.S, Ohio State, 18, du Pont fellow, 24–25, Ph.D, 25. Chemist, Cincinnati Chem. Works, 19–23; asst. org. chem, Ohio State, 23–24; *supt. azo dept. dye works, E. I. du Pont de Nemours and Co, 25–* Chem. Soc. Ultra-violet absorption spectra of phenyl-azo-alpha-naphthol; azo dyes.

Bradley, Dr. Charles A(lexander), Jr, Corning Glass Works, Corning, N. Y. *Chemistry, Physics.* Longmont, Colo, June 15, 05. B.S, Calif. Inst. Tech, 27; A.M, Columbia, 29, du Pont fellow, 30–31, Ph.D, 32. Lecturer chem, Columbia, 29–30, asst, 32–33; nat. research fellow physics, Mass. Inst. Tech, 33–35; Cutting traveling fellow, Michigan, 35–36; *physicist, Corning Glass Works, 36–* Ceramic Soc. Raman effect and molecular spectra.

Bradley, Dr. Charles D(unklin), Bradley Laboratories, Inc, New Haven, Conn. *Physics.* Anniston, Ala, July 14, 07. B.S, Ala. Polytech, 29; Service fellow, Virginia, 31–34, M.S, 33, Ph.D, 34. Test. dept, Gen. Elec. Co, 29–30, standardizing lab, West Lynn, 35–39; research fellow, Virginia, 34–35; *pres, Bradley Labs, Inc, 39–* A.A. Physical Soc. Preliminary stages in spark discharge; instrument development; selenium photocells.

Bradley, C(harles) E(dward), Mishawaka Rubber and Woolen Co, Mishawaka, Ind. *Chemistry.* Galesburg, Ill, Feb. 22, 74. M.S, Pacific (Oregon), 99; Chicago, 01; California, 06. Prof. chem, Pacific (Oregon), 00–06; chemist, Oregon Exp. Sta, 06–10; research chemist, Rubber Regenerating Co, 11–13; chemist, Mishawaka Rubber and Woolen Mfg. Co, 13–17; director research labs, U. S. Rubber Co, 17–23; asst. gen. manager and later *tech. director, Mishawaka Rubber and Woolen Mfg. Co, 23–* Chem. Soc. Soils; waters; hops; insecticides; latex; rubber; rubber products.

Bradley, Prof. E(ncil) Morton, University of Georgia School of Medicine, Augusta, Ga. *Experimental embryology.* Clinton, Ind, May 26, 11. A.B, Wisconsin, 33; Ph.D, Rochester, 38. Teaching asst, Rochester, 33–37; instr. biol, Colby Junior Col, 37–38; asst. and instr. anat, sch. med, Louisiana, 38–41; *asst. prof. gross anat, sch. med, Georgia, 41–* A.A. Endocrinology; sex differentiation of chick and duck gonads as studied in homoplastic and heteroplastic host-graft combinations; effect of gonadotropic substances on the reproductive system of the garter snake.

Bradley, George H(irst), U. S. Public Health Service, Atlanta, Ga. *Entomology.* Patch Grove, Wis, July 14, 93. B.S, Cornell, 16, 24–25. Asst. biol, Cornell, 16–17; sci. asst, bur. entom, U. S. Dept. Agr, 19–22, asst. entomologist, 22–28, assoc. entomologist, bur. entom. and plant quarantine, 28–38, entomologist, 38–41, senior entomologist, 41–43; *reserve corps, U. S. Pub. Health Service, 43–* Summer, field asst, U. S. Dept. Agr, 17. Chairman, subcmt. on entom, Nat. Malaria Cmt, 32, 35, 39, 40. Inf, 17–19, capt. A.A; Asn. Econ. Entom; Entom. Soc; Malaria Soc. (pres-elect, 43); Entom. Soc. Wash; Fla. Entom. Soc. Biology and ecology of insects affecting man and animals; mosquito control.

Bradley, Prof. H(arold) C(ornellus), University of Wisconsin, Madison, Wis. *Physiological chemistry.* Oakland, Calif, Nov. 25, 78. A.B, California, 00; Ph.D, Yale, 05. Asst. *physiol. chem,* Yale, 04–05, instr, med. sch, 05–06; asst. prof, *Wisconsin,* 06–12, assoc. prof, 13–17, *prof, 17–* A.A; Chem. Soc; Physiol. Soc; Soc. Biol. Chem. (treas, 17–23, v. pres, 30, pres, 31). Physiological chemistry of Mollusca; copper and zinc in a marine mollusk; manganese in freshwater mussels; human pancreatic juice; lipase; hemoglobins; autolysis and atrophy; distribution of pepsin; peptic activity; distribution of autolytic mechanism in vertebrate tissue; autolysis in the invertebrates.

Bradley, Dean James A(nthony), Newark College of Engineering, Newark, N. J. *Chemistry.* Boston, Mass, May 1, 92. A.B, Harvard, 14, A.M, 20. Research chemist, Mass. State Infirmary, 14–16; instr, med. and dental schs, Tufts Col, 16–18; research chemist, Grasselli Chem. Co, 20–22; instr. and later *assoc. prof. chem. and dean, Newark Col. Eng, 22–* U. S. Navy, 18. Chem. Soc; Eng. Educ; East Asn. Col. Deans and Advisers Men. Organic chemistry.

Bradley, Prof. J(ames) Chester, Cornell University, Ithaca, N. Y. *Entomology.* West Chester, Pa, Feb. 11, 84. A.B, Cent. High Sch, Phila, 03; A.B, Cornell, 06, fellow, 09–10, Ph.D, 10; M.S, California, 07. Asst. entom, Cornell, 05–06; California, 06–07; *Cornell,* 07–09, asst. prof. syst. entom, 11–17, 18–20, *prof. entom, 20–,* curator invert. zool, 19–39, *Exp. Sta,* 37–39, *entomologist, 37–* Special asst. entomologist, Ga, 09, 10, 13; asst. prof, California, 17–18. Ed, 'Entom. Student,' 00, ed. and manager, 01. Cornell exped, Okefinokee Swamp, 12; transcontinental biol. exped, 17; entom. exped, S. Amer, 19–20. Mem, Int. Cmt. on Entom. Nomenclature, 32– A.A; Soc. Nat; Entom. Soc. (librarian, 03–05); fel. Entom. Soc. Amer. (sec'y-treas, 06–10); Ecol. Soc; Asn. Econ. Entom; Pacific Coast Entom. Soc; Acad. Nat. Sci. Phila; Biol. Soc. Wash; fel. Entom. Soc. London; Deuts. Entom. Gesell; Soc. entom. de France; Soc. linn. de Lyon; Soc. Entom. Italiano; Soc. entom. de Belg; Chile Soc. Sci; Chile Entom. Soc; cor.

mem. Soc. Cient. Argentina. Systematic hymenopterology; Scoliidae.

Bradley, Dr. J(ohn) H(odgdon), Jr, R. F. D. 1, Lowell, Mass. *Paleontology.* Dubuque, Iowa, Sept. 17, 98. A.B, Harvard, 21; Ph.D, Chicago, 24. Asst. geol, Harvard, 20–21, 22–23; instr, North Carolina, 21–22; asst. prof, Montana, 25–26, assoc. prof, 26–28; prof, Southern California, 28–36; *private educational and sci. writing, 36–* A.A; Paleont. Soc; Geol. Soc. Invertebrate paleontology; faunas and stratigraphy of Ordovician formations in Iowa, Quebec, Illinois and Missouri; Paleozoics of Montana and California.

Bradley, Prof. Leon A(lson), 7 Cosby Ave, Amherst, Mass. *Bacteriology.* Naugatuck, Conn, March 23, 96. B.S, Wesleyan, 22; Ph.D, Yale, 25. Asst. gen. bacter, Yale, 24–25; asst. prof. microbiol, Mass. Col, 25–31, *prof. bacter, Mass. State Col, 31–* Soc. Bact; Pub. Health Asn.

Bradley, Dr. M(anson) J(ames), Leeds and Northrup Co, 4901 Stenton Ave, Philadelphia, Pa. *Chemical engineering.* Leskard, Ont, Can, May 10, 87. B.A, McMaster, 14, M.A, 15; Ph.D, Illinois, 21. Chemist, Can. Explosives, Ltd, 15; Can. Cement Co. and Armstrong-Whitworth Co, 16; testing engineer, British Munitions Board, Can. Electro Products Co, 17; asst. applied chem, Illinois, 17–21, instr. chem. eng, 21–22, assoc, 22–25; asst. prof, Cincinnati, 26–27; *develop. engineer, Leeds and Northrup Co, 27–* Chem. Soc; Chem. Eng; Franklin Inst. Mining; metallurgy; gas; combustion; open hearth steel; regenerative furnaces.

Bradley, Mary A, 1707 Columbia Road, Washington, D. C. *Botany.* Wabash, Ind, Sept. 11, 95. A.B, Franklin Col, 18; A.M, George Washington, 26. Asst. instr. biol, Franklin Col, 15–17; teacher, high sch, Ind, 18–21; junior nematologist, bur. plant indust, *U. S. Dept. Agr,* 21–28, asst. ed. indexes, *div. publications,* 28–42, *bibliog. ed, 42–* A.A; Bot. Soc. Wash. Agricultural indexes.

Bradley, Dr. Muriel V(irginia), 2087 Delaware St, Berkeley, Calif. *Botany.* Colo, Aug. 8, 08. A.B, California at Los Angeles, 31; A.M, California, 33, Ph.D, 36. Asst. morphology of Attalea, California at Los Angeles, 31–32; bot, California, 33–34, teaching asst, 34–36; California at Los Angeles, 37–38; *research asst.* cytogenetics, *California,* 38–41, *radiol, 41–* Anatomy and cytogenetics of Nicotiana species and hybrids.

Bradley, Dr. Robert Claud, University of New Hampshire, Durham, N. H. *Poultry husbandry.* Moberly, Mo, Oct. 20, 93. A.B, 20; B.S, 21; B.S. (Educ); M.S.A, Cornell, 22, Ph.D, 26. Cornell, 21–26; research specialist, Pacific Egg Producer Co, 26–31; *poultry exten. specialist, exten. dept, New Hampshire, 31–* Farm management; bacteriology; the loss of weight in eggs during incubation and the factors affecting it; exports and imports of eggs and egg products as related to the tariff in the United States.

Bradley, T(heodore) F(ranklin), 33 Auldwood Road, Stamford, Conn. *Chemistry.* Bayonne, N. J, Jan. 30, 01. Rensselaer Polytech, 21. *Research chemist,* Mica Insulator Co, Schenectady, 22–24; Ellis-Foster Co, Montclair, N. J, 24–28; Am. Cyanamid Co, Linden and Stamford, 28–34; *capt, Chem. Warfare Service, U. S. Army, 34–* Chem. Soc; fel. Inst. Chem. Paints, varnishes and lacquers; synthetic resins; drying oils; terpene derivatives; polybasic carboxylic acids and their esters; chemical process and product patents.

Bradley, Dr. W(alter) M(inor), 520 Whitney Ave, New Haven, Conn. *Chemistry.* New Haven, Conn, April 14, 73. Ph.B, Yale, 99, Ph.D, 08. Asst. miner, Sheffield Sci. Sch, *Yale,* 04–09, instr. chem. and miner, 09–16, chem, 23–38; *retired.* Chem. Soc; Electrochem. Soc.

Bradley, Dr. W(alter) P(arke), 196 College St, Middletown, Conn. *Chemistry.* Lee, Mass, July 7, 62. A.B, Williams Col, 84; Ph.D, Göttingen, 89; Sc.D, Wesleyan, 14. Asst. chem, Williams Col, 86–88; instr, Wesleyan, 89–90, assoc. prof, 90–93, prof, 93–14; director gen. labs, U. S. Rubber Co, 12–13, research chemist, 14–19; pres, Bradstone Rubber Co, 19–34, research chemist, 34–38. Organic chemistry; critical constants of liquids; theory of liquid air production; chemistry of low temperatures.

Bradley, Walter W(adsworth), State Division of Mines, Ferry Bldg, San Francisco, Calif. *Mining engineering.* San Jose, Calif. B.S, California, 01, E.M, 17. Assoc. ed, Mining and Sci. Press, San Francisco, 03–04; mill supt, Standard Consol. Mining Co, Calif, 05–06; asst. manager and engineer, Ventanas Mining and Explor. Co, Ltd, Mex, 07–08; chemist, DeLamar Co, Ltd, Idaho, 09–11; librarian, field asst, statistician, curator and later deputy mineralogist, State Mining Bur. and *State Div. Mines, Calif,* 12–28, *mineralogist, 28–* Min. and Metal. Eng. (chairman, San Francisco sect, 35); Am. State Geologists; Engineers' Club San Francisco (director, 33–36). Geological and mineral resources surveys; magnesite; manganese; chromite; barite and quicksilver resources of California; statistics of mineral production.

Bradley, Dr. William E(arle), 1319 W. 81st St, Los Angeles, Calif. *Organic chemistry.* San Francisco, Calif, Nov. 28, 07. A.B, Stanford; Ph.D, California. Teaching fellow, California, 30–31; *research chemist, Union Oil Co, Calif, 31–* The reaction of aminomethyl ethers with acid and the rate of reaction of aminomethyl sulfonic acids with oxidizing agents.

Bradley, Dr. W(illiam) F(rank), State Geological Survey, Urbana, Ill. *Chemistry.* Quincy, Ill, Jan. 29, 08. A.B, Illinois, 30, Ph.D, 35. Asst. chemist, *geochem. sect, Ill. Geol. Surv,* 34–39, *assoc. chemist, 39–* Clay mineralogy.

Bradley, Dr. W(ilmot) H(yde), U. S. Geological Survey, Washington, D. C. *[6]*Geology.* New Haven, Conn, April 4, 99. Ph.B, Yale, 20, Ph.D, 27. Field asst, *U. S. Geol. Surv,* 20, geol. aid, 21–22, asst. geologist, 22–25, assoc. geologist, 25–29, geologist, 29–36, senior geologist, 36–43, *prin. geologist, 43–* A.A; Geol. Soc; Geol. Soc. Wash; Limnol. Soc. Origin of oil shale and its microfossils; Tertiary sedimentation of Rocky Mountain region; non-glacial varves; paleoclimatology; limnology.

Bradner, Donald B(yal), R. R. 2, Mt. Healthy, Cincinnati, Ohio. *Chemical engineering.* Marion, Ind, Nov. 26, 91. Nevada, 10–13. Director research, Tonopah Exten. Mining Co, 15; mill supt, White Caps Mining Co, 16–17; Tonopah Exten. Mining Co, 17–18; chem. engineer, U. S. Bur. Mines, 18; chief chemist, Chem. Warfare Service, 19–24; chem. engineer, E. I. du Pont de Nemours and Co, 24–26; *director research and develop, Champion Paper and Fibre Co, 26–, v. pres. and gen. manager, Hamilton Labs, 33–* Consultant, Nat. Inventors Council, 41– A.A; Indust. Research Inst; Chem. Soc; Chem. Eng. Chemical warfare and engineering.

Bradner, Dr. Hugh, 325 LeConte Hall, Berkeley, Calif. *Physics.* Tonopah, Nev, Nov. 5, 15. A.B, Miami (Ohio), 36; Ph.D, Calif. Inst. Tech, 41. Mem. research dept, Champion Paper and Fibre Co, 36–37; asst, Calif. Inst. Tech, 38–41; research, Naval Ordnance Lab, 41–43; *war research,* metal. lab, Chicago, 43; *California, 43–* Theoretical and electron-optical studies of the photoelectric effect; a new mechanical learner.

Bradner, M(elvin), 419 Connell Ave, Missoula, Mont. *Forestry.* Powers, Mich, Jan. 8, 95. B.S, Michigan, 16. Clerk-scaler, I. Stephenson Co, Wells, Mich, 16–17; ranger, *U. S. Forest Service,* 20, scaler, 20–21, forest asst, 21–22, regional forest examiner, 22–23, asst. forester, office forest products, region 1, *North. Rocky Mt. Forest and Range Exp. Sta,* 23–25, assoc. forester, 25–27, senior forester, 27–35, assoc. director, 35–39, *director, 39–, regional director forest surv, Inland Empire Region, 31–* Sergt, F.A, 17–19. Soc. Foresters. Forest economics; forest products utilization; logging and lumber manufacture.

Bradshaw, Mrs. Anis P(eterson), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Organic chemistry.* Bloomington, Ind, June 22, 04. A.B, Indiana, 24; fellow, Columbia, 28–29, A.M, 29. Lab. asst, State Dept. Health, N. Y, 24–27; lab. technician, Rockefeller Inst, 27–28; *research chemist, cmn. standardization of biol. stains, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 29–* Improving the quality and increasing the reliability of stains; stains and their biological uses.

Bradshaw, Dr. Benjamin Crenshaw, Pembroke, Ky. *Physical chemistry.* Pembroke, Ky, Feb. 21, 05. A.B, Transylvania Col, 26; A.M, Vanderbilt, 27; Ph.D, Harvard, 32. Instr, Kentucky, 27–28; Harvard, 33–34; assoc. prof. chem, Maryville Col, 35–41; instr, N. C. State Col, 41; Juniata Col, 41–42. Transference numbers of lithium chloride; absolute conductivity of some standard reference solutions; quantum yields of ammonia and hydrogen sulfide.

Bradshaw, Prof. G(uy) R(ead), 299 Clinton St, Greenville, Pa. *Physics.* Glens Falls, N. Y, Oct. 1, 90. A.B, Oberlin Col, 17; A.M, Cincinnati, 18. Asst. *physics,* Harvard, 19–

22; Radcliffe Col, 20–22; *prof, Thiel Col, 22–* Bur. Standards, 18–19. A.A; Asn. Physics Teachers.

Bradshaw, Dr. Hamilton, 1101 Nottingham Road, Wilmington, Del. *Chemistry.* DeKalb, Ill, Dec. 31, 81. A.B, Beloit Col, 02; Ph.D, Hopkins, 05. Research chemist, east. lab, E. I. du Pont de Nemours and Co, 05–13, asst. director exp. sta, 13–16, director, 16–21, head cellulose div, chem. dept, 21–22, chem. director cellulose products dept, 22–25, asst. director chem. dept, 25–41; *retired.* Chem. Soc.

Bradshaw, Prof. John W(illiam), 1304 Cambridge Road, Ann Arbor, Mich. *Mathematics.* Batavia, Ill, June 14, 78. A.B, Michigan, 00; A.M, Harvard, 02; Ph.D, Strassburg, 04. Instr. *math, Michigan,* 04–09, asst. prof, 09–18, assoc. prof, 18–23, *prof, 23–* Registrar, Michigan, 06–08. A.A; Math. Soc; Math. Asn; London Math. Soc; Unione Math. Italiana; Deuts. Math. Verein. Projective and descriptive geometry; continued fractions.

Bradshaw, Max Abraham, U. S. Department of Agriculture, Wyndmoor, Pa. *Chemical engineering.* Roseland, Va, Oct. 13, 98. A.B, George Washington, 23, A.M, 30. Chemist, U. S. Treasury Dept, 20–28; U. S. Dept. Commerce, 28–29; Ala. Polytech, 29–30; Swann Chem. Co, 30–31; asst. chem. engineer, bur. chem. and soils, *U. S. Dept. Agr,* 31–41, *assoc. chemist, bur. agr. chem. and eng, 41–* Chem. Soc. Spontaneous heating of agricultural materials; sugars; plant chemistry; apple by-products.

Bradsher, Dr. Charles K(ligo), Duke University, Durham, N. C. *Organic chemistry.* Petersburg, Va, July 13, 12. A.B, Duke, 33; A.M, Harvard, 35, Ph.D, 37. Rohm and Haas fellow, Illinois, 37–38, du Pont fellow, 38; *instr. chem, Duke, 39–* Nat. res. fellow, 41–42. Chem. Soc. Aromatic cyclodehydration.

Bradt, Dr. G(lenn) W(arner), State Department of Conservation, Lansing, Mich. *Mammalogy.* Marcellus, Mich, July 2, 89. B.S, Mich. State Col, 25, M.S, 26; Ph.D, Michigan, 36. Exten. specialist biol, Mich. State Col, 27–28, instr. zool, 28–36; *State Dept. Conservation, Mich, 36–* Soc. Mammal. Economic importance and migration of beaver; bird migration; wildlife management.

Bradt, Major W(ilber) E(lmore), 204 Broadway, Bangor, Maine. *Chemistry.* Bloomington, Ind, Feb. 1, 00. A.B, Indiana, 23, A.M, 24, Ph.D, 26. Asst, Indiana, 23–26; instr. chem, State Col. Wash, 26–27; Cincinnati, 27–30; asst. prof, State Col. Wash, 30–36; *prof. chem. and head dept. chem. and chem. eng, Maine, 36–; major, Field Artil, U. S. Army, 41–* Electrochem. Soc; Chem. Soc. Chemistry of organic compounds of selenium; electrochemical oxidation, substitution and reduction of organic compounds; electrolysis of fused salts; electrodeposition of manganese and zirconium; catalytic reduction of nitro compounds; essential oils; analysis of cyclopropane-propylene mixtures.

Bradway, Dr. Elizabeth M(arguerite), Box 102, Jasper, Oregon. *Chemistry.* Webster, S. Dak, June 5, 07. A.B, Oregon, 28, A.M, 30; Ph.D, Iowa, 32. Instr. chem, *Oregon,* 33–35, research chemist, med. sch, 35–37, *instr. chem, 37–* Chem. Soc. Yeast nutrition; antioxidants; nutritional value of uronic acids.

Bradway, Dr. Winnefred (Esther), 316 Hargadine St, Ashland, Oregon. *Embryology, Physiology.* Day Co, S. Dak, Aug. 12, 00. A.B, Oregon, 26, A.M, 28, Ph.D, 33. Teacher biol, N. Y. Univ, 29–33; investigator, Hopkins Marine Sta, Stanford, 34–36; *asst. prof. science and health, South. Oregon State Nor. Sch, 36–* Summers, Marine Biol. Lab, Woods Hole, 30. A.A. Development of the thyroid follicles of the chick; alteration of the metamorphic rate in tunicates; physiological factors in dispersion of cells.

Brady, Dr. Annie O'D(onnell), 1425 Godwin Ave, Houston, Texas. *Physiology.* Brownwood, Texas, Feb. 6, 87. A.B, Texas, 20, A.M, 22; Sc.D, Hopkins, 27. Asst. physiol, Texas, 18–20, tutor, 20–22, instr. embryol, 22–24; biol, Col. of Notre Dame, 25–27; assoc. prof. hygiene and head dept, N. C. Col. for Women, 27–30; *teacher biol, Reagan Senior High Sch.* Summers, Our Lady of the Lake Col, 22–25, 32; Fordham, 26; Dominican Col, 27. Physiological effects of ultra-violet light.

Brady, Dr. Ewing P(aul), 7239 Northmoor Drive, St. Louis, Mo. *Dentistry.* St. Louis, Mo, Jan. 25, 83. D.D.S, Washington (St. Louis), 05. Prof. chem, sch. dentistry, Washington (St. Louis), 08–36, biochem, 10–35, therapeut. and path, 14–35, sec'y faculty, 23–35; *supervisor health educ, pub. schools, Board Educ, St. Louis, 37–* Lieut. commander, dental corps, U.S.N.R. A.A; Chem. Soc; Dental Asn. (mem, research cmn, 32–); fel. Col. Dentists; Mo. Dental Soc; St. Louis Dental Soc. (pres, 20); St. Louis Acad. Dental metallurgy, pharmacology and chemistry; dental caries.

Brady, Dr. G(eorge) A(nthony), 310 South Michigan Bldg, Chicago, Ill. *Fuel technology.* Keswick, Iowa, Dec. 27, 02. B.S, Iowa, 29; M.S, North Dakota, 30; Ph.D, Pa. State Col, 38. *Research engineer, Middle States Fuels, Inc.* Asst, Pa. State Col, 40. Chem. Soc; Min. and Metal. Eng. Properties of fuels.

Brady, Dr. James J(oseph), Oregon State College, Corvallis, Oregon. *Physics.* Oregon City, Oregon, Nov. 24, 04. A.B, Reed Col, 27; A.M, Indiana, 28; Whiting fellow, California, 29–30, Ph.D, 31. Asst. physics, Indiana, 27–28; teaching fellow, California, 28–29, 30–31; fellow, St. Louis, 31–32, instr. *physics,* 32–36, asst. prof, 36–37; *Oregon State Col,* 37–39, *assoc. prof, 39–* A.A; Asn. Physics Teachers; Physical Soc. Photoelectricity.

Brady, L(lonel) F(rancis), P. O. Box 671, Mesa, Ariz. *Geology, Paleontology.* Dovercourt, Eng, Jan. 24, 80. M.A, Cambridge, 05. Headmaster, Mesa Ranch Sch, 24–40; *curator geol, Museum North. Ariz, 30–* Trustee, Museum North. Ariz. A.A; Soc. Meteorites. Stratigraphy and paleontology of northern Arizona; structure and composition of meteorites.

Brady, Dr. L(ynn) J(oseph), Mellon Institute, Pittsburgh, Pa. *Physical chemistry.* Woodruff, Utah, May 30, 11. B.S, Utah State Col, 37; M.S, Pa. State Col, 38, Ph.D, 40. Chemist, West. Cartridge Co, 40–41; *chemist and indust. fellow, Mellon Inst, 41–* Chem. Soc. Organic synthesis by means of vapor phase catalysis; absorption spectroscopy and x-ray analysis.

Bragdon, Charles R(idgaway), 4 Rock Ridge Road, Larchmont, N. Y. *Chemistry.* Evanston, Ill, Sept. 12, 84. A.B, Northwestern, 05; B.S, Mass. Inst. Tech, 07. Chemist, Swift and Co, Chicago, 08–09; Robt. A. Worstall Lab, 09–10; chief chemist, Glidden Varnish Co, 10–12; chemist, Robt. A. Worstall Lab, 12–15; chem. director varnish works, Ault and Wiborg Corp, Cincinnati, Ohio, 15–28, sec'y, 28–34; *research chemist,* Int. Printing Ink Corp, 34–38, *Intchem. Corp, 38–* Chem. Soc. (chairman, Cincinnati sect, 28); N. Y. Paint and Varnish Production Club (pres, 42). Protective coatings; printing inks.

Bragg, Dr. Arthur N(orris), University of Oklahoma, Norman, Okla. *Zoology.* Pittsfield, Maine, Dec. 18, 97. B.S, Bates Col, 24; Hopkins, 24–25; A.M, Boston, 34; Ph.D, Oklahoma, 37. Asst. biol, Hopkins, 24–25; asst. prof. *zool,* Marquette, 25–33; instr, *Oklahoma,* 34–42, *asst. prof, 42–* Summer, zoologist, N. Mex. Nor. Univ, 40. A.A; Soc. Zool; Micros. Soc; Okla. Acad. Ecology; embryology; herpetology.

Bragg, Prof. Edward M(ilton), 1056 Ferdon Road, Ann Arbor, Mich. *Engineering.* Chicopee, Mass, Feb. 22, 74. B.S, Mass. Inst. Tech, 96. Asst. instr, Mass. Inst. Tech, 96–99; draftsman, shipyards, 00–03; *prof. naval archit. and marine eng, Michigan, 03–* Naval Archit. and Marine Eng; British Inst. Naval Archit. Naval architecture and naval engineering; design of marine engines; effect of change of shape upon resistance of ship-shape bodies.

Bragg, Dr. L(eslie) B(artlett), Foster Wheeler Corp, 165 Broadway, New York, N. Y. *Chemical engineering.* Milford, Mass, Aug. 24, 02. B.S, Mass. Inst. Tech, 25, M.S, 29, Sc.D, 33. Asst. chem. eng, Mass. Inst. Tech, 25–27, fuel and gas, 27–28, research assoc, 28–32; lecturer, Worcester Polytech. Inst, 32–33; *engineer, oil dept, Foster Wheeler Corp, 33–* Chem. Soc; Chem. Eng; Petrol. Inst. Gas engineering; coal analysis; rate of cracking of hydrocarbons; Stedman column packing.

Braham, Dr. Joseph M(arvin), 165 Bon Air Ave, New Rochelle, N. Y. *Chemistry.* Artesian, S. Dak, Feb. 1, 91. B.S, Idaho, 14; M.S, Illinois, 15, Ph.D, 18. Assoc. chemist, Bur. Standards, 19; research chemist, War Dept, 19–21; fixed nitrogen research lab, U. S. Dept. Agr, 21–23, chief chem. div, 23–25; director research, Atmospheric Nitrogen Corp, Syracuse, N. Y, 25–35, *asst. to pres, Solvay Process Co, 35–* Gas chemist, U. S. Bur. Mines, 18; capt, C.W.S, 18–19. A.A; Chem. Soc; Chem. Eng; Chemists' Club. Nitrogen fixation.

Brahana, Prof. H(enry) R(oy), 504 W. Nevada St, Urbana, Ill. *Mathematics.* Lowell, Vt, Aug. 16, 95. A.B, Dartmouth Col, 16; A.M, Princeton, 17, Ph.D, 20. From instr. to asst. prof. *math, Illinois,* 20–35, assoc. prof, 35–39, *prof, 39–* Math. Soc. Analysis situs; finite groups.

Braidech, Prof. Mathew M(ichael), Case School of Applied Science, Cleveland, Ohio. *Chemical engineering.* Cleveland, Ohio, May 5, 02. B.Ch.E, Ohio State, 25, Chem.E, 31. Asst. ceramic engineer, Gen. Elec. Co, Pittsfield, Mass, 25–26; chemist, N. Y. Cent. R.R, 26; junior chemist, City Dept. Pub. Utilities, Cleveland, Ohio, 26–29, senior chemist and senior bacteriologist, 29–36; asst. prof. chem. eng, *Case,* 36–39, assoc. prof, 39–42, *prof. indust. and sanit. chem, 42–* John Goodell prize, Am. Water Works Asn, 35. Chem. Soc; Chem. Eng; Eng. Ed; Water Works Asn. (chairman, cmt. tests for water purification chemicals, 35–41; cmt. activated carbon res, 38–41; water purification div, 41); Nat. Soc. Professional Eng. Taste and odor control work on public water supplies; activated carbons; sanitary surveys; trade waste pollution; industrial hazards; sanitary engineering.

Brailey, Dr. Miriam E(sther), 4422 Marble Hall Road, Baltimore, Md. *Epidemiology, Pediatrics.* Pomfret, Vt, Jan. 28, 00. A.B, Mt. Holyoke Col, 22; M.D, Hopkins, 30, Dr.P.H, 31. Instr. zool, Mt. Holyoke Col, 22–24; pediat. house officer, *Hopkins Hosp,* 31–32, *dispensary physician pediat, 32–,* instr. *epidemiol, sch. hygiene and pub. health, Hopkins,* 32–36, *assoc, 36–,* instr. *pediat, med. sch,* 32–40, *assoc, 40–; director bur. tuber, City Health Dept, Baltimore, 41–* Pub. Health Asn; Tuber. Asn; Soc. Pediat. Res. Tuberculosis; public health administration.

Brainard, Dr. Paul P(orter), 815 S. Hill St, Los Angeles, Calif. *Psychology.* Whatcheer, Iowa, Aug. 28, 87. Litt.B, Whitman Col, 09; A.M, Columbia, 13; Ph.D, Michigan, 31. Asst. prof. educ, Kans. State Col, 19–25, assoc. prof. psychol, 26–29; instr, Michigan, 29–31; dean, Westminster Col. (Utah), 31–32; *lecturer indust. psychol, Southern California, 32–* Director, Adult Counseling Service, Los Angeles, 36–37; personnel technician, personnel cmn, Board of Educ, 40– Summer, lecturer, Iowa, 23. Psychol. Asn. Industrial psychology; instincts and development of reasoning in children; vocational guidance; specific interest tests in vocational guidance.

Brainard, Dr. Seymour W(ilson), E. I. du Pont de Nemours and Co, Old Hickory, Tenn. *Chemistry.* Sangerfield, N. Y, April 30, 02. B.S, Colgate, 23; du Pont fellow, Cornell, 27–28, Ph.D, 28. Asst. physicist, Corning Glass Works, 23–24; asst. instr. anal. chem, Cornell, 24–27; research chemist, *rayon div, E. I. du Pont de Nemours and Co,* 28–36, research supervisor, 36–38, *tech. supt, Old Hickory works, 38–* Chem. Soc. Detergent action of soaps; rayon research and technology.

Brainerd, Prof. J(ohn) G(rist), 200 S. 33rd St, Philadelphia, Pa. *Electrical engineering.* Philadelphia, Pa, Aug. 7, 04. B.S, Pennsylvania, 25, Sc.D, 34. From instr. to *prof. elec. eng, Moore Sch. Elec. Eng, Pennsylvania, 25–* Engineer and asst. state director, Pub. Works Admin, 35–36. Physical Soc; Elec. Eng; Radio Eng; Acad. Polit. and Social Sci. Electron tubes; high-frequency current; circuit theory; dimensional analysis; non-linear parameters; units; economics of consumption; ultra-high frequency techniques.

Brainin, Dr. Clement S, 14 Laurel Place, Glen Ridge, N. J. *Physics.* New York, N. Y, April 30, 87. A.B, Columbia, 08, Barnard fellow, 08–11, Ph.D, 17. Instr, exten. dept, Columbia, 17–35; physicist, Baker Platinum Works, 17–25, dept. manager, 31–36; v. pres, Eisler Elec. Corp, 36–39; *manager, C. S. Brainin Co, 39–* Consulting physicist, 25–29. Pres, Interstate Products Co, 27–31. Ed, 'Amateur Astronomer,' 29–36. A.A; Physical Soc; Amateur Astron. Asn. (pres, 36–). X-rays; physical metallurgy; spectroscopy; physics of the precious metals.

Brais, Dr. Roger, 5021 Delorimier, Montreal, Que, Can. *Physical chemistry.* Montreal, Que. C.E. and B.Sc.A, Ecole Polytechnique, 33, Chem.E, 34; Ph.D, McGill, 42. Chem. engineer, Que. Health Dept, 34–37; *asst. prof. chem, Ecole Polytechnique, 37–* Soc. Indust. Chem; Société de Physique et de Chimie de Montreal. Surface phenomena.

Brakefield, Dr. James L, Howard College, Birmingham, Ala. *Biochemistry.* Gamble Mines, Ala, Sept. 11, 97. A.B, Union (Tenn), 18; A.M, Baylor, 21; Ph.D, California, 25. Instr. chem, Baylor, 20–22; asst. biochem, California, 23–24; *head dept. biol,* Judson Col, 25–26; *Howard Col, 26–; capt, Ordnance Dept, U. S. Army, 42–* A.A; Chem. Soc; Ala. Tuber. Asn. (pres, 39–); Ala. Acad. (permanent sec'y, v. pres, 32, pres, 33). Thiocumarin; bile components in jaundice; elimination of certain dyes from animal organism; synthesis of hippuric acid by jaundiced animals; bloods of humans and lower animals; water bacteriology; iodine and the thyroid; hydrochloric acid therapy; the liver in jaundice.

Brakel, Prof. Henry L(ouis), 4734 Thackeray Place, Seattle, Wash. *Physics.* Traverse City, Mich, Dec. 6, 76. A.B, Olivet Col. (Mich), 02; M.S, Washington (Seattle), 05; Ph.D, Cornell, 12. Instr. physics, *Washington (Seattle),* 05–12, asst. prof, 12–20, assoc. prof. *eng. physics,* 20–36, *prof, 36–, chairman dept, 32–* A.A; Physical Soc. Electricity.

Braley, Dr. S(ilas) A(lonzo), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Cherokee, Iowa, Dec. 10, 89. A.B, Morningside Col, 13; M.S, Illinois, 15, Ph.D, 17. Instr. chem, Illinois, 17–19, assoc, 19–20, asst. prof, 20–27; *research fellow, Mellon Inst, 27–* Soc. Test. Mat; Soc. Metals; Wire Asn. Analytical chemistry; steel products; heterogeneous equilibria between aqueous and metallic solution; transference in amalgams and mixed salt solutions.

Bralley, Dr. James A(lexander), B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Millboro Springs, Va, Aug. 18, 16. B.S, Virginia, 36, Ph.D, 41. *Research chemist, B. F. Goodrich Co, 41–* Chem. Soc. Morphine alkaloids; vinyl resins.

Bralliar, Prof. F(loyd) B(urton), Nashville Agricultural Normal Institute, Madison, Tenn. *Biology.* Richland, Iowa, Sept. 11, 75. B.S, Walla Walla Col, 95; M.S, Emmanuel Missionary Col, 19; Ph.D, George Peabody Col, 21. Teacher, schs, Iowa, 94; prof. pedag, Union Col. (Nebr), 03–04; educ. supt, Seventh Day Adventists church schs, 04–06; prin. and business manager, Iowa Indust. Acad, 05–09; prin, Hillcrest Sch. Farm, 09–17; *prof. biol, Nashville Agr. Nor. Inst, 17–,* dean, 32–40, *v. pres, 40–* Lecturer, Sch. Assembly Asn. A.A; Am. Iris Soc. (regional v. pres); Soc. Florists; Bee-Keepers' Asn. (v. pres); Tenn. Florists Asn; Tenn. Hort. Soc; Iowa Hort. Soc. Nature; entomology; bird and insect stories.

Braly, Dr. Kenneth W(alter), New Jersey School for the Deaf, West Trenton, N. J. *Psychology.* Blackwell, Okla, March 6, 06. A.B, Kansas, 27; A.M, Nebraska, 29; Ph.D, Princeton, 32; A.M, Gallaudet Col, 35. Research intern, Worcester State Hosp, 32–33; asst, inst. child welfare, Minnesota, 33–34; *psychologist and statistician and director clinic for speech and hearing defects, N. J. Sch. for the Deaf, 35–* Summer, research psychologist, Boys Indust. Sch, Industry, N. J, 32. Speech and hearing; child development; social psychology.

Brambel, Dr. Charles E(ugene), 1504 Park Ave, Baltimore, Md. *Physiology, Biochemistry.* Baltimore, Md, Oct. 26, 05. Adam T. Bruce fellow, Hopkins, 29–30, A.M, 30, Ph.D, 31. Asst. zool, Hopkins, 26–29, instr, 32–41; Emerson fellow pharmacol, Maryland, 31–32; *biochemist, Mercy Hosp, 34–* Chem. Soc; Soc. Zool. Comparative anatomy and embryology; hormones; ecology; physiology.

Bramble, Prof. Cha(rle)s C(linton), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Centreville, Md, Aug. 17, 90. Ph.B, Dickinson Col, 12, A.M, 13; fellow, Hopkins, 16–17, Ph.D, 17. Instr, Montclair Acad, 12–13; lecturer *math,* Bryn Mawr Col, 15–16; instr, *U. S. Naval Acad,* 17–19, asst. prof, *post-grad. sch,* 19–21, assoc. prof, 21–27, *prof, 27–; commander, U. S. Naval Res.* A.A; Math. Soc; Math. Asn. Geometry; ballistics.

Bramble, Prof. William C(lark), Pennsylvania State College, State College, Pa. *Forestry.* Baltimore, Md, Nov. 7, 07. B.S, Pa. State Col, 29; M.F, Yale, 30, Hooker fellow, 30–32, Ph.D, 32. Instr. bot, Carleton Col, 32–37; nat. research fellow, Zurich, 35–36; *asst. prof. forestry, Pa. State Col, 37–* Collaborator, U. S. Dept. Agr, 34–, summers, asst, 28–34. A.A; Bot. Soc; Soc. Foresters; Phytopath. Soc; Swiss Bot. Soc. Forest ecology.

Bramhall, Prof. E(rvin) H(icks), University of Alaska, College, Alaska. *Geophysics.* Palo Alto, Calif, Jan. 14, 05. A.B, Stanford, 26; M.S, Mass. Inst. Tech, 28; Ph.D, Cambridge, 32. Research assoc, Mass. Inst. Tech, 32–33; physicist, Byrd Antarctic exped, 33–34; prof. physics, *Alaska,* 35–41, *physicist in charge col. observatory, dept. terrestrial magnetism, Carnegie Institution, 41–* Cosmic ray exped, Alaska, 32. Physical Soc; Radio Eng. Cosmic rays; electric discharge in gases; magnetic, auroral and ionospheric research; seismology.

Bramkamp, Dr. Richard A(llan), 223 Ramsey St, Banning, Calif. *Paleontology.* Richmond, Ind, Feb. 3, 10. A.B,

Pomona Col, 30; fellow, California, 33–34, Ph.D, 34. Research asst, museum paleont, California, 34–36; *mem. staff, Calif. Arabia Standard Oil Co, 36–* Paleont. Soc. Marine Tertiary of southeastern California; Tertiary mollusks; stratigraphy.

Bramlette, Prof. M(ilton) N(unn), University of California at Los Angeles, Los Angeles, Calif. *Geology.* Bonham, Texas, Feb. 4, 96. A.B, Wisconsin, 21; Yale, 24–25, 28–30, Ph.D, 36. Asst. geologist, U. S. Geol. Surv, 21–23; geologist, Gulf Oil Co, 25–28; assoc. geologist, U. S. Geol. Surv, 31–40; *assoc. prof. geol, California at Los Angeles, 40–* Geol. Soc; Asn. Petrol. Geol; Soc. géol. de France. Sedimentary petrology.

Bramley, Dr. Arthur, 226 Bath Ave, Long Branch, N. J. *Physics.* Preston, Eng, Sept. 23, 00. A.B, Oregon, 22; Ph.D, Princeton, 24. Fellow and asst. to director, Bartol Research Foundation, 25–34; visiting physicist, Princeton, 34–36; collaborator, U. S. Dept. Agr, 37–41; physicist, Office Quartermaster Gen, *U. S. War Dept, 40–42, engineer, 42–* Jacobus fellow, Princeton. A.A; fel. Physical Soc; Chem. Soc. Measurements of index of refraction; light scattering of liquids and gases; characteristics of arcs; properties of high-speed electrons occurring in cosmic and beta rays; relativity; separation of isotopes and constituents of gaseous mixtures; investigation of plant assimilation by radioactive tracers; passive defense protection of buildings.

Brams, Dr. William R, 310 S. Michigan Ave, Chicago, Ill. *Medicine.* Chicago, Ill, Nov. 27, 89. M.D, Northwestern, 12, M.S, 30, Ph.D, 34. *Asst. prof. med, Northwestern.* Am. Med. Asn; Cent. Soc. Clin. Research; Chicago Soc. Int. Med. Diseases of the heart; internal medicine.

Branaman, Prof. G(eorge) A(braham), 533 Charles St, East Lansing, Mich. *Animal husbandry.* Bedford, Ind, April 26, 93. B.S, Purdue, 18; M.S, Mich. State Col, 26; Ph.D, Illinois, 39. Asst. animal husbandry, Exp. Sta, Purdue, 18–19; farmer, 19–23; from instr. to *assoc. prof. animal husbandry, Mich. State Col, 23–*, asst. and later *research assoc, Exp. Sta, 23–* Soc. Animal Production. Beef cattle feeding and production; sheep and swine production.

Branch, Dr. C(harles) F(ranklin), 80 E. Concord St, Boston, Mass. *Medicine.* Amherst, Mass, Aug. 14, 97. M.D, Vermont, 23. Asst. histol, Vermont, 21–23; demonstrator *path,* Jefferson Med. Col, 25–26; *prof, sch. med, Boston, 26–, assoc. director, Evans Mem, 39–* Asst. pathologist, Phila. Gen. and Jefferson Hosps, 25–26; pathologist, Mass. Mem. Hosp, 26–; Beverly and Salem Hosps, 29–40; consulting pathologist, Newton, Beverly, Salem Hosps. and Essex Sanatorium, 29– Fel. Am. Med. Asn; Asn. Path. and Bact; Asn. Cancer Research; Soc. Exp. Path; Soc. Clin. Path; New Eng. Path. Soc. General pathology; cancer research; medical education.

Branch, Dr. (E) Arnold (G), Bureau of Laboratories, General Hospital, St. John, N. B, Can. *Pathology.* Antigua, B. W. I, July 24, 96. M.D, McGill, 20. Demonstrator path. and bacter, McGill, 20–22; pathologist, Rockefeller Hosp, 22–26; research pathologist, Trudeau Foundation, 26–28; instr. path, Harvard, 28–34; research in tuber, Parke, Davis and Co, 34–36; bacteriologist, Ayers, McKenna and Harrison, Ltd, Montreal; *director bur. labs, N. B.* Gwynneth Pretty student, Cambridge. Tuber. Asn; Soc. Exp. Path; Can. Med. Asn; Int. Asn. Med. Mus. Immunity and desensitization in tuberculosis; polysaccharides of acid fast bacilli; experimental pneumonia and tachypnea.

Branch, Prof. Gerald E(yre) K(irkwood), University of California, Berkeley, Calif. *[*7]Chemistry.* St. Kitts, W. I, April 16, 86. B.Sc, Liverpool, 11, M.Sc, 12; Ph.D, California, 15. Teaching fellow *org. chem, California,* 12–13, asst, 13–15, instr, 15–18, asst. prof, 18–24, assoc. prof, 24–31, *prof, 31–* A.A; Chem. Soc. Organic chemistry; theory of polarity; free energy of formic acid.

Branch, Prof. Hazel E, University of Wichita, Wichita, Kans. *Zoology.* Concordia, Kans. A.B, Kansas, 08, A.M, 12; Ph.D, Cornell, 21. Preceptress, Col. Sisters of Bethany, 14–18; asst. biol, Cornell, 18–22; *prof,* Fairmount Col, 22–26; *zool, Wichita, 26–* Research, N. Y. Milk Conf. Board, 20–21. A.A; Soc. Zool; Soc. Parasitol; Entom. Soc; Kans. Entom. Soc; Kans. Acad. (exec. cmt, 25, pres, 30, chairman junior acad, 31–37). Membracidae; Trichoptera; Chironomus cristatus; egg masses of Chironomidae; anatomy of Cryptobranchus allegheniensis.

Brand, Charles J(ohn), 1661 Crescent Place, N. W, Washington, D. C. *Botany.* Lac qui Parle Co, Minn, Oct. 24, 79. A.B, Minnesota, 02. Asst. curator dept. bot, Field Museum Nat. Hist, 02–04; asst. physiologist, U. S. Dept. Agr, 04–06, physiologist, 07–13, chief bur. markets, 13–19; v. pres. and gen. manager, Am. Fruit Growers, Inc, and director various affiliated companies, 19–22; consulting specialist, U. S. Dept. Agr, 22–25; *exec. sec'y-treas, Nat. Fertilizer Asn, 25–;* exec. director, Code Fair Competition for Fertilizer Indust, 33–35. Co-administrator, agr. adjust. admin, U. S. Dept. Agr, 33. Mem, Cmt. Southwest. Cotton Culture, 12–18; del, Pan-Am. Financial Conf, 15, 19; Pan-Am. Sci. Cong, 15–16; mem. agr. cmt, U. S. Dept. Agr, Europe, 23; Int. Grassland Conf, Wales, 37; Int. Tech. and Chem. Cong. Agr. Industries, Netherlands, 37; Int. Cong. Chem. Fertilizers, Rome, 38; S. Am. Cong. Chem, Chile, 43. Chairman cmt. cotton distribution, W. I. B, U.S.A. A.A; Econ. Asn; Farm Econ. Asn; Agr. Hist. Soc; Acad. Polit. Sci; Wash. Acad; Int. Inst. Agr, Rome (chairman Am. cmt, 37–). Agricultural economics; horticulture; chemical fertilizer industry; business economics.

Brand, Prof. Donald D(ilworth), 112 Mesa, Albuquerque, N. Mex. *Anthropology, Geography.* Chiclayo, Lambayeque, Peru, March 6, 05. San Diego State Col, 25–28; A.B, California, 29, Ph.D, 33; S. M. Heller traveling fellow from California, Mexico, 30–31. Teaching fellow, California, 31–33, instr. geog, 34; asst. prof. *anthrop-geog, New Mexico,* 34–35, assoc. prof, 35–39, *prof, 39–, head dept. anthrop, 36–* Univ. California exped. archeol. and geog, northwest Mexico, 29–30. Summers, lecturer, San Diego State Summer Sch, 32, 33, 38; California, 34. A.A; fel. Geog. Soc; Anthrop. Asn; Soc. Archeol; Ethnol. Soc; Agr. Hist. Soc; Southwest. Social Sci. Asn; Asn. Pacific Coast Geog. Archeology and geography of western Mexico and American Southwest; origins and spread of New World cultivated plants; settlement pattern in pre-Columbian Middle America and in Spanish America; economic geography of Latin America.

Brand, Dr. E(rwin), 630 W. 168th St, New York, N. Y. *Biochemistry.* Berlin, Germany, June 17, 91. Ph.D, Berlin, 20. Asst, Kaiser Wilhelm Inst, Berlin, 20–22, Dresden, 22; research fellow, lab. div, Montefiore Hosp, N. Y, 23–29; research assoc. chem, N. Y. State Psychiat. Inst. and Hosp, 29–37; *assoc. prof. biochem, sch. med, Columbia, 31–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Genetic Asn; Harvey Soc; N. Y. Acad. Med; Biochem. Soc. Gt. Britain. Organic, physiological and pathological chemistry; nutrition; dog breeding; genetics; amino acids and proteins.

Brand, Prof. Louis, 2603 University Court, Cincinnati, Ohio. *Mathematics.* Cincinnati, Ohio, Sept. 27, 85. Chem.E, Cincinnati, 07, E.E, 08, A.M, 09; Ph.D, Harvard, 19. Instr. *math, Cincinnati,* 07–09, asst. prof. and assoc. prof, 11–19, *prof, 19–, head dept.* A.A; Math. Soc; Math. Asn; Ohio Acad. Vector analysis; differential geometry; tensor analysis; vectorial mechanics.

Brandeberry, Prof. J(ohn) B(enjamin), 4837 296th St, Toledo, Ohio. *Mathematics.* Newton Falls, Ohio, Dec. 13, 93. B.S, Mt. Union Col, 13; A.M, Ohio State, 15; Ph.D, Michigan, 32. Teacher, high sch, Mich, 13–14; asst. *math,* Ohio State, 14–15; asst. prof, *Toledo,* 15–18, assoc. prof, 18–26, *prof, 26–* Math. Soc; Math. Asn. (chairman, Mich. sect, 35); Eng. Educ. (chairman, Ohio sect, 32). Applied mathematics; engineering mechanics.

Brandes, Dr. Elmer Walker, 6310 Ridgewood Ave, Chevy Chase, Md. *Plant pathology.* Washington, D. C, July 15, 91. B.S, Mich. State Col, 13, M.S, 15; Cornell, 16–17; Ph.D, Michigan, 19. Asst, Mich. State Col, 14–15; plant pathologist, P. R. Exp. Sta, 15–16; instr. bot, Michigan, 17–18; pathologist, *U. S. Dept. Agr,* 19–22, senior plant pathologist in charge office sugar plants, *bur. plant indust,* 23–27, leader airplane explorations, New Guinea, 28, *prin. pathologist in charge div. sugar plant investigations, 28–, head pathologist in charge div. sugar plant investigations and div. rubber plant investigations, 40–* Director expeds, Cent. Amer, S. Amer, Asia and Pacific islands. Sugar expert, Pan-Pacific Food Conservation Cong, Honolulu, 24. 2nd lieut, U.S.A, 18. A.A; Phytopath. Soc; Bot. Soc. Wash; Wash. Acad; hon. mem. Proefstation voor de Java-Suikerindust; Int. Soc. Sugar Cane Technol. (v. chairman, 32–35, gen. chairman, 35–). Sugar and rubber crops; tropical crops; diseases of plants.

Brandes, Dr. G(eorge) H(enry), Muhlenberg College, Allentown, Pa. *Chemistry.* Oswego, N. Y, April 10, 95. B.Chem, Cornell, 18, Ph.D, 25. Instr. *chem,* Cornell, 20–26; asst. prof, *Muhlenberg Col,* 26–27, *prof. and head dept, 27–* Chem. Soc. Analytical and organic chemistry.

Brandes, Dr. O(liver) L(eonard), Gulf Research and Development Co., Pittsburgh, Pa. *Petroleum.* Granite City, Ill, March 8, 08. A.B, Oberlin Col, 30; fellow, Syracuse, 30–31, A.M, 31; Ph.D, Pittsburgh, 35. Chemist, petrol. ref, Mellon Inst, 31–36; *petrol. products research, Gulf Research and Develop. Co, 36–* Chem. Soc. Colloid chemistry; olefin polymerization; petroleum technology.

Brandes, Dr. W(alter) W(illiam), Roosevelt Hospital, 59th St. and Ninth Ave, New York, N. Y. *Pathology.* Manville, Ill, Oct. 19, 99. A.B, N. Cent. Col, 22; M.S, Northwestern, 26, M.D, 27, fellow, 27–30, Ph.D, 30. Instr. path, Northwestern, 27–30; assoc. prof, Baylor, 31–36; Tennessee, 36–39; *director labs, Roosevelt Hosp, New York, 39–; asst. prof. path, Columbia, 42–* A.A; Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn. Pathologic anatomy of the hypophysis; relationship of liver to anaphylaxis and peptone shock; experimental hyperthyroidism and heart size; blood proteins in relationship to immune reactions; effect of acidosis on the production of immune bodies.

Brandly, Prof. C(arl) A(lfred), Regional Poultry Research Laboratory, U. S. Department of Agriculture, East Lansing, Mich. *Veterinary bacteriology and pathology.* Fairview, Kans, May 23, 00. D.V.M, Kans. State Col, 23, M.S, 30. Commercial Vet. Biol. Manufacture, 23–27; inspector, N. J. Bur. Animal Indust, 27; asst. prof. bacter, Kans. State Col, and in charge poultry disease investigations, Exp. Sta, 27–36; assoc. prof. animal path. and hygiene, Illinois, and assoc. chief div. animal path. and hygiene, Exp. Sta, 36–39; *senior pathologist, regional poultry research lab, bur. animal indust, U. S. Dept. Agr, 39–* Pathologist, State Dept. Agr, Ill, 36–39. Poultry disease investigations; aerobic and anaerobic pathogenic bacteriology; filterable virus diseases.

Brandon, J(oseph) F(ranklin), U. S. Department of Agriculture, Akron, Colo. *Agronomy.* Daviess Co, Ind, April 19, 91. B.S, Illinois, 16. *Supt. and assoc. agronomist, dry land field sta, U. S. Dept. Agr, 16–* U.S.A, 17–19. A.A; Soc. Agron. Soil blowing and control; fattening rations for swine and lambs; oat, barley, winter wheat and sorghum production in Colorado; fitting sheep to plains agriculture.

Brandon, Dr. Richard C(ampbell), 643 Park Ave, Elizabeth, N. J. *Organic chemistry.* New Cumberland, W. Va, May 7, 15. A.B, Bethany Col. (W. Va), 36; Ph.D, Ohio State, 39. *Research chemist, Standard Oil Develop. Co, 39–* Chem. Soc. Synthesis of aliphatic intermediates; catalytic refining of petroleum distillates.

Brandstrom, Axel J(ohn) F(elix), 3511 N. E. Couch St, Portland, Oregon. *Forestry.* Umea, Sweden, June 9, 98. B.S. (Forestry), Washington (Seattle), 19. Forest engineer, L. B. Menefee Lumber Co, Wash, 19–22; M. R. Smith Lumber Co, Wash, 22–24; contractor and consulting engineer, Hoquiam, Wash, 24–25, 26–27; Portland, Oregon, 25–26; asst. prof. forestry, col. forestry, Washington (Seattle), 28–31; senior forest economist, U. S. Forest Service, Portland, Oregon, 31–40; *chief forester, Crown Zellerbach Corp, 41–* Soc. Foresters (chairman Columbia River sect, 41). Forest engineering; selective logging; timber valuation.

Brandt, Prof. A(lva) E(smond), Box 89, Route 3, Vienna, Va. *Statistics.* Larchwood, Iowa, Nov. 13, 92. B.S, Iowa State Col, 17, M.S, 26, Ph.D, 32. Exten. specialist, Illinois, 17; asst. prof. farm mech, Oregon State Col, 19–23; asst. prof. math. and research asst. prof. statist, Iowa State Col, 24–38; senior math. statist. analyst, *div. research, soil conservation service, U. S. Dept. Agr,* 37–40, *prin. soil conservationist, 40–* Experience fellow, Gen. Educ. Board, 34–35. U.S.N, 17–19. A.A; Soil Sci. Soc; Genetic Asn; Statist. Asn. Animal genetics, eugenics and biometry; soil and water conservation.

Brandt, Prof. B(artholomew) B(randner), East Carolina Teachers College, Greenville, N. C. *Zoology.* Pass Christian, Miss, July 30, 98. B.S, Miss. Agr. and Mech. Col, 17; A.M, Duke, 34, Angier Duke Mem. fellow, 34–35, Ph.D, 35. Instr. chem, Miss. Agr. and Mech. Col, 17–18; teacher, high sch, N. C, 21–32; asst. zool, Duke, 33–35; *prof. biol,* Middle Georgia Col, 35–37; State Teachers Col, Johnson City, 37–38; *East Carolina Teachers Col, 38–* Junior chemist, C.W.S, 18–19. A.A; Soc. Parasitol; Soc. Ichthyol. and Herp; N. C. Acad. Herpetology; parasitology; science education.

Brandt, Prof. Herman (Francis), Drake University, Des Moines, Iowa. *Ocular photography.* Jansen, Nebr, April 28, 95. A.B, Tabor Col, 21; B.S, Bluffton Col, 25; B.D, Witmarsum Sem, 28; A.M, Northwestern, 27; Ph.D, Iowa, 37. Prof. psychol, chairman dept. educ. and chairman bur. appointments, Doane Col, 27–35; tech. adviser, dept. psychol, Iowa, 35–37; *prof. applied psychol. and director visual res. labs, Drake, 37–* Lecturer, Am. Near East Relief, 23–25; director visual research, Look, Inc. A.A; Psychol. Asn; Iowa Acad. Ocular patterns and their psychological implications; bidimensional camera; motivation; the mechanical graph; eye camera test of magazine advertising.

Brandt, Prof. P(hilip) M(artin), 128 N. 11th St, Corvallis, Oregon. *Dairy husbandry.* Nevada, Mo, Aug. 6, 88. B.S, Missouri, 10, A.M, 13. Asst. dairy husbandry, Missouri, 11–12, instr, 12–14, supt. short courses and asst. to dean, 14–17; *prof. dairy husbandry, Oregon State Col, 17–, head div. animal indust, 33–, acting head dept. animal husbandry and dairy husbandman, Exp. Sta.* Dairy Sci. Asn. Dairy cattle feeding and management.

Brandt, Dr. W(eldon) H(enry), 158 Crescent Hill Road, R. D. 1, Wilkinsburg, Pa. *Physics.* Pearl City, Ill, Feb. 20, 10. A.B, N. Cent. Col, 31; M.S, Illinois, 33, Ph.D, 36. Asst. physics, Illinois, 31–34; Cold Metal Process Co, 34–36; *research and develop. engineer, Westinghouse Elec. and Mfg. Co, 36–* Physical Soc; Soc. Metals; Soc. Test. Mat. Spectroscopy; metals; magnetic materials.

Brandwein, Dr. P(aul) F(ranz), New York University, New York, N. Y. *Botany.* Austria, April 2, 12. A.B, N. Y. Univ, 34, M.S, 37, Ph.D, 40. Asst, Littauer Pneumonia Lab, 29–31; pharmacol, *N. Y. Univ,* 31–34, teaching fellow biol, 34–36, *lecturer ecol, 36–* Torrey Bot. Club. Nutrition and ecology of Protozoa; nutrition of Spirogyra; pathology of oat smut.

Branham, Dr. J(oseph) R(ussell), 121 Glenbrook Road, Bethesda, Md. *Chemistry.* Baltimore, Md, Jan. 6, 92. du Pont fellow, 24, Ph.D, 24. Asst. prof. gen. chem, Virginia, 25–27; *chemist, Bur. Standards, 28–* Gas analysis.

Branham, Dr. Sara E(lizabeth), U. S. Public Health Service, Bethesda, Md. *Bacteriology.* Oxford, Ga, July 25, 88. A.B, Wesleyan Col. (Ga), 07; A.B, Colorado, 19, hon. Sc.D, 37; M.S, Chicago, 21, Ph.D, 23, M.D, 34. Asst. bacter, Colorado, 17–19; Chicago, 19–22, assoc, 22–23, instr. hygiene and bacter, 23–27; assoc. bacter, sch. med. and dentistry, Rochester, 27–28; assoc. bacteriologist, *U. S. Pub. Health Service,* 28–29, bacteriologist, 29–31, *senior bacteriologist, 31–* Professorial lecturer, George Washington, 41– Summer, instr, Colorado, 23. Trustee, Wesleyan Col. (Ga). Howard Taylor Ricketts prize, 24. Del, Int. Microbiol. Cong, Paris, 30, London, 36. A.A; Am. Med. Asn; Soc. Bact; Soc. Exp. Biol; Pub. Health Asn; Asn. Immunol; South. Med. Asn. Cultivation of filter passing microorganisms from the respiratory tract in influenza and colds; toxic products of the paratyphoid group of bacteria; meningococci and meningitis; bacillary dysentery.

Branin, Prof. M(anlif) Lelyn, Pennsylvania Military College, Chester, Pa. *Biochemistry.* Camden, N. J, Jan. 27, 01. B.S, Purdue, 23; Yale, 26–27; A.M, Columbia, 30; fellow, Michigan, 33–34, Ph.D, 34. Asst. biol, Yale, 26–27; N. Y. Univ, 27–28; zool, Long Island, 27–28, instr, 28–30; acting instr. civic biol, Ohio (Athens), 30–31, acting asst. prof, 31–32; asst. prof. biol, John Carroll, 34–37; Bard Col, Columbia, 37–40; instr. *chem,* Delaware, 40–41; *assoc. prof. and acting head dept, Pa. Mil. Col, 41–; asst. chief div. econ. and statist, tech. div, U. S. Bituminous Coal Consumer's Counsel, 42–* A.A. Physiology and chemical embryology; physiology of growth and development.

Brann, Prof. B(ertrand) F(rench), 370 College Road, Orono, Maine. *Chemistry.* Bangor, Maine, Jan. 23, 87. B.S, Maine, 09, M.S, 11; M.S, Mass. Inst. Tech, 12. Instr. *chem,* Lowell Textile Sch, 13–17; asst. prof, *Maine,* 17–19, assoc. prof, 19–37, *prof, 37–* Chem. Soc.

Branner, George C(asper), State Capitol, Little Rock, Ark. *Geology.* Little Rock, Ark, Nov. 12, 90. A.B, Stanford, 15; A.M, Chicago, 20. Asst. geologist, Ark. Oil Corp, 20–22, consulting geologist, 22–23; state geologist, Ark, 23–42; state coordinator mines, Office Production Management, Ark; *lieut. col, U. S. Army, 42–* Regional water consultant, Nat. Resources Board, 34; state rep, U. S. Coast and Geod. Surv, Ark, 33–35; v. chairman, State Planning Board, Ark, 33–42. Stanford sci. exped, Brazil, 11. U.S.A, 17–19; O.R.C, 22–, lieut. col, 37–A.A; Geol. Soc; Soc. Econ. Geol; Asn. State Geol. (sec'y, 30–34, ed, 'Jour,' 30–34, pres, 34–37); Asn. Petrol. Geol; Min. and Metal. Eng. Economic geology; topography; water power.

Brannon, C(larence) H(am), State Department of Agriculture, Raleigh, N. C. *Zoology, Entomology.* Memphis, Tenn, May 30, 00. B.S, Miss. Agr. and Mech. Col, 21; Virginia, 24; M.S, N. C. State Col, 28; Duke, 31–32. Inspector, State Plant Board, Miss, 22; junior entomologist, bur. entom, U. S. Dept. Agr, 22–23; entomologist, Sherwin-Williams Co, 24; exten. entomologist, N. C. State Col, 25–36; *state entomologist, N. C, 37–* Summer, field asst, bur. entom, U. S. Dept. Agr, 21. Economic entomology; linguistics; anthropology; Semitics.

Brannon, Loyd W(illiam), Box 267, Norfolk, Va. *Entomology.* Memphis, Tenn, May 30, 00. B.S, Miss. State Col, 21. *Asst. entomologist, truck crop and garden insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 21–* Entom. Soc; Asn. Econ. Entom. Mexican bean beetle; squash beetle; harlequin bug; spray injury and pressure; truck crop insects.

Brannon, Dr. M(elvin) A(mos), University of Florida, Gainesville, Fla. *Botany.* Lowell, Ind, Sept. 11, 65. A.B, Wabash Col, 89, A.M, 90; Ph.D, Chicago, 12; LL.D, Whitman Col, 17, Wabash Col, 32. Mont. State Col, 36. Teacher, high sch, Ind, 90–94; prof. biol, North Dakota, 94–14, dean sch. med, 05–11, col. lib. arts, 11–14; pres, Idaho, 14–17; Beloit Col, 17–23; chancellor, Montana, 23–33. Director, Biol. Lab, Devils Lake, N. Dak, 08–14. Trustee, Beloit Col, 17–23. A.A; Soc. Nat; Bot. Soc; Genetic Asn; Bot. Cent. States; Northwest Sci. Asn. (pres, 25); N. Dak. Acad. (pres, 10); Ind. Acad; Wis. Acad. (pres, 22). Algae.

Branom, Dr. Fred(erick) K(enneth), Chicago Teachers College, Chicago, Ill. *Geography, Social Science.* Waverly, Ill, July 27, 91. B.E, Ill. State Nor. Univ, 15; M.S, Chicago, 16; Ph.D, Clark, 23. Teacher, prin. and sch. supt, Ill, 08–15; instr. geog, high sch, Chicago, 17–19; *chairman dept. social sciences, Chicago Teachers Col, 19–* Lecturer, Miami; DeKalb State Teachers Col; Hyannis State Nor. Sch; Pittsburgh. A.A; Nat. Council Geog. Teachers; Geog. Soc. Chicago. Geography in the elementary and junior high schools.

Bransford, Dr. Thomas L(owe), 1724 N. Troy St, Arlington, Va. *Psychology.* South Bend, Wash, April 21, 08. A.B, Washington (Seattle), 28; M.S, American Univ, 31, Ph.D, 39. Personnel research technician, U. S. Civil Service Cmn, 29–40, chief planning and management training sect, 40–42, exec. sec'y management training conf, 40–43, senior admin. analyst, planning staff, 42–43; *chief planning and analysis branch, personnel div, Office Price Admin, 43–* Project supervisor, Highway Research Board, 37–39. Assoc. Psychol. Asn; Asn. Applied Psychol; Soc. Pub. Admin; Statist. Asn. Psychological factors affecting speed of typewriting; personnel administration; selection tests; service ratings; relation of drivers' tests to traffic accidents and arrests; statistical analysis; administrative analysis.

Branson, Prof. C(arl) C(olton), 232 Catalpa Road, Lexington, Ky. *Paleontology.* Oberlin, Ohio, Sept. 15, 06. A.B, Missouri, 26, A.M, 27; fellow, Chicago, 27–29, Ph.D, 29. Instr. paleont, State Col. Wash, 29–30; *geol,* Brown, 30–36, asst. prof, 36–40; visiting asst. prof, Northwestern, 40–41; *assoc. prof, Kentucky, 41–* Summers, assoc. geologist, Ill. Geol. Surv, 29, 30. A.A; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Soc. Vert. Paleont; fel. Geol. Soc; Paleont. Soc; Ill. Acad; Ky. Acad. Pennsylvanian and Permian stratigraphy and paleontology.

Branson, Prof. E(dwin) B(ayer), 301 S. Glenwood Ave, Columbia, Mo. *Geology.* Belleville, Kans, May 11, 77. A.B, A.M, Kansas, 03; fellow, Chicago, 03–05, Ph.D, 05. Instr. *geol,* Oberlin Col, 05–07, asst. prof, 07–09, prof, 09–10; *prof. and chairman dept, Missouri, 10–* Geologist, Gypsy Oil Co, intermittently, 20, 25–29. Summer, geologist, Mo. Geol. Surv. A.A; Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol. and Paleont; Paleont. Soc. (v. pres, 26, 33). Devonian, Mississippian and Pennsylvanian stratigraphy; geology of Missouri and Costa Rica; Paleozoic fishes; Triassic amphibians; conodonts; red beds of the Rocky Mountain region.

Branson, Prof. Herman R, Howard University, Washington, D. C. *Biophysics.* Pocahontas, Va, Aug. 14, 14. B.S, Va. State Col, 36; special fellow, Cincinnati, 36–37, Laws fellow, 37–39, Ph.D, 39. Instr. physics, Dillard, 39–41; Rosenwald fellow, Chicago, 41; *asst. prof. physics and chem, Howard, 41–* A.A; Physical Soc; Math. Soc. Mathematical physics; electronics; chemical physics.

Branson, Dean J(ohn) W(illiam), State College, N. Mex. *Mathematics.* London, Ky, Feb. 22, 88. Ph.B, Chicago, 20; M.S, Purdue, 27. Prof. *math,* Cumberland Col, 17–19; asst. prof, Center Col, 19–21; instr, Purdue, 21–27; *prof. and head dept, N. Mex. Col, 27–, acting pres,* 38, *41–, dean, 40–* A.A; Math. Asn. (chairman southwest sect, 39); Soc. Adv. Teaching. Trigonometry.

Brant, Dr. A(rthur) A(lbert), University of Toronto, Toronto, Ont, Can. *Geophysics.* Toronto, Ont, Oct. 23, 10. B.A, Toronto, 32, M.A, 33; Queen's (Can) fellow, Princeton, 33–34; fellow, Berlin, 34–36, Ph.D, 36. Asst. demonstrator physics, *Toronto,* 32–33, demonstrator, 36–37, fellow geophysics, physics dept, 37–40, *asst. prof. physics, 40–; consultant, Hudson Bay Mining and Smelting Co, 42–* Geol. and geophys. work, Ont, Dept. Mines, 37–42. Can. Inst. Min. and Metal. Dip needle measurements; geophysical investigation of Steep Rock Lake; the present status of geophysics in Canada.

Brant, Prof. Arthur M(arshall), Ohio State University, Columbus, Ohio. *Mineralogy.* Youngstown, Ohio, Oct. 30, 94. B.Ch.E, Ohio State, 17, M.S, 23, Ph.D, 28. Mem. staff, Coke Plant, Youngstown Sheet and Tube Co, 17–22; asst. chem, *Ohio State,* 22–23, instr. *miner,* 23–28, asst. prof, 28–34, *assoc. prof, 34–* Master engineer, jr. grade, C.W.S, 18. Chem. Soc; Miner. Soc; fel. Ohio Acad. Lime and magnesia.

Brant, Dr. Joseph H(enry), Tennessee Eastman Corp, Kingsport, Tenn. *Chemistry.* Lucasville, Ohio, April 7, 08. A.B, Ohio Wesleyan, 30; Ph.D, Cornell, 35. Asst. chem, Cornell, 30–35; *asst. supt. research and develop. div, Tenn. Eastman Corp, 35–* Chem. Soc; Soc. Chem. Indust; fel. Chem. Soc. London. Commercial synthesis in the aliphatic series; design of adiabatic laboratory distillation columns; controlled molecular rearrangements; industrial catalysis; furans; industrial chemical processes.

Brant, Dr. Laura, 33 Capwell Ave, West Warwick, R. I. *Physics.* R. I, 83. A.B, Brown, 08, A.M, 09; Ph.D, Columbia, 21. Asst. to Dr. Carl Barus, Brown, 08–09; physics, Smith Col, 09–12; Barnard Col, Columbia, 12–17, lecturer, 17–19; instr, Vassar Col, 19–25; prof. math. and physics, Judson Col, 25–29; acting head dept. math, Ouachita Col, 29–30, head dept, 30–31. Summers, asst, Columbia, 18, 19. A.A; Physical Soc; Math. Soc; Asn. française pour l'Avanc. des Sci. Magnetic susceptibility of paramagnetic salts in solution; the softening of cold glass-hard steel in twenty-four years; nucleation of a close lecture room.

Branting, Briant F(erdinand), Solvay Process Co, Syracuse, N. Y. *Chemistry.* Salt Lake City, Utah, July 15, 02. B.S, Utah, 25, M.S, 26; fellow, Carnegie Inst. Tech, 26–27, M.S, 27. Junior chemist, U. S. Bur. Mines, 27–28; *research chemist, Atmospheric Nitrogen Corp, Syracuse, N. Y, and Solvay Process Co, 28–* A.A; Chem. Soc; Inst. Chem. Azeotropic mixtures; composition of low temperature tar; phenol derivatives; methanol synthesis; catalytic organic synthesis; nitrogen products.

Brantley, Prof. L(ee) Reed, Occidental College, Los Angeles, Calif. *Chemistry.* Herrin, Ill, Sept. 23, 06. A.B, California, 27; M.S, Calif. Inst. Tech, 29, Ph.D, 30. Reader physics, California at Los Angeles, 26–29; asst. chem, Calif. Inst. Tech, 28–30; instr. chem. and physics, *Occidental Col,* 30–36, asst. prof. *chem,* 36–40, assoc. prof, 40–42, *prof, 42–, head dept, 40–* Research fellow, Calif. Inst. Tech, 36– A.A; Chem. Soc. High temperature equilibrium between silicon nitride, silicon and nitrogen; the high temperature equilibrium of titanium dioxide and carbon and carbon monoxide; the size of the unit cell of titanium carbide; effect of ultra-short radio waves on plant growth.

Brasch, Frederick E(dward), Library of Congress, Washington, D. C. *Bibliography.* Mobile, Ala, Dec. 18, 75. Stanford and California, 97–01; Harvard; hon. M.S, Ramsey Inst. Tech, 26. Asst, Harvard Observatory, 02–04; computer, Lick Observatory, 05; Stanford Library, 12–16; asst. reference librarian, John Crerar Library, 17–21; reference librarian, J. J. Hill Library, 21–22; bibliog. research, Nat. Research Council, 22–23; acting librarian, dept. terrestrial magnetism, Carnegie Institution, 23–24; *chief, Smithsonian div, Library of Congress, 24–* Ed, Sir Isaac Newton Mem. Volume, 28; Johann Kepler Mem. Volume, 31. Am. Council Learned Societies grant, 28; Am. Philos. Soc. grant, 36. A.A. (sec'y, L, 21–24, 25–28); Bibliog. Soc; Antiq. Soc; Hist. Sci. Soc. (treas. and asst. sec'y, 24–27, cor. sec'y, 28–); Astron. Soc; Astron. Soc. Pacific; Royal Astron. Soc; Int. Astron. Union (cmt. 5). Biography of scientific literature; history of science; history of astronomy in America.

Brasefield, Prof. Charles J(ames), Wardour, Annapolis, Md. *Physics.* Easton, Pa, Aug. 24, 04. B.S, Rutgers, 24; fellow, Princeton, 24–27, Ph.D, 27. Nat. research fellow, Chicago, 27–29; research physicist, Michigan, 29–31; instr. *physics,* Yale, 31–36; *asst. prof, U. S. Naval Postgrad. Sch, 36–*Summers, Bell Tel. Labs, 25; instr, Rutgers, 26. Fel. Physical Soc. Nuclear physics; positive ion analysis; canal rays; molecular spectrum of hydrogen; high frequency discharges in gases; ionization of gases by positive ions and atoms.

Brasefield, Prof. Stanley Eugene, Rutgers University, New Brunswick, N. J. *Mathematics.* Easton, Pa, Oct. 2, 73. C.E, Lafayette Col, 95, M.S, 98; fellow, Cornell, 11–13, Ph.D, 12. Draftsman, Md. Steel Co, 95–97; teacher math, Pa. State Nor. Sch, E. Stroudsburg, 97–01; instr, Mich. State Col, 01–02; instr. and asst. prof, Lafayette Col, 02–12; asst. prof. and *prof. applied math, Rutgers, 13–* Math. Soc. Laplacian fields; vital statistics of college and university professors.

Brashear, Dr. Alton D(ean), Medical College of Virginia, Richmond, Va. *Anatomy, Histology.* Ft. Smith, Ark, March 17, 06. B.S, Southern Col. (Fla), 34; D.D.S, Ohio State, 32; Rockefeller Foundation fellow, Rochester, 33–35, A.B, 34, M.S, 35. Rochester Dental Dispensary, 32–33; instr, sch. med, Louisiana, 35–38; *asst. prof. anat, Med. Col. Va, 38–* Am. Dental Asn; Asn. Mil. Surg; Va. Acad; Int. Asn. Dental Research. Innervation of teeth; dental education; integrated anatomy.

Brashears, M(aurice) L(yman), Jr, 226 Post Office Bldg, Jamaica, N. Y. *Geology.* Washington, D. C, Oct. 4, 08. B.S, Mass. Inst. Tech, 33. Junior geologist, *U. S. Geol. Surv,* 36–40, asst. geologist, 40–43, *assoc. geologist, 43–* Summers, mem. staff, U. S. Geol. Surv, 29, 30. Geophys. Union. Ground-water hydrology.

Brassfield, Prof. Charles R(oosevelt), 301 Pine Ridge, Ann Arbor, Mich. *Physiology.* Carpenter, Ky, Dec. 29, 01. A.B, Berea Col, 26; Ph.D, Michigan, 35. Instr. *physiol, Michigan,* 31–37, *asst. prof, 37–* A.A; Physiol. Soc. Control of respiration; salivary and urinary secretion.

Bratley, Dr. Cyril O(liver), 641 Washington St, New York, N. Y. *Plant pathology.* Wichita, Kans, Sept. 1, 03. B.S, Florida, 25; Ph.D, Cornell, 33. Assoc. pathologist and later *pathologist, bur. plant indust, U. S. Dept. Agr, 28–* A.A; Phytopath. Soc. Diseases of fruits and vegetables on market; prevention of spoilage in fresh produce during handling, transportation and storage.

Brattain, Dr. Walter H(auser), 463 West St, New York, N. Y. *Physics.* Amoy, China, Feb. 10, 02. B.S, Whitman Col, 24; A.M, Oregon, 26; Ph.D, Minnesota, 29. Asst. physicist, radio sect, Bur. Standards, 28–29; *tech. staff, Bell Tel. Labs, 29–* A.A; fel. Physical Soc. Electron collisions in mercury vapor; piezoelectric frequency standards; thermionics; electrical conductivity in solids.

Bratton, Dr. A(ndrew) C(alvin), Johns Hopkins University School of Medicine, Baltimore, Md. *Pharmacology.* Brownwood, Texas, June 3, 12. A.B, Daniel Baker Col, 31; A.M, Texas, 33, Ph.D, 36. *Instr.* chem, Texas, 33–34, 35–36; physiol. chem, Minnesota, 36–37; *pharmacol, sch. med, Hopkins, 37–* Chem. Soc. Nitrogen bases from petroleum; microchemical methods; chemistry and pharmacology of bacterial chemotherapeutic agents.

Bratton, Pres. W(alter) A(ndrew), 570 Boyer Ave, Walla Walla, Wash. *Mathematics.* Stamford, Vt, June 22, 74. A.B, Williams Col, 95, hon. Sc.D, 28; Berlin, 03–05. Instr, *prof. math. and dean, Whitman Col, 95–, pres, 36–* A.A; Math. Soc; Math. Asn; Eng. Educ. Number theory; pedagogy of mathematics.

Brauchli, Dr. R(udolph) W(alter), 1000 Ramsey Tower, Oklahoma City, Okla. *Geology.* Berne, Switzerland, Nov. 11, 95. Ph.D, Berne, 21. Field geologist, Pure Oil Co, 23–26; chief geologist, *Anderson-Prichard Oil Corp,* 26–37, *manager land and geol. dept, 37–* Asn. Petrol. Geol; Min. and Metal. Eng; Oklahoma City Geol. Soc; Schweiz. Geol. Gesell. Oil field engineering.

Braude, Dr. Felix, 15 Park Row, New York, N. Y. *Chemistry.* Lodz, Poland, Aug. 1, 99. B.S, Col. City of N. Y, 19, du Pont fellow, 19–20; M.S, N. Y. Univ, 31, Ph.D, 32. Research chemist, Grasselli Dyestuff Corp, 20–21; treas. and asst. manager, Palatine Aniline and Chem. Corp, 21–30; teaching felllow, N. Y. Univ, 30–32; *consulting chemist, 32–* Chem. Soc. Organic chemistry.

Brauer, Prof. Alfred, University of Kentucky, Lexington, Ky. *Zoology.* Cherokee Co, Iowa, Jan, 95. A.B, Kansas, 18; A.M, Oklahoma, 24; Ph.D, Chicago, 32. Instr. *zool, Kentucky,* 23–27, asst. prof, 27–30, assoc. prof, 30–34, *prof, 34–* A.A; Soc. Zool; Ky. Acad. (treas, 35–37, sec'y, 37–). Embryology; insect embryology; cytology; spermatogenesis; regeneration epithelium; histogenesis; nervous components of chick suprarenal; physiology of development of insect eggs.

Brauer, Prof. Alfred (Theodor), 408 North St, Chapel Hill, N. C. *Mathematics.* Berlin, Germany, April 9, 94. Ph.D, Berlin, 28. Asst. *math,* Berlin, 26–35, docent, 32–35; asst, Inst. Advanced Study, 39–42, *asst. prof, North Carolina, 42–* Lecturer, N. Y. Univ, 40–42. Math. Soc; N. C. Acad. Theory of numbers; algebra.

Brauer, Prof. O(scar) L(eo), San Jose State College, San Jose, Calif. *Chemistry.* Burney, Calif, June 9, 84. B.S, California, 10, M.S, 11, Ph.D, 15. Asst. chem, California, 10–14; teacher science, high sch, Calif, 14–18, prin, 18–21, v. prin, 21–26; instr. nat. science and later *prof. chem. and physics, San Jose State Col, 26–* A.A; Chem. Soc. Cinchona alkaloids; soils.

Brauer, Prof. Richard (Dagobert), 75 Oriole Parkway, Toronto, Ont, Can. *Mathematics.* Berlin, Germany, Feb. 10, 01. Ph.D, Berlin, 25. Asst, Königsberg, 25–33, privat-docent, 27–33; visiting prof, Kentucky, 33–34; asst, sch. math, Inst. Advanced Study, 34–35; *asst. prof. math, Toronto, 35–* Guggenheim Mem. Foundation fellow, 41–42. Math. Soc; Math. Asn. Groups of linear transformations; hypercomplex numbers; algebraic equations.

Braun, Dr. Albert E, Libby, McNeill and Libby, Sunnyvale, Calif. *Botany.* Buhl, Idaho, Nov. 5, 11. B.S, Idaho, 33; M.S, State Col. Wash, 35; Ph.D, Iowa State Col, 37. Asst, Iowa State Col, 35–37; instr. bot, Idaho, 37–42; *research agr. chemist, Libby, McNeill and Libby, 42–* Anatomical and chemical aspects of disease resistance in watermelon; photosynthesis in corn.

Braun, Dr. Annette F(rances), 2702 May St, Cincinnati, Ohio. *Entomology.* Cincinnati, Ohio, Aug. 28, 84. A.B, Cincinnati, 06, A.M, 08, Ph.D, 11. Asst. zool, Cincinnati, 11–16. A.A; Entom. Soc; Ohio Acad. (v. pres, zool. sect, 29); Acad. Nat. Sci. Phila. Taxonomy, structure and evolution in Microlepidoptera.

Braun, Dr. Armin C(harles), Rockefeller Institute for Medical Research, Princeton, N. J. *Plant pathology, Bacteriology.* Milwaukee, Wis, Sept. 5, 11. B.S, Wisconsin, 34, Ph.D, 38; Biol. Reichsanstalt Berlin-Dahlem, 36–37. Agent, U. S. Dept. Agr, and asst, Wisconsin, 37–38; *mem. staff, Rockefeller Inst, 38–* Phytopath. Soc. Physiology of parasitism; the mechanism involved in tumor formation and the nature of the malignancy in the crown gall disease; serology of phytopathogenic bacteria.

Braun, Prof. Charles E(rnest), 173 De Forest Road, Burlington, Vt. *Organic chemistry.* Brooklyn, N. Y, March 10, 00. B.S, Polytech. Inst. Brooklyn, 22; A.M, Columbia, 23, Ph.D, 25. Asst. chem, Polytech. Inst. Brooklyn, 21–22; Columbia, 23–25; research chemist dyestuffs, E. I. du Pont de Nemours and Co, 25–26; Brooklyn Edison Co, 26–27; Barrett Co, 27–28; asst. prof. *org. chem, Vermont,* 28–31, assoc. prof, 31–42, *prof. and chairman dept,* 42–, acting head dept, 41–42. Guest dept. chem, Mass. Inst. Tech, 37–38. Chem. Soc. (chairman west. Vt. sect, 38–40, counselor, 40). Insulin; phenanthrene; nitration by metallic nitrates; substituted guanidines and their hypoglycemic action; derivatives of sulfanilamide and related types.

Braun, Prof. E(mma) Lucy, 2702 May St, Cincinnati, Ohio. *Botany.* Cincinnati, Ohio, April 19, 89. A.B, Cincinnati, 10, A.M, 12, Ph.D, 14. Asst. geol, *Cincinnati,* 10–13, *bot,* 14–17, instr, 17–23, asst. prof, 23–27, *assoc. prof, 27–* Ed, 'Naturalist's Guide to the Americas.' A.A; Bot. Soc; Ecol. Soc. (v. pres, 35); Ohio Acad. (v. pres, bot. sect, 22, 29, pres, 34). Plant ecology; geographical distribution.

Braun, Dr. Géza, The Fleischmann Laboratories, 810 Grand Concourse, New York, N. Y. *Organic chemistry.* Eger, Hungary, Jan. 17, 96. Ch.E, Univ. Tech. Sciences, Budapest, 22, D.Ch.E, 25. Asst. prof. org. chem, Univ. Tech. Sciences, Budapest, 23–26; Rockefeller Foundation fellow, Chicago, 27–28, research assoc, 28–29; Jeremiah Smith fellow, Harvard, 30–31; *research chemist, Standard Brands, Inc, New York, 31–* Chem. Soc. Carbohydrate chemistry; hydroxylation of un-

saturated compounds and stereochemistry of the hydroxylated products; pharmaceutical and chemical manufacturing.

Braun, Dr. Herbert A(dolph), Food and Drug Administration, Federal Security Agency, Washington, D. C. *Pharmacology.* Milwaukee, Wis, June 24, 02. B.S, Wisconsin, 25, M.S, 28, Ph.D, 30. Asst. instr. pharm. chem, Wisconsin, 25–29; asst. state toxicologist, Wis, 31–33; pharmacologist and toxicologist, Upjohn Co, Mich, 33–36; asst. pharmacologist, *food and drug admin, Fed. Security Agency,* 36–38, assoc. pharmacologist, 38–42, *pharmacologist, 42–* Soc. Pharm. and Exp. Therapeut. Digitalis; thyroid; toxicology.

Braun, Dr. J(oachim) Werner, 90 Northgate Ave, Berkeley, Calif. *Zoology.* Berlin, Germany, Nov. 16, 14. Ph.D, Göttingen, 36. Guest investigator genetics, Michigan, 36–37; *research assoc. zool, California,* 37–41, *div. vet. sciences, 42–* Physiological genetics; bacteriology; biochemistry.

Braun, Prof. Milton L(au), Catawba College, Salisbury, N. C. *Physics.* Buffalo, N. Y, Dec. 15, 92. A.B, Wake Forest Col, 15; A.M, North Carolina, 24, Ph.D, 30. Teacher math, Mars Hill Col, 17–18; physics, Kaifeng Baptist Col, China, 18–25; Ming Jang Acad, China, 25–27; asst, North Carolina, 28–29, instr, 29–30; *prof. physics and math. and head dept, Catawba Col, 30–* A.A; Physical Soc; Asn. Physics Teachers; Soc. Rheol; Meteor Soc; N. C. Acad. (v. pres, 37). Electrodeless discharge of electricity through gases; certain mechanical properties of stretched rubber, including creep and coefficient of expansion at ordinary temperatures.

Brauns, Dr. D(irk) H(endrik), 3625 Evérett St, N.W, Washington, D. C. *Chemistry.* Haarlem, Holland, Sept. 28, 74. Apotheker, Leiden, 99; Ph.D, Marburg, 03. Asst. to Prof. Franchimont, Leiden, 08–09; research chemist, Parke, Davis and Co, 09–13; org. chemist, bur. chem, U. S. Dept. Agr, 14–29; chemist, Bur. Standards, 29–43. Chem. Soc. Carbohydrate chemistry; crystalline derivatives of fructose; halogen-acetyl derivatives of sugars; fluoro derivatives; optical rotation and atomic dimension.

Brauns, Dr. Fritz E(mil), Lawrence College, Appleton, Wis. *Organic chemistry.* Eisenach, Germany, July 13, 90. Göttingen; Munich; Ph.D, Berlin, 15. Asst. to Prof. Emil Fischer, Berlin, 19, asst. chem, 20; research chemist, Rütgerswerke Aktien-Gesell, Erkner, 20–21; asst. to Prof. Karl Freudenberg, Munich and Freiburg, 21–22; research chemist, Koholyt Aktien-Gesell, Königsberg and Berlin, 22–26; Zellstoff-Fabrik Waldhof, 26–30; Can. Pulp and Paper Asn. fellow and asst, dept. cellulose and indust. chem, McGill, 30–35; *research assoc. and instr. org. chem, Inst. Paper Chem, Lawrence Col, 35–* Can. Pulp and Paper Asn. Carbohydrates; cellulose; pulp; paper; lignin.

Brautlecht, Prof. C(harles) A(ndrew), Orono, Maine. *Chemistry.* New Haven, Conn, Sept. 21, 81. Ph.B, Yale, 06, Ph.D, 12. Chemist, Conn. Exp. Sta, 06–09; asst. *chem,* Sheffield Sci. Sch, Yale, 10–12; instr, Calif. Inst. Tech, 12–13; prof. and head dept, Fla. State Col. for Women, 13–19; *prof, Maine,* 19–35, *chem. and chem. eng, 35–,* head dept, 19–35. A.A; Chem. Soc. (chairman, Maine sect, 20–22, councilor, 22–28); Eng. Educ. (chairman, Maine sect, 28–); Pulp and Paper Mill Supt. Asn. (chairman, northeast div, 28); New Eng. Asn. Chem. Teachers; Maine Asn. Eng; Deuts. Chem. Gesell. Chemical engineering; proteins; organic iodin compounds; amino acids; hydantoins; thiotyrosin; pulp and paper chemistry; cellulose; lignin; starch; vegetable dehydration.

Brawley, Dr. Frank (Ellis), 1448 Lake Shore Drive, Chicago, Ill. *Ophthalmology.* Orion, Ill, Nov. 23, 75. Ph.G, Northwestern, 97; M.D, Illinois, 02. *Senior ophthalmic surgeon, St. Luke's Hosp.* Pres, med. board, St. Luke's Hosp, 34. Capt, M.C, A.S, 18–19. Am. Med. Asn; fel. Col. Surg; Acad. Ophthal. and Otolaryngol. (past pres); Chicago Ophthal. Soc. (pres, 31). Relation of nasal and accessory sinus conditions to the eye; ocular conditions.

Bray, Dr. Cha(rle)s I(seard), Louisiana State University, Baton Rouge, La. *Animal husbandry.* Huntsville, Ont, Can, July 29, 82. B.S.A, Toronto, 04; M.S, Miss. Agr. and Mech. Col, 07; Ph.D, Illinois, 26. Dairy herd manager, Miss. Agr. and Mech. Col, 04–10; asst. prof. and assoc. prof. animal husbandry, Okla. Agr. and Mech. Col, 10–14; assoc. prof, Colo. Agr. Col, 15–27; prof, *Louisiana,* 27–31, *animal husbandman, Exp. Sta, 31–* Animal husbandman, Iberia Livestock Exp. Farm, U. S. Dept. Agr, 34–37. A.A; Soc. Animal Production; Genetic Asn. Animal industry; beef cattle feeding; pasture investigations; Brahman cattle; protein mixtures and rice by-products for swine; breeding investigations with swine.

Bray, Prof. Charles W(illiam), Princeton University, Princeton, N. J. **Psychology.* Pittsburgh, Pa, May 14, 04. B.S, Princeton, 25, A.M, 26, Ph.D, 28. Instr. *psychol, Princeton,* 28–30, asst. prof, 30–38, *assoc. prof, 38–* Warren medal, 36. A.A; Acoustical Soc; Soc. Exp. Psychol; Psychol. Asn. Learning; audition.

Bray, Dr. Harry A, Ray Brook, N. Y. *Medicine.* Thorald, Ont, Can, Sept. 10, 80. M.D, Toronto, 04; L.R.C.P, Edinburgh, 05. Intern, Lakeside Hosp, Cleveland, Ohio, 05–06; 1st asst. physician, *N. Y. State Hosp, Ray Brook,* 06–19, *supt, 19–;* lecturer tuber, *med. col, Cornell,* 21–39, *assoc. med, 39–* Mem. faculty, Trudeau Sch. Tuber, 17–; assoc. prof, Albany Med. Col, Union (N. Y), 37–; adj. asst. visiting physician, second med. div, Bellevue Hosp, New York, 21–29, assoc. visiting physician, 29–31; consulting physician, med. board, Munic. Sanatorium, Otisville, N. Y, 26–; mem. consulting staff, Physicians Hosp, Plattsburg, N. Y, 28–; assoc. attending physician, Albany Hosp, 37– Am. Med. Asn; Clin. and Climat. Asn; Trudeau Soc. Tuberculosis; appraisal of diagnostic procedures; pleuritic pain.

Bray, Prof. H(ubert) E(velyn), The Rice Institute, Houston, Texas. *Mathematics.* Great Yarmouth, Eng, March 9, 89. A.B, Tufts Col, 10; A.M, Harvard, 16; Ph.D, Rice Inst, 18. Instr. *math,* Tufts Col, 10–12; Lafayette Col, 12–15; teaching fellow, *Rice Inst,* 16–18, instr, 19–24, asst. prof, 24–38, *prof, 38–* Computer, Ordnance Dept, U.S.A, 18. Math. Soc. (councilor, 38–41); Math. Asn. Mathematical analysis.

Bray, Prof. J(ohn) L(eighton), 701 N. Main St, West Lafayette, Ind. *Metallurgy.* Millbridge, Maine, Aug. 11, 90. B.S, Mass. Inst. Tech, 12, Sc.D, 30. Metallurgist, Braden Copper Co, Chile, 12–15; Consol. Mining and Smelting Co, 15–16; Blackbutte Quicksilver Co, 16–17; N. Y. Honduras Rosario Co, 18–20; prof. metal, N. S. Tech. Col, 21; metallurgist, U. S. Tariff Cmn, 21–23; prof. metal, *Purdue,* 23–35, *head sch. chem. and metal. eng, 35–; major, Ordnance Dept, U. S. Army.* Min. and Metal. Eng; Electrochem. Soc; Soc. Metals; Inst. Metals; Eng. Educ; Chem. Soc. Ore dressing; German grammar for chemists; non-ferrous production metallurgy; ferrous production metallurgy.

Bray, Dr. Joseph M(oyer), Lafayette College, Easton, Pa. *Geology.* Freeland, Pa, June 21, 15. B.S, Pa. State Col, 37; Ph.D, Mass. Inst. Tech, 40. Teaching fellow, Mass. Inst. Tech, 37–40; *instr. geol, Lafayette Col, 40–* Miner. Soc; Min. and Metal. Eng. Spectroscopic studies of minor chemical elements in rocks and minerals; opaque minerals in igneous rocks; geology of metallic ores.

Bray, Dr. Malcolm D(avonne), 457 Wolcott Ave, Beacon, N. Y. *Chemistry.* Noblesville, Ind, Feb. 29, 16. A.B, Indiana, 38; Ph.D, Mass. Inst. Tech, 41. Teaching fellow chem, Mass. Inst. Tech, 38–40; *research chemist, Texas Co, 41–* Summers, mem, Ciné Kodak lab, Eastman Kodak Co, 38; research chemist, lab, Sprague Specialties Co, Mass, 39. Chem. Soc. Organic and physical chemistry; developing new and improving present petroleum products.

Bray, Mark W(ilder), U. S. Forest Products Laboratory, Madison, Wis. *Chemistry.* Appleton, Wis, Jan. 1, 90. A.B, 12, M.S, 14. Asst. instr, Minnesota, 12–14; Cornell, 15–17; asst. chemist, Picatinny Arsenal, N. J, 17–20; chemist and *senior chemist, Forest Products Lab, U. S. Forest Service, 20–; lecturer forest products, Wisconsin.* Asn. Pulp and Paper Indust. Wood pulping by alkaline and semichemical processes; chemistry of pulp; wood decay; paper plastics.

Bray, Prof. Paul De Costa, 75 Bennock St, Orono, Maine. *Chemical engineering.* Turner, Maine, Dec. 12, 92. B.S, Maine, 14, Chem.E, 18. Chief chemist, East. Mfg. Co, Maine, 14–18, asst. sulfite supt, 18–23; assoc. prof. chem, *Maine,* 23–34, *prof. pulp and paper technol. and head dept, 34–* Assoc. Inst. Chem. Eng; Tech. Asn. Pulp and Paper Indust. Pulp and paper technology.

Bray, Dr. R(oger) H(ammond), 512 W. Washington St, Urbana, Ill. *Chemistry.* Vineland, N. J, Oct. 13, 98. B.S, Pa. State Col, 23; M.S, Illinois, 26, Ph.D, 40. Research chemist, dept. agron, and assoc. *soil surv. analysis, Illinois,* 23–35, asst. chief, 35–41, *assoc. chief, 41–* Chem. Soc; Soc. Agron; Soil Sci. Soc. Soil chemistry, with special reference to fertility, genesis and morphology.

Bray, Dr. Ulric B(annister), 633 Via Horquilla, Palos Verdes Estates, Calif. *Physical chemistry.* Crawford, Ga, Sept. 10, 00. B.S, Emory, 21; Coffin fellow, Yale, 24–25, Ph.D, 25. Instr. chem, Emory, 21–22; asst. instr, Yale, 22–24; nat. research fellow physical chem, Calif. Inst. Tech, 25–27; research chemist, Atmospheric Nitrogen Corp, 27–28; research chemist and asst. manager research, Union Oil Co. of Calif, 28–39; *fuels and lubricants consultant, Los Angeles, Calif, 39–* Inst. Chem; Automotive Eng; Chem. Soc; Petrol. Inst. Equilibrium in carbonate systems; activities of ions; catalytic processes; oxidation of ammonia; water gas reaction; cracking reactions; motor oils; motor fuels; propane in lubricating oil refining; solvent extraction processes; asphalts; Diesel engine lubrication.

Bray, Prof. William C(rowell), University of California, Berkeley, Calif. **2Chemistry.* Wingham, Ont, Can, Sept. 2, 79. B.A, Toronto, 02, 1851 Exhib. scholar, 02–04; Ph.D, Leipzig, 05. Research assoc. physical chem, Mass. Inst. Tech, 05–10, asst. prof. physicochem. research, 10–12; *chem, California,* 12–16, assoc. prof, 16–18, *prof, 18–* Exp. Sta, American Univ, C.W.S, 18; assoc. director fixed nitrogen research lab, U. S. Dept. Agr, 19. Nat. Acad; A.A; Chem. Soc; Electrochem. Soc; Am. Acad. Chemical kinetics; catalysis; the halogens; qualitative analysis; hydrogen peroxide reactions.

Bray, Prof. William (L), Syracuse University, Syracuse, N. Y. **3Botany.* Burnside, Ill, Sept. 19, 65. Cornell, 89–91; A.B, Indiana, 93; A.M, Lake Forest Col, 94; Berlin, 96–97; Ph.D, Chicago, 98. Instr. bot, Lake Forest Col, 94–95, adj. prof. biol, 96; instr. bot, Texas, 97, adj. prof, 98–01, assoc. prof, 02–05, prof, 05–07; Syracuse, 07–43, dean grad. sch, 18–35, acting dean, 35–43; *retired.* Acting dean, N. Y. State Col. Forestry, Syracuse, 11–12; field asst, U. S. Biol. Surv, 99; collaborator, U. S. Forest Service, 99–09. A.A; Bot. Soc; Ecol. Soc. Phytogeography, ecology and forest resources of Texas; mistletoe in Texas; development of vegetation in New York and in the Adirondacks.

Brazda, Prof. Fred G(eorge), Louisiana State University School of Medicine, New Orleans, La. *Biochemistry.* Chicago, Ill, Feb. 22, 09. B.S, Chicago, 31; M.S, Northwestern, 33, Ph.D, 37. Instr. *biochem, sch. med,* Creighton, 37–38; *Louisiana,* 38–42, *asst. prof, 42–* Chem. Soc. Metabolism of glucuronic acid; metabolism of antiscorbutic substances; metabolism of amino acid derivatives; action of drugs on surviving tissues and on enzyme systems.

Breakey, Dr. E(dward) P(aul), 620 W. Pioneer Way, Puyallup, Wash. *Entomology.* Phillipsburg, Kans, July 5, 00. B.S, Kansas, 24, A.M, 27; Ph.D, Ohio State, 32. Field entomologist, Entom. Cmn, Kans, 24–26; State Dept. Agr, Wis, 27–30; asst, Ohio Biol. Surv, 30–32; Crop Protection Inst. fellow entom, Ohio State, 32–36; indust. fellow, Mellon Inst, 36–37, senior indust. fellow, 37–38; *entomologist, West. Wash. Exp. Sta, State Col. Wash, 38–* Mem, Kans. Univ. biol. surv, 24. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Kans. Entom. Soc; Puget Sound Entom. Soc. (sec'y-treas, 39–). Taxonomy and ecology of Cicadellidae and Fulgoridae; histology of Anasa tristis; life histories of stem boring noctuids; ovicidal properties of contact insecticides; oil soluble toxins as contact insecticides.

Breazeale, Dr. D(elbert) F(rary), Iowa State Brand Creameries, Inc, Mason City, Iowa. *Dairy chemistry.* Lee Co, Iowa, June 17, 06. B.S, Iowa State Col, 28, M.S, 29, Ph.D, 38. Asst, Exp. Sta, Iowa State Col, 29–39; *supervisor mfg, Iowa State Brand Creameries, Inc, 39–* Dairy Sci. Asn. Dairy bacteriology.

Breazeale, Edward L(ee), Arizona State Laboratory, Tucson, Ariz. *Biochemistry.* Manassas, Va, May 10, 11. B.S.A, Arizona, 36, M.S, 40. Asst. state bacteriologist, *Ariz,* 36–41, *state senior bacteriologist-serologist, 41–; lieut, Sanit. Corps, U. S. Army, 42–* Mechanism and specificity of serological reactions for syphilis; rabies.

Breazeale, James F(rank), University of Arizona, Tucson, Ariz. *Biochemistry.* Anderson, S. C, Dec. 11, 74. B.S, Clemson Col, 96. *Research biochemist, Agr. Exp. Sta, Arizona, 25–; senior biochemist, U. S. Dept. Agr, 25–* Plant nutrition and adaptation; soils.

Breazeale, Dr. William M(cSwain), Massachusetts Institute of Technology, Cambridge, Mass. *Physics, Electrical engineering.* New Brunswick, N. J, May 9, 08. B.S, Rutgers, 29; M.S, Vanderbilt, 32; Ph.D, Virginia, 35. Test engineer, Gen. Elec. Co, 29–30; asst. develop. engineer, West. Elec. Co, 30–31; instr. physics, Virginia, 32–35; instr. and asst. prof. elec. eng, Vanderbilt, 35–41; *staff mem. radiation lab, Mass. Inst. Tech, 41–* Radio Eng; Elec. Eng. Impulse breakdown of liquid dielectrics; Kerr effect in gases; ultra-high-frequency radio measurements.

Brecht, Prof. E(dward) A(rmond), (Jr), University of North Carolina, Chapel Hill, N. C. *Pharmaceutical chemistry.* Minnesota Lake, Minn, June 30, 11. B.S, Minnesota, 33, Minn. State Pharmaceut. Asn. research fellow, 33–36, M.S, 34, Ph.D, 39. Instr. *pharmacy, sch. pharmacy, North Carolina,* 39–41, *asst. prof, 41–* A.A; Pharmaceut. Asn; Elisha Mitchell Sci. Soc; Minn. State Pharmaceut. Asn; N. C. Pharmaceut. Asn. Oxidation of salicylates in alkaline solutions.

Breckenridge, Prof. C(arlyle) G(eorge), University of Alabama, University, Ala. *Parasitology.* Elvins, Mo, Sept. 8, 03. A.B, Alabama, 30, A.M, 31. Instr. *zool, Alabama,* 31–37, *asst. prof, 37–* A.A; Soc. Parasitol; Ala. Acad. Biology.

Breckenridge, F(rancis) C(hapin), 5301 Broad Branch Road, Washington, D. C. *Applied optics.* Providence, R. I, April 8, 93. Ph.B, Brown, 15; M.S, Wesleyan, 16; A.M, Harvard, 20. Inspector airplane instruments, Bur. Aircraft Production, New York, 17–18, asst. to chief instrument sect, 18–19; sci. asst, U. S. Lighthouse Service, 21–26; assoc. physicist, *Bur. Standards,* 26–36, *physicist, 36–* Mem. U. S. nat. cmt, Int. Cmn. Illumination, 32–42, director secretariat for aircraft lighting, 31–35, U. S. del, 35–39, v. pres, 41. Physical Soc; Optical Soc; Illum. Eng. Soc. (chairman cmt. aviation lighting, 31–42). Transmission of light through fog; mixture diagrams for representation of colors.

Breckenridge, Dr. James Miller, Vanderbilt University, Nashville, Tenn. *Chemistry.* A.B, Albion Col, 03; M.S, Wisconsin, 08, Ph.D, 10. Indust. chemist, 10–12; prof. chem, Carroll Col, 12; Wabash Col, 17; asst. director exp. sta, Hercules Powder Co, 17–19; *director sch. chem, Vanderbilt, 19–* Chem. Soc; Electrochem. Soc; Ceramic Soc; Soc. Chem. Indust; Deuts. Chem. Gesell. Organic and industrial chemistry; aluminothermic alloys; electroplating; static potentials of zinc and copper; cathode and electrode potentials of copper in cyanide solutions; electrode efficiencies in cyanide solutions; beryllium and organoberyllium compounds; electrodeposition of alloys.

Breckenridge, John E, Woodbridge, N. J. *Chemistry.* Palmer, Mass, May 4, 73. A.B, Yale, 96. Chief chemist and later consultant, Am. Agr. Chem. Co, 96–31; *retired.* Activity of nitrogen; sources of nitrogen for fertilizers; toxic materials and plant growth.

Breckenridge, Dr. W(alter) J(ohn), University of Minnesota, Minneapolis, Minn. *Zoology, Ornithology, Herpetology.* Brooklyn, Iowa, March 22, 03. A.B, Iowa, 26; A.M, Minnesota, 34, Ph.D, 41. Preparator, *Minn. Museum Nat. Hist, Minnesota,* 26–33, assoc. curator, 32–36, *curator, 36–* Soc. Mammal; Ornith. Union; Wilson Ornith. Club. Ecology of marsh hawks; herpetology of Minnesota.

Breden, Dr. C(alvin) R(udolph), 222 S. Madison, La Grange, Ill. *Chemistry, Bacteriology.* Odon, Ind, April 19, 01. B.S, Otterbein Col, 24; Ph.D, Iowa State Col, 30. Instr. chem, Otterbein Col, 24–25; asst. state chemist, Exp. Sta, Purdue, 27–28; bacter. chemist, State Water Surv, Ill, 30–33; chemist, Upjohn Co, 34–36; chief chemist, Can. Indust. Alcohol Co, Ltd, 36–37; *research chemist,* Miner Labs, 37–40; *Continental Can Co, 40–* Chem. Soc. Industrial fermentations; food preservation; packaging.

Breder, Dr. C(harles) M(arcus), Jr, American Museum of Natural History, 77th St. and Cent. Park West, New York, N. Y. **7Zoology.* Jersey City, N. J, June 25, 97. Sc.D, Newark, 38. From sci. asst. to fisheries expert, Bur. Fisheries, 19–21; from aquarist to asst. director, *N. Y. Aquarium,* 21–37, acting director, 37–39, *director, 39–* Research assoc, Am. Museum Nat. Hist, 26–; Bingham Oceanog. Foundation, Yale, 33–; visiting prof, N. Y. Univ, 41– Rep, Marsh-Darien exped, 24; marine lab, Carnegie Institution, Tortugas, 29; Bahamas, 30, 32, 33; 'Atlantis' Caribbean exped, 34; lab, N. Y. Aquarium, Fla, 38–; Mexican cavefish exped, 40. Advisory cmt, Atlantic States Marine Fisheries Cmn, 42– A. Cressy Morrison prize, N. Y. Acad, 25. A.A; Soc. Ichthyol. and Herp. (pres, 32, governor, 32–); Fisheries Soc; Soc. Zool; Ecol. Soc; Soc. Nat; Fla. Acad; fel. N. Y. Zool. Soc; N. Y. Acad. (pres. sect. biol, 41; councilor, 43–). Ichthyology; experimental and theoretical biology; life histories and habits of fishes.

Bredeson, Dr. O(laf) A(bel), 415 Philadelphia Pike, Wilmington, Del. *Organic chemistry.* Havre, Mont, May 17, 18. A.B, Montana, 37, A.M, 38, Ph.D, 41. Asst. chem. storekeeper, Montana, 36–38; teaching fellow, Mass. Inst. Tech, 38–41; *chemist, tech. div, rayon dept, E. I. du Pont de Nemours and Co, 41–* Nylon products.

Breed, Prof. Charles Blaney, 32 Harvard St, Newtonville, Mass. *Civil engineering.* Lynn, Mass, Nov. 28, 75. B.S, Mass. Inst. Tech, 97. Asst. civil eng, *Mass. Inst. Tech,* 99–01, instr, 01–07, from asst. prof. to *prof.* ry. and highway eng, 07–28, *ry. and highway transportation, 28–, head civil and sanit. eng. dept, 33–* Various ry. companies, 96–04; consulting engineer. Assoc. ed, 'Am. Mining Engineers Handbook'; 'Am. Civil Engineers Pocket-book.' Civil Eng; Ry. Eng; Road Builders Asn. (past pres); Eng. Educ; Boston Soc. Civil Eng. (past pres); New Eng. Ry. Club (pres, 16). Surveying; railroad and highway engineering.

Breed, Prof. Frederick S(tephen), Dune Acres, Chesterton, Ind. *Education.* Clarion Co, Pa, July 12, 76. A.B, Allegheny Col, 98; A.M, Harvard, 05, Ph.D, 09. Sch. supt, Pa, 01–04; prin, prep. sch, Allegheny Col, 05–07; asst. philos, Harvard, 08–10; asst. prof. educ. psychol, Michigan, 10–17; *educ, Chicago,* 17–26, assoc. prof, 26–41, *emer. assoc. prof, 41–* Traveling fellow, Harvard, 09–10. Mem. surv. pub. educ, Va; Racine, Wis. Trustee, Allegheny Col, 17–27. A.A; Psychol. Asn; Educ. Research Asn. (chairman cmt. spelling, 29–39); Soc. Study Ed. (cmt, 'Yearbook,' 42). Psychology; instincts and habits; educational measurements; instruction and class management; philosophy of education.

Breed, Dr. Robert S(tanley), New York State Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* Brooklyn, Pa, Oct. 17, 77. B.S, Amherst Col, 98; M.S, Colorado, 99; Ph.D, Harvard, 02; Göttingen, 10; Kiel, 11; Pasteur Inst, 23. Instr. biol, Colorado, 98–99; asst. zool, Harvard, 00–02; prof. biol. and geol, Allegheny Col, 02–13; *chief in research bacter, N. Y. Exp. Sta, Geneva, 13–* Assoc. ed, 'Biol. Abstracts'; 'Jour. Bact.' V. pres, World's Dairy Cong, Washington-Syracuse, 23, London. 28, del, Berne, 14, Rome, 34. A.A. (councilor, 24–28); Soc. Bact. (v. pres, 26, pres, 27); Pub. Health Asn. (chairman, lab. sect, 34); Dairy Sci. Asn; Soc. Agr. Bact. Eng; Int. Asn. Milk Sanitarians; Int. Soc. Microbiol. (sec'y, int. cmt. bacter. nomenclature, 29–). Agricultural and taxonomic bacteriology; bacterial and cell content of dairy products.

Bregger, J(ohn) T(aylor), U. S. Department of Agriculture, Clemson, S. C. *Horticulture.* Chicago, Ill, Jan. 14, 96. B.S, Mich. State Col, 17; fellow, Oregon State Col, 17–18; M.S, Cornell, 22. Field asst, white pine blister rust investigations, U. S. Dept. Agr, 17–19, cereal investigations, 19; horticulturist, Exp. Sta, Alaska, 21–22; head special service and orchard research dept, Stark Brothers Nurseries, Mo, 23–27; supt. in charge, Luther Burbank Exp. Farms, Calif, 27–29; exten. horticulturist, State Col. Wash, 29–32; ed. in chief, 'Am. Fruit Grower,' 33–35; senior soil conservationist and *project supervisor orchard erosion investigations, soil conservation service, U. S. Dept. Agr, 35–* Visiting asst. prof, Cornell, 32–33. U.S.A, 18–19. Soc. Hort. Sci; Miss. Valley Apple Growers' Asn. (past sec'y); Wash. State Hort. Asn. (sec'y, 30–32). Stock and scion; profitable orcharding; bud mutations among deciduous fruit varieties; orchard erosion.

Bregger, Dr. Thomas, Everglades Experiment Station, Belle Glade, Fla. *Genetics.* Quincy, Ill, March 29, 88. B.S, Illinois, 10; Ph.D, Cornell, 28. Asst. plant breeding, Ill. Exp. Sta, 10–15; Cornell, 15–17; plant breeder, P. R. Exp. Sta, Mayaguez, 20–23; geneticist, Ministry of Agr, Argentine Republic, 23–26; asst. plant breeding, Cornell, 26–28; plant breeder, Insular Exp. Sta, Rio Piedras, P. R, 28–31, geneticist, 31–34; horticulturist, Agr. Exp. Sta, V. I, 35; *physiologist, Everglades Exp. Sta, Florida, 35–* D. S. cross; Croix de Guerre. U.S.A, 17–19. A.A. Plant breeding; corn genetics; sugar-cane breeding; tropical agriculture.

Bregman, Dr. E(isie) O(schrin), 425 Riverside Drive, New York, N. Y. *Psychology.* Newark, N. J, Nov. 30, 96. A.B, Columbia, 18, Ph.D, 22. Psychologist, R. H. Macy and Co, 19–21; asst, div. psychol, inst. educ. research, Teachers Col, Columbia, 22–27; assoc, Psychol. Corp, 24–25, asst. sec'y, 25–34; asst. director, Child Study Asn. Amer, 27–29; nat. research fellow, 29–30; instr, Teachers Col, Columbia, 31, research assoc, div. psychol, inst. educ. research, 31–34; Progressive Educ. Asn, 35. A.A; Psychol. Asn; N. Y. State Asn. Applied Psychol. Vocational and developmental psychology; psychology of learning; individual differences.

Brehm, Dr. C. E, University of Tennessee, Knoxville, Tenn. *Agriculture.* Newville, Pa, March 23, 90. B.S, Pa. State Col, 11; Sc.D, Clemson Col, 37. Instr. hort, Purdue, 11–12; ed, Int. Correspondence Schs, Scranton, Pa, 12–14; farming, 14–17; marketing economist, *agr. exten. service, Tennessee,* 17–19, asst. director, 19–36, *director, 36–* Mid-South Cotton Asn. (director); Tenn. Burley Asn; Tenn. Livestock Producers' Asn. Agricultural extension; teaching methods; soil conservation.

Brehme, Dr. Katherine S(uydam) (Mrs. Charles O. Warren), Wellesley College, Wellesley, Mass. *Genetics.* New York, N. Y, March 4, 09. A.B, Barnard Col, 30; Ph.D, Columbia, 39; du Pont fellow, Virginia, 30–31, A.M, 31; Am. Asn. Univ. Women fellow, Stanford, 38–39. Asst. genetics, Barnard Col, Columbia, 32–36, asst. to ed, 'Genetics,' 36–38; fellow, Carnegie Institution, 39–41, ed, 'Proc. of Symposia on Quantitative Biol,' 41–42; *instr, Wellesley Col, 42–* A.A; Soc. Zool; Genetics Soc; Growth Soc. Developmental genetics and cytology of Drosophila.

Breisacher, Dr. Leo, 1073 Seminole Ave, Detroit, Mich. *Medicine.* Detroit, Mich, Oct. 1, 66. Berlin, 88–91; M.D, Pennsylvania, 92. Demonstrator comp. physiol, Pennsylvania, 88–92, lecturer, 92–93; *prof. gastro-enterol, Harper Hosp.* Soc. Nat; Physiol. Soc. Physiology of thyroid glands; minimum albumen diet; physiology of sleep; physiology of the superior laryngeal nerve; metabolism; artificially prepared foods; gall-stones; diet in health and disease.

Breit, Prof. Gregory, University of Wisconsin, Madison, Wis. ***Physics.* Russia, July 14, 99. A.B, Hopkins, 18, Ph.D, 21. Nat. research fellow, Leiden, 21–22; Harvard, 22–23; asst. prof. physics, Minnesota, 23–24; math. physicist, dept. terrestrial magnetism, Carnegie Institution, 24–29; *prof. physics,* N. Y. Univ, 29–34; *Wisconsin, 34–; nat. defense work, 40–* Research assoc, Carnegie Institution, 29– Mem. at large, div. physical sciences, Nat. Research Council, 32–35. Nat. Acad; A.A; Physical Soc. (councilor, 35–38); Math. Soc; Wash. Acad. Quantum theory; upper atmosphere; high potentials; nuclear physics.

Breithut, Prof. Frederick E(rnest), Brooklyn College, Brooklyn, N. Y. *Chemistry.* New York, N. Y, Aug. 15, 80. B.S, Col. City of N. Y, 00; Sc.D, N. Y. Univ, 09. From instr. to *prof. chem,* Col. City of N. Y, 03–30; *head dept, Brooklyn Col, 30–* Lecturer, Dept. Educ, New York; chemist, State Factory Cmn, N. Y; advisory council, Board Health, and sci. staff, Bur. Munic. Research, New York; chairman chem. group, W.T.B; director bur. conservation, Fed. Food Board. Chem. trade commissioner to Europe, U. S. Dept. Commerce, 23. Major, C.W.S, 18. A.A; Chem. Soc; Inst. Chem. (pres, 28–32); Chemists' Club. Economic chemistry; partial vapor pressures of binary mixtures; detection of diethylphthalate; dye industries of Europe.

Breitwieser, Dean J(oseph) V(alentine), University of North Dakota, Grand Forks, N. Dak. *Educational psychology.* Jasper, Ind, March 31, 84. A.B, Indiana, 07, A.M, 08; Ph.D, Columbia, 11. Asst. psychol, Indiana, 06–07, psychol. and philos, 07–08; psychol, Columbia, 08–10; asst. prof. psychol. and educ, Colo. Col, 10–11, prof, 11–19; assoc. prof. *educ,* California, 19–27; *prof. and dean sch. educ. and director grad. div. and summer session, North Dakota, 27–* A.A; Psychol. Asn; N. Dak. Educ. Asn. (pres, 33). Attention and movement; advertising; visual fusion; vocabulary tests.

Breitzke, Charles F(rederick), 412 William St, Boonton, N. J. *Civil engineering, Economics.* Newton Center, Mass, July 8, 84. B.S, Mass. Inst. Tech, 06. Asst. engineer, Board Water Supply, New York, and to John M. Farley, 06; chemist, Hazen and Whipple, 07; bacteriologist, Jerome Park Exp. Sta, New York, 07; asst. engineer, Hering and Fuller and State Dept. Health, N. Y, 07–10; Board Water Supply, New York, 10–12; Johnson and Fuller, 12–13; sanit. engineer, Bur. Water, Jersey City, 13–25; hydraulic engineer, Nicholas S. Hill, Jr, 25–26; consulting engineer, State Water Policy Cmn, N. J, 26–29, research engineer, 29–32; consulting engineer and statistician, N. J, 29–37; *research engineer, State Board Commerce and Navigation, N. J, 37–* Consulting engineer, Meadows Reclamation Cmn, 28–29; mem, Flood Control Cmn, north. N. J, 29–30, Passaic, 34, 37; Governor's Tech. Staff, 35–36; statist. research, State Govt, 32–36; N. J. State Taxpayers Asn, 36; State Hosp, 36. Civil Eng; Asn. Eng;

Water Works Asn. Water supply; flood control; meadow reclamation and development; regional planning; statistical governmental research; coast protection; riparian rights in New Jersey.

Breivik, Dr. Orville N(ell), Fleischmann Laboratories, 810 Grand Concourse, New York, N. Y. *Food chemistry.* Vang, N. Dak, Jan. 16, 15. A.B, St. Olaf Col, 35; M.S, Pa. State Col, 39, Ph.D, 41. *Chemist, Fleischmann Labs, 40–* Chem. Soc. Organic chemistry; changes in cheese fat during ripening; autoxidation of fats; the reducing action of Grignard reagents.

Breland, Dr. Osmond P(hilip), University of Texas, Austin, Texas. *Zoology, Entomology.* Decatur, Miss, Sept. 17, 10. B.S, Miss. State Col, 31; Ph.D, Indiana, 36. Asst. *zool,* Indiana, 31–36; instr, N. Dak. Col, 36–38; *Texas,* 38–42, *asst. prof, 42–* Summers, instr, Col. City of N. Y, 37; prof, Sioux Falls Col, 38. A.A; Soc. Zool; Entom. Soc. Amer; N. Y. Entom. Soc. Insect biology and taxonomy; hosts, parasitic reactions and life histories of Chalcidoidea; biology and life histories of Mantidae.

Bremer, Dr. J(ohn) L(ewis), Harvard Medical School, Boston, Mass. *[5]*Anatomy, Embryology.* New York, N. Y, Nov. 3, 74. A.B, Harvard, 96, M.D, 01; Oxford, 96–97. Asst. histol. and embryol, *Harvard,* 02, instr, 02–06, demonstrator histol, 06–11, asst. prof, 12–14, assoc. prof, 15–31, Hersey prof. *anat,* 31–41, *emer. prof, 41–* A.A; Asn. Anat; Am. Acad; Boston Soc. Nat. Hist; Boston Soc. Med. Sci. (sec'y, 08). Pulmonary arteries of vertebrates; the lung of the opossum; aberrant roots of cranial nerves; development of blood vessels; interrelations of fetal excretory organs and placenta; experimental alteration of embryonic vessels and heart; development of the heart; growth of the lung; histology.

Bremner, Prof. R(aymond) W(ilson), Box 110 F. E, College Station, Texas. *Analytical chemistry.* Bellingham, Wash, Dec. 4, 04. B.S, Washington (Seattle), 28, M.S, 32, Ph.D, 37. U. S. customs inspector and prin. and teacher, schs, Oregon and Wash, 24–30; teaching fellow *chem,* Washington (Seattle), 30–37; instr, *Agr. and Mech. Col. Texas,* 37–40, *asst. prof, 40–* Summers, asst. chemist, oceanog. labs, Washington (Seattle), 32–35; agent, U. S. Dept. Agr, 39. Chem. Soc. Chemistry of the sea; electrical conductances and specific gravities of pure and mixed salt solutions and standard potassium chloride solutions; Tephrosia Virginiana as a source of insecticides.

Bren, Dr. B(ozetech) C(hestmir), 25 Overlook Road, Verona, N. J. *Organic chemistry.* Racine, Wis, June 16, 98. B.S, Chicago, 16; fellow, Iowa, 24–26, Ph.D, 26. Asst, Minnesota, 19; Yale, 19–20; chief chemist, Schuylkill Silk Mill, Reading, Pa, 20–22; Cedar Chem. Lab, Cedar Rapids, Iowa, 22–24; instr. org. chem, Nebraska, 26–29, asst. prof, 29; *div. head dept. org. chem. and dept. plastics, E. I. du Pont de Nemours and Co, Arlington, N. J, 29–* C.W.S, U.S.A, 18–19. Chem. Soc.

Breneman, Prof. W(illiam) R(aymond), R. R. 4, Bloomington, Ind. *Zoology.* Indianapolis, Ind, June 3, 07. A.B, Ind. Cent. Col, 30; fellow, Indiana, 32–33, Ph.D, 34. Asst. *zool,* Indiana, 30–34; nat. research fellow, Wisconsin, 34–35; instr, Miami (Ohio), 35–36; asst. prof, *Waterman inst, Indiana,* 36–42, *assoc. prof, 42–* Soc. Zool. Effect on chick embryo of endocrine extracts; effect on the chick of gonadotropic hormones; male hormone in the fowl.

Brener, Dr. Roy, 126 N. Long Ave, Chicago, Ill. *Psychology.* New Orleans, La, May 1, 13. Ph.B, Chicago, 33, M.S, 35, Ph.D, 39. Instr. psychol, Austin Evening Junior Col. 39–42; *civilian psychol. examiner, Kalamazoo Recruiting and Induction Sta, U. S. Army, 42–* Psychologist, Ill. State Training Sch. for Boys, 40–42. Psychol. Asn; Ill. Asn. Applied Psychol. Experimental and clinical psychology.

Brenke, Prof. W(illiam) C(harles), University of Nebraska, Lincoln, Nebr. *Mathematics, Astronomy.* Berlin, Germany, April 12, 74. B.S, Illinois, 96, M.S, 99; Ph.D, Harvard, 07. Instr. math, Illinois, 96–00, math. and astron. and in charge observatory, 00–03; assoc. prof. *math, Nebraska,* 07–13, *prof, 13–, chairman dept. math. and astron, 34–* A.A; Math. Soc; Math. Asn; Math. Verein. Variable stars; infinite series.

Brennecke, Prof. Cornelius G(odfrey), Lehigh University, Bethlehem, Pa. *Electrical engineering.* New York, N. Y, Aug. 29, 06. A.B, Columbia, 26, B.S, 27, E.E, 28; fellow, N. Y. Univ, 31–33, Ph.D, 36. Student engineer and design engineer, Radio Corp. of Amer, 28–31; asst. physics, N. Y. Univ, 33–36; instr. *elec. eng,* Toledo, 36–37, asst. prof, 37–40, *assoc. prof,* 40–42; *Lehigh, 42–* Radio Eng; Eng. Educ. Radio picture transmission; nuclear physics; electronics; dielectrics.

Brenneman, Prof. J(esse) L(aMar), Kansas State College, Manhattan, Kans. *Electrical engineering.* Goshen, Ind, Aug. 26, 86. B.S, Chicago, 08; E.E, Wisconsin, 13. Teacher, high sch, Ill, 08–09; prof. physics and applied math, Westminster Col. (Mo), 09–11; testing dept, Gen. Elec. Co, Schenectady, 13–14; prof. physics and elec. eng, New Mexico, 14–17; physics and automobile elec, Okla. Sch. Mines, 19–20; assoc. prof. and *prof. elec. eng, Kans. State Col, 20–* A.A; Elec. Eng. Distribution of potential on high tension insulators; direct current machinery; electrodynamics.

Brenneman, John Arden, Soil Conservation Service, Rockville, Conn. *Agriculture.* Mechanicsburg, Pa, Aug. 14, 90. B.S, Pa. State Col, 16. Prin, pub. sch, Pa, 10–12; county agr. agent, Clarion County, 16–19; farmer, York County, 21–29; supervisor vocational agr, Lower Paxton Vocational Sch, Dauphin County, 29–31, Lykens Valley Joint Vocational Sch, 31–35; project manager, *soil conservation service, U. S. Dept. Agr,* Indiana, Pa, 35–37, *state coordinator, Mass, Conn. and R. I, 37–* Agronomy.

Brennemann, Dr. Joseph, 4614 Sunset Blvd, Los Angeles, Calif. *Medicine, Pediatrics.* Peru, Ill, Sept. 25, 72. Ph.B, Michigan, 95; M.D, Northwestern, 00. Chief staff, Children's Mem. Hosp, Chicago, Ill, 20–41; prof. pediat, Chicago, 29–41; *chief staff, Children's Hosp, Los Angeles, Calif, 41–; prof. pediat. and head dept, med. sch, Southern California, 41–* Past attending pediatrician, Cook County, Wesley, St. Luke's, Post-Grad. and Woman's Hosps; past mem. faculty, med. sch, Northwestern. Pediat. Soc. (past pres); Acad. Pediat; Soc. Endocrinol; Inst. Med; Cent. States Pediat. Soc. (past pres); Chicago Pediat. Soc. (past pres); Chicago Med. Soc. Clinical pediatrics.

Brenner, Dr. Abner, 6509 Fulton St, Chevy Chase, Md. *Electrochemistry.* Kansas City, Mo, Aug. 5, 08. A.B, Missouri, 29; M.S, Wisconsin, 30; Hopkins, 31–33; Ph.D, Maryland, 39. Asst. to Dr. Kahlenberg, Wisconsin, 29–30; junior chemist, *Bur. Standards,* 30–35, *assoc. chemist, 35–* Chem. Soc; Electroplaters Soc. Electroplating; atmospheric exposure and accelerated tests of plated coatings; methods of stripping plated coatings; magnetic method of measuring the thickness of plated coatings; electrodeposition of alloys; cathode films.

Brentzel, Dr. Wanda W(eniger) (Mrs. W. E. Brentzel), North Dakota Agricultural College, Fargo, N. Dak. *Botany, Plant pathology.* Milwaukee, Wis, Dec. 5, 95. B.S, Oregon State Col, 15; M.S, Wisconsin, 16; fellow, Chicago, 16–18, Ph.D, 18. Instr. bot, William and Vashti, 18; asst. botanist and plant pathologist, N. Dak. Exp. Sta, 18–23, plant pathologist, 23–25. A.A; Bot. Soc; Phytopath. Soc. Cytology of fertilization in plants; cytology of rusts; cereal diseases.

Brentzel, W(illiam) E(dward), North Dakota Agricultural College, Fargo, N. Dak. *Plant pathology.* Kelso, Mo, March 27, 89. B.S, Missouri, 15, A.M, 17. Asst. bot, Missouri, 15–17; prof. biol, West. Maryland Col, 17–18; asst. pathologist, U. S. Dept. Agr, 18–25; *head dept. plant path, Exp. Sta, N. Dak. Col, 25–* A.A; Phytopath. Soc. Cereal and potato diseases.

Brereton, Dr. J(ohn) G(robe), 524 W. 57th St, New York, N. Y. *Dairy chemistry, Biochemistry.* Troy, N. Y, May 14, 16. B.S, Cornell, 38, Ph.D, 42; Dairy Industries Supply Asn. fellow, Minnesota, 38–39, M.S, 39. Teaching asst, dairy dept, Cornell. 37–38, instr. dairy chem, 39–42; *mem. tech. dept, Sheffield Farms Co, Inc, 42–* Chem. Soc; Dairy Sci. Asn; Int. Asn. Milk Sanitarians. Physical and biochemistry of milk and related products.

Bresch, Dr. Sister Mary Ignace, St. Joseph Heights, 1601 Dixie Highway, Covington, Ky. *Spectroscopy.* Covington, Ky, May 10, 96. B.S, Xavier (Ohio), 23; M.S, Catholic Univ, 34, Ph.D, 39. Teacher math. and science, Notre Dame Acad, Ky, 23–33; *head dept. science, Villa Madonna Col, 37–* Physical Soc; Asn. Physics Teachers. The astigmatism of the concave grating as a means of calibrating photographic plates in intensity measurements.

Brescia, Dr. F(rank), 32 Arden St, New York, N. Y. *Physical chemistry.* New York, N. Y, May 19, 08. B.S,

Col. City of N. Y, 31, fellow, 31–33; A.M, Columbia, 33, Ph.D, 38. Tutor *chem, Col. City of N. Y*, 33–37, *instr*, 37– Visiting scholar, Columbia, 39–; volunteer investigator, Nat. Defense Research Cmt, 41– A.A; Chem. Soc; Inst. Chem; N. Y. Acad; Chem. Teachers Club New York. Kinetics and equilibria in deuterium oxide.

Breslich, Prof. Ernst R(udolph), University of Chicago, Chicago, Ill. *Mathematics.* Germany, Aug. 30, 74. A.M, Chicago, 00, Ph.D, 26. Instr. math, Bradley Polytech, 00–04; univ. high sch, *Chicago*, 04–20, asst. prof, 24–28, assoc. prof. *teaching of math*, 29–39, *emer. assoc. prof*, *39–* Math. Asn; Nat. Council Teachers Math; hon. mem. Cent. Asn. Sci. and Math. Teachers, Educational mathematics.

Breslow, Dr. David S(amuel), Duke University, Durham, N. C. *Organic chemistry.* New York, N. Y, Aug. 13, 16. B.S, Col. City of N. Y, 37; Ph.D, Duke, 40. Lab. asst. chem, Duke, 37–40; asst. org. chem, Calif. Inst. Tech, 40–41; research fellow, radiation lab, California, 42; *research assoc. chem, Duke, 42–* Chem. Soc. Mechanisms of organic reactions; chemistry of the nervous system.

Bressler, Dr. Joseph, Brooklyn College, Bedford Ave. and Ave. H, Brooklyn, N. Y. *Hygiene, Psychology.* Brooklyn, N. Y, Jan. 30, 07. A.B, Col. City of N. Y, 27; A.M, Columbia, 30, Ph.D, 33. Tutor, Col. City of N. Y, 27–31; instr. *hygiene, Brooklyn Col*, 32–36, *asst. prof, 37–*, chairman dept, 38–41. Sense perception; psychophysics; health and physical education; mental hygiene.

Bressman, Dr. E(arl) N(orman), 120 Whittier St, N. W, Washington, D. C. *Plant breeding, Plant pathology.* Clifton Hill, Nebr, Aug. 25, 94. B.S, Iowa State Col, 20, M.S, 27; Ph.D, Nebraska, 30. Instr, Iowa State Col, 19–22; head dept. agron, N. Mex. Col, 22–23; asst. prof, Mont. Col, 23–24; assoc. prof, Oregon State Col, 24–33; sci. adviser, U. S. Dept. Agr, 33–40, asst. director for. relations, 40–41; *director agr, Office of the Coordinator Inter-Am. Affairs, 40–* U. S. rep, Int. Cmt. Trop. Agr; Cmt. Inter-Am. Cooperation Agr. Educ; Inter-Dept. Cmt. Cooperation with other Am. Republics; Cmt. Inter-Am. Affairs. Tropical agriculture; rubber; corn breeding and growing.

Bretnall, Prof. G(eorge) H(erbert), Shepherdstown, W. Va. *Botany.* London, Eng, Feb. 12, 71. A.B, Cornell Col. (Iowa), 96, A.M, 97; Chicago, 01–02, summers, 05, 07, 10. Instr. science, Epworth Sem, 99–01; prin, Port Byron Acad, 02–03; *head dept.* biol, Monmouth Col, 03–11; Wis. State Nor. Sch, Lacrosse, 11–18; Va. State Nor. Sch. for Women, Farmville, 18–21; geol, Dubuque, 21–22; *biol*, Baker, 22–30; *Shepherd State Teachers Col, W. Va, 30–* A.A; Genetic Asn; Asn. Study Int. Secretions. Plant and animal physiology.

Bretz, Prof. J H(arlen), University of Chicago, Chicago, Ill. *[6]*Geology.* Ionia Co, Mich, Sept. 2, 82. A.B, Albion Col, 05; Ph.D, Chicago, 13. Instr, high schs, Mich. and Wash; asst. prof. *geol*, Washington (Seattle), 13–14; *Chicago*, 15–21, assoc. prof, 21–26, *prof, 26–*; *geologist*, Oregon Bur. Mines and Geol; Wash. Geol. Surv; *Ill. Geol. Surv.* Assoc. ed, 'Jour. Geol,' 23– A.A; fel. Geol. Soc; Ill. Acad. Physiography, glacial geology and Cenozoic history of the Pacific Northwest.

Bretz, Dr. T(heodore) W(alter), Agricultural and Mechanical College of Texas, College Station, Texas. *Plant pathology.* Lorain, Ohio, Sept. 19, 08. B.S, Ohio State, 30, Ph.D, 37; fellow, Iowa State Col, 30–31, 32–34, M.S, 31. Asst. bot, Ohio State, 35–37; instr. plant path, Cornell, 37–38; instr. and later *asst. prof. biol, Agr. and Mech. Col. Texas, 38–* Phytopath. Soc. Fungous flora of corn; gray mold on tomatoes.

Breuer, Dr. Frederick William, United Gas Improvement Co, 319 Arch St, Philadelphia, Pa. *Chemistry.* Vienna, Austria, July 25, 03. Ph.D, Vienna, 30. Austro-Am. exchange fellow, Iowa State Col, 30–32; asst, Pa. State Col, 32–35; *research chemist*, dept. physiol, Ohio State, 36–37; *chem. lab, United Gas Improv. Co, 37–* Chem. Soc. Metallorganic and sulfur compounds; organic compounds of deuterium; microanalysis; chemistry of the adrenal gland; hydrocarbon research.

Breukelman, Prof. John (William), Kansas State Teachers College, Emporia, Kans. *Zoology.* Corsica, S. Dak, May 17, 01. A.B, Yankton Col, 23; M.S, Ph.D, Iowa, 29. Instr, high schs, S. Dak, 23–25; sch. supt, S. Dak, 25–27; asst. zool, Iowa, 27–29; *prof. biol, Kans. State Teachers Col, Emporia, 29–* Ed, 'Am. Biol. Teacher.' A.A; Soc. Ichthyol. and Herp; Kans. Acad. General physiology; effect of temperature and concentration upon toxic effects of mercuric chloride on daphnids; vertebrates of Kansas; the teaching of biology.

Breunig, Dr. H(enry) Latham, 3233 Guilford Ave, Indianapolis, Ind. *Physical chemistry.* Indianapolis, Ind, Nov. 19, 10. A.B, Wabash Col, 34; Ph.D, Hopkins, 38. *Chemist, Eli Lilly and Co, 38–* Pharmacology.

Brew, Dr. James Duncan, University of Tennessee, Knoxville, Tenn. *Bacteriology.* Bergen, N. Y, Oct. 22, 81. B.S, Cornell, 12; M.S, Illinois, 21; Ph.D, California, 29. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 12–17; assoc. bacter, Illinois, 17–19; prof. dairy indust, Cornell, 19–30; milk specialist, State Dept. Health, N. Y, 30–35; in charge milk sales promotion, Am. Jersey Cattle Club, 35–38; *prof. bacter, Tennessee, 38–*, acting head dept, 42–43. Soc. Bact; Pub. Health Asn. Agar plate and a direct microscopic method in determining the number of bacteria in milk; milk production and the bacterial content in milk; policies and results of sanitary milk control.

Brew, J(ohn) O(tis), Harvard University, Cambridge, Mass. *Archeology.* Malden, Mass, 06. A.B, Dartmouth Col, 28; fellow, Chicago, 30; Thaw fellow, Harvard, 30–41, Ph.D, 41. *Asst. curator, Peabody Museum, Harvard, 41–, lecturer anthrop, univ, 42–* Univ. Chicago exped, Lewistown, Ill, 30; Claflin-Emerson exped, northeast. Utah, 31; director, Peabody Museum, Harvard, exped, southeast. Utah, 31–33, mem. archeol. exped, Ireland, 34; Awatovi exped, 35–39. Cmt. basic needs in archeol, Nat. Research Council. Soc. Archeol; Ethnol. Soc; Soc. Applied Anthrop; Tree Ring Soc; Mass. Archeol. Soc. (chairman, field methods cmt); North. Ariz. Soc. Hist, Sci. and Art. Southeastern archeology.

Brewbaker, Dr. H(arvey) E(dgar), Longmont, Colo. *Agronomy, Plant genetics.* Near Bushnell, Ill, May 10, 95. B.S, Illinois, 21; M.S, Minnesota, 23, Ph.D, 26. Asst. plant breeding, Minnesota, 21–23, asst. plant breeder and instr, 23–27, asst. prof, 27–30; assoc. agronomist, sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 30–37; *agronomist, Great West. Sugar Co, 37–* A.A; Soc. Agron; Genetics Soc; Soc. Sugar Beet Tech. Plant genetics and economic plant breeding; crop production.

Brewer, Dr. (Aubrey) Keith, National Bureau of Standards, Washington, D. C. *Physics.* Richland Center, Wis, Oct. 20, 93. Ph.B, Wisconsin, 15, M.S, 21, Ph.D, 24. Asst. chem, Wisconsin, 21–24, physics, 23–24; nat. research fellow, Calif. Inst. Tech, 24–27; physicist, fixed nitrogen research lab, U. S. Dept. Agr, 27–40; *senior physicist, Bur. Standards, 40–* Fel. Physical Soc; Chem. Soc. Ionization in reacting gases; glow discharge; photoelectric properties of composite surfaces; separation of isotopes; isotopes in biological investigations.

Brewer, Dr. Burns W, Box 124 F. E, College Station, Texas. *Mathematics.* Janesville, Wis, Feb. 20, 12. A.B, Missouri, 35, A.M, 36, Gregory fellow, 36–38, Ph.D, 38. Instr. *math, Agr. and Mech. Col. Texas*, 38–41, *asst. prof, 41–*; *lieut, U. S. Naval Res.* Math. Soc. Abstract algebra.

Brewer, Prof. C(arl) R(obert), University of Maine, Orono, Maine. *Physiological bacteriology.* Indianola, Iowa, Sept. 2, 12. A.B, Simpson Col, 34; fellow, Iowa State Col, 35–39, Ph.D, 39. Lecturer bacter. and immunity, McGill, 39–42; *asst. prof. bacter, Maine, 42–* Soc. Bact. Bacterial dissimilation of organic acids.

Brewer, Dr. C(harles) M(acFarlane), 4222 Oglethorpe St, Hyattsville, Md. *Bacteriology.* Upper Falls, Md, Aug. 13, 00. B.S, Maryland, 23, M.S, 24, Ph.D, 40. Junior bacteriologist, State Dept. Health, Md, 25; bacteriologist, food and drug admin, *U. S. Dept. Agr*, 25–41, *senior bacteriologist, insecticide div, agr. marketing admin, 41–* Pub. Health Asn; Soc. Bact. Antiseptics; disinfectants and germicidal products.

Brewer, Prof. George, 3900 Reservoir Road, Washington, D. C. *Physiology.* Baltimore, Md, April 25, 03. A.B, Hopkins, 25, M.D, 29. Instr. *physiol, med. sch, George Washington*, 32–34, *asst. prof, 34–*; instr, *sch. med, Georgetown*, 34–35, *asst. prof, 35–* Asst. dispensary physician, dept. syphilis, Hopkins Hosp, 31–33. South. Med. Asn; Med. and Chirurg. Faculty Md. Physiology of the circulation; body fluids.

Brewer, Prof. George E(ugene) F(rancis), 5001 W. Wabansia Ave, Chicago, Ill. *Chemistry.* Vienna, Austria, Jan. 23, 09. A.B, State Col. Vienna, 28; Ph.D, Vienna, 33. Asst. lecturer, Vienna, 33–36; tech. manager, textile dyeing, bleaching and carbonizing mill, 36–38; lecturer, Institut de

l'Indust. Textile de Brabant, Brussels, 39; *prof. chem, Rosary Col, 40–* Chem. Soc; Chem. Soc. London. Organic physical chemistry; absorption of rays by organic compounds; fats and oils; hydrogen-ion concentration in relation to physiology of plants.

Brewer, Dr. John H, 505 Dogwood Lane, Towson, Md. *Medical bacteriology.* Gorman, Texas, Nov. 10, 09. A.B, Simmons, 30, A.M, 31; Texas, 33–35; Ph.D, Hopkins, 38. Lab. technician, State Dept. Health, Texas, 31–35; *bacteriologist, Hynson, Westcott and Dunning, 38–* A.A; Soc. Bact. Antiseptics; anaerobes; culture media.

Brewer, Dr. Joseph E(verett), 610 S. Floyd, Louisville, Ky. *Psychology.* Joplin, Mo, May 31, 14. A.B, Kansas, 36, A.M, 37; Ph.D, Illinois, 40. Asst. psychol, Illinois, 38–40, Gen. Educ. Board fellow, 40–41; *psychologist, Louisville Mental Hygiene Clinic, 41–* Assoc. Psychol. Asn; Soc. Research Child Develop. Child, clinical, social and educational psychology.

Brewer, Prof. P(earl) Harvey, 145 E. Oak St, West Lafayette, Ind. *Agricultural chemistry.* Upper Sandusky, Ohio, Dec. 10, 83. A.B, Defiance Col, 19; M.S, Purdue, 31. Instr, Defiance Col, 19–20; agron, *Purdue,* 20–33, *asst. prof. agr. chem, 33–* A.A; Chem. Soc; Ind. Acad. Virus diseases of plants and animals; purification of soy-bean oil.

Brewer, Dr. R(alph) E(mmet), 4800 Forbes St, Pittsburgh, Pa. *Chemical engineering.* Chariton, Iowa, Jan. 16, 93. A.B, Simpson Col, 17; M.S, Purdue, 20; Ph.D, Minnesota, 28. Asst, Simpson Col, 15–17; instr. inorg. and anal. chem, Iowa State Col, 17–19; inorg. chem, Purdue, 19–21; technol. chem, Minnesota, 21–29, 30–31, asst. prof, 31–32, research assoc, 33–35; chief managing engineer and plant supt, Lehigh Briquetting Co, 29–30; assoc. chem. engineer, *U. S. Bur. Mines, Pittsburgh,* 35–43, *chem. engineer, 43–* A.A; Chem. Soc; Eng. Educ. Detecting segregation dissolved impurities in steel; hydrogen ion concentration in plating baths; total carbon determination in coal; table for transforming results of water analysis; gasoline distribution in the Twin Cities; high-hydrogen water gas from younger coal cokes; plasticity of coals; carbonization and petrographic composition of coals.

Brewer, Robert W(ellesley) A(ntony), Welsh Road, Huntingdon Valley, Pa. *Engineering.* Cork, Ireland, June 18, 77. M.E, Leeds, 01. *Consulting engineer,* London, 02–15; San Francisco and *Phila, 16–; pres, Aircraft Eng. Co, 29–* In charge production army tanks and artil, British Purchases Cmn, 40; Am. Type Founders, 41. Gold medal, Soc. Engineers. Bessemer premiums. Capt, British Army, 14–19. Fel. Soc. Eng; Franklin Inst; hon. mem. Pacific Coast Gas Asn. Internal combustion engines; use of liquid fuel; carburetion and distribution of gaseous mixtures; two stroke cycle operation of internal combustion engines; cowling and cooling of aircraft engines; relative location of engines and propellers on aircraft.

Brewington, Dr. G(ail) P(aul), 15100 Woodward Ave, Detroit, Mich. *Physics.* Oxford, Nebr, Dec. 6, 00. Ph.B, Denver, 25; M.S, Michigan, 30, Ph.D, 34. Teacher, high sch, Colo, 26–29; asst. physics, Michigan, 29–30, instr, 30–33; director, Boyne City Freshman Col, 34–35; *prof. physics, Lawrence Inst. Tech, 35–* Summers, Iowa, 27; California, 28. A.A; Physical Soc; Asn. Physics Teachers; Detroit Physics Club (sec'y, 35–). X-ray absorption edges; oiliness of oils.

Brewster, Prof. C(arl) M(ilton), 1721 Maple Ave, Pullman, Wash. *Chemistry.* Chagrin Falls, Ohio, May 19, 81. A.B, Oberlin Col, 03; A.M, Harvard, 06, Parkman fellow, 08–09; Heidelberg, 09–10. Asst. chem, Harvard, 05–08; prof. chem. and physics, Mt. Union Col, 10–12; asst. prof. *chem, State Col. Wash,* 12–14, assoc. prof, 14–18, *prof, 18–* Chem. Soc. Organic condensations; essential oils and perfumes.

Brewster, Donald R(oss), 1010 Victory Drive, Savannah, Ga. *Forestry.* Minneapolis, Minn, April 6, 88. B.S, Minnesota, 10. Forest asst, U. S. Forest Service, 10–12, forest examiner, 12–20, forest management specialist, 34–36; consulting dry kiln engineer, 20–27; lumber utilization engineer, Nat. Lumber Mfrs. Asn, 27–31; utilization engineer, West. Red Cedar Asn, 31–34; forest management specialist, U. S. Forest Service, 34–36; consulting forester; *field director, Herty Foundation Lab.* Soc. Foresters; Soc. Automotive Eng; Heat. and Vent. Eng. Silviculture; forest utilization and management; forest ecology; kiln drying and seasoning of wood; technical utilization of lumber in industrial products.

Brewster, Dr. Edwin L(eroy), 2546 Broad St, Easton, Pa. *Microchemistry.* Oneida, N. Y, March 23, 14. B.S, Alfred, 36; Ph.D, Rutgers, 42. Analyst, Oneida Ltd, 36–37; asst, sch. chem, Rutgers, 37–42; *research chemist, J. T. Baker Chem. Co, 42–* Chem. Soc. Acidimetric microdetermination of sulfur in organic compounds containing nitrogen and halogen.

Brewster, E(dwin) T(enney), 8 Judson Road, Andover, Mass. *Biology.* Lawrence, Mass, Oct. 11, 66. A.B, Harvard, 90, A.M, 91. Instr. sciences, Wolfeboro, N. H, 90–92; Phillips Andover Acad, 96–03, physics, 07–08, geog, 16–24. A.A; Hist. Sci. Soc.

Brewster, Dr. J(oseph) F(ergus), National Bureau of Standards, Washington, D. C. *Chemistry.* Barksdale, Md, Aug. 24, 79. A.B, Del. Col, 98, A.M, 03; Ph.D, Berlin, 12. Instr. chem, Del. Col, 00–05; commercial chemist, 05–09; asst. chemist, N. C. Exp. Sta, 12–13; org. chemist, bur. chem, U. S. Dept. Agr, 14–21; research chemist, La. Sugar Exp. Sta, 21–27; *senior technologist, Bur. Standards, 27–* Capt, Sanit.C. and C.W.S, 18–19. Chem. Soc. Enzymes; brucin; l-oxyprolin; kafirin; p-nitrotoluene; sugar chemistry and technology.

Brewster, Prof. R(ay) Q(uincy), University of Kansas, Lawrence, Kans. *Chemistry.* Guthrie, Okla, Nov. 27, 92. A.B, Ottawa (Kans), 14; fellow, Kansas, 14–15, A.M, 15; fellow, Chicago, 17–18, Ph.D, 19. Asst. instr. *chem, Kansas,* 15–17, asst. prof, 19–21, assoc. prof, 21–28, *prof, 28–, chairman dept, 40–* Chem. Soc; Kans. Acad. (treas, 30). Organic chemistry; thiourea and thiazoles; organic halides; iododiphenyl ethers.

Breyer, Frank G(ottlob), 420 Lexington Ave, New York, N. Y. *Chemistry, Metallurgy.* Baltimore, Md, Dec. 24, 86. A.B, Hopkins, 08, A.M, 10. Research chemist, N. J. Zinc Co. of Pa, 10–12, chief chemist, 12–17; chief research and develop, N. J. Zinc Co. of N. Y, 17–27; *partner, Singmaster and Breyer, 27–* Modern Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. (chairman, Lehigh Valley sect, 18, councilor, N. Y. sect, 30); Electrochem. Soc; fel. Inst. Chem. (councilor); Min. and Metal. Eng; Soc. Test. Mat. (cmt, E-1, 28–); Asn. Consulting Chem. and Chem. Eng. (pres); N. Y. Miner. Club; Chemists' Club. Metallurgy of magnesium and zinc; manufacture of pigments; paint; rubber; metals; metallurgical engineering; inventions; graphic arts.

Brice, Dr. Brooks A(rthur), U. S. Department of Agriculture, Chestnut Hill, Philadelphia, Pa. *Physics.* Colorado Springs, Colo, March 11, 04. A.B, Colo. Col, 25; A.M, Dartmouth Col, 27; Ph.D, N. Y. Univ, 30. Asst. physics, Dartmouth Col, 25–27; N. Y. Univ, 27–30; assoc. physicist, food and drug admin, *U. S. Dept. Agr,* 30–39, *senior physicist, east. regional research lab, 39–* Summers, bur. pub. roads, U. S. Dept. Agr, 25; Am. Tel. and Tel. Co, 26; Naval Research Lab, 30. Physical Soc; Optical Soc; Inter-Soc. Color Council; Philos. Soc. Wash. Molecular spectra; spectrophotometry; colorimetry.

Brick, Dr. R(obert) M(aynard), 14 Mansfield St, New Haven, Conn. *Physical metallurgy.* Atlantic City, N. J, Nov. 18, 08. Met.E, Lehigh, 29; Ph.D, Yale, 33. Metallurgist, Aluminum Co. of Amer, 29–30; Sterling fellow, *Yale,* 33–34, asst. *metal,* 34–42, *asst. prof, 42–* Min. and Metal. Eng; Soc. Metals; Inst. Metals, London. Structures and properties of metals and alloys.

Brickner, Dr. Richard M(ax), Neurological Institute, New York, N. Y. *Neurology.* New York, N. Y, Nov. 20, 96. B.S, Columbia, 21, M.D, 23; Cent. Inst. Heersenonderzoek, Amsterdam, 27. Nat. research fellow, Hopkins, 26; instr. *neur, Columbia,* 28–30, assoc, 30–36, *asst. prof, 36–; assoc. neurologist, Neur. Inst; Mt. Sinai Hosp.* Mem. med. board, Med. Center Cmt. State Sch. Delinquent Boys, Warwick, N. Y, 33; chairman cmt. epilepsy, Cmt. Mental Hygiene, New York, 36. A.A; Neur. Asn. (chairman, multiple sclerosis cmn, 34–); Am. Med. Asn; Asn. Research Nervous and Mental Disease; Harvey Soc; Harvey Cushing Soc; N. Y. Soc. Clin. Psychol; N. Y. Neur. Soc; fel. N. Y. Acad. Med; N. Y. Acad. The frontal lobe function; multiple sclerosis; neuro-anatomy; the autonomic nervous system; migraine; German psychology.

Brickwedde, Dr. F(erdinand) G(raft), National Bureau of Standards, Washington, D. C. ****Physics.* Baltimore, Md, March 26, 03. A.B, Hopkins, 22, A.M, 24, Ph.D, 25. Munsell research assoc, *Bur. Standards,* 25–26, *chief low temperature lab, 26–, lecturer physics, grad. sch, 32–; U. S. Dept. Agr, 39–; collaborating prof. physics, Maryland, 42–* Chairman

cmt. on low temperature scales, Nat. Research Council, 37–, sec'y, cmt. fundamental physical constants; mem. int. cmt. on temperature scales, Int. Inst. du Froid, 36–; Am. Cmt. Annual Tables Physical Constants. Hillebrand prize, 41; award, Wash. Acad. Sciences, 41. A.A; Physical Soc. (councilor, 40–); Chem. Soc; Optical Soc; Philos. Soc. Wash. (pres, 39); Wash. Acad. (ed, 'Jour,' 34–36, v. pres, 39, sec'y, 43). Deuterium; superconductivity; physical properties of matter at low temperatures; low temperature thermometry; thermodynamics; mechanics.

Brickwedde, Mrs. Langhorne H(oward), National Bureau of Standards, Washington, D. C. *Chemistry.* Clearwater, S. C, May 30, 09. B.S, Georgia, 29, fellow, 29–30, M.S, 30; fellow, George Washington, 30–31. Junior scientist physics and chem, *Bur. Standards,* 31–36, asst. physicist, 36–42, *assoc. chemist, 42–* Chem. Soc; Philos. Soc. Wash. Standard cells; electrochemistry.

Bridge, Dr. Joslah, 40 Columbia Ave, Takoma Park, Md. **†Geology.* Norwood, Ohio, July 17, 90. A.B, Cincinnati, 13; fellow, Chicago, 15–17, M.S, 17; Ph.D, Princeton, 29. Asst. geol, Cincinnati, 13–14; instr, Mo. Sch. Mines, 14–15; geologist, Standard Oil Co. of Calif, 19–20; asst. prof. geol, Mo. Sch. Mines, 20–23, assoc. prof, 23–30; paleontologist, *U. S. Geol. Surv,* 30–41, *senior geologist, 41–* Research assoc, Princeton, 28–29; geologist, Bur. Geol. and Mines, Mo, 22–28, 30; Tenn. Geol. Surv, 29. Geol. Soc; Paleont. Soc. Early Paleozoic invertebrate paleontology; stratigraphy.

Bridgeman, Dr. Oscar C(leon), National Bureau of Standards, Washington, D. C. *Physics.* Sunderland, Ont, Can, May 10, 97. B.Sc, Saskatchewan, 16, Nat. Research Council Can. scholar, 19–17, M.A, 19; Austin fellow, Harvard, 20–22, Ph.D, 25. Asst. chem, Saskatchewan, 15; city analyst, Saskatoon, 16–17; asst, Harvard, 19–20; lecturer, Alberta, 22–24; asst. to director, Wolcott Gibbs Mem. lab, Harvard, 24–25; nat. research fellow chem, Mass. Inst. Tech, 25–27; research assoc, *Bur. Standards,* 27–31, physicist, 31–32, *senior physicist, 32–, chief lubrication and liquid fuels sect, 31–* Manly Mem. medal, Soc. Automotive Eng, 31. Soc. Test. Mat; Soc. Automotive Eng. Thermochemistry; equations of state; vapor pressures of liquids; properties of binary and ternary liquid mixtures; properties of fuels and lubricants; viscosity of liquids; friction; relation of fuel and lubricant characteristics to automotive design.

Bridger, Dr. G(rover) L(eon), Tennessee Valley Authority, Wilson Dam, Ala. *Chemical engineering.* Memphis, Tenn, July 11, 11. B.S, Rice Inst, 33, A.M, 35; Ph.D, Iowa State Col, 38. Research chemist, Shell Petrol. Corp, 33–35; instr. chem. eng, Iowa State Col, 36–38; Rice Inst, 38–39; *senior chem. engineer, Tenn. Valley Authority, 39–* Chem. Soc. (chairman, Wilson Dam sect, 41); Chem. Eng. Agricultural by-product utilization; phosphorus; phosphoric acid; phosphates; phosphatic fertilizers; ammonia; ammonium nitrate; catalysts; nitrogen fertilizers.

Bridges, Prof. J(ames) W(infred), Sir George Williams College, Montreal, Que, Can. *Psychology.* Cascumpec, P. E. I, Sept. 14, 85. B.A, McGill, 11; A.M, Harvard, 12, fellow, 12–13, Ph.D, 15. Teacher, pub. schs, P. E. I, 03–08; asst. *psychol,* Harvard, and intern, Psychopathic Hosp, Boston, 13–14; lecturer, Alberta, 14–15; instr, Ohio State, 15–17, asst. prof, 17–21; Toronto, 21–22, assoc. prof, 22–24; *med. faculty,* McGill, 24–29, *prof,* 29–38; *Sir George Williams Col, 38–* Psychologist, Can. Nat. Cmt. Mental Hygiene, 24–30. A.A; Psychol. Asn. Decision types; measuring mental ability; intelligence and social status; abnormal psychology; personality.

Bridges, Dr. Katharine M(ay) Banham (Mrs. J. W. Bridges), Mental Hygiene Institute, 531 Pine Ave, W, Montreal, Que, Can. *Psychology.* Sheffield, Eng, May 26, 97. B.Sc, Manchester, 19; Cambridge, 20–21; M.A, Toronto, 23; D.Phil, Montreal, 34. Lecturer psychol, Toronto, 21–24; nursery sch, McGill, 26–31, asst. prof. psychol, 29–36; *psychologist,* Sch. Psychol. Service, Leicester, England, 36–42; *Mental Hygiene Inst, Montreal, 42–* Psychologist, Can. Nat. Cmt. Mental Hygiene, 24–30. Assoc. Psychol. Asn; fel. Asn. Applied Psychol; fel. British Psychol. Soc. Juvenile delinquency; interests of pre-school age children; character rating; social and emotional development; genetic theory of the emotions; social behavior rating.

Bridges, Ralph W(aldo), Box 772, New Kensington, Pa. *Chemistry.* Martinsville, Ind, Dec. 30, 83. B.S, DePauw, 05; A.M, Indiana, 08. Metal. chemist, Canadian Copper Co, Int. Nickel Co, 08–14; *asst. chief chemist, Aluminum Co. Amer, 19–* Inspector eng. material, U. S. Navy, 16–19. Chem. Soc. (sec'y, Pittsburgh sect, 32–); Soc. Test. Mat; Pa. Chem. Soc. (governor). Analytical methods for the aluminum industry; metallurgy of cobalt, nickel and silver ores of Ontario; determination of beryllium, sodium, silicon and iron.

Bridgham, Prof. Catherine M(itchell), Youngstown College, Youngstown, Ohio. *Biochemistry.* Beaver Falls, Pa, June 30, 02. B.S, Michigan, 25; Ph.D, Pittsburgh, 32. Apprentice engineer, Nat. Tube Co, Ellwood City, Pa, 25–27; asst, Pittsburgh, 27–32, asst. instr, 32–33; instr. biol. and chem, *Youngstown Col,* 34–37, *assoc. prof. chem, 37–* A.A; Chem. Soc; Ohio Acad. Constitution of pectin; qualitative analysis of plants by staining of section methods; botanical microchemistry.

Bridgman, Prof. B(enjamin) W(illiams), State Teachers College, Eau Claire, Wis. *Physics.* Darlington, Wis, June 2, 72. Ph.B, Wisconsin, 06, A.M, 08. Instr. *physics,* Wisconsin, 06–08; *prof,* Westminster Col. (Pa), 08–16; *Wis. State Teachers Col, Eau Claire, 16–* Physical Soc. Melting points of tantalum and tungsten.

Bridgman, Dr. C(harles) S(immons), Ohio State University, Columbus, Ohio. *Physiological optics.* Rochester, N. Y, Jan. 24, 13. A.B, Union Col. (N. Y), 34; M.S, Brown, 35; Ph.D, Rochester, 38; B.S, Ohio State, 40. Asst. psychol, Brown, 35–36; asst. psychol. and instr, exten. div, Rochester, 37–38; *instr. physiol. optics, Ohio State, 38–* Vision.

Bridgman, Dr. J. A(llington), 30 Oak St, Salem, N. J. *Organic chemistry.* Penn Yan, N. Y, July 23, 92. Ch.B, Cornell, 14, Ph.D, 17. Asst. chem, Cornell, 14–17; chemical research, E. I. du Pont de Nemours and Co, 17–20; chief chemist and production manager, Wilbur White Chem. Co, 21–35; *semi-works dept, Jackson lab, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Chemistry of gallium; analytical methods; properties of lacquer solvents; preparation of wax emulsions and their industrial applications; industrial preparation of various organic chemicals.

Bridgman, Prof. Olga (Louise), 1380 Monterey Blvd, San Francisco, Calif. *Psychology.* Jackson, Mich, March 30, 86. A.B, Michigan, 08, M.D, 10; A.M, California, 14, fellow, 14–15, Ph.D, 15; hon. Sc.D, Mills Col, 37. Res. physician, State Sch. for Girls, Geneva, Ill, 10–12; asst. physician, Lincoln State Sch. for Feeble-Minded and Epileptics, 12–13; instr. psychol, *California,* 15–19, asst. clin. prof. *abnormal psychol,* 19–22, assoc. prof, 22–26, *prof, 26–* Director bur. mental hygiene, Dept. Pub. Health, San Francisco. Psychol. Asn; Psychiat. Asn; Am. Med. Asn; Orthopsychiat. Asn; Asn. Mental Deficiency; Nat. Cmt. Mental Hygiene. Abnormal psychology of childhood.

Bridgman, Prof. P(ercy) W(illiams), Harvard University, Cambridge, Mass. **‡Physics.* Cambridge, Mass, April 21, 82. A.B, Harvard, 04, A.M, 05, Ph.D, 08, Sc.D, 34, 39, 41. Fellow and asst. physics, *Harvard,* 08–13, asst. prof, 13–19, prof, 19–26, *Hollis prof. math. and nat. philos, 26–* Rumford, Cresson and Roozeboom medals; Comstock prize; Research Corp. New York award, 37. Nat. Acad; A.A; Physical Soc. (pres, 42); Philos. Soc; Am. Acad; Wash. Acad. (non-res. v. pres, 33). Physical effects of high pressures; electrical conduction in metals; properties of crystals; logic of modern physics.

Bridgman, Dr. Wilbur B(enjamin), University of Wisconsin, Madison, Wis. *Chemistry.* New Wilmington, Pa, Jan. 28, 13. B.Ed, Wis. State Teachers Col, 33; Ph.D, Wisconsin, 37. *Instr. chem, Wisconsin, 37–* Chem. Soc. Colloid chemistry; dielectric constants of solutions of polymers; ultracentrifugal analysis of glycogen.

Bridgwater, E(rnest) R, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Akron, Ohio, Sept. 30, 96. B.S, Mass. Inst. Tech, 18. Chemist, B. F. Goodrich Co, Akron, Ohio, 18–21; Firestone Tire and Rubber Co, 21–23; *E. I. du Pont de Nemours and Co,* 24–30, *manager rubber chem. div, 31–* Chem. Soc. (chairman, rubber div, 31). Rubber chemistry; synthetic rubber.

Bridwell, J(ohn) C(olburn), U. S. National Museum, Washington, D. C. *Entomology.* Pella, Texas, Sept. 23, 77. B.S, Baker, 00–01; fellow, Ohio State, 01–02; Mass. Col, 07. Asst. to state entomologist, Ga, 02; instr. zool, New Hampshire, 03; prof. biol, Pacific (Oregon), 07; instr. zool. and asst. entomologist, Oregon State Col, 07–11; instr. entom, California, 11–13;

asst. supt. entom, Hawaiian Board Agr. and Forestry, 13–16; asst. entom, Bishop Museum, Honolulu, 16–20; specialist Bruchidae, bur. entom, U. S. Dept. Agr, 20–24; business res, India, 24–27; *private research, div. insects, U. S. Nat. Museum, 27–* Expert, tobacco insect investigations, U. S. Dept. Agr, 03. Hawaiian Board Agr. and Forestry exped, W. Africa, S. Africa and Australia, 14–15. Entom. Soc. Wash. Hymenoptera; Xyela; Bethylidae; Ampulicomorpha; Hylaeidae; Coleoptera; biology of Trichobaris; biology of Chrysomelidae; nomenclature; American Hispidae; Bruchidae.

Briegleb, Philip A(nthes), 424 U. S. Courthouse, Portland, Oregon. *Forestry.* St. Clair, Mo, July 23, 06. Drury Col, 24–26; Minnesota, 26; B.S.F, Syracuse, 29, M.F, 30. Instr. forest eng, N. Y. State Col. Forestry, Syracuse, 28–29; junior forester, *Pacific Northwest Forest Exp. Sta, U. S. Forest Service,* 29–34, asst. forester, 35, assoc. forester, 36–41, *forester, 41–* Lecturer, California, 41. Soc. Foresters. Forest survey; forest mensuration.

Brierley, Prof. Jean, Texas State College for Women, Denton, Texas. *Genetics.* Dover, N. H, March 17, 08. B.S, New Hampshire, 30; M.S, Michigan, 31, univ. fellow, 36, Ph.D, 37. Asst. zool, Michigan, 30–36; *asst. prof. biol, Texas State Col. Women, 37–* A.A; Genetics Soc; Eugenics Soc; N. Texas Biol. Soc. Genetic aspect of evolution; Drosophila genetics.

Brierley, Dr. Philip, Plant Industry Station, Beltsville, Md. *Plant pathology.* Dover, N. H, May 19, 99. A.B, Minnesota, 21, M.S, 22; Ph.D, Cornell, 33. Junior pathologist, *bur. plant indust, U. S. Dept. Agr,* 22–27, asst. pathologist, 27–36, assoc. pathologist, 36–40, *pathologist, 40–* A.A; Phytopath. Soc. Diseases of ornamental plants; virus diseases; breeding for disease resistance.

Brierley, Prof. W(ilfrid) G(ordon), University Farm, St. Paul, Minn. *Horticulture.* Dover, N. H, Sept. 9, 85. B.S, Cornell, 06; M.S, State Col. Wash, 13; Ph.D, Mich. State Col, 30. Instr. bot. and hort, Nat. Farm Sch, 07–08; *hort,* State Col. Wash, 09–13; asst. prof, *Minnesota,* 13–17, assoc. prof, 17–36, *prof, 36–* Soc. Plant Physiol; Soc. Hort. Sci. Fruit growing; physiology, anatomy and hardiness of fruit plants.

Brigden, Prof. Robert L, 801 Harrison, Topeka, Kans. *Clinical psychology.* Newark, N. J, May 9, 08. A.B, Col. of Emporia, 30; A.M, Kansas, 31, Ph.D, 34. Asst. instr. psychol, Kansas, 31–34, instr, 34–35; prof, Friends, 35–36; *consulting psychologist,* Wichita Child Guidance Center, 35–39; *Kans. Children's Institutions, 39–* Consulting psychologist, Wichita Child Research Lab, 35. Experimental psychology; clinical and personality psychology.

Briggs, Dr. A(lfred) P(oyneer), University of Georgia School of Medicine, Augusta, Ga. *Medicine.* Aberdeen, S. Dak, Nov. 10, 88. B.S, Colorado, 12; M.D, Washington (St. Louis), 22. Asst. biochem, Washington (St. Louis), 20–23, internal med, 22–24; instr, St. Louis, 24–25, asst. prof, 25–36; *assoc. prof. med. and biochem, sch. med, Georgia, 36–* A.A; Soc. Exp. Biol; Soc. Biol. Chem.

Briggs, Charles H(arold), 3117 Calhoun Blvd, Minneapolis, Minn. *Cereal technology.* Avon, N. Y, June 29, 78. B.S, Cornell, 00; Minnesota, 01–02. *Manager, Howard Wheat and Flour Testing Lab, 07–* A.A; Chem. Soc; Asn. Cereal Chemists. Technology of cereals and cereal products; bibliography of cerealiana; the cereals of the world; science in milling and baking.

Briggs, Charles W(illers), Steel Founders Society, Cleveland, Ohio. *Metallurgical engineering.* Seneca Falls, N. Y, 03. A.B, Stanford, 26, Met.E, 28. Research metallurgist, Standard Oil Co. of Calif, 28–30; Pacatome Ltd, 30–31; metallurgist, U. S. Naval Research Lab, 31–38; *tech. adviser, Steel Founders Soc, 38–* Wm. H. McFadden medal, Am. Foundrymen's Asn, 37; Mehl lecturer, Am. Indust. Radium and X-ray Soc, 41. Soc. Metals; Min. and Metal. Eng; Foundrymen's Asn; Naval Eng; Soc. Test. Mat; Indust. Radium and X-ray Soc. Solidification and contraction of steel; strengths of steels at temperatures near the melting points; gamma ray radiography; steel making; manufacture and testing of steel castings.

Briggs, C(lark) A(rthur), U. S. Department of Agriculture, Washington, D. C. *Physics, Engineering.* Joplin, Mo, June 19, 83. B.S. (E.E), Missouri, 07, A.M, 10. Asst. physics, Missouri, 08–10; asst, Bur. Standards, 10–12, asst. physicist, 12–14, assoc. physicist, 14–23; *live stock weight supervisor, packers and stockyards div, food distribution admin, U. S. Dept. Agr, 23–* Cmt. weighing and measuring devices, Fed. Specifications Board. Assoc. ed, 'Scale Jour,' Chicago. Lieut, U.S.N.R, commanding officer, Naval Communication Reserve, D. C, 30–33. Physical Soc; Philos. Soc. Wash; Wash. Photog. Soc. (pres, 37). Standardization of Ohm tube; large scale construction; test and specifications of railroad scales and grain scales.

Briggs, Prof. David R(euben), University of Minnesota, St. Paul, Minn. *Chemistry.* Fayette, Mo, Oct. 24, 99. A.B, Cent. Col. (Mo), 21; A.M, Missouri, 23; Ph.D, Minnesota, 27. Nat. research fellow, Minnesota, 27–28; Utrecht and Berlin, 28–29; asst. prof. chem, Sprague Mem. Inst, Chicago, 29–36; *assoc. prof. agr. biochem, Minnesota, 36–* Chem. Soc. Colloid and physical chemistry of living processes; electrokinetic phenomena in colloids; water relationships in colloid systems, especially similar phenomena in biological processes.

Briggs, Dr. Frances (Mrs. Hilerd Westley Jenkins), 1853 Polk St, Chicago, Ill. *Physiological chemistry.* San Diego, Calif, Oct. 15, 05. B.S, Illinois, 26, Ph.D, 37; M.S, Tulane, 28. Tech. asst. biochem, Tulane, 26–28; asst. biochemist, Exp. Sta, Tennessee, 28–29; asst. *physiol. chem, col. med, Illinois,* 29–36, *instr, 36–* Immunologist, Haskall lab, E. I. du Pont de Nemours Co, 36. Proteins; immunological chemistry.

Briggs, Prof. Fred N, University Farm, Davis, Calif. *Plant breeding.* Center, Mo, March 9, 96. B.S, Missouri, 18; M.S, California, 22, Ph.D, 25. Asst. pathologist and *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 19–;* asst. prof. *agron, California,* 30–36, assoc. prof, 36–42, *prof, 42–,* asst. agronomist, *Exp. Sta,* 30–36, assoc. agronomist, 36–42, *agronomist, 42–* 2nd lieut, U.S.A, 18. A.A; Phytopath. Soc; Genetic Asn; Soc. Agron. Genetics of disease resistance in plants; breeding of disease resistant varieties.

Briggs, Dr. Garland B(aird), 1008 Morgan Ave, Drexel Hill, Pa. *Mathematics.* Sebrell, Va, Nov. 14, 94. B.S, Virginia, 17, M.S, 22; Ph.D, Princeton, 28. Instr. math, Virginia, 20–22; Princeton, 22–25; prin, The Hun Sch, 25–34; *manager, Int. Business Machine Corp, 34–* Analysis situs.

Briggs, Prof. Geo(rge) M(cSpadden), University of Wisconsin, Madison, Wis. *Agronomy.* Houston, Minn, May, 84. A.B, Minnesota, 16. County agr. agent, 16–19; agron. exten, 19–20; exten. agronomist and assoc. prof. *agron, Wisconsin,* 30–37, *prof, 37–,* asst. county agent leader, 20–32, *assoc. director short course in agr, 32–* Soy-bean culture.

Briggs, Dr. George S(elden), 799 Center Ave, Grandview Heights, Lancaster, Pa. *Plant nutrition.* British India, Dec. 14, 10. B.S, Northwestern, 33; Harvard, 33; Ph.D, Rutgers, 40. Asst. bot, Rutgers, 34–36, plant physiol, 36–40; in charge research in orchid nutrition, Thomas Young Nurseries, N. J, 41–42; *chemist, processes and materials lab, RCA Victor Div, Radio Corp. Amer, 42–* Soc. Plant Physiol; Gas Asn; Ceramic Soc. Effect of boron in the substrate on the rate of nitrate absorption and on nitrogen accumulation in nasturtium.

Briggs, Prof. H(ilton) M(arshall), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal husbandry.* Cairo, Iowa, Jan. 9, 13. B.S, Iowa State Col, 33; M.S, N. Dak. Col, 35; Ph.D, Cornell, 38. Asst. prof. *animal husbandry, Okla. Agr. and Mech. Col,* 36–41, *assoc. prof, 41–* Soc. Animal Production; Asn. South. Agr. Workers. Sheep and wool.

Briggs, Dr. Howard B(ovee), Bell Telephone Laboratories, Murray Hill, N. J. *Physics.* Norfolk, S. Dak, Feb. 13, 90. A.B, Wisconsin, 19, A.M, 21; Ph.D, Chicago, 25. Instr. physics, State Col. Wash, 21–23, asst. prof, 25–29; *research physicist, Bell Tel. Labs, 29–* Optical Soc. Photoelectricity; optical constants of alkali metals; fluorescence.

Briggs, Dr. Leo W(endell), 1016 W. Ninth St, Los Angeles, Calif. *Chemistry.* Grimes, Iowa, Sept. 29, 98. A.B, Simpson Col, 19; Iowa, 19–20; A.M, Columbia, 22, Ph.D, 24. Instr. gen. and inorg. chem, Col. of Wooster, 20–21; research chemist, Air Reduction Co, 23–26; asst. to director research, Combustion Utilities Corp, 26–32; gen. supt. gas dept, Cia. Energia Elec. Rio Grandense, Brazil, 33–39; *mem. research and develop. dept, West. Precipitation Corp, 39–* Chem. Soc. Low temperature carbonization of coal; utilization of low temperature tar; calcination of precipitated calcium carbonate; collection of industrial dusts; determination of particle size; utilization of industrial wastes.

Briggs, Dr. Lyman J(ames), National Bureau of Standards, Washington, D. C. **¹Physics.* Assyria, Mich, May 7, 74. B.S, Mich. State Col, 93, hon. Sc.D, 32; M.S, Michigan, 95, LL.D, 36; Ph.D, Hopkins, 01; D.E, S. Dak. Sch. Mines, 35; Sc.D, George Washington, 37, Georgetown, 39. Physicist, bur. soils, U. S. Dept. Agr, 96–06, physicist in charge biophys. investigations, bur. plant indust, 07–19; physicist and chief div. mechanics and sound, *Bur. Standards,* 20–34, asst. director research and testing, 26–33, *director, 33–* Mem, Nat. Advisory Cmt. Aeronautics, 33–, v. chairman, 42–; chairman subcmt. aircraft materials, 33–, subcmt. aircraft structures, 37–; cmt. fundamental physical constants, Nat. Research Council; chairman, Fed. Specifications Board, 32–; Fed. Fire Council, 33–39; mem, Int. Ice Patrol Board, 33–; pres, Nat. Conf. Weights and Measures, 35–; chairman, Wash. Biophysical Inst. Shared Magellan medal, 22. Nat. Acad; A.A; Physical Soc. (v. pres, 37, pres, 38); Standards Asn. (director); Philos. Soc; Inst. Aeronaut. Sci; hon. fel. Col. Dentists; Am. Acad; Philos. Soc. Wash. (sec'y, 06, pres, 16); Wash. Acad. (pres, 18); Wash. Acad. Med. (director, 37–39); hon. mem. Physical Soc. Eng; Newcomen Soc. Aerodynamical characteristics of projectiles, bombs and aerofoils in a high-speed windstream; acceleration of gravity at sea; gyroscopic stabilization; aerodynamics; properties of liquids under negative pressures; defense projects.

Briggs, Dr. Robert W(illiam), Lankenau Hospital Research Institute, Philadelphia, Pa. *Embryology.* Watertown, Mass, Dec. 10, 11. B.S, Boston Univ, 34; Ph.D, Harvard, 38. Austin teaching fellow biol, Harvard, 35–36, asst, 36–38; asst, McGill, 38–39, research fellow, 39–41, research assoc. zool, 41–42; *biologist, Lankenau Hosp. Research Inst, 42–* Asn. Cancer Research; Soc. Zool; Soc. Growth and Develop. Physiology of development; abnormal growth in embryos and larvae.

Briggs, Prof. Thomas R(oland), 113 Ithaca Road, Ithaca, N. Y. *Physical chemistry.* Huddersfield, Eng, Sept. 2, 87. A.B, Cornell, 09, Ph.D, 13. Instr. chem, Worcester Polytech, 12–14; asst. prof. physical chem. and electrochem, *Cornell,* 15–25, *prof. physical chem, 25–* Assoc. director research, T. A. Edison, Inc, West Orange, N. J, 29– Chem. Soc. Colloid chemistry; electrochemistry; emulsions; phase equilibria; polyhalide systems.

Briggs, Dean W(illiam) Paul, George Washington University, Washington, D. C. *Chemistry.* Washington, D. C, May 29, 03. Ph.G, George Washington, 27, B.S, 28; M.S, Maryland, 30. Assoc. prof. chem, *George Washington,* 28–33, asst. dean *sch. pharmacy,* 30–31, *dean, 31–, prof. pharmacy, 33–* Treas, 'U. S. Pharmacopoeia,' 40– Sec'y, Nat. Drug Trade Conf. Pharmaceut. Asn. Pharmaceutical and plant chemistry.

Brigham, Dr. George D(exter), P. O. Box 547, Savannah, Ga. *Bacteriology.* Meriden, Conn, May 11, 03. B.S, Conn. Agr. Col, 26, M.S, 29; Ph.D, Yale 33. Asst. Storrs Exp. Sta, Conn. State Col, 33–34; director typhus lab, State Board Health, Montgomery, Ala, 34–35; *officer in charge, typhus research lab, U. S. Pub. Health Service, 35–* A.A; Pub. Health Asn; Soc. Trop. Med. Typhus fever; Pasteurella classification; Streptococci in mastitis.

Brigham, Prof. L(ewis) A(lanson), 688 Boylston St, Boston, Mass. *Astronomy.* Greenfield, Mass, Aug. 14, 89. B.S, Boston, 13, A.M, 17. Instr. math, *Boston,* 15–20, asst. prof. astron. and math, 20–29, *prof. astron, 29–* Lick Observatory, California, 26–28. Astron. Soc; Astron. Soc. Pacific.

Brigham, Dr. Reed O(shea), 141 21st St, Toledo, Ohio. *Medicine.* Toledo, Ohio, Dec. 20, 88. B.S, Ohio State, 12; M.S, Illinois, 14; Ph.D, Michigan, 16, M.D, 21. Instr. bot, Cincinnati, 17–18; *staff, Toledo Hosp, 23–* Summers, instr, Winona, 13–18. Am. Med. Asn.

Brighouse, Prof. Gilbert, Occidental College, Los Angeles, Calif. *Experimental psychology.* Hornsea, Eng, May 29, 06. Ph.B, Chicago, 30, M.S, 34; Ph.D, Iowa, 38. Instr. *psychol,* Chicago Junior Col, 32–34; res. assoc, Iowa, 34–36; instr, Illinois, 36–38; assoc. prof, *Occidental Col,* 38–41, *prof, 41–, chairman dept, 38–; instr. indust. design sect, Calif. Inst. Tech, 42–* Assoc. Psychol. Asn. Reading skills; effects of color.

Bright, Graham, Mine Safety Appliances Co, Braddock Ave. and Thomas Blvd, Pittsburgh, Pa. *Electrical engineering.* Pittsburgh, Pa, Nov. 19, 76. E.E, Pittsburgh, 97. Electrician, Consol. Traction Co, 97–99; engineer, Nernst Lamp Co, 99–01; ry. engineer, Westinghouse Elec. and Mfg. Co, 01–13, engineer in charge mining sect, eng. dept, 13–23; mem. firm, Howard N. Eavenson and Associates, 23–26; sales engineer in charge mining dept, *Mine Safety Appliances Co,* 26–29, *chief elec. engineer, 29–; consultant, 23–* Prof. in charge elec. dept, Westinghouse Tech. Night Sch, 09–16. Trustee, Pittsburgh, 39– Fel. Elec. Eng. (chairman, mines cmt, 15–25); Min. and Metal. Eng. (chairman, Pittsburgh sect, 24–28; mines equipment cmt, 17–25); Min. Cong; Coal Min. Inst; Eng. Soc. West. Pa. Haulage and hoisting for mines; power plants and use of central station power for mines; development of modern cap lamp and underground lighting.

Bright, H(arry) A(aron), National Bureau of Standards, Washington, D. C. *Chemistry.* Reading, Pa, Feb. 5, 90. B.S, Pa. State Col, 12; M.S, George Washington, 27. Chemist, Standard Steel Car Co, 12; Gen. Chem. Co, 13; asst. chemist, *Bur. Standards,* 13–20, assoc. chemist, 20–29, *chemist, 29–* Chem. Soc. Analytical chemistry; metallurgical analysis.

Bright, Dr. J(ohn) Russell, 9903 Beaconsfield, Detroit, Mich. *Chemistry.* Trotwood, Ohio, Nov. 3, 08. A.B, Manchester Col, 30; A.M, Ohio State, 38, Ph.D, 40. Instr. *chem,* Jefferson Township High Sch, Dayton, Ohio, 30–37; asst, Ohio State, 37–40; *instr, Wayne, 40–; chemist, control lab, Gelatin Products Co, 41–* Chem. Soc. Physical chemistry; inorganic chemistry; addition compounds of tertiary amines; molecular surface energy of sulfur dioxide addition compounds.

Bright, Dr. Willard M(ead), 42 Kirkland St, Cambridge, Mass. *Physical chemistry.* New York, N. Y, March 26, 14. B.S, Toledo, 36, M.S, 37; Pittsburgh, 37–38; A.M, Harvard, 41, Ph.D, 42. Teaching fellow, Toledo, 36–37; Pittsburgh, 37–38; Harvard, 38–42, tutor, 41–42; *research chemist, Kendall Co, 41–* Chem. Soc. Reaction kinetics in solutions; absorption spectroscopy; molecular structure and chemical bonds; physical properties of high polymers.

Bright, Dr. William C(hambers), New York University, University Heights, New York, N. Y. *Nuclear physics.* Youngwood, Pa, Aug. 15, 15. B.S, Franklin and Marshall Col, 37; Ph.D, N. Y. Univ, 41. *Instr. physics, N. Y. Univ, 41–* Physical Soc. Differential measurements on the scattering of slow neutrons.

Brightman, Prof. Charles L(ewis), 852 Ackerman Ave, Syracuse, N. Y. *Physics.* Providence, R. I, Dec. 20, 83. Ph.B, A.M, Brown, 09; fellow, Clark, 13–15, Ph.D, 15. Asst. *physics,* Wesleyan, 09–10; instr, Mt. Holyoke Col, 10–13; DePauw, 15–16; *Syracuse,* 16–18, asst. prof, 18–20, assoc. prof, 20–26, *prof, 26–* A.A; Physical Soc; Asn. Physics Teachers. Recalescence of steel; thermoelastic relations of steel at high temperatures; indicator solutions; thermal expansion of wood; thermal conductivity.

Brighton, Dr. K(enneth) W(illiam), 3912 Congress St, Bellwood, Ill. *Organic chemistry.* Salt Lake City, Utah, Feb. 16, 12. Utah, 29–31; Ph.D, Hopkins, 36. *Research chemist, Am. Can Co, 36–* Chem. Soc. Derivatives of the alkyl-thioethyl amines.

Brightwell, Prof. W(illiam) T(homas), Clemson Agricultural College, Clemson, S. C. *Horticulture.* Knoxville, Tenn, Jan. 12, 16. B.S, Tennessee, 38; fellow, Mich. State Col, M.S, 40. *Asst. prof. hort, Clemson Agr. Col, and asst. horticulturist, Exp. Sta, 40–* Soc. Hort. Soc. Grape breeding; blueberry testing.

Brill, Dr. A(braham) A(rden), 88 Central Park W, New York, N. Y. *Psychiatry.* Kanczuga, Austria, Oct. 12, 74. Ph.B, N. Y. Univ, 01; M.D, Columbia, 03. Asst. physician, Cent. Islip State Hosp, 03–08; Psychiat. Clinic, Zurich, 07–08; asst. mental diseases, Bellevue Hosp, 08–11; asst. visiting physician, Neur. Hosp, 09–11; chief neur. dept, Bronx Hosp, 12; asst. neur. and psychiat, Vanderbilt Clinic, 08–14; *lecturer* abnormal psychol. and psychoanal, N. Y. Univ, 14–25; *psychoanal. and psychosexuality, Columbia, 29–* Chief psychiat. clinic, Columbia, 13–14, adj. prof, N. Y. Post-Grad. Med. Sch, 14–16. A.A; Psychiat. Asn; Psychoanal. Asn. (pres, 20, 29–35); Psychopath. Asn; Am. Med. Asn; N. Y. Psychiat. Soc; N. Y. Soc. Clin. Psychiat. (pres, 32–34); N. Y. Psychoanal. Soc. (pres, 10–12, 22–35); N. Y. Neur. Soc. (pres, 41); fel. N. Y. Acad. Med. Abnormal psychology; psychoanalysis; neurology.

Brill, George M(ackenzie), 19 Kingston Ave, Poughkeepsie, N. Y. *Mechanical engineering.* Poughquag, N. Y, March 24, 66. M.E, Cornell, 91, M.M.E, 05. Engineer of tests,

Solvay Process Co, Syracuse, N. Y, 91–96, chief engineer, Detroit, Mich, 96–97; gen. engineer, Swift and Co, Chicago, Ill, 97–00; *consulting engineer, 00–* Chairman jury awards, Pan-Pacific Expos, 15. Major, O.R.C, 17; chief requirements sect, Emergency Fleet Corp, 18. A.A; Mech. Eng. (manager, 04–07, v. pres, 10–12); Am. Geog. Soc.

Brill, Dr. H(arold) C(lifford), 1411 Hamilton St, Wilmington, Del. *Chemistry.* Steubenville, Ohio, March 3, 09. B.S, Muskingum Col, 30; M.S, Ohio State, 33, Sodium Aluminate Co. fellow, 33–35, Ph.D, 35. Asst, Ohio State, 32–33; *chemist, Krebs pigment and color div, E. I. du Pont de Nemours and Co, 35–* Chem. Soc. White pigments; foaming and priming of steam boilers.

Brill, Prof. Harvey C(layton), Oxford, Ohio. *Chemistry.* Camden, Ohio, Dec. 29, 81. A.B, Miami (Ohio), 08; Ph.D, Michigan, 11. Asst. prof. chem, Miami (Ohio), 11–13; org. chemist, Bur. Science, P. I, 13–16, chief div. org. chem, 16–18; *prof. chem. and head dept, Miami (Ohio), 18–* Board Food and Drug Inspection, P. I, 14–17; guest, Harvard, 28–29. A.A; Chem. Soc; fel. Inst. Chem; fel. Ohio Acad; Deuts. Chem. Gesell. Organic chemistry; edible and other commercial oils; alcoholic and enzymic fermentation; medicinal plants of the Philippine Islands; synthetic drugs; water purification.

Brill, John L, E. I. du Pont de Nemours and Company, Wilmington, Del. *Chemistry.* New York, N. Y, May 8, 02. B.S, Mass. Inst. Tech, 23, M.S, 24. Chem. engineer, *E. I. du Pont de Nemours and Co, 24–41, asst. to production manager, ammonia dept, 41–* Chem. Soc. Chemical processes.

Brill, Prof. Kenneth G(ray), Jr, 703 Belvoir Ave, Chattanooga, Tenn. *Geology.* St. Paul, Minn, Nov. 16, 10. A.B, Minnesota, 35; James Dwight Dana fellow, Yale, 35–37; M.S. and Ph.D, Michigan, 39. Asst. *geol,* Yale, 36–37; instr, *Chattanooga, 39–40, asst. prof, 40–* Late Paleozoic stratigraphy; invertebrate paleontology.

Brillouin, Prof. Leon (Nicholas), 167 Lloyd Ave, Providence, R. I. **Physics.* Sevres, France, Aug. 7, 89. Ph.D, Paris, 21. Prof, Paris, 28–32; Col. de France, 32–39; gen. director, French Nat. Broadcasting System, 39–40; visiting prof. *physics,* Wisconsin, 41–42; *prof, Brown, 42–* Fellow, Indian Acad. Sciences, Bangalore, 38. Fel. Physical Soc; French Physical Soc. (pres, 38). Theoretical physics; quantum theory; radio; electromagnetic waves.

Brilmyer, Dr. G(eorge) J(oseph), 601 Jefferson St, N. W, Washington, D. C. *Pathology.* New Haven, Ind, May 17, 91. B.S, Alma Col, 13; M.S, Michigan, 18; M.D, George Washington, 25. Instr. biol, Catholic Univ, 14–22, assoc. prof, 22–42; assoc. prof. histol. and embryol, George Washington, 25–27, path, med. sch, 31–33; instr. physiol, *sch. med, Georgetown, 29, assoc. prof. path, 35–, prof, dental sch.* A.A; fel. Soc. Clin. Path; fel. Am. Med. Asn; Wash. Soc. Path; Biol. Soc. Wash. Biology.

Brimhall, Dr. Dean R, Box 267, Franklin Station, Washington, D. C. *Psychology.* Provo, Utah, Dec. 11, 86. A.B, Brigham Young, 13; A.M, Columbia, 16, Ph.D, 20. Prof. psychol, Brigham Young, 16–22; sec'y-treas, Psychol. Corp, 22–26; business and private research, Utah Pacific Airways, Inc, 26–35; adviser on labor relations, Works Progress Admin, 35–38; asst. to chairman, Civil Aeronaut. Authority, 38–40; *director research, Civil Aeronaut. Admin, 40–* Asst, Columbia, 17–18. Director, State Planning Board, Utah, 35. Co-editor, 'Am. Men of Science,' 21. A.A; Psychol. Asn. Inheritance of mental traits; tests for aviators.

Brimley, Dr. C(lement) S(amuel), 515 Washington St, Raleigh, N. C. *Zoology.* Great Linford, Eng, Dec. 18, 63. Bedford Co. Sch, England; LL.D, North Carolina, 36. Asst, *div. entom, State Dept. Agr, N. C, 19–40, assoc, 40–* Soc. Ichthyol. and Herp; N. C. Acad. (pres, 13); N. C. Bird Club (pres, 37); Raleigh Bird Club (v. pres, 37, pres, 40); Raleigh Nat. Hist. Club (sec'y, 08–14, v. pres, 15, pres, 16). Entomology and herpetology of North Carolina.

Brimm, Dr. E(ugene) O(skar), 166 Kinsey Ave, Kenmore, N. Y. *Inorganic chemistry.* Sheboygan, Wis, July 7, 15. B.S, Wisconsin, 38; M.S, Illinois, 38, Ph.D, 40. *Research chemist, Linde Air Products Co, 40–* Chem. Soc. Rare earths, particularly separation; rhenium.

Brindley, Prof. Paul, University of Texas School of Medicine, Galveston, Texas. *Pathology.* Maypearl, Texas, Dec. 27, 96. B.S, Texas, 23, M.D, 25. Instr. *path, sch. med, Texas,* 25–26, adj. prof, 26–27, assoc. prof, 27–29, acting head dept, 28–29, *prof. and head dept, 29–* Pathologist, John Sealy Hosp, 29–; consultant pathologist, U. S. Marine Hosp, 31– Asn. Path. and Bact; Am. Med. Asn; fel. Col. Physicians; fel. Soc. Clin. Path; South. Med. Asn; Int. Asn. Geog. Path; Int. Asn. Med. Mus. Aortic aneurisms; gastric, nerve tissue and lung malignancies; myositis fibrosa; experimental anemias; experimental tumor.

Brindley, Dr. T(om) A(lbert), 614 S. Adams St, Moscow, Idaho. *Entomology.* Madison, Wis, Nov. 18, 06. B.S, Iowa State Col, 28, M.S, 29, Ph.D, 34. Asst, Iowa State Col, 28–31; asst. entomologist, bur. entom, *U. S. Dept. Agr,* 31–34, *bur. entom. and plant quarantine,* 34–37, *assoc. entomologist, 37–* Asn. Econ. Entom; Entom. Soc. Amer. Insect physiology; economic entomology.

Brink, Dr. Frank, Jr, University of Pennsylvania, Philadelphia, Pa. *Biophysics.* Easton, Pa, Nov. 4, 10. B.S, Pa. State Col, 34; John W. White fellow from Pa. State Col, Calif. Inst. Tech, 34–35, M.S, 35; Johnson scholar, Pennsylvania, 35–38, jr. fellow and res. fellow, 38–39, Ph.D, 39. Lalor Foundation fellow, 39–40; instr. physiol, med. col, Cornell, 40–41; *assoc. and lecturer biophys, Pennsylvania, 41–* Physiol. Soc. Phila. Physical chemistry of cellular activity; physical nature and chemical control of periodicity in nerve cells.

Brink, Prof. Raymond W(oodard), University of Minnesota, Minneapolis, Minn. *Mathematics.* Newark, N. J, Jan. 4, 90. B.S, Kans. State Col, 08, B.S. (E.E), 09; A.M, Harvard, 15, Ph.D, 16, traveling fellow, Paris, 16–17. Instr. *math,* Idaho, 09–12; *Minnesota,* 12–13, 17–19, assoc. prof, 19–28, *prof, 28–* Lecturer, Edinburgh, 19–20. A.A. (councilor); Math. Soc; Math. Asn. (pres, 41); Edinburgh Math. Soc. Analysis.

Brink, Prof. R(oyal) Alexander, University of Wisconsin, Madison, Wis. **Botany, Genetics, Plant physiology.* Woodstock, Ont, Can, Sept. 16, 97. B.S.A, Toronto, 19; M.S, Illinois, 21; Sc.D, Harvard, 23. Asst. chemist, West. Can. Flour Mills, 19–20; asst. prof. *genetics, Wisconsin,* 22–27, assoc. prof, 27–31, *prof, 31–, chairman dept, 39–* Nat. research fellow, Berlin and Birmingham, 25–26. A.A; Soc. Nat. (treas, 36–39); Genetics Soc; Genetic Asn; Bot. Soc; Soc. Agron; Wis. Acad. Pollen physiology; dynamics of the gene; reciprocal translocations in maize; genetic properties of the endosperm; plant breeding.

Brink, Prof. V(ernon) C(uthbert), 2336 First Ave, W, Vancouver, B. C, Can. *Agronomy.* Calgary, Alta, Nov. 15, 13. B.S.Agr, British Columbia, 34, M.S.Agr, 36; Ph.D, Wisconsin, 41. Asst, Dom. Range Exp. Sta, Kamloops, B. C, Can, 35–37; instr. and later *asst. prof. agron, British Columbia, 41–* Soc. Agron; Can. Soc. Tech. Agr. Nutritional value of forage crops; plant ecology.

Brinker, Prof. William E(arle, Jr), Northwestern University, Evanston, Ill. *Chemical engineering.* Wilkinsburg, Pa, March 14, 06. B.S, Pittsburgh, 28, Ph.D, 40; indust. fellow, Mellon Inst, 36–37. Thermal engineer, Swindell-Dressler Co, 28–29; instr. *chem. eng,* Pittsburgh, 29–35, asst. prof, 35–37, *assoc. prof,* 37–42; *Northwestern, 42–* Inst Chem. Eng; Chem. Soc. Characteristics of a diffusion type thermal conductivity cell.

Brinkhous, Dr. Kenneth M(erle), State University of Iowa College of Medicine, Iowa City, Iowa. *Pathology.* Clayton Co, Iowa, May 29, 08. A.B, Iowa, 29, M.D, 32. Asst. *path, sch. med, Iowa,* 32–33, instr, 33–35, assoc, 35–37, *asst. prof, 37–* A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Path; Cent. Soc. Clin. Research. Physiology of blood clotting; hemorrhagic diseases; vitamin K; vitamin E and muscular dystrophy.

Brinkley, Prof. Stuart R(obert), 334 Yale Ave, New Haven, Conn. *Inorganic chemistry.* Augusta, Ga, March 18, 89. A.B, Emory, 09; A.M, Columbia, 14; Ph.D, Yale, 20. Instr. science, Presbyterial Inst, Blackshear, Ga, 09–11; prof, Morris Harvey Col, 11–13; instr. *chem,* Mich. Col. Mines, 14–18; *Yale,* 20–23, asst. prof, 23–28, *assoc. prof, 28–* A.A; Chem. Soc. (treas, New Haven sect, 24–28, chairman, 28–29); Inst. Chem. (councilor, 41–); N. Y. Acad. General chemistry; vapor pressure and solubilities in liquid ammonia solutions; chemical education.

Brinkmann, Prof. H(einrich) W(ilhelm), 403 Walnut Lane, Swarthmore, Pa. *Mathematics.* Hanover, Germany, Nov. 29, 98. A.B, Stanford, 20; A.M, Harvard, 23, Sheldon

fellow, 23–24, Ph.D, 25. Instr. *math*, Harvard, 24–27, asst. prof, 27–33; *assoc. prof, Swarthmore Col, 33–* Math. Soc; Math. Asn. Differential geometry; algebra; theory of numbers.

Brinley, Dr. Floyd J(ohn), U. S. Public Health Service, Cincinnati, Ohio. *Zoology.* Neosho, Mo, June 30, 97. B.S, Colo. Agr. Col, 19; Am. Cyanamid Co. fellow, 24–25; A.M, Pennsylvania, 26, Ph.D, 27. Asst. entomologist, bur. entom, U. S. Dept. Agr, 19–24; instr. zool, Pennsylvania, 26–27; nat. research fellow, 27–28; prof. physiol, Battle Creek Col, 28–30; asst. prof. zool. and physiol, N. Dak. Col, 30–37, assoc. prof, 37–38; *biologist, U. S. Pub. Health Service, 39–* A.A; Soc. Zool. General and insect physiology; heart beat of lower vertebrates; innervation and effect of drugs on the hearts of fish embryos; transplantation of embryonic fish tissue; origin of muscular movement in fish embryos; development of heart of teleost and elasmobranch fishes; physiological effects of stream pollutants upon aquatic life.

Brinton, C(lement) S(tarr), 213 Euclid Ave, Haddonfield, N. J. *Chemistry.* West Chester, Pa, Feb. 3, 75. Pa. State Nor. Sch; Pennsylvania. Asst. science, Pa. State Nor. Sch, West Chester, 93–96; asst. chemist, State Food Inspection Lab, West Chester, Pa, 96–04; food inspection chemist, bur. chem, U. S. Dept. Agr, 04–06, in charge Phila. branch, 06–22, *chief Phila. sta, food and drug admin*, 22–40, *Fed. Security Agency, 40–* Chem. Soc. (sec'y, Phila. sect, 09–15, chairman, 16, sec'y, agr. and food div, 22–27); fel. Inst. Chem; Agr. Chem; Pharmaceut. Asn; Franklin Inst. Food and drug analysis.

Brinton, Dr. Paul H(enry) M(allet)-P(revost), 1064 Linda Vista Way, Pasadena, Calif. *Chemistry.* Richmond, Va, May 8, 82. B.S, Minnesota, 12, M.S, 13, Ph.D, 16. Commercial chemist, 02–07; instr. chem, Minnesota, 09–12; asst. prof, Arizona, 12–13, assoc. prof, 13–14, prof. anal. chem, 14–21; chief div, Minnesota, 21–27; *consulting chemist, 27–* Visiting prof, Southern California, 32–41. Capt, C.W.S. A.A; Chem. Soc; Deuts. Chem. Gesell. Analytical, forensic and physical-inorganic chemistry; rare elements.

Briscoe, Prof. C(harles) F(rancis), State College, Miss. *Bacteriology.* Depauw, Ind, Nov. 1, 68. A.B, Indiana, 99; A.M, Illinois, 05, Ph.D, 12. Teacher and prin, schs, Ind, 88–93; Ill, 99–03; teacher, Ohio Valley Nor. Col, 96–97; instr. *bacter*, Illinois, 05–12; *prof, Miss. State Col, 12–, chief bacter, Exp. Sta.* A.A; Soc. Bact. Tubercle bacilli and tuberculosis of farm animals; bacteriological effects of green manures; serodiagnosis of pregnancy in mares; inoculation of soy-beans and cow peas; inoculation of sesban; effect of strains of nodule bacteria and lime on the response of soy-beans to artificial inoculation.

Briscoe, Dean Herman T(hompson), Indiana University, Bloomington, Ind. *Chemistry.* Shoals, Ind, Nov. 6, 93. A.B, Indiana, 17, A.M, 23, Ph.D, 24. Instr. chem, Colby Col, 20–22; *Indiana*, 22–24, asst. prof, 24–26, assoc. prof, 26–28, prof, 28–38, chairman dept, 38–41, dean faculties, 40–42, *v. pres, 42–* Chem. Soc. Inorganic and physical chemistry; dolomitic limestones and limes; qualitative analysis; non-aqueous solutions; theories of acidity; molecular structure.

Brisley, Harold R(oy), 1221 Ninth St, Douglas, Ariz. *Entomology.* Prescott, Ariz, May 15, 95. B.S, Arizona, 20; M.S, California, 22. *Entomologist and smoke expert*, United Verde Exten. Mining Co, 20–33; *Phelps Dodge Mining Co, 33–* A.A. Industrial smoke and vegetation; blight of cucurbits caused by Macrosporium cucumerinum; Chrysomelid beetles.

Brison, Prof. F(red) R(obert), College Station, Texas. *Horticulture.* Lafayette, Texas, April 6, 99. B.S, Agr. and Mech. Col. Texas, 21; M.S, Mich. State Col, 31. Asst. prof. hort, Agr. and Mech. Col. Texas, 21–23; county agent, San Saba County, Texas, 23–25; assoc. prof. *hort, Agr. and Mech. Col. Texas*, 25–38, *prof, 38–* Texas Pecan Growers' Asn. (pres, 35). Pecans; propagation of horticultural plants.

Bristol, Dr. L(everett) D(ale), 195 Broadway, New York, N. Y. *Public health.* Chicago, Ill, June 2, 80. B.S, Wesleyan, 03; M.D, Hopkins, 07; Dr.P.H, Harvard, 18. Instr. bacter. and path, Syracuse, 07–08; clin. asst. med, Minnesota, 08–12; asst. prof. bacter, Syracuse, 12–13, assoc. prof, 13–14; prof. bacter. and hygiene, North Dakota, 14–16; asst. prev. med. and hygiene, Harvard, 17; state commissioner health, Maine, 17–21; prof. pub. health, Minnesota, 22–23; health officer and director, Health Demonstration, Cattaraugus County, N. Y, 23–25; exec. officer, Bellevue-Yorkville health demonstration, Milbank Mem. Fund, New York, 25–29; *health director, Am. Tel. and Tel. Co, New York, 29–* Director, State Pub. Health Labs, N. Dak, 14–16. Mem. tech. advisory cmt. neighborhood health develop, City Dept. Health, New York. A.A; Pub. Health Asn. (cmt. admin. practice); Am. Med. Asn. (council indust. health; chairman cmt. educ. and publications); Soc. Bact; Asn. Path. and Bact; Tuber. Asn; Asn. Indust. Physicians and Surg; Council Indust. Health; N. J. Tuber. League (exec. cmt); N. J. Health and Sanit. Asn. (pres, 39); N. Y. Tuber. and Health Asn. (director); Pub. Health Asn. New York (exec. cmt); hon. mem. Soc. Safety Eng. Can; hon. mem. Int. Soc. Med. Health Officers. Public health; industrial hygiene; tuberculosis; mediastinal tumors; etiology of cancer; infectious diseases; rural sanitation; air conditioning and industrial health; infantile paralysis; appraisal of industrial health programs; health, safety and national defense; district health administration in cities.

Bristow, Dr. Leonard, University of Illinois, Urbana, Ill. *Mathematics.* Milford, Ill, Sept. 24, 04. A.B, Colo. Col, 26; scholar, Illinois, 26–27, A.M, 27, fellow, 27–28, 29–30, Ph.D, 30. Asst. *math, Illinois*, 28–29, *instr, 30–* Math. Soc. Expansions of functions.

Britt, Prof. Lewis C(lemence), 221 N. 12th St, Corvallis, Oregon. *Pharmaceutical chemistry.* Roseburg, Oregon, Oct. 18, 04. B.S, Oregon State Col, 26; M.S, Washington (Seattle), 28, Ph.D, 37. Teaching fellow, Oregon State Col, 25, instr, 26–27; teaching fellow, Washington (Seattle), 29; asst. prof. *pharmaceut. anal, Oregon State Col*, 30–39, *assoc. prof, 39–* Chemist, State Board Pharmacy, Oregon, 30– Phytochemistry.

Britt, Dr. Steuart Henderson, National Research Council, Washington, D. C. *Psychology.* Fulton, Mo, June 16, 07. A.B, Washington (St. Louis), 31, fellow, 31–32, A.M, 32; fellow, Yale, 32–35, Ph.D, 35; Columbia, 35–36, summers, 37, 38. Asst. psychol, Yale, 33–35; research assoc, div. psychol, inst. educ. research, Teachers Col, Columbia, 35–36; *asst. prof. psychol, George Washington, 36–; exec. director office psychol. personnel, Nat. Research Council, 42–; chief mil. advisory sect, nat. roster sci. and specialized personnel, War Manpower Cmn, 41–* Summer, lecturer, Virginia, 41. A.A; Psychol. Asn. (sec'y Washington-Baltimore branch, 38, v. pres, 39, pres, 40); Soc. Psychol. Study Social Issues; Asn. Applied Psychol. (sec'y board affiliates, 41–); Sociol. Soc; East. Psychol. Asn; East. Sociol. Soc; South. Soc. Philos. and Psychol. Social, legal and applied psychology.

Brittain, Dean W(illiam) H(arold), Macdonald College, Que, Can. *Entomology.* Fredericton, N. B, Sept. 30, 89. B.Sc. (Agr), McGill, 11; M.S.A, Cornell, 20, Ph.D, 22. Asst. biol, McGill, 11; provincial entomologist and plant pathologist, B.C, 12–14; provincial entomologist, N. S, and prof. zool, Agr. Col, Truro, 14–26; *prof. entom, McGill, 26–, dean faculty agr. and v. prin, Macdonald Col, 34–*, acting prin, univ, 37. Commander de l'Ordre du Merite agricole, 41. Entom. Soc. Amer; Soc. Econ. Entom; fel. Royal Soc. Can; Can. Soc. Tech. Agr. (past pres); Ont. Entom. Soc. (past pres). Economic entomology; fruit insects.

Britten, Rollo H(erbert), U. S. Public Health Service, Bethesda, Md. *Public health.* Nebr, Dec. 30, 89. A.B, Harvard, 12; A.M, George Washington, 22. *Statistician, nat. inst. health, U. S. Pub. Health Service.* Fel. Pub. Health Asn. (sec'y hygiene of housing cmt); Statist. Asn. Housing; morbidity surveys; physical status; epidemiology.

Brittingham, Dr. W(illia)m H(enry), Agricultural and Mechanical College of Texas, College Station, Texas. *Plant breeding.* Portsmouth, Va, Aug. 11, 07. B.S, Pa. State Col, 28; A.M, Princeton, 29; Ph.D, Maryland, 42. *Asst. agronomist, pasture investigations, Agr. and Mech. Col. Texas, 41–* Soc. Agron; Genetics Soc. Evaluation and improvement of pasture grasses.

Britton, Dr. Edgar C, 1408 Crane Court, Midland, Mich. *Organic chemistry.* Rockville, Ind, Oct. 25, 91. A.B, Michigan, 14, Ph.D, 18. Teaching asst, Michigan, 14–18, instr. org. chem, 18–20; *chemist, Dow Chem. Co, 20–, director org. research lab, 30–* A.A; Chem. Soc. Organic processes and products, including phenol, aniline, substituted phenols, fungicides, insecticides, dye intermediates, chlorination, cracking organic compounds, ethylene glycol, acetic acid and ethylene chlorohydrin.

Britton, Prof. Jack R(olf), 929 15th St, Boulder, Colo. *Mathematics.* St. Petersburg, Russia, Jan. 27, 08. A.B, Clark, 29; Ph.D, Colorado, 36. Instr, high sch, 29; *eng. math, Colo-*

rado, 29–37, *asst. prof, 37–* Math. Soc; Math. Asn. Tchebychef orthogonal polynomials.

Britton, Prof. Max E(dwin), Northwestern University, Evanston, Ill. *Botany.* Hymera, Ind, Jan. 26, 12. A.B, Ind. State Col, 34; M.S, Ohio State, 37; Ph.D, Northwestern, 41. Instr, high sch, Ind, 34–35; asst. *bot,* Ohio State, 35–37; *Northwestern,* 37–38, instr, 38–41, *asst. prof, 42–* A.A; Bot. Soc; Ecol. Soc; Limnol. Soc; Ill. Acad. Ecology of bog vegetation; taxonomy of freshwater algae.

Britton, Dr. Roswell S(essoms), 99 Claremont Ave, New York, N. Y. *Mathematics.* Shanghai, China, July 3, 97. A.B, Wake Forest Col, 17; Litt.B, Columbia, 23, Ph.D, 33. Pulitzer traveling scholar, 23–24; director dept. journalism, Yenching, 24–27; *instr. math, N. Y. Univ, 29–* Oriental Soc; Royal Asiatic Soc. Sinology; Chinese epigraphy.

Britton, Dr. S(ydney) W(illiam), University of Virginia, Charlottesville, Va. *Physiology.* Devon, Eng, Feb. 24, 92. B.Sc, McGill, 22, Cooper fellow, 21–23, M.D, C.M, 24. Demonstrator physiol, McGill, 21–23, asst, 23–24; nat. research fellow med. sciences, Harvard, 24–26; assoc. *physiol,* Hopkins, 26–28; *prof, dept. med, Virginia, 28–* Guggenheim Mem. Foundation fellow, Cent. Amer, 37–39. A.A; Physiol. Soc; Va. Acad. Temperature effects on animals; pancreas and insulin secretion; maternal and fetal relations; sympathetics and muscular glycogen; differential nervous influences on heart; adrenals, medullary secretion and cortico-adrenal extracts; emotional conditions; salt and water balance; carbohydrate metabolism; pituitary; anoxia; new-world monkeys and sloths; comparative physiology; gravitational influences.

Briwa, Dr. Kathryn E(lizabeth), University of Maine, Orono, Maine. *Foods, Nutrition.* Hudson, N. Y, Nov. 22, 92. A.B, Vassar Col, 15; A.M, Columbia, 29, Ph.D, 40. Asst. chem, Vassar Col, 15–19; instr, Columbia, 20–41; *food specialist, exten. service, Maine, 41–* Asst, Red Cross Training Camp for Nurses, Vassar Col, 18–19. A.A; Chem. Soc; Home Econ. Asn; N. Y. Acad. Calcium content of the normal growing body at a given age.

Brixey, Prof. John C(lark), University of Oklahoma, Norman, Okla. *Mathematics.* Mounds, Okla, June 28, 04. A.B, Oklahoma, 24, A.M, 25; Ph.D, Chicago, 36. Instr. *math, Oklahoma,* 25–30, asst. prof, 30–39, *assoc. prof, 39–* Math. Soc; Math. Asn. Theory of numbers and algebra.

Broadbent, B(essie) M(ay), 724 Earlham Drive, Whittier, Calif. *Entomology.* Factoryville, Pa, Aug. 13, 95. B.S, Pa. State Col, 16. Sci. asst, bur. plant indust, *U. S. Dept. Agr,* 18–19, fed. hort. board, 19–20, junior entomologist, *bur. entom. and plant quarantine,* 20–29, *asst. entomologist, 29–* Asn. Econ. Entom. Biology and control of greenhouse and citrus insects; greenhouse leaf-tier; Narcissus and lesser bulb flies; azalea leaf miner; camphor and California red scale; cyanide fumigation; lubrication oil emulsion.

Broadfoot, Dr. William C(raig), Dominion Laboratory of Plant Pathology, Edmonton, Alta, Can. *Plant pathology.* Fergus, Ont, May 22, 99. B.S, Minnesota, 24, M.S, 26, Am. Cyanamid Co. fellow, 25–27, Niagara Sprayer Co. fellow, 27–28, Ph.D, 32. Asst. plant pathologist, Minnesota, 24–28; *plant pathologist, Dom. Lab. Plant Path, Alta, 28–* Phytopath. Soc; Can. Phytopath. Soc; Can. Soc. Tech. Agr. Cereal diseases; physiologic specialization; cereal rusts; foot and root rots of wheat.

Broadhurst, Prof. J(ean), Teachers College, Columbia University, New York, N. Y. *Bacteriology.* Stockton, N. J, Dec. 29, 73. B.S, Columbia, 03, A.M, 08; Ph.D, Cornell, 14. Teacher, N. J. State Nor. Sch, 03–06; instr. *biol, Teachers Col, Columbia,* 06–14, asst. prof, 14–20, assoc. prof, 20–28, prof, 28–38, *emer. prof, 38–* A.A; Soc. Bact. Bacteria in relation to man; resistance to disease; home and community hygiene; microbiology applied to nursing.

Broadwell, Dr. Samuel J(onathan), 526 Baltimore, Monterey Park, Calif. *Physics.* Bagdad, Calif, Nov. 25, 94. B.S, Throop Col. Technol, 18, Ph.D, Calif. Inst. Tech, 35; M.S, Chicago, 20. Instr. physics, Southern California, 21–24, asst. prof, 24–29; mathematician, Sun Oil Co, 30; asst, California at Los Angeles, 35–40; *research physicist, Calif. Inst. Tech, 40–* Mem. board educ, Alhambra City and High Sch. Dists, Calif, 38–41, pres, 41– X-ray reflection from crystal surfaces; dispersion of water vapor; photoelectricity; gyromagnetic effects.

Brobeck, Dr. John R(aymond), 333 Cedar St, New Haven, Conn. *Physiology.* Steamboat Springs, Colo, April 12, 14. B.S, Wheaton Col, 36; Elizabeth J. Ward fellow, Northwestern, 36–39, M.S, 37, Ph.D, 39; James B. Goodrich scholar, Yale, 40–43, M.D, 43. *Instr. physiol, sch. med, Yale, 43–* Keese prize, Yale, 43. Hypothalamus and blood sugar levels; experimental hypothalamic obesity; physiology of temperature control.

Brock, Dr. B(yron) B(ritton), Box 271, Nkana, Northern Rhodesia. *Economic geology.* Kingston, Ont, Can, July 1, 04. B.A.Sc, British Columbia, 26; Ph.D, Wisconsin, 34. Asst. geologist, Colony of Hong Kong, 26–27; field engineer, Selection Trust, Jugoslavia, 27–28; explor. dept, Britannia Mining and Smelting Co, 29–30; instr. civil eng, British Columbia, 30–31; field geologist, Rhokana Concessions, 34–35, field manager, 35–41; *Royal Naval Vol. Res, 41–* Summers, Geol. Surv. Can, Yukon, 24, Atlin Dist, 25, Hedley, B. C, 26. Metamorphism; general geology of the northwestern part of Northern Rhodesia.

Brock, Frank P(eterson), Bakelite Corp, Bloomfield, N. J. *Chemistry.* Harlan, Iowa, Nov. 10, 82. B.S, Kansas, 07, M.S, 11. Indust. fellow enameled steel, Kansas, 08–09, synthetic resins, 10–13; manufacturer, 14–22; *manager,* Chicago plant, *Bakelite Corp,* 22–32, paper mill, *N. J,* 32–33, *calendering and extrusion materials, 35–* Chem. Soc. Synthetic resins of phenol resinoid types.

Brock, Prof. James E(phraim), Arkansas State College, Jonesboro, Ark. *Physics.* Marion, Ind, Nov. 22, 91. A.B, Indiana, 19, A.M, 23, Ph.D, 28. Teacher, pub. sch, Ind, 10–23; instr. physics, Indiana, 23–24; asst. prof, Agr. and Mech. Col. Texas, 25–26; Purdue, 26–30; engineer, Hazeltine Service Corp, New York, 30–32; prof. physics and math, Brenau Col, 32–34; prof. and chairman dept. physical sciences, Nebr. State Teachers Col, Wayne, 34–41; *prof. physics and head dept, Ark. State Col, 41–* Engineer, Firestone Tire and Rubber Co, Akron, Ohio, 20; Gen. Household Utilities Co, Marion, Ind, 34. A.A; Physical Soc; Ind. Acad. Acoustics; radio; physical chemistry; electrical measurements and instruments.

Brock, Dr. Samuel, 1192 Park Ave, New York, N. Y. *Neurology, Psychiatry.* New York, N. Y, Oct. 8, 93. M.D, Univ. and Bellevue Hosp. Med. Col, 16. Assoc. prof. and later *prof. neur, col. med, N. Y. Univ.* Consulting neurologist, St. Vincent's Hosp, Staten Island; attending neurologist, Hosp. for Joint Diseases, New York; N. Y. Infirmary for Women and Children, 28–; neurologist, N. Y. Neur. Inst, 29–; Bellevue Hosp, 30–; Norwalk Gen. Hosp, Conn. Neur. Asn; Asn. Research Nervous and Mental Disease; Am. Med. Asn; N. Y. Neur. Soc; N. Y. Acad. Med. (sec'y and chairman sect. neur. and psychiat, 40). Clinical neurology; involuntary movements; epilepsy and migraine; unusual varieties of brain malformations and growths; unusual forms of amyotrophic lateral sclerosis; infections of central nervous system; revision of neurological nomenclature; vascular tumors of the brain; the basis of clinical neurology; narcoleptic-cataplectic syndrome; trauma to nervous system.

Brock, Vernon E(ugene), Food Industries Laboratory, Astoria, Oregon. *Fisheries biology.* Fillmore, Calif, June 24, 12. A.B, Stanford, 35. Field investigator, Cmt. Evidence of Depletion of Calif. Sardine, 36; fisheries biologist, *State Fish Cmn, food indust. lab, Oregon State Col,* 36–40, *chief biologist, 40–* A.A; Soc. Ichthyol. and Herp; Wildlife Soc. Systematic ichthyology; ecology of shallow water marine fishes.

Brockbank, Dr. T(homas) W(illiam), 133 E. 58th St, New York, N. Y. *Psychiatry.* Du Bois, Pa, Sept. 19, 93. A.B, St. Bonaventure Col, 15; A.M, Catholic Univ, 16, Ph.D, 18; M.D, Georgetown, 24. Instr. psychol, Catholic Univ, 19–24; Mayo Clinic, and later instr. and assoc. prof. neur, sch. med, Georgetown, 24–31; *director, Catholic Charities Guidance Inst, 31–* Psychiatrist, N. Y. Foundling Hosp, New York. Special psychol. examiner, U.S.A, 18. A.A; Psychol. Asn; Orthopsychiat. Asn; N. Y. Soc. Clin. Psychiat. Psychology; child guidance; psychiatry.

Brocklesby, Dr. H(orace) N(icholas), Pier 92, San Francisco, Calif. *Chemistry.* Yorkshire, Eng, 01. B.Sc, Manitoba, 26, M.Sc, 27; Ph.D, McGill, 35. Asst. chemist, Lever Brothers, Ltd, Winnipeg, 18–22; research chemist, fisheries exp. sta, Fisheries Research Board, Can, 26–38, chief chemist, 38–42; *director research and develop, Farallone Packing Co. div, Borden Co, 42–* Can. Council Nutrition. Fel. Can. Inst. Chem; fel. Royal Soc. Can; fel. Inst. Chem. Gt. Britain and

Ireland. Chemistry and biochemistry of fats and oils and oil soluble vitamins; production, properties and utilization of marine animal oils and associated products; protein supplements.

Brockman, Prof. C(harles) J(oseph), 336 Hill St, Athens, Ga. *Chemistry.* Nazareth, Pa, July 23, 97. A.B, Lehigh, 19, A.M, Ch.E, 21; Ph.D, Columbia, 32. Instr. *chem, Georgia,* 21–24, asst. prof, 24–26, assoc. prof, 26–39, *prof, 39–* C.W.S, O.R.C, 25–, major. Chem. Soc; Electrochem. Soc; Soc. chim. de France; Soc. chim. de Suisse. Electrochemistry; organic chemistry; electronic structure of complex compounds; theories of dissociation in solution; history of chemistry.

Brockman, C(hristian) F(rank), Yosemite National Park, Calif. *Forestry, Botany.* Cincinnati, Ohio, June 4, 02. B.S, Colo. Agr. Col, 24; M.S, Washington (Seattle), 31; fellow, Yale, 35–36. Assoc. park naturalist, Mt. Rainier Nat. Park, 28–41; *park naturalist, Yosemite Nat. Park, 41–* Soc. Foresters. Dendrology; ecology.

Brockman, Dr. Frank G(ottlieb), Research and Development Division, Socony-Vacuum Oil Co, Inc, Paulsboro, N. J. *Chemistry.* York, Pa, Sept. 16, 05. Ph.G, Phila. Col. Pharmacy, 26, Ph.C, 27, B.S, 29; scholar, Pennsylvania, 30–31, M.S, 31, Ph.D, 34. Asst. chem, Pennsylvania, 31–34; instr. physics and anal. chem, Phila. Col. Pharmacy, 34–36, asst. prof, 36–37; *research physical chemist, Socony-Vacuum Oil Co, Inc, 37–* Chem. Soc. Analytical and physical chemistry.

Brockway, Prof. Lawrence O(lin), University of Michigan, Ann Arbor, Mich. *[†]Physical chemistry.* Topeka, Kans, Sept. 23, 07. B.S, Nebraska, 29, M.S, 30; Ph.D, Calif. Inst. Tech, 33. Senior research fellow, Calif. Inst. Tech, 33–37; Guggenheim Mem. Foundation fellow, Oxford and Royal Institution, 37–38; asst. prof. *chem, Michigan,* 38–40, *assoc. prof, 40–* Prize, Am. Chem. Soc, 40. Chem. Soc. Determination of structures of gas molecules by electron diffraction; crystal structure determinations by x-rays.

Brod, Dr. John S(ydney), 115 W. Hill Lane, Wyoming, Ohio. *Organic chemistry.* Dayton, Ohio, July 5, 13. A.B, Swarthmore Col, 34; M.S, Ohio State, 35, Procter and Gamble fellow, 36–37, Ph.D, 37. Teaching asst, Ohio State, 34–36; *research chemist, Procter and Gamble Co, 37–* Chem. Soc. Polymerization; fats and oils; cellulose.

Brode, Prof. H(oward) S(tidham), 2425 Washington Ave, Santa Monica, Calif. *Zoology.* Stark Co, Ill, Aug. 28, 66. Fellow, Chicago, 94–96, B.S, Ph.D, 96. Asst. zool, Illinois, 89–93; instr. science, Beloit, 96–99; prof. biol. and curator museum, *Whitman Col,* 99–35, *emer. prof, 35–* Am. Asn. Advancement Science table, Naples Zool. Sta, 26. Summers, instr, Marine Biol. Lab, Woods Hole, 95; Puget Sound Marine Sta, 05–25; prof, Missouri, 14. A.A; Ecol. Soc; Soc. Mammal; Pub. Health Asn; Archaeol. Inst. Amer. (lecturer, 27); Asn. Mus; Wash. Tuber. Asn. (pres, 24–29). Morphology of annelids; ecology; anthropology.

Brode, Prof. Robert B(igham), University of California, Berkeley, Calif. *[‡]Physics.* Walla Walla, Wash, June 12, 00. B.S, Whitman Col, 21; Ph.D, Calif. Inst. Tech, 24. Teaching fellow, Calif. Inst. Tech, 21–24; assoc. physicist, Bur. Standards, 24; Rhodes scholar, Oxford, 24–25; nat. research fellow *physics,* Göttingen, 25–26; Princeton, 26–27; asst. prof, *California,* 27–30, assoc. prof, 30–32, *prof,* 32– Visiting assoc. prof, Mass. Inst. Tech, 32; Guggenheim Mem. Foundation fellow, Cambridge and London, 34–35. A.A; fel. Physical Soc. Absorption coefficients of slow electrons in gases and metal vapors; cosmic rays.

Brode, Prof. Wallace R(eed), Ohio State University, Columbus, Ohio. *[†]Chemistry, Spectroscopy.* Walla Walla, Wash, June 12, 00. B.S, Whitman Col, 21; M.S, Illinois, 22, Ph.D, 25. Asst. chem, Illinois, 21–24; asst. chemist, Bur. Standards, 24–26; assoc. chemist, Bur. Efficiency, 26; Guggenheim Mem. Foundation fellow, Leipzig, Zurich and Liverpool, 26–28; asst. prof. *chem, Ohio State,* 28–32, assoc. prof, 32–39, *prof, 39–,* research assoc, Stone lab, 41. Summer, asst. prof, California, 30. Perkins Observatory eclipse exped, Maine, 32. Harvard-Mass. Inst. Tech. eclipse exped, Ak-Bulak, Siberia, 36. Mem. div. chem. and chairman cmt. application of spectroscopy to chem, Nat. Research Council, 39– Del, Int. Union Pure and Applied Chem, Lucerne, Zurich, 36. Chem. Soc. (sec'y, Columbus sect, 31–33, chairman, 35); Soc. Test. Mat. (cmt. on spectrographic anal); Optical Soc. (assoc. ed, 'Jour,' 41–). Organic chemistry; mechanism of dyeing; absorption spectroscopy; optical, geometrical and position isomerism; hydrogen ion concentration; spectrometric analysis; solar flash spectra.

Broderick, Dr. S. (James), 5310 First St, N. W, Washington, D. C. *Chemistry.* Exeter, N. H, Nov. 5, 98. B.S, New Hampshire, 22; M.S, Grove City Col, 27; Ph.D, N. Y. Univ, 30. Asst. prof. chem, Antioch Col, 30–36, *research metallurgist,* indust. research inst, 30–36; *Bur. Standards, 36–* Chem. Soc; Soc. Metals. X-rays; physical chemistry; heat transmission; insulation.

Broderick, Prof. Thomas M(onteith), 120 Calumet Ave, Calumet, Mich. *Economic geology.* Waukesha, Wis, Aug. 30, 89. A.B, Minnesota, 13, Ph.D, 17; M.S, Wisconsin, 14. Asst. prof. geol, Minnesota, 14–20; geologist, *Calumet and Hecla Consol. Copper Co,* 20–24, *chief geologist, 24–* Field geologist, Minn. and Wis. Geol. Surveys, 13–20; research prof, Mich. Col. Min. and Tech, 31–40. A.A; Soc. Econ. Geol; Geol. Soc; Min. and Metal. Eng. Geology of copper and iron deposits; petrogeny.

Broders, Prof. A(lbert) C(ompton), Mayo Clinic, Rochester, Minn. *Surgical pathology.* Fairfax Co, Va, Aug. 8, 85. M.D, Med. Col. of Va, 10, hon. Sc.D, 29; M.S, Minnesota, 20. Asst. surg. pathologist, Mayo Clinic, 12–19, assoc. surg. pathologist, 19–22, head sect. B, div. surg. path, 22–35; assoc. prof. path, Mayo Foundation and grad. med. sch, Minnesota, 22–35; prof. surg. path. and director cancer research, Med. Col. of Va, 35–36; *prof. path, Mayo Foundation, Minnesota, 36–* Soc. Clin. Path; Asn. Path. and Bact; Am. Med. Asn; fel. Col. Physicians; South. Med. Asn. The thyroid gland; chronic gastric ulcer and gastric carcinoma; epithelioma; tuberculosis associated with malignant neoplasia; tumor of the extremities; grading and clinicopathology of cancer.

Broderson, Dr. H(enry) J(ohn), Pan-American Refinery, Texas City, Texas. *Chemistry.* Minneapolis, Minn, Oct. 7, 83. A.B, Nebraska, 09; A.M, Kansas, 11; Ph.D, Cornell, 13. Instr. chem, Illinois, 13–17; chemist, Standard Oil Co. of Ind, 17–34; *gen. supt, Pan-Am. Refinery, 34–* Petroleum products.

Brodie, Prof. Allan G(ibson), 808 S. Wood St, Chicago, Ill. *Orthodontia.* New York, N. Y, Oct. 31, 97. D.D.S, Pennsylvania, 19; Angle Col. Orthodontia, 25–26; M.S, Illinois, 34, Ph.D, 40. Practicing dentist, Newark, N. J, 20–27, practicing orthodontist, 27–29; assoc. prof. *orthodontia, grad. sch, Illinois,* 29–31, *prof, 31–, head dept, 36–* Edward H. Angle Mem. lecturer, 40. Certificate of merit, first class, Am. Med. Asn, 35. U.S. Navy, 17–18. Asn. Anat; Dental Asn; Edward H. Angle Soc. Orthodontia (sec'y); Ill. Dental Asn; Inst. Med. Chicago; Chicago Dental Soc; Int. Asn. Dental Research (pres, Chicago sect, 40). Normal and abnormal growth of the human head; a cephalometric appraisal of orthodontic management; the human mandible and its functions.

Brodie, Dr. Bernard, Research Service, Third Medical Division, Goldwater Memorial Hospital, Welfare Island, New York, N. Y. *Biochemistry.* Liverpool, Eng, Aug. 7, 09. B.Sc, McGill, 31; Ph.D, N. Y. Univ, 35. Asst. chem, *N. Y. Univ,* 31–35, instr. pharmacol, col. med, 35–41, *research assoc. biochem, third med. div, 41–* A.A; Chem. Soc; Soc. Biol. Chem; Harvey Soc. Distribution and excretion of water electrolytes.

Brodie, Prof. H(arold) J(ohnston), University of Manitoba, Winnipeg, Man, Can. *Mycology.* Winnipeg, Man, Dec. 3, 07. M.Sc, Manitoba, 30; Newcombe fellow, Michigan, 30–33, Ph.D, 33. Asst, Manitoba, 28–30; Michigan, 32–33; nat. research fellow, 34–35; lecturer plant path, Macdonald Col, McGill, 35–37; *asst. prof. bot, Manitoba, 37–* Sexuality in the higher fungi; physiology of the fungi; plant pathology.

Brodie, Prof. Jessie B(ruce), University of Toronto, Toronto, Ont, Can. *Nutrition.* Bethesda, Ont, Nov. 10, 97. B.A, Toronto, 20; A.M, Columbia, 25, Ph.D, 31. Asst. prof. home econ, George Peabody Col. for Teachers, 30–35, prof, 35–36; *prof. household science and head dept, Toronto, 36–* Dietetic Asn; Can. Dietetic Asn; Can. Home Econ. Asn. (pres, 41–). Vitamins.

Brodie, R(enton) K(irkwood), Procter and Gamble Co, Cincinnati, Ohio. *Chemistry.* Portland, Oregon, Sept. 12, 87. B.S, Oregon State Col, 08; Chicago, 10, M.S, 11. Instr. chem, Oregon State Col, 09–12, asst. prof, 13–15, assoc. prof, 15–18; fellow, Mellon Inst, 18–19; chemist, *Procter and Gamble Co,* 19–22, chem. supt, 22–26, director mfg. and tech. research, 26–31, *v. pres, 31–,* in charge mfg, 31–42. A.A; Chem. Soc; Oil Chemists Soc; Chem. Eng. Oil; fat; soap; glycerin.

Brodkorb, Dr. (William) Pierce, University of Michigan, Ann Arbor, Mich. *Zoology.* Chicago, Ill, Sept. 29, 08. A.B, Illinois, 33; Ph.D, Michigan, 36. Asst, div. birds, Field Museum, 30; Cleveland Museum, 31–32; *museum zool, Michigan,* 33–36, *asst. curator birds, 36–* Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club (assoc. ed, 39–); Biol. Soc. Wash. Systematic ornithology; zoogeography.

Brodshaug, Dr. Melvin, 110 Morningside Drive, New York, N. Y. *Science.* Davenport, N. Dak, May 22, 00. B.S, N. Dak. Col, 23; A.M, Chicago, 27; Ph.D, Columbia, 31. *Director research, Erpi Classroom Films, Inc, 30–* Summers, lecturer, Syracuse, 38; British Columbia, 40. Production of scientific motion pictures; analysis of dynamic concepts in introductory college physical and biological science courses for motion picture treatment; production of instructional films series in science.

Brody, Dr. A(rthur) L(ouis), U. S. Department of Agriculture, Valdosta, Ga. *Zoology, Entomology.* New York, N. Y, Dec. 17, 07. B.S, Cornell, 28, Ph.D, 35. Asst, Cornell, 30; asst. med. entomologist, Gorgas Mem. Inst, Panama, 30–31; asst. med. entom. and parasitol, Cornell, 33–34, instr. entom, 34–35; *asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–* Soc. Parasitol. Medical entomology and parasitology.

Brody, Dr. Henry, 37th Station Hospital A.P.O. 439, care of Postmaster, Los Angeles, Calif. *Pathology.* New York, N. Y, May 14, 05. B.S, Col. City of N. Y, 26, fellow, 26–27; fellow, Rochester, 28–29, Henry Strong Denison fellow, 31, M.D, 32. Asst. path, med. col, Cornell, 32–33; resident pathologist, Willard Parker Hosp, New York, 33–34; *instr.* biol, Col. City of N. Y, 34–40; *path, med. col, N. Y. Univ, 40–; capt, Med. Corps, U. S. Army, 42–* Res. pathologist, Montefiore Hosp, New York, 35–36; res. assoc, Neur. Inst. New York, 36–37; assoc. pathologist, Beth Israel Hosp, 37– A.A; Asn. Path. and Bact; N. Y. Acad; N. Y. Acad. Med; N. Y. Path. Soc. Tissue respiration; pathology of contagious disease; human pathology.

Brody, Prof. Samuel, University of Missouri, Columbia, Mo. *Physiology, Biochemistry.* Garbatchi, Lithuania, Feb. 8, 90. A.B, California, 17, A.M, 20; Ph.D, Chicago, 28. Asst. biochem, California, 19–20; asst. prof. and *assoc. prof. dairy and agr. chem, dept. dairy husbandry, Missouri, 20–* Guggenheim Mem. Foundation fellow, Strasbourg, Paris, Berlin, Copenhagen and Moscow, 30–31. Ed. board, 'Growth.' Subcmt. standardization, div. genetics, Nat. Research Council, subcmt. energy metabolism in relation to agr, div. animal nutrition. A.A; Soc. Biol. Chem; Chem. Soc; Dairy Sci. Asn; Soc. Animal Production; Inst. Nutrition; Mo. Acad; cor. mem. Czechoslovak Acad. Agr. Dairy and animal production; time relations of growth, senescence, milk secretion and related processes; energy and nitrogen metabolism; efficiency of growth and related transformations.

Broek, Prof. Jan O. M, 129 E. 52nd St, New York, N. Y. *Economic geography.* Utrecht, Netherlands, Dec. 8, 04. London, 29; California, 30–31; Ph.D, Utrecht, 32. Asst. sec'y, Netherlands Inst. Regional Planning, Amsterdam, 29; Rockefeller Foundation fellow, 29–31; research sec'y, Netherlands Cmn. Coordination of Transportation, 32–33; mem. staff, div. commerce and freight rates, Netherlands Rys, 33–36; visiting lecturer *geog,* Iowa and Ohio State, 36–37; *assoc. prof, California, 37–; assoc, sch. int. admin, Columbia, 42–; research assoc, Am. council, Inst. Pacific Relations, 42–* Asn. Geog; East Indies Inst. Amer. Historical geography.

Brogan, Dr. Francis J(oseph), Hunter College, 68th St. and Park Ave, New York, N. Y. *Chemistry.* Wilkes-Barre, Pa, June 16, 98. B.S, Pa. State Col, 21; M.S, Fordham, 26, Ph.D, 29. Head dept. science, high sch, Pa, 21–24; asst. prof. qualitative anal, Fordham, 24–26, prof, 26–30, gen. chem, 30–35; *instr. chem, Hunter Col, 35–* Instr, exten. sch, Columbia, 25–27. Chem. Soc; Inst. Chem; N. Y. League Chem. Teachers. The action of pyridine as a catalyst in Perkin's synthesis of cinnamic acid.

Brogden, Dr. Hubert E(dward), Personnel Research Section, U. S. War Department, Washington, D. C. *Psychology.* Sydney, Australia, Oct. 9, 13. A.B, Illinois, 35, Ph.D, 39. Asst. psychol, Illinois, 36–39; instr, Ohio State, 39–40; junior and senior statistician, State Dept. Health, Ill, 40; senior statistician, La, 40–42; *assoc. personnel technician, personnel research sect, War Dept, 43–* Assoc. Psychol. Asn. Isolation of primary personality traits.

Brogden, Prof. W(ilfred) J(ohn), University of Wisconsin, Madison, Wis. *Psychology.* Sydney, Australia, May 6, 12. A.B, Illinois, 33, Service fellow, 34–36, Ph.D, 36. Nat. research fellow, sch. med, Hopkins, 36–37, research asst. psychiat, 37–39; *asst. prof. psychol, Wisconsin, 39–* A.A; Psychol. Asn; Midwest. Psychol. Asn. Experimental psychology; conditioning; audition; physiological psychology.

Brokaw, Dr. Albert D(udley), Parsonage Hill Road, Short Hills, N. J. *Geology.* Granville, Ill, Oct. 9, 80. B.S, Chicago, 08, fellow, 10–11, Ph.D, 13. Asst. chem, Chicago, 08–12, instr. miner. and econ. geol, 12–13, asst. prof, 14–18, assoc. prof, 18–19; *consulting geologist, 19–* Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Petrol. Technol; Chem. Soc. Solution of gold in the surface alteration of ore bodies; precipitation of gold; paraffin dirt of the Gulf coast oil fields; estimation of oil and gas reserves.

Brokaw, Dr. R(aymond) V(oorhees), 1408 Martine Ave, Plainfield, N. J. *Medicine.* Flushing, N. Y, March 26, 85. Wesleyan, 09–11; M.D, Columbia, 15. Epidemiologist, Serbian Govt, 15–16; staff physician, Braden Copper Co, Chile, S. Amer, 17–18; field director int. health board, Rockefeller Foundation, 18–19; sch. physician, Health Dept, Jackson, Mich, 19–21; health officer, Morgan County, Ill, 22–23; Springfield, Ill, 24–26; field director, Am. Soc. Control Cancer, 27–28, acting director, 29, exec. sec'y, 30–33; sci. staff, E. R. Squibb and Sons, N. Y, 34–37; *chief div. cancer control, State Dept. Pub. Health, Ill, 40–* A.A; assoc. fel. Am. Med. Asn; fel. Pub. Health Asn. Public health; cancer.

Brombacher, Dr. W(illiam) G(eorge), 6314 Ridgewood Ave, Chevy Chase, Md. *Physics.* Cleveland, Ohio, Feb. 23, 91. A.B, Lake Forest Col, 15, A.M, 17; Ph.D, Hopkins, 22. Instr. physics, Hopkins, 19–22; assoc. physicist and *physicist, Bur. Standards, 22–, chief aeronaut. instruments sect, 26–* Physical Soc; Inst. Aeronaut. Sci; Philos. Soc. Wash. (cor. sec'y, 38, pres, 42); Wash. Acad. Aeronautic instruments.

Bromer, Dr. John A(lbert), Purdue University, Lafayette, Ind. *Psychology.* Cedar Rapids, Iowa, June 12, 15. A.B, Franklin and Marshall Col, 36; A.M, Wisconsin, 38, Ph.D, 40. *Instr. psychol, Purdue, 40–* Assoc. Psychol. Asn. Analysis of certain visual functions, with special reference to the use of visual tests in industrial selection.

Bromley, Helen J(ean) Brown (Mrs. S. W. Bromley), High Ridge Road, Stamford, Conn. *Botany.* Beaumont, Texas, Aug, 03. A.B, A.M, Ohio State, 25, Ph.D, 29. Prof. science, St. Mary of the Springs Col, 25–28; instr. bot, Ohio State, 28–36; *private research, 36–* Summer, instr, Franz Theodore Stone lab, Ohio State, 30. A.A; Bot. Soc; Micros. Soc; fel. Ohio Acad. Taxonomy and economics of fresh-water algae.

Bromley, Dr. Stanley W(illard), Bartlett Tree Research Laboratories, Stamford, Conn. *Entomology.* Charlton, Mass, Dec. 7, 99. B.S, Mass. Col, 22, M.S, 24; Ph.D, Ohio State, 34. *Entomologist,* Am. Cyanamid Co, 23–28; *Bartlett Tree Research Labs, 29–* Entom. Soc. Amer; Asn. Econ. Entom; N. Y. Entom. Soc; Brooklyn Entom. Soc. Shade tree insects; Diptera; robber flies.

Bromund, Dr. Werner H(erma'nn), Oberlin College, Oberlin, Ohio. *Organic chemistry.* Duluth, Minn, May 8, 09. B.S, Chicago, 32; fellow, Oberlin Col, 32–33, A.M, 35; Ph.D, N. Y. Univ, 42. Asst. *chem,* N. Y. Univ, 34–37; *instr, Oberlin Col, 37–* Chem. Soc. Oxazoline derivatives of monosaccharides; amino-monosaccharides; organic arsenicals; organic and inorganic microchemistry.

Bronfenbrenner, Prof. J(acques) J(acob), Washington University, St. Louis, Mo. *§*Pathology, Bacteriology.* Cherson, Russia, Nov. 21, 83. Imp. Univ, Odessa, 02–06; Pasteur Inst, Paris, 07–09; Ph.D, Columbia, 12; D.P.H, Harvard, 19. Asst, Pasteur Inst, Paris, 08–09; scholar, fellow and asst, Rockefeller Inst, 09–13; director research and diagnostic labs, West. Pa. Hosp, Pittsburgh, 13–17; asst. prof. prev. med. and hygiene, Harvard, 17–23; assoc. mem, Rockefeller Inst, 23–28; *prof. bacter. and immunol. and head dept, sch. med, Washington (St. Louis), 28–* A.A; Soc. Bact; Asn. Path. and Bact; Asn. Immunol. (pres, 42); Soc. Exp. Biol; Harvey Soc; Tuber. Asn; Pub. Health Asn; Soc. Exp. Path; Royal Inst. Pub. Health. Immunity; anaphylaxis; serum ferments; food poisoning; identification of bacteria; bacteriophage.

Bronk, Prof. Detlev W(ulf), University of Pennsylvania, Philadelphia, Pa. *§*Physiology, Biophysics.* New York, N. Y, Aug. 13, 97. A.B, Swarthmore Col, 20, Lippincott traveling

fellow, 21–22, hon. Sc.D, 37; M.S, Michigan, 22, Ph.D, 26. Instr. physics, Pennsylvania, 21; Michigan, 21–24, physiol, 24–26, asst. prof, 26; physiol. and biophys, Swarthmore Col, 26–27, assoc. prof. and assoc. dean men, 27–28, prof. and dean, 28–29; Johnson prof. biophys. and director Johnson research foundation, Pennsylvania, 29–40, director inst. neur, 26–40; prof. physiol, med. col, Cornell, 40–41; *Johnson prof. biophys. and director Johnson research foundation, Pennsylvania, 41–, director inst. neur, 42–; coordinator research, office air surgeon, Air Forces, U. S. Army, 43–* Nat. research fellow, Cambridge and London, 28–29; Weir Mitchell lecturer, Col. Physicians, Phila, 38. Hughlings Jackson lecturer, McGill, 38; Vanuxem lecturer, Princeton, 39; Priestley lecturer, Pa. State Col, 41; Herter lecturer, med. col, N. Y. Univ, 43. Managing ed, 'Jour. Cellular and Comp. Physiol'; assoc. ed, 'Proc. Soc. Exp. Biol. and Med,' 35–41; 'Jour. Applied Physics'; 'Am. Jour. Physiol'; 'Rev. Sci. Instruments'; 'Biol. Abstracts'; 'Anesthesiol'; mem. div. physical science and div. internal relations, Nat. Research Council, 35–; sect. C-6, Nat. Defense Research Cmt, 41–, cmt. aviation med, 41–, chairman subcmt. visual problems, 42–, subcmt. oxygen and anoxia, 42– Nat. Acad; A.A; Physiol. Soc; Physical Soc; Neur. Asn; Optical Soc; Soc. Exp. Biol. (councilor, 39–); Aero Med. Asn; Soc. Anesthetists; Council Applied Physics; Soc. Nat; Harvey Soc; Philos. Soc. (councilor, 40–); Physiol. Soc. Phila. (pres, 38–40); Phila. Neur. Soc; British Physiol. Soc; Soc. phil. de Paris. Infra-red spectroscopy; volume flow of blood; physiology of sense organs and of the nervous system; nervous control of the circulation; synaptic mechanisms; cellular oxidations; aviation medicine.

Bronner, Dr. Augusta F(ox), 38 Beacon St, Boston, Mass. *Psychology.* Louisville, Ky, July 22, 81. B.S, Columbia, 06, A.M, 10, Ph.D, 14. Teacher, high sch, Ky, 06–11; asst. educ, Teachers Col, Columbia, 11–13; clin. psychologist, Psychopathic Inst, Chicago, 13–17; *assoc. director, Judge Baker Guidance Center, 17–* Lecturer, Boston Univ, 21–; Simmons Col, 37–; assoc. in research, Inst. Human Relations, Yale, 29–33. Summers, lecturer, Wellesley Col, 25–27. Psychol. Asn; Asn. Clin. Psychol. (sec'y-treas, 19–21); Psychopath. Asn; Orthopsychiat. Asn. (pres, 32). Juvenile delinquency; personality problems; educational psychology; mental tests.

Bronson, Prof. Howard L(ogan), Dalhousie University, Halifax, N. S, Can. *Physics.* Washington, Conn, July 12, 78. A.B, Yale, 00, Ph.D, 04. Instr. *physics,* Lehigh, 00–01; asst, Yale, 01–04; demonstrator, McGill, 04–07, lecturer, 07–09, asst. prof, 09–10; *Munro prof, Dalhousie, 10–* A.A; Physical Soc; fel. Royal Soc. Can; N. S. Inst. (pres, 18–20). Radioactivity; high resistances; standard cells; specific heat.

Brookbank, Dr. E(arl) B(ruce), Jr, 350 Piatt Ave, Chillicothe, Ohio. *Chemical engineering.* Portland, Oregon, Nov. 29, 11. B.S, Washington (Seattle), 33; M.S, Lawrence Col, 36, Ph.D, 38. *Develop. engineer, Mead Corp, 38–* Tech. Asn. Pulp and Paper Indust. Platinized silica gel as a catalyst in gas analysis II oxidation of the methane hydrocarbons; sulphite pulping of Douglas fir; chemical nature of Douglas fir lignin.

Brooke, Dr. M(arion) M(urphy), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Protozoology.* Atlanta, Ga, Dec. 6, 13. A.B, Emory, 35, A.M, 36; Sc.D, Hopkins, 42. Instr. biol, Emory Junior Col, 36–38; asst. protozool, *sch. hygiene and pub. health, Hopkins,* 38–40, instr, 40–42, *parasitol,* 42–43, *assoc, 43–* Summer, asst, Instituto de Salubridad y Enfermedades Tropicales, Mexico, 39; asst. biol. aide, Tenn. Valley Authority, 41. Director interstate malaria surv, Board State Health Commissioners of the Upper Miss. River Basin, 42. A.A; Soc. Parasitol. Effect of dietary changes upon avian malaria.

Brooke, Prof. W(illiam) E(llsworth), 416 Walnut St, S. E, Minneapolis, Minn. *Mathematics, Engineering.* Minier, Ill, Oct. 7, 70. B.C.E, Nebraska, 92, fellow, 94–97, A.M, 96. Asst. math, Nebraska, 94–97; instr, high sch, Nebr, 97–01; *math. and mech, Minnesota,* 01–05, asst. prof. and prof, 05–12, head prof, 12–39, *emer. prof, 39–* A.A; Math. Soc; Math. Asn; Eng. Educ; Min. and Metal. Eng; Math. Verein; Circolo Mat. di Palermo. Irrational integrals; plane and spherical trigonometry; engineering mechanics; intermediate algebra.

Brooker, Dr. L(eslie) G(eorge) S(cott), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Gravesend, Kent, Eng, March 12, 02. B.Sc, King's Col. (London), 23; Ph.D, London, 26. *Research chemist, Eastman Kodak Co, 26–* Chem. Soc; London Chem. Soc; fel. Royal Photog. Soc. Photographic sensitizing dyes; color and constitution of organic compounds.

Brooker, Dr. Marvin A(del), Farm Credit Administration, New Orleans, La. *Agricultural economics.* Bell, Fla, Sept. 8, 03. B.S.A, Florida, 26, M.S, 27; Social Science Research Council fellow, Cornell, 28–29, Ph.D, 31. Asst. agr. economist, Florida, 27–31, assoc. agr. economist, 31–34; chief statistician, Farm Credit Admin, S. C, 34–39; v. pres. and sec'y, Columbia Banks for Cooperatives, 39–41; *director research, Farm Credit Admin, U. S. Dept. Agr, La, 41–* Director, Harding Col. Farm Econ. Asn. Statistics; costs of transportation; marketing fruits and vegetables; cooperative marketing; farm credit.

Brookes, Prof. J(ohn) F(inney), 550 Lahoma Ave, Norman, Okla. *Civil engineering.* Cowles, Nebr, Sept. 7, 86. B.E, Vanderbilt, 08. Field engineer, C.Eng, 08–19; assoc. prof. *civil eng, Oklahoma,* 19–20, *prof, 20–* Civil Eng. (pres, Okla. sect, 32); Eng. Educ. (pres, Ark-Okla. branch, 32).

Brookes, Prof. Margaret C(onstance) Hessler, 1408 E. 57th St, Chicago, Ill. *Chemistry.* Chicago, Ill. A.B, James Millikin, 14; A.M, Columbia, 17, Ph.D, 26. Instr. home econ, Washington (Seattle), 17–18; Texas, 18–22; nutrition, Teachers Col, Columbia, 22–26; asst. prof. *home econ,* Missouri, 27–28, assoc. prof, 28–31; lecturer, *Chicago,* 31–36, *asst. prof, 36–* A.A; Chem. Soc; Inst. Nutrition. Chemistry of nutrition; vitamins A, D and C.

Brookins, Dr. W(allace) W, University Farm, St. Paul, Minn. *Agronomy.* Ogdensburg, N. Y, 00. B.S.A, Toronto, 24; M.S, Nebraska, 28; Ohio State; Ph.D, Minnesota, 40. Cereal div, Cent. Exp. Farm, Ottawa, Ont, Can, 24–26; asst, Nebraska, 26–28; acting prof. agron, Panhandle Agr. and Mech. Col, 28–29, prof, 29–34; *exten. agron. specialist, Minnesota, 35–* Field crops; plant breeding; relation of climate to natural crossing in wheat; barley genetics; crops extension methods.

Brooks, Dr. A(lbert) N(elson), Florida Agricultural Experiment Station, Lakeland, Fla. *Plant pathology.* College Hill, Ohio, Oct. 16, 97. Ohio State, 19; A.B, Cincinnati, 21, 21–23; Ph.D, Wisconsin, 26. Asst. plant pathologist, State Plant Board, Fla, 25–27; assoc. plant pathologist, *Exp. Sta, Florida,* 27–32, *plant pathologist, 32–* A.A; Phytopath. Soc; Mycol. Soc. Vegetable diseases.

Brooks, A(lonzo) B(eecher), Elm Grove, R. R. 4, W. Va. *Forestry.* French Creek, W. Va, May 6, 73. B.S.A, West Virginia, 12. Forester, W. Va. Geol. Surv, 10–11; W. Va. Exp. Sta, 13–16; forest pathologist, bur. plant indust, U. S. Dept. Agr, 17–21; chief game protector, State Game and Fish Cmn, W. Va, 21–28; *park naturalist, Oglebay Inst, Wheeling, W. Va, 28–* Soc. Foresters; Wilson Ornith. Club. Forests of West Virginia; chestnut blight; white pine blister rust; nature education.

Brooks, Dr. Arthur E(dward), 426 Prospect St, Nutley, N. J. *Chemistry.* Boring, Md, Oct. 26, 94. A.B, Hopkins, 15; M.S, Chicago, 22, Ph.D, 29. Instr. math, McKendree Col, 15–17; chem, Bessie Tift Col, 20–21; head dept. sci, high sch, Ill, 22–26, 27–29; research chemist, gen. labs, *U. S. Rubber Co, Passaic,* 29–41, *tech. director munitions div, 41–* Lieut, Ordnance Dept, 17–19. Chem. Soc. Dissociation constants of dibasic acids; rubber compounding; battery separators; absorptive form lining for concrete; small arms ammunition.

Brooks, Arthur M(inard), Shawsheen Manor, Andover, Mass. *Chemistry.* Boston, Mass, Nov. 7, 97. A.B, Yale, 20. Chemist. *Raffold Co. of Amer, Andover, Mass,* 20–28, *v. pres, 28–, Raffold Process Corp. and associated companies, 28–* Chem. Soc; Asn. Pulp and Paper Indust. Pulp and paper manufacture; paper fillers; pigments and sizes; alkalis and alkaline earths.

Brooks, Prof. Barney, Vanderbilt University, Nashville, Tenn. *Surgery.* Jacksboro, Texas, Dec. 17, 84. B.S, Texas, 05; M.D, Hopkins, 11. From asst. instr. to assoc. prof. *surg,* Washington (St. Louis), 12–25; *prof, Vanderbilt, 25–* Mem. Am. Board Surg. Surg. Asn; Soc. Clin. Surg; Am. Med. Asn; fel. Col. Surg; S. Surg. Asn; South. Med. Asn; Int. Soc. Surg. Growth and regeneration of bone; intestinal obstruction; disease of joints and of blood vessels; surgery of the gall bladder; carcinoma of the mammary gland; surgery in old age; effects of temperature on wounds.

Brooks, Dr. Benjamin T(albott), 114 E. 32nd St, New York, N. Y. ***Chemistry.* Columbus, Ohio, Dec. 29, 85. A.B, Ohio State, 06; Ph.D, Göttingen, 12. Asst. chemist, Bur. Standards, 06–07; research chemist, Bur. Science, P. I, 07–

11; fellow, Mellon Inst, 12–17; prof. chem. eng, Pittsburgh, 13–17; chief chemist, Commercial Research Co, 17–18, consulting chemist, 18–19; chem. engineer, Mathieson Alkali Works, 19–24; *consulting chemist, 24–* Petrol. production adviser, Govt. Venezuela, 40– Assoc. ed, 'Chem. Industries'; Am. ed, 'Science of Petrol.' Chairman cmt. petrol. chem, Nat. Research Council. Major, C.W.S. A.A; Chem. Soc. (chairman, N. Y. sect, 23, councilor, 30); Chem. Eng; Petrol. Technol; Soc. Mil. Eng; Chemists' Club; London Chem. Soc. Organic chemistry; petroleum refining; synthetic solvents; non-benzenoid hydrocarbons; the non-benzenoid hydrocarbons.

Brooks, Dr. Betty Watt, Carnegie Museum, Pittsburgh, Pa. *Botany.* Wellesley Hills, Mass, April 3, 02. A.B, Wellesley Col, 22, A.M, 23; Ph.D, Pittsburgh, 34. Research asst, sta. for exp. evolution, Carnegie Institution, 23–25; asst. bot, Pittsburgh, 25–28; asst. prof, Pa. Col. for Women, 28–30; asst, *Carnegie Museum,* 30–35, *research assoc, sect. invertebrate zool, 35–* Summers, teacher, Sea Pines Sch. of Personality, 20–22; instr, Pittsburgh, 27, 28. Mem. field expeds, Newfoundland, 37, 38. Bot. Soc; Micros. Soc; Soc. Parasitol; Malacol. Union; Boston Soc. Nat. Hist; Malacol. Soc. London. Cytology and genetics of Petunia; fertilization and related phenomena; paleobotany; fossil seeds; fossil plants from Sucker Creek, Idaho; geographical distribution of snails and other invertebrates; northern and Appalachian land snails.

Brooks, Dr. Chandler M(cCuskey), 710 N. Washington St, Baltimore, Md. *Physiology.* Waverly, W. Va, Dec. 18, 05. A.B, Oberlin Col, 28; Ph.D, Princeton, 31. Nat. research fellow med. and asst. physiol, Harvard Med. Sch, 31–33; from instr. to *assoc. prof. physiol, sch. med, Hopkins, 33–* Physiol. Soc. Function and control of the autonomic nervous system; function of the cerebral cortex; control of the function of the endocrines; rôle of the central nervous system in sexual and reproductive activity.

Brooks, Dr. Charles, Brogdex Co, Pomona, Calif. *Plant pathology.* Salem, Ind, April 4, 72. A.B, Indiana, 04; A.M, Missouri, 05, Ph.D, 08. Instr. bot, New Hampshire, 05–06, prof. and botanist, Exp. Sta, 06–12; pathologist, bur. plant indust, U. S. Dept. Agr, 12–30, prin. pathologist, 30–42; *mem. research staff, Brogdex Co, 42–* A.A; Bot. Soc; Phytopath. Soc. (v. pres, 17); Bot. Soc. Wash. (pres, 33). Transportation and storage diseases of fruits and vegetables.

Brooks, Prof. Charles F(ranklin), Harvard University, Cambridge, Mass. *Meteorology, Climatology.* St. Paul, Minn, May 2, 91. A.B, Harvard, 11, A.M, 12, Ph.D, 14. Asst, Blue Hill Observatory, Harvard, 12–13; meteorol, Harvard, 13–14; physical geog, Harvard and Radcliffe Col, 14; asst. and collaborator, office farm management, U. S. Dept. Agr, 14–18; instr. geog, Yale, 15–18; meteorologist and ed, U. S. Weather Bur, 18–21; assoc. prof. meteorol. and climat, Clark, 21–26, *prof,* 26–32; *meteorol, Harvard, and director, Blue Hill Observatory, 31–* Summer, prof, Chicago, 39; lecturer, Clark, 42. Pres. corp, Mt. Washington Observatory, 36– Ed, 'Monthly Weather Rev,' 19–21; 'Bull. Am. Meteorol. Soc,' 20–25, 27–36, 39; Sci. Service daily feature, 'Why the Weather?' 23–27. Int. Climat, Cloud and Snow and Glacier Cmns. Asst. instr, Sig.C, 18. A.A; Meteorol. Soc. (sec'y, 20–); Asn. Geog. (v. pres, 20); Am. Geog. Soc; Geophys. Union (chairman, meteorol. sect, 36–38); Inst. Aeronaut. Sci; Am. Acad; Royal Meteorol. Soc. Snowfall of the United States; seasonal work on farm crops; clouds; ocean temperatures and the weather; climatology of North America; weather forecasting; observational technique; eclipse meteorology; aeronautical meteorology.

Brooks, Prof. Clyde, Louisiana State University Medical Center, New Orleans, La. *Physiology, Pharmacology.* Paris, Mo, Aug. 30, 81. A.B, Missouri, 05; fellow, Chicago, 06–07, 08–09, Ph.D, 11, M.D, Rush, 13; LL.D, Alabama, 28. Asst. physiol, Missouri, 05; instr. physiol. and pharmacol, Washington (St. Louis), 07–08; asst. pharmacol. and exp. therapeut, Chicago, 09–10; instr. physiol. and pharmacol, Pittsburgh, 10–11, asst. prof, 11–16; prof. and head dept, Ohio State, 16–20; prof. and dean sch. med, Alabama, 20–28, prof. physiol. and pharmacol. and lecturer internal med, 28–31; *prof. physiol. and pharmacol, med. center, Louisiana, 31–* Physiol. Soc; Soc. Pharmacol; Am. Med. Asn. (chairman, sect. path. and physiol, 33); Soc. Exp. Biol; fel. Col. Physicians; Pan-Am. Med. Asn. (chairman, exec. cmt, pub. health, med. educ. and hosps. sect). The circulation; blood pressure; physiology of the central nervous system; experimental therapeutics; deutero-proteose therapy; kidney extract for treatment of high blood pressure; thymol compounds in the treatment of tuberculosis.

Brooks, D(onald) B(ane), 6508 Fulton St, Chevy Chase, Md. *Chemistry.* Piqua, Ohio, Aug. 1, 99. B.Ch.E, Ohio State, 21, M.Sc, 23, Ch.E, 27. Chem. engineer, Bur. Standards, 22–24; research engineer, Boyce and Veeder Corp, New York, 24–25; lab. engineer, Texas Co, 25–26; Studebaker Corp, Ind, 26–27; *senior automotive engineer, Bur. Standards, 27–* Mem. motor fuels div, Cooperative Fuel Research, 35– Soc. Automotive Eng; Philos. Soc. Wash. Automotive fuels; automotive engineering; synthetic fuels for aircraft.

Brooks, Prof. Earle A(mos), 166 Plymouth Road, Newton Highlands, Mass. *Biology.* French Creek, W. Va, April 20, 71. A.B, West Virginia, 97; S.T.B, West. Theol. Sem, 00; hon. D.D, Davis and Elkins Col, 16. Pastor, Presb. Church, Waverly, W. Va, 02–06; Weston, W. Va, 06–16; Everett, Mass, 16–29; assoc. prof. *biol, Boston Univ,* 29–41, *emer. assoc. prof, 41–* Collecting trips in S. Appalachians, 00–16. Ornith. Union; Nuttall Ornith. Club. Birds of West Virginia; problems in modern camps; descriptive bibliography of West Virginia ornithology.

Brooks, Edward M(organ), 1793 Canton Ave, Milton, Mass. *Meteorology.* New Haven, Conn, March 19, 16. A.B, Harvard, 37; fellow, Oceanog. Inst, Woods Hole, 38; M.S, Mass. Inst. Tech, 39. Asst. observer and asst, Blue Hill Meteorol. Observatory, Harvard, 33–39; radiosonde asst. and map analyst, Mass. Inst. Tech, 39; map plotter, analyst and forecaster, Pan Am. Airways, 39–40, meteorol. tutor and instr, 40–42; *instr. meteorol, Mass. Inst. Tech, 42–* Meteorol. Soc. Theoretical problems in dynamic meteorology.

Brooks, Prof. Foster (Lindsey), 1035 Garden View, Kent, Ohio. *Mathematics.* Carrollton, Ohio, Sept. 4, 08. A.B, Mt. Union Col, 29; univ. fellow, Ohio State, 31–32, Ph.D, 34. Asst. math, Ohio State, 29–31; instr. math. and physics, high sch, Carrollton, Ohio, 33–35; *math, Kent State Univ,* 35–40, *asst. prof, 40–* Math. Soc; Math. Asn. Point sets and theory of functions of a real variable.

Brooks, Prof. Fowler D(ell), DePauw University, Greencastle, Ind. *Psychology.* Adelphi, Ohio, Jan. 16, 85. A.B, Baker, 11; A.M, Oklahoma, 15, Columbia, 16, Ph.D, 21. Asst. prof. psychol. and educ, Oklahoma, 15–17; director training sch, Minn. State Teachers Col, Mankato, 17–20; assoc. educ, Hopkins, 21–24, assoc. prof, 24–30; *prof. and head depts.* educ. and psychol, *DePauw,* 30–40, *psychol, 40–* Assoc. ed, 'Jour. Educ. Research.' Psychol. Asn; Soc. Study Educ; Nat. Soc. Col. Teachers Educ. (sec'y-treas, 32–40); Educ. Research Asn; Ind. Acad. Psychology of childhood and adolescence; psychology of learning; intelligence tests; mental ages and intelligence quotients; the curve of work; the prediction of scholastic success; mental development.

Brooks, Prof. Frank G(ary), Cornell College, Mt. Vernon, Iowa. *Zoology.* Berlin, Pa, April 8, 93. B.S, Allegheny Col, 15; A.M, Oklahoma, 22; Sc.D, Hopkins, 28. Teacher and prin, high sch, Pa, 15–18; asst. prof. *biol,* Okla. City Col, 19–22; *prof,* Okla. City Univ, 22–36; *Cornell Col. (Iowa), 36–* Chem. div, Ordnance Dept, 18–19. Ed, 'Bios,' 30– A.A; Soc. Parasitol; Micros. Soc; Genetic Asn; Helminth. Soc. Wash; fel. Okla. Acad. (treas, 24, v. pres, 30, pres, 34); fel. Iowa Acad. Helminthology; parasitology; cytology; trematode life histories and germ cell cycle; spermatogenesis; eugenics.

Brooks, Prof. Frederick A(ugustus), R. F. D, Box 334, Davis, Calif. *Agricultural engineering.* Minneapolis, Minn, May 1, 95. B.S, Illinois, 17, M.E, 27; M.S, Mass. Inst. Tech, 19, Sc.D, 20. Designer, Curtiss Aeroplane and Motor Corp, 17–18; asst. engineer, Dunlop Tire and Rubber Co, 20–21; teaching fellow, California, 22–23; sales engineer, Hall-Scott Motor Car Co, 23–25; chief engineer, Johnson Gear Co, 25–28; asst. to chief engineer, Byron Jackson Co, 30–31; assoc. prof. and later *prof. agr. eng, California, 31–,* assoc. agr. engineer, *Exp. Sta,* 31–42, *agr. engineer, 42–* Lieut, U. S. War Dept, 18–20. A.A; Agr. Eng; Mech. Eng; Soc. Automotive Eng; Meteorol. Soc. Tractor air-cleaners; solar heat; atmospheric radiation; heat transfer outdoors; density currents; surface climate.

Brooks, Dr. Frederick P(hilips), 407 Student St, Greenville, N. C. *Chemistry, Medicine.* Kinston, N. C, Sept. 22, 00. B.S, North Carolina, 21, M.S, 22, Ph.D, 26; M.D, Michigan, 33. Asst. prof. chem, Clemson Col, 22–23; instr, North Carolina, 23–26, asst. prof. biochem, 26–30, assoc. prof, 30–33; research chemist, Simpson Mem. Inst, 31–33; intern, Henry

Ford Hosp, 33–34; *practising physician, 34–*; teacher hygiene and health practices, *E. Carolina Teachers Col,* 35–42, *col. physician and chairman dept. health and physical educ, 42–* Am. Med. Asn; Chem. Soc; Elisha Mitchell Sci. Soc; N. C. Acad. Organic and biological chemistry; nitrations of 2-amino-5-nitro-paracymene; protein consumption of medical students; determination of amino N in bacteriological culture media; vitamin D content of shrimp oil; clinical hypothyroidism; hyperinsulinism.

Brooks, Dr. H(erbert) B(arton), 3006 Porter St, N. W, Washington, D. C. *Electrical engineering.* New Bremen, Ohio, Jan. 25, 69. M.E. (E.E), Ohio State, 03; Ph.D, Hopkins, 26. Asst. physics, Ohio State, 00–02, elec. eng, 02–03; lab. asst, Bur. Standards, 03–05, asst. physicist, 05–10, assoc. physicist, 10–18, physicist, 18–39; elec. measurements consulting specialist, 39–42; *physicist, Bur. Standards, 42–* Physical Soc; Elec. Eng; Wash. Acad. Precision electrical measurements; potentiometers; moving-coil galvanometers; instrument transformers; absolute measurement of high voltages; temperature compensation of electrical instruments.

Brooks, J. Ansel, Madison, Conn. *Mechanical engineering.* Worcester, Mass, 76. Ph.B, Yale, 98, M.E, 01. Asst. *mech. eng,* Yale, 98–01; instr, Brown, 03–04, asst. prof, 04–08, assoc. prof, 08–18; prof, Newark Col. Eng, 24–41; *retired.* Capt, A.S, 18–19. A.A; Mech. Eng; Eng. Educ; Soc. Adv. Management; Providence Eng. Soc. (past pres). *Aeronautics.

Brooks, Dr. James S(tanley), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Plant cytology and morphology.* Salem, Ind, Oct. 24, 08. A.B, Indiana, 31; New Mexico, 32–33; Ph.D, Cornell, 40. *Instr. bot,* Miami (Ohio), 36–38; *Okla. Agr. and Mech. Col, 40–* A.A; Bot. Soc. Cytology and morphology of sorghum.

Brooks, Dr. John P(ascal), Clarkson College of Technology, Potsdam, N. Y. *Civil engineering.* Kittery, Maine, Sept. 24, 61. B.S, Dartmouth Col, 85, M.S, 93, Sc.D, 15; Sc.D, Clarkson Tech, 31. Instr. civil eng, Lehigh, 90–97; prof, Kentucky, 97–06; assoc. prof, Illinois, 06–11; pres, *Clarkson Tech,* 11–28, *emer. pres, 28–* Civil Eng; Eng. Educ. Street railway location; reinforced concrete.

Brooks, Dr. John W(arren), Wenonah, N. J. *Organic chemistry.* Ada, Okla, June 18, 14. B.Ed, Wis. State Teachers Col, 35; Ph.M, Wisconsin, 36; Louisiana, 37–38; Ph.D, Iowa, 41. *Research chemist, Socony-Vacuum Oil Co, 41–* Chem. Soc. Hydrocarbons.

Brooks, Dr. M(atilda) M(oldenhauer), University of California, Berkeley, Calif. *Physiology.* Pittsburgh, Pa. A.B, M.S, Pittsburgh, 13; Ph.D, Radcliffe Col, 20. Bacteriologist, research inst, Nat. Dental Asn, 17; asst. biologist, hygienic lab, U. S. Pub. Health Service, 20–24, assoc. biologist, 24–26; *research assoc. biol, California, 27–,* lecturer, 34, 36. Mem, Bermuda Biol. Corp; Marine Biol. Lab. Corp, Woods Hole. Bache grant, Nat. Acad, 27–32; Nat. Research Council grant, Naples, 30–31; Naples Woman's Table, 31. Physiol. Soc; Soc. Exp. Biol; West. Soc. Nat. (v. pres, 29). Respiration; the antagonism of salts; the effects of arsenic on cells; permeability of cells; oxidation reduction.

Brooks, Prof. Maurice (Graham), West Virginia University, Morgantown, W. Va. *Botany, Ornithology.* French Creek, W. Va, June 16, 00. A.B, West Virginia, 23, M.S, 34. Asst. prin, high sch, W. Va, 26–33; instr. biol, *West Virginia,* 34–38, asst. prof. recreational forestry, 38–42, *assoc. prof. wildlife management, 42–* Chairman, W. Va. Biol. Surv, 38– A.A; Fern Soc; Ornith. Union; Wilson Ornith. Club (sec'y, 42–); W. Va. Acad. Birds of West Virginia; Pteridophytes of West Virginia; influence of black walnut on other vegetation; vertebrate zoology; ecology of Appalachian Mountains region.

Brooks, Prof. Morgan, University of Illinois, Urbana, Ill. *Engineering.* Boston, Mass, March 12, 61. Ph.B, Brown, 81; M.E, Stevens Inst. Tech, 83. Practising engineer, 83–98; prof. *elec. eng,* Nebraska, 98–01; *Illinois,* 01–29, *emer. prof, 29–* Lecturer, Minnesota, 93–98. Mech. Eng; Elec. Eng. (manager and v. pres, 07–11); Illum. Eng. Soc; West. Soc. Eng. Self-synchronizing of alternators; reactance coils; illumination.

Brooks, Dr. Paul S(herwood), 17625 Cannon Ave, Lakewood, Ohio. *Chemistry.* Fenwick, W. Va, May 17, 14. B.S, W. Va. Wesleyan Col, 35; fellow, Maryland, 35–37, M.S, 38, Ph.D, 40. Asst. chem, W. Va. Wesleyan Col, 32–35; Maryland, 37–39; *research chemist, Nat. Carbon Co, Inc, 39–* Chem. Soc. Physical and electro- chemistry.

Brooks, Dr. Reid M(errifield), University of California, Davis, Calif. *Pomology, Botany.* De Kalb, Ill, Feb. 29, 08. B.S, Chicago, 29; A.M, California, 33, Ph.D, 38. Technician histol. and pomol, California, 29–31, asst. bot, 31–34; instr. biol, Taft High Sch. and Jr. Col, Calif, 34–35; assoc. *pomol, col. agr, California,* 35–39, instr, 39–42, *asst. prof, 42–,* junior pomologist, *Exp. Sta,* 39–42, *asst. pomologist, 42–* Soc. Hort. Sci; Bot. Soc; Calif. Bot. Soc. Morphology of horticultural fruits; climate in relation to the production of horticultural fruits in California; plant microtechnique.

Brooks, Dr. Richard Ensign, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* East Hartford, Conn, March 20, 13. A.B, Colo. Col, 35; M.S, Ohio State, 37, Ph.D, 38. *Research chemist, ammonia dept, exp. sta, E. I. du Pont de Nemours and Co, 38–* Optically active dyes; molecular asymmetry in dyes and their dyeing properties.

Brooks, Dr. Robert F(rink), 595 Winona Blvd, Rochester, N. Y. *Bacteriology.* Norwich, N. Y, Sept. 27, 15. B.S, Cornell, 37, Ph.D, 42. Asst. chemist, Curtice Brothers Co, 41–43; *bacteriologist, Strong Mem. Hosp. and sch. med. and dentistry, Rochester, 43–* Corynebacterium from animal sources; treatment of experimental syphilis by arsenicals and artificial fever.

Brooks, Dr. Stanley T(ruman), Carnegie Museum, Pittsburgh, Pa. *Zoology.* Mound City, Kans, Oct. 4, 02. A.B, Kansas, 26; M.S, Pittsburgh, 27, Ph.D, 29. Asst. instr, Kansas, 25–26; asst. zool, Pittsburgh, 26–28; custodian in charge *sect. recent invertebrates, Carnegie Museum,* 28–30, acting curator, 30–32, *curator, 32–* Am. Asn. Museums grant-in-aid, Europe, 38. Mem, Board of Experts to Choose Bases in British Amer, 40. Field exped, Newfoundland, 34, 36, 37, 38. A.A; Micros. Soc; Soc. Parasitol; Ecol. Soc; Malacol. Union; fel. Am. Geog. Soc; N. Y. Acad; Acad. Nat. Sci. Phila; Malacol. Soc. London. Invertebrate zoology; geographical distribution of animals; northern and Appalachian land snails.

Brooks, Prof. S(umner) C(ushing), University of California, Berkeley, Calif. **Zoology.* Sapporo, Japan, Aug. 17, 88. B.S, Mass. Col, 10; Ph.D, Harvard, 16. Biochemist, research inst, Nat. Dental Asn, 16; research fellow, Western Reserve, 17; trop. med, Harvard, 17–19; assoc. prof. physiol. and biochem, Bryn Mawr Col, 19–20; biologist, hygienic lab, U. S. Pub. Health Service, 20–26; *prof.* physiol. and biochem, Rutgers, 26–27; *zool, California, 27–* Ed. board, 'Jour. Exp. Biol.' Trustee, Marine Biol. Lab, Woods Hole. A.A; Physiol. Soc; Soc. Exp. Biol; Chem. Soc; Bot. Soc; West. Soc. Nat. (pres, 33). Physiology; biological effects of radiation; permeability of cells.

Brophy, Dr. Daniel F(rancis), 139th St. and Convent Ave, New York, N. Y. *Personnel.* New York, N. Y, July 23, 99. B.S, Col. City of N. Y, 20; A.M, Columbia, 24; M.D, Cornell, 32. From tutor to asst. prof. pub. speaking, *Col. City of N. Y,* 20–37, *director personnel bur, 37–* Intern, Bellevue Hosp, 32–33; asst. res. psychiat, Payne-Whitney psychiat. clinic, New York Hosp, 33–36. Consultant, Vocational Adoption Organization; cmn. counseling and guidance, Boys' Clubs of Amer. Psychopath. Asn; N. Y. Soc. Clin. Psychiat; N. Y. State Asn. Applied Psychol; N. Y. State Asn. Deans.

Brophy, Dr. Dorothy Hall, 737 Shadowlawn Drive, Westfield, N. J. *Analytical chemistry.* Toledo, Ohio, Sept. 20, 96. B.S, Michigan, 18, fellow, 18–20, Ph.D, 20. Asst. anal. chem, Michigan, 17–20; research chemist, Gen. Elec. Co, 20–32; *consulting chemist, 32–* A.A; Chem. Soc. Methods of analysis; cobalt; molybdenum; aluminum; boron; zirconium; thorium and other impurities in tungsten.

Brossard, Dr. E(dgar) B(ernard), U. S. Tariff Commission, Washington, D. C. *Agricultural economics.* Oxford, Idaho, April 1, 89. B.S, Utah Col, 11; M.S, Minnesota, 17, Ph.D, 20. Instr. math, Utah Col, 09–10; farm management demonstrator for Utah, 14–16; instr. econ. and farm management, Minnesota, 18–19; prof. and head dept, Utah Col, and in charge agr. econ. and farm management investigations, Exp. Sta, 19–23; economist, *U. S. Tariff Cmn,* 23–25, *tariff commissioner, 25–,* chairman, 30. Econ. Asn; Farm Econ. Asn. Agricultural economics and farm management; rural credits and farming in Utah; tariffs, industrial economics and international trade.

Brossman, Philip D(awson), 217 John St, Harrison, N. J. *Analytical chemistry.* Sunbury, Pa, May 27, 00. B.S, Pennsylvania, 21. Analyst. *E. I. du Pont de Nemours and Co,* 22–24, chief control chemist, 24–26, research chemist, 26–29, *research group leader, 29–* Civilian adviser, Ordnance Dept, U. S. Army, 40–41. Chem. Soc; Soc. Test. Mat. Analytical chemistry of plastics; quantitative organic analysis.

Brotemarkle, Prof. R(obert) A(rchibald), University of Pennsylvania, Philadelphia, Pa. *Psychology.* Lonaconing, Md, Nov. 12, 92. A.B, Princeton, 16, A.M, 18; Ph.D, Pennsylvania, 23. Instr. *psychol, Pennsylvania,* 19–27, asst. prof, 27–35, assoc. prof, 35–40, *prof, 40–, col. personnel officer, 26–* Prof. and dean faculty, Phila. Sch. for Christian Workers, 25–27. A.A; Psychol. Asn; Asn. Applied Psychol. Clinical psychology; the psychology of personality; college adult-level norms; college achievement and emotional tests; college personnel.

Brother, Dr. Geo(rge) H(oward), Western Regional Laboratory, U. S. Department of Agriculture, Albany, Calif. *Chemical engineering.* Denver, Colo, April 3, 91. B.S, Nebraska, 13, A.M, 14; Ph.D, Toronto, 22. Asst. analyst, Lab. Inland Revenue Dept, Can. Govt, 17–18; chem. and exp. supt, Atlantic Loading Co, 18–19; chem. supervisor, fatty acids dept, Procter and Gamble, 19; senior fellow casein plastics, Mellon Inst, develop. supt, S. Karpen and Brothers, and v. pres. and operating manager, Karolith Corp, 20–26; director research and production, orthochrom. dept, Rohm and Haas, Inc, 26–27; develop. supt, Griess-Pfleger Tanning Co, 27–31; chem. engineer, staff, Arthur D. Little, Inc, 31–32; research chemist, Boston Blacking Co, Inc, United Shoe Machinery Corp, 32–34, develop. supt, Shoe Lace Co, Lawrence, Mass, 34–37; *senior chemist, regional soy-bean indust. lab. and west. regional lab, bur. chem. and soils, U. S. Dept. Agr, 37–* Chem. Eng. Industrial chemistry; casein and its industrial applications; protein plastics; lacquers and cements; synthetic resins.

Brougher, Dr. John C, 410 Arts Bldg, Vancouver, Wash. *Obstetrics, Gynecology.* La Center, Wash, June 9, 01. A.B, Willamette, 23; A.M, Oregon, 27, M.D, 28. Asst. physiol, *med. sch, Oregon,* 25–28, instr. surg, 29–31; *senior mem, Vancouver Med. and Surg. Clinic, 31–* A.A; fel. Am. Med. Asn; Asn. Study Int. Secretions; fel. Col. Surg; Portland Acad. Med. Parathyroid glands; calcium metabolism; tetany in pre-eclamptic toxemia; obstetrical analgesia.

Broughton, Dr. Geoffrey, Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Chemical engineering.* Rochdale, Eng, June 13, 12. B.Sc, London, 32, M.Sc, 34; fellow, Salters Inst. Indust. Chem, 34–36; fellow, Mass. Inst. Tech, 35–36, M.S, 36, Sc.D, 38. Instr, Mass. Inst. Tech, 36–38; *chem. engineer, Eastman Kodak Co, 38–* Colloid chemistry.

Broughton, Dr. John G(erard), State Museum, Albany, N. Y. *Structural geology.* Rome, N. Y, Oct. 16, 14. A.B, Rochester, 36, M.S, 38; Ph.D, Hopkins, 40. Instr. structural and eng. geol, Syracuse, 40–42; *asst. state geologist, N. Y, 42–* Summers, junior geologist, metalliferous sect, U. S. Geol. Surv, 41–42. Min. and Metal. Eng. Petrofabrics; petrology of various mining districts in central Colorado.

Broughton, Prof. L(evin) B(owland), University of Maryland, College Park, Md. *Chemistry.* Pocomoke, Md, March 29, 86. B.S, Maryland, 08, M.S, 11; Ph.D, Ohio State, 26. Asst. chemist, Exp. Sta, *Maryland,* 08–16, assoc, 16–18, *prof.* agr. chem, 18–29, *chem, 29–, dean col. arts and sciences, 37–* State chemist, Md, 29– Chem. Soc; Agr. Chem. Agricultural chemistry; lime and soil acidity; availability of different degrees of fineness of limestone; ascaridole and oil of chenopodium; potash by-product from alcohol; biological changes in pork during curing.

Broughton, W. A, State Division of Geology, Pullman, Wash. *Economic geology.* Ronan, Mont, Oct. 12, 14. A.B, Wisconsin, 38, 38–39; Yale, 39–40; Wisconsin, 40–41. Geologist, Wis. Geol. Surv, 36–41; instr. petrol, State Col. Wash, 41; *geologist, State Div. Geol, Wash, 41–*

Brouha, Dr. Lucien, Harvard University, Cambridge, Mass. *Physiology.* Liége, Belgium, Oct. 26, 99. M.D, Liége, 24, D.Sc, 30; fellow, Col. de France, 24–30. Head dept. physiol, Queen Elizabeth Foundation Med. Research, Brussels, 30–32; *prof. hygiene, faculty med, Liége, 32–; research fellow, fatigue lab, Harvard, 35–, physiologist, hygiene dept. and grant study, 40–* Fellow, Belgian Am. Educational Foundation, 27, 34–37, visiting scientist, 38, 40–41; mem, Belgian Nat. Council for Hygiene, 38–; Belgian Nat. Council for Nutrition, 38–; expert, bur. hygiene, League of Nations, 39. Prize, Acad. Sciences, Brussels, 30; Acad. Sciences, Paris, 34; Acad. Med. Paris, 30, 38. Soc. Biol; Belgian Soc. Med. applied to Physical Educ. (chairman, 36–39); hon. mem. Soc. Obstet. and Gynec, Paris; hon. mem. French Soc. Endocrinol; hon. mem. Royal Soc. Med, Ghent. Physiology of sex glands; physiology of the autonomous nervous system; physiology of muscular exercise, fatigue and training.

Brouillard, Dr. R(obert) E(rnest), 40 Grove St, Somerville, N. J. *Organic chemistry.* Northbridge, Mass, Aug. 16, 15. B.S, Bates Col, 38; A.M, Clark, 39, Ph.D, 41. Chemist, W. S. Libbey Co, 37–38; *research chemist, Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Acetals of polyhydroxy compounds; pigments; dye intermediates.

Broun, Prof. G(oronwy) O(wen), St. Louis University School of Medicine, St. Louis, Mo. *Internal medicine.* Mobile, Ala, July 31, 95. A.B, Spring Hill Col, 14; M.D, St. Louis, 18. Extern, Bethesda Hosp, St. Louis, 17; Jewish Hosp, St. Louis, 18–19, res, 19; asst. med, St. Louis, 19–20; fellow, Rockefeller Inst, 20–21, asst, 21–22; med, Harvard, and res. physician, Thorndike Mem. lab, Boston City Hosp, 22–24; assoc. prof. *med, sch. med, St. Louis,* 24–31, *prof, 31–* Assoc. physician, St. Mary's Hosp, St. Louis, 24–28, physician, 28– M.R.C, U.S.A, 18–19. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Path; Cent. Soc. Clin. Research. Exercise and the blood; liver physiology and pathology; pernicious anemia; bone marrow; influenza; gonorrhea; nephritis; encephalitis; cirrhosis of liver.

Brous, Prof. G(eorge) Calvin, U. S. Bureau of Mines, Bartlesville, Okla. *Chemistry.* St. Joseph, Mo, Dec. 6, 07. A.B, Oklahoma, 29; M.S, N. Y. Univ, 31, Ph.D, 32. Teaching fellow, N. Y. Univ, 29–32, asst. instr. chem, 32–35; instr, Hofstra Col, 35–37, asst. prof, 37–39, assoc. prof, 39–40, prof, 40–42; prof. and institutional rep, eng, science and management war training, Oklahoma City Univ, 42–43; *research thermodynamics, U. S. Bur. Mines, 43–* Chem. Soc. Electronic, photochemical and thermal reactions of solids; adsorption of gases on solids.

Brous, S(amuel) L(ewis), 564 Dorchester Road, Akron, Ohio. *Chemical engineering, Organic chemistry.* Harrisonville, Mo, Oct. 7, 06. B.S, Missouri, 28, A.M, 29. Asst. chem, Stephens Col, 28–29; *research chemist, B. F. Goodrich Co, 29–* Chem. Soc. Synthetic elastics.

Brouse, Dr. Don, 803 State St, Madison, Wis. *Chemistry.* Kendallville, Ind, Aug. 19, 95. B.S, Purdue, 21, Ch.E, 27; M.S, Wisconsin, 25, Ph.D, 31. Instr. math, Baker, 22–23; junior chem. engineer, *Forest Products Lab, U. S. Forest Service,* 23–26, asst. chem. engineer, 26–35, assoc. chem. engineer, 35–36, *chem. engineer, 36–* A.A; Chem. Soc. Chemistry of forest products; glues; veneers; plywood.

Brouwer, Prof. Dirk, 363 Willow St, New Haven, Conn. *[6]Astronomy.* Rotterdam, Netherlands, Sept. 1, 02. Ph.D, Leiden, 27. Asst. theoret. astron, Leiden, 23–27; Int. Educ. Board fellow, 27–28; instr. *astron, Yale,* 28–33, asst. prof, 33–39, assoc. prof, 39–41, *prof, 41–, director, Yale Observatory, 41–* Ed, 'Astron. Jour,' 41– A.A; Astron. Soc; Asn. Variable Star Observers (pres, 41–); Astron. Soc. Pacific; Astron. Club Netherlands. Celestial mechanics; lunar occultations.

Brower, Dr. Auburn E(dmond), Entomological Laboratory, Augusta, Maine. *Entomology.* Springfield, Mo, May 22, 99. B.S, Southwest Mo. State Teachers Col, 27, A.B, 27; Ph.D, Cornell, 32. Teacher, high sch, Mo, 27–28; *asst. state entomologist, Maine, 31–* Field collector, dept. entom, N. Y. State Col. Agr, Cornell, 30. Asn. Econ. Entom; Entom. Soc. Amer. Lepidoptera; North American Catocalas.

Brower, Dr. N, 126 S. Ewing Ave, Louisville, Ky. *Biochemistry.* Holland, Mich, Dec. 28, 08. A.B, Hope Col, 32; Ph.D, Cincinnati, 39. Asst. instr. biochem, Cincinnati, 36–39, int. med, 39–41; *biochemist, Jewish Hosp, 41–* Effect of vitamin B_1 on the action of pancreatic lipase and its relation to multiple sclerosis; effect of common bile duct ligation on the blood iodine concentration in rabbits; rate of cerebral blood flow.

Browman, Prof. L(udvig) G(ustav), Montana State University, Missoula, Mont. *Zoology.* DeKalb, Ill, April 23, 04. B.S, Chicago, 28, Ph.D, 35. Teacher, high sch, Ill, 28–31; asst. instr, Chicago, 34–35; embryologist, div. swine husbandry, Exp. Sta, Agr. and Mech. Col. Texas, 36–37; instr. *zool, Montana,* 37–39, asst. prof, 39–42, *assoc. prof, 42–* A.A; Soc. Zool; Asn. Anat. Gonad transplantation; light and endocrines; nutritional defects in relation to embryological development; effects of optic enucleation on albino rats; embryology of microphthalmus in the albino rat; biological rhythms.

Brown, Dr. Albert F(ranklin), 312 N. Boyle Ave, Los Angeles, Calif. *Pathology.* Philadelphia, Pa, March 6, 07. A.B, Washington Missionary Col, 31; M.D, Col. Med. Evangelists, 33. Instr. *path, Col. Med. Evangelists,* 34–38, *asst. prof, 39–; attending pathologist, Los Angeles County Hosp, 35–,* asst. pathologist, 37–41. Fel. Am. Med. Asn; Soc. Clin. Path. Uremia; cancer.

Brown, Alex(ander) C(hadbourne), Emery Industries, Inc, Cincinnati, Ohio. *Chemical engineering.* B.S, Mass. Inst. Tech, 25, M.S, 26; Tech. Hochschule, Charlottenburg. Asst, Mass. Inst. Tech, 26; develop. engineer, Tide Water Oil Co, 27–29; indust. fellow, Mellon Inst, 30–31; *chem. engineer, Emery Industries, Inc, 31–* Chem. Soc. Fatty acids and edible oils.

Brown, Dr. Alfred J(erome), 1618 Medical Arts Bldg, Omaha, Nebr. *Surgery.* New York, N. Y, Aug. 27, 78. A.B, Yale, 99; M.D, Columbia, 03. Asst. anat, Columbia, 09–11, instr, 11–18; asst. prof. *surg, col. med, Nebraska,* 20–25, assoc. prof, 25–34, *prof, 34–* Major, M.C, 18–19. Surg. Asn; Col. Surg; Asn. Anat; Asn. Study Trauma; West. Surg. Asn. (v. pres, 30, treas, 35–39, pres, 40); Cent. Surg. Asn. Development of the heart and circulatory system; surgery of the gall bladder, stomach and intestine; surgery of goiter and its relation to the sympathetic nervous system; history of surgery.

Brown, Dr. Alfred S(eely), Skenandoa Rayon Corp, Utica, N. Y. *Physical chemistry.* Washington, D. C, Sept. 24, 06. Ch.E, Rensselaer Polytech, 26; Ph.D, Yale, 29. Instr. physical chem, Sterling chem. lab, Yale, 29–31; nat. research fellow chem, Rockefeller Inst. Med. Research, 31–33; instr, Colgate, 34–42; *research director, Skenandoa Rayon Corp, Utica, N. Y, 42–* Chem. Soc. Electrolytic conduction; thermodynamic properties of electrolytic solutions.

Brown, Dr. Alice L(enore), Cornell University, Ithaca, N. Y. *Biology, Embryology.* Norcatur, Kans, Dec. 17, 88. A.B, Kansas, 16, A.M, 20; Ph.D, Cornell, 29. Asst. zool, Kansas, 16–18; instr, Kans. State Col, 18–21; embryol. and histol, dept. anat, med. col, Cornell, 21–24; biol. research, Mem. Hosp, New York, 24–25; asst. director path. lab, Harlem Hosp, New York, 25–27, asst. path, 27–29; prof. biol, Brenau Col, 29–33; hon. fellow, Duke, 33–34; director, Fed. Emergency Relief Admin. project, U. S. Biol. Lab, Beaufort, N. C, 34–35; *special research, bur. biol. surv, bur. animal indust. and bur. home econ, U. S. Dept. Agr, 35–;* asst, U. S. Weather Bur, 38–40; coding, alien registration div, U. S. Dept. Justice, 40–41; prof. biol. and science, St. Mary's Sem. Junior Col, 42–43; *technician, Spring Grove State Hosp, Md, 43–; research, Cornell, 43–* Asst, sch. hygiene and pub. health, Hopkins, 37; instr, high sch, Washington, D. C, 38–39. Summers, asst, Puget Sound Biol. Sta, 15, 19; St. Luke's Hosp, New York, 29; serologist, Univ. Mich. Hosp, 29; director marine biol. lab, St. Simons, St. Mary's, Ga, 31–33. A.A; Ornith. Union; N. Y. Acad. Developing metanephros in mouse embryos with abnormal kidneys; simple apparatus for delicate injections; single ovary and oviduct in the chick; effect of extirpation of thyroid and pituitary anlage upon development of inter-renal tissue of Rana pipiens; development of mandibles and of right gonads of Rynchops nigra nigra; comparative, physico-chemico factors of embryology to heredity behavior; lifelogy.

Brown, Prof. Andrew W(ilson), University of Chicago, Chicago, Ill. *Psychology.* Kings Co, N. B, Can, Nov. 21, 90. B.A, Acadia, 12; A.M, Yale, 20; Ph.D, Columbia, 26. Instr, N. Y. State Col. for Teachers, 20–22; Lafayette Col, 23–25; chief psychologist, Inst. for Juvenile Research, 26–43; *assoc. prof. psychol,* Illinois, 31–43; *Chicago, 42–* Lecturer, Chicago, 27–43, visiting prof, 41; lecturer, Northwestern, 30–31. Summers, Rochester, 25–28; prof, Columbia, 38, 39. Psychol. Asn; Asn. Applied Psychol. (chairman, clin. sect, 37). Psychological measurements and clinical psychology.

Brown, Dr. A(nthony) W(illiam) A(ldridge), War Research Laboratories, Kingston, Ont, Can. *Forest entomology.* England, Nov. 18, 11. B.Sc, Toronto, 33, fellow, 34–36, M.A, 35, Ph.D, 36. Asst. biol, Toronto, 33–34; Royal Soc. Can. research fellow, London, 36–37; asst. entomologist in charge Can. forest insect surv, Dept. Agr, Can, 37–42; *lieut, War Research Labs, 42–* Summers, asst. forest surveyor, Ont. Forestry Branch, Can, 30–33. Ed, 'Can. Field-Naturalist,' 41–42. Can. Physiol. Soc; Can. Soc. Forest Eng. (sec'y entom. research cmt, 40–); Entom. Soc. Ont. Insect biochemistry, especially nitrogenous metabolism; biology and epidemiology of forest insects.

Brown, Dr. Arthur A(ustin), Apt. 9, 95 W. Middle Turnpike, Manchester, Conn. *Physics.* Cleveland, Ohio, Feb. 12, 15. A.B, Oberlin Col, 36; M.S, Brown, 37, Ph.D, 41. *Asst. project engineer, Pratt and Whitney Aircraft Div, United Aircraft Corp, 40–* Mem. special subcmt. induction system deicing, Nat. Advisory Cmt. Aeronautics, 42– A.A; Physical Soc; Soc. Automotive Eng. Electronics; thermionic emission; aircraft engine cooling and heat transfer; icing of aircraft engine induction systems.

Brown, Prof. Arthur B(arton), Queens College, Flushing, N. Y. *Mathematics.* Roxbury, Mass, Feb. 10, 05. A.B, Harvard, 25, A.M, 26, Ph.D, 29. Instr. *math,* Harvard, 27–29; nat. research fellow, Princeton, 29–30; instr, Columbia, 30–35, *asst. prof,* 35–38; *Queens Col. (N. Y), 38–* Math. Soc; Math. Asn. Analysis situs and analysis.

Brown, Prof. A(ubrey) I(ngerson), 169 Richards Road, Columbus, Ohio. *Engineering.* Wolfville, N. S, Can, May 18, 88. Acadia, 06–08; M.E, Ohio State, 12. Instr. mech. eng, Ohio State, 12–17; asst. prof, Pa. State Col, 17–18; steam eng, *Ohio State,* 18–24, *heating and ventilating,* 24–28; assoc. prof, 28–33, *prof, 33–* Consulting engineer, state architect and engineer's office, Ohio, 24–29. Heat. and Vent. Eng; Mech. Eng; Eng. Educ. Heating and ventilation; ozonation of air for ventilation; tests of disk and propeller fans; performance of propeller fans; heat transfer.

Brown, Bailey E(dgar), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Cookeville, Tenn, Nov. 10, 79. B.S, Ala. Polytech, 99, M.S, 00. Meat inspector, Birmingham, Ala, 00; chemist, Dimmick Cast Iron Pipe and Foundry Co, 00–01; *biochemist, U. S. Dept. Agr, 01–* Detailed by U. S. Dept. Agr, asst. prof, Pa. State Col, 07–11. Soc. Agron; Potato Asn. Fertilizer requirements of soil types; potato investigations in field, greenhouse and laboratory.

Brown, Prof. B(ancroft) H(untington), 7 Ripley Road, Hanover, N. H. *Mathematics.* Hyde Park, Mass, Nov. 11, 94. A.B, Brown, 16, A.M, 17; Ph.D, Harvard, 22. Instr. *math,* Harvard, 19–21; *Dartmouth Col,* 22–24, asst. prof, 24–31, *prof, 31–* A.A; Math. Soc; Math. Asn; N. H. Acad. (pres, 40). Geometry.

Brown, Prof. Barker H(astings), University of the Philippines, Manila, P. I. *Biochemistry.* Olathe, Colo, June 24, 10. A.B, Alma Col, 32; Mich. State Col. fellow, Michigan, 32–33, M.S, 33, univ. fellow, 36–37, Ph.D, 37. Asst, med. sch, Michigan, 33–36; *asst. prof. chem, Philippines,* 37–39, *40–,* Baguio, 39–40. Asst. prof, Ateneo de Manila, 37–39. Assoc. mem. nutrition sect, Nat. Res. Council Philippines, 38– Chem. Soc; Chem. Soc. Philippines (cmt. publications). Intermediary metabolism and chemistry of protein sulfur compounds.

Brown, Dr. Barnum, American Museum of Natural History, New York, N. Y. *Vertebrate paleontology.* Carbondale, Kans, Feb. 12, 73. A.B, Kansas, 07; Sc.D, Lehigh, 34. Asst. curator *dept. vert. paleont, Am. Museum Nat. Hist,* 97–11, assoc. curator, 11–27, *curator,* 27– Geol. explorations and fossil hunting expeds, N. and S. Amer, Europe, Africa and Asia, 97– A.A; Paleont. Soc; Geol. Soc; Soc. Zool; Am. Geog. Soc; N. Y. Acad; fel. Royal Geol. Soc. Economic geology; oil and gas; mammals; dinosaurs; Cretaceous birds.

Brown, Baxter L(amont), 1204 Landreth Bldg, St. Louis, Mo. *Civil engineering.* Rush, N. Y, June 20, 64. Pub. schs. Chief engineer, St. Louis Valley Ry, 01–03; asst. engineer, Mo. Pacific Ry, 04; *consulting engineer, 05–* Chief engineer, St. Louis, Troy and East. R.R, 07–28; East. St. Louis, Columbia and Waterloo Ry, 10–25. Pres, Board Pub. Service, St. Louis, 33–41. Mem. assembly, Eng. Council, 30–31. Civil Eng. (director, 21–23); Inst. Consulting Eng. (v. pres, 30–); St. Louis Inst. Consulting Eng. (treas, 29); Eng. Club St. Louis (pres, 19).

Brown, B(enjamin) A(rthur), University of Connecticut, Storrs, Conn. *Agronomy.* Colchester, Conn, Sept. 11, 91. B.S, Conn. State Col, 26; M.S, Wisconsin, 28, 33–34. Asst. agronomist, *Exp. Sta, Connecticut,* 19–29, *assoc. agronomist, 29–* Lieut, U.S.A, 18–19. A.A; Soc. Agron; Potato Asn. Potato fertilization; soil conditions and species for pastures; alfalfa and other forage crops; role of minor elements in plant nutrition.

Brown, Prof. Bonnie H(udson), Maryville College, Maryville, Tenn. *Botany.* Brush Creek, Tenn, Sept. 21, 01. A.B, Maryville Col, 27; fellow, Tennessee, 28–29, A.M, 30. Teacher,

grade sch, 21–23; high sch, 27–28; *assoc. prof. biol, Maryville Col, 29–* Asters of eastern Tennessee.

Brown, Prof. Calvin S(mith), University, Miss. *Geology, Archeology.* Obion Co, Tenn, Feb. 13, 66. B.S, Vanderbilt, 88, M.S, 91, Sc.D, 92; Ph.D, Colorado, 99; Paris and Leipzig, 94–95; Spain, Italy and Greece, 03–04. Instr. English, Vanderbilt, 95–96; comp. lit, Colorado, 98–00; acting prof. modern languages, Mississippi, 02; acting asst. prof. *Romance languages,* Missouri, 04–05; *prof, Mississippi, 05–* Archeologist, Miss. Geol. Surv. Collector of flora of Azores. A.A; Anthrop. Asn; Soc. des Américanistes de Paris. Coal flora of Tracy City, Tennessee; lignite of Mississippi; archeology and botany of Mississippi.

Brown, Carl B(arrier), Soil Conservation Service, Washington, D. C. *Geology.* Salisbury, N. C, Nov. 12, 10. B.S, North Carolina, 29; A.M, Cincinnati, 31. Asst. geol, Cincinnati, 29–31; asst. geologist, Va. Geol. Surv, 31–32; junior geologist, U. S. Geol. Surv, 34; asst. engineer, *soil conservation service, U. S. Dept. Agr,* 35–36, assoc. geologist, 36–37, geologist, 37–40, *senior soil conservationist, 40–, head sedimentation sect, 42–* Geophys. Union; Geol. Soc. Wash. Precambrian geology and gold deposits of the Southern Appalachians; Triassic formations in southeastern United States; reservoir silting and recent valley sedimentation.

Brown, Prof. Carl R(ichards), 1617 Brooklyn, Ann Arbor, Mich. *Psychology.* Norton Co, Kans, May 2, 92. A.B, Kansas, 11, A.M, 12; Ph.D, Michigan, 28. Instr. math, Phillips, 13–15; asst. *psychol, Michigan,* 15–17, 19–20, instr, 20–29, *asst. prof,* 29– A.A. Experimental psychology; animal behavior.

Brown, Dr. Carlton E(rnest), 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* Washington, D. C, June 6, 04. Ch.E, Lehigh, 27, M.S, 29; fellow, Harvard, 29–31, Sc.D, 31. Asst. chem, Lehigh, 27–29; assoc. biochemist, *indust. hygiene investigations, U. S. Bur. Mines,* 31–35, *chemist, 35–* A.A; Chem. Soc. Determination, control, physical and chemical properties and physiological effects of atmospheric particulate matter.

Brown, Dr. Cecil L(angford), 305 Beverly Drive, Baton Rouge, La. *Chemistry.* Brookings, S. Dak, April 21, 99. B.S, S. Dak. State Col, 19; A.M, Missouri, 22; Ph.D, Brown, 29. Teacher, schs, 21–24; instr. chem, R. I. State Col, 24–26; prof, West. State Col, Colo, 27–28; asst. prof, Louisiana, 28–29; research chemist, *Standard Oil Co. of La,* 29–39, *director research, Esso labs, 39–* A.A; Chem. Soc. Metallo-organic compounds; chemical education.

Brown, Charles Carroll, 848 Orange Park Ave, Lakeland, Fla. *Civil engineering.* Austinburg, Ohio, Oct. 4, 56. Cornell, 74–75; C.E, Michigan, 79; hon. A.M, 13. Prof. civil eng, Rose Polytech, 83–86; Union, 86–93; city engineer, Indianapolis, 93–95; asst. city engineer, Omaha, 96–97; asst. ed, 'Munic. Eng. Magazine,' 97–99, ed. in chief, 00–17; prof. civil eng, Valparaiso, 17–20, dean col. applied sciences, 19–20; city engineer, St. Petersburg, Fla, 21–23; Lakeland, Fla, 23–27; assoc. prof. civil eng, Florida, 27–33; *supervisor engineer on map proposed Fla. Everglade Nat. Park, U. S. Coast Surv, 34–* Consulting engineer, State Board Health, N. Y, 87–93. Civil Eng; Munic. Eng. (past pres, sec'y, 13–26); hon. mem. Fla. Eng. Soc. (past pres); Sigma Xi (past pres). Stream pollution; sewage disposal; Imhoff tank operation; water supply; geodetic surveys; paving; effect of variations of rainfall on water powers; calcareous cements; water purification; irrigation and drainage; asphalt and concrete; foundations; Florida sources of water supply; applying determination of number of Bacillus coli to water supplies to determine amount of sewage pollution.

Brown, Prof. Charles D(urward), University of Maine, Orono, Maine. *Aerodynamics.* Raymond, Maine, March 20, 12. B.S, Maine, 33; M.S, Harvard, 38, D.Sc, 41. Asst. designer, Am. Woolen Co, Fairfield, Maine, 34–36, asst. supt, North Vassalboro, 36–37; asst. *mech. eng,* grad. sch. eng, Harvard, 38–40; *asst. prof, Maine, 40–* Inst. Aeronaut. Sci. The flutter of aeroplanes.

Brown, Dr. Charles L(eonard), 325 N. Bowman Ave, Merion, Pa. *Medicine.* Ill, April 27, 99. B.S, Oklahoma, 19, M.D, 21. Instr. path, Harvard Med. Sch, 23–25, teaching fellow med, 25–27, instr, 27–28; asst. prof. internal med, Michigan, 28–29, assoc. prof, 29–35; *prof. med. and head dept, Temple, 35–* Chief div. med, Phila. Gen. Hosp. Mem. revision cmt, U. S. Pharmacopeia. A.A; Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest; Gastro-Enterol. Asn; Therapeut. Soc; Cent. Soc. Clin. Research; Col. Physicians Phila; Physiol. Soc. Phila. Internal medicine.

Brown, Col. Cha(rle)s O(wen), 24 Hillcrest Lane, Rye, N. Y. *Chemical engineering.* Lakeport, N. H, Nov. 21, 88. B.S, New Hampshire, 11; M.S, Cornell, 13; C.E, Pittsburgh, 14. Research fellow, Mellon Inst, 14–17; director indust. lab, Semet-Solvay Co, Syracuse, N. Y, 19–21; consulting engineer, Providence, 22–23; sec'y-treas, Nitrogen Eng. Corp. of N. Y, 24–30; v. pres, Chem. Eng. Corp, 30; *director research, Chem. Construction Corp. of N. Y, 30–* Consulting chem. engineer, 38– Lieut-col, Ordnance Dept, 17–19. Chem. Soc; Chem. Eng. Nitrogen fixation; refrigeration; present conditions in Russia; electrolysis and electrolytic cells.

Brown, Prof. Charles W(ilson), Brown University, Providence, R. I. *Geology, Geography.* Overton, Nebr, Aug. 11, 74. Boston, 96–97; Ph.B, Brown, 00, A.M, 01; Harvard, 03–04. Asst. geol, Brown, 00–01; prin, high sch, R. I, 01–03; instr. *geol,* Lehigh, 04–05; *Brown,* 05–06, asst. prof, 06–13, assoc. prof, 13–39, prof, 39–40, *emer. prof, 40–,* head dept, 05–40. Field asst, U. S. Geol. Surv, 02–03, geol. aid, 04–08; supt, Nat. Resources Surv, R. I, 09– Summer, asst, Harvard, 03. A.A; Geol. Soc; Am. Geog. Soc; Seismol. Soc; Min. and Metal. Eng; Geophys. Union; Harvard Travelers Club. Areal geology of Vermont, Maine and Rhode Island; Jamaica earthquake; seismology; water supply; climate.

Brown, Prof. Clair A(lan), Louisiana State University, Baton Rouge, La. *Botany.* Port Allegany, Pa, Aug. 16, 03. B.S, Syracuse, 25; A.M, Michigan, 26, Ph.D, 34. Asst, herbarium, Michigan, 25–26; instr. *bot,* Louisiana, 26–29; asst, Michigan, 29–31; asst. prof, *Louisiana,* 31–35, *assoc. prof, 35–* State surv, Isle Royale, Mich, 30. Summers, tech. asst. to state botanist, N. Y, 24–26; photographer, soil erosion service, U. S. Dept. Agr, 34. Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; La. Acad. Flora of Louisiana; taxonomy of Hydnaceae.

Brown, Prof. Clarence M, Ohio State University, Columbus, Ohio. *Pharmaceutical economics.* Galion, Ohio, Feb. 6, 87. B.S, Ohio State, 11, A.M, 35. Instr, high sch, Logan, Ohio, 12–13, Zanesville, 13–20, Springfield, 20; asst. prof. *pharmacy, Ohio State,* 20–38, *assoc. prof, 38–, sec'y col. pharmacy, 20–* Asn. Cols. Pharmacy del, Druggists Research Bur, 41; Ohio State Univ. del, Pharmacopoeial Conv, 40. Pharmaceut. Asn. (sec'y sect. pharmaceut. econ, 39, chairman, 40, sect. del, house delegates, 41). Correlation of predictive pharmaceutical achievement tests; time and duty analysis of the registered pharmacist.

Brown, Prof. Clarence W(illiam), University of California, Berkeley, Calif. *Psychology.* Ogden, Utah, July 29, 02. A.A, Weber Col, 20; A.B, Utah, 26; Ph.D, Chicago, 29. Research asst, Inst. Juvenile Research, Chicago, Ill, 25–26; asst. *psychol, Chicago,* 26–27, instr, 27–29; *California,* 29–31, asst. prof, 31–40, *assoc. prof, 40–; Air Corps, U. S. Army.* Psychol. Asn. Role of emotions in mental activities; central nervous mechanism for emotional responses; subcortical mechanisms in learning; tests for diagnosing unsafe automobile drivers.

Brown, Prof. Clark E, University of North Carolina, Chapel Hill, N. C. *Pathology, Medicine.* Mt. Jewett, Pa, Dec. 2, 05. B.S, St. Lawrence, 30; M.D, Pennsylvania, 30. Intern, Lankenau Hosp, Philadelphia, Pa, 30–32, asst. pathologist, 33–36; Littauer fellow, Harvard, 36–37; asst. prof. *path, med. sch, North Carolina,* 40–41, *assoc. prof, 41–* Pathologist, Cottage, Country and St. Francis Hosps, Santa Barbara, Calif, 37–40. Am. Med. Asn; Asn. Path. and Bact. Cancer.

Brown, Dr. Claudeous J(ethro) D(aniels), 4120 Plymouth Road, Ann Arbor, Mich. *Zoology.* Farr West, Utah, Aug. 15, 04. B.S, Brigham Young, 27, M.S, 28; Ph.D, Michigan, 33. Instr. zool, Michigan, 31–33, research assoc, 33–34; asst. aquatic biologist, Bur. Fisheries, 34–35; instr. zool, Mont. State Col, 35–37; *biologist in charge stream and lake surv, state dept. conservation, Mich, 37–* Summer, instr, Brigham Young, 31. Limnol. Soc; Fisheries Soc; Soc. Ichthyol. and Herp; Wildlife Soc. (membership cmt, 40). Limnology of fresh-water Polyzoa; taxonomy and morphology of Utah Asilidae; distribution of Rocky Mountain Odonata; trout and other gamefish in the Rocky Mountain region; results of stream and lake survey and fisheries management in Michigan.

Brown, Prof. C(ornelius) Merrill, 102 Oakgrove Drive, Williamsville, N. Y. *Chemistry.* Matawan, N. J, Jan. 28, 92.

A.B, Williams Col, 14, A.M, 17. Asst. *chem*, Williams Col, 14–17; instr, *Buffalo*, 17–19, asst. prof, 19–21, assoc. prof, 21–40, *prof, 40–* Micro analyst, sci. staff, City Police Dept, Buffalo, N. Y. Quantitative determinations in analytical chemistry.

Brown, Prof. D(alton) M(ilford), State Teachers College, Johnson City, Tenn. *Botany, Biology.* McMinnville, Tenn, March 11, 98. B.S, Tennessee, 23, M.S, 26; Ph.D, Duke, 38. Prin. and teacher, high sch, 23–25; instr. *biol, Tenn. State Teachers Col, Johnson City*, 26–29, *prof, 29–* A.A; Ecol. Soc; Tenn. Acad. Plant ecology; vegetation of Roan Mountain, Tennessee.

Brown, Prof. D(enton) J(acobs), University of Nebraska, Lincoln, Nebr. *Chemistry.* Hampton, Pa, April 13, 82. A.B, Texas, 10; Ph.D, Chicago, 18. Instr. *chem*, Texas, 10–14, 17–18; asst. prof, Agr. and Mech. Col. Texas, 15–17; assoc. prof, *Nebraska*, 18–27, *prof, 27–* A.A; Chem. Soc. Electroanalysis; oxidation and reduction.

Brown, Prof. Donald M, 1317 S. Prairie Ave, Sioux Falls, S. Dak. *Mathematics.* Evanston, Ill, Oct. 28, 07. B.S, Illinois, 29, A.B, 30, A.M, 32, Ph.D, 37. Asst. math, algebra, trigonometry and anal. geometry, Illinois, 30–37; *prof. math. and physics and chairman dept, Sioux Falls Col, 37–* Special trigonometric identities.

Brown, D(onald) N(icol), 4 E. Third St, Corning, N. Y. *Chemistry.* English Center, Pa, Nov. 4, 07. B.S, Bucknell, 30. *Chemist, Corning Glass Works, 30–* Problems of glass technology; production of tubing by automatic machinery, especially thermometer tubing.

Brown, Prof. Dugald E(dmund) S(mith), 477 First Ave. New York, N. Y. *Physiology.* St. Thomas, Ont, Can, July 9, 01. A.B, Michigan, 23, M.S, 24; Ph.D, Cornell, 33. Asst. zool, Michigan, 23–24; teaching fellow physiol, Harvard, 25–26; instr. zool, *N. Y. Univ*, 26–28, asst. prof. *physiol*, 28–30, instr, Univ. and Bellevue Hosp. Med. Col, 30–32, asst. prof, 33–39, *prof*, dental col, 40–41, *col. dentistry, 41–* Trustee, Marine Biol. Lab, Woods Hole. Am. Asn. Adv. Science prize, 42. Physiol. Soc; Harvey Soc. Protoplasmic viscosity at high pressure; time sequence of events in cardiac and striated muscle; temperature and velocity of muscular contraction; work of the heart; action of pressure and temperature on intracellular reaction velocity.

Brown, Dr. Duncan S(telle), 2312 Grand Ave, Middletown, Ohio. *Chemistry.* Newtown, Pa, Oct. 29, 14. B.S, Pa. State Col, 35; M.S, Lawrence Col, 37, Ph.D, 39. *Tech. supt, Gardner-Richardson Co, 39–* Summers, tech. asst, Pa. Grade Crude Oil Asn, 35; Inst. Paper Chem, Lawrence Col, 36; Detroit Sulfite Pulp and Paper Co, 37. Tech. Asn. Pulp and Paper Indust. (sec'y-treas, Ohio sect, 41–). Manufacturer of paperboard; technical control.

Brown, Prof. E. Marion, University of Missouri, Columbia, Mo. *Agronomy.* Charleston, Mo, July 13, 98. B.S, Missouri, 21, A.M, 30, Ph.D, 38. Instr. *field crops, Missouri*, 31–37, *asst. prof, 37–; agent, forage crops and diseases, bur. plant indust, U. S. Dept. Agr, 37–* Soc. Agron. Growth and relation of pasture grasses to environmental factors and their improvement by breeding.

Brown, Dr. Earl H(enderson), House 91, Village 1, Sheffield, Ala. *Chemistry.* Muskegon, Mich, May 29, 00. B.S, Kalamazoo Col, 23; M.S, Brown, 26, Ph.D, 27. Asst. prof. chem, Wabash Col, 27–30; physical chem, Antioch Col, 30–34; Tenn. Valley Authority Fertilizer Works, 34–38; Eimer and Amend, 38–41; *Tenn. Valley Authority, 41–* Consultant, Wilcolater Co, 39–40. Chem. Soc. Reaction of boron trifluoride with ammonia and alkylamines; action of lithium on ethylamino boron trifluoride; high temperature technique; development of analytical methods and apparatus.

Brown, E(dgar), 4197 Braganza Ave, Coconut Grove, Fla. *Botany.* Farmington, N. Y, Sept. 25, 71. Ph.B, Union (N. Y), 95. Botanist in charge seed lab, U. S. Dept. Agr, 02–38, prin. botanist, div. cereal crops and diseases, 38–41; *retired.* Del, Int. Seed Testing Cong, Stockholm, Sweden, 34, Zurich, Switzerland, 37. A.A; Asn. Seed Anal. (sec'y, 08–13, pres, 20); Wash. Acad; hon. for. fel. Nat. Inst. Agr. Bot, England. Seed testing.

Brown, Dr. E(dgar) D(ewight), Paynesville, Minn. *Pharmacology.* Albion, N. Y, April 4, 69. Ph.G, N. Y. Col. Pharmacy, 98, Phar.D, 99; M.D, Western Reserve, 02. Demonstrator pharmacol. and mat. med, Western Reserve, 03–06, instr. pharmacol, 06–07; asst. prof. mat. med. and pharmacol, Minnesota, 07–09, prof, 09–37; *retired.* Soc. Pharmacol. (sec'y, 17–32); Physiol. Soc; Soc. Exp. Biol; Federation Societies for Exp. Biol. (sec'y, exec. cmt, 19, 23, 28); Am. Med. Asn.

Brown, Dr. E(dward) V(ail) L(apham), 122 S. Michigan Ave, Chicago, Ill. *Ophthalmology.* Morrison, Ill, Aug. 15, 76. M.D, Hahnemann Med. Col. (Ill), 97; M.D, Rush, Chicago, 98, B.S, Chicago, 03; Berlin, 02; Vienna, 06–08, 11–12. Intern, Ill. Charitable Eye and Ear Infirmary, 98–99; instr. and asst. prof. ophthal, Rush Med. Col, Chicago, 00–17, asst. prof. path, univ, 07–17; prof. *ophthal.* and head dept, col. med, Illinois, 17–26; prof, Chicago, 26–41; *Rush prof, col. med, Illinois, 41–*, clin. prof, Rush Med. Col, Chicago, 26–33. Attending ophthalmologist, Presb. Hosp, 03–17, 42–; Cook County Hosp, 13–18; attending ophthalmologist, St. Luke's Hosp, 26–41. Trustee, Hadley Correspondence Sch. for Blind. Ophthal. Soc; Am. Med. Asn; Ill. Soc. Prev. Blindness (trustee); Chicago Ophthal. Soc. Pathology of the eye; diseases of the uvea.

Brown, Dr. Ellis V(incent), Chas. Pfizer and Co, Inc, Brooklyn, N. Y. *Organic chemistry.* Montreal, Que, Can, Aug. 6, 08. B.S, Illinois, 30; Ph.D, Iowa State Col, 36. Asst, Iowa State Col, 30–36, instr. chem, 36–37; *research chemist, Chas. Pfizer and Co, Inc, 37–* Chem. Soc. Furans; ascorbic acid; riboflavin; organo-metallics; biological products.

Brown, Dr. Elmer B, Anheuser-Busch, St. Louis, Mo. *Chemistry.* Sunset, Texas, June 27, 92. Hirsch fellow, Texas, 18–20, A.B, 19, A.M, 20; Tuber. Asn. fellow, Yale, 21–23, Ph.D, 22. Teacher, pub. schs, Texas, 09–17; tutor chem, Texas, 18–19; asst, Yale, 20–21; research chemist, Fleischmann Labs, New York, N. Y, 23–33; research fellow, Upjohn Co, Kalamazoo, Mich, 33–35; research chemist, *Anheuser-Busch*, 35–40, *director cereal and biochem. labs, 40–* Chem. Soc. Organic and pharmaceutical chemistry; biochemistry; catalysis; tubercle bacilli; fermentation; industrial chemistry.

Brown, Prof. E(lmer) E(vans), Box 97, Davidson, N. C. *Herpetology.* Salisbury, N. C, April 2, 07. A.B, Davidson Col, 28; North Carolina, 31–32; Michigan, summers, 30, 31, 33, 36, 37; Ph.D, Cornell, 40. Asst. *biol*, Cornell, 35–38; substitute, N. Y. State Teachers Col, Cortland, 39; *assoc. prof, Davidson Col, 39–* Teacher, schs, N. C, 39–40. Summers, asst, biol. surv, N. Y. State Conservation Dept, 34, 35. A.A; Ecol. Soc; Soc. Ichthyol. and Herp; N. C. Acad. Life history of the northern water snake, Natrix s. sipedon.

Brown, Dr. F(ay) C(luff), 46 Massachusetts Ave, Cambridge, Mass. **3*Physics.* Washington, Ohio, Nov. 23, 81. A.B, Indiana, 04; A.M, Illinois, 06; fellow, Princeton, 07–08, Ph.D, 08. Instr, high sch, Ill, 03–04; physics, Illinois, 04–07; Iowa, 09–10, asst. prof, 10–13, assoc. prof, 13–19; sci. asst. to director, Bur. Standards, 19–20, asst. director, 20–27; acting director, New York Museum Science and Indust, 27–31; director annual science exhib, Am. Asn. Adv. Sci, 31–37; *curator physics, Museum Science and Indust, Chicago, 37–; mem. staff, Mass. Inst. Tech, 43–* Tech. investigator, U. S. Personnel Classification Board, 31–33; research assoc, Mass. Inst. Tech, 41– Summer, lecturer, California, 15. Acting director, Bur. Standards, 23; chief examiner, Civil Service Cmn, 27. Major, Ordnance Dept, 18–19. A.A; Physical Soc. (councilor); Optical Soc; Wash. Acad; Philos. Soc. Wash. Physical properties of selenium cells and selenium crystals; heats of solution of milk sugars; radioactivity and thermionics; electron theory; process of freezing; ballistics of airplane drop bombs.

Brown, Dr. Forest B(uffen) H(arkness), Bishop Museum, Honolulu, Hawaii. *Botany.* Rushville, N. Y, Dec. 11, 73. A.B, Michigan, 02, M.S, 03; Ph.D, Yale, 18. Instr, Mich. Nor. Col, 98–00; curator bot. garden, Michigan, 08–09; in charge bot. gardens and instr. plant anat, Ohio State, 11–16; research fellow, Yale, 18–19; *botanist, Bishop Museum, Honolulu, 19–* Mich. Biol. Surv, 03–15. A.A; Bot. Soc; Mich. Acad; Ohio Acad; Hawaiian Bot. Soc; Hawaiian Acad; Int. Asn. Wood Anat. Plant anatomy; taxonomy; ecology; Hawaiian woody plants; flora of southeastern Polynesia.

Brown, Mrs. Forest B(uffen) H(arkness) (Dr. Elizabeth Dorothy Wuist), Bishop Museum, Honolulu, Hawaii. *Botany.* Dayton, Ohio, July 22, 80. Antioch Col; A.B, Maryville Col, 05, A.M, 11; A.B, Michigan, 08, M.S, 09, Ph.D, 12. Teacher, high sch, Tenn, 05–07; asst. bot, Michigan, 09–12;

head dept. biol, Winthrop State Nor. Col, 12–13; instr, De-Pauw, 13–14; prof. bot. and nature study, Wis. State Nor. Sch, Milwaukee, 14–15; Theresa Seessel fellow, Yale, 15–18; research fellow bot, Bishop Museum, Honolulu, 20–25; instr. nat. science, Teachers Col, Hawaii, 31–42. A.A; Bot. Soc; Hawaiian Bot. Soc; Hawaiian Acad. Cryptogams; physiology of the gametophytes of the Pteridophytes.

Brown, Prof. Frances C(ampbell), Box 671, College Station, Durham, N. C. *Chemistry.* Johnson City, Tenn, Dec. 12, 06. A.B, Agnes Scott Col, 28; Ph.D, Hopkins, 31. *Instr. chem, Duke,* 31–41, *asst. prof, 41–* Chem. Soc. Diffusion of dyes in gels; dipole moments of substituted mesitylene compounds; Friedel-Crafts reaction.

Brown, Dr. F(rancis) W(illiam), 622 Revere Road, Merion, Pa. *Chemistry.* Athol, Mass, June 8, 02. B.S, Mass. Inst. Tech, 24; A.M, Harvard, 28, Ph.D, 33. Staff, Mass. Inst. Tech, 25–26; chemist, Bur. Int. Revenue, Phila, 26–27; *instr. chem, Drexel Inst, 27–* Franklin Inst. Paints and synthetic resins.

Brown, Prof. Frank A(rthur), Jr, Northwestern University, Evanston, Ill. *Zoology.* Beverly, Mass, Aug. 30, 08. A.B, Bowdoin Col, 29; A.M, Ph.D, Harvard, 34. Austin teaching fellow, Harvard, 29–32, asst. *zool,* 32–34; instr, Illinois, 34–37; asst. prof, *Northwestern,* 37–40, *assoc. prof, 40–* Summers, instr, Mt. Desert Biol. Lab, 40; prof, Chicago, 41. A.A; Soc. Zool; Limnol. Soc; Physiol. Soc; Soc. Study Growth and Develop; Union Am. Biol. Socs. (sec'y, 40–); Ill. Acad; N. Y. Acad. Animal reactions; the physiology of pigmentary systems; color perception; swimbladder physiology; invertebrate endocrinology.

Brown, Prof. F(rank) E(merson), Iowa State College, Ames, Iowa. *Chemistry.* Cuba, Kans, Feb. 9, 82. A.B, Kans. State Teachers Col, Emporia, 11; B.S, Chicago, 13, Ph.D, 18. Teacher, prin. and pub. sch. supt, Kans. and Okla, 99–12; instr. chem, Fresno Junior Col, 14; physics and chem, Cent. Y.M.C.A, Chicago, 14–16; asst. prof. *chem, Iowa State Col,* 17–18, assoc. prof, 18–23, *prof, 23–* Abstractor, 'Chem. Abstracts,' 21–; contributing ed, 'Jour. Chem. Educ,' 28–40. A.A; Chem. Soc. (sec'y-treas, Ames sect, 18, chairman, 21, councilor, 31, 33, 39; chairman local sect. officers group, 40; div. chem. educ, 42); Iowa Acad. Surface tension; decomposition of potassium chlorate; vanadium oxytrichloride as a solvent; density and hydration of gelatin; equilibrium under varying pressure of gaseous reactants; qualitative analysis; free energy and hydration products of furfural; catalysis.

Brown, F(rank) N(ewton) M(ithery), Notre Dame, Ind. *Aeronautical engineering.* Jamestown, N. Dak, Sept. 16, 02. B.S, Michigan, 28, M.S, 32. Instr. aeronaut. eng, Col. City of Detroit, 28–29; asst. prof, Michigan, 28–30; tech. rev. ed, material div, A.C, U. S. Army, 31–33; research engineer, U.S.S. Macon, 33–35; *assoc. prof. aeronaut. eng. and head dept, Notre Dame, 35–; pres, St. Joseph Aircraft Co, 40–* Consulting aeronaut. engineer. Summer, installation engineer, Allison Eng. Co, 35. Assoc. fel, Inst. Aeronaut. Sci; Eng. Educ; Soc. Metals. Torsional vibration of I.C. engine crankshafts; space-time recorders; ovalization of tubes under bending loads; air flow demonstration apparatus.

Brown, Dr. Fred, 3326 Humboldt Ave, S, Minneapolis, Minn. *Psychology.* Pressburg, Hungary, May 18, 05. A.B, Ohio State, 29, A.M, 30, Ph.D, 33. Asst. instr, Ohio State, 31–33; psychoclinician, State Bur. Juvenile Research, 33–34; psychologist, Alfred Willson Children's Center, Columbus, 34–36; asst. prof. psychol. and director psycho-educ. clinic, Pa. State Col, 36–37; *chief psychologist, child study dept, schs, Minneapolis, 37–; lieut, Air Forces, U. S. Army, 43–* Professorial lecturer, Minnesota, 38–39. Director, Camp Hinckley, Minn, 40– Psychol. Asn; Asn. Applied Psychol. Race differences; personality measurement; neuroticism in children; intelligence; child guidance.

Brown, Prof. Frederick L(yons), P. O. Box 1052, University, Va. *Physics.* Mexico City, Mex, Oct. 23, 90. A.B, Park Col, 14; A.M, Northwestern, 16, Ph.D, 22. Instr. astron, Northwestern, 16–17, math, 19–22; asst. prof. *physics, Virginia,* 22–26, assoc. prof, 26–40, *prof, 40–* Trustee, Mary Baldwin Col. Sig.C, U.S.A, 17–19. Physical Soc. (councilor, southeast. sect, 40–); Optical Soc; Asn. Physics Teachers; Eng. Educ; Va. Acad. (sec'y, physics sect, 30, chairman, 31). Physical optics; the cluster N.G.C. 6633; interferometer wavelengths of titanium; spectroscopy; index of refraction of carbon dioxide.

Brown, F(rederick) Martin, Fountain Valley School, Colorado Springs, Colo. *Physiology.* New York, N. Y, March 24, 03. Columbia, 24. Fairchild Air Camera Corp, 22; Palisades Interstate Park Cmn, 23–25; instr. biol, St. George's Sch, R. I, 25–27; *head dept. science,* Avon Col, 27–30; *Fountain Valley Sch, 30–; lecturer anthrop, Colo. Col, 35–; capt, Air Forces, U. S. Army, 42–* Sta. for study of insects, Am. Museum Nat. Hist, Tuxedo, N. Y, 26–29; Lesser Antilles, 26–30; Chichen Itza, Yucatan, 31, 32, 36; Ecuador, 38–39; biologist in charge, Colo. Biol. Surv, 31; water supply surv, Colorado Springs, 32. Director, Cheyenne Mountain Museum, 37– A.A. (chairman social sciences, southwest. div, 42); Entom. Soc; Soc. Mammal; N. Y. Entom. Soc; N. Mex. Archeol. Soc; fel. Entom. Soc. London. Taxonomy and comparative anatomy of Pieridae; bacteria and insects; insect physiology; inheritance in bacteria; derivation of Andean fauna.

Brown, Lieut. Frederick W(arner), Hq. So. N.Y.R. and I Dist, 480 Lexington Ave, New York, N. Y. *Mental hygiene, Speech pathology.* Pittsburgh, Pa, July 27, 93. Ph.B, Heidelberg Col. (Ohio), 14; A.M, grad. theol. sem, Princeton, 17; Iowa, 20–22; Wisconsin, 22; Columbia, 27–30; N. Y. Univ, 37– Head dept. hist. and politics, Davis and Elkins Col, 19–20; instr. speech, Iowa, 20–21, research assoc. psychol, 21–22; prof. Eng. speech, Hokkaido Imp. Univ, Japan, 22–25; assoc. prof. spoken Eng, Smith Col, 26–27; director dept. information and statist, Nat. Cmt. Mental Hygiene, 27–33, bibliographer, 35–37; special rep, tabulating machines div, Int. Business Machines Corp, 33–35; speech pathologist, pub. schs, *Floral Park, N. Y,* 35–37, director guidance dept. and adult educ. counseling service, *Sewanhaka High Sch,* 36–38, *psychologist and speech pathologist, 38–; lieut, U. S. Army, 42–* Summer, psychologist, speech clinic, Wisconsin, 22; Minneapolis Child Guidance Clinic, 27. Statist. expert mental disorders, U. S. Bur. Census, 31–39; certified psychologist, State Dept. Mental Hygiene, N. Y, 32–; director demonstration speech clinic, pub. schs, N. J, 32. Fel. Speech Correction Asn; Orthopsychiat. Asn. (sec'y-treas, N. Y. regional div, 40); Asn. Teachers Speech; Acad. Polit. and Social Sci; Nat. Cmt. Mental Hygiene; N. Y. Acad. Correction of speech disorders, especially stuttering; statistics of mental disorders; child and adolescent psychology; army personnel classification and mental testing.

Brown, Dr. Frederick W(infield), U. S. Bureau of Mines, Pittsburgh, Pa. *Physics.* Enid, Okla, July 2, 08. B.S, Illinois, 28, M.S, 30, fellow, 32–33, Ph.D, 33. Asst. physics, Illinois, 28–32, 33–34; nat. research fellow, California and Calif. Inst. Tech, 34–35; asst. physics, Illinois, 35–36; instr, Kansas City, 36–38; *asst. physicist, U. S. Bur. Mines, 40–* Physical Soc; Math. Soc. Atomic wave functions; nuclear magnetic moments; positron theory; nuclear structure; theory of explosions.

Brown, Prof. George A(rthur), 948 University Drive, East Lansing, Mich. *Animal husbandry.* Omer, Mich, May 13, 86. B.S, Mich. State Col, 07. *Dept. animal husbandry, Mich. State Col, 07–, prof, 20–* Soc. Animal Production. Sheep; beef cattle; swine.

Brown, Dr. George B(osworth), 436 E. 73rd St, New York, N. Y. *Organic chemistry.* Birmingham, Ala, April 18, 14. B.S, Ill. Wesleyan, 34; M.S, Illinois, 36, Ph.D, 38. Asst, *med. col, Cornell,* 38–39, *assoc. biochem, 39–* Chem. Soc. Sulfur containing amino acids; biotin.

Brown, Prof. G(eorge) E(arl), Culver-Stockton College, Canton, Mo. *Organic chemistry.* Weaubleau, Mo, Sept. 4, 06. A.B, Cent. Col. (Mo), 31; Indust. Science Research scholar, Iowa State Col, 32–35, Ph.D, 41. Instr. chem. and math, Cent. Col. (Mo), 31–32; chem. and physics, *Culver-Stockton Col,* 35–36, asst. prof. chem, 36–39, *prof. chem. and head dept. physical science, 40–* Chem. Soc; Mo. Acad. Orientation studies on dibenzofuran and reactions of organolithium compounds with some organic phosphorus and nitrogen compounds.

Brown, Prof. George Granger, University of Michigan, Ann Arbor, Mich. *Chemical engineering.* New York, N. Y, Sept. 3, 96. Vernon Damarel fellow, B.S, N. Y. Univ, 17, Ch.E, 25; M.S.E, Michigan, 22, Ph.D, 24. Research engineer, Aluminum Co. of Amer, 17–18; chief engineer, Universal Aniline Dyes and Chem. Co, 18–19; production manager, Union Special Machine Co, 19–20; instr. *chem. eng, Michigan,* 20–24, asst. prof, 24–30, *prof, 30–, chairman dept. chem. and metal. eng, 42–; director research, Nat. Gasoline Asn. of Amer, 26–; consulting chem. engineer,* William H. Walker award, Am. Inst. Chem. Engineers, 39; Hanlan award, Nat.

Gasoline Asn. of Amer, 40. Chem. Eng; Chem. Soc; Soc. Test. Mat; Soc. Automotive Eng; Petrol. Inst. Petroleum; fuels; furnaces; liquid fuel utilization; gaseous explosives; clay and sand resources of Michigan; distillation; thermodynamics.

Brown, Dr. George H(arold), Mercer Road, Princeton, N. J. *Electrical engineering.* North Milwaukee, Wis, Oct. 14, 08. B.S, Wisconsin, 30, Pub. Utilities fellow, 30–31, M.S, 31, fellow, 31–33, Ph.D, 33. Research div, RCA Mfg. Co, 33–37; partner, Godley and Brown, 37–38; *in charge antenna and wave propagation, research div,* RCA Mfg. Co, Camden, 38–42; *RCA Labs, 42–* Summer, junior engineer, Gen. Elec. Co, 29. Elec. Eng; fel. Radio Eng. Electromagnetic waves; radio transmitting antennas; wave propagation and circuits associated with antenna systems.

Brown, Dean G(eorge) L(incoln), Brookings, S. Dak. *Mathematics, Astronomy.* Bates Co, Mo, Jan. 25, 69. B.S, Missouri, 92, M.S, 93; fellow, Chicago, 94–96, Ph.D, 02, LL.D, South Dakota, 27. Teaching fellow *math,* Missouri, 92–93; instr, high sch, Ill, 96; *prof, S. Dak. State Col, 97–, dean faculty, 10–, v. pres, 13–,* dean div. gen. science, 24–40, acting pres, 08, 14, 18–19, 22, 39–40, pres, 40. A.A; Math. Soc. The linear transformation group of order 3 x 360.

Brown, Dr. George Van Ingen, 759 N. Milwaukee St, Milwaukee, Wis. *Surgery.* St. Paul, Minn, Jan. 15, 62. D.D.S, Pa. Col. Dental Surg, 81; Minnesota, 94–95; M.D, Milwaukee Med. Col, 96; A.B, North. Ill. Col, 98; M.D, Marquette, 09. Practised oral surg. and dentistry, Minn, 81–98; *specialist plastic and oral surg, Milwaukee, 98–;* prof. operative dentistry and oral surg. and dean dental dept, Milwaukee Med. Col, 98–02; lecturer oral surg, Illinois, 02–03; Iowa, 03–04; Tennessee, 04–05; Vanderbilt, 05–09; South. Dental Col, 09–15; prof. oral surg. and oral path, Iowa, 04–10; *oral and plastic surg, Wisconsin,* 20–37, *emer. prof, 37–; plastic surgeon, Wis. Gen. Hosp, 20–; Wis. Orthop. Hosp, 31–* Staff various hosps. Jarvie medal, 21. U. S. del, Int. Med. Cong, Madrid, 03, Budapest, 11. M.R.C, 15–19, lieut. col; col, O.R.C, 23. Fel. Col. Surg; Am. Med. Asn. (chairman, stomatol. sect); Interstate Post-Grad. Med. Asn. (pres, 20, 21, trustee, 20–, speaker assembly, 22–35); Soc. Plastic and Reconstructive Surg; hon. mem. Milwaukee Acad. Med. (pres, 30, trustee, 31); Soc. sci. française de Chirurg. reparatrice, plastique et esthetique; hon. mem. Physico-Chem. Acad. Italy; hon. mem. Soc. belge de Stomatol; Int. Col. Surg. Oral and facial diseases and malformations.

Brown, Dr. George W(illiam), 20 Nassau St, Princeton, N. J. *Mathematics.* Boston, Mass, June 3, 17. A.B, Harvard, 37, A.M, 38; Ph.D, Princeton, 40. Research statistician, R. H. Macy and Co, Inc, New York, 40–42; *research assoc. math, Princeton, 42–* Math. Soc; Inst. Math. Statist. Analysis and mathematical statistics.

Brown, Glen F(rancis), P. O. Box 653, University, Miss. *Geology.* Graysville, Ind, Dec. 14, 11. B.S, N. Mex. Sch. Mines, 35; M.S, Northwestern, 40. Geologist, Philippine Bur. Mines, 38; junior geologist, *U. S. Geol. Surv,* 38–41, *asst. geologist, 41–* Geophys. Union; Asn. Petrol. Geol. Geology of metals and coal in the Philippine Islands and South China; geology of ground-water in Mississippi and California.

Brown, Dr. Glenn V(inton), 312 E. Main St, Mechanicsburg, Pa. *Chemistry.* Baltimore, Md, June 7, 76. Ph.B, Dickinson Col, 98, A.M, 99; Hopkins, 98–99; Ph.D, Pennsylvania, 10. Instr. physics, Pennsylvania, 07–09; prof, St. John's (N. Y), 10–11; Teachers Col. (H.M.S), 11–12; chem. eng, Bucknell, 12–26; chem. engineer, Sanit. Water Board, Pa, 26–35; *consultant indust. wastes treatment and stream purification studies, 35–* A.A; Chem. Soc; Inst. Chem. (councilor, 24, chairman, Pa. sect, 25–). Colorimetry; industrial wastes and stream pollution.

Brown, Dr. Gordon C(ampbell), University of Michigan School of Public Health, Ann Arbor, Mich. *Epidemiology.* Zanesville, Ohio, Sept. 28, 12. A.B, Ohio State, 34, A.M, 35; fellow, Yale, 36; scholar, Hopkins, 39–42, Sc.D, 42. Asst. immunochem, Parke, Davis and Co, 35–39; *instr. epidemiol, Michigan, 42–* Pub. Health Asn. Virus diseases in relation to their public health importance; poliomyelitis; encephalitis; influenza; virus diseases.

Brown, G(ordon) G(eorge), 902 Cascade Ave, Hood River, Oregon. *Horticulture.* Fairview, Oregon, 87. A.B, Pacific (Oregon), 10; B.S, Oregon State Col, 12. Can. Govt. fruit inspector, Vernon, B. C, 13–16; *horticulturist, Hood River Exp. Sta, Oregon State Col, 16–* Soc. Hort. Sci. Strawberry, orchard and potato fertilization; apple orchard management; hardy stocks; pollination of Anjou pears.

Brown, Prof. Gordon S(tanley), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Drummoyne, New South Wales, Australia, Aug. 30, 07. Melbourne Tech. Sch, Australia, 25; B.S, Mass. Inst. Tech, 31, M.S, 34, Sc.D, 38. Asst. engineer, State Elec. Cmn. of Victoria, Australia, 26–29; asst. elec. eng, *Mass. Inst. Tech,* 31–32, instr, 32–39, asst. prof, 39–41, *assoc. prof. elec. eng. and director servomechanisms lab, 41–* Field test, cosmic ray recording meter, Carnegie Institution, Colo, 34. Assoc. Elec. Eng. Servomechanisms or closed cycle control systems; network calculating machines; synchronous machines.

Brown, Dr. Grover F, U. S. Department of Agriculture, Indiana, Pa. *Agronomy.* Mt. Vernon, Wash, Aug. 13, 05. B.S, State Col. Wash, 31; Nat. Milling Co. fellow, Mich. State Col, 31–34, Ph.D, 34. Instr. agron, Pa. State Col, 34–35; *asst. agronomist, soil conservation service, U. S. Dept. Agr, 35–* Environmental factors affecting the quality of soft winter wheats.

Brown, Dr. Harold P(robert), 850 Packard Drive, Akron, Ohio. *Organic chemistry.* Granby, Mo, Aug. 29, 08. A.B, B.S, Cent. Mo. State Teachers Col, 28; A.M, Missouri, 30; Parke, Davis research fellow, Nebraska, 30–33, Ph.D, 33. Mem. dept. chem, Univ. Kansas City, 33–38, assoc. prof, 38–42, chairman dept, 41–42; *chemist, synthetic rubber div, research labs, B. F. Goodrich Co, 42–* Summer, chemist, Colgate-Palmolive-Peet Co, Kansas City, Mo, 29; Merrimac Chem. Co, Boston, Mass, 34; Jensen Salsbery Labs, Kansas City, 36–38; Geo. A. Breon Co, 39–42. A.A; Chem. Soc. (chairman, local sect, 38–40, councilor, 40–42). Organic arsenicals and antimonials; organic tin compounds; naphthalene chemistry; chemotherapeutic agents; organo metallics; organic sulfur compounds.

Brown, Dean H(arold) W(illiam), University of North Carolina, Chapel Hill, N. C. *Public health.* Muskegon, Mich, Jan. 16, 02. A.B, Kalamazoo Col, 24; M.S, Kans. State Col, 25; Sc.D, Hopkins, 28; M.D, Vanderbilt, 33; Dr.P.H, Harvard, 36. Asst. zool, Kans. State Col, 24–25; helminth, Hopkins, 25–27; research assoc, sch. med, Vanderbilt, 27–34; Gen. Educ. Board fellow, London Sch. Hygiene and Trop. Med, 34–35, Harvard Sch. Pub. Health, 35–36; passed asst. surgeon, U. S. Pub. Health Service, 36–37; *prof. pub. health, North Carolina, 37–,* asst. dean, 39–40, *dean, 41–; prof. pub. health and prev. med, Duke, 37–* Mem, Malaria Cmn. Panama hookworm exped, 26. Soc. Parasitol; Pub. Health Asn; Soc. Trop. Med; Epidemiol. Soc; Helminth. Soc. Wash. Anthelmintics; filariasis; epidemiology of Ascariasis; influenza; malaria.

Brown, Dr. Harrison S(cott), University of Chicago, Chicago, Ill. *Physical chemistry.* Sheridan, Wyo, Sept. 26, 17. B.S, California, 38; Ph.D, Hopkins, 41. Instr. chem, Hopkins, 41–42; *research assoc. chem, Chicago, 42–* Thermal diffusion of gases; mass spectroscopy; nuclear chemistry.

Brown, Dr. Harry B(ates), University Station, Baton Rouge, La. *Botany.* Delphi, Ind, June 9, 76. A.B, Indiana, 06, A.M, 07; Ph.D, Cornell, 10. Instr. bot, Cornell, 08–11; prof, Miss. Agr. and Mech. Col, 11–15, plant breeding, Exp. Sta, 15–22, v. director, 19–22; plant breeder, Stoneville Pedigreed Seed Co, 22–26; *cotton breeder, Exp. Sta, Louisiana, 26–* Summer, instr, Indiana, 07. A.A; Bot. Soc. Algal periodicity; mycology; development of Xylaria; development and poisonous properties of Claviceps paspali; anatomy of plant hybrids; heredity in cotton and corn; cotton breeding.

Brown, Dr. Harry Fletcher, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Natick, Mass, July 10, 67. A.B, Harvard, 90, A.M, 92; hon. Sc.D, Delaware, 30. Chief chemist, torpedo sta, Bur. Ordnance, U. S. Navy Dept, 93–00; Int. Smokeless Powder and Chem. Co, 00–01, gen. supt, 01–04; chem. director smokeless powder dept, *E. I. du Pont de Nemours and Co,* 04–11, director, 11–15, *v. pres, 15–* Trustee, Delaware, 29– Chem. Soc. Smokeless powder.

Brown, Dr. H(arry) P(hilip), New York State College of Forestry, Syracuse, N. Y. *Botany.* West Winfield, N. Y, March 29, 87. A.B, Cornell, 09, A.M, 10, Ph.D, 14. Xylotomist, U. S. Forest Service, 11; instr. bot, Cornell, 12–14; asst. prof. forest bot, *N. Y. State Col. Forestry, Syracuse,* 15–17, *prof. wood technol, 18–* Wood technologist, Forest Research Inst, Dehra Dun, India, 22–23; mem. subcmt. bot, science advisory cmt, A Century of Progress Expos, Chicago, 31–36. A.A;

Bot. Soc; Soc. Foresters; British Empire Forestry Asn. Dendro-technology; growth in forest trees; trees of New York State; Indian wood technology; Indian timbers; medullary spots; commercial woods of the United States; trees of northeastern United States and adjacent Canada.

Brown, Dr. Henry, 1651 E. Grand Blvd, Detroit, Mich. *Chemistry.* Jersey City, N. J, April 5, 07. A.B, Kansas, 28; M.S, Michigan, 29, Ph.D, 32. Teaching asst, Michigan, 28–32; *research chemist, Udylite Co, 34–* Colloid chemistry; surface and interfacial tension; electrodeposition of metals.

Brown, Dr. H(enry) Trueheart, Standard Oil Co, Whiting, Ind. *Physical chemistry.* Galveston, Texas, Sept. 7, 15. A.B, Hopkins, 38, Ph.D, 42. *Chemist, Standard Oil Co. of Ind, 42–* Chem. Soc. Vapor phase catalytic oxidation.

Brown, Dr. Herbert C(harles), University of Chicago, Chicago, Ill. *Inorganic and organic chemistry.* London, Eng, May 22, 12. B.S, Chicago, 36, Ph.D, 38. Asst, *Chicago,* 36–38, Eli Lilly fellow, 38–39, *instr. inorg. and org. chem, 39–* A.A; Chem. Soc. Hydrides of boron; peroxide-catalyzed reactions; reactions of atoms and free radicals in solution; stereochemistry; chemistry of generalized acids and bases.

Brown, Dr. (Herbert) Eugene, University of Georgia, Athens, Ga. *Zoology.* Jackson, Ga, Dec. 25, 15. A.B, Emory, 36, A.M, 37; Ph.D, California, 40. Teaching asst. *zool,* California, 37–40; *instr, Georgia, 40–* A.A; Genetic Asn; Asn. Southeast. Biol; N. Y. Acad. Flagellates of termites; human genetics.

Brown, Prof. H(oward) D(exter), Ohio State University, Columbus, Ohio. *Agriculture.* Selma, Ill, Dec. 7, 91. B.S, Illinois, 14, M.S, 17; Ph.D, Mich. State Col, 27. From asst. to assoc, Illinois and Exp. Sta, 14–18; assoc. prof. *veg. gardening,* Purdue, and assoc, Exp. Sta, 19–29; *prof, Ohio State, 29–; assoc, Ohio Exp. Sta, 29–* 2nd lieut, U.S.A, 18–19. A.A; Soc. Hort. Sci; Soc. Plant Physiol; Veg. Growers Asn. (sec'y); Asn. Hot House Veg. Growers (sec'y-treas). Vegetable gardening; fertilizers; greenhouse soil sterilization; breeding and cultural practises.

Brown, Prof. Hubert M(cClure), 531 Linden St, East Lansing, Mich. *Plant breeding.* Coyoacan, Mex, April 3, 95. A.B, Park Col, 18; B.S, Colo. Agr. Col, 21; M.S, Mich. State Col, 23. Instr. *farm crops, Mich. State Col,* 23–42, *asst. prof, 42–, research asst, 23–* Soc. Agron. Farm crops; wheat.

Brown, Prof. H(ugh) A(lexander), 605 W. Oregon St, Urbana, Ill. *Electrical engineering.* Cedar Springs, Pa, June 19, 89. B.S, Illinois, 11, M.S, 13, E.E, 20. Asst. prof. and later *prof. elec. eng, Illinois, 20–* Elec. Eng. (chairman, Urbana sect). Influence of alkali vapor in small signal vacuum tube detectors; ionization discharges in high voltage insulation; electrical discharges in insulation under high voltage direct current influence; insulation at radio frequencies; damped vibrations in quartz plates; radio frequency electrical measurements.

Brown, Prof. Hugh M(onroe), Clemson Agricultural College, Clemson, S. C. *Physics.* Duell Co, Nebr, July 27, 95. A.B, Denver, 20, A.M, 21; Ph.D, California, 27. Asst. *physics,* Denver, 20–21, instr, 21–23; teaching fellow, California, 23–27; *prof, Clemson Col, 27–* Physical Soc.

Brown, Hylton R(oller), U. S. Bureau of Mines, College Park, Md. *Engineering.* Williamsburg, Pa, May 11, 95. B.S, Pa. State Col, 16, M.E; 23. Engineer, bur. chem. and soils, U. S. Dept. Agr, 17–40; *senior engineer, U. S. Bur. Mines, 40–* Fire Protection Asn. (chairman cmt. dust explosion hazards). Dust explosion prevention; dust control in industrial plants; use of inert gas for fire and explosion protection; venting dust explosion to prevent structural damage; inflammability of metal powders.

Brown, Dr. Irvin C(ecil), U. S. Department of Agriculture, Washington, D. C. *Soil chemistry.* Tingley, Iowa, Nov. 20, 95. B.S, Tarkio Col, 20; M.S, Iowa, 21, Ph.D, 29. Chemist, Ducktown Sulphur, Copper and Iron Co, Tenn, 21–22; instr. chem, Kans. State Col, 24–27; *assoc. chemist, bur. chem. and soils, U. S. Dept. Agr, 29–* Chem. Soc. Mechanical analysis and mineralogy of soil; soil chemistry in relation to soil genesis; base exchange in relation to the mineral alteration in soils.

Brown, Prof. James Greenlief, University of Arizona, Tucson, Ariz. *Botany, Plant pathology.* St. Clair, Mich, Nov. 21, 80. B.S, Chicago, 16, M.S, 17, Ph.D, 25. Teacher science, Cebu Nor. Sch, P. I, 04–07; instr. bot, *Arizona,* 09–15, asst. prof, 16–20, *prof. plant path, 20–,* head dept. agr, 22–26. Asst, desert lab, Carnegie Institution, 09–11. A.A; Bot. Soc; Phytopath. Soc; Soc. Plant Physiol; Mycol. Soc. Effect of desiccation on the tissues of cacti; abnormal development of stomata in cactus; diseases of cactus; angular leaf-spot in cotton and cotton seed treatment; crown-gall on conifers.

Brown, Prof. J(ames) Howard, Johns Hopkins University, Baltimore, Md. *Bacteriology.* Jacksonville, Ill, May 18, 84. B.S, Ill. Col, 06, hon. Sc.D, 29; M.S, Illinois, 09; Ph.D, Harvard, 17. Austin teaching fellow and asst. comp. path, Harvard Med. Sch, 12–17; in charge sera production, Rockefeller Inst. and Auxiliary Lab. No. 1, U.S.A. and U.S.N, 17–19, assoc, 19–23; *assoc. prof. bacter, Hopkins, 23–* Director, Babcock Foundation, 32– Pres, Am. Asn. Med. Milk Cmns, 26, councilor, 27– A.A; Soc. Bact. (pres, 31); Soc. Exp. Biol; fel. Pub. Health Asn; Am. Dental Asn. (councilor, dental therapeut. sect, 33–); Am. Med. Asn. (councilor, pharmacy and chem. sect, 35–). Animal pathology; blood transfusion; Streptococci from milk-borne epidemics of tonsilitis; use of blood agar for the study of Streptococci; Corynebacterium pyogenes; anaerobic bacteria; bacteria of the female genital tract; bacteriological technique; preservation of bacteria in vacuo; allergy and immunity; nephritis; pertussis.

Brown, Dr. J(ames) Howard, Oldbury Electro-Chemical Co, Niagara Falls, N. Y. *Chemistry.* Attica, Ind, Dec. 16, 10. A.B, Wabash Col, 32; M.S, Vanderbilt, 33; Ph.D, Illinois, 37. Teaching fellow chem, Vanderbilt, 32–33; half-time asst, Illinois, 34–37; *research and develop, Oldbury Electro-Chem. Co, 37–* Synthesis and resolution of optically active amines; reduction of aromatic hydrocarbons; preparation of free radicals of the substituted hexaphenylethane type.

Brown, Dr. J(ames) O(liver), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Anatomy.* Pueblo, Colo, Jan. 15, 08. B.S, Michigan, 29, M.S, 32, Ph.D, 41. *Instr. anat,* Michigan, 39–40; Emory, 41–42; *sch. med, Pennsylvania, 42–* Comparative neuroanatomy of midbrain of carnivores.

Brown, Prof. J(ohn) B(ernis), Ohio State University, Columbus, Ohio. *Chemistry.* Rock Falls, Ill, Dec. 25, 93. B.S, Illinois, 15, M.S, 17, Ph.D, 21. Asst. chem, Illinois, 15–21; assoc. chem. in pharmacol, Pennsylvania, 21–23; research chemist, Swift and Co, Chicago, 23–24; asst. prof. *physiol. chem, Ohio State,* 24–30, *assoc. prof, 30–* Chem. Soc. (sec'y, biol. div, 31, chairman, 32, Columbus sect, 32–); Soc. Exp. Biol; Soc. Biol. Chem; Inst. Nutrition; Oil Chemists Soc; fel. Ohio Acad. (v. pres, med. sci. sect, 34); Int. Asn. Dental Research. Chemistry of fats and oils; yeast metabolism; enzymes; endocrine glands; unsaturated fatty acids; fat metabolism; saliva.

Brown, J(ohn) Maughs, 1337 W. Fargo Ave, Chicago, Ill. *Civil engineering.* New Market, Mo, Aug. 14, 84. B.S, N. Mex. Col, 08, C.E, 20. Practising engineer, 08–12; prof. civil eng. and head dept, South Dakota, 12–27, 31–33; state highway engineer, S. Dak, 27–31; dist. highway engineer, *U. S. Indian Service,* 34–40, *director roads, 40–* Civil Eng. Economics of highway location.

Brown, Dr. J(ohn) R(owland), Jr, 532 Dudley Court, Westfield, N. J. *Colloid chemistry, Chemical engineering.* Mansfield, Ohio, March 4, 12. A.B, Oberlin Col, 33, A.M, 35; Sc.D, Mass. Inst. Tech, 39. Instr. chem. eng, Mass. Inst. Tech, 38; research chemist, *Esso Labs, chem. div, Standard Oil Develop. Co,* 38–41, *asst. director, 41–* Chem. Soc. Chemical reactions during the vulcanization of rubber; chemical derivatives of petroleum; production of synthetic rubber.

Brown, Dr. J(ohn) S(tafford), St. Joseph Lead Co, 250 Park Ave, New York, N. Y. *Geology.* Thomas Co, Kans, Sept. 26, 94. B.S, Mo. Sch. Mines, 17, E.M, 35; M.S, George Washington, 22; Ph.D, Columbia, 25. Geologist, Mo. Geol. Surv, 17; asst. geologist, U. S. Geol. Surv, 17–19, assoc. geologist, 19–25; geologist, Kans. Explorations, Inc, 25–28; *explor. dept, St. Joseph Lead Co, 28–* Instr, Mo. Sch. Mines, 23–24. Fel. Geol. Soc; Min. and Metal. Eng. Geology and ground water of Salton Sea, Calif, of New Haven, Conn, and of Haiti; coastal ground-water problems; Alabama graphite; Nixon Fork region, Alaska; map interpretation; zinc deposits in Edwards, New York; porosity and ore deposition.

Brown, Dr. John W(esley), Cleveland Electro Metals Co, Cleveland, Ohio. *Industrial chemistry.* Rye, N. H, July 23, 77. B.S, Mass. Inst. Tech, 00; Ph.D, Heidelberg, 03. Asst.

anal. chem, Mass. Inst. Tech, 00-01, instr. theoret. chem, 03-06; director research lab, Nat. Carbon Co, 06-12; *pres, Cleveland Electro Metals Co, 12-; mem. advisory cmt. secondary aluminum, Office Production Management, 41-* Chem. Soc. (treas, N. E. sect, 04); Electrochem. Soc. Non-ferrous metallurgy; industrial furnaces; metallurgy of zinc and aluminum; production of zinc and aluminum casting alloys; development of melting furnaces.

Brown, Prof. Joseph G(rant), 1182 Arch St, Berkeley, Calif. *Physics.* Stillman Valley, Ill, Feb. 8, 69. A.B, Stanford, 01, A.M, 03. Instr. physics and chem, Ill. Nor. Univ, 94-98; *physics, Stanford,* 01-06, asst. prof, 06-25, assoc. prof, 25-33, prof, 33-34, *emer. prof, 34-* Nat. del, 5th Pacific Sci. Cong. A.A; fel. Physical Soc; Meteorol. Soc; Geophys. Union. Atmospheric electricity.

Brown, Dr. J(oshua) R(obert) Callaway, Jr, Long Hill Road, R. F. D. 1, Chatham, N. J. *Physical chemistry.* Bristol, Tenn, Aug. 30, 12. B.S, Randolph-Macon Col, 33; Ph.D, Virginia, 38. Instr. chem, Virginia, 34-37; *research chemist, Bell Tel. Labs, 37-* A.A; Chem. Soc. Chemistry of vacuum tubes; catalytic oxidation of carbon monoxide by silver; particle size and surface area of colloidal materials.

Brown, Prof. Julius Arthur, American University of Beirut, Beirut, Lebanese Republic. *Astronomy.* New York, N. Y, May 8, 80. A.B, Dartmouth Col, 02, A.M, 04; Rhodes scholar, Oxford, 04-07, B.Sc, 06. Instr. physics, Dartmouth Col, 03-04; demonstrator, Oxford, 07; asst. prof, Dartmouth Col, 08-09; prof, Syrian Protestant Col, Beirut, Syria, 09-14; lecturer, Columbia, 15-17; *prof. astron. and director observatory, American Univ. Beirut, 17-, dean sch. arts and sciences.* Asst, Yerkes Observatory, Chicago, 04; Mt. Wilson Observatory, Carnegie Institution. A.A; Astron. Soc; Meteorol. Soc; Physical Soc; Royal Astron. Soc. Stellar photometry; variable stars.

Brown, Prof. J(unius) F(lagg), University of Kansas, Lawrence, Kans. *Psychology.* Denver, Colo, Aug. 3, 02. B.S, Yale, 25, Ph.D, 29; exchange fellow, Berlin, 25-27. Asst. and instr, Yale, 27-29; nat. research fellow, 29-30; asst. prof. *psychol,* Colorado, 30-32; *Kansas,* 32-35, assoc. prof, 35-39, *prof, 39-* Chief psychologist, Menninger Clinic, 39- Experimental, mathematical, abnormal and social psychology; psychological optics; perception of movement; motivation in human learning.

Brown, K(enneth) R(ent), 620 S. High St, West Chester, Pa. *Chemistry.* Pendleton, Ind, July 30, 96. A.B, Swarthmore Col, 18. Chemist, exp. lab, *Atlas Powder Co,* 18-26, asst. director, 26-28, acting director, 28-30, *director* research lab, 30-40, *research dept, 40-* Chem. Soc. (councilor, 35); Chem. Eng; Electrochem. Soc; Soc. Chem. Indust; Soc. Test. Mat; Chemists' Club. Polyhydric alcohols and their derivatives.

Brown, Dr. L. Wayne, Chemistry Bldg, Madison, Wis. *Bacteriology.* North Freedom, Wis, Nov. 24, 07. B.S, Wisconsin, 29, M.S, 30, Ph.D, 33. Asst. dairy husbandry, Wisconsin, 29-31, agr. bacter, 31-33; *bacteriologist, dairy and food div, Wis. Dept. Agr, 34-* Soc. Bact; Dairy Sci. Asn; Int. Asn. Milk Sanitarians. Dairy and food bacteriology; dairy chemistry.

Brown, Prof. Lawrence E(dward), 802 W. Yoakum St, Kingsville, Texas. *Physics, Mathematics.* Bastrop, Texas, July 2, 06. B.S, Texas, 27, M.S, 29, Ph.D, 35. Engineer, research dept, Bell Tel. Labs, 27-28; chairman, dept. eng, Schreiner Inst, 29-30; tutor physics, Texas, 32-35; *assoc. prof. physics and math, Texas Col. Arts and Indust, 35-* Theory of electric circuits; Fourier series and harmonic analysis.

Brown, Dr. L(awrence) T(racy), 1612 Tremont St, Denver, Colo. *Physiology.* Norfolk, Nebr, Aug. 5, 94. A.B, Colorado, 23; A.M, Illinois, 26; M.D, Rush, Chicago, 29. Instr. physiol. and anat, Illinois, 23-28; practising physician and surgeon, 30-42; *lieut. col, Field Artil, U. S. Army, 42-* Muscle tonus; physiology of exercise.

Brown, Dean L(eland) A(rthur), Transylvania College, Lexington, Ky. *Zoology.* Marion, Ohio, Nov. 18, 97. B.S, Denison, 22; A.M, Pittsburgh, 24; Ph.D, Harvard, 27. Asst, dept. genetics, Carnegie Institution, 19-21; instr. zool, Pittsburgh, 23-25; Austin teaching fellow, Harvard, 25-27; asst. prof, Iowa, 27-29; assoc. prof, George Washington, 29-32; *prof. biol, Transylvania Col, 32-, dean, 41-, acting pres, 43-* Summers, collaborator research, Carnegie Institution, 22-28, 30-34. A.A; Soc. Zool; Soc. Exp. Biol; Ky. Acad. (pres, 43); L. I. Biol. Asn. Sex control and temperature in relation to life cycle and distribution in Crustacea.

Brown, Prof. Leland H(ermon), 1235 Webster St, Palo Alto, Calif. *Electrical engineering.* Gilroy, Calif, Nov. 26, 00. A.B, Stanford, 22, Nat. Elec. Light Asn. scholar, 23-24, E.E, 24, Ryan fellow, 28-30, Ph.D, 30. With West. States Gas and Elec. Co. and Byllesby Eng. and Management Corp, 22-23; elec. research engineer, Frank G. Baum, 24-28, 30-31; asst. *elec. eng, Stanford,* 30, instr, 31-35, *asst. prof,* 35-42, *assoc. prof, 42-,* in charge illumination, 35-42. Assoc. Elec. Eng; Illum. Eng. Soc; Calif. Acad. Illumination engineering; high voltage; corona loss measurements; illumination; illumination equipment using photoelectric cells; school lighting; use of natural light.

Brown, Dr. Levi S(tanley), Portland Cement Association, 33 W. Grand Ave, Chicago, Ill. *Geology.* Reedsburg, Wis, Jan. 4, 94. B.S, N. Mex. Col, 16; M.S, Oklahoma, 28; Ph.D, Mass. Inst. Tech, 33. Instr. chem, N. Mex. Col, 16-17, asst. prof, 20-21; asst. geol, Oklahoma, 25-27; adj. prof, Texas, 27-31; asst, Mass. Inst. Tech, 32-33, research assoc, 34-35; *research petrographer,* Lone Star Cement Corp, 35-40; *Portland Cement Asn, 41-* Capt, Sanit.C, 18-19. A.A; Min. and Metal. Eng. Mineralogy; sedimentary petrography; optical crystallography; petrography of Portland cement.

Brown, Prof. Lillian Olive, Hood College, Frederick, Md. *Mathematics.* Summit Station, Pa, Oct. 14, 83. A.B, Dickinson Col, 08; A.M, Columbia, 14. Teacher math, *Hood Col,* 08-18, math. and astron, 18-19, math, physics and astron, 19-20, *prof,* 20-25, *math, 25-, head dept.* math, physics and astron, 20-25, *math, 25-* A.A. Physics; astronomy.

Brown, Dr. Lindsey A(ndrew), Farm Security Administration, Denver, Colo. *Soil technology.* Windsor, Colo, July 19, 06. B.S, Nebraska, 30, M.S, 31; Ph.D, Pa. State Col, 34. Asst. soil surveyor, Exp. Sta, Colo. State Col, 28; Nebraska, 29, soil surveyor, 30-31; asst. soil technol, Pa. State Col, 31-34; pedologist, Nebraska, 34-35; assoc. soil technologist, div. dry land agr, bur. plant indust, U. S. Dept. Agr, 35-36; assoc. agronomist, Colo. State Col, 36-41; *soil consultant, farm security admin, U. S. Dept. Agr, 41-* Soil Sci. Soc. Soil series descriptions and distribution; oxidation-reduction potentials; movement and availability of phosphorus in soils; relation of soils, crop yields and rainfall in the high plains.

Brown, Dr. Linwood A(rnold), 125 Johnston Blvd, Lexington, Ky. *Chemistry.* Hawesville, Ky, Sept. 21, 81. Phar.D, Louisville Col. Pharmacy, 03; Ph.C, Michigan, 04. Asst. chem, Michigan, 04-05; asst. chemist, Can. Copper Co, 05; Merck and Co, 05-06; asst. prof. pharmacy, N. Dak. Col, 06-08, prof, 08-09, drug chemist, Exp. Sta, 06-09; chemist, drug div, Exp. Sta, *Kentucky,* 09-21, *head dept. pub. service labs, univ, 21-* State Board Pharmacy, Ky, 19-24, 25-30, 31-35. Chem. Soc; Pharmaceut. Asn; Ky. Pharmaceut. Asn; Ky. Acad. Pharmacy; analytical chemistry; bacteriology; public health.

Brown, Dr. L(ouis) F(rancis), Electrical Research Products Division, Western Electric Co, Inc, 6601 Romaine St, Hollywood, Calif. *Physics.* Windfall, Ind, March 13, 05. A.B, Indiana, 26, Ph.D, 29; A.M, Yale, 28. Asst, Yale, 26-28; *staff engineer,* Elec. Research Products, Inc, 29-41; *elec. research products div, West. Elec. Co, Inc, 41-* Physical Soc; Ind. Acad. Atomic physics.

Brown, Major-Gen. Lytle, R. F. D. 5, Franklin, Tenn. *Military engineering.* Nashville, Tenn, Nov. 22, 72. B.E, Vanderbilt, 93, fellow, C.E, 94; grad, U. S. Mil. Acad, 98; D.E, Mich. Col. Mines, 31. City engineer, Manila, 00-01; asst. prof. eng, U. S. Mil. Acad, 07; dist. engineer, Louisville, Ky, 11; engineer, punitive exped, Mex, 16; engineer officer, 31st div, 17; asst. chief of staff, Gen. Staff, War Dept, 18-19; asst. commandant, Command and Gen. Staff Sch, U.S.A, 25; Army War Col, 28; *chief of engineers, U. S. Army, 29-,* all commissioned grades to *major-gen, 98-* Mem, State Conserv. Cmn, Tenn, 39-; chairman, State Advisory Cmt. on Preparedness, 40- D.S. medal; Order of the Bath, England; Légion d'honneur. Soc. Mil. Eng; Civil Eng. Improvement of rivers and harbors.

Brown, Dr. Madelaine R(ay), 412 Beacon St, Boston, Mass. *Medicine.* Providence, R. I, Sept. 19, 98. A.B, Bryn Mawr Col, 20; A.M, Brown, 23; M.D, Hopkins, 27. Intern and res. neurol. service, Bellevue Hosp, 29-30; intern, *Boston City Hosp,* 30-31, asst. and later *assoc. research, neur. unit, 31-;* asst. and later *instr. neur, Harvard Med. Sch, 40-* Consulting neurologist, New Eng. Hosp. for Women and Children, 31-; asst. neur, Mass. Gen. Hosp, 33- A.A; Am. Med. Asn; Soc. Physiol. Neur; Med. Library Asn; Boston Soc. Psychiat. and

Neur; Boston Med. Hist. Soc. Polyneuritis; Meniere's syndrome.

Brown, Prof. M(arion) C(lay), 448 Clifton Ave, Lexington, Ky. *Mathematics.* Lawrenceburg, Ky, May 30, 96. A.B, Kentucky, 23, A.M, 25. Asst. instr. *math, Kentucky,* 23–25, instr, 25–28, *asst. prof, 28–* Math. Asn; Ky. Acad.

Brown, Prof. M(ary) J, University of Wyoming, Laramie, Wyo. *Zoology.* Nashville, Ind. A.B, Butler, 19; M.S, Washington (St. Louis), 21; fellow, Chicago, 23–24; Ph.D, Oklahoma, 29. Asst. zool, Washington (St. Louis), 20–21; asst. prof. biol, Transylvania Col, 21–23; instr, Lindenwood Col, 24–27; asst. zool, Oklahoma, 27–28; asst. prof. biol, Okla. Col. for Women, 28–29; instr. *zool. and physiol, Wyoming,* 29–32, *asst. prof, 32–* Summers, Marine Biol. Lab, Woods Hole, 18, 23; Puget Sound Marine Sta, 25; Biol. Lab, Cold Spring Harbor, 32; California, 35. A.A; Eugenics Research Asn; Genetic Asn; Colo-Wyo. Acad. Ecology; genetics; eugenics; physiology.

Brown, Dr. M(aurice) Vertner, 12 Abington Ave, Ardsley, N. Y. *Physics.* Durand, Mich, Jan. 31, 08. B.S, Michigan, 30, M.S, 31; Ph.D, N. Y. Univ, 37. Lab. asst. *physics,* Michigan, 30–31; *instr, Col. City N. Y, 31–* Biophysics; cloud chamber studies of nuclear transformations; electric discharges of the electric eel.

Brown, Dr. Meta (Louise) Suche (Mrs. Sidney O. Brown), Box 125, Faculty Exchange, College Station, Texas. *Cytogenetics.* San Antonio, Texas, Nov. 21, 08. A.B, Texas, 31, fellow, 32–33, A.M, 33, fellow, 34–35, Ph.D, 35. Tutor zool, Texas, 31–32, asst, 33–34, research assoc, 35–38, *cytologist, Exp. Sta, Agr. and Mech. Col. Texas, 41–* Genetics Soc; Texas Acad. Induced crossing over; translocations in Drosophila melanogaster; cytogenetics of species hybrids of cotton.

Brown, Dr. Meyer, Field Hospital, Camp Lejeune, New River, N. C. *Neurology, Psychiatry.* Chicago, Ill, Oct. 16, 10. B.S, Chicago, 31, M.D, 35; M.S, Northwestern, 37, Ph.D, 39. *Assoc. nervous and mental diseases, Northwestern, 40–; U. S. Naval Res.* A.A; Am. Med. Asn; Psychiat. Asn; Ill. Psychiat. Soc. Epilepsy; vibration sensibility.

Brown, Dr. Morden G(rant), Research and Development Division, Spencer Lens Co, Buffalo, N. Y. *Biophysics.* Palo Alto, Calif, Dec. 8, 06. A.B, Stanford, 29, A.M, 36, univ. fellow, 37–38, Ph.D, 38. Asst. zool, Stanford, 34–37; research assoc, Washington (St. Louis), 38–41, lecturer, univ. col, 39–41; *research physicist instrument design, Spencer Lens Co, 41–* Soc. Zool; West. Soc. Nat. Experimental embryology; scientific instrument design; effects of x-rays on physiological processes of Protozoa; analysis of the encystment-excystment process of Protozoa; tissue density changes in early amphibian development; micromanipulator and other instrument design.

Brown, Dr. Mortimer Jay, 140 57th St, Niagara Falls, N. Y. *Chemistry.* Chester, Nebr, Dec. 25, 82. B.S, Nebraska, 05; Ph.D, Cornell, 11. Prof. chem, Chihli Provincial Indust. Col, Tientsin, China, 08–10; chief chemist, works manager and asst. to 2nd v. pres, Niagara Electro Chem. Co. and Roessler and Hasslacher Chem. Co, 11–26, gen. supt, 26–30, director, 27–32, v. pres, 31–32; v. pres. and exec, Pacific Roessler and Hasslacher Chem. Corp, 19–32; v. pres. and supt, Niagara Electro Chem. Co, 26–32; *private research, 32–* Chem. Soc; Electrochem. Soc. Electrolysis of fused salts; production of alkali metals; silver peroxynitrate; fixation of nitrogen; cyanides; bleaching; fumigating; water solutions of carbon dioxide.

Brown, Miss Nellie A(dalesa), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Marine City, Mich, Feb. 21, 77. A.B, Michigan, 01. Teacher, high sch, Mich, 01–03; Fla, 03–05; sci. asst, sugar plant lab, bur. plant indust, U. S. Dept. Agr, 06–10, asst. pathologist, lab. plant path, 10–24, assoc. pathologist, 25–28, div. fruit and veg. crops and diseases, 28–41. Phytopath. Soc; Bot. Soc. Wash; Wash. Acad. Plant tumors and cankers; bacterial plant diseases.

Brown, Prof. Nelson C(ourtlandt), N. Y. State College of Forestry, Syracuse, N. Y. *Forestry.* South Orange, N. J, March 1, 85. A.B, Yale, 06, M.F, 08. U. S. Forest Service, 08–11; asst. prof. forestry, Iowa State Col, 11–12; *prof. forest utilization, N. Y. State Col. Forestry, Syracuse, 12–,* acting dean, 29–30. Mem, N. Y. State Reforestation Cmt, 28–

Knight, Order of the Crown, Italy. Soc. Foresters. Forest products.

Brown, Prof. Olin T(eeter), Colgate University, Hamilton, N. Y. *Geography.* Tompkins Co, N. Y, April 17, 00. A.B, Ohio State, 25; A.M, Colgate, 27; Ph.D, Cornell, 30. Instr. *geog,* Colgate, 26–29; Cornell, 29–30; *asst. prof, Colgate, 30–* Summers, fellow, Univ. Chile, 30; instr, Cornell, 29; director geog. field course, Colgate, 27, 28, geog. field surv. of S. Amer, 31. A.A. Economic geography; geography of South America.

Brown, Dr. Oliver L(eonard) I(nman), U. S. Naval Academy, Annapolis, Md. *Physical chemistry.* Webster City, Iowa, Nov. 15, 11. A.B, Iowa, 32, M.S, 33; Ph.D, California, 36. *Instr.* gen. and physical chem, Michigan, 36–41; *chem, U. S. Naval Acad, 41–* A.A; Chem. Soc. Low temperature heat capacities; entropies of ions.

Brown, Prof. O(liver) W, 526 N. Washington St, Bloomington, Ind. *Physical and electro- chemistry.* Vermillion Grove, Ill, June 25, 73. B.S, Earlham Col, 95; A.M, Indiana, 96; Cornell, 97–99; hon. fellow, Wisconsin, 03–04; Sc.D, Huntington Col, 41. Demonstrator chem, Indiana, and chemist, J. N. Hurty Lab, 96–97; asst. chem, Cornell, 98–99; instr, Indiana, 99–03, asst. prof, 04–05; instr. chem. eng, Wisconsin, 05–06; assoc. prof. *chem, Indiana,* 06–21, *prof, 21–* Summer, electrochemist, Battery Power Co, Milwaukee, 06; storage battery engineer, Prest-O-Lite Co, 15–17. Electrochem. Soc. Storage batteries; contact catalysis.

Brown, Prof. O(riey) E(dward), Case School of Applied Science, Cleveland, Ohio. *Mathematics.* Kirkville, Iowa. A.B, Iowa, 21, M.S, 22; Ph.D, Chicago, 29. Instr. math, Northwestern, 23–28, lecturer, 26–29; research mathematician, Temple Corp, Chicago, 29; asst. prof. *math,* Lawrence Col, 30; instr, *Case,* 30–31, asst. prof, 31–39, *assoc. prof, 39–* Math. Soc; Math. Asn. Equivalence of triples of bilinear forms; nomography.

Brown, Dr. Paul A(gnew), University of Pittsburgh, Pittsburgh, Pa. *Psychology.* New Kensington, Pa, Dec. 15, 05. B.S, Grove City Col, 27; Ph.D, Pittsburgh, 37. Teacher, high sch, Connellsville, Pa, 29–34; asst. psychol, Pittsburgh, 34–37; prof, Cumberland, 37–38; assoc. prof. educ, Ala. Polytech, 38–39; *instr. psychol, Pittsburgh, 39–* A.A; assoc. Psychol. Asn; East. Psychol. Asn; South. Soc. Philos. and Psychol. Abnormal and social psychology.

Brown, Dr. Philip Walling, Mayo Clinic, Rochester, Minn. *Internal medicine.* Silverton, Colo, Jan. 12, 96. A.B, Colorado, 17; M.D, Pennsylvania, 20; M.S, Minnesota, 28. *Asst. prof. med, Minnesota; practising physician.* Am. Med. Asn; Gastro-Enterol. Asn; Soc. Parasitol; Col. Physicians; Pan-Am. Med. Asn. Gastro-enterology; intestinal diseases and parasites.

Brown, Prof. Ralph H(all), University of Minnesota, St. Paul, Minn. *Geography.* Ayer, Mass, Jan. 12, 98. B.S, Pennsylvania, 21; Ph.D, Wisconsin, 25. Asst. instr. *geog,* Wisconsin, 21–25; instr, Colorado, 25–29; asst. prof, *Minnesota,* 29–39, *assoc. prof, 39–* Summers, Iowa State Teachers Col, 22; George Peabody Col, 24–26; Pa. State Col, 37. A.A; Am. Geog. Soc; Nat. Council Geog. Teachers; Asn. Geog. (sec'y, 41–). A 'Blue Ridge' in New England; Muscle Shoals; San Luis Valley; mountain passes; Rocky Mountains; irrigated regions in the Great Plains; conservation of arid lands; historical geography of the United States.

Brown, Dr. Ralph L(yman), Pennsylvania Salt Manufacturing Co, Philadelphia, Pa. *Chemistry.* Blair, Ill, July 23, 90. A.B, Missouri, 13; fellow, Chicago, 16–17, Ph.D, 17. Asst. chem, Missouri, 13–14; org. preparations, Chicago, 15–16; *research chemist,* Inland Steel Co, 15; *Koppers Co, Mellon Inst, 16–,* in charge research div, 19–21; org. chemist, U. S. Bur. Mines, 21–28; research dept, Atmospheric Nitrogen Corp, 28–36, nitrogen div, Solvay Process Co, 36–37; *director research, Pa. Salt Mfg. Co, 37–* Beal medalist, 24. Lieut, Lab. des Études chim. de Guerre, Paris, 17–19. A.A; Chem. Soc; Soc. chim. de France. Molecular rearrangement; chemical warfare gases; coke oven by-products; unsaturated hydrocarbons; carburetion of water gas; composition low temperature tar; organic synthesis under pressure-methanol; catalysis; process development.

Brown, Dr. Ralph R, Crosley Corp, Cincinnati, Ohio. *Psychology.* Philadelphia, Pa, Feb. 22, 07. A.B, Ohio (Athens), 31; fellow, Inst. Juvenile Research, 31–32; A.M, Illinois, 32; Ph.D, Kentucky, 38. Junior warden's asst, U. S. Penitentiary,

Leavenworth, Kans, 32–33, clin. psychologist, Ft. Leavenworth, 33–35; research psychologist, U. S. Pub. Health Service hosp, 35–42; *gen. supervisor personnel and training, Crosley Corp, 42–* Assoc. Psychol. Asn; Asn. Applied Psychol. Physiological, clinical and abnormal psychology; drug addiction; effects of morphine and morphine addiction on psychological and psychophysiological functions; differentiation of addicts from non-addicts.

Brown, Prof. R(andolph) M(ilton), University Farm, St. Paul, Minn. *Forestry.* Nov. 23, 96. B.S, Cornell, 21, M.F, 24. Research, forest service, U. S. Dept. Agr, 21–27; *asst. prof. forestry, Minnesota, 27–* Soc. Foresters (sec'y, Minn. sect, 29, pres, 31). Forest mensuration.

Brown, Dr. R(aymond) A(rthur), 5758 Eastlawn, Detroit, Mich. *Biochemistry.* Sharon, Pa, Aug. 25, 11. B.S, Pa. State Col, 33, M.S, 34, Ph.D, 38. *Biochemist, Parke, Davis and Co, 35–* Vitamin research.

Brown, R(aymond) C(hessman), 56 Hillhouse Ave, New Haven, Conn. *Entomology.* Lancaster, N. H, May 12, 00. B.S, New Hampshire, 22. Junior entomologist, *div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr,* 25–28, asst. entomologist, 28–35, *senior entomologist in charge forest tree insects, 35–* Asn. Econ. Entom; Soc. Foresters. Parasites; biology; ecology.

Brown, Dr. Rells B(astian), 221 Georgia Ave, Macon, Ga. *Biological science.* Albion, Mich, Aug. 13, 13. A.B, Albion Col, 33; Ph.D, Yale, 38. *Instr.* zool, DePauw, 38–39; *biol. science, Cumberland Col, 40–* A.A; Asn. Biol. Teachers. Spider embryology and morphology; invertebrate morphology and embryology.

Brown, Dr. Richard L(eland), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Bryn Mawr, Pa, Dec. 2, 12. A.B, Amherst Col, 34; A.M, Wesleyan, 36; Ph.D, Mass. Inst. Tech, 42. Asst. physics, Wesleyan, 34–37; teaching fellow, Mass. Inst. Tech, 37–40; *research assoc, div. indust. cooperation, Mass. Inst. Tech, 42–* Acoustic impedance and sound absorbing materials.

Brown, Dr. Robert H(eath), Clark University, Worcester, Mass. *Psychology.* Brooklyn, N. Y, Jan. 23, 11. A.B, Wesleyan, 32; A.M, Clark, 33, Ph.D, 35. Acting prof. psychol. and philos, Yankton Col, 35–37; *asst. prof. exp. psychol, Clark, 37–* A.A; assoc. Psychol. Asn. Experimental and physiological psychology; vision; conditioned reflex.

Brown, Dr. R(obert) K(ennard), Ann Arbor, Mich. *Dentistry.* Sharpsburg, Pa, Sept. 22, 93. Grad, Pa. State Nor. Sch, Indiana, 11; D.D.S, Michigan, 19, M.S, 28. Instr. operative dentistry, Michigan, 21–23, asst. prof, 23–29, prof, 29–35, director operative dentistry clinic, 34–35, mem. exec. cmt, sch. dentistry, 34–35; *private practise, 35–* Mem. publication cmt, Dental Surv. A.A; Dental Asn; fel. Col. Dentists; Pierre Fauchard Acad. (trustee, pres, 33); Mich, State Dental Asn. (contributing ed, 'Jour'); 1st Dist. Dental Asn. Mich; Int. Asn. Dental Research. Amalgams as filling materials; cast gold inlay; psychology as applied to evaluating personalities of dental students.

Brown, Robert Marshall, West Barrington, R. I. *Geography, Geology.* Fisherville, Mass, March 11, 70. A.B, Brown, 93; A.M, Harvard, 02. Instr, high sch, N. H, 94–98, prin, 98–00; instr, Mass, 02–03; geog, Mass. State Nor. Sch, Worcester, 03–13; prof, R. I. Col. Educ, 13–41, acting pres, 39–40; *retired.* Prof, R. I. State Col, 19–22. Summers, North Carolina and Cornell. A.A; Asn. Geog. The Mississippi River; economic geography; racial factors; waterways.

Brown, Dr. R(obert) S(tewart), 504 Johnson St, Kingston, Ont, Can. *Physical chemistry.* Campbellford, Ont, Sept. 9, 11. B.A, Queen's (Can), 33, M.A, 34; Ph.D, McGill, 36. Chemist, Hendry Connell Research Foundation, 36–37; *instr. chem, Royal Mil. Col. Can, 37–* Calorimetry; catalysis.

Brown, Prof. Robert V(enable), University Station, Grand Forks, N. Dak. *Physiology, Pharmacology.* Oxford, Miss, Oct. 3, 07. A.B, Mississippi, 27; M.S, Emory, 28; Ph.D, Chicago, 40. Asst. prof. biol, Southwestern (Texas), 28–29; instr. physiol. and pharmacol, Mich. State Col, 31–38, asst. prof. physiol, 38–41; assoc. prof. *physiol. and pharmacol, North Dakota,* 41–42, *prof, 42–* A.A; Snake venom.

Brown, Prof. Robert Wesley, St. Lawrence University, Canton, N. Y. *Geological engineering.* Conde, S. Dak, April 29, 90. B.S, Northwestern, 11; M.S, Illinois, 13; Ph.D, Chicago, 27. Asst. valuation engineer, oil and gas sect, Income Tax Unit, U. S. Treasury Dept, 19–22; consulting geologist and valuation engineer, 22–24; valuation engineer, Am. Appraisal Co, 24–25; geologist, Standard Oil Co. of Venezuela, 25–27; geologist and production engineer, Producers and Refiners Corp, 28–31; *prof. geol, St. Lawrence, 31–* U.S.A, 17–19. Asn. Petrol. Geol. Petroleum production; valuation of oil and gas lands; structural geology.

Brown, Dr. R(oland) W(ilbur), U. S. National Museum, Washington, D. C. *Paleobotany.* Weatherly, Pa, May 12, 93. B.S, Lafayette Col, 17; Ph.D, Hopkins, 26. Geologist, Pa. Geol. Surv, 19–20; instr. geol, Pa. State Forest Sch, 20–23; Yale, 26–29; asst. geologist, *U. S. Geol. Surv,* 29–37, assoc. geologist, 37–39, *geologist, 39–* F.A. and C.W.S, U.S.A, 17–19. A.A; Paleont. Soc; Geol. Soc; Geol. Soc. Wash; Wash. Acad. Materials for word-study; flora of the Green River and Latah formations; Aspen shale; Colgate sandstone and Hell Creek beds; Miocene leaves, fruits and seeds; fossil conifers; Tempskya; Cercidiphyllum; flora of the Fort Union and associated formations.

Brown, Dr. Ronald F(rederick), 318 W. Lutz Ave, West Lafayette, Ind. *Organic chemistry.* Washington, D. C, April 14, 10. B.S, Maryland, 32; George Washington, 33–36; A.M, Harvard, 37, Ph.D, 39. Chemist, Tolman Laundry, Washington, D. C, 32–35; jr. chemist, qualitative water div, U. S. Geol. Surv, 35–36; asst. org. chem, Radcliffe Col, 37–39; *instr,* Harvard, 39–40; *gen. chem, Purdue, 40–* Chem. Soc. Pinacol rearrangement; kinetics; synthesis.

Brown, Prof. Russell G(uy), University of Maryland, College Park, Md. *Botany.* Morgantown, W. Va, Jan. 10, 05. B.S. (Agr), West Virginia, 29, M.S, 30; Ph.D, Maryland, 34. Prof. biol. and head dept, New River State Col, 34–36; *asst. prof. plant physiol. and ecol, Maryland, 36–* A.A; Soc. Plant Physiol; Bot. Soc. Plant ecology; taxonomy.

Brown, Dr. Russell W(ilfrid), Box 496, Tuskegee Institute, Ala. *Bacteriology.* Gray, La, Jan. 17, 05. B.S, Howard, 26; Chicago, 27–29; M.S, Iowa State Col, 32, fellow, 33–36, Ph.D, 36. Assoc. prof. biol, Rust Col, 30–31; Langston Univ, 32–33; *dept. bacter, Tuskegee Inst, 36–* Soc. Bact. Physiology of bacteria.

Brown, Dr. Sanger, 2d, Cold Spring, N. Y. *Psychiatry.* White Plains, N. Y, May 28, 84. M.D, Columbia, 07. Physician, Dixmont Hosp, Pa, 07–09; Sheppard and Enoch Pratt Hosp, Towson, Md, 10–11; Manhattan State Hosp, Ward's Island, N. Y, 11–12; Bloomingdale Hosp, White Plains, 12–17; asst. commissioner, State Dept. Mental Hygiene, N. Y, 28–35. M.C, U.S.A, 17–19. Psychiat. Asn. Ethnology and psychiatry; childhood delinquency; problem children; sex worship and symbolism of primitive races; psychiatry of problem children.

Brown, Prof. Sidney O(verton), Box 125, Faculty Exchange, College Station, Texas. *Physiology.* Valera, Texas, Jan. 3, 10. A.B, Texas, 32, Ph.D, 36. Tech. asst. zool, Texas, 32–34, tutor, 34–35; instr. *biol, Agr. and Mech. Col. Texas,* 36–39, *asst. prof, 39–; officer, Sanit. Corps, U. S. Army, 42–* Texas Acad. Electrophysiology and effect of light on the electrical potential; embryology; histology; endocrinology of reptiles; microtechnique and physiology of reproduction; bacteriology.

Brown, Prof. S(impson) L(eroy), University Station, Austin, Texas. *Physics.* Indianapolis, Ind, Nov. 23, 81. A.B, Indiana, 05, A.M, 07; Whiting fellow, California, 07–09, Ph.D, 09. Asst. instr. *physics,* Purdue, 05–07; Lehigh, 09–11; *Texas,* 11–13, adj. prof, 13–17, assoc. prof, 17–23, *prof, 23–* Head div. wireless, U.S.A. Sch. Mil. Aeronaut, Texas, 17–18, pres, acad. board, U.S.A. Sch. Radio Operators, 18–19. A.A; Physical Soc. Distributed capacity and inductance; oxid resistance thermometers; radiation pyrometers; high frequency current measurements; mathematical machines.

Brown, Prof. Theodore H(enry), 25 Meadow Way, Cambridge, Mass. *Mathematics.* Mystic, Conn, Oct. 5, 88. A.B, Yale, 10, A.M, 11, Ph.D, 13. Instr. math, Sheffield Sci. Sch, Yale, 13–15; Brown, 15–18, asst. prof, 18–19, nautical science, 19–20, econ, 20–21; business sch, Columbia, 21–25; bur. business research, *Harvard,* 25–26, *business statistics,* 26–27, assoc. prof, 27–32, *prof, 32–* A.A; Math. Soc; Math. Asn; fel. Statist. Asn. (v. pres, 35, 38; pres, Boston chap, 40, 41; director, 42–); Econ. Asn; Astron. Soc. Applied mathematics; statistics; astronomy.

Brown, Prof. Thomas B(enjamin), George Washington University, Washington, D. C. *Physics.* Bath, N. Y, April 4, 92. A.B, Cornell, 12, Ph.D, 16. Asst. instr. *physics,* Cornell, 12–13, instr, 13–17; asst. prof, *George Washington,* 17–20, *prof, 20–* Summer, asst. physicist, Bur. Standards, 18. Assoc. ed, 'Am. Jour. Physics,' 42– Physical Soc; Asn. Physics Teachers; Optical Soc; Philos. Soc. Wash. Cathodo-fluorescence; electronics.

Brown, Dr. Thomas McPherson, Johns Hopkins Hospital, Baltimore, Md. *Bacteriology.* Washington, D. C, June 29, 06. A.B, Swarthmore Col, 29; M.D, Hopkins, 33. Interne, Hopkins Hosp, 33–34, asst. res. physician, 34–37; Rockefeller Inst. Hosp, 37–39; res. physician, Hopkins Hosp, 39–40, *assoc. med, sch. med, Hopkins, 40–* Rheumatism Soc. Infectious diseases; arthritis; the role of the pleuropneumonia-like organisms in production of experimental arthritis; Haverill fever; effect of gold salts on human rheumatoid arthritis.

Brown, Dr. Thomas R(ichardson), 14 Whitfield Road, Baltimore, Md. *Medicine.* Baltimore, Md, Sept. 11, 72. A.B, Hopkins, 92, M.D, 97. Instr. and assoc. med, *Hopkins,* 99–14, assoc. *med,* 99–14, assoc. prof, 14–41, *emer. assoc. prof, 41–, consultant digestive diseases, Hopkins Hosp, 19–* Visiting physician, Union Mem, Hopkins, Woman's and Bon Secours Hosps. Trustee, Hopkins. Am. Med. Asn; Am. Physicians; Col. Physicians; Gastro-Enterol. Asn. Infections of the urinary tract; trichinosis; eosinophilia; sprue; arthritis; migraine; ulcerative colitis; digestive problems.

Brown, Prof. Vinton A(ustin), University of Arizona, Tucson, Ariz. *Physics.* Wellsville, N. Y, Feb. 17, 06. B.S, Arizona, 29, Coffin fellow, 29–31, M.S, 31; Ph.D, Calif. Inst. Tech, 35. Instr. physics, Arizona, 30–31; math, Calif. Inst. Tech, 31–34; physics and eng, Col. of Pacific, 34–35; physics and astron, *Arizona,* 35–36, *physics,* 36–37, *asst. prof, 37–; asst. physicist, Naval Ordnance Lab, 42–* X-rays as a means of studying matter and radiation; x-ray spectroscopy and analysis of crystal structure; scattering and reflection of x-rays.

Brown, Prof. V(irginius) E(lholm), Taylor University, Upland, Ind. *Biology, Paleontology.* Sparta, Ga, Dec. 10, 02. B.S, Emory, 25, M.S, 26; Ph.D, California, 31. Teaching fellow zool, California, 26–30; asst, Maryland, 29–30; prof. and chairman dept. biol, Bethel Col. (Kans), 31–32; paleobotanist, 32–38; *assoc. prof. biol, Taylor, 39–,* protozoologist, *Walker Museum, 39–; lieut, U. S. Army.* A.A; Bot. Soc; Soc. Parasitol; Soc. Plant Physiol; Phytopath. Soc; Am. Geog. Soc; Micros. Soc; Genetic Asn; Genetics Soc; Forestry Asn; Fern Soc; Soc. Hort. Sci; Soc. Vertebrate Paleont; Asn. Museums; Soc. Mammal; Ecol. Soc; Sullivant Moss Soc; Torrey Bot. Club; Linnaean Soc. N. Y; N. Y. Acad; Helminth. Soc. Wash. Cytology of Protozoa; methods of presenting popular paleontology; survey courses in biology.

Brown, Dr. Walter H(oward), Oklahoma City University, Oklahoma City, Okla. *Plant ecology.* Heyworth, Ill, Oct. 17, 09. B.Ed, Ill. State Nor. Univ, 32; A.M, Illinois, 37, Ph.D, 39. Asst. bot, Illinois, 35–39; asst. prof. *biol, Okla. City Univ,* 39–41, *assoc. prof, 41–* A.A; Bot. Soc; Okla. Acad. Aquatic ecology; limnology.

Brown, Prof. W(alter) S(heldon), 215 N. Eighth St, Corvallis, Oregon. *Horticulture.* Portville, N. Y, Jan. 24, 78. A.B, Alfred, 99, Sc.D, 31; B.S, Cornell, 04; M.S, Wisconsin, 06. Instr, Wisconsin, 04–06; head dept. hort, Winona Agr. Inst, 06–08; pres. and gen. manager, Corvallis Orchard Co, 08–13; exten. specialist, *Oregon State Col,* 13–19, pomologist, 19–20, *prof. hort. and horticulturist in charge, Exp. Sta, 20–* Soc. Hort. Sci; Pomol. Soc; Oregon Hort. Soc. Pears; economic status of pear industry; economics of small fruit production under irrigation; influence of pruning and training upon yields and vigor of raspberries and youngberries; strawberry fertilizers.

Brown, Prof. Warner, University of California, Berkeley, Calif. **Psychology.* Greensboro, Ga, Feb. 9, 82. A.B, California, 04, A.M, 05; Ph.D, Columbia, 08. Asst. psychol, California, 04–06; philos, Columbia, 06–07, *psychol,* 07–08; instr, *California,* 08–13, asst. prof, 13–20, assoc. prof, 20–23, *prof, 23–* Nat. Inst. Psychol. A.A; Psychol. Asn; Soc. Exp. Psychol. Psychology of rhythm; the conception of the threshold; judgment; recognition; visual space; individual differences; learning.

Brown, Prof. Weldon G(rant), 5722 Drexel Ave, Chicago, Ill. *Chemistry.* Saskatoon, Sask, Can, Feb. 4, 08. B.Sc, Saskatchewan, 27, M.Sc, 28; Ph.D, California, 31. Nat. research fellow, Chicago, Berlin and Frankfurt, 31–33; research chemist, Titanium Pigment Co, New York, 33–34; assoc, Columbia, 34–35; asst. prof. and later *assoc. prof. chem, Chicago, 35–* Chem. Soc; Physical Soc. Thermochemistry; molecular spectra; constitution and reactivity of organic molecules.

Brown, Dr. William B(enno), 427 Meridian Drive, Mt. Lebanon, Pa. *Organic chemistry.* New York, N. Y, Aug. 24, 05. B.S, N. Y. Univ, 28, Ph.D, 31; Am. Council Educ. scholar, Munich, 25–26. Asst. chem, N. Y. Univ, 28–31; *research chemist,* Lucidol Corp, 31–36; Barrett Co, 36–42; *Pittsburgh Coke and Iron Co, 42–* Preparation and properties of derivatives of choline and formocholine.

Brown, Prof. W(illiam) Byron, Mississippi Woman's College, Hattiesburg, Miss. *Physics.* Fort Bragg, Calif, Nov. 23, 94. A.B, California, 16; Ph.D, Ohio State, 22. Assoc. physicist, Bur. Standards, 17–20; prof. physics, Judson Col, India, 22–23; Franklin Col, 23–24; Howard Col. (Ala), 24–25; Emory and Henry Col, 25–32; manager broadcasting sta. WEHC, Charlottesville, Va, 32–36; *prof. physics, Miss. Woman's Col, 36–* Physical Soc. Thermal conductivity; heat transfer between fluids and solids.

Brown, Dr. W(illiam) C(arson), West Virginia University, Morgantown, W. Va. *Dairy husbandry.* Cameron, W. Va, July 31, 10. B.S, West Virginia, 32, M.S, 34, Ph.D, 37. Asst, *West Virginia,* 34–36, instr. and later *asst. prof. dairy husbandry and asst, Exp. Sta, 36–* Dairy Sci. Asn. Oxidized flavor in milk; Minnesota Babcock butterfat test for ice cream.

Brown, Prof. W(illiam) E(ustis), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Bacteriology.* Jersey City, N. J, Aug. 27, 87. Ph.B, Lafayette Col, 09; Columbia, 12–13; C.P.H, Harvard-Mass. Inst. Tech, 15; M.D, Harvard, 20. Master math. and physics, Lake Placid Sch. Boys, 09–12; instr. pub. health, Harvard, 15–19; surgeon in chief, Franklin Hosp, N. J, 22–24; *assoc. prof. prev. med, col. med, Cincinnati, 24–* Instr, Mass. Inst. Tech, 15–19; acting dean, Harvard-Mass. Inst. Tech. Sch. Pub. Health, 15–19. A.A; Am. Med. Asn; Pub. Health Asn. Etiology of the common cold.

Brown, Prof. William F(uller), Jr, 3927 Pennsylvania Ave, S.E, Washington, D. C. *Physics.* Lyon Mountain, N. Y, Sept. 21, 04. A.B, Cornell, 25; Ph.D, Columbia, 37. Teacher, Carolina Acad, Raleigh, N. C, 25–27; lecturer *physics,* Columbia, 28–38; *asst. prof, Princeton, 38–; contract employee, Naval Ordnance Lab, 41–* Instr, Brooklyn Col, 37–38. A.A; fel. Physical Soc; N. Y. Acad. Ferromagnetism and elasticity; internal friction and elasticity in iron; ferromagnetic domain theory; approach to magnetic saturation; torsional frequencies of crystals; dislocations and magnetization.

Brown, Prof. William H(omer), University of Arizona, Tucson, Ariz. *Protozoology.* Oakland, Calif, Jan. 20, 03. A.B, California, 31, A.M, 33, Ph.D, 37; Stanford, 35. Research assoc, California, 37; asst. prof. chem, Armstrong Jr. Col, Calif, 37–38; instr. *zool, Arizona,* 38–40, *asst. prof, 41–* Protozoa.

Brown, Dr. W(illiam) Horatio, Empire Zinc Co, Hanover, N. Mex. *Geology.* Richmond, Va, Oct. 22, 99. B.S, Va. Polytech, 20; E.M, Colo. Sch. Mines, 21; Ph.D, Minnesota, 24. Instr. geol, Minnesota, 22–24; mining geologist, 24–25; instr. geol, Arizona, 25–27, asst. prof, 27–29; chief geol. dept, Bertha Mineral Co, Austinville, Va, 29–34; *geologist, Empire Zinc Co,* Colo, 34–40, *N. Mex, 40–* Geol. Soc; Min. and Metal. Eng; Soc. Econ. Geol. Appalachian zinc deposits; Basin Range structure and physiography.

Brown, Dr. William L(acy), Rogers Brothers Seed Co, Olivia, Minn. *Genetics, Plant breeding.* Arbovale, W. Va, July 16, 13. A.B, Bridgewater Col, 36; Agr. and Mech. Col. Texas, 36–37; research fellow, Mo. Bot. Garden, 37–41; M.S, Washington (St. Louis), 40, Ph.D, 42. Teacher biol, high sch, Va, 36; tech. asst, Exp. Sta, Agr. and Mech. Col. Texas, 36–37; geneticist, green sect, U. S. Golf Asn, 41–42; *geneticist, Rogers Brothers Seed Co, 42–* Genetics Soc; Bot. Soc; Soc. Plant Taxon; Sullivant Moss Soc. Cytogenetics and taxonomy of grasses; maize genetics and breeding.

Brown, W(illiam) L(ee), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Chemistry.* Greensboro, N. C, Oct. 8, 01. B.S, North Carolina, 23; N. Y. Univ, 34. Instr, high sch, N. C, 23–24; chemist, Froehling and Robertson, 24–25; asst. chemist, *Exp. Sta, Georgia,* 25–40,

assoc. chemist, 40– Chem. Soc; Ga. Acad. Agricultural biochemistry; plant pigments; proteins.

Brown, Dr. William M(oseley), 12 Gainsborough Road, Scarsdale, N. Y. and 122 E. 42nd St, New York, N. Y. *Psychology.* Lynchburg, Va, Feb. 27, 94. A.B, Washington and Lee, 14, A.M, 15; Centre Col, 17; A.M, Columbia, 22, Ph.D, 23. Instr. German, Washington and Lee, 13–17, biol, 15–16; asst. prin, high sch, Va, 19, prin, 19–20; assoc. prof. educ, Washington and Lee, 20–22, prof. educ. and psychol. and director vocational guidance, 22–29; pres, Atlantic, 29–32; *consulting psychologist; personnel director, Vick Chem. Co, New York.* Summers, prof, Virginia, 24–26, 28; George Washington, 27; provost, Univ. Guadalajara, Mex, 32. Sec'y, Board Educ, Danville, Va, 19–20; psychol. examiner, State Board Pub. Welfare, Va. Research assoc, Nat. Cmn. Law Observance and Enforcement, 30–31; mem, Cmt. National Morale, New York, 41– Am. cmt, Int. Cong. Moral Educ, 29–30. 2nd lieut, U.S.A, 17–18, major, Spec. Res. A.A. (councilor, 29); Psychol. Asn; Va. Acad. (councilor, 25–27, pres, 28); N. Y. State Asn. Applied Psychol. Character tests; vocational guidance; mental hygiene; predictive value of psychological tests; personnel.

Brown, W(illiamson) J(ames), Canadian Department of Agriculture, Ottawa, Ont, Can. *Entomology.* Preston, Nebr, Aug. 23, 02. A.B, Kansas, 23, M.S, Okla. Agr. and Mech. Col, 24. Instr. entom, Okla. Agr. and Mech. Col, 24–26; *entomologist, div. syst. entom, entom. branch, Can. Dept. Agr, 27–* Ed, 'Can. Entomologist,' 39– A.A; fel. Entom. Soc. Amer; Brooklyn Entom. Soc; Entom. Soc. Ont. Taxonomy of Coleoptera.

Brownback, Prof. J(ohn) H(arold), Ursinus College, Collegeville, Pa. *Biology.* Trappe, Pa, Sept. 19, 97. A.B, Ursinus Col, 21; Pennsylvania, 21–26. Instr, Pennsylvania, 21–26; *prof. biol, Ursinus Col, 26–* A.A; Entom. Soc.

Browne, Prof. A(rthur) W(esley), Cornell University, Ithaca, N. Y. *3*Chemistry.* Brooklyn, N. Y, Nov. 24, 77. B.S, Wesleyan, 00, M.S, 01, Sc.D, 33; Ph.D, Cornell, 03. Instr. chem, *Cornell,* 03–06, asst. prof, 06–10, *prof.* inorg. and anal. chem, 10–22, *inorg. chem, 22–* Acting head dept, Cornell, 25. Summer, visiting prof, Chicago, 31. Chem. expert, Ordnance Dept, U.S.A, 17–18. Hydronitrogens and derivatives; reactions in liquid ammonia; phase rule studies in binary systems; nitridation; oxidation of hydrazine by mono- and di-electronators; halogenoids; azido-carbondisulfide; azido-dithiocarbonic acid and compounds; solvation and solvolysis in liquid ammonia systems; perchlorides and chlorinates; chlorine azide.

Browne, Dr. Arthur W(estgate), 628 W. 114th St, New York, N. Y. *Organic chemistry.* Ithaca, N. Y, Jan. 13, 06. A.B, Hamilton Col, 27; Ph.D, Cornell, 35. *Research chemist,* B. F. Goodrich Co, Akron, Ohio, 35–40; Barrett Co, New York, 40–41; *Harmon Color Works, 41–* Phenanthrene derivatives; rubber chemistry; dye chemistry.

Browne, Ashley C(olt), University of Hawaii, Honolulu, T. H. *Entomology.* Chicago, Ill, Aug. 26, 95. Stanford; B.S, California, 21. Calif. Spray Chem. Co, 23–29; entomologist, State Dept. Agr, Calif, 29–33; pine beetle control, U. S. Forest Service, 33–34; wildife technician, div. state parks, Nat. Park Service, 34–37; *horticulturist, Agr. Exten. Service, Hawaii, 37–* Asn. Econ. Entom. Oil emulsions; alfalfa weevil; wild life.

Browne, Dr. C(harles) A(lbert), U. S. Department of Agriculture, Washington, D. C. *3*Agricultural chemistry.* North Adams, Mass, Aug. 12, 70. A.B, Williams Col, 92, A.M, 96, hon. Sc.D, 24; Ph.D, Göttingen, 01; hon. Sc.D, Stevens Inst. Tech, 25. Asst. chemist, commercial lab, New York, 92–94; instr. chem, Pa. State Col, 95–96, asst. chemist, Exp. Sta, 96–02; chemist, La. Sugar Exp. Sta, 02–06; chief sugar lab, bur. chem, U. S. Dept. Agr, 06–07; chemist in charge, N. Y. Sugar Trade Lab, 07–23; chief bur. chem, *U. S. Dept. Agr,* 23–27, chief chem. and tech. research, *bur. chem. and soils,* 27–35, supervisor chem. research, 35–40, *consultant, 40–* Gold and silver medals, St. Louis Exhib, 04; award, Asn. Grocery Mfrs. of Amer, 35. U. S. del, Int. Cong. Applied Chem, Rome, 06; Int. Cmn. Methods of Sugar Anal. A.A. (v. pres, C, 31); Agr. Chem. (pres, 24); Chem. Soc. (asst. ed, 12–22, chairman, div. sugar chem, 19–21, sect. hist. chem, 22–23, N Y. sect, 23, councilor, 24–30); hon. mem. Oil Chemists Soc; Hist. Sci. Soc. (pres, 35); Agr. Hist. Soc; Wash. Acad; hon. fel. Sugar Technol. Asn. India; Int. Soc. Sugar Cane Technol. Sugar chemistry; chemistry of butter-fat, apples, cider and vinegar, sugar cane and sugar, rice, carbohydrates; rancidity of fats; deterioration of foods; polarimetry in sugar analysis; spontaneous combustion of hay; history of chemistry and alchemy; mineral constituents of crops.

Browne, Prof. Edward T(ankard), 730 E. Franklin St, Chapel Hill, N. C. *Mathematics.* Northumberland Co, Va, Nov. 22, 94. A.B, Virginia, 15, A.M, 17; fellow, Chicago, 19–20, Ph.D, 26. Instr. *math,* Virginia, 15–17, 19–20; asst. prof, Trinity Col. (Conn), 21–22; *North Carolina,* 22–26, assoc. prof, 26–32, *prof, 32–* Capt, U. S. Artil. Corps, 18– Math. Soc; Math. Asn; N. C. Acad. Higher algebra; linear classes of involutions; characteristic equation of a matrix; algebraic matric equations; limits to the characteristic roots of a matrix; sets of conjugate matrices.

Browne, Dr. Frederick L(incoln), 3546 Lake Mendota Drive, Madison, Wis. *Chemistry.* New York, N. Y, Feb. 13, 95. B.Chem, Cornell, 17; du Pont fellow, Wisconsin, 19–21, M.S, 20, Ph.D, 21. Prof. chem. and physics, Col. of Charleston, 17–18; asst. chemist, Forest Products Lab, U. S. Forest Service, 18–21; nat. research fellow chem, Wisconsin, 21–22; chemist, *Forest Products, U. S. Forest Service,* 22–28, senior chemist, 28–42, *prin. chemist, 42–; mem. tech. advisory cmt. protective coatings, War Production Board, 41–* Lecturer, Wisconsin, 23– Asst. ed, 'Chem. Abstracts,' 29– A.A; Chem. Soc; Soc. Agr. Eng; Wis. Acad. Thermal chemistry of colloids; ferric oxide hydrosol; chemistry of glues and wood finishes.

Browne, Dr. John S(ymonds) L(yon), Royal Victoria Hospital, Montreal, Que, Can. *Endocrinology.* London, Eng, April 13, 04. B.A, McGill, 25, B.Sc, M.D, 29, fellow, 29–32, Ph.D, 32. Royal Soc. Can. traveling fellow, 32–33; lecturer *med, McGill,* 33–38, *asst. prof, 38–* Physician, Royal Victoria Hosp, 40– Ed. cmt, 'Jour. Clin. Investigation'; 'Jour. Clin. Endocrinology.' Physiol. Soc; Soc. Clin. Invest; Physiol. Soc. Gt. Britain and Can; fel. Royal Soc. Can. Oestrogenic substances; salt balances in Addison's disease; sex hormone excretion in clinical cases; corpus luteum function; cortin in urine; histamine metabolism; shock.

Browne, Dr. Louise McDanell (Mrs. C. A. Browne), 3408 Lowell St, N. W, Washington, D. C. *Physiological chemistry.* Gallatin Co, Ky, Feb. 16, 83. B.S, Nashville, 02; A.B, Stanford, 06; A.M, Columbia, 12; Md. Asn. Prom. Univ. Educ. of Women fellow, Yale, 15–17, Ph.D, 17. Teacher, high sch, Ga, 02–03; pub. sch, Calif, 03–05, high sch, 06–11; asst. prof. home econ, State Col. Wash, 12–13; Minnesota, 13–15; assoc. prof, Goucher Col, 17–18; teacher, Nat. Cathedral Sch, 33–36. A.A; Home Econ. Asn; D. C. Home Econ. Asn. (pres, 28); N. Y. Home Econ. Asn. (pres, 21). Carbohydrate metabolism.

Browne, Dr. Owens Hand, Pembroke State College, Pembroke, N. C. *Chemistry.* Urbana, Ill, Dec. 2, 99. B.S, N. C. State Col, 21; Ph.D, Hopkins, 26. Fellow textile chem. and dyeing, N. C. State Col, 26–28; instr. and asst. prof. chem, Va. Mil. Inst, 28–33; chemist, Penniman and Browne, Baltimore, 33–35; fellow sanit. chem, N. C. State Col, 35–36; instr, high sch, *N. C,* 36–37; prof. math. and science, Cherokee Indian Nor. Sch, 37–40, *acting pres, Pembroke State Col, 40–* Organic chemistry of lead.

Browne, Prof. W(illia)m Hand, Jr, West Raleigh, N. C. *Electrical engineering.* Baltimore Co, Md, July 21, 68. A.B, Hopkins, 90, certificate, 92, B.E, 27. Eng. work, 92–96; instr. elec. eng, Nebraska, 96–98; asst. prof, Illinois, 98–02; tech. ed, 'Elec. Rev,' 02–08; *prof.* physics and elec. eng, *N. C. State Col,* 08–18, *elec. eng, 18–* A.A; Elec. Eng. (chairman, N. C. sect, 35); Eng. Educ; Illum. Eng. Soc; N. C. Eng. Soc. Strength and stability of poles for electric distribution line.

Browne, W(illia)m M(alcolm), 3710 34th St, N. W, Washington, D. C. *Astronomy.* Toronto, Ont, Can, April 22, 06. George Washington, 23–26, 27–30. Junior astronomer, U. S. Naval Observatory, 27–28, asst. astronomer, 28–37; *engineer, Bendix Radio Corp, 37–* Senior sci. aid, U. S. Naval Observatory, 25; in charge exhibit, Sesqui-Centennial Expos, Phila, 26. Determination of time; declinations of stars; orbit computations; astronomical photography; design of astronomical instruments.

Browne, Prof. William W(ard), College of the City of New York, New York, N. Y. *Bacteriology.* Providence, R. I, Dec. 10, 84. A.B, Brown, 08, A.M, 09, Ph.D, 12. Instr. *bacter, Col. City of N. Y,* 12–17, asst. prof, 17–27, assoc. prof, 27–37, *prof, 37–* Bacteriologist, various city health depts; State Cmn. on Ventilation, N. Y; Dunne Pierce Foundation;

State Shell Fish Cmn, R. I; Health Dept, Providence; consulting bacteriologist; research investigator, Woods Hole and Gloucester Lab, U. S. Bur. Fisheries. Mem. sci. expeds, Turks and Caços Islands, B.W.I. Mem. meetings cmt. and sci. excursion cmt, Int. Microbiol. Cong, New York, 39. A.A; Soc. Nat; Soc. Bact. (sec'y-treas, N. Y. branch, 36, councilor); fel. Pub. Health Asn; Inst. Food Tech; Int. Asn. Milk Sanitarians. Bacteria of intestinal tract, air, fish, fish products, eggs and food products; cold storage; canning industry.

Brownell, Prof. George M(cLeod), University of Manitoba, Winnipeg, Man, Can. *Geology.* Truro, N. S, Oct. 8, 99. B.Sc, Manitoba, 23, M.Sc, 25; Ph.D, Minnesota, 28. Asst. geologist, Geol. Surv. Can, 27–28; geologist, Man. Dept. Mines and Nat. Resources, 28–32; lecturer, *Manitoba,* 28–30, *asst. prof. geol. and miner, 30–* Summers, field geologist, God's Lake Gold Mines, Ltd. Can. Inst. Min. and Metal. (v. pres, 32); Asn. Professional Eng. Man. Mineralogy; gypsum; Westport area, Ontario, Canada; Flin Flon Mine, Manitoba; Bird River chromite deposits.

Brownell, Dr. Katharine A(nna), Ohio State University, Columbus, Ohio. *Physiology.* Buffalo, N. Y, April 16, 02. A.B, Buffalo, 25, A.M, 30; Ph.D, Ohio State, 40. Asst. physiol, Buffalo, 26–30, 31–34; vital econ, Rochester, 30; *research asst. physiol, Ohio State, 34–* Chem. Soc. Endocrinology.

Brownell, Prof. W(illiam) A(rthur), Route No. 1, Durham, N. C. *Educational psychology.* Smethport, Pa, May 19, 95. A.B, Allegheny Col, 17, LL.D, 42; A.M, Chicago, 23, fellow, 25–26, Ph.D, 26; Illinois, 23–24. Instr. educ, Illinois, 23–24; Chicago, 25; asst. prof. rural educ. Cornell, 26–27; educ. psychol, measurements and statist, Michigan, 27–28; *prof. educ. psychol,* Peabody Col, 28–30; *Duke, 30–* Visiting prof, Puerto Rico, 40–41. Summer, prof, Chicago, 31; Texas, 35. Assoc. ed, 'Jour. Educ. Research'; contributing ed, 'Jour. Exp. Educ.' A.A; assoc. Psychol. Asn; Soc. Study Educ. (director, 42–); Educ. Research Asn. (pres, 38); Council Math. Teachers; S. Soc. Philos. and Psychol. Genetic psychology; the learning process in arithmetic; educational measurements.

Browning, Dr. B(ertie) L(ee), Lawrence College, Appleton, Wis. *Chemistry.* Appleton City, Mo, Jan. 22, 02. B.S, Mo. Sch. Mines, 25, M.S, 26, Ch.E, 31; Ph.D, Wisconsin, 28. Leeds and Northrup Co, 28–31; Scott Paper Co, 31–32; *research assoc. and instr. anal. chem, Inst. Paper Chem, Lawrence Col, 33–* Chem. Soc; Asn. Pulp and Paper Indust. Analytical chemistry; pulp and paper testing; microanalysis.

Browning, Dr. George L(andon), Jr, 839 Orlando Ave, Akron, Ohio. *Organic chemistry.* Madison, Va, Nov. 29, 08. B.S, Va. Mil. Inst, 31; Ph.D, Virginia, 39. *Research chemist, B. F. Goodrich Co, 39–* Synthetic rubber.

Browning, G(lenn) H(azard), 7 Appalachian Road, Winchester, Mass. *Radio engineering.* Solon, Iowa, March 9, 97. A.B, Cornell Col. (Iowa), 21; Perkins scholar, Harvard, 21–23, fellow, 23–24. Asst, Cruft lab, Harvard, 22–23; engineer, Nat. Co, Cambridge, Mass, 24–26; pres, Browning-Drake Corp, 26–28; *consulting engineer,* Ren Mfg. Co, Ceco Mfg. Co. and FBO Production, 29–30; *Doble Eng. Co, Tobe Deutschmann Corp, Atlantic Precision Co. and British Wireless Co, 31–* Lecturer, Mass. Inst. Tech; consulting engineer, Doble Eng. Co, 29–; pres, Browning Labs, Inc, 39– Director, Tobe Deutschmann Corp. and Trawler Heckla, Inc. Radio Eng; Elec. Eng. Radio and electronic devices; radio frequency circuit design; theoretical and experimental investigation of detection; radio instrument design.

Browning, Dean Harold W(illiam), North Road, Kingston, R. I. *Botany.* Wakefield, R. I, Jan. 25, 93. B.S, R. I. State Col, 14; M.S, Wisconsin, 16, fellow, 16–17, Ph.D, 20. Asst. bot, Wisconsin, 14–16, instr, 19–20; prof, *R. I. State Col,* 20–42; *v. pres. col. and dean sch. science, 42–* U.S.N, 17–19. A.A; Bot. Soc; Soc. Plant Physiol; Forestry Asn; Wis. Acad. Physiology of fungi.

Brownlee, Dr. R(oy) H(utchison), 223 Fourth Ave, Pittsburgh, Pa. *Chemistry.* Alexis, Ill, Dec. 12, 76. A.B, Monmouth Col, 98; Hopkins, 98; Ph.D, Chicago, 06. Prof. nat. sciences, Occidental Col, 00–01; asst. chem, Chicago, 01–03, instr, high sch, 03–07; chemist and asst. supt. paraffine works, Standard Oil Co. of Ind, 07–12; fellow, Mellon Inst, and prof, Pittsburgh, 12–14; *pres, R. H. Brownlee Lab, Inc, 14–* Petrol. cmt, Nat. Research Council. A.A; Chem. Soc. Technical processes for oil and gas; carbon black; chemical welding and cutting of metals; petroleum refining; pharmaceutical preparations; gaseous reduction of ores; piping in ingots; aluminum ores and methods of producing alumina.

Brownmiller, Dr. L(orrin) T(homas), Alpha Portland Cement Co, Easton, Pa. *Chemistry.* Feb. 11, 02. B.S, Lafayette Col, 24; Goldschmidt fellow, Columbia, 30–32, A.M, 31, Ph.D, 35. Research assoc, Portland Cement Asn, Bur. Standards, 24–30; *chemist,* Bakelite Corp, 32–37; *Alpha Portland Cement Co, 37–* Phase equilibria; petrographic and x-ray analysis of cements and silicates.

Brownscombe, Dr. E(ugene) R(ussell), Atlantic Refining Co, P.O. Box 2819, Dallas, Texas. *Physical chemistry.* National City, Calif, July 9, 06. B.S, Yale, 28, Sterling fellow, 31–32, Ph.D, 32. *Research chemist,* biol. lab, Cold Spring Harbor, 32–34; *Atlantic Ref. Co, Phila, 34–* A.A; Physical Soc; Chem. Soc; Franklin Inst. Band spectra; chemical effects of x-rays; solvent extraction; petroleum production and refining.

Brownyard, Dr. T(heodore) L(ucius), 7763 S. Shore Drive, Chicago, Ill. *Physical chemistry.* Sand Lake, Mich, June 6, 05. West. State Teachers Col, 23–25; Mass. Inst. Tech, 29–30; Ph.D, Hopkins, 34. Teacher, high sch, Mich, 25–29; research chemist, Standard Lime and Stone Co, 35–36; Standard Oil Co. of Ind, 36–37; Portland Cement Asn, 37–43; *lieut, U. S. Naval Res, 43–* Chem. Soc. Sorption of water on alumina.

Broxon, Prof. James W(illiam), University of Colorado, Boulder, Colo. *Physics.* Whitley Co, Ind, July 12, 97. A.B, Wabash Col, 19; A.M, Minnesota, 20, Ph.D, 26. Asst. physics, Wabash Col, 17–18, instr. math, 18–19; teaching fellow *physics,* Minnesota, 19–22; instr, *Colorado,* 22–23, asst. prof, 23–27, assoc. prof, 27–29, *prof, 29–* Instr, Yale, 24–25. Summer, instr, Minnesota, 21. A.A; fel. Physical Soc; Asn. Physics Teachers; Geophys. Union; Colo-Wyo. Acad. Ionization; radioactivity; atmospheric electricity; electrical properties; cosmic penetrating radiation.

Broyer, T(heodore) C(larence), 3048 Life Sciences Bldg, University of California, Berkeley, Calif. *Plant nutrition.* Jersey City, N. J, Oct. 13, 04. B.S, California, 27. Assoc. plant nutrition, *California,* 27–40, junior plant physiologist, 40–41, *asst. plant physiologist, 41–* Chem. Soc; Bot. Soc; Soc. Plant Physiol. Mineral nutrition of plants; absorption and translocation of solutes and water in plants.

Brubaker, Prof. H(oward) W(inter), 1929 Leavenworth St, Manhattan, Kans. *Chemistry.* Ridgeville, Ohio, May 27, 77. B.S, Carleton Col, 99; Ph.D, Pennsylvania, 04. Prof. *chem,* Whitman Col, 04–11; instr, Carnegie Inst. Tech, 12–13; asst. prof, *Kans. State Col,* 13–18, assoc. prof, 18–22, *prof, 22–* Hon. fellow, Cornell, 11–12. Contributing ed, 'Jour. Chem. Educ.' Chem. Soc. (councilor, div. chem. educ); Kans. Acad. Quantitative analysis; vegetable oils; ether extracts of alfalfa; iodine in Kansas waters; composition of tusks of extinct elephants.

Brubaker, Dr. M(erlin) M(artin), R.F.D. 1, Boothwyn, Pa. *Organic chemistry.* Northfield, Minn, May 14, 01. A.B, Carleton Col, 23; M.S, Illinois, 26, Carr fellow, 26–27, Ph.D, 27. Instr, Illinois, 23–25, asst, 25–26; research chemist, *exp. sta, E. I. du Pont de Nemours and Co,* 26, 27–33, research supervisor, 33–42, *asst. director, 42–* Chem. Soc. Synthesis of substituted anthraquinones; synthetic resins and polymers.

Brubaker, Dr. Wilson M(arcus), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Physics.* West Alexandria, Ohio, July 9, 06. A.B, Miami (Ohio), 32; Ph.D, Calif. Inst. Tech, 36. Asst. physics, Calif. Inst. Tech, 32–36; instr, Ohio State, 36–37; research engineer, *Westinghouse Elec. and Mfg. Co,* 37–40, *sect. engineer, research dept, 40–* Physical Soc. Nuclear physics; neutron energies; condensation of mercury in mercury-arc tubes; industrial electronics; gaseous conduction phenomena.

Bruce, Prof. Claude W(atson), 110 Delaware Ave, Macon, Ga. *Astronomy, Physics.* Ceres, Va, Jan. 27, 98. A.B, Emory and Henry Col, 18; A.M, Virginia, 23, Ph.D, 33. Instr. astron, Harvard, 25–28; *prof. math, Wesleyan Col. (Ga), 28–* Physical Soc; Math. Asn. Practical astronomy; occultations of stars by the moon; Horner's method of irrational roots; Kerr effect in gases.

Bruce, Donald, 1034 American Bank Bldg, Portland, Oregon. *Forestry.* Newtonville, Mass, July 23, 84. A.B, Yale, 06, M.F, 10. Forest asst, examiner and supervisor, U. S. For-

est Service, 10–15; prof. forestry, California, 15–24; silviculturist and senior silviculturist, div. silvics, U. S. Forest Service, 24–30; *consulting forester, 30–* Forest engineering and mensuration.

Bruce, Edmond, 27 Buena Place, Red Bank, N. J. *Electrical engineering.* St. Louis, Mo, Sept. 28, 99. B.S, Mass. Inst. Tech, 24. Chief engineer, Clapp-Eastham Co, Cambridge, Mass, 21–23; *research engineer,* West. Elec. Co, 24–25; *Bell Tel. Labs, 25–* Transatlantic communication service, U.S.N, 17–19. Liebmann Mem. prize, Inst. Radio Eng, 32; Edward Longstreth medal, Franklin Inst, 35. Radio Eng. (standards cmt, 35–36, papers cmt, 35–41). Electrical communications; directional and aperiodic radio antennas; radio field-strength measuring equipment; vacuum tubes; electronic circuits.

Bruce, Edwin M(orris), 2108 N. Tenth St, Terre Haute, Ind. *Chemistry.* Thorntown, Ind, Oct. 23, 66. A.B, Indiana; M.S, Chicago, 16. Teacher, high sch, Ind, 99–01; Oregon State Nor. Sch, 02–04; N. Dak. State Teachers Col, 04–05; Ind. State Teachers Col, Terre Haute, 05–35, prof. chem; *retired.* Adulterants in foods; inorganic and organic chemistry; gasoline mileage and chemical composition; conductivity of ethylene diamine.

Bruce, Dr. E(verend) L(ester), 98 Bagot St, Kingston, Ont, Can. *Geology, Mineralogy.* Toledo, Ont, Aug. 3, 84. B.Sc, Queen's (Can), 09, B.A, 11; A.M, Columbia, 12, Ph.D, 15. Chemist, Can. Copper Co, 10; asst. miner, Columbia, 11–14; geologist, Geol. Surv. Can, 14–20; Whitehall Petrol. Corp, London, 20; prof. miner, *Queen's (Can),* 20–29, *Miller mem. research chair geol, 29–; field geologist, Ont. Dept. Mines,* 21–27, *31–* Consulting geologist, Can. Natl. Railways, 28; geologist, Ventures, Ltd, 29; field geologist, Que. Bur. Mines, 32. Fel. Geol. Soc. (pres, 43); Min. and Metal. Eng; Can. Min. Inst; fel. Royal Soc. Can; cor. fel. Geol. Soc. Edinburgh; Geol. Soc. Finland. Economic geology.

Bruce, Prof. Harold A(sa), Oakville Road, R. D. 1, Beaver Falls, Pa. *Biology.* Beaver Falls, Pa, April 17, 07. B.S, Geneva Col, 29; M.S, Pittsburgh, 32, Ph.D, 35. Asst. zool, Pittsburgh, 30–34; asst. prof. biol. and chem, Beaver Col, 34–35, *assoc. prof. biol,* 35–37; *Geneva Col, 37–* Research lab, Mercy Hosp, Pittsburgh, 32. A.A; Pa. Acad. Cytology; histology; education.

Bruce, Dr. H(erbert) A(lexander), 134 Bloor St, E, Toronto, Ont, Can. *Surgery.* Ont, Sept. 28, 68. M.D, Toronto, 92, LL.D; L.R.C.P, London. Prof. *clin. surg, Toronto,* 97–30, *emer. prof, 30–* Consulting surgeon, Toronto Gen. Hosp. and Wellesley Hosp; lieut. gov, Ont, 32–37. Member of Parliament, 40. Col, Can. Army Med. Corps. Fel. Col. Surg. (regent, 13–16); Can. Acad. Med. (pres, 16); Ont. Med. Soc. (pres, 11); fel. Royal Col. Surg. Politics and the Canadian army medical corps.

Bruce, H(erbert) D(ale), U. S. Forest Service, Madison, Wis. *Physical chemistry.* Victor, Colo, July 14, 98. B.S, Nevada, 20; M.S, Lafayette Col, 22; A.M, California, 34; Stanford, 37. Research chemist, Atlas Powder Co, 20–21; prof. chem, Alaska Agr. Col, 22–24; asst. chemist, Bur. Standards, 24–27, assoc. chemist, 27–29; chief chemist, Gen. Paint Corp, 29–34; *senior chemist, Forest Products Lab, U. S. Forest Service, 35–* Asst. chemist, U.S.N, 18. Chem. Soc. Bituminous compounds; paints; varnishes; resins; asphalt emulsion; soil sterilization; surface chemistry; Jojoba wax.

Bruce, Dr. James D(eacon), University Hospital, Ann Arbor, Mich. *Medicine.* Blackstock, Ont, Can, Oct. 4, 72. M.D, Detroit Col. Med. and Surg, 96. Practising physician, Mich, 96–04; asst. internal med, med. sch, Michigan, 04–05; internal med. and gen. surg, Saginaw, Mich, 06–16, gen. surg, 19–25; director internal med. and chief med. service, univ. hosp, Michigan, 25–28, director post-grad. med, 28–42, v. pres. in charge univ. relations, 31–42, chairman div. health sciences, 35–42, div. extramural services, 36–42. Mem. exec. cmt, med. sch, Michigan, med. adviser health service. Med. advisory cmt, Nat. Cmt. Econ. Security, 34; Nat. Cmn. Grad. Med. Educ. Mem. div. med. sciences, cmt. med, Nat. Research Council. Chairman assoc. states post grad. cmt, 37–40, 41–42. Can. M.C, 16–17; M.C, U.S.A, 17–19. Fel. Col. Surg; Col. Physicians (gov, Mich, 30–36; regent, 36–; pres, 40); Mich. Med. Soc. (councilor, 23–33).

Bruce, O(scar) C(layton), Soil Conservation Service, Upper Darby, Pa. *Agronomy.* Chillicothe, Mo, Jan. 24, 91. B.S, Missouri, 13; M.S, Kans. State Col, 23. Assoc. prof. soils, Maryland, 16–17, prof, 19–35; state coordinator, *soil conservation service, U. S. Dept. Agr,* Md, 35–39, *asst. regional conservator, 39–* U.S.A, 17–19. A.A; Soc. Agron; Soil Sci. Soc. Soils; relation of sulfur to alfalfa production.

Bruce, Prof. Robert E(rnest), Boston University, Boston, Mass. *Mathematics.* Stoneham, Mass, Oct. 14, 77. A.B, Boston, 01, A.M, 05, Ph.D, 12; A.M, Harvard, 11. Instr. *math,* Pomona Col, 02–03; *Boston,* 03–05, asst. prof, 05–12, prof, 12–42, *emer. prof, 42–* Exchange prof, Tsing Hua Col, China, 20–21. A.A; Math. Soc; Math. Asn. Modern geometry.

Bruce, Prof. Robert H(all), 1303 Park Ave, Laramie, Wyo. *Psychology.* Columbus, Ohio, July 28, 06. A.B, Ohio State, 28, Ph.D, 32; A.M, California, 30. Teaching fellow, California, 28–30; instr, Ohio State, 30–33; assoc. prof. and head dept. *psychol. and philos, Wyoming,* 33–36, *prof, 36–; lieut, U. S. Naval Res, 42–* A.A; Psychol. Asn. (v. pres, Rocky Mt. branch, 36, pres, 42). Experimental and comparative psychology, with particular reference to thirst, motivation and the learning process.

Bruce, Prof. Robert W(allace), 616 W. Pike St, Crawfordsville, Ind. *Psychology.* Crown Point, Ind, April 7, 00. A.B, Wabash Col, 22; A.M, Chicago, 24, Ph.D, 29. Asst. prof. *psychol, Wabash Col,* 22–26, *assoc. prof, 26–* Assoc. Psychol. Asn. General and experimental psychology.

Bruce, W(esley) G(ordon), P. O. Box 3391, Orlando, Fla. *Entomology.* New York, N. Y, Aug. 29, 92. B.S, Kans. State Col, 22, M.S, 28. From asst. entomologist to *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 28–, liaison officer mil. and pub. health service, 41–* Asn. Econ. Entom; Kans. Entom. Soc; Texas Entom. Soc. Insects affecting man and animals.

Bruce, Dr. William F(ausset), Cornell University, Ithaca, N. Y. *Organic and biological chemistry.* York Springs, Pa, July 22, 04. A.B, Wesleyan, 27, A.M, 28; A.M, fellow, Harvard, 29, du Pont fellow, 30, Ph.D, 31. Asst. chem, Wesleyan, 26–29; Harvard, 31, Sheldon traveling fellow, 31–32; asst, Rockefeller Inst, 32–35; instr. *org. chem, Cornell,* 35–39, *asst. prof, 39–* A.A; Chem. Soc. Pseudo bases; oximes; addition to unsaturated systems; benzylpinacolones; sintered glass; configuration of active tertiary carbon atoms; determination of citric acid; molecular structure and growth of bacteria in synthetic media; microchemical technique; carcinogenic hydrocarbons; gliotoxin.

Bruce, Dr. W(illiam) H(erschel), Denton, Texas. *Mathematics.* Troup Co, Ga, April 8, 56. A.B, Ala. Polytech, 83; A.M, Baylor, 86, Ph.D, Mercer, 90; LL.D, Trinity, 17. Sch. supt, Texas, 85–99; pres, John Tarleton Col, 99–00; prof. math, N. Texas State Nor. Col, 01–06, pres, *N. Texas State Teachers Col,* 06–23, *emer. pres, 23–* Summers, instr, Texas, 97, 98, 00. Chairman, State Board Examiners, Texas, 05–10. Fel. Texas Acad.

Bruck, Dr. R(ichard) H(ubert), 1442 Chandler St, Madison, Wis. *Mathematics.* Pembroke, Ont, Can, Dec. 26, 14. B.A, Toronto, 37, fellow, 37–40, M.A, 38, Ph.D, 40. *Instr. math,* Alabama, 40–42; *Wisconsin, 42–* Summers, lecturer, Mt. Allison, 39, 40. Math. Soc. Algebra.

Bruckner, Prof. J(acob) Herbert, Cornell University, Ithaca, N. Y. *Poultry husbandry.* Anaconda, Mont, May 14, 05. B.S, Purdue, 30; Ph.D, Cornell, 35. Instr. poultry husbandry, N. Y. State Col. Agr, Cornell, 30–35; game farm supt, State Conserv. Dept, N. Y, 35–37; asst. prof. *poultry husbandry, N. Y. State Col. Agr, Cornell,* 37–40, *prof. and* acting head dept, 40–42, *head dept, 42–* A.A; Poultry Sci. Asn; Genetics Soc; Genetic Asn; Wildlife Soc. Genetics of the fowl and pheasant; breeding of viable strains of fowl.

Brucksch, Dr. W(illiam) F(rederick), Jr, U. S. Rubber Co, Naugatuck, Conn. *Physical chemistry.* Baltimore, Md, May 9, 15. Ph.D, Hopkins, 41. Instr. chem, Hopkins, 40–42; *research physical chemist, Naugatuck chem. div, synthetic rubber div, U. S. Rubber Co, 42–* A.A; Chem. Soc; Physical Soc. Low temperature phenomena; molecular structure of polymeric substances.

Bruecken, Dr. Albert Joseph, 1436 Barnsdale St, Pittsburgh, Pa. *Pathology, Bacteriology.* Pittsburgh, Pa, Feb. 1, 92. M.D, Pittsburgh, 13. Res. pathologist and bacteriologist, Mercy Hosp, Pittsburgh, 13–14; demonstrator path. and bacter, Pittsburgh, 14–15; pathologist and bacteriologist, Mercy Hosp, 15–16, 18–19; Tuber. League Hosp, 16–18; prof. bacter, Marquette, 19–20; *asst. prof. neur. and path. sch. med, Pittsburgh, 20–* Am. Med. Asn; Int. Asn. Med. Mus. Pathology; pneumococcus infections; vascular obstruction; hemolysis.

Brueckner, Prof. H(erman) J(acob), Cornell University, Ithaca, N. Y. *Dairy technology.* Cincinnati, Ohio, March 20, 03. B.S, Ohio State, 24; Ph.D, Cornell, 31. Instr. *dairy indust, Cornell,* 29–31, asst. prof, 31–38, *prof, 38–* Dairy Sci. Asn; Soc. Bact; N. Y. State Asn. Milk Sanitarians; Int. Asn. Milk Sanitarians. Processing of milk and milk products.

Bruenn, Dr. Howard G(erald), 929 Park Ave, New York, N. Y. *Cardiology, Internal medicine.* Youngstown, Ohio, June 6, 05. A.B, Columbia, 25, M.S, 33, D.M.S, 34; M.D, Hopkins, 29. Fellow, Macy Foundation, 35–37; *instr. med, col. physicians and surg, Columbia, 39–* Asst. physician, Presbyterian Hosp, New York, 35– Fel. Col. Physicians; fel. Am. Med. Asn; Heart Asn; Harvey Soc. Coronary disease; development of an objective test for the presence of coronary sclerosis with the use of breathing low oxygen tensions; rheumatic and syphilitic heart disease.

Brues, Dr. Alice M(ossie), 164 Highland Ave, Newtonville, Mass. *Physical anthropology.* Boston, Mass, Oct. 9, 13. A.B, Bryn Mawr Col, 33; Ph.D, Radcliffe Col, 40. Research assoc. physical anthrop, Peabody museum, Harvard, 41–42; *statistician, anthropom. unit, aero med. research lab, Wright Field, 42–* Asn. Physical Anthrop. Anthropometry; osteology; human heredity; pigmentation.

Brues, Dr. Austin M(oore), Massachusetts General Hospital, Boston, Mass. *Medicine.* Milwaukee, Wis, April 25, 06. A.B, Harvard, 26, M.D, 30. House officer, Mass. Gen. Hosp, 31–32; asst. *med, Harvard Med. Sch,* 32–33, fellow, 33–34, instr, 36–37, assoc, 37–42, *asst. prof, 42–;* instr. biochem. sciences, Harvard, 34–42; asst, Peter Bent Brigham Hosp, 36–37, assoc. physician, 41–42; *asst. physician, Mass. Gen. Hosp, 42–* Asst. physician, Collis P. Huntington Mem. Hosp, 32–37, assoc. physician, 37–42; Moseley traveling fellow, 35–36. Soc. Clin. Invest; Asn. Cancer Research; Asn. Anat; Physiol. Soc; Soc. Endocrinol. Internal medicine; cancer; tissue culture; permeability; growth and mitosis.

Brues, Prof. C(harles) T(homas), Harvard University, Cambridge, Mass. **²Zoology.* Wheeling, W. Va, June 20, 79. B.S, Texas, 01, fellow, 01–02, M.S, 02; fellow, Columbia, 02–03. Special field agent, U. S. Dept. Agr, 04–05; curator invert. zool, Milwaukee Pub. Museum, 05–09; instr. econ. entom, *Harvard,* 09–14, asst. prof, 14–26, assoc. prof, 26–35, prof. *entom, 35–, assoc. curator insects, museum comp. zool, 30–* Staff, Bussey Inst, Harvard, 10–30; Marine Biol. Lab, Woods Hole, 02–03; Puget Sound Marine Sta, 09; entomologist, Health Dept, New York, 16; div. med. zool, Nat. Research Council, 17–19. Ed, 'Psyche,' 10– A.A; Soc. Nat; Entom. Soc. (pres, 29); Asn. Econ. Entom; Soc. Parasitol; Soc. Zool; Am. Acad; Wis. Nat. Hist. Soc. (sec'y, 06–09, ed, 'Bul,' 07–10); Wis. Acad; Cambridge Entom. Club (pres, 17). Applied and medical entomology; relations of insects to microorganisms; embryology, ecology and taxonomy of insects, especially of the Hymenoptera and Diptera; applied entomology; fossil Hymenoptera, fauna of thermal springs; food selection by insects.

Bruesch, Dr. (Simon) Rulin, 875 Monroe Ave, Memphis, Tenn. *Anatomy.* Norman, Okla, July 7, 14. A.B, La Verne Col, 35; Elizabeth J. Ward fellow, Northwestern, 37–40, M.S, 39, M.B, 40, Ph.D, 40, M.D, 41. Instr. *anat, col. med, Tennessee,* 41–43, *asst. prof, 43–* Myelinated and unmyelinated fibers in the optic nerve of vertebrates; proprioceptive components of the facial nerve.

Bruger, Dr. Maurice, 301 E. 20th St, New York, N. Y. *Medicine.* Montreal, Que, Can, May 18, 04. B.Sc, McGill, 25, M.Sc, 29, M.D, 29. Asst. pharmacol, McGill, 29–30; Oliver Rea fellow med, *N. Y. Post-Grad. Med. Sch. and Hosp, Columbia,* 30–34, Harriet Weil fellow, 34–35, assoc. med, *N. Y. Post-Grad. Med. Sch,* 34–36, asst. prof. *clin. med,* 36–42, *assoc. prof, 42–, acting director med. research lab, 37–, chief div. path. chem, 39–* Asst. attending physician to hosp, attending physician to dispensary and chief clinic, N. Y. Post-Grad. Hosp, 34– A.A; Diabetes Asn; Federation Clin. Research; Am. Med. Asn; Soc. Exp. Biol; Soc. Biol. Chem; Inst. Nutrition; fel. Col. Physicians; fel. N. Y. Acad. Med. Cholesterol metabolism; diabetes mellitus; Bright's disease; experimental arteriosclerosis; hypertension; iodine metabolism.

Bruhn, Dr. John M(erle), University of Alabama School of Medicine, University, Ala. *Physiology.* Flandreau, S. Dak, Oct. 10, 04. A.B, Carleton Col, 29; Ph.D, Yale, 33. Sterling fellow, Yale, 33–34, asst. psychobiol, labs. primate biol, Fla, 34–37; instr. *physiol. and pharmacol, sch. med, Alabama,* 37–38, asst. prof, 38–40, *assoc. prof, 40–* Physiol. Soc. Respiratory metabolism.

Bruins, Dr. Paul F(astenau), 99 Livingston St, Brooklyn, N. Y. *Chemical engineering.* Albert Lea, Minn, Dec. 22, 05. B.S, Cent. Col. (Iowa), 26; M.S, Iowa State Col, 27, Ph.D, 30. Instr, Iowa State Col, 27–30; chem. engineer, A. O. Smith Corp, 30–32; chief chemist, Geuder, Paeschke and Frey Co, 32–34; asst. supt, Fulton Co, 34–35; from research assoc. to *asst. prof. chem. eng, Polytech. Inst. Brooklyn, 35–, chairman dept. chem, Defense Training Inst, 41–* Chem. Eng; Chem. Soc. Utilization of agricultural and industrial wastes; protection of steel against corrosion; plastics.

Bruins, Dr. Richard W(edge), 96 Stonybrook Drive, Rochester, N. Y. *Chemical engineering.* Milwaukee, Wis, March 27, 10. B.S, Iowa State Col, 30, M.S, 31, Ph.D, 34. Chief chemist, Servicized Products Co, Chicago, Ill, 34; chem. engineer, Fulton Co, Milwaukee, Wis, 35; instr, Mech. Tech. Inst, 35–37; *research engineer, Eastman Kodak Co, 37–* Use of furfural and its derivatives in the fabrication of molded products.

Bruman, A(braham) J(oseph), Apartado 464, San Jose, Costa Rica. *Plant pathology.* Odessa, Russia, July 4, 94. B.S, Nebraska, 18; A.M, George Washington, 33. Field asst. plant path, Cornell, 19; plant pathologist and later *path. inspector, U. S. Dept. Agr, 19–* Bot. Soc. Wash. Plant disease and insect control.

Bruman, Prof. Henry J(ohn), Pennsylvania State College, State College, Pa. *Geography.* Berlin, Germany, March 25, 13. A.B, California at Los Angeles, 35; Nat. Univ. Mexico, 34; Social Science Research Council fellow, 38–39; Ph.D, California, 40. Instr. *geog,* exten. div, California, 39–40; *Pa. State Col,* 40–41, *asst. prof, 41–* A.A; Am. Geog. Soc; Am. Acad. Polit. and Social Sci. Plant domestications in the New World; aboriginal alcoholic intoxicants in Mexico and Central America; cultural geography of various Indian tribes in Middle America; sixteenth century geographical activity of the Spaniards in the New World.

Brumback, Florence M(ay), 6023 University Ave, Chicago, Ill. *Botany.* Grinnell, Iowa, May 30, 84. A.B, Vassar Col, 09; M.S, Chicago, 19; Colorado, 20. Teacher, high sch, Colo, 09–11; Ill, 11–18; instr. bot, Colo. Col, 19–22; head dept. biol, Colo. Woman's Col, 22–31; *teacher, univ. sch, Chicago, 34–* Summer, Marine Biol. Lab, Woods Hole, 14. Plant ecology.

Brumbaugh, Prof. Norman J(odon), 1808 Moore St, Huntingdon, Pa. *Physical chemistry.* Huntingdon, Pa, April 16, 84. A.B, Juniata Col, 06; A.M, Harvard, 15; Ph.D, Pennsylvania, 23. Instr. chem, Pennsylvania, 15–24; Am-Scandinavian fellow, Copenhagen, 24–25; *prof. chem, Juniata Col, 25–* Chem. Soc. Solution theory.

Brumfiel, Dr. D(aniel) M(ilton), 6 Church St, Saranac Lake, N. Y. *Medicine.* Fayette Co, Ind, 90. A.B, Lombard Col, 12; A.M, Illinois, 13; Ph.D, Iowa, 17; M.D, Hopkins, 24. Instr. biol, Iowa, 13–17, anat, 17–22; *practising physician, 24–* Am. Heart Asn; Am. Med. Asn; Tuber. Asn; fel. Col. Physicians. Clinical medicine; interrelation of heart and tuberculosis; industrial dust diseases.

Brumfield, Prof. R(ay) C(arlton), Cooper Union, Fourth Ave. and Eighth St, New York, N. Y. *Civil engineering.* Jetmore, Kans. B.S. (C.E), Purdue, 12. Waddell and Harrington, Kansas City, 12–13; Union Bridge Co, Kansas City, 13–17; Pennsylvania, 17–19; asst. prof. and later *assoc. prof. civil eng, Cooper Union, 19–* Soc. Test. Mat; Civil Eng; Eng. Educ; Int. Asn. Dental Research. Engineering materials and structures; hardness of metals; relationship between Brinell and Rockwell hardness; complicated gold alloys; structural interpretation of physical properties of material in complicated structures by comparative methods; restrained beams; rigid frames and variable and curved beams.

Brumfield, Dr. Robert T(hornton), Hampden-Sydney College, Hampden-Sydney, Va. *Botany.* Brookneal, Va, April 24, 12. B.S, Hampden-Sydney Col, 34; A.M, Virginia, 39; Ph.D, Yale, 42. Nat. research fellow, Harvard, 42–43; *instr. bot, Hampden-Sydney Col, 43–* A.A; Bot. Soc. Plant morphogenesis; growth; cytology.

Brumley, Dean O(scar) V(ictor), Ohio State University, Columbus, Ohio. *Veterinary medicine.* Leipsic, Ohio, March 9, 76. D.V.M, Ohio State, 97; Royal Vet. Col, Berlin, 02. In practise, 97–98; fellow and asst. vet. med, *Ohio State,* 98–99,

asst, 99–02, asst. prof, 02–04, assoc. prof, 04–10, *prof. vet. surg, 10–*, director vet. clinics, 10–29, sec'y *col. vet. med*, 12–19, acting dean, 25–26, *dean, 29–* Vet. Med. Asn. (pres, 37). Diseases of small domestic animals; veterinary posology and prescriptions.

Brunauer, Dr. Stephen, 3417 Quebec St, N. W, Washington, D. C. *Physical chemistry.* Budapest, Hungary, Feb. 12, 03. A.B, Columbia, 25; M.S, George Washington, 29; Ph.D, Hopkins, 33. Junior chemist, *soil and fertilizer investigations, bur. plant indust, U. S. Dept. Agr,* 28–36, asst. chemist, 36–39, assoc. chemist, 39–42, *chemist, 42–; consultant, Nat. Defense Research Cmt, 41–; lieut, Bur. Ordnance, U. S. Naval Res, 42–* Lecturer, George Washington, 37– Chem. Soc; Wash. Acad. Mechanism of catalysis; heterogeneous kinetics and equilibria; adsorption; physical adsorption; explosives.

Brundage, Dr. Donald K(elth), 1016 Fifth Ave, S, St. Cloud, Minn. *Chemistry.* Traverse City, Mich, Oct. 24, 13. A.B, Mich. State Nor. Col, 33; Ph.D, Michigan, 40. Asst, Michigan; chemist, Bendix Aviation Corp, Mich, 41; *instr. chem, St. Cloud State Teachers Col, Minn, 41–* Chem. Soc. Physical and organic chemistry; vapor phase esterification equilibrium.

Brundage, Prof. P(erry) S(alem), 43 S. Summit St, Ypsilanti, Mich. *Chemistry.* Wayne Co, Mich, July 15, 87. B.Pd, Mich. State Nor. Col, Ypsilanti, 11; B.S, Michigan, 15, M.S, 25, Ph.D, 32. Instr, high schs, Mich, 08–10, 11–14, 15–16; asst. *chem,* Michigan, 14–15; asst. prof, Mich. State Col, 16–23; *Mich. State Nor. Col, Ypsilanti,* 23–25, assoc. prof, 25–36, *prof, 36–, head dept, 41–* Chem. Soc; Mich. Chem. Col. Teachers Asn. (pres, 40). Organic chemistry; chemical education; determination of atomic weight of silicon.

Brune, Dr. Otto (Walter Heinrich Oscar), 50 Galway Road, Parkview, Johannesburg, S. Africa. *Electrical engineering.* Bloemfontein, Union of S. Africa, Jan. 10, 01. B.Sc, Stellenbosch, S. Africa, 20, M.Sc, 21; B.S, M.S, Mass. Inst. Tech, 29, fellow, 30–31, Sc.D, 31. Lecturer math, Transvaal Univ. Col, 23–25; asst. elec. eng, Mass. Inst. Tech, 29–30, instr, 31–35; *engineer, S. African Gen. Elec. Co, 35–* Summers, field research, Gen. Elec. Co, 29, 30. Assoc. Elec. Eng. Lightning transients on transmission lines; electric network theory.

Brunel, Prof. Jules (Bienvenu), University of Montreal, Montreal, Que, Can. *Botany.* Montreal, Que, April 12, 05. L.Sc, Montreal, 30. Asst. prof. *bot, Montreal,* 30–43, *prof, 43–, asst. director bot. inst, 38–* Mycol. Soc; Can. Soc. Nat. Hist. (pres, 42). Cryptogamic botany; algological and mycological flora of Quebec.

Bruner, Dr. D(orsey) W(illiam), 409 E. Maxwell, Lexington, Ky. *Pathology, Bacteriology.* Windber, Pa, Dec. 25, 06. B.S, Albright Col, 29; Ph.D, Cornell, 33, D.V.M, 37. Teacher, high sch, Pa, 29–30; instr. research, dept. path. and bacter, N. Y. State Vet. Col, Cornell, 31–37; asst. bacteriologist, *dept. animal path, Exp. Sta, Kentucky,* 37–41, *assoc. bacteriologist, 41–* Vet. Med. Asn. (sec'y, sect. research, 42–); Ky. Vet. Med. Asn. Bacterial acid-fastness; differentiation between gram positive and gram negative micro-organisms by use of enzymes; salmonellosis; variation in Salmonella types; serological classification of Salmonella; stains for the opsonophagocytic test; classification of Corynebacterium equi; the coliform bacilli; equine virus abortion.

Bruner, Dr. Frank G, Board of Education, Chicago, Ill. *Educational psychology.* Streator, Ill, March 28, 74. A.B, Nebraska, 03; Ph.D, Columbia, 08; M.D, Col. Med. and Surg, Chicago, 12. Sch. supt, Ill, 99–01; asst. psychol, Nebraska, 02–03; Columbia, 03–05; asst. director dept. child study, pub. schs, *Chicago,* 05–17, director special schs. and special classes, 17–37, *prin, Englewood High Sch, 37–* Asst. supt, sect. psychometry and anthropometry, La. Purchase Expos, 04. A.A; Psychol. Asn. Color range of adults; the hearing of primitive peoples; accuracy of reflex adjustments; child psychology; clinical psychology; tests.

Bruner, Dr. Frank H(enry), Fishkill, N. Y. *Chemistry.* Stillman Valley, Ill, Aug. 17, 08. A.B, Doane Col, 30; A.M, Missouri, 32, President's fellow, 32–33, Ph.D, 36. Asst. soils, Missouri, 36–37; *research chemist, Texas Co, 37–* Chem. Soc. (sect. chairman). Radioactivity; determination of the age of minerals by radioactivity; radium poisoning; petroleum chemistry.

Bruner, Dr. H(arry) D(avis), University of Pennsylvania, Philadelphia, Pa. Chapel Hill, N. C. *Physiology.* Jeffersonville, Ind, July 11, 11. B.S, Louisville, 30, M.D, 34, M.S, 36; fellow, Chicago, 36, 37, Ph.D, 39. Asst, Louisville, 33–34, physiol. and pharmacol, 34–36; instr. physiol, Med. Col. State of S. C, 36–38; asst. prof, North Carolina, 39–42; *visiting research fellow, Harrison dept. surg. research, Pennsylvania, 42–* Jefferson research medal, 38. Elisha Mitchell Sci. Soc. Hypertension; assay of liver extract; hyperchromic macrocytic anemia; pulmonary damage.

Bruner, Prof. H(enry) L(ane), Butler University, Indianapolis, Ind. *Zoology.* Knox Co, Ill, Jan. 10, 61. A.B, Abingdon (Eureka Col), 80; Yale, 80–81; Ph.D, Freiburg, 96; hon. Sc.D, Butler, 32. Prof. nat. science, Abingdon (Eureka Col), 81–86; biol. and geol, Drake, 91–92; *Butler,* 92–19, *zool,* 19–38, *emer. prof, 38–,* director grad. studies, 32–38. Harrison fellow, Pennsylvania, 10–11; lecturer, Ind. Dental Col, 16–17. Summers, asst, U. S. Fish Cmn, 81–84; prof, Indiana, 20. A.A; Soc. Zool; Eugenics Soc; fel. Ind. Acad. (ed, 09, pres, 19); Iowa Acad; assoc. N. Y. Acad. Heart of lungless salamanders; cephalic veins and sinuses of Reptilia; molting mechanism in the head of reptiles; the respiratory mechanism of amphibians.

Bruner, Stephen C(ole), Estacion Experimental Agronomica, Santiago de las Vegas, Cuba. *Plant pathology, Entomology.* Raleigh, N. C, Aug. 18, 91. B.S, N.C. State Col, 12, hon. Sc.D, 39. Agent, office forest path, U. S. Dept. Agr, 12–14; asst. pathologist, *Cuba Exp. Sta,* 15–18, pathologist, 18–19, *chief dept. plant path. and entom, 19–* Mem, Plant Quarantine Advisory Board, Cuba. Fel. Entom. Soc. Amer; N. C. Acad; Cuban Nat. Hist. Soc. (director entom). Economic entomology; diseases of tropical plants; West Indian Hemiptera and Homoptera.

Bruner, Prof. W(illiam) E(dward), State Teachers College, Kearney, Nebr. *Plant ecology.* Red Cloud, Nebr, Feb. 15, 97. B.S, Nebraska, 21, M.S, 22, Ph.D, 29. Teacher, pub. sch, 14–17; asst, 19–22; instr, Oklahoma, 22–26; Nebraska, 26–29; *prof.* bot. and bacter, Baker, 29–32, head dept. biol, 30–32; *biol. and head dept, Nebr. State Teachers Col, Kearney, 32–* Ecol. Soc; Bot. Soc; Okla. Acad; Nebr. Acad. Size and structure of leaves of cereals in relation to climate; root systems in vegetable crops; vegetation of Oklahoma; teaching methods in biology.

Brunetti, Prof. Cledo, Lehigh University, Bethlehem, Pa. *Electrical engineering.* Virginia, Minn, April 1, 10. B.E.E, Minnesota, 32, Ph.D, 37. Teaching fellow *elec. eng,* Minnesota, 32–36, instr, 36–37; *Lehigh,* 37–39, *asst. prof, 39–;* radio physicist, *Bur. Standards,* 41–43, *senior radio physicist, 43–; consultant, Nat. Defense Research Cmt, 41–* Summers, mil. instr, Ft. Snelling, Minn, 32; research assoc, Bur. Standards, 39–40. Second lieut, Sig. Res, 32. Assoc. Radio Eng. Operational calculus theory; theory of electric oscillators; transitron oscillator; radio meteorograph; ultra-high frequency radiation; power transformers; transmission line theory; acoustical engineering; resistance-tuned oscillators; negative impedances; radio design; electronic tube design; production engineering.

Bruning, Dr. J(ohanna) H(ildegonda) M(argaretha), Purdue University, West Lafayette, Ind. *Physics.* Didam, Netherlands, April 19, 12. Ph.D, Leiden, 38. Research assoc, Kamerlingh Onnes Lab, Leiden, Netherlands, 38–40; *instr. physics, Purdue, 41–* Physical Soc. Atomic and nuclear physics.

Brunings, Dr. K(arl) J(ohann), Johns Hopkins University, Baltimore, Md. *Organic chemistry.* Baltimore, Md, Dec. 4, 13. Heidelberg, 35–36; Ph.D, Hopkins, 39. Chemist, Eastman Kodak Co, Rochester, N. Y, 39–41; *instr. org. chem, Hopkins, 41–* A.A; Chem. Soc. Color photography; chemistry of pyrrole pigments; the structure of proteins.

Brunjes, Dr. A(ustin) S(chiffer), 2 Oakwood Lane, Plandome, N. Y. *Chemical engineering.* New York, N. Y, June 29, 06. Ch.E, Polytech Inst. Brooklyn, 29, M.S, 31; Ph.D, Yale, 35. Instr. chem, Polytech. Inst. Brooklyn, 29–32, lecturer chem. micros, 31–32; *process design engineer, Lummus Co, New York, 35–; adj. prof. chem. eng, Polytech. Inst. Brooklyn, 38–* A.A; assoc. Soc. Mil. Eng; assoc. U. S. Naval Inst. Chem. Soc; Chem. Eng. Freezing and flow points of commercial anti-freeze mixtures; gaseous products from decomposition of acetate and nitrate film materials; binary and ternary vapor-liquid mixtures; heat transfer; process development.

Brunner, Dr. Eugene, 7631 Leviston, El Cerrito, Calif. *Physics.* Ontario, Calif, May 24, 11. B.S, Calif. Inst. Tech, 33, M.S, 34, Ph.D, 38. *Physicist, Shell Develop. Co, 39–* Physical Soc. Physics of petroleum production; mathematical physics; flow of polyphase fluids through porous media and electric well loging.

Brunquist, Prof. E(rnest) H(erman), 4200 E. Ninth Ave, Denver, Colo. *Physiology.* Wakefield, Mass, Jan. 28, 88. A.B, Bates Col, 12; Michigan, 15–16, 17–18, fellow, A.M, 20; fellow, Stanford, 22–23, Ph.D, 23. Asst. biol, Bates Col, 12–13; prof. nat. sciences, Hillsdale Col, 13–15; instr. zool, Col. of Wooster, 16–17; asst. med. bacter, Michigan, 18–19, zool, 19–20; instr, Northwestern, 20–21; pharmacol, Wisconsin, 21–22; physiol. and pharmacol, *sch. med, Colorado,* 23–27, asst. prof. *physiol,* 27–40, *assoc. prof, 40–* Summers, instr, Wisconsin, 22; Hopkins Marine Sta, 24. A.A; Colo-Wyo. Acad. Toxicity of potassium; survival processes in excised muscle.

Brunschwig, Prof. A(lexander), 950 E. 59th St, Chicago, Ill. *Surgery.* El Paso, Texas, Sept. 11, 01. B.S, Chicago, 23, M.S, 24; M.D, Rush Med. Col, 27. *Practising surgeon, 28–;* instr. *surg, Chicago,* 31–33, asst. prof, 33–36, assoc. prof, 36–40, *prof, 40–* Lieut, M.C, U. S. Navy, 26–27. Am. Med. Asn; Surg. Asn; Soc. Clin. Surg; fel. Col. Surg; Soc. Univ. Surg; Asn. Cancer Research; Asn. Exp. Path; Soc. Exp. Biol; Asn. française pour l'Etude du Cancer. General surgery; surgical pathology; cancer.

Brunschwig, Prof. Lily, 3711 Horner Place, S.E, Washington, D. C. *Psychology.* Switzerland, Jan. 8, 06. A.B, George Washington, 27, A.M, 30; Ph.D, Columbia, 36. *Asst. prof. psychol, Fisk, 27–* Assoc. Psychol. Asn. Psychology of the deaf; personality measurement; psychology of personality.

Brunson, Dr. A(rthur) M(axwell), Purdue University, Lafayette, Ind. *Genetics.* Joliet, Ill, March 26, 91. B.S, Illinois, 13; Ph.D, Cornell, 23. Asst. and assoc. plant breeding, Illinois, 13–20; asst, Cornell, 20–23; assoc. agronomist, *bur. plant indust, U. S. Dept. Agr,* 23–28, *agronomist, 28–, assoc. bot, Exp. Sta, Purdue, 38–* A.A; Soc. Agron. Corn breeding.

Brunson, M(arvin) H(oward), Box 150, Moorestown, N. J. *Entomology.* Enterprise, Miss, Dec. 7, 02. B.S, Miss. State Col, 26; M.S, Iowa State Col, 28. Asst, Iowa State Col, 27–28; entomologist, exten. div, Clemson Col, 28–30; *asst. entomologist,* biol. control of Japanese beetle, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30–37, *biol. control oriental fruit moth, 37–* Entom. Soc. Amer; Asn. Econ. Entom. Biological control of insects.

Brunstetter, Dr. B(yron) C(urtis), U. S. Dept. of Agriculture, Beltsville, Md. *Biochemistry.* Delano, Pa, Dec. 8, 00. A.B, Dickinson Col, 22; M.S, Maryland; Ph.D, Cincinnati, 27. Assoc. biochemist and later *biochemist, div. fruit and veg. crop and diseases, bur. plant indust, U. S. Dept. Agr,* 27–A.A; Chem. Soc. Bacteriology; nature of thermal resistance of spores; plant physiology; growth of fruits; mineral nutrition of plants; spectrographic technique.

Brunswick, Dr. David, 3875 Wilshire Blvd, Los Angeles, Calif. *Physiology, Psychology.* New York, N. Y, Dec. 19, 96. Harvard, 14–19; A.B, Hopkins, 21, Ph.D, 24. Teaching fellow physiol, Harvard Med. Sch, 23–25, instr, 25–26, nat. research fellow psychol, 26–27; Vienna, Austria, 27–30; *practising psychoanalyst, 31–* A.A; Psychol. Asn. Physiology of emotions and of nerve conduction; psychoanalysis.

Brunswik, Prof. Egon (von Korompa), 2671 Shasta Road, Berkeley, Calif. *Psychology.* Budapest, Hungary, March 18, 03. Ph.D, Vienna, 27. Asst. *psychol,* Vienna, 27–34, lecturer, 34–37; asst. prof, *California,* 37–39, *assoc. prof, 39–* Lecturer, Sch. Educ, Ankara, Turkey, 31–32; Rockefeller fellow and lecturer, California, 35–36. Psychol. Asn. Experimental psychology; perception; psychological theories; philosophy of science.

Brush, Prof. E(dward) N(ewcomb), University of Maine, Orono, Maine. *Psychology.* Rochester, N. Y, July 11, 04. A.B, Vermont, 25; A.M, Harvard, 26, Ph.D, 32. Intern psychol, Boston Psychopathic Hosp, 26–27, psychologist, 27–28; instr. *psychol, Maine,* 28–29, asst. prof, 29–31, *assoc. prof, 31–; lieut, Adj. Gen. Dept, U. S. Army, 42–* Research assoc, Psychol. Corp. Assoc. Psychol. Asn; Asn. Applied Psychol; Soc. Psychol. Study Social Issues. Temporal judgment after sleep; differentiable mental abilities; vocational aptitudes.

Brush, Dr. W(arren) D(avid), 14 Hesketh St, Chevy Chase, Md. *Forestry.* Newcomerstown, Ohio, April 7, 81. B.S, Baldwin-Wallace Col, 05; A.M, Michigan, 06; Ph.D, American Univ, 30. Asst. bot, Michigan, 06–08; sci. asst. and *wood technologist, div. forest products, U. S. Forest Service, 08–* Soc. Foresters. Wood structure and utilization; forest economics.

Bruson, Dr. Herman A, 1122 Lakeside Ave, Philadelphia, Pa. *Organic chemistry.* Middletown, Ohio, July 20, 01. B.S, Mass. Inst. Tech, 23; D.Sc, Fed. Polytek. Inst, Zurich, 25. *Research chemist,* Goodyear Tire and Rubber Co, Akron, Ohio, 25–28; *Rohm and Haas Co, 28–; asst. chem, Temple, 38–* Chem. Soc; Deuts. Chem. Gesell; Schweiz. Chem. Gesell. Rubber chemistry; thiocyanogen; phenolic amines; drugs; organic chemical processes; synthetic resins.

Bruton, Prof. G(aston) S(windell), University of the South, Sewanee, Tenn. *Mathematics.* Newton Grove, N. C, Nov. 22, 02. Duke, 19–21; A.B, North Carolina, 23, fellow, 23–24, A.M, 24; Ph.D, Wisconsin, 32. Instr, Ga. Tech, 24–25; asst. prof. *math, Univ. of the South,* 25–27, *assoc. prof, 27–* Math. Soc. Algebra; applications of projective geometry to elementary mathematics; matrices and their minimum equations.

Bruun, Dr. Johannes H(adeln), General Aniline and Film Corp, 435 Hudson St, New York, N. Y. *Chemistry.* Sweden, Nov. 8, 99. Dipl. Ing, Royal Inst. Tech, Norway, 23; Ph.D, Hopkins, 29. Chemist, Kongsberg Vaabenfabrik, Norway, 23–24; research chemist, Am. Aniline Products, Inc, Pa, 24–25, head mfg. dept, 25–27; fellow, Bur. Standards, 27–28, research assoc, 28–30, senior research assoc, 30–32; research chemist, Sun Oil Co, Norwood, Pa, 32–34, manager exp. div, 34–42; acting plant manager, Albany plant, *Gen. Aniline and Film Corp,* 42–43, *chief process develop. dept, 43–* Trustee, Tome Sch. Corp, 38–41; Tome Jr. Col, 39–40. Petrol. Inst; Chem. Soc. (exec. cmt, Wash. sect, 30–32; chairman membership cmt, Phila. sect, 40–42); Pa. Chem. Soc; Wash. Acad. Petroleum; composition of petroleum; distillation; organic combustion analysis; physical constants of hydro-carbons; oxidation.

Bryan, Dr. A(ndrew) B(onnell), Carter Oil Co, Tulsa, Okla. *Physics.* Dallas, Texas, Sept. 4, 97. Ph.D, Rice Inst, 22. Instr. physics, Rice Inst, 22–35; research director geophys. div, *Carter Oil Co,* 35–37, *chief geophysicist, 37–* Summers, Bell Tel. Labs; Humble Oil and Ref. Co. Physical Soc. Electrical properties of liquids and of gases; magnetostriction and the Barkhausen effect.

Bryan, Dr. C(laude) S(tever), Michigan State College, East Lansing, Mich. *Bacteriology.* Pa, June 5, 08. B.S, Pa. State Col, 30; M.S, Mich. State Col, 32, Ph.D, 37, D.V.M, 42. From instr. to *assoc. prof. and research assoc. bacter, Mich. State Col, 30–* Pub. Health Asn; Int. Asn. Milk Sanitarians; Vet. Med. Asn; Livestock Sanit. Asn; Dairy Sci. Asn; Conf. Research Workers N. Amer. Dairy bacteriology and hygiene; mastitis.

Bryan, Prof. Colgan H(obson), Frederick Court, Tuscaloosa, Ala. *Electrical engineering.* Trenton, S. C, Oct. 7, 09. B.S, South Carolina, 32; M.Ed, Duke, 40. Instr. physics and eng, Roanoke Col, 41–42; *asst. prof. aeronaut. eng, Alabama, 42–* Power rates in South Carolina; civilian pilot training; aeronautical engineering; teaching of science in Virginia.

Bryan, Edwin H(orace), Jr, Bishop Museum, Honolulu, Hawaii. *Natural history.* Philadelphia, Pa, April 13, 98. B.S, Col. of Hawaii, 20, M.S, Hawaii, 24; Ph.B, Yale, 21; Stanford, 29–30. Asst. entomologist, *Bishop Museum, Honolulu,* 19–25, entomologist, 26–27, *curator collections, 27–* Asst, Yale, 20–21; Kamehameha schs, 21–22; instr, Hawaii, 25–29, 39. Pacific explor, Tanager exped, 23; Whitney South Sea exped, 24; Itasca exped, 35; Guam exped, 36; Taney exped, 38. A.A; Hawaiian Entom. Soc; Hawaiian Bot. Soc; Hawaiian Acad. (v. pres, 33, pres, 34). Botany; entomology; Diptera of Hawaii; history and geography of central Pacific; Polynesian ethnology and biogeography; popular astronomy; Hawaiian natural history.

Bryan, Elmer J(oseph), 30 Westwood Road, Medford, Mass. and P. O. Box 8, Shawsheen Village Station, Andover, Mass. *Chemistry.* Boston, Mass, Nov. 3, 91. A.B, Harvard, 12. Dept. chem, E. I. du Pont de Nemours and Co, 12–13, 15–20; N. J. Zinc Co, 14; Sidney Blumenthal and Co, 15; *Raffold Co. of Amer, 21–, v. pres, 28–* A.A; Chem. Soc. Chemical engineering; high explosive development; manufacture and use of paper fillers and coating pigments, sizes and emulsions.

Bryan, Prof. G(eorge) S(mith), 2122 Chadbourne Ave, Madison, Wis. *Botany.* Charleston, S. C, May 2, 79. A.B, Furman, 00; fellow, Chicago, 12–14, Ph.D, 14. Instr. *bot, Wisconsin,* 14–17, 19–23, asst. prof, 23–25, assoc. prof, 25–27, *prof, 27–* Bot. explor, Peru, 23; exped, E. Africa, 27. Inf, 17–19, capt, major; O.R.C, 20– A.A; Bot. Soc; Wis. Acad. Morphology of the Bryophyta and of gymnosperms.

Bryan, Dr. Kirk, Harvard University, Cambridge, Mass. *[5]Geology.* Albuquerque, N. Mex, July 22, 88. A.B, New Mexico, 09; A.B, Yale, 10, Ph.D, 20. Geol. aid, *U. S. Geol. Surv,* geologist, *ground water div,* 20–26, *senior geologist, 26–;* instr, Yale, 14–17; lecturer, *Harvard,* 26, asst. prof. *physiog,* 26–30, *assoc. prof, 30–* Geologist, fed. investigation, Columbia Basin Project, 23; Pueblo Bonito exped, Nat. Geog. Soc, 24–25. 2nd lieut, geol. sect, gen. hdqrs, U.S.A, 18–19. A.A. (v. pres, S, 40); Geol. Soc. (ed. board, 35; councilor, 40–42); Am. Geog. Soc; Asn. Geog. (councilor, 35); Soc. Mil. Eng; Am. Acad. (councilor, 34); Geol. Soc. Wash. (sec'y, 20). Ground water; hot springs; geology of dams and reservoirs; physiography; geological antiquity of man.

Bryan, Prof. Mary de Garmo (Mrs. Charles W. Bryan, Jr), Teachers College, Columbia University, New York, N. Y. *Chemistry.* Warrensburg, Mo, Aug. 28, 91. A.B, Washington (St. Louis), 12, 19–20; A.M, Columbia, 13, Ph.D, 31. Prof. home econ, Agnes Scott Col, 13–16; instr. dietetics, dept. home econ, Illinois, 16–17; ed, 'Jour. Home Econ,' 21–24; assoc. and asst. prof. *household arts, Teachers Col, Columbia,* 24–36, assoc. prof, 36–42, *prof, 42–* Dietitian, U.S.A, 17–19. Amylase activity of blood serum in relation to age and nutritional history; hospital diet; educational preparation for hospital dietitians; school lunch room management.

Bryan, Prof. Noah R(osenberger), University Place, Orono, Maine. *Mathematics.* Perkasie, Pa, July 11, 81. A.B, Pa. State Col, 13; A.M, Pennsylvania, 18; Ph.D, Columbia, 21. Teacher and prin, sch, P. I, 04–19; acting head dept. math, Gettysburg Col, 19–20; Dickinson Col, 21–22; *assoc. prof. math, Maine, 22–* Math. Soc; Math. Asn. Calculus; statistics; theory of numbers.

Bryan, Dr. O(llie) C(lifton), Box 156, Florida Southern College Soil Science Cooperative, Lakeland, Fla. *Agronomy.* Elba, Ala, July 30, 94. B.S.A, Ala. Polytech, 18; M.S, Wisconsin, 21, Ph.D, 22. Asst. soil chemist, West Virginia, 22–23; asst. prof. *agron, Florida,* 23–25, prof. soils, 25–37, head dept. agron, 27–37; research director, Dolomite Products, Inc, 37–39; *tech. director, Soil Science Cooperative, Fla. Southern Col, 39–* Special lecturer, Fla. Citrus Inst, 37–41. Soc. Agron; Soil Sci. Soc; Fla. Acad; Fla. State Hort. Soc; Int. Soc. Soil Sci. Soils; agricultural chemistry; soil fertility; plant and animal nutrition; land valuation.

Bryan, Prof. W(alker) E(dward), University of Arizona, Tucson, Ariz. *Plant breeding.* Gadsden, Ala, Jan. 24, 85. B.S, Ala. Polytech, 11; M.S, Wisconsin, 15. Instr. science, 2nd Dist. Agr. Sch, 11–14; agron, Louisiana, 15–16; asst. prof. *plant breeding, Arizona,* 16–19, *prof, 19–,* asst. plant breeder, *Exp. Sta,* 16–19, *plant breeder, 19–* Soc. Agron; Genetic Asn. Heredity in wheat, cotton, alfalfa and seedling dates.

Bryan, Dr. William Lowe, Bloomington, Ind. *[1]Psychology.* Bloomington, Ind, Nov. 11, 60. A.B, Indiana, 84, A.M, 86; Berlin, 86–87; Ph.D, Clark, 92; Paris and Wurzburg, 00–01. Instr. Greek, *Indiana,* 85, assoc. prof. philos, 85–87, prof, 86–02, v. pres, 93–02, pres, 02–37, *emer. pres, 37–* Trustee, Carnegie Foundation, 10–40. A.A; Soc. Nat; Psychol. Asn. (pres, 03); Philos. Asn. Experimental psychology; the development of motor ability; the psychology of occupations.

Bryan, Dr. W(illiam) Ray, National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Physiology.* Waco, Texas, Dec. 25, 05. B.S, Carson-Newman Col, 28; Ph.D, Vanderbilt, 31. Asst. physiol, sch. med, Vanderbilt, 29–31, instr, 32–35, asst. prof, 35–36; path, Albany Med. Col, 36–38; research fellow, *nat. cancer inst, nat. inst. health, U. S. Pub. Health Service,* 38–42, *biologist, 42–* Henry Strong Denison fellow, 31–32. Physiol. Soc; Soc. Exp. Path; Asn. Cancer Research; Tenn. Acad. Physiology of the parathyroid glands; experimental tetany; lower spinal reflexes; transfusion reactions due to sodium citrate; physiological variations in white blood cell counts; filterable viruses; cancer; spontaneous tumors of rats; carcinogenic hydrocarbons; factor causing breast cancer in mice.

Bryans, Prof. W(illia)m R(emington), New York University, New York, N. Y. *Engineering.* New York, N. Y, June 30, 84. B.S, N. Y. Univ, 06, M.E, 09. Instr, *N. Y. Univ,* 07–09, asst. prof. eng. drawing, 09–16, assoc. prof. eng. mech, 16–24, *prof. eng. mech. and sec'y faculty, col. eng, 24–, asst. dean, 33–* A.A; Mech. Eng; Eng. Educ. Engineering mechanics.

Bryant, Prof. Carroll William, Municipal University of Wichita, Wichita, Kans. *Physics.* Dousman, Wis, Sept. 20, 07. A.B, Beloit Col, 28; Quincy scholar, Hopkins, Ph.D, 35. Instr, high sch, Wis, 28–30; junior instr. physics, Hopkins, 30–35; asst. prof. physics and math, junior col, Tennessee, 35–40, assoc. prof, 40–41; *prof. physics and head dept, Munic. Univ. Wichita, 41–* Physical Soc; Optical Soc. Optics; reflecting power of powders in the far infrared region.

Bryant, Prof. Earl Ruskin, 166 Harper St, New Concord, Ohio. *Biology.* West Grove, Iowa, Dec. 26, 79. A.B, James Millikin, 06, A.M, 10, D.Sc, 39; Chicago; Illinois. Asst. *biol,* James Millikin, 10–11; instr, *Muskingum Col,* 11–13, *prof, 13–* Ohio Acad. The fate of the scholar; work book for a course in personal health presentation of biology; amount of food to bring the striped potato beetle to maturity.

Bryant, Dr. E(arle) O(sgood), Ecusta Paper Corp, Pisgah Forest, N. C. *Chemical engineering.* Portland, Maine, Oct. 27, 09. B.S, North Carolina, 32; M.S, Lawrence Col, 34, Ph.D, 37. *Tech. director, Ecusta Paper Corp.* Tech. Asn. Pulp and Paper Indust. Paper and pulp technology.

Bryant, Dr. Edwin F(rancis), 1144 Vicentia St, Corona, Calif. *Organic chemistry.* Sacramento, Calif, April 22, 04. A.B, Stanford, 26; Ph.D, Heidelberg, 29. *Research chemist, Calif. Fruit Growers Exchange, 30–* A.A; Chem. Soc. Pectin chemistry; chemistry of citrus oils.

Bryant, Dr. Harold C(hild), National Park Service, Grand Canyon, Ariz. *Zoology.* Pasadena, Calif, Jan. 30, 86. B.S, Pomona Col, 08; M.S, California, 10, fellow, 10–12, Ph.D, 13. Teacher science, Yale Sch, Los Angeles, 08–09; reader zool, California, 13, asst. curator birds, museum vert. zool, 13–14, econ. ornithologist, 14–27; asst. director and chief branch research and educ, *Nat. Park Service,* 30–39, *supt, Grand Canyon Nat. Park, 39–* Lecturer and instr, exten. div, California, 16–30. Summer, field party, museum vert. zool, California, 10. Game expert, Fish and Game Cmn, Calif, and ed, 'Calif. Fish and Game,' 14–30. A.A; Soc. Mammal; Ornith. Union; Cooper Ornith. Club (governor); Ecol. Soc; West. Soc. Nat; Biol. Soc. Wash; D. C. Audubon Soc. (v. pres). Economic ornithology and mammalogy; paleontology; conservation of natural resources; nature education.

Bryant, Dr. Harold W(onderley), 2433 Michigan Ave, Niagara Falls, N. Y. *Organic chemistry.* Richmond, Va, Jan. 21, 13. B.S, Richmond, 34; M.S, Illinois, 38; Ph.D, Virginia, 41. Chemist, E. I. du Pont de Nemours and Co, 34–36; Kendall Ref. Co, 36–37; *research chemist, electrochem. dept, E. I. du Pont de Nemours and Co, 41–* A.A; Chem. Soc. Synthetic analgesics; polymerization.

Bryant, Prof. J(ohn) M(yron), 1430 Raymond Ave, St. Paul, Minn. *Electrical engineering.* East Templeton, Mass, July 10, 77. B.S, Worcester Polytech, 01, E.E, 09; M.S, Illinois, 11. Asst, dept. testing and draughting, Gen. Elec. Co, Schenectady, 01–03; electrician, Oriental Powder Co, 03; instr. in charge elec. labs, Illinois, 03–07, assoc, 07–09, asst. prof, 09–14; prof. *elec. eng,* Texas, 14–28; *prof. and head dept, Minnesota, 28–* Summer, lecturer, Wisconsin, 04. Pres. acad. board and chairman board control, U.S.A. schs, Texas, 17–19. A.A; Elec. Eng. (manager, 26–29); Eng. Educ. (councilor, 27–30); Illum. Eng. Soc. Street and interior illumination; power plant economics and rates; commercial production of ozone; alternating current circuits and machinery; synchronous and induction machines; lightning phenomena; magnetism; elements of utility rate determination.

Bryant, L(eonard) R(obert), 70 Fairview Boulevard, Guelph, Ont, Can. *Chemistry.* Enfield Lock, Eng, Aug. 17, 98. B.A, Toronto, 27, M.A, 37. Lecturer chem, *Ont. Agr. Col,* 27–35, *dairy chemist, 35–* Fel. Can. Inst. Chem; Can. Chem. Asn. (sec'y, Hamilton branch, 30–35, pres, 35). Fat extraction from foods for nutritional studies; potato tyrosinase.

Bryant, Prof. L(ouis) R(alph), 530 Elizabeth St, Ft. Collins, Colo. *Horticulture.* Princeton, Ill, Nov. 25, 95. B.S,

Illinois, 31, M.S. 32, Ph.D, 34. Asst. *hort*, Exp. Sta, New Hampshire, 32–34; asst. prof, *Colo. State Col*, 34–38, *assoc. prof, 38–*, asst. horticulturist, *Exp. Sta*, 34–38, *assoc. horticulturist, 38–* Soc. Hort. Sci. Apple pollination; orchard soil management; chlorosis; pruning; rootstocks; tomato breeding.

Bryant, Dr. Louise Stevens, 1589 Midland Ave, Bronxville, N. Y. *Psychology, Public health.* Paris, France, Sept. 19, 85. A.B, Smith Col, 08; Ph.D, Pennsylvania, 14. Dept. physiol, Am. Museum Nat. Hist, 08–09; research sch. feeding, Russell Sage Foundation, 09–11; social service and instr. clin. psychol, psychol. clinic, Pennsylvania, 11–14; in charge statist. and records, Munic. Court, Phila, 14–18; ed. and pub. sec'y, Girl Scouts, Inc, 19–23; pub. sec'y cmt. dispensary develop, United Hosp. Fund, 23–26; exec. director, Nat. Cmt. on Maternal Health, Inc, 27–35. Sec'y, sect. sch. feeding and psychol. clinic, Int. Cong. Social Hygiene, 13; lecturer, Pa. Sch. for Social Work, 15–17; report, mothers' pensions, Pa, 15; surv. nutrition sch. children, Wash, D. C, 19. Ed, 'Havelock Ellis's Studies Psychol. of Sex,' 35. Statistics branch, Gen. Staff, U.S.A, 18–19. A.A; Statist. Asn. (sec'y, Phila. branch, 15–18); assoc. fel. N. Y. Acad. Med; fel. Eugenics Soc, England. School feeding; clinical psychology; social court organization and statistics; out-patient service; hospital social service; medical control of fertility.

Bryant, Dr. M(onroe) D(avid), 909 W. Walker St, Denison, Texas. *Vertebrate zoology.* Pottsboro, Texas, June 14, 07. A.B, Austin Col, 27; M.S, Illinois, 31; Ph.D, California, 42. Teacher biol, high sch, Texas, 27–28; asst. zool, Illinois, 28–30; asst. prof. biol, Austin Col, 30; prof. zool, Schreiner Inst, 30–38; teaching fellow, California, 40–42; *supt. egg dehydration plant, Denison Poultry and Egg Co, 42–* A.A; Soc. Vert. Paleont; Soc. Mammal; Cooper Ornith. Club; Texas Acad. Phylogeny of nearctic sciuridae; mammalian ecology, distribution and geographic variation.

Bryant, Prof. Reece L(awrence), Box 458, Blacksburg, Va. *Poultry husbandry.* Omaha, Ill, Aug. 23, 98. B.S. (Agr), Kentucky, 23; M.S, Cornell, 26, Ph.D, 28. *Asst. prof.* in charge *poultry husbandry*, West. Ky. State Col, 23–25; *Va. Polytech, and poultry husbandman, Exp. Sta, 28–* Poultry Sci. Asn. Vitamin content of egg yolk; washing solutions and the keeping qualities of eggs; peanut meal for poultry; battery brooding; fishy flavors in turkey meat; breeding for longevity in the domestic hen.

Bryant, William L, Park Museum, Roger Williams Park, Providence, R. I. *Paleontology.* Buffalo, N. Y, 71. *Director* museum, Buffalo Soc. Nat. Sciences, 09–24; *Park Museum, Providence, 25–* Hon. curator fossil fishes, N. Y. State Museum. U. S. del, Int. Cong. Americanists, Brazil. A.A; Paleont. Soc; Philos. Soc; fel. Ohio Acad; Audubon Soc. R. I. (pres, 29–31); fel. Royal Geog. Soc. Paleozoic fossil fishes.

Bryant, W(illiam) M(ortimer) D(rein), Silverside Road, R.D. 3, Wilmington, Del. *Chemistry.* Philadelphia, Pa, Oct. 1, 05. B.S, Ursinus Col, 27. *Research chemist, E. I. du Pont de Nemours and Co, 27–* Chem. Soc; Miner. Soc; Optical Soc. Optical crystallography; organic analysis and identification; chemical thermodynamics.

Brydone-Jack, Dr. E(rnest) E(dmund), 2412 W. 49th Ave, Vancouver, B. C, Can. *Civil engineering.* Fredericton, N. B, Nov. 9, 71. B.A, New Brunswick, 91, hon. D.Sc, 26; C.E, Rensselaer Polytech, 94. Draftsman, Pottsville Iron and Steel Co, 94–95; draftsman and checker, Pa. Steel Co, 95–98; engineer in charge, Siebert House Branch Office, Keystone Bridge Works, 98–00; detail design, Fort Pitt Bridge Works, Pa, 00–01; prof. civil eng, New Brunswick, and city engineer, Fredericton, N. B, 01–05; engineer in charge detail design, Va. Bridge and Iron Works, 05; prof. civil eng, Dalhousie, 05–07; Manitoba, 07–17; supervising engineer, Pub. Works of Can, 17–34; *consulting engineer.* Railways, docks and bridges, Can, 02–; consulting engineer, 02–17. Summers, Crown Land Office, Provincial Govt, N. B, 90; Buffalo, Rochester and Pittsburgh Ry, N. Y, 92; Del. and Hudson Canal Co, Albany, 93. Civil Eng: Eng. Inst. Can. (councilor, 14, v. pres, 14, sec'y-treas, Winnipeg branch, 07–13, chairman, 14); Professional Inst. Civil Service Can. (regional v. pres, Man, 21, B. C. and Yukon, 25); Asn. Professional Eng. B. C. (councilor, 23–26, pres, 24). Bridge engineering; control of water levels of Lake Okanagan and headwaters of Yukon River; navigation of Peace River, Fraser River and Lesser Slave Lake.

Bryner, Prof. Loren C(onrad), Brigham Young University, Provo, Utah. *Biophysical chemistry.* Price, Utah, Jan. 2, 04. B.S, Brigham Young, 28, M.S, 30; Ph.D, Iowa State Col, 34. Asst. *chem*, Brigham Young, 28–30; Iowa State Col, 30–35; *asst. prof, Brigham Young, 35–* Catalysis; fermentations.

Bryngelson, Dr. Bryng, University of Minnesota, Minneapolis, Minn. *Speech pathology.* Otisco, Minn, April 22, 92. A.B, Carleton Col, 16; Yale, 20–21; A.M, Iowa, 26, fellow, 30–31, Ph.D, 31. Instr, Carleton Col, 19–20; prof. speech, Hanover Col, 22–24; assoc, Iowa, 24–26; asst, Wisconsin, 26–27; *director speech clinic, Minnesota, 27–* A.A; Psychol. Asn; Speech Correction Asn. (pres, 43); Asn. Teachers Speech; Northwest Pediat. Soc. Speech pathology; stuttering; heredity of handedness; relationship of sidedness to stuttering; mental hygiene; personality and the rehabilitation of speech.

Bryson, Prof. Harry R(ay), Kansas State College, Manhattan, Kans. *Entomology.* Wellsville, Kans, Sept. 9, 92. B.S, Kans. State Col, 17, M.S, 24. Instr, high sch, 17–23; asst. prof. *entom, Kans. State Col*, 24–43, *assoc. prof, 43–*, asst. entomologist, *Exp. Sta*, 24–43, *assoc. entomologist, 43–* Entom. Soc; Asn. Econ. Entom; Kans. Entom. Soc. Staple crop insects; hibernation of Scarabaeidae and their tiphia parasites, chinch bugs and wire worms; rearing wire worms; interchange of soils by burrowing insects; taxonomy and life history of Elateridae; sorghum insects; ecology of white grubs and wire worms.

Bryson, H(erman) J(ennings), Marion, N. C. *Geology.* Canton, N. C, Sept. 6, 96. Mars Hill Col, 16–17; A.B, North Carolina, 23, A.M, 24, 24–26. Teaching fellow, North Carolina, 23–25; prin, Oakley Sch, N. C, 26, high sch, 26; geologist, State Dept. Conservation and Develop, N. C, 26–40; *consulting geologist.* Geologist, Va. Rock and Minerals Corp, 42–; director, Pyrophyllite Talc Products, Inc. Geology of North Carolina; mining industry in North Carolina.

Bryson, Prof. Lyman (Lloyd), 485 Madison Ave, New York, N. Y. *Anthropology.* Valentine, Nebr, July 12, 88. A.B, Michigan, 10, A.M, 15. Instr. rhetoric, Michigan, 13–17; secretariat, Int. Red Cross, 20–24; assoc. director, San Diego Museum Archeol. and Anthrop, 27, director, 28–30; lecturer polit. science, exten. div, California, 25–32; exec. director, Calif. Asn. Adult Educ, 29–32; lecturer, Sch. Am. Research, Albuquerque, 31; adult education forum leader, pub. schs, Des Moines, 32–34; visiting prof. *educ, Teachers Col, Columbia*, 34–35, *prof, 35–; director educ, Columbia Broadcasting System, 43–; chief bur. special operations, Office War Information, 43–* Mem. Nat. Cmt. Intellectual Cooperation. Prof, Calif. State Teachers Col, San Diego, 28–30. Summer, director sch. adult educ, California, 31–32. Ed, 'The World's Health,' 22–24. Manager, Sch. Am. Research. Sec'y, Oriental Conf. Red Cross, Siam, 22; sec'y, Conf. Science, Philos. and Religion. A.A; Archeol. Inst; Acad. Polit. and Social Sci; Asn. Adult Educ. (chairman exec. board); Asn. Indian Affairs (director); Philos. Asn. Social sciences.

Bryson, Robert P(earne), U. S. Geological Survey, Washington, D. C. *Geology.* Los Angeles, Calif, June 12, 11. A.A, Los Angeles City Col, 31; A.B, California at Los Angeles, 34, A.M, 37; M.S, Calif. Inst. Tech, 37. Junior geologist, fuels sect, *U. S. Geol. Surv*, 37–42, *asst. geologist, Ark. bauxite, 42–* Geol. Soc. Wash. Western coal fields; bauxite deposits of Arkansas.

Bubb, Prof. Frank W(illiam), Washington University, St. Louis, Mo. *Mathematics, Physics.* Nevada, Mo, July 3, 92. B.S, Washington (St. Louis), 16, A.M, 17; Ph.D, Chicago, 25. Instr. *math, Washington (St. Louis)*, 18–19, asst. prof, 19–24, assoc. prof, 25–36, *prof. and head dept, 36–* Nat. research fellow, Chicago, 24–25. Optical Soc; Eng. Educ. Descriptive geometry; mathematical physics; photoelasticity.

Buc, H(yym) E(lias), 620 Locust St, Roselle, N. J. *Organic chemistry.* Near Minsk, Russia, July 18, 80. B.S, Col. City of N. Y, 01; Columbia, 08–11. State Dept. Agr, N. Y, 11; chemist, bur. chem, U. S. Dept. Agr, 11–20; *indust. research chemist, Standard Oil Co. of N. J, 20–* A.A; Chem. Soc. Industrial organic chemistry.

Buc, Dr. Saul R(ex), 2205 Ridge Road, Kalamazoo, Mich. *Organic chemistry.* New York, N. Y, Sept. 6, 14. B.S, Rutgers, 34; du Pont fellow, Hopkins, 37–38, Ph.D, 38. Instr. chem, Hopkins, 38–41; *research chemist, Upjohn Co, 41–* Chem. Soc. Pyrroles and porphyrins; vitamin B_1.

Bucca, Dr. Matthew A(nthony), U. S. Marine Hospital, Stapleton, N. Y. *Bacteriology.* New York, N. Y, Sept. 30, 08.

A.B, Alabama, 30; M.S, N. Y. Univ, 33, Ph.D, 42. Instr. bacter, col. med, N. Y. Univ, 34; *asst. bacteriologist, venereal disease research lab, U. S. Marine Hosp, 38–* Soc. Bact. Physiology and metabolism of gonococcus and spirochaetes.

Buchanan, Dr. A(rchibald) R(ay), 4200 E. Ninth Ave, Denver, Colo. *Anatomy.* Gordonsville, Minn, Feb. 15, 05. B.S, Iowa, 29, M.D, 33; M.S, Northwestern, 37. Asst. anat, Iowa, 29–32, instr, 32–34, assoc, 35–36; neur, Northwestern, 36–37; prof. *anat,* Mississippi, 37–39; *assoc. prof, Colorado, 39–* A.A; Am. Med. Asn; Asn. Anat; Soc. Exp. Biol. Effect of resonating cavities on sound produced in the larynx; neuro-pathology; vestibular mechanism.

Buchanan, Dean D(aniel), University of British Columbia, Vancouver, B. C, Can. *Mathematics.* Clearville, Ont, April 14, 80. B.A, McMaster, 06, M.A, 08, LL.D, 30; fellow, Chicago, 09–11, Ph.D, 11. Asst. prof. *math,* Queen's (Can), 11–14, assoc. prof, 14–16, *prof,* 16–20; *head dept, British Columbia, 20–, dean faculty arts and science, 28–* Summers, prof, California at Los Angeles, 37, 39, 41, 42. Math. Soc; Astron. Soc; fel. Royal Soc. Can; Circolo Mat. di Palermo. Astronomy; oscillations near the isosceles-triangle solutions; periodic orbits on a smooth surface; asymptotic satellites and planetoids; periodic orbits of the second genus; periodic orbits in the problem of three and four bodies with repulsive and attractive forces.

Buchanan, Prof. D(urant) S(amuel), Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Bryan, Texas, March 11, 97. B.S, Agr. and Mech. Col. Texas, 17; fellow, Iowa State Col, 25–26, M.S, 26. Instr. animal husbandry, Agr. and Mech. Col. Texas, 20–25, assoc. prof, 26–27; prof, Miss. Agr. and Mech. Col, 27–29, head dept. and sta. animal husbandman, 29–30; *prof. animal husbandry, Agr. and Mech. Col. Texas, 30–* Soc. Animal Production. Cattle and hog feeding.

Buchanan, Prof. Herbert Earle, Tulane University, New Orleans, La. *Mathematics.* Cane Hill, Ark, Oct. 4, 81. A.B, Arkansas, 02, LL.D, 28; A.M, Chicago, 03, Ph.D, 09. Instr. *math,* Wisconsin, 09–11; assoc. prof, Tennessee, 11–12, *prof,* 12–20; Tulane, 20–37, *A. B. Dinwiddie grad. prof, 37–* A.A; Math. Soc; Math. Asn; Tenn. Acad. Mathematical astronomy; celestial mechanics; monotonic functions; transmission of impulses in muscles and nerves; oscillations of the helium atom; three finite masses; differential equations.

Buchanan, James Allison, U. S. Department of Agriculture, Washington, D. C. *Engineering.* Washington, D. C, April 8, 96. B.S, M.E, Mich. Col. Mines, 19; B.S, George Washington, 21. Eng. construction, Panama Canal, 14–15; primary levelman, Int. Boundary Cmn, 16–17; asst. engineer, Quincy Mining Co, Hancock, Mich, 17–18; asst. examiner, U. S. Patent Office, 20–23; *assoc. engineer tests, bur. pub. roads, U. S. Dept. Agr, 23–* Mem. design cmn, Highway Research Board. Impact force measurements; determination of relative elastic properties of Portland cement concrete under static and impact loads; apparatus for measurement of road surface roughness; design, development and calibration of related instruments.

Buchanan, Prof. J(ames) William, Northwestern University, Evanston, Ill. *[7]Zoology.* Basil, Ohio, Jan. 30, 88. B.S, Ohio (Athens), 13; fellow, Chicago, 15–16, Ph.D, 21; London, 19. Assoc. prof. biol, Mississippi, 13–15; instr. zool, N. Y. Univ, 16–17; *biol,* St. Ignatius Col, 19–21; Yale, 21–23, asst. prof, 23–30; assoc. prof, *Northwestern,* 30–33, *prof, 33–, chairman dept, 40–* Summers, asst, Chicago, 16, 17, 19–21. Senior instr, U.S.A, Coblentz, 19. A.A; Soc. Zool; Physiol. Soc; Soc. Nat. General physiology; regeneration.

Buchanan, J(ohn) H(all), Corn Products Refining Co, 17 Battery Place, New York, N. Y. *Chemistry.* Cedar Rapids, Iowa, July 1, 88. B.S, Iowa State Col, 11, M.S, 14. Instr. chem, Iowa State Col. 11–17, prof, 19–37; *in charge tech. sales div, Corn Products Ref. Co, 37–* Consultant, Am. Bottlers of Carbonated Beverages, 25–; Rapid Water Softener Co, 30–U.S.A, 17–19, capt. Food and sanitary chemistry; germicidal efficiencies of alkalis; standardization of bottled carbonated beverages; commercial preparation of levulose.

Buchanan, L(ee) L, U. S. Department of Agriculture, Washington, D. C. *Entomology.* Solon, Iowa, Oct. 27, 93. A.B, Iowa, 16. Asst. biologist, bur. biol. surv, *U. S. Dept. Agr,* 17–29, assoc. entomologist and later *entomologist, bur. entom. and plant quarantine, 29–* Taxonomy of Rhynchophora.

Buchanan, Dr. Marion Alexander, 117 E. Harris St, Appleton, Wis. *Chemistry.* Toulon, Ill, Sept. 14, 08. A.B, Ill. Col, 30; M.S, Iowa, 31, Ph.D, 33. *Research asst, Inst. Paper Chem, 34–* Chem. Soc. Paper chemistry; Grignard reagents; chloramine; carbohydrates.

Buchanan, Prof. R(obert) E(arle), Station A, Ames, Iowa. *Bacteriology.* Cedar Rapids, Iowa, March 27, 83. B.S, Iowa State Col, 04, M.S, 06; Ph.D, Chicago, 08. Instr. *bacter,* Iowa State Col, 05–06; asst, Chicago, 07–08; assoc. prof, *Iowa State Col,* 08–09, *prof. and head dept, 09–, director, Exp. Sta, 33–, dean* indust. science, 13–19, *grad. col, 19–* Ed, 'Bacter. Monographs.' Mem, Int. Cmt. Bacter. Nomenclature. Chairman cmt. exp. sta. organization and policy, Asn. Land Grant Cols. and Univs. Pres, bacter. sect, Int. Bot. Cong, Cambridge, Eng, 30; pres, sect. agr. bact, Int. Microbiol. Cong, London, 36; v. pres, Int. Microbiol. Cong, New York, 39. A.A; Soc. Bact. (pres, 18); fel. Iowa Acad. (pres, 35). Systematic and physiological bacteriology.

Buchanan, Dr. Ruth (Mrs. Kelvin Burns), 3444 Delaware Ave, Pittsburgh, Pa. *Chemistry.* Glenwillard, Pa, Feb. 5, 94. B.S, Pittsburgh, 16; M.S, George Washington, 20, Ph.D, 24. Chemist, bur. chem, U. S. Dept. Agr, 18–25; *home economist, Exp. Sta, West Virginia, 25–* Chem. Soc; Asn. Cereal Chemists. Agr. Chem. Food chemistry; cereals; standardization of cherry preserves.

Buchanan, W(illiam) D(wight), Box 1889, El Paso, Texas. *Entomology.* Venice, Utah, July 1, 99. A.B, California, 25; M.S, Minnesota, 33. Teacher, Presidio Open Air Sch, Calif, 25–26; teacher and prin, high schs, Utah, 26–29; lab. asst. entom. and instr. biol, Minnesota, 30–33; junior entomologist, forest insect lab, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 33–38, asst. entomologist, 39–42, white-fringed beetle investigations, 42–43, *assoc. entomologist forest insect investigations, Guayule rubber project, 43–* Summers, field aid, U. S. Dept. Agr, 32–33. A.A; Asn. Econ. Entom; Phytopath. Soc. Economic entomology; insect biology; relation of insects to the spread of plant diseases; relation of the greenhouse thrips to spread of bacterial diseases of beans; relation of the bark beetle and other elm insects to the spread of the Dutch elm disease.

Buchbinder, Dr. Leon, 50 Haven Ave, New York, N. Y. *Bacteriology, Immunology.* Newark, N. J, May 1, 08. B.S, Rutgers, 28; A.M, Columbia, 29, Ph.D, 33. Asst. bacter, col. physicians and surg, Columbia, 29–32, res. assoc. sanit. science, 37–41; director bacter. div, air surv, *Health Dept, New York,* 35–37, *bacteriologist in charge, lab. microbiol. sanit. exams, 43–* Asn. Immunol; Soc. Bact; Asn. Sci. Workers. Sanitation of air, milk, shellfish and water.

Bucher, Dr. Carl J(oseph), The Westbury, Spruce and 15th Sts, Philadelphia, Pa. *Pathology.* Logansport, Ind, March 21, 90. B.S, Pennsylvania, 12, M.D, 16. M.C, U.S.N, 17–25; *asst. director clin. labs, hosp, Jefferson Med. Col.* Asn. Path. and Bact; Soc. Clin. Path. (v. pres, 31); fel. Am. Med. Asn; Soc. Bact; Soc. Trop. Med; Path. Soc. Phila; Physiol. Soc. Phila; fel. Col. Physicians Phila. Relation between the bacterial flora and tracheobronchial foreign bodies; bacteriology of the lung abscess.

Bucher, Prof. Walter H(ermann), Columbia University, New York, N. Y. *[8]Geology.* Akron, Ohio, March 12, 88. Ph.D, Heidelberg, 11. Instr. geol, Cincinnati, 13–15, asst. prof, 15–20, assoc. prof, 20–24, prof, 24–40, chairman dept. geol. and geog, 37–40; *prof. geol, Columbia, 40–* Div. chairman. Nat. Research Council, 40– Nat. Acad; A.A. (v. pres, E, 38); Geol. Soc. (councilor, 35–37); Geophys. Union; Min. and Metal. Eng; Paleont. Soc; N. Y. Acad. (v. pres, 42–); Ohio Acad. (pres, 35). German Tertiary; oolites; ripples; sedimentation; structural geology; joints; cryptovolcanic structures; orogenesis.

Buchholtz, Dr. W(alter) F(rederick), South Dakota State College, Brookings, S. Dak. *Botany, Plant pathology.* Wyoming, Iowa, March 22, 08. B.S, Iowa State Col, 29, M.S, 30, Ph.D, 35. Asst. bot, Chicago, 30–31; instr, Iowa State Col, 31–32, research asst. bot. and plant path, *Exp. Sta,* 32–41; *plant pathologist, S. Dak. State Col, 41–* Phytopath. Soc. Seedling and root diseases of sugar-beets, flax, legumes and grasses.

Buchholz, Prof. John T(heodore), University of Illinois, Urbana, Ill. *[8]Botany.* Polk Co, Nebr, July 14, 88. B.S, Iowa Wesleyan Col, 09; A.B, Iowa, 09; M.S, Chicago, 14, fellow, 16–17, Ph.D, 17. Instr. biol, Ark. State Nor. Sch, 09–

11, head dept. science, 11–18; prof. biol, W. Texas State Nor. Col, 18–19; *bot.* and head dept, Arkansas, 19–26; Texas, 26–29; *prof, Illinois, 29–*, head dept, 38–42, chairman div. biol. sciences, 39–41. A.A. (sec'y, G, 37–40, v. pres, 42); Soc. Nat; Bot. Soc. (pres, 41); Genetics Soc; Torrey Bot. Club; Ill. Acad; Calif. Bot. Soc. Evolution; plant morphology and embryology; phylogeny of conifers; pollen-tube growth and genetics of Datura.

Buchman, Dr. Edwin R(aphael), California Institute of Technology, Pasadena, Calif. *Chemistry.* Valley Falls, N. Y, Oct. 17, 04. Chem.E, Rensselaer Polytech, 22; M.S, Mass. Inst. Tech, 25; Ph.D, Frankfurt, 33; Columbia, 33–35. *Fellow,* Hopkins, 36–37; *Calif. Inst. Tech, 37–* A.A; Chem. Soc; Schweiz. Chem. Gesell. Organic chemistry.

Bucholtz, Dr. Alexander F(eodor), 4919 McPherson Ave, St. Louis, Mo. *Plant physiology.* Riga, Latvia. B.S, Cornell, 26; Rufus J. Lackland fellow, Washington (St. Louis), 27–29, M.S, 29, Ph.D, 31. Asst, Mo. Bot. Garden, 26–27; asst. bot, Washington (St. Louis), 29–31; research biologist, Fouke Fur Co, 32–36; *research director, Hyde Park Breweries Asn, 37–* Summer, field asst, U. S. Dept. Agr, 29. Deuts. Bot. Gesell; Int. Soc. Soil Sci. Effect of monochromatic ultra-violet light on the behavior of plant cells.

Buchsbaum, Prof. Ralph, University of Chicago, Chicago, Ill. *Zoology.* Chickasha, Okla, Jan. 2, 07. B.S, Chicago, 28, Eli Lilly fellow, 30–31, Ph.D, 32. Asst. zool, Wisconsin, 28–29; *Chicago,* 29–30, instr. biol, 31–39, *asst. prof. zool, 39–* Instr, Gary Col, 33–35. Summer, Lake Erie Biol. Surv. State Conservation Dept, N. Y, 29. A.A; Ill. Acad. Cell physiology; tissue culture; invertebrates; ecology.

Buchta, Prof. J. W(illiam), University of Minnesota, Minneapolis, Minn. *Physics.* Osceola, Nebr, Sept. 18, 95. B.S, Nebraska, 20, A.M, 21; Ph.D, Minnesota, 25. Instr. *physics, Minnesota,* 25–27, asst. prof, 28–29, assoc. prof, 29–38, *prof. and chairman dept, 38–* Asst. ed, 'Physical Rev'; 'Reviews of Mod. Physics.' A.A; Physical Soc; Optical Soc. Electron-beam oscillograph; metal crystals.

Buchwald, Kenneth W, 109 Monticello Place, Buffalo, N. Y. *Biochemistry.* B.S, Buffalo, 26, A.M, 28. Asst. physicist, *State Inst. Study Malignant Diseases, Buffalo, N. Y,* 26–29, chemist, 29–31, asst. biol. chemist, 31–42, *assoc. cancer biochemist, 42–* Chem. Soc; Asn. Cancer Research. Biological effect of x-rays; ultra-violet absorption of organic compounds; tumor metabolism; role of traces of iron and copper in metabolism.

Buck, A(lonzo) Morris, Office of Defense Transportation, Washington, D. C. *Engineering.* Washington, D. C, Jan. 17, 81. M.E, Cornell, 04; E.E, Illinois, 17. Instr. elec. eng, Cornell, 05–06; engineer, Westinghouse Elec. and Mfg. Co, 04–07; asst. prof. elec. eng, New Hampshire, 08–10; prof, Clarkson Tech, 10–11; asst. prof. ry. elec. eng, Illinois, 11–17; consulting engineer, 17–23; assoc. ed, 'Elec. Ry. Jour,' 23–24, managing ed, 25–29, eng. ed, 29–31; 'Transit Jour,' 32–42; *transportation engineer, Office Defense Transportation, 43–* A.A; fel. Elec. Eng; Eng. Educ. Mechanical, electrical and railway engineering.

Buck, Charles C(ovel), 331 Giannini Hall, University of California, Berkeley, Calif. *Forestry.* San Francisco, Calif, April 6, 08. B.S, California, 30. Asst. ranger, Shasta Nat. Forest, 30–32, forest ranger, 32–33; junior forester, *Calif. Forest and Range Exp. Sta, U. S. Forest Service,* 33–35, asst. silviculturist, 35–37, assoc. silviculturist, 37–39, *silviculturist in charge div. forest fire protection, 40–* Soc. Foresters. Forest fire protection; relationship between forest fire behavior and weather, fuel and topography; measurement and prediction of fire danger; damage from forest fires.

Buck, Dr. Dorothy M(ay), Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Physiological chemistry.* Urbana, Ill, Feb. 6, 16. B.S, George Washington, 37; M.S, Iowa, 39, Ph.D, 41. Asst. chem, George Washington, 35–37; asst, Iowa, 38–41; *instr. physiol. chem, Woman's Med. Col. Pa, 41–* Tryptophane metabolism; phosphate clearance.

Buck, Harold Winthrop, 19 Rector St, New York, N. Y. *Electrical engineering.* New York, N. Y, May 7, 73. Ph.B, Yale, 94; E.E, Columbia, 95. Elec. engineer, Gen. Elec. Co, 95–00; Niagara Falls Power Co, 00–06; *v. pres, Viele, Blackwell and Buck, Engineers.* A.A; Elec. Eng. (pres, 16). Design and construction of power plants in the United States and Canada.

Buck, Dr. Johannes S(ybrandt), Winthrop Chemical Co, Inc, Rensselaer, N. Y. *Organic chemistry.* Liverpool, Eng, Oct. 1, 95. B.Sc, Liverpool, 20, Ph.D, 22, D.Sc, 31; 1851 Exhib. scholar, Liverpool and Oxford, 22–24. Antoine Chiris fellow, Yale, 24; lecturer, Bryn Mawr Col, 25; assoc. prof. chem, Duke, 25–29; head org. chem. dept, Burroughs Wellcome and Co, 29–42; *assoc. director research, Winthrop Chem. Co, Inc, 42–* Adj. prof, Polytech. Inst. Brooklyn, 31–42. Summer, lecturer, Illinois, 27. Leblanc medal. Chem. Soc; fel. Inst. Chem; fel. London Chem. Soc. Synthetic medicinals; pharmaceuticals.

Buck, Prof. John B(onner), University of Rochester, Rochester, N. Y. *Zoology.* Hartford, Conn, Sept. 26, 12. A.B, Hopkins, 33, Ph.D, 36. Asst. zool, Hopkins, 33–36; nat. research fellow, Calif. Inst. Tech, 36–37; research assoc, dept. embryol, Carnegie Institution, 37–39; instr. *zool, Rochester,* 39–41, *asst. prof, 41–* Hopkins exped, Jamaica, 36, 41. Mem. corp, Marine Biol. Lab, Woods Hole. Genetics Soc; Soc. Zool. Physiology and behavior of fireflies; cell physiology; chromosome and physiological cytology.

Buck, Dr. John H(enry), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* London, Eng, Sept. 22, 12. B.S, Saskatchewan, 33, M.S, 35; Ph.D, Rochester, 38. Asst. *physics,* Saskatchewan, 33–35; teaching fellow, Rochester, 35–38; *instr, Mass. Inst. Tech, 38–* Physical Soc. Nuclear physics; design and construction of cyclotrons; production and study of artificially radioactive elements.

Buck, Prof. Miriam G(ertrude), Oklahoma College for Women, Chickasha, Okla. *Chemistry.* Vincennes, Ind, Sept. 6, 97. A.B, Illinois, 20, M.S, 21; fellow, Chicago, 32–33, Ph.D, 35. Chemist, Aluminum Ore Co, East St. Louis, Ill, 18–19; asst. chem, Illinois, 20–21; prof, Vincennes, 21–23; Woman's Col. of Ala, 23–27; asst. prof, Conn. Col, 27–32; asst, Chicago, 33–34; *assoc. prof. chem. and physics, Okla. Col. for Women, 34–* Chem. Soc; fel. Okla. Acad. Thermodynamics.

Buck, Dr. Peter H(enry), Bishop Museum, Honolulu, Hawaii. *Anthropology.* Urenui, Taranaki, N. Z, Aug. 15, 80. M.B, Ch.B, New Zealand, 04, M.D, 11, D.Sc, 37; A.M, Yale, 36; Sc.D, Rochester, 39. Med. officer health, N. Z, 05–09, mem. Parliament, 09–14, director Maori hygiene, Dept. Health, 19–27; ethnologist, *Bishop Museum, Honolulu,* 27–32, 34–36, *director, 36–,* Bishop Museum visiting prof. *anthrop, Yale,* 32–34, *prof, 36–* Ethnol. expeds, Polynesia. Hector medal, N. Z; D. S. Order, Gt. Britain. N.Z.E.F, 15–19, major. Anthrop. Asn; Royal Anthrop. Inst; fel. Royal Soc. N. Z; Polynesian Soc. Ethnology of Polynesia.

Buck, Prof. P(hil) W(alter), 900 Seventh St, Silver City, N. Mex. *Psychology, Education.* B.S, Kans. State Teachers Col, 28, M.S, 30; Ph.D, Ohio State, 34. Teaching fellow, Kans. State Teachers Col, Emporia, 29–30, instr. educ, 30–31; asst, Ohio State, 32–34; psychologist, pub. sch, Ohio, 34–35; *prof. psychol. and head dept, N. Mex. State Teachers Col, 35–; psychologist and lieut, Adj. Gen. Dept, U. S. Army.* Orientation of college freshmen; personality or character changes of college students; comparative character traits of Anglo- and Spanish-American high-school pupils; use of the socialized-unit method in college classes; reading-readiness testing; manual arts aptitude testing.

Buck, Dr. Robert E, U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Biochemistry.* Altmar, N. Y, Oct. 16, 12. A.B, Cornell, 33; fellow, Mass. State Col, 33–36, M.S, 34, Ph.D, 36. Lab. instr, Mass. State Col, 36–42; *asst. research chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc. Pectin and modified forms of pectin.

Buck, Prof. Thomas, University of California, Berkeley, Calif. *Mathematics.* Orland, Maine, Dec. 25, 81. B.S, Maine, 01; Ph.D, Chicago, 09. Instr. *math,* Maine, 02–06; Illinois, 09–11; *California,* 11–18, asst. prof, 18–23, assoc. prof, 23–31, *prof, 31–* Math. Soc.

Buckardt, Dr. H(enry) L(loyd), 807 W. Nevada St, Urbana, Ill. *Agronomy.* Leland, Ill, Oct. 24, 04. B.S, Illinois, 26, M.S, 29, Ph.D, 32. Asst. prin. and instr, high sch, Ill, 26–27; asst. crop production, agron. dept, Illinois, 28–33; agronomist, soil conservation service, U. S. Dept. Agr, 34; *erosion exten. specialist coordinator, Illinois, 35–* Research fellow, Standard Oil Co. and Illinois cooperating, 33. Soc. Agron. Crop production; physiological botany; soil conservation; weed eradication.

Buckell, E(dward) R(onald), Dominion Entomological Laboratory, Post Office Bldg, Kamloops, B. C, Can. *Entomology.* Romsey, Hampshire, Eng, April 8, 89. B.A, Cambridge, 11. Asst. entomologist, Provincial Dept. Agr, B. C, 17–21; *entomologist, entom. branch, Can. Dept. Agr, B. C, 22–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc; Entom. Soc. B. C. Orthoptera; Hymenoptera; Odonata.

Buckingham, Dr. B(urdette) R(oss), Statler Office Bldg, Boston, Mass. *Education.* Riverhead, N. Y, Dec. 9, 76. A.B, Wesleyan, 99, A.M, 00; Ph.D, Columbia, 13; hon. Ed.D, Miami, 24. Teacher, prin. and supt. schs, New York, 01–14, chief statistician, office supt. schs, 14–16; educ. statistician, State Board Educ, Wis, 16–18; prof. educ. and director bur. educ. research, Illinois, 18–21; Ohio State, 21–28; lecturer elementary educ, Harvard, and mem. faculty, grad. sch. educ, 28–33; *elementary text-book ed, Ginn and Co, 28–, partner and director, 36–* Mem. div. anthrop. and psychol, Nat. Research Council. Ed, 'Jour. Educ. Research,' 20–28; 'Educ. Research Bul,' 22–28. A.A; Nat. Asn. Directors Educ. Research (pres, 16–18); Psychol. Asn; Statist. Asn; fel. Royal Statist. Soc. Measurement of results of teaching school subjects.

Buckingham, Prof. Earle, 27 Cedar Road, Belmont, Mass. *Mechanical engineering.* Bridgeport, Conn, Sept. 4, 87. U. S. Naval Acad, 04–06. Draftsman, Am. Graphophone Co, 06–08; Winchester Repeating Arms Co, 08–09; Veeder Mfg. Co, 09–11; Royal Typewriter Co, 11–14; chief gage inspector, Can. Car and Foundry Co. on Russian Munitions, 15–16; chief inspector for subcontracts on fuses, Eddystone Ammunition Co, 16; asst. equipment engineer, Winchester Repeating Arms Co, 16–17; engineer, Pratt and Whitney and Niles Bement Pond Co, 19–25; assoc. prof. eng. standards and measurements, *Mass. Inst. Tech,* 25–31, *prof,* 31–33, *mech. eng, 33–* Nat. Screw Thread Cmn, 21– Ordnance Dept, 17–18, major. Assoc. Mech. Eng; Soc. Automotive Eng. Machine shop practise; interchangeable manufacturing; side-cutting of thread milling hobs; gears; dynamics of elastic bodies.

Buckingham, Dr. Stephen A(lvord), 100 Taylor St, Chevy Chase, Md. *Physics.* Washington, D. C, 05. A.B, Harvard, 27, A.M, 30, Ph.D, 34. Junior physicist, Bur. Standards, 27–29; instr. physics, Harvard, 32–34; physicist, S. D. Warren Co, Cumberland Mills, Maine, 34–36; engineer mfg, West. Elec. Co, Kearny, N. J, 36–38; Gen. Radio Co, Cambridge, Mass, 38–41; *mem. dept. terrestrial magnetism, Carnegie Institution, 41–* Univ. fellow and Whiting fellow, Harvard. Physical Soc; Acoustical Soc; Radio Eng. Industrial physics; application of physics to problems in paper making; application of magnetostriction to the photographic reproduction of sound; crystal filters for use in carrier telephony.

Buckland, Dr. F(rancis) C(hanning), Panaminas, Inc, Adamson Mine, Bishop, Calif. *Geology, Mining.* Vancouver, B. C, Can, June 20, 08. B.A.Sc, British Columbia, 31; M.Sc, McGill, 32, Ph.D, 36. Geologist, Bussieres Mining Co, Ltd, 32; manager, Inspiration Mining and Develop. Co, Ltd, 34; supt, East Malartic Mines, Ltd, 34; manager, Cournor Mining Co, Ltd, 35–42; *consulting engineer and manager, Pacscalis Gold Mines, Ltd, 42–; engineer, Ventures, Ltd, 42–; manager Adamson tungsten mine, Panaminas, Inc, 42–* Consulting engineer and geologist, Que. Gold Mining Corp, 36–42. Can. Inst. Min. and Metal; Asn. Professional Eng. B. C. Geological and mining conditions of northern Quebec and Ontario; magnesite deposits in the Province of Quebec.

Buckley, Dr. Bernard P(atrick), Cascade Inn, Shawinigan Falls, Que, Can. *Physical chemistry.* Sydney, N. S, Can, Feb. 25, 15. B.Sc, St. Francis Xavier (Can), 36; Ph.D, McGill, 41. Asst. chem, St. Francis Xavier (Can), 37–38; *research chemist, Shawinigan Chem. Ltd, 41–* Can. Inst. Min. and Metal. Effect of temperature on the sorption of water vapor on cellulosic materials; chemistry of acetylene and the improvement and development of its commercial processes.

Buckley, Dr. M(alcolm) K(ee), 1608 Liberty Bank Bldg, Buffalo, N. Y. *Chemistry.* Concordville, Pa. B.S, Lehigh, 21, M.S, 23; Ph.D, Yale, 28. Instr. chem, Lehigh, 21–24; Yale, 24–26; asst. prof, Buffalo, 26–29; *consulting chemist, 29–* A.A. Decolorizing carbons; colloid chemistry; dielectric constants and miscibility.

Buckley, Dr. O(liver) E(llsworth), Bell Telephone Laboratories, 463 West St, New York, N. Y. **Physics.* Sloan, Iowa, Aug. 8, 87. B.S, Grinnell Col, 09, Sc.D, 36; Ph.D, Cornell, 14. Instr. physics, Grinnell Col, 09–10; Cornell, 10–14; research physicist, West. Elec. Co, 14–25; *Bell Tel. Labs,* 25–27, asst. director research, 27–33, director, 33–36, exec. v. pres, 36–40, *pres, 40–* Mem, Eng. Foundation Board. Major, Sig.C, U.S.A, 17–18. Nat. Acad; A.A; Physical Soc; Elec. Eng; Acoustical Soc; Philos. Soc; Franklin Inst. Hall effect; ionization manometer; loaded submarine cable; magnetic materials; telephone transmission.

Buckley, Prof. Wallace T(homas), Indiana University, Bloomington, Ind. *Geography.* New Hampton, Iowa, Aug. 29, 03. B.S, Washington, 29, M.S, 30; Ph.D, Ohio State, 36. Asst. geog, Ohio State, 31–36; instr. geol. and geog, *Indiana,* 36–41, *asst. prof, 41–* Summer, mem. faculty, Pa. State Col, 37. Economic geography; conservation of natural resources.

Buckman, Prof. H(arry) O(liver), 118 Wait Ave, Ithaca, N. Y. *Agronomy.* West Liberty, Iowa, July 4, 83. B.S.A, Iowa State Col, 06, M.S, 08; Ph.D, Cornell, 12. Asst. chemist, Exp. Sta, Iowa State Col, 06–07; asst. agronomist, Exp. Sta, Mont. State Col, 07–09; asst. prof. *soils, Cornell,* 12–17, *prof, 17–* A.A; Soc. Agron; Int. Soc. Soil Sci. Formation of residual clay; soils.

Buckman, Dr. Stanley J(oseph), Central Laboratories, Inc, Memphis, Tenn. *Chemistry.* Tyndall, S. Dak, Nov. 24, 08. B.S, Minnesota, 31, Ph.D, 33. Am. Creosoting Co. research fellow, Minnesota, 31–34; research lab, Am. Creosoting Co, 34–37, head research dept, 37–41; *pres, Cent. Labs, Inc, 41–* A.A; Chem. Soc; Wood Preservers Asn; Soc. Test. Mat; Soc. Foresters; Ry. Eng. Utilization of wood and fiber products; preservative and water repellent treatments, finishing, gluing and fireproofing.

Buckmann, Dr. John (Paul), 18431 Meridian Road, Grosse Ile, Mich. *Analytical chemistry.* Iowa, Feb. 15, 13. B.S, Iowa, 35, Ph.D, 39. *Head anal. dept, Mich. Alkali Co, 39–* Chem. Soc; Asn. Anal. Chem. X-ray crystallography of the hydrates of manganous chlorides; potentiometric studies of the oxiacids of chlorine.

Buckner, Prof. Everett Cromwell, 324 E. Reynolds St, Fayette, Mo. *Chemistry.* Beardstown, Ill, Dec. 19, 97. A.B, Cent. Col. (Mo), 20; Chicago, summers, 21–25; A.M, Missouri, 29; Ph.D, Iowa State Col, 42. Head dept. science, high sch, Mo, 20–22; asst. prof. *chem, Cent. Col. (Mo),* 22–29, assoc. prof, 29–41, *prof. and head dept, 41–* Chem. Soc. (sec'y, Univ. Missouri sect, 39); Mo. Acad. (chairman chem. div, 37). Chemical education; reactions in liquid cyanamide; conductivities of salts in liquid cyanamide.

Buckner, Dr. G(arrett) Davis, 461 N. Limestone St, Lexington, Ky. *Biochemistry.* Lexington, Ky, May 17, 85. B.S, Kentucky, 08; Ph.D, Princeton, 12; Pasteur Inst, France, 22; Oceanog. Inst, Monaco, 23. Asst. food chemist, Exp. Sta, Kentucky, 08–09; sugar chemist, Sterling Sugar Factory, 09; asst. instr. chem, Princeton, 09–12; research chemist, *Exp. Sta, Kentucky,* 12–27, *research prof. in charge animal nutrition,* 27– Soc. Biol. Chem; Chem. Soc; Ky. Acad. Nutrition; calcium metabolism.

Buckwalter, Dr. H(oward) M(cWilliams), 1466 Seminole Ave, Detroit, Mich. *Organic chemistry.* Lancaster, Pa, 02. B.S, Franklin and Marshall Col, 24; Ph.D, Pennsylvania, 29. Asst. chem, Franklin and Marshall Col, 24; instr. org. chem, Pennsylvania, 26–29; *research chemist, U. S. Rubber Co, 29–* Organic analysis; cellulose.

Bucky, Prof. Philip B(arnett), 17 N. Chatsworth Ave, Larchmont, N. Y. *Mining.* Chicago, Ill, June 27, 99. B.S, Illinois, 21; E.M, Pa. State Col, 26. Mining engineer, 21–23; asst. prof. *mining,* Pa. State Col, 23–29; *Columbia, 29–, assoc. prof.* A.A; Min. and Metal. Eng; Coal Min. Inst. Physics; the behavior of weighty structures; mine structures.

Bucy, Dr. Paul C(lancy), 25 E. Washington St, Chicago, Ill. *Neurology.* Hubbard, Iowa, Nov. 13, 04. B.S, Iowa, 25, M.S, M.D, 27. Asst. neuropath, Iowa, 25–27; intern, Henry Ford Hosp, Detroit, 27–28; instr. neurosurg, Chicago, 28–33, asst. prof, 33–38, assoc. prof, 38–41, head div. neur. and neuro-surg, 39–41; assoc. prof. *neur. and neurosurg, Illinois,* 41–42, *prof, 42–* Traveling fellow, Nat. Hosp, London, and Breslau, 30–31. Neur. Asn; Soc. Neur. Surg; Am. Med. Asn; Physiol. Soc; Harvey Cushing Soc. Structure and function of the cerebral cortex; involuntary movements; intracranial neoplasms; clinical neurology.

Buddingh, Dr. G(errit) John, Vanderbilt University School of Medicine, Nashville, Tenn. *Pathology.* Oosterbeek,

Netherlands, Aug. 7, 04. A.B, Calvin Col; M.D, Vanderbilt. Research asst. path, *sch. med, Vanderbilt*, 33–40, asst. prof, 40–42, *assoc. prof. bacter*, 42– Pub. Health Asn; Soc. Exp. Path; Asn. Path. Virus diseases; cultivation of vaccinia virus in the chorio-allantoic membrane of chick embryos; preparation of vaccine for human anti-smallpox prophylaxis; variola virus infection in chick embryos; pathogenesis of meningococcus meningitis; tularemia; brucellosis.

Buddington, Prof. A(rthur) F(rancis), Princeton University, Princeton, N. J. **6Geology.* Wilmington, Del, Nov. 29, 90. Ph.B, Brown, 12, M.S, 13, hon. Sc.D, 42; Ph.D, Princeton, 16. Procter fellow geol, Princeton, 16–17; instr, Brown, 17–19; petrologist, geophys. lab, Carnegie Institution, 19–20; asst. prof. *geol, Princeton*, 20–26, assoc. prof, 26–32, *prof, 32–, chairman dept, 36–* Asst, N. Y. Geol. Surv, 16–; asst. geologist, U. S. Geol. Surv, 19–23, assoc. geologist, 23– Nat. Acad; A.A; Geol. Soc. (councilor, 39–41, v. pres, 43); Soc. Econ. Geol; Miner. Soc. (councilor, 36–40, pres, 42); Philos. Soc. Geology and mineral deposits of southeastern Alaska and the Adirondacks; geologic surveys in Newfoundland and Oregon Cascades; melilite group of minerals; origin of anorthosite.

Buddington, Dr. Arthur R(odbird), College Park, Md. *Entomology.* College Park, Md, Dec. 10, 15. B.S, Maryland, 36, M.S, 39, Ph.D, 40; George Washington, 39–40. Asst, Maryland, 36–37; *mem. food inspection service, D. C. Health Dept, 37–* Insect physiology; development of Drosophila repleta; relation of temperature and hydrogen ion concentration to the development of mosquito larvae; nutrition of mosquito larvae with especial references to growth substances.

Budge, Prof. William E(dward), University Station, Grand Forks, N. Dak. *Ceramic engineering.* Fargo, N. Dak, Nov. 1, 88. E.M, North Dakota, 11; Illinois, 27–28. Asst. mining experiments, *North Dakota*, 11–17, instr. *ceramic eng*, 18–22, asst. prof, 22–28, *assoc. prof, 28–* Ceramic Soc. Ceramic materials of North Dakota; new ceramic products.

Budington, Prof. Robert A(llyn), 185 Sylvan Blvd, Winter Park, Fla. **5Zoology.* Leyden, Mass, Oct. 22, 72. A.B, Williams Col, 96, A.M, 99, Sc.D, 29; Columbia, 99–02. Asst. zool, Williams Col, 98–99; asst. demonstrator physiol, Columbia, 00–02; instr. zool. and physiol, Mt. Hermon Sch, 02–05; biol, Wesleyan, 05–08; assoc. prof. *zool, Oberlin Col*, 08–13, prof, 13–40, *emer. prof, 40–*, head dept, 13–36. Instr, Marine Biol. Lab, Woods Hole, 99–18. A.A; Soc. Nat; Soc. Zool. (v. pres, 23); Ohio Acad. (pres, 32). General physiology; experimental embryology; physiological characteristics of annelid muscle; effect of thyroid extract on Protozoa and on plant root-tips.

Budner, Anton E(dward), 3448 S. Ninth St, Milwaukee, Wis. *Chemistry.* Milwaukee, Wis, July 7, 07. B.S, Marquette, 30. *Research chemist, S. C. Johnson and Son, Inc, Racine, Wis, 30–* Chem. Soc. Waxes; wax emulsions and other protective coatings.

Budrow, Dr. Theodore T(hompson), Ridge Road. Lewiston, N. Y. *Organic chemistry.* Cheyenne, Wyo, Oct. 31, 97. B.S, State Col. Wash, 23; Ph.D, Minnesota, 28. Library and patents, Roessler and Hasslacher Chem. Co, *Niagara Falls*, 28–31, patents, 31–32, Roessler and Hasslacher chem. dept, *E. I. du Pont de Nemours and Co*, 32–34, *patent attorney*, patents, 34–41, *legal dept, 41–* Chem. Soc; Electrochem. Soc. Reaction of halogen with phenol salts in anhydrous medium.

Buechner, Dr. W(illiam) W(eber), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Vallejo, Calif, May 12, 14. B.S, Mass. Inst. Tech, 35, Ph.D, 39. Research assoc. *physics, Mass. Inst. Tech*, 39–42, *asst. prof, 42–* Physical Soc. Nuclear physics and high voltage x-rays.

Bueermann, Dr. W(infred) H(enry), U. S. Naval Hospital, Bremerton, Wash. *Surgery.* Detroit, Mich, April 24, 95. B.S, McMinnville Col, 17; M.D, Columbia, 21; fellow, Mayo Clinic and Mayo Foundation, Minnesota, 22–27, Ph.D, Minnesota, 27. *Clin. instr. surg, med. sch, Oregon; attending surgeon, Emanuel Hosp. and Doernbecher Mem. Hosp. for Children; commander, Med. Corps, U. S. Naval Res.* Trustee, Linfield Col; Multnomah Med. Service Bur. Fel. Am. Med. Asn; fel. Col. Surg; Pacific Northwest. Med. Asn. Cancer of the stomach; the carcinomatous gastric ulcer; suppurative pericarditis; vaginal enterocele; surgical and chronic dyspepsia; epileptiform attacks; phymatorhysin and malignancy; rectal hedrocele; neurocirculatory asthenia and hyperthyroidism; congenital pericolic membrane syndrome.

Buegel, Prof. Hermann F(rederick), University of North Dakota, Grand Forks, N. Dak. *Psychology.* St. Thomas, N. Dak, June 9, 97. B.S, North Dakota, 33, M.S, 34, Ph.D, 38. Asst, *North Dakota*, 35–38, *asst. prof. psychol, 39–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Learning of patterned motor performance.

Buehl, Dr. Russell C(harles), 100 Biddle St, Wilkinsburg, Pa. *Powder metallurgy.* Brooklyn, N. Y, Nov. 24, 10. B.E.E, Polytech. Inst. Brooklyn, 32; M.S, Mass. Inst. Tech, 33, Coffin fellow, 34–35, Sc.D, 37. Asst. aluminizing astron. mirrors, Mass. Inst. Tech, 35–36, corrosion research on stainless steel, 36–38, dielect. research, 38–39; *research fellow and acting head fellowship powder metal, Mellon Inst, 39–* Elec. Eng. Production of iron powder and sponge iron; establishment of pilot plant; transfer of pilot plant results to large scale production; properties and uses of iron powder for powder metallurgy.

Buehler, Prof. C(alvin) A(dam), University of Tennessee, Knoxville, Tenn. *Chemistry.* Stone Creek, Ohio, Nov. 29, 96. B.Ch.E, Ohio State, 18, M.S, 20, du Pont fellow, 21–22, Ph.D, 22. Research chemist, Barrett Co, Phila, 18–19; asst. prof. *chem, Tennessee*, 22–25, assoc. prof, 25–28, *prof, 28–, head dept, 40–* Summers, asst. prof, Ohio State, 28, 29. A.A; Chem. Soc; Tenn. Acad. Oxidation of carbohydrates; molecular organic compounds; the parachor; identification of organic compounds; phenol-formaldehyde condensation; organic syntheses.

Buehler, Dr. H(enry) A(ndrew), Rolla, Mo. *Geology.* Monroe, Wis, May 27, 76. B.S, Wisconsin, 01; hon. Sc.D, Missouri, 25. Geologist, State Bur. Geol. and Mines, Mo, 01–07; Fed. Lead Co, 07–08; *geologist and director, State Bur. Geol. and Mines, Mo, 08–* A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Wis. Acad; Mo. Acad; St. Louis Acad. Theory of ore deposits; oxidation of sulfids.

Buehler, Dr. K(arl) L(udwig), St. Thomas College, St. Paul, Minn. *Psychology.* Heidelberg, Germany, May 27, 79. M.D, Freiburg, 03; Ph.D, Strassburg, 04; Berlin and Bonn, 04–05; LL.D, Wittenberg Col, 27. Lecturer, Wurzburg, 07–09; Bonn, 09–13; prof. *psychol*, Munich, 13–18; Tech. Hochschule, Dresden, 18–22; Vienna, 22–38; visiting prof, Oslo, 38–39; *prof, St. Thomas Col. (Minn), 39–* Visiting prof, Stanford, 27–28; Harvard, 28; Hopkins, 27–28; Chicago, 29; Clark, 41. A.A; Psychol. Asn; Deuts. Gesell. für Psychol. General semantics; moved pictures.

Buehrer, Prof. T(heophil) F(rederic), University of Arizona, Tucson, Ariz. *Chemistry.* Brenham, Texas, Dec. 20, 91. A.B, Texas, 16, A.M, 18; fellow, California, 19–21, Ph.D, 21. Tutor chem, Texas, 16–18; instr, *Arizona*, 21–22, asst. prof, 23–25, assoc. prof, 25–28, *prof*, 29–30, *agr. chem. and physical chemist, Exp. Sta, 30–, head dept. agr. chem. and soils, univ, 32–* Junior chemist, U. S. Bur. Mines and C.W.S, 18. A.A; Chem. Soc. Physical and analytical chemistry; solubility; electrode potentials; potentiometric titration of copper, iron, arsenic and antimony; volumetric standards; physicochemical relations of soil phosphates; oxidation-reduction potentials of soils; bound water in soils; hydrolysis of soil minerals.

Bueker, Dr. E(lmer) D(aniel), Chicago Medical School, 710 S. Wolcott Ave, Chicago, Ill. *Embryology, Anatomy.* Hartsburg, Mo, July 30, 03. A.M, Colorado, 29; Ph.D, Washington (St. Louis), 42. Asst, Colorado, 29–30; chairman dept. biol, schs, Mo, 30–42; *instr. embryol. and histol, Chicago Med. Sch, 42–*

Buel, Prof. Jack, Wesleyan University, Middletown, Conn. *Psychology.* Pasadena, Calif, July 16, 05. A.B, California, 29, fellow, 30–31, Ph.D, 35. Asst. *psychol*, California, 32–37, tech. asst, inst. child welfare, 32–35; research asst. and instr, *Wesleyan*, 37–40, *asst. prof, 40–* A.A; Psychol. Asn. Learning; animal behavior; experimental techniques; spatial orientation.

Buell, Dr. C(arleton) E(ugene), 24 Dartmouth St, Williston Park, L. I, N. Y. *Meteorology.* Grand Island, Nebr. A.B, Oberlin Col, 31; A.M, Ohio State, 32; Ph.D, Washington (St. Louis), 35. Instr. meteorol, math. and physics, Parks Air Col, Inc, 35–38; meteorologist, *Am. Airlines, Inc*, 38–39, *chief meteorologist, 39–* Meteorol. Soc; Math. Asn; N. Y. Acad. The zeros of Jacobi and related polynomials; airline weather forecasting.

Buell, Dr. Elliott L(yndon), Northwestern University, Evanston, Ill. *Mathematics.* Syracuse, N. Y, Nov. 5, 16.

A.B, Syracuse, 38; Ph.D, Mass. Inst. Tech, 41. Asst. *math*, Mass. Inst. Tech, 38–40, teaching fellow, 40–41; *instr, Northwestern, 41–* Math. Soc; Math. Asn. Applied mathematics.

Buell, Prof. Harold D(ouglass), Syracuse University, Syracuse, N. Y. *Chemistry.* Earlville, N. Y, July 13, 85. B.S, Colgate, 10; Princeton, 10–11; M.S, Syracuse, 20. Asst, Princeton, 10–11; teacher, prep. sch, N. Y, 11–12; *asst. prof. chem, Syracuse, 12–* A.A; Chem. Soc. Bromates of the rarer alkali metals; test for uranium.

Buell, J(esse) H(oward), 223 Federal Bldg, Asheville, N. C. *Forestry.* Clinton, Conn, April 22, 01. B.S, Wesleyan, 22; M.F, Yale, 24. Junior forester, *U. S. Forest Service,* 24–26, asst. silviculturist, *Appalachian Forest Exp. Sta,* 26–35, *assoc. silviculturist, 35–* A.A; Soc. Foresters; S. Appalachian Bot. Club; N. C. Acad. Silviculture; growth of timber; botany.

Buell, Dr. Mary V(an Rensselaer), Johns Hopkins University, Baltimore, Md. *Biochemistry.* Madison, Wis, 93. A.B, Wisconsin, 14, A.M, 15, Ph.D, 19. Asst. *gen. chem,* Illinois, 15–16; Wisconsin, 17–19, instr, 19–20; asst. prof, Iowa, 20–21; asst, sch. med, *Hopkins,* 21–22, *assoc,* 22–30, *dept. med, Hopkins Hosp, 30–* Soc. Biol. Chem. Blood regeneration; vitamins; nucleic acids; muscle chemistry; carbohydrate metabolism.

Buell, Prof. Murray F(ife), North Carolina State College, Raleigh, N. C. *Botany.* New Haven, Conn, Oct. 6, 05. A.B, Cornell, 30; A.M, Minnesota, 34, Ph.D, 35. Asst. *bot,* Minnesota, 31–35; instr, *N. C. State Col,* 35–38, *asst. prof, 38–* A.A; Bot. Soc; Ecol. Soc; Soc. Plant Taxon; N. C. Acad. Plant morphology; ecology.

Buerger, Dr. Leo, 530 Park Ave, New York, N. Y. *Urology, Surgery, Pathology.* Vienna, Austria, 79. A.B, Col. City of N. Y, 97; A.M, M.D, Columbia, 01. German Hosp, 01–03; Mt. Sinai Hosp, 03–04; volunteer surgeon, Breslau Surg. Clinic, 05–06; prof. urol, N. Y. Polyclinic Med. Asn, 06–30; urol. and surg, Col. Med. Evangelists, 30; *assoc. surgeon path. and surg, Mt. Sinai Hosp; attending and visiting surgeon, Bronx Hosp, Har Moriah Hosp. and Beth David Hosp.* Fel. Col. Surg; Am. Med. Asn; Soc. Path. and Bact; Urol. Asn; Harvey Soc; fel. N. Y. Acad. Med. Circulatory disturbances of extremities; pathology of arteries and veins; bacteriology; Buerger's disease.

Buerger, Prof. M(artin) J(ulian), Massachusetts Institute of Technology, Cambridge, Mass. *Mineralogy, Crystallography.* Detroit, Mich, April 8, 03. B.S, Mass. Inst. Tech, 25, M.S, 27, Ph.D, 29. Asst. geol, *Mass. Inst. Tech,* 25–27, instr, 27–29, asst. prof. *miner. and petrog,* 29–35, *assoc. prof, 35–* Fel. Miner. Soc. (v. pres, 42); Crystallographic Soc. (pres, 42); Soc. X-ray and Electron Diffraction (pres, 43). Plastic deformation of crystals; secondary and lineage structure; immersion liquids; fluid inclusions in minerals; Weissenberg projection and interpretation; ordered-disordered-unmixing transformations; polymorphism; precision determination of lattice constants; x-ray crystallography.

Buerger, Dr. Newton W(eber), Queen's University, Kingston, Ont, Can. *Mineralogy.* Aug. 8, 07. B.S, Mass. Inst. Tech, 33, M.S, 34, Ph.D, 39. Teaching fellow, Mass. Inst. Tech, 34–37; lecturer petrog. and miner, *Queen's (Can),* 37–38, *lecturer miner, 38–* Fel. Miner. Soc. Structural crystallography; crystal chemistry; x-ray diffraction.

Bueso-Sanllehí, Prof. F(acundo), University of Puerto Rico, Rio Piedras, P. R. *Physics.* Mexico City, Mex, Feb. 5, 05. B.S, Puerto Rico, 27; M.S, Chicago, 29, Ph.D, 41. From instr. to *prof. physics, Puerto Rico, 27–, acting dean col. arts and sciences, 43–* Guggenheim Mem. Foundation fellow. A.A; Physical Soc. Band spectra.

Buffam, Dr. B(asil) S(cott) W(hyte), Perth, Ont, Can. *Geology.* Perth, Ont, Dec. 6, 98. B.Sc, McGill, 23, M.Sc, 24; Ph.D, Princeton, 27. Geologist, Anglo-Am. Corp, North. Rhodesia, 27–30; asst. prof. geol, Buffalo, 31–32; *consulting geologist, 32–* Summers, asst, Geol. Surv. Can, 23–27. Can. Inst. Min. and Metal.

Buffington, Dr. R(alph) M(ulvaney), 1209 Bayard Park Drive, Evansville, Ind. *Physical chemistry.* Ness City, Kans, Dec. 20, 96. A.B, Kansas, 18, A.M, 21; Ph.D, California, 23. Nat. research fellow and research assoc. chem, California, 24–25, instr, 25–26; research chemist, Frigidaire Corp, Dayton, 26–33; *research chemist and engineer, Servel, Inc, Evansville, 33–* Chem. Soc; Physical Soc; Soc. Refrig. Eng; Soc. Test. Mat. Refrigeration; liquefaction of hydrogen; coefficients of thermal expansion of solids at low temperatures; hydrogen thermometry; entropy of aqueous ions; gas-solid reactions; heat transfer; refrigeration cycles; properties of refrigerants; dichlorodifluoromethane; air conditioning.

Bugbee, Prof. Edward E(verett), Massachusetts Institute of Technology, Cambridge, Mass. *Mining, Metallurgy.* Brookline, Mass, Oct. 5, 76. B.S, Mass. Inst. Tech, 00. Asst. instr. metal, Mass. Inst. Tech, 00–01; chemist and metallurgist, Brookfield Mining Co, 01; asst. instr. ore dressing, Mass. Inst. Tech, 02–03; special agent, U. S. Census, 03; asst. prof. *mining eng. and metal,* Iowa State Col, 03–06; Washington (Seattle), 06–07; *Mass. Inst. Tech,* 07–23, assoc. prof, 23–41, *emer. prof, 41–* Asst. geologist, U. S. Geol. Surv, 07–25; exchange prof, Stanford, 40–41. Min. and Metal. Eng. Fire assaying; mine examinations.

Bugbee, Dr. Edwin P(ercy), 131 N. Norwinden Drive, Springfield, Pa. *Physiology.* Shippensburg, Pa, May 19, 90. B.S, Tufts Col, 12; M.D, Harvard, 17; Chicago, 23. Private practise, Vernon, N. Y, 20–22; instr. hygiene, Cornell, 22–23; research physiologist, Parke, Davis and Co, 23–33; practising physician, Ravenna, Ohio, 33–35; research, x-ray dept, Lankenau Hosp, Phila, 35–41; *med. officer, U. S. Naval Res, 41–* Med. officer, U.S.N, 17–20. Physiol. Soc; Col. Radiol. Endocrine glands; ovarian follicular hormones; posterior and anterior pituitary hormones.

Bugbee, Dr. Henry G(reenwood), 2 E. 54th St, New York, N. Y. *Urology.* Waterbury, Conn, April 7, 81. M.D, Columbia, 03; Berlin, Vienna, Breslau, Paris, 06. Res. pathologist and house surgeon, St. Luke's Hosp, 03–06; surgeon in chief, Vassar Brothers Hosp, Poughkeepsie, 06–10; *practising urologist, 10–* Attending urologist, St. Luke's Hosp, Woman's Hosp; urologist and pres. med. board, Lawrence Hosp; consulting urologist, Vassar Brothers Hosp, Muhlenberg Hosp, Plainfield, N. J, Mountainside Hosp, Montclair, N. J, and Mather Mem. Hosp, Port Jefferson, N. Y. Ed. board, 'Jour. Urol.' Mem, Am. Board Urol. Urol. Asn. (past pres); fel. Col. Surg; Am. Med. Asn. (past chairman, sect. urol); Asn. Genito-Urinary Surg. (past pres and sec'y); Clin. Soc. Genito-Urinary Surg. (pres); N. Y. Urol. Asn. (past pres); N. Y. Acad. Med; Soc. Int. d'Urol. (pres, cong, 39). Congenital malformations of the urinary tract; tuberculosis of the urinary tract; causes and treatment of prostatic obstruction and urinary calculi; urology in children; tumors of the kidney, bladder and prostrate gland.

Bugbee, Lieut. Commander L(ucian) Willis, Jr, 1002 Kensington Road, Grosse Pointe, Mich. *Physics, Engineering.* Southbridge, Mass, Nov. 12, 99. Mass. Inst. Tech; B.A, Oxford, 21, M.A, 25; M.S, Purdue, 22; LL.B, Benjamin Harrison Law Sch, 28. Research physicist, Continental Optical Co, 22–25, in charge research, 25–28, research and patents, 28–30; in charge ophthalmic lens and allied research, sci. bur, Bausch and Lomb Optical Co, Rochester, N. Y, 30–32; patent lawyer, 32–42; *lieut. commander, U. S. Naval Res, 42–* A.A; Optical Soc. Physiological and applied optics; optical machinery, instruments, history and patents; ophthalmic lenses; multifocal lens theory; astigmatically corrected bifocal lenses; aviator goggles; military and naval optical instruments.

Bugbee, Prof. Robert E(arl), Ft. Hays Kansas State College, Hays, Kans. *Entomology.* Bemus Point, N. Y, Sept. 12, 07. B.S, Allegheny Col, 31; Ph.D, Indiana, 36. Head dept. biol, Col. of Emporia, 36–39; *asst. prof. zool, Ft. Hays Kans. State Col, 39–* A.A; Entom. Soc. Amer; Kans. Acad; Kans. Entom. Soc. Life histories, host relations, distribution, evolution, origin of species and taxonomy of the Eurytomidae.

Bugg, Dr. Eugene G(ower), Vanderbilt University, Nashville, Tenn. *Psychology.* Nashville, Tenn, June 2, 01. B.S, George Peabody Col, 24; fellow, Vanderbilt, 27–28, A.M, 28, Ph.D, 33. Teaching fellow, *Vanderbilt,* 28–29, instr. psychol, 32–40, *asst. prof. philos. and psychol, 40–* Soc. Aesthetics; assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Physiological psychology; music; mental tests.

Buggs, Prof. C(harles) W(esley), Dillard University, New Orleans, La. *Biochemistry, Bacteriology, Zoology.* Brunswick, Ga, Aug. 6, 06. A.B, Morehouse Col, 28; M.S, Minnesota, 32, Shevlin fellow, 33, Ph.D, 34. Instr. biol, Dover State Col, 28–29; Douglas High Sch, Key West, Fla,

29–30; *prof.* chem, Bishop Col, 34–35; *biol, Dillard, 35–* A.A. Electrophoretic phenomena of bacteria; biochemistry of medusae.

Bugher, Dr. John C(lifford), International Health Division, Rockefeller Foundation, New York, N. Y. *Pathology.* Upland, Ind, Sept. 26, 01. A.B, Michigan, 21, M.D, 29, M.S, 32. Instr. physics, Taylor, 20; asst. bacter, Michigan, 23–25, senior instr. path, med. sch, 29–33, asst. prof, 33–38; *mem. staff int. health div, Rockefeller Foundation, 38–* Director pub. health, South Haven, Mich, 26–28. Soc. Exp. Path; Asn. Path. and Bact; Asn. Cancer Research; Soc. Clin. Path; Am. Med. Asn; Soc. Trop. Med; Mich. Path. Soc. (sec'y-treas, 33–35); Mich. Acad; Royal Soc. Trop. Med. Water purification; electrode reactions; cancer statistics; myocardial changes in thyroid disease; endometrial pathology; tuberculous tracheo-bronchitis; argyria; medical spectrography; police science; yellow fever.

Buhrer, Edna M(arie), 5612 14th St, N. W, Washington, D. C. *Biology.* Tiffin, Ohio, Dec. 8, 98. A.B, Goucher Col, 21. Junior nematologist, *div. nematol, bur. plant indust, U. S. Dept. Agr,* 21–35, *asst. nematologist, 35–* Scholar, Marine Biol. Lab, Woods Hole, 20. Assoc. ed, 'Phytopath,' 36–38. Helminth. Soc. Wash. (cor. sec'y-treas. and business manager, 'Proc,' 34–). Plant parasitic nematodes and diseases caused by them.

Bule, Lieut. Bennett Frank, Box 951, Warrenton, Va. *Petrography, Petroleum geology.* Patrick, S. C, Jan. 9, 10. B.S, South Carolina, 30; fellow, Lehigh, 30–32, M.S, 32; A.M, Harvard, 34, Ph.D, 39. Asst. geol, South Carolina, 28–30; Harvard, 32–37; junior geologist and geologist, Seaboard Oil Co. and Amiranian Oil Co, 37–38; geologist, Indian Oil Concessions, Ltd. and Standard Oil Co, Calif, 39–42; *lieut, Corps Engineers, U. S. Army,* 42– Miner. Soc; Min. and Metal. Eng; Asn. Petrol. Geol; Geophys. Union; S. Texas Geol. Soc. Petrography and structural geology of the dikes around the Highwood Mountains of Montana; geology of northeastern Iran and southern Afghanistan; geology and oil possibilities of southern Baluchistan; structural geology and oil possibilities of the upper coastal plain in southwest Texas.

Bule, Dr. Louis A(rthur), Mayo Clinic, Rochester, Minn. *Proctology.* Kingtree, S. C, July 30, 90. A.B, South Carolina, 11; M.D, Maryland, 15. Res. surg, univ. hosp, Maryland, 15; in charge, Kernan Hosp, 16; fellow, *Mayo Foundation, Minnesota,* 17, instr. *surgery,* 20–21, assoc. prof, 21–35, *prof, 35–, chief dept. proctol, 19–* Mem. permanent staff, Mayo Clinic, 19– Pres, Am. Board Proctol, 34, chairman, 34–37; mem. cent. certifying cmt. protol, Am. Board Surg. LaCroce al Merito di Guerra, Italian Govt, 34. Lieut, M.C, 17–19. A.A; fel. Am. Med. Asn. (chairman sect. gastroenterology and proctology, 36–37; mem. cmt. med. educ. and hosps, 40; house dels, 41–); Med. Library Asn; Proctologic Soc. (pres, 27, 34; chairman, mil. affairs cmt); Col. Surg; Minn. Acad. Med; Minn. State Med. Asn. (chairman, cmt. med. ethics, 39–; cmt. econ, 39–; cmt. sickness insurance, 40–; councilor, first dist, 41–43; chairman, finance cmt, 41–). Proctoscopic examination and the treatment of hemorrhoids and anal pruritus.

Bule, Dr. T(homas) S(tephen), Spartanburg, S. C. *Agronomy.* Marlboro Co, S. C, Feb. 5, 96. B.S, Clemson Col, 17, Sc.D, 37; M.S, Iowa, 27, Ph.D, 28. Agronomist, Exp. Sta, Georgia, 19–20; asst. agronomist, Exp. Sta, Clemson Col, 20–23, assoc. agronomist, 23–25, acting head div. agron, Clemson Col, 25–27, head div, 27–29; field agronomist, Superphosphate Inst, 29–32; regional director, *soil conservation service, U. S. Dept. Agr,* 32–35, *regional conservator, 35–* Rothamsted Exp. Sta, England, 19. A.A; Soc. Agron; Soil Surv. Workers; Forestry Asn. Fertilizers, crops and soil conservation.

Bukey, Prof. F(red) S(cott), University of Nebraska, Lincoln, Nebr. *Pharmacy.* Ravenna, Nebr, Sept. 13, 00. B.S, M.S, Nebraska; Ph.D, Purdue, 38. Prof. pharmacog, Western Reserve, 24–25; *asst. prof. pharmacy, Nebraska, 26–* Director research, Smith-Dorsey Co, 39– Pharmaceut. Asn; Chem. Soc. Plant chemistry; synthetic drugs.

Bulbrook, Harry M(arshall), 828½ Taylor St, Ft. Worth, Texas. *Chemistry.* Greenville, Texas, Jan. 10, 95. A.B, Rice Inst, 16, A.M, 17. Asst. chemist, Naval Proving Ground, 17–20; chemist, Ft. Worth Labs, Ft. Worth, Texas, 20, Terrell Labs, 21–28; *indust. chemist, 28–* Summers, asst. chemist, Freeport Sulphur Co, 16, 17. Chem. Soc; Oil Chemists Soc; Pub. Health Asn. Carbon dioxide recovery and carbon dioxide; cylinder patents.

Bulbrook, Dr. Helen J(ane), 14 North Ave, Elizabeth, N. J. *Chemistry.* Greenville, Texas, 06. B.S, Texas State Col. for Women, 26; M.S, Iowa State Col, 28, fellow, 34–35, Ph.D, 36. Asst, Exp. Sta, Wyoming, 28–29; asst. prof. chem, Milwaukee-Downer Col, 29–36; *biol. research, Pease Labs, New York, 36–* Chem. Soc. Alpha-substituted pyrrolidines.

Bulger, Dr. Harold A(ten), Barnes Hospital, 600 S. Kingshighway, St. Louis, Mo. *Internal medicine.* East Liverpool, Ohio, July 9, 92. B.S, Ohio State, 16; M.D, Harvard, 20. Asst. physiol, Harvard, 17–18, Sheldon traveling fellow, 20–21; instr. internal med, sch. med, Yale, 22–25; *asst. prof. med, sch. med, Washington (St. Louis), 25–* A.A; Soc. Exp. Biol; Soc. Clin. Invest; Inst. Nutrition; Soc. Am. Archaeol; Diabetic Asn; Asn. Hist. Med; Cent. Soc. Clin. Research; Mo. Acad; State Archeol. Soc. Mo; St. Louis Anthrop. Soc; St. Louis Acad. (councilor, 37; librarian). Physiology; cardiology; diseases of metabolism; electrolytes in relation to health and disease.

Bulger, Dr. J(acob) W(ork), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Oakley, Kans, Nov. 25, 87. B.S, South Dakota, 19; M.S, Ohio State, 22, Ph.D, 24. Teacher, schs, 10–14, high sch, 20–22; asst. zool, Ohio State, 21–22, nat. research fellow, 22–24; asst. insect physiologist and later *assoc. entomologist, div. insect toxicol. and physiol,* bur. entom, *U. S. Dept. Agr,* 24–34, *bur. entom. and plant quarantine, 34–* A.A; Entom. Soc; Asn. Econ. Entom; Ohio Acad; Entom. Soc. Wash; Insecticide Soc. Wash. Stomach, greenhouse and soil insecticides; mineral and gross analysis of the cockroach; toxicity of stomach poisons to insects; fumigation.

Bulger, Prof. John (Wesley), University of Akron, Akron, Ohio. *Civil engineering.* Canton, Ohio, March 19, 78. B.C.E, Ohio State, 18. Asst. prof. civil eng. and later *prof. struct. eng, Akron, 18–* Professional engineer and surveyor. Summer, operator, Detroit Test Filler, 18. Civil Eng; Eng. Educ. Structural materials; aeronautics.

Bulkley, Dr. Ronald, 11 Ninth Ave, Haddon Heights, N. J. *Chemistry.* Orangeville, Utah, Sept. 6, 95. B.S, Utah, 23; M.S, George Washington, 26; Ph.D, Hopkins, 31. Junior chemist, Bur. Standards, 23–29, asst. chemist, 29–30, assoc. chemist, 30–31; *research chemist, Socony-Vacuum Oil Co, Inc, Paulsboro, N. J, 31–* Chem. Soc. Viscometry; consistency of plastic materials; surface phenomena; lubricants; lubrication.

Bull, Dr. Arthur W(alker), U. S. Rubber Co, Detroit, Mich. *Chemistry.* Keeseville, N. Y, Oct. 6, 97. Ch.B, Cornell, 19, Ph.D, 22. Instr. chem, Haverford Col, 19–20; *research chem. engineer,* Dorr Co, New York, 22–28; gen. labs, *U. S. Rubber Co,* Passaic, 28–32, *tire dept, Detroit, 32–* Chem. Soc. Physical chemistry; chemical engineering.

Bull, Dr. B(enton) A(lexander), Thiess, Olson and Mecklenburger, 77 W. Washington St, Chicago, Ill. *Chemistry.* Granite City, Ill, May 6, 09. B.S, Knox Col, 30; M.S, Illinois, 31, Ph.D, 34; J.D, DePaul, 39. Patent solicitor, explosives dept, E. I. du Pont de Nemours and Co, 34–37; *patent lawyer, Thiess, Olson and Mecklenburger, 37–; capt, Chem. Warfare Service, U. S. Army, and mem. div. B, Nat. Defense Research Cmt, 42–* Lecturer, John Marshall Law Sch. Chem. Soc; Bar Asn; Chicago Patent Law Asn. Mechanism of the haloform reaction; the law of chemical patents.

Bull, C(oates) P(reston), State Department of Agriculture, St. Paul, Minn. *Agronomy.* Edina Mills, Minn, Oct. 11, 72. B.S, Minnesota, 01. Asst. agr, Minnesota, 97–01; asst. prof. agron, Illinois, 01–02; asst. agr, Minnesota, 02–07, asst. prof, 07–09, assoc. prof, 09–12, prof, 12–19; St. John and Bull Seed Co, 19–21; *special asst, State Dept. Agr, Dairy and Food, Minn, 21–* Manager, Nat. Corn Expos, Texas, 13–14; chairman state and dist. cmts. to promote legislation and control weeds, Minn, 34. Capt, Red Cross, Serbia, 18. Soc. Agron; Nat. Corn Asn. (state v. pres. and director); hon. mem. Minn. Seed Growers; mem. Minn. Field Crop Breeders' Asn. Plant breeding; plant biology; weed and seed control.

Bull, Henry, 2134 St. Charles Ave, New Orleans, La. *Forestry.* New York, N. Y, Feb. 28, 05. B.S, Yale, 27, M.F, 29. Asst. forestry, Conn. Exp. Sta, 28–30; asst. silviculturist and *silviculturist, South. Forest Exp. Sta, U. S. Forest Service, 30–* New Orleans Acad. Silviculture; forest management.

Bull, Prof. Henry B(olivar), Northwestern University Medical School, Chicago, Ill. *Biochemistry.* Stateburg, S. C, June 16, 05. B.S, South Carolina, 27; M.S, Minnesota, 28, Ph.D, 30; Rochester, 28–29; Vienna, 34. Asst. chem, Minnesota, 27–28; *biochem,* Rochester, 28–29; instr, Minnesota, 29–31, asst. prof, 32–36; *med. sch, Northwestern,* 36–40, *assoc. prof, 40–* Nat. research fellow, Berlin-Dahlem, 31–32. A.A; Chem. Soc; Soc. Biol. Chem. Electrokinetics; protein chemistry.

Bull, Prof. Sleeter, 706 Michigan Ave, Urbana, Ill. *Animal husbandry.* Sidney, Ohio, Dec. 23, 87. B.S, Akron, 09; B.S.A, Ohio State, 10; M.S, Pa. State Col, 11. Assoc. prof. animal husbandry and later *prof. meats, Illinois.* Soc. Animal Production. Meats.

Bullard, Prof. Fred Mason, 903 W. 30th St, Austin, Texas. *Geology.* McLoud, Okla, July 20, 01. B.S, Oklahoma, 21, M.S, 22; Ph.D, Michigan, 28. Field geologist, Okla. Geol. Surv, 21–23, consulting geologist, 23–24; faculty, dept. geol, *Texas,* 24–27, assoc. prof. *geol. and miner,* 27–39, *prof, 39–,* chairman dept. geol, 29–37. Asn. Petrol. Geol; Geol. Soc. Cretaceous stratigraphy; heavy mineral studies; meteorites.

Bullard, Dr. H(erbert) Hays, Genesee Hospital, Rochester, N. Y. *Pathology.* St. Louis Co, Mo, Aug. 9, 83. A.B, Missouri, 08, A.M, 09; Ph.D, Tulane, 12; M.D, Hopkins, 16. Instr. anat, Tulane, 09–12; anat. and neur, Pittsburgh, 12–14; from asst. to assoc. path, Hopkins, 16–20, res. pathologist, Hopkins Hosp, 18–20; prof. path. and bacter. and chief dept, med. sch, Western Ontario, 20–29; pathologist and director labs, St. Vincent's Hosp, Erie, Pa, 29–41; *director dept. path, Genesee Hosp, 43–* A.A; Asn. Path. and Bact; Asn. Anat; Am. Med. Asn; Path. Soc. Gt. Britain and Ireland. Histology.

Bullard, Prof. J(ames) A(tkins), University of Vermont, Burlington, Vt. *Mathematics.* Parsippany, N. J, Feb. 23, 87. A.B, Williams Col, 08; hon. fellow, Clark, 13–14, Ph.D, 14. Instr. *math,* Worcester Polytech, 08–16; U. S. Naval Acad, 16–18, asst. prof, 18–20, assoc. prof, 20–27, *prof,* 27–28; *Vermont, 28–* Math. Soc; Math. Asn. Group theory; mechanics.

Bullard, Prof. Ralph H(adley), 101 St. Clair St, Geneva, N. Y. *Chemistry.* Worcester, Mass, Dec. 6, 95. A.B, Clark, 17, A.M, 18; Rice fellow, Brown, 24–25, Ph.D, 25. Chemist, U. S. Fuel Oil Testing Plant, 18; instr. chem, Hobart Col, 18–19; research chemist, Roessler and Hasslacher Chem. Co. 19–20; instr. *chem, Hobart Col,* 20–21, asst. prof, 21–25, *prof, 25–; lieut. commander, U. S. Naval Res, 42–* Summers, research chemist, Eastman Kodak Co, 30–34. A.A; Chem. Soc. Metallo-organic chemistry; organic compounds of tin; organic synthesis.

Buller, Prof. A(rthur) H(enry) Reginald, University of Manitoba, Winnipeg, Man, Can. *Botany.* Birmingham, Eng, Aug. 19, 74. Birmingham, 91–97, 1851 Exhib. scholar, 98–01, D.Sc, 03; B.Sc, London, 96; Ph.D, Leipzig, 99; Munich, 99–01; Naples Biol. Sta, 00, 01; LL.D, Manitoba, 24, Saskatchewan, 28, Calcutta, 38; Sc.D, Pennsylvania, 33. Lecturer *bot,* Birmingham, 01–04; prof, *Manitoba,* 04–36, *emer. prof, 36–* Norman Wait Harris Foundation lecturer, Northwestern, 27; Hitchcock prof, California, 42; Schiff Foundation lecturer, Cornell, 42. Summer, prof, Louisiana, 41. Flavelle medal, Royal Soc. Can, 29; medal, Nat. Hist. Soc. Man, 36; Royal medal, Royal Soc, 37. Pres, mycol. and bacter. sect, 6th Int. Bot. Cong. A.A; Bot. Soc (v. pres, 26, pres, 28); Phytopath. Soc; Soc. Psychical Research; Can. Phytopath. Soc. (pres, 20); fel. Royal Soc. Can. (v. pres, 27, pres, 28, pres, sect. 4, 14); British Asn. (sec'y, K, 09); British Mycol. Soc. (pres, 13); fel. Royal Soc; assoc. Soc. royale de Bot. de Belg; cor. mem. Soc. bot. neerlandaise; hon. mem. Indian Bot. Soc. Chemotaxis of the spermatozoa of ferns and of sea-urchins; destruction of wood by fungi; bacteria; enzymes; physiology and morphology of fungi; sex problems in Hymenomycetes and rust fungi; the history of wheat growing and wheat breeding; the history of mycology.

Buller, Prof. Francis P, 101 Lincoln Ave, Jamestown, N. Dak. *Psychology.* Bradshaw, Nebr, Dec. 24, 91. A.B, McPherson Col, 19; A.M, Yale, 23, Ph.D, 27. Prof. psychol, Cent. Y.M.C.A. Col, 27–28; *prof. psychol. and philos. and head dept, Jamestown Col, 28–,* dean, 34–36, *personnel director, 36–* Director child guidance and mental hygiene, pub. schs, Jamestown, 31–; consulting psychologist, State Hosp. for Insane, 30–34, 42–; Juvenile Court, 32– Fundamental needs of the American college.

Bullet, Dr. Mildred I(dell) Williams, 711 Paris Ave, Rockford, Ill. *Physics.* Canton, Ill, March 20, 04. A.B, Valparaiso, 25; A.M, Indiana, 29, Ph.D, 35. Asst. physics, Indiana, 28–29, 33–34; prof, Hannibal-La Grange Col, 29–32; *instr, Rockford Col, 42–* Ind. Acad. Condenser microphones; micro-waves.

Bullinger, Prof. C(larence) E(dward), 637 W. Foster Ave, State College, Pa. *Industrial engineering.* Philadelphia, Pa, May 19, 92. B.S, Pa. State Col, 22, M.S, 27, I.E, 25. From instr. to *prof. indust. eng. and head dept, Pa. State Col, 22–* Soc. Mech. Eng; Soc. Prom. Eng. Educ; Management Asn; Soc. Adv. Management; Asn. Cost Accountants.

Bullington, Prof. W(alter) E(dward), Randolph-Macon College, Ashland, Va. *Zoology.* Bulls Gap, Tenn, Nov. 17, 90. B.S, Tennessee, 21, M.S, 22; Ph.D, Kansas, 25. Instr. zool, Tennessee, 22–24; asst. instr, Kansas, 24–25; *prof. biol, Randolph-Macon Col, 25–* A.A; Soc. Zool; Genetics Soc; Va. Acad. Spiral movement in ciliate infusoria; spiraling in the ciliate Paramecium and in the palolo worms; morphology and spiral swimming in Frontonia; some ciliates from Tortugas.

Bullitt, Prof. James B(ell), University of North Carolina, Chapel Hill, N. C. *Pathology.* Louisville, Ky, Jan. 18, 74. A.B, Washington and Lee, 94, A.M, 95; M.D, Virginia, 97. Demonstrator anat, Virginia, 98–03; *prof,* Mississippi, 03–13; *path, North Carolina, 13–* Major, U.S.A, 18–19. A.A; Soc. Clin. Path; Am. Med. Asn; Micros. Soc; Col. Physicians; Asn. Mil. Surg; Anthrop. Asn; South. Med. Asn; N. C. Acad. Hookworm; trichinosis; tuberculosis; neoplasms.

Bullock, Prof. Jesse L(unt), 35 Downing St, Worcester, Mass. *Chemistry.* Haverhill, Mass, Aug. 23, 89. A.B, Harvard, 14, A.M, 28, Ph.D, 32. Tech. research, Calco Chem. Co, 15–20; Diamond Match Co, 21–22; chief chemist, Granton Chem. Co, 22–24; consulting chemist, Newark, N. J, 25–26; assoc. prof. *chem, Clark,* 26–36, *prof, 36–* A.A; Inst. Chem; Chem. Soc; Deuts. Chem. Gesell. Reaction mechanisms; formation of sodium thiosulfate; formation of thiocarbonates; mechanism of nitration reactions and their reduction products.

Bullock, Dr. Theodore H(olmes), 333 Cedar St, New Haven, Conn. *Zoology.* Nanking, China, May 16, 15. A.B, California, 36, Ph.D, 40. Teaching fellow zool, California, 36–40; Sterling fellow, *Yale,* 40–41, Rockefeller fellow, 41–42, *research asst. pharmacol. and neuroanat, 42–* Soc. Zool. Invertebrate zoology; comparative neurology; biology of balanoglossids; neuromuscular physiology of coelenterates; electrical activity of the nervous system.

Bullock, William E(dward), 65 University Place, New York, N. Y. *Mechanical engineering.* Hingham, Eng, July 9, 88. B.S, London, 10; M.E, London Inst, 10. Ransomes Sims and Jeffries, Ipswich, England, 04–07; Baldwin Locomotive Works, Phila, 10–11; sec'y to cmt. science and arts and asst. director sch. mech. arts, Franklin Inst, 11–15; asst. sec'y, Am. Soc. Mech. Eng, 15–26; *consulting mech. engineer, 26–;* sec'y, Am. Inst. Weights and Measures, 26–32. Yarrow student, Inst. Civil Eng, 07–10. Bramwell medal, London Inst, 10. Engineering education; engineering economics.

Bullowa, Dr. Jesse G(odfrey) M, 62 W. 87th St, New York, N. Y. *Medicine.* New York, N. Y, Oct. 19, 79. A.B, Col. City of N. Y, 99; M.D, Columbia, 03. Adj. prof. clin. med, N. Y. Polyclinic Med. Sch, 16–19; prof, Fordham, 20–23; *clin. prof. med, N. Y. Univ, 28–* Visiting physician, Willard Parker and Harlem Hosps. A.A; Am. Med. Asn; Soc. Exp. Biol; fel. Col. Physicians; Soc. Pharmacol; Trudeau Soc; Asn. Study Int. Secretions; Asn. Immunol; N. Y. Acad; N. Y. Path. Soc; N. Y. Acad. Med. Oxygen therapy; serum therapy pneumonia; colloidal chemistry; adrenalin in asthma; bronchial function; pulmonary segment reflexes; clinical course of and sedatives in pneumonia; immunity mechanism in pneumonia; pertussis therapy; chemotherapy; electroencephalography.

Bumer, Prof. Charles T(heodore), Kenyon College, Gambier, Ohio. *Mathematics.* Sharpsburgh, Pa, Dec. 30, 97. B.S, Denison, 19; A.M, Harvard, 22; Michigan, summer, 23, 24–25; Ph.D, Ohio State, 31. Prof. *math,* Salem Col, 19; instr, Mich. State Col, 20–21; Ohio State, 22–24, asst. prof, 24–31; *Kenyon Col,* 31–33, assoc. prof, 33–35, *prof, 35–* Math. Soc; Math. Asn. Integral invariants; foundations.

Bump, Dr. C(harles) Kilbourne, Main St, Hampden, Mass. *Chemistry.* Pittsfield, Mass. A.B, Amherst Col, 29; Ph.D,

Cornell, 33. Teaching fellow chem, Amherst Col, 34-35; teacher sciences, Dorland-Bell Sch, N. C, 35-36; inspector, food and drug admin, U. S. Dept. Agr, 36-37; *research chemist, plastics div, Monsanto Chem. Co, 37–* Chem. Soc. Industrial problems dealing with plastics.

Bump, Prof. James D(ye), South Dakota School of Mines and Technology, Rapid City, S. Dak. *Vertebrate paleontology.* Rapid City, S. Dak, March 23, 03. B.S, S. Dak. Sch. Mines, 29. Curator *geol. museum, S. Dak. Sch. Mines and Tech,* 29–39, *director, 39–,* instr. *geol,* 34–40, *asst. prof, 40–* Paleont. Soc; Soc. Vert. Paleont. Fossil mammals of middle and late Tertiary, especially those of Oligocene age; fossil collection; reptiles.

Bumpus, Dr. H(ermon) C(arey), Duxbury, Mass. *[1]*Biology.* Buckfield, Maine, May 5, 62. Ph.B, Brown, 84, hon. Sc.D, 05; fellow, Clark, 89–90, Ph.D, 91, LL.D, 09; hon. Sc.D, Tufts Col, 05. Prof. biol, Olivet Col, 86–89; asst. prof. zool, Brown, 90–91, assoc. prof, 91–92, prof. comp. anat, 92–01; asst. to pres. and curator invert. zool, Am. Museum Nat. Hist, 01–02, director, 02–11; business manager, Wisconsin, 11–14; pres, Tufts Col, 14–19. Asst. director, Marine Biol. Lab, Woods Hole, 93–95, trustee, 05–; commissioner inland fisheries, R. I, 97–01; director biol. lab, U. S. Fish Cmn, 98–01; consulting director, Buffalo Museum Science, 24–; board fellows, Brown, 05–; sec'y corp, Brown Univ, 24–39; trustee, Mt. Desert Biol. Lab, 24–; Home for Feeble-Minded, Waverley, Mass; patron, Am. Museum Nat. Hist; hon. fel. Metropolitan Museum Art, New York; chairman exec. cmt, museums nat. parks, 24–33; chairman educ. advisory board, Nat. Park Service, 31–40. Pres, Int. Fishery Cong, 08. A.A; Soc. Nat; Soc. Zool. (pres, 03); Nat. Asn. Audubon Societies; Asn. Mus. (pres, 06); Philos. Soc; N. Y. Audubon Soc. (v. pres, 05); Linnaean Soc. N. Y; fel. N. Y. Zool. Soc; N. Y. Acad. (sec'y, 05); cor. mem. Senckenbergische Naturforsch. Gesell; hon. mem. K.K. Oester. Fischerei Gesell. Museums; marine biology; outdoor education. (*Died June, 1943.*)

Bumstead, Prof. Charles H(eath), University of Oklahoma, Norman, Okla. *Psychology.* Monticello, Ill, Feb. 3, 10. A.B, Illinois, 32, A.M, 33, Ph.D, 38. Instr. *psychol, Oklahoma,* 36–37, *asst. prof, 37–* A.A; assoc. Psychol. Asn. Psychology of advertising and selling.

Bunce, E(arl) H(amlin), New Jersey Zinc Co, Palmerton, Pa. *Chemistry.* Wolcott, N. Y, Sept. 22, 91. B.S, Cornell, 13. Research investigator and metallurgist, *N. J. Zinc Co,* 13–17, asst. chief research div, 18–27, chief, 27–28, *gen. manager tech. dept, 28–* Chem. Soc; Ceramic Soc; Soc. Test. Mat; Electrochem. Soc; Min. and Metal. Eng; Oil and Color Chem. Asn; Faraday Soc; Inst. Rubber Indust. Metallurgy; processes for the production of zinc oxide, zinc sulfide pigments and slab zinc; use of zinc metal and pigments.

Bunch, Prof. Marion E(stel), Washington University, St. Louis, Mo. *Psychology.* Rochester, Ky, Dec. 5, 02. A.B, Kentucky, 25; A.M, Washington (St. Louis), 26; Ph.D, Chicago, 34. Asst. prof. and later *assoc. prof. psychol, Washington (St. Louis), 26–* A.A; Psychol. Asn. Psychology of learning.

Bunde, Prof. Carl A(lbert), Baylor University College of Medicine, Dallas, Texas. *Physiology.* Ashland Co, Wis, April 22, 07. A.B, Wisconsin, 33, A.M, 34, Ph.D, 37. Asst. zool, Wisconsin, 34–37; fellow sch. med, Oklahoma, 37–38, instr, 38–41, *asst. prof,* 41–42; *physiol. and pharmacol, col. med, Baylor, 42–* Soc. Zool; Asn. Study Int. Secretions. Endocrinology; physiology of reproduction.

Bundesen, Dr. Herman N(iels), 54 W. Hubbard St, Chicago, Ill. *Public health.* Berlin, Germany, April 27, 82. M.D, Northwestern, 09, Se.D, 27; M.D, U. S. Army Med. Sch, 11. *Epidemiologist, Ill. Cent. R. R, 15–;* Board Health, Chicago, 14–22, commissioner health, 22–27, director health, Sanit. Dist, 27–28; coroner, Cook County, Ill, 28–31; *pres, Board Health, Chicago, 31–* Professorial lecturer, Chicago, 26–; senior surgeon, U. S. Pub. Health Service, 33– Chairman pub. health and epidemics cmt, Nat. Foundation Infantile Paralysis, 40. Trustee, Munic. Tuber. Sanitarium, 22–26. Lieut, U.S.A, 09–11. Am. Med. Asn; fel. Col. Physicians; Pub. Health Asn. (1st v. pres, 26, pres, 27); Asn. Mil. Surg; Child Conservation League Amer. (hon. v. pres). Diphtheria; infant mortality; health and care of infants.

Bunim, Dr. Joseph J, 118 Eighth Ave, Brooklyn, N. Y. *Clinical medicine.* Russia, Nov. 5, 06. B.S, Col. City of N. Y, 26; M.D, N. Y. Univ, 30, D.M.S, 38. *Chief arthritis clinic, col. med, N. Y. Univ, 40–, asst. prof. clin. med, 42–* Asst. visiting physician, Bellevue Hosp, 39. Am. Med. Asn; Rheumatism Asn; Harvey Soc. Rheumatic fever; arthritis; pneumonia; renal physiology.

Bunker, Dean J(ohn) W(ymond) M(iller), Massachusetts Institute of Technology, Cambridge, Mass. *Bacteriology, Biochemistry.* Toungoo, Burma, July 10, 86. A.B, Brown, 09, A.M, 10, Ph.D, 12. Instr. sanit. biol, Harvard, 11–15, sanit. inspector, 15; director bacter. labs, Digestive Ferments Co, 15–21; asst. prof. *physiol. and biochem, Mass. Inst. Tech,* 21–24, assoc. prof, 24–28, *prof, 28–,* director biol. research labs, 36–41, in charge biophysics and biol. eng, 37–41, *dean. grad. sch, 40–* Mem. div. educational relations, Nat. Research Council, 40– A.A; Soc. Bact. (councilor, 18–20, asst. sec'y, 20, exec. sec'y, research council, 20); Chem. Soc; fel. Pub. Health Asn; fel. Am. Acad; Boston Bact. Soc. Sanitary biology; bacterial metabolism; enzymes and toxins; radiations; vitamins; biological engineering.

Bunney, Dr. William E(dward), Millstone, N. J. *Chemistry.* Tacoma, Wash, May 24, 02. B.S, Mont. Col, 24; M.S, Illinois, 25, Ph.D, 27. Senior chemist, antitoxin and vaccine lab, State Dept. Pub. Health, Mass, 27–31; assoc. director bur. labs, State Dept. Health, Mich, 31–38; *director* biol. production, *E. R. Squibb and Sons,* 38–42, biol. labs, 42–43, *mfg. labs, 43–* Soc. Exp. Biol; Chem. Soc; Pub. Health Asn; Asn. Immunol. Applied immunology; diphtheria immunization; arginine and glutamic acid in metabolism; stability and chemistry of diphtheria toxin.

Bunting, Dr. Albert L(owell), 24627 Rockford Road, Dearborn, Mich. or 3896 Jefferson Ave, W, Ecorse, Mich. *Chemistry.* Birmingham, Mich, Jan. 15, 09. A.B, Michigan, 30, M.S, 33; Sc.D, Detroit Col. Pharmacy, 35. Lake surv. office, War Dept, 30; *consulting chemist, 33–* Prof, Detroit Inst. Tech, 35–40. Chem. Soc. Amino Grignards; heavy metal organic compounds; toxic effect of heavy metals in organic compounds; color photography; corrosion resistance of organic coatings.

Bunting, Dr. C(harles) H(enry), University of Wisconsin, Madison, Wis. *[2]*Pathology.* La Crosse, Wis, May 22, 75. B.S, Wisconsin, 96, fellow, 96–97; M.D, Hopkins, 01. Asst. demonstrator *path,* Pennsylvania, 02–03; asst, Hopkins, 03–04, instr, 04–05, assoc, 05–06; *prof,* Virginia, 06–08; *Wisconsin, 08–* Consulting pathologist, C.W.S. A.A; Asn. Path. and Bact; Soc. Exp. Path; Am. Physicians; Asn. Anat; Soc. Exp. Biol; Asn. Cancer Research; Chicago Path. Soc; hon. mem. Milwaukee Surg. Soc. Hematology.

Bunting, Dr. Elmer N(ewman), National Bureau of Standards, Washington, D. C. *Chemistry.* Chicago, Ill, March 19, 92. B.S, Chicago, 15, Ph.D, 18. Asst. chem, Chicago, 15–18; chemist, Bausch and Lomb Optical Co, 18–19; research assoc, Illinois, 20–24; research chemist, Bell Tel. Labs, Inc, 24–25; Nat. Research Council, 25–26; *assoc. chemist, Bur. Standards, 26–* A.A. Inorganic and physical chemistry; glass; high temperature technique; microphone carbon; phase equilibria in refractory oxide systems.

Bunting, Dr. Henry, 310 Cedar St, New Haven, Conn. *Pathology.* Chicago, Ill, March 10, 11. A.B, Yale, 32; A.M, Wisconsin, 34; M.D, Harvard, 36. Intern med, Hopkins Hosp, 36–37; asst. resident, Baltimore City Hosp, Md, 37–38; Jane Coffin Childs Mem. Fund fellow *path, sch. med, Yale,* 38–39, instr, 39–42, *asst. prof, 42–* New Eng. Path. Soc. Chemical transmission of vagal effects to the small intestine; sedimentation rates of cells from patients with sickle cell anemia; incidence and development of tumor in mice; transplantable mouse tumor.

Bunting, Dr. Martha, 1520 Spruce St, Philadelphia, Pa. *Biology.* Philadelphia, Pa, Dec. 2, 61. B.L, Swarthmore Col, 81; B.S, Pennsylvania, 90, 16–17; Hopkins, 93–94; Ph.D, Bryn Mawr Col, 95; Marine Biol. Lab, Woods Hole, 91, 92. 99; Columbia, 98–99; biol. lab, Cold Spring Harbor, 98. Instr. biol. and asst. physiol, Goucher Col, 93–97; teacher, high sch, Pa, 97–99; N. Y, 00–10; asst. to Dr. Edward T. Reichert, Carnegie grant, Pennsylvania, 10–16, asst. to Dr. John A. Kolmer, 18–19, fellow by courtesy, 19–24, 26–27, 30–31. War relief work, 16–18. A.A; Acad. Nat. Sci. Phila; Geog. Soc. Phila. Photozoology; sex cells in Hydractinia and Podocoryne; otoliths and the geotropic functions of Astacus; the cork tissues in the roots of rosaceous genera; life cycle and binary fission in Tetramitus rostratus, Perty.

Bunting, Dr. Mary Ingraham, Bethany, Conn. *Biology.* Brooklyn, N. Y, July 10, 10. A.B, Vassar Col, 31; Nancy Skinner Clark fellow from Vassar Col, Wisconsin, 31–32, A.M, 32, Annie Gorham fellow, 32–33, Ph.D, 33. Asst. agr. bacter. and agr. chem, Wisconsin, 33–35; dept. biol, Bennington Col, 35–37; instr. physiol. and hygiene, Goucher Col, 37–38; research fellow, Yale, 38–41. A.A; Soc. Bact. Bacteriology; chemistry; agricultural bacteriology and chemistry; bacteriostatic action of dyes; the rôle of carotenoids in bacteria and green plants.

Bunting, Dean R(ussell) W(elford), 916 Church St, Ann Arbor, Mich. *Pathology.* Ann Arbor, Mich, June 2, 81. D.D.S, Michigan, 02, D.D.Sc, 08. Instr. dental histol. and path, *Michigan,* 04–10, asst. prof, 10–14, *prof, 14–, oral histol. and path,* sec'y faculty, *sch. dentistry,* 12–23, acting chairman exec. cmt, 35–36, *dean, 37–* Sec'y col. dental surg, Michigan, 09–23. Callahan mem. award, 29. A.A; fel. Col. Dentists; Inst. Dental Teachers (pres, 19); Soc. Exp. Biol; Am. Dental Asn; Mich. Acad; Int. Asn. Dental Research. Dental and oral pathology; operative dentistry; etiology and control of dental caries; treatment of parodontal diseases.

Bunting, T(homas) G(ordon), Ste. Anne de Bellevue, Que, Can. *Horticulture.* St. Catharines, Ont, Nov. 10, 85. B.S.A, Toronto, 07. Asst. hort, New Hampshire, 09–10; asst. to Dom. horticulturist, Can. Dept. Agr, 10–12; prof. hort, Macdonald Col, McGill, 12–39; *retired.* Soc. Hort. Sci. (v. pres, 23); Can. Soc. Tech. Agr; Royal Hort. Soc. Fruit growing; ornamental horticulture; plant breeding; nutrition.

Bunyan, Prof. Leon(idas) H(amlin), 127 N. Fifth Ave, H. P, New Brunswick, N. J. *Mathematics.* Arlington, Mass, Feb. 24, 99. B.S, Wesleyan, 21; A.M, Wisconsin, 23, Ph.D, 30. Asst. *math,* Wisconsin, 21–23, instr, 23–30; *asst. prof, Rutgers, 30–* Math. Soc; Math. Asn. Transformation of a certain integral equation and a theorem concerning an integro-differential equation.

Bunyea, Dr. Hubert, U. S. Department of Agriculture, Washington, D. C. *Veterinary medicine.* Portsmouth, Ohio, June 15, 85. A.B, Georgetown Col. (Ky), 08; Crozer Theol. Sem, 08–09; D.V.M, U.S. Col. Vet. Surgeons, 18. Agent, *bur. animal indust, U. S. Dept. Agr,* 14–18, vet. inspector, *path. div,* 18–22, asst. veterinarian, 22–24, assoc. veterinarian, 24–35, *veterinarian, 35–* Vet. consultant, Nat. Poultry Improvement Plan. East. States Conf. on Pullorum Disease Control; Conf. State and Fed. Research Workers in Animal Diseases. U. S. Livestock Sanit. Asn; Vet. Med. Asn; Wash. Vet. Med. Asn. (pres, 18). Veterinary bacteriology and pathology; pullorum disease and infectious bronchitis of poultry; fowl pox; fowl cholera.

Bunzel, Dr. Ruth, 312 W. 76th St, New York, N. Y. *Anthropology.* New York, N. Y, April 18, 98. A.B, Columbia, 18, Social Science Research Council fellow, 27–29, Ph.D, 29; Chicago. Sec'y and asst. anthrop, *Columbia,* 22–25, lecturer, *Barnard Col,* 29–30, *Guggenheim Mem. Foundation fellow, 30–* Summers, instr, Columbia, 33–35, univ. exten, 37–41. Southwest Soc. and Columbia Univ. field expeds, Pueblo Indians, 24–26. Anthrop. Asn; Ethnol. Soc. (treas, 25–27); Linguistic Soc; Folk-Lore Soc. The Pueblo potter; Zuni language; economic, social and religious life of the Pueblo Indians; personal adjustments among primitive people; Indian backgrounds of the Mexican nation.

Bunzell, Dr. H(erbert) H(orace), Box 44, General Post Office, New York, N. Y. *Chemistry.* Jan. 13, 87. B.S, Chicago, 06, Ph.D, 09. Asst. physiol. chem, Chicago, 06–10; biochemist, bur. plant indust, U. S. Dept. Agr, 10–11, chem. biologist, 11–16; prof. chem, George Washington, 14–16; special lecturer and assoc. prof, Georgetown, 15–16; asst. prof. biochem, Cincinnati, 16–17, prof. and head dept, med. sch, 17–18; *consulting chemist, New York, 18–* Prof. chem, Woman's Med. Col. of Pa, 20–36. A.A; Soc. Biol. Chem. Oxidation of sugars; galvanic polarization; toxicity of the metal ions towards living organisms; the oxidation of uranous salts and glucose; the active element in the internal secretion of the testicles; plant oxidases; poisonous plants.

Burack, Dr. Benjamin, 4054 Harrison St, Chicago, Ill. *Psychology.* Chicago, Ill, April 28, 14. B.S, Ill. Tech, 36; A.M, Northwestern, 38, fellow, 38–40, Ph.D, 40. Senior psychologist, Chicago Bur. Child Study, 38; instr. psychol, Chicago City Junior Cols, 39–41; *personnel consultant, U. S. Army, 41–* Mem. cmt. psychol, Am. Asn. Junior Cols, 40– A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn; Ill. Acad; assoc. N. Y. Acad. Ontogenetic development of reasoning ability; principles of correct reasoning; methods of attack used in problem solving.

Burack, Dr. E(thel), Albany Medical College, Albany, N. Y. *Endocrinology.* Newark N. J, March 20, 07. A.B, Columbia, 27, Caroline Duror fellow, 27; Am. Asn. Univ. Women fellow, Yale, 31, Ph.D, 31. Asst. biochem, Yale, 29, Standard Brands fellow, 31–33, asst. pharmacol. and toxicol, 33–34, Standard Brands fellow, 34–36; research, *Albany Med. Col. (N. Y),* 38–39, instr. anat. and research assoc. path, 39–42, *asst. prof. anat, 42–* Asn. Anat; Asn. Cancer Research; Asn. Study Int. Secretions. Physiology of vitamin B; lesions of the nervous system resulting from deficiency of the vitamin B complex and G; toxic action of cod-liver oil; influence of diet on regeneration of serum protein; aging processes in the reproductive tract; effects of hormones; hormones and carcinogenesis.

Burbanck, Dr. Madeline P(almer) (Mrs. William D. Burbanck), 1076 Summit Ave, Springfield, Mo. *Botany, Cytology.* Moorestown, N. J, Oct. 27, 14. A.B, Wellesley Col, 35, A.M, 38, Fanny Bullock Workman scholar, 40–41; Ph.D, Chicago, 41. Asst. bot, Wellesley Col, 36–39; Chicago, 40; guest, Columbia, 41–42. Cytology and taxonomy of Brodiaea.

Burbanck, Dr. William D(udley), 1076 Summit Ave, Springfield, Mo. *Animal ecology.* Indianapolis, Ind, Aug. 20, 13. A.B, Earlham Col, 35; scholar, Haverford Col, 35–36, M.S, 36; Ph.D, Chicago, 41. Instr. biol, Earlham Col, 36–38; teaching asst. zool, Chicago, 38–41; instr. biol, Col. City of N. Y, 41–42; guest, dept. zool, Columbia, 41–42; *asst. prof. biol. and chairman dept, Drury Col, 42–* Summer, instr, Marine Biol. Lab, Woods Hole, 43. Population studies of protozoa and an analysis of their relationships with various bacteria; protozoology.

Burbank, Dr. Cecil J(ohnnie), University of California Division of National Defense Research, San Diego, Calif. *Physics.* Whiting, Ind, March 23, 08. A.B, San Jose State Col, Calif, 30; Ph.D, Stanford, 35. Asst. physics, Stanford, 31–34; teacher, high sch, Calif, 35–38; head science, Fresno Tech. Sch, 39–41; *mem. staff, div. nat. defense research, California, U. S. Navy Radio and Sound Lab, 41–* X-ray spectra; acoustic measurements; electronic controls.

Burbank, W(ilbur) S(wett), U. S. Geological Survey, Washington, D. C. *[7]*Geology.* Amesbury, Mass, March 30, 98. B.S, Mass. Inst. Tech, 19, M.S, 20, 25–26. Asst. geologist, Haitian Geol. Surv, Dept. Pub. Works, Port-au-Prince, 20–21; *U. S. Geol. Surv,* 22–25, asst. geologist, 26–28, assoc. geologist, *sect. metalliferous deposits,* 28–34, *geologist, 34–* Asst, Mass. Inst. Tech, 25–26; div. geol. and geog, Nat. Research Council, 41– A.A; Geol. Soc; Soc. Econ. Geol; Miner. Soc; Am. Geog. Soc; Geophys. Union; Colo. Sci. Soc; Geol. Soc. Wash. Geology of the Republic of Haiti; sedimentary petrology; copper deposits of Michigan; mineralogy; general and economic geology of San Juan Mountains and mining districts of Colorado.

Burbidge, Dean G(eorge) A(rnold), Dalhousie University, Halifax, N. S, Can. *Pharmacy.* N. S, 71. Prof. mat. med. and pharmacy, *Maritime Col. of Pharmacy,* 11–25, *dean, 25–, lecturer mat. med, Dalhousie, 21–* Can. Pharmaceut. Asn. (pres, 23, 31); N. S. Inst. Sci. (councilor, 29–31); assoc. Fed. Int. Pharmaceut.

Burbridge, Prof. Harry C(arleton), Fresno State College, Fresno, Calif. *Physics.* Greeley, Iowa, July 4, 85. A.B, Stanford, 09, Ph.D, 13. Teacher, high sch, 08–09; asst. physics, Stanford, 10–13, instr, 13–14; assoc. physicist, Bur. Standards, 18–20; research physicist, Associated Oil Co, 20–21; assoc. prof. *physics, Fresno State Col,* 21–30, *prof. and chairman dept. physical science, 30.* Physical Soc; Asn. Physics Teachers. Lubrication; Volta effect.

Burch, Dr. A(rthur) B(enjamin), 1933½ Hearst St, Berkeley, Calif. *Anatomy.* Denver, Colo, Dec. 18, 07. A.B, California, 34, Ph.D, 38. Nat. research fellow, 38–39; *instr. anat, California, 40–, lecturer, col. dentistry, 43–* Embryology of amphibian pituitary body; developmental mechanics.

Burch, Guy Irving, 142 S. Columbus St, Arlington, Va. *Population.* Clayton, N. Mex, May 24, 99. Culver Mil. Acad; Columbia, 19–23. *Director, Popul. Reference Bur,* 29– Temporary mem. research staff, Milbank Mem. Fund, New York, 32. Ed, 'Human Facts in Science,' 35–36; 'Population

Bul,' 40– Eugenics Soc. (ed. dept, 'Eugenics,' 30; director, 31–, sec'y, 33–35). Population analysis.

Burch, Dr. J(ames) M(arvin), General Aniline Works, Grasselli, N. J. *Chemistry.* Liberty, Mo, Sept. 22, 10. B.S, Ga. Tech, 32; fellow, Iowa State Col, 32–35, Ph.D, 35. du Pont Rayon Co, Old Hickory, Tenn, 30–32; *chemist, Gen. Aniline Works, 35–* Electron sharing ability of organic radicals.

Burch, Dr. Lucius E(dward), Vanderbilt University School of Medicine, Nashville, Tenn. *Gynecology, Obstetrics.* Nashville, Tenn, Dec. 10, 74. M.D, Vanderbilt, 96. *Prof. gynec, sch. med, Vanderbilt, 02–,* dean, 14–25, *gynecologist and obstetrician in chief, hosp, 25–* Fel. Col. Surg; Tenn. Acad. Vaginal discharges; gonorrhea, sterility and cancer in the female; treatment of abortion; diagnosis and treatment of uterine bleeding; menstrual disorders; cesarean section; sterilization of females; endometrial hyperplasia.

Burch, Prof. Mary C(rowell), Mills College, Calif. *Psychology.* Hanford, Calif, May 18, 85. B.L, California, 07, M.L, 08; Ph.D, Stanford, 27. Counselor, schs, San Jose, 25–27; asst. prof. and *assoc. prof. psychol, Mills Col, 27–* A.A; Statist. Asn; Asn. Applied Psychol; West. Psychol. Asn. High school curriculum; clinical psychology.

Burch, Prof. Paul R(andolph), State Teachers College, Radford, Va. *Biology.* Martinsville, Va, April 27, 98. B.S, Randolph-Macon Col, 20; M.S, Virginia, 27, Ph.D, 30. Teacher, sch, Va, 21–24; prof. *biol,* Morris Harvey Col, 24–26; asst, Virginia, 26–28; *prof, Va. State Teachers Col, 28–* Instr, Mt. Lake Biol, Sta, 36, 39. A.A; Genetic Asn; Va. Acad. (subchairman, biol. sect, 30, sec'y, 41; subchairman, fauna cmt, 33–, chairman, junior membership cmt, 35; zool. ed, 'Jour,' 40). Protozoa; endodermal flagella of Hydra oligactis; effect of injury caused by excision of cytoplasm, and effect of loss and of gain of cytoplasm on the division rates of Arcella vulgaris and Arcella rotundata; snakes of the Allegheny plateau; herpetology; Virginia malacology.

Burchard, Lieut. Edward M(arshall) L(orain), Office of the Chief of Naval Operations, Naval Communications Annex, Washington, D. C. *Clinical psychology.* Rouseville, Pa, Dec. 24, 08. A.B, Pittsburgh, 31, A.M, 32, Ph.D, 35. Psychol. intern, West. Pa. Penitentiary, 30–31; asst. instr. psychol, Pittsburgh, 31–33; asst. clin. psychologist, Torrance State Hosp, 33–35, psychologist, 35–37; *instr. psychol, asst. director psychol. clinic and consulting psychologist, Oak Lane Country Day Sch, Temple, 37–; lieut, U. S. Naval Res, 42–* A.A; fel. Asn. Applied Psychol; assoc. Psychol. Asn; fel. Rorschach Research Inst; Pa. Asn. Clin. Psychol. Morphology and personality relationship; intelligence and personality traits; psychometrics; clinical and abnormal psychology; the Rorschach psychodiagnostic.

Burchard, E(dwin) D(ay), 220 Post Office Bldg, Asheville, N. C. *Hydraulic engineering.* Hyattsville, Md, Nov. 7, 86. B.S, George Washington, 13. Res. engineer, Rapid Sand Filtration Plant, Front Royal, Va, 13–14; *water resources branch, U. S. Geol. Surv,* 14–20, *dist. hydraul. engineer,* Ames, Iowa, 20–21, Honolulu, 22–23, *Asheville, N. C, 24–* Water Works Asn. (pres. and director, N. C. sect, 34–); Civil Eng. (pres. and director, Tenn. Valley sect, 37); Geophys. Union.

Burchard, Dr. Ernest F(rancis), U. S. Geological Survey, Washington, D. C. *Economic geology.* Independence, Kans, May 20, 75. Lehigh, 97; B.S, Northwestern, 00, M.S, 03; Sc.D, Alabama, 35. Instr, high sch, Iowa, 00–03; asst. geologist, Wis. Geol. and Nat. Hist. Surv, 03; geol. aid, *U. S. Geol. Surv,* 04–06, asst. geologist, 06–10, geologist, 11–28, senior geologist, 28–41, *prin. geologist, 41–, in charge* sect. nonmetal resources, 15, *sect. iron and steel alloy metals, 17–* Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. (chairman cmt. mining geol, 24–27); Ill. Acad; Geol. Soc. Wash; Sioux City Acad. Nebraska lignite deposits; lead and zinc ores in Arkansas and Wisconsin; iron and manganese ore deposits in the United States and South America; marble resources of Alaska; chromite and manganese of Cuba; petroleum resources of Philippine Islands and Bolivia; ores and non-metallic minerals as pigments; Clinton iron ores; fluorspar; bauxite; structural materials; mineral economics.

Burchard, Prof. John E(ly), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Marshall, Minn, Dec. 8, 98. B.S, Mass. Inst. Tech, 23, M.S, 25. Asst. civil and sanit. eng, Mass. Inst. Tech, 23–25, instr. Eng, 24–25, archit. eng, 26–30; eng. designer and lab. asst, Bemis Industries, Inc, 25–26, in charge lab, 26–28, director research, develop. and patents, 28–38, director, 30–38, v. pres, 33–38; *prof. and director, Albert Farwell Bemis Foundation, Mass. Inst. Tech, 38–; chief div. two, Nat. Defense Research Cmt, 42–; mem. cent. tech. board, Office Civilian Defense, 42–* With Housing Co, 25–38, director, 32–38, v. pres, 33–38; housing consultant, U. S. Dept. Commerce and U. S. Dept. Labor. Assoc. ed, 'Technology Rev,' 33– Mem. U. S. Chamber of Commerce advisory cmt, Nat. Bur. Standards on Methods of Construction and Housing Research, 37–39; exec. officer, cmt. passive protection against bombing, Nat. Research Council, 40–; fed. interdept. advisory cmt, plan two, Pub. Bldgs. Admin, 42–; advisory council, Black Mountain Col, 42–; dept. physics, Princeton, 41– U.S.A, 17–19. Civil Eng; Inst. Archit. (mem. cmt. post-war reconstruction, 41–); Inst. Graphic Arts; Newcomen Soc. Eng. Structures; prefabricated housing; housing with emphasis on physical aspects; effects of bombs on structures.

Burchell, Dr. Howard B, Mayo Clinic, Rochester, Minn. *Medicine.* Athens, Ont, Can, Nov. 28, 07. M.D, Toronto, 32; Pittsburgh, 34–36; London Hosp. Med. Sch, 39; Ph.D, Minnesota, 40. *Instr. med,* Pittsburgh, 36; *Mayo Foundation, Minnesota, 41–; consultant, Mayo Clinic, 41–; lieut, Med. Corps, 42–* A.A; Am. Med. Asn; Heart Asn; Physiol. Soc; Aero Med. Asn; Cent. Soc. Clin. Research. Clinical investigation; physiology of the circulation.

Burchfield, Dr. P(aul) E(dward), Wyandotte Chemicals Corp, Wyandotte, Mich. *Chemistry.* Loysville, Pa, July 9, 06. B.S, Franklin and Marshall Col, 30; Ohio Chem. and Mfg. Co. fellow, Western Reserve, 31–32, Westinghouse Elec. and Mfg. Co. fellow, 32–34, Ph.D, 34. Asst. chem, Cincinnati, 30–31; research chemist, Harshaw Chem. Co, 34–38; research engineer, United Gas Improv. Co, 38–43; *research group leader, Wyandotte Chem. Corp, 43–* Chem. Soc; Soc. Pa. Archeol. Organic fluorides; fluorination of organic compounds; physical properties of organic compounds; purification of products of petroleum pyrolysis.

Burckmyer, Prof. L(awrence) A(dams), Jr, 232 Renwick Drive, Ithaca, N. Y. *Electrical engineering.* North Augusta, S. C, Sept. 7, 01. B.S, Clemson Agr. Col, 22; E.E, Cornell, 25. Instr. *elec. eng, Cornell,* 22–28, asst. prof, 28–41, *assoc. prof, 41–* Elec. Eng. Core loss in cold rolled silicon steel.

Burd, Prof. J(ohn) S(edgwick), University of California, Berkeley, Calif. *Agricultural chemistry.* Indianapolis, Ind, Sept. 20, 76. B.S, California, 99. Instr. agr. chem, *California,* 06–08, asst. prof, 08–10, assoc. prof, 10–12, *prof,* 12–21, *plant nutrition, 21–* State director fertilizer control, Calif, 06–20. Chem. Soc; West. Soc. Plant Nutrition and Soil Management. Plant nutrition; soil solution; phosphate behavior in soils.

Burdette, Dr. A(lbert) C(lark), 648 C St, Davis, Calif. *Analysis.* Spurgeon, Ind, Feb. 11, 05. A.B, Oakland City Col, 27; A.M, Indiana, 31; Ph.D, Illinois, 36. Asst. *math,* Illinois, 31–36; *instr, col. agr, California, 36–* Functions of complex variables; difference equations; differential equations.

Burdick, Cha(rle)s B(aker), 1401 Civic Opera Bldg, Chicago, Ill. *Engineering.* Chicago, Ill, March 6, 74. B.S, Illinois, 95. Asst. engineer, Alvord and Shields, 95–97; John A. Cole, 97–01; assoc, John A. Cole and Son, 01–02; *mem. firm,* Alvord and Burdick, 02–22; *Alvord, Burdick and Howson, 22–* Civil Eng; Water Works Asn; West. Soc. Eng. (past pres); Chicago Eng. Club (past pres). Relief from floods; disposal of the sewage of the sanitary district of Chicago; Illinois River bottom lands; engineering reports on water supply.

Burdick, Dr. C(harles) Lalor, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Denver, Colo, April 14, 92. B.S, Drake, 11; Mass. Inst. Tech, 13, M.S, 14; Kaiser Wilhelm Inst, 14–15; Ph.D, Univ. Basel, Switzerland, 15; Univ. Col, London, 16. Research assoc. physical chem, Mass. Inst. Tech. and Calif. Inst. Tech, 16–17; metal. engineer, Chile Copper Co. and Guggenheim Brothers, 19–24; v. pres. and consulting engineer, Anglo-Chilean Consol. Nitrate Corp, 24–28; asst. chem. director ammonia dept, *E. I. du Pont de Nemours and Co,* 28–35, develop. dept, 36–39, *asst. to pres, 39–* Director, Wilmington Gen. Hosp; Lalor Foundation; Wilmington Inst. Free Library. Lieut, Ordnance Dept, 17–18.

Min. and Metal. Eng; Chem. Soc; Chem. Eng; Franklin Inst; N. Y. Acad. Physical and applied chemistry; the nitrogen industry.

Burdick, Prof. H(arold) O(rmond), 17 Sayles St, Alfred, N. Y. *Zoology, Physiology.* New Market, N. J, June 26, 97. A.B, Milton Col, 19; A.M, Wisconsin, 25; hon. Sc.D, Salem Col, 39. Teacher, high sch, W. Va, 19–20; prof. biol, Salem Col, 20–29; asst. zool, Wisconsin, 25–26; prof. *biol,* Milton Col, 29–31; assoc. prof, *Alfred,* 31–37, *prof, 37–* Soc. Study Int. Secretions; Soc. Zool; Physiol. Soc; Biol. Photog. Soc. Endocrinology of mammalian reproduction; visual education.

Burdick, Prof. W(illiam) D(ighton), Milton College, Milton, Wis. *Chemistry.* Milton Junction, Wis, Jan. 17, 93. A.B, Milton Col, 15; A.M, Wisconsin, 26. Teacher, high sch, Wis, 15–18; *prof. chem, Milton Col, 19–* Asst, Wisconsin, 25–26.

Burdon, Prof. Kenneth L(ivingston), Louisiana State University Medical Center, New Orleans, La. *Immunology, Bacteriology.* Providence, R. I, Nov. 9, 95. Ph.B, Brown, 18, M.S, 20, Ph.D, 22. Asst. biol, Brown, 19–22; instr. bacter, immunol. and pub. health, sch. med, Washington (St. Louis), 22–35; *asst. prof. immunol. and bacter, sch. med, Louisiana, 35–* Asst. bacteriologist, Health Dept, Providence, and bacteriologist, Chapin Hosp, 19–21; consultant, U. S. Pub. Health Service; director special cancer research, branch lab, nat. inst. health, 39–43. A.A; Soc. Bact; Asn. Immunol; Soc. Exp. Biol. (sec'y, south. sect, 42–); Soc. Trop. Med; Pub. Health Asn. Anaerobic flora of the mouth; serology of syphilis; anaphylaxis; aerobic sporebearing bacilli.

Bureau, Prof. E(rnest) A(dolphe), 201 State St, Lexington, Ky. *Electrical engineering.* France, June 11, 86. Ph.B, Ottawa (Kans), 06; Chicago, 08, 09; B.S. (E.E), Purdue, 15, E.E, 16; Armour, 40; Calif. Inst. Tech, 40–41. Teacher, high sch, Wis, 06–08; Ind, 08–12; Kans. State Teachers Col, Pittsburg, 15–18; *prof. elec. eng, Kentucky, 18–, head dept, 42–* Elec. Eng. (sec'y, south. dist, 31–33); Eng. Educ. (pres, Ky, sect, 30); Soc. Professional Eng; Ky. Soc. Professional Eng.

Burfoot, Prof. J(ames) D(abney), Jr, 508 E. Buffalo St, Ithaca, N. Y. *Geology.* Richmond, Va, Oct. 18, 96. B.S, Virginia, 23, M.S, 25; Ph.D, Cornell, 29. Instr, Virginia, 23–25; asst, Cornell, 25–26; asst. prof, Washington and Lee, 26–27; instr. *geol, Cornell,* 27–35, *asst. prof, 35–,* exec. sec'y dept. geol, 37–39. Summers, field asst, Va. Geol. Surv, 24, asst. geologist, 25–29, geologist, 31, 39. Soc. Econ. Geol; Miner. Soc; N. Y. State Geol. Asn. (sec'y, 35). Mineralogy; petrology; metamorphism.

Burford, Prof. M. G(ilbert), 2nd, Wesleyan University, Middletown, Conn. *Chemistry.* Brooklyn, N. Y, Oct. 27, 10. A.B, Wesleyan, 32; A.M, Princeton, 33, fellow, 34–35, Ph.D, 35. Asst. *chem,* Princeton, 33–34; instr, Cornell, 35–36; *Wesleyan,* 36–39, *asst. prof, 39–* Summer, Cornell, 36. Chem. Soc. Chemical reactions of hydriodic acid and ammonium iodide; analytical chemistry of difficultly soluble compounds; spectrophotometric methods of analysis.

Burford, Dr. W(illiam) B(erryman), III, 233 E. University Parkway, Baltimore, Md. *Physical chemistry.* Indianapolis, Ind, Dec. 8, 16. Indiana, 34–36; Ph.D, Hopkins, 42. Asst, *Hopkins,* 40–41, *asst. to official investigator, Nat. Defense Research Cmt, 41–* Catalysis; effect of traces of water vapor on hydrogenation catalysts.

Burg, Dr. Anton B(ehme), 466 W. 35th St, Los Angeles, Calif. *Chemistry.* Dallas City, Ill, Oct. 18, 04. B.S, Chicago, 27, M.S, 28, Ph.D, 31. Instr. inorg. chem, Chicago, 31–39; asst. prof. *chem, Southern California,* 39–42, *assoc. prof, 42–, head dept, 40–* A.A; Chem. Soc. Boron and silicon hydrides; fluorine compounds; vacuum technique; non-aqueous solvents and addition compounds.

Burg, Prof. Walter V(ictor), 2127 Glenwood Ave, Toledo, Ohio. *Analytical chemistry.* Frankfurt, Germany, Dec. 19, 00. Inst. Tech. Berlin, 22–29; Dipl. Ing, Berlin, 29. Lecturer *chem,* col. tech. chem, Berlin, 32–33; *Toledo,* 36–37, instr, 37–38, *asst. prof, 38–* Chem. Soc. New indicators for volumetric analysis.

Burge, Prof. W(illiam) E(dward), University of Illinois, Urbana, Ill. *Physiology.* Lynchburg, Va, Sept. 17, 81. A.B, Randolph-Macon Col, 03, A.M, 06; fellow, Hopkins, 08–09, Ph.D, 09. Physical director, Randolph-Macon Col, 04–06; instr. *physiol,* Univ. and Bellevue Hosp. Med. Col, 09–10; asst, Hopkins, 10–11, instr, 11–12; *assoc. prof. and acting head dept, Illinois, 12–* Nela Research Lab, 16–19. 9th Int. Physiol. Cong; Physiol. Cong, Paris, 20. Physiol. Soc; Nat. Anesthesia Research Soc; Bot. Soc; Mid-West. Asn. Anesthesia; Int. Anesthesia Research Soc. (hon. pres, 36); fel. Int. Col. Anesthesia. Electro physiology; effect of ultra-violet on action of nicotine, epinephrin, sugar metabolism, bacteria; copper in relation to chlorophyl and hemoglobin formation; pathological calcification; mechanism of action and comparative effects of anesthetics; cause of senescence; unconsciousness and sleep; action and injury potential and negative phosphate ions; nerve impulse and phosphate ionization.

Burger, Dr. Alfred, University of Virginia, Charlottesville, Va. *Chemistry.* Vienna, Austria, Sept. 6, 05. Ph.D, Vienna, 28. Chemist, Hoffman-LaRoche Co, Berlin, 28–29; research assoc, drug addiction lab, Nat. Research Council, *Virginia,* 29–38, acting asst. prof. *chem,* 38–39, *asst. prof, 39–* Chem. Soc. General organic chemistry; chemistry of opium alkaloids; syntheses of morphine substitutes; petroleum bases; chemotherapy.

Burger, Prof. J(ames) W(endell), Trinity College, Hartford, Conn. *Zoology.* Philadelphia, Pa, March 1, 10. A.B, Haverford Col, 31; A.M, Lehigh, 33; fellow, Princeton, 34–36, Ph.D, 36. Asst. *biol,* Lehigh, 31–33; instr, *Trinity Col. (Conn),* 36–39, *asst. prof, 39–* Instr, Mt. Desert Biol. Lab, 38–, trustee, 40–; instr, sch. nursing, Hartford Hosp, 43– Soc. Zool. Sex cycles of fish, amphibia, reptiles and birds and factors which control same; plumage; herpetology; sanitation.

Burger, Prof. William H(enry), Northwestern University, Evanston, Ill. *Civil engineering.* Caribou, Colo, May 2, 74. B.S, Colorado, 96, 96–97. Eng. dept, Colo. and N. W. Ry, 97–99; aid, U. S. Coast and Geod. Surv, 99–03, asst, 03–10; asst. prof. *civil eng, Northwestern,* 10–15, *prof, 15–* A.A; Eng. Educ; Geophys. Union.

Burgess, A(lbert) F(ranklin), U. S. Department of Agriculture, Greenfield, Mass. *Entomology.* Rockland, Mass, Oct. 2, 73. B.S, Mass. Col, 95, M.S, 97. Asst. entomologist, State Board Agr, Mass, 95–99; asst. entom, Illinois, 99–00; asst. inspector nurseries and orchards, Ohio, 00–02, chief inspector, 02–07; asst. entomologist and senior entomologist, bur. entom, *U. S. Dept. Agr,* 07–28, *prin. entomologist, bur. entom. and plant quarantine, 28–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. (sec'y, 03, 06–23, 30–32, assoc. ed, 'Jour,' 08–09, business manager, 10–24, 31, pres, 24); Entom. Soc. Wash; Wash. Acad; Cambridge Entom. Club (pres, 15); Soc. entom. de France. Economic entomology; insect control; insecticides; parasitic and predatory insects.

Burgess, Dr. Alex(ander) M(anlius), 454 Angell St, Providence, R. I. *Medicine.* St. Albans, Vt, May 4, 85. A.B, Brown, 06; M.D, Harvard, 10. Asst. path, Boston City Hosp, 10–12; asst. prof, sch. med, McGill, 13; visiting physician, R. I. Hosp; Miriam Hosp; consulting physician, Charles V. Chapin Hosp; *asst. prof. biol, Brown, 24–,* med. director, 24–28, *chairman div. univ. health, 28–* Consulting physician, Providence Lying-In Hosp; Miriam Hosp; visiting physician, Home Mem. Hosp, New London, Conn; South County Hosp, Wakefield, R. I, and Westerly Hosp. Am. Med. Asn; Col. Physicians; Am. Heart Asn. Internal medicine.

Burgess, Mrs. Iva M(erchant), Agricultural Experiment Station, Orono, Maine. *Horticulture.* Litchfield, Maine, Feb. 13, 00. B.S, Maine, 23, M.S, 25. *Asst. geneticist, Exp. Sta, Maine, 23–* Soc. Hort. Sci. Vegetable variety tests; cytology and breeding of apples; bean breeding and genetics.

Burgess, Louis, 17 Battery Place, New York, N. Y. *Chemical engineering.* New York, N. Y, Sept. 27, 89. LL.B, St. Lawrence, 10. Lab. work, 17–21; chem. eng. and develop. work, Standard Oil Co. of N. J, 21–26; patent dept, Standard Oil Develop. Co, 26–28; *practising patent lawyer, 28–* A.A; Chem. Soc; Electrochem. Soc. Direct reduction of bauxite to aluminum carbide and alloys; manufacture of anhydrous chlorides of aluminum, beryllium and zirconium.

Burgess, Dean Paul S(teere), University of Arizona, Tucson, Ariz. *Agricultural chemistry.* Providence, R. I, March 17, 85. B.S, R. I. State Col, 10; M.S, Illinois, 11; fellow, California, 19–20, Ph.D, 20. Instr. bacter, Illinois, 11–12; asst. prof. soil chem. and bacter, California, 12–15; chemist and bacteriologist, Exp. Sta, Hawaiian Sugar Planters' Asn, 15–19; chemist, Exp. Sta, R. I. State Col, 20–24; prof. agr. chem. and head dept, *Arizona,* 24–31, *dean col. agr, 31–,* chemist, *Exp.*

Sta, 24–31, *director, 31–*, acting pres, univ, 36–37. A.A; Soc. Agron; West. Soc. Soil Sci; Int. Soc. Soil Sci. Soil chemistry; bacteriology.

Burgess, Dr. Robert W(ilbur), Western Electric Co, 195 Broadway, New York, N. Y. *Statistics.* Newport, R. I, July 25, 87. A.B, Brown, 08; B.A, Oxford, 10, Rhodes scholar, 08–11; Ph.D, Cornell, 14. Instr. math, Purdue, 11–12; asst, Cornell, 12–14, instr, 14–16; Brown, 16–17, asst. prof, 19–25; senior statistician, *West. Elec. Co*, 24–28, *chief statistician, 28–* Ordnance Dept. and statist. branch, Gen. Staff, 17–19, major. A.A; Math. Soc; Econ. Asn; Statist. Asn. (v. pres, 39); Econometric Soc. Approximate solutions of differential equations; industrial statistics.

Burgess, Prof. Thomas O(len), Concordia College, Moorhead, Minn. *Educational psychology.* Herscher, Ill, Oct. 22, 94. A.B, Wheaton Col. (Ill), 18, St. Olaf Col, 22; M.S, Illinois, 23; Ph.D, Iowa, 26. Asst. bot. and zool. Wheaton Acad, Ill, 14–15, physics, 15–16, Wheaton Col. (Ill), 16–18; head dept. sciences, Shanghai Am. Sch, 19–21; asst. educ, Illinois, 23–24; institutional research, Iowa, 24–26; *prof. psychol. and educ. and head dept, Concordia Col. (Moorhead, Minn), 26–* A.A; assoc. Psychol. Asn; Soc. Col. Teachers Educ. Psychological analysis of abilities in high school physics.

Burgess, Prof. Wayland M(cColley), 3303 Royal Place, Cincinnati, Ohio. *Chemistry.* Providence, R. I, May 22, 97. B.S, R. I. State Col, 19; Ph.D, Brown, 25. Instr. *chem*, R. I. State Col, 19–20; Worcester Polytech, 20–24; asst. prof, *Cincinnati*, 25–31, *assoc. prof, 31–*, chairman grad. dept. chem, 30–39. Chem. Soc. (chairman, Cincinnati sect, 31). Physical chemistry; phase rule; reduction in liquid ammonia solutions; catalysis.

Burghart, L(loyd) M(eeks), Christie Hill Road, Darien, Conn. *Organic chemistry.* Sidney, Ill, Aug. 29, 83. A.B, Lake Forest Col, 06; Illinois, 09–10; A.M, Maine, 12. In charge control labs, Corn Products Ref. Co, Ill, 06–09; asst. anal. chem, Illinois, 09–10; instr, Maine, 10–12, asst. prof. in charge quantitative analysis, 12–17; research chemist, *U. S. Indust. Chemicals, Inc*, 17–26, director research, 26–31, *chief chemist, 31–* A.A; Chem. Soc. (sec'y, Maine sect, 16). Ethyl and other aliphatic alcohols and their derivatives; cellulose esters; solvents; anesthetics.

Burgwald, Prof. Louis H(enry), Ohio State University, Columbus, Ohio. *Dairy technology.* Cleveland, Ohio, Feb. 28, 92. B.S, Ohio State, 14; M.S, Wisconsin, 41. Asst. dairy mfg. specialist, U. S. Dept. Agr, 17–18, asst. market milk specialist, 18–28, assoc. market milk specialist, 28–29; assoc. prof. *dairy technol, Ohio State*, 29–42, *prof, 42–* Dairy Sci. Asn. (v. chairman mfg. sect, 40, chairman, 41); Pub. Health Asn; Int. Asn. Milk Sanitarians. Phosphatase test; oxidized flavors in milk; resazurin test; cheese; sanitation.

Burgy, Prof. J(acob) Herbert, University of Illinois, Urbana, Ill. *Geography.* Monticello, Wis, Dec. 13, 97. A.B, Wisconsin, 20, A.M, 25; Ph.D, Clark, 30. Instr, Culver Mil. Acad, 20–24; head dept. geog, Minn. State Teachers Col, Moorhead, 25–27; assoc. geol, *Illinois*, 29–35, *asst. prof. geog, 35–* Summers, Miami (Ohio), 30; Minn. State Teachers Col, Duluth, 31; Rochester, 32, 33; N. J. State Teachers Col, Montclair, 38; Southern California, 40. The New England cotton textile industry; regional geography of Illinois.

Burhoe, Prof. Sumner O(thniel), University of Maryland, College Park, Md. *Animal genetics.* Ashland, Mass, Nov. 21, 02. B.S, Mass. State Col, 25; M.S, Kans. State Col, 26; Ph.D, Harvard, 37. Instr. *zool, Maryland*, 26–37, *asst. prof, 37–* A.A; Genetic Asn. Inheritance of the waved coat character in mice; inheritance of blood groups in rats.

Burington, Prof. Richard Stevens, 3559 Antisdale Ave, Cleveland Heights, Ohio. *Mathematics.* Columbus, Ohio, Aug. 31, 01. A.B, Ohio State, 25, A.M, 26, Ph.D, 31. Asst, Ohio State, 25–26, 29–30; instr, *Case*, 26–33, asst. prof. *math*, 33–39, *assoc. prof, 39–; research mathematician and consultant, bur. ordnance, U. S. Navy Dept, 41–* A.A; Math. Soc; Math. Asn; Eng. Educ. (chairman, math. conf, 34; math. div, 40). Theory of matrices; algebraic geometry; matrix theory in electric circuit theory; airfoil theory; potential theory; industrial mathematics.

Burk, Dr. Dean, National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Chemistry.* Oakland, Calif, March 21, 04. B.S, California, 23, Ph.D, 27. Nat. research fellow, Univ. Col, London, Kaiser Wilhelm Inst. and Harvard, 27–29; assoc. physical chemist, fixed nitrogen research lab, bur. chem. and soils, U. S. Dept. Agr, 29–37, chemist, 37–39; assoc. prof. biochem, med. col, Cornell, 39–41; *senior chemist, nat. cancer inst, U. S. Pub. Health Service, 39–* Mem. catalysis cmt, Nat. Research Council. Col. ed, 'Enzymologia.' A.A; Chem. Soc; Soc. Plant Physiol; Soil Sci. Soc; Soc. Biol. Chem; Asn. Cancer Research; Soc. Exp. Biol; Harvey Soc. Biochemistry of cancer; biochemical nitrogen fixation; photosynthesis; growth substances; thermodynamics of biochemical systems.

Burk, Prof. Earl F(rederick), 36 Old Federal Bldg, Columbus, Ohio. *Horticulture.* Ottawa, Kans, Aug. 6, 96. B.S. (Agr), Kans. State Col, 22; M.S, Iowa State Col, 27. Asst. hort, Kans. State Col, 21–22; instr, sch, Kans, 22–26; asst. floricul, Iowa State Col, 26–27; instr. veg. gardening, Wisconsin, 27–30; asst. prof. hort, Okla. Agr. and Mech. Col, 30–36, 38–41; *asst. marketing specialist, food distribution admin, U. S. Dept. Agr, 41–* Acting asst. prof, State Col. Wash, 36–38. Summer, veg. inspection work, U. S. Dept. Agr, 26. Soc. Hort. Sci; Soc. Plant Physiol. Water hydrogen ion concentration and greenhouse plants; forcing tomatoes; plant type and fruitfulness; change of ligulate to perfect flower in Calendula officinalis; processed fruit and vegetable inspection; preparation and freezing of fruits and vegetables.

Burk, Prof. Robert E(rmett), 3140 Berkshire Road, Cleveland Heights, Ohio. *Chemistry.* Louisville, Ky, Jan. 29, 01. Ch.B, Cornell, 22; A.M, Harvard, 23; Ph.D, Oxford, 26. Nat. research fellow, 26–28; lecturer, *Western Reserve*, 28–29, assoc. prof. *chem*, 29–37, *prof, 37–; research director, Standard Oil Co. of Ohio, 29–* Cmt. contact catalysis, Nat. Research Council, 37. Lieut. commander, U.S.N.R, 36– A.A; Chem. Soc. Reaction velocity; contact catalysis; petroleum chemistry; chemical kinetics.

Burka, Dr. Samuel M(oses), Wright Field, Dayton, Ohio. *Physics.* Union Springs, Ala, May 26, 91. A.B, Hopkins, 13, A.M, 16, Ph.D, 19. Lab. asst, Bur. Standards, 17–18, asst. physicist, 18–20; *materiel div, Air Corps, U. S. Army, 20–* Physical Soc; Optical Soc. Aerial navigation.

Burke, Dr. A(lexander) W(illiam), Rockefeller Foundation, Box 49, Entebbe, Uganda, E. Africa. *Medicine.* Chicago, Ill, July 2, 85. M.D, Illinois, 09. *With yellow fever research inst, Rockefeller Foundation, 26–* A.A. Yellow fever.

Burke, Prof. A(rthur) D(evries), Annalue Farm, Auburn, Ala. *Dairy husbandry.* Wheeling, W. Va, Jan. 10, 93. B.S, Wisconsin, 16; M.S, Ohio State, 20. Inspector dairy products, Huntington, W. Va, 16–17; instr. dairying, Ohio State, 19–20; asst. prof, Okla. Agr. and Mech. Col, 20–22, assoc. prof, 22–29; *prof. dairy husbandry and head dept, Ala. Polytech, 29–* Mem. advisory council, Sealtest Inc, 35– Welfare chairman, Lee County Defense Council, Ala, 41– Lieut, C.A.C, 17–19. Dairy Sci. Asn. (sec'y, south. sect, 31, v. pres, 32, pres, 33); Int. Asn. Milk Sanitarians. Manufacture of ice cream; butter; cultured buttermilk; market milk; dairy cattle feeding and management; practical ice cream making; practical dairy tests; practical manufacture of cultured milks.

Burke, Dean Charles E(ldrid), McMaster University, Hamilton, Ont, Can. *Chemistry.* Hartford, Ont, July 7, 80. B.A, McMaster, 07, M.A, 09; fellow, Illinois, 09–11, Ph.D, 11. Instr. chem, California, 11–14; asst. prof, Vermont, 14–18; dye intermediates, E. I. du Pont de Nemours and Co, 18–22, mil. and sporting powders, 22–30; *prof. chem. and dean science, McMaster, 30–*, dean arts and science, 41. Chem. Soc. (sec'y, Vt. sect, 17, chairman, south. N. J. sect, 22); fel. Can. Inst. Chem; Can. Chem. Asn. (pres, 34, Hamilton sect, 31). Terpenes and essential oils; aromatic nitroderivatives; cellulose esters; military explosives.

Burke, Edmund, 638 S. 11th St, Marshfield, Oregon. *Chemistry.* Niles, Mich, April 26, 65. B.S, Mont. State Col, 07. Instr. chem, *Mont. State Col*, 01–06, asst. prof, 06–07, asst. chemist, *Exp. Sta*, 00–08, chemist, 08–39, meteorologist, 06–39, *consulting chemist, 39–* Lecturer. Chem. Soc; fel. Inst. Chem. Salicylic acid in fruits; action of alkali salts on Portland cement; incubation of eggs; climate and soils of Montana; effect of phosphates and nitrates on the yield and quality of crops; effect of fertilizers on apple trees; chlorosis of trees; location of phosphorus deficient soils in Montana; causes of the infertility of Montana soils; chemical composition and digestibility of clover hay and of clover silage.

Burke, Prof. F(rank) D(avid), 2625 Dartmoor Road, Cleveland, Ohio. *Chemistry.* Oct. 28, 95. B.S, Catholic Univ, 17, Chem.E, 20. Chem. engineer, Empire Gas and Fuel Co, 19–21; instr. *chem, John Carroll,* 21–24, asst. prof, 25–27, *prof, 28–* Ordnance Dept, U.S.A, 17–19. A.A; Chem. Soc. Colloids and corrosion; passivity.

Burke, Dr. Geo(rge) W(ilbur), American Agricultural Chemical Co, 50 Church St, New York, N. Y. *Chemistry.* Concord, N. H, Aug. 14, 93. B.S, New Hampshire, 16; M.S, Iowa State Col, 22, Ch.E, 23, Ph.D, 28. Chemist and chem. engineer, eng. exp. sta, Iowa State Col, 19–29; chem. engineer, Chem. Warfare Service, 29–30; research chemist, exp. sta, du Pont Ammonia Corp, Wilmington, 30–31; *chem. engineer, Am. Agr. Chem. Co, New York, 31–* Chem. Soc; Chem. Eng. Cement and concrete; fuels and gases; purification of water; sewage and industrial wastes; analytical chemistry; method and apparatus for dissociation of ammonia; gases and gaseous mixtures for autogenous welding; large scale development of yellow and red phosphorus; phosphoric acids and other compounds of phosphorus.

Burke, Dr. H(arry) E(ugene), Los Gatos, Calif. *Entomology.* Paradise Valley, Nev, May 19, 78. B.S, State Col. Wash, 02, M.S, 08; Ph.D, Stanford, 23. Entomologist and later senior entomologist, forest insect investigations, bur. entom, U. S. Dept. Agr, 02–32, fruit and shade tree insect investigations, 32–34; *consulting entomologist, 34–* West. Shade Tree Council. Asn. Econ. Entom. (v. pres, 35); Soc. Forest Entom. (v. pres, 13); Pacific Coast Entom. Soc. (v. pres, 34, 35); Entom. Soc. Wash. (recording sec'y, 08); Calif. Entom. Club (sec'y-treas, 30, 31, pres, 34). Insects injurious to forest and shade trees; taxonomy of buprestid larvae.

Burke, Dr. Hugh E(dmund), 670 Victoria Ave, Westmount, Que, Can. *Physiology.* Isle La Motte, Vt, Dec. 1, 97. M.D, McGill, 23, Cooper scholar, 24–25, M.Sc, 25, Ph.D, 28; Banting fellow, Toronto, 27–28. Intern, Royal Victoria Hosp, Montreal, 23–24; demonstrator physiol, McGill, 25–27; director research lab, N. Y. State Hosp, 30–37; *assoc. med, Royal Victoria Hosp, 37–;* asst. med. director, *Royal Edward Inst,* 38–41, *med. director, 41–; demonstrator med, McGill, 39–* Blood coagulation; physiology of respiration; pulmonary tuberculosis; extra-pulmonary tuberculosis, especially chest wall abscesses and Pott's disease; pneumokonioses.

Burke, Dr. J(oseph) E(ldrid), 7 View St, Shrewsbury, Mass. *Chemistry.* Berkeley, Calif, Sept. 1, 14. B.A, McMaster, 35; Ph.D, Cornell, 40. Chemist, research lab, Int. Nickel Co, 40–41; *metallurgist, Norton Co, 41–* Chem. Soc; Soc. Metals. Corrosion; metallography; chemical microscopy; abrasives; grinding wheels.

Burke, Prof. O(llie) D(avid), 616 N. Allen St, State College, Pa. *Plant pathology.* Battle Creek, Iowa, March 2, 98. B.S.E, Arkansas, 26; Ph.D, Cornell, 35. Smith-Hughes vocational teacher, Ark, 26–28; head dept. agr, Holmes County Junior Col, Miss, 28–30; asst. *plant path,* Cornell, 30–35; *asst. prof, exten. service, Pa. State Col, 35–* Phytopath. Soc. Diseases of potatoes, tobacco and vegetables.

Burke, Prof. S(tephen) P(atrick), Columbia University, New York, N. Y. *Chemical engineering.* New York, N. Y, March 18, 97. B.S, Columbia, 17, Ch.E, 20, A.M, 21, Ph.D, 22. Lecturer physics, Barnard Col, Columbia, 22; research director, Combustion Utilities Corp, 23–30; chairman graduate council, West Virginia, 30–35, director indust. science div, 30–36; *consulting engineer, 36–; prof. chem. eng, Columbia, 39–* Econ. adviser to Governor and State Legislatures, W. Va, 33–38. A.A; Chem. Soc. (sec'y, N. Y. sect, 28–30, chairman, gas and fuel div, 28); Chem. Eng; Gas Asn. (mem, managing cmt, tech. sect, 29–); Soc. Test. Mat. (cmt. D–8, 25–28). Heat transfer; combustion; fuels processing and utilization; oil; tar; gas; coal; kinetics and chemistry of combustion processes; chemical engineering administration.

Burke, Prof. Victor, 2002 Monroe St, Pullman, Wash. *Bacteriology.* Kent, Wash, March 12, 82. A.B, Stanford, 07, A.M, 08, Ph.D, 12; fellow, Columbia, 09. Instr. *bacter,* Stanford, 17–19; asst. prof, *State Col. Wash,* 21–23, assoc. prof, 23–24, *prof, 24–, head dept, 25–* Asst. naturalist, 'Albatross' exped, Japan, 06; research investigator, Interdepartmental Social Hygienic Board, 21. Medical bacteriology.

Burke, W(illiam) E(dmund), La Caverna Hotel, Carlsbad, N. Mex. *Chemical engineering.* Mountain View, Calif, 80. A.B, Stanford, 07. Chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, 07–08; instr. chem, Stanford, 16–20; research chemist, Am. Trona Corp, 20–24; director research and develop, Am. Potash and Chem. Corp, 24–27, asst. manager, 27–30, Calif. manager, 30–36; consulting chemist, 36–41; *research chemistry, Int. Minerals and Chem. Corp, 41–* A.A; Chem. Soc; Electrochem. Soc; Chem. Eng. Solubility of inorganic salts in water.

Burke, Dr. William J(ames), Faulkland, Marshallton, Del. *Organic chemistry.* Lowellville, Ohio, May 24, 12. A.B, Ohio (Athens), 34; Ph.D, Ohio State, 37. *Research chemist, cent. chem. dept, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Carbohydrates and cellulose; synthetic organic research.

Burkenroad, Martin D(avid), Yale University, New Haven, Conn. *Zoology.* New Orleans, La, March 20, 10. Tulane, 27–29; M.S, Yale, 43. Asst. biologist, State Dept. Conservation, La, 30–31; *asst. curator, Bingham oceanog. collection, Yale, 34–* Investigator, Carnegie Marine Biol. Lab, 29; mem, Yale oceanog. expeds, 34, 35, 37; visitor, Marinbiologisk Lab, Copenhagen, 38; instr, Marine Biol. Lab, Woods Hole, 42– Mem. cmt. research food resources of coastal waters, Nat. Research Council. Soc. Zool; Ecol. Soc; Micros. Soc. Marine biology; taxonomy and natural history of Penaeidae.

Burket, Dr. Lester W(illiam), University of Pennsylvania Dental School, Philadelphia, Pa. *Oral pathology.* Bozeman, Mont, Feb. 18, 07. A.B, Pennsylvania, 29, D.D.S, 32; M.D, Yale, 36. Sterling fellow clin. med. and path, Yale, 36–37, instr. dental path, sch. med, 37; oral diagnosis, dental sch, *Pennsylvania,* 37–42, *asst. prof. oral med, dental sch, and assoc, grad. sch. med,* 42– Acad. Stomatol; Int. Asn. Dental Research. Correlation of the medical and dental sciences through the investigation of post-mortem human material in which the teeth and surrounding tissues are examined grossly, bacteriologically, roentgenologically and histologically.

Burkett, Dr. Charles W(illiam), 5121 N. Bay Road, Miami Beach, Fla. *Agronomy.* Thornville, Ohio, Jan. 3, 73. B.S, Ohio State, 95, M.S, 98; Ph.D, Lima Col, 00; D.Agr, North Carolina. Asst. agr, Ohio State, 95–98; prof, New Hampshire, and agriculturist, Exp. Sta, 98–01; N. C. Col. and Exp. Sta, 01–06; director, Kans. Exp. Stations, 06–08; ed, 'Am. Agriculturist,' 08–23; Macfadden Book Co, 23–32. Kans. agr. investigator, Russia, 07; mem. agr. educ. council, State Dept. Educ, N. Y. Animal husbandry and nutrition; soils; crops; history of Ohio agriculture; domestic animals; cotton; farm arithmetic.

Burkett, Prof. Frederick J. H, Union University, Schenectady, N. Y. *Mathematics.* Malden, Mass, June 28, 94. A.B, N. Y. Univ, 17, fellow, 26–27, Ph.D, 29; A.M, Pittsburgh, 22. Instr. *math,* N. Y. Univ, 19; Pa. State Col, 19–20; Pittsburgh, 20–22; *asst. prof,* Trinity Col. (Conn), 22–28; *Union (N. Y), 28–* Math. Soc; Math. Asn. Prospectus of sextic with a quadruple point.

Burkey, Dr. Lloyd A(llen), U. S. Department of Agriculture, Washington, D. C. *Bacteriology.* Giltner, Nebr, Aug. 4, 96. Idaho, 20–21; B.S.A, Wisconsin, 23; M.S, State Col. Wash, 25; fellow, Iowa State Col, 27–28, Ph.D, 28. Asst, Wisconsin, 22–23; instr, State Col. Wash, 23–26; teaching fellow, Iowa State Col, 26–27; *assoc. bacteriologist, bur. dairy indust, U. S. Dept. Agr, 28–* Soc. Bact. Dairy bacteriology; legume bacteria and their modification; pectin fermenting bacteria; fermentation of cornstalks; artificial buttermilk; bacteriology of Swiss cheese; isolation of new starter organisms; fermentation in cheese.

Burkhart, Dr. B(ernard) A, University of Wisconsin, Madison, Wis. *Agronomy, Plant pathology.* Freeport, Ill, Feb. 7, 06. B.S, Beloit Col, 28; M.S, Wisconsin, 31, Ph.D, 34. Routine analyst, Fairbanks Morse and Co, Beloit, Wis, 28–29; asst, *Wisconsin,* 29–34, *indust. fellow, 34–* Chem. Soc. Carbohydrate chemistry; barley; malt.

Burkhart, Dr. Leland, North Carolina State College, Raleigh, N. C. *Plant nutrition.* Bowling Green, Ohio, Aug. 2, 07. B.S, Ohio State, 31; M.S, New Hampshire, 33; fellow, Chicago, 33–35, Ph.D, 35. Asst. biochem, New Hampshire, 31–33; assoc. biochemist in hort, N. J. Exp. Sta, 35–38; crop nutrition, Fla, 38–39; *assoc. plant nutrition, Exp. Sta, N. C. State Col, 39–* Soc. Plant Physiol; Soc. Agron; Soc. Hort; N. C. Acad. Plant chemistry; nitrogen nutrition and metabolism; fruit quality and vitamin C; mineral requirements of plants; nutrient solutions and sand cultures; leaf and soil diagnosis; soil environment and plant growth.

Burkhart, Prof. W(alter) C(linton), University of Georgia, Athens, Ga. *Bacteriology.* Woodsfield, Ohio, May 14,

92. D.V.M, Ohio State, 16; B.S, Georgia, 32. Director, State Hog-Cholera Virus and Serum Lab, Ga, 16–20; instr. *bacter, Georgia,* 16–17, from adj. prof. to assoc. prof, 20–27, *prof,* 27– 2nd lieut, U.S.A, 18–19. A.A; Soc. Bact; Vet. Med. Asn; Asn. Southeast. Biol; Ga. Acad. Hog-cholera virus and serum production; bacterial examination of milk; control of infectious abortion in cattle; streptococcic mastitis; protozoal diseases of domestic animals; bacterial vaccines.

Burkholder, Prof. Paul R(ufus), Yale University, New Haven, Conn. **7Botany.* Orrstown, Pa, Feb. 1, 03. A.B, Dickinson Col, 24; Ph.D, Cornell, 29. Instr. bot, Cornell, 24–28; curator biol, Buffalo Museum Science, 29–32; nat. research fellow *bot,* Harvard, 32–33; Columbia, 33–34; asst. prof, *Conn. Col,* 34–37, *assoc. prof,* 37–38; Missouri, 38–40; *Yale, 40–* Summers, planktonologist, State Conservation Dept, N. Y, 27–29, 31. Bot. Soc. (sec'y-treas, physiol. sect, 37–39; sec'y, 40–); Soc. Plant Physiol. Microbiology; plant physiology; growth substances.

Burkholder, Prof. W(alter) H, Cornell University, Ithaca, N. Y. *Plant pathology.* Crawfordsville, Ind, Feb. 1, 91. A.B, Wabash Col, 13; fellow, Cornell, 13–17, Ph.D, 17; Wisconsin, 20. Investigator *plant path, Cornell,* 17–21, asst. prof, 21–27, *prof,* 27– Collaborator, bur. plant indust, U. S. Dept. Agr, 17–21; fellow by courtesy, Yale, 28–29. A.A; Phytopath. Soc; Soc. Bact. Diseases of beans; bacterial diseases of plants; phytopathogenic bacteria.

Burks, Dr. Arthur W(alter), University of Pennsylvania, Philadelphia, Pa. *Electrical engineering.* Duluth, Minn, Oct. 13, 15. A.B, DePauw, 36; A.M, Michigan, 37, research fellow, 40–41, Ph.D, 41. Instr. math, high sch, Mt. Morris, Mich, 37–38; teaching fellow philos, Michigan, 38–40; *instr. elec. eng, Moore sch. elec. eng, Pennsylvania, 40–* Math. Soc; Asn. Symbolic Logic; Elec. Eng. Electricity and magnetism; philosophy of science; mathematical logic.

Burks, Dr. Barbara S(toddard), Columbia University, New York, N. Y. *Psychology.* New York, N. Y, Dec. 22, 02. A.B, Stanford, 24, Ph.D, 29. Asst. psychol, Stanford, 24–29, research assoc, 29–30; psychologist, schs, Pasadena, 31–32; research assoc, inst. child welfare, California, 32–34; Gen. Educ. Board fellow, 34–36; *research assoc,* Carnegie Institution, 36–41; *Columbia, 41–* A.A; Genetics Soc; Genetic Asn; Soc. Psychol. Study Social Issues (ed, 'Bul.'); Popul. Asn; Psychol. Asn; Soc. Research Child Develop; Eugenics Soc. Heredity; personality; child development.

Burks, Dr. B(arnard) D(e Witt), 231 Natural Resources Bldg, Urbana, Ill. *Entomology.* East Las Vegas, N. Mex, Nov. 12, 09. A.B, Illinois, 33, A.M, 34, fellow, 34–35. Ph.D, 37. *Asst. entomologist, State Nat. Hist. Surv, Ill, 35–* Assoc. entomologist, U. S. Dept. Agr, 38, 41. Entom. Soc. Amer; Entom. Soc. Wash; Ill. Acad. Taxonomy of parasitic Hymenoptera.

Burks, Dr. Dana, Jr, 12 Green St, Slatersville, R. I. *Chemistry.* Los Angeles, Calif, June 5, 96. A.B, Stanford, 24, A.M, 25, Ph.D, 28. Instr. chem, Stanford, 27–28; asst. chem. eng, Illinois, 28–29, research assoc, 29–30, research asst. prof, 30–32; guest, chem. eng. dept, Mass. Inst. Tech, 32–33; *research director, Slatersville Finishing Co, 33–* A.A; Chem. Soc. (v. chairman, R. I. sect, 40, chairman, 41–43). Industrial chemistry; separation of palmitic and stearic acids by fractional crystallization; treatment of water for ice manufacture; low pressure distillation; textiles.

Burks, Dr. H(arry) G(ray), Jr, 855 Salem Ave, Elizabeth, N. J. *Physical chemistry.* Bedford, Va, Aug. 7, 99. A.B, Virginia, 19, A.M, 20; Ph.D, Mass. Inst. Tech, 24. Mem. staff, tech. service div. and later *asst. to pres, Standard Oil Co. of N. J, 24–* Gaseous mixtures.

Burky, Dr. Earl L(eroy), Johns Hopkins Hospital, Baltimore, Md. *Ophthalmology.* Reading, Pa, April 11, 98. B.S, Pennsylvania, 20, Scott fellow, 20–22, M.S, 22; M.D, Hopkins, 27. Field director, Rockefeller Foundation, 28–29; instr. *ophthal, Hopkins,* 29–30, assoc, 30–37, *assoc. prof, 37–, assoc. ophthalmologist, Hopkins Hosp.* Bacteriology; immunology; organ specificity of the optical system.

Burlage, Prof. H(enry) M(atthew), Chapel Hill, N. C. *Pharmacy, Pharmaceutical chemistry.* Rensselaer, Ind, May 23, 97. A.B, Indiana, 19; A.M, Harvard, 21; Ph.C, B.S, Purdue, 24; Ph.D, Washington (Seattle), 27. Instr. pharmacy, 22–27; assoc. prof. drug analysis, Oregon Col, 27–29; asst. prof. and later assoc. prof. pharmacy and pharmaceut. chem, Purdue, 29–31; *prof. pharmacy, North Carolina, 31–* Chemist, State Board Pharmacy, Oregon, 27–29. Chairman, Nat. Pharmaceut. Syllabus Cmt, 37– A.A; Chem. Soc; Pharmaceut. Asn. (chairman, practical pharmacy and dispensing, 35, sci. sect, 36). Volatile oils; plant chemistry; pharmaceutical products.

Burland, Miriam S(eymour), Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* St. Lambert, Que, Sept. 24, 02. B.A, McGill, 26, 26–27. Eng. clerk, *Dom. Observatory,* 27–29, *astronomer, 29–* Astron. Soc; Royal Astron. Soc. Can. (sec'y, Ottawa center, 29–33, 2nd v. pres, 35–37, 1st v. pres, 37–39, pres, 39–41, hon. pres, 41–43); Can. Geog. Soc; Soc. astron. de France. Astrophysics.

Burleigh, Tho(ma)s Dearborn, Southern Forest Experiment Station, New Orleans, La. *Biology.* Pittsburgh, Pa, Nov. 24, 95. B.S, Pa. State Col, 19; M.S, Washington (Seattle), 20. Prof. forestry, Georgia, 20–30; *assoc. biologist,* bur. biol. surv, U. S. Dept. Agr, 30–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Pacific Northwest Bird and Mammal Soc; hon. mem. La. Acad; Biol. Soc. Wash. Forest wildlife relationships; systematic ornithology.

Burlew, Dr. John S(walm), 2801 Upton St, N. W, Washington, D. C. *Physical chemistry.* Washington, D. C, Sept. 10, 10. A.B, Bucknell, 30; Ph.D, Hopkins, 34. Sterling fellow, Yale, 34–36; asst. physical chemist and later *physical chemist, geophys. lab, Carnegie Institution, 36–;* consultant, *Nat. Defense Research Council,* 41–42, *sec'y, div. one, 42–* A.A; Chem. Soc. Heat capacity of liquids; heterogeneous equilibria.

Burling, Prof. Lancaster D(emorest), University of Missouri, Columbia, Mo. *Geology.* Anita, Iowa, Nov. 2, 82. B.S, Wisconsin, 05. Asst. to Charles D. Walcott, 05–12; asst. geologist, U. S. Geol. Surv, 05–07; asst. curator, U. S. Nat. Museum, 07–12; invert. paleontologist, Geol. Surv. Can, 13–20; geologist, Whitehall Petrol. Corp, London, 20–24; instr. geol, Vassar Col, 24–25, assoc. prof, 25–29; geologist, Phillips Petrol. Co, Okla, 29–33, consulting geophysicist and geophys. research, 33–35; Seismograph Service Corp, 35–37; assoc. prof. geol, North Carolina, 37–39; mem, State Parks Dept, N. C, 40; mem, State Min. Resources Surv, Ga, 41–42; *assoc. prof. geol. and meteorol, Missouri, 42–* Gold medal, Mining and Geol. Inst, India, 23. A.A; Geol. Soc; Asn. Petrol. Geol; Paleont. Soc. Structural and physical geology; geophysics; meteorology; education; group phenomena.

Burling, Dr. Richard L(ancaster), 128 E. Johnson St, Madison, Wis. *Physics.* Ottawa, Ont. Can, Sept. 19, 16. A.B, Colorado, 37; Ph.D, Wisconsin, 41. Asst. physics, Wisconsin, 37–41; instr. chem, Hopkins, 41–42; *draftee, soil conservation service, U. S. Dept. Agr, 42–* Physical Soc. Experimental nuclear physics; pressure-insulated Van de Graaff generators; physics of soil conservation.

Burlingame, Dr. (Edith) Mildred, 1321 Webster St, Palo Alto, Calif. *Psychology.* Ada, Ohio, Dec, 03. A.B, Stanford, 25, A.M, 27; Ph.D, Minnesota, 30. Asst, animal lab, Stanford, 25–27; teaching asst, Minnesota, 27–30; asst. prof. psychol, Fla. State Col. for Women, 30–38; San Diego State Col, Calif, 38–41; visiting fellow, Yale, 41–42. A.A; assoc. Psychol. Asn. Animal and comparative psychology; learning; individual differences.

Burlingame, Prof. Leonas L(ancelot), Stanford University, Calif. *Biology.* Guernsey Co, Ohio, Aug. 25, 76. Ph.B, Ohio Northern, 01; fellow, Chicago, A.B, 06, Ph.D, 08. Prof. biol. and geol, Ohio Northern, 02–04; asst. *bot,* Chicago, 06–08; instr, *Stanford,* 08–09, asst. prof, 09–16, assoc. prof, 16–25, prof, 25–41, *emer. prof, 41–* Summer, East. Ill. State Nor. Univ, 06; field asst, U. S. Dept. Agr, 18; prof, Oregon, 24, 25. A.A; Soc. Nat; fel. Bot. Soc; Genetic Asn; Eugenics Research Asn; Eugenics Soc; West. Soc. Nat; Pacific Coast Biol. Asn. (sec'y-treas, 15–17); Calif. Acad. Cytology; genetics.

Burlingham, Dr. Gertrude S(immons), Newfane, Vt. or 818 Antonette Ave, Winter Park, Fla. *Botany.* Mexico, N. Y, April 21, 72. A.B, Syracuse, 96; Ph.D, Columbia, 08. Preceptress, high sch, N. Y, 96–98, teacher, 98–05; Trenton Nor. Sch, 08; asst. teacher, East. Dist. High Sch, Brooklyn, and grade adviser, 08–34. A.A; Bot. Soc; Torrey Bot. Club; Mycol. Soc. Mycology; Russula; Lactaria; Lepiota; Psalliota.

Burlinson, Dr. Louise Otis, 2319 N. Second Ave, Tucson, Ariz. *Chemistry.* Chicago, Ill, Sept. 16, 94. B.S, North-

western, 17, M.S, 22, Ph.D, 30. Indust. chemist, 17–20; instr. chem, Northwestern, 20–28; Arizona, 30–31; Pomona Col, 31–35; *assoc. nutrition chemist, Exp. Sta, Arizona, 35–* A.A. Biochemistry; chemistry of plant gums; nutrition; vitamins.

Burlison, Prof. W(illiam) L(eonidas), University of Illinois, Urbana, Ill. *Agronomy.* Harrison, Ark, Sept. 3, 82. B.S, Okla. Agr. and Mech. Col, 05, hon. D.Agr, 27; M.S, Illinois, 08, Ph.D, 15. Asst. agronomist, Okla. Agr. and Mech. Col, 06–08, asst. prof, 08–10; assoc. ed, 'Orange Judd Weeklies,' 10–12; assoc. *crop production, Illinois,* 12–15, assoc. prof, 15–18, *prof, 18–, head dept. agron, 20–* Past mem. state agr. advisory board to governor, Ill. Mem. agr. war board, Ill, 18–19. Fel. Soc. Agron. (v. pres, 24–26, pres, 27–); Farm Chemurg. Council (governor). Physiological botany; crop production; plant nutrition.

Burmeister, C(harles) A(lexander), 4650 Broad Branch Road, N. W, Washington, D. C. *Agricultural economics.* Tilden, Texas, Nov. 29, 87. B.S, Agr. and Mech. Col. Texas, 08; A.M, American Univ, 27. Instr, high sch, Texas, 10–11; asst. dry-land agr, bur. plant indust, U. S. Dept. Agr, 11–15, asst. marketing, bur. markets, 15–20, marketing specialist, bur. markets and bur. agr. econ, 20–28, senior agr. economist, bur. agr. econ, 28–42; prin. indust. specialist, War Production Board, 42–43; *prin. agr. economist, food production admin, U. S. Dept. Agr, 43–* Live stock and meat marketing.

Burmester, Dr. Ben R(oy), Regional Poultry Research Laboratory, U. S. Department of Agriculture, East Lansing, Mich. *Physiology.* Petaluma, Calif, June 13, 10. B.S, California, 32, A.M, 33, Ph.D, 36. Asst, California, 34–36, assoc, 36; first asst. and instr, Illinois, 36–40; *assoc. physiologist, regional poultry research lab, U. S. Dept. Agr, 40–* Hemoglobin formation; physiology of egg formation; physiology in disease of poultry.

Burmister, Prof. Donald M(artin), Columbia University, New York, N. Y. *Soil mechanics.* Prescott, Ariz, March 4, 95. A.B, Columbia, 26, B.S, 27, C.E, 28, Ph.D, 38. Instr. *civil eng, Columbia,* 29–38, *asst. prof, 38–* Civil Eng. Physical properties and strength characteristics of soils.

Burn, Prof. Caspar G(reene), Long Island College of Medicine, Brooklyn, N. Y. *Medicine.* Oxford, Pa, June 6, 97. C.P.H, Pennsylvania, 20; M.D, Yale, 30. Asst, Henry Phipps Inst, Pennsylvania, 20–23; Rockefeller Inst, 23–26; instr. *path,* sch. med, Yale, 30–32, asst. prof, 32–38; *assoc. prof, L. I. Col. Med, 38–* A.A; Asn. Path. and Bact; Asn. Cancer Research; Pub. Health Asn; Int. Asn. Dental Research. Pathology; bacteriology; immunology; vitamin deficiencies in relation to disease; focal infection of teeth; tuberculosis; cancer; gonorrheal infection.

Burnam, Dr. Curtis F(ield), Johns Hopkins University School of Medicine, Baltimore, Md. *Surgery.* Richmond, Ky, Jan. 17, 77. A.B, Cent. Univ. of Ky, 95; M.D, Hopkins, 00. Res. gynecologist, *Hopkins Hosp,* 00–05, assoc. gynecologist, 05–12, *visiting physician ray therapy, 12–,* assoc. gynec, *sch. med, Hopkins,* 05–12, *assoc. prof. surg, 12–* Surgeon and radiologist, Howard Kelly Hosp, Baltimore; chief staff, Kelly Clinic. Am. Med. Asn; fel. Col. Surg; Radium Soc; Gynec. Soc; Urol. Asn; South. Med. Asn; South. Surg. Asn; Med. and Chirurg. Faculty Md. Radiology; diseases of the kidneys, ureters and bladder.

Burnam, Prof. Joseph E(dward), Hardin-Simmons University, Abilene, Texas. *Mathematics.* Platte Co, Mo, Oct. 11, 83. A.B, Simmons Col. (Texas), 13; A.M, Texas, 20, 23–24; Colorado, 29; Iowa, 30. Teacher *math,* Simmons Col. (Texas), 13–23, *prof. and head dept,* 23–25, Simmons (Texas), 25–34, *Hardin-Simmons, 34–* Math. Soc; Math. Asn. (pres, Texas sect, 40).

Burnell, Prof. Dorah (Luscombe), Houghton College, Houghton, N. Y. *Chemistry.* Friend, Nebr, Dec. 14, 89. B.S, Nebraska, 24, A.M, 25. Prin, high sch, Nebr, 17–22; asst. instr. *chem, Nebraska,* 26; *assoc. prof. and head dept, Houghton Col, 26–* Assoc. ed, 'Quadri Service Manual Org. Chem,' 38. A.A; Chem. Soc; fel. Inst. Chem. Organic and physiological chemistry; micro-methods for quantitative determination of fat in blood.

Burnett, Prof. C(harles) T(heodore), Brunswick, Maine. *Psychology.* Springfield, Mass, June 24, 73. A.B, Amherst Col, 95, L.H.D, 30; A.M, Harvard, 00, Ph.D, 03. Asst. *philos,* Harvard, 00–02; instr, *Bowdoin Col,* 04–06, asst. prof, 06–09, *prof, 09–* A.A; Psychol. Asn. The judgment of numbers; dissociation; social psychology.

Burnett, Dr. C(lough) T(urrill), Metropolitan Building, Denver, Colo. *Internal medicine.* Lapeer, Mich, Jan. 30, 83. Mich. State Col, 01–03; M.D, Michigan, 08. Asst. bacter, Mich. State Col, 02–03; 1st asst, Michigan, 05–07; asst. prof, *Colorado,* 08–10, prof, 10–19, asst. prof. *med,* 19–29, *assoc. prof, 29–* Am. Med. Asn; fel. Col. Physicians; Am. Heart Asn; Tuber. Asn. Clinical medicine; diseases of the heart and lungs.

Burnett, E(arle) S(mead), 4223 W. 11th Ave, Amarillo, Texas. *Engineering physics.* River Falls, Wis, Feb. 16, 80. B.S, Wisconsin, 05, 05–06. Asst. mech. eng, Wisconsin, 06–10; instr. exp. eng, Cornell, 10–14; consulting engineer, 14–15; research engineer, Precious Metals Tempering Co, 16; tech. engineer, Rock Tunneling Machine Co, 16–17; research and sales engineer, Normalair Co. and Bahnson Humidifier Co, 17–21; Wisconsin, 22; *mech. engineer,* cryogenic lab, *U. S. Bur. Mines,* 22–23, *U. S. Helium Production Plant, 23–, consultant math. and thermodyn, petrol. and natural gas div, 33–* Mech. Eng; Heat. and Vent. Eng; Soc. Mil. Eng. Cryogenics; porous plug expansion of fluids; hydro-pneumatic relations; thermal properties of fluids; low temperature separation of the components of fluid mixtures; fluid-energy relations of natural gas and oil mixtures.

Burnett, Dr. Grover H, Soil Conservation Service, Salida, Colo. *Forest pathology.* Darlington, Idaho, Jan. 31, 90. B.S, Utah Col, 16, Idaho, 17; fellow, State Col. Wash, 27–32, M.S, 29, Ph.D, 32. County agr. agent, Rupert, Idaho, 19–21; asst. soils and crops specialist, State Col. Wash, 22; agr. instr, Los Angeles, Calif, and Fairfield, Wash, 23–26; teacher, State Col. Wash, 27–32, asst, 32–33; agent, office blister rust control, *U. S. Dept. Agr,* 34, asst. forest pathologist, Savenac Nursery, 35–36, *soil conservation service, Colo,* 36–38, *asst. soil conservationist, 38–* Phytopath. Soc. Plant pathology; virus diseases.

Burnett, Dr. J(erome) B(enjamin), 26 Broadway, New York, N. Y. *Geology.* Nebraska City, Nebr, April 5, 91. B.S, Nebraska, 16, Ph.D, 21. Geologist, Empire Gas and Fuel Co, 16–19; geologist in charge for. dept, Emerald Oil Co, 19–20; dist. geologist, Mex. Eagle Oil Co, 21–24; *asst. chief geologist, Mex. Eagle Oil Co. and La Carona Oil Co, 24–;* chief geologist, Lago Petrol. Corp, 25–32, asst. manager, 32–35; manager, Huasteca Petrol. Co, 35–39. Director, Australasian Petrol. Co, Ltd; Island Explor. Co, Ltd; N. Z. Petrol. Co, Ltd. A.A; Asn. Petrol. Geol. (regional director, Venezuela, 27–28, business rep, S. Amer, 29, pres, Maracaibo sect, 29); fel. Am. Geog. Soc; Min. and Metal. Eng. Tectonic and stratigraphic geology.

Burnett, Lyman Crane, Iowa State College, Ames, Iowa. *Agronomy.* Shiawassee Co, Mich, March 15, 81. B.S, Nebraska, 03; M.S.A, Iowa State Col, 06. Sugar chemist, Standard Beet Sugar Co, 02–05; *chief cereal breeding, Exp. Sta, Iowa State Col, and agent, bur. plant indust, U. S. Dept. Agr, 06–* Soc. Agron; Genetic Asn. Cereal breeding.

Burnett, Raymond S(eton), 2100 Robert E. Lee Blvd, New Orleans, La. *Chemistry.* Ft. Collins, Colo, Sept. 26, 00. A.B, California, 23. Teacher, Seale Acad, Calif, 23–24; in charge Cottrell operations, Am. Smelting and Ref. Co, Durango, Colo, 25; research and develop. packing house products, Cudahy Packing Co, Omaha, Nebr, 25–41; *chem. technologist, south. regional research lab, U. S. Dept. Agr, 41–* Chem. Soc. (chairman, Omaha sect, 32); Oil Chemists Soc. Food chemistry; biological chemistry; fats and oils; packing house pharmaceuticals; meat curing and canning; cleansers; bone glue production; flexible and liquid glues; utilization of peanut and cotton-seed meals and proteins for adhesives, sizes, paints and fibers.

Burnett, Dr. Robert E(rling), 1413 Valencia Road, Schenectady, N. Y. *Organic chemistry.* Baltimore, Md, May 6, 07. B.S, Hopkins, 29, Ph.D, 34. Chemist, E. I. du Pont de Nemours and Co, 30; instr. org. chem, Hopkins, 33–34; *research chemist, Gen. Elec. Co, Schenectady, 34–* Chem. Soc; N. Y. Acad. Synthetic organic chemistry; higher aliphatic bromides; Wurtz synthesis; chemistry of resins.

Burnett, Dr. T(heodore) C(rété), P. O. Box 216, Carmel, Calif. *Physiology.* Brooklyn, N. Y, Dec. 6, 61. M.D, Columbia, 87. *Ophthalmologist,* House of Mercy, Pittsfield, Mass, 95–98; *students' infirmary, California, 09–,* asst. *physiol, California,* 04–10, instr, 10–13, asst. prof, 13–23, assoc. prof, 23–

29, *emer. prof*, 29– A.A; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions. Catalase; muscle tonus; influence of temperature on striped muscle.

Burnett, Dr. W(aldo) B(riggs), Tubize Chatillon Corp, Rome, Ga. *Chemistry.* Dallas, Texas, April 29, 98. A.B, South. Methodist, 19; M.S, Illinois, 21, Ph.D, 23. Indust. fellow chem, Mellon Inst, 23–39; asst. supervisor *research and develop, Tubize Chatillon Corp*, 39–40, *supervisor, 40–* Chem. Eng; Asn. Textile Chem. and Colorists; Chem. Soc. Rubber accelerators; local anesthetics; naval stores; fatty acids; viscose rayon; acetate rayon.

Burnham, Prof. C(harles) R(ussel), University of Minnesota, St. Paul, Minn. *Genetics.* Hebron, Wis, Jan. 13, 04. Minnesota; A.B, Wisconsin, 24, M.S, 25, Ph.D, 29. Asst. genetics, Wisconsin, 24–29; nat. research fellow, Cornell and Bussey Inst, Harvard, 29–31; teaching fellow, Calif. Inst. Tech, 31–32; Missouri, 32–33; Sterling fellow bot, Yale, 33–34; asst. prof. genetics, West Virginia, 34–36, assoc. prof, 36–38, asst. geneticist, Exp. Sta, 34–36, assoc. agronomist, 36–38; *assoc. prof. genetics, Minnesota, 38–* Genetics Soc; Soc. Agron. Cytogenetics; plant breeding; maize; sweet clover; grasses.

Burnham, George H(yndman), 17 Flint Ave, Hempstead, L. I, N. Y. *Physics.* Alamosa, Colo, Sept. 4, 09. A.B, Colo. Col, 30; M.S, N. Y. Univ, 33, 37–39. Asst. physics, N. Y. Univ, 30–35; instr, Hofstra Col, 35–38, asst. prof, 38–40, assoc. prof, 40–42, chairman dept, 39–42, coordinator civil pilot training program, 39–41; *asst. to director, Am. Inst. Physics, 42–* Consultant, E. E. Free Labs, 36–40; in charge placement service, Am. Inst. Physics, 39–, asst. to director, summer, 40. Physical Soc. (cmt. employment of physicists, 40–); Asn. Physics Teachers. Effect of solvent on absorption spectrum of solutions; absorption spectrum in the near infra-red of liquid hydrogen fluoride.

Burnham, Dr. Robert Ward, 1615 East Ave, Rochester, N. Y. *Psychology.* Hornell, N. Y, July 11, 13. B.S, St. Lawrence, 37; M.S, Rochester, 38; Ph.D, Rutgers, 41. Asst. psychol, Rutgers, 40–41; *lieut, U.S.A, and personnel consultant, Adj. Gen's Dept, 42–* Assoc. Psychol. Asn. Experimental and physiological psychology; psychophysics of vision and memory; endocrine factors in animal learning.

Burnham, S(tewart) H(enry), Cornell University, Ithaca, N. Y. *Botany.* Vaughns, N. Y, Oct. 6, 70. Stanford, 93–95; B.S, Michigan, 99. Museum aid, N. Y. Bot. Garden, 01–03; asst. bot, Cornell, 04–05; asst. state botanist, N. Y, 05–13; asst. *bot, Cornell*, 20–22, *asst. curator, 22–* A.A; Bot. Soc; Micros. Soc; Fern Soc. (sec'y, 19–22); Ornith. Union; Forestry Asn; Wild Flower Preservation Soc; Torrey Bot. Club; Sullivant Moss Soc; Sierra Club; Vt. Bot. Club. Pteridophyta and Phanerogamia; systematic botany; mycology; cryptogamic plants.

Burns, Dr. B(eryl) I(les), Louisiana State University, New Orleans, La. *Anatomy.* Unionville, Mo, April 22, 89. A.B, Missouri, 16; A.M, Michigan, 18; M.D, Iowa, 24; Elizabeth Ward fellow, Northwestern, 31–32, Ph.D, 33. Asst. anat, Michigan, 16–17, instr, 17–18; Iowa, 18–24, asst. prof, 24–25; prof, Utah, 25–31, dean sch. med, 29–31; *director dept. anat, sch. med, Louisiana, 32–, dean, 39–* A.A; Asn. Anat; Am. Med. Asn; La. State Med. Soc; Orleans Parish Med. Soc. Embryology of the nose and forebrain; distribution of sympathetic nerve fibers; nerve supply of blood vessels.

Burns, Dr. Edward L(eroy), Louisiana State University School of Medicine, New Orleans, La. *Medicine.* Kansas City, Mo, June 28, 05. A.A, Kansas City Junior Col. (Mo), 24; M.D, Washington (St. Louis), 28. Asst. path, Washington (St. Louis), 28–30, 33–37, instr, 37; *path. and bacter, Louisiana*, 37–39, asst. prof, 39–42, *assoc. prof, 42–* Res. pathologist, Barnes Hosp, St. Louis, Mo, 28–30. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Asn. Cancer Research. Hormones and cancer growth; liver tumors in mice; experimental urinary calculi; blood clotting; fat embolism; fallopian tubes; anti-anemic principles and maturation of erythrocytes.

Burns, Dean Eleanor I(rene), Istanbul American College, Istanbul, Turkey. *Physics.* Philadelphia, Pa, July 16, 83. A.B, Cornell, 04; Sc.D, Lafayette Col, 14. Instr. physics, Wellesley Col, 05–08; prof, *Istanbul Am. Col*, 08–24, *dean, 24–* A.A; Genetic Asn; Acad. Polit. Sci. Meteorological conditions, past and present, of Constantinople and the west coast of Asia Minor; adult education in Turkey; modern Turkish educational program.

Burns, Frank(lin) L(orenzo), Berwyn, Pa. *Zoology.* Chester Co, Pa, Jan. 18, 69. A.A; Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Cooper Ornith. Club. Ornithology; mammalogy; bird behavior.

Burns, Prof. George P(lumer), University of Vermont, Burlington, Vt. *Botany.* Maroa, Ill, Oct. 30, 71. B.S, A.M, Ohio Wesleyan, 98; Ph.D, Munich, 00. Instr. *bot*, Ohio Wesleyan, 97–98; Michigan, 02–07, asst. prof. and director bot. garden, 07–10; *prof, Vermont, 10–* A.A; Bot. Soc; Phytopath. Soc; Ecol. Soc; Mich. Acad. (librarian, 07–10). Ecology; silvics; tolerance of forest trees; reproduction of forests; photosynthesis in relation to wave-length.

Burns, Prof. G(eorge) Richard, Hunter College, New York, N. Y. *Organic chemistry.* Aug. 20, 99. Ph.B, Vermont, 22; A.M, Princeton, 23, Ph.D, 25. Asst, Princeton, 23–25; dyestuffs research, E. I. du Pont de Nemours and Co, 25–26; instr. chem, Yale, 26–32; asst. prof. *org. chem, Hunter Col*, 32–41, *assoc. prof, 41–* A.A; Chem. Soc; Bot. Soc; Soc. Plant Physiol. Substituted hydroxylamines; photochemistry; photosynthesis.

Burns, Prof. Harold E(lra), 4312 Olcott Ave, East Chicago, Ind. *Mathematics.* Spurgeon, Ind, Dec. 17, 09. A.B, Oakland City Col, 30; A.M, Indiana, 32; Chicago, 34, 36; Ph.D, Northwestern, 42. Instr. *math, exten, Indiana*, 32–42, *asst. prof, 42–* Instr, Northwestern, 40–41. Math. Soc; Math. Asn. Linear operators expressed as Green's functions with special application to the elastic plate problem.

Burns, Dr. Kelvin, Allegheny Observatory, Pittsburgh, Pa. ***Astronomy.* Pleasant Ridge, N. B, Can, March 1, 81. A.B, Minnesota, 03, Ph.D, 10; fellow, Lick Observatory, California, 11–12. Lick Observatory, California, 04–07, 10; asst, Minnesota, 07–10; assoc. physicist, Bur. Standards, 13–17, physicist, 18–19; *astronomer, Allegheny Observatory, Pittsburgh, 20–* A.A; Astron. Soc. (treas, 41); Philos. Soc. Wash; Int. Astron. Union. Spectroscopy; orbit of λ Andromedae; spectrum of ring nebula in Lyra; Orion region; arc spectrum iron 2373–8824; secondary standards of wavelength; stellar parallax and photometry; photographic double star measures; positions of major planets.

Burns, Dr. Louisa, 807 Prospect Ave, South Pasadena, Calif. *Osteopathy.* Saltilloville, Ind. B.S, Borden Inst, 91, M.S, 04; D.O, Pacific Col. Osteopathy, 03, Sc.D, 06. Prof. physiol, Pacific Col. Osteopathy, 04–14; *dean, A. T. Still Research Inst, 14–* Trustee, West. Osteop. Research Labs, 19– D. S. certificate, Am. Osteop. Asn. Hon. mem. Osteop. Asn; Osteop. Women's Asn; Woman's Osteop. Club (pres); Calif. Osteop. Asn; hon. mem. Col. Osteop. Physicians and Surg, Los Angeles. Vertebral strains and their effects; diagnosis and therapy; articular sprains; fibrinolysis and fibrin studies of the blood.

Burns, Prof. Sister Mary Grace, Georgian Court College, Lakewood, N. J. *Biochemistry.* Monmouth Beach, N. J, Dec. 28, 01. Winthrop fellow, Catholic Univ, 37–39, Ph.D, 39. *Prof. chem, Georgian Court Col, 39–* A.A; Chem. Soc. Creatine content of muscle.

Burns, Dr. Robert H(omer), University of Wyoming, Laramie, Wyo. *Animal husbandry.* Laramie, Wyo, Aug. 23, 00. B.S, Wyoming, 20; M.S, Iowa State Col, 21; Ph.D, Edinburgh, 31. Asst. animal husbandman, N. Mex. Col, 21–22; asst. animal husbandman and exten. animal husbandman, Arizona, 22–24; asst. wool specialist, *wool dept, Wyoming*, 24–31, assoc. wool specialist, 31–39, *wool specialist, 39–* Soc. Animal Production. Wool shrinkage, length, fineness, density, crimp, inheritance and sheep coats.

Burns, Prof. Robert K(yle), Carnegie Institution, Johns Hopkins University School of Medicine, Baltimore, Md. ***Zoology, Embryology, Anatomy.* Hillsboro, W. Va, July 26, 96. A.B, Bridgewater Col, 16; Ph.D, Yale, 24. Asst. zool. and anat, Yale, 20–24; instr. zool, Cincinnati, 24–25, asst. prof, 25–28; anat, Rochester, 28–30, assoc. prof, 30–40; *research assoc, dept. embryol, Carnegie Institution, 40–* Mem. staff, Mountain Lake biol. sta, Virginia, 40–41. A.A; Soc. Zool; Soc. Exp. Biol; Asn. Anat; Soc. Nat. Parabiosis and experimental transformation of sex in amphibians; growth and development after heteroplastic grafting; interrelations of reproductive tract and hypophysis; pronephric duct and development of mesonephros; sex hormones and embryonic development in the opossum.

Burns, Dr. R(obert) M(artin), 463 West St, New York, N. Y. *Chemistry.* Longmont, Colo, Jan. 9, 90. A.B, Colorado, 15, A.M, 16; fellow, Princeton, 20–21, Ph.D, 21. Instr. chem, Colorado, 16–17; research chemist, Barrett Co, 21–22; West. Elec. Co, 22–25; *Bell Tel. Labs,* 25–31, *asst. chem. director, 31–* 2nd lieut, C.W.S, 18–19. A.A; Chem. Soc; Electrochem. Soc. (pres, 43); N. Y. Acad. Electrochemistry; corrosion of metals; protective coatings.

Burns, Dr. W(illia)m E(arp), U. S. Public Health Service, E. Third and Kilgour Sts, Cincinnati, Ohio. *Bacteriology.* Winfield, Kans, Nov. 23, 88. A.B, Southwestern Col. (Kans), 13; fellow, Kansas, 14–15, M.S, 15; Ph.D, Iowa State Col, 34. Head dept. biol, Buena Vista Col, 15–17; diagnostician, State Board Health, Iowa, 18; director clin. lab, Johnson Hosp, Chanute, Kans, 19–23; head dept. biol, McKendree Col, 23–26; assoc. prof. bacter, Southwestern Col. (Kans), and director clin. lab, Wm. Newton Mem. Hosp, Winfield, 26–29; instr. bacter, Iowa State Col, 30–36; *bacteriologist, stream pollution investigations, U. S. Pub. Health Service, 36–* 2nd lieut, Sanit. C, 18. Systematic study of thermophiles isolated from commercial syrups; bacteriology of water and water-borne diseases.

Burnside, Dr. Carlton (Earl), U. S. Department of Agriculture, Laramie, Wyo. *Apiculture.* Branch Co, Mich, June 27, 97. A.B, Hillsdale Col, 21; Mich. State Col, 21–22; M.S, Michigan, 25, Ph.D, 28; George Washington, 30–32. Prin, high sch, 22–24; asst. bot, Michigan, 24–27; asst. apiculturist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 27–37, assoc. apiculturist, 37–42, *apiculturist, intermountain states bee culture field lab, Wyoming, 42–* Summers, junior biologist, U. S. Dept. Agr, 23–27. A.A; Bot. Soc; Genetics Asn; Apis Club. Bacterial and fungus diseases of honey bees and their control; the disinfection of equipment.

Burnside, Dr. Lenoir H(enderson), Board of Education, Rochester, N. Y. *Psychology.* Thomson, Ga, 91. A.B, La Grange Col, 11; Ph.D, Hopkins, 26. *Psychologist, child study dept, Board Educ, Rochester, N. Y, 26–* Summer, asst. prof, Cornell, 26. Psychol. Asn; Soc. Research Child Develop; Asn. Applied Psychol. Child psychology; genetics.

Burr, Dean Alex(ander) C(arothers), Jamestown College, Jamestown, N. Dak. *Chemical engineering.* Bottineau, N. Dak, March 21, 01. A.B, Jamestown Col, 20, B.S, 21; M.S, Michigan, 22; Munich, 38. Instr. physics, Jamestown Col, 19–20; chem, Michigan, 21–24; Col. City of Detroit, 24–29; asst. chem. eng, Mass. Inst. Tech, 29–34; *dean,* Westminster Col. (Pa), 34–38; *Jamestown Col, 38–* Consulting engineer, 30– Consultant, N. Dak. Indust. Cmn. A.A; Chem. Soc; Chem. Eng; N. Dak. Soc. Professional Eng. (pres, 40). Physical chemistry and technology; plant location and design.

Burr, Dr. Charles W(alts), 1512 Spruce St, Philadelphia, Pa. *Neurology, Psychiatry.* Philadelphia, Pa, Nov. 16, 61. B.S, Pennsylvania, 83, M.D, 86, Sc.D, 33. Practising physician, 86–40; prof. *mental diseases, Pennsylvania,* 01–31, *emer. prof, 31–* Neurologist, Phila. Gen. Hosp, 96–31, psychiatrist, 31–40; neurologist, Phila. Orthop. Hosp. and Infirmary for Nervous Diseases, 11–40. A.A; Am. Med. Asn; Neur. Asn. (pres, 08); Phila. Neur. Soc. (past pres); Soc. Path. Phila. (past pres); Phila. Psychiat. Soc. (pres, 09); fel. Col. Physicians Phila. Pathology of Friedreich's ataxia; asthenic bulbar palsy; nervous symptoms of peripheral arterial disease; the blood in chorea; pernicious anemia; trauma of the head and insanity; visual hallucinations in hemianopsia.

Burr, Freeman F(oster), Sunrise Farm, Wayne, Maine. *Economic geology.* Medford, Mass, March 7, 77. B.S, Harvard, 00; Yale, 08; A.M, Columbia, 13. Teacher, high sch, 00–04; science, Conn. State Nor. Sch, New Haven, 04–12; geologist, Maine State Cmns, 14–22; head dept. geol, St. Lawrence, 22–31, Chapin prof. geol. and miner. Lecturer, Barnard Col, Columbia, 12–13, univ, 13–14; N. Y. Pub. Library Sch, 12–14; geologist, Cent. Maine Power Co, 18–22; *state geologist, Maine, 37–* Asn. State Geol; Knox Acad. (past pres); hon. mem. Maine Miner. Soc. Heat; feldspar; minerals.

Burr, Dr. George O(swald), University of Minnesota, Minneapolis, Minn. *Plant physiology, Biochemistry.* Conway, Ark, Oct. 6, 96. A.B, Hendrix Col, 16, LL.D, 36; A.M, Arkansas, 20; fellow, Illinois, 20–21; Ph.D, Minnesota, 22; Chicago. Prin, high sch, Ark, 16–17; prof. chem. and physics, Ky. Wesleyan, 17–18; asst. agr. biochem, Minnesota, 20–22; nat. research fellow chem, California, 22–24, research assoc, 22–27; assoc. prof. plant physiol, *Minnesota,* 27–35, prof, 35–40, *head div. physiol. chem, 40–* Guggenheim Mem. Foundation fellow, 34. Summers, field asst, U. S. Dept. Agr, 23–26. A.A; Soc. Nat; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Organic arsenicals; protein chemistry; nutrition; corn-stalk sugar chemistry; chemistry of reproduction of animals; chemistry and physiology of fats; photosynthesis.

Burr, Prof. H(arold) Saxton, Yale University, New Haven, Conn. *Anatomy.* Lowell, Mass, April 10, 89. Ph.B, Yale, 11, Ph.D, 15. Instr. *anat, Yale,* 14–19, asst. prof, 19–26, assoc. prof, 26–29, prof, 29–33, *E. K. Hunt prof, 33–* Sterling fellow, Yale, 26–27. A.A; Asn. Anat. (exec. cmt, 30–33); Asn. Research Nervous and Mental Disease; Neur. Asn. Experimental embryology; neuro-anatomy; regeneration and development of the nervous system.

Burr, Dr. Horace K(elsey), U. S. Forest Service, Madison, Wis. *Physical chemistry.* Manchester, Conn, Sept. 9, 13. A.B, Wesleyan, 35; M.S, Wisconsin, 37, Ph.D, 41. Instr. chem, Mich. Col. Min. and Tech, 37–38; asst. chemist, *Forest Products Lab, U. S. Forest Service,* 41–43, *chemist, 43–* Advisory mem. tech. subcmt. on plastics, A.N.C, 43– Diffusion in wood; wood and paper base plastics.

Burr, Prof. Irving W(ingate), 265 Littleton St, West Lafayette, Ind. *Mathematics.* Fallon, Nev, April 9, 08. B.S, Antioch Col, 30; M.S, Chicago, 35; Ph.D, Michigan, 41. Elec. equipment testman, Gen. Elec. Co, 27–30; instr. *math,* Antioch Col, 30–33, asst. prof, 33–37, assoc. prof, 37–41; *asst. prof, Purdue, 41–* Math. Soc; Math. Asn; Statist. Asn; Inst. Math. Statist; Ornith. Union. Mathematical statistics; cumulative frequency functions.

Burr, Dean W(illiam) W(esley), University of Nebraska, Lincoln, Nebr. *Agriculture.* Goodland, Ind, March 26, 80. B.S, Nebraska, 06. Asst. crops and soils and in charge cooperative work, Exp. Sta, Nebraska, and office dry land agr, U. S. Dept. Agr, 06–13, asst. agriculturist, 13–16; prof. agron. and head dept, *Nebraska,* and v. director, *Exp. Sta,* 16–28, *director, 28–, dean col. agr, 28–* A.A; Soc. Agron. (pres, 31). Soil moisture; crop production and principles of cultivation; tillage methods; dry land agriculture.

Burrell, Prof. A(rthur) B(rotherton), Cornell University, Ithaca, N. Y. *Phytopathology.* Cleveland, Ohio, Feb. 20, 02. B.S. (Agr), Ohio State, 24; fellow, Cornell, 26–29, Ph.D, 31. Field asst. *plant path, Cornell,* 25, research instr, 29–31, asst. prof, 31–38, *prof, 38–* A.A; Phytopath. Soc; Soc. Hort. Sci. Nutritional and pathogenic diseases of fruits and fruit trees; spray problems; orchard fertilization.

Burrell, Dr. George A, 117 W. 58th St, New York, N. Y. **Chemical engineering.* Cleveland, Ohio, Jan. 23, 82. Ch.E, Ohio State, 18; hon. Sc.D, Wesleyan, 19. U. S. Geol. Surv, 04–08; in charge gas investigations, U. S. Bur. Mines, 08–16; pres. and in charge construction, Island Ref. Co; v. pres. and in charge construction, Raritan Ref. Co, 19–20; in charge construction, ref. plants, 20–22; chem. engineer, Pittsburgh, 16–17, 22–32; pres, Burrell Oil and Gasoline Co. and later Burrell-Mase Eng. Co. and Burrell Tech. Supply Co, 22–36; operating manager and later *pres. and director, Atlantic States Gas Co, 36–; in charge research and develop. work, Chem. Warfare Service, U. S. Army.* Consulting engineer, Soviet Govt, 29–31. D. S. medal; Lamme medal, Ohio State, 35. D. S. medal, War Dept. Asst. to director, U. S. Bur. Mines in charge war gas investigation, 17; col, C.W.S, 18–19. Chem. Soc. (chairman, Pittsburgh sect, 16, sec'y, petrol. div); Petrol. Inst; Gas Asn; Min. and Metal. Eng. Oil; gas; gasoline; helium; petroleum engineering; refining of petroleum; natural gasoline; extracting gasoline from natural gas; liquefied petroleum gas.

Burrell, R(obert) W, U. S. Department of Agriculture, P. O. Box 47, Yokohama, Japan. *Entomology.* Rockland, Mass, July 2, 05. B.S, Mass. Col, 27. Junior and *asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 27–* Asn. Econ. Entom; Entom. Soc. Amer; Phila. Entom. Soc. Parasitology; foreign parasite introduction; rearing equipment.

Burrell, Prof. R(obin) C(harles), Ohio State University, Columbus, Ohio. *Biochemistry.* Northfield, Ohio, March 14, 96. B.S, Mt. Union Col, 18; A.M, Ohio State, 21, Ph.D, 25. Asst. chem, Ohio State, 19–21; assoc. prof, Richmond, 21–23; instr. *agr. chem, Ohio State,* 23–25, asst. prof, 25–33, assoc. prof, 33–40, *prof, 40–* Chem. Soc. (sec'y col. sect, 28–30); Soc. Plant Physiol; fel. Ohio Acad. Chemical education; soy-bean investigations; quality of vegetables; vitamin C.

Burrill, A(lfred) C(ummings), State Museum, Jefferson City, Mo. *Ecology.* Boston, Mass, Aug. 14, 81. B.S, Harvard,

05, 28; M.S, Wisconsin, 15. Sci. asst, Am. Museum Nat. Hist, 07–08; lecturer, Pub. Museum, Milwaukee, 08–10; instr. econ. entom. and lecturer forest, fish and game conservation, Wisconsin, 10–16; prof. entom. and zool, Idaho, and entomologist, Exp. Sta, 16–18; field agent, bur. entom, U. S. Dept. Agr, 18–20, sci. asst, 20; exten. prof. entom. and plant path, Missouri, 20–22; *curator, Mo. Resources Museum, 22–* A.A; Soc. Nat; Entom. Soc; Asn. Econ. Entom; Soc. Mammal; Asn. Mus; Mo. Acad; St. Louis Acad. Insect carriers of disease; ecology of ants, aphids and birds; habits of animals; classification.

Burrill, Dr. Marie W(ecker), Northwestern University Medical School, Chicago, Ill. *Developmental physiology.* Peru, Ill, Nov. 7, 07. B.S, Northwestern, 30, M.S, 32, Ph.D, 37. Lab. instr. zool, *Northwestern, 28–37, research instr. physiol, med. sch, 37–* Co-winner, gold medal, Am. Med. Asn, 38. A.A. Experimental intersexuality in the rat; endocrinology; sex hormones.

Burrill, Dr. Meredith F(rederic), 5503 Grove St, Chevy Chase, Md. *Geography.* Houlton, Maine, Dec. 23, 02. A.B, Bates Col, 25; A.M, Clark, 26, fellow, 28–30, Ph.D, 30. Instr. physiog, Lehigh, 26–28; head dept. geog, Mass. State Nor. Sch, Worcester, 29–30; asst. prof, Okla. Agr. and Mech. Col, 30–31, assoc. prof, 31–37, prof, 37–40; econ. geographer, gen. land office, *U. S. Dept. Interior,* 40–42, chief div. research and analysis, 42–43, *director board geog. names, 43–* Research adviser, social research council, McGill, 31; director, Indust. Surv, Montreal, 31; acting chief land use planning sect, Resettlement Admin, 35–37. Summers, mem. staff, West. Ky. State Teachers Col, 27; Bucknell, 30; Southern Methodist, 37. A.A; Am. Geog. Soc; Asn. Geog; Meteorol. Soc; Geophys. Union; Southwest Social Sci. Asn. (chairman, human geog. sect, 37). Fire-weather; industrial analyses of Montreal and of Oklahoma; manufacturing industry; land classification; Alaska.

Burris, Dr. Robert H(arza), University of Wisconsin, Madison, Wis. *Bacteriology.* Brookings, S. Dak, April 13, 14. A.B, S. Dak. State Col, 36; M.S, Wisconsin, 38, Ph.D, 40. Asst. agr. bacter, Wisconsin, 36–40; nat. research fellow, Columbia, 40–41; *fellow agr. bacter, Wisconsin, 41–* Chem. Soc. Biological nitrogen fixation.

Burroughs, R(aymond) D(arwin), Game Division, State Department of Conservation, Lansing, Mich. *Biology.* Rolfe, Iowa, Aug. 20, 99. A.B, Nebr. Wesleyan, 24; A.M, Princeton, 25; Iowa State Col, 29–30, 33; Minnesota, summers, 31, 36. Asst. prof. biol, Willamette, 25–27; Oklahoma City Univ, 27–29; assoc. prof, Macalester Col, 30–37; *biologist, game div, State Dept. Conservation, Mich, 37–* Visiting asst. prof, Minnesota, 37. Wildlife Soc; Soc. Mammal; Wilson Ornith. Club. Administration and management of wildlife resources; ecology and management of game animals.

Burroughs, Prof. W(ilbur) G(reeley), Berea, Ky. *Geology, Geography.* Shortsville, N. Y, Dec. 7, 86. A.B, Oberlin Col, 09, A.M, 11; Ph.D, Cornell, 32. Asst. geologist, Ohio Geol. Surv, 12–14; geol. and educ. work, 14–20; prof. *geol. and geog, Berea Col,* 20–23, *Nathaniel Southgate Shaler Mem. prof, 23–, head dept, 20–* Consulting geologist, Cleveland, 21; asst. geologist, Ky. Geol. Surv, 22–32; geologist, Mineral Resource Surv, Louisville, Ky, 25; indust. surv, Frankfort, Ky, 26, Louisville, Ky, 27. Summers, prof, Chautauqua, N. Y, 12–36. Ky. Acad. (v. pres, 25, pres, 26); Ky. Geol. Soc; fel. Royal Geog. Soc. Economic and historical geology and geography; physiography; oil and gas; methods of mining nonmetallic minerals; geography of the Kentucky Knobs; western Kentucky coalfields; Mississippian Plateau and other regions of Kentucky; archeology of Kentucky.

Burrow, Dr. Trigant, 27 E. 37th St, New York, N. Y. *Phytopathology.* Norfolk, Va, Sept. 7, 75. A.B, Fordham, 95; M.D, Virginia, 99; Ph.D, Hopkins, 09. Demonstrator biol, Virginia, 99–00; intern, Univ. Frauenklinik, Munich, 00; asst. psychol, Hopkins, 06–09, asst. clin. psychiatrist, 11–27; *sci. director, Lifwynn Foundation, 27–* A.A; Psychiat. Asn; Psychol. Asn; Psychopath. Asn; Am. Med. Asn; S. Soc. Philos. and Psychol; South. Med. Asn; Med. and Chirurg. Faculty Md; N. Y. Acad. Attention; social psychiatry.

Burrows, Dr. Cha(rle)s R(ussell), 302 Grassmere Ave, Interlaken, N. J. *Radio engineering.* Detroit, Mich, June 21, 02. B.S.E, Michigan, 24, E.E, 35; A.M, Columbia, 27, Ph.D, 38. Asst, Michigan, 22–23; *with radio research dept,* West. Elec. Co, 24–25; *Bell Tel. Labs, 25–* Mem, Nat. Television Systems Cmt, 40. Elec. Eng; Radio Eng. (wave propagation and symbols cmts; subcmt. transmission line and antennas, television cmt). Short wave radio propagation over the North Atlantic and to South America; ultra short wave radio propagation; development of short wave and ultra short wave multiplex transmitters.

Burrows, Dr. Geo(rge) H(oward), 1019 Park Place, Wilmington, Del. *Chemistry.* Wyoming, Ohio, 75. B.S, Vermont, 99; Ph.D, Mass. Inst. Tech, 14. Asst. physics, Pratt Inst, 99–00; *chem,* Cornell, 00–03; asst. prof, *Vermont,* 03–14, prof, 14–42, *emer. prof, 42–; research chemist, Hercules Powder Co, 42–* A.A; Chem. Soc. Equilibrium measurements in organic chemistry.

Burrows, Prof. J(ames) Austin, 621 Monroe St, Stillwater, Okla. *Chemistry.* Dubuque, Iowa, March 5, 85. B.S, Ill. Wesleyan, 06; M.S, Iowa State Col, 22, Ph.D, 25. High sch, Iowa and Ky, 07–18; instr. *chem,* Iowa State Col, 18–26; asst. prof, North Dakota, 26–29; assoc. prof, *Okla. Agr. and Mech. Col,* 29–39, *prof, 39–* Chem. Soc; Okla. Acad. Inorganic chemistry; decomposition of potassium chlorate; teaching methods in chemistry.

Burrows, Dr. Lawton A(rthur), 343 Delaware St, Woodbury, N. J. *Chemistry.* Monett, Mo, Aug. 5, 08. B.S, Drury Col, 30; Wm. R. Warner and Co. state fellow, Hopkins, 31–34, Ph.D, 34. Asst. chem, Drury Col, 28–30; Washington (St. Louis), 30–31; Hopkins, 33–34; research chemist, *E. I. du Pont de Nemours and Co,* 34–39, *asst. director east. lab, 39–* Chem. Soc. Organic chemistry; explosives.

Burrows, Dr. M(ontrose) T(homas), 201 N. Molino Ave, Pasadena, Calif. *Surgery.* Halstead, Kans, Oct. 31, 84. A.B, Kansas, 05; M.D, Hopkins, 09. Fellow, Rockefeller Inst, 09–10, asst. path, 10–11; instr. anat, Cornell, 11–15; assoc. path, Hopkins, and res. pathologist, Hopkins Hosp, 15–17; assoc. prof. path, Washington (St. Louis), 17–20, exp. surg. and director research lab, Barnard Free Skin and Cancer Hosp, 20–28; *director cancer clinic, Pasadena Hosp, 28–* Mem. staff, Pasadena Hosp; St. Luke's Hosp, Pasadena; Gen. Hosp, Los Angeles Co. A.A; Asn. Anat; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Path; Soc. Zool; Soc. Exp. Biol; Physiol. Soc; Soc. Cancer Research. Treatment of cancer; tissue cultivation; mechanism of growth; division of cells; heart muscle contraction; normal rhythm in isolated heart muscle cells; intracranial pressure; epidemiology; growth in wounds and development; vitamin theory of cancer; relation of focal degenerations in the ectoderm to cancers of the skin and breast; origin of fat soluble vitamins.

Burrows, Dr. Robert (Beck, Jr), South Carolina State Hospital, Columbia, S. C. *Parasitology, Zoology.* Columbia, S. C, Oct. 29, 07. A.B, Emory, 29, M.S, 30; Ph.D, Yale, 36. Assoc. prof. biol, Elon Col, 36–37; adj. prof, American Univ, Beirut, 37–40; *parasitologist, S. C. State Hosp, 40–* Parathyroid physiology; epidemiology; treatment and prevention of intestinal parasites.

Burrows, Dr. William, University of Chicago, Chicago, Ill. *Bacteriology.* New Haven, Conn, March 6, 08. B.S, Purdue, 28; M.S, Illinois, 30; Leopold Schepp Foundation fellow, Chicago, 30–32, Ph.D, 32. Asst. *bacter,* Illinois, 28–30; asst, Chicago, 32–35; Gen. Educ. Board fellow, N. J. Exp. Sta. and Hopkins, 35–37; asst. prof, *Chicago,* 37–42, *assoc. prof, 43–* Assoc. ed, 'Jour. Infectious Diseases.' Howard Taylor Ricketts prize, 32. A.A; Soc. Bact; Soc. Exp. Biol; Pub. Health Asn; Soc. Nat. Bacterial physiology; immunology.

Burrows, W(illiam) H(enry), U. S. Department of Agriculture, Beltsville, Md. *Animal husbandry.* Philadelphia, Pa, 92. Agr. aid, inst. exp. med, Minnesota, 24–30; sch. med, Georgetown, 30–32; *med. technician, animal husbandry div, bur. animal indust, U. S. Dept. Agr, 32–* Poultry Sci. Asn. Animal surgery; endocrine glands and hormones of poultry; the blood sugar of the fasting, gizzardectomized fowl; spermatozoa from the domestic fowl; hormones and psychology in broodiness of hens; obtaining of premature eggs with pituitary substances.

Bursley, Dean Joseph A(ldrich), University of Michigan, Ann Arbor, Mich. *Engineering.* Fort Wayne, Ind, June 14, 77. Cornell, 97–98; B.S.(M.E), Michigan, 99. Special apprentice, Pa. R. R. Co, 99–02; clerk, G. E. Bursley and Co, 02–04; from instr. to *prof. mech. eng, Michigan, 04–, dean students, 21–* Ordnance Dept, U.S.A, 17–20, lieut. col. Mech.

Eng; Eng. Educ; Soc. Adv. Management; Army Ordnance Asn; Detroit Eng. Soc. Heat engines.

Burt, Prof. Charles E(arle), Southwestern College, Winfield, Kans. *Biology.* Neodesha, Kans, Aug. 12, 04. B.S, Kans. State Col, 26, M.S, 27; fellow, Michigan, 28–29, Ph.D, 30. Asst. curator herp, Am. Museum Nat. Hist, 29–30; prof. *biol,* Trinity (Texas), 30–31; *prof. and head dept, Southwestern Col. (Kans), 31–* Summers, Univ. Mich. herp. exped, southwest. U. S, 28; Am. Museum Nat. Hist. herp. exped, Middle West, 29; Smithsonian Institution exped, southeast. U. S, 32–35; Univ. Rochester herp. exped, Smoky Mountains, 37. A.A; Soc. Zool; Soc. Ichthyol. and Herp; Soc. Mammal; Micros. Soc; Ecol. Soc; Biol. Soc. Wash; Mo. Acad; Kans. Acad; Mich. Acad; St. Louis Acad. Field zoology; biometry; bibliography; systematics, phylogeny and ecology of reptiles and amphibians, especially lizards.

Burt, Prof. C(harlotte) Pauline, 101 Prospect St, Northampton, Mass. *Chemistry.* Uhrichsville, Ohio, 90. A.B, Pa. Col. for Women, 14; fellow, Mt. Holyoke Col, A.M, 16; Ph.D, Yale, 25; Leipzig, 35; Mass. Inst. Tech, 41. Asst. *chem,* Mt. Holyoke Col, 14–17; instr, Vassar Col, 17–19; *Smith Col,* 19–22, 24–25, asst. prof, 25–31, chairman dept, 30–36, assoc. prof, 31–37, *prof, 37–* A.A; Chem. Soc; N. Y. Acad. Organic chemistry.

Burt, Prof. Frederick A(rthur), College Station, Texas. *Geology.* Saratoga Springs, N. Y, May 17, 85. B.S, Colgate, 08; M.S, Chicago, 29; Columbia. Instr. *geol,* Mich. State Col, 09–13, asst. prof, 13–19; assoc. prof, Miss. Agr. and Mech. Col, 19–21; *Agr. and Mech. Col. Texas,* 21–38, *prof, 38–* Physiographer, Miss. Geol. Surv, 19–22. Summers, field geologist, Vt. Geol. Surv, 27– Fel. Geol. Soc; Eng. Educ; fel. Texas Acad. (sec'y, 33, pres, 42–). Sedimentation; rock weathering; kaolins; ocher.

Burt, Prof. Joseph B(ell), 1520 Cheyenne St, Lincoln, Nebr. *Pharmacy.* Woodland, Ill, Sept. 8, 95. Ph.C, B.S, Purdue, 20; M.S, Wisconsin, 27, hon. fellow, 34–35, Ph.D, 35. Instr. *pharmacy, Nebraska,* 20–21, asst. prof, 21–27, assoc. prof, 27–29, *prof, 29–, chairman dept, 27–* Ed, 'Pharmaceut. Archives,' 39– Mem. revision cmt, U. S. Pharmacopoeia, 40– A.A; Pharmaceut. Asn; Chem. Soc. Pharmaceutical chemistry: phytochemistry.

Burt, Dr. Richard L(afayette), Harvard Medical School, Boston, Mass. *Cytology.* Springfield, Mass, Dec. 7, 15. B.S, Springfield Col, 38; M.S, Brown, 40, fellow, 41–42, Ph.D, 42. Asst. biol, Brown, 38–41; *research fellow dental med, Harvard Med. Sch, 42–* A.A; Micros. Soc. Taxonomy, morphology and cytology of protozoa; cellular physiology; physiology of cell division; calcification.

Burt, Dr. Robert C(ady), 327 S. Michigan Ave, Pasadena, Calif. *Physics.* Battle Creek, Mich, Dec. 2, 96. E.E, Cornell, 21; Ph.D, Calif. Inst. Tech, 26. Research, Gen. Elec. Co, 18–20; West. Elec. Co, 20–21; research fellow, Calif. Inst. Tech, 21–27; *director, R. C. Burt Sci. Labs, Pasadena, 27–; special projects, Lockheed Aircraft Corp, 41–* Physical Soc; Aeronaut. Asn; Eng. and Architects Asn. South. Calif. Photoelectricity; electrolysis through glass; sodium coulometers; measurement of ultra-violet.

Burt, Prof. W(illiam) H(enry), University of Michigan, Ann Arbor, Mich. *Vertebrate zoology.* Haddam, Kans, Jan. 22, 03. A.B, Kansas, 26, A.M, 27; Ph.D, California, 30. Teaching fellow zool, Kansas, 26–27; California, 27–28, paleont, 28–29; research fellow vert. zool, Calif. Inst. Tech, 30–35; instr. *zool,* Michigan, 35–41, *asst. prof, 41–,* asst. curator *mammals, museum zool,* 35–38, *curator, 38–* Summer, mem. staff, California, 41. A.A; Soc. Mammal. (cor. sec'y, 35–38, director, 38–); assoc. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Gesell. für Saugetierkunde. Vertebrate paleontology; taxonomy, ecology and populations of Mammalia; avian anatomy.

Burtch, Verdi, Branchport, N. Y. *Ornithology.* Penn Yan, N. Y, Dec. 25, 68. *Proprietor, Gen. Store, 41–* Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club. Migration and life history of birds; conchology.

Burt-Gerrans, Prof. J(ames) T(resawna), University of Toronto, Toronto, Ont, Can. *Electrochemistry.* Kent Bridge, Ont, Jan. 8, 78. Pharm.B, Toronto, 03, B.A, 11, M.A, 15, Ph.D, 24. Retail drug business, Toronto, 02–07; demonstrator *electrochem, Toronto,* 11–12, lecturer, 12–20, asst. prof, 20–23, assoc. prof, 23–37, *prof, 37–* Director electrochem. lab, Toronto Cent. Tech. Sch, 13–14; tech. supt, Visible Storage Battery Co, 18–20; tech. adviser, Can. Batteries, Ltd, 24–27; Feldspar Glass Co, 28–31. Mem. Can. advisory cmt, Int. Electrotechnical Cmn, 39–40. Electroplaters Soc; Electrochem. Soc; Faraday Soc; fel. Can. Inst. Chem. (sec'y, Toronto branch, 24–34); Can. Chem. Asn; Royal Can. Inst; Can. Eng. Standards Asn. Electrothermics; storage batteries; diffusion of copper in solution; electric furnaces.

Burtner, Dr. Robert R(ees), P. O. Box 5110, Chicago, Ill. *Organic chemistry.* Chicago, Ill, Aug. 23, 09. B.S, Iowa State Col, 30, Ph.D, 33. Rockefeller fluid research fund fellow, 33–34; *research chemist, G. D. Searle and Co, 34–* Chem. Soc. Organic chemistry applied to pharmaceuticals; chemistry of furan derivatives; hypnotics; local anesthetics; germicides; spasmolytics.

Burton, Dr. A(lvin) A(ckerman), Standard Oil Co. of California, Richmond, Calif. *Chemical engineering.* Salem, Oregon, Aug. 9, 07. B.S, Oregon State Col, 29; M.S, Illinois, 30, Ph.D, 34. Asst, Illinois, 29–34; *chem. engineer, Standard Oil Co. of Calif, 35–* Petroleum process engineering; catalytic oxidation of organic compounds.

Burton, E(dward) Milby, Charleston Museum, Charleston, S. C. *Ichthyology.* Philadelphia, Pa, June 5, 98. *Director, Charleston Museum, 31–; lieut, I–V, U. S. Naval Reserve, 42–* Soc. Ichthyol. and Herp. (governor, 37–); Ornith. Union; S. C. Acad; S. C. Hist. Soc. (curator). Ichthyology of South Carolina.

Burton, Prof. E(li) F(ranklin), University of Toronto, Toronto, Ont, Can. *Physics.* Green River, Ont, Feb. 14, 79. B.A, Toronto, 01, fellow, 01–03, Ph.D, 10; 1851 Exhib. scholar, Cambridge, 04–06, B.A, 06. Asst. demonstrator *physics, Toronto,* 02–04, senior demonstrator, 06–11, assoc. prof, 11–24, *prof, 24–, head dept. and director physical lab, 32–* Mem, Nat. Research Council Can, 37– Royal Soc. Can. Radioactivity of crude petroleum; physical properties of colloidal solutions; action of electrolytes on colloids; super-conductivity; the electron microscope.

Burton, Everett Tyler, 97 Cypress St, Maplewood, N. J. *Electrical engineering.* Brook, Ind, April 21, 93. A.B, Indiana, 20, A.M, 24. *Research engineer, Bell Tel. Labs, New York, 20–* 2nd lieut, C.Eng, 17–18. A.A; Math. Soc; Radio Eng; Ind. Acad. Electricity; carrier current systems and submarine cable terminal equipment.

Burton, Dr. Glenn W(illard), U. S. Department of Agriculture, Tifton, Ga. *Agronomy.* Claytonia, Nebr, May 5, 10. B.S, Nebraska, 32; M.S, Rutgers, 33, Ph.D, 36. Asst. agron, Rutgers, 32–36; agent and later *geneticist, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr, 36–* A.A; Soc. Agron. Grass breeding and inheritance; grass seed production and establishment.

Burton, H(arry) E(dward), U. S. Naval Observatory, Washington, D. C. *Astronomy.* Onawa, Iowa, June 11, 78. A.B, Iowa, 01, fellow, 02–03, M.S, 03. Computer, *U. S. Naval Observatory,* 09–10, asst, 10–20, asst. astronomer, 20–24, assoc. astronomer, 24–28, astronomer, 29, *prin. astronomer, 29–, head equatorial div, 29–* A.A; Astron. Soc; Int. Astron. Union. Observations of sun, moon, planets and stars with the 9-inch transit circle; asteroids, comets, double stars, occultations and satellites with the 26-inch equatorial; derived new elements of the orbits of the satellites of Mars.

Burton, Dr. Helen B(rown), 512 S. Crawford St, Norman, Okla. *Nutrition, Biochemistry.* Chicago, Ill, Jan. 7, 89. A.B, Indiana, 11; B.S, Lewis Inst. Chicago, 15; M.S, Chicago, 22, fellow, 25–27, Ph.D, 29; Columbia, 16. Instr. home econ, Lewis Inst. Chicago, 15–18; head dept, Nebr. State Teachers Col, Wayne, 18–21; W. Texas State Teachers Col, Canyon, 22–25; *director sch. home econ, Oklahoma, 27–* A.A; fel. Okla. Acad. Influence of cereals upon the retention of calcium and phosphorus in children and adults.

Burton, Dr. John O, 905 Fifth St, International Falls, Minn. *Chemistry.* Duluth, Minn, Nov. 9, 05. B.S, Hamline, 27; M.S. and Ph.D, Maryland, 37. Junior chemist, Bur. Standards, 27–34; asst. chemist, Naval Research Lab, 34–35; assoc. chemist, U. S. Bur. Engraving and Printing, 35–37; research chemist, Insulite Co, 37–40; *director research, Minn. and Ont. Paper Co, 40–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Physical and organic chemistry of cellulose, lignin and related products and their application to pulp, paper, insulating and structural materials; utilization of agricultural and forest wastes; physical chemistry of organic electrolytes.

Burton, Dr. J(oseph) A(shby), 13 Meadowbrook Village, Plainfield, N. J. *Physical chemistry.* Onley, Va, Aug. 22, 14. B.S, Washington and Lee, 34; Ph.D, Hopkins, 38. *Mem. tech. staff, Bell Tel. Labs, 38–* Physical Soc. Low voltage neutron generator; photoelectric surfaces.

Burton, Dr. Laurence V(reeland), 330 W. 42nd St, New York, N. Y. *Food technology.* Aurora, Ill, April 15, 89. B.S, Illinois, 11, M.S, 14; Ph.D, Yale, 17. Bacteriologist, Libby, McNeill and Libby, 16–18; Nat. Canners Asn, 19–22; asst. to gen. supt, Libby, McNeill and Libby, 22–24; factory manager, Foulds Co, 24–28; asst. ed, *'Food Industries,'* 28–30, assoc. ed, 30–31, *ed, 31–* U.S.A, 18–19. Chem. Soc; Soc. Bact; Asn. Cereal Chemists; Oil Chemists Soc; Soc. Refrig. Eng; Inst. Food Tech. (pres, 42). Steam kettles; scientific grading of foods; food economics; bacteriology; food technology; food engineering.

Burton, Dr. Milton, New York University, University Heights, New York, N. Y. *Physical chemistry.* Stapleton, N. Y, March 4, 02. B.S, N. Y. Univ, 22, M.S, 23, fellow, 24–25, Ph.D, 25. Teaching fellow, N. Y. Univ, 22–24; chief engineer, Photion Elec. Corp, 25–27; pres, Photion Instrument Corp, 27–29; in charge electrochem. research, P. R. Mallory and Co, 29–30; chief chemist, Micamold Radio Corp, 31–32; consulting chemist, 32–35; res. investigator, N. Y. Univ, 35–36, asst. 36–37; visiting fellow, California, 37–38; *instr. chem, N. Y. Univ, 38–; research assoc, Chicago, 42–* Chem. Soc; fel. Inst. Chem. (sec'y-treas. N. Y. chap, 41); N. Y. Acad. Catalysis; gaseous conduction; rectifiers; condensers; photochemistry; free radicals; reaction mechanisms.

Burton, Prof. W(illiam) W(ilder), S. Walnut St, Seneca, S. C. *Mathematics.* Boston, Mass, May 1, 83. Ph.B, Brown, 06; A.M, Mercer, 18. Prof. *math,* Mercer, 14–18; asst. prof, *Clemson Col,* 28–41, *assoc. prof, 41–* Plane trigonometry and tables; analytic geometry.

Burton-Opitz, Dr. R(ussell), Palisade, N. J. *2*Physiology, Internal medicine.* Ft. Wayne, Ind, Oct. 25, 75. M.D, Rush Med. Col, 95; B.S, Chicago, 98, M.S, 02, Ph.D, 05; Vienna, 98; Naples Zool. Sta, 01. Asst. *physiol,* Breslau, 98–01; Harvard, 01–02; demonstrator, *Columbia,* 02–04, adj. prof, 04–10, assoc. prof, 10–23, *lecturer, 23–* Consulting physician, Cumberland Hosp; consulting cardiologist, Lenox Hill, Englewood, North Hudson, Holy Name, Christ and Hackensack Hosps. A.A; Soc. Nat; Physiol. Soc; Am. Med. Asn; Soc. Exp. Biol; Soc. Biol. Chem; Soc. Pharmacol; N. Y. Cardiol. Soc; Physiol. Gesell. Viscosity of blood and body fluids; vasomotor nerves; blood pressure; blood flow; secretion of saliva and bile; practical physiology.

Burtsell, Dr. A(ubison) T(uthill), 8 Regina Ave, Bellmore, N. Y. *Physical analytical chemistry.* Eastport, N. Y, March 23, 07. B.S, N. Y. Univ, 31, M.S, 33, Ph.D, 36. Teaching fellow, N. Y. Univ, 31–35; fellow, *Col. City of N. Y,* 35–38, *instr. chem, 38–, div. pub. service training, 40–* Prof, North Jersey Col, 36–37. Summers, mem. group to tour explosives plants, U. S. Dept. Educ, 41. Abstractor, 'Jour. Chem. Educ,' 38–40, assoc. ed, 40– A.A; Chem. Soc. (councilor, 40–42); fel. Inst. Chem; Fire Protection Asn; Metrop. Microchem. Soc; N. Y. Chem. Teachers Club. Photoelectric colorimetric analysis in chemistry.

Burtt, Prof. Harold E(rnest), Ohio State University, Columbus, Ohio. *Psychology.* Haverhill, Mass, April 26, 90. A.B, Dartmouth Col, 11; A.M, Harvard, 13, Ph.D, 15. Instr. *psychol,* Simmons Col, 15–18; Harvard, 16–18; *Ohio State,* 19–20, asst. prof, 20–22, *prof, 22–, chairman dept, 39–* Consulting psychologist, Can. Consol. Rubber Co. Capt, A.S. A.A; Psychol. Asn; Asn. Applied Psychol. (chairman, indust. and business sect, 37). Experimental and applied psychology; vocational tests; legal psychology; advertising.

Burunjik, Dr. May (Mrs. Paul Wright), 795 W. Arlington Ave, St. Paul, Minn. *Botany.* New York, N. Y, Nov. 3, 05. B.S, Chicago, 27, M.S, 28, Wild Flower Preservation Soc. fellow, 28–30, Ph.D, 30. Instr. biol, N. Mont. Col, 30–35, prof, 35–36. A.A; Mont. Nat. Hist. Soc. (biol. councilor, 36). Germination of wild flower seeds; flora of the Bear Paw Mountains, Montana.

Burwash, Dr. E(dward) M(oore Jackson), 36 Prince Arthur Ave, Toronto, Ont, Can. *Geology.* Cobourg, Ont, July 10, 73. B.A, Toronto, 93, M.A, 97, Ph.D, 14; B.D, Victoria (Can), 03; fellow, Chicago, 10–12, Ph.D, 15. Sec'y to chancellor, Victoria (Can), 02–05; prof. nat. science, Columbian Methodist Col, 05–10; science master, Upper Can. Col, 13–14; asst. prof. geol. and miner, Manitoba, 19–22; lecturer geol, British Columbia, 23–27; geologist and instr, prospectors' classes, north. Ont, Ont. Dept. Mines, 27–38; *retired.* Asst, Geol. Surv. Can, 93, 11, field geologist, 27; asst. geologist, Ont. Dept. Mines, 95, field geologist, intermittently, 96–36; mining geologist, Mex. and Can. A.A; Geol. Soc; Can. Inst. Min. and Metal. (v. pres, Man. branch, 21); Royal Can. Inst; B. C. Acad. (sec'y, 09); British Asn. General geology; Canadian Archean geology; Cretaceous invertebrates; local glaciology and petrology.

Burwell, Dr. A(rthur) W(arner), Box 556, Niagara Falls, N. Y. *Chemistry.* Rock Island, Ill, Aug. 26, 67. Ph.D, Strassburg, 92. Teacher, Huron Street Hosp. Col, 87–89; in charge research chem. lab, Strassburg, 91–92; *consulting and exec. positions, 92–; v. pres. and tech. director, Alox Corp.* Chem. Soc; Electrochem. Soc; Inst. Chem; Soc. Test. Mat; Soc. Automotive Eng; Inst. Petrol. Eng; Mech. Eng. Petroleum; lubricating oils; chemistry of thermal and oxidation decompositions; petroleum hydrocarbons.

Burwell, Dr. C(harles) Sidney, Harvard Medical School, Boston, Mass. *Medicine.* Denver, Colo, April 10, 93. A.B, Allegheny Col, 14, LL.D, 36; M.D, Harvard, 19. Teaching fellow, Harvard Med. Sch, 21; instr, sch. med, Hopkins, 21–22, assoc. med, 22–24; assoc. prof, sch. med, Vanderbilt, 25–28, prof, 28–35; *dean med. faculty and research prof. clin. med, Harvard Med. Sch, 35–* A.A; Am. Med. Asn; fel. Col. Physicians; Am. Physicians; Soc. Clin. Invest. (pres, 34); Clin. and Climat. Asn. (pres, 42). Cardiography; quinidin; digitalis; atropine; electric axis of the heart; mixed venous blood of man; the electrocardiogram; circulatory failure; gaseous content of the blood; output of the heart; obstructive pericarditis; circulation in pregnant women; congenital heart disease.

Burwell, Miss Cora G(ertrude), Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. *Astronomy.* Holyoke, Mass, June 25, 83. A.B, Mt. Holyoke Col, 06. *Computer, Mt. Wilson Observatory, Carnegie Institution, 07–* Astron. Soc. Spectroscopy.

Burwell, Edward B(ouldin), Jr, U. S. Engineer Office, Ohio River Division, Enquirer Bldg, Cincinnati, Ohio. *Engineering geology.* Lancaster, Va, Dec. 17, 94. Hon. B.S, Va. Polytech, 16, hon. E.M, 17. Mining engineer and geologist, Low Moor Iron Co, 19–25; Weld and Liddell, 26–27; geologist, Mo-Kans. Zinc Corp, 28–29; Cent. Am. Mines Inc, 29–30; *U. S. War Dept,* 31–38, *senior geologist, 38–* Lieut, U.S.A, 17–19. Min. and Metal. Eng; Geophys. Union (cmt. underground waters, 40–). Geology of dam and reservoir sites; techniques of exploring, developing and treating foundations for heavy engineering structures.

Burwell, Dr. John T(ownsend), Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Millwood, Va, Dec. 24, 12. B.S, Mass. Inst. Tech, 34, M.S, 36, Ph.D, 38. Teaching fellow, Mass. Inst. Tech, 37; res. physicist, U. S. Steel Res. Lab, 37–39; *res. assoc, Mass. Inst. Tech, 39–* Physical Soc. Crystal structure by means of x-rays and electron diffraction; structure and magnetic properties of silicon steel; lubrication and surface finish.

Burwell, Dr. Robert L(emmon), Jr, Northwestern University, Evanston, Ill. *Physical chemistry.* Baltimore, Md, May 6, 12. A.B, St. John's Col. (Md), 32; A.M, Princeton, 34, Procter fellow, 35–36, Ph.D, 36. *Instr. chem,* Trinity Col. (Conn), 36–39; *Northwestern, 39–* Chem. Soc. Adsorption of gases; heterogeneous catalysis; organic chemistry.

Burwell, Dr. William R(ussell), Corning Drive, Cleveland, Ohio. *Mathematics, Education.* Providence, R. I, March 23, 94. A.B, Brown, 15, A.M, 16; Rhodes scholar, Oxford, 16–17, 19–21, B.A, M.A, 20, Ph.D, 21. Instr. math, Brown, 18–19; asst. prof, Tennessee, 22; dean freshmen, Brown, 22–26; pres, Continental Shares, Inc, 26–31; *treas, Brush Beryllium Co; chairman, Brush Develop. Co; pres. and director, Brush Labs. Co.* Director, Wheeling Steel Corp; Cleveland-Cliffs Iron Co; Brush Develop. Co; Brush Beryllium Co. Trustee, Brown; Denison; Cleveland Inst. Music. Statistician, W.I.B, 17–18. Math. Soc; Math. Asn.

Busch, Dr. Daniel A(dolph), State Topographic and Geological Survey, Harrisburg, Pa. *Geology.* St. Paul, Minn, May 31, 12. B.S, Capital, 34; A.M, Ohio State, 36, Bownocker scholar, 36–39, Ph.D, 39. Asst. geol, Ohio State, 35–36; instr, Pittsburgh, 38–43; *mem. staff, State Topog. and Geol. Surv,*

Pa, 43– A.A; Paleont. Soc; Asn. Petrol. Geol; Soc. Vert. Paleont. Stratigraphy and paleontology.

Busch, Prof. K(arl) G(eorge) A(dolph), 2424 Sherwood Road, Columbus, Ohio. *Chemistry.* Woodville, Ohio, March 23, 83. B.S, Capital Univ, 03, A.B, 04; Lutheran Sem. (Columbus), 06; Michigan, 08; A.M, Ohio State, 21, Ph.D, 30. Head dept. science, Lenoir-Rhyne Col, 06–08; prof. science and math, Luther Col. (Minn), 08–13; head physical science, chem. and physics, Lenoir-Rhyne Col, 13–14; *prof. science and head dept. chem, Capital Univ, 14–* Chem. Soc; Ohio Acad. (chairman, chem. sect, 35). Oxidation of sugars.

Busch, Dr. Karl H(einrich) D(aniel), Corpus Christi Junior College, Corpus Christi, Texas. *Zoology.* St. Paul, Minn, Oct. 23, 09. B.S, Capital, 31, 32–33; M.S, Ohio State, 37, Ph.D, 40. Lab. asst, Capital, 32–33; prin. and teacher math, social science and indust. arts, high sch, Atlanta, Ohio, 34–36; asst, Ohio State, 36–40; *head dept. biol. and physics, Corpus Christi Junior Col, 40–* Summers, asst, Franz Theodore Stone Lab, Ohio State, 37; lab. instr, Marine Zool. Sta, New Hampshire, 38. A.A; Ohio Acad; Texas Acad. Embryology of the crayfish; bryozoa of the Texas Gulf Coast; methods in the microtechnic of refractory egg material.

Busck, August, 217 Rock Creek Church Road, Washington, D. C. *Entomology.* Randers, Denmark, Feb. 18, 70. Ordrup Col, Denmark, 87–89; A.M, Ph.B, Royal Univ, Copenhagen, 93. Instr. zool. and math, Ordrup Col, 89–93; asst, bur. entom. and plant quarantine, U. S. Dept. Agr, 96–40; Bishop Museum fellow, Yale, 40–41; *asst, bur. entom. and plant quarantine, U. S. Dept. Agr, 42–* A.A; Entom. Soc. Wash. (pres, 13); Biol. Soc. Wash. American Microlepidoptera.

Busemann, Dr. Herbert, Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Berlin, Germany, May 12, 05. A.B, Humanistic Sch, Germany; Munich; Paris; Rome; Ph.D, Göttingen, 31. Asst, Göttingen, 31–33; asst. *math,* Inst. Advanced Study, 36–39; *instr,* Swarthmore Col, 39–40; *Ill. Inst. Tech, 40–* Lecturer, N. Y. Univ, 36–38. Math. Soc. Foundations of geometry; differential geometry; modern theory of real functions.

Bush, Prof. Gow M(ax), 2006 Fayetteville St, Durham, N. C. *Vertebrate anatomy.* Cincinnati, Ohio, Dec. 3, 09. B.S, W. Va. State Col, 33; Tufts Col; M.S, Cornell, 34; Ph.D, Iowa, 39. *Prof. zool,* Louisville Munic. Col, 34–35; *N. C. Col. for Negroes, 35–* Summer, prof, Ky. State Col, 35. A.A; Iowa Acad. Habits of the thirteen lined ground squirrel; adaptations for burrowing in Citellus tridecemlineatus tridecemlineatus; rodents indigenous to North Carolina.

Bush, Dr. J(asper) D(ixon), Jr, University of Alabama School of Medicine, University, Ala. *Pathology, Bacteriology.* Decatur, Ala, June 23, 09. B.S, Birmingham-Southern Col, 30; Alabama, 30–33; M.D, Rush, Chicago, 36. Lab. asst. path. and bacter, sch. med, Alabama, 34–35; clin. intern, Hillman Hosp, Birmingham, Ala, 36–38, res. path, 38–39; instr. *path. and bacter, sch. med, Alabama,* 39–42, *asst. prof, 42–* Autoplastic transplantation of the spleen; pathologic changes produced by the subcutaneous injection of rattlesnake venom into monkeys; cutaneous blastomycosis.

Bush, Prof. L(aurens) E(arle), 1997 Princeton Ave, St. Paul, Minn. *Mathematics.* Martins, S. C, March 24, 00. B.S, The Citadel, 19; M.S, North Carolina, 26; fellow, Ohio State, 30–31, Ph.D, 31. Instr, North Carolina, 26–30; Ohio State, 31–33; *prof. math, Col. of St. Thomas, 33–* Summers, prof, N. Texas State Teachers Col, 38–42. Assoc. ed, 'Nat. Math.' Math. Soc; Math. Asn. Algebras without moduli; definition of an algebra; nilpotent algebras; characteristic matrix of an algebra; asymptotic representations in number theory.

Bush, Prof. Milton T(omlinson), Vanderbilt University School of Medicine, Nashville, Tenn. *Pharmacology.* Watertown, Mass, May 16, 07. B.Ch, Cornell, 29, Ph.D, 38. Asst. physical chem, Cornell, 29–35; research assoc. *pharmacol, sch. med, Vanderbilt,* 35–41, *asst. prof, 41–* Chem. Soc; Soc. Pharmacol. Organic chemistry; arsenic derivatives of phenobarbital; barbituric acid derivatives; anesthesia; antisepsis; chemotherapy.

Bush, Dr. V(annevar), Carnegie Institution, Washington, D. C. ***\

consin, 31, M.S, 32, Ph.D, 35. Asst. entom, Wisconsin, 31–32, zool, 32–36; *instr. genetics, Georgia, 36–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Wis. Acad. Histology and cytology of insects; metamorphosis; insect population and embryology; genetics of dogs; genetics of Drosophila.

Bushnell, T(homas) M(ark), 430 Russell St, West Lafayette, Ind. *Agronomy.* Monticello, Ind, April 5, 89. DePauw, 07–09; B.S.A, Purdue, 12. Soil surveyor, bur. soils, U. S. Dept. Agr, 12–18; Exp. Sta, Agr. and Mech. Col. Texas, 19–21; *in charge soil surv, Exp. Sta, Purdue, 21–* Head land classification unit, land utilization div, Resettlement Admin, region III, 35–37. A.A; Soc. Agron; Soil Sci. Soc; Soc. Photogrammetry; Ind. Acad. Soils; complete physical inventory of land and interpretation of data through soil productivity ratings and land classification.

Businsky, Brother F(lorence) Christopher, University of Scranton, Scranton, Pa. *Embryology.* Baltimore, Md, June 29, 08. A.B, Catholic Univ, 33, M.S, 36, Ph.D, 41. Instr. *biol,* La Salle High Sch, Philadelphia, Pa, 36–38; De La Salle Col, 38–40; *assoc. prof, Scranton, 40–* Summers, instr, De La Salle Col, 36–39. Development of the tegmentum vasculosum in the cochlea of the bob-white quail.

Buss, Prof. Fred. (E), 510 Columbia St, Palo Alto, Calif. *Geology, Physiography.* Sherman, N. Y, Aug. 8, 79. A.B, Brigham Young, 13; A.M, Stanford, 23, 23–26. From instr. to prof. geol. and geog, Brigham Young, 13–24; assoc. prof. nat. science and later *prof. geol, San Jose State Col, 24–* Summer, assoc. prof, Stanford, 24. A.A; fel. Am. Geog. Soc. Plant geography.

Buss, Dr. Robert R(umsey), Radio Research Laboratory, Harvard University, Cambridge, Mass. *Radio engineering.* Provo, Utah, March 14, 13. A.B, San Jose State Col, Calif, 35; E.E, Stanford, 38, Ph.D, 40. *Radio engineer,* Heintz and Kaufman, Ltd, 39–40; Litton Eng. Lab, 40–41; U. S. Naval Air Sta, 41–43; *radio research lab, Harvard, 43–* A.A; Elec. Eng; assoc. Radio Eng. Stabilized feedback as applied to radio equipment; radar research.

Busse, Dr. W(arren) F(roemming), Central Research Laboratory, General Aniline and Film Corp, Easton, Pa. *Physics, Chemistry.* Chicago, Ill, Dec. 2, 00. Ph.B, Wisconsin, 23, M.S, 24, Charles A. Coffin fellow, 26–27, Ph.D, 27. Junior chemist, Forest Products Lab, 23–24; teacher, high sch, Wis, 24–25; fellow, Wisconsin, 27–28; physicist, B. F. Goodrich Co, 28–42, manager physical research lab, 36–42; *in charge physical research, cent. research lab, Gen. Aniline and Film Corp, 42–* Physical Soc; Chem. Soc. Physics and chemistry of colloids, particularly rubber and fabrics; mechanism of mastication of rubber; vulcanization of rubber; design of rubber products; structure and properties of textile fibers and fabrics; physics of dyestuff, photography and resins.

Bussell, Prof. Frank P, 205 Wyckoff Ave, Ithaca, N. Y. *Plant genetics.* Abilene, Kans, Sept. 3, 78. A.B, Colgate, 01; Ph.D, Cornell, 19. Asst. prof. *plant breeding, Cornell,* 19–24, *prof, 24–, in charge regional exps. and exten. work.* A.A; Soc. Agron; Genetic Asn. Mendelian inheritance in barley.

Bussey, Prof. W(illiam) H(enry), University of Minnesota, Minneapolis, Minn. *Mathematics.* Chicago, Ill, Oct. 24, 79. A.B, Northwestern, 00; A.M, Harvard, 02; fellow, Chicago, 02–04, Ph.D, 04. Instr. *math,* acad, Northwestern, 04–05; tutor, Barnard Col, Columbia, 05–07; asst. prof, *Minnesota,* 07–14, assoc. prof, 15–20, *prof, 20–,* chairman dept, 20–26, *asst. dean.* Ed. in chief, 'Am. Math. Monthly,' 27–31. A.A; Math. Soc; Math. Asn. (v. pres, 32). Generational relations for the abstract group simply isomorphic with the group LF $(2, p^n)$; Galois field tables; finite projective geometries; non-Euclidean geometry; geometric constructions.

Bussies, Dr. Justin L(loyd), 2027 Wespark Ave, Whiting, Ind. *Chemistry.* Holland, Mich, Aug. 27, 03. A.B, Hope Col, 25; A.M, Ohio State, 27, Ph.D, 30. Asst. chem, Ohio State, 25–30; org. research chemist, *Standard Oil Co. of Ind,* 30–37, *asst. head* light oils finishing dept, 37–42, pressure still dept, 42, *crude still dept, 42–* Rubber vulcanization, accelerators and antioxidants; gasoline stabilization; light oils finishing.

Busteed, Prof. Robert C(harles), Appalachian State Teachers College, Boone, N. C. *Plant pathology.* Milan, Ind, Sept. 4, 07. A.B, Indiana, 30, A.M, 32, Ph.D, 36. Asst, Indiana, 30–32, tutor bot, 32–36; asst. prof. *biol, Appalachian State Teachers Col,* 39–40, *prof. and head dept, 40–* Pathogenicity and life history of Physalospora obtusa on Austrian pine and on chestnut oak; fungus diseases of forest trees.

Buswell, Prof. Arthur M(oses), Urbana, Ill. *[5]*Chemistry.* Madison, Wis, March 20, 88. A.B, Minnesota, 10; A.M, Maine, 12; fellow, Columbia, 13, Ph.D, 17. Instr. chem, Maine, 10–12; Columbia, 13–20; *chief, State Water Surv, Ill, 20–; prof.* sanit. chem, *Illinois,* 23–31, *chem, 31–* Div. mem, Nat. Defense Research Cmt. Sanit.C, 17–19, capt. A.A; Chem. Soc. (chairman, cmt. on water anal, 20–, past councilor, chairman, water sanit. div, Ill. sect); fel. Pub. Health Asn; Water Works Asn; Soc. Bact. Treatment of water and wastes; anaerobic fermentation; colloids; spectroscopy.

Buswell, Prof. G(uy) T(homas), University of Chicago, Chicago, Ill. *Educational psychology.* Lincoln, Nebr, Jan. 21, 91. A.B, York Col, 13; A.M, Chicago, 16, Ph.D, 20. Prof. educ, York Col, 15–18; asst. prof. educ. and psychol, Hamline, 19–20; *educ. psychol, Chicago,* 20–23, assoc. prof, 23–27, *prof, 27–* Summer, mem. faculty, California, 31. A.A; Psychol. Asn; Educ. Research Asn; Soc. Study Educ. Eye movement in reading; the psychology of learning.

Butchart, Prof. J(ohn) H(arvey), 1205 Vine, Fulton, Mo. *Mathematics.* Luchowfu, China, May 10, 07. B.S, Eureka Col, 28; A.M, Illinois, 29, Ph.D, 32. Asst, Illinois, 29–30, 31–32; instr. *math,* Butler, 33–36; *prof,* Phillips, 36–39; *William Woods Col, 39–* Math. Asn. Differential geometry.

Butcher, Prof. Earl O(rlo), Griffin Road, College Hill, Clinton, N. Y. *Biology.* Burlington, Ind, Sept. 20, 03. A.B, DePauw, 25; A.M, Cornell, 26, Ph.D, 28. Instr. histol. and embryol, Cornell, 26–28; asst. prof. biol, Hamilton Col, 28–29, assoc. prof, 29–36, *prof,* 36–43; *anat, col. med. and dentistry, N. Y. Univ, 43–* Trustee, Mt. Desert Biol. Lab. A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol. Histology; embryology; origin of germ cells; differentiation of mesoderm in mammals; pituitary in the ascidians; transplantation of eyes and determining factors in Mollusca; hair growth; eye and melanophoric responses in fish.

Butcher, Dr. F. Gray, North Dakota Agricultural College, Fargo, N. Dak. *Entomology.* Granada, Colo, Sept. 28, 05. A.B, Kansas, 27, A.M, 30; Ph.D, Cornell, 41. Field entomologist, State Entom. Cmn, Kans, 27–29; asst, N. Y. State Col. Agr, Cornell, 30–36; *exten. entomologist and plant pathologist, N. Dak. Col, 36–* Asn. Econ. Entom; Potato Soc. Economic entomology.

Butcher, Fred D(unaway), U. S. Department of Agriculture, Bozeman, Mont. *Entomology.* Henry Co, Mo, Aug. 5, 97. A.B, Kansas, 21. Extension entomologist, Iowa State Col, 21–30; U. S. Dept. Agr, 30–33; N. Dak. Col, 33–36; *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 36–* Asn. Econ. Entom; Entom. Soc; Kans. Entom. Soc. Extension entomology.

Butler, Dr. Albert Q(uigg), Mallinckrodt Chemical Works, St. Louis, Mo. *Chemistry.* Seymour, Conn, Nov. 13, 01. B.S, Wesleyan, 23, A.M, 24; A.M, Harvard, 26, Ph.D, 33. Asst. chem, Wesleyan, 23–24; Harvard, 24–26, instr, 26–29, 32–33, private asst, 33–36; instr, Tufts Col, 29–32; research chemist, *Mallinckrodt Chem. Works,* 36–38, *head anal. dept, 38–* Instr. chem, Radcliffe Col, 28. Summers, instr, Harvard, 27–31. A.A; Chem. Soc. Atomic weights; density, compressibility and atomic weight of rare gases; analytical methods.

Butler, Dr. Allan M, Massachusetts General Hospital, Boston, Mass. *Pediatrics.* Yonkers, N. Y, April 3, 94. B.Litt, Princeton, 16; M.D, Harvard, 26. Asst, hosp, Rockefeller Inst, 26–28; tutor biochem. sciences, *Harvard,* 28–30, assoc. *pediat,* 30–37, asst. prof, 37–42, *assoc. prof, 42–* Capt, F.A, 17–19; senior surgeon, U. S. Pub. Health Reserve, 41; regional med. officer, first defense area, Office Civilian Defense, 41. Pediat. Soc; Acad. Pediat; Soc. Clin. Invest; Soc. Pediat. Research; Asn. Study Int. Secretions; Interurban Clin. Club. Metabolism; determination of sodium in biological material; serum proteins; ascorbic acid in blood and urinary keto-steroids; disturbances in acid, base and water metabolism; renal function; nephritis; diabetes mellitus; nutrition; endocrinology.

Butler, Arthur Pierce, Jr, U. S. Geological Survey, Washington, D. C. *Geology.* Morristown, N. J, June 23, 08. A.B, Harvard, 30, M.B.A, 32, A.M, 37. Asst. geol, Harvard, 38–39, instr, 39–40; recorder, *U. S. Geol. Surv,* 40–41, *junior geologist, 41–* Tertiary geology of the Rio Grande Valley; strategic and critical minerals.

Butler, Prof. B(ert) S, University of Arizona, Tucson, Ariz. *[6]*Geology.* Gainesville, N. Y, March 30, 79. A.B, Cornell,

05, A.M, 07; hon. Sc.D, Colo. Sch. Mines, 28. Asst. geol, Cornell, 04–05, instr. geol. and physical geog, 05–07; junior geologist, U. S. Geol. Surv, 07–09, asst. geologist, 09–11, *geologist*, 11–20; Calumet and Hecla Co, 20–24; *U. S. Geol. Surv, 24–; prof. geol, Arizona, 28–* A.A; Geol. Soc; Soc. Econ. Geol. (pres, 32); Min. and Metal. Eng. Petrography; areal geology of the Yakutat Bay region; copper mineral resources of the United States; petrography and geology of copper district, California and Michigan; ore deposits of Utah; copper deposits of Michigan and Colorado mining districts.

Butler, Dr. Bertram T(heodore), 186 Crescent Ave, Leonia, N. J. *Geology.* Nashua, Iowa, March 22, 72. Ph.B, Hamline, 01; A.M, Columbia, 08; Ph.D, N. Y. Univ, 33. Mont. Wesleyan, 03–06; Glendive, Mont, 06–07; asst. prof. and assoc. prof. geol, Col. City of N. Y, 08–42, chairman dept; *retired.* A.A; Miner. Soc; fel. N. Y. Acad; N. Y. Miner. Soc. (pres, 36–38). Geomorphology of the Triassic Basin of New Jersey; physiography of the Catskill Mountains; western American birches; trees and shrubs of Montana.

Butler, Rear Admiral C(harles) S(t. John), U.S.N. (retired), 848 Anderson St, Bristol, Tenn. *Medicine.* Bristol, Tenn, March 1, 75. A.B, Emory and Henry Col, LL.D; M.D, Virginia, 97. From lieut. to rear admiral, M.C, U.S.N, 00–35; instr. bacter. and trop. med, U. S. Naval Med. Sch, intermittently, 07–24, commanding officer, 21–24, 27–32; command, Naval Hosp, Brooklyn, 32–35; U.S.N. Med. Supply Depot, Brooklyn, 35–36; Naval Med. Center, 36–38; *retired.* Director gen. pub. health, Republic of Haiti, 24–27; lecturer, George Washington, 09–11, 22–24; Jefferson Med. Col, 22–24. Mem, Nat. Advisory Health Council, 30–37. A.A; fel. Am. Med. Asn; Col. Physicians; Soc. Trop. Med. (pres, 27); Acad. Trop. Med. (pres, 40); fel. Col. Surg; Asn. Mil. Surg; Soc. Bact. (pres, Wash. branch, 23); Soc. Clin. Path; Soc. Parasitol; Asn. Immunol; fel. N. Y. Acad. Med; Helminth. Soc. Wash. (pres, 30); Wash. Acad. Bacteriology; sanitation; tropical medicine.

Butler, Dr. C(ourtland) L(ivingston), Jr, General Chemical Co, New York, N. Y. *Chemistry.* Battle Creek, Mich, Jan. 20, 97. B.S, Pa. State Col, 20; M.S, Illinois, 23, Ph.D, 25. Indust. fellow, Mellon Inst, 26–28, fellow, dept. pure research, 28–33, senior fellow, 33–38; prof. chem, Bennington Col, 38–42; *mem. staff, Gen. Chem. Co, 42–* Lecturer, Pittsburgh, 29–38. A.A; Chem. Soc. Plant gums; sugars, sugar acids and their phenyl hydrazine derivatives; stereoisomerism; cinchona alkaloids; chemotherapeutic problems, especially in relation to pneumonia.

Butler, Dr. Edmund (Williams), 2539 Vallejo St, San Francisco, Calif. *Surgery.* Davenport, Iowa, Aug. 25, 86. Sacred Heart Col, Calif, 07; M.D, Cooper Med. Col, 11. Res. surgeon, Stanford Hosp, 11–14; surgeon, *San Francisco Emergency Hosp, 14–19, chief surgeon, 19–;* asst. and *assoc. clin. prof. surg, sch. med, Stanford, 20–* Lieut, U.S.N.R, 17–19. Col. Surg; Am. Med. Asn; Pacific Coast Surg. Asn; San Francisco Acad. Med. Application of surgery.

Butler, Prof. Elizabeth, Vassar College, Poughkeepsie, N. Y. *Zoology.* Boston, Mass, Jan. 17, 04. A.B, Vassar Col, 26; Ph.D, Chicago, 34. Asst. *zool, Vassar Col,* 27–29, instr, 30–31, 34–38, *asst. prof, 38–* A.A; assoc. Soc. Zool. Experimental embryology.

Butler, Prof. Elmer G(rimshaw), Princeton University, Princeton, N. J. **Zoology, Embryology.* Parish, N. Y, Feb. 13, 00. A.B, Syracuse, 21, hon. Sc.D, 41; fellow, Princeton, 23–24, Procter fellow, 24–26, A.M, 25, Ph.D, 26. Instr. zool, Vermont, 21–23; *biol, Princeton,* 26–28, asst. prof, 28–31, assoc. prof, 31–37, *prof, 37–, chairman dept, 33–* Pres, Union Am. Biol. Societies, 43– Assoc. ed, 'Jour. Morphol'; trustee and mem. advisory ed. board, 'Biol. Abstracts.' A.A; Soc. Zool. (sec'y, 36–39); Soc. Nat; Asn. Anat; Soc. Exp. Biol; Soc. Develop. and Growth; Bermuda Biol. Sta. Comparative anatomy; embryology of the vertebrate circulatory system; vena cava in man; embryonic veins in the development of the mammalian vena cava posterior; cellular reactions and x-radiation; x-radiation and regeneration; effects of x-rays on embryonic development; cellular interaction during regeneration; influence of nerves on regeneration.

Butler, Prof. Frederic R(aymond), 76 Paine St, Worcester, Mass. *Chemistry.* Worcester, Mass, May 26, 99. B.S, Worcester Polytech, 20, M.S, 22; A.M, Harvard, 24, Ph.D, 25. Instr. *chem,* Mass. Col, 25–27; asst. prof, *Worcester Polytech,* 27–37, *prof, 37–,* acting head dept, 37–40. Chem. Soc. Unsaturated compounds; salt effect.

Butler, Dr. G(ordon) C(ecil), 179 Breeze Hill Ave, Ottawa, Ont, Can. *Biochemistry.* Ingersoll, Ont, Sept. 4, 13. B.A, Toronto, 35, Ph.D, 38. Teaching fellow biochem, Toronto, 35–38, 1851 Exhib. scholar, London, 38–40; research chemist, Chas. E. Frosst and Co, 40–42; *officer, chem. warfare labs, N.D.H.Q, 42–* Can. Physiol. Soc; Biochem. Soc. Eng. Steroids; immunochemistry.

Butler, Dean G(urdon) M(ontague), University of Arizona, Tucson, Ariz. *Geology.* Lake Geneva, Wis, March 26, 81. E.M, Colo. Sch. Mines, 02, Sc.D, 22. From instr. to assoc. prof. geol. and miner, Colo. Sch. Mines, 03–13; assoc. prof. mining eng, Oregon State Col, 13–14, prof. geol, 14–15; dean col. mines and eng, *Arizona,* 15–41, prof. miner. and petrol, 17–22, mining eng, 22–41, *dean col. eng, 41–* Geologist, Colo. Geol. Surv, 08–13; Oregon Bur. Mines and Geol, 14–15; director, Ariz. Bur. Mines, 15–41; consulting mining engineer and geologist. A.A; Geol. Soc; Miner. Soc; Asn. Eng. (1st v. pres, 23); Min. and Metal. Eng; Min. and Metal. Soc; Eng. Educ. Mining and petroleum geology; mineralogy; clays; gems.

Butler, H(arold) G(ordon), U. S. Bureau of Entomology and Plant Quarantine, St. Joseph, Mo. *Economic entomology.* B.S, Colo. Agr. Col, 25; fellow, Crop Protection Inst, 26–28; M.S, Iowa State Col, 29. *Asst. entomologist,* Exp. Sta, Purdue, 26–28; Exp. Sta, Delaware, 28–29; div. deciduous fruit insects, bur. entom, *U. S. Dept. Agr,* 29–30, *div. fruit and shade-tree insects,* 30–33, *bur. entom. and plant quarantine, 34–* A.A; Asn. Econ. Entom; Entom. Soc. Amer. Fruit insects.

Butler, Prof. Joe B(eaty), 305 W. Ninth St, Rolla, Mo. *Civil engineering.* Omega, Okla, May 11, 95. B.S. (C.E), Okla. Agr. and Mech. Col, 15, B.S. (Educ), 24; C.E, Mo. Sch. Mines, 22, M.S. (C.E), 24; Cornell, 27; Yale, 30. Ry. surv. and valuation, 15–17; highway eng, Ark. and Kans, 19–20; instr. *civil eng, Mo. Sch. Mines,* 20–22, asst. prof, 22–23, assoc. prof, 23–31, *prof. and in charge dept, 31–* Supervisor county road and resources surveys research projects, Fed. Emergency Relief Admin, State Highway Dept, Mo. and Mo. Sch. Mines, 34– Contact mem. highway research board, Nat. Research Council. C.Eng, 17–19, lieut. A.A; Civil Eng; Concrete Inst; Ry. Eng; Eng. Educ; St. Louis Eng. Club. Sanitary bacteriology; geodetic surveying; flood control reconnaissance; oil and fluid flow bibliography; hydraulics; engineering education; county road and resources surveys.

Butler, Dr. Karl D(ouglas), Bureau of Plant Industry, Washington, D. C. *Plant pathology.* Douglas, Ariz, Feb. 4, 10. B.S, Arizona, 31, M.S, 33, fellow, 31–33; fellow, Cornell, 37–40, Ph.D, 40. Asst. plant path, Iowa State Col, 33–34; jr. forest pathologist, div. forest path, U. S. Dept. Agr, 34; res. asst. and instr. plant path, *Arizona,* 34–36, *asst. plant pathologist, 37–; agent rubber disease investigations, bur. plant indust, U. S. Dept. Agr, 40–* Mem, Am. Rubber Surv, Bolivia and Brazil, 40–41. Cotton root-rot; lettuce drop; date palm diseases; tree canker diseases caused by cytospora; the protection of cereal crops with sulphur dusts; the resistance of Hevea to Dothidella Ulei.

Butler, Dr. Keith H(uestis), E. I. du Pont de Nemours and Co, Newport, Del. *Chemistry.* Halifax, N. S, Can, July 5, 05. B.A, Dalhousie, 25, Nat. Research Council Can. bursar, 25–26, M.A, 26; Nat. Research Council Can. student, McGill, 26–27, fellow, 27–28, Ph.D, 28. Asst, Mass. Inst. Tech, 28–29; *research chemist, E. I. du Pont de Nemours and Co, 29–* Liquid chlorine; hydrogen persulfide; lithopone; chemistry and physics of white pigments.

Butler, Prof. L(ee) W(right), 716 Hodge Ave, Ames, Iowa. *Physics.* Seymour, Iowa, April 7, 93. A.B, Simpson Col. (Iowa), 14; Wisconsin, 14–17; Iowa State Col. Asst. *physics,* Wisconsin, 14–17; instr, *Iowa State Col,* 19–21, *asst. prof, 21–* Iowa Acad. Electrical properties and conductivity of cod-liver oil; atmospheric electricity and the growth of plants.

Butler, Dr. Mary (Mrs. Clifford Lewis, 3rd), University Museum, 33rd and Spruce Sts, Philadelphia, Pa. *Archeology.* Media, Pa, June 23, 03. A.B, Vassar Col, 25; Sorbonne, Paris, 25; A.M, Radcliffe Col, 30; Ph.D, Pennsylvania, 36. Teacher, sch, Pa, 25–28; asst, *Am. sect, univ. museum, Pennsylvania,* 30–35, *research assoc, 35–* Asst. archeologist, Pa. Hist. Cmn, 36; instr, Hunter Col, 37–38; lecturer, Bryn Mawr Col, 42–43. Am. Philos. Soc. grant, archeol. surv, Alta Verapaz, Guatemala, 37, 40. Director, Hudson Valley Archeol. Surv, 39–40. Archeol. expeds, W. Va, 30, Piedras Negras, Guatemala, 32, west. Pa, 36, south. Ill, 37, Alta Verapaz,

Guatemala, 39, 40, Hudson Valley, N. Y, 39, 40, Quiché, Guatemala, 41. Anthrop. Asn. (councilor); fel. Soc. Am. Archeol; Soc. Pa. Archeol; Phila. Anthrop. Soc. Maya archeology and art; archeology of Pennsylvania and eastern New York.

Butler, Prof. Robert D(exter), Lehigh University, Bethlehem, Pa. *Geology.* New York, N. Y, Oct. 17, 09. B.S, Mass. Inst. Tech, 32, Ph.D, 37. Asst. *geol,* Mass. Inst. Tech, 32–36; instr, *Lehigh,* 36–39, *asst. prof, 39–* Geologist, London Mines and Milling Co, Alma, Colo, 37–40, 41– Min. and Metal. Eng; Miner. Soc; Pa. Acad. Economic geology; mineralogy.

Butler, Dr. Thomas C(ullom), Vanderbilt University School of Medicine, Nashville, Tenn. *Pharmacology.* Phoenix, Ariz, April 2, 10. A.B, Vanderbilt, 30, M.D, 34. Res. asst. *pharmacol, sch. med, Vanderbilt,* 34–35, instr, 35–36, *asst. prof, 36–* Soc. Pharmacol. Pharmacology of hypnotic and anesthetic drugs.

Butt, Dr. Edward M(erchant), 3551 University Ave, Los Angeles, Calif. *Pathology.* Seattle, Wash, 96. A.B, Stanford, 24, M.D, 29. Asst. instr. pharmacol, sch. med, Stanford, 26–28, instr. *path,* 28–30; asst. prof, *Southern California,* 31–35, *assoc. prof, 35–* Visiting pathologist, Los Angeles County Hosp, 31–, Santa Fe Coast Lines Hosp, 33– Soc. Path. and Bact; fel. Am. Med. Asn; Soc. Exp. Biol; Pub. Health Asn. Amyloid nephrosis in rabbits; reciprocal action of crop muscles in anaphylactic shock; pigment cirrhosis due to copper poisoning; chronic metal intoxications; leukemic reticulo-endotheliosis, monocytic leukemia; agranulocytosis; heterophile antibody reaction in infectious mononucleosis; bacterial capsules; hypophysis; asthma; coccidioidomycosis.

Butt, Dr. F(erdinand) H(inckley), Box 173, Dryden, N. Y. *Entomology.* Spokane, Wash, Aug. 5, 99. A.B, Washington (Seattle), 23, A.M, 25; Ph.D, Cornell, 34. Asst. instr. econ. entom, *Cornell,* 30–34, *instr. morphol, histol. and embryol, 34–* A.A; Zool. Soc; Entom. Soc. Morphology, histology and embryology of insects.

Butt, Dr. Hugh R(oland), 102 Second Ave, S.W, Rochester, Minn. *Internal medicine.* Belhaven, N. C, Jan. 8, 10. M.D, Virginia, 33. First asst, *div. med, Mayo Clinic,* 37–38, *consultant, 38–; instr. med, Mayo Foundation, Minnesota, 38–* Attending physician, St. Mary's, Colonial and Associate Hosps, 38– Am. Med. Asn; Col. Physicians; Federation Clin. Research; Gastro-Enterol. Asn; Cent. Soc. Clin. Research; South. Minn. Med. Asn. Gastro-enterology; diseases of the liver; the use of vitamins, especially vitamin K.

Butter, Dr. F(ranklin) A(lfred), Jr, University of Wisconsin, Madison, Wis. *Mathematics.* San Jose, Calif, Feb. 1, 10. A.B, Stanford, 30, A.M, 31, Ph.D, 36. Asst. math, Stanford, 30–32, instr, 32–36; Rockefeller Sci. Fund Res. fellow, Washington (St. Louis), 36–37; instr. *math,* Southern California, 37–39, asst. prof, 39–43; *instr, Wisconsin, 43–* Asst, San Jose State Teachers Col, Calif, 31; math. consultant, eng. dept, Douglas Aircraft Co, 42–43. Math. Soc. The theory of the arithmetic-geometric mean; orthogonal polynomials; theory of numbers.

Butterfield, Prof. Arthur D(exter), University of Vermont, Burlington, Vt. *Mathematics.* Dunstable, Mass, Oct. 13, 70. B.S, Worcester Polytech, 93, M.S, 98, hon. D.E, 38; A.M, Columbia, 04. Asst. civil eng, Worcester Polytech, 94–98; instr. math, eng. dept, Vermont, 98–00, asst. prof, 00–04, prof. mech. and math, 04–08; asst. prof. math, Worcester Polytech, 08–10, prof, 10–14, math. and geod, 14–17, 19–20; educ. director, Norton Co, 20–22; *prof. math. and geod, Vermont, 22–* U. S. Lighthouse Service, 93–94; terrestrial magnetism consultant, U. S. Coast and Geodetic Surv, 38– Summers, Mass. Topog. Surv, 95–98, 00–03, U. S. Geol. Surv, 04–11. Chevalier, Légion d'honneur; Knight Commander, Order of St. Michael and St. George, England. Capt, A.S, 17–18, major, 18–19, lieut. col, 19. Geophys. Union; Eng. Educ; Vt. Soc. Eng. Geodesy; triangulation in Massachusetts; base line measurements; the determination of the figure of the earth; magnetic observations.

Butterfield, C(hester) T(rice), U. S. Public Health Service, E. Third and Kilgour Sts, Cincinnati, Ohio. *Public health.* Mo, July 30, 90. B.S, Mo. Wesleyan Col, 12, M.S, 14. *Bacteriologist, stream pollution investigations, U. S. Pub. Health Service, 15–* Soc. Bact; Pub. Health Asn. (referee bacter. methods for standard methods cmt, 24–32). Bacteriology of water; interrelationship of bacteria and plankton; bacteriology of activated sludges; bacteriology of epidemic cerebrospinal meningitis; sterilization of surgical sutures for army.

Butterfield, E(arl) C(arver), Field Crops Farm, Beltsville, Md. *Horticulture.* Marysville, Kans, Sept. 9, 75. B.S, Kans. State Col, 98. Fruit and veg. growing, N. Y, 98–02; Arlington Exp. Farm, *bur. plant indust, U. S. Dept. Agr,* 02–41, in charge, 05–41, *senior horticulturist and supt, field crops farm, 42–*

Butterfield, Dr. E(lmore) E(verest), 70–04 Dartmouth St, Forest Hills, N. Y. *Chemistry.* Washington, D. C, Sept. 22, 81. M.D, George Washington, 03. Demonstrator bacter, George Washington, 02–04; res. pathologist, Garfield Mem. Hosp, 03–04; instr. path, Michigan, 04–06; Rockefeller Inst. grants, Tübingen and Leiden, 07–10; Rockefeller Inst, 11–13; path. chemist, Bellevue and Allied Hosps, 13–14; acting director cent. testing lab, Board Estimate and Apportionment, New York, 15–17; chief chemist, physical and chem. testing labs, Borough Queens, New York, 18–28; *consulting chemist, 29–* Pub. Works Asn; Pub. Health Asn. Optical constants; oxygen capacity and iron content of human hemoglobin in health and disease; method of determining the original proportions of materials in hardened concrete; processes for treating municipal refuse and sewage.

Butters, Prof. Frederic K(ing), University of Minnesota, Minneapolis, Minn. *Botany.* Minneapolis, Minn, Feb. 8, 78. B.S, Minnesota, 99; A.B, Harvard, 00, Ph.D, 17. Instr. bot. and pharmacog, *Minnesota,* 01–10, asst. prof. *bot,* 10–19, assoc. prof, 19–34, *prof, 34–* A.A; Bot. Soc; Ecol. Soc; Torrey Bot. Club; Fern Soc; New Eng. Bot. Club; Royal Geog. Soc. Plant geography; taxonomy of ferns.

Butterworth, Dr. T(heron) H(ervey), 123 Carnahan Ave, San Antonio, Texas. *Bacteriology.* New York, N. Y, March 31, 04. A.B, Princeton, 27; M.S, Wisconsin, 29, Ph.D, 31. Bacteriologist in charge acidophilous milk production, Walker-Gordon Lab. Co, Inc, Plainsboro, N. J, 31–33; mem. staff tech. dept, Borden's Cheese Co, Inc, and research staff, Borden Co, Syracuse, 34–37; dept. health lab, *San Antonio,* 37–38; consulting dairy technologist, 38–39; chief bur. dairy and milk inspection, health dept, 39–41; *consulting dairy technologist, 41–* Soc. Bact; Pub. Health Asn; Texas Pub. Health Asn; Texas Asn. Milk Sanitarians (first v. pres, 40); Texas Acad; Int. Asn. Milk Sanitarians (chairman cmt. applied lab. methods, 39–41). Dairy bacteriology; cheese manufacture; Lactobacillus acidophilus production and therapy.

Buttolph, Dr. L(eroy) J(ames), 1 Columbia Ave, Grantwood, N. J. *Physics, Physical chemistry.* Mich, Jan. 3, 91. Amherst Col, 10–11; A.B, Kalamazoo Col, 13, M.S, 16, hon. Sc.D, 33; Chicago, 14–16. Physics and chem, Tilford Collegiate Acad, 13–14; instr. chem, Kalamazoo Col, 14–16, asst. prof. physics, 17–18; physicist, Cooper Hewitt Elec. Co, 19–29; assoc. director research lab, Gen. Elec. Vapor Lamp Co, 30–39; *engineer, lamp dept, Gen. Elec. Co, 40–* Lecturer, Case, 23–30. Chemist, U. S. Bur. Mines. C.W.S, 18–19. A.A; Physical Soc; Chem. Soc; Optical Soc; Illum. Eng. Soc; Elec. Eng; Franklin Inst. Design of quartz mercury arcs; industrial applications of ultra-violet radiation; starting and operating circuits for gaseous conduction lamps.

Button, Prof. F(orrest) C(lifton), Rutgers University, New Brunswick, N. J. *Dairy industry.* Fredonia, N. Y, July 22, 94. B.S, Cornell, 16, M.S, 32. Asst. dairy indust, Cornell, 17–18; dairy inspection, U. S. Pub. Health Service, 18; instr, *Rutgers,* 18–20, asst. prof. dairy husbandry, 20–24, assoc. prof, 24–32, *prof. dairy indust, 32–, assoc. dairy manufactures, Exp. Sta.* Dairy Sci. Asn; Metrop. Dairy Technol. Soc. (pres, 37). Dairy manufactures; ice cream; market milk.

Butts, Prof. Allison, Lehigh University, Bethlehem, Pa. *Metallurgy.* Poughkeepsie, N. Y, April 26, 90. A.B, Princeton, 11; B.S, Mass. Inst. Tech, 13. Foreman, U. S. Metals Ref. Co, N. J, 13–14, research chemist, 14–16; asst. metal, *Lehigh,* 16, instr, 16–20, asst. prof, 20–28, assoc. prof, 28–38, *prof. electrometal, 38–* Asst. ed, 'Mineral Indust,' 16–20, assoc. ed, 20–28; special ed. metal, 'Webster's New Int. Dictionary.' Mem, Silver Producers' Research Cmt, 37–40; jury of award, Lincoln Welding Foundation, 42. Min. and Metal. Eng; Electrochem. Soc; Soc. Metals; British Inst. Metals. Metallurgical calculations; electrochemistry.

Butts, Dr. Charles, 1808 Kenyon St, N. W, Washington, D. C. **Geology.* Portville, N. Y, Sept. 18, 63. B.S, Alfred, 99, M.S, 00; Sc.D, Alabama, 27. Field asst, U. S. Geol. Surv, 00; asst. to N. Y. state paleontologist, 00–01; asst. geologist, U.S. Geol. Surv, 01–09, paleontologist, 09–12, geologist, 12–33; *retired.* Special geologist, Va. Geol. Surv, 33– Paleont. Soc.

rep, div. geol. and geog, Nat. Research Council, 36. Geol. Soc; Paleont. Soc; Geol. Soc. Wash. Areal, structural and stratigraphic geology; geology of Pennsylvania, Alabama, Tennessee, Kentucky, Illinois, Virginia and New York.

Butts, Dr. Donald C(harles) A(twood), 159 Owen Ave, Lansdowne, Pa. *Bacteriology.* Camden, N. J, May 11, 98. Pennsylvania; B.S, Phila. Col. Pharmacy, 34, M.S, 35, Sc.D, 37. *Director* Emery lab. exp. radiol, roentgenol. and cancer research, Hahnemann Med. Col, 26–32, Emery lab. cancer research, 32–37; *consulting bacteriologist, 37–* Asst. pathologist, Am. Oncologic Hosp. A.A; Soc. Trop. Med; fel. Inst. Chem; Soc. Mil. Eng; Soc. Bact; Pub. Health Asn; Pa. Pub. Health Asn; Pa. Acad; cor. mem. Argentine Soc. Study Cancer. Infectious diseases.

Butts, Prof. Joseph S(hirey), Oregon State College, Corvallis, Oregon. *Biochemistry.* Goshen, Ind, Dec. 14, 03. B.S, Florida, 26; M.S, Fordham, 28; Ph.D, Southern California, 33. Instr. chem, Mass. Col, 28–29; asst. *biochem,* Southern California, 29–33, instr, 33–35, asst. prof, 35–39, assoc. prof, 39; *prof, Oregon State Col, 39–; major, Air Force, U. S. Army, 42–, asst. director nutrition, England, 42–* Chem. Soc; Soc. Exp. Biol; Inst. Nutrition; Soc. Biol. Chem. Intermediary metabolism of carbohydrates, amino acids and fatty acids; ketosis.

Butts, Dr. Wilbur K(ingsley), University of Chattanooga, Chattanooga, Tenn. *Ornithology.* Poughkeepsie, N. Y, Sept. 7, 95. B.S, Cornell, 18, M.S, 25, Ph.D, 29. Lab. aid, Bur. Fisheries, Key West, 19–20; instr. *biol,* Oglethorpe, 23–24; Heidelberg Col, 25–27; asst. prof, James Millikin, 29–31; *head dept, Chattanooga, 31–* Tenn. Acad.

Butz, Dr. Eleanore W. J(offe) (Mrs. Lewis W. Butz), Beltsville, Md. *Immunochemistry.* Philadelphia, Pa, Oct. 29, 09. B.S, Pennsylvania, 30, Ph.D, 34. Asst. instr. bacter, sch. med, Pennsylvania, 31–34, instr, 34–35; *collaborator org. chem, U. S. Dept. Agr, 39–* Organic chemistry; physical chemical studies on antibodies; synthesis of alicyclic condensed ring compounds; isolation of natural products.

Butz, Dr. Lewis W(illiam), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Cressona, Pa, March 6, 06. B.S, Pennsylvania, 27; M.S, Illinois, 30, Ph.D, 33. Director research, Dr. D. Jayne and Son, 32–35; assoc. biochemist, *U. S. Dept. Agr,* 36–37, *biochemist, 37–* A.A; Chem. Soc; Wash. Acad. Biochemistry; organic chemistry; synthesis of alicyclic compounds; physiology of reproduction.

Butz, Dr. Richard J(ames), 1210 N. 18th St, Allentown, Pa. *Chemistry.* Allentown, Pa, May 21, 05. Chem.E, Lehigh, 27; Twitchell fellow, Cincinnati, 28–31, A.M, 29, Ph.D, 31. Asst. chem, Cincinnati, 28–30; *chemist,* Texas Co, 33–34; Sinclair Ref. Co, 34–38; *Lehigh Portland Cement Co, 39–* Oxidation of carbon compounds with caustic alkalies; testing of concrete; cement manufacture; cement and concrete chemistry.

Buurman, Dr. C(larence) H(arold), 545 Boulevard, Westfield, N. J. *Chemistry.* Orange City, Iowa, July 31, 15. A.B, Iowa, 36, M.S, 38, Ph.D, 41. Senior water analyst, hygienic labs, State Dept. Health, Iowa, 39–41; *research chemist, works div, Gen. Aniline and Film Corp, 41–* Chem. Soc. Organic research chemistry; photographic products.

Buwalda, Prof. John P(eter), California Institute of Technology, Pasadena, Calif. ***Geology.* Zeeland, Mich, Dec. 16, 86. B.S, California, 12, Ph.D, 15. Instr. geol, California, 15–17; asst. prof, Yale, 17–21; assoc. prof, California, 21–25, prof, 25; *prof. geol. and chairman div. geol. sciences, Calif. Inst. Tech, 26–* U. S. Geol. Surv, 15–; assoc, Carnegie Institution, 25– Summers, dean, California, 23, 24. Mem. advisory cmt, Yosemite Valley, Nat. Park Service, 28– A.A; Geol. Soc. (sec'y, Cordilleran sect, 22–27, chairman, 31); Asn. Petrol. Geol; Seismol. Soc. (director, 25–, 1st v. pres, 30–). Structural geology; engineering geology.

Buxton, Dr. Claude E, State University of Iowa, Iowa City, Iowa. *Experimental psychology.* Cromwell, Iowa, Nov. 15, 12. A.B, Nebr. Wesleyan, 33; A.M, Oregon, 35; Ph.D, Iowa, 37. Res. assoc. *psychol,* Swarthmore Col, 38–39; *instr,* Northwestern, 39–42; *Iowa, 42–* A.A; Psychol. Asn; Midwest. Psychol. Asn. Learning and memory.

Buys, Prof. John L, St. Lawrence University, Canton, N. Y. *Entomology.* Sodus Point, N. Y, Nov. 18, 97. B.S, Cornell, 19, M.S, 21, Ph.D, 22. Instr. entom, Cornell, 19–22; asst. prof. *biol,* Akron, 22–23; *prof, St. Lawrence, 23–* Summers, instr, Cornell, 23–25. Entom. Soc. Amer; Asn. Econ. Entom. Taxonomy of Cicadellidae.

Buzby, Prof. Dallas E(yre), 416 Cherry Lane, Merwood, Pa. *Psychology.* Altoona, Pa, July 30, 89. A.B, Pennsylvania, 13, Ph.D, 30; S.T.B, Phila. Divinity Sch, 16. Asst. instr. *psychol,* Pennsylvania, 25–30; asst. prof, St. Lawrence, 30–41; instr, *Valley Forge Mil. Acad. Junior Col,* 42–43, *assoc. prof, 43–* Assoc. Psychol. Asn. Interpretation of facial expression; statistical and analytical treatment of test results; clinical and social psychology; religious experience; personnel; guidance; tests.

Buzzard, Pres. Robert G(uy), Eastern Illinois State Teachers College, Charleston, Ill. *Geography.* Sumner, Ill, Dec. 14, 90. B.S, Chicago, 16, M.S, 17, fellow, 17–18; fellow, Clark, 24–25, Ph.D, 25; A.M, Illinois, 38. Instr, Harvard Sch. for Boys, Chicago, 14–16; prof. geog, North. Ill. State Teachers Col, 19–20, 21–22; Ill. State Nor. Univ, 22–33; *pres, East. Ill. State Teachers Col, 33–* 2nd lieut, Sig.C, 19. Nat. Council Geog. Teachers (pres, 27); Ill. Acad.

Byars, Dr. L(uther) P(arris), U. S. Department of Agriculture, Marion, S. C. *Plant pathology.* Forest City, N. C, Sept. 25, 87. B.S, Clemson Col, 09; M.S, Wisconsin, 13, Ph.D, 19. Asst. plant path, Exp. Sta, Clemson Col, 10–11; bot, Wisconsin, 12–14; *pathologist, bur. plant indust, U. S. Dept. Agr, 14–* Bot. Soc; Phytopath. Soc; Bot. Soc. Wash. Diseases of plants due to nematodes.

Bybee, Dr. H(al) P(leasant), 1406 Enfield Road, Austin, Texas. *Geology.* Rochester, Ind, Jan. 7, 88. B.S, Rochester Col. (Ind), 08; A.B, Indiana, 12, fellow, 12–14, A.M, 13, Ph.D, 15. Teacher, schs, Ind, 08–11; instr. geol, Texas, 14–16, adj. prof, 16–20, assoc. prof, 20–25; geologist, Dixie Oil Co, 25–29; Board for Lease of Univ. Lands, 29–36; *geologist in charge univ. lands and prof. geol, Texas, 36–* Geol. Soc; Asn. Petrol. Geol; Ind. Acad. Stratigraphy; field and petroleum geology.

Bychinsky, Dr. Wilfred A(lexander), 1133 White St, Ann Arbor, Mich. *Electrical engineering.* Vegriville, Alta, Can, March 7, 10. B.S, Michigan, 30, M.S, 31, fellow, 32–33, Ph.D, 33. Teaching asst, Michigan, 30–32; *research engineer, AC Spark Plug Co, Gen. Motors Corp, 33–* Light; conduction of electricity in gases, arcs and sparks; dielectric break-down; ignition phenomena.

Byck, Dr. Harold T(heodore), 912 Mendocino Ave, Berkeley, Calif. *Physics, Chemistry.* New York, N. Y, Dec. 17, 02. B.S, N. Y. Univ, 24; Ph.D, Hopkins, 30. Research chemist, Bell Tel. Labs, 25–28; nat. research fellow physics, Ryerson Physical Lab, Chicago, 30–31; California, 31–32, instr, 32–35; *research chemist, Shell Develop. Co, Emeryville, 36–* A.A; Physical Soc; Inst. Chem. Molecular beams; band spectra; hyperfine structure; color photography; drilling muds; catalysis.

Byerly, Prof. Perry, University of California, Berkeley, Calif. *Seismology.* Clarinda, Iowa, May 28, 97. A.B, California, 21, fellow, 20–24, A.M, 22, Ph.D, 24. Instr. physics, Nevada, 24–25; *in charge seismographic sta, California, 25–,* asst. prof. *seismol,* 27–31, assoc. prof, 31–41, *prof, 41–* Guggenheim Mem. Foundation fellow, Cambridge, 28–29; mem, Int. Cmn. pour l'Étude des Raz de Marée. Summer, instr, California, 25. Seismol. Soc. (sec'y and director, 30–, sci. councilor, 32–); fel. Geol. Soc; Geophys. Union. Northern California earthquakes; structure of surface layers in California, root of Sierras; travel time curves.

Byerly, Dr. Theodore C(arroll), Beltsville, Md. *Physiology.* Melbourne, Iowa, May 3, 02. A.B, Iowa, 23, M.S, 25, Ph.D, 26. Instr. zool, Michigan, 26–28; Hunter Col, 28–29; *physiologist, div. animal husbandry, bur. animal indust, U. S. Dept. Agr, 29–, senior poultry husbandman in charge poultry husbandry investigations, 41–* Asst. prof, Howard, 29–30; prof, Maryland, 37–41. Summers, instr, Peabody Col, 27, 28. A.A; Poultry Sci. Asn; Soc. Zool; Soc. Exp. Biol. Rôle of cell division in morphogenesis; breed and rate growth of the embryo; effects of egg size and diet on development; lethal characters in the chick embryo; efficiency of feed utilization; broodiness; egg formation.

Byers, Prof. Cecil W(esley), Box 332, University Station, Grand Forks, N. Dak. *Physics.* Tennyson, Ind, Jan. 3, 92. A.B, Indiana, 15; M.S, North Dakota, 25; Michigan, 29–30. Teacher, high schs, Ind, 15–18; asst, Purdue, 19–20, instr, 20–21; asst. prof. *physics, North Dakota,* 21–27, *assoc. prof,* 27– 2nd lieut, F.A, 18–19. A.A; Physical Soc; N. Dak. Acad; Ind. Acad. Ultra-violet; radio; physical characteristics of therapeutic carbon arcs.

Byers, Prof. C(harles) Francis, University of Florida, Gainesville, Fla. *Biology.* Johnstown, Pa, Nov. 18, 02. Fellow, Michigan, A.B, 25, M.S, 26, Ph.D, 29; fellow, Cornell. Asst. prof. *biol, Florida,* 27–41, *assoc. prof, 41–* Univ. Mich. museum exped. A.A; Entom. Soc. Amer; Fla. Entom. Soc. (v. pres, 30, pres. 31). Entomology; taxonomy, ecology and zoogeography of North American dragon-flies.

Byers, Dr. H(orace) G(reeley), 2244 N. Upton St, Arlington, Va. *Chemistry.* Pulaski, Pa, Dec. 26, 72. A.B, B.S, Westminster Col. (Pa), 95, A.M, 98, LL.D, 26; Ph.D, Hopkins, 99; Leipzig, 07–08. Prof. chem, Tarkio Col, 95–96; instr, Maryland, 98–99; prof, Washington (Seattle), 99–19; head dept. chem, Cooper Union, 19–28; chief div. soil chem. and physics, bur. chem. and soils, U. S. Dept. Agr, 28–42; *retired.* Lecturer, Northwestern, 15–16; chief chemist, bur. soils, U. S. Dept. Agr, 19. Summers, instr, Chicago, 02–04; Columbia, 16. Capt, C.W.S, 18, lieut. col, C.W.S, O.R.C, 24–32. Inst. Chem. (pres, 23). Passivity of metals; electrochemical reductions; soil colloids; selenium in soils; minor elements in soils.

Byers, Prof. Horace R(obert), University of Chicago, Chicago, Ill. *Meteorology.* Seattle, Wash, March 12, 06. A.B, California, 29; M.S, Mass. Inst. Tech, 32, Sc.D, 35. Junior meteorologist, Guggenheim Exp. Weather Service, Oakland, 29; asst, Mass. Inst. Tech, 30–32; Scripps Institution, California, 32–33; instr. meteorol, Transcontinental and West. Air, 33–34, tech. adviser, 35; assoc. meteorologist and later meteorologist, div. research, U. S. Weather Bur, 36–40; *assoc. prof. meteorol, Chicago, 40–* Meteorol. Soc. (councilor, 38–41; chairman D. C. branch, 38; Chicago branch, 40); Geophys. Union; Am. Geog. Soc; Inst. Aeronaut. Sci. Meteorology of the Pacific Ocean; air mass analysis; aeronautical meteorology.

Byers, John R(aoul), Jr, 115 Albemarle St, Rochester, N. Y. *Organic chemistry.* Parker, S. Dak, June 26, 99. B.S, Washington (Seattle), 26; M.S, Cornell, 28. Chemist, Nat. Aniline and Chem. Co, 29; *research chemist, Eastman Kodak Co, Rochester, 30–* Synthetic organic chemicals; azo dyes; anthraquinone dyes.

Byers, Marshall S(umner), Hercules Powder Co, Radford, Va. *Chemistry.* Seattle, Wash, June 26, 02. B.S, Washington (Seattle), 23. Chemist, *Hercules Powder Co,* Kenvil, N. J, 23, Brunswick, Ga, 23–24, chief chemist, Hattiesburg, Miss, 24–26, supervising chemist and safety engineer, Brunswick, Ga, 26–36, gen. supervisor, 36–40, *safety supt, Radford Ordnance Works, 40–* Chemical constituents and industrial applications of turpentine, pine oil, wood rosin, rosin oil and allied products.

Byler, Dr. William H, 12 Kennedy Road, Morris Plains, N. J. *Chemistry, Physics.* Prairie Home, Mo, Dec. 16, 04. A.B. and B.S, Cent. Mo. State Teachers Col, 27; A.M, Missouri, 31, Ph.D, 37. Teacher chem. and physics, Hannibal-LaGrange Col, 31–35; asst. chem, Missouri, 35–37; research chemist, Gen. Elec. Co, 37–38; asst. biochemist, State Health Dept, N. Y, 38–39; *director research, U. S. Radium Corp, 39–* Chem. Soc. Preparation, properties and applications of luminous materials.

Bynoe, Dr. Evan T(heodore), Laboratory of Hygiene, John and Sussex Sts, Ottawa, Ont, Can. *Bacteriology.* Barbados, B. W. I, Nov. 30, 05. B.Sc. (Agr), McGill, 28, M.Sc, 31, Ph.D, 35. Asst. bacteriologist, Macdonald Col, McGill, 28–35, lecturer, 35–39; *bacteriologist, Dept. Pensions and Nat. Health, 39–; dom. analyst, 41–* Can. Pub. Health Asn. Classification and dissociation of the mycobacteria; epidemiology of hemolytic streptococcus infections.

Byram, George M(arsden), 139 Brucemont Circle, Asheville, N. C. *Meteorology.* Burns, Oregon, March 17, 09. A.B, Reed Col, 32. Junior meteorologist, *Appalachian Forest Exp. Sta, U. S. Forest Service,* 36–40, asst. meteorologist, 40–41, *assoc. meteorologist, 41–* Forest fires; physics and chemistry of combustion; transmission of light through the lower atmosphere; physiological optics.

Byrd, Prof. E(lon) E(ugene), University of Georgia, Athens, Ga. *Zoology.* Richton, Miss, June 9, 05. B.S, Miss. Agr. and Mech. Col, 29, M.S, 31; Ph.D, Tulane, 34. Instr. *zool,* Miss. Agr. and Mech. Col, 29–32; *Georgia,* 34–37, asst. prof, 37–41, *assoc. prof, 41–; lieut, H-V(S), U. S. Naval Res, 43–* A.A; Micros. Soc; Soc. Parasitol; Soc. Trop. Med; Soc. Zool; Asn. Southeast. Biol; Tenn. Acad; Ga. Entom. Soc; Helminth. Soc. Wash. General parasitology; protozoology; helminthology; entomology; herpetology.

Byrd, Prof. Ralph M(illedge), The Citadel, Charleston, S. C. *Chemistry.* Edgefield, S. C, July 29, 01. B.S, The Citadel, 23; M.S, North Carolina, 25, Ph.D, 31. Prof. science, Murray Vocational Sch, S. C, 23–24; asst, North Carolina, 24–25, 30–31; asst. prof. *chem, The Citadel,* 25–29, assoc. prof, 31–38, *prof, 38–* Chem. Soc; S. C. Acad. Sodium; sodium compounds; phosphates.

Byrd, Dr. R(ichard) E(velyn), 9 Brimmer St, Boston, Mass. *Aeronautics.* Winchester, Va, Oct. 25, 88. Virginia; grad, U. S. Naval Acad, 12; Yale; C.E, Va. Mil. Inst, 27; Georgetown Col, 28; Sc.D, Polytech. Inst. Brooklyn, Amherst Col, Iowa Wesleyan, 35, Boston, 35; LL.D, New Hampshire, 31, Rutgers, 35, Dartmouth, 37; hon. D.E, N. Y. Univ, Worcester Polytech; hon. D.Aero.Sc, Pa. Mil. Col; M.S, Tufts Col. In charge navigational preparation, Navy Trans-Atlantic exped, 19; navy unit, Navy-McMillan exped, Arctic, 25; transatlantic flight, 27; leader, Byrd Arctic exped, 26; expeds, Antarctic, 28–30, 33–35; flight to North Pole, 26, South Pole, 29; commander, U. S. Antarctic Service exped, 39. Medal, World War; medal, Mex. campaign; Congressional life saving medal, 22; Hubbard gold medal, Nat. Geog. Soc, 26, special gold medal, 30; D. S. medal, U.S.N, 26, gold star, 40; Congressional medal of honor, 26; Helen Culver medal, Geog. Soc. Chicago, 26, gold medal, 30; Elisha Kent Kane medal, Geog. Soc. Phila, 26; Navy Flying Cross, 27; David Livingstone Centenary gold medal, Am. Geog. Soc, 29; Langley medal, Smithsonian Institution, 29; gold medal, Soc. Geog. de Cuba, 29; gold medal, Am. Arbitration Asn, 30; Navy Cross, 30; special Congressional medal of honor, 30; gold medal, Royal Geog. Soc. Gt. Britain, 31; gold medal, Reale Soc. Geog. Ital, 31; medal of honor, Roosevelt Mem. Asn, 31; medal, Columbia Broadcasting System, 34; medal, Rumanian govt, 35; gold medallion, Am. Indust. Tribute, 36; medal, Pacific Geog. Soc, 37; medal, Explorers' Club; gold medal, Int. League Aviators. Commander, Mil. Order of Avis, govt. Portugal, 21; officier, Légion d'honneur, 28, commandeur, 30; Virtutea Aeronautica commander. Commander, A.S, 18; commander, U. S. Navy, 26–29, rear admiral, 29– Am. Geog. Soc; Philos. Soc; Inst. Aeronaut. Sci; Acad. Nat. Sci. Phila; Geog. Soc. Chicago; Geog. Soc. Phila; Pacific Geog. Soc; Royal Geog. Soc; Royal Netherlands Geog. Soc; Geog. Soc. Munich; Soc. Geog. de Lima; Russian Geog. Soc. Geographical research; mapping and discovery of new lands.

Byrkit, Dr. Gordon D(ean), 1295 86th St, Niagara Falls, N. Y. *Organic chemistry.* Indianapolis, Ind, July 15, 05. A.B, Kansas, 26; M.S, Washington (Seattle), 27; Ph.D, Minnesota, 30. Asst. chem, Washington (Seattle), 26–27; Minnesota, 29–30; chemist, Eastman Kodak Co, 30–31; asst, Minnesota, 31–34; research chemist, Continental Oil Co, Okla, 34–42; *patent supervisor, Mathieson Alkali Works, Inc, 42–* Chem. Soc. Physics and chemistry of lubrication; patent prosecution.

Byrne, Dr. J(ohn) Frank, General Electric Co, Pittsfield, Mass. *Physics.* Sontag, Miss, Sept. 9, 11. A.B, Miss. Col, 30; Ph.D, N. Y. Univ, 34. Asst. physics, N. Y. Univ, 30–35; *insulation research lab, Gen. Elec. Co, 35–* Physical Soc. Dielectric research.

Byrnes, Dr. Esther F(ussell), 1803 N. Camac St, Philadelphia, Pa. *Biology.* Philadelphia, Pa, Nov. 3, 66. A.B, Bryn Mawr Col, 91, A.M, 94, fellow, 94–95, Ph.D, 98; Marine Biol. Lab, Woods Hole, 91. Demonstrator biol, Vassar Col, 91–93; Bryn Mawr Col, 95–97; instr. physiol. and teacher biol, Girls' High Sch, Brooklyn, 98–32. Director, Mt. Desert Biol. Lab, 40– A.A; Soc. Nat; Soc. Zool; Marine Biol. Asn; Genetic Asn; N. Y. Asn. Biol. Teachers (v. pres); fel. N. Y. Acad. Cytology; maturation and fertilization; Cyclopidae; freshwater Cyclops of Long Island; metamorphosis of Cyclops; limb-muscles and regeneration in Amphibia.

Byrns, Dr. A(lva) C(ecil), 209 Via Colorin, Palos Verdes Estates, Calif. *Chemistry.* Spokane, Wash, Oct. 7, 07. A.B, California at Los Angeles, 31, Ph.D, California, 34. Chemist, Burnham Chem. Co, Westend, Calif, 25–26; Associated Oil Co, Wilmington, Calif, 28–31; teaching fellow chem, California, 31–34, research assoc, 34–36; *research chemist,* Richfield Oil Corp, 36–37; *Union Oil Co, 38–* Teaching asst, California at Los Angeles, 26–31. Chem. Soc. Photochemistry and chemical kinetics of chlorine and ozone mixtures; chemistry of gasoline hydrocarbons; catalytic processes; organic synthesis.

Bywater, Dr. W(illiam) G(len), Parke, Davis and Co, Detroit, Mich. *Organic chemistry.* Salt Lake City, Utah, Oct. 20, 06. A.B, Utah, 28, A.M, 30; Ph.D, Iowa State Col, 34. *Research chemist, Parke, Davis and Co, 34–* Chem. Soc. Diphenylethyl ethers; nuclear substitution in dibenzofuran; synthetic drugs.

Bywaters, Dr. James H(umphreys), Regional Poultry Research Laboratory, U. S. Department of Agriculture, East Lansing, Mich. *Genetics.* Washington Co, Tenn, Sept. 17, 07. B.S. (Agr), Ohio State, 29; M.S, Kentucky, 32; fellow, Iowa State Col, 34–36, Ph.D, 36. Asst. animal husbandry, Cornell, 29–30; prof. agr, East. Ky. State Teachers Col, 31; asst. genetics and animal breeding, Iowa State Col, 34–36; instr. animal husbandry, Kentucky, 36–39; *assoc. geneticist, regional poultry research lab, bur. animal indust, U. S. Dept. Agr, 39–* A.A; Soc. Animal Production; Genetic Asn. Relationship of heredity and environment in swine; inbreeding in swine; rate of growth of swine; genetics of poultry with special emphasis on disease resistance.

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Cabeen, Prof. C(harles) K(irkland), R. D. 2, Easton, Pa. *Geology, Geography.* Syracuse, N. Y, Dec. 7, 96. B.S, Syracuse, 18, M.S, 22; Cornell, 27–28. Mineralogist, N. Y. State Museum, 20–22; asst. miner, Columbia, 22–25; oil field work, 25–27; instr. *geol, Lafayette Col,* 28–31, *asst. prof, 31–* Instr, Rensselaer Polytech. Summers, instr, Rutgers. Miner. Soc. Geology of central and eastern Vermont.

Cable, Major Donald E(lmer), 5530 Nevada Ave, N.W, Washington, D. C. *Chemical engineering.* Harvey, Ill, Aug. 6, 96. B.S, Armour Inst. Tech, 18, Ch.E, 27; M.S, Wisconsin, 20; fellow, Columbia, 22–23, Goldschmidt fellow, 23–24, Ph.D, 25. Asst. chemist and asst. engineer, Forest Products Lab, U. S. Forest Service, 18–20; asst. research chemist, Exp. Sta, Wyoming, 20–22; asst. director research dept, Oxford Paper Co, Brooklyn, 24–30; research, develop. and later tech. librarian, gen. labs, U. S. Rubber Co, 30–42; *major, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc; Library Asn; Special Library Asn. (chairman sci-tech. group, 40). Pulp and paper manufacturing processes; rubber and fiber combinations; rubber literature bibliographies.

Cable, Prof. E(mmett) J(ames), 1016 Washington St, Cedar Falls, Iowa. *Geography.* Eldora, Iowa, 78. B.S, Cornell Col. (Iowa), 00, M.S, 02; Chicago, 03–05; Ph.D, Iowa, 17. Pub. sch. supt, Iowa, 00–03; asst. prof. *geog, Iowa State Teachers Col, Cedar Falls,* 05–10, *prof, 10–,* head dept. science, 16–17. Summer, asst. state geologist, Ind, 05. Iowa Acad. Pleistocene of Iowa; the physical sciences; science in a changing world.

Cable, Louella E, Fish and Wildlife Service, U. S. Department of the Interior, College Park, Md. *Biology.* Chamberlain, S. Dak, July 5, 00. A.B, South Dakota, 26, A.M, 27. Teacher, schs, S. Dak, 21–25; asst, South Dakota, 26–27; *junior aquatic biologist,* Bur. Fisheries, 27–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Summers, instr, South Dakota, 26, 27. A.A; Fisheries Soc; Soc. Zool. Food of bullheads; life histories of North Carolina fish; food of larval salt water fish and methods for rearing newly hatched larvae; the white shad and factors limiting its abundance in rivers of the Atlantic Coast.

Cable, Prof. Raymond M(illard), Purdue University, Lafayette, Ind. *Zoology.* Campton, Ky, April 22, 09. A.B, Berea Col, 29; fellow, N. Y. Univ, 29–33, M.S, 30, Ph.D, 33. Assoc. prof. biol, Berea Col, 33–35; asst. prof. *parasitol, Purdue,* 35–39, *assoc. prof, 39–* Summer, asst, Chicago, 34. A.A; Soc. Zool; Micros. Soc; Soc. Parasitol; Ind. Acad. Germ cell cycle and life histories of trematodes; insect physiology; parasitic copepods.

Cabot, Edward C, Harvard University, Cambridge, Mass. *Geology, Physiography.* Boston, Mass, April 26, 05. *Curator, geol. museum, Harvard, 39–; asst. eng. aide photogrammetrics, Alaskan branch, U. S. Geol. Surv.* A.A; fel. Am. Geog. Soc; Asn. Sci. Workers; Soc. Photogrammetry. The fault border of the southern Rocky Mountains.

Cabot, Dr. Hugh, Needham, Mass. *Surgery.* Beverly Farms, Mass, Aug. 11, 72. A.B, Harvard, 94, M.D, 98; LL.D, Queen's (Ireland), 25. Visiting surgeon, New Eng. Baptist Hosp, 00–20; surgeon, outpatient dept, Mass. Gen. Hosp, 04–10; instr. genito-urinary surg, Harvard Med. Sch, 10–12; chief genito-urinary dept, Mass. Gen. Hosp, 10–19; asst. prof. genito-urinary surg, Harvard Med. Sch, 13–18, prof, 18–19; surg, med. sch, Michigan, 19–30, dean, 21–30; prof, grad. sch, Minnesota, 30–39; surgeon, Mayo Clinic, 30–39. Mem. board overseers, Harvard, 29–35. Chief surgeon, Harvard Unit, B.E.F, 16–17, commanding officer, 17–18. Surg. Asn; Asn. Genito-Urinary Surg. (pres, 14); Col. Surg; Am. Med. Asn; Urol. Asn. (pres, 10–12); Asn. Am. Med. Cols. (pres, 25–27); Miss. Valley Med. Asn. (pres, 15); Asn. int. d'Urol.

Cabot, Dr. P(hilippe) S(idney) de Q(uetteville), 10 Garden Terrace, Cambridge, Mass. *Juvenile delinquency, Psychology.* New Zealand, July 18, 00. B.A, New Zealand, 25, M.A, 26; Carnegie Corp. traveling fellow, 30–31; A.M, Columbia, 31; A.M, Harvard, 35, Ph.D, 36. Master and teacher, high and elementary schs, New Zealand, 19–30; instr, Park Sch, N. Y, 32–33; from special instr. to *asst. prof. psychol, Simmons Col, 36–; consulting psychologist, 41–* Director, Cambridge-Somerville Youth Study, 36–41, consultant and research assoc, 41– Summer, asst. psychologist, Childrens Court, 31; Vocational Guidance Bur. for Girls, New York, N. Y, 31; consultant, Aloha Camps, Inc, 34– A.A; fel. Asn. Applied Psychol; fel. Soc. Res. Child Develop; assoc. Psychol. Asn; British Psychol. Soc. Prediction and prevention of juvenile delinquency.

Cabot, Samuel, 141 Milk St, Boston, Mass. *Chemistry.* Brookline, Mass, 84. A.B, Harvard; Mass. Inst. Tech. *Pres, Samuel Cabot, Inc; Polygon Products Co; New England Felt Roofing Works.* Trustee, Museum Fine Arts, Boston; Sulpho Napthol Co; director, Newmarket Mfg. Co; Pacific Mills; Ludlow Mfg. and Sales Co. A.A; Chem. Soc; Soc. Chem. Indust; Acoustical Soc; Soc. Rheol. Higher coal tar phenols; organosol colloids.

Cadbury, Prof. William E(dward), Jr, Haverford College, Haverford, Pa. *Physical chemistry.* Germantown, Pa, April 19, 09. B.S, Haverford Col, 31, A.M, 32; Ph.D, Pennsylvania, 40. Instr. *chem, Haverford Col,* 32–40, *asst. prof, 40–* Chem. Soc; Pa. Chem. Soc. Phase relations in the system sodium sulfate-sodium chromate-water.

Cade, Dr. A(rthur) R(osson), P. O. Box 224, Rutherford, N. J. *Organic chemistry.* March 30, 93. B.S, Worcester Polytech, 15; M.S, Minnesota, 17, Ph.D, 33. Instr. chem, Minnesota, 17–19; Hamline, 19; special lecturer chem, Pittsburgh, 22–24; chief chemist, Lavoris Chem. Co, 24–31; bacter, Minnesota, 31–33; consulting chemist and bacteriologist, 33–34; *director research, Larx Co, 34–* Indust. fellow, Mellon Inst. A.A; Chem. Soc; Pharmaceut. Asn. Bacteriology; antiseptics; chemical and metallurgical engineering; commercial ethylations with diethyl sulfate; effect of ionization on antiseptics; germicidal detergents.

Cade, Prof. C(laude) M(arshall), 220 New Federal Bldg. Lansing, Mich. *Civil engineering.* Capac, Mich, 85. B.S. (M.E), Mich. State Col, 07, C.E, 13, A.M, 30. Instr, Purdue, 07–08; field officer, U. S. Coast and Geod. Surv, 08–13; instr. and assoc. prof. *civil eng, Mich. State Col,* 13–37, *prof, 37–; lieut. col, Coast Artil. Corps, U. S. Army.* City eng. dept, Lansing, 15–24; State Dept. Conservation, Mich, 25–36; state rep, U. S. Coast and Geod. Surv. Coast Corps, lieut. col. Civil Eng. Stadia measurements.

Cadenhead, A(rthur) F(ordyce) Grant, 156 Maple Ave, Shawinigan Falls, Que, Can. *Organic syntheses.* Camden East, Ont, Sept. 6, 85. B.A, Queen's (Can), 14; Columbia, 15. Lecturer theory of anal. chem, Queen's (Can), 19–29; *director plant research, Shawinigan Chem, Ltd, 29–* Chem. Soc; Electrochem. Soc. (chairman electro-org. div, 41); Can. Inst. Chem. (pres, 40); Can. Inst. Min. and Metal; Soc. Chem. Indust. Gt. Britain (Montreal sect). Continuous organic reaction processes.

Cadham, Dr. F(red) T(odd), Faculty of Medicine, University of Manitoba, Winnipeg, Man, Can. *Bacteriology, Immunology.* Winnipeg, Man, 81. B.A, Manitoba, 01, M.D, 05. *Director bacter. lab, Province of Manitoba, 23–; prof. bacter. and immunol. faculty med, Manitoba, 23–* Mem. Man. Board of Health, 12– Am. Med. Asn; fel. Col. Physicians; Can. Med. Asn; Can. Soc. Study Rheumatic Diseases (v. pres); fel. Royal Col. Physicians Can; Man. Med. Asn; British Med. Asn. Blood complement; septicemia; arthritis; asthma.

Cadle, Dr. Richard D(unbar), 1627 Section Road, Cincinnati, Ohio. *Physical chemistry.* Cleveland, Ohio, Sept. 23, 14. A.B, Western Reserve, 36; Standard Oil Co. of Calif. fellow, Washington (Seattle), 38–39, Procter and Gamble fellow, 39–40, Ph.D, 40. Teaching fellow, Washington (Seattle), 36–

38; *research chemist, Procter and Gamble Co, 40–* Asst. lecturer, Cincinnati, 41– Chem. Soc. Physical chemistry of dilute solutions of colloidal electrolytes; rancidity development in edible fats.

Cadwalader, Dr. W(illiams) B(iddle), 133 S. 36th St, Philadelphia, Pa. or Villa Nova, Pa. *Neurology, Psychiatry.* Philadelphia, Pa, July 9, 76. Princeton, 98; M.D, Pennsylvania, 02. Asst. to Dr. S. Weir Mitchell, 02–11; asst. and later instr, *sch. med, Pennsylvania,* 02–20, assoc. neur. and neuropath. and later asst. prof. neur, 20–29, prof. clin. neur, 29–40, neur, 40–42; practising physician, 02–42. Asst. neurologist and attending neurologist, hosp, Pennsylvania, 13–42; consulting neurologist, Bryn Mawr and Presb. Hosps. M.C, 17–19, major. Neur. Asn. (pres, 38); Asn. Research Nervous and Mental Disease; Am. Med. Asn; Soc. Mammal; Phila. Neur. Soc. (pres, 17, 30); Zool. Soc. Phila. (director, 06–10, sec'y, 10–26, pres, 26–); Acad. Nat. Sci. Phila. Neurological problems; diseases of the spinal cord.

Cadwell, Dr. Sidney M(arsh), 436 Washington Road, Grosse Pointe, Mich. *Chemistry.* Bozeman, Mont, March 5, 93. B.S, Chicago, 14, Ph.D, 17. Research asst. to Prof. Julius Stieglitz, Chicago, 14–16; assoc. mem, Sprague Mem. Inst, 16–17; research chemist, Fed. Dyestuffs and Chem. Co, 17; gen. labs, *U. S. Rubber Co,* 19–30, asst. director *develop. dept, 30–, director develop. div, tire dept, 31–* Capt, C.W.S, 18. Chem. Soc. (chairman, rubber div, 35, Detroit sect, 35); Soc. Automotive Eng. (v. chairman, Detroit sect, 33, 34); Tire and Rim Asn. (chairman, standards cmt, 42; war activities cmt, 42; v. pres, 42, pres, 43). Retardation of rubber deterioration; accelerators of vulcanization; tire development.

Cady, Dr. Bertha Chapman, Coconut Grove, Fla. *Entomology.* Santa Barbara, Calif, 73. A.B, A.M, Stanford, Ph.D, 23; Chicago; California; Columbia. Head dept. biol. and director nature study, high schs, Oakland, Calif, 00–07; asst. nature study, sch. educ, Chicago, 07–09; dept. biol, Calif. State Teachers Col, 18; U. S. Interdepartmental Social Hygiene Board, Stanford and Calif. State Teachers Col, 21–23; naturalist, Nat. Girl Scouts, 24–36. Summers, lecturer and adviser, Chicago, 08; California, 15; Columbia, 20; Stanford, 21–23. Lecturer and field sec'y, Social Hygiene Asn, 14–24; sec'y, Coordinating Council on Nature, 28–30; advisory science board, Am. Sch. of the Air, Columbia Broadcasting Co. Tuber. Asn. (director, dept. nature study, 29–36); Nature Study Soc. (pres, 26–29). Natural history; child and adolescence psychology.

Cady, F(rancis) E(lmore), 1694 Wood Road, Cleveland Heights, Ohio. *Physics.* Oberlin, Ohio, Aug. 13, 76. B.S, Mass. Inst. Tech, 01, 02–03. Photometric sect, Bur. Standards, 03–08; physicist asst. to director, Nela Research Lab, 08–20, manager research service dept, 20–24, physicist, 24–28; rep, U. S. Postal Meter Sales Corp. of Ohio, 28–32; Addressograph-Multigraph Corp, Cleveland, 32–37; v. pres, Colonnade Co, 37–43; *research and testing engineer, Osborn Co, 43–* Physical Soc; Optical Soc; Electrochem. Soc; Illum. Eng. Soc. (chairman, progress cmt, 13–29, past director); Soc. française des Élec. Optics; optical and electrical properties of incandescent electric lamps; radiation; spectrophotometry; photometry.

Cady, Prof. G(eorge) H(amilton), 2532 Royal Court, Seattle, Wash. *Chemistry.* Lawrence, Kans, Jan. 10, 06. A.B, Kansas, 27, A.M, 28; Ph.D, California, 30. Teaching fellow, California, 28–30; asst. prof. chem, South Dakota, 30–31; instr. inorg. chem, Mass. Inst. Tech, 31–34; research chemist, gen. labs, U. S. Rubber Products, Inc, 34–35; Columbia chem. div, Pittsburgh Plate Glass Co, 35–38; *asst. prof. chem, Washington (Seattle), 38–* A.A; Chem. Soc. Inorganic and physical chemistry; reactions of fluorine; phase studies of systems containing hydrogen fluoride; preparation and properties of chlorine monoxide and hypochlorous acid; determination of rare gases.

Cady, Dr. Gilbert H(aven), State Geological Survey, Urbana, Ill. *Geology.* Chicago, Ill, Dec. 18, 82. A.B, Northwestern, 05, fellow, 07–08, M.S, 11; Yale, 09–10; Illinois, 11–12; Ph.D, Chicago, 17. Asst. geologist, Ill. Geol. Surv, 10–13; instr. geol, Northwestern, 13–14; geologist, Ill. Geol. Surv, 14–19; Yunnan Ming Hsing Mining Co, China, 19–20; prof. geol, Arkansas, 20–26; *senior geologist and head coal div, Ill. Geol. Surv, 26–* A.A; fel. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Ill. Acad; Inst. Fuels London. Geology and classification of Illinois coal.

Cady, Prof. L(ouis) C(lyde), 907 E. Seventh St, Moscow, Idaho. *Chemistry.* Livingston, Mont, Feb. 11, 00. B.S, Idaho, 22, M.S, 27; Ph.D, Wisconsin, 34. Instr. chem, *Idaho,* 23–27, asst. prof, 27–34, assoc. prof. and acting head dept, 34–38, *prof. chem. and chem. eng. and head dept, 38–, director summer session, 42–* Chem. Soc; Northwest Sci. Asn. Zinc analysis; diffusion and capillary structure of wood and gels.

Cady, Dr. O(sman) H(orace), 922 N. Mariposa Ave, Los Angeles, Calif. *Chemistry.* Palouse, Wash, Jan. 9, 93. B.S, Washington (Seattle), 15, M.S, 19; Ph.D, Stanford, 27. Teacher and prin, high schs, Wash, 15–18; assoc. chem, Washington (Seattle), 18–19; teacher, high sch, Wash, 19–20; instr. chem, Oregon Col, 20–24, asst. prof, 24–26; prof. and head dept. science, Ariz. State Teachers Col, Flagstaff, 27–29; *chairman dept. chem, Los Angeles City Col, 29–* A.A; Chem. Soc. Chemical properties of vitamin A; absorption of vitamin A from the intestine; changes in the ripening of fruit; effect of addition agents and the transference numbers of copper sulfate.

Cady, Wallace M(artin), U. S. Geological Survey, Washington, D. C. *Economic geology.* Middlebury, Vt, Jan. 29, 12. B.S, Middlebury Col, 34; M.S, Northwestern, 36; George W. Ellis fellow, Columbia, 36–37, student, 37–40. Lab. asst. geol, Northwestern, 34–36; asst, Columbia, 38–40; substitute tutor, Brooklyn Col, 40–41; junior geologist, *U. S. Geol. Surv,* 39–41, *asst. geologist, 41–* N. Y. Acad; Geol. Soc. Wash. Stratigraphic and structural geology of west-central Vermont; mineral resources and areal geology of southwestern Alaska.

Cady, Prof. Walter G(uyton), 49 High St, Middletown, Conn. ***Physics.* Providence, R. I, Dec. 10, 74. Ph.B, Brown, 95, A.M, 96, hon. Sc.D, 38; Ph.D, Berlin, 00. Instr. math, Brown, 95–97; *physics, Wesleyan,* 02–03, assoc. prof, 03–07, *prof, 07–* Magnetic observer, U. S. Coast and Geod. Surv, 00–02. Summer, prof, Columbia, 20. Board editors, 'Physical Rev,' 24–26. Morris Liebmann mem. prize, Inst. Radio Eng, 28; Duddell medal, Physical Soc. London, 37. Div. physical sciences, Nat. Research Council, 35–37. Lieut. commander, U.S.N.R, retired. A.A. (cmt, B, 24–27); fel. Physical Soc. (chairman, northeast. sect, 34); Optical Soc; Elec. Eng; fel. Radio Eng. (chairman, Conn. Valley sect, 26–28, mem. board editors, 'Proc,' 28, chairman, 29, pres, 32); Am. Acad. Cathode rays; magnetic declinograph; electric arc; electric oscillations; piezo-electric resonator and oscillator.

Cady, Prof. Willoughby M(iller), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Middletown, Conn, Jan. 4, 07. A.B, Brown, 27; Yale, 27–28; Ph.D, Harvard, 32. Nat. research fellow, Calif. Inst. Tech, 32–34; asst. prof. *physics,* Clark, 34–36; instr, Cornell, 36–41; *asst. prof, Washington (Seattle), 41–; mem. radiation lab, Mass. Inst. Tech, Nat. Defense Research Cmt, 41–* Asn. Physics Teachers; Optical Soc; Physical Soc. Extreme ultra-violet spectra; optics; ultra-soft x-rays.

Caesar, L(awson), 26 Eldora St, Guelph, Ont, Can. *Entomology.* Mono Road, Ont, Feb. 15, 70. B.A, Toronto, 95; B.S.A, Ont. Agr. Col, 08. Classical master, high sch, Can, 00–05; demonstrator fungous diseases and insect pests, Ont. Agr. Col, 08–20, prof. econ. entom, 20–42; provincial entomologist, Ont. Fel. Entom. Soc. (v. pres, 25); Entom. Soc. Ont. (pres, 17–19). Codling moth; apple and cabbage maggot; cherry fruit flies; European corn borer; insects attacking fruit trees and vegetables.

Caffey, Dr. John, 435 E. 57th St, New York, N. Y. *Medicine.* Castle Gate, Utah, March 30, 95. A.B, Michigan, 16, M.D, 19. Instr. *diseases of children, col. physicians and surg, Columbia,* 26–29, *asst. prof, 29–* Roentgenologist and assoc. attending physician, Babies Hosp, Columbia Med. Center. Soc. Pediat. Research; Pediat. Soc; N. Y. Acad. Med. (sec'y, sect. pediat, 32, chairman, 34). Meningococcus infections; lead poisoning; skeletal changes caused by bismuth; skeletal changes in the chronic hemolytic anemia of childhood; syphilis of the skeleton in infancy; hemophilic lesions of the growing skeleton; loculated pulmonary emphysema; the thymus gland; roentgenologic diagnosis in infants and children.

Caffrey, D(onald) J(ohn), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Brooklyn, N. Y, Nov. 17, 86. B.S, Mass. Col, 09; hon. B.S, Boston, 09. Conn. Exp. Sta, 10–13; *bur. entom. and plant quarantine, U. S. Dept. Agr, 13–, senior entomologist.* Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Gipsy moth; New Mexico range caterpillar; grain bug; European corn borer; truck crop and garden insects.

Cagle, Dr. Fred R(ay), Southern Illinois Normal University, Carbondale, Ill. *Vertebrate zoology.* Marion, Ill, Oct. 9, 15. B.Ed, South. Ill. Nor. Univ, 37; M.S, Michigan, 38, univ. fellow, 41–42, Rackham fellow, 42–43, Ph.D, 43. Asst. zool, Michigan, 37–38; instr. biol, *South. Ill. Nor. Univ,* 38–40, *asst. prof. zool, 40–, director museum, 38–* A.A; Soc. Ichthyol. and Herp; Soc. Mammal; Wilson Ornith. Club; Ill. Acad; N. Y. Acad. Natural history of vertebrates; growth rates in poikilothermic vertebrates; systematics in herpetology.

Cagle, LeRoy, Blacksburg, Va. *Entomology.* Coble, Tenn, Jan. 11, 93. B.S.A, Tennessee, 23; Ohio State. Nursery inspector, Tenn, 23; State Crop Pest Cmn, Va, 24–25; *asst. entomologist, Exp. Sta, Va. Polytech, 26–* Asn. Econ. Entom; Va. Acad. Life history and control of the oriental fruit moth; heliotropism in fruit moth larvae; life history of the codling-moth; plum curculio.

Cahalane, Victor H(arrison), U. S. Fish and Wildlife Service, Chicago, Ill. *Zoology.* Charlestown, N. H, Oct. 17, 01. B.S, Mass. Col, 24; M.F, Yale, 27; Michigan, 28–29. Field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 25; instr, sch. forestry and conservation, Michigan, 28–29; deer investigator, State Dept. Conservation, Mich, 29–31; director, Cranbrook Inst. Science, 31–34; wildlife technician, Nat. Park Service, 34–39, chief wildlife div, 39; *in charge sect. nat. park wildlife, fish and wildlife service, U. S. Dept. Interior, 40–* Soc. Mammal. (membership cmt, 35–, life histories cmt, 36–40; director, 40–); Ornith. Union (chairman, bird protection cmt, 38–43); Wilson Ornith. Club; Cooper Ornith. Club; Wildlife Soc. (sec'y, 37–40, pres, 40); Wilderness Soc; Izaak Walton League; Ill. Audubon Soc. (director, 42–). Wildlife surveys; conservation; life histories of mammals; age of deer; mammalian distribution and correlation with life zones of the southwestern United States.

Cahill, B(ernard) J. S, 1834 Clinton Ave, Alameda, Calif. *Cartography.* London, Eng, Jan. 30, 66. London; Sch. Art, South Kensington. *Architect,* San Francisco, 91–10, Portland, 10–16, *Oakland, 16–* Gold medal, Panama-Pacific Int. Exhib, 15. Inst. Archit; Am. Geog. Soc; Meteorol. Soc; Astron. Soc. Pacific; Calif. Acad; fel. Royal Geog. Soc; fel. Royal Meteorol. Soc; British Inst. Philos. World mapping; projecting the sphere on to a plane with the minimum of exaggeration, distortion and disruption of the land masses; general, conformal, equivalent and gnomonic variants of the Butterfly Map.

Cahill, Dr. George F(rancis), 121 E. 60th St, New York, N. Y. *Urology.* New Haven, Conn, Jan. 1, 90. M.D, Yale, 11. Instr. surg, N. Y. Univ, 19–25; asst. prof. and assoc. prof, N. Y. Post-Grad. Med. Sch, *Columbia,* 20–32, asst. prof. *urol, col. physicians and surg,* 26–30, assoc. prof, 30–39, *prof, 39–* Director, Squier Urol. Clinic, 39– Surgeon, Willard Parker Hosp, 22–32, Bellevue Hosp, 24–29. A.A; Am. Med. Asn; fel. Col. Surg; Urol. Asn; Asn. Genito-Urinary Surg; N. Y. Acad. Med; Soc. Int. d'Urol. Adrenal and renal surgery; testicular tumors; cystine and cystinuria; genital and urinary abnormalities.

Cahill, Dr. William M(ichael), Wayne University, Detroit, Mich. *Biochemistry.* Los Angeles, Calif, June 18, 11. A.B, Southern California, 32; exchange fellow, Inst. Int. Ed, France, 32–33; Dipl. Sci. Nat, Bordeaux, 33; Alexander von Humboldt fellow, Berlin, 34–35, Ph.D, 36. Instr. biochem, med. col, Cornell, 36–38; *physiol. chem, col. med, Wayne,* 38–42, *asst. prof, 42–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc; Mich. Acad; Detroit Physiol. Soc. Proteins; amino acids and derivatives; vitamins.

Cahn, Dr. A(lvin) R(obert), 190 E. Pearson St, Chicago, Ill. *Zoology.* Chicago, Ill, Aug. 29, 92. B.S, Cornell, 13; M.S, Wisconsin, 15; Ph.D, Illinois, 24. Asst. biol, Wisconsin, 13–18; assoc. prof, Agr. and Mech. Col. Texas, 19–22; asst, Illinois, 22–24, instr, 24–28, assoc, 28–30, asst. prof, 31–35; chief wildlife develop, div. forestry, Tenn. Valley Authority, 36–40; Fla. marine fishes, 40–42; *lieut, U. S. Naval Reserve, 42–* Instr, U. S. Sch. Mil. Cinematog, 18; sergt, M.R.C, 18–19. A.A; Soc. Zool; Soc. Mammal; Ornith. Union; Soc. Ichthyol. and Herp; Soc. Parasitol; Ecol. Soc; Wilson Ornith. Club; Ill. Acad; Wis. Acad. Vertebrate zoology; ecology; ornithology of Wisconsin, Illinois, Minnesota, Texas and Ontario; ichthyology; parasitology; mammalogy.

Cahn, Dr. F(rank) J(ulius), 4901 Glenwood Ave, Chicago, Ill. *Chemistry.* Strassburg, Germany, June 7, 00. Ph.D, Leipzig, 23. *Research chemist, Epstein, Reynolds and Harris, 33–* Chem. Soc. Fermentation; hydrocarbon chemistry; ore flotation.

Cahn, Prof. L(ester) R(ichard), 630 W. 168th St, New York, N. Y. *Oral pathology.* New York, N. Y, Oct. 9, 96. D.D.S, N. Y. Univ, 17. Instr. *oral path, Columbia,* 25–27, asst. prof, 27–31, *assoc. prof. and chairman dept, 31–* Assoc. attending dental surgeon, Presb. Hosp. Assoc. ed, 'Annals of Dentistry.' A.A; Am. Dental Asn; N. Y. State Dental Soc; N. Y. Acad. Dentistry; assoc. fel. N. Y. Acad. Med. Embryology of the rat jaw; histopathology of the oral cavity.

Cailloux, Prof. Marcel L(ouis), 4101 E. Sherbrooke St, Montreal, Que, Can. *Plant physiology.* Ottawa, Ont, Dec. 8, 14. B.A, Mt. St. Louis Col, 35; A.C.F.A.S. scholar, Cornell, 37; Que. scholar, Chicago, 39, 40; L.Sc, Montreal, 40. Lab. asst. and illustrator, sci. publications, *bot. inst, Montreal,* 36, *prof. plant physiol, 40–* Soc. Plant Physiol; Soc. Can. d'Hist. Nat. Mechanism of the absorption of nutrients by root hairs; rubber producing plants in temperate regions.

Cain, Dr. Charles B(ertram), Royal-Stafolife Mills, Memphis, Tenn. *Animal pathology.* Little Springs, Miss, June 29, 00. B.S, Miss. Agr. and Mech. Col, 21; D.V.M, Cornell, 23; M.S, Iowa State Col, 24; Chicago. Prof. vet. science and bacter, Ark. Polytech, 24–25, assoc. prof. and in charge vet. work, 25–30; animal husbandman, Exp. Sta, Miss. State Col, 30–32, animal pathologist and head dept. animal path, 32–37, prof. vet. science, 32–37; *feed service director, Royal-Stafolife Mills, 37–* Asst, Rockefeller Inst, Princeton, N. J, 31–32. Vet. Med. Asn. (chairman poultry sect); Poultry Sci. Asn; Feed Mfrs. Asn. (nutrition cmt); Soc. Animal Production; Soc. Parasitol; Miss. Vet. Med. Asn. (pres, 30). Histological pathology; hog cholera; swine diseases; para-tuberculosis; coryza in chickens; soy-bean forages for fattening pigs.

Cain, Dr. Cornelius K(ennady), 1402 S. Grand Blvd, St. Louis, Mo. *Organic chemistry.* Owensboro, Ky, Sept. 10, 10. B.S, Kentucky, 32; M.S, Mass. State Col, 37; du Pont fellow, Hopkins, 38–39, Ph.D, 39. Asst. chem, Mass. State Col, 35–37; Hopkins, 37–38; asst. org. chem, Illinois, 39–41; *instr. biochem, St. Louis, 41–* A.A; Chem. Soc. Organic chemistry of natural products.

Cain, Dr. R(oy) F(ranklin), University of Toronto, Toronto, Ont, Can. *Botany.* Paris, Ont, Sept. 23, 06. B.A, Toronto, 30, M.A, 31, Ph.D, 33. *Asst, mycol. herbarium, Toronto, 33–* Mycol. Soc. Mycology.

Cain, Dr. Russell A(rnon), 640 N. Broad St, Philadelphia, Pa. *Chemistry.* Milwaukee, Wis, Oct. 17, 01. Ph.C, Washington (Seattle), 24, B.S, 25, M.S, 27, Ph.D, 33. Asst. state chemist, Wash, 25–29; instr. pharmacy, Washington (Seattle), 29–36, asst. prof, 36–37; *director control div, Sharp and Dohme, 37–* Pharmaceut. Asn. Pharmaceutical chemistry.

Cain, Prof. Stanley A(dair), University of Tennessee, Knoxville, Tenn. *Botany.* Jefferson Co, Ind, 02. B.S, Butler, 24; M.S, Chicago, 27, Ph.D, 30. Instr, Indianapolis Col. Pharmacy, 23–24; *bot,* Butler, 25–27, asst. prof, 28–30, assoc. prof, 30–31; asst. prof, Indiana, 31–33; assoc, Waterman Inst, 33–35; asst. prof, *Tennessee,* 35–37, assoc. prof, 37–42, *prof, 42–* Guggenheim Mem. Foundation fellow, 40–41; scholar, N. Y. Bot. Garden, 41. Summers, prof, Cold Spring Harbor, 35–39; Wyoming, 40. Ecol. Soc. (ed. board, 32–34; treas, 38–); fel. Ind. Acad. (ed, 'Proc,' 29–34). Ecology; phytogeography; phytosociology.

Caine, Prof. A(lfred) B(allif), Iowa State College, Ames, Iowa. *Animal husbandry.* Logan, Utah, Sept. 13, 91. B.S, Utah Col, 14; M.S, Iowa State Col, 17. Instr. *animal husbandry, Iowa State Col,* 16–17, asst. prof, 17–19, assoc. prof, 19–36, *prof, 36–* Soc. Animal Production. Testing draft horses; feeding and management of horses; preparing feed for colts; colt production in Iowa.

Caine, Prof. George B(allif), Utah State Agricultural College, Logan, Utah. *Dairy husbandry.* Logan, Utah, Sept. 16, 89. B.S, Utah Col, 12; A.M, Missouri, 14. Dairy fieldman, U. S. Dept. Agr. and Univ. Idaho, 12–13; asst. prof. animal husbandry, Utah Col, 14–16, *dairy husbandry,* 16–17, assoc. prof, 17–20, *prof,* 20–29, *Utah State Col, 29–* Official del, World Dairy Cong, London, 28. Dairy Sci. Asn. Feeding dairy cows and calves; fitting and showing dairy cattle; beet pulp versus corn silage for milk production; dried beet pulp supplementing the grain ration.

Caird, Dr. Ralph W(illiam), Soil Conservation Service, Vega, Texas. *Forestry.* Downers Grove, Ill, Dec. 7, 07. B.S, Chicago, 29, Ph.D, 35; Michigan, 30–32. Junior forester, Lake States Forest Exp. Sta, U. S. Forest Service, 34–35; *asst. range examiner, soil conservation service, U. S. Dept. Agr, 35–* Soc. Foresters; Soc. Plant Physiol; Soc. Agron; Ecol. Soc. Tree physiology and plant ecology of the plains states.

Cairncross, Dr. Stanley E, 3 Warren St, Winchester, Mass. *Chemistry.* Winnipeg, Can, Feb. 3, 02. A.B, Southern California, 25, A.M, 26; Ferguson fellow, Columbia, 30–31, du Pont fellow, 31–32, Ph.D. Teaching fellow pharmacy, Southern California, 25–26; asst. chem, Columbia, 28–30; *mem. staff,* Bristol-Myers Co, 33–39; *Arthur D. Little, Inc, 39–* Chem. Soc; Pharmaceut. Asn. Synthetic drugs; organic chemistry, particularly foods and drugs.

Cairnes, Dr. C(live) E(lmore), 255 First Ave, Ottawa, Ont, Can. *Geology.* Stratford, Ont, June 18, 93. B.A, British Columbia, 16; B.S, Washington (Seattle), 17; A.M, Princeton, 21, Ph.D, 22. *Geol. Surv. Can, 20–* Soc. Econ. Geol; fel. Royal Soc. Can. General and economic geology.

Cairns, Prof. G(ordon) M(ann), University of Maine, Orono, Maine. *Animal industry.* Brooklyn, N. Y, July 14, 11. B.S, Cornell, 36, M.S, 38, Ph.D, 40. *Prof. animal indust. and head dept, 39–* The use of lamb fattening experiments in determining the relative net energy values of distillers' corn dried grains and brewers' dried grains in comparison with corn grain.

Cairns, Dr. R(obert) W(illiam), 194½ Brecks Lane, Wilmington, Del. *Physical chemistry.* Oberlin, Ohio, Dec. 23, 09. California, 27; A.B, Oberlin Col, 30; Ph.D, Hopkins, 32. Ohio state fellow, Hopkins, 30–33; fellow, Bartol Research Foundation, 33–34; research chemist, *exp. sta, Hercules Powder Co,* 34–39, asst. to director research, 39–41, *director, 41–* Chem. Soc; Physical Soc; Farm Chemurgic Council. System of nickel oxide hydrates; quantum theory of scattering processes; mechanism of detonation reactions in solid explosives; development of military and commercial explosives; industrial safety.

Cairns, Prof. Stewart Scott, 42-14 149th Place, Flushing, N. Y. *Mathematics.* Franklin, N. H, May 8, 04. A.B, Harvard, 26, A.M, 27, traveling fellow, Göttingen and Szeged, Hungary, 28–29, Ph.D, 31. Instr. *math,* Harvard, 27–28; Yale, 29–31; Lehigh, 31–33, *asst. prof,* 33–38; *Queens Col. (N. Y), 38–* Mem, Inst. Advanced Study, 36–37. A.A; Math. Soc; Math. Asn. Topology.

Cairns, Prof. W(illiam) D(eWeese), 97 Elm St, Oberlin, Ohio. *Mathematics.* Troy, Ohio, Nov. 2, 71. A.B, Ohio Wesleyan, 92; A.B, Harvard, 97, A.M, 98; Ph.D, Göttingen, 07. Instr, high sch, Ohio, 94–96; Mich, 98–99; instr. math. and surv, *Oberlin Col,* 99–04, assoc. prof. *math,* 04–20, prof. and head dept, 20–39, *emer. prof, 39–* A.A. (chairman, A, 37); Math. Soc; Math. Asn. (sec'y-treas, 16–42, pres, 42). Mathematical analysis.

Cajori, Dr. Florian A(nton), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Physiological chemistry.* Colorado Springs, Colo, July 29, 92. A.B, Colo. Col, 14; Ph.D, Yale, 20. Sci. asst, U. S. Dept. Agr, 14–16; instr. chem, Stanford, 20–22; research chemist, Presb. Hosp, Phila, 22–28; *asst. prof. physiol. chem, sch. med, Pennsylvania, 28–; Sanit. Corps, U. S. Army, 42–* Sanit.C, 17–19, capt. A.A; Soc. Biol. Chem; Chem. Soc. Nutrition; enzymes.

Calabrese, Dr. Arthur B, 531 Huron St, Erie, Pa. *Bacteriology, Embryology.* Erie, Pa, Sept. 2, 10. B.S, Pittsburgh, 35; Washington (St. Louis), 36; M.S, Western Reserve, 38, Cleveland Clinic Foundation fellow, 39–41, Ph.D, 41. Teaching fellow embryol, comp. anat. and gen. biol, Western Reserve, 36–40; junior bacteriologist, Cleveland Dept. Pub. Health, 41; *Hosp. Corps, U. S. Navy, 42–* Biol. Soc. Effect of gregarines on the intestinal cytology of Melanoplus differentialis; quantitative and qualitative study of the anterior pituitary of the male rabbit.

Calandra, Dr. Joseph C(arl), 4918 Rice St, Chicago, Ill. *Organic chemistry.* Chicago, Ill, March 17, 17. B.S, Ill. Inst. Tech, 38; Ph.D, Northwestern, 42, *Instr. chem,* Ill. Inst. Tech, 38; *Northwestern, 38–* Chem. Soc. Biochemistry; carbohydrate degradation; synthetic local anesthetics.

Calaway, Prof. Paul K(enneth), Georgia School of Technology, Atlanta, Ga. *Organic chemistry.* Bethesda, Ark, March 31, 10. A.B, Ark. Col. 31; M.S, Ga. Tech, 33; Ph.D, Texas, 38. Instr. *chem,* Ga. Tech, 33–35; Texas, 35–38; *Ga. Tech,* 38–42, *asst. prof, 42–* Chem. Soc. Quinolines and quinazolines; synthesis of substituted quinoline acids.

Calcott, Dr. W(illiam) S(tansfield), 164 East Ave, Woodstown, N. J. *Chemistry.* Norfolk, Va, Dec. 12, 92. Chem.E, Virginia, 13; LL.D, Notre Dame, 37. Gen. Elec. Co, Pittsfield, 13–15; E. I. du Pont de Nemours and Co, 15–18, asst. head gen. div, *Jackson lab,* 18–19, head, 19–29, assoc. director, 29–31, *director, 31–* A.A; Chem. Soc; Chem. Eng; Soc. Test. Mat; Army Ordnance Asn; Inst. Chem; Soc. Dyers and Colorists; Asn. Textile Chem. and Colorists; Soc. Chem. Indust, London; London Chem. Soc. Organic analysis; corrosion; synthetic organic chemicals, including dyes and intermediates; elastomers.

Calder, Prof. William A(lexander), Carleton College, Northfield, Minn. *Astronomy, Physics.* Chippewa Falls, Wis, July 27, 06. A.B, Wisconsin, 28, A.M, 29; A.M, Harvard, 31, Ph.D, 33. Astronomer, Harvard Observatory, 33–37; prof. astron, Knox Col, 37–41; Wis. State Teachers Col, Eau Claire, 41–43; *assoc. prof. physics, Carleton Col, 43–* Astron. Soc. Photoelectric photometry.

Calderwood, Lieut. Col. H(oward) N(ewton), Jr, 3105 Cross St, Madison, Wis. *Chemistry.* Ottawa, Kans, May 27, 88. B.S, Kansas, 14; Ph.D, Wisconsin, 23. Asst. chemist and assoc. chemist, Forest Products Lab, U. S. Dept. Agr, 16–24; asst. prof. chem, Wisconsin, 24–37; Bur. Fisheries, 37–40; *lieut. col, Office of chief, Chemical Warfare Service, U. S. Army, 40–* Chem. Soc; Va. Acad. Hard-wood distillation; wood chemistry; essential oils; tannins; pulp mill waste; biochemistry of oysters; water pollution; vapor phase absorbents.

Caldis, Dr. Panos D(emetrius), California Packing Corp, 101 California St, San Francisco, Calif. *Plant pathology.* Smyrna, Asia Minor, 96. A.B, International Col, 17; B.S, Mich. State Col, 22, M.S, 25; Rosenberg Mem. scholar, California, 22–24, Ph.D, 26. Instr, International Col, 17–19; asst. plant path, California, 24–25, junior plant pathologist, Exp. Sta, 25–26; plant pathologist, Haytian Pineapple Co, 26–31; Philippine Packing Corp, 31–33, *agr. research, Calif. Packing Corp, 33–* A.A; Phytopath. Soc; Soc. Hort. Sci; Soc. Agron; Soc. Plant Physiol; Soc. Soil Sci. Variations in fungi; diseases of figs, pineapples, peaches and peas; nutrition and quality relationship in tomatoes and peaches; nutrition of asparagus.

Caldwell, Prof. A(lfred) C(raig), 2124 Como Ave, St. Paul, Minn. *Soil chemistry.* Ont, Can, Sept. 11, 10. B.Sc, Alberta, 36, M.Sc, 38; Ph.D, Minnesota, 41. Instr. *soils,* Saskatchewan, 41–42; *asst. prof, Minnesota, 42–* Fertility of soils; the intrazonal soils of Minnesota.

Caldwell, Prof. B(enjamin) Palmer, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Chemistry.* New Orleans, La, April 2, 75. A.B, Tulane, 93, B.E, 95, Ch.E, 96; fellow, Hopkins, 00–01, Ph.D, 01. Instr. chem, Tulane, 95–97, asst. prof, 97–07, assoc. prof, 07–13, *prof,* 13–16; Oglethorpe, 16–19; anal. chem, *Polytech. Inst. Brooklyn,* 19–26, *physical chem, 26–* A.A; Chem. Soc. Equilibrium of double salts in solution; vegetable oils; corrosion of metals; thermodynamics.

Caldwell, Dr. C(arlyle) G(ordon), 9958 66th Ave, Forest Hills, N. Y. *Plant chemistry.* Little Rock, Ark, March 13, 14. B.S, Iowa State Col, 36, Ph.D, 40. *Research chemist, Nat. Starch Products, New York, 40–* Chem. Soc. Fractionation of starch.

Caldwell, Dr. C(lyde) T(rain), The Upjohn Co, Kalamazoo, Mich. *Physiological chemistry.* Fairmount, Ind, Nov. 11, 97. B.S, Earlham Col, 22; M.S, Illinois, 23, Ph.D, 32. Chemist, Standard Oil Co. of Ind, 23–24; instr. chem, Earlham Col, 24–25, asst. prof, 25–30, acting head dept, 29–30; special asst. physiol. chem, Illinois, 32–33; *research chemist, Upjohn Co, 33–* Chem. Soc. Amino acids.

Caldwell, Prof. F(rank) C(ary), 206 16th Ave, Columbus, Ohio. *Electrical engineering.* Ithaca, N. Y, Dec. 25, 68. A.B, Cornell, 90, M.E, 91; Polytech. Zurich, 92–93. Expert Thomson-Houston Elec. Co, 91–92; asst. prof. *elec. eng, Ohio State,* 93–97, assoc. prof, 97–01, prof, 01–39, *emer. prof, 39–,* acting dean col. eng, 08–09. Lecturer, Inst. Tech, Prague, 25; engineer, div. vehicle lighting, Dept. Highways, Ohio, 21– Assoc. ed, 'Gen. Eng. Handbook,' 31; 'Pender's Handbook for Elec. Engineers,' 35. Trustee, Antioch Col, 00–34. Fel. Elec. Eng; Eng. Educ; Illum. Eng. Soc. (director, 21–24, chairman,

cmt. on street lighting, 35–38). Street and highway lighting; vehicle lighting.

Caldwell, Frank R(epp), National Bureau of Standards, Washington, D. C. *Physics.* Washington, D. C, May 21, 01. B.S, George Washington, 25, A.M, 29. From asst. physicist to *physicist, Bur. Standards, 20–* Philos. Soc. Wash. Pyrometry; thermometry; combustion research.

Caldwell, Frank W(alker), United Aircraft Mfg. Corp, East Hartford, Conn. *Aeronautics.* Lookout Mountain, Tenn, Dec. 20, 89. B.S, Mass. Inst. Tech, 12. Chief propeller branch, Air Corps, U. S. Army, 17–28; chief engineer, *Hamilton standard propeller div, United Aircraft Mfg. Corp,* 29–35, *eng. manager, 35–* Collier trophy, 33; Sylvanus Albert Reed award, Inst. Aeronaut. Sci, 35. Soc. Automotive Eng; fel. Inst. Aeronaut. Sci. (pres, 41). Aircraft propellers; aerodynamics.

Caldwell, Prof. Geo(rge) T(homas), Baylor University, Dallas, Texas. *Pathology.* Cable, Ohio, Dec. 18, 82. A.B, Ohio State, 10, A.M, 13; Ph.D, Chicago, 18, M.D, Rush, 19. Assoc. *path,* Chicago, 14–16, instr, 16–19; *prof, col. med, Baylor, 19–* Fat embolism; chemical composition of tuberculous tissues; purin enzymes; coccidioidomycosis; rhinosporidiosis; cryptococcosis; carcinogenesis; female urethra.

Caldwell, Prof. G(eorge) T(hornhill), University of Arizona, Tucson, Ariz. *Zoology.* Concord, Va, Oct. 26, 92. B.S, Col. of William and Mary, 16; M.S, Chicago, 23, Ph.D, 30. Instr. *biol,* Col. of William and Mary, 17–18; asst. prof, *Arizona,* 20–24, assoc. prof, 24–25, *prof, 26–, head dept, 33–* Pres, State Board Examiners in Basic Sciences, Ariz, 33–A.A; Soc. Zool; Soc. Mammal. Water metabolism; the effects of desiccation on animals; seasonal cycles in the interstitial cells of the testes of desert animals.

Caldwell, Dr. Janet Anderson, 3929 Potomac St, Dallas, Texas. *Bacteriology.* La Crosse, Wis, Oct. 4, 95. B.S, Chicago, 16; M.D, Baylor, 21. Pathologist, Parkland Hosp, Dallas, 21–24; Baylor Hosp, 25–28; pathologist-radiologist, Mineral Wells Clinic, Texas, 28; radiologist, Parkland Hosp, Dallas, 29–30, pathologist, clinic diagnosis and med, 30–36, Med. Arts Hosp, 36–38; *practising physician, 38–* Am. Med. Asn. Bacteriophage in urinary infections and its therapeutic use.

Caldwell, Dr. John R(ichard), Tennessee Eastman Corp, Kingsport, Tenn. *Colloid chemistry.* Akron, Ohio, Sept. 18, 10. B.S, Akron, 32; M.S, Ohio State, 34, Ph.D, 36. Asst. chem, Ohio State, 32–36; *research chemist, Tenn. Eastman Corp, 36–* A.A; Chem. Soc. Volumetric chlorine determination; adsorption on colloidal precipitates; flocculation of colloidal precipitates; textile lubricants; emulsions; rubber process patents; synthetic fiber development.

Caldwell, Dr. Joseph S(tuart), Plant Industry Station, Beltsville, Md. *Biochemistry.* Knoxville, Tenn, Oct. 31, 78. A.B, Maryville Col, 02; A.M, Chicago, 04, Ph.D, 14. Prof. biol, Peabody Col, 04–11; prof. bot, Ala. Polytech, and plant physiologist, Exp. Sta, 12–16; plant physiologist, Exp. Sta, State Col. Wash, 16–18; *senior physiologist, bur. plant indust, U. S. Dept. Agr, 18–* A.A; Bot. Soc; Soc. Hort. Sci. Plant physiology; fruit and vegetable utilization; biochemistry of growth and development; physiology of ripening in fruits.

Caldwell, Prof. Mary Estill, University of Arizona, Tucson, Ariz. *Bacteriology.* Columbus, Ohio, Feb. 12, 96. B.S, Arizona, 18, M.S, 19; Rockefeller Foundation fellow, Chicago, 29–30, Ph.D, 32. Instr. biol, *Arizona,* 19–24, asst. prof, 25–32, assoc. prof. *bacter,* 32–37, *prof, 37–, head dept, 35–* Mem, State Board Examiners in Basic Sciences, Ariz, 33–Soc. Bact; Pub. Health Asn; Social Hygiene Asn. (cmt. educ). Viability of Mycobacterium tuberculosis; dissociation of certain paratyphoid bacilli.

Caldwell, Prof. Mary L(etitia), Columbia University, New York, N. Y. *Chemistry.* A.B, West. Col. for Women, 13; A.M, Columbia, 19, fellow, 20–21, Ph.D, 21. Instr. *chem,* Western Col. for Women, 14–17, asst. prof, 17–18; asst, *Columbia,* 21–22, instr, 22–29, *asst. prof, 29–* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; N. Y. Acad. Chemical nature of enzymes; pancreatic and malt amylases; vitamins.

Caldwell, Dr. Otis W(illiam), Boyce Thompson Institute for Plant Research, 1086 Broadway, Yonkers, N. Y. **²Botany.* Lebanon, Ind, Dec. 18, 69. B.S, Franklin Col, 94, LL.D, 17; Ph.D, Chicago, 98. Asst. bot, Chicago, 97–99; head dept. biol, East. Ill. Nor. Sch, 99–07; assoc. prof. bot, Chicago, 07–13, prof. and dean univ. col, 13–17; prof. *educ, Teachers Col, Columbia,* 17–35, *emer. prof, 36–,* director, Lincoln Sch, 17–27, div. sch. experimentation, inst. educ. research, 20–27, inst. sch. experimentation, 27–35; *gen. sec'y, Am. Asn. Adv. Sci, 35–* Visiting prof, Atlanta, 37–38. Summers, lecturer, Indiana, 01, 02; California, 33. A.A. (chairman, cmt. on place of science in educ); Soc. Nat; Bot. Soc; Asn. Sci. Teachers (director, 37–); Nat. Parks Asn. (ed. cmt). Plant morphology; education; science text-books.

Caldwell, Dr. Ralph M(errill), Purdue University, Lafayette, Ind. *Phytopathology.* Brookings, S. Dak, June 27, 03. B.S, S. Dak. State Col, 25; M.S, Wisconsin, 27, Ph.D, 29. Asst. bot, Wisconsin, 25–28; state leader barberry eradication, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, Wis, 28–30, assoc. pathologist, 30–37; assoc. botanist, *Exp. Sta, Purdue,* 30–37, *chief dept. bot, 37–* A.A; Phytopath. Soc; Soc. Agron; Ind. Acad. Cereal pathology; Rhynchosporium scald of barley, rye and grasses; physiologic specialization; host penetration by cereal rusts; resistance to cereal diseases.

Caldwell, Prof. S(amuel) H(awks), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Philadelphia, Pa, Jan. 15, 04. B.S, Mass. Inst. Tech, 25, M.S, 26, Sc.D, 33. Asst, *Mass. Inst. Tech,* 26–27, instr, 27–34, asst. prof. *elec. eng,* 34–40, *assoc. prof, 40–* Asst, Evans Mem, 30–35, assoc, 35–37. Sect. mem, Nat. Defense Research Cmt, 40–Elec. Eng. Mathematical analysis by mechanical methods; applications of electrical equipment in medicine.

Caldwell, Prof. W(illiam) E(lmer), Oregon State College, Corvallis, Oregon. *Chemistry.* Butte, Mont, Jan. 26, 03. Met.E, Mont. Sch. Mines, 24; M.S, Wisconsin, 28, Ph.D, 30. Instr. *chem,* Wisconsin, 29–30; *asst. prof, Oregon State Col, 30–; lieut. col. and mem. faculty, sch, Chem. Warfare Service, U. S. Army, 41–* Chem. Soc. Reduction reactions with calcium hydride; phase rule of alcohol derivatives; determination of gold and silver in dilute solution; adsorption of iron from commercial caustic soda by strontium minerals; emergency war gas or industrial gas breathing tubes.

Caldwell, Prof. William T(homas), Temple University, Philadelphia, Pa. *Chemistry.* Pawtucket, R. I, May 29, 95. A.B, Princeton, 15; A.M, Yale, 17, Ph.D, 23. *Prof. chem, Temple, 19–, dean col. lib. arts and sciences, 42–* Pyrimidines.

Caley, Dr. Earle R(adcliffe), Wallace Laboratories, New Brunswick, N. J. *Chemistry.* Cleveland, Ohio, May 14, 00. B.S, Baldwin-Wallace Col, 23; M.S, Ohio State, 25, Ph.D, 28. Asst. chem, Baldwin-Wallace Col, 21–23; teacher, high sch, Ohio, 23–24, prin, 25–27; instr. chem, Princeton, 28–31, asst. prof, 31–42; *chief chemist, Wallace Labs, 42–* Chemist, Agora Excavation staff, Athens, Greece, 37. Lewis prize, Am. Philos. Soc, 40. A.A; Chem. Soc. (sec'y-treas, Princeton sect, 30, chairman, 31–); Hist. Sci. Soc; Numis. Soc; N. Y. Acad. Early history of chemistry; direct determination of sodium; analytical chemistry of the alkali and alkaline earth metals; new laboratory apparatus for analytical operations; reactions of hydriodic acid with and the detection and separation of difficultly soluble compounds; analyses of ancient metallic objects; restoration of antique coins; analysis of drugs.

Calhane, Dr. D(aniel) F(rancis), 32 Berkmans St, Worcester, Mass. *Chemistry.* Bradford, Mass, Aug. 19, 69. A.B, Harvard, 94, A.M, 96, Ph.D, 04. From instr. to prof. indust. chem. and theoret. and applied electrochem, *Worcester Polytech,* 03–36; *emer. prof. indust. and applied electrochem, 36–* A.A; Electrochem. Soc. Electrochemistry; organic chemistry; pure and applied chemistry.

Calhoon, Dr. C(lair) H(enry), 2280 W. Broad St, Columbus, Ohio. *Psychology.* Crooksville, Ohio, Dec. 20, 00. A.B, Ohio (Athens), 22; A.M, Ohio State, 24, Ph.D, 30. Asst. psychologist, *Bur. Juvenile Research, Ohio,* 22–27, chief psychologist, 27–30, *director, 30–* Psychol. Asn; Asn. Applied Psychol; Asn. Mental Deficiency. Juvenile delinquency; clinical psychology; mental hygiene of children.

Calhoon, Prof. F(loyd) N(ewton), University of Michigan, Ann Arbor, Mich. *Engineering.* St. Martinsville, La, June 19, 95. B.S, Louisiana, 16; M.S, Michigan, 25. Meterman, Baton Rouge Elec. Co, 16–17; asst. elec. engineer, S. Porto Rico Sugar Co, Santo Domingo, 18; inspector, U. S. Engineers, 4th Miss. River dist, 19–20; asst. prof. *mech. eng,* Louisiana, 20–21; asst, *Michigan,* 22–23, instr, 23–25,

asst. prof, 25– Eng. Educ. Mechanical and experimental engineering.

Calhoun, Prof. F(red) H(arvey) H(all), Clemson Agricultural College, Clemson, S. C. *Geology.* Elbridge, N. Y, June 27, 75. B.S, Chicago, 98, Ph.D, 02. Asst. physiog. and field geol, Chicago, 99–02; asst. prof. geol. and physics, Ill. Col, 02–04; *prof. geol. and miner, Clemson Col, 04–,* director dept. agr, 17–33, *dean sch. chem. and geol, 33–* Summers, asst. geologist, U. S. Geol. Surv, 02–17; geologist, Colorado, 03, 05, 09; Chicago, 07; Michigan, 11; Iowa, 14, 16; Seaboard Air Line Ry, 16– A.A; fel. Geol. Soc; S. C. Acad. (pres, 24–). The drift in Montana; relations of drift sheets.

Calhoun, Dr. J(ohn) Alfred, Jr, American Viscose Corp, Delaware Trust Bldg, Wilmington, Del. *Medicine.* Charleston, S. C, July 6, 02. A.B, Virginia, 23, M.D, 28. Intern, univ. hosp, Vanderbilt, 28–29, asst. res, 29–30, asst, 30–32, res, 32–33; nat. research fellow, 33–34; asst. med, Harvard Med. Sch, and asst. physician, Collis P. Huntington Mem. Hosp, 34–37; asst. plant physician, Gen. Elec. Co, Lynn, Mass, 37–38; *med. director,* Colgate-Palmolive-Peet Co, N. J, 38–39; *Am. Viscose Corp, 39–* Asn. Indust. Physicians and Surg; Indust. Hygiene Asn; Soc. Clin. Invest. Cardiology; industrial toxicology.

Calhoun, Dr. J(ohn) M(oynes), 176 Elmtree Road, Rochester, N. Y. *Physical chemistry.* Calgary, Alta, Can, Nov. 15, 12. B.Sc, Alberta, 35; Ph.D, McGill, 38. *Research chemist photographic materials, Eastman Kodak Co, 38–* Chem. Soc. Sulfite pulping.

Calhoun, Prof. J(ohn) W(illiam), 2805 Rio Grande St, Austin, Texas. *Mathematics.* Manchester, Tenn, Oct. 24, 71. A.B, Texas, 05; A.M, Harvard, 08; LL.D, Abilene Christian Col. Tutor pure math, *Texas,* 05–09, instr, 09–13, adj. prof, 13–17, assoc. prof, 17–20, *applied math,* 20–23, *prof, 23–,* comptroller, 25–37, 39–40, pres, 37–39. Math. Soc; fel. Texas Acad. Fourier's series; pedagogy of mathematics.

Calingaert, Dr. George, Ethyl Corp, Detroit, Mich. **Chemistry.* Brussels, Belgium, Sept. 9, 96. Sc.D, Brussels, 21. Belgian Am. Educational Foundation fellow, 21–23; asst, Mass. Inst. Tech, 22–23, research assoc, 23–28; asst. director research, *Ethyl Corp,* 28–32, *director chem. research, 32–* A.A; Chem. Soc; Automotive Eng; Chem. Eng; Eng. Soc. Detroit. Applied and organic chemistry; petroleum; distillation; high pressure hydrogenation; antiknock compounds; corrosion.

Calkin, Prof. J(ohn) W(illiams), Illinois Institute of Technology, Chicago, Ill. *Mathematics.* New Rochelle, N. Y, Oct. 11, 09. A.B, Columbia, 33; A.M, Harvard, 34, Ph.D, 37. Instr. *math,* Harvard, 35–37; asst, Inst. Advanced Study, 37–38; *asst. prof,* New Hampshire, 38–39; *Ill. Inst. Tech, 39–; bur. ordnance, U. S. Navy, 42–* Math. Soc. Linear transformations in Hilbert space; partial differential equations.

Calkins, Frank C(athcart), U. S. Geological Survey, Washington, D. C. *Geology.* Lakewood, Ohio, June 7, 78. B.S, California, 99. Asst. miner, California, 00–01; asst. geologist, *U. S. Geol. Surv,* 01–11, assoc. geologist, 11–17, *geologist, 17–* Geol. Soc; Soc. Econ. Geol; Geol. Soc. Wash. (v. pres, 37). Geology of northern Washington, northern Idaho, western Montana, Yosemite region, California, and of Wasatch Mountains, Utah; petrography of well cuttings from salt deposits; geology along Comstock lode, Nevada; determination of plagioclases; criticism of geological manuscripts.

Calkins, Dr. H(armon) E(idred), Upjohn Co, Kalamazoo, Mich. *Bacteriology.* Ann Arbor, Mich, July 11, 12. A.B, Transylvania Col, 33; M.S, Kentucky, 37; Harrison fellow, Pennsylvania, 37–38, Ph.D, 41. Asst. chem. and biol, Transylvania Col, 30–33; asst. bacter, Pennsylvania, 38–41, Johnson Foundation, 39–41; *research bacteriologist, Upjohn Co, 41–* Indol-utilizing bacteria; serological reactivity of protein monolayers; viruses.

Calkins, Prof. Helen, 5802 Murrayhill Place, Pittsburgh, Pa. *Mathematics.* Quincy, Ill, Oct. 20, 93. A.B, Knox Col, 16; scholar, Columbia, 20–21, 23–24, A.M, 21; scholar, Cornell, 28–30, Ph.D, 32. Instr. *math,* Knox Col, 18–20, 21–22, asst. prof, 22–25; instr, Nebraska, 26–27; prof. and acting head dept, Sweet Briar Col, 27–28; *prof. and head dept, Pa. Col. for Women, 30–* Summer, statistician eng. defense training, Pa. State Col, 41. Math. Soc; Math. Asn. Analysis; implicit functionals.

Calkins, Hugh G(ilman), Commercial Bldg, Albuquerque, N. Mex. *Forestry.* Swarthmore Col, 02–03; B.S, California, 06; Yale, 07–08. From forest asst. to asst. regional forester, U. S. Forest Service, 08–33; regional director soil erosion service, U. S. Dept. Interior, 34–35; *regional conservator, soil conservation service, U. S. Dept. Agr, 35–* Soc. Foresters. Soil conservation.

Calkins, Prof. L(eroy) A(delbert), University of Kansas Hospital, Kansas City, Kans. *Obstetrics, Gynecology.* Mason City, Iowa, March 10, 94. B.S, Cornell Col. (Iowa), 13; M.B, Minnesota, 18, M.D, 19, M.S, 20, Ph.D, 21. Teaching fellow *obstet. and gynec,* Minnesota, 18–21, asst. prof, 21–24; prof, Virginia, 24–29; *prof. and head dept, sch. med, Kansas, 29–* Fel. Gynec. Soc; Asn. Obstet, Gynec. and Abdom. Surg; Asn. Anat. Anatomy; human fetus; growth; morphology; morphometry; indirect intra-uterine cephalometry; labor; cancer.

Call, Dean L(eland) E(verett), 223 N. 14th St, Manhattan, Kans. *Agronomy.* Darrowville, Ohio, Feb. 9, 81. B.S, Ohio State, 06, fellow, 06–07, M.S, 12. Asst. agron, *Kans. State Col,* 07–08, asst. prof. soils, 08–11, assoc. prof, 11–13, prof. agron, 13–25, *dean agr. and director, Exp. Sta, 25–* Pres, Fed. Land Bank, Wichita, 34. Supervisor crop instr, A.E.F. Univ. Beaune, 19. A.A; Soc. Agron. (chairman, European corn borer cmt, 27–; pres, 22). Soils; fertility and tillage.

Callaghan, Dr. Eugene, U. S. Geological Survey, Washington, D. C. *Economic geology.* Snohomish, Wash, Jan. 10, 04. A.B, Oregon, 26, A.M, 27; fellow, Columbia, 27–28, Kemp fellow, 28–29, Ph.D, 31. Asst, Oregon, 26–27; geologist, Metropolitan Dist. Water Supply Cmn, Boston, 29–; asst. geologist and *senior geologist, U. S. Geol. Surv, 30–* Geologist, Barton exped, Persia, 28. Mem. cmt. tectonics, Nat. Research council. Econ. Geol; Geophys. Union; Geol. Soc; Geol. Soc. Wash. Structural geology in central Massachusetts; mineral deposits in Oregon, Utah and Nevada; magnesite, brucite and alunite deposits; recent faults in the Great Basin; tin, tungsten and antimony deposits in Bolivia.

Callahan, M(ichael) J(oseph), 2302 Grant Ave, Wilmington, Del. *Chemistry.* Whitinsville, Mass, Dec. 12, 89. B.S, Worcester Polytech, 11. Research chemist, Gen. Elec. Co, Mass, 11–16; *E. I. du Pont de Nemours and Co,* Parlin, 16–19, asst. director, Redpath lab, 19–22, chem. supt, 22–32, director finishes div, *Wilmington,* 32–36, asst. to gen. manager, fabric and finishes dept, 36–41, *manager fabrikoid div, 41–* A.A; Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat; N. B. Sci. Soc. Paint, varnish and lacquer technology.

Callan, J(ohn) A(lbert) C(harlton), 78 Marietta St, Atlanta, Ala. *Civil engineering.* Morris, Ill, March 3, 86. B.S. (C.E), Illinois, 07; M.C.E, Union (N. Y), 10, A.M, 14. Asst, dept. theoret. and applied mech, Illinois, 08; instr. and asst. prof. civil eng, Union (N. Y), 08–18; prof, Ala. Polytech, 19–42; *airport paving engineer, Civil Aeronautics Admin, 42–* State highway commissioner, Ala, 19–25; lecturer, Union (N. Y). Construction engineer, War Dept, 18. Civil Eng. (director, Ala. sect). Highway engineering; water supplies of Alabama; relation of municipal accounting and administration systems; a new definition of moment of inertia; asphaltic binder.

Callander, W(illiam) F(orrest), 530 W. Par Ave, Orlando, Fla. *Agricultural economics.* North Grower, Ont, Can, June 14, 80. LL.B, Georgetown, 12. Private sec'y to sec'y agr, U. S. Dept. Agr, 12–14; field agent, Wis, 14–18; Ohio, 18–21; statistician, Farm Bur. Federation, Ohio, 21–22; senior agr. statistician and prin. agr. statistician in charge div. crop and live-stock estimates, bur. agr. econ, *U. S. Dept. Agr,* 22–35, asst. administrator and comptroller, agr. adjust. admin, 35–37, chairman crop reporting board, 37–42, *statist. consultant, south. states, 42–* Farm Econ. Asn; Statist. Asn.

Callaway, Dr. J(ack) B(eniah), 12 Midland Ave, East Orange, N. J. *Organic chemistry.* Ind, March 4, 10. A.B, Cincinnati, 32, A.M, 33, Ph.D, 36. *Pigment color research chemist, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Organic pigment chemistry.

Callen, Dean A(lfred) C(opeland), Lehigh University, Bethlehem, Pa. *Mining engineering.* Pen Argyl, Pa, July 17, 88. E.M, Lehigh, 09, M.S, 11. *Prof. mining eng,* West Virginia, 17–24; Illinois, 24–39; *Lehigh, 39–, dean col. eng, 39–* Ed, 'Coal Mine Management,' 22–29. Min. and Metal. Eng; Eng. Educ. (councilor, 41–); Coal Min. Inst; Ill. Min. Inst. (pres, 30); W. Va. Coal Min. Inst. (pres, 23). Coal mining.

Callenbach, Prof. E(rnest) W(illiam), Pennsylvania State College, State College, Pa. *Poultry husbandry.* New York, N. Y, Dec. 18, 01. B.S, Wisconsin, 24; M.S, Pa. State Col, 30. Instr. *poultry husbandry, Pa. State Col,* 25–28, asst. prof, 28–31, assoc. prof, 31–39, *prof, 39–* Poultry Sci. Asn. Biological relationships in poultry; poultry management; artificial propagation of game birds.

Callenbach, Dr. John A(nton), University of Wisconsin, Madison, Wis. *Entomology, Plant pathology.* Merchantville, N. J, April 9, 08. B.S, Wisconsin, 30, M.S, 31, Ph.D, 39. Asst. econ. entom, Wisconsin, 30–33; Va. Smelting Co. fellow, Va. Truck Exp. Sta, 33–36; *instr. econ. entom, Wisconsin, and agent, bur. entom. and plant path, U. S. Dept. Agr, 36–* Asn. Econ. Entom. Insects and diseases of truck crops; orchard insects; white grubs.

Callender, Col. Geo(rge) R(ussell), Army Medical Center, Washington, D. C. *Pathology.* Everett, Mass, May 13, 84. M.D, Tufts Col, 08. Instr. path, med. sch, Tufts Col, 09–12; *M.C, 12–, col;* instr. path, Army Med. Sch, 19–22, 24–32: pres, Army Med. Research Board, 22–23, 35–38; *asst. commandant med. dept, Professional Service Schs, 40–* Chief lab. service, Gen. Hosp, Ft. Bayard, N. Mex, 13–15; hosp, Hawaii, 16–18; Sta. Hosp, Ft. Sam Houston, Texas, 32–35; pathologist, Columbia Hosp, Wash, D. C, 20–22, 24–32; adviser path, med. sch, P. I, 23; prof, sch. med, Georgetown, 26–28; chief lab. service, Walter Reed Gen. Hosp, 38–40. Curator, Army Med. Museum, Wash, D. C, 19–22, 24–28; pres, Philippine Leprosy Research Board, 22–23; chairman exec. cmt, Cong. Physicians and Surg, 31–40. A.A; Asn. Path. and Bact. (pres, 30); Soc. Trop. Med. (2nd v. pres, 32, pres, 33); Acad. Trop. Med; Am. Med. Asn; Col. Physicians; Urol. Asn; Asn. Mil. Surg; Int. Asn. Med. Mus. (pres, 32). Dysentery; tumors and tumor-like conditions of the lymphocyte, myelocyte, erythrocyte and reticulum cell; wound ballistics; tuberculosis in Filipino rāces; acute respiratory disease in the World War; melanoma of the eye.

Callihan, Dr. A(lfred) Dixon, 92 Woodland Park Drive, Tenafly, N. J. *Physics.* Scarbro, W. Va, July 20, 08. A.B, Marshall Col, 28; A.M, Duke, 31; Ph.D, N. Y. Univ, 33. Asst. *physics,* Marshall Col, 26–28, instr, 28–29; asst, Duke, 29–30; N. Y. Univ, 30–34; tutor, *Col. City of N. Y, 34–37, instr, 37–* Physical Soc; Asn. Physics Teachers. Raman effect; nuclear disintegration.

Callis, Dr. H(enry) A(rthur), 1943 Vermont Ave, N. W, Washington, D. C. *Clinical medicine.* Rochester, N. Y, Jan. 14, 87. A.B, Cornell, 09; Chicago, 13–15, M.D, 21. Senior bacteriologist, City Dept. Health, Chicago, 23; attending physician, Provident Hosp, 24–27; pathologist, U. S. Veterans' Hosp, Tuskegee, Ala, 27–30; assoc. prof. med, Howard, 30–39; *practising physician, 39–* Visiting lecturer, St. Philip Post-Grad. Clinic, Med. Col. of Va, 31, 32. A.A; Heart Asn; Nat. Med. Asn; N. Y. Acad. Cardiology.

Callison, Elizabeth C(rofts), U. S. Department of Agriculture, Beltsville, Md. *Nutrition, Physiology.* Toledo, Ohio, March 24, 98. A.B, Oberlin Col, 20; M.S, Yale, 24. From asst. to asst. prof. physiol, Mt. Holyoke Col, 20–23, 24–25; instr, Goucher Col, 25–28; asst. pharmacol, sch. med, Yale, 28–30, instr. drugs and solutions, sch. nursing, 30–32; in charge rat colony, Conn. Agr. Exp. Sta, 31; *assoc. physiologist, bur. plant indust, U. S. Dept. Agr, 37–* Asst, sch. med, Yale, 24–25. Soc. Exp. Biol. Physiology of nutrition, particularly in the vitamin field.

Callward, Floyd M(ayo), University of Connecticut, Storrs, Conn. *Forestry.* Marion, N. Y, Nov. 27, 99. B.S, Syracuse, 24. State leader blister rust control, Vt, 24–25; state exten. forester, Vt, 25–29; prof. forestry, St. Lawrence, 29–36; *state exten. forester, Connecticut, 36–; lieut, Air Corps, U. S. Army, 42–* Soc. Foresters (v. chairman, New Eng. sect, 40, chairman, 41). Planting forest trees on the farms; forest weeding; forest improvement cutting.

Calma, Dr. V(aleriano) C(atacutan), Agricultural College, Los Baños, Laguna, P. I. *Agronomy.* Bacolor, Pampanga, P. I, Dec. 15, 05. B.Agr, Philippines, 26, B.S, 28; Philippine Gov't fellow, Am. univs, 28–31; M.S, Louisiana, 29; Ph.D, Iowa State Col, 31. Asst. plant path, col. agr. Philippines, 26–28; chemist, Tally-Ho Sugar Factory and Racelaud Sugar Refinery, La, 28–29; asst. agronomist, Bur. Plant Indust, P. I. 31–32; instr. *agron, col. agr, Philippines,* 32–37, *asst. prof, 37–* Nat. Research Council P. I. Soc. Hort. Sci; Philippine Soc. Adv. Research. Control of seed-borne diseases of seeds; alcohol production; chemical composition in relation to regeneration in plants; asexual propagation of plants; green manuring.

Calor Mota, Prof. C(andelario), Box 3131, Mayaguez, P. R. *Engineering.* Aguadilla, P. R, June 22, 98. B.S, Mass. Inst. Tech, 24, M.S, 27; Madrid. Asst. engineer, Dept. Interior, P. R, 24–25; instr. *civil eng,* col. agr. and mech. arts, *Puerto Rico,* 25–26, asst. prof, 26–30, assoc. prof, 30–38, *prof. and head dept, 38–* Sec'y, Y.M.C.A, Camp Las Casas, P. R, 18–19. A.A; Eng. Educ; Mil. Eng; Acad. Polit. Sci; Soc. Ing. P. R. (director, 37–39, 41, 42); Int. Asn. Bridge and Struct. Eng. Structural properties of concrete reinforced with bamboo for use in small low cost dwelling houses.

Calver, Homer N(orthup), 1790 Broadway, New York, N. Y. *Public health.* New York, N. Y, Nov. 22, 92. B.S, Mass. Inst. Tech, 14. Asst. health officer, Winston-Salem, N. C, 16–17; asst. director health service, nat. headquarters, Am. Red Cross, 19–22; special investigator, pub. health cmt, N. Y. Acad. Med, 22–23; managing ed, 'Jour. Pub. Health,' 24–29; asst. prof. hygiene, Univ. and Bellevue Hosp. Med. Col, 28–32; *sec'y paper cup and container inst, Pub. Health Cmn, 34–* Pres, Flushing Progressive Sch, N. Y, 27, 29–31; consultant health educ, Office Coordinator Inter-Am. Affairs, 43. Sec'y, Am. Museum Health, 38– Ed, 'Health Officers News Digest.' Director health exhibits and sec'y advisory cmt. med. and pub. health, New York World's Fair, 39–40. Sec'y, Nat. Health Council, 30; director, Am. Health Cong, 26. Ling medal, 30. Sanit.C, 17–19, capt. A.A. (councilor, 26–30); fel. Pub. Health Asn. (exec. sec'y, 23–30, councilor, 31–37, chairman sci. exhibits cmt, 32–42; pub. health educ. sect, 36–37); assoc. fel. Am. Med. Asn; Asn. Mus; Asn. Adult Educ; Munic. Art Soc; Soc. Bact; Am. Inst; Tech. Asn. Pulp and Paper Indust; Child Study Asn. (director and mem. exec. cmt, 42–); Munic. Art Soc. (director and treas, 42–); hon. fel. Royal Sanit. Inst; Int. Foundation Visual Educ.

Calver, Dr. James L(ewis), Tennessee Valley Authority, Knoxville, Tenn. *Mineralogy, Physical geology.* Pontiac, Mich, June 15, 13. A.B, Michigan, 36, M.S, 38, Ph.D, 42. Teaching asst. geol, Michigan, 35–39, teaching fellow, 39–40; instr, Munic. Univ. Wichita, 40–42; asst. prof, Missouri, 42–43; *assoc. geologist, minerals sect, regional products research div, commerce dept, Tenn. Valley Authority, 43–* Mich. Acad; Kans. Geol. Soc. Former shore lines of the Great Lakes; shore dunes; economic minerals.

Calvert, Prof. J(ohn) F(yfer), Northwestern University, Evanston, Ill. *Electrical engineering.* Columbia, Mo, Oct. 14, 98. B.S, Missouri, 22, E.E, 24; M.S, Pittsburgh, 30, Ph.D, 36. Elec. engineer, Westinghouse Elec. and Mfg. Co, 24–36; *assoc.* prof. *elec. eng,* Iowa State Col, 36–38; prof, *Northwestern,* 38, *chairman dept. tech. inst, 39–* Lecturer, Pittsburgh, 27–36; research and construction, U. S. Navy, 41–42. Eng. Educ; West. Soc. Eng. High frequency generators; conformal mapping; iron losses; electromagnetic forces during short circuits; field heating; protection of rotating machines against lightning and switching surges; high voltage generators; subsynchronous harmonics.

Calvert, Prof. Philip P(owell), Cheyney, Pa. *[1]*Zoology.* Philadelphia, Pa, Jan. 29, 71. Certificate, Pennsylvania, 92, Ph.D, 95; Berlin, 95–96; Jena, 96. Asst. instr. *zool, Pennsylvania,* 92–97, instr, 97–07, asst. prof, 07–12, prof, 12–39, *emer. prof, 39–* Zool. research, Costa Rica, 09–10. Assoc. ed, 'Entom. News,' 98–10, ed, 11– A.A; Soc. Nat; Soc. Zool; hon. mem. Entom. Soc. (pres, 99–15); hon. fel. Entom. Soc. Amer. (pres, 14); Soc. Trop. Med; Ecol. Soc; Philos. Soc; Limnol. Soc; Soc. Study Speciation; Acad. Nat. Sci. Phila. (councilor, 97–). Odonate fauna of Mexico, Central America and neo-tropical region; natural history of Costa Rica; ecology and larval forms of Odonata of tropical America; seasonal distribution of organisms; rates of growth among animals.

Calvert, Mrs. Philip P. (Amelia Catherine Smith), Cheyney, Pa. *Zoology.* Philadelphia, Pa, Feb. 23, 76. B.S, Pennsylvania, 99; fellow, Bryn Mawr Col, 00–01. Structure and parasitism of Aphyllon uniflorum; reactions of Allolobophora foetida; natural history of Costa Rica.

Calvert, Dr. Robert, 155 E. 44th St, New York, N. Y. *Chemistry.* Milford, Mo, March 15, 89. A.M, Oklahoma, 10; M.S, Chicago, 11; Ph.D, Columbia, 14. Instr. chem, Oklahoma, 09–10, 11–12; Columbia, 13–15; chemist and director research lab, E. I. du Pont de Nemours and Co, 15–20; Celite Products Co, 22–24; prof. indust. chem, Maryland, 25–26; chief chem-

ist, Van Schaack Bros. Chem. Works, 26–31; Johns-Manville Corp, 31–41; *chemist and patent attorney, 41–* Chem. Soc. (v. chairman, Chicago sect, 31; chairman, N. Y. sect, 40); Del. Chem. Soc. (chairman, 17); N. J. Chem. Soc. (v. pres, 19); Chemists' Club. Pyroxylin compositions; diatomaceous earth; asbestos products; building materials.

Calvert, Prof. Sidney, University of Missouri, Columbia, Mo. *Chemistry.* Rochdale, Eng, Sept. 18, 68. Ont. Agr. Col, 84–87; B.Sc, McGill, 90; A.M, Harvard, 92; Freiburg, 01–02. Asst. chem, Harvard, 92–94; asst. prof, *Missouri,* 94–06, prof. *org. chem,* 06–39, *emer. prof, 39–,* director chem. lab, 10–39. A.A; Chem. Soc: fel. Inst. Chem. Behavior of derivatives of benzol containing halogens; bromine derivatives of metaphenylenediamin; dietary studies; chemiluminescence of organometallic compounds.

Calvery, Dr. Herbert O(rion), U. S. Food and Drug Administration, Washington, D. C. *Biochemistry, Pharmacology.* Eddy, Texas, Dec. 9, 97. B.S, Greenville Col, 19; A.B, Illinois, 21, M.S, 23, fellow, 23–24, Ph.D, 24. Teacher, high sch, Ill, 19–20; asst. chem, Illinois, 21–23; asst. prof, Louisville, 24–25; instr. physiol. chem, Hopkins, 25–27; asst. prof, Michigan, 27–35; senior pharmacologist, *food and drug admin, U. S. Fed. Security Agency,* 35–36, *chief div. pharmacol, 36–* Guggenheim Mem. Foundation fellow, Prague and Dresden, 32–33. A.A; Soc. Biol. Chem; Chem. Soc. (chairman div. biol. chem, 40); Soc. Pharmacol; Soc. Exp. Biol; Pub. Health Asn; Mich. Acad. Physiological chemistry; organic compounds of mercury, arsenic and bismuth; nucleotides; embryonic metabolism; proteins and enzymes; pharmacology and toxicology of organic solvents, coal-tar colors, intermediates, ergot, metals, non-metals, insect repellents, lousicides, surface active agents; chemical prophylaxis of venereal diseases; treatment of gas casualties.

Calvin, Prof. D(ea) Bailey, University of Texas School of Medicine, Galveston, Texas. *Physiological chemistry.* Paris, Texas, May 6, 00. A.B, Rice Inst, 23; A.M, Texas, 25; Porter fellow, Am. Physiol. Soc, 27–28; Ph.D, Yale, 29. Instr. biol. chem, Texas, 23–26; physiol. chem, Missouri, 28–29, asst. prof, 29–33, *assoc. prof,* 33–37; *biol. chem, Texas, 37–* Physiol. Soc; Soc. Biol. Chem; Asn. Study Int. Secretions; Soc. Exp. Biol. Acid-base balance; water balance; blood and plasma volume; plasma proteins.

Calvin, Prof. M(elvin), University of California, Berkeley, Calif. *Chemistry.* St. Paul, Minn, April 8, 11. B.S, Mich. Col. Mines, 31; Ph.D, Minnesota, 35. Control chemist, Revere Copper and Brass Corp, Detroit, Mich, 29–30; teaching fellow, Minnesota, 31–35; research student, Manchester, 35–36, hon. research fellow, 36–37; instr. *chem, California,* 37–41, *asst. prof, 41–* Chem. Soc; Faraday Soc. Atomic and molecular structure; catalytic action; chemical activation and mechanism of reaction; theory of organic chemistry.

Cameron, Dr. Alan E(merson), Department of Mines, Halifax, N. S, Can. *Metallurgy.* London, Ont, Oct. 18, 90. B.Sc, M.Sc, McGill; Sc.D, Mass. Inst. Tech. Staff, Alberta, 14–16, 28–37, prof. metal; *deputy minister, Dept. Mines, N. S, 37–* World war, 16–19. Can. Inst. Min. and Metal. (councilor, 29); Eng. Inst. Can. Geology; mining.

Cameron, Prof. A(lexander) T, University of Manitoba Medical College, Winnipeg, Man, Can. *Biochemistry.* London, Eng, 82. M.A, Edinburgh, 04, B.Sc, 06, D.Sc, 25; London, 06–08; 1851 Exhib. scholar, 06–09; Karlsruhe, 08–09; Carnegie fellow, 09; Heidelberg, 11. Asst. chem, Surgeons Hall, Edinburgh, 04–06; lecturer physiol, *Manitoba,* 09–13, asst. prof. physiol. and physiol. chem, 13–20, assoc. prof. *biochem,* 20–23, *prof, faculty med, 23–;* assoc, *Winnipeg Gen. Hosp,* 20–29, *biochemist, 29–* Chairman, Fisheries Research Board Can, 34– Chemist, water purification, B.E.F, 15–19, capt, R.A.M.C. Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Soc. Exp. Biol; fel. Royal Soc. Can; fel. Can. Inst. Chem. (pres, 31–33); fel. Royal Soc. Med; fel. Inst. Chem. Gt. Britain and Ireland; London Biochem. Soc. Biochemistry of iodin and thyroid; physicochemical factors conditioning life of frogs; blood calcium; clinical applications of biochemistry; marine biochemistry.

Cameron, Dr. A(ngus) E(wan), Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Physical chemistry.* Sylvania, Pa, Oct. 14, 06. A.B, Oberlin Col, 28; Ph.D, Minnesota, 32. Nat. research fellow chem, Rochester, 32–33; *research chemist,* Eastman Kodak Co, 33–38; B. D. Eisendrath Mem. Lab, 38–41; Indust. Tape Corp, 41–42; *Eastman Kodak Co, 42–* Chem. Soc. Adsorption; photographic theory; electrometric studies of solutions.

Cameron, Dr. Cornelia (Clermont), Stephens College, Columbia, Mo. *Geology.* Maryville, Mo, Jan. 13, 11. A.B, Iowa, 33, M.S, 35, Ph.D, 40. Asst. geol, Iowa, 33–35, 38–40; mem. dept, Eldorado Junior Col, 36–37; mem. staff, Cities Service Oil Co, 37–38; museum apprentice, Buffalo Museum Science, N. Y, 40–41; *head dept. geol, Stephens Col, 42–* Pleistocene geology; fossils of the Pleistocene loesses of Iowa.

Cameron, Dr. D(onald) Ewen, Albany Hospital, Albany, N. Y. *Psychiatry.* Bridge of Allen, Scotland, Dec. 24, 01. M.B, Ch.B, Glasgow, 24; D.P.M, London, 25. Res. surgeon, Glasgow West. Infirmary, 24; res. physician, Glasgow Royal Infirmary, 25; asst. physician, Glasgow Royal Mental Hosp, 25; asst. psychiatrist, Hopkins Hosp, 26–28, asst. res. psychiatrist and instr. psychiat, Hopkins, 27–28; asst, Burghoelzli, Zurich, 28–29; physician in charge reception service, Provincial Mental Hosp, Brandon, Man, Can, 29–36; senior research psychiatrist, mem. foundation neuroendocrine research, Worcester State Hosp, Mass, 36–37, res. director research div, 37–38; *prof. neur. and psychiat, Albany Med. Col, 38–; Russell Sage Sch. Nursing, 41–* Henderson scholar, Hopkins, 26–28; neurologist and psychiatrist-in-chief, Albany Hosp, 38–; psychiat. consultant, Berkshire Indust. Farm, 40– Psychiat. Asn; Mass. Psychiat. Asn; Royal Med. Psychol. Asn; British Med. Asn. Depressive reactions; dehydration; quantitative methods in psychiatry; production of experimental psychoses; relation of endocrines to psychiatry.

Cameron, Dr. Donald H(oover), B. D. Eisendrath Tanning Co, Racine, Wis. *Chemistry.* Sylvania, Pa, April 25, 96. A.B, Oberlin Col, 20, A.M, 21; Ph.D, Cincinnati, 31. Asst, Mass. Inst. Tech, 21–22; instr, Iowa, 22–24; research chemist, U. S. Leather Co, 26–29; asst. leather research, Cincinnati, 29–30; *research chemist, B. D. Eisendrath Tanning Co, 31–* Chem. Soc; Leather Chem. Asn. Physical and chemical behavior of the chrome compounds and the reactions involved in converting skin into leather by means of the chrome salts; acidic bodies present in vegetable tan liquors and the mechanism of vegetable tannage; glass electrodes; hydrogen ion concentration instruments.

Cameron, Dr. D(onald) R(oss), University of California, Berkeley, Calif. *Genetics.* Streetsville, Ont, Can, Feb. 27, 07. B.Sc, Saskatchewan, 27, M.Sc, 28; Ph.D, California, 32. Teaching fellow bot, *California,* 28–29, asst. *genetics,* 29–33, assoc, 33–39, *instr, 39–, junior geneticist, Exp. Sta, 39–; U. S. Army, 42–* Cytologist, pineapple research inst, Hawaii, 39–40. A.A; Genetics Soc. Cytology of Nicotiana species and hybrids.

Cameron, Prof. Edward Alexander, 121 Kenan St, Chapel Hill, N. C. *Mathematics.* Manly, N. C, Nov. 10, 07. A.B, North Carolina, 28, A.M, 29, Ph.D, 36. Instr. *math, North Carolina,* 28–37, asst. prof, 37–41, *assoc. prof, 41–* Math. Soc; Math. Asn; Elisha Mitchell Sci. Soc. Osculating conics to plane curves.

Cameron, Dr. Edwin J(ohn), 1739 H St, N. W, Washington, D. C. *Bacteriology.* Cambridge, Mass, Sept. 17, 95. B.S, Mass. Inst. Tech, 20; Ph.D, George Washington, 27. Bacteriologist, Commercial Solvents Corp, Terre Haute, 20–23; *Nat. Canners Asn, Wash, D. C,* 23–36, asst. director *research labs,* 36–39, *director, 39–* Soc. Bact. (pres, Wash. branch, 30); Pub. Health Asn; Inst. Food Tech. Thermophilic bacteria; sources of thermophilic bacteria and relation to canned food spoilage; thermophilic contamination of beet and cane sugar.

Cameron, Dr. E(ugene) N(athan), Columbia University, New York, N. Y. *Petrology.* Atlanta, Ga, Aug. 10, 10. B.S, N. Y. Univ, 32; A.M, Columbia, 34, Emmons fellow, 35–36, Ph.D, 39. Asst. *geol,* N. Y. Univ, 30–35; *Columbia,* 36–37, lecturer, 37–39, *instr, 39–; assoc. geologist, U. S. Geol. Surv, 42–* Lecturer, science summer camp, Wyoming, 37–39. Asst, Conn. Geol. and Nat. Hist. Surv, 41–42. Miner. Soc; Min. and Metal. Eng; N. Y. Acad. (sec'y, sect. geol, 41–). Mineralogy; igneous and metamorphic petrology.

Cameron, Prof. Frank K(enneth), University of North Carolina, Chapel Hill, N. C. *[1]*Chemistry. Baltimore, Md, Feb. 2, 69. A.B, Hopkins, 91, Ph.D, 94. Sage fellow and instr. org. chem, Cornell, 94–95; assoc. prof, Catholic Univ, 95–97; asst. physical chem, Cornell, 97–98; expert, U. S. Dept. Agr, 98–99, soil chemist, 99–15; *consulting chemist and chem. engineer, 15–; prof. chem, North Carolina, 26–* Herty medal, Am. Inst. Chem. Eng, 39. A.A; Chem. Soc; Chem. Eng.

Heterogeneous equilibria; films; colloids; chemistry of minerals, soils, plants, metallurgy and industrial processes.

Cameron, Prof. G(eorge) Harvey, Hamilton College, Clinton, N. Y. *Physics.* Streetsville, Ont, Can, Sept. 8, 02. B.Sc, Saskatchewan, 22; Ph.D, Calif. Inst. Tech, 26. Research assoc, Calif. Inst. Tech, 26–28; physicist, E. I. du Pont de Nemours and Co, 28–32; assoc. prof. *physics, Hamilton Col, 32–36, prof, 36–* A.A; Physical Soc. Cosmic rays; x-ray diffraction and particle size.

Cameron, Prof. George M(artin), 1401 Ordway, Nashville, Tenn. *Bacteriology.* Dundee, Ill, June 18, 96. B.S, Illinois, 18; Yale, 18; Michigan, 27; M.S, Tennessee, 28; Cornell, 29, 30, grad. fellow, 32–33, Ph.D, 33; Chicago, 31. Instr. bacter, Tennessee, 26–29, asst. prof, 29–36, assoc. prof, 36–43; *director div. labs, State Dept. Pub. Health, Tenn,* 40–41, *42–* Teaching lecturer, med. sch, Vanderbilt, 40–41. Mem, State Board Basic Science Examiners, Tenn. Mem, Third Int. Microbiol. Cong. Soc. Bact. Microbiology; parasitology; specific and group reactions to helminthic antigens; bacteriophage; physiology, taxonomy, growth and synchrony in reproduction of bacteria; enzyme and bacterial action in milk; bacteriology of public health.

Cameron, H(ugh) S(cott), 215 Ryerson St, Brooklyn, N. Y. *Mechanical engineering.* New York, N. Y, Nov. 25, 04. M.E, Stevens Inst. Tech, 25. Asst. test engineer, Brooklyn Union Gas Co, 25–28; *instr. mech. technol, Pratt Inst, 28–* A.A; Mech. Eng; Eng. Educ; Automotive Eng. (v. chairman in charge, student activities, Metropolitan sect, 36–38). Graphical thermodynamics; internal-combustion engines.

Cameron, Dr. Hugh S(tuart), College of Agriculture, University of California, Davis, Calif. *Veterinary medicine.* Kirkcudbright, Scotland, Oct. 14, 96. D.V.M, Cornell, 31, M.S, 32, Ph.D, 35. Instr. vet. research, Cornell, 31–36; asst. prof. and later *assoc. prof. vet. science, col. agr, California, 36–* A.A; Vet. Med. Asn; Calif. Vet. Med. Soc; Pasteur Soc. Cent. Calif. (pres, 41). Infectious diseases of domestic animals.

Cameron, Dr. J(ames William) MacBain, Nova Scotia Agricultural College, Truro, N. S, Can. *Entomology.* Scotch Hill, N. S, Oct. 15, 10. B.S.Agr, Macdonald Col, 30; M.Sc, McGill, 32, Ph.D, 38. Asst, Macdonald Col, 32–35, lecturer *entom,* 35–39; *prof, N. S. Agr. Col, 39–; prov. entomologist, N. S. Dept. Agr, 39–; mem, Royal Can. Air Force, 41–* Can. Soc. Tech. Agr; Que. Soc. Protection of Plants. Reactions of Musea domestica to light of different wave-lengths; insect control.

Cameron, Dr. John, Balmashanner, Grove Road, Bournemouth, Eng. *Anatomy.* Laurencekirk, Scotland, Sept. 16, 73. M.B, Edinburgh, 98, M.D, 04; D.Sc, St. Andrews, 04; Leipzig. Demonstrator anat, St. Andrews, 99–05; senior demonstrator, Manchester, 05–08; lecturer, London, 08–15; prof, Dalhousie, 15–30; *retired.* Examiner, St. Andrews, London, and Royal Col. Surg, 10–15; Carnegie research fellow, 03–06. Asn. Anat; Anat. Soc. Gt. Britain and Ireland (sec'y, 13–15); fel. Royal Soc. Can; fel. Edinburgh Royal Soc. Embryology; physical anthropology; craniometry; regional anatomy; osteology.

Cameron, Dr. John A(ndrew) C, University of Missouri, Columbia, Mo. *Anatomy.* Falls City, Nebr, July 16, 02. A.B, Nebraska, 25, fellow, 25–26, A.M, 26; Ph.D, Missouri, 34. Instr, Nebraska, 26–27; McCook Junior Col, Nebr, 27–29; prof. and dean, Junior Col, Bellevue, 30–31; instr. *zool, Missouri,* 31–37, asst. prof, 37–41, *assoc. prof, 41–* Gen. Educ. Board fellow, Harvard, 36. Sec'y and curator, Southwest Nebr. Hist. Soc, 28–29. Soc. Zool; Soc. Parasitol; Genetics Soc; Asn. Anat; Nebr. Acad; Mo. Acad. Autotomy and regeneration; effects of x-rays on vertebrate histology; parasites of vertebrates; x-ray effect on carbon monoxide of blood.

Cameron, Prof. Norman, University of Wisconsin, Madison, Wis. *Psychology, Physiology, Psychiatry.* Longueuil, Que, Can, April 24, 96. A.B, Michigan, 23, Ph.D, 27; M.D, Hopkins, 33. Asst. exp. psychol, Michigan, 21–24; instr. psychol, Wisconsin, 24–27, asst. prof, 27–30; house officer, Hopkins Hosp, 33–35, asst. res. psychiatrist, 35–36, res. and dispensary psychiatrist, 36–37, assoc. psychiatrist, 37–38; director research in psychopath, med. col, Cornell, 38–39; *prof. psychol. and chairman dept, Wisconsin, 39–* Attending psychiatrist, New York Hosp, 38–39. Assoc. ed, 'Psychol. Record,' 37–39. A.A; Psychol. Asn; Psychiat. Asn. Abnormal psychology; psychopathology; learning and retention; cortical localization; thinking.

Cameron, Dr. Robert H(orton), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Brooklyn, N. Y, May 17, 08. A.B, Cornell, 29, A.M, 30, Ph.D, 32. Instr. *math,* Cornell, 29–33; nat. research fellow, Brown, Princeton and Inst. Advanced Study, 33–35; instr, *Mass. Inst. Tech,* 35–37, *asst. prof, 37–* Math. Soc; Math. Asn. Almost periodic functions and transformations.

Cameron, Prof. S(idney) H(erbert), University of California at Los Angeles, Los Angeles, Calif. *Horticulture.* Hunmanby, Yorkshire, Eng, Sept. 18, 97. B.S, California, 22, Horgan scholar, 22–23, M.S, 23, Ph.D, 27. Instr. subtrop. hort, California, 23–27; Int. Educ. Board fellow, 28–29; asst. prof. *subtrop. hort, California at Los Angeles,* 29–37, *assoc. prof, 37–* A.A; fel. Soc. Hort. Sci. Subtropical horticulture; carbohydrate and nitrogen cycles and plant propagation.

Cameron, Prof. Thomas W(right) M(oir), Macdonald College, Que, Can. *Parasitology.* Glasgow, Scotland, April 29, 94. M.A, Edinburgh, 21, B.Sc, 21, Ph.D, 23, D.Sc, 26. Lecturer and Milner research fellow, London Sch. Hygiene and Trop. Med, 23–29; lecturer helminthol, Edinburgh and Royal Vet. Col, 29–32; *prof. parasitol. and director inst. parasitol, Macdonald Col, McGill, 32–* London Sch. Trop. Med. exped, West Indies, 28. A.A; Royal Soc. Med. (sec'y, trop. disease sect, 26–29); fel. Royal Soc. Trop. Med. and Hygiene (sec'y, Edinburgh branch, 29–32); British Med. Asn. (sec'y, comp. med, 27–32); Royal Col. Vet. Surg. Parasites of man and animals; diseases of animals transmitted to man; principles of parasite control; parasites of man in temperate climates.

Camp, Dr. A(rthur) F(orrest), Citrus Experiment Station, Lake Alfred, Fla. *Plant physiology.* Los Angeles, Calif, April 13, 96. A.B, California, 20; Ph.D, Washington (St. Louis), 23. Asst. plant pathologist, Exp. Sta, Florida, 23–25, plant physiologist in charge cotton investigations, 25–26, assoc. horticulturist, Exp. Sta, Florida, 26–27, in charge, 27–28, horticulturist, 28–29; agent, Mediterranean fruit-fly eradication, U. S. Dept. Agr, 29–30; *horticulturist,* Exp. Sta, *Florida,* 30–36, *in charge Citrus Exp. Sta, 36–* Asst. plant pathologist, State Plant Board, Fla, 23–25, horticulturist, 30–32. A.A; Bot. Soc; Soc. Hort. Sci; Fla. Hort. Soc. Tropical and subtropical horticulture; plant physiology and chemistry.

Camp, Prof. Burton H(oward), 110 Mt. Vernon St, Middletown, Conn. *Mathematics.* Hartford, Conn, Sept. 20, 80. A.B, Wesleyan, 01; A.B, Harvard, 03, A.M, 07; fellow, Yale, 10–11, Ph.D, 11. Teacher, Maine, 01–02; asst. astron, Harvard, 02–03; instr. math, Mass. Inst. Tech, 03–04; Wesleyan, 04; mech, Harvard, 06–07; *math, Wesleyan,* 07–09, assoc. prof, 09–14, *prof, 14–* Acting director, Van Vleck Observatory, Wesleyan, 18–20; Galton Lab, London, 23–24. Math. Soc. (councilor, 29–32); Math. Asn; fel. Statist. Asn. (v. pres, 37); fel. Inst. Math. Statist. (v. pres, 37, pres, 38). Mathematical analysis; statistics; the mathematical part of elementary statistics.

Camp, Dr. Carl D(udley), 304 S. State St, Ann Arbor, Mich. *Neurology.* South Watauga, Tenn, Oct. 2, 80. M.D, Pennsylvania, 02. Instr. neuropath, Pennsylvania, 05–07; *prof. neur, Michigan, 07–* Asst. visiting physician, Phila. Polyclinic and Univ. Pa. Hosp; Phila. Gen. Hosp, 05–07. Neur. Asn; Am. Med. Asn; Psychopath. Asn; Asn. Path. and Bact. Clinical neurology; neuropathology; psychology; sensory condition in the brain and spinal cord; treatment of nervous diseases.

Camp, Prof. Charles L(ewis), University of California, Berkeley, Calif. *Zoology.* Jamestown, N. Dak, March 12, 93. A.B, California, 15; A.M, Columbia, 16, Ph.D, 23. Field asst, museum vert. zool, California, 13, 15; asst. zool, Columbia, 16–17, 19–20; asst, Am. Museum Nat. Hist, 16–17, 19–22; research assoc, *California,* 22–24, asst. prof. and curator amphibians and reptiles, *museum paleont,* 24–30, acting director, 30–31, *director, 31–,* assoc. prof. *paleont,* 31–40, *prof, 40–* Guggenheim Mem. Foundation fellow, 35–36. A.A; Soc. Ichthyol. and Herp; fel. Geol. Soc; Paleont. Soc; Cooper Ornith. Club; Calif. Hist. Soc; fel. Calif. Acad. (cor. sec'y, 38). Vertebrate paleontology and comparative anatomy.

Camp, Prof. C(hester) C(laremont), University of Nebraska, Lincoln, Nebr. *Mathematics.* Arispe, Iowa, May 20, 90. A.B, Grinnell Col, 14; A.M, Cornell, 15, Ph.D, 17. Instr. *math,* Illinois, 19–20; asst. prof, Iowa State Col, 20–21; instr, Illinois, 21–23, assoc, 23–27; assoc. prof, *Nebraska,* 27–29, *prof, 29–* A.A; Math. Soc; Math. Asn; Statist. Asn. The Sturm-Liouville expansion; partial differential equations;

minimizing the arithmetic and accelerating the convergence in the process of iteration; expansions involving more than one parameter and p-inseparable parameters; logarithms of large numbers; new calculation of pi; computing devices.

Camp, Prof. E(zra) J(ohn), Macalester College, St. Paul, Minn. *Mathematics.* Roanoke, Ill, Nov. 26, 06. A.B, Goshen Col, 28; M.S, Chicago, 32, Ph.D, 35. Instr. math, Goshen Col, 29–31; Kidder Junior Col, 32–33; acting prof. math. and astron, Yankton Col, 35–37; *assoc. prof. math, Macalester Col, 37–* Math. Soc. Dynamics.

Camp, Dr. Glen D(arwin), U. S. Navy Radio and Sound Laboratory, La Jolla, Calif. *Physics.* Sacramento, Calif, Dec. 14, 04. B.S, California, 27, Le Conte fellow, 32–33, A.M, 33, Amy Bowles Johnson fellow, 33–34, Ph.D, 35. Research chemist, Atmospheric Nitrogen Corp, 27–28; Union Oil Co, 28–29; research assoc, Mass. Inst Tech, 29–30; instr. physics, Deep Springs Col, 30–32; San Francisco Junior Col, 35–42; *research assoc, U. S. Navy Radio and Sound Lab, California, 42–* Consulting physicist, 36–42. Physical Soc. Edeleanu process; production of ammonium nitrate; relativistic nonconservative theories of gravitation; heavy particle interactions; beta-decay; neutrino hypothesis; flow of foams through porous media; heat transfer with moving sources; elasticity.

Camp, John P(erlin), University of Florida, Gainesville, Fla. *Agronomy.* New Haven, Conn, March 3, 04. B.S.A, Florida, 26, M.S.A, 27; Chilean Nitrate fellow, 27–30. *Asst. agronomist, Exp. Sta, Florida, 30–* Plant nutrition; fertilizers; yield curves; field plot technique.

Camp, Dr. Leon (W), College of Mines and Metallurgy, University of Texas, El Paso, Texas. *Geophysics.* Justin, Texas, Sept. 22, 04. B.A, N. Texas State Teachers Col, 24, B.S, 26; A.M, Columbia, 28; Ph.D, Texas, 41. Research chemist, West. Union Tel. Co, 28–30; chief chemist, N. J. Coal and Tar, 30–31; *instr.* physics, *Texas,* 39–40, *math. and physics, col. mines and metal, 40–* Methods of measuring variations in the earth's gravitational field.

Camp, Prof. Thomas R(inggold), Massachusetts Institute of Technology, Cambridge, Mass. *Sanitary and hydraulic engineering.* San Antonio, Texas, Nov. 5, 95. B.S, Agr. and Mech. Col. Texas, 16; M.S, Mass. Inst. Tech, 25. Engineer, J. B. Hawley, Ft. Worth, 20–23; mem. firm, Spoon, Lewis and Camp, N. C, 25–28; designing engineer, Alexander Potter, New York, 28–29; *assoc. prof. sanit. eng, Mass. Inst. Tech, 29–* A.A; Civil Eng; Water Works Asn; Sewage Works Asn; Pub. Health Asn; New Eng. Water Works Asn; Boston Soc. Civil Eng. (director, 40–42). Hydraulics of open channels; transitions; alternate stages and critical depth; hydraulic jump; water and sewage treatment engineering; hydraulics of plumbing fixtures and water distribution systems; theory of water filtration and sedimentation.

Camp, Dr. W(alter) J(ohn) R(ichard), 1853 Polk St, Chicago, Ill. *Pharmacology, Therapeutics.* Chicago, Ill, March 6, 97. B.S, Illinois, 19, M.S, 20, M.D, 23, Ph.D, 27. Asst. pharmacol, *col. med, Illinois,* 18–22, obstet, 22–23, med, 23, assoc. *pharmacol. and therapeut,* 23–27, asst. prof. and assoc. prof, 27–34, *prof, 34–* Soc. Pharmacol. Adrenaline and parasympathetic drugs; heart and gastro-intestinal physiology and pharmacology.

Camp, Dr. W(endell) H(olmes), New York Botanical Garden, Bronx Park, N. Y. *Botany.* Dayton, Ohio, Feb. 22, 04. Oberlin Col, 24; B.S, Otterbein Col, 25; M.S, Ohio State, 26, Ph.D, 32; Cornell, 28, 33. Instr. geol, Otterbein Col, 24–25; bot, Ohio State, 27–36; *asst. curator, N. Y. Bot. Garden, 36–* Scholar, N. Y. Bot. Garden, 35. Summer, teacher, E. Ill. State Teachers Col, 29. Ed, 'Taxonomic Index'; assoc. ed, 'Torreya.' Bot. Soc; Soc. Plant Taxon; Asn. Sudamer Fitotaxonomy; Torrey Bot. Club; S. Appalachian Bot. Club. Taxonomy of the Ericales; biography.

Campagna, Prof. Elzéar, Ecole Supérieure d'Agriculture, Ste-Anne de la Pocatière, Que, Can. *Botany, Vegetable pathology.* St. Paul de Chester, Que, Oct. 17, 98. B.A, Laval, 20, B.S.A, 23, D.Sc, 40; Cornell, 25–27. *Prof. bot. and veg. path, Ecole Supérieure d'Agr, 24–, director dept. protection des cultures, 39–, dept. phytotechnie, 40–* Mem. Provincial Council Protection Plants, Que, 39–; Provincial Office Sci. Research, 41– Can. Phytopath. Soc. (war emergency cmt); Que. Soc. Protect. Plants; Soc. Pomol. Que; Soc. Agron. Can; Corp. Agron. Que. (v. pres, 37–); Soc. Mycol. de France; Soc. linn. de Lyon. The Uredinales of Quebec; the flora of lower Quebec.

Campaigne, Dr. E(rnest) E(dwin), University of Texas School of Medicine, Galveston, Texas. *Chemistry.* Chicago, Ill, Feb. 13, 14. B.S, Northwestern, 36, M.S, 38, Ph.D, 40. Lab. asst, Northwestern, 36–40; instr. chem, Bowdoin Col, 40–41; research fellow, Northwestern, 41–42; *instr. prev. med. and pub. health, sch. med, Texas, 42–* A.A; Chem. Soc. Organic and biological chemistry; synthesis and pharmacology of local anesthetics; dental caries; sulfonic acids.

Campbell, Prof. A(lan) N(ewton), University of Manitoba, Winnipeg, Man, Can. *Physical chemistry.* Halifax, Yorkshire, Eng, Oct. 29, 99. Ph.D, London, 24; D.Sc, Aberdeen, 29. Asst. chem, Aberdeen, 25–30; asst. prof. *physical chem, Manitoba,* 30–37, *assoc. prof, 37–* Fel. Chem. Soc; fel. Soc. Chem. Indust; Faraday Soc; fel. Royal Soc. Can; fel. Inst. Chem. Gt. Britain. Electrochemistry; phase rule.

Campbell, Prof. Arthur S(hackleton), St. Mary's College, St. Mary's, Calif. *Protozoology.* Tucson, Ariz, June 15, 98. A.B, Pomona Col, 21; Thayer fellow, Harvard, 23–24, A.M, 24; Ph.D, California, 26. Ling Naam Univ, Canton, China, 21–23; instr. and *prof. zool, St. Mary's Col. (Calif), 26–* Hon. research assoc, California, 29–, exten. div, 32– A.A; Soc. Zool. Tintinnoinea; parasitic ciliates; fossil and recent Foraminifera; aquarium fishes; Radiolaria.

Campbell, Dr. A(rthur) W(illiam), Thermatomic Carbon Co, Terre Haute, Ind. *Organic chemistry.* Lexington, Oregon, April 24, 99. A.B, Oregon, 22; M.S, Iowa, 25, Ph.D, 27. Prin, high sch, Oregon, 22–23; asst, Iowa, 23–27; *research chemist,* B. F. Goodrich Co, 27–32; *Thermatomic Carbon Co, 32–* Summers, asst. prof, South Dakota, 25; instr, Iowa, 26. Addition of nitrogen trichloride to unsaturated organic compounds; organic accelerators and age resistors for rubber; organic synthesis and manufacturing plant development; plant control and sales development; mechanism of reenforcement of vulcanized rubber by carbon black; materials present on carbon-black; the gelling of accelerated rubber cements; heat sensitization of compounded rubber lattices.

Campbell, Dr. Barbara K(napp), 1106 N. St. Joseph St, South Bend, Ind. *Organic chemistry.* Denver, Colo, June 14, 08. Radcliffe Col, 26–28; B.S, Chicago, 29, M.S, 31; Illinois, 36; Ph.D, Pa. State Col, 37. Teacher math. and science, Maret Sch, Washington, D. C, 33; instr. *chem,* St. Mary's Col. (Ind), 39–40; *research assoc, Notre Dame, 37–* Chem. Soc. Chemistry of unsaturated hydrocarbons; amino alcohols and ethyleneimines; organo-metallo compounds.

Campbell, Dr. Berry, College of Physicians and Surgeons, Columbia University, New York, N. Y. *Anatomy.* St. Paul, Minn, March 21, 12. A.B, California at Los Angeles, 32; Ph.D, Hopkins, 35. Asst. zool, California, 32; field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 32; nat. research fellow med. sciences, Western Reserve, 35–37; asst. prof. anat, sch. med, Oklahoma, 37–42; visiting asst. prof, sch. med, Tennessee, 42; *fellow neur, col. physicians and surg, Columbia, 42–* Guggenheim Mem. Foundation fellow, Rockefeller Inst, 40–42. Soc. Anat; Soc. Mammal; Soc. Ichthyol. and Herp; Cooper Ornith. Club; Harvey Soc. Comparative myology and neurology of the vertebrates; racial anthropology; distribution of vertebrates; neurophysiology.

Campbell, Carl G(raham), Zenith Optical Co, Huntington, W. Va. *Chemistry.* Gaboon, French Congo, W. Africa, Jan. 14, 85. A.B, Minnesota, 07, A.M, 12; fellow, Peabody Col, 26–27, 31–32; Columbia, 32. Instr, high sch, 07–08; asst. to prof. indust. educ, Minnesota, 10–12; instr, high schs, Va, 12–15, 16–19; prof. chem. and head dept, Marshall Col, 19–33; camp educ. adviser, Civilian Conservation Corps, 34–35, dist. educ. adviser, W. Va, 35–42; *asst. tech. director, Zenith Optical Co, 42–* Demonstration agent, U. S. Dept. Agr, 12–15; sci. asst, U. S. Pub. Health Service, 18. Chem. Soc. (councilor, chairman, Kanawha Valley sect, 30); W. Va. Acad. (treas, 30, v. pres, 31, pres, 32). Agricultural, industrial and scientific pedagogics; malaria control; selection of chemistry texts; a dictionary of occupations.

Campbell, Dr. Charles D(uncan), Harvey Road, Pullman, Wash. *Geology.* Ann Arbor, Mich, Nov. 12, 05. B.S, Michigan, 30, M.S, 31; Ph.D, Stanford, 34. Instr. *geol, State Col. Wash,* 34–42, *asst. prof, 42–; assoc. geologist, U. S. Geol. Surv, 42–* Min. and Metal. Eng; fel. Miner. Soc; Northwest Sci. Asn. Petrology of alkaline rocks and metamorphic rocks in Washington.

Campbell, Lieut. Charles L, State Department of Health, Des Moines, Iowa. *Chemical engineering.* Wichita, Kans,

June 11, 08. B.S, Iowa, 32, Iowa Coal Inst. fellow, 32–35, M.S, 33, Ph.D, 37. Chem. engineer, div. pub. health eng. and indust. hygiene, State Health Dept, Iowa, 37–43; *lieut, Sanit. Corps, U. S. Army, 43–* Chem. Eng; Indust. Hygiene Asn; Pub. Health Asn. Semi-plant scale washing tests of Iowa coals.

Campbell, Dr. C(harles) Macfie, Boston Psychopathic Hospital, Boston, Mass. *Psychiatry.* Edinburgh, Scotland, Sept. 8, 76. M.A, Edinburgh, 97, B.Sc, 00, M.B. and Ch.B, 02, M.D, 11; Paris, 02–03; Heidelberg, 03. Instr. psychopath, med. col, Cornell, 09–13; assoc. *psychiat,* Hopkins, 13–14, assoc. prof, 14–20; *prof, Harvard Med. Sch, 20–* Director, Boston Psychopathic Hosp; Gehrmann lecturer, Illinois, 32; Thomas W. Salmon mem. lecturer, 34. A.A; Psychiat. Asn; Psychopath. Asn. (pres, 19); Neur. Asn; Mass. Psychiat. Soc. (pres, 34); Mass. Soc. Mental Hygiene (pres, 20–30); Boston Soc. Psychol. and Neur. (pres, 24); Royal Soc. Med; Royal Medico-Psychol. Asn; Edinburgh Royal Med. Soc; Edinburgh Royal Col. Physicians; Soc. neur. de Paris. Psychopathology; clinical psychiatry. (*Died Aug, 1943.*)

Campbell, Dr. C(larence) G(ordon), 5555 Woodlawn Ave, Chicago, Ill. *Eugenics.* Marshfield, Ind, April 28, 68. Wabash Col, 83–86, hon. LL.D, 26; Ph.B, Michigan, 88; M.D, Bellevue Hosp. Med. Col, 90; Europe, 91–92. Physician to out-patients, Bellevue Hosp, 93–98; visiting physician, N. Y. Hosp, 97–00. Racial studies, Orient and Pacific Islands, 02–14. A.A; Eugenics Soc; Eugenics Research Asn. (pres, 27); Genetic Asn; Social Hygiene Soc; Sociol. Soc; Am. Inst; Galton Soc; fel. Am. Acad; fel. British Eugenics Soc; Int. Council Eugenics Societies. Racial anthropology; social philosophy.

Campbell, Dr. C(larence) J(ames), Dartmouth Medical School, Hanover, N. H. *Physiology.* Worcester, Mass, Dec. 5, 96. B.S, Dartmouth Col, 17; M.D, Harvard, 22. Teaching fellow physiol, Harvard Med. Sch, 22–24; asst. prof, col. med, Syracuse, 24–27, assoc. prof, 27–29; *pharmacol, Dartmouth Med. Sch,* 29–33, *prof, 33–* Afferent nerves; physical properties of toxic substances.

Campbell, Prof. Dan H(ampton), California Institute of Technology, Pasadena, Calif. *Immunochemistry.* Fremont, Ohio, 08. A.B, Wabash Col, 30; M.S, Washington (St. Louis), 33; Ph.D, Chicago, 35. Logan fellow, Chicago, 33–38, instr, 38–39, *asst. prof.* immunol, 39–42; *immunochem, Calif. Inst. Tech, 42–* Gen. Educ. Board. Gen. Educ. Board fellow, Calif. Inst. Tech, 39–40, senior fellow, 41–42. Howard T. Ricketts award, 36. A.A; Asn. Immunol. Immunochemistry and defensive mechanisms.

Campbell, Dr. D(onald) F(rancis), 160 N. LaSalle St, Chicago, Ill. *Mathematics.* N. S, Can, April 26, 67. B.A, Dalhousie, 90; A.B, Harvard, 94, A.M, 95, Ph.D, 98. Instr. math, Harvard, 97–00; asst. prof, Armour Inst. Tech, 00–01, prof, 01–27; *consulting actuary, 27–* A.A; Math. Soc; fel. Inst. Actuaries. Homogeneous forms in connection with linear differential equations.

Campbell, Prof. D(ouglas) H(oughton), Stanford University, Calif. **[1]*Botany.* Detroit, Mich, Dec. 16, 59. Ph.M, Michigan, 82, Ph.D, 86, LL.D, 32; Bonn, Tübingen and Berlin, 86–88. Instr, high sch, Mich, 82–86; prof. *bot,* Indiana, 88–91; *Stanford,* 91–25, *emer. prof, 25–* Assoc. ed, 'Am. Naturalist.' Nat. Acad; A.A. (v. pres, 02); Soc. Nat; Bot. Soc. (pres, 13); Philos. Soc; Am. Acad; British Asn; for. mem. Linnean Soc. London; Deuts. Bot. Gesell; Royal Soc. Edinburgh; Int. Asn. Bot. Comparative morphology; the evolution of plants; embryology of the simpler angiosperms; phytogeography.

Campbell, Dr. Edna Fay, 840 Roscoe St, Chicago, Ill. *Geography.* Chicago, Ill, Oct. 8, 92. A.B, Chicago, 12, M.S, 16; Ph.D, Clark, 31. Head dept. geog, high schs, Chicago, Ill, 12–26; *writer.* Lecturer, Concord Col, 22. Am. Geog. Soc; Meteorol. Soc; Soc. Woman Geog. (exec. councilor; pres, Chicago branch); Geog. Soc. Chicago (sec'y); Royal Geog. Soc. History; anthropogeography; charts; urban geography; climatology; meteorology.

Campbell, Dr. Edward C(harles), Princeton University, Princeton, N. J. *Physics.* Brooklyn, N. Y, Dec. 25, 13. B.S, Michigan, 34; Ph.D, Ohio State, 38. Instr. *physics,* Minn. State Teachers Col, Duluth, 38–42; *visiting asst. prof, Princeton, 42–* Physical Soc; Astron. Soc. Theoretical physics.

Campbell, Dr. Edw(ard) D(onald), 510 Blue Ridge Road, Indianapolis, Ind. *Biochemistry.* Kokomo, Ind, March 4, 95. A.B, Butler, 22; Ph.D, Chicago, 24. Asst. prof. chem, North Dakota, 24–25; *research chemist, Eli Lilly and Co, 25–* U.S.A, 17–19. A.A; Chem. Soc. Benzol condensation products of the creatinines; pernicious anemia principle of liver; protamine-zinc-insulin.

Campbell, Dean E(lmer) G(rant), University of Georgia, Atlanta, Ga. *Botany.* Fairburn, Ga, Feb. 11, 76. A.B, Hiram Col, 05; M.S, Purdue, 14; Ph.D, Chicago, 23. In charge gen. science, high sch, Ind, 09–12; instr. biol, Purdue, 12–15; asst. prof. bot, Agr. and Mech. Col. Texas, 15–18; in charge agr. bot, Purdue, 18–27; prof. biol, head dept. and dean men, Transylvania Col, 27–29, acting pres. and v. pres, 28–31; prof. bot. and head dept. and dean men, Oglethorpe, 32–33; *head dept. biol, univ. center, Atlanta, Univ. Georgia, 33–, dean univ. div.* Feature writer, 'Sun. Am,' 33–37. Bot. Soc. Plant physiology, ecology and taxonomy; botany and biology text-books.

Campbell, Prof. Eva G(albreath), Guilford College, N. C. *Bacteriology.* Delaware, Ohio, 95. A.B, Ohio Wesleyan, 15; A.M, Ohio State, 19, Ph.D, 31. Instr, N. C. Col. for Women, 19–24; assoc. prof. *biol, Guilford Col,* 24–31, *prof, 31–, head dept, 24–* A.A; Soc. Bact; N. C. Acad. Physiology of thermophilic bacteria; comparative anatomy of mucous and serous cells of submaxillary gland; thermophile nitrite former.

Campbell, Lieut. F(rank) B(ixby), care of F. Beauchamp, Rockwell City, Iowa. *Civil engineering.* Ironton, Ohio, Sept. 16, 04. Col. of Wooster, 22–25; C.E, Cornell, 28; Colorado, 30–33. U. S. Geol. Surv, 29–30; bur. reclamation, U. S. Dept. Interior, 30–34; research div, soil conservation service, U. S. Dept. Agr, 35–38; U. S. Eng. Dept, 38–41; *lieut, Civil Eng. Corps, U. S. Naval Res, 41–* Del. World Power Conf, Berlin, 30. Civil Eng; Soc. Mil. Eng; Geophys. Union. Hydraulics; soil mechanics.

Campbell, Prof. F(rank) L(eslie), Ohio State University, Columbus, Ohio. *Entomology.* Philadelphia, Pa, Sept. 5, 98. Haverford Col, 16–17; B.S, Pennsylvania, 21; M.S, Rutgers, 24; Sc.D, Harvard, 26. Junior chemist, insecticide investigations, Japanese Beetle Lab, Riverton, N. J, 21–22; sewage investigations, N. J. Exp. Sta, 22–24; asst. prof. biol, N. Y. Univ, 26–27; assoc. entomologist, bur. entom, U. S. Dept. Agr, 27–30, entomologist and senior entomologist, bur. entom. and plant quarantine, 30–36, asst. leader, div. control investigations, 34–36; assoc. prof. *entom, Ohio State,* 36–40, *prof, 40–, exec. asst, Research Foundation, 43–* Consultant, chemicals div, office agr. war relations, U. S. Dept. Agr, 42. Ed. cmt, 'Jour. Agr. Research,' 29–36; publication cmt, 'Jour. Econ. Entom,' 37–41. A.A; Entom. Soc; Chem. Soc; Asn. Econ. Entom; hon. mem. Pest Control Asn; Asn. Insecticide and Disinfectant Mfrs. (hon. mem. insecticide sci. cmt, 34–); Entom. Soc. Wash; Wash. Insecticide Soc. (chairman, 35). Toxicology of arsenicals; fluorine and synthetic organic compounds; pyrethrum and rotenone-bearing plants; chitin; growth of insects; evaluation of household insecticides; control of household insects.

Campbell, Dr. George A(shley), 129 Bellevue Ave, Upper Montclair, N. J. **[1]*Telephone engineering.* Hastings, Minn, Nov. 27, 70. B.S, Mass. Inst. Tech, 91; A.B, Harvard, 92, Ph.D, 01; Göttingen, Vienna and Paris, 93–96. Research engineer, Am. Tel. and Tel. Co, 97–34; Bell Tel. Labs, 34–35; *retired.* D.S. medal, Inst. Radio Eng, 36; Elliott Cresson medal, Franklin Inst, 39; Edison medal, Am. Inst. Elec. Eng, 40. A.A; Physical Soc; Math. Soc; Math. Asn; Am. Acad. Electrical transmission.

Campbell, Dr. Hallock C(owles), Queens College, Flushing, N. Y. *Chemistry.* Cortland, N. Y, June 4, 10. B.S, Hamilton Col, 32; Elihu Root fellow, Harvard, 32–33, A.M, 34, Ph.D, 36. Master in charge *chem,* Browne and Nichols Sch, Mass, 35–38; *instr, Queens Col. (N. Y), 38–* Chem. Soc. The thermal explosion of ethyl azide gas.

Campbell, Dr. Harold A(lexander), Central Laboratories General Foods Corp, Hoboken, N. J. *Phytochemistry.* Zion Ill, June 27, 09. B.S, Illinois, 35; Ph.D, Wisconsin, 39. Analyst, Zion Inst, 29–30; asst, Exp. Sta, Wisconsin, 35–39; *anal. div. head, Gen. Foods Corp, 39–* Chem. Soc; Asn. Cereal Chemists; Agr. Chem. Isolation of dicumarol hemorrhagic agent in sweet clover disease and its use in prevention and treatment of human thromboembolization; phytochemistry and process development of coffee and cocoa products.

Campbell, Dr. H(arriett) Louise, 435 W. 119th St, New York, N. Y. *Food chemistry.* Ashburnham, Mass, Oct. 9,

80. A.B, Mt. Holyoke Col, 03; M.S, Columbia, 19, Ph.D, 28. Teacher, private sch, Conn, 03–19; *research asst. food chem, Columbia, 19–* A.A; Chem. Soc; Inst. Nutrition; N. Y. Acad. Chemistry of foods from point of view of nutritional value.

Campbell, Dr. H(erbert) N(oel), 1 Addison Place, Radburn, N. J. *Chemistry.* Montreal, Que, Can, Jan. 9, 08. B.Sc, McGill, 29, M.Sc, 30; Ph.D, Cornell, 34. Consulting chemist, Milton Hersey Co, 27–29; chemical engineer, Donnacona Paper Co, 30–32; *research chemist, U. S. Rubber Co, 34–* Chem. Soc; Optical Soc; Soc. X-Ray and Electron Diffraction. Physical and rubber chemistry; kinetics of chemical reactions; spectroscopy; astrophysics; x-ray diffraction.

Campbell, Horace, 805 Ramona, Albany, Calif. *Food technology.* Hoquiam, Wash, Oct. 10, 04. B.S, State Col. Wash, 28; M.S, Washington (Seattle), 32, 32–35. Asst. bacteriologist, frozen food research, *U. S. Dept. Agr,* 35–39, asst. chemist, 39–41, assoc. chemist, *frozen and dehydrated food research, bur. agr. chem. and eng,* 41–42, *senior chemist, 42–* A.A; Chem. Soc; Inst. Food Technol. Technological, chemical and physical research on the preservation of foods by freezing and dehydration.

Campbell, Prof. Ian, California Institute of Technology, Pasadena, Calif. *Mineralogy, Petrology.* Bismarck, N. Dak, Oct. 17, 99. A.B, Oregon, 22, A.M, 24; Ph.D, Harvard, 31. Teaching fellow, Northwestern, 23–24; Austin teaching fellow, Harvard, 24–25; asst. prof. geol, Louisiana, 25–28; instr. miner, Harvard, 28–30, miner. and petrol, 30–31; asst. prof. *petrol, Calif. Inst. Tech,* 31–34, *assoc. prof, 34–, assoc. chairman div. geol. sciences, 40–* Sedimentologist, Vacuum Oil Co, 26–27; petrologist, Panama Corp, Ltd, 27–28; research assoc, Carnegie Institution, 34–39. Summers, geologist, Wis. Geol. Surv, 25; junior geologist, U. S. Geol. Surv, 29–32. A.A; fel. Miner. Soc. (v. pres, 40); Asn. Petrol. Geol; Geophys. Union; Soc. Econ. Geol; Geol. Soc. Correlation of sands by sedimentary analyses; rocks and rock alteration at Tonopah, Nevada; geology of the Libby area, Montana; Archean rocks of the Grand Canyon; industrial minerals.

Campbell, Ivor S(t. Clair), Sunbeam Electric Mfg. Co, Evansville, Ind. *Electrical engineering.* Kearny, N. J, July 4, 95. B.S. (C.E), Ohio Northern, 16, B.S. (E.E), 17, M.E, 23; M.S, Ohio State, 29. Draftsman, Carnegie Steel Co, Ohio, 17–18; designer, Champion Eng. Co, Ohio, 19–20; draftsman, Jeffrey Mfg. Co, Ohio, 20–21; prof. mech. eng, Ohio Northern, 21–26, elec. eng, 26–36; develop. engineer, Robbins and Myers, Ohio, 36; *research engineer, Sunbeam Elec. Mfg. Co, 36–* Assoc. prof, Ohio State, 30–31. Summers, motor research, Delco Products Corp, Dayton, Ohio, 33–35. 2nd lieut, F.A, 18–19. Assoc. Elec. Eng. Voltage relations and losses in small universal motors.

Campbell, Prof. Ivy G(ertrude), Wells College, Aurora-on-Cayuga, N. Y. *Psychology.* Malvern, Iowa, July 3, 88. A.B, Colorado, 11; A.M, Clark, 12, Ph.D, 14. Asst. to G. Stanley Hall, Clark, 15; lecturer, Wellesley Col, 15–16; *prof. psychol. and philos, Wells Col, 16–* Psychol. Asn; Philos. Asn. Experimental psychology; theoretical and experimental esthetics.

Campbell, Prof. James, University of Toronto, Toronto, Ont, Can. *Biochemistry, Physiology.* Glasgow, Scotland, July 18, 07. B.A, Toronto, 30, M.A, 32, Ph.D, 38; McGill, 32–33. Research assoc. biochem, Toronto, 30–32; physiol, McGill, 32–33; physiol. hygiene and physiol, *Toronto,* 33–40, *asst. prof. physiol, 40–; lieut-commander, Royal Can. Naval Vol. Res, 41–* Chem. Soc; Can. Chem. Asn; fel. Can. Inst. Chem; Can. Physiol. Soc. Proteolytic enzymes; digestion; hormones; fat and carbohydrate metabolism; nutrition.

Campbell, Dr. John D(avid), 3670 Castleman Ave, St. Louis, Mo. *Biology.* Buffalo, N. Y, Nov. 11, 07. B.S, Canisius Col, 31; M.S, St. Louis, 35, Ph.D, 41. *Instr. biol,* Quincy Col. (Ill), 37–38; *St. Louis, 38–* Resistance of yeast to low temperatures.

Campbell, John M(alcolm), 18405 Roselawn Ave, Detroit, Mich. *Chemical engineering.* Arlington, Mass, Aug. 8, 03. B.S, Mass. Inst. Tech, 25. *Chem. research, research div, Gen. Motors Corp, 26–* Mem, Cooperative Fuel Research Cmt. Chem. Soc; Soc. Automotive Eng; Eng. Soc. Detroit. Motor fuels; knock testing methods; knocking characteristics of hydrocarbons; anti-knocks; carburetion.

Campbell, Prof. J(ohn) W(illiam), University of Alberta, Edmonton, Alta, Can. *Mathematics, Astronomy.* Scotch Block, Ont, July 18, 89. M.A, Queen's (Can), 13; Ph.D, Chicago, 15. Lecturer *math,* Wesley Col, 15–17; assoc, Iowa, 19–20; *prof, Alberta, 20–* A.A; Math. Soc; Math. Asn; Astron. Soc; Royal Astron. Soc. Can; fel. Royal Soc. Can. Mathematical astronomy; ballistics; relativity; mechanics.

Campbell, Dr. Kenneth N(elsen), University of Notre Dame, Notre Dame, Ind. *Organic chemistry.* Hillsdale, Mich, May 31, 05. B.S, Chicago, 28, fellow, 30–31, Ph.D, 32. Asst, Chicago, 29–32; fellow, Pa. State Col, 33–34, asst. chem, 34–35; Illinois, 35–36; instr. *org. chem, Notre Dame,* 36–38, asst. prof, 38–40, *assoc. prof, 40–* Chem. Soc; Ind. Chem. Soc; Ind. Acad. Amino alcohols; ethyleneimines; unsaturated hydrocarbons; reduction.

Campbell, Dr. Leo, Western Washington Experiment Station, Puyallup, Wash. *Plant pathology.* Virgin, Utah, Sept. 30, 94. B.S, Utah State Col, 25; M.S, Illinois, 29; Ph.D, State Col. Wash, 35. Teaching asst. bot, Illinois, 27–28, 30–31; *asst. plant pathologist, West. Wash. Exp. Sta, State Col. Wash, 37–* Summers, Ill. Nat. Hist. Surv, 29–31. Running-out diseases of strawberries; beet diseases.

Campbell, Leon, Harvard University, Cambridge, Mass. *[6]Astronomy.* Cambridge, Mass, Jan. 20, 81. Pub. schs. *Pickering Mem. astronomer, Harvard Observatory, 99–, instr. astron, Harvard, 28–* Asst. in charge, Arequipa Sta, Harvard Observatory, 11–15. Astron. Soc. (councilor, 37–39); Asn. Variable Star Observers (pres, 19–21); Soc. Geog. de Lima; Int. Astron. Union. Variable stars; novae.

Campbell, Prof. L(eslie) L(yle), 101 E. Washington St, Lexington, Va. *Physics.* Powhatan Co, Va, Sept. 17, 63. A.M, Washington and Lee, 87, fellow, 89–91, Ph.D, 91; A.M, Harvard, 04. Asst. math, Washington and Lee, 89–91; prof. *physics,* Westminster Col. (Mo), 96–03; asst, Harvard, 04–05; prof. and head dept, *Simmons Col. (Mass),* 05–31, *emer. prof, 31–* Research, Cavendish lab, Cambridge, 14; cooperative expert, Nat. Research Council. A.A; Physical Soc; fel. Am. Acad; hon. fel. New Eng. Physical Therapy Soc; Soc. de Physique; Soc. Ital. di Fisica. The Thomson effect in soft iron; thermal and electrical properties of soft iron; thermo-electric heterogeneity of alloys; the Hall, Ettingshausen, Leduc and Nernst effects in iron; galvanomagnetic and thermomagnetic effects; investigations in duodenal contents; disintegration of aluminum cathode.

Campbell, Dr. Madeleine B(ixby), 70 Pleasant St, North Andover, Mass. *Biochemistry.* North Andover, Mass, Feb. 5, 96. B.S, Tufts Col, 16; M.S, Illinois, 18; Ohio Chem. Co. fellow, Western Reserve, 27–29, Ph.D, 29. Asst. bacteriologist, State Water Surv, Ill, 16–17; director div. labs, Dept. Health, Bridgeport, Conn, 17–21; biochemist, Bridgeport Hosp, 23–26; asst, biocinema lab, Mass. Inst. Tech, 29–30; biochemist, dept. med. and hygiene, Travelers' Ins. Co, 30–36; acting chief serologist, bur. labs, State Dept. Health, Conn, 36–37; *research chemist,* Inecto Co, *New York,* 37–40; *Ralph L. Evans Associates, 40–* Application of biochemistry and bacteriology to medicine; significance of lactose-fermenting organisms in water; anesthetic ethylene and its purification for use as an anesthetic agent.

Campbell, Dr. Malcolm (Alan), New York University, New York, N. Y. *Psychology.* Peru, Ind, June 7, 05. A.B, Reed Col, 28; A.M, Oregon, 30; Ph.D, Stanford, 34. *Instr. psychol, N. Y. Univ, 33–* Assoc. Psychol. Asn. Psychological analysis of motor skills; prediction of personality maladjustment.

Campbell, Malcolm E(ugene), Textile Research Institute, Inc, New York, N. Y. *Agricultural economics.* New Bedford, Mass, Jan. 25, 02. B.S, Clemson Col, 30. Asst, Firestone Tire and Rubber Co, 23; instr, Clemson Col, 23–25, asst. prof, 26; agent, div. cotton marketing, bur. agr. econ, U. S. Dept. Agr, 26–28, asst. cotton technologist, 28–33, assoc. cotton technologist, 33–35, cotton technologist, 35–36, senior cotton technologist, 36–43; *director applied research, Textile Research Inst, Inc, 43–* Soc. Test. Mat. Cotton; wool; synthetic fibers.

Campbell, Dean M(ason) H(erbert), R. I. State College, Kingston, R. I. *Animal and dairy husbandry.* Genoa, Ill, April 8, 94. B.S, Illinois, 17; M.S, Wisconsin, 18, Ph.D, 32. Asst. genetics, Wisconsin, 17–18; asst. to instr, Illinois, 18–27; prof. dairy production, Vermont, 27–41; production manager, Walker Gordon Labs, New Eng, 41–42; *dean and director, R. I. State Col, 42–* Fat globule size in milk; Bang's disease.

Campbell, Dr. R(obert) S(amuel), U. S. Forest Service, Washington, D. C. *Botany.* La Harpe, Ill, Aug. 15, 04. B.S, Chicago, 25, M.S, 29, Ph.D, 32. Asst. range examiner, Jornada Exp. Range, *U. S. Forest Service,* Las Cruces, N. Mex, 25–34, acting in charge, 27–30, in charge, 30–34, senior forest ecologist, *div. range research,* 34–37, *asst. chief div. and in charge range utilization studies,* 37– A.A; Ecol. Soc; Soc. Foresters. Range ecology; range utilization and management.

Campbell, Prof. R(obert) S(eymour), Central Michigan College of Education, Mt. Pleasant, Mich. *Zoology, Limnology.* Saskatoon, Sask, Can, Sept. 9, 13. B.A, Saskatchewan, 34, M.A, 35; Ph.D, Michigan, 39. Teaching asst. biol, Saskatchewan, 32–35; teaching asst. zool. and asst. limnol, Michigan, 35–39; *asst. prof. biol, Cent. Mich. Col. Educ, 39–* Limnol. Soc; Ecol. Soc; Mich. Acad. Plankton and chemical and physical conditions within fresh water, with special attention to the Rotifera; vertical distribution of plankton Rotifera in Douglas Lake, Michigan, with special reference to submerged depression individuality.

Campbell, Roy E(liot), 1208 E. Main St, Alhambra, Calif. *Entomology.* Orange, Calif, March 31, 90. B.S, California, 13, M.S, 25; Minnesota, 30. Asst. entom, California, 13–14; sci. asst, bur. entom, *U. S. Dept. Agr,* 14–21, asst. entomologist, 21–24, assoc. entomologist, 24–29, *entomologist, bur. entom. and plant quarantine, 29–* A.A; Entom. Soc; Asn. Econ. Entom. (sec'y, Pacific Slope branch, 24–30, 39–, chairman, 31); Ecol. Soc; Entom. Soc. S. Calif. (sec'y-treas, 26, 40–, pres, 28). Truck crop insects; nicotine dust; soil insects.

Campbell, Prof. Roy J(ones), Salem College, Winston-Salem, N. C. *Bacteriology.* Georgetown, Maine, Dec. 20, 96. A.B, Bates Col, 19; C.P.H, Harvard, 21. Prof. biol, Rollins Col, 21–22; sub-master, high sch, Mass, 22–23; *asst. prof. biol. and physics, Salem Col, 23–* Asst, med. and dental schs, Tufts Col. Soc. Bact; Pub. Health Asn; N. C. Acad. Sanitary survey of Old Town, Maine.

Campbell, Prof. T(homas) N(olan), 1518 Preston Ave, Austin, Texas. *Anthropology.* Munday, Texas, July 3, 08. A.B, Texas, 30, A.M, 36; A.M, Harvard, 40. Tutor *anthrop, Texas,* 34–36, instr, 38–40, *asst. prof, 41–* A.A; Anthrop. Asn; Soc. Am. Archeol; fel. Texas Acad. American archeology.

Campbell, Dr. Thomas P(atterson), 818 Patterson Bldg, Denver, Colo. *Physical chemistry, Metallurgy.* Denver; Colo, July 27, 96. B.S, Dartmouth Col, 18, Mass. Inst. Tech, 21; Sc.D, Colo. Sch. Mines, 24. Instr. electrochem, Mass. Inst. Tech, 21–22; consulting metallurgist, Consol. Mining and Smelting Co. of Can, 25–26; assoc. prof. metal, Colo. Sch. Mines, 27–38; *pres, Campbell Investment Co, 30–* Trustee, Denver Art Museum, 26–42. A.A; Min. and Metal. Eng; Electrochem. Soc; fel. Am. Geog. Soc; Chem. Soc. Physical metallurgy; case hardening of steel; electrolysis of ammoniacal zinc carbonate solutions; metallurgy of zinc; hydrometallurgy.

Campbell, Dr. W(illiam) A(ndrew), U. S. Department of Agriculture, Salinas, Calif. *Forest pathology.* Paterson, N. J, Jan. 29, 06. B.S, Pa. State Teachers Col, 29; A.M, Colorado, 31; Ph.D, Pa. State Col, 35. Asst. forest pathologist, div. forest path, *bur. plant indust, U. S. Dept. Agr,* 36–42, *assoc. forest pathologist, guayule research project, 42–* Mycol. Soc; Phytopath. Soc. The identification and study of fungi in culture; fungi concerned with wood decay; fungi causing disease of guayule.

Campbell, Dr. William P(arsons), 30 Kells Ave, Newark, Del. *Organic chemistry.* Hagerstown, Md, Jan. 2, 10. A.B, St. John's Col. (Md), 31; M.S, Maryland, 33, Ph.D, 36. Asst, Maryland, 31–36; Squibb research fellow, Harvard, 36–39; instr. chem, 39–41; *research chemist, Hercules Powder Co, 41–* Chem. Soc. Natural products; polyterpenoids; resin acids.

Camsell, Dr. Charles, Canadian Department of Mines and Resources, Ottawa, Ont, Can. *Geology.* Fort Liard, N. W. T, 76. B.A, Manitoba, 94, LL.D, 36; Queen's (Can), 01, LL.D, 22; Harvard, 03; Mass. Inst. Tech, 08–09; LL.D, Alberta, 29. *Geologist,* Can. North. Ry, 02–03; *Geol. Surv. Can, 04–, in charge B. C. branch, 18–,* deputy minister, *Can. Dept. Mines,* 20–36, *commissioner, Northwest Territories, 36–* Chairman, Dom. Fuel Board; mem. Int. Niagara Board. Murchison grant, 22; gold medal, Inst. Min. and Metal. Gt. Britain. 31. Companion, Order of St. Michael and St. George. V. pres, Int. Geol. Cong, 13. Geol. Soc. (v. pres, 37); Min. and Metal. Eng. (director); fel. Harvard Travelers Club; fel. Royal Soc. Can. (pres, 32); Eng. Inst. Can. (pres, 32); Can. Inst. Min. and Metal; fel. Can. Geog. Soc. (pres, 29–40). Exploration; mineral resources; exploration of northern Canada.

Canaday, Prof. E(rnest) F(ranklin), Meredith College, Raleigh, N. C. *Mathematics.* Bogard, Mo, May 5, 93. A.B, William Jewell Co, 15; A.M, Missouri, 16; Ph.D, Duke, 40. Instr, South Dakota, 16–17, asst. prof, 18–20; *prof. math, Meredith Col, 20–* The sum of the divisors of polynomials.

Canady, Prof. Herman G(eorge), West Virginia State College, Institute, W. Va. *Psychology.* Okmulgee, Okla, Oct. 9, 01. A.B, Northwestern, 27, A.M, 28, Ph.D, 41. *Prof. psychol. and head dept, W. Va. State Col, 28–* Assoc. Psychol. Asn; Am. Teachers Asn. (chairman dept. psychol). Individual and racial differences.

Canavaciol, Prof. Frank E(manuel), 71–19 Juno St, Forest Hills, N. Y. *Electrical engineering.* New York, N. Y, Jan. 16, 96. E.E, Polytech. Inst. Brooklyn, 18. *Consulting engineer, 20–;* asst. prof. *elec. eng, Polytech. Inst. Brooklyn,* 24–38, *prof, 38–* Elec. expert, for City of New York, 22–; consultant, Board Econ. Warfare, 41– Elec. Eng; Radio Eng. Electrical communications.

Canavan, Dr. Myrtelle M(ay), 25 Shattuck St, Boston 17, Mass. *Pathology.* St. Johns, Mich, June 24, 79. Mich. State Col; Michigan; M.D, Woman's Med. Col. of Pa, 05. Asst. bacteriologist, Danvers State Hosp, 07–10; pathologist, Boston State Hosp, 10–14; State Dept. Mental Health, Mass, 14–24; *curator, Warren Anat. Museum, Harvard Med. Sch, 24–* Asst. prof. and assoc. prof, sch. med, Boston, 24–37; instr, col. med, Vermont, 26–36; pathologist, State Dept. Mental Health, Mass, 28, 31–33, 35–41. A.A; fel. Col. Physicians; Asn. Research Nervous and Mental Disease; New Eng. Soc. Neur. and Psychiat; New Eng. Path. Soc; Mass. Psychiat. Soc; Mass. Med. Soc. (councilor, 38–40); Mass. Medico-Legal Soc. (sec'y-treas, 27–); Int. Asn. Med. Mus. Bacteriology; normal-looking brains; mental health of dementia praecox offspring and normal people; administrative pathology; pathology of the feebleminded; inheritance of brain pattern of an eminent scientist; chronic manganese poisoning; enostosis; criminal brains.

Canavan, Dr. W(illia)m P(aul Newell), 23rd St. and Edgemont Ave, Chester, Pa. *Parasitology.* Chester, Pa, Nov. 30, 97. A.B, Lehigh, 24; Illinois, 24–25; Ph.D, Pennsylvania, 29. Teaching fellow zool, Illinois, 24–25; instr, Pennsylvania, 25–29; assoc. prof. bacter, sch. med, Oklahoma, 29–39, lecturer parasitol. and hygiene, 29–39; *mem. ed. dept, W. B. Saunders Co, 42–* Research, Columbia Sch. Trop. Med, Puerto Rico, 37–38. Nematoda; Trematoda; Protozoa; amebiasis; endemic tropical diseases.

Candee, Prof. F(rank) W(iggins), 1804 Indiana St, Pullman, Wash. *Mechanical engineering.* Georgetown, Colo, Aug. 10, 89. B.S, Harvard, 12; M.S, Idaho, 25. Fed. Mining and Smelting Co, Idaho, 12–15; Potlatch Elec. Co, Idaho, 15–17; Bunker Hill and Sullivan Co, 17–20; instr. and asst. prof. *mech. eng,* Idaho, 20–29; *asst. prof, State Col. Wash, 29–* Mech. Eng; Eng. Educ. Lubricating oils; fuels for power plants; boiler feedwater treating.

Candy, Prof. A(lbert) L(uther), University of Nebraska, Lincoln, Nebr. *Mathematics.* Jonesboro, Ind, March 12, 57. A.B, Kansas, 92, A.M, 93; Ph.D, Nebraska, 98. Prof. math. and civil eng, Campbell Col, 86–91; math, Fremont Nor. Sch, Nebr, 92–93; instr, *Nebraska,* 93–98, adj. prof, 98–03, asst. prof, 03–04, assoc. prof, 04–07, prof. *pure math,* 07–35, *emer. prof, 35–,* head dept. math, 18–19, chairman, 19–34. Acting dean col. arts and sciences, Nebraska, 22–23, chairman faculty, 24–25. Math. Soc; Math. Asn; Nebr. Acad. A theorem on transversals; the solution of an equation of the nth degree; elimination of skidding in motor cars; cyclic operations on determinants; construction of a magic square of order $2n$ from one of order n by the method of current groups; construction, classification and census of magic squares; pandiagonal magic squares of prime and of composite orders.

Canfield, Prof. Donald T, 903 Fifth St, West Lafayette, Ind. *Electrical engineering.* Brooklyn, N. Y, Sept. 25, 95. B.S, Worcester Polytech, 20, E.E, 35; M.S, Purdue, 24. Asst. prof. *elec. eng, Purdue,* 21–31, assoc. prof, 31–40, *prof, 40–; consulting engineer, Duncan Elec. Co, 23–* Elec. Eng. (v. chairman, cent. Ind. sect, 36; mem. cmt. instruments and measure-

ments, 41–; ed. and chief sub. cmt. watt hour meters, 41); Eng. Educ. Energy measurement and the watt hour meter.

Canfield, G(eorge) H(oward), U. S. Geological Survey, Portland, Oregon. *Civil engineering.* Bridgeport, Conn, March 29, 86. C.E, Cornell, 10. From junior engineer to dist. engineer, *water resources branch, surface water div, U. S. Geol. Surv,* 10–28, *dist. engineer, Portland, 28–* Civil Eng. (sec'y and v. pres, Portland sect, 29–35, pres, 37); Geophys. Union. Surface waters of southeastern Alaska and Oregon; water power; water resources of Oregon.

Canfield, Dr. R(obert) H(awthorne), Naval Torpedo Station, Newport, R. I. *Physics.* Denver, Colo, June 14, 95. B.S, Colorado, 15, M.S, C.E, 23; Ph.D, Hopkins, 25. Asst. prof. civil eng, Colorado, 22–23; instr. physics, Hopkins, 26–28; assoc. physicist, Naval Research Lab, 28–30, supt. div. thermodyn, 30–40, div. physical metal, 32–40; *tech. adviser to inspector of ordnance in charge, Naval Torpedo Sta, 40–* Physical Soc; Philos. Soc. Wash. Diffraction gratings; internal friction in metals; elastic stresses in domes and shells; cohesion and stability of crystal lattices.

Cann, Prof. Jessie Y(ereance), Smith College, Northampton, Mass. *Physical chemistry.* Newark, N. J, May 17, 83. A.B, Goucher Col, 04; A.M, Columbia, 10, Ph.D, 11. Instr, high sch, N. J, 04–09; head dept. *chem,* Rockford Col, 11–14; instr, Illinois, 14–17, assoc, 17–18; asst. prof, *Smith Col,* 18–19, assoc. prof, 19–29, *prof, 29–* California, 27–28. A.A; Chem. Soc; Physical Soc; Ill. Acad; assoc. N. Y. Acad. Surface tension and the falling drop; composition and boiling point of aqueous solutions of sodium silicate; micelles and the activity coefficient of alkali silicate solutions; micelles and base exchange; potential of lead lead-ion; electromotive force measurements with lead, silver chloride, bromide, iodide, silver chromate electrodes and cadmium chloride.

Cann, Dr. Sarah D(unlap) (Mrs. Charles S(tansbury) Cann), 624 St. Dunstan's Road, Baltimore, Md. *Psychology.* Baltimore, Md, May 5, 11. Wellesley Col, 28–30; Ph.D, Hopkins, 34. Nat. research fellow biol. sciences, Columbia, 34–35; prof. psychol, educ. and philos, Md. Col. for Women, 35–37. Summers, asst, psychol. clinic sch, California at Los Angeles, 38, 39, 41. A.A. Psychology of knee-responses.

Cannan, Prof. R(obert) Keith, 477 First Ave, New York, N. Y. *Chemistry.* Fowler, Calif, 94. B.Sc, London, 15, M.Sc, 23, Beit Mem. fellow, 22–24, D.Sc, 30; Rockefeller traveling fellow, Med. Research Council, Gt. Britain, 25. Instr. chem, East London Col, London, 15, asst. biochem, Univ. Col, 19–21, senior lecturer, 26; *prof. chem,* Univ. and Bellevue Hosp. Med. Col, 30–35, *med. col, N. Y. Univ, 35–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. (pres, 34); Chem. Soc. Gt. Britain; Biochem. Soc. Gt. Britain. Electrochemical theory of oxidation-reduction; amphoteric systems of biological interest; kinetics; metabolism.

Canning, Prof. Graeme A(lexander), University of Tennessee, Knoxville, Tenn. *Parasitology.* Chicago, Ill, Oct. 5, 00. B.S, Northwestern, 23; A.M, Columbia, 24; Ph.D, Chicago, 28. Asst. prof. zool, Tennessee, 28–29; instr. bacter, med. sch, Wisconsin, 29–30; asst. prof. *zool, Tennessee,* 30–35, *assoc. prof, 35–* A.A; Soc. Parasitol; Knoxville Sci. Club (v. pres, 35, pres, 36). Immunology; intestinal infections; precipitin reactions with tissues of helminths.

Cannon, Prof. C(lawson) Y(oung), Iowa State College, Ames, Iowa. *Dairy husbandry.* B.S, Utah State Col, 13; M. S, Iowa State Col, 24, Ph.D, 27. Instr. animal husbandry, Utah State Col, 13–14; agr. and manager sch. farm, Boise High Sch, 14–20; in charge animal husbandry, Brigham Young, 20–30; *prof. and chief dairy husbandry, Iowa State Col, 30–* Soc. Animal Production; Dairy Sci. Asn. Feed requirements of dairy cows; supplements to a milk diet for dairy calves; dairy stalls; effect of sweet clover diet on the calcium in the blood serum; vital statistics of dairy cattle; physiology of digestion with calves.

Cannon, Prof. E(dward) W(hitney), University of Delaware, Newark, Del. *Mathematics.* Cannon, Del, June 20, 07. B.S, Delaware, 28, M.S, 31; Ph.D, Hopkins, 35. Testman, Gen. Elec. Co, 28–29; junior instr. *math,* Hopkins, 34–35; instr, *Delaware,* 29–31, 35–38, *asst. prof, 38–* Chem. Soc; Math. Asn. Mathematical analysis.

Cannon, Howard J(acob), 1411 E. 60th St, Chicago, Ill. *Nutrition.* Cleveland, Ohio, March 25, 03. A.B, Western Reserve, 25. Dept. nutritional research, *Abbott Labs,* 27–32, *director lab. vitamin technol, 32–* A.A; Chem. Soc. Vitamin studies of foods and fish liver oils.

Cannon, Dr. Melvin C(roxall), 409 Hastings St, Pittsburgh, Pa. *Chemistry.* Salt Lake City, Utah, July 25, 13. B.S, Utah, 33, M.S, 38; Ph.D, Boston, 41. Teaching fellow chem, Utah, 36–38; Boston, 38–41; research chemist, Merck and Co, 41; *indust. fellow, Mellon Inst, 42–* Summer, asst, Harvard, 39. Chem. Soc. Analytical and inorganic chemistry; preparation and application of stannous oxide to analytical chemistry; determination of aluminum using sodium citrate; synthetic jewel material.

Cannon, Dr. M(ichael) R(obert), Pennsylvania State College, State College, Pa. *Chemistry.* Locust Gap, Pa, Sept. 16, 08. B.S, Pa. State Col, 31, M.S, 32, Ph.D, 35. From research asst. chem. to *asst. prof. chem. eng, Pa. State Col, 35–* Chem. Soc; Chem. Eng. Viscosity of petroleum products; molecular weights of oil fractions; composition, distillation and extraction of petroleum; oxidation of lubricating oils; design of laboratory equipment.

Cannon, Dr. Orson S(ilver), 722 W. College Ave, State College, Pa. *Plant pathology.* Salt Lake City, Utah, Nov. 21, 08. B.S, Utah State Col, 35, M.S, 37; univ. fellow, Cornell, 37–38, Nassau County Veg. Disease and Insect Control fellow, 38–42, Ph.D, 42. Teaching asst. plant path, Utah State Col, 33–37; *asst. exten. pathologist, Pa. State Col, 42–* Phytopath. Soc; Utah Acad. Plant breeding; plant physiology; bacterial wilt of alfalfa; fusarium wilt of spinach; vegetable diseases.

Cannon, Dr. Paul R(oberts), University of Chicago, Chicago, Ill. *[6]*Pathology.* Lexington, Ill, Aug. 25, 92. A.B, James Millikin; Ph.D, Chicago, M.D, Rush. Instr. bacter, Chicago, 19–20; prof. path. and bacter, Mississippi, 20–23; asst. prof. *path, Chicago,* 25–28, assoc. prof, 28–32, *prof, 32–, chairman dept, 40–* Assoc. ed, 'Jour. Immunol'; 'Am. Jour. Path.' Mem. med. fellowship board, Nat. Research Council. A.A. (v. pres, N, 39); Soc. Exp. Path. (sec'y-treas, 37, councilor); Asn. Path. and Bact. (councilor; pres, 42); Asn. Immunol. (pres, 40, councilor). Intestinal bacteriology; cellular and tissue immunity; spleen; anemia; experimental malaria; respiratory infections; lipid pneumonia; allergy; chemotherapy; nutrition.

Cannon, Dr. Ralph S(myser), Jr, U. S. Geological Survey, Washington, D. C. *Geology.* York, Pa, April 21, 10. B.S, Princeton, 31, scholar, 33–34, fellow, 34–35, Ph.D, 35; fellow, Northwestern, 32–33, M.S, 33. Asst. geol, Northwestern, 31–32; asst. geologist, N. J. Zinc Co, 35–37; junior geologist, *U. S. Geol. Surv,* 37–39, asst. geologist, 39–42, *assoc. geologist, 42–* Soc. Econ. Geol; Miner. Soc; Geol. Soc. Wash. Mining geology; copper deposits; geology and ore deposits of northeastern Washington, western Idaho and northern New Jersey; petrology and structural geology of southern Adirondacks; scheelite-powellite minerals; fluorescence of scheelite.

Cannon, Prof. W(alter) B(radford), Harvard Medical School, Boston, Mass. *[6]*Physiology.* Prairie du Chien, Wis, Oct. 19, 71. A.B, Harvard, 96, A.M, 97, M.D, 00, hon. Sc.D, 37; hon. Sc.D, Yale, 23; LL.D, Wittenberg Col, 27, Boston, 29, Washington (St. Louis), 40; hon. Dr, Liége, 30, Strasbourg, 30, Paris, 31, Madrid, 38. Instr. zool, Harvard, 99–00, *physiol, Harvard Med. Sch,* 00–02, asst. prof, 02–06, George Higginson prof, 06–42, *emer. prof, 42–* Croonian lecturer, Royal Soc. London, 18; exchange prof, Sorbonne and Ecole de Méd, Paris, 30; Linacre lecturer, Cambridge, 30; visiting prof, Peiping Union Med. Col, 35; hon. fellow, Stanford, 41. Mem. board sci. directors, Rockefeller Inst, 36. Baly medal, Royal Col. Physicians London, 31; gold medal, Nat. Inst. Social Sciences, 34; Friedenwald medal, Am. Gastro-Enterol. Asn, 41. Nat. Acad. (for. sec'y, 42); A.A. (pres, 39); Physiol. Soc. (treas, 05–12, pres, 14–16); Soc. Exp. Biol; Am. Med. Asn; Am. Physicians; Roentgen Ray Soc; Gastro-Enterol. Asn. (pres, 10–12); Psychol. Asn; Philos. Soc; Am. Acad. (v. pres, 31–40); Boston Soc. Med. Sci. (pres, 08); hon. mem. British Physiol. Soc; for. mem. Royal Soc. London; Research Defense Soc, England (v. pres, 36–); Halle Wissensch. Akad; cor. mem. Soc. biol. de Paris; assoc. mem. Soc. de Psychol. de Paris; hon. mem. Soc. Endocrinol. Paris; Reale Accad, Bologna; Soc. belge de Biol; for. mem. Royal Swedish Acad; for. hon. fel. Royal Soc. Edinburgh; cor. mem. Royal Soc. Med, Budapest; Russian Acad; hon. fel. Acad. Med. Mex;

cor. mem. Nat. Acad. Med. Buenos Aires; hon. mem. Soc. de Biol, Buenos Aires; Soc. de biol. de Barcelona; hon. mem. Acad. med. Barcelona; hon. mem. Acad. Nacionale de Med. Argentina. Medical education; freedom of medical research; movements of stomach and intestines; mechanical factors in digestion; physiology of nerve plexuses; peripheral inhibition; glands of internal secretion; effects of emotions on bodily processes; traumatic shock; maintenance of steady states in the organism; neurohumoral agents; autonomic nervous system; electrical phenomena of cerebral cortex.

Cannon, Dr. W(illiam) A(ustin), Stanford University, Calif. **²Botany.* Washington, Mich, Sept. 23, 70. A.B, Stanford, 99, A.M, 00; fellow, Columbia, 00–02, Ph.D, 02. Asst. bot, Stanford, 99–00; asst, labs, N. Y. Bot. Garden, 02–03; res. investigator, desert lab, *Carnegie Institution*, 03–05, mem. staff, 05–25, *research assoc, 31–; lecturer bot, Stanford, 25–* Carnegie fellow, 03– A.A; Soc. Nat; Bot. Soc; Ecol. Soc. Biology of desert plants; root systems of desert plants; aeration of roots.

Cantarow, Dr. A(braham), 2033 De Lancey St, Philadelphia, Pa. *Medicine, Biochemistry.* Hartford, Conn, Jan. 27, 01. Tufts Col, 17–20; M.D, Jefferson Med. Col, 24. Res. chemist, Jefferson Hosp, 24–25, res. physician, 25–27, fellow inorg. metabolism, 27–29; asst. demonstrator *med, Jefferson Med. Col*, 29–31, instr, 31–34, assoc, 34–37, asst. prof, 37–39, *assoc. prof, 39–, biochemist, Jefferson Hosp, 31–* Am. Med. Asn; Soc. Exp. Biol; Asn. Study Int. Secretions; Physiol. Soc; Soc. Pharmacol; Physiol. Soc. Phila; Col. Physicians Phila; Path. Soc. Phila. Clinical medicine; calcium metabolism; renal and hepatic functions; physiology of endocrine glands and of the liver.

Cantor, Dr. A(braham), University of Pennsylvania, Philadelphia, Pa. *Bacteriology.* Philadelphia, Pa, Jan. 21, 11. A.B, Pennsylvania, 33, George B. Wood fellow, 36–39, A.M, 37, Ph.D, 40. Instr. *bacter, Pennsylvania,* 39–42, *assoc, 42–* Bacter. consultant, 40– A.A; Chem. Soc; Pub. Health Asn; Soc. Bact. Diagnostic procedures; medical bacteriology; cultural technique; anaerobic methods.

Cantor, Dr. Max(well) M(ordcai), University of Alberta, Edmonton, Alta, Can. *Biochemistry.* Winnipeg, Man, April 1, 03. B.Sc, Manitoba, 24, M.D, 29. Res, univ. hosp, *Alberta,* 28–30, fellow *biochem,* 30–35, lecturer, 35–36, *asst. prof, 36–, coroner, 30–, asst. med. research, Univ. Hosp, 39–* Asn. Study Int. Secretions; Asn. Hist. Med; fel. Col. Physicians; Can. Physiol. Soc; Can. Med. Asn; Edmonton Acad. Med. Endocrinology and metabolic medicine; history of medicine.

Cantor, Dr. Sidney M(ark), 113 Lincoln Ave, Riverside, Ill. *Organic chemistry.* Portland, Oregon, Aug. 14, 12. A.B, Reed Col, 33; research fellow, Northwestern, 33–36, Ph.D, 36. Research chemist, *research dept, Corn Products Ref. Co,* 36–39, *group leader, sugar div, 39–* Chem. Soc. (chairman, div. sugar chem. and technol). Carbohydrate chemistry.

Cantrall, Dr. Irving J(ames), 145 Garden Road, Norris, Tenn. *Zoology.* Springfield, Ill, Oct. 6, 09. A.B, Michigan, 35, Ph.D, 40. Asst. Orthoptera, museum zool, Michigan, 34–37, tech. asst, 37–42; junior aquatic biologist, *Tenn. Valley Authority,* 42, *asst. aquatic biologist, 42–* Fla. Acad. Ecology and taxonomy of North American Orthoptera; ecology of fishes.

Cantril, Prof. (Albert) Hadley, Princeton University, Princeton, N. J. *Psychology.* Hyrum, Utah, June 16, 06. B.S, Dartmouth Col, 28; Ph.D, Harvard, 31. Instr. sociol, Dartmouth Col, 31–32; psychol, Harvard, 32–35; asst. prof. educ, Columbia, 35–36; *psychol, Princeton,* 36–37, *assoc. prof, 37–* Psychol. Asn. Social psychology; psychology of personality; public opinion.

Canzanelli, Dr. Attilio, 416 Huntington Ave, Boston, Mass. *Physiology.* New York, N. Y, Oct. 21, 98. B.S, Mass. Inst. Tech, 21; M.D, Tufts Col, 26. Instr. *physiol, med. sch, Tufts Col,* 27–33, asst. prof, 33–38, *assoc. prof, 38–* A.A; Physiol. Soc. Respiratory metabolism.

Caparó y Peréz, Prof. J(osé) A(ngel), University of Notre Dame, Notre Dame, Ind. *Mathematics, Electrical engineering.* Cuzco, Peru, S. Amer, Nov. 2, 88. C.E, Notre Dame, 08, M.C.E, E.E, 09, M.S, 11, M.E, Ph.D, 13; Sc.D, St. Anthony, Peru, 10; A.M, Chicago, 19. Instr. physics and math, Notre Dame, 08–09, 12–18; prof. chem. and anthrop, St. Anthony, Peru, 09–10; radio mech, Carnegie Inst. Tech, 18–19; *prof. elec. eng, Notre Dame, 19–* Instr, Carnegie Inst. Tech, 17. Math. Asn; fel. Elec. Eng. Non-Euclidean geometrics and hyperspace.

Cape, Prof. Jane, Antioch College, Yellow Springs, Ohio. *Nutrition.* Linden, Wis. B.S, Wisconsin, 14, fellow, 23–25, M.S, 24, Ph.D, 32; Laura Spelman Rockefeller fellow, Columbia, 25–26. Instr. foods and nutrition, Kans. State Col, 14–18; Cincinnati, 18–20; asst. prof. nutrition, Kans. State Teachers Col, 20–23; *prof. home econ, Antioch Col, 26–* A.A; Home Econ. Asn; Dietetic Asn. Acid-base condition of blood; rate of change of alkali reserve after ingestion of salts of organic compounds.

Capel, Prof. Robert B(ennett), Hendrix College, Conway, Ark. *Speech.* Oskaloosa, Iowa, Jan. 26, 06. A.B, Penn Col, 28; A.M, Wisconsin, 29, Ph.D, 41. Instr. speech, exten. div, Wisconsin, 28–29; instr. speech and debate coach, N. Y. Univ, 29–32; prof. speech, debate coach and director dramatics, Upper Iowa, 32–34; asst. prof. *speech, Hendrix Col,* 35–42, *assoc. prof, 42–* Asn. Teachers Speech; South. Asn. Teachers Speech. (ed, 'Jour,' 39–42; 3rd v. pres, 42); Ark. Asn. Teachers Speech (pres, 36–39, 3rd v. pres, 40, 2nd v. pres, 42). Rhetorical theory; esthetic judgment in speech; effectiveness of high school debate in providing information and influencing attitudes.

Capell, Dr. Leonard T(homas), Ohio State University, Columbus, Ohio. *Chemistry.* Columbus, Ohio, Oct. 5, 94. B.Ch.E, Ohio State, 18, M.S, 22, Ph.D, 25. Asst. chem, Ohio State, 19–22; prof, Wheaton Col. (Ill), 23–24; org. indexer, '*Chem. Abstracts,*' *Am. Chem. Soc,* 25–28, *assoc. ed, 28–* Chemist, Ill. Steel Co, 19. C.W.S, U.S.A, 18. A.A; Chem. Soc. Orthoquinones; organic nomenclature.

Capinpin, Dr. J(osé) M(ananjaya), University of the Philippines, Los Baños, Laguna, P. I. *Genetics, Cytology.* Morong, Rizal, P. I, Oct. 26, 97. B.Agr, Philippines, 20, B.S, 22, M.S, 23; Philippine Govt. traveling fellow, U. S. and Europe, 28–31; A.M, Princeton, 29, Ph.D, 31. Asst. agron, *col. agr, Philippines,* 20–26, instr. plant breeding, 27–37, *asst. prof.* plant genetics, 37–40, *agr. bot, 40–* Tech. collaborator and consultant, Bur. Forestry, P. I. Nat. Research Council P. I. Soc. Adv. Research (v. pres, 40); Genetics Soc; Bot. Soc; P. I. Sci. Soc; Los Baños Biol. Club (sec'y and pres, 38–40). Plant genetics; general plant morphology; genetics of tropical crops; genetics and cytology of Oenotheras; cytogenetics.

Capp, Dr. Charles S(tilwell), 285 Moncada Way, San Francisco, Calif. *Medicine.* San Francisco, Calif, Dec. 7, 93. A.B, California, 21, A.M, 22; M.D, Michigan, 25. Instr. physiol, Michigan, 23–25, *roentgenol,* 27–28; *asst. prof,* Chicago, 28–33; *California, 35–* Radiologist, Children's Hosp. Col. Radiol; Radiol. Soc. N. Amer; Calif. Acad. Med. Roentgenology.

Cappel, Dr. Norman O, Box 35, Westtown, Pa. *Organic chemistry.* Dayton, Ohio, Aug. 31, 13. B.S, Ohio State, 35, M.S, 37, Ph.D, 39. Julius Stone fellow, research foundation, Ohio State, 39–40; *research chemist, titanium div, Sherwin-Williams Co, 40–* Director, Cappel Labs. Liquid ammonia; reduction studies in organic compounds.

Capps, Hahn W(illiam), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Schell City, Mo, Dec. 16, 03. B.S, Kansas, 29. Junior plant quarantine inspector, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30–38, asst. entomologist, 38–40, *assoc. entomologist, 40–* Entom. Soc. Amer; South. Calif. Acad; Entom. Soc. Wash. Lepidoptera; lepidopterous larvae and the family Geometridae.

Capps, Prof. Joseph A(lmarin), 1215 E. 56th St, Chicago, Ill. *Medicine.* Jacksonville, Ill, Feb. 28, 72. A.B, Ill. Col, 91, hon. Sc.D, 29; M.D, Harvard, 95, fellow, 95–96, A.M, 97. Asst. prof. med, Rush Med. Col, *Chicago,* 04–18, *prof,* 19–26, *clin. med, univ, 26–* Chief med. service, Cook County Hosp; attending physician, St. Luke's Hosp; physician in chief, Peter Bent Brigham Hosp, Boston, Mass, 40. Lieut. col, M.C, 18–19. A.A; Am. Physicians (pres, 34); Soc. Clin. Invest. (pres, 16); Inst. Med. Chicago (pres, 39). Morphology of the blood; physiology of the pleura; respiratory infections; venous blood pressure; epidemic streptococcus infection; pain sense in the peritoneum and pericardium.

Capps, Prof. Julian H(untley), Berea College, Berea, Ky. *Physical chemistry.* Jacksonville, Ill, Jan. 21, 90. A.B, Illinois, 12; A.M, Princeton, 14. U. S. Bur. Mines, 16–21; *prof.*

chem, Berea Col, 25– A.A; Chem. Soc; Ky. Acad. Carbonization of coal; oxidation of ammonia; aluminum; silver recovery.

Capps, Dr. Julius D(aniel), P. O. Box 345, Auburn, Ala. *Organic chemistry.* Opelika, Ala, Nov. 26, 13. B.S, Ala. Polytech, 34, M.S, 35; Parke, Davis and Co. fellow, Nebraska, 36–38, Ph.D, 38. Asst. chem, Ala. Polytech, 34–35, instr, 35, 38–41; asst, Nebraska, 35–36; instr, St. Louis, 41–42; mfg. chemist, Merck and Co, Inc, 42; *assoc. animal nutritionist, Exp. Sta, Ala. Polytech, 42–* Chem. Soc. Syntheses in the quinoline series; arsonic acids; amine aldehyde condensations; vitamin C and carotene content of plant tissue; vitamin A and carotene content of dairy products.

Capps, Dr. Richard B(rooks), 122 S. Michigan Ave, Chicago, Ill. *Medicine.* Chicago, Ill, March 14, 06. B.S, Princeton, 27; M.D, Harvard, 31. Med. intern, Mass. Gen. Hosp, 31–33; asst. *med,* Harvard Med. Sch, 33–35; *med. sch, Northwestern,* 36–37, instr, 37–39, *assoc, 39–; major, M. C, U. S. Army, 42–* Asst. res. physician, Thorndike Mem. Lab, Boston City Hosp, 33–35; assoc. med, Cook County Hosp, 36–37; asst. attending physician, St. Luke's Hosp, Chicago, Ill, 37–41, assoc. attending physician, 41– Soc. Clin. Invest; assoc. Col. Physicians; Heart Asn; Am. Med. Asn; Cent. Soc. Clin. Research; Inst. Med. Chicago; Chicago Soc. Int. Med. (sec'y-treas, 40–). Cardiovascular system.

Capps, Dr. S(tephen) R(eid), U. S. Geological Survey, Washington, D. C. ****Geology.* Jacksonville, Ill, Oct. 15, 81. A.B, Chicago, 03, fellow, 05–07, Ph.D, 07. Instr. physiog, Chicago, 03–04; *U. S. Geol. Surv,* 06–42, *asst. chief geologist, 42–* Geol. Soc; Geol. Soc. Wash. (pres, 29); Wash. Acad. Glacial, areal and economic geology; underground waters; petroleum exploration in the Near East; geology and mineral resources of Alaska; gold placers of Idaho and Colorado; manganese in Brazil.

Carapella, Dr. Louis A(nthony), Naval Research Laboratory, Washington, D. C. *Metallurgy.* Tuckahoe, N. Y, July 9, 14. B.S, Mich. State Col, 37; M.S, Harvard, 39, Sc.D, 41. Research metallurgist, eng. exp. sta, Mich. State Col, 37–38; Gordon McKay teaching fellow metal, grad. sch. eng, Harvard, 38–41; *research metallurgist, Naval Research Lab, 41–, head metallog. sect, 42–* Min. and Metal. Eng; Soc. Metals. Physical metallurgy; x-ray metallography; ferromagnetism.

Card, Prof. C(arl) G(uy), 613 E. Grand River, East Lansing, Mich. *Poultry husbandry.* Hillsdale Co, Mich, Feb. 8, 92. A.B, Mich. State Nor. Sch, Kalamazoo, 13; B.S, Mich. State Col, 23. Sch. supt, Mich, 14–20; director vocational sch, East Lansing, 20–23; *prof. poultry husbandry, Mich. State Col, 23–*

Card, Prof. L(eslie) E(llsworth), University of Illinois, Urbana, Ill. *Poultry husbandry.* Sylvania, Pa, Aug. 10, 93. B.S, Cornell, 14, Ph.D, 22. Asst. poultry husbandman, Exp. Sta, Conn. State Col, 14–19; instr. *poultry husbandry,* Cornell, 19–22; *prof, Illinois, 22–* Ed, 'Poultry Science,' 22–31. U. S. del, World's Poultry Cong, 27, 30. Poultry Sci. Asn. (past pres). Economics of poultry production.

Carder, Dr. Dean S(amuel), P. O. Box 186, Boulder City, Nev. *Seismology.* Medford, Oregon, Aug. 11, 97. B.S, Oregon State Col, 21; M.S, Idaho, 25; Ph.D, California, 33. Instr. geol, Utah State Col, 21–24; asst, Idaho, 24–25; prin, high sch, Wash, 25–31; asst. geol, California, 31–33; asst. seismologist, *U. S. Coast and Geod. Surv,* San Francisco, 33–39, *chief Lake Mead seismol. party, Nev, 39–* Seismol. Soc; Geophys. Union. Seismic surface and body waves; vibrations of ground and various structures; earthquake investigations.

Cardiff, Dr. Ira D, Tieton Drive and Grandview Ave, Yakima, Wash. *Botany.* Stark Co, Ill, June 20, 73. B.S, Knox Col, 97; fellow, Chicago, 03–04; Ph.D, Columbia, 06. Teacher and prin, pub. schs, Ill, 97–01; asst. bot, Columbia, 04–06; asst. prof, Utah, 06–07, prof, 07–08; Washburn Col, 08–12; plant physiol, State Col. Wash, 12–20, head dept. bot. and director, Exp. Sta, 13–20; *pres, Wash. Dehydrated Food Co, 20–* A.A; Chem. Soc; Kans. Acad; Utah Acad. (pres, 08). Morphology of pteridophytes; cytology; spray residue in relation to food; human progress; Lincoln.

Cardinell, H(orace) A(lbert), Michigan State College, East Lansing, Mich. *Horticulture.* Portland, Oregon, Aug. 5, 92. B.S, Oregon State Col, 15. Am. pomologist, Brazilian Govt, 18–20; exten. asst. prof. *hort,* Missouri, 20–23; exten. specialist, *Mich. State Col,* 23–33, *research assoc, 33–* Soc. Hort. Sci; North. Nut Growers Asn. Pruning; farm cold storage; nut testing; cherry root stock testing; rodent repellents; bird depredations and repellents; changing fruiting habits of plants.

Cardon, P(hilip) V(incent), 1730 Crestwood Drive, N. W, Washington, D. C. *Agronomy.* Logan, Utah, April 25, 89. B.S, Utah State Col, 09; M.S, California, 33. Agronomist, bur. plant indust, U. S. Dept. Agr, 10–20; prof. agron, Mont. State Col, 20–21; director branch, Utah Col, 21–22; ed, 'Utah Farmer,' 22–25; farm economist, Exp. Sta, Utah Col, 25–28, director, 28–35; prin. agronomist in charge div. forage crops and diseases, bur. plant indust, *U. S. Dept. Agr,* 35–39, asst. chief bur, 39–41, *asst. administrator, agr. research admin, 42–* Regional director land policy sect, agr. adjust. admin, U. S. Dept. Agr, 34–35. A.A; Soc. Agron. (sec'y, 17); Farm Econ. Asn; Bot. Soc. Wash. Field crops; farm practise; farm economics; land utilization.

Cardwell, Prof. A(lvin) B(oyd), Kansas State College, Manhattan, Kans. *Physics.* Lenoir City, Tenn, Oct. 16, 02. B.S, Chattanooga, 25; M.S, Wisconsin, 27, fellow, 29–30, Ph.D, 30. Asst. *physics,* Wisconsin, 26–29; asst. prof, Tulane, 30–35, assoc. prof, 35–36; *prof, Kans. State Col, 36–, head dept, 37–* A.A; Physical Soc. Photoelectric and thermionic properties of carefully outgassed metals.

Carey, Prof. C(lifton) O('Neal), Route 5, Box 27, Ann Arbor, Mich. *Engineering.* Wilmington, Ohio, Dec. 1, 75. B.S, Wilmington Col, 00, Haverford Col, 01; B.S. (C.E), Michigan, 06, C.E, 14. Prof. math, Wilmington Col, 04–05; draftsman and supt. bldg. construction, Sherwin-Williams Co, Cleveland, 06–08; instr. *geod. and surv, Michigan,* 08–14, asst. prof, 14–20, *assoc. prof, 20–* Prin. asst. engineer, Grand Canal Improv. Board, Tientsin, China, 18–20. Chairman special cmt. on 3rd and 4th order triangulation and traverse, 29– A.A; Civil Eng; Eng. Educ; Mich. Eng. Soc; Mich. Acad. Topographic surveying; tests of concrete columns reinforced with a spiral of steel; figure of the earth and isostasy.

Carey, Prof. Cornelia L(ee), Barnard College, Columbia University, New York, N. Y. *Botany.* Montclair, N. J, Jan. 15, 91. B.S, Columbia, 19, A.M, 21, Ph.D, 23. Asst, *Barnard Col, Columbia,* 18–21, lecturer, 22–23, instr, 23–29, *asst. prof. bot, 29–* Assoc, Oceanog. Inst, Woods Hole, 33– A.A; Bot. Soc; Soc. Plant Physiol; Soc. Bact; Torrey Bot. Club (assoc. ed, 'Bul,' 25–35). Colloidal adsorption; silica gel media; soil and marine bacteriology.

Carey, Dean E(ben) J(ames), Marquette University School of Medicine, Milwaukee, Wis. *Anatomy.* Chicago, Ill, July 31, 89. California, 09–13; B.S, Creighton, 16, M.S, 18, Sc.D, 20; M.D, Rush, Chicago, 25. Instr. *anat,* Creighton, 14–16, asst. prof, 16–20; *prof. and director dept, sch. med, Marquette, 20–,* dean med. students, 21–26, acting dean, 26, *dean, 33–* Lecturer, Chicago, 18. Med. director, Marquette Free Dispensary, 24; surg. res, Dean Lewis Service Presb. Hosp, Chicago, 24–25; chief staff, Marquette Univ. Hosp, 26. Chairman sci. exhib, Inter-State Postgrad. Med. Assembly, Milwaukee, 31; in charge med. exhibits, A Century of Progress Expos, Chicago, 33–34; curator med. science exhibit, Museum Science and Indust, Chicago, 34–; advisory cmt, med. exhibits, San Francisco Expos, 39. Silver medal, Am. Med. Asn, 28, 37, gold medal, 42; Radiol. Soc. N. Amer, 33. Lieut, R.O.T.C; lieut. col, Wis. Nat. Guard. A.A; Asn. Anat; Am. Med. Asn. (cmt. sci. exhibit, 35–41); Soc. Exp. Biol; Anthrop. Asn; Inst. Med. Chicago; Wis. State Med. Soc. (council sci. work, 42); Milwaukee Co. (Wis) Med. Soc. (pres, 42); Milwaukee Acad. Med. (pres, 39). Biology; bone, muscle and joint development; teratology; wave mechanics of nervous and muscular actions; dynamics of histogenesis of nerve, muscle, bone and joints; myogenesis; bone and joint pathology.

Carey, Dr. J(ames) S(tark), 302 Conestoga Road, Wayne, Pa. *Chemical engineering.* West Chester, Pa, May 5, 99. Ch.E, Lehigh, 22; M.S, Pa. State Col, 27; Sc.D, Mass. Inst. Tech, 30. Instr. physics, Pa. State Col, 22–27; asst, research lab. applied chem, Mass. Inst. Tech, 28–29; *chem. engineer,* M. W. Kellogg Co, 29–31, 35–38; Alco Products, Inc, 31–35; *E. B. Badger and Sons Co, 38–* Chem. Soc; Chem. Eng. Distillation; petroleum processing.

Carhart, Dr. Homer W(alter), 1623 Fairlawn Ave, S.E, Washington, D. C. *Organic chemistry.* Orange, Calif, May 21, 14. B.S, Dakota Wesleyan, 34; A.M, South Dakota, 35;

Ph.D, Maryland, 39. Prof. chem. and head dept, Gallaudet Col, 39–42; *research chemist, U. S. Naval Research Lab, 42–* Chem. Soc. Higher scientific education of the deaf.

Caris, Prof. Perry A(quila), 717 Shadeland Ave, Drexel Hill, Pa. *Mathematics.* Tylersville, Pa, March 3, 90. A.B, Bucknell, 13, A.M, 17; Ph.D, Pennsylvania, 25. Instr, Bucknell, 13–15; teacher, high sch, Pa, 16–25; asst. prof. *math, Pennsylvania,* 25–36, *assoc. prof, 36–* Math. Soc; Math. Asn. Theory of numbers; analytic geometry.

Carl, Dr. G(eorge) Clifford, 1039 Rockland Ave, Victoria, B. C, Can. *Biology.* Vancouver, B. C, April 3, 08. B.A, British Columbia, 30, M.A, 32; Ph.D, Toronto, 37. Lab. asst, British Columbia, 30–32, 33–36; asst, Toronto, 32–33, 36–37; sci. asst. biol, Fisheries Research Board, Can, 37–40; acting director, *Prov. Museum,* 40–42, *director, 42–* Summers, asst, Fisheries Research Board, Can, 30–37. Soc. Ichthyol. and Herp; Northwest. Bird and Mammal Soc. Limnology; geographic distribution of fresh-water Copepoda and Cladocera.

Carle, N(athaniel) A(llen), 1656 E. Garfield St, Seattle, Wash. *Engineering.* Portland, Oregon, May 28, 75. A.B, Stanford, 98. Engineer, mining work, Alaska, 98–99; Can. Rand Drill Co, Que, 99–00; engineer, Westinghouse, Church, Kerr and Co, New York, 00–09; Puget Sound Bridge and Dredging Co, 09–12; chief engineer, Pub. Service Elec. Co, Newark, N. J, 12–22; v. pres. and gen. manager, Pub. Service Production Co, 22–24, v. pres. in charge operation, 24–28; mining and hydroelec. consulting work, 28–30; consulting engineer, Puget Sound Bridge and Dredging Co. and Mill and Mine Supply Co, Seattle, 30–36; *city engineer and chairman board pub. works, Seattle, 36–* Mech. Eng; Radio Eng; Elec. Ry. Asn; Civil Eng; fel. Elec. Eng. (past v. pres). Turbine failures.

Carleton, Dr. Paul W(hittier), Jackson Laboratory, Wilmington, Del. *Chemistry.* Haverhill, Mass, April 10, 83. A.B, Harvard, 06, A.M, 07, Ph.D, 11. Instr. chem, Case, 07–09; Wisconsin, 11–14, asst. prof, 14–19; *research chemist, E. I. du Pont de Nemours and Co, 19–* C.W.S, U.S.A, 17–19. A.A; Chem. Soc. Organic chemistry; dyes and intermediates; Grignard reaction.

Carleton, Prof. Ralph K(imball), Rhode Island State College, Kingston, R. I. *Inorganic chemistry.* West Somerville, Mass, Feb. 24, 96. B.S, Boston, 19; A.M, Harvard, 22; Ph.D, George Peabody Col, 32. Prof. *chem.* and director dept, Shurtleff Col, 23–32; *prof, R. I. State Col, 32–* Chem. Soc; fel. Inst. Chem. Reaction of hydrogen iodate in sulfuric acid solution; colorimetry and color reactions in solution; personal equation in chemical analysis; absorbents for carbon monoxide; production of ursolic acid from cranberry skins.

Carlin, Dr. Robert B(urnell), University of Illinois, Urbana, Ill. *Chemistry.* St. Paul, Minn, Nov. 13, 16. B.Ch, Minnesota, 37, Hormel Research Foundation fellow, 40–41, Ph.D, 41. Teaching asst, Minnesota, 37–40; Lalor Foundation fellow, *Illinois,* 41–42, *instr. org. chem, 42–* Chem. Soc. Vitamin E; marihuana.

Carlisle, Dr. Chester L, Veterans' Administration Facility, Palo Alto, Calif. *Neuropsychiatry.* Columbus, Ohio, July 18, 76. Ohio State; M.D, Western Reserve, 98. Med. officer, N. Y. State Hosp. Service, 01–17; supt. div. mental defect and delinquency, State Board Charities, N. Y, 17–20; director, Oregon State Surv. Mental Defect and Delinquency, U. S. Pub. Health Service, 20–21; *med. officer, Veterans' Admin, 21–* Clin. director, Veterans' Admin. Hosp, 24; med. officer in charge courses instruction, Veterans' Admin; neuropsychiatrist. M.C, U.S.A, 17–19. A.A; Psychiat. Asn; Asn. Research Nervous and Mental Disease; Asn. Research Human Heredity; Asn. Mil. Surg; Nat. Cmt. Mental Hygiene; Am. Med. Editors' Asn; N. Y. Neur. Soc; N. Y. Soc. Clin. Psychiat. Clinical psychiatry; mental defect; delinquency and dependency; surveys as to causes of dependency.

Carlitz, Prof. Leonard, Duke University, Durham, N. C. *Mathematics.* Philadelphia, Pa, Dec. 26, 07. A.B, Pennsylvania, 27, A.M, 28, Ph.D, 30. Nat. research fellow *math,* Calif. Inst. Tech, Pennsylvania and Cambridge, 30–32; asst. prof, *Duke,* 32–37, *assoc. prof, 37–* Mem, Inst. Advanced Study, 35–36. Math. Soc. Theory of numbers.

Carlson, Prof. Albert S(igfrid), 19 S. Park St, Hanover, N. H. *Economic geography.* Worcester, Mass, July 4, 07. A.B, Clark, 29, A.M, 32, Ph.D, 38. Instr. geog, *Dartmouth Col,* 29–37, *asst. prof. econ. geog, 37–* Industrial location.

Carlson, Prof. Anders J(ohan), University of California, Berkeley, Calif. *Petroleum engineering.* St. Peter, Minn, Aug. 3, 94. B.S, Minnesota, 16, C.E, 17, M.S, 25; Ph.D, California, 29. Instr. mine plant and mech, sch. mines, Minnesota, 17–19, asst. prof, 19–26; lecturer *petrol. eng, col. mining, California,* 26–30, assoc. prof, 30–42, *prof, 42–* Consulting engineer and mine expert, State Tax Cmn, Minn, 18–26; asst. and junior fellow, Am. Petrol. Inst, 27–31. A.A; Petrol. Inst; Chem. Soc. Geothermal variations in oil fields of Los Angeles Basin, California; geothermal conditions in oil-producing districts of California; geothermal variations in Coalinga area, Fresno County, California; inorganic environment in Kerogen transformation; factors influencing permeability measurements.

Carlson, Prof. A(nton) J(ulius), University of Chicago, Chicago, Ill. **2*Physiology.* Svarteborg, Sweden, Jan. 29, 75. B.S, Augustana Col, 98, A.M, 99, LL.D, 23; Ph.D, Stanford, 02; hon. M.D, Lund, 18; hon. Sc.D, Lawrence Col, 36, Colorado, 40. Asst. physiol, Stanford, 01–02; research asst, Carnegie Institution, 03–04; assoc. *physiol, Chicago,* 04–05, asst. prof, 05–09, assoc. prof, 09–14, prof, 14–29, Frank P. Hixon prof, 29–40, chairman dept, 16–40, *emer. prof, 40–* Instr, Marine Biol. Lab, Woods Hole, 05–07; consultant, food and drug admin, Fed. Security Agency. Ed, 'Physiol. Revs,' 37– Pres, Union Am. Biol. Socs, 40–43; Research Council on Alcohol. Int. Zool. Cong, Graz, 10; Int. Cong. Physiol, Vienna, 10, Edinburgh, 23, Stockholm, 26, Leningrad, 35. Lieut. col, Sanit.C, 17–18. Nat. Acad; A.A; Soc. Nat; Physiol. Soc. (sec'y, 10, pres, 23–26); Sec. Exp. Biol; Harvey Soc; Asn. Univ. Prof. (pres, 37); Chicago Path. Soc; Soc. biol. de Paris; hon. mem. Swedish Med. Soc. Rate of conduction of the impulse in nerves; the nature of the heart-beat; lymph formation and salivary secretions; comparative physiology of the circulation; comparative physiology of the thyroid and parathyroid; physiology of the alimentary tract and of the visceral sensory nervous system; hunger; thirst; ageing.

Carlson, Dr. Carl S(igurd), University of Pennsylvania, Philadelphia, Pa. *Chemical engineering.* Sweden, Jan. 10, 13. B.S, Pa. State Col, 35, M.S, 37, Ph.D, 39. Asst. petrol. ref, Pa. State Col, 35–37, fellow, 37–39; *asst. prof. chem. eng,* Louisiana, 39–41; *Pennsylvania, 41–* Chem. Eng; Chem. Soc. Vapor phase oxidation of hydrocarbons; separation of binary hydrocarbon mixtures; fractional distillation efficiencies.

Carlson, Prof. C(larence) S(elmer), St. Olaf College, Northfield, Minn. *Mathematics.* Vermillion, S. Dak, Jan. 6, 01. A.B, St. Olaf Col, 26; M.S, Iowa, 28. Asst, Iowa, 26–28; instr. *math, St. Olaf Col,* 28–29, asst. prof, 29–31, *assoc. prof, 31–,* guest prof, 42. Geometry; projective transformations and ruler constructions.

Carlson, Prof. F(red) A(lbert), Ohio State University, Columbus, Ohio. *Geography.* Pittsfield, Mass, Oct. 24, 92. B.S, Mass. Col, 18; Ph.D, Cornell, 22. Instr. geol, Cornell, 19–21; asst. prof. soil technol, California, 21–22; *geog, Ohio State,* 22–26, *prof, 26–* Asn. Geog; Ohio Acad. Agricultural resources of the world; geography of Latin America.

Carlson, Dr. G(ustaf) H(arry), Lederle Laboratories, Pearl River, N. Y. *Organic chemistry.* Bjornfall, Sweden, Dec. 18, 04. A.B, Clark, 26, A.M, 27; A.M, Harvard, 30, Ph.D, 32. Asst. to Prof. Arthur Michael, Harvard, 32–39; research labs, Merck and Co, 39–40; *Lederle Labs, 40–* Chem. Soc. Mechanism of organic reactions.

Carlson, Prof. Gustav G(unnar), University of Cincinnati, Cincinnati, Ohio. *Ethnology.* Gwinn, Mich, Nov. 21, 09. A.B, North. Mich. Sch. Educ, 32; fellow, Lab. Anthrop, 33; A.M, Michigan, 34, Ph.D, 40. Instr. *anthrop, Cincinnati,* 36–40, *asst. prof, 40–* Consulting supervisor for museums, Works Progress Admin, Ohio, 38–40. Anthrop. Asn; Soc. Applied Anthrop; Soc. Am. Archeol; Mich. Acad. European ethnology.

Carlson, Prof. Harold S(igurd), Upsala College, East Orange, N. J. *Psychology.* S. Dak, Aug. 23, 03. A.B, St. Olaf Col, 26; A.M, Iowa, 29, Ph.D, 34. Instr. psychol, Long Island, 29–32; research asst. character educ, child welfare research sta, Iowa, 32–34; research asst. and counsellor, schs, D. C, 34–36; acting prof. psychol. and educ, Eureka Col, 36–38, asst. to pres, 38–39; *assoc. prof. psychol, Upsala Col, 39–* Summer, instr, Maryland, 35. Assoc. Psychol. Asn; Asn. Applied Psychol; Soc. Research Child Develop; East. Psychol. Asn; N. J. Asn. Psychol. Personality and

character development; social psychology; educational psychology.

Carlson, Dr. Helen Blake, 1501 E. 68th St, Chicago, Ill. *Neurophysiology, Psychiatry.* Chicago, Ill, Dec. 27, 13. B.S, Chicago, 35, Ph.D, 39, M.D, Rush, 40. Asst. physiol, Chicago, 36–38; Illinois, 38–39; intern, Cook County Hosp, 41–42; *res. psychiatry, Illinois, 42–; fellow, Inst. for Psychoanal, 42–* Human brain potentials in sleep and related conditions; autonomic representation in the forebrain.

Carlson, Dr. Hilding B(ror), University of Illinois, Urbana, Ill. *Psychology.* Chicago, Ill, Feb. 21, 02. Ph.B, Chicago, 30, M.S, 32, Ph.D, 37. Asst. psychol, Chicago, 31–33; clin. psychologist, munic. psychiatric inst, Munic. Courts of Chicago, 32–37; *assoc. psychol, Illinois, 38–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Memory; attitudes; perception.

Carlson, Prof. J(ames) Gordon, University of Alabama, University, Ala. *Zoology.* Port Allegany, Pa, Jan. 24, 08. A.B, Pennsylvania, 30, Ph.D, 35. Asst. zool, Pennsylvania, 29–30; demonstrator biol, Bryn Mawr Col, 30–31, instr, 31–35; *zool, Alabama, 35–39, asst. prof, 39–* Instr, Mt. Lake Biol. Sta, 36; Rockefeller fellow, Missouri, 40–41. Summers, guest investigator, dept. genetics, Carnegie Institution, 37, 38, 40. Mem, Pacific Science Cong, Java, 29. A.A; Genetics Soc; Soc. Zool; Ala. Acad. (v. pres, 37). Effects of fixatives on staining reactions; orthopteran cytology; effects of x-rays and ultra-violet radiation on chromosomes and mitosis.

Carlson, Dr. J(ohn) F(ranklin), Turlock, Calif. *Physics.* Sherburn, Minn, March 2, 99. A.B, California, 28, A.M, 30, Ph.D, 32. Research assoc, *California, 32–33, instr. physics, 33–* Worker, Inst. Advanced Study, 34–35. Theoretical physics; quantum electrodynamics; collision theory.

Carlson, Dr. John W(ilford), 87 N. Fifth East St, Logan, Utah. *Agronomy.* Logan, Utah, May 11, 92. B.S, Utah State Col, 22, M.S, 27; Ph.D, Wisconsin, 39. Asst. agronomist, Exp. Sta, Utah State Col, 25–34; *assoc. agronomist, bur. plant indust, U. S. Dept. Agr, 37–* Seed production in alfalfa.

Carlson, Capt. Loren D(aniel), Aero-Medical Research Laboratory, Wright Field, Dayton, Ohio. *Physiology.* Davenport, Iowa, May 5, 15. B.S, St. Ambrose Col, 37; Ph.D, Iowa, 41. Research assoc. gen. physiol, Iowa, 41–42; lieut, *U. S. Army, 42, capt, 42–* Assoc. Soc. Zool. Physiology of high altitude flying.

Carlson, Prof. Margery C(laire), Northwestern University, Evanston, Ill. *Botany.* Arthur, Ill, Nov. 21, 92. B.S, Northwestern, 16; M.S, Wisconsin, 20, Ph.D, 25. Instr, Wellesley Col, 20–22; fellow microchem, Boyce Thompson Inst, 25–27; asst, Wisconsin, 27–28; instr. *bot, Northwestern, 28–30, asst. prof, 30–* A.A; Bot. Soc. Plant physiology; microchemistry; cytology; anatomy and physiology of propagation by cuttings.

Carlson, Dr. Raymond E(lias), 308 Emmons Blvd, Wyandotte, Mich. *Organic chemistry.* Eaton, Colo, May 31, 13. A.B, Colorado, 34, A.M, 36, Ph.D, 40. Lab. asst, Colorado, 36–39, instr. chem, 40; research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 40–42; *sect. head org, Wyandotte Chem. Corp, 42–* Chem. Soc. Reactions between phenyl glyoxal and guanidine bases.

Carlson, Dr. S(ally) Elizabeth, 3024 14th Ave, S, Minneapolis, Minn. *Mathematics.* Minneapolis, Minn, Oct. 2, 96. A.B, Minnesota, 17, A.M, 18, Ph.D, 24. Instr. *math,* Knox Col, 19–20; asst, *Minnesota,* 20–24, instr, 24–28, *asst. prof, 28–* Math. Soc; Math. Asn. Convergence of methods of closest approximation; mathematical analysis.

Carlson, T(horwald) A(xel), U. S. Forest Service, Madison, Wis. *Timber mechanics.* East Helena, Mont, July 21, 93. B.S, Wisconsin, 17, M.S, 27; fellow, Utah, 19–20, M.S, 20. Asst. testing engineer, Anaconda Copper Mining Co, 20; asst. chemist, Am. Smelting and Ref. Co, 21; *research engineer, Forest Products Lab, U. S. Forest Service, 21–* U. S. Dept. Agr. rep, Fed. Specifications Exec. Cmt. Shipping Containers. Soldier-chemist, research div, C.W.S, 18–19. Soc. Test. Mat. (tech. cmt, 37–); Tech. Asn. Pulp and Paper Inst. (tech. cmt, 36–) Timber engineering; strength properties of wood and fabricated wood products, particularly shipping containers.

Carlson, Dr. W(aldo) E(lliott), 815 Martha St, Duluth, Minn. *Plant chemistry.* Barnum, Minn, Nov. 22, 10. A.B, Minnesota, 33; fellow, Oregon State Col, 35–37, Ph.D, 38. Instr. chem, Iowa State Col, 37–39; asst. chemist, Exp. Sta, Mont. State Col, 39–42; *instr. chem, Duluth State Teachers Col, Minn, 42–* Chem. Soc; Soc. Sugar Beet Technol. Mineral requirements of crops; mineral composition of grasses; essentiality of trace elements to plants.

Carlson, Dr. W(arner) W(illiam), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Chemotherapy.* Lincoln, Nebr, Nov. 2, 13. B.S, Nebraska, 33, M.S, 35; Iowa State Col, 35–36; Toulmin fellow, Ohio State, 37–39, Ph.D, 39. *Fellow pure chem, Mellon Inst, 39–* Chem. Soc. Synthesis of derivatives of the cinchona alkaloids; synthesis of compounds for the chemotherapy of pneumonia; synthesis of antimalarial compounds; the mode of formation of some bacterial polysaccharides and their industrial utilization.

Carlson, Prof. William S, University of Minnesota, Minneapolis, Minn. *Geology, Meteorology.* Ironwood, Mich, Nov. 18, 05. A.B, Michigan, 29, M.S, 32, Ph.D, 37; Am-Scandinavian Foundation fellow, 30–31; Col. of Copenhagen, 31; Columbia, 35. Asst. geol, Michigan, 26–27, 29–30, asst. instr, 32–34; prin, high sch, Wakefield, Mich, 34–36, East Lansing, 36–37; asst. prof. *educ, Minnesota, 37–39, assoc. prof, 39–,* prin, 37–41, *director admissions and records, 41–; lieut. col, U. S. Army.* Aerologist, Michigan Greenland exped, 28–29, leader, 30–31. Minn. Asn. Sec. Sch. Prins. (sec'y, 37–). Glaciology, geology and meteorology of Greenland.

Carlsson, Prof. (Emma) Victoria, 130 Tate St, Greensboro, N. C. *Chemistry.* Nyköping, Sweden, Aug. 19, 85. B.S, Columbia, 22, M.S, A.M, 23, Ph.D, 29. Asst. biochem, Teachers' Col, Columbia, 23–25, instr. household arts and sciences, 25–30; assoc. prof. and later *prof. hygiene and head dept, Woman's Col, North Carolina, 30–* A.A; Chem. Soc; Pub. Health Asn; N. C. Acad. Vitamins in canned foods; refrigeration; quantitative studies on riboflavin; health education.

Carlton, A(rthur) C(lifford), Museum of Science and Industry, 57th St. and Lake Michigan, Chicago, Ill. *Geology.* Baltimore, Md, Aug. 24, 95. B.S, Mass. Inst. Tech, Harvard. Gen. supt, Baltimore Copper Smelting and Rolling Co, 28–31; *curator dept. geol. and mineral industries, Museum Science and Indust, 32–* Min. and Metal. Eng. (v. chairman, Wash, D. C, sect, 30, sec'y-treas, Chicago sect, 34). Technical education; mining; metallurgy.

Carlton, Prof. E(rnest) W(ilson), 203 E. Second St, Rolla, Mo. *Civil engineering.* Ft. Collins, Colo, May 6, 97. B.S, (M.E), Colo. Col, 20, M.S, 25; B.S. (C.E), Mo. Sch. Mines, 26, C.E, 35. Instr. applied mech, Nebraska, 20–23; asst. prof. drawing, *Mo. Sch. Mines,* 23–27, asst. prof. civil eng, 27–30, assoc. prof, 30–36, *prof. struct. eng, 36–* Eng. staff, Great West. Sugar Co, Colo; engineer and patent office draftsman, Patent Attorney, Lincoln, Nebr; consulting civil engineer. Summers, designer, bridge dept, Chicago, Burlington and Quincy R.R; city eng. dept, Ft. Collins, Colo; structural designer, Portland Cement Co; U. S. Eng. Corps, Kansas City; manager, S. G. Hayes Construction Co, Mich, 39; rep, Russell and Axon, 40. Director, Nat. Cong. Surveying and Mapping. Civil Eng; Eng. Educ; Soc. Professional Eng; Mo. Acad; Archaeol. Soc. Mo; Mo. Soc. Professional Eng. (pres). Engineering economics; rigid frames; return flow of the North Platte River; soil mechanics.

Carlton, Dr. H(enry) A(very), Mallinckrodt Chemical Works, St. Louis, Mo. *Chemistry.* Boston, Mass, May 19, 80. A.B, Harvard, 02, A.M, 03, Ph.D, 04. *Research and mfg. chemist, Mallinckrodt Chem. Works, 04–* Chem. Soc. (sec'y, St. Louis sect, 20–, trustee, St. Louis sect. fund). Organic chemistry; aromatic nitro compounds; quinones; alkaloids; ethers; phthaleins; mercaptans; sulfones.

Carlton, Dr. H(enry) Clyde, Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Mantua, Ohio, Nov. 12, 99. A.B, Hiram Col, 23; A.M, Ohio State, 25, Ph.D, 26. Research photographer, research lab, *Eastman Kodak Co,* 26–28, research chemist, 28–31, *asst. supt. film emulsion coating div, 31–* A.A; Chem. Soc. Photography.

Carmack, Dr. Marvin, University of Pennsylvania, Philadelphia, Pa. *Organic chemistry.* Newport, Ind, Sept. 1, 13. A.B, Illinois, 37; M.S, Michigan, 39, Ph.D, 40. Teaching fellow chem, Michigan, 37–40; asst. *org. chem,* Illinois, 40–41; *Towne instr, Pennsylvania, 41–* A.A; Chem. Soc. Polycyclic hydrocarbons; natural products.

Carman, Prof. Albert P(ruden), University of Illinois, Urbana, Ill. *[3]*Physics.* Woodbury, N. J, July 15, 61. A.B, Princeton, 83, fellow, 83–84, A.M, 85, Sc.D, 86; Berlin, 88–90. Instr. physics and math, Princeton, 84–88; prof. physics and elec. eng, Purdue, 90–93; theoret. physics, Stanford, 93–96; prof. *physics* and head dept, *Illinois*, 96–29, *emer. prof*, 29– Mem. subcmt. physics, Nat. Research Council, 28– A.A; Physical Soc. Collapsing pressure of tubes; volumenometers; rectifiers; thermal conductivities at high temperatures; dielectric constants of gases; history of electricity and magnetism.

Carman, Dr. G(lenn) E(lwin), 245 Radcliffe St, Bristol, Pa. *Entomology.* Waterloo, Iowa, June 8, 14. B.S, Iowa State Col, 36, fellow, 36–37; Cornell, 37–42, Ph.D, 42. *Research entomologist, Rohm and Haas Co, 42–* Asn. Econ. Entom. Fungicidal and insecticidal properties of synthetic organics.

Carman, Prof. J(oel) Ernest, Ohio State University, Columbus, Ohio. *Geology.* St. Charles, Iowa, Aug. 13, 82. B.S, Simpson Col, 01, hon. Sc.D, 40; M.Di, Iowa State Teachers Col, 03; Chicago, 04–05, fellow, 05–07, Ph.D, 16. Teacher, high sch, Iowa, 02–04; instr. and asst. prof. geol, Cincinnati, 08–16; asst. prof. hist. geol, *Ohio State*, 16–17, *prof. geol. and curator museum, 17–, head dept, 29–* Asst, Ill. Geol. Surv, 06; junior geologist, U. S. Geol. Surv, 07; asst, Iowa Geol. Surv, 09–16; Ohio Geol. Surv, 17– A.A; Geol. Soc; Paleont. Soc; Ohio Acad; Ind. Acad. Pleistocene of northwestern Iowa; stratigraphy of Ohio.

Carman, Dr. Katharine W(oodley), 215 N. Gardner St, West Frankfort, Ill. *Geology.* New York, N. Y, Jan. 1, 06. A.B, Wellesley Col, 27; Ph.D, Mass. Inst. Tech, 33. Petrol. econ. analyst, U. S. Petrol. Admin. Board, 34–36; geologist, Felmont Corp, 36–39; exploration manager, N. Cent. Oil Corp, 39–41; *independent geologist, 41–* Min. and Metal. Eng; Asn. Petrol. Geol; Texas Acad. Foraminifera of the Niobrara and Benton formations, Wyoming; shallow-water foraminifera of Bermuda; geology, stratigraphy and petroleum accumulation of the Rocky Mountain district and the Great Plains; stripper wells.

Carman, Dr. M(ax) G(riffin), Murray State Teachers College, Murray, Ky. *Mathematics.* Charleston, Ill, Sept. 2, 03. A.B, Illinois, 22, A.M, 23, fellow, 23–25, Ph.D, 25. Instr. *math*, Illinois, 25–28; *head dept, Murray State Teachers Col, Ky, 28–* Math. Soc; Math. Asn. Analysis.

Carmichael, Prof. Emmett B(ryan), University of Alabama School of Medicine, University, Ala. *Physiological chemistry.* Shelbyville, Mo, Sept. 4, 95. A.B, Colorado, 18, M.S, 22; Ph.D, Cincinnati, 27; Northwestern, 35; Harvard, 36. Instr. org. chem, Colorado, 19–24; biochem, Cincinnati, 24–26; asst. prof. *physiol. chem, Alabama*, 27–28, assoc. prof, 28–32, *prof, 32–, head dept, 27–* Ordnance Dept, U.S.A, 18. A.A; Chem. Soc (v. chairman, Ala. sect, 32–34, chairman, 35); fel. Inst. Chem; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; Asn. Hist. Med; Ala. Acad. (v. pres, 29, pres, 30; ed, 'Jour'); fel. Int. Col. Anesthetists. Detoxification of ricin; immunity produced by a single injection of partially oxidized ricin; detoxification of rattlesnake venom by sodium ricinoleate; physiological action of ultra-violet rays on Limax flavus; tetanus toxin; methods; toxicity of and tolerance to nembutal; cellulase; effects of different temperatures on toxicity following injections of rattlesnake venom; tolerance to delvinal sodium metabolism following delvinal sodium; pentothal sodium; toxicity of and tolerance to paraldehyde; pathological changes produced by rattlesnake venom in monkeys.

Carmichael, Dr. Hugh T(hompson), 30 N. Michigan Ave, Chicago, Ill. *Psychiatry.* Peterborough, Ont, Can, Feb. 10, 98. M.D, Queen's (Can), 23; fellow, Mayo Clinic and Mayo Foundation, Minnesota, 27–30, M.S, 31. Instr. neuropath, Albany Med. Sch, 30–31; asst. physician, senior asst. physician and chief psychiatrist, research service, Worcester State Hosp. and Mem. Foundation for Neuro-endocrine Research, 31–35; psychiatrist, Neuro-psychiat. Inst. and Hosp, Hartford Retreat, Conn, 35; instr. *psychiat*, Chicago, 35–37, asst. prof, 37–43; *assoc. prof, Illinois, 43–* Assoc. neuro-psychiatrist, Albany Hosp, N. Y, 30–31; Rockefeller fellow, 36–40; assoc. attending physician, Cook County Psychopathic Hosp, Chicago, Ill, 39–40, 42–; lecturer, Am. Psychiat. Asn. Inst, St. Joseph, Mo, 42. Fel. Am. Med. Asn; fel. Psychiat. Asn; Psychoanal. Asn; Cent. Neuropsychiat. Asn; Ill. Soc. Mental Hygiene; Ill. Psychiat. Soc. (chairman, program cmt, 40–42; councilor, 42). Psychoanalysis; neuro-endocrinology; neurology; schizophrenia; psychiatric aspects of endocrine disorders.

Carmichael, Dr. John L(eslie), 2011 Ninth Ave, S, Birmingham, Ala. *Clinical surgery.* Goodwater, Ala, May 22, 97. A.B, Alabama, 16; Howard Col, 19; M.D, Tulane, 24. Instr. clin. lab. and physical diagnosis, Tulane, 24–25; *attending surgeon, Birmingham Baptist Hosp, 27–; instr. med. aspects of marriage, Birmingham Southern Col, 41–* Attending surgeon, St. Vincent's Hosp, 34–; assoc. attending surgeon, Hillman Hosp, 34–41, attending surgeon, 41–, director tumor clinic, 42– Fel. Col. Surg; fel. Am. Med. Asn; South. Med. Asn; Jefferson Co. (Ala) Med. Soc. (cancer cmt, 40–; sec'y, library cmt, 41–). Cancer.

Carmichael, Pres. Leonard, Tufts College, Medford, Mass. *[3]*Psychology.* Philadelphia, Pa, Nov. 9, 98. B.S, Tufts Col, 21, Sc.D, 37; Ph.D, Harvard, 24; LL.D, Boston Univ, 38, Colgate, 38, Northeastern, 41, R. I. State Col, 42; D.Litt, Portia Col, 39. Instr. psychol, Tufts Col, 23–24; Princeton, 24–26, asst. prof, 26–27; assoc. prof, Brown, 27–28, director lab, 27–36, prof, 28–36; prof. psychol. and dean faculty, Rochester, 36–38; *pres. and director lab. sensory psychol. and physiol, Tufts Col, 38–* Sheldon traveling fellow from Harvard, Berlin, 24; visiting prof, Clark, 31; lecturer, Harvard, 35; director, Nat. Roster Sci. and Specialized Personnel, Washington, D. C. Summers, visiting instr, Harvard, 26–31. Assoc. ed, 'Jour. Genetic Psychol,' 31–; 'Genetic Psychol. Monographs,' 31–; 'Psychol. Index,' 31–36; 'Jour. Psychol,' 36– Trustee, Dean Acad, Franklin, Mass; Wheeler Sch, R. I. Director, Psychol. Corp; chairman board sci. directors, Yerkes Labs. Primate Biol. Mem. div. anthrop. and psychol, Nat. Research Council, 37; mem. emergency cmt. in psychol. and chairman div. anthrop. and psychol, 41– A.A. (sec'y, I, 36–40); Psychol. Asn. (treas, 30–36, pres, 39); Soc. Exp. Psychol; Soc. Research Child Develop; fel. Am. Acad; Physiol. Soc; Philos. Soc. General physiological and experimental psychology; the early development of behavior; perception; learning; electrophysiology.

Carmichael, Dean R(obert) D(aniel), University of Illinois, Urbana, Ill. *[3]*Mathematics.* Goodwater, Ala, March 1, 79. A.B, Lineville, 98; fellow, Princeton, 09–11, Ph.D, 11. Prof. *math*, Ala. Presb. Col, 06–09; asst. prof, Indiana, 11–12, assoc. prof, 12–15; asst. prof, *Illinois*, 15–18, assoc. prof, 18–20, *prof, 20–*, head dept, 29–34, acting dean *grad. sch*, 33–34, *dean, 34–* Mem. exec. cmt, div. physical sciences, Nat. Research Council, 29–32. Ed. in chief, 'Am. Math. Monthly,' 18–19. A.A. (v. pres. and chairman, A, 34); Math. Soc. (councilor, 16–18, chairman, Chicago sect, 20–21, v. pres, 22, ed, 'Transactions,' 31–36); Math. Asn. (councilor, 16–18, 20, v. pres, 21–22, pres, 23); Philos. Asn. Theory of difference and differential equations; theory of numbers; theory of relativity; theory of groups; philosophy of mathematics.

Carmody, Dr. D(on) R(ichard), Maytag Co, Newton, Iowa. *Physical organic chemistry.* Davenport, Iowa, Sept. 20, 12. B.S, St. Ambrose Col, 34; M.S, Iowa, 36, Ph.D, 37. Asst, Iowa, 34–37; research chemist, Standard Oil Co. of Ind, 37–43; *director chem. research, Maytag Co, 43–* Chem. Soc. Pyrolysis of hydrocarbons under high pressures; development of synthetic aviation gasoline.

Carmody, Prof. Walter R(obert), Boston College, Boston, Mass. *Chemistry.* South Bend, Wash, July 15, 01. B.S, Washington (Seattle), 23; Knights of Columbus scholar, Catholic Univ, 23–26, M.S, 24, Ph.D, 26. Instr, Catholic Univ, 24–25; asst. prof. *chem*, Reed Col, 26–40; *assoc. prof, Boston Col, 41–* Chem. Soc. Chemical thermodynamics; silver chloride and lead electrode; electromotive force measurements in dilute solutions.

Carmody, William H(enry), 1364 S. Fountain Ave, Springfield, Ohio. *Organic chemistry.* Springfield, Ohio, March 2, 05. B.S. (Ch.E), Dayton, 27. Chemist and metallurgist, Buick Motor Co, 27–29; org. research chemist, Thomas and Hochwalt Labs, Dayton, Ohio, 29–35; Neville Co, Pittsburgh, 35–38; *consulting research chemist, 38–* Instr, Gen. Motors Inst. Tech, 27–29; pres, Carmody Research Labs, Inc. Chem. Soc; Dayton Eng. Club. Synthetic resins of petroleum and coal-tar origin; diolefin reactions; mechanism of polymerization reactions; synthetic resin production from unsaturated raw materials; preparation of pure unsaturated compounds; industrial uses of indene, coumarone and styrene compounds as resin bases; hydrogenation; new catalysis; utilization of

naval stores; large scale plastic manufacture based on terpenes.

Carnahan, Prof. F(loyd) L(eroy), Pennsylvania State College, State College, Pa. *Chemistry.* Utica, Pa, Feb. 1, 06. B.S, Pa. State Col, 26; fellow, Northwestern, 26–28, M.S, 27, du Pont fellow, 29–30, Ph.D, 30. Asst, Northwestern, 28–29; instr. *chem. eng, Pa. State Col,* 30–35, asst. prof, 35–39, *assoc. prof, 39–* Chem. Soc. Organic chemistry; petroleum refining.

Carnahan, Prof. O(rson) A(llen), 691 Allen St, Syracuse, N. Y. *Mechanical engineering.* West Clarksville, N. Y, Jan. 12, 81. B.S, Illinois, 10, M.E, 21. Instr. mech. eng, Pennsylvania, 10–12; Drexel Inst, 11–12; prof, Arkansas, 12–13; with exp. dept, Kerr Turbine Co, Wellsville, N. Y, 15; in charge struct. and miscellaneous testing, Curtis Airplane Co, Buffalo, N. Y, 16–18; with steam eng. dept, Lackawanna Steel Co, Buffalo, N. Y, 18–19; *assoc. prof. mech. eng, Syracuse, 19–* Consulting engineer, Brown Lipe Chapin Co, Syracuse, N. Y, 26–28. Equations for determining compression, tension, shearing and radial stresses in curved beams; mathematical tables and equations for continuous beams; sterocomparitor pantagraph; card counting machine; flame arrestors; fluid pumps.

Carnes, Dr. William H(enry), 2398 Sacramento St, San Francisco, Calif. *Pathology.* Ft. Worth, Texas, Nov. 2, 09. A.B, Columbia, 32; M.D, Hopkins, 36. Asst. res. and res. path, city hosps, Baltimore, Md, 36–38; assoc. *path,* Hopkins, 38–39; instr, Columbia, 39–41; *asst. prof, Stanford, 41–* Tuberculosis; adrenal cortex; parathyroid glands.

Carney, Prof. Desmond M(aurice), University of Detroit, Six Mile at Livernois, Detroit, Mich. *Organic chemistry.* Kildare, Ireland, April 1, 01. B.Sc, Nat. Univ. Ireland, 21; M.S, Detroit, 30. Revenue chemist, Irish Free State, 22–23; asst. prof. math, Marquette, 23–25, chem, 25–27; prof. chem. and physics and head dept, Marygrove Col, 27–31; *asst. prof. chem, Detroit, 31–* Chem. Soc. Estimation of stabilizers in explosives; condensation of aldehydes and ketones; phases of voltaic action.

Carney, Dr. James J(oseph), Elkton, Va. *Organic chemistry.* Duluth, Minn, Feb. 23, 12. B.S, Col. of St. Thomas, 33; Knights of Columbus fellow, Catholic Univ, 33–34, M.S, 34; Ph.D, Minnesota, 42. Asst. prof. chem, Col. of St. Thomas, 34–42; *chemist, Merck and Co, Inc, 42–* Chem. Soc. Structure and chemical behavior of the dyestuff from furfural, aniline and aniline hydrochloride; atabrine.

Carney, Prof. R(obert) J(ohn), 519 Lawrence St, Ann Arbor, Mich. *Chemistry.* Sturgis, Mich, July 19, 84. A.B, Michigan, 07, Ph.D, 16. Instr. *anal. chem, Michigan,* 07–16, *asst. prof, 16–, director chem. store, 23–* Chem. Soc. (sec'y, Univ. Mich. sect, 17–20, chairman, 29). Analytical chemistry; thorium; rare earths; chemical microscopy.

Carney, Dr. Thomas P(atrick), 4815 E. Washington St, Indianapolis, Ind. *Organic chemistry.* DuBois, Pa, May 27, 15. B.S, Notre Dame, 37; M.S, Pa. State Col, 39, du Pont fellow, 40–41, Ph.D, 41. *Org. research chemist, Reilly Labs,* 37–Chem. Soc. Neohexyl grouping; chloropivalic acid and derivatives.

Carodemos, Prof. P(eter) P(anagiotes), Clemson Agricultural College, Clemson, S. C. *Chemistry.* Greece, 98. B.S, Tufts Col, 22; Ph.D, Cornell, 27. Asst. instr, Cornell, 23–26; asst. chemist, N. Y. Exp. Sta, Geneva, 27–28; *prof. agr. and food chem, Clemson Col, 28–* Chem. Soc; Oil Chemists Soc; fel. S. C. Acad. Dairy chemistry; copper in dairy products; proteins of meats; insecticides; phenothiazine derivatives.

Carolus, Dr. R(obert) L(yle), Virginia Truck Experiment Station, Norfolk, Va. *Horticulture.* Sterling, Ill, Feb. 26, 07. B.S, Illinois, 29; M.S, Maryland, 30; Ph.D, Cornell, 40. Asst. chem. soils, Va. Truck Exp. Sta, 30–34, assoc. hort, 34–37; asst. veg. crops, Cornell, 37–40; *assoc. physiologist, Va. Truck Exp. Sta, 40–* Soc. Hort. Sci; Soc. Plant Physiol. Vegetable crop nutrition; magnesium deficiency; rapid plant test techniques.

Caron, Omer, Department of Agriculture, Quebec, Que, Can. *Botany, Plant pathology.* St. Roch des Aulnaies, Que, Dec. 1, 93. B.Sc, Laval, 15, B.S.Agr, 20, L.S.A, 35. Instr. phytopath, *Dept. Agr, Que,* 21, lecturer bot. and phytopath, 22–23, botanist, 24–37, *prov. botanist, 37–* Phytopath. Soc; Can. Phytopath. Soc; Que. Soc. Protection Plants (pres, 34–36); Soc. Linneenne de Quebec (pres, 35). Chemical treatment for weeds; destruction of poison ivy.

Carothers, Dr. E(stella) Eleanor, 134 Ave. C, E, Kingman, Kans. ***Zoology.* Newton, Kans, Dec. 4, 82. A.B, Kansas, 11, fellow, 11–12, A.M, 12; Pepper fellow, Pennsylvania, 13–14, Ph.D, 16. Asst. zool, Pennsylvania, 14–26, lecturer, 26–33; research assoc, Iowa, 35–41. Univ. Pa. sci. exped. south. and west. states, 15, 19. Ellen Richards research prize, 21. Mem. cmt, 6th Int. Genetics Cong. Nat. Acad; A.A; Soc. Nat; Soc. Zool; Acad. Nat. Sci. Phila. Orthopteran cytology and genetics; heteromorphic homologous chromosomes; structure of the mitotic spindle; cellular effects of x-rays on grasshopper embryos; species hybrids in trimerotropis.

Carpenter, Prof. A(llen) F(uller), University of Washington, Seattle, Wash. *Mathematics.* Marengo, Iowa, June 12, 80. A.B, Hastings Col, 01, hon. Sc.D, 37; A.M, Nebraska, 09; Ph.D, Chicago, 15. Instr. *math,* Hastings Col, 01–04, prof, 04–08; instr, Nebraska, 08–09; *Washington (Seattle),* 09–13, asst. prof, 13–18, assoc. prof, 18–26, *prof, 26–* A.A; Math. Soc. Projective differential geometry of ruled surfaces.

Carpenter, Dr. Anna-Mary, 353 Locust St, Ambridge, Pa. *Botany.* Ambridge, Pa, Jan. 14, 16. A.B, Geneva Col, 36; M.S, Pittsburgh, 37, Ph.D, 40. Asst, Pittsburgh, 38–40; instr. lab. technol, Moravian Col. for Women, 41–42; *instr. biol. chem. and chairman biol. curricula, Scranton-Keystone Junior Col, 42–* Seedling anatomy of Pinaceae; microtechnique.

Carpenter, Arthur Howe, 811 Bell Ave, La Grange, Ill. *Metallurgy, Geology.* Georgetown, Colo, Oct. 19, 77. Northwestern, 96–98; A.M, Ohio, 14. Chemist and assayer, Deadwood and Delaware Smelting and Ref. Co, S. Dak, 94–95, supt, 98–99; consulting metal. engineer, 99–10; chemist, Am. Smelting and Ref. Co, 10–12; research metallurgist, Am. Vanadium Corp, 12–18; asst. prof. metal, Ill. Inst. Tech, 20–29, lecturer geol. and assoc. prof. metal, 29–43; *metallurgist, Armour Research Foundation, 43–; consulting metallurgist.* A.A; Min. and Metal. Eng; Chem. Soc; Soc. Test. Mat; Eng. Educ; Asn. Variable Star Observers; Astron. Soc. Pacific; Chicago Astron. Soc. (director, 35–); Chicago Soc. Amateur Telescope Makers (pres, 31–37). Corrosion; metallurgy of iron and steel; variable star observations; occultations and planetary details; treatment of low grade manganese ores; limestone beds for meteorite inclusions.

Carpenter, Arthur (Wiltsee), Explorers Club, 10 W. 72nd St, New York, N. Y. *Archeology, Engineering.* Dorchester, Mass, Aug. 29, 90. Harvard. Equipped dept. of photog. record, Peabody Museum, Harvard, 08, research photographer, Jefferson Physical Lab, 09–10; manager photog. and glider sects, Harvard Aeronaut. Soc, and in charge flying course, Harvard-Boston Aero Meet, Mass, 10; research photographer and radiographer, Mass. State Psychopathic Hosp, 11–13; various explorations, 14–17; construction engineer, Robert Gilchrist Co, 18–19; process manager, Prizma, Inc, N. J, 19–20; research cinematographer, Bray Pictures Corp, New York, 20–21, director science div, 22; pres, Carpenter-Goldman Labs, Inc, New York, 22–28; in charge photog. div, United Research Corp, and Warner Brothers Pictures, Inc, Long Island City, N. Y, and Burbank, Calif, 29–36; *v. pres, Independent Research Corp, New York, 37–* Lieut, C.W.S, 17–18. A.A; fel. Archeol. Inst; Motion Picture Eng; Micros. Soc; fel. Am. Geog. Soc; Polar Soc; fel. N. Y. Micros. Soc; assoc. Royal Photog. Soc; fel. Royal Micros. Soc. Scientific photography; motion picture engineering; Maya ruins; Uaxactun.

Carpenter, Dr. Benjamin, Lake Forest, Ill. *Physics.* Chicago, Ill, Jan. 23, 96. A.B, Harvard, 16; Mass. Inst. Tech, 16; Ph.D, Northwestern, 35. Sec'y, George B. Carpenter and Co, 20–30; instr. physics, Lewis Inst. (Ill), 35–37; Amherst, 38; *mem. faculty, North Shore Country Day Sch, Winnetka, Ill, 40–* Spectroscopy.

Carpenter, Prof. C(arlos) C(lay), Syracuse University, Syracuse, N. Y. *Horticulture.* Kalona, Iowa, Oct. 17, 85. B.S, Colo. Agr. Col, 14; M.S, Syracuse, 23. Teacher, Wash. and Mo, 14–18; *prof.* hort, *Syracuse, 18–35, plant sciences, 36–* Director div. rural activities, State Temporary Emergency Relief Admin, N. Y, 35; exec. v. pres, State Rural Rehabilitation Corp, N. Y, 35. Summers, landscape designer and consultant, Board Educ, Rochester, 28–31; tech. adviser, Syracuse Food Gardens, 32. Key to commercial apples; apple tufts; Syracuse as a regional market center.

Carpenter, Dr. Charles (Halsey), Southland Paper Mills, Lufkin, Texas. *Chemistry.* Newark, N. J, July 17, 08. B.S, Syracuse, 29, M.S, 31; exchange fellow, Darmstadt, 31–32,

Alexander von Humboldt fellow, 32–33, Dr. Ing, 33. Asst. chem, Carnegie Inst. Tech, 34–36; chief chemist, asst. director and tech. director, Herty Foundation Lab, 36–39; *tech. director and gen. supt, Southland Paper Mills, 39–* Cellulose, wood and pulp chemistry.

Carpenter, Dr. Charles M(ilton), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Bacteriology.* Ivanhoe, N. Y, Aug. 8, 95. D.V.M, Cornell, 17, M.S, 19, Ph.D, 21; M.D, Rochester, 33; M.P.H, Hopkins, 41. Instr. research diseases of breeding animals, Cornell, 17–18, instr. comp. path. and bacter, 18–21, acting prof. bacter, 21–22, asst. prof. lab. diagnosis, 23–28; acting assoc. prof. bacter, Exp. Sta, California, 22–23; research fellow, Albany Med. Col, Union (N. Y), 28–30; assoc. radiol, *sch. med. and dentistry, Rochester, 30–33, assoc. prof. bacter, 33–; director, Rochester Health Bur. Labs, 33–* Sec'y cmt. gonorrhea, Int. Conf. Fever Therapy, New York, 37. Soc. Bact; Soc. Exp. Biol; fel. Pub. Health Asn; Vet. Med. Asn; Neisserian Med. Soc. (pres, 38); N. Y. State Asn. Pub. Health Labs. (pres, 40); Med. Soc. State N. Y; Monroe Co. (N. Y) Med. Soc; Rochester Acad. Medical bacteriology; public health; preventive medicine.

Carpenter, Dr. Charles P(atten), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Toxicology, Bacteriology.* Sellersville, Pa, July 5, 10. B.S, Franklin and Marshall Col, 31; George B. Wood fellow, Pennsylvania, 33–36, A.M, 34, Ph.D, 37. Instr. bacter, hygiene dept, med. sch, Pennsylvania, 36–39, asst. prof. pub. health and prev. med, lab. pub. health and prev. med, 39–40; *Union Carbide Company indust. fellow, Mellon Inst, 40–* A.A; Chem. Soc; Pub. Health Asn; Indust. Hygiene Asn. Toxicity of synthetic organic chemicals; industrial hygiene.

Carpenter, Prof. C(larence) R(aymond), Pennsylvania. State College, State College, Pa. *Psychology.* Lincoln Co, N. C, Nov. 28, 05. A.B, Duke, 28, A.M, 29; Ph.D, Stanford, 31. Nat. research fellow psychol, Yale, 31–33, asst. comp. psychobiol, 31–34; lecturer and fellow psychol, Bard Col, Columbia, 34–37, asst. prof. and fellow, 37; research assoc, Peabody Museum, Harvard, 37–38; asst. prof, col. physicians and surg, Columbia, 38–40; *assoc. prof. psychol, Pa. State Col, 40–* Research assoc, Columbia Sch. Trop. Med, Puerto Rico, 38–41; research adviser, McKee Jungle Garden. Asiatic primate exped, Siam and Sumatra, 37. A.A; Asn. Applied Psychol. (chairman cmt. audio-visual aids); Psychol. Asn; Soc. Mammal; N. Y. Acad. Comparative psychology; endocrines and behavior of animals; field and laboratory studies of the social behavior of animals; human social psychology; natural history of sub-human Primates; psychology of adjustment.

Carpenter, C(larence) W(illard), Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Phytopathology.* Westport, N. Y, Sept. 23, 88. B.S, Vermont, 11, M.S, 12. Asst. bacteriologist, Exp. Sta, Vermont, 11–12; sci. asst, bur. plant indust, U. S. Dept. Agr, 12–16; pathologist, Exp. Sta, Hawaii, 16–19; *assoc. pathologist, Exp. Sta, Hawaiian Sugar Planters' Asn,* 19–21, *27–* Hawaiian Bot. Soc. Pathology of sugar cane, Irish and sweet potatoes, cotton and truck crops; taxonomy of and diseases caused by species of Fusarium and Verticillium.

Carpenter, Prof. C(lark) B(alley), 1809 Ford St, Golden, Colo. *Metallurgy.* May 21, 88. B.S, Kansas, 15; M.S, Mass. Inst. Tech, 22. Asst. prof. *metal, Colo. Sch. Mines,* 20–21, assoc. prof, 22–36, *prof, 36–, fuel eng, 28–* U.S.A, 17–20. Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn. Ferrous metallurgy; fuels.

Carpenter, Prof. C(lifford) D(aniel), 39 Claremont Ave, New York, N. Y. *Chemistry.* Union, Mich, Aug. 16, 81. A.B, Mich. State Nor. Col, 06; Chicago, 08–12, Ph.D, 15. Teacher and prin, high schs, Mich. and Ohio, 03–09; teacher, high sch, Univ. Chicago, 10–12; instr. *chem,* Teachers Col, *Columbia,* 12–14, asst. prof, 14–19, *univ,* 19–23, assoc. prof, 23–28, *prof, 28–* A.A; Chem. Soc; fel. Inst. Chem. Inorganic and physical chemistry.

Carpenter, Dr. C(oy) C(ornelius), Bowman Gray School of Medicine, Winston-Salem, N. C. *Pathology.* Apex, N. C, April 24, 00. A.B, Wake Forest Col, 22; M.D, Syracuse, 24. Instr. path, col. med, Syracuse, 24–25, res. med, univ. hosp, 25–26; *prof. path, Bowman Gray sch. med, Wake Forest Col, 26–, dean, 36–* Pathologist, hosps, N. C. Ed, lab. sect, 'South. Med. and Surg.' Fel. Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Path; Tri-State Med. Asn; South. Med. Asn; Forsyth Co. Med. Soc. (pres, 34). Surgical and post-mortem pathology.

Carpenter, Prof. D(elma) R(ae), Salem, Va. *Mathematics, Astronomy.* Madison, Va, April 20, 81. A.B, Roanoke Col, 08; A.M, Princeton, 09. *Prof. math. and astron, Roanoke Col, 10–*

Carpenter, Dr. Dorothy C(hapman), Lima, Peru, S. Amer. *Botany.* Hackensack, N. J, April 2, 12. A.B, Syracuse, 34; M.D, Michigan, 35; Emma J. Coles fellow, 36–37, Ph.D, 37. Instr. bot, Cedar Crest Col, 37–41. Sullivant Moss Soc. Anatomy of Urginea maritima (L.) Baker.

Carpenter, Prof. D(wight) C(lark), New York Agricultural Experiment Station, Geneva, N. Y. *Chemistry.* Lansing, Mich, June 6, 90. B.S, Mich. State Col, 11; M.S, Michigan, 20, Ph.D, 21; Int. Educ. Board fellow, Upsala, 27; Vienna, 28. Instr. chem, Mich. State Col, 14–18; Michigan, 18–21; assoc. prof, Iowa, 21–22; research assoc, *N. Y. Exp. Sta, Geneva,* 22–28, *chief, 28–, prof. chem, Cornell, 28–* Visiting prof, Calif. Inst. Tech, 35–36. Chem. Soc; Electrochem. Soc. Osmosis; chemistry of proteins; optical rotation of proteins; milk and ice cream; molecular weight of casein; filtration; fruit juices; rotatory dispersion; x-ray studies on proteins and related substances; mono-layers; denaturation of proteins; protein-aldehyde plastics; splitting proteins and related substances by ultra-violet light.

Carpenter, Prof. E(dward) L(eroy), 11 Sweetfern Lane, Peace Dale, R. I. *Mechanical engineering.* Peace Dale, R. I, Nov. 28, 92. B.S, R. I. State Col, 19, M.E, 36; Case, 20. Instr. *mech. eng,* Case, 19–20; assoc. prof, Clemson Col, 20–28; asst. prof. in charge eng. exten. and asst. director eng. exp. sta. in charge cotton oil research, Tennessee, 28–36; *asst. prof. in charge operation and maintenance, R. I. State Col, 36–* Director, Tri-States Cotton Oil Inst, 28–36. Mech. Eng. (chairman, Greenville sect, 28, sec'y-treas, Knoxville sect, 31–35, v. chairman, 35, chairman, 36); Nat. Asn. Power Engineers; hon. mem. Nat. Asn. Practical Refrig. Eng; Nat. Oil Mill Supts. Asn; Eng. Educ; Tri-States Oil Mill Supts. Asn. Manufacture and production of cotton oil and its by-products; industrial management.

Carpenter, Dr. Edwin F(rancis), University of Arizona, Tucson, Ariz. *Astronomy.* Boston, Mass, Nov. 1, 98. A.B, Harvard, 22, A.M, 23; fellow, California, 23–25, Ph.D, 25. Asst. *astron,* Harvard, 21–23; instr, *Arizona,* 25–27, asst. prof, 27–30, assoc. prof, 30–35, *prof, 35–,* asst. director, *Steward Observatory,* 30–38, *director, 38–* A.A. (sec'y, southwest. div, 30–35, exec. cmt, 35–38, 40–42, pres, 39; pres, D, 41); Astron. Soc. (councilor, 37); Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; Int. Astron. Union (cmn. on nebulae and clusters). Photometry; spectroscopic binaries; nebulae.

Carpenter, Dr. Erwin L(ockwood), Chemical Construction Corp, Cactus Ordnance Works, Dumas, Texas. *Chemistry.* Grundy Center, Iowa, April 10, 09. A.B, Cornell Col. (Iowa), 30; A.M, Columbia, 31, Roberts fellow, 31–34, Ph.D, 34. Research chemist, Am. Cyanamid Co, 34–42; *chief chemist, Cactus Ordnance Works, 42–* Chem. Soc. Physical chemistry; thermodynamic properties of solutions; ammonia production.

Carpenter, Dr. Esther, Smith College, Northampton, Mass. *Zoology.* Meriden, Conn, June 4, 03. A.B, Ohio Wesleyan, 25; M.S, Wisconsin, 27; fellow, Bryn Mawr Col, 27–28; Ph.D, Yale, 32. Asst. zool, Wisconsin, 25–27; Albertus Magnus Col, 30–32; dept. embryol, Carnegie Institution, 32–33; *zool, Smith Col,* 33–34, instr, 34–36, asst. prof, 36–43, *assoc. prof, 43–* Instr, Albertus Magnus Col, 33–34; Howald scholar, Ohio State, 42–43. A.A; Soc. Zool; Soc. Study Growth and Develop. Experimental embryology; differentiation in tissue culture, particularly of the thyroid gland; comparative histology.

Carpenter, Ethel S(tiffler), 1533 E. Helen St, Tucson, Ariz. *Biology.* Parkton, Md, Sept. 8, 99. A.B, Goucher Col, 22; A.M, Pennsylvania, 24; Cornell, 27–28, Goldwin Smith fellow, 28–29; George Washington, 31–32. Asst. biol, Goucher Col, 22–23; bot, Pennsylvania, 23–24; instr. biol, Wilson Col, 24–25; Arizona, 25–27; Tenn. State Teachers Col, 30; American Univ, 30–33. Summer, scholar, Marine Biol. Lab, Woods Hole, 22. Development of embryo sacs in liliaceous plants; chromosome counts in Brassica; practical applications of biology.

Carpenter, Dr. Ford A(shman), Central Bldg, 108 W. Sixth St, Los Angeles, Calif. *Meteorology, Aeronautics.* Chicago, Ill, March 25, 68. LL.D, Whittier Col, 13; Sc.D, Occidental Col, 21. Asst. observer, Sig.C, U.S.A, 88–91; observer, U.S. Weather Bur, 92–06, local forecaster, Calif, 06–12, meteorologist, 12–19; manager dept. meteorol. and aeronautics, Los Angeles Chamber Commerce, 19–41; lieut. and technicist, U.S.N.R, 20–22; *lieut. col, staff specialist, 22–; meteorol. and aeronautics consultant.* Int. balloon pilot, Fédération aeronaut. int; asst, Carson Observatory, and director in charge, State Weather Service, Nev, 92–96; col. and univ. lecturer; War Col; Mil. and Naval Acad; dept. meteorol. aeronaut, California, 19–43; marine meteorologist, Am. Hawaiian S.S, 30–39. Tech. adviser naval affairs cmt, U. S. House Representatives, 30; T.W.A, 33. Aeronaut. research cmt, Calif. Inst. Tech, 21. Meteorol. exped, Baja Calif, Mex, 03; climat. commissioner, Seattle Expos, 09. Medal, Alaska-Yukon Pacific Expos, 09. V. pres, Int. Aero Cong, Omaha, 21. Meteorol. Soc; Clin. and Climat. Asn; Nat. Aeronaut. Asn; Soc. Mil. Eng; Seismol. Soc; S. Calif. Acad. (pres, 29–32); San Diego Nat. Hist. Soc. (sec'y, 01–12); fel. Royal Meteorol. Soc; Royal Geog. Soc. Aerology; air charting; free air recording instruments for aviators; hythergraph; ventograph; televentoscope; applied business meteorology and climatology; climatology of southern California; weather and flight.

Carpenter, F(rank) B(erton), Virginia-Carolina Chemical Corp, 627 E. Main St, Richmond, Va. *Chemistry.* Leyden, Mass, May 7, 64. B.S, Mass. Col, 87. Asst. chemist, Exp. Sta, Mass. Col, 87–89; Exp. Sta, N. C. State Col, 89–05; *chief chemist,* Virginia-Carolina Chem. Co. later *Virginia-Carolina Chem. Corp, 05–* Chem. Soc; Soc. Chem. Indust. Agricultural chemistry; tobacco.

Carpenter, Dr. F(rank) M(orton), Harvard University, Cambridge, Mass. *Entomology.* Boston, Mass, Sept. 6, 02. A.B, Harvard, 26, M.S, 27, Sc.D, 29; Sheldon traveling fellow, 27. Nat. research fellow zool, *Harvard,* 28–31, assoc. entom, 31–32, asst. curator invert. paleont, *museum comp. zool,* 32–36, *curator fossil insects, 36–,* asst. prof. paleont, *univ,* 36–39, *assoc. prof. entom, 39–* Assoc, Carnegie Institution, 31–32. Assoc. ed, 'Psyche,' 28– Fel. Geol. Soc; fel. Am. Acad; fel. Entom. Soc. Amer; Soc. Nat; Cambridge Entom. Club (sec'y, 27, pres, 29, 30, 40). Paleoentomology and insect evolution; North American Neuroptera; Permian insects of Kansas and Oklahoma; Carboniferous insects of North America and Europe.

Carpenter, Dr. G(ilbert) B(rown), P. O. Box 1637, Baltimore, Md. *Chemistry.* Lachute, Que, Can, June 5, 05. B.A, British Columbia, 25, M.A, 26; Nat. Research Council Can. bursar, McGill, 26–27, student, 27–28, Ph.D, 28. Research assoc, Mass. Inst. Tech, 28–30; *research chemist,* E. I. du Pont de Nemours and Co, 30–31; *Air Reduction Co, 32–; asst. director research, Petrol. Chem, Inc, 41–* Chem. Soc. Utilization of petroleum hydrocarbons; high pressure syntheses; catalysis; industrial research chemistry.

Carpenter, J. C, U. S. Public Roads Administration, Box 4307, San Juan, P. R. *Engineering.* Watertown, S. Dak, 84. B.C.E, Iowa State Col, 09. Drainage engineer, *U. S. Dept. Agr,* 10–11, dist. engineer, Philippine Service, 11–17, *senior highway engineer, pub. roads admin, 17–* Civil Eng. (pres, Va. sect, 21, pres, Ft. Worth chap, 32–, mem. cmt. surveys and plans for highways). Highway engineering; highway construction, subgrades and location; regional, state and national planning.

Carpenter, Dr. Mary Almack (Mrs. R. H), 422 East St, Iola, Kans. *Psychology.* Coshocton, Ohio, March 11, 93. A.B, Ohio State, 15, A.M, 16; Ph.D, Bryn Mawr Col, 24. Demonstrator exp. psychol, Bryn Mawr Col, 18–20; instr. psychol, Kansas, 20–24; *head dept. psychol. and educ, Iola Junior Col, 24–*

Carpenter, Dr. Paul G(ershom), 3203 Lancaster Ave, Wilmington, Del. *Organic chemistry.* Salem, Oregon, Jan. 16, 14. A.B, Willamette, 35; M.S, Oregon State Col, 37; Ph.D, Wisconsin, 41. Asst. prof. chem, Willamette, 38–39; *research chemist, Hercules Powder Co, 41–* Chem. Soc. Synthetic sex hormones; polymerization.

Carpenter, Dr. Philip L(ewis), Iowa State College, Ames, Iowa. *Bacteriology.* Newtown, Conn, March 17, 12. B.S, Middlebury Col, 33; M.S, Brown, 34; fellow, Wisconsin, 35–36, Ph.D, 37. Asst. comp. anat, Brown, 34–35; *bacter,* Wisconsin, 36–37; *instr, Iowa State Col, 37–* Soc. Bact. Coliform bacteria; bacteriophage.

Carpenter, Dr. R(ussell) L(e Grand), Tufts College, Medford, Mass. *Zoology.* Meriden, Conn, Nov. 7, 01. B.S, Tufts Col, 24; Ph.D, Harvard, 28. Austin teaching fellow, Harvard, 24–26, 27–28; instr. anat, col. physicians and surg, Columbia, 28–31, assoc, 31–35, asst. prof, 35–38; *prof. zool, Tufts Col, 38–* Mem. corp, Marine Biol. Lab, Woods Hole. Asn. Anat; Harvey Soc. Experimental embryology; central nervous system; experimental alteration of nerve growth in amphibia.

Carpenter, Dr. T(horne) M(artin), 159 Corey St, West Roxbury, Mass. *Physiology.* Malden-on-Hudson, N. Y, Sept. 18, 78. B.S, Boston, 02; Mass. Col, 02; Ph.D, Harvard, 15. Asst. chemist, Exp. Sta, Pa. State Col, 02–05; research chemist, *Carnegie Institution,* 05–07, *nutrition lab, Boston,* 07–37, acting director, 37–42, *director, 43–* Asst. chemist, Exp. Sta, Mass. Col, 02; expert animal nutrition, bur. animal indust, U. S. Dept. Agr, 02–05, sci. asst. nutrition, 05–07. Mem. board editors, 'Jour. Nutrition,' 30–36; 'Quarterly Jour. Studies on Alcohol,' 40– A.A; Physiol. Soc; Soc. Biol. Chem; Chem. Soc. (councilor, 36–38, 41; v. chairman, Northeast. sect, 38, chairman, 39); Inst. Nutrition (v. pres, 38–40, pres, 40); Am. Acad. Respiratory exchange and calorimetry of man; rectal feeding; alcohol ingestion; gas analysis; metabolism of hexoses; chemistry.

Carr, Prof. A(rchie) F(airly), Jr, University of Florida, Gainesville, Fla. *Zoology.* Mobile, Ala, June 16, 09. B.S, Florida, 33, M.S, 34, Ph.D, 37. Instr. *biol. sciences, Florida,* 38–40, *asst. prof, 40–* Soc. Ichthyol. and Herp. (v. pres, 41, governor, 42–). Herpetology; zoogeography of Pseudemys; ecology of amphibians and reptiles of Florida.

Carr, Prof. Arthur Blaine, 510 N. Buxton St, Indianola, Iowa. *Physics.* Montcalm Co, Mich, Feb. 15, 84. A.B, Albion Col, 06; A.M, Michigan, 16. Teacher, high sch, Mich, 06–08, prin, 08–11; *physics,* South. State Nor. Sch, S. Dak, 11–17; instr, Wisconsin, 17–18; Northwestern, 18–21; *prof, Simpson Col, 21–* Physical Soc; Iowa Acad.

Carr, Dean A(rthur) R(aymond), Wayne University, Detroit, Mich. *Chemical engineering.* Whitehall, Mich, April 9, 93. B.Pd, Mich. State Nor. Col, 14, A.B, 15; B.S.E. (Ch.E), Michigan, 20, M.S.E. (Ch.E), 21, Ph.D, 24. Instr. chem. eng, Michigan, 20–24; assoc. prof. chem, Col. City of Detroit, 24–29, prof. chem. eng. and head dept. eng, 29–33, *dean col. eng, Wayne, 33–* Chem. Soc; Eng. Educ; Eng. Soc. Detroit; Mich. Eng. Soc.

Carr, Prof. C(harles) Jelleff, University of Maryland School of Medicine, Baltimore, Md. *Pharmacology.* Baltimore, Md, March 27, 10. Ph.G, Maryland, 32, B.S, 33, Emerson fellow, 34, M.S, 34, Ph.D, 37; fellow, U. S. Pharmacopoeia, 33. Asst, pharmaceut. research lab, Sharp and Dohme, 29–31; *pharmacol, sch. med, Maryland,* 33–37, asst. prof, 37–39, *assoc. prof, 39–* Chem. Soc; Pharmaceut. Asn; Soc. Exp. Biol; Soc. Pharmacol. Chemistry of carbohydrates; metabolism of sugars; pharmacology of nitrates; anesthetics.

Carr, Prof. Emma P(erry), Mt. Holyoke College, South Hadley, Mass. *Chemistry.* Holmesville, Ohio, July 23, 80. B.S, Chicago, 05, fellow, 08–10, Ph.D, 10; Sc.D, Allegheny Col, 39, Russell Sage Col, 41. Instr. *chem, Mt. Holyoke Col,* 05–08, assoc. prof, 10–13, *prof, 13–* Francis P. Garvan gold medal, Am. Chem. Soc, 38. A.A; Chem. Soc; Physical Soc. Physical chemistry; ultra-violet absorption spectra.

Carr, Prof. F(rancis) Easton, 284 Forest St, Oberlin, Ohio. *Astronomy.* West Richfield, Ohio, Oct. 4, 82. A.B, Oberlin Col, 06, A.M, 12; B.S, Washington (Seattle), 08; Ph.D, Chicago, 22. Instr. math. and physics, Fisk, 08–09; *Oberlin Col,* 09–19, asst. prof. *math. and astron,* 19–24, assoc. prof, 24–26, *prof, 26–* A.A; Astron. Soc; Math. Asn; Astron. Soc. Pacific. Proper motion; photometry.

Carr, Prof. H(arvey), University of Chicago, Chicago, Ill. *²*Psychology.* Morris, Ill, April 30, 73. B.S, Colorado, 01, M.S, 02; Ph.D, Chicago, 05. Instr. *psychol,* Pratt Inst, 06–08; asst. prof, *Chicago,* 08–16, assoc. prof, 16–23, prof, 23–38, *emer. prof, 38–,* chairman dept, 26–38. Psychol. Asn. (councilor, 16, pres, 26–); Midwest. Psychol. Asn. (pres, 37); Inst. Psychol. Comparative psychology; visual space perception; systematic learning.

Carr, Prof. Howard E(arl), University of South Carolina, Columbia, S. C. *Physics.* Headland, Ala, Sept. 16, 15. B.S, Ala. Polytech, 36; A.M, Virginia, 39, Ph.D, 41. Asst.

physics, Virginia, 40; *adj. prof, South Carolina, 41–* Summers, instr, Ala. Polytech, 39, prof, 41. Physical Soc. Separation of isotopes with ultra-centrifuge; thermal diffusion in liquids.

Carr, Dr. James G(ray), 2235 Forestview Road, Evanston, Ill. *Medicine.* Holmesville, Ohio, July 22, 76. A.B, Ohio State, 97; M.D, Northwestern, 02. Assoc. prof. and *prof. med, med. sch, Northwestern.* Am. Med. Asn; Am. Heart Asn; Col. Physicians; Chicago Soc. Internal Med; Chicago Path. Soc. Quinidine; conduction disturbances in acute rheumatic infections; periarteritis nodosa; morbidity; economic waste of cardiac disease; digitalis delirium.

Carr, Dr. J(esse) L(awrence), University of California Hospital, San Francisco, Calif. *Pathology.* Pembina, N. Dak. B.S, California, 24; M.D, Harvard, 27. Instr. and *asst. prof. path, California, 31–; pathologist to San Francisco coroner, 33–; Franklin Hosp.* Visiting pathologist, San Francisco City and County Hosp. A.A; Asn. Path. and Bact. Bleeding dyscrasia in obstructive jaundice; sulfur metabolism; physiology and pathology of the adrenal glands; physical methods of blood identification; blood proteins in liver disease.

Carr, Dr. Marvin S(t. Clair), 4609 Terrace Drive, Niagara Falls, N. Y. *Chemical engineering.* Whitehall, Mich, Dec. 13, 94. A.B, Mich. State Nor. Col, 22; B.S.E. (Ch.E), Michigan, 26, Ph.D, 29. Sch. supt, Mich, 14–18; head master, Hudson Sch, Detroit, 22–25; instr. chem. eng, Michigan, 25–29; research engineer, Roessler and Hasslacher Chem. Co, Niagara Falls, 29–32, librarian, patent-library div, *Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co,* 32–37, *new process develop. div,* 37–41, *supervisor of training, 41–* 2nd lieut, A.S, 18. Chem. Soc. Gaseous explosions; the effect of tetraethyl lead on the rate of rise of pressure.

Carr, Prof. Percy H(amilton), 424 Stanton Ave, Ames, Iowa. *Physics.* Gaffney, S. C, Sept. 22, 04. B.S, Furman, 25; fellow, North Carolina, 25–26, M.S, 26; Pres. White fellow, Cornell, 26–27, Ph.D, 30. Asst. *physics,* Cornell, 26–27, instr, 27–30; asst. prof, *Iowa State Col,* 30–39, *prof, 39–* Summer, lab. worker, Gen. Elec. Labs, Schenectady, 29. Cathode rays and x-rays; low velocity electrons and metals; piezo-electric oscillations and the crystal lattice of quartz; x-rays, cathode rays and living tissues; photography.

Carr, Prof. R(alph) H(oward), 27 N. Salisbury St, West Lafayette, Ind. *Agricultural chemistry.* Wooster, Ohio, Aug. 28, 78. B.S, Col. of Wooster, 00; M.S, Wisconsin, 10, Ph.D, 13. Chemist, West. Elec. Co, 02–05; instr, Buena Vista Col, 05–08; Col. of Emporia, 09–11; *prof. agr. chem, Purdue, 13–* Chemist, bur. plant indust, U. S. Dept. Agr. A.A; Chem. Soc; fel. Inst. Chem; Soc. Agron; Soc. Plant Physiol; fel. Ind. Acad. Soil acidity; popping of corn; cereal proteins in egg production; effects of fats in nutrition; minerals in nutrition; food adulterations; synthesis of protein in glands of pigeons and chickens.

Carr, William H(enry), Bear Mountain Trailside Museum, Iona Island, N. Y. *Natural history.* Astoria, L. I, N. Y, April 11, 02. Asst. curator and later *assoc. curator, Am. Museum Nat. Hist, and director, Bear Mountain Nature Trails and Trailside Museums, 26–; chief naturalist, Palisades Interstate Park, 31–* Director nature lore sect, 13th camp leadership course, Teachers Col, Columbia; lecturer, Am. Museum Nat. Hist; naturalist lecturer, Nat. Conf. State Parks. Past ed, 'The Camp Naturalist Magazine.' Soc. Mammal; Linnaean Soc. N. Y. Outdoor education; natural history along the trail; trailside actions and reactions; familiar birds.

Carragan, Prof. G(eorge) Howard, R. D. Tamarack Road, Troy, N. Y. *Physics.* Saratoga Springs, N. Y, March 22, 96. M.E, Rensselaer Polytech, 18; Ph.D, Chicago, 25. Asst. prof. *physics, Rensselaer Polytech,* 25–31, assoc. prof, 31–37, *prof, 37–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers. Experimental spectroscopy; physical optics.

Carrel, Dr. Alexis, Rockefeller Institute, New York, N. Y. *[*2]Surgery.* Ste. Foy-les Lyon, France, June 28, 73. L.B, Lyons, 90, M.D, 00; Sc.B, Dijon, 91; hon. Sc.D, Columbia, Brown, Princeton, Univ. State of N. Y, 37, Manhattan Col, 38; M.D, Belfast; LL.D, California. Mem, *Rockefeller Inst, emer. mem, 39–* Hitchcock prof, California, 36. Trustee, Inst. Advanced Study, 30–42. Mem. board, Danzian Foundation, 37– Nobel prize med, 12; D.S. medal, 22; Nordhoff-Jung cancer prize, 31; Newman Foundation award, Univ. Illinois, 37; commandeur, Légion d'honneur; commander, Order of Leopold of Belgium; companion, Order of St. Michael and St. George; Northern Star of Sweden; commendador de Isabel la Catolica. A.A; senior fel. Surg. Asn; fel. Col. Surg; senior mem. Soc. Clin. Surg; Physiol. Soc; Soc. Exp. Path; Philos. Soc; hon. fel. Royal Soc. Med; Pontificia Accad. delle Sci; Socio straniere di Soc. Ital. delle Sci. Experimental surgery; biology.

Carreón, Dr. Manuel L(ingad), Bureau of Education, Manila, P. I. *Education, Psychology.* San Fernando, Pampanga, P. I, June 17, 99. A.B, Philippines, 17; P. I. Govt. scholar, 19–23; A.B, Nebraska, 20; Columbia; Chicago; A.M, Minnesota, 21, Ph.D, 23. Asst. prin. and instr, schs, Manila, 17–19; director psychol. clinic and instr. educ. and psychol, P. I. Nor. Schs, 23–24; *chief measurement and research dept. and supt. academic div, Bur. Educ, P. I, 24–* Lecturer, Philippines, 24–26. Research assoc, Monroe Educ. Surv. Cmn, 25; ed. advisory board, Philippine pub. schs; Nat. Research Council P. I. Contributing ed, 'Philippine Social Sci. Rev'; 'Philippine Jour. Educ.' A.A; Nat. Council Educ. (sec'y); P. I. Acad. Social Sci. Philippine mental and educational measurements; child accounting; statistical and graphic methods in education; adaptations of the Lewis-Rowland silent readers; elementary and secondary English.

Carrick, Prof. C(arey) W(alton), Purdue University, Lafayette, Ind. *Poultry husbandry.* Lexington, N. C, July 6, 93. A.B, Wake Forest Col, 15, A.M, 16; M.S.A, Cornell, 17. Instr. *poultry husbandry,* Norfolk County Agr. Sch, Mass, 16–18; asst, poultry div, agr. exten. dept, *Purdue,* 18–21, assoc, Exp. Sta, 21–26, *prof, 26–,* head dept, 26–40. Poultry Sci. Asn. (v. pres, 27, pres, 28, director, 29–31). Poultry nutrition; vitamin, protein and mineral requirements.

Carrick, Prof. L(eo) L(ehr), North Dakota Agricultural College, Fargo, N. Dak. *Chemistry.* Platteville, Wis, Feb. 5, 89. B.S, Valparaiso, 08, A.B, 09, M.S, 11; A.M, Indiana, 15, Ph.D, 22. Head dept. science, high sch, Ind, 11–14; research chemist and elec. storage battery engineer, Prést-O-Lite Co, Inc, 15–17; research chemist, Ault and Wiborg Co, 19; *prof.* gen. and qualitative chem. and head dept, *N. Dak. Col,* 22–27, *indust. chem. and dean sch. chem. technol, 27–* Hydrogenation of nitro-organic compounds, the solubility of nono-nirophenols in common solvents and the cooling curves of their mixtures; solubility of cellulose nitrate in various organic solvents; paints, varnishes, lacquers and drying oils.

Carrico, Dr. J(ames) L(eon), 1922 W. Chestnut, Denton, Texas. *Chemistry.* Sanger, Texas, Nov. 22, 06. A.B, N. Texas State Teachers Col, 27, B.S, 29; fellow, Texas, 29–31, A.M, 31; Henry Lawes fellow, Calif. Inst. Tech, 32–35, Ph.D, 35. Prof. chem. and director dept, N. Texas State Teachers Col, 31–32; prof. physics and chem, Lamar Col, 35–36; pyrolysis research, Texas Co, 36–42; *prof. chem. and director dept, N. Texas State Teachers Col, 42–* Chem. Soc; Texas Acad. Photohalogenation of compounds having a double bond between carbon atoms; pyrolysis of pure hydrocarbons; determination of isoparaffin content of hydrocarbon mixture; mercury-sensitized photoreactions of hydrocarbons.

Carrier, Lyman, Blacksburg, Va. *Agronomy.* Duffield, Mich, Oct. 11, 77. B.S, Mich. State Col, 02, M.Agr, 13. Sci. asst, bur. plant indust, U. S. Dept. Agr, 05–07; prof. agron, Va. Polytech, and agronomist, Exp. Sta, 08–14; agronomist, bur. plant indust, U. S. Dept. Agr, 14–24; seedsman, Coquille, Oregon, 24–33; chief agronomist, *soil conservation service, U. S. Dept. Agr,* 34–35, *state conservationist, Va, 35–* Soc. Agron. (treas, 11, 2nd v. pres, 13, sec'y-treas, 18–20). Farm crops; grazing; agricultural history.

Carrier, W(illis) H(aviland), Carrier Corp, S. Geddes St, Syracuse, N. Y. *Engineering.* Angola, N. Y, Nov. 26, 76. E.E, Cornell, 01; hon. D.Eng, Lehigh, 31; hon. Sc.D, Alfred, 42. Research engineer, Buffalo Forge Co, 02–05, chief engineer, 06–15; pres, Carrier Eng. Corp, 15–31, *chairman board directors, Carrier Corp, 31–* Chairman cmt. heat transmission, Nat. Research Council. F. Paul Anderson gold medal, 32; medal, Am. Soc. Mech. Eng, 34; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Mech. Eng; Heat. and Vent. Eng. (councilor, past pres); Soc. Refrig. Eng. (pres, 27); fel. Royal Soc. Arts; hon. mem. Japanese Asn. Refrig. Psychrometry; heat transmission; refrigeration.

Carriker, M(elbourne) A(rmstrong), Jr, Santa Marta Coffee Co, Santa Marta, Colombia, S. Amer. *Ornithology, Entomology.* Sullivan, Ill, Feb. 14, 79. Nebraska. Collector, Carnegie Museum, 01–22, asst, dept. ornith. and mammal, 08–

09; collector mammals, Am. Museum Nat. Hist, 01–11; field rep. and assoc. curator birds and in charge trop. Am. birds, Acad. Nat. Sciences Phila; *field rep, U. S. Nat. Museum.* Brewster medal, 25. Ornith. Union. Ornithology of Central and South America; Mallophaga of the world.

Carrión, Dr. A(rturo) L(orenzo), School of Tropical Medicine, San Juan, P. R. *Dermatology.* Rio Piedras, P. R, Aug. 10, 93. M.D, Havana, 19. Director, Plague Prevention Service, San Juan, 23–31; assoc. bacter, *Columbia Sch. Trop. Med, Puerto Rico,* 30–32, asst. prof. mycol, 32–38, *assoc. prof. med. mycol. and dermat, 38–,* acting med. supt, *univ. hosp,* 32–33, *attending dermat, 33–* Inst. plague prevention, Columbia Sch. Trop. Med, Puerto Rico, 26–29, instr, sch, 29–30; fellow, Rockefeller Foundation, 31–32; asst, Columbia, 31–32; consulting dermatologist, Presbyterian Hosp, San Juan, P. R, 40– Soc. Invest. Dermat; Mycol. Soc; P. R. Cancer Asn; Pan-Am. Med. Asn. Medical mycology; plague.

Carroll, Dr. Burt H(aring), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Tenafly, N. J, March 20, 96. Ch.B, Cornell, 17; Ph.D, Wisconsin, 22. Arthur D. Little, Inc, 17; assoc. chemist, Bur. Standards, 22–29, *chemist,* 29–33; *Eastman Kodak Co, 33–* C.W.S, U.S.A, 17–19. Chem. Soc; Optical Soc. Photographic chemistry.

Carroll, Don L(lewellyn), 101 Pennsylvania, Urbana, Ill. *Geology.* Beloit, Wis, Sept. 21, 02. B.S, Beloit Col, 26; Chicago, 26–29. *Assoc. geologist, Ill. Geol. Surv, 29–, in charge educ. exten. and pub. relations.* Ill. Acad. Geology and geological history of Illinois; mineral resources of Illinois; rocks and minerals of Illinois; oil field development; Illinois coal basin.

Carroll, Dr. Franklin B(ache), 17 Elmwood Ave, Narberth, Pa. *Botany.* Philadelphia, Pa, Feb. 23, 87. B.S, Pennsylvania, 13, Ph.D, 17. Teacher bot, Northeast High Sch, *Phila,* 13–17, *head dept. science, Frankford High Sch, 26–* Sanit.C, U.S.A, 17–19; instr, A.E.F. Univ. Beaune, 19. A.A. Plant morphology.

Carroll, Prof. Geo(rge) W(illiam), Mississippi State College, State College, Miss. *Chemistry.* Near Rutherford, Tenn, Sept. 29, 79. A.B, Peabody Col, 08; Chicago. Head dept. physics and chem, high sch, Tenn, 07–18; from instr. to *assoc. prof. chem,* Miss. Agr. and Mech. Col, 19–32, *Miss. State Col, 32–* Surface tension of water.

Carroll, Prof. Herbert A(llen), South Berwick, Maine. *Applied psychology.* Greenfield, Mass, May 23, 97. A.B, Bates Col, 23; A.M, Brown, 28; Chicago, 27; Harvard, 28; Ph.D, Columbia, 30. Instr. pub. speaking, James Millikin, 23–24; teacher and administrator, pub. schs, 24–28; asst. to Dr. A. I. Gates, Columbia, 29–30; asst. prof. educational psychol, Minnesota, 30–36; travel and private research, 36–41; *assoc. prof. psychol, New Hampshire, 41–* Summers, lecturer, Northwestern, 38; Maryland, 40; Columbia, 41. Assoc. Psychol. Asn; Asn. Applied Psychol. Gifted children; mental hygiene.

Carroll, Prof. I(saac) S(quire), 511 Comstock Ave, Syracuse, N. Y. *Mathematics.* Hobart, N. Y, 79. Ph.B, Wesleyan, 02; A.M, Columbia, 20. Instr. and prin, high schs, N. Y, 02–08; sch. supt, N. Y, 08–21; asst. prof. math. and later *assoc. prof. math. and educ, Syracuse, 21–* A.A; Math. Soc; Math. Asn.

Carroll, Dr. J. C(leve), Ohio Agricultural Experiment Station, Wooster, Ohio. *Plant physiology.* Martinsville, Ohio, April 1, 98. B.S, Wilmington Col, 20; M.S, Ohio State, 28, Ph.D, 41. Prin, high sch, Ohio, 20–22; Ky, 22–23; prin. and supt. schs, Ohio, 23–27, teacher, 28–29; *asst. agron, Ohio Exp. Sta, 29–* Instr, East. Ky. State Teachers Col, 28. Soc. Plant Physiol; Soc. Agron. Factors affecting success of seedings of forage crops; cold and drought resistance of grasses.

Carroll, Prof. Joseph F(rancis), Marquette University, Milwaukee, Wis. *Physics.* Baltinglass, Ireland, July 20, 92. A.B, Woodstock Col. (Md), 17, A.M, 20; Ph.D, Bonn, 32; Mungret Col, Ireland; Nat. Univ. Ireland; St. Andrew-on-Hudson; Ignatiuskolleg, Holland; Munich. Asst. prof. physics and chem, Regis Col, 17–20; *Marquette,* 20–22, *prof. physics and head dept, 22–, regent, col. eng, 32–* Spectroscopy; Zeeman effect on the lines of rhenium and germanium; electromagnetic effects on different species of iron.

Carroll, Prof. Joseph Snyder, Stanford University, Calif. *Electrical engineering.* Orderville, Utah, Nov. 26, 91. B.S, Utah, 20; E.E, Stanford, 24, Ph.D, 29. Instr. *elec. eng,* Utah, 20–23; *Stanford,* 24–26, asst. prof, 26–30, *assoc. prof, Harris J. Ryan high voltage lab, 30–* City research engineer, Los Angeles, 32–34; consultant, Bonneville Power Admin, 41. A.A; Elec. Eng. Measurement of high voltage and of corona loss from high voltage transmission lines; high voltage wattmeters.

Carroll, Prof. Mitchel, Franklin and Marshall College, Lancaster, Pa. *Entomology, Cytology.* Philadelphia, Pa, July 7, 85. B.S, Pennsylvania, 15, Harrison fellow, 16–18, Ph.D, 19; Sc.D, Franklin and Marshall Col, 39. Teacher, pub. schs, Pa, 09–14; asst. zool, Pennsylvania, 15–16; asst. entomologist, N. J. Exp. Sta, 18–20; *prof. biol. and head dept, Franklin and Marshall Col, 20–* Marine Biol. Lab, Woods Hole. A.A; Asn. Econ. Entom; Soc. Zool; Soc. Mammal; Soc. Parasitol; Micros. Soc; Genetic Asn; Pa. Acad. Larva of Mecistogaster modestus; spermatogenesis of Cannula pellucida; numerical variations in the chromosome complex within the individual.

Carroll, Rev. P(aul) L(oyola), S.J, St. Louis University, St. Louis, Mo. *Biology.* St. Louis, Mo, Aug. 15, 95. A.B, St. Louis, 20, A.M, 21, M.S, 23, Ph.D, 31. Instr. *biol,* Loyola, 22–24; instr, St. Louis, 24–25, 30–32; asst. prof, Marquette, 32–39; Creighton, 39–40; *assoc. prof. and sec'y dept, St. Louis, 40–* A.A; Soc. Exp. Biol; Micros. Soc; Asn. Am. Jesuit Scientists (sec'y, 30–32); Soc. Zool; Mo. Acad; Wis. Acad; St. Louis Acad. An oestrogenic hormone; influence of theelin on reproduction rate in Protozoa; contraction and expansion of pigment in frogs and fish subjected to liquor folliculi and theelin; diastolic-systolic ratio exhibited by the contractile vacuole of Amoeba proteus; an atlas of the frog; histology of the skin of the anura.

Carroll, Dr. Richard (Henry), Fiddlers Lane, Loudonville, N. Y. *Chemistry.* St. Louis, Mo, Feb. 6, 02. B.S, Polytech. Inst. Brooklyn, 30, M.S, 32, Ph.D, 38. Chemist, United Elec. Light and Power Co, New York, 22–28; develop. chemist, Burroughs Wellcome and Co, Tuckahoe, 28–35; chief chemist and supt, Climax Rubber Co, Brooklyn, 36–41; senior chemist, Merck and Co, 41–42; *asst. to plant manager, Winthrop Chem. Co, 42–* Instr, Polytech. Inst. Brooklyn, 33–42. Chem. Soc; Chem. Eng; Inst. Chem. Pilot plant and fine chemical equipment; manufacture of vitamins and antimalarials.

Carroll, Prof. Robert P(atrick), Virginia Military Institute, Lexington, Va. *Biology.* Galveston, Texas, May 27, 03. A.B, Virginia, 24, A.M, 25. Asst. *biol,* Virginia, 22–25; instr. in charge lab, Washington and Lee, 26–27; *asst. prof. and head dept, Va. Mil. Inst, 28–* Managing ed, 'Va. Jour. Science.' A.A; Sullivant Moss Soc; Va. Ornith. Soc; Va. Acad. Virginia bryophytes; spermatophytes in the Blue Ridge section of Virginia; stream pollution and biological recovery; herpetology.

Carroll, Dr. Thomas J(oseph), Signal Corps Laboratory, Ft. Monmouth, Oceanport, N. J. *Physics.* Pittsburgh, Pa, April 26, 12. A.B, Pittsburgh, 32; Ph.D, Yale, 36. Prof. math. and physics, Col. of New Rochelle, 36–41; *assoc. radio engineer, Signal Corps Lab, U. S. Army, Ft. Monmouth, 41–* Physical Soc; Asn. Physics Teachers. Theoretical physics; Faraday effect in molecular spectra; antenna theory.

Carroll, Prof. W(illiam) E(rnest), University of Illinois, Urbana, Ill. *Animal husbandry.* Orderville, Utah, Nov. 8, 82. B.S, Utah Col, 09; M.S, Illinois, 11, fellow, 13–14, Ph.D, 14. Assoc. prof. animal husbandry, Utah Col, 11–13, prof, 14–24; swine husbandry, Illinois, 24–37; prof. and head dept. animal husbandry, Utah State Col, 37–38, dean sch. agr, 37–38; *prof. swine husbandry, Illinois, 38–, head dept. animal husbandry, 39–* Capt, Sanit.C, 18–19. A.A; Soc. Animal Production (sec'y, 29–31, v. pres, 32, 33, pres, 34). Animal nutrition; swine husbandry.

Carroll, Prof. W(illiam) R(ichard), University of Florida, Gainesville, Fla. *Botany, Bacteriology.* Crossville, Ala, Feb. 1, 96. B.S, Miss. Agr. and Mech. Col, 22; M.S, Wisconsin, 25; Ph.D, Minnesota, 32. Asst. bacteriologist, Miss. Agr. and Mech. Col, 22; Commercial Solvents Corp, 23; Wisconsin, 24–25; soil biol, Illinois, 26–27; asst. prof. *bacter. and bot, Florida,* 27–35, assoc. prof, 35–39, *prof, 39–* A.A; Soc. Bact. Red pigmented organism in corn meal mash; development of anaerobes; thermal death point of bacteria; asparagus extract and legume nodule bacteria; cross-inoculation and nodule bacteria; hemolytic streptococci in milk; anaerobic hemolytic

streptococci; distribution of Brucella agglutinins; cross-inoculation among non-legumes.

Carroll, Dr. William R(obert), 703 Delaware Ave, Urbana, Ill. *Biochemistry.* Logan, Utah, June 9, 16. A.B, Swarthmore Col, 38; A.M, Harvard, 40, Ph.D, 42. Teaching fellow and univ. fellow, Harvard, 38–42; *lieut, Sanit. Corps, U. S. Army, 42–* Influence of estrogens on uterine metabolism.

Carroll-Rusk, Dean Evelyn T(eresa) (Mrs. W. S. Rusk), Aurora, N. Y. *Mathematics.* Rome, N. Y, Sept. 28, 00. A.B, Wells Col, 20, A.M, 22; Columbia, 24, 27–28; Ph.D, Cornell, 31. Instr. *math, Wells Col,* 20–24, asst. prof, 24–31, assoc. prof, 31–34, *prof, 34–, dean, 38–* Math. Soc; Math. Asn. Geometry.

Carruth, Dr. Frank E(verett), 36 Lenox Ave, Maywood, N. J. *Chemistry.* Jonesville, N. Y, Aug. 20, 86. A.B, Wesleyan, 09; Ph.D, Cornell, 17. Div. chem, Exp. Sta, N. C. State Col, 13–17; org. and physical chemist, color lab, bur. chem, U. S. Dept. Agr, 17; *chemist, Maywood Chem. Works, 17–* A.A; Chem. Soc. Cotton seed poisoning; gossypol; tetrazodyes containing therapeutic elements or groups; plant alkaloids.

Carruth, Prof. L(aurence) A(dams), New York State Agricultural Experiment Station, Geneva, N. Y. *Economic entomology.* Mansfield, Mass, June 11, 07. B.S, Mass. Agr. Col, 29; M.S, S. Dak. State Col, 31; Ph.D, Cornell, 35. Asst. entom. and zool, S. Dak. State Col, 29–31; biol, *Cornell,* 31–35, instr. *entom,* 35–39, *asst. prof, 39–* Asst, N. Y. Exp. Sta, Geneva, 35–39, assoc, 39– Summers, asst, Exp. Sta, N. Dak. Col, 31–33. Asn. Econ. Entom; Entom. Soc. Amer. Insect pests of sweet corn and vegetables.

Carruthers, Dr. C(hristopher), 3427 Washington Blvd, St. Louis, Mo. *Biological chemistry.* Motherwell, Scotland, March 17, 09. B.S, Syracuse, 33, M.S, 35, Ph.D, Iowa, 38. Asst. chem, Syracuse, 33–35; Iowa, 35–38; research fellow, *Barnard Free Skin and Cancer Hosp,* 38–42, *research assoc, 42–* Assoc. Soc. Exp. Biol; Chem. Soc. Vitamins A and E and experimental carcinogenesis; heptaldehyde as an anticarcinogenic agent and as an antibortifacient; nutrition of the mouse; chemical studies in epidermal methylcholanthrene; carcinogenesis of mice.

Carruthers, Prof. John L(itster), Ohio State University, Columbus, Ohio. *Ceramic engineering.* Lafayette Colo, July 25, 95. B.Cer.E, Ohio State, 21, Cer.E, 34. Ceramic engineer, Denver Terra Cotta Co, 21–22; Harrop Ceramic Service Co, Columbus, Ohio, 22–25; asst. prof. *ceramic eng, Ohio State,* 25–30, assoc. prof, 30–36, *prof, 36–* Ceramic Soc. (v. pres, 39, pres, 40); Inst. Ceramic Eng. (v. pres, 38, pres, 39). Terra-cotta bodies; clay drying; blast furnace refractories; kiln designs.

Carscallen, Prof. G(eorge) E(rnest), 112 N. Barr St, Crawfordsville, Ind. *Mathematics.* Frankfort, Ind, Aug. 29, 81. A.B, Wabash Col, 06; A.M, Illinois, 10. Asst. *math,* Illinois, 07–13; prof, Hiram Col, 13–17; asst. prof. and *assoc. prof, Wabash Col, 20–* Math. Asn. (v. pres, Ind. sect, 30, pres, 31).

Carsner, Dr. Eubanks, Box 31, Riverside, Calif. *Plant pathology.* San Antonio, Texas, July 19, 91. A.B, Texas, 12; M.S, Wisconsin, 14, Ph.D, 17. Teacher, high sch, Texas, 12; asst. plant path, Wisconsin, 14; Va. Truck Exp. Sta, 15; assoc. pathologist and *senior pathologist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 17–* A.A; Bot. Soc; Phytopath. Soc.

Carson, Dr. Albert B, 748 N. Laramie Ave, Chicago, Ill. *Mathematics.* Alpena Pass, Ark, Dec. 7, 08. B.S, Arkansas, 32; A.M, Vanderbilt, 33; Ph.D, Chicago, 41. Prof. physics and math, Boise Junior Col, Idaho, 35–37; *instr. math,* Ill. Inst. Tech, 38–40; *Louisiana, 41–* Math. Soc. Analogue of Green's theorem for multiple integral problems of the calculus of variations.

Carson, F(rederick) T(homas), National Bureau of Standards, Washington, D. C. *Physics.* Barstow, Texas, June 27, 93. A.B, Simmons Col. (Texas), 15; Rice Inst. 16–17; George Washington, 21–23; Sc.D, Hardin-Simmons, 42. Prin, high sch, Texas, 15–16; engine testing, Westinghouse Elec. and Mfg. Co, 19; lab. asst, *Bur. Standards,* 20–21, asst. physicist, 21–27, assoc. physicist, 27–39, *technologist, 39–* U.S.N, 17–19, ensign, U.S.N.R, 18. Structure and properties of paper and fibrous sheets; permeability of porous bodies; hygrometry.

Carson, Prof. Gordon B(loom), Case School of Applied Science, Cleveland, Ohio. *Mechanical engineering, Industrial engineering.* High Bridge, N. J, Aug. 1, 11. B.S, Case, 31; M.S, Yale, 32, M.E, 38. Instr. mech. eng, Case, 32–36; engineer, Am. Ship Bldg. Co, 36; asst. prof. *indust. eng, Case,* 37–40, *assoc. prof, 40–; research engineer, Cleveland Automatic Machine Co, 39–* Mech. Eng. (chairman, Cleveland sect, 39); Welding Soc. (educational cmt); Eng. Educ. (membership cmt, 42); Foundrymen's Asn; Management Asn. Effect of supercharger capacity on a supercharged engine; internal combustion engine friction analysis; air resistance and streamlining of ships.

Carson, Dr. John F(ulton), Jr, 745 Contra Costa Ave, Berkeley, Calif. *Organic chemistry.* Dubuque, Iowa, March 2, 11. A.B, Stanford, 34, A.M, 40, Ph.D, 42. *Asst. chemist, U. S. Dept. Agr, 41–* A.A; Chem. Soc. Catalytic hydrogenation; terpenes; carbohydrates.

Carson, Max H, 225 Federal Bldg, Honolulu, Hawaii. *Engineering.* Theyetmyo, Burma, March 30, 89. B.S, Throop, 16. Rodman and timekeeper, South. Calif. Edison Co, 16–17; from field asst. to *senior hydraul. engineer, U. S. Geol. Surv, 17–, dist. engineer, Hawaii, 24–* Geophys. Union; Eng. Asn. Hawaii; Hawaiian Sugar Technol. Asn; Hawaiian Meteorol. Soc. (sec'y-treas, 31–); Hawaiian Acad; Pan Pacific Research Inst. Surface water resources of Hawaii.

Carson, Prof. O(rrin) A(rthur), Queen's University, Kingston, Ont, Can. *Metallurgy.* Kingston, Ont, Sept. 12, 98. B.Sc, Queen's (Can), 23; A.M, Columbia, 24, Ph.D, 28. Lecturer metallog, *Queen's (Can),* 24–28, *asst. prof. metal, 28–* Min. and Metal. Eng; Electrochem. Soc; Can. Inst. Min. and Metal. Copper-tin alloys.

Carson, Dr. S(tanley) F(rederick), P. O. Box 269, Rahway, N. J. *Microbiology.* San Francisco, Calif, Oct. 4, 12. A.B, Stanford, 34, Ph.D, 41. *Microbiologist,* Haskins Labs, Inc, New York, 41–42; *div. research and develop, Merck and Co, 42–* A.A; Chem. Soc; Soc. Bact. Biochemical activities of microorganisms.

Carson, Dr. William J(ames), 425 E. Wisconsin Ave, Milwaukee, Wis. *Surgery.* Pittsburgh, Pa, Feb. 23, 92. M.D, Md. Med. Col, 13. Instr. path, Maryland, 19–20, assoc, 20–21, assoc. prof. and instr. surg, 21–26; instr. *surg,* Marquette, 26; *preceptor, Wisconsin, 30–* Surgeon, St. Luke's Hosp; consulting surgeon, St. Alphonsus Hosp, Port Washington, Wis. Ed. board, 'Jour. Plastic Surg.' A.A; fel. Col. Surg; Urol. Asn; Am. Med. Asn; fel. Asn. Traumatic Surg; fel. Asn. Mil. Surg; fel. Hist. Sci. Soc; Asn. Hist. Med; fel. Interprofessional Inst. (pres, 43); West. Surg. Asn; Clin. Club Milwaukee (pres, 28); fel. Wis. Acad. Surg. (pres, 38); fel. Int. Col. Surg. (ed. board, 'Jour'). Experimental surgery; pathology.

Carswell, Prof. H(arry) E(aton), 2510 Saratoga Drive, Louisville, Ky. *Physiological chemistry.* Lone Rock, Wis, Feb. 24, 97. B.S, Wisconsin, 23, M.S, 24, Ph.D, 27. Asst. prof. and *assoc prof. physiol. chem, med. sch, Louisville, 27–* Chem. Soc; Ky. Acad. Organic chemistry; biochemistry.

Carswell, T(homas) S(myth), 244 Overbrook Road, Longmeadow, Mass. *Chemistry.* Wilmington, Del, Jan. 9, 97. B.S, Delaware, 18. Research, Nat. Aniline and Chem. Co, 18–23; Rohm and Haas Co, 23–25; manager, Bates Chem. Co, 25–26; asst. develop. director, *Monsanto Chem. Co,* 26–39, *research director plastics div, 39–; director, Shawinigan Resins Corp, 38–* Chem. Soc; Chem. Eng. Application of organic chemicals; organic plastics.

Carter, Dr. Albert S(mith), E. I. du Pont de Nemours and Co, Louisville, Ky. *Chemistry.* Conemaugh, Pa, July 2, 03. B.S, Carnegie Inst. Tech, 24; M.S, Wisconsin, 25, Ph.D, 27. Asst. chem, Wisconsin, 24–27; research chemist, Jackson lab, *E. I. du Pont de Nemours and Co,* 27–41, *asst. manager, Louisville works, 41–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. C.W.S, O.R.C, U.S.A, 25–35. A.A; Chem. Soc; Chem. Eng. Furfural derivatives; acetylene chemistry; alkyl pimelic acids; catalytic reactions of unsaturated aliphatic hydrocarbons; synthetic resins; salts of lactic acid; synthetic rubber.

Carter, Dr. B(urr) Noland, Cincinnati General Hospital, Cincinnati, Ohio. *Surgery.* Big Stone Gap, Va, July 4, 95. A.B, Virginia, 16, M.D, 19; Ph.D, Cincinnati, 25. Res. house officer, Hopkins Hosp, 19–22; surgeon, Cincinnati Gen. Hosp, 22–24; instr. *surg, col. med, Cincinnati,* 22–24, asst. prof, 24–32, *assoc. prof, 32–* Am. Med. Asn; Asn. Thoracic Surg;

Surg. Asn; Soc. Clin. Surg; South. Surg. Asn; Cent. Surg. Asn; Int. Surg. Soc. Skull fractures; thoracic surgery.

Carter, Dr. Charles W, 806 W. Main St, Urbana, Ill. *Petroleum geology.* Annapolis, Md, Jan. 10, 08. Ph.D, Hopkins, 38. *Asst. geologist, Ill. State Geol. Surv, 37–* Asn. Petrol. Geol; Ill. Acad. Upper Cretaceous deposits of the Chesapeake and Delaware Canal of Maryland and Delaware; petroleum geology and secondary oil recovery in Illinois.

Carter, C(harles) W(illard), Jr, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Aledo, Ill, Feb. 8, 99. A.B, Harvard, 20; Rhodes scholar, Oxford, B.Sc, 23. Am. Tel. and Tel. Co, 23–34; *Bell Tel. Labs, Inc, 34–* A.A; Elec. Eng; Physical Soc; Acoustical Soc. Telephony; quality of telephone transmission.

Carter, Prof. Deane G, University of Illinois, Urbana, Ill. *Agricultural engineering.* Harrison Co, Mo, Feb. 17, 94. B.S, Iowa State Col, 15, M.S, 27. Sales correspondent, James Mfg. Co, Wis, 15–16; instr. agr. eng, Iowa State Col, 16–19; head dept, N. C. State Col, 19–20; farm manager, Iowa, 20–22; prof. *agr. eng.* and head dept, Arkansas, 22–41; *prof, Illinois, 41–* Summer, instr, Missouri, 19; Utah, 28; Tennessee, 39; Oklahoma, 41. Agr. Eng. (v. pres, 34). Farm homes and equipment; farm structures.

Carter, Edgar B(rock), Abbott Laboratories, North Chicago, Ill. *Bacteriology.* Elkinsville, Ind, April 22, 86. A.B, Indiana, 11. *Director biol. lab,* Swan-Myers Co, 15–31; *Abbott Labs, 31–, board directors, 35–, assoc. director research, 42–* A.A; Soc. Bact. (sec'y, Ind. branch, 19–22, pres, 22–24); fel. Pub. Health Asn; Pharmaceut. Asn; Chem. Soc. (sec'y-treas, Ind. sect, 18–21, chairman, 21, councilor, 29–31, sec'y, div. chem. of med. products, 19–21, chairman, 21–23, chairman, program cmt, Chicago sect, 34–36, councilor, 35–42). Immunology; bacteriophage; allergy and nature of pollen extracts.

Carter, Prof. Edna, Apt. 37, 21 Chauncy St, Cambridge, Mass. *Physics.* High Cliff, Wis, Jan. 29, 72. A.B, Vassar Col, 94; Chicago, 98–99; Ph.D, Wurzburg, 06, 11–12. Asst. prin, high sch, Wis, 95–96; asst. *physics,* Vassar Col, 96–98; Wis. State Nor. Sch, Oshkosh, 99–04; instr, *Vassar Col,* 06–11, assoc. prof, 12–20, prof, 20–41, *emer. prof, 41–* A.A; Physical Soc; Optical Soc. Relation of the energy of the Roentgen rays to the energy of the cathode rays producing them; discharge potentials across very short distances; metallic spectra produced in high vacua; electric furnace spectra; thermoluminescence.

Carter, E(dward) E(dgecombe), U. S. Forest Service, Washington, D. C. *Forestry.* Bath, Maine, Oct. 7, 80. A.B, Bowdoin Col, 02; M.F, Yale, 04. Instr. forestry, Harvard, 04–05; with U. S. Forest Service, 05–10; asst. prof. forestry, Harvard, 10–15; forest inspector, asst. forester and *chief div. timber management, U. S. Forest Service, 15–* Fel. Soc. Foresters.

Carter, Dr. Fred(eric) E(dward), 54 Austin St, Newark, N. J. *Metallurgy.* Dublin, Ireland, Oct. 30, 86. B.Sc, Leeds, 09; D.Ing, Karlsruhe Tech. Hochschule, 11. Eng. chemist, Mines Branch, Ottawa, Ont, Can, 13–16; *chief physical research dept, Baker Platinum Works, 16–, physical metallurgist.* A.A; Min. and Metal. Eng; Electrochem. Soc; London Inst. Metals. Precious metal alloys.

Carter, Prof. Gardner L(loyd), University of Virginia, University, Va. *Chemistry.* Alexandria, Va, March 1, 90. A.M, Virginia, 13, Ph.D, 16. Asst. prof. *chem,* Vanderbilt, 16–18; assoc. prof, *Virginia,* 18–26, *prof, 26–* Asst. gas chemist, U. S. Dept. Interior, 17–18. Chem. Soc.

Carter, Prof. H(arold) D(ean), 2739 Bancroft Way, Berkeley, Calif. *Psychology.* McIntyre, Iowa, Dec. 30, 04. A.B, Minnesota, 26, A.M, 27, Ph.D, 30. Asst. psychol, Minnesota, 26–29, instr, 29–30; Social Science Research Council fellow, Stanford, 30–32, instr, 33–34, *research assoc,* 34–36; *child welfare, adolescence study project, inst. child welfare, California, 32–,* lecturer *educ, univ,* 37–39, asst. prof, 39–42, *assoc. prof, 42–* Summer, lecturer, Minnesota, 35. Psychol. Asn; Calif. Educational Research Asn. (sec'y, 41). Organization of mechanical intelligence; family resemblances in verbal and numerical abilities; emotional factors affecting children's learning; occupational adjustment; twin similarities in attitudes and interests.

Carter, Prof. Harold S(amuel), Utah State Agricultural College, Logan, Utah. *Civil engineering.* North Evans, N. Y, Oct. 17, 96. B.S, Oregon State Col, 21; M.S, Iowa State Col, 23. Asst, Iowa State Col, 21–23, instr. *civil eng,* 23–24; asst. prof, S. Dak. State Col, 24–25, assoc. prof, 25–26, prof. and head dept, 26–36; *prof, Utah State Col, 36–* Consulting engineer. Civil Eng; Eng. Educ. (pres, S. Dak. sect, 31); S. Dak. Soc. Eng. and Archit. (sec'y-treas, 27, 28, 31, v. pres, 29, pres, 30). Highway transportation costs; operating cost statistics of automobiles and trucks; automobile speed economy.

Carter, Prof. H(erbert) E(dmund), University of Illinois, Urbana, Ill. *Chemistry.* Mooresville, Ind, Sept. 25, 10. A.B, DePauw, 30; A.M, Illinois, 31, Ph.D, 34. Instr. *chem, Illinois,* 32–35, assoc, 35–37, asst. prof, 37–43, *assoc. prof, 43–* Chem. Soc. (treas, Ill. sect, 34, sec'y, 36); Soc. Biol. Chem; Inst. Nutrition. Fatty acid metabolism; biochemistry of amino acids; biochemistry of brain lipids.

Carter, Prof. Hobart C(lifton), Mary Washington College, Fredericksburg, Va. *Mathematics.* Fortuna, Mo, March 31, 07. B.S, Cent. Mo. State Teachers Col, 26; A.M, Missouri, 29, Ph.D, 31. Instr. *math,* Missouri, 29–36; *prof, Mary Washington Col, 36–, head dept, 40–* Math. Soc; Mo. Acad. Geometry; college algebra.

Carter, Prof. Horace M(itchell), 115 W. 68th St, New York, N. Y. *Pharmacy.* Salisbury, Vt, Dec. 10, 94. Ph.G, Ph.C, Albany Col. Pharmacy, Union (N. Y); B.S, Cooper Union. Instr. chem. and physics, Albany Col. Pharmacy, Union (N. Y), 21–24; control chemist, Warner-Hudnut, Inc, New York, 24–26; chief chemist, Marinello Co, New York, 26–27; *assoc. prof. pharmacy, col. pharmacy, Columbia, 27–* A.A; Pharmaceut. Asn; N. Y. Pharmaceut. Asn.

Carter, Prof. Isabel Gordon, 311 S. Juniper St, Philadelphia, Pa. *Anthropology.* Beloit, Wis, May 2, 97. A.B, Albion Col, 17; A.M, Tennessee, 20; fellow, Columbia, 25–27, Ph.D, 29. Lecturer, Woolman Sch, 26–27; with *Pa. Sch. Social Work, Pennsylvania,* 29, asst. director *social research,* 33–35, *asst. prof, 35–,* asst. director *dept,* 35–42, *director, 42–*

Carter, Dr. J(ames) Cedric, State Natural History Survey, Urbana, Ill. *Botany.* Wingate, Ind, Oct. 25, 05. B.S.A, Purdue, 28, M.S, 32, Ph.D, 34. Smith-Hughes vocational agr. teacher, 28–30; asst. plant path, Purdue, 31–34; *asst. botanist, Ill. State Nat. Hist. Surv, 34–* Summers, Crop Protection Inst. Delaware, 31, 32. Phytopath. Soc. (membership cmt, 38–); Shade Tree Conf. (membership cmt, 40–); Ill. Acad. Plant pathology; forest and shade tree diseases; elm wilt; fungus inhibition.

Carter, Dr. J(ames) Hal, Iowa State College, Ames, Iowa. *Physical chemistry.* Maury City, Tenn, May 21, 04. A.B, Union (Tenn), 25; M.S, Vanderbilt, 27; Ph.D, Iowa State Col, 31. Prof. physics and chem, Tenn. State Teachers Col, Memphis, 27–28; asst. *chem,* Iowa State Col, 28–31, instr, 31–33; assoc. prof, Union (Tenn), 33–36; instr. and later asst. prof, West. Ill. State Teachers Col, Macomb, 36–43; *mem. faculty, Iowa State Col, 43–* Localized corrosion; x-ray study of iron-copper system.

Carter, Dr. Jerry W(illiams), Jr, 3422 E. Douglas Ave, Wichita, Kans. *Genetic psychology.* Canton, N. C, Oct. 2, 08. A.B.E, Florida, 32; A.M, Indiana, 34, Ph.D, 38. Junior clin. psychologist, med. cent, Indiana, 35–36, senior clin. psychologist, 36–40, lecturer psychol, exten. center, 37–40; consulting psychologist, *Wichita Guidance Center,* 40–41, *director, 41–* Consulting psychologist, schs, Indianapolis, Ind, 36–37. Summer, staff psychologist, Fla. State Hosp, 35. A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn; Midwest. Psychol. Asn; Kans. Acad; Kans. Psychol. Asn; Kans. Asn. Consulting Psychol. Behavior mechanisms and the limitations biological handicaps impose upon behavior development.

Carter, John D, Lansdowne, Pa. *Chemistry.* Chester Co, Pa, Dec. 30, 74. B.S, Haverford Col, 99, fellow, 99–00, A.M, 01; Hopkins. Instr. chem, Haverford Col, 01–03; chemist, Carter and Scattergood, 03–11; *research chemist, Phila. Quartz Co, 11–* Chem. Soc; Ceramic Soc; Ornith. Union; Del. Valley Ornith. Club (pres, 28); Acad. Nat. Sci. Phila. Silicate of soda; applied chemistry; field ornithology.

Carter, Dr. Logan S, Soil Conservation Service, Washington, D. C. *Soils.* Oak Grove, Ark, Feb. 12, 06. B.S, Oregon State Col, 32; Ph.D, Mich. State Col, 35. Asst. soils, 30–34; asst. soil expert and later *head div. agron, tech. operations, soil conservation service, U. S. Dept. Agr, Santa Paula, Calif, 34–* Soil science.

Carter, Dr. Neal M(arshall), Pacific Fisheries Experimental Station, Vancouver, B. C, Can. *Chemistry.* Vancouver, B. C, Dec. 14, 02. B.A.Sc, British Columbia, 25, M. A.Sc, 26; Ph.D, McGill, 29. Lecturer anal. chem, British Columbia, 26–27; Nat. Research Council Can. traveling fellow, Kaiser Wilhelm Inst. (Dresden), 29–30; chemist and oceanographer, Pacific Biol. Sta, Nanaimo, 30–33; *director, Pacific Fisheries Exp. Sta, Vancouver, 34–* Fel. Royal Geog. Soc; fel. Can. Inst. Chem. Cyclic acetals of glycerol; glycerol beta esters and ethers; oceanography of the southern coast of British Columbia; preservation and nutritive value of fisheries products; fish oils and meals; vitamins.

Carter, Ray M(ilo), U. S. Industrial Chemicals, Inc, 41 Magee Ave, Stamford, Conn. *Chemistry.* West Hawley, Mass, Jan. 23, 95. B.S, Maine, 20; M.S, Maryland, 30. *Research chemist, U. S. Indust. Chemicals, Inc, 17–* Chem. Soc. Organic chemistry.

Carter, Dr. R(ichard) P(ence), 310 Southern Road, Elsmere, Wilmington, Del. *Chemical engineering.* Alderson, W. Va, Jan. 3, 15. B.S, Va. Polytech, 36; Ph.D, Purdue, 40. Teaching asst, Purdue, 36–40; chem. engineer pilot plant develop, *Exp. Sta, Hercules Powder Co,* 40–42, *head pilot plant dept, 42–* Lieut, C.W.R, 39–42. Chem. Eng; Chem. Soc. Organic technology; aliphatic diazotization; pilot plant development; production of cellulose and other plastics, synthetic resins, paper chemicals, intermediates and explosives.

Carter, R(oscoe) H(arrison), 5918 Nevada Ave, N. W, Washington, D. C. *Chemistry.* Glenwood, Iowa, 89. A.B, Morningside Col, 12; M.S, Iowa, 14. Asst. chemist, Ordnance Dept, U.S.A, 17–20, *assoc. chemist,* Chem. Warfare Service, 20–27; bur. chem. and soils, *U. S. Dept. Agr,* 27–37, *bur. entom. and plant quarantine, 37–* Research chemist, Nat. Lime Asn, 20. Chem. Soc; Asn. Econ. Entom. Chemistry of inorganic insecticides.

Carter, Prof. T(homas) C(hauncey), Northwestern State College, Alva, Okla. *Biology.* Bethany, Mo, Sept. 15, 79. A.M, Colorado, 21; Ph.D, Wisconsin, 30. *Head dept. biol, Northwest. State Col, 14–, director extra summer session, 21–, dean admin, 43–* Okla. Biol. Surv, Alaska, 08. A.A; fel. Okla. Acad. (v. pres, 20–22, 36); Wis. Acad. Birds of Oklahoma; Protozoa of Colorado; host-parasite relationships in experimental trypanosomiasis with Trypanosoma equiperdum and various laboratory animals.

Carter, T(homas) Donald, American Museum of Natural History, Central Park West at 79th St, New York, N. Y. *Zoology.* Boonton, N. J, Jan. 28, 93. Asst, N. Y. Zool. Soc, 13–16; asst. mammal, *Am. Museum Nat. Hist,* 20–28, *asst. curator Old World mammals, 28–* Mem. various expeds, N. Y. Zool. Soc. and Am. Museum Nat. Hist. U. S. A, 17–19. Soc. Mammal; Ornith. Union; East. Bird Banding Asn. (sec'y, 29–33); N. Y. Zool. Soc; Linnaean Soc. N. Y. (sec'y, 23, 30, v. pres, 41). Mammalogy; ornithology.

Carter, Dr. Thomas Jerrell, Bureau of Medicine and Surgery, U. S. Navy Department, Washington, D. C. *Medicine, Surgery.* Lawrence, Kans, July 3, 99. A.B, Kansas, 24; M.D, Jefferson Med. Col, 27; M.P.H, Hopkins, 38, Dr.P.H, 40; Harvard, 41. Intern, U. S. Naval Hosp, Brooklyn, N. Y, 27–28, mem, Naval Med. Sch, 28, med. officer, U.S.S. 'Tulsa,' 29, battalion surgeon, Fourth Marines, Marine Corps. Expeditionary Force, China, 29–31, asst. surg, U. S. Naval Hosp, Great Lakes, Ill, 31–33, Civilian Conservation Corps Base Hosp, Ft. Brady, Mich, 33–34, deputy health officer, deputy quarantine officer and med. director, Samoan Gen. Hosp, Am. Samoa, 34–35, U. S. Naval Dispensary, San Pedro, Calif, 36, div. prev. med, bur. med. and surg, U. S. Navy Dept, 36–37, assoc. mil. prev. med. and naval hygiene, Naval Med. Sch, 36–37, asst. to officer in charge div. prev. med. and in charge sect. vital statistics, bur. med. and surg, U. S. Navy Dept, 38–39, assoc. mil. prev. med. and naval hygiene, Naval Med. Sch, 38–39, med. officer, U.S.S. 'Salt Lake City,' Cruiser Div. Four, Scouting Force, U. S. Fleet, 39–41, asst. in charge *div. prev. med, bur. med. and surg, U. S. Navy Dept,* 41–42, *in charge, 42–, U. S. Navy,* 17–19, lieut. (j.g), *Med. Corps,* 27–34, lieut, 34–39, lieut. commander, 39–42, *commander, 42–* Preventive medicine.

Carter, Prof. T(homas) M(ilton), 410 Elizabeth St, Albion, Mich. *Educational psychology.* Chaplin, Ky, Feb. 29, 88. A.B, Ill. Wesleyan, 14; S.T.B, Garrett Biblical Inst, 17; A.M, Northwestern, 21; Ph.D, Chicago, 23. Student director, Hamline, 19–20; *prof. educ. and head dept. educ. and psychol, Albion Col, 23–; lieut. col, Chaplain Corps, U. S. Army, 42–* Summers, lecturer, Chautauqua, 19; teacher, S. Dak. Col, 25, 27, 29, 31; Cent. State Teachers Col, Mich, 24; Mich. State Teachers Col, 28; Louisville, 26; Nebraska, 30, 36; West. State Teachers Col, Mich, 37; Northwestern, 38; Pennsylvania, 39–41. Chaplain, U.S.A, 18–19. A.A; Psychol. Asn; Mich. Acad. Anatomical and mental development of children; psychology of school subjects; attitudes and problems of college students.

Carter, Dr. Walter, University of Hawaii, Honolulu, Hawaii. *Entomology.* Leeds, Eng, Nov. 23, 97. B.S, Montana, 23; M.S, Minnesota, 24, Ph.D, 28. Asst. entomologist, entom. branch, Can. Dept. Agr, 23; asst. animal biol, Minnesota, 23–24, research asst, 24–25; asst. entomologist in charge sugar beet insect investigations, bur. entom, U. S. Dept. Agr, 25–26, assoc. entomologist, 26–28, entomologist, 28–29, senior entomologist, 29–30; *entomologist, pineapple research inst, Hawaii, 30–* Field explor. and biol. control studies, Jamaica, Cent. Amer, 32, Africa, Malaya, Java, P. I, Australia and Fiji, 37–38. Chairman land planning cmt, Territorial Planning Board. Del, Int. Cong. Entom, Paris, 32. A.A; Entom. Soc; Asn. Econ. Entom; Phytopath. Soc; Hawaiian Entom. Soc. (pres, 35); Hawaiian Bot. Soc. (v. pres, 41); Hawaiian Acad. (pres, 38). Insect ecology; plant diseases transmitted by insects.

Carter, Dean W(illiam) S(pencer), 151 Day St, Auburndale, Mass. *Physiology.* Warren Co, N. J, April 11, 69. M.D, Pennsylvania, 90. Res. physician, Phila. Hosp, 90; Presb. Hosp, 91; asst. physiol, Pennsylvania, 91–92, asst. demonstrator path, 92–95, asst. prof. comp. physiol. and demonstrator physiol, 95–97; prof. physiol, Texas, 97–22, dean med. faculty, 03–22; assoc. director med. sciences, Rockefeller Foundation, 22–34; dean med. faculty, sch. med, Texas, 35–38; *retired.* Quiz master, Med. Inst, Phila, 91–96. Physiol. Soc; Path. Soc. Phila; Col. Physicians Phila. Leucocytosis and blood serum; cause of uremia; the action of drugs and poisons; poisonous mushrooms; the parathyroids and thyroid gland; prophylaxis and control of tuberculosis; the milk supply; secretory action of renal epithelium; effect of increased intraspinal pressure on the circulation and respiration; ether anesthesia and the alkali reserve of the blood.

Carter, W(illiam) T(homas), College Station, Texas. *Soils.* Labette Co, Kans, July 9, 77. B.S, Agr. and Mech. Col. Texas, 98; fellow, Pa. State Col, 00–02. Assoc. soil scientist and soil scientist, bur. soils, *U. S. Dept. Agr,* 02–28, *senior soil scientist, bur. chem. and soils, and chief div. soil surv, Exp. Sta, Agr. and Mech. Col. Texas, 28–, inspector dist. IV, 34–* A.A; Soil Sci. Soc; Soc. Agron; Soc. Mil. Eng; Texas Geog. Soc; Texas Acad; Int. Soc. Soil Sci. Classification, mapping and utilization of soils.

Cartland, Dr. George F, The Upjohn Co, Kalamazoo, Mich. *Biochemistry.* Bath, Mich, 02. A.B, Kalamazoo Col, 24; Ph.D, Chicago, 27. *Research chemist, The Upjohn Co, 27–* Chem. Soc; Soc. Biol. Chem. The ovary; vitamin B; bioassays; hormones.

Cartledge, Prof. G(roves) H(oward), University of Buffalo, Buffalo, N. Y. *Chemistry.* Gainesville, Ga, Feb. 10, 91. A.B, A.M, Davidson Col, 11, hon. Sc.D, 37; Ph.D, Chicago, 16. Acting prof. chem, Davidson Col, 12–13; prof. chem. and physics, Presb. Col. (S. C), 13–17; assoc. prof. chem, Davidson Col, 17–18; chief chemist, Richmond Levering and Co, 19–20; assoc. prof. and prof. *chem,* Hopkins, 20–31; *prof. and head dept, Buffalo, 31–* C.W.S, U.S.A. A.A; Chem. Soc. Inorganic and physical chemistry.

Cartledge, Prof. J(oseph) Lincoln, West Virginia University, Morgantown, W. Va. *Botany.* Philadelphia, Pa, 95. A.B, Pennsylvania, 18, A.M, 21; Ph.D, Pittsburgh, 28. Instr. bot, Pennsylvania, 20–21; Pittsburgh, 21–29, asst. prof, 29–33; guest investigator, Carnegie Institution, 33–36; *asst. prof. genetics, West Virginia, 36–, asst. geneticist, Exp. Sta, 38–* A.A; Bot. Soc; Soc. Nat; Genetics Soc; W. Va. Acad. Sex in fungi; plant genetics; mutation.

Cartter, Jackson L(eaphart), 604 W. Nevada St, Urbana, Ill. *Agronomy.* Brookfield, Mo, Dec. 27, 02. B.S, Mont. State Col, 25; M.S, Iowa State Col, 26, fellow, 26–28; Wisconsin, 28–29. Asst. agronomist and *agronomist, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr, 29–* Soc. Agron. Soy-bean breeding and selection.

Cartwright, Dr. C. Hawley, 10 W. Second St, Corning, N. Y. *Physics.* Huntington, Ind, Aug. 27, 04. B.S, Calif. Inst. Tech,

26, Ph.D, 30. Teaching fellow, Calif. Inst. Tech, 26–30, fellow astrophys, 30–31; nat. research fellow physics, Wisconsin, 31–32; Physik. Inst, Berlin, 32–33; Cmn. Relief Belgium Educ. Foundation fellow, Liége and Bruxelles, 33–35; instr, Michigan, 35–36; consulting physicist, RCA, Hollywood, 36–37; instr. physics, Mass. Inst. Tech, 37–40; *research physicist, Corning Glass Works, 40–* A.A; Optical Soc; fel. Physical Soc. Infra-red spectroscopy; evaporation of metals; thermocouple construction and design; electron properties of semiconductors; infra-red dispersion of liquids; non-reflecting glass; high sensitivity galvanometers; vacuum radiation thermocouples.

Cartwright, L(eonard) C(arl), 57 Fifth Ave, New York, N. Y. *Chemistry.* Flatwoods, Mo, Sept. 17, 06. B.S, Florida, 27; A.M, Harvard, 35. Austin teaching fellow, Harvard, 27–28; chemist, Sterling Products Co, Easton, Pa, 29; refrig. research, Comstock and Westcott, Cambridge, Mass, 29–30; research worker, Raytheon, 30–31; chemist, Textile Patent and Process Co, Boston, 31; Skinner and Sherman, 32–35; chem. engineer, C. A. la Indust. Quimica Nac, Venezuela, S. Amer, 35; *chemist,* Sterisol Ampoule Corp, Long Island City, 36; *Foster D. Snell, Inc, 36–* Lecturer, univ. exten, State Dept. Educ, Mass, 32–33. Chem. Soc. A simple spintharioscope; electronics, textiles and dyeing; chemicalized paper; preparation of solutions for intravenous injection; formulation of lacquers; organic synthesis.

Cartwright, O(scar) L(ing), Clemson College, S. C. *Entomology.* Sharpsville, Pa, April 12, 00. B.S, Allegheny Col, 23; M.S, Ohio State, 25. Asst. entomologist, *Exp. Sta, Clemson Col,* 25–31, acting assoc. entomologist, 31–34, *assoc. entomologist, 34–* Entom. Soc. Amer; Asn. Econ. Entom; S. C. Acad. Biological control of Oriental fruit moth; control of rice weevil and associated insects in corn and wheat; biology and control of tomato fruit worm; fauna of South Carolina; Ataenius of the world; Scarabaeidae of North America.

Cartwright, W(illiam) B(ell), U. S. Department of Agriculture, Lafayette, Ind. *Entomology.* Goodlettsville, Tenn, Sept. 19, 94. B.S, Vanderbilt, 17. Field asst, bur. entom, U. S. Dept. Agr, 15; asst, lab. exp. entom, Tennessee, 16; instr. biol, Vanderbilt, 16–17; assoc. entomologist and *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 17–* A.A; Entom. Soc; Asn. Econ. Entom; Ind. Acad. Cereal and forage insects; Hessian fly.

Carver, Dr. E(mmett) K(irkendall), 115 Penfield Road, Rochester, N. Y. *Chemistry.* Leando, Iowa, July 9, 93. A.B, Harvard, 14, Ph.D, 17. Nat. research fellow, 19–21; instr. physical chem, Illinois, 21–24; chemist, research lab, *Eastman Kodak Co,* 24–28, *supt. dept. mfg. experiments, 29–* Capt, U.S.A, 18–19. Chem. Soc; Physical Soc. Physical chemistry; surface tension; adsorption; cellulose.

Carver, Prof. G(ail) L(uke), Mercer University, Macon, Ga. *Zoology.* Climax, Mich, Feb. 4, 79. A.B, Michigan, 07, A.M, 08; Columbia, 12–13. Acting prof. physics and astron, *Mercer,* 07–08, *prof. biol,* 08–18, *24–* Assoc. prof, Wesleyan Female Col, 21–25. Summers, Puget Sound Marine Sta; Marine Biol. Lab, Woods Hole. A.A; Eugenics Soc; Asn. Anat; Marine Biol. Lab; Genetic Asn; N. Y. Acad; Ga. Acad; Tenn. Acad. Hybridization effects in Drosophila.

Carver, Prof. Harry C(lyde), University of Michigan, Ann Arbor, Mich. *Mathematics.* Waterbury, Conn, Dec. 4, 90. B.S, Michigan, 15. Instr. math, *Michigan,* 16–18, asst. prof. math. and insurance, 18–25, assoc. prof. math. and statist, 25–36, *prof. math, 36–* Ed, 'Annals Math. Statist.' Fel. Statist. Asn; fel. Inst. Math. Statist; fel. Casualty Actuarial Soc. Mathematical statistics.

Carver, Prof. J(ohn) S(tuart), 406 Howard St, Pullman, Wash. *Poultry husbandry.* Boston, Mass, 92. B.S, Mass. Col, 13. Commercial poultry farms, N. J, Mass. and Conn, 13–14; head poultry dept, Essex County Agr. Sch, 15–17; exten. poultry specialist, Maine, 18–20; poultry specialist and head dept, Essex County Agr. Sch, 20–22; educ. director, Norfolk County Sch, 22–23; *prof. poultry and head dept, State Col. Wash, 24–, poultryman, Exp. Sta, 24–* Poultry Sci. Asn. Nutrition; incubation and brooding.

Carver, Prof Merton E(zra), University of Richmond, Richmond, Va. *Psychology.* Scottsville, N. Y, Oct. 26, 01. A.B, Rochester, 25, A.M, 27; Ph.D, Harvard, 34. Asst. psychol, Rochester, 25–27, instr, 29–33; *assoc. prof. psychol. and sociol, Richmond, 35–* Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; South. Soc. Psychol. and Philos; Va. Acad. Student counseling and guidance; reading problems; personality adjustment; attitudes.

Carver, Prof. Walter B(uckingham), 204 Oak Hill Road, Ithaca, N. Y. *Mathematics.* Town Hill, Pa, Jan. 11, 79. Gettysburg Col, 95–96; Ph.B, Dickinson Col, 99, hon. Sc.D, 29; fellow, Hopkins, 03–04, Ph.D, 04. Asst, Hopkins, 00–01; prof. math. and physics, Ursinus Col, 04–06; instr. *math, Cornell,* 06–10, asst. prof, 10–25, *prof, 25–* Ed. in chief, 'Am. Math. Monthly,' 32–35. Math. Soc. (councilor, 27–30); Math. Asn. (pres, 39). Projective geometry; algebra.

Carver, Dr. W(illiam) A(ngus), Gainesville, Fla. *Genetics.* Fairforest, S. C, Aug. 6, 95. B.S, Clemson Col, 21; M.S, Wisconsin, 22; Ph.D, Iowa State Col, 25. Asst. genetics, Wisconsin, 21–22; Iowa State Col, 22–25; asst. cotton specialist and *assoc. agronomist, Exp. Sta, Florida, 25–* Inheritance in maize and cotton; cotton, peanut and corn breeding.

Carvin, Prof. Frank D(ana), Newark College of Engineering, Newark, N. J. *Engineering.* Philadelphia, Pa, Nov. 16, 92. B.S, Pennsylvania, 16, M.E, 24; A.M, Columbia, 30; Ph.D, N. Y. Univ, 34. Engineer, Salem and Pennsgrove Traction Co, 16–17; operation dept, Phila. Elec. Co, 17–23; instr. *mech. eng,* Pennsylvania, 19–24; asst. prof, Polytech. Inst. Brooklyn, 24–34; *prof, Newark Col. Eng, 34–; consulting engineer, N. Y. and N. J.* Instr, Drexel Evening Sch, 19–24. U.S.A, 17–19. Mech. Eng. (chairman metrop. sect, 41); Eng. Educ. (sec'y mid-Atlantic sect, 40–). Heat and power; band spectra analysis.

Carwile, Prof. Lois Corinne Ketcham (Mrs. Preston B. Carwile), 116 E. North St, Bethlehem, Pa. *Absorption spectra, Physics.* Wood Co, Ohio, Sept. 4, 95. Oberlin Col, 13–14; A.B, Woman's Col, Richmond, Va, 15; B.S, Virginia, 23, M.S, 24, Ph.D, 27. Teacher math, high schs, 15–22; *assoc. prof. physics, Moravian Sem. and Col, 39–* Measurement of wave-lengths in the absorption spectrum of nitrogen peroxide.

Carwile, Prof. Preston B(anks), 116 E. North St, Bethlehem, Pa. *Physics.* Campbell Co, Va, Aug. 7, 96. A.B, Davidson Col, 20; A.M, Virginia, 24, Ph.D, 27. Test man, Gen. Elec. Co, 20–21; teacher, high sch, N. C, 21–22; instr. *physics,* Virginia, 22–23, teaching fellow, 23–27; asst. prof, *Lehigh,* 27–31, *assoc. prof, 31–* Physical Soc. Electricity.

Cary, C(harles) A(aron), 4605 Queensbury Road, Riverdale, Md. *Chemistry.* Grand Rapids, Wis, 80. B.S, Chicago, 11, 15–17, summers, 12–17. Prin, high sch, Wis, 06–07; prof. chem, Chicago Col. Med. and Surg, 10–16; chemist, *bur. dairy indust, U. S. Dept. Agr,* 17–40, *chief div. nutrition and physiol, 40–* Assoc. prof, Chicago Col. Dental Surg, 10–12. Chem. Soc; Soc. Biol. Chem; Dairy Sci. Asn; Soc. Animal Production; Wash. Acad. Physiology of reproduction and milk secretion; animal nutrition.

Cary, Dr. E(dward) H(enry), 631 Medical Arts Bldg, Dallas, Texas. *Ophthalmology.* Union Springs, Ala, Feb. 28, 72. M.D, N. Y. Univ, 98; LL.D, Baylor, 16. *Prof. ophthal. and otolaryngol. and chairman dept, col. med, Baylor, 02–,* dean, 03–20, *emer. dean, 20–* Chairman board and pres, Nat. Physicians Cmt. Fel. Col. Surg; Am. Med. Asn. (trustee, 25–29, pres, 32, chairman, cmt. legislative activities); Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol. (councilor); Southwest. Med. Foundation (pres); South. Med. Soc. (past pres); Texas Med. Asn. (past pres); Texas Ophthal. and Otolaryngol. Soc. (past pres); Texas Philos. Soc. (pres); Dallas County Med. Soc. (past pres).

Cary, Prof. L(ewis) R(obinson), Princeton University, Princeton, N. J. *Zoology.* Topsham, Maine, Sept. 1, 80. B.S, Maine, 01, M.S, 02; Ph.D, Princeton, 09. Asst. biol, Maine, 01–03; zoologist, Gulf Biol. Sta, La, 05–08; instr. *biol, Princeton,* 10–15, *asst. prof, 16–* Research assoc, Carnegie Institution exped, Samoa and Fiji, 17– A.A; Soc. Nat. Embryology of trematodes and coelenterates; coral reef formation; culture of invertebrate tissues in vitro.

Casagrande, Prof. Arthur, Harvard University, Cambridge, Mass. *Civil engineering.* Haidenschaft, Austria, Aug. 28, 02. Ing, Tech. Hochschule, Vienna, 24, Dr.tech, 33. Junior engineer, tunnel construction, 23; asst. hydraul. Tech. Hochschule, Vienna, 24–26; draftsman, Carnegie Steel Co, Newark, N. J, 26; asst, bur. pub. roads, U. S. Dept. Agr, 26–32; lecturer soil mech, *grad. sch. eng, Harvard,* 32–34, asst. prof. *civil eng,* 34–39, *assoc. prof, 39–* Consulting engineer, War

Dept. Clemens Herschel prize, 32; Desmond Fitz-Gerald medal, 36. A.A; Eng. Educ; Civil Eng; Boston Soc. Civil Eng. Soil mechanics; foundation engineering; soil physics; soil-testing methods; earth dams.

Casals-Ariet, Dr. J(orge), Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Pathology, Bacteriology.* Spain, May 15, 11. B.S, Instituto Nacional, 28; M.D, Barcelona, 34. Asst. res. physician, Med. Sch. Hosp, Barcelona, 34–36; asst. path, sch. med, Cornell, 37–38; *path. and bacter, Rockefeller Inst,* 38–41, *assoc, 41–* A.A; Harvey Soc. Neurotropic virus diseases.

Casamajor, Prof. Louis, 706 W. 168th St, New York, N. Y. *Neurology.* Brooklyn, N. Y, Aug. 12, 81. A.B, Columbia, 03, A.M, M.D, 06. Chief clinic, *N. Y. Neur. Inst,* 09–15, director labs, 23–30, *senior attending neurologist, 30–, assoc. director div. child neur, 35–;* chief, Vanderbilt Clinic, 15–30, director, 30–36; instr. *neur, Columbia,* 14–15, asst. prof, 15–16, assoc. prof, 16–19, *prof, 19–* Consulting neurologist, Sloane Hosp, 21–; Mineola and Beekman St. Hosps, 24–; Knickerbocker Hosp, 25–; King's Park Hosp, 29–; consultant, Englewood and Manhattan State Hosps, 32– Assoc. ed, 'Archives of Neur. and Psychiat,' 30– Mem, Am. Board Psychiat. and Neur, 34–41. M.R.C, 17–19, major. A.A; Neur. Asn. (v. pres, 39); Am. Med. Asn; Asn. Anat; Psychiat. Asn; Soc. Mammal; N. Y. Neur. Soc. (pres, 29); N. Y. Psychiat. Soc. (v. pres, 35, pres, 36); N. Y. Soc. Clin. Psychiat. (sec'y, 23, pres, 27); N. Y. Zool. Soc; N. Y. Acad. Med.

Casberg, Prof. Carl H(erbert), University of Illinois, Urbana, Ill. *Mechanical engineering.* LaCrosse, Wis, Dec. 29, 85. B.S, Wisconsin, 16, M.E, 24. Asst. gen. supt, Rockford Drilling Machine Co, 16–21; instr, high sch, Ill, 21–23; supt. machine lab, Illinois, 23–26; develop. engineer, West. Elec. Co, 26–28; *prof. mech. eng, Illinois, 28–* Mech. Eng. Durability of molding sands; core oils; metal cutting.

Case, Prof. Earl C(lark), University of Cincinnati, Cincinnati, Ohio. *Geography.* Sumner, Ill, 87. Ed.B, Ill. State Nor. Univ, 15; Ph.D, Chicago, 25. Asst. prof. *geog, Cincinnati,* 20–25, assoc. prof, 25–30, *prof, 30–* A.A. Relation of industry to environment; forests and forest industries of marine regions; agriculture and commerce of Uganda; pastoral and agricultural industries of Kenya Colony and Protectorate; cotton culture; college geography; world geography.

Case, Prof. E(rmine) C(owles), University of Michigan, Ann Arbor, Mich. **3Geology, Paleontology.* Kansas City, Mo, Sept. 11, 71. A.B, A.M, Kansas, 93; M.S, Cornell, 95; Ph.D, Chicago, 96. Asst. chem, Kansas, 93–95; instr. vert. paleont, Chicago, 96; prof. geol. and physical geog, Wis. State Nor. Sch, Milwaukee, 97–07; asst. prof. *hist. geol. and paleont, Michigan,* 07–08, junior prof, 09–13, prof, 13–41, *emer. prof, 41–,* director museum paleont, 29–41, chairman dept. geol, 35–41. A.A; Soc. Nat; Geol. Soc; Paleont. Soc. (pres, 29); Soc. Mammal; Philos. Soc; Mich. Acad. (pres, 12); Wash. Acad; cor. mem. Chile Soc. Nat. Hist. Osteology and morphology of extinct reptiles; morphology of Permian and Triassic vertebrates of America; paleogeography.

Case, Prof. F(rancis) H(untington), Temple University, Philadelphia, Pa. *Organic chemistry.* Milwaukee, Wis, April 4, 99. B.S, Michigan, 20; M.S, Yale, 21, Ph.D, 23. Nat. research fellow, Harvard, 23–25; instr. chem, Swarthmore Col, 25–26; research fellow, Am. Petrol. Inst, Hopkins, 26–27; from instr. to *asst. prof. chem, Temple,* 27– New local anesthetics; derivatives of p-hydroxy methyl benzoic acid; cyclopentane derivatives; chemistry of biphenyl; phenylcyclo-paraffins; reactions of gamma-iodo-propylchloride.

Case, Prof. H(arold) C(layton) M, University of Illinois, Urbana, Ill. *Agriculture.* Dunlap, Ill, March 1, 90. B.S, Illinois, 12, M.S, 19; Ph.D, Wisconsin, 31. Agriculturist in charge farm management demonstrations, U. S. Dept. Agr, 19–21; acting head dept. farm organization and management, *Illinois,* 22–30, head dept, 30–33, assoc. prof. *agr. econ,* 30–31, *prof, 31–, head dept, 34–* Asst. to governor, Fed. Farm Credit Admin, 33–34; mem. special cmt. on grad. study, Social Science Research Council. Traveling fellow, Int. Conf. Agr. Econ. A.A; Farm Econ. Asn. (pres, 30, ed, 36, 37). Agricultural economics.

Case, Dr. Harry W, 3633 W. 104th St, Inglewood, Calif. *Psychology.* Searchlight, Nev, July 21, 08. A.B, California at Los Angeles, 35, A.M, 37, Ph.D, 39. Teaching asst, California at Los Angeles, 35–39, research assoc, 40–41; lieut. (j.g), U. S. Navy, 41; assoc. psychol, Illinois, 41–42; *asst. personnel manager of eng, El Segundo plant, Douglas Aircraft Co, Inc, 42–* Stuttering and stammering, a comparative study of maladjustment; control experiments and their relation to theories of hypnotism; military psychology.

Case, Dr. James T(homas), 55 E. Washington St, Chicago, Ill. *Surgery, Radiology.* San Antonio, Texas, Jan. 5, 82. M.D, Illinois, 05; diploma, Cambridge, 20. *Prof. radiol, med. sch, Northwestern, 13–* Chief surgeon, Battle Creek Sanitarium, Mich, 19–29. Ed, 'Am. Jour. Roentgenol,' 16–18, assoc. ed, 19–30; 'Am. Jour. Surg,' 30–; ed, 'Annals of Roentgenol,' 20–37. Trustee, Battle Creek Col, 25–31. Gold medal, Am. Roentgen Ray Soc, 39. Lieut. col, M.C, 17–18, col, M.R.C, 20–32, lieut. col, Ill. Nat. Guard, 32–37. Col. Surg. (mem. board governors, 25–36); Col. Radiol. (pres, 29); Roentgen Ray Soc. (pres, 20; Caldwell lecturer, 39); Radium Soc. (pres, 24); West. Surg. Asn; Chicago Surg. Soc; Detroit Acad. Surg; hon. fel. London Roentgen Soc; fel. Royal Soc. Med; Soc. de Radiol. méd. de France; Soc. méd. des Hôpitaux de Paris; Soc. de Gastroenterol. de France; hon. mem. Wiener Gesell. für Roentgen; hon. mem. Brazil Acad. Med; Peruvian Surg. Soc; hon. mem. Peru Acad. Med; hon. mem. P. R. Acad. Med; hon. mem. Mex. Acad. Med; hon. mem. Argentina Radiol. Soc; hon. mem. Acad. de Cien. de Cuba. Applications of radiology to surgery and medical diagnosis; x-ray examination; x-ray and radium therapy.

Case, Prof. Lee O(wen), University of Michigan, Ann Arbor, Mich. *Physical chemistry.* Marshall, Mich, Oct. 3, 95. B.S, Michigan, 20, M.S, 21, Ph.D, 26. Instr. *physical chem, Michigan,* 23–32, *asst. prof, 32–* Chem. Soc. Conductivity of solutions; phase diagrams; surface tension.

Case, Dr. Theo(dore) J(ohnston), 950 E. 59th St, Chicago, Ill. *Neurophysiology.* Milwaukee, Wis, March 15, 00. B.S, Michigan, 23, M.D, 30. Instr. neur, *univ. clinics, Chicago,* 38–40, *asst. prof. neurophysiol, 40–* Neur. Asn. Electrical activity of the nervous system; electroencephalography.

Case, Theodore W(illard), 91 South St, Auburn, N. Y. *Physics, Chemistry.* Auburn, N. Y, Dec. 12, 88. A.B, Yale, 12; hon. M.S, George Washington, 18. *Private research, Case Lab, 13–, pres.* With Fox-Case Movietone Corp, 26–29. A.A; Chem. Soc; Physical Soc; Optical Soc; N. Y. Elec. Soc; Royal Soc. Arts. Light reactive substances; photoelectric phenomena; light recording apparatus; infra-red telegraphy and telephony; the aeo light; supersonics; sound films; high frequency sound waves.

Casey, Dr. Albert E(ugene), 1907 Wellington Road, Birmingham, Ala. *Pathology.* New York, N. Y, March 13, 03. A.B, Spring Hill Col, 22; M.D, St. Louis, 27. Asst. anat, sch. med, St. Louis, 24–27; asst. and assoc. path. and bacter, Rockefeller Inst, 27–34; assoc. prof. path. Virginia, 34–36; assoc. prof. and chairman dept, St. Louis, and director lab, Univ. Hosp, 36–38; asst. prof. path. and bacter, Louisiana, 38–42; *pathologist and director lab, Baptist, Jefferson and Holy Name of Jesus Hosp, 42–* Intern, Univ. Hosp, St. Louis, 26–27; surg. path, Cornell, 34; tumor pathologist, Mem. Hosp, New York, 34–36; assoc, Univ. Va. Hosp, 34–36; pathologist, St. Louis Univ. and Hosp, 36–38; visiting and senior visiting pathologist, Charity Hosp, New Orleans, 38–; field epidemiologist, Nat. Foundation Infantile Paralysis, 41; consulting pathologist, Children's and Hillman Hosp, 42– Grant, Int. Cancer Research Foundation, 34–40. Mem. exec. cmt, Encephalitis Fund, 37. A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol. (councilor, 41); Asn. Anat; Am. Med. Asn; Asn. Cancer Research; Soc. Clin. Path; South. Med. Asn; Harvey Soc; La. Asn. Path. (sec'y, 41, v. pres, 42); New Orleans Acad. (exec. cmt, 41–43). Constitution; syphilis; hematology; transplanted tumors; mitosis; biometry; encephalitis; poliomyelitis.

Casey, Robert S(abert), Denmark Hill, Ft. Madison, Iowa. *Chemistry.* Ft. Madison, Iowa, Jan. 11, 98. B.S, Trinity Col. (Conn), 19, M.S, 20; Columbia, 20–21. Chemist, *W. A. Sheaffer Pen Co,* 21–22, chemist and manager Skrip factory, 22–33, *chemist in charge research lab, 34–* A.A; Chem. Soc. (v. chairman, Iowa sect, 40); assoc. Chem. Eng; Soc. Mil. Eng; fel. Inst. Chem; Iowa Eng. Soc. Development, production and methods of testing writing inks; adhesives; special water treatments; laboratory apparatus and methods.

Cash, Edith K(atherine), U. S. Department of Agriculture, Beltsville, Md. *Botany.* Binghamton, N. Y, Oct. 4, 90. A.B, George Washington, 12. Bot. translator, *bur. plant indust, U. S. Dept. Agr,* 13–24, from junior pathologist to *asst. mycologist, 24–* A.A; Phytopath. Soc; Mycol. Soc; Bot. Soc.

Wash; Biol. Soc. Wash. Taxonomy of fungi, especially discomycetes.

Cash, Dr. J(ames) R(obert), University of Virginia, Charlottesville, Va. *Pathology.* Chattanooga, Tenn, May 2, 93. A.M, Virginia, 15; M.D, Hopkins, 19. From asst. to assoc. *path,* Hopkins, 19–24; assoc. prof, Peking Union Med. Col, 24–27, prof, 27–31; *Walter Reed prof, Virginia, 31–* Asn. Exp. Path; Soc. Exp. Biol. Development of lymphatic system; experimental hypertension; tuberculosis; kala-azar; diseases of the blood; arteriosclerosis.

Cash, Lillian C, U. S. Department of Agriculture, Beltsville, Md. *Botany.* Ellenville, N. Y, 86. A.B, George Washington, 09. Cataloguer, U. S. Nat. Museum, 10–14; sci. asst, lab. plant path, *bur. plant indust, U. S. Dept. Agr,* 14–23, junior pathologist, 23–30, *asst. pathologist, div. fruit and veg. crops and diseases, 30–* A.A; Phytopath. Soc; Wild Flower Preservation Soc; Biol. Soc. Wash; Bot. Soc. Wash. Bacterial diseases of plants; diseases of potatoes.

Cashman, Dr. R(obert) J(oseph), Northwestern University, Evanston, Ill. *Physics.* Wilmington, Ohio, 06. A.B, Bethany Col. (W. Va), 28; A.M, Northwestern, 30, Ph.D, 35. Teaching fellow math, Bethany Col. (W. Va), 27–29, asst. *physics,* 29–30; instr, *Northwestern,* 30–36, asst. prof, 36–40, *assoc. prof, 41–* Tech. adviser, Guthier Airplane Co, 30–31. Physical Soc. Photoelectricity; ultra-violet radiation applied to biological problems.

Casida, Prof. L(ester) E(arl), University of Wisconsin, Madison, Wis. *Genetics.* Chula, Mo, April 9, 04. B.S, Northeast Mo. State Teachers Col, 26; scholar, Missouri, 26–27, A.M, 27, fellow, 31–32, Ph.D, 32. Asst. animal husbandry, Missouri, 27–29; acting prof. biol. science, Ariz. State Teachers Col, 29–30; agr, Ark. State Teachers Col, 30–31; nat. research fellow, *Wisconsin,* 32–34, asst. prof. *genetics,* 34–39, *assoc. prof, 39–* Soc. Animal Production; Asn. Study Int. Secretions; Soc. Exp. Biol; Genetic Asn. Heritable variations in reproduction; endocrines in relation to reproduction; reproduction as affected by nutrition; differential fertilization.

Casman, Dr. E(zra) P(hilip), Naval Medical School, Naval Medical Center, Bethesda, Md. *Bacteriology.* New Haven, Conn, Nov. 10, 04. B.S, Yale, 27, Ph.D, 31. *Bacteriologist,* Phila. Gen. Hosp, 31–33; Abington Mem. Hosp, 33–41; *Naval Med. Sch, 41–* A.A; Soc. Bact; Pub. Health Asn. Catalytic mechanisms in bacterial growth; serological diagnostic procedure; bacterial growth at high temperatures; Staphylococcus; skin disinfection.

Cason, Dr. Hulsey, U. S. Medical Center, Springfield, Mo. *Psychology.* Lexington, Ga, Feb. 21, 93. A.B, Mercer, 13; A.M, Columbia, 20, fellow, 21–22, Ph.D, 22. Instr. physics, Locust Grove Inst, 13–17; asst. prof. psychol, Kansas, 22–23; Syracuse, 23–24, assoc. prof, 24–26; asst. prof, Rochester, 26–27, prof, 27–30; Wisconsin, 30–40; *psychologist, U. S. Pub. Health Service, 40–* Summers, lecturer, North Carolina, 23; Columbia, 27, 29; Wisconsin, 30. Lieut, U.S.A, 17–19. A.A; Psychol. Asn. Conditioned response; experimentation in learning, retention and reproduction; theories of learning and association; affectivities; organic psychology; dreams and neurotic symptoms; the psychopath and the psychopathic; criminal psychology and psychiatry.

Cason, Dr. James, (Jr), Vanderbilt University, Nashville, Tenn. *Organic chemistry.* Murfreesboro, Tenn, Aug. 30, 12. A.B, Vanderbilt, 34; M.S, California, 35; Ph.D, Yale, 38. Asst. to Prof. L. F. Fieser, Harvard, 38–40; *instr. org. chem,* DePauw, 40–41; *Vanderbilt, 41–* Chem. Soc. Lipids of tubercle bacillus; carcinogenic hydrocarbons and related compounds; branched-chain fatty acids.

Caspari, Dr. Ernst (Wolfgang), Lafayette College, Easton, Pa. *Genetics.* Berlin, Germany, Oct. 24, 09. Freiburg, 28; Berlin, 28–29; Frankfort, 30–31; Ph.D, Göttingen, 33. Asst. zool, Göttingen, 33–35; microbiol, Istanbul, 35–38; fellow *biol, Lafayette Col,* 38–41, *asst. prof, 41–* A.A; Genetics Soc. Physiological genetics.

Cass, Dr. Oliver W(ilfred), E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Organic chemistry.* Sauk Center, Minn, Nov. 27, 02. B.S, Hamline, 23; M.S, Chicago, 27; Ph.D, Minnesota, 31. Instr. chem, Hamline, 23–26, asst. prof, 26–27; assoc. prof, Oklahoma City, 27–33; *mem. electrochem. dept, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Polymethyl benzenes and the Jacobson reaction; organic chloro compounds; nitriles.

Cass, Dr. William E(merson), Research Laboratory, General Electric Company, Schenectady, N. Y. *Organic chemistry.* Richford, Vt, March 5, 14. Ph.B, Vermont, 35; Ph.D, N. Y. Univ, 38. Instr. org. chem, univ. col, N. Y. Univ, 38–42; *research chemist, Gen. Elec. Co, 42–* Chem. Soc. Chemistry of nitrogen heterocycles and derivatives.

Cassel, Dr. Hans M, 1126 E. 46th, Chicago, Ill. *Physical chemistry.* Berlin, Germany, Jan. 19, 91. Ph.D, Berlin, 14. Asst. prof. physical chem, Berlin Inst. Tech, 27–33; research assoc. chem, Stanford, 34–35; *research,* Great West. Electrochem. Co, 36; Colgate-Palmolive-Peet Co, 37–40; Int. Filter Co, 41; *Dearborn Chem. Co, 42–* A.A; Chem. Soc; N. Y. Acad. Adsorption of gases and organic vapors on mercury; adsorption on curved surfaces and emulsification; effect of pressure upon over-potential of hydrogen; kinetics of steam generation.

Casselberry, Prof. R(ussell) D(avid), 306 S. Atherton St, State College, Pa. *Zoology.* Howard, Pa, Jan. 1, 92. B.S, Pa. State Col, 15, M.S, 22. Teacher, high sch, Pa, 15–18; instr. *zool, Pa. State Col,* 18–22, asst. prof, 22–33, *assoc. prof, 33–*

Cassell, Prof. R(obert) C(alder), 917 W. Chautauqua St, Carbondale, Ill. *Agriculture.* La Harpe, Ill, Oct. 8, 06. Knox Col; B.S, Iowa State Col, 30; M.S, Idaho, 32; Ph.D, Minnesota, 38. Asst. state leader barberry eradication, Iowa, 30–31; teaching fellow, Idaho, 31–32; agent, black stem rust epidemiol, bur. plant indust, U. S. Dept. Agr, Exp. Sta, Minnesota, 34–36, asst. plant pathological inspector, 36–38; *assoc. prof. agr, South. Ill. Nor. Univ, 38–* Phytopath. Soc; Ill. Acad; Ill. State Hort. Soc. Powdery mildew of clovers caused by Erysiphe polygoni; cytology of Urocystis occulta, the cause of flag smut of rye; epidemiology of Puccinia graminis tritici, the cause of black stem rust of wheat; hybrid corn and field crop fertilization.

Casselman, Dr. A(rthur) J(ay), 301 N. Second St, Camden, N. J. *Biochemistry.* Camden, N. J, March 14, 88. M.D, Pennsylvania, 11, Dr.P.H, 15. *Consultant, bur. venereal disease control, State Dept. Health, N. J, 19–* Bacteriologist in charge labs, Camden; A. A. Surgeon, U. S. Pub. Health Service. Am. Med. Asn; Pub. Health Asn; N. J. Sanit. Asn; Path. Soc. Phila. Diagnosis of syphilis.

Casselman, E(lbridge) J(ohnson), Mellon Institute, Pittsburgh, Pa. *Industrial chemistry.* Washington, D. C, Nov. 29, 93. B.S, Mass. Inst. Tech, 15. Asst. chemist, U. S. Pub. Health Service, 18–20; research chemist, Westinghouse Elec. and Mfg. Co, 20–23; *indust. fellow, Mellon Inst, 23–* Chem. Soc. (ed, Pittsburgh sect, 'Crucible,' 21); Chem. Eng. (chairman, Pittsburgh sect, 39); Ceramic Soc. (chairman, Pittsburgh sect, 25). Prevention of stream pollution by dye wastes; synthetic resins; refractories for melting glass; cutlery steels.

Cassen, Dr. Benedict, Westinghouse Research Laboratories, East Pittsburgh, Pa. *Physics.* Nov. 13, 02. Royal Col. Science, London, 27; M.S, Calif. Inst. Tech, 28, Ph.D, 30. Nat. research fellow, Princeton, 30–32; physicist, Kelley Koett Mfg. Co, Covington, Ky, 32–33; Westinghouse X-Ray Co, 33–35; x-ray research lab, Harper Hosp, 35–38; *Westinghouse Research Labs, 39–* Physical Soc; assoc. Royal Col. Sci. X-ray and high voltage development; nuclear theoretical physics.

Cassidy, Dr. Harold G(omes), Yale University, New Haven, Conn. *Organic chemistry.* Havana, Cuba, Oct. 17, 06. A.B, Oberlin Col, 30, A.M, 32; Ph.D, Yale, 39. Research chemist, Wm. S. Merrell Co, Cincinnati, Ohio, 33–36; *instr. chem,* Oberlin Col, 36–37; *Yale, 38–* Summer, instr, Inst. Divi Thomae, 37. A.A; Chem. Soc; N. Y. Acad. Chromatographic adsorption analysis.

Cassil, Carroll C(layton), Box 1291, Yakima, Wash. *Chemistry.* Kans, Dec. 17, 11. B.S, George Washington, 37. Junior chemist, anal. spray residue problems, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 37–39, asst. chemist *anal. and insecticide chem,* 39–40, *assoc. chemist, 40–* Lab. asst, George Washington, 38–39. Asn. Official Agr. Chem. (assoc. referee arsenic, 36–39); Asn. Econ. Entom; Chem. Soc. Analytical chemistry; insecticide chemistry; use of insecticides for the control of the codling moth.

Cassity, Dr. C. Ronald, 1110 N. Kensington, Arlington, Va. *Mathematics.* Orange, N. J, March 19, 08. A.B, James Millikin, 29; A.M, Illinois, 31, Ph.D, 38. *Instr. math,* Clarkson Col, 31–36; *Alabama, 38–; office chief sig. officer, U. S. War Dept, 42–* Math. Soc. Algebraic geometry.

Casteel, Prof. D(ana) B(rackenridge), University of Texas, Austin, Texas. *Zoology.* Grafton, W. Va, May 15, 77.

A.B, Allegheny Col, 99; A.M, Ohio Wesleyan, 00; fellow, Pennsylvania, 02-04, Ph.D, 03. Acting prof. biol, Mo. Valley Col, 04-05; instr. *zool*, Michigan, 05-09; *Texas*, 09-11, adj. prof, 11-14, assoc. prof, 14-19, *prof, 19–* Soc. Zool. Molluscan embryology; reptilian and insect behavior; cytology.

Caster, Dr. A(lfred) B(yron), 2610 E. Fifth St, Tucson, Ariz. *Agricultural chemistry, Soils.* Dodge City, Kans, June 6, 06. A.B, Baker, 31; M.S, State Col. Wash, 34; Ph.D, Arizona, 41. Owner, private lab, Wash, 35-36; ed, office information, soil conservation service, U. S. Dept. Agr, 36-37; indust. feeding, private concern, Ohio, 37-38; vitamin research chemist, dept. home econ, State Col. Wash, 41-42; *asst. agr. chemist, Exp. Sta, Arizona, 42–* Nitrogen transformations in alkaline soils during nitrification; bound water as related to agricultural phenomena.

Caster, Prof. J(ay) E(dward), Scripps College, Claremont, Calif. *Psychology.* Mt. Carmel, Pa, Sept. 16, 98. Ph.B, Wesleyan, 23; Ph.M, Wisconsin, 28, Ph.D, 30. Asst. psychol, Wisconsin, 26-30; instr, Arizona, 30-31, asst. prof, 31-35, *assoc. prof*, 35; *biol. sciences, Scripps Col, 35–* Physiological psychology; physiological disturbances to startle stimuli; new index for the measurement of the degree of variability in respiratory tracings; disturbances of physiological rhythms to music; biological aspects of the thought process.

Caster, Dr. Kenneth E(dward), 425 Riddle Road, Cincinnati, Ohio. *Geology, Paleontology.* New Albany, Pa, Jan. 26, 08. A.B, Cornell, 29, M.S, 31, Ph.D, 33. Asst. entom, Cornell, 28-30, geol, 29-30, instr. paleont, 30-32, geol, 32-35; researcher, Paleont. Research Institution, Ithaca, 35-36; asst. head dept. science, N. Y. State Nor. Sch, Geneseo, 35-36; curator paleont, museum, *Univ. Cincinnati*, 36-40, *asst. prof. geol, 40–, fellow, grad. sch, 39–* Grant-in-aid, Nat. Research Council, 35-37. Trustee, Paleont. Research Institution, Ithaca, 39–, v. pres, 41– A.A; Asn. Petrol. Geol; fel. Paleont. Soc; fel. Geol. Soc; Soc. Vert. Paleont; N. Y. Acad; fel. Ohio Acad. (v. pres, 42); Cincinnati Soc. Nat. Hist. (mem. board); Soc. géol. de France. Devonian and Mississippian stratigraphy and paleontology; problematica and ichnology; Tertiary paleontology; Devonian Pelecypoda; fossil sponges and coelenterates; Devonian faunas and Paleozoic paleogeography of South America.

Castetter, Prof. E(dward) F(ranklin), University of New Mexico, Albuquerque, N. Mex. *Biology.* Pitman, Pa, March 11, 96. A.B, Lebanon Valley Col, 19; fellow, Pa. State Col, 19-20, M.S, 21; Chicago; Ph.D, Iowa State Col, 24. Asst. prof. biol, South. Methodist, 20-21; from instr. to assoc. prof. bot, Iowa State Col, 21-28; *prof. biol, New Mexico, 28–* A.A; Anthrop. Asn; Bot. Soc. (chairman, gen. sect, 41). Cytology of Melilotus alba; taxonomy and species crosses in the genus Cucurbita; cytology of the Cucurbitaceae; ethnobotany; origin and spread of cultivated plants; primitive Indian agriculture.

Castiglioni, Dr. Arturo, Yale University School of Medicine, New Haven, Conn. *History of medicine.* Trieste, Italy, April 10, 74. M.D, Vienna, 96. Chief sanit. office, Italian Line, Trieste, 03-39; prof, Padua, 20-39; Perugia, 30-39; *asst. prof. hist. of med, med. sch, Yale, 39–* Hon. prof, Santiago, 31; lecturer, Hopkins, 33. N. Y. Soc. Hist. Med. (pres, 42); hon. mem. Acad. Nacional de Med. Buenos Aires; Royal Soc. Med. London; Italian Soc. Hist. of Med. (v. pres, 32-38). The renaissance of medicine in Italy.

Castle, Prof. Edward S(ears), Harvard University, Cambridge, Mass. *Physiology.* Cambridge, Mass, Dec. 25, 03. A.B, Harvard, 25, A.M, 27, Ph.D, 29. Instr. and tutor *physiol, Harvard*, 29-31, asst. prof, 31-40, *assoc. prof, 40–* A.A; Physiol. Soc; Bot. Soc; Soc. Plant Physiol. Growth; effects of radiation; phototropism; cellular physiology; plant cell wall.

Castle, Prof. Gordon B(enjamin), Montana State University, Missoula, Mont. *Zoology.* Portland, Ind, Aug. 10, 06. A.B, Wabash Col, 28; A.M, California, 30, Ph.D, 34. Asst. biol, termite investigations cmt, California, 28-31, teaching fellow *zool*, 31-33; instr, *Montana*, 34-36, asst. prof, 36-38, assoc. prof, 38-39, *prof, 39–*, acting head dept, 37-38, *chairman dept, 38–, director biol. sta, 38–* A.A; Ecol. Soc; Wildlife Soc; Soc. Zool; Mont. Acad. (pres, 40). Social insects; animal ecology.

Castle, Prof. Hempstead, Yale University, New Haven, Conn. *Morphology, Bryology.* Springfield, Mass, Dec. 1, 94. B.S, Cornell, 21, A.M, 23; Ph.D, Yale, 26. Instr, Bay Path. Inst, 13-14; high sch, N. Y, 15-17; asst. bot, Cornell, 21-23; instr, high sch, Conn, 23-24; *bot, Yale*, 24-25, 28-29, asst. prof, 29-40, *assoc. prof, 41–* Morphology and taxonomy of bryophytes.

Castle, S(amuel) N(orthrup), Waimanalo, Oahu, Hawaii. *Engineering.* Honolulu, Hawaii, Feb. 6, 80. A.B, Harvard, 01; Cornell, 02-04. Turbine design, Westinghouse Machine Co, 04; turbine test, Gen. Elec. Co, 05; shops, Allis Chalmers, 05-06, construction engineer, 06-08; private practise, Europe, 08-09; commercial eng, Gen. Elec. Co, 09-19; *advisory engineer, 19–* Lecturer, U. S. Army Col, Sandy Hook, 10-14. Regent and sec'y board, Hawaii, 41–; trustee, Samuel N. and Mary Castle Foundation. A.A; fel. Elec. Eng; Mech. Eng; Chem. Eng; Civil Eng; Min. and Metal. Eng; Am. Iron and Steel Inst; Soc. Automotive Eng; Soc. Mil. Eng; Math. Soc; Army Ordnance Asn; life mem. N. Y. Elec. Soc. (past v. pres); Harvard Eng. Soc. (first sec'y); Eng. Asn. Hawaii. Special engineering calculations; developments in high speed machinery and electro-siderurgy.

Castle, Prof. W(illiam) A(ugustus), 1430 Littlepage St, Fredericksburg, Va. *Zoology.* Alexandria, Ohio, May 30, 04. B.S, Denison, 24; Ph.D, Chicago, 28. Instr. biol, Brown, 28-32, asst. prof, 32-38; guest investigator zool, Chicago, 38-40; instr. *biol*, Stephens Col. (Mo), 40-41; *prof, Mary Washington Col, 41–* Prof, Gary Col, 38-40. Summers, instr, biol. lab, Cold Spring Harbor, 34-38. A.A; Soc. Zool; Ecol. Soc. Invertebrate zoology; life history, regeneration and morphology of flatworms.

Castle, Dr. W(illiam) B(osworth), Boston City Hospital, Boston, Mass. *[6]Pathology, Medicine.* Cambridge, Mass, Oct. 21, 97. M.D, Harvard, 21; hon. M.S, Yale, 33; hon. M.D, Utrecht, 36. Intern, Mass. Gen. Hosp, 21-23; asst. physiol, sch. pub. health, *Harvard*, 23-25, instr, *Harvard Med. Sch*, 24-25, asst. *med*, 25-29, instr, 29, asst. prof, 29-32, assoc. prof, 32-37, *prof, 37–; assoc. director Thorndike mem. lab, Boston City Hosp, 32–* Director, Rockefeller Foundation anemia cmn, P. R, 31. Warren triennial prize, Mass. Gen. Hosp, 28; John Phillips mem. prize, Am. Col. Physicians, 33; William Procter, Jr, int. award, Phila. Col. Pharmacy and Science, 36; Walter Reed medal, Am. Soc. Trop. Med, 39. Nat. Acad; A.A; Am. Med. Asn; Soc. Trop. Med; fel. Col. Physicians; Soc. Clin. Invest; Acad. Trop. Med; Philos. Soc; assoc. Am. Physicians; Soc. Exp. Path; fel. Am. Acad; Boston Soc Biol. Clinical medicine; etiology of pernicious anemia and of sprue; parental liver therapy in pernicious anemia and sprue; etiology and therapy of anemias in pregnancy; hookworm anemia; respiratory quotient of muscle; pancreatic function in diabetes; hypotonic fragility in hemolytic anemias; hemolytic effects of oxidants.

Castle, Prof. W(illiam) E(rnest), University of California, Berkeley, Calif. *[1]Zoology.* Alexandria, Ohio, Oct. 25, 67. A.B, Denison, 89, LL.D, 21; A.B, Harvard, 93, A.M, 94, Ph.D, 95; Sc.D, Wisconsin, 21. Prof. Latin, Ottawa (Kans), 89-92; instr. *zool*, Wisconsin, 95-96; Knox Col, 96-97; *Harvard*, 97-02, asst. prof, 03-08, prof, 08-36, *emer. prof, 36–; research consultant mammalian genetics, California, 37–* Assoc, Carnegie Institution, 03- Nat. Acad; A.A; Soc. Nat. (sec'y, 06, pres, 19); Soc. Zool. (v. pres, 04, pres, east. branch, 06); Philos. Soc; Am. Acad; Boston Soc. Nat. Hist. Embryology of tunicates; metamerism of leeches; heredity; sex determination; rodent genetics.

Castleman, Prof. Francis L(ee), Jr, University of Connecticut, Storrs, Conn. *Structural engineering, Applied mechanics.* Trenton, N. J, July 11, 02. A.B, Lehigh, 25; C.E, 26; M.S, Pennsylvania, 32, Sc.D, 35. Jr. engineer, Am. Bridge Co, 26-28, asst. engineer of erection, 29-31, eng. dept, 32-33, asst. engineer, 34-35; designing engineer, P. M. Sax, consulting engineer, 28; Pennsylvania Railroad Co, 28-29; asst. and assoc. prof. structural eng, Vanderbilt, 35-42; *prof. civil eng. and head dept, Connecticut, 42–* Summers, structural draftsman, Am. Bridge Co, 20, 22-25. Assoc. Soc. Civil Eng; Eng. Educ; Soc. Professional Eng. Construction of models for the analysis of suspension bridges with a study of their application to the deflection theory of suspension bridge design; wind forces on a tall building; analysis of statically indeterminate trussed structures; plate girder web splices; wind stress analysis by the K-percentage method; transition.

Castleton, Dr. K(enneth) B(itner), 720 Boston Bldg, Salt Lake City, Utah. *Surgery.* Salt Lake City, Utah, July 29, 03. A.B, Utah, 23; M.D, Pennsylvania, 27; Ph.D, Minnesota, 33. Instr. anat, Utah, 33-34, physical diagnosis, 35-36; *private practise; instr. surg. anat, Utah, 38–* Fel. Col. Surg; fel. Am.

Med. Asn. Physiology of the small intestine; pathology of the gall bladder; cysteine kidney stones; experimental surgery; surgical treatment of duodenal ulcer.

Castner, Dr. B(urton) M(enaugh), Youth Correction Authority, Waterman, Calif. *Psychology.* Newman, Calif, Feb. 16, 98. Washington (Seattle); A.B, Hopkins, 22; Ph.D, Yale, 31. Psychologist, Boston Psychopathic Hosp, 23–24; Div. for Examination of Prisoners, Mass, 24–25; asst, clinic child develop, Yale, 25–40; clin. psychologist, N. J. Reformatory, 40–42; *supervising clin. psychologist, Youth Correction Authority, 42–* Psychol. Asn. Clinical, child and criminal psychology; infant development.

Castonguay, Dr. Thomas T(elisphore), University of Kansas, Lawrence, Kans. *Chemical engineering, Physical chemistry.* Lead, S. Dak, Nov. 20, 09. B.Met.Eng, Detroit, 31; Northwestern, 39; Ph.D, Iowa State Col, 41. Instr. chem. and eng, Detroit, 31–34; Iowa State Col, 36–40; asst. prof. *chem. eng, Kansas,* 40–41, *acting head dept, 41–* Chem. Soc. Catalysis and high pressure.

Caswell, Prof. A(lbert) E(dward), University of Oregon, Eugene, Oregon. *Physics.* Winnipeg, Man, Can, May 24, 84. A.B, Stanford, 08, Ph.D, 11. Asst. *physics,* Stanford, 08–11; instr, Purdue, 11–13; Oregon, 13–15, asst. prof, 15–17, *prof,* 17–32; Oregon State Col, 32–34; *Oregon, 34–, head dept, 34–,* chairman science faculty, 41; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Nat. research fellow physics, 19–20. Summer, prof, Southern California, 30. A.A; Physical Soc; Astron. Soc; Asn. Physics Teachers. Peltier and Thomson electromotive force of metals and bismuth-tin alloys; electron theory; thermoelectric, thermomagnetic and galvanomagnetic properties of metals.

Caswell, Dr. R(obert) G(amble), 205 Mt. Auburn St, Cambridge, Mass. *Chemistry.* Narragansett Pier, R. I, April 7, 92. Ph.B, Brown, 11, M.S, 12, Ph.D, 14. Instr. chem, Brown, 11–14; asst. prof. org. chem, Colby Col, 14–18; research chemist, E. I. du Pont de Nemours and Co, 18–22; chem. engineer, W. B. Pratt, Inc, 22–25; develop. engineer, Hood Rubber Co, 25–30; director indust. research, Bigelow, Kent, Willard and Co, 30–34; *consulting engineer, 34–; Arthur D. Little, Inc.* A.A; Chem. Soc. (auditor and chairman budget and finance cmt, northeast. sect, 32–); Chem. Eng. Organic chemistry; hydroaromatic compounds; bromhexamethylene; anthraquinone vat dyes; process patents; rubber; textile finishing; economics of the chemical industry; cost control; interdependence of merchandising and industrial research; control of research costs.

Catchpole, Prof. Hubert R(alph), 333 Cedar St, New Haven, Conn. *Physiology.* London, Eng, May 13, 06. B.A, Cambridge, 28; Ph.D, California, 34. Asst, California, 34–35; instr. *physiol, Yale,* 36–39, *asst. prof, 39–; U. S. Naval Res, 43–* Commonwealth Fund fellow, 41–43. Physiology of reproduction; gonadotropic and lactogenic hormones.

Cates, Prof. Harry A(rthur), University of Toronto, Toronto, Ont, Can. *Anatomy.* Eng, 90. M.B, Toronto. Demonstrator *anat, Toronto,* 18–25, *assoc. prof, 25–* Asst. anthrop, St. George's Sch. Child Study, Univ. Toronto. Anthropology of the new born; handbook for dissectors.

Cathcart, Cha(rle)s S(anderson), New Brunswick, N. J. *Chemistry.* New Brunswick, N. J, Jan. 2, 65. B.S, Rutgers, 86, M.S, 89. Asst. chemist, Austen and Wilber, 86–89; N. J. Exp. Sta, 90–92; chief chemist, Listers Agr. Chem. Works, 93–07; *state chemist, N. J. Exp. Sta, 07–* A.A; Chem. Soc; Agr. Chem. Agricultural chemistry.

Cathcart, Dr. John A(lmon), Monmouth College, Monmouth, Ill. *Organic chemistry.* Sparta, Ill, Jan. 17, 16. B.S, Monmouth Col, 37; Ph.D, Ohio State, 41. Anna Fuller Fund fellow, Ohio State, 41–42; *instr. chem. and math, Monmouth Col, 42–* Chem. Soc. Polynuclear hydrocarbons.

Cathcart, S(tanley) H(olman), The Texas Co, 135 E. 42nd St, New York, N. Y. *Geology.* Millerstown, Pa, Aug. 20, 89. B.S, Pa. State Col, 12, M.S, 16; Yale, 17–18, 20–21. Geologist, U. S. Geol. Surv, 18–25; asst. geologist, Standard Oil Co. of N. J, 25–30; assoc. and senior geologist, Pa. Geol. Surv, 30–37; with Socony Vacuum Oil Co, 37–41; geologist, Pa. State Geol. Surv, 41, advanced senior geologist, 41–43; *dist. geologist, Texas Co, Argentine, 43–* Economic geology.

Cathcart, Dr. W(illiam) H, Great Atlantic and Pacific Tea Co, 420 Lexington Ave, New York, N. Y. *Physical chemistry.* Bloomington, Ind, June 15, 11. A.B, Indiana, 33, A.M, 34; Ph.D, N. Y. Univ, 36. *Director* lab, Am. Inst. Baking, 36–41; *bakeries lab, Great Atlantic and Pacific Tea Co, 41–* A.A; Chem. Soc; Asn. Cereal Chemists; Inst. Food Technol. Bakery products.

Catlon, Donald, Okemos, Mich. *Plant pathology.* Peoria, Ill, Nov. 24, 96. B.S.A, Iowa State Col, 25, fellow, 27–29, M.S, 28. Asst, Colo. Agr. Col, 29–31; asst. and *instr. plant path, Mich. State Col, 31–* Phytopath. Soc. Fruit diseases.

Catizone, Dr. O(lga) G, 519 Clemesha Ave, Brookline, Pittsburgh, Pa. *Biology.* Pittsburgh, Pa, Sept. 11, 14. A.B, Pa. Col. for Women, 36; M.S, Pittsburgh, 38, Ph.D, 41. Asst. biol, Pittsburgh, 36–41; *instr. biol. and chem, Marygrove Col, 41–* Docent, Carnegie Museum, 38–41. Experimental embryology; effects of lead chloride on the chick embryo.

Catlett, Charles, Staunton, Va. *Geology.* Staunton, Va, Aug. 18, 65. Virginia, 86. Asst. chemist, U. S. Geol. Surv, 87–88; consulting chem. and mining engineer; *retired.* Jury awards, La. Purchase Expos, 04. W.I.B, U.S.A. Min. Eng. Coal and iron mining; Portland cement.

Catlin, Dr. Willard E(dwin), 7 Lehigh Ave, Wilmington, Del. *Organic chemistry.* Crook City, S. Dak, Aug. 3, 05. B.S, Iowa State Col, 27, Ph.D, 34. Chemist, B. F. Goodrich Co, Akron, Ohio, 27–30; E. I. du Pont de Nemours and Co, 35–41; *chief org. sect, research div, Edgewood Arsenal, 41–, lieut. col, U. S. Army.* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. Synthetic organic chemistry.

Catron, Dr. Lloyd (Fullenwider), City Hospital, Akron, Ohio. *Pathology.* Springfield, Ill, March 16, 07. B.S, Michigan, 29; Borland fellow, St. Luke's Hosp, 31; M.D, Rush, Chicago, 32. Intern, St. Luke's Hosp, Chicago, Ill, 32; asst. path, Chicago, 33–34; asst, Cook County Hosp, Chicago, Ill, 34–35; instr, Illinois, 34–35; Michigan, 35–37; asst. prof, 38–40; *pathologist and director labs, City Hosp, Akron, Ohio, 41–* Bacterial localization; trichinosis.

Cattell, Dr. J(ames) McKeen, Lancaster, Pa. *[1]Psychology.* Easton, Pa, May 25, 60. A.B, Lafayette Col, 80, A.M, 83, LL.D, 07; Göttingen, Leipzig, Paris, Geneva, 80–82; fellow, Hopkins, 82–83; Leipzig, 83–86, Ph.D, 86; Sc.D, Arizona, 24. Asst. psychol, Leipzig, 85–86; lecturer, Pennsylvania and Bryn Mawr Col, 87; Cambridge, 88; prof, Pennsylvania, 88–91; Columbia, 91–17, exec. head dept. anthrop, 96–02, philos, 02–05; pres, *Psychol. Corp,* 21–26, *chairman directors, 26–; ed, 'Science,' 94–;* 'Popular Science Monthly,' 00–15, 'Scientific Monthly,' 15–43; 'School and Society,' 15–39; *'Am. Naturalist,' 07–;* 'Am. Men of Science,' 06, 10, 21, 27, 33, 38; 'Leaders in Education,' 32. Co-editor, 'Psychol. Rev,' 93–04; established the 'Jour,' the 'Archives' and the 'Library of Philos, Psychol. and Sci. Methods,' 04. Trustee, Science Service, 20–, v. pres, 25–27, treas, 27–28, pres, 28–37; pres, Science Press Printing Co, 23–43, chairman board directors, 43–Pres, Int. Cong. Psychol, New Haven, 29. Commandeur, Légion d'honneur. Nat. Acad. (councilor, 30–36); A.A. (v. pres, 98, 13, pres, 24, chairman, exec. cmt, 25–40); Soc. Nat. (pres, 02); Psychol. Asn. (pres, 95); Philos. Soc; Am. Acad; Physiol. Soc; Philos. Asn; Educ. Research Asn; Eugenics Research Asn. (pres, 14); N .Y. Acad. (pres, 02–04); Wash. Acad. (v. pres, 21); Sigma Xi (pres, 13–15); Delta Kappa Phi (laureate); hon. mem. British Psychol. Soc. The measurement of behavior; individual and group differences; the useful applications of psychology; the measurement of psychophysical time, intensity and extensity; vision; hearing; movement; perception; learning; fatigue; memory; association; psychological tests and measurements.

Cattell, Jaques, The Science Press Printing Co, Lancaster, Pa. *General science.* Garrison, N. Y, June 2, 04. Harvard, 20–21; Arizona, 21–23; Columbia, 26. Asst. zool. to G. H. Parker, Harvard, 20–21; bot, desert bot. lab, Carnegie Institution, 21–22; entom. to C. T. Vorhies, Arizona, 22–23; *ed, 'Am. Men of Science,' 23–; 'Leaders in Education,' 38–; 'Biographical Directory Am. Scholars,' 41–;* acting ed, *'Am. Naturalist,'* 34, *ed, 38–;* sec'y-treas, *Science Press Printing Co,* 27–43, v. pres, 33–43, *pres. and treas, 43–; exec. manager, The Science Press, 39–; pres, Jaques Cattell Press, 40–* Summers, investigator, Bermuda Biol. Sta, 21; Marine Biol. Lab, Woods Hole, 21–23. Acting ed, 'Science,' 31, 34. A.A. (chairman, Lancaster branch, 35–); Pa. Acad. (v. pres, 37–39, chairman publicity cmt, 43–). Zoology; entomology; scientific biography and printing; distribution of scientific men; popularization of science.

Cattell, Dr. McKeen, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *[3]Physiology.* Gar-

rison, N. Y, Nov. 17, 91. Cambridge, 12–13; Berlin, 14; B.S, Columbia, 14; A.M, Harvard, 17, Ph.D, 20, M.D, 24. Teaching fellow physiol, Harvard Med. Sch, 14–17; med. research worker, Red Cross, 19–20; teaching fellow pharmacol, Harvard Med. Sch, 20–24; instr. physiol, *med. col, Cornell*, 23–27, asst. prof, 27–36, assoc. prof. *pharmacol. in charge dept*, 36–43, *prof, 43–* Assoc. ed, 'Science,' 24–29; ed. sect. motor apparatus, 'Biol. Abstracts,' 37– Mem. div. biol. and agr, Nat. Research Council, 37–, v. chairman, 41–42, mem. cmt. pharmaceut. bot. and pharmacog. Lieut, Sanit.C, Cent. Med. Dept. Lab, Dijon, 18. A.A. (cmt. grants, 34–38); Physiol. Soc; Soc. Pharmacol. (assoc. ed, 'Jour,' 42–, councilor, 42–); Am. Med. Asn; Soc. Exp. Biol; Harvey Soc. (sec'y, 36–40); N. Y. Acad. Med; N. Y. Acad; British Physiol. Soc. Traumatic shock; physiological effects of hydrostatic pressure; nerve-muscle physiology; mechanism of digitalis action.

Cattell, Dr. Psyche, 314 N. West End Ave, Lancaster, Pa. *Clinical psychology.* Garrison, N. Y, Aug. 2, 93. Columbia, 12–14, 17; Sargent Nor. Sch, 14–17; A.M, Cornell, 25; Ed.M, Harvard, 25, Ed.D, 27. Asst. statistician, 'Am. Men of Science,' 19–21; asst, psycho-educ. clinic, Harvard, 22–25; psychol, Stanford, 25–26; psycho-educ. clinic, Harvard, 26–27, research assoc, 27–36, research fellow, sch. pub. health, 32–39; *practising child psychologist, 39–; director, West End Nursery Sch. and Kindergarten, 42–* Psychologist, Guidance Clinic, Lancaster, Pa, 39–; Lebanon County Mental Health Clinic, 39–42. A.A; Psychol. Asn; Educ. Research Asn; fel. Soc. Research Child Develop; fel. Asn. Applied Psychol. Mental and physical growth of infants and children; intelligence quotients; school standing and physical traits; dentition as a measure of maturity; measurement of ossification; tests.

Cattell, Prof. Raymond B(ernard), 78 Washington Ave, Cambridge, Mass. *Psychology.* Staffordshire, Eng, March 20, 05. B.Sc, London, 24, Ph.D, 29, M.A, 31, D.Sc, 38. Director, City Psychol. Clinic, Leicester, England, 32–37; research assoc, Teachers Col, Columbia, 37–38; G. Stanley Hall prof. *psychol,* Clark, 38–42; *research fellow, Harvard, 42–* Leonard Darwin research fellow, Eugenics Soc. Gt. Britain; lecturer, psychol. lab, Harvard. Psychol. Asn; Eugenics Soc; British Psychol. Soc; Eugenics Soc. Gt. Britain. Psychology of personality; social psychology; adult culture-free intelligence tests; temperament patterns and temperament tests; objective personality tests.

Cattell, R(oscoe) A(rnold), 7717 14th St, N. W, Washington, D. C. *Petroleum engineering.* New Sharon, Iowa, Jan. 6, 92. B.S, California, 16. Petrol. engineer, Kern Trading and Oil Co, Calif, 16–17; oil and gas inspector, U. S. Bur. Mines, Okla, 17–18; petrol. eng, England and Algeria, 19–20; *U. S. Bur. Mines,* Texas, La. and Okla, 21–24, supt. petrol. exp. sta, Okla, 24–25, chief engineer, helium div, 25–33, *chief petrol. and nat. gas div, 33–* U.S.A, 18–19. Min. and Metal. Eng; Petrol. Inst; Gas Asn. Natural gas engineering; helium.

Cattell, Ware, Smithsonian Institution Bldg, Washington, D. C. *Biophysics.* Garrison, N. Y, July 25, 02. Columbia, Cornell, Cambridge, Arizona, 20–25. Asst. physics, Arizona, 24–25; research fellow biol, Mem. Hosp, N. Y, 26–28, biophys, 28–30; asst, assoc. and managing ed, 'The Scientific Monthly,' 25–43; *asst. ed, 'Science,' 43–; ed, 'The Collecting Net,' 26–* Summers, Marine Biol. Lab, Woods Hole, 20– A.A; Physical Soc; fel. N. Y. Acad. Electrical activation of Nereis and Asterias eggs; effect of x-rays and sulfanilamide compounds on wheat seedlings; physiological effects of electric current.

Caughey, Prof. R(obert) A(ndrew), Iowa State College, Ames, Iowa. *Civil engineering.* McKeesport, Pa, Aug. 12, 85. B.S. (C.E), Pa. State Col, 07, C.E, 16. Eng. work, 07–10; instr. civil eng, Pa. State Col, 10–14, asst. prof, 14–18, assoc. prof. *struct. eng,* 18–19; *Iowa State Col,* 19–30, *prof, 30–* Civil and consulting engineer, 10– Civil Eng. (v. pres, Iowa sect, 34, pres, 35); Eng. Educ; Concrete Inst; Iowa Eng. Soc. (chairman. struct. sect, 29–31). Stresses in indeterminate structures; impact stresses in highway bridges; composite beams of concrete and structural steel; stresses in rigid frame structures and composite beams.

Caughlan, Dr. Charles Norris, Montana State College, Bozeman, Mont. *Physical chemistry.* Pullman, Wash, Jan. 20, 15. B.S, Washington (Seattle), 36, Ph.D, 41. *Instr. chem, Mont. State Col, 41–* Chem. Soc. Hydrogen bonds with particular reference to oximes.

Caum, Edw(ard) L(eonard), Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Botany, Forestry.* Philadelphia, Pa, April 3, 93. A.B, Swarthmore Col, 14, A.M, 24. Asst. pathologist, Exp. Sta, Hawaiian Sugar Planters' Asn, Honolulu, 16–22; asst. plant inspector, Territorial Board Agr. and Forestry, 22–26; asst. botanist and *assoc. botanist, Exp. Sta, Hawaiian Sugar Planters' Asn, 26–* Collaborator, plant quarantine and control admin, U. S. Dept. Agr, 22–33; U. S. deputy reservation protector, Hawaiian Islands Bird Reservation, 36– Botanist, Tanager exped, U. S. Biol. Surv. and Bishop Museum, Honolulu, to bird reserve, Hawaiian Islands, 23; entomologist, Whippoorwill exped, Bishop Museum, Honolulu, to Line Islands, 24. A.A; Hawaiian Bot. Soc. (pres, 36); Hawaiian Acad. (sec'y-treas, 25, 29–35). Taxonomy of Hawaiian plants.

Causey, Prof. David, University of Arkansas, Fayetteville, Ark. *Zoology.* Alton, Ill, Jan. 20, 99. A.B, James Millikin, 21; A.M, Illinois, 22; Ph.D, California, 25. Instr. biol, Vanderbilt, 22–23; Princeton, 25–28; assoc. prof. *zool, Arkansas,* 28–36, *prof, 36–* Parasitologist, N. J. State Hosp, 25–28. A.A; Soc. Zool. Protozoology; parasitology.

Causey, Dr. O(ttis) R(embert), Servico Especial de Saude Publica, Belem, Brazil, S. Amer. *Medical entomology.* Nichols, S. C, April 17, 05. B.S, Clemson Col, 27; Sc.D, Hopkins, 31. U. S. Dept. Agr, 27; asst. zool, Georgia, 27; med. entom, Hopkins, 29–31; prof. biol, Chulalongkorn Univ. (Siam), 31–34; instr. med. entom, sch. hygiene and pub. health, Hopkins, 35–39; *staff mem, int. health div, Rockefeller Foundation, 39–; prin. entomologist and consultant malaria control, Inter-Am. Affairs Div. Health and Sanit, 42–* A.A; Soc. Trop. Med; Soc. Parasitol. Malaria; filaria; mosquitoes; culicoides.

Cauwenberg, Dr. W(infred) J(oseph), Piney River, Va. *Chemistry.* Green Bay, Wis, April 18, 96. B.S, Wisconsin, 19; A.M, Buffalo, 28; Ph.D, Columbia, 30. Newport Co, 19–24; Nat. Aniline and Chem. Co, 24–28; research chemist, Titanium Pigment Co, New York, N. Y, 30–32; United Color and Pigment Co, Newark, N. J, 32–36; *Va. Chem. Corp,* 36–38, *director research, 38–* U.S.A, 18–19. A.A; Chem. Soc. Dyestuffs; pigments.

Cavallito, Dr. C(hester) J(ohn), Winthrop Chemical Co, 33 Riverside Ave, Rensselaer, N. Y. *Organic chemistry.* Perth Amboy, N. J, May 7, 15. B.S, Rutgers, 36; A.M, Ohio State, 38; indust. research fellow, 39–40, Ph.D, 40. Asst. entom, N. J. Exp. Sta, 36; *research chemist,* Goodyear Tire and Rubber Co, 40–41; *Winthrop Chem. Co, 42–* Industrial toxicology; food preservation; ureides; insecticides.

Cave, Prof. H(arold) M(illichamp), Queen's University, Kingston, Ont, Can. *Physics.* Orillia, Ont, July 3, 01. B.A, Queen's (Can), 25, M.A, 26; Ph.D, Cambridge, 30; Berlin and Munich, 29–30. Lecturer and *asst. prof. physics, Queen's (Can), 30–* Radioactivity.

Cave, Prof. H(arry) W(infield), 1719 W. Third Ave, Stillwater, Okla. *Dairy husbandry.* Fayette, Iowa, April 30, 90. B.S.A, Iowa State Col, 14; M.S, Kans. State Col, 16; hon. fellow, Wisconsin, 30–31. Fieldman, Golden Valley Dairy Co, Kansas City, Mo, 16; asst. prof. dairy exten, West Virginia, 16–18; dairy husbandry, Kans. State Col, 18–20, assoc. prof, 20–26, prof, 26–39; *prof. dairy husbandry and head dept. dairying, Okla. Agr. and Mech. Col, 39–* U. S. Dept. Agr, 16–18. A.A; Dairy Sci. Asn. (pres, 40). Nutrition; breeding.

Cave, Mrs. Marion S(tilwell), 467 Kentucky Ave, Berkeley, Calif. *Plant cytology and genetics.* Rochester, N. Y, Feb. 11, 04. A.B, Colorado, 24, A.M, 25; Kansas, 27; Ph.D, California, 36. Teaching fellow, Colorado, 24–25; Kansas, 26–27; *California,* 27–28, *research assoc. bot, 36–* Asst. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 41– Bot. Soc; Calif. Bot. Soc. Macrosporogenesis and embryo sac development in the Liliaceae; chromosome numbers in the Hydrophyllaceae.

Cavelti, Prof. J(ohn) E(lmer), Allegheny College, Meadville, Pa. *Chemistry.* Stratford, Conn, June 8, 96. B.S, Weslevan, 18, M.S, 20; Ph.D, Yale, 29. Chemist, Union Metallic Cartridge Co, Conn, 17–19; asst. *chem,* Wesleyan, 19–20, instr, 20–24, asst. prof. and assoc. prof, 24–36; *prof, Allegheny Col, 36–* Research chemist, Goodyear Rubber Co, 22–36; tech. supt, Seamless Rubber Co, 40–41. A.A; Chem. Soc. (pres, Conn. Valley sect, 33–35; Erie sect, 37); fel. Inst. Chem; Pa. Chem. Soc. (governor, 40). Antimony; analytical applications of antimony compounds; indium; transition points of salt hydrates; rates of reaction.

Cavett, Edwin S(helley), 8 Thompson Road, Marblehead, Mass. *Chemistry.* Denver, Colo, Feb. 6, 99. Miami (Ohio),

17–19; Ohio State, 20; B.Ch.E, Cincinnati, 23, Ch.E, 27. Chem. engineer, C. C. Smoot and Sons Co, N. C, 23–24; chem. engineer in charge, Tannery Waste Disposal Cmt, Pa, 24–27; chief chemist, research div, A. C. Lawrence Leather Co, Mass, 27–33; tech. director in charge tannery div, Marden-Wild Corp, Boston, Mass, 33–37; *sales rep, Mutual Chem. Co. Amer, N. Y, 37–* Chem. Soc; Leather Chem. Asn; Chem. Eng. Tanning and finishing of leather; tannery waste disposal for prevention of stream pollution; use of casein in leather industry.

Cavett, Dr. J(esse) W(illiam), Dr. Salsbury's Laboratories, Charles City, Iowa. *Physiological chemistry.* Kent, Ind, March 6, 00. A.B, Hanover Col. (Ind), 21; A.M, Indiana, 24; Ph.D, Iowa, 30. Prin, high sch, Okla, 21–22; Iowa, 22–23; asst. chem, Indiana, 23–24; head dept. science, LaGrange Col, 24–28; asst. chem, Iowa, 28–30; instr. physiol. chem, Minnesota, 30–37; *with Dr. Salsbury's Labs, 37–* A.A; Chem. Soc. Identification of urinary and edema fluid proteins by means of racemization curves and nitrogen distribution; modification of the Van Slyke nitrogen distribution method; thyro-globulin.

Cavlness, Dr. Verne S(trudwick), 819 Professional Bldg, Raleigh, N. C. *Medicine.* Hillsboro, N. C, Feb. 9, 95. A.B, Trinity Col. (N. C), 15; North Carolina, 16–19; M.D, Jefferson Med. Col, 21; McGill, 36. Res. physician, Jefferson Hosp, Philadelphia, Pa, 21–23; *med. director, Occidental Life Ins. Co, 25–; asst. chief med. staff, Rex Hosp, 25–, chief cardio-vascular dept, 38–; asst. chief med. staff, St. Agnes Hosp, Raleigh, N. C, 25–* Med. consultant, Methodist Orphanage, Raleigh, N. C, 25– Chairman, Wake Co. Pellagra Cmn, N. C, 29. Fel. Col. Physicians; fel. Am. Med. Asn; Raleigh Acad. Med. High blood pressure; inverse ratio between natural concentrations of KSCN in the blood and blood pressure.

Cawley, Prof. John, 621 Coleman St, Easton, Pa. *Mathematics.* Springtown, Pa, Feb. 15, 82. B.S, Lafayette Col, 10, M.S, 14. Instr. *math, Lafayette Col,* 10–19, asst. prof, 19–30, *assoc. prof, 30–* Astronomy.

Caylor, Prof. Richard Lee, Delta State Teachers College, Cleveland, Miss. *Biology.* Union Springs, Ala, Jan. 11, 94. A.B, Miss. Col, 22; A.M, George Peabody Col, 31; George Washington, 33; Louisiana, 38, 39, summer, 41. Dept. science, Mountain Home Col, 24–27; head dept, Jonesboro Col, 27–30; *prof. biol, Delta State Teachers Col, Miss, 31–* Marine Biol. Lab, Woods Hole, 36. Miss. Acad; Tenn. Acad. Plant association of ponds; parasitology of the fresh-water mussel; field biology; heron rookery in northern Mississippi; environmental materials for the elementary grades; collected ferns of Panama; algae of Gatun Lake.

Caywood, Prof. Tho(ma)s G(arfield), 943 Iowa Ave, Iowa City, Iowa. *Mechanical engineering.* Somerset, Ohio, Feb. 28, 87. M.E, Ohio State, 13. Designing engineer, Urbana Tool and Die Co, Ohio, 13–14; Seagrave Co, 14; instr. drawing, Iowa, 14–18; chief engineer, Phelps Motor Co, Ill, 18–19; *assoc. prof.* drawing, *Iowa,* 19–29, *mech. eng, 29–* Consulting mech. engineer. Mech. Eng; Eng. Educ; Eng. Club Iowa City. Mechanical design; machinery for manufacture of pearl buttons from mussel shells; determination of the riding qualities of an automobile and of stresses in a six-cylinder crankshaft set up by tortional vibration at critical speed.

Cazier, Dr. Mont A(delbert), American Museum of Natural History, New York, N. Y. *Systematic entomology.* Cardston, Alta, Can, May 27, 11. B.S, California, 35, Ph.D, 42. *Asst. curator entom, Am. Museum Nat. Hist, 41–* Comparative morphology, phylogeny and classification of the families comprising the order Coleoptera.

Ceaglske, Prof. N(orman) H(ugo), Washington University, St. Louis, Mo. *Chemical engineering.* Merrill, Wis, Feb. 16, 07. B.S, Wisconsin, 28, M.S, 29, Ph.D, 36. Asst. to indust. engineer, Wis. Gas and Elec. Co, Racine, 29–30; instr. chem. eng, Wisconsin, 30–36; metal, Iowa, 36–40; *asst. prof. chem. eng, Washington (St. Louis), 40–* Consultant, Anheuser-Busch, Inc, 43– Summers, mem. staff, Universal Oil Products, Chicago, Ill, 37; Scullin Steel Co, St. Louis, Mo, 41. Assoc. Chem. Eng; Inst. Food Technol. Drying of granular solids; design of gas burners; gas analysis; capillary flow; plastics.

Cecil, Dr. R(odney), P. O. Box 1330, Ventura, Calif. *Entomology.* Windsor, Mo, Oct. 16, 98. B.S, Iowa State Col, 23, M.S, 26; Ph.D, Ohio State, 30. Junior entomologist, bur. entom, *U. S. Dept. Agr,* 24–27, asst. entomologist, 27–30, *assoc. entomologist, bur. entom. and plant quarantine, 30–* U.S.A, 17–19. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ohio Acad. Mexican bean beetle; biology and morphology of a cercopid, Philaenus leucophthalmus; alimentary canal of Philaenus leucophthalmus; biology and control of the lima bean pod borer.

Cecil, Dr. Russell L(a Fayette), 33 E. 61st St, New York, N. Y. *Medicine.* Nicholasville, Ky, Oct. 13, 81. A.B, Princeton, 02; M.D, Med. Col. of Va, 06, Sc.D, 28. Instr. path, Columbia, 07–10, med, 10–16; *med. col, Cornell,* 16–20, asst. prof, 20–33, *prof. clin. med, 34–* Res. pathologist, Presb. Hosp, New York, 07–10, asst. visiting physician, 12–16; adj. asst. and asst. attending physician, Bellevue Hosp, 16–32, assoc. attending physician, 32–; N. Y. Hosp, 32–; special expert, U. S. Pub. Health Service, 19–28. Major, M.C, 18–19. A.A; Am. Med. Asn; Am. Physicians; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Invest; Clin. and Climat. Asn; Soc. Bact; Soc. Immunol; Col. Physicians; Rheumatism Asn; Harvey Soc; Interurban Clin. Club; N. Y. Acad. Med. (library cmt, cmt. on pub. health); N. Y. Path. Soc; N. Y. Rheumatism Asn. Bacteriology; immunity; influenza; pneumonia; arthritis; internal medicine.

Cederberg, Prof. W(illiam) E(manuel), Augustana College, Rock Island, Ill. *Mathematics.* Upsala, Sweden, Jan. 26, 76. B.S, Augustana Col, 00; Ph.B, Yale, 02; Brown, 02–03; Göttingen, 05–07; Lund, 19; Wisconsin, 14–15, Ph.D, 22. Instr. *math,* Brown, 02–03; Wisconsin, 20–21; *prof, Augustana Col,* 03–05, 08–13, 14–19, *21–* A.A; Math. Soc; Math. Asn; Inst. Math. Statist. Mathematical analysis; theoretical mechanics.

Cederstrom, D(agfin) John, Box 1836, University, Va. *Hydrology.* Sem, Norway, Nov. 14, 08. A.B, Wesleyan, 31; Arizona, 31–34. Teaching fellow geol, Wesleyan, 34–36, instr, 36–37; junior geologist, *U. S. Geol. Surv,* 37–40, asst. geologist, 40–43, *assoc. geologist, 43–* Asn. Petrol. Geol; Geophys. Union; Va. Acad; Geol. Soc. Wash. Ground-water hydrology; stratigraphy; geochemistry of ground-waters in Virginia coastal plain; physiography and ground-water hydrology in Virgin Islands.

Celthaml, Dr. Joseph James, University of Chicago, Chicago, Ill. *Biochemistry.* Chicago, Ill, May 23, 16. B.S, Chicago, 37, Ph.D, 41. *Research assoc, Chicago, 41–* Pituitary hormones; intermediary metabolism.

Celauro, Prof. Francis L(ouis), 1604 Ralworth Road, Baltimore, Md. *Mathematics.* Jersey City, N. J, Sept. 12, 11. A.B, N. Y. Univ, 37, Charles Hayden scholar, 38–40, A.M, 39. Instr. *math,* N. Y. Univ, 37–40; *prof. and chairman dept, Loyola Col. (Md), 40–* Summer, instr, Pa. State Col, 41. Math. Asn. Modern higher algebra; solutions of higher degree equations by the application of other branches of mathematics.

Cells, Prof. J(esus) P, University of Santo Tomas, Manila, P. I. *Physiology.* Manila, P. I, Jan. 18, 97. A.B, Ateneo de Manila, 14; M.D, Philippines, 21; hon. M.D, Santo Tomas, 24. *Prof.* zool, *Santo Tomas,* 28–38, *physiol. and pharmacol, 35–* Capt, Med.C.Res. Manila Med. Soc. (v. pres, 35). Antuitrin growth; hydrogen-ion concentration of blood in health and diseases.

Cell, Prof. John W, State College Station, Raleigh, N. C. *Mathematics.* Kansas City, Mo, March 29, 07. A.B, Illinois, 28, A.M, 29, Ph.D, 35. Asst. *math,* Illinois, 28–29, 33–35; asst. prof, South. Methodist, 29–32; instr, *N. C. State Col,* 35–36, asst. prof, 36–38, *assoc. prof, 38–* Math. Soc; Math. Asn; Inst. Math. Statist; Eng. Educ. Differential equations; advanced engineering mathematics.

Cendaña, Prof. S(ilverio) M, Agricultural College, Laguna, P. I. *Economic entomology.* Mangaldan, Pangasinan, P. I, Aug. 29, 99. B.S. (Agr), Philippines, 21, B.S.A, 23; Philippines fellow, California, 31–34, M.S, 32, Ph.D, 34. Asst. *entom, Philippines,* 21–28, instr, 28–35, *asst. prof, 35–* Mem. Nat. Research Council, P. I. A.A; Entom. Soc. Amer; Soc. Adv. Research P. I; Los Baños Biol. Club. Biology of parasites; limnology of Laguna de Bay.

Centolella, Dr. A(lbert) P(eter), 3010 Duke St, Kalamazoo, Mich. *Organic chemistry.* Utica, N. Y, April 7, 10. B.S, Michigan, 34, Ph.D, 38. *Research chemist, Upjohn Co, 38–* Chem. Soc. Hypnotics of the acid amide type.

Cerecedo, Prof. Leopold R(aymond), Fordham University, New York, N. Y. *Biochemistry.* San Juan, P. R, June 7, 98.

Ch.E, Munich, 19, Ph.D, 21. Assoc, Fordham, 22–24; fellow, Yale, 24–25, nat. research fellow, 25–27; instr. biochem, California, 27–28, asst. prof, 28–31; *prof.* org. chem, *Fordham*, 31–33, *biochem, 33–* Sigma Xi grant-in-aid, 37. A.A; Soc. Exp. Biol; Chem. Soc; Soc. Biol. Chem; N. Y. Acad. Detoxication mechanisms in the animal body; chemistry and metabolism of nucleic acids, purines and pyrimidines; anti-neuritic vitamin; sulfur metabolism; metabolic processes during growth; bioassay of antineuritic concentrates; vitamin B complex.

Chace, Dr. Arthur F(reeborn), 131 E. 66th St, New York, N. Y. *Medicine.* Warren, R. I, May 13, 79. B.S, Earlham Col, 97; A.B, Harvard, 99; A.M, M.D, Columbia, 03. *Practising physician, New York, 03–; prof. med, N. Y. Post-Grad. Med. Sch, Columbia, 12–* Attending physician, N. Y. Post-Grad. Hosp; consulting physician, Manhattan State and Jewish Mem. Hosps; St. Luke's Hosp, Newburgh, N. Y; All Souls' Hosp, Morristown, N. J. Pres. med. board, N. Y. Post-Grad. Med. Sch. and Hosp, Columbia. Trustee, Bryn Mawr Col. Major, M.C, 17–19. Am. Med. Asn; Gastro-Enterol. Asn. (pres, 24); Soc. Exp. Biol; fel. Col. Physicians; N. Y. Acad. Med. (pres); N. Y. County Med. Soc. (pres, 23). Internal medicine.

Chace, E(dward) M(acKay), U. S. Department of Agriculture, Los Angeles, Calif. *Chemistry.* Havana, N. Y, Nov. 15, 74. George Washington, 95–97; LL.B, Nat. Univ, 06, LL.M, 07. Chief chemist, Cuban Customs Service, Havana, 01–02; chief lab. food technol, *U. S. Dept. Agr,* asst. chief food div, food inspection div, chemist and *prin. chemist in charge* citrus by-products lab. and *fruit and vegetable chem. lab, 03–* Prin. chemist, emergency dehydration project, W.R.R.L. A.A; Chem. Soc; Agr. Chem; Inst. Food Tech; Pub. Health Asn. Food chemistry and adulteration; essential oils; chemical composition and standards; color; canning and by-products of fruits and vegetables; preservation of foods by freezing; dehydration of fruits and vegetables.

Chace, Dr. Fenner A(lbert), Jr, Harvard University, Cambridge, Mass. *Zoology.* Fall River, Mass, Oct. 5, 08. A.B, Harvard, 30, A.M, 31, Ph.D, 34. Asst. curator marine invertebrates, *museum comp. zool, Harvard*, 34–42, *curator Crustacea, 42–*, asst. biol, 35, Agassiz fellow, 35–39, tutor biol, 40–41. Taxonomy, morphology and distribution of Crustacea.

Chace, W(illia)m G(eorge), Lowell Textile Institute, Lowell, Mass. *Chemistry.* Stamford, Conn, Dec. 10, 04. Ph.B, Brown, 26. *Instr. chem. and microbiol, Lowell Textile Inst, 26–; lieut, U. S. Naval Res, 42–* Chem. Soc; Asn. Textile Chem. and Colorists. Textile microbiology; action of mildew on textile materials, especially cotton cellulose.

Chadwell, Prof. H(arris) Marshall, Tufts College, Medford, Mass. *Physical chemistry.* Amesbury, Mass, July 20, 98. B.S, Dartmouth Col, 19; A.M, Harvard, 21, Ph.D, 24. Instr. chem, Dartmouth Col, 19–20; asst, Radcliffe Col, 20–22; asst. to director, Wolcott Gibbs Mem. Lab, Harvard, 22-23; instr, *Tufts Col,* 23–25, asst. prof. *physical chem,* 25–33, *prof, 33–, chairman dept. chem. and chem. eng, 39–; tech. aid to chairman, Nat. Defense Research Cmt, 40–* Inst. Physical Chem. Frankfurt, 31–32. Summers, visiting prof, Harvard, 24–29. V. chairman div. chem. and chem. technol, Nat. Research Council, 41– A.A; Chem. Soc. (director, northeast sect, 30); Electrochem. Soc; Faraday Soc. Polymerization of water; densities, compressibilities and viscosities of various aqueous solutions of organic liquids; freezing points of aqueous solutions of hydrochloric acid; cryoscopic constants; some chemical reactions of atomic hydrogen.

Chadwick, Prof. Claude S(impson), Vanderbilt University, Nashville, Tenn. *Biology.* Carthage, Texas, Jan. 2, 07. B.S, Centenary Col, 27; fellow, Vanderbilt, 27–28, M.S, 28, Ph.D, 36. Instr. *biol, Vanderbilt,* 28–39, *asst. prof, 39–* Summers, research fellow, Highlands Biol. Lab, 37–41. A.A; Soc. Ichthyol. and Herp; Soc. Exp. Biol; Asn. Southeast. Biol; Tenn. Acad. Endocrinology; reproductive cycles in mammals; the water drive in Triturus; mechanism of molting in Amphibia.

Chadwick, George H(alcott), R. D. No. 1, Catskill, N. Y. *Geology.* Catskill, N. Y, May 27, 76. Ph.B, Rochester, 04, M.S, 07; hon. Sc.D, St. Lawrence, 40. Ward's Nat. Sci. Estab, 96–00, 04–06, 14–18; zoologist, N. Y. State Museum, Albany, 06–07; prof. geol. and biol, St. Lawrence, 07–14; acting asst. prof. geol, Rochester, 14–20, prof, 20–23; field geologist, Empire Gas and Fuel Co, Bartlesville, Okla, 23–25, in charge, San Antonio, 24–25; acting prof. geol, Williams Col, 25–26; private research and consulting geologist, 26–35; geologist, Nat. Park Service, Bronxville, N. Y, 35–36, Richmond, Va, 36–37; *consulting geologist, 37–* Acting prof, Vassar Col, 29; consulting geologist, Penn-York Nat. Gas Corp, Elmira, N. Y; field worker, N. Y. Geol. Surv, 34; assoc. geologist, Pa. Geol. Surv, 28– Geol. Soc; Rochester Acad. (sec'y, 04–06, 15–17, pres, 18). Stratigraphy of New York State; Silurian and Devonian faunas; upper Devonian correlation in New York, Pennsylvania and Ohio; glacial lakes; geology of Mount Desert Island.

Chadwick, Dr. Leigh E(dward), Strong Memorial Hospital, Rochester, N. Y. *Physiology.* Washington, D. C, Aug. 9, 04. B.S, Haverford Col, 25; Am-German. Student Exchange fellow, Phillips Univ. (Germany), 27–28; A.M, Pennsylvania, 29; A.M, Harvard, 38, Ph.D, 39. Instr. French and German, 25–32; biol, Pueblo Junior Col, Colo, 39–41; asst. *physiol, sch. med. and dentistry, Rochester,* 41–42, *instr, 42–* A.A; Colo-Wyo. Acad. Insect flight.

Chadwick, Prof. L(ewis) C(harles), Ohio State University, Columbus, Ohio. *Horticulture.* Randolph Center, Vt, Aug. 13, 02. B.S, Vermont, 25; Ph.D, Cornell, 30. Asst. ornamental hort, Cornell, 25–27, instr. floricul, 27–28, investigator ornamental hort, 28–29; asst. prof. *hort, Ohio State,* 29–38, *assoc. prof, 38–* Soc. Hort. Sci; Soc. Plant Physiol. Ornamental horticulture; vegetative plant propagation by cuttings; modern nurseries; ornamental plants.

Chaffee, Prof. E(mory) Leon, 130 Goden St, Belmont, Mass. *\$*Physics.* Somerville, Mass, April 15, 85. B.S, Mass. Inst. Tech, 07; A.M, Harvard, 08, Ph.D, 11. Instr. physics, *Harvard,* 12–17, asst. prof, 17–23, assoc. prof, 23–26, prof, 26–35, *Gordon McKay prof. physics and communicaiton eng, 35–, Rumford prof. physics and director Cruft Mem. lab, 40–* Longstreth medal, Franklin Inst, 12. A.A; fel. Physical Soc; fel. Radio Eng. (v. pres, 23); fel. Am. Acad; Int. Sci. Radio Union. Radio communication; electrical oscillations; theory of thermionic vacuum tubes; electrical methods applied to biological research.

Chalkelis, Prof. Alexander S(arant), College of the City of New York, New York, N. Y. *Physiology.* Antwerp, Belgium, Dec. 6, 01. B.S, Col. City of N. Y, 24; A.M, Columbia, 27, Ph.D, 33. Instr. *biol, Col. City of N. Y,* 24–37, *asst. prof, 37–* Summer, instr, col. physicians and surg, Columbia, 35. A.A; N. Y. Acad. Carbohydrate metabolism and insulin; water metabolism and insulin; nutrition.

Chalken, L(eon) E(dward), Box 252, Asheville, N. C. *Forestry.* Trenton, N. J, July 16, 11. B.S, Cornell, 33, M.F, 34. Asst. forestry, Cornell, 33–34; *assoc. forester, Appalachian Forest Exp. Sta, U. S. Forest Service, 34–* Soc. Foresters (sec'y-treas, Appalachian sect, 41–). Silviculture.

Chalkoff, Dr. I(srael) L(yon), University of California, Berkeley, Calif. *Physiology.* London, Eng, July 2, 02. B.A, Toronto, 24, M.A, 25, Ph.D, 28, M.D, 30. Teacher *physiol,* Toronto, 24–27; instr, *California,* 30–31, asst. prof, 31–39, *assoc. prof, 39–* Asn. Study Int. Secretions; Physiol. Soc; Soc. Exp. Biol; Calif. Acad. Med. Diabetes; pancreas; lipid metabolism.

Chakmakjian, Prof. H(aroutioun) H(ovanes), 5 Blossom St, Arlington Heights, Mass. *Chemistry.* Adana, Armenia, Oct. 20, 78. A.B, Harvard. Instr. chem, *med. sch, Tufts Col,* 14–18, *asst. prof.* org. chem, 18–27, *biochem, 27–* A.A; Chem. Soc. Physiological and physical chemistry.

Chalfant, Prof. J(esse) Wayne, North Carolina State College, Raleigh, N. C. *Forestry.* Chester Co, Pa, Dec. 5, 05. B.S, Pa. State Col, 31; M.F, Yale, 41. Junior forester-technician, U. S. Forest Service, 34–37, forest fire control planner, 37–38, asst. forester, New Eng. timber salvage admin, 39–41; *assoc. prof. forestry, N. C. State Col, 41–* Soc. Foresters. Forest fire control; farm forestry.

Chalkley, Dr. H(arold) W(illiam), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Physiology.* London, Eng, March 19, 87. B.S, Miss. Agr. and Mech. Col, 24; A.M, Hopkins, 26, Ph.D, 27. Johnston research scholar zool, Hopkins, 27–28; physiologist, div. pharmacol, nat. inst. health, *U. S. Pub. Health Service,* 28–41, *senior physiologist, nat. cancer inst, 41–* A.A; Physiol. Soc; Soc. Zool. Physiology of the cell; chemistry of cell division in Amoeba proteus.

Chalkley, Dr. Lyman, Cosmos Club, Washington, D. C. *Chemistry.* Staunton, Va, June 1, 98. B.S, Chicago, 20, Ph.D, 22. Research assoc, Sprague Mem. Inst, Chicago, 21–

22; research chemist, Standard Oil Co. of Ind, 23–24; asst. prof. indust. research, Pa. State Col, 25–28; director market research, Pedlar and Ryan, Inc, New York, 28–31; Bristol Myers Co, 32–34; Benton and Bowles, Inc. New York, 34–38; lecturer marketing, N. Y. Univ, 40–41; indust. econ. adviser, chief chem. sect, bur. research and statist. and administrator priority orders P-43 and P-62 relating to lab. supplies and research labs, Office Production Management, 41–42; *head econ. analyst, Board Econ. Warfare, 42–* Research fellow, Bakelite Corp, 25–28. A.A; Marketing Asn; Market Research Council (v. pres, 35, pres, 36); Am. Inst. (chairman, board managers, 37, 38); Chem. Soc; Inst. Chem. Organometallic compounds; photochemistry; economics.

Challman, Dr. Robert C(hester), Columbia University, New York, N. Y. *Psychology.* Minneapolis, Minn, Aug. 3, 06. A.B, Minnesota, 27, A.M, 29; Ph.D, Stanford, 35. Research instr, inst. child welfare, Minnesota, 29–30; tech. asst, White House Conf. on Child Health and Protection, 30–31; clin. psychologist, Colo. Psychopathic Hosp, 31–32; research assoc. psychol. and psychiat, sch. med, Stanford, 34–35, instr. psychol, Ohio State, 35–36; fellow, advanced sch. educ, *Teachers Col, Columbia, 36–37, asst. prof. educ. psychol, 37–* Assoc. Psychol. Asn; fel. Soc. Research Child Develop. Child psychology; personality and character; abnormal psychology.

Chalmers, Dr. W(illiam), 3719 W. Second Ave, Vancouver, B. C, Can. *Organic chemistry.* Edinburgh, Scotland, Nov. 16, 05. B.A, British Columbia, 26, M.A, 27; Nat. Research Council Can. bursar, McGill, 27–28, student, 28–29, fellow, 29–30, Ph.D, 30. *Director research, West. Chem. Industries, Ltd, Vancouver, 33–* Traveling fellow, Freiburg, 30–31. Chem. Soc; London Chem. Soc; Deuts. Chem. Gesell. Polymerization of organic compounds; artificial resins; fish oils.

Chamberlain, Dr. C(lark) W(ells), Michigan State College, East Lansing, Mich. *²*Physics.* Litchfield, Ohio, Oct. 29, 70. A.B, Denison, 94; fellow, Chicago, 99–00; Columbia, 08–09, Adams fellow, 09–11, Ph.D, 10; LL.D, Linfield Col, 22; Cambridge, 25–26. Instr. physics and math, Western Reserve Acad, 94–97; prof. physics and astron, Colby Col, 00–01; physics, Denison, 01–08; Vassar Col, 08–13; pres. and prof. *physics,* Denison, 13–27; *prof, Mich. State Col, 27–* Silver medal, Jamestown Expos, 07. A.A; fel. Physical Soc; Inst. Social Sci; Asn. Am. Cols. (pres, 23); Ohio Col. Asn. (pres, 22); Cambridge Philos. Soc. A compound interferometer; the radius of molecular attraction; achromatism of interference; the diffractometer; a spectroscope of high resolving power; the relative motion of the earth and ether; the Lorentz-Fitzgerald effect; recording interferometer; application of resonance to interference phenomena; properties of wringing films; heat transfer through thin liquid films; properties of wetting films; optical sounding; mechanical heating, cooling and ventilating; reduction of airplane engine vibration; elimination of shock of steam hammers; hydro-pneumatic-metal.

Chamberlain, James F(ranklin), 1546 Rose Villa, Pasadena, Calif. *Geography.* Centreville, Utah, July 2, 69. B.S, Chicago, 04, Ed.B, 05. Teacher, pub. schs, Chicago, 90–94; geog. and conservation, California, 95–20; pres, N. Mex. State Nor. Sch, Silver City, 21–22. Am. Geog. Soc; Asn. Geog; Asn. Pacific Coast Geographers. Economic geography; conservation; climatic conditions.

Chamberlain, Dr. Joseph S(cudder), Massachusetts State College, Amherst, Mass. *Chemistry.* Hudson, Ohio, March 7, 70. B.S, Iowa State Col, 90, M.S, 92; fellow, Hopkins, 98–99, Ph.D, 99; Berlin, 09; Oxford, 30–31. Asst. chem, Iowa State Col, 90–92, instr, 94–97; Oberlin Col, 99–01; research asst. to Dr. Ira Remsen, Hopkins, 01; physiol. chemist, U. S. Dept. Agr, 01–09; assoc. prof. chem, *Mass. State Col,* 09–13, prof. org. and agr. chem, 13–34, head dept, 28–34, Goessmann prof. *chem,* 34–40, *emer. prof, 40–* A.A; Chem. Soc; New Eng. Asn. Chem. Teachers (pres, 28–30). Organic and agricultural chemistry; parasulfaminbenzoic acid; proteins of wheat and flour; alkylphenylbarbituric acids.

Chamberlain, Prof. Katherine (MacFarlane), Wayne University, Detroit, Mich. *Physics.* Saginaw, Mich, June 28, 92. A.B, Michigan, 14, A.M, 19, Sc.D, 24. Instr. math, Col. City of Detroit, 24–25, asst. prof, 25–26, *assoc. prof. physics,* 26–33, *Wayne, 33–* Ellen Richards research grant, 25. X-ray spectroscopy; fine structure of x-ray absorption edges; evidence of chemical combination from x-ray data; single crystals; color photography.

Chamberlain, K(enyon) F(ield), New York State Museum, Albany, N. Y. *Entomology.* Cornwall, Conn, July 12, 93. Colby Col, 12–14; Columbia, 14–16. Asst. entomologist, Exp. Sta, New Haven, 17–19; *asst. state entomologist, bur. entom, N. Y. State Museum, 19–* Entom. Soc. Amer; Asn. Econ. Entom. Systematic entomology; Coleoptera.

Chamberlain, Prof. Robert Franklin, Cornell University, Ithaca, N. Y. *Electrical engineering.* Newark Valley, N. Y, May 19, 84. M.E, Cornell, 08. Student course, Westinghouse Elec. and Mfg. Co, 07–08; instr. *elec. eng,* Purdue, 09–10; instr. and asst. prof, *Cornell,* 11–30, *prof, 30–, personnel officer, col. eng, 42–* Consulting and construction engineer. Summer, engineer, switchboard dept, Gen. Elec. Co, 20. Mem, Nat. Cmt. Indust. Application and Control. Elec. Eng. (chairman, Ithaca sect, 27–29). Principles and practise of electrical engineering.

Chamberlain, S(tuart) H(ay), College of the City of New York, New York, N. Y. *Physics.* Granville, Ohio, Aug. 3, 06. B.S, Denison, 28; M.S, Mich. State Col, 30, 30–31; Michigan, 31–35; Columbia, 35–39. Asst. physics, Mich. State Col, 28–31; asst. optometry, Columbia, 35–36, physics, 36–38; *instr.* acoustics, Juilliard Sch. Music, 39; *physics,* div. pub. service training, *Col. City of N. Y, 39–,* math, 40–41. A.A. An interference method of measuring long distances; recording interferometer; electrically heating, cooling and ventilating buildings.

Chamberlain, Thomas K(night), Fish and Wildlife Service, U. S. Department of the Interior, Kearneyville, W. Va. *Biology.* Brooklyn, N. Y, July 29, 95. B.S, Cornell, 20; A.M, Stanford, 27. Sci. asst, Bur. Fisheries, 22–24, director biol. sta, Iowa, 24–30, assoc. aquatic biologist, Columbia, Mo, and Brevard, N. C, 30–40; *fish and wildlife service, U. S. Dept. Interior,* 40–42, *regional biologist, 42–* Stream management; biology of trout; fresh-water mussel fauna.

Chamberlain, Col. Weston P(ercival), U.S.A, 120 Edgewood Drive, Palo Alto, Calif. *Medicine.* Bristol, Maine, June 4, 71. A.B, Bowdoin Col, 93; M.D, Harvard, 97; hon. grad, London Sch. Trop. Med, 12. Pres, Board Study Trop. Diseases, Manila, 10–12; commandant, Army Med. Sch, 23–24; chief health officer, Panama Canal, 24–29; chief professional service div, Office Surgeon-Gen, 29–33. Instr, Harvard, 17–18; director sanit. inspection service, Office Surgeon-Gen, 17–19. Medals for Cuban exped. of Spanish War, Philippine Insurrection, Mex. Border Service; Victory medal; D. S. medal. Rep. of War Dept, Nat. Acad. Am. Med. Asn; Asn. Mil. Surg. Military medicine; sanitation; tropical diseases; control of beri-beri; effect of tropical climate on white men; uncinariasis; demography; health conditions in the Panama Canal Zone.

Chamberlain, Prof. W(illiam) Edward, Temple University Hospital, Philadelphia, Pa. *Radiology.* Ann Arbor, Mich, Aug. 5, 92. B.S, California, 13, M.D, 16. Instr. med, med. sch, California, 19–20; asst. prof, Stanford, 20–23, in charge radiol, 20–30, assoc. prof, 23–26, *prof,* 26–30; *radiol, sch. med, Temple, 30–* Visiting radiologist, Children's, Hahnemann and St. Mary's Hosps, San Francisco, 19–20; San Francisco Hosp, 20–30. Mem. subcmt. radiol, cmt. surg, Nat. Research Council, 40– Radiologist in charge, Mare Island Naval Hosp, 17, U. S. Navy Base Hosp. No. 2, Scotland, 18. A.A; fel. Col. Radiol. (pres, 41); Radiol. Soc. N. Amer. (cmt. on standardization of x-ray measurements); Roentgen Ray Soc; fel. Am. Med. Asn; Asn. Physics Teachers (cmt. on pre-med. physics); Asn. Study Int. Secretions; Calif. Acad. Med; Calif. Acad; Phila. Roentgen Ray Soc. (pres, 34); fel. Col. Physicians Phila; Physiol. Soc. Phila; Phila. Tuber. and Health Asn. (director). X-ray pelvimetry; position of viscera; anatomy of the living; x-ray dosimetry; heart physiology with Roentgen cinematograph; sacroiliac joint; applications of x-ray to teaching; apparatus for clinical radiology; physical and physiological bases of fluoroscopy.

Chamberlin, Dr. D(ale) S, Warwick Chemical Co, West Warwick, R. I. *Chemical engineering.* Flat Rock, Mich, Jan. 17, 89. B.Ch.E, Michigan, 12; junior fellow, Mich. Gas Asn, 12; M.S, Lehigh, 20; D.I.C, Imp. Col. Science, London, 24. 1st asst. chemist, Corn Products Ref. Co, N. J, 13–14; chemist, Lehigh Coke Co, Pa, 14–15, supt. by-products, 15–16; asst. prof. indust. chem, Lehigh, 16–20, assoc. prof. chem. eng, 20–29; tech. director, R. K. Laros Silk Co, 29–31; tech. engineer, Nat. Oil Products Co; *sales engineer, Warwick Chem. Co.* Lecturer, Imp. Col. Science, London. Chem. Eng; Chem. Soc. (sec'y-treas, Lehigh Valley sect); Lehigh Valley Eng. Club.

Heat transfer; active carbons; gas analysis; propagation of flame; silk throwing; textile oils.

Chamberlin, Prof. Edwin M(artin), 17 Bow Road, Belmont, Mass. *Psychology.* Boston, Mass, Aug. 16, 90. A.B, Harvard, 11, A.M, 14, Ph.D, 17; Mass. Col, 13–14. Instr, Rindge Tech. Sch, Mass, 10–12; Loomis Inst, Conn, 14–16; Austin teaching fellow educ, Harvard, 16–17; sch. supt, Pa, 17–18; asst. prof. educ, *Boston Univ,* 19–20, *prof. psychol. and head dept, col. business admin, 20–, head dept. psychol. and social science, 40–; U. S. Commissioner Conciliation, 42–* U.S.A, 18–19, capt. A.A; Psychol. Asn. Applied psychology, especially commercial and industrial; public relations; employment procedures; working conditions; personality adjustment.

Chamberlin, F(rank) S(hirley), Box 239, Quincy, Fla. *Entomology.* Framingham, Mass, April 16, 94. B.S, Mass. Col, 17. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 17–, asst. entomologist.* Asn. Econ. Entom; Fla. Entom. Soc. Tobacco insects.

Chamberlin, Dr. Joseph C(onrad), U. S. Department of Agriculture, Box 278, Forest Grove, Oregon. *Entomology.* Salt Lake City, Utah, Dec. 23, 98. A.B, Stanford, 23, fellow, 23–24, A.M, 24, Ph.D, 29. Asst. entom, Citrus Exp. Sta, California, 24–26; instr. nat. science, Calif. State Teachers Col, San Jose, 26–28; *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–, in charge* Twin Falls lab, 32–34, *field sta. for bean and pea insect investigations, 36–* Investigator, Calif. Spray-Chem. Co, 27–28. Publication cmt, 'Pan-Pacific Entomologist,' 24–37. Arachnologist, Calif. Acad. exped, Gulf of Calif, 21. A.A; Entom. Soc; Asn. Econ. Entom; Pacific Coast Entom. Soc. Zoology; arachnology; Chelonethida; Coccidoidea; insecticides; insect ecology.

Chamberlin, Prof. R(alph) V(ary), University of Utah, Salt Lake City, Utah. *Zoology.* Salt Lake City, Utah, Jan. 3, 79. B.S, Utah, 98, hon. Sc.D, 42; Goldwin Smith fellow, Cornell, 02–04, Ph.D, 05. Teacher, high sch, 98–02; asst. prof. biol, Utah, 04–05, prof, 05–06, prof. zool. and dean med. sch, 06–08; Brigham Young, 08–11; Harrison fellow and lecturer zool, Pennsylvania, 11–13; curator Myriapoda, Arachnida and Vermes, museum comp. zool, Harvard, 13–25; *prof. zool, Utah, 25–* Ed, sect. Myriapoda and Gephyrea, 'Biol. Abstracts,' 26– Soc. Nat; Soc. Zool; Entom. Soc. (v. pres, 19); N. Y. Acad; Utah Acad; Boston Soc. Nat. Hist; Cambridge Entom. Club; Biol. Soc. Wash. Morphology, embryology and taxonomy of chilopods, diplopods and arachnids; Annelida; Gephyrea; regeneration; evolution and geographical distribution.

Chamberlin, Prof. R(ollin) T(homas), University of Chicago, Chicago, Ill. ****3***Geology.* Beloit, Wis, Oct. 20, 81. Geneva and Zurich, 99–00; B.S, Chicago, 03, Ph.D, 07; Sc.D, Beloit Col, 29. Asst. geologist, U. S. Geol. Surv, 07–09; mem, Chicago oriental educ. exped, China, 09–10; surv. iron ores of Brazil, 11–12; instr. *geol, Chicago,* 12–14, asst. prof, 14–18, assoc. prof, 18–23, *prof, 23–* Managing ed, 'Jour. of Geol,' 22–28, ed, 29– Nat. Research Council, 21–24. Nat. Acad; A.A. (sec'y, E, 17–20, v. pres, 33; mem. exec. cmt, 36–38); Geol. Soc. (v. pres, 33; councilor, 41–); Seismol. Soc; Geophys. Union; British Asn. Structural, experimental and dynamic geology; glaciology; gases in rocks; mountain building; coral reefs; isostasy; geology of the Rocky Mountains.

Chamberlin, Prof. Stephen J(ohnes), Iowa State College, Ames, Iowa. *Mechanics, Civil engineering.* Pueblo, Colo, April 24, 07. B.S, Illinois, 28; M.S, Iowa State Col, 31. Teacher eng, Burlington Junior Col, 31–36; instr. *theoret. and applied mech, Iowa State Col,* 36–38, *asst. prof, 38–* Joint winner, Wason award, Am. Concrete Inst, 39. Civil Eng; Eng. Educ; Concrete Inst. (sec'y, cmt. 115, 41–). Properties and mechanics of engineering materials.

Chamberlin, T(homas) R(oscoe), University of Wisconsin, Madison, Wis. *Entomology.* Salt Lake City, Utah, March 30, 89. A.B, Utah, 20. Asst. entomologist and *assoc. entomologist, cereal and forage insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 13–, in charge cereal and forage insect lab, 35–* A.A; Asn. Econ. Entom; Entom. Soc. Wash. Parasites of the alfalfa weevil; wheat-joint worm and other Harmolitas and their parasites; western spotted cucumber beetle; wheat-stem maggot; lesser clover leaf weevil and parasites; cereal and forage insects; white grubs.

Chamberlin, Dr. W(illard) J(oseph), Oregon State Agricultural College, Corvallis, Oregon. *Entomology.* Cleburne, Texas, Aug. 12, 90. New Mexico; B.S, Oregon State Col, 15, M.S, 21; Iowa State Col, 29; Ph.D, Stanford. *Forest entomologist, Oregon State Col, 16–; major, Air Corps, U. S. Army, 41–* Lieut, A.S, 17–19. Asn. Econ. Entom; Aeronaut. Asn; Pacific Coast Entom. Soc. Forest entomology.

Chambers, Dr. A(lfred) H(ayes), University of Pennsylvania, Philadelphia, Pa. *Physiology.* Reading, Pa, Nov. 15, 14. A.B, Swarthmore Col, 36; Ph.D, Pennsylvania, 42. Asst. instr. *physiol, Pennsylvania,* 37–42, *instr, 42–* Cutaneous respiration; metabolism of liver; metabolism in pituitary diabetes.

Chambers, Dr. A(rthur) D(ouglas), 509 Lore Ave, Wilmington, Del. *Chemistry.* Oxford Co, Ont, Can, May 4, 70. B.A, Toronto, 92; Ph.D, Hopkins, 96. Chemist, Solar Ref. Co, Ohio, 96–97; asst. supt. powder plant, *E. I. du Pont de Nemours and Co,* Mo, 97–06, supt, 06–07, Louviers plant, Colo, 07–15, develop. dept, Del, 15–17, *manager* mfg. div, dyestuffs dept, 17–31, *dyestuffs div, org. chem. dept, 31–* A.A; Chem. Soc; Chem. Eng; Franklin Inst.

Chambers, Dr. Carl C(ovalt), 79 Drexel Ave, Lansdowne, Pa. *Electrical engineering.* Philadelphia, Pa, May 8, 07. B.S, Dickinson Col, 29; Sc.D, Pennsylvania, 34. Tech. test dept, RCA Mfg. Co, Camden, 29–30, tube div, RCA Victor Co, 30–32; Bartol Research Foundation, 32–33; instr. *elec. eng, Moore sch, Pennsylvania,* 33–38, asst. prof, 38–42, *assoc. prof, 42–* Elec. Eng; Radio Eng. (chairman, Phila. sect, 41; director, 42); Physical Soc; Franklin Inst. Electronic engineering; electronic control and measuring apparatus; graphic arts; frequency modulation; ultra high frequencies.

Chambers, E(rnest) L(eslie), State Department of Agriculture, Madison, Wis. *Entomology.* Seville, Ohio, Sept. 9, 96. B.S, Ohio State, 21; M.S, Wisconsin, 25. Asst, bur. entom, U. S. Dept. Agr, 19–21; asst. state entomologist, *State Dept. Agr, Wis,* 21–27, *state entomologist, 27–* Nat. Plant Board. Entom. Soc; Asn. Econ. Entom. (sec'y, hort. inspection sect, 35–38; chairman sect. plant quarantine and inspection, 39); Phytopath. Soc; Entom. Soc. Wash; Wis. Hort. Soc. (treas, 35–). Greenhouse and nursery stock insects and pests; potato dusting and spraying; control of grasshopper and San Jose scale.

Chambers, Francis S(tapleton), Jr, 79 N. Bayard Ave, Woodbury, N. J. *Chemical engineering.* Philadelphia, Pa, June 29, 10. B.S, Mass. Inst. Tech, 32, M.S, 33, Sc.D, 37. *Chem. engineer, explosives dept, east. lab, E. I. du Pont de Nemours and Co.* Chem. Soc; Chem. Eng. Gas absorption, especially nitrogen oxides; nitric acid, high explosives and dye intermediate manufacture.

Chambers, Dr. Leslie A(ddison), University of Pennsylvania, Philadelphia, Pa. *Biophysics, Zoology.* Mystic, Iowa, Oct. 11, 05. B.S, Texas Christian, 27, M.S, 28; Ph.D, Princeton, 30. Asst. prof. biol, Texas Christian, 30–32; fellow med. physics, Johnson Foundation, and instr. pediat, *sch. med, Pennsylvania,* 32–36, assoc. med. physics, lecturer biophys, 36–42, *assoc. pediat, 36–, asst. prof. biophys, 42–* A.A; Soc. Pediat. Research; Physiol. Soc; N. Y. Acad. Reproduction in nudibranchiate Mollusca; effects of intense sonic vibrations; mechanical properties and specific reactions of protein films; chemical and physical properties of influenza viruses and rickettsia.

Chambers, Prof. L(ivingston) H(unter), Marshall College, Huntington, W. Va. *Mathematics.* Madison, W. Va, Sept. 3, 07. A.B, West Virginia, 29, A.M, 30; Ph.D, Cornell, 35. Asst. *math,* West Virginia, 29–30, instr, 30–32, prof, Potomac State Sch, 33–34, 35–40; *assoc. prof, Marshall Col, 40–* W. Va. Acad. Algebraic geometry.

Chambers, Prof. Othniel R(obert), 1923 Western Ave, Corvallis, Oregon. *Psychology.* Jasper, Ind, April 19, 94. A.B, A.M, Indiana, 22; Ph.D, Ohio State, 26. Instr. *psychol,* Ohio State, 23–26; adj. prof, Texas, 26–27, assoc. prof, 27–29; *prof, Oregon State Col, 29–, head dept.* Summers, instr, Ind. State Nor. Sch, 22; Pa. Southwest. State Nor. Sch, 26. Psychol. Asn. Observational learning; measurement of emotional maturity.

Chambers, Prof. Robert, New York University, Washington Square, New York, N. Y. ****3***Anatomy, Biology.* Erzerum, Turkey, Oct. 23, 81. B.A, Robert Col, Constantinople, 00; M.A, Queen's (Can), 02; Ph.D, Munich, 08; Columbia, 11–12. Instr, high sch, Turkey, 03–06, acting director, 08–09; lecturer biol, Toronto, 09–11; asst. prof. histol. and comp.

anat, col. med, Cincinnati, 12–15; instr. micros. anat, med. col, Cornell, 15–19, asst. prof, 19–22, prof, 22–28; *research prof. biol, Wash. Sq. Col, N. Y. Univ, 28–* Lecturer, Physiol. Inst. Moscow, 31; Harry Burr Ferris lecturer, Yale, 35. Summers, investigator, South Harpswell Lab, 23; Weir Mitchell Sta, 25; Roscoff Biol. Sta, 29; Plymouth Biol. Sta, Tortugas; instr, Marine Biol. Lab, Woods Hole, 17–19, 34– Co-editor, 'Protoplasm.' John Scott prize, Phila, 25; Trail award, Linnean Soc, London, 25. A.A; Soc. Nat; Soc. Zool; Asn. Anat; Soc. Exp. Biol. (councilor, 27, 37); Physiol. Soc; Bot. Soc; Marine Biol. Asn. (trustee); Harvey Soc. (councilor, 28); N. Y. Acad. Med; L. I. Biol. Asn. (director). Cytology; egg and cell size; spermatogenesis and oogenesis; physical nature of protoplasm; effect of electrolytes and dyes on exterior and interior of living cells studied by microdissection and microinjection; kidney function and cancer in tissue culture; blood capillary circulation.

Chambers, Prof. R(obert) F(oster), 254 Irving Ave, Providence, R. I. *Chemistry.* Providence, R. I, Oct. 8, 87. Ph.B, Brown, 09, M.S, 10, Ph.D, 12. Research chemist, Gen. Elec. Co, Mass, 12; instr. *chem, Brown,* 14–16, asst. prof, 16–22, assoc. prof, 22–32, *prof, 32–* A.A; Chem. Soc; Providence Eng. Soc. Organic chemistry.

Chambers, Dr. Thomas S(eal), 691 Elizabeth Ave, Newark, N. J. *Chemistry.* Reading, Pa, Jan. 1, 11. A.B, Swarthmore Col, 31; A.M, Harvard, 33, Harvard Soc. Fellows junior fellow, 33–39, Ph.D, 40; visiting fellow, Calif. Inst. Tech, 36–37. Asst. chem, Harvard, 31–33; consultant, A. D. Little, Inc, 39–40; lecturer, Bryn Mawr Col, 40; *research chemist, Standard Oil Develop. Co, 40–* Chem. Soc; Electrochem. Soc; Chemists' Club. Reaction kinetics; hydrocarbon chemistry; physical chemistry of organic compounds.

Chambers, Prof. V(ictor) J(ohn), University of Rochester, Rochester, N. Y. *Chemistry.* Rochester, N. Y, Nov. 18, 69. B.S, Rochester, 95; Ph.D, Hopkins, 01. Instr. *chem,* Columbia, 01–08; prof, *Rochester,* 08–39, *emer. prof, 39–,* dean grad. studies, 34–40. Chem. Soc. Organic chemistry.

Chambers, Dr. Will Grant, 333 W. Park St, State College, Pa. *Psychology, Education.* Westmoreland Co, Pa, April 26, 67. A.B, Lafayette Col, 94, A.M, 96, Litt.D, 17; Clark, 97–98; Chicago, 00–01; Sc.D, Gettysburg, 34. Prof. math, Pa. State Nor. Sch, Indiana, 94–97; psychol. and educ, Minn. State Nor. Sch, Moorhead, 01–04; psychol. and child study, Colo. State Teachers Col, Greeley, 04–09; educ, Pittsburgh, 09–21, dean *sch. educ,* 10–21; *Pa. State Col,* 23–37, *emer. dean, 37–,* director summer session, 21–37. Assoc. ed, 'Jour. Pedag.' Dist. director, Cmn. Training Camp Activities, Honolulu, U. S. War and Navy Depts, 18–19. A.A; Psychol. Asn; Acad. Polit. and Social Sci; Soc. Col. Teachers Educ. (pres, 17); Nat. Asn. Cols. and Depts. Educ. (pres, 31); Pa. State Educ. Asn. (pres, 20). Genetic psychology; evolution of ideals; how words get meaning; memory types; children's political ideas; ideas of discipline; psychology of proper names; childhood reactions to imaginary freedom; individual differences; reaction of special training on efficiency; correlation of essential characteristics in the training of teachers.

Chambers, Dr. William H(arold), 103 Ralph Ave, White Plains, N. Y. *Physiology.* Evanston, Ill, March 2, 94. B.S, Illinois, 15, M.S, 17; fellow, Mo. Bot. Garden, 19–20; Ph.D, Washington (St. Louis), 20. Asst. dairy bacter, Exp. Sta, Illinois, 15–17; asst, Barnard Free Skin and Cancer Hosp, and asst. exp. surg, sch. med, Washington (St. Louis), 20–24; nat. research fellow, med. col, Cornell, 24–26; instr. *physiol,* sch. med, Yale, 26–28; asst. prof, *med. col, Cornell,* 28–39, *assoc. prof, 39–, sch. nutrition, 41–; major, Sanit. Corps, U. S. Army, 42–* Ed. board, 'Jour. Nutrition,' 37–41, asst. ed, 39–41. A.A; Physiol. Soc; Soc. Exp. Biol; Inst. Nutrition; Harvey Soc. Growth of bacteria; blood chemistry in cancer; plant tissue culture; carbohydrate and protein metabolism; experimental diabetes; calorimetry; nutrition.

Chambers, Prof. William T(rout), Stephen F. Austin State Teachers College, Nacogdoches, Texas. *Geography.* Oaktown, Ind, Nov. 14, 96. A.B, Ind. State Teachers Col, 21; B.S, Chicago, 24, fellow, Ph.D, 26. Instr. *geog,* Tennessee, 22–24; asst. prof. and *assoc. prof. and head dept, Stephen F. Austin State Teachers Col, Texas, 26–* Summers, instr, Ind. State Teachers Col; George Peabody Col. Geography of Texas and urban communities; historical geography.

Chambers, W(illie) Lee, Robinson Road, Topanga, Calif. *Ornithology.* Sedalia, Mo, May 7, 78. Ornith. Union; Cooper Ornith. Club (business manager, 09–); Wilson Ornith. Soc; Northwest. Bird and Mammal Soc; Biol. Soc. Wash. Game conservation.

Chambliss, Charles Edward, U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Petersburg, Va, Aug. 20, 71. B.S, Tennessee, 92, M.S, 94. Instr. zool, Tennessee, 94–99, entomologist, Exp. Sta, 96–99; state entomologist, Tenn, 99–01; assoc. prof. zool. and entom, Clemson Col, and zoologist and entomologist, Exp. Sta, 01–07; state entomologist, S. C, 07–08; agronomist in charge rice investigations, *bur. plant indust, U. S. Dept. Agr,* 08–30, in charge rice technol. and bot, 30–41, *collaborator, 41–* A.A; Soc. Agron; Bot. Soc. Wash. (sec'y, 13–20, pres, 20); Biol. Soc. Wash. (pres, 33–36); Wash. Acad. (v. pres, 33–36; pres, 39). Insects affecting orchards, gardens and the rice crop; breeding and agronomy; taxonomy of Oryzeae.

Chambliss, Dr. Hardee, 1715 Varnum St, Washington, D. C. *Chemistry.* Selma, Ala, Dec. 4, 72. Grad, Va. Mil. Inst, 94; fellow, Vanderbilt, 98–99, M.S, 99; Ph.D, Hopkins, 00. Asst. chem, Columbia, 00–01; research chemist, Moore Elec. Co, N. J, 01–03; Gen. Chem. Co, New York, 03–09; prof. chem, Okla. Agr. and Mech. Col, 09–15; asst. state commissioner health, Okla, 15–16; chem. director, Commercial Acid Co, 16–17; lieut-col. and commanding officer, U. S. Nitrate Plant No. 1, 19–21; prof. chem. and director, Martin Maloney chem. lab, Catholic Univ, 21–40, dean faculty of sciences, 25–40, sch. eng, 30–34; *retired.* Major, Ordnance Dept, 17–19, col, O.R.C, 29– Chem. Soc; Chem. Eng; Soc. Chem. Indust; Mech. Eng; fel. London Chem. Soc. Permanganates; fixation of nitrogen.

Chamot, Prof. E(mile) M(onnin), 927 E. State St, Ithaca, N. Y. *[1]*Microchemistry, Sanitary chemistry.* Buffalo, N. Y, March 4, 68. B.S, Cornell, 91, Ph.D, 97; Nancy, Braunschweig, Paris and Delft. Asst. quantitative anal, *Cornell,* 90–91, instr, 91–97, lecturer chem, 98, instr. toxicol, 99, sanit. and toxicol. chem, 00, asst. prof, 01–10, prof. *chem. micros. and sanit. chem,* 10–36, *emer. prof, 37–* Exchange prof, France, 24–25. Chem. Soc; Chem. Eng; Inst. Social Sci. Chemical microscopy.

Champlin, Prof. Manley (Jerome), University of Saskatchewan, Saskatoon, Sask, Can. *Agriculture.* Cresco, Iowa, Oct. 28, 85. B.S, S. Dak. State Col, 09, M.S, 14; M.S.A, Saskatchewan, 21; California, 30–31. Sci. asst. cereal investigations, U. S. Dept. Agr, 09–11; assoc. agronomist and asst. supt, exp. farms, S. Dak. State Col, 11–20; exten. agronomist, 20; *prof. field husbandry, Saskatchewan, 20–* Lecture bur, U. S. Food Admin, 17–18. Judges cmt, Int. Corn Show, 13; Int. Soil Products Expos, 14, 15, 18; Int. Livestock and Grain Show, 25; World Grain Show, Regina, 33. Cmn: Investigating Methods of Grain Inspection, Minneapolis. A.A; Soc. Agron; S. Dak. Exp. Asn. (sec'y, 13–20); Can. Soc. Tech. Agr; Saskatchewan Field Husbandry Asn. (sec'y, 21–). Field husbandry; cereal breeding.

Champney, Dr. Horace, Antioch College, Yellow Springs, Ohio. *Psychology.* Cleveland, Ohio, May 23, 05. A.B, Antioch Col, 32; A.M, Ohio State, 33, Ph.D, 39. Teaching asst. psychol, Ohio State, 33–36; *research psychologist, Samuel S. Fels Research Institute, 36–; asst. prof. psychol, Antioch Col, 40–* Summer, mem. faculty, Syracuse. A.A; Soc. Research Child Develop; Psychometric Soc; Psychol. Asn; fel. Asn. Applied Psychol; Soc. Psychol. Study Social Issues; Progressive Ed. Asn; Midwest. Psychol. Asn. Parent-child relationships; child development; social psychology; statistics; counseling.

Chance, Prof. Britton, Massachusetts Institute of Technology, Cambridge, Mass. *Biophysics.* Wilkes-Barre, Pa, July 24, 13. B.S, Pennsylvania, 35, M.S, 36, Johnson Foundation fellow, 39–40, Ph.D, 40; Ph.D, Cambridge, 42. Acting director, Johnson Foundation, *Pennsylvania,* 40–41, *asst. prof. biophys, med. sch, 41–; research assoc, radiation lab; Mass. Inst. Tech, 41–* Physical chemistry; kinetics of respiratory enzymes; electronic devices.

Chandlee, Prof. G(rover) C, Pennsylvania State College, State College, Pa. *Chemistry.* Delta, Pa, Sept. 5, 84. Ph.B, Franklin and Marshall Col, 07; M.S, Pa. State Col, 13; A.M, Columbia, 22, Ph.D, 25. Instr. *chem, Pa. State Col,* 07–10, from instr. to assoc. prof, 12–18, 19–21, *prof. and chairman dept, 22–,* acting dean grad. sch, 33–34. Indust. work, 10–11. Lieut, U.S.A, 18–19. Chem. Soc. Inorganic and analytical chemistry.

Chandler, Prof. Asa C(rawford), Rice Institute, Houston, Texas. *[5]*Zoology.* Newark, N. J, Feb. 19, 91. A.B, Cornell,

11; M.S, California, 12, Ph.D, 14. Instr. zool, Oregon State Col, 14–17, asst. prof, 17–19; instr. biol, Rice Inst, 19–23; in charge hookworm research lab, Calcutta Sch. Trop. Med, 24–27; *prof. biol, Rice Inst, 27–; special consultant, Aedes aegypti control, U. S. Pub. Health Service, 42–* 2nd lieut, Sanit.C. A.A; Soc. Nat; Soc. Parasitol. (v. pres, 31); Micros. Soc; Acad. Trop. Med; Soc. Trop. Med. (v. pres, 38–). Parasitology; medical zoology.

Chandler, Dr. Caroline A(ugusta), Johns Hopkins Hospital, Baltimore, Md. *Clinical bacteriology.* Ford City, Pa, Dec. 7, 06. A.B, Columbia, 29; M.D, Yale, 33. Research fellow pediat, Harvard Med. Sch, 34–36, asst. bacter. and research fellow obstet, 37–39, asst. bacter. and immunol, sch. pub. health, Harvard, 36–37; research fellow pediat, Hopkins Hosp, 39–41, *instr. prev. med. and asst. visiting pediatrician, Hopkins, 41–* Lena Lake Forrest fellow, Nat. Federation Business and Professional Women's Clubs, 36. A.A; Asn. Immunol. Sulfanilamide as a prophylactic agent in rheumatic fever; chemotherapy.

Chandler, Prof. David C(ulbertson), Franz Theodore Stone Laboratory, Put-in-Bay, Ohio. *Zoology.* Walnut Grove, Minn, July 11, 06. A.B, Greenville Col, 29; A.M, Michigan, 30, Ph.D, 34. Instr. zool, Arkansas, 34–35; prof. biol, McMurry Col. (Texas), 35–36; instr. *zool,* Arkansas, 36–38; *asst. prof. zool, Franz Theodore Stone Lab, Ohio State, 38–* Summer, party leader, lake surv, State Dept. Conservation, Mich, 37. A.A; Ecol. Soc; Micros. Soc; Limnol. Soc; Ohio Acad. Limnology; fisheries biology.

Chandler, Dr. Elbert Edwin, 1835 Woodrow Ave, Los Angeles, Calif. *Chemistry.* Pleasant Hill, Mo, Oct. 20, 69. A.B, William Jewell Col, 91; LL.B, Michigan, 93; Ph.D, Chicago, 06. Instr. chem, Mich. Mil. Acad, 01–03; asst, Chicago, 03–06; instr, Pomona Col, 06–08; prof, Occidental Col, 09–41; teacher basic science, Aero Industries Tech. Inst, 41–43; *consulting chemist, Rock Fiber Co, 43–* U. S. Dept. Agr, 24– Chem. Soc. (pres, south. Calif. sect, 17, councilor, 18, 33). Ionization of dibasic acids; effect of cement dust on vegetation; length, strength and brightness of raw cotton fibers.

Chandler, Prof. E(lwyn) F(rancis), University, N. Dak. *Civil engineering.* Yellow Springs, Ohio, Aug. 29, 72. A.B, Ripon Col, 94, A.M, 97; Wisconsin, 97–98, fellow, 98–99. Teacher, prep. and high schs, 93–97; instr. math, *North Dakota,* 99–02, *prof,* 02–15, *civil eng, 14–,* acting dean col. eng, 25–26, dean, 26–32; *ground sch. instr. civilian flight training, Civil Aeronaut. Admin, 39–* City engineer, Ripon, Wis, 95; hydraulic engineer, U. S. Geol. Surv, 03–05; state engineer, N. Dak, 04–05; state rep, U. S. Coast and Geod. Surv, 33–35; assoc. water consultant, Nat. Resources Cmt, 36. A.A; Civil Eng; Eng. Educ; N. Dak. Soc. Eng. (sec'y, 12–22). Hydrographic methods and hydrology; surface water-supply; the rainfall-runoff; stream-flow.

Chandler, Dr. (Florence) Clyde, New York Botanical Garden, Bronx Park, New York, N. Y. *Cytology.* Oliver, Ark, Sept. 28, 01. A.B, Arkansas, 23; A.M, Columbia, 27, Ph.D, 40. Teacher, high sch, Ark, 23–26; tech. asst, N. Y. Bot. Garden, 27–43. Torrey Bot. Club. Plant breeding and cytology.

Chandler, Dr. F(rederick) B(arker), Orono, Maine. *Biology.* Machias, Maine, Aug. 5, 03. B.S, Maine, 28; Mass. Col; Chicago; Minnesota; Ph.D, Maryland, 39. Asst, *Exp. Sta, Maine,* 28–31, asst. biologist, 31–38, *assoc. physiologist, 38–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Plant nutrition; physiology of small fruits; small fruit culture; fruit pollination and sterility.

Chandler, Prof. Joseph, 3315 Highland Ave. Drexel Hill, Pa. *Chemistry.* Livermore Falls, Maine, Jan. 16, 89. A.B, Colby Col, 09; Ph.D, Hopkins, 12. Asst. prof. chem, Louisville, 12–14; instr. org. chem, Tufts Col, 14–17, asst. prof, 17–19; research chemist, U. S. Color and Chem. Co, 19–20; Semet Solvay Co, 20–21; instr. *chem,* sch. med, Boston, 21–22, asst. prof, 22–25, *assoc. prof,* 25–26; *Hahnemann Med. Col, 26–* Capt, C.W.Res, 23– Chem. Soc. Organic and physiological chemistry; blood and urine analysis.

Chandler, Dr. J(oseph) P(axton), Cornell Medical College, 1300 York Ave, New York, N. Y. *Physiological chemistry.* Walnut Grove, Minn, Jan. 2, 03. A.B, Greenville Col, 24; M.S, Michigan, 27, Ph.D, 30. Instr. chem, Greenville Col, 25–27; asst. physiol. chem, Michigan, 27–30; asst, Hosp. for Joint Diseases, New York, 31–33; asst. physiol, *med. col, Cornell,* 34–37, instr. *biochem,* 37–41, *asst. prof, 41–* Intermediary metabolism of amino acids; calcium and phosphorus metabolism; carbohydrate metabolism of hypophysectomized and of fasting animals.

Chandler, Dr. Ray C(alvin), 4635 E. 14th St, Oakland, Calif. *Plant physiology, Chemistry.* Odon, Ind, July 10, 95. B.S, California, 30, M.S, 34, Ph.D, 37. Teaching fellow, California, 35–37; asst. prof. bot, Arizona, and botanist, Exp. Sta, 38–40; instr. chem, San Francisco Junior Col, 40–42; *research chemist, Farallone Packing Co, 42–* Soc. Plant Physiol. Thermodynamics of colloids and solutes in aqueous systems; chemical relationships in plants; chemistry of fats, fat products and oil soluble vitamins.

Chandler, Prof. R(obert) F(lint), Jr, 808 Hanshaw Road, Ithaca, N. Y. *Agronomy.* Columbus, Ohio, June 22, 07. B S, Maine, 29; Ph.D, Maryland, 34. Horticulturist, State Dept. Agr, Maine, 29–31; asst, Exp. Sta, Maryland, 31–34; nat. research fellow forestry, California, 34–35; asst. prof. *forest soils, Cornell,* 35–41, *assoc. prof, 41–* Influence of different forest tree species on the productivity of forest soils; distribution of vegetation on great soil groups of the world; the nature of soil-forming processes.

Chandler, Dr. S(imon) B, West Virginia University, Morgantown, W. Va. *Anatomy.* Paintsville, Ky, Feb. 13, 87. A.B, Missouri, 22; A.M, Northwestern, 26, M.D, 27. Instr. *anat,* sch. med, Arkansas, 22–24; asst. prof, *sch. med,* Loyola, 26–30, assoc. prof, 30–35; *prof, West Virginia, 35–* A.A; Asn. Anat; Asn. Med. Hist. Endocrinology; anatomy and physiology of the parathyroid glands; bursae in the shoulder and hip regions; blood supply in proximal end of femur; middle meningeal artery.

Chandler, Dr. W(allace) L(arkin), 626 Abbott Road, East Lansing, Mich. *Parasitology.* Antonito, Colo, April 21, 85. B.S, California, 14, M.S, 15; Ph.D, Cornell, 18. Exten. lecturer, California, 14–15; instr. parasitol, Cornell, 15–18; asst. entom, Exp. Sta, Mich. State Col, 18–19, research assoc. and asst. prof. parasitol. and bacter, 19–42; *consultant parasitologist, State Dept. Health, Mich, 32–* Sec'y board directors, Calif. Inst. Pub. Health and Sanit, Inc, 14–15; acting exec. sec'y, Affiliated Societies Conservation of Wildlife, 14–15. A.A; Soc. Parasitol; Soc. Med. Entom; Poultry Sci. Asn; N. Y. Acad. Life histories and means of control of various arthropods; physiological action of nitrobenzene vapor on animals; neoarsphenamin treatment of intestinal protozoal diseases in man, with special reference to amoebic dysentery; colloidal iodine.

Chandler, Prof. W(illiam) H(enry), 405 Hilgard Ave, Los Angeles, Calif. **7Botany.* Butler, Mo, July 31, 78. B.S.A, Missouri, 05, fellow, 05–06, M.S, 06, Ph.D, 14. Asst. hort, Missouri, 06–10, instr, 10–11, asst. prof, 11–13; prof. pomol, Cornell, 13–23, v. director research, 20–23; *prof. pomol, California, 23–, hort, 38–,* asst. dean, 38–43. A.A; Soc. Hort. Sci. (pres, 21); Soc. Plant Physiol; Bot. Soc. Killing of plant tissue by low temperature; plant saps; the pruning of fruit trees; polarity and scion rooting; effect of fruiting on trees; little-leaf of fruit trees; chilling requirements of deciduous plants.

Chandrasekhar, Dr. S(ubrahmanyan), Yerkes Observatory, University of Chicago, Williams Bay, Wis. **7Astronomy, Astrophysics.* Lahore, India, Oct. 19, 10. M.A, Madras, 30; Ph.D, Cambridge, 33, Sc.D, 42. Fellow, Trinity Col, Cambridge, 33–37; research assoc, *Yerkes Observatory, Chicago,* 36–37, asst. prof, 37–41, *assoc. prof, 41–* Lecturer, Harvard Observatory, 35–36. Astron. Soc; Royal Astron. Soc; London Math. Soc; Cambridge Philos. Soc; Indian Acad. Sciences. Theory of stellar atmospheres; stellar constitution; white dwarfs; galactic dynamics.

Chaney, Dr. Albert L(awrence), 1347 Andenes Drive, Glendale, Calif. *Chemistry.* Asheville, N. C, May 21, 00. A.B, Wash. Missionary Col, 20; M.S, Minnesota, 25, Ph.D, 30. Teacher, high sch, Sask, 20–23; physics and chem, Emmanuel Missionary Col, 25–28; *chemist, Los Angeles County Gen. Hosp, 30–; asst. prof. path, Col. Med. Evangelists, 35–* A.A. Electrochemistry; blood chemistry.

Chaney, Dr. David W(ebb), Box 5, Swarthmore, Pa. *Organic chemistry.* Cleveland, Ohio, Dec. 19, 15. A.B, Swarthmore Col, 38; M.S, Pennsylvania, 40, Ph.D, 42. *Research chemist, Am. Viscose Corp, 42–* Chem. Soc. Synthetic textiles, plastics and resins.

Chaney, Prof. J(esse) G(erald), 46 Washington St, Newton, Mass. *Mathematics.* Moody, Texas, Aug. 9, 06. A.B,

Southwestern (Texas), 24; A.M, Texas, 30; Ph.D, Agr. and Mech. Col, Texas, 41. Instr, Southwestern (Texas), 24–25; *math, Agr. and Mech. Col. Texas, 28–37, asst. prof, 37–; lieut, U. S. Naval Res.* Math. Soc; Math. Asn; Radio Eng; Elec. Eng. Multiple root Heaviside expansion theorems.

Chaney, Prof. Margaret S(tella), Connecticut College, New London, Conn. *Home economics.* Chicago, Ill, Aug. 31, 92. Ph.B, Chicago, 14, Ph.D, 25; A.M, California, 23. Instr. home econ, Sam Houston Nor. Inst, 19–22; asst. prof, Minnesota, 25–26; assoc. prof, Kans. State Col, 26–28, *prof*, 28–30; *home econ. and chairman dept, Conn. Col, 30–* Summers, instr, Chicago, 24; California, 27; Washington, 36; Oregon State Col, 37; Tennessee, 38; Cornell, 39; Utah, 40. Seasonal variation in growth of children; mineral metabolism; nutrition.

Chaney, Dr. Newcomb K(inney), Possum Hollow Road, Rose Valley, Moylan, Pa. *Chemistry.* Northfield, Minn, April 27, 83. B.S, Carleton Col, 04, M.S, 05; Rhodes scholar, Oxford, 07–10, B.A, 10; Harrison fellow, Pennsylvania, 10–11, Ph.D, 12. Instr. biol, Carleton Col, 06–07; research chemist, Nat. Carbon Co, Cleveland, 11–17, asst. director research and develop. labs, 19–21; tech. director carbon and battery div, Union Carbide and Carbon Research Labs, Inc, New York, 21–25; asst. director research labs, Nat. Carbon Co, Cleveland, 25–35; research, *United Gas Improv. Co, Phila*, 35–36, *director research, 36–* Consultant, Nat. Defense Research Cmt, 42; referee board, Office Petrol. Research and Develop, 43. Potts gold medal, Franklin Inst, 39; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Consulting chemist, U. S. Bur. Mines, 17–18; C.W.S, U.S.A, 18–19, 25–, chief charcoal sect, exp. sta, American Univ. A.A; Chem. Soc. (councilor, N. Y. sect, 25–27, Cleveland sect, 28, 34, chairman, 28; Phila. sect, 40); Chem. Eng. (director, 27–29); Physical Soc; Chemists Club; Franklin Inst; Inst. Petrol. Technol. Gt. Britain; London Chem. Soc. Physical and photometric measurements; electrochemistry; storage and dry batteries; carbon blacks; brushes; electrodes; illuminating carbons; army gas mask carbon; activated carbon and its industrial applications; solvent recovery; industrial resins; technical applications of ultra-violet radiation; petroleum pyrolysis.

Chaney, Dr. Ralph H(ill), 1001 Greene St, Augusta, Ga. *Surgery.* Northfield, Minn, Dec. 4, 86. A.B, Oberlin Col, 09, A.M, 13; M.D, Pennsylvania, 14; Minnesota, 19–22. Asst. physics, Oberlin Col, 09–10; prof. *surg.* and director dept, *med. dept, Georgia, 22–32, clin. prof, 34–* Am. Med. Asn; fel. Col. Surg; South. Med. Asn. Scar and keloid; inflammation and repair.

Chaney, Prof. Ralph W(orks), University of California, Berkeley, Calif. *******Geology, Paleobotany.* Chicago, Ill, Aug. 24, 90. B.S, Chicago, 12, Ph.D, 19. Head dept. nat. science, Francis W. Parker Sch, Chicago, 14–17; instr. geol, Iowa, 17–19, asst. prof, 19–22; *research assoc, Carnegie Institution, 22–; prof. paleont, California, 31–, curator paleobot, museum paleont.* Lecturer, California, 27, 30. Paleobotanist, 3rd Asiatic exped, 25. A.A; Paleont. Soc; Geol. Soc; Bot. Soc; Philos. Soc; Torrey Bot. Club; fel. Calif. Acad; Geol. Soc. China. Tertiary paleobotany and geology of western America and eastern Asia.

Chang, Dr. L(ung) H(siang), 2691 Yale Station, New Haven, Conn. *Organic chemistry, Biochemistry.* Chekiang, China, Feb. 16, 16. B.Sc, Tsing Hua Univ, 37; Ph.D, Toronto, 42. *Nat. Tuber. Asn. fellow biochem, Yale, 42–* Organic chemistry; chemistry of the wax of human tubercle bacilli.

Chanler, Dr. Josephine H(ughes), University of Illinois, Urbana, Ill. *Mathematics.* St. Louis, Mo, April 7, 06. A.B, West. Ky. State Teachers Col, 27; A.M, Illinois, 30, fellow, 30–31, Ph.D, 33. Instr, high sch, Ky, 27–28; asst. *math, Illinois*, 31–39, *assoc, 39–* Math. Soc. Poristic binary forms; geometry of generalized Weddle; curves determined from pencils of n-ics; trilinear forms.

Chant, Prof. C(larence) A(ugustus), University of Toronto, Toronto, Ont, Can. *Physics, Astronomy.* Near Toronto, Ont, May 31, 65. B.A, Toronto, 90, M.A, 00, LL.D, 35; Ph.D, Harvard, 01. Fellow and tutor physics, *Toronto*, 91–92, lecturer, 92–07, assoc. prof. *astrophys*, 07–18, prof, 18–35, *emer. prof, 35–*, director, *David Dunlap Observatory*, 33–35, *emer. director, 35–* Exped, Australian eclipse, 22. A.A; Physical Soc; Astron. Soc. (councilor, 24–26; v. pres, 34–36); Royal Soc. Can; Royal Astron. Soc. Can. (pres, 04–07, ed, 'Jour,' 07–); Royal Astron. Soc. London; Astron. Gesell; Soc. astron. de France; hon. mem. Soc. Astron. de Mex. The 'skin' effect in electrical oscillators; reception by wires of electric waves; physical basis of color; reflecting power of glasses and mirrors; meteoric displays; theory of relativity.

Chant, Prof. S(perrin) N(oah) F(ulton), 250 Glen Rose Ave, Toronto, Ont, Can. *Psychology.* St. Thomas, Ont, Oct. 31, 96. B.A, Toronto, 22, M.A, 24. Lecturer *psychol, Toronto*, 22–27, asst. prof. and assoc. prof, 27–37, *prof, 37–; wing commander, Royal Can. Air Force.* Mem. research staff, Can. Nat. Cmt. Mental Hygiene. Assoc. Psychol. Asn. Binocular vision; reasoning; mental hygiene of business and industrial workers.

Chanutin, Prof. Alfred, University of Virginia, Charlottesville, Va. *Physiological chemistry.* New Haven, Conn, June 3, 97. Ph.B, Yale, 17, Ph.D, 23. Instr. physiol, Illinois, 23–24; assoc. prof. *biochem, Virginia*, 24–30, *prof, 30–* Soc. Biol. Chem. Creatine-creatinine metabolism; blood volume regulation; calorimetry; nutrition and metabolism in partially nephrectomized rats; calcium-protein relationship with ultracentrifuge; fat metabolism.

Chao, Dr. Tsai H(siang), 391 E. Main St, Somerville, N. J. *Organic chemistry.* Canton, China, Sept. 15, 12. B.S, Indiana, 35, A.M, 36; fellow, Purdue, 36–39, Ph.D, 40; Eli Lilly fellow, Chicago, 39–40. *Research chemist, Calco Chem. Div, Am. Cyanamid Co, 40–* Chem. Soc; Chinese Chem. Soc. Chlorination of hydrocarbons; atoms and free radicals in solution; selenium organic compounds; processing of coal tar chemicals.

Chapin, Dr. Edward A(lbert), U. S. National Museum, Washington, D. C. *Entomology:* Springfield, Mass, Jan. 4, 94. Ph.B, Yale, 16; M.Sc, Mass. Col, 17; Ph D, George Washington, 23. Bur. biol. surv, U. S. Dept. Agr, 17–20, asst. zoologist, bur. animal indust, 20–26, assoc. entomologist, bur. entom, 26–34; *curator insects, U. S. Nat. Museum, 34–* Entom. Soc. Wash; Biol. Soc. Wash; Wash. Acad; cor. mem. Colombian Acad. Exact Sciences. Taxonomy of Coleoptera.

Chapin, Prof. Ernest K(night), 817 Poyntz Ave, Manhattan, Kans. *Physics.* China, Feb. 1, 98. A.B, Michigan, 18, M.S, 23. Teacher, high sch, Mich, 18–22; asst. prof. *physics, Kans. State Col*, 23–32, *assoc. prof, 32–* Acoustical Soc; Kans. Acad. Theory of hearing.

Chapin, Prof. Harold C(anning), Lowell Textile Institute, Lowell, Mass. *Chemistry.* Gill, Mass, Sept. 20, 83. A.B, Harvard, 04, Ph.D, 10. Asst. chem, Harvard, 04–07; instr, Rensselaer Polytech, 09–13; research chemist and foreman, Nat. Carbon Co, 13–18; assoc. prof. *chem*, Lafayette Col, 18–20; *asst. prof, Lowell Textile Inst, 20–* Chem. Soc; Asn. Textile Chem. and Colorists (sec'y).

Chapin, Dr. James P(aul), American Museum of Natural History, New York, N. Y. *Zoology.* New York, N. Y, July 9, 89. A.B, Columbia, 16, Cutting fellow, 16–17, A.M, 17, Ph.D, 32. Asst, Am. Museum Nat. Hist. exped, Belgian Congo, 09–15, *dept. ornith, Am. Museum Nat. Hist*, 15–19, asst. curator, 20–23, *assoc. curator, 23–* Ruwenzori-Kivu exped, 26, 27; Nourmahal exped, Galapagos, 30; exped, Congo, 30, 31; Crocker Pacific exped, Polynesia, 34, 35; Congo peacock exped, 37. Order of the Crown, Belgium; Elliot medal, 32. U. S. del, Int. Ornith. Cong, Rouen, France, 38. Fel. Ornith. Union (councilor, 30–, v. pres, 35, pres, 39–); Soc. Mammal; Explorers Club (v. pres, 33–37); Staten Island Inst. (pres, 34–); Staten Island Zool. Soc. (pres, 34–); Linnaean Soc. N. Y; British Ornith. Union; Deuts. Ornith. Gesell; Cercle zool. congolais. Vertebrate zoology; Old World ornithology.

Chapin, Theodore S(heffield), 1938 E. California St, Pasadena, Calif. *Geology.* Peking, China, April 25, 76. B.S, Occidental Col; A.M, Stanford. Geologist, U. S. Geol. Surv, Alaska, 11–20; geologist and chief geologist, Henry L. Doherty and Co, Mex, 20–29, *geologist*, 29–30; *Cities Service Co, 30–* Geol. Soc; Asn. Petrol. Geol; Calif. Acad.

Chapin, Prof. W(illiam) H(enry), 217 Woodland Ave, Oberlin, Ohio. *Chemistry.* Brownhelm, Ohio, Oct. 5, 72. A.B, Oberlin Col, 04; Ph.D, Pennsylvania, 09. Research fellow, Pennsylvania, 09–10; instr. *chem, Oberlin Col*, 06–07, assoc. prof, 10–22, prof, 22–36, *emer. prof, 36–* Chem. Soc. Molecular weights; tantalum; solubility and hydration of ions; salt effect; methods of quantitative analysis; water softening; second year chemistry.

Chapline, W(illiam) R(idgely), U. S. Forest Service, Washington, D. C. *Forestry.* Lincoln, Nebr, Jan. 10, 91. B.S,

Nebraska, 13. Grazing asst, *U. S. Forest Service*, 13–14, examiner grazing, 15–20, inspector in charge grazing research, 20–30, *chief div. range research, 30–* A.A; Soc. Foresters; Ecol. Soc; Soc. Agron; Bot. Soc. Wash; Wash. Acad. Forest, range and watershed management; ecology; range plants; live stock production; erosion control.

Chapman, Dr. Alan T(heodore), 32 Lafayette Place, Lyndhurst, N. J. *Chemistry.* Colorado Springs, Colo, March 13, 09. B.S, State Col. Wash, 29; M.S, Ohio State, 31, Ph.D, 32. Nat. research fellow, Calif. Inst. Tech, 32–34; *research chemist,* Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 34–35; *West. Elec. Co, 35–* Chem. Soc. Thermodynamics; photochemistry; chlorinations; thermionics.

Chapman, Dr. Albert K(inkade), Eastman Kodak Co, Rochester, N. Y. *Physics.* Marysville, Ohio, May 31, 90. A.B, Ohio State, 12, fellow, 11–13, A.M, 13; Princeton, 13–14, fellow, 14–15, Ph.D. Develop. dept, *Eastman Kodak Co,* 19–21, asst. to v. pres. and gen. manager, 21–30, production manager, 30–41, asst. v. pres, 36–41, *v. pres. and asst. gen. manager, 41–* Capt, A.S, 17–19. Optical Soc. Spectra of compounds; Corbino effect in metals and alloys.

Chapman, Prof. Arthur B(arclay), University of Wisconsin, Madison, Wis. *Genetics.* Windermere, Eng, Oct. 25, 08. B.S, State Col. Wash, 30; M.S, Iowa State Col, 31; Ph.D, Wisconsin, 35. Teaching fellow animal husbandry, Iowa State Col, 30–31; asst. genetics, Wisconsin, 31–36; nat. research fellow agr, Iowa State Col. and Chicago, 36–37; instr. *genetics, Wisconsin,* 37–39, *asst. prof, 39–* A.A; Soc. Animal Production; Genetic Asn. Animal breeding; physiology of reproduction; birth weights in sheep; productive and reproductive efficiency in dairy cattle; the sexual cycle of farm animals and of man.

Chapman, Dr. A(rthur) G(lenn), U. S. Forest Service, Columbus, Ohio. *Forest ecology.* Martinsville, Ill, Nov. 15, 95. B.S, Iowa State Col, 29; M.S, Ohio State, 32, Ph.D, 33. Sch. supt, Ill, 21–27; teacher bot, Ohio State, 29–34; *assoc. conservationist* and *silviculturist, Cent. States Forest Exp. Sta, U. S. Forest Service, 34–* Plant physiology; distribution of forest types; forest planting; properties of seed coats responsible for impermeability; forest management.

Chapman, Dr. Carleton A(bramson), University of Illinois, Urbana, Ill. *Geology.* Groveton, N. H, Oct. 14, 11. B.S, New Hampshire, 33; A.M, Harvard, 35, Ph.D, 37. Asst. petrog, Harvard, 34–35, instr, 35–37; *geol, Illinois,* 37–39, *assoc, 39–* Miner. Soc; Ill. Acad. Petrography; structural petrology; mineralogy.

Chapman, Prof. C(hauncey) W(allace) L(ord), 13 Park St, Orono, Maine. *Forestry.* Kezar Falls, Maine, May 20, 93. B.S. (Forestry), Maine, 14, M.S, 21. Instr. agr, Dow Acad, 15–16; head master, high sch, N. H, 16–18; *prof. forestry, Maine, 19–* U.S.A, 18–19; Y.M.C.A, 19. Soc. Foresters. Handling farm woodlands; forest mensuration.

Chapman, Dr. C(lifford) W(arren), University of Maryland, Baltimore, Md. *Pharmacology.* London, Ont, Can, 98. B.A, Western Ontario, 22, M.Sc, 25; Ph.D, McGill, 35. Asst. chemist, Inst. Pub. Health, London, Ont, 22–26; instr. biochem, med. sch, Western Ontario, 27–28; pharmacologist, *lab. hygiene, Dept. Nat. Health,* 28–38; *prof. pharmacol, sch. pharmacy, Maryland, 38–* Instr, McGill, 32. Mem. revision cmt, U. S. Pharmacopoeia; cmt. pharmacol, Nat. Formulary. A.A; Pharmaceut. Asn. (bioassay cmt); Soc. Pharmacol. Bioassay.

Chapman, Prof. C(linton) J(oseph), University of Wisconsin, Madison, Wis. *Soils.* Darlington, Wis, Sept. 11, 90. B.S, Wisconsin, 14. Field rep, Am. Agr. Chem. Co, N. Y, 16–21; asst. prof. *soils, Wisconsin,* 21–28, assoc. prof, 28–30, *prof, 30–* Soc. Agron.

Chapman, Cloyd M(ason), 11 Highland Road, Glen Cove, N. Y. *Engineering.* Akron, Ohio, Nov. 5, 74. Buchtel Col, 92–95; Cornell, 95–98. Asst. to Thomas A. Edison, 99–08; engineer, Westinghouse, Church, Kerr Co, 08–20; *consulting engineer, 20–; patent attorney.* Ensign, U.S.N, Spanish-Am. war. Mech. Eng; Soc. Test. Mat. (v. pres, 30, pres, 32, chairman, cmt. E-8). Materials of engineering; patents.

Chapman, Dr. Donald H(arding), University of New Hampshire, Durham, N. H. *Geology.* Saginaw, Mich, Nov. 14, 04. A.B, Michigan, 27, A.M, 28, fellow, 30–31, Ph.D, 31. Instr. *geol,* Dartmouth Col, 28–30; Michigan, 31; *New Hampshire,* 31–36, asst. prof, 36–41, *assoc. prof, 41–, in charge geog. and meteorol, 36–* Summers, asst. geologist, Mich. Geol. Surv, 27, 28. Meteorol. Soc; Boston Geol. Soc; N. H. Acad. Glaciology and physiography; meteorology.

Chapman, Dr. Dwight W(estley), Bennington College, Bennington, Vt. *Psychology, Statistics.* South Bend, Ind, June 4, 05. A.B, Harvard, 27, traveling fellow, Germany, 27–28, Ph.D, 30. Instr. psychol, Harvard, 30–36; junior psychologist, and statistician, psychopath. clinic, Recorders Court, Detroit, 36–38; *instr. psychol,* Columbia, 38; *Bennington Col, 38–* A.A; assoc. Psychol. Asn; Statist. Asn. Clinical psychology; psychology of attention; statistical method.

Chapman, Dr. Floyd B(arton), 1944 Denune Ave, Columbus, Ohio. *Animal ecology.* Zaleski, Ohio, April 1, 11. A.B, Ohio State, 32, A.M, 33, univ. fellow, 36–38, Ph.D, 38. Asst. bot, Ohio State, 32–35; field ecologist, State Div. Conservation, Ohio, 35–38; game management technician, 38–40; *asst. biologist, fish and wildlife service, U. S. Dept. Interior, 40–; U. S. Army, 42–* Ecol. Soc; Soc. Mammal; Ornith. Union; Soc. Foresters; Wildlife Soc; Cooper Ornith. Club; Wilson Ornith. Club; Ohio Acad. Forest wildlife; ecology and management of the North American tree squirrels.

Chapman, Dr. Frank M(ichler), American Museum of Natural History, New York, N. Y. **Ornithology, Mammalogy.* Englewood, N. J, June 12, 64. Acad; Sc.D, Brown, 13. Asst. curator dept. ornith. and mammal, *Am. Museum Nat. Hist,* 88–01, assoc. curator, 01–08, *curator ornith, 08–* Assoc. ed, 'The Auk,' 94–11; ed. and founder, 'Bird-Lore,' 98–35. Linnaean Soc. N. Y. medal, 12; Elliot medal, 18; Roosevelt medal, 28. Director bur. publications, Red Cross, 17–18, cmn. to Latin Amer, 18–19. Nat. Acad; Soc. Nat; fel. Ornith. Union (pres, 11); Philos. Soc; fel. N. Y. Acad. (v. pres, 08, 09); Linnaean Soc. N. Y. (pres, 97); hon. mem. N. Y. Zool. Soc; Biol. Soc. Wash; hon. mem. British Ornith. Union; Deuts. Ornith. Gesell; Club van Nederlandsche Vogelkund; Soc. Ornith. La Plata. Geographic distribution; systematic relationships and life histories of birds; popularization of natural history studies.

Chapman, George H(erbert), 604 Fifth Ave, New York, N. Y. *Bacteriology.* London, Eng, April 14, 96. *Director, Clin. Research Lab, New York, 24–* A.A; Soc. Bact; Pub. Health Asn. (biol. stain cmt). Bacteriology of focal infection; pathogenicity of staphylococci; streptococci and Bacillus coli.

Chapman, Prof. G(erald) H(oward), 122 University Drive, Kent, Ohio. *Physical chemistry.* Kent, Ohio, June 2, 02. B.S, Kent State Univ, 25; A.M, Ohio State, 29; Mich. State Col, 35; Ph.D, Western Reserve, 39. Teacher science, high sch, Niles, Ohio, 25–28; critic supervisor science, training sch, *Kent State Univ,* 29–35, *asst. prof. chem, 38–* Chem. Soc. The antimony electrode; hydrogen-ion curve and salt errors.

Chapman, Prof. Herman H(aupt), Yale University, New Haven, Conn. *Forestry.* Cambridge, Mass, Oct. 8, 74. B.S, Minnesota, 96, B.Agr, 99; M.F, Yale, 04. Supt, Exp. Sta, Grand Rapids, Minn, 97–04; forest asst, U. S. Forest Service, 04–05; instr, *sch. forestry, Yale,* 06–07, asst. prof, 07–11, Harriman prof. *forest management,* 11–43, *emer. prof, 43–* Asst. dist. forester, U. S. Forest Service, Ariz. and N. Mex, 17–19. Pres, Conn. Cmn. Forests and Wildlife, 29–; chairman, State Park and Forest Cmn, Conn, 38– Fel. Soc. Foresters (exec. councilor, 18, v. pres, 22, pres, 34). Forest finance and management; silviculture of southern long-leaf pines.

Chapman, Dr. Homer D(wight), Citrus Experiment Station, Riverside, Calif. *Agricultural chemistry.* Darlington, Wis, Oct. 4, 98. B.S, Wisconsin, 23, M.S, 25, Ph.D, 27. Asst. soil surv, Wis. Geol. and Nat. Hist. Surv, 23–25; soils, Wisconsin, 25–27; asst. chemist, *Citrus Exp. Sta, California,* 27–36, *assoc. chemist, 37–, assoc. prof. agr. chem, 38–* A.A; Chem. Soc; Soc. Agron; Soil Sci. Soc; Soc. Plant Physiol; West. Soc. Soil Sci. (pres, 38). Soil chemistry; plant nutrition.

Chapman, James E(verett), Box 5, Mexican Springs, N. Mex. *Soils.* Waterville, Minn, April 25, 87. A.B, Carleton Col, 10; M.S, Minnesota, 15, 16–17; Cornell, 29–30, 35–37. Instr. and prin, schs, Minn, 10–13; exten. instr. soils, Maine, 15–16; asst, Minnesota, 19–22; instr, N. Dak. Col, 22–23, asst. prof. agron. and soils, 23–32; private work, 32–33; appraiser, Fed. Land Bank of St. Paul, 33–34; project supt, Veteran Civilian Corps, Fargo, N. Dak, 34; part-time research tech-

nician, *soil conservation service, U. S. Dept. Agr,* 35–36, junior foreman, 36–38, *junior soil technologist, 38–* A.A; assoc. N. Y. Acad. Phosphorus deficiency in calcareous soils; soil erosion; evaporation of soil moisture.

Chapman, Dr. J(ames) W(ittenmeyer), Silliman Institute, Dumaguete, Negros Oriental, P. I. *Entomology.* Peebles, Ohio, Oct. 28, 80. A.B, Park Col, 07, A.M, 08; Harvard, 08–11, Sc.D, 13. Instr. chem, Park Col, 07–08; biol, Tufts Col, 10–11; entomologist, Boston, 11–14; asst, bur. entom, U. S. Dept. Agr, 14–16; *head dept. biol, Silliman Inst, 16–* A.A; Cambridge Entom. Club. Forest and shade tree pests; endoparasites of insects; tropical insect life; Philippine ants.

Chapman, Kenneth M(ilton), Laboratory of Anthropology, Santa Fe, N. Mex. *Archeology.* Ligonier, Ind, July 13, 75. Chicago Art Inst; Art Students League, New York. Instr. art, N. Mex. Nor. Univ, 99–03; assoc. in art, Sch. Am. Research, 09–29; exec. sec'y and treas, *Lab. Anthrop,* 29–35, *curator, 35–, acting director,* 36, *40–,* director, 37, special research assignments, 38–40. A.A; Archeol. Inst; N. Mex. Asn. Science. Indian art.

Chapman, Prof. Lawrence B(oylston), Massachusetts Institute of Technology, Cambridge, Mass. *Marine transportation.* Norwich, Conn, Oct. 12, 86. B.S, Mass. Inst. Tech, 10. Asst. mech. eng, Mass. Inst. Tech, 10–11; eng. practice, 11–13; asst. prof. mech. eng, Maine, 13–15; Elec. Boat Co, 15–19; head course in marine eng. and transportation, Lehigh, 19–25; assoc. prof. ship operation and marine eng, *Mass. Inst. Tech,* 25–29, *prof,* 29–36, *marine transportation and marine eng, 36–* Soc. Naval Archit. and Marine Eng. Economics of ship operation, marine engineering and transportation.

Chapman, Prof. O(liver) W(endell), Kansas State Teachers College, Pittsburg, Kans. *Chemistry.* Woodbury Co, Iowa, May 13, 90. A.B, Buena Vista Col, 15; M.S, Iowa State Col, 21, Ph.D, 27. Instr. *chem,* Iowa State Col, 20–27, asst. prof, 27–28; *prof, Kans. State Teachers Col, 28–* U.S.A, 18–19. Chem. Soc. (sec'y, southeast Kans. sect, 30–). Properties of starch; lecithin in dairy products.

Chapman, Dr. O(rren) D(aniel), 1705 Euclid Ave, Syracuse, N. Y. *Bacteriology.* Belleville, N. Y, Oct. 17, 97. Hope Col, 14–17; M.D, Syracuse, 24. *Director bur. labs, Dept. Health, Syracuse, N. Y, 25–;* assoc. prof. bacter. and pub. health, *col. med, Syracuse,* 30–43, *prof. bacter. and parasitol, 43–, bacteriologist, univ. hosp, 35–* Bacteriologist, City Hosp, Syracuse, N. Y, 30–; Mem. Hosp, 41– Soc. Bact; Neisserian Soc; Asn. Path. and Bact; Pub. Health Asn; N. Y. Asn. Pub. Health Labs. (pres, 36). Hygiene; sanitation; undulant fever; serology of syphilis; blood cultures; poliomyelitis; vitamins.

Chapman, Dr. P(aul) J(ones), New York State Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Cazadero, Calif, Sept. 9, 00. Stanford, 18–19; B.S, Oregon State Col, 22; Ph.D, Cornell, 28. Field asst. entom. and plant path, Cornell, 23, exten. instr, 24–28; entomologist, Va. Truck Exp. Sta, 28–30; *prof. entom, Cornell, and chief in research, N. Y. Exp. Sta, Geneva, 30–; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 36–* A.A; Asn. Econ. Entom. Economic and systematic entomology; pests of apple and other fruits; insecticides; Corrodentia.

Chapman, Dean Paul W(ilber), 163 W. View Drive, Athens, Ga. *Agriculture.* Brookfield, Mo, Feb. 10, 91. B.S. (Agr), Missouri, 14, B.S, 16; M.S, Georgia, 30; Sc.D, Clemson Col, 37. State supervisor agr. educ, Mo, 17–20; state supervisor agr. educ. and director vocational educ, Ga, 20–32; *dean col. agr, Georgia, 32–* Lecturer and teacher, summer schs. Agricultural education; animal husbandry.

Chapman, Dr. Randolph W(allace), Johns Hopkins University, Baltimore, Md. *Geology.* Lebanon, N. H, Jan. 2, 07. B.S, New Hampshire, 29; A.M, Harvard, 32, Ph.D, 34. Asst. physiog, Harvard, 30–31, *geol,* 31–34; instr, Vassar Col, 34–37; asst. prof, Marshall Col, 37–39; *instr, Hopkins, 39–* Fel. Geol. Soc; fel. Miner. Soc; N. Y. Geol. Soc; fel. Geol. Soc. Wash; fel. Geol. Soc. Phila; Boston Geol. Soc. Dust storms; magmatic differentiation; ring dikes in New Hampshire; contact-metamorphic tungsten deposits; petrology of Cherry Mountain, New Hampshire; origin of Brunswick Springs, Vermont; checking structural data; cauldron subsidence at Ascutney Mountain, Vermont; monoliths; origin of White Mountain magma series; pseudomigmatite in Piedmont of Maryland; ring structures of the Pliny region, New Hampshire.

Chapman, Dr. R(ay) P(arkin), Bote Acres, Greenwich, Conn. *Chemistry.* West Cape, P. E. I, Can, July 15, 98. B.A, Mt. Allison, 21, B.Sc, 22; A.M, Columbia, 28, Ph.D, 32. Teacher, high sch, 22–29; asst. chem, Columbia, 29–32, instr, St. Stephen's Col, 32, asst, univ, 32–33; research anal. chemist, exp. lab, *Am. Cyanamid Co,* 33–37, *in charge anal. lab, Stamford research labs, 37–* Chem. Soc. Oxidation-reduction indicators for volumetric analysis; solubility of organic compounds in sulfuric acid-water mixtures.

Chapman, Roy A(lbert), U. S. Forest Service, New Orleans, La. *Forestry, Biometry.* Sycamore, Ill, Dec. 25, 02. B.S, Minnesota, 27; Mass. Agr. Col; George Washington; Loyola (La); Tulane; U. S. Dept. Agr. Grad. Sch. *Mem. staff, U. S. Forest Service,* 27–29, *South. Forest Exp. Sta, 29–* Soc. Foresters; Inst. Math. Statist. Forest mensuration and statistical method as applied to forestry.

Chapman, Dr. Seville, Stanford University, Calif. *Physics.* Seville, Spain, Nov. 4, 12. A.B, California, 34, Ph.D, 38. *Instr. physics, Kansas,* 38–41; *Stanford, 41–* Mem. res. staff, nat. defense lab, Columbia, 41. Physical Soc; Asn. Physics Teachers; assoc. Radio Eng. Electrification of liquids by spraying and bubbling; charge generation in thunderclouds.

Chapman, Prof. T(homas) G(arfield), 2724 E. Eighth St, Tucson, Ariz. *Metallurgy.* Can, 86. B.S, Mass. Inst. Tech, 09, Sc.D, 25. Instr. *metal,* Mass. Inst. Tech, 09–12; asst. prof, Mich. Col. Mines, 12–16; *prof, Arizona, 16–, dean col. mines, 40–*

Chapman, Dr. Thomas S(helby), Maumelle Ordnance Works, Little Rock, Ark. *Physical chemistry.* South McAlester, Okla, Nov. 1, 05. A.B, Rice Inst, 28, M.S, 31; Ph.D, Cornell, 38. Asst. and fellow, Rice Inst, 27–31; teacher, high sch, Okla, 31–36; research engineer, Humble Oil and Ref. Co, 38–42; *lieut, U. S. Army, and army inspector, Maumelle Ordnance Works, 42–* Chem. Soc. Theoretical colloid chemistry; plant pigments; petroleum production.

Chapman, Dr. W(ilbert) M(cLeod), California Academy of Sciences, Golden Gate Park, San Francisco, Calif. *Ichthyology.* Kalama, Wash, March 31, 10. B.S, Washington (Seattle), 32, M.S, 33, Ph.D, 37. Sci. aid, Int. Fisheries Cmn, 33–35; biologist, dept. fisheries, Wash, 35–40; asst. biologist, fish and wildlife service, U. S. Dept. Interior, 40–42; oyster biologist, State Dept. Fisheries, Wash, 42–43; *curator fishes, Calif. Acad. Sciences, 43–* Lecturer, sch. fisheries, Washington (Seattle), 38–43. Fisheries Soc; Soc. Ichthyol. and Herp. (pres. west. div, 40); Pacific Fisheries Biologists (sec'y-treas, 39). Economic and systematic ichthyology; statistics of salmon and pilchard fisheries; racial investigation on herring; fish problems connected with Grand Coulee Dam; dynamics of razor clam populations; systematics of deepsea and oceanic fishes; osteology and relationships of fishes; biology of oysters.

Chappelear, Prof. G(eorge) W(arren), Madison College, Harrisonburg, Va. *Biology.* Delaplane, Va, Aug. 23, 89. B.S, Va. Polytech, 12, M.S, 13. Instr. agron, Va. Polytech, 12–13; science, Miller Sch, Va, 13–18; *prof. biol, Madison Col, 18–* A.A; Va. Acad. (sec'y, biol. sect, 35). Botany; bacteriology; biography.

Chappell, Dr. C(harles) H(enry), III, National Carbon Co, Niagara Falls, N. Y. *Organic chemistry.* Kansas City, Mo, June 13, 09. B.S, Iowa State Col, 31, Ph.D, 35. Asst, Iowa State Col, 31–34, teaching fellow, 35; *research chemist, Nat. Carbon Co, 36–* Chem. Soc. Carbon.

Chappell, Dr. M(atthew) N(apoleon), 64 Sagamore Road, Bronxville, N. Y. *Psychology.* Wakefield, R. I, July 26, 00. B.S, R. I. State Col, 24; Ph.D, Columbia, 29. Westinghouse Elec. and Mfg. Co, 24–25; Brooklyn Edison Light and Power Co, 25–26; instr. *psychol, Columbia,* 28–35, *exten. instr,* 27–28, *35–, director group psychol. research, 36–* Psychol. Asn. Physiological psychology; blood pressure; neural mechanisms underlying simple reactions; epilepsy; psychological factors in peptic ulcer, pseudo ulcer and arthritis; learning; pain; control of worry by radio; psychology of communications media.

Chappell, Dr. Walter M(iller), Apartado Postal 159, Apartado Aereo 32, Barranquilla, Colombia, S. Amer. *Geology.* Geneva, Ohio, Nov. 13, 02. A.B, Oberlin Col, 26; M.S, Washington (Seattle), 31, Ph.D, 36. Teaching fellow, Washington (Seattle), 28–35; asst. geologist, Nat. Park Service, 36, 37; mem. staff, Standard Oil Co, Calif, 37–41; *senior geologist, Texas Co, 41–* A.A; Asn. Petrol. Geol; Instituto Colombiano

de Petroleos. Paulopost stilbite in the Camas land sill, Chelan County, Washington; effect of Miocene lavas on the course of Columbia River in central Washington; Columbia Valley glaciation in the Wenatchee-Chelan district.

Chapple, Dr. Eliot D(ismore), Massachusetts General Hospital, Boston, Mass. *Anthropology.* Salem, Mass, April 29, 09. A.B, Harvard, 31, Ph.D, 33. Asst. anthrop, business sch, Harvard, 31–35, instr, 35–39, instr. and tutor, 36–40, Chester Hastings Arnold research fellow contemporary civilization, 40–41, *research fellow, Harvard Med. Sch, 41–* Anthrop. Asn; Soc. Applied Anthrop. (pres, 41, ed, 41–). Measurement of human relations; determination of the properties of individuals in interaction including normal as well as psychotic, psychoneurotic and psychosomatic persons; determination of the properties of organizations as systems of individuals in interaction.

Charch, Dr. W(illiam) Hale, E. I. du Pont de Nemours and Co, Buffalo, N. Y. *Chemistry.* Dayton, Ohio, March 20, 98. A.B, Miami (Ohio), 20; M.S, Ohio State, 21, Ph.D, 23. Research chemist, Gen. Motors Corp, 23–24; assoc. chem. director, du Pont Rayon Co. and du Pont Cellophane Co, 25–36, *director pioneering research, rayon and Cellophane divisions, E. I. du Pont de Nemours and Co, 36–* Jacob F. Schoellkopf gold medal, N. Y. sect, Am. Chem. Soc, 32. Detonation in internal combustion engines; viscose process for rayon and Cellophane; moisture-proofing and sheets of Cellophane; cellulose chemistry; adhesive; laminated material.

Chardon, Dr. Carlos E, Institute of Tropical Agriculture, Mayaguez, P. R. *Agriculture.* Ponce, P. R, Sept. 28, 97. B.S, Cornell, 19, M.S, 21; hon. Sc.D, Dartmouth Col, 36. Plant pathologist, Insular Exp. Sta, Puerto Rico, 21–23, chancellor, univ, 30–36; commissioner agr, Govt. P. R, 23–30; regional administrator, P. R. Reconstruction Admin, 36–37; chief agr. surv, Govt. Dominican Republic, 37; chief cotton program, Govt. Venezuela, 37–41; exec. director, P. R. Land Authority, 41–42; *director, Inst. Trop Agr, 42–* Chief agr. surv, Govt. Dept. Valle del Cauca, Colombia, 29. Orden del Libertador, Govt. Venezuela; Pub. Instruction medal. Mycol. Soc; Soc. Americana de Ciencias Agr. (pres, P. R. chap); Soc. Venezuelana de Ciencias Naturales; Soc. Ciencias Matematicas, Fisicas y Naturales. Tropical mycology; sugar and cotton.

Chargaff, Prof. Erwin, College of Physicians and Surgeons, Columbia University, New York, N. Y. *Chemistry.* Czernowitz, Austria, Aug. 11, 05. Ph.D, Vienna, 28. Research fellow org. chem, Yale, 28–30; asst. in charge chem. lab, Inst. Hygiene, Berlin, 30–33; assoc, Pasteur Inst, Paris, 33–34; research assoc. biol. chem, *col. physicians and surg, Columbia,* 35–38, *asst. prof. biochem, 38–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. Organic and biological chemistry; chemical composition of bacteria; blood coagulation; application of radioactive elements in biochemistry.

Charipper, Prof. Harry A(dolph), 29 Washington Place, New York, N. Y. *Zoology.* New York, N. Y, July 7, 00. B.S, N. Y. Univ, 26, M.S, 27, Ph.D, 29. Asst, *N. Y. Univ,* 26–27, teaching fellow, 26–29, instr. *comp. anat. and embryol,* 29–31, asst. prof, 31–34, assoc. prof, 34–39, *prof, 39–, chairman dept. biol, 33–* Lecturer, evening div, N. Y. Univ, 28–29. Summers, instr, N. Y. Univ, 26–32. A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions; Physiol. Soc; Harvey Soc; N. Y. Acad. Med. Vertebrate anatomy; comparative histology and hematology; cytological technique; histology and cytology of the endocrines of vertebrates; thyroid; pituitary; sense organs of the integument.

Charles, Dr. C(ecil) M(arvin), Washington University School of Medicine, St. Louis, Mo. *Anatomy, Internal medicine.* Humboldt, Tenn, Aug. 1, 05. A.B, Kentucky, 26, A.M, 27; Ph.D, Washington (St. Louis), 29, M.D, 33. Asst. psychol, Kentucky, 25–26; *anat, Washington (St. Louis),* 26–32, instr, 32–38, asst. prof, 38–42. *assoc. prof, 42–, asst. clin. med, 35–* Summers, instr, Kentucky, 26, 27. A.A; Asn. Anat; Asn. Physical Anthrop; Mo. Acad; St. Louis Anthrop. Soc. Cavum nasi and skeleton of the American Negro; venous system; mental and physical development of boys; constitution.

Charles, Dr. Donald R(andolph), University of Rochester, Rochester, N. Y. *Zoology.* Bethlehem, Pa, July 5, 09. B.S, Franklin and Marshall Col, 28; Pittsburgh, 28–30; fellow, Columbia, 33–34, Ph.D, 35. Nat. research fellow, Chicago, 35–36; *instr. zool,* Sarah Lawrence Col, 36–37; *Rochester, 37–* Genetics Soc. Mathematical and physiological genetics.

Charles, Dr. Grace M(irlam), 934 Park Ave, River Forest, Ill. *Botany.* Chicago, Ill, Aug. 29, 76. A.B, Oberlin Col, 00; A.M, Chicago, 05, Ph.D, 10. Asst. biol, Wyoming, 05–07; instr. bot, Kansas, 11–15, asst. prof, 15–23; teacher, Austin High Sch, 23–41. A.A. Anatomy of ferns; economic botany.

Charles, Prof. T(homas) B(urr), 33 Mill Road, Durham, N. H. *Poultry husbandry.* Odessa, N. Y, June 11, 90. B.S, Cornell, 15, M.S, 38; Pa. State Col, 26–27. Prin. sch, Alpine, N. Y, 09–10; instr. poultry husbandry, Cornell, 15–16; poultry farmer, 16–20, 23–26; instr. and asst. prof. *poultry husbandry, Pa. State Col,* 20–23, assoc. prof, 26–28; *prof. and head dept, New Hampshire, 28–* Poultry Asn; Poultry Sci. Asn. (past pres); N. H. Acad; N. H. Poultry Growers Asn; N. H. Red Club; World's Poultry Sci. Asn. Commercial poultry farming; management of caged layers.

Charlesworth, Prof. E(dward) Harold, University of Manitoba, Winnipeg, Man, Can. *Chemistry.* Morpeth, Ont, Aug. 1, 04. B.A, Queen's (Can), 30, M.A, 31; 1851 Exhib. scholar, 31–34; Ph.D, Oxford, 33. Instr. *chem,* Queen's (Can), 34–37; lecturer, *Manitoba,* 37–43, *asst. prof, 43–* Organic chemistry.

Charlesworth, H(arry) P(rescott), 358 Hartford Road, South Orange, N. J. *Engineering.* Haverhill, Mass, April 7, 82. B.S, Mass. Inst. Tech, 05. Develop. and traffic eng, eng. dept, Am. Tel. and Tel. Co, 05–17; equipment and transmission engineer, Bell Tel. Labs, 19–20, plant engineer, 20–28, v. pres, 28–33; asst. chief engineer, Am. Tel. and Tel. Co, 33–41; *retired.* Mem. board, United Eng. Trustees, Inc, 28–37; mem. board, Eng. Foundation, 32–36, chairman, 34–36; mem. board, Am. Standards Asn, 36–41; mem. corp, Mass. Inst. Tech, 39–43. Bell system work, U.S.A. and U.S.N, 17–19. Fel. Elec. Eng. (director, 24–27, 30–35, v. pres, 3rd dist, 30–32; pres, 32); fel. Acoustical Soc. Telephone engineering.

Charlton, Dr. David B(erry), 1610 S. W. Clifton St, Portland, Oregon. *Bacteriology.* Vancouver, B. C, Can, Jan. 26, 04. B.A, British Columbia, 25; M.S, Cornell, 29; Ph.D, Iowa State Col, 33. Asst. bacteriologist, Portland, Oregon, 26–28; instr. bacter, Oregon State Col, 29–31; Nebraska, 31–32; Oregon State Col, 34–36; *owner, Charlton Labs, Portland, Oregon, 34–* A.A; Pub. Health Asn; Chem. Soc. Chlorine disinfection; physiology of species of Lactobacillus; stream pollution in the Willamette River.

Charlton, Dr. E(rnest) E(dward), 1186 Phoenix Ave, Schenectady, N. Y. *Chemistry.* Meriden, Iowa, Dec. 17, 90. A.B, Grinnell Col, 13; M.S, Illinois, 15, Ph.D, 18. Instr. chem, Illinois, 19; research chemist, E. I. du Pont de Nemours and Co, 19–20; research engineer, *research lab, Gen. Elec. Co, Schenectady,* 20–28, *head sect. high voltage x-ray tubes and generating apparatus, 28–* Lieut, C.W.S, 18–19. Lamps; gaseous discharges and radio tubes; high voltage rectifiers; x-rays and generating apparatus.

Charron, Dr. A(lphonse) T(elesphore), Buckingham, Que, Can. *Agricultural chemistry.* Gatineau Point, Que, March 8, 70. B.A, B.Ph, L.Ph, Ottawa, 92, M.A, 01, D.Sc, 15; D.S.A, Laval, 18. Asst. pub. analyst, Dist. Kingston, 92–96; demonstrator chem, McGill, 96–98; chief asst. chemist, Dom. Exp. Farms, 98–15; provincial agr. chemist, Que, 15–25; director, Provincial Dairy Sch, Que, 19–25; asst. deputy minister agr, Can, 25–40; *retired.* Can. rep. Conf. Int. Inst. Agr, Rome, 22, 26, 28; Can. Inst. Chem. del, Int. Cong. Union Pure and Applied Chem, Lyons and Marseilles, 22. Agr. Chem; Chem. Soc; fel. Can. Inst. Chem. (pres, 24); fel. Can. Soc. Tech. Agr. Soil and dairy chemistry.

Charters, Mrs. W. W. (Dr. Jessie Allen), Stephens College, Columbia, Mo. *Psychology.* Canton, Texas, Sept. 23, 80. A.B, Washington (Seattle), 99, A.M, 01; Ph.D, Chicago, 04. Teacher psychol, Calif. State Nor. Sch, Los Angeles 04–07; research fellow, Carnegie Inst. Tech, 20–21; consultant, Stephens Col, 21–28; asst. prof. adult educ. and chairman dept, Ohio State, 28–33. Instr, Chicago, 25–30. Psychology of women; parent education; teacher training.

Chase, Mrs. Agnes, Smithsonian Institution, Washington, D. C. ***Botany.* Iroquois Co, Ill, April 20, 69. Asst. bot, Field Museum Nat. Hist, 01–03; agrost. artist, U. S. Dept. Agr, 03–07, asst. syst. agrost, 07–23, asst. botanist, 23–25, assoc. botanist, 25–36, senior botanist, 36–39; *custodian grasses, Nat. Herbarium, 39–* A.A; Bot. Soc; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Acad; Chicago Acad. Gramineae.

Chase, Dr. Aurin M(oody), Princeton University, Princeton, N. J. *Zoology, General physiology.* Syracuse, N. Y, June 2,

04. A.B, Amherst Col, 26, A.M, 29; Ph.D, Columbia, 35. Asst. biol, Amherst Col, 26–28; biophys, Columbia, 29–34, instr, 34–36, research asst, 36–38; *research assoc. biol, Princeton, 38–, instr, 40–* A.A; Physiol. Soc; Soc. Zool; Optical Soc. Locomotion of Paramecium; visual purple; bioluminescence.

Chase, Prof. Carl Trueblood, New York University, University Heights, New York, N. Y. *Physics.* Lewiston, Maine, Aug. 7, 02. B.S, Princeton, 24; M.S, Calif. Inst. Tech, 26; Ph.D, N. Y. Univ, 30. Instr. *physics,* Dartmouth Col, 27–28; *N. Y. Univ,* 28–31, *asst. prof, 31–, exec. sec'y dept, 42–* Physical Soc. Biophysics; relativity; electron scattering.

Chase, Prof. Charles H(arris), 39 Lincoln St, Stoneham, Mass. *Steam engineering.* Stoneham, Mass, Feb. 11, 70. B.S, Mass. Inst. Tech, 92. Gen. Elec. Co, Lynn, Mass, 92–94; Boston Elec. Co, 94–96; prof. *steam eng, eng. sch, Tufts Col,* 96–43, *emer. prof, 43–; consulting engineer,* Caro Cloth Corp, N. J, 26–32; *Barbour-Stockwell Co, Cambridge, 36–* Trustee, Stoneham Pub. Library, 96– Hon. mem. Mech. Eng. (chairman, Boston sect, 28). Mechanical engineering; the continuous needle loom; textile machinery.

Chase, Dr. Edith B(owen), 277 Glenwood Ave, Leonia, N. J. *Animal behavior.* Rhode Island, March 9, 99. A.B, Brown, 20, A.M, 22; Ph.D, Chicago, 31. Instr. *zool,* Wellesley Col, 23–25; Hood Col, 25–27, asst. prof, 27–28; research asst, Chicago, 29–31; *instr, Hunter Col, 38–* Animal aggregations.

Chase, Dr. Eleanor F(rances), 45 Highland St, Amesbury, Mass. *Chemistry.* Amesbury, Mass, July 2, 00. B.S, Mass. Col, 22, M.S, 25; Ph.D, Columbia, 29. Asst. chem, Mass. Col, 22–25; food chem, Columbia, 25–28; *instr. chem, Mass. State Teachers Col, Framingham, 28–* A.A; Chem. Soc; New Eng. Asn. Chem. Teachers. Chemistry of food and nutrition.

Chase, Prof. Elwyn F(rancis), 27 W. Clearfield Road, Oakmont, Upper Darby, Pa. *Physical chemistry.* Providence, R. I, March 27, 97. B.S, Temple, 22; M.S, Denver, 25; Ph.D, Pennsylvania, 31. Head dept. *chem,* Broaddus Col, 25–29; instr, *Drexel Inst,* 29–37, *asst. prof, 37–* Chem. Soc. Electrolyte effect on weak electrolyte equilibria.

Chase, Prof. Ethel W. B, 4841 Cass Ave, Detroit, Mich. *Plant ecology.* La Porte, Ind, Dec. 19, 77. A.B, Michigan, 03, A.M, 15. Teacher, J. B. Stetson, 02; asst. bot, Michigan, 02–03; teacher, high schs, Mich, 03–15; junior col, 15–23; *assoc. prof. bot. and adviser to women,* Col. City of Detroit, 23–33, *Wayne, 33–* Univ. Minn. exped, South Sea Islands, New Zealand and Stewart Island, 09–10. A.A; fel. Bot. Soc; Mich. Acad. Landscape work; nature study.

Chase, Dr. Florence (Elizabeth) Meier (Mrs. William Wiley Chase), 1813 Parkside Drive, N.W, Washington, D. C. *Botany.* Griggsville, Ill, May 22, 02. A.B, Wellesley Col, 24; Sc.D, Geneva, 28. Asst. plant physiol, Wellesley Col, 23–24; science ed, Ginn and Co, Boston, 24–26; asst. bot, Columbia, 28–30; assoc. physiologist, bur. plant indust, U. S. Dept. Agr, 30–31; nat. research fellow, Smithsonian Institution, 31–33, research assoc, div. radiation and organisms, 33–37, assoc. plant physiologist, 37–41. Ed. apprentice, Athenaeum Press, 23; French translator, Trop. Research Foundation, 29; research assoc, Smithsonian Institution, 31. A.A; Bot. Soc. Wash; Soc. bot. de Genève. Algae in pure culture; carotin in algae; effects of radiation on algae.

Chase, Dean George H(enry), Bryant St, Cambridge, Mass. *Archeology.* Lynn, Mass, June 13, 74. A.B, Harvard, 96, A.M, 97, Ph.D, 00; Am. Sch. Classical Studies, Athens, 96–98; L.H.D, Oberlin, 35; Litt.D, Boston Univ, 39. Master Greek and Latin, St. Mark's Sch, 00–01; instr, *Harvard,* 01–03, tutor Greek, 03–04, instr. classical archeol, 04–06, asst. prof, 06–16, *John E. Hudson prof. archeol, 16–, dean* grad. sch. arts and sciences, 25–39, univ, 39– Lecturer, Lowell Inst, 19. Am. exped, Sardis, 14. Trustee, Museum Fine Arts, Boston, 18–; Harvard-Yenching Inst, 28–; Radcliffe Col, 30– A.A; Archeol. Inst. (v. pres, 21); Philos. Soc; Philol. Asn; Am. Acad; Archäol. Gesell. Classical archeology; Greek and Roman sculpture and pottery; Greek terracotta figurines.

Chase, Chancellor H(arry) W(oodburn), New York University, 100 Washington Square, New York, N. Y. *Psychology.* Groveland, Mass, April 11, 83. A.B, Dartmouth Col, 04, A.M, 08, LL.D, 25; Ph.D, Clark, 10; LL.D, Lenoir-Rhyne Col. and Wake Forest Col, 20, Georgia, 23, North Carolina, 30, Michigan, 32, Lafayette Col, 34; L.H.D, Rollins Col, 31; Litt.D, Columbia, 34. Prof. psychol, North Carolina, 10–15, psychol, 15–19, acting dean col. lib. arts, 18–19, chairman faculty, 19, pres, 19–30; Illinois, 30–33; *chancellor, N. Y. Univ, 33–* In charge clinic for subnormal children, Clark, 10. Director, New York Adult Educ. Council; hon. v. pres, New York Museum Science and Indust, 34; chairman, div. educ, Greater New York Fund. Trustee, Phelps Stokes Fund; Russell Sage Foundation; League for Polit. Educ. Mem. supervisory board, 'Am. Year Book.' Officier de l'Ordre de la Couronne de Chene, Grand Duchy Luxembourg. Munic. League (hon. v. pres). Theoretical and educational psychology.

Chase, Dr. Herman B(urleigh), University of Illinois, Urbana, Ill. *Animal genetics.* New Hampton, N. H, May 7, 13. A.B, Dartmouth Col, 34; Cramer fellow, Chicago, 34–35, Ph.D, 38. Asst. *zool,* Chicago, 35–38; instr, *Illinois,* 38–41, *assoc, 41–* Summer, biometrician, State Nat. Hist. Surv, Ill, 40. Genetics Soc. Developmental and statistical genetics; biometry; coat patterns in guinea pigs and in mice; eyelessness in mice and fish; scale growth in fish; inheritance and embryology of mammalian abnormalities and color patterns.

Chase, Prof. Hyman Y(ates), Howard University, Washington, D. C. *Zoology.* Washington, D. C, Nov. 24, 02. B.S, Howard, 26, M.S, 30; Ph.D, Stanford, 34. Asst. *zool, Howard,* 30–32, instr, 34–36, asst. prof, 36–39, *assoc. prof, 39–;* capt, *Inf, U. S. Army,* 40–41, *major, 41–* A.A; Soc. Zool. Experimental embryology and physiology of development.

Chase, Dr. M(errill) W(allace), Rockefeller Institute, New York, N. Y. *Immunology, Bacteriology.* Providence, R. I, Sept. 17, 05. A.B, Brown, 27, M.S, 29, Ph.D, 31. Instr. biol, Brown, 31–32; *mem. staff, Rockefeller Inst, 32–* A.A; Asn. Immunol; Harvey Soc. Blood group substances; serological examination of protein digests; experimental drug allergy.

Chase, Dr. Philena E(vans), Temple University School of Medicine, Philadelphia, Pa. *Experimental embryology.* Medford, Mass, Aug. 8, 14. A.B, Mt. Holyoke Col, 35; Ph.D, Columbia, 40. Instr. anat, Columbia, 35–39; lecturer biol, Hunter Col, 39; *instr. anat, sch. med, Temple, 39–* Asn. Anat; Physiol. Soc. Phila. Relation of developing limb function to developing afferent nerves.

Chase, Rolland W(hitfield), 2917 N. Rogers Ave, Baltimore, Md. *Civil engineering.* Bellwood, Pa, April 20, 99. B.S, Lafayette Col, 22, C.E, 26; M.C.E, Cornell, 33. Instr. math. and civil eng, American Univ. Beirut, 22–23; draftsman, Texas Co, New York, 23–24; tech. asst, Pub. Works Dept, Virgin Islands, 24–25; registrar, instr. and prof. math. and civil eng, Alaska Agr. Col, 26–32; construction foreman, Civilian Conservation Corps Camp, state park div, Nat. Park Service, 33–34, project supt, 34–36; field engineer, *Pa. Water and Power Co,* Holtwood, 36–37, *valuation engineer, Baltimore, Md, 37–; 2nd lieut, Eng. Corps, U. S. Army.* Assoc. Civil Eng. Aluminum highway bridges for interior Alaska.

Chase, Dr. Samuel W(ood), Western Reserve University, Cleveland, Ohio. *Histology, Embryology.* Lowell, Mass, May 27, 92. A.B, Bowdoin Col, 14; A.M, Harvard, 16, Ph.D, 21. Austin teaching fellow, Harvard, 19–20; instr. biol, *sch. dentistry, Western Reserve,* 20–22, asst. prof. *histol. and embryol,* 22–25, *assoc. prof, 25–,* demonstrator, *sch. med,* 20–22, instr, 22–24, senior instr, 24–26, asst. prof, 26–34, *assoc. prof, 34–* Asn. Anat; Soc. Zool; fel. Ohio Acad. (v. pres, sect. med. sciences, 25, 43); Int. Asn. Dental Research. Mesonephros; Amphibia; histology and embryology of teeth of mammals.

Chase, Dr. Warren W(illiam), 1502 E. Beverly Road, Milwaukee, Wis. *Forestry.* Sauk Center, Minn, May 17, 02. A.B, Macalester Col, 26; M.S, Minnesota, 28, Ph.D, 33. Asst. forestry, California, 28–29; instr, Minnesota, 29–34; *game conservationist, forester and senior biologist, soil conservation service, U. S. Dept. Agr, 34–* Soc. Foresters (cmt. game management relation to forestry, 39–43); Wildlife Soc. (treas, 37–40; mem. cmt. war program). Tree physiology; wood technology; soil conservation; wildlife management; land planning.

Chase, Prof. Wilton P(erry), 55 Hull St, Fayetteville, N. C. *Psychology.* Syracuse, N. Y, Nov. 21, 08. A.B, Syracuse, 30; A.M, Dartmouth Col, 32; Ph.D, Minnesota, 35. Instr. psychol, Dartmouth Col, 30–32; employment stabilization research inst, Minnesota, 32–33, research asst, inst. child welfare, 33–35; instr. *psychol,* Alabama, 35–37; *asst. prof, Woman's Col, North Carolina, 37–* Summer, mem. faculty,

Maryland, 40. Assoc. Psychol. Asn; Soc. Research Child Develop. Experimental psychology; child psychology.

Chasis, Dr. Herbert, 44 E. 67th St, New York, N. Y. *Medicine.* New York, N. Y, Nov. 9, 05. A.B, Syracuse, 26; M.D, N. Y. Univ, 30, Sc.D, 37. Instr. *med, col. med, N. Y. Univ,* 35–39, *asst. prof, 39–, assoc. chief, nephritis and hypertension clinic, 39–* Physician in charge, cardiac classification service, Dept. Health, New York, N. Y, 35–39; asst. visiting physician, Bellevue Hosp, 38–, acting chief, cardiac clinic, third med. div, 41– Soc. Clin. Invest; Physiol. Soc; Heart Asn; Harvey Soc. Cardiovascular and renal physiology; physiological and clinical investigation of renal and hypertensive disease in man.

Chataway, Dr. H(elen) D(rinkwater), 63 Walmer Road, Toronto, Ont, Can. *Chemistry.* Dawson, Yukon, Dec. 15, 02. B.A, Manitoba, 22, B.Sc, 23, Nat. Research Council Can. bursar, 23–24, M.Sc, 24; Nat. Research Council Can. student, McGill, 24–25, fellow, 25–26, Ph.D, 26. Hudson's Bay Co. fellow, Manitoba, 27–28; special asst, Lehigh, 28–30; junior research chemist, research labs, Nat. Research Council Can, Ottawa, 30–37; *writer, 37–* Organic chemistry; vegetable oils.

Chatfield, Charlotte, 3020 Tilden St, N. W, Washington, D. C. *Nutrition.* Minneapolis, Minn, Dec. 14, 93. B.S, Minnesota, 17. Asst, respiration calorimeter lab, U. S. Dept. Agr, 18–21; instr, Minnesota, 22; nutritionist in charge food composition sect, *bur. home econ, U. S. Dept. Agr,* 24–43, *senior nutritionist civilian food requirements, 43–* Chem. Soc; Inst. Nutrition. Nutritive value of foods; diets.

Chavis, Prof. Alex(ander), Carson-Newman College, Jefferson City, Tenn. *Physics.* Charlotte, N. C. A.B, Carson-Newman Col, 22; A.M, Kentucky, 31. Teacher physics and chem, Newton Col, 22–23; sch. supt, Tenn, 24–26; assoc. prof. *physics, Carson-Newman Col,* 26–35, *prof, 35–* Asn. Physics Teachers; Tenn. Acad. Survey of physics in high schools of Tennessee.

Cheadle, Prof. Vernon I(rvin), Box 238, Kingston, R. I. *Botany.* Salem, S. Dak, Feb. 6, 10. A.B, Miami (Ohio), 32; A.M, Harvard, 34, Ph.D, 36. Austin teaching fellow *bot,* Harvard, 33–36; instr, *R. I. State Col,* 36–41, asst. prof, 41–42, *prof, 42–* Scholar to collect materials, Atkins Institution, Arnold Arboretum, Harvard, Soledad, Cuba. A.A; Bot. Soc; Torrey Bot. Club; New Eng. Bot. Club. General anatomy of the Liliaceae and the Amaryllidaceae; anatomy of the conductive system in the Monocotyledoneae.

Cheatham, R(obert) J(oseph), 4502 Elm St, Chevy Chase, Md. *Agriculture.* Abbeville, S. C, Nov. 1, 96. B.S, Clemson Col, 16; American Univ. Asst. supt, Orr Cotton Mill, S. C, 19–20; asst. prof. weaving and designing, Clemson Col, 20–25, head div, 25–27; cotton technologist, bur. agr. econ, *U. S. Dept. Agr,* 27–28, senior cotton technologist, 28–38, chief cotton processing div, south. regional research lab, bur. agr. chem. and eng, 39–41, *head cotton technologist, bur. agr. and indust. chem, 42–* C.Eng, 17–19, 2nd lieut. Arkwrights Asn. Technology and economics of utilization of American cotton.

Cheatum, Prof. Elmer (Philip), Southern Methodist University, Dallas, Texas. *Ecology.* Langdon, Kans, July 19, 01. A.B, Southwestern Col. (Kans), 24; M.S, Kans. State Col, 25; Ph.D, Michigan, 33. Instr. *biol,* Southwestern Col. (Kans), 24; asst, Kans. State Col, 24–25; asst. prof. and *assoc. prof, South. Methodist, 25–* Ecol. Soc; Limnol. Soc; fel. Texas Acad; fel. Kans. Acad. Ecology of gastropods.

Chedsey, W(illiam) R(euel), 1423 Washington Ave, Golden, Colo. *Mining engineering.* Boulder, Colo, Feb. 11, 87. E.M, Colo. Sch. Mines, 08. Assoc. prof. mining eng, Idaho, 08–11; chief engineer, Cent. Am. Develop. Syndicate, Ltd, Costa Rica, 11–12; Alaska Explor. Co, Ltd, Fairbanks, 12–13; asst. prof. mining, Colo. Sch. Mines, 13–17; prof, Pa. State Col, 17–37; director, Mo. Sch. Mines, 37–41; *consulting engineer, 41–* Brunton prize. Min. and Metal. Eng; Coal Min. Inst. (managing director, 26, v. pres, 34–36, pres, 37). Coal preparation; flotation.

Cheek, F(rank) J(acobs), Jr, 1492 Tates Creek Road, Lexington, Ky. *Engineering.* Paris, Ky, Aug. 25, 93. A.B, Centre Col, 14; C.E, Rensselaer Polytech, 18; Mass. Inst. Tech, 32–33, M.S, 33. Field engineer, Turner Construction Co, New York, 19–22; architects' and owners' field rep, 22–23; assoc. prof. struct. design and sanit, Kans. State Col, 23–37; *prof. sanit. eng, Kentucky, 37–; consultant in sanit. and hydraulics.* Mem, State Board Examiners Sanit. Inspectors, Ky; State Board Examiners Water Work Operators. Eng. Educ; Ky. Soc. Professional Eng. Structures; costs of concrete and reinforcing steel; bacterial growth in filter beds; orifices and mouthpieces; civil and sanitary engineering.

Cheetham, Dr. Harold C(owan), 6906 Henley St, Philadelphia, Pa. *Industrial chemistry.* Chicago, Ill, March 20, 98. B.S, Wisconsin, 19, A.M, 20; Ph.D, Northwestern, 22. Research chemist, Bakelite Corp, 22–28; asst. sales manager, Banner Coffee Co, 28–33; *chief chemist, Resinous Products and Chem. Co, 33–* Chem. Soc. Synthetic resins.

Cheever, Prof. David, 193 Marlboro St, Boston, Mass. *Surgery.* Boston, Mass, June 25, 76. A.B, Harvard, 97, M.D, 01. Asst. prof. *surg, Harvard Med. Sch,* 13–21, assoc. prof, 21–39, *emer. assoc. prof, 39–, overseer, col, 39–* Surgeon, Peter Bent Brigham Hosp, 13. A.A; Surg. Asn. (pres, 40); Soc. Clin. Surg; Asn. Anat; fel. Am. Acad; Interurban Surg. Soc; Royal Soc. Med. Anatomy applied to surgery.

Cheldelin, Prof. Vernon H(endrum), Oregon State College, Corvallis, Oregon. *Bio-organic chemistry.* Clatskanie, Oregon, March 15, 16. A.B, Reed Col, 37; M.S, Oregon State Col, 39; Ph.D, Texas, 41. Instr. chem. Texas, 39–41; research chemist, R. R. Williams, Summit, N. J, 41–42; research assoc, biochem. inst, Texas, 42; *asst. prof. chem, Oregon State Col, 42–* Chem. Soc. Microbiological assay methods for vitamins; determination of B-vitamins in natural materials; charcoal adsorption of organic compounds; determination of ethylene in fruits.

Chelikowsky, Dr. Joseph R, Kansas State College, Manhattan, Kans. *Geology.* April 13, 07. A.B, Cornell, 31, A.M, 32, Ph.D, 35. Asst. instr. *geol,* Cornell, 31–35; instr, Case, 35–36; *asst. prof, Kans. State Col, 37–* A.A; Kans. Acad. Structural geology, especially as applied to economic geology.

Chemerda, Dr. J(ohn) M(artin), University of Michigan, Ann Arbor, Mich. *Organic chemistry.* New Castle, Pa, Dec. 20, 14. B.S, Pa. State Col, 35; M.S, Michigan, 37, Ph.D, 39. Junior research chemist, Shell Petrol. Refinery, 35–36; teaching fellow, Michigan, 36–39, asst, 39–40; *chem,* Calif. Inst. Tech, 40–41; *research assoc, Michigan, 41–* Chem. Soc. Polycyclic aromatic hydrocarbons; cyclobutane derivatives.

Chen, Dr. K(o) K(uei), Eli Lilly and Co, Indianapolis, Ind. *Pharmacology.* Shanghai, China, Feb. 26, 98. B.S, Wisconsin, 20, Ph.D, 23; M.D, Hopkins, 27. Senior asst, Peking Union Med. Col, China, 23–25; research pharmacologist, Wisconsin, 25–26; assoc. pharmacol, Hopkins, 27–29; *director pharmacol. research, research labs, Eli Lilly and Co, 29–; prof. pharmacol, sch. med, Indiana, 37–* China Foundation 1st prize, 28. A.A; Pharmaceut. Asn; Physiol. Soc; Soc. Exp. Biol; Soc. Pharmacol; Am. Med. Asn; Physiol. Soc. China. Cinnamomum cassia; muscle atrophy and autolysis; toad poison; ephedrine and related substances and other Chinese drugs; various cardiac glycosides and alkaloids; treatment of cyanide poisoning; senecio alkaloids.

Chen, Prof. Phillip S(tanley), Atlantic Union College, South Lancaster, Mass. *Chemistry.* Shanghai, China, Aug. 17, 03. B.S, Emmanuel Missionary Col, 29; M.S, Mich. State Col, 31, Ph.D, 33. Research chemist, 33–35; *prof. chem. and head dept,* Nashville Agr. Nor. Inst, 35–37, Madison Col, 37–38; *Atlantic Union Col, 38–* A.A; Chem. Soc; N. Y. Acad. Hydroxy derivatives of chlorodiphenylmethane; chloro derivatives of meta cresol; synthesis of 1-phenol-3-methyl-5-pyrazolone.

Chen, Dr. T(ze) T(uan), Department of Zoology, University of California, Los Angeles, Calif. *Cytology, Protozoology.* Foochow, China, Oct. 4, 06. A.B, Fukien Christian Univ, 28; A.M, Oberlin Col, 30; Ph.D, Pennsylvania, 34. Instr. zool, Fukien Christian Univ, 26–28; Pennsylvania, 30–34; Sterling research fellow, Yale, 34–36; Johnston scholar, Hopkins, 36–38, research assoc. protozool, sch. hygiene and pub. health, 39–40; *zool, California,* 40–41, *lecturer, 41–* Walker prizes, Boston Soc. Nat. Hist, 31, 35. A.A; Genetic Asn; N. Y. Acad. Chromosomes in opalinid ciliate infusorians; endamoebae parasitic in the opalinids; conjugation and chromosomes in Paramecium; mating reaction of enucleate fragments of Paramecium; nuclei in malaria parasites; nervous system of annelids; microscopical technique.

Chenault, R(oy) L(ee), Gulf Research and Development Co, Box 2038, Pittsburgh, Pa. *Physics, Engineering.* Glen-

dale, Ky, Feb. 3, 03. A.B, George Washington, 27. Junior physicist and asst. physicist, Bur. Standards, 20–27; fellow, Mellon Inst, 27–30; *engineer, Gulf Research and Develop. Co, 30–* A.A; Petrol. Inst; Physical Soc. Pittsburgh. Spectroscopy; petroleum production technology; oil well pumps; air and gas lift.

Cheney, Dr. Clarence O(rion), New York Hospital, Westchester Division, White Plains, N. Y. *Psychiatry.* Poughkeepsie, N. Y, July 10, 87. A.B, Columbia, 08, M.D, 11. Intern, asst. physician and pathologist, Manhattan State Hosp, Ward's Island, N. Y, 11–17; asst. director, Psychiat. Inst, Ward's Island, N. Y, 17–22; asst. supt, Utica State Hosp, 22–26; supt, Hudson River State Hosp, Poughkeepsie, 26–31; director, N. Y. State Psychiat. Inst. and Hosp, 31–36; *med. director Westchester div, New York Hosp, 36–; prof.* clin. psychiat, col. physicians and surg, Columbia, 31–33, psychiat, 33–36; *clin. psychiat, med. col, Cornell, 36–* Mem. Am. Board Psychiat. and Neur, 34–36. Nat. Cmt. Mental Hygiene; Asn. Research Nervous and Mental Disease; Psychiat. Asn. (sec'y-treas, 28–33, pres, 35–36, chairman, board examiners, 33–36); N. Y. Soc. Clin. Psychiat. (pres, 34–35); fel. N. Y. Acad. Med; N. Y. Neur. Soc; N. Y. Psychiat. Soc. Clinical psychiatry; psychiatric hospital administration and clinics; relation of psychiatry to medicine.

Cheney, Prof. E(lliott) W(ard), 729 Seneca St, Bethlehem, Pa. *Physics.* Orange, Mass, 99. A.B, Dartmouth Col, 20; Charles A. Coffin fellow, Brown, 24–26, M.S, 25; Ph.D, Princeton, 29. Instr. physics, Syracuse, 20–21; Brown, 21–24; assoc. prof, Middlebury Col, 26–27; acting prof, Gettysburg Col, 27–29, prof, 29–34; physicist, Consumers' Research, Inc, 34–42; *assoc. prof. physics, Lehigh, 42–* A.A; Physical Soc; Chem. Soc. Refraction of light by gases.

Cheney, Dr. L(ee) C(annon), Parke, Davis and Co, Detroit, Mich. *Organic chemistry.* Centerville, Utah, Aug. 24, 08. A.B, Utah, 31, M.S, 34; fellow, Iowa State Col, 36–38, Ph.D, 38. *Research chemist, Parke, Davis and Co, 38–* Chem. Soc. Dibenzofuran derivatives; vitamin K; antispasmodics; analgesics.

Cheney, Monroe G(eorge), Coleman, Texas. *Petroleum geology.* Franklinville, N. Y, Sept. 27, 93. B.S, Cornell, 16; Royal Sch. Mines, London, 19. With Empire Gas and Fuel Co, 16; geologist, various oil operators, 17; *consulting geologist and pres, Anzac Oil Corp, 19–* Engineers, World War, 17–19, master engineer. Asn. Petrol. Geol. (sec'y-treas, 34); fel. Geol. Soc; Min. and Metal. Eng. Paleozoic geology of mid-continent; stratigraphy and structure of north central Texas; economic spacing of oil wells; classification of Permian-Carboniferous rocks; origin of oil.

Cheney, Prof. Ralph H(olt), Long Island University, Brooklyn, N. Y. *Biology.* Maynard, Mass, June 3, 96. B.S, Boston, 18, A.M, 19; M.S, Harvard, 22, Sc.D, 23. Head asst. biol, Boston, 15–18, teaching fellow, 18–19, instr, 20–21; asst. zool, Radcliffe Col, 21; bot, Harvard, 22; instr. invert. zool, Western Reserve, 23; *biol,* N. Y. Univ, 24, asst. prof, 24–29; *prof. and chairman dept, Long Island, 29–, prof. bot. and zool, col. pharmacy, 32–; res. investigator, Brooklyn Bot. Garden, 31–* Summer, prof, Alfred, 27. Investigator and mem. corp, Marine Biol. Lab, Woods Hole; consultant applied physiol. and econ. plant products, 30– Chairman genetics and coffee indust. investigation cmt, Int. Cong. Genetics, Cornell, 32. Physiologist, U. S. A, 18. A.A; Soc. Exp. Biol; Soc. Pharmacol; Bot. Soc; Soc. Plant Physiol; Genetic Asn; Soc. Zool; Pharmaceut. Asn; Fern Soc; Nature Study Soc; Tree Asn; Torrey Bot. Club. (phanerog. cmt); Sullivant Moss Soc; New Eng. Bot. Club; N. Y. Acad; Boston Soc. Nat. Hist; Brooklyn Inst; Am. Inst. Physiology; pharmacology; caffeine and other purines; nicotine; arrow poisons; correlation of functional and histo-physiological effects upon the animal organism as induced by active principles derived from economic plants.

Cheney, Prof. Walter L(ynn), 3509 McKinley St, N. W, Washington, D. C. *Physics.* Monroe Center, Ohio, Aug. 27, 89. A.B, Oberlin Col, 13; A.M, Nebraska, 15; fellow, Rice Inst, 15–17; Ph.D, Hopkins, 22. Teacher, pub. schs, 07–09; asst. physics, Nebraska, 13–15; lab. asst, Bur. Standards, 17–18, asst. physicist, 18–21; instr. *physics, George Washington,* 20–21, asst. prof, 21–24, assoc. prof, 24–29, *prof,* 29– Consulting physicist, 23–24; visiting fellow, Calif. Inst. Tech, 33–34. Summers, asst. physicist, Bur. Standards, 22; tech. staff, Bell Tel. Labs, 26. A.A; fel. Physical Soc; Asn. Physics Teachers; Philos. Soc. Wash. Discharge of electricity through gases; magnetic testing apparatus; magnetic properties of materials.

Cheney, Prof. W(illia)m Fitch, Jr, University of Connecticut, Storrs, Conn. *Mathematics.* San Francisco, Calif, Sept. 4, 94. A.B, California, 16, A.M, 17; Ph.D, Mass. Inst. Tech, 27; A.M, Harvard, 42. Teaching fellow math, California, 16–17; First Nat. Bank of San Francisco, 17–21; statistician, Bank of Italy, San Francisco, 21–25; instr. *math,* Hebbard Sch, Mass, 26–27; Tufts Col, 27–28, asst. prof, 28–30; *prof. and head dept, Connecticut, 30–* Asst. ed, 'Am. Math. Monthly.' A.A; Math. Soc; Math. Asn. (New Eng. rep, board governors, 42–); Nat. Council Teachers Math; Asn. Teachers Math. New Eng. (pres); Conn. Valley Math. Teachers Asn. (pres). Geometrical number theory.

Chenicek, Dr. A(lbert) G(eorge), 4911 87th St, Elmhurst, L. I, N. Y. *Organic chemistry.* Chicago, Ill, Dec. 15, 13. B.S, Chicago, 34, Ph.D, 37. *Research chemist,* Columbia chem. div, Pittsburgh Plate Glass Co, 37–41; *Interchem. Corp, 41–* A.A; Chem. Soc. Organic synthesis.

Chenoweth, Prof. W(alter) W(infred), Massachusetts State College, Amherst, Mass. *Horticulture.* Jamesport, Mo, May 30, 71. B.S, Valparaiso Col, 02, A.B, 03, M.S, 07; B.S. (Agr), Missouri, 12. Head dept. science, Mo. Nor. Sch, Chillicothe, 03–10; sec'y, State Board Hort, Mo, 11–12; instr. and later prof. pomol, Mass. Col, 12–18, *prof. hort. mfrs. and head dept,* 18–31, *Mass. State Col, 31–* Food preservation; candy making.

Chepil, Dr. W(illiam) S(tephen), Dominion Experimental Station, Soil Research Laboratory, Swift Current, Sask, Can. *Agronomy.* Gimli, Man, Jan. 10, 04. B.S.A, Saskatchewan, 30, M.Sc, 32; Ph.D, Minnesota, 40. Officer in charge, Provincial Weed Exp. Sta, Drinkwater, Sask, 30–31; Regina sub-sta, *Dom. Exp. Sta,* 31–36, *agr. scientist, soil research lab, 36–* Soc. Agron; Soil Sci. Soc; Can. Soc. Tech. Agr. (sec'y-treas, Swift Current local, 41); West. Can. Soc. Agron. Soil erosion; weeds; a wind tunnel for the study of wind erosion of soils; basic factors influencing wind erosion of soils; dormancy and germination of weed seeds in relation to suitable methods of weed eradication.

Chernoff, Dr. Lewis H(ill), U. S. Food and Drug Administration, 531 Custom House Bldg, Denver, Colo. *Chemistry.* Russia, Jan. 1, 90. Ph.B, Yale, 11, Ph.D, 14. Asst, chem. lab, Yale, 10–14; prof. chem. and physics, Col. of Charleston, 14–15; org. chemist, bur. chem, U. S. Dept. Agr, 15–27, *chief chemist, food and drug admin, Los Angeles and Denver, Colo. stations,* 27–39, *Fed. Security Agency, 39–* Chem. Soc; fel. Inst. Chem. Organic chemistry; pyrimidins; saponins; proteins; carbohydrates; foods; drugs.

Cheronis, Dr. Nicholas D(imitrius), 5556 Ardmore Ave, Chicago, Ill. *Chemistry.* Sparta, Greece, June 29, 96. Gymnasium, Athens; B.S, Chicago, 19, Ph.D, 29. *Director, Synthet. Labs, Chicago, 20–;* instr. chem, Crane Junior Col, 29–34; *chairman physical sciences, north branch, Chicago City Junior Cols, 34–* A.A; Chem. Soc; Ill. Acad. Organic and physiological chemistry; rearrangement of aliphatic halogen acids; preparation of organic chemical reagents; chemotherapy of organic arsenicals and of metallic salts of organic acids; amino acids; ammonolysis of organic compounds.

Cherrington, Dr. Ernest (Hurst), Jr, Perkins Observatory, Ohio Wesleyan University, Delaware, Ohio. *Astronomy.* Westerville, Ohio, Sept. 10, 09. A.B, Ohio Wesleyan, 31, fellow, Perkins Observatory, 31–32, M.S, 32; Lick Observatory fellow, California, 33–35, Ph.D, 35. Teaching fellow, California, 32–33; instr. math. and astron, Syracuse, 35–36; *asst. astronomer, Perkins Observatory, Ohio Wesleyan, 36–,* instr. *astron, univ,* 36–40, *asst. prof, 40–,* instr, Ohio State, 36–40, *asst. prof, 40–* A.A; Astron. Soc. Dynamics of particles in comet tails; spectrophotometry of solar radiation; stars with peculiar spectra; Be stars.

Cherrington, Prof. V(irgil) A(rthur), University of Idaho, Moscow, Idaho. *Bacteriology.* Des Moines, Iowa, Jan. 24, 05. B.S, Iowa State Col, 28; M.S, Idaho, 30; research fellow, Iowa State Col, 39–40, Ph.D, 41. Asst. *bacter, Idaho,* 28–29, instr, 29–35, asst. prof, 35–41, *assoc. prof, 41–, asst. bacteriologist, Exp. Sta, 30–* Soc. Bact. Dairy bacteriology; animal diseases.

Cherry, Prof. F(loyd) H(ildreth), University of California, Berkeley, Calif. *Mechanical engineering.* Ohio, July 10, 76. B.S, Case, 01. Telluride Power Co, Utah, 01–04; South. Calif. Edison Co, Los Angeles, 04–08; private contractor,

Calif, 08–14; U. S. Reclamation Service, Ariz, 14–17; teacher, Case, 17–18; *assoc. prof. mech. eng, col. eng, California, 18–* A.A; Eng. Educ. Descriptive geometry.

Chesley, Dr. Leon C(arey), Margaret Hague Maternity Hospital, Jersey City, N. J. *Biochemistry.* Montrose, Pa, May 22, 09. Ph.D, Duke, 32. Asst. biophysicist, Mem. Hosp, New York, 32–35; *biochemist, Margaret Hague Maternity Hosp, 35–* Instr, evening session, Col. City of N. Y, 33–35. Amylase action and methods; x-ray effects on cellular physiology; kidney function; pregnancy toxemias.

Chesney, Dr. Alan M(ason), Johns Hopkins Hospital, Baltimore, Md. *Medicine.* Baltimore, Md, Jan. 17, 88. A.B, Hopkins, 08, M.D, 12; Sc.D, George Washington, 32. Asst. med, Hopkins, 12–14; asst. res. physician, Rockefeller Inst. Hosp, 14–17; assoc. *med,* sch. med, Washington (St. Louis), 17–21; *assoc. prof, Hopkins, 21–, dean med. sch, 29–* M.C, U.S.A, 17–19. A.A; Soc. Clin. Invest; Asn. Med. Cols. (pres, 37–); Am. Physicians; Soc. Exp. Path. Bacteriology; chemotherapy; syphilis.

Chesney, C(ummings) C, 74 Dawes Ave, Pittsfield, Mass. *Electrical engineering.* Selinsgrove, Pa, Oct. 28, 63. B.S, Pa. State Col, 85. Chemist, Pa. State Col, 85–86; prof. chem. and math, Doylestown Sem, 86–88; chief elec. engineer, Stanley Elec. Mfg. Co, 91–01, v. pres. and chief engineer, 01–06; manager and chief engineer, Pittsfield works, *Gen. Elec. Co,* 06–27, v. pres. and chairman mfg. cmt, 27–31, *hon. v. pres, 31–* Consulting elec. engineer, North Elec. Mfg. Co, 00– Edison medal, Inst. Elec. Eng, 22. A.A; Elec. Eng. (pres, 26); London Soc. Arts. Electrical machinery; the transmission of energy by electricity.

Chesnut, Roy W(illiam), 115 Inwood Ave, Upper Montclair, N. J. *Electrical engineering.* Kiowa, Kans, Jan. 20, 92. A.B, Harvard, 17. Elec. engineer, West. Elec. Co, 20–24; *mem. tech. staff, Bell Tel. Labs, 25–* Lieut, Sig.C, 17–19. A.A; Elec. Eng; Physical Soc. Electrical communicating systems; carrier wave transmission systems for speech and music.

Chesny, Dr. H. Henry, 701 Thayer Ave, Los Angeles, Calif. *Chemical engineering.* Berlin, Germany, March 22, 02. M.S, Southern California, 26, Ph.D, 28. Research chemist, Inyo Chem. Co, 25–28; Am. Potash and Chem. Corp, 29; Union Oil Co, Calif, 29–32; v. pres. and tech. director, Marine Magnesium Products Corp, 32–36; *tech. director and mem. board, British Periclase Co, Ltd, 36–* Consulting chem engineer. Chem. Soc; Ceramic Soc. Production of magnesium products from sea water.

Chessin, Dr. Alexander, 7 E. 42nd St, New York, N. Y. **Mathematics.* St. Petersburg, Russia, Dec. 13, 66. A.M, Imp. Inst. Hist. and Philol, St. Petersburg, 84; Ph.D, St. Petersburg, 89; C.E, Polytech, Zurich, 92. Lecturer celestial mech, Hopkins, 94–95, assoc. prof. math. and astron, 95–99; prof. math, Washington (St. Louis), 01–10; *patent attorney, 10–* Lecturer, Harvard, 94; Lowell Inst, Boston, 95; Columbia, Cooper Union and the Chautauqua Assembly, 00; Columbia, 09. Gold medal, Russian Ministry of Pub. Instruction, 88; special envoy, Italy, 89. A.A. Mechanics; astronomy; theory of functions; infinite series; differential equations; Bessel's functions; relative motion; Foucault pendulum; development of perturbative function; effect of the earth's rotation on gyroscopes; strains and stresses in a rapidly moving disc; gyroscope devices.

Chester, J(ohn) N(eedels), Clark Building, Pittsburgh, Pa. *Sanitary engineering.* Columbus, Ohio, Sept. 24, 64. B.S, Illinois, 91, C.E, 09, M.E, 11. Apprentice, 91–99; chief engineer, Am. Water Works and Guarantee Co, 99–06; engineer, Epping-Carpenter Steam Pump Co, 06–11; *consulting engineer, 11–* Civil Eng. (director, 22–24, v. pres, 31, 32); Mech. Eng; Inst. Consulting Eng; fel. Pub. Health Asn; Water Works Asn; Eng. Soc. West. Pa. (past pres). Power engineering; filter plants; pumping machinery; sewerage and sewage disposal.

Chester, Prof. K(enneth) Starr, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Plant pathology.* Turner's Falls, Mass, July 21, 06. B.S, Boston, 28, A.M, 29; Ph.D, Harvard, 31. Asst. path, Arnold Arboretum, Harvard, 31–32; Sheldon traveling fellow, 32–33; fellow, dept. animal and plant path, Rockefeller Inst, 33–34, asst, 34–37; *prof. and head dept. bot. and plant path, Okla. Agr. and Mech. Col, and head dept. plant path, Exp. Sta, 37–* Phytopath. Soc. Plant immunology; diseases of ornamentals; virus diseases; cotton and wheat diseases.

Chester, Prof. W(ayland) M(organ), Hamilton, N. Y. *Biology.* Noank, Conn, March 10, 70. A.B, Colgate, 94, A.M, 96; hon. Sc.D, Hillsdale Col, 26. Asst. geol. and nat. hist, *Colgate,* 94–97, instr. *biol,* 97–00, assoc. prof, 00–04, prof, 04–38, *emer. prof, 38–* A.A; Soc. Zool. Comparative anatomy of animals.

Chester, Prof. Webster, 47 Winter St, Waterville, Maine. *Zoology.* Noank, Conn, Oct. 31, 76. A.B, Colgate, 00, Sc.D, 35; A.M, Harvard, 08. Instr. science and math, Colby Acad, N. H, 00–02; *prof. biol, Colby Col, 03–* Instr, Marine Biol. Lab, Woods Hole, 08; lecturer, Bangor Theol. Sem, 14–38. A.A.

Chevalley, Dr. Claude, Princeton University, Princeton, N. J. **Mathematics.* Johannesburg, S. Africa, Feb. 11, 09. Agregation, Ecole Normale Supérieure, Paris, 29; D.Sc, Paris, 33. Maître de conferences, Rennes, 37–38; mem, Inst. for Advanced Study, 38–39; *assoc. prof. math, Princeton, 39–* Prix Francoeur, Paris, 37; Frank Nelson Cole prize, 41. Math. Soc. Algebra; number theory; Lie groups.

Cheyne, Prof. Virgil D(wight), Indiana University School of Dentistry, Indianapolis, Ind. *Oral histology, Pathology.* Webster City, Iowa, Nov. 17, 08. D.D.S, Iowa, 33; Carnegie fellow, Rochester, 37–40, A.B, 38, Ph.D, 40. Intern, Forsyth Dental Infirmary for Children, Boston, Mass, 33–34; special asst, div. child welfare, Iowa, 34–35, asst. pedodontia, 34–36; *assoc. prof. oral histol. and path, dept. histopath. and research, sch. dentistry, Indiana, 40–* Asst. circulation manager, 'Jour. Dental Research,' 42– Dental Asn; Int. Asn. Dental Research. Pedodontia; statistics on dental caries and tooth loss; experimental dental caries and gingival disturbances in animals; dental caries in humans; mixed tumors of the parotic.

Cheyney, Prof. E(dward) G(heen), 2163 Carter Ave, St. Paul, Minn. *Forestry.* Washington, D. C, Nov. 24, 78. A.B, Cornell, 00; Yale. Asst, bur. forestry, U. S. Dept. Agr, 03–04; instr. *forestry, Minnesota,* 05–08, asst. prof, 08–11, *prof, 11–* Soc. Foresters. Silviculture; tree roots and forest soils.

Cheyney, Dr. La Verne E(merson), 1821 Glenmount Ave, Akron, Ohio. *Organic chemistry.* Akron, Ohio, March 26, 11. B.S, Akron, 33; M.S, Pennsylvania, 35; Ph.D, Ohio State, 38. Chemist, B. F. Goodrich Co, 33–34; asst. instr. chem, Pennsylvania, 34–35; asst, Ohio State, 35–38; research chemist, Nat. Aniline and Chem. Co, 38–39; Goodyear Tire and Rubber Co, 39–41; asst. prof. chem, Akron, 41–42; *research chemist, Goodyear Tire and Rubber Co, 42–* Summer, asst, Pittsburgh Plate Glass Co, 37. Chem. Soc. (chairman cmt, 41–). Azo dyes; absorption spectra; rubber; plastics; film-forming materials; food packaging; synthetic rubber.

Chickering, Prof. A(rthur) M(erton), Albion, Mich. *Zoology.* North Danville, Vt, March 23, 87. Ph.B, Yale, 13; M.S, Wisconsin, 16; Ph.D, Michigan, 27. Asst. *biol,* Beloit Col, 13–16, instr, 16–18; *prof, Albion Col, 18–, chairman div. science and math, 31–* Instr, Michigan, 25–26. Summers, instr, Michigan, 19–22, 26; North. State Teachers Col, Mich, 32; collector for Albion Col. and Univ. Mich, Panama Canal Zone, 28, Honduras, 29, field work, Panama Canal Zone, 34, 36, 39. Mem, State Board Examiners Basic Sciences, Mich, 41– A.A; Soc. Zool; Micros. Soc. (2nd v. pres, 25, treas, 26–); Mich. Acad. (chairman, sect. zool, 19–21, v. pres, 30, pres, 35). Spermatogenesis in Belostomatidae and Nepidae; taxonomy and biology of spiders.

Chidester, Dr. F(loyd) E(arle), Auburndale, Boston, Mass. *Zoology, Physiology.* Chicago, Ill, Oct. 13, 84. Ph.B, Syracuse, 07; fellow, Chicago, 08–09; A.M, Clark, 08, fellow, 10–11, Ph.D, 11. Instr. biol, DePauw, 09–10; Rutgers, 11–13, asst. prof, 13–15, assoc. prof. zool, 15–16, prof. zool. and chairman biol. and sanit. science, 16–18; assoc. prof. zool, West Virginia, 19–23, later prof. in charge pub. health curriculum, 23–33; research, Michigan, 33–34; *consultant nutrition and endocrinol, 34–* Prof, exten. div, N. Y. State Col. Forestry, Syracuse, 36–37. Summers, Bur. Fisheries, Woods Hole, 10, 11, 19–, Carnegie Institution, 12. Lieut, Pub. Health Service, 18–19; capt, Sanit.C.R, 19–24, major, 24– A.A; Soc. Zool; Soc. Exp. Biol; Asn. Anat; Fisheries Soc; Pub. Health Asn; W. Va. Acad; N. B. Sci. Soc. (v. pres, 14, pres, 16); British Soc. Exp. Biol. Embryology; experimental zoology; anatomy; nutrition; endocrinology; cancer.

Chidester, G(ardner) H(otchkiss), U. S. Forest Service, Madison, Wis. *Chemical engineering.* Hastings, Mich, Sept. 13, 97. B.S, Michigan, 20. Sulfite foreman, Kimberly-Clark Co, 20–24; ed. staff, 'The Paper Indust,' 24–25; *chem. engineer, Forest Products Lab, U. S. Forest Service, 25–* Asn.

Pulp and Paper Indust. Pulp processing; pulp and paper technology; mill waste; recovery of chemicals from pulp mill waste liquor; sulfite pulping.

Chidsey, Prof. Jane L(ouise), Wheaton College, Norton, Mass. *Physiology.* Wilkes-Barre, Pa, April 1, 08. A.B, Wellesley Col, 29; A.M, Brown, 31; Schuyler fellow, Cornell, 32–34, Ph.D, 34. Demonstrator biol, Brown, 29–31; Alexander Brown Coxe fellow, Yale, 34–35; instr. *zool,* Smith Col, 35–39; *asst. prof, Wheaton Col. (Mass), 39–* A.A. Carbohydrate and fat metabolism.

Child, Prof. C(harles) M(anning), Stanford University, Calif. *[1]*Zoology. Ypsilanti, Mich, Feb. 2, 69. Ph.B, Wesleyan, 90, M.S, 92, Sc.D, 28; Ph.D, Leipzig, 94. Asst. biol, Wesleyan, 90–92; *zool, Chicago,* 95–96, assoc, 96–98, instr, 98–05, asst. prof, 05–09, assoc. prof, 09–16, prof, 16–35, *emer. prof, 35–; research, marine labs, Stanford, 37–* Instr, Marine Biol. Lab, Woods Hole, 95–97; holder, Agassiz table, Naples Zool. Sta, 94, Smithsonian table, 02–03; visiting prof, Duke, 30; Rockefeller Foundation prof, Tohoku Imp. Univ, Japan, 30–31. Nat. Acad; A.A; Soc. Nat; Soc. Zool; Asn. Anat; West. Soc. Nat. Sense organs of insects; cell lineage of annelids; developmental physiology.

Child, Prof. George P(ercy), Amherst College, Amherst, Mass. *Genetics.* Brooklyn, N. Y, Oct. 7, 08. B.S, N. Y. Univ, 29, Ph.D, 34; fellow, Minnesota, 33–34. Asst. *biol,* N. Y. Univ, 28–33; *Amherst Col,* 35–37, instr, 37–40, *asst. prof, 40–* Growth Soc; Soc. Nat; Optical Soc; Zool. Soc; Genetics Soc. Physiology of development; mutations; spectrochemistry.

Child, Dr. Irvin L(ong), Yale University, New Haven, Conn. *Psychology.* Deming, N. Mex, March 11, 15. A.B, California at Los Angeles, 35; Social Sci. Research Council fellow, 35–38; Ph.D, Yale, 39. Asst, inst. human relations, Yale, 38–39; instr. and tutor psychol, Harvard and Radcliffe Col, 39–41; research fellow, inst. human relations, *Yale,* 41–42, *asst. prof. psychol, 42–* Assoc. Psychol. Asn. Psychological aspects of social structure; public opinion; personality and motivation.

Child, Dr. W(illia)m C(lark), Standard Oil Co. of New Jersey, Elizabeth, N. J. *Chemical engineering.* Belding, Mich, July 1, 96. A.B, Oberlin Col, 20; M.S, Wisconsin, 23, Ph.D, 24. Research chemist, Sherwin-Williams Co, Chicago, 20–21; *chem. engineer, Standard Oil Co. of N. J, 24–* Chem. Soc. Catalytic condensation of aldehydes to esters; assay of petroleum crude oil.

Childers, Dr. Norman Franklin, Ohio State University, Columbus, Ohio. *Horticulture.* Moscow, Russia, Oct. 29, 10. Cent. Col. (Mo), 28–29; B.S, Missouri, 33, Gregory scholar, 33–34, M.S, 34; Ph.D, Cornell, 37. Asst. pomol, Cornell, 34–37; *asst. prof. hort, Ohio State, 37–, assoc, Ohio Exp. Sta, 39–* Soc. Plant Physiol; Soc. Hort. Sci. Photosynthesis; transpiration; respiration; nutrition.

Childs, Dr. George Henshaw, 79 State St, Brooklyn, N. Y. *Biology.* Minneapolis, Minn, Dec. 20, 93. A.B, Minnesota, 13, A.M, 14, Ph.D, 21. Asst. gen. entom, Minnesota, 14–16, comp. anat. of vertebrates, 16; gen. zool, Cornell, 16–17; Minnesota, 19–23; artist biologist, *invert. dept, Am. Museum Nat. Hist,* 23–41, *asst. curator, 41–* Am. Museum Nat. Hist. expeds. Digestive tracts of Diplopods with special reference to Parajulus.

Childs, Dr. James F(ielding) L(ewis), Spring Hill, Ala. *Plant pathology.* Tucson, Ariz, Jan. 3, 10. B.S, California, 37, Ph.D, 41. *Agent, U. S. Dept. Agr, 41–* Phytopath. Soc. Spray adhesion; azalea flower blight; diseases of ornamentals.

Childs, Leroy, Hood River, Oregon. *Entomology, Plant pathology.* Alhambra, Calif, Aug. 8, 88. A.B, Stanford, 13. Asst. sec'y, State Cmn. Hort, Calif, 13–14; entomologist, *Hood River Exp. Sta, Oregon State Col,* 14–16; *plant pathologist and supt, 16–* Asst, bur. plant indust, U. S. Dept. Agr, 13, collaborator, bur. entom. and plant quarantine, 18– A.A; Entom. Soc; Asn. Econ. Entom. (v. pres, 25); Phytopath. Soc. Apple and pear diseases; insect and disease control; spraying; horticulture.

Childs, Dr. Thomas W(hite), P. O. Box 4137, Portland, Oregon. *Forest pathology.* Rockwell City, Iowa, May 20, 08. B.S, Oregon State Col, 29; Ph.D, Pennsylvania, 36. *Asst. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 35–* A.A; Soc. Foresters; Phytopath. Soc. White pine blister rust; decay of wood; ecology and variability of wood-decaying fungi.

Childs, Prof. W(illiam) H(enry), West Virginia University, Morgantown, W. Va. *Horticulture.* Princeton, Ill, Jan. 1, 07. B.S, Illinois, 30, M.S, 31; Ph.D, Cornell, 40. Instr. *hort, West Virginia,* 31–38, *asst. prof, 40–,* asst, *Exp. Sta,* 31–38, *asst. horticulturist, 40–* Soc. Hort. Sci. Pomology; small fruits; cultural studies with strawberries, raspberries, blackberries and grapes; blueberry selection and hybridization.

Chillman, Prof. Edward F(enemore), 1801 52nd St, S, St. Petersburg, Fla. *Geometry.* Philadelphia, Pa, Aug. 26, 66. C.E, Rensselaer Polytech, 88. Instr. drawing, *Rensselaer Polytech,* 88–01, asst. prof, 01–12, assoc. prof, 12–17, prof. and head dept. *descriptive geometry and drawing,* 17–37, *emer. prof, 37–* Consulting engineer, 89–12. Eng. Educ. Engineering drawing; plate girder design and drafting; mechanical perspective with shadows; graded lessons on structural design and drafting.

Chilton, Prof. St. John P(oindexter), Louisiana State University, University, La. *Plant pathology.* Philadelphia, Pa, Feb. 3, 09. B.S, Louisiana, 35, M.S, 36; Ph.D, Minnesota, 38. Instr, Minnesota, 37–38; agent, U. S. Dept. Agr, 38–40; *asst. prof. bot, bacter. and plant path, Louisiana, 40–* A.A; Phytopath. Soc; La. Acad. (sec'y-treas, 40–). Genetics of fungi; forage crop diseases.

Chilton, Thomas H(amilton), 805 Augusta Road, Westover Hills, Wilmington, Del. *Chemical engineering.* Greensboro, Ala, Aug. 14, 99. Alabama; Chem.E, Columbia, 22. Research chemist, F. J. Carman, 22–25; chem. engineer, exp. sta, *E. I. du Pont de Nemours and Co,* 25–35, asst. div. head, *tech. div, eng. dept,* 35–38, *director, 38–* Lecturer, exten, Columbia, 37– Chandler medal, Columbia, 39. A.A; Mech. Eng; Eng. Educ; Chem. Eng. (director, 37–39, 42–); Chem. Soc. Ammonia oxidation; fluid flow; heat transfer; distillation; gas absorption.

Chinn, Dr. Herman, 1225 N. Dearborn Parkway, Chicago, Ill. *Biochemistry.* Connellsville, Pa, April 8, 13. B.S, Pa. State Col, 34; M.S, Northwestern, 35, Ph.D, 38. *Instr. biol. chem, med. sch, Northwestern, 38–; Ill. Inst. Tech, 39–; lieut, Sanit. Corps, U. S. Army, 42–* A.A; Chem. Soc. Vitamin C; biochemistry of the eye.

Chipman, Prof. John, 19 Lorena Road, Winchester, Mass. *Physical chemistry, Metallurgy.* Tallahassee, Fla, April 25, 97. B.S, Univ. of the South, 20, Sc.D, 40; M.S, Iowa, 22; Ph.D, California, 26. Asst. prof. chem, Ill. Wesleyan, 22–24; Ga. Tech, 26–29; research engineer, Michigan, 29–35; assoc. director research labs, Am. Rolling Mill Co, Middletown, Ohio, 35–37; *prof. process metal, Mass. Inst. Tech, 37–* Howe medal, Am. Soc. Metals, 34; Hunt award, Am. Inst. Min. and Metal. Eng, 39. Chem. Soc; Min. and Metal. Eng; Soc. Metals; Iron and Steel Inst. Gt. Britain. Reactions in liquid metals; vapor pressures; chemical equilibrium at high temperatures; steel making.

Chipman, Dr. Walter A(lbert), Jr, U. S. Fish and Wildlife Service, Milford, Conn. *Zoology, Physiology.* Manchester, N. H, Sept. 8, 03. B.S, New Hampshire, 27, M.S, 29; Ph.D, Missouri, 34. Asst. zool, New Hampshire, 26–29; Missouri, 29–30; sci. asst, *fish and wildlife service, U. S. Dept. Interior,* 30–33, asst. biologist, 33–37, *assoc. biologist, 37–* Shellfisheries Asn. Fresh-water biology; stream survey and pollution; physiology and ecology of the oyster.

Chisdes, Meyer, 1647 Nostrand Ave, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, Aug. 7, 01. Columbia, 23–26; B.S, Northwestern, 27. Junior chemist, Dept. Pub. Works, New York, 24–26; research asst, G. Siegle, Inc, N. Y, 27–28; org. chemist, A. L. Van Ameringen, N. J, 28; chief chemist, moonlight lab, Anaconda Copper Mining Co, 28–33; with City New York, 34–36, 40; Port of New York Authority, 36–40; Anglo-Chilean Nitrate Corp, 41; *analysis, testing and research in eng. materials, Port of New York Authority, 41–* Summer, junior chemist, Dept. Pub. Works, New York, 28. A.A; Chem. Soc. The chemical nature and behavior of lubricating oils in certain types of machinery used in the mining industry.

Chisholm, Robert D, 404 N. Washington Ave, Beltsville, Md. *Chemistry.* Somerville, Mass, Nov. 18, 97. B.S, Mass. State Col, 19. Supt, Rex Research Inc, 19–33; *chemist, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–* Chem. Soc; Asn. Econ. Entom. Insecticides; insecticides, repellents and attractants for the Japanese beetle.

Chisolm, Dr. J(ames) Julian, 1114 St. Paul St, Baltimore, Md. *Medicine.* Winchester, Ky, Dec. 24, 89. A.B, Prince-

ton, 11; M.D, Hopkins, 16. Asst. and instr. laryngol, *sch. med, Hopkins,* 16–20, *assoc. clin. laryngol, 20–* Am. Med. Asn; Med. and Chirurg. Faculty Md. Diseases of the ear, nose and throat.

Chittenden, Prof. E(dward) W(ilson), University of Iowa, Iowa City, Iowa. **[3]*Mathematics.* Waterville, Minn, Aug. 3, 85. A.B, Missouri, 09, A.M, 10; Ph.D, Chicago, 12. Instr. *math,* Illinois, 12–18; asst. prof, *Iowa,* 19–20, assoc. prof, 20–25, *prof, 25–* Inst. Advanced Study, 35–36, colloquium lecturer, 36. Summers, Chicago, 20; Texas, 26. Math. Soc. (v. pres, 32); Math. Asn; Iowa Acad. General analysis; functions of real variables.

Chittenden, Dr. F(ayette) D(udley), U. S. Rubber Co, Providence, R. I. *Chemistry.* New Haven, Conn, Aug. 11, 02. B.S, Yale, 23, Ph.D, 26. Asst, Yale, 23–25; *chemist,* gen. labs, *U. S. Rubber Co,* 26–31, *gen. products div, 31–* Chem. Soc. Chemistry of rubber and textiles.

Chittenden, Prof. Russell H(enry), 83 Trumbull St, New Haven, Conn. **[1]*Physiological chemistry, Physiology.* New Haven, Conn, Feb. 18, 56. Ph.B, Yale, 75, Ph.D, 80, LL.D, 22; Heidelberg, 78–79; Sc.D, Pennsylvania, 04; LL.D, Toronto, 03, Birmingham, 11, Washington (St. Louis), 15; hon. M.D, Conn. State Med. Soc, 34. Prof. *physiol. chem, Yale,* 82–22, director, Sheffield Sci. Sch, 98–22, *emer. prof,* 22– Lecturer, Columbia, 98–03. Nat. Acad; A.A; Soc. Nat. (pres, 93); Physiol. Soc. (pres, 94–04); Soc. Biol. Chem. (pres, 07); Philos. Soc; Am. Acad; cor. mem. Soc. de Biol. de Paris; assoc. Soc. royale des Sciences med. et nat. de Bruxelles. Physiology of nutrition.

Chittum, Prof. John W(illiam), 722 N. Bever St, Wooster, Ohio. *Chemistry.* Wapello, Iowa, July 19, 01. B.S, Iowa Wesleyan, 22; M.S, Chicago, 24, Ph.D, 28. Prof. physics, Iowa Wesleyan, 24–27; *chem,* Olivet Col. (Mich), 28–29; asst. prof, *Col. of Wooster,* 29–38, *prof, 38–* Chem. Soc. (sec'y, Wooster sect, 41–). Organic chemistry; chemical education.

Chittum, Dr. Joseph F(rederick), 313 W. Beverly, Whittier, Calif. *Chemistry.* Wapello, Iowa, Nov. 28, 02. Ph.D, Chicago, 28. Instr. chem, Purdue, 28–34, asst. prof, 34–38, research assoc, eng. exp. sta; *director chem. research, West. Precipitation Corp, Los Angeles, 38–* Chem. Soc. (ed, Purdue sect, 29–30). Electrochemical behavior of metals; heat of dilution of strong electrolytes; fluorescent screen materials; metal work functions; electromotive force; physical properties of liquid ammonia and of solutions in it.

Chitwood, Dr. B(enjamin) G(oodwin), U. S. Department of Agriculture, Babylon, N. Y. *Zoology.* Chicago, Ill, Dec. 21, 06. A.B, Rice Inst, 28; M.S, George Washington, 29, Ph.D, 31. Junior nematologist, bur. plant indust, *U. S. Dept. Agr,* 28–29, field asst, 30, asst. zoologist, bur. animal indust, 31–37, assoc. zoologist, 37, *assoc. nematologist,* bur. *plant indust, 37–* Assoc, George Washington, 34. Micros. Soc; Soc. Parasitol; Phytopath. Soc; Helminth. Soc. Wash. (v. pres, 36); Wash. Acad. Taxonomy; relationships and anatomy of nematodes; cell constancy; control of plant parasitic nematodes.

Chitwood, Dr. Henry C(ady), 1700 Kanawha Blvd, Charleston, W. Va. *Organic chemistry.* Washington Co, Md, Sept. 18, 11. A.B, West Virginia, 32; Ph.D, Hopkins, 34. *Research chemist, Carbide and Carbon Chem. Corp, South Charleston, 34–* Chem. Soc. Gloxalidines; electro-organic chemistry; catalysis; aliphatic syntheses.

Chivers, Prof. Arthur Houston, Dartmouth College, Hanover, N. H. *Botany.* Amesbury, Mass, July 5, 80. A.B, Dartmouth Col, 02; A.M, Harvard, 04, Thayer fellow, 09–10, Ph.D, 14. Instr. *bot,* Radcliffe Col, 05–06; *Dartmouth Col,* 06–10, asst. prof, 10–20, *prof, 20–* Austin teaching fellow, Harvard, 05–06; instr, Cold Spring Harbor, 04–06. Bot. Soc; Phytopath. Soc; Forestry Asn. Ascomycetes.

Choate, Prof. Helen A(shhurst), 49 Dryads Green, Northampton, Mass. *Plant physiology.* Irvington-on-Hudson, N. Y, Aug. 29, 82. A.B, Smith Col, 04, A.M, 09; Ph.D, Chicago, 20. Asst, *Smith Col,* 09–13, instr, 13–18, asst. prof, 18–24, *assoc. prof. bot, 24–* A.A; Bot. Soc; Hist. Sci. Soc. Chemical changes in wheat during germination.

Chodorow, Dr. M(arvin), 3850 Amundson Ave, New York, N. Y. *Physics.* Buffalo, N. Y, July 16, 13. A.B, Buffalo, 34; Ph.D, Mass. Inst. Tech, 39. Research assoc. *physics,* Pa. State Col, 40–41; *instr, Col. City of N. Y, 41–* Research grant, Carnegie Institution, 40. Physical Soc. Theory of metals; inflammability of oils.

Choisser, Prof. Roger M(orrison), George Washington University School of Medicine, Washington, D. C. *Pathology.* Harrisburg, Ill, Feb. 13, 91. B.S, Chicago, 15, M.D, Rush, 17. Pathologist, U. S. Naval Med. Sch, 22–26; director labs, Nat. Pub. Health Service, Haiti, 26–29; assoc. prof. *bacter. and path, sch. med, George Washington,* 29–31, *prof, 31–* Lecturer. Inst. Criminal Science, Washington, D. C, 37. Lieut, U.S.N, 17–22, lieut. commander, 22–29. Am. Med. Asn; Col. Physicians; Asn. Path. and Bact; Soc. Study Neoplastic Diseases; Soc. Clin. Path; Path. Soc. Wash. (pres, 37); Soc. de Med. d'Haiti. Neoplasia in tropics; yaws; nephritis.

Cholak, Prof. J(acob), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Analytical chemistry.* Elsass, Russia, Aug. 23, 00. Ch.E, Cincinnati, 24, 31–33. Asst. applied *physiol, col. med, Cincinnati,* 26–40, research assoc, 40–42, *asst. prof, 42–* Chem. Soc; Optical Soc. Analytical examination of biological materials in toxicology; spectrographic methods of analysis; physico-chemical methods, including polarographic.

Choppin, Prof. A(rthur) R(ichard), State University of Louisiana, Baton Rouge, La. *Physical chemistry.* Alexandria, La, Dec. 13, 97. A.B, Louisiana, 18, M.S, 25, 25–26, 28; Ph.D, Ohio State, 29. Teacher, high sch, Tioga, La, 19–20, asst. prin, high sch, Abbeville, 20–23; asst. *chem, Louisiana,* 24–26, instr, 26–28, asst. prof, 29–31, assoc. prof, 31–36, *prof, 36–* A.A; Chem. Soc; La. Acad. (director). Homogeneous gas kinetics; zeta potentials; electrochemistry; solution kinetics.

Chornyak, Dr. John, 343 S. Dearborn St, Chicago, Ill. *Neurology, Psychiatry.* Klondike, Pa, May 5, 01. B.S, Pittsburgh, 23, M.D, 26, 29–31, 33–37; M.Sc, Pennsylvania, 35, Sc.D, 36. Practising physician, 27–29; med. officer in charge path. lab, health lab. sect, Exp. Sta, U. S. Bur. Mines, Pittsburgh, 29–33; Nat. Cmt. Mental Hygiene fellow child psychiat, Judge Baker Guidance Center, Boston, 36; psychiatrist, Juvenile Court, Pittsburgh, Pa, 37–40; *director, Ill. Soc. Mental Hygiene, 40–; major, Air Forces, U. S. Army, 42–* Demonstrator, sch. med, Pittsburgh, 27–31. Fel. Am. Med. Asn; fel. Orthopsychiat. Asn; fel. Psychiat. Soc. Toxicity and pathology of methyl chloride, dichloro-difluoro methane, carbon monoxide asphyxia, benzol, methanol, aniline and dimethyl aniline poisoning; size of nerve cells according to sex; schizophrenia; human brain changes by oxygen deprivation; psychopathic personality; delinquency and crime.

Chouké, Dr. K(ehar) S(ingh), University of Pennsylvania, Philadelphia, Pa. *Anatomy.* India, July 23, 85. L.M.P, Agra Med. Sch, India, 06; M.D, Washington (St. Louis), 22; A.M, Colorado, 29. Instr. *anat,* Washington (St. Louis), 22–24; sch. med, Colorado, 24–30, *asst. prof,* 30–39; *grad. sch. med, Pennsylvania, 39–* A.A; Asn. Anat; Am. Med. Asn. Muscle; epicanthus; variations; thyroid gland.

Chow, Dr. Bacon F(ield), Squibb Institute for Medical Research, New Brunswick, N. J. *Biochemistry.* China, July 22, 09. B.S, Illinois, 29; Ph.D, Harvard, 32. Anal. chemist, Arthur D. Little, Inc, 30–31; asst. to Prof. J. B. Conant, Harvard, 31–33; fellow, Rockefeller Inst, 33–35; assoc. biochem, Peiping Union Med. Col, 35–37, assoc. prof, 37–38; *assoc, div. pharmacol, Squibb Inst. Med. Research, 38–* Relationship between rate of reaction and equilibrium; immunochemistry; oxidation-reduction in superacids; biochemistry of pituitary hormones.

Chrisler, V(ivian) L(eroy), Vienna, Va. *Physics.* Minden, Nebr, Feb. 12, 85. B.S, Nebraska, 08, A.M, 09. Instr, Piedmont Col, 10; physics, North Carolina, 10–16; Iowa State Col, 16–18; prof, Wabash Col, 18–19; Southwest. Presb. Col, 19–20; instr, Nebraska, 20–22; rsearch assoc, *Bur. Standards,* 23–28, assoc. physicist, 28–29, *physicist, 29–* Fel. Physical Soc; fel. Acoustical Soc; Philos. Soc. Wash. Building acoustics; transmission and absorption of sound by building materials; noise measurements; under water measurements; air raid signals.

Christ, Dr. C(harles) L(ouis), Wesleyan University, Middletown, Conn. *Chemical physics.* Baltimore, Md, March 12, 16. Ph.D, Hopkins, 40. Junior instr. chem, Hopkins, 36–40; research chemist, Gen. Elec. Co, 40–41; *instr. chem, Wesleyan, 41–* Chem. Soc; Soc. X-Ray and Electron Diffraction. Determination of crystal structures in x-ray diffraction.

Christ, J(ohn) H(enry), Soil Conservation Service, Portland, Oregon. *Agronomy.* Bluffton, Ind, Nov. 21, 96. B.S, Idaho, 19; M.S, Iowa State Col, 20. Soil technologist, exten. div, Idaho, 20–21, in charge investigational work, Sandpoint substa, Exp. Sta, 21–35; agronomist in charge work, *soil conservation service, U. S. Dept. Agr,* Colo, 35–36, state coordinator, Idaho, 36–38, acting regional conservator, Oregon, Idaho, Wash. and Alaska, 38, *regional conservator in charge activities, Idaho, Wash. and Oregon, 38–, Calif, Nev. and Hawaii, 42–* Soc. Agron; Soc. Plant Taxon; Northwest Sci. Assn. (pres, 41); Calif. Bot. Soc. Crop adaptation on the cut-over lands of northern Idaho; soil management and fertility problems of the cut-over lands of Idaho; vegetative reseeding on burned-over lands following forest fires.

Christ, Dr. R(obert) E(dward), du Pont Experimental Station, Wilmington, Del. *Organic chemistry.* Harrington, Wash, Nov. 12, 12. B.S, Washington (Seattle), 30; fellow, Northwestern, 33–35, Ph.D, 35. Asst. chem, Northwestern, 31–33; *du Pont fellow, Illinois, 35–* Chem. Soc. Pyrolysis of organic compounds, dioxans, acetylenes, terpenes and carotinoids.

Christenberry, Dr. Geo(rge) A(ndrew), Meredith College, Raleigh, N. C. *Mycology.* Macon, Ga, Sept. 3, 15. B.S, Furman, 36; A.M, North Carolina, 38, Ph.D, 40. Teaching asst, North Carolina, 36–40; asst. prof. *biol, Meredith Col,* 40–41, assoc. prof. and head dept, 41–43, *prof,* 43– Mycol. Soc; N. C. Acad. Effect of light of various periods and wave lengths on growth and fruiting of Choanephora cucurbitarum; taxonomic study of the Mucorales found in the southeastern United States.

Christensen, Dean B(ernard) V(ictor), 2230 Abington Road, Columbus, Ohio. *Pharmacognosy, Pharmacology.* Westfield, Wis, April 15, 85. Ph.B, Wisconsin, 17, M.S, 25, Ph.D, 27. Teacher, prin. and sch. supt, Wis, 05–23; instr. pharmacy, Wisconsin, 24–27; prof. pharmacog. and pharmacol, sch. pharmacy, Florida, 27–39, director, 33–39; *dean col. pharmacy, Ohio State, 39–* Cmt. on pharmacog. and pharmaceut. bot, Nat. Research Council; revision cmt, U. S. Pharmacopoeia, 30– Ebert prize, Am. Pharmaceut. Asn, 39. Mem. Am. Conf. Pharmaceut. Research, 29–; pres, Plant Science Seminar, 31. A.A; Pharmaceut. Asn. (pres, 41); Ohio State Pharmaceut. Asn; Cent. Ohio Acad. Pharmacy. Pharmaceutical technique; medicinal plant survey of Florida; culture of essential oil producing plants; propagation of tropical and sub-tropical plants; biological assaying of plant drugs.

Christensen, Prof. Bert E(inar), 337 N. 23rd, Corvallis, Oregon. *Chemistry.* Duluth, Minn, Oct. 20, 04. B.S, State Col. Wash, 27; Ph.D, Washington (Seattle), 32. Chemist, Atmospheric Nitrogen Corp, Syracuse, N. Y, 27–28; instr. *chem, Oregon State Col,* 31–34, asst. prof, 34–41, *assoc. prof, 41–* Chem. Soc. (chairman Oregon sect, 39). Catalysis; wet combustion; hydrogenation; organic micro analysis.

Christensen, Dr. Carl J(oseph), 13 Sherman Ave, Summit, N. J. *Physical chemistry.* Provo, Utah, April 3, 01. B.S, Brigham Young, 23; M.S, Wisconsin, 25; Coewey fellow, California, 28–29, Ph.D, 29. Instr, Brigham Young, 23–24, 25–27; *research physical chemist, Bell Tel. Labs, 29–* Chem. Soc; Physical Soc. Fluorescence; kinetics of reaction; microphonic action; semi conductors; ceramics.

Christensen, Dean Chris(tian) L(auriths), 10 Babcock Drive, Madison, Wis. *Agriculture.* Minden, Nebr, Dec. 29, 94. B.S, Nebraska, 20; Am-Scandinavian Foundation fellow, Copenhagen, 21–22; Harvard, 23–24; hon. D.Agr, Nebraska, 37. Special investigator cooperative agr, U. S. Dept. Agr, Europe, 22–23, director div. cooperative marketing, 24–29; exec. sec'y, Fed. Farm Board, 29–31; *dean col. agr. and director, Exp. Sta, Wisconsin, 31–; v. pres. in charge postwar develop, Celotex Corp, 43–* Board trustees, Farm Foundation. A.A; Country Life Asn. (pres, 39). Agricultural cooperation in Denmark; farmers' cooperative associations in the United States; educational opportunity for young men on the farm; significance of the folk school type of adult education; economic literacy in rural America.

Christensen, Prof. Clyde M(artin), University Farm, St. Paul, Minn. *Forest pathology and mycology.* Sturgeon Bay, Wis, Aug. 8, 05. B.S, Minnesota, 29, M.S, 30, Ph.D, 37; Halle, 32–33. Instr. *plant path, Minnesota,* 29–32, 34–40, *asst. prof, 40–* Phytopath. Soc. Diseases affecting shade and forest trees, especially cankers and wood rots; taxonomy of Agaricales.

Christensen, Prof. F(rederick) W(aldemar), State College Station, Fargo, N. Dak. *Animal nutrition.* Mariadahl, Kans, Jan. 22, 79. B.S, Kans. State Col, 00; M.S, Pa. State Col, 08. Asst. animal nutrition, inst. animal nutrition, Pa. State Col, and bur. animal indust, U. S. Dept. Agr, 04–10; assoc. prof. agr. chem, N. Mex. Col, and nutrition chemist, Exp. Sta, 11–16; *prof. animal nutrition, N. Dak. Col, 16–,* asst. chairman dept. animal husbandry, 24–28, chairman dept. animal and human nutrition, Exp. Sta, 38. Mem. subcmt. on animal nutrition, Nat. Research Council, 24–28, cmt, 28–32. A.A; Soc. Animal Production; Chem. Soc. Protein requirements of growing cattle; nutritive values of silages; effect of heat on the vitamins of meat; nutritive value of emergency feeds; pregnancy disease in ewes; nicotinic acid in pork.

Christensen, Dr. Halvor N(iels), Harvard Medical School, Boston, Mass. *Biological chemistry.* Cozad, Nebr, Oct. 24, 15. B.S, Nebr. State Teachers Col, 35; M.S, Purdue, 37; univ. fellow, Harvard, 37–39, Ph.D, 39. Teaching asst, Purdue, 35–37; research assoc. chem, Harvard, 39–40; research biochemist, Lederle Labs, 40–42; *instr. biol. chem, Harvard Med. Sch, 42–* Phosphatides; ionic equilibria; protein chemistry; gramicidin; penicillin.

Christensen, Henry C, 6156 Kimbark Ave, Chicago, Ill. *Pharmacy.* Wis, Dec. 10, 65. Ph.G, Northwestern, 93; hon. Pharm.M, Phila. Col. Pharmacy, 23. Mem. Board Pharmacy, Ill, 07–15, 16–21; *sec'y, Nat. Asn. Boards Pharmacy, 14–* A.A; Pharmaceut. Asn. (councilor, 25–, pres, 30). Education, legislation, reciprocity and examinations in pharmacy.

Christensen, Prof. J(onas) J(ergen), University Farm, St. Paul, Minn. *Plant pathology.* Hutchinson, Minn, Aug. 22, 92. B.S, Minnesota, 21, M.S, 22, Ph.D, 25. Instr. agr. bot. and asst. *plant path, Minnesota,* 20–23, instr. and asst. plant pathologist, 23–25, asst. prof. and asst. plant pathologist, 25–31, assoc. prof. and assoc. plant pathologist, 31–38, *prof. and plant pathologist, 38–* Agent, div. plant disease control, bur. entom. and plant quarantine, U. S. Dept. Agr, 22–37; Guggenheim Mem. Foundation fellow, 29–30; sci. adviser, Flax Inst. U. S, 38– Summers, field agent, fed. hort. board, U. S. Dept. Agr, 19; potato inspector, Minn, 20. Assoc. ed, 'Phytopathology,' 34–37. Phytopath. Soc. (councilor, 37–39; v. pres, 43); A.A; Genetic Asn; Mycol. Soc; Minn. Acad. Diseases of cereals and forage crops and genetics of fungi.

Christensen, Dr. Kermit, St. Louis University School of Medicine, St. Louis, Mo. *Zoology.* Jewell, Iowa, July 17, 03. A.B, Iowa, 25, M.S, 27, Ph.D, 29. Instr. *microanat, sch. med, St. Louis,* 29–34, senior instr, 34–37, *asst. prof, 37–* Asn. Anat; Soc. Exp. Biol. Microanatomy; reptilian brain; hermaphroditism in anurans; primary and secondary sex characters in anurans; cranial nerves; autonomic nervous system.

Christensen, Dr. L(auritz) Royal, New York University College of Medicine, New York, N. Y. *Bacteriology.* Everson, Wash, Aug. 2, 14. B.S, Washington (Seattle), 36; Ph.D, St. Louis, 41. Nat. research fellow bacter, 41–42; fellow med, *col. med, N. Y. Univ,* 41–43, *instr. bacter, 43–* Soc. Bact; Asn. Immunol; N. Y. Acad. Streptococcal fibrinolysin.

Christensen, Dr. Leo M(artin), University of Nebraska, Lincoln, Nebr. *Chemistry.* Dow City, Iowa, Nov. 5, 98. B.S, Iowa State Col, 23, fellow, 24–26, Ph.D, 26. Instr. chem, Iowa State Col, 23; research biochemist, Commercial Solvents Corp, 26–31; asst. prof. chem, Iowa State Col, 31–35; consultant, Chem. Foundation, Inc, New York, 35–37, sec'y-treas, Kans. Co. sect, 37–39; head dept. agr. chem, Idaho, 39–41; *research exec, chemurgy project, Nebraska, 41–* A.A; Chem. Soc; Inst. Chem; Soc. Bact. Zymotechnology; biochemistry of bacteria; motor fuels; industrial utilization of farm products; synthetic rubber.

Christensen, Dean N(ephi) A(lbert), Colorado State College, Ft. Collins, Colo. *Civil engineering.* Provo, Utah, Jan. 19, 03. B.S, Brigham Young, 25; B.S, Wisconsin, 28; M.S, Calif. Inst. Tech, 34, Ph.D, 39. Teacher math. and mechanic arts, Iron Co. Junior High Sch, Cedar City, Utah, 25–26; prof. exact sciences, Ricks Col, 28–33; instr, Calif. Inst. Tech, 33–35, hydraulic research lab, soil conservation service, U. S. Dept. Agr, 35–38; *dean eng, Colo. State Col, 38–; chief engineer, Ordnance Dept, Aberdeen Arsenal.* Special lecturer, Southern California, 36. Engineer, State Highway Cmn, Wis, 27–28. Civil Eng; Eng. Educ; Colo. Eng. Soc. Hydraulics; structures.

Christensen, Dr. Ralph J(orgensen), 1402 Eighth St, Coronado, Calif. *Physics.* Provo, Utah, Aug. 2, 06. B.S, Brigham Young, 28; A.M, California, 30, Ph.D, 32. Teaching fellow physics, California, 28–31, asst, 32; instr, San Mateo

Junior Col, 32–41; *physicist, Nat. Defense Research Cmt, California, 41–* Research assoc, Exp. Sta, California, 32–33. Critical potentials in the region of the very soft x-rays; killing of micro-organisms by means of high frequency electrical currents and by means of supersonic sound radiation.

Christenson, Dr. James A(ndreas), Jr, Duke Hospital, Durham, N. C. *Psychology.* Holyoke, Mass, Feb. 1, 14. A.B, Harvard, 35; Ph.D, Duke, 39. *Clin. psychologist, dept. psychiatry, Duke Hosp, 40–; private and psychol. asst, classification center, Air Forces, U. S. Army, 42–* A.A; assoc. Psychol. Asn. Personality via psychoanalytical methods; use of hypnosis and other depth methods in psychopathological diagnosis and psychotherapy.

Christenson, L(eroy) D(ean), 1583 D St, San Bernardino, Calif. *Entomology.* Salt Lake City, Utah, April 23, 06. B.S, Utah Col, 28; Minnesota, 28–29; California, 33–35. Junior entomologist and special agent, bur. entom, U. S. Dept. Agr, 27–29; asst. entomologist, Trop. Plant Research Foundation, Cuba, 29–32; cotton insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 33–36, fruit insect investigations, 37–42; *lieut, Sanit. Corps, U. S. Army, 42–* Asst, Exp. Sta, Minnesota, 28–29. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Phytopath. Soc; Ecol. Soc; Pacific Coast Entom. Soc; Entom. Soc. Wash. Distribution, abundance and reasons for fluctuations of numbers of soil arthropods; insects in relation to spread of Fusarium wilt of cotton; peach insects in relation to spread of peach mosaic and other peach virus diseases.

Christenson, Dr. Reed O(scar), Alabama Polytechnic Institute, Auburn, Ala. *Parasitology.* Fairview, Utah, Jan. 22, 04. B.S, Utah State Col, 26; A.M, Minnesota, 28, Ph.D, 33. Asst. *zool,* Minnesota, 26–30, instr, 30–37; asst. prof. *zool. and entom, Ala. Polytech,* 37–38, *assoc. prof, 38–, assoc. parasitologist, Exp. Sta, 38–* Summer, instr, Wyoming, 34. Soc. Parasitol; Micros. Soc; Soc. Trop. Med; Limnol. Soc; Asn. Southeast. Biol. (exec. cmt, 39, 40–42); Ala. Acad. The epidemiology, development and inter-host relationships of parasitic nematodes.

Christian, Dr. Henry A(sbury), 1731 Beacon St, Brookline, Mass. *²*Medicine.* Lynchburg, Va, Feb. 17, 76. A.B, A.M, Randolph-Macon Col, 95, LL.D, 23; M.D, Hopkins, 00; A.M, Harvard, 03; hon. Sc.D, Jefferson Med. Col, 31, Michigan, 39; LL.D, Western Reserve, 31, Western Ontario, 39. Asst. pathologist, Boston City Hosp, 00–02; instr. path, *Harvard,* 02–05, *theory and practise of physic,* 05–07, asst. prof, 07–08, Hersey prof, 08–39, *emer. prof, 39–;* physician in chief, *Peter Bent Brigham Hosp,* 10–39, *emer. physician in chief, 39–; clin. prof. med, med. sch, Tufts Col, 42–; visiting physician, Beth Israel Hosp, 42–* Dean, Harvard Med. Sch, 08–12; physician in chief, Carney Hosp, 07–12. Chairman cmt. on therapeut. and pharmacodynamics, U. S. Pharmacopoeia, 30. Ed, 'Oxford Med. and Osler's Practice.' Res. chairman div. med. sciences, Nat. Research Council, 19. A.A; Am. Med. Asn; Asn. Path. and Bact; Am. Physicians (pres, 35); Soc. Exp. Path; Soc. Clin. Invest. (pres, 19); Am. Acad; hon. fel. Royal Col. Physicians; cor. mem. Med-Chirurg. Soc. Edinburgh. Dermoid cysts and teratomata; leucocytotoxins; myeloma; nephritis; clinical problems.

Christian, Prof. Schuyler M(edlock), Agnes Scott College, Decatur, Ga. *Physics.* Decatur, Ga, Sept. 20, 06. B.S, Emory, 27, M.S, 28; A.M, Harvard, 30, Ph.D, 32. Instr. chem, Emory, 27–28; asst, Harvard, 28–32; asst. prof. math, Oglethorpe, 32–33; *prof. physics, Agnes Scott Col, 33–* Southeast. Asn. Physicists; Ga. Acad. Electrolytic polarization with alternating current; viscosity of electrolytes; history of science.

Christians, Prof. William F(lorian), University of Pennsylvania, Philadelphia, Pa. *Geography.* Victor, Colo, Oct. 2, 03. Ph.B, Chicago, 25, senior scholar, 25, M.S, 32, fellow, 32, Ph.D, 38; scholar, Grenoble, 26–27. Instr. *geog,* Syracuse, 32–33; instr. and later *asst. prof, Pennsylvania, 34–* Land utilization in Denver, Colorado.

Christiansen, J(erald) E(mmett), 3456 Ramona Drive, Riverside, Calif. *Irrigation, Agricultural engineering.* Hyrum, Utah, April 9, 05. B.S, Utah Agr. Col, 27; Willard D. Thompson scholar, California, 27–28, M.S, 28, C.E, 35. Junior irrigation engineer, Exp. Sta, California, 28–36, asst. irrigation engineer, 36–42; *irrigation and drainage engineer, regional salinity lab, bur. plant indust, U. S. Dept. Agr, 42–* Consultant, Nat. Resettlement Admin, 36. Civil Eng; Agr. Eng; Geophys. Union; West. Soc. Soil Sci. Irrigation and drainage; water measurement; irrigation structures; irrigation by sprinkling; drainage investigations.

Christiansen, Walter G(ustave Otto), E. R. Squibb and Sons, 17 Columbia Heights, Brooklyn, N. Y. *Organic chemistry.* Cambridge, Mass, Sept. 18, 97. B.S, Harvard, 18. Org. research chemist, Eastman Kodak Co, 18–19; instr. pharmacol, Harvard Med. Sch, 19–26, trop. med, 23–25; *asst. supt. in charge research and control, Brooklyn lab, E. R. Squibb and Sons, 26–* Subcmt, org. arsenicals, Nat. Research Council. Chem. Soc. Chemotherapy; organic arsenicals and antimonials; aromatic hydroxy acids; photographic developers.

Christie, Prof. A(lexander) G(raham), Johns Hopkins University, Baltimore, Md. *Mechanical engineering.* Manchester, Ont, Can, Nov. 19, 80. Grad, Toronto, 01, M.E, 13; D.Eng, Stevens Inst. Tech, 39, Lehigh, 40. Engineer, Westinghouse Machine Co, 01–04; instr. mech. eng, Cornell, 04–05; mech. engineer, Allis-Chalmers Co, 05–07; West. Can. Cement and Coal Co, 07–09; asst. prof. steam eng, Wisconsin, 09–13, assoc. prof, 13–14; *mech. eng, Hopkins,* 14–20, *prof, 20–, director night courses technol; director training for Md, War Man Power Cmn, 42–* Consulting engineer, 22– Chairman, Power Cmn. Alta, Can, 29. Chairman, State Board Registration for Professional Eng. and Land Surveyors, Md; mem. board engineers, Owens River Gorge Project, Calif, 42. Mech. Eng. (manager, 22–25, v. pres, 25, pres, 39); Eng. Educ; Newcomen Soc; hon. mem. Inst. Mech. Eng. Gt. Britain. Steam turbines; gas measurement; steam central stations; public utilities.

Christie, Prof. Amos, 4300 Willow Lane, Chevy Chase, Md. and University of California Medical School, San Francisco, Calif. *Pediatrics.* Eureka, Calif, Aug. 13, 02. B.S, Washington (Seattle), 24; M.D, California, 29; Harvard, 37. Instr. pediat, med. sch, California, 30–35; research assoc, Hopkins, 36–37, asst. visiting pediatrician and obstetrician, med. sch, 36–37; asst. prof. pediat, *med. sch, California,* 37–39, lecturer curricula of pub. health, 38–39, *assoc. prof. pediat, 39–,* acting head dept, 40. Exec. officer, pediat. service, San Francisco Hosp, 31–35, 38–41; pediat. specialist, children's bur, U. S. Dept. Labor, 36–37; asst. director div. med. and health service, Am. Red Cross, 42. Pediat. Soc; Pub. Health Asn; Soc. Pediat. Research. Congenital syphilis; heart conditions in children; bone growth and factors influencing mineralization.

Christie, Arthur W(illiam), California Walnut Growers Association, Los Angeles, Calif. *Agriculture.* San Francisco, Calif, Jan. 2, 92. B.S, California, 15, M.S, 16. Instr. fruit products, California, 16–21, asst. prof, 21–28; *field manager, Calif. Walnut Growers Asn, 28–* Horticultural products; dehydration of fruits, vegetables and nuts.

Christie, Prof. C(larence) V(ictor), McGill University, Montreal, Que, Can. *Electrical engineering.* Couva, Trinidad, B. W. I, Feb. 2, 82. M.A, Dalhousie, 03; B.Sc, McGill, 06. *Prof. elec. eng. and chairman dept, McGill, 25–; consulting engineer.* Elec. Eng. (v. pres, Can, sect, 35–); Eng. Inst. Can; Can. Eng. Standards Asn. (chairman, elec. sect. cmt). Generation and transmission and use of electric power; transmission line voltage regulation and line insulation; cost of production of hydroelectric power; electric furnace operations; dielectric strength of insulating materials.

Christie, Emerson B(rewer), U. S. Department of State, Washington, D. C. *Ethnology.* Marash, Turkey, March 17, 78. A.B, Yale, 01; Harvard, 10; M.P.S, American Univ, 28. Teacher, P. I, 01–04; asst, Bur. Ethnol. Surv, P. I, 04–07, asst. chief div. ethnol, Bur. Science, 07–15; special asst, *U. S. Dept. State,* 18–21, drafting officer, 21–28, *chief translating bur, 28–* The Subanuns of Sindangan Bay.

Christie, Pres. G(eorge) I(rving), Ontario Agricultural College, Guelph, Ont, Can. *Agronomy.* Winchester, Ont, June 22, 81. B.S.A, Toronto, 02; Iowa State Col, 03, hon. Sc.D, 25. Asst. agron, Iowa State Col, 03–05; soils and crops, Purdue, 05–06, assoc. agr. exten, 06–09, supt, 09–28, director, Exp. Sta, 20–28; *pres, Ont. Agr. Col, 28–* Director summer sch. for teachers, Purdue, 12. State food director, Ind, 17–19; asst. to sec'y agr, U. S. Dept. Agr, 18, asst. sec'y, 18–19, mem. cmt. on econ. Supt. Ind. agr. exhibit, Panama Expos, 15; chairman agr. cmt, Ind. Centennial Celebration, 16; supt. Ind. agr. exhibit, Sesqui-Centennial Expos, 26; director, Int. Live Stock Expos, 25–; supt, Int. Grain and Hay Show, Chicago, 19–; sec'y, Deep Waterways Cmn, Ind, 23; chairman,

Midwest Agr. Econ. Research Council, 24; director, World's Grain and Hay Show, 33. U. S. War Labor Policies Board, 18. Land Grant Col. Asn. (v. pres, 23, cmt. on exten. organization and policy, 13–25); Ind. Corn Growers Asn. (sec'y, 06–28); Can. Soc. Tech. Agr. (director, v. pres, 31, pres, 32); Int. Corn Borer Organization (chairman, exec. cmt, 26–28). Agricultural extension; corn shows; selecting, preparing and scoring exhibits; seed corn; farming conditions in Indiana; live stock in the Southwest; control of the European corn borer.

Christie, Dr. Jesse R(oy), East Falls Church, Va. *Zoology.* New Boston, N. H, Sept. 17, 89. New Hampshire, 09–13; B.S. (Agr), Kentucky, 14; M.S, Illinois, 18; Ph.D, George Washington, 34. Instr. zool. and entom, Maryland, 15–16; prof. zool, Fairmount Col, 19–20; assoc. prof, James Millikin, 20–22; assoc. nematologist, *div. nematology, bur. plant indust, U. S. Dept. Agr,* 22–37, *nematologist, 37–* A.A; Soc. Parasitol; Phytopath. Soc; Wash. Acad; Helminth. Soc. Wash. (sec'y, 27–30, pres, 30). Nematology.

Christie, William H(enry), Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. *Astronomy.* Heaton Chapel, Eng, Sept. 21, 96. B.A, British Columbia, 27. Asst, Dom. Observatory, 28–29; *computer and asst, Mt. Wilson Observatory, Carnegie Institution, 29–* Summers, asst, Dom. Astrophys. Observatory, 22–26. Radial velocity; spectroscopic binaries; stellar and nebular photometry; spectrophotometry.

Christman, Prof. Adam A, 1613 Shadford Road, Ann Arbor, Mich. *Physiological chemistry.* Shannon, Ill, Dec. 11, 96. B.S, Grinnell Col, 17; M.S, Illinois, 20, Ph.D, 22. Instr. *biol. chem, med. sch, Michigan,* 22–25, asst. prof, 25–30; *assoc. prof, 30–* Soc. Biol. Chem. Lipase action; purin metabolism; allantoin and uric acid; simple methods for the detection and quantitative determination of carbon monoxide in blood and air.

Christman, Dr. Clarence C(arl), West Hill Road, Colonia, N. J. *Chemistry.* Bellevue, Ohio, Oct. 6, 09. A.B, Ohio State, 31, A.M, 33, Ph.D, 35. Asst. chem, Ohio State, 31–35; Rockefeller Inst; *mem. staff, Merck and Co.* Chem. Soc. Carbohydrates.

Christmann, Dr. Ludwig J(acob), 9 Center Knolls, Bronxville, N. Y. *Chemistry.* New York, N. Y, Jan. 30, 95. B.S, Columbia, 17, A.M, 18; Ph.D, Berlin, 24. Grasselli Chem. Co, 19–22; research chemist, *Am. Cyanamid Co,* 25–33, *director* exp. lab, 33–37, mining chem. lab, 37–41, *director basic nitrogen lab, 41–* A.A; Chem. Soc; fel. Inst. Chem; Deuts. Chem. Gesell. Ore flotation; industrial applications of organic chemistry to specific uses; nitrogen chemistry.

Christofferson, Prof. H(albert) C(arl), Miami University, Oxford, Ohio. *Mathematics.* Racine, Minn, Jan. 5, 94. A.B, Minnesota, 17; A.M, Chicago, 23; Ph.D, Columbia, 33. Teacher, prin. and sch. supt, Minn, 17–23; prof. *math,* Wis. State Teachers Col, Oshkosh, 23–27; instr, Columbia, 27–28; *prof, Miami (Ohio), 28–, director secondary educ, 34–* Summers, teacher, Columbia, 27, 28. Educational consultant, Civilian Aeronaut. Admin, 42. Mem. Educational Policies Cmn, 38–40. A.A; Council Teachers Math. (director, 34–40, pres, 38–40); Math. Asn; Educational Research Asn; Cent. Asn. Sci. and Math. Teachers. Geometry professionalized for teachers; the learning and teaching of geometry; diagnostic and survey tests in computational arithmetic; mastery workbook and diagnostic tests in whole numbers, fractions, decimals, measures and percentage; foundation skills in mathematics and tests.

Christopher, Prof. Everett P(ercy), Rhode Island State College, Kingston, R. I. *Horticulture.* Hamilton, N. Y, May 10, 04. B.S, R. I. State Col, 26, M.S, 30; Ph.D, Cornell, 34. Instr. *hort, R. I. State Col,* 27–33, asst. prof, 33–34, assoc. prof, 34–40, *prof, 40–,* acting asst. dean, 40–42, *v. dean, 42–, exten. horticulturist, 27–, pomologist, Exp. Sta, 40–* Soc. Hort. Sci. Pomology; photosynthesis.

Christopher, Dr. Frederick, Evanston Hospital, Evanston, Ill. or 723 Elm St, Winnetka, Ill. *Surgery.* Cincinnati, Ohio, Aug. 5, 89. B.S, Northwestern, 11; M.D, Hopkins, 15. Asst. prof. *surg, med. sch, Northwestern,* 30–32, *assoc. prof, 32–* Chief surgeon, Evanston Hosp, 33– Asn. Surg. of Trauma; Surg. Asn; West. Surg. Asn; Chicago Surg. Soc. The teaching of surgery.

Christopher, Prof. W(arren) N(ell), Louisiana State University, Baton Rouge, La. *Bacteriology.* Waterloo, Iowa, May 14, 95. B.S, Minnesota, 22; M.S, Louisiana, 28. Instr, Mont. State Col, 21–23; state leader barberry eradication, bur plant indust, U. S. Dept. Agr, 23–24; *asst. prof. bacter, Louisiana, 24–; capt, Sanit. Corps, U. S. Army, 42–* Bacterial stripe diseases of sugar-cane in Louisiana; Staphylococci.

Christy, Dr. Andrew, G-M Laboratories, Inc, 4326 N. Knox Ave, Chicago, Ill. *Physics.* Smyrna, Asia Minor, April 12, 98. B.S, California, 25, Ph.D. 28. Assoc, California, 28–29; instr. physics, Chicago, 29–31; research physicist and later *director research, G-M Labs, Inc, 31–* A.A; Physical Soc. Band spectra; photoelectricity.

Christy, Prof. O(tto) B, Ball State Teachers College, Muncie, Ind. *Biology.* Riley, Ind, Dec. 15, 83. B.S, Illinois, 16; M.S, Cornell, 23; Ph.D, George Peabody Col, 36. Teacher, rural schs, Ind, 03–10, prin, 10–13; asst. instr. biol, Ind. State Nor. Sch, 13–16, prof. *science, Ball State Teachers Col,* 18–31, acting head dept, 31–36, *head dept, 36–* Ind. Acad. History of the development of general biology in the secondary schools of the United States.

Christy, Dr. R(obert) F(rederick), 5427-A University Ave, Chicago, Ill. *Theoretical physics.* Vancouver, B. C, Can, May 14, 16. B.A, British Columbia, 35, M.A, 37; univ. fellow, California, 37–38, Whiting fellow, 40–41, Ph.D, 41. Teaching asst, British Columbia, 35–37; California, 38–40; instr. *physics,* Ill. Inst. Tech, 41–42; *research assoc, Chicago, 42–* Physical Soc. Cosmic rays and nuclear physics.

Chrysler, Prof. M(intin) A(sbury), Rutgers University, New Brunswick, N. J. **Botany.* Berlin, Ont, Can, Aug. 25, 71. B.A, Toronto, 94; fellow, Chicago, 03–04, Ph.D, 04. Asst. bot, Harvard, 04–05, instr, 05–07; assoc. prof, Maine, 07–10, prof, 10–11, biol, 11–23; assoc. prof. *bot, Rutgers,* 23–31, prof, 31–42, *emer. research prof, 42–* Asst, Md. Bot. Surv, 04–06; Marine Biol. Lab, Woods Hole, 04. A.A; Bot. Soc; Torrey Bot. Club (ed); Phila. Bot. Club. Plant morphology; anatomy of ferns and gymnosperms.

Chu, Dr. Lan Jen, Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Kiangsu, Niangsu, China, Aug. 24, 13. B.S, Chiao Tung Univ, 34; M.S, Mass. Inst. Tech, 35, Sc.D, 38. *Staff mem, radiation lab, Mass. Inst. Tech, 42–* Radio Eng; Elec. Eng. Ultra-high-frequency radio.

Chubb, Dr. L(ewis) Warrington, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Engineering.* Ft. Yates, N. Dak, Oct. 22, 82. M.E, Ohio State, 05; Sc.D, Allegheny Col, 33, Pittsburgh, 33. Eng. apprentice, *Westinghouse Elec. and Mfg. Co,* 05–06, research div, materials and process dept, 06–20, manager radio eng. dept, 20–30, *director research labs, 30–* Asst. v. pres. of eng, RCA-Victor Co, N. J, 30. Lamme medal, 34. Del, Int. Electrotech. Cmn, London and Brussels. A.A; Elec. Eng; Radio Eng; Illum. Eng. Soc; Physical Soc; Standards Asn; Franklin Inst. Electricity; mechanics; chemistry; electrochemistry; electric percussive welding; vacuum tube rectifiers; radio; magnetic materials; high voltage and high frequency; vacuum tube inverter; nickel alloy steel transformers; the harmonic analyzer.

Chuck, Dr. F(aw) Y(ap), 457 Tenth St, San Francisco, Calif. *Chemistry.* Kauai, Hawaii, Sept. 25, 00. A.B, 22, Ch.E, 23; China Med. Board fellow, Rockefeller Inst, 24–25; Ph.D, Stanford, 25. Instr. chem, Canton Christian Col, 25–26; asst. prof. org. chem. and dean men, Lingnan Univ, 26–27; research chemist, West. Condensing Co, 27–30; Golden Eagle Milling Co, 30–31; research director, Andersen-Smith Milling Co, 31–37; *consulting chemist, director and owner, Dr. Chuck Research Labs, 37–* Ammono acids; polyanthra-quinonylamines; stabilization of milk powder and vitamin concentrates; preservation of vitamins and colors in dehydrated vegetables; egg preservation; infant food from soy-bean; poultry nutrition; coccidiosis control in fowls; vitamin requirements of fur-bearing animals; insecticide compounds; dehydration processes.

Chucka, Dr. Jos(eph) A(nthony), University of Maine, Orono, Maine. *Agronomy.* Beaver, Wis, March 9, 02. B.S, Wisconsin, 27, M.S, 28, Ph.D, 30. Asst. soils, Wisconsin, 30; assoc. biologist, *Exp. Sta, Maine,* 30–34, *assoc. agronomist, 34–, head dept. agron, univ, 34–* Soc. Agron; Potato Asn. Fertilizer; soils.

Chupp, Prof. Charles, New York State College of Agriculture, Ithaca, N. Y. *Plant pathology.* Millersburg, Ind, June 2, 86. A.B, Wabash Col, 12; Ph.D, Cornell, 16. Asst, Cornell, 12–14, instr, 14–16; acting prof. bot, Wabash Col, 17;

asst. prof. *plant path, N. Y. State Col. Agr, Cornell,* 18–27, *prof,* 27– A.A; Phytopath. Soc. (councilor, 37; v. pres, 39, pres, 40); Mycol. Soc. Vegetable diseases.

Church, Prof. Alonzo, 30 Jefferson Road, Princeton, N. J. ***Mathematics.* Washington, D. C, June 14, 03. A.B, Princeton, 24, Ph.D, 27. Nat. research fellow math, Harvard, 27–28; Göttingen, 28–29; Amsterdam, 29; asst. prof. *math, Princeton,* 29–39, *assoc. prof, 39–* A.A; Math. Soc. (councilor, 39–41); Asn. Symbolic Logic (ed, 'Jour'). Mathematical logic.

Church, Dr. Archibald, Northwestern University Medical School, Chicago, Ill. *Neurology.* Fond du Lac, Wis, 61. Wisconsin; M.D, Col. Physicians and Surg, Chicago, 84; Sc.D, Northwestern, 26. *Prof. nervous and mental diseases, Northwestern, 92–* Neurologist, St. Luke's, Mercy, Wesley and Michael Reese Hosps. Neur. Asn; Am. Med. Asn. Nervous diseases.

Church, C(alvin) G(rant), 148 S. Mission Road, Los Angeles, Calif. *Chemistry.* Charles City, Iowa, Aug. 9, 79. B.S, Md. Agr. Col, 00; M.S, George Washington, 02; Hopkins, 02–03. Asst. chemist, fertilizer and food div, Md. Agr. Col, 00–02; sci. asst. and asst. chemist, sugar lab, U. S. Dept. Agr, 03–14, asst. chemist and assoc. chemist, lab. fruit and veg. chem, bur. agr. chem. and eng, 14–42; *retired.* A.A; Chem. Soc; Agr. Chem; Inst. Food Technol. Sugar products; effect of ethylene and of environment on chemical composition of fruits and vegetables; chemical standards of maturity for fruits and vegetables; sulfuring and drying of fruits; fruit and vegetable utilization; effect of freezing on composition of vegetables.

Church, Dr. Charles F(rederick), E. R. Squibb and Sons, 745 Fifth Ave, New York, N. Y. *Nutrition, Public health.* Deer Lodge, Mont, Oct. 7, 02. B.S, Mont. State Col, 24; M.S, Illinois, 26; M.D, Harvard, 31; Michigan, 38–39. Asst. chemist, State Water Surv, Ill, 24–26; biochemist, Tailby-Nason Co, Boston, Mass, 26–30; research fellow and asst. instr, sch. med, Pennsylvania, 31–35, assoc. pediat, 35–38; senior med. officer, Fed. Trade Cmn, 39–40; *chief med. dept, E. R. Squibb and Sons, 40–* Summer, investigator, Marine Biol. Lab, Woods Hole, 32. Director, Rockefeller Nutrition Fund, 35–38. A.A; Soc. Pediat. Research; Pub. Health Asn; Physiol. Soc. Phila. Public water supplies; vitamins; food values; host resistance.

Church, C(lifford) C(arl), 79 New Montgomery St, San Francisco, Calif. *Geology, Paleontology.* Carman, Okla, Oct. 4, 99. A.B, Oklahoma; A.M, Stanford. Heavy mineral research, Marland Oil Co, San Francisco, 26; *geologist and micropaleontologist, Associated Oil Co, San Francisco, 27–* Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner. (v. pres, 30); Calif. Acad. Living and fossil Foraminifera.

Church, Prof. Earl (Frank), Parish, N. Y. *Geodesy.* Parish, N. Y, Aug. 11, 90. C.E, Syracuse, 11. Field officer, U. S. Coast and Geod. Surv, 11–13; mathematician, U. S. Boundary Cmns, 13–15; geod. computer, U. S. Coast and Geod. Surv, 16; assoc. prof. math. and eng, Pa. Mil. Col, 19–20, prof, 20–23; in charge math. computation, geod. surv. of Hawaiian Islands, U. S. Coast and Geod. Surv, 23–24; asst. prof. applied math, *Syracuse,* 27–30, assoc. prof. *photogrammetry,* 30–39, *prof, 39–* Summers, instr, Columbia, 13–16. Topographer and astronomer, Alexander Hamilton Rice exped, Brazil, 16–17. Am. del, Int. Cong. Surveyors, London, 34. Order of the Silver Palm, France. Lieut, C.Eng, 17–19. Soc. Photogrammetry; Civil Eng; Math. Soc; Math. Asn; Soc. Mil. Eng; Eng. Educ. Aerial photogrammetry; geodetic surveying; surveying and topographic mapping by aerial photography.

Church, Prof. Edwin F(ayette), Jr, 1282 E. 24th St, Brooklyn, N. Y. *Mechanical engineering.* Elmira, N. Y, 79. B.S, Mass. Inst. Tech, 01, M.S, 09. Instr. naval archit. and mech. eng, Lehigh, 03–04; asst. prof. mech. eng. and prof. machine design and construction, West Virginia, 04–18; *prof. mech. eng, Polytech. Inst. Brooklyn, 18–* Mech. Eng; Naval Eng; Eng. Educ. Steam turbines; material handling machinery.

Church, Prof. George L(yle), Brown University, Providence, R. I. *Botany.* Boston, Mass, Dec. 19, 03. B.S, Mass. Col, 25; A.M, Harvard, 27, Ph.D, 28. Teaching fellow *bot,* Harvard, 26–28; instr, *Brown and R. I. Col. Pharmacy,* 28–34, *asst. prof, 34–, curator herbarium, 40–* A.A; Bot. Soc; New Eng. Bot. Club; R. I. Bot. Club (pres, 38–). Cytology and taxonomy of the Gramineae.

Church, Dr. (Harry) Victor, Utah State Agricultural College, Logan, Utah. *Structural geology.* Berwyn, Ill, Feb. 7, 15. A.B, Carleton Col, 36; M.S, Calif. Inst. Tech, 37; Ph.D, Chicago, 40. *Instr. geol, Utah State Col, 40–* Summer, instr, Deep Springs Sch, Calif, 42. Structural geology of the Gros Ventre Range, Wyoming, and of the Preston Quadrangle, Utah-Idaho.

Church, Prof. J(ames) E(dward), 358 Washington St, Reno, Nev. *Meteorology.* Holly, Mich, Feb. 15, 69. A.B, Michigan, 92, 98–99; Ph.D, Munich, 01; LL.D, Nevada, 37. Prof. Latin, *Nevada,* 92–18, *classics,* 18–39, *emer. prof, 39–, observer* meteorol. and climat, *Exp. Sta,* 06–16, *meteorol, 31–,* director, Mt. Rose Weather Observatory, 06–16. In charge Cooperative Snow Surv, Nev, 17–28, adviser, 29– Assoc. meteorologist, Univ. of Michigan Greenland exped, 26–28. Pres, Int. Cmn. Snow and Glaciers. A.A; Meteorol. Soc; Aeroarctic; Geophys. Union (chairman, cmt. on hydrol. of snow, v. pres, hydrol. sect, 36–39, pres, 42–). Forestry; climatology; the conservation, measurement and evaporation of snow; frost and stream-flow forecasting; instruments for the measurement of water content of snow and of snow evaporation; melting of snow.

Church, Prof. James M(arion), 21 Claremont Ave, New York, N. Y. *Organic chemistry.* Worcester, Mass, Sept. 25, 03. A.B, William Jewell Col, 25; fellow, Pa. State Col, 30–33, Ph.D, 33. Asst. chem, William Jewell Col, 23–25; Austin teaching fellow, Harvard, 25–27; instr. chem, Allegheny Col, 27–28; Drexel Inst, 28–30; research chemist develop. and tech. service, Monsanto Chem. Co, 33–40; *asst. prof. chem. eng, Columbia, 40–* Chem. Soc; Chem. Eng; Eng. Educ. Organic chemical processes; synthetic organic intermediates; ozonolysis of unsaturated organic compounds.

Church, Dr. Margaret B(rooks), Lyndon, Vt. *Botany.* Providence, R. I, March 13, 89. A.B, Brown, 12, A.M, 14, Ph.D, 18. Collaborator, bur. plant indust, U. S. Dept. Agr, 13–15, mycologist, bur. chem, 15–28; instr. biol. and head dept, Urbana, 28–38; med. mycologist, Vanderbilt Clinic, New York, 29; abstractor and indexer, 'Biol. Abstracts,' 38–39. A.A; Bot. Soc; Ohio Acad. Plant anatomy and morphology; mycology; mycosis; sugar spoilage; education.

Church, Prof. Phil E(dwards), University of Chicago, Chicago, Ill. *Geography.* Berwyn, Ill, April 8, 02. B.S, Chicago, 23; A.M, Clark, 32, Ph.D, 37. Instr. science, Ill, 25–30, geog. and science, 34–35; geog. and meteorol, Washington (Seattle), 35–37, asst. prof, 37–42; *research assoc, inst. meteorol, Chicago, 42–* Summers, instr, Oceanog. Inst, Woods Hole, 31, 33; asst, Clark, 32; Northwestern, 35; Ocean Labs, Friday Harbor, 37– Geophys. Union; Meteorol. Soc. (councilor, 40–); Asn. Geog; fel. Am. Geog. Soc; Oceanog. Soc. Pacific. Surface temperatures and currents of northeastern Pacific; effects of mountains on climate; relation of ocean surface temperatures to climate; vertical humidity gradient above ocean surface; physics of snow and ice; vertical temperature structure of Lake Michigan.

Church, Prof. (Warren) Randolph, U. S. Naval Academy, Annapolis, Md. *Mathematics.* Mt. Airy, Pa, April 1, 04. A.B, Amherst Col, 26; A.M, Pennsylvania, 30; Ph.D, Yale, 35. Instr, American Univ. Beirut, 26–29; Peddie Sch, Hightstown, N. J, 30–31; Yale, 32–35; *math, U. S. Naval Acad,* 35–39, *asst. prof, postgrad. sch, 39–; lieut, U. S. Naval Res.* A.A; Math. Soc; Math. Asn. New Testament textual criticism; irreducibility in finite fields; lattice theory.

Churchill, Dr. Anna Quincy, 200 Liberty St, Lowell, Mass. *Microscopic anatomy.* Dorchester, Mass, May 31, 84. A.B, Smith Col, 07; A.M, Radcliffe Col, 10; M.D, Tufts Col, 17. Instr. histol, *Tufts Col,* 18–24, *asst. prof. microscopic anat, med. and dental schs, 24–* Teacher, Sargent Sch. Physical Educ, 20–26; lecturer, Forsyth Dental Infirmary, 25–35; orthop. examiner, freshman class, Wellesley Col, 20–36. A.A; Mass. Med. Soc. Microscopic anatomy; embryology.

Churchill, Dr. Edward D(elos), Massachusetts General Hospital, Boston, Mass. *Surgery.* Chenoa, Ill, Dec. 25, 95. B.S, Northwestern, 16, A.M, 17; M.D, Harvard, 20. Surg. intern, Mass. Gen. Hosp, 20–22, surg. res, 22; asst. *surg, Harvard Med. Sch,* 22–23, alumni asst, 23–24, instr, 24–28, assoc. prof, 28–31, *John Homans prof, 31–* Asst. surgeon out-patient dept, Mass. Gen. Hosp, 23–24, asst. visiting surgeon, 27–28, assoc. surgeon, 30–31, chief west surg. service, 31–, consulting surgeon, eye and ear infirmary, 32–; Moseley traveling fellow, Harvard Med. Sch, 26–27; assoc. surgeon and director surg. research, Boston City Hosp, 28–30; senior physician, Rutland

State Sanatorium, 27–; consulting cardiac surgeon, House of Good Samaritan, Boston, 29–; consulting surgeon, North Reading Sanatorium, 32–; tuber. surgeon, Tewksbury State Hosp, 40– Mem. board med. advisers and consultants, Sharon Sanatorium, 36– Mem. subcmt. thoracic surg. and subcmt. burns, div. med. sciences, Nat. Research Council; mem. Am. Board Surg. U.S.A, 17–18; lieut, Med. Res, 24–29. A.A; Surg. Asn; Soc. Clin. Surg; Asn. Thoracic Surg. (pres, 41–); Col. Surg. (governor); Trudeau Soc; hon. mem. Soc. Univ. Surg; Am. Med. Asn; Soc. Clin. Invest; Sanatorium Asn; Halsted Club; New Eng. Surg. Soc; South. Surg. Asn; Boston Surg. Soc; hon. mem. St. Louis Med. Soc; Soc. Argentina de Cirujanos; Int. Soc. Surg. General and experimental surgery.

Churchill, Prof. Edward P(erry), University of South Dakota, Vermillion, S. Dak. *Zoology.* Allerton, Iowa, July 19, 82. A.B, Iowa, 07; fellow, Hopkins, 15–16, Ph.D, 16. Asst. zool, Iowa, 12–13; Hopkins, 13–15; in charge shellfish investigations, Bur. Fisheries, 16–20; asst. prof. *zool, South Dakota,* 20–22, *prof, 22–* A.A; Soc. Zool; Ecol. Soc; S. Dak. Acad. (pres, 34). Nutrition and feeding of fresh-water mussels; gold-fish; distribution of oyster larvae; fish of South Dakota; life history of blue crab, and description of the zoeal stages.

Churchill, H(arry) V(an Osdall), P. O. Box 772, New Kensington, Pa. *Analytical chemistry.* Toledo, Iowa, May 10, 87. Colo. Col, 02–04; Denver, 09–12; A.B, Colo. Teachers Col, 14. Chemist, Am. Beet Sugar Co, 15; Hercules Powder Co, 16–18; *chief chemist, Aluminum Co. of Amer, 19–* C.W.S, U.S.A, 18. Chem. Soc; Soc. Test. Mat; Eng. Soc. West. Pa. Analytical chemistry of aluminum; uses of aluminum in chemical engineering; quantitative spectrography.

Churchill, Prof. Herman R(ichard), Royal Palm Court, 45th and Pine Sts, Philadelphia, Pa. *Oral pathology.* Breda, Holland, Feb. 7, 86. D.D.S, Georgetown, 22; Dr. Med. Dent, Rostock (Germany), 32. Instr, *sch. dentistry, Pennsylvania,* 29–30, asst. prof. *oral path, histopath. and comp. odontol,* 30–38, *prof, 38–, head dept, 30–* Oral pathologist, Am. Oncologic Hosp, 31– A.A; Asn. Path. and Bact; Am. Dental Asn; Asn. Dental Schs; Asn. Cancer Research; Int. Asn. Dental Research. Histopathology; comparative odontology; oral tumors and heterotopic structures; early calcification phenomena during odontogenesis; details of dental tubuli; oral application of the capillaroscope; systemic background of oral disease; odontogenesis in ovarian teratomata.

Churchill, Leonard R(ussell), 353 S. Union Ave, Cranford, N. J. *Chemistry.* Boston, Mass, Nov. 3, 93. B.Ch.E, Northeastern, 16. Chemist, Milton Bradley Co, Mass, 16–18; asst. applied chem, Mass. Inst. Tech, 20–23; *research chemist, Tidewater Oil Co, 23–* Sergt, C.W.S, 18–19. Chem. Soc. Fuller's earth; carbon black; petroleum.

Churchill, Prof. O(mar) O(rlando), State College Station, Fargo, N. Dak. *Agronomy.* Mich, 79. B.S, Mich. State Col; Ph.D, Minnesota, 26. Instr. *agron,* Mich. State Col, 03–04; N. Dak. Col, 04–11; *prof,* Okla. Agr. and Mech. Col, 11–13, dean, 13–15; *N. Dak. Col, 15–* A.A; Soc. Agron. Crops; genetics.

Churchill, Prof. Ruel V(ance), 924 S. Forest Ave, Ann Arbor, Mich. *Mathematics.* Akron, Ind, Dec. 12, 99. B.S, Chicago, 22; M.S, Michigan, 25, Ph.D, 29. Instr. *math, Michigan,* 22–30, asst. prof, 30–38, assoc. prof, 38–42, *prof, 42–* Research, Freiberg, 36–37; visiting lecturer, Wisconsin, 41–42. Reviewer, 'Math. Revs,' 40–; consulting ed. math. series, Int. Textbook Co, 42– Math. Soc; Math. Asn. Mathematical theory of heat conduction; boundary-value problems in partial differential equations of engineering; operational methods.

Churney, Dr. Leon, University of Pennsylvania, Philadelphia, Pa. *Physiology.* Philadelphia, Pa, Dec. 23, 10. A.B, Pennsylvania, 32, Ph.D, 39. Instr. zool, *Pennsylvania,* 34–39, Harrison fellow, 39–40, *instr. zool, 40–* Mem. corp, Marine Biol. Lab, Woods Hole. Assoc. Soc. Zool; Physiol. Soc. Phila. Cell division; physico-chemical properties of the nucleus; physiology of the cell cortex.

Chute, Prof. Hettie M(orse), 70 Townsend St, New Brunswick, N. J. *Botany.* North Platte, Nebr, Oct. 6, 88. B.A, Acadia, 16; M.A, Toronto, 18; Ph.D, Cornell, 29. Instr. *bot,* Acadia, 26–27; asst, Cornell, 28–29; instr, *N. J. Col. for Women, Rutgers,* 29–31, *asst. prof, 31–* Bot. Soc. Morphology and anatomy of the Achene.

Chute, Prof. Newton E(arl), University of Missouri, Columbia, Mo. *Geology.* Fairmont, Minn, Sept. 19, 07. A.B, Montana, 30; M.S, Minnesota, 31; Ph.D, Harvard, 38. Instr. geol, Mich. State Col, 31–32; Princeton, 36–38; rodman and junior geologist, U. S. Geol. Surv, 38–39; *asst. prof. geol, Missouri, 39–* Summers, party chief, Newfoundland Geol. Surv, 37; rodman and junior geologist, U. S. Geol. Surv, 39– Economic geology; ore deposits of southeastern Newfoundland; upper contact of the Sudbury, Ontario, nickel intrusive; geology of southeastern Massachusetts.

Chute, Walter H(arris), John G. Shedd Aquarium, Chicago, Ill. *Ichthyology.* Boston, Mass, April 12, 91. Boston high schs. Sec'y, Boston Aquarium Soc, 16–25; director, Boston Aquarium, 20–25; assoc. director, *Shedd Aquarium,* 25–28, *director, 28–* Fisheries Soc; Soc. Ichthyol. and Herp. Public aquarium work; care and breeding of fish; nomenclature of fish.

Chylinski, Dr. S(tanislas), 3 E. 75th St, New York, N. Y. *Physics.* Poznan, Poland, Oct. 16, 95. B.S, Cooper Union, 20; A.M, Columbia, 22; Ph.D, Chicago, 26. Asst, Columbia, 20–22; physicist, West. Elec. Co, 22–24; head dept. physics and math, Veltin Sch, New York, 24–25; consulting physicist, 26–34; physicist, E. I. du Pont de Nemours and Co, 34–39; *consulting physicist, 39–* Physical Soc. X-rays; radiation.

Ciccolella, Dr. Joseph A, 600 20th St, N.W, Washington, D. C. *Hydraulics.* Albany, N. Y, Sept. 9, 09. M.E, Rensselaer Polytech, 31, fellow, 31–34, D.M.E, 34. Examiner, State Civil Service Cmn, N. Y, 34–35; engineer, Fred. Page Construction Co, New York, 35–36; field service, U. S. Lighthouse Service, 36–39; lieut, *U. S. Coast Guard,* 39–42, *lieut. commander, 42–* Refuse incineration; hydraulic theory; aids to navigation.

Cinnamon, Prof. Carl A(rthur), 1717 Rainbow Ave, Laramie, Wyo. *Physics.* Elmira, Ill, Aug. 16, 01. A.B, Wyoming, 25, A.M, 30; summers, Colorado, 25, Chicago, 26, 30; Ph.D, Iowa, 34. Instr. *physics, Wyoming,* 25–34, asst. prof, 34–37, assoc. prof, 37–41, *prof, 41–* Asst, Iowa, 31, 32. Physical Soc; Asn. Physics Teachers. Growth conditions for single and optically mosaic crystals of zinc; Weidemann-Franz ratio of single crystal zinc.

Ciocco, Dr. A(ntonio), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Biostatistics.* Columbus, Ohio, May 1, 08. Sc.D, Naples, 30, Hopkins, 35. Asst. otology, Hopkins, 30–33, instr, 33–35, assoc, 35–36; asst. statistician, U. S. Pub. Health Service, 36; Milbank Mem. fund fellow, 36–37; assoc. biol, sch. hygiene and pub. health, Hopkins, 37–39, lecturer, 39–41; *biometrician, nat. inst. health, U. S. Pub. Health Service, 40–* Consultant, child hygiene, U. S. Pub. Health Service, 36– Ed, 'Child Develop. Abstracts,' 40– Soc. Research Child Develop; Asn. Physical Anthrop; Statist. Asn. Audiometry; otology; somatological constitution; genetics; anthropometry; human biology; child hygiene.

Cioffi, Paul P(eter), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Cervinara, Italy, June 29, 96. B.S, Cooper Union, 19, E.E, 22; A.M, Columbia, 24. *Mem. tech. staff, Bell Tel. Labs, 17–* Fel. Physical Soc; Elec. Eng; Soc. Metals. Magnetic measurements; magnetic materials; pure iron of high magnetic permeability; the magnetic circuit.

Circle, Dr. S(idney) J(oseph), Regional Soybean Industrial Products Laboratory, Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, Urbana, Ill. *Physical chemistry.* Chicago, Ill, Oct. 22, 13. B.S, Chicago, 34, Ph.D, 41; M.S, Illinois, 39. Asst. chem, Chicago, 35–36; pharmacol, Illinois, 36–37; junior chemist, *regional soybean products lab, bur. agr. chem. and eng, U. S. Dept. Agr,* 37–40, *asst. chemist, 40–* Chem. Soc. Soybean protein; electrophoresis.

Cislak, Dr. F(rancis) E(dward), Reilly Tar and Chemical Corp, Indianapolis, Ind. *Organic chemistry.* Chicago, Ill, Oct. 3, 05. B.S, Chicago, 25, M.S, 26; Ph.D, Northwestern, 29. *Director research, Reilly Tar and Chem. Corp.* Chem. Soc; Chem. Eng; Soc. Chem. Indust; Wood Preservers Asn; London Chem. Soc. Coal tar chemistry; insecticides; fungicides.

Cissel, Prof. James H(arlan), University of Michigan, Ann Arbor, Mich. *Structural engineering.* Goodland, Kans, June 24, 89. B.S, Purdue, 10. Struct. draftsman and checker, bridge dept, Kans. City Terminal Ry, 10–13; draftsman, chief engineer's office, Santa Fe Coast Lines, 13–14; designer, bridge dept, Kans. City Terminal Ry, 14–15; instr.

civil eng, *Michigan*, 15–16, asst. prof, 16–18, assoc. prof. *struct. eng*, 18–28, *prof, 28–*; engineer bridge design, State Highway Dept, Mich, 33–36. Gen. consulting practise, 16. Civil Eng. Structures.

Clack, Dr. K(arl) D(avid) Gordon, 2009 Rodd St, Midland, Mich. *Physical chemistry.* Peitaiho, North China, Aug. 21, 13. B.S, Alma Col, 35; Ph.D, Cornell, 40. Asst. chem, Cornell, 35–39; *research chemist, Dow Chem. Co, 39–* Chem. Soc. Phase rule study of polyiodides; colloid chemistry of agricultural insecticides; chemical engineering process development; recovery of magnesium compounds from brine.

Clack, Prof. Robert W(ood), 209 W. Downie St, Alma, Mich. *Mathematics.* Clear Lake, Iowa, June 9, 86. A.B, Grinnell Col, 07, A.M, 08; Chicago; Peking Union Language Sch; Peking Union Theol. Sem; Michigan. Instr, high sch, Iowa, 08–10; prof. math, Chihli Provincial Col, Paotingfu, China, 10–13; gen. sec'y, Y.M.C.A, Paotingfu, 13–24; *prof. math. and astron, Alma Col, 24–, registrar, 28–* Summers, instr, Michigan, 38, 39. Math. Soc; Math. Asn; Mich. Acad. Chinese classical poetry; ancient Chinese music; Far Eastern history and art.

Claff, C. Lloyd, 5 Van Beal Road, Randolph, Mass. *Protozoology, Physiology.* Perry, N. Y, Oct. 15, 95. A.B, Bowdoin Col, 18. Research assoc. biol, grad. sch, Brown, 38; *research fellow surg, Harvard Med. Sch, 42–; pres-treas, M. B. Claff and Sons, Inc; v. pres, Randolph Trust Co.* A.A; Biol. Photog. Asn. Migration-dilution apparatus for the sterilization of protozoa; cytology of Colpoda cucullus; glass electrode for determination of hydrogen ion activity; growth of ciliates; feeding mechanisms and nutrition of Bresslaua; nuclear reorganization in Colpodidae.

Claflin, Pres. Albert W(hitman), 180 Medway St, Providence, R. I. *Organic chemistry.* Providence, R. I, Jan. 31, 85. Ph.B, Brown, 06, M.S, 07; Ph.G, R. I. Col. Pharmacy, 09, Ph.C, 10, Phar.D, 12. *Prof.* org. chem, *R. I. Col. Pharmacy*, 12–29, *chem. and head dept, 29–*, v. pres, 36–37, *pres, 37–* Del, U. S. Pharmacopoeia, 30. Pharmaceut. Asn; R. I. Pharmaceut. Asn. Pharmacy.

Clague, Dr. John A(lbert), 4523 Maple Ave, Bethesda, Md. *Nutrition, Chemistry.* Seattle, Wash, July 19, 05. B.S, Washington (Seattle), 29; fellow, Mass. Col, 29–31, M.S, 31, Ph.D, 35. Asst, Mass. State Col. and Exp. Sta, 31–36, asst. prof. hort. mfrs, 36–40; chemist, Nat. Canners Asn, Washington, D. C, 40–42; *lieut, subsistence div, Navy Dept, 42–* Chem. Soc; Inst. Food Technol; Soc. Bact. Microbiology of foods; vitamin content of fruits and vegetables; food preservation; fisheries technology.

Clair, Miles N(elson), 6 Surrey Road, Newton, Mass. *Engineering.* Lickdale, Pa, Sept. 7, 00. B.S, Drexel Inst, 21; M.S, Mass. Inst. Tech, 23. In charge testing materials labs, Drexel Inst, 23–25; *v. pres. and treas, Thompson and Lichtner Co, Boston, 25–* Mem. joint cmt. plain and reinforced concrete, Am. Soc. Civil Eng. and Am. Soc. Testing Materials. Assoc. Civil Eng; Soc. Test. Mat; Concrete Inst. (mem. advisory cmt, chairman, special cmt. on specifications, chairman, cmt. ready mixed concrete; director, 37); Standards Asn. (cmt. reinforced gypsum); Boston Soc. Civil Eng. Effect of sulfur on concrete; properties of nailing concretes; effect of calcium oxychloride on cement; properties of cinder concrete; effect of temperature on concrete; placement of concrete under water; technology of concrete.

Clancy, Dr. C(larence) W(illiam), University of Oregon, Eugene, Oregon. *Genetics.* Cincinnati, Ohio, Sept. 18, 05. B.S, Illinois, 30, M.S, 32; Ph.D, Stanford, 40. Teaching fellow, Calif. Inst. Tech, 34–36; asst. biol, Stanford, 36–39, asst, 39–40; *instr. zool, Oregon, 40–* A.A; Genetics Soc; Genetic Asn; Asn. Physical Anthrop. Developmental genetics; ovary transplants in Drosophila; development of eye color in Drosophila.

Clancy, Prof. Edward P(hilbrook), Hamilton College, Clinton, N. Y. *Nuclear physics.* Beloit, Wis, July 3, 13. B.S, Beloit Col, 35; A.M, Harvard, 37, Ph.D, 40. Instr. *physics*, Harvard, 37–43; *asst. prof, Hamilton Col, 43–* Physical Soc. Induced radioactivity.

Clanton, Dr. B(enjamin) Reid, Callaway Mills, LaGrange, Ga. *Colloidal chemistry.* Lancaster, S. C, Nov. 2, 12. B.S, Furman, 36; Ph.D, North Carolina, 39. Junior investigator, textile foundation, North Carolina, 37–39; assoc. prof. chem, Baylor, 39–40; *research chemist, Callaway Mills, 40–* A.A; Chem. Soc; Asn. Textile Chem. and Colorists; Indust. Fibers Soc. (exec. cmt). Flotation of colloidal suspensions.

Clapp, Prof. Alfred Lester, Kansas State College, Manhattan, Kans. *Agronomy.* Ft. Scott, Kans, Sept. 16, 89. B.S, Kans. State Col, 14, M.S, 34; Minnesota, 37–38. Supt. agron. farm, Kans. State Col, 14–15; cattle ranch, Nunn, Colo, 15–16; teacher, high sch, Colo, 16–17; agr. agent, Morris County, Kans, 17–19; agr. specialist, land dept, N. Y. Coal Co, Columbus, Ohio, 19–20, asst. county agent leader, *Kans. State Col*, 20–22, dist. agent county agents, 23–28, exten. agronomist, 28–31, asst. agronomist, 31–34, assoc. agronomist, 34–39, *agronomist, 39–, in charge cooperative exps, agr. dept, 31–*, acting asst. to dean agr, 37, *prof. agron, 39–* Supt. farm crops dept, Kans. State Fair, 29–38, agr. bldg, 38–40; farm crops judge, Okla. State Fair, 37–42; sorghum judge, Int. Grain and Hay Show, 35–42. Soc. Agron; Kans. Crop Improv. Asn. (sec'y, 35–); Int. Crop Improv. Asn. (sec'y-treas, 35–39; pres, 39–41). The testing of new crops or varieties and the increase and distribution of new crop seed; seed certification; application of pure seed laws; Kansas corn tests; commercial fertilizers for potatoes in the Kansas River Valley; liming Kansas soils.

Clapp, Dr. C(lyde) A(lvin), 513 N. Charles St, Baltimore, Md. *Ophthalmology.* Chatham, Ohio, May 29, 80. M.D, Maryland, 02. *Assoc. prof.* ophthal, Baltimore Med. Col, 10–29; *clin. ophthal, sch. med, Hopkins, 29–; prof. ophthal, Maryland, 29–* A.A; Ophthal. Soc; fel. Col. Surg; Am. Med. Asn; Med. and Chirurg. Faculty Md. Autolytic changes of the crystalline lens; tuberculous changes in the eye; cellular changes in the anterior capsule following injury to crystalline lens; etiology and treatment of cataract.

Clapp, Dr. Daniel B(rennan), Williams College, Williamstown, Mass. *Organic chemistry.* Ottawa, Ont, Can, Jan. 28, 12. A.B, Montana, 32; Ph.D, Mass. Inst. Tech, 35. Research assoc, org. chem, Mass. Inst. Tech, 35–39; *instr. chem, Williams Col, 39–* A.A; Chem. Soc. Carcinogenic hydrocarbons; pyrolysis of organometallic compounds; radioactive indicators in study of organic reactions; reaction of thiophene derivatives with maleic anhydride.

Clapp, Dr. Earle H(art), U. S. Forest Service, Washington, D. C. *Forestry.* North Rush, N. Y, Oct. 15, 77. Cornell, 02–03; A.B, Michigan, 05, hon. Sc.D, 28. *U. S. Forest Service, 05–*, in charge forest management, 07–08, assoc. dist. forester, southwest. dist, 08–11, forest inspector silviculture, 11–15, asst. forester in charge research, 15–35, *assoc. chief, 35–*, acting chief, 40–42. Fel. Soc. Foresters (v. pres, 16–34); cor. mem. Soc. Forestry, Finland. Forest economics.

Clapp, F(rederick) G(ardner), 50 Church St, New York, N. Y. *Geology.* Boston, Mass, July 20, 79. B.S, Mass. Inst. Tech, 01. Instr. geol, Mass. Inst. Tech, 01–02; asst. geologist, U. S. Geol. Surv, 02–08; *consulting geologist and petrol. engineer, 08–* Managing geologist, Associated Geol. Eng, 11–18; chief geologist, Petrol. Eng, 18–27. A.A; Geol. Soc; Asn. Petrol. Geol; Am. Geog. Soc; Min. and Metal. Eng; Geophys. Union; Iranian Inst; Geol. Soc. Wash; Royal Geog. Soc; Inst. Petrol. London; Soc. géol. de France; Royal Cent. Asian Soc. Petroleum and natural gas; geology of archeology.

Clapp, Dr. G(race) L(ucretia), Windsor Locks, Conn. *Botany.* Windsor, Conn, Feb. 25, 81. A.B, Smith Col, 05, A.M, 07; Ph.D, Chicago, 11. Teacher, high sch, Ind, 11–14; bot. and bacter, Smith Col, 14–19; prof, Downer Col, 21–26, director dept. occupational therapy, 22–26; prof. bot. and bacter, Vassar Col, 26–27; Milwaukee-Downer Col, 27–41. A.A; Bot. Soc; Phytopath. Soc; Torrey Bot. Club. Plant morphology and pathology.

Clapp, James K(ilton), 7 Craigie Circle, Cambridge, Mass. *Radio engineering.* Denver, Colo, Dec. 30, 97. B.S, Mass. Inst. Tech, 23, M.S, 26. Instr. elec. eng, Mass. Inst. Tech, 23–28; *engineer, Gen. Radio Co, Cambridge, 28–* Ensign, U.S.N.R, 17–19. Radio Eng; assoc. Acoustical Soc. Communications; measurements; frequency standards and measurements; instrument design for frequency and radio frequency measurements.

Clapp, Dr. Leallyn B(urr), Brown University, Providence, R. I. *Inorganic chemistry.* Paris, Ill, Oct. 13, 13. B.Ed, East. Ill. State Teachers Col, 35; A.M, Illinois, 39, Ph.D, 41. *Instr.* math, high sch, Ill, 35–38; *org. chem, Brown, 41–* Chem. Soc. (sec'y-treas, R. I. sect). Stereochemistry of complex inorganic compounds; the nitroparaffins.

Clapp, Prof. Robert T(emple), R.F.D. 2, Stafford Springs, Conn. *Forestry.* Cambridge, Mass, Oct. 3, 08. A.B, Pennsylvania, 29; M.F, Yale, 33. Instr. applied forestry, sch. forestry, *Yale,* 34–37, instr. in charge Yale forests, 37–39, *asst. prof. forestry and director Yale forests, 39–* A.A; Soc. Foresters; Conn. Forest and Park Asn. (director, 40–42; v. pres, 42–); Conn. Wildlife Federation (councilor, 38–). Silviculture.

Clapp, Prof. W(illia)m Howard, California Institute of Technology, Pasadena, Calif. *Mechanical engineering.* Cleveland, Ohio, July 4, 74. M.E, Minnesota, 01. Instr. math, Macalester Col, 97–98; supt. and design engineer, Sherman Eng. Co, Salt Lake City, 05–09; supt, Nev-Goldfield Reduction Co, 09–10; instr. *machine design and mechanism, Calif. Inst. Tech,* 11–13, asst. prof, 13–14, assoc. prof, 14–18, *prof, 18–* Consulting engineer. A.A; Mech. Eng. (chairman, Los Angeles sect, 37); Soc. Metals. Oil well engineering; materials and processes.

Clapper, Dr. Thomas W(ayne), Martinsville, N. J. *Organic chemistry.* McKean, Pa, Oct. 15, 15. B.S, St. Vincent Col, 37; M.S, Pa. State Col, 38, Ph.D, 42. *Research chemist,* pharmaceut. div, Calco chem. div, Am. Cyanamid Co, 40–43; *Panel Chem. Corp, 43–* Chem. Soc. Sulfa drugs; organic arsenic and antimony compounds.

Clara, Dr. Feliciano M, Bureau of Plant Industry, Manila, P. I. *Plant pathology.* Macabebe, Pampanga, Luzon, P. I, June 9, 98. B. Agr, Philippines, 20; scholar, Cornell, 28–32, Ph.D, 32. Asst. plant inspector, Bur. Agr, P. I, 20–23, plant inspector, 23–26, asst. plant pathologist, 26–28; *acting chief plant path. sect, Bur. Plant Indust, P. I, 33–* Sec'y, plant path. and mycol. sect, biol. div, Nat. Research Council, P. I, 33–, plant pest and disease control sect, 33– Phytopath. Soc; Philippine Sci. Soc; Pan-Pacific Asn. (sec'y, Pan-Pacific Sci. Club). Diseases of tobacco, mango, cotton, potato, cacao, cauliflower and onion; diseases of plants caused by green fluorescent bacteria; culture of Philippine mushrooms.

Clark, Dr. Ada R(anney), 175 Serpentine Road, Tenafly, N. J. *Bacteriology.* Cresskill, N. J. B.S, Columbia, 07, A.M, 16, Ph.D, 30. *Instr. bacter, col. physicians and surg, Columbia, 26–* A.A; Soc. Exp. Biol; Asn. Immunol. Cellular immunity.

Clark, Prof. A(lbert) H(enry), Hadley, Mich. *Chemistry.* Marengo, Ill, 71. Ph.G, Illinois, 04; B.S, Michigan, 15, M.S, 25. Instr. and asst. prof. *chem, Illinois,* 06–19, assoc. prof, 19–20, prof, 20–40, *emer. prof, 40–,* acting dean *col. pharmacy,* 38–40, *emer. acting dean, 40–* Pharmaceut. Asn; London Chem. Soc; Deuts. Chem. Gesell. Pharmaceutical and medical chemistry; alkaloidal assays; examination of drug and medicinal products.

Clark, Alex(ander), 1008 W. Sixth St, Los Angeles, Calif. *Paleontology.* Great Falls, Mont, Dec. 5, 02. A.B, Whittier Col, 26; B.S, Calif. Inst. Tech, 28, M.S, 32. Paleontologist, *Shell Oil Co,* Los Angeles, 29–36, *geologist, 36–* A.A; Asn. Petrol. Geol; Paleont. Soc. (sec'y, Pacific coast branch, 35). Invertebrate paleontology, especially mollusks; structural geology.

Clark, Dr. Alfred, Battelle Memorial Institute, Columbus, Ohio. *Physical chemistry.* Beverly, Mass, Aug. 5, 09. B.S, Purdue, 30; M.S, Mich. State Col, 32; Ph.D, Illinois, 35. Research chemist, N. Am. Rayon Corp, 35–36; research assoc, *Battelle Mem. Inst,* 36–37, *research engineer, 37–* Chem. Soc. Catalysis; plastics.

Clark, A(lva) B(enson), 33 Mountain Ave, Maplewood, N. J. *Electrical engineering.* Clay Center, Ohio, Feb. 15, 90. B.E.E, Michigan, 11. With Am. Tel. and Tel. Co, 11–34; *director* transmission develop, *Bell Tel. Labs,* 34–40, *systems develop, 40–* Del, Comité consultatif int, Tel. and Int. Electro-Tech. Cmn. meetings, Belgium and Scandinavia, 30. A.A; fel. Elec. Eng. (v. chairman, communication group, N. Y. sect, 32); fel. Acoustical Soc. Telephone and telegraph systems.

Clark, Dr. Arnold F(ranklin), University of California, Berkeley, Calif. *Nuclear physics.* Madison, Wis, April 27, 16. A.B, Swarthmore Col, 37; Wisconsin, 37–38; A.M, Indiana, 39, fellow, 40–41, Ph.D, 41. Asst. math. and physics, Wisconsin, 37–38; *physics,* Indiana, 38–41; *research fellow, California, 41–* Electric and magnetic fields in a cyclotron; radiations from radioactive gold, tungsten and dysprosium.

Clark, Prof. Arthur J(ohn), East Lansing, Mich. *Chemistry.* Chicago, Ill, Nov. 23, 80. A.B, Wisconsin, 05. Instr. *chem, Mich. State Col,* 06–09, asst. prof, 09–14, assoc. prof, 14–16, *prof. and head dept, 16–* A.A; Chem. Soc. (councilor, Mich. State Col. sect, 17, 18, 28, 38, chairman, 19, 31, 36, 40); fel. Inst. Chem.

Clark, Dean Arthur L(ewis), Queen's University, Kingston, Ont, Can. *Physics.* Worcester, Mass, Feb. 19, 73. B.S, Worcester Polytech, 94; Ph.D, Clark, 04. Instr. math. and physics, Bridgton Acad, 95–96; Worcester Acad, 98–00; instr. *physics,* Bates Col, 00–01, *prof,* 01–07; *sch. mining, Queen's (Can), 07–, dean faculty applied science, 19–* Royal Soc. Can. Dielectric properties of oils; angle of lag; viscosity of ether; critical constants of air; contact resistance of carbon; capillary electrometer; polarization capacities; probability; ratio of specific heats and gases.

Clark, Dr. Arthur R(andolph), 95 Abbotsford Road, North Plainfield, N. J. *Chemistry.* Bethlehem, Pa, Nov. 3, 11. B.S, Franklin and Marshall Col, 34; M.S, Pa. State Col, 35, Ph.D, 38. Asst, Pa. State Col, 34–38; *research chemist, Hanovia Chem. and Mfg. Co, 38–* Chem. Soc. Metallo-organics of precious metals as applied to china and glass.

Clark, Prof. Arthur W(illiam), 219 High St, Geneva, N. Y. *Chemistry.* Glover, Vt, Aug. 22, 79. B.S, Vermont, 04. Asst. chemist, Exp. Sta, Pa. State Col, 04–05; *N. Y. Exp. Sta, Geneva,* 05–14, assoc. chemist, 15–28, *prof. chem. and chief in research, 29–* Chem. Soc; Agr. Chem; Asn. Feed Control Officials (sec'y, 18–27, v. pres, 29, pres, 30). Analytical chemistry; inspection of fertilizers and feeding stuffs.

Clark, Austin H(obart), 1818 Wyoming Ave, Washington, D. C. ***Zoology.* Wellesley, Mass, Dec. 17, 80. A.B, Harvard, 03. Acting naturalist, 'Albatross,' 06; hon. collaborator, *U. S. Nat. Museum,* 08–09, asst. curator div. marine invert, 09–20, *curator div. echinoderms, 20–* Mem. board advisers, Va. fisheries lab, Col. William and Mary. Knight, Order of Dannebrog, Denmark; aide-de-camp to H. S. H. the Prince of Monaco, 21. Mem. long range planning cmt, South. Asn. Science and Indust. and Va. Acad. Science. Press relations officer, Am. Sci. Cong, Dept. State, 40. A.A. (director, press service, 28–); Soc. Nat; Ornith. Union; Asn. Geog; Geophys. Union (v. chairman, 33–); South. Asn. Sci. and Indust. (exec. cmt); Biol. Soc. Wash. (past sec'y); Entom. Soc. Wash; Wash. Acad. (pres. and v. pres); Cambridge Entom. Club (past sec'y); fel. Royal Geog. Soc. General biology; oceanography; echinoderms; insects; crinoids; birds of northern Asia and the West Indies; Lepidoptera; classification of Peripatus; relation of science to the press and to radio.

Clark, Prof. B(enjamin) F(ranklin), Wallace Drive, Sandy Beach, Grand Island, N. Y. *Organic chemistry.* Buffalo, N. Y, Nov. 12, 04. B.S, Buffalo, 26; Ph.D, Mass. Inst. Tech, 31. Asst. chem, Mass. Inst. Tech, 27–31; asst. prof, Birmingham-Southern Col, 31–35, assoc. prof, 35–42. A.A; Chem. Soc. (sec'y-treas, Ala. sect, 35, v. chairman, 36, chairman, 37); Ala. Acad. (sec'y, div. chem, physics and math, 32, chairman, 35, treas, acad, 35–). Antiseptic and physiological properties of derivatives of furfural; iodine content of foods; chemical composition of pollens.

Clark, Dr. Bertha May, Newtown, Pa. *Physics.* Baltimore, Md, May 3, 78. A.B, Goucher Col, 00; Bryn Mawr Col, 00–01; Alumnae Asn. fellow, Göttingen, 03–04, South. Women Asn. fellow, 04–05; fellow, Pennsylvania, 05–07, Ph.D, 07. Instr. physics, Goucher Col, 01–03; head dept. science, high sch, Phila, 07–23. Advisory board, 'Gen. Science Quarterly,' 16–27. A.A; fel. Physical Soc. General science texts.

Clark, Dr. B(erton) S(tanley), 1355 Portola Drive, San Francisco, Calif. *Chemistry.* North Russell, N. Y, Sept. 26, 88. B.S, St. Lawrence, 11, Sc.D, 27. Asst. chemist, research dept, Gen. Chem. Co, L. I, N. Y, 11–12, works chemist, Camden, N. J, 12–15; research chemist, *Am. Can Co,* 15–26, 27–33, manager research, *Pacific dist,* 33–42, *assoc. director research, 42–* Director west. branch lab, Nat. Canners Asn, 26, mem. lab. exec. cmt, 27–37; Sci. Advisory Cmt, 37– Del. Nat. Nutrition Conf. for Defense, 41. Chem. Soc; Inst. Food Technol; Dairy Industries Asn. Canning; tin plate standardization; technical methods of chemical analysis; corrosion resistance of tin plate for fruit products.

Clark, Prof. Brent G, University of Alabama, University, Ala. *Mathematics.* Nashville, Tenn, Nov. 10, 98. A.B, Vanderbilt, 21, B.E, 26; A.M, Alabama, 31; Ph.D, Illinois,

35. Asst. math, Vanderbilt, 23-26; salesman, Am. Blower Co, 26–27; *asst. prof. math, Alabama,* 27– Asst, Illinois, 33–34. Properties of the Pascal configuration.

Clark, Prof. Bruce Lawrence, University of California, Berkeley, Calif. *Paleontology.* Humboldt, Iowa, May 29, 80. B.S, Pomona Col, 08; M.S, California, 09, fellow, 09–11, Ph.D, 13. Asst. *paleont, California,* 10–11, instr. and *assoc. prof, 11–* A.A; Paleont. Soc; Geol. Soc; Calif. Acad. The fauna of the San Pablo group (upper Miocene) of middle California, and of Oligocene and Eocene of California; marine invertebrates; coast range stratigraphy; tectonics; radiolarian faunas of Cretaceous and Tertiary of California.

Clark, Dr. Burton, 34 Leslie Ave, Utica, N. Y. *Geology, Geography.* Utica, N. Y, April 16, 84. B.S, Syracuse, 07, M.S, 08; Ph.D, Hopkins, 12. Teacher, high sch, Washington, D. C, 08–10; econ. geologist, Latin-Amer, 12–14, 19–24; asst. prof, Syracuse, 14–18; Minnesota, 18–19; assoc. prof. geog. and geol, South Carolina, 25–30; visiting prof, Ind. State Teachers Col, Terre Haute, 31–32. Research, Library Cong, 30–31. Summers, Vt. Geol. Surv, 08; N. Y. Geol. Surv, 09–11; U. S. Geol. Surv, 11–12; prof, Southern California, 26. Am. Geog. Soc. Paleontology; stratigraphic, structural and economic geology and physiographic geography; map projections; percentage equal area projection for world maps; geocyclometry; a universal alphabet for the geography of phonetics and for interlanguage map standardization.

Clark, Dr. B(yron) B(ryant), Albany Medical College, Albany, N. Y. *Physiology, Pharmacology.* Temple, Texas, April 5, 08. A.B, Baylor, 30; M.S, Iowa, 32, Ph.D, 34. Asst. biochem, Iowa, 30–31; asst. pathological chemist, Gen. Hosp, Univ. Iowa, 31–34, assoc. pathological chemist, 34–36; instr. *physiol. and pharmacol, Albany Med. Col, Union (N. Y),* 36–39, asst. prof, 39–40, *assoc. prof, 40–* Consultant pharmacologist, Albany Hosp, 37– A.A; Soc. Pharmacol; Research Council Problems Alcohol. Insulin and carbohydrate metabolism; alcohol metabolism; liver function tests; effects of drugs on blood and blood pigments; pharmacology of methyl and ethyl alcohol; aniline; antipyretic-analgesic drugs; gastric antacids; evipal; syntropan; atabrine.

Clark, Charles A(ndrew), Corn-Borer Laboratory, Box 150, Moorestown, N. J. *Entomology.* Cos Cob, Conn, July 23, 03. B.S, Conn. Agr. Col, 27. Insect parasite investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 27–28, Japan, 29–31, asst. entomologist, *corn-borer lab,* Monroe, Mich, 32–34, Melrose Highlands, Mass, 34–35, *in charge, Moorestown, 35–* Entom. Soc. Amer; Asn. Econ. Entom; Cambridge Entom. Club. Biological control of insects.

Clark, Dr. Charles C(icero), Mathieson Alkali Works, Inc, Niagara Falls, N. Y. *Chemistry.* Columbus, Ohio, Jan. 15, 02. B.Ch.E, Ohio State, 24, A.M, 29, Ph.D, 31. Chemist, Pure Oil Co, 24–28; asst. chem, Ohio State, 28–31; research chemist, Procter and Gamble Co, 31–34; research chem. engineer, du Pont Rayon Co, 34–37; *research chemist, Mathieson Alkali Works, Inc, 37–* Chem. Soc. Petroleum refining; carbohydrate oxidations and reactions with alkalies, fats, oils and soaps; synthetic detergents; viscose rayon; chlorination; organic nitrogen compounds; resins and plastics.

Clark, Prof. C(harles) E(rwin), Bradley Polytechnic Institute, Peoria, Ill. *Mathematics.* Rochester, N. Y, Jan. 23, 10. A.B, Rochester, 30; M.S, Brown, 33; Princeton, 36–37; Ph.D, Cornell, 38. Instr. *math,* Rochester, 38–39; *asst. prof,* Purdue, 39–43; *Bradley Polytech, 43–* Math. Soc. Combinatorial topology; statistics; projective geometry.

Clark, Dr. Cha(rle)s F(rederick), 4158 Central Ave, Riverside, Calif. *Horticulture.* Glover, Vt, Aug. 13, 73. B.S, Vermont, 97; M.S.A, Cornell, 07, Ph.D, 09. Asst. agronomist, Exp. Sta, Cornell, 06–07, asst. plant breeding, 07–10; asst. agronomist, *bur. plant indust, U. S. Dept. Agr,* 10–20, assoc. horticulturist, 20–36, horticulturist, 36–41, *collaborator, 41–* A.A; Genetic Asn; Potato Asn; Bot. Soc. Wash. Potato breeding and selection.

Clark, Dr. Charles K(ittredge), Quaker Chemical Products Co, Norristown, Pa. *Organic chemistry.* Berkeley, Calif, Oct. 15, 06. A.B, Stanford, 28, A.M, 29; Ph.D, Florida, 40. Research chemist, physical chem. dept, Exp. Sta, Hercules Powder Co, 29–31; Shell Develop. Co, Calif, 31–32; U. S. Naval Stores Sta, Fla, 32–37; asst. naval stores, Florida, 37–40; *research chemist,* Citrus Exp. Sta, Florida, 40–42; *Quaker Chem. Products Co, 42–* Chem. Soc. Ammono sulfoxylic acid; vapor catalytic oxidation of pinene to maleic anhydride; production of alcohols and polymers from olefins; improvements in the production and uses of naval stores and other pine tree products.

Clark, Prof. C(larence) C, 10 Sheridan Square, New York, N. Y. *Physics.* Owensboro, Ky, Aug. 2, 94. B.S, Kentucky, 17; M.S, Chicago, 24; Ph.D, N. Y. Univ, 32. Prin, high schs, Ky, 20–26; instr. physics, *N. Y. Univ,* 26–29, *gen. science,* 29–32, asst. prof, 32–40, *prof, 40–, chairman dept. science, sch. commerce, 34–* Research scientist, E. E. Free Lab, 32–40; biologist, Rainbow Bridge-Monument Valley exped, 34–37. A.A; Illum. Eng. Soc; N. Y. Elec. Soc. Sound motion pictures in teaching; industrial uses of ultra-violet radiation; college science teaching for non-science majors.

Clark, Dr. Claude L(ester), Timken Roller Bearing Co, Canton, Ohio. *Metallurgy.* Saginaw, Mich, March 6, 03. B.S.E, Michigan, 25, M.S.E, 26, Detroit Edison fellow, 26–28, Ph.D, 28. Asst. investigator, dept. eng. research, Michigan, 28–29, assoc. investigator, 29–31, research engineer, 31–40; *research metal. engineer, Timken Roller Bearing Co, 40–* Soc. Metals; Min. and Metal. Eng; Soc. Test. Mat. Properties of metals at elevated temperatures; development of ferrous alloys; stainless steels; calorizing.

Clark, C(yril) B(ackus), 32 Walbrooke Road, Scarsdale, N. Y. *Chemistry.* North Russell, N. Y, June 19, 87. B.S, St. Lawrence, 08, M.S, 10. Research dept, Gen. Chem. Co, 10–29; *in charge dept. of patents and abstracts, Am. Cyanamid Co, 29–* Chem. Soc; Chem. Eng; Chemists' Club. Heavy chemicals; patents and patent litigation.

Clark, Dr. Daniel E(cke), Armour Research Foundation, 35 W. 33rd St, Chicago, Ill. *Physics.* Chicago, Ill, Oct. 30, 08. B.S, Northwestern, 29, fellow, 29–30, E.E, 30, fellow, 32–33, M.S, 33, Catherine White scholar, 33–34, Ph.D, 35. Asst. physics, Northwestern, 33–35; indust. physicist, Robert W. Hunt Co, Chicago, 35–37; physicist acoustical research, Associated Elec. Labs, 37–43; *industrial research physicist, Armour Research Foundation, 43–* Assoc. Radio Eng; West. Soc. Eng. Industrial physics; electrical discharge in gases.

Clark, Prof. D(aniel) G(rover), Cornell University, Ithaca, N. Y. *Plant physiology.* Ithaca, N. Y, Aug. 20, 00. B.S, Cornell, 29, Ph.D, 36. Instr. *bot, Cornell,* 29–36, acting asst. prof, 36–39, *asst. prof, 39–* Bot. Soc; Soc. Plant Physiol. (chairman teaching cmt, 39–). Photosynthesis; enzyme activity; hormones and vitamins.

Clark, Dr. Dean (Alexander), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Medicine.* St. Paul, Minn, Feb. 7, 05. A.B, Princeton, 27; B.A, Oxford, 29, B.Sc, 30; M.D, Hopkins, 32. Nat. research fellow med, med. col, Cornell, 34–35; house physician, Phipps Clinic, Hopkins Hosp, 35–37; Trudeau Sanitarium, 38; mem. survs. med. care, Good Will and Twentieth Century Funds, 38–39; surgeon, div. pub. health methods, nat. inst. health, U. S. Pub. Health Service, 39–42; *chief hosp. sect, Office Civilian Defense, 42–* General, social, economic and administrative aspects of medical services; medical care of civilians injured by enemy action.

Clark, Dr. Donald S(herman), California Institute of Technology, Pasadena, Calif. *Physical metallurgy.* Springfield, Mass, Dec. 27, 06. B.S, Calif. Inst. Tech, 29, M.S, 30, Ph.D, 34. Research engineer, Riverside Cement Co, Calif, 29; teaching fellow *mech. eng, Calif. Inst. Tech,* 29–34, instr, 34–37, *asst. prof, 37–* Consulting physical metallurgist, Indust. Research Labs, Los Angeles, 31–37. Mech. Eng; Soc. Test. Mat; Soc. Metals (chap. chairman, 36; trustee, 39); Foundrymen's Asn; Welding Soc; British Inst. Metals. Metallography; impact testing; wear testing; rare metals.

Clark, Dr. Earl P(erry), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Portland, Oregon, Aug. 25, 92. M.S, Iowa, 23, Ph.D, 24. Fellow and asst. mem, Rockefeller Inst, 16–20; assoc. technologist, Bur. Standards, 20–22; asst. org. chem, Iowa, 22–24; research chemist, Alberta, 24–26; Interstate Cottonseed Crushers Asn, 26–29; *senior chemist, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–* A.A; Chem. Soc; Soc. Biol. Chem. Organic chemistry; biochemistry; chemistry of physiologically active vegetable products, carbohydrates and endocrine glands.

Clark, Edgar R(aymond), U. S. Hoffman Machinery Corp, 219 Lamson St, Syracuse, N. Y. *Chemistry.* Cleveland, Ohio, Jan. 10, 96. A.B, Yale, 17; M.S, Pittsburgh, 22. Asst. chemist, Bur. Standards, 17–19; chemist, Standard Textile Prod-

ucts Co, 19–21; *indust. fellow, Mellon Inst, 21–; mem. staff, U. S. Hoffman Machinery Corp.* Chem. Soc. Bleaching; dry cleaning; filtration of machine tool coolants.

Clark, Dr. Edward L(ee), 2427 S. Wall St, Joplin, Mo. *Mining geology.* Springfield, Mo, Jan. 23, 08. B.S, Drury Col, 29; M.S, Iowa, 31; Ph.D, Missouri, 41. Asst. geol, Iowa, 29–31; Missouri, 31–32; prof. and chairman dept, Drury Col, 32–43; *regional tech. adviser mining equipment div, War Production Board, 42–* Mining geologist, Compania Unificada, Potosi, Bolivia, 35–36. Summers, geologist, Mo. Geol. Surv, 37–41. Min. and Metal. Eng; Mo. Acad. Stratigraphy.

Clark, Prof. E(dward) L(ester), 619 Emerson St, Evanston, Ill. *Psychology.* White Hall, Ill, Sept. 25, 95. A.B, DePauw, 20; A.M, Northwestern, 22, Ph.D, 25. Asst. director personnel, *Northwestern, 22–30, director admissions, 27–, assoc. prof. psychol, 30–* A.A; assoc. Psychol. Asn. College personnel problems.

Clark, Eleanor Linton (Mrs. Eliot Round Clark), University of Pennsylvania, Philadelphia, Pa. *Anatomy.* Washington, Pa, Dec. 15, 88. A.B, Smith Col, 09; A.M, Washington and Jefferson Col, 10; Hopkins, 11–14. *Private investigator, dept. anat,* Hopkins, 11–14; Missouri, 14–22; Georgia, 22–26; *sch. med, Pennsylvania, 26–* Instr, Missouri, 18. A.A; Asn. Anat. Development of lymphatics; growth and reactions of living cells and tissues.

Clark, Elias Treat, 1233 E. 88th St, Seattle, Wash. *Forestry.* Woodbridge, Conn, Sept. 1, 86. Ph.B, Yale, 07, M.F, 08. Forest asst, U. S. Forest Service, 08–09, dept. forest supervisor, 09–10; supt, Construction Standard Ry. and Timber Co, 10–11; assoc. prof. forestry, Washington (Seattle), 11–12; timber-valuator, U. S. Treasury Dept, 22–24; prof. forestry, Washington (Seattle), 24–28; consulting logging engineer, 29–38; *sec'y-manager, Pacific Northwest Loggers Asn, 38–* Soc. Foresters. Lumbering; forest mensuration; logging engineering.

Clark, Dr. Eliot R(ound), University of Pennsylvania, Philadelphia, Pa. ***Anatomy.* Shelburne, Mass, Nov. 13, 81. A.B, Yale, 03; M.D, Hopkins, 07; Sc.D, Washington and Jefferson Col, 40. Asst. *anat,* Hopkins, 07–08, instr, 08–11, assoc, 11–14; *prof,* Missouri, 14–22; med. dept, Georgia, 22–26; *Pennsylvania, 26–, head dept.* Trustee, Marine Biol. Lab, Woods Hole, 30– Am. Asn. Anat. rep, Nat. Research Council, 40–43. A.A; Asn. Anat. (exec. cmt, 16–18; sec'y-treas, 38–42, 43–); Am. Med. Asn; Physiol. Soc; Col. Physicians Phila; Physiol. Soc. Phila. (pres, 30–32). Development and reaction of lymphatic vessels, blood vessels, connective tissue cells, wandering cells and bone; formation of first adventitial (Rouget) cells of blood capillaries; regeneration of blood and lymphatic capillaries; contractility of blood capillaries; lymphatic capillaries in edema; reactions of blood-vascular and lymphatic endothelium to extravascular substances; the insertion of double-walled transparent chamber in the ears of mammals; growth and behavior of living tissue covering wound healing, growth, activity and regeneration.

Clark, Dr. Ernest D(unbar), 826 Skinner Bldg, Seattle, Wash. *Food chemistry and technology.* Boston, Mass, May 4, 86. A.B, Harvard, 08; A.M, Columbia, 09, univ. fellow, 09–10, Ph.D, 10. Asst. chem, Harvard, 07–08; instr. biochem, Columbia, 10–12; med. col, Cornell, 12–13; investigator fish and fish products, U. S. Dept. Agr, 14–19, food chemist and asst. to chief bur. chem, 17–19; *director northwest. branch, Nat. Canners Asn, 19–; manager, Asn. Pacific Fisheries, 21–* Research scholar, N. Y. Bot. Garden, 12. A.A; Chem. Soc. (assoc. ed, 'Chem. Abstracts,' chairman, Puget Sound sect, 25); fel. Inst. Chem; Soc. Biol. Chem. Proteins of fish; plant oxidases; poisonous fungi; fish in cold storage; food value of fish; iodine in the salmons; decomposition products; fish in the diet; life history of salmons; distribution and foreign trade of canned foods; technology of salmon canning.

Clark, Prof. Fay G(oodcell), State University of Montana, Missoula, Mont. *Forestry.* San Bernardino, Calif, Sept. 13, 84. Occidental Col; A.B, Michigan, 11, M.S. (Forestry), 14. Forest examiner, U. S. Forest Service, 13–18, forest supervisor, 19–22; assoc. prof. forestry, Montana, 22–30; Iowa State Col, 30–31; *prof. forest management, forest sch, Montana, 31–* War work, Y.M.C.A, 19. Soc. Foresters. Forest engineering.

Clark, Dr. F(rances) H(urd) (Mrs. R. L. Dietzold), Western Union Telegraph Co, 60 Hudson St, New York, N. Y. *Physical metallurgy.* Glasgow, Del, Oct. 9, 98. A.B, Syracuse, 21; M.S, Mass. Inst. Tech, 22, Sc.D, 26. Asst, Mass. Inst. Tech, 21–26; *metallurgist, West. Union Tel. Co, 26–; consulting engineer, Frankford Arsenal.* Min. and Metal. Eng; Soc. Metals. Non-ferrous metallurgy; copper alloys.

Clark, Dr. Frances N(aomi), California State Fisheries Laboratory, Terminal Island, Calif. *Zoology.* Platte Co, Nebr, 94. A.B, Stanford, 18; A.M, Michigan, 24, Ph.D, 25. *Fisheries research, bur. marine fisheries, State Div. Fish and Game, Calif,* 21–22, *26–* A.A; Soc. Ichthyol. and Herp; Calif. Acad. California fishes; life history of sardines and other fishes; economic fisheries problems.

Clark, Dr. Francis E(ugene), U. S. Department of Agriculture, Greenville, Texas. *Bacteriology.* Fairbury, Nebr, March 4, 10. A.B, Colorado, 32, fellow, 32–36, A.M, Ph.D, 36. Junior bacteriologist, *bur. plant indust, U. S. Dept. Agr,* 36–37, asst. bacteriologist, 37–38, *assoc. bacteriologist, 38–* A.A; Soc. Agron; Soil Sci. Soc; Soc. Bact; Kans. Acad. Taxonomy and morphology of bacteria; soil microbiology.

Clark, Dr. F(rancis) M(atthew), 726 S. Foley St, Champaign, Ill. *Bacteriology.* Augusta, Ill, Sept. 26, 00. B.S, Illinois, 23, M.S, 26, Ph.D, 33. Asst. soil fertility, *Illinois,* 23–25, soil biol, 25–29, *bacter,* 29–33, instr, 33–37, assoc, 37–39, *asst. prof, 39–* Summers, research dairy bacteriologist, 29, asst, Inst. Am. Meat Packers, 30. Soc. Bact. Organisms involved in the spoilage of canned food products; food bacteriology; problems in yeast growth and fermentation.

Clark, Dr. F(rank) H(oward), 22227 Nona Ave, Dearborn, Mich. *Plant breeding.* Bridgton, Maine, May 19, 02. B.S, Maine, 24; M.S, Mich. State Col, 26; A.M, Harvard, 32, Ph.D, 34. Instr. farm crops, Mich. State Col, and asst. plant breeder, Exp. Sta, 26–31; instr. genetics, Harvard, 34; research assoc, lab. vert. genetics, Michigan, 34–37; instr. biol. and agr, Edison Inst. Tech, 37–41; *research chemist and botanist, Ford Motor Co, 41–* Genetics Soc; Bot. Soc. Mammalian genetics; plant breeding; eugenics.

Clark, F(rank) M(arshall), 12 Concord Parkway, Pittsfield, Mass. *Physical chemistry.* Peekskill, N. Y, June 28, 95. B.S, Wesleyan, 17, M.S, 18. Instr, Wesleyan, 18–19; Allegheny Col, 19–20; Princeton, 20–22; Lafayette Col, 22–23; research chemist, *Gen. Elec. Co,* 23–40, *asst. tech. director, Pittsfield lab, 40–* Chemist, Barrett Co, 19. C.W.S, U.S.A, 18. A.A; Chem. Soc; Physical Soc; Soc. Test. Mat; Elec. Eng; Electrochem. Soc. Electrical insulation.

Clark, Frank R(inker), Ohio Oil Co, Tulsa, Okla. *Geology.* Grantsville, Utah, March 14, 81. B.S, Utah, 10. Geologist, S. Pearson and Son, Ltd, Mex, 10–11; U. S. Geol. Surv, 11–19; chief geologist, petrol. explor, W. Va, 19–23; Mid-Kans. Oil and Gas Co, 23–34; chief geologist and director, Marathon Oil Co, 34–36; *v. pres, Ohio Oil Co, 36–* Director, Ohio-Mex. Oil Corp, S. Amer, 29. A.A; Geol. Soc; Asn. Petrol. Geol. (sec'y-treas, 31, pres, 33); Tulsa Geol. Soc. (pres, 30). Stratigraphy, structure and geology of fuels.

Clark, Prof. Friend E(benezer), West Virginia University, Morgantown, W. Va. *Chemistry.* New Martinsville, W. Va, Aug. 21, 76. B.S, West Virginia, 98; Ph.D, Hopkins, 02; Berlin, 08; Sc.D, W. Va. Wesleyan Col, 41. Instr. chem, West Virginia, 02–03; indust. chem, Pa. State Col, 03–05; *prof. chem,* Cent. Univ. of Ky, 05–14; *West Virginia, 14–, head dept, 19–* Summer, prof, West Virginia, 03. A.A; Chem. Soc; fel. London Chem. Soc. Organic chemistry.

Clark, G(eorge) Houghton, Natural History Museum, Stanford University, Calif. *Ichthyology.* Virginia City, Mont, Aug. 27, 05. A.B, Stanford, 27, A.M, 29. Asst, *State Div. Fish and Game, Calif,* 26–29, state fisheries lab, 29–33, *supervising fisheries biologist, 33–* Fisheries biology.

Clark, Prof. George L(indenberg), University of Illinois, Urbana, Ill. ***Chemistry.* Anderson, Ind, Sept. 6, 92. A.B, DePauw, 14, Sc.D, 37; M.S, Chicago, 14, Ph.D, 18. Instr. chem, DePauw, 14–16; prof. physical chem, Vanderbilt, 19–21; nat. research fellow, Harvard, 21–24; asst. prof. applied chem. research, Mass. Inst. Tech, 24–27; assoc. prof. *chem, Illinois,* 27–28, *prof, 28–* Div. ed, 'Radiology'; assoc. ed, 'Biodynamica.' Grasselli medal, 32. A.A; Chem. Soc. (chairman, div. gen. and physical chem, 27; div. cellulose chem, 39); fel. Physical Soc; Soc. Test. Mat; Inst. Chem; Radiol. Soc. N. Amer; Electrochem. Soc. X-rays; physical and analytical chemistry; spectroscopy; photochemistry; metallography; structures of materials; electron microscopy.

Clark, Dr. Guy W(endell), Lederle Laboratories, Pearl River, N. Y. *Biochemistry, Pharmacology.* Keene, N. H, May 25, 87. A.B, Colo. Col, 12, A.M, 14; Ph.D, California, 18. Instr. chem, Colo. Col, 12–16; control chemist, West. Meat Co, 18–19; chemist, Cutter Biol. Labs, 19; asst. prof. pharmacol, California, 19–27; pharmacologist, *Lederle Labs*, 27–40, *tech. director, 40–* Soc. Biol. Chem; Soc. Exp. Biol. Liver extract for intramuscular injection.

Clark, Dr. Harold E(ugene), Pineapple Research Institute, Honolulu, Hawaii. *Plant physiology.* Sunderland, Mass, Feb. 21, 06. B.S, Mass. Col, 28; M.S, Rutgers, 31, Ph.D, 33. Nat. research fellow, Yale and Conn. Exp. Sta, 33–35; assoc. biochemist, *Exp. Sta, Pineapple Research Inst*, 35–39, *biochemist, 39–* Chem. Soc; Soc. Plant Physiol. Absorption and assimilation of nitrogen by plants; organic acids in plants; reproduction of pineapple.

Clark, Prof. Harold W(illard), Pacific Union College, Angwin, Calif. *Ecology.* Melbourne Ridge, Que, Can, Nov. 6, 91. B.S, Pacific Union Col, 22; A.M, California, 33. *Prof. biol, Pacific Union Col, 22–* Director, Field Nature Sch, 29– A.A; Ecol. Soc; Cooper Ornith. Club. Science and religion; biotic association in northwest California; creationism versus evolutionism; genes and genesis; ministry of nature.

Clark, Dr. Harry, Harvard University, Cambridge, Mass. *Physics, Biophysics.* Roxbury, N. Y, June 2, 85. B.S, N. Y. Univ, 07, M.S, 08; A.M, Harvard, 11, Ph.D, 14; fellow, France, 14. Asst. physics and math, N. Y. Univ, 05–07; instr. physics, Stevens Inst. Tech, 08–09; Harvard, 11–17; Radcliffe Col, 14–17; prof, Victoria Col, New Zealand, 17–19; assoc. prof, Oberlin Col, 19–20; assoc. mem, Rockefeller Inst, 20–29; research assoc. biophys, Stanford, 29–31; acting asst. prof, Williams Col, 31–32; instr. *physics, Harvard*, 32–34, research assoc, 34–42, *lecturer, 42–* Physical Soc; Optical Soc; Wellington Philos. Soc. Longitudinal vibrations in wires; vibrations of bowed strings; deep sea temperature; radioactivity; x-ray spectra; biological effect of x-rays; technique of x-ray measurements.

Clark, Dr. Helen M(errill), 235 E. 22nd St, New York, N. Y. *Anatomy, Endocrinology.* Providence, R. I, Aug. 14, 06. A.B, Mt. Holyoke Col, 27; fellow, Columbia, 32–33, A.M, 34, Ph.D, 35. *Instr,* Dana Hall, 27–31; anat, Columbia, 31–33; *biol, Hunter Col, 34–* Summer, instr, Bryn Mawr Col, 30. Pituitary-gonad relationship.

Clark, Dr. H(erbert) A(nthony), 64 Brighton St, Rochester, N. Y. *Physics.* Darlington, Wis, June 20, 75. B.S, Kansas, 98; fellow, Nebraska, 03–05, A.M, 05; Ph.D, Columbia, 13. Instr. physics, Syracuse, 05–07, asst. prof, 07–10, assoc. prof, 10–13, prof, 13–19; *physicist, Taylor Instrument Companies, 19–* Asst, Columbia, 08–09, Barnard lecturer, 09–10. A.A; assoc. Physical Soc. Heat radiation; spectrophotometry; temperature measurement; properties of glass.

Clark, Dr. Herbert C(harles), Apt. 1252, Panama, Panama. *Medicine.* Economy, Ind, Nov. 11, 77. Earlham Col; M.D, Pennsylvania, 06. Intern, hosp, Pennsylvania, 06–07; Pa. Hosp, 07–09; pathologist, Board Health Lab, Ancon, 09–22; lab. and prev. med. dept, United Fruit Co, 22–28; *director, Gorgas Mem. Lab, Panama, 29–* Consultant to U. S. Sec'y War, 41. Summer, intern, Children's Seashore Home, Atlantic City, 06. Pres, Nat. Malaria Cmt, 36; mem. advisory board, Antivenin Inst. Amer; board directors, Gorgas Mem. Inst. Walter Reed medal, 40. U.S.A, 17–19. A.A; Am. Med. Asn; Soc. Parasitol; Soc. Trop. Med. (councilor, 32, pres, 37); Asn. Path. and Bact; Acad. Trop. Med. (councilor, pres, 42); Med. Asn. Isthmian C. Z. (past pres, v. pres. and sec'y-treas); hon. mem. Nat. Med. Asn. Panama. Human and veterinary medicine; malaria; amoebiasis; piroplasmosis; relapsing fever; trypanosomiasis; syphilis; incidence of tumors and congenital variations found at autopsy; snake census of Central America.

Clark, Prof. H(ubert) L(yman), Museum of Comparative Zoology, Cambridge, Mass. ***Zoology.* Amherst, Mass, Jan. 9, 70. A.B, Amherst Col, 92; Ph.D, Hopkins, 97; Sc.D, Olivet Col. (Mich), 27. Instr. biol, Amherst Col, 97–99; prof, Olivet Col. (Mich), 99–05; asst. invert. zool, *museum comp. zool, Harvard*, 05–11, *curator* echinoderms, 11–28, *marine invert. and assoc. prof. zool, 28–* Acting prof, Williams Col, 20–21; research assoc, Carnegie Institution, 29–30; acting assoc. prof, Stanford, 36; investigator, U. S. Fish Cmn, 99, 02. A.A; Soc. Nat; Ornith. Union; Soc. Ichthyol. and Herp; Boston Soc. Nat. Hist. Embryology, taxonomy, morphology and distribution of echinoderms; pterylography of birds; variation in snakes.

Clark, Prof. Hugh, Des Moines Still College of Osteopathy, 722 Sixth Ave, Des Moines, Iowa. *Embryology.* Pawling, N. Y, April 15, 14. A.B, Clark, 34; Ph.D, Michigan, 41. Teaching asst. zool, Michigan, 35–39; *prof. physiol, Des Moines Still Col. Osteopathy, 39–* Iowa Acad. Embryology of hemipenis in North American colubrid snakes; influence of environmental factors on degree on homogamy in the earthworm.

Clark, J(acob) A(llen), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Tower City, N. Dak, June 9, 88. B.S.A, N. Dak. Col, 10; M.S, Minnesota, 23. Sci. asst, cereal investigations, *bur. plant indust, U. S. Dept. Agr*, 11–14, asst. agronomist, *west. wheat investigations*, 14–18, agronomist in charge, 18–31, *senior agronomist, 31–* A.A; Soc. Agron; Genetic Asn. The breeding of drought, smut and rust resistant hard red spring and durum wheat varieties of high quality.

Clark, Prof. James C(ameron), University of Arizona, Tucson, Ariz. *Electrical engineering.* Ossian, Iowa, July 28, 82. B.S. (E.E), Iowa State Col, 07, E.E, 17; M.S. (E.E.), Harvard, 12. Instr, Case, 09–11; asst. prof. and assoc. prof. *elec. eng*, Stanford, 12–24; *prof, Arizona, 26–* High voltage research, Gen. Elec. Co. and Westinghouse Elec. and Mfg. Co. Elec. Eng; Eng. Educ. High voltage phenomena; engineering education.

Clark, Dr. James d'A(rgaville), Institute of Paper Chemistry, Appleton, Wis. *Pulp and paper technology.* Beith, Scotland, Jan. 21, 01. B.Sc, Capetown, 18; B.Sc, London, 22, Sir Robert Blair fellow, 25–26; Ph.D, Lawrence Col, 41. Chief chemist, Bowater's Paper Mills, Ltd, England, 26–30; develop. engineer, Mead Corp, Ohio, 30–32; tech. director, Scott Paper Co, Pa, 32–35, eng. and tech. manager, 35–39; *research assoc, inst. paper chem, Lawrence Col, 41–; major, Quartermaster Corps, U. S. Army, 42–* Tech. Asn. Pulp and Paper Indust. (chairman Del. Valley sect, 37; chairman testing div, 38–); Can. Pulp and Paper Asn; Inst. Mech. Eng, London; Papermakers Asn. Gt. Britain and Ireland (sec'y pulp evaluation cmt, tech. sect, 27–30, paper testing cmt, 28–30). Fundamental properties of pulp and paper.

Clark, J(ames) L(ippitt), American Museum of Natural History, New York, N. Y. *Natural history.* Providence, R. I, Nov. 18, 83. R. I. Sch. Design; hon. Sc.D, W. Va. Wesleyan Col, 33. Animal sculptor, Am. Museum Nat. Hist, 02–08; from manager to president, Akeley Camera Co, 17–28; asst. to the director *in charge preparation and exhibition, Am. Museum Nat. Hist*, 23, *v. director, 31–; special consultant, Wright Field, 43–* Pres, James L. Clark Studios, Inc. and James L. Clark Indust. Exhibits, Inc. Co-leader Dugmore-Clark exped, Africa, 08; N'goro Crater exped, 10; Clark exped, N. British Columbia, 25; Morden-Clark Asiatic exped, 26; Carlisle-Clark exped, Africa, 28; O'Donnell-Clark exped, Africa, 31; Fleischmann-Clark Indo-China exped, 36; McConnell-Clark West. exped, 37; McConnell-Clark Mountain Lion exped, 39. Speyer Mem. prize, Nat. Acad. Design, 30. Am. Geog. Soc; Soc. Mammal; fel. N. Y. Zool. Soc; N. Y. Acad. Exploration; hunting; big game; taxidermy.

Clark, Dr. Janet H(owell), University of Rochester, Rochester, N. Y. *Physiology, Physics.* Baltimore, Md, Jan. 1, 89. A.B, Bryn Mawr Col, 10; A.M, Hopkins, 12, Ph.D, 13. Helen Schaeffer Huff fellow, Bryn Mawr Col, 13–14, lecturer physics, 14–15, Sarah Berliner fellow, 15–16; instr, Smith Col, 16–17; asst. path, Hopkins, 17–18, instr. physiol, sch. hygiene and pub. health, 18–20, assoc, 20–23, assoc. prof, 23–35, lecturer, 35–38; *prof. biophys. and dean col. women, Rochester, 38–* A.A; Physiol. Soc; Physical Soc; Optical Soc; Illum. Eng. Soc. Spectroscopy; biological effect of light and x-rays.

Clark, Dr. J(efferson) H(amer), Maple Ave. and Washington Lane, Wyncote, Pa. *Pathology.* Philadelphia, Pa, Dec. 10, 90. A.B, Haverford Col, 11; M.D, Hopkins, 15. Director lab, Samaritan Hosp, 22–29; assoc. clin. path, sch. med, Temple, 22–29; *director labs, Phila. Gen. Hosp, 29–; assoc. path, grad. sch. med, Pennsylvania, 30–* Consultant, Phila. Inst. Med. Research; Frederick Douglas Mem. Hosp; Rush Hosp. Capt, M.R.C, 18–19. A.A; Soc. Clin. Path; Soc. Bact; Am. Med. Asn; fel. Col. Physicians; Physiol. Soc. Phila; fel. Col. Physicians Phila; Path. Soc. Phila. (v. pres, 38, pres, 39). Clinical pathology; experimental radium implantations with clinical applications; general and special pathology; experimental spinal anesthesia and coronary injection; biological effects of thymus and pineal extract.

Clark, Dr. Joe H(aller), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* Nashville, Ark, Nov. 26, 13. A.B, Texas, 35, A.M, 37; Solvay Process Co. fellow, Illinois, 39–40, Ph.D, 40. Tutor chem, Texas, 35–37; asst, Illinois, 37–39; *research chemist,* Eastman Kodak Co, 40–42; *Am. Cyanamid Co, 42–* Chem. Soc. Keto-ethers; synthetic antimalarials; chemistry of marihuana; synthesis of photographic and pharmaceutical chemicals.

Clark, Dr. John, Carnegie Museum, Pittsburgh, Pa. *Vertebrate paleontology.* Chicago, Ill, July 26, 09. B.S, Illinois, 31; M.S, Pittsburgh, 32; A.M, Princeton, 34, Ph.D, 35. Assoc. prof. geol, Texas Tech, 37; instr, Colorado, 37–39; *assoc. curator vertebrate paleont, Carnegie Museum, 39–* Paleont. Soc. Tertiary sedimentation; Oligocene mammalian faunas.

Clark, Prof. J(ohn) C(harles), Michigan State College, East Lansing, Mich. *Physics.* Shelby, Ohio, Sept. 16, 03. A.B, Ohio Wesleyan, 25; M.S, Chicago, 27; Ph.D, Stanford, 35. Instr. physics, Lehigh, 27–29; Stanford, 30–36; mem. staff, U. S. Dept. Interior, 36–37; instr. *physics, Mich. State Col,* 37–40, asst. prof, 40–41, *assoc. prof, 41–; capt, Ordnance Dept, U. S. Army, Aberdeen Proving Ground, 42–* Physical Soc. X-rays; Compton effect; absolute x-ray intensity measurements; absorption coefficient of columbium; electrometer tube circuit; evaporation of metals; continuous x-ray intensities.

Clark, Prof. John D(ustin), Albuquerque, N. Mex. *Chemistry.* Nashua, N. H, June 23, 82. B.S, New Hampshire, 06, M.S, 07; Ph.D, Stanford, 14; Columbia. Asst. prof. *chem, New Mexico,* 07–08, assoc. prof, 08–13, *prof. and head dept, 13–,* dean grad. sch, 19–25, dean men, 25–29. Summers, California, 10, 12. Director, Southwest Presbyterian Sanatorium and Hosp; Maytag Lab. Research in Tuber. Pres, State Board Examiners in Basic Sciences, N. Mex. Mem. jury awards, Pan-Pacific Expos. Assoc. mem, Naval Consulting Board, 17–19. A.A. (pres, southwest. div, 30, 31); Chem. Soc; Min. and Metal. Soc; Min. Cong; Southwest. Conservation League (sec'y); N. Mex. Asn. Sci. (past pres). Enrichment of copper sulfid ores; waters of the southwestern United States.

Clark, Prof. John R(oscoe), Columbia University, New York, N. Y. *Mathematics.* Bloomfield, Ind, Aug. 18, 87. A.B, Indiana, 12; Ph.D, Columbia, 25. *Teacher math, Lincoln Sch, Teachers Col, Columbia, 19–,* prin, high sch. div, 29–39, acting director, 40–41, assoc. prof. *educ, Teachers Col,* 28–41, *prof, 41–* Assoc. prof, sch. educ, N. Y. Univ, 27–28. Ed, 'Math. Teacher,' 19–25. Soc. Adv. Educ; Educational Research Asn; Council Teachers Math; N. Y. Acad. Psychology of learning; psychological and curriculum studies in mathematics.

Clark, Dr. J(oseph) D(uBose), 206 W. State St, Trenton, N. J. *Physical chemistry.* Lynchburg, S. C, April 29, 94. B.S, Clemson Col, 16; M.S, Syracuse, 26, Ph.D, 31. Chemist, C. F. Mayes, S. C, 16; Am. Zinc Co, Tenn, 17; Armour Fertilizer Co, Ga, 17; chemist and inspector, Dept. Agr, Commerce and Indust, Columbia, S. C, 18–19; private enterprise, 20–22; instr, Syracuse, 22–29; research chemist, Firestone Tire and Rubber Co, 29–30; research, Syracuse, 30–32; research chemist, Kalamazoo Veg. Parchment Co, 32–34; chief chemist, Lambertville Rubber Co, 34–35; *develop. chemist, Hercules Powder Co, 35–* C.Eng, U.S.A, 18, 2nd lieut. Gaseous state equilibrium; gaseous acetic acid; free energy of formation of ethyl acetate; paper converting; lacquer development.

Clark, Prof. J(oy) Harold, River Road, New Brunswick, N. J. *Horticulture.* Lafayette, Ind, June 12, 99. B.S.A, Purdue, 21; M.S, Delaware, 23; Ph.D, Columbia, 42. Asst. horticulturist, Exp. Sta, Delaware, 21–23; instr. *pomol, Rutgers,* 23–25, asst. prof, 25–29, assoc. prof, 29–32, *prof, 32–,* asst. pomologist, *N. J. Exp. Sta,* 23–25, *assoc. pomologist, 25–* Soc. Hort. Sci. Grapes and small fruits; fruit breeding.

Clark, Dr. Judson F(reeman), 751 Woodbury Road, Altadena, Calif. *Forest engineering.* Bay View, P. E. I, Can, July 27, 70. B.S.A, Ont. Agr. Col, 96; A.M, Cornell, 99, fellow, 00–01, Ph.D, 01. Asst. bot, Cornell, 99–00, prof. forestry, 01–03; provincial forester, Ont, 05–06; *consulting forest engineer, 06–* Gold medal, Ont. Agr. Col, 95. Forestry Asn; Soc. Foresters; Can. Soc. Forest Eng; Can. Forestry Asn. The effect of toxic agents; forest taxation, management and mensuration; forest problems in the Pacific Northwest.

Clark, Prof. K(arl) A(dolf), University of Alberta, Edmonton, Alta, Can. *Petroleum engineering.* Georgetown, Ont, Oct. 20, 88. B.A, McMaster, 10, M.A, 12; Ph.D, Illinois, 16. Asst, Geol. Surv. Can, Ottawa, 15–17, chief road materials div, mines branch, 18–20; research engineer, road materials, Research Council, Alberta, 21–35; consultant petrol. eng, Trinidad Leaseholds Ltd, Pointe-à-Pierre, Trinidad, B. W. I, 36–37; *prof. metal, Alberta, 38–* Commissioner, Good Roads Board, 23–28; deputy chairman, Petrol. and Nat. Gas Conserv. Board, 41. Soc. Test. Mat; Soc. Metals; Can. Inst. Min. and Metal. Alberta bituminous sands; petroleum reservoir problems.

Clark, Dr. Kenneth E(dwin), University of Minnesota, Minneapolis, Minn. *Psychology.* New Madison, Ohio, Dec. 18, 14. B.S, Ohio State, 35, A.M, 37, Ph.D, 40. Teacher, schs, Ohio, 35–37; asst. *psychol,* Ohio State, 37–40; *instr, Minnesota, 40–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn; Minn. Soc. Applied Psychol. Prediction of vocational and educational success; factors influencing mortality of college students; efficient work methods.

Clark, Dr. K(enneth) G(ross), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Van Etten, N. Y, Feb. 20, 98. B.S, Pittsburgh, 20, Ch.E, 23; M.S, George Washington, 27, Ph.D, 32. Asst. chemist, Jersey Cereal Food Co, Pa, 20–22; teacher, high sch, Pa, 22–24; from junior chem. engineer to *senior chemist, soil and fertilizer investigations, bur. plant indust, U. S. Dept. Agr, 24–* Instr, Yale, 30–31. A.A; Chem. Soc. Fertilizer materials.

Clark, Prof. Leonard B(ertrand), St. Davids Lane, Schenectady, N. Y. *Physiology.* Oakland, Calif, March 17, 02. B.A, Manitoba, 23, B.Sc, 25; A.M, Hopkins, 26, Ph.D, 29. Nat. research fellow, 29–31; *asst. prof. biol, Union (N. Y), 31–* A.A; Soc. Zool. Reactions of insects to light; ecology of insects; light and sexual cycle of birds.

Clark, L(eRoy) V(incent), American Cyanamid and Chemical Corp, New Castle, Pa. *Chemistry.* Harlansburgh, Pa, July 2, 02. B.S, Grove City Col, 25; West Virginia, 25; McGill, 26. Demonstrator, West Virginia, 25–26; McGill, 26–27; chemist, Grasselli Powder Co, 27–28; E. I. du Pont de Nemours and Co, 29; senior investigator, West. Cartridge Co, 30; asst. physical chemist, U. S. Bur. Mines, 30–34; fellow, Mellon Inst, 34–36; *research explosives engineer, dept. explosives, Am. Cyanamid and Chem. Corp, 36–* A.A; Chem. Soc; Inst. Chem; Chem. Eng; N. Y. Acad. Organic chemistry; high explosives; propellant powders; liquid oxygen explosives; subaqueous explosions; low temperature effect on detonator performance; detonants; primers; detonators; nitrocellulose; plastics; corrosion of metals.

Clark, Prof. LeRoy W(alter), Rensselaer Polytechnic Institute, Troy, N. Y. *Civil engineering.* Nassau, N. Y, Sept. 4, 82. C.E, Rensselaer Polytech, 06. Instr. mechanics, Rensselaer Polytech, engineer, State Highway Dept, N. Y, and designer, Pa. Steel Co, 06–13; *consulting engineer, 13–; prof. mech, Rensselaer Polytech, 21–, head dept, 38–* Lieut. commander, C.E.C, U.S.N.R. Civil Eng; Soc. Test. Mat; Welding Soc; Eng. Educ; Soc. Eng. East. N. Y. (pres, 31). Wind pressures on buildings; theory of indeterminate structures; mechanics for engineers; rational and technical mechanics.

Clark, Dr. Lois, Lakota, Wash. *Botany.* Charlotte, Mich. A.B, Washington (Seattle), 07, A.M, 10; Ph.D, Minnesota, 19. Head dept. science, Stephens Junior Col, 19–20; asst. prof. bot, Idaho, 23–27; *research assoc. bot, Washington (Seattle), 40–* A.A. Embryology of Podophyllum; taxonomy of the Hepaticae of western United States.

Clark, Prof. Loren T(ompkins), 137 N. Serrano Ave, Los Angeles, Calif. *Physics.* La Salle, N. Y, 90. A.B, Southern California, 18; M.S, Calif. Inst. Tech, 35. Instr. math. and physics, Calif. Col, 11–17; *asst. prof. physics, Southern California, 17–* A.A; Physical Soc. Impedance of single layer choke coils at high frequency; reciprocity failure and hypersensitization of photographic emulsions.

Clark, Prof. Norman A(shwell), Iowa State College, Ames, Iowa. *Chemistry.* London, Eng, Nov. 16, 86. B.S.A, Alberta, 18; fellow, Toronto, 18–19, M.A, 19, Ph.D, 21. Asst. *chem,* Alberta, 17–18; instr, Toronto, 20–21; asst. prof, *Iowa State Col,* 21–27, *assoc. prof, 27–* A.A; Chem. Soc. (pres, Ames sect, 26, 35); Soc. Plant Physiol; Soc. Agron; Iowa Acad; Soil Sci. Soc; Int. Soc. Soil Sci. Chemistry of soils; nutrition of green plants.

Clark, Dr. O(rin) R(ay), 1817 S. 27th St, Lincoln, Nebr. *Ecology.* Minden, Nebr, Sept. 26, 92. A.B, Nebraska, 16,

A.M, 21, Ph.D, 39. Instr. *bot*, Nebraska, 19–22; prof, Iowa State Teachers Col, Cedar Falls, 22–33; *instr, Nebraska, 35–* Plant ecology.

Clark, Prof. Orton L(oring), Massachusetts State College, Amherst, Mass. *Botany.* Boston, Mass, April 18, 87. Mass. Col, 08; B.S, Columbia, 10; Rostock, 10–11; Munich, 11; Strassburg, 11–13. Teacher nature study, Ethical Culture Sch, New York, 08–10; asst. bot, Strassburg, 12–13; asst. botanist, Exp. Sta, 13–27, asst. prof. *bot*, Mass. Col, 15–27, *assoc. prof*, 27–31, *Mass. State Col, 31–* A.A. Plant physiology; ecology.

Clark, Prof. Paul E(noch), Muskingum College, New Concord, Ohio. *Chemistry.* Cambridge, Ohio, Nov. 24, 05. A.B, Muskingum Col, 27; M.S, Ohio State, 31, Ph.D, 38. Instr. chem, *Muskingum Col*, 27–31, asst. prof, 31–38, assoc. prof, 38–42, *prof. chem. and chairman div. nat. science, 42–* Chem. Soc; Ohio Acad. Physical chemistry; chemical education.

Clark, Prof. Paul F(ranklin), University of Wisconsin, Madison, Wis. *Bacteriology, Immunology.* Portland, Maine, May 9, 82. Ph.B, Brown, 04, A.M, 05, Ph.D, 09; Hopkins, 13–14. Asst. zool, Brown, 04–05, bacter, 05–06; asst. bacteriologist, State Board Health, R. I, 06–07; fellow *bacter*, Rockefeller Inst, 09–10, asst, 10–12, assoc, 12–14; assoc. prof, *Wisconsin*, 14–18, *prof, 18–* A.A; Soc. Bact. (v. pres, 37, pres, 38); Asn. Immunol; Soc. Exp. Biol; Soc. Exp. Path. Diphtheria; dysentery; poliomyelitis; immunity.

Clark, Perry B(ruce), U. S. Food and Drug Administration, San Francisco, Calif. *Fisheries.* San Francisco, Calif, Nov. 7, 93. Ph.C, California, 12. Pharmacist, San Francisco, Calif, 11–14; clin. chemist, Pacific Wassermann Labs, 15–17; *chemist, food and drug admin*, U. S. Dept. Agr, 18–39; *Fed. Security Agency, 39–* Fishery products.

Clark, Dr. Ralph W(illiam), Merck and Co, Rahway, N. J. *Pharmacy.* Prophetstown, Ill, Jan. 3, 01. B.S, Wisconsin, 22, M.S, 29, Ph.D, 33. Hosp. pharmacist, Wis. Gen. Hosp, Madison, 24–27; instr. pharmacy, Wisconsin; *mem. staff, Merck and Co.* Acting prof, North Carolina, 37. Ed, 'The Wis. Druggist,' 33– Pharmaceut. Asn. (del. House of Delegates, 35); Wis. Pharmaceut. Asn. (sec'y, 30–34). Chemico-pharmaceutical study of Datura stramonium; interprofessional relationship between physicians, dentists and pharmacists; ointments.

Clark, Dr. R(ichard) T(urnbull), Montana State College, Bozeman, Mont. *Animal genetics.* Edinburgh, Scotland, June 7, 02. C.D.A, Edinburgh, 22; B.Sc, Manitoba, 29, M.S, 31; Ph.D, Minnesota, 33. Instr. animal breeding, Minnesota, 34–37; asst. prof. animal husbandry and animal geneticist, *Mont. State Col*, 37–38, prof. animal husbandry and head dept, 38–41, *asst. director, Exp. Sta, 41–* Animal breeding.

Clark, Prof. Robert H(arvey), University of British Columbia, Vancouver, B. C, Can. *Chemistry.* Blyth, Ont, June 4, 80. B.A, Toronto, 05, M.A, 06, 1851 Exhib. scholar, 06–09; Ph.D, Leipzig, 09. Asst. prof. chem, Clark, 09–11; *prof*, Whitman Col, 11–16; *org. chem, British Columbia, 16–, head dept. chem, 27–* Director, Nat. Research Council Can, 37– Chem. Soc; Can. Inst. Chem; Can. Chem. Federation; Can. Chem. Asn. (pres, 37); fel. Royal Soc. Can. (pres, sect. III, 37); London Soc. Chem. Indust. (past pres, B. C. branch). Organic and physical chemistry.

Clark, Dr. Robert W(atson), Western Gulf Oil Co, 1260 Subway Terminal Bldg, Los Angeles, Calif. *Geology, Geophysics.* West Branch, Mich, Aug. 17, 84. A.B, Michigan, 08, Ph.D, 25. Instr. petrog, Michigan, 09–16; consulting petrol. geologist, Okmulgee, Okla, 16–29; in charge geol. research, Gulf Oil Corp, 29–37; *chief geologist, West. Gulf Oil Co, 38–* Asn. Petrol. Geol. (dist. rep, Appalachian dist, 37, v. pres, 43); Min. and Metal. Eng; Soc. Explor. Geophysicists. Geology of California; occurrence of oil.

Clark, Rowland J(esse), Shellabarger Mill and Elevator Co, Salina, Kans. *Chemistry.* St. Joseph, Mo, March 3, 95. B.S, Kansas, 18, Am. Dry Milk Inst. fellow, 33–35, C.E, 36. Anal. and research chemist, Campbell System, Inc, 19–22; chief chemist, Goerz Flour Mills Co, 22–27; chief chemist and director research, Schulze Baking Co, 27–32, supt. bread fermentation, 32–33; chief chemist, Mich. Bakeries, Inc, 33–35; assoc. prof. milling indust, Kans. State Col, 35–38; *director research, Shellabarger Mill and Elevator Co, 38–* Chem. Soc; Asn. Cereal Chemists (pres, 25–27, chairman, convention program cmt, 24, 28, hist. cmt, 34–, publicity cmt, 27, Kans. sect, 24, 40; defense cmt, 41); Soc. Bakery Eng. (chairman, Kans. City sect, 32; research cmt, 41–); Millers Nat. Federation (flour definitions and standards cmt, 39–; tech. cmt, 41–). Cereal chemistry; bread and cake baking.

Clark, Prof. Sam L(illard), Glen Leven Drive, Nashville, Tenn. *Anatomy.* Nashville, Tenn, Oct. 5, 98. B.S, Vanderbilt, 22, M.D, 30; M.S, Northwestern, 24; Ph.D, Washington (St. Louis), 26. Instr. *anat*, Northwestern, 23–24; Washington (St. Louis), 24–26, asst. prof, 26–27; Northwestern, 27–30; *Vanderbilt*, 30–31, assoc. prof, 31–37, *prof, 37–* Assoc. ed, 'Am. Jour. Anat.' A.A; Asn. Anat; Tenn. Acad. Anatomical neurology; neurohistology; autonomic system; physiology of cerebrum and cerebellum.

Clark, S(herman) W(ood), 1002 Second National Bank Bldg, Houston, Texas. *Entomology.* West Lafayette, Ind, Nov. 14, 03. B.S, Purdue, 27. *Entomologist*, Exp. Sta, Agr. and Mech. Col. Texas, 28–38; *Texas Gulf Sulphur Co, 38–* Asn. Econ. Entom; hon. mem. Soc. Subtrop. Horticulturists; Texas Entom. Soc. Control of citrus, truck crop and livestock insects.

Clark, Dr. Stanley W(illiam), 180 N. Michigan Ave, Chicago, Ill. *Dentistry.* Chicago, Ill. D.D.S, Northwestern, 16, M.S.D, 34; LL.B, Chicago-Kent Col. Law, 25. *Prof. mat. med, therapeut. and anesthesia, Northwestern, 16–* Col, Res.C, U.S.A. A.A; fel. Col. Dentists; Int. Asn. Dental Research. Local anesthesia.

Clark, Stuart K(enneth), Continental Oil Co, Ponca City, Okla. *Petroleum geology.* Dubuque, Iowa, Aug. 7, 93. B.S, Nebraska, 16. Geologist, Empire Gas and Fuel Co, 16–19, 23–24; Emerald Oil Co, 19–20; Ark. Nat. Gas Co, 20–23; in charge subsurface geol, Marland Oil Co, 24–29; *asst. chief geologist, Continental Oil Co, 29–* 2nd lieut, A.S, 18. Asn. Petrol. Geol; Wichita Geol. Soc; Tulsa Geol. Soc. Geology of oil fields; logging of rotary wells from drill cuttings; mehcanics of folding; wider well spacing.

Clark, Prof. Thomas H(enry), McGill University, Montreal, Que, Can. *Paleontology.* London, Eng, Dec. 3, 93. A.B, Harvard, 17, A.M, 21, Ph.D, 23. Asst. geol, Harvard, 15–20, instr, 20–24; asst. prof. *paleont, McGill*, 24–27, assoc. prof, 27–29, *Logan prof, 29–, curator, Redpath museum.* Geologist, Geol. Surv. Can, 27–31, 35; Bur. Mines, Que, 38–A.A; Paleont. Soc; Geol. Soc; Royal Soc. Can. Lower Paleozoic of northeastern North America.

Clark, Dr. Walter, Eastman Kodak Co, Rochester, N. Y. *Chemistry.* London, Eng, Nov. 9, 99. B.Sc, London, 21, Ph.D, 23. Research chemist, British Photog. Research Asn, 21–27; asst, Science Museum, London, 27–28; supt. in charge research, Kodak, Ltd, England, 28–31; *asst. to v. pres. in charge research and develop, Eastman Kodak Co, 31–* Summer, Rochester, 37. Sec'y, Int. Cong. Photog, 28. Motion Picture Eng; Soc. Photogrammetry (v. pres, 43); fel. Royal Photog. Soc. (councilor, 27–30); fel. Inst. Chem. Gt. Britain and Ireland. Photographic chemistry and theory.

Clark, Prof. (Walter) Brant, 20 S. 16th St, San Jose, Calif. *Psychology.* Stockton, Calif, Sept. 11, 06. A.B, California, 29; A.M, Southern California, 31, Ph.D, 34. Lecturer psychol. and physiol. optics, Southern California, 29–36; instr. and later *asst. prof. psychol, San Jose State Col, 36–; lieut, U. S. Naval Res.* Summers, visiting instr, Claremont Col, 34–36; California, 38. A.A; Psychol. Asn. Physiological optics; vision; reading; educational psychology.

Clark, Prof. (Warren William) Herman, 1625 N. Winter St, Salem, Oregon. *Chemistry.* La Grande, Oregon, June 22, 87. A.B, Willamette, 14, 22; Washington (Seattle), 16; California, 29. Head dept. science, pub. schs, Oregon, 15–23; *asst. prof. chem, Willamette, 23–*, geol, 28–34, *assoc. prof. physical science, 34–* Chem. Soc; Northwest Sci. Asn. Coniferous woods; geologic history of northwestern Oregon.

Clark, Dr. Wesley M(elvin), Columbia Breweries, Tacoma, Wash. *Biochemistry.* Waitsburg, Wash, June 17, 01. B.S, Washington (Seattle), 25, Ph.D, 34. *Chemist*, road materials lab, Standard Oil Co. of Calif, 29–32; *Columbia Breweries, 34–* Chem. Soc; Soc. Bact. Bacterial dissociation.

Clark, Prof. Weston R, University of Maryland, College Park, Md. *Psychology.* Logan, Utah, Oct. 2, 06. B.S, Utah, 33; A.M, George Washington, 34, Ph.D, 38. Guidance counselor, Abbot Vocational Sch, Washington, D. C, 34; teaching

fellow, George Washington, 34–36; instr. *psychol, Maryland*, 36–37, asst. prof, 37–42, *assoc. prof, 42–, acting chairman dept, 42–, director psychol. clinic, 43–* Consulting indust. psychologist, Logan Garment Co, 37– A.A; Psychol. Asn; fel. Asn. Applied Psychol; Vocational Guidance Asn; Guidance and Personnel Asn. D. C. (pres, 39–41). Children and radio; selection of salesmen.

Clark, Prof. W(illiam) G(ilbert), University of Minnesota, Minneapolis, Minn. *Physiology.* Kansas City, Mo, April 17, 09. A.B, Texas, 31; Ph.D, Calif. Inst. Tech, 36. Asst, Texas, 30–32; teaching fellow, Calif. Inst. Tech, 33–36; asst, Scripps Institution, California, 36–37, research assoc, Scripps Metabolic Clinic, 37–38; instr. *physiol, Minnesota*, 38–40, *asst. prof, 40–* A.A; Soc. Exp. Biol; Soc. Plant Physiol; Physiol. Soc; Minn. Acad. Membrane permeability; electrolyte metabolism; the adrenal cortex; chemotherapy; wound healing.

Clark, Prof. W(illia)m Mansfield, Johns Hopkins University School of Medicine, Baltimore, Md. *******Chemistry.* Tivoli, N. Y, Aug. 17, 84. A.B, Williams Col, 07, A.M, 08, hon. Sc.D, 35; fellow, Hopkins, 09–10, Ph.D, 10; hon. Sc.D, Pennsylvania, 40. Asst. chemist, Williams Col, 07–08; chemist, bur. dairy indust, U. S. Dept. Agr, 10–20; prof. chem, hygienic lab, U. S. Pub. Health Service, 20–27; *De Lamar prof. physiol. chem, sch. med, Hopkins, 27–* Chairman div. chem. and chem. tech, Nat. Research Council, 41– William H. Nichols medal, N. Y. sect, Am. Chem. Soc, 36. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem. (pres, 33, 34); Soc. Bact. (pres, 33); Wash. Acad. (non-res. v. pres, 35). Metabolism of bacteria; chemistry of milk and cheese; theory and applications of acid-base and oxidation-reduction equilibra; determination of hydrogen ions.

Clark, (William) Noble, 2117 Fox Ave, Madison, Wis. *Agricultural economics.* Lake Preston, S. Dak, Sept. 18, 91. B.S, Wisconsin, 15, M.S, 30. Instr, Mich. State Col, 15–17; in charge agr. develop, Wis. Colonization Co, 18–22; agr. agent, Ontonagon County, Mich, 22–27; asst. prof. admin, *Wisconsin*, 27–30, asst. director, *Exp. Sta*, 30–39, *assoc. director, 39–* Regional director land policy sect, agr. adjust. admin, U. S. Dept. Agr, 34. Chairman, State Soil Conserv. Cmt, Wis, 37–; State Annuity and Investment Board, 41– A.A; Farm Econ. Asn. Land economics.

Clark, W(illiam) O(tterbein), 2026 McKinley St, Honolulu, Hawaii. *Geology.* Yale, Ill, Sept. 2, 74. A.B, Union Christian Col, 99; B.S, Stanford, 06, A.M, 15. Acting prof. geol, State Col. Wash, 06–07; teacher geol. and physiog, Milwaukee State Nor. Sch, 07–12; U. S. Geol. Surv, 12–22; *geologist*, C. Brewer and Co, Honolulu, 22–30; *Hawaiian Sugar Planters Asn, Hawaii, 30–* A.A; Geol. Soc. Ground water geology.

Clark, Prof. W(illis) H(enry), Texas State College for Women, Denton, Texas. *Physical chemistry.* Saratoga, N. Y, Nov. 4, 84. A.B, Michigan, 10, M.S, 14; Ph.D, Wisconsin, 21. Prof. *physical chem*, Junior Col, Detroit, Mich, 18–19; half-time instr, Wisconsin, 19–20, instr, 20–21; *prof. and director dept, Texas State Col. for Women, 22–, director grad. div, 30–* Research chemist, Dow Chem. Co, 16–18. A.A; Chem. Soc. (chairman, Dallas-Ft. Worth sect, 38, councilor, 41); Texas Acad. Spectrophotometric problems.

Clarke, Dr. Alfred E(rnest), 8318 16th St, Silver Spring, Md. *Genetics.* Victoria, B. C, Can, May 18, 03. B.A, Alberta, 24, M.Sc, 27; Ph.D, Wisconsin, 31. Asst. genetics and plant breeding, Alberta, 25–27; asst, Nat. Research Council Can, 27–28; lecturer field crops, Alberta, 28–29; asst. genetics, Wisconsin, 29–31; nat. research fellow biol, California, 31–33, assoc. genetics, 33–36; *assoc. cytologist, bur. plant indust, U. S. Dept. Agr, 36–* A.A; Genetic Asn; Soc. Agron; Can. Soc. Tech. Agr. Genetics and cytology of Melilotus; twinning in man; genetics and cytology of Solanum and Allium.

Clarke, Dr. Beverly L(eonidas), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Chemistry.* Nashville, Tenn, Sept. 30, 00. B.S, George Washington, 21; Am-Scandinavian Foundation fellow, Sweden, 21–22; A.M, Columbia, 23, Ph.D, 24. Asst. chem, George Washington, 18–21; teaching fellow, Col. City of N. Y, 22–24; research fellow, Carnegie Institution, 24–25; nat. research fellow, 25–27; research chemist, *Bell Tel. Labs*, 27–38, *materials chemist, 38–* Tech. asst, U. S. Commercial Attaché, Paris, 23. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 35– A.A; Chem. Soc. (director, N. Y. sect, 40–42); Soc. Test. Mat; Microchem. Soc. (pres, N. Y. and N. J. sect, 36–38). Physical, inorganic, colloid and analytical chemistry; electrometric titration; microanalysis.

Clarke, Dr. C(arl) D(ame), University of Maryland School of Medicine, Baltimore, Md. *Medicine.* Danville, Va, April 25, 04. A.M, Am. Int. Acad, 37, Ph.D, 41. Director dept. art, *sch. med, Maryland*, 28–34, assoc. *art as applied to med*, 34–38, *assoc. prof, 38–* Biol. Photog. Asn. (director; ed, 'Jour'). Art as applied to science.

Clarke, Dr. C(harles) H(enry) D(ouglas), National Parks Bureau, Department of Mines and Resources, Ottawa, Ont, Can. *Biology.* Kerwood, Ont, June 14, 09. B.Sc.F, Toronto, 31, Ph.D, 35. Asst, Toronto, 31–35, 36–37; field asst, Nat. Museum Can, 35–37, in charge Thelon River investigation, 36–37; *mammalogist, nat. parks bur, Can. Dept. Mines and Resources, 38–* Soc. Mammal; Wildlife Soc; assoc. Ornith. Union; Ottawa Field Nat. Club (ed, 'Can. Field Nat,' 39, 40; treas, 42). Animal populations; ecology.

Clarke, Prof. Elbert H(oward), Hiram, Ohio. *Mathematics.* Edinburg, Ind, March 15, 87. A.B, Butler, 09; Ph.D, Chicago, 22. Instr. *math*, Purdue, 10–16; *prof, Hiram Col, 17–* A.A; Math. Soc; Math. Asn. Calculus of variations; history of science.

Clarke, Prof. Elwyn L(orenzo), Box 3, Clemson, S. C. *Civil engineering.* Momence, Ill, June 18, 79. B.S, Illinois, 02, C.E, 31. Asst. engineer, Del, Lackawanna and West. R. R, 02–05; instr. civil eng, Mo. Sch. Mines, 05–07; junior engineer, U. S. Eng. Office, Seattle, Wash, 07–08; practising engineer, Wyo, 08–12, Carey Act engineer, 12–16; engineer and supt. construction, Westinghouse, Church, Kerr and Co, New York, 16–20; asst. prof. *civil eng*, South Dakota, 20–21; *prof. and head dept, Clemson Col, 21–* Civil Eng. (pres, S. C. sect, 40); Eng. Educ; S. C. Soc. Eng. (director, 34, v. pres, 41, pres, 42). Sanitary engineering; sewage treatment; water purification.

Clarke, Dr. George L(eonard), Harvard University, Cambridge, Mass. *Biology.* Providence, R. I, Aug. 7, 05. A.B, Harvard, 27, A.M, 28, Ph.D, 31. Instr. and tutor biol, *Harvard*, 30–40, *assoc. prof. zool, 40–;* junior biologist, *Oceanog. Inst, Woods Hole*, 31–40, *marine biologist, 40–* Soc. Zool; Ecol. Soc; Limnol. Soc. (pres, 42); Ecol. Soc. New Eng. Physiology of plankton; measurement of submarine illumination; aquatic productivity; general ecology.

Clarke, Prof. Hans T(hacher), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *******Chemistry.* Harrow, Eng, Dec. 27, 87. 1851 Exhib. scholar, London, 11–13, D.Sc, 14. Lecturer chem, Univ. Col, London, 10–11, asst, 13–14; org. chemist, Eastman Kodak Co, 14–28; *prof. biochem. and head dept, Columbia, 28–* Fellow, Univ. Col, London, 15. Nat. Acad; A.A; Chem. Soc. (sec'y, 21, chairman, org. div, 22, councilor, 21–29, assoc. ed, 'Jour,' 29–39); Soc. Biol. Chem. (ed. cmt, 30–37; ed. board, 37–); Soc. Exp. Biol; Harvey Soc. (pres, 42); N. Y. Acad; Inst. Chem. Gt. Britain and Ireland; London Chem. Soc; Deuts. Chem. Gesell. Residual affinity and chemical constitution; organic chemical preparative methods; organic chemistry of biological substances.

Clarke, Prof. Helen M(aud), Muskingum College, New Concord, Ohio. *Psychology.* Lawrence, Kans, Aug. 26, 79. A.B, Kansas, 03, fellow, 06–08, A.M, 07; fellow, Cornell, 08–10, Ph.D, 10. Teacher, pub. and high schs, Okla, 03–06; asst. psychol, Kansas, 06–08, instr. and asst. prof. cor. study, 10–21; prof. educ, Davis and Elkins Col, 21–27; *assoc. prof. psychol. and educ, Muskingum Col, 27–* A.A.

Clarke, Dr. Herbert M(orris), Bacone Junior College, Bacone, Okla. *Botany.* Rensselaer, Ind, Dec. 15, 09. A.B, Franklin Col, 31; M.S, Wisconsin, 33, Ph.D, 35. Asst, Wisconsin, 31–35; *instr. biol. and chem, Bacone Junior Col, 35–* Bot. Soc; Okla. Acad; Ind. Acad. Pteridophyte morphology; morphology and anatomy of Lygodium Japonicum; flora of eastern Oklahoma.

Clarke, Ira D(oup), 115 Roslyn Ave, Glenside, Pa. *Chemistry.* Edinburg, Ind, Nov. 1, 90. A.B, Butler, 12. Teacher, high sch, Okla, 14–15; asst. chem, Iowa State Col, 15–17; junior chemist and later *chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 17–* Chem. Soc; Leather Chem. Asn; Int. Soc. Leather Trades Chem. Analysis, tanning and wear of leather; analysis and development of domestic tanning materials; improvement of hides and skins.

Clarke, James O(liver), Post Office Bldg, Chicago, Ill. *Chemistry.* Augusta, Ga, Feb. 1, 91. B.S, Ga. Tech, 13. Asst. state chemist, Atlanta, Ga, 13–17; junior chemist, Savannah sta, bur. chem, U. S. Dept. Agr, 17–20, *chief,* 20–26, New York sta, *food and drug admin,* 26–30, *cent. dist,* 30–39; *Fed. Security Agency, 39–* Chem. Soc; Agr. Chem. Food chemistry; methods for chemical analysis of agricultural products.

Clarke, J(ohn) F(rederick) Gates, U. S. National Museum, Washington, D. C. *Entomology.* Victoria, B. C, Can, Feb. 22, 05. Ph.C, State Col. Wash, 26, B.S, 30, M.S, 31; Cornell, 35–36. Pharmacist, Red Cross Pharmacy, Bellingham, Wash, 26–29; teaching fellow, State Col. Wash, 30–32, instr, 33–35; assoc. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 36–40, *entomologist, 40–* Entom. Soc. Wash. Lepidoptera; Microlepidoptera; Oceophoridae; Gelechiidae; Phaloniidae; life histories.

Clarke, Prof. L(emuel) Floyd, University of Wyoming, Laramie, Wyo. *Zoology.* Newton, Utah, June 21, 06. B.S, Utah State Col, 27, M.S, 31; Ph.D, Chicago, 35. Asst. entom, Exp. Sta, Utah State Col, 30–31; *zool,* Chicago, 31–33; Rochester, 33–34; instr, branch agr. col, Utah State Col, Cedar City, 34–35; *Wyoming,* 35–37, asst. prof, 37–40, *assoc. prof, 40–,* acting chairman dept, 37–39, 41–42, *chairman dept, 42–, director premed. curriculum, 37–* Soc. Zool. Embryology; entomology; eye-forming capacities in chick blastoderms; alfalfa seed insect investigations.

Clarke, Dr. Miriam F(aith) (Mrs. Ward N. Madison), 36 Pondfield Road, W, Bronxville, N. Y. *Nutrition.* Albany, N. Y, Jan. 11, 01. A.B, Mt. Holyoke Col, 23; Ph.D, Yale, 33. Asst. physiol, Mt. Holyoke Col, 24–26; instr, Western Reserve, 26–29; *nutrition lab, Burroughs Wellcome and Co, Tuckahoe, N. Y, 33–, nutrition chemist in charge, 35–* A.A; Chem. Soc. Minerals and vitamins in nutrition; bioassays.

Clarke, Dr. Richard G(uthrie), Wesleyan University, Middletown, Conn. *Organic chemistry.* Brooklyn, N. Y, March 23, 13. B.S, Allegheny Col, 34; Ph.D, Cornell, 38. *Instr. chem,* Allegheny Col, 36–37; *Wesleyan, 38–* Chem. Soc. Organic chemistry of nitrogen; microquantitative analysis of nitrogen.

Clarke, Dr. Robert W(atkins), 333 Cedar St, New Haven, Conn. *Physiology.* Albany, N. Y, May 28, 97. B.S, Wesleyan, 21; M.S, N. Y. Univ, 28, Ph.D, 34. Asst. physiol. of aviation, Air Corps, Mitchel Field, N. Y, 22–26; instr. *physiol,* col. med, N. Y. Univ, 26–36; *sch. med, Yale,* 36–42, *asst. prof, 42–* Physiol. Soc. High altitude physiology; renal function in man and animals.

Clarke, Dr. W(alter) F(ieldhouse), 1865 Newton St, N. W, Washington, D. C. *Chemistry.* Danville, Va, July 17, 86. A.B, Hampden-Sydney Col, 03; Ph.D, Hopkins, 14. Instr. chem, Georgia, 14–16; bur. chem, U. S. Dept. Agr, 16–28; prof. chem. and physics and head dept, Lynchburg Col, 29–30; *Bur. Standards, 30–* A.A. Metals in foods and in drugs; food dyes; oils in tin-plate industry; standard and gas electrodes; analytical methods; cement.

Clarke, William S(loan), Jr, Box 167, State College, Pa. *Horticulture.* Philadelphia, Pa, Aug. 28, 02. B.S, Pa. State Col, 25, M.S, 26. Asst. instr. bot, Pennsylvania, 26–28; caretaker, hort. exp. sta, *Pa. State Col,* 29–30, asst. *hort,* 30–38, *instr, 38–* A.A; Soc. Hort. Sci; Forestry Asn; Genetic Asn. Pomology; soil fertility of orchards and nurseries; root stocks of fruit trees, especially asexually propagated roots; weather and climate in relation to horticulture.

Clarkson, Prof. James A(ndrew), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Newburyport, Mass, Feb. 7, 06. A.B, Dartmouth Col, 29; A.M, Brown, 33, Ph.D, 34. Instr. math, Phillips Andover Acad, 29–30; nat. research fellow, sch. math, Inst. Advanced Study, and Princeton, 35–36; instr. *math, Pennsylvania,* 36–40, *asst. prof, 40–* Math. Soc. Functions of real variables; abstract spaces.

Clarkson, Prof. John M(ontgomery), North Carolina State College, Raleigh, N. C. *Mathematics.* Heinemann, S. C, Oct. 14, 02. A.B, Wofford Col, 22; A.M, Duke, 26; Ph.D, Cornell, 32. Instr. *math,* Duke, 26–29; Cornell, 29–34; asst. prof, *N. C. State Col,* 34–38, *assoc. prof, 38–* Math. Soc; Eng. Educ; Inst. Math. Statist. Algebraic geometry; projective differential geometry.

Clary, Dr. J(oe) D, Georgia School of Technology, Atlanta, Ga. *Organic chemistry.* Wayne Co, Ga, Sept. 21, 07. B.S, Emory, 30, M.S, 31; Ph.D, Ohio State, 38. Teacher *chem,* high sch, Emory Univ, 31–35; *instr, Ga. Tech, 38–* Chem. Soc. The naphthotriazoles.

Clash, Dr. R(ichard) F(eddeman), Jr, 1046 Sherman Ave, Plainfield, N. J. *Physics.* Wilmington, Del, Aug. 1, 08. A.B, Col. of Wooster, 31; Ph.D, Yale, 34. *Physicist,* U. S. Rubber Co, Passaic, N. J, 34–36; Nat. Carbon Co, Cleveland, 36–41; *Bakelite Corp, 41–* Barkhausen effect.

Claude, Dr. Albert, Rockefeller Institute, New York, N. Y. *Medicine.* Longlier, Belgium, Aug. 23, 99. M.D, Liége, 28. Fond. Univ Berlin, 29; Cmn. Relief Belgium Educ. Foundation fellow, 29–31; asst, *dept. path, Rockefeller Inst,* 31–38, *assoc, 38–* A.A; Soc. Exp. Biol; Asn. Cancer Research; Harvey Soc; Asn. française pour l'Etude du Cancer; Soc. Cubana de Biologia. Cancer; etiology of filterable tumors; factors modifying tissue permeability; chemical nature of morphological constituents of protoplasm.

Claus, Prof. Edward P(raegner), University of Pittsburgh School of Pharmacy, Pittsburgh, Pa. *Pharmacognosy, Botany.* Pittsburgh, Pa, June 16, 08. Ph.G, Pittsburgh, 29, B.S, 30, M.S, 35, Ph.D, 41. Instr. chem, *sch. pharmacy, Pittsburgh,* 29–30, pharmacog, 30–42. *asst. prof. biol, 42–* Summer, instr, lake lab, Pittsburgh, 35. Pharmaceut. Asn. (pres, Pittsburgh branch, 41); Bot. Soc; Pa. Acad; Pa. Pharmaceut. Asn. The relative importance of plant constituents in the taxonomic arrangement of flowering plants.

Claus, Dr. Pearl E(lizabeth), University of Wisconsin, Madison, Wis. *Zoology.* Plymouth, Iowa, Nov. 30, 93. A.B, Wisconsin, 20, A.M, 28, Ph.D, 30. Asst. *zool, Wisconsin,* 26–30, *research assoc, 30–, Jonathan Bowman fellow cancer research, 39–* A.A; Soc. Zool. Cancer research; cytology.

Claus, Dr. Walter D(unham), 8109 S. Broadway, St. Louis, Mo. *Physics, Biophysics.* St. Louis, Mo, March 6, 03. A.B, Washington (St. Louis), 27, fellow, 28–30, M.S, 29, Ph.D, 31. Asst. physics, Washington (St. Louis), 27–28, 30–31; nat. research fellow biophys, California, 31–32; Pennsylvania, 32–33; asst. physics, Washington (St. Louis), 33–34; biophysicist mitogenetic radiation, Nat. Research Council, 34–36; *indust. fellow, Mellon Inst, 36–* A.A; Physical Soc; Chem. Soc. Theoretical investigations into structure factors in crystal reflection of x-rays; temperature effects in the diffuse scattering of x-rays from crystals; effects of x-rays on living cells; mitogenetic radiation; pasteurization and colloidal stability.

Clausen, Curtis P(aul), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Randall, Iowa, March 28, 93. Okla. Agr. and Mech. Col; B.S, California, 14, M.S, 20. Asst. entom, Citrus Exp. Sta, California, 14–15; asst. supt, State Insectary, Calif. Cmn. Hort, 16–18; from entomologist to *prin. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 20–, in charge div. for. parasite introd, 34–* Mem. entom. exped, Asia, 16–17, 20–31. Del, Int. Zool. Cong, Madrid, 35. U.S.A, 18–19. A.A; fel. Entom. Soc; Asn. Econ. Entom; Wash. Acad. Biological control of insects; insect parasitology.

Clausen, Dr. E(thel) M(arjorie) Luce, R. D. 1, Pittsford, N. Y. *Biology.* Gloucester, Eng, April 21, 87. B.A, Trinity Col, Dublin, 16, M.B, B.Ch, B.A.O, 18, M.D, 19. Asst. med. officer, London County Council, 20–21; Beit Mem. research fellow, Lister Inst, London, 22–24; Rockefeller med. traveling fellow, U. S, 25–27; senior Sterling fellow, Yale, 27–28; instr. pediat, Hopkins Hosp, 28–29; research fellow biol, *Rochester,* 29–35, lecturer, 35–39, *asst. prof. zool, 39–* Hon. lieut, Royal Air Force, 19. Biochem. Soc. Gt. Britain; British Med. Asn; British Med. Woman's Federation. The size of parathyroid of rat and diet deficiency of calcium; diet and sunlight; growth-promoting and anti-rachitic properties of cow's milk; vitamin A in yeast fat; glass screens and rickets; infra-red radiation and the rachitic rat; isolated radiations; therapeutic value of radiation.

Clausen, Dr. H(arry) J(ohn), University of Colorado School of Medicine, Denver, Colo. *Anatomy.* Clinton, Iowa, Oct. 18, 04. A.B, Iowa, 26, M.S, 30; fellow, N. Y. Univ, 31–32, Ph.D, 32. Asst. prof. biol, Norwich, 30–31; asst. curator exp. biol, Am. Museum Nat. Hist, 32–37; instr. *anat, sch. med, Colorado,* 37–42, *asst. prof, 42–* A.A; Soc. Zool; Asn. Study Int. Secretions; Asn. Anat; Soc. Exp. Biol; Soc. Study Develop. and Growth. Physiology and embryology of amphibians and reptiles; bacteriology and experimental pathology; endocrinology; ecology.

Clausen, Dr. J(ens Christian), Carnegie Institution, Stanford University, Calif. **7Botany.* Denmark, March 11, 91. B.Sc, Copenhagen, 13, M.Sc, 21, Ph.D, 26. Instr, high sch, 13–20; geneticist, Royal Vet. and Agr. Col, Copenhagen, 21–31; *mem. staff, div. plant biol, Carnegie Institution, 31–* Int. Educ. Board research fellow, California, 27–28. A.A; Soc. Nat; Bot. Soc; Genetics Soc; West. Soc. Nat; Calif. Bot. Soc; hon. fel. Bot. Soc. Edinburgh; Bot. Soc. Copenhagen. Experimental taxonomy; cytogenetics; species hybridization, formation and evolution; race ecology; Viola; Madinae; Zauschneria; Potentilla; Achillea.

Clausen, Prof. Ralph G(eorge), N. Y. State College for Teachers, Albany, N. Y. *Biology.* Hoboken, N. J, Feb. 22, 00. A.B, Colgate, 23, A.M, 25; Ph.D, Illinois, 33. Teacher, pub. schs, N. Y, 25–27; instr. biol, Union (N.Y), 27–31; asst. zool, Illinois, 31–33; instr. science and asst. prof, *N. Y. State Col. for Teachers,* 33–42, *prof. biol. and head dept, 42–* Ecol. Soc; Fisheries Soc. Ecology; rheotropism; fish temperature; fish oxygen consumption; seral communities.

Clausen, Prof. Robert T(heodore), Cornell University, Ithaca, N. Y. *Botany.* New York, N. Y, Dec. 26, 11. A.B, Cornell, 33, A.M, 34, Ph.D, 37. Asst. *bot, Cornell,* 33–35, *Bailey Hortorium,* 35–37, instr, 37–39, *asst. prof, 39–* Summers, asst. botanist, N. Y. State Biol. Surv, 33, 34, botanist, 39. A.A; Fern Soc. (pres, 39–); Bot. Soc; Soc. Plant Taxon; Soc. Ichthyol. and Herp; Ornith. Union; Torrey Bot. Club. Taxonomy of vascular plants; Ophioglossaceae; Crassulaceae; Gentianaceae; Najas; ferns; phytogeography; taxonomic botany.

Clausen, Prof. Roy E(lwood), University of California, Berkeley, Calif. **6Botany, Genetics.* Randall, Iowa, Aug. 21, 91. B.S, Okla. Agr. and Mech. Col, 10; Ph.D, California, 14. Instr. *genetics, California,* 14–16, asst. prof, 16–24, assoc. prof, 24–28, *prof, 28–* Int. Educ. Board fellow and traveling prof, 26–27; special consultant, Exp. Stas, Hawaii, Hawaiian Sugar Planters' Asn. and Pineapple Producers' Cooperative Asn, 41. Sec'y-gen, Pacific Sci. Cong, Calif, 39. U.S.A, 17–19. A.A. (v. pres, Pacific div, 35–; exec. cmt, 39–); Soc. Nat; Genetics Soc; Genetic Asn; Bot. Soc; West. Soc. Nat. Interspecific hybridization, amphidiploidy and chromosomal variation in Nicotiana; interspecific hybridization in Rhododendron; cytogenetics of Drosophila hydei.

Clausen, Dr. Samuel Wolcott, Strong Memorial Hospital, Rochester, N. Y. *Biochemistry.* Canaseraga, N. Y, Oct. 17, 88. A.B, Williams Col, 10; M.D, Hopkins, 15. Intern, Hopkins Hosp, 15–16, asst. res, 16–17; instr. *pediat,* Washington (St. Louis), 17–20, assoc, 20–24; *prof, Rochester, 24–* A.A. Chemical problems in diseases of children.

Claussen, Dr. William H(ammerich), 8 Yale Circle, Berkeley, Calif. *Physical chemistry.* Glenwood Springs, Colo, Jan. 23, 12. B.S, Calif. Inst. Tech, 32; Ph.D, California, 35. Asst, California, 32–34; *research chemist, Standard Oil Co. of Calif, 34–* Physical chemistry of fluorine and fluorides; by-products from petroleum and motor fuels; treating and catalytic processes.

Clawson, Prof. B(enjamin) J(unior), University of Minnesota, Minneapolis, Minn. *Pathology.* Dixonville, Pa, Jan. 9, 81. B.S, Kansas, 09, A.M, 11; M.D, Rush, Chicago, 17, Ph.D, Chicago, 19. Asst. prof, Okla. Col, 11–12; from instr. to assoc. prof. bacter, Kansas, 12–17; instr, Chicago, 17–19; prof. path. and bacter, North Dakota, 19–21; asst. prof. *path, Minnesota,* 21–25, assoc. prof, 25–27, *prof, 27–* Soc. Bact.

Clawson, Prof. J(ohn) W(entworth), Ursinus College, Collegeville, Pa. *Mathematics.* St. John, N. B, Can, Nov. 26, 81. B.A, New Brunswick, 01, M.A, 05; Cambridge, 04; hon. Sc.D, Ursinus Col, 20. *Prof. math, Ursinus Col, 07–* A.A; Math. Soc; Math. Asn. Geometry of the quadrilateral and triangle.

Clay, Dr. John P(aul), Hunter College, 68th St. and Park Ave, New York, N. Y. *Chemistry.* Dawson, Ga, Oct. 2, 10. B.S, Georgia, 32, M.S, 34; Ph.D, Columbia, 38. Asst. chem, Georgia, 32–34; Columbia, 34–38; research chemist, Inter-Chem. Corp, New York, 38; *instr. chem, Hunter Col, 39–* Martin Reynolds Smith Mem. prize, Georgia, 34. Capt, U.S.A, Ft. Knox, Ky, 41– Chem. Soc. Colloid chemistry; catalytic effect of anions upon the rate of dissolution of hydrous alumina by acids.

Clay, William M(arion), 3011 Meade Ave, Louisville, Ky. *Zoology.* Myers, Ky, Oct. 3, 06. A.B, Transylvania Col, 27; A.M, Michigan, 33, Ph.D, 37. Instr. biol, Transylvania Col, 27–29, asst. prof, 29–32; asst. zool, Michigan, 32–35, univ. fellow, 35–36; *instr. biol, Louisville, 36–* Soc. Ichthyol. and Herp; Mich. Acad; Ky. Acad. Herpetology; ornithology; zoogeography.

Claycomb, Prof. George B, Southwestern Louisiana Institute, Lafayette, La. *Biology.* La Harpe, Ill, Dec. 25, 86. Ph.B, Adrian Col, 09; M.S, Chicago, 14; Michigan State Col; Cornell; Montana; Washington (St. Louis); Illinois. Teacher, high schs, Ill. and Mont, 10–18; asst. zool, Illinois, 18–19; prof. *biol,* Dakota Wesleyan, 19–22; *prof. and head dept, Southwest. La. Inst, 22–* A.A; La. Acad. Ecology; physiology.

Claydon, Dr. T(homas) J(oseph), University of Arkansas, Fayetteville, Ark. *Dairy bacteriology.* Chicago, Ill, Dec. 31, 09. B.S.Agr, Saskatchewan, 34; M.S, Iowa State Col, 36, Ph.D, 39. Asst, Iowa State Col, 38–40; *instr. research dairy mfrs, Arkansas, 40–* Dairy Sci. Asn. Flavor defects of microbial origin in butter; mold mycelia in cream and butter.

Claypool, Prof. L(awrence) L(eonard), Naval Supply Depot, Norfolk, Va. *Fruit physiology.* Pueblo, Colo, Dec. 30, 07. B.S, California, 28, 29; Ph.D, State Col. Wash, 35. Asst. horticulturist, State Col. Wash, 30–34; supervisor, Production Credit Corp, Spokane, Wash, 34–37; instr. *pomol, California,* 37–39, *asst. prof, 39–,* jr. pomologist, *Exp. Sta,* 37–39, *asst. pomologist, 39–; lieut, U. S. Naval Res.* Soc. Hort. Sci. Physiology of fruits after harvest during storage, transportation and marketing.

Clayton, Dr. Carlyle N(ewton), South Carolina Truck Experiment Station, P. O. Box 337, Charleston, S. C. *Plant pathology.* Liberty, S. C, Dec. 20, 12. B.S, Clemson Agr. Col, 34; Ph.D, Wisconsin, 40. Asst. plant path, Wisconsin, 35–40; *asst. plant pathologist, S. C. Truck Exp. Sta, 40–* Phytopath. Soc. Control of diseases of potato and vegetable crops.

Clayton, Prof. Cha(rle)s Y(ancey), Rolla, Mo. *Metallurgy.* Hannibal, Mo, Jan. 29, 91. B.S, Mo. Sch. Mines, 13; Met.E, 16. *Prof. metal. eng, Mo. Sch. Mines, 13–,* director mining exp. sta, 34–37. Metallographist, U. S. Bur. Mines, Pittsburgh, 18. Summers, metallurgist, Bedford Hills, 21, consulting metallurgist, 22–; metallurgist, Bur. Standards, 22; rock drill metallurgist, Vanadium-Alloys Steel Co, Pittsburgh, 30; prin. metallurgist, U. S. Bur. Mines, 42. Min. and Metal. Eng; Soc. Metals (trustee); Foundrymen's Asn; Iron and Steel Inst. Gt. Britain. Metallography.

Clayton, C(laud) F(rankiin), 109 N. George Mason Drive, Arlington, Va. *Agricultural economics.* Essex, Mo, Feb. 14, 90. A.B, Missouri, 15, A.M, 16; Minnesota, 21–24. Assoc. prof. agr. econ, Arkansas, 24–25; Mich. State Col, 25–28; senior agr. economist in charge regional and local land utilization studies, bur. agr. econ, U. S. Dept. Agr, 28–34, in charge div. project organization, land utilization program, 37–39, prin. agr. economist, agr. adjust. admin, 34–35; chief project planning and control sect, Nat. Resettlement Admin, 35–37; *chief econ. surys. div, surys. and project plans, soil conservation service, U. S. Dept. Agr, 39–* Farm Econ. Asn. Regional and local land utilization; economic aspects of planning surveys to provide a basis for the application of agricultural programs.

Clayton, Dr. E(dward) E(astman), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Upper Sandusky, Ohio, March 10, 95. B.S, Ohio State, 16; M.S, Chicago, 17; Ph.D, Wisconsin, 20. Exten. plant pathologist, Ohio State, 20–22; research assoc, N. Y. Exp. Sta, Geneva, 22–31; plant pathologist, *tobacco div, bur. plant indust, U. S. Dept. Agr,* 31–35, *senior pathologist, 35–* A.A; Bot. Soc; Phytopath. Soc. Diseases of tobacco and vegetable crops.

Clayton, H(enry) H(elm), 1410 Washington, Canton, Mass. *Meteorology.* Murfreesboro, Tenn, March 12, 61. Private and pub. schs. Student asst, astron. observatory, Michigan, 84–85; asst, Harvard Observatory and Blue Hill Meteorol. Observatory, Harvard, 86–91; local forecast official, U. S. Weather Bur, 91–93; meteorologist, Blue Hill Meteorol. Observatory, Harvard, 94–09; chief forecast div, Argentine Weather Service, 13–22; research, Smithsonian Institution, 23–26; *private research, 27–* In charge Teisserenc de Bart and Rotch exped, 05. Mem. special cmt, council cosmic and terrestrial relationships, Nat. Research Council, 40– Am. Acad; Boston Sci. Soc. (pres, 99–03). Clouds; explorations of the air with sounding balloons; relation of solar changes to world weather; relation of auroras and geomagnetic changes to solar changes.

Clayton, Dr. James O(liver), 34 Florida Ave, Berkeley, Calif. *Chemistry.* San Francisco, Calif, Aug. 20, 05. B.S, California, 27, Ph.D, 31. Head dept. chem, Col. of St. Teresa, 32–35; *research chemist,* Naval Research Lab, Washington, 35–36; *Standard Oil Co. of Calif, 36–* Chem. Soc. Acid ionization constants of amides; specific heat and entropy measurements on condensed gases; lubricants and petroleum products.

Clayton, Dr. Mary M(orris), University of Maine, Orono, Maine. *Nutrition.* Shelbyville, Ind, Sept. 4, 93. B.S, Columbia, 18; M.S, Rochester, 25, Ph.D, 28. Asst. vital econ, Rochester, 23–25; nat. research fellow, 25–27; asst. prof. physiol, Mt. Holyoke Col, 27–33; *nutritionist, Exp. Sta, Maine, 34–* A.A. Effect of diet on reproduction and lactation; nutritional status of grade school children in Maine; nutritional status of University of Maine women; relation of dietary habits and food resources of Maine people to their state of nutrition with respect to vitamin C.

Clear, Dr. C(harles) G(erald), Shell Oil Co, Inc, Box 728, Wilmington, Calif. *Chemistry.* Seattle, Wash, May 17, 13. B.S, California, 34, Ph.D, 37. *Technologist, Shell Oil Co, 37–* A.A. Physical organic chemistry.

Cleaveland, Prof. Marlon, Western Reserve University, Cleveland, Ohio. *Chemistry.* Fredonia, N. Y, March 31, 98. A.B, Western Reserve, 20, A.M, 21; fellow, Columbia, 27–28, Ph.D, 29. Asst. *chem, Western Reserve,* 21–22, instr, 22–26, 28–30, *asst. prof, 30–,* asst. dean, 34–42. A.A; Chem. Soc. Enzymes; amylases.

Cleaves, Dr. Arthur B(alley), Anaconda Copper Mining Co, 25 Broadway, New York, N. Y. *Geology.* North Scituate, Mass, Dec. 6, 05. Ph.B, Brown, 27, A.M, 29; M.A, Toronto, 30; A.M, Harvard, 32, Ph.D, 33. Instr. geol. and paleont, Lafayette Col, 33–36; junior geologist, Pa. Topog. and Geol. Surv, 36–37, asst. geologist, 37–38; chief geologist, Pa. Turnpike Cmn, 38–41; Caribbean Architect-Engineer, 41–42; consulting engineer, Venezuela, 42; *special eng. geologist, Cananea Consol. Copper Co, Mex, 43–* Sec'y, Field Conf. Pa. Geologists, 37. Chief geologist, exped, East Greenland, 33; co-organizer exped, Matto Grosso, Brazil, 34; Antigua, St. Lucia, Trinidad, British Guiana, Surinam. Paleont. Soc; Geol. Soc; Explorers Club; Pa. Acad. Geology in East Greenland; stratigraphy and paleontology in central Pennsylvania; paleontology of New Hampshire.

Cleaves, Howard H(enderson), 8 Maretzek Court, Prince Bay, Staten Island, N. Y. *Ornithology.* Aurora, Ill, Sept. 22, 87. Harvard, 24–25. Curator museum, Staten Island Inst. Arts and Sciences, 11–17; asst. to chief publication, N. Y. State Conservation Cmn, 18–21; managing director museum, San Diego Soc. Nat. Hist, Calif, 21–22; state sec'y, Wild Life League, W. Va, 22–24; *lecturer.* Photo-naturalist, Pinchot South Sea exped, 29. Assoc. Ornith. Union; Bird Banding Asn. (sec'y, 12–20); Linnaean Soc. N. Y; Staten Island Inst. Arts and Sci. (trustee). Migrations, life histories and habits of native birds; conservation; wildlife photography.

Cleckley, Dr. Hervey M(ilton), University Hospital, Augusta, Ga. *Neuropsychiatry.* Augusta, Ga, Sept. 4, 03. B.S, Georgia, 24, M.D, 29; B.A, Oxford, 26. Psychiatrist, Vets. Hosp, Augusta, Ga, 31–37; assoc. prof. *neuropsychiat, sch. med, Georgia,* 37–38, *prof, 38–* Am. Med. Asn; Psychiat. Asn; fel. Col. Physicians; South. Med. Asn. Semantic dementia; shock therapy; avitaminoses; psychotherapy.

Cleeton, Dr. Claud E(dwin), 2424 34th St, S. E, Washington, D. C. *Physics.* Downing, Mo, Dec. 11, 07. B.S, Northeast Mo. State Teachers Col, 28; A.M, Missouri, 30; Ph.D, Michigan, 35. Instr. physics, Northeast Mo. State Teachers Col, 30–31; Moberly Junior Col, Mo, 31–35; Michigan, 35–36; *with U. S. Naval Research Lab, 36–* Physical Soc; Radio Eng. Raman effect; ultra-short waves.

Cleghorn, Prof. M(ark) P(erkins), 513 Ash Ave, Ames, Iowa. *Mechanical engineering.* Onawa, Iowa, Aug. 24, 77. B.S, Iowa State Col, 02, M.E, 07. Instr. *mech. eng, Iowa State Col,* 02–05, asst. prof, 05–08, assoc. prof, 08–21, *prof, 21–,* head dept, 36–43. Summers, instr, Wisconsin, 06, 07; course for teachers, Westinghouse Elec. and Mfg. Co, 19; consulting engineer. Mech. Eng; Eng. Educ; Iowa Eng. Soc. Cost of producer gas power; high pressure gas transmission in pipes; heat waste in power stations; teaching load survey; use of Iowa coal in domestic stokers; performance of pressure-type oil burners.

Cleland, Prof. Ralph E(rskine), Indiana University, Bloomington, Ind. **[6]Botany, Genetics.* Le Claire, Iowa, Oct. 20, 92. A.B, Pennsylvania, 15, M.S, 16, Ph.D, 19. Instr. biol, Goucher Col, 19–20, asst. prof. bot, 20–23, assoc. prof. biol, 23–30, prof, 30–38, chairman dept, 37–38; *prof. bot. and bacter. and head dept, Indiana, 38–* Instr, Marine Biol. Lab, Woods Hole, 24; Guggenheim Mem. Foundation fellow, 27–28. Ed. in chief, 'Am. Jour. Bot,' 40– John F. Lewis award, Am. Philos. Soc, 37. Ed, sect. plant cytol, and trustee, 'Biol. Abstracts.' Nat. Acad; A.A; Soc. Nat. (sec'y, 38–40, pres, 42); Bot. Soc; Genetics Soc; Philos. Soc; Biol. Soc; Ind. Acad. Red algae; cytology and genetics of Oenotheras.

Cleland, Prof. W(illiam) E(rskine), 3021 Sixth Ave, Beaver Falls, Pa. *Mathematics.* Peotone, Ill, Sept. 7, 93. A.B, Westminster Col. (Pa), 13; A.M, Pittsburgh, 17; fellow, Princeton, 22–23, Ph.D, 23. Instr. *math,* Waynesburg Col, 17–18; Pittsburgh, 18–20; Princeton, 20–22; *prof, Geneva Col, 23–* A.A; Math. Asn; Asn. Physics Teachers. Differential geometry.

Clemence, G(erald) M(aurice), U. S. Naval Observatory, Washington, D. C. *Astronomy.* Smithfield, R. I, Aug. 16, 08. Ph.B, Brown, 29. Junior astronomer, *U. S. Naval Observatory,* 30–37, asst. astronomer, 37–40, astronomer, 40–42, *senior astronomer, 42–* A.A; Astron. Soc. Positional astronomy; lunar effects on clock corrections; the mass of Venus; motions of the major planets.

Clemens, Prof. Wilbert A(mie), University of British Columbia, Vancouver, B. C, Can. *Biology.* Millbank, Ont, 87. B.A, Toronto, 12, M.A, 13; Ph.D. Cornell, 15. Demonstrator biol, Toronto, 12–13; asst. instr, Cornell, 13–15; instr, Maine, 15–16; lecturer, Toronto, 16–19, asst. prof, 19–24; director, Pacific Biol. Sta, 24–40; *prof. zool, British Columbia, 40–* 1st Walker prize, Boston Soc. Nat. Hist, 16. A.A; Ecol. Soc; Fisheries Soc; Limnol. Soc; Soc. Zool; Oceanographic Soc. Pacific; West. Soc. Nat; fel. Royal Soc. Can; B. C. Acad. Marine and fresh-water biology.

Clement, Prof. Anthony C(alhoun), College of Charleston, Charleston, S. C. *Biology.* Spartanburg, S. C, Nov. 24, 09. B.S, South Carolina, 30; A.M, Princeton, 33, Ph.D, 35. Asst. prof. *biol, Col. of Charleston,* 35–40, *assoc. prof, 40–* A.A. Experimental cytology and embryology.

Clement, Dr. C(larence) E(lbert), U. S. Department of Agriculture, Washington, D. C. *Dairy industry.* Derry, N. H, Nov. 15, 83. B.S, New Hampshire, 06; A.M, American Univ, 27, Ph.D, 31. Commercial dairying, 06–12; *assoc. market-milk specialist, bur. dairy indust, U. S. Dept. Agr, 12–* Farm Econ. Asn; Dairy Sci. Asn; Int. Asn. Milk Sanitarians. Market milk; creaming ability of market milk; construction and arrangement of city milk plants and of country milk-receiving and cooling stations; milk plant management.

Clement, Dean Fred Moore, University of British Columbia, Vancouver, B. C, Can. *Horticulture.* Niagara, Ont, Nov. 21, 84. B.S.A, Ont. Agr. Col, 11; A.M, Wisconsin, 22. Co. rep, Dutton, Ont, 11–12; lecturer hort, Macdonald Col, McGill, 12–14; director, Vineland Exp. Sta, 14–16; *prof. hort, British Columbia, 16–, dean faculty agr, 19–, prof. agr. econ. and head dept, 39–* Farm Econ. Asn; Can. Soc. Tech. Agr; Int. Conf. Agr. Economists. Marketing problems confronting the cooperative producers of fruit and vegetables in the Okanagan Valley of British Columbia.

Clement, Dr. G(eorge) M(uller), Box 252, New Orleans, La *Geology.* Horatio, Ark, Dec. 20, 04. A.B, South Dakota, 28; A.M Iowa, 32, Ph.D, 33. Asst. geol, Iowa, 28–29, 31–33, research assoc, 33; geologist, Shell Petrol. Co, 29–31; *asst. div. geologist, Texas Co, 33–* Summers, asst, S. Dak. Geol. Surv, 26, 27, 28. Stratigraphy and structure of the Upper Mississippi Valley; geology of salt domes.

Clement, Col. J(ohn) K(ay), U.S.A, New York Ordnance District, 80, Broadway, New York, N. Y. *Physics.* Sunbury, Pa, Nov. 5, 80. B.S, Trinity Col. (Conn), 00; Ph.D, Göttingen, 04. Asst, geophys. lab, Carnegie Institution, 04–07; asst. physicist, technol. branch, U. S. Geol. Surv, 07–08, physicist, 08–10; U. S. Bur. Mines, 10–17; major, *Ordnance Dept,* 20–35, lieut. col, 35–39, *col, 39–* Physical Soc; Chem. Soc; Philos. Soc. Wash; Wash. Acad. Experimental physics; formation of ozone; gas thermometer; physical properties of rock-forming minerals; the gas producer; thermal conductivity of refractory materials at high temperature; gas and dust explosions.

Clement, Dr. Mary Dean, 1711 Ashwood Ave, Nashville, Tenn. *Mathematics.* Nashville, Tenn, Feb. 8, 14. A.B, Wellesley Col, 34; A.M, Vanderbilt, 35; Ph.D, Chicago, 41.

Instr. math, Ward-Belmont Col, 34–38; *Wells Col, 41–* Math. Soc; Math. Asn. : Projective differential geometry.

Clemente, Prof. Amando, University of the Philippines, Manila, P. I. *Physical chemistry.* Pulilan, Bulacan, P. I, Oct. 25, 91. A.B, Philippines, 14, M.S, 17; Univ. Philippines fellow, Chicago, 18–20, Ph.D, 20. Asst. chem, Philippines, 17–18, instr, 20–21, asst. prof, 21–24, assoc. prof, 24–27, dean junior col, 26–27; physicist, Philippine Gen. Hosp, 27–30; *prof. chem. and head dept, Philippines, 30–* Mem. exec. board, Nat. Research Council P. I. Chem. Soc; P. I. Sci. Soc. Adsorption by charcoal; electrical properties of sols.

Clemente, Prof. Leopoldo S, University of the Philippines, Manila, P. I. *Zoology.* Paombong, Bulacan, P. I, Sept. 30, 96. B.Agr, Philippines, 17; B.S, Illinois, 20, scholar, 20–21, M.S, 21, fellow, 21–23, Ph.D, 23. Asst. agron, col. agr, *Philippines,* 17–19; instr. *zool,* junior col, 23–25; asst. prof, *col. lib. arts,* 26–28, 29–34, *assoc. prof, 35–* Mem, Nat. Research Council, P. I, 35– Philippine Parasitol. Soc; Philippine Sci. Soc. Genetics and eugenics; entomology; mutation of Philippine wild Drosophila; racial crosses in the Philippines; poultry genetics; human heredity.

Clements, Prof. Forrest (Edward), University of Oklahoma, Norman, Okla. *Anthropology.* Princeton, Mo, July 31, 00. A.B, California, 23, A.M, 25, Ph.D, 28. Teaching fellow anthrop, California, 24–28; nat. research fellow, Yale, 28–30, asst, inst. human relations, 30; assoc. prof. *anthrop, Oklahoma,* 31–40, *prof, 40–* Indian ethnog. expeds, Calif, Ariz, N. Mex. and Okla. Anthrop. Asn; Asn. Physical Anthrop; fel. Am. Geog. Soc; fel. Okla. Acad. Oklahoma archeology; quantitative methods in ethnography; racial differences in color-blindness, mortality and morbidity; skin color and degree of change due to exposure to sunlight; primitive concepts of disease; ethnographic motion picture recording.

Clements, Dr. F(rank) O(rville), 111 N. West St, Westerville, Ohio. *Chemical engineering.* Westerville, Ohio, Nov. 9, 73. A.B, Otterbein Col, 96, A.M, 98, Sc.D, 30; M.S, Ohio State, 99. Asst. chemist, Pa. R. R, 99–03; asst. chemist and engineer of tests, Union Pacific R. R, 03–05; chief chemist and engineer of tests, Nat. Cash Register Co, 05–17; director research, Dayton Metal Products Co, 17–20; tech. director research labs, Gen. Motors Corp, 20–39. Chairman board trustees, Otterbein Col. A.A; Soc. Automotive Eng; Chem. Soc; Electrochem. Soc; Soc. Test. Mat. (v. pres, 30, pres, 32); Soc. Metals; Mich. Acad; Eng. Soc. Detroit; Dayton Eng. Club. Automotive research; chemistry; metallurgy; fuel technology.

Clements, Dr. Frederic E(dward), Mission Canyon, Santa Barbara, Calif. or Alpine Laboratory, Manitou, Colo. *[1]Botany.* Lincoln, Nebr, Sept. 16, 74. B.S, Nebraska, 94, A.M, 96, Ph.D, 98. Asst. bot, Nebraska, 94–97, instr, 97–99, adj. prof, 99–03, asst. prof, 03–05, assoc. prof. plant physiol, 05–06, prof, 06–07; bot, Minnesota, 07–17; assoc. ecol. research, Carnegie Institution, 17–41; *retired.* Summers, Alpine Lab, Carnegie Institution. A.A. Ecology; experimental evolution; paleoecology; climatology.

Clements, Mrs. Frederic E(dward) (Dr. Edith Clements), Santa Barbara, Calif. or Alpine Laboratory, Manitou, Colo. *Botany.* Albany, N. Y. A.B, Nebraska, 98, Ph.D, 06. Asst. bot, Nebraska, 04–07; instr, Minnesota, 09–13. Summers, Alpine Lab, Carnegie Institution. Ecology; experimental evolution.

Clements, Prof. G(uy) R(oger), 7 Thompson St, Annapolis, Md. *Mathematics.* Ravenna, Ohio, March 5, 85. A.B, Hiram Col, 05; A.M, Chicago, 07; Ph.D, Harvard, 13. Instr. math, Williams Col, 07–09; Harvard, 08–10; substitute prof. pure math, North Carolina, 10–11; instr. *math,* Wisconsin, 11–17; *U. S. Naval Acad,* 17–19, asst. prof, 19–20, assoc. prof, 20–27, *prof,* 27– Math. Soc; Math. Asn. Singular transformations; mechanics.

Clements, Prof. H(arry) F(rank), University of Hawaii, Honolulu, Hawaii. *Plant physiology.* St. Joseph's, Wis, Oct. 24, 01. B.S, Wisconsin, 24, M.S, 25; Ph.D, Chicago, 29. Instr. and asst. plant physiol, Mich. State Col, 25–28; asst. prof. *bot,* State Col. Wash, 29–34, assoc. prof, 34–37; *Hawaii,* 37–38, *prof, 38–, plant physiologist, Exp. Sta, 38–* Bot. Soc; Soc. Plant Physiol. (sec'y, west. sect, 35–37; pres, 37); Hawaiian Acad. (pres, 41). Translocation; crop physiology; bud inhibition.

Clements, Dr. J(ulius) Morgan, Papeete, Tahiti, French Oceania. *Geology.* Montgomery, Ala, Feb. 12, 69. A.B, Alabama, 87; Ph.D, Leipzig, 90; Royal Mining Acad, Freiberg, 90; Munich, 90–91; Heidelberg, 91; Paris, 91. Asst, Ala. Geol. Surv, 92–93; asst. prof. geol, Wisconsin, 93–02; consulting geologist, New York, 02–17; Am. trade commissioner, U. S. Dept. Commerce, 17–21; *consulting geologist.* Asst. geologist, U. S. Geol. Surv, 93–02. A.A; Geol. Soc; Min. and Metal. Soc. Economic geology; mining engineering.

Clements, Prof. Leo P(aul), Creighton University School of Medicine, Omaha, Nebr. *Embryology.* Daviess Co, Ind, Aug. 21, 89. A.B, Ind. State Nor. Sch, 20; M.S, Iowa State Col, 26; Ph.D, Chicago, 35. Teacher and supervisor, schs, Ind, 12–20; asst. prof. biol. and agr, Ind. State Teachers Col, 21–28; head dept. biol, *Creighton,* 28–29, asst. prof. *anat, sch. med,* 29–38, *assoc. prof, 38–* Mem, State Basic Science Board Physiol, Nebr, 28– A.A; Asn. Anat. Histogenesis of the dust cells; developmental anomalies; embryology of the lung.

Clements, Prof. Thomas, 2171 Vista del Mar Ave, Hollywood, Calif. *Geology.* Chicago, Ill, June 7, 98. E.M, Texas Sch. Mines, 22; M.S, Calif. Inst. Tech, 29, Ph.D, 32. Metallurgist, Am. Metal Co, Ltd, Torreon, Coahuila, Mex, 22–25; teaching fellow geol. and paleont, Calif. Inst. Tech, 27–29; instr. *geol, Southern California,* 29–32, asst. prof, 32–34, assoc. prof, 34–42, *prof, 42–, head dept, 33–,* chairman div. physical sciences and math, 40–42; Consulting geologist, 29–; Departamento de Petroleos, Ministerio de la Econ. Nacional, Colombia, S. Amer, 39. Summer, geologist, Standard Oil Co. of Calif, 29. Seismol. Soc; Min. and Metal. Eng. Structural and economic geology; gems; sedimentation.

Cleminshaw, Dr. Clarence H(igbee), Griffith Observatory, Los Angeles, Calif. *Astronomy.* Cleveland, Ohio, Jan. 15, 02. A.B, Cornell, 23; LL.B, Harvard, 26; M.S, Case, 31; Ph.D, Michigan, 34. Assoc. astron, Case, 34–35; research asst, Flower Observatory, Pennsylvania, 35–36; *asst. director, Griffith Observatory and Planetarium, 36–; asst. prof. astron, Southern California, 36–* A.A; Soc. Research Meteorites (sec'y, 41–); Astron. Soc; Astron. Soc. Pacific. Stellar spectroscopy; meteoritics.

Clemmer, Harold F(rancis), District Bldg, Washington, D. C. *Highway engineering.* Hampton, Iowa. B.S, Iowa State Col, 12, C.E, 18. Assoc. prof. civil eng, Iowa State Col, 12–20; engineer of materials, State Highway Dept, Ill, 20–26; tech. adviser, Solvay Process Co, 26–29; *engineer of materials, Washington, D. C, 29–* Civil Eng; Soc. Test. Mat. (exec. cmt, 37–); Concrete Inst; Pub. Works Asn; Asn. State Highway Officials. Design of rigid type pavements; pressure on pipes in ditches; fatigue of concrete; curing of concrete.

Clemmer, J. Bruce, 815 16th Ave, Tuscaloosa, Ala. *Metallurgy.* Coon Rapids, Iowa, Sept. 29, 04. B.S, S. Dak. Sch. Mines, 27; M.S, Mo. Sch. Mines, 28. *Metallurgist, U. S. Bur. Mines, 29–* Min. and Metal. Eng. Mineral dressing; flotation and beneficiation of metallic and non-metallic ores and products.

Clench, William J(ames), Harvard University, Cambridge, Mass. *Zoology.* Brooklyn, N. Y, Oct. 24, 97. B.S, Mich. State Col, 21; Hinsdale fellow, Michigan, 22–25; M.S, Harvard, 23. Custodian nat. hist. collections, Kent Sci. Museum, Grand Rapids, 25–26; *curator mollusks, museum comp. zool, Harvard, 26–,* lecturer zool, 29–36. Yale-Bishop Museum fellow, 40–41. Special ed, 'Webster's New Int. Dictionary,' 32–34. Field expeds, Ky, Tenn, West Indies, Gulf States and Hawaiian Islands. A.A; Malacol. Union (councilor, 31–, pres, 34); Boston Soc. Nat. Hist; Boston Malacol. Club (pres, 28–30); Cambridge Entom. Club; Conchol. Soc. Gt. Britain and Ireland; fel. Soc. Cubana Hist. Nat. Malacology; geographical distribution of mollusks; ecology.

Clendenin, Thomas P(ipes), 1112 Mills Bldg, El Paso, Texas. *Mining geology.* Baton Rouge, La, June 10, 96. B.S, Col. City of N. Y, 16; E.M, Columbia, 21. Tutor math, Col. City of N. Y, 16–17; instr. miner, Columbia, 21–23; geologist, *Mexican mining dept, Am. Smelting and Ref. Co,* 23–27, *chief geologist,* 27– Capt, F.A, 17–18. A.A; Min. and Metal. Eng; Am. Geog. Soc. Metallic mineral deposits of Mexico, especially limestone replacements, contact-metamorphic deposits, mixed-metal veins in limestones and shales, and gold-silver veins in extrusives; structural geology; geology of mine engineering.

Clendenning, Dr. K(enneth) A(ndrew), National Research Council Laboratories, Ottawa, Ont, Can. *Plant physiology, Biochemistry.* Gananoque, Ont, May 11, 15.

M.A, Queen's (Can), 37; Ph.D, Toronto, 41. Class asst. bot, Toronto, 37–39; asst. storage investigations, dept. hort, Ont. Agr. Col, 39–41, special lecturer, 39–40; senior asst. *indust. fermentation and wheat utilization, div. applied biol, Nat. Research Council Can*, 41, *junior research biologist*, 42– Wintercorbyn award, Toronto, 39. Soc. Plant Physiol; Can. Soc. Tech. Agr. Diurnal respiratory and carbohydrate metabolism of the wheat leaf; acid metabolism of Aspergillus niger; metabolism of the tomato fruit in development and storage; polarimetric determination of starch.

Cleveland, Prof. Alfred A(lexander), State College of Washington, Pullman, Wash. *Psychology.* Astoria, Oregon, Feb. 29, 76. A.B, Oregon, 98, A.M, 03; Ph.D, Clark, 06. Asst. prof. psychol, *State Col. Wash*, 07–08, prof, 08, head dept. educ, 08–17, *prof. psychol*, 37–, dean sch. educ, 17–41, *emer. dean*, 41– A.A; Psychol. Asn. Educational psychology.

Cleveland, C(larence) R(ugg), Standard Oil Co, 910 S. Michigan Ave, Chicago, Ill. *Entomology.* Seward, Ill, Aug. 27, 89. A.B, Wisconsin, 12. Asst. prof. and asst. entomologist, New Hampshire, 15–21; asst. entom, Exp. Sta, Purdue, 21–27, asst. prof. and asst. entomologist, 25–27; *entomologist, Standard Oil Co. of Ind*, 27– A.A; Asn. Econ. Entom. The cabbage maggot; the feather mite; repellent sprays; insects and the transmission of plant diseases; oil sprays for orchard and shade tree insects; household insecticides; mothproofing compounds; animal parasite control; codling moth; European red mite; apple aphids.

Cleveland, Prof. C(lark) M(ilton), 405 E. 35th St, Austin, Texas. *Mathematics.* Union, Miss, Dec. 4, 92. B.E, Mississippi, 17; Ph.D, Texas, 30. From instr. to *prof. applied math, Texas, 19–* Point set theory.

Cleveland, Dr. C(ourtney) E(rnest), 3737 Pine Crescent, Vancouver, B. C, Can. *Geology.* Vancouver, B. C, Feb. 22, 10. B.A, British Columbia, 34; M.Sc, McGill, 38, Ph.D, 40. *Geologist, Bralorne Mines, Ltd*, 34–38, *41–* Barlow Mem. prize, 39. Geology of the Empire Mine, Bralorne Mines, Ltd, Bralorne, British Columbia.

Cleveland, Dr. David, Marquette University School of Medicine, Milwaukee, Wis. *Anatomy.* Oregon, Ill, Sept. 21, 01. A.B, Southern California, 24; M.D, Northwestern, 30, M.S, 31, fellow, 30–36, Ph.D, 37. Assoc. surg, med. sch, Northwestern, 30–36; asst. prof. anat. and surg, *sch. med, Marquette*, 36–37, *assoc. prof. surg*, 37– Am. Med. Asn; Col. Surg; Harvey Cushing Soc. Neuro-physiology; neuro-surgery.

Cleveland, Prof. Forrest F(enton), Illinois Institute of Technology, Chicago, Ill. *Physics.* Pendleton Co, Ky, Jan. 10, 06. A.B, Transylvania Col, 27; M.S, Kentucky, 30; Ph.D, 34; Chicago. Instr, high schs, Ky, 27–30; physics, Kentucky, 30–34; junior high sch, Ky, 34–35; prof. *physics* and head dept, Lynchburg Col, 35–39; asst. prof, Armour Inst. Tech, 39–40; *assoc. prof, Ill. Inst. Tech*, 40– Summers, instr, Transylvania Col, 29, research physicist, Kendall Mills, 38. Sigma Xi grant in aid, 37; Am. Philos. Soc. grant in aid, 41; Am. Acad. Arts and Sciences grant in aid, 41. Research prize, Va. Acad. Science, 39. A.A; Physical Soc; Asn. Physics Teachers. Magnetic force; Raman effect and infra-red spectra.

Cleveland, H(enry) Burdett, 130 W. 16th St, New York, N. Y. *Sanitary engineering.* Schevenus, N. Y, Nov. 7, 77. B.E, Union (N. Y). Prin. asst. to city engineer, Amsterdam, N. Y, 95–02; prin. asst. engineer, Olin H. Landreth, Schenectady, 02–05; State Dept. Health, N. Y, 05–19; consulting engineer, Barth Eng. and Sanit. Co, N. Y, 19–22; *consulting sanit. engineer, 22–* Lecturer, Cornell; Syracuse; Albany Med. Col, Union (N. Y); N. Y. Med. Col. Civil Eng; Pub. Works Asn; fel. Pub. Health Asn; Water Works Asn; Soc. Test. Mat; Inst. Consulting Eng; N. Y. Sewage Works Asn; N. J. Sewage Works Asn; Albany Soc. Civil Eng. Water supply; water purification; sewage and garbage disposal; development of a non-clogging filter.

Cleveland, Prof. L(emuel) R(oscoe), Harvard University, Cambridge, Mass. ***Parasitology.* Union, Miss, Nov. 14, 92. B.S, Mississippi, 17; fellow, Hopkins, 21–23, Sc.D, 23. Instr. biol, Mississippi, 17–18; Emory, 18–20; zool, Kans. State Col, 20–21; nat. research fellow, 23–25; asst. prof. protozool, Harvard Med. Sch, 25–36, *assoc. prof. zool, Harvard, 36–* Prize, A.A.A.S, 24. A.A; Soc. Parasitol; Soc. Zool; Am. Acad. Symbiosis; cellulose digestion; toxicity of oxygen for microorganisms; defaunation methods; freeing Protozoa of bacteria; cultivation, anaerobiasis and food value of various bacteria for Protozoa; virulence and life-cycles of ameba; nutrition and Protozoa in roaches and termites; life-cycle, function and duplication of centrioles; origin and function of achromatic figure; movement, life-cycle, structure, duplication and aberrations of chromosomes.

Cleveland, Dr. (Nancy) Rucker, Harvard Medical School, Boston, Mass. *Anatomy.* Cincinnati, Ohio, Nov. 1, 05. A.B, Transylvania Col, 27, Ph.D, 34. Asst. anat, sch. med, Vanderbilt, 30–33, 35–41; *asst. to ed, 'Endocrinol.' and 'Jour. Clin. Endocrinol,' 41–* Soc. Study Int. Secretions; Asn. Anat. Cytology of pituitary gland; cytology of uterine endometrium.

Cleveland, Dr. Theodore K(elrstead), 1599 Thousand Oaks Blvd, Berkeley, Calif. *Chemistry.* Alma, N. B, Can, Sept. 17, 01. B.S, Acadia, 22; Ph.D, Yale, 25. Research chemist, United Gas Improv. Co, Phila, 26–29, Phila. Quartz Co, 29–35, *chief chemist, Phila. Quartz Co. of Calif*, 35– A.A; Chem. Soc; Franklin Inst; Phila. Physics Club (pres, 33). Chemistry of manufactured coal and water gas; manufacture and properties of silicates of soda; practical detergency.

Clevenger, Prof. C(linton) B, University of North Carolina, Raleigh, N. C. *Chemistry.* Shelby Co, Ohio, Nov. 11, 88. B.S.A, Ohio State, 12, M.S, 13; Ph.D, Wisconsin, 20. Instr. chem, Wisconsin, 19–20; prof. agr. chem, Manitoba, 20–25; asst. research chemist, Wyoming, 25–27; soil chemist, United Fruit Co, Tela, Honduras, 27–30; Standard Fruit Co, 30–32; acting prof. *soils, North Carolina*, 33–37, *prof*, 37– A.A; Soc. Agron; Chem. Soc; Soil Sci. Soc; Int. Soc. Soil Sci. Chemistry of soils.

Clevenger, Galen H(owell), 67 Sheffield Road, Newtonville, Mass. *Metallurgy.* Pike, N. Y, Sept. 1, 79. B.S, S. Dak. Sch. Mines, 01, M.E, 08; A.M, Columbia, 03; Met. E, Stanford, 06. Explor. in west. U. S, Mex. and Can. various mining companies, 01–05; instr. metal, Stanford, 05–06, from asst. to research prof, 09–18; consulting practise, U. S, Mex. and Can, 06–09; metallurgist, U. S. Bur. Mines, 18–19; chairman sect. metal, eng. div, Nat. Research Council, 19–20; metallurgist, Cia de Real del Monte y Pachuca, Mex, 20–21; *consulting metallurgist, U. S. Smelting, Ref. and Mining Co, 21–* Special asst. in charge elec. smelting experiments, U. S. Geol. Surv, Portland, Oregon, 05. Mem. eng. div, Nat. Research Council, 19–23, v. chairman, 20–23; mem. exec. board, Am. Eng. Council, 22–23; board, Eng. Foundation, 26–31, v. chairman, 29–30; mem. advisory cmt, U. S. Bur. Mines, 35– Mem. visiting cmt, dept. metal, Mass. Inst. Tech. Gold and silver medals, Panama-Pacific Int. Expos, 15. A.A; Min. and Metal. Eng. (director, 20–26); Min. and Metal. Soc; Chem. Soc; Electrochem. Soc. Metallurgy of precious metals; lead, zinc and mine metals.

Clevenger, J(oseph) F(ranklin), 93 Howton Ave, Great Kills, S. I, N. Y. *Botany.* Sidney, Ohio, Nov. 30, 74. B.S, Ohio State, 03, A.M, 05. Instr, high sch, Nebr, 03–04; prof. science, Cedarville Col, 05–06; biol, Wheaton Col, 06–09; instr. bot, Pa. State Col, 10–12; demonstrator, McGill, 12–15; pharmacog, bur. chem, U. S. Dept. Agr, 15–27, asst. plant histologist, food and drug admin; *pharmacognosist, New York.* Ohio Acad. Physiological botany; pharmacognosy; Phyllachora; effect of gases on heliotropism; effect of smoke on plants; fake saffron; crude drugs; substitution of Convallaria flowers for camomile; adulterants; Veratrum; Calza seed; Macatomia cephalates; volatile oil in spices and drugs.

Clewell, Dr. Dayton H(arris), 3220 Rankin, Dallas, Texas. *Physics.* Berwick, Pa, Dec. 15, 12. B.S, Mass. Inst. Tech, 33, Ph.D, 36. *Physicist*, C. K. Williams Co, 35–38; *Magnolia Petrol. Co, 38–* Physical Soc. Electron diffraction; scattering of light by small particles; spectrophotometry; geophysical prospecting.

Clewell, John H, Jr, E. I. du Pont de Nemours and Co, Arlington, N. J. *Chemistry.* Winston-Salem, N. C, Nov. 24, 86. B.S, Lehigh, 08. *In charge color lab. for plastics, Arlington Co, E. I. du Pont de Nemours and Co.,* Chem. Soc. Pyroxylin and general plastics.

Clifcorn, Dr. L(a Verne Edward), 31 Le Moyne Parkway, Oak Park, Ill. *Chemistry.* Rockford, Ill, Aug. 28, 06. A.B, Wisconsin, 28, A.M, 30, Ph.D, 34. State chemist, Wis, 28–36; research chemist, *Continental Can Co, Chicago*, 36–40, *chief research div, 41–* Chem. Soc; Inst. Food Technol. Food chemistry; analytical chemistry; problems relative to food preservation; nutrition; toxicology.

Cliff, Dr. Ivan S(paulding), Shell Oil Co, Inc, Houston, Texas. *Chemistry.* Lake City, Minn, Aug. 11, 98. A.B,

Carleton Col, 26; Ph.D, Mass. Inst. Tech, 33. Asst. chemist, Carleton Col, 25–26; asst. instr. chem, Mass. Inst. Tech, 26–33; *research chemist, Shell Petrol. Corp, 33–* Fel. Inst. Chem; Chem. Soc. (chairman southeast Texas sect, 40–). Organic chemistry; petroleum technology; chemical engineering.

Clifford, Dr. Albert M(itchell), 226 Adeline Drive, Stow, Ohio. *Organic chemistry.* Wellington, Ohio, Sept. 7, 98. A.B, Ohio Wesleyan, 22; A.M, Ohio State, 24, Ph.D, 26. *Div. org. research, Goodyear Tire and Rubber Co, Akron, 26–* Chem. Soc. Accelerators of vulcanization of rubber; deterioration inhibitors; conversion products of rubber; organic synthesis; polymerization; synthetic rubber.

Clifford, Prof. A(lfred) H, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* St. Louis, Mo, July 11, 08. A.B, Yale, 29; Ph.D, Calif. Inst. Tech, 33. Asst, Inst. Advanced Study, 36–38; instr. *math, Mass. Inst. Tech,* 38–41, *asst. prof, 41–* A.A; Math. Soc; Math. Asn. Algebra.

Clifford, Dr. Alfred T(urner), Aridye Corp, Fair Lawn, N. J. *Chemistry.* Statesville, N. C, Nov. 12, 04. B.S, North Carolina, 27, M.S, 28, Ph.D, 34; Pittsburgh, 28–33. Chemist, Mellon Inst, 29–33; acting prof, Davidson Col, 34–35; head dept. chem, Limestone Col, 36–37; chemist, Fries and Fries, Inc, 39–41; *research chemist,* Andrew Jergens Co, 41–43; *Aridye Corp, 43–* A.A; Chem. Soc. Cellulose; colloidal chemistry; emulsions; food products.

Clifford, C(harles) W(illiam), Canoga Park High School, Canoga Park, Calif. *Chemistry.* Stoughton, Mass, Dec. 22, 93. A.B, Denver, 14; M.S, Wisconsin, 16. Asst. chemist, Great West. Sugar Co, 16–17, 19–20; Bur. Standards, 18–19; Goodyear Tire and Rubber Co, 20–24; Exchange Orange Products Co, 24–26; *coordinator and chairman dept. science, Canoga Park High Sch, 26–* Lieut, C.W.S, 17–18, O.R.C, major. Organic analysis; teaching of physical sciences.

Clifford, Prof. Harry E(llsworth), Newton Center, Mass. *Electrical engineering.* Lowell, Mass, April 21, 66. B.S, Mass. Inst. Tech, 86, hon. Sc.D, 37; Harvard, 86–87, 88–89, 91–92. Instr. theoret. physics, Mass. Inst. Tech, 86–95, asst. prof, 95–02, assoc. prof. theoret. elec, 02–04, prof, 04–09; Gordon McKay prof. *elec. eng, Harvard,* 09–36, *emer. prof, 36–,* dean eng. sch, 30–36. Consulting engineer; prof, postgrad. sch, U. S. Naval Acad, 13–15. Science ed, McGraw-Hill Book Co, 11– Mem. advisory cmt, U. S. Coast Guard, 36–; board visitors, U. S. Naval Acad. Elec. Eng. (past chairman, Boston branch); Illum. Eng. Soc; Eng. Educ; Am. Acad; Circolo Mat. di Palermo. High voltage cables; electric furnaces.

Clifford, Paul A(nthony), 6809 Exeter Road, Edgemoor, Md. *Chemistry.* Farmer City, Ill, Feb. 22, 04. A.B, St. Viator Col, 24; A.M, Catholic Univ, 26. Food and drug admin, U. S. Dept. Agr, 27–28; U. S. Navy Yard, Brooklyn, 29; *assoc. chemist, food and drug admin,* U. S. Dept. Agr, 29–39; *Fed. Security Agency, 39–* Agr. Chem. Food chemistry.

Clift, William, 915 E. Cary St, Richmond, Va. *Chemistry.* Richmond, Va, July 8, 98. B.S, Va. Polytech, 20; A.M, Columbia, 25. Assoc. prof. chem, Med. Col. of Va, 22–27; *v. pres, Phipps and Bird, Inc, Richmond, 27–* A.A; Chem. Soc.

Clifton, Prof. Charles E(golf), Stanford University, Calif. *Bacteriology.* Etna, Ohio, March 23, 04. A.B, Ohio State, 25, M.S, 26; fellow, Minnesota, 27–29, Ph.D, 28. Research chemist, Eastman Kodak Co, 29; from instr. to *prof. bacter, Stanford, 29–* A.A; Soc. Bact; Soc. Exp. Biol. Physical and chemical properties of the bacteriophage and filterable viruses; oxidation-reduction potentials, especially of glucose; growth and metabolism of bacteria.

Climenko, Dr. David R(obert), 38 Euclid Ave, Delmar, N. Y. *Pharmacology.* New York, N. Y, Aug. 28, 06. B.S, Dartmouth Col, 27; M.D, Edinburgh, 31, Ph.D, 32. Assoc. prof. pharmacol, med. sch, Alberta, 32–34; lecturer, med. col, Cornell, 34–35; pharmacologist, Am. Cyanamid Co, 35–40; *assoc. prof. biochem, Albany Med. Col, 40–* Assoc. attending physician, Albany Hosp, 42– Physiol. Soc; Soc. Exp. Biol; Am. Med. Asn. (official consultant, council pharmacy and chem); fel. N. Y. Acad. Med; fel. Royal Med. Soc. Chemotherapeutic agents; blood dyscrasias; cardioactive glucosides; peripheral vascular disease; morphine substitutes.

Cline, A(lbert) C(ollins), Harvard Forest, Harvard University, Petersham, Mass. *Forestry.* Millerton, N. Y, Sept. 12, 92. B.S, Syracuse, 20, M.F, 22; Harvard, 23. Forest asst, U. S. Forest Service, 20–21; asst, *Harvard forest, Harvard,* 23–24, asst. to director and instr. forestry, 24–30, asst. director, 30–39, *director, 39–* Silviculture; forest utilization.

Cline, Dr. E(dward) T(erry), Faulk Road, R. D. 2, Wilmington, Del. *Organic chemistry.* Ischua, N. Y, Aug. 20, 14. B.S, Antioch Col, 36; Ph.D, Ohio State, 39. Asst, Ohio State, 36–39; *research org. chemist, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Olefins; synthetic fibers.

Cline, Dr. Isaac Monroe, 5333 Prytania St, New Orleans, La. *Meteorology, Medical climatology.* Madisonville, Tenn, Oct. 13, 61. A.B, Hiwassee Col. (Tenn), 82, A.M, 85; M.D, Arkansas, 85; Ph.D, Texas Christian, 96; hon. Sc.D, Tulane, 34. Asst. observer, U. S. Weather Bur, Little Rock, 82–85, in charge observation sta, Abilene, Texas, 85–89, Galveston, 89, director Texas sect, climat. service, 89–01, forecaster in charge, New Orleans Forecast Center, 01–35; *retired.* In charge cooperation, Mex. Weather Service and U. S. Weather Bur, 98–; instr, sch. med, Texas, 97–01. Bronze tablet, South. Pacific R. R. Co. A.A; fel. Meteorol. Soc. (pres, 34); fel. Am. Geog. Soc; New Orleans Acad. (pres, 34). Relation of climate and weather changes to diseases and deaths; summer hot winds on the great plains; intense heat of winds on the great plains as the result of dynamic heating; storm tides and tropical cyclones.

Cline, Prof. J(oseph) K(alman), University of Texas School of Medicine, Galveston, Texas. *Chemistry.* Govans, Md, Jan. 30, 08. A.M, Hopkins, 30, Ph.D, 34. Research chemist, Merck and Co, 30–32, 33–38; Bell Tel. Labs, 38–39; asst. prof. pharmacol, prev. med. and pub. health, *sch. med, Texas, 40, assoc. prof. prev. med. and pub. health, 40–, director cancer research lab.* A.A; Chem. Soc. Choline derivatives; structure and synthesis of vitamin B_1; cancer.

Cline, Dr. Joseph L(eander), 23 W. 12th St, Dallas, Texas. *Meteorology.* Madisonville, Tenn, Sept. 20, 70. B.S, Hiwassee Col, 90; A.M, Ph.D, Add Rann Univ. Teacher, pub. schs; asst. observer, U. S. Weather Bur, 92–00, observer and local forecaster, Texas, and director sect, P. R, 00–01, meteorologist in charge office, Dallas, 13–40; *retired.* Lecturer, high and nor. schs, Texas. Rep, U. S. Weather Bur. meeting for flood control and conservation in Texas. Sig.C, U.S.A. A.A; Meteorol. Soc; Texas Forestry Asn. Climatology; weather forecasting; agriculture; climate of Texas in its relation to the cultivation of winter vegetables, tropical fruits, apples and olives; frost protection.

Cline, Dr. L(ewis) M(anning), Standard Oil Co, Dallas, Texas. *Stratigraphy, Paleontology.* Duncan, Okla, Sept. 25, 09. B.S, Tulsa, 31; M.S, Iowa, 34, Ph.D, 35. Asst. geol, Tulsa, 31–32; Iowa, 32–35; instr, Agr. and Mech. Col. Texas, 35–36; Iowa State Col, 36–37, asst. prof, 38–43; *mem. staff, Standard Oil Co, Texas, 43–* Iowa Geol. Surv, 35–37. Mem. State Coal Cmt, Iowa, 39. Lowden prize, Iowa. Paleont. Soc; Geol. Soc. Pennsylvanian and Mississippian stratigraphy; Paleozoic ammonoids; Mississippian paleontology.

Cline, Marlin G(eorge), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Soils.* Bertha, Minn, Dec. 31, 09. B.S, N. Dak. State Col, 35; Henry Strong Denison fellow, Cornell, 39–41, Ph.D, 42. Junior soil surveyor, U. S. Dept. Agr, 35–38, assoc. soil scientist, 41–42; *instr. soils, Cornell, 42–* Soil Sci. Soc. Soil classification and soil cartography; the kind of soil as a factor in production and returns from farming.

Clippinger, Prof. Don(ald) R(oop), Ohio University, Athens, Ohio. *Chemistry.* Dayton, Ohio, Jan. 14, 05. B.S, Otterbein Col, 25; M.S, Ohio State, 26, Ph.D, 36. Asst. prof. *chem,* Otterbein Col, 25–28; *Ohio (Athens),* 28–36, assoc. prof, 36–41, *prof, 41–* Ohio Acad. Applications of certain indicator substances to electrometric titrations.

Clippinger, Dr. R(ichard) F(rederick), 235 Lehigh St, Pittsburgh, Pa. *Mathematics.* East Liberty, Ohio, April 10, 13. Ph.B, Kenyon Col, 33; Sorbonne, Paris, 33–35; A.M. and Ph.D, Harvard, 40. *Instr. math, Carnegie Inst. Tech, 40–* Math. Soc. Matrix products of matrix powers.

Clo, Dr. J. H(arry), 470 Vanderbilt Ave, Brooklyn, N. Y. *Physics.* Cincinnati, Ohio, May 2, 81. B.S, Kentucky, 04, M.S, 05; fellow, Chicago, 08–09, Ph.D, 11. Asst. and instr. physics, Kentucky, 02–05; State Col. Wash, 05–07; Virginia, 07–08; asst, Chicago, 09–11; asst. prof. and head dept, Tulane, 11–13, assoc. prof, 13–17, prof, 17–19; prof. and head dept, Pittsburgh, 20–24; *research physicist and head research dept, A. Schrader's Son div, Scovill Mfg. Co, Inc, 24–* A.A; Physi-

cal Soc; Soc. Automotive Eng; Asn. Physics Teachers. Electricity; automobile accessory inventions.

Cloke, Prof. John B(enjamin), Seymour Court, Troy, N. Y. *Chemistry.* Hoosick, N. Y, Oct. 31, 97. Ph.G, Albany Col. Pharmacy, Union (N. Y), 17; Rensselaer Polytech, 17–19; B.S, Syracuse, 25; Ph.D, Chicago, 31. Asst. chem, *Rensselaer Polytech,* 18–19, instr, 19–26, asst. prof, 26–31, *prof. org. chem, 31–* A.A; Chem. Soc. Pyrrolines; ketimines; iminoesters; nitriles; diazomethane, cyclopropane, cyclobutane, furan and halogen derivatives; physico-organic chemistry.

Cloke, Dean Paul, University of Maine, Orono, Maine. *Physics, Electrical engineering.* Trenton, N. J, Sept. 4, 82. E.E, Lehigh, 05, M.S, 13; D.E, Maine, 34. Cadet engineer and foreman, Pub. Service Co, N. J, 05–07; eng. apprentice, Westinghouse Elec. and Mfg. Co, 07–08; instr. physics, Pa. State Col, 09; research engineer, Westinghouse Lamp Co, 09–10; asst. prof. elec. eng. and physics, R. I. State Col, 10–14; prof. physics, Clarkson Tech, 14–18; elec. eng, Arizona, 18–26; *dean col. tech, Maine, 26–, director technol. exp. sta, 26–* Elec. Eng; Radio Eng; Asn. Eng. (pres, Tucson chap, 23); Eng. Educ. (v. pres, 32); Maine Asn. Eng. (pres, 35). Resistance of copper at high temperatures; atmospherics in radio transmission; measurement of radio frequency amplification; breakdown of insulation; photoelasticity.

Cloos, Prof. Ernst, Johns Hopkins University, Baltimore, Md. ***Geology, Geophysics.* Saarbrücken, Germany, May 17, 98. Freiburg, 19–20; Göttingen, 21; Ph.D, Breslau, 23. Geologist and geophysicist, Seimos Co, Ltd, Germany, 24–30; research, Calif, 30–31; lecturer *struct. geol, Hopkins,* 31–37, assoc. prof, 37–41, *prof, 41–* Exped, Mesopotamia and Persia, 27–28; Calif, 30–31. A.A; Geophys. Union; Geol. Soc; Geol. Soc. Wash; Deuts. Geol. Verein. Structural geology and geophysics.

Clopton, Dr. M(alvern) B(ryan), 912 Beaumont Bldg, 3720 Washington Blvd, St. Louis, Mo. *Surgery.* St. Louis, Mo, Oct. 8, 75. M.D, Virginia, 97. Intern and asst. res. surg, Hopkins Hosp, 98–99; assoc. prof, *sch. med, Washington (St. Louis),* 09–31, *prof. clin. surg. and pres. corp, 31–* Visiting surgeon and later chief of staff, St. Luke's Hosp, 03–; assoc. surgeon, Barnes and St. Louis Children's Hosps, 14–; consultant surg, Jewish Hosp. Surg. Asn; fel. Col. Surg; Soc. Clin. Surg; Interurban Surg. Soc; West. Surg. Asn; South. Surg. Asn; St. Louis Surg. Soc. (sec'y, 21–26).

Close, Prof. Harold W(ilberforce), American University of Beirut, Beirut, Lebanese Republic. *Chemistry.* Pittsford, N. Y, May 16, 88. A.B, Princeton, 10, A.M, 15, Ph.D, 22. Instr. physics and chem, American Univ. Beirut, 10–13; asst. *chem,* Princeton, 14–16; *prof, American Univ. Beirut, 16–* Chem. Soc. Acid catalysis.

Closs, Dr. John O'Neill, New Lebanon, N. Y. *Chemistry.* St. Louis, Mo, Sept. 30, 01. B.S, Washington (St. Louis); M.S, Wisconsin, Ph.D, 28. Instr. chem, Wisconsin, 28–30; research work, Bodenstein's Inst, Berlin, 30–32; asst, med. sch, Washington (St. Louis), 32–33; *chief chemist, Tilden Co, New Lebanon, 35–* A.A; Chem. Soc. The use of simple metallic electrodes in titrations; specific heat measurements at low temperatures; carbohydrate metabolism.

Cloud, Prof. J(ohn) H(ofer), 1408 W. Third St, Stillwater, Okla. *Physics.* Clinton, Ill, 71. B.S, North. Ind. Nor. Sch, 93; A.B, Valparaiso, 96; Chicago, 97; A.M, Hopkins, 18; Ph.D, Indiana, 22. Prof. physics, Valparaiso, 97–11, physics and math, 11–20; *prof. and head dept. physics, Okla. Agr. and Mech. Col, 20–* Asst, Hopkins, 02–03; prof, Indiana, 18–19. A.A; fel. Okla. Acad. (pres, 25); Ind. Acad. Measurement of wave-lengths in the infra-red; reflection of light from solutions; measurement of intensity of sound; principles of physics.

Cloud, Dr. Preston E, Jr, U. S. Geological Survey, Washington, D. C. *Paleontology.* West Upton, Mass, Sept. 26, 12. B.S, George Washington, 38; univ. fellow, Yale, 38–40, Ph.D, 40. Instr. geol, Mo. Sch. Mines and Metal, 40–41; Sterling research fellow, Yale, 41–42; *asst. geologist, U. S. Geol. Surv, 42–* A. Cressy Morrison prize, N. Y. Acad. Sciences, 40. Paleont. Soc; N. Y. Acad. Stratigraphy.

Cloudman, Dr. Arthur M(osher), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Zoology.* Portland, Maine, May 7, 01. B.S, Maine, 24, M.S, 26; Ph.D, Michigan, 31. Asst. biol, Maine, 24–26; instr. zool, Vermont, 26–28; asst. *cancer,* Michigan, 28–30; research assoc, *Roscoe B. Jackson Mem. Lab,* 30–34, *research pathologist, 34–,* asst. treas, 36–38, *treas, 38–* Littauer fellow, 32. Res. pathologist, Huntington Mem. Hosp, Boston, 33. Director, Roscoe B. Jackson Mem. Lab, 34– Soc. Control Cancer (asst. ed, 'Bul,' 35–); Asn. Cancer Research; Genetics Soc; Mich. Acad. Cancer; genetics of susceptibility to transplantable mouse tumors; diagnosis and classification of mouse tumors; reactions of hosts and of tumors to transplantable neoplasms injected into mice in parabiosis.

Clough, H(omer) W(oodworth), 29 Pearl St, Arcade, N. Y. *Meteorology.* Arcade, N. Y, May 18, 69. Rochester, 89–93. U. S. Weather Bur, 93–28. A.A; Meteorol. Soc; Geophys. Union; Philos. Soc. Wash. Statistical analysis of meteorological and solar data; periodic variations in solar and terrestrial atmospheres; long range weather forecasting.

Clough, Dr. Mildred Clark, 24 E. Eager St, Baltimore, Md. *Internal medicine.* Newtonville, Mass, Sept. 14, 88. A.B, Wellesley Col, 10; M.D, Hopkins, 14. Intern, Hopkins Hosp, 14–15, asst. res, 15–16, asst. med, Hopkins, 16–17, instr, 17–21; *practising physician.* Bacteriology; serology; pneumococcus; blood agglutinins; hemolysins; rouleaux formation.

Clough, Prof. Paul W(iswall), 24 E. Eager St, Baltimore, Md. *Internal medicine.* Portage, Wis, Sept. 27, 82. B.S, Wisconsin, 03; M.D, Hopkins, 07. From intern to res. physician, *Hopkins Hosp,* 07–16, *visiting physician, 16–,* from asst. to assoc. prof. med, *Hopkins,* 08–19, *assoc. med, 19–, chief diagnostic clinic; assoc. prof. med, Maryland.* Soc. Clin. Invest; fel. Col. Physicians; Am. Physicians. Serology; immunity; pneumococcus; epinephrin reaction; hematology.

Clough, Dr. Ray W(illiam), 826 Skinner Bldg, Seattle, Wash. *Biochemistry.* Randolph, Vt, Sept. 28, 85. A.B, Tufts Col, 08, A.M, 09; Ph.D, Washington (Seattle), 22. Asst. chem, Tufts Col, 04–08, instr, 08–09; food chemist, bur. chem, U. S. Dept. Agr, 10–19; *chemist, N. W. branch, Nat. Canners Asn, 19–* Lecturer, Washington (Seattle), 21–22. A.A; fel. Pub. Health Asn; Inst. Food Technol; Wash. State Health Asn. Food value, canning and inspection of seafoods, especially salmon.

Clouse, Prof. J(ohn) H(enry), 357 Santander Ave, Coral Gables, Fla. *Physics.* Somerset, Ohio, April 22, 87. Dipl. Elec. Eng, Ohio (Athens), 11; Chicago, 31–32, summers, 16–30, 35, 38. B.S, Armour Inst. Tech, 20, B.S, (M.E), 21, M.E, 25. Apprentice instr, Ill. Cent. R. R. Co, 12–16; instr. mech. eng, Arkansas, 16–19; head dept. physics, high sch, S. Dak, 21–29; instr. mech. eng, Notre Dame, 29–30; asst. prof, Oregon State Col, 30–31; asst. prof. *physics, Miami (Fla),* 32–37, assoc. prof, 38–40, *prof. and head dept, 40–,* coordinator civil pilot training, 39–42, area supervisor, eng. defense training, 40–42, *director eng. studies, 42–; mem. staff, Eng. Science, Management War Training Program, U. S. Office Educ, 43–* Summer, lecturer, Ohio (Athens), 37. Nat. Research Council grant in aid, 33. Mech. Eng; Eng. Educ; Fla. Acad. Crystal structure.

Clouse, Prof. Ruth Cowan (Mrs. J. H. Clouse), 5643 Blackstone Ave, Chicago, Ill. *Nutrition.* Chicago, Ill, May 26, 92. B.S, Chicago, 18, M.S, 22, Ellen H. Richards scholar, 26–27, Ph.D, 33. Instr. home econ, Arkansas, 18–21; asst. prof, Mich. State Col, 22–26; asst, Chicago, 27–29, instr, 29–30; assoc. prof, Tennessee, 30–31; teacher, high sch, Fla, 34–35; nutrition consultant, cmt. on foods, Am. Med. Asn, 35–36, council on foods, 36–41; *prof. nutrition and chairman dept. home econ, Ill. Inst. Tech, 41–* Summer, home economist, Fla. Emergency Relief Admin, 34. Chem. Asn; Dietetic Asn; Pub. Health Asn; Home Econ. Asn. Vitamin D; acid-base balance.

Cloutier, Prof. Louis, 7 Ploërmel Ave, Quebec, Que, Can. *General chemistry.* Cap St-Ignace, Que, May 14, 05. B.A, Laval, 24, Ch.D, 28, L.Sc, 28; Can. govt. scholar, 28–30; D.Sc, Superior Sch. Mines, Paris, 32. *Prof. gen. chem, Laval, 34–* Fel. Can. Inst. Chem; Can. Chem. Asn; Chem. Soc. Que; Math. Soc. Que; Linnéenne Soc. Que. Precipitation of normal and basic compounds by means of a special apparatus.

Clover, Dr. Elzada U(rseba), University of Michigan, Ann Arbor, Mich. *Botany, Plant ecology.* Auburn, Nebr, Sept. 12, 97. A.B, Peru State Nor. Sch, Nebr, 30; A.M, Michigan, 32, Ph.D, 35. Instr, high sch, Nebr, 18–20; prin, Texas, 21–25, 27–31, supt, 25–27; teaching asst. and teaching fellow, *Michigan,* 32–35, *instr. bot, 36–* Bot. Soc; Soc. Plant Taxon; Ecol. Soc; Cactus and Succulent Soc; Mich. Acad. Systematic botany; vegetation of the lower Rio Grande Val-

ley, the canyon of the Colorado River, Lake Mead, and Havasupai Canyon, Arizona; Cactaceae.

Clow, Prof. Bertha C(ochrane), Montana State College, Bozeman, Mont. *Nutrition.* Oshkosh, Wis, Sept. 12, 02. B.S, Wisconsin, 24, M.S, 27. Student dietitian, Rochester, Minn, 24–25; research assoc, Wisconsin, 25–27, instr, 27–29; asst. prof. *food and nutrition, dept. home econ, Mont. State Col,* 29–37, *assoc. prof, 37–* Nutrition worker, Indianapolis Dairy Council, 25. Summers, lecturer, Wisconsin, 30, 31. Vitamin C content of tomatoes and raw and canned sauerkraut; vitamin D content of burbot liver oil.

Clowes, Dr. George H(enry) A(lexander), Eli Lilly and Co, Indianapolis, Ind. **3*Chemistry.* Ipswich, Eng, Aug. 27, 77. Royal Col. Science, London, 93–96; Ph.D, Göttingen, 99; Paris, 99–00; hon. Sc.D, Butler, 32; LL.D, Wabash Col, 38. Chemist, N. Y. State Cancer Lab, Buffalo, 01–18; biochemist, *Eli Lilly and Co,* 19–20, *research director, 20–* Priestley lecturer, Pa. State Col, 37. Del. Int. Cancer Cong, Berlin, 08, Brussels, 13. Research div, C.W.S, Am. Univ. exp. sta, 18–19. A.A; Chem. Soc. (pres, Buffalo sect, 07–09); Soc. Biol. Chem; Soc. Exp. Biol; Asn. Path. and Bact; Asn. Immunol; Asn. Cancer Research (v. pres, 37, pres, 38); London Chem. Soc. Cancer; reversible emulsions; protoplasmic equilibrium; insulin; action nitro and halo phenols, barbiturates, local anesthetics on respiration marine eggs and cancer tissues; carcinogenic hydrocarbons in monomolecular sterol films.

Cluff, C(larence) B(rooks), 350 Oliver Road, Wyoming, Ohio. *Chemistry, Chemical engineering.* Haverhill, Mass, May 14, 77. B.S, Mass. Inst. Tech, 99. Chemist, Am. Cotton Oil Co, 99–13; chief chemist, N. K. Fairbank Co, 14–15; supt. ref, Am. Cotton Oil Co, 15–19, manager mfg. dept, 19–23; *Procter and Gamble Co, 23–, head patent dept, 32–* Chem Soc; Chem. Eng; Oil Chemists Soc. (pres, 21). Soaps, fats and edible oils.

Clum, Prof. Harold H(aydn), Hunter College, New York, N. Y. *Plant physiology.* Cleveland, Ohio, Feb. 16, 94. A.B, Oberlin Col, 17; Ph.D, Cornell, 24. Asst. *bot,* Cornell, 19–23; instr, Michigan, 23–24; prof, Puerto Rico, 24–26; asst. prof, Syracuse, 26–27; instr, *Hunter Col,* 27–30, asst. prof, 30–37, *assoc. prof, 37–* A.A; Bot. Soc; Phytopath. Soc; Soc. Plant Physiol; Torrey Bot. Club. Effect of transpiration and environmental factors on leaf temperatures.

Clute, Willard N(elson), 5257 Hinesley Ave, Indianapolis, Ind. *Botany.* Painted Post, N. Y, Feb. 27, 69. Chicago. Asst, herbarium, Columbia, 96–97; curator, N. Y. Bot. Garden, 97–99; *pres, W. N. Clute and Co, 97–;* instr, high schs, Ill, 03–11; Flower Tech. High Sch, Chicago, 11–28; instr. biol. and director bot. gardens, Butler, 28–38; *director, Holliday Park Bot. Garden, Indianapolis, Ind, 38–* Founder and ed, 'Ornith. and Bot,' 90; publisher and part owner, 'Plant World,' 97–99; 'Bryologist,' 98–99; ed. and publisher, 'Fern Bul,' 93–12; 'Am. Botanist,' 01– A.A; hon. mem. Fern Soc. (founder and 1st pres, 93); Genetic Asn; Ill. Acad. (pres, 27). Ecological and economic botany; agronomy; ferns; plant names.

Clutz, Prof. F(rank) H(ollinger), 159 W. Broadway, Gettysburg, Pa. *Mathematics, Engineering.* Newville, Pa, June 29, 73. A.B, Midland Col, 92; Ph.D, Hopkins, 97. Prof. math, Carthage Col, 98–99; practising civil engineer, 99–18; prof. *civil eng, Gettysburg Col,* 18–40, *emer. prof, 40–* Concrete Inst.

Clyde, Prof. A(rthur) W(esley), 204 Woodland Drive, State College, Pa. *Agricultural engineering.* Osage, Iowa, March 30, 91. B.S, Iowa State Col, 15, M.S, 31. Mem. staff, Int. Harvester Co, 15–18; Portland Cement Asn, 18–20; assoc. prof. *agr. eng,* Iowa State Col, 20–31; *prof, Pa. State Col, 31–* Soc. Agr. Eng. Mechanics of soil tillage tools; protection against damage to implements by striking stones; hitching of tractors and implements; tractor fuels; farm machinery.

Clyde, Prof. George D(ewey), 615 E. Fifth St, N, Logan, Utah. *Engineering.* Springville, Utah, July 21, 98. B.S, Utah Col, 21; M.S, California, 23. Assoc. prof. civil eng, *Utah State Col,* 23–32, *prof. eng, 32–, dean sch. agr, 36–,* assoc. irrig. engineer, *Exp. Sta,* 23–32, *irrig. engineer, 32–* Summer, Kootenai River investigations, U. S. Dept. Agr, 30. Land and water adjustments in Utah; forecasting stream flow from snow surveys.

Coar, Prof. Henry L(ivingston), Box 185, Marietta, Ohio. *Mathematics.* London, Eng, June 16, 62. Grad, Gym, Cologne; Hopkins, 84–86; A.B, Harvard, 93, A.M, 94; Ph.D, Illinois, 03. Instr. math, Harvard, 92–95; Michigan, 95–97; Illinois, 98–06; prof. *math. and astron, Marietta Col,* 06–30, *emer. prof, 30–* Functions of the three real variables.

Coates, Prof. Wendell M(arois), 14 Franklin St, Annapolis, Md. *Mathematics.* Marblehead, Mass, April 8, 98. A.B, Williams Col, 19; M.S, Michigan, 23, Sc.D, 29. Instr. math, Virginia, 20–21; eng. math, Michigan, 21–30; *asst. prof. math. and mech, post-grad. sch, U. S. Naval Acad, 30–, lieut. commander, U. S. Naval Res.* Gesell. für Angewandte Math. und Mech. Engineering mathematics and mechanics; analysis of the state of stress in pressure vessels.

Coatney, Dr. G(eorge) Robert, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Zoology.* Falls City, Nebr, May 3, 02. A.B, Grand Island Col, 25; A.M, Nebraska, 26; Ph.D, Iowa State Col, 32. Prof. biol, Grand Island Col, 26–30; asst. prof, Nebr. Wesleyan, 31–33; assoc. prof, Nebr. State Teachers Col, Peru, 33–36, prof, 36–38; consultant, *U. S. Pub. Health Service,* 38, asst. protozoologist, *nat. inst. health,* 38–39, assoc. protozoologist, 39–41, protozoologist, 41–42, *senior protozoologist, 42–* A.A; Malaria Soc; Soc. Trop. Med; Soc. Parasitol; Micros. Soc. Protozoology; parasitology; chemotherapy of blood protozoa; parasitic insects.

Coats, Dr. Hal B(egtrup), 431 Locust St, Edgewood Boro, Pittsburgh, Pa. *Chemical engineering.* Jersey City, N. J, July 11, 03. Detroit, 20–21; B.S.E. (Ch.E), Michigan, 25, fellow, 25–26, M.S.E (Ch.E), 26, fellow, 27–28, Ph.D, 29. Asst, Michigan, 25–26; research chemist, Atlantic Ref. Co, 26–27; director research, E. H. Leslie, 28–29; Leslie Labs, 29–37; *chem. engineer,* Upjohn Co, 37–43; *Blaw-Knox Co, 43–* Chem. Soc; Chem. Eng. Heat transfer; petroleum technology; distillation equipment design; pharmaceuticals.

Coats, Dr. Harry P, 414 N. Firestone Blvd, Akron, Ohio. *Physical chemistry.* B.S, Hobart Col, 17; A.M, Columbia, 18, Ph.D, 26. Instr, Col. City of N. Y, 20–26; *research chemist, Firestone Tire and Rubber Co, Akron, 26–* Gold medal, Am. Electroplaters Soc, 37. Chem. Soc; Electrochem. Soc; Inst. Chem; Soc. Metals; Applied Physics Soc. Electrochemistry; metallography; hydration of sodium mono-metaphosphate in alkaline solution at seventy-five degrees; arc-welding easily oxidizable wire; brass plating for rubber; adhesion.

Coats, Dr. Robert R(oy), U. S. Geological Survey, Washington, D. C. *Geology.* Toronto, Ont, Can, Nov. 22, 10. B.S, Washington (Seattle), 31, M.S, 32; Storrow fellow, Nat. Research Council, 32–33; Ph.D, California, 38. Geologist, Storey County Mines, 37; asst. prof. geol, Alaska, 37–39; junior geologist, *U. S. Geol. Surv,* 39–41, *asst. geologist, 41–* Miner. Soc; Min. and Metal. Eng; Geol. Soc. Wash. Geology of the Comstock Lode region, Nevada; tin deposits of Alaska.

Cobb, Prof. C(harles) W(iggins), 22 Appian Way, Cambridge, Mass. *Mathematics.* Plymouth, Mass, Sept. 17, 75. A.B, Amherst Col, 97; Ph.D, Michigan, 12. From instr. to prof. *math, Amherst Col,* 08–41, *emer. prof, 41–* Arbitrator, Rochester Clothing Market, 22–24. Capt, A.S, 17–18. Math. Soc. Mathematical economics; numerical relations between employment, production, profits, wages and capital.

Cobb, F(rancis) E(zra), Jamestown, N. Dak. *Forestry.* Coleta, Ill, Aug. 21, 81. B.S, Minnesota, 16; M.F, Cornell, 25. Field agent and asst. dry-land arboricult, bur. plant indust, U. S. Dept. Agr, Mandan, N. Dak, 16–22; exten. forester, Cornell, 23–24, asst. forestry, 24–25; pres, N. Dak. Sch. Forestry, and state forester, 25–35; state director prairie states forestry project, U. S. Forest Service, 34–42; *forestry specialist, soil conservation service, U. S. Dept. Agr, 42–* A.A; Soc. Foresters; Soc. Hort. Sci. Silviculture; trees in the semi-arid districts of the Great Plains.

Cobb, Prof. Harriet R(edfield), Smith College, Northampton, Mass. *Mathematics.* Peekskill, N. Y, Sept. 10, 67. A.B, Smith Col, 89, A.M, 91; Columbia, 13, 14. Dept. *math, Smith Col,* 95–15, prof, 15–32, *emer. prof, 32–* Worker for Episcopal Board, standardization of math. for women, China, 21. New Eng. Asn. Math. Teachers (pres, Conn. Valley div, 29).

Cobb, Prof. J. S(tanley), 514 W. Foster Ave, State College, Pa. *Agronomy.* Groton, N. Y, Sept. 15, 91. B.S, Cornell, 15; M.S, Mass. Col, 17. Asst. instr, Mass. Col, 15–17; asst. prof. *agron, Pa. State Col,* 19–31, *assoc. prof, 31–* A.A; Soc. Agron. Potato growing; factors influencing the cooking qualities of potatoes; crop production; testing and development of grasses, lawns and pastures.

Cobb, Dr. Margaret C(ameron), 270 Seaman Ave, New York, N. Y. *Geology.* Lincolnton, N. C. A.B, Columbia, 15; A.M, Ph.D, Bryn Mawr Col, 22. Instr. geol, Mt. Holyoke Col, 17–19; *geologist, Amerada Petrol. Corp, 23–* A.A; Asn. Petrol. Geol. Petroleum geology; petrology.

Cobb, Margaret V(ara), Concord, N. H. *Educational psychology.* Easthampton, Mass, May 16, 84. A.B, Radcliffe Col, 10; fellow, Illinois, 12–13, A.M, 13. Asst. zool, Illinois, 13–14, educ, 14–16; psychologist, Bur. Social Hygiene, Bedford Hills, N. Y, 16–17; Nat. Research Council, 19–20; sec'y, bur. educ. reference and research, Michigan, 20–21; inst. educ. research, Teachers Col, Columbia, 21–25; psychologist and later teacher, Children's Univ. Sch, New York, 26–27; research assoc. training gifted children, Harvard, 28–31; ed, key to genera of free-living Nemas, 32–33; mem. staff, State Planning Board, N. H, 34; research assoc, N. H. Foundation, Concord, 34–35; supervisor guidance, Nat. Youth Admin, *N. H,* 36–41: director, Community Guidance Center, Manchester, 38–42; *labor market analyst, U. S. Employment Service, Concord, 42–* Mem. cmt. supervising gifted children, New York, 22–27. Psychologist, War Dept, 17–19. A.A; Educ. Research Asn. Intelligence testing; education of gifted children; guidance.

Cobb, R(osalie) M. Karapetoff, Lowe Paper Co, Ridgefield, N. J. *Chemistry.* Winthrop, Mass. B. S, Tufts Col, 22; M.S, Mass. Inst. Tech, 23. Asst, Mass. Inst. Tech, 23–24; research chemist, Larkin Co, Inc, 24; Hunt-Rankin Leather Co, 24–26; *chemist in charge research lab, Lowe Paper Co, 26–* Research assoc, lithograph. tech. foundation, Bur. Standards, 31; lecturer, N. Y. Univ, 32; paper consultant, Nat. Oil Products Co, 33. Lithograph. advisory cmt, Bur. Standards, 29– Chem. Soc; Asn. Pulp and Paper Indust; Soc. Rheol. Soaps; emulsions; leather; paper; printing; lithography.

Cobb, Prof. Stanley, Harvard Medical School, Boston, Mass. *Neuropathology.* Brookline, Mass, 87. A.B, Harvard, 10, M.D, 14; Munich, 28. Surg. house officer, Peter Bent Brigham Hosp, 14–15; vol, physiol. research lab, Hopkins, 15–16, asst. physiol. and later psychiat, 16–17, asst. psychiatrist, 17–18, assoc. psychiat, 18–19; instr. neur. and physiol, Harvard, 19–23, asst. prof. neuropath, 23; Rockefeller fellow, Europe, 23–25; assoc. prof. *neuropath, Harvard,* 26, *Bullard prof, 26–;* visiting physician neur. Boston City Hosp, 25–34; *psychiatrist in chief, Mass. Gen. Hosp, 34–* Asst. neurologist, Mass. Gen. Hosp, 19–20. Lieut, M.C, 17–19. Neur. Asn; Am. Med. Asn: Asn. Research Nervous and Mental Disease; Am. Physicians: Soc. Clin. Invest; Psychiat. Asn; Ornith. Union; Mass. Soc. Mental Hygiene; Interurban Clin. Club; Boston Soc. Psychiat. and Neur; Boston Soc. Nat. Hist; Gesell. für Nervenärzte. Carbon monoxide asphyxia; mesencephalitis syphilitica; micrometry and the area striata; electromyography; intra-vital staining; the tonus of skeletal muscle; epilepsy; cerebral circulation; personality integration.

Cobb, Prof. W(illiam) Montague, Howard University, Washington, D. C. *Anatomy, Physical anthropology.* Washington, D. C, Oct. 12, 04. A.B, Amherst Col, 25; Blodgett scholar from Amherst, Marine Biol. Lab, Woods Hole, 25; M.D, Howard, 29; Gen. Educ. Board fellow, Western Reserve, 30–32, Ph.D, 32. Instr. embryol, *Howard,* 28–29, asst. prof. *anat,* 32–34, assoc. prof, 34–42, *prof, 42–* Fellow, Western Reserve, 33–39, Rosenwald fellow, 41–42. A.A; Asn. Anat; Asn. Physical Anthrop; Soc. Mammal; Anthrop. Asn; Nat. Med. Asn; Anthrop. Soc. Wash; Anat. Soc. Gt. Britain and Ireland. Collections of human materials; growth and development of the American Negro; ageing in the adult skeleton.

Cobine, Prof. J(ames) D(illon), 80 Douglas Road, Belmont, Mass. *Electrical engineering.* Oklahoma City, Okla, May 10, 05. B.S, Wisconsin, 31; M.S, Calif. Inst. Tech, 32, Ph.D, 34. Asst, Calif. Inst. Tech, 33–34; *elec. eng, grad. sch. eng, Harvard,* 34–35, instr, 35–41, *asst. prof, 41–, radio research lab, 43–* Eng. Educ; Elec. Eng; Physical Soc; assoc. Radio Eng. Physics; electric arcs and glows; rectifiers.

Coble, Prof. A(rthur) B(yron), University of Illinois, Urbana, Ill. **²Mathematics.* Williamstown, Pa, Nov. 3, 78. A.B, Gettysburg Col, 97, A.M, 00, LL.D, 33; fellow, Hopkins, 01–02, Ph.D, 02. Asst. math, Hopkins, 00–01; instr, Missouri, 02–03; Carnegie research asst, 03–04; instr. *math,* Hopkins, 04–06, assoc, 06–09, assoc. prof, 09–18; *prof,* Illinois, 18–27; Hopkins, 27–28; *Illinois, 28–* Ed. cmt, 'Duke Math. Jour,' 35– Nat. Acad; A.A; Math. Soc. (councilor, 11–14, assoc. ed, 'Trans,' 15–19, ed. cmt, 20–25, v. pres, 17, pres, 32–34, chairman, Chicago sect, 22, assoc. ed, 'Jour. Math,' 18–26, ed. board, 27–33; ed. cmt, 'Colloquium,' 43–); Math. Asn; Philos. Soc. Theory of invariants, groups and correspondences; the quintic and sextic equations; symmetric binary forms and involutions; restricted systems of equations; point sets and Cremona groups; theta and theta modular functions; special point sets; porisms.

Cobleigh, Dean W(illiam) M(erriam), Montana State College, Bozeman, Mont. *Chemical engineering.* Haverstraw, N. Y, Sept. 7, 72. E.M, Montana, 94; A.M, Columbia, 99. Chemist, Anaconda Copper Mining Co, 92–93; instr. chem, *Mont. State Col,* and asst. chemist, Exp. Sta, 94–98, asst. prof, 98–00, *prof,* 00–29, *chem. eng. and dean eng, 29–* Director div. water and sewage, State Board Health, Mont, 10–23, consultant, 23–; state chemist, Mont, 19–29. A.A; Chem. Eng; Chem. Soc; Water Works Asn; Mont. Soc. Eng. Alkali soils; the cyanid process; the Hubl number of oils; Montana alkali waters; sanitation of Montana water supplies; sewage disposal and stream pollution; petroleum products.

Coblentz, Dr. W(illiam) W(eber), National Bureau of Standards, Washington, D. C. **²Physics.* North Lima, Ohio, Nov. 20, 73. B.S, Case, 00, Sc.D, 30; A.M, Cornell, 01, Ph.D, 03. Carnegie research asst. and hon. fellow, Cornell, 03–05; *physicist, Bur. Standards, 06–* Potts medal, Franklin Inst, 10; Janssen medal, Paris Acad. Sci, 20; Scott medal and premium, Phila, 24; Rumford gold medal, Am. Acad. Arts and Sciences, 37. Nat. Acad; A.A; Physical Soc; Optical Soc; Astron. Soc; Soc. Psychical Research; Philos. Soc. Wash; Wash. Acad; Wash. Acad. Med; cor. mem. London Illum. Eng. Soc; Soc. française de Physique. Optical properties of iodin; infra-red emission, absorption and reflection spectra; instruments and methods used in radiometry; radiation constants; visibility of radiation; physical study of the firefly; ice formation on plants; photoelectric properties of materials; stellar radiometry; planetary temperatures; bioluminescence; phototherapy; ultraviolet bioclimatology.

Coburn, Dr. Alvin F(rederick), R.F.D. 1, Bedford, N. Y. *Bacteriology, Immunology.* Asheville, N. C, Aug. 1, 99. A.B, Yale, 21; M.D, Hopkins, 25. Mem. faculty, Columbia, 27–37, asst. prof. med, 37–42; *lieut. commander, U. S. Navy, 42–* Soc. Clin. Invest. Rheumatic fever.

Coburn, Dr. Charles A(rthur), Bureau of Juvenile Research, Columbus, Ohio. *Psychology.* Minford, Ohio, April 1, 86. B.S, Valparaiso, 08; A.B, Ohio Wesleyan, 11; A.M, Harvard, 12, Ph.D, 20. Vocational asst, pub. schs, Mass, 14–18; prof. psychol, sch. religious educ. and social service, Boston, 19–30; private writing, 30–35; prof. psychol, Ohio Wesleyan, 35–36; *psychologist, State Bur. Juvenile Research, 36–* Hon. fellow, Ohio State, 34. Consulting psychologist, Morgan Mem. Cooperative Industries and Stores, Inc, 16–18, 19–30. A.A; Psychol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn. Clinical psychology; educational guidance; mental hygiene; personality.

Coburn, Dr. N(athaniel), 5401 Aurora Drive, Austin, Texas. *Mathematics.* Philadelphia, Pa, April 11, 10. B.S, Mass. Inst. Tech, 31, Ph.D, 34. *Instr. applied math, Texas, 37–* Math. Soc. Tensor analysis; differential geometry; applied mathematics.

Coca, Dr. Arthur F(ernandez), Pearl River, N. Y. *Immunology, Pathology.* Philadelphia, Pa, March 20, 75. A.B, Haverford Col, 96, A.M, 99; M.D, Pennsylvania, 00; Heidelberg, 05–09. Asst. demonstrator, Pennsylvania, 00–03, demonstrator, 03–05; asst, Cancer Inst, Heidelberg, 07–09; bacteriologist, Bur. Science, P. I, 09–10; instr. path. and bacter, med. col, Cornell, 10–19, asst. prof. immunol, 19–24, prof, 24–32; clin. prof. med, N. Y. Post-Grad. Med. Sch, Columbia, 31–35; *med. director, Lederle Labs, 31–;* Blood Transfusion Betterment Asn, New York, 28–41. A.A; Asn. Immunol. (ed. in chief, 'Jour,' 16–, sec'y-treas, 17–); Soc. Exp. Biol; Soc. Bact; Asn. Cancer Research; Harvey Soc. Hypersensitiveness; allergy.

Cochran, Dr. Doris M(able), U. S. National Museum, Washington, D. C. *Herpetology.* North Girard, Pa, May 18, 98. A.B, George Washington, 20, M.S, 21; A.M, Hopkins, 28; Ph.D, Maryland, 33. Aid, *div. reptiles and batrachians, U. S. Nat. Museum,* 19–27, asst. curator, 27–42, *assoc. curator, 42–* Soc. Ichthyol. and Herp. Reptiles and amphibians of the West Indies, Siam and the East Indies from a taxonomic viewpoint; mycology of crustaceans; frogs of South America.

Cochran, Dr. H(ulon) L(illey), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Horticulture.* Norman, Texas, Nov. 11, 07. B.S, Okla. Agr. and

Mech. Col, 31; M.S, Cornell, 32, Ph.D, 35. Asst. veg. crops, Cornell, 31–35; asst. horticulturist, *Exp. Sta, Georgia*, 35–36, *assoc. horticulturist, 36–* Agent, U. S. Dept. Agr, 35– Soc. Hort. Sci. (past chairman, south. sect); Ga. State Hort. Soc. (pres). Fruit setting in peppers; morphology of vegetable crop plants; internal abnormalities in the fruit of peppers; root and fruit growth of pimiento; pimiento seed germination; pimiento breeding; soil reaction as affecting vegetable crop production.

Cochran, Dr. L(loyd) C(urtis), Citrus Experiment Station, Riverside, Calif. *Plant pathology*. Frankfort, Ind, April 5, 06. B.S.A, Purdue, 28; M.S, Mich. State Col, 30, Ph.D, 36. Asst. plant path, Mich. State Col, 30–36; junior plant pathologist, Citrus Exp. Sta, California, 36–39, asst. plant pathologist, 39–41, asst. prof, univ, 39–41; *senior plant pathologist, bur. plant indust, U. S. Dept. Agr, 41–* Phytopath. Soc. Virus diseases, especially stone fruit viruses.

Cochran, Paul Boyd, E. I. du Pont de Nemours and Co, Parlin, N. J. *Chemistry*. Pittsburgh, Pa, Aug. 17, 97. B.S, Illinois, 22. Research chemist, West. Elec. and Mfg. Co, E. Pittsburgh, 22–28; *E. I. du Pont de Nemours and Co, N. J, 28–31, patent technologist, nitrocellulose research, 31–* Chem. Soc. Chemical patents; electrical insulation; nitrocellulose; lacquers; synthetic resins.

Cochran, Prof. W(illiam) G(emmell), Iowa State College, Ames, Iowa. *Statistics*. Rutherglen, Scotland, July 15, 09. M.A, Glasgow, 31; B.A, Cambridge, 33, M.A, 38. Statistician, Rothamsted Exp. Sta, Eng, 34–39; *prof. math. statistics, Iowa State Col, 39–* Fel. Inst. Math. Statist; fel. Royal Statist. Soc. Mathematical statistics; applications to agriculture and biology.

Cochrane, Prof. Robert C(arlyle), 319 Longwood Ave, Boston, Mass. *Surgery*. Somerville, Mass, May 17, 86. B.S, Dartmouth Col, 07; M.D, Harvard, 11. *Asst. prof. surg, Harvard Med. Sch, 28–; col, Med. Reserve Corps, U. S. Army, 41–* Visiting surgeon and later surgeon-in-chief, Boston City Hosp, 16–; consulting surgeon, Leonard Morse Hosp, Natick, 19–; Framingham Hosp, Framingham, 28–; Emerson Hosp, Concord; Melrose Hosp; Waltham Hosp. Major, M.C, 17–19, lieut. col, M.R.C, 24–41. Fel. Col. Surg; Am. Med. Asn; New Eng. Surg. Soc; Boston Surg. Soc. Thyroid surgery.

Cocke, Prof. E(lton) C(romwell), Wake Forest College, Wake Forest, N. C. *Botany*. Rockville, Va, Jan. 31, 01. B.S, Virginia, 27, M.S, 28, fellow, 30–31, Ph.D, 31. Prof. *biol*, Va. State Teachers Col, E. Radford, 28–30; asst, Virginia, 31–38; *asst. prof, Wake Forest Col, 38–* A.A; Bot. Soc; N. C. Acad. Va. Acad. Fossil pollen; pollen and hayfever.

Cocke, Prof. M(arion) Estes, Hollins College, Va. *Physics*. Hollins, Va, Jan. 13, 76. A.B, A.M, Virginia, 00. *Prof. physics, Hollins Col, 00–*, dean instruction, 26–33, *v. pres, 33–* Va. Acad. Education.

Cockerell, Prof. T(heodore) D(ru) A(lison), 908 Tenth St, Boulder, Colo. **Zoology*. Norwood, Eng, Aug. 22, 66. English private schs; Middlesex Hosp. Med. Sch, London; British Museum Nat. Hist; hon. Sc.D, Colo. Col, 13. Curator pub. museum, Kingston, Jamaica, 91–93; entomologist, Exp. Sta, N. Mex. Col, 93–01, prof. entom. and zool, 93–96, 98–00; teacher biol, N. Mex. Nor. Univ, 00–03; consulting entomologist, Exp. Sta, Arizona, 01–09; curator, Colo. Col. Museum, 03–04; lecturer entom, *Colorado*, 04–06, prof. *zool*, 06–34, *emer. prof, 34–* Lecturer, Colo. State Prep. Sch; research assoc, Am. Museum Nat. Hist; Citrus Exp. Sta, California. Expeds, Madeira Islands, Siberia, Japan, Argentina, Peru, Morocco, Siam, Belgian Congo, S. Africa and New Caledonia. A.A; Entom. Soc; Asn. Econ. Entom; Philos. Soc; Entom. Soc. Wash; cor. mem. Acad. Nat. Sci. Phila; Entom. Soc. Ont; Zool. Soc. London; Entom. Soc. London. Entomology, especially Hymenoptera; geographical distribution of life; variation of animals and plants; Mollusca; natural history of the Rocky Mountains; problems of evolution; fossil insects and plants.

Cockerham, K(irby) L(ee), 303 S. Main St, Opelousas, La. *Entomology*. Monroe Co, Miss, March 12, 93. B.S, Miss. Agr. and Mech. Col, 14; M.S, Ohio State, 17. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 17–, entomologist in charge field lab*. Entom. Soc; Asn. Econ. Entom. Rhynchophora and Elateridae.

Cockerille, Dr. F(rank) O('Neil), Greenwood, Va. *Chemistry*. La Plata, Md, May 12, 06. B.S, Michigan, 27; Ph.D, Hopkins, 32. *Research chemist*, Reilly Tar and Chem. Co, Ind, 31–34; *du Pont Rayon Co, 34–* Chem. Soc. Products and mechanism of oxidation of higher paraffin hydrocarbons; synthesis of higher aliphatic alcohols and ketones; technology of coal tar chemicals and acetate rayon intermediates.

Cockfield, Dr. William E(gbert), Geological Survey of Canada, Vancouver, B. C, Can. *Geology*. Montreal, Que, 90. B.A, McGill, 13, B.Sc, 14, Dawson fellow, 14–15, M.Sc, 15; fellow, Princeton, 15–18, Ph.D, 18. *Geologist, Geol. Surv. Can, 18–* Soc. Econ. Geol; fel. Royal Soc. Can; Can. Min. Inst. Ore deposits.

Cockrell, Prof. R(obert) A(lexander), University of California, Berkeley, Calif. *Forestry*. Yonkers, N. Y, Aug. 11, 09. B.S, Syracuse, 30, M.S, 31; Ph.D, Michigan, 34. Asst, N. Y. State Col. Forestry, Syracuse, 30–32; sch. forestry and conservation, Michigan, 32–34, junior forester, 34–35; assoc. prof. *forestry*, Clemson Col, 35–36; *asst. prof, California, 36–* A.A; Soc, Foresters. Wood technology; physics and anatomy of wood.

Coco, Dr. Russell M(ark), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Physiology*. Bordelonville, La, June 22, 09. A.B, La. State Nor. Col, 31; M.S, Kans. State Col, 32; Ph.D, Louisiana, 39. Instr. *physiol*, Louisiana, 39–42; *asst. prof, Okla. Agr. and Mech. Col, 42–* Summer, instr, La. State Nor. Col, 35. Okla. Acad; Kans. Acad; La. Acad. Physiology of blood; hibernation; reproduction; the endocrines.

Coddington, Prof. E(dwin) F(oster), Ohio State University, Columbus, Ohio. *Mechanics*. Conover, Ohio. C.E, Ohio State, 96, Emerson McMillan fellow, 96–97, M.S, 97; fellow, Lick Observatory, California, 97–00; Ph.D, Berlin, 02. Asst. prof. math, *Ohio State*, 02–06, mech, 06–12, prof, 12–25, *geod. eng*, 25–40, *emer. prof, 40–* Civil Eng. Astronomy.

Code, Dr. Charles F(rederick), Mayo Foundation, Rochester, Minn. *Physiology*. Winnipeg, Man, Can, Feb. 1, 10. B.Sc, Manitoba, 34, M.D, 34; Mayo Foundation fellow, Minnesota, 34–37, Ph.D, 40; Bayliss-Starling Mem. scholar, London, 36. Lecturer physiol, univ. col, London, 36; asst. exp. surg. in physiol, Mayo Foundation, *Minnesota*, 37–38, instr. *physiol, med. sch*, 38–39, *asst. prof, 39–; asst. prof. and consultant, Mayo Foundation, Minnesota, and Mayo Clinic, 40–* Theobald Smith medal and award, Am. Asn. Adv. Science, 38. A.A; Soc. Exp. Biol; Federation Clin. Research; Physiol. Soc; Soc. Clin. Invest; Physiol. Soc. Eng. Cardiovascular and gastro-intestinal physiology; histamine metabolism.

Codwise, Prof. Henry R(ogers), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Engineering*. Rosendale, N. Y, March 13, 77. B.S, Polytech. Inst. Brooklyn, 98, C.E, 99. Asst. eng, *Polytech. Inst. Brooklyn*, 99–01, instr. civil eng, 01–11, asst. prof, 11–30, *prof. railroad eng. and surveying, 30–* Instr, Cooper Union, 00–30. Civil Eng; Eng. Educ; Am. Geog. Soc.

Cody, Prof. M(adison) D(errell), University of Florida, Gainesville, Fla. *Botany*. Georgetown, Texas, July 12, 91. A.B, Southwestern (Texas), 14, A.M, 15; Chicago, 23–24; Texas, summers, 33, 38, 39– Prof. nat. sciences, Clarendon, 16–17; acting prof. biol, W. Texas State Nor. Col, 18; asst. prof. *bot. and bacter, Florida*, 19–23, *prof. and head dept, 23–* Summer, asst. prof, Southwestern (Texas), 16, prof, 40, 41. Lecturer, Iowa, 29. Bot. Soc; Soc. Plant Physiol. Ecology; physiology; influence of differential qualitative light on germination and early seedling growth; ecology and physiology of certain water plants.

Coe, Prof. C(arl) J(enness), 2022 Hill St, Ann Arbor, Mich. *Mathematics*. Ypsilanti, Mich, Nov. 4, 86. A.B, Michigan, 09, A.M, 11; Shattuck scholar, Harvard, 13–15, A.M, 15, Ph.D, 29; Paris, 24–25. Instr. *math, Michigan*, 09–17, *asst. prof, 17–* Math. Soc; Math. Asn. Problem of three bodies; vector mechanics; theoretical mechanics.

Coe, Dr. Dana G(riswold), Lakeland, Fla. *Agriculture*. Milford Center, Ohio, Feb. 10, 93. A.B, Ohio State, 17; Am. Cyanamid Co. indust. fellow, Rutgers, 20–22, M.S, 22; Nat. Fertilizer Asn. indust. fellow, Iowa State Col, 22–24, Ph.D, 24. Instr, high sch, Ohio; assoc. chemist, fixed nitrogen research lab, U. S. Dept. Agr, 19–20; south. agriculturist, Am. Cyanamid Co, 26–38; *citrus grower, 38–; senior chemist, div. soil and fertilizer investigations, bur. plant indust, U. S. Dept. Agr, 42–* C.W.S, U.S.A, 18–19. A.A; Soc. Agron; Soil Sci. Soc; Soil Sci. Soc. Fla; Fla. Hort. Soc. Soil fertility; the

effect of ammo-phos upon seed germination and plant growth; effects of fertilizers upon crops and soil conditions; fertilizer attachments and machinery.

Coe, Prof. Francis M(orse), Utah State Agricultural College, Logan, Utah. *Horticulture.* Bakersfield, Calif, April 21, 01. B.S, Oregon State Col, 23; M.S, Iowa State Col, 24. Asst. pomol, Iowa State Col, 23–24; instr. and asst. hort, Nebraska, 24–27; *asst. prof. hort, Utah State Col, 27–,* asst. horticulturist, *Exp. Sta,* 27–35, *assoc. horticulturist, 35–* Asn. Hort. Sci; Pomol. Soc; Utah Acad; Utah Hort. Soc. (sec'y, 27–37). Pomology; cherry, strawberry and apricot breeding; rootstocks; variety tests; freezing preservation of fruits.

Coe, Dr. George A(lbert), 525 W. Sixth St, Claremont, Calif. *Education.* Mendon, N. Y, March 26, 62. A.B, Rochester, 84, A.M, 88, LL.D, 09; S.T.B, Boston, 87, Ph.D, 91; LL.D, Northwestern, 27; Litt.D, Southern California, 32. Prof. philos, Southern California, 88–90; acting prof, Northwestern, 91–93, prof, 93–09; relig. educ. and psychol, Union Theol. Sem, 09–22; educ, Teachers Col, Columbia, 22–27; *retired.* Lecturer, Harvard; prof. pro tem, Yale; visiting prof, Chicago. Relig. Educ. Asn. (pres, 09); Progressive Educ. Asn. Psychology of religion; educational theory.

Coe, Dr. James R(obert), Jr, National Bureau of Standards, Washington, D. C. *Physical chemistry.* Hartford, Conn, Sept. 20, 04. B.S, Mass. Inst. Tech, 28, Ph.D, 31. Asst. chem, Mass. Inst. Tech, 28–31; research assoc, *Bur. Standards,* 31–35, assoc. chemist, 35–42, *physicist, Nat. Defense Research Cmt. projects, 42–* Heats of expansion of gases; density and freezing points of ether; absolute viscosity of water.

Coe, Mayne R(eid), U. S. Department of Agriculture, Eastern Regional Research Laboratory, Wyndmoor, Pa. *Chemistry.* Hartford, Conn, Jan. 10, 88. B.S, George Washington, 14, M.S, 27. Asst. eng. tests, Bur. Engraving and Printing, 08–18; asst. chemist, cattle food, food and drug admin, *U. S. Dept. Agr,* 18–29, *assoc. chemist,* food research div, *bur. chem. and soils,* 29–41, *fat and oils div, 41–* A.A; Agr. Chem; Oil Chemists Soc; Asn. Feed Control Officials; fel. Inst. Chem; Wash. Acad; Colorists Soc. Wash. Starch and sugar methods; cereals; feeds; iodine in mixed feed; preservation of foods and feeds from spoilage due to rancidity by shutting out certain wave-lengths of light; photochemistry of industrial commodities; curing of tobacco; preservation of rubber; preservation of animal fats and oils; photochemical effect of light.

Coe, Prof. Wesley R(oswell), 175 Bishop St, New Haven, Conn. *[1]*Zoology.* Middlefield, Conn, Nov. 11, 69. Conn. Agr. Col, 88; Ph.B, Yale, 92, Ph.D, 95; Wurzburg, 95–96; Naples, 96. Asst. biol, *Yale,* 92–95, instr. comp. anat, 96–01, asst. prof, 02–09, prof. *biol,* 09–37, *emer. prof, 37–,* curator zool. collections, Peabody Museum, 10–26. Assoc. ed, 'Am. Jour. Science.' Harriman exped, Alaska, 99. A.A. (v. pres, F, 39); Soc. Nat; Asn. Anat; Soc. Zool. (pres, sec'y, mem. exec. cmt); Conn. Acad. Experimental zoology; cytology; nemerteans; morphology and adaptations of bathypelagic nemerteans; experimental embryology and regeneration; sex differentiation; experimental zoology.

Coe, Dr. Wesley S(tuart), Naugatuck Chemical Division, U. S. Rubber Co, Naugatuck, Conn. *Chemistry.* Mt. Pleasant, Iowa, May 1, 12. B.S, Iowa Wesleyan Col, 33; fellow, Illinois, 35–36, Ph.D, 36. Asst. chem, Iowa Wesleyan, 30–33; Illinois, 33–35; research chemist, gen. labs, *U. S. Rubber Co,* 36–37, *research and develop. chemist, Naugatuck chem. div, 37–* Chem. Soc. Effects of x-rays upon chemical reactions; rubber compounding and reclaiming; direction of chemical and synthetic rubber pilot plant activities.

Cofer, Dr. Charles N(orval), George Washington University, Washington, D. C. *Psychology.* Cape Girardeau, Mo, June 1, 16. A.B, Southeast Mo. State Teachers Col, 36; A.M, Iowa, 37; Ph.D, Brown, 40. Asst. psychol, Brown, 37–40; junior occupational analyst, Social Security Board, 40–41; *instr. psychol, George Washington, 41–* A.A; assoc. Psychol. Asn; East. Psychol. Asn. General and experimental psychology; psychology of learning and language; abnormal psychology.

Coffey, Dr. C(harles) A(dams), 651 E. 83rd St, Chicago, Ill. *Chemistry.* Chicago, Ill, March 19, 08. Ph.D, 33. *Research chemist,* Rock Island Arsenal, U. S. War Dept, 34; Wilson and Co, Chicago, 34–41; *mem. staff,* Armour Research Foundation, 41; Swift and Co, 41–43; *Sherwin-Williams Co, 43–* Chem. Soc; Oil Chemists Soc; Inst. Food Technol. Fats and oils.

Coffey, Prof. Joel S(immonds), 182 Oakland Park Ave, Columbus, Ohio. *Animal husbandry.* Rugby, Ind, Dec. 8, 85. B.S, Illinois, 12. Instr, Purdue, 12–13; asst. prof, *Ohio State,* 14–18, *prof. animal husbandry, 18–* Summers, lecturer, Iowa, 13, 14–16. Soc. Animal Production. Swine feeding, breeding and management; ability measurements of students in livestock judging; livestock management.

Coffey, Pres. W(alter) C(astella), 1005 S. E. Fifth St, Minneapolis, Minn. *Animal husbandry.* Hartsville, Ind, Feb. 1, 76. B.S, Illinois, 06, M.S, 09; LL.D, Hamline, 27. Instr. animal husbandry, Illinois, 06–07, assoc, 07–11, asst. prof, 11–13, prof, 13–21; dean and director dept. agr, *Minnesota,* 21–41, acting pres, 41, *pres, 41–* Special agent, Fed. Tariff Board, 11. Chairman, State Advisory Cmt. Soil Conservation, Minn. Trustee and mem. exec. cmt, Nutrition Foundation. Director, Int. Livestock Expos. Mem. cmt. instruction in agr, Asn. Land-Grant Cols. and Univs. Chairman, Conf. Factors Which Influence Quality and Palatability of Meats; chairman exec. cmt. and pres, Conf. Prevention Grain Rust; mem, Coolidge Agr. Conf, 25. A.A; Soc. Animal Production; hon. mem. Minn. State Hort. Soc; hon. mem. Minn. State Agr. Soc. Productive sheep husbandry; livestock enterprises.

Coffin, Prof. C(arl) C(owan), Dalhousie University, Halifax, N. S, Can. *Physical chemistry.* N. S, March 14, 03. B.A, Dalhousie, 24; M.Sc, Ph.D, McGill, 29. Research chemist, Shawinigan Chemicals, Ltd, 24–26; from lecturer to assoc. prof. *chem, Dalhousie,* 30–42, *McLeod prof. and head dept, 42–* Fel. Royal Soc. Can. Kinetics of chemical reactions; amorphous metals; calorimetry.

Coffin, Dr. Fletcher B(arker), Newton, Mass. *Chemistry.* Acton, Mass, Jan. 9, 73. A.B, Harvard, 95, A.M, 96, LL.B, 98, Ph.D, 11. Instr. *chem,* Haverford Col, 08–09; asst. prof, *Lake Forest Col,* 09–10, prof, 10–40, *emer. prof, 40–* A.A; Chem. Soc. Inorganic chemistry; atomic weights of cobalt and arsenic.

Coffin, Dr. J(oseph) G(eorge), Fleetwings, Inc, Bristol, Pa. *[2]*Mathematical physics.* Pittsburgh, Pa, June 14, 77. Col. Cantonal, Switzerland, 90–92; Col. Chaptal, Paris, 92–94; B.S, Mass. Inst. Tech, 98; Ph.D, Clark, 03, hon. fellow, 03–06. Asst. physics, Mass. Inst. Tech, 98–00; Clark, 01–03, instr, Clark Col, 02–05, asst. prof, 05–06; instr, Col. City of N. Y, 06–09, asst. prof, 09–17, assoc. prof, 17–18; director aeronaut. research and Curtiss wind tunnels, Curtiss Aero. and Motor Corp, 18–20; physicist, U. S. Rubber Co, 20–23; tech. director, Gen. Baking Co, 24–40; *aeronaut. eng. research, Fleetwings, Inc.* A.A; Radio Eng. Engineering; vector mathematics; light and critical angle; edge corrections of condensers; absolute inductance standards and formulae; frequency effect on inductance and capacity; aeronautics; propellers; wind tunnels; recording wind tunnel balance; airplane ranges; spray drying of rubber latex; rubber testing machines; golf ball theory; vitamin D in foods; bakery engineering.

Coffin, Prof. Leroy M(elville), 1027 Second Ave, Cedar Rapids, Iowa. *Mathematics.* Avon, Maine, Jan. 13, 80. B.S, Maine, 03; fellow, Michigan, 12–14, A.M, 13; Chicago, summers, 18–20, 28–30, 32, 33, 35, 37, 40, 41. Teacher, Utica Prep. Sch, 03–07; N. Y. Inst. for the Blind, 07–08; prof. math, Keuka Col, 08–11; asst, Michigan, 11–12; prof, Adrian Col, 14–15; instr, Oberlin Col, 15–16; asst. prof, *Coe Col,* 16–18, *prof. math. and asst. prof. physics, 18–* A.A; Math. Soc; Math. Asn; Iowa Acad.

Coffin, R(euben) Clare, Stanolind Oil and Gas Co, Tulsa, Okla. *Geology.* Longmont, Colo, Oct. 29, 86. A.B, Colorado, 09. Geologist, Colo. Geol. Surv, 09–10; instr. geol, Colorado, and asst. state geologist, Colo, 15–19; div. geologist, Midwest Ref. Co, 20–26, chief geologist, 26–31; asst. to chief geologist, *Stanolind Oil and Gas Co,* 32–39, *supervisor geophys. dept, 39–* Asn. Petrol. Geol; Tulsa Geol. Soc. (pres, 39). Radium, uranium and vanadium deposits of southwestern Colorado.

Coffin, Prof. Roy G(regg), 1106 W. Oak St, Ft. Collins, Colo. *Geology, Chemistry.* Longmont, Colo, Nov. 29, 78. B.S, Colo. Agr. Col, 14, M.S, 29. Instr. chem, Colo. Agr. Col, 12–17, *assoc. prof. chem. and geol,* 20–35, *Colo. State Col, 35–* Summers, topographer and geologist, Colo. Geol. Surv, 11, 12, 14, 15. Capt, F.A, 17–18, major, 18–20. Chem. Soc. Minerals of Larimer County, Colorado; inorganic chemistry; North Colorado Folsom cultural site.

Coffin, Prof. T(homas) E(rwin), 221–12 105th Ave, Queens Village, N. Y. *Psychology.* Richmond, Ind, Jan. 30, 16. A.B, Whittier Col, 36; A.M, Princeton, 39, Ph.D, 41. *Asst. prof. psychol, Hofstra Col, 39–* A.A; assoc. Psychol. Asn; Acad. Polit. and Social Sci; Soc. Psychol. Study Social Issues; East. Psychol. Asn. Social psychology; suggestion; propaganda; personality.

Coffman, Dr. Alden W(illiams), H. H. Robertson Co, Pittsburgh, Pa. *Chemistry.* Lagrange, Ind, Oct. 3, 99. B.S, Illinois, 22, M.S, 23, Ph.D, 27. Asst. gas eng, Illinois, 22–23; metallurgist, West. Elec. Co, Chicago, 23–25; asst. chem. eng, Illinois, 25–26; indust. fellow, Mellon Inst, 27–39; mem. staff, *H. H. Robertson Co,* 39–41, *asst. gen. sales manager, 41–* Chem. Soc; Soc. Metals. Metallurgy; coal chemistry.

Coffman, Dr. Donald D(rake), 111 South Road, Lindamere, Wilmington, Del. *Chemistry.* Sidney, Ohio, Sept. 14, 05. B S, Illinois, 27, M.S, 28, univ. fellow, 28–29, du Pont fellow, 29–30, Ph.D, 30. Asst. org. chem, Wisconsin, 27–28; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, Wilmington, 30–* Organic chemistry.

Coffman, F(ranklin) A(rthur), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Jewell, Kans, Dec. 30, 92. B.S.A, Kans. State Col, 14, M.S, 22. Exp. Sta. supt, P. I, 14–16; asst. bot, Kans. State Col, 16–17; field asst, *bur. plant indust, U. S. Dept. Agr,* 17–18, sci. asst, 18–21, asst. agronomist, 21–24, assoc. agronomist, 24–37, *agronomist, 37–* A.A; Soc. Agron; Genetic Asn; Wash. Genetics Club. Production and improvement of the oat crop of the United States; genetics and origin of oats; hybrid vigor; natural crossing; disease; cold and heat resistance; germination of seeds; growth of cereals on dry land.

Coffman, Dr. J(ohn) Robert, Lawrence College, Appleton, Wis. *Biochemistry.* Colorado Springs, Colo, June 22, 10. B.S, Denver, 32, M.S, 33; Ph.D, Chicago, 40. Asst, Chicago, 36–39, research assoc, 39–41; *research biochemist, Gen. Mills, Inc, 41–; Gen. Mills res. fellow, Inst. Paper Chem, Lawrence Col, 41–* Biochemistry of proteins.

Cogan, Prof. David G(lendenning), 243 Charles St, Boston, Mass. *Ophthalmology.* Fall River, Mass, Feb. 14, 08. A.B, Dartmouth Col, 29, 29–30; M.D, Harvard, 32. Asst. ophthal, *Harvard Med. Sch,* 34–40, *asst. prof. ophthalmic research, 40–, acting director, Howe lab. ophthal, 40–* Clin. asst, Mass. Eye and Ear Infirmary, 34–39, asst. surgeon, 39–; Moseley traveling fellow, Harvard Med. Sch, 37–38. Ed. board, 'Archives Ophthal,' 40– Am. Med. Asn; New Eng. Ophthal. Soc. Physiology of the eye.

Coggeshall, A(rthur) S(terry), Santa Barbara Museum of Natural History, Santa Barbara, Calif. *Paleontology.* Bridgeport, Conn, July 17, 73. Pub. schs. Am. Museum Nat. Hist, 96–99; preparator-in-chief, dept. vert. paleont, Carnegie Museum, 99–29, field collector dinosaurs, 99–22, curator pub. educ, 23–29; director, St. Paul Inst, Minn, 29–31; chief, Ill. State Museum, 31–37; *director, Santa Barbara Museum Nat. Hist, 37–* Lecturer nat. hist. and travel. Mem, Forest Advisory Board. Officier de l'Instruction pub, 08; Caballero de la reale Orden de Isabel la Catolica, 14; Caballero de la Orden civil de Alfonso XII, 14; Order of the Crown, Italy, 09; Order of St. Anne, Russia, 10; Francis Joseph Order of Merit with Golden Crown, Austria, 09. Sec'y, West. Museums Conf. A.A; Asn. Mus. (councilor). Vertebrate paleontology; natural history; design of cast steel method of mounting large dinosaurs.

Coggeshall, Dr. G(eorge) W(hiteley), 19 Agassiz St, Cambridge, Mass. *Physical chemistry.* Des Moines, Iowa, Dec. 21, 67. B.S, Grinnell Col, 90; Harvard, 91–92; Ph.D, Leipzig, 95. Asst. chem, Grinnell Col, 88–90; instr. physical chem, Harvard, 95–97; mfg. chemist, Boston, 98–10; chief chem. eng. div, Inst. Indust. Research, 11–24, director labs, 24–29; research, S. D. Warren Co, 26–40; *retired.* In charge surfaces of concrete vessels, Emergency Fleet Corp, 18. A.A; Chem. Soc; Chem. Eng; Electrochem. Soc; Min. and Metal. Eng; Soc. Chem. Indust; Asn. Pulp and Paper Indust; Am. Acad. Calomel electrodes; titanium mordants; potash from feldspathic rocks; industrial chemical processes; gasoline from heavier oils; pulp and paper.

Coggeshall, Dr. L(owell) T, University of Michigan School of Public Health, Ann Arbor, Mich. *Tropical medicine.* Saratoga, Ind, May 7, 01. A.B, Indiana, 22, A.M, 23, M.D, 28. Instr. zool, Indiana, 22; asst, Wisconsin, 23; special mem. staff, int. health board, Rockefeller Foundation, 25–26, 35–41; instr. anat, sch. med, Indiana, 26–27; med, Chicago, 31–33, asst. prof, 33–35; *prof. epidemiol, sch. pub. health, Michigan, 41–* A.A; Soc. Trop. Med; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc; N. Y. Soc. Trop. Med; Royal Soc. Trop. Med. Tropical diseases.

Coggin, Prof. H(oward) T(empleton), University of Georgia, Athens, Ga. *Chemistry.* Covington, Ga, Dec. 8, 02. A.B, Wofford Col, 23; M.S, Emory, 27; Ph.D, Colorado, 34. Instr. *chem,* Georgia, 28–30; asst, Colorado, 30–34; asst. prof, *Georgia,* 34–42, *assoc. prof, 42–* Chem. Soc; Ga. Acad. Biochemistry; the toxicity of nicotine that has been irradiated with ultra-violet light; urinalysis.

Coggins, Prof. C(alvin) Lester, Rhode Island State College, Kingston, R. I. *Physics.* Charlestown, Mass. B.S, Ohio State; Dartmouth Col; Columbia. Ohio State, 07–08; Dartmouth Col, 08–10; Stevens Inst. Tech, 10–14; *asst. prof.* physics and elec. eng. and later *physics, R. I. State Col, 14–* A.A; Physical Soc; Asn. Physics Teachers.

Coghill, Dr. Robert D(eWolf), Northern Regional Research Laboratory, U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Providence, R. I, Oct. 5, 01. A.B, Kansas, 21, M.S, 22; Ph.D, Yale, 24. Nat. Tuber. Asn. fellow, Yale, 24–26, instr. chem, 26–28, asst. prof, 28–39; *prin. chemist and chief fermentation div, North. Regional Research Lab, U. S. Dept. Agr, 39–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Bact. Phenolic hydantoins; chemistry of tubercle bacillus and of nucleic acids; immunochemistry; antitoxins; fermentation.

Coghill, Will(iam) H(awes), U. S. Bureau of Mines, Tuscaloosa, Ala. *Metallurgy.* Roseville, Ill, March 14, 76. E.M, Colo. Sch. Mines, 03. Mining engineer, 03–07; asst. prof. metal, Northwestern, 07–15; prof. mining and metal. and head dept. chem. eng, Oregon State Col, 14–17; metallurgist, *U. S. Bur. Mines,* 17–26, supervising engineer and head ore dressing sect, 26–38, *prin. engineer and supervising engineer, south. exp. sta, 38–* A.A; Chem. Soc; Min. and Metal. Eng; Min. and Metal. Soc. Cyaniding and flotation; gravity concentration; crushing and grinding.

Cogshall, Prof. W(ilbur) A(delman), Indiana University, Bloomington, Ind. *Astronomy.* Mendon, Mich, Feb. 8, 74. B.S, Albion Col, 95; A.M, Indiana, 02; Yerkes Observatory, Chicago, 03–04. Asst, Lowell Observatory, 96–97, 98–00; instr. mech. and astron, *Indiana,* 00–04, asst. prof. *astron,* 04–08, assoc. prof, 08–23, *prof, 23–* Astron. Soc; Ind. Acad. (pres, 16). Double stars; photography of comets and solar eclipses.

Cohan, Dr. Leonard H(echt), 6130 W. 51st St, Chicago, Ill. *Colloidal chemistry.* Baltimore, Md, Sept. 23, 13. A.B, Hopkins, 32, Ph.D, 35. Asst. chem, Hopkins, 35–36; research chemist, Colloid Corp, 36–40; *Continental Carbon Co,* 40–42, *chief chemist, 42–* A.A; Chem. Soc; fel. Inst. Chem. Sorption of water; sorption hysteresis; emulsification; gas carbon; rubber.

Cohee, Dr. George V(incent), Indiana Geological Survey, State Library Bldg, Indianapolis, Ind. *Petroleum geology.* Indianapolis, Ind, Feb. 4, 07. B.S, Illinois, 31 and 33, M.S, 32, Ph.D, 37. Asst. geologist, oil and gas div, Ill. State Geol. Surv, 36–42; *asst. state geologist, Ind. Geol. Surv, 42–; petrol. production analyst, Petrol. Admin. for War, 43–* Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Ill. Acad; Ill. Geol. Soc. Sedimentation.

Cohen, Prof. Abraham, 2905 N. Charles St, Baltimore, Md. *Mathematics.* Baltimore, Md, Sept. 11, 70. Baltimore City Col, 83–88; A.B, Hopkins, 91, Ph.D, 94; Paris, 94–95. Instr. *math, Hopkins,* 95–98, assoc, 98–15, assoc. prof, 15–26, collegiate prof, 26–40, *emer. prof, 40–* Summers, Colorado, 16–25, 30. Co-editor, 'Am. Jour. Math,' 99–40; 'Am. Math. Monthly,' 16–18. A.A; Math. Soc; Math. Asn. Differential equations; Lie theory of one-parameter groups; differential and integral calculus.

Cohen, A(braham) Burton, 1 Madison Ave, New York, N. Y. *Engineering.* Chicago, Ill, March 9, 82. B.S, Purdue, 05, C.E, 10. Eng. dept, Del, Lackawanna and West. R. R, 05–10, asst. engineer in charge concrete bridge design, 10–20; *engineer in charge design of grade crossing eliminations, N. J, and of Martins Creek and Tunkhannock Creek viaducts, 20–* Consulting engineer, Chemung River Bridge, Harrison Ave. Bridge, Scranton, Pa; Hudson Co. Blvd. Bridge, N. J. Civil Eng; Soc. Test. Mat; Concrete Inst. (advisory board,

25–, chairman, cmt. on bridges). Concrete bridge design and construction.

Cohen, Dr. Arthur L(eRoy), California Institute of Technology, Pasadena, Calif. *Cellular physiology.* Newport News, Va, Jan. 22, 16. A.B, Stanford, 37; A.M, Harvard, 39, Ph.D, 40. Sheldon traveling fellow from Harvard, Hopkins Marine Sta, Stanford, 40–41, asst. microbiol, 41–42; *research fellow, Calif. Inst. Tech, 42–* Bot. Soc; Torrey Bot. Club. Nutrition and physiology of myxomycetes.

Cohen, Prof. Barnett, Johns Hopkins University School of Medicine, Baltimore, Md. *Biochemistry, Bacteriology.* Russia, Feb. 16, 91. B.S, Col. City of N. Y, 11; M.S, C.P.H, Yale, 18, Ph.D, 21. Chemist and bacteriologist, Meriden, Conn, 12; agr. chemist, Norfolk, Va, 13–14; chemist and bacteriologist, Savannah, Ga, 15–16; asst. biochem. and pub. health, Yale, 17–20; chemist, hygienic lab, U. S. Pub. Health Service, 20–28; *assoc. prof. physiol. chem, sch. med, Hopkins, 28–* Research chemist, U.S.A, 18–19. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Bact. (archivist and ed, 'Bact. Reviews'); fel. Pub. Health Asn; Hist. Sci. Soc. Biological oxidation-reductions; acid-base and oxidation-reduction indicators; vitamins; bacterial hemolysins.

Cohen, Dr. Bernard M(ilton), 1714 Eutaw Place, Baltimore, Md. *Vital statistics.* Baltimore, Md, Dec. 3, 04. Scholar, Hopkins, 29–31, A.M, 31, Ph.D, 32. Asst. zool, Hopkins, 31–32, instr, 32–36, statistician mental hygiene study, sch. hygiene and pub. health, 36–39, research assoc. mental hygiene, 39–40; *chief marriage and divorce statist, U. S. Bur. Census, 40–* Pub. Health Asn; Am. Acad. Polit. and Social Sci; Statist. Asn. Protozoan genetics; mental hygiene statistics.

Cohen, Prof. Gustav E(manuel), 711 W. Fairmount Ave, State College, Pa. *Chemistry.* New York, N. Y, Jan. 19, 80. B.S, M.S, Pa. State Col. Asst. chief chemist and chief chemist, Aluminum Ore Co, E. St. Louis, 07–13; chief chemist and asst. manager, Mineral Products Corp, Utah, 13–21; asst. prof. *chem, Pa. State Col,* 21–33, *assoc. prof, 33–* Chem. Soc. (treas, Cent. Pa. sect, 26–).

Cohen, Dr. I(rvin) S(ol), 2016 N. Smallwood St, Baltimore, Md. *Mathematics.* Baltimore, Md, April 2, 17. A.B, Hopkins, 36, Ph.D, 42. Junior instr. math, Hopkins, 36–42; mem, Inst. Advanced Study, 42; *instr. math, North Carolina, 43–* Math. Soc. Abstract algebra.

Cohen, Dr. Karl (Paley), 510 W. 123rd St, New York, N. Y. *Theoretical physics.* New York, N. Y, Feb. 5, 13. A.B, Columbia, 33, A.M, 34, Ph.D, 37; Paris, 36–37. Asst. to Prof. H. C. Urey, *Columbia,* 38–40, *research chemist, div. nat. defense research, 40–* Physical Soc. Isotope separation; optical rotatory power; structure of liquids and solids.

Cohen, Prof. Leon W(arren), 1401 Audubon Ave, Lexington, Ky. *Mathematics.* New York, N. Y, April 24, 03. A.B, Columbia, 23, A.M, 25; Ph.D, Michigan, 28. Instr. *math,* Michigan, 26–29; nat. research fellow, Princeton, 29–31; asst. prof, *Kentucky,* 31–35, assoc. prof, 35–38, *prof, 38–* Assoc. ed, 'Duke Math. Jour,' 35–37; collaborator, 'Math. Rev,' 40– Math. Soc. Topology; analysis.

Cohen, Prof. Lillian, 2519 Humboldt Ave, Minneapolis, Minn. *Inorganic chemistry.* Minneapolis, Minn. B.S, Minnesota, 00, M.S, 01, Ph.D, 13; Zurich Polytech, 05–06. Instr, *Minnesota,* 02–18, asst. prof. *chem,* 18–27, *assoc. prof,* 27– Chem. Soc. Rarer metals.

Cohen, Prof. Louis, 303 Roosevelt St, Bethesda, Md. *^{*3}Physics.* Kiev, Russia, Dec. 16, 76. B.S, Armour Inst. Tech, 01; Chicago, 01–02; Columbia, 03–05, Ph.D, 19; fellow, Hopkins, 07–08. Asst, Bur. Standards, 03–09; asst. prof. physics, George Washington, 07–09; chief research dept, Nat. Elec. Sig. Co, 09–12; *prof. physics, George Washington,* 17– Consulting engineer, 13–; lecturer, Bur. Standards, 17–18, 29– U. S. del, provisional tech. cmt, Int. Conf. Elec. Communication, Paris, 21; mem. advisory tech. board, Conf. on Limitation of Armament, Washington, D. C, 21–22; tech. expert, German-Austrian Claim Cmn, 29–31. A.A; fel. Elec. Eng; fel. Radio Eng. Radio telegraphy; high frequency currents; electrical circuit theory.

Cohen, Dr. L(ouis) H(arold), Norwich State Hospital, Norwich, Conn. *Psychiatry.* New Haven, Conn, July 9, 06. A.B, Yale, 26, A.M, 27, Ph.D, 29, Sterling fellow, 30–31, M.D, 31. Intern, New Haven Hosp, 31–32; asst. psychiat, Yale, 32–33, nat. research fellow med, 33–34; clin. asst, Guy's Hosp, London, Eng, 34–35; senior research psychiatrist, Worcester State Hosp, 35–39; asst. prof. psychiat, col. med, Illinois, 39–40; *visiting lecturer psychol, Wesleyan, 40–; assoc. prof, Connecticut, 40–; clin. director, Norwich State Hosp, 40–; asst. clin. prof. psychiatry, Yale, 41–* Clin. director, Manteno State Hosp, Ill, 39–40. Neurology.

Cohen, Prof. Morris, Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy.* Chelsea, Mass, Nov. 27, 11. B.S, Mass. Inst. Tech, 33, Sc.D, 36. Asst. *physical metal, Mass. Inst. Tech,* 34–36, instr, 36–37, asst. prof, 37–42, *assoc. prof, 42–* Min. and Metal. Eng; Soc. Metals; Iron and Steel Inst. Gt. Britain; British Inst. Metals. Age-hardening of metals; transformations in steels; tool steel; dimensional stability of metals.

Cohen, Prof. Morris R(aphael), 3708 Oliver St, N.W, Washington, D. C. *Philosophy, Mathematics.* Minsk, Russia, July 25, 80. B.S, Col. City of N. Y, 00; Columbia, 02–04; Ph.D, Harvard, 06. Teacher math, Col. City of N. Y, 02–12; *prof. philos,* 12–37; *Chicago, 37–* Visiting prof, Yale, 29–31; Hopkins, 21, 25–26; lecturer, New Sch. for Social Research, 23–; law sch, St. John's Col, 28–31; Irvine lecturer, Cornell, 27, Schiff lecturer, 31. Summers, Chicago, 23; Columbia, 18, 27. A.A; Philos. Asn. (pres, 29). The logic of natural and social science; the logic of mathematics and law.

Cohen, Dr. M(orris) U, 2879 W. 22nd St, Brooklyn, N. Y. *Physical chemistry.* N. Y, Jan. 10, 10. B.S, Col. City N. Y, 30; A.M, Columbia, 32, Ph.D, 35. *Instr. chem, Col. City N. Y, 30–* Chem. Soc. X-ray diffraction; analytical chemistry.

Cohen, Prof. Mortimer, University of Pittsburgh School of Medicine, Pittsburgh, Pa. *Pathology.* Rochester, N. Y, June 9, 97. M.D, Pittsburgh, 21. Demonstrator path. and bacter, *Pittsburgh,* 22–24, instr, 24–26, asst. prof. *path,* 26–28, *assoc. prof, 28–* R. B. Mellon fellow, 23–24. Asn. Path. and Bact; Col. Physicians; fel. Am. Med. Asn; Soc. Biol. Research; Asn. Cancer Research; Soc. Clin. Path; Int. Asn. Med. Mus. Anomalies of the heart; conducting mechanism of heart; placenta in eclampsia; pathology of corpus luteum; formation of giant cells in vitro.

Cohen, Dr. Myer Solis, 2110 Spruce St, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, May 24, 77. A.B, Pennsylvania, 97, M.D, 00. *Asst. prof. med, grad. sch. med, Pennsylvania, 20–;* lecturer med. jurisprudence, Woman's Med. Col. of Pa, 24–41. Am. Med. Asn; Col. Physicians Phila; Path. Soc. Phila; Pediat. Soc. Phila; Laryngol. Soc. Phila. Focal infection; vaccino-therapy; immunology; tuberculosis; heart; public health.

Cohen, Dr. Philip P(acy), University of Wisconsin Medical School, Madison, Wis. *Biochemistry.* Derry, N. H, Sept. 26, 08. B.S, Tufts Col, 30; Ph.D, Wisconsin, 37, M.D, 38. Asst. physiol. chem, Wisconsin, 31–38; nat. research fellow med. science, Sheffield, 38–39, Yale, 39–40, instr. physiol. chem, 40–41; research assoc, *med. sch, Wisconsin,* 41–43, *asst. prof. clin. chem, 43–* Soc. Biol. Chem. Intermediary metabolism of fats and of amino acids; transamination.

Cohen, Prof. Saul L(ouis), 806 Granger Ave, Ann Arbor, Mich. *Biochemistry.* Regina, Can, May 10, 13. B.A, Brandon Col, 32; fellow, Toronto, 34–35, 36, Ph.D, 36; Eidgenossische Tech. Hochschule, Switzerland, 36–37. Lecturer biochem, univ. col, London, 35–36; 1851 Exhib. scholar, England, 36–37; Rockefeller asst. *physiol,* Ohio State, 37–38, instr, 38–42; *asst. prof, Michigan, 42–* Reeve prize, Toronto, 36. Biochem. Soc. Gt. Britain. Chemistry and metabolism of the female sex hormones.

Cohen, Dr. Sidney, 1448 Benner St, Philadelphia, Pa. *Organic chemistry.* Philadelphia, Pa, Jan. 31, 17. B.S, Pennsylvania, 37, M.S, 38, Ph.D, 42. *Asst. chemist, Frankford Arsenal, 41–* Chem. Soc. Labilizing influence of sulfonyl group.

Cohen, Dr. Sylvan Irving, USS YO-143, Fleet Post Office, Miami, Fla. *Plant pathology.* New York, N. Y, Nov. 9, 18. B.S, State Col. Wash, 39, Ph.D, 42. Teaching fellow, State Col. Wash, 40–42, Julius Galland fellow, 39–40, asst. Exp. Sta, 40–42; *ensign, U. S. Naval Res, 42–* Field scout Dutch elm disease eradication, bur. entom. and plant quarantine, U. S. Dept. Agr, 38. Phytopath. Soc. Diseases of fruit and vegetable crops; mycology.

Cohen, Dr. Victor W(illiam), 3822 Davis Place, Washington, D. C. *Physics.* New York, N. Y, July 18, 11. B.S, Col. City

of N. Y, 31; Ph.D. Columbia, 35. Research assoc. *physics*, Iowa, 34–37; teaching asst. and research asst, Columbia, 37–39; instr, Col. City of N. Y, 39–40; *bur. ordnance, U. S. Navy Dept, 40–* Physical Soc. Molecular beams; nuclear physics; magnetism.

Cohn, Dr. A(lfred) E(instein), 300 Central Park West, New York, N. Y. *[5]*Pathology, Internal medicine.* New York, N. Y, April 16, 79. A.B, Columbia, 00, M.D, 04; Freiburg, 07–09; Vienna, 08; London, 09; hon. Sc.D, 40. Intern, Mt. Sinai Hosp, 04–07, assoc. pathologist, 09–11; alumni fellow path, col. physicians and surg, Columbia, 09–11; *Rockefeller Inst*, 11–14, assoc. mem, 14–20, *mem, 20–* Visiting prof, Peking Union Med. Col, 25. Councilor, U. S. Veterans' Admin, 24–, mem. Lasker foundation, Univ. Chicago, 28–39; mem. China med. board, Rockefeller Foundation, 34–; chairman sci. cmt, research council, dept. hosps, New York, 36–; mem. med. board, Irvington House, New York, 30–; Emergency Cmt. Aid of Displaced For. Scholars, 33–; exec. cmt, Int. Student Service, 34–; v. pres, Cmt. Nat. Morale, 40– Chairman sub-cmt. heart diseases and rheumatic fever, N. Y. World's Fair, 37–40. Lieut. col, M.C, 18–19, major, M.R.C. A.A; Am. Med. Asn; Am. Physicians; Asn. Path. and Bact; Soc. Clin. Invest; Soc. Pharmacol; Soc. Exp. Biol. (councilor, 29–33); Asn. Anat; Physiol. Soc; Harvey Soc. (pres, 30); N. Y. Acad. Med. (cmt. library, 29–, chairman, 34–); N. Y. Path. Soc; N. Y. Tuber. Asn. (director, 25–); N. Y. Heart Asn. (governor, 20–, chairman cmt. on research, 21–). Physiology and pharmacology of the heart and circulation.

Cohn, Prof. Byron E(manuel), 2142 S. University Blvd, Denver, Colo. *Physics.* Chicago, Ill, Nov. 2, 01. B.S, Denver, 23, M.S, 24; Ph.D, Chicago, 31. Chem. engineer, Berkshire Hills Paper Co, 23–25; instr. math, *Denver*, 25–26, *physics*, 26–30, asst. prof, 30–33, assoc. prof, 33–36, *prof, 36–*; staff mem, Naval Ordnance Lab. van't Hoff grant, 33–34. Physical Soc; Elec. Eng; Colo. Wyo. Acad. (v. pres, 35). Physical chemistry; luminescence; structure of material; ceramics.

Cohn, Dr. David J(osaphat), 1133 E. 45th St, Chicago, Ill. *Biochemistry.* New York, N. Y, Oct. 3, 96. A.B, Col. City of N. Y, 17; A.M, Columbia, 19, Ph.D, 24. Asst. chemist, Mt. Sinai Hosp, New York, 27–29; *director biochem. dept, Michael Reese Hosp, Chicago, Ill, 29–* A.A; fel. Inst. Chem; Chem. Soc. Enzymes; oxygen therapy and apparatus; chemistry of the central nervous system; physiology of the skin.

Cohn, Prof. E(dwin) J(oseph), 183 Brattle St, Cambridge, Mass. *[5]*Biochemistry.* New York, N. Y, Dec. 17, 92. Amherst Col, 10–13; B.S, Chicago, 14, Ph.D, 17; Harvard, 15–16. Asst. chem, Harvard, 17–18, nat. research fellow, 19–22, asst. prof. physiol. chem, *Harvard Med. Sch*, 22–28, assoc. prof, 28–35, *prof. biochem, 35–* Lieut, Sanit. C, 18–19. A.A; Am. Acad; Soc. Biol. Chem; Chem. Soc; Physiol. Soc. Biological systems; physiology of spermatozoa; chemistry of sea water; physical chemistry of amino acids, peptides, proteins and phospholipoids; chemistry of ions and dipolar ions in systems of varying dielectric constants; chemical interactions and separations of the components of concentrated solutions rich in proteins, especially of hormone and plasma proteins.

Cohn, Prof. Essie White, University of Denver, Denver, Colo. *Chemistry.* Pittsburgh, Pa, March 23, 02. A.B, Denver, 22, A.M, 23; Michigan, 34; Ph.D, Chicago, 36. Instr. *chem, Denver*, 23–31, asst. prof, 31–38, *assoc. prof, 38–* Visiting prof. biochem, sch. med, George Washington, 42–43. Chem. Soc; Colo-Wyo. Acad. (exec. sec'y and ed, 'Jour,' 37–). Carbohydrate and protein chemistry; nutrition.

Cohn, Dr. Isidore, 2 Everett Place, New Orleans, La. *Surgery.* West Baton Rouge Parish, La, April 9, 85. B.S, Louisiana, 03; M.D, Tulane, 07. From instr. minor surg. to prof. clin. surg, sch. med. and post-grad. sch. med, Tulane, 09–32, prof. *surg.* and head dept, grad. sch, 32–37; *prof. and assoc. director dept, sch. med, Louisiana, 37–* Chief dept. surg, Touro Infirmary; senior surgeon, Charity Hosp, New Orleans; senior consultant, surg. div, Flint Goodrich Hosp, 32; senior surgeon, Touro Infirmary. A.A; fel. Col. Surg; Soc. Exp. Biol; Asn. Study Int. Secretions; Asn. Surg. of Trauma; South. Med. Asn. (v. pres, 29, sec'y, v. chairman and chairman, surg. sect, 11–14); South. Surg. Asn. (v. pres, 31). Bone regeneration and repair; radiography; normal bones and joints; skeletal defects and anomalies; surgery of the spleen; orbital and retroperitoneal tumors; osteomyelitis; sinus pericranii; acute dilatation of the stomach; fractures; epithelial tumors of peripheral and cranial nerves; gastric and intestinal surgery; vascular surgery.

Cohn, Dr. Maurice L(eon), National Jewish Hospital, Denver, Colo. *Chemistry.* Chicago, Ill, Nov. 1, 03. B.S, Chicago, 25, M.S, 27, fellow, 27–29, Ph.D, 29. Research chemist, Great West. Sugar Co, 29–30; *chief chemist, Nat. Jewish Hosp, 30–* Chem. Soc. Organic chemistry; bacteriology of tuberculosis.

Cohn, Dr. Mildred, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Physical biochemistry.* New York, N. Y, July 12, 13. A.B, Hunter Col, 31; A.M, Columbia, 32, Ph.D, 38. Junior sci. aid, combustion in engines, Nat. Advisory Cmt. Aeronautics, 32–35; biophysical asst. isotopes, med. col, George Washington, 37–38; biophysicist, *physical biochem, med. col, Cornell*, 38–41, *research assoc, 41–* Chem. Soc. Kinetics of isotopic reactions; metabolic studies with isotopes; electrophoresis.

Cohn, Dr. Waldo E, 695 Huntington Ave, Boston, Mass. *Biochemistry.* San Francisco, Calif, June 28, 10. B.S, California, 31, M.S, 32, Ph.D, 38. Asst. biochem, California, 32–35, teaching asst, 37–38, *research fellow*, 38–39; *Harvard Med. Sch, 39–, tutor biochem. sciences, Harvard, 39–* Phosphorus metabolism with radioactive phosphorus as a tracer; permeability of cells to cations with radioactive tracers; chemistry of growth.

Cohoe, Wallace P(atten), 120 E. 41st St, New York, N. Y. *Chemistry.* Norwich, Ont, Can, Feb. 22, 75. B.A, McMaster, 96, M.A, 98; A.M, Harvard, 99. Demonstrator chem, dental dept, Toronto, 97–98; lecturer, McMaster, 01–02, prof, 02–06; pres, chem. labs, Toronto, 07–12; *consulting chemist and tech. adviser, 12–* A.A; Chem. Soc; Soc. Chem. Indust. (v. chairman, Can. sect, 08, chairman, 10; Am. sect, 39, 40, v. pres, 40–43, pres, 43); Chem. Eng; fel. Inst. Chem. Hydrolysis of wood waste; inventory of process for extrusion cellulose tubes; skin friction dyeing machine; derivation substantivity laws; paper, sulphite pulp, pigments, inks and printing processes; commercial applications of dipole moment and resonance.

Colle, Prof. T(heodore) S(tanley), Duke University, Durham, N. C. *Forestry.* Kenton, Ohio, Dec. 27, 08. Ohio State, 29; B.S.F, Michigan, 33; Sage scholar, Yale, 34–35, M.F, 35, Pack fellow, 38, 39, Ph.D, 39. Field asst, Cent. States Forest Exp. Sta, U. S. Forest Service, 28–30, South. Forest Exp. Sta, 30–31, field asst, Pacific Northwest Forest Exp. Sta, 31–32, junior forester, South. Forest Exp. Sta, 33–34; instr. forestry, *Duke*, 35–36, asst. prof. *forest soils*, 36–41, *assoc. prof, 41–*, asst, *Duke forest*, 32–33, *research assoc. forest soils, 36–*; assoc. meteorologist, *weather directorate, Air Forces, U. S. Army, 42, special consultant, 43–* Agent, bur. agr. econ, U. S. Dept. Agr, 30; field asst, Appalachian Forest Exp. Sta, U. S. Forest Service, 37, 38, Northeast. Forest Exp. Sta, 39. Soc. Foresters; Soil Sci. Soc. (chairman forest soils sect, 41). Forest soils; relation between soil-site characteristics and stand composition and rate of growth; silviculture; forest management; factors influencing the reproduction of southern pines; effect of weather on soil trafficability.

Colt, Dr. J(ohn) Ellot, P. O. Box 698, Fall Brook, Calif. *Pomology.* San Antonio, Texas, March 9, 80. B.Agr, N. C. State Col, 03; M.S.A, Cornell, 05; fellow, 05–06, Ph.D, 07. Horticulturist, Exp. Sta, Arizona, 07–09; asst. prof. pomol, California, 09–12, prof. citriculture, 12–20; *consulting horticulturist, 20–* Ed, 'Cornell Countryman,' 05–06. A.A; Soc. Hort. Sci; Calif. Avocado Asn. (pres, 22–24). Paeonia; citrus culture; olive and olive oil; the date palm; physiological diseases of citrus trees; subtropical fruits; breeding new fruits.

Colth, Dr. H(erbert) S(pencer), 667 Reilly Road, Wyoming, Ohio. *Chemistry.* Bloomington, Ill, Dec. 31, 93. B.S, Kans. State Col, 15; M.S, Ohio State, 16, Ph.D, 18. Instr. indust. chem, Ohio State, 17–18; *chemist*, Barrett Co, Frankfort, Pa, 18–19; Sears, Roebuck and Co, Chicago, 19–22; *Procter and Gamble Co, Cincinnati, 22–* Chem. Soc. Oils; fats; fatty acids; soaps; glycerin.

Coke, Dr. C(hauncey) Eugene, 59 DeLisle Ave, Toronto, Ont, Can. *Chemistry.* Ignace, Ont, July 27, 05. B.Sc, Manitoba, 27, M.Sc, 29; Nat. Research Council Can. scholar, Toronto, 29–31, M.A, 30; Worshipful Co. of Clothworkers scholar, Leeds, 36–38, Ph.D, 38. Asst. org. chem, Yale, 28–29; chem, Toronto, 31–32; lecturer physical chem, McMaster, 31–33; fellow, Ont. Research Foundation, 33–36; *research chemist, Courtaulds, Ltd, 39–* A.A; fel. Can. Inst. Chem; fel. Inst. Chem. Gt. Britain and Ireland; fel. Textile Inst. Gt.

Britain and Ireland. Synthetic organic chemistry; physical chemistry; equilibrium; properties of rayon.

Coker, Prof. E(dward) C(aleb), 1730 College St, Columbia, S. C. *Astronomy.* Society Hill, S. C, Dec. 19, 73. A.B, Virginia. *Prof.* math. and physics, Winthrop Col, *math. and astron,* 06–24; *South Carolina, 24–*

Coker, Prof. R(obert) E(rvin), University of North Carolina, Chapel Hill, N. C. **[1]***Zoology.* Society Hill, S. C, June 4, 76. South Carolina, 92–93; B.S, North Carolina, 96, M.S, 97; fellow, Hopkins, 05–06, Bruce fellow, Ph.D, 06. Asst. biol, North Carolina, 95–97; prin, pub. schs, N. C, 98–01; biologist, N. C. Geol. Surv, and custodian, U. S. Fisheries Lab, Beaufort, N. C, 02–04; investigation of fisheries and guano industries for Peruvian Govt, 06–08; sci. asst, Bur. Fisheries, 09, director, U. S. Biol. Sta, Fairport, Iowa, 10–15, head div. sci. inquiry, 15–22; prof. *zool, North Carolina,* 22–35, *Kenan prof. and chairman dept, 35–, chairman div. nat. sciences, 35–* Summers, instr, North Carolina, 97, 99; director, U. S. Fisheries Biol. Lab, Woods Hole, 22–24; director and instr, Allegany Sch. Nat. Hist, 27–35. Assoc. ed, 'Jour. Morphol. and Physiol,' 28–30. Chairman cmt. on aquicult, Nat. Research Council, 26–29, mem. div. biol. and agr, 31–33, chairman div. biol. and agr, 36–40. Del. from Peru, and v. pres, Int. Fisheries Cong, 08; Int. Cmn. Marine Fisheries Investigation, 20–22. A.A; Soc. Nat; Soc. Zool. (pres, 41); Ecol. Soc. (v. pres, 18, pres, 37); Limnol. Soc. (v. pres, 36, pres, 38); Elisha Mitchell Sci. Soc. (pres, 29); N. C. Acad. (pres, 41). Fisheries; cirripedes; turtles; fresh-water mussels; guano birds; classification of copepods; experimental physiology and development of Copepoda and Cladocera.

Coker, Prof. W(illiam) C(hambers), Chapel Hill, N. C. **[2]***Botany.* Hartsville, S. C, Oct. 24, 72. B.S, South Carolina, 94, LL.D, 25; Ph.D, Hopkins, 01; Bonn, 01–02. Assoc. prof. *bot, North Caroline,* 02–07, prof, 07–20, *Kenan prof. and director arboretum, 20–* Asst, Cold Spring Harbor, 00. Chief bot. staff, Baltimore Geog. Soc. exped, Bahamas, 03. A.A; Soc. Nat; Bot. Soc; Forestry Asn. (v. pres, 37); Mycol. Soc; Elisha Mitchell Sci. Soc. (ed, 'Jour'); N. C. Acad. (pres, 09). Fertilization and embryology of gymnosperms and monocotyledons; tropical botany; flora of the Carolinas; lower fungi; agarics of North Carolina; trees and shrubs of southeastern states; Clavarias of the United States and Canada; Saprolegniaceae; Gasteromycetes of the eastern United States; Boletaceae of North Carolina.

Colbert, Dr. Edwin H(arris), American Museum of Natural History, New York, N. Y. *Vertebrate paleontology.* Clarinda, Iowa, Sept. 28, 05. A.B, Nebraska, 28; fellow, Columbia, 29–30, A.M, 30, Ph.D, 35. Asst, univ. museum, Nebraska, 26–29; *Am. Museum Nat. Hist,* 30–32, asst. curator vert. paleont, 33–42, *curator fossil reptiles and chairman dept. amphibians and reptiles, 43–; assoc. curator dept. geol. and paleont, Acad. Nat. Sciences Phila, 37–* Lecturer, Pennsylvania, 38–42; Columbia, 39; Bryn Mawr Col, 39–42. Daniel Giraud Elliot medal, Nat. Acad. Sciences. A.A; Paleont. Soc; Soc. Mammal; Soc. Ichthyol. and Herp; Geol. Soc; Soc. Vertebrate Paleont; N. Y. Acad. Fossil mammals of India, Burma, Mongolia, China and Samos; Upper Tertiary mammals of North America; fossil peccaries of North America; Tertiary stratigraphy; evolutionary relationships and phylogenies of mammals; fossil carnivores, ungulates and proboscideans; association of man and extinct vertebrates in the Western Hemisphere; fossil amphibians and reptiles.

Colbert, Prof. J(ames) C(anfield), University of Oklahoma, Norman, Okla. *Chemistry.* Canfield, Ark, 99. B.S, Arkansas, 21; M.S, Iowa, 23, Ph.D, 25. Asst, Iowa; asst. prof. *chem, Oklahoma,* 25–35, *assoc. prof, 35–* Chem. Soc. Organic chemistry; diphenyl; formation of substituted diphenyl ethers; derivatives of hydroxydiphenyls.

Colburn, Prof. A(llan) P(hillip), University of Delaware, Newark, Del. *Chemical engineering.* Madison, Wis, June 8, 04. B.S, Wisconsin, 26, fellow, 26–29, M.S, 27, Ph.D, 29. Research chem. engineer, exp. sta, E. I. du Pont de Nemours and Co, 29–38; assoc. prof. *chem. eng, Delaware,* 38–41, *prof, 41–* A.A; Eng. Educ; Chem. Eng; Chem. Soc. Heat transmission; absorption; distillation.

Colburn, Dr. William, 5401 University Ave, Chicago, Ill. *Organic chemistry.* Chicago, Ill, Oct. 28, 15. Ph.D, Chicago, 38. *Instr. chem, Chicago City Col, 39–* Consultant, Deavitt Labs, Inc. A.A; Chem. Soc. Free radicals; Grignard reagents; organic syntheses.

Colby, Prof. Arthur S(amuel), 715 Indiana Ave, Urbana, Ill. *Horticulture.* July 4, 87. B.S, New Hampshire, 11; M.S, Illinois, 15, Ph.D, 19. Instr. agr, Pinkerton Acad, N. H, 11–13; asst. *pomol, Illinois,* 13–16, instr, 16–18, assoc, 18–20, asst. prof, 20–21, assoc. prof, 21–29, *prof, 29–* A.A; Soc. Hort. Sci; Pomol. Soc; North. Nut Growers Asn. (sec'y, 26, pres, 39–41); Ill. Acad; Ill. Hort. Soc; Minn. Hort. Soc. Pomology; pathology, nomenclature and breeding of small fruits and of nuts.

Colby, Prof. Charles C(arlyle), University of Chicago, Chicago, Ill. *Geography.* Romeo, Mich, April 13, 85. B.Pd, Mich. State Nor. Col, 08, hon. Ed.M, 22; B.S, Chicago, 09, fellow, 13–14, Ph.D, 17. Asst. geog, Mich. State Nor. Col, 06–08; Chicago, 09; head dept. geog, Minn. State Nor. Sch, Winona, 10–13; assoc. prof. *geog,* Peabody Col, 14–16; instr, *Chicago,* 16–17, asst. prof, 18–22, assoc. prof, 22–25, *prof, 25–* Special expert, div. planning and statist, U. S. Shipping Board, 18–19; consultant, div. land planning and housing, Tenn. Valley Authority, 35–38; chairman, Harris Mem. Foundation Inst. of Int. Relations, 37. Mem. land cmt, Nat. Research Planning Board, 38–; div. geol. and geog, Nat. Research Council, 40–42; adviser, War Shipping Admin, 43. A.A; Asn. Geog. (sec'y, 24–29, pres, 35); Ill. Acad; Geog. Soc. Chicago (director, 31, pres, 43); Int. Geog. Union (Am. cmt). Economic geography of North America; urban geography; ocean trade and transportation; land classification and planning.

Colby, Prof. Malcolm Y(oung), University Station, Austin, Texas. *Physics.* Honey Grove, Texas, Aug. 17, 92. A.B, Texas, 15, A.M, 25; Ph.D, Chicago, 29. Instr. *physics, Texas,* 24–28, adj. prof, 29–35, assoc. prof, 35–36, *prof, 36–* A.A; Physical Soc. X-rays; crystal structure; electrical measurements.

Colby, Prof. W(alter) F(rancis), University of Michigan, Ann Arbor, Mich. *Physics.* Rockford, Mich, 80. A.B, Michigan, 01, Ph.D, 09; Vienna, 02–04; Munich, 12–13. Instr. *physics, Michigan,* 09–14, asst. prof, 15–19, *prof, 19–* Staff, Mt. Wilson Observatory, 14–15. A.A; Physical Soc. Magnetic critical points; optical dispersion; bands in the infra-red.

Colby, Prof. William G(eorge), Blue Hills Road, Amherst, Mass. *Agronomy.* Atkinson, Ill, Feb. 4, 07. B.S, Illinois, 29; M.S, Rutgers, 32, Ph.D, 34. Asst. agron, N. J. Exp. Sta, 29–34; asst. agronomist, soil conservation service, U. S. Dept. Agr, 35–36; *research prof. agron, Mass. State Col, 36–* Soc. Agron; Genetics Soc. Onion culture; pasture management.

Colcord, Frank F(orest), 57 William St, New York, N. Y. *Metallurgy.* Boston, Mass, Nov. 12, 77. B.S, Mass. Inst. Tech, 98. Asst. to supt, Chicago and Aurora Smelting and Ref. Co, 98–00; chief chemist, Am. Smelting and Ref. Co, Perth Amboy, N. J, 00–08; chief clerk, U. S. Metals Ref. Co, 08–10, asst. v. pres, *U. S. Smelting, Ref. and Mining Co,* 10–38, *v. pres, 38–, director; v. pres, U.S.S. Lead Refinery, Inc, 20–, director.* Director, F. E. Grauwiller Transportation Co. Mem. board, Eng. Foundation. Min. and Metal Soc; Electrochem. Soc. Non-ferrous metallurgy; electrochemical refining of lead; pyro refining of lead alloys.

Colcord, Mabel, 2520 14th St, N.W, Washington, D. C. *Entomology.* Boston, Mass, Dec. 24, 72. A.B, Radcliffe Col, 95; B.L.S, N. Y. State Library Sch, 22. Cataloguer, Iowa, 02–03, acting librarian, 03–04; librarian, bur. entom. and plant quarantine, U. S. Dept. Agr, 04–42; *retired.* A.A; Asn. Econ. Entom; Library Asn; Agr. Hist. Soc; Entom. Soc. Amer; Entom. Soc. Wash; Biol. Soc. Wash; D. C. Library Asn. (v. pres, 35). Bibliography of American economic entomology.

Coldwater, Dr. K(enneth) B(ryson), O'Reilly General Hospital, Springfield, Mo. *Zoology.* Chase, Kans, Dec. 7, 05. A.B, Southwestern Col. (Kans), 26; A.M, Missouri, 28, Ph.D, 31; M.D, St. Louis, 38. Instr. zool, Missouri, 28–31; biol, St. Louis, 31–39; res. surgeon, St. Mary's Group Hosps, 39–42; *Med. Corps, U. S. Army, 42–, capt.* Marine Biol. Lab, Woods Hole, 28. A.A. Regeneration; x-rays; physiology of regeneration; glutathione.

Cole, Dr. Allen T(homas), 320 W. Main St, Lakeland, Fla. *Chemistry.* Minnesota Lake, Minn, Jan. 9, 09. B.S, Hamline, 30; fellow, Florida, 31–35, M.S, 33, Ph.D, 35. Asst. chem, Florida, 31–35; research chemist, Phosphate Recovery Corp, 36–43; *res. manager, Minerals Separation N. Am. Corp, 43–* Chem. Soc. (councilor, Fla. sect, 39, 42, chairman, 41). Organic nitrogen compounds; surface active agents; nonmetallic flotation.

Cole, Prof. Arch Evan, 101 W. Chestnut St, Louisville, Ky. *Zoology, Anatomy.* Monroeville, Ohio, 95. A.B, Ohio Wesleyan, 16; Ph.D, Wisconsin, 20. Asst. zool, Wisconsin, 16–20; instr, Northwestern, 20–21, asst. prof, 21–29; instr. *anat, med. dept, Louisville,* 29–31, asst. prof, 31–42, *assoc. prof, 42–* Biologist, State Board Health, Wis, 28–32, 41. Summer, instr, Wisconsin, 20. A.A; Asn. Anat. Oxygen supply and carbon dioxide production of animals in low oxygen tensions; physiology of fresh-water clams; toxicity of industrial wastes for fresh-water fish; anatomy of the inguinal region.

Cole, Prof. A(rthur) C(harles), Jr, University of Tennessee, Knoxville, Tenn. *Entomology.* Ann Arbor, Mich, March 2, 08. A.B, Ohio State, 29, M.S, 30, Ph.D, 33. Asst, bur. entom, U. S. Dept. Agr, 27, 28, field asst, 29, 30; asst, Ohio State, 30, 31; field aid, bur. entom, U. S. Dept. Agr, 32–34, agent, bur. entom. and plant quarantine, 35–37; instr. *entom, Tennessee,* 37–40, *asst. prof, 40–* Summer, research fellow, Mountain Lake Biol. Sta, Virginia, 41. Entom. Soc. Amer; Tenn. Acad. Ecology of desert and semi-desert ants; Formicidae of western United States; ecology of Formicidae of Great Smoky Mountains National Park, Tennessee.

Cole, Prof. Arthur G(ideon), 1853 W. Polk St, Chicago, Ill. *Physiological chemistry.* Chicago, Ill, Sept. 11, 99. B.S, Chicago, 20; Ph.D, Illinois, 28. Asst. chem, Chicago, 19–22, asst. curator, 20; asst. prof. and registrar, Gen. Med. Col, Chicago, Ill, 22–24; instr. *physiol. chem, col. med, Illinois,* 24–28, assoc, 28–31, *asst. prof, 31–* Special consultant, U. S. Pub. Health Service, 31–33. A.A; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Med. Chicago. Proteins of egg white; denaturation and coagulation of proteins; protein chemistry; chemical immunology.

Cole, Prof. Arthur W(illiams), Barley Neck Road, Orleans, Mass. *Mechanical engineering.* Worcester, Mass, Feb. 17, 75. B.S, Worcester Polytech, 02, M.E, 07. Instr, Maine, 03–06; prof. mech. eng, Purdue, 06–42, eng. exten. dept; *retired.* Red Cross, U.S.A, 17–19. A.A; Mech. Eng; Nat. Asn. Power Eng. Lubrication; fuel; Indiana steam coal.

Cole, Prof. Clarence L(orraine), Michigan State College, East Lansing, Mich. *Animal husbandry.* Lowell, Mich, April 30, 05. B.S, Mich. State Col, 29; M.S, Minnesota, 36. Animal husbandman, N. Cent. Sch. and Sta, Minn; *assoc. prof. animal husbandry, Mich. State Col.* Dairy Sci. Asn. Eradication of infectious abortion; gain of weight in dairy calves in relation to methods of feeding; sunflower silage.

Cole, Prof. Elbert C(harles), Williams College, Williamstown, Mass. *Zoology.* Northampton, Mass, April 2, 91. A.B, Middlebury Col, 15; A.M, Trinity Col. (Conn), 18; Ph.D, Harvard, 24. Asst. *biol,* Middlebury Col, 14–15; instr, high sch, Conn, 15–22; Trinity Col. (Conn), 18–19; Austin teaching fellow, Harvard, 22–24; asst. prof, *Williams Col,* 24–28, assoc. prof, 28–32, *prof, 32–* Instr, Marine Biol. Lab, Woods Hole, 20–35. Mem, Cmn. Standardization Biol. Stains. A.A; Soc. Zool; Asn. Anat. Neurology; intra vitam studies with methylene blue; permeability of cells to dyes; staining techniques; oxidation-reduction studies; myenteric plexus of vertebrates; physiology of chromatophores of the squid.

Cole, Prof. Fay-Cooper, University of Chicago, Chicago, Ill. *\$*Anthropology.* Plainwell, Mich, Aug. 8, 81. B.S, Northwestern, 03, Sc.D, 28; Chicago, 03–05; Berlin, 06; Ph.D, Columbia, 14. Ethnologist, Field Museum Nat. Hist, 06–12, asst. curator Malayan ethnol. and physical anthrop, 12–23; asst. prof. *anthrop, Chicago,* 23–25, assoc. prof, 25–27, *prof. and chairman dept, 27–* Lecturer, Northwestern, 21–23; chairman div. anthrop. and psychol, Nat. Research Council, 29–30; special investigator, Bur. Science, P. I, 06–12; chairman anthrop. div, A Century of Progress Expos, Chicago, 33. Assoc. ed, 'Am. Jour. Sociol.' Social Science Research Council. Archeol. exped, Am. Southwest, 99–04; leader, Field Museum Nat. Hist. expeds, P. I, 06–08, 09–11, British Malaya and Dutch East Indies, 22–23; archeol. work, Miss. Valley. Chicago Geog. Soc. gold medal, 30. A.A. (chairman, H, 29); Anthrop. Asn. (pres, 33); Philos. Soc; Chicago Geog. Soc. (pres, 31). Malayan ethnology and physical anthropology; traditions of the Tinguian; tribes of Davao district, Mindanao; Chinese pottery in the Philippines; distribution of non-Christian tribes of northern Luzon; evolution; nature of the world and of man; the making of mankind; rediscovering Illinois.

Cole, Dr. Frank R(aymond), 561 W. Crescent Ave, Redlands, Calif. *Entomology.* Redlands, Calif, June 29, 92. A.B, Pomona Col, 13; A.M, Stanford, 21, Ph.D, 22. Bur. entom, U. S. Dept. Agr, 14–19, 24–33; *consulting entomologist.* Manager, Redlands-Highlands Citrus Pest Control Dist, 40–Entom. Soc; Asn. Econ. Entom; Pacific Coast Entom. Soc. Economic entomology; insects injurious to citrus and subtropical plants; classification and biology of Diptera.

Cole, Prof. H(arold) H(arrison), College of Agriculture, University of California, Davis, Calif. *Physiology.* Waterloo, Wis, Feb. 11, 97. B.S, Wisconsin, 20; M.S, California, 25; Ph.D, Minnesota, 28. Instr. *animal husbandry, col. agr, California,* 28–29, asst. prof, 29–33, *assoc. prof, 33–* A.A; Asn. Anat; Asn. Study Int. Secretions; Soc. Exp. Biol. Physiology of reproduction.

Cole, Prof. H(arold) N(ewton), Western Reserve School of Medicine, Cleveland, Ohio. *Dermatology.* Shinglehouse, Pa, Feb. 28, 84. Ph.B, Bucknell, 06, Sc.D, 18; M.D, Western Reserve, 09. Intern, Lakeside Hosp, Cleveland, 09–10; Hanna research fellow path, *sch. med, Western Reserve,* 10–11, demonstrator *dermat. and syphilol,* 12–14, instr, 14–16, assoc, 16–19, asst. prof, 19–22, assoc. prof, 22–35, *clin. prof, 35–* Mem, Surgeon Gen. Advisory Cmt. on Syphilis, 22– A.A; Dermat. Asn. (pres, 33); Am. Med. Asn. (sec'y, sect. dermat. and syphilol, 20–23, chairman, 23, mem, council pharmacy and chem, 30–); Soc. Pharmacol; Radium Soc; Hungarian Dermat. Soc; Argentina Asn. Dermat. and Syphilol; Deuts. Dermat. Gesell; cor. mem. Danish Dermat. Asn. Syphilology.

Cole, Prof. Harry L(ewis), 214 Columbia St, Pullman, Wash. *Chemistry.* Winchester, Kans, Aug. 8, 89. B.S, Kans. State Col, 12, M.S, 27. Manager dept. new business, Eureka Light and Power Co, Kans, 12–13; teacher, high sch, Ill, 13–16; instr. chem, *State Col. Wash,* 17–18, asst. chemist, Exp. Sta, 19–20, asst. prof. *chem,* 20–36, *assoc. prof, 36–; commanding officer, Pearson Field, Wash, U. S. Army.* Asst. state chemist, Wash, 19–20. Mex. Border Service, U.S.A, 16–17, A.S, 18–19. Chem. Soc. (chairman, Wash-Idaho border sect, 34); Northwest Sci. Asn; Associated Eng. Spokane (exec. cmt, 33–37). Physiological chemistry.

Cole, Dr. Howard Irving, Apt. 703, 2000 F St, N.W, Washington, D. C. *Chemistry.* New Rochelle, N. Y, April 12, 92. B.Chem, Cornell, 14, Ph.D, 17. Prof. chem, Oregon, 19–21; org. research chemist, Bur. Science, P. I, 21–23; prof. chem, Robert Col, Istanbul, 24–26; chief chemist, Culion Leper Colony, Philippine Health Service, 26–33; expert, League of Nations, 35–39; *director chem. research, Leonard Wood Mem, 42–; major, Chem. Warfare Service, U. S. Army, 42–* Capt, C.W.S, 17–19. A.A; Chem. Soc; Int. Leprosy Asn. Chemical microscopy; chemistry of drugs for the treatment of leprosy.

Cole, Prof. J(ames) P(erry), Louisiana State University, Baton Rouge, La. *Mathematics.* Galveston, Texas, Nov. 10, 89. B.S, Louisiana, 12, M.S, 26. Officer, U.S.A, 13–19, retired; instr. *math,* Louisiana, 19–26; prof, La. Polytech, 26–33; assoc. prof, *Louisiana,* 33–37, *prof, 37–, dean student affairs.* Military science.

Cole, Prof. James W(ebb), University of Virginia, Charlottesville, Va. *Chemistry.* Norfolk, Va, July 22, 10. B.S, Virginia, 32, M.S, 34, Ph.D, 36. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 36–37; *asst. prof. chem, Virginia, 37–,* instr. eng. defense training courses in chem, summer, 41. A.A; Chem. Soc. (treas, 38–40, sec'y, 40); fel. Inst. Chem; Va. Acad. Inorganic and physical chemistry; preparation of pure inorganic compounds; heat capacity measurements; gas law deviations at low temperatures; heterogenous catalysis and adsorption; complex organometallic compounds and new analytical reagents.

Cole, Dr. J(ohn) E(lton), 303 Woodside Ave, Wilmington, Del. *Chemistry.* Constantine, Mich, Oct. 27, 04. A.B, West. State Teachers Col, Mich, 26; Ph.D, Chicago, 29. *Chemist, sulfur colors area, dyeworks, E. I. du Pont de Nemours and Co, 29–* Chem. Soc; Asn. Textile Chem. and Colorists. Thioindigos; sulfur colors.

Cole, J(ohn) R(ufus), P. O. Box 60, Albany, Ga. *Plant pathology.* De Kalb, Miss, April 25, 00. B.S, Miss. State Col, 22; M.S, Mich. State Col, 24. *Assoc. plant pathologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 24–, in charge pecan disease lab, Albany, Ga.* Biological and control measures of pecan scab; chemical treatment of pecan rosette; life history of foliage diseases of the pecan; bunch, a virus disease of pecans.

Cole, John S(elden), 626 Princeton Place, N. W, Washington, D. C. *Agronomy.* Cincinnatus, N. Y, Nov. 19, 78.

B.S, S. Dak. Col, 03. Special agent, *U. S. Dept. Agr*, 01–05, collaborator and asst. agriculturist in charge agron, S. Dak. Col, 05–08, *senior agronomist, 08–* Dry farming.

Cole, Dr. (John) Wayne, 1215 N. Mayfield Ave, Chicago, Ill. *Organic chemistry.* Indianapolis, Ind, Nov. 5, 13. A.B, DePauw, 35; A.M, Illinois, 36, fellow, 37–38, Ph.D, 38. Asst. chem, Michigan, 38–39; *research chemist, Glidden Co, 39–* Chem. Soc; Oil Chemists Soc. Sterols and the related hormones.

Cole, Prof. Kenneth S(tewart), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Physics, Physiology.* Ithaca, N. Y, July 10, 00. A.B, Oberlin Col, 22; Ph.D, Cornell, 26. Instr, Cornell, 22–26; nat. research fellow, 26–29; asst. prof. *physiol, col. physicians and surg, Columbia*, 29–37, *assoc. prof, 37–* Priestley lecturer, Pa. State Col, 39; Guggenheim Mem. Foundation fellow, 42. Mem. staff, Cold Spring Harbor, 34–37, mem. board, 40– A.A; fel. Physical Soc; Physiol. Soc; Harvey Soc; N. Y. Acad. Biophysics; electroscope theory; heat production of Arbacia eggs; photographic action of low speed electrons; electrical impedance and physical phenomena in living systems.

Cole, Prof. L(awrence) E(dwin), 111 S. Cedar St, Oberlin, Ohio. *Psychology.* Medina, Ohio, 97. A.B, Oberlin Col, 20; A.M, Michigan, 22; Ph.D, Columbia, 29. Instr, Berea Acad, 20–21; asst. prof, Oberlin Col, 22–24; instr, Wash. Sq. Col, N. Y. Univ, 25–26; asst. prof. *psychol, Oberlin Col*, 26–29, assoc. prof, 29–32, *prof, 32–* Summer, instr, Columbia, 25. A.A; assoc. Psychol. Asn; Ohio Acad. Localization of tactual space; high school Latin as preparation for modern language in college; conditioned responses.

Cole, Dr. L(awrence) W(ooster), 845 14th St, Boulder, Colo. *Comparative psychology.* Toledo, Ohio, May 15, 70. B.Pd, Southwestern Col. (Kans), 93; A.B, Oklahoma, 99; A.M, Harvard, 04, Ph.D, 10. Sch. supt, Okla, 97–00; instr. psychol. and philos, Oklahoma, 00–03, prof, 03–08; instr. exp. psychol, Wellesley Col, 08–09; prof. psychol, *Colorado*, 10–38, *regent, 39–* Capt, Sanit.C, 18–19. A.A; Psychol. Asn. The intelligence and visual discrimination of raccoons; habit formation in the chick; reactions of frogs to chlorids; mental age and school entrance; lapses influenced by similarity; interference of related mental processes; factors of human psychology.

Cole, Prof. Leon J(acob), University of Wisconsin, Madison, Wis. *[2]Zoology.* Allegany, N. Y, June 1, 77. Mich. State Col; A.B, Michigan, 01; Ph.D, Harvard, 06. Asst. zool, Michigan, 98–02; Austin teaching fellow, Harvard, 03–05; chief div. animal breeding and path, Exp. Sta, R. I. State Col, 06–07; instr. zool, Sheffield Sci. Sch, Yale, 07–10; assoc. prof. exp. breeding, *Wisconsin*, 10–14, *prof*, 14–18, *genetics, 18–* Collaborator, U. S. Dept. Agr, 22–23, 24–, chief div. animal husbandry, bur. animal indust, 23–24. Summers, investigator, Bur. Fisheries, 01–06, 09; research prof, Western Reserve, 30. V. chairman, div. biol. and agr, Nat. Research Council, 25–26, chairman, 26–27, mem. board biol. fellowships, 29–36. Harriman exped, Alaska, 99; zool. exped, Bermuda, 03; Yucatan, 04; Tortugas, 06; Europe, 11, 24; Alaska, 41. A.A. (v. pres, F, 40); Soc. Nat. (v. pres, 17, sec'y, 27–31); Soc. Zool. (sec'y, genetic sect, 22); Genetics Soc. (v. pres, 37, pres, 40); Genetic Asn. (councilor, 23–); Ornith. Union; Soc. Exp. Biol. (councilor, 30); Soc. Mammal; Eugenics Soc; Soc. Animal Production; Poultry Sci. Asn; Wilson Ornith. Club; Bird Banding Asn. (pres, 09–11); Inland Bird Banding Asn. (v. pres, 22–24); Sigma Xi (exec. cmt, 32–34); Wis. Acad. (pres, 24–27); cor. mem. Czechoslovak. Acad. Agr. Genetics; animal breeding; physiology of reproduction; animal behavior; inheritance and evolution in pigeons; functions of eyes; Pycnogonida; Vertebrata of Yucatan.

Cole, Prof. Margaret Buchanan (Mrs. H. O. Cole), 72 Wilson Ave, Morgantown, W. Va. *Mathematics.* Clinton, Pa, Aug. 18, 85. A.B, West Virginia, 06; Chicago, 19; Paris, 20–21; Ph.D, Bryn Mawr Col, 22. Teacher *math*, Marshall Col, 06–07; instr, *West Virginia*, 07–18, asst. prof, 22–25, assoc, 22–26, instr, 38–41, *asst. prof, 41–* Teacher, Baldwin Sch, Pa, 13–14. Integral equations.

Cole, Dr. Nancy, Kenyon College, Gambier, Ohio. *Mathematics.* Boston, Mass, Oct. 15, 02. A.B, Vassar Col, 24; A.M, Radcliffe Col, 29, Ph.D, 34. Instr, Oxford Sch, 24–26; Vassar Col, 27–28; tutor, Radcliffe Col, 28–29; instr, Wells Col, 31–32; *math*, Sweet Briar Col, 33–42, acting head dept, 34–35, 41–42; *visiting asst. prof, Kenyon Col, 43–* Reader, Col. Ent. Exam. Board, 38–41. Math. Soc; Math. Asn; Va. Acad. Calculus of variations.

Cole, Dr. O(tis) D(emmitt), 638 Orlando Ave, Akron, Ohio. *Plant chemistry.* Rising City, Nebr, April 24, 06. A.B, Nebr. Wesleyan, 27; M.S, Akron, 28; Ph.D, Iowa State Col, 31. Org. chemist, *Firestone Tire and Rubber Co*, 31–33, compounding research, 33–38, latex and crude rubber research, plantations, Liberia, W. Africa, 38–41, *head research compounding div, 41–* Chem. Soc. Electron sharing ability of organic radicals; organic accelerators for rubber; compounding ingredients for rubber; latex and crude rubber production; synthetic rubber compounding.

Cole, Dr. Peter A(ldrich), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* June 21, 10. A.B, Hopkins, 33; Sc.D, Mass. Inst. Tech, 38. Assoc. physicist, Wash. Biophysical Inst, 38–40; assoc. biophys. and pub. health, nat. inst. health, U. S. Pub. Health Service, 40–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Lecturer, George Washington, 42. Optical Soc; Bot. Soc. Spectroscopy; ultra-violet microscopy; photochemistry; electronics.

Cole, Dr. Ralph C(hase), 519 McHenry Ave, Modesto, Calif. *Soil technology.* Laie, Oahu, Hawaii. B.S, Utah Col, 25; Ph.D, Mich. State Col, 32. Asst. soils, Mich. State Col, 25–29, instr, 29–31; *instr. and junior soil technologist, California, 31–* Soil fertility; effect of fertilizer on carbohydrate content of potato plants; soil structure; soil survey.

Cole, Dr. Randal H(udie), University of Western Ontario, London, Ont, Can. *Mathematics.* Clinton, Ont, Nov. 6, 08. B.A, Western Ontario, 36; Alumni Research Foundation scholar, Wisconsin, 36–37, A.M, 37, Alumni Research Foundation fellow, 37–38, Ph.D, 40. Asst. *math*, Wisconsin, 38–40; *instr, Western Ontario, 40–* Math. Soc; Math. Asn. Analysis.

Cole, Prof. Randall K(night), Cornell University, Ithaca, N. Y. *Animal genetics.* Putnam, Conn, Sept. 21, 12. B.S, Mass. State Col, 34; M.S, Cornell, 37, Ph.D, 39. Asst. animal diseases, Connecticut, 34–35; instr. poultry husbandry, *Cornell*, 35–40, *asst. prof. poultry husbandry and animal genetics, 40–, asst. animal geneticist, Exp. Sta, N. Y. State Col. Agr, 40–* Poultry Sci. Asn; Genetics Soc. Genetics of disease resistance in animals, especially the domestic fowl.

Cole, Dr. Robert H(ugh), Oceonagraphic Institute, Woods Hole, Mass. *Physics.* Oberlin, Ohio, Oct. 26, 14. A.B, Oberlin Col, 35; A.M, Harvard, 36, Ph.D, 40. *Instr. and tutor physics, Harvard, 39–; physicist, Nat. Defense Research Cmt, 41–* Physical Soc. Electricity and magnetism.

Cole, Dr. R(oger) M(artin), Harvard University, Cambridge, Mass. *Protozoology.* Canton, Maine, Oct. 6, 17. B.S, Mass. State Col, 39; A.M, Harvard, 41, Sheldon traveling fellow, 42, Ph.D, 42. Teaching fellow *gen. biol. and parasitol, Harvard*, 40–42, *Austin teaching fellow, 42–* Protozoa of termites; speciation; phylogeny; evolution.

Cole, Dr. Rufus, Mt. Kisco, N. Y. *[3]Medicine.* Ashland Co, Ohio, April 30, 72. B.S, Michigan, 96; M.D, Hopkins, 99; hon. Sc.D, Chicago, 27, Nat. Univ. Ireland, 33. Instr. med, Hopkins, 00–04, assoc, 04–08; director, Rockefeller Inst. Hosp, 08–37, *emer. mem, Rockefeller Inst, 37–* George M. Kober medal, Asn. Am. Physicians, 38. Nat. Acad; A.A; Soc. Pharmacol; Soc. Exp. Path; Am. Physicians; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Bact; Asn. Thoracic Surg; Soc. Clin. Invest. Infectious diseases; immunity.

Cole, Dr. Sandford S(toddard), National Lead Co, South Amboy, N. J. *Chemical engineering and technology.* Cuba, N. Y, Nov. 24, 00. B.S, Alfred, 23, M.S, 33; scholar, Pa. State Col, 33–34, Ph.D, 34. Koppers Research Corp. fellow, Mellon Inst, 23–32; *with titanium pigment div, Nat. Lead Co, 34–* Ceramic Soc. (v. chairman, refractories div, 30; chairman materials and equipment div, 41); Chem. Soc. Silica refractories; conversion of quartz to cristobalite; vapor pressure of boric oxide and sodium borates; reactions in solid state; thermal stability of titanium oxide.

Cole, Prof. Versa V(iola), Indiana University College of Medicine, Indianapolis, Ind. *Pharmacology.* Constantine, Mich, March 5, 06. A.B, Kalamazoo Col, 27, M.S, 28; Ph.D, Chicago, 31, M.S, 38. Douglas-Smith fellow, Chicago, 31–32; research asst, Ohio State, 33–35; asst. prof. and later assoc. prof. *pharmacol*, Woman's Med. Col. of Pa; *asst. prof, col. med, Indiana, 43–* Chem. Soc; Asn. Study Int. Secretions; Soc. Pharmacol; Physiol. Soc. Phila. Calcium metabolism; phosphorus in muscle; iodine metabolism; glucose tolerance; pharmacology of strontium; sulfonamide metabolism; quinine; liver function.

Cole, Prof. W. Storrs, Ohio State University, Columbus, Ohio. *Geology.* Albany, N. Y, July 16, 02. B.S, Cornell, 25, M.S, 28, Ph.D, 30. Asst. instr. hist. geol, Cornell, 26; paleontologist, Huasteca Petrol. Co, Mex, 26–27; instr. physiog. and commercial geog, Cornell, 28–30; paleontologist, Sun Oil Co, Texas, 30–31; instr. *physiog, Ohio State,* 31–37, asst. prof, 37–43, *assoc. prof, 43–* Summers, asst, Fla. Geol. Surv, 29; research, Scripps Inst, California, 32, 35. Fel. Geol. Soc; fel. Paleont. Soc; Paleont. Research Inst; fel. Ohio Acad. (v. pres, 39). Geomorphology; meteorology; paleontology; physiography of the Appalachian plateaus; glaciology; larger fossil Foraminifera of Florida, Mexico, Trinidad, Guam and the Fiji Islands; stratigraphy and paleontology of the Tampico Embayment and of the Cretaceous, Tertiary and Pleistocene of Florida.

Cole, Prof. Warren H(enry), University of Illinois College of Medicine, Chicago, Ill. *Surgery.* Clay Center, Kans, July 24, 98. B.S, Kansas, 18; M.D, Washington (St. Louis), 20. Asst. prof. *surg,* sch. med, Washington (St. Louis); *prof. and head dept, col. med, Illinois, 36–* A.A; Am. Med. Asn; Surg. Asn; Soc. Univ. Surg. (pres, 40); Asn. Study Goiter; Soc. Clin. Surg; Asn. Surg. of Trauma; West. Surg. Asn; South. Surg. Asn; Cent. Surg. Asn; Halsted Surg. Club; Chicago Surg. Soc. (pres, 42); Chicago Med. Soc. Gall bladder; thyroid; bile ducts; development of cholecystography; textbook of general surgery; first aid.

Cole, Prof. William H(arder), Rutgers University, New Brunswick, N. J. **Zoology, Physiology.* Cayuga, N. Y, June 23, 92. A.B, Hamilton Col, 14, Root traveling fellow, 14–16; A.M, Harvard, 16, Ph.D, 21. Instr. zool, Pa. State Col, 16–20; Austin teaching fellow, Harvard, 20–21; *prof.* biol, Lake Forest Col, 21–24; Clark, 24–28; *physiol. and biochem, Rutgers, 28–* Trustee, Mt. Desert Biol. Lab, 31–; director, Cold Spring Harbor Lab, 34– U.S.A, 17–19. A.A; Soc. Nat; Soc. Zool. (sec'y, 30–33); Soc. Exp. Biol; Physiol. Soc. Phila. Animal behavior; chemical stimulation; composition of invertebrate blood and use of perfusion fluids for invertebrate hearts.

Cole, Prof. William R(aymond), Lincoln University, Pa. *Physics.* Orleans, Vt, Nov. 6, 98. B.S, Middlebury Col, 22; M.S, Pennsylvania, 29. Science master, Nazareth Hall Mil. Acad, Pa, 23; instr. *physics; Lincoln (Pa),* 23–24, asst. prof, 24–25, *prof, 25–* Summer, instr, sch. aviation, Richmond, 42. A.A; Asn. Physics Teachers; Physical Soc. Reflection of soft x-rays.

Coleman, Dr. Francis F(leming), The Texas Co, Beacon, N. Y. *Physics.* Spokane, Wash, June 22, 08. A.B, Reed Col, 29; A.M, California, 31; Rhodes scholar, Oxford, 31–33, Ph.D, 33; Cambridge, 33–34. Teaching fellow, California, 29–31; instr. physics, New Mexico, 34–36, asst. dean men, 35–36; prof. physics and math, Bennington Col, 36–39; headmaster, Foxwood Sch, 39–40; *physicist, Beacon lab, Texas Co, 40–* Physical Soc; Soc. X-Ray and Electron Diffraction. Molecular velocities; vapor pressures of metals by diffusion method; chemical constants of metals; boundary lubrication; electron diffraction.

Coleman, Prof. George H(opkins), University of Iowa, Iowa City, Iowa. *Chemistry.* Evansville, Wis, Oct. 5, 91. B.S, Greenville Col, 15; M.S, Illinois, 19, Ph.D, 21. Asst, Illinois, 18–21; instr. *org. chem, Iowa,* 21–22, assoc, 22–24, asst. prof, 24–28, assoc. prof, 29–30, *prof, 30–* Summer, instr, Illinois, 21. Guggenheim Mem. Foundation fellow, France and Germany, 28–29. A.A; Chem. Soc; Iowa Acad. (ed, 26, 27, 29, 30). Organic chemistry; nitrogen trichloride with unsaturated compounds; chloroamines and bromoamines with organometallic compounds; carbohydrates; reactions in liquid ammonia; pyrrolidines.

Coleman, Dr. George W(illiam), 28 Green St, Watertown, Mass. *Chemistry, Metallurgy.* Watertown, Mass, July 4, 00. B.S, Tufts Col, 23; M.S, Mass. Inst. Tech, 37; Sc.D, Temple, 39. Research chemist and metallurgist, Waltham Watch Co, 23–33; research assoc, Mass. Inst. Tech, 35–37; *chief metallurgist and chemist, Parker Wire Goods Co, 38–; director, Snell Mfg. Co, 40–; Am. Gun Sight Co, 41–* A.A; Min. and Metal. Eng; Soc. Metals; fel. Inst. Chem; N. Y. Acad. Hair springs; cobalt nitrosyl carbonyl; hydride of cobalt tetracarbonyl; heat treating; forging; hydraulic pumps.

Coleman, Dr. Gerald H(awley), 2510 Manor Drive, Midland, Mich. *Organic chemistry.* Cleveland, Ohio, Dec. 25, 98. A.B, Ohio State, 22; M.S, Illinois, 26, Ph.D, 28. Patent research chemist, *Dow Chem. Co, Midland,* 29–30, *org. research chemist, 31–* Chem. Soc. Aliphatic chemistry; bactericidal activity of synthetic organic compounds against the leprosy bacilli.

Coleman, Dr. Harold M(itchell), 5305 S. Ellis Ave, Chicago, Ill. *Organic chemistry, Biochemistry.* B.S, Chicago, 34, M.S, 36, Ph.D, 42. Asst. org. chem, Chicago, 36–37; *instr.* chem, North. Ill. Col. Optom, 37–39; *physical sciences, Evening City Cols, Chicago, 40–; senior chemist, Cook County Coroner's Toxicol. and Chem. Labs, 42–* A.A; Chem. Soc. Toxicology; reaction kinetics of organic compounds; carbohydrates; micro-toxicology.

Coleman, H(arry) S(hipp), Mellon Institute, Pittsburgh, Pa. *Physical technology.* Colony, Kans, July 30, 86. B.S, Kansas, 09, M.E, 39. Draftsman, A. T. and S. F. Ry, 09–11; engineer, Jacobs-Shubert Firebox Co, 11–17; Lukens Steel Co, 17–18; *asst. director, Mellon Inst, 18–* Business manager, Pittsburgh, 22–26. Chairman cmt. lab. construction and equipment, Nat. Research Council. Mech. Eng. Semi-commercial manufacturing processes; unit-plant mechanical equipment; laboratory design.

Coleman, Dr. Howard S, Pennsylvania State College, State College, Pa. *Physics, Astrophysics.* Everett, Pa, Jan. 10, 17. B.S, Pa. State Col, 38, scholar, 38–39, M.S, 39, Ph.D, 42. Asst, *Pa. State Col,* 39–40, *instr. physical science, 40–* Soc. Metals; Meteor Soc; Asn. Variable Star Observers; Astron. Soc. Pacific; Royal Astron. Soc. Can. Diffusion of gases through metals; intermetallic diffusion; grinding, polishing, testing and metalizing optical surfaces; variable stars; photographic methods of measuring light intensity.

Coleman, Prof. J(ames) B(ruce), 620 Bull St, Columbia, S. C. *Physics, Mathematics.* Aiken, S. C, Feb. 2, 86. B.S, South Carolina, 06; U. S. Mil. Acad, 06–07; A.M, Columbia, 14; Ph.D, California, 30. Instr. and adjunct prof. math, South Carolina, 09–12; asst. physics, Columbia, 12–13; assoc. prof, *South Carolina,* 13–15, *prof. math, 15–* Instr, Columbia, 19. 2nd lieut, A.S, 18. Math. Soc; Math. Asn; Inst. Math. Statist; Econometric Soc; S. C. Acad. Continued fractions; live fitting and correlation.

Coleman, Dr. J(oseph) J(ohnston), Burgess Battery Co, Freeport, Ill. *Physics.* Boulder, Colo, Sept. 14, 07. A.B, Colorado, 31, A.M, 34, Ph.D, 36. Research chemist and physicist, *Burgess Battery Co,* 36–40, *chief engineer, 40–* Chem. Soc; Physical Soc. Chemical thermodynamics; theoretical photography; physics and chemistry of dry cells.

Coleman, L(aurence) V(all), American Association of Museums, Washington, D. C. *Entomology.* Brooklyn, N. Y, Sept. 19, 93. B.S, Col. City of N. Y, 15; A.M, Yale, 19; Harvard, 19. Asst, State Cmn. on Ventilation, N. Y, 15; asst, dept. pub. health, Am. Museum Nat. Hist, 16–17; asst. to curator zool, Peabody Museum, Yale, 17–18; chief, exhibits, Am. Museum Nat. Hist. 20–22; director, Safety Inst. Amer, 22–23; exec. sec'y, *Am. Asn. Museums,* 23–26, *director,* 27– Exec. cmt, Int. Office of Museums, Paris, 30–36; nat. cmt. of U. S. Amer. on int. intellectual cooperation, League of Nations, 32–; chairman nat. adv. cmt, Iranian Inst; mem. cmt. conserv. cultural resources, Nat. Resources Planning of Nations, 32–; nat. adv. cmt, Iranian Inst, 40–, mem. board, 41– Alumni service award, Col. City of N. Y, 33; D.S. award, Am. Asn. Museums, 40. Hon. mem. British Museums Asn. Insect morphology; museum administration.

Coleman, Prof. Otis Turner, University of Missouri, Columbia, Mo. *Soils.* Lakenan, Mo, May 23, 91. B.S. (Agr), Missouri, 20. Instr. vocational agr, 20–24; county exten. agent, 25–26; *exten. asst. prof. soils, Missouri, 27–* Soc. Agron. Evaluating annual changes in soil productivity; liming Missouri soils; soil treatment for alfalfa; wartime recommendations on the use of commercial fertilizer.

Coleman, Prof. Robert H(emphill), Route 4, Box 64, Charleston, S. C. *Zoology.* Abbeville, S. C, Oct. 19, 93. A.B, Col. of Charleston, 15; Chicago, 26. Asst. *math,* Col. of Charleston, 14–15; instr, Bulkeley Sch, Conn, 15–16, prof. and head dept, 16–19; acting prof, *Col. of Charleston,* 19–20, assoc. prof, 20–23, *prof, 23–* Summers, prof, South Carolina, 22–24. Assoc. zool, Charleston Museum. A.A; Soc. Mammal; Math. Asn; Ornith. Union; fel. S. C. Acad. Color adaptation of Mus musculus on the sand islands of coastal South Carolina; life history of Reithrodontomys humulis humulis from the type locality.

Coleman, Dr. Russell, State College, Miss. *Soils.* Montpelier, Miss, Dec. 23, 13. B.S, Miss. State Col, 36, M.S, 37; Ph.D, Wisconsin, 41. *Assoc. prof. soils, Miss. State Col, 40–* Phosphorus fixation in Mississippi soils; fertilizers.

Coleman, Prof. Warren, 2749 Hillcrest Ave, Augusta, Ga. *Medicine.* Augusta, Ga, Jan. 19, 69. A.B, Transylvania Col, 88, hon. A.M, 99; Hopkins, 88–89; M.D, N. Y. Univ, 91. Instr. histol. and path, Univ. and Bellevue Hosp. Med. Col, 91–98, mat. med. and therapeut, 96–98; prof. clin. med. and applied pharmacol, med. col, Cornell, 09–18; asst. prof. med, *Univ. and Bellevue Hosp. Med. Col,* 18–32, prof. *clin. med,* 32–33, *emer. prof, 33–; prof, sch. med, Georgia, 38–* Physician, City Hosp, 96–99; asst. curator, Bellevue Hosp, 93–98, asst. visiting physician, 97–07, visiting physician, 08–27, consulting physician, 27–; Lenox Hill Hosp, New York, 38–; curator, Transylvania Col. Adviser, Am. Board Int. Med. A.A; fel. Am. Med. Asn; Am. Physicians; fel. Col. Physicians; Soc. Bact; Asn. Mil. Surg; Gastro-Enterol. Asn; Tuber. Asn; South. Med. Asn; fel. N. Y. Acad. Med; N. Y. Path. Soc; N. Y. Acad; Ga. Acad. Bacteriology of blood and protein metabolism in typhoid fever; diet in typhoid fever.

Coles, Dr. Harold W(illiam), Bausch and Lomb Optical Co, Rochester, N. Y. *Chemistry.* East Liverpool, Ohio, July 25, 98. B.S, Syracuse, 23; M.S, Iowa State Col, 26, Ph.D, 27. Instr. chem, Iowa State Col, 23–27; org. research chemist, Lilly research labs, Eli Lilly and Co, 27–33; indust. fellow, Mellon Inst, 33–42; *head org. chem. dept, Bausch and Lomb Optical Co, 42–* A.A; Chem. Soc. Carbohydrate chemistry; medicinal products; zymochemistry; plastics.

Coles, Prof. H(enry) L(eRoy), Michigan College of Mining and Technology, Houghton, Mich. *Chemistry, Chemical engineering.* Springfield, Ohio, Sept. 25, 88. B.S, Ohio State, 12, Ph.D, 31; M.S, Rose Polytech, 15; Columbia, 20–21. Chief chemist, Nile Bement Pond Co, 17–20; v. pres, Mosler Safe Co, 20–33; *head dept. chem. eng,* Detroit, 33–36; Colorado, 36–38; Alabama, 38–40; *Mich. Col. Min. and Tech, 40–* Lecturer, Columbia, 20–22. Chem. Eng; fel. Inst. Chem; Chem. Soc. Zirconium; alumina from bauxite; tungsten carbide.

Coles, Dr. J(ames) S(tacy), Middlebury College, Middlebury, Vt. *Physical chemistry.* Mansfield, Pa, June 3, 13. B.S, Pa. State Teachers Col, 34; A.B, Columbia, 36, A.M, 39, Ph.D, 41. Instr. *chem,* Col. City of N. Y, 36–41; *Middlebury Col,* 41–42, *asst. prof, 42–* A.A; Chem. Soc; N. Y. Acad. Ultracentrifugal studies of starches and related products; the determination of the structure of starch.

Colgan, Prof. Edward J(oseph), 11 Gilman St, Waterville, Maine. *Educational psychology.* Boston, Mass, May 28, 85. Mass. Inst. Tech, 04–05; A.A, Harvard, 17, A.M, 20, 20–21; Lyons, 19; Paris, 21–22. Prin, high schs, Ark, 12–14; prof. *psychol. and educ,* Alfred, 22–24; *prof. and head dept, Colby Col, 24–* Summers, prof, Alfred, 23, 24; Vermont, 27–38. A.A; Soc. Col. Teachers Educ; Psychol. Asn; New Eng. Soc. Col. Teachers Educ. Mental hygiene; correlation; adjustment of college students; intelligence tests scores and scholastic marks; success of pre-college students.

Collen, Prof. F(rancis) E(dward), Creighton University School of Medicine, Omaha, Nebr. *Bacteriology, Preventive medicine.* Manawa, Wis, Oct. 10, 95. Ed.B, Wis. State Teachers Col, 24; Chicago, 23–26; B.S, Minnesota, 28, M.S, 30, Ph.D, 34. Director dept. science, high sch, Wis, 25–27; prof. bacter. and hygiene. Continuation Sch. and Cent. Sch. of Nursing, Milwaukee, 28–35; asst. prof. *bacter. and prev. med, sch. med, Creighton,* 35–39, *assoc. prof. and in charge div, 39–; exec. officer and chief epidemiol. branch, Sanit. Corps, U. S. Army.* Chief sanitarian, Omaha-Douglas County Med. Milk Cmn, Nebr, 38–; director labs, City Health Dept, Omaha, 39– Mem, Third Int. Cong. Microbiol. Major, Sanit. sect, M.O.R.C. A.A; Soc. Bact. (pres, Mo. Valley branch, 37); fel. Pub. Health Asn; Elec. Eng; Wis. Acad; Nebr. Acad; N. Y. Acad; Can. Pub. Health Asn; Int. Asn. Milk Sanitarians. Public health and preventive medicine; coliform organisms; microbiology of milk; brucellosis; microbiology of eggs; chemistry as man's servant; principles of microbiology; microbic variation.

Collen, Mrs. F(rancis) E(dward) (Dr. Dorothy Reiter), 2010 N. 54th St, Omaha, Nebr. *Bacteriology.* Lomira, Wis, Feb. 10, 04. B.S, Chicago, 28, Ph.D, 33. Instr. bacter. and hygiene, Chicago, 28–33; prof. bacter, Milwaukee Vocational Sch, 33–34; private research and travel, 36–37; assoc. bacteriologist, U. S. Pub. Health Service, 37; *acting assoc. prof. bacter, sch. med, Creighton, 42–* Extraction of a precipitable substance from Brucella; botulism resulting from consumption of canned onions; Sonne type of Bacterium dysenteriae; bacterial motility; chronic brucellosis.

Colin, Dr. E(dward) C(ecil), 6567 Harvard Ave, Chicago, Ill. *Zoology.* Argonia, Kans, Sept. 5, 90. A.B, Kansas, 13, LL.B, 14; Ph.D, Chicago, 30. *Teacher,* high sch, Kans, 20–24; Ill, 24–30; zool, Crane Junior Col, 30–33; research, Chicago, 33–34; *dept. biol,* Wilson Junior Col, 34–39; *Chicago Teachers Col, 39–* A.A; Soc. Zool; Genetics Soc. Genetics; effects of lead on germ cells; development of skin characters in guinea pigs; heredity in man.

Colin, Dr. Philip G(ordon), Merck and Co, Rahway, N. J. *Chemistry.* Baltimore, Md, Dec. 16, 02. B.S. (Ch.E), Washington (Seattle), 23, du Pont fellow, 24–26, B.S. (E.E), 25, Ph.D, 27. Teaching fellow, Washington (Seattle), 23–24; research assoc, Rockefeller Inst, 26–27; research chemist, Tide Water Associated Oil Co, 27–30, supervisor automotive lab, 30–31, research lab, 31–41; *head chem. eng. lab, Merck and Co, 41–* Chem. Soc; Soc. Test. Mat; Soc. Automotive Eng. Physical and petroleum chemistry; chemical engineering.

Collingsworth, Dr. D(onald) R(udolph), Red Star Yeast and Products Co, Milwaukee, Wis. *Chemistry, Bacteriology.* Beaver Dam, Wis, June 20, 12. B.S, Wisconsin, 34, indust. fellow, 34–38, M.S, 36, Ph.D, 38. *Biochemist, Red Star Yeast and Products Co, 38–* A.A. Fermentation chemistry and bacteriology; factors which influence yeast growth and quality in the production of baker's yeast.

Collatz, Dr. F(erdinand) A(lbert), 2218 Hoyt Ave, St. Paul, Minn. *Chemistry.* Duluth, Minn, July 10, 94. B.S, Minnesota, 18, M.S, 20, Ph.D, 22. Chief chemist, Am. Diamalt Co. 22–25; Washburn Crosby Milling Co, 25–29; *chemist, Gen. Mills, Inc, 29–* Cereal chemistry.

Collens, Dr. William S, 123 Eighth Ave, Brooklyn, N. Y. *Internal medicine.* New York, N. Y, June 5, 97. B.S, Col. City of N. Y, 17; M.D, Cornell, 21. *Practising physician, New York, 21–* Chief diabetic clinic, chief clinic peripheral vascular disease and assoc. visiting physician, Israel Zion Hosp, Brooklyn; assoc. visiting physician, Greenpoint Hosp; attending metabolism, Jewish Sanitarium and Hosp. for Chronic Diseases; metabolist, Brooklyn Women's Hosp. A.A; fel. Am. Med. Asn; Soc. Exp. Biol; Am. Heart Asn; Asn. Study Int. Secretions. Metabolism; diabetes; hepatic artery ligation; mumps; polyneuritis; a flexible gastroscope; absorption of insulin by mucous membrane; arteriosclerosis and pregnancy in diabetes; treatment of peripheral vascular disease.

Coller, Prof. Frederick A(masa), 2105 Wallingford Road, Ann Arbor, Mich. *Surgery.* Brookings, S. Dak, Oct. 2, 87. Ph.G, B.S, S. Dak. Col, 06, M.S, 08; M.D, Harvard, 12. Asst. prof. *surg, med. sch, Michigan,* 20–25, assoc. prof, 25–28, *prof, 28–* Chairman dept. surg, Univ. Hosp, Ann Arbor. Surg. Asn; Col. Surg. (regent); Am. Med. Asn; Soc. Clin. Surg; hon. mem. Acad. Orthop. Surg; Cent. Surg. Asn; South. Surg. Asn; West. Surg. Asn; hon. mem. Argentine Surg. Soc. Goiter; surgical aspects of diseases of metabolism.

Collett, Prof. A(rmand) R(ené), West Virginia University, Morgantown, W. Va. *Chemistry.* Hartford City, Ind, Feb. 3, 95. A.B, West Virginia, 18; Ph.D, Yale, 23. Instr. *chem,* Yale, 23–24; *West Virginia,* 24–26, asst. prof, 26–31, assoc. prof, 31–39, *prof, 39–* A.A; Electrochem. Soc; Chem. Soc. Solubilities of isomeric disubstituted benzene derivatives; electrolytic oxidation of organic compounds; ethylene oxide; constitution of coal.

Collett, Prof. Mary E(lizabeth), Western Reserve University, Cleveland, Ohio. *Physiology.* Atchison, Kans, July 30, 88. A.B, Wellesley Col, 10; A.M, Pennsylvania, 11, fellow, 17–19, Ph.D, 19. Asst. biol, Brown, 11–12; asst. instr, Carnegie Inst. Tech, 12–13, instr, 13–17; fellow physiol, Clark, 19–20; instr, dept. med, Buffalo, 20–22; Am-Scandinavian Foundation fellow, Sweden, 22–23; instr. physiol, sch. med, Tulane, 23–24; asst. prof, sch. of nursing, *Western Reserve,* 24–26, *assoc. prof,* 26–31, *biol, 31–* A.A; Physiol. Soc; Soc. Zool. Membrane permeability; toxicity of acids and salts; minute volume of the heart; basal metabolism; intracellular enzymes; ovarian hormones.

Colley, Dr. Reginald H(unter), 8 Winthrop Place, Maplewood, N. J. *Forest pathology.* Canso, N. S, Can, May 27, 87. A.B, Dartmouth Col, 09; A.M, Harvard, 12; Ph.D,

George Washington, 18. Instr. biol, Dartmouth Col, 09–10; sci. asst. to state forester, Mass, 10–12; Austin teaching fellow bot, Harvard, 10–12; instr, Dartmouth Col, 12–16; pathologist, office investigations forest path, bur. plant indust, U. S. Dept. Agr, 16–28, in charge Madison branch, 21–28; mem. tech. staff, *Bell Tel. Labs*, 28–40, *timber products engineer, 40–* Summer, instr, Marine Biol. Lab, Woods Hole, 13–15. A.A; Soc. Foresters; Bot. Soc; Phytopath. Soc. White pine blister rust; decay economics; pathology of forest products; timber engineering.

Collie, Dr. George L(ucius), P. O. Box 2, Damariscotta, Maine. *Geology, Archeology.* Delavan, Wis, Aug. 11, 57. B.S, Beloit Col, 81; Ph.D, Harvard, 93. Prin, high sch, Wis, 86–90; prof. geol. and Collie prof. archeol, Beloit Col, 93–31, dean, 00–18; *retired on Carnegie Foundation, 31–* Conductor research, Paleolithic Man in France and Algeria, 25–30. A.A; Geol. Soc; Anthrop. Soc; Asn. Mus; Wis. Archeol. Soc. (v. pres); Wis. Acad. Physiography; drift of southern Wisconsin; physiography of Rift Valley; British East Africa; Aurignacian man.

Collier, Donald, Field Museum of Natural History, Chicago, Ill. *Anthropology.* Sparkill, N.Y, May 1, 11. A.B, California, 33; fellow, Chicago, 34–35, student, 34–38, research fellow, 38–39; fellow, Lab. Anthrop, 35; Inst. Andean Research fellow, Univ. de San Marcos, 37. Mem. exped. to Chile, west. Argentina, Bolivia and Peru, soil conservation service, U. S. Dept. Agr, 36; assoc. director, Columbia Basin archeol. surv, State Col. Wash. and Washington, 40; instr. anthrop, State Col. Wash, 40–41; field supervisor Ecuadorean reconnaissance, Latin Am. archeological surv, Inst. Andean Research, sponsored by Coordinator of Inter-Am. Affairs, 41–42; asst. curator *S. Am. ethnol. and archeol, Field Museum Nat. Hist*, 41–43, *curator, 43–* Summer, field asst, Museum North. Ariz, 33. Anthrop. Asn. The cult and drug of the peyote plant; archeological reconnaissance in Peru; archeology of the upper Columbia region; Southern Ecuador; social organization of the Plains Indians.

Collier, Dr. H(erbert) Bruce, Dalhousie University. Halifax, N. S, Can. *Biochemistry.* Toronto, Ont, Oct. 10, 05. B.A, Toronto, 27, M.A, 29, Ph.D, 30. Assoc. prof. biochem, col. med. and dentistry, West China Union, 32–37; biochemist, inst. parasitol, Macdonald Col, McGill, 39–42; *asst. prof. biochem, Dalhousie, 42–* Hist. Sci. Soc. Chemistry of enzymes; chemotherapy.

Collier, Prof. R(ex) M(adison), 103 Deerfield Road, Portland, Maine. *Psychology.* Springport, Mich, Sept. 26, 04. A.B, Iowa, 27; A.M, Northwestern, 29, Ph.D, 34. Chairman dept. psychol, John Fletcher Col, 28–30; lecturer psychol, Col. of Pacific, 31; asst, Northwestern, 32–34, research psychologist and instr. neur, med. sch, 35–37; *asst. prof. psychol, Vermont, 37–; lieut, U. S. Army.* Psychol. Asn. Indirect vision; subliminal stimuli; muscular movement; psychological studies of epilepsy.

Collier, S(imon), 22 E. 40th St, New York, N. Y. *Chemistry.* Salem, Mass, June 1, 94. B.S, Worcester Polytech, 16. Rubber chemist, Boston Belting Co, 16–18, 19–20; assoc. physicist, Bur. Standards, 18–19, assoc. chemist, 20–23; chief chemist, Waukegan factories, *Johns-Manville Corp*, 23–36, *staff manager inspection and control dept, 37–* Chem. Soc. (chairman, standard methods of analysis cmt, rubber sect, 21–23); Soc. Test. Mat. (chairman subcmt. chem. analysis of rubber goods, cmt. rubber products, 27–, v. chairman cmt, 42). Rubber analysis.

Collier, Dr. W(illia)m Dean, Parkway Tower, Youngstown, Ohio. *Pathology.* Trenton, Mo, Jan. 15, 97. A.B, Missouri, 19, fellow, 20–22, A.M, 21, Ph.D, 22; M.D, Hopkins, 24. Instr. path, sch. med, St. Louis, 24–25, asst. prof, 25–27, assoc. prof. and director dept, 27–35, prof, 29–35; *pathologist, St. Elizabeth's Hosp, 36–* Assoc. pathologist, univ. hosps, 24–27; St. John's Hosp, 24–27, 33–35; St. Mary's Group Hosps, 24–27, pathologist, 27–; Alexian Brothers Hosp, 27–35; St. Anthony's Hosp, 28–35. A.A; Asn. Path. and Bact; Soc. Exp. Biol. Functional growth; sex hormones.

Colligan, Brother Edward C, St. Mary's University, San Antonio, Texas. *Physical chemistry.* Chicago, Ill, Nov. 5, 04. B.S, Dayton, 26; M.S, Catholic Univ, 33. Instr. *chem, St. Mary's Univ. San Antonio*, 33–36, assoc. prof, 36–39, *prof, 39–* A.A; Chem. Soc; Texas Acad. Activity coefficients of hydrogen chloride in dilute solutions in the presence of sodium sulfate.

Collings, Prof. Gilbeart H(ooper), Clemson, S. C. *Agronomy.* Crewe, Va, Jan. 13, 95. B.S, Va. Polytech, 15; fellow, Illinois, 15–18, M.S, 17; Ph.D, Rutgers, 25. Asst. agronomist, Exp. Sta, *Clemson Col*, 18–23, asst. prof. agron, 18–25, assoc. prof, 25–29, 30–38, acting prof, 38–39, *prof. soils, 39–*, acting head div, 29–30. Collaborator, soil conserv. service, U. S. Dept. Agr, 38–; consulting ed, col. textbooks, Blakiston Co, 39– V. pres. and director, Va. Jellico Coal Co; director, Wilson Berger Coal Co; Mary Helen Coal Co. A.A. (councilor, 39–); Soil Sci. Soc; Soc. Agron; S. C. Acad. (councilor, 40–43). Field crops; soils; fertilizers; plant nutrition; production of cotton.

Collings, Prof. M(ajor) Raymond, 1512 St. Antoine, Detroit, Mich. *Anatomy.* Princeton, Mo, Aug. 25, 96. A.B, Missouri, 24; Washington (St. Louis), 24–25; M.D, Wayne, 29. Instr. anat, Missouri, 25–26; *gross anat, med. sch, Wayne*, 26–29, asst. prof, 30–32, assoc. prof, 32–38, *prof, 38–* Assoc. prof, dental sch, Detroit, 32–37; practising physician and surgeon, 35–38; teacher, nursing sch, Highland Park Gen. Hosp, Detroit, Mich, 36–, mem. staff, 35– Asn. Anat; Am. Med. Asn. Cutaneous pigmentation.

Collingwood, G(eorge) H(arris), 1234 Crittenden St, N. W, Washington, D. C. *Forestry.* Fayetteville, Ark, May 27, 90. B.S. (Forestry), Mich. State Col, 11; Munich, 13–15; A.M, Michigan, 17. Asst. forest ranger, Apache Nat. Forest, U. S. Forest Service, 11–15; asst. exten. prof. forestry, Cornell, 16–23; exten. forester, U. S. Dept. Agr, 23–28; forester, Am. Forestry Asn, 28–40; *asst. sec'y and chief forester, Nat. Lumber Mfrs. Asn, 40–* A.A; Soc. Foresters (sec'y, 22, chairman, Wash. sect, 18, councilor, 36). General forestry; national legislation; conservation.

Collins, Dr. Arnold M(iller), 2029 Barry St, Wilmington, Del. *Chemistry.* Edgewater, N. J, June 28, 99. A.B, Columbia, 20, A.M, 22, Ph.D, 24. Asst, Columbia, 18–23; Rockefeller Inst, 23–25; *chemist, E. I. du Pont de Nemours and Co, 25–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. Organic electrosynthesis; saturated polycyclic compounds; synthetic resins and rubber; polymerization.

Collins, C(harles) Walter, U. S. Department of Agriculture, Morristown, N. J. *Entomology.* Harrington, Del, July 6, 82. B.S.A, Delaware, 05, M.S, 13. Asst, Gipsy Moth Lab, Mass, 07–09; agent, expert, entomologist and *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 09–*, in charge gipsy and brown-tail moth investigations, 25–35, *in charge investigations of insect vectors of Dutch elm disease, 35–* Fel. Entom. Soc. Amer; Asn. Econ. Entom. (sec'y, 24–30, business manager, 'Jour,' 25–31); Cambridge Entom. Club (pres, 32). Dispersion of gipsy-moth by wind; parasites and predators of gipsy, brown-tail and satin moths and attractants for male gipsy-moth; bark beetles as insect vectors of the Dutch elm disease.

Collins, Dr. D(ean) A(lbert), Temple University School of Medicine, Philadelphia, Pa. *Physiology.* Caledonia, Minn, Oct. 14, 04. A.B, Minnesota, 26, A.M, 28, Ph.D, 31, M.D, 34. Instr. *physiol*, Minnesota, 30–37; asst. prof, *sch. med, Temple*, 37–41, *assoc. prof, 41–* A.A; Soc. Exp. Biol; Physiol. Soc; Physiol. Soc. Phila. Water in biological systems; water exchange; hypertension from partial constriction of renal vessels; physiological role of renal pressor substance.

Collins, Dr. Donald L(ouis), Cornell University, Ithaca, N. Y. *Entomology.* Union Springs, N. Y, Aug. 19, 08. A.B, Hobart Col, 29; M.S, Harvard, 30, Ph.D, 33. Instr. biol, Hobart Col, 33–35; *asst. prof. entom, Cornell, 35–* Special asst, N. Y. Exp. Sta, Geneva, 26–35; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 34, 36–, collaborator, 35. A.A; Entom. Soc; Asn. Econ. Entom. (councilor, 42–); N. Y. Entom. Soc; N. Y. Acad. Experimental zoology; histology and physiology of compound eye of insects; phototropism in insects; the codling moth; insects associated with the Dutch elm disease; Japanese beetle.

Collins, Prof. Edgar V, Iowa State College, Ames, Iowa. *Agricultural engineering.* Albion, Iowa, March 12, 87. B.S, Iowa State Col, 14. Mechanician, Iowa State Col, 14–15; instr. steam and gas eng, Kans. State Col, 15–18; mem. faculty, *Iowa State Col*, 18–26, *research prof. agr. eng, 26–* Soc. Agr. Eng. Horse and mule dynamometer; whirlwind terracer.

Collins, Prof. Edward M(orris), 608 Park Ave, Kent, Ohio. *Chemistry.* Purchase, N. Y, 01. B.S, Princeton, 22, A.M, 24, Ph.D, 33. Instr. *chem*, Williams Col, 26–35; *asst. prof,*

Kent State Univ, 35– Chem. Soc. Vapor pressures; salt hydrates; history of chemistry.

Collins, E(lmer) B(eauchamp), 215½ High Ave, W, Oskaloosa, Iowa. *Geophysics.* Denver, Colo, Sept. 21, 79. Colorado, 00–02; California, 10–12. Hydrog. engineer, *U. S. Coast and Geod. Surv,* 02–10, *nautical scientist, hydrog. office, 12–* Scientist, Dr. Meinesz submarine exped, gravity measurements at sea. A.A; Geophys. Union. Navigation; nautical astronomy.

Collins, Dr. Emerson R(oscoe), North Carolina State College, Raleigh, N. C. *Chemistry.* Roaring Branch, Pa, March 1, 03. B.S, Pa. State Col, 25; Ph.D, Iowa State Col, 29. Asst, Iowa State Col, 25–29; asst. soil technologist, bur. chem. and soils, U. S. Dept. Agr, 29–36; agronomist, Exp. Sta, *N. C. State Col,* 36–42, *in charge agron. exten, 42–* Soc. Agron. Soil and plant chemistry; quick soil tests; foliar diagnosis; fertilizers; fertilizer requirements of field crops.

Collins, Dr. E(rnest) Hobart, University of Oregon, Eugene, Oregon. *Physics.* Hopkins, Mo, Nov. 18, 96. A.B, William Jewell Col, 19; M.S, Iowa, 23, Ph.D, 28. Sioux Falls Col, 19–20; Akron, 21–22; prof. *physics,* Parsons Col, 24–39; Albany Col, 39–41; instr, *Oregon,* 41–42, *asst. prof, 42–* Summers, lecturer, Iowa, 28–33, 35, 36, 38; prof, N. Mex. Nor. Univ, 34, 37, 39, 40. Asn. Physics Teachers; Radio Eng. Temperature effect on scattering of x-rays; optically excited mercury radiation; a stroboscope for the demonstration of phase differences in alternating circuits.

Collins, Dr. George (Briggs), University of Notre Dame, Notre Dame, Ind. *Physics.* Washington, D. C, Jan. 3, 06. Ph.D, Hopkins, 31. *Instr. physics,* Hopkins, 27–30; *Notre Dame, 33–; mem. radiation lab, Mass. Inst. Tech, 42–* Summers, Bur. Standards, 27, 28; Gen. Elec. Co, 30; U. S. Dept. Agr, 29, 31. A.A. Raman effect; ultra-violet absorption; high energy electrons.

Collins, Dr. George W(illiam), American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Chemistry, Bacteriology.* Clinton, Ill, Dec. 20, 88. Ph.C, St. Louis Col. Pharmacy, 12, Ph.G, 14; B.S, Michigan, 19, M.S, 20, M.S. (P.H), 22, Sc.D, 24. Anal. chemist, Mallinckrodt Chem. Works, 12–17; asst. org. chem, Michigan, 18, bacter, med. sch, 19–24; *chemist, Am. Med. Asn, 26–* Chem. Soc; assoc. fel. Am. Med. Asn; Pharmaceut. Asn. Botulism; transmissible bacterial autolysis; pharmaceutical and medical chemistry.

Collins, Henry B(ascom), Jr, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C. *Anthropology.* Geneva, Ala, April 9, 99. A.B, Millsaps Col, 22, Sc.D, 40; A.M, George Washington, 25. Asst, Miss. Dept. Archives and Hist, 23; aid, div. ethnol, U. S. Nat. Museum, 24–25, asst. curator, 25–37, assoc. curator, 38–39; *senior ethnologist, bur. Am. ethnol, Smithsonian Institution, 39–* Asst, Pueblo Bonito exped, Nat. Geog. Soc, 22–24; director, Smithsonian expeds, Fla, Miss. and La, 25, 26, 28, 29, Nunivak Island and Bering Sea, 27, Punuk Island and Bering Strait, 28, St. Lawrence Island, Norton Sound and Arctic Coast, 29, St. Lawrence Island, 30; exped. to Bering Strait, Nat. Geog. Soc-Smithsonian Institution, 36. Asst. director, Ethnogeog. Board, 43– Gold medal, Royal Danish Acad. of Sciences and Letters, 36. Chairman Am. del. and v. pres, Int. Cong. Anthrop. and Ethnol. Sciences, Copenhagen, 38. A.A; Anthrop. Asn; Asn. Physical Anthrop; Soc. Archeol. (ed. board; v. pres, 42); Wash. Acad. (chairman cmt. monographs, 40–42; mem. board managers, 41–); Anthrop. Soc. Wash. (pres, 38, 39). Archeology of Arctic area and southeast United States; anthropometry; craniology.

Collins, Prof. J(acob) R(oland), Cornell University, Ithaca, N. Y. *Physics.* Byesville, Ohio, March 28, 91. B.S, Ohio (Athens), 12; M.S, Purdue, 14; Ph.D, Cornell, 21. Asst. *physics,* Purdue, 12–14, instr, 14–18; *Cornell,* 18–21, asst. prof, 21–38, *prof, 38–* A.A; Physical Soc; Asn. Physics Teachers. Near infrared absorption of liquids; optics.

Collins, J(ohn) R(obinette), 146 Pinewood Ave, Toronto, Ont, Can. *Astronomy.* Toronto, Ont, 66. Gen. sec'y, Royal Astron. Soc. Can, 04–16, 2nd v. pres, 14–19, 1st v. pres, 19–20, pres, 20–21. Can. Govt. eclipse exped, 05. A.A; fel. Am. Geog. Soc; Royal Astron. Soc. Can; Soc. astron. de France; Soc. Astron. de Mex. Theories of gravitation; physical optics.

Collins, Prof. Jos(eph) V(ictor), Stevens Point, Wis. *Mathematics.* Wooster, Ohio, Dec. 25, 58. Ph.B, Col. of Wooster, 79, Ph.D, 86; Hopkins, 80–81, 82–83. Tutor *math,* Col. of Wooster, 79–80; prof, Hastings Col, 84–88; Miami (Ohio), 88–93; *Cent. State Teachers Col, Wis,* 94–37, *emer. prof, 37–* A.A. The teaching of secondary mathematics; the (r, x) system of coordinates.

Collins, Prof. J(ulius) L(loyd), University of Hawaii, Honolulu, Hawaii. *Genetics.* Kewanna, Ind, Feb. 16, 89. B.S, California, 18, Ph.D, 23. Prin, high sch, Oregon, 12–14; asst. *genetics,* California, 18, instr, 18–25, asst. prof, 25–30; assoc. prof, *Hawaii,* 30–39, *lecturer, 39–;* geneticist, Exp. Sta, Asn. Hawaiian Pineapple Canners, 30–39; *geneticist and acting director, Pineapple Research Inst, 39–* Genetics Soc; Soc. Nat; Hawaiian Acad. Pineapple genetics; plant breeding; species hybridization.

Collins, Dr. Katharine R(ichards), Turnerville, Ga. *Bacteriology.* New Albany, Ind, March 23, 63. M.D, Michigan, 93. Practising physician, Atlanta, Ga, 94–02; fellow, Rockefeller Inst, 02–03; bacteriologist and asst. director research lab, Dept. Health, New York, 03–08; asst. director, State Board Health, Ga, 08–18; research, dept. path, Western Reserve, 18–19; instr. path. and bacter, Buffalo; director div. labs, Buffalo City Hosp; Gen. Hosp, Spartanburg, S, C; *retired.* Hon. mem. Ga. Med. Soc; Royal Inst. Pub. Health, London. Immunology; dysentery; glanders; pneumococci; agglutinins; periapical abscesses; eczema marginatum.

Collins, Dr. M(ervyn) A(very), Sheffield Farms Co, New York, N. Y. *Dairy bacteriology.* Kincardine, Ont, Can, July 7, 04. B.S.A, Saskatchewan, 28; Sask. Agr. Research Foundation fellow, Iowa State Col, 30–32, M.S, 31, Rockefeller Foundation fellow, 32–33, Ph.D, 33. Teacher, Sask, Can, 22–23; instr. dairying, Saskatchewan, 28–30; tech. adviser, Dairy Corp. Can, Toronto, 33–35; tech. manager, Associated Dairies, 35–36; director lab. control, United Farmers Cooperative Creamery Asn, 37–42; mem. staff, exten. service and Exp. Sta, Vermont, 42; *County supervisor, Sheffield Farms Co, 42–* Dairy Sci. Asn; Can. Soc. Tech. Agr. Migration of bacteria through butter; hydrolysis of fats by lipolytic bacteria; composition control of butter; place of laboratory control in dairy industry; application of the resazurin test in determining the quality of raw milk and cream; application of resazurin test in determining the quality of pasteurized cream.

Collins, Prof. R(obert E) Lee, University of Tennessee, Knoxville, Tenn. *Geology, Paleontology.* Trappe, Md, Oct. 22, 98. A.B, Hopkins, 21, Ph.D, 28. Asst. to W. T. Lee, U. S. Geol. Surv, 22; asst. state geologist, Tenn. Geol. Surv, 25–26, acting state geologist, 26–27; instr. paleont, Hopkins, 28–36; lecturer geol, Bryn Mawr Col, 36–37; *assoc. prof. paleont. and geol, Tennessee, 37–* Explor, Cent. Tamaulipas, Mex, 24; James Buchanan Johnston scholar, Hopkins, 30–32. Summers, asst, Tenn. Geol. Surv, 23–25. Tertiary, invertebrate and vertebrate paleontology.

Collins, Prof. Robert F(rank), 33 North St, Williamsburg, Mass. *Geology.* Petoskey, Mich, Oct. 19, 01. A.B, Western Reserve, 23; A.M, Columbia, 24. Instr. *geol, Smith Col,* 26–29, asst. prof, 29–35, *assoc. prof, 35–* A.A. Regional geology; fluvial physiography.

Collins, Dr. R(ussell) J(ohnson), St. John Tuberculosis Hospital, East St. John, N. B, Can. *Medicine.* Conneaut, Ohio, Oct. 3, 91. A.B, Western Reserve, 11, M.D, 15, A.M, 16. Instr. pharmacol, 15–16; asst. med. supt, N. S. Sanatorium; *med. supt,* Balfour Sanatorium; Jordan Mem. Sanatorium, 23–30; *St. John Tuber. Hosp, 30–* Soc. Pharmacol; Tuber. Asn; Col. Physicians; Can. Med. Asn; Can. Tuber. Asn; fel. Royal Col. Physicians Can; Can. Soc. Prev. Tuber; Royal Col. Physicians Edinburgh. Pharmacology; biochemistry; tuberculosis; veratrin; mercury in animal tissues; hexamethylene; absorption of iodine; intestinal tuberculosis; tuberculosis in Indians and in nurses; rehabilitation; tuberculosis of bones and joints; collapse therapy.

Collins, Prof. S(amuel) C(ornette), 16 Ivy Road, Belmont, Mass. *Chemistry.* Democrat, Ky, Sept. 28, 98. B.S.A, Tennessee, 20, M.S, 24; Ph.D, North Carolina, 27. Prof. chem, Carson-Newman Col, 25–26; instr. physics, North Carolina, 26–27; assoc. prof. *chem,* junior col, Tennessee, 27–28; prof, Tenn. State Teachers Col, 28–30; research assoc, *Mass. Inst. Tech,* 30–36, asst. prof, 36–41, *assoc. prof, 41–; mem, Nat. Defense Research Cmt, 42–* Chem. Soc. Heat capacity of gases; heats of vaporization; thermoregulators; pressure variation of the heat function of gases; low-temperature refrigeration.

Collins, Dr. Selwyn D(eWitt), 1223 Floral St, Washington, D. C. *Biometry, Vital statistics.* Mo, April 6, 91. A.B, Mis-

souri, 14; A.M, Wisconsin, 15, Ph.D, 27. Expert, U. S. Bur. Labor Statist, 16–19; *statistician, U. S. Pub. Health Service, 20–, in charge office statist. investigations, 28–* Lecturer, George Washington, 35, professorial lecturer, 40. Mem. Am. cmt. on depression and health, Int. Health Organization, League of Nations, 33; Int. Cmn. for Revision Int. List. Causes of Death, Paris, 38. Statist. Asn; fel. Pub. Health Asn; Epidemiol. Soc. Health and eyesight of, and morbidity among, school children; epidemiology of tonsilitis; influenza mortality and morbidity; age incidence of communicable diseases; relation of physical defects to sickness; economic status and health; morbidity in the general population; disease classification for statistical purposes.

Collins, Rev. William B(ernard), Loras College, Dubuque, Iowa. *Psychology, Philosophy.* Winthrop, Iowa, 95. A.B, Columbia Col. (Iowa), 18; S.T.L, Montreal, 22; Ph.D, Louvain, 27. *Prof. psychol. and philos, Loras Col, 22–* Catholic Philos. Soc; Iowa Acad. Visual perception of form; elementary psychology; introductory ethics.

Collins, W(illiam) D(ennis), U. S. Geological Survey, Washington, D. C. *Chemistry.* Malden, Mass, Sept. 4, 75. A.B, Harvard, 95, A.M, 97. Prof. chem. and physics, Earlham Col, 97–06; *chemist,* U. S. Geol. Surv, 06–08; bur. chem, U. S. Dept. Agr, 08–20; *U. S. Geol. Surv, 20–, chemist in charge quality of water div.* A.A; Chem. Soc. Water; analytical methods; reagents.

Collins, Prof. William O(lin), University of Georgia, Athens, Ga. *Agronomy.* Douglas Co, Ga, Feb. 23, 91. B.S.A, Georgia, 16. Instr. agr. chem, Ga. State Col, *Georgia,* 16–17, adj. prof, 17–18, assoc. prof, 19–26, prof, 26–32, assoc. prof. soil surv, *col. agr,* 32–35, *prof. soils, 35–, head dept. agron.* C.W.S, U.S.A, 18. Soc. Agron; Ga. Acad. Soils.

Collip, Prof. J(ames) B(ertram), McGill University, Montreal, Que, Can. *Biochemistry.* Belleville, Ont, Nov. 20, 92. B.A, Toronto, 12, fellow, 12–15, M.A, 13, Ph.D, 16; D.Sc, Alberta, 24, M.D, 26. Lecturer biochem, Alberta, 15–17, asst. prof, 17–19, assoc. prof, 19–21, Rockefeller fellow, 21–22; asst. prof. path. chem, Toronto, 22; prof, Alberta, 22–28; prof. biochem. and head dept, *McGill,* 28–41, *Gilman Cheyney research prof. endocrinol. and director research inst. endocrinol, 41–* Charles Mickle fellow, 41. Gold medal, Royal Soc. Can, 36; Cameron prize, Edinburgh, 37. Soc. Biol. Chem. (councilor, 37); Physiol. Soc; Asn. Study Int. Secretions (pres, 25); fel. Royal Soc. Can. (pres, 42); Can. Physiol. Soc. (councilor, 37–); Biochem. Soc. Gt. Britain; British Physiol. Soc; Royal Soc. London. Blood chemistry; internal secretions; insulin; parathyroid hormone; placental and pituitary hormones; antihormones.

Collison, Reginald C(lifton), New York Agricultural Experiment Station, Geneva, N. Y. *Horticulture.* Prospect, Ohio, May 3, 84. B.S, Ohio State, 08, M.S, 09; Columbia, 17–18. Instr. agr. chem, Ohio State, 09; asst. nutrition investigations, Ohio Exp. Sta, 09–12; asst. soils, *N. Y. Exp. Sta, Geneva,* 12–15, assoc, 15–18, *chief hort. research, 18–* Hon. prof, Cornell. Soil technology; animal nutrition; agricultural resource survey.

Colman, Dr. Edward A(benheim), 110 N. Wabash Ave, Glendora, Calif. *Forestry, Soil science.* Yokohama, Japan, Sept. 22, 10. B.S, California, 32, Ph.D, 42. Field asst, Lake States Forest Exp. Sta, *U. S. Forest Service,* 31, Intermountain Forest Exp. Sta, 33, junior forester, *Calif. Forest Exp. Sta,* 33–38, 40–43, *asst. forester, 43–* Soc. Foresters (program chairman, South. Calif. sect, 43); Geophys. Union. Interrelations between soil and water during infiltration; hydrologic investigations of mountain watershed soils in connection with watershed management.

Colosi, Dr. Natale, 149 E. 62nd St, New York, N. Y. *Bacteriology.* Messina, Italy, March 5, 02. B.S, St. Francis Col, 28; M.S, N. Y. Univ, 30, Ph.D, 35. Instr. bacter, col. med, N. Y. Univ, 32–36; *prof. bacter. and pub. health, Wagner Col, 36–* Director and v. pres. board trustees, Parkway Hosp, 36– Fel. Pub. Health Asn. Serology.

Colowick, Dr. Sidney P(aul), 5928 Maple Ave, St. Louis, Mo. *Biological chemistry.* St. Louis, Mo, Jan. 12, 16. B.S, Washington (St. Louis), 36, M.S, 39, Ph.D, 42. *Research asst. biol. chem, med. sch, Washington (St. Louis), 36–* Enzymatic reactions involved in the intermediary metabolism of carbohydrates, particularly those by which glucose and glycogen are phosphorylated.

Colpitts, Dr. E(dwin) H(enry), 309 Lawn Ridge Road, Orange, N. J. *Electrical engineering.* Pointe de Bute, N. B, Can, Jan. 19, 72. B.A, Mt. Allison, 93, LL.D, 26; Harvard, 96, A.M, 97. Prin, pub. sch, Newfoundland, 93–95; asst. physics, Harvard, 97–99; telephone engineer, Am. Tel. and Tel. Co, 99–07; West. Elec. Co, 07–24; asst. v. pres, Am. Tel. and Tel. Co, 24–34; v. pres, Bell Tel. Labs, 33–37; *retired.* Iwadare lecturer, Japan, 37. Director, Eng. Foundation, 41. Elec. Eng; Physical Soc; Radio Eng; Acoustical Soc; Chem. Soc. Telephone engineering; radio telephony.

Colston, Dr. J(ohn) A(rchibald) Campbell, 1201 N. Calvert St, Baltimore, Md. *Urology.* Baltimore, Md, Oct. 30, 86. Ph.B, Yale, 07; M.D, Hopkins, 11. Instr. *clin. urol, sch. med, Hopkins,* 19–29, assoc, 29–34, *assoc. prof, 34–* Urol. Asn; Asn. Genito-Urinary Surg; Am. Med. Asn; Clin. Soc. Genito-Urinary Surg; South. Med. Asn; Med. and Chirurg. Faculty Md; Soc. int. d'Urol. Genito-urinary surgery.

Coltman, Dr. John W(esley), 107 Fairfax Road, Forest Hills, Wilkinsburg, Pa. *Physics.* Cleveland, Ohio, July 19, 15. B.S, Case, 37; M.S, Illinois, 39, Ph.D, 41. *Research engineer,* Gen. Elec. Co, 40; *Westinghouse Elec. and Mfg. Co, 41–* Micro-wave techniques; nuclear physics; absorption cross-sections for slow neutrons.

Colton, F(erry) B(arrows), National Geographic Society, Washington, D. C. *General science.* Montpelier, Vt, Jan. 6, 03. A.B, Amherst Col, 26. Editorial staff, 'The Springfield Republican,' Springfield, Mass, 26–30; asst. science ed, 'The Associated Press,' 30–35; *editorial staff, Nat. Geog. Soc, and writer, 'Nat. Geog. Magazine,' 35–* A.A; Nat. Asn. Sci. Writers. Popular science; geography; science writing.

Colton, George W(illiam), Rimmon Road, Woodbridge, Conn. *Mechanics.* Toledo, Ohio, Aug. 2, 98. Ph.B, Yale. *Instr.* thermodyn, Lafayette Col, 23–25; *mech, Yale, 26–, in charge materials testing lab, 26–; lieut. commander, U. S. Naval Res.* Tech. adviser, New Haven Col. Director research, Dextone Co. Conn. Soc. Civil Eng; Conn. Acad. Materials testing; stress analysis; flow of concrete; contraction in cast stone.

Colton, Prof. Harold S(ellers), Museum of Northern Arizona, Flagstaff, Ariz. *Zoology, Archeology.* Philadelphia, Pa, Aug. 29, 81. B.S, Pennsylvania, 04; A.M, 06, fellow, 07–08, Ph.D, 08; Carnegie Institution table, Naples Zool. Sta, 08–09. Asst. *zool, Pennsylvania,* 09–12, instr, 12–18, asst. prof, 18–26, *prof, 26–; director, Museum North. Ariz, 28–* Sec'y board educ, Ariz. State Teachers Col, Flagstaff, 29–31. V. chairman board trustees, Lab. Anthrop, 37–39. Capt, Intel. Div, 18–19. A.A. (pres, southwest. div, 35); Soc. Nat; Soc. Zool; Anthrop. Asn; Ecol. Soc; Soc. Archeol; Am. Geog. Soc; Micros. Soc; Acad. Nat. Sci. Phila. Geography; ecology of fresh-water and marine Mollusca; excretion in Ascidians; geography and archeology of northern Arizona; educational statistics related to zoology; effect of bipedal habit on structure and behavior of the white rat; prehistoric ceramics; ecology and anatomy of the laq insect from the creosote bush.

Colton, H(enry) Seymour, 1545 E. 18th St, Cleveland, Ohio. *Chemistry.* Calumet, Mich, Feb. 24, 01. B.S, Mass. Inst. Tech, 22. Anal. and research chemist, N. J. Zinc Co, 23–25; supt, Tubize Artificial Silk Co, 25–27; with E. I. du Pont de Nemours and Co, 27–35, asst. director new products dept, Grasselli Chem. Co, 35; *consulting chem. engineer, 35–* Tech. director, Cosma Labs. Co. A.A; Chem. Soc; Chem. Eng. Heavy chemicals; manufacturing sodium hydrosulfide from salt cake and nitre cake; disposal of waste steel pickling liquor; high pressure hydration of various ores and clays.

Colver, Prof. C(harles) W(illiam), 1635 Fairchild Ave, Manhattan, Kans. *Chemistry.* Missouri Valley, Iowa, Feb. 28, 85. B.S, Idaho, 09, M.S, 11; Ph.D, Illinois, 19. Assoc. chemist, Exp. Sta, Idaho, 14–17; instr. chem, Illinois, 18–19; asst. prof. *org. chem, Kans. State Col,* 19–20, assoc. prof, 20–25, *prof, 25–* Chem. Soc. Soil, fruit and wheat analysis; synthesis of organic compounds.

Colvert, Prof. W(illiam) W(hite), Illinois Institute of Technology, Chicago, Ill. *Physics.* Alexandria, Tenn, July 16, 96. A.B, Cumberland, 17, A.M, 19; Chicago. Instr. science, Cumberland, 17–19, prof. math, 19–20; instr. *physics, Ill. Inst. Tech,* 20–22, asst. prof, 22–26, *assoc. prof, 26–* Summers, mem. faculty, West. Ill. State Teachers Col, 25, 26. A.A; Asn. Physics Teachers; Eng. Educ. X-ray absorption in gases; chemical analysis by x-ray method; effect of condensed discharge on position of cadmium lines.

Colvin, Charles H(erbert), Egbert Hill, Morristown, N. J. *Aeronautics.* Sterling, Mass, March 4, 93. M.E, Stevens Inst. Tech, 14. Chief engineer and manager, Aircraft Instrument Dept, Sperry Gyroscope Co, 14–19; pres, gen. manager and chief engineer, Pioneer Instrument Co, 19–32; *director, Colvin Labs, 33–* Asst. to pres, Kollsman Instrument Co, 37–40; special asst. to chief, U. S. Weather Bur, 40–41, tech. adviser, 41–; director, Daniel Guggenheim sch. aeronaut, N. Y. Univ, 41–, coordinator research, col. eng, 42–; A.A; fel. Inst. Aeronaut. Sci. (councilor, 42–); fel. Am. Geog. Soc; Automotive Eng; Mech. Eng; Eng. Educ; Meteorol. Soc; assoc. fel. Royal Aeronaut. Soc. Aeronautical instruments.

Colvin, Fred H(erbert), 330 W. 42nd St, New York, N. Y. *Mechanical engineering.* Sterling, Mass. Spring Garden Inst. Ed, 'Machinery,' 94–97; assoc. ed. and business manager, 'Ry. and Locomotive Eng,' 97–02; assoc. ed, managing ed. and ed, *'Am. Machinist,' 07–39, emer. ed, 39–; consultant, War Production Board and Naval Bur. Aeronaut, 41–* Fel. Mech. Eng. (cmts); Franklin Inst. Press fits; machine standards; motor car construction methods; machine shop management methods; machine tool construction; railway shopwork; personnel relations; American machinists handbook; aircraft handbook.

Colwell, Dr. Charlotte A(nne), 303 E. Chicago Ave, Chicago, Ill. *Bacteriology.* Chicago, Ill. DePauw, 23; M.S, Northwestern, 33, Ph.D, 36. Bacteriologist, Columbia Hosp, Milwaukee, Wis, 25–29; bacteriologist and head technician, Childrens Mem. Hosp, Chicago, Ill, 29–32; asst. *research bacter, med. sch, Northwestern, 33–36, instr, 36–* A.A; Soc. Bact; Soc. Ill. Bact. Bacteriophage; cutaneous sensitivity in tuberculosis; serum precipitin.

Colwell, Prof. Robert Cameron, 224 Park St, Morgantown, W. Va. *Physics.* Fredericton, N. B, Can, Oct. 14, 83. B.A, New Brunswick, 04; A.B, Harvard, 07; Ph.D, Princeton, 18; Cambridge, 23–24. *Prof. physics,* Geneva Col, 07–22; *West Virginia, 24–* A.A; Physical Soc; fel. Acoustical Soc; Math. Soc; Math. Asn; Radio Eng; Franklin Inst. Propagation of radio waves; electromagnetic waves; gyroscopes; Chladni plates.

Colwell, Dr. William E(arle), North Carolina State College, Raleigh, N. C. *Soils.* Tarkio, Mo, Feb. '11, 15. B.S, Nebraska, 36; M.S, Idaho, 39; Ph.D, Cornell, 42. Instr. agron, Idaho, 38–40; *assoc. prof. agron, N. C. State Col, and assoc. agronomist, Exp. Sta, 42–* Soc. Agron. Soil fertility.

Colwin, Dr. Arthur L(entz), Queens College, Flushing, N. Y. *Zoology.* Sydney, Australia, Jan. 26, 11. B.Sc, McGill, 33, M.Sc, 34, Nat. Research Council Can. scholar, 35–36, Ph.D, 36. Moyse traveling fellow, Sir Wm. Dunn Inst. Biochem. and dept. exp. zool, Cambridge, 34–35; Seessel fellow, Osborn zool. lab, Yale, 36–37, Royal Soc. Can. fellow, 37–38; *instr. biol,* N. Y. Univ, 38–39; *Queens Col. (N. Y), 40–* Assoc. Soc. Zool. Experimental embryology; amphibian organization; development and regeneration in enteropneusta, tunicates and chicks; cell division and differentiation.

Colwin, Dr. Laura Hunter, Vassar College, Poughkeepsie, N. Y. *Zoology.* Philadelphia, Pa, July 5, 11. A.B, Bryn Mawr Col, 32; A.M, Pennsylvania, 34, Ph.D, 38. Instr. biol, Pa. Col. for Women, 36–37, asst. prof, 37–40; *instr. zool, Vassar Col, 40–* Parasitic ciliates; protozoology.

Coman, Dr. Dale R(ex), University of Pennsylvania Medical School, Philadelphia, Pa. *Pathology.* Hartford, Conn, Feb. 22, 06. A.B, Michigan, 28; M.D, McGill, 33. Asst, inst. *path,* McGill, 33–34; res, univ. hosp, Pennsylvania, 34–35; Mass. State Tumor Hosp, Pondville, 35–36; instr, med. sch, N. Y. Univ, 36–37; *sch. med, Pennsylvania,* 37–41, assoc, 41–42, *asst. prof, 42–* A.A; Soc. Exp. Path; Asn. Path. and Bact; Asn. Cancer Research; Physiol. Soc. Phila; Path. Soc. Phila. Study of cancer by tissue culture; tissue culture methods; chemotaxis of leukocytes.

Coman, Dr. (Francis) Dana, Johns Hopkins University School of Medicine, Baltimore, Md. *Nutrition, Psychiatry.* Wellsville, N. Y, Oct. 31, 95. A.M, Harvard, 20; M.D, Hopkins, 24; LL.D, Fla. Southern Col, 40. Asst, Grenfell Hosp, Labrador, 23; asst. anat, sch. med, Hopkins, 24–25, instr, 25–27, asst. surg, 27–30, instr. psychiat, 31–39, asst. psychiatrist, Phipps Psychiat. Clinic, 31–39; *director dept. nutrition, Fla. Southern Col, 39–; consultant, foods div, War Production Board.* Asst. res. surgeon, Hopkins Hosp, 27–28, lecturer, training sch; med. director, Byrd Antarctic exped, 28–30; consulting med. director, 33–35; med. director, Ellsworth Transantarctic exped, 34–35; leader, Coman oceanog. exped, Pacific Equatorial Islands, 35–36; consulting med. director, U. S. Antarctic Service, 39–41. Trustee, Loomis Sanatorium; Andean Anthrop. Inst. Croix de Guerre, 18; Congressional gold medal, 30. Asn. Anat; Am. Med. Asn; Am. Geog. Soc; Polar Soc; hon. fel. Los Angeles Acad. Med; New Zealand Alpine Club. Clinical psychiatry; medical, nutritional and psychiatric problems of polar and equatorial exploration; special purpose concentrated foods; military nutrition.

Comar, Dr. C(yril) L(ewis), University of Florida, Gainesville, Fla. *Agricultural chemistry.* Dudley, Eng, March 28, 14. B.S, California, 36, 37–38; Purdue Research Foundation fellow, Purdue, 38–40, Ph.D, 41. Asst. chemist, *Exp. Sta,* Purdue, 40–41; asst. chem, Mich. State Col, 41–43; *assoc. biochemist, Florida, 43–* Chem. Soc. Absorption spectrophotometry; spectroscopy of the chlorophylls; the industrial utilization of agricultural products.

Combes, Prof. Lewis S(winnerton), 157 Highland Ave, Winchester, Mass. *Physics.* Seabrook, N. H, Aug. 22, 96. B.S, Wesleyan, 21; A.M, Boston, 28, Ph.D, 39. Instr. *physics,* Simmons Col, 22–25; *Tufts Col,* 26–28, *asst. prof, 28–* A.A; Asn. Physics Teachers; Meteorol. Soc.

Combs, Prof. W(illes) B(arnes), 1501 Chelmsford St, St. Paul, Minn. *Dairy husbandry.* Memphis, Mo, Dec. 23, 92. B.S, Missouri, 15, A.M, 17. Asst, dairy div, dept. agr, Missouri, 15–17; instr. *dairy husbandry,* N. J. Agr. Col, 18–19; asst. prof, Missouri, 19–20; Pa. State Col, 20–24; *prof, Minnesota, 24–* A.A; Chem. Soc; Dairy Sci. Asn; Minn. Acad. Milk and milk products.

Comegys, Dr. Esther, 6 University Place, Orono, Maine. *Mathematics.* Scranton, Pa, Dec. 17, 98. A.B, Wellesley Col, 21; A.M, Pennsylvania, 26; Ph.D, Radcliffe Col, 41. Head dept. *math,* Springside Sch, Pa, 21–25; instr, Wellesley Col, 25–28; special instr, Simmons Col. (Mass), 31–32; dean and head dept. math, Abbot Acad, Mass, 32–36; warden, Bryn Mawr Col, 36–38; head grad. house, Radcliffe Col, 40–41; *instr. math, Maine, 41–* Math. Soc. Differential geometry; necessary and sufficient conditions for applicability of Riemannian n-dimensional spaces.

Comenetz, Dr. George, St. John's College, Annapolis, Md. *Mathematics.* New York, N. Y, Nov. 5, 10. B.S, Col. City of N. Y, 30; A.M, Columbia, 31, fellow, 31–32, Ph.D, 34. Tutor physics, Col. City of N. Y, 30; asst, Columbia, 32–33, instr, 34–35, grant, Inst. Advanced Study, 35–37; *tutor, St. John's Col. (Md), 37–* A.A; Math. Soc. Differential geometry.

Comin, Donald, Ohio Agricultural Experiment Station, Wooster, Ohio. *Horticulture.* Des Moines, Iowa, June 16, 02. B.S, California, 25; M.S, Ohio State, 30. *Asst. horticulturist, Ohio Exp. Sta, 25–* Soc. Hort. Sci; Soc. Plant Physiol; Veg. Growers Asn. Olericulture; muck crops.

Comings, Prof. E(dward) W(alter), University of Illinois, Urbana, Ill. *Chemical engineering.* Phillipsburg, N. J, Feb. 24, 08. B.S, Illinois, 30; Sc.D, Mass. Inst. Tech, 34. Asst. chem. eng, Mass. Inst. Tech, 31–33; chem. engineer, Texas Co, 33–35; asst. prof. *chem. eng,* N. C. State Col, 35–36; *Illinois,* 36–43, *assoc. prof, 43–* Chem. Soc; assoc. Chem. Eng. Viscosity of gases at high pressures; thickening liquid-liquid extraction; drying; fluid flow.

Commins, Prof. W(illiam) D(ollard), 3419 South Dakota Ave, N. E, Washington, D. C. *Psychology.* St. Stephen, N. B, Can, Dec. 7, 99. B.A, St. Joseph's (Can), 21; A.M, Catholic Univ, 22; Ph.D, Stanford, 31. Instr. *psychol,* St. Louis, 24–29; *asst. prof, Catholic Univ, 31–* A.A; Psychol. Asn. Genetic, comparative and educational psychology.

Commoner, Dr. Barry, Queens College, Flushing, N. Y. *Biology.* Brooklyn, N. Y, May 28, 17. A.B, Columbia, 37; univ. fellow, Harvard, 37–38, A.M, 38, Ph.D, 41. Asst. *biol,* Harvard, 38–40; *instr, Queens Col. (N. Y), 40–; ensign, U. S. Naval Res, 42–* Bot. Soc. Cellular physiology and biochemistry; cellular respiratory systems; effects of enzyme poisons; mechanism of plant growth hormone actions; salt and water absorption in plants; structural effects in cellular biochemistry; aviation physiology.

Compere, Dr. Edward L(yon), 5805 Blackstone Ave, Chicago, Ill. *Orthopedic surgery.* Chickasha, Okla, Sept. 7, 01. A.B, Baylor, 22; M.S, Chicago, 24, M.D, Rush, 26. Instr. physiol, sch. med, Loyola (Ill), 24–26; surg, med. sch, Chicago, 28–30, asst. prof, 30–37, assoc. prof, 37–40, Rush Med. Col, 40–

41, attending surgeon, hosps. and clinics, 28–40; *assoc. prof.* orthop. surg, Illinois, 40–41; *surg, med. sch, Northwestern, 41–* Attending surgeon, Home for Destitute Crippled Children and Country Home for Convalescent Crippled Children, 30–40; consulting orthopedic surgeon, Provident Hosp, 31–40; attending surgeon, Chicago Mem. Hosp, 40–41, consulting orthop. surgeon, 41–; attending surgeon, Presbyterian Hosp, 40–41; attending orthop. surgeon and chairman dept. orthop. surg, Wesley Mem. Hosp, 41– Mem, Ill. Cmn. Physically Handicapped Children, 35. Orthopedic Asn; Am. Med. Asn; Acad. Orthop. Surg. (librarian-historian); fel. Col. Surg; Asn. Study and Control Rheumatic Diseases; Chicago Orthopedic Soc. (sec'y-treas, 34, 35, pres, 37); fel. Inst. Med. Chicago; Pan-Am. Med. Asn. (sec'y, orthopedic sect, 33–36); Int. Soc. Crippled Children (v. pres, 41). Metabolism of calcium and phosphorus; fractures; infantile paralysis; tuberculosis of bones and joints; physiology and pathology of the spine; growth of bone; physiology of the parathyroid glands; fracture treatment.

Compton, Prof. Arthur H(olly), 5637 Woodlawn Ave, Chicago, Ill. **³*Physics.* Wooster, Ohio, Sept. 10, 92. B.S, Col. of Wooster, 13, hon. Sc.D, 27; fellow, Princeton, 13, A.M, 14, Porter Ogden Jacobus fellow, 15–16, Ph.D, 16, hon. Sc.D, 34; LL.D, Washington (St. Louis), 28, California, 30; hon. Sc.D, Ohio State, 29, Yale, 29, Princeton, 34, Brown, 35, Harvard, 36, San Marcos, 41, Arequipa, 41; M.A, Oxford, 34; L.H.D, Tampa, 41. Asst. physics, Col. of Wooster, 10–11, chem, 11–12; instr. physics, Princeton, 14–15; Minnesota, 16–17; research physicist, Westinghouse Lamp Co, 17–19; nat. research fellow, Cambridge, 19–20; prof. *physics* and head dept, Washington (St. Louis), 20–23; prof, *Chicago,* 23–29, *Charles H. Swift distinguished service prof, 29–, chairman dept. physics and dean div. physical sciences, 40–* Consultant, Gen. Elec. Co, 26–; Guggenheim Mem. Foundation fellow and special lecturer, Punjab Univ, India, 26–27; research assoc, Carnegie Institution, 31–; *George Eastman visiting prof, Oxford, 34–35; v. pres, Chicago Tumor Inst, 37–; Walker-Ames visiting prof, Washington (Seattle), 40. Assoc. ed, 'Physical Rev,' 22–26; board ed, 'Rev. Modern Physics'; 'Jour. Chem. Physics,' 33–; Sci. Book Club, 27. Cmt. on x-rays and radioactivity, Nat. Research Council, 21–25, chairman, 23–25; mem, Nat. Advisory Cancer Council, 37– Regent, Smithsonian Inst, 38–; chairman board trustees, Col. of Wooster, 40– Rumford gold medal, Am. Acad, 27; Nobel prize, Swedish Acad, 27; gold medal, Radiol. Soc. N. Amer, 28; Matteucci medal, Italian Soc. Sci, 30; Franklin medal, Franklin Inst, 40; Hughes medal, Royal Soc. London, 40. Civilian assoc, Sig. C, 17–18. Nat. Acad; A.A. (v. pres, B, 27; pres, 42); fel. Physical Soc. (councilor, 26, pres, 34); Optical Soc. (councilor, 33–); Philos. Soc; hon. mem. Am. Acad; hon. mem. West. Soc. Eng; hon. mem. Physical Soc. London; hon. mem. Deuts. Akad. der Naturforscher; hon. mem. Prussian Acad; for. mem. Accad. dei Lincei, Rome; hon. mem. Indian Acad; hon. mem. Royal Soc. New Zealand; hon. mem. Vienna Acad; Swedish Acad; Amsterdam Acad; Royal Soc. Sci, Uppsala; Peruvian Chem. Soc; Peruvian Acad; Brazilian Acad. Method of demonstrating the earth's rotation; x-ray diffraction by crystals and gases as method of obtaining electron distributions in atoms; optical reflection, polarization and ruled grating diffraction of x-rays; change of wave-length of scattered x-rays; momentum of photons; scattering and wavelength of gamma rays; variation of cosmic rays with magnetic latitude and altitude; composition of cosmic rays.

Compton, Charles C(halmer), 513 S. Pine St, Champaign, Ill. *Entomology.* Brookline, Vt, Oct. 25, 98. B.S, Conn. Agr. Col, 21; M.S, Illinois, 34, Ph.D, 40. Asst. entomologist, *Nat. Hist. Surv, Ill,* 21–31, *assoc. entomologist, 31–* Summer, field entomologist, Japanese Beetle Lab, Riverton, N. J, 20. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ill. Acad. Insect pests of greenhouse crops; insecticides.

Compton, Dr. J(ack), B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Myrtlewood, Ala, July 29, 09. B.S, Howard Col. (Ala), 30; M.S, Ohio State, 31, Ph.D, 33. Research chemist, dept. cellulose and indust. chem, McGill, 33–34; asst. research chemist, dept. chem, Rockefeller Inst, 34–36; *research chemist,* div. cellulose chem, Boyce Thompson Inst, 36–40; *textile research lab, B. F. Goodrich Co, 40–* A.A; fel. Inst. Chem; Chem. Soc. Synthetic carbohydrate chemistry; synthesis of nucleosides and their relation to nucleic acids; structural work on cellulose and lignin.

Compton, Prof. James S(tephen), 210 James St, Eureka, Ill. *Biology.* Oscoda, Mich, April 16, 73. A.B, Eureka Col, 02; A.M, Wisconsin, 12; summers, Michigan, 13, 14; Iowa, 23. Asst. prin, South. Christian Inst, Miss, 97–01; Hazel Green Acad, Ky, 02–04; instr, acad, *Eureka Col,* 04–06, prof. *biol,* 06–42, *emer. prof, 42–* Instr, biol. sta, Michigan, 13, asst. prof, 14. Summer, prof, Ill. Nor. Univ, 24. Ill. Acad. General botany; ornithology.

Compton, Pres. Karl T(aylor), Massachusetts Institute of Technology, Cambridge, Mass. **³*Physics.* Wooster, Ohio, Sept. 14, 87. Ph.B, Col. of Wooster, 08, M.S, 09, hon. Sc.D, 23; fellow, Princeton, 11–13, Ph.D, 12, hon. Sc.D, 30; LL.D, Harvard, 30, Wisconsin, 34, Middlebury, 36, Williams Col, 36, Hopkins, 37, Franklin and Marshall, 37, Northeastern, 38, St. Lawrence, 39, California, 41; hon. D.E, Polytech. Inst. Brooklyn, 30, Case, 31, Rutgers, 41, Northwestern, 42, Tufts Col, 43; hon. Sc.D, Lehigh, 27, Stevens Inst. Tech, 31, Boston, 32, Clarkson Tech, 32, Columbia, 40. Asst. physics, Col. of Wooster, 07–09, instr. chem, 09–10; teaching fellow, Princeton, 10–11; instr. physics, Reed Col, 13–15; asst. prof, Princeton, 15–19, prof, 19–30, research prof. and chairman dept, 29–30; *pres, Mass. Inst. Tech, 30–* Consulting physicist, Gen. Elec. Co; U. S. Dept. Agr. Summers, lecturer, Michigan; Cornell; Columbia; Chicago; California. Chairman physics subcmt. on A Century of Progress Expos, 33, of Nat. Research Council, 29–30, v. chairman physics div, 30–33, fellowship board, mem. exec. cmt; mem. advisory board, Bartol Research Foundation, Franklin Inst, 27–36; chairman governing board, Am. Inst. Physics, 31–36; visiting cmt, Bur. Standards, 31–; chairman, Science Advisory Board, U. S. Govt, 33–35; mem. business advisory and planning council, U. S. Dept. Commerce, 33–36; Mass. Special Cmn. on Stabilization of Unemployment, 31–33; advisory cmt, U. S. Weather Bur, 35–; Advisory Cmt. on Research for the Railroads, 35–36; chairman advisory cmt. sci. research, Nat. Asn. Mfrs, 37–; chairman new products cmt, New Eng. Council, 39–41; mem, Rubber Surv. Cmt, 42. Trustee, Mem. Foundation Neuro-Endocrine Research, Boston, 32–; Norwich, 35–; Brookings Inst, 40–; mem, Rockefeller Foundation, 40–, exec. cmt, 41–42; Gen. Educ. Board, 40–, exec. cmt, 41–42; chairman board trustees, Nutrition Foundation, Inc, 41–; trustee, New England Indust. Research Foundation, 41– Rumford medal, Am. Acad, 31. Aeronaut. engineer, Sig.C, 17–19, officer, Research Information Service, assoc. sci. attaché, Am. Embassy, Paris; mem, War Resources Board, 39–40; Nat. Defense Research Cmt, 40– Nat. Acad. (chairman, div. physics, 27–30; councilor, 30, exec. cmt); A.A. (pres, 35, v. pres, chairman, B, 25, exec. cmt, 31–40); fel. Physical Soc. (v. pres, 25–27, pres, 27–29, councilor); fel. Optical Soc; Elec. Eng; Chem. Soc; Eng. Educ. (v. pres, 37, pres, 38); Philos. Soc; Mech. Eng; Inst. Aeronaut. Sciences; Asn. Mfrs. (chairman advisory cmt, 37–); Am. Acad; Franklin Inst; Am. Inst. Wehnelt interrupter; photoelectric effect; contact difference of potential and Peltier effect; structure of crystals by x-ray photography; soft x-rays; spectroscopy and extreme ultraviolet; thermal effects produced by stretching of wires; ionization; fluorescence and dissociation of gases; low voltage arcs; spectral radiation; electric arcs and other types of gas discharge; thermionic emission.

Compton, Dean R(ichard) K(enneth), South Dakota State College, Brookings, S. Dak. *Psychology.* Shaftsbury, Vt, Sept. 5, 02. A.B, Kalamazoo Col, 26; A.M, Michigan, 29; Ph.D, Illinois, 32. Prin, high sch, Mich, 26–28; prof. psychol. and educ. and chairman dept, Sioux Falls Col, 32–38, dean, 33–38; *prof. psychol. and chairman dept, S. Dak. State Col, 38–, dean div. gen. science, 40–* Assoc. Psychol. Asn. Experimental psychology.

Comstock, Dr. Charles W(orthington), 3527 81st St, Jackson Heights, New York, N. Y. *Engineering, Mathematical physics.* Maroa, Ill, Feb. 10, 70. E.M, C.E, Colo. Sch. Mines, 90; M.C.E, Cornell, 94, Ph.D, 98. Instr. civil eng, Cornell, 90–92, 93–97; asst. to Geo. S. Morison, civil engineer, 92–93; prof. mining eng, Colo. Sch. Mines, 97–02; practising civil and mining engineer, 02–19; state engineer, Colo, 09–13; engineer, Dwight P. Robinson and Co, Inc, New York, 19–26; Elec. Bond and Share Co, 27–32; consulting engineer, South Pacific div, U. S. Engineer Dept, 38–39; Hercules Powder Co, 41–42. A.A. (sec'y, D, 01); Civil Eng; Min. and Metal. Eng; Mech. Eng; Elec. Eng; Electrochem. Soc; Chem. Eng; Soc. Mil. Eng; Colo. Sci. Soc. (sec'y, 98–00); London Inst. Min. and Metal; N. of England Inst. Min. and Mech. Eng; Int. Asn. Prom. Quaternions. Mathematical physics; elasticity of solids and its applications.

Comstock, Prof. Clarence E(lmer), 203 Fredonia Ave, Peoria, Ill. *Mathematics.* Galesburg, Ill, May 5, 66. A.B, Knox Col, 88, A.M, 91, Sc.D, 38; Hopkins, 92–93, 94–95; Chicago, 95–96. Instr. math. and English, Blackburn Col, 88–89; *math,* Knox Col, 89–92, 93–94; Princeton-Yale Sch, Chicago, 96–97; *Bradley Polytech,* 97–02, prof, 02–39, *emer. prof, 39–* A.A; Math. Soc; Math. Asn; Eng. Educ; Cent. Asn. Sci. and Math. Teachers (pres, 06); British Math. Asn. The history and teaching of mathematics.

Comstock, Dr. D(aniel) F(rost), 58 Charles St, Cambridge, Mass. *²*Physics.* Newport, R. I, Aug. 14, 83. B.S, Mass. Inst. Tech, 04, Savage fellow, 05–07; Berlin; Zurich; Ph.D, Basel, 06; Cambridge, 06–07. Asst. physics, Mass. Inst. Tech, 04–05, instr. theoret. physics, 05–10, asst. prof, 10–15, assoc. prof, 15–17; v. pres, Kalmus, Comstock and Wescott, Inc, 14–25; *pres, Comstock and Wescott, Inc, 25–* Director corporations; tech. director group inventors develop. technicolor process for taking natural color motion pictures, 14–25. Mem. nat. advisory council to cmt. patents, House of Representatives, 39. Exp. director submarine detection, U.S.N, 17–19. Physical Soc; Chem. Soc; Am. Acad. Theoretical physics; electromagnetic theory; theory of matter; relativity theory; electromagnetic mass and its relation to energy; magnetic properties of saturated iron; color motion picture photography; nature of matter and electricity; the Stator system of refrigeration.

Comstock, Prof. Elting H(oughtaling), University of Minnesota, Minneapolis, Minn. *Mathematics.* Milwaukee, Wis, June 26, 76. B.S, Wisconsin, 97, hon. fellow, 99–00; fellow, Cornell, 97–98; fellow, Chicago, 98–99; M.S, Minnesota, 07. Instr, prin. and sch. supt, Wis. and Mich, 00–06; instr. math, *sch. mines, Minnesota,* 06–07, asst. prof, 07–08, *prof.* mech. and math, 08–10, mine plant and mech, 10–35, *mining, 35–, admin. asst. in charge, sch. mines and metal, 35–* Mining economics and valuation.

Comstock, Prof. George C(hurchill), The Citadel, Charleston, S. C. *Physics.* Peoria, Ill, May 3, 11. B.S, Bradley Polytech, 32; fellow, Chicago, 33–36, Ph.D, 38. *Asst. prof. physics, The Citadel, 37–* Physical Soc. Photoelectric investigation of the so-called Allison magneto-optic effects; diamagnetic Faraday effect at high frequencies.

Comstock, Dr. John A(dams), Jr, 2336 Scarff St, Los Angeles, Calif. *Entomology.* Evanston, Ill, Jan. 30, 83. D.O, Col. Osteop. Physicians and Surg, Los Angeles, 14; A.M, Occidental Col, 24. Practising physician, 14–21; director, Southwest. Museum, Los Angeles, 22–26; acting director, *Los Angeles Museum,* 28, *assoc. director, 29–* Instr, Occidental Col. Mem. advisory cmt. Indian affairs. West. Soc. Nat; fel. Pacific Geog. Soc; fel. S. Calif. Acad. (trustee, past pres, ed. bul); fel. Royal Entom. Soc. Lepidoptera; butterflies of California.

Comstock, Prof. R(alph) E(rnest), 1408 Hythe St, St. Paul, Minn. *Animal genetics.* Spring Valley, Minn, July 19, 12. B.S, Minnesota, 34, M.S, 36, Ph.D, 38. Instr. *animal breeding, Minnesota,* 37–42, *asst. prof, 42–* Soc. Animal Production. Systems of breeding livestock; factors affecting selection of superior breeding stock; experimental design; physiology of mammalian sperm cells; physiology of reproduction

Comte, Dr. F(rederick), 110 Cornelia Ave, Kirkwood, Mo. *Chemistry.* Yverdon, Switzerland, Dec. 26, 89. Diploma, Fed. Tech. Zurich, 12, Ph.D, 15. Instr, Fed. Tech. Zurich, 12–15; research chemist, Monsanto Chem. Works, 15–16; Newport Co, Wis, 17–18; plant chemist, Rhodia Chem. Co, N. J, 19–20; *Monsanto Chem. Works, St. Louis, Mo,* 21–26, *research group leader, 26–* Chem. Soc. Intermediates; pharmaceutical chemicals.

Conant, Dr. Geo(rge) H(erbert), 719 Watson St, Ripon, Wis. *Botany.* Ripon, Wis, June 6, 96. A.B, Ripon Col, 20; A.M, Wisconsin, 23, Ph.D, 26. Botanist, Gen. Biol. Supply House, Chicago, 24–26; asst. prof. bot, Pennsylvania, 26–29; *proprietor, Triarch Bot. Products, 29–* A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc. Phytopathological plant anatomy; general plant technique.

Conant, Pres. James B(ryant), Harvard University, Cambridge, Mass. **⁵*Chemistry.* Boston, Mass, March 26, 93. A.B, Harvard, 13, Ph.D, 16; LL.D, Chicago, 33, N. Y. Univ, Princeton, 34, Yale, Amherst Col, Col. of Charleston, Col. of William and Mary, 36, Williams Col, 38, Dartmouth Col, 38, Tulane, 39, California, 40, Pennsylvania, 40, Bristol, 41; hon. Sc.D, Columbia, Stevens Inst. Tech, 34, Tufts Col, Wisconsin, Cambridge, 41; L.H.D, Boston; D.C.L, Oxford, 36. Instr. chem, *Harvard,* 16–17, asst. prof, 19–25, assoc. prof, 25–28, Sheldon Emery prof. org. chem, 28–33, *pres, 33–* Sci. director, Rockefeller Inst, 30–; chairman special cmt, Nat. Broadcasting Co, 37–; cmt. sci. aids to learning, Nat. Research Council, 37. Trustee, Carnegie Foundation Adv. Teaching. Chandler medal, Columbia, 32; William H. Nichols medal, New York sect, Am. Chem. Soc, 32; medal, Am. Inst. Chem, 34. Commandeur, Légion d'honneur. Major, research div, C.W.S, 17–18; chairman, Nat. Defense Research Cmt, 41. Nat. Acad; A.A; Chem. Soc. (chairman, org. div, 31, councilor at large, 36–); Soc. Biol. Chem; Philos. Soc; Am. Acad; hon. mem. Chemists Club; Royal Soc; Royal Soc. Edinburgh. Organic chemistry; reduction and oxidation; hemoglobin; free radicals; quantitative study of organic reactions; super-acid solutions; chlorophyl.

Conant, Prof. Louis C(owles), University of Mississippi, University, Miss. *Geology.* Orford, N. H, Sept. 14, 02. A.B, Dartmouth Col, 26; A.M, Cornell, 29, Ph.D, 34. Instr. geol, Dartmouth Col, 26–27; asst, Cornell, 27–28, instr, 28–29; field geologist, N. Rhodesia, 29–30; instr. geol, Cornell, 30–37; assoc. prof, Mississippi, 37–39, 40–42; *asst. geologist,* Miss. Geol. Surv, 37–38, 40–42; *U. S. Geol. Surv, 42–* Supervisor mineral surv, Works Progress Admin, 38–39; lecturer, Smith Col, 39–40. Miss. Acad. (v. pres, 41). Economic and structural geology; geologic mapping; bauxite.

Conant, Prof. N(orman) F(rancis), Duke Hospital, Durham, N. C. *Mycology.* Walpole, Mass, March 9, 08. B.S, Bates Col, 30; A.M, Harvard, 31, Ph.D, 33. Sheldon traveling fellow from Harvard, Ecole de Med, Paris, 33–34; asst, Harvard Med. Sch, 34–35; instr. bacter, *sch. med, Duke,* 35–36, assoc, 36–38, *asst. prof. bacter. and mycol, 38–* Mycol. Soc. Fungus infections; dermatophytes; Fungi imperfecti.

Conant, Roger, Philadelphia Zoological Garden, 34th St. and Girard Ave, Philadelphia, Pa. *Zoology, Herpetology.* Mamaroneck, N. Y, May 6, 09. Pennsylvania, 27–28. Curator reptiles, Toledo Zoo, Ohio, 29–33, educational director, 31–33, curator, 33–35; curator reptiles, *Phila. Zool. Garden,* 35–39, *curator, 39–* Zool. consultant, cmt. adult educ. and participation in sci, Am. Philos. Soc; research assoc, Acad. Nat. Sciences, Phila. Soc. Ichthyol. and Herp. Distribution and life histories of North American amphibians and reptiles; reptiles of Ohio; reptiles and amphibians of the Del-Mar-Va Peninsula.

Conard, Prof. Henry S(hoemaker), Grinnell, Iowa. *Botany.* Philadelphia, Pa, Sept. 12, 74. B.S, Haverford Col, 94, A.M, 95; Harrison fellow, Pennsylvania, 99–01, Ph.D, 01. Teacher, Westtown Boarding Sch, 95–99; senior fellow, Pennsylvania, 01–03, instr. *bot,* 03–05; Johnston scholar, Hopkins, 05–06; *prof, Grinnell Col, 06–* Summers, lecturer, Cold Spring Harbor, 09–11, 27–34; Iowa, 13; Harvard, 16; ranger-naturalist, Yellowstone Nat. Park, 24–26. A.A; Bot. Soc; Ecol. Soc; Iowa Hort. Soc; Minn. Hort. Soc; Iowa Acad. (pres, 14); Soc. linn. de Lyon. Plant anatomy and taxonomy; Nymphaeaceae; hay-scented fern; Secotium; Simblum; mosses of Iowa.

Conard, Dr. V(era) A(rrietta) (Mrs. Wilbur I. Patterson), Chagrin Falls, Ohio. *Organic chemistry.* Ransom, Ill, Oct. 27, 06. A.B, Illinois, 28, M.S, 31, Ph.D, 34. Teacher, high sch, Ill, 28–30; assoc, George Washington, 34–35; *director, Arlington Labs, 35–* Guanidine derivatives.

Conaway, Dr. Rollin F(rancis), 4611 King William Road, Richmond, Va. *Chemistry.* Crooksville, Ohio, May 13, 03. A.B, Ohio State, 25, A.M, 27, Ph.D, 29. *Chemist, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Action of alkali on l-arabinose and d-xylose; hydrosulfides of the simple aliphatic amines; chemistry of cellulose derivatives.

Condit, D(aniel) Dale, 14 Deerfield Lane, Greenwich, Conn. *Geology.* Pataskala, Ohio, Feb. 28, 86. A.B, Ohio State, 09; A.M, Columbia, 10. Geol. aid, U. S. Geol. Surv, 12–13, asst. geologist, 13–14, assoc. geologist, 14–17, geologist, 17–19; S. Pearson and Son, 19–23; head geologist, India, Whitehall Petrol. Corp, 23–27; geologist, West. Gulf Corp, Calif, 28–31; chief geologist, Oil Search, Ltd, Sydney, Australia, 33–37; *geologist, Standard-Vacuum Oil Co, New York, 37–* Econ. geol. work, W. I; geol. surv, Dominican Republic, U. S. N. Fel. Geol. Soc; fel. Asn. Petrol. Geol; Min. and Metal. Eng; Am. Geog. Soc. Oil geology; geological exploration of Central America, Australasia, India and Africa.

Condit, Dr. I(ra) J(udson), Citrus Experiment Station, Riverside, Calif. *Horticulture.* Jersey, Ohio, Nov. 18, 83. B.S, Ohio State, 05; M.S, California, 28; Ph.D, Stanford, 31.

Florist, Ohio State, 05-06; sci. asst, bur. entom, U. S. Dept. Agr, 06-07; instr, Calif. Polytech, 07-12; citriculture, California, 13-16, asst. prof, 16-19; horticulturist and director, Forkner Fig Exp. Sta, Fresno, 19-20; dept. hort, Calif. Peach and Fig Growers Asn, 20-24; assoc. subtrop. hort, California and California at Los Angeles, 25-30, assoc. prof, 31-34; visiting prof, Lingnan Univ, 34-35; *assoc. horticulturist and assoc. prof. subtrop. hort, Citrus Exp. Sta, California, 35-* A.A. Figs; olives.

Condit, Dean Kenneth H(amilton), Princeton University, Princeton, N. J. *Mechanical engineering.* East Orange, N. J, March 1, 88. M.E, Stevens Inst. Tech, 08; D.Eng, 40; Columbia, 11; C.E, Princeton, 13. Ed, 'Am. Machinist,' McGraw-Hill Publishing Co, Ind, 21-38, 'Product Eng,' 29-35; exec. asst. to pres, Nat. Indust. Conf. Board, 38-40; *prof. mech. eng. and dean sch. eng, Princeton, 40-* Mem, United Eng. Trustees; Eng. Foundation. Soc. Mech. Eng. (v. pres, 39-41); Min. and Metal. Eng; Management Asn. Machine development and economics.

Condit, Dr. Richard I(ngels), 1924½ Channing Way, Berkeley, Calif. *Physics.* Los Angeles, Calif, Feb. 10, 18. A.B, Pomona Col, 38, Honnold fellow, 38; Ph.D, California, 42. *Physicist, radiation lab, California, 41-* Acceleration of heavy particles in the cyclotron.

Condo, Dr. F(red) E(lmer), E. I. du Pont de Nemours and Co, Cleveland, Ohio. *Chemistry.* Rebersburg, Pa, Feb. 8, 10. B.S, Illinois, 31, M.S, 33, Ph.D, 36. Asst. soil surv. anal, Illinois, 31-36; *research chemist, Grasselli chem. labs, E. I. du Pont de Nemours and Co, 36-* Chem. Soc. Identification of nitriles; leather chemistry.

Condon, Dr. Edw(ard) U(hler), 1420 Walnut St, Edgewood, Pa. **Physics.* Alamogordo, N. Mex, March 2, 02. A.B, California, 24, Ph.D, 26. Asst. prof, Princeton, 28-29; prof. theoret. physics, Minnesota, 29-30; assoc. prof, Princeton, 30-37; *assoc. director, Westinghouse Research Labs, 37-* Lecturer, Columbia, 28. Assoc. ed, 'Physical Rev,' 30-33; 'Jour. Chem. Physics.' Exec. cmt. div. physical sciences, Nat. Research Council. Fel. Physical Soc. Theoretical physics; quantum mechanics of atomic and molecular spectra and of nuclear physics; micro-wave radio engineering.

Condra, Dr. George E(vert), Station A, Lincoln, Nebr. *Geography, Geology, Conservation.* Seymour, Iowa, Feb. 2, 69. B.S, Nebraska, 97, A.M, 98, Ph.D, 02. Head dept. science, Lincoln Nor. Sch, 92-96; high sch, Nebr, 96-02, asst. prin, 01-02; instr. geog. and econ. geol, *Nebraska,* 02-03, asst. prof, 03-04, assoc. prof, 04-05, prof, 05-08, head dept, 08-12, head dept. geog. and conservation, 12-18, *prof. indust. and surveys and chairman dept, 12-, director conservation and surv. div,* 18-29, *dean, 29-, chairman instructional dept. of conservation.* Asst, Nebr. Geol. Surv, 96-02, director, 18-; asst. state geologist, Nebr, 02- Summers, prof, Cornell, 05-11. Mem, State Planning Cmn, Nebr, 34-; chairman, State Soil Conservation Cmn, Nebr, 34-; pres, Nebr. Conservation Cong, 09-10; chairman, Nebr. Conservation Cmn, 08-13; exec. sec'y, State Conservation and Pub. Welfare Cmn, Nebr, 13-19; mem, State Rural Life Cmn, 10-12; pres, Nat. Conservation Cong, 15; mem, Fed. Irrig. Board, 26. Lieut. col, U.S.A. A.A; Soil Sci. Soc. (pres, 28); Geol. Soc; Paleont. Soc; Geophys. Union; Nebr. Acad. (pres, 09); Nebr. Sci. Teachers Asn. (pres, 98). Conservation; agriculture and industries of Nebraska; paleontology.

Cone, Prof. W(illia)m H(omer), University of Idaho, Moscow, Idaho. *Chemistry.* Carthage, Mo, Sept. 29, 93. B.S, Idaho, 24, M.S, 27; Ph.D, Washington (Seattle), 36. *Asst. prof. chem, Idaho, 24-* Analytical, physical and colloidal chemistry.

Conel, Prof. J(esse) L(eRoy), Boston University School of Medicine, Boston, Mass. *Anatomy.* Mt. Auburn, Ill, Jan. 31, 83. A.B, James Millikin, 12; A.M, Illinois, 13, Ph.D, 16. Teaching fellow, Illinois, 13-16; instr. *anat,* Univ. and Bellevue Hosp. Med. Col, 16-19, asst. prof, 19-20, assoc. prof, 20-21; med. sch, Tufts Col, 21-23; *sch. med, Boston,* 23-26, *prof, 26-;* research fellow *path, Harvard Med. Sch,* 36-38, *research assoc, 38-* Research assoc, Children's and Infants' Hosps, Boston; assoc. mem. staff, Evans Mem. and Mass. Mem. Hosps. Asn. Anat. Comparative anatomy of the nervous system; neurology; development of cerebral cortex.

Congdon, Prof. E(dgar) D(avidson), 115 Willow St, Brooklyn, N. Y. *Anatomy.* Newark, N. Y, April 25, 79. A.B, Syracuse, 01, A.M, 02; Ph.D, Harvard, 09. Prof. chem. and physics, Franklin Acad, N. Y, 03-05; Austin teaching fellow, Harvard, 06-09, Hooper traveling fellow, 09-10, Sheldon traveling fellow, 10-11; acting instr. *anat,* Cornell, 11-12, instr, 12-13; asst. prof, Stanford, 13-22; assoc. prof, Peiping Union Med. Col, 22-26; *prof,* med. sch, Chulalongkorn Univ. (Siam), 26-31; *L. I. Col. Med, 32-* Biological effects of radium; development of blood vessels and their variations in certain human stocks; features of respiratory and auricular development; gross extra organic connective tissue structures, detailed studies and general classification for the body.

Conger, Prof. Allen C(lifton), 49 Forest Ave, Delaware, Ohio. *Zoology.* Zanesville, Ohio, Nov. 23, 87. B.S, Ohio Wesleyan, 08; A.M, Ohio State, 12. Prof. biol, Wilmington Col, 09-12; instr. and assoc. prof. *zool,* Mich. State Col, 12-23; *Ohio Wesleyan,* 23-35, *prof, 35-, registrar, 33-* Soc. Mammal; Micros. Soc. Field zoology; ornithology.

Conger, Paul S(idney), U. S. National Museum, Washington, D. C. *Biology.* Waukesha, Wis, Jan. 10, 97. B.S, M.S, Wisconsin. Asst. zool, Wisconsin, 20-21; aid, div. marine invertebrates, U. S. Nat. Museum, 21-22; asst. zool, George Washington, 22-23; diatomist, *Carnegie Institution,* 22-35, *research assoc, 35-; custodian diatoms, U. S. Nat. Museum, 36-* Summers, instr, Chesapeake Biol. Lab, 32- A.A; Limnol. Soc; fel. Wash. Acad. Diatoms; aquiculture; microscopy; oceanography.

Conklin, Prof. Edwin G(rant), Princeton University, Princeton, N. J. **Zoology.* Waldo, Ohio, Nov. 24, 63. B.S, Ohio Wesleyan, 85, A.B, 86, A.M, 89; Ph.D, Hopkins, 91, LL.D, 40; hon. Sc.D, Pennsylvania, 08, Ohio Wesleyan, 10, Yale, 30; LL.D, Western Reserve, 25. Prof. biol, Ohio Wesleyan, 91-94; *zool,* Northwestern, 94-96; Pennsylvania, 96-08; *Princeton,* 08-33, *emer. prof, 33-; lecturer biol, 34-* Lowell lecturer, 22; instr, Marine Biol. Lab, Woods Hole, 91-97, trustee, 97-; Harvey lecturer, 13; Harris lecturer, Northwestern, 14; McNair lecturer, North Carolina, 21; lecturer, Rice Inst, 21, 41; Sigma Xi lecturer, Yale, 22; Sedgwick Mem. lecturer, 29; Potter Mem. lecturer, 30; Penrose Mem. lecturer, 34; Milton Acad. War Mem. lecturer, 35; pres. board trustees, Bermuda Biol. Sta, 26-36; advisory board, Wistar Inst; anthropoid exp. sta, Yale; pres, Science Service, 37- Chairman cmt, Theobald Smith award, A.A.A.S, 36. Assoc. ed, 'Jour. Morphol,' 00-22; 'Biol. Bul'; 'Jour. Exp. Zool'; 'Genetics'; 'Quarterly Rev. Biol.' Organizing sec'y for embryol, 7th Int. Cong. Zool; Int. Zool. Cong, Graz, 10; Int. Asn. Academies, Rome, 10. Nat. Acad. (Hale lecturer, 20); A.A. (v. pres, F, 07, pres, 36, exec. cmt, 37); Soc. Nat. (pres, 12); Soc. Zool. (pres, 99); Asn. Anat; Soc. Exp. Biol; Philos. Soc. (sec'y, 01-08, v. pres, 32-42, exec. officer, 36-, pres, 42-); Am. Acad; Acad. Nat. Sci. Phila. (v. pres, 01-); Zool. Soc. London; hon. fel. Royal Soc. Edinburgh; for. mem. Bohemian Royal Soc; Soc. belge de Biol; Soc. royale de Med. de Bruxelles. Embryology of Gasteropoda, Brachiopoda, Amphioxus, Tunicata and Coelenterata; cellular history of development; cytology, karyokinesis and cytokinesis; cell size and body size; organization of the egg; cause of inverse symmetry; organforming substances; mechanism of heredity; heredity and environment; mechanism of evolution; the direction of human evolution; revolt against Darwinism.

Conklin, Dr. F(rederick) R(oscoe), 1308 Linville St, Kingsport, Tenn. *Chemistry.* Everett, Wash, July 2, 03. B.S, Oregon State Col, 28; Cheney fellow, Yale, 30-31, Ph.D, 31. *Tenn. Eastman Corp, 31-* Chem. Soc. Organic chemistry.

Conklin, Dr. Marie Eckhardt, Adelphi College, Garden City, L. I, N. Y. *Botany.* Derby, Conn, Sept. 30, 08. A.B, Wellesley Col, 29; M.S, Wisconsin, 30; Ph.D, Columbia, 36. Teaching asst. bacter, dept. bot, Wellesley Col, 30-31; volunteer research, Brooklyn Bot. Garden, 35-36; asst, Carnegie Institution, 37-41; *instr. bacter, biol. dept, Adelphi Col, 43-* Plant parthenogenesis and artificial culture of embryos; physiological studies of symbiotic nitrogen-fixing bacteria.

Conklin, O(liver) E(arle), Parlin, N. J. *Physics.* St. Louis, Mo, March 11, 92. B.S, Mass. Inst. Tech, 14, M.S, 17. *Physicist,* Bausch and Lomb Optical Co, 17-19; *E. I. du Pont de Nemours and Co, 19-* Optical Soc. Physical optics; physical chemistry.

Conklin, Dr. R(aymond) L(eRoy), Miles Laboratories, Elkhart, Ind. *Animal pathology.* Norwich, N. Y, June 8, 95. D.V.M, Cornell, 17; M.Sc, McGill, 23, M.D, 38. Asst. state veterinarian, Dept. Farms and Markets, N. Y, 19-21; veterina-

rian, Macdonald Col, McGill, 21–41, animal pathologist, inst. parasitol, 30–41, asst. prof. animal path, 23–30, prof. and head dept, 30–41, chairman dept. animal nutrition and breeding, grad. faculty, 31–41; *acting med. and research director, Miles Labs, 42–* Tech. adviser, Que. Dept. Agr. 33–38. Lieut, Vet. C, 17–19. Vet. Med. Asn; Cent. Can. Vet. Asn; Ont. Vet. Asn; hon. mem. Que. Col. Vet. Surg. Diseases of the genital organs; colloidal therapy; histopathology.

Conklin, Dr. Richard B(rown), Brooklyn College, Brooklyn, N. Y. *Chemistry.* Greenport, N. Y, Jan. 2, 05. A.B, Columbia, 27, A.M, 28, Ph.D, 32. Asst. *chem,* Columbia, 27–31; tutor, *Brooklyn Col,* 32–36, instr, 36–41, *asst. prof, 41–* Chem. Soc. Acenaphthenes; thiazoles; thiazines.

Conklin, Prof. Ruth E(melene), Vassar College, Poughkeepsie, N. Y. *Physiology.* Rochester, N. Y, July 25, 95. A.B, Mt. Holyoke Col, 18; M.S, Rochester, 21; Ph.D, Radcliffe Col, 30. Asst. physiol, Rochester, 18–21; instr. zool, Conn. Col. 21–24; *physiol, Vassar Col,* 24–27, asst. prof, 30–37, *assoc. prof, 37–* Vassar Col. Faculty fellow, Copenhagen, 38. A.A; Physiol. Soc. Respiratory metabolism of infants; formation and circulation of lymph; posture and circulatory reflexes.

Conkling, Prof. Leon D, 1201 S. Third Ave, 16, Bozeman, Mont. *Civil engineering.* Horseheads, N. Y, April 6, 72. C.E, Cornell, 00. City engineer, Elmira, N. Y, 00–04; railroad work, D. L. and W, 04–06; instr. to assoc. prof. civil eng, Lehigh, 06–14; prof. and head dept, Mont. State Col, 14–42; *retired.* State highway commissioner, Mont, 14–18. Eng. Educ; Mont. Soc. Eng. (pres, 23). Highway construction.

Conkwright, Prof. Nelson Bush, University of Iowa, Iowa City, Iowa. *Mathematics.* Clark Co, Ky, Dec. 5, 98. A.B, Kentucky, 22; A.M, Illinois, 24, Ph.D, 26. Asst. physics, Kentucky, 21–22; *math,* Illinois, 22–25; assoc, *Iowa,* 26–34, *asst. prof, 34–* Math. Soc; Math. Asn. Analysis; differential equations.

Conley, Dr. Dudley Steele, University of Missouri School of Medicine, Columbia, Mo. *Surgery.* Columbia, Mo, Jan. 26, 78. LL.B, Missouri, 99; M.D, Columbia, 06. Asst. surg, Columbia, 10–13, instr, 16–19, anat, 17–18; prof. clin. med. and surg, *Missouri,* 19–23, clin. surg, 23–30, surg. and director surg. service, univ. hosps, 30–33, *dean sch. med. and director univ. hosps, 33–* Asst. prof, N. Y. Post-Grad. Med. Sch, Columbia, 17–18. Fel. Col. Surg; Am. Med. Asn; Mo. Med. Asn. (v. pres, 34, pres, 37). Acute appendicitis; complications of appendicitis.

Conn, Dr. H(arold) J(oel), New York Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* Middletown, Conn, May 29, 86. Ph.B, Wesleyan, 08; Ph.D, Cornell, 11. Asst. soil technol, Exp. Sta, Cornell, 08–11; assoc. bacteriologist, *N. Y. Exp. Sta, Geneva,* 11–20, *chief research soil bacter, 20–* Lecturer and instr, Hopkins, 15. Chairman, Cmn. Standardization Biol. Stains, 21– Ed, sect. soil microbiol, 'Biol. Abstracts,' 26– A.A; Soc. Bact. (asst. ed, 'Abstracts,' 19–25, chairman, cmt. on bacter. technic, 20–); Soc. Agron. Soil bacteriology; fungi in soils; methods of pure culture study; biological stains.

Conn, Prof. John F(erguson), 121 W. Wisconsin Ave, Deland, Fla. *Chemistry.* Franklin, Ky, March 13, 99. B.S, Georgetown Col. (Ky), 20; M.S, Chicago, 24; Ph.D, Pittsburgh, 26. Head dept. chem. and biol, Judson Col, 26–29; *prof. chem, J. B. Stetson, 29–* Sec'y, State Board Examiners in Basic Sciences, Fla, 39– Chem. Soc. (chairman, Fla. sect, 31). Electrolytic oxidation in nitric acid solution.

Conn, Lillian W(ilcox), 617 Dunkirk Road, Baltimore, Md. *Biochemistry.* Baltimore, Md, Sept. 28, 01. A.B, Goucher Col, 23; scholar, Hopkins, 26–28. Chemist, Booth Packing Co. and Gibbs Preserving Co, 23; junior chemist, Dept. Health, Baltimore, 23–26, asst. bacteriologist, 27; *biochemist, Sealtest System Labs, 29–* Quality of milk powders; absorption of chromium by the rat; vitamin C in frozen orange juice; copper in milk products; determination of potency of vitamin D milk.

Conn, Dr. Miller W(ade), Phillips Petroleum Co, Bartlesville, Okla. *Organic chemistry.* Hazelhurst, Miss, May 31, 03. A.B, Miss. Col, 29; Am. Petrol. Inst. fellow, North Carolina, 29–31, A.M, 30, Ph.D, 32. Prof, Okla. Baptist Univ, 32–33; chem, Limestone Col, 33–; *patent dept, Phillips Petrol. Co.* Preparation and property of thiophoner; identification of di-thio alcohols.

Connaughton, Charles A(rthur), U. S. Forest Service, Ft. Collins, Colo. *Forestry.* Placerville, Idaho, May 25, 08. B.S, Idaho, 28; M.F, Yale, 34. Junior forester, *U. S. Forest Service,* 28–34, silviculturist, Intermountain Forest and Range Exp. Sta, 34–38, *director, Rocky Mountain Forest and Range Exp. Sta, 38–* Soc. Foresters (chairman, intermountain sect, 35); Soc. Animal Production; Geophys. Union. Silviculture; watershed and range management.

Connell, Prof. Frank H(erman), Dartmouth College, Hanover, N. H. *Zoology.* Hudson, N. H, 05. B.S, Dartmouth Col, 28; A.M, California, 29, Ph.D, 31. Teaching fellow zool, California, 28–31; instr, *Dartmouth Col,* 31–35, asst. prof. *parasitol, med. sch,* 35–41, *prof, 41–, zool, col, 41–* Consulting parasitologist, State Dept. Fish and Game, N. H, 36– Protozoologist, Harvard Med. Sch. and Carnegie Institution 3rd med. exped, Yucatan, 31. A.A; Soc. Parasitol. Parasitic Protozoa; amebiasis; hatchery diseases of fishes.

Connell, Dr. W(alter) T(homas), 11 Arch St, Kingston, Ont, Can. *Medicine.* Spencerville, Ont, Dec. 15, 73. M.D, Queen's (Can), 94, LL.D, 41; F.R.C.P.S, Can, 29. Prof. path. and bacter, Queen's (Can), 95–20, med, 20–41; *retired.* Univ. medal, 94. Lieut. col, R.C.A.M.C, 15–19.

Connell, W(illiam) H(enry), 112 S. Oxford Ave, Ventnor City, N. J. *Civil engineering.* New York, N. Y, 78. De La Salle Inst. Asst, Eng. Corps, New York, 00–10; deputy commissioner, Pub. Works, Bronx, 10–12; chief, Bur. Highway and Street Cleaning, Phila, 12–17; eng. exec, Day and Zimmerman, 17–19; exec. staff, Phila. Rapid Transit, 19–23; eng. exec, State Dept. Highways, Pa, 23–25, eng. exec. and acting sec'y, 25–27; consulting engineer, 27–29; *exec. director, Regional Planning Federation, Phila. Tri-State Dist, 29–;* administrator, Civil Works Admin, 33–34; *director local work div, State Emergency Relief Board, Pa, 34–* Civil Eng; Road Asn. (past pres); Phila. Munic. Eng. (pres, 14); Phila. Eng. Club. Methods of construction, materials, cost and maintenance of highway and street cleaning; city and regional planning.

Conner, Arthur Benjamin, Agricultural and Mechanical College of Texas, College Station, Texas. *Agriculture.* Rosebud, Texas, Oct. 20, 81. B.S, Agr. and Mech. Col. Texas, 04. M.S, 23. Sci. asst, U. S. Dept. Agr, 04–11; v. director and agronomist in charge grain sorghum research, *Exp. Sta, Agr. and Mech. Col. Texas,* 11–26, acting director, 26–28, *director, 28–* A.A. Inheritance in grain sorghum.

Conner, Dr. Herbert W(esley), 2032 W. 110th Place, Chicago, Ill. *Biochemistry.* Chicago, Ill, May 17, 06. B.S, Chicago, 27, Ph.D, 33; M.S, Illinois, 29. Asst. bot, Illinois, 28–30; Chicago, 30–32; biochemist, Pacini Labs, Chicago, 33–34; food chemist, Chicago Quartermaster's Depot, 34–35; prof. bot, De Paul, 35–36; research chemist, *Wm. Wrigley, Jr, Co,* 36–37, *chief chemist, 37–* A.A; Chem. Soc; Soc. Plant Physiol. Solanine synthesis.

Conner, Dr. H(ubert) A(ndrew), La Grange, Ill. *Biochemistry.* Kirksville, Mo, Sept. 18, 09. B.S, Mo. State Teachers Col, 29; M.S, Illinois, 31; Ph.D, Wisconsin, 35. Asst, Wisconsin, 32–36; *biochemist,* Rohm and Haas Co, Phila, 36–42; *Johnson and Johnson, 42–* Fermentation and enzyme chemistry; biochemistry of the hairy root and crown gall organisms; enzymes.

Conner, Prof. Lewis A(tterbury), 333 E. 68th St, New York, N. Y. *Medicine.* New Albany, Ind, Jan. 17, 67. Ph.B, Yale, 87; M.D, Columbia, 90. Prof. med. and head dept, *med. col, Cornell,* 16–32, *prof. clin. med, 32–* Attending physician, N. Y. Hosp, 05–32, consulting physician, 32– Nat. Board Med. Examiners, 22–30. Ed, 'Am. Heart Jour,' 25–37. Am. Physicians (pres, 25); Am. Heart Asn. (pres, 25, 26); fel. N. Y. Acad. Med. (v. pres, 29–32). Clinical medicine.

Conner, Dr. Robert (Thomas), Central Research Laboratories, General Foods Corp, Hoboken, N. J. *Biochemistry.* Lisbon, N. H, Oct. 2, 10. B.S, Vermont, 32; Ph.D, Columbia, 36. Asst. chem, Columbia, 32–36, instr, 36–39; *chemist in charge div. biochem, Cent. Research Labs, Gen. Foods Corp, 39–* A.A; Inst. Chem; Asn. Cereal Chemists; Chem. Soc; N. Y. Acad. Protein and calcium in nutrition; chemical determination of vitamins; vitamin restoration of foods.

Conner, Prof. Samuel L(ucas), 34 Capen St, Medford Hillside, Mass. *Civil engineering.* Wilmington, Del, Jan.

21, 78. B.S, Delaware, 97, M.S, 12. Various eng. positions, 97-09; from instr. to *prof. civil eng. and head dept, Tufts Col, 09–* Head dept. surveying and structures, Franklin Union, Boston. Cmt. on Traffic Highway Conf. Board, cmt. teaching highway eng, Am. Road Builders Asn; chairman, Medford City Planning Board. Tech. asst. and develop. expert, Gen. Staff, War Dept, 18–20. A.A; Road Builders Asn. (director); Eng. Educ; Road Eng. Asn. Geodesy; surveying; highway construction; engineering economics; transportation.

Conner, Dr. Willard P(reston, Jr), 1608 N. Broom St, Wilmington, Del. *Physical chemistry.* Boulder, Colo, May 29, 15. A.B, Colorado, 36; Ph.D, Wisconsin, 40. Research assoc. physical chem, Princeton, 40–42; research chemist, *exp. sta, Hercules Powder Co,* 42–43, *acting leader physics group, 43–* Chem. Soc; Optical Soc. Dielectric studies on aqueous solutions at ultrahigh frequencies; dielectric loss.

Conners, I(bra) L(ockwood), 719 Island Park Driveway, Ottawa, Ont, Can. *Plant pathology.* Rodney, Ont, July 5, 94. B.A, McMaster, 18; M.A, Toronto, 20. Plant pathologist, *Can. Dept. Agr, Brandon, Man,* 20–21, 23–24, in charge smut investigations, Winnipeg, 25–29, *in charge plant disease surv. and mycol. herbarium, Ottawa, 29–* Phytopath. Soc; Mycol. Soc; Can. Phytopath. Soc. (sec'y-treas, 33–35, v. pres, 36, pres, 37). Taxonomy of plant rusts; plant disease survey.

Connery, Dr. Joseph E(dward), 138 E. 36th St, New York, N. Y. *Medicine.* New York, N. Y, Nov. 19, 91. M.D, N. Y. Univ, 14. House staff, Bellevue Hosp, 15–16, res. physician, 17; from asst. to asst. prof. *clin. path,* Univ. and Bellevue Hosp. Med. Col, 19–30, assoc. prof, 30–35, *col. med, N. Y. Univ,* 35–37, *prof, 37–* Visiting physician, Bellevue Hosp, 30–; consulting clinical pathologist, St. Vincent's Hosp, New York. A.A; Am. Med. Asn; Soc. Clin. Path; Harvey Soc; N. Y. Soc Trop. Med; fel. N. Y. Acad. Med. Clinical hematology.

Connolly, Prof. C(ornelius) J(oseph), Catholic University of America, Washington, D. C. *Biology.* Stellarton, N. S, Can, March 6, 83. A.B, St. Francis Xavier (Can), 03; Ph.D, Munich, 11. Prof. biol, St. Francis Xavier, 11–22; research, Harvard, 22–23; instr. comp. psychol, *Catholic Univ,* 24–28, assoc. prof, 28–34, *prof. physical anthrop, 34–* Biol. Board Can, 23–30. A.A; Asn. Physical Anthrop; N. Y. Acad; Wash. Acad; N. S. Inst. (2nd v. pres, 18, 1st v. pres, 19). Florideae; decapod larvae; adaptive coloration; physical anthropology; comparative morphology; anthropology of the brain.

Connolly, Joel I(rving), 54 W. Hubbard St, Chicago, Ill *Public health.* Dorchester, Mass, Feb. 14, 96. B.S, Mass. Inst. Tech, 16, M.S, 17; M.S, Harvard, 17. Asst. sanit. engineer, State Dept. Health, Mass, 17; U. S. Pub. Health Service, 18; chief sanit. engineer, Near East Relief, 19–20; assoc. sanit. engineer, U. S. Pub. Health Service, 20–25, chief bur. sanit. eng, 25–31, 32–36; acting asst. commissioner health. *Chicago,* 31–32, *asst. to pres, Board Health, 37–* Lecturer, col. med, Illinois; Chicago; Northwestern; Loyola; Minnesota; Mass. Inst. Tech. Chairman, Chicago Plumbing Research Board; chairman joint cmt. plumbing, Am. Pub. Health Asn. and Conf. State Sanit. Engineers. Chairman, Conf. Munic. Pub. Health Engineers, 39; mem, Conf. Governmental Indust. Hygienists. D.S. medal. Chief sanit. inspector, Am. Red Cross, 17. Fel. Pub. Health Asn. (v. chairman, pub. health eng. sect, 36, chairman, 37); Water Works Asn; Soc Sanit. Eng; Social Hygiene Asn; Chicago Council Social Agencies (director; mem. exec. cmt. health div). Sanitary engineering; ventilation; water treatment; housing and plumbing; mechanical refrigeration; industrial hygiene; camp sanitation; cross connections.

Connolly, Pres. Joseph P(eter), 1804 West Blvd, Rapid City, S. Dak. *Geology, Mineralogy.* Cleveland, Ohio, Nov. 15, 90. A.B, Oberlin Col, 12; A.M, Missouri, 15; Sheldon traveling fellow, Harvard, 17, A.M, 17, Ph.D, 27. Instr. geol, Missouri, 19; *prof.* miner. and petrog, *S. Dak. Sch. Mines,* 19–35, *geol, 35–,* v. pres, 26–35, acting pres, 35, *pres, 35–* Leader joint paleont. exped, Nat. Geog. Soc. and S. Dak. Sch. Mines, 40. 2nd lieut, U.S.A, 18–19. Fel. Geol. Soc; Soc. Econ. Geol; Miner. Soc; Min. and Metal. Eng; Eng. Educ. Economic geology and mineralogy of the Black Hills of South Dakota.

Connor, Prof. Ralph (Alexander), University of Pennsylvania, Philadelphia, Pa. **Chemistry.* Newton, Ill, July 12, 07. B.S, Illinois, 29; du Pont fellow, Wisconsin, 31–32, Ph.D, 32. Asst. chem, Wisconsin, 29–30, asst, 30–31; research chemist, Mallinckrodt Chem. Works, 31–32; instr. *org. chem,* Cornell, 32–35; asst. prof, *Pennsylvania,* 35–38, *assoc. prof, 38–; tech. aid, Nat. Defense Research Cmt, 41–* Research chemist, du Pont Co, 34. Summers, instr, Illinois, 32, 35. Chem. Soc. Addition to conjugated systems; organic compounds of sulfur; catalysis of hydrogenation and hydrogenolysis; alcoholysis and hydrolysis at high pressures and temperatures; pyrrolidine derivatives.

Connors, Prof. C(harles) H(enry), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Horticulture.* New Brunswick, N. J, July 2, 84. B.S, Rutgers, 13, Ph.D, 28. Asst. hort. investigation, *N. J. Exp. Sta,* 13–21, assoc. plant breeding, 21–26, *head dept. floricul. and ornamental hort, 26–,* instr. floricul, *Rutgers,* 25–26, asst. prof, 26–28, assoc. prof, 28, *prof. ornamental hort, 31–* A.A; Soc. Hort. Sci; Genetic Asn. Culture of outdoor plants.

Conover, Prof. Frederic L(eRoy), Vanderbilt University, Nashville, Tenn. *Chemistry.* Madison, Wis, July 28, 92. A.B, Wisconsin, 15, fellow, 19–23, Ph.D, 23. Instr. *chem,* Pa. State Col, 16–17; asst. and instr, Wisconsin, 19–23; asst. prof, *Vanderbilt,* 23–27, *assoc. prof, 27–* C.Eng, capt. and major, C.W.S, 17–19. Chem. Soc; Tenn. Acad. Inorganic and analytical chemistry; synthesis and equilibrium of hydrated oxides and of other iron and aluminum compounds; reactions of fluorides and of phosphates; potentiometric titrations.

Conover, (George) Courtney, 6265 Itaska Ave, St. Louis, Mo. *Chemistry.* Titusville, Pa, Feb. 16, 81. B.S, Pennsylvania, 08. Asst. chemist, bur. chem, U. S. Dept. Agr, 08–18, 19; asst. chief chemist, Selden Co, 20–23; *research chemist,* Nat. Aniline and Chem. Co, 23–25; *Monsanto Chem. Co, 25–* Lieut, C.W.S, 18. A.A; Chem. Soc; Chem. Eng. Phthalic anhydride; patents on chemical processes and products.

Conover, H. B, 6 Scott St, Chicago, Ill. *Ornithology.* Chicago, Ill, Jan. 18, 92. Ph.B, Yale, 12. *Research assoc, dept. zool, Field Museum Nat. Hist, 20–, trustee, 40–* Field Museum Nat. Hist. expeds, Can, Venezuela, Chile, Argentina and Africa; Bering Sea exped, bur. biol. surv, U. S. Dept. Agr. Ornith. Union; fel. Am. Geog. Soc; British Ornith. Union. Game birds.

Conrad, Prof. Albert G(odfrey), Yale University, New Haven, Conn. *Electrical engineering.* Norwalk, Ohio, May 19, 02. B.E.E, Ohio State, 25, M.S, 27; E.E, Yale, 31. Prin, high sch, Ohio, 21–22, instr, 22–24; asst. instr. elec. eng, Ohio State, 25–27; Gen. Elec. Co, Schenectady, 27–28; instr. *elec. eng, Yale,* 28–31, asst. prof, 31–39, *assoc. prof, 39–, assoc. fellow, Timothy Dwight Col.* Elec. Eng; Eng. Educ. Induction motors; fatal electric shock; electro-physiology; engineering education; adjustable speed alternating current motors.

Conrad, Dr. C(arl) M(arcus), U. S. Department of Agriculture, New Orleans, La. *Plant physiology, Biochemistry.* Burlington, Kans, Nov. 24, 97. B.S, Kans. State Col, 21; M.S, Maryland, 23, Ph.D, 25. Asst. plant physiologist, Maryland, 21–25, assoc. plant physiologist, 25–31, asst. plant physiologist, Exp. Sta, 25–31; senior cotton technologist, div. cotton marketing, agr. marketing service, *U. S. Dept. Agr,* 31–41, *chief colloidal properties sect, cotton fiber research div, south. regional research lab, 41–* A.A; Soc. Plant Physiol; Chem. Soc. The chemistry of potato storage and ripening in sweet corn; pentoses and pentosans; pectic constituents of plants; carbohydrate metabolism of potatoes, sweet corn and other vegetables; colloidal properties of cotton fibers.

Conrad, Dr. Carleton C(oppock), 4613 King William Road, Richmond, Va. *Physical chemistry.* Hot Springs, Ark, July 4, 11. A.B, Arkansas, 33, Coulter W. Jones fellow, 33–34, M.S, 37; Ph.D, Cornell, 40. Junior assayer, U. S. Mint, New Orleans, La, 34–37; asst. chem, Cornell, 37–40; *research chemist, rayon dept, tech. div, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Synthetic fibers; heterogeneous equilibria.

Conrad, Prof. Frank H(eussy), Missouri School of Mines and Metallurgy, Rolla, Mo. *Chemical engineering.* Seattle, Wash, July 9, 02. B.S, Washington (Seattle), 23, Ph.D, 34. Chemist and manager, Northwest Testing Labs, Seattle, 23–29; teaching fellow, Washington (Seattle), 29–31, 33–34, assoc. chem. eng, 31–32; anal. chemist, Standard Oil Co. of Calif, 34–36; asst. prof. *chem. eng, Mo. Sch. Mines,* 36–37, *assoc. prof, 37–* Eng. Educ; Chem. Eng; Chem. Soc. Submerged combustion and evaporation; equilibrium and solubility of calcium bisulfite solutions; grinding aids.

Conrad, Prof. Herbert S, 2739 Bancroft Way, Berkeley, Calif. *Psychology, Statistics.* New York, N. Y, Jan. 7, 04. A.B,

Columbia, 26; A.M, California, 30, Ph.D, 31. Asst, Columbia, 26–28; *research assoc, inst. child welfare, California, 28–*, asst. prof, dept. educ, 34–38, *assoc. prof, dept. psychol, 38–; mem. war research project N–106, Col. Ent. Exam. Board.* Ed. board, 'Jour. Psychol'; contributing ed, 'Jour. Exp. Educ'; ed, 'Applied Psychol. Monograph.' Research assoc, New Eng. Mental Surv. Cmt, 26; consultant, Am. Council Educ. A.A; Psychol. Asn; Educ. Research Asn; Social Hygiene Asn. (nat. educ. cmt). Measurement of adult intelligence; heredity of mental ability; personality of pre-school children; educational tests.

Conrad, Prof. J(ohn) P(eter), College of Agriculture, University of California, Davis, Calif. *Agronomy.* Rialto, Calif, Oct. 29, 93. B.S, California, 17, Ph.D, 33. Ranch foreman, F. W. Bancroft, Calif, 17–19; Sloan Brothers, Calif, 19–20; teacher, high sch, Calif, 20–21; assoc. *agron, California,* 21–25, asst, 25–27, lecturer, 35–39, *assoc. prof, 39–*, asst. agronomist, *Exp. Sta,* 27–31, *assoc. agronomist, 31–* Hon. fellow, Ohio State and Minnesota, 34. Soc. Agron; Soc. Plant Physiol; Soil Sci. Soc; West. Soc. Soil Sci. Soil relations in field crop production; effect of different field crops and crop residues upon the soil and upon crops which follow.

Conrad, Prof. L(owell) E(dwin), 317 N. 17th St, Manhattan, Kans. *Civil engineering.* Miles, Iowa, June 24, 79. B.S, (C.E), Cornell Col. (Iowa), 04, C.E, 06; M.S, Lehigh, 08. Practising civil engineer, U. S. and Mex, 02–06; instr. *civil eng,* Lehigh, 06–08; *prof. and head dept, Kans. State Col, 08–* Civil Eng. (pres, Kans. sect); Eng. Educ. (pres, Kans-Nebr. sect, 27, councilor, 31–; v. pres, 40). Atmospheric resistance of motor vehicles.

Conrad, Dr. Paul L(awrence), 1085 Hardesty Blvd, Akron, Ohio. *Chemical engineering.* Buchanan, Mich, April 24, 11. B.S, Florida, 33; Ph.D, Iowa, 38. *Research engineer, Columbia chem. div, Pittsburgh Plate Glass Co, 38–* Chem. Eng; Chem. Soc. Oxidation studies on coal.

Conrad, Prof. Ralph M(artin), Kansas State College, Manhattan, Kans. *Biochemistry.* Manhattan, Kans, April 6, 12. B.S, Kans. State Col, 33; M.S, Iowa, 34, Ph.D, 36. *Asst. prof. poultry chem, Kans. State Col, 36–* Chem. Soc. Amino acid metabolism; protein chemistry; chemistry of egg formation and storage.

Conrad, Prof. V(ictor), 195 Upland Road, Cambridge, Mass. *Climatology, Geophysics.* Vienna, Austria, Aug. 25, 76. Ph.D, Vienna, 01. Prof. cosmical physics, Czernowitz, 10–20; meteorol. and climatol, Vienna, 20–38; geophysics, Pa. State Col, 39–40; *research assoc, Harvard, 40–* Lecturer, Harvard, 40; N. Y. Univ, 40; Calif. Inst. Tech, 42; California at Los Angeles, 42. Physical climatology; war climatology; meteorology; physics of hot springs; seismology; atmospheric electricity; bioclimatology.

Conradi, A(lbert) F(rederick), Manchester, Ga. *Entomology, Zoology.* New Bremen, Ohio, Aug. 27, 77. B.S. (Agr), Ohio State, 01; M.S, New Hampshire, 02. Asst. entom. and zool, New Hampshire, 01–03; prof, Agr. and Mech. Col. Texas, 03–07; Clemson Col, 07–24; entomologist, South. States Chem. Co, 24–29; *consulting specialist plant growth problems, 29–* State entomologist, Texas, 03–07. Asn. Econ. Entom. (sec'y, 12–24). Economic entomology; strongyloid parasites; insecticides; temperature and moisture in relation to insect activity; manufacturing of insecticides and fungicides.

Conrey, Prof. Guy W(oolard), Ohio State University, Columbus, Ohio. *Agronomy.* Northboro, Iowa, Dec. 10, 87. A.B, Michigan, 08, A.M, 09; Ph.D, Ohio State, 21. Asst. physical chem, Michigan, 08–09; div. soils, Wis. Geol. and Nat. Hist. Surv, 09–17, chemist, 10–17; instr. soils, Wisconsin, 14–17; *agron, Ohio State,* 17–21, asst. prof, 21–26, assoc. prof, 29–37, *prof, 37–, assoc. in charge state soil surv, 25–,* asst, Exp. Sta, 17–25. A.A; Soc. Agron; Soil Sci. Soc. (pres, 25); Asn. Geog; Am. Geog. Soc; Soc. Foresters; Geophys. Union; fel. Ohio Acad; Int. Soc. Soil Sci. Soil surveying; land utilization; soil conservation.

Conroy, Prof. Charles C(lifford), 2111 Fifth Ave, Los Angeles, Calif. *Astronomy.* Denver, Colo, Nov. 26, 81. A.B, St. Vincent's Col, 05, A.M, 07, hon. Sc.D, 11; Ph.D, Loyola, 19. Instr. astron, St. Vincent's Col, 05–11; lecturer meteorol. and astron, 11–26; *prof.* astron, Los Angeles Col, 26–31; *hist,* Immaculate Heart Col, 31–34; *Loyola (Calif), 34–* A.A; Meteorol. Soc; Royal Astron. Soc. Can; British Astron. Asn; Royal Astron. Soc; Soc. sci. de Bruxelles. Variable stars; meteorology; causes and occurrence of thunderstorms in California; history of astronomy and meteorology.

Conroy, Prof. Peter J(oseph), 410 Scarsdale Road, Crestwood, N. Y. *Pharmaceutical chemistry, Experimental pharmacology.* Watervliet, N. Y, Oct. 26, 94. Ph.G, Fordham, 17, B.S, 26, M.S, 27, Ph.D, 29; N. Y. Univ, 21–23; A.M, Columbia, 40. Instr. biol, Fordham, 19–21; pharmacol, Univ. and Bellevue Hosp. Med. Col, 22–23; from instr. to prof. *chem, Fordham,* 24–27, *in charge dept, col. pharmacy, 27–* Asst. prof, N. Y. Homeop. Med. Col, 29; lecturer, Teachers Col, Fordham, 24– Pharmaceut. ed, 'Chain Store Age,' 42– A.A; Chem. Soc; fel. Inst. Chem; Pharmaceut. Asn; fel. Am. Geog. Soc; N. Y. Pharmaceut. Asn; N. Y. Acad. Preparation and germicidal action of certain resorcinol derivatives.

Conselman, Dr. Frank B(uckley), 144 N. Clifton Ave, Wichita, Kans. *Petroleum geology.* New York, N. Y, Oct. 1, 07. B.S, N. Y. Univ, 30, M.S, 31; Gregory scholar, Missouri, 32, Ph.D, 34. Asst. geol, N. Y. Univ, 30–31; Missouri, 31–32, 33–34; geologist, Mo. Geol. Surv, 34–35; Gulf Oil Corp, 35–41; capt, *Air Corps, U. S. Army,* 41–42, *major, 42–* A.A; Asn. Petrol. Geol; N. Mex. Geol. Soc. (treas, 36, sec'y, 37); Mo. Acad; Kans. Geol. Soc. Sedimentary petrography; economic geology.

Constable, Dr. E(rnest) W(illiam), State Department of Agriculture, Raleigh, N. C. *Chemistry, Biology.* Richmond, Va, Oct. 7, 93. B.S, N. C. State Col, 21; M.S, North Carolina, 23, Ph.D, 34. Junior chemist, U. S. Civil Service, 18; chemist, food and oil div, State Dept. Agr, N. C, 23–26, chemist and biologist, State Board Health, 27–30; instr. chem, North Carolina, 30–34; fellow, med. sch, Duke, 35; *assoc. state chemist, State Dept. Agr, N. C, 36–* Biologist, U. S. Pub. Health Service, 28. Chem. Soc; Elisha Mitchell Sci. Soc; N. C. Acad. Toxicology; organic preparations; methods, preparation and analysis; solubility behavior; mosquito breeding and control; insecticides; design and construction of scientific equipment.

Constance, Prof. Lincoln, University of California, Berkeley, Calif. *Botany.* Eugene, Oregon, Feb. 16, 09. A.B, Oregon, 30; A.M, California, 32, Ph.D, 34. Instr. *bot.* and curator herbarium, State Col. Wash, 34–36, *asst. prof,* 36–37; *California, 37–* Soc. Plant Taxon; Torrey Bot. Club; Calif. Bot. Soc. Systematic botany of Spermatophytes; phylogeny; geographic distribution.

Constant, Prof. F(rank) H(enry), Princeton University, Princeton, N. J. *Civil engineering.* Cincinnati, Ohio, July 25, 69. C.E, Cincinnati, 91, Ph.D, 15; Ph.D, Lafayette Col, 15. Asst. engineer, King Bridge Co, 91–93; engineer, Osborn Eng. Co, 93–95; asst. prof. struct. eng, Minnesota, 95–97, prof, 97–14; prof. *civil eng.* and head dept, *Princeton,* 14–37, *emer. prof, 37–* Consulting engineer. Civil Eng; Eng. Educ. (councilor, 09–12, v. pres, 15). Structural engineering.

Constant, Prof. F(rank) Woodbridge, Duke University, Durham, N. C. *Physics.* Minneapolis, Minn, June 1, 04. B.S, Princeton, 25; Sloane fellow, Yale, 25–26, Loomis fellow, 26–28, Ph.D, 28. Nat. research fellow *physics,* Calif. Inst. Tech, 28–30; instr, *Duke,* 30–33, asst. prof, 34–42, *assoc. prof, 42–, mem. project, Nat. Defense Research Cmt.* Research student, Cambridge, 33–34. A.A; Physical Soc; N. C. Acad. Magnetic hysteresis; fundamental nature of ferromagnetism.

Constantinides, Prof. Philip A, 5564 W. Monroe St, Chicago, Ill. *Physics.* Athens, Greece, 96. B.S, Carnegie Inst. Tech, 18; M.S, Chicago, 21, Ph.D, 27. Instr. *physics,* Wright City Junior Col, 27–34, prof, 34–43; *asst. prof, Chicago, 43–* Asst, Chicago; Westinghouse Elec. and Mfg. Co; Gary Junior Col. A.A; Physical Soc; Asn. Physics Teachers; Ill. Acad. Electrical properties and nature of active nitrogen.

Constantinople, Dr. P(anagiotes) S(tavros), 1801 Eye St, Washington, D. C. *Medicine.* Arcadia, Greece, June 27, 01. St. John's Col; M.D, Georgetown, 23. Assoc. physiol, *sch. med, Georgetown,* 23–25, instr. otolaryngol, 26–29, prof. physiol, 29–30, *assoc. clin. prof. otolaryngol, 30–* Decorated, Order of the Holy Sepulchre, 25. Fel. Col. Surg; Acad. Otolaryngol; Pan-Am. Med. Asn; Int. Med. Club (sec'y, 28–41, pres, 41–43). Otolaryngology.

Converse, Prof. Henry A(ugustus), Madison College, Harrisonburg, Va. *Mathematics.* Louisville, Ky, June 3, 75. A.B, Hampden-Sydney Col, 93; Ph.D, Hopkins, 03. Instr. math, Shenandoah Valley Acad, Va, 93–99; asst, Hopkins, 02–03, instr, 03–04; Baltimore Polytech, 04–06, head

dept, 08–18; prof. math. and physics and dean faculty, Davis and Elkins Col, 06–08; head master, St. Paul's Sch, Baltimore, 18–19; *prof. math*, Va. State Teachers Col, Harrisonburg, 19–38, *Madison Col, 38–*, registrar, 19–38. Math. Soc. Modern geometry; the teaching of elementary mathematics.

Converse, H(enry) T(homas), U. S. Department of Agriculture, Beltsville, Md. *Dairy husbandry.* Amherst, N. H, April 27, 89. B.S, New Hampshire, 10; A.M, American Univ, 28. Dairy herdsman, New Hampshire, 09–10; commercial dairying, 11–14; dairy exten, U. S. Dept. Agr. and Clemson Col, 15–19; research in dairy cattle feeding and management, *bur. dairy indust, U. S. Dept. Agr*, 19–25, *assoc. dairy husbandman nutrition of dairy cattle, 26–* Nutrition of dairy cattle.

Conway, Prof. W(illiam) J(ohn), 207 Johnson Ave, Teaneck, N. J. *Chemistry.* Holyoke, Mass, July 29, 01. B.S, Notre Dame, 26; A.M, Columbia, 28; Ph.D, Fordham, 35. Asst, Notre Dame, 24–26; instr, prep. sch, N. Y, 27–30; instr. *chem, Fordham*, 30–32, asst. prof, 32–35, *assoc. prof, 35–* Trustee, schs, Teaneck, N. J, 40– Chem. Soc. Detoxication of organic compounds by the animal body; methods of teaching general chemistry; physiology of pyrimidines.

Conwell, Prof. G(eorge) M(acfeely), St. Paul's School, Concord, N. H. *Mathematics.* Vineland, N. J, June 7, 83. A.B, Princeton, 05, A.M, 06, Ph.D, 08. Instr. math, Yale, 08–15; asst. prof, N. Y. State Col. Teachers, Albany, 15–25, prof, 25–27; *master, St. Paul's Sch, 27–* A.A; Math. Soc; Math. Asn. Groups.

Conwell, Prof. H(ermon) H(enry), Beloit, Wis. *Mathematics.* Topeka, Kans, April 18, 86. B.S, Kans. State Col, 07; M.S, Kansas, 15; Ph.D, Wisconsin, 32. Assoc. prof. *math*, New Mexico, 08–13; instr, Kansas, 13–15; assoc. prof, Idaho, 15–20; *prof, Beloit Col, 20–, dean, 35–* A.A; Math. Soc; Math. Asn. Linear algebras of infinite order.

Conwell, Dr. H(ugh) Earle, 214–222 Medical Arts Bldg, Birmingham, Ala. *Orthopedic surgery.* Oakman, Ala, Dec. 29, 93. M.D, Alabama, 15. *Consulting orthop. surgeon, Employees Hosp; Tenn. Coal, Iron and R. R. Co; Cast Iron Pipe Co.* Visiting orthopedic surgeon, St. Vincent's Hosp, South Highlands Infirmary; Baptist Hosp; Hellman Hosp; assoc. surg. director, Crippled Children's Clinic, Birmingham. Capt, M.C, U.S.A, 17–19, lieut. commander, U.S.N.R. Am. Med. Asn; Col. Surg; Orthop. Asn; Am. Acad. Orthop. Surg; Clin. Orthop. Soc. (sec'y, 37–; pres, 40); South. Surg. Asn; South. Med. Asn. Management of fractures, dislocations and sprains; the injured spine; fractures of the chest, shoulder and pelvis; fractures of the femur in children and adults; compressed fractures of the spine; backache; compound fractures of the tibia and fibula.

Cook, Prof. Alexander J(oseph), University of Alberta, Edmonton, Alta, Can. *Mathematics.* Alva, Scotland, June 26, 96. B.Sc, Alberta, 20; A.M, Harvard, 23; Ph.D, Chicago, 29. Lecturer *math, Alberta*, 24–27, asst. prof, 27–30, *assoc. prof, 30–* Math. Soc. Geometry.

Cook, Dr. A(rthur) Stanley, 766 Côte St, Catherine Road, Outremont, Que, Can. *Biochemistry.* St. John, N. B, April 10, 05. B.A, Dalhousie, 26, M.A, 27; Nat. Research Council Can. bursar, Toronto, 28–29, student, 29–30, fellow, 30–31, Ph.D, 31. Chemist, Nat. Fish Co, Ltd, Halifax, 26–28; biochemist and *director research and biol. labs, Ayerst, McKenna and Harrison, Ltd, Montreal, 31–* Summers, asst, Atlantic Fisheries Exp. Sta, 29, 30. A.A; Pub. Health Asn; Soc. Chem. Indust; Chem. Soc; Can. Physiol. Soc; Biochem. Soc. Gt. Britain. Trimethylamine oxide in fish muscle; smoking of fish; metabolism of glucosamine; production of and bioassay methods for vitamins and hormones.

Cook, Prof. B(essie) B(urkdoll), Division of Home Economics, University of California, Berkeley, Calif. *Nutrition.* Rantoul, Kans, March 24, 98. B.S, Kans. State Col, 20; A.M, California, 37, Ph.D, 41. Teacher, high sch, Kans, 20–21; teaching asst. nutrition, California, 36–40; asst. prof, Tennessee, 40–41; *asst. prof. home econ, California, and asst. biochemist, Exp. Sta, 41–*

Cook, Dr. Charles A(tkinson), Lambert Pharmacal Co, St. Louis, Mo. *Medical biochemistry.* Newburyport, Mass, Sept. 28, 05. B.S, New Hampshire, 27; M.S, Yale, 30, Ph.D, 31. U. S. Forest Service, 25; asst. physiol. chem, Yale, 28–30, med. sch, 28–29, asst. instr, 29–31; research biochemist, exp. research labs, Burroughs Wellcome and Co, 31–42; *med. biochem. dept, research labs, Lambert Pharmacal Co, 42–* A.A; Chem. Soc; Soc. Exp. Biol; N. Y. Acad. Protein and amino acid chemistry; physiological chemistry of vitamins and pituitary hormones.

Cook, Dr. Cha(rle)s G(ilpin), 227A Monroe St, Brooklyn, N. Y. *Chemistry.* Glenville, Md, Nov. 25, 66. B.S, Haverford Col, 92, A.M, 93; Ph.D, Hopkins, 98. Instr, Bridgewater Col, 93–94; prin, Aurora Acad, 94–95; instr. chem, Boys' High Sch, Brooklyn, 99–37. Chemist, Mathi, Inghram and Co, Baltimore; asst, Haverford Col. Practical chemistry; double halides of tin with aliphatic amines; new type questions in chemistry.

Cook, Prof. David L(ivingstone), 1515 Wright St, Siloam Springs, Ark. *Physics.* Forest City, Iowa, June 15, 85. A.B, Willamette, 16; Berlin, 22–23; A.M, Minnesota, 32. Prof. physics, East. State Teachers Col, S. Dak, 25–29; instr. physics and chem, Canton Christian Col, 17–22; assoc. prof. *physics*, Wheaton Col. (Ill), 29–34; *prof, John Brown Univ, 34–* Physical Soc; Asn. Physics Teachers. Extraction of polonium from radioactive compounds.

Cook, Dr. David W(arren), 114 W. 13th St, New York, N. Y. *Industrial psychology.* Yarmouth, N. S, Can, Oct. 11, 04. A.B, Idaho, 28, M.S, 29; Ph.D, N. Y. Univ, 35. Psychologist, West. Elec. Co, Kearny, N. J, 30–32; training supervisor, R. H. Macy and Co, 32–33; supervisor indust. testing, State Employment Service, N. Y, 33–36; *psychologist, West. Elec. Co, 36–* Lecturer, Stevens Inst. Tech, 38–39. Psychol. Asn; N. J. Asn. Psychol. Psychological test construction and development as applied to the industrial field.

Cook, Prof. D(onald) H(unter), Columbia University School of Tropical Medicine, San Juan, P. R. *Chemistry.* White Sulphur Springs, Mont, Aug. 15, 91. B.S, Mont. State Col, 17; A.M, Columbia, 22, Ph.D, 23. Asst. prof. *chem*, N. Mex. Col, 17–20; Mont. State Col, 24–25; *assoc. prof, Columbia Sch. Trop. Med, Puerto Rico, 25–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Food chemistry; temperature coefficients of enzymic activity; the heat destruction of pancreatic and malt amylases; vitamin content of food; a new plant source of vitamin A; photoelectric determination of gelatinization temperature of starches.

Cook, Dr. E(lmer) W(illiam), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* Buckner, Ark, Aug. 25, 09. B.S, Arkansas, 30; M.S, Ohio State, 31, Ph.D, 33. Asst. chem, Ohio State, 30–33; chemist, Commercial Solvents Corp, Terre Haute, Ind, 33; org. chemist, pure research dept, Merck and Co, Rahway, N. J, 33–36; Tide Water Oil Co, Bayonne, 33–40; *head petrol. chem. sect, Am. Cyanamid Co, 40–* Electroorganic and electrolytic reduction of organic compounds; synthetic carbohydrate chemistry; antioxidants and additives for petroleum products; stabilization of gasoline and lubricating oil.

Cook, Prof. Elton S(traus), 1840 Madison Road, Cincinnati, Ohio. *Chemistry.* Oberlin, Ohio, Dec. 24, 09. A.B, Oberlin, 30; Ph.D, Yale, 33. Asst. chem, Yale, 30–33, hon. fellow, 33–34; research chemist, Wm. S. Merrell Co, 34–37; *research prof. chem, Institutum Divi Thomae, 37–; consultant, War Production Board, 42–* A.A; Pharmaceut. Asn; Biochem. Soc; fel. Inst. Chem; Chem. Soc; Hist. Sci. Soc; London Chem. Soc. Chemistry of medicinal products; synthesis and pharmacology of local anesthetics; biochemistry; cellular metabolism.

Cook, Prof. Ernest Fullerton, Copple's Lane, Swarthmore, Pa. *Pharmacy.* Lionville, Pa, Feb. 1, 79. Pharm.D, Phila. Col. Pharmacy, 00, Pharm.M, 18; Berne, 26–27; hon. M.S, Michigan, 37. *Teacher, Phila. Col. Pharmacy, 00–, prof. operative pharmacy and director labs. and business admin, 18–* Mem. revision cmt, Nat. Formulary, 08; chairman revision cmt, U. S. Pharmacopoeia, 20, 30, 40. Co-editor, 'Remington's Practice Pharmacy,' 26, 36, 43. Remington medal, 31. Cmt. on galenicals, Int. Conf. for Unification of Potent Remedies, Brussels, 25; mem. int. cmn. pharmacopoeial experts, League of Nations. Director, U.S.N. Training Sch. for Pharmacists, Phila, 17–18. A.A; Pharmaceut. Asn; Int. Pharmaceut. Federation.

Cook, Prof. E(ugene) W(ilbur), Jr, 448 W. Lexington Ave, Danville, Ky. *Bacteriology.* Danville, Ky, Jan. 1, 02. A.B, Centre Col, 23; A.M, Ohio State, 25; Chicago; Cincinnati; Cold Spring Harbor Biol. Lab. Asst. serol, Dept. Health, Columbus, Ohio, 25–26; asst. prof. *biol, Centre Col*, 26–28, *assoc. prof, 28–* A.A; Soc. Bact; Genetic Asn; Ky. Acad. Bacterial variations; anaerobes.

Cook, Dr. Evelyn V(anderwilt), Ardentown, R. 3, Wilmington, Del. *Chemistry.* Oskaloosa, Iowa, Jan. 3, 05. A.B, Penn Col. (Iowa), 25; A.M, Bryn Mawr Col, 27; Ph.D, Iowa, 42. Research assoc, Iowa, 41–42; *research chemist, Hercules Powder Co, 43–* Ultra-violet absorption spectrophotometry; spectroscopy.

Cook, Dr. G(erhard) A(lbert), Linde Air Products Co, E. Park Drive and Woodward Ave, Tonawanda, N. Y. *Physical and inorganic chemistry.* Berea, Ky, May 2, 07. B.S, Michigan, 28, M.S, 33, Ph.D, 35. Teacher chem, high sch, Mich, 28–31; asst, Hopkins, 31–32; Michigan, 32–35; instr, Case, 35–37; *research chemist, Linde Air Products Co, 37–* Chem. Soc. Photochemistry; kinetics; soap films; oxygen.

Cook, Prof. Graham, Albright College, Reading, Pa. *Physical chemistry.* Yoakum, Texas, Oct. 28, 00. A.B, Baylor, 22; fellow, Vanderbilt, 23–24, M.S, 24; Ph.D, Columbia, 28. Instr, high sch, Texas, 22–23; prof. *chem,* Hendrix Col, 24–25; asst, Columbia, 25–28, instr, 28–29; *prof, Albright Col, 29–* Chem. Soc. (chairman, Lehigh Valley sect, 41); Reading Chem. Club (pres, 30). Electrochemistry; theories of solutions; solutions of electrolytes; dyes and dyeing; textiles.

Cook, Harold J(ames), Agate, Nebr. *Vertebrate paleontology, Geology.* Cheyenne, Wyo, July 31, 87. Nebraska, 07–08; Columbia, 09. Nebr. Geol. Surv, 06–26; *director, Cook Museum Nat. Hist.* Field staff, Am. Museum Nat. Hist, 09; hon. curator, Colo. Museum Nat. Hist, 24–28, curator, 28–30, supervisor educ. and exten. service, 29–30; custodian, Scotts Bluff Nat. Monument, 34–35. Lecturer, Nebr. State Nor. Col, Chadron, 25–26; West. State Col. Colo, 29. A.A; Paleont. Soc; Soc. Econ. Paleont. and Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Mammal; Forestry Asn; hon. mem. Am. Mus. Nat. Hist; Archeol. Inst; Nebr. Acad; Colo-Wyo. Acad; hon. mem. Texas Archeol. and Paleont. Soc; Southwest. Colo. Archeol. Soc. New fossil vertebrates; Tertiary geology; new evidences of prehistoric man in America.

Cook, Dr. Harold T(hurston), Virginia Truck Experiment Station, Norfolk, Va. *Plant pathology.* Greencastle, Ind, Nov. 15, 03. A.B, DePauw, 26; fellow, Cornell, 26–30, Ph.D, 31. *Plant pathologist, Va. Truck Exp. Sta, 30–; lieut, U. S. Naval Res, 43–* Collaborator, U. S. Dept. Agr. A.A; Phytopath. Soc; Mycol. Soc; Va. Acad. Diseases of vegetable crops; vegetable seed treatments; vegetable breeding for disease resistance.

Cook, Howard L(ee), 5905 Wilson Lane, Bethesda, Md. *Natural sciences.* Oxford Junction, Iowa, Aug. 13, 05. B.S, Iowa, 29. Asst. to Robert E. Horton, Voorheesville, N. Y, 29–34; head sect. hydraulics, soil conservation service, *U. S. Dept. Agr,* 34–40, *tech. adviser hydrol, office land use coordination, 40–* Geophys. Union; Meteorol. Soc; Soc. Mil. Eng; Civil Eng; Mech. Eng; Iowa Acad. Hydrology; hydraulics; flood control.

Cook, Dr. Hunter S(ummers), 153 Wilson Ave, Manoa, Pa. *Pathology.* Philadelphia, Pa, Oct. 7, 03. B.S, Hahnemann Med. Col, 27, M.D, 28. Instr. *path, Hahnemann Med. Col,* 29–32, assoc, 32–36, *assoc. prof, 36–,* instr. med, 29–38. Asst. pathologist, Hahnemann Hosp, 35–; pathologist, Womens Homeopath. Hosp, Phila, 36–; asst. pathologist, Phila. Gen. Hosp, 37–; pathologist, Homeopath. Hosp, Chester Co, 38– Mem. Am. Board Path, 40–41. Am. Med. Asn; Pa. State Homeopath. Soc; Path. Soc. Phila.

Cook, Dr. (James) Emory, Johns Hopkins University, Silver Spring, Md. *Theoretical physics.* Terrell Co, Ga, Dec. 13, 15. B.S, Chicago, 36, Ph.D, 40. Chemist, Peoples Gas Light and Coke Co, Chicago, Ill, 36–40; asst. prof. physics, Memphis State Col, 40–41; instr, Va. Polytech, 41–42; *physicist, Hopkins, 42–* Summer, asst. prof, Va. Polytech, 42. Physical Soc; Va. Acad. Superconductivity.

Cook, Prof. Lawrence H(arvey), Box 696, Menlo Park, Calif. *Chemistry.* Paterson, N. J, Sept. 23, 96. A.B, Stanford, 21, A.M, 22; Ph.D, Santa Clara, 31. *Prof. chem. eng, Santa Clara, 27–* Lieut, U.S.N.R. Chem. Soc; Electrochem. Soc; Water Works Asn; Sewage Works Asn; Calif. Sewage Works Asn; British Soc. Chem. Indust; London Chem. Soc. Chemistry of water.

Cook, Dr. Louis B(ertram), 1920 McKinney Ave, Dallas, Texas. *Organic chemistry.* Providence, R. I, Aug. 12, 06. B.S, Brown, 29; A.M, Duke, 32, Ph.D, 33. Chemist, Jackson lab, E. I. du Pont de Nemours and Co, 29–30; Neon Research Corp, 34–36; junior chemist, fertilizer works, Tenn. Valley Authority, 37–38; *research chemist, Magnolia Petrol. Co, 38–* Chem. Soc. Fluorination of organic compounds; calcination of rock phosphate; hydrocarbon research.

Cook, Dr. Mel(ville) T(hurston), 255 Barnard Road, Norfolk, Va. *[*3]Plant pathology.* Coffeen, Ill, Sept. 20, 69. A.B, Stanford, 94; A.M, DePauw, 01, hon. Sc.D, 40; fellow, Ohio State, 01–02, Ph.D, 04; hon. Sc.D, Puerto Rico, 40. Prin, high sch, Ill, 94–95; instr. biol, DePauw, 95–97, prof, 97–04; plant pathologist, Cuban Exp. Sta, Santiago, 04–07; Del. Exp. Sta, 07–11; prof. plant path, Rutgers, and plant pathologist, N. J. Exp. Sta. and State Dept. Agr, 11–23; Insular Exp. Sta, Rio Piedras, 23–40, v. director, 27–40; *retired.* Lecturer, Cent. Col. Physicians and Surg, Indianapolis, 02–03; Med. Col. of Ind, 03–04; Columbia Sch. Trop. Med, Puerto Rico, 26– Ed, 'Jour,' Dept. Agr, P.-R, 27– A.A. (v. pres, 21, sec'y, G, 18–20, chairman, 21); Soc. Nat; Bot. Soc; Phytopath. Soc. (v. pres, 16, pres, 17); Asn. Econ. Entom; Entom. Soc; Ecol. Soc; N. J. Sci. Teachers Asn. (pres, 20–22); Ind. Acad. Plant morphology and embryology; vegetable galls; tannin; mosaic and other plant diseases; diseases of tropical plants.

Cook, Dr. O(rator) F(uller), Lanham, Md. *[*1]Biology.* Clyde, N. Y, May 28, 67. Ph.B, Syracuse, 90, hon. Sc.D, 30. Instr, Syracuse, 90–91; special agent for State Colonization Soc, N. Y, Liberia, 91–98; *U. S. Dept. Agr,* 98–01, botanist for trop. agr, 01–09, bionomist in charge acclimatization and adaptation investigations, 09–29, *prin. botanist, 29–* Asst. curator and custodian, U. S. Nat. Museum; botanist, Fairchild Trop. Garden, Fla, 37. A.A; Bot. Soc; Asn. Geog; Biol. Soc. Wash; Entom. Soc. Wash; Anthrop. Soc. Wash; Bot. Soc. Wash; Wash. Acad. Tropical agriculture; African colonization; taxonomy; evolution; Myriapoda; palms; origins and histories of tropical economic plants; heredity; acclimatization and adaptation, especially of cotton, corn and rubber-producing plants.

Cook, Dr. R(ay) L(ewis), 1240 Climax St, Lansing, Mich. *Soils.* Okemos, Mich, March 10, 04. B.S, Mich. State Col, 27, M.S, 29; fellow, Wisconsin, 32–33, Ph.D, 34. Asst. *soils, Mich. State Col,* 27–29, *research asst,* 29– Plant sap relations; base exchange and phosphorus availability.

Cook, Dr. Richard K(aufman), Apt. 554, 1510 S. Edgewood St, Arlington, Va. *Physics.* Chicago, Ill, June 30, 10. B.S, Illinois, 31, M.S, 32, Ph.D, 35. Asst. physics, Illinois, 30–35; assoc. physicist and later *physicist, Bur. Standards, 35–* Theoretical physics; acoustics.

Cook, Robert (Carter), American Genetic Association, 1108 16th St, N. W, Washington, D. C. *Genetics.* Washington, D. C, April 9, 98. Maryland, 21–23. Sci. aid aeronautics, Bur. Standards, 16–19; disciplinarian, Tucson Indian Sch, 20–21; *managing ed, 'Jour. of Heredity,' 22–* Treas, Int. Genetics Cong, 32. Eugenics Soc. (director, 38–); Popul. Asn; Genetic Asn; Genetics Soc; Bot. Soc. Wash. Lucidity of the genetic written word.

Cook, Prof. Rolla V, 25 Day St, Fredonia, N. Y. *Physical science.* New Lancaster, Ind, Feb. 22, 91. A.B, Indiana, 21, A.M, 22, Ph.D, 31. Asst. physics, Indiana, 21–23; prof. and head dept, Bethany Col. (W. Va), 23–33; visiting lecturer physics and elec. eng, Ohio (Athens), 36–37; instr. and asst. prof. physics and astron, Ft. Hays Kans. State Col, 41–42; instr. and *asst. prof. physical science, N. Y. State Teachers Col, Fredonia, 42–* Summer, instr, Indiana, 29. Formation of striae in a Kundt's tube; rotator accessory for showing by analogy the apparent deflection of a projectile due to the rotation of the earth; formation of nodes and loops on a weighted cord by means of a rotator.

Cook, Prof. R(oy) H(erbert), South Dakota School of Mines, Rapid City, S. Dak. *Mathematics.* Marshalltown, Iowa, July 9, 11. B.S, Iowa State Col, 34, M.S, 36, Ph.D, 40. Instr. *math,* S. Dak. Sch. Mines, 36–37; Iowa State Col, 37–40; Pa. State Col, 40–42; *asst. prof, S. Dak. Sch. Mines, 42–* Math. Soc. Temperature coefficients of frequency of aeolotropic plates; errors in the approximation of functions by the use of functionals.

Cook, Prof. Roy S(elden), Mary Washington College, Fredericksburg, Va. *Physical chemistry.* Batesville, Va, Sept. 1, 90. B.S, Virginia, 14, M.S, 15, Ph.D, 25. Instr, high sch, Va, 13–15, prin, 15–16; instr, Miller Sch, Va, 21–22; *chem,* Va. State Teachers Col, Fredericksburg, 16–18, *prof. and head dept,* 25–38, *Mary Washington Col, 38–* U.S.A, 18–19. A.A; Chem. Soc; Inst. Chem; Va. Educ. Asn; Va. Acad. The free energy of nickel oxide.

Cook, Prof. Russell J(ackson), P. O. Box 1214, Kingsville, Texas. *Agriculture.* Isola, Miss, Feb. 27, 97. B.S, Arizona, 24; M.S, Colo. Agr. Col, 27. Teacher vocational agr, indust. sch. dist, Pampa, Texas, 24–25, Perryton, 25–28; *prof. agr. and director div, Texas Col. Arts and Industries, 28–* Texas Acad. Animal breeding.

Cook, Dr. S(amuel) R(ichard), 1358 47th St, Sacramento, Calif. *Experimental physics.* Minden, Ont, Can, Feb. 14, 65. B.S, Michigan, 95, M.S, 97; fellow, Nebraska, 97–99, A.M, 98; fellow, Cornell, 04–05, Ph.D, 05; Berlin, 06–07. Prin, high sch, Nebr, 99–01; instr. physics and chem, Washburn Col, 01–02; physics, Case, 02–04; prof. physics and astron, Allegheny Col, 05–06; physics and math, Col. of Pacific, 07–22, physics and astron, 22–33; *retired.* Consulting refrigeration and conditioning engineer, 37– A.A; Physical Soc; Nebr. Teachers Physics and Chem. (pres, 99). Escape of gases from planetary atmospheres; flutings in sound waves; the electric rectifier; velocity of sound at the temperature of liquid air; a radiant energy theory of primary, secondary and characteristic x-rays; heat, in theory and practice essential to refrigeration and air conditioning; relativity; an electromagnetic theory of vision and color.

Cook, Prof. S(herburne) F(riend), University of California, Berkeley, Calif. *Physiology.* Springfield, Mass, Dec. 31, 96. A.B, Harvard, 19, A.M, 23, Ph.D, 25. Instr, Harvard, 25–26; nat. research fellow, 26–28; asst. prof. *physiol, California,* 28–31, assoc. prof, 31–42, *prof, 42–* Soc. Exp. Biol. Biological oxidation; metabolism of cold-blooded vertebrates; tissue respiration.

Cook, Prof. Sidney A(lbert), Hillcrest, River Road, New Brunswick, N. J. *Psychology.* New Haven, Conn, July 2, 92. A.B, Yale, 15, fellow, 19–21, A.M, 21; Cornell, 15–16; Ph.D, Columbia, 28. Instr. *psychol, Rutgers,* 22–26, asst. prof, 26–28, assoc. prof, 29–31, *prof, 31–, head dept. philos. and psychol, N. J. Col. for Women, 29–* Lecturer, Middlesex Gen. Hosp; psychol. clinician, schs, New Brunswick. A.A; assoc. Psychol. Asn; Genetic Asn; Acad. Polit. and Social Sci; N. Y. Acad. Educational tests and measurements; mental hygiene; abnormal psychology.

Cook, S(idney) J(abez), 140 Broadway Ave, Ottawa, Ont, Can. *Chemistry.* Owen Sound, Ont, March 22, 89. Fellow, B.A, Toronto, 14; M.A, Ottawa, 36. Dom. analyst, food and drug labs, Dept. Inland Revenue, and later, Dept. Trade and Commerce, Can, 15–18; chief mining, metal. and chem. branch, Dom. Bur. Statist, 19–30; research investigator, *Nat. Research Council Can, 30–38, officer in charge research plans and publications sect, 38–; sec'y, War Inventions Board, 39–; exec. sec'y, Naval, Army and Aviation Med. Research Cmts, 42–* Past hon. sec'y, Professional Inst. Civil Service Can. Gen. sec'y and ed, Pacific Science Cong, Can, 33; sec'y, Can. delegation, British Commonwealth Sci. Conf, London, 36. Chem. Soc. (Can. cor); Soc. Chem. Indust. (hon. sec'y, Ottawa sect, 20–25); fel. Can. Inst. Chem. (past councilor, chairman, Ottawa sect, 26); assoc. Inst. Chem. Ct. Britain and Ireland. Economic chemistry; utilization of Canadian natural resources; chemical standards; research intelligence.

Cook, Commander S(terling) S(mith), U. S. S. Relief, c/o Postmaster, New York, N. Y. *Preventive medicine.* La Crosse, Va, May 7, 93. A.B, Richmond Col, 12; M.D, Med. Col. of Va, 17; Dr.P.H, Hopkins, 34. Instr. trop. med. and parasitol, Naval Med. Sch, 32–34, prev. med, 32–36; *commander, Med. Corps, U. S. Navy.* Assoc, Georgetown, 32–35; lecturer, Southern California, 36–37. Chairman, Nat. Malaria Cmt, 31. A.A; Am. Med. Asn; Soc. Trop. Med. (exec. council, 33–); fel. Pub. Health Asn; fel. Col. Physicians; South. Med. Asn. Malaria control; communicable diseases in the United States Navy.

Cook, Dr. Stuart W(ellford), Bureau for Psychological Service, St. Paul, Minn. *Psychology.* Richmond, Va, April 17, 13. A.B, Richmond, 34, A.M, 35; Ph.D, Minnesota, 38. Lab. asst. psychol, Richmond, 34–35; teaching asst, Minnesota, 35–38, clin. psychologist and instr. psychol, 38–41; *head, Bur. Psychol. Service, 41–* Assoc. Asn. Mental Deficiency; Orthopsychiat. Asn; fel. Asn. Applied Psychol; assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; Federation Teachers. Experimental neurosis; attitude measurement; clinical psychology.

Cook, Dr. Thomas H(enry), 8153 Sangamon St, Chicago, Ill. *Organic chemistry.* East St. Louis, Ill, July 3, 15. B.S, Illinois, 36; Ph.D, Iowa State Col, 40. *Research chemist, Nat. Casein Sales, 40–* Chem. Soc. Casein.

Cook, Prof. T(homas) W(illiam), 100 St. George St, Toronto, Ont, Can. *Psychology.* Murray River, P. E. I, Jan. 12, 96. B.A, Acadia, 25, M.A, 26; Ph.D, Yale, 29. Asst. *psychol,* inst. psychol, Yale, 28–29; assoc. prof, Acadia, 29–30, prof, 30–41; *assoc. prof, Toronto, 41–* Can. Psychol. Asn. (director, 39–42; asst. ed, 'Bul,' 40–42; sec'y, war research cmt, 41–). Psychology of learning; dark adaptation.

Cook, Prof. Walter A(ndrew), University of Akron, Akron, Ohio. *Chemistry.* Hamilton, Ohio, June 15, 96. A.B, Cincinnati, 21, A.M, 22, Ph.D, 24; N. Y. Univ, 39; Cornell, 40. Instr. *chem,* Cincinnati, 22–26; *Akron,* 26–27, asst. prof, 27–33, *prof. and head dept, 33–* Capt, C.W.S. A.A; Chem. Soc; fel. Inst. Chem. Hydroxamic acids and related derivatives; diphenyl benzene derivatives; quantitative determination of nuclear linked halogens; organic binary systems.

Cook, Prof. Walter W(ellman), 2157 Knapp St, St. Paul, Minn. *Educational psychology.* Oakville, Iowa, July 19, 99. A.B, Iowa, 23, A.M, 26, Ph.D, 31. Supt. schs, Hazleton, Iowa, 23–29; asst, Nat. Advisory Cmt. on Educ, 30; Iowa, 31; director teacher training, East. Ill. State Teachers Col, 31–38; *assoc. prof. educ, Minnesota, 38–* Summers, asst. prof, Chicago, 32, 33, 36; Pennsylvania, 38. Psychol. Asn; Soc. Study Educ; Educational Research Asn. Measurement of general spelling ability involving controlled comparisons between techniques; techniques of test evaluation; prediction of success; some effects of the maintenance of high standards of promotion; effects of school failure on achievement and personality.

Cook, Prof. W(endell) B(urnham), University of Connecticut, Storrs, Conn. *Chemistry.* Millis, Mass, May 27, 04. B.S, Mass. Col, 27; fellow, Iowa State Col, 27–29, Ph.D, 31. Asst, Iowa State Col, 29–31; instr. *chem, Connecticut,* 31–33, asst. prof, 33–39, *assoc. prof, 39–; lieut, Chem. Warfare Service, U. S. Army, 41–* Chem. Soc. Physiological chemistry; growth of yeasts in sugars.

Cook, Dr. William C(armichael), U. S. Department of Agriculture, 425 Santa Rita Ave, Modesto, Calif. *Entomology.* Syracuse, N. Y, Oct. 2, 95. Syracuse, 13–16; B.S, Cornell, 17; M.S, Minnesota, 20, Ph.D, 22. Asst. to state entomologist, Minn, 19–21; asst. entom, Mont. Exp. Sta, 21–23, asst. entomologist, 23–28, assoc. entomologist, 28–30; *entomologist, div. truck and garden crop insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–* Summer, field asst, Pa. State Col, 17. A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc. (ed. board, 'Ecol,' 25–31). Insect ecology; ecological and climatic relations of sugar beet leaf-hopper.

Cook, Dr. W(illiam) H(arrison), National Research Council, Ottawa, Ont, Can. *Biology.* Alnwick, Northumberland, Eng, 03. B.Sc, Alberta, 26, M.Sc, 28; Ph.D, Stanford, 31. Asst. plant biochem, Alberta, 26–30; assoc. research biologist, *Nat. Research Council Can,* 30–41, *director div. applied biol, 41–* Can. Soc. Tech. Agr. Cold storage and refrigeration.

Cook, Dr. W(illiam) S(hley), Louisiana State University, Baton Rouge, La. *Botany, Plant pathology.* Timmonsville, S. C, June 19, 98. B.S, Clemson Col, 19; M.S, Iowa State Col, 22; Ph.D, Chicago, 36. Asst, Clemson Col, 20–21; Iowa State Col, 21–22, instr. bot, 22–23; field asst, bur. entom, U. S. Dept. Agr, 24–25, asst. microscopist, 25–33; *instr. bot, Louisiana, 37–* A.A. Histology; microscopy; effects of the feeding punctures of plant sucking insects on cotton; cytology; chromosome structure; prochromosomes.

Cooke, Dr. C(harles) Montague, Jr, 2859 Manoa Road, Honolulu, Hawaii. *Zoology.* Honolulu, Hawaii, Dec. 22, 74. A.B, Yale, 97, Ph.D, 01. *Malacologist, Bishop Museum, Honolulu, 02–* A.A; London Malacol. Soc. Hawaiian Pulmonata.

Cooke, Dr. C(harles) Wythe, U. S. Geological Survey, Washington, D. C. **6*Geology.* Baltimore, Md, July 20, 87. A.B, Hopkins, 08, fellow, 11–12, Ph.D, 12. *Geologist, U. S. Geol. Surv, 10–* Geologist, Dominican Republic Geol. Surv, 19; Trop. Oil Co, 20. Ed, 'Jour. Paleont,' 37– A.A; Geol. Soc; Paleont. Soc; Geol. Soc. Wash. (sec'y, 23, 24, treas, 31–35, v. pres, 40); Wash. Acad. (ed, 'Jour,' 30, 31, board managers, 32–34). 'Stratigraphy, physiography and paleontology of the Coastal Plain, West Indies, Central America and Mexico; Mississippian of Maryland; coastal terraces; fossil echinoids.

Cooke, Dr. F(rancis) W(est), 907 Seventh Ave, S, St. Cloud, Minn. *Physics.* Gloucester, Va, Sept. 26, 95. A.B,

Col. of William and Mary, 15; M.S, Illinois, 25, Ph.D, 31. Instr. *physics*, N. C. State Col, 21–23; asst, Illinois, 23–31; prof, Agnes Scott Col, 31–33; Presb. Col. (S. C), 34–36; asst. prof, Ill. Col, 37–42; *instr, Minn. State Teachers Col, St. Cloud, 42–* A.A; Physical Soc. Photoelectricity.

Cooke, Dr. Giles B(uckner), The Crown Cork and Seal Co, Baltimore, Md. *Organic chemistry.* Gloucester, Va, Sept. 7, 97. B.S, Col. of William and Mary, 23; fellow, Maryland, 24–25, M.S, 26, Ph.D, 29. Asst. chem, Maryland, 25–29; research chemist, Armstrong Cork Co, Lancaster, Pa, 29–32; instr. chem, Maryland, 32–34; research chemist, *Crown Cork and Seal Co*, 34–40, *asst. director research, 40–* Chem. Soc. Organic syntheses; estimation of atmospheric oxygen; cork and cork products; synthetic resins; chemical process patents and article patents in the closure and container fields; paper and metal coatings.

Cooke, Dr. H(arold) C(aswell), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Baltimore, Ont, April 27, 84. B.A, Toronto, 07, M.A, 08; Ph.D, Chicago, 12. *With Geol. Surv. Can, 13–* Lecturer, McGill, 21–22. Fel. Royal Soc. Can; Can. Inst. Min. and Metal. Precambrian geology; methods of determining structure in lavas; Precambrian correlation and structure; copper and gold deposits of northern Ontario and Quebec; asbestos deposits of eastern Quebec; ultrabasic rocks of eastern Quebec.

Cooke, Dr. H(arry) Hamilton, 110 W. First St, Kewanee, Ill. *Surgery.* Helsingborg, Sweden, June 18, 97. B.S, Minnesota, 21, M.B, 23, M.D, 24, A.M, 29, M.S, 30, Ph.D, 31; Berlin and London, 22, 33. Fellow surg, Mayo Clinic, 27–31; instr. surg, Columbia, 31; chief surgeon, Lewis County Gen. Hosp, New York, 32; fellow neurosurg, Harvard, 33–35; neurosurgeon, Jackson Mem. Hosp, Miami, Fla, and State Mental Hosp, Chattahoochee, 35–38; Jersey City Med. Center, 38–42; consulting neurosurgeon, Passaic Gen. Hosp. and St. Mary's Hosp, 38–42; *practising surgeon, 42–; commander, Med. Corps, U. S. Naval Res.* Prize, N. Y. State Med. Asn, 33. Am. Med. Asn; fel. Col. Surg; Am. Med. Editors' Asn. (trustee); South. Med. Asn; South. Psychiat. Asn; Pan-Am. Med. Asn. (v. pres). Neurosurgery.

Cooke, Prof. H(ereward) L(ester), Princeton University, Princeton, N. J. *Physics.* Montreal, Que, Can, March 26, 79. B.A, McGill, 00, M.A, 03; 1851 Exhib. scholar, Cambridge, 03–06. Demonstrator *physics*, McGill, 02–03; asst. prof, *Princeton*, 06–19, *prof, 19–* Physical Soc; Acoustical Soc; Optical Soc; Soc. Photogrammetry; Soc. de Physique. Experimental physics; auditorium acoustics; radioactivity; thermionics; surveying with aeroplane photographs.

Cooke, Prof. Jean V(aljean), Washington University Medical School, St. Louis, Mo. *Pediatrics.* Brownsville, Pa, June 19, 83. A.B, West Virginia, 03; Yale, 04; M.D, Hopkins, 08. Instr. path, Univ. and Bellevue Hosp. Med. Col, 08–10; res. pathologist, Pa. Hosp, Phila, 10–11; instr. path, sch. med, Tulane, 11–12; asst. prof. path. and director lab. animal exp, med. sch, California, 12–17; assoc. *pediat, sch. med, Washington (St. Louis)*, 18–20, assoc. prof, 20–37, *prof, 37–; epidemic diseases consultant to U. S. Sec'y War, 41–* Pediat. Soc; Am. Med. Asn; Soc. Exp. Biol. (sec'y, Pacific Coast branch, 13–17); St. Louis Pediat. Soc. (pres, 34). Infectious diseases; acute leukemia.

Cooke, May Thacher, 1400 Fairmont St, Washington, D. C. *Biology.* Ripon, Wis, Oct. 19, 85. A.B, George Washington, 09. With bur. biol. surv, U. S. Dept. Agr, 16–28, junior biologist, 28–38, *asst. biologist*, 38–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Ornith. Union; Cooper Ornith. Club; Biol. Soc. Wash. Distribution and migration of North American birds.

Cooke, Morris Llewellyn, St. George's Road, Mt. Airy, Philadelphia, Pa. *Engineering.* May 11, 72. M.E, Lehigh, 95, hon. Sc.D, 22. Apprentice, Cramp's Shipyard, Phila, and later journeyman machinist, Southwark Foundry, and engineer, Acetylene Co, 96–97; commercial organization work, 99–05; consulting engineer, 05–11; director pub. works, Phila, 11–15; Giant Power Surv. of Pa, 23; chairman Miss. Valley cmn, Pub. Works Admin, 33–34; director water resources sect. and chairman water planning cmn, Nat. Resources Board, 34–35; administrator, Rural Electrification Admin, 35–37; *consulting engineer in management.* Study collegiate admin. methods in U. S. and Can, Carnegie Foundation, 10; chairman, Great Plains Cmt, 36; Shipbldg. Stabilization Cmt, 40–41; U. S. expert, Mexican Oil Expropriation Settlement; head, Brazilian Tech. Mission. Czechoslovak Order of the White Lion. Chairman storage sect, War Indust. Board, Council Nat. Defense, U. S. A, 17, exec. asst. to chairman, U. S. Shipping Board, 18. A.A; Mech. Eng. (councilor, 15); Franklin Inst; Taylor Soc. (pres, 27); hon. mem. Masaryk Acad. Power; labor; conservation; management.

Cooke, Dr. Robert A(nderson), 60 E. 58th St, New York, N. Y. *Medicine.* Holmdel, N. J, 80. A.B, Rutgers, 00, A.M, 04, hon. Sc.D, 25; M.D, Columbia, 04. Asst. attending physician, City Hosp, New York, 07–10; Bellevue Hosp, 10–14; assoc. attending physician, Post-Grad. Hosp, 14–20; asst. prof. applied immunol, med. col, Cornell, 20–32, clin. med, 32–40; *med. consultant and director dept. allergy, Roosevelt Hosp, 32–* Research fellow, med. col, Cornell, 10–14; asst. attending physician, N. Y. Hosp, 19–40; med. consultant, Elizabeth A. Horton Mem. Hosp, Middletown, N. Y, 32–; Vassar Brothers Hosp, Poughkeepsie, 37– Ed. board, 'Jour. Allergy'; assoc. ed, 'Annals Int. Med.' Chairman, Advisory Board Am. Allergists, 40– Alumni trustee, Rutgers. A.A; fel. Am. Med. Asn. (consultant, council pharmacy and chem, 30–); fel. Col. Physicians (governor, 30–34, regent, 34–40, v. pres, 41); Soc. Study Asthma and Allied Conditions (pres, 23); Asn. Immunol; Soc. Clin. Invest; Am. Physicians; Clin. and Climat. Asn; Harvey Soc; fel. N. Y. Acad. Med. (consultant, cmt. med. information, 41–); N. J. Aberdeen-Angus Breeders Asn. (mem. board, 38–); hon. mem. Soc. Argentina para el estudio de la Alergia. Allergy; immunology.

Cooke, Dr. Robert P, State Department of Health, Lexington, Va. *Public health.* Clarke Co, Va, Oct. 12, 74. Washington and Lee, 91–92; U. S. Naval Acad, 92–95; M.D, Virginia, 97. Contract surgeon, U.S.A, 00–05, 13–15, lieut, M.R.C, 15–19, capt, M.R.C, 18–19, contract surgeon, 19–23; *health officer, State Dept. Health, Va, 25–* Congressional medal, 29. Pub. Health Asn.

Cooke, Prof. S(trathmore) R(idley) B(arnott), Montana School of Mines, Butte, Mont. *Metallurgy.* Wanganui, N. Z, Jan. 4, 07. B.Sc, New Zealand, 27, B.E, 28; A.O.S.M, Otago Univ, 28; fellow, Mo. Sch. Mines, 29–30, 31–33, M.S, 30; Ph.D, Missouri, 33. Teaching fellow, Carnegie Inst. Tech, 30–31; research metallurgist, state mining exp. sta, Mo. Sch. Mines, 33–39, asst. prof. metal. and ore dressing, 36–39; *research prof. miner. dressing, Mont. Sch. Mines, 39–* Fel. Miner. Soc; Chem. Soc; Min. and Metal. Eng; British Astron. Asn. Mineral dressing; spectrography; minerography.

Cooksey, Prof. Charlton Dows, 104 Huntington St, New Haven, Conn. *Physics.* New York, N. Y, Aug. 31, 83. Ph.B, Yale, 05, Ph.D, 09. Instr. *physics, Yale*, 08–23, *asst. prof, 23–, fellow, Berkeley Col, 33–* A.A; Physical Soc; Conn. Acad. X-rays.

Cooksey, Dr. D(onald), William H. Crocker Radiation Laboratory, University of California, Berkeley, Calif. *Physics.* Irvington-on-Hudson, N. Y, May 15, 92. Ph.B, Yale, 15, fellow, 25–32, A.M, 28, Ph.D, 32. Curator precision instruments, Sloane physics lab, and consultant apparatus design, Yale, 32–35; research assoc, *radiation lab, dept. physics, California*, 35–36, *asst. director, 36–* A.A; Physical Soc. X-ray wave-length measurements; stability of the photographic image in plates; design of cyclotron.

Cool, Dr. Raymond D(ean), University of Oklahoma, Norman, Okla. *Chemistry.* Winchester, Va, March 14, 02. B.S, Bridgewater Col, 22; M.S, Virginia, 26, du Pont fellow, 27–28, Ph.D, 28; summers, Cornell, 29, N. Y. Univ, 39. Asst. chem, Bridgewater Col, 19–20, physics, 21–22; instr, high sch, Va, 22–24; teaching fellow *chem*, Virginia, 25–27; instr, Nevada, 28–29; Oregon, 29–30; research assoc, dept. pharmacol, sch. med, Pennsylvania, 30–34; instr, Akron, 34–35, *asst. prof*, 35–41; *Oklahoma, 41–* Summer, asst, Virginia, 26. A.A; Chem. Soc; fel. Inst. Chem. Analytical and physical chemistry; volumetric methods of estimating nitrites; kinetics of transitions in polymorphic solids; micromethods of estimating organic iodides; distribution coefficients in gas-liquid systems; chemical microscopy; microchemistry.

Coolbaugh, Pres. M(elville) F(uller), Golden, Colo. *Chemistry.* Monroe Co, Pa, Feb. 8, 77. B.S, Colo. Col, 02, LL.D, 25; A.M, Columbia, 05; LL.D, Colorado, 27. Instr. chem, Colo. Col, 02–04; asst, Columbia, 05; prof, S. Dak. Sch. Mines, 05–14; asst. prof, Case, 15–17; prof, Colo. Sch. Mines, 17–18; manager research dept, Metals Explor. Co, 20–25; *pres, Colo. Sch. Mines, 25–* Offense div, C.W.S, U.S.A, 18. Chem. Soc; Electrochem. Soc; Min. and Metal. Eng; Min.

and Metal. Soc; Mech. Eng. The determination of antimony and lead; complex ore treatment.

Cooley, Prof. Albert M(arvin), 405 Cambridge St, Grand Forks, N. Dak. *Chemical engineering.* Clarence, Mo, July 26, 08. B.S, Mont. State Col, 30; M.S, North Dakota, 31. Research chemist, C. F. Burgess Labs, Madison, 32-34; instr. *chem. eng, North Dakota,* 34-36, asst. prof, 36-41, *assoc. prof, 41–* Eng. Educ; Chem. Eng; Chem. Soc. Fuels; lignite drying and combustion; activated carbon from lignite; base exchange zeolites from North Dakota bentonites; sodium sulphate to ammonium sulphate.

Cooley, Prof. H(ollis), 100 Washington Square East, New York, N. Y. *Mathematics.* Vt, March 9, 99. A.B, Middlebury Col, 20, A.M, 22; Ph.D, N. Y. Univ, 37. Asst. prof. and later *assoc. prof. math, N. Y. Univ, 25–* A.A; Math. Soc; Math. Asn. The initial value problem of partial differential equations.

Cooley, Dr. J(acquelin) S(mith), U. S. Department of Agriculture, Washington, D. C. *Botany.* Middletown, Va, July 24, 83. A.B, Randolph-Macon Col, 06; M.S, Va. Polytech, 11; Lackland fellow, Washington (St. Louis), 12-14, Ph.D, 14. Asst. plant path, Va. Exp. Sta, 11-12; from sci. asst. to *senior pathologist, bur. plant indust, U. S. Dept. Agr, 12–* A.A; Bot. Soc; Bot. Soc. Wash. Plant pathology; plant physiology; storage disease of apples and pears; root diseases of fruit trees.

Cooley, Prof. James A(vas), 4617 Chambliss Ave, Knoxville, Tenn. *Mathematics.* Scottsburg, Ind, Nov. 3, 01. A.B, Indiana, 28, A.M, 29; Ph.D, Illinois, 35. Instr, high sch, Ind, 22-27; Ill, 29-30; *math,* Illinois, 30-35; Idaho, 35-38; assoc. prof, *Tennessee,* 38-39, *prof, 39–, head dept, 41–* Algebraic geometry; teacher education in mathematics.

Cooley, Dr. J(ean) P(aul), New York University, Washington Square, New York, N. Y. *Physics.* Waupaca, Wis, Sept. 7, 93. A.B, Michigan, 17, M.S, 20, Ph.D, 23. Instr. *physics,* Michigan, 20-28; asst. prof. and *assoc. prof, N. Y. Univ, 28–* Physical Soc. Infra-red band spectra.

Cooley, Prof. Mortimer E(lwyn), University of Michigan, Ann Arbor, Mich. *Mechanical engineering.* Canandaigua, N. Y, March 28, 55. U. S. Naval Acad, 78; M.E, Michigan, 85, D.E, 29; D.E, Nebraska, 11; LL.D, Mich. Agr. Col, 07; Sc.D, Armour Inst. Tech, 23. *Prof. mech. eng, Michigan, 81–,* dean *col. eng,* 04-28, *col. archit,* 13-28, *emer. dean, 28–* Consultant, 93-33; state engineer, Pub. Works Admin, Mich, 33-35. Pres, Am. Eng. Council, 21-23. Traction Valuation Cmn, Chicago, Ill, 06; chairman, Block Signal and Train Control Board, Interstate Commerce Cmn, Washington, D. C, 07-12; mem. advisory council, Joint Cmn. Postal Service, 20-23. Mem. eng. cmt, Columbian Expos, 93; mem. cmt. on awards, Pan-Am. Expos, Buffalo, 01. Washington award, West. Soc. Eng, 30. Engineer, U.S.N, 74-85, 98-99; educ. director, 7th dist, S.A. T.C, 18. Hon. mem. Mech. Eng. (v. pres, 02, chairman, Detroit sect, 16, pres, 19); hon. mem. Civil Eng. (director, 13-16); Eng. Educ. (pres, 20); Naval Eng; Elec. Ry. Asn; Inst. Consulting Eng; hon. mem. Franklin Inst; Mich. Eng. Soc. (pres, 03); Detroit Eng. Soc. A broader education for engineers.

Cooley, Dr. R(obert) A(llen), U. S. Public Health Service, Hamilton, Mont. *Entomology.* Deerfield, Mass, June 27, 73. B.S, Mass. Col. and Boston, 95; Sc.D, Mont. State Col, 36. Asst. entomologist, Exp. Sta, Mass. Col, 95-99; prof. zool. and entom, Mont. State Col, and entomologist, Exp. Sta, 99-31, research prof, 31; *entomologist, Rocky Mt. spotted fever lab, U. S. Pub. Health Service, 31–* State entomologist, Mont, 03-31; sec'y. State Board Entom, Mont, 13-31. State Board Entom, Mont, zool. exped, Africa, 28. A.A; Entom. Soc. Amer; Asn. Econ. Entom. Ixodidae; tick parasites.

Cooley, Dr. Thomas B(enton), 7815 E. Jefferson Ave, Detroit, Mich. *Hygiene.* Ann Arbor, Mich, June 23, 71. A.B, Michigan, 91, M.D, 95, hon. Sc.D, 40. Instr. hygiene and physiol. chem, Michigan, 97-00; chief res, south dept, Boston City Hosp, 02-03; asst. prof. hygiene, Michigan, 03-05; chief med. service and chairman staff, Children's Hosp, Mich, 24-41; prof. *pediat.* and head dept, *col. med, Wayne,* 36-41, *emer. prof, 41–* Consulting pediatrician, Harper, Woman's and Highland Park Gen. Hosp, Detroit, Mich. A.A; Pediat. Soc. (pres, 39); Acad. Pediat. (pres, 34; exec. sec'y council pediat. research, 36-41); Am. Med. Asn; Soc. Research Child Develop; hon. mem. Soc. Pediat. Research. Hematology, chiefly the anemias; genetics in relation to blood disorders.

Coolidge, Dr. Albert Sprague, 34 Coolidge Ave, Cambridge, Mass. *Physical chemistry.* Chicago, Ill, Jan. 23, 94. A.B, Harvard, 15, Ph.D, 24. Instr. *chem, Harvard,* 20, 22-30, *lecturer, 30–* Junior chemist, C.W.S, 17-18. A.A; Chem. Soc; Physical Soc. Mathematical chemical physics.

Coolidge, Dr. Cole, 1605 Bancroft Parkway, Wilmington, Del. *Chemistry.* East Hartford, Conn, June 25, 97. A.B, Ohio State, 20, M.S, 21, Ph.D, 23. Research chemist, *E. I. du Pont de Nemours and Co,* 23-27, asst. director exp. sta, 27-39, *asst. chem. director, 39–* Chem. Soc. Synthetic resins; polymerization; cellulose derivatives; pigments; organic chemicals.

Coolidge, H(arold) J(efferson), Jr, Harvard University, Cambridge, Mass. *Mammalogy.* Boston, Mass, Jan. 15, 04. Arizona, 22-23; B.S, Harvard, 27; Cambridge, 27-28. *Asst. curator mammals, museum comp. zool, Harvard, 29–,* director film service, 34-37. Asst. zoologist, Harvard African exped, Liberia and Belgian Congo, 26-27; leader, Indo-China div, Kelley-Roosevelt Field Museum exped, 28-29; Asiatic Primate exped, 37. Trustee, Mary Elizabeth Wood Foundation; Children's Museum of Boston; New Eng. Museum Nat. Hist; Coolidge Foundation. Director, Int. Office for the Protection of Nature, Brussels; chairman, Pan-Am. cmt, Am. Cmt. for Int. Wild-life Protection. Soc. Mammal. (director, 33–); cor. mem. Soc. Zool; Nat. Parks Asn. (trustee); New Orient Soc. Amer; fel. Royal Geog. Soc; fel. Royal Anthrop. Inst; Deuts. Gesell. für Säugertierkunde; Conseil Int. de la Chasse, Paris; hon. mem. Cercle Zool. Congolaise; Inst. Pacific Relations (mem. Am. council). Classification of gorillas, chimpanzees, orang-outans, gibbons, langurs and Asiatic bovids; life history of anthropoid apes; pedomorphism in the chimpanzee.

Coolidge, Prof. J(ulian) L(owell), 27 Fayerweather St, Cambridge, Mass. **[1]*Mathematics.* Brookline, Mass, Sept. 28, 73. A.B, Harvard, 95, LL.D, 40; B.S, Oxford, 97; Ph.D, Bonn, 04; Sc.D, Lehigh, 38. Teacher *math,* Groton Sch, Mass, 97-99; instr, *Harvard,* 99-08, asst. prof, 08-18, prof, 18-40, *emer. prof, 40–,* master, Lowell House, 29-40. Officier de l'Instruction pub. Officier, Légion d'honneur. Major, U.S.A, 17-19. Math. Soc. (v. pres, 18); Math. Asn. (pres, 25); Am. Acad. Modern geometry.

Coolidge, Dr. Thomas B(uckingham), Duke University School of Medicine, Durham, N. C. *Biochemistry.* Concord, Mass, July 2, 01. A.B, Harvard, 23, M.D, 27; Ph.D, Columbia, 36. Tutor biochem, Harvard, 29-32, asst. med, 32; asst. *biochem,* col. physicians and surg, Columbia, 33-35; instr, *sch. med, Duke,* 35-41, *asst. prof, 41–* Respiration and oxidations; clinical biochemistry.

Coolidge, Prof. W(alter) H(atheral), Gambier, Ohio. *Chemistry.* Cincinnati, Ohio, 89. Ph.B, Kenyon Col, 12; Ph.D, Hopkins, 15. *Prof. chem,* Georgetown Col. (Ky), 15-16; Centre Col, 16-24; *Kenyon Col, 24–* Chem. Soc; Ky. Acad. (pres, 21). Osmotic pressure of glucose solutions; metal coloring and etching.

Coolidge, Dr. W(illiam) D(avid), General Electric Co, Schenectady, N. Y. **[2]*Physical chemistry.* Hudson, Mass, Oct. 23, 73. B.S, Mass. Inst. Tech, 96; Ph.D, Leipzig, 99; hon. Sc.D, Union (N. Y), 27, Lehigh, 27; hon. M.D, Zurich, 37; hon. LL.D, Ursinus Col, 42. Asst. physics, Mass. Inst. Tech, 97, instr. physical chem, 01-03, asst. prof. physico-chem. research, 04-05; research physico-chemist, *Gen. Elec. Co,* 05-08, asst. director research lab, 08-28, assoc. director, 28-32, director, 32-40, *v. pres. and director research, 40–* Rumford medal, Am. Acad, 14; Potts medal and Levy gold medal, Franklin Inst, 26; Edison medal, 27; gold medal, Col. Radiol, 27; Hughes medal, Royal Soc. Arts and Sciences, 27; Wash. award, West. Soc. Eng, 32; John Scott award and copper medal, Phila, 37; Faraday medal, 39; Mod. Pioneer award, Nat. Asn. Mfrs, 40; Duddell medal, 42. Nat. Acad; A.A; Chem. Soc; Electrochem. Soc; Physical Soc; Elec. Eng; hon. mem. Radium Soc; hon. mem. Col. Radiol; hon. mem. Roentgen Ray Soc; hon. mem. Radiol. Soc. N. Amer; Am. Acad; Wash. Acad. (non-res. v. pres, 31); hon. mem. London Roentgen Ray Soc; hon. mem. Soc. de Radiol. méd de France; hon. mem. Nord. Foren. Med. Radiol; hon. mem. Pan-Am. Med. Asn. Measurement of the dielectric constant of liquids; conductivity of aqueous solutions; at high temperatures up to 306 degrees Centigrade; ductile tungsten; x-ray tube with pure electron discharge; production of high voltage cathode rays outside the generating tube; modern x-ray generating apparatus.

Coombs, Dr. Clyde H(amilton), War Department, Washington, D. C. *Psychology.* Paterson, N. J, July 22, 12. A.B, California, 35, A.M, 37; Ph.D, Chicago, 40. Asst. math. biophys, Chicago, 40–41, instr. psychol, univ. col, 40–41; personnel technician and head test develop. and analysis unit, *War Dept,* 41–43, *capt, Adj. Gen. Dept, 43–* A.A; assoc. Psychol. Asn; Psychomet. Soc. Psychological measurement.

Coombs, Dr. Helen (Copeland), Bedford Ave. and Ave. H, Brooklyn, N. Y. *Physiology.* St. Joseph, Mo, July 25, 91. A.B, Columbia, 11, B.S, 14, A.M, 15, Ph.D, 18. Asst. physiol, Columbia, 17–18, instr, 19–22; Sarah Berliner research fellow, 22–23; instr, Univ. and Bellevue Hosp. Med. Col, 23–26; Herter research fellow neur, 26–27; research on med. educ, Gen. Educ. Board, 27–29; instr. physiol, N. Y. Homeop. Med. Col, 29–32, asst. prof. physiol. and biochem, 32–40; *instr. physiol, Brooklyn Col, 40–* A.A; Physiol. Soc; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Nervous mechanism of respiration; cerebral anemia; cardiovascular nervous mechanism; neurophysiology and pharmacology; relation of calcium and phosphorus metabolism to nervous system.

Coombs, Prof. Howard A(bbott), 3856 46th, N. E, Seattle, Wash. *Geology.* Dallas, Texas, April 10, 06. B.S, Washington (Seattle), 29, M.S, 31, Ph.D, 34. Instr. *geol, Washington (Seattle),* 34–38, *asst. prof, 38–* Summer, asst. prof, Stanford, 40. Fel. Geol. Soc; Mil. Eng. Igneous petrology; engineering geology; sedimentary petrology.

Coomes, Prof. E(dward) A(rthur), University of Notre Dame, Notre Dame, Ind. *Physics.* Louisville, Ky, June 27, 09. B.S, Notre Dame, 31, M.S, 33; Michigan, 36; Sc.D, Mass. Inst. Tech, 38. Instr. elec. eng, Notre Dame, 33–36; teaching fellow, Mass. Inst. Tech, 37–38; *asst. prof. physics, Notre Dame, 38–; staff mem, radiation lab, Mass. Inst. Tech.* Electronics.

Coon, Dr. Carleton S(tevens), 6 Whittemore Terrace, Wakefield, Mass. *Anthropology.* Wakefield, Mass, June 23, 04. A.B, Harvard, 25, A.M, 28, Ph.D, 28. From tutor to *assoc. prof. anthrop, Harvard, 27–, asst. curator, Peabody Museum, 36–; special asst. to Am. Legation, Tangier, Morocco, 42–* Sheldon traveling fellow, exped, Morocco, 25; Bur. Int. Research exped, Morocco, 26–27; private exped, Senhaja and Ghomara, 28; nat. research fellow exped, North. Albania, 29–30; Peabody Museum exped, Ethiopia and South. Arabia, 33–34. Mem, Nat. Research Council. Anthrop. Asn. (councilor, 28–); Asn. Physical Anthrop. Ethnography; race culture and tribes in the Rif; physical anthropology of the tribes of North Albania, Ethiopia and Arabia; European racial problems.

Coon, Prof. E(rnest) D(avid), University of North Dakota, Grand Forks, N. Dak. *Physical chemistry.* Pierre, S. Dak, Nov. 17, 89. B.S, North Dakota, 20, M.S, 22; Ph.D, Wisconsin, 32. Instr. *chem, North Dakota,* 22–27, asst. prof, 27–34, assoc. prof, 34–41, *prof, 41–* Chem. Soc; N. Dak. Acad. (v. pres, 37, pres, 38). Calorimetry; heat of decomposition of nitrogen pentoxide; molecular weights of proteins in non-aqueous solvents; heat of solution and vapor pressure of nitrogen peroxide in carbon tetrachloride; alumina from clays.

Coon, Dr. Julius M(osher), 947 E. 58th St, Chicago, Ill. *Pharmacology.* Liberty, Mo, Oct. 29, 10. A.B, Indiana, 32; Ph.D, Chicago, 38. Asst. *pharmacol, Chicago,* 35–39, *instr, 39–* Soc. Pharmacol. Diuretics; posterior pituitary assay; pharmacodynamics of the skin.

Coon, Prof. Philip L(eslie), 3417 Seventh Ave, Beaver Falls, Pa. *Chemistry.* Utica, Wis, Feb. 5, 87. A.B, Milton Col, 10; A.M, Wisconsin, 15, Ph.D, 32. Teacher, high sch, Wis, 10–12; asst. physics, Milton Col, 12–13; teacher, high sch, Mich, 15–17; supervising prin, sch, Wis, 17–20; *prof. chem, Geneva Col, 20–* Chem. Soc. Inorganic chemistry; alkaline separation of arsenic and antimony.

Coonan, Prof. Fred(erick) L(eo), 197 S. Cherry Grove Ave, Annapolis, Md. *Metallurgy.* Worcester, Mass, Aug. 3, 99. A.B, Col. of Holy Cross, 22, M.S, 24; Sc.D, Mass. Inst. Tech, 31. Asst. metallurgist, Crompton and Knowles Loom Works, 22; assoc. prof. metal, Col. of Holy Cross, 29–31; asst. prof. and later *assoc. prof. metal. and chem, post-grad. sch, U. S. Naval Acad, 31–; lieut. commander, U. S. Naval Res.* Soc. Metals. Nitriding of steel; effect of alloying elements on malleable iron; grain growth in low carbon steels.

Coonen, Prof. L(ester) P(eter), 5365 S. Main St, Sylvania, Ohio. *Plant cytology.* Dundas, Wis, Jan. 4, 07. A.B, St. Norbert Col, 33, A.M, 35; Ph.D, Wisconsin, 38. Mem. faculty, St. Norbert Col, 33–35; *prof. biol. and head dept, De Sales Col, 38–* A.A; Bot. Soc; Genetics Soc; Torrey Bot. Club; Ohio Acad. Cytology of Ranunculus.

Coonfield, Prof. B(enjamin) R(andolph), Brooklyn College, Bedford Ave. and Ave. H, Brooklyn, N. Y. *Zoology.* Ozark, Ark, Jan. 10, 00. B.S, Arkansas, 26; M.S, Kans. State Col, 27; Ph.D, Harvard, 30. Austin teaching fellow, Harvard, 27–30; prof. biol. and head dept, Southwestern Col. (Kans), 30–31; asst. prof. *biol, Brooklyn Col,* 31–38, *assoc. prof, 38–* Physiology of endocrine glands; specificity of embryonic tissue; invertebrate neurology; ciliary mechanics.

Coonradt, Prof. A(rthur) C(hapin), New York University, University Heights, New York, N. Y. *Mechanical engineering.* Rockford, Ill. A.B, Stanford, 09; Aero.E, N. Y. Univ, 27. Designing engineer, Portland Elec. Power Co, Oregon, 09–17; sales manager, Grays Harbor Ry. and Light Co, 17–18; plant designer, Stone and Webster, Inc, 18–20; manager, Oregon dist, Pump Equipment Co, 21–23; instr, Oregon State Col, 23–27; asst. prof. and assoc. prof. *mech. eng, N. Y. Univ,* 27–35, *prof. and chairman dept, 35–* A.A; Mech. Eng. Relation of mechanical equipment of logging operators to causes of forest fires; power plant economics.

Coons, Prof. Callie Mae (Williams), George Pepperdine College, 1121 W. 79th St, Los Angeles, Calif. *Nutrition.* Huckabay, Texas, Jan. 11, 98. A.B, Abilene Christian Col, 20; B.S, Colorado, 22; Iowa State Col, 24; Texas, 26; fellow, Chicago, 27–29, Ph.D, 29. Teacher, schs, Texas, Idaho and Kans, 14–24; head dept. home econ, Harding Col, 24–26; assoc. prof. household science and in charge nutrition research, Okla. Agr. and Mech. Col, 29–31, agr. chem. research, 31–34; asst. prof. home econ, Indiana, 35–36; assoc. food economist, bur. home econ, U. S. Dept. Agr, 36–37, senior food economist, 38–39, 42; *prof. home econ, George Pepperdine Col, 37–* Summer, instr, Chicago, 29. Mary Pemberton Nourse fellow, Am. Asn. Univ. Women, 31–32. A.A; Inst. Nutrition; Dietetic Asn; Home Econ. Asn; Pub. Health. Asn; Am. Acad. Polit. and Social Sci; N. Y. Acad. Human metabolism in pregnancy; minerals; proteins; energy metabolism; food economics.

Coons, Dr. C(harles) Curtis, The Hoover Co, North Canton, Ohio. *Chemistry.* Upland, Ind, Sept. 12, 00. B.S, Illinois, 24, fellow, 24–26, M.S, 26, Ph.D, 28. Asst. inorg. chem, Illinois, 26–28; research chemist, Leeds and Northrup Co, 28–32; *The Hoover Co, 33–* Thermodynamic properties of iodine and bromine gases; weathering of coals; conductivity and hydrogen ion concentration; absorption refrigerating systems.

Coons, Dr. G(eorge) H(erbert), U. S. Department of Agriculture, Beltsville, Md. *Botany.* Bloomington, Ill, Nov. 2, 85. A.B, Illinois, 08; A.M, Nebraska, 11; Ph.D, Michigan, 15. Adj. prof. agr. bot, Nebraska, 09–10; research assoc. plant path, Mich. State Col, 10–24, prof. bot, 25–29; pathologist, sugar plant investigations, *bur. plant indust, U. S. Dept. Agr,* 25–29, *prin. pathologist in charge sugar beet project, 29–* Phytopath. Soc; Mich. Acad. (v. pres, 16). Ecology; rust; host index of Michigan fungi; potato, celery, apple and sugar beet diseases.

Coons, Prof. K(enneth) W(illiam), Route 2, Box 441, Tuscaloosa, Ala. *Chemical engineering.* Dodge City, Kans, Aug. 27, 04. A.B, Alabama, 29, B.S, 30; Ph.D, Columbia, 32. Research chemist, Bakelite Corp, 31; chem. engineer, Nat. Aniline and Chem. Co, 32–35; *assoc. prof. chem. eng, Alabama, 35–, head dept, 42–* Chem. Eng; Chem. Soc; Eng. Educ. Phenol; hydrogenation; fatty acids; distillation; evaporation.

Coons, Prof. R(obert) R(oy), George Pepperdine College, 1121 W. 79th St, Los Angeles, Calif. *Chemistry.* Webbers Falls, Okla, Feb. 16, 89. A.B, Simmons Col, 18; A.M. Texas, 20; Ph.D, Iowa State Col, 31. Instr. chem, Abilene Christian Col, 19–21; hist, Harper Col, 22–23; asst. chem, Iowa State Col, 23–24, 27–29, instr, 29–31; *prof,* Harding Col, 24–26, physical science, 33–37; *chem, George Pepperdine Col, 37–* A.A; Chem. Soc; N. Y. Acad. Perarsenates; the teaching of chemistry; mineral and biological materials.

Coop, Prof. J(esse) J(ames), Washington College, Chestertown, Md. *Physics.* Peytonsburg, Ky, Sept. 2, 02. A.B, Berea Col, 28; M.S, Kentucky, 30; Ph.D, Indiana, 36. Asst. physics, Kentucky, 28–30; instr. physics and math, *Washing-*

ton Col. (Md), 30–32, asst. prof. *physics*, 32–37, *prof*, 37– Asst, Indiana, 35–36. Summer, instr, Ky. State Teachers Col, Murray, 30. Aeolian tones produced by flames from gas jets.

Cooper, Prof. Albert Everett, University of Texas, Austin, Texas. *Mathematics.* Van Buren, Ark, Jan. 26, 93. E.E, Texas, 14, A.B, 23, A.M, 24; Harvard, 15–16; Oxford, 19–20; Ph.D, Chicago, 26. Instr. applied math, *Texas*, 20–22, asst. prof, 22–26, assoc. prof, 27–28, *prof. applied math. and astron, 28–* Applied mathematics; theory of numbers.

Cooper, Prof. Albert H(udlburgh), Virginia Polytechnic Institute, Blacksburg, Va. *Chemical engineering.* Knoxville, Tenn, Nov. 6, 06. B.S, Tennessee, 29, M.S, 30; Mass. Inst. Tech, 30–31; Michigan, 31, 36; Ph.D, Mich. State Col, 33. Chem. engineer, Aluminum Co. of Amer, 26; asst. ed, 'Chem. and Metal. Eng,' McGraw-Hill Publishing Co, 29; research chem. engineer, E. I. du Pont de Nemours and Co, 31; instr. *chem. eng*, Mich. State Col, 31–33; *prof*, N. C. State Col, 35–37; *Va. Polytech, 37–* Chem. engineer, Chem. Warfare Service, U.S.A, Edgewood Arsenal, 40–41. A.A; Chem. Eng; Chem. Soc; Eng. Educ; Mech. Eng; Electrochem. Soc; Va. Acad. (chairman eng. sect, 38–40). Thermodynamics; unit operations; chemical engineering design.

Cooper, Dr. A(rthur) R(euben), 315 Home Ave, Oak Park, Ill. *Anatomy.* Brinston, Ont, Can, Oct. 30, 88. B.A, Toronto, 10, M.A, 11, fellow, 12–14; fellow, Illinois, 15–17, Ph.D, 17, M.D, 25. Asst. biol, Toronto, 09–11, demonstrator zool, 11–12, lecture demonstrator, 14–15; instr. *anat, col. med, Illinois*, 17–19, assoc, 19–20, asst. prof, 20–35, *assoc. prof, 35–; practising physician.* Summers, Can. Lake Biol. Sta, 09–12; Marine Biol. Sta, St. Andrews, N. B, 13–14; Marine Biol. Lab, Woods Hole, 16; asst, Michigan, 17. Surgery.

Cooper, Dr. Byron N(elson), Virginia Geological Survey, University, Va. *Geology.* Plainfield, Ind, Aug. 19, 12. A.B, DePauw, 34; M.S, Iowa, 35, Ph.D, 37. Instr. geol, Wichita, 37–38, asst. prof, 38–42; *assoc. geologist, Va. Geol. Surv, 42–* Summers, field asst, Va. Geol. Surv, 34, 35, 36, field geologist, 38, 39, 40, temporary senior scientist, 41; jr. geologist, U. S. Geol. Surv, 37. Fel. Geol. Soc. Paleozoic stratigraphy and Appalachian structure.

Cooper, Chalmer L(ewis), State Geological Survey, Urbana, Ill. *Geology.* Nicolette, W. Va, Aug. 27, 98. B.S, Oklahoma, 23, M.S, 26. Instr. geol, Oklahoma, 24–25; chief geologist, Okla. Geol. Surv, 25–31; geologist, Ky. Geol. Surv, 31; *assoc. geologist*, Nat. Park Service, 35–37; *Ill. Geol. Surv, 37–* Paleont. Soc; fel. Okla. Acad. (ed, geol. sect, 30–31); Ill. Acad. Economic geology; stratigraphy and paleontology of Oklahoma; Devonian and Mississippian black shales of central United States; geology of state and national parks; Paleozoic micro-paleontology and stratigraphy of Illinois and adjacent areas.

Cooper, Cha(rle)s M(ilton), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering.* Minneapolis, Minn, June 27, 00. B.S, Mass. Inst. Tech, 25. Apprentice, F. R. Patch Mfg. Co, Vt, 18–20; asst, Mass. Inst. Tech, 25–27, asst. director sch. chem. eng, 27–28, director, 28–35; process engineer, Belle works, *E. I. du Pont de Nemours and Co*, 35–40, *in charge chem. eng. research, Exp. Sta, 40–* Chem. Eng; Chem. Soc. Analytical fractional distillation; heat transfer in air to air heat interchanges; combustion and use of sulfur; flow of fluids.

Cooper, Prof. C(lyde) E(dwards), Ohio University, Athens, Ohio. *Geography, Geology.* Webberville, Mich, Oct. 17, 87. A.B, Michigan, 16, M.S, 17; Ph.D, Clark, 27. *Prof.* geog, Wash. State Nor. Sch, Cheney, 17–21; Ill. State Teachers Col, Normal, 21–22; *geog. and geol, Ohio (Athens)*, 22– Teacher, Philippine Service, 11–14. Nat. Council Geog. Teachers (treas, 31–34, pres, 35). Geography of Washington; United States at work.

Cooper, Prof. D(elmer) C(lair), 621 Eugenia Ave, Madison, Wis. *Cytology.* Sutherland, Iowa, April 10, 96. A.B, Morningside Col, 16; M.S, Purdue, 26; Ph.D, Wisconsin, 30. Instr. biol, Morningside Col, 17–19; Purdue, 26–28; bot, *Wisconsin*, 28–30, research assoc. bot. and genetics, 30–36, bot, 36–39, asst. prof. *genetics*, 36–42, *assoc. prof, 42–* A.A; Bot. Soc; Soc. Nat; Genetics Soc; Wis. Acad; Ind. Acad. Development of tomato and Bougainvillea flower; phytophthora blight of the peony; cytology of Bougainvillea. Shepherdia, Portulaca, tomato, sweet clover, alfalfa, lily, Nicotiana and Phryma; partial sterility in maize; somatoplastic sterility.

Cooper, Dr. Densil Martin, Naval Research Laboratory, Washington, D. C. *Physics.* Sheridan, Mo, Oct. 21, 12. B.S, N. W. Mo. State Teachers Col, 36; A.M, Missouri, 38, Ph.D, 40. Asst. physics, Missouri, 36–40; asst. prof. physics and math, Huron Col, 40; instr. physics, math. and chem, Md. State Teachers Col, Salisbury, 41; asst. prof. physics and acting head dept, Toledo, 41–43; *research, Naval Research Lab, 43–* Summers, teacher, Northwest Mo. State Teachers Col, 40; eng, science and management defense training, Pa. State Col, 41. Physical Soc. Fine structure in the directional intensity of cosmic radiation.

Cooper, Prof. D(ouglas) LeB(aron), Dalhousie University, Halifax, N. S, Can. *Physical chemistry.* St. John, N. B, July 1, 05. B.Sc, Kings Col, 27; Nat. Research Council Can. bursar, Dalhousie, 27–28. M.Sc, 28; Nat. Research Council Can. student, McGill, 28–29, fellow, 30–31, Ph.D, 31. Sci. asst, Fisheries Exp. Sta, 27–30; director lab, Connors Brothers, Ltd, 31–32; sci. asst, Fisheries Exp. Sta, 32–40; *assoc. prof. chem, Dalhousie, 40–* Lecturer, Dalhousie; demonstrator, McGill, 28–30; research staff, Biol. Board Can. N. S. Inst. Sci. Specific heats; gas densities and equations of state; smoking and canning of fisheries products.

Cooper, Prof. Eugene P(erry), University of North Carolina, Chapel Hill, N. C. *Physics.* Somerville, Mass, Aug. 15, 15. B.S, Mass. Inst. Tech, 37; Ph.D, California, 42. *Asst. prof. physics, North Carolina, 41–* Physical Soc. Theoretical atomic and nuclear physics.

Cooper, Dr. Frank B(radford), The Zemmer Co, 3943 Sennott St, Pittsburgh, Pa. *Pharmaceutical chemistry.* Suffern, N. Y, July 23, 93. B.S, Columbia, 29; M.S, Ohio State, 34; Sc.D, Grove City Col, 41. Chemist, Grasselli Chem. Co, 17–18; research chemist, Trudeau Foundation, 22–34; inst. path, West. Pa. Hosp, 34–42; *director research and control, Zemmer Co, 42–* Chemistry of the tubercle bacillus; sulfanilamide and allied drugs; sulfanilamide therapy of bacterial infections.

Cooper, Dr. F(rank) L(awrence), Yale University, New Haven, Conn. *Physics.* Owosso, Mich, April 26, 75. B.S, Michigan, 00, A.M, 04; Ph.D, Hopkins, 07. Teacher, high schs, Mich. and Ill, 00–03; asst. *physics*, Michigan, 03–04; Hopkins, 06–07; *instr, Yale, 07–* A.A; assoc. Physical Soc; Eng. Educ; fel. Am. Geog. Soc; Soc. de Physique. Light; atmospheric electricity.

Cooper, Dr. Franklin S(eaney), Haskins Laboratories, 305 E. 43rd St, New York, N. Y. *Biophysics.* Robinson, Ill, April 29, 08. B.S, Illinois, 31; Ph.D, Mass. Inst. Tech, 36. Asst. physics, Illinois, 31–34; teaching fellow, Mass. Inst. Tech, 34–36; research engineer, Gen. Elec. Co, 36–39; *assoc. research director, Haskins Labs, 39–; asst. liaison officer, Office Sci. Research and Develop, 41–* Research assoc, Mass. Inst. Tech, 39– Mem. staff, surv. research in indust, Nat. Research Council, 40. A.A; Physical Soc. Radiation biophysics; electronic instrumentation; nuclear physics; vacuum spectroscopy.

Cooper, Dr. Geo(rge) Olds, 1555 Adams St, Madison, Wis. *Botany.* Evanston, Ill, Oct. 24, 98. A.B, Wisconsin, 24, A.M, 26, Ph.D, 28. Asst. instr. bot, Wisconsin, 24–28, instr, 29–34; asst. prof, Smith Col, 34–41. A.A; Bot. Soc; fel. Linnean Soc. London. Cytology of Saprolegniaceae; phycomycetes; cytology of angiosperms.

Cooper, Prof. Gerald P(aul), University of Maine, Orono, Maine. *Fisheries biology.* Alma, Mich, June 26, 10. B.S, Mich. State Nor. Col, 31; A.M, Michigan, 32, Ph.D, 38. Instr. *zool, Maine*, 36–40, *asst. prof, 40–* Fisheries Soc; Soc. Ichthyol. and Herp; Mich. Acad. Lake and stream biological surveys; fish life histories.

Cooper, Dr. Gerald R(ice), Box 3401, Duke Hospital, Durham, N. C. *Physical chemistry.* Scranton, S. C, Nov. 19, 14. A.B, Duke, 36, A.M, 38, Ph.D, 39. Fellow biochem, *Duke*, 39–41, *research assoc*, 41–42, *exp. surg, 42–* A.A; Chem. Soc. Physical chemistry of proteins; analytical chemistry; electromotive force; complex inorganic ions; serum proteins; viruses.

Cooper, Dr. G(ustav) Arthur, 3425 Porter St, N. W, Washington, D. C. **7Geology.* College Point, N. Y, Feb. 9, 02. B.S, Colgate, 24, M.S, 26; Ph.D, Yale, 29. Research asst, Peabody Museum, Yale, 28–29, research assoc, 29–30; *asst. curator, U. S. Nat. Museum, 30–* Paleont. Soc; Geol. Soc. Invertebrate paleontology and stratigraphy; stratigraphy of

Hamilton group of New York; Ordovician fossils of eastern Canada; brachiopods; Paleozoic echinoids.

Cooper, Dr. Hal B(luford) H(arrison), 321 Church St, Bound Brook, N. J. *Chemical engineering.* Ancon, C. Z, Nov. 4, 10. B.S, Iowa State Col, 36, Ph.D, 42; M.S, Mass. Inst. Tech, 38. Technician, Panama Canal Testing Labs, 27–30; supt, Panama Canal Water Purification System, 32–34; teaching asst, Mass. Inst. Tech, 36–38; instr. chem. eng, Iowa State Col, 38–42; *chem. engineer, Am. Cyanamid Co, 42–* Chem. Eng; Chem. Soc. Development of a flexible tubing proportioning pump; heat transfer to boiling liquids; commercial utilization of lignin.

Cooper, H(arry) M(ac), 1204 Richmond Ave, Pittsburgh, Pa. *Chemistry.* Oquawka, Ill, 82. B.S, Lombard Col, 04. Chemist, technol. branch, U. S. Dept. Interior, 07–10; with *U. S. Bur. Mines, 10–, chief coal lab, 16–, supervising chemist, coal anal. sect, 20–* Analytical data on coals.

Cooper, Dean H(erbert) P(ress), Clemson, S. C. *Agronomy.* Ridgeway, S. C, Feb. 18, 87. B.S, Clemson Col, 11; M.S, Wisconsin, 15; Ph.D, Cornell, 22. Instr. agron, Pa. State Col, 15–17; asst. prof, Mass. Col, 17–20; instr. field crops, Cornell, 20–22, asst. prof. *agron, 22–30; prof, Clemson Col, 30–, dean sch. agr. and director exp. sta, 36–* A.A; Soc. Agron; Soc. Plant Physiol; Int. Soc. Soil Sci. Mineral nutrition of plants; soil fertility; ecology; crop adaptation and nutrition.

Cooper, Dr. H(ermon) C(harles), 40 Rankin St, Worcester, Mass. *Chemistry.* Glen Ellyn, Ill, Nov. 22, 75. Ph.B, Beloit Col, 96, A.M, 99; Ph.D, Heidelberg, 99. Instr, high sch, Nebr, 00–01; chem, Syracuse, 01–03; research assoc, Mass. Inst. Tech, 03–04; asst. prof, Syracuse, 04–06, assoc. prof, 06–12, prof, 12–18; asst. prof, Col. City of N. Y, 18–20; plant manager, Acids Mfg. Corp, 20–23; sci. director, Bauer and Black, 23–25; v. pres, Glen Ellyn State Bank, 25–31; head electrochem. research, Pacini Labs, Inc, Chicago, 32–33; chem. eng. research, Illinois, 34–35; *research chemist, Norton Co, 35–* Summer, lecturer, Chicago, 10. Electrochem. Soc. (chairman, N. Y. sect, 22, Chicago sect, 25, director, 29–32); Chem. Soc. (sec'y, Syracuse sect, 06–09, pres, 09–10). History of chemistry; organic chemistry; racemic compounds; electric conductivity of aqueous solutions at high temperatures; lead silicates; fluorids; chromic and benzoic acids; absorbent cotton; electro-smelting of enamel frits; absorption of sulfurous fume; grinding wheels.

Cooper, Herschel H(arber), 1015 Milam Bldg, San Antonio, Texas. *Geology.* Huntingburg, Ind, July 13, 94. B.S, State Col. Wash, 21, fellow, 21–22, M.S, 22. Geologist, Shell Petrol. Corp, 23–26; div. geologist, Pan-Am. Petrol. and Transport Co, 26–28; *consulting geologist, 28–* Asn. Petrol. Geol; Min. and Metal. Eng; South Texas Geol. Soc. (pres, 31). Origin and occurrence of iron ores in Washington; occurrence and accumulation of oil in the Laredo district of Texas; petroleum geology.

Cooper, Rev. John M(ontgomery), Catholic University, Washington, D. C. **Anthropology.* Rockville, Md, Oct. 28, 81. St. Charles Col. (Md), 97–99; Ph.D, Am. Col, Rome, 02, S.T.D, 05. *Prof. anthrop, Catholic Univ, 20–* Mendel medal, 39. Sec'y-treas, Catholic Anthrop. Conf, 28– A.A; Anthrop. Asn. (sec'y, 31–37, pres, 40); Anthrop. Soc. Wash. (pres, 30). Anthropology of Tierra del Fuego; ethnology and linguistics of the northern Algonquian Indians; ethnology of North American Indians north of Mexico; marginal cultures.

Cooper, Dr. John N(iessink), University of Southern California, Los Angeles, Calif. *Physics.* Kalamazoo, Mich, Feb. 4, 14. A.B, Kalamazoo Col, 35; Ph.D, Cornell, 40. Asst. *physics,* Cornell, 35–40; *instr, Southern California, 40–* A.A; Physical Soc; Asn. Physics Teachers. X-rays; auger effect; widths and relative intensitives of x-ray lines.

Cooper, J(ohn) R(alph), Fayetteville, Ark. *Horticulture.* Washington, Iowa, April 18, 85. B.S, Kans. State Col, 12; M.S, Nebraska. Asst. hort, Kans. State Col, 12; asst. prof, Nebraska, 12–14, assoc, 14–17; *horticulturist, Arkansas, 17–* A.A; Soc. Hort. Sci; Bot. Soc; Pomol. Soc. Plant breeding, physiology and nutrition; disease resistance.

Cooper, Prof. John R(oberts), Ohio Wesleyan University, Delaware, Ohio. *Geology.* Conshohocken, Pa, Sept. 1, 07. B.S, Haverford Col, 29; Ph.D, Princeton, 35. Substitute prof. *geol,* Mt. Union Col. 35–36, asst. prof, 36–39; *assoc. prof, Ohio Wesleyan, 39–; junior geologist, U. S. Geol. Surv, 41–* Mineralogy; petrology.

Cooper, Dr. Joseph B(onar), San Jose State College, San Jose, Calif. *Psychology.* Ind, Dec. 10, 12. A.B, California at Los Angeles, 36, Ph.D, 40. Teaching asst, California at Los Angeles, 37–40; *instr. psychol, San Jose State Col, 40–* Personnel technician, Los Angeles County Civil Service Cmn, Calif, 40; tech. adviser to director personnel, Santa Clara County, 40–42. Assoc. Psychol. Asn; West. Psychol. Asn. Comparative, personnel and social psychology; comparative study of African lions and domestic cats; attitude research.

Cooper, Dr. Joseph H(arry), 86-15 53rd Ave, Elmhurst, N. Y. *Organic chemistry.* Rochester, Minn, March 11, 13. B.Sc, Alberta, 34; Ph.D, Chicago, 37. Research chemist, *Krebs pigments dept, du Pont Co,* 37–41, *group leader and research chemist, 41–* A.A; Chem. Soc. Relative reactivities of aldehydes and ketones; pigment chemistry; industrial applications of pigments.

Cooper, Prof. K(enneth) W(illard), Princeton University, Princeton, N. J. *Zoology.* Flushing, L. I, N. Y, Nov. 29, 12. A.B, Columbia, 34, A.M, 35, Leydig fellow, 37–38, Ph.D, 39. Asst. zool, Columbia, 34–37; instr, Rochester, 38–39; *biol, Princeton,* 39–42, *asst. prof, 42–* Entom. Soc; Genetics Soc; Soc. Study Speciation; Soc. Vertebrate Paleont; Soc. Zool. Taxonomy of Coleoptera; hatching mechanism of frogs; analysis of karyomerokinesis; polytene chromosomes; carnation bud-rot; reproductive behavior of Mecoptera; fossil Cicadidae; fossil Amiidae; cytogenetics of Diptera; living spindle fibers.

Cooper, Miss Lenna F(rances), Montefiore Hospital, New York, N. Y. *Nutrition.* Hutchinson, Kans, 84. B.S, Columbia, 16, A.M, 27; hon. M.H.E, Mich. State Col, 27. Head dietitian, Battle Creek Sanitarium and dean, Sch. Home Econ, Battle Creek, 06–24; dean home econ, Battle Creek Col, 25–27; food director, Michigan, 27–30; *supervising dietitian, Montefiore Hosp, 30–* Supervising dietitian, U.S.A, 18–19. Dietetic Asn. (pres, 37); Home Econ. Asn. (sec'y, 20–23); Pub. Health Asn. Nutrition in health and disease.

Cooper, Dr. Margaret M(oore), Villisca, Iowa or State College for Women, Denton, Texas. *Organic chemistry.* Villisca, Iowa, Feb. 17, 09. A.B, Iowa, 30, M.S, 32, Ph.D, 34, 34–35. Chemist, child welfare research sta, Iowa, 36–37; head dept. science, Fairfax Hall, 37–38; asst. prof. chem, Meredith Col. (N. C), 38–41; textile chem. study, Pa. State Col, 41–42; *asst. prof. chem, Texas State Col. for Women, 42–* A.A; Chem. Soc; Asn. Textile Chem. and Colorists; Iowa Acad. Unsymmetrical dibenzalacetones; textile chemistry; colorfastness of dyes.

Cooper, Maurice R(oyce), 3816 Jenifer St, N. W, Washington, D. C. *Agricultural economics.* Center, Texas, Aug. 4, 05. B.S, Agr. and Mech. Col. Texas, 27; M.S, American Univ, 31. Sci. aid, div. statist. and hist. research, bur. agr. econ, U. S. Dept. Agr, 27–28, junior agr. economist, 28–30, economist, 35–37, senior agr. economist, 37–42; *econ. statistician, Office Quartermaster Gen, U. S. War Dept, 42–* Cotton economics.

Cooper, Dr. Merlin L, Children's Hospital, Pediatric Research Foundation, Cincinnati, Ohio. *Pediatrics, Bacteriology.* Cameron, Mo, Sept. 22, 93. B.S, Mo. Wesleyan Col, 17; M.S, Chicago, 19; M.D, Cincinnati, 27. Director dept. bacter. research, Morris and Co, Chicago, 20–23; *research fellow, Children's Hosp, Pediat. Research Foundation, 27–;* asst. prof. pediat, *col. med, Cincinnati,* 29–37, *assoc. prof. bacter, 37–* Director bacter. service and attending bacteriologist, Good Samaritan Hosp, 27–37, consulting bacteriologist, 37– A.A; fel. Soc. Bact; fel. Am. Med. Asn; fel. Acad. Pediat; Cent. Soc. Clin. Research; Soc. Pediat. Research; Asn. Bacteriologists Ohio (v. chairman, 36–). Bacteriology; poliomyelitis; upper respiratory infection; immunization to pneumococci; etiology of acute gastro-enteritis in infants and small children; encephalitis; streptococcus infections.

Cooper, Prof. Robert H(oliday), 708 N. McKinley St, Muncie, Ind. *Entomology, Biology.* Cadiz, Ind, Aug. 9, 01. B.S, Ball State Teachers Col, Ind, 29; M.S, Iowa State Col, 35, Ph.D, 39. Teacher, junior and senior high schs, Ind, 30–35; *assoc. prof. science, Ball State Teachers Col, Ind, 36–* Asn. Biol. Teachers; Entom. Soc. Amer; Ind. Acad. Orthoptera; internal anatomy of Canthon laevis Drury; tumble-bugs; a breeding record for the red-barred sulphur from Indiana; anatomy of Melanoplus differentialis.

Cooper, Dr. R(ussell) B(lauch), 2605 Kanawha Ave, S.E, Charleston, W. Va. *Chemistry.* Johnstown, Pa, Feb. 27, 04. B.S, Pa. State Col, 25; M.S, Carnegie Inst. Tech, 26; Ph.D, Chicago, 30. Asst, Chicago, 26–28, 29–30; assoc. prof, Battle Creek Col, 28–29; *chem. engineer, du Pont Ammonia Corp, 30–* Chem. Soc. Low temperature carbonization of coal; pinacol-pinacolone rearrangement; high pressure syntheses.

Cooper, Dr. Stancil S(amuel), Washington University, St. Louis, Mo. *Chemistry.* Morristown, Tenn, Sept. 19, 03. B.S, Tennessee, 26; M.S, Pittsburgh, 27; Ph.D, Washington (St. Louis), 35. Asst, Pittsburgh, 26–27; teacher, high sch, Pa, 27–28; *instr. chem, Washington (St. Louis), 28–* Chem. Soc. Ternary systems; the magneto-optic method of chemical analysis; semi-microanalysis; microanalysis.

Cooper, Prof. S(tewart) R(ochester), 3008 11th St, N. W, Washington, D. C. *Chemistry.* Baltimore, Md, July 24, 93. B.S, Howard, 16; M.S, Cornell, 24, Ph.D, 34. Tuskegee Inst, 17–19; *chem,* Agr. and Tech. Col. N. C, 19–21; *asst. prof, Howard, 21–* A.A; Chem. Soc. Qualitative test for cobalt, copper and iron; an improved Kurt Meyer titration resacetophenone; germanium-germanium dioxide electrode; 4-nitrocatechol as a titration indicator; 2-4 dihydroxy-acetophenone as a qualitative reagent for ferric iron.

Cooper, Dean Thomas P(oe), University of Kentucky, Lexington, Ky. *Agriculture.* Pekin, Ill, March 2, 81. B.S, Minnesota, 08; Sc.D, Clemson Col, 37. Statist. agent, Minn. Exp. Sta, and special agent, bur. statist, U. S. Dept. Agr, 02–07; asst. farm management and instr. agr. econ, Minnesota, 08–11; director, N. Dak. Better Farming Asn, 11–13; N. Dak. Exp. Sta, 14–17; *dean col. agr. and home econ, Kentucky, 18–, director Exp. Sta. and agr. exten,* acting pres, 40–41. Chief bur. agr. econ, U. S. Dept. Agr, 25–26; v. chairman, State Board Agr, Ky; chairman correlating cmt, Tenn. Valley Authority; director, Cent. Bank Cooperatives, Washington, D. C; Fed. Land Bank, Louisville, Ky. A.A; Farm Econ. Asn. (past pres); Acad. Polit. and Social Sci; Asn. Land-Grant Cols. and Univs. (sec'y-treas, 30); Ky. Acad. Farm management; agricultural economics.

Cooper, Dr. William C, U. S. Department of Agriculture, Mayaguez, P. R. *Plant physiology.* Salisbury, Md, April 6, 09. B.S, Maryland, 29; Ph.D, Calif. Inst. Tech, 38. Junior pomologist, *U. S. Dept. Agr,* Calif, 29–38, assoc. physiologist, Orlando, Fla, 38–42, *agriculturist, for. agr. relations, P. R. Exp. Sta, 42–* Role of plant hormones in sub-tropical horticulture; factors effecting cold hardiness in citrus fruits; use of plant hormones in propagation of insecticide and quinine producing plants.

Cooper, Dr. William C(harles), 207 Runnymede, Jenkintown, Pa. *Chemistry.* Pocatello, Idaho, Oct. 21, 99. A.B, Pomona Col, 21; A.M, Harvard, 22, Ph.D, 29. Research chemist, Rockefeller Inst, Bermuda, 24–27; chem. engineer, Barrett Co, Phila, 27–29; chief chemist, Electroblacks, Inc, Tujunga, Calif, 29–32; *chem. engineer, Barrett Co, Phila, 35–* Chem. Soc. Permeability of single cell plants; atomic weight of germanium; aqueous pressure of hydrated crystals; carbon black from hydrocarbon oils and its reenforcement of rubber; catalytic oxidation of naphthalene.

Cooper, Dr. W(illiam) Clark, National Institute of Health, U. S. Pub. Health Service, Bethesda, Md. *Medicine.* Manila, P. I, June 22, 12. M.D, Virginia, 34. Intern and asst. res, Univ. Hosp, Cleveland, 34–37; fellow, Cincinnati, 37; instr. bacter, sch. hygiene and pub. health, Hopkins, 40; *asst. surgeon, nat. inst. health, U. S. Pub. Health Service, 41–* Lieut, U.S.A, 37–39. Am. Med. Asn. Nutrition; use of nicotinic acid in the treatment of pellagra; diagnosis of pellagra; malaria.

Cooper, Prof. William S(kinner), University of Minnesota, Minneapolis, Minn. *[5]*Botany, Plant ecology, Geology.* Detroit, Mich, Aug. 25, 84. B.S, Alma Col, 06, Sc.D, 30; Hopkins, 07–08; fellow, Chicago, 10–11, Ph.D, 11. Lecturer ecol, Stanford; asst. prof. and *prof. bot, Minnesota.* Summer, asst, sta. for exp. evolution, Carnegie Institution, 07. Cmt. on preservation of natural conditions, Nat. Research Council. A.A; Ecol. Soc. (v. pres, 27, pres, 36); fel. Bot. Soc; fel. Am. Geog. Soc; Geophys. Union; Asn. Geog; Torrey Bot. Club; Minn. Acad. (pres, 37); British Ecol. Soc; Soc. linn. de Lyon. Ecology of the Great Lakes region; ecology of mosses; alpine vegetation of Colorado; chaparral; distribution of redwood; strand vegetation of Pacific Coast; vegetation of southeastern Alaska, especially in relation to glaciation; glacial geology of Minnesota and Alaska; Recent and Pleistocene sand dunes; postglacial climates.

Cooper, Zada M(ary), 102 N. Fifth Ave, Villisca, Iowa. *Pharmacy.* Quasqueton, Iowa, Jan. 31, 75. Ph.G, Iowa, 97. Assoc. prof. pharmacy, Iowa, 27–42; *retired.* Mem. publication board, 'Am. Jour. Pharmaceut. Educ,' 37–42. Pharmaceut. Asn. (chairman, women's sect, 17–18, collaborator, 'Pharmaceut. Abstracts,' 17–); Asn. Cols. Pharm. (sec'y-treas, 22–42). Assay processes for volatile oils.

Cooper, Dr. Zola K(atharine), 6008 Marmaduke Ave, St. Louis, Mo. *Dermatology.* Richview, Ill. A.B, Washington (St. Louis), 25, fellow, 25–26, M.S, 26, fellow, 27–29, Ph.D, 29. Asst. zool, Washington (St. Louis), 26–27, fellow dermat, 29–31; research assoc, *Barnard Free Skin and Cancer Hosp,* 31–38, *assoc. pathologist, 38–; instr. path, med. sch, Washington (St. Louis), 40–* A.A; Asn. Cancer Research. Hair growth; cytological studies on carcinoma; experimental production of carcinoma by the use of various chemical irritants; cell division.

Cooperrider, C(harles) K(nesal), U. S. Forest Service, Tucson, Ariz. *Forestry.* Ohio, 89. B.S, Ohio (Athens), 14. Forest admin, southwest. region, *U. S. Forest Service,* 15–25, *senior range examiner, Southwest. Forest Exp. Sta, 25–* Forest Products Lab, U. S. Forest Service, 18–19. A.A; Forestry Asn; Ecol. Soc; Asn. Eng. Range ecology; forest and range influences; stream flow; erosion.

Coover, Prof. M(ervin) S, Iowa State College, Ames, Iowa. *Electrical engineering.* Shippensburg, Pa, Dec. 9, 90. E.E, Rensselaer Polytech, 14. Student engineer, N. Y. Cent. R. R. Co, 14–15; asst. substa. elec. construction, Mont. Power Co, 15–17; electrician, Hutchinson Power and Light Co, 17; design engineer, Wilson Grinding Machine Co, 17; elec. construction work, Kans, 17–18; instr. elec. eng, Colorado, 19–20, asst. prof, 20–22, assoc. prof, 22–30, prof, 30–35, in charge production and transportation management, sch. business, 33–35; *prof. elec. eng. and head dept, Iowa State Col, 35–* Summers, teacher and engineer, Colorado, 20–24; Gen. Elec. Co, 24, 25, 30; engineer, A. C. King, 26; consultation work, Pub. Service Co, Colo, 27–30. John Dunlap Mem. award, Iowa Eng. Soc, 38. U.S.A, 18–19. Elec. Eng. (automatic stations cmt, 27–29; sec'y, N. Cent. dist, No. 6, 29–33; mem. sections cmt, 37–40, sec'y, 38, 39, chairman, 40, 41; mem, educ. cmt, 37–42; research cmt, 37–40, v. chairman, 38; chairman, Great Lakes dist. no. 5, cmt. prizes and awards, 38; mem. nominating cmt, Iowa sect, 40, chairman, 41; mem. cmt. planning and coordination, 40, 41; summer conv. cmt, 40, 41; director, 40–; mem, Edison medal cmt, 41–); Eng. Educ. (elec. eng. cmt, 33; chairman, program cmt, Iowa-Wis. sect, 36, mem. gen. cmt, 36; chairman EE group conf, North-Midwest sect, 39, mem. membership cmt, 39, chairman nominating cmt, 40; sec'y elec. eng. div, 40, v. chairman, 41); Iowa Eng. Soc. (cmt. professional develop, 37; cmt. pub. safety, 38–42; director, 39; mem. legislative cmt, 39; v. pres, professional div, 40; mem. program cmt, 41; chairman, cmt. special awards, 41). Inductive interference between power transmisison lines and automatic train control systems in use on railroads; load dispatching; economic survey of plants and system expansion; principles of electric traction.

Coover, Prof. W(infred) F(orrest), Ames, Iowa. *Chemistry.* Dayton, Ohio, May 29, 75. A.B, Otterbein Col, 00, Sc.D, 35; A.M, Ohio State, 03; Columbia, 05, 18. Asst. prof. *chem, Iowa State Col,* 04–07, assoc. prof, 07–13, *prof. and head dept, 13–* Assoc, Naval Consulting Board. A.A; Chem. Soc; Iowa Acad. Analytical chemistry.

Cope, Prof. Arthur C(lay), Columbia University, New York, N. Y. *[7]*Chemistry.* Dunrieth, Ind, June 27, 09. B.S, Butler, 29; fellow, Wisconsin, 31–32, Ph.D, 32. Asst. chem, Wisconsin, 29–31; nat. research fellow, Harvard, 32–34; assoc. *chem,* Bryn Mawr Col, 34–35, asst. prof, 35–38, *assoc. prof,* 38–41; *Columbia, 41–* Guggenheim Mem. Foundation fellow, 40–41. Summer, assoc, Illinois, 35; prof, North Carolina, 39. A.A; Chem. Soc. (sec'y, org. div, 39–). Synthetic organic chemistry; synthesis of unsaturated esters; condensation reactions; molecular rearrangements; barbituric acids; aminoalcohols.

Cope, Dr. Frances T(horndike), 3369 167th St, Flushing, N. Y. *Mathematics.* New York, N. Y, Aug. 19, 02. A.B, Vassar Col, 22; A.M, Columbia, 25; Ph.D, Radcliffe Col, 32. Eng. asst, Am. Tel. and Tel. Co, 22–24, 25–27; *instr.* physics, Vassar Col, 27–28, *math,* 36; Queens Col. (N. Y), 41; *Adelphi Col, 41–* Differential equations.

Cope, Prof. Joshua A(lban), 326 Mitchell St, Ithaca, N. Y. *Forestry.* Hatboro, Pa, Dec. 31, 87. B.S, Haverford Col, 12; M.F, Yale, 14. Asst, U. S. Forest Service, 14–16; instr. and forester in charge, Westtown Sch, Pa, 16–18; asst. state forester, Md, 18–24; exten. asst. prof., *forestry, N. Y. State Col. Agr, Cornell, 25–37, exten. prof, 37–* Summer, special field agent, bur. plant indust, U. S. Dept. Agr, 30. Soc. Foresters. Loblolly pine in Maryland; maple sugar industry in New York; fifty common trees of New York; tree planting; woodlot improvement; timber estimating; growing wood as a crop on New York farms; black locust for fence posts.

Cope, Dr. Oliver, Massachusetts General Hospital, Boston, Mass. *Surgery.* Germantown, Pa, Aug. 15, 02. A.B, Harvard, 23, M.D, 28. Surg. intern, Mass. Gen. Hosp, 28–30, surg. res, 30–32; asst. *surg, Harvard Med. Sch,* 30–32, Moseley traveling fellow, 33, instr, 34–37, assoc, 37–38, *asst. prof, 39–* Asst, Mass. Gen. Hosp, 34–36, asst. surgeon, 37–42, assoc. visiting surgeon, 42–; consulting surgeon, Mass. Eye and Ear Infirmary, 38–; mem. consulting staff, South County Hosp, R. I, 41– Mem, Am. Board Surg, 38. Am. Med. Asn; Col. Surg; Soc. Clin. Invest; Soc. Univ. Surg; Boston Surg. Soc. Endocrinology.

Cope, Dr. Oliver B(rewern), Malaria Control, U. S. Marine Corps Air Station, Cherry Point, N. C. *Entomology.* San Francisco, Calif, June 16, 16. A.B, Stanford, 38, A.M, 40, Ph.D, 42. Tech. asst, Stanford, 39–42; *malaria control unit, U. S. Navy, 42–* Entom. Soc. Mosquito control; insect morphology; ectoparasites.

Cope, Prof. O(tis) M(erriam), Fifth Ave. and 106th St, New York, N. Y. *Physiology.* Edmore, Mich, May 19, 80. A.B, Michigan, 02, M.D, 04. Instr. physiol, med. sch, Michigan, 10–18, asst. prof, 18–24; assoc. prof. physiol. and pharmacol, col. med, Nebraska, 24–32; *prof. physiol. and physiol. chem. and head dept,* N. Y. Homeop. Med. Col, 32–35, *N. Y. Med. Col, 35–* A.A; Physiol. Soc; fel. Am. Med. Asn; Am. Acad; Mich. Acad; N. Y. Acad. Physiology of the heart.

Cope, Prof. R(alph) P(earce), State College of Washington, Pullman, Wash. *Chemistry.* Hanoverton, Ohio, 85. B.S, Ill. Wesleyan, 10; B.S, M.S, State Col. Wash, 19. *Assoc. prof. agr. and anal. chem, State Col. Wash, 11–* A.A; Chem. Soc; Northwest Sci. Asn. Agricultural quantitative analysis.

Cope, Prof. Thomas D(arlington), University of Pennsylvania, Philadelphia, Pa. *Physics.* West Chester, Pa, Dec. 28, 80. A.B, Pennsylvania, 03, Ph.D, 15; Berlin, 12–13. Instr. *physics, Pennsylvania,* 06–13, asst. prof, 13–22, *prof, 22–* Capt, Bur. Aircraft Production, 18. A.A; Physical Soc; Asn. Physics Teachers (sec'y, 37); Franklin Inst; Soc. de Physique. Mechanics; acoustics; industrial problems; education.

Cope, Prof. T(homas) Freeman, Queens College, Flushing, N. Y. *Mathematics.* Dallas, Texas, Nov. 25, 00. B.S, Tulane, 23, M.S, 25; Ph.D, Chicago, 27. Instr, Tulane, 23–25; Western Reserve, 26–27; Chicago, 27–28; nat. research fellow *math,* Harvard, 28–29, instr, 29–30; asst. prof, Marietta Col, 30–31, head dept, 30–37, prof, 31–37; asst. prof, *Queens Col,* 37–39, *assoc. prof, 39–, chairman dept, 37–* Math. Soc; Math. Asn. (chairman, metrop. N. Y. sect, 41). Calculus of variations.

Copeland, Dr. A(lvin) Wallace, 2407 W. 16th St, Wilmington, Del. *Physical chemistry.* Indiana, Pa, May 24, 11. A.B, Muskingum Col, 32; M.S, Ohio State, 36, univ. fellow, 36–37, Ph.D, 37. Lecture demonstrator, N. Y. Univ, 32–33; asst, Ohio State, 34–36; *research chemist, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Photovoltaic effect of silver electrodes in alkali halide electrolytes; abstracting, translating and searching chemical information in journals and patents.

Copeland, Prof. Arthur H(erbert), 616 Oswego St, Ann Arbor, Mich. *Mathematics.* Rochester, N. Y. A.B, Amherst Col, 21; A.M, Ph.D, Harvard, 26. Instr. *math,* Harvard, 22–23; Rice Inst, 24–28; asst. prof, Buffalo, 28–29; *Michigan,* 29–37, *assoc. prof, 37–* Guggenheim Mem. Foundation fellow, 35–36. Math. Soc; Math. Asn; Inst. Math. Statist. Probability; analysis; mechanics.

Copeland, Prof. Charles S(allaz), University of Southern California, Los Angeles, Calif. *Physical chemistry.* Rockford, Ill, Aug. 9, 08. B.S, Wisconsin, 30; Ph.D, Minnesota, 37. Mem. tech. staff, Bell Tel. Labs, 30–31; instr. *chem,* Southern California, 37–38; Carleton Col, 38–39; *Southern California, 39–40, asst. prof, 40–* A.A; Chem. Soc. Dielectric constants and dipole moments.

Copeland, Clem A(ustin), 7016 Vista del Mar, Playa del Rey, Calif. *Electrical engineering.* Goshen, Ind, July 21, 70. Stanford, 91–94; A.B, Cornell, 96. Sec'y, Elec. Rapid Transit Street Car Co, San Diego, Calif, 88–91; electrician, Copper Queen Mining Co, Bisbee, Ariz, 96–97; asst. and assoc. prof. in charge elec. eng. dept, Stanford, 98–01; supt. distribution, Edison Elec. Co, Los Angeles, 01–04; consulting engineer, Los Angeles, 04–08; testing and gen. engineer, Pacific Elec. Ry, Los Angeles, 09; supt, hydro-elec. power plants, Pacific Gas and Elec. Co, 10–13; valuation engineer, H. M. Byllesby Co, Chicago, Ill, 13–14; hydro-elec. research, Bur. Power and Light, Los Angeles, 16–40, in charge research and records sect; *retired.* Los Angeles Eng. Council of Founder Societies (sec'y-treas, 35).

Copeland, Dr. E(dwin) B(ingham), 1322 Euclid Ave, Berkeley, Calif. *[1]*Botany.* Monroe, Wis, Sept. 30, 73. Wisconsin, 91–94; A.B, Stanford, 95; Leipzig, 95–96; Ph.D, Halle, 96; Wisconsin, 96–97, 98; Chicago, 00–01. Asst. prof. bot, Indiana, 97–98; Calif. State Nor. Sch, Chico, 99; West Virginia, 99–00, prof, 00–01; instr, Stanford, 01–03; botanist, Philippine Govt, 03–08; supt, sch. agr, P. I, 08–09; dean and prof. plant physiol, col. agr, Philippines, 09–17; manager herbarium, *California,* 28–32, *research assoc. bot, 35–* Prof, biol. lab, Cold Spring Harbor, 01; tech. adviser, Philippine Govt, 32. Plant physiology; taxonomy of ferns.

Copeland, Dr. Frederick C(leveland), Trinity College, Hartford, Conn. *Biology.* Brunswick, Maine, Oct. 9, 12. A.B, Williams Col, 35; Munich, 35–36; A.M, Harvard, 37, Ph.D, 40. Asst. *biol,* Harvard, 37–40; *instr, Trinity Col. (Conn), 40–* Genetics Soc. Plant genetics.

Copeland, Dr. Herbert F(aulkner), Sacramento Junior College, Sacramento, Calif. *Botany.* Chicago, Ill, May 21, 02. A.B, Wisconsin, 22; M.S, California, 25; fellow, Stanford, 30, Ph.D, 31. *Teacher,* high sch, Calif, 25–27; *bot, Sacramento Junior Col, 27–* A.A; Bot. Soc; Calif. Bot. Soc. Morphology and taxonomy of Ericales.

Copeland, Dr. Herman A(bner), 2375 Summit St, Columbus, Ohio. *Industrial psychology.* Wapakoneta, Ohio, June 23, 06. A.B, Ohio (Athens), 27; A.M, Ohio State, 29, univ. scholar, 33–34, Ph.D, 42. Asst. psychol, Ohio State, 31–33; interviewer, State Employment Service, Ohio, 34–37; special rep, Int. Business Machines Corp, 37–41; *instr. psychol, Ohio State, 42–* Assoc. Psychol. Asn. Training of card punch machine operators; reliability of personnel records; clerical tests; age differences in intelligence.

Copeland, Dr. Joseph J(ohn), College of the City of New York, New York, N. Y. *Botany.* Marion, Ind, Aug. 27, 07. A.B, Earlham Col, 29; Ph.D, Columbia, 36. Asst. *bot,* Earlham Col, 25–28; *instr, Col. City of N. Y, 28–* Summers, Marine Biol. Lab, Woods Hole, 27–30. Bot. Soc; Torrey Bot. Club; N. Y. Acad. Thermal plants; Myxophyceae; taxonomy and ecology of Pteridophytes.

Copeland, Prof. Lennie Phoebe, Wellesley College, Wellesley, Mass. *Mathematics.* Bangor, Maine, March 30, 81. B.S, Maine, 04; A.M, Wellesley Col, 11; Ph.D, Pennsylvania, 13. Teacher, high sch, 05–10; instr. *math, Wellesley Col,* 13–19, asst. prof, 19–28, assoc. prof, 28–37, *prof, 37–* A.A; Math. Soc; Math. Asn. Algebra of invariants.

Copeland, Dr. L(ewis) C(ovell), Residence Park, Palmerton, Pa. *Physical chemistry.* Northampton, Mass, 01. A.B, Williams Col, 24, A.M, 25; Ph.D, Hopkins, 28. Instr, Hopkins, 27–28; nat. research fellow, Harvard, 28–30; investigator physical chem, *N. J. Zinc Co,* 30–38, *chief chem. sect, 38–* Chem. Soc. Atomic gases and heats of formation of molecular gases; pigments and inorganic chemicals.

Copeland, Dr. L(lewellyn) E(verard), 11945 Stewart Ave, Chicago, Ill. *Physical chemistry.* Meridian, Miss, May 28, 09. A.B, John Fletcher Col, 30; Ph.D, Chicago, 41. Chemist, Am. Dry Milk Inst, 32–39; asst, Chicago, 41–42; *chemist, U. S. Rubber Co, 42–* Thermodynamics of condensed monolayers.

Copeland, Lynn, 324 W. 23rd St, New York, N. Y. *Dairy science.* Sharpsburg, Iowa, Nov. 14, 98. B.S, Kans. State Col, 22; M.S, S. Dak. Col, 23. Asst. prof, S. Dak. Col, 25–26; *supt. production, testing dept, Am. Jersey Cattle Club, 27–* Dairy Sci. Asn. Inheritance of milk yield and fat percentage in

dairy cattle; methods of evaluating dairy sires; dairy bacteriology; flora of cows' udders.

Copeland, Prof. Manton, Brunswick, Maine. *Zoology,* Taunton, Mass, July 24, 81. B.S, Harvard, 04, M.S, 05, Ph.D, 08. Asst. zool, Harvard and Radcliffe Col, 04–08; instr. *biol, Bowdoin Col,* 08–09, asst. prof, 09–10, *prof, 10–* A.A; Soc. Zool; assoc. Ornith. Union; Soc. Ichthyol. and Herp; Soc. Mammal; Am. Acad; Biol. Soc. Wash; Boston Soc. Nat. Hist. Animal reactions and behavior; mammalogy.

Copeland, Dr. Paul L(avern), Illinois Institute of Technology, Chicago, Ill. *Physics.* Holdrege, Nebr, April 13, 05. A.B, Nebr. Wesleyan, 27; M.S, Iowa, 30, Ph.D, 31. Asst. physics, Iowa, 27–31; instr, Mass. Inst. Tech, 31–34; asst. and assoc. prof, Mont. State Col, 35–37; *assoc. prof, Ill. Inst. Tech,* 37–42, *prof, 42–* Physical Soc; Asn. Physics Teachers. Secondary emission of electrons; anode effect.

Copeland, Prof. W(illiam) F(ranklin), Ohio University, Athens, Ohio. *Botany.* Tappan, Ohio, Aug. 16, 72. Ph.B, Ohio (Athens), 02, Ph.M, 03, Ph.D, 07. Asst. biol. and geol, *Ohio (Athens),* 02–05, bot, 07, *prof.* elementary science, 07–10, *agr, 10–* A.A; Soc. Nat; Nature Study Soc; Ohio Acad. Periodicity in Spirogyra.

Copenhaver, Prof. James E(arl), University of South Carolina, Columbia, S. C. *Chemistry.* Seven Mile Ford, Va, Dec. 19, 96. A.B, Emory and Henry Col, 20; M.S, Vanderbilt, 23; Ph.D, Hopkins, 26. Asst. chemist, Beaver Chem. Corp, Va, 20–22; assoc. prof. *chem, South Carolina,* 26–37, *prof, 37–* Summers, asst. chemist, Beaver Chem. Corp, 23, 25; E. I. du Pont de Nemours and Co, 24; assoc. prof, West Virginia, 29. A.A; Chem. Soc. (pres, S. C. sect, 31, sec'y-treas, 41); S. C. Acad. (sec'y and treas, 33–36, librarian, 36–); Deuts. Chem. Gesell. Identification of alcohols; melting points of aliphatic homologous series; preparation of alkyl halides and their properties.

Copenhaver, Dr. W(ilfred) M(onroe), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Anatomy.* Westminster, Md, Dec. 26, 98. A.B, West. Maryland Col, 21; Ph.D, Yale, 25. Asst. instr. biol, Yale, 21–24, *anat,* sch. med, 24–25; instr, Rochester, 25–27, asst. prof, 27–28; *col. physicians and surg, Columbia,* 28–40, *assoc. prof, 40–* A.A; Asn. Anat; Soc. Zool; Soc. Exp. Biol; Harvey Soc. Experimental embryology; the development of the heart and liver in Amphibia.

Copher, Dr. Glover H(ancock), Washington University School of Medicine, St. Louis, Mo. *Surgery.* Troy, Mo, Oct. 27, 93. A.B, Missouri, 16; M.D, Washington (St. Louis), 18. From instr. to *assoc. prof. surg, sch. med, Washington (St. Louis), 22–, chief surg. clinic, 26–* Visiting surgeon, St. Louis City Hosp, 22–26; asst. surgeon, Barnes Hosp; St. Louis Children's Hosp, 22–; surgeon, St. Louis Maternity Hosp, 27– Co-winner Leonard research prize, Am. Roentgen Ray Soc, 25; certificate of honor, St. Louis Med. Soc, 27. Surg. Asn; Soc. Clin. Surg; Am. Med. Asn; Col. Surg; St. Louis Surg. Soc. Visualization of the gall-bladder by roentgen ray; physiology of the gall-bladder and liver; influence of urinary bladder transplants on bone and hyaline cartilage.

Copley, Dr. M(ichael) J(oseph), Eastern Regional Research Laboratory, Chestnut Hill Station, Philadelphia, Pa. *Chemistry,* Weston, W. Va, Sept. 16, 98. B.S, Catholic Univ, 22; Ph.D, Illinois, 29. Instr. chem, Illinois, 29–30, assoc, 30–36, asst. prof, 36–39, assoc. prof, 39; *chief anal. and physical chem. div, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 39–* Chem. Soc. Physical and analytical chemistry; molecular rays; surface ionization; electric and magnetic properties of atoms; properties of solutions.

Copp, Prof. Walter P(ercy), Dalhousie University, Halifax, N. S, Can. *Civil engineering.* Sackville, N. B, Aug. 27, 85. B.A, Acadia, 06; B.Sc, McGill, 08. First asst, Dom. Land Surv, Can, 08–09, struct. draftsman, checker and in charge drawing office, 09–13, asst. engineer and chief inspector, Quebec bridge, 13–18, struct. engineer, dept. rys. and canals, 18–20; *prof. civil eng, Dalhousie, 20–* Eng. Inst. Can. (chairman, Halifax branch, 31; mem, gen. council, 32–33); Can. Eng. Standards Asn; N. S. Inst. Science (treas, 40); N. S. Professional Eng. (pres, 33); N. S. Sci. Soc. Design and construction of steel and concrete structures.

Coppick, Dr. Sidney, 920 Irving, Syracuse, N. Y. *Cellulose chemistry.* Fenton, Eng, Nov. 14, 12. B.Eng, McGill, 36; M.S, Idaho, 37; Ph.D, N. Y. State Col. Forestry, 41. Research chemist, Am. Viscose Corp, 41–42; research assoc, bur. indust. chem, Texas, 42–43; *acting prof. forest chem, N. Y. State Col. Forestry, Syracuse, 43–* A.A; Chem. Soc; Tech. Asn. Pulp and Paper Indust; Eng. Inst. Can. Chemical modification of the cotton fiber.

Copson, Dr. Harry R(ollason), International Nickel Co, Oak St, Bayonne, N. J. *Engineering.* Easthampton, Mass, July 8, 08. B.S, Mass. Col, 29; Ph.D, Yale, 32. Research chemist, Conn. State Water Cmn, 29–30; chief chemist, Apothecaries Hall Co, 33–34; *research chem. and metal. engineer, Int. Nickel Co, 34–* Chem. Soc; Chem. Eng; Electrochem. Soc. Chemical and metallurgical engineering; corrosion of metals.

Copson, Dr. R(aymond) L(eslie), Tennessee Valley Authority, Wilson Dam, Ala. *Chemical engineering.* Easthampton, Mass, Oct. 28, 04. B.S, Worcester Polytech, 25, M.S, 27; Ph.D, Yale, 31. Asst, Mass. Inst. Tech, 27–29; instr, Yale, 29–31; chem. engineer, Vacuum Oil Co, Woodbury, N. J, 31–33; *chief chem.-eng. research and develop, Tenn. Valley Authority, 33–* Chem. Eng; Chem. Soc. Utilization of industrial waste products; petroleum refining; production of phosphorus, phosphoric acid, phosphate fertilizer, synthetic ammonia and ammonium nitrate.

Coraje, Dr. Elíseo Jesús, 520 E St, San Diego, Calif. *Child hygiene.* Popayan, Colombia, 75. Bachiller, Bogota, 95; D.Sc, Toulouse, 00; LL.D, Lima, 09, Caracas, 10. Prof. science, Medellín, 01–14; faculty social science, Madrid, 14–25; *retired.* Council, Int. Board Hygiene, 26– Chief Andean anthrop. exped, 12–13. Calif. Mycol. Soc. Classification of Mexican races by the mental development of children; nubility, depressant or stimulant among tropic peoples.

Coral, Prof. Max, Wayne University, Detroit, Mich. *Mathematics.* Philadelphia, Pa, June 6, 05. A.B, Col. City of Detroit, 27; M.S, Chicago, 29, Ph.D, 31. Nat. research fellow *math,* Harvard and Chicago, 31–32; asst, Chicago, 33–36; instr, *Wayne,* 36–41, *asst. prof, 41–* Math. Soc. Calculus of variations of double integrals.

Corbet, Dr. Ruth E(lizabeth), Biochemical Research Foundation, Newark, Del. *Biochemistry.* Brooklyn, N. Y, Aug. 29, 10. A.B, Okla. Col. for Women, 31; A.M, Oberlin Col, 32; Ph.D, Pa. State Col, 37. Asst. chem, Oberlin Col, 36–37, Charles M. Hall research instr, 37–39; *research biochemist, biochem. research foundation, Franklin Inst, 39–* Chem. Soc; Inst. Chem. Vitamins; fat metabolism.

Corbett, Dr. C(lifton) S(herwin), Socony-Vacuum Oil Co, Inc, 26 Broadway, New York, N. Y. *Geology.* Edwardsville, Ill, Aug. 11, 91. Ohio Wesleyan, 08–10; A.B, Northwestern, 12; A.M, Wisconsin, 14, Ph.D, 21. Geologist, Producers Oil Co, 15–16; E. J. Longyear Co, 16–19; instr. geol, Wisconsin, 19, 21–22; asst. prof, Kansas, 22–24, assoc. prof, 24–25; chief geologist, D. E. I. subsidiary, Standard Oil Co. of N. J, 25–28; *geologist,* Gulf Oil Corp, 29–37; *Socony-Vacuum Oil Co, 37–,* chief geologist, Colombian subsidiary, 41–42. Summers, aid, U. S. Geol. Surv, 12–14; geologist, Wis. Geol. Surv, 15, 22. Research beneficiation of bauxite, Aluminum Co. of Amer, 20. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol; Miner. Soc; Min. and Metal. Eng. Petrography; structural and petroleum geology.

Corbett, L(aurence) J(ay), 1010 Shattuck Ave, Berkeley, Calif. *Electrical engineering.* Saratoga, Calif, May 19, 77. Idaho; B.S, California, 02; Union (N. Y), 03. Test dept, Gen. Elec. Co, 02–03; indust. firms, Calif. and Wash, 03–06; consulting engineer, Spokane, 06–11; assoc. prof. elec. eng, Idaho, 11–12, prof. and head dept, 12–18; **Fed. Board Vocational Educ,** 19; acting assoc. prof. mech. eng, California, 19–20; eng. dept, Pacific Gas and Elec. Co, 20–35; *consulting elec. engineer, 35–* Eng. mem, Board Examiners Archit, Idaho, 17–18. Capt, C.Eng, 18–19, col, Eng. O.R.C. A.A; Elec. Eng; Soc. Mil. Eng. (treas. and director, San Francisco post, 22–31, pres, 31); Astron. Soc. Pacific. Electrical transmission high-voltage crossing spans; residual voltages and currents in power systems; inductive coordination of power and communication systems.

Corbin, Prof. C(harles) E(dgar), 117 W. Euclid Ave, Stockton, Calif. *Mathematics.* Blackstone, Ill, June 6, 80. A.B, Doane Col, 04; A.M, Northwestern, 07. Prin, Weeping Water Acad, 07–10; *prof. math,* Huron Col, 10–14; *Col. of Pacific, 14–* Math. Soc; Math. Asn; Asn. Eng.

Corbin, Dr. Kendall B(rooks), 875 Monroe Ave, Memphis, Tenn. *Anatomy.* Oak Park, Ill, Dec. 31, 07. A.B, Stanford,

31, M.D, 35. Asst. *anat*, Stanford, 32, instr, 34–38; assoc. prof, col. med, *Tennessee*, 38–40, prof, 40–41, *prof. and chief div, col. med, col. dentistry and sch. nursing, 41–* Nat. research fellow, neurol. inst, Northwestern, 37–38. Alpha Omega Alpha research award, Stanford, 35. Asn. Anat; Physiol. Soc; Soc. Exp. Biol. Anatomy and physiology of the nervous system; proprioceptive components of cranial nerves; mesencephalic nucleus and root of trigeminal; bone innervation; vibratory sensibility; age changes in nervous system.

Corbitt, Dr. Hugh Blake, Rider's Mills, N. Y. *Chemistry.* Fairfield, Iowa, March 16, 89. B.S, Washington (Seattle), 13; A.M, Columbia, 21, Ph.D, 25. Chemist, Classen Chem. Co, 11–12; sanit. bacteriologist, U. S. Pub. Health Service, 13–20; *research chemist, H. A. Metz Labs, Inc, 20–* Sergt, M.C, 18–19. A.A; Chem. Soc; Inst. Chem; Soc. Bact. Bacteriology; pharmacology of insulin, suprarenin and phenols; chemotherapy of trypanocides and spirocheticides; synthetic organic chemistry; arsenic derivatives of 2-phenyl benzothiazoles; chemistry of medical products.

Corby, Grant W, Box 2540, Manila, P. I. *Geology.* Los Angeles, Calif, 98. A.B, Stanford, 21, A.M, 22. Instr. advanced paleont, Stanford, 21–22, asst. geol, 22–23; consulting geologist, Carl H. Beal, San Francisco, 23–24; geologist, Coast Land Co, 24; Marland Oil Co, 24–28; Continental Oil Co, 28–29; consulting petrol. engineer and geologist, 29–32; *consulting geologist and geophysicist, 32–* Summer, instr, Stanford, 20. V. pres, Geophys. Eng. Corp, 37. Asn. Petrol. Geol. Paleontology.

Corcoran, Prof. Charles A(loysius), College of the City of New York, New York, N. Y. *Physics.* New York, N. Y, July 13, 86. B.S, Col. City of N. Y, 04, fellow, 04–07; A.M, Columbia, 06. Tutor *physics, Col. City of N. Y*, 07–14, instr, 14–18, asst. prof, 18–22, assoc. prof, 22–28, *prof, 28–*, head dept, 34–38, *chairman dept, 41–* U.S.A, 18. A.A; Physical Soc; Asn. Physics Teachers.

Corcoran, Prof. G(eorge) F(rancis), University of Maryland, College Park, Md. *Electrical engineering.* Redfield, S. Dak, Sept. 26, 00. B.S, S. Dak. State Col, 23; M.S, Minnesota, 26. Teaching fellow, Minnesota, 25–26, instr. *elec. eng*, 26–27; Kans. State Col, 27–29, asst. prof, 29–31; assoc. prof, Iowa, 31–39, prof, 39–41; *prof. and chairman dept, Maryland, 41–* Summer, mem. staff, Westinghouse Res. Lab, 29. Squirrel cage currents in induction motors; sub-harmonics in non-linear electrical circuits.

Cordner, Prof. H(oward) B, R. 3, Stillwater, Okla. *Horticulture.* Provo, Utah, Jan. 10, 02. B.S, Brigham Young, 27; M.S, Mich. State Col, 28; Ph.D, Maryland, 32. Asst, Maryland, 28–29, asst. prof. *olericulture*, 29–35, assoc. prof, 35–37; *prof. and assoc, Okla. Agr. and Mech. Col, 37–* Soc. Hort. Sci. Olericulture; nutrition and physiology of vegetable crops; storage and irrigation problems; potato production.

Cordon, Dr. Theone C(handler), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Microbiology.* Rigby, Idaho, Sept. 12, 09. B.S, Utah State Col, 32, M.S, 35; Ph.D, Rutgers, 38. Supervisor peat resources surv, N. J. Exp. Sta, 38–41; chemist, Quaker Maid Co, Brooklyn, 41; bacteriologist, Idaho, 41–42; *asst. bacteriologist, hides, tanning materials and leather div, east. regional research lab, bur. agr. and indust. eng, U. S. Dept. Agr, 42–* Microbiology of hide curing; leather molding; development of domestic tanning materials.

Core, Prof. Earl L(emley), West Virginia University, Morgantown, W. Va. *Botany.* Core, W. Va, Jan. 20, 02. A.B, West Virginia, 26, A.M, 28; Columbia, 31–32, Ph.D, 35. Instr. *bot, West Virginia*, 28–34, asst. prof, 34–41, assoc. prof, 41–42, *prof, 42–, curator herbarium, 34–* Summer, mem. faculty, Franz Theodore Stone lab, Ohio State, 39– A.A; Bot. Soc; Soc. Plant Taxon; South. Appalachian Bot. Club (ed, 'Castanea'); Torrey Bot. Club; W. Va. Acad. Ecology and floristics of the Southern Appalachian Mountains; taxonomic revision of genus Scleria in America; history of botanical exploration of West Virginia; Corrigiolaceae; flora of Erie Islands.

Corey, Dr. Alfred J, Box 784, Campbellton, N. B, Can. *Physical chemistry.* Wilson's Beach, N. B, Nov. 17, 06. B.Sc, New Brunswick, 32; Can. Pulp and Paper Asn. scholar, McGill, 33–36, Ph.D, 36. *Acting director research, Fraser Co, Ltd, 43–* Chem. Soc; Tech. Asn. Pulp and Paper Indust; Can. Pulp and Paper Asn. (tech. sect). Sulphite pulping.

Corey, Prof. Edward L(yman), University, Va. *Physiology.* Schenectady, N. Y, Dec. 11, 01. A.B, Western Reserve, 24; Sterling fellow, Yale, 27–28, Ph.D, 28. Asst. biol, Western Reserve, 21–24; Yale, 24–27; instr, N. Y. Univ, 28–29; *asst. prof. physiol, Virginia, 29–; lieut, U. S. Naval Res, 42–* Summers, instr, Western Reserve, 25, 26. Morris Biol. Farm, Wistar Inst, 34. Lecturer, Cold Spring Harbor, 28. A.A; Physiol. Soc; Soc. Zool; Asn. Anat. Adrenal cortex; foetal physiology, endocrinology and blood cytology; aviation medicine; underwater concussion.

Corey, Fred B(rainard), R. D. 1, Barberton, Ohio. *Electrical engineering.* Homer, N. Y, Sept. 28, 69. M.E, Cornell, 92. Engineer, ry. dept, Gen. Elec. Co, 93–11; Union Switch and Signal Co, 11–14; consulting engineer, Pittsburgh, 14–16; engineer, Pittsburgh Valve and Fittings Co, 16–37; *retired.* Lecturer, Columbia, 13. A.A; fel. Elec. Eng; Mech. Eng. Electrical apparatus; railway brakes; signals and valves.

Corey, Dr. H(ilda) Irene (Mrs. William F. Diller), Research Institute, Lankenau Hospital, Philadelphia, Pa. *Cytology.* North Woodstock, N. H, May 19, 00. A.B, George Washington, 25; A.M, Pennsylvania, 31, Ph.D, 33. Research information service, Nat. Research Council, 22–25; research asst, *dept. zool, Pennsylvania*, 25–33, *research assoc, 33–*, sec'y to director dept, 24–33. Asst. to Prof. McClung, Naples Zool. Sta. and European labs, 27–28. Sec'y and interpreter to Prof. Yerkes, anthropoid exped, Cuba, 24; fellow, Keio Univ, Japan, 33–34. Int. Cong. Zool, Uruguay, 30. A.A; Soc. Zool. Cytology of Orthoptera; chromosome studies in grasshopper germ cells; cytogenetics of Sciara.

Corey, Dr. Robert B(rainard), California Institute of Technology, Pasadena, Calif. *Chemistry.* Springfield, Mass, Aug. 19, 97. Ch.B, Pittsburgh, 19; Ph.D, Cornell, 24. Instr. chem, Cornell, 23–28; asst. biophys, Rockefeller Inst, 28–30, assoc, 30–37; research fellow, *Calif. Inst. Tech*, 37–38, *senior fellow struct. chem, 38–* A.A; Chem. Soc. Structure of proteins; crystal structure.

Corey, Prof. Stephen M(axwell), University of Chicago, Chicago, Ill. *Educational psychology.* Rochester, N. Y, July 21, 04. B.S, Eureka Col, 26; A.M, Illinois, 27, Ph.D, 30. Instr. psychol, Illinois, 28–30; assoc. prof, DePauw, 30–31; Nebraska, 31–34, prof. educ. psychol, 34–36; assoc. prof. educ, Wisconsin, 36–38, prof. educ. and asst. dean grad. sch, 38–40; *prof. educ. and supt. lab. schs, Chicago, 41–* Trustee, Eureka Col. A.A; Psychol. Asn; Educational Research Asn; Midwest Psychol. Asn. Psychology of learning.

Corey, Dr. Victor B(rewer), 301 E. Allegheny Ave, Emporium, Pa. *Physics.* Bynumville, Mo, Feb. 9, 15. A.B, Cent. Col. (Mo), 37; M.S, Iowa, 39, Ph.D, 42. Asst. physics, Cent. Col. (Mo), 35–37; Iowa, 37–42; *research physicist, Sylvania Elec. Products, Inc, 42–* Physical Soc. Compressibility of ionic solutions by ultrasonic waves; adiabatic compressibilities of some aqueous ionic solutions and their variation with the indicated liquid structure of the water; theory and application of microwaves.

Corey, W(illiam) H(enry), Continental Oil Co, Los Angeles, Calif. *Petroleum geology.* Chattanooga, Tenn, Jan. 23, 01. A.B, California, 26, A.M, 28. Geologist, Standard Oil Co. of Calif, 30–37; Shell Oil Co, 37–41; consulting geologist, 41–42; *mem. staff, Continental Oil Co, 42–* Richmond Petrol. Co. of Mex. exped, Isthmus of Tehuantepec, Mex, 32–33; Caribbean Petrol. exped, Venezuela, 37–40. Asn. Petrol. Geol. Megafaunal paleontology; paleontology and paleogeography of earlier Miocene, California; correlation.

Cori, Dr. Carl F(erdinand), Washington University School of Medicine, St. Louis, Mo. **Physiology, Pharmacology, Biochemistry.* Prague, Austria, Dec. 5, 96. Humanistic Gym, Trieste, 14; M.D, German Univ, Prague, 20. Instr, 2nd med. clinic, Prague, 19–20; asst, 1st med. clinic, Vienna, 20–21; asst. pharmacol, Graz, 21; biochemist, State Inst. Study Malignant Diseases, N. Y, 22–31; asst. prof. physiol, Buffalo, 30–31; *prof. pharmacol. and biochem, sch. med, Washington (St. Louis), 31–* Nat. Acad; A.A; Soc. Pharmacol; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. (councilor, 30); Asn. Cancer Research; hon. mem. Harvey Soc. Influence of nerve stimulation in isolated heart; insulin; carbohydrate metabolism of malignant tumors; influence of ovariectomy on tumor incidence; sugar in the animal body; intestinal absorption; action of epinephrin on metabolism; phosphate changes in muscle; isolation of glucose-1-phosphoric acid; enzymatic synthesis of glycogen; aerobic phosphorylation.

Cori, Dr. Gerty T(heresa), Washington University School of Medicine, St. Louis, Mo. *Biochemistry.* Prague, Austria, Aug. 15, 96. Realgym, 14; M.D, German Univ, Prague, 20. Demonstrator med, Prague, 17–19; asst, Children's Hosp, Vienna, 20–22; asst. pathologist, State Inst. Study Malignant Diseases, Buffalo, 22–25, asst. biochemist, 25–31; fellow and *research assoc. pharmacol. and biochem, sch. med, Washington (St. Louis), 31–* Soc. Biol. Chem; Soc. Pharmacol; Chem. Soc. Sugar and lactic acid metabolism of tumors; fate of sugars in animal body; mechanism of insulin and epinephrin action; intestinal absorption of lactic acid; hexosephosphate content of muscle; isolation of glucose-l-phosphate and its role in blood sugar formation in the liver; isolation and mode of action of phosphorylating enzymes.

Coriat, Dr. Isador H(enry), 416 Marlborough St, Boston, Mass. *Neurology, Psychiatry.* Philadelphia, Pa, Dec. 10, 75. M.D, Tufts Col, 00; Harvard, 09–10. Asst. physician, Worcester State Hosp, 00–05; 1st asst. visiting physician, Boston City Hosp, 05–19; consulting neurologist, Beth Israel Hosp, 19–28. Neurologist, Mt. Sinai Hosp, 05–14; consulting neurologist, Chelsea Mem. Hosp, 10–27; instr, Tufts Col, 14–16; consulting neurologist, Forsyth Dental Infirmary, 16–30; neurologist, Med. Advisory Board; instr. and psychiatrist, psychiat. clinic, Boston Psychoanal. Inst. Collaborating ed, 'Jour. Abnormal Psychol,' 06–26; 'Psychoanal. Rev,' 37– Int. Med. Cong, London, 13; Int. Psychoanal. Cong, 25, 27, 29. Contract surgeon, U.S.A. Psychiat. Asn; Psychopath. Asn; Psychoanal. Asn. (pres, 24, 37); Am. Med. Asn; New Eng. Soc. Psychiat; Mass. Psychiat. Soc; Boston Psychoanal. Soc. (pres, 40); Int. Psychoanal. Asn. Psychopathology; psychoanalysis; nervous and mental diseases; hypnosis; colored hearing; stammering; family idiocy; memory; literary criticism; repressed emotions; nerve regeneration; psychology of instincts.

Cork, Prof. J(ames) M, University of Michigan, Ann Arbor, Mich. *Physics.* Yale, Mich, July 9, 94. B.S, Michigan, 16, M.S, 17, Ph.D, 22. Asst. physicist, Bur. Standards, 17–19; asst. prof. *physics,* Pa. State Col, 19–20; *Michigan,* 22–31, assoc. prof, 31–37, *prof, 37–* Exchange prof, Victoria (England), 26–27. Lieut, Sig.C, 18. A.A; fel. Physical Soc. Heat; x-rays; nuclear physics.

Corlett, Prof. William Thomas, 11015 E. Blvd, Cleveland, Ohio. *Dermatology, Syphilology.* Orange, Ohio, April 15, 54. Oberlin Col, 70–73; M.D, Univ. Wooster, 77; London Hosp, 79–81, L.R.C.P, London, 81; Hôpital St. Louis, Paris, 81; hon. M.D, Western Reserve, 82. Demonstrator anat, Univ. Wooster, 78, registrar and prof. dermat. and genito-urinary diseases, 82–85; acting prof, *Western Reserve,* 85–93, prof. *dermat. and syphilol,* 93–14, senior prof, 14–24, *emer. prof, 24–* A.A; hon. mem. Dermat. Asn. (pres, 05); Am. Med. Asn. (chairman, dermat. sect, 99); cor. mem. British Asn. Dermat. and Syphilol. (orator, 03); fel. Royal Soc. Med. Diseases of the skin; dermatoses due to vegetable parasites; leprosy; the medicine man of the American Indian.

Corley, Prof. Ralph C(onner), Purdue University, Lafayette, Ind. *Biochemistry.* Tower Hill, Ill, June 5, 01. A.B, Illinois, 21, A.M, 22, Ph.D, 24. Asst, Illinois, 22–24; instr, Tulane, 24–25, asst. prof. *biochem,* 25–30; assoc. prof, *Purdue,* 30–35, *prof, 35–* A.A; Soc. Biol. Chem; Chem. Soc. (sec'y, Purdue sect, 31–33, chairman, 35); Soc. Exp. Biol; Ind. Acad. Inorganic and intermediary metabolism; disposal of synthetic fatty acids in the animal body; catabolism of the amino acids and proteins; metabolism of levulose, galactose, lactose, the pentoses, and the rare oligosaccharides; significance of the amino acids in nutrition of the adult animal; enzymes.

Corliss, Dr. John J(ohnson), De Paul University, Chicago, Ill. *Mechanics.* Memphis, Tenn, July 12, 96. A.B, Mississippi, 25, A.M, 27; Ph.D, Michigan, 30. Instr. *math,* Mississippi, 23–26; asst. prof, Texas Christian, 26–27; instr, Michigan, 27–33; *prof, De Paul, 35–, chairman dept, 39–* Instr, Armour Inst. Tech, 35–36. Math. Soc; Math. Asn. Insurance; unsymmetrical top; applications of mathematics to insurance and experimental data; algebra; geometry.

Cormack, Dr. M(elville) W(allace), Dominion Laboratory of Plant Pathology, Edmonton, Alta, Can. *Plant pathology.* Rossburn, Man, July 29, 08. B.S.A, Manitoba, 30; M.Sc, Alberta, 31; Ph.D, Minnesota, 37. Plant disease investigator, *Dom. Lab. Plant Path, Can,* 28–31, *asst. plant pathologist, 31–* Phytopath. Soc; Can. Phytopath. Soc; Can. Soc. Tech. Agr. Diseases of forage crop legumes and grasses.

Cormack, Dr. R(obert) G(eorge) H(all), University of Alberta, Edmonton, Alta, Can. *Botany.* Cedar Rapids, Iowa, Feb. 2, 04. B.A, Toronto, 29, M.A, 31, Ph.D, 34. Demonstrator *bot,* Toronto, 29–36; *lecturer, Alberta, 36–* Ecological anatomy.

Cormany, C(harles) E(vans), Holly Sugar Corp, Sheridan, Wyoming. *Agronomy.* Rural Retreat, Va, Oct. 28, 95. B.S, N. Mex. Col, 18; M.S, Cornell, 20. Asst. agronomist, N. Mex. Col, 18–19; asst. prof. and asst. farm crops, Mich. State Col, 20–28; chief agronomist and agriculturist, Republic of Colombia, 28–29; assoc. agronomist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–35; supervisor agr. program, Farmers and Manufacturers Beet Sugar Asn, 35–36; *chief agronomist, Holly Sugar Corp, 36–* Summer, asst. county agent, Valencia County, N. Mex, 17. Soc. Agron; Soc. Sugar Beet Technol. (sec'y-treas, 42–). Potato; chicory; sugar beets.

Cornbleet, Prof. Theodore, 310 S. Michigan Ave, Chicago, Ill. *Dermatology, Physiology.* St. Louis, Mo, March 10, 99. B.S, St. Louis, 21, M.D, 23; M.S, Illinois, 27, Ph.D, 33. Asst. *dermat,* Washington (St. Louis), 24–26; instr, *Illinois,* 26–29, assoc, 29–35, asst. prof, 35–39, *assoc. prof, 39–* Soc. Exp. Biol; Inst. Med. Chicago. Self-disinfecting properties of the skin; constituents and properties of sweat; calcium metabolism as related to the skin; properties of reducing agents used on the skin; dermatological mycology; proteose in relation to allergy.

Cornelison, Dr. R(obert) W(ilson), 275 W. Summit St, Somerville, N. J. *Chemistry.* Washington, Ill, 69. B.S, Illinois, 90; Morgan fellow, Harvard, 92–93, Sc.D, 93. Research chemist indust. companies and consulting chemist, 93–08; chemist, bur. chem, U. S. Dept. Agr, 08–09; supt, The Cott-a-lap Co, 09–15; gen. manager, Calco Chem. Co, 15–16; *pres. and gen. manager, Peerless Color Co, 16–* Summers, lecturer, Harvard, 92, 93; Brooklyn Inst, 05. Chem. Soc; Soc. Chem. Indust. Organic chemistry; production of fast dyes.

Cornelius, Donald Risdon, 1821 Poyntz Ave, Manhattan, Kans. *Agronomy.* Onaga, Kans, Jan. 25, 14. B.S, Kans. State Col, 35, M.S, 38; Nebraska, 40–41. Sci. aid, *soil conservation service, U. S. Dept. Agr,* 35–36, junior agronomist, 36–39, *asst. agronomist, 39–* Soc. Agron. Collection of grass and legume seed useful in revegetation and erosion control in Kansas; propagation of desirable strains and ecotypes of grasses and legumes under cultivation to supply seed for erosion control plantings.

Cornell, Dr. E(lton) F(red), Hawaiian Pineapple Co, Ltd, Honolulu, Hawaii. *Chemistry.* Sunnyvale, Calif, Oct. 13, 02. A.B, Stanford, 23, A.M, 24, Ph.D, 26. Junior chemist, Nat. Canners Asn, 26–30; chief chemist, *Hawaiian Pineapple Co, Ltd,* 30–35, asst. plant manager, 35–41, *plant supt, 41–* Chem. Soc. Canning technology; chemistry of canned foods.

Cornell, Dr. Ethel L(etitia), State Education Department, Albany, N. Y. *Psychology.* New York, N. Y, Nov. 28, 92. A.B, Cornell, 14; Ph.D, Columbia, 19. Chief psychologist, Boston Psychopathic Hosp, 19–20; *psychologist, State Educ. Dept, N. Y, 20–* Exten. instr, N. Y. State Col. for Teachers, Albany, and Syracuse. Reconstruction aide, psychol. service, U.S.A, 18–19. Psychol. Asn; Asn. Applied Psychol; Educ. Research Asn; Educ. Research Asn. N. Y; Asn. Applied Psychol. N. Y. (pres, 41). Education; clinical psychology; psychology of special school groups; psychology of reading; teacher training.

Cornell, J(ames) I(rving), 10 Roemer Place, Cranford, N. J. *Electrical engineering.* Brockton, Mass, June 7, 03. B.S, Worcester Polytech, 25. Radio develop. labs, Gen. Elec. Co, 25–29; sect. head in charge develop. lab, RCA Victor Co, 29–34; chief engineer in charge loud-speaker and acoustical develop, electrolytic capacitor research and develop, Magnavox Co, 34–38; *chief engineer, Solar Mfg. Corp, 38–* Consulting engineer, radio and radar component sect, War Production Board, 43– Radio Eng. Audio and power transformer design; audio frequency circuit design; electrolytic capacitor design; design of loud-speakers and acoustic devices; design of mica, oil and wax-impregnated paper capacitors.

Cornell, Col. V(irgil) H(eath), M.C, U.S.A, 15th General Laboratory, Sam Houston, Texas. *Pathology, Public health.* Brooklyn, N. Y, Nov. 29, 90. M.D, L. I. Col. Med, 13; Dr.P.H, Hopkins, 43. Pathologist and asst. physician, Essex County Hosp, N. J, 14–17; *med. officer,* various grades to *col, U. S. Army, 17–* Lab. service, U. S. Debarkation Hosp. No. 1; U. S. Gen. Hosp. No. 1; Camp Mills Gen. Hosp; Gen. Hosp. No. 19; Sta. Hosp, Ft. Thomas, Ky; 1st C. A. Lab; Ancon Hosp, C. Z;

Letterman Gen. Hosp, San Francisco; Walter Reed Gen. Hosp, Washington, D. C; curator, Army Med. Museum, 33–35; second C. A. Lab, New York sch. pub. health, Harvard; P. R. Dept. Lab. Asn. Path. and Bact; fel. Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; fel. Col. Physicians; Cent. Calif. Pasteur Soc. (pres, 19); San Francisco Path. Soc. (v. pres, 30); Soc. Path. D. C. (sec'y, 32–35); Isthmian Canal Zone Med. Asn. (pres, 26); Int. Asn. Med. Mus. (v. pres, 34, pres, 35–37). Tuberculosis of tonsils; bromsulfalein hepatic function test; actinomycosis of the ovary; histopathology of cardiac conduction system; sulfaguanidine therapy in dysentery.

Cornell, Prof. W(alter) Rodney, 507 Hanshaw Road, Ithaca, N. Y. *Mechanical engineering.* Vineland, N. J. B.S, Rutgers, 07; C.E, Cornell, 15. Instr, Mich. State Col, 07–09; civil eng, *Cornell,* 09–10, *mech. of eng,* 10–20, asst. prof, 20–26, *prof, 26–* Trustee, Wesley Foundation, Ithaca. A.A; Mech. Eng; Eng. Educ.

Cornell, Dr. Walter S(tewart), 5939 Drexel Road, Philadelphia, Pa. *Public health.* Philadelphia, Pa, Jan. 3, 77. B.S, Pennsylvania, 97, M.D, 01, Dr.P.H, 22. *Director med. inspection, pub. schs, Phila, 12–* Lecturer, Pennsylvania, 10–, sch. med, 02–26. Pub. Health Asn; Am. Med. Asn; Col. Physicians Phila. Child health; medical inspection of school children.

Cornell, Prof. W(illiam) B(ouck), 197 Grove St, Montclair, N. J. *Engineering.* Bouck's Island, N. Y, July 14, 83. M.E, Cornell, 07. Instr. eng, Cornell, 07–08; asst. to engineer in charge construction of hydroelec. power plant develop, Telluride Power Co, Idaho and Utah; underground cable engineer, Am. Tel. and Tel. Co; sales engineer, Niles-Bement-Pond Co; Acheson-Graphite Co. and later sec'y and gen. manager affiliated co; production engineer, Willys-Overland Co; *prof. management and chairman dept. management and indust. relations, sch. commerce, accounts and finance, N. Y. Univ, 21–* Consulting engineer. Mem, Nat. Panel of Arbitration. Mech. Eng; Management Asn; Inst. Management; Int. Accountants Soc. (advisory board). Fundamentals of business and industrial organization and management; development of American industries and their economic significance.

Cornely, Dr. Paul B(ertau), 3103 13th St, N.E, Washington, D. C. *Public health.* Point-a-Pitre, Guadeloupe. M.D, Michigan, 31, Dr.P.H, 34. Asst. prof. *prev. med. and pub. health, col. med, Howard,* 34–35, *assoc. prof, 35–, director univ. health service, 41–* Mem. med. advisory council, Nat. Selective Service System. Pub. Health Asn; Tuber. Asn. (consultant); Social Hygiene Asn. (consultant). Postgraduate medical education; college hygiene.

Corner, Prof. George W(ashington), Carnegie Institution, 1901 E. Madison St, Baltimore, Md. ***Anatomy.* Baltimore, Md, Dec. 12, 89. A.B, Hopkins, 09, M.D, 13; hon. Dr, Catholic Univ. Chile, 42. Asst. anat, med. dept, Hopkins, 13–14, res. house officer, Hopkins Hosp, 14–15; asst. prof. anat, California, 15–19; assoc. prof, Hopkins, 19–23; prof, sch. med, Rochester, 23–40, curator med. library, 38–40; *director dept. embryol, Carnegie Institution, 40–* Thomas Vicary lecturer, Royal Col. Surg, London, 36; Vanuxem lecturer, Princeton, 42. Trustee, Samuel Ready Sch; mem. board sci. directors, Yerkes Lab. Primate Biol. Squibb award, Asn. Study Int. Secretions, 40. Nat. Acad; A.A; Asn. Anat. (sec'y-treas, 30–38); Soc. Exp. Biol; Philos. Soc; Soc. Med. Hist; Asn. Study Int. Secretions; Soc. Nat; L. I. Biol. Soc. (director; chairman, advisory cmt); hon. fel. Gynec. Soc; hon. mem. Harvey Soc; for. cor. mem. Acad. Nacional Med. Argentina; cor. mem. Soc. Argentine Biol. Histology; anatomy and physiology of reproductive organs; history of medicine.

Cornett, Dr. R(ichard) Orin, 171 Hancock St, Cambridge, Mass. *Physics.* Driftwood, Okla, Nov. 14, 13. B.S, Okla. Baptist, 34; M.S, Oklahoma, 37; Illinois, 38–39; Ph.D, Texas, 40. Instr. physics, Okla. Baptist, 35–38, assoc. prof, 40–41; asst. supervisor physics, eng. science and management defense training program, Pa. State Col, 41–42; *lecturer electronics, Harvard, 42–* Asn. Physics Teachers; Acoustical Soc. Acoustics; electronics; ultra-high frequency radio waves near their source; acoustic spectra of edge tones.

Cornog, Dr. I(saac) Clyde, University of Pennsylvania, Philadelphia, Pa. *Physics.* Concordville, Pa, Sept. 12, 93. A.B, Swarthmore Col, 17; Ph.D, Pennsylvania, 28. *Instr. physics, Pennsylvania, 19–* 2nd lieut, U.S.A, 19. Asn. Physics Teachers; Optical Soc. Analysis of helium spectrum.

Cornog, Prof. Jacob, University of Iowa, Iowa City, Iowa. *Chemistry.* Mt. Holly Springs, Pa, Feb. 19, 83. A.B, Oregon, 15; Ph.D, Ohio State, 22. Chemist, Procter and Gamble Co, Kansas City, 09, 12; instr. *chem,* Oregon State Col, 16–18; asst, Ohio State, 18–21; *asst. prof, Iowa, 21–* Chem. Soc; Iowa Acad. Oxidation of sulfur compounds; iodine monochloride.

Cornog, Dr. R(obert Alden), 1155 E. Court St, Iowa City, Iowa. *Nuclear physics.* Portland, Oregon, July 7, 12. B.S, Iowa, 33; A.M, California, 38, fellow, 39–41, Ph.D, 40. Junior engineer, U. S. Bur. Reclamation, 33–35; physicist, Bur. Ordnance, Navy Dept, 41–42; *senior physicist, Palmer physical lab, Princeton, 42–* Physical Soc; Mech. Eng; Inst. Aeronaut. Sci. Radioactive hydrogen; helium three; magnetism; vacuum technique.

Corns, Major J(oseph) B(arr), Quartermaster Market Center, 1018 Second St, Alexandria, La. *Horticulture.* Lafayette, Ind, Feb. 10, 05. B.S, Agr. and Mech. Col. Texas, 27; M.S, California, 30; Ph.D, Cornell, 37. Asst. prof. hort, Agr. and Mech. Col. Texas, 32–35; asst. veg. crops, Cornell, 35–37; asst. prof. veg. crops exten, Illinois, 37–41; *officer in charge, quartermaster market center, perishable subsistence, Quartermaster Corps, U. S. Army, 41–, major.* Soc. Hort. Sci. Factors affecting internal structure of the tomato, with special reference to puffing; field trials of cannery sweet corn hybrids in Illinois; vegetable crops.

Cornthwaite, Dr. W(illiam) R(obert), 1122 James Ave, Niagara Falls, N. Y. *Chemistry.* Elwood, Ind, Nov. 5, 02. A.B, DePauw, 23; A.M, Ohio State, 25, Ph.D, 27. Assoc. prof. chem, Richmond, 27–32, prof, 32–36; *research supervisor, electrochem. dept, E. I. du Pont de Nemours and Co, 36–* A.A; Chem. Soc. Carbohydrates; heavy metal soaps; creatinine.

Cornwall, Prof. Leon Hastings, 55 E. 76th St, New York, N. Y. *Neurology.* Alexandria Bay, N. Y, June 27, 87. Ph.B, 07; M.D, Syracuse, 10. Asst. pathologist, New York City Hosp, 12–19, neuropathologist, 19–23, director path, 23–25, asst. attending neurologist, 24–26, attending neurologist, 26–30; *assoc. prof.* neur, *col. physicians and surg, Columbia,* 30–39, *clin. neur, 40–* Dept. neur, Vanderbilt Clinic, 14–, attending neurologist, 19–; assoc. attending physician neur, Fifth Ave. Hosp, 27–35; consultant neurosyphilis, Kings Park State Hosp, 22–; consultant neur, Huntington Hosp, 22–, skin and cancer unit, N. Y. Post-Grad. Hosp, 34–; assoc. neurologist, N. Y. Neur. Inst, 29–33, attending neurologist, 33–35, senior attending neurologist, 35–36, chief neurosyphilis, 37–39, attending neurologist, 40– Neur. Asn; Am. Med. Asn. (sec'y, neur. and psychiat. sect, N. Y. branch, 33, chairman, 34); Soc. Clin. Path; Asn. Immunol; Soc. Clin. Psychiat; Harvey Soc; N. Y. Neur. Soc. (pres, 40); N. Y. Soc. Clin. Psychiat; N. Y. Path. Soc; N. Y. Acad. Med. (sec'y, neur. and psychiat. sect, 34, chairman, 35–). Neuropathology; myelin formation.

Cornwell, Dr. Ralph T(homas) K(line), Sylvania Industrial Corp, Fredericksburg, Va. *Organic chemistry.* Northumberland, Pa, Feb. 10, 98. Ch.B, Cornell, 18, Ph.D, 24; Munich; Graz. Instr. org. chem, Cornell, 21–26; asst. prof, Pittsburgh, 27–29; senior microanalyst, nat. inst. health, U. S. Pub. Health Service, 29–30; *director research, Sylvania Indust. Corp, 30–* A.A; Chem. Soc; fel. Inst. Chem; Tech. Asn. Pulp and Paper Indust; Soc. Test. Mat; Soc. Chem. Indust; Indust. Research Inst; N. Y. Acad; Va. Acad. Color and constitution in organic chemistry; quantitative organic microanalysis; protective coatings and lacquers; cellulose and cellulose products.

Coronios, Prof. J(ames) D(emosthenes), 84 Park St, Canton, N. Y. *Psychology.* Biddeford, Maine, March 28, 03. B.S, Tufts Col, 27; A.M, Harvard, 28, Ph.D, 32. Asst. psychol, Brown, 28–30, instr, 30–35; psychologist, Conn. Sch. for Boys, Meriden, 35–36; *asst. prof. psychol, St. Lawrence, 36–* Psychol. Asn; Soc. Psychol. Study Social Issues. Prenatal development of behavior of mammals; developmental and social psychology.

Corper, Dr. H(arry) J(ohn), 1295 Clermont St, Denver, Colo. *Pathology.* Chicago, Ill, March 5, 84. B.S, Chicago, 06, Ph.D, 11, M.D, Rush, 11. Asst. path, Chicago, 07–09, 11–14; physiol, Illinois, 09–10; lab. director, Chicago Munic. Tuber. Sanitarium, 14–18; *director research, Nat. Jewish Hosp, Denver, 19–; asst. prof. med, sch. med, Colorado, 26–* Lecturer, Chicago, 04–07. Ed. staff, 'Am. Rev. Tuber,' 22–; advisory ed, 'Am. Jour. Clin. Path,' 30–; ed, 'Bul. Acad. Tuber. Physicians,' 36– Sprague Mem. Inst, Chicago, 11–

14, hon. mem, 14– Ward Burdick medal, 30. Chief lab. service, U.S.A. Gen. Hosp, 16, 18–19. A.A; Asn. Path. and Bact; Soc. Clin. Path. (sec'y-treas, 28, pres, 31); Am. Med. Asn. (chairman, sect. physiol. and path, 25); Soc. Biol. Chem; Tuber. Asn. (chairman, path. sect, 19, 26); Chem. Soc; Asn. Mil. Surg; Colo. Soc. Clin. Path. (pres, 26); Colo. Tuber. Asn. (director, 30, exec. cmt, 31–, treas, 38–); Denver Tuber. Asn. (director, 32–, pres, 39–). Autolysis and necrosis; therapy, immunity and diagnosis of tuberculosis.

Correll, Dr. Donovan S(tewart), Harvard University, Cambridge, Mass. *Plant taxonomy.* Wilson, N. C, April 13, 08. A.B, Duke, 34, A.M, 36, Ph.D, 39; Harvard, 38–39. *Research assoc. and botanist, bot. museum, Harvard, 39–* Am. Asn. Adv. Science grant, 38. Fern Soc; New Eng. Bot. Club; N. C. Acad. Orchidaceae of North and Central America; Pteridophyta of North America, north of Mexico.

Correll, Dr. John T(rumbull), Upjohn Co, Kalamazoo, Mich. *Biological chemistry.* Mayville, N. Dak, Oct. 5, 09. B.S, Kans. State Col, 32, M.S, 33; Ph.D, Iowa, 36. Asst. biochem, Iowa, 33–36; *research chemist, Upjohn Co, 36–* Chem. Soc. Nutrition; vitamins; enzymes; proteins; amino acids.

Corrington, Prof. Julian D(ana), Washington College, Chestertown, Md. *Morphology.* Hot Springs, Ark, Dec. 22, 91. A.B, Cornell, 13, Ph.D, 25. Asst. zool, Cornell, 14–16, curator museum, 16–17, 19–21; assoc. prof. biol, South Carolina, 21–24, prof. zool, 24–26; asst. prof, Syracuse, 26–30; assoc. prof. biol, Drew, 30–31; Ward's Nat. Science Establishment, 31–36; *prof. biol, Washington Col. (Md), 36–* Sec'y, State Dept. Research and Educ, Md, 41– Ed. micros. dept, 'Nature Mag,' 37– A.A; Soc. Amateur Micros. (permanent sec'y, 39–); N. Y. Micros. Soc. Morphology and blood system of sharks; herpetology; ornithology; amateur and popular microscopy.

Corruccini, Dr. R(obert) J(oseph), Oregon State College, Corvallis, Oregon. *Physical chemistry.* Fremont, Nebr, Sept. 7, 17. A.B, Reed Col, 38; A.M, Oregon State Col, 40; fellow, Illinois, 40–42, Ph.D, 42. *Instr. chem, Oregon State Col, 42–* Chem. Soc. Precision calorimetry.

Corse, Dr. Joseph (Walters), 6601 E. 11th St, Indianapolis, Ind. *Organic chemistry.* Denver, Colo, Sept. 7, 13. A.B, California at Los Angeles, 36; Ph.D, Illinois, 40. Asst. chem, Illinois, 37–40; *research chemist, Eli Lilly and Co, 40–* Chem. Soc. Relation of structure to physiological activity of organic compounds.

Corse, W(illiam) M(alcolm), Westmoreland, N. H. *Metallurgy.* Malden, Mass, May 25, 78. B.S, Mass. Inst. Tech, 99. Chemist, supt. and gen. manager, chem. and metal companies, 00–25; *consulting metallurgist, 25–* Sec'y advisory cmt. nonferrous alloys, Bur. Standards, 16–; sec'y trustees, Int. Critical Tables. Brass foundry practise, Navy Yard, N. H, 18. A.A; Min. and Metal. Eng. (director, 20, sec'y, metals div, 11–); Soc. Metals; Chem. Eng; Chem. Soc; Wash. Acad; Wash. Soc. Eng; Directors Indust. Research; Chemists Club; British Inst. Metals (hon. cor. mem, U. S. council). Non-ferrous alloys.

Corson, Dr. B(en) B(ennett), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Bridgton, Maine, Aug. 12, 96. A.B, Harvard, 19, A.M, 22, Ph.D, 24. Asst. chem, Harvard, 20–23; instr, Middlebury Col, 24–25, asst. prof, 25–29, assoc. prof, 29–31; research chemist, Universal Oil Products Co, 31–39; *senior fellow, Mellon Inst, 39–* Research assoc, Harvard, 31–32. Chem. Soc. Catalytic reactions of organic compounds.

Corson, Prof. Dale R(aymond), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Pittsburg, Kans, April 5, 14. A.B, Col. Emporia, 34; A.M, Kansas, 35; Ohio State, 35–36; Ph.D, California, 38. Teaching asst, California, 36–38, research fellow, 38–39, instr. *physics,* 39–40; *asst. prof, Missouri, 40–; research assoc. elec. eng, Mass. Inst. Tech, 41–* Physical Soc. Cosmic rays; artificial radioactivity.

Corson, Dr. E(ugene) Rollin, 10 Jones St, W, Savannah, Ga. *Medicine, Natural science.* Washington, D. C, July 20, 55. B.S, Cornell, 75; M.D, Hahnemann Med. Col, 77, Southern Med. Col, 94. Formerly on visiting staff, Savannah Hosp. Int. Med. Cong, London, 13. Am. Med. Asn; hon. mem. Roentgen Ray Soc. X-rays; anatomy; surgery; surgical pathology; peritoneum, the lymphatics and carcinoma; tuberculosis in man and cattle; the colored race.

Corson, Dr. Harold Fee, P. O. Box 145, Stockbridge, Mass. *Psychiatry, Neurology.* Springfield, Ill, Aug. 29, 98. M.D, Washington (St. Louis), 23. Intern, Barnes Hosp, St. Louis, 23–24, res. neurologist, 24–25; intern and asst. physician, Sheppard and Enoch Pratt Hosp, Towson, Md, 25–27; psychiatrist, Phila. Child Guidance Clinic, 27–29; Commonwealth fellow psychiat, Phipps Psychiat. Clinic, Hopkins, 29–30; med. director, R. I. Soc. Mental Hygiene, 30–36; mem, Austen Riggs Associates, 36–42; *major, Med. Corps, U. S. Army, 42–* Mem, Nat. Cmt. Mental Hygiene. A.A; fel. Am. Med. Asn; fel. Psychol. Asn; Asn. Research Nervous and Mental Disease; Orthopsychiat. Asn; Psychiat. Asn; New Eng. Soc. Psychiat; fel. Mass. Med. Soc. Precipitating factors in the development of psychoses; behavior charts and cases of manic-depressive psychoses; psychoneuroses.

Corson, Dr. H(arry) P(each), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Concord, N. H, Sept. 30, 87. B.S, New Hampshire, 10; Ph.D, Illinois, 15. Asst. chem, Illinois, 10–14, instr, 15; chemist, U. S. Pub. Health Service, 15–17; research chemist, Celluloid Co, 17–18; chief chemist, Avery Chem. Co, 18–20; research chemist, The Barrett Co, 20–22; research chemist, Grasselli Chem. Co, 22–26, director exp. lab, 26–37, *asst. chem. director Grasselli chem. dept, E. I. du Pont de Nemours and Co, 37–* Chem. Soc.

Corson, Prof. Samuel A(braham), University of Oklahoma School of Medicine, Oklahoma City, Okla. *Physiology.* Odessa, Russia, Dec. 31, 09. B.S, N. Y. Univ, 30; M.S, Pennsylvania, 31, univ. scholar, 32–33; Ph.D, Texas, 42. Asst. physiol, sch. med, Pennsylvania, 32–35; research assoc. cell physiol, N. Y. Univ, 35–37; instr. physiol, div. gen. educ, 37–39; consulting physiologist, New York, 38–40; instr. zool. and physiol, Texas, 40–42; *asst. prof. physiol, sch. med, Oklahoma, 42–* Mem. research staff, Gladwyne Hosp. for Psychoneurotic Diseases, 33–34. Summers, investigator, Marine Biol. Lab, Woods Hole, 31–34, 36–38; junior aquatic physiologist, fish and wildlife service, U. S. Dept. Interior, 40. Abstractor, 'Chem. Abstracts,' 35– A.A; Asn. Sci. Workers (gen. sec'y, Texas branch, chairman sci. popularization cmt, 41); Okla. Acad. Cell permeability; effects of heavy metals on cell permeability; osmotic properties of erythrocytes; effects of electrolytes on physiological processes; physical properties of protoplasm; microinjection technique; anoxia.

Cort, Prof. W(illiam) W(alter), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. ***Helminthology.* State Centre, Iowa, April 28, 87. A.B, Colo. Col, 09; A.M, Illinois, 11, Ph.D, 14. Instr. biol, Colo. Col, 12–13; prof, Macalester, 14–16; asst. prof. zool, California, 16–19; assoc. prof. helminth, *sch. hygiene and pub. health, Hopkins,* 19–25, *prof,* 25–43, *parasitol, 43–* Summers, prof, biol. sta, Michigan, 27– Consulting helminthologist, State Board Health, Calif, 18–19; visiting prof, Peking Union Med. Col, China, 23–24; director cmn. on hookworm diseases, int. health div, Rockefeller Foundation, Trinidad, B. W. I, 21, P. R, 22, China, 23–24, Panama, 26; director program for study of ascaris in children, Nat. Research Council and Am. Child Health Asn, 27–32; lecturer, sch. pub. health, Harvard, 41; trop. med. consultant to U. S. Sec'y War, 41. Chairman ed. cmt, 'Jour. Parasitol,' 32–37. A.A; Soc. Nat. (pres, 41); Soc. Zool; Micros. Soc. (pres, 37); Soc. Parasitol. (sec'y, 25–29, pres, 30); Soc. Trop. Med; Acad. Trop. Med. (treas, 34–37, v. pres, 38, pres, 39); Helminth. Soc. Wash. Larval stages of digenetic trematodes; excretory system of trematodes; frog parasites; hookworm in mines of California; epidemiology of hookworm disease in China and tropical America; human blood flukes; host parasite relations of dog hookworm; schistosome dermatitis; ascariasis.

Cortelyou, Prof. W(arren) P(ratt), Valparaiso University, Valparaiso, Ind. *Analytical chemistry.* Oblong, Ill, March 28, 08. B.S, Illinois, 29; Ohio State, 32; Cornell, 34; Ph.D, Iowa, 37. Asst. prof. anal. chem, N. Y. State Col. Ceramics, Alfred, 29–36; prof. physical science, Frances Shimer Junior Col, 37–38; anal. research chemist, Tubize Chatillon Rayon Corp, Ga, 39–40; asst. physical chemist, electrotech. lab, U. S. Bur. Mines, 40–41; *asst. prof. org. and physical chem, Valparaiso, 41–* Chem. Soc. Variables in the precipitation, filtration and washing of analytical precipitates.

Cortese, Dr. Frank, Columbia-Presbyterian Medical Center, 630 W. 168th St, New York, N. Y. *Organic chemistry.* New York, N. Y, Oct. 23, 98. Ch.B, Cornell, 20; M.S, Illinois, 24; Grasselli fellow, Mass. Inst. Tech, 25–26, Ph.D, 26; Munich, 28–30; Graz, 30. Research assoc, Mass. Inst. Tech, 26–28; nat. research fellow, 28–29; asst, Rockefeller Inst, 30–33;

research chemist, Columbia-Presb. Med. Center, 33– Asst. instr, Illinois, 24. Chem. Soc. Aliphatic diolefines; alkaloids; synthetic nucleosides; reactivities of atoms and groups; intravenous solutions; bile acids.

Cortez, Dr. Samuel H(ensley), Fullerton Junior College, Fullerton, Calif. *Physics.* Ogden, Utah, June 15, 04. A.B, Utah, 30, A.M, 31; Ph.D, Indiana, 33. Asst. physics, Utah, 30–31; Indiana, 31–33; instr, Miss. State Col, 33–34; eng. and physics, *Fullerton Junior Col,* 34–39, dean men, 39–40, acting director, 40–41, *director, 40–* Piezo-electric quartz crystals; interferometer measurements.

Corum, Dr. Cyril J(oseph), Western Reserve University, Cleveland, Ohio. *Plant physiology.* Louisville, Ky, Dec. 21, 14. A.B, Miami (Ohio), 36; Ph.D, Wisconsin, 40. *Instr. biol, Western Reserve, 40–* Mycol. Soc; Ohio Acad. Physiology of the fungi.

Coruthers, Prof. John M(ilton), Prairie View State Normal and Industrial College, Prairie View, Texas. *Agriculture.* Austin, Texas, April 15, 00. B.S, Hampton Inst, 25; M.S, Wisconsin, 28; Ph.D, Cornell, 34. Prof. dairying, Southern Univ. (La), 25–29; director agr. and prof. agr. econ, Agr. Mech. and Nor. Col, Ark, 29–37; *prof. agr. econ, Prairie View State Nor. and Indust. Col, 37–* Dairy manufacturing; agricultural economics.

Corwin, Dr. Alsoph H(enry), Johns Hopkins University, Baltimore, Md. *Organic chemistry.* Marietta, Ohio, Jan. 11, 08. A.B, Marietta Col, 28; Ph.D, Harvard, 32. Assoc. *chem, Hopkins,* 32–39, *assoc. prof, 39–* A.A; Chem. Soc; N. Y. Acad. Structure of pyrrole pigments; purine, pyrimidine and imidazole derivatives; amino acids and peptides; microchemical technique; mechanisms of organic reactions.

Corwin, Dr. E(dward) H(enry) L(ewinski), New York Academy of Medicine, 2 E. 103rd St, New York, N. Y. *Public health.* Warsaw, Poland, Oct. 13, 85. Ph.D, Columbia, 11. *Exec. sec'y, pub. health, N. Y. Acad. Med, 11–* Director hosp. research bur, United Hosp. Fund, N. Y, 24–34; lecturer, Columbia and N. Y. Univ; consultant, U. S. Pub. Health Service. A.A; Am. Med. Asn; Pub. Health Asn; Hosp. Asn; N. Y. Acad. Med; Blood Transfusion Asn. New York (sec'y-treas); Int. Hosp. Asn. (past sec'y-treas, hon. pres). Epidemiology; biostatistics; nutrition; industrial hygiene; sanitation; preventive medicine; hospital organization; nosology; necropsies.

Corwin, Capt. Elbert Franklin, 65 Excelsior Ave, Troy, N. Y. *Meteorology.* Naples, N. Y, June 2, 06. M.E. Rensselaer Polytech, 30, M.M.E, 34. Asst. prof. aeronaut. eng, Rensselaer Polytech. Inst, 37–42; *capt, weather duty, Air Forces, U. S. Army, 42–* Director, Mt. Whiteface Meteorol. Observatory, N. Y, 37–42. Summer, mem. staff, U. S. Weather Bur, 37. Meteorol. Soc; Aeronaut. Asn; Inst. Aeronaut. Sci; N. Y. State Aviation Asn. Tail method of obtaining data on winds aloft; a new electronic anemometer.

Cory, Prof. E(rnest) N(eal), University of Maryland, College Park, Md. *Entomology.* Alden, N. Y, Aug. 13, 86. B.S, Maryland, 09, M.S, 13; Ph.D, American Univ, 26. Asst. entom, *Maryland,* 09–11, instr, 11–12, asst. prof, 12–13, assoc. prof. *entom. and zool,* 13–14, *prof, 14–,* asst. entomologist, *Exp. Sta,* 09–14, *entomologist, 14–, asst. director exten, 40–* Sec'y-treas, East. Plant Board, 24– Entom. Soc; Asn. Econ. Entom. (sec'y-treas, 37–; business manager, 'Jour,' 37–); Entom. Soc. Wash. (pres, 42). Economic entomology; mosquito control.

Cory, Dr. H(arry) T(homas), 431 W. Seventh St, Los Angeles, Calif. *Hydraulics.* Montmorenci, Ind, May 27, 70. B.M.E, Purdue, 87, B.C.E, 89, hon. D.E, 29; M.C.E, Cornell, 93, M.M.E, 96. Deputy engineer, Tippecanoe County, Ind, 90–92; prof. civil and sanit. eng, Missouri, 93–00; prof. civil eng. and dean col. eng, Cincinnati, 00–03; asst. to gen. manager, South. Pacific Co, 04–05; in charge diverting Colo. River from Salton Sea, 06–07; gen. manager and chief engineer, Calif. Develop. Co. and La Soc. de Riego y Terrenos de la Baja Calif, 06–10; *consulting engineer,* San Francisco, 09–17; *Los Angeles, 28–;* soil conservation service, U. S. Dept. Agr, 35–40; *supervising engineer, Defense Plant Corp, 41–* With Mex. Cent, Tex. and Pacific and South. Pacific R.R, 01–03; asst. to pres, associated Harriman Lines, Ariz. and South. Pacific R. R, Mex, 05–11; in charge Sec'y Lane's soldier land settlement program, U. S. Dept. Interior, 18–20; mem, Int. Nile Project Cmn, Egypt and Sudan, 20; chief engineer, Palos Verdes project, Redondo Beach, Calif, 21–24; Guadalquivir marismas desalting and irrig. project, Seville, Spain, 25–27; advisory engineer, Los Angeles Agency, Reconstruction Finance Corp, 32–34; mem, Passamaquoddy Bay Tidal Power Project Cmn, 34–35. Thomas Fitch Rowland prize, Am. Soc. Civil Eng, 14. Director gen. for. relief, Am. Red Cross, 17–18. Civil Eng. Hydrology and land reclamation; runoff from upper watersheds of streams as affecting high floods in lower stream reaches; Imperial Valley and the Salton Sea; democratization of family planning.

Coryell, Dr. Charles D(uBois), University of California at Los Angeles, Los Angeles, Calif. *Chemistry.* Los Angeles, Calif, Feb. 21, 12. B.S, Calif. Inst. Tech, 32, Ph.D, 35; German-Am. exchange student, Tech. Hochschule, Munich, 33–34. Research fellow, Calif. Inst. Tech, 35–38; instr, *California at Los Angeles,* 38–40, *asst. prof. chem, 40–; mem. staff, Office Sci. Research and Develop, 42–* Instr, Deep Springs, 37–39. A.A; Chem. Soc. Physical chemistry; magnetochemistry; hemoglobin chemistry.

Coryell, Dr. H(orace) N(oble), Columbia University, New York, N. Y. *Paleontology.* Brewersville, Ind, Feb. 13, 88. A.B, Indiana, 14, fellow, 14–16, A.M, 15; fellow, Chicago, 16–19, Ph.D, 19. Ind. Geol. Surv, 10–14; Tenn. Geol. Surv, 15–16; Empire Fuel and Gas Co, 17; Ill. Geol. Surv, 18–19; curator paleont, *Columbia,* 19–20, instr. *geol. and paleont,* 20–35, *assoc, 35–* Paleontologist and geologist, P. O. Co, 22–31, 36–41. Explor, Spitzbergen, 20; Que, 24. A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; N. Y. Acad. (v. pres, 29–31); Ind. Acad. Micropaleontology; petroleum geology; Bryozoa, Ostracoda and Foraminifera; the outcrop at Spades, Indiana; soil survey of Putnam, Vermillion and Howard Counties, Indiana, and Rutherford County, Tennessee; oil of Pike and Adams Counties, Illinois; fossil corals of Puerto Rico.

Coryell, Ralph L(aw), 83 Fairmont Ave, Hastings-on-Hudson, New York, N. Y. *Chemical engineering.* Cedarville, Mich, Aug. 10, 01. B.S, Michigan, 25. Chemist, Consol. Gas Co. of N. Y, 25–29, junior research chemist, 29–36; research chemist, *Consol. Edison Co,* 36–37, *test engineer, 37–* Chem. Soc; Meteorol. Soc; Gas Asn. Coal carbonization; gas by-product recovery; water treatment; gas scrubbing; dust proofing of coke; tar and water conditioning; long range weather studies.

Cosby, Dr. Stanley W(allace), U. S. Department of Agriculture, Portland, Oregon. *Agriculture.* Chicago, Ill, July 28, 90. B.S, California, 19, M.S, 25; diplôme, Montpellier (France), 19; Ph.D, Chicago, 30. Asst. soil technol, California, 20–21, research assoc, 21–31, asst. soil technologist, 31–35; *regional soil scientist, soil conservation service, U. S. Dept. Agr, 35–* Soil scientist, U. S. Reclamation Service, 20; collaborator, U. S. Dept. Agr, 21–; soil scientist, Mex. Govt, 23. U.S.A, 17–19. A.A; Soc. Agron; Soil Sci. Soc; Am. Geog. Soc; West. Soc. Soil Sci; Int. Soc. Soil Sci. Characteristics and utilization of western soils; geographic and economic aspects of the principal agricultural soils of the United States; soil surveys, soil conservation and erosion control.

Cosgrove, John F(rancis), 315 Ridge St, Newark, N. J. *Bacteriology.* Newark, N. J, Jan. 27, 05. B.S, Notre Dame, 29. Asst. *biol. sciences, N. J. Col. Pharmacy, Rutgers,* 30–31, instr, 31–33, *asst, 34–; owner, Cosgrove Clin. Lab, 33–; bacteriologist, Hoffman-La Roche, Inc, 39–* A.A; Chem. Soc; fel. Inst. Chem; Pharmaceut. Asn. Endocrinology; pregnancy tests; antiseptics and disinfectants in liquids, powders and ointment bases; extraction of hormones from urine.

Coss, Prof. J(ames) A(ustin), Morningside College, Sioux City, Iowa. *Chemistry.* Arrowsmith, Ill, 72. B.S, Ill. Wesleyan, 03; M.S, Illinois, 10. *Prof. chem,* Upper Iowa, 06–08; *Morningside Col, 11–* Chem. Soc; Iowa Acad. Organic chemistry.

Costa, Dr. Joseph Louis, Transparent Package Co, Chicago, Ill. *Physical chemistry.* London, Eng, Dec. 1, 97. B.S, Rutgers, 21; Am. Field Service fellow, France, 22–24; int. research fellow, Paris, 24–25, D.Sc, 25. Nat. research fellow, Princeton, 25–26; tech. director, Woonsocket Rayon Co, 26–32, gen. manager, 32–43; *pres. and gen. manager, Transparent Package Co, 43–* Chem. Soc; Soc. chim. de France; Soc. de Physique; Soc. de Chim. physique. Mass-spectrography of positive rays; cellulose.

Costa-Mandry, Dr. Oscar, P. O. Box 3854, Santurce, P. R. *Bacteriology.* Yabucoa, P. R, Sept. 17, 98. M.D, Maryland, 21; Columbia, 28. Assoc. bacter, sch. trop. med, Co-

lumbia, 27–38, research assoc, 39, asst. prof. epidemiol, 40, visiting bacteriologist, univ, hosp, 33–39; *director biol. labs, P. R. Dept. Health, 29–* Attending clin. pathologist, Mimiya Hosp, 27–; consultant, dist. hosps, P. R, 41; director, Emergency Med. Services in Civilian Defense. Ed, 'P. R. Health Bul,' 39. Examiner path. and bacter. and sec'y, Board Med. Examiners, P. R, 33–; pres, Board Technologists and Microscopists, P. R. Fel. Col. Physicians; fel. Am. Med. Asn; Soc. Clin. Path; Pub. Health Asn; Tuber. Asn; Pan Am. Med. Asn. (pres, P. R. chap, 34); P. R. Med. Asn. (ed, 'Jour,' 31; sec'y, 31; pres. sci. cmt, 35–38; pres, 40); Tuber. Asn. P. R. (v. pres, 40). Food infections; dysentery; syphilis; diphtheria; influenza; epidemiology and bacteriology.

Costello, Dr. David F(rancis), U. S. Forest Service, Ft. Collins, Colo. *Forestry.* Julian, Nebr, Sept. 1, 04. A.B, Nebr. State Teachers Col, 25; M.S, Chicago, 26. Ph.D, 34. Instr. bot, Marquette, 26–32; *forest ecologist, Rocky Mt. Forest and Range Exp. Sta, U. S. Forest Service, 34–; special lecturer, Colo. State Col, 42–* A.A; Soc. Agron; Ecol. Soc. Range management; ecology; systematic botany.

Costello, Prof. Donald P(aul), University of North Carolina, Chapel Hill, N. C. *Zoology.* Detroit, Mich, Sept. 27, 09. A.B, Col. City of Detroit, 30; Ph.D, Pennsylvania, 34. Instr. zool, Pennsylvania, 30–34; nat. research fellow, Stanford, 34–35; asst. prof. *zool, North Carolina,* 35–42, *assoc. prof, 42–* Rockefeller fellow, Stanford, 41–42. Summers, instr, Marine Biol. Lab, Woods Hole, 39– Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Soc. Nat; Soc. Zool. General physiology of marine ova; experimental embryology of invertebrates; fertilization.

Costello, Dr. Helen Mar Miller, University of North Carolina, Chapel Hill, N. C. *Zoology.* Baltimore, Md, April 28, 04. A.B, Goucher Col, 25; M.S, Washington (St. Louis), 27; Ph.D, Hopkins, 30. Nat. research fellow, 30–32; research asst, Washington (St. Louis), 32–34; asst, high sch, Md, 34–35; instr. zool, Agnes Scott Col, 35–36; *North Carolina,* 36–37, *fellow by courtesy, 38–* Genetics of rotifers; Drosophila; Turbellaria Acoela.

Costello, Dean M(aurice) H(ugh), St. Vincent College, Latrobe, Pa. *Psychology.* Lancaster, Pa, Oct. 14, 00. A.B, St. Vincent Col, 24, Ph.L, 26, Ph.D, 27; Columbia, 25. Instr. *psychol, St. Vincent Col,* 26–28, *prof, 28–, dean, 38–* A.A; Psychol. Asn. Philosophy.

Coster, H(erbert) M(arvin), U. S. Naval Powder Factory, Indian Head, Md. *Chemistry.* Coster, Md, July 3, 88. B.S, Maryland, 09. Asst. prof. chem, Maryland, 09; asst. chemist, Pa. R. R, Altoona, Pa, 09–11; *U. S. Naval Powder Factory,* 11–20, supt. acid plants, 20–37; chem. engineer, 35–41, *senior chem. engineer, 41–* Chem. Eng; Inst. Chem; Soc. Mil. Eng; Franklin Inst; U. S. Naval Inst. Manufacture of fuming sulfuric acid and strong nitric acid for use in smokeless powder and high explosives manufacture; development and installation of new methods and apparatus for process control in sulfuric acid and nitric acid manufacture.

Cothern, Prof. Leland I(rvin), Virginia Polytechnic Institute, Blacksburg, Va. *Mining.* Pana, Ill, May 12, 00. B.S, Illinois, 22; M.S, Alabama, 32. Heat inspector, by-products coke dept, Republic Iron and Steel Co, 22; office engineer, Bethlehem Mines Corp, Pa, 22–23; mining engineer, Peale, Peacock and Kerr, Pa, 23–24; asst, sch. mines, Pa. State Col, 24–25; instr. eng. and math, Beloit Col, 25–26; asst. engineer, Am. Smelting and Ref. Co, Mex, 26–27; instr. mining, sch. mines, Alabama, 27, asst. prof, 27–36, assoc. prof, 36–39, *prof. mining eng. and head dept, Va. Polytech, 39–* Min. and Metal. Eng; Eng. Educ. Ore dressing; coal washing and mine ventilation; coal mining methods.

Cothran, Dr. John C(leveland), 512 N. 19th Ave. E, Duluth, Minn. *Inorganic chemistry.* Ransomville, N. Y, Nov. 16, 85. A.B, Cornell, 08, Ph.D, 31. Instr. chem, Cornell, 08–10; chemist, Gen. Elec. Co, 10–11; Albany Lubricating Co, 11–12; treas, Cochran Box and Mfg. Co, 12–24; instr. chem, Cornell, 27–31; acting prof. chem, Bethany Col. (W. Va), 31–32; *teacher* physical sciences and math, *Duluth State Teachers Col,* 33–39, *chem, 39–* A.A; Chem. Soc; fel. Inst. Chem; Math. Soc; Math. Asn; Asn. Physics Teachers; Rocks and Minerals Asn; Minn. Acad; N. Y. Acad. Hydronitrogens and tetrazole.

Cotner, Prof. F(rank) B(oyd), 408 W. Koch St, Bozeman, Mont. *Botany.* Washingtonville, Pa, Jan. 29, 91. A.B, Michigan, 16, A.M, 17, Ph.D, 30. Prof. bot, Puerto Rico, 19–20; asst. prof, Albion Col, 21–22; *bot. and bacter, Montana,* 22–25, assoc. prof, 25–31, *prof, 31–* U.S.A, 17–19. A.A; Bot. Soc; Mycol. Soc. Physiology and cytology of the Oomycetes; serology.

Cottam, Dr. Clarence, U. S. Department of the Interior, Merchandise Mart, Chicago, Ill. *Ornithology.* St. George, Utah, Jan. 1, 99. A.B, Brigham Young, M.S, 27; American Univ; Ph.D, George Washington, 36. Asst. chem, Dixie Col, 19–20; teacher and prin, high schs, Texas and Nev, 21–25; teaching fellow biol, Brigham Young, 26–27, instr, 27–29; junior biologist, bur. biol. surv, U. S. Dept. Agr, 29–31, asst. biologist, 31–35, *senior biologist in charge* food habits, div. wildlife research, 35–40; *fish and wildlife service, U. S. Dept. Interior,* 40–42, *econ. wildlife investigations, div. wildlife research, 42–* A.A; Wildlife Soc; fel. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Soc. Mammal; Nat. Asn. Audubon Societies; Ecol. Soc; Wildlife Inst; Utah Acad; Wash. Acad; Biol. Soc. Wash. Economic ornithology and mammalogy; birds of Utah; marsh ecology.

Cottam, Prof. Walter P(ace), 1114 McClelland St, Salt Lake City, Utah. *Botany.* St. George, Utah, March 3, 94. A.B, Brigham Young, 16, M.S, 19; Wisconsin, 21; Ph.D, Chicago, 26. Asst. prof. *bot,* Brigham Young, 20–25, prof, 25–31; assoc. prof, *Utah,* 31–35, *prof, 35–* A.A. Floristics and ecology of Utah Lake and Utah.

Cotter, John L(ambert), Box 36, Clarkdale, Ariz. *Anthropology.* Denver, Colo, Dec. 6, 11. A.B, Denver, 34, A.M, 35; Pennsylvania, 35–37. Field worker paleont. and archeol, Colo. Museum Nat. Hist, 34–35; in charge field party to Clovis, N. Mex, Acad. Nat. Sciences, Phila, 36–37; state supervisor archeol. surv. of Ky, Kentucky, 38–40; *junior archeologist stationed at Tuzigoot Nat. Monument, U. S. Nat. Park Service, 40–* Anthrop. Asn; Soc. Archeol. Early man in North America; peoples of the Verde Valley, Arizona.

Cotter, Dr. Ralph U(lysses), 3216 43rd Ave S, Minneapolis, Minn. *Plant pathology.* Lehi, Utah, Sept. 18, 96. B.S, Utah Col, 18; M.S, Minnesota, 24, Ph.D, 29. Asst. pathologist, bur. plant indust, *U. S. Dept. Agr, Minnesota,* 26–29, *assoc. pathologist,* 30–35, *bur. entom. and plant quarantine, 35–* A.A; Phytopath. Soc. Susceptibility of berberis to stem rust; hybridization in Puccinia graminis.

Cotterman, Dr. C(harles) W(illiam), University of Michigan, Ann Arbor, Mich. *Genetics.* Dayton, Ohio, May 27, 14. A.B, Ohio State, 35, A.M, 37, Ph.D, 40. Instr. zool. and entom, Ohio State, 37–40; *research assoc. human heredity, Michigan, 40–* Human genetics; serological variation in Peromyscus; statistical method for analysis of human inheritance.

Cotterman, Dr. H(arold) F, University of Maryland, College Park, Md. *Agricultural education.* Farmersville, Ohio, Oct. 22, 87. B.S, Ohio State, 16; A.M, Columbia, 17; Ph.D, American Univ, 31. *Prof. agr. educ, Maryland, 17–,* director summer sch, 17–23, 35, assoc. dean col. educ, 23–37, *asst. dean col. agr, 37–* State supervisor agr, Md, 18–23, 35– Student adjustment in recent programs of higher education; state administration of vocational education for the agricultural occupation.

Cottingham, Kenneth (Charles), 103 Riverview Park Drive, Columbus, Ohio. *Geology.* Columbus, Ohio, April 29, 92. A.B, Ohio State, 13, A.M, 14. Instr. geol, Ohio State, 14–17; consulting geologist, Dallas and New York, 19–20; geologist, Union Oil Corp, 20–21; geol. engineer, 22; geologist, Ohio Fuel Gas Co, 23–26; engineer, Columbia Gas and Elec. Corp, 26–29; geologist and engineer, Columbia Eng. and Management Corp, 29–39; *chief geologist, Ohio Fuel Gas Co, 39–* Ohio Geol. Surv. A.S, U.S.A, 17–19. A.A; Min. and Metal. Eng; fel. Ohio Acad.

Cottle, Prof. D(elmer) L(eroy), 702 Abbott St, New Brunswick, N. J. *Organic chemistry.* Portsmouth, Ohio, Oct. 17, 02. A.B, Marietta Col, 26; fellow, Ohio State, 29, M.S, 29, Ph.D, 30. Junior chemist, food and drug admin, U. S. Dept. Agr, Baltimore, 26–27; asst. *chem,* Ohio State, 27–28; asst. prof, *Rutgers,* 30–41, *assoc. prof, 41–* A.A; Chem. Soc. (chairman, North Jersey sect, 41); Inst. Chem. Halohydrins and oxides of ethylene.

Cotton, Dr. Jack C(hilton), Apt. 1166, 6909 31st Ave, S.W, Seattle, Wash. Waxahachie, Texas, Nov. 20, 08. A.B, Maryville Col, 29; M.S, Ohio State, 30, Ph.D, 36. Asst. physics

and phonetics, Ohio State, 30–36, instr. speech, 36–37; director speech clin. labs, West. Wash. Col. Educ, 37–42; *acoustical engineer, Boeing Aircraft Co, 42–* A.A; Acoustical Soc; fel. Speech Correction Asn; Asn. Teachers Speech. Phoniatric resonance; beats and combination tones; stroboscopic analysis; reverberation measurements; speech rate variation; laboratory devices for speech education; acoustical blanket efficiencies; ear shields for aircraft use.

Cotton, Dr. Richard T(homas), 343 N. 14th St, Manhattan, Kans. *Entomology.* Lydney, Eng, Jan. 27, 93. B.S, Cornell, 14, M.S, 18; Ph.D, George Washington, 24. Asst. entomologist, Insular Exp. Sta, P. R, 15–17, chief entomologist, 17–18; entomologist and *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 19–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. 2nd lieut, Inf, 18–19. A.A; Biol. Soc; Entom. Soc; Asn. Econ. Entom; Popenoe Entom. Club; Kans. Acad; Kans. Entom. Soc. (pres, 40); Entom. Soc. Wash. Biology and control of insects attacking stored products; fumigants; cereal and forage insects.

Cotton, Dr. W(illiam) E(dwin), Alabama Polytechnic Institute, Auburn, Ala. *Pathology, Bacteriology.* Oskaloosa, Iowa, Sept. 17, 66. D.V.M, George Washington, 11. Asst, exp. sta, bur. animal indust, U. S. Dept. Agr, 93–94, expert asst, 94–10, asst. supt, 10–28, supt, 28–37; *consultant and lecturer, Ala. Polytech, 37–* 11th and 12th Int. Vet. Cong. A.A; Vet. Med. Asn. (1st v. pres, 33); U. S. Live Stock Sanit. Asn. Animal pathology; tuberculosis and infectious abortion of cattle and swine; vesicular stomatitis of horses and cattle.

Cotton, W(illiam) J(acobs), Pennsylvania Coal Products Co, Petrolia, Pa. *Chemistry.* Bailundu, W. Cent. Africa, April 21, 90. A.B, Ripon Col, 10; M.S, Wisconsin, 11. Asst. chem, Wisconsin, 11–13; chemist, Lakeside Press, 13–14; instr. chem, Butler, 14–16; chem. examiner, U. S. Civil Service Cmn, 16–18; chemist, color lab, bur. chem, U. S. Dept. Agr, 19; *research chemist,* Nat. Aniline and Chem. Co, 19–34; Monsanto Chem. Co, 34–40; *Pa. Coal Products Co, 40–* Chem. Soc. (v. chairman, west. N. Y. sect, 33); fel. Inst. Chem. (chairman, Niagara chap, 32–34); Electrochem. Soc; Chemists' Club. Organic intermediates; electronics.

Cottrell, Prof. Casper L(ehman), 218 Eddy St, Ithaca, N. Y. *Physics.* Annville, Pa, May 13, 95. A.B, George Washington, 20; Ph.D, Cornell, 28. Lab. asst, Bur. Standards, 15–18; instr. physics, Cornell, 20–25; asst. prof, Maryland, 27–28; Kenyon Col, 28–34; student biophys, Johnson Foundation, Pennsylvania, 34–35; prof. physics, Centre Col, 35–36; research, *Cornell, 37–41, asst. prof.* mech, 41–42, *elec. eng, 42–* Summers, asst. physicist, Munsell Research Lab, 22, 24. Radio asst, Sig.C, 19–20. A.A; Asn. Physics Teachers. Physiological optics; biophysics; electronics.

Cottrell, Dr. F(rederick) G(ardner), 3904 Ingomar St, N. W, Washington, D. C. *3*Chemistry.* Oakland, Calif, Jan. 10, 77. B.S, California, 96, Le Conte fellow, 96–97, LL.D, 27; Berlin, 00; Ph.D, Leipzig, 02. Teacher, high sch, Calif, 97–00; instr. physical chem, California, 02–06, asst. prof, 06–11; chief physical chemist, U. S. Bur. Mines, 11–14, chief chemist, 14–16, chief metallurgist, 16–19, asst. director, 19–20, director, 20–21; fixed nitrogen research lab, *U. S. Dept. Agr,* 22–27, chief div. fertilizer and fixed nitrogen investigations, bur. chem. and soils, 27–30, *consulting chemist,* 30–39, *bur. plant indust, 39–* Consultant, Smithsonian Institution, 28–29; *Research Corp, New York, 30–* Pres, Research Associates, Inc, Washington, D. C, 35–38. Chairman div. chem. and chem. technol, Nat. Research Council, 20–22; chairman cmt. on int. auxiliary language, Int. Research Council; chief consulting chemist, Tenn. Valley Authority, 33. Perkin medal, 19; Willard Gibbs medal, Chicago sect, Am. Chem. Soc, 20; medal, Min. and Metal. Soc, 24; Washington award, West. Soc. Eng, 37; Holly medal, Am. Soc. Mech. Eng, 37; medal, Am. Inst. Chemists, 38. Nat. Acad; A.A; Chem. Soc; Electrochem. Soc; Min. and Metal. Eng; Philos. Soc. Physical chemistry; electrostatic separation of suspensions; cryogenic separations of gases; patents as research endowment.

Co Tui, Dr, 477 First Ave, New York, N. Y. *Experimental surgery.* Amoy, China, 97. A.B, Philippines, 17, M.D, 22. Res, Chinese Gen. Hosp, Manila, 22–23; intern, Michael Reese Hosp, Chicago, Ill, 23–25; asst. to surgeon, Chicago, 25–29; instr. pharmacol, *col. med, N. Y. Univ,* 29–30, asst. prof, 30–31, clin. prof. surg, 31–34, *assoc. prof. exp. surg, 34–* A.A; Soc. Exp. Biol; Pharmacol. Soc; Harvey Soc; N. Y. Acad; hon. fel. Int. Anesthesia Soc. (hon. pres-elect, 37–38). Anesthesia; sympathetic nervous system; intravenous therapy; protein nutrition.

Cotzin, Dr. S(umner) B(urton), 1117 Glenwood Blvd, Schenectady, N. Y. *Organic chemistry.* Worcester, Mass, April 20, 18. B.S, Yale, 38, fellow, 40–41, Ph.D, 41. Lab. asst. *chem,* Yale, 38–40; *instr, Union Col, 41–; Albany Col. Pharmacy, 42–* Synthesis of ureas, urethans and biurets of pharmacological importance.

Couch, Prof. Glenn C(armer), University of Oklahoma, Norman, Okla. *General botany.* Helena, Okla, July 25, 09. B.S, Oklahoma, 32, M.S, 37; Wyoming, 36; Ph.D, Ohio State, 41. Instr. *bot, Oklahoma,* 37–41, *asst. prof, 41–* Bot. Soc; Limnol. Soc; Okla. Acad. Algology.

Couch, Dr. James F(itton), Eastern Regional Research Laboratory, U. S. Department of Agriculture, Philadelphia, Pa. *Chemistry.* Somerville, Mass, Oct. 22, 88. A.B, Harvard, 13; A.M, American Univ, 23, Ph.D, 26. Indust. chem, 13–17; bur. animal indust, *U. S. Dept. Agr,* 17–40, *senior chemist, east. regional research lab, bur. agr. and indust. chem, 40–* Instr, George Washington, 20–21; prof, Nat. Univ, 28–40. A.A; Chem. Soc. (pres, Wash. sect, 35; chairman hist. of chem. div, 39–41); Inst. Chem. (pres, Wash. chap, 25); Hist. Sci. Soc. (pres, Wash-Baltimore sect, 34–36); Pa. Acad; Pa. Chem. Soc; Chem. Soc. Wash; Biol. Soc. Wash; Wash. Acad. (v. pres, 35, manager, 37–). Organic chemistry; pharmacology; pharmaceutical practise; chemistry of stock poisoning plants; locoism; milksickness; tremetol; carotenosis; lupine alkaloids; cyanide poisoning; cyanogenetic plants; tobacco.

Couch, Prof. J(ohn) N(athaniel), University of North Carolina, Chapel Hill, N. C. *7*Botany.* Prince Edward Co, Va, Oct. 12, 96. Trinity Col. (N.C), 14–17; A.B, North Carolina, 19, A.M, 22, Ph.D, 24; Nancy, France, 19; Wisconsin, 23. Teacher, high schs, N. C, 19–21; instr. *bot, North Carolina,* 22–25, asst. prof, 25–28, assoc. prof, 28–32, *prof, 32–* Nat. research fellow, sta. for exp. evolution, Carnegie Institution, 25–26; Mo. Bot. Garden, 26–27; visiting assoc. prof, Hopkins, 33, visiting prof, 35. Summer, Hopkins Trop. Exp. Sta, Jamaica, 26; prof, Mountain Lake biol. sta, Virginia, 33. Jefferson medal, N. C. Acad. Sci, 37; Walker Grand prize, 38. Nat. Acad; A.A; Bot. Soc; Mycol. Soc. (assoc. ed, 'Mycologia,' 37–; sec'y-treas, 39–41, v. pres, 42, pres, 43); Soc. Nat; Elisha Mitchell Sci. Soc. (pres, 37); N. C. Acad. (v. pres, 41). Taxonomy of Basidiomycetes; taxonomy and sexual reproduction in the lower fungi; symbiosis between insects and fungi; sexual reproduction in Algae; carnivorous fungi.

Couch, L(eo) K(ing), U. S. Department of the Interior, Chicago, Ill. *Biology.* Elgin, Oregon, July 5, 96. B.S, Oregon State Col, 18. Bur. biol. surv, U. S. Dept. Agr, 19–39, assoc. biologist and dist. agent, Olympia, Wash, 36–37, in charge cooperative wildlife research units and forest wildlife research, 37–39; *asst. chief div. wildlife research, fish and wildlife service, U. S. Dept. Interior, 39–* Chairman wildlife cmt, State Planning Council, Wash, 34–36. Soc. Mammal; Pacific Northwest Bird and Mammal Soc. (sec'y, 30–36). Birds; mammals; Alpine plants.

Coull, Prof. James, University of Pittsburgh, Pittsburgh, Pa. *Chemical engineering.* Aberdeen, Scotland, April 29, 98. B.Sc, Aberdeen, 24; Yuill scholar from Aberdeen, Mass. Inst. Tech, 24–25; A.M, Columbia, 29, Ph.D, 34. Research chemist, Tide Water Oil Co, 25–26; instr. physical chem, Cooper Union, 26–31, asst. prof. *chem. eng,* 31–39; *prof. and head dept, Pittsburgh, 39–* Thermodynamics; dimensional analysis.

Coullette, Dr. J(ames) Horace, 405 Tenth Ave, W, Birmingham, Ala. *Physics.* Houston Co, Ala, Feb. 11, 99. A.B, Birmingham-Southern Col, 18, A.M, 19; Ph.D, Columbia, 41. Instr. *physics,* Georgia, 20–21; Emory (Ga), 21–22; asst, Columbia, 22–25; instr, Hunter Col, 25–27; prof, Birmingham-Southern Col, 27–41; *physicist, Am. Cast Iron Pipe Co, 41–* A.A; Physical Soc; Ala. Acad. Radiation in mercury vapor.

Coulson, Dr. E(mery) Jack, U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Beloit, Kans, April 29, 04. B.S, Kans. State Col, 27, M.S, 30; Ph.D, Georgetown, 40. Asst. chemist, Exp. Sta, Kans. State Col, 27–31; assoc. chemist, Bur. Fisheries, stationed with dept. nutrition, Med. Col. State of S. C, 31–36; Maryland, 36; *biochemist, bur. agr. and indust. chem, U. S. Dept. Agr, 36–* A.A; Soc. Exp. Biol; Chem. Soc. Uric acid metabolism; mineral elements in nutrition; nutritive value of marine products; allergy; allergenic proteins.

Coulson, John, 811 S. Rome Ave, Tampa, Fla. *Physics, Physical chemistry.* England, Feb. 18, 84. A.B, Harvard, 13, A.M, 15. Asst. physics, Harvard, 13–14; elec. engineer, Westinghouse Elec. and Mfg. Co, 15–18; asst. prof. physics, Pittsburgh, 18–25; prof, Kenyon Col, 26–28; physics and astron, Winthrop Col, 28–32; dean and prof. math. and astron, Tampa, 32–41; *elec. engineer, Tampa Shipbuilding Co, 41–* Inst. Physics; Soc. française de Physique. Light; electricity and magnetism; metallurgy; electrical patents; electrolytic condensers; rectifiers.

Coulston, Dr. Frederick, University of Chicago, Chicago, Ill. *Parasitology.* New York, N. Y, Dec. 4, 14. A.B, Syracuse, 36, fellow, 36–37, A.M, 39, Ph.D, 42; Chicago, 40–41. Asst. *zool,* Syracuse, 38–40; *parasitol, Chicago,* 41–43, *research assoc, 43–* Soc. Parasitol. Life history, immunity and chemotherapy of malaria; Toxoplasma; sparganosis.

Coulter, Prof. John Wesley, 3715 R St, N.W, Washington, D. C. *Geography.* Pettigo, Ireland, May 8, 93. A.B, California, 19, A.M, 21; Ph.D, Chicago, 26. Teaching fellow *geog,* California, 19–20; instr, Chicago, 22–26; lecturer, *Hawaii,* 28–29, instr, 29–31, asst. prof, 31–35, assoc. prof, 35–42, *prof, 42–; U. S. Army, 41–, lieut. col.* Summer, lecturer, Washington, 27. Reporter, Int. Geog. Cong, Amsterdam, 38. U.S.A, 17–19, lieut; capt, O.R.C, 21–41, major, 41. A.A; Asn. Geog; Pacific Sci. Asn. (cmt. on land classification and utilization); Hawaiian Acad. Economic and human geography of the Pacific Basin; land utilization; acculturation.

Coulter, Dr. L(owell) V(ernon), Boston University, Boston, Mass. *Physical chemistry.* Marion, Ohio, July 3, 13. B.S, Heidelberg Col, 35; A.M, Colo. Col, 37; Ph.D, California, 40. Instr. *chem,* Colo. Col, 35–37; teaching asst, California, 37–40; *instr,* Idaho, 40–42; *Boston, 42–* Chem. Soc. Low temperature heat capacity calorimetry; heat of solution calorimetry; physical properties of liquid ammonia solutions.

Coulter, Dr. M(arion) D(onald), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Newark, Ohio, Nov. 26, 98. B.S, Denison, 20; M.S, Ph.D, Ohio State, 23. Asst. prof. *chem,* Louisiana, 23–24; *indust. fellow, Mellon Inst, 25–* Chem. Soc. Packaging.

Coulter, Dr. Merle Crowe, University of Chicago, Chicago, Ill. *Botany.* Lake Forest, Ill, June 13, 94. B.S, Chicago, 14, Ph.D, 19. Asst. biol, Williams Col, 14–15; *bot, Chicago,* 17, assoc, 17–18, instr, 18–21, asst. prof, 21–27, assoc. prof, 27–31, *prof, 31–* Plant genetics.

Coulter, Prof. S(amuel) T(odd), University of Minnesota, University Farm, St. Paul, Minn. *Dairy manufacturing.* Weiser, Idaho, Sept. 15, 03. B.S, Oregon State Col, 25; M.S, Minnesota, 30, Ph.D, 33. Asst, dairy div, Minnesota, 25–28; manager, State Exp. Creamery, Minn, 28–30; instr. *dairy husbandry, Minnesota,* 30–35, asst. prof, 35–42, *assoc. prof, 42–* Dairy Sci. Asn; Minn. Acad. Manufacture of foreign type cheeses; variations in the composition of butterfat; body and texture of butter.

Coulter, Dr. Stanley, Purdue University, Lafayette, Ind. **Botany, Biology.* Ningpo, China, June 2, 53. A.M, Hanover Col, 77, Ph.D, 89, LL.D, 08; hon. Sc.D, Purdue, 31, Wabash Col, 33. Prof. biol. and director biol. lab, *Purdue,* 87–26, dean *sch. science,* 05–26, dean *men,* 15–26, *emer. dean, 26–* State Board Forestry, Ind; State Conservation Cmn, Ind. Soc. Nat; Bot. Soc; Eugenics Soc; Genetic Asn; Forestry Asn; Nature Study Soc; Bot. Cent. States; Ind. Acad. Flora of Indiana; forest trees of Indiana; nature study. (*Died June, 1943*).

Coulter, Dean Victor A(ldine), University of Mississippi, University, Miss. *Chemistry.* Newton, N. C, July 15, 92. B.S, North Carolina, 13, M.S, 14, Ph.D, 16. Instr. chem, North Carolina, 16–17; asst. prof. chem, *Mississippi,* 20–25, assoc. prof, 25–26, *prof. physical chem, 26–, dean col. lib. arts, 36–* Consultant, bur. chem. and soils, U. S. Dept. Agr, and cooperating director gum turpentine and gum rosin processors research project, 35– Summer, research chemist, Armstrong Cork Co, 17. Lieut. and capt, C.W.S, 17–19, capt, C.W.S, O.R.C, 25– Chem. Soc. Organic chemistry; insulating materials; naval stores.

Count, Prof. Earl W(endel), 145-20 Bayside Ave, Flushing, L. I, N. Y. *Anthropology, Anatomy.* Irvington-on-Hudson N. Y, Oct. 22, 99. A.B, Williams Col, 22; B.D, Garrett Biblical Inst, 26; Rockefeller fellow, Lab. Anthrop, Santa Fe, N. Mex, 34; Ph.D, California, 35. Instr. zool, San Jose State Col, 28–35, *asst. prof,* 35–37; *anat, N. Y. Med. Col, 37–* Collaborator, inst. anthrop, Univ. Nacional Tucuman, Argentina. Summers, ranger naturalist, Nat. Park Service, 29–33, 40, acting park naturalist, 35. A.A; Ethnol. Soc; Asn. Physical Anthrop; Anthrop. Asn; Asn. Anat; N. Y. Acad. Path. Sciences. Physical and cultural anthropology.

Countryman, Prof. M(orton) Alden, 641 N. Stone Ave, La Grange, Ill. *Physics.* St. Paul, Minn, Dec. 29, 03. B.S, Minnesota, 25; M.S, Iowa State Col, 33, Ph.D, 36. Office engineer, distribution dept, North. State Power Co, Sioux Falls, S. Dak, 26–30; teaching fellow, Iowa State Col, 33–36, instr. eng. drawing and descriptive geometry, 36–37; *asst. prof. physics, Ill. Inst. Tech, 37–* Physical Soc; Asn. Physics Teachers; Optical Soc; Eng. Educ. Applied physics; parallel plate refractometer; effect of gas films on electron recording; the wetting of hot filaments by various molten metals.

Couper, Dr. Monroe, 1002 Madison St, Wilmington, Del. *Organic chemistry.* Norfolk, Va, March 14, 14. B.S, Virginia, 35, M.S, 37, Ph.D, 39. Instr. gen. chem, Virginia, 38–41; *chemist, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Beta-aroylacrylic acids; 1, 4 diketones; anthraquinone dyes and dyeing.

Courant, Prof. Richard, 142 Calton Road, New Rochelle, N. Y. ***Mathematics.* Lublinitz, Germany, Jan, 88. Breslau; Zurich; Ph.D, Göttingen, 10. Asst. prof. *math,* Göttingen, 12–18, prof. and director math. inst, 21–33; prof, Munster, 19–20; visiting lecturer, Cambridge, 33–34; visiting prof, *N. Y. Univ,* 34–36, *prof. and head dept, 36–* Visiting prof, Princeton and California, 32. A.A; Math. Soc. Mathematical analysis and physics; theory of functions; calculus of variations.

Coursen, C(harles) Blair, General Biological Supply House, Inc, 761 E. 69th Place, Chicago, Ill. *Ornithology.* Salem, Pa, July 2, 99. Ph.B, Chicago, 22. Asst. ornith, Milwaukee Pub. Museum, 19; v. pres, *Gen. Biol. Supply House, Inc,* 26–30, *pres, 30–* A.A; Ornith. Union; Cooper Ornith. Club; Inland Bird-Banding Asn; Chicago Ornith. Soc; Chicago Acad. Sci. Birds of the Chicago region.

Court, Prof. N(athan) A(ltshiller), University of Oklahoma, Norman, Okla. *Mathematics.* Warsaw, Poland, Jan. 22, 81. M.S, Ghent, 09, Sc.D, 11; Columbia, 11–13. Instr. *math,* exten. dept, Columbia, 12–13; Washington (Seattle), 13–15; Colorado, 15–16; *Oklahoma,* 16–17, asst. prof, 17–23, assoc. prof, 23–35, *prof, 35–* Assoc. ed, 'Am. Math. Monthly,' 31–36; mem. rev. staff, 'Math. Revs.' A.A; Math. Soc; Math. Asn. (v. pres); fel. Okla. Acad. (v. pres); Soc. math. de Belg. Modern geometry; higher plane curves.

Courtier, Dr. William Henry, Phillips Petroleum Co, Bartlesville, Okla. *Geology.* Newark, Ohio, Feb. 10, 05. B.S, Denison, 26; M.S, Colo. Sch. Mines, 28; Ph.D, Kansas, 34. Asst. geologist, Midwest Ref. Co, 28–31; asst. instr. geol, Kansas, 31–33; junior geologist, U. S. Geol. Surv, 34–35; seismic explor, *Phillips Petrol. Co, 35–, party chief, 36–,* supervisor seismic explorations, southeast Texas, 37–38, *asst. chief geophysicist, 38–* Asn. Petrol. Geol; Soc. Explor. Geophys; Min. and Metal. Eng. Geophysics; magnetometric investigations of gold placers; physiography; physiography and geology of south central Kansas; geology and coal resources of southeastern Kansas.

Courtis, Prof. S(tuart) A(ppleton), 9110 Dwight Ave, Detroit, Mich. *Education.* Wyandotte, Mich, May 15, 74. Mass. Inst. Tech, 97, 99; Chicago, 08; B.S, Columbia, 19, A.M, 21; Ph.D, Michigan, 25. Head dept. science and math, Liggett Sch, 98–14; supervisor educ. research, pub. schs, Detroit, 14–19; director instruction, teacher training and research and dean, Detroit Teachers Col, 20–25; assoc. prof. educ. measurements, *Michigan,* 19–24, *prof. educ, 24–; Wayne, 25–* Hanus cmt. sch. inquiry, New York, 12; consulting director, dept. measurement, efficiency and standardization, Oklahoma, 13–16; measurement sch. products, Gary Sch. Surv, Gen. Educ. Board, 16; New York Cooperative and Constructive Surv, 24; educ. consultant, 25– Nat. Research Council, 25–28. A.A. (sec'y, L, 12–17, v. pres, 17, v. pres, Q, 32); Educ. Research Asn; assoc. Psychol. Asn; Col. Teachers Educ. (sec'y, 25–32). Standard tests; standards for school products; measurement of growth; international comparison in child development; cooperation.

Courtney, Wilbur D(oane), Box 7, Sumner, Wash. *Zoology.* Pomeroy, Wash, Jan. 30, 96. B.S, State Col. Wash, 22; M.S, Washington (Seattle), 29. Instr. zool, Oregon State Col, 22–29, asst. prof, 29–30; junior nematologist, *bur. plant in-*

dust, U. S. Dept. Agr, 30–31, *asst. nematologist, 31–* A.A; Soc. Parasitol. Botany; embryology; nematology.

Courts, Prof. Frederick A(delbert), University of Missouri, Columbia, Mo. *Psychology.* Ft. Smith, Ark, June 26, 08. A.B, Reed Col, 33; A.M, Oregon, 35; Ph.D, Stanford, 38. Instr. *psychol, Missouri,* 38–40, *asst. prof. 40–, acting chairman dept, 41–* Summers, acting instr, Stanford, 37, 38. Psychol. Asn; Midwest. Psychol. Asn. Human learning; relations between muscular tension and performance.

Courville, Dr. Cyril B(rian), 312 N. Boyle Ave, Los Angeles, Calif. *Medicine.* Traverse City, Mich, Feb. 19, 00. A.B, Emmanuel Missionary Col, 24; M.D, Col. Med. Evangelists, 25; M.S, Southern California, 31. Asst. prof. anat, *Col. Med. Evangelists,* 27–33, *prof. neur. and psychiat. and head dept, 33–* Attending neurologist, San Bernardino County Hosp, Calif, 27–29; director Cajal lab. neuropath, Los Angeles County Hosp. Fiske Fund prize, 29. Am. Med. Asn; Soc. Neuropath; Los Angeles Acad. Med; Los Angeles Neur. Soc. (managing ed, 'Bul'). Intracranial tumors; cranio-cerebral injury; intracranial complications of otitis media and sinusitis; neuropathology of hematoporphyria; cerebral anoxia; intracranial calcification.

Couture, Dr. John (Russum), 1478 Unquowa Road, Fairfield, Conn. *Organic chemistry.* Topeka, Kans, Nov. 29, 96. B.S, Washburn Col, 19; M.S, Iowa, 21, Ph.D, 23. Research chemist, E. I. du Pont de Nemours and Co, 23–32; *chief chemist, coated fabrics div, Atlas Powder Co, Stamford, 32–* Chem. Soc. Molecular rearrangements; migration of acyl radicals; varnish, rubber and synthetic resin technology.

Covault, Dr. C(larence) H(artley), Iowa State College, Ames, Iowa. *Veterinary medicine.* Troy, Ohio, March 1, 86. D.V.M, Ohio State, 11. Veterinarian, Agr. Cmn. of Ohio, 11–13; Akron Vet. Hosp, Akron, Ohio, 13–17; *prof. med, div. vet. med, Iowa State Col, 17–* Vet. Med. Asn; Ohio State Vet. Med. Asn; Iowa State Vet. Med. Asn. Clinical veterinary medicine and surgery.

Covell, Prof. W(alter) P(age), 10533 Troon Ave, Los Angeles, Calif. *Physiology.* Corvallis, Oregon, Dec. 22, 99. B.S, Oregon State Col, 22, M.S, 23; Ph.D, Minnesota, 26; M.D, Chicago, 33. Teaching fellow, Minnesota, 23–26; asst, Rockefeller Inst, 26–28; Univ. and Bellevue Hosp. Med. Col, 28–29; asst. prof, med. sch, Washington (St. Louis), 29–32; *research med, Hooper Foundation, California,* 33–41, *assoc. prof. physiol, 42–* A.A; Harvey Soc. Human fetal hypophysis; quantitative cell studies; infantile paralysis; otology.

Coven, Prof. Allen W(illis), 325 E. Erie St, Kent, Ohio. *Physics.* Amherst, Ohio, Sept. 23, 98. B.S, Col. of Wooster, 24; M.S, Washington (St. Louis), 27; Ph.D, Chicago, 33. Teaching fellow *physics,* Washington (St. Louis), 25–27; instr, Col. of Wooster, 27–31; asst. prof, *Kent State,* 32–36, *assoc. prof, 36–* A.A; Physical Soc; Asn. Physics Teachers; Ohio Acad. Scattering of x-rays from solids; Geiger-Mueller counters; radiations from artificially radioactive isotopes.

Coventry, Prof. A(lan) F(reeth), University of Toronto, Toronto, Ont, Can. *Zoology.* London, Eng, Sept. 23, 88. B.A, Oxford, 10. Lecturer, *Toronto,* 12–19, asst. prof, 19–27, *assoc. prof. vert. embryol. and special lecturer science in relation to civilization, 27–* Soc. Mammal; Royal Can. Inst. Vertebrate embryology; ecology; conservation.

Coventry, Dr. Frances A, 158 Wilson Drive, Lancaster, Pa. *Zoology.* New Brighton, Pa, Aug. 31, 97. A.B, Goucher Col, 20; Sc.D, Hopkins, 24. Asst. biol, Goucher Col, 21–22; instr. protozool, sch. hygiene and pub. health, Hopkins, 24–25; research instr. hygiene and bacter, Chicago, 25–29; instr, sch. hygiene and pub. health, Hopkins, 31; ed. staff, 'Am. Men of Science,' 34–39. A.A; Soc. Parasitol. Parasitology; immunology of parasitic infections.

Coventry, George Ayres, 919 Andrews Ave, Collingdale, Pa. *Biochemistry.* Philadelphia, Pa, Aug. 2, 05. B.S, Illinois, 28; M.S, Wisconsin, 29. Research bacteriologist, H. K. Mulford Co, 30–31; chief chemist, Harmer Pharmaceut. Lab, 32–33; chief research chemist, Publicker Comm. Alcohol Co, 34–35; *chief chemist, Am. Stores Co, 35–* Chief chemist, E. L. Conwell Co, 36–37; research assoc. in charge dept. Crustacea, Acad. Nat. Sci. Phila. Oceanological Soc. Carcinology; development and analysis of foods; development of domestic source of rotenone; classification of Crustacea.

Cover, Prof. Gerald M(athiot), Case School of Applied Science, Cleveland, Ohio. *Metallurgy.* Poland, Ohio, May 24, 99. B.S, Case, 24, M.S, 34, Met.E, 32; Ph.D, Ohio State, 35. Chem. analyst, Youngstown Sheet and Tube Co, Ohio, 17–20; metallurgist, Weirton Steel Co, W. Va, 24–30, asst. to asst. v. pres, 35–38; instr. metal, Case, 30–33; metal. research, Battelle Mem. Inst, 34–35; *assoc. prof. metal, Case, 38–* Min. and Metal. Eng; Soc. Metals. Heat treating process for cast iron; physical properties of thin black steel sheets and iron-tin alloys; reduction of magnesia at low pressures by carbon dissolved in molten iron; strip steel; black and galvanized steel sheets; tin and terne plate.

Cover, Dr. John H(igson), U. S. Department of State, Washington, D. C. *Economics, Statistics.* Johnstown, Pa, Oct. 29, 91. B.S, Columbia, 15, A.M, 19, Ph.D, 27. Special attaché, Am. Embassy, Vienna, 15–16; ed. staff, 'Iron Age,' and special writer, 'New York Evening Post,' 16; with dept. surv. and exhibits, food admin, U. S. Dept. Agr, 17; director welfare publications, Metropolitan Life Ins. Co, 20; Near East Relief, 18–21; instr. econ. and business, Columbia, 21–23; prof. econ, Colo. Col, 23–24; statist. and marketing and director bur. statist. research, Denver, 24–27; prof. statist. and director bur. business research, Pittsburgh, 27–30; professorial lecturer econ, Chicago, 28–29, prof. statist, 29–40; consulting economist, 40–41; chief econ. analyst and program planning officer, Office of Lend-Lease Administrator, 42; *head divisional asst, U. S. Dept. State, 43–* Mem. Cmt. Govt. Statist. and Information Services, 33; Fed. Emergency Relief Admin. and Bur. Labor Statist. 34, 35; U. S. Dept. Commerce, 39, 40. A.A; Econ. Asn; Statist. Asn; Econometric Soc. Price behavior; changes in economic business conditions; distribution consumption; business and personal failure; consumer finance; regulation of economic activities in foreign countries.

Cover, Dr. Sylvia, Agricultural and Mechanical College of Texas, College Station, Texas. *Home economics.* Tunnel Hill, Ill, 96. B.S, Illinois, 20; A.M, Missouri, 29, Ph.D, 33. Teacher, high sch, Ill, 20–28; asst. food preparation, Missouri, 28–29, nutrition, 29–33; *foods specialist, Exp. Sta, Agr. and Mech. Col. Texas, 33–* A.A; Chem. Soc; Home Econ. Asn; Inst. Food Technol. Vitamin D; tenderness of meat; thiamine, riboflavin and nicotinic acid in meat.

Coverdale, Dr. W(illiam) H(ugh), 120 Wall St, New York, N. Y. *Engineering.* Kingston, Ont, Can, Jan. 27, 71. A.B, Geneva Col, 91, Sc.D, 14; LL.D, Queen's (Can), 22. Eng. dept, Pa. Lines west of Pittsburgh, 91–00; *consulting engineer, New York, 01–; mem. firm, Coverdale and Colpitts, 13–* Civil Eng; Inst. Consulting Eng.

Covert, Dr. Lloyd W(esley), 816 Glenview St, Philadelphia, Pa. *Chemistry.* Velva, N. Dak, Nov. 16, 06. B.S, Oregon State Col, 29; Ph.D, Wisconsin, 32. *Tech. asst. to pres, Rohm and Haas Co, Phila.* Chem. Soc. High pressure catalytic hydrogenation of organic substances; development of high pressure reactions.

Coville, Perkins, U. S. Forest Service, Washington, D. C. *Forestry.* Ithaca, N. Y, March 6, 98. B.S, Cornell, 18, M.F, 20. Forester, James D. Lacey and Co, 20–21; Weyerhaeuser Timber Co, Wash, 21–22; instr. forestry, Iowa State Col, 22–28; assoc. silviculturist, *U. S. Forest Service,* 28–34, asst. chief, forest code sect, 34–35, div. private timberland cooperation, 35–36, chief sect, div. private forestry, 36–39, New Eng. forest emergency hurricane project, 39–40, senior forest economist, 41–42, *asst. chief div. personnel management, 42–* U.S.N.R, 17–19. Soc. Foresters.

Cowan, Dr. Edwina A(bbott), 430 S. Seneca, Wichita, Kans. *Psychology.* Chicago, Ill, Jan. 6, 87. A.B, Illinois, 08, A.M, 09; Ph.D, Chicago, 13. Asst. psychol, Vassar Col, 09–12; instr, Tulane, 13; assoc. prof, Friends, 27–40, director Wichita child research lab, 30–41; *visiting consultant, social agencies and schs, 41–* Psychol. Asn; Asn. Applied Psychol; Research Council Child Develop; Midwest. Psychol. Asn; Kans. Asn. Consulting Psychol. Vocational guidance; marital guidance; counseling; child guidance.

Cowan, Frank(lin) T(homas), U. S. Entomological Laboratory, Bozeman, Mont. *Entomology.* Victor, Mont, Aug. 21, 01. B.S, Mont. State Col, 25; M.S, Colo. State Col, 32. Junior entomologist, bur. entom, U. S. Dept. Agr, 25–28; deputy state entomologist, Colo, 28–33; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–37, *assoc. entomologist, 37–; assoc. prof. entom, Exp. Sta, Mont. State Col.* Mormon crickets.

Cowan, Dr. Frederick P(ierce), Harvard University, Cambridge, Mass. *Physics.* Bar Harbor, Maine, July 3, 06. A.B, Bowdoin Col, 28; A.M, Harvard, 31, Ph.D, 35. Instr. *physics,* Bowdoin Col, 28–29; asst, Harvard, 29–34, instr, 34–35, asst, Radcliffe Col, 34–35; instr, *Rensselaer Polytech,* 36–42, *asst. prof, 42–; mem. staff, radio research lab, Harvard, 43–* Physical Soc; Asn. Physics Teachers. Thermal measurements on electron tubes; radio receiving circuits.

Cowan, Prof. I(an) McT(aggart), University of British Columbia, Vancouver, B. C, Can. *Mammalogy, Ornithology.* Edinburgh, Scotland, June 25, 10. B.A, British Columbia, 32; Ph.D, California, 35. Insect pest investigator, Dom. Govt, Can, 29; field asst, Nat. Museum Can, 30–31; teaching fellow, California, 32–35; asst. biologist, B. C. Provincial Museum, 35–38, asst. director, 38–40; *asst. prof. zool, British Columbia, 40–* Soc. Mammal; Biol. Soc. Wash; Wildlife Soc; Ornith. Union; Cooper Ornith. Club; Pacific Northwest Bird and Mammal Soc. Systematics and ecology of the larger game mammals; distribution and systematics of mammals, birds and reptiles of western North America; ecology of the fur-bearing mammals; birds of British Columbia.

Cowan, Dr. John C, 1904 N. University, Peoria, Ill. *Organic chemistry.* Danville, Ill, Oct. 25, 11. A.B, Illinois, 34, Ph.D, 38. Asst, Illinois, 35–38, du Pont fellow, 38–39; instr, DePauw, 39–40; assoc. chemist, *North. Regional Research Lab,* 40–41, *chemist, 42–* Chem. Soc; Oil Chemists Soc. Reactions of alpha-bromopropyl alkylamines; polymers of methyl alpha-bromo and alpha-chloroacrylate; polymerization of oil acids.

Cowan, P(hilip) Russell, Central Experimental Farm, Ottawa, Ont, Can. *Plant breeding.* Gloucester, Eng, April 26, 92. B.S.A, McGill. Asst. investigator cereal diseases, Can, 15–17; cerealist, *Dom. Exp. Farms,* 17–35, *cereal specialist, 35–* Sec'y breeding and production cmt, Nat. Barley Cmt. Can, 34–; lab. malting tests cmt, Assoc. Cmt. Grain Research, Can, 41. Can. Soc. Tech. Agr. Cereal breeding; barley and pea breeding; cereal diseases.

Cowan, Dr. Russell (Walter), 1409 Tenth St, Tuscaloosa, Ala. *Mathematics.* Oakland, Calif, Feb. 26, 12. A.B, California, 32, A.M, 33, Ph.D, 35. *Instr. math,* Col. of St. Scholastica, 35–38; *Alabama, 38–* Difference equations; differential equations.

Cowart, Dr. F(red) F(razier), Citrus Experiment Station, Lake Alfred, Fla. *Horticulture.* Jarrell, Texas, Nov. 17, 09. B.S, Agr. and Mech. Col. Texas, 31; Ph.D, Cornell, 36. Asst. pomol, Agr. and Mech. Col. Texas, 32; Cornell, 32–36; *assoc. horticulturist,* Exp. Sta, Georgia, 36–40; *Citrus Exp. Sta, Florida, 40–* Soc. Hort. Sci; Asn. South. Agr. Workers. Maturity and quality of citrus fruits; packinghouse problems.

Cowdery, Dr. Karl M(ontague), Stanford University, Calif. *Psychology.* Oberlin, Ohio, Aug. 11, 95. A.B, Oberlin Col, 15; A.M, Stanford, 22, Ph.D, 26. Research worker, Whittier State Sch, 15–17, asst. supt, 19–22, director educ, 22–23; asst. psychol, *Stanford,* 23–24, statistician, registrar's office, 24–25, *assoc. registrar, 25–,* director personnel research, 25–37, *academic sec'y, 37–* Psychol. examiner, U.S.A, 18. Psychol. Asn. Intelligence as an index of success in trade learning; evaluation of expressed interests of members of professions; factors significant for university admission requirements.

Cowdrey, Prof. I(rving) H(enry), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Fitchburg, Mass, Jan. 26, 84. B.S, Mass. Inst. Tech, 05. Instr, *Mass. Inst. Tech,* 05–21, asst. prof. *testing materials,* 21–27, *assoc. prof, 27–* Lecturer, Franklin Union, Boston, 06–19; Lowell Inst. Sch, 07– Soc. Test. Mat; Soc. Metals (sec'y, Boston chap, 21, chairman, 22). Physical properties and testing of materials; aircraft parts; hardness of metals; hardness testing by mutual indentation.

Cowdry, Prof. E(dmund) V(incent), Washington University, St. Louis, Mo. ***Pathology, Anatomy, Zoology.* MacLeod, Alta, Can, July 18, 88. B.A, Toronto, 09; fellow, Chicago, 10–11, Ph.D, 12. Asst. anat, Chicago, 09–12, assoc, 12–13; Hopkins, 13–16; prof, Peking Union Med. Col, 17–21; assoc. mem, Rockefeller Inst, 21–28; *prof.* cytol, *Washington (St. Louis),* 28–41, *anat, 41–* Harvey lecturer, New York, 23; Gross lecturer, Phila, 24; anthropologist, Barnes Hosp, 41–; director research, Barnard Free Skin and Cancer Hosp, 39–; assoc. ed, 'Endocrinology,' 19–21; 'Am. Jour. Physical Anthrop,' 18–21; ed, 'Gen. Cytol,' 23; 'Special Cytol,' 28, 32; 'Human Biol,' 30; 'Arteriosclerosis,' 33. Chairman div. med. science, Nat. Research Council, 30–31; mem. yellow fever cmn, Rockefeller Foundation, 29; int. cmt. study infantile paralysis, 30–32; assoc. chief med. examiner, St. Louis subsidiary board, Nat. Board Med. Examiners, 42– Trustee, Bermuda Biol. Sta, 27–41. Expeds, Alaska, 10, Russia, 13, Japan, 19, 20, Hongkong and S. China, 21, S. Africa, 24–25, Tunis, 28, E. Africa, 30. A.A; Soc. Nat. (v. pres, 33); Asn. Anat. (exec. cmt, 26–29, 1st v. pres, 34); Soc. Zool; Soc. Exp. Biol; Acad. Trop. Med; Cmn. Standardization Biol. Stains (exec. cmt, 40–); Union Am. Biol. Societies (pres, 36–39); Soc. Philomat. de Paris; China Med. Asn. (chairman, research cmt, 20); Anat. and Anthrop. Asn. China (pres, 20). Problems of ageing; histology; leprosy; cancer; thyroid secretion; relation of Rickettsia to disease; pathology of jagziekte; botulism; herpes; vaccinia; spontaneous encephalitis; yellow fever; east coast fever; cytology of virus diseases; histology; medical education in the Orient.

Cowgill, Major Allen P(arker), 519 Allen St, Syracuse, N. Y. *Engineering mathematics.* Paducah, Ky, July 17, 90. B.S, U. S. Mil. Acad, 14; U. S. Army Engineer Sch, 16; A.M, Nebraska, 30, Ph.D, 35. From second lieut. to *major, Corps of Engineers,* 14–21, *retired, 21–;* supt. streets and pub. improvements, Lincoln, Nebr, 23–25; owner, Cowgill Coal Co, 23–33; prof. math, Ind. Tech. Col, 36–38; *asst. prof. applied math, Syracuse, 38–* Math. Soc; Ind. Acad. Series of polynomials.

Cowgill, Prof. George R(aymond), 333 Cedar St, New Haven, Conn. *Physiological chemistry.* St. Paul, Minn, Feb. 8, 93. A.B, Stanford, 16; Ph.D, Yale, 21. Asst. physiol. and histol, Stanford, 16–17; *physiol. chem, sch. med, Yale,* 20–21, instr, 21–25, asst. prof, 25–31, *assoc. prof, 31–* Summers, Stanford, 24; Southern California, 25. Ed. board, 'Jour. Nutrition,' 35–39, ed, 39– Mem. food and nutrition board, Nat. Research Council. A.A; Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Inst. Nutrition (treas, 35–39); Soc. Exp. Biol; Am. Med. Asn. (council foods and nutrition); Inst. Chem; Inst. Food Technol; Soc. Trop. Med. Nutrition; the physiology of vitamins; metabolism.

Cowles, Alfred, 435 N. Michigan Ave, Chicago, Ill. *Statistics.* Chicago, Ill, Sept. 15, 91. A.B, Yale, 13. Investment research, 23–32; *director, Cowles Cmn. for Research in Econ, 32–* Trustee, Colo. Col, 33–; Colo. Foundation Research Tuber, 24–, sec'y-treas, 24–29, v. pres, 30–39; trustee, Fountain Valley Sch. of Colo, 29–; Colorado Springs Fine Arts Cent, 38– A.A; Statist. Asn; Econ. Asn; Psychometric Soc; fel. Econometric Soc. (treas, 32–, sec'y, 37–). Economics.

Cowles, Dr. Edward Spencer, 591 Park Ave, New York, N. Y. *Neurology, Psychiatry.* Cowlesville, Va, Sept. 22, 79. Col. of William and Mary, 98–02; M.D, Univ. Col. Med. (Va), 07; Harvard, 08. *Director,* Psychopath. Hosp, Portsmouth, N. H, 11–16; dept. psychopath, N. Y. Polyclinic Med. Sch. and Hosp, 17; *Park Ave. Hosp, 18–;* organizer and director, Body and Mind Foundation, 21; *prof. nervous and mental diseases, Broad St. Hosp, 17–; staff physician and psychiatrist, Bloodgood Cancer Foundation, Hopkins, 30–* Director, Body and Mind Clinic. A.A; Asn. Study Int. Secretions; N. Y. Acad; Nat. Asn. Adv. Biol. and Physiol. Psychiat. (director general, 36–); fel. N. Y. Acad. Religion and medicine in the church; alcoholism; psychoneurosis; melancholia-mania psychosis; dementia praecox; how to get rid of fear and fatigue.

Cowles, Prof. H(al) O(liver), University of Utah, Salt Lake City, Utah. *Metallurgy.* Monroe, Iowa, April 3, 86. D.D.S, Louisville, 17; B.S, N. Mex. Sch. Mines, 26. Testing engineer and chemist, Int. Smelting Co, Utah, 26–27; analyst, *eng. exp. sta, Utah,* 27–31, analyst and research chemist, 31–33, *metallurgist, 33–, asst. prof. metal, 33–; capt, U. S. Army.* Analyst, U. S. Bur. Mines, 27–31. Lieut, M.C, 17–19. Electrochem. Soc; Min. and Metal. Eng. Ash analysis, clinker formation, quantitative fly ash formation and low temperature carbonization of bituminous coals; cyanide leaching; beneficiation of titanium iron ores.

Cowles, Prof. Henry T(rask), University of Puerto Rico, Mayaguez, P. R. *Horticulture.* Dover, Mass, Oct. 26, 87. B.S, Boston, 10, Mass. Col, 10; M.S.A, Florida, 28. Teacher and prin, high sch, P. R, 10–12; supervisor, Rio Grande-Loiza Dist, 12–14; Humacao, Las Piedras Dist, 14–16; asst. prof. *hort, Puerto Rico,* 16–19, *prof, 19–,* acting dean col. agr. and mech. arts, 26–27. Genetic Asn; Soc. Hort. Sci. New roots for citrus trees; orchid culture; avocado selections.

Cowles, Dr. John T(odd), University of Illinois, Urbana, Ill. *Psychology.* Burlington, Vt, July 31, 11. A.B, Princeton, 34; Ph.D, Yale, 37. Asst. psychobiol, Yale, 34–37; nat. research fellow, California, 37–38; *instr. psychol,* Alabama, 38–39; *Illinois, 39–* A.A; Psychol. Asn. Comparative and experimental psychology.

Cowles, Prof. Philip B(ishop), Yale University School of Medicine, New Haven, Conn. *Bacteriology, Immunology.* Wallingford, Conn, May 26, 99. A.B, Yale, 21, Ph.D, 29. Instr. math. and science, Choate Sch, Conn, 21–27; *bacter. and immunol, sch. med, Yale,* 29–32, asst. prof, 32–41, *assoc. prof, 41–* Soc. Bact. Bacterial cellulose decomposition; bacteriophage; tetanus; disinfection.

Cowles, Prof. R(aymond) B(ridgman), University of California at Los Angeles, Los Angeles, Calif. *Biology.* Amanzimtoti, Natal, S. Africa, Dec. 1, 96. A.B, Pomona Col, 21; Ph.D, Cornell, 28. Instr. *biol,* Cornell, 22–25; biol. investigations, S. and E. Africa, 25–27; assoc, *California at Los Angeles,* 27–29, instr, 29–30, asst. prof, 30–39, *assoc. prof, 40–* Advisory board, Palm Springs Desert Museum. Soc. Ichthyol. and Herp. (governor); Cooper Ornith. Club (sec'y, 35, pres, 36, governor). Ornithology; herpetology; ecology of desert reptiles.

Cowles, Prof. R(heinart) P(arker), Johns Hopkins University, Baltimore, Md. *Zoology.* Washington, Iowa, April 8, 72. A.B, Stanford, 99; Bruce fellow, Hopkins, 02–04, Ph.D, 04. Asst. biol, Hopkins, 04–07, instr, 07–10, assoc, 10–11; assoc. prof. *zool,* Philippines, 11–15, prof, 15–19; assoc. prof, sch. higher studies, *Hopkins,* 19–30, prof, *col. arts and sciences,* 30–43, *emer. prof, 43–* Summer, biologist in charge, Gulf Biol. Sta, La, 04; exp. bacteriologist, Griffith and Turner Co; investigator in charge biol. and hydrog. surv, Chesapeake Bay, 20– A.A; Soc. Nat; Soc. Zool. Habits; ecology; anatomy.

Cowles, Russell A(ustin), 133 California Ave, Highland Park, Mich. *Chemistry.* Detroit, Mich, May 27, 00. B.S, Michigan, 22; M.S, Mass. Inst. Tech, 25. Instr. chem, Mass. Inst. Tech, 24–25; research chemist, *Difco Labs, Inc,* 25–39, chief chemist and director chem. labs, 39– A.A; Physical Soc. Enzymes; animal derivatives.

Cowles, William H(enry) H(arrison), 215 Ryerson St, Brooklyn, N. Y. *Mathematics.* Wilkesboro, N. C, Dec. 3, 91. A.B, Columbia, 23, A.M, 24. Teacher *math, Pratt Inst,* 24–29, *head dept, 29–,* acting director sch. science and technol, 42. Math. Soc; Math. Asn; Eng. Educ. Teaching and administration.

Cowley, Dr. E(lizabeth) B(uchanan), c/o Fidelity Trust Co, 343 Fourth Ave, Pittsburgh, Pa. *Mathematics, Astronomy.* Allegheny, Pa. A.B, Vassar Col, 01, A.M, 02; Ph.D, Columbia, 08. Instr. math, Vassar Col, 02–13, asst. prof, 13–16, assoc. prof, 16–29, prof, 29–30; teacher, high schs, Pittsburgh, 30–38. Math. Asn; Pa. State Educ. Asn. (pres, math. sect, 34–). Algebraic curves; definite orbit of comet; teaching of mathematics; plane and solid geometry text-books.

Cowley, Pres. W(illiam) H(arold), Hamilton College, Clinton, N. Y. *Psychology.* Petersburg, Va, May 28, 99. A.B, Dartmouth Col, 24; Ph.D, Chicago, 30; LL.D, Hamilton Col, 38; L.H.D, Hobart Col, 39; Litt.D, Union Col, 40. With Bell Tel. Labs, New York, 24–25; director board vocational guidance and placement, Univ. Chicago, 27–29; research assoc. and asst. prof. psychol, bur. educational research, Ohio State, 29–34, assoc. prof, 34–35, prof, 35–38; *pres, Hamilton Col, 38–* Psychol. Asn. Psychology of leadership; personnel administration; problems of higher education.

Cowlin, R(obert) W(illiam), 424 U. S. Courthouse, Portland, Oregon. *Forestry.* Chicago, Ill, March 9, 99. B.S, California, 22, M.S, 28. Bidwell asst, California, 28–29; assoc. forest economist, *Pacific Northwest Forest Exp. Sta, U. S. Forest Service,* 29–34, asst. regional director, 34–38, senior forest economist in charge forest surv, 38–42, *prin. forest economist in charge forest econ. and forest surv, 42–* Soc. Foresters. Forest economics and survey.

Cowperthwaite, Dr. Irving A(rchibald), Thompson Wire Co, 41 Mildred Ave, Mattapan, Mass. *Physical chemistry.* Worcester, Mass, Oct. 28, 04. B.S, Mass. Inst. Tech, 26; Ph.D, Columbia, 31. Fellow, Rockefeller Inst, 26–27, asst, 27–30; instr. chem, Columbia, 30–36, research assoc. sci. educ, Teachers Col, 36–37; *chief engineer, Thompson Wire Co, 37–* Summer, asst, Mass. Inst. Tech, 26. Chem. Soc; Inst. Chem. Transference numbers; electromotive force of galvanic cells; electrometric titrations; metallurgy; metallography.

Cox, Dr. Alvin J(oseph), 1118 Emerson St, Palo Alto, Calif. *Chemistry.* Lawrence, Kans, June 14, 75. A.B, Stanford, 01, A.M, 02; Leipzig, 02; Ph.D, Breslau, 04. Asst, Stanford, 99–01, instr. anal. chem, 01–02, chem, 04–06; physical chemist and chief chemist, sect. weights, measures and mineral analysis, Bur. Science, P. I, 06–10, div. chem, 10–12, asst. director, 12, director, 12–19; consulting chem. engineer, 19–32; *chief chem. bur, State Dept. Agr, Calif, 32–* Acting prof, Montana, 09–10. Mem. fertilizer advisory cmt. and insecticide and fungicide advisory cmt, Calif.-U. S. Dept. Agr. War Board, 43– Mem, Cmt. Philippine Geog. Names, 12–19; chairman publicity cmt, Philippine Food Cmn, 17–19. Chem. Soc. Acid, neutral and basic chromates of the difficultly soluble metals; oxidation and deterioration of coal; copra and other cocoanut products; effect of litsea Chinensis on the hardening of lime mortar; industrial alcohol; industrial resources of the Philippine Islands; economic poisons; spray residue; fertilizing materials; soils; agricultural chemistry law enforcement.

Cox, Dr. Alvin J(oseph), Jr, Stanford University School of Medicine, San Francisco, Calif. *Pathology.* Manila, P. I, March 6, 07. A.B, Stanford, 27, M.D, 31. Instr. path, Stanford, 33–35; exchange asst, Path. Inst, Freiburg, 35–36; asst. prof. *path, sch. med, Stanford,* 36–39, assoc. prof, 39–41, *prof, 41–* Asn. Path. and Bact. Coccidioidal infection; pathology of the stomach.

Cox, Ben(jamin) B(urton), Room 1700, 26 Broadway, New York, N. Y. *Geology.* Greenville, Ohio, Feb. 25, 98. B.S, Chicago, 21, M.S, 22. Instr. geol, Iowa, 22–25; petrol. geologist, Palmer Corp, 25–27; chief subsurface geologist, Iraq Petrol. Co, Ltd, 27–28; *geologist,* Near East Develop. Corp, 28–35; *Socony Vacuum Oil Co, Inc, 35–* Summers, asst, Ky. Geol. Surv, 21, 22; geologist, Ill. Geol. Surv, 23–24. A.A; Asn. Petrol. Geol; Petrol. Inst; Soc. Econ. Paleont. and Miner; Min. and Metal. Eng; Ky. Acad; Iowa Acad; Soc. géol. de France. Reconnaissance and detailed mapping of geological and mineral resources; stratigraphy; paleontology; sedimentary petrography; sedimentology; valuations of natural resources, especially potential oil and gas areas in various parts of the world.

Cox, Charles R(aymond), 55 S. Lake Ave, Albany, N. Y. *Sanitary engineering, Sanitary chemistry.* Baltimore, Md, Dec. 31, 92. B.S, Hopkins, 21. Asst. engineer, State Health Dept, Md, 14–16, res. engineer, 16–18; sanit. engineer, int. health board, Rockefeller Foundation, 21–22; chief chemist and bacteriologist, Bur. Water, Reading, Pa, 22–24; from asst. engineer to *chief bur. water supply, div. sanit, State Dept. Health, N. Y, 24–* Fuller Mem. award, Am. Water Works Asn, 40. Mem. cmt. water supply, Conf. State Sanit. Engineers. A.A; fel. Pub. Health Asn; Water Works Asn. (sec'y, water purification div, 34–; chairman, N. Y. sect, 40; director, 41–43; advisory cmt. rep. to U. S. Pub. Health Service; mem. cmt. methods of water treatment and lab. control; cmt. quality and treatment for revision, 'Manual Water Quality and Treatment'); Chem. Soc; Federation Sewage Works Asns; assoc. Civil Eng; New Eng. Water Works Asn. Water purification; industrial waste treatment; camp sanitation; operation of swimming pools.

Cox, Dr. C(lare) F(rancis), 528 N. Oxford St, Indianapolis, Ind. *Botany.* Hudson, Ill, March 9, 88. A.B, Illinois, 17; Ph.D, Chicago, 31. *Teacher,* high sch, Ill, 13–16; *bot, Tech. High Sch, Indianapolis, 17–, head dept, 31–* A.A; Ecol. Soc; Ind. Acad. Plant ecology; alpine plant succession and snow pocket vegetation on James Peak, Colorado.

Cox, Doak C(arey), U. S. Geological Survey, Washington, D. C. *Geology.* Wailuku, Maui, Hawaii, Jan. 16, 17. B.S, Hawaii, 38; A.M, Harvard, 41. *Junior geologist, metals sect, U. S. Geol. Surv, 41–* Physiography and volcanology in the Southwest; geology of strategic mineral deposits in the western states and in Cuba; fluorite supplies and deposits in the Northwest.

Cox, Prof. Edward H(ill), 8 Whittier Place, Swarthmore, Pa. *Organic chemistry.* Richmond, Ind, May 3, 92. A.B, Earlham Col, 14; A.M, Harvard, 20; D.Sc, Geneva, 22; Berlin, 23. Asst, Louisville, 14–16; Illinois, 16–17; asst. prof, Oberlin Col, 17–20; chief chemist, Sharp and Dohme, Baltimore, 23–26; assoc. prof. *chem. Swarthmore Col,* 26–35, *prof, 35–* Chem. Soc. Hexylresorcinol; Fries reaction.

Cox, Edwin, South Post, Ft. Meyer, Va. *Chemistry.* Richmond, Va, Sept. 20, 02. B.S, M.S, Va. Mil. Inst. *Chemist,* Va-Carolina Chem. Corp, Richmond, 20–21; Tobacco By-Products and Chem. Corp, 22–26; Phosphate Products Corp, Rich-

mond, 27–38, v. pres; manager chem. div, Va-Carolina Chem. Corp, 38–40; *lieut. col, Inf, U. S. Army, 40–* A.A; Chem. Soc. (ed, Va. sect, 25, chairman, 30, councilor, 31); Asn. Cereal Chemists; Va. Acad. Compounds of phosphorus; baking chemicals; nicotine; rancidity.

Cox, Prof. E(lbert) F(rank), Howard University, Washington, D. C. *Mathematics.* Evansville, Ind, Dec. 5, 95. A.B, Indiana, 17; Cornell, 22–24, Erastus Brooks fellow, 24–25, Ph.D, 25; McGill, 24. Instr, high sch, Ky, 17–18; head dept. nat. sciences, Shaw, 19–22; prof. physics and math, W. Va. State Col, 25–29; *assoc. prof. math, Howard, 29–* U.S.A, 18–19. Math. Soc; Math. Asn; Physical Soc. Calculus of finite differences.

Cox, Dr. E(verett) F(ranklin), Naval Ordnance Laboratory, Navy Yard, Washington, D. C. *Physics.* Eaton, Ohio, Sept. 8, 08. A.B, Miami (Ohio), 30; Ph.D, Calif. Inst. Tech, 33. Instr. physics, Colgate, 33–36, asst. prof, 36–39; asst. director, Buhl Planetarium and Inst. Popular Science, Pittsburgh, 39–40; chief degaussing engineer, bur. ordnance, U. S. Navy Dept, Pearl Harbor, 40–42, *contract physicist, Naval Ordnance Lab, 42–* Physical Soc; Asn. Physics Teachers. Ionization of gases; magnetism.

Cox, Dr. Fred W(ard), 1923 13th St, Cuyahoga Falls, Ohio. *Organic chemistry.* Atlanta, Ga, Dec. 10, 14. B.S, Ga. Sch. Tech, 36; Procter and Gamble fellow, Wisconsin, 38–39, Ph.D, 39. *Research chemist, Goodyear Tire and Rubber Co, 39–* Chem. Soc. Plastics and rubber substitutes.

Cox, Dr. Gerald J(udy), Food and Nutrition Board, National Research Council, Washington, D. C. *Physiological chemistry.* Sumner, Ill, April 27, 95. B.S, Illinois, 19, M.S, 23, Ph.D, 25. Chemist, Special Chem. Co, 19–22; instr. chem, Illinois, 25–29; senior indust. fellow, Mellon Inst, 29–41; *mem. staff,* Office Production Management, 41–42; *food and nutrition board, Nat. Research Council, 42–* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; Inst. Math. Statist; Int. Asn. Dental Research. Metabolism and preparation of amino acids; biochemistry of aluminum; industrial uses of sugar; sugar in nutrition; dental caries; statistical methods.

Cox, Prof. Gertrude M(ary), North Carolina State College, Raleigh, N. C. *Statistics.* Dayton, Iowa, Jan. 13, 00. B.S, Iowa State Col, 29, M.S, 31, 33–38; California, 32–33. Asst, statist. lab, Iowa State Col, 33–39, research asst. prof, 39–40; *prof. exp. statist. and head dept, N. C. State Col, 40–* Statist. Asn. (pres, N. C. chap, 42); Psychomet. Soc; Inst. Math. Statist. Experimental designs; statistical methodology.

Cox, Prof. Glen N(elson), Louisiana State University, Baton Rouge, La. *Hydraulics, Mechanics.* Keosauqua, Iowa, March 21, 03. B.E, Iowa, 25, M.S, 26; Ph.D, Wisconsin, 28. Instr, Illinois, 28–29; assoc. prof. *mech. and hydraul, Louisiana,* 29–37, *prof, 37–* Civil Eng; Eng. Educ; Geophys. Union. Submerged weir as a measuring device; plant requirement and groundwater studies on sugarcane land near Houma, La; fluid mechanics; hydrology; fluid mechanics; engineering mechanics.

Cox, Dr. Henry L(eon), Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Chemistry.* Cullowhee, N. C, Aug. 22, 94. B.S, North Carolina, 14; fellow, Chicago, 19–21, Ph.D, 21. Instr. chem, N. C. State Col, 14–15; asst. chemist, State Dept. Agr, N. C, 15–16; chemist, Hercules Powder Co, 16–19; Beechnut Packing Co, 21–22; Cudahy Packing Co, 22–23; Standard Oil Co. of Ind, 23–24; Mellon Inst, 24–29; *Carbide and Carbon Chem. Corp, 29–, asst. supt.* A.A; Chem. Soc. (chairman, Kanawha Valley sect, 38); Chem. Eng. Derivatives of linolic acid; reciprocal solubilities of liquids; surgical supplies; organic solvents; resins.

Cox, Dr. Herald R(ea), Lederle Laboratories, Pearl River, N. Y. *Bacteriology.* Rosedale, Ind, Feb. 28, 07. A.B, Ind. State Teachers Col, 28; Sc.D, Hopkins, 31. Instr. immunol, Hopkins, 31–32; asst. path. and bacter, Rockefeller Inst, 32–36; assoc. bacteriologist, U. S. Pub. Health Service, 36–40, prin. bacteriologist, 40–42; *assoc. director research in charge virus and rickettsial diseases, Lederle Labs, 42–* Theobald Smith award, 40. A.A; Soc. Exp. Biol; Soc. Bact; Harvey Soc. Filterable viruses; ultra-filtration; equine encephalomyelitis; Rocky Mountain spotted fever; St. Louis encephalitis; typhus fever; Q fever; rickettsial diseases.

Cox, Dr. James Alton, Box 646, Blacksburg, Va. *Entomology.* Woodsfield, Ohio, March 23, 04. B.S, Ohio State, 30, M.S, 32, Ph.D, 37. *Asst. entomologist,* N. Y. Exp. Sta, Geneva, 30–36; *exp. sta, Va. Polytech, 36–* Deciduous fruit insects.

Cox, Joel B(ean), 2771 Laniloa Drive, Honolulu, Hawaii. *Engineering.* San Jose, Calif, Jan. 7, 92. A.B, Stanford, 14. Engineer, County of Maui, Hawaii, 15–17; East Maui Irrigation Co, 18–23; McBryde Sugar Co, Ltd, 23–41; asst. prof. civil eng, Hawaii, 41–42; *engineer, Alexander and Baldwin, Ltd, 42–* Consulting engineer, 20– A.A; Civil Eng; Eng. Asn. Hawaii; Hawaiian Acad; Asn. Hawaiian Sugar Tech. Hydraulic and harbor engineering; sugar technology; soil mechanics; hydraulic flow in underground formations.

Cox, Joseph F(rank), Broomes Island, Md. *Agriculture.* Glendale, Ohio, Aug. 16, 90. B.S. (Agr), Ohio State, 12. Instr. agron, Pa. State Col, 12–13; asst. prof, Mich. State Col, 13–17, prof. farm crops, 17–28, dean agr, 28–33; chief replacement crop sect, *div. program planning, agr. adjust. admin, U. S. Dept. Agr,* 33–36, senior agronomist, 36–39, *exten. agronomist, 39–* Soc. Agron. Agronomy; crop production and management; seed production and marketing; alfalfa; soil conservation; field crops and land use.

Cox, Dr. Leland G, Cornell University, Ithaca, N. Y. *Plant propagation.* Dorris, Calif, Aug. 16, 12. B.S, California, 36; Ph.D, Cornell, 42. Asst. forestry, *Cornell, instr. plant propagation, 41–* Physiology of embryo dormancy; physiology of trees and shrubs; rubber bearing plants of North America.

Cox, Dr. Martha, Tulane University, New Orleans, La. *Physics.* Chappaqua, N. Y, Oct. 23, 08. A.B, Cornell, 29; A.M, Bryn Mawr Col, 36, fellow, 38–39, Ph.D, 42. Asst. to research physicist, Taylor Instrument Cos, 29–30; lecturer *physics,* Huguenot Univ. Col. (S. Africa), 31–33; demonstrator, Bryn Mawr Col, 34–36; teacher, Shipley Sch, 36–38; instr, Bryn Mawr Col, 39–43; *asst. prof, Newcomb Col, Tulane, 43–* Physical Soc. Electrical and thermal conductivities of pure metals.

Cox, Dr. Paul E(rnest), 1123 Fillmore St, Philadelphia, Pa. *Ceramics.* Crawfordsville, Ind, Feb. 8, 79. B.S, Alfred, 05, hon. Sc.D, 35. Stoneware, pottery and brick factories, 05–10; technician, Newcomb pottery, H. Sophie Newcomb Mem. Col, La, 10–18; ceramic engineer, La Compagnie gén. des Meules, Paris, 18–20; prof. ceramic eng. and head dept, Iowa State Col, 20–39; pottery mfg, 39–42; *ceramic engineer, Abrasive Co, 42–* A.A; Ceramic Soc. (trustee, 25–28, v. pres, 30, dean of fellows, 37). Practical potting; bentonites; eyrite.

Cox, Dr. R(ichard) F(rancis) B(uchanan), Hercules Powder Co, Wilmington, Del. *Organic chemistry.* Crookston, Minn, June 4, 08. B.S, Illinois, 30; fellow, Wisconsin, 32–33, Ph.D, 33. Asst, Wisconsin, 30–32, research assoc, 33–34; *research chemist, Hercules Powder Co, 34–* Chem. Soc. Catechin; identification of alcohols; urethanes; mechanism of the acetoacetic ester condensation; explosives; natural products; resin acids; rosins; terpenes.

Cox, Richard T(hrelkeld), Johns Hopkins University, Baltimore, Md. *Physics.* Portland, Oregon, Aug. 5, 98. A.B, Hopkins, 20, Ph.D, 24. From asst. to assoc. physicist, Bur. Standards, 20–22; instr. *physics,* Hopkins, 23–24; N. Y. Univ, 24–26, asst. prof, 26–30, assoc. prof, 30–33, prof, 33–43; *visiting prof, Hopkins, 43–* Exped, S. Amer, 37. A.A; Physical Soc. High vacuum; standards of radio frequency; scattering and diffraction of electrons; electric fish.

Cox, Prof. Rufus F(rancis), Kansas State College, Manhattan, Kans. *Animal husbandry.* Altus, Okla, June 13, 01. B.S.A, Okla. Agr. and Mech. Col, 23; M.S, Iowa State Col, 25. Asst. animal husbandman, N. Mex. Col, 26–30; assoc. prof. and later *prof. animal husbandry, Kans. State Col, 30–* Summers, mem. staff, exten. schs, Kentucky, 36–38. A.A; Soc. Animal Production. Feeding, breeding and production of sheep; physical balance studies in rations for ruminants.

Cox, Dr. Warren M(urdock), Jr, Mead Johnson and Co, Evansville, Ind. *Biochemistry.* Columbus, Miss, Sept. 21, 02. B.S, Davidson Col, 24; Ph.D, Hopkins, 31. Instr. chem, Hangchow Christian Col, China, 24–27; Mead Johnson and Co, 28–29; asst. research pediat, Hopkins, 31–32; *research assoc, Mead Johnson and Co, 32–* A.A; Soc. Biol. Chem; Chem. Soc. Sterols and their relation to vitamin D; the physiology of fats; calcium and phosphorus metabolism; composition of rat milk; protein hydrolysates.

Cox, Col. Wesley Cintra, 134 Park Drive, San Antonio, Texas. *Public health, Bacteriology.* Brooklyn, N. Y, April

21, 91. A.B, Columbia, 13, M.D, 16; Dr.P.H, Hopkins, 40. Instr. physiol, col. physicians and surg, Columbia, 15–16; asst. prof. bact, hygiene and prev. med, Army Med. Sch, 18–21; lieut, *Med. Corps, U. S. Army*, 17–20, capt, 20–29, major, 29–37, lieut. col, 37–42, *col, 42–*, chief lab. service, eighth corps area lab, 29–31, seventh corps area hosp, 31–34, asst. chief lab. service, Walter Reed Gen. Hosp, 34–38, *dept. med. inspector, Panama Canal Dept, 39–* Curator southwest branch, Antivenin Inst, 30–31. Fel. Col. Physicians; fel. Pub. Health Asn; fel. Am. Med. Asn; Soc. Trop. Med; Asn. Mil. Surg; Med. Soc. Isthmus C. Z. Public health; sanitation and public health bacteriology; malariology; epidemiology.

Cox, William J(unkin), State Department of Highways, Hartford, Conn. *Engineering mechanics.* Portland, Oregon, Sept. 16, 96. A.B, Washington and Lee, 17, B.S, 18, C.E, 28. Instr. civil eng, Washington and Lee, 17–18; rodman and instrumentman, H. E. Fox, Va, 19–20; instr. eng. mech, Yale, 20; draftsman, Chas. T. Main, Baltimore, 20–22; draftsman and estimator, Spencer Construction, Baltimore, 22; asst. engineer, J. A. P. Crisfield Contracting Co, Conn, 22–23; traffic engineer, Nat. Bur. Casualty and Surety Underwriters, New York, 23–24; instr. eng. mech, Yale, 27, asst. prof, 27–38; *state highway commissioner, Conn, 38–* Dept. traffic, highway research board, Nat. Research Council. Collingwood prize, Soc. Civil Eng, 29. 2nd lieut, U.S.A, 18–19. Civil Eng. Properties and mechanics of materials; highways and highway traffic.

Cox, W(illiam) T(homas), 2186 Doswell Ave, St. Paul, Minn. *Forestry.* Glenwood, Minn, Jan. 25, 78. B.S.F, Minnesota, 06. Chief bur. silviculture, U. S. Forest Service, 06–11; state forester, Minn, 11–24; consulting forest engineer, 24–25; supt, Upper Miss. River Wildlife Refuge, 25–29; organizer forest service, Brazil, 29–31; state commissioner conservation, Minn, 31–33; regional forester-biologist, Lake States Region, resettlement admin, U. S. Dept. Agr, 35–42; *mem, Board Econ. Warfare, Ecuador, S. Amer, 42–* A.A; Soc. Foresters; Forestry Asn; Wilson Ornith. Club; Biol. Soc. Wash; Can. Forestry Asn. Relation of animal life to farm and forest; tropical forest products.

Coxe, Dr. Warren W(infred), State Education Department, Albany, N. Y. *Education.* Belvidere, Ill, July 19, 86. B.S, Dakota Wesleyan, 11; Chicago, 15–16; fellow, Ohio State, 21–23, Ph.D, 23. Instr. and prin, schs, 11–15; asst. director, Vocation Bur, Cincinnati, 16–21; chief bur. educ. measurements, *State Educ. Dept, N. Y*, 23–29, *director educ. research div, 29–* Summers, instr, Ohio State, 22, 23; N. Y. State Col. for Teachers, 25, 26; lecturer, Wisconsin, 28; instr, Texas, 30. Psychol. examiner, U.S.A, 18. A.A; Educ. Research Asn; Soc. Study Educ; Statist. Asn. (pres, Albany chap, 35); Psychol. Asn; Asn. Applied Psychol; Educ. Research Asn. N. Y. (pres, 30). The influence of Latin on English spelling; educational measurements; psychological tests; school organization.

Coxeter, Prof. H(arold) S(cott) M(acdonald), University of Toronto, Toronto, Ont, Can. *Mathematics.* London, Eng, Feb. 9, 07. B.A, Cambridge (Eng), 29, Ph.D, 31. Fellow, Trinity Col. (Eng), 31–35; *asst. prof. math, Toronto, 36–* Rockefeller Foundation fellow, Princeton, 32–33, Procter fellow, 34–35. Math. Soc; Math. Asn; fel. Royal Soc. Can; London Math. Soc. Polytopes and their symmetry groups; non-Euclidean geometry.

Coy, Dr. Genevieve L, The Dalton Schools, 108 E. 89th St, New York, N. Y. *Educational psychology.* Sandwich, Ill, June 20, 89. B.S, Columbia, 13, A.M, 15, Ph.D, 23. Lecturer educ. psychol, Teachers Col, Columbia, 16–17; research asst, Gen. Educ. Board, Ill, 17–18; instr. psychol, Ohio State, 18–22; prin, girls' sch, Persia, 23–24; *director tests and measurements,* Shaker Heights pub. schs, Cleveland, 24–26; *Dalton Schs, 26–* Assoc. kindergarten and 1st grade educ, Teachers Col, Columbia, 27–35. Summer, instr, Hopkins, 24. Educ. Research Asn; Progressive Educ. Asn. Education of gifted children; curriculum; diagnosis and treatment of cases of extreme reading difficulty; construction of tests of interests and attitudes.

Coy, Dr. Nettie H(elena), 193 George St, New Brunswick, N. J. *Physics.* Can, April 16, 09. B.A, New Brunswick, 28; A.M, Columbia, 35; Ph.D, Duke, 38. Instr. physics, Vassar Col, 28–33; *spectroscopist, E. R. Squibb and Sons, 39–* Chem. Soc; Optical Soc. Spectroscopy; emission spectrum of antimony nitride.

Coyle, David Cushman, Federal Works Administration, Washington, D. C. *Engineering.* North Adams, Mass, May 24, 87. A.B, Princeton, 08; C.E, Rensselaer Polytech, 10. Struct. designer, G. Aus Co, N. Y, 10–11; draftsman, Phoenix Bridge Co, 11–12; struct. engineer, Lehigh Valley Coal Co, 12–17; D. L. and W. Coal Co, 17–18; consulting struct. engineer, G. Aus Co, 19–30; *consulting engineer, 30–* Mem. tech. board rev, pub. works admin, 33–, consultant, housing div; Nat. Planning Board; Miss. Valley Cmt; chief economist, resettlement admin, U. S. Dept. Agr, 35. Civil Eng. (cmt. on Miami hurricane); Concrete Inst. (cmt. on design for hurricane exposure); Inst. Steel Construction (cmt. on wind effects on Empire State Bldg). Structural engineering; theory of masonry domes; wind bracing; vibration of tall buildings; economics.

Coyle, Prof. Elizabeth E(leanor), College of Wooster, Wooster, Ohio. *Biology, Botany.* Galion, Ohio, Aug. 26, 04. B.S, Col. of Wooster, 26; M.S, Ohio State, 28, Ph.D, 35. Instr. *biol, Col. of Wooster*, 26–39, *asst. prof, 39–* A.A; Bot. Soc; Ohio Acad. Taxonomy of the fresh water algae; algal food of fishes; soil algae.

Coyne, Dr. Bernard B, 1915 26th Ave, N, Seattle, Wash. *Chemistry.* New York, N. Y, March 1, 97. A.B, Harvard, 19, A.M, 21; du Pont fellow, Columbia, 25–27, Ph.D, 27. Instr. chem, Oregon State Col, 19–20; Western Reserve, 21–25; research chemist, Sterno Corp, 27–28; I. F. Laucks, Inc, 28–21; *consulting chemist, 31–* Chem. Soc. (chairman, Puget Sound sect, 31, 32). Organic and colloid chemistry.

Cozzens, Dr. A(rthur) B(ertrand), Geographical Division, Office of the Coordinator of Information, Washington, D. C. *Geography, Geology.* St. Louis, Mo, Nov. 14, 00. A.B, Washington (St. Louis), 28, M.S, 29, Ph.D, 37. Asst. geol, Washington (St. Louis), 29–30, geog, 32–33; fellow, 30–31, 31–32, asst. geologist, U. S. Engineers, 33–34; asst. geog, Illinois, 34–37, instr, 37–41, assoc, 41–42; *geographer, geog. div, Office Coordinator of Information, 42–* Grants in aid, Social Science Research Council New York and Illinois. Physical background and land use of Ozark Province; landform measurement; cartography; sedimentation.

Crabb, Prof. Ed(ward) D(rane), University of Colorado, Boulder, Colo. *Zoology.* Smithfield, Ky, Oct. 26, 90. A.B, Oklahoma, 21, A.M, 23; Ph.D, Michigan, 27. Instr. zool. and curator museum nat. hist, Oklahoma, 21–23; lecturer, Pub. Museum of Milwaukee, 23–24; asst. zool, Michigan, 24–26; instr, Pennsylvania, 26–29; acting assoc. prof. *biol, Colorado,* 29–31, assoc. prof, 31–41, *prof, 41–* Zoologist, Sykes-Alaskan exped, Univ. Okla, 21. A.A; Soc. Zool; Soc. Mammal; Limnol. Soc; Micros. Soc; Ecol. Soc; Colo-Wyo. Acad; Acad. Nat. Sci. Phila. Mammalian anatomy; birds and mammals; growth, reproduction and origin of twins in pond snails; physical basis of twinning.

Crabtree, D(onald) Glen, 546 Custom House, Denver, Colo. *Biochemistry, Pharmacology.* Haigler, Nebr, Aug. 5, 08. B.S, Denver, 31, M.S, 32; fellow, Colorado, 32–36. *Assoc. chemist, wildlife research lab, fish and wildlife service, U. S. Dept. Interior, 41–* A.A; Chem. Soc. Sex hormones; relationship of dietary sodium chloride to carbohydrate metabolism; standardization and fortification of red squill powders.

Crabtree, J(ohn) I(ckeringill), University Club of Rochester, 24 Broadway, Rochester, N. Y. *Chemistry.* England, March 27, 91. B.Sc, Victoria (Eng), 12, M.Sc, 13. Research chemist, *Eastman Kodak Co*, 13–16, *head depts. photog. chem. and motion picture film developing, 16–, asst. supt, 29–* Instr, sch. aerial photog, World War. A.A; Chem. Soc; fel. Inst. Chem; Optical Soc; fel. Motion Picture Eng. (pres, 30); Royal Photog. Soc; Inst. Chem. Gt. Britain and Ireland. Photographic chemistry; motion picture photography.

Craddock, George W(ashington), Jr, U. S. Forest Service, Ogden, Utah. *Forestry.* Oakland, Calif, Dec. 28, 03. B.S, California, 27, M.S, 29. Junior range examiner, *U. S. Forest Service*, 26–29, asst. range examiner, 29–31, assoc. range examiner, 31–35, *senior range examiner, Intermountain Forest and Range Exp. Sta, 35–* Bidwell research asst, California, 28–29. Soc. Foresters; Ecol. Soc; Geophys. Union; Utah Acad. Range research; forest and range influence investigations; flood control surveys.

Craft, Prof. Benjamin C, Louisiana State University, University, La. *Petroleum engineering.* Cupertino, Calif, Jan. 16, 04. A.B, Stanford, 28, M.E, 29. Asst. prof. *petrol. eng, Louisiana*, 29–36, assoc. prof, 36–39, *prof. and head dept, 39–* Min. and Metal. Eng. (sec'y petrol. div, 39, 40). Oil well cements; drilling muds; oil reserves; oil production.

Craft, Dr. W(illiam) A(rthur), U. S. Department of Agriculture, Ames, Iowa; *Animal breeding.* Jonesboro, Ark, Sept. 9, 94. B.S, Iowa State Col, M.S, 23; Ph.D, Wisconsin, 32. Asst. genetics, Iowa State Col, 22–23; asst. prof. animal husbandry, Okla. Agr. and Mech. Col, 23–25, assoc. prof, 25–36; *prin. animal husbandman in charge regional swine breeding lab, bur. animal indust, U. S. Dept. Agr, 36–* A.A; Soc. Animal Production; Genetic Asn; fel. Okla. Acad. Genetics; inbreeding and inheritance in swine; sex-ratios in hybrid mammals.

Crafts, Prof. A(lden) S(pringer), College of Agriculture, University of California, Davis, Calif. *Botany.* Ft. Collins, Colo, June 25, 97. B.S, California, 27, Ph.D, 30. Agent, blister rust control, bur. plant indust, U. S. Dept. Agr, 28–29; nat. research fellow biol, 30–31; asst. prof. *bot, California,* 31–39, *assoc. prof, 39–,* asst. botanist, *Exp. Sta,* 31–39, *assoc. botanist, 39–* Guggenheim Mem. Foundation fellow, 38. A.A; Bot. Soc; Soc. Plant Physiol. (sec'y west. sect, 37–39, v. chairman, 39, chairman, 40). Weed control; structure and function of the phloem; plant cell water relations.

Crafts, Prof. Leland W(hitney), New York University, Washington Square East, New York, N. Y. *Psychology.* Boston, Mass, July 10, 92. B.S, New Hampshire, 15; A.M, Clark, 20; Ph.D, Columbia, 27. Asst, The Training Sch, 15–16; instr. *psychol,* Colorado, 20–24; *N. Y. Univ,* 25–28, asst. prof, 28–32, *assoc. prof, 32–* Psychol. Asn. Psychology of learning.

Crafts, Dr. Roger C(onant), Boston University School of Medicine, Boston, Mass. *Anatomy.* Lewiston, Maine, Jan. 26, 11. B.S, Bates Col, 33; fellow, Columbia, 40–41, Ph.D, 41. Instr, col. physicians and surg, Columbia, 39–40; *anat, sch. med, Boston,* 41–43, *asst. prof, 43–* Asn. Anat. Phases of reproduction; relationships of the sex hormones to menstruation; relation of endocrine glands and endocrine products to the cellular elements of the blood.

Cragg, Prof. L(aurence) H(arold), Brandon College, Brandon, Man, Can. *Physical chemistry.* Lethbridge, Alta, Sept. 7, 12. B.A, Toronto, 34, M.A, 35, Ph.D, 37. Asst. *chem,* Toronto, 34–37; *prof, Brandon Col, 37–* Chem. Soc; Can. Inst. Chem. Chemistry of the sour taste.

Cragoe, C(arl) S(usan), 3829 Warren St, Washington, D. C. *Physics.* Oakfield, Wis, Oct. 25, 93. A.B, Ripon Col, 13. Instr. physics, Ripon Col, 13–14; asst. physicist, *Bur. Standards,* 14–16, assoc. physicist, 14–20, *physicist, 21–* Instr, Princeton, 16–17; Hopkins, 20–21. Chem. Soc; Philos. Soc. Wash; Wash. Acad. Heat; refrigeration; thermodynamic properties of refrigerating agents; thermal properties of petroleum and its products.

Cragoe, Prof. E(dward) J(ethro), Baldwin City, Kans. *Geology, Chemistry.* Oakfield, Wis, Aug. 1, 89. A.B, Ripon Col, 10; A.M, Wisconsin, 15. Instr, high schs, Mich. and Ill, 10–15; *prof.* geol, Tulsa, 16–18; *chem. and geol, Baker, 18–* Asn. Petrol. Geol; Chem. Soc; Kans. Acad; Okla. Acad. Rainfall; corn and wheat crops.

Craig, Prof. Allen T(hornton), State University of Iowa, Iowa City, Iowa. *Mathematics.* Marion, Ala, Aug. 5, 05. A.B, Florida, 27, A.M, 28; Ph.D, Iowa, 31. Instr. *math,* Florida, 29–30; assoc, *Iowa,* 31–34, asst. prof, 34–38, *assoc. prof, 38–* Math. Soc; Math. Asn; Statist. Asn; Inst. Math. Statist. (sec'y-treas, 35–40, v. pres, 40–). Mathematical statistics; sampling theory.

Craig, Prof. Cecil C(alvert), University of Michigan, Ann Arbor, Mich. *Mathematics.* Otwell, Ind, April 14, 98. A.B, Indiana, 20, A.M, 22; Am-Scandinavian Foundation fellow, Lund, Sweden, 24–25; Ph.D, Michigan, 27; Rockefeller Foundation fellow, London, 37–38. Instr. *math,* Indiana, 20–22; Michigan, 22–24, 25–29; nat. research fellow, Princeton, 29–30; Stanford, 30–31; asst. prof, *Michigan,* 31–36, assoc. prof, 36–42, *prof, 42–* Math. Soc; Math. Asn; Statist. Asn; fel. Inst. Math. Statist. (v. pres, 39–41, pres, 42, 43). Mathematical theory of statistics, especially sampling problem and the analytical representation of frequency functions.

Craig, Dr. Cha(rle)s F(ranklin), 239 W. Lullwood Ave, San Antonio, Texas. **3*Bacteriology.* Danbury, Conn, July 4, 72. M.D, Yale, 94, hon. A.M, 14. Col, M.C, and pathologist and bacteriologist, army hosps, 98–06; asst. curator, Army Med. Museum, and asst. prof. bacter. and clin. diagnosis, Med. Sch, 09–13; commanding officer, dept. lab, cent. dept, U.S.A, Ft. Leavenworth, Kans, 13–16; dept. lab, No. 2, El Paso, Texas, 16–17; army lab, Yale, 17–18; curator, Army Med. Museum, 18–20; prof. bacter, parasitol. and prev. med. and director labs, Army Med. Sch, 20–22; med. inspector, Hawaiian Dept, U.S.A, 22–25; director dept. prev. med. and clin. path, Army Med. Sch, 26–29, commandant, 29–30; asst. commandant, Army Med. Center, Washington, D. C, 30–31; prof. *trop. med.* and director dept, sch. med, *Tulane,* 31–37, *grad. sch. med,* 35–37, *emer. prof, 37–* Assoc. prof, George Washington, 10–11. U.S.A. board for study trop. diseases, Manila, 06–07. Ed, 'Am. Jour. Trop. Med.' Chairman trop. med, Pan-Am. Med. Asn. Cong, 38. D.S. medal; Franklin medal, 41. A.A; Soc. Parasitol. (pres, 35); Am. Med. Asn; Soc. Trop. Med. (pres, 13); Acad. Trop. Med. (pres, 35); Soc. Exp. Biol; hon. mem. Soc. Clin. Path; fel. Col. Physicians; fel. Col. Surg; Asn. Mil. Surg; Wash. Acad; Royal Soc. Trop. Med. and Hygiene, London; Soc. de Méd. et Hygiène trop. de Paris; Soc. de Méd. et d'Hygiène trop. d'Egypte; Fed. Int. Soc. Trop. Med. (sci. cmn). Protozoology; serology; serology of syphilis; etiology of tropical diseases.

Craig, Dr. David, B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Palmyra, Iowa, Jan. 12, 05. B.S, Des Moines; M.S, Iowa, fellow, 27–28, Ph.D, 28. *Research chemist, B. F. Goodrich Co, 28–* A.A; Chem. Soc. Rubber chemicals; nitrogen trichloride with unsaturated ketones; antioxidants and accelerators for rubber; aging of rubber; synthetic rubber; dienes.

Craig, Dr. F(rancis) N(orthrop), New York University College of Medicine, New York, N. Y. *Physiology.* Englewood, N. J, June 2, 11. B.S, Rutgers, 32; A.M, Harvard, 33, Ph.D, 37. Asst. physiol, Harvard, 33–35, Radcliffe Col, 34–35; bot, Columbia, 36; research asst, Collis P. Huntington Mem. Hosp, Harvard Med. Sch, 36–39, teaching fellow physiol, 38–39, research fellow med, 39–41, anesthesia, 41–43; *instr. physiol, col. med, N. Y. Univ, 43–* A.A. Cell metabolism.

Craig, Dr. Frank A(rbary), University of Pennsylvania, Philadelphia, Pa. *Clinical medicine.* Philadelphia, Pa, Sept. 28, 76. M.D, Pennsylvania, 98. Attending physician, *Henry Phipps Inst, Pennsylvania,* 04–42, *director clinic and physician in charge diagnostic clinic, 42–,* instr. med, *univ,* 15, asst. prof. *clin. med,* 33–42, *assoc. prof,* 42–, asst. prof, grad. sch. med, 32–42. Attending physician, White Haven Sanitarium, 06–35, pres. and med. director, 35–42; attending physician, tuber. div, Phila. Gen. Hosp, 33–42. Mem. tuber. examining board, Camp Dix, N. J, 17–18. Tuber. Asn; Clin. and Climat. Asn; Pa. Tuber. Soc; Phila. Tuber. and Health Asn. (director); Phila. Col. Physicians. Clinical and sociological aspects of tuberculosis.

Craig, Prof. Gerald S(pellman), 460 Riverside Drive, New York, N. Y. *Science education.* De Graff, Ohio, May 6, 93. A.B, Baylor, 15; A.M, Columbia, 17, Ph.D, 27. Teacher physics and chem, Pa. State Teachers Col, Bloomsburg, 21–23; head sci. dept, high sch, N. Y, 23–24; assoc. *nat. sci, Teachers Col, Columbia,* 27–29, asst. prof, 29–33, assoc. prof, 34–41, *prof, 41–* Summers, Pa. State Col, 23, 24. A.A; Asn. Research Sci. Teaching (pres, 34); Educ. Research Asn; Soc. Study Educ; Council Supervisors Elem. Sci. (pres, 31). Curriculum studies in science for elementary schools; basal texts, laboratory designs and equipment for teaching science; evaluation of procedures for teaching science to children.

Craig, Prof. H(omer) V(incent), University of Texas, Austin, Texas. *Mathematics.* Denver, Colo, Aug. 26, 00. A.B, Colorado, 24; Ph.D, Wisconsin, 29. Asst. prof, Colo. Agr. Col, 25–26; asst, Wisconsin, 26–27, instr. 27–29; asst. prof. *applied math, Texas,* 29–39, assoc. prof, 39–42, *prof, 42–* A.A; Math. Soc; Math. Asn. Tensor analysis; vector analysis; extensor analysis; generalized differential geometries; relativity.

Craig, Joseph A(llen), 2725 Montlake Blvd, Seattle, Wash. *Zoology.* Lake Co, Calif, Feb. 6, 00. A.B, Stanford, 23, A.M, 31. Fisheries biologist, Fish and Game Cmn, Calif, 25–28; asst, *Bur. Fisheries,* 29, statist. analyst, 30, director biol. sta, Seattle, 31–33, *assoc. aquatic biologist* in charge sockeye salmon investigation, Puget Sound, 34, *in charge investigation, Columbia River, 34–* Lecturer, Washington (Seattle), 31– Fluctuations in abundance of striped bass of San Francisco Bay; condition of Chinook salmon fishery of the Columbia River; migrations of steel-head trout; life history and abundance of fishes; racial analysis and seasonal occurrence of the red salmon of Puget Sound; history, development and condition of Columbia River fisheries.

Craig, Dr. K(enneth) A(lexander), Kimberly Clark Corp, Neenah, Wis. *Analytical chemistry.* Keosauqua, Iowa, April 4, 08. B.S, Iowa Wesleyan Col, 30; M.S, Pa. State Col, 32, Ph.D, 34. Asst, Iowa Wesleyan Col, 28–30; Pa. State Col, 30–34, instr. chem, exten. service, 34–36; asst. prof, Lawrence Col, 36–39; *research chemist, Kimberly Clark Corp, 39–* A.A; Chem. Soc. (sec'y, northeast Wis. sect, 37, chairman, 39). Organic reagents in analytical chemistry; new specific reagents for the determination of tin, iron and zirconium; mechanical pulp; bleaching of groundwood.

Craig, Dr. Lyman C, Rockefeller Institute, New York, N. Y. *Chemistry.* Palmyra, Iowa, June 12, 06. B.S, Iowa State Col, 28, Ph.D, 31. Nat. research fellow, Hopkins, 31–33; asst, *dept. chem. pharmacol, Rockefeller Inst,* 33–37, *assoc, 37–* Chem. Soc. Organic chemistry; nitrogen heterocyclics; insecticides; structure of the ergot alkaloids; structure of alkaloids of aconite and veratrine.

Craig, Dr. Palmer H(unt), University of Florida, Gainesville, Fla. *Physics, Electrical engineering.* Cheviot, Ohio, Jan. 10, 01. A.B, Cincinnati, 23, Hanna fellow, 23–26, A.M, 24, Taft fellow, 26, Ph.D, 26. Prof. physics and head dept, Mercer, 26–27; research physicist, Premier Lab. Co, Inc, 27–29; tech. director, Crason Corp, 30; v. pres, Invex Corp, 31–42; *head dept. elec. eng, Florida, 42–* A.A; fel. Physical Soc; fel. Elec. Eng; Radio Eng. Electrical circuits and electronics; electrical rectifiers and filters; irradiation; voltage regulation.

Craig, Prof. Roderick, University of California, Berkeley, Calif. *Entomology.* Sacramento, Calif, 03. B.S, California, 23, M.S, 24, Ph.D, 31. Assoc. biochem, *California,* 31–32, instr. *insect physiol,* 32–38, *asst. prof, 38–* A.A; Chem. Soc; Asn. Econ. Entom; West. Soc. Nat. Insect physiology; refractive indices of amino acids and proteins; respiration and nutrition of insects.

Craig, Dr. W. E. (Jack), 3445 Oakmont Ave, Philadelphia, Pa. *Chemistry.* Harrisonville, Mo, Sept. 8, 09. B.S, Nebraska, 31, M.S, 32, Parke, Davis and Co. fellow, 33–34, Ph.D, 34. Asst. chem, Sterling Col, 29; Nebraska, 31–32; *research chemist, Rohm and Haas Co, 35–* C.W.Res, U.S.A, 39–41. A.A; Chem. Soc. Organic arsenicals; carbohydrates; glutaric acid derivatives; insecticides.

Craig, Dr. Wallace, 181 Eagle St, Albany, N. Y. *Psychology, Zoology.* Toronto, Ont, Can, July 20, 76. B.S, Illinois, 98, M.S, 01; Ph.D, Chicago, 08. Asst, Ill. Biol. Sta, 98–99; zool, Chicago, 02–04; prof. philos, Maine, 08–22; lecturer psychol, Harvard, 22–23, librarian biophys, med. sch, 23–27; *private research, 29–* A.A; Psychol. Asn; assoc. Ornith. Union; Philos. Asn. Behavior; emotions; instincts; songs of birds; pigeons.

Craig, Prof. William M(oore), Texas Technological College, Lubbock, Texas. *Chemistry.* West, Texas, Aug. 11, 88. A.B, Southwestern, 06, A.M, 07; A.M, Texas, 16; Ph.D, Harvard, 27. Assoc. prof. science, Hendrix Col, 07–08; teacher, high schs, Texas, 08–14; instr. *chem,* Rice Inst, 22–25; *prof, Texas Tech. Col, 26–* Lieut, O.R.C, 18. A.A. (sec'y, phys. sci. sect, southwest. div, 35, chairman, 36–38, v. pres, 40, pres, 41, exec. councilor, 42–); Chem. Soc. (treas, southeast. Texas div, 23–25); Inst. Chem; Texas Acad. (v. pres, 41). Physical and inorganic chemistry; atomic weight, physical properties and chemistry of gallium; alkali lakes and deposits; quantitative spectroscopy.

Craighead, Dr. F(rank) C(ooper), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Craigheads, Pa, Oct. 7, 90. B.S, Pa. State Col, 12; M.S, George Washington, 15, Ph.D, 19. Bur. entom, U. S. Dept. Agr, 11–20; Dom. entom. branch, Can. Dept. Agr, 21–23; *in charge forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 23–* A.A; Asn. Econ. Entom; Soc. Foresters; Entom. Soc. Wash; Wash. Acad. (v. pres, 31).

Craigie, Prof. E(dward) Horne, University of Toronto, Toronto, Ont, Can. *Biology.* Edinburgh, Scotland, June 24, 94. B.A, Toronto, 16, Ph.D, 20. Demonstrator biol, *Toronto,* 16–19, lecturer comp. anat, 19–25, asst. prof. *comp. anat. and neur,* 25–33, *assoc. prof, 33–* A.A; Asn. Anat; Royal Soc. Can. (ed, sect. V, 41–); Royal Can. Inst. (librarian, 35–). Comparative anatomy; vascularity of central nervous systems; brain anatomy.

Craigie, Prof. James, University of Toronto, Toronto, Ont, Can. *Immunology, Bacteriology.* Arbroath, Scotland, June 25, 99. M.B, Ch.B, St. Andrews, 23, Ph.D, D.P.H, 30. Asst. med. officer, Murray Royal, Perth, 23; asst. bacter, St. Andrews, 27; *research assoc, Connaught Labs, Toronto, 31–,* lecturer *epidemiol, univ,* 32–40, *assoc. prof, 40–, sec'y, sch. hygiene, 35–* Soc. Bact; Epidemiol. Soc; Path. Soc. Gt. Britain and Ireland. Immunology, serology and variation of viruses; variola and vaccinia; poliomyelitis; typhus; epidemiology of virus diseases; bacteriophage typing of Bacterium typhosum; epidemiology of typhoid fever.

Craigie, Dr. J(ohn) H(ubert), Dominion Rust Research Laboratory, Winnipeg, Man, Can. *Agriculture.* Merigomish, N.S, Dec. 8, 87. A.B, Harvard, 24; M.S, Minnesota, 25; Ph.D, Manitoba, 30. Agent, U. S. Dept. Agr, Minnesota, 24–25; pathologist, *Dom. Rust Research Lab,* 25–27, senior pathologist, 27–28, *officer in charge, 28–* Eriksson prize, 30; medal, Professional Inst. Civil Service, Can, 37; Flavelle medal, Royal Soc. Can, 42. A.A; Phytopath. Soc; fel. Royal Soc. Can; Can. Phytopath. Soc; Can. Soc. Tech. Agr. Plant pathology; cereal diseases.

Cralley, Prof. E(lza) M(onroe), University of Arkansas, Fayetteville, Ark. *Plant pathology.* Carmi, Ill, Nov. 20, 05. B.S, 28; fellow, Wisconsin, 30–31, Ph.D, 31. Asst. bot, Wisconsin, 28–30; instr. *plant path, Arkansas,* 31–36, asst. prof, 36–41, *assoc. prof, 41–* Physiological pathology; diseases of rice and cotton.

Cram, Dr. Eloise B(laine), Stream Pollution Laboratory, E. Third and Kilgour Sts, Cincinnati, Ohio. *Parasitology.* Davenport, Iowa, June 11, 96. B.S, Chicago, 18; M.S, George Washington, 22, Ph.D, 25. Bacteriologist, Armour and Co, Chicago, 18–19; junior zoologist, bur. animal indust, U. S. Dept. Agr, 20–24, asst. zoologist, 24–26, assoc. zoologist, 26–29, zoologist, 29–36; *with nat. inst. health, U. S. Pub. Health Service, 36–* A.A; Soc. Parasitol; Soc. Trop. Med; Soc. Exp. Biol; Med. Soc. D. C; Helminth. Soc. Wash. (cor. sec'y-treas, 21–26, pres, 27); Wash. Acad. Ascariasis; oxyuriasis; taxonomy, morphology, pathology and life histories of nematodes of birds.

Cram, Ira H(iggins), Pure Oil Co, 35 E. Wacker Drive, Chicago, Ill. *Geology.* St. Paul, Minn, March 10, 01. A.B, Minnesota, 23, A.M, 24. *Geologist, Pure Oil Co, 24–* Asn. Petrol. Geol. (sec'y-treas, 37–39); Soc. Econ. Geol; Geol. Soc; Paleont. Soc; Soc. Econ. Paleont. and Miner; Soc. Explor. Geophys; Min. and Metal. Eng. Paleozoic stratigraphy; structural geology; petroleum geology.

Cram, Prof. S(tanford) Winston, 1620 Sherwood Way, Emporia, Kans. *Physics.* Waterville, Minn, Aug. 28, 07. A.B, St. Olaf Col, 29; Ph.D, Wisconsin, 35. Instr. *physics,* St. Olaf Col, 29–30; asst, Wisconsin, 31–35, instr, 36; Kosciuszko fellow, Warsaw, 35–36; *prof. and head dept, Kans. State Teachers Col, 37–* Physical Soc; Asn. Physics Teachers. Fluorescence of cadmium vapor; high pressure mercury manometer; decay time of fluorescence solutions; thin film evaporation.

Cramblet, Pres. W(ilbur) H(averfield), Bethany College, Bethany, W. Va. *Mathematics.* Tippecanoe, Ohio, July 10, 92. A.B, A.M, Bethany Col. (W. Va), 10; A.M, Yale, 11, Ph.D, 13. Instr. *math,* Rochester, 13–15; Phillips, 15–17; *prof, Bethany Col. (W. Va), 17–, treas, 19–, pres, 34–* Summers, prof, Bethany Col. (W. Va), 10–14. A.A; Math. Soc. Discontinuous functions; intermediate functions and their integrand sets.

Cramer, Dr. A(rchie) B(arrett), Miner Laboratories, 9 S. Clinton St, Chicago, Ill. *Chemistry.* Winnipeg, Man, Can, Oct. 23, 09. B.Sc, Manitoba, 34, M.Sc, 35; Ph.D, McGill, 39. Asst, Carnegie Inst. Tech, 39–41; *research chemist, Miner Labs, 41–* Chem. Soc. Lignin chemistry; wood chemistry; carbohydrate chemistry.

Cramer, Dr. Francis B(arnard), 68 Westchester Blvd, Kenmore, N. Y. *Organic chemistry.* Oneida, N. Y, Feb. 3, 12. A.B, American Univ, 33; A.M, Princeton, 34, Ph.D, 37. Teaching asst, Princeton, 34–36, asst, 36–37; research assoc, Mass. Inst. Tech, 37–39; *research chemist, rayon tech. div, E. I. du Pont de Nemours and Co, 39–* Summer, asst, Merck and Co, 35. Chem. Soc. Ketone sugars; cellulose chemistry.

Cramer, Lieut. George Franklin, 3026 Porter St, N.W, Washington, D. C. *Mathematics.* Richmond, Mo, July 21, 03. A.B, Missouri, 26, A.M, 27, Ph.D, 34. Asst. physics, Stanford, 27–28; *math,* Missouri, 28–29; instr, *Tulane,* 29–35, *asst. prof, 35–; lieut, U. S. Naval Res, 42–* Math. Soc; Math. Asn. Theory of numbers.

Cramer, Dr. Howard I(rving), Sharples Chemicals Inc, 23rd and Westmoreland Sts, Philadelphia, Pa. *Organic chemistry.* Akron, Ohio, Sept. 21, 04. B.S, Akron, 26; M.S, Wisconsin, 28, Ph.D, 29. Asst. chem, Wisconsin, 26–29; research chemist, Goodyear Tire and Rubber Co, Akron, 29–33; asst. prof. chem. and in charge course in rubber chem, Akron, 33–41; *develop. dept, Sharples Chems. Inc, 41–* Chem. Soc. (sec'y div. rubber chem, 38–). Rubber chemistry; catalysis of organic reactions at high pressures; synthesis and development of accelerators for the vulcanization of rubber and rubber antioxidants; rubber latex.

Cramer, Dr. W(illiam), Barnard Free Skin and Cancer Hospital, St. Louis, Mo. *Biochemistry, Pathology.* Brandenburg, Prussia, June 2, 78. Ph.D, Berlin, 00; Munich, 00–01; D.Sc, Edinburgh, 06; London, 15–17; L.R.C.P, 17. Junior member sci. staff, Imp. Cancer Research Fund, London, England, 03–05; sr. mem, 15–39; lecturer chem. physiol, Edinburgh, 05–14; *research assoc, Barnard Free Skin and Cancer Hosp, 40–; mem. med. faculty, Washington (St. Louis), 40–* Ed, 'Cancer Rev'; ed. cmt, 'Acta,' Int. Union Against Cancer, official British del. to council and mem. statist. cmt. British Govt. del, Int. Cancer Cong, Madrid, 33, Brussels, 36, Atlantic City, 39. Asn. Cancer Research; Biochem. Soc. Gt. Britain; Physiol. Soc. Gt. Britain; Path. Soc. Gt. Britain; British Med. Asn. (cmt. radium beam therapy); Royal Soc. Med; Royal Col. Surg; Path. Club Edinburgh; Leewenhoek Vereen. Amsterdam. Cancer; biochemistry of lipids and placenta; physiology of digestion; blood coagulation; endocrine organs; heat regulation; fever, defense rupture in wound infections; nutrition; vitamins; effect of radium on tumors; chemical physiology; fever, heat regulation and climate and the thyroid adrenal apparatus; physiology of reproduction.

Cramlet, Prof. Clyde (Myron), University of Washington, Seattle, Wash. *Mathematics.* Crawford, Colo, Dec. 24, 94. A.B, Walla Walla Col, 16; M.S, Washington (Seattle), 20, Ph.D, 26. Teaching fellow, Washington (Seattle), 16–17; prin, Oriens Acad, 17–18; instr. math. and physics, Walla Walla Col, 18–20; from instr. to *assoc. prof. math, Washington (Seattle), 20–* Nat. research fellow, Princeton, 27–29. Math. Soc; Math. Asn. Invariant theory.

Crampton, Dr. C(harles) Ward (Grinnell), 471 Park Ave, New York, N. Y. *Medicine.* New York, N. Y, May 26, 77. Col. City of N. Y, 96; M.D, Columbia, 00. Asst, Marine Biol. Lab, Woods Hole, 98; path. dept, Columbia, 00–03; chairman dept. physical training, High Sch. of Commerce, New York, 00–05; asst. director physical training, pub. schs, 05–08, director, 08–19; dean sch. physical educ. and director educ. activities and research on blood pressure, Battle Creek Sanitarium, 19–20; *practising physician, 20–* Organizer and director health service clinic and asst. prof. med, Post-Grad. Med. Sch. and Hosp; senior visiting physician, W. Side Hosp. Chairman cmt. on physical standards for child labor, children's bur, U. S. Dept. Labor; nat. chairman cmt. on physical educ, Nat. Cong. Parents and Teachers. A.A; Physical Educ. Asn. (v. pres); fel. Am. Med. Asn; Soc. Exp. Biol; Nat. Pub. Sch. Physical Training Soc. (pres); Sch. Hygiene Asn; Aristogenic Asn. (pres, 28–); N. Y. Acad. Med; N. Y. Physical Educ. Soc. (pres, 05). Splanchnic vasomotor control; pubescence; physiological, psychological and anatomical age; school hygiene; physical training, athletics and folk-dancing; the gravity resistance test of circulation; preclinical medicine; blood pressure; digitalis; military and civilian physical fitness.

Crampton, Prof. E(arle) W(ilcox), Macdonald College, Que, Can. *Animal nutrition.* Middletown, Conn, Aug. 15, 95. B.S, Conn. Agr. Col, 19; M.S, Iowa State Col, 22; Ph.D, Cornell, 37. Lecturer animal husbandry, *Macdonald Col, McGill, 22–26,* asst. prof, 26–33, assoc. prof. *animal nutrition, 33–41, prof, 41–* Soc. Animal Production; Can. Soc. Tech. Agr. Requirements of weanling pigs; effect of feed on bacon quality; correlation of bacon carcass measurements and feed requirements; nutritional value of pasture herbage; nutritional significance of the germ of cereal grains.

Crampton, Prof. G(uy) C(hester), Massachusetts State College, Amherst, Mass. *Entomology.* Mobile, Ala, Sept. 21, 81. A.B, Princeton, 04; A.M, Cornell, 05; Freiburg and Munich; Ph.D, Berlin, 08; M.S, Harvard, 20. Asst. biol, Princeton, 08–10; prof. zool, Clemson Col, 10–11; assoc. prof. *entom,* Mass. Col, 11–15, *prof,* 15–31, *Mass. State Col, 31–* A.A; Soc. Nat; Entom. Soc; Asn. Econ. Entom; Soc. Zool; Entom. Soc. Wash; Entom. Soc. London. Insect morphology; insect behavior; phylogeny of arthropods; evolution of various structures in insects.

Crampton, Prof. Henry E(dward), Barnard College, Columbia University, New York, N. Y. *[1]*Zoology, Experimental biology.* New York, N. Y, Jan. 5, 75. Col. City of N. Y, 88–92; A.B, Columbia, 93, fellow, 96–97; Ph.D, 99, Sc.D, 29. Asst. biol, Columbia, 93–95; instr. *zool,* Mass. Inst. Tech, 95–96; lecturer, *Columbia,* 97–99, tutor, 99–00, instr, *Barnard Col,* 00–01, adj. prof, 01–03, prof, 04–43, *emer. prof, 43–* Curator Am. Museum Nat. Hist, 09–21; research assoc, Carnegie Institution, 04– Summers, instr, Marine Biol. Lab, Woods Hole, 95–03; in charge biol. lab, Cold Spring Harbor, 04–06; assoc, Bishop Museum, Honolulu, 20– Inst. Research Trop. Amer, 21–23. Sec'y-treas, Eugenics Cmn, 22–25. Expeds, Polynesia, 06–09, 19, 23–24, West Indies, 12–14, interior of S. Amer, 11, Micronesia, Philippine Islands, China, Siam, Java and Australia, 20–21; Polynesia, Micronesia and Philippines, 28, Hawaiian Islands, 29–35. Int. Zool. Cong, Graz, 10. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; fel. Am. Geog. Soc; Explorers Club (v. pres, 25–29); N. Y. Zool. Soc; fel. N. Y. Acad. (rec. sec'y, 06, v. pres, 06, cor. sec'y, 08–25, pres, 26); fel. Royal Geol. Soc. Developmental mechanics; fertilization of the egg; embryology of gasteropods; variation, selection and inheritance in Lepidoptera (Saturniidae); experimental evolution; variation, evolution and geographical distribution of Polynesian Mollusca; experimental heredity of Hawaiian and American Mollusca.

Crandall, Dr. Lathan A(ugustus), Jr, University of Tennessee, Memphis, Tenn. *Physiology, Pharmacology.* Chicago, Ill, Oct. 10, 03. B.S, Chicago, 25; M.S, Wisconsin, 26; Ph.D, Northwestern, 28, M.B, 29, M.D, 30. Instr. *physiol,* med. sch, Northwestern, 28–30, asst. prof, 30–35, assoc. prof, 35–39, *prof. and chief div, Tennessee, 39–* A.A; Physiol. Soc; Soc. Exp. Biol; Gastro-Enterol. Asn; Inst. Nutrition; Diabetes Asn; Inst. Med. Chicago. Pharmacology of the nitrites; migraine; chondroitin; water balance; gall bladder function; lipase; multiple sclerosis; carbohydrate metabolism; acetone bodies; intestinal absorption; macrocytic anemia; liver function.

Crandall, Lee S(aunders), Zoological Park, New York, N. Y. *Ornithology.* Sherburne, N. Y, Jan. 26, 87. Cornell, 07–08; Columbia, 08–09. Asst, *dept. birds, N. Y. Zool. Park,* 08–11, asst. curator, 11–19, *curator, 19–* Collecting exped, British Guiana, 09; Costa Rica, 14; New Guinea, 28–29. Ornith. Union; Soc. Ichthyol. and Herp; Soc. Mammal; Linnaean Soc. N. Y; N. Y. Zool. Soc; N. Y. Acad; cor. mem. Zool. Soc. London. General ornithology; birds in captivity; protection and propagation of birds.

Crandall, Lynn, 205 Federal Bldg, Idaho Falls, Idaho. *Irrigation.* Ithaca, N. Y, Dec. 8, 88. C.E, Cornell, 10. Engineer, U. S. Geol. Surv, 10–16; Twin Falls N. S. L. and W, 16–20; commissioner in charge water distribution, U. S. Dist. Court, Mackay, Idaho, 20–30; *dist. engineer, U. S. Geol. Surv, and water master, Snake River, Idaho Falls, 30–* Civil Eng; Geophys. Union. Water supply; use of water; river administration; surface and underground water supplies.

Crandall, W(esley) C(larence), La Jolla, Calif. *Biology.* Sigourney, Iowa, Aug. 5, 78. A.B, Stanford, 99. Teacher, high schs, Utah and Calif, 99–05; physiol. and nature study, Calif. State Nor. Sch, San Diego, 05–13; business agent and biologist, Scripps Inst, California, 13–24; business agent, Ellen B. Scripps, 24–32, Ellen B. Scripps Estate, 32–39, *director and exec. sec'y, Ellen Browning Scripps Foundation, 39–* Pres, aquarium, San Diego Zool. Soc, 26–38, director board research lab, 27. San Diego Soc. Nat. Hist. (director). Kelp.

Crandell, Prof. John Stanley, University of Illinois, Urbana, Ill. *Highway engineering.* New York, N. Y, May 11, 84. B.S, N. Y. Univ, 04, C.E, 06; Europe, 09. N. Y. Cent. R. R, 04–08; asst. prof. civil eng, Pa. State Col, 11, 15; consulting engineer, The Barrett Co, New York, 15–26; *prof. highway eng, Illinois, 26–* Highway Research Board. Civil Eng; Soc. Test. Mat; Road Builders Asn; Asn. Asphalt Paving Technol; Ill. Soc. Eng. City planning.

Crane, E(van) J, Ohio State University, Columbus, Ohio. *[1]*Chemistry.* Columbus, Ohio, Feb. 14, 89. A.B, Ohio State, hon. Sc.D, 38. Assoc. ed, *'Chem. Abstracts,'* 11–14, *ed, 14–* Mem, Nat. Research Council, 36– Chem. indust. medal, British Soc. Chem. Indust, 37. A.A; Chem. Soc. (exec. cmt, 24–). Indexing of chemical compounds and subjects.

Crane, Prof. Floyd H(amilton), 306 W. Washington Blvd, Urbana, Ill. *Agronomy.* Shalersville, Ohio, Jan. 8, 93. B.S, Ohio State, 21; M.S, Illinois, 26. From asst. to *assoc. prof. soil fertility, Illinois, 21–* Soc. Agron. Soil chemistry; fertility.

Crane, Dr. George W(ashington), Chicago Tribune, Chicago, Ill. *Psychology.* Chicago, Ill, April 28, 01. A.B, Northwestern, 22, A.M, 23, Ph.D, 27, M.D, 35. Instr. psychol, Northwestern, 22–24; George Washington, 24–25; research psychologist, Nat. Research Council, 24–27; Carnegie Institution, 27–29; *lecturer psychol, Northwestern, 29–; Cent. Y.M.C.A. Col, 30–* Assoc. Psychol. Asn; Am. Med. Asn. Applied and child psychology.

Crane, Dr. Grant, 1788 Coventry Road, Columbus, Ohio. *Organic chemistry.* Columbus, Ohio, Sept. 1, 15. A.B, Dartmouth Col, 37; Petrol. fellow, Ohio State, 38–40, Ph.D, 40. *Research chemist, Pittsburgh Plate Glass Co, 40–; major, U. S. Marines, 41–* Chem. Soc. Drying oils.

Crane, Dr. H(arley) L(ucius), 6822 Pineway, College Heights, Hyattsville, Md. *Horticulture.* Terra Alta, W. Va, March 31, 91. B.S.A, West Virginia, 14, M.S.A, 18; Ph.D, Cornell, 29. Instr. hort, West Virginia, 14–17, asst. prof, 19–20, assoc. prof, 20–29, asst. horticulturist, Exp. Sta, 17–20, assoc. horticulturist, 20–29; horticulturist, *div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29–35, *prin. horticulturist, 35–* Soc. Hort. Sci; Nat. Pecan Asn; Ga-Fla. Pecan Growers Asn; W. Va. Hort. Soc. (sec'y, 19–28). Culture and nutrition of apples, peaches and pecans; physiological effects of pruning; winter hardiness; growth and fruiting relations of pecans; mineral nutrition of tung.

Crane, Prof. Harry W(olven), University of North Carolina, Chapel Hill, N. C. *Psychology, Sociology.* Big Rapids, Mich, Dec. 21, 85. A.B, Michigan, 09, A.M, 10, Ph.D, 13. Asst. sociol, Michigan, 09–13, psychol, 10, instr, 13; chief investigator, legislative cmn. on mental defectiveness and insanity, Mich, 13–15; instr. and asst. prof. *psychol,* Ohio State, 15–21; assoc. prof. and *prof, North Carolina, 21–, psychol. consultant, health service, 33–* Director div. mental hygiene, State Board Charities and Pub. Welfare, N. C, 21–38; private psychol. consultant, 38– Field worker, State Cmt. on Feeble-Mindedness and Eugenics Record Office, Ark, 15. Summer, staff psychologist, mental surv, Nassau Co, N. Y, 16. Chairman, N. C. branch, Psychol. Corp, 25– A.A; Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn; Asn. Mental Deficiency. Association and reaction times; feeble-mindedness; psychoses; mental hygiene.

Crane, Dr. H(orace) Richard, University of Michigan, Ann Arbor, Mich. **7Physics.* Turlock, Calif, Nov. 4, 07. B.S, Calif. Inst. Tech, 30, Ph.D, 34. Research fellow physics, Calif. Inst. Tech, 34–35; instr. and research physicist, *Michigan,* 35–38, asst. prof. physics, 38–42, *assoc. prof, 42–* Research assoc, Mass. Inst. Tech, 40; dept. terrestrial magnetism, Carnegie Institution, 41; consultant, Nat. Defense Research Cmt. Fel. Physical Soc. Nuclear physics; biophysics; high potential x-ray and positive ion tubes; cyclotron.

Crane, Jasper E(liot), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Newark, N. J, May 17, 81. A.B, Princeton, 01, M.S, 04; Mass. Inst. Tech, 04. From chemist to director, Arlington Co, 01–17; chem. dept, E. I. du Pont de Nemours and Co, 17–20, European manager, 20–26, pres, *du Pont Nat. Ammonia Co,* 26–29, *v. pres. and mem. exec. cmt, 29–* Sec'y plastics sect, Int. Cong. Applied Chem, 12. Chem. Soc. (councilor, 18, v. chairman, Del. sect, 19); Soc. Chem. Indust; Chem. Eng. Nitration of cellulose; pyroxylin plastics and solutions; ammonia.

Crane, Dr. John C, 840 Grand Concourse, New York, N. Y. *Biochemistry.* Solsberry, Ind, March 13, 07. B.S, Illinois, 28, M.S, 33; Ph.D, Purdue, 41. *Chemist, Standard Brands, Inc, 41–* Chem. Soc. Dairy chemistry; phospholipids in dairy products.

Crane, P(aul) Willard, E. I. du Pont de Nemours and Co, Arlington, N. J. *Chemical engineering.* Cincinnati, Ohio, Oct. 7, 03. M.S, Cincinnati, 25, Chem.E, 26. Chem. engineer, Inst. Indust. Research, Cincinnati, 25–26; Inst. Int. Educ. fellow physical chem, Munich, 26–28; *chem. engineer, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Testing, classification, control and use of foundry molding sands; adsorption; microscopy; electrokinetic potential of silver halides; polarized light; cellulose derivatives; shatterproof glass; synthetic resins; design of process equipment; nylon filaments.

Crane, Prof. Rufus, 269 W. William St, Delaware, Ohio. *Mathematics.* North Hanover, Mass, Oct. 27, 86. A.B, Middlebury Col, 09; B.S, Mass. Inst. Tech, 11; A.M, Ohio State, 25. Instr. eng. and math, Baker, 12–13; gen. eng. drawing, Illinois, 13–18; engineer forest products, Forest Products Lab, U. S. Forest Service, Wis, 18–19; asst. prof. eng, *Ohio Wesleyan,* 19–25, *assoc. prof. math. and eng, 25–* Math. Asn. (sec'y-treas, Ohio sect, 26–). Geometry.

Crane, Dr. W(alter) R(ichard), P. O. Box 453, Oakland, Calif. *Mining engineering.* Grafton, Mass, Feb. 5, 70. A.B, Kansas, 95, A.M, 96; Ph.D, Columbia, 01. Asst. prof. mining, Kansas, 00–05; sch. mines, Columbia, 05–08; prof. and dean sch. mines and metal, Pa. State Col, 08–18; mining engineer, U. S. Bur. Mines, 18–20, chief engineer, War Minerals Relief Cmn, 20–21, supt, South. Mining Exp. Sta, 21–26, senior mining engineer, Ariz, and later supervising research engineer, Washington, D. C; *consulting mining engineer.* Min. and Metal. Eng. Mining methods; mine subsidence; petrodynamics.

Crathorne, Prof. A(rthur) R(obert), 802 Pennsylvania Ave, Urbana, Ill. *Mathematics.* Scarborough, Eng, Oct. 26, 73. B.S, Illinois, 98; Chicago, 02; Ph.D, Göttingen, 07. Tutor *math,* Maine, 98–00; instr, Wisconsin, 00–04; assoc, *Illinois,* 07–15, asst. prof, 15–23, assoc. prof, 23–35, *prof, 35–* Math. statist. cmt, Nat. Research Council; Nat. Cmt. on Math. Requirements. A.A; Math. Soc; Math. Asn. (cmt. tests); Econometric Soc; Inst. Math. Statist; Statist. Asn. (v. pres, 30–36); Ill. Acad; Royal Statist. Soc. Mathematical statistics.

Cravath, Dr. A(ustin) M(elville), Shell Development Co, Emeryville, Calif. *Physics.* Chicago, Ill, July 2, 00. A.B, California, 25, Ph.D, 28. Nat. research fellow, 28–30; research assoc, California, 32–34; *physicist, research dept,* Union Switch and Signal Co, 30–32, 37–38; *Shell Develop. Co, 38–* Physical Soc. Ionization of gases; electronic circuits.

Cravath, James R(aley), 4327 Third Ave, Rock Island, Ill. *Engineering.* Grinnell, Iowa, July 11, 72. B.S, Grinnell Col, 92. West. ed, 'Elec. World,' 00–10; consulting engineer, 10–33; *executive, 33–* Lecturer, Purdue; Iowa State Col; Armour Inst. Tech. Illum. Eng. Soc. Illuminating and electrical engineering.

Cravens, Prof. W(illiam) W(indsor), University of Wisconsin, Madison, Wis. *Poultry nutrition.* Daviess Co, Ky, Oct. 24, 14. B.S, Kentucky, 35; M.S, Iowa State Col, 37; Ph.D, Wisconsin, 40. Asst. animal chem. and nutrition, Iowa State Col, 35–37; poultry, *Wisconsin,* 37–40, instr, 40–41, *asst. prof. poultry husbandry, 41–* Nutritional factors and hatchability.

Craver, Dr. Bradford, Wayne University College of Medicine, Detroit, Mich. *Pharmacology.* Geneva, N. Y, Aug. 21, 10. A.B, Cornell, 32; A.M, Boston, 36, Ph.D, 41. Instr. Latin and Greek, American Col. Sofia, 32–34; org. chem, Boston, 38–39; teaching fellow biochem, Boston, 37–41, instr. org. chem, 38–39; *research assoc. pharmacol. and therapeut, col. med, Wayne, 41–* Anti-luetic drugs; toxicological analysis.

Craver, Dr. Harrison W(arwick), 29 W. 39th St, New York, N. Y. *Engineering.* Owaneco, Ill, Aug. 10, 75. B.S, Rose Polytech, 95, Sc.D, 33. Chemist, steel companies, Pa. and Va, 96–00; tech. librarian, Carnegie Library, Pittsburgh, 00–02, 03–08, librarian, 08–17; *director, Eng. Societies Library, New York, 17–* Asst. supt, Allegheny Iron and Steel Co, 03. A.A; Library Asn. (pres, 37); fel. Am. Library Inst; Electrochem. Soc; Chem. Soc; Soc. Glass Technol; Hist. Sci. Soc; London Newcomen Soc; Bunsen Gesell. Engineering history; bibliography of applied sciences; organization of libraries; classification and cataloguing of technical literature.

Crawford, Dr. Albert B(eecher), Drawer 1003A, Yale Station, New Haven, Conn. *Psychology.* Viborg, Finland, June 10, 91. A.B, Yale, 13, A.M, 25, Ph.D, 28. *Director, bur. appointments, Yale, 19–, dept. personnel study and mem. dept. psychol, 27–* Tech. cmt. for grad. record exam, Carnegie Foundation Adv. Teaching. Psychol. Asn. Educational psychology; personnel problems in higher education; occupational guidance for college students; educational aptitudes tests and measurements.

Crawford, Dr. A(rthur) B(urdick), 4707 Connecticut Ave, N.W, Washington, D. C. *Bacteriology.* Willard, N. Y, Dec. 5, 87. D.V.M, George Washington, 14. Vet. inspector, field service, *bur. animal indust, U. S. Dept. Agr,* 14–18, asst. veterinarian, exp. sta, 19–36, assoc. veterinarian, *animal disease sta,*

36–38, *asst. director, 38–* 2nd lieut, U.S.A, 18–19. Vet. Med. Asn; Livestock Sanit. Asn; Soc. Bact. Animal tuberculosis investigations; sensitization caused by acid-fast organisms.

Crawford, Prof. Arthur L(orenzo), 1067 E. Fifth St, S, Salt Lake City, Utah. *Microscopy.* Washington, Utah, April 10, 99. A.B, Brigham Young, 24; A.M, Stanford, 26. Instr. geol. and petrog, Brigham Young, 26–27; miner. and econ. geol, Wyoming, 27–28; asst. microscopist, dept. mining and metal. research, *Utah,* 28–29, cooperative micros. service and research lab, 29–30, microscopist and mineral technologist, micros. service and research lab, 30–36, *asst. prof. ore dressing micros, 32–, geologist and mineral technologist, eng. exp. sta, 36–* Consulting crystallographer, Crocker Research Lab, San Francisco, 27. A.A; Miner. Soc; Min. and Metal. Eng; fel. Utah Acad. (chairman, physical sciences sect, 33–39). Ore dressing microscopy; mineral technology; petrography; geology.

Crawford, Prof. Bryce L(ow), Jr, University of Minnesota, Minneapolis, Minn. *Physical chemistry.* New Orleans, La, Nov. 27, 14. A.B, Stanford, 34, A.M, 35, Ph.D, 37. Asst. chem, Stanford, 33–35; nat. research fellow, Harvard, 37–39; instr. chem, Yale, 39–40; *asst. prof. physical chem, Minnesota, 40–* Chem. Soc. Molecular spectra; molecular dynamics; statistical thermodynamics.

Crawford, C(harles) W(allace), Federal Security Agency, Washington, D. C. *Chemistry.* Lorena, Texas, July 21, 88. B.S, Okla. Agr. and Mech. Col, 09, M.S, 16. Asst. chemist, Exp. Sta, Okla. Agr. and Mech. Col, 09–10; asst. state chemist, Wash, 10–11; farmer, 11–16; chemist, Int. Ref. Co, Cushing, Okla, 16–17; junior chemist, U. S. Dept. Agr, New Orleans, 17–18, prin. chemist and tech. adviser to commissioner, *food and drug admin, Fed. Security Agency,* 18–42, *asst. commissioner, 42–* Asn. Official Agr. Chemists. Administrative phases of food and drug law enforcement.

Crawford, Prof. C(harles) W(illiam), Agricultural and Mechanical College of Texas, College Station, Texas. *Mechanical engineering.* Bryan, Texas, Aug. 29, 97. B.S. (M.E), Agr. and Mech. Col. Texas, 19, M.S. (M.E), 29. Instr. *mech. eng, Agr. and Mech. Col. Texas,* 20–22, asst. prof, 22–25, assoc. prof, 25–28, *prof, 28–, head dept, 29–* Mech. Eng; Eng. Educ. Introductory problems in engineering.

Crawford, Dr. D(avid) L(ivingston), War Production Board, Washington, D. C. *Entomology.* Hermosillo, Mex, 89. A.B, Pomona Col, 11, LL.D, 34; A.M, Stanford, 12. Asst. entom, Cornell, 12–13; hort. expert, Mex. Gulf Coast Citrus Asn, 13–15; asst. prof. bot, Pomona Col, 14–17; prof. entom, Hawaii, 17–27, pres, 27–42; *mem, War Production Board, 42–* In charge biol. expeds, Mex, 09, 10. A.A. Taxonomic and economic entomology; phytopathology; pomology; jumping plant lice.

Crawford, Dr. F(rancis) W(eldon), 1430 Jennings, Bartlesville, Okla. *Physics.* Soldier, Kans, Dec. 19, 06. A.B, Phillips, 28; M.S, Oklahoma, 29, Ph.D, 34. Instr. physics, Oklahoma, 31–37; *research physicist, Phillips Petrol. Co, 37–* Physical Soc; Asn. Petrol. Geol. Raman effect; spectrophotometry; industrial geophysics.

Crawford, Prof. F(ranzo) H(azlett), Williams College, Williamstown, Mass. *Physics.* Dickinson, N. Dak, July 5, 00. B.S, North Dakota, 20; Rhodes scholar, Oxford, 20–23, B.A, 23; Ph.D, Harvard, 28. Instr. *physics,* Northwestern, 23–24; Jefferson physical lab, Harvard, 26–30, asst. prof, 30–36; *prof. and chairman dept, Williams Col, 36–* Fel. Physical Soc; fel. Optical Soc; Am. Acad. Zeeman effect in the band spectra of diatomic molecules; microphotometry; the use of thermocouples in measuring small amounts of energy; isotope relations in diatomic molecular spectra; perturbations in diatomic spectra.

Crawford, Prof. H(elen) Marjorie, Vassar College, Poughkeepsie, N. Y. *Organic chemistry.* Dunkinsville, Ohio, March 25, 99. A.B, Miami (Ohio), 20; M.S, Iowa State Col, 22; Ph.D, Minnesota, 27. Asst. *chem,* Iowa State Col, 20–22; instr, Oregon State Col, 22–23; asst, Minnesota, 23–27; instr, *Vassar Col,* 27–30, asst. prof, 30–34, assoc. prof, 34–42, *prof, 42–* Chem. Soc. Reaction between Grignard reagent and quinones.

Crawford, H(enry) G(ordon MacGregor), Department of Agriculture, Ottawa, Ont, Can. *Entomology.* Mahone Bay, N. S, March 10, 91. B.S.A, Toronto; M.S, Illinois, fellow, 17–18. Asst. to provincial entomologist, 15; lecturer entom. and zool, Ont. Agr. Col, 18–20; entomologist, *entom. div, Can. Dept. Agr,* 20–25, *chief field crop insect investigations, 25–* Summers, field entomologist in charge Dom. Entom. Lab, 16, 17. Asn. Econ. Entom; Ecol. Soc; Ont. Entom. Soc; Ottawa Field Nat. Soc. Economic entomology; ecology; field crop pests.

Crawford, Dean Ivan C(harles), University of Michigan, Ann Arbor, Mich. *Civil engineering.* Leadville, Colo, June 2, 86. B.S, Colorado, 12, C.E, 15. From instr. to prof. civil eng, Colorado, 12–23; prof. and dean col. eng. and director eng. exp. sta, Idaho, 23–37; dean sch. eng. and archit, Kansas, 37–40; *prof. civil eng. and dean col. eng, Michigan, 40–; tech. adviser and consultant, training div, bur. naval personnel, U. S. Navy, 43–* State engineer, Pub. Works Admin, Idaho, 33–35. Assoc. consultant, Nat. Resources Cmt, 36. Major, C. Eng, 17–19. Civil Eng. (director, 35–37); Soc. Mil. Eng; Eng. Educ. (councilor, 29–32, v. pres, 36); Eng. Council Professional Develop. (cmt. eng. schs, 35–41, v. chairman, 40); Northwest Sci. Asn. (v. pres, 28, councilor, 29–31). Engineering materials; admixtures in cement; stresses in railroad rails; concrete.

Crawford, J(ames) G(ilmore), U. S. Geological Survey, Casper, Wyo. *Petroleum chemistry.* Kansas City, Mo, May 13, 00. B.S, New Mexico, 29. Junior petrol. chemist, *U. S. Geol. Surv,* 29–31, asst. petrol. chemist, 31–39, *assoc. petrol. chemist, 39–* Asn. Petrol. Geol. Petroleum production chemistry; oil field waters; geological relationship between oil and water in producing oil fields.

Crawford, James (Louis), Walsh Refractories Corp, St. Louis, Mo. *Ceramic engineering.* Macomb, Ill, April 8, 93. B.S, Illinois, 17. Ceramic engineer, Westinghouse Lamp Co, 19; indust. fellow, Mellon Inst, 19–32; consulting ceramic engineer, Laclede-Christy Clay Products Co, 23–32; *v. pres. and gen. manager, Walsh Refractories Corp, 32–* 2nd lieut, U.S.A, 17–18. Ceramic Soc. Refractories and glass.

Crawford, L(awrence) C, 508 Hydraulics Laboratory, Iowa City, Iowa. *Civil engineering.* Bentonville, Ind, Dec. 17, 06. B.S, Purdue, 30, 41–42. Inspector and asst. project engineer, State Highway Cmn, Ind, 27–29; from junior engineer to assoc. engineer, water resources branch, *U. S. Geol. Surv,* Ill, Kans. and Washington, D. C, 30–39, *dist. engineer, Iowa, 40–; assoc. director, inst. hydraulic research, Univ. Iowa, 40–* Assoc. Civil Eng; Geophys. Union; State Hist. Soc. Iowa; Iowa Eng. Soc. Highways; stream-flow; river hydraulics; maximum discharges in the United States.

Crawford, Prof. M(alcolm) F(ranklin), 11 Washington Ave, Toronto, Ont, Can. *Physics.* Thedford, Ont, Jan. 9, 05. B.A, Western Ontario, 26; M.A, Toronto, 27, Nat. Research Council Can. bursar, 27–28, student, 28–29, fellow, 29–30, Ph.D, 36; research fellow, Royal Soc. Can, 34–35. Lecturer *physics, Toronto,* 30–34, 35–37, asst. prof, 37–40, *assoc. prof, 40–* A.A; fel. Royal Soc. Can. Atomic spectra; multiplet and hyperfine structure; Raman effect.

Crawford, Dr. Meredith P(ullen), 1340 W. Rosewood Ave, San Antonio, Texas. *Psychology.* Sweet Briar, Va, Oct. 13, 10. A.B, Vanderbilt, 31; A.M, Columbia, 32, fellow, 33–34, Ph.D, 35. Asst, primate biol. labs, Yale, 34–39; instr. psychol, Barnard Col, Columbia, 39–40; asst. prof, Vanderbilt, 40–43. A.A; Psychol. Asn. Social behavior of animals; race psychology.

Crawford, Dr. R(alph) D(ixon), 1050 Tenth St, Boulder, Colo. *Geology.* Peotone, Ill, March 7, 73. A.B, Colorado, 05, A.M, 07; Ph.D, Yale, 13. Asst. geol, Colorado, 04–07, instr, 07–08, asst. prof, 08–14, prof. miner. and petrol, 14–40; *retired.* Field asst, U. S. Geol. Surv, 06; asst, Colo. Geol. Surv, 07–09, geologist, 09–17, 19–25. A.A; fel. Geol. Soc; Miner. Soc. Areal and economic geology; petrology; mineralogy.

Crawford, Dr. R(aymond) B(artlett), 69 Norwood Ave, Hamburg, N. Y. *Organic chemistry.* Oakham, Mass, Feb. 14, 11. B.S, Worcester Polytech, 33, M.S, 35; Ph.D, N. Y. Univ, 38. Asst, Worcester Polytech, 33–35; N. Y. Univ, 35–38; *research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 38–* Chem. Soc. Ethanol amines of the oxindole series.

Crawford, Prof. R(aymond) F(rank), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Biology.* Grand Junction, Iowa, 91. B.S, Iowa State Col, 21, M.S, 23. *Prof. biol, N. Mex. Col, and biologist, Exp. Sta, 24–* Virus diseases of truck crops; apple measles; chile wilt;

powdery mildew of peas; psyllid yellows of potatoes; peach mosaic; curly top of beets; root rot.

Crawford, Prof. R(ussell) T(racy), 2740 Hillegass Ave, Berkeley, Calif. *[5]*Astronomy.* Davisville, Calif, March 26, 76. B.S, California, 97, fellow, Lick Observatory, 98–01, Ph.D, 01. Asst. astron, California, 97–98; computer, Watson Trustees, 01–02; examiner, U. S. Civil Service Cmn, 02–03; instr. *astron, California,* 03–06, asst. prof, 06–10, assoc. prof, 10–19, *prof, 19–, director students' observatory, 39–* Major, A.S, 18–19. A.A; Astron. Soc; Astron. Soc. Pacific (sec'y, 07–09, pres, 14); Astron. Gesell; hon. mem. Soc. Astron. de Mex; Int. Astron. Union. Orbits of new satellites; comet and asteroid orbits; perturbations of minor planets; celestial mechanics.

Crawford, Dean S(tanton) C(hapman), 4744 Wallingford St, Pittsburgh, Pa. *Zoology.* Steubenville, Ohio, Oct. 30, 97. A.B, Bethany Col. (W. Va), 18, LL.D, 40; Baldwin fellow, Cincinnati, 20–21, A.M, 21; Ph.D, Pittsburgh, 26. Prof. biol, Lynchburg Col, 21–24; instr. zool, Pittsburgh, 24–26; prof. biol. and dean, Lynchburg Col, 26–27; asst. prof. *zool, Pittsburgh,* 27–28, assoc. prof, 28–30, *prof, 30–,* head Johnstown center, 27–33, director high sch. relations, 33–35, *dean col. arts and sciences,* 35– Summer, Trop. Research Sta, Kartabo, British Guiana, 24. A.A; assoc. Soc. Zool; Soc. Ichthyol. and Herp; Pa. Acad. Adaptations to nocturnal life; biological effects of radiation; university administration.

Crawford, Prof. T(homas) Stephen, Rhode Island State College, Kingston, R. I. *Chemical engineering.* Linton, Northumberland, Eng, Jan. 14, 00. B.S, West Virginia, 25, M.S, 27; fellow, Columbia, 28–29, Ph.D, 31. Asst. math, West Virginia, 23–27, instr, 27–28; asst. chem. eng, Columbia, 29–31; chem. engineer, Socony-Vacuum Oil Co, 31–36; assoc. prof. *chem. eng, R. I. State Col,* 36–39, *prof. and head dept, 39–* Chem. Soc; Chem. Eng; Eng. Educ. Cracking of coal tar vapors; distillation.

Crawford, Dr. W(iley) W(illiam), 340 Johnson St, Carlinville, Ill. *Zoology.* Visalia, Calif, Dec. 3, 99. A.B, Missouri, 25, Gregory fellow, 27–28, A.M, 28; Ph.D, Minnesota, 34. Asst. prof. zool, Wabash Col, 28–32; *chairman dept. biol, Blackburn Col, 34–* A.A; Entom. Soc. Amer; Ill. Acad. Parasitology; entomology; histology of regeneration in Planaria; life history of trematodes transmitted through the Odonata.

Crawley, Prof. Clyde B(rooks), 36 Highlands, Tuscaloosa, Ala. *Physics.* Hopkinsville, Ky, July 3, 07. A.B, Kentucky, 30, M.S, 31; Ph.D, Calif. Inst. Tech, 34. Asst, Calif. Inst. Tech, 31–34; prof. math. and head dept, Blue Mountain Col, 34–35; asst. prof. *physics, Alabama,* 35–41, *assoc. prof, 41–* Physical Soc. (treas, southeast. sect, 40–); South. Asn. Adv. Sci. (chairman program cmt, 41). Electron theory of metals.

Crawley, Prof. S(umner) L(ee), Colorado State College of Education, Greeley, Colo. *Psychology.* Hebbardsville, Ky, June 17, 01. A.B, Indiana, 22; A.M, Columbia, 23, fellow, 25–26, Ph.D, 26. Asst. psychol, Indiana, 20–22; asst. prof. and chairman dept, Occidental Col, 23–25; Indiana, 26–29; assoc. prof, Cleveland Col, Western Reserve, 29–36, prof, 36–39; *prof. educational psychol. and director dept. student personnel, Colo. State Col. Educ, 39–* Psychol. Asn; Asn. Applied Psychol; Colo-Wyo. Acad. Fatigue; incentives; personnel; religion; race; tests.

Crawshaw, John E(dward), Arapahoe Road, R. D. 9, Pittsburgh, Pa. *Chemistry.* Worcester, Mass, April 19, 80. B.S, Worcester Polytech, 03. Chemist, glycerine refinery, E. I. du Pont de Nemours and Co, 03–10; U. S. Bur. Mines, 11–16; Aetna Explosives Co, 12–18; *explosives chemist and explosives engineer, U. S. Bur. Mines, 18–* Explosives; explosions.

Creager, Dr. D(on) B(aker), 337 Natural Resources Bldg, Urbana, Ill. *Plant pathology.* Brookville, Ohio, March 8, 03. B.S, Miami (Ohio), 27; M.S, Iowa, 29; Cornell, 29–30, Clinton DeWitt Smith fellow, 33–34; Anna C. Ames Mem. fellow, Harvard, 36–37, Ph.D, 37. Asst. bot, Iowa, 27–29; plant path, Cornell, 29–30; instr. bot, Duke, 30–32; asst. forest path, Harvard, 34–37; instr. bot, Kans. State Col, 37–38, asst. prof, 38–39; *research pathologist, Ill. Nat. Hist. Surv, 39–* Agent, bur. plant indust, U. S. Dept. Agr, 29–30, field asst, 30–32. Phytopath. Soc; Mycol. Soc; Soc. Florists. Cause and control of diseases of floricultural crops and other ornamental plants.

Creager, W(illiam) P(itcher), Electric Bldg, Buffalo, N. Y. *Engineering.* Baltimore, Md, Sept. 21, 78. C.E, Rensselaer Polytech, 01. Provincial supervisor, P. I. Govt, 01–03; asst. engineer, N. Y. State Barge Canal, Albany, 04–06; chief engineer hydraul. structures, J. G. White Eng. Corp, N. Y, 06–22; v. pres. and chief engineer, Power Corp. of N. Y, 22–30; *consulting engineer, 30–* Assoc. ed, 'Am. Civil Engineers' Handbook'; 'Struct. Engineers' Handbook Library'; 'Kent's Mech. Engineers' Handbook.' Civil Eng; Soc. Mil. Eng; Geophys. Union; Concrete Inst; Water Works Asn; Seismol. Soc; Inst. Consulting Eng; Int. Asn. Hydraulic Structures Research. Hydraulic engineering; dams; water power; engineering for masonry dams; hydro-electricity.

Creaser, Dr. Charles W(illiam), Wayne University, Detroit, Mich. *Zoology.* Britton, S. Dak, Oct. 31, 97. A.B, Michigan, 20, M.S, 21, Ph.D, 24. Instr. *zool,* Kansas, 23–24; asst. prof, *Wayne,* 24–28, assoc. prof, 28–34, *prof, 34–, chairman dept. biol, 35–* Summers, prof, biol. sta, Michigan, 25–; State Dept. Conservation, Mich, 21–31. A.A; Soc. Zool; Soc. Ichthyol. and Herp; Soc. Exp. Biol. Life history, ecology and growth of fishes; taxonomy of lampreys; embryology; specificity of induced ovulation reaction in Amphibia.

Creaser, Dr. Edwin P(hillip), U. S. Department of the Interior, Savannah National Wildlife Refuge, R. D. 1, Savannah, Ga. *Zoology.* Alma, Mich, Feb. 6, 07. A.B, Michigan, 28, A.M, 29, Sc.D, 32. Asst. zool, Michigan, 28–29, museum zool, 29–34, Cranbrook Inst. Sci, 32–33; biol. surv, State Conservation Dept, N. Y, 33; Bur. Fisheries, 34; *fish and wildlife service, U. S. Dept. Interior, 35–* Summer, asst, biol. sta, Michigan, 29. Sci. expeds, southeast. U. S, 29, Mex, 30, southwest. U. S, 31, Yucatan, 32. Aquatic biology.

Creasy, Col. William M(urlin), Pine Bluff Arsenal, Ark. *Chemical engineering.* Wilmington, N. C, April 26, 05. B.S, U. S. Mil. Acad, 26; M.S, Mass. Inst. Tech, 34–36. *U. S. Army, 26–,* asst. to tech. director, Edgewood Arsenal, *Chem. Warfare Service,* 33–34, 36–37, chief eng. div, 37–39, plants design div, 39, exec. tech. asst. and second in command to tech. director, 41, *chief production div. and second in command, Pine Bluff Arsenal, 41–, col, 42–* Chem. Soc; Chem. Eng. Equipment and intermediates for manufacturing, assembling and testing offensive and defensive material for the Chemical Warfare Service of the United States Army.

Creech, Dr. G(ilbert) T(insley), U. S. Department of Agriculture, Washington, D. C. *Pathology.* Chester, Ky, Nov. 15, 79. D.V.M, Kansas City Vet. Col, 10. Vet. inspector, field and meat inspection divisions, *bur. animal indust, U. S. Dept. Agr,* 10–12, *vet. pathologist, path. div, 12–* Investigation of animal diseases; infectious abortion; swine erysipelas; leukemia; actinomycosis; infectious papillomatosis of cattle.

Creech, Prof. Hugh J(ohn), University of Maryland, College Park, Md. *Chemistry.* Exeter, Ont, Can, June 27, 10. B.A, Western Ontario, 33, M.A, 35; fellow, Toronto, 35–38, Ph.D, 38; Harvard, 38–41. Asst. *chem,* Harvard, 38–41; *asst. prof, Maryland, 41–* Chem. Soc; Asn. Cancer Research. Organic and physiological chemistry; synthesis of conjugates from carcinogenic hydrocarbons and proteins and their use in immunological protection against carcinogenesis.

Creel, Prof. Cecil W(illis), University of Nevada, Reno, Nev. *Entomology.* Angola, Ind, Oct. 22, 89. Kans. State Col, 07–09; B.S, Nevada, 11; D.Agr, Maryland, 39. Agent and sci. asst, bur. entom, U. S. Dept. Agr, 11–19; *director and prof. agr. exten, Nevada, 21–* A.A; Entom. Soc; Asn. Econ. Entom; Asn. Land-Grant Cols. and Univs. (pres, 38). The clover flower midge in the Pacific Northwest.

Creevy, Dr. C(harles) D(onald), University of Minnesota, Minneapolis, Minn. *Urology.* Minneapolis, Minn, Feb. 5, 02. B.S, Minnesota, 24, M.B, 26, M.D, 27, M.S, 30, Ph.D, 31. Assoc. prof. and later *prof. surg, director div. urol, univ. hosp, and asst. dean, med. sch, Minnesota, 36–* Urol. Asn; Col. Surg; Am. Med. Asn; Asn. Genito-Urinary Surg; Minneapolis Surg. Soc. Affections of bladder due to disease of the nervous system; formation of urinary stones.

Cregan, Sister Mary Bertha, St. Xavier College, Chicago, Ill. *Entomology.* Ireland, Jan. 29, 86. Ph.B, St. Xavier Col, 23; A.M, Loyola (Ill), 27; Ph.D, Illinois, 40. Prof. biol, *St. Xavier Col,* 34–38, *chairman div. exact and exp. sciences, 40–* A.A. Generic relations of the Dolichopodia based on a study of the mouth parts.

Crehore, Dr. Albert C(ushing), 8510 Carnegie Ave, Cleveland, Ohio. *[1]*Physics.* Cleveland, Ohio, June 8, 68. A.B, Yale, 90; Hopkins, 91; Ph.D, Cornell, 93. Instr. physics, Cornell, 93–94; asst. prof, Dartmouth Col, 94–

98; *research physicist, Nela Research Lab.* Elec. Eng; Physical Soc. Application of the sine wave to telegraphs as applied to submarine cables and land lines; the invention of a printing telegraph; alternating currents; the polarizing photochronograph; multiple telegraphs; the atom; matter and energy; progress of atomic theory; atomic theory; the Crehore atom, a mathematical treatise for the steady states.

Creighton, Prof. Harriet B(aldwin), Wellesley College, Wellesley, Mass. *Botany.* Delavan, Ill, June 27, 09. A.B, Wellesley Col, 29; Ph.D, Cornell, 33. Asst. bot, Cornell, 29–32, instr. cytol. and microtechnique, 32–34; *bot,* Conn. Col, 34–40; *assoc. prof, Wellesley Col, 40–* A.A; Bot. Soc; Genetics Soc. Cytogenetics of maize and petunia.

Creighton, Prof. H(enry) Jermain (Maude), Swarthmore, Pa. *Chemistry.* Dartmouth, N. S, Can, March 2, 86. B.A, Dalhousie, 06, M.A, 07; 1851 Exhib. scholar, Birmingham, 08–10, M.S, 09; Heidelberg, 09–10; Sc.D, Polytech. Sch, Zurich, 11. Demonstrator chem, Dalhousie, 07–08, lecturer physical chem, 11–12; instr. *chem, Swarthmore Col,* 12–13, asst. prof, 13–23, assoc. prof, 23–28, *prof, 28–* Longstreth medal, 18; Potts medal, 39; Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A. (councilor, 36–40); Chem. Soc. (chairman, Phila. sect, 40); Electrochem. Soc. (chairman, cmt. on theoret. electrochem, 33–36, v. pres, 36–38, pres, 39); Franklin Inst. (chairman, cmt. science and arts, 18, mem. Franklin medal cmt, 22–, chairman, 33); Faraday Soc; Can. Inst. Chem; Maritime Chemists Asn. (v. pres, 20); N. S. Inst. (councilor and ed, 'Trans,' 11); London Chem. Soc; Bunsen Gesell. Physical chemistry; electrochemistry; electrochemical reductions of sugars.

Creighton, Prof. John T(homas), University of Florida, Gainesville, Fla. *Entomology.* Orangeburg, S. C, Aug. 18, 05. B.S, Florida, 26, M.S, 29; summer, Cornell, 29; Ph.D, Ohio State, 35. Prof. chem, pub. schs, Fla, 26–27; instr, *Florida,* 27–29, *econ. entom. and plant path,* 29–30, *asst. prof, 30–, head dept, 33–, head pest control div, 34–* Consultant and adviser to chief, bur. entom. and plant quarantine, U. S. Dept. Agr, 39. Summer, field agent, bur. entom, U. S. Dept. Agr, 30, tech. adviser, div. domestic quarantines, 38. Chairman, Fla. Entom. Conf, 35– A.A; Asn. Econ. Entom. (chairman cmt. teaching, 38; chairman and v. pres, sect. teaching, 39; sec'y-treas, cotton states branch, 39–; chairman cmt. grad. scholarships, 40; cmt. grad. work, 40–); Entom. Soc. Amer; Asn. South. Agr. Workers (grad. cmt, 38–). Natural parasites and Heteroptera of Florida; ornamental insect control; world plant quarantine and control.

Creighton, Prof. W(illiam) S(teel), College of the City of New York, New York, N. Y. *Entomology.* Germantown, Pa, April 3, 02. B.S, Roanoke Col, 24; A.M, Princeton, 25; M.S, Harvard, 28, Sc.D, 30. Asst. instr, Princeton and Harvard; instr. *biol, Col. City of N. Y,* 31–35, *asst. prof, 35–* Fellow, Marine Biol. Lab, Woods Hole, 25; Atkins Foundation Soledad Lab, Cuba, 27. Soc. Zool; N. Y. Entom. Soc. Ecology and taxonomy of the Formicidae.

Crenshaw, Dr. Craig M(offett), 161 Broad St, Red Bank, N. J. *Physics.* Chinkiang, China, Sept. 24, 16. B.S, Southwestern (Tenn), 37; Ph.D, N. Y. Univ, 42. Asst, N. Y. Univ, 37–42; *assoc. physicist, gen. develop. lab, Sig. Corps, U. S. Army, Ft. Monmouth, N. J, 42–* Physical Soc; Tenn. Acad. Acoustics; wave motion; nucleus disintegration of charged particles; experimental motion of sound waves.

Crenshaw, Prof. J(ames) L(lewellyn), Bryn Mawr College, Bryn Mawr, Pa. *Physical chemistry.* Dermott, Ark, July 10, 87. A.B, Centre Col, 07, A.M, 08; Ph.D, Princeton, 11. Asst. chemist, geophys. lab, Carnegie Institution, 10–15; assoc. *physical chem, Bryn Mawr Col,* 15–18, assoc. prof, 18–25, *prof, 25–* Capt, C.W.S, 18. A.A; Chem. Soc; Franklin Inst; Deuts. Chem. Gesell. Electrochemistry; mineral chemistry.

Crescitelli, Dr. F(rederick), University of Southern California, Los Angeles, Calif. *Aviation medicine.* Providence, R. I, June 23, 09. Ph.B, Brown, 30, M.S, 32, Ph.D, 34. Keen fellow, Brown, 34–35; instr, Colby Junior Col, New London, N. H, 35–36; research assoc. *zool,* Iowa, 36–40; instr, Washington (Seattle), 40–42; acting asst. prof, Stanford, 42–43; *visiting asst. prof, Southern California, 43–* Metamorphosis of insects; method to determine heat production; physiology of invertebrate heart; electric response of eye; aviation physiology.

Creskoff, Dr. Adolph J(ay), Maloney Clinic, 36th and Spruce Sts, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, May 27, 08. A.B, Pennsylvania, 30, M.D, 34. Eli Lilly fellow surg. research, sch. med, *Pennsylvania,* 35–36, asst. hematol, Univ. Hosp, 36–37, *fellow and instr. med, sch. med, 37–* Hematology; pernicious anemia; red cell maturation in experimental animals.

Crespi, Dr. Leo P(aul), 345 Nassau St, Princeton, N. J. *Social psychology.* Aurora, Ill, July 23, 16. A.B, California at Los Angeles, 38; James Theodore Walker fellow, Princeton, 39–40, A.M, 41, Charlotte Elizabeth Procter fellow, 41, Ph.D, 42. *Instr. psychol, Princeton, 40–* Assoc. Psychol. Asn; East. Psychol. Asn. Analyses of morale and public opinion.

Cressey, Prof. George B(abcock), Syracuse University, Syracuse, N. Y. *Geology, Geography.* Tiffin, Ohio, Dec. 15, 96. B.S, Denison, 19; Yale, 21–22; M.S, Chicago, 21, Ph.D, 23; Col. Chinese Studies, Peking, 23–24; Harvard, 29–30; Ph.D, Clark, 31. Prin, high sch, N. Y, 20; asst. prof. geol, Univ. Shanghai, China, 23–29; *prof. geol. and geog. and chairman dept, Syracuse, 31–; U. S. Dept. State rep. in China, 43–* Summers, visiting prof, Harvard, 30–32; Western Reserve, 37; Michigan, 39; Columbia, 41–43. Field work, Siberia, 23, 37; Northwest China, Tibet and Mongolia, 23–29, China, 34; geog. consultant, U.S.S.R, 37; U. S, 41–43. Am. council, Inst. Pacific Relations; mem. Pacific Science Cong, Japan, 26, Java, 29; Int. Geol. Cong, 33, Moscow, 37. Grants in aid, Social Science Research Council, 29, 32; Inst. Pacific Relations, 33; Nat. Research Council, 34; Carnegie Corp, 41. A.A; Geol. Soc; Am. Geog. Soc; Asn. Geog; Oriental Soc; N. Y. Geog. Asn. (pres, 35, 37); Royal Asiatic Soc; Geophys. Union; Geol. Soc. China. Indiana sand dunes and shore lines of Lake Michigan; loess; geography of Asia; geology of Shanghai; Ordos Desert of Inner Mongolia; China's geographic foundations; geography of the Soviet Union; land forms of New York.

Cressman, A(lbert) W(allace), U. S. Department of Agriculture, 724 Earlham Drive, Whittier, Calif. *Entomology.* Pughtown, Pa, Sept. 6, 00. B.S, Pa. State Col, 23. *Fruit insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 23–, assoc. entomologist.* Asn. Econ. Entom. Environment and insect activity; biology of the Coccidae; oil emulsions as insecticides; physical chemistry and toxicology of oil emulsions.

Cressman, Prof. L(uther) S(heeleigh), 2064 Potter St, Eugene, Oregon. *Anthropology.* Pottstown, Pa, Oct. 24, 97. A.B, Pa. State Col, 18; S.T.B, Gen. Theol. Sem, New York, 23; A.M, Columbia, 23, Ph.D, 25. Staff, dept. govt, Col. City of N. Y, 25, 26–28; traveling fellow, Europe, 25–26; instr, exten, Seth Low Junior Col, Columbia, 27–28; *prof.* social science, Wash. State Nor. Sch, 28–29; sociol, *Oregon,* 29–34, *anthrop, 34–, head dept, 36–, curator anthrop, 33–, director museum nat. hist, 36–; research assoc, Carnegie Institution, 37–* Guggenheim Mem. Foundation fellow, 40–41. A.A; Anthrop. Asn; Ethnol. Soc; fel. Soc. Am. Archeol. Archeology of the Pacific Northwest, especially the Oregon area; early man; early cultures of the intermontane region.

Cresson, E(zra) T(ownsend), Jr, Swarthmore, Pa. *Entomology.* Philadelphia, Pa, Dec. 18, 76. Public schs. *Assoc. ed, 'Entom. News,' 10–; assoc. curator, Acad. Nat. Sciences Phila.* Entom. Soc. Diptera; Ephydridae of the world.

Cretcher, Dr. Leonard H(arrison), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Degraff, Ohio, July 25, 88. A.B, Michigan, 12; Ph.D, Yale, 16. Asst, Michigan, 11–13; instr. chem, Tennessee, 13–14; fellow org. chem, Rockefeller Inst, 16–17, asst, 17–18; asst. chief chemist, Nat. Aniline and Chem. Co, Brooklyn, 19–20, research chemist, 20–22; senior fellow *pure research, Mellon Inst,* 22–26, *head dept, 26–, asst. director, 31–* Mem. board editors, 'Jour. Org. Chem.' Capt, C.W.S, 18–19. A.A; Chem. Soc; Soc. Biol. Chem. Pyrimidine aldehydes; oxidation of tertiary hydrocarbons; glycol ethers and esters; organic boron compounds; barbituric acids; chloroethers; alginic acid; sugar acids; equilibria in binary liquid systems; chemotherapy of pneumonia and malaria.

Creutz, Dr. Edward (Chester), Princeton University, Princeton, N. J. *Physics.* Beaver Dam, Wis, Jan. 23, 13. A.B, Wisconsin, 36, Ph.D, 39. *Research assoc, Princeton, 39–, instr. physics, 40–* Nuclear physics; artificial radioactivity and scattering.

Crew, Dr. Henry, 620 Library Place, Evanston, Ill. **[1]Physics.* Richmond, Ohio, June 4, 59. A.B, Princeton, 82, fellow, 82–84, hon. Sc.D, 22; fellow, Hopkins, 84–87, Ph.D, 87; hon. Sc.D, Michigan, 14. Asst. physics, Hopkins, 87–88; instr, Haverford Col, 88–91; astronomer, Lick Observatory, 91–92; prof.

physics, Northwestern, 92-31; chief div. basic sciences, A Century of Progress Expos, Chicago, 31-34. Assoc. ed, 'Astrophys. Jour.' Cavaliere, Crown of Italy. Am. Physical Soc. del, Cong. of Physicists, Paris, 00. Nat. Acad; A.A; Physical Soc. (v. pres, 06, pres, 09); Optical Soc; Astron. Soc; Hist. Sci. Soc. (pres, 30); Asn. Univ. Prof. (pres, 29); Am. Acad; Ill. Acad. (v. pres, 08, pres, 13); Chicago Acad. (v. pres, 16); Padua Acad. Spectroscopy; arc and spark spectra of metals.

Crew, Prof. William H(enry), New York University, University Heights, New York, N. Y. *Physics.* Evanston, Ill, Aug. 24, 99. B.S, U. S. Naval Acad, 22; A.M, Hopkins, 24, Ph.D, 26. Asst. physicist, Naval Research Lab, 25-28; asst. prof. *physics,* post-grad. sch, U. S. Naval Acad, 28-29; *N. Y. Univ,* 29-31, *assoc. prof, 31–,* chairman dept, 38-41; *tech. aid, Nat. Defense Research Cmt, 41–* Cavendish lab, Cambridge, 35-36. A.A; fel. Physical Soc; Naval Inst. The photoelectric effect; spectroscopy.

Crickmay, Dr. C(olin) H(ayter), Port Haney, B. C, Can. *Geology, Paleontology.* Vancouver, B. C, April 6, 99. B.A, British Columbia, 22; Ph.D, Stanford, 25. Asst, Geol. Surv. Can, 19-26; instr. geol, California at Los Angeles, 26-28, asst. prof, 28-31; Illinois, 31-33. Fel. Geol. Soc; Ill. Acad; Calif. Acad; Asn. Professional Eng. B. C. Morphology of the ammonoids; Triassic, Jurassic, Cretaceous and Pleistocene of British Columbia; Cambrian, Carboniferous, Jurassic and Pleistocene of California; geology of Harrison Lake and of Cascade Mountains, British Columbia, and of Mt. Jura, California; fossil charcoal; Trigoniidae; later stages of the cycle of erosion; geological chronology.

Crickmay, Dr. Geoffrey W(illiam), 48 Hubinger St, New Haven, Conn. *Geology.* Vancouver, B. C, Can, March 10, 05. B.A, British Columbia, 27; Ph.D, Yale, 30. Asst. geologist, U. S. Geol. Surv, 33-34; asst. state geologist, Ca. Geol. Surv, 30-33, 34-37; assoc. prof. geol, Georgia, 37-41; *mem. staff, Gulf Oil Corp, 41–* A.A. Structural geology and stratigraphy; geology of eastern Quebec; metamorphic rocks of Georgia; Fiji limestones.

Crider, Prof. Blake, Fenn College, Cleveland, Ohio. *Psychology.* Mexia, Texas, Aug. 7, 01. A.B, Missouri, 24; A.M, Chicago, 28; Ph.D, Western Reserve, 33. Teacher, high sch, Texas, 24-26; instr, Albion Col, 26-29; director research, Shaker Heights Board Educ, 29-31; *assoc. prof. psychol. and head dept, Fenn Col, 34–* Psychologist, Mt. Sinai Hosp, 34–; St. Luke's Hosp, 35– Assoc. Psychol. Asn; fel. Asn. Applied Psychol. Eye dominance; reading disabilities; child psychology.

Crider, Dr. F(ranklin) J(acob), U. S. Department of Agriculture, Washington, D. C. *Horticulture.* St. Matthews, S. C, Dec. 1, 83. B.S, Clemson Col, 08; M.S, Minnesota, 10; Sc.D, Arizona, 36. Instr. hort, Clemson Col, 08-09, assoc. prof, 13-18; asst. prof, N. C. State Col, 11-13; prof, Arizona, and horticulturist, Exp. Sta, 18-24; director, Boyce Thompson Southwest. Arboretum, Superior, Ariz, 24-34; regional director southwest. nurseries, *soil conservation service, U. S. Dept. Agr,* 34-35, head sect. conservation nurseries, 35-40, *horticulturist, 40–* A.A; Hort. Soc. Soil conservation; plant adaptation as related to soil conservation and crop production.

Crider, Prof. Joseph O(tterbein), Jefferson Medical College, Philadelphia, Pa. *Physiology.* Harrisonburg, Va, Aug. 29, 81. M.D, Virginia, 12. Instr. physiol. and pharmacol, Virginia, 12-13; prof. physiol, Mississippi, 13-30, asst. dean sch. med, 16-24, dean, 24-30; *assoc. prof. physiol. and asst. dean, Jefferson Med. Col, 30–* A.A; Physiol. Soc; Am. Med. Asn; Physiol. Soc. Phila. Physiology of the nervous system; gastro-intestinal physiology.

Criep, Dr. Leo H(ermann), May Bldg, Fifth and Liberty Sts, Pittsburgh, Pa. *Internal medicine.* Romania, May 23, 96. B.S, Pittsburgh, 18, M.D, 20. *Asst. prof. med, sch. med, Pittsburgh, 26–, lecturer immunol, 26–* Senior med. staff, Passavant Hosp; Montefiore Hosp. and Presbyterian Hosp. Soc. Study Asthma and Allied Conditions (pres, 34). Circulatory changes in anaphylaxis and asthma; calcium metabolism in allergy.

Crigler, Prof. Elizabeth A, MacMurray College for Women, Jacksonville, Ill. *Chemistry.* Lutherville, Md, Aug. 23, 05. A.B, Goucher Col, 27; Ph.D, Hopkins, 32. Assoc. prof. *chem, MacMurray Col,* 30-35, *prof, 35–* Chem. Soc. Raman spectra.

Crilley, Prof. R(aymond) E(arl), Iowa Wesleyan College, Mt. Pleasant, Iowa. *Astronomy.* Oakland City, Ind, May 10, 05. A.B, Oakland City Col, 26; Indiana, 26; A.M, Iowa, 34. Instr, high sch, Tenn, 26-27, asst. prin, 27-30; instr. *math, Iowa Wesleyan Col,* 30-34, *prof, 34–* Asst, Iowa, 34. Iowa Leonid exped, Ariz, 32; hon. mem. sci. staff, Byrd Antarctic exped, 33-35. Soc. Research Meteorites (councilor, 33-37); Midwest Meteorol. Asn. (sec'y-treas, 31-); Iowa Acad. Meteoric astronomy; meteor trains; meteor falls; velocity of meteors; sounds from meteors.

Crisler, Capt. George (Russell), Medical Corps, U. S. Army Air Force, Miami Beach, Fla. *Physiology.* Normal, Ill, Feb. 27, 02. B.S, Chicago, 24, Ph.D, 28, M.D, 31. Instr. physiol, Missouri, 27-28; assoc. prof, West Virginia, 28-35; div. gen. metabolism, Mayo Clinic, 35-37; private practice, Winter Park, Fla, 38-42; *capt, Med. Corps, Air Force, U. S. Army, 42–* Conditioned reflexes; gonad transplantation; dehydration experiments; hydrogen ion concentration and vasoconstrictor mechanism; anoxemia and gut motility; anoxemia and drug action; the pericardium.

Crismon, Dr. J(efferson) M(artineau), Stanford University, Calif. *Physiology.* Philadelphia, Pa, Feb. 4, 08. A.B, Stanford, 31, M.D, 38. Teaching asst. physiol, *Stanford,* 32-33, asst. pharmacol, 36-37, instr. *physiol,* 37-38, *asst. prof, 38–* Hon. fellow, Yale, 40, 41. Summers, acting instr, Stanford, 36, 37. Total and organ metabolism in adrenal insufficiency; physiology of water distribution and electrolyte balance.

Crispell, Dr. Raymond S, Duke University School of Medicine, Durham, N. C. *Neurology, Psychiatry.* Kingston, N. Y, Aug. 12, 95. A.B, Cornell, 17, M.D, 20. Instr. neuroanat, med. col, Cornell, 20-23; house physician and res. neurologist, Bellevue Hosp, 21-23; fellow neurol, Utrecht, 25; staff, Bloomingdale Hosp; *assoc. prof. med. in charge neuropsychiat, sch. med, Duke, 33–; lieut. commander, Med. Corps, U. S. Naval Reserve, 40–, neuropsychiatrist, med. dept. and sch. aviation med, Naval Air Sta, Pensacola, Fla, 40–* Clin. asst. neurol, Hopkins Hosp; volunteer clin. psychiatrist, N. Y. State Dept. Mental Hygiene. Assoc. examiner neur, Am. Board Psychiat. and Neur. Am. Med. Asn; Asn. Research Nervous and Mental Disease; Psychiat. Asn; N. C. Neuropsychiat. Asn. (v. pres). Psychology; public health; mental hygiene; history; aviation medicine.

Crist, Col. Francis M(urray), c/o The Adjutant General, U. S. War Department, Washington, D. C. *Physics.* Baltimore, Md, Nov. 14, 95. B.S.E, Hopkins, 17; M.S, Yale, 25; A.M, Pennsylvania, 28, Ph.D, 29. *Commissioned Officer, Field Artil, U. S. Army, 17–, Army mem. staff and faculty, Naval War Col.* Physics of infrasonic sound; communications engineering; sound ranging.

Crist, Prof. John W(illiam), Apt. 310, Abbot Apts, East Lansing, Mich. *Horticulture.* Scotts Station, Mo, April 18, 87. A.B, Nebr. Wesleyan, 18, A.M, 19; Ph.D, Nebraska, 23. Asst. instr. bot, Nebraska, 19-23; research asst, Carnegie Institution, 19-23; asst. prof. *hort, Mich. State Col,* 23-26, *assoc. prof, 26–* Soc. Hort. Sci. Relation of hardpan to root penetration in Great Plains; direct measurement of water loss from vegetation; absorption of nutrients from subsoil; roots of crop plants; nutrients and the colloidal properties of vegetable crops; influence of reaction of culture medium on growth of lettuce; chlorophyl and vitamin A in plant tissue; stone cells in the pear fruit; applied physiology and biometry in horticultural science; oxidation-reduction potentials in tissue fluids of plants.

Crist, Prof. R(ay) H(enry), Columbia University, New York, N. Y. *Chemistry.* Mechanicsburg, Pa, March 8, 00. A.B, Dickinson Col, 20; A.M, Columbia, 22, Ph.D, 26. Instr. *chem, Columbia,* 27-37, *asst. prof, 37–* Cutting traveling fellow, 28-29. Chem. Soc. Photochemistry and reaction kinetics.

Crist, Dr. Raymond E, University of Illinois, Urbana, Ill. *Geology, Geography.* Seven Mile, Ohio, Oct. 11, 04. A.B, Cincinnati, 25; Cornell, 27-28; Zurich and Bonn, 31-32; Am. Field Service fellow, Grenoble, 32-33, D.Litt, 37. Instr. physiog, Howe Sch, Ind, 25-26; mem. staff production dept, El Aguila Oil Co, Mex, 26-27; asst. geologist, Sinclair Ref. Co. and Atlantic Ref. Co, 28-31; substitute, Illinois, 36-37, asst, 36-37, instr, 37-40, assoc. geog, 41-42; Guggenheim Mem. Foundation fellow, field work, Venezuela, Colombia and Peru, 40-41; visiting prof. *geog,* Puerto Rico, 42-43; *mem. faculty, Illinois, 43–* Summers, instr, Northwestern, 36, 38; field work, Mex, 38, 42, France, Yugoslavia, Algeria and Tunisia, 39. Am. Acad. Polit. and Social Sci; Am. Geog. Soc. Along

the Llanos-Andes border in Venezuela; landed estates in the Mediterranean; land tenure in Tunisia; peasant problem in Yugoslavia; subsistence manufacturing; geography of Europe.

Critchfield, Dr. Charles L(ouis), 3151 Jocelyn St, N. W, Washington, D. C. *Mathematical physics.* Shreve, Ohio, June 7, 10. B.S, George Washington, 34, A.M, 36, fellow, 37–39, Ph.D, 39. Lab. apprentice, Bur. Standards, 30–35, junior physicist, 35–37; instr. optics, Rochester, 39–40; nat. research fellow, Princeton and Inst. Adv. Study, 40–41; instr. physics, Harvard, 41–42; *math. physicist, geophys. lab, Carnegie Institution, 42–* Physical Soc; Wash. Acad. Nuclear physics; field theory.

Crittenden, E(ugene) C(asson), National Bureau of Standards, Washington, D. C. *⁴Photometry.* Oswayo, Pa, Dec. 19, 80. A.B, Cornell, 05. Instr. physics, Cornell, 05–09; from asst. physicist to *physicist, Bur. Standards, 09–, chief elec. div, 21–, asst. director research and testing, 33–* Int. Cmn. on Illum, 24, 28, 31, 39, v. pres, 39– A.A; Physical Soc. (councilor, 36); Optical Soc. (pres, 32); Elec. Eng; Illum. Eng. Soc. (pres, 25); Standards Asn. (councilor, 25–); Philos. Soc. Wash. (pres, 22); Wash. Acad. (pres, 40); Illum. Eng. Soc. Gt. Britain. Illumination; photometric standards and methods.

Crittenden, Dr. Eugene C(asson), Jr, Case School of Applied Science, Cleveland, Ohio. *Physics.* Washington, D. C, Dec. 25, 14. A.B, Cornell, 34, Ph.D, 39. Asst. *physics,* Cornell, 34–38; instr, *Case,* 38–42, *asst. prof, 42–* Physical Soc; Soc. X-Ray and Electron Diffraction. Cyclotron; beta ray spectra; electron diffraction; electron optics.

Crittenden, Dr. E(ugene) D(wight), 1762 E. Boulevard, Petersburg, Va. *Chemistry.* Saline, Mich, May 1, 98. A.B, Mich. State Nor. Sch, 19; A.M, Columbia, 21, Ph.D, 22. Instr. chem, Columbia, 20–23; asst. chemist, fixed nitrogen research lab, U. S. Dept. Agr, 24–26; research chemist, Atmospheric Nitrogen Corp, 26–30, *asst. chief of research,* 30–35; *nitrogen div, Solvay Process Co, 35–* Chem. Soc. Catalysis; x-rays; solutions; market development.

Croasdale, Dr. Hannah T(hompson), 24 E. Wheelock St, Hanover, N. H. *Botany.* Daylesford, Pa, Nov. 18, 05. B.S, Pennsylvania, 28, M.S, 31, Ph.D, 35. Staff, 'Biol. Abstracts,' 28–32; preparateur *bot,* Pennsylvania, 32–33; *research asst, Dartmouth Col, 35–* A.A. Fresh-water algae.

Crocker, Ernest C(harlton), 40 Lincoln St, Belmont, Mass. *Chemistry.* Boston, Mass, June 11, 88. B.S, Mass. Inst. Tech, 14. Plant chemist, Columbia Plate Glass Co, Pa, 14, 15; George J. Kelly Co, Mass, 17–19; *research chemist* applied chem, Mass. Inst. Tech, 19–22; Dewey and Almy Chem. Co, *Mass,* 22; *Arthur D. Little, Inc,* 22– C.W.S, U.S.A, 18. Chem. Soc. Depolarization of Leclanché cells; brasses and bronzes; lignin and aldehyde tests; constitution of benzene; flame-proofing with selenium; pyroxylin lacquers; analysis of odors; rubber latex compositions; food flavors.

Crocker, Dr. Herbert S(amuel), First National Bank Bldg, Denver, Colo. *Engineering.* Haverhill, N. H, June 20, 67. B.S. (C.E), Michigan, 89, hon. M.E, 19, D.E, 34; Sc.D, Colorado, 34. Draftsman, Chicago, Milwaukee and St. Paul Ry. Co, 89–91; asst. engineer, North. Pacific Ry. Co, 91–95; bridge engineer, Toronto, Hamilton and Buffalo Ry. Co, 95–96; asst. engineer, Lassig Bridge and Iron Co, Ill, 96; bridge engineer, Board Pub. Works, Denver, 97–01; asst. manager erection, west. div, Am. Bridge Co, 01–06; bridge engineer, Denver City Tramway Co, 06–07; acting sec'y, Soc. Civil Eng, 20–21; *consulting engineer, Denver,* 07–17, *21–* Mem. Eng. Council, 29–34; Miss. water planning cmn, Nat. Resources Board; consulting engineer, Moffat Water Tunnel Project. Major, C.Eng, 17–18, lieut. col, Q.M.C, 18–19. Hon. mem. Civil Eng. (director, 15–17, v. pres, 19, pres, 32); West. Soc. Eng; Colo. Soc. Eng; Colo. Sci. Soc.

Crocker, Dr. W(illiam), Boyce Thompson Institute, Yonkers, N. Y. *³Botany.* Medina, Ohio, Jan. 27, 76. A.B, Illinois, 02, fellow, 02–03, A.M, 03; fellow, Chicago, 04–06, Ph.D, 06. Instr. biol, North. Ill. State Teachers Col, 03–04; assoc. plant physiol, Chicago, 07–09, instr, 09–11, asst. prof. and assoc. prof, 11–21; *director, Boyce Thompson Inst, 21–* Acting managing director, Trop. Plant Research Foundation; Walker-Ames visiting prof, Washington (Seattle), 43. Chairman div. biol. and agr, Nat. Research Council. Medal, N. Y. Soc. Arts and Sciences, 31; gold medal, Am. Inst. New York, 38. A.A. (v. pres, C, 25); Soc. Nat; Bot. Soc. (pres, 24); Chem. Soc; Phytopath. Soc; Am. Inst. (sec'y, 30–32). Physiology of germination; effect of toxic and stimulative materials on plants; tropisms.

Crockford, Prof. H(orace) D(owns), Country Club Road, Chapel Hill, N. C. *Chemistry.* Philadelphia, Pa, Oct. 22, 98. B.S, N. C. State Col, 20; M.S, North Carolina, 23, Ph.D, 26. Chemist, F. S. Royster Guano Co, 20–21; teaching fellow, *North Carolina,* 21–22, instr, 22–26, asst. prof, 26–30, *assoc. prof. physical chem, 30–; lieut. commander, U. S. Naval Res.* Chem. Soc. (sec'y, N. C. sect, 30–32, v. chairman, 32, chairman, 33); N. C. Acad. Theoretical electrochemistry; thermodynamics and chemistry of lead-acid storage cell; theory of solutions.

Croft, Harry P(ackard), 1212 Yellowstone Road, Cleveland, Ohio. *Metallurgy.* Waterbury, Conn, Aug. 26, 97. Chem.E, Rensselaer Polytech, 21; M.S, Case, 38, Ph.D, 42. Physical testing lab, Am. Brass Co, 21–22; asst. metallurgist, Chase Brass and Copper Co, Waterbury, Conn, 22–30, chief metallurgist, Cleveland, 30–42; *lieut. col, Ordnance Dept, U. S. Army, 42–* Lecturer, Case. Soc. Test. Mat; Min. and Metal. Eng; Soc. Metals (chairman, Cleveland chap, 36); Automotive Eng; British Inst. Metals. Properties of leaded brasses; machinability of brasses; brass forgings; stress corrosion cracking.

Croft, Prof. Huber O(gilvie), 250 North St, Iowa City, Iowa. *Mechanical engineering.* Denver, Colo, 96. B.S, Colorado, 18; M.S, Illinois, 25. Asst. to chief engineer, Swift and Co, 19–20; asst. to Durbin Van Law, 20–22; asst. prof. *mech. eng,* Illinois, 22–27; assoc. prof, Stanford, 27–30; *prof. and head dept, Iowa, 30–; lieut. commander, E.V.S, U. S. Naval Reserve.* A.S, U.S.A, 18. A.A; Mech. Eng; Iowa Acad. Thermodynamics; heat transmission of boilers; engineering properties of gases; flow and measurement of gases.

Crofutt, Prof. Charles B(urton), 30 Mill St, Orono, Maine. *Physics.* Montour, Iowa, Aug. 5, 96. A.B, Cornell Col. (Iowa), 19; M.S, Iowa, 20, Ph.D, 23. Instr. *physics,* Arkansas, 23–26; asst. prof, *Maine,* 26–27, *assoc. prof, 27–* A.A; Physical Soc; Optical Soc. X-rays.

Crohn, Dr. Burrill B(ernard), 1075 Park Ave, New York, N. Y. *Medicine.* New York, N. Y, June 13, 84. A.B, Col. City of N. Y, 02; M.D, Columbia, 07. *Assoc. med. and assoc. physician, Mt. Sinai Hosp, 08–* Consulting physician, U. S. Veterans Bur, 26; Beth Israel Hosp, Newark; St. Joseph's Hosp, Far Rockaway; Rockaway Beach Hosp. Instr, col. physicians and surg, Columbia. Am. Med. Asn; Soc. Exp. Biol; Gastro-Enterol. Asn. (pres, 32); Harvey Soc; N. Y. Acad. Med; Pan-Am. Med. Soc; Int. Gastro-Enterol. Soc. Clinical medicine; diseases of the stomach and intestines; gastric secretions; gastro-duodenal ulcer; pancreatic diseases; ulcerative colitis; regional ileitis.

Croker, Richard S(ymonds), California State Fisheries Laboratory, Terminal Island, Calif. *Ichthyology.* San Anselmo, Calif, July 2, 07. A.B, Stanford, 29. *Fisheries research, Calif. Div. Fish and Game, 29–* Ed, 'Calif. Fish and Game,' 37– Fisheries Soc; Soc. Ichthyol. and Herp. Life histories of and fisheries for commercial and game fishes.

Croll, Paul R, Pittsburgh Plate Glass Co, Grant Bldg, Pittsburgh, Pa. *Chemistry.* Pa, Jan. 1, 92. B.S, Illinois, 13. Research dept, N. J. Zinc Co, Pa, 13–22; research director paint and varnish div, *Pittsburgh Plate Glass Co,* Milwaukee, 22–40, *tech. asst. to v. pres, paint div, 40–* Chem. Soc. (chairman paint and varnish div, 31); Chem. Eng; Soc. Test. Mat. Pigments; paints; lacquers.

Cromwell, Dr. H(obart) W(illiam), Abbott Laboratories, North Chicago, Ill. *Bacteriology, Immunology.* Clay Co, Ind, Dec. 31, 95. A.B, Ind. State Nor. Sch, 17; fellow, Hopkins, 21–22, Sc.D, 22. Instr. med. bacter, Wisconsin, 22–25, asst. prof, 25–29; Swan-Myers Co, Indianapolis, 29–31; *Abbott Labs, 31–* A.A; Soc. Bact; Asn. Immunol. Hemolysins; precipitins; phagocytosis; pollen extracts.

Cromwell, Dr. Norman H(enry), University of Nebraska, Lincoln, Nebr. *Organic chemistry.* Terre Haute, Ind, Nov. 22, 13. B.S, Rose Polytech, 35; Ph.D, Minnesota, 39. Teaching asst. chem, Minnesota, 35–39; instr. *org. chem, Nebraska,* 39–42, *asst. prof, 42–* Summers, develop. chemist, Commercial Solvents Corp, 35, research chemist, Union Oil Co. Calif, 38, 39. Chem. Soc. Mechanisms of organic reactions; amino alcohols and ketones; drugs.

Cronbach, Dr. Lee J(oseph), 1305 Kamiaken, Pullman, Wash. *Educational psychology.* Fresno, Calif, April 22, 16.

A.B, Fresno State Col, Calif, 34; A.M, California, 37; Ph.D, Chicago, 40. Teacher, high sch, Fresno, Calif, 36–38; asst, Progressive Educ. Asn, 39–40; *instr. psychol, State Col. Wash, 40–* Northwest Sci. Asn. Learning of nonsense forms; measurement of vocabulary knowledge; individual differences in learning to reproduce plane figures; morale.

Crone, Prof. E(dwin) B(ertram), Colorado State College, Ft. Collins, Colo. *Inorganic chemistry.* Tipton, Iowa, Sept. 19, 00. B.S, Hastings Col, 20; scholar, Iowa, 20–21, M.S, 22, fellow, 21–23, Ph.D, 34. Teacher, high sch, Ill, 23–24; Billings Polytech. Inst, 24–26; junior chemist, food and drug admin, U. S. Dept. Agr, 26–27; prof. *chem,* Jamestown Col, 27–29; instr, Coe Col, 29–31; *Colo. State Col,* 34–36, *asst. prof, 36–* Chem. Soc. Water-gas tar; solubility in sulfur dioxide.

Cronels, Prof. Carey (Gardiner), University of Chicago, Chicago, Ill. **7Geology, Paleontology.* Bucyrus, Ohio, March 14, 01. B.S, Denison, 22; M.S, Kansas, 23, Ph.D, Harvard, 28. Asst. instr, Kansas, 22–23; instr, Arkansas, 23–25; asst. *geol,* Harvard, 25–27, instr, 27–28; asst. prof, *Chicago,* 28–31, assoc. prof, 31–41, *prof, 41–, curator invert. paleont, Walker Museum, 28–* Lecturer, Wellesley Col, 27–28; research assoc, Museum Science and Indust, 31–; in charge geol, A Century of Progress Expos, Chicago, 33, chief, div. basic sciences, 34. Asst. geologist, Kans. Geol. Surv, 23; geologist, Ark. Geol. Surv, 27; Ill. Geol. Surv, 29–; consultant, Nat. Defense Research Cmt, 43– Assoc. ed, 'Jour. of Geol,' 31– A.A; Paleont. Soc. (v. pres, 37); Geol. Soc; Asn. Petrol. Geol. (ed, 'Bul,' 43–); Soc. Econ. Paleont. and Miner. (pres, 40); Ill. Acad. Petroleum geology and microscopic analysis of oil; paleozoic stratigraphy, areal and structural geology; paleontologic classifications; carboniferous faunas; cephalopods; echinoderms; ostracodes; scolecodonts; general micropaleontology.

Cronemiller, Lynn F(oster), Oregon State Board of Forestry, Salem, Oregon. *Forestry.* Baker, Oregon, Nov. 9, 90. B.S, Oregon State Col, 14, F.E, 36. Private forestry, scaling, timber cutting foreman and logging supt, 17–23; deputy state forester, *Oregon,* 24–30, state forester, 30–35, exten. forester, 35–40, *asst. state forester, 40–* State Planning Board, Oregon, 34. Soc. Foresters (chairman, N. Pacific sect, 31). State land acquisition; state forests; forestry nursery and reforestation; forest tax law; public relations.

Crook, Prof. Dorothea Johannsen (Mrs. Mason N. Crook), Skidmore College, Saratoga Springs, N. Y. *Psychology.* Ithaca, N. Y, Oct. 14, 03. A.B, Cornell, 24; A.M, Clark, 27, Ph.D, 29. Instr. *psychol,* Wellesley Col, 29–30; Rochester, 30–31; asst. prof, *Skidmore Col,* 31–34, *assoc. prof, 34–* Summer, psychol. intern, Worcester State Hosp, Mass, 29. A.A; Psychol. Asn; Psychometric Soc; East. Psychol. Asn. Sensory processes; vision; personality; learning.

Crook, Dr. G(uy) Hamilton, University of Minnesota, Minneapolis, Minn. *Psychology.* Ravenswood, W. Va, Feb. 7, 09. B.S, Chicago, 35; Ph.D, Minnesota, 39. Asst, labs. primate biol, Yale, 38–39; instr. psychol, Missouri, 39–40; *instr. psychol. and clin. psychologist, Minnesota, 40–* Assoc. Psychol. Asn. Clinical, physiological and animal psychology.

Crook, Prof. Louis H(enry), 1325 Jefferson St, N. W, Washington, D. C. *Physics.* Havre de Grace, Md, 87. B.S, Catholic Univ, 09. Machinist, U. S. Navy Yard, 06–09; instr. *theoret. and applied mech, Catholic Univ,* 09–20, assoc. prof. and *prof, 21–* Asst, aeronaut. lab, U.S.N, 16–24. Philos. Soc. Wash. Aeronautics; aerodynamics; wind tunnels.

Crook, Prof. Mason N(elson), Skidmore College, Saratoga Springs, N. Y. *Psychology.* Ronceverte, W. Va, April 17, 04. A.B, Marietta Col, 25; A.M, Clark, 28, fellow, 28–30, Ph.D, 30. Asst. *psychol,* Clark, 28–30; instr, Dartmouth Col, 30–31; California at Los Angeles, 31–35; *assoc. prof, Skidmore Col, 35–* A.A; Psychol. Asn; Soc. Psychol. Study Social Issues; East. Psychol. Asn. Sensory processes; personality.

Crook, Prof. Welton Joseph, P. O. Box 985, Stanford University, Calif. *Metallurgy.* Melbourne, Australia, Feb. 1, 86. A.B, Stanford, 11, E.M, 19; D.Eng, Bucharest, 36. Chemist and assayer, Dept. Mines, Victoria Govt, Australia, 08; asst. instr. metal, Stanford, 10; chief chemist, Pacific Coast Steel Co, 11–13, metal. engineer, 17–20; *prof. metal,* S. Dak. Sch. Mines, 13–17; *Stanford, 20–; col, ordnance dept, U. S. Army, and tech. officer, Rock Island Arsenal, Ill, 40–* Cooperating analyst, Bur. Standards, 20–; research chemist, Panama Pacific Expos, 15; metal. chemist, U. S. Bur. Mines, 15; consulting metal. engineer, Pacific Coast Steel Co, 23–30; D and B Pump and Supply Co, 26–31; Elliott Core Drilling, 26–; Gen. Petrol. Corp, 27–; Atelson Mfg. Co, 30–32. Major, O.R.C, 27–39. A.A; Min. and Metal. Soc; Min. and Metal. Eng; Soc. Metals (chairman, Golden Gate chap, 26–28); Army Ordnance Asn; N. Y. Acad. Metallurgical analytical methods; metallography; electrolysis; silver cupellation; metallic magnesium; hot dip galvanizing process; basic steel; grain size, physical properties and heat treatment of low carbon steel; manufacture of oil well equipment; Pacific Coast steel industry; spectrography; steel castings; gauge blocks; steel making slags.

Crooker, Dr. A(rthur) M(ervyn), 104 Campbell Ave, Toronto, Ont, Can. *Physics.* Cayuga, Ont, Sept. 19, 09. B.A, McMaster, 30; M.A. and Ph.D, Toronto, 35; 1851 Exhib. research student, London, 35–37. Demonstrator, London, 36–37; asst. prof. physics, British Columbia, 37–41; *optical computer, Res. Enterprises, Ltd, 41–* Physical Soc. Zeeman effects in the spectra of thallium; hyperfine structure in the spectrum of arsenic; multiplet and hyperfine structures in the spectra of lead.

Crooker, Dr. Sylvan J(ay), Purcellville, Va. *Physics, Engineering.* Fairmont, Minn, July 3, 93. B.S, Carleton Col, 14; M.S, Illinois, 15, fellow, 15–17, Ph.D, 17. Asst. physicist, Bur. Standards, 17–18; radio engineer, Sig. C. Research Lab, 19–21; physicist, Bur. Standards, 21–22; U. S. Bur. Mines, 22–26; chief engineer, Whitlock Co, Hartford, 26–27; v. pres, Heat Transfer Products, Inc, 27–29; consulting engineer, Babcock and Wilcox Co, New York, 29–35; *private investigator and consultant, 35–* Cable investigator, Alaska, 19. Lieut, Sig. C, 18–19. A.A; Physical Soc; Soc. Refrig. Eng; Philos. Soc. Wash. Aerodynamics; ballistics; heat transmission; helium; instruments; metallurgy; oil refining; pressure vessels; radio; refrigeration; telephone.

Crooks, Dr. D(onald) M(undell), Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. *Botany.* Cicero, Ind, Oct. 10, 02. B.S, Ball State Teachers Col, 27; M.S, Chicago, 29, Ph.D, 33. Teacher, high sch, Ind, 21–29; asst. prof. biol, Ball State Teachers Col, 29–35; assoc. prof. bot. and acting head dept, Arizona, 35–37, prof. and head dept, 37–40; senior plant anatomist, *bur. plant indust, U. S. Dept. Agr,* 40, *prin. plant horticulturist in charge div. drug and related plants, 41–* A.A; Bot. Soc; Wash. Bot. Soc. Plant anatomy; morphology; improved microtomes; drug, new oil seed and condiment plant culture in America.

Crooks, Dr. G(eorge) Chapman, Chemical Warfare School, Edgewood Arsenal, Md. *Physiological chemistry.* North Brookfield, Mass, Jan. 21, 05. A.B, Amherst Col; 28; Mass. State Col, 30, fellow, 35–36, Ph.D, 37. Asst. chem, Mass. State Col, 28–30; instr, Vermont, 30–35, 36–39, asst. prof, 39–40; *capt, Chem. Warfare Service, 40–* Chem. Soc. (sec'y-treas, west. Vt. sect, 39–). Blood proteins; chemical and nutritive studies of fish muscle; carotene studies in blood and plant tissues.

Crooks, Dr. Harry M(eans), Jr, 4180 Bedford Road, Detroit, Mich. *Organic chemistry.* Albany, Oregon, Oct. 14, 12. A.B, Alma Col, 32; M.S, Pa. State Col, 34, Ph.D, 38. *Research chemist, Parke, Davis and Co, 37–* Chem. Soc. Steroids; organic synthesis.

Crooks, Dr. K(enneth) B(ronstorph) M(t. Albert), Happy Grove College, Hectors River, Jamaica, B. W. I. *Biology, Parasitology.* Hanover, Jamaica, B. W. I, May 25, 05. A.B, Harvard, 27, A.M, 28, Gen. Educ. Board fellow, 37–38, Ph.D, 40. Teacher biol, Hampton Inst, 28–29, instr, 29–34, asst. prof, 34–38, assoc. prof, 38–39, prof, 39–41; *pres, Happy Grove Col, 41–* Trustee, Winnifred Home, Jamaica. Marine Biol. Lab, Woods Hole, 37–38. Asn. Physical Anthrop; Entom. Soc. Amer; Va. Soc. Research; Va. Acad. Biology of the American Negro; mosquito control; biological education.

Crookshank, Capt. H(erman) Robert, Camp Gordon, Ga. *Biochemistry.* Linneus, Mo, June 7, 16. B.S, Northeast Mo. State Teachers Col, 38; M.S, Iowa, 40, Ph.D, 42. *Capt. and food and nutrition officer, U. S. Army.* Chem. Soc. Histidine metabolism.

Crosby, Prof. Anne E(lizabeth), Albion College, Albion, Mich. *Biochemistry.* Schenectady, N. Y, Jan. 8, 13. A.B, Mt. Holyoke Col, 34; A.M, Oberlin Col, 36; Wisconsin, 39. Instr. *biol. and chem, Albion Col,* 36–42, *asst. prof, 42–* Chem. Soc; Mich. Acad; Mich. Col. Chem. Teachers Asn. Vitamin E.

Crosby, Dr. Edwin L, Johns Hopkins Hospital, Baltimore, Md. *Medicine.* Rochester, N. Y, Aug. 18, 08. A.B, Union

Col. (N. Y), 29; M.D, Albany Med. Col, 33; M.P.H, Hopkins, 36, Dr.P.H, 37. Asst. supt, Ellis Hosp, Schenectady, N. Y, 34; asst. dist. health officer, State Dept. Health, 35–36; *assoc. biostatistics, Hopkins, 36–, prev. med, 39–*, statistician and supervisor of records, *Hopkins Hosp*, 37–41, *asst. director, 41–* Hospital administration; medical statistics.

Crosby, Prof. Elizabeth C(aroline), University of Michigan, Ann Arbor, Mich. **†Neuroanatomy.* Petersburg, Mich, Oct. 25, 88. B.S, Adrian Col, 10; M.S, Chicago, 12, fellow, 14–15, Ph.D, 15. Prin. and sch. supt, Mich, 15–20; instr. *anat, Michigan*, 20–26, asst. prof, 26–29, assoc. prof, 29–36, *prof, 36–* Visiting lecturer, Marischal Col, Aberdeen, 39–40. A.A; Asn. Anat; British Asn. Anat. Telencephalon, diencephalon and optic tectum of reptiles, birds and mammals.

Crosby, Irving B(allard), 6 Beacon St, Boston, Mass. *Geology.* Boston, Mass, Jan. 4, 91. B.S, Mass. Inst. Tech, 17; A.M, Harvard, 20. *Consulting geologist, 20–; U. S. Navy, 42–* Mem, tech. board rev, Pub. Works Admin, 33–35. Consultant to industries in U. S, Can. and Cent. Amer; to states and municipalities, 26–; U. S. War Dept, 31–; Republic of Haiti, 38–39; U. S. Fed. Power Cmn, 40– A.A; fel. Geol. Soc; Am. Geog. Soc; Geophys. Union; Civil Eng; Min. and Metal. Eng; Seismol. Soc; Soc. Econ. Geol; Soc. Mil. Eng. Engineering geology; regional foundation problems; glacial geology and pre-glacial topography of New England, New York, Pennsylvania and eastern Canada; military geology.

Crosby, Prof. Richard C, Miami University, Oxford, Ohio. *Psychology.* Washington, D. C, Dec. 11, 09. B.S, Cornell, 31, M.S, 37, Ph.D, 41; Stanford, 39. Teacher, schs, N. Y, 33–39; asst. educational psychol, Cornell, 39–41; instr. *education, Miami (Ohio)*, 41–42, *asst. prof, 42–, clinician, 41–* Interest measurement; personality development.

Crosby, Dr. W(alter) W(ilson), 1040 Adella, Coronado, Calif. *Highway engineering.* Brooklyn, N. Y, Sept. 2, 72. B.C.E, Maine, 93, C.E, 96, D.E, 26; Sc.D, Maryland, 12. Asst. engineer, Portland and Rumford Falls Ry, 93–97; res. engineer, State Highway Cmn, Mass, 97–01; roads engineer, Baltimore County, Md, 01–04; gen. supt. to park cmn, Baltimore, 04–05; chief engineer, State Roads Cmn, Md, 05–12; Md. Geol. and Econ. Surv, 05–18; Nat. Park Service, 21–24; State Highway Dept, Pa, 24–26; *consulting engineer.* Nonres. lecturer, Columbia, 11–15; instr. in charge extramural course, N. Y. Univ, 14–15. Lieut. col, U.S.A, retired. A.A; Civil Eng; Am. Geog. Soc; Fisheries Soc; Royal Soc. Arts; Int. Asn. Road Congs. Western fishing; highway location.

Crosen, Prof. Robert G(lenn), 901 McCartney St, Easton, Pa. *Chemistry.* Maitland, Mo, March 12, 00. B.S, Tarkio Col, 23; A.M, South Dakota, 25; J. Packard Laird fellow, Columbia, 29–30, Ph.D, 33. Instr. *chem,* South Dakota, 23–28; asst. instr, exten. div, Columbia, 28–29; instr, *Lafayette Col*, 31–34, asst. prof, 34–39, *assoc. prof, 39–* Chem. Soc. Spectrographic methods of quantitative chemical analysis; chromium detected and quantitatively determined in human tumor tissues; saponification of oils, fats and waxes.

Crosier, Prof. Willard (Francis), New York Experiment Station, Geneva, N. Y. *Phytopathology.* Juniata, Nebr, Oct. 26, 04. A.B, Kansas; Ph.D, Cornell, 32. Technician and asst. *bot,* Kansas, 25–27; asst, *Cornell*, 27–32, instr, 32–36, *asst. prof, 36–*, asst. *in research, N. Y. Exp. Sta, Geneva*, 32–36, *assoc, 36–* Seed-borne parasites; seed treatment of cereal grains; biology of Phytophthora infestans; fractional methods in purity analyses of seeds; effect of phytohormones on germination and growth of cereals.

Crosland, Prof. H(arold) R(andolph), University of Oregon, Eugene, Oregon. *Psychology.* Blackville, S. C, Feb. 19, 93. A.B, South Carolina, 13; fellow, Clark, 13–16, A.M, 14, Ph.D, 16. Instr. *psychol,* Minnesota, 16–17; asst. prof, Arkansas, 17–18; Pittsburgh, 18–20; *psychol. lab, Oregon*, 20–25, *assoc. prof, 25–* A.A; Psychol. Asn; West. Psychol. Asn. (v. pres, 28). Forgetting; habit-formation; sensory defects and illusions; legibility; reading; emotions and guilt detection; association; range of attention; eye dominance.

Crosman, Prof. Arthur M(arston), New York University, New York, N. Y. *Zoology.* Monmouth, Maine, Sept. 18, 02. B.S, Dartmouth Col, 24; A.M, Columbia, 27; Ph.D, Cornell, 35. Asst. *biol, N. Y. Univ*, 25–27, instr, 27–37, *asst. prof*, 37–A.A; assoc. Soc. Zool; N. Y. Acad. Blood picture during pregnancy; dissolution and absorption of retained dead fetuses; effect of work and time aging on polymorphonuclear neutrophile.

Crosno, Prof. C(harles) Donald, P. O. Box 721, Socorro, N. Mex. *Electrical engineering.* Mt. Vernon, Ill, Dec. 27, 06. B.S, New Mexico, 28; M.S, Iowa State Col, 29, Ph.D, 33. Instr. math. and eng, Amarillo Jr. Col, 36–37, head dept, 37–38; *prof. eng. and head dept,* Ark. State Col, 38–41; *N. Mex. Sch. Mines, 41–* Effect of high electrostatic fields on the properties of flames; effect of preparation conditions on the properties of copper oxide rectifiers.

Cross, Dr. (Charles) Whitman, 101 E. Kirke St, Chevy Chase, Md. **†Geology.* Amherst, Mass, Sept. 1, 54. B.S, Amherst Col, 75, 76, Sc.D, 25; Göttingen, 77; Ph.D, Leipzig, 80. Asst. geologist, U. S. Geol. Surv, 80–88, geologist, 88–25, chief sect. petrol, 03–07. Nat. Research Council, 18–22, treas, 18–19, v. chairman div. geol. and geog, 18. Nat. Acad. (treas, 11–19); Geol. Soc. (pres, 18); hon. mem. Colo. Sci. Soc; Geol. Soc. Wash. (pres, 99); Wash. Acad; cor. mem. Acad. Nat. Sci. Phila; for. mem. London Geol. Soc. Petrology; mineralogy; systematic petrography; geology of various districts of Colorado.

Cross, Prof. Frank B(aker), 1515 W. Ninth St, Stillwater, Okla. *Horticulture.* Racine, Ohio, Feb. 1, 91. B.S, Ohio State, 16; M.S, Mich. State Col, 26. Instr. and asst. prof. hort, Okla. Agr. and Mech. Col, 16–20; county agent, Burlington County, N. J, 20–22; assoc. prof. *hort, Okla. Agr. and Mech. Col,* and assoc. horticulturist, Exp. Sta, 23–32, *prof, 32–*, acting head dept, 34–39, *head dept, 39–* Soc. Hort. Sci; Pomol. Soc. Spraying; effect of oil emulsion sprays on transpiration; uneven ripening, grafting, pruning and training response of grapes; varieties of tree fruits; pecans and walnuts.

Cross, Prof. G(eorge) L(ynn), University of Oklahoma, Norman, Okla. *Botany.* Woonsocket, S. Dak, May 12, 05. B.S, S. Dak. State Col, 26, M.S, 27; Ph.D, Chicago, 29. Instr. bacter, S. Dak. State Col, 27–28; asst, Chicago, 28–30; head dept. bot, South Dakota, 30–34; asst. prof, *Oklahoma*, 34–35, assoc. prof, 35–38, prof. and chairman dept, 38–42, *asst. dean grad. col. and acting director research inst, 42–* A.A; Bot. Soc; Torrey Bot. Club; Okla. Acad. (pres, 40). Anatomy; morphology.

Cross, Prof. Hardy, Yale University, New Haven, Conn. *Civil engineering.* Va, Feb. 10, 85. A.B, Hampden-Sydney Col, 02, B.S, 03, hon. Sc.D, 34; B.S, Mass. Inst. Tech, 08; M.C.E, Harvard, 11; hon. D.Eng, Lehigh, 37. Asst. prof. civil eng, Brown, 11–18; gen. practise, 08–10, 18–22; *prof.* struct. eng, Illinois, 22–37; *civil eng, Yale, 37–* Lecturer, R. I. Sch. Design, 15. Norman medal, Soc. Civil Eng, 34. Civil Eng; Eng. Educ; Concrete Inst; Ry. Eng. Structural and hydraulic engineering.

Cross, Prof. J(ames) C(ecil), Texas College of Arts and Industries, Kingsville, Texas. *Zoology.* Sallisaw, Okla, Dec. 27, 95. A.B, Southwestern, 24; A.M, Texas, 28, fellow, 30–31, Ph.D, 31. Tutor zool, Texas, 28–30; assoc. prof. *biol,* N. Texas State Teachers Col, 31–32; Southwest. Texas State Teachers Col, 32–36; *prof, Texas Col. Arts and Industries, 36–* Summer, asst, Washington (Seattle), 29. A.A; Soc. Zool. Cytology; physiology; comparative study of chromosomes of rodents; chromosomes of the genus Peromyscus.

Cross, Prof. Paul C(lifford), 66 Woodbury St, Providence, R. I. *Physical chemistry.* Bruin, Pa, July 19, 07. B.S, Geneva Col, 28; M.S, Wisconsin, 30, Ph.D, 32. Asst, Wisconsin, 32–33; nat. research fellow *chem,* Calif. Inst. Tech, 33–35; research assoc, *Stanford*, 35–36, asst. prof, 36–38; assoc. prof, *Brown*, 38–42, *prof, 42–* Summer, lecturer, Harvard, 41. A.A; Physical Soc; Chem. Soc; N. Y. Acad. Infra-red spectroscopy; molecular structure; thermodynamics; photochemistry.

Cross, Robert J(ohn), P. O. Box 205, South Whitley, Ind. *Chemistry.* Fresno, Calif, Nov. 7, 84. A.B, Stanford, 11, A.M, 20, Sperry Flour fellow and Lionel Lennox fellow, 20–22. Chemist and engineer, Calif. Products Co, 13–17; fellow, Mellon Inst, 17–19; research chemist, Calif. Almond Growers' Exchange, 23–24; United Verde Exten. Mining Co, 24; Am. Smelting and Ref. Co, Salt Lake City, 25–28; research chemist and chem. engineer, S. M. A. Corp, Cleveland, 28–39; *chem. engineer, Nutritional Research Associates, Inc, 41–* Fel. Inst. Chem; Chem. Soc. Smelter fume; determination of small concentrations of sulfur dioxide in air; amino acid distribution in proteins of wheat flour; processes for growing yeast and making bread; infant foods; lactose manufacture; manufacture of amino acids; canned cream; milk products; vitamin production.

Cross, Dr. Roy, 700 Baltimore Ave, Kansas City, Mo. *Chemical engineering.* Ellis, Kans, Jan. 13, 84. A.B, Kansas, 05, M.D, 08. Teaching fellow, Kansas, 05–06, teacher chem, sch. med, 08–10; manager and tech. director and later *pres, Kansas City Testing Lab, 08–* V. pres. and consulting chemist, Gasoline Products Co, 22–26; pres, Cross Develop. Co; Silica Products Co; pres, Cross Lab, 31–42. A.A; Chem. Eng; Chem. Soc; Soc. Test. Mat; Petrol. Inst; Concrete Inst; Kansas City Eng. Club. Petroleum hydrocarbons; petroleum, asphalt and natural gas; germicides; cements; water; sewage; fuels; electroplating; potash; air conditioning; oil well drilling; Cross cracking process.

Cross, Dr. S(amuel) X(enophon), Zoology Division, Bureau of Animal Industry, U. S. Department of Agriculture, Chicago, Ill. *Parasitology.* Craig, Nebr, May 1, 07. A.B, Nebr. State Teachers Col, 28; M.S, Wisconsin, 31, Ph.D, 33. Junior parasitologist, *bur. animal indust, U. S. Dept. Agr,* 35–38, *asst. zoologist, zool. div, 38–* Parasites of swine.

Cross, Dr. T(homas), Jr, 1229 Beverly Road, Union, N. J. *Chemistry.* Mayfield, Ky, Sept. 26, 07. B.S, Kentucky, 30; William Shallcross Speed fellow, Hopkins, Ph.D, 33. Instr. org. chem, Hopkins, 34; *research chemist, Standard Oil Develop. Co. of N. J, 34–* Summers, research chemist, Louisville Cement Co, 31–34. Chem. Soc. Oxidation of organic compounds; catalytic pyrolysis of petroleum; catalytic polymerization of olefinic compounds; lubricating oil formulation; automotive bearing corrosion.

Crossen, Prof. George E(dward), Drake University, Des Moines, Iowa. *Pharmaceutical chemistry.* St. Paul, Minn, July 21, 05. B.S, Minnesota, 33, M.S, 37, Ph.D, 40. Instr. pharmacy, Minnesota, 33–41, asst. prof, 41–42; *prof. pharmacy and dean, Drake, 42–* A.A; Pharmaceut. Asn; Minn. State Pharmaceut. Asn; Iowa Pharmaceut. Asn. Pharmaceutical preparations; Scoville's art of compounding; stability of solution of magnesium citrate; esters of sulfanilic acid.

Crossen, Dr. H(arry) S(turgeon), 909 University Club Bldg, St. Louis, Mo. *Gynecology.* Iowa, Feb. 2, 69. M.D, Washington (St. Louis), 92. From junior intern to asst. supt, St. Louis City Hosp, 92–95; supt. and surgeon in charge, St. Louis Female Hosp, 95–99; *private practise, 92–;* instr. and prof. *clin. gynec, sch. med, Washington (St. Louis),* 01–35, *emer. prof, 35–* Gynecologist, Barnes, St. Luke's and St. Louis Maternity Hosps; past chairman gynec. staff, munic. hosps, St. Louis. M.C, 17–19, major. A.A; Gynec. Soc; Am. Med. Asn; Cent. Asn. Obstet. and Gynec; St. Louis Gynec. Soc. Diseases of women; operative gynecology; pelvic and abdominal surgery; foreign bodies left in the abdomen.

Crossland, Dr. Ruth S(nider), 129 Dartmouth St, Rochester, N. Y. *Biochemistry.* Rochester, N. Y. A.B, Rochester, 25, M.S, 29, Ph.D, 35. Asst. biochem, sch. med. and dentistry, Rochester, 29–35, instr, 35–36; research assoc. path, col. physicians and surg, Columbia, 36–38; *volunteer cancer research, sch. med. and dentistry, Rochester, 41–* Asn. Cancer Research. Nature of phospholipid fatty acids in tissues; determination of active agent of sarcoma and carcinoma.

Crossley, Dr. M(oses) L(everock), Calco Chemical Division, American Cyanamid Co, Bound Brook, N. J. **Chemistry.* Saba Island, D. W. I, July 3, 84. Ph.B, Brown, 09, M.S, 10, Ph.D, 11. Instr. chem, Brown, 09–11; assoc. prof, William Jewell Col, 11–13; Wesleyan, 13–18, head dept, 14–18; chief chemist, Calco Chem. Co, 18–36, *director research,* 36–39, Calco Chem. Div, *Am. Cyanamid Co,* 39–41, *41–* Consulting chemist, Barrett Co, 16–18. Del, Int. Union Pure and Applied Chem, 26. A.A; Chem. Soc. (pres, Conn. Valley sect, 15–17); Inst. Chem. (pres, 24–26, 34–36, trustee); Soc. Chem. Indust; N. Y. Acad; Soc. Arts and Sci. New York; Faraday Soc; London Chem. Soc. Amidoanthraquinones and anthraquinone sulfonic acids; dye industry; nitro-cyclic compounds; phosphorus as index of nerve metabolism; chemical physiology of human hair; valency; color and constitution; vat and azo dyes; pharmaceuticals; isomerism.

Crossman, S(amuel) S(utton), 20 Sanderson St, Greenfield, Mass. *Entomology.* Needham, Mass, May 30, 86. B.S, Boston, 09, Mass. Col, 09, 11–12. Bur. entom, U. S. Dept. Agr, 09–11; Insular Board Agr, P. R, 12–14; entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 14–43, *senior entomologist, 43–* A.A; Forestry Asn; Asn. Econ. Entom. Biological control of insects; gipsy and brown-tail moths.

Crosthwait, D(avid) N(elson), Jr, 506 E. Second St, Michigan City, Ind. *Mechanical engineering.* Nashville, Tenn, May 27, 92. B.S, Purdue, 13, M.E, 20. Heating and vent. engineer, *C. A. Dunham Co,* 13–19, research engineer, 19–25, director research lab, 25–30, *tech. adviser, 30–* A.A; Soc. Eng; Chem. Soc; Electrochem. Soc; Iowa Eng. Soc. Differential vacuum steam heating; air conditioning.

Crothers, Dr. Bronson, Children's Hospital, Boston, Mass. *Pediatrics.* Elmira, N. Y, July 10, 84. A.B, Harvard, 05, M.D, 10. Asst. pediat, Minnesota, 10–15; from asst. to *asst. prof, Harvard Med. Sch, 20–* Neurologist, Children's and Infants Hosps, Boston, 20–32, visiting physician, 32– Pediat. Asn; Acad. Pediat; Neur. Asn. Pediatrics in relation to disorders of the nervous system.

Crothers, Dean H(arold) M(arion), South Dakota State College, Brookings, S. Dak. *Electrical engineering.* S. Dak, Dec. 9, 87. B.S, S. Dak. State Col, 10; E.E, Wisconsin, 13, Ph.D, 20. Instr. *elec. eng,* Wisconsin, 13–20, asst. prof, 20–23; *prof, S. Dak. State Col, 23–, dean dept. eng, 25–; deputy director eng. educ, eng. science and management war training, U. S. Office Educ, 41–* Elec. Eng; Eng. Educ. Potential distribution over strings of suspension insulators; testing of instrument transformers; theory of circuits.

Crouch, Prof. H(ubert) B(ranch), Kentucky State Industrial College, Frankfort, Ky. *Zoology.* Jacksonville, Texas, Dec. 1, 06. A.B, Texas Col, 27; M.S, Iowa State Col, 30, Ph.D, 36. Assoc. prof, *dept. nat. science, Ky. State Indust. Col,* 31–34, *prof. biol, 35–, chairman div. arts and sciences, 37–* A.A; Micros. Soc; Soc. Parasitol. Biology of Coccidia; staining methods for Coccidia; taxonomy of parasitic protozoa.

Crouch, Prof. James E(nsign), San Diego State College, San Diego, Calif. *Ornithology.* Urbana, Ill, Jan. 28, 08. M.S, Cornell, 31; Ph.D, Southern California, 39. Mem. dept. biol, *San Diego State Col,* 32–42, *prof. biol, 42–* Summers, asst, Cornell, 28–32. Life history of Phainopepla nitens lepida; respiratory organs of birds.

Crouch, Dr. Richard L(ee), University of Missouri, Columbia, Mo. *Anatomy.* Columbia, Mo, Aug. 9, 03. A.B, Missouri, 25, B.S, 26, A.M, 29, Ph.D, 32; M.D, St. Louis, 37. Instr. *anat, Missouri,* 29–33, asst. prof, 33–37, *assoc. prof, 37–* Asn. Anat; Am. Med. Asn; Mo. State Mental Hygiene Asn. (pres, 41). Neurology; the diencephalon.

Crouch, W(inney) E, U. S. Department of the Interior, Washington, D. C. *Biology.* Nov. 25, 91. B.S, N. Dak. Col, 16. Biol. asst, bur. biol. surv, U. S. Dept. Agr, 16, leader rodent control, Idaho, 17–28, asst. head div. predatory-animal and rodent control, 28–34, senior biologist and asst. chief div. game management, and in charge game agents and refuges, 34–38; *chief div. game management, fish and wildlife service, U. S. Dept. Interior, 38–* Biol. Soc. Wash. Methods for control of jack rabbits, ground squirrels, pocket gophers and woodchucks; commercial use of wild rabbit fur.

Croup, Dr. A(lfred) H(omer), Hammermill Paper Co, Erie, Pa. *Physics.* Pittsburgh, Pa, Sept. 25, 93. B.S, Pa. State Col, 21; M.S, Pittsburgh, 28. Ph.D, 31. Pittsburgh, 22–24; Swarthmore Col, 24–27; instr. physics, Pittsburgh, 27–31, Erie Center, 31–36, univ, 36–37; *physicist, Hammermill Paper Co, 37–* Supervisor, State Exten. Defense Training in Math. and Physics, Pa. Physical Soc; Chem. Soc; Tech. Asn. Pulp and Paper Indust. Spectroscopy; effect of temperature on the absorption spectra of benzene and its derivatives at low temperatures.

Crouse, Prof. C(harles) S(tevens), Deepwood, Lexington, Ky, *Metallurgy.* Red Wing, Minn, May 28, 88. E.M, Minnesota, 11; Carnegie Inst. Tech, 18. Asst. state mining engineer, Minn, 11–14; engineer, Cananea Consol. Copper Co, Mex, 14; Minneapolis, 14–15; mining engineer, Ray Consol. Copper Co, Ariz, 15–18; *prof. metal, Kentucky, 19–, head dept,* 27–29, *mining and metal, 29–* Consulting engineer, Norris Lab, U. S. Bur. Mines. Sec'y-treas, Ky. Board Registration for Professional Eng. Metallurgist, Ordnance Dept, 18–19. Min. and Metal. Eng; Eng. Educ; Nat. Soc. Professional Eng; Am. Rose Soc; Ky. Soc. Professional Eng. (sec'y-treas); Ky. Research Club (past pres); Ky. Acad; British Inst. Metals. Heat treatment of steel; oil shales of Kentucky; industrial development of the mineral resources of Kentucky; low temperature carbonization.

Crouse, Dr. Helen V(irginia), Bennington College, Bennington, Vt. *Cytogenetics.* Owings Mills, Md, Sept. 12, 14. A.B, Goucher Col, 35; A.M, Smith Col, 36; Am. Asn. Univ. Women Elizabeth Avery Colton fellow, Columbia, 41–42; Ph.D, Missouri, 42. Asst. embryol, Carnegie Institution, 36–

39; *instr, Bennington Col, 42–* Chromosome studies in the genus Sciara.

Crow, Dr. Edwin L(ouis), 119 Fifth St, N.E, Washington, D. C. *Mathematics.* Sept. 15, 16. B.S, Beloit Col, 37; Ph.M, Wisconsin, 38, Ph.D, 41; Brown, summers, 41, 42. Instr. math, Case, 41–42; *math. consultant, research and develop. div, bur. ordnance, U. S. Navy Dept, 42–* Math. Soc; Math. Asn. Differential equations.

Crow, Prof. H(ollie) Ernest, 620 Hiram St, Wichita, Kans. *Zoology.* Bourbon, Mo, March 20, 84. A.B, Friends, 09; B.S, Haverford Col, 10; A.M, Kansas, 12, Ph.D, 31. *Prof. biol,* Penn Col. (Iowa), 10–11; Ursinus Col, 12–18; *Friends, 18–* Asst. prof, Medico-Chirurg. Col. Phila, 12–16; instr, Pennsylvania, 16–18. A.A; Genetic Asn; Eugenics Research Asn. Genetics; cytology; morphology of Trematoda; effect of x-rays on chick embryos.

Crow, Dr. James F(ranklin), Dartmouth College, Hanover, N. H. *Genetics.* Phoenixville, Pa, Jan. 18, 16. A.B, Friends, 37; Ph.D, Texas, 41. Tutor *zool,* Texas, 37–40; *instr, Dartmouth Col, 41–* Drosophila genetics; speciation.

Crowder, Dr. J(ohn) A(lexander), The Solvay Process Co, Syracuse, N. Y. *Organic chemistry.* El Paso, Texas, July 10, 07. B.S, Arizona, 29, M.S, 30; Ph.D, Yale, 33. Instr, Arizona, 29–30; asst. chem, Yale, 30–33, fellow, 33–35; research assoc, Bur. Standards, 35–36; *org. chemist, nitrogen div, Solvay Process Co, 36–* Chem. Soc. Aldobionic acid of flaxseed mucilage; lipids of Lactobacillus acidophilus; lipids of tubercle bacilli; effect of alkali on wool protein.

Crowdle, Prof. James H(enry), Canisius College, Buffalo, N. Y. *Biochemistry.* Newton, Mass, Dec. 6, 97. A.B, Boston, 18; M.S, Canisius Col, 19; Sc.D, Fordham, 22. Instr. *chem,* Canisius Col, 19–20; Fordham, 20–22; asst. prof, *Canisius Col,* 23–25, *prof, 25–* Senior gas officer, Buffalo Office Civilian Protection, 42. Ordnance Dept, U.S.A, 18–19.

Crowe, John J(oseph), 715 Westfield Ave, Westfield, N. J. *Metallurgy.* Washington, D. C, Jan. 3, 86. B.S, George Washington, 10. Apprentice to assoc. physicist, Bur. Standards, 05–15; physical metallurgist, U. S. Navy Yards, Boston and Phila, 15–24; engineer in charge apparatus, research and develop. dept, *Air Reduction Sales Co,* Jersey City, 24–40, asst. to v. pres. and operating manager, *New York,* 40–42, *asst. v. pres, 42–* In charge dept. metal, Temple, 21–23. James Turner Morehead medal, 37. Min. and Metal. Eng; Welding Soc. (director, 23–24, pres, 35); Soc. Metals (director, 21, chairman, Phila. chap, 20, 23, N. Y. chap, 31); Soc. Test. Mat; Compressed Gas Mfg. Asn. (pres, 38; exec. board, 38–); Int. Acetylene Asn. Thermometry; pyrometry; temperature measurements; oxy-acetylene welding; cutting.

Crowe, Prof. L(awrence) K(enneth), University of Nebraska, Lincoln, Nebr. *Dairy husbandry.* Richmond, Ind, Oct. 10, 98. B.S, Colo. State Col, 22; M.S, Nebraska, 25; Minnesota, 37. Instr. *dairy husbandry,* Colo. State Col, 23–24; *Nebraska,* 25–27, *assoc. prof,* 27– Inspector, State Dairy Cmn, Colo, 22–23; milk inspector, Lincoln, Nebr, 25; navy butter inspector, U. S. Dept. Agr, 28. Dairy Sci. Asn. Physical and chemical characteristics of ice cream and ice cream mix.

Crowe, Dr. Samuel J(ames), Johns Hopkins Hospital, Baltimore, Md. *Surgery.* Washington Co, Va, April 16, 83. A.B, Georgia, 04; M.D, Hopkins, 08; Freiburg; Berlin; Vienna. Asst. surgeon in charge, Hunterian Lab, 08–09; asst. res. surgeon, *Hopkins Hosp,* 09–11, *otolaryngologist in charge, adj. prof. otol, med. dept, Hopkins.* A.A; Col. Surg; Otol. Soc. (pres, 34); Asn. Path. and Bact. Physiology of the ductless glands; pituitary gland; adrenal; the focal infections; physiology and pathology of the ear; experimental thoracic surgery; early recognition and prevention of deafness in children.

Crowe, Prof. S(tanley) E(dwin), Michigan State College, East Lansing, Mich. *Mathematics.* A.B, Ohio State, 09; A.M, Michigan, 28. Instr. *math, Mich. State Col,* 09–18, asst. prof, 18–22, *assoc. prof, 22–, director summer sch, 36–* Statist. Asn. Statistics.

Crowell, Dr. Bowman C(orning), 40 E. Erie St, Chicago, Ill. *Pathology.* Yarmouth, N. S, Can, Jan. 10, 79. B.A, McGill, 00, M.D, 04. Res. pathologist, City Hosp, New York, 04–07; instr. path, Univ. and Bellevue Hosp. Med. Col, 07–11; pathologist, Bellevue Hosp, 08–11; Bur. Science, P. I, 11–15; prof. path. and bacter, Philippines, 12–18, director grad. sch. trop. med. and pub. health, 17–18; chief in path, Oswaldo Cruz Inst, 18–22; prof. path, Med. Col. State of S. C, 22–23; Jefferson Med. Col, 23–26; *assoc. director, Am. Col. Surg, and director clin. research, 26–, chairman archives and cancer research.* Director labs, Jefferson Hosp, 23–26; visiting pathologist, Phila. Gen. Hosp, 23–26; v. pres, Gorgas Mem. Inst, Washington, D. C. A.A; Soc. Control Cancer (director); Am. Med. Asn. (cancer cmt, Ill. branch); Cancer Council; Chicago Path. Soc; Inst. Med. Chicago; hon. mem. Brazilian Acad. Med; Int. Asn. Med. Mus. Tropical diseases; beriberi; cholera; plagues; trypanosomiasis; cancer.

Crowell, Dr. Hamblin H(owes), Box 802, Ancon, C. Z. *Sanitation.* Portland, Oregon, Aug. 23, 13. B.S, Oregon State Col, 35, M.S, 37; Ph.D, Ohio State, 40. Asst. biol, Oregon State Col, 35–37; zool. and entom, Ohio State, 37–40; *senior sanit. inspector, Panama Canal, 40–* Malaria control in Canal Zone.

Crowell, Dr. Ivan H(errett), Macdonald College, Que, Can. *Biology.* Caledonia, N. S, Aug. 19, 04. B.Sc, New Brunswick, 29; A.M, Miami, 30; A.M, Harvard, 32, Ph.D, 34. Pathologist, Bartlett Tree Research Labs, Stamford, Conn, 34–36; instr. biol, N. Mex. Col, 36–37; *lecturer plant path, Macdonald Col, McGill, 37–* Phytopath. Soc; New Eng. Bot. Club. Forest pathology; mycology.

Crowell, Dr. J(oyce) H(omer), Route 1, Orchard Park, N. Y. *Chemistry.* Monroe Co, Iowa, Dec. 8, 89. A.B, Iowa, 16, M.S, 19; Ph.D, Columbia, 30. *Research chemist,* Nat. Aniline and Chem. Co, 19–28; Selden Co, 30–34; *Nat. Aniline div, Allied Chem. and Dye Corp, 34–* Chem. Soc. Organic and physical chemistry; chemical engineering; dyes and intermediates; catalysis.

Crowell, Prof. (Prince) Sears, (Jr), Miami University, Oxford, Ohio. *Zoology.* Natick, Mass, May 2, 09. A.B, Bowdoin Col, 30; A.M, Harvard, 31, Ph.D, 35. Instr, Brooklyn Col, Col. City of N. Y, 35–36; *zool, Miami (Ohio),* 36–39, *asst. prof, 39–* Summer, instr, Harvard, 35; Marine Biol. Lab, Woods Hole, 36–41. Assoc. Soc. Zool. Experimental morphology; ornithology.

Crowell, Prof. Victor L(eroy), Jr, State Teachers College, Trenton, N. J. *Science.* Brooklyn, N. Y, July 16, 02. B.S, Cornell, 24; A.M, Columbia, 29; D.Ed, Rutgers, 36. Teacher *science,* high sch, N. Y, 24–28; instr. and asst. prof, *N. J. State Teachers Col,* 28–42, *prof. and head dept, 42–* Lecturer, Rutgers, 30–42. Summer, prof, Buffalo State Teachers Col, N. Y, 41. A.A; Sci. Teachers Asn; Council Sci. Teachers; Asn. Research in Sci. Teaching; N. J. Sci. Teachers Asn. Attitudes and skills involved in the scientific method.

Crowell, Prof. W(illiam) R(ansom), University of California at Los Angeles, Los Angeles, Calif. *Chemistry.* Bernardston, Mass, June 2, 79. B.S, Mass. Inst. Tech, 04; A.M, Columbia, 15, Ph.D, 17. Asst. physics, Mass. Inst. Tech, 05; standard and testing dept, Edison Co, Boston, 06–08; instr. physics, Pa. State Col, 08; prin, high sch, Ariz, 08–11; instr, high sch, Calif, 12–14, 16–19; asst. prof. *chem, California at Los Angeles,* 19–29, assoc. prof, 29–41, *prof, 41–* Chem. Soc. Industrial and analytical chemistry; electrochemistry; ruthenium and osmium; microchemistry.

Crowley, Dr. Charles F(elix), 3315 Burt St, Omaha, Nebr. *Chemistry.* Detroit, Mich, May 17, 69. A.B, A.M, Detroit, 87; Ph.C, Michigan, 89; M.D, Creighton, 03, LL.D, 25. Prof. chem, Detroit, 90–93; Creighton, 94–32; *investigator in charge Alcohol Tax Unit, Int. Revenue Service, Nebr, 33–* Gas commissioner, Omaha, 09–12, city chemist, 03–33. A.A; Chem. Soc; Chem. Eng. Cattle foods and dips; gas.

Crowley, Dean Mark T, 865 Washington St, Memphis, Tenn. *Biology.* Bangor, Maine, Aug. 20, 04. B.S, Fordham, 24, M.S, 26, Ph.D, 30. Prof. bot, Fordham, 26–28, lecturer gen. science, grad. sch, 28–37, prof. biol, 30–37; research, Sao Paulo, Brazil, 37–38; *dean and head dept. biol. sciences, South. Col. Optom, 39–* A.A; Tenn. Acad; N. Y. Micros. Soc; N. Y. Acad. Anatomy; physiology; ocular functions.

Croxton, Dr. Frank C(utshaw), 2014 Beverly Road, Columbus, Ohio. *Chemistry.* Washington, D. C, June 26, 07. A.B, Ohio State, 27, A.M, 28, Ph.D, 30. *Research chemist,* Standard Oil Co. of Ind, 30–39; *Battelle Mem. Inst, 39–* A.A; Chem. Soc; Petrol. Inst. Petroleum chemistry.

Croxton, Prof. Frederick E(mory), 314 Crescent Ave, Leonia, N. J. *Statistics.* Washington, D. C, May 23, 99. A.B,

Ohio State, 20, A.M, 21; fellow, Columbia, 24–26, Ph.D, 26. Asst. econ, Ohio State, 19–21, instr, 21–26; assoc. *statist, Columbia,* 26–27, asst. prof, 27–37, *assoc. prof, 37–* Mem. research staff, Nat. Bur. Econ. Research, 29–30; lecturer, Ohio Wesleyan, 20–21; N. Y. Sch. of Social Work, 30–32; director statist. div, N. Y. State Temporary Emergency Relief Admin, 33–34. Summers, lecturer, Chicago, 26; collaborator, U. S. Personnel Classification Board, 28. Second lieut, Inf, 18–19. A.A; Statist. Asn; Sociol. Soc; Econometric Society; Econ. Asn. Statistical and graphic methods; employment and unemployment; corporation gifts to organized welfare work; business statistics.

Croxton, Dr. W(alter) C(lyde), 400 Fifth Ave, S, St. Cloud, Minn. *Ecology.* Pleasant View, Ill, Oct. 6, 94. B.S, Illinois, 21, M.S, 23, Ph.D, 27. From teacher to supt, pub. schs, 12–20; asst. and instr. bot. and educ, Illinois, 20–27; *prof. biol. and chairman div. science and math, Minn. State Teachers Col, St. Cloud, 27–* Mem, Nat. Cmt. Science Teaching, chairman subcmt. needs in relation to the science program. A.A; Ecol. Soc; Asn. Research Science Teaching; Sci. Teachers Asn; Biol. Teachers Asn; Minn. Acad. Science education; revegetation and resistance.

Crozier, Dr. Robert N(elson), 1013 Roosevelt Ave, Springfield, Mass. *Chemistry.* Edinburgh, Scotland, March 12, 05. B.A, British Columbia, 24, M.A, 25; Nat. Research Council Can. bursar, McGill, 25–26, student, 26–27, Ph.D, 28. *Research chemist,* A. E. Staley Mfg. Co, Ill, 28–29; Shawinigan Chemicals, Ltd, 29–39; *Shawinigan Resins Corp, 39–* Chem. Soc. Substitution in the benzene nucleus and the electronic conception of valence; polymers and polymerization.

Crozier, R(onald) G(ilpin), 1608 Alexander Court, Waukegan, Ill. *Organic chemistry.* Hanover, Ind, Aug. 20, 03. B.S, Beloit Col, 26; M.S, Wisconsin, 28. Prof. chem, Alaska, 31–32; *plant chemist, Abbott Labs, 34–* Synthetic organic chemistry.

Crozier, Dr. William D(wight), 126 N. Alcazar, Albuquerque, N. Mex. *Acoustics.* North Liberty, Iowa, May 24, 00. B.E, Iowa, 23, M.S, 24, Ph.D, 27. Special research in acoustics, Fairbanks Morse, 25; Stanley Works, 26; radio loud-speaker research, United Reproducers Corp, 27–36; instr. physics and math, Rose Polytech, 36–42; *research physicist, New Mexico, 42–* Radio Eng; Acoustical Soc; Iowa Acad. Electro-acoustics; atomic theory; spectroscopy.

Crozier, Prof. W(illiam) J(ohn), Harvard University, Cambridge, Mass. *‡*Zoology, Physiology.* New York, N. Y, Aug. 28, 92. B.S, Col. City of N. Y, 12; A.M, Harvard, 14, Ph.D, 15, Austin fellow, Harvard, 14–15, res. naturalist, Bermuda Biol. Sta, 15–18; asst. prof. physiol, col. med, Illinois, 18–19; zool, Chicago, 19–20; prof. and head dept, Rutgers, 20–25; assoc. prof. *gen. physiol, Harvard,* 25–27, *prof,* 27– Sheldon traveling fellow, Harvard, 15–18; research assoc, Carnegie Institution, 24–25; visiting prof, Belgian univs, Cmn. Relief Belgium Educ. Foundation, 34; Roscoff, Banyuls, Naples, 34–35. Co-editor, 'Jour. Gen. Physiol,' 24–; ed. board, 'Jour. Gen. Psychol,' 27–; 'Monograph Exp. Biol,' 34– Soc. Nat; Am. Acad. Marine zoology; adaptation; animal behavior; irritability; temperature characteristics; central nervous processes in vision.

Crudup, Prof. Josiah, 509 Adams St, Macon, Ga. *Physics.* Hot Springs, N. C, March 17, 01. A.B, Mercer, 22; A.M, George Peabody Col, 28; Gen. Educ. Board fellow, Chicago, 34–37, Ph.D, 37. Teacher science, Ala. Agr. Sch, Athens, 23–24; *prof. physics,* Ga. State Col. for Women, 24–26; Bessie Tift Col, 26–27; *Mercer,* 27–34, *37–* Summers, prof, George Peabody Col, 25– Achievements in the study of college physics; absorption of the shower-producing component of cosmic radiation in iron and lead.

Cruess, Prof. W(illia)m V(ere), University of California, Berkeley, Calif. *Agriculture.* San Miguel, Calif, Aug. 9, 86. B.S, California, 11; Ph.D, Stanford, 31. Asst. food anal, *California,* 10–11, zymol, 11–14, asst. prof, 14–18, assoc. prof. *fruit products,* 18–34, *prof, 34–* A.A; Soc. Hort. Sci; Chem. Soc; Soc. Bact; Soc. Plant Physiol; Pub. Health Asn. Canning technology; fermentation of fruit juices; fermentation and composition of grapes; oxidase system of fruits; removal of sulfur dioxide from fruit products; chemistry of olive curing; technology of dried fruits and vegetables.

Cruickshank, Prof. E(rnest) W(illiam) H(enderson), University of Aberdeen, Aberdeen, Scotland. *Physiology.* Edinburgh, Scotland, March 22, 88. M.B, Ch.B, 10; Carnegie fellow, 14; M.D, Aberdeen, 20; D.Sc, London, 19; Rockefeller Foundation traveling fellow, Cambridge, 24–26, Ph.D, 26. Prof. *physiol,* Peking Union Med. Col, 20–24; Prince of Wales Med. Col, India, 26–29; Dalhousie, 29–35; *regius prof, Aberdeen, 35–* Capt, R.A.M.C, 15–19. A.A; Physiol. Soc; London Physiol. Soc; fel. Royal Soc. Med; Biochem. Soc. Gt. Britain; Royal Col. Physicians, London; fel. Royal Soc. Edinburgh. Carbohydrate metabolism; cardiology; function of the spleen.

Cruikshank, Dr. Barton, Cruikshank Engineering Co, Kirkland, Wash. *Mechanical engineering.* Albany, N. Y, Feb. 5, 66. B.S, Polytech. Inst. Brooklyn, 86; M.S, Univ. State of N. Y, 98; Sc.D, Santa Clara, 03. Machinist and toolmaker, Brady Mfg. Co, Brooklyn, asst. engineer, Boston Heating Co; supt, Hammond Typewriter Works; engineer, E. Tenn. Rolling Mills; pres, Clarkson Tech, Univ. State of N. Y; designing and construction engineer, Solvay Process Co; engineer, The Eng. Co, New York; manager, Farm Reclamation Co; private practise, Los Angeles and San Diego; *manager, Cruikshank Eng. Co.* Ordnance Dept, U.S.A, major, E.R. Mech. Eng. Reclamation of swamp land; steam.

Cruikshank, Dr. Ruth M(arjorie), Air Service Command, 550 Forest Ave, Dayton, Ohio. *Psychology.* Utica, N. Y, Nov. 16, 11. A.B, Elmira Col, 33; A.M, Brown, 34, Ph.D, 37. Instr. psychol, Goucher Col, 37–40; Wellesley Col, 40–41; test asst, Psychol. Corp, 41–42; *mem. staff, Air Service Command, 42–* Psychol. Asn. (sec'y Washington-Baltimore branch, 39); East. Psychol. Asn. Electroencephalography; infant perception; development of behavior in young animals; mechanical aptitude of women.

Crull, Prof. Harry E(dward), Park College, Parkville, Mo. *Mathematics, Astronomy.* Chicago, Ill, Feb. 7, 09. A.B, Illinois, 30, A.M, 31, Ph.D, 33. Lecturer, Adler Planetarium, Chicago, Ill, 33–34; prof. math. and astron, Park Col, 34–35; asst. prof. astron, Southern California, 35–36; *prof. math. and astron. and director, Charles S. Scott Observatory, Park Col, 36–,* dean men, 37–38. Asst. director, Griffith Observatory, 35–36. Astron. Soc; Math. Asn; Astron. Soc. Pacific; Mo. Acad. Quartic surfaces invariant under groups; double stars.

Crum, Prof. F(erris) B(ertrand), 734 Wenonah Ave, Oak Park, Ill. *Chemistry.* Palmyra, Ill, July 27, 93. B.S, Knox Col, 16; M.S, Illinois, 24; Ph.D, Chicago, 30. Prin, high sch, Ill, 16–18, instr, 19–23; asst. *chem,* Illinois, 23–24; *prof, Morton Junior Col, 24–* Summers, industrial chemist, 35–37. U.S.A, 18. A.A; Chem. Soc. Organic chemistry; hydrolysis.

Crum, Roy W(inchester), Highway Research Board, 2101 Constitution Ave, Washington, D. C. *Highway engineering.* Galesburg, Ill, April 9, 85. B.C.E, Iowa State Col, 07, C.E, 13. Asst, eng. corps, Pa. Lines, 06–07; from instr. to assoc. prof. civil eng, Exp. Sta, Iowa State Col, 07–19; engineer materials and tests, Highway Cmn, Iowa, 19–28; *director highway research board, Nat. Research Council, 28–* A.A; Civil Eng. (chairman, highway div, 32, 41); Soc. Test. Mat. (chairman, cmt. road materials, 28–30, cmt. on concrete and concrete aggregates, 32–38); Concrete Inst. (chairman, standards cmt; v. pres, 41–); Inst. Traffic Eng; Asn. Asphalt Paving Tech; Pub. Works Asn; Iowa Eng. Soc. (pres, 22). Materials of construction, especially concrete; traffic and finance.

Crum, Prof. W(illiam) L(eonard), Harvard University, Cambridge, Mass. *Mathematics, Economics.* Hoosick Falls, N. Y, April 8, 94. A.B, Williams Col, 14; A.M, Yale, 16, Ph.D, 17. Instr. math, Yale, 17–23; asst. prof. statist, Harvard, 23–27; *prof,* Stanford, 27–29; *econ, Harvard, 29–* Econ. Asn; Statist. Asn. Economic statistics; statistical theory.

Crummy, Prof. Pressley L(ee), 1700 Mifflin St, Huntingdon, Pa. *Zoology.* Glade Mills, Pa, Oct. 1, 06. B.S, Grove City Col, 29; M.S, Pittsburgh, 32, Ph.D, 34. Teacher, high sch, Pa, 29–30; asst. zool, Pittsburgh, 30–34; head dept. science, high sch, Pa, 34–35; instr. *biol, Juniata Col,* 35–39, *asst. prof, 39–, acting registrar, 42–* A.A; Eugenics Soc; Pa. Acad. Biological effects of x-rays; effects of x-radiation on regeneration; methods of science teaching in secondary and elementary schools; anatomical anomalies; natural history of amphibians.

Crump, Prof. Clifford C(harles), Ripon College, Ripon, Wis. *Astronomy.* Kewanna, Ind, Oct. 11, 91. B.S, Earlham Col, 12; A.M, Michigan, 13, Ph.D, 16. Asst. astronomer, Observatorio Nacional, La Plata, Argentina, 13–14; instr. math.

and astron, Carleton Col, 16–17; asst. prof. astron, Ohio Wesleyan, 17–19, assoc. prof, 19–20, prof, 20–29, director, Perkins Observatory, 17–29; prof. astron. and chairman dept, Minnesota, 29–30; assoc. prof, Chicago, and sec'y, Yerkes Observatory, 30–33; *prof. math. and astron, Ripon Col, 36–* A.A; Astron. Soc; Royal Astron. Soc; Astron. Gesell. Astrophysics.

Crump, Prof. R(obert) E(dward), Agricultural and Mechanical College, Monticello, Ark. *Psychology.* Rison, Ark, July 26, 85. A.B, Ouachita Col, 08; A.M, Louisiana, 14; A.M, Columbia, 25, Ph.D, 29. Prof. psychol. and head dept. educ, Southeast. State Teachers Col, Okla, 20–29; prof. psychol. and dean arts and sciences, Okla. Baptist Univ, 29–34, acting pres, 30; *chairman professional div. and prof. psychol, Agr. and Mech. Col. Ark, 34–* Major, C.A.Res. College administration.

Crumpler, Prof. Thomas B(igelow), 7418 Burthe St, New Orleans, La. *Analytical chemistry.* Louisa, Ky, July 20, 09. B.S, Va. Polytech, 31, M.S, 32; Ph.D, Virginia, 36. Instr. *chem, Tulane,* 37–40, asst. prof, 40–42, *assoc. prof. and head dept, 42–* Summers, instr, Virginia, 36, 37, 39, 40. Chem. Soc; New Orleans Acad. (exec. cmt, 41–); Sigma Xi (exec. cmt, 39). Photoelectric photometry; organic analytical reagents; statistical interpretation of measurements.

Cruse, Commander Andrew W(illiam), 301 E. 21st St, New York, N. Y. *Electrical engineering.* Bellefonte, Pa, May 29, 98. Carnegie Inst. Tech, 16–18; grad, U. S. Naval Acad, 22. Officer, U. S. N, 22–24; toll develop. engineer, Bell Tel. Co. of Pa, 25–27; asst. to v. pres, Int. System, 27–34; chief elec. div, bur. for. and domestic commerce, U. S. Dept. Commerce, 34–36; asst. chief engineer, Fed. Communications Cmn, 36–41; *U. S. Navy, 41–* U. S. Govt. observer, European television, 35. Lecturer, Ga. Tech, Ala. Polytech, Alabama, Florida and George Washington. Mem. nat. cmt, 3rd World Power Conf. A.A; Radio Eng; Soc. Mil. Eng; Soc. Naval Eng; Acoustical Soc; Soc. Motion Picture Eng; Illum. Eng. Soc; fel. Am. Geog. Soc; Acad. Polit. Sci; Elec. Eng. (communications cmt). International communications; technology; radio broadcasting; television.

Cruz, Prof. C(ornelio) C(astor), 1228 Herran St, Manila, P. I. *Geology, Geography.* Arayat, Pampanga, P. I, March 31, 96. A.B, Philippines, 16, B.S, 21, M.S, 23; univ. fellow, Chicago, 25, Ph.D, 28. Asst. chem, *Philippines,* 21–23, instr. geol, 23–25, *asst. prof. geol. and geog, 29–; prof. geol. and ore deposits, Mapua Inst. Tech, 35–* Director and manager, Pugo Mining Co. Sec'y div. math. and physical sciences, Nat. Research Council P. I. A.A; fel. Am. Geog. Soc; P. I. Sci. Soc. Conservation; mineral resources; regional geography.

Cruz, Dr. J(uan) Z. Sta, Philippine General Hospital, Manila, P. I. *Cancer pathology.* Manila, P. I, Dec. 11, 94. A.B, Philippines, 17, M.D, 22. Asst. res. pathologist, Philippines Gen. Hosp, 22–23; instr. *path, Philippines,* 23–26, *asst. prof, 26–* Consulting pathologist, St. Luke's Hosp, 26–; chief pathologist, cancer inst, Philippine Gen. Hosp, 41. Capt, M.Res.Corps, 25– Assoc. mem, Nat. Research Council, 38– Soc. Cancer Research; Philippines Med. Asn.

Cruze, Dr. Wendell W(ayne), Wilson Teachers College, Washington, D. C. *Psychology.* Maryville, Tenn, Oct. 31, 07. A.B, Maryville Col, 28; M.S, Tennessee, 29; Ph.D, Peabody Col, 34. Assoc. prof. psychol. and dean men, Lincoln Mem. Univ, 30–33; teaching fellow *psychol,* Peabody Col, 33–34; instr, North Carolina, 34–36; *asst. prof, Wilson Teachers Col, 36–; adj. instr. educational psychol, Hopkins, 38–* Psychol. Asn. (pres, Wash-Baltimore branch, 42); South. Soc. Philos. and Psychol. Learning; maturation; educational psychology.

Cryder, Prof. D(onald) S(tevens), Pennsylvania State College, State College, Pa. *Chemical engineering.* Tyrone, Pa, Nov. 29, 91. B.S, Pa. State Col, 20, M.S, 23; M.S, Mass. Inst. Tech, 28, Sc.D, 30. Instr. chem, *Pa. State Col,* 20–23, asst. prof, 23–30, assoc. prof. *chem. eng,* 30–35, *prof, 35–* Chem. Soc; Chem. Eng. High pressure catalytic synthesis of alcohols; decomposition and synthesis of methanol by zinc and chromium oxide catalysts; mechanism of formation of alcohols higher than methanol; heat transfer; distillation.

Csonka, Dr. F(rank) A(nton), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Hatszeg, Hungary, Jan. 27, 89. C.E, Budapest, 10; Ph.D, Cornell, 24. Research chemist, Berlin, 10–12; med. sch, Cornell, 13–14; in charge research lab, Pittsburgh, 14–23; biochemist, bur. chem. and later *senior chemist, bur. human nutrition and home econ, U. S. Dept. Agr, 24–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Intermediary metabolism of amino acids; hippuric and glycuronic acid; blood fats; nephelometric values of fats and cholesterol; glutelins; amino acids in staple foods.

Cubbon, Dr. M(iles) H(ugo), 531 W. Fairmount Ave, State College, Pa. *Soils.* Grand Valley, Pa, Oct. 4, 96. B.S, Cornell, 21, fellow, 22–25, Ph.D, 25. Asst, Cornell, 21–22; instr. soils, Pa. State Col, 25–26; asst. prof. agron, Mass. Col, 26–33; land bank appraiser, Farm Credit Admin, 33–36; assoc. soil conservationist, *soil conservation service, U. S. Dept. Agr,* 36–37, flood control surv, 37–41, technician *cooperating with Agr. Adjust. Admin,* 41–42, *dist. conservationist, 42–* Summer, asst, bur. plant indust, U. S. Dept. Agr, 21. A.A; Soc. Agron. (sec'y, New Eng. sect, 28–32). Fertilizers; cover crops with grapes; calcium sulfate as a soil amendment; soil management for greenkeepers.

Cuckler, Dr. Ashton C(linton), University of Minnesota, Minneapolis, Minn. *Animal parasitology.* Wilsonville, Nebr, March 16, 10. A.B, Nebraska, 35, A.M, 36; Washington (Seattle), 37; Ph.D, Minnesota, 41. Asst. zool, Nebraska, 34–36, asst. instr, 36–38; teaching asst, Minnesota, 38–41; asst. parasitologist, Hawaii, 41–42; *instr. zool, Minnesota, 42–* Summers, biologist, State Game and Fish Cmn, 38, 39. Soc. Parasitol; Soc. Trop. Med. Nematode morphology and taxonomy; trematode life cycles; medical parasitology and entomology; parasites and diseases of fresh water fish.

Cudd, Dr. Herschel H(erbert), East Point, Ga. *Chemistry.* Memphis, Texas, July 29, 12. A.B, Texas Col. Arts and Indust, 33; A.M, Texas, 36, Ph.D, 41. Teacher, schs, Texas, 33–34; tutor anal. chem, Texas, 34–37, instr, 39–40; chemist, State Liquor Control Board, Texas, 37–39, 40–41; *research chemist,* rayon tech. div, E. I. du Pont de Nemours and Co, 41–42; *Int. Minerals and Chem. Corp, 42–* Chem. Soc. Corrosion; physical constants; cellulose and high polymers; magnesium.

Cudworth, Prof. J(ames) R(owland), University of Alabama, University, Ala. *Mining engineering, Geology.* Norwich, Conn, Sept. 23, 97. B.S, Mass. Inst. Tech, 21; M.S, Alabama. Mining engineer and geologist, U. S. and Mex, 21–23; instr. *mining, Alabama,* 23–25, asst. prof, 25–26, assoc. prof, 26–30, *prof, 30–, director, eng. exp. sta, 39–, State Mine Exp. Sta, 31–* Consulting engineer, War Dept, 28; U. S. Bur. Mines, 36–42. Min. and Metal. Eng. (treas, southeast. sect, chairman, 40; programs and meeting cmt, 40–42); Ala. Acad. (v. pres. in charge sect. geol, anthrop. and archeol, 36). Ore dressing; iron and coal.

Cuff, Dr. J(ohn) R(eginald), 2718 Scovel St, Nashville, Tenn. *Medicine.* Jamaica, B. W. I, May 27, 96. Howard, 21–22; Col. City of N. Y, 22; M.D, Meharry Med. Col, 26. Intern *path,* Geo. W. Hubbard Hosp, Nashville, 26–27; fellow, Rockefeller Foundation, 27–29; *assoc. prof, Meharry Med. Col, 29–* Asst, Peter Bent Brigham Hosp. and Infants' and Children's Hosp, Boston, Mass, 27–28; research fellow, Harvard Med. Sch, 28–29. A.A; Nat. Med. Asn. Pathology; tuberculosis; bone sarcoma; carcinoma; ophthalmology; gynecology; oral diseases; primary carcinoma in Negroes; mammary gland.

Cuff, Prof. Noel B(uford), Eastern Kentucky State Teachers College, Richmond, Ky. *Psychology.* Camden, Tenn, Dec. 22, 01. B.S, Peabody Col, 23, A.M, 25, Ph.D, 27. Prin, high sch, 24–26; *prof. psychol,* David Lipscomb Col, 26–28; *East. Ky. State Teachers Col, Richmond, 28–* Summers, Appalachian State Nor. Sch, N. C, 26–27. Assoc. Psychol. Asn; S. Soc. Philos. and Psychol; Midwest. Psychol. Asn; Ky. Acad. Educational and child psychology; standard tests.

Cuffey, Lieut. James, 123 Conduit St, Annapolis, Md. *Astronomy.* Chicago, Ill, Oct. 8, 11. B.S, Northwestern, 34; A.M, Harvard, 36, Ph.D, 38; Arizona, 36–37. Research fellow, Indiana, 39–41; *lieut, U. S. Naval Res, and teacher navigation, U. S. Naval Acad, 41–* Galactic clusters.

Culbertson, C(harles) C(alvin), 816 Brookridge Ave, Ames, Iowa. *Animal husbandry.* Chariton, Iowa, Aug. 28, 93. B.S, Iowa State Col, 18, M.S, 25. Asst. animal husbandry, *Exp. Sta, Iowa State Col,* 19–23, asst. chief, 23–30, *chief in beef cattle, sheep and swine production, 30–* Soc. Animal Production; fel. Iowa Acad. Nutrition of beef cattle, sheep and swine; proteins and minerals in feed; performance of selected strains of swine.

Culbertson, Dr. Clyde Gray, Indiana University School of Medicine, Indianapolis, Ind. *Pathology.* Vevay, Ind, July 27, 06. B.S, Indiana, 28, M.D, 31. Instr. *path, sch. med, Indiana,* 31–33, *asst. prof, 33–; director cent. lab, Cent. State Hosp, 31–; lab, State Board Health, Ind, 33–* Am. Med. Asn; Soc. Clin. Path. Clinical pathology and pathological anatomy; the public health laboratory.

Culbertson, Prof. J(ames) B(ernard), 509 N. Second St, W, Mt. Vernon, Iowa. *Organic chemistry.* Vandalia, Mo, Feb. 11, 92. A.B, Cent. Col. (Mo), 13; M.S, Chicago, 17, du Pont fellow, 25–27, Ph.D, 27. *Prof. chem,* Iowa Wesleyan Col, 21–28; *Cornell Col. (Iowa), 28–* Prof, Nebraska, 36. Chem. Soc; Iowa Acad. (chairman, div. org. chem, 30, 41). Hydrogenation of acetylene; preparation of monohydroxydiphenyl ketimines; velocity of hydrolysis of ketimines.

Culbertson, Dr. J(ames) T(homas), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Bacteriology, Parasitology.* Dayton, Ky, May 24, 04. B.S, Col. of William and Mary, 26; A.M, Cornell, 30; Ph.D, Columbia, 33. Instr. *bacter,* N. Y. Homeop. Med. Col, 30–31; *col. physicians and surg, Columbia,* 31–37, *asst. prof, 37–* Guggenheim Mem. Foundation fellow, 36. Soc. Parasitol. Reactions in vivo between antigens and antibodies; immunology of parasitic infections.

Culbertson, Dr. J(ohn) A(rcher), Continental Oil Co, Ponca City, Okla. *Geophysics.* Hanover, Ind, Aug. 29, 00. A.B, Hanover Col, 21; M.S, Chicago, 24; Ph.D, Illinois, 32. Instr. geol, Ohio State, 24–25; Hanover Col, 25–29; asst. geologist, Ky. Geol. Surv, 24, 29–30; computer and party chief, seismol. and geophys. div, *Continental Oil Co,* 33–36, control geophysicist, 36–37, *asst. div. geologist, Gulf Coast div, 37–* Paleont. Soc. Invertebrate Paleozoic paleontology; Paleozoic stratigraphy; petroleum geophysics and geology; seismograph exploration.

Culbertson, Dr. J(oseph) O(liver), University Farm, St. Paul, Minn. *Agronomy.* Dakota City, Nebr, Dec. 30, 02. B.S, Nebraska, 25, M.S, 30; Ph.D, Minnesota, 40. Instr. vocational agr, high sch, Ponca, Nebr, 25–28; *asst. agronomist,* Nebraska, 30–31; *div. sugar plant investigations, U. S. Dept. Agr,* Salt Lake City, Utah, 31–36, *St. Paul, Minn, 36–* Improvement of sugar beets through agronomic practices and breeding.

Culbertson, Prof. J(ullan) L, 415 Dexter St, Pullman, Wash. *Physical chemistry.* Moorefield, Ind, Oct. 9, 95. A.B, Hanover Col, 17; A.M, Indiana, 18; Sc.D, Michigan, 33. Instr. *chem, State Col. Wash,* 20–23, asst. prof, 23–36, *assoc. prof, 36–* Colloids; surface phenomena; electrochemistry.

Culbertson, Dr. Raymond E(ugene), R. D. 3, Media, Pa. *Agronomy.* Springrun, Pa, Nov. 2, 99. B.S, Pa. State Col, 22, Ph.D, 40; M.S, Kentucky, 31. Instr. vocational agr, high sch, Pa, 22–23; N. J, 23–27; research fellow, Crop Protection Inst, 28–36; *agronomist, soil conservation service, U. S. Dept. Agr, 37–* Soc. Agron. Introduction and increase of grasses and legumes for the control of erosion and related utility purposes in the northeast; pyrethrum growing in the United States.

Culbreth, Dr. Sarah E(lizabeth), Duke University, Durham, N. C. *Physiology.* Nashville, Tenn, Aug. 31, 13. A.B, Duke, 34, A.M, 36, Ph.D, 38. *Instr. zool, Duke, 38–* A.A. Anaerobiosis.

Culhane, Dr. Paul J(ohn), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Chicago, Ill, June 24, 99. A.B, Loyola (Ill), 20; B.S, Mass. Inst. Tech, 23; fellow, Northwestern, 23–25, M.S, 24, Ph.D, 28; LL.B, Temple, 32. Asst, Northwestern, 25–27; chemist, *E. I. du Pont de Nemours and Co,* 27–32, head intel. div, *exp. sta,* 28–32, *patent attorney, legal dept, 33–* Summer, instr, Northwestern, 27. Organic compounds of mercury.

Cullen, Dr. Thomas Stephen, 20 E. Eager St, Baltimore, Md. *Abdominal surgery.* Bridgewater, Ont, Can, Nov. 20, 68. M.B, Toronto, 90, LL.D, 30; hon. Sc.D, Temple. House surgeon, Toronto Gen. Hosp, 90–91; demonstrator anat, Toronto, 91; asst. res. gynecologist, *Hopkins Hosp,* 92–96, res. gynecologist, 96–97, assoc. gynec. and later *gynecologist, 97–,* assoc. prof. and prof. clin. gynec, *Hopkins,* 00–32, *gynec,* 32–39, *emer. prof, 39–* A.A; fel. Gynec. Soc; Asn. Anat; Asn. Path. and Bact; S. Surg. and Gynec. Asn. (pres, 16); Med. and Chirurg. Faculty Md. (pres, 27); fel. Royal Soc. Med; hon. fel. Edinburgh Obstet. Soc; cor. mem. Leipzig Gesell. für Geburtshülfe; cor. mem. Munich Gynek. Gesell; hon. mem. Soc. Ital. di Ostet. e Ginec. Gynecology; pathology; cancer, adenomyoma and myomata of the uterus; embryology, anatomy and disease of the umbilicus and the urachus; accessory lobes of the liver.

Culler, Dr. Arthur M(erl), 604 Shafor Blvd, Dayton, Ohio. *Ophthalmology.* Mount Morris, Ill, Dec. 10, 99. A.B, Mt. Morris, 20; M.D, Michigan, 26. Instr. ophthal, Michigan, 28–30; *practising physician; commander, Med. Corps, U. S. Naval Res.* John E. Weeks scholar, Michigan, 28–30. A.A; Acad. Ophthal. and Otolaryngol; fel. Col. Surg; Soc. Research Ophthal; Ophthal. Soc. Lipemia retinalis; ectopic cone nuclei; nature of the visual cells; tests of color vision; fever therapy.

Culler, Prof. Elmer (Augustine Kurtz), University of Rochester, Rochester, N. Y. *[*7]Physiological psychology.* Louisville, Ohio, Oct. 11, 89. A.B, Juniata Col, 10; B.D, Union Theol. Sem. 13, traveling fellow, 13–15; Columbia, Berlin; Leipzig; Ph.D, Chicago, 22. Instr. psychol, Ohio State, 16–20; Wisconsin, 20–23; assoc, Illinois, 23–27, asst. prof, 27–28, assoc. prof, 28–36, prof, 36–38; *prof. psychol. and director lab. psychol, Rochester, 38–* Summer, prof, Chicago, 29. Consulting or assoc. ed, 'Psychometrica'; 'Jour. Comp. Psychol'; 'Psychol. Record'; 'Jour. Psychol'; 'Jour. Exp. Psychol.' V. cnairman div. anthrop. and psychol, Nat. Research Council, 40. Howard Crosby Warren medal, 38. A.A; Psychol. Asn. (director, 39–42; chairman program cmt, 38–42); Physiol. Soc; Soc. Exp. Psychol; fel. Acoustical Soc; Soc. Exp. Biol; Psychometric Soc. (director); Soc. Research Psychosomatic Problems; Midwest. Psychol. Asn. (pres, 40); East. Psychol. Asn. (director, 40–); Ill. Acad. Psychoneurology; animal hearing; conditioning.

Culley, Dr. Paul G(amber), Wheaton College, Wheaton, Ill. *Physical anthropology.* Philadelphia, Pa, April 28, 01. A.B, Cornell, 21, A.M, 23; M.D, Hopkins, 25. Intern, Hopkins Hosp, 25–26; res. physician, South. Baptist Hosp, New Orleans, La, 26–27; practising urologist, 27–28; med. missionary, P. I. and Netherlands New Guinea, 28–40; *dean men, Wheaton Col. (Ill), 40–, assoc. prof. physical anthrop, 41–* Polyneuritic changes in avitaminosis.

Cullinan, Dr. F(rank) P, U. S. Department of Agriculture, Beltsville, Md. *Pomology.* Geneva, N. Y, Sept. 28, 95. B.S, Cornell, 17; Ph.D, Chicago, 31. Instr. pomol, Purdue, 17–19, assoc. prof. and research assoc, Exp. Sta, 19–31; senior pomologist, *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 31–41, *prin. pomologist, 41–, asst. chief bur, 42–* A.A; Soc. Plant Physiol. (sec'y-treas, 37, v. pres, 39, pres, 40); Soc. Hort. Sci; Bot. Soc; Wash. Acad. Transpiration in the apple; root systems of apple trees; apple and peach nutrition; pruning; stone-fruit production and breeding; mineral deficiency in peaches.

Cullings, E(dwin) S(anford), 228 Winslow St, Watertown, N. Y. *Hydraulics.* Mellette, S. Dak, April 17, 84. C.E, Syracuse, 10. *Chief engineer and sec'y, Black River regulating dist, 20–; consulting hydraul. engineer.* Civil Eng; Geophys. Union. Water power resources of New York State; control of floods of northern New York streams.

Cullison, Prof. James S(helley), Missouri School of Mines and Metallurgy, Rolla, Mo. *Stratigraphy, Paleontology.* Lawrence Co, Ill, July 22, 06. A.B, Illinois, 28; M.S, Missouri, 30; Ph.D, Yale, 42. Instr. *geol, Mo. Sch. Mines,* 30–35, *asst. prof, 35–* Assoc. geologist, Tenn. Valley Authority, 34–35; U. S. Geol. Surv, 42–43. Paleont. Soc. Stratigraphy; engineering geology.

Cullwick, Prof. E(rnest) Geoffrey, University of Alberta, Edmonton, Alta, Can. *Electrical engineering.* Wolverhampton, Eng. Scholar, Downing Col, 22–25; B.A, Cambridge, 25, M.A, 29. British Thomson-Houston Co, 25–26; Can. Gen. Elec. Co, 26–28; asst. prof. *elec. eng,* British Columbia, 28–34; lecturer, Mil. Col. Science (England), 34–35; assoc. prof, British Columbia, 35–37; *prof. and head dept, Alberta, 37–; elec. commander, Royal Can. Naval Vol. Res, and director elec. eng, Naval Service Headquarters.* Elec. Eng. (v. chairman, Vancouver sect, 36); assoc, Inst. Elec. Eng. Gt. Britain. Electric trolley bus; engineering education; electronic valves; theory of three-wire generation with static balancer; electromagnetism.

Culmer, Capt. Charles U(rness), 2230 Vermilion Road, Duluth, Minn. *Physiology.* Duluth, Minn, July 3, 11. A.B, Lawrence Col, 32; M.S. and B.M, Northwestern, 37, Ph.D.

and M.D, 40. Instr. physiol, col. med, Iowa, 41; *Med. Corps, U. S. Army, 41–* A.A; Am. Med. Asn. Gastric secretion.

Culpepper, Charles W(ashington), 4435 N. Pershing Drive, Arlington, Va. *Horticulture.* Wadley, Ala, Nov. 10, 88. B.S, Ala. Polytech, 14, M.S, 15. Instr. biol, West. Tenn. State Nor. Sch, 15–17; *physiologist, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 18–* Chem. Soc. Utilization of horticultural crops.

Culter, Dr. Samuel H(arold), 107 W. Vine St, Kalamazoo, Mich. *Analytical chemistry.* Ripley, Ohio, Sept. 30, 00. B.S, M.S, Wisconsin, Ph.D, 30. Analyst, Frederick Stearns and Co, Detroit, 26–27; chief analyst, Burroughs Wellcome and Co, Tuckahoe, 30–34; research chemist, R. H. Macy and Co, Long Island City, 34–35; analyst, Park Drug Co, New York, 35–36; *research chemist, Upjohn Co, 37–* Plant and pharmaceutical chemistry.

Culver, Prof. Cha(rle)s A(aron), Carleton College, Northfield, Minn. *Physics.* Fillmore Co, Minn, Sept. 22, 75. B.S, Carleton Col, 02; Ph.D, Pennsylvania, 07. Instr. and prof. physics, Beloit Col, 07–20; chief high frequency engineer, Can. Radio Corp, 20–23; *prof. physics, Carleton Col, 23–* Major, Sig.C, 18. Fel. Elec. Eng; Radio Eng. High frequency alternating currents; radio communication; electricity and magnetism.

Culver, Prof. Harold E(ugene), State College of Washington, Pullman, Wash. *Geology.* Vermilion, S. Dak, Sept. 22, 83. Ph.B, Wisconsin, 10, Ph.M, 11; fellow, Chicago, 11–12, Ph.D, 23. Instr. geol, Washington (Seattle), 12–13, asst. prof, 14–19; assoc, Chicago, 18–19; lecturer, Illinois, 19–20; *prof. geol. and head dept, State Col. Wash, 25–; state geologist, Wash, 25–* Geologist, iron companies, 10–12; Wash. Geol. Surv, 12–19; Ill. Geol. Surv, 19–20, in charge coal, 20–25. A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Geophys. Union; Soc. Econ. Geol. Coal geology of Washington and Illinois; general stratigraphy; correlation.

Culver, Prof. M(ontgomery) M(orton), 219 Lehigh St, Edgewood, Pa. *Mathematics.* McClure, Ohio, Aug. 31, 91. A.B, Defiance Col, 22; A.M, Ohio State, 24; Ph.D, Pittsburgh, 27. Teacher, pub. schs, Ohio, 09–17, 19–23; asst. *math,* Ohio State, 23–24; instr, *Pittsburgh,* 24–27, asst. prof, 27–29, assoc. prof, 29–34, *prof, 34–* U.S.A, 17–19. Math. Soc. Group theory.

Cumings, Dr. Edgar R(oscoe), Indiana University, Bloomington, Ind. *Geology, Paleontology.* Madison, Ohio, Feb. 20, 74. A.B, Union (N. Y), 97, Sc.D, 42; Cornell, 97–98; fellow, Yale, 01–03, Ph.D, 03. Instr. paleont, *Indiana,* 98–03, asst. prof. *geol,* 03–06, assoc. prof, 06–09, *prof, 09–,* acting dean grad. sch, 14–23. A.A. (mem, gen. cmt, 16); Geol. Soc. (v. pres, 31); Paleont. Soc. (pres, 31); Ind. Acad. (pres, 25). Stratigraphic geology; Brachiopoda; Paleozoic Bryozoa; Ordovician and Mississippian faunas and stratigraphy; development and morphology of the Monticuliporoids; Silurian coral reefs; Silurian of the Michigan Basin region.

Cumings, G(lenn) A(rthur), 301 N. Jackson St, Arlington, Va. *Agricultural engineering.* Noble, Iowa, Sept. 19, 94. B.S, Iowa State Col, 17. Asst. agr. engineer, Wisconsin, 17–18; assoc. agr. engineer, Colo. Agr. Col, 19–27; bur. pub. roads, *U. S. Dept. Agr,* 27–30, agr. engineer, 30–32, bur. agr. eng, 32–39, *senior agr. engineer, bur. agr. chem. and eng, 39–* Gen. chairman, Nat. Joint Cmt. Fertilizer Application, 40, 41. Instr, aviation sch, U. S. N, 18. Agr. Eng. Farm machinery; heat insulation; fertilizer application methods and machinery.

Cumley, Dr. Russell W(alters), University of Wisconsin, Madison, Wis. *Genetics.* Anson, Texas, April 15, 10. A.B. and A.M, Texas, 31, Ph.D, 38. Tutor bacter, Texas, 34, instr. gen. science, univ. high sch, 34–35, zool, univ, 35–38; *res. assoc. genetics, Wisconsin, 38–; lieut, Sanit. Corps, U. S. Army, 43–* A.A; Genetics Soc; Soc. Study Speciation; Texas Acad; Texas State Hist. Soc; Texas Geog. Soc. Immunogenetics; experimental evolution; speciation; serology of Drosophila; geographic distribution and morphological variations in Columba species; paleontological studies of Turricula species.

Cummer, Dr. Clyde L(ottridge), 1422 Euclid Ave, Cleveland, Ohio. *Medicine.* Cadillac, Mich, Feb. 23, 82. Ph.B, Western Reserve, 04, M.D, 07; Columbia, 24–25. From demonstrator to assoc. prof. clin. path, *Western Reserve,* 09–26, from instr. to *asst. clin. prof. dermat. and syphilol, 26–* Chairman, State Pub. Health Council, Ohio, 39–40. Am. Med. Asn. (pres, Ohio branch, 33); Dermat. Asn; Am. Acad. Dermat. and Syphilol. (treas, 38); fel. Col. Physicians; Ohio Med. Asn. (chairman, cmt. educ, 36–); Cleveland Acad. Med. (pres, 23); Cleveland Dermat. Soc. (pres, 29); Cleveland Med. Library Asn. (treas, 16–21, chairman, board trustees, 29; pres, 40–). Syphilology; clinical pathology; dermatology.

Cumming, Dr. H(ugh) S(mith), 2219 California St, Washington, D. C. *Public health.* Hampton, Va, Aug. 17, 69. M.D, Virginia, 93; Univ. Col. of Med, Richmond, 94; hon. Sc.D, Med. Col. of Va, 27, Pennsylvania, 30; LL.D, Yale, 33. Commissioned asst. surgeon, U. S. Pub. Health Service, 94–99, passed asst. surgeon, 99–11, surgeon, 11–18, asst. surgeon gen, 18–20, surgeon gen, 20–36; *retired.* Director Pan Am. Sanit. Bur; mem. permanent cmt, Int. Office Pub. Health, Paris; v. pres. health sect, League of Nations. Commander, Légion d'honneur, 23; commander with star Order of Polonia Restituto, Poland, 23; Order of Finlay, Cuba, 31; El Merito, Ecuador, 31; El Sol, Peru, 35; Pub. Welfare medal, Nat. Acad. Sciences, 36; honneur et mérite, grade of commander, Haiti, 39; Order of Boyacá, Colombia, 40; El Merito, Chile, 41. Health sect, League of Nations, 37; U. S. mem, Int. Health Conf, Paris, 37. Fel. Pub. Health Asn. (pres, 30); fel. Am. Med. Asn; fel. Col. Surg; fel. Col. Physicians; Asn. Mil. Surg. (past pres); hon. mem. Tuber. Asn; hon. mem. Royal Soc. Med; hon. mem. Nat. Acad. Med. Mexico. Sanitation.

Cummings, A(rthur) Donald, 58 Waterway, Barrington, R. I. *Chemistry.* Portland, Maine, Sept. 28, 03. A.B, Bowdoin Col, 25; A.M, Harvard, 26; Goodyear fellow, Akron, 26–27. Research chemist, Goodyear Tire and Rubber Co, Akron, 27–29; asst. chemist, Bur. Standards, 30–33; chemist, elec. cable div. Am. Steel and Wire Co, 33–36; *chief chemist, Collyer Ins. Wire Co, Pawtucket, 37–* A.A; Chem. Soc. Ultra-accelerators; protein-free rubber; electrical properties of rubber.

Cummings, Dr. Byron, University of Arizona, Tucson, Ariz. *Archeology.* Westville, N. Y, Sept. 20, 61. A.B, Rutgers, 89, A.M, 92, Sc.D, 24; Chicago, 96; Berlin, 10–11; LL.D, Arizona, 21. Teacher, schs, N. Y. and N. J, 87–93; instr. Latin and English, Utah, 93–94, asst. prof. Latin and Greek, 94–95, prof, 95–15, dean sch. arts and sciences, 05–15; prof. archeol, 15–37, director *state museum, Arizona,* 15–38, *emer. director, 38–,* dean arts, letters and sciences, 17–21, dean men, 18–21, acting pres, 19–20, 27–28. Director archeol. expeds. to south. Utah and north. Ariz; Nat. Geog. Soc. exped, Mex, 24–25; excavation and restoration, Pueblo ruin at Kinishba, Ariz, 32–42. Director, Sch. Am. Research, Santa Fe. A.A; Archeol. Inst; Anthrop. Asn. (councilor, 19); Asn. Mus; Inst. Social Sci; Ariz. Archeol. and Hist. Soc; Utah Acad. Prehistoric man in Utah and Arizona; archaic man in Mexico; natural bridges in Utah.

Cummings, Dr. C(arlos) E(mmons), 890 Humboldt Parkway, Buffalo, N. Y. *Natural science.* Springville, N. Y, Aug. 7, 78. A.B, Syracuse, 99; M.D, Buffalo, 03. Educ. director, Buffalo Soc. Nat. Sciences, 06–17; head research chemist, East. Tanners Glue Co, 17–19; director visual educ, *Buffalo Soc. Nat. Sciences,* 19–27, asst. director, 27–34, *director, 34–* Asn. Mus. (chairman, sci. sect, 35); Buffalo Soc. Nat. Sci. (sec'y, 04–17). Museum installation; higher fungi.

Cummings, Dr. C(harles) S(umner), 2nd, University Club, Bridgeport, Conn. *Experimental physics.* Rochester, N. Y, Aug. 28, 14. A.B, Princeton, 36, A.M, 38, Ph.D, 40. Research physicist, *Remington Arms Co, Inc,* 40–41, asst. to ballistic engineer, 41, *ballistic engineer, 41–* Summer, research physicist, Gen. Elec. Co, 39. Physical Soc. Mass spectroscopy; electrical discharges in gases; ballistics.

Cummings, Prof. Earle C(linton), 830 Commonwealth Ave, Newton Center, Mass. *Roentgenology.* Portland, Maine, March 21, 81. D.M.D, Harvard, 05. Asst, dental sch, *Harvard,* 08–11, instr. *roentgenol.* and in charge dept, 11–30, *asst. prof, 30–* Oral roentgenology; electrophysics; biology; anatomy.

Cummings, Dr. E(dmund) O(lin), High Point College, High Point, N. C. *Chemistry.* Wilkesboro, N. C, Dec. 3, 97. B.S, North Carolina, 19; Ph.D, Mass. Inst. Tech, 23. Instr, Ga. Tech, 23–24; *pres, Cummings Electrochem. Co, 24–; prof. chem, High Point Col, 28–* Chem. Soc. Industrial chemistry; electrochemistry; organic electrochemistry.

Cummings, Dr. G(eorge) D(onald), Michigan State Department of Health, Lansing, Mich. *Bacteriology.* Quincy, Mass, Oct. 20, 04. B.S, Mass. Inst. Tech, 26; Ph.D, Michigan, 34; M.B, Wayne, 42, M.D, 43. Junior and senior bacteriologist, *bur. labs, State Dept. Health, Mich,* 26–29, asst. director, 29–38, *assoc. director, 38–* Instr, col. med, Wayne, 34–42. Pres, Conf. Bacteriologists, Pathologists and Allied Workers of Mich. and Ind, 35–36. A.A; Soc. Bact; Pub. Health Asn. (sec'y, lab. sect, 36–38); Mich. Acad. Pathogenic anaerobes, particularly tetanus; undulant fever; immunology of diphtheria; epidemic diarrhea of the new born.

Cummings, Dr. George H(erbert), State College, Pa. *Chemical engineering.* Cape May, N. J, Dec. 28, 13. B.S, Pa. State Col, 35, Ph.D, 41; M.S, Mass. Inst. Tech, 36. Asst. chem, Pa. State Col, 36–39, instr. chem. eng, 39–41; *research chem. engineer, Rohm and Haas Co, 41–* Chem. Soc. Solvent extraction; distillation; petroleum refining.

Cummings, Prof. H(arold) N(eff), Newark College of Engineering, Newark, N. J. *Civil engineering.* Oxford, Maine, Dec. 30, 84. A.B, Bates Col, 06; Harvard, 06, 08; B.S, Mass. Inst. Tech, 10. Instr. physics, Worcester Acad, 06–08; gen. field and office work, Buck and Sheldon, Inc, Hartford, 10–11; prin. asst. engineer, Great North. Paper Co, Millinocket, Maine, 11–13; head civil eng. dept, Mechanics Inst, Rochester, 13–14; head math. dept, high sch, Mass, 14–17; instr, Wentworth Inst, 17–18; assoc. prof. civil eng. and acting head dept, Delaware, 18–20; *prof.* applied math, *Newark Col. Eng,* 20–27, *civil eng, 27–, v. pres, 41–* Private practice, 18–20. Summer, hydraulic consulting engineer, H. K. Barrows, Boston, 18. Mem, Essex County Mosquito Extermination Cmn, 39– A.A; fel. Am. Geog. Soc; Civil Eng; Eng. Educ; Soc. Mil. Eng. Hydraulics.

Cummings, H(erbert) K(imball), 4213 Ellicott St, N. W, Washington, D. C. *Physics.* Thompson, Conn, Sept. 19, 88. B.S, Worcester Polytech, 10; M.S, Chicago, 15; scholar and fellow, Clark, 12–17. Instr. chem. and ceramics and acting prof. physics, Alfred, 10–11; instr. physics, Worcester Polytech, 11–15; research physicist, Acheson Graphite Co, 21; instr. math, Brown, 21–22; assoc. physicist, *Bur. Standards,* 22–28, *physicist, 28–, chief automotive power plants sect, 27–* Lieut, Ordnance Dept, 17–21. A.A; Physical Soc; Math. Soc; Soc. Automotive Eng; Army Ordnance Asn; Philos. Soc. Wash. Molecular and applied physics; performance of aircraft engines; automotive fuels; ignition and combustion phenomena.

Cummings, Dr. Leland W(ilson) T(homas), 204 Hewett Road, Wyncote, Pa. *Chemical engineering.* Syracuse, N. Y, Jan. 1, 03. B.S, Mass. Inst. Tech, 26, M.S, 31, Sc.D, 33. Asst. dept. chem. eng, Mass. Inst. Tech, 28–31, research assoc, 31–32; consulting chem. engineer, Dept. Pub. Health, Mass, 32–33; *chem. engineer, Sun Oil Co, 33–* Chem. Soc. Distillation; thermal properties of hydrocarbons; physical properties of hydrocarbon mixtures through the critical region.

Cummings, Prof. Louise D(uffield), Vassar College, Poughkeepsie, N. Y. *Mathematics.* Hamilton, Ont, Can, 70. B.A, Toronto, 95, M.A, 02, hon. D.Sc, 27; fellow, Pennsylvania, 96–97; Chicago, 97–98; Bryn Mawr Col, 99–00, Ph.D, 14. Instr. *math,* St. Margaret's Col, Toronto, 01–02; *Vassar Col,* 02–15, asst. prof, 15–19, assoc. prof, 19–27, prof, 27–35, *emer. prof, 35–* Triad systems on fifteen elements; cyclic systems of points in a binary correspondence; the plane figure of seven real lines; heptagonal systems of eight lines in a plane; comparison of straight-line nets.

Cummings, Prof. Marshall Baxter, Vermont Agricultural Experiment Station, Burlington, Vt. *Horticulture.* North Thetford, Vt, Dec. 2, 75. B.S, Vermont, 01; M.S, Maine, 04; Ph.D, Cornell, 09. Instr. bot, Maine, 03–06; Cornell, 07–09; *prof. hort, Vermont, 09–* A.A; Soc. Hort. Sci; Pomol. Soc; New Eng. Bot. Club. Plant breeding; fruit growing; diseases of the peach; forcing plants with carbon dioxide; size of seed as a factor in plant production; productivity of apple trees; sterility of pears; pure line breeding.

Cummings, Dr. N(ephi) W(illard), San Bernardino Valley Union Junior College, San Bernardino, Calif. *Physics.* Salt Lake City, Utah, Jan. 26, 89. A.B, Utah, 13; Ph.D, Calif. Inst. Tech, 26. Asst, Scripps Inst, California, 19–22; instr, San Diego State Col, 22–24; research dept, Standard Oil Co. of Calif, 26–27; *head dept. physics, San Bernardino Valley Union Junior Col, 27–, chairman div. sciences.* Summers, assoc, Scripps Inst, California, 28–30. A.A; Physical Soc; Geophys. Union. Meteorology; physical oceanography; evaporation from water surfaces, soil and vegetation; radiation to the sky.

Cummings, Prof. Ralph W(aldo), North Carolina State College, Raleigh, N. C. *Soil chemistry, Physics.* Reidsville, N. C, Dec. 13, 11. B.S, N. C. State Col, 33; Ph.D, Ohio State, 38. Tech. asst. pomol, Cornell, 36; assoc. soil chemist, Exp. Sta, N. C. State Col, 37; asst. prof. soil technol, Cornell, 37–40, assoc. prof, 40–42; *prof. agron. and head dept, N. C. State Col, 42–* Chem. Soc; Soil Sci. Soc; Soc. Agron; Int. Soc. Soil Sci. Organic matter in orchard soils; soil moisture relations; polarographic methods of analysis; soil properties in relation to nutritional quality of crops.

Cummings, Prof. Samuel B(illings), Jr, Kenyon College, Gambier, Ohio. *Experimental psychology.* Irwin, Pa. A.B, Amherst Col, 26; A.M, Columbia, 28; Ph.D, Princeton, 36. Instr. psychol, Dartmouth Col, 28–30; Syracuse, 30–32; res. psychologist, State Colony, New Lisbon, N. J, 36–38; *assoc. prof. psychol, Kenyon Col, 38–; lieut, U. S. Naval Res.* Research psychologist, Prison Industries Reorganization Authority, 37. A.A; assoc. Psychol. Asn; Asn. Mental Deficiency. Sensory psychology; animal behavior; mental deficiency.

Cummings, W(illiam) H(awke), Norris, Tenn. *Forestry.* Ocean Grove, N. J, Oct. 12, 06. B.F, Michigan, 31, M.F, 32; Ohio State, 31, 33; M.F, Harvard, 34; Iowa State Col, 36. Field asst, bur. entom, U. S. Dept. Agr, 31–33, junior entomologist, 35–36; forester, Civilian Conservation Corps camps, State Dept. Conservation, Ind, 33; forest asst, forest and univ, Harvard, 34–35; asst. conservationist and asst. silviculturist, Cent. States Forest Exp. Sta, U. S. Forest Service, 36–40; mem. flood control survs, Cumberland River watershed, Tenn. and Ky, 40–41; *acting supervisor forest tree crop unit, dept. forestry relations, Tenn. Valley Authority, 42–* A.A; Soil Sci. Soc; Soc. Foresters; Forestry Asn; Soc. Agron; Ohio Forestry Asn; fel. Soc. Foresters Gt. Britain. Propagation of forest tree species; plantation establishment; tree physiology, especially nutrition, growth and water relations; silviculture and forest management.

Cummins, Dr. A(rthur) B(enson), Johns-Manville Corporation, Manville, N. J. *Chemistry, Chemical engineering.* Los Angeles, Calif, June 6, 95. B.S, Chicago, 20; Ph.D, California, 26. Asst. agr. chem, California, 20–24; research chemist, Celite Co, 25–26, develop. engineer, 26–27, research engineer, 27–29; manager celite research, *Johns-Manville Corp,* 30–43, *div. chief inorg. products developments, 43–* A.A; Chem. Soc; Miner. Soc; Soc. Test. Mat; Chem. Eng; Min. and Metal. Eng; Inst. Chem; Ceramic Soc; Chemists' Club; Calif. Acad. Chemistry of silicates; technology and uses of non-metallic minerals; processing, reactions and uses of diatomaceous earth; technology of silica; filtration and filter aids; Tyndall-metric phenomena; heat insulations; mineral fillers; asbestos; magnesium carbonate; mineral wool; oil decolorizing products; air classification; particle size; diatoms; soils; industrial research.

Cummins, Dr. George B(aker), Purdue University, Lafayette, Ind. *Mycology.* Tecumseh, Nebr, Aug. 29, 04. B.S, Mont. State Col, 27; A.M, Michigan, 28; Ph.D, Purdue, 35. Asst. *bot, Exp. Sta, Purdue,* 31–36, *assoc, 36–* Summers, agent, U. S. Dept. Agr, 25–29. Mycol. Soc. (sec'y-treas, 42–); Phytopath. Soc; Torrey Bot. Club; Ind. Acad. Taxonomy and biology of the Uredinales.

Cummins, Prof. Harold, Tulane University, New Orleans, La. *Anatomy.* Markleville, Ind, May 28, 93. A.B, Michigan, 16; Ph.D, Tulane, 25. Asst. zool, Michigan, 12–15, bot, 15–16; instr. *anat,* Vanderbilt, 16–18, asst. prof, 18–19; instr, *Tulane,* 19–20, asst. prof, 20–25, assoc. prof, 26–32, *prof, 32–, head div. microscopic anat, 33–* A.A; Asn. Anat; Soc. Exp. Biol; Asn. Physical Anthrop; Int. Asn. Identification. Vestibular ear; anatomy of skin, especially palmar and plantar ridge configurations; teratology.

Cummins, Dr. W(illiam) T(aylor), Southern Pacific General Hospital, San Francisco, Calif. *Pathology.* Media, Pa, May 17, 79. M.D, Pennsylvania, 02. Asst. demonstrator path, Pennsylvania, 03–10, physician, Henry Phipps Inst, 06–10; bacteriologist, Dept. Health, New York, 11; *director labs, South. Pacific Gen. Hosp.* Acting pathologist, Meth. Episcopal Hosp, Phila, 09–10; St. Joseph's Hosp, San Francisco, exec. cmt, board directors. A.A; Asn. Path. and Bact; Am. Med. Asn; Pacific Asn. Ry. Surg. Tuberculosis in children; diazo

reaction; arteriosclerosis; Döhle inclusion bodies; guinea pig blood tests; coccidioidal granuloma and blastomycosis; intraspinous treatment of syphilis.

Cundy, Dr. P(aul) F(ranklin), 1501 S. Mason St, Appleton, Wis. *Inorganic chemistry.* Hibbing, Minn, June 17, 10. A.B, Illinois, 30, M.S, 32, Ph.D, 39. Instr. chem, Virginia Junior Col, Minn, 32–38, 39–43; *research asst, inst. paper chem, Lawrence Col, 43–* Chem. Soc. Reactions in solution; analysis of cellulose products and related substances.

Cuneo, Rev. Edmund (Raymond), St. Vincent College, Latrobe, Pa. *Bacteriology.* St. Mary's, Pa, Sept. 17, 04. A.B, St. Vincent Col, 25, A.M, 26, Ph.D, 28; M.S, Notre Dame, 34. *Prof. bacter, St. Vincent Col, 28–,* asst. to dean col, 29–32, *head master prep. sch, 32–* Soc. Bact. Genetics.

Cunniff, Hilda S, 4020 Arkansas Ave, N.W, Washington, D. C. *Economic botany.* New York, N. Y, April 10, 04. A.B, Wisconsin, 25; Oxford, 29–30; M.S, Pa. State Col, 34. Asst. and instr. bot, Pa. State Col, 25–26, lab. asst. bot, 33–34; instr. Eng. and bot, Rajini Sch. for Girls, Siam, 27; biol. and Eng, Wattana Acad. for Girls, 27–28; Eng. tutor to French family, Paris, 28–29; outside examiner, Bangkok, Siam, 32; asst. exten. aid forestry, soil erosion service, U. S. Dept. Interior, 35; clerk woodland management, *soil conservation service, U. S. Dept. Interior,* 35–37; *asst. botanist, econ. erosion control plant data, 37–* Int. Bot. Cong, Cambridge, 30. A.A; Forestry Asn; Phytopath. Soc; North. Nut Growers Asn; Bot. Soc. Wash. Erosion control plants of economic value and their use under hill-culture management; soil conservation.

Cunningham, Dr. Bert, Duke University, Durham, N. C. *Embryology.* McLean Co, Ill, June 3, 83. B.S, Ill. Wesleyan, 08, M.S, 09; A.M, Trinity Col. (N. C), 16; Ph.D, Wisconsin, 20. Dept. science, Mo. Wesleyan, 09–11; teacher, high sch, N. C, 11–17; *prof. biol,* Trinity Col. (N. C), 17–25, *Duke, 25–,* head dept, 20–28. Summers, investigator, Bur. Fisheries; instr, Wisconsin; lecturer, Cold Spring Harbor Biol. Lab; hon. fellow, Harvard Med. Sch, 29. A.A; Soc. Zool; N. C. Acad. (sec'y-treas, 17, 21–26, 39–, pres, 27). Diatoms; Spirogyra; Algae; Protozoa; plankton; embryology of the turtle; embryology of the chick; endocrines in relation to embryology; di-cephalism in reptiles. *(Died Sept, 1943)*

Cunningham, Prof. Bess V(irginia), University of Toledo, Toledo, Ohio. *Educational psychology.* Bethesda, Ohio. B.S, Toledo, 17; A.M, Ohio State, 21; Grace Dodge fellow, Columbia, 22–23, Ph.D, 23. Teacher, kindergarten, Ohio, 03–17; supervisor kindergarten dept, Calif. State Teachers Col, San Francisco, 17–19; director kindergarten dept, Colo. State Teachers Col, Greeley, 20; asst. educ. psychol, Teachers Col, Columbia, 21–23, asst. prof. *educ.* and supervisor educ. clinic, 23–28, assoc. prof, 28–37; *Toledo,* 37–40, *prof, 40–* Summers, mem. faculty, California, 19, 26, 28. A.A; Psychol. Asn. Measurements; child psychology and development; parent education; family behavior; primary mental tests.

Cunningham, Dr. Burris (Bell), University of Chicago, Chicago, Ill. *Microchemistry, Biochemistry.* Springer, N. Mex, Feb. 16, 12. B.S, California, 35, Ph.D, 40. Teaching asst. biochem, California, 37–39, asst, 39–40, research fellow, 40–42; *research assoc. chem, Chicago, 42–* A.A; Chem. Soc. Development of micro and ultramicro methods of analysis and application of such methods to problems of protozoan and tissue culture metabolism.

Cunningham, Dr. Floyd F(ranklin), State Teachers College, Florence, Ala. *Geography.* Flat Rock, Ill, Dec. 24, 99. Ed.B, Ill. State Nor. Univ, 26; A.M, Clark, 28, fellow, 28–29, Ph.D, 30. *Prof. geog. and head dept, Ala. State Teachers Col, Florence, 29–* Ecol. Soc; Metcorol. Soc; Nat. Council Geog. Teachers. Geography of North and South America.

Cunningham, Dr. Frederick W(illiam), 543 E. 21st St, Brooklyn, N. Y. *Physics.* Stamford, Conn, March 23, 02. B.S, Mass. Inst. Tech, 24, Sc.D, 36. Research assoc. physics, Mass. Inst. Tech, 25–28; *develop. engineer, Arma Corp, 34–* Optical Soc; Physical Soc. Photoelectric spectrophotometry; color reproduction; naval fire control.

Cunningham, Prof. G(eoffrey) E(verett), 192 Culver Road, Rochester, N. Y. *Chemistry.* Hazleton, Ind, Jan. 15, 99. B.S, Tulane, 23, M.S, 25; fellow, Rice Inst, 25–26, 27–28, Ph.D, 28. Instr. chem, Tulane, 23–25; asst. prof, Shorter Col, 26; Macalester Col, 28–29; ceramic eng, Iowa State Col, 29–30; chem, Clarkson Tech, 30–31, assoc. prof, 31–42; *director research and develop, Staynew Filter Corp, 42–* Summer, Heckscher fellow, Cornell, 29. Chem. Soc; fel. Inst. Chem. Adsorptive power of lignite char; colors imparted to glass by oxides of iron; sedimentation; colloidal properties of talc; theory of plastic flow and of adsorption; effect of adsorbed ions on the physical character of precipitates; design of oil separators and gas and liquid filters.

Cunningham, Prof. Harry A(llen), 227 N. Depeyster St, Kent, Ohio. *Biology.* Quaker City, Ohio, Oct. 7, 91. B.S, Muskingum Col, 16; A.M, Chicago, 20; Ph.D, Columbia, 40. Teacher, high sch, Ohio, 16–18; Ill, 19–22; asst. prof, Kansas, 22–26; instr. science, high sch, Univ. Chicago, 26–27; *prof. biol,* Kent State Col, 27–36, *Kent State Univ, 36–* Summers, asst. prof, Chicago, 24, 26, 27. Asst, Teachers Col, Columbia, 29–30. A.A; Asn. Research Sci. Teaching; Nat. Council Elementary Sci. (sec'y-treas, 35; pres, 38); Asn. Sci. Teachers (sec'y, 37; pres, 40). Science education; methods, objectives and material facilities in science teaching; behavior of organisms.

Cunningham, Dr. H(owe) S(ymonds), New York Agricultural Experiment Station, Riverhead, N. Y. *Plant pathology.* Antigonish, N. S, Can. Assoc. diploma, Nova Scotia Agr. Col, 12; B.S.A, McGill, 17, M.S.A, 24; Ph.D, Cornell, 28. Dist. rep, N. S. Dept. Agr, 13–18; prof. agr, Nova Scotia Agr. Col, 18–24, bot, 24–26; asst. plant path. and mycol, Cornell, 27; plant pathologist, Dept. Agr, Bermuda, 28–31; *assoc. research plant path, N. Y. Exp. Sta,* Geneva and *Riverhead, 31–* A.A; Phytopath. Soc; Can. Soc. Tech. Agr. Histology of the lesions produced by Sphaceloma fawcettii on leaves of citrus; histologic changes induced in leaves by certain leaf spotting fungi.

Cunningham, Prof. John B(issell), University of Arizona, Tucson, Ariz. *Metallurgy.* Cass City, Mich, Dec. 31, 87. B.S, E.M, Mich. Col. Mines, 13, M.S, 31. Instr. *metal,* Mich. Col. Min. and Tech, 13–16, asst. prof, 16–20, *prof,* 20–25; *Arizona, 25–* A.A; Min. and Metal. Eng. Molybdenum ores

Cunningham, Dean John F(erguson), Ohio State University, Columbus, Ohio. *Agriculture.* Afton, Iowa, Feb. 4, 77. B.S, Ohio State, 97, M.S, 99. Ed, 'Ohio Farmer,' 99–22; ed. and publisher, 'Wis. Agriculturist,' 22–29; 'Fla. Grower Mag,' 30–40; *dean col. agr, Ohio State, 32–,* mem. board control, Exp. Sta, 20–22, *director research foundation.* Trustee, Ohio State, 14–22. Director, Ohio Wild Life Research Sta; chairman, State Farm Chemurgic Cmn, Ohio; State Soil Conserv. Dist. Cmn. War food commissioner, 17–19. A.A; Agr. Ed. Asn. (pres). Agricultural journalism; agricultural education.

Cunningham, Prof. J(ules) C(ool), 2132 Storm St, Ames, Iowa. *Horticulture.* Cedar Point, Kans, Aug. 12, 78. B.S, Kans. State Col, 05. Foreman, Crete Nurseries, Nebr, 05–07; supt, Elnora Fruit Farms, Kans, 07–09; asst. horticulturist, Kans. State Col, 09–11; asst. prof. and assoc. prof. hort, *Iowa State Col,* 11–18, prof, 18–34, *research prof. corn research inst, Exp. Sta, 34–* Maize.

Cunningham, Leland E, General Delivery, Aberdeen, Md. *Astronomy.* Wiscasset, Maine, Feb. 10, 04. A.A, Harvard, 40, Parker fellow, 40–42. Asst. astron, Harvard, 39–40, consultant. col. observatory, 34–42; *asst. mathematician, U. S. War Dept, 42–* Donahue comet medal, 40. A.A; Astron. Soc; Asn. Variable Star Observers; Astron. Soc. Pacific. Orbits of comets, asteroids, satellites and planets; physical constitution of comets; astronometry; variable stars.

Cunningham, Prof. O(mer) C(ole), Box 186, State College, N. Mex. *Dairy husbandry.* Switzerland Co, Ind, April 15, 82. B.S, Purdue, 06. Instr. dairy and animal husbandry, Winona Col, 06–09; dairying, Ohio State, 09–12, asst. prof, 12–18; dairy husbandman, div. dairying, U. S. Dept. Agr, 18; *prof. dairy husbandry, N. Mex. Col, and dairy husbandman, Exp. Sta, 18–* Dairy Sci. Asn. (sec'y, production sect, 21). Milk goat improvement; cottonseed meal feeding to dairy cattle; deficiency rations for dairy cattle.

Cunningham, Dr. Raymond W, Temple University School of Medicine, Philadelphia, Pa. *Pharmacology.* Nebr, March 14, 03. B.S. Nebraska, 29, M.S, 31; Shevlin fellow, Minnesota, 34–36, Ph.D, 36. Instr. physiol, Nebraska, 29–32; pharmacol, med. sch, Ohio State, 36–38; research fellow and instr. *pharmacol, sch. med, Temple,* 38–42, *asst. prof, 42–* A.A; Soc. Pharmacol; Physiol. Soc. Phila. Pharmacological investigation of new type compounds; local anesthetics, analgesics and antispasmodics.

Cunningham, Dr. R(obert) L(eonard), 260 Fairmont Ave, Ottawa, Ont, Can. *Physical chemistry.* North Sidney, N. S, Can, March 31, 15. B.Sc, Dalhousie, 36, M.Sc, 38; Nat. Research Council Can. student. McGill, 39–40, fellow, 40, Ph.D, 40. Instr. chem, McGill, 38–39; *physical chemist,* Grein Research Labs, 40–42; *metal. labs, Can. Dept. Mines and Resources, 42–* Explosive antimony; kinetics of gas reactions; optical studies on durum wheat; physical metallurgy in connection with war production.

Cunningham, Dr. R(obert) S(ydney), Albany Medical College, Albany, N. Y. *Anatomy.* Anderson, S. C, Nov. 14, 91. B.S, A.M, Davidson Col, 11; M.D, Hopkins, 15. Asst. and instr. *anat,* Hopkins, 15–17, assoc, 19–22, assoc. prof, 22–25; *prof,* Vanderbilt, 25–37; *Albany Med. Col, Union (N. Y.), 37–, dean, 37–* Administrator, Albany Hosp, 42– Lieut, M.C, 17–19. Asn. Anat; Physiol. Soc. Anatomy and physiology of the peritoneum; permeability of the placenta; embryology and physiology of blood cells; pathology of tuberculosis and syphilis; development and physiology of the lymphatic system.

Cunningham, Prof. William A(aron), University of Texas, Austin, Texas. *Chemical engineering.* Comanche, Texas, May 22, 04. B.S, Texas, 27, M.S, 29, Ph.D, 41. Chem. engineer, Freeport Sulphur Co, Texas, 30–31; Univ. Lands, San Angelo, 32–36; chief engineer, Texas Potash Corp, Dallas, 36–39; research technologist, bur. indust. chem, *Texas,* 39–41, *assoc. prof. chem. eng, 41–* Chem. Soc; Inst. Chem. Eng. Water technology; utilization of non-metallic minerals.

Cuno, Dr. Charles William, Wilmington, Ill. *Engineering.* St. Louis, Mo, Dec. 16, 81. A.B, Denver, 12, A.M, 13, Ph.D, 15. Director journalism and instr. sci. management, Denver, 13–17; prof. chem, Yankton Col, 18–20; asst. prof. indust. chem. and metal, Washington (St. Louis), 20–27; consulting engineer, indust. bur, Indust. Club, St. Louis, 27–31; v. pres, Miss. Valley Research Labs, 30–34; *director research,* Eternit Mills div, Ruberoid Co, 33–37; *Lehon Co, 37–; consulting engineer, 27–* Chem. Eng; Min. and Metal. Eng; Chem. Soc. Chemical and metallurgical engineering; nitric acid; carbon dioxide; recovery of antimony; metallurgy of arsenic; low temperature carbonization; asbestos cement products; plant location; synthetic rubber; plastics.

Cupery, Dr. M(artin) E(li), Foulk Road, R. D. No. 2, Wilmington, Del. *Organic chemistry.* Friesland, Wis, April 20, 01. A.B, Hope Col, 24; M.S, Mass. Col, 26; Ph.D, Illinois, 30. Instr. physiol. chem, Mass. Col, 29–30, acting prof, 30–31; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 31–* Chem. Soc. Stereochemistry; organic synthesis; commercial chemistry.

Cupp, Dr. Easter E(llen), 4820 E. Alder Drive, San Diego, Calif. *Oceanography.* Neola, Iowa, March 30, 04. A.B, Whittier Col, 26; A.M, California, 28, Ph.D, 34. Asst. oceanog, Scripps Institution, California, 28–34, research assoc, 34–37, instr, 37–39; *asst. biologist, Naval Biol. Lab, San Diego, 41–* A.A. Biological oceanography; marine phytoplankton; marine biology.

Cupples, Dr. H(omer) L(eslie), 208 Belle Haven Road, Belle Haven, Alexandria, Va. *Chemistry.* Massillon, Ohio, July 25, 99. B.Ch.E, Ohio State, 21, M.S, 23, Grasselli fellow, 23–24, Ph.D, 24. Chief chemist, Phila. Rubber Works Co, Akron, 25–26; research chemist, Gen. Motors Corp, Detroit, 28–30; assoc. chemist, bur. chem. and soils, *U. S. Dept. Agr,* 26–28, *chemist,* 30–35, *bur. entom. and plant quarantine, 35–* Chem. Soc. Physical chemistry; physical constants of gases at high pressures; insecticides.

Cureton, Prof. Thomas (Kirk), Jr, University of Illinois, Urbana, Ill. *Physiological science.* Fernandina, Fla, Aug. 4, 01. B.S, Yale, 25; B.P.E, Int. Y.M.C.A. Col, 29, M.P.E, 30; A.M, Columbia, 36, Ph.D, 37. Physical director and teacher biol. and gen. science, Suffield Sch, Conn, 25–29; prof. applied physics and animal mech, Springfield Col, 29–42, director research nat. science and physical educ, 35–42; *assoc. prof. physical educ. and supervisor research, sch. physical educ, Illinois, 42–* Asn. Health, Physical Educ. and Recreation; Asn. Physics Teachers. Tests and measurements; physical education; physical fitness; body mechanics; kinesiology.

Curfman, Prof. L(awrence) E(verett), 406 W. Adams Ave, Pittsburg, Kans. *Mathematics.* Douglas Co, Ill, March 1, 80. B.S, Illinois, 01, B.S. (C.E), 05, C.E, 27; M.S, Colorado, 31. Asst. prof. *math, Kans. State Teachers Col, Pittsburg,* 20–23, assoc. prof, 23–26, *prof, 26–*

Curl, Dr. A(lfred) Laurence, U. S. Citrus Products Station, Winter Haven, Fla. *Chemistry.* Quincy, Ohio, Nov. 2, 06. B.S, Miami (Ohio), 28; du Pont fellow, Ohio State, 30–31, M.S, 30, Ph.D, 31. Asst, Ohio State, 28–30; instr. chem, Miami (Ohio), 32–35; junior chemist, food and drug admin, *U. S. Dept. Agr,* 35–38, *asst. chemist, bur. agr. chem. and eng, 38–* Chem. Soc. Chemical reactions in liquid ammonia; determination of selenium; chemistry of plant products.

Curl, Dr. Howard, 875 Monroe Ave, Memphis, Tenn. *Anatomy.* Alton, Kans, Jan. 22, 87. A.B, Kansas, 11; M.D, Illinois, 17. Instr. physiol, Kansas, 12–14; asst, Illinois, 14–17, instr, 17–18; med, Wisconsin, 18–22; roentgenologist, Sheboygan Clinic, Wis, 22–28; *asst. prof. anat, Tennessee, 28–* Gastro-intestinal tract; gall bladder; gross anatomy.

Curlee, Prof. A(rley) T(heodore), 801 S. Church St, Winston-Salem, N. C. *Mathematics.* Polkton, N. C. A.B, North Carolina, 26, A.M, 27. Instr. *math,* North Carolina, 25–29; *prof. and head dept, Salem Col, 29–* Elisha Mitchell Sci. Soc; N. C. Acad. Elliptic functions and their relation to elliptic integrals.

Curme, Dr. George O(liver), Jr, 4 Hotel Drive, White Plains, N. Y. ****Chemistry.* Mt. Vernon, Iowa, Dec. 24, 88. B.S, Northwestern, 09, Sc.D, 33; Ph.D, Chicago, 13; Berlin, 13–14. Fellow, Mellon Inst, 14–20; chief chemist, *Carbide and Carbon Chem. Corp,* 20–27, *v. pres. and director research, 27–; v. pres, Bakelite Corp, 39–* Chandler medal, 33; Perkin medal, 35; Elliott Cresson medal, 36. A.A; Chem. Soc; Chem. Eng; Soc. Chem. Indust; Soc. de Chim. indust. Organic chemical reactions; hydrocarbon gases; plastics.

Curran, Dr. C(harles) H(oward), American Museum of Natural History, New York, N. Y. *Entomology.* Orillia, Ont, Can, March 20, 94. B.S.A, Toronto, 22; M.S, Kansas, 23; D.Sc, Montreal, 33. Asst, Dom. Entom. Branch, 15, 19–22, entomologist in charge Diptera and stored products insects, 23–28; asst. curator, *dept. entom, Am. Museum Nat. Hist,* 28–36, *assoc. curator, 36–* Fel. Entom. Soc. Amer; fel. Calif. Acad; N. Y. Entom. Soc. (pres, 37); Entom. Soc. Ont; hon. mem. Panama Canal Nat. Hist. Soc. Diptera of North America, British Guiana and Panama.

Curran, Brother Columba (Dr. William Joseph Curran), University of Notre Dame, Notre Dame, Ind. *Physical chemistry.* Cincinnati, Ohio, April 8, 11. B.S, Notre Dame, 33, M.S, 35, Ph.D, 37. Instr, high sch, Mass, 33–34; *chem, Notre Dame,* 37–40, *asst. prof, 40–* Electric moments; electron distribution in acetylenic compounds.

Curran, Dr. H(arold) R(aymond), U. S. Department of Agriculture, Washington, D. C. *Bacteriology.* Rochester, N. Y, March 2, 95. B.S, Cornell, 21, Ph.D, 26. Instr. dairying, Cornell, 21–25; asst, Iowa State Col, 26–27; research, Hopkins, 27–28; *bacteriologist, bur. dairy indust, U. S. Dept. Agr, 28–* Soc. Bact; Wash. Acad. General and dairy bacteriology.

Curran, M(aurice) Donovan, 385 Berry Road, Glendale, St. Louis, Mo. *Metallurgy.* New Straitsville, Ohio, July 30, 93. E.M, Ohio State, 14. Chief chemist, by-product coke plant, Republic Iron and Steel Co, 14–16; supt, Toledo Furnace Co, 16–23; pres. and gen. manager, St. Louis Gas and Coke Corp, 23–30; founder, Radiant Fuel Co, 30, pres, 30–35; founder, *Coal Carbonizing Co, 35, pres, 35–* Mem. State Mineral Industries Cmt, Ill, 38– Min. and Metal. Eng; Chem. Soc. (fuels cmt, 40); Gas Asn. Coal carbonization; metallurgy of iron and magnesium; Curran-Knowles process of coal carbonization; Curran muffle type multiple retort magnesium furnace.

Currence, Prof. T(roy) M(ansell), 2327 Commonwealth Ave, St. Paul, Minn. *Horticulture.* Queens, W. Va, Sept. 9, 97. B.S, West Virginia, 23, M.S, 25; Ph.D, Cornell, 30. Instr. *hort,* West Virginia, 23–25; asst, Cornell, 25–27; *asst. prof,* Okla. Agr. and Mech. Col, 27–28; *Minnesota, 28–* A.A; Soc. Hort. Sci; Genetics Soc. Plant genetics and breeding.

Currens, Prof. Fred(erick) H(awley), Western Park, Macomb, Ill. *Chemistry.* Carthage, Ill, Dec. 25, 82. A.B, Coe Col, 04, A.M, 07; Chicago, 09, 10; Nebraska, 11–13, Ph.D, 21. Teacher science, Corning Acad, Iowa, 04–05, prin, 05–08; prof. chem. and biol, Lenox Col, 08–09; chem. and physics, Bellevue Col. (Nebr), 09–10; Omaha, 10–12; instr. chem, Nebraska, 12–13; *prof. chem. and head dept. chem. and physics, West. Ill. State Teachers Col, Macomb, 13–, dean*

faculty, 24– Chem. Soc; Ill. Acad. Analytical chemistry; separation of ytterbium earth from gadolinite ore.

Currie, Prof. B(alfour) W(atson), University of Saskatchewan, Saskatoon, Sask, Can. *Physics.* Helena, Mont, Nov. 1, 03. B.Sc, Saskatchewan, 25, M.Sc, 27; Ph.D, McGill, 30. Instr. *physics, Saskatchewan, 28–30, asst. prof, 30–* Meteorologist, Meteorol. Service Can, 32–34. A.A; Meteorol. Soc; Royal Meteorol. Soc. Adsorption of ions at liquid gas surfaces; electro-endosmosis; atmospheric electricity; earth currents and aurorae.

Currie, Dr. James N(imrod), 549 E. 16th St, Brooklyn, N. Y. *Chemistry.* Jasonville, Ind, 83. A.B, Indiana, 08, A.M, 09, LL.D, 31; Ph.D, Wisconsin, 12. Instr. chem, Indiana and Wisconsin, 09–12; chemist, U. S. Dept. Agr, 12–17; *indust. research, 17–* A.A; Chem. Soc; Soc. Bact. Organic chemistry; biochemistry; biochemical aspects of cheese ripening; fermentation produced by fungi; citric acid fermentation.

Currie, Dr. Lauchlin M(acLaurin), 19735 Frazier Drive, Rocky River, Ohio. *Physical chemistry.* Chapel Hill, N. C, Aug. 13, 97. A.B, Davidson Col, 18, A.M, 23; Sage fellow, Cornell, 24–25, Ph.D, 25. Chemist, Aluminum Co. of Amer, 19; Hooker Electrochem. Co, 19–21; instr, Davidson Col, 21–23; research chemist, Nat. Carbon Co, 25–29, supt, Edgewater works, 29–30, asst. director research, 31–33, director, Vinylite Div, 33–41; supt, Bakelite Corp, 41–42; *asst. director research, Nat. Carbon Co, 42–* Summers, Kingsport Pulp Corp, 17; Appalachian Power Co, 23; Union Carbide Co, 24. Mem, Nat. Research Council, 39. Chem. Soc. (chairman-councilor); Soc. Test. Mat. (v. chairman cmt. plastics); Chem. Eng. Colloid chemistry; plastics; carbon products.

Currie, Rolla P(atteson), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Preemption, Ill, March 25, 75. A.B, North Dakota, 93. Aid, div. insects, U. S. Nat. Museum, 97–04; assoc. entomologist in charge ed. work, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 04–34, *entomologist in charge of ed. office, 34–* Collected specimens for U. S. Nat. Museum, Wyo. and N. Dak, 96, Liberia, 97, B. C, 04. Myrmeleonidae and Odonata in systematic entomology.

Currier, Dr. Albert (Eldred), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Brooklyn, N. Y, Feb. 8, 05. B.S, Harvard, 27, A.M, 28, Ph.D, 30. Instr. *math,* Harvard, 29–30, Sheldon fellow, 30–31, *instr,* 31–35; *U. S. Naval Acad, 35–* Math. Soc. Fundamental theorem on second order cross partial derivatives; variable end point of the calculus of variations.

Currier, Prof. A(rnold) J(ohn), 508 E. Foster Ave, State College, Pa. *Inorganic chemistry.* Georgetown, N. Y, Dec. 8, 92. A.B, Colgate, 15; M.S, Pa. State Col, 21; Ph.D, Cornell, 23. Teacher, high schs, N. Y, 15–18; asst. chemist, Gen. Chem. Co, 17–18; instr. *chem, Pa. State Col,* 18–21, asst. prof, 21–31, *assoc. prof, 31–* Chem. Soc. (chairman div. chem. educ, 42). Metallic nitrogen compounds; reaction of sodium trinitride with carbon disulfide; catalysis; phase rule; drying oils; pigments.

Currier, Dr. H(erbert) B(ashford), 621 D St, Davis, Calif. *Plant physiology.* Oct. 16, 11. B.S, Ohio State, 32; M.S, Utah State Col, 38; Ph.D, California, 43. Teaching asst, Utah State Col, 37–38; *col. agr, California,* 38–39, *assoc. bot, 39–* Water relations of plant cells.

Currier, Dr. L(ouis) W(ade), 1410 Manchester Lane, N. W, Washington, D. C. *Mineralogy, Geology.* Middletown Springs, Vt, May 4, 90. B.S, Mass. Inst. Tech, 14; A.M, Northwestern, 20; Ph.D, Syracuse, 30. Instr, Idaho, 14–15; asst, Mass. Inst. Tech, 15–16; instr, Northwestern, 16–18, 19–20; Mass. Inst. Tech, 20–21; asst. prof. miner, Syracuse, 21–25; assoc. prof, Mo. Sch. Mines, 25–28; *U. S. Geol. Surv, 30–* Geologist, Ill. Geol. Surv. and Ky. Geol. Surv, 17–25. Tech. statistician, C.N.D, W.I.B, 18. Fel. Miner. Soc; fel. Geol. Soc; cor. mem. Ky. Acad; Geol. Soc. Wash. Petrography; economic geology; fluorspar deposits and igneous rocks of southern Illinois and western Kentucky; processes and grades of metamorphism in eastern Vermont; geology of southwestern Virginia zinc-lead area; structural features of Appalachian zinc deposits; geology of Massachusetts; graphite deposits; building stones; granitization.

Curry, Dr. Dal(feres) P(ennington), Arcadia, Route 3, Columbia, S. C. *Public health.* Louisville, Ky, May 20, 79. M.D, Kentucky, 03. State sanit. engineer and chemist, Ky, 14–18; asst. chief health officer, Panama Canal, 19–41. Capt, M.C, 17–19, major, M.R.C, 19– Mem. sci. board, Gorgas Mem. Inst. Malaria Soc; Entom. Soc. Wash; Isthmian Canal Zone Med. Asn. (pres, 33). Malaria control; medical entomology.

Curry, Prof. Haskell B(rooks), Pennsylvania State College, State College, Pa. *Mathematics.* Millis, Mass, Sept. 12, 00. A.B, Harvard, 20, A.M, 24; Mass. Inst. Tech, 21–22; Am-German Students Exchange fellow, Göttingen, 28–29, Ph.D, 29. Instr. *math,* Harvard, 26–27; Princeton, 27–28; asst. prof, *Pa. State Col,* 29–33, assoc. prof, 33–41, *prof, 41–; assoc. mathematician, Frankford Arsenal, 42–* Treas, Expression Co, Inc, Boston, Mass, 27–28; nat. research fellow, Chicago, 31–32; honors examiner, Swarthmore Col, 36–37; mem, Inst. Adv. Study, 38–39; mem. corp, Sch. Expression, Boston, 27– Mem. war preparedness cmt, Am. Math. Soc. and Am. Math. Asn, 40– A.A; Math. Soc; Math. Asn; Philos. Asn; Asn. Symbolic Logic (v. pres, 36, pres, 38–40). Mathematical logic.

Curry, Prof. James (Rowland), Williams College, Williamstown, Mass. *Chemistry.* Wooster, Ohio, Dec. 29, 03. B.S, Dartmouth Col, 25; du Pont fellow, Hopkins, 29–30, Ph.D, 30; Kaiser Wilhelm Inst, Berlin, 30–32; Tech. Hochschule, Darmstadt, 33. Exchange fellow, Kaiser Wilhelm Inst, Berlin, 30–31; asst, Columbia, 34–35; instr. *chem, Williams Col,* 35–39, *asst. prof, 39–* A.A; Chem. Soc; N. Y. Acad. Adsorption; reaction kinetics; band spectroscopy; biological effect of heavy water; electrochemistry.

Curry, John R(obert), Southern Forest Experiment Station, U. S. Forest Service, New Orleans, La. *Forestry.* Blue Mountain Lake, N. Y, Nov. 17, 02. B.S, Cornell, 24; M.S, California, 33. Junior forester, U. S. Forest Service, 24–25; asst. forester, dept. forestry, Maryland, 25–30; assoc. silviculturist, *U. S. Forest Service,* 30–35, senior silviculturist, 35–39, *prin. silviculturist, 39–* Soc. Foresters. Forest management.

Curtis, Dr. Arthur C(ovel), 601 Sunset Road, Ann Arbor, Mich. *Dermatology, Syphilology.* Binghamton, N. Y, June 30, 98. B.S, Michigan, 23, M.D, 25. Asst. internal med, *med. sch, Michigan,* 23–26, instr. and asst. to dean, 26–29, asst. prof. and sec'y, 29–35, assoc. prof, 35–42, *prof. dermat. and syphilol, 42–* Fel. Col. Physicians; Soc. Clin. Invest; Diabetes Asn; Cent. Soc. Clin. Research. Protein and amino acids with reference to injury to the kidneys and liver; diabetes mellitus; treatment of xanthoma diabeticorum; mineral oil absorption of carotene; vitamin A metabolism.

Curtis, Austen M(ansfield), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Telephone engineering.* Brooklyn, N. Y, June 4, 90. Polytech. Inst. Brooklyn. Radio engineer, Brazilian Lloyd S. S. Co, Dept. Agr, Brazil, 10–13; *engineer, research dept, West. Elec. Co,* 13–17, *19–; Bell Tel. Labs, 19–* Lieut. and capt, U.S.A, 17–19. Radio Eng. Telephone and telegraph transmission; effect of moon on radio transmission; measurement of static; vacuum tube amplifiers for loaded submarine telegraph cables; oscillographs; volume control on telephone circuits and radio telephone terminals; contact phenomena in telephone switching circuits.

Curtis, Dr. Baldwin R(apier), 57 Frost St, Cambridge, Mass. *Nuclear physics.* San Jose, Calif, May 2, 13. B.S, Michigan, 34, M.S, 35, Ph.D, 38. Asst, Michigan, 38; *Harvard,* 39–40, *instr. physics, 41–,* Cutting fellow, 41. Physical Soc. Cyclotron engineering; energy loss of positive electrons; gamma radiations from radioactive materials.

Curtis, Prof. Carlton C(larence), Columbia University, New York, N. Y. **Botany.* Syracuse, N. Y, Aug. 24, 64. A.B, Syracuse, 89, Ph.D, 95; A.M, Columbia, 94; Cambridge, 96; Leipzig, 97. Prin, Fayetteville Union Sch, 84–86; instr. nat. science, Polytech. Inst. Brooklyn, 90–92; tutor *bot, Columbia,* 98–08, adj. prof. and *assoc. prof, 08–* Soc. Nat; Bot. Soc; Torrey Bot. Club (treas, 07). Turgor; transmission and tension of fluids in plants; transpiration; action of pure and colored light upon transpiration.

Curtis, Prof. Donald D(exter), Clemson Agricultural College, Clemson, S. C. *Civil engineering.* Greene, Iowa, May 31, 96. B.E, Iowa, 19, M.S, 31; Washington (Seattle). Asst, eng. corps, C. C. C. and St. Louis Ry, 19–20; struct. design, Canfield Eng. Co, Des Moines, 20–21; instr. and asst. prof. *mech. and hydraul,* Iowa, 21–29; *prof. in charge dept, Clemson Col, 29–* Hydraulics and math. specialist, Tenn. Valley Authority. Civil Eng; Eng. Educ. Hydraulics; structural design; hydrology.

Curtis, Prof. Francis D(ay), 1604 Brooklyn Ave, Ann Arbor, Mich. *Education.* Portland, Oregon, Aug. 6, 88. B.S, Oregon, 11, A.M, 23; fellow, Columbia, 24, Ph.D, 24. Asst. physics, Oregon, 10–11; head dept. and instr, high schs, Oregon, 11–23; from asst. prof. to *prof. educ. and teaching of science, Michigan, and head dept. science, univ. high sch, 24–* Summer, California, 31; Hawaii, 36; Texas, 38; Illinois, 41. Dept. ed, 'Science Educ,' 31– A.A; Nat. Educ. Asn. (pres, science sect, 29); Educational Research Asn; Council Elem. Sci. (pres, 41); Nat. Asn. Research Sci. Teaching (pres, 32); Cent. Asn. Sci. and Math. (chairman, gen. sci. sect, 26); Mich. Educ. Asn. (chairman, gen. sci. sect, 29); Sci. Masters Asn. Gt. Britain. Teaching of science.

Curtis, Dr. George M(orris), Ohio State University, Columbus, Ohio. *Surgery.* Big Rapids, Mich, April 2, 90. A.B, A.M, Michigan, 10, Ph.D, 14; M.D, Rush, Chicago, 20; Bern, 24–27. Asst. zool, Michigan, 08–12, histol, 11–13; asst. prof. anat, med. dept, Vanderbilt, 13–14, acting prof, 14–15, prof. and head dept, 15–20; res. staff, Presb. Hosp, Chicago, 20–22; nat. research fellow med, 22–25; assoc. prof. *surg,* Chicago, 25–32, *prof,* 32; *col. med, Ohio State, 32–, chairman research surg. dept, 36–* Asst, Chicago, 19, Rush Med. Col, 22–24; clinic, Bern, 25–27. Am. Med. Asn. grant, 37. A.A; fel. Col. Surg; Surg. Asn; Asn. Thoracic Surg; Am. Med. Asn; Asn. Anat; Soc. Clin. Invest; Physiol. Soc; Soc. Exp. Path; Asn. Study Int. Secretions; Soc. Exp. Biol; Soc. Med. Hist; Asn. Surg. of Trauma; Cent. Surg. Asn. (sec'y); Cent. Soc. Clin. Research; West. Surg. Asn; South. Surg. Asn; Tenn. Ornith. Soc; Ohio Acad. (v. pres); Chicago Surg. Soc; Inst. Med. Chicago; Chicago Path. Soc. Anatomy; morphology of seminiferous tubes; spermatogenic wave; hypophysis; diabetes insipidus; diuresis; metabolism during work; blood supply of parathyroids; ascites; peritoneal dialysis; goiter; blood iodine; iodine metabolism; splenectomy; collapse therapy; calcium metabolism; gastric motility; thoracic surgery.

Curtis, Prof. Harold B(artlett), Lake Forest College, Lake Forest, Ill. *Mathematics, Astronomy.* Brooklyn, N. Y, May 22, 84. A.B, Cornell, 07, Ph.D, 10. Instr. *math,* Columbia, 10–17; Northwestern, 19–25; assoc. prof, Marquette, 25–26; *prof, Lake Forest Col, 26–* 2nd lieut, U.S.A, 17–19. A.A; Math. Soc; Math. Asn. Popular astronomy.

Curtis, Dean Harry A(lfred), University of Missouri, Columbia, Mo. *[4]Chemistry.* Sedalia, Colo, Feb. 16, 84. B.S, Colorado, 08, A.M, 10, Sc.D, 30; fellow, Wisconsin, 13–14, Ph.D, 14, hon. Sc.D, 37. Instr. chem, Colorado, 08–12, asst. prof, 12–13, 14–15, prof. physical chem, 15–17; chem, Northwestern, 19–20; chief chemist, Int. Coal Products Corp, 20–21; gen. manager, Clinchfield Carbocoal Corp, 21–23; prof. chem. eng, Yale, 23–31; chief research and develop. labs, Vacuum Oil Co, 31–33; chem. eng, Tenn. Valley Authority, 33–38; *dean col. eng, Missouri, 38–* Chief nitrogen surv, U. S. Dept. Commerce, 23–24. Muscle Shoals Cmn, 25. U. S. Dept. Agr. rep, Int. Nitrogen Conf, 28. Ordnance Dept, 17–19. A.A; Chem. Soc; Chem. Eng. Photochemistry; chemical engineering; non-aqueous solutions; fuels; nitrogen fixation; fertilizers.

Curtis, Dr. Harvey L(incoln), National Bureau of Standards, Washington, D. C. *[3]Physics.* Mason, Mich, Dec. 14, 75. Ph.B, Michigan, 00, A.M, 03, Ph.D, 10. Asst. physics, Michigan, 02–03; instr, Mich. State Col, 03–07, asst. prof, 07; asst. physicist, *Bur. Standards,* 07–13, assoc. physicist, 13–18, *chief inductance-capacitance sect, 15–,* physicist, 18–24, senior physicist, 24–28, *prin. physicist, 28–* Lecturer, George Washington, 10–14; grad. courses, Bur. Standards, 20–25. Mem. cmt. on insulation and subcmt. on physics, Nat. Research Council, 28– Silver medal, Pan-Am. Expos, 15. Mem. Int. Elec. Cong, Paris, 32. A.A; Physical Soc; Standards Asn. (chairman, sect. cmt. on elec. insulating materials, 34–); Elec. Eng. (chairman, Wash. sect, 35); Soc. Test. Mat. (chairman, cmt. elec. insulating mat, 30–34); Optical Soc; Philos. Soc. Wash. (recording sec'y, 18, v. pres, 30, pres, 31); Wash. Acad. (v. pres, 31–33, 37–41, pres, 42). Mica condensers; measurement of inductances and insulating properties of solid dielectrics; design of alternating current resistances; quadrant electrometer; skin effect; ballistics; photographing projectiles in flight; oscillographs; stresses in turrets of battleships during gunfire; electrical properties of rubber; insulating materials for submarine cables; measurement of short time intervals; absolute value of capacitance, current and resistance.

Curtis, Prof. Howard J(ames), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Physics, Physiology.* Lansing, Mich, Dec. 11, 06. B.S, Michigan, 28; A.M, Swarthmore Col, 29; Ph.D, Yale, 32. Asst. physics, Yale, 29–32; biophysicist, biol. lab, Cold Spring Harbor, 32–35; assoc. physiol, col. physicians and surg, Columbia, 35–38; Rockefeller fellow, sch. med, Hopkins, 38–40, instr. *physiol,* 40–41; *asst. prof, col. physicians and surg, Columbia, 41–* Summers, textile technologist, Bur. Standards, 20–29. Physical Soc; Physiol. Soc; Harvey Soc. Biophysics; fiber diameter measurements; dielectric constants; electric impedance of living systems; excitation and conduction in nerve; physiology of the central nervous system.

Curtis, Dr. Jack M(arkley), 4608 Brookview Drive, Westhaven, Friendship Sta, D. C. *Biochemistry.* Colorado Springs, Colo, Nov. 5, 06. B.S, Colorado Col, 29; Ph.D, St. Louis, 34. Asst. physiol. chem, St. Louis, 30–34; nat. research fellow, Yale, 34–35; assoc. pharmacologist, food and drug admin, U. S. Dept. Agr, 35–39; pharmacologist, Fed. Security Agency, 39–42; *capt, Sanit. Corps, U. S. Army, 42–* Chemistry, physiology and assay of estrogenic substances.

Curtis, Dr. John T(homas), University of Wisconsin, Madison, Wis. *Botany.* Waukesha, Wis, Sept. 20, 13. A.B, Carroll Col, 34; A.M, Wisconsin, 35, Ph.D, 37. *Instr. bot, Wisconsin, 37–* Soc. Plant Taxon; Orchid Soc; Wis. Acad. Orchid seed germination and mycorrhizal fungi; wildflower management.

Curtis, Dr. Lawrence C(owly), Connecticut Agricultural Experiment Station, New Haven, Conn. *Genetics.* St. David, Ariz, May 4, 05. B.S, California, 30; Ph.D, Cornell, 40. *Asst. geneticist, Conn. Exp. Sta, 30–* Genetics Soc; Soc. Hort. Sci; Bot. Soc. Genetics and improvement of vegetable crops.

Curtis, Dr. Maynie R(ose), 377 Dexter Trail, Mason, Mich. *Biology.* Ingham Co, Mich, July 27, 80. A.B, Michigan, 05, A.M, 08, Ph.D, 13. Asst. biologist, Maine Exp. Sta, 08–17; assoc. cancer research, Crocker research fund, Columbia, 17–41; *research assoc. path, col. med, Wayne, 42–* A.A; Soc. Nat; Soc. Exp. Biol; Soc. Zool. Physiology of reproduction; cancer.

Curtis, Dr. Norman J(ames), 31 Weybridge St, Middlebury, Vt. *Agronomy.* Maplehill, Kans, May 11, 06. B.S, Kans. State Col, 29; M.S, Rutgers, 31, Ph.D, 34. Asst. agron, Rutgers, 29–31, instr, 31–34; asst, soil erosion service, U. S. Dept. Interior, 35; asst. soil conservationist, *soil conservation service, U. S. Dept. Agr,* 35–38, assoc. agronomist, 38–41, *dist. conservationist, 41–* Soc. Agron. Pasture and forage plant adaptation on individual farms; chlorophyll investigations in corn; inbred lines and their F_1 hybrids.

Curtis, Prof. Otis F(reeman), Cornell University, Ithaca, N. Y. *[5]Botany, Plant physiology.* Sendai, Japan, Feb. 12, 88. A.B, Oberlin Col, 11; Ph.D, Cornell, 16. Tutor biol, Oberlin Acad, 11–12; asst. nat. hist, *Cornell,* 12, instr. *plant physiol,* 13–17, asst. prof, 17–22, *prof,* 22– Summers, collector, Marine Biol. Lab, Woods Hole, 13, 14; exchange prof, Leeds, 26, 27; non-res. prof, Ohio State, 30, 31. A.A; Soc. Nat; Bot. Soc; Soc. Plant Physiol. (v. pres, 36, pres, 37); Soc. Hort. Sci. Stimulation of root growth in cuttings; translocation of foods and salts in plants; water relations; growth correlations.

Curtis, Dr. Otis F(reeman), Jr, University of California at Los Angeles, Los Angeles, Calif. *Plant physiology.* Ithaca, N. Y, Jan. 28, 15. A.B, Oberlin Col, 36; Ph.D, Cornell, 40. Asst. bot, Cornell, 36–40; *instr. floricult, California, 40–, junior plant physiologist, Exp. Sta, 40–* Soc. Hort. Sci; Soc. Plant Physiol; Bot. Soc. Physiology of ornamental plants.

Curtis, Prof. Quin F(ischer), West Virginia University, Morgantown, W. Va. *Psychology.* Saginaw, Mich, March 20, 08. A.B, Michigan, 30, Ph.D, 36; A.M, Ohio Wesleyan, 31. Teaching fellow, Ohio Wesleyan, 30–31; asst, Michigan, 31–34, Rackham Brain Psychol. Research Fund, 34–36; nat. research fellow, Cornell, 36–37, instr. physiol, 37–38; *psychol,* Ohio State, 38–41; *asst. prof, West Virginia, 41–* Psychol. Asn; Mich. Acad; W. Va. Acad. Animal learning and reasoning; conditioned response; experimental neurosis; frustration and conflict; applied psychology.

Curtis, Prof. R(alph) W(right), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Horticulture.* Burlington, Wis, 77. B.S, Cornell, 01, M.S, 05. Asst. supt, Boston Parks, 06–10; Arnold Arboretum, Harvard, 10–13; asst. prof. landscape art, *N. Y. State Col. Agr, Cornell,* 13–15, *prof. ornamental hort, 15–* A.A; Soc. Hort. Sci. Ornamental horticulture; plant materials for landscape planting; foliage and winter keys for identification; lawn making.

Curtis, Dr. Roger W(illiam), National Bureau of Standards, Washington, D. C. *Physics.* East Lansing, Mich, Oct. 4, 04. A.B, Michigan, 26; Vienna, 27–28; Ph.D, Hopkins, 34. Junior physicist, *Bur. Standards,* 26–30, asst. physicist, 30–36, assoc. physicist, 36–41, *physicist, 41–* Physical Soc; Philos. Soc. Wash. Absolute measurement of electric current; ultrasonic absorption in gases.

Curtis, Dean W(interton) C(onway), University of Missouri, Columbia, Mo. *[1]*Zoology.* Richmond, Maine, Nov. 4, 75. A.B, Williams Col, 97, A.M, 98, hon. Sc.D, 34; fellow, Hopkins, 00–01, Ph.D, 01. Instr. *zool, Missouri,* 01–04, asst. prof, 04–08, *prof, 08–, dean col. arts and science, 39–, director instruction, U. S. Army, 43–* Instr, Marine Biol. Lab, Woods Hole, 99–03, in charge invert. zool, 08–11, trustee, 23–35, 37–; sci. asst, various seasons, Bur. Fisheries, 04–11; visiting prof, sch. med, Keio Gijuku, Japan, 32–33. Div. biol. and agr, Nat. Research Council, 23–26, chairman, 30–31, exec. board, 35–38. Assoc. ed, 'Jour. Morphol. and Physiol,' 27–30. A.A. (v. pres, F, 26); Soc. Nat; Soc. Zool. (pres, 32); Union Am. Biol. Societies (pres, 31–36). Planaria; Cestoda; embryology of Unionidae; the history of science; regeneration; effects of radiations upon regeneration.

Curtiss, Dean Charles F(ranklin), Iowa State College, Ames, Iowa. *Agriculture.* Nora, Ill, Dec. 12, 63. B.S.A, Iowa State Col, 87, M.S.A, 93; hon. Sc.D, Mich. State Col, 07. Statistician, U. S. Dept. Agr, 88–93; prof. animal husbandry, *Iowa State Col,* and asst. director, Exp. Sta, 91–96, dean agr. and director, 97–32, *senior dean.* Director, State Board Agr, Iowa, 06–09. Judge of live stock, Trans-Miss, Pan-Am, La. Purchase, Lewis and Clark and Panama-Pacific Expositions; pres, Int. Live Stock Expos. Soc. Animal Nutrition (pres, 09); Asn. Agr. Col. (exec. cmt, 02–09); Iowa Live Stock Breeders' Asn. (pres).

Curtiss, Prof. D(avid) R(aymond), 2752 Eastwood Ave, Evanston, Ill. *[3]*Mathematics.* Derby, Conn, Jan. 12, 78. A.B, California, 99, A.M, 01; Ph.D, Harvard, 03, traveling fellow, École nor. supérieure, Paris, 03–04. Instr. *math,* Sheffield Sci. Sch, Yale, 04–05; asst. prof, *Northwestern,* 05–07, assoc. prof, 07–09, *prof, 09–* Lecturer, Harvard, 20–21. A.A. (chairman, A, exec. cmt); Math. Soc. (ed. board, 'Trans.' and 'Bul,' councilor and v. pres); Math. Asn. (pres, 35–37); Soc. math. de France; Circolo Mat. di Palermo. Differential equations; theory of functions; theory of equations.

Curtiss, Prof. John H(amilton), Cornell University, Ithaca, N. Y. *Mathematics.* Evanston, Ill, Dec. 23, 09. A.B, Northwestern, 30; M.S, Iowa, 31; Ph.D, Harvard, 35. Instr. *math,* Harvard, 32–33; asst, Hopkins, 35; instr, *Cornell,* 36–40, *asst. prof, 40–; lieut, U. S. Naval Res, 42–* Asst. ed, 'Annals Math. Statist,' 43– Inst. Math. Statist; Math. Soc. (asst. ed, 'Bul,' 43–); Math. Asn; Economet. Soc. Complex function theory; approximation by polynomials to boundary values of analytic functions; behavior of sequences of analytic functions in the neighborhood of a singular arc; real variable theory; probability and statistics.

Curtiss, Dr. L(eon) F(rancis), National Bureau of Standards, Washington, D. C. *Physics.* Adrian, Mich, Jan. 5, 95. A.B, Cornell, 17, Ph.D, 22. Instr. physics, Cornell, 18–21, Heckscher research asst, 21–22; nat. research fellow physics, Cavendish Lab, 22–24; *Bur. Standards,* 24–26, physicist and *senior physicist, 26–* A.A; fel. Physical Soc. Electrical conductivity of thin metal films in a magnetic field; beta-ray spectra; radioactivity; photography of alpha-ray tracks; point and tube electron counters; probability fluctuations in the rate of emission of alpha-particles; cosmic rays; radiometeorographs.

Curtiss, Dr. Richard S(ydney), 10843 Redmont Ave, Tujunga, Calif. *Chemistry.* Stratford, Conn, Nov. 8, 63. Ph.B, Yale, 88; Munich, 90–91; Ph.D, Wurzburg, 92; Paris, 92–93. Chemist, Conn. Exp. Sta, New Haven, 88–90; docent and instr. org. chem, Chicago, 93–97; prof. chem, Hobart Col, 97–01; Union, 01–04; org. chem, Illinois, 04–12; Throop, 12–16; director research lab, Mex. Petrol. Co, Los Angeles, 16–18; acting prof. org. chem, Stanford, 18–19. Research chemist, Conn. Exp. Sta, 93. A.A; Chem. Soc. (past pres, south. Calif. sect); Ill. Acad; Deuts. Chem. Gesell. Organic chemistry; acetylacetone and acetoaceticester; derivatives of certain amino malonic esters; intermediate addition products in organic chemical reactions; condensation in the mesozalic ester series; petroleum.

Curtman, Prof. Louis J, College of the City of New York, New York, N. Y. *Chemistry.* London, Eng, Oct. 31, 78. B.S, Col. City of N. Y, 99; M.S, N. Y. Univ, 02; Ph.D, Columbia, 07. Instr. *chem,* East Side Evening High Sch, New York, 03–13; *Col. City of N. Y,* 07–15, asst. prof, 15–22, assoc. prof, 22–34, *prof, 34–* Harriman Research Lab, 13–21. Chem. Soc. Analytical chemistry; new methods of analysis.

Curwen, Dr. Alice O(sborne) (Mrs. Edward Forster McKeen), Bucksport, Maine. *Anatomy.* Villanova, Pa, Dec. 3, 02. A.B, Smith Col, 25; Ph.D, Yale, 32. Instr. zool, Smith Col, 25–27; histol. and embryol, Woman's Med. Col. of Pa, 30–31, assoc, 31–33, acting asst. prof, 33–34, *anat,* 34–35, asst. prof, 35–38, assoc. prof, 38–40. A.A; Asn. Anat. Reptilian nervous system; embryology.

Cushing, Daniel, 148 State St, Boston, Mass. *Metallurgy.* Lowell, Mass, June 24, 83. Virginia; Ph.B, Yale, 12; Mass. Inst. Tech. Civil and mech. eng. work, 04–09; gold metal. work, North. Ont, 12–13; asst. supt, Virden Mfg. Co, 13–15; metallurgist in charge foundry, Sandusky Foundry and Machine Co, 15–16; in charge smelters, Chase Metal Works, and consulting non-ferrous metallurgist, 16–17; *consulting metal. engineer, Boston, 19–* Consulting metallurgist. A.S, 18–19, major, C.Eng, 24–29. A.A; Min. and Metal. Eng. (sec'y-treas, Boston sect, 23, v. chairman, 34, 40, chairman, 41); Soc. Test. Mat. (cmt, B–5); Soc. Metals; Soc. Eng; Chem. Soc; Soc. Mil. Eng; New Eng. R. R. Club; British Inst. Metals. Manufacture and application of non-ferrous metals; melting and refining non-ferrous metals; metallography and chemical microscopy of non-ferrous metals; corrosion of metals; metallurgical furnaces.

Cushing, Dr. E(dward) H(arvey), 10515 Carnegie Ave, Cleveland, Ohio. *Medicine.* Cleveland, Ohio, March 17, 98. A.B, Yale, 19; M.D, Harvard, 23. Asst. *med,* Columbia, 24–25, instr, 26–27; clin. instr, *Western Reserve,* 28–33, senior clin. instr, 33–38, *asst. clin. prof, 38–; capt, Med. Corps, div. prev. med, Navy Dept. assigned to div. med. sciences, Nat. Research Council, 40–* Assoc. physician and physician in charge out-patient dept, Univ. Hosps, Cleveland, Ohio. Col. Physicians; Heart Asn; Clin. and Climat. Asn; Cent. Soc. Clin. Research. Heart disease; physiology of the circulation.

Cushing, Emory C(layton), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Grafton, Nebr. B.S, Agr. and Mech. Col. Texas, 23, M.S, 28; grad, Liverpool Sch. Trop. Med, 33; Schuyler fellow, Cornell, 34–35. Lieut, A.C, U.S.A, 23–24, F.A, 24–26; asst. agron, Exp. Sta, Agr. and Mech. Col. Texas, 28; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 28–35, senior entomologist and asst. in charge div. *insects affecting man and animals,* 35–41, *prin. entomologist in charge, 41–* Asn. Econ. Entom; Texas Entom. Soc; Texas Acad. Veterinary and medical entomology.

Cushing, Dr. Hazel M(orton), 85 College Ave, West Somerville, Mass. *Psychology.* Somerville, Mass, March 15, 92. A.B, Radcliffe Col, 14; A.M, Iowa, 25; fellow, Columbia, 27–28, Ph.D, 29. Teacher, supervisor, instr. and sch. psychologist, 14–28; assoc. prof. psychol, Ball State Teachers Col, Ind, 28–29; acting prof. educ, Rochester, 29–34; Nat. Council Parent Educ, 34–35; consultant family life educ, State Dept. Pub. Instruction, Utah, 36–37; mem. staff, inst. child welfare, Minnesota, 37–39; *coordinator family life educ, Spokane, Wash, 40–* Administrator child develop. and parent educ, Board Educ, Rochester, 29–34. Laura Spelman Rockefeller fellow. A.A; Psychol. Asn; Soc. Research Child Develop. Character testing and personality traits; perseveration; child development.

Cushman, Dr. Beulah, 25 E. Washington St, Chicago, Ill. *Ophthalmology.* Bethany, Mo, Oct. 1, 90. B.S, Milwaukee-Downer Col, 22; M.D, Illinois, 16; M.S, Northwestern, 41. Intern, Deaconess Hosp, Spokane, Wash, 16–17; Cook County Hosp, 17–18, res, 18–19; asst. to Prof. G. F. Suker, 22–33; asst, Post-Grad. Hosp, 23–31, asst. prof, 26–31; clin. instr. *ophthal,* Rush Med. Col, Chicago, 31–34; *col. med, Northwestern,* 34–39, *asst. prof, 39–* Res, Bale, Switzerland, 26; Vienna First and Second Eye Clinics, 26–27, 37; Shikarpur, India, 32. Am. Med. Asn; Acad. Ophthal. and Otolaryngol; Ophthal. Soc; Research Soc. Ophthal. Disciform macular degeneration; iridectomy for glaucoma; ocular tuberculosis; the visual fields in functional headaches of pituitary origin; endophthalmitis phacogenetica; visual fields in asthenopia; retinopathies; convergence insufficiency; nutrition in allergy.

Cushman, Dr. J(oseph) A(ugustine), 76 Brook Road, Sharon, Mass. *[5]*Geology, Paleontology.* Bridgewater, Mass, Jan. 31, 81. B.S, Harvard, 03, Ph.D, 09, hon. Sc.D, 37. Museum director, Boston Soc. Nat. Hist, 13–23; *geologist, U. S.*

Geol. Surv, 13–22, 26–; director, Cushman Lab, 23– Lecturer, Harvard, 26– Chairman cmn. micropaleont, Nat. Research Council, 30– A.A; Paleont. Soc. (pres, 37); Geol. Soc. (v. pres, 38); Soc. Econ. Paleont. and Miner. (ed, 26–30, pres, 30); Asn. Petrol. Geol; Am. Geog. Soc; Am. Acad; New Eng. Bot. Club; Boston Soc. Nat. Hist. (trustee, 30); Wash. Acad; Calif. Acad; hon. mem. Royal Micros. Soc. London. Biology; fossil and recent Foraminifera; Ostracoda.

Cushman, Dr. Paul Allerton, 803 Brown Ave, Valparaiso, Ind. *Mechanical engineering.* Haverhill, Mass, June 15, 89. B.S. (E.E), Mass. Inst. Tech, 11, M.S. (Mech.E), 27; Sc.D, Michigan, 32. Instr. eng, Trinity Col. (Conn), 11–13; Pacific Tel. and Tel. Co. and Am. Tel. and Tel. Co, 13–16; instr. steam power plant practise, Wentworth Inst, 16–18; asst. prof. mech. eng, Pa. State Col, 18–19; Polytech. Inst. Brooklyn, 19–24; prof. and head dept, Arkansas, 24–25; research work, Gen. Elec. Co, 25–27; assoc. prof. mech, Nebraska, 27–28; prof. and head dept, Vanderbilt, 28–31; prof. mech. eng, Michigan, 32–33; Valparaiso, 33–39; *in charge exp. eng. and metal, McGill Mfg. Co, 39–* A.A; Mech. Eng; Soc. Metals; Eng. Educ. Applications of electricity in material handling; tabulated recapitulations of thermodynamics; shearing stresses in torsion and bending by membrane analogy; heat treatment of aluminum bronze; slide rule problems and theory.

Cushman, R(obert) A(sa), U. S. National Museum, Washington, D. C. *Entomology.* Taunton, Mass, Nov. 6, 80. New Hampshire, 99, 01; Cornell, 02–05. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 06–, entomologist.* Entom. Soc. Wash. (sec'y, v. pres, pres, 25). Ichneumonidae.

Custer, Dr. R(ichard) Philip, Orchard Lane, Haverford, Pa. *Pathology.* Pa, July 14, 03. Pa. State Col; Bucknell; M.D, Jefferson Med. Col, 28. Res. physician, Bryn Mawr Hosp, Bryn Mawr, Pa, 28–29; asst. instr. *path, sch. med, Pennsylvania, 29–31, assoc, 31–;* chief div. path, *Phila. Gen. Hosp,* 31–38, *assoc. path, 38–; director lab, Presbyterian Hosp, 38–; path, Babies' Hosp, 41–; capt, Med. Corps, U. S. Army, 42–* Guest asst, Path-Anat. Inst, Univ. Innsbruck. A.A; Asn. Path. and Bact. (assoc, ed. board, 'Folia Haematologica'); fel. Col. Physicians Phila; Path. Soc. Phila. (pres, 42–); Physiol. Soc. Phila; Pediat. Soc. Phila. General and experimental pathology; normal and pathologic anatomy and physiology of blood-forming organs.

Custis, Dr. Horace H(atch), 1839 Irving St, N. W, Washington, D. C. *Chemistry.* Washington, D. C, March 16, 84. A.B, Hopkins, 06; A.M, George Washington, 08, Ph.D, 16. Chemist, Wash. Gas Light Co, 06–08; asst. chem, George Washington, 07–08; asst. to chemist, health dept, D. C, and collaborating chemist, bur. chem, U. S. Dept. Agr, 08–09; junior chemist, U. S. Geol. Surv, 09, *chemist,* 09; U. S. Dept. Agr, 09–41; *Office Production Management, 41–* Actinochemistry.

Cuthbert, Dr. F. Leicester, University of Illinois, Urbana, Ill. *Mechanical engineering.* Buffalo, N. Y, March 5, 13. A.B, Buffalo, 35, A.M, 37; Ph.D, Iowa State Col, 40. *Research assoc. petrog. and mech. eng, Illinois, 40–* Miner. Soc. Clay mineralogy; foundry molding sands.

Cuthbert, Dr. N(icholas) L(eHuray), Iowa Wesleyan College, Mt. Pleasant, Iowa. *Genetics.* Westmont, N. J, March 25, 14. A.B, Iowa, 36; A.M, Wisconsin, 37, Ph.D, 41. *Instr. biol, Iowa Wesleyan Col, 41–* A.A; Genetic Asn; Wis. Soc. Ornith; Iowa Acad; Iowa Ornith. Union. Ovarian cycle of the ring dove.

Cuthbertson, Major A(rnold) C(ralg), 700 Echo Drive, Ottawa, Ont, Can. *Chemistry.* Tara, Ont, April 21, 02. B.Sc, McGill, 26, M.Sc, 27, Nat. Research Council Can. bursar, 27–28, student, 28–29, Ph.D, 29. Research fellow, Pulp and Paper Inst, 29–30; asst. prof. *chem, Mt. Allison,* 30–37, *prof, 37–; major, gen. staff, Nat. Defense Headquarters.* Research, Lab. Colloid Sciences, Cambridge, England, 37. Can. Chem. Asn. (chairman, maritime sect); Can. Inst. Chem. (councilor, v. pres); Faraday Soc. Mechanism of the polymerization of vinyl acetate; chemical kinetics of the decomposition of benzoyl peroxide in organic solvents; viscosity molecular weight relationships of long chain polymers.

Cuthbertson, Dr. G(eorge) R(aymond), 3928 Berkshire, Detroit, Mich. *Chemistry.* Liberty, Mo, June 23, 10. A.B, William Jewell Col, 31; A.M, Harvard, 33, Loomis fellow, 33–35, Ph.D, 35. Teaching fellow, Harvard, 31–35, asst, 35–36; *research chemist, U. S. Rubber Products, 36–* Chem. Soc. Physical chemistry; fluorescence; gaseous equilibria and reaction rates; heats of reactions; sublimation pressures; rubber.

Cutler, Prof. A(lvin) S, 4355 Coolidge Ave, Minneapolis, Minn. *Civil engineering.* Pittsford, Mich, March 19, 79. Hillsdale Col, 96–00; C.E, Minnesota, 05. Eng. dept, railways, 00–18; instr. *ry. eng, Minnesota,* 07–10, from asst. prof. to *prof,* 22– Civil Eng; Ry. Eng; Eng. Educ. Railway engineering.

Cutler, Dr. Elliott C(arr), Harvard Medical School, Boston, Mass. *Surgery.* Bangor, Maine, July 30, 88. A.B, Harvard, 09, M.D, 13; hon. Dr, Strasbourg, 38; Sc.D, Vermont, 41. House officer, Peter Bent Brigham Hosp, Boston, 13–15; res. surgeon, Am. Ambulance Hosp, Paris, 15; asst. surg, Harvard Med. Sch, 15–16; res. surgeon, Mass. Gen. Hosp, 15–16; vol. asst, Rockefeller Inst, 16–17; res. surgeon, Peter Bent Brigham Hosp, 19–21; instr. surg, Harvard Med. Sch, 21–24; prof, sch. med, Western Reserve, and surgeon-in-chief, Lakeside Hosp, Cleveland, 24–32; *Moseley prof. surg, Harvard, 32–; col, Med. Corps, U. S. Army, 42–, chief consultant surg, European theater of operations, 42–* Surgeon in chief, Peter Bent Brigham Hosp, 32– D.S. medal; Victory medal with Battle Clasps. M.C, 15–24, capt, lieut. col, M.R.C, 24–42. A.A; Surg. Asn; Col. Surg; Am. Med. Asn. (chairman, cmt. on protection med .research, 28–); Soc. Exp. Biol; Soc. Exp. Path; Int. Surg. Soc. Thoracic and neurological surgery.

Cutler, Prof. G(arnet) H(omer), Purdue University, Lafayette, Ind. *Agronomy.* Arkona, Ont, Can, June 12, 82. B.S.A, Toronto, 09; M.S, Wisconsin, 25, Ph.D, 28. Lecturer cereal husbandry, Macdonald Col, McGill, 09–13; *prof.* field husbandry, Saskatchewan, 13–16; Alberta, 17–25; *agron, Purdue, 26–* Soc. Agron; Genetic Asn; Ind. Acad; Int. Crop Improv. Asn. (pres, 19). Plant breeding; breeding winter wheat, soybeans, spring oats and red clover; farm crops; crop varieties; crop improvement.

Cutler, Dr. George David, 319 Longwood Ave, Boston, Mass. *Surgery.* Hopkinton, Mass, April 3, 85. B.S, Harvard, 07, M.D, 10. *Chief surgeon, Milton Hosp, 27–; instr. surg, Harvard Med. Sch,* 28–34, *42–; assoc. visiting surgeon, Children's Hosp, Boston, 26–;* lecturer, *med. sch, Tufts Col,* 27–41, *prof. clin. surg, 41–* Fel. Col. Surg; Am. Med. Asn; New Eng. Pediat. Soc; New Eng. Surg. Soc; Boston Surg. Soc. Gangrene in infants; children's diseases; a double triangle towel shoulder cap; sacral teratoma; prolapsus of the bowel; lipoma of the scalp; mesenteric defects and intestinal obstruction; congenital tumors of the maxilla; ectopia cordis; volvulus; skeletal traction in the treatment of bilateral fracture of the femur.

Cutler, Dr. J(ack) W(illiam), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, 00. M.D, Pennsylvania, 25. Instr. and later *assoc. pulmonary diseases, grad. sch. med, Pennsylvania, and consultant collapse therapy clinic, Henry Phipps Inst.* Med. director, Wawa Chest Hosp. Fel. Am. Med. Asn; Sanit. Asn. Collapse therapy in pulmonary tuberculosis; blood sedimentation test.

Cutler, J(ohn) S(umner), Soil Conservation Service, Milwaukee, Wis. *Agronomy.* Sylvania, Ohio, July 3, 99. B.S, Mich. State Col, 21; M.S, Ohio State, 23. Exten. specialist, Ohio State, 23–26; assoc. agronomist, Ohio Exp. Sta, 26–34; regional conservator, *soil conservation service, U. S. Dept. Agr,* 34–42, *asst. regional conservator, 42–* Soc. Agron; Soil Sci. Soc. Soil conservation; erosion control.

Cutright, Dr. C(lifford) R, Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Buckhannon, W. Va, June 20, 93. A.B, Ohio State, 21, M.S, 22, Ph.D, 25. Asst. entomologist, *Ohio Exp. Sta,* 22–28, *assoc. entomologist, 28–* Summers, field asst, bur. entom, U. S. Dept. Agr, 14–17. Lieut, U.S.A, 17–19. Entom. Soc; Asn. Econ. Entom; Ohio Acad. Subterranean aphids; aphid predators; apple aphids; codling-moth.

Cutright, Dr. Paul R(ussel), Beaver College, Jenkintown, Pa. *Zoology.* Lorentz, W. Va, March 18, 97. A.B, West Virginia, 21, A.M, 23; Ph.D, Pittsburgh, 32. Head dept. biol, Geneva Col, 23–30; instr. zool, Pittsburgh, 30–33; *head dept. biol, Beaver Col, 33–* A.A. Spermatogenesis of the mouse; South American naturalists.

Cutshall, Prof. C(hester) S(herman), 1220 Ravinia Road, West Lafayette, Ind. *Mechanics.* Fort Wayne, Ind, May 24, 96. B.S. (Ch.E), 19, M.S. (Ch.E), 24. Chem. engineer,

Eli Lilly and Co, Indianapolis, 19–20; instr. physics, *Purdue*, 20–23, *applied mech*, 23–26, asst. prof, 26–33, assoc. prof, 33–41, *prof, 41–* Eng. Educ. Applied mechanics; strength of materials.

Cutter, Prof. Harold B, 60 Glynn Court, Detroit, Mich. *Chemistry.* Brookline, Mass, Oct. 1, 99. A.B, Harvard, 21, Ph.D, 25. Instr. *chem*, Col. City of Detroit, 25–27, asst. prof, 27–33, *Wayne*, 33–34, *assoc. prof, 34–* Chem. Soc. Application of ionic reducing agents to organic compounds; the electronic band spectrum of neutral hydroxyl group; identification of alkyl halides and of nitriles.

Cutter, Dr. Irving S(amuel), 303 E. Superior St, Chicago, Ill. *Biochemistry.* Keene, N. H, Dec. 5, 75. B.S, Nebraska, 98, M.D, 10, Sc.D, 25; LL.D, Jefferson Med. Col, 31; Sc.D, Northwestern, 41. Instr. physical chem, Nebraska, 10–13, adj. prof. biochem, 13–14, prof, 14–25, director labs. and dean med. col, 15–25; assoc. prof. internal med, *Northwestern*, 25–41, *prof. med, 41–*, dean *med. sch*, 25–41, *emer. dean, 41–* A.A; Am. Med. Asn; Chem. Soc. Creatin and creatinin in metabolism of children.

Cutter, Dr. V(ictor) M(acomber), Jr, Cornell University, Ithaca, N. Y. *Mycology, General botany.* Guirigua, Guatemala, Feb. 20, 17. A.B, Dartmouth Col, 38; Michigan, 40; Ph.D, Cornell, 41. Asst. *bot, Cornell*, 41–42, *instr, 42–* Mycol. Soc; Bot. Soc; N. H. Acad; Torrey Bot. Club. Cytology of zygomycetes; taxonomy of water molds; taxonomy, distribution and physiology of lactiferous plants.

Cutting, Charles Suydam, 20 Pine St, New York, N. Y. *Mammalogy.* New York, N. Y, Jan. 17, 89. A.B, Harvard, 12. *Trustee, R. F. Cutting estate.* Four expeds, Field Museum Nat. Hist, Cent. Asia; exped. for Pitt River Museum, Univ. Oxford, Abyssinia; Am. Museum Nat. Hist. and Field Museum Nat. Hist. expeds, Cent. Asia, Assam, Andamans and Abyssinia; Am. Museum Nat. Hist. exped, Celebes Island and Upper Burma; Lhasa and Central Tibet exped. Trustee, Am. Museum Nat. Hist; hon. mem, Field Museum Nat. Hist, Chicago; mem, Bombay Museum. Am. Geog. Soc; N. Y. Zool. Soc. (trustee); Royal Geog. Soc; Cent. Asian Soc; Himalayan Club. Big mammals; mammalogy of central Asia.

Cutting, Dr. J(ames) A(rthur), State Hospital, Agnew, Calif. *Psychiatry.* Iowa, 83. A.B, Stanford, 06; M.D, Cooper Med. Col, 11. Intern, Lane Hosp, 11–13; *asst. physician, Agnew State Hosp, 13–; asst. clin. prof. med, sch. med, Stanford, 21–, asst. med. director, 35–* Fel. Am. Med. Asn; Psychiat. Asn. Mastic test for the spinal fluid; reaction of the pupil to colored light; heart size in dementia praecox; hallucination as an aid in the interpretation of the psychoses; mechanism of epilepsy.

Cutting, Dr. Reginald A(lex), 1247 New Hampshire Ave, N. W, Washington, D. C. *Surgery.* Moultonboro, N. H, May 7, 94. A.B, Harvard, 14, A.M, 17, Ph.D, 19; M.D, McGill, 23. Instr, med. sch, Tufts Col, 19–20; asst. prof, med. sch, George Washington, 20–21; col. med, Illinois, 21–22; instr, U.S.N. Med. Sch, 23–26; asst. prof. surg, sch. med, Tulane, 27–31; *prof*, med. center, Louisiana, 31–34; *physiol. and head dept, sch. med, Georgetown, 34–* Asst. clin. prof, col. med, Howard, 34–35. Physiol. Soc; Soc. Exp. Biol. Physiology; biochemistry; general surgery.

Cutting, Dr. Windsor C(ooper), Stanford University School of Medicine, San Francisco, Calif. *Internal medicine.* Campbell, Calif, July 30, 07. A.B, Stanford, 28, M.D, 32. House officer, Stanford Hosp, 31–35; nat. research fellow, Middlesex Hosp, London, England, 35–36; fellow, Hopkins, 36–38; asst. prof. *therapeut, sch. med, Stanford*, 38–41, *assoc. prof, 41–* A.A; Federation Clin. Research; Soc. Exp. Biol. and Med; Soc. Pharmacol; Calif. Acad. Med. Experimental therapeutics; hormones; bacterial chemotherapy.

Cutujian, Prof. Frances C(atherine), Hood College, Frederick, Md. *Psychology.* New York, N. Y, Oct. 28, 97. A.B, Vassar Col, 20, A.M, 22; Ph.D, Yale, 37. Asst. *psychol*, Vassar Col, 20–23, instr, 23–27; Wheaton Col. (Mass), 29–38; *Hood Col*, 38–39, *asst. prof, 39–* A.A; assoc. Psychol. Asn; East. Psychol. Asn. Child, experimental and social psychology; measurements.

Cutuly, Dr. E(ugene), Wayne University College of Medicine, Detroit, Mich. *Anatomy.* Pittsburgh, Pa, Aug. 2, 10. B.S, Pittsburgh, 30, M.S, 32, Ph.D, 34. Belcher fellow, Cleveland Clinic Research Foundation, 34–38; instr. *anat, col. med, Wayne*, 38–42, *asst. prof, 42–* Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions. Endocrinology.

Cuykendall, Dr. Trevor R(hys), Cornell University, Ithaca, N. Y. *Physics.* Denver, Colo, Nov. 30, 05. B.S, Denver, 26, M.S, 27; Ph.D, Cornell, 35. Asst. physics, Denver, 23–27, instr. math, 27–29; asst. physics, *Cornell*, 29–30, instr, 30–36, research assoc. *civil eng*, 36–39, *asst. prof, 39–, consultant, U. S. Eng. Dept, Naval Ordnance Lab, 39–* Soc. Test. Mat; Physical Soc. Geiger electron counter; x-ray spectroscopy and absorption coefficients of very short x-rays; electronics; photoelasticity; strength of materials; applied mechanics.

Cuyler, Prof. Robert H(amilton), University of Texas, Austin, Texas. *Geology, Paleontology.* Austin, Texas, May 28, 08. A.B, Texas, 26, A.M, 27, Ph.D, 31. Instr. *geol, Texas*, 27–37, asst. prof, 37–39, *assoc. prof, 39–* Paleont. Soc; Geol. Soc; Asn. Petrol. Geol; Texas Acad. Stratigraphic and subsurface geology; paleontological and subsurface correlations; micropaleontology; microlithology; ecology.

Cuyler, Dr. W(illiam) Kenneth, Duke Hospital, Durham, N. C. *Endocrinology.* Austin, Texas, Oct. 31, 00. A.B, Texas, 23; A.M, Western Reserve, 29; Ph.D, Duke, 40. Asst. leader and biologist, South Atlantic exped, Cleveland Museum Nat. Hist, 23–26, asst. ornithologist, 26–29; asst. urol, Cleveland Clinic Foundation, 29–32, instr, Frank E. Bunts Inst, 36–38; head endocrine lab, div. endocrinol. and metabolism, Cleveland Clinic, 32–38; *research instr, dept. obstet. and gynec, Duke and Duke Hosp, 40–* Summers, tutor, Texas, 23; prof, Southwest Texas Teachers Nor. Sch, 23. Board editors, 'Your Garden Magazine,' 27–29. Asn. Study Int. Secretions. Physiology of reproduction; experimental and clinical endocrinology as related to obstetrics, gynecology and andrology; laboratory methods in endocrinology; mammals of French West Africa; herpetology of Texas and the Mexican border.

Cwalina, Dr. Gustav E(dward), 2027 Dodge St, Omaha, Nebr. *Pharmaceutical chemistry.* Baltimore, Md, Feb. 6, 09. B.S, Maryland, 31, M.S, 33, Ph.D, 37. Asst. *chem*, Maryland, 31–37; asst. prof, *Creighton*, 37–41, *assoc. prof, 41–* Lieut, Sanit.Res, 39– Chem. Soc; Pharmaceut. Asn. Phytochemical investigation of ipomea pes-caprae.

Cyr, Howard M(ason), N. J. Zinc Co, Palmerton, Pa. *Metallurgy, Chemical engineering.* Somerville, Mass, July 11, 96. B.S, Mass. Inst. Tech, 18. *N. J. Zinc Co, 19–, chief zinc oxide sect.* Chem. engineer, C.W.S, 18–19. Chem. Soc. Preparation and properties of spectroscopically pure zinc; reduction and purification of zinc ores; condensation of zinc vapors; color and shape of zinc oxide crystals; use of high strength pigments in paper; zinc chromates.

Czarnetsky, Dr. Edward J, Wilson and Co, Inc, Chicago, Ill. *Medicine.* La Crosse, Wis, May 20, 05. B.S, Minnesota, 30; fellow, California, 30–33, Ph.D, 33. Assoc, Mt. Zion Hosp, 34; Merck fellow, Pennsylvania, 35, Merck fellow bacter, sch. med, and instr, grad. sch. med, 36–39; *consulting scientist, Wilson and Co, Inc, 39–* Phase rule applied to biology; biochemistry of proteins; enzymes of leucocytes; antigens of hemolytic streptococci; intravenous antisepsis; mercurial protein compounds; electro-ultrafiltration.

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Daasch, Prof. Harry L(awrence), University of Vermont, Burlington, Vt. *Engineering.* Davenport, Iowa, April 2, 03. B.S, Iowa State Col, 25, M.E, 30, M.S, 33; fellow, Colo. Sch. Mines, 26–27, Met.E, 27; Purdue, 27–28. Instr, Purdue, 27–28; asst. prof. *mech. eng*, Iowa State Col, 30–35, assoc. prof, 35–39; *prof. and head dept, Vermont, 39–* Consulting mech. and metal. engineer, 30– Mech. Eng; Eng. Educ; Soc. Metals; Faraday Asn. Mechanical and metallurgical engineering; thermal and mechanical treatment of metals and relationships of such to properties, processing and design.

Dabney, Dr. Charles W(illiam), Glendale, Ohio. *[1]*Chemistry.* Hampden-Sydney, Va, June 19, 55. A.B, Hampden-Sydney Col, 73; Virginia, 77; Ph.D, Göttingen, 80; LL.D, Yale, 01, Hopkins, 02. Prof. chem, Emory and Henry Col, 77–78; state chemist and director, N. C. Exp. Sta, 80–87; pres, Tennessee, 87–04, prof. agr. and director, Exp. Sta, 87–90; pres, Cincinnati, 04–20. Asst. sec'y agr, 93–97; special agent, sci. investigation, U. S. Dept. Agr, 97; pres, Summer Sch. of South, 02–04; mem, S. Educ. Board, 02–14. Chief dept. govt. and state exhibit, New Orleans Expos, 84; chairman board govt. exhibit, Atlanta Expos, 95; Tenn. Centennial Expos, 97;

jury awards, Paris Expos, 00. Chevalier, Légion d'honneur; officier de l'Instruction pub. A.A; Wash. Acad. Geology; isomerism among benzol compounds; isopicraminic acid; phosphates; agricultural resources of North Carolina; potash, asphalt rock, lignites and kaolin in Texas and the Southwest; the culture of cotton; history of agricultural and technical education in the United States; southern public schools; universal education in the South.

Dacey, Dr. J(ohn) R(obert), National Research Council, Sussex St, Ottawa, Ont, Can. *Physical chemistry.* Manchester, Eng, April 28, 14. B.Sc, Dalhousie, 36, M.Sc, 38; Ph.D, McGill, 40. Senior asst, Nat. Research Council, Can, 40; *major, Royal Can. Army, and officer, research sect, Chem. Warfare Labs, 40–* Kinetics of gas reactions; critical phenomena; chemical warfare.

Dachnowski, Dr. A(lfred) P(aul), 4449 Greenwich Parkway, N.W, Washington, D. C. *Botany.* Königshütte, Germany, Jan. 23, 75. Berlin, 00–01; Vienna, 02; Ph.D, Michigan, 06. Asst. plant physiol, Michigan, 03–06; biologist, Mich. Mil. Acad, 07; asst. prof. bot, Ohio State, 08–14; plant physiologist, bur. soils, U. S. Dept. Agr, 15, bur. plant indust, 15–27, bur. chem. and soils, 27–38, bur. plant indust, 38–42; *retired.* Collaborator, bur. plant indust, U. S. Dept. Agr, 09–; botanist, Ohio Geol. Surv, 09–12. A.A; Soil Sci. Soc; Ecol. Soc; Am. Geog. Soc; Wash. Acad; Int. Soc. Soil Sci. (chairman peat cmn, 27–33). Ecology; stratigraphy of peat deposits; types of peat material; correlation; peatland agriculture; peat resources in Alaska and continental United States.

Dack, Prof. G(all) M(onroe), University of Chicago, Chicago, Ill. *Bacteriology.* Belvidere, Ill, March 4, 01. B.S, Illinois, 22; Ph.D, Chicago, 27, M.D, 33. Instr. hygiene and bacter, *Chicago,* 25–29, asst. prof, 29–37, *assoc. prof. bacter,* 37– Ricketts prize, 25. Soc. Bact; Soc. Exp. Biol. Food poisoning; intestinal bacteriology; bacteriology of infectious diseases.

Da Costa, Dr. Esther (Hoelzel), 5307 Ellis Ave, Chicago, Ill. *Physiology.* Pittsburgh, Pa, Dec. 14, 03. B.S, Chicago, 24, M.S, 29, Ph.D, 40. Tech. asst. *physiol, Chicago,* 33–41, *research asst, 41–* Endocrinology; gastro-enterology; mineral metabolism; relation between thyroid and gonads; etiological factors in gastric, duodenal, colonic and caecal ulceration; rickets; vitamin A and mineral oil; calcification; vitamin D.

Daddow, Dr. Wilbur T(albot), 3207 Fernwood Place, Wilmington, Del. *Chemistry.* Sherman Co, Nebr, March 7, 06. B.S, Hastings Col, 24; M.S, Iowa, 25, Ph.D, 28. Research chem, *E. I. du Pont de Nemours and Co,* 28–29, *chem. supervisor, 29–* Chem. Soc. (treas, Del. sect, 36–38). Organic chemistry.

Dadisman, Prof. A(ndrew) J(ackson), 305 Beverly Ave, Morgantown, W. Va. *Economics.* Grafton, W. Va, Feb. 5, 81. Grad, Fairmont State Nor. Sch, 08; B.S.A, West Virginia, 14; M.S, Cornell, 14, Ph.D, 24. Teacher, pub. schs, W. Va, 01–06, 08–11; asst. agriculturist, office farm management, U. S. Dept. Agr, 14–16; assoc. prof. rural econ. and farm management, *West Virginia,* 16–24, *prof.* farm econ, 24–33, *econ, 33–, director summer session, 29–* Farm help specialist, W. Va, Ky. and Tenn, 17–18. Econ. Asn; W. Va. Acad. Farm and land economics.

Dadourian, Prof. H(aroutune) M(ugurdich), 125 Vernon St, Hartford, Conn. **3*Physics.* Everek, Asia Minor, Dec. 5, 78. Ph.B, Yale, 03, Loomis fellow, 03–05, A.M, 05, Ph.D, 06. Asst. physics, Sheffield Sci. Sch, Yale, 05–06, instr, 06–17; asst. prof, *Trinity Col. (Conn),* 19–20, assoc. prof, 20–23, *prof. math. and nat. philos, 23–* Aeronaut. engineer, Sig.C, 17–19. A.A; Physical Soc; Math. Soc; Math. Asn; Asn. Teachers Math. New Eng. Analytical mechanics; graphic statics; principles of dynamics; radioactivity of underground air and thorium; constituents of atmospheric radioactivity; production of soft x-rays by slow moving electrons; reflection of electrons from metal surfaces; ionization and radiation; temperature coefficient of the modulus of elasticity of steel; characteristics of electrically operated tuning forks; a phonotelemeter; acoustic circles; simple derivation of the Lorentz transformations.

Daffin, Prof. John B(aker), Mary Baldwin College, Staunton, Va. *Physics.* Marianna, Fla, July 25, 95. B.S, Davidson Col, 18; M.S, Chicago, 24; Hopkins, 28–29. Teacher chem. and physics, Chamberlain-Hunt Acad, 19–20; *prof.* chem. and physics, Arkansas Col, 20–30; *physics and business manager, Mary Baldwin Col, 30–* Summers, asst, Chicago, 21, 23; prof, Ark. State Teachers Col, 25. Chemist, Air Nitrates Corp, U. S. Nitrate Plant No. 2, Muscle Shoals, 18–19. A.A; Chem. Soc. (v. chairman, Ark. sect, 25); Asn. Physics Teachers; Physical Soc; Va. Acad. Crotonic acids; silica gel in organic preparations; physics curriculum for women college students.

Daft, Dr. Floyd S(helton), 3616 N. Albemarle St, Arlington, Va. *Chemistry, Nutrition.* Griswold, Iowa, May 19, 00. A.B, Simpson Col, 21; Ph.D, Yale, 26. Traveling fellow from Yale, 26–27; asst. physiol, Harvard, 27–29; Eli Lilly fellow, Yale, 29–31; asst. path, sch. med. and dentistry, Rochester, 31–36, instr. exp. path. and biochem, 36–37, biochemist, *nat. inst. health, U. S. Pub. Health Service,* 37–40, senior biochemist, 40–42, *prin. biochemist, 42–* A.A; Inst. Nutrition; Chem. Soc; Wash. Acad. Vitamins; nitrogen metabolism; proteins; amino acids; immunochemistry.

Daggett, Prof. Albert F(rederick), University of New Hampshire, Durham, N. H. *Chemistry.* Concord, N. H, Oct. 23, 06. B.S, New Hampshire, 28, M.S, 30; fellow, Columbia, 33–34, Ph.D, 34. Instr. *chem,* New Hampshire, 28–31; asst. instr, Columbia, 31–33, research assoc, 34; instr, Hunter Col, 35; *New Hampshire,* 35–37, asst. prof, 37–41, *assoc. prof, 41–* Chem. Soc; Optical Soc; N. H. Acad. Semi-micro qualitative analysis; spectrographic analysis; rare earths; heavy water; photo-chemistry.

Daggett, Dean P(arker) H(ayward), Rutgers University, New Brunswick, N. J. *Electrical engineering.* Boston, Mass, April 5, 85. B.S, Harvard, 10. Asst. elec. eng, Harvard, 08–09; engineer, toll traffic dept, Am. Tel. and Tel. Co, 09–10; assoc. prof. elec. eng, North Carolina, 10–13, prof. and head dept, 13–29; *dean col. eng, Rutgers, 29–* Acting dean sch. applied science, North Carolina, 15–16, sch. eng, 24. Pres, Nat. Council State Boards Eng. Examiners, 25, sec'y, 22, 30. Acting dist. educ. director, S.A.T.C, 18–19. Elec. Eng; Eng. Educ. (councilor, 21–24, v. pres, 35); Eng. Council Professional Develop; N. C. Soc. Eng. (pres, 29); N. C. Eng. Council (pres, 29). Alternating current circuits and machinery; engineering education.

Daggs, Lieut. Col. Ray G(ilbert), 29 Adsit Court, Burlington, Vt. *Physiology, Nutrition.* McKees Rocks, Pa, June 26, 04. B.S, Bucknell, 26; Ph.D, Rochester, 30. Nat. research fellow, Rochester, 27–29, asst. *physiol,* 29–30, instr, 30–33, asst. prof, 33–36; *col. med, Vermont,* 36–37, *assoc. prof, 37–, acting head dept, 41–; lieut. col. and food and nutrition consultant, Sanit. Corps, U. S. Army,* A.A; Physiol. Soc; Inst. Nutrition; Chem. Soc. Physiology of nutrition; lactation as influenced by diet; vitamins; endocrines and metabolism.

Daghlian, Prof. G(arabed) K(rikor), Connecticut College for Women, New London, Conn. *Physics.* Aintab, Turkey, Jan. 11, 82. A.B, C. T. Col, Aintab, Turkey, 02; A.M, Columbia, 10, Ph.D, 11; Am. Univ. Beirut, 06–07. From asst. to prof. physics and chem, C. T. Col, Aintab, 02–15; instr. physics, Alfred, 11–12; asst. prof. physics and physical chem, *Conn. Col,* 21–22, assoc. prof, 22–27, physics, 27–31, *prof. and head dept. physics and astron, 31–, director astron. observatory, 27–* A.A; Physical Soc; Astron. Soc. Astronomy.

Dahl, Dr. A(nthony) Orville, Harvard University, Cambridge, Mass. *Botany.* Minneapolis, Minn, April 18, 10. B.S, Minnesota, 32, M.S, 33, Ph.D, 38. Asst. bot, Minnesota, 32–35, teaching asst, 36–38; instr. and tutor *biol, Harvard,* 38–41, *faculty instr. and tutor, 41–* Summer, instr, Minnesota, 38. A.A; Bot. Soc; Ecol. Soc; Torrey Bot. Club; New Eng. Bot. Club. Atmospheric pollen; cytotaxonomy; pollen morphology; experimental morphology.

Dahl, Dr. Arnold S(ixten), 4949 Hurst Terrace, Washington, D. C. *Plant pathology.* Superior, Wis, Dec. 23, 99. B.S, Wisconsin, 24, M.S, 25, Ph.D, 31; Minnesota, 28–29. Prof. biol, Kansas City Univ, 25–26; bot, Des Moines, 26–27; plant pathologist, green sect, U. S. Golf Asn, in cooperation with bur. plant indust, *U. S. Dept. Agr,* 27–34, agronomist, *soil conservation service,* 34–40, *soil conservationist, 40–* A.A; Phytopath. Soc; Bot. Soc. Pasture management of humid areas of the United States.

Dahl, O(tto) G(ustav) C(olbiornsen), 319 Tappan St, Brookline, Mass. *Electrical engineering.* Horten, Norway, Sept. 20, 93. B.S, Mass. Inst. Tech, 21, M.S, 24. Lecturer, Royal Norwegian Naval Acad, 19–20; asst. elec, Mass. Inst. Tech, 21–22, instr. elec. eng, 22–25, asst. prof. elec. power transmission, 25–26, assoc. prof, 26–31, prof, 31–37; *engineer,*

Jackson and Moreland, 37– Elec. engineer, Jackson and Moreland, 23–37. Lieut, Royal Norwegian Navy, 17–19. Fel. Elec. Eng; Eng. Educ; Am. Acad. Transformer reactance; transformer harmonics and their distribution; temperature stresses in cylinders; electric power-circuit; transmission.

Dahlberg, Dr. A(rthur) C(hester), New York Agricultural Experiment Station, Geneva, N. Y. *Dairying.* Curtiss, Wis, Jan. 1, 96. B.S, Minnesota, 15, M.S, 16; Ph.D, Illinois, 29. Instr. dairying, Wisconsin, 16–17; creamery exten. specialist, N. Dak. Col, 17–19; supt. cooperative creamery, N. Dak, 19–21; *chief research, N. Y. Exp. Sta, Geneva, 21–; mem. special mission to Cent. Amer, U. S. Dept. Agr. and Office Counsellor Inter-Am. Affairs, U. S. State Dept, 43–* Ed, 'Jour. Dairy Science,' 28–38; abstracts of dairy lit, Int. Asn. Ice Cream Mfrs, 27–37; Int. Asn. Milk Dealers, 30–37. Del, World's Cong, Berlin, 37. Dairy Sci. Asn; N. Y. Dairymen's Asn. (pres, 26, 27); N. Y. Jersey Cattle Club (pres, 26–28). Dairy manufacturing.

Dahlberg, Henry W, 500 Sugar Bldg, Denver, Colo. *Chemical engineering.* Fergus Falls, Minn, Sept. 24, 87. B.S, Minnesota, 10; Inst. für Zucker-Indust, 12. Factory and traveling chemist, *Great West. Sugar Co,* 10–16, manager statist. dept, 16–20, *director research, 20–* U. S. rep, Int. Cmn. Uniform Methods of Sugar Analysis, 34– Chem. Eng; Chem. Soc. (chairman, sugar div, Colo. sect). Sugar research and manufacturing methods; soil methods.

Dahle, Prof. Chester D(istad), State College, Pa. *Dairying.* Cheney, Wash, 96. B.S, Minnesota, 19, M.S, 21, Ph.D, 37. Asst. prof. *dairy mfg,* Minnesota, 22–24; assoc. prof, *Pa. State Col,* 24–29, *prof, 29–* Lecturer, Tennessee; col. agr, California; Ont. Agr. Col; West Virginia; Kans. State Col; Mich. State Col; Ohio State; Minnesota. Dairy Sci. Asn. (sec'y, dairy mfg. sect, 25, 30, chairman, 41). Physical and chemical properties of ice cream mixes; structure of and keeping qualities of milk powders; flavors of milk and ice cream.

Dahle, Dr. Dan, 716 Auburn St, Takoma Park, Md. *Chemistry.* Surte, Sweden, Aug. 30, 94. Chem.E, Chalmers Inst. Tech, Sweden, 19; M.S, American Univ, 34, Ph.D, 36. Chemist, Advex Corp, Brooklyn, 20–21; chief chemist, Wilckes-Martin-Wilckes Co, Camden, 21–23; research chemist, Phosphate Mining Co, Nicholas, Fla, 23–24; asst. state chemist, Tallahassee, Fla, 24–28; asst. chemist and assoc. chemist, food and drug admin, U. S. Dept. Agr, Savannah, Ga, and Wash, D. C, 28–39; in charge cosmetic div, Fed. Security Agency, 39–42; consultant toiletries and cosmetics, War Production Board, 42–43; *chief cosmetic div, food and drug admin, Fed. Security Agency, 43–* Agr. Chem. Microquantities of fluorine.

Dahlen, Dr. Miles A(ugustinus), 309 Milton Drive, Brandywine Hills, Wilmington, Del. *Organic chemistry, Chemical engineering.* St. Paul, Minn, Jan. 4, 04. B.S, Minnesota, 24, du Pont fellow, 27–28, Ph.D, 28. Asst. chem, Minnesota, 24–27; *research chemist, dyes, dye intermediates and related products, Jackson lab, E. I. du Pont de Nemours and Co,* 28–38, head research div, 30–38, *asst. director tech. lab, 38–* Chem. Soc. (sec'y, Del. sect, 35, v. chairman, 37, chairman, 38; councilor, 39–41); Asn. Textile Chem. and Colorists; Chem. Eng. Theoretical organic chemistry; dye intermediates; dyes, especially azoic, methane, indigoid and sulfur colors; application of dyes and auxiliaries to textiles, paper and leather.

Dahlgren, Edwin H(arold), 7731 22nd Ave, N. E, Seattle, Wash. *Fisheries.* Tacoma, Wash, March 23, 07. B.S, Washington (Seattle), 30. *Biologist, fish and wildlife service, U. S. Dept. Interior, 30–* Lecturer, Washington (Seattle). Life history and condition of the supply of Pacific herring.

Dahlgren, Prof. Ulric, 7 Evelyn Place, Princeton, N. J. **[1]Histology, Invertebrate zoology.* Brooklyn, N. Y, Dec. 27, 70. A.B, Princeton, 94, M.S, 96. Instr. *biol, Princeton,* 95–99, asst. prof, 99–11, prof, 11–39, *emer. prof, 39–* Summers, instr, Marine Biol. Lab, Woods Hole, 96, 97, asst. director, 99–; trustee, Harpswell Lab, 14–; director, Mt. Desert Biol. Lab, 21–26, trustee, 26–, pres. corp, 37–, supervisor, Isabelle Zabriskie Hegner lab, 38– Potts gold medal, Franklin Inst, 17. A.A; Soc. Nat; Soc. Zool; Asn. Anat; Philos. Soc. Principles of animal histology; production of light by organisms; giant ganglion cell apparatus; breathing valves; dorsal nervous apparatus; electric and luminous organs of fishes; evolution of electric organs from muscles; static and auditory organs of mollusks.

Dahlstrom, Dr. R(obert) K(irchner), Johns Hopkins University, Silver Spring, Md. *Physics.* Eau Claire, Wis, April 4, 09. B.S, Washington (Seattle), 30, Ph.D, 34. Instr. physics and math, Wash. State Nor. Sch, 34–37, East. Wash. Col. Educ, 37–42; *physicist,* Carnegie Institution, 42; *Hopkins, 42–* Physical Soc. Field currents; thermionics.

Dahlstrom, Dr. Roy, Plainfield, N. J. *Chemistry.* De Sota, Nebr, June 13, 05. Titanium Pigment Co. fellow, Chicago, 29–30, Ph.D, 30. Research labs, *Titanium Pigment Co, Inc,* Brooklyn, 30–35, chief chemist, *Sayreville, N. J,* 35–38, *asst. director research, 38–* Chem. Soc. Surface energy of solids; pigments.

Dahm, Dr. C(ornelius) G(eorge), 3625 Bryn Mawr Drive, Dallas, Texas. *Seismology.* St. Louis, Mo, Oct. 23, 08. A.B, St. Louis, 30, M.S, 32, Ph.D, 34; Storrow fellow, Nat. Research Council, 32. Teaching fellow geophys, St. Louis, 30–32, instr, 34–37; *chief research party, Magnolia Petrol. Co, 37–* Seismol. Soc; Geophys. Union; Soc. Explor. Geophys; Mo. Acad. Structure of the interior of the earth; wave velocities in the earth; depth of the earth's core; travel times, reflection and refraction of seismic waves.

Dahm, Dr. Tho(ma)s M(atthew), 601 N. Michigan Ave, Pasadena, Calif. *Physics.* McGregor, Iowa, July 28, 87. A.B, Northwestern, 08, A.M, 09; Ph.D, Wisconsin, 26. Instr. physics, Wisconsin, 20–22; asst. prof, Idaho, 22–27, assoc. prof, 27–30; visiting prof, Calif. Inst. Tech, 30–32; Bush Elec. Corp, *Los Angeles,* 34–36; *Kelley-Koett Mfg. Co, 36–* A.A; Physical Soc; Optical Soc; Northwest Sci. Asn. (chairman, physical chem. sect, 28). Ultra-violet ray filters; photoelectricity; electrocardiographic apparatus.

Dahms, Dr. R(eynold) G(eorge), U. S. Department of Agriculture, Lawton, Okla. *Economic entomology.* Verden, Okla, Oct. 7, 12. B.S, Okla. Agr. and Mech. Col, 33, M.S, 35; Ph.D, Kans. State Col, 42. Under sci. aid, *div. cereal and forage insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–41, *asst. entomologist, 41–;* asst. entom, *Exp. Sta, Okla. Agr. and Mech. Col,* 35–41, *asst. entomologist, 41–* Asn. Econ. Entom. Insect resistance of farm crops.

Dailey, Dr. U(lysses) G(rant), 4758 S. Parkway, Chicago, Ill. *Surgery.* La, Aug. 3, 85. M.D, Northwestern, 06; Paris and Berlin, 12; Paris, Vienna and London, 25–26. Instr. anat, med. sch, Northwestern, 06–08; clin. asst, dispensary, *Provident Hosp, Chicago, Ill,* 09–17, instr. anat. and physiol, training sch, 09–17, surg. nursing, 20–25, *senior attending surgeon.* Ambulance surgeon, Chicago Dept. Health, 07–08; instr, Chicago Med. Col, 16–17; surg. anat. and animal surg, Sullivan's Lab. Surg. Technique. Fel. Am. Med. Asn; Nat. Med. Asn. (pres, 15). Tuberculosis of the cecum; congenital absence of the vermiform appendix in man; patent urachus; hyperthyroidism; vasovesiculitis simulating appendicitis.

Daines, Dean L(yman) L(uther), 1366 Butler Ave, Salt Lake City, Utah. *Bacteriology, Pathology.* Hyde Park, Utah, March 15, 83. A.B, Brigham Young, 08; A.M, Utah, 10; Ph.D, California, 12; M.D, Rush, Chicago, 31. *Prof.* biol, Brigham Young, 12–15; *bacter. and path, Utah, 15–, dean sch. med, 32–* Special expert, leprosy investigation, U. S. Pub. Health Service, 33; pathologist, Latter Day Saints Hosp, 18– Pres. board trustees, Utah Sch. Deaf and Blind. Utah Acad. (pres, 33–35). Bacterial diseases of plants; tuberculosis of cattle; skin lesions of cattle; leprosy.

Daines, Dr. Robert Henry, Rutgers University, New Brunswick, N. J. *Plant pathology.* Preston, Idaho, April 14, 05. B.S, Utah State Agr. Col, 29, M.S, 31; Ph.D, Rutgers, 34. *Asst. plant pathologist, N. J. Agr. Exp. Sta, 34–;* instr. *plant path, Rutgers,* 37–39, *asst. prof, 40–* Phytopath. Soc. Diseases of fruits, sweet potatoes and white potatoes.

Daingerfield, L(awrence) H(ite), U. S. Weather Bureau, New Orleans, La. *Meteorology.* Dardenne, Mo, Feb. 24, 73. Ph.B, Northwest Mo. Col, 95. Aerol. observer, *U. S. Weather Bur,* Washington, D. C, and North Platte, Nebr, 98–99, observer, Denver, Colo, 99–00, Cheyenne, Wyo, 00–01, observer in charge, Taylor, Texas, 02–03, observer and first asst, St. Louis, 03–05, local forecaster in charge, Pueblo, Colo, 06–16, meteorologist and sect. director in charge, Wyo. sect, 17–18, Hawaiian sect, 18–22, Texas sect, 23–32, senior meteorologist in charge, Los Angeles, Calif, 32–41, *senior meteorologist and administrator in charge, forecast dist, New Orleans, La, 41–* Meteorol. Soc; Houston Outdoor Nature Club (pres, 28, hon. pres). Evolution of climate; climatology of Wyoming, Hawaii and Texas; weather and cotton yield in Texas; kona

storms in Hawaii; excessive rain and floods in Los Angeles area; geography of Hawaii.

Dains, Prof. F(rank) B(urnett), 1224 Louisiana St, Lawrence, Kans. *⁴*Chemistry.* Gouverneur, N. Y, Jan. 15, 69. Ph.B, Wesleyan, 90, M.S, 91, Sc.D, 40; fellow, Chicago, 94–95, Ph.D, 98; Berlin and Freiburg, 01–02. Asst. *chem,* Wesleyan, 91–93; asst. prof, Kansas, 93–94; Northwestern, 95–02; prof, Washburn Col, 02–11; assoc. prof, *Kansas,* 11–14, *prof, 14–* Past mem. educ. relations cmt, Nat. Research Council. A.A; Chem. Soc. (chairman, hist. chem. sect, 24, org. div, 27, hist. div, 33); Hist. Sci. Soc; Kans. Acad. (pres, 09). Aldehydes; urea ethers; substituted ureas; thiazoles; imidazoles; pyrazoles; halogen compounds; the interaction of formamidines with bodies containing methylene hydrogen; oxidation of alcohols with aromatic nitro-compounds.

Dakan, Prof. E(verett) L(eRoy), Ohio State University, Columbus, Ohio. *Agriculture, Poultry husbandry.* Savannah, Mo, June 29, 89. B.S, Missouri, 18. Instr. poultry husbandry, Missouri, 17–18; prof, S. Dak. State Col, 18–19; poultry exten. specialist, *Ohio State,* 19–23; *prof. poultry husbandry and chairman dept, 23–* Poultry Sci. Asn; Wilson Ornith. Club. Incubation of pheasant eggs; the effect of light on reproduction and growth of the domestic fowl.

Dake, Prof. Earl D(aniel), 907 11th St, Rapid City, S. Dak. *Civil engineering.* Wessington, S. Dak, Feb. 19, 02. B.S, S. Dak. Sch. Mines, 24, C.E, 30; M.S, Iowa State Col, 27. Instr, *S. Dak. Sch. Mines,* 24–27, asst. prof. *civil eng,* 27–30, *prof, 30–* Supt. construction, S. Dak. State Engineer's Office; Firestone Rubber Co; architectural examiner, Fed. Housing Admin. Assoc. Civil Eng; S. Dak. Soc. Eng. and Architects (sec'y-treas, 34).

Dakin, Dr. H(enry) D(rysdale), Edgehill, Scarborough-on-Hudson, N. Y. *³*Chemistry.* London, Eng, March 12, 80. B.S, Manchester, 01; 1851 Exhib. scholar, London and Heidelberg; D.Sc, Leeds, 07, LL.D, 36; Sc.D, Yale, 18; hon. Ph.D, Heidelberg. Demonstrator chem, Leeds, 01–02; *research worker, Lister Inst. Prev. Med, London, Heidelberg and Herter's Lab, New York.* Mem. board sci. advisers, Merck Inst. Therapeut. Research; director, Merck and Co. Chevalier, Légion d'honneur; Conné medal, Chemists' Club, 33; Davy medal, Royal Soc, 42. A.A; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc; Biochem. Soc. Gt. Britain; fel. Royal Soc; Inst. Chem. Gt. Britain and Ireland; London Chem. Soc. Organic chemistry and its biological applications; chemistry of enzyme action and of animal oxidative processes; antiseptics.

Dakin, Dr. Thomas W(endell), Westinghouse Research Laboratory, East Pittsburgh, Pa. *Physical chemistry.* Minneapolis, Minn, May 5, 15. A.B, Minnesota, 35; M.S, Mich. State Col, 38; George Chase Christian fellow, Harvard, 38–40, A.M, 39, Lehman fellow, 40–41, Ph.D, 41. Asst. physical chem, Mich. State Col, 35–38; *Westinghouse research fellow, Westinghouse Research Lab, 41–* Summer, junior chemist, U. S. Geol. Surv, 40. Chem. Soc; Pittsburgh Physical Soc. Thermodynamics of the mercurous bromide-silver bromide cell; temperature coefficient of the viscosity of water; viscosity of ionic solutions; dielectric constant dispersion and loss in vinyl acetate polymers.

Dalaker, Prof. H(ans) H, 523 Walnut St, S. E, Minneapolis, Minn. *Mathematics.* Rennesö, Norway, Dec. 6, 71. A.B, Minnesota, 02; Cornell, 06–07, fellow, 07–08, Ph.D, 17. Instr, Decorah Inst, Iowa, 93–97; math, *Minnesota,* 02–07, asst. prof, 08–23, prof. *math. and mech,* 23–40, *emer. prof, 40–* A.A; Math. Soc; Math. Asn. Functions of the complex variable; automorphic functions.

Dale, Prof. E(rnest) E(dward), Union College, Schenectady, N. Y. *Botany.* Waverly, Nebr, Sept. 10, 88. A.B, Nebraska, 13; M.S, Kans. State Col, 20; Ph.D, Michigan, 28. Prof. *biol,* Puerto Rico, 21–26; instr, Hunter Col, 28–29; *asst. prof, Union (N. Y), 29–* A.A; Bot. Soc; Torrey Bot. Club. Inheritance in Capsicum, Salpiglossis and Petunia.

Dale, Dr. J(ullan) K(alfus), Commercial Solvents Corp, Terre Haute, Ind. *Chemistry.* Lexington, Ky, April 13, 89. A.B, Princeton, 11, A.M, 13, fellow, 13–14, Ph.D, 14. Asst, Princeton, 11–13; asst. chemist, bur. chem, U. S. Dept. Agr, 14–19; research chemist, U. S. Food Products Corp, 19–22; A. E. Staley Mfg. Co, 22–23; chief chemist, Sun-Maid Raisin Growers Asn, 23–27; nat. research fellow carbohydrate chem, 27–28; research chemist, Royal Baking Powder Co, 28–33; *director* chem. research, A. E. Staley Mfg. Co, 33–37; *carbohydrate research, Commercial Solvents Corp, 37–* A.A; Chem. Soc. Carbohydrates; sugar syrup; starch.

Dale, Prof. N(elson) C(lark), Hamilton College, Clinton, N. Y. *Geology.* Newport, R. I, July 9, 80. B.S, Middlebury Col, 03; A.M, Brown, 10; fellow, Princeton, 12–14, Ph.D, 14. Asst. and instr. *geol,* Brown, 08–12; asst, Princeton, 12–14; asst. prof, *Hamilton Col,* 14–15, assoc. prof, 15–16, *prof, 16–, head dept, 14–* Geologist, R. I. Nat. Resources Surv, 09–12; mem, Vt. Geol. Surv, 14–15; N. Y. Geol. Surv, 15, 21, 26. Summers, field asst, U. S. Geol. Surv, 99–03; consulting geologist, 18, 20, 32, 41. Princeton exped, Newfoundland, 13–14. A.A; fel. Geol. Soc; fel. Am. Geog. Soc. Chemical geology; manganese deposits; mineralogical, petrographical and structural geology of New York; areal and stratigraphical geology of Newfoundland; Precambrian of the Adirondacks and the St. Lawrence; areal, stratigraphical, mineralogic and structural geology of central New York.

D'Alelio, Dr. G(aetano) F(rancis), 409 Prospect St, Northampton, Mass. *Organic chemistry.* Charlestown, Mass, Dec. 26, 09. A.B, Boston Col, 31; Ph.D, Hopkins, 35. Instr. physical chem, grad. sch, Boston Col, 35–36; director plastics research, plastics lab, *Gen. Elec. Co,* 36–41, *staff chemist and director plastic labs, 41–; director chem. research and develop, Prophylactic Brush Co, 43–* A.A; Chem. Soc. Plastics.

Dalin, Dr. G(eorge) A(bbe), 56 Garden St, Hartford, Conn. *Chemistry.* Worcester, Mass, Oct. 7, 07. B.S, Harvard, 28; Ph.D, Columbia, 35. *Chief chemist,* United Optical Co, 35–36; *Plax Corp, 36–* Chem. Soc. Electroplating; plastics; organic resins of high thermal and chemical stability.

Dalke, Dr. Paul D(avid), University of Missouri, Columbia, Mo. *Biology.* Ann Arbor, Mich, Sept. 12, 01. B.S.F, Michigan, 25, M.S.F, 28, fellow, 31–33, Ph.D, 34. Forester, Leila Arboretum, Battle Creek, Mich, 26–27; Von Platen Fox Co, Iron Mountain, 27–28; junior instr. forest zool, sch. forestry and conservation, Michigan, 28–31; tech. foreman, Nat. Forest Service, 33–34; director game management, Conn. State Board Fisheries and Game, Hartford, 34–35; *assoc. biologist, div. wildlife research, fish and wildlife service, U. S. Dept. Interior, 35–, Cooperative Wildlife Research Unit, Mo, 37–* Soc. Foresters; Soc. Mammal; Wildlife Soc; Wilson Ornith. Club. Wildlife management; animal ecology; forestry.

Dallenbach, Prof. Karl M, 102 Irving Place, Ithaca, N. Y. *⁵*Psychology.* Champaign, Ill, Oct. 20, 87. A.B, Illinois, 10; fellow, Pittsburgh, 10–11, A.M, 11; fellow, Cornell, 11–12, Ph.D, 13. Asst. *psychol,* Illinois, 09–10; instr, Oregon, 13–15; Ohio State, 15–16; *Cornell,* 16–21, asst. prof, 21–30, *prof, 32–; Adj. Gen. Office, U. S. Army, 41–, major.* Visiting prof, Columbia, 30–32. Summers, Iowa State Col, 25; Illinois, 28; Oregon, 30; Columbia, 31, 32; Northwestern, 38; California at Los Angeles, 40. Assoc. ed. and business manager, 'Am. Jour. Psychol,' 21–25, ed, 26– Chairman emergency cmt. psychol, Nat. Research Council, 40– Capt, Sanit.C, 18–19. A.A. (councilor, 30–32, 41–; v. pres. and chairman, I, 40); Psychol. Asn. (councilor, 28–30); Soc. Exp. Psychol; Inst. Psychol. (director, 31–36, sec'y, 36–41); Psychomet. Soc; East. Psychol. Asn. (director, 38; pres, 39). Experimental psychology; cutaneous sensation; attention; psychophysics.

Dalman, Prof. Lawrence H(enry), 263 Cumberland St, Brooklyn, N. Y. *Chemistry.* Holland, Mich, Dec. 24, 94. B.S, Hope Col, 17; M.S, N. Y. Univ, 20, Ph.D, 28. Asst. *chem,* N. Y. Univ, 19–21; instr, Lafayette Col, 21–25; asst, N. Y. Univ, 25–28; asst. prof, Adelphi Col, 28–34; *assoc. prof, Brooklyn Col. Pharmacy, 34–* Chem. Soc; Pharmaceut. Asn. A phase rule of the three component system, including sodium carbonate, sodium sulfate and water; ternary systems of urea and acid; solubility of citric and tartaric acids.

Dalton, Dr. A(lbert) J(oseph), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Biology.* New London, Conn, Nov. 9, 05. B.S, Wesleyan, 27; fellow, Harvard, 28–29, A.M, 29, Ph.D, 34. Asst. biol, Wesleyan, 26–28; tutor, Col. City of N. Y, 29–32; asst. biol, Harvard, 32–33, Austin teaching fellow, 33–34; instr. histol. and embryol, sch. med, Western Reserve, 34–38; lecturer, dept. anat, McGill, 38–41; *research fellow, nat. cancer inst, U. S. Pub. Health Service, 41–,* cytologist, 42. Soc. Zool; Soc. Exp. Biol; Asn. Anat; Asn. Cancer Research; Soc. Exp. Path; N. Y. Acad; Can. Physiol. Soc. Experimental embryology; localization; cytology; cytogenesis; cytology of cancer.

Dalton, Dr. H(oward) Clark, 318 Randall Ave, Freeport, N. Y. *Embryology.* Brooklyn, N. Y, Aug. 7, 15. A.B, Wesleyan, 36, A.M, 37; Ph.D, Stanford, 40. Instr. zool, Rochester, 40–41; lab. technician, Med. Corps, *U. S. Army,* 41–42, *food and nutrition officer, Sanit. Corp, 42–* Assoc. Soc. Zool. Developmental genetics; analysis of the respective roles of nucleus and cytoplasm in the development of pigment patterns in California salamanders.

Dalton, Dr. Robert H, Corning Glass Works, Corning, N. Y. *Chemistry.* Christ Church, New Zealand, Oct. 21, 02. California, 21–22; B.S, Calif. Inst. Tech, 25, M.S, 26, Ph.D, 28. Teaching fellow, Calif. Inst. Tech, 25–28; Ramsay fellow, Oxford, 29–30; *chemist, Corning Glass Works, 30–* Chem. Soc; Ceramic Soc. Activation by electrons; reaction kinetics; gases in glass; glass compositions.

Daly, Prof. Reginald Aldworth, 23 Hawthorn St, Cambridge, Mass. ***Geology.* Napanee, Ont, Can, May 19, 71. B.A, Victoria (Ont), 91; A.M, Harvard, 93, Ph.D, 96; Heidelberg and Paris, 96–98; hon. D.Sc, Toronto, 23, Heidelberg, 36, Chicago, 41. Instr. geol, Harvard, 95–96, physiog, 98–91; geologist, Can. Inst. Boundary Cmn, 01–07; prof. physical geol, Mass. Inst. Tech, 07–12; Sturgis-Hooper prof. *geol, Harvard,* 12–42, *emer. prof, 42–* Lecturer, Lowell Inst, 25; Silliman lecturer, Yale, 34; Harris Foundation lecturer, Northwestern, 37; Page-Barbour lecturer, Virginia, 41. Assoc. ed, 'Am. Jour. Sci'; 'Gerlands Beitr. zur Geophys'; 'Miner. u. Petrog. Mitt,' Leipzig. Hayden medal, Acad. Nat. Sci. Phila, 32; Penrose medal, Geol. Soc. Amer, 35; Wollaston medal, Geol. Soc. London, 42. Nat. Acad; A.A. (chairman, geol. sect, 25); Geol. Soc. (pres, 31); Seismol. Soc; Philos. Soc; Am. Acad; Acad. Nat. Sci. Phila; for. mem. Geol. Soc. London; hon. mem. Geol. Verein; Norwegian Acad; Swedish Acad; Geol. Soc. Stockholm; Soc. géol. de Belg; hon. mem. Geol. Soc. Glasgow; Edinburgh Geol. Soc; fel. Royal Soc. Edinburgh; Russian Acad; Miner. Soc. Leningrad; Geol. Soc. S. Africa. Field geology; petrology; physical geography; geology along the 49th parallel; geophysics.

Dalziel, Prof. Charles F(rancis), 231 Mechanics Bldg, University of California, Berkeley, Calif. *Electricity.* San Francisco, Calif, June 6, 04. B.S, California, 27, M.S, 34, E.E, 35. Student engineer, Gen. Elec. Co, 27–28; in charge system protection, San Diego Gas and Electric Co, 29–32; asst. prof. *elec. eng, California,* 32–42, *assoc. prof, 42–, supervisor eng, science and management war training, 41–* Elec. Eng. Electric power transmission; electric shock; electrical safety; electric power machines; short circuits; stability.

Damerel, Prof. Charlotte I(sabel), Wilson College, Chambersburg, Pa. *Chemistry.* Deal Island, Md, Dec. 1, 02. A.B, Goucher Col, 24; M.S, Michigan, 28; Ph.D, Hopkins, 39. Asst. *chem,* Goucher Col, 24–27; instr, *Wilson Col,* 28–35, *asst. prof, 35–* Chem. Soc. Physical-organic chemistry; a new type of polypeptide.

Damerell, Dr. V(ivian) R(ichard), 1716 Wood Road, Cleveland Heights, Ohio. *Chemistry.* London, Eng, April 16, 03. B.S, Washington (Seattle), 24, M.S, 26, Ph.D, 29. Teaching fellow, Washington (Seattle), 24–29; instr. *chem, Morley chem. lab, Western Reserve,* 29–39, *asst. prof, 39–* Surface chemistry of hydrates; surface behavior of zeolites; determination of sulfate; areametric determination of lead; hydrate decomposition mechanism.

Dameshek, Dr. William, 113 Bay State Road, Boston, Mass. *Medicine.* Voronezh, Russia, May 22, 00. M.D, Harvard, 23. Asst. prof. med, *sch. med, Tufts Col,* 34–42, *prof. clin. med, 42–* Visiting physician and consulting hematologist, Pratt Diagnostic Hosp, Boston, Mass; consulting physician, Boston State Hosp; consulting hematologist, Lynn, Waltham and Malden Hosps; chief blood clinic, Boston Dispensary; lecturer, Duke, 40. Award of Certificate of Merit, Am. Med. Asn, 42. Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest. Hematology, with particular reference to hemolytic syndromes; anemias and agranulocytosis.

Damon, Prof. Glenn H(erbert), Michigan College of Mining and Technology, Houghton, Mich. *Physical chemistry.* Winnebago, Minn, Nov. 3, 01. B.S, Wisconsin, 26, M.S, 27, Ph.D, 32. Asst, Wisconsin, 26–27, 30–32; instr. *chem, Mich. Col. Min. and Tech,* 27–30, asst. prof, 32–40, *assoc. prof, 40–* Fel. Inst. Chem; Chem. Soc. Photochemistry; electrochemistry; corrosion.

Damon, Dr. H(enry) Gordon, Box 1561, University Station, Austin, Texas. *Geology.* Corsicana, Texas, April 12, 83. B.S, Vanderbilt, 06; A.M, Texas, 24; Ph.D, Iowa, 40. Instr. *geol, Texas,* 25–30, *asst. prof, 30–* A.A; Asn. Petrol. Geol; Texas Acad. Basal cretaceous conglomerate surrounding llan uplift; siliceous deposits of Lampasas, Texas, region; terrace deposits of Colorado River; balcones fault zone at Austin, Texas.

Damon, Dr. S(amuel) Reed, 205 Thorn Place, Montgomery, Ala. *Bacteriology.* Lancaster, Mass, June 27, 93. Ph.B, Brown, 16, A.M, 17, Ph.D, 21. Asst. bacteriologist, State Board Health, R. I, 20–21; lecturer bacter, Clark, 21; instr, sch. hygiene and pub. health, Hopkins, 21–24, assoc, 24–27, assoc. prof; *director labs, State Health Dept, Ala.* Acting chief bur. bacter, State Dept. Health, Md, 25. Soc. Bact; Pub. Health Asn. Vitamin synthesis by bacteria; anaerobic thermophiles; food poisoning; spirochaetes; infectious abortion.

D'Amour, Prof. Fred E(dmund), 2310 S. University Blvd, Denver, Colo. *Physiological chemistry.* Denver, Colo, April 13, 95. B.S, Denver, 21, M.S, 28; fellow, Chicago, 30, Ph.D, 30. Metallurgist, Am. Mang. Steel Co, 24–26; asst. chem, Purdue, 29; asst. prof. *physiol, Denver,* 30–32, assoc. prof, 32–36, *prof, 36–* Colo. Museum Nat. Hist. exped, S. Amer, 26–28. A.A; Physiol. Soc; Colo-Wyo. Acad; Ind. Acad. Assay and physiological properties of the female sex hormones; antiserum against black widow spider venom.

Dampf, Prof. Alfons (Ernst Alexius Michael), Apartado 2801, Mexico, D.F, Mexico. *Entomology.* Kertell, Dagoe Island, Estonia, Nov. 20, 84. Ph.D, Koenigsberg, 09. Asst. zool, museum, Koenigsberg, 07–13, 20–23; entomologist, German East Africa, 13–20; parasitologist, *Mex. Ministry Agr,* 23–27, chief dept. research, 27–32, *chief entomologist, 32–; prof. human parasitol, Mexico, 25–, head dept. entom, sch. biol. sciences, 37–* Chief entom. lab, Mex. Dept. Pub. Health, 32–36; Guggenheim fellow, 34. A.A; Asn. Econ. Entom; Texas Entom. Soc. (hon. v. pres); fel. Entom. Soc. London; Deuts. Zool. Gesell; Deuts. Gesell. für angewandte Entom; Mexican Nat. Acad. Taxonomy, morphology and biology of insects, especially those of economic importance; zoogeography; ecology.

Damsgard, Prof. Lincoln C, Pasadena Junior College, Pasadena, Calif. *Astronomy.* Minden, Nebr, March 3, 90. A.B, Union Col. (Nebr), 13; Nebraska; California; Stanford. Prof. math, Union Col. (Nebr), 14–21; State Col. Wash, 22–24; asst. astron, California, 24–27; instr, San Mateo Junior Col, 27–30; *Pasadena Junior Col,* 30–39, *asst. prof. math. and astron, 39–* Lick fellow, 21–22. Summers, instr, Stanford, 30, 31. A.A; Astron. Soc. Laws of probability and statistics.

Damtoft, W(alter) J(ulius), Canton, N. C. *Forestry.* Southport, Conn, Nov. 11, 90. Ph.B, Yale, 10, M.F, 11. Forest asst, U. S. Forest Service, 11–19; *forester and asst. sec'y, Champion Paper and Fibre Co, Canton, 20–* Mem, State Board Conserv. and Develop, N. C. Soc. Foresters (chairman, south. Appalachian sect, 25, 34); N. C. Forestry Asn. (mem, exec. cmt).

Dana, Alan Standish, 185 Wakelee Ave, Ansonia, Conn. *Engineering.* Portland, Maine, June 8, 92. B.S, Mass. Inst. Tech, 15. Research div, Mass. Inst. Tech, 15–16; asst, West. Union Tel. Co, 16–19; research engineer and tech. director, *Kerite Insulated Wire and Cable Co,* 19–42, *chief engineer, 43–* Longstreth medal, Franklin Inst, 17. Elec. Eng; Soc. Test. Mat. Skin effect in steel rails.

Dana, B(liss) F, U. S. Department of Agriculture, Corvallis, Oregon. *Plant pathology.* Ridgeway, Kans, July 29, 91. B.S, State Col. Wash, 16, M.S, 17. Instr. and asst. bacteriologist, State Col. Wash, 17–18, instr. plant path, 18–23, asst. prof, 23–27, asst. plant pathologist, Exp. Sta, 18–27; plant pathologist, Texas Exp. Sta, 27–31; *pathologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–* A.A; Phytopath. Soc. (pres, Pacific div, 40); Northwest. Asn. Hort. and Plant Path. (sec'y, 27). Soil bacteriology; potato diseases; cotton root-rot; virus diseases of vegetables.

Dana, Prof. Forest C(harles), 428 Lynn Ave, Ames, Iowa. *Engineering.* Kansas City, Mo, May 27, 86. B.S, Washington (Seattle), 14; C.E, Iowa State Col, 24. Power sta. operator, Puget Sound Power and Light Co, Seattle, 08–09, 10–17; mech. engineer and cost accountant, Brinkley Supply Co, Seattle, 17–19; instr. civil eng, Washington (Seattle), 20–23; *prof. in charge eng. problems and eng. estimates, Iowa State Col, 23–,* educational director eng, science and management defense training, 41–42. Consulting engineer, State Fish and Game Cmn, Wash, 22–23. A.A; Eng. Educ. (cmt. orientation and

eng. problems courses, 26–34); Civil Eng. Mechanics; hydraulics; slide rules.

Dana, Dr. Harold W(ard), 201 Buckminster Road, Brookline, Mass. *Medicine.* New York, N. Y, Nov. 4, 77. A.B, Harvard, 00, M.D, 05. Assoc. prof. theory and practise, med. sch, Tufts Col, 30–33, prof. clin. med, 34–36; visiting physician, Boston City Hosp, 30–34, physician in chief, internal med. service, 34–36. A.A; Am. Med. Asn; fel. Col. Physicians; Mass. Med. Soc. (councilor, 17–19). Chest conditions; cardiac physiology and disease; blood pressure; physical signs in the lungs; diaphragm movements.

Dana, Homer J(ackson), 703 Linden Ave, Pullman, Wash. *Engineering.* Topeka, Kans, Jan. 1, 90. B.S, State Col. Wash, 15, M.S, 16, M.E, 21. Designing engineer, Kenney Economy Hydraul. Co, Portland, Oregon, 17; instr. tractor short course, *State Col. Wash,* 19, *research engineer, eng. exp. sta, 19–,* asst. director, 29–42, *director, 42–* Radio instr, S.A.T.C, 18. A.A; Soc. Mil. Eng; Soc. Refrig. Eng; Land Grant Col. Asn. (sec'y, cmt. on aeronautics, 29–); Northwest Sci. Asn. Heat insulation; heat storage; spray removal; fruit refrigeration; highway corrugations; roughness meter; tire wear; two-way speed recording traffic counter; farm freezing plants; pole tester; radio noise meter for aircraft tests.

Dana, Dr. Leo I, 30 E. 42nd St, New York, N. Y. *Physics, Chemistry.* Boston, Mass, Nov. 1, 95. B.S, Mass. Inst. Tech, 17; Ph.D, Harvard, 22. Asst. physicist, U. S. Bur. Standards, 17–19; Sheldon research fellow from Harvard, Leiden, 22–23; physicist, *Linde Air Products Co,* 23–31, director lab, 31–43, *research manager, 43–* Chem. Soc; Chem. Eng. Thermodynamics of low temperatures; cryogenic engineering; inorganic chemistry.

Dana, Dean Samuel T(rask), University of Michigan, Ann Arbor, Mich. *Forestry.* Portland, Maine, April 21, 83. A.B, Bowdoin Col, 04, hon. Sc.D, 30; M.F, Yale, 07; hon. Sc.D, Syracuse, 28. U. S. Forest Service, 07–18, asst. chief branch of research, 19–21, director northeast. forest exp. sta, 23–27; forest commissioner, Maine, 21–23; *dean sch. forestry and conservation, Michigan, 27–* Ed, 'Jour. Forestry,' 28–30, 42– Capt, Gen. Staff, 18–19. A.A; fel. Soc. Foresters (treas, 10–13, 16, exec. councilor, 19–28, 36, pres, 25, 26, v. pres, 36, 37); Forestry Asn. (v. pres, 33, director, 35–); Mich. Acad; hon. mem. Finland Soc. Forestry. Forest economics; forest policy.

Dancer, Prof. Wayne, University of the City of Toledo, Toledo, Ohio. *Mathematics, Astronomy.* Wayne, Ohio, March 10, 98. A.B, Toledo, 22; A.M, Ohio State, 24; Ph.D, Michigan, 35. Instr. *math,* Toledo, 23–27; Wisconsin, 27–29; asst. prof, *Toledo,* 29–34, assoc. prof, 34–42, *prof, 42–* Analysis situs; solar motion.

Dancey, Prof. Lloyd S(lote), Carroll College, Waukesha, Wis. *Physics.* Fairbury, Ill, Feb. 5, 79. A.B, Illinois, 07, A.M, 08; Chicago. *Prof. physics and dean, Carroll Col, 08–* Temperatures in the mercury arc.

Dancoff, Dr. Sidney M, University of Illinois, Urbana, Ill. *Physics.* Philadelphia, Pa, Sept. 27, 13. B.S, Carnegie Inst. Tech, 34; Ph.D, California, 39. Nat. research fellow *physics,* Inst. Adv. Study, 41; instr. and later *assoc, Illinois, 42–* Physical Soc. Quantum mechanics.

Dandy, Dr. Walter E(dward), Johns Hopkins University, Baltimore, Md. *5*Pathology, Surgery.* Sedalia, Mo, April 6, 86. A.B, Missouri, 07, LL.D, 28; M.D, Hopkins, 10, A.M, 11. Assoc. surg, *Hopkins,* assoc. prof, 21–31, *clin. prof. neur. surg, 31–* A.A; Surg. Asn. Surgery of the nervous system; neurological anatomy, physiology and surgery.

Dane, Dr. Carle H(amilton), U. S. Geological Survey, Washington, D. C. *Geology.* Bridgeport, Conn, Nov. 11, 00. Ph.B, Yale, 20, Ph.D, 32. Field asst, U. S. Geol. Surv, 22–24; instr, Missouri, 24; junior geologist, *U. S. Geol. Surv,* 25, asst. geologist, 26–28, assoc. geologist, 29–34, geologist, 35–39, *senior geologist, 40–* Geol. Soc; Asn. Petrol. Geol; Geol. Soc. Wash. Cretaceous stratigraphy; Mesozoic stratigraphy of the Colorado plateau; structural geology.

Danehy, Dr. James P(hilip), Riverside, Ill. *Organic chemistry.* Ft. Wayne, Ind, April 27, 12. B.S, Notre Dame, 33, M.S, 34, Ph.D, 36. *Research chemist,* Gen. Chem. Co, 36–38; Harris-Seybold-Potter Co, 38–42; *Corn Products Ref. Co, 42–* Chem. Soc. Chemistry of acetylenic compounds; photo-lithography; proteins.

Danford, N(ewton) S(tewart), Albright College, Reading, Pa. *Organic chemistry.* Camden, N. J, March 2, 08. B.S, Albright Col, 35; M.S, Pennsylvania, 40. Teacher, sch, N. J, 35–37; *asst. prof. chem, Albright Col, 37–; instr. eng, science and management war training, exten, Pa. State Col, 41–* Indust. consulting chemist, 37– Chem. Soc. (educational cmt; membership cmt). Heterocyclic compounds and orthanilamide derivatives; synthetic resins.

Danforth, Prof. C(harles) H(askell), Stanford University, Calif. *5*Anatomy.* Oxford, Maine, Nov. 30, 83. A.B, Tufts Col, 08, fellow, 08–09, A.M, 10, hon. Sc.D, 41; Ph.D, Washington (St. Louis), 12. Instr. *anat,* Washington (St. Louis), 08–14, assoc, 14–16, assóc. prof, 16–22; *Stanford,* 22–23, *prof, 23–* Instr, Tufts Col, 10–11; teaching fellow, Harvard Med. Sch, 10–11, lecturer, 29–30. Assoc. ed, 'Anat. Record,' 28–; 'Am. Jour. Physical Anthrop,' 28–43; 'Growth,' 40– Nat. Acad; A.A. (sec'y, H, 27–31, v. pres. and chairman, 32); Soc. Nat; Asn. Anat. (exec. cmt, 27–31, 2nd v. pres, 36–38); Genetics Soc; Asn. Physical Anthrop; Soc. Zool; Soc. Exp. Biol. (ed. board, 36–42, v. pres, 41–43); West. Soc. Nat. (pres, 42); Calif. Acad. Med; Calif. Acad. Human anatomy; experimental morphology.

Danforth, Dr. D(avid) N(ewton), 622 W. 168th St, New York, N. Y. *Physiology.* Evanston, Ill, Aug. 25, 12. B.S, Northwestern, 34, M.S, 36, Ph.D, 38, M.D, 39. Asst. physiol, med. sch, Northwestern, 35–38; intern, N. Y. Post-Grad. Med. Sch. and Hosp, *Columbia,* 38–39, asst. res, *Sloane Hosp. for Women,* 39–40, *res, 41–* Joseph A. Capps prize, Inst. Med. Chicago, 40. A.A; Soc. Exp. Biol. Physiology of the uterus.

Danforth, Dr. Joseph D(avis), Drawer C, Riverside, Ill. *Petroleum chemistry.* Danville, Ill, March 7, 12. A.B, Wabash Col, 34; Ph.D, Purdue, 38. *Research chemist, Universal Oil Products Co, 38–* Chem. Soc. Densities of vapors adsorbed on charcoal; manufacture of catalysts; catalytic cracking; isomerization; alkylation.

Danforth, Ralph E(merson), Noank, Conn. *Ecology.* Philadelphia, Pa, Oct. 1, 77. A.B, Michigan, 08, M.S, 19; for. study. Director, Jaffrey Nature Class, Jaffrey, N. H, 14–17; instr. zool, Rutgers, 17–19, asst. prof, 19–21; prof. biol, Puerto-Rico, 21–25; *investigator, 25–* Forest biology.

Danforth, Dr. W(illiam) E(dgar), Jr, Bartol Research Foundation, Swarthmore, Pa. *Physics.* Buffalo, N. Y, June 22, 05. B.S, Union (N. Y), 27; A.M, Harvard, 29, Whiting fellow, 29–31, Ph.D, 31. Asst, Gen. Elec. Co, 27–28; asst. to Prof. P. W. Bridgman, Harvard, 31–32; *fellow, Bartol Research Foundation, 32–* Summer, asst, Gen. Elec. Co, 29. Physical Soc. Dielectric phenomena; growth of single crystals; cosmic radiation; electron-tube applications; electronic musical instruments; nuclear physics; cyclotrons and electrostatic generators.

D'Angelo, Dr. Savino A(lbert), MacDill Field, Station Hospital, Tampa, Fla. *Biology.* Jersey City, N. J, July 19, 10. A.B, N. Y. Univ, 36, M.S, 38, Ph.D, 40. Teaching fellow, Wash. Sq. Col, N. Y. Univ, 37–40, asst. instr, 40–42; *aviation physiologist, Air Force, U. S. Army, 42–* Soc. Zool; Asn. Anat. Physiology of development; physiological anatomy of the endocrine system.

Daniel, Major Derrill M(cCollough), New York Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Cooper, S. C, Nov. 3, 05. B.S, Clemson Col, 25; M.S, Cornell, 28, Ph.D, 33. Asst. *entom, N. Y. Exp. Sta, Geneva,* 25–29, *research assoc, 29–; asst. prof. entom, Cornell, 29–; Inf, U. S. Army, 40–, major.* Summers, asst, S. C. Exp. Sta, 23, 24. A.A; Entom. Soc. Amer; Asn. Econ. Entom. Economic entomology; ecology, biology and behavior of hymenopterous parasites; use of entomophagous insects to control insect pests; control of peach, quince and apple insects.

Daniel, Mrs. Esther Peterson, U. S. Federal Security Agency, Washington, D. C. *Chemistry.* Council Bluffs, Iowa, April 4, 99. B.S, Iowa State Col, 23, M.S, 24; fellow, Hopkins, 28–30, Sc.D, 41. Asst. chemist, bur. home econ, U. S. Dept. Agr, 25–28, assoc. chemist, 30–39; asst. biochemist and later *assoc. biochemist, food and drug admin, U. S. Fed. Security Agency, 39–* Biochemistry.

Daniel, Prof. George E(dwin), University of Maryland, College Park, Md. *Parasitology.* Pine Bluff, Ark, Sept. 28, 05. B.S, Arkansas, 28; Sc.D, Hopkins, 32. Research assoc, nat. inst. health, U. S. Pub. Health Service, 31–33; head science dept, Arlington Hall Sch, 33–35; *asst. prof. parasitol, Maryland, 38–* Soc. Parasitol. Parasitic protozoa; protozoan physiology.

Daniel, Harley A, Soil Conservation Service, Guthrie, Okla. *Agronomy.* Belgreen, Ala, Feb. 2, 04. B.S, Okla. Agr. and Mech. Col, 30, M.S, 32. Asst. agronomist, Exp. Sta, Okla. Agr. and Mech. Col, 30–34; acting director and agronomist, Exp. Sta, Panhandle Agr. and Mech. Col, 34–37; asst. agronomist, Exp. Sta, Okla. Agr. and Mech. Col, 37–38, agent and supt, Red Plains conservation exp. sta, in cooperation with *soil conservation service, U. S. Dept. Agr,* 38–39, *project supervisor soil and water conservation research on crop and pasture land of Okla, 39–* Soc. Agron; Soil Sci. Soc; Okla. Acad. Chemical composition of native grasses and other plants of Oklahoma; soil improvement crops; soil and water conservation; land use investigations.

Daniel, Prof. John, 2500 Woodlawn Drive, Nashville, Tenn. *Physics.* Perry Co, Ala, July 6, 62. A.B, Alabama, 84, A.M, 86, LL.D, 14; Hopkins, 86–88; Berlin, 92. Asst. prof. *physics,* Alabama, 84–86; asst, *Vanderbilt,* 88–89, instr, 89–90, adj. prof, 90–94, prof, 94–39, *emer. prof, 39–* Jury awards, Tenn. Centennial Expos, 97. A.A. Voltameter polarization; the depilatory and burning effect of x-rays; photometry.

Daniel, Dr. John H(arrison), 120 S. Fifth Ave, Wilmington, N. C. *Physics.* Darlington, S. C, Sept. 6, 15. B.S, The Citadel, 35; M.S, Kentucky, 37; Sc.D, Mass. Inst. Tech, 40. Asst, Kentucky, 35–37; teaching fellow, Mass. Inst. Tech, 37–40; research fellow, nat. cancer inst, U. S. Pub. Health Service, 40–41; asst. physicist, div. indust. hygiene, 41–42; *capt, radio detection sect, Anti-Aircraft Sch, Camp Davis, N. C, Coast Artil. Corps, U. S. Army, 42–* Field emission of electrons; measurements of radioactivity.

Daniel, Dean John L(aurence), 505 N. Church St, Decatur, Ga. *Chemistry.* Prince Edward Co, Va, July 22, 82. A.B, Hampden-Sydney Col, 02; A.M, Washington and Lee, 05, 08–10; Chicago, summers, 07, 08. Teacher, Greenbrier Presbyterial Sch, 02–03; Mt. Clinton Prep. Sch, 03–04; headmaster, Donald Fraser Sch, Decatur, Ga, 05–08; research lab, West. Elec. Co, N. Y, 10–12; from instr. to *prof. chem, head dept. and dean div. grad. studies, Ga. Tech, 12–* A.A; Chem. Soc; Ga. Acad. Solubilities; solution; analytical chemistry.

Daniel, Prof. Robert S(trongman), University of Missouri, Columbia, Mo. *Psychology.* Pikeville, Ky, Jan. 2, 14. A.B, DePauw, 36; A.M, Indiana, 38, Ph.D, 41. Instr, Indiana, 40–42; *acting asst. prof. psychol, Missouri, 42–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn. Electrophysiological studies of action; experimental and physiological psychology.

Daniel, Zaccheus, Allegheny Observatory, Pittsburgh, Pa. *Astronomy.* Hawthorn, Pa, Nov. 14, 74. B.S, Princeton, 08, Thaw fellow, 08–10, A.M, 09. Asst, observatory, Princeton, 03–08; *Allegheny Observatory, Pittsburgh,* 10–21, asst. astronomer, 21–35, *lecturer, 35–, supervisor stellar parallax program, 20–* Three Donohoe comet medals, Astron. Soc. Pacific. A.A; Astron. Soc; Astron. Soc. Pacific; Soc. astron. de France; hon. mem. Soc. Astron. de Mex. Variable stars; orbits of spectroscopic binaries; stellar parallax; proper motion.

Daniells, Prof. Marian E(lizabeth), 507 Stanton Ave, Ames, Iowa. *Mathematics.* Kalamazoo, Mich, Jan. 27, 86. A.B, Kalamazoo Col, 08; A.B, Chicago, 08, 12–13; M.S, Iowa State Col, 19. Head dept. math, high schs, Mich. and Ind, 08–14; instr. *math, Iowa State Col,* 14–19, *asst. prof, 19–* Math. Soc; Math. Asn; Iowa Acad. Function theory; pedagogy and history of mathematics.

Daniels, Dr. Amy L(ouise), Avon, Conn. *Biochemistry.* Boston, Mass. B.S, Columbia, 06; Ph.D, Yale, 12. Asst. prof. home econ, Missouri, 11–14; assoc. prof, Wisconsin, 14–17, prof. nutrition, 17–18; child welfare research sta, Iowa, 18–42; *retired.* Borden award, 39. Soc. Biol. Chem; Soc. Exp. Biol; Inst. Nutrition; Soc. Research Child Develop. Nutrition.

Daniels, Prof. Farrington, 1129 Waban Hill, Madison, Wis. ***Physical chemistry.* Minneapolis, Minn, March 8, 89. B.S, Minnesota, 10, M.S, 11; Ph.D, Harvard, 14. Instr. and asst. prof. chem, Worcester Polytech, 14–18; electrochemist, fixed nitrogen research lab, U. S. Dept. Agr, 19–20; asst. prof. *chem, Wisconsin,* 20–24, assoc. prof, 24–28, *prof, 28–* George Fisher Baker non-res. lecturer, Cornell, 34; consultant and investigator, Nat. Defense Research Cmt; consultant, War Production Board. Summer, prof, Stanford, 30. Assoc. ed, 'Jour. Am. Chem. Soc,' 32–42. Lieut, C.W.S, 18. A.A. (chairman, C, 37); Chem. Soc. (chairman, div. physical and inorg. chem, 31); Faraday Soc. Chemical kinetics; gas reactions; photochemistry; oxides of nitrogen; mathematical preparation for physical chemistry.

Daniels, Prof. Francis (Potter), Georgia State College for Women, Milledgeville, Ga. *Botany.* Ionia, Mich, Aug. 1, 69. A.B, Michigan, 95; A.M, Missouri, 97, Ph.D, 05; Harvard, 97–98. Teacher, high sch, Mo, 06; prof. romance languages, Cornell Col. (Iowa), 06–09; Wabash Col, 09–16; asst. prof. modern languages, Mo. Sch. Mines, 16–20; assoc. prof. romance languages, Arizona, 20–23, head dept. Spanish and Italian, 22–23; *prof. Latin and chairman sch. for. languages, Ga. State Col. for Women, 23–* Fellow, Kahn Foundation For. Travel for Am. Teachers, 11. Summer, prof, Columbia, 16. A.A; Eugenics Soc; Hist. Sci. Soc; Modern Lang. Asn; Acad. Polit. Sci; Asn. phonétique int. Ecology of the flora of Sturgis and Manistee, Michigan, of Columbia, Missouri, and of Boulder, Colorado; flora of the Southwest.

Daniels, Fred C. T, 901 Bingham St, Pittsburgh, Pa. *Metallurgy.* Starksboro, Vt, Jan. 22, 82. B.S, Worcester Polytech, 04. Chemist, Mackintosh Hemphill Co, 04–11; metallurgist, Wheeling Mold and Foundry Co, 17–22; supt. steel and roll foundries, Bethlehem Steel Co, 23–28; *v. pres, Mackintosh Hemphill Co, 29–* Chairman, Combustion Processes Co, 42– Foundry Asn; Soc. Metals; Soc. Test. Mat; Chem. Soc; Iron and Steel Inst; Min. and Metal. Eng; Acid Open Hearth Research Asn. (sec'y, 42); Iron and Steel Inst. Gt. Britain. Iron and steel metallurgy.

Daniels, Prof. Joseph, University of Washington, Seattle, Wash. *Mining engineering.* New York, N. Y, Aug. 8, 84. B.S, Mass. Inst. Tech, 05; M.S, Lehigh, 08, E.M, 33. Dominion Coal Co, 05–06, 07; instr. mining eng, Lehigh, 07–08, asst. prof, 08–10, assoc. prof. and acting head dept, 10–11; *prof. mining eng. and metal, Washington (Seattle), 11–; consulting engineer, 26–* Geologist, Wash. Geol. Surv, 11–17; investigator, iron industries, Pacific Northwest, 18–19, 24–25; consulting engineer, U. S. Bur. Mines, 38– A.A; Min. and Metal. Eng; Eng. Educ; Soc. Metals. Metallurgy; coal mining and beneficiation; fuels; mineral resources.

Daniels, Dr. L(loyd) C(ady), 465 W. 23rd St, New York, N. Y. *Chemistry.* Cadillac, Mich, June 18, 83. B.S, Ga. Tech, 05; M.S, Ph.D, Pennsylvania, 08. Asst. prof. chem, Kentucky, 08–17; research chemist, Nat. Aniline and Chem. Co, Buffalo, 17–27; asst. tech. director, Selden Co, 27–34; asst. gen. manager, Selden div, Am. Cyanamid and Chem. Corp, 34–38; *develop. cmt, Cyanamid Co, 38–* Chem. Soc. Improvements in processes; dye intermediates and dyes; plasticizers; resins; leather, textile and paper chemicals; commercial products from by-products of paper manufacture.

Daniels, Prof. T(roy) C(ook), 65 Aptos Ave, San Francisco, Calif. *Chemistry.* Worth, Mo, Aug. 27, 99. B.S, Michigan, 23; Ph.D, Indiana, 29. Instr. pharmacy, State Col. Wash, 23–24, asst. prof, 24–27; asst. org. chem, Indiana, 28–29; asst. prof. pharmacy, *col. pharmacy, California,* 29–33, *prof. pharmaceut. chem, 33–, asst. dean, 37–* Chem. Soc; Pharmaceut. Asn. Physical properties of solutions of phenyl substituted acids and their bactericidal power; dialkyl amino acetyl ureas; sulfonamide derivatives; synthetic drugs.

Danielson, Prof. Irvin S(igwald), Lederle Laboratories, Pearl River, N. Y. *Biochemistry.* Albuquerque, N. Mex, Feb. 25, 04. B.S, New Mexico, 26; M.S, Washington (Seattle), 28; Ph.D, Harvard, 33. Fellow biochem, Harvard Med. Sch, 29–37, tutor biochem. sciences, Harvard, 32–37; asst. prof. biochem, sch. med, Oklahoma, 37–42, assoc. prof, 42; *research chemist, Lederle Labs, 42–* Chem. Soc; Soc. Biol. Chem. Amino acid nitrogen and creatinine in blood; carbon dioxide in tissues.

Danielson, Dr. Loran L(eroy), 500 Sixth St, Rochelle, Ill. *Plant physiology, Analytical chemistry.* Havelock, Nebr, July 2, 13. A.B, Iowa, 38, M.S, 40, Ph.D, 41. *Chemist and plant physiologist, Calif. Packing Corp, 41–* Chem. Soc; Soc. Plant Physiol. Development and reproduction of plants in relation to photoperiod and temperature; spectrographic analysis of plant tissues.

Danielson, R(alph) R(aymond), Metal and Thermit Corp, 120 Broadway, New York, N. Y. *Ceramics.* Chicago, Ill, June 3, 92. B.S. (Cer.E), Illinois, 14, M.S. (Cer.E), 16. Instr, Illinois, 14–16; ceramic chemist, Benjamin Elec. Co, 16–19; technologist and chief enameled metals sect, Bur. Standards, 19–24; research director, Lindemann and Hoverson Co, 24–26; *director ceramic research, Metal and Thermit Corp, 26–* V. pres, Porcelain Enamel Inst, 40–42. Fel. Ceramic Soc. (sec'y, enamel div, 18–23, chairman, 23, trustee, 23–27, v. pres, 28); Ceramic Eng. Vitreous enamels for sheet iron and steel, cast iron and copper.

Danielson, Dr. Wayne H, 1056 E. 19th Ave, Denver, Colo. *Clinical chemistry.* Keene, Nebr, Aug. 7, 07. B.S, Nebr. State Teachers Col, 28; M.S, Western Reserve, 34, Ph.D, 36. Junior asst. aid, Bur. Standards, 29–32; teaching fellow biochem, Western Reserve, 32–36, demonstrator, 36–37, instr, 37–38; *clin. chemist,* Rockford Hosp, Ill, 40–42; *Denver Children's Hosp, 42–* Acid-base balance of blood.

Dann, Prof. W(illiam) J(ohn), Duke University, Durham, N. C. *Nutrition.* Bath, Eng, Nov. 9, 04. B.Sc, Sheffield, 25; Ph.D, Cambridge, 32. Med. research scholar, Grocers Co. of London, 32–33; Beit Mem. fellow, 33–37; asst. prof. physiol. and nutrition, Duke, 34–38, *assoc. prof, 38–* Inst. Nutrition; Soc. Biol. Chem. Biochemistry of nutrition; vitamin A and vitamin B_2.

Danner, Edwin C, Western Union College, Le Mars, Iowa. *Genetics.* Peotone, Ill, Sept. 20, 98. A.B, N. Cent. Col, 31; A.M, Illinois, 34, 34–36. *Head dept. biol, West. Union Col, 36–* Size inheritance and growth rates.

Dannerth, Dr. Frederic, 268 S. Clinton St, East Orange, N. J. *Chemistry.* Philadelphia, Pa, June 18, 81. Royal Tech. Col. Berlin; Wurzburg; Ph.D, Freiburg, 06. Consulting indust. chemist, 06–40; *director textile dept, F. H. Levey Co. div, Columbian Carbon Co, 40–* Prof, Phila. Textile Sch, 06–08; director, Kensington Sch. Indust. Chem, 08–10; gen. manager, Rubber Trade Lab, Newark, 12–20; prof, Newark Col. Eng, 18–19. Exec. sec'y, Int. Rubber Cong, New York, 12. Asn. Textile Chem; Asn. Textile Technol; N. J. Chem. Soc. Textile fibers and dyes; rubber; industrial utilization of agricultural products; pigment dispersions for coatings.

Dannreuther, Dr. Walter T(aylor), 580 Park Ave, New York, N. Y. *Gynecology.* Buffalo, N. Y, May 27, 85. M.D, L. I. Col. Hosp, 06. *Prof. gynec. and director dept, N. Y. Post-Grad. Med. Sch, Columbia, attending gynecologist, N. Y. Post-Grad. Hosp.* Consulting gynecologist, Lutheran Hosp; Bronx Maternity Hosp; Horton Mem. Hosp; Broad St. Hosp; Pan-Am. Hosp; House of the Holy Comforter; N. Hudson Hosp; Fitkin Mem. Hosp; Beth David Hosp. Dudley medal, L. I. Col. Hosp, 06. Pres, Am. Board Obstet. and Gynec. Fel. Gynec. Soc; Asn. Obstet, Gynec. and Abdom. Surg. (pres, 32); fel. Col. Surg; Am. Med. Asn; Cent. Asn. Obstet. and Gynec; S. Atlantic Asn. Obstet. and Gynec; hon. fel. New Eng. Obstet. and Gynec. Soc; N. Y. Obstet. Soc; N. Y. State Medico-Surg. Soc. (pres, 25); N. Y. Acad. Med; N. Y. County Med. Soc. (v. pres, 32, pres, 34); Royal Obstet. and Gynec. Soc. Belgium.

Dansereau, Dr. Pierre, 3190 Van Horne Ave, Montreal, Que, Can. *Ecology.* Montreal, Que, Oct. 5, 11. B.A, Montreal, 31; B.Sc, Agr, Inst. Agr. d'Oka (Can), 36; Versailles, 36–37; Centre des Recherches Agr. de Provence, 37–38; D.Sc, Geneva, 39. Botanist, *Montreal Bot. Garden,* 39–40; *asst. director tech. services, 40–* Lecturer, Montreal, 40– Grant, Nat. Research Council, 40–41. A.A; Bot. Soc; New Eng. Bot. Club; Corp. des Agron. du Que; Soc. Can. d'Hist. Nat. (sec'y, 40–41); Soc. Plant Taxon; Soc. bot. de France; Soc. bot. de Geneve; Soc. Bot. Ital; Int. Soc. Phytosociol. Taxonomy, cytology, genetics and evolution of Cistus; native flora of Quebec; phytosociology of the sugar maple grove.

D'Antoni, Dr. Joseph S, 1430 Tulane Ave, New Orleans, La. *Tropical medicine.* New Orleans, La, Sept. 3, 07. Loyola, 25–27; Chicago, 27; M.D, Tulane, 32. Instr, lab. clin. med, *Tulane,* 33–35, med, 33–40, *trop. med,* 35–40, *asst. prof, 40–* Research work, Southern California and Los Angeles County Hosp, 37. Am. Med. Asn; Soc. Trop. Med. (v. pres, 42, sec'y, 42–); fel. Col. Physicians; South. Med. Asn; Orleans Parish Med. Soc. (chairman sci. essays cmt, 35); New Orleans Grad. Med. Asn. (sec'y, 39–). Parasitology; amebic and bacillary dysentery.

Dantzig, George B(ernard), 4720 Seventh Road, Arlington, Va. *Mathematical statistics.* Portland, Oregon, Nov. 8, 14. A.B, Maryland, 36; Horace Rackham scholar, Michigan, 36–37, A.M, 38; California, 39–41. Junior statistician, U. S. Bur. Labor Statistics, 37–39; teaching asst. math. statistics, California, 39–41; *senior statistician, Air Force, U. S. Army, U. S. War Dept, 41–* Math. Soc; Inst. Math. Statist. Existence and nonexistence of regions similar to the sample space.

Dantzig, Prof. Tobias, Chatham, College Park, Md. *Mathematics.* Shavli, Russia, Feb. 19, 84. Licencié, Paris, 09; Ph.D, Indiana, 17. Instr. math, Indiana, 15–18; Columbia, 18–19; Hopkins, 19–20; industries, 20–25; assoc. prof. *math, Maryland,* 26–36, *prof, 36–, chairman dept, 38–* Lecturer, Bur. Standards, 26– Consulting mathematician, Ordnance Dept, 19. Math. Soc; Math. Asn. Geometry; applied mathematics; theory of transformations.

Danzer, Dr. C(harles) S(aul), 38 E. 63rd St, New York, N. Y. *Medicine.* New York, N. Y, June 5, 95. M.D, N. Y. Univ, 15, LL.B, 38; Hopkins, 19–20; Trudeau Sch. Tuber, 19; Prague and Vienna, 22–23. Asst. prof. exp. med. and head dept, N. Y. Homeop. Med. Col, 25–26; *instr. internal med, Columbia, 25–* Lecturer, post-grad. teaching div, Kings County Med. Soc, Brooklyn; director med. div, New Amsterdam Hosp, New York; Shore Road Hosp, Brooklyn. Am. Med. Asn; fel. Col. Physicians; Soc. Exp. Biol; fel. N. Y. Acad. Med. Physiology; internal medicine.

Dapples, Dr. Edward C(harles), Northwestern University, Evanston, Ill. *Geology.* Chicago, Ill, Dec. 13, 06. B.S, Northwestern, 28, M.S, 34; A.M, Harvard, 35; Ph.D, Wisconsin, 38. Geologist, Zeigler Coal Co, 28; Truax-Traer Coal Co, 28–32, mine supt, 31–32; instr. *geol, Northwestern,* 36–40, asst. prof, 41–42, *assoc. prof, 42–* Asst. geologist, Ill. Geol. Surv, 39. Mem. cmt. advising geol. students, Nat. Research Council. A.A; Min. Eng. (cmt. advising geol. students, 42); Soc. Econ. Geol; Soc. Econ. Paleont. and Miner. (research cmt, 42); Asn. Petrol. Geol. Coal petrography and metamorphism; sedimentation.

Darbaker, Prof. L(easure) K(line), 424 Franklin Ave, Wilkinsburg, Pa. *Bacteriology.* Pittsburgh, Pa, Jan. 13, 79. Ph.G, Ohio Northern, 00, Sc.D, 37; Ph.G, Pittsburgh, 06, Phar.D, 09; Berlin, 08. Assoc. bacter. and pharmacog. *col. pharmacy, Pittsburgh,* 07–09, asst. bot. and mat. med, 07–14, *prof. bacter. and pharmacog, 09–* A.A; Soc. Bact; Pharmaceut. Asn; Micros. Soc; Bot. Soc; Chem. Soc; Soc. Plant Physiol; Am. Med. Asn; Fern Soc; Sullivant Moss Soc; Nat. Soc. Pa; Pa. Acad; Bot. Soc. West. Pa. Histological pharmacognosy; plant pathology and physiology; microbiology.

Darby, Dr. Hugh H(ackland), 1110 Washington Ave, Pelham Manor, N. Y. *Biochemistry.* Scotland, Aug. 10, 95. B.S. and A.M, Columbia, 25, Ph.D, 28. Asst. zool, Columbia, 24–26; lecturer and in charge embryol, Wash. Sq. Col, N. Y. Univ, 26–28; in charge Mexico City lab, U. S. Dept. Agr, 28–31; assoc. biochem, col. physicians and surg, Columbia, 38–42; *director vitamin research, Borden Co, 42–* A.A; Soc. Zool; Chem. Soc; Optical Soc; Biochem. Soc. Gt. Britain; Marine Biol. Asn. England. Culture media; lethal temperatures for sterilization of infested fruit; physiology of yeast and insects; development in Crustacea; hormones in invertebrates; vitamin D from marine plankton; occurrence of male and female sex hormones and their seasonal distribution; spectrography of proteins; proteins; commercial production of vitamins and structure of vitamins.

Darby, Dr. William J(efferson), Jr, Vanderbilt University School of Medicine, Nashville, Tenn. *Biochemistry.* Little Rock, Ark, Nov. 6, 13. B.S, Arkansas, 36, M.D, 37; fellow, Michigan, 39–41, M.S, 40, Ph.D, 42. Asst. physiol. chem, Arkansas, 30–37, instr, 37–39; nat. research fellow med. sciences, col. physicians and surg, Columbia, 41–42; *special fellow, int. health div, Rockefeller Foundation at sch. med, Vanderbilt, 42–* Summer, asst, Michigan, 40. Am. Med. Asn; Chem. Soc. Vitamins; ribo-flavin deficiency; nutritional cytopenia in the monkey; cataract; imidazoles; histidine metabolism.

Darken, Dr. Lawrence S(tamper), 587 Terrace Place, Westfield, N. J. *Chemistry.* Brooklyn, N. Y, Sept. 18, 09. A.B, Hamilton Col, 30; Loomis fellow, Yale, 32–33, Ph.D, 33. Fellow, Yale, 33–34; research chemist, H. Kohnstamm Co, New York, 34–35; *physical chemist, U. S. Steel Corp, Kearny, N. J, 35–* Chem. Soc. Electrical conductivity of aqueous solutions; physical chemistry and thermodynamics of steel making.

Darkenwald, Prof. Gordon G(erald), 26 Willard Ave, Mt. Vernon, N. Y. *Geography.* Wimbledon, N. Dak, July 12, 06. A.B, N. Dak. State Teachers Col, 29; scholar, Clark, 31–32, fellow, 32–34, A.M, 33, Ph.D, 34. Teacher, pub. sch, N. Dak, 26–27, prin, 29–31; instr. *geol, Hunter Col,* 35–42, *asst. prof, 42–* A.A; Meteorol. Soc; Council Geog. Teachers; Am. Geog. Soc; N. Y. Acad. Physiographers and Geographers Club New York. Economic geography; regional geography of the United States, Mexico and Cuba; meteorology.

Darker, Dr. Grant D(ooks), Washington University, St. Louis, Mo. *Botany.* Streetsville, Ont, Can, Dec. 23, 98. B.A, Toronto, 22, M.A, 25; Ph.D, Harvard, 31. Asst. bot, Toronto, 22–28; asst, Arnold Arboretum, Harvard, 28–31, 32–33, Sheldon traveling fellow, 31–32, research assoc, Farlow Herbarium, 33–40; asst. prof. bot, *Washington (St. Louis),* 41–42, *instr. physics, 42–* Phytopath. Soc; Soc. Plant Taxon; Mycol. Soc; Torrey Bot. Club; Royal Can. Inst. Mycology; forest pathology; Hypodemataceae of conifers.

Darkis, Dr. F(rederick) R(andolph), Duke University, Durham, N. C. *Chemistry.* Frederick Co, Md, July 22, 99. B.S, Maryland, 22, M.S, 23, Ph.D, 27. Instr, Maryland, 22–23, 26–27; anal. chemist, State Control Labs, Md, 23–26; chemist, Citrus Exp. Sta, Fla, 27; Liggett and Myers research foundation, *Duke,* 28–32, *agr. chemist, 32–, research assoc. in charge chem. and agron. research on tobacco.* A.A; Chem. Soc; Agr. Chem. Organic and plant chemistry; partial polarity and electro-isomerism in organic molecules; determination of moisture; changes in the chemical constituents of the tissue of the tobacco plant during aging; environment and the yield and quality of flue cured tobacco; production of aromatic tobaccos in the United States.

Darkow, Prof. Marguerite D, 16 E. 82nd St, New York, N. Y. *Mathematics.* Philadelphia, Pa, 93. A.B, Bryn Mawr Col, 15; Hopkins, 16–17; M.S, Chicago, 23, Ph.D, 24; Sorbonne, 24–25. Indiana, 25–27; Pa. State Col, 27–28; asst. prof. *math, Hunter Col,* 28–42, *assoc. prof, 42–* Quaternion arithmetic.

Darley, Prof. John G(ordon), University of Minnesota, Minneapolis, Minn. *Psychology.* Pittsburgh, Pa, Feb. 20, 10. A.B, Wesleyan, 31; A.M, Minnesota, 32, Ph.D, 37. Psychol. examiner, State Employment Service, St. Paul, Minn, 32–33; research and ed. asst, employment stabilization research inst, *Minnesota,* 33–35, instr. and research counselor, gen. col, 35–38, *asst. prof. psychol. and director univ. testing bur, 38–* Psychol. Asn; Asn. Applied Psychol; Col. Personnel Asn; Educational Research Asn; Minn. Soc. Applied Psychol. Measurement and clinical aspects of vocational interests; predictions of scholastic and vocational success; measurement and clinical aspects of personality adjustment; interview methods in diagnosis and psychotherapy.

Darling, Dr. B(yron) T(horwell), 335 N. William St, Marine City, Mich. *Physics.* Napoleon, Ohio, Jan. 4, 12. B.S, Illinois, 33, M.S, 36; Wisconsin, 38–39; Ph.D, Michigan, 39. *Instr. math, Mich. State Col, 39–* Summer, instr, Nat. Defense Training Program, Pa. State Col, 41. Physical Soc. Theoretical physics; molecular theory.

Darling, Prof. C(hester) A(rthur), Allegheny College, Meadville, Pa. *Botany.* Leon, N. Y, Oct. 4, 80. A.B, Albion Col, 04, A.M, 06; Ph.D, Columbia, 09. Prof. biol, Defiance Col, 04–06; asst. bot, Columbia, 06–08, instr, 08–13; *prof. biol, Allegheny Col, 13–* A.A; Bot. Soc; Soc. Bact. Cytology; bacteriology.

Darling, F(rederic) W(arren), 45 Kenilworth Ave, Garrett Park, Md. *Astronomy, Mathematics.* Buffalo, N. Y, March 18, 79. A.B, Cornell, 02, 02–03, 13–14; Michigan, 04–05. Teacher, high sch, Mont, 03–04; correspondent, Larkin Co, Buffalo, 05–06; teacher, high sch, Ohio, 07–08; forester, bur. forestry, Manila, 08–11, clerk, dept. educ, Manila, 11–12, examiner, Custom House, 12; acting instr. math, Cornell, 13–14; teacher, Berkeley Sch, New York, 14–15; high sch, N. Y, 15–18; clerk, Pierce Arrow Motor Co, N. Y, 18; *U. S. Coast and Geod. Surv, 19–, mathematician.* Geodetic astronomy; gravity; latitude redetermination; figure of the earth; deflection of the vertical; horizontal deflection.

Darling, Dr. George B(apst), W. K. Kellogg Foundation, Battle Creek, Mich. *Public health.* Boston, Mass, Dec. 30, 05. B.S, Mass. Inst. Tech, 27; Dr.P.H, Michigan, 31. Research assoc, dept. health, Detroit, 27–32; assoc. exec. director, assoc. sec'y and treas, *W. K. Kellogg Foundation,* 32–34, exec. director and mem. finance cmt, 34–37, mem. corp. and board trustees, assoc. director and comptroller, 37, mem. admin. cmt, 38, *pres, 40–* Nat. Conf. Social Work. A.A; fel. Pub. Health Asn; Econometric Soc; Acad. Polit. Sci; Progressive Educ. Asn; Mich. Pub. Health Asn; N. Y. Acad. Public health administration; epidemiology; statistics.

Darling, Prof. S(tephen) F(oster), Lawrence College, Appleton, Wis. *Organic chemistry.* De Smet, S. Dak, May 1, 01. B.S, Minnesota, 22, M.S, 24; A.M, Harvard, 26, Ph.D, 28. Asst. instr, Minnesota, 22–24; Austin teaching fellow, Harvard, 24–26; instr, 24–28; assoc. prof. *chem, Lawrence Col,* 29–38, *prof, 38–* Sheldon traveling fellow from Harvard, Vienna, 29. Chem. Soc; fel. Inst. Chem. Cyclopropane chemistry.

Darlington, Dr. Charles G(oodliffe), 209 E. 23rd St, New York, N. Y. *Pathology.* Brooklyn, N. Y, Jan. 28, 92. Haverford Col, 09–10; M.D, Medico-Chirurg. Col. Phila, 15. Intern, Flushing Hosp, 15; asst, Metropolitan Hosp, 16; pathologist and serologist, Bellevue Hosp, 16–19; asst. path, *col. med, N. Y. Univ,* 19, instr, 20, lecturer, 22, asst. prof, 23–34, *lecturer dental path, 34–,* asst. prof. *path, col. dentistry,* 25, assoc. prof, 32, *prof, 34–* Pathologist, St. Vincent's Hosp, New York, 22–24; pathologist and director path. lab, Muhlenberg Hosp, Plainfield, N. J, 24–; pathologist, Somerset Hosp, N. J, 28–; Beekman St. Hosp, 26–; asst. pathologist, New York Foundling Hosp, 20, assoc, 26, pathologist, 35–39; oral pathologist, dental service, Montefiore Hosp, 32– Diplomate, Am. Board Path. A.A; Am. Med. Asn; Soc. Clin. Path; N. Y. Path. Soc; fel. N. Y. Acad. Med; N. Y. Acad; Harvey Soc; Int. Asn. Dental Research. Dental tumors of the mouth; tuberculosis of the mouth.

Darlington, Prof. H(enry) T(ownsend), Michigan State College, East Lansing, Mich. *Botany.* West Chester, Pa, June 23, 75. B.S, Idaho, 03; Colo. Col, 05; M.S, Harvard, 11; Ph.D, Chicago, 23. Chief engineer, Idaho-Iowa Lateral and Reservoir Co, Idaho, 04; eng. staff, Great West. Sugar Co, Colo, 05–09; instr. and asst. prof. *bot,* State Col. Wash, 11–14; asst. prof. and *assoc. prof. and curator herbarium, Mich. State Col, 14–* Temporary asst, Gray Herbarium, Harvard. Bot. exped, Newfoundland, 11. A.A; Bot. Soc; Mich. Acad. (v. pres, 31); Sullivant Moss Soc. Systematic botany; ecology; phytogeography.

Darlington, Prof. H(ollie) Clayton, Marshall College, Huntington, W. Va. *Plant ecology.* Wriston, W. Va, June 28, 90. A.B, West Virginia, 22, A.M, 27; Ph.D, Chicago, 42. Teacher, schs, W. Va, 12–17; prin, high sch, W. Va, 22–30; *assoc. prof. biol, Marshall Col, 30–* Machine gunner, U.S.A, 18. Bog vegetation.

Darlington, Dr. J(ames) M(cCowan), Franklin and Marshall College, Lancaster, Pa. *Zoology.* New Bloomfield, Pa, Aug. 10, 08. B.S, Franklin and Marshall Col, 30; A.M, Brown, 33, Ph.D, 35. Instr. histol. and embryol, Brown, 32–33; assoc. prof. *zool,* Keystone Junior Col, 35–37; *instr, Franklin and Marshall Col, 37–* A.A; Pa. Acad. Perfusion techniques; use of trypan blue in evaluation of cellular reactions to perfusion fluid; mitochondrial reaction in degenerating cells.

Darlington, Dr. P(hilip) J(ackson), Jr, Harvard University, Cambridge, Mass. *Entomology.* Philadelphia, Pa, Nov. 14, 04. A.B, Harvard, 26, M.S, 27, Ph.D, 31. Entomologist, Colombia div, United Fruit Co, 28–29; asst. curator insects, *museum comp. zool, Harvard,* 32–40, *Fall curator Coleoptera, 40–* Mem, Harvard exped, Australia, 31–32. Entom. Soc. Amer; assoc. Ornith. Union; Nuttall Ornith. Club; Cambridge Entom. Club (sec'y, 31, v. pres, 33, 40, pres, 34, 41). Taxonomy and distribution of Coleoptera; zoogeography of the world.

Darlington, Dr. Thomas, 27 Washington Square, New York, N. Y. *Medicine.* Brooklyn, N. Y, Sept. 24, 58. C.E, N. Y. Univ; M.D, Columbia, 80; Litt.D, Juniata Col, 24. *Practising physician, 80–* Commissioner and pres, N. Y. Board Health, 04–10, consulting sanit. engineer, emer. commissioner health; assoc. prof, N. Y. Univ; lecturer, Fordham; Stevens Inst. Tech. Consulting physician, New York Foundling Hosp. State Workmen's Compensation Cmn, 14–15. Major, M.R.C, 17. A.A; Am. Med. Asn; Am. Acad. Med; Genetic Asn; Soc. Trop. Med; Clin. and Climat. Asn. (pres, 07); Nat. Asn. Study and Prevention Tuber; Cong. Physicians and Surg; Soc. Med. Juris; Am. Iron and Steel Inst; Inst. Social Sci. (v. pres); Harvey Soc; Greater N. Y. Med. Asn. (v. pres); N. Y. Acad. Med. Climatology; sanitation; general medicine.

Darlow, Prof. A(lbert) E(dward), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal husbandry.* Stillwater, Okla, April 24, 99. B.S, Okla. Agr. and Mech. Col, 19, M.S, 23; Wyoming, 25; Wisconsin, 28, 29. Instr, Okla. Agr. and Mech. Col, 19–20, asst. prof. *animal husbandry,* 20–23, assoc. prof, 23–35; Wisconsin, 35–43, chairman dept, 38–43; *prof. and chairman dept, Okla. Agr. and Mech. Col, 43–* Asst, Wisconsin, 28–29. Genetic Asn; Soc. Animal Production; Okla. Acad. Animal nutrition.

Darnell, Prof. A(lbert) L(aurie), Agricultural and Mechanical College of Texas, College Station, Texas. *Dairy husbandry.* Lexington, Miss, Dec. 14, 91. B.S, Miss. Agr. and Mech. Col, 13; fellow, Missouri, 15–16, A.M, 16. Instr. dairy husbandry, Miss. Agr. and Mech. Col, 13–14; Agr. and Mech. Col. Texas, 14–15; prof, Arkansas Col, 16–17; dairy husbandman, dairy div, U. S. Dept. Agr, 17; director sch. agr, John Tarleton Col, 17–20; *prof. dairy husbandry, Agr. and*

Mech. Col. Texas, 20– Nat. Col. Feed Conf. Board. A.A; Dairy Sci. Asn; Genetic Asn. Physiology of milk secretion; factors influencing quantity and quality of milk; Texas feeds for dairy cattle; causes of shy breeding; breeding for milk production; mastitis in dairy cattle.

Daron, Prof. G(arman) H(arlow), Georgetown University School of Medicine, Washington, D. C. *Anatomy.* McPherson, Kans, Jan. 29, 04. B.S, McPherson Col, 24; California, 24–25; fellow, Chicago, 30–32, Ph.D, 32. Instr. zool, Wyoming, 25–27, 28–29; asst. prof, Nebr. Wesleyan, 29–30; instr. *anat,* col. med, N. Y. Univ, 32–38; asst. prof, *sch. med, Georgetown,* 38–40, *assoc. prof, 40–* Histology; embryology.

Darrach, Prof. William, 180 Ft. Washington Ave, New York, N. Y. *Surgery.* Germantown, Pa, March 12, 76. A.B, Yale, 97, hon. A.M, 20; A.M, M.D, Columbia, 01, hon. Sc.D, 29; LL.D, St. Andrews, 28; hon. Sc.D, Jefferson Med. Col, 30. Intern, Presb. Hosp, 01–03; demonstrator anat, *Columbia,* 03–06, assoc, 06–09, instr. *clin. surg,* 06–16, *prof, 16–,* dean *med. faculty,* 19–30, *dean emer, 30–* From asst. to junior visiting surgeon, Roosevelt Hosp, 06–13; assoc. attending surgeon, Presb. Hosp, 13–16, attending surgeon, 16–; director surg. div, Bellevue Hosp, 16–19. Past trustee, Vassar Col; Hill Sch, Pa; pres. board trustees, Fay Sch, Mass. Assoc. ed, 'Archives Surg.' B.E.F; col, M.C. A.A; fel. Surg. Asn; Col. Surg; Soc. Clin. Surg. (pres, 30–32); Asn. Anat; Am. Med. Asn; Asn. Am. Med. Cols. (pres, 29); Philos. Soc; N. Y. Surg. Soc; N. Y. Acad. Med; Soc. des Chirurg. de Paris; Soc. int. des Chirurg. Fractures.

Darrah, W(illiam) A(ustin), 201 N. Wells St, Chicago, Ill. *Engineering.* Providence, R. I, Dec. 16, 89. B.S, Worcester Polytech, 08, E.E, 09. Manager lighting, Westinghouse Elec. Mfg. Co, 10–12; manager eng, Ohio Brass Co, 12–15; plant manager, Noble Elec. Steel Co; consulting engineer, Northwest Magnesite Co; *pres, Continental Indust. Engineers, Inc, 21–* A.A; Chem. Soc; Mech. Eng; Ceramic Soc; Soc. Eng; Soc. Metals. Metallurgy; heat transfer; air conditioning; electrostatic problems; paper making; photoelectric phenomena; high temperature electrolysis; thermal properties of glass; manufacture of hard board from bagasse and wood fibers.

Darrah, W(illiam) C(ulp), 97 Avon Hill St, Cambridge, Mass. *Paleobotany.* Reading, Pa, Jan. 12, 09. B.S, Pittsburgh, 31, fellow, Carnegie Museum, 31–33. Asst, *Harvard,* 34–35, *instr. bot, 35–, tutor, 36–, research curator, 36–* Cmn. Relief Belgium Educ. Foundation grant, 35; Univ. Lille grant, 35. Assoc. ed, 'Chronica Botanica.' Bot. Soc (sec'y, paleobot. sect, 37); New Eng. Bot. Club. Plant phylogeny; Paleozoic floras; Carboniferous stratigraphy; paleobotanical technique; structure of coal; history of science; coal balls; petrifaction; the plant sciences.

Darrin, Marc (de Lépinè), 4401 Wickford Road, Baltimore, Md. *Chemical engineering.* Elmira, N. Y, Jan. 11, 91. B.S, Washington (Seattle), 12, M.S, 13. Chemist, Forest Products Lab, U. S. Forest Service, 14–15; research for Koppers Co, Mellon Inst, 16–23, indust. fellow for F. N. Burt Co, Ltd, 23–34, senior indust. fellow, 34–36; *Chromium fellow, Mutual Chem. Co. Amer, 36–* A.A; fel. Inst. Chem; Chem. Soc; Electrochem. Soc; Soc. Test. Mat. (cmt. corrosion). Wood and coke oven by-products; paint vehicles and pigments; paper; chromium chemicals, anodizing and corrosion.

Darrow, Dr. Chester W(illiam), 907 S. Wolcott Ave, Chicago, Ill. *Physiological psychology.* Ft. Plain, N. Y, Nov. 7, 93. A.B, Des Moines Col, 15; A.M, Oglethorpe, 20; Ph.D, Chicago, 24. Instr. psychol, Chicago, 23–26; *research psychophysiologist, Inst. Juvenile Research, 26–* Assoc, col. med, Illinois, 37–41. A.A; Psychol. Asn; Midwest. Psychol. Asn. Inter-relation of secretory, electrical and circulatory responses to stimulation; effect of convulsion therapy on autonomic and electroencephalographic responses of animals and schizophrenic cases.

Darrow, Dr. Daniel C(ady), 68 Bedford Ave, Hamden, Conn. *Pediatrics.* Fargo, N. Dak. A.B, Cornell, 16; M.D, Hopkins, 20. Instr. path, Hopkins, 20–22; *pediat.* Washington (St. Louis), 25–28; asst. prof, *Yale,* 28–37, *assoc. prof,* 37– Soc. Pediat. Research; Soc. Clin. Invest; Pediat. Soc. Blood volumes in children; experimental edema; diphtheria; distribution of body water and electrolytes; chemical aspects of several diseases in children; nutritional disorders.

Darrow, Dr. Geo(rge) M(cMillan), U. S. Department of Agriculture, Beltsville, Md. *Horticulture.* Springfield, Vt, Feb. 2, 89. A.B, Middlebury Col, 10; A.M, Cornell, 11; Ph.D, Hopkins, 27. From sci. asst. to *senior pomologist, bur. plant indust, U. S. Dept. Agr, 11–* Hopkins, 23–27. Ed. board, 'Jour. Heredity.' A.A; Soc. Hort. Sci; Bot. Soc; Genetic Asn; Bot. Soc. Wash. Plant culture, breeding and taxonomy of small fruits.

Darrow, Dr. Karl K(elchner), Bell Telephone Laboratories, 463 West St, New York, N. Y. *[*1]Physics.* Chicago, Ill, Nov. 26, 91. Paris and Berlin, 11–12; Ph.D, Chicago, 17. *Physicist,* West. Elec. Co, 17–24; *Bell Tel. Labs, 25–* Summers, acting prof, Stanford, 29; Chicago, 31; Columbia, 32; William Allan Neilson prof, Smith Col, 41, 42. Ed. board, 'Physical Rev,' 24–27, 33–35. A.A; Physical Soc. (sec'y, 41–); Philos. Soc; Soc. de Physique. Theoretical physics.

Darrow, Prof. Robert A(rthur), University of Arizona, Tucson, Ariz. *Botany.* Saratoga Springs, N. Y, Dec. 15, 11. B.S, Syracuse, 32; M.S, Arizona, 35; Ph.D, Chicago, 37. Agent, blister rust investigations, bur. plant indust, U. S. Dept. Agr, 31–32; green sect, U. S. Golf Asn, fellow, 35–36; instr. *bot, Arizona, 36–39, asst. prof, 39–* A.A; Ecol. Soc; Calif. Bot. Soc. Range ecology; plant distribution in Arizona.

Darsie, Dr. Marvin L(loyd), Jr, 7057 Saranac St, San Diego, Calif. *Bacteriology.* Palo Alto, Calif, Jan. 23, 12. A.B, California at Los Angeles, 34; Calif. Inst. Tech, 38; Ph.D, Stanford, 39. Teaching asst. biol, Stanford, 34–35, asst. physiol. microbiol, 35–37; *instr. biol, San Diego State Col, 39–* Summer, instr, California at Los Angeles, 41. A.A; Soc. Bact; West. Soc. Nat; fel. San Diego Soc. Nat. Hist. Bacterial physiology.

Dart, Col. Raymond O(sborne), Letterman General Hospital, San Francisco, Calif. *Pathology.* Kansas City, Kans, July 5, 90. A.B, Kansas, 14; M.D, Rush, Chicago, 16; hon. grad, Army Med. Sch, 22. Intern, Presb. Hosp, Chicago, Ill, 16–17; pathologist, Board Health Lab, Ancon, C. Z, 28–32; asst. curator, Army Med. Museum, 32–35, curator, 35–36; *chief lab, Letterman Gen. Hosp, 36–; col, Med. Corps, U. S. Army, 37–* Lieut, M.C, 17–21, capt, 21–29, major, 29–37, A.E.F, 18–19, Am. forces in Germany, 19–21. Sternberg medal, 22. A.A; Am. Med. Asn; Asn. Path. and Bact; assoc. Urol. Soc; fel. Col. Physicians; Wash. Soc. Path; Med. Soc. C. Z. (sec'y, 29, v. pres, 30, pres, 31); Int. Asn. Med. Mus.

Dart, Prof. William A, 105 Main St, Potsdam, N. Y. *Electrical engineering.* Potsdam, N. Y, Aug. 7, 89. B.S, Clarkson Tech, 14, M.S, 16, E.E, 34. *Clarkson Tech, 14–, prof. elec. eng.* Summer, mem. staff, Gen. Elec. Co; Westinghouse Elec. and Mfg. Co; Aluminum Co. of Amer.

Darton, Dr. N(elson) H(oratio), U. S. Geological Survey, Washington, D. C. *[*1]Geology.* New York, N. Y, Dec. 17, 65. Sc.D, Arizona, 22. Geologist, U. S. Geol. Surv, 86–10; Bur. Mines, 10–13; U. S. Geol. Surv, 13–36; *retired; consulting geologist.* Mem, U. S. Board Surv. and Maps. Explor, Mex, Venezuela, Santo Domingo and Cuba. Charles P. Daly medal, 30; Penrose medal, Geol. Soc. Amer, 40. A.A; Geol. Soc. (v. pres, 30); Soc. Econ. Geol; Asn. Geog; Min. and Metal. Eng; Min. and Metal. Soc; Archeol. Soc; Geophys. Union; hon. mem. Asn. Petrol. Geol; Geol. Soc. Wash. (pres, 26); Wash. Hist. Soc; Wash. Acad. (v. pres, 27); hon. mem. Wyo. Valley Hist. and Sci. Soc; Eng-Speaking Union; Soc. géol. de France; Soc. linn. de Lyon; Inst. française; Alliance française (v. pres); Inst. de las Españas; Ital-Am. Soc. Bibliography of North American geology; artesian waters of Dakotas and Nebraska; geology of the Great Plains, Appalachians, Newark group, Big Horns, Black Hills, Laramie Basin, South Dakota, District of Columbia, Baltimore and Richmond region, Atlantic coastal plain, Baja California, New Mexico and Arizona; explosive gases in coal; underground temperatures; structure of northern anthracite basin; explosion craters; red beds, salt deposits and structures of New Mexico; the Grand Canyon; geologic and topographic maps of New Mexico, Arizona, Nebraska, Texas, New York, Great Plains and South Dakota; guides to Santa Fe and Southern Pacific railroads.

Dasher, Dr. P(aul) J(ames), 180 Oak Road, Stow, Ohio. *Chemistry.* Pleasant Plains, Ill, June 4, 12. B.S, Illinois, 34; A.M, Indiana, 35, Ph.D, 37. Research chemist, *B. F. Goodrich Co,* 37–39, asst. director rubber research, 39–41, *director develop. and eng, fuel cell div, 41–* Conductance of electrolytes in solvents of low dielectric constant.

Dashiell, Prof. J(ohn) F(rederick), University of North Carolina, Chapel Hill, N. C. *[*5]Psychology.* Southport, Ind, April 30, 88. B.S, Evansville Col, 08, Litt.B, 09; A.M, Colum-

bia, 10, Ph.D, 13. Asst. philos, Columbia, 10–13; prof. educ, Waynesburg Col, 13–14; instr. philos, Princeton, 14–15; Minnesota, 15–16, *psychol*, 16–17; asst. prof, Oberlin Col, 17–19; assoc. prof, *North Carolina*, 19–20, prof, 20–35, *Kenan prof, 35–* Ed, 'Psychol. Monographs,' 35– Div. anthrop. and psychol, Nat. Research Council, 34–37. Director, Psychol. Corp, 37– A.A. (v. pres, I, 38); Psychol. Asn. (director, 30–33, pres, 37); Soc. Exp. Psychol. (chairman, 37); S. Soc. Philos. and Psychol. (pres, 25); N. C. Acad. Learning in motor and mental functions; 'mental sets'; experimental methods in legal and social psychology.

Dates, Prof. Henry Baldwin, Case School of Applied Science, Cleveland, Ohio. *Electrical engineering.* New Britain, Conn, July 15, 69. B.S. (E.E), Mass. Inst. Tech, 94; hon. E.E, Case, 07. Engineer, Westinghouse Elec. and Mfg. Co, 94–96; prof. elec. eng. and physics, Clarkson Tech, 96–03; prof. elec. eng. and dean col. eng, Colorado, 03–05; prof. *elec. eng, Case*, 05–39, *emer. prof, 39–* Int. Cmn. on Illumination. Fel. Elec. Eng; Illum. Eng. Soc. (director, 32–35, v. pres, 35–37, pres, 37; chairman lighting practice cmt); Eng. Educ. Art and science of illumination; industrial and school lighting.

Daubenmire, Prof. Rexford F, University of Idaho, Moscow, Idaho. *Botany.* Coldwater, Ohio, Dec. 12, 09. B.S, Butler, 30; M.S, Colorado, 32; Ph.D, Minnesota, 35. Acting asst. prof. *bot*, Tennessee, 35–36; *asst. prof, Idaho, 36–* Summers, instr, Butler, 31, 32; lecturer, biol. sta, Minnesota, 37, asst. prof, sci. camp, Wyoming, 39. Research grant, Northwest. Sci. Asn, 38, 39, 40. Ecol. Soc; Soc. Plant Taxon; Northwest Sci. Asn. Contrasting effects of forests upon soil; structure and ecology of deciduous forest; grazing succession; subterranean organs of alpine plants; ecology of Palouse prairies; vegetation zones of Rockies.

Daubert, Prof. B(ernard) F(orbes), 3301 Iowa St, Pittsburgh, Pa. *Biochemistry.* Martins Ferry, Ohio, May 1, 05. Ph.G, Pittsburgh, 25, B.S, 30, Ph.D, 39. Instr. *pharmacy, Pittsburgh*, 25–32, *asst. prof, 32–* Chem. Soc; Pharmaceut. Asn. Synthetic fats; synthetic glycerides; molecular constitution of fats.

Daudt, H(erbert) W(ilkens), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* St. Charles, Mo, June 21, 86. B.S, Harvard, 07, M.S, 08. Chemist, Mallinckrodt Chem. Works, 08–09; instr, North Dakota, 09–13; *chemist*, bur. chem, U. S. Dept. Agr, 13–18; *E. I. du Pont de Nemours and Co, 18–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc; Agr. Chem. (referee, nitrogen, 18); N. Dak. Acad. Rare earth oxalates; aluminum and iron as hydroxides; nitrogen; synthesis of benzoic acid from phthalic anhydride; tetra alkyl lead derivatives; phenylglycine; dye-stuffs intermediates; alkyl chlorides; fluorine compounds; accelerators.

Daughenbaugh, Dr. Paul J(ones), Wrightstown, Pa. *Biochemistry.* Thomas, W. Va, Nov. 15, 98. A.B, West Virginia, 24; Johnson and Johnson fellow, Rutgers, 27–30, Ph.D, 30. Soils technician, Exp. Sta, West Virginia, 24, asst. chemist, 25; chemist, W. Va. State Dept. Agr, 26–27; nat. research fellow biochem, Yale, 30–32, A. Homer Smith fellow, 32–33; research biochemist, med. research div, Sharp and Dohme, 33–42; *research labs, Merck and Co, Inc, 42–* W. Va. State Tax Cmn. prize, 24. A.A; Chem. Soc; Soc. Study Int. Secretions; fel. Inst. Chem; Franklin Inst. Metallic derivatives of sugars and sterols; chemical composition of bacteria; nucleic acids of bacteria; tissue extracts; nucleotide therapy; endocrines and enzymes.

Daugherty, Prof. F(ord) C(urtis), University of Connecticut, Storrs, Conn. *Animal nutrition.* Battle Ground, Ind. B.S.A, Purdue, 25, M.S.A, 32. Asst. instr. *animal husbandry*, Purdue, 30–32, instr, 32; Berea, 37; asst. prof, N. Dak. Col, 37–41; *assoc. prof, Connecticut, 41–* Soc. Animal Production. Barley versus corn for fattening steers; summer fattening of farm flock lambs; hybrid baby beef; ketosis of sheep.

Daugherty, Prof. J(ohn) Fenton, 52 W. Delaware Ave, Newark, Del. *Physics.* Baltimore, Md, Aug. 16, 97. A.B, Dickinson Col, 21; A.M, North Carolina, 25, Ph.D, 30. Instr. *physics*, North Carolina, 21–26; *prof*, Univ. of the South, 26–29; *Delaware, 29–* Consultant, biochem. research foundation, Franklin Inst, 41–42. Infra-red absorption spectra of benzene and its halogen derivatives.

Daugherty, Prof. Lyman H(arry), 1537 Cherry Ave, San Jose, Calif. *Paleobotany.* Robinson, Ill, May 29, 94. A.B, Stanford, 24, A.M, 25; California, 32–38. Assoc. prof. biol, N. Mex. Nor. Univ, 26–30; asst. prof. *bot, San Jose State Col*, 30–41, *assoc. prof, 42–* Mesozoic plants.

Daugherty, Prof. Robert L(ong), 373 S. Euclid Ave, Pasadena, Calif. *Mechanical engineering.* Irvington, Ind, 85. A.B, Stanford, 09; M.E, 14. Instr. mech. eng, Stanford, 09–10; asst. prof, Cornell, 10–16; *prof*, Rensselaer Polytech, 16–19; *mech. and hydraul. eng, Calif. Inst. Tech, 19–* Consultant metrop. water dist. pumps, Colo. River Aqueduct, 34–36; pumps for Grand Coulee Dam, U. S. Bur. Reclamation, 38–40; regional adviser eng, science and management war training, U. S. Office Educ, south. Calif, Ariz, N. Mex. and west. Texas, 40– Pres, Los Angeles Eng. Council, 32. Mech. Eng. (manager, 26–28, v. pres, 29, 30, chairman, Los Angeles sect, 21; cmt. test code for centrifugal and rotary pumps); Joint Tech. Societies, Los Angeles (chairman, 22). Hydraulic engineering; thermodynamics; turbines; centrifugal pumps.

Daugherty, Dr. Thomas Hill, 222 Catskill Ave, Brentwood, Pittsburgh, Pa. *Chemistry.* Altoona, Pa, March 24, 07. B.S, Carnegie Inst. Tech, 29; Ph.D, Pittsburgh, 34. Asst. instr. chem, Pittsburgh, 29–34; research chemist, Hall Labs, Inc, 34–41; *major, Chem. Warfare Service, U. S. Army, 41–* Lieut, C.W.Res, C.Eng.Res. Chem. Soc; Soc. Mil. Eng; Soc. Test. Mat; Soc. Pa. Archeol; Eng. Soc. West. Pa; Pittsburgh Chemists Club. Applied inorganic chemistry; chemical microscopy; fluorescence analysis; chemistry of the silicates; boiler water conditioning; chemical warfare.

Daughters, Milo R(eason), Natural Food Products Co, Orange, Calif. *Chemistry.* Bronson, Kans. A.B, Nebraska, 05, A.M, 09; Chicago, 12; California, 15. Asst. prof. org. chem, Oregon State Col, 09–18; canning fellow, Mellon Inst, 18–19; research manager, Dominion Canners, Ltd, Ont, 19–23; research chemist, citrus by-products, Fla, 23–24; chief chemist, Sprague-Sells Corp, 24–26; U. S. Can Co, Cincinnati, 26–28; research chemist, Continental Can Co, 28–31; director research, Frosted Foods Sales Corp, Gen. Foods Corp, Calif, 31–33; director research and v. pres, *Nat. Food Products Co*, 33–37, *pres, 37–* A.A; Chem. Soc. (v. pres, Fla. sect, 24); Inst. Food Technol. Organic and food chemistry; canning technology; fruit pectin; food value of eulachon; chemistry of the loganberry; action of sodium benzyl cyanide with p-tolyl cinnamic ester.

Daum, Prof. Kate, State University of Iowa, Iowa City, Iowa. *Nutrition.* Great Bend, Kans, May 31, 92. A.B, Kansas, 13, A.M, 16; Ph.D, Chicago, 25. Instr, Kansas, 16–17; Indiana, 17–19; asst. prof, Montana, 19–21; director nutrition, Presb. Hosp, New York, 25; asst. prof. and *assoc. prof. theory and practise of med, col. med, Iowa, and director nutrition, Univ. Hosp, 26–* Summers, prof, Teachers Col, Columbia, 26–30. Dietetic Asn. (pres, 33); Chem. Soc; Iowa Dietetic Asn. (pres, 32); Iowa Acad. Hospital dietary administration; calcium metabolism in diabetes; physical characteristics of residues from small intestine.

Dauphinee, Dr. James A(rnold), 35 Ava Road, Toronto, Ont, Can. *Clinical medicine.* New Westminster, B. C, Jan. 9, 03. M.A, British Columbia, 23; fellow, Toronto, 23–27, Ph.D, 29, M.D, 30. Asst. chem, British Columbia, 22–23; Ellen Mickle fellow, *Toronto*, 30–31, George Brown Mem. fellow, 33–34, *junior demonstrator med, 34–; field ambulance corps, Med. Corps, Royal Can. Army.* Clin. asst, St. Bartholomew's Hosp, 30–31. Soc. Clin. Invest. Biochemistry; enzymes; hematology; diseases of the liver and the spleen.

Daus, Prof. Paul H(arold), 405 Hilgard Ave, Los Angeles, Calif. *Mathematics.* Chicago, Ill, June 19, 94. B.S, Chicago, 16; Ph.D, California, 21. Instr. *math*, New Mexico, 16–17; Clemson Col, 17–18; *California at Los Angeles*, 21–24, asst. prof, 24–30, *assoc. prof, 30–* A.A; Math. Soc; Math. Asn. Ternary continued fractions; college geometry.

Daus, Dr. Wilhelmina (Mrs. Carl F. Swinehart), 4102 Silsby Road, University Heights, Cleveland, Ohio. *Physical chemistry.* Ohio, April 27, 05. A.B, Western Reserve, 26, A.M, 28, Ph.D, 31. Asst. chem, Western Reserve, 26–36, instr, 36–42; *retired.* Chem. Soc. Reaction velocity and catalysis; colloids.

Davenport, Dr. Cha(rle)s B(enedict), Carnegie Institution of Washington, Cold Spring Harbor, N. Y. *[1]*Zoology, Genetics.* Stamford, Conn, June 1, 66. B.S, Brooklyn Polytech, 86; A.B, Harvard, 89, A.M, 90, Ph.D, 92. Asst. zool, Harvard, 88–91, instr, 91–99; asst. prof, Chicago, 99–01, assoc. prof, 01–04; director sta. for exp. evolution, Carnegie

Institution, 04–34, eugenics record office, 10–18, dept. genetics, 18–34; *retired.* Director biol. lab, Cold Spring Harbor, 98–23. Co-editor, 'Jour. Exp. Zool'; 'Genetics'; 'Jour. Physical Anthrop'; 'Growth'; 'Zeit. für Rassenkunde'; 'Zeit. für mensch. Vererb. u. Konstitut.' Gold medal, Inst. Social Sciences, 23. Pres, 3rd Int. Cong. Eugenics, 32. Major in charge anthrop, S.G.O, 18–20. Nat. Acad; A.A. (v. pres, F, 00, H, 25); Soc. Nat. (v. pres, 06); Soc. Zool. (pres, 07, 29); Genetics Soc; Soc. Exp. Biol; Eugenics Research Asn. (pres, 14, hon. pres, 27); Eugenics Soc. (v. pres, 22–28); Asn. Physical Anthrop; Galton Soc. (pres, 20–30); Inst. Social Sci. (v. pres, 25–39); Philos. Soc; Am. Acad; assoc. N. Y. Acad. Med; cor. mem. Zool. Soc. London; Halle Akad. der Naturforscher; cor. mem. Acad. royale de Belg; hon. mem. Vienna Anthrop. Soc; Int. Fed. Eugenic Organizations (pres, 27-32); Inst. int. d'Anthrop. Experimental evolution; morphogenesis; variation; experimental breeding; reactions of animals; heredity of eye, hair and skin color, temperament, stature, build and twins in man; heredity in animals; development of human traits.

Davenport, Mrs. Cha(rle)s B(enedict) (Gertrude Crotty), Cold Spring Harbor, N. Y. *Zoology.* Asequa, Colo, Feb. 28, 66. B.S, Kansas, 89; Radcliffe Col, 92–94. Instr. zool, Kansas, 89–92; micros. methods, *biol. lab, Cold Spring Harbor,* 90–03, *woman's auxiliary board.* Soc. Zool. Embryology of the turtle; variation in Sagartia and in starfish; variation in organisms; heredity in man.

Davenport, Prof. Demorest, Reed College, Portland, Oregon. *Zoology, Entomology.* Utica, N. Y, Sept. 26, 11. A.B, Harvard, 33, Atkins fellow, 36, Ph.D, 37; A.M, Colo. Col, 34. Asst. entom, Harvard, 36–37; *biol, Reed Col,* 37–38, instr, 38–40, *asst. prof, 40–; 2nd lieut, Air Corps, U. S. Army.* Bache Fund grant, Nat. Acad. Sciences, 36. A.A; Soc. Zool; Cambridge Entom. Club (sec'y, 36). Pharmacology of invertebrate hearts; chemical mediation; taxonomy of diurnal Lepidoptera.

Davenport, E(dmund) S(harington), U. S. Steel Corp, Kearny, N. J. *Metallurgy.* Brooklyn, N. Y, Sept. 3, 97. Ph.B, Yale, 19, M.S, 21. Research metallurgist, East. Malleable Iron Co, Conn, 21–22; *metallurgist,* Westinghouse Lamp Co, N. J, 22–29; *research lab, U. S. Steel Corp, 29–* Instr, Newark Tech. Sch, 24–29. Robert W. Hunt award, Inst. Min. and Metal. Eng, 31. Lieut. commander, U.S.N.R, retired. Min. and Metal. Eng; Soc. Metals (Campbell Mem. lecturer, 39; chairman, N. J. chap, 39); Soc. Automotive Eng. Malleable cast iron; tungsten; thorium; metallurgy and heat treatment of plain carbon and alloy steels.

Davenport, Lieut. Col. H(arold) A(lvin), 123 W. Division St, Itasca, Ill. *Anatomy.* Louisiana, Mo, Feb. 8, 95. B.S, Washington (St. Louis), 24, M.D, 26. Asst. biochem, Washington (St. Louis), 26–27, instr. neur, 27; *Northwestern,* 28–30, asst. prof. *anat,* 30–32, *assoc. prof, 32–, asst. dean, 34–; lieut. col, Med. Corps, U. S. Army.* A.A; Asn. Anat; Soc. Exp. Biol. Chemistry of muscle; neurological staining methods and neuroanatomy; tissue reactions.

Davenport, Dr. Horace W(illard), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Physiology.* Philadelphia, Pa, Oct. 20, 12. B.S, Calif. Inst. Tech, 35, Ph.D, 39; B.A, Oxford, 37, B.Sc, 38. Lilly research fellow, *sch. med,* Rochester, 39–40; Sterling research fellow, Yale, 40–41; *instr. physiol, Pennsylvania, 41–* Physiol. Soc. Gastric secretion.

Davenport, J(ohn) E(sten), 64 Colon Ave, Great Kills, Staten Island, N. Y. *Chemistry.* Spray, N. C, May 5, 06. A.B, North Carolina, 26, A.M, 27. Instr. chem, Clemson Col, 27–28; *research chemist, Brooklyn Edison Co, 29–* Chem. Soc. Electrical insulating materials; power plant chemistry; electrochemistry; corrosion; recovery of unsaturates from light oil.

Davenport, R(oyal) W(illiam), 6428 31st St, N.W, Washington, D. C. *Hydraulics.* Colrain, Mass, Dec. 14, 85. B.S, Worcester Polytech, 08. Instr. civil eng, Worcester Polytech, 08–10; *hydraul. engineer, U. S. Geol. Surv, 10–, chief div. water utilization, 31–* Civil Eng; Geophys. Union; Wash. Soc. Eng. Hydrology; river hydraulics; water power.

Davenport, Prof. U(riah) H(arrold), 1123 Prince Ave, Athens, Ga. *Electrical engineering.* Americus, Ga, April 30, 78. B.S, Georgia, 98; Cornell, 98, 99, 00–01; Wisconsin, 04. From instr. to adj. prof. physics and elec. eng, *Georgia,* 98–24, prof. elec. eng, 24–32, assoc. prof. and later *prof. agr. eng, 32–* Elec. Eng. Civil and agricultural engineering.

Davey, Dr. A(rthur) E(rnest), College of Agriculture, University of California, Davis, Calif. *Plant pathology.* B.S.A, Toronto, 25; Ph.D, California, 33. Assoc. plant path, *Exp. Sta, California,* 33–38, *junior pomologist, 38–, instr. pomol, univ, 38–* A.A; Phytopath. Soc; Soc. Hort. Sci. Fruit spoilage of figs; root-rot of sugar beets; almond varieties; nutrition of walnut trees; growth substances in relation to fruit trees.

Davey, Dr. Wheeler P(edlar), Pennsylvania State College, State College, Pa. ***Physics, Physical chemistry.* Cleveland, Ohio, March 19, 86. A.B, Western Reserve, 06; M.S, Pa. State Col, 11; Ph.D, Cornell, 14. Instr. physics, Pa. State Col, 10–11; Cornell, 12–14; physicist, research lab, Gen. Elec. Co, 14–26; prof. physical chem. and indust. research, *Pa. State Col,* 26–31, *research prof. chem. and physics, 31–* Lecturer, Union (N. Y), 20–26; mem. physics subcmt, A Century of Progress Expos, Chicago, Nat. Research Council, 28–30, insulation cmt, 29–41, chairman physics subcmt, cmt. elec. insulation, 35–41. Summer, lecturer, Michigan, 25. Consulting ed, 'Radiology,' 29–31. Mem. governing board, Inst. Physics, 31–33, 36–41; mem. Advisory Council Applied Physics, 35–36, chairman sub. cmt. chem. analysis by x-ray diffraction methods, 40– A.A; fel. Physical Soc; Chem. Soc. (v. chairman, east. N. Y. sect, 23, chairman, 25, v. chairman, cent. Pa. sect, 27, councilor, 30); Optical Soc; Soc. Rheol. (pres, 30–33, asst. ed, 33–36, ed, 36–41); Asn. Physics Teachers; Soc. X-ray and Electron Diffraction; Min. and Metal. Eng; Soc. Metals; Soc. Chem. Indust. Gt. Britain; Iron and Steel Inst. Gt. Britain; fel. Inst. Physics, London. Effect of x-rays on the living tissue; emulsions; radiography of metals; crystal structure; iron and nickel constitution diagram; mechanical working and preferred orientation of crystals of metals; method of determining preferred orientation of crystals; theory of solid solutions; chemical analysis by x-ray diffraction methods.

David, Prof. John A(rcher), Adelphi College, Garden City, N. Y. *Physics.* Damariscotta, Maine, Nov. 25, 80. A.B, Bates Col, 04, A.M, 20. Instr. English and Latin, Western Maryland Col, 04–05; head science dept, St. Paul Acad, Minn, 05–08; Allegheny Preparatory Sch, Pa, 08–14; instr. physics, Carnegie Inst. Tech, 14–18; prin, high sch, Maine, 18–19; *prof. physics, Adelphi Col, 19–* Lecturer, Carnegie Inst. Tech; special lecturer, N. Y. Univ, 42– A.A; Physical Soc.

David, Dr. Lorna (W) Thigpen (Mrs. Paul R. David), Storrs Agricultural Experiment Station, Storrs, Conn. *Genetics.* Edgecombe Co, N. C, March 31, 04. A.B, N. C. Col. for Women, 25; Ph.D, Pittsburgh, 30. Asst, Maine, 25–27; *genetics, Storrs Exp. Sta, Conn. Agr. Col,* 27–32, asst. and *asst. prof,* 32–33, *Conn. State Col, 33–* A.A. Developmental expression of genetic characters.

David, Dr. Norman A(ustin), University of Oregon Medical School, Portland, Oregon. *Pharmacology.* San Francisco, Calif, Oct. 22, 02. A.B, California, 25, Eli Lilly fellow, 30–32, M.D, 31. Asst, California, 30–32; asst. prof. and head dept. *pharmacol,* sch. med, West Virginia, 32–35; asst. prof, col. med, Cincinnati, 35–36, assoc. prof, 36–37; *prof. and head dept, med. sch, Oregon, 37–* Soc. Pharmacol; Am. Med. Asn. Chemotherapy of amebiasis; anthelmintics; morphine derivatives; circulatory drugs; the teaching of pharmacology.

David, Dr. Paul R(embert), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Biology, Genetics.* Providence, R. I, Dec. 16, 07. A.B, Col. of Charleston, 27; M.S, Pittsburgh, 30; Eidgenössische Tech. Hochschule, Zurich, 36–37; Ph.D, Columbia, 37. Instr. biol, Col. of Charleston, 27–28; asst. genetics, Storrs Exp. Sta, Conn. State Col, 30–37; asst. prof. biol, Lafayette Col, 37–41; *assoc. prof. med. genetics, Bowman Gray Sch. Med, Wake Forest Col, 41–; research assoc. biostatistics, sch. hygiene and pub. health, Hopkins, 41–* A.A; Genetics Soc; assoc. Soc. Zool. Developmental genetics of poultry and mice; medical genetics.

David, Prof. Pedro A(rceo), College of Agriculture, University of the Philippines, Los Baños, Laguna, P. I. *Agronomy.* San Fernando, Pampanga, P. I, Jan. 18, 88. B.Agr, Philippines, 19, B.S.A, 22, M.S, 24; Univ. Philippines fellow, Iowa State Col, 28–31, Ph.D, 31. Asst. agron, *col. agr, Philippines,* 17–21, instr, 21–31, *asst. prof, 32–* Mem. cmt. surv. tobacco indust, Bur. Int. Revenue, P. I; assoc, Nat. Research Council P. I. Tobacco seedbeds; leaves and height of Nico-

tiana tabacum; inheritance and diseases of tobacco; coffee planting; yield of tobacco hybrids; crosses in barley; Philippine crop production; cultivation of permanent crops; catch crops; soap making on the farm.

David, Dr. Vernon C, 59 E. Madison St, Chicago, Ill. *Surgery.* Sheridan, Ill, June 9, 82. A.B, Michigan, 05; M.D, Rush, Chicago, 07. *Prof. clin. surg. and chairman dept. surg, Rush Med. Col, Chicago.* Attending staff, Cook County Hosp; chief surg. staff, Presb. Hosp. Surg. Asn; Soc. Clin. Surg; Col. Surg. (v. pres, 38); South. Surg. Asn; West. Surg. Asn; Interurban Surg. Soc; Chicago Surg. Soc; Chicago Path. Soc; Inst. Med. Chicago; Omaha Midwest Clin. Soc. Blood transfusion; pathological conditions and surgery of the large bowel; routes of infection of the kidney and bladder; experimental peritonitis.

Davidheiser, Prof. Lee Y(orgey), Wagner College, Staten Island, N. Y. *Chemistry.* Gilbertsville, Pa, April 6, 85. A.B, Ursinus Col, 14; Ph.D, Hopkins, 22. Head dept. science, Pa. State Teachers Col, Millersville, 22–27; *prof. and head dept. chem, Wagner Col, 27–* C.W.S, U.S.A, 18. A.A; Chem. Soc; Franklin Inst. Gas adsorption; gases.

Davidoff, Dr. Leo M(ax), Jewish Hospital of Brooklyn, Brooklyn, N. Y. *Neurosurgery.* Talsen, Latvia, Jan. 16, 98. M.D, Harvard, 22. Asst. neuropath, Psychiat. Inst, New York, 27–28; instr. and asst. prof. neur, col. physicians and surg, Columbia, 28–37; *chief dept. surg. and attending neurol. surgeon, Jewish Hosp. Brooklyn, 37–* Surgeon, MacMillan-Byrd Exped, 25. Mem. Am. Board Neur. Surg. A.A; Neur. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; fel. Col. Surg; Harvey Soc; Harvey Cushing Soc. Neurosurgery; neuropathology.

Davids, Dr. Norman, 5241 Broad Branch Road, N. W, Washington, D. C. *Mathematics.* New York, N. Y, March 17, 18. B.S, Col. City of N. Y, 37; M.S, N. Y. Univ, 38, Blumenthal fellow, 38–40, Ph.D, 40. Asst. math, N. Y. Univ, 40; instr. physics, Townsend Harris sch, Col. City of N. Y, 41; physicist, Corps Engineers, U. S. War Dept, 42–43; *mathematician, dept. terrestrial magnetism, Carnegie Institution,* 43– Mem, Inst. Advanced Study, 42. Math. Soc; Physical Soc. Calculus of variations; topological conditions required for the existence of a solution to the minimal surface problem with free boundaries; Geiger-Muller tube counters.

Davidson, Prof. Arthur W(illiam), University of Kansas, Lawrence, Kans. *Chemistry.* New York, N. Y, Feb. 16, 96. B.S, Col. City of N. Y, 15; A.M, Columbia, 17, Ph.D, 21. Asst. *chem,* Col. City of N. Y, 15–17; asst. prof, *Kansas,* 21–27, assoc. prof, 27–37, *prof, 37–* Chem. Soc. (chairman, Kansas City sect, 29); Kans. Acad. Inorganic and physical chemistry; non-aqueous solutions; anhydrous sulfuric and acetic acids as solvents.

Davidson, Prof. D(aniel) S(utherland), University of Pennsylvania, Philadelphia, Pa. *Anthropology.* Cohoes, N. Y, July 9, 00. B.S, Pennsylvania, 23, A.M, 24, Ph.D, 28. Instr. polit. science, Pennsylvania, 24–25, *anthrop,* 25–29, 31–32; Buffalo, 32–33; *Pennsylvania,* 33–36, *asst. prof, 36–,* research assoc, univ. museum, 31–32. Social Science Research Council fellow, Australia, 30–31. Leader, Univ. Pa. exped, Lock Haven, 29, research assoc, North Australia, 30; Univ. Pa, Am. Philos. Soc. and Carnegie Corp. exped, west. Australia, 38–39. Mem, Nat. Research Council, 41– Anthrop. Asn. (councilor); Folk-Lore Soc. (councilor; sec'y-treas, 41); fel. Soc. Archeol; Oriental Soc; Polynesian Soc; Phila. Anthrop. Soc. (pres, 26, 36–, sec'y-treas, 34–36); Soc. des Americanistes de Paris. American and Australian ethnology and archeology.

Davidson, Prof. David, Brooklyn College, Brooklyn, N. Y. *Chemistry.* New York, N. Y, 00. Ph.B, Yale, 21, Ph.D, 24. Fellow, Rockefeller Inst, 24–25, asst, 25–27; research fellow chem, Stanford, 27–28; Columbia, 28–33; instr, *Brooklyn Col, Col. City of N. Y,* 33–38, *asst. prof, 38–* Chem. Soc; N. Y. Acad. Heterocycles; complex salts; autoxidation; organic synthesis; qualitative organic analysis.

Davidson, Prof. David Lyman, 61 Howard St, Waltham, Mass. *Biological chemistry.* Providence, R. I, June 7, 10. B.S, Brown, 33, M.S, 34, Ph.D, 37. Sub-asst. biochem. and physiol, Brown, 34–35, asst. embryol, 35–37; instr. chem, Northeastern, 37–38; *prof. biochem, Middlesex, 38–, asst. to dean med. sch, 40–* A.A; Chem. Soc; New Eng. Asn. Chem. Teachers. Biochemistry as involved in diabetic therapy; methods and apparatus for teaching biochemistry.

Davidson, Dr. Donald Miner, 1701 Foshay Tower, Minneapolis, Minn. *Mining geology.* Quincy, Ill, Feb. 20, 02. A.B, Minnesota, 25, M.S, 26, Ph.D, 28. Chief geologist and senior engineer, Selection Trust, Ltd, England, 28–39; visiting lecturer eng. and geol, Minnesota, 40, 41; *chief geologist and manager explor, E. J. Longyear Co, 41–* Soc. Econ. Geol. Rone slate of northern Minnesota; geology of Mineral Hill mining district, Lemhi County, Idaho; geology and ore deposits of Chambishi Copper Mine, Northern Rhodesia.

Davidson, Dr. Floyd F(rancis), 1455 North St, Nacogdoches, Texas. *Botany.* Ferris, Texas, Aug. 23, 06. A.B. and A.M, Baylor, 33; univ. scholar, Texas, 39–40, 40–41, Ph.D, 41. Tutor biol, Baylor, 30–33; prin, high sch, Texas, 34–39; tutor *biol,* Texas, 39–41; asst. prof, E. Texas State Teachers Col, 41; *teacher, Stephen F. Austin State Teachers Col, 41–* A.A; Texas Acad. Taxonomy of the Texas Zygnemataceae.

Davidson, Dr. Frederick A(lexander), 2725 Montlake Blvd, Seattle, Wash. *Zoology.* St. Louis, Mo, July 29, 97. B.S, Illinois, 21, M.S, 24; Ph.D, Chicago, 27. Asst, Exp. Sta, Illinois, 21–26; prof. zool. and head dept, Beloit Col, 27–29; assoc. aquatic biologist, *Bur. Fisheries,* 29–34, *director biol. sta, Seattle, 34–* Lecturer, col. fisheries, Washington (Seattle). Physiology of milk secretions in dairy cattle; ecological distribution of domestic cattle; growth and senescence in dairy cattle; life history, ecology and genetics of pink salmon of Alaska.

Davidson, Prof. J. Brownlee, Iowa State College, Ames, Iowa. *Agricultural engineering.* Douglas, Nebr, Feb. 15, 80. B.S, Nebraska, 04, A.E, 14, D.Eng, 31. Experimentalist, Deere and Co, 04; adj. prof. farm mech, Nebraska, 05; *prof. agr. eng,* Iowa State Col, 05–15; California, 15–19; *Iowa State Col, 19–* Director research surv, mech. farm equipment, U. S. Dept. Agr, 26. Cyrus Hall McCormick medal, 33. Agr. Eng. (past pres, sec'y-treas); Eng. Educ; Iowa Eng. Soc. Farm machinery and motors; buildings; power.

Davidson, Prof. J(ames) A(llison), Michigan State College, East Lansing, Mich. *Poultry husbandry.* Mahaffey, Pa, Feb. 13, 03. B.S, Pa. State Col, 24; Mich. State Col, 35–42; Kans. State Col, 40; Wisconsin, 40. Poultryman, Pa. State Col, 24–25; exten. specialist, Mich. State Col, 25–27; field manager, Mich. State Poultry Inspection Asn, 27–34; *assoc. prof. poultry husbandry, Mich. State Col, and research assoc, Exp. Sta, 35–* A.A; Genetic Asn; Poultry Sci. Asn. Poultry management; nutrition; breeding.

Davidson, Dr. Jehiel, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Russia. B.S, Cornell, 11, Ph.D, 14. Asst. instr. chem, Cornell, 12–13; *assoc. chemist,* bur. chem, *U. S. Dept. Agr,* 13–27, *bur. chem. and soils,* 27–A.A; Chem. Soc; Agr. Chem. Chemistry of plants; nitrogen in plants; soil toxicity.

Davidson, Prof. John, University of British Columbia, Vancouver, B. C, Can. *Botany.* Aberdeen, Scotland, Aug. 6, 78. Gordon's Col; Aberdeen. Asst. bot, Aberdeen, 93–11; provincial botanist, B. C, 11–16; *in charge herbarium and bot. gardens, British Columbia, 16–,* instr. *bot,* 17–22, asst. prof, 22–30, *assoc. prof, 30–* Director, Vancouver Museum, 16–18. B. C. Acad. (hon. sec'y, 16–19); B. C. Entom. Soc. (advisory board); Vancouver Nat. Hist. Soc. (pres, 17–37); Vancouver Inst. (hon. sec'y, 17–20, pres, 25); fel. Royal Hort. Soc; fel. Linnean Soc. London; fel. Bot. Soc. Edinburgh. Economic botany; dendrology; botanical survey of British Columbia.

Davidson, Dr. John Barry, 19299 Parke Lane, Grosse Ile, Mich. *Organic chemistry.* Montclair, N. J, June 16, 16. A.B, Williams Col, 39; Ph.D, Mass. Inst. Tech. 42. *Research chemist, Sharples Chem, Inc, 42–* Chem. Soc. The Wurtz reaction; aliphatic amines.

Davidson, Dr. J(oseph) G(eorge), Carbide and Carbon Chemicals Corp, New York, N. Y. *Chemistry.* New York, N. Y, Feb. 7, 92. A.B, Southern California, 11, A.M, 12; fellow, Columbia, 17–18, Ph.D, 18. Instr. chem, Los Angeles Junior Col, 14–16; physical chem, Columbia, 18; fellow, Mellon Inst, 19–23; manager chem. sales, *Carbide and Carbon Chem. Corp,* 23–30, gen. sales manager, 30–32, *v. pres, 32–* Chem. Soc. (pres, N. Y. sect, 30, chairman, jury awards and mem, exec. cmt). Petroleum; natural gas condensate; aromatic hydrocarbons; synthetic organic chemicals; vinylite plastics.

Davidson, Prof. Kenneth S(eymour) M(oorhead), Stevens Institute of Technology, Hoboken, N. J. *Hydrody-*

namics, Aerodynamics. Buffalo, N. Y, Feb. 9, 98. B.S, Mass. Inst. Tech, 20. Chief engineer, Crosby Steam Gage and Valve Co, Boston, Mass, 23–30; asst. prof. and later *assoc. prof. mech. eng. and director exp. towing tank lab, Stevens Inst. Tech, 30–; consultant, David W. Taylor Model Basin, Navy Dept.* Mem. subcmt. seaplanes, cmt. aerodynamics, Nat. Advisory Cmt. for Aeronautics, 41–; div. mem, Nat. Defense Research Cmt. Capt. Joseph H. Linnard prize, Soc. Naval Archit. and Marine Eng, 36. Assoc. fel. Inst. Aeronaut. Sci; Soc. Naval Archit. and Marine Eng; Mech. Eng. Experimental towing tank.

Davidson, Prof. M(organ) W(oodworth), University of South Dakota, Vermillion, S. Dak. *Mechanical engineering.* Talbot Co, Md, Feb. 8, 81. B.S. (M.E), Va. Polytech, 01, M.E, 02. Asst. to engineer of tests and draftsman, motive power dept, Norfolk and West. Ry, 02–05; asst. prof. eng, *South Dakota,* 05–06, *prof. mech. eng, 06–* Mech. Eng; Eng. Educ. Balancing of reciprocating engines.

Davidson, Prof. O(liver) Wesley, Rutgers University, New Brunswick, N. J. *Pomology.* Philadelphia, Pa, Aug. 14, 03. B.S, Rutgers, 28, M.S, 30, Ph.D, 33. Instr. *pomol, Rutgers,* 28–36, *asst. prof, 36–, assoc. floriculturist, Exp. Sta, 41–* Chem. Soc; Soc. Plant Physiol; Soc. Agron; Soc. Hort. Sci. Plant nutrition.

Davidson, Dr. Paul (Ballinger), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Bozeman, Mont, Aug. 12, 96. B.S, Mont. State Col, 19; Ph.D, Columbia, 24. Asst. chemist, Trident Portland Cement Co, Mont, 19–20; Forest Products Lab, U. S. Forest Service, Wis, 25–28; *indust. fellow, Mellon Inst, 28–* Chem. Soc; Asn. Pulp and Paper Indust. Paper technology; chemistry of wood and cellulose; colloid chemistry.

Davidson, Prof. Ralph H(oward), Ohio State University, Columbus, Ohio. *Entomology.* Vandalia, Ohio, Jan. 19, 08. B.S, Ohio State, 30, M.S, 31, Ph.D, 35. Asst. *entom, Ohio State,* 30–35, instr, 35–36, *asst. prof, 36–* Summers, field asst, bur. entom, U. S. Dept. Agr, 30, field agent, 31–36. Entom. Soc. Amer; Asn. Econ. Entom; fel. Ohio Acad. Homoptera; Cicadellidae; insect control; insect morphology; economic entomology.

Davidson, Ross W(allace, Jr), U. S. Department of Agriculture, Washington, D. C. *Botany.* Columbus, Kans, Aug. 12, 02. B.S, Ottawa (Kans), 27; M.S, Iowa, 28. Junior mycologist, office mycol. and plant disease surv, *bur. plant indust, U. S. Dept. Agr,* 28–31, asst. mycologist, *office forest path,* 31–37, *assoc. mycologist, 37–* Mycol. Soc; Phytopath. Soc; Bot. Soc. Wash. Mycology; forest pathology; taxonomy.

Davidson, Dr. Stanley C(ecil), Ventures, Ltd, 25 King St, W, Toronto, Ont, Can. *Economic geology.* Montreal, Que, Nov. 7, 00. B.Sc, McGill, 23, Ami fellow, 24–25, M.Sc, 25; A.M, Harvard, 27, Ph.D, 32. Austin teaching fellow miner, Harvard, 26–27; *geologist,* San Luis Mining Co, Mex, 27–32; Int. Nickel Co. of Can, 32–36; *Ventures, Ltd, 36–* Miner. Soc. Mineralogy.

Davidson, Dr. Vera Smith (Mrs. Frederick A(lexander) Davidson), Woodacres, R. R. 2, Ellensburg, Wash. *Zoology.* Morland, Kans, Oct. 12, 96. A.B, Kansas, 20, A.M, 22; Ph.D, Illinois, 27. Instr. zool, Kansas, 20–25; prof. biol. and head dept, Okla. Col. for Women, 26–28; *field research animal ecol, Illinois, 28–* Animal ecology.

Davidson, Ward F(ollett), 4 Irving Place, New York, N. Y. *Engineering.* Commonwealth, Wis, Oct. 21, 90. B.S.E, Michigan, 13, M.S, 20. Student and junior engineer, Westinghouse Elec. and Mfg. Co, 14–16; instr. elec. eng, Michigan, 16–20, asst. prof, 20–22; director research, Brooklyn Edison Co, 22–37; *director research, Consolidated Edison Co. of N. Y, 37–* Sec'y conf. elec. insulation, Nat. Research Council, 27–39, chairman, 39– Capt, C.Eng, 17–20. A.A; fel. Elec. Eng. (chairman cmt. basic sci, 36–38; cmt. research, 38–40); fel. Mech. Eng; Illum. Eng. Soc; Physical Soc. (advisory cmt. applied physics, 35–); fel. Inst. Aeronaut. Sci; British Inst. Elec. Eng. Electrical and mechanical engineering; electric insulations; high voltage electric power cables; high pressure steam generation; large steam electric generating stations.

Davidson, W(illiam) M(ark), U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Edinburgh, Scotland, May 27, 87. A.B, Stanford, 10. Sci. asst, bur. entom, *U. S. Dept. Agr,* 11–20, *entomologist, food distributing admin, 20–* Asn. Econ. Entom; assoc. Ornith. Union. Insecticides.

Davies, C(larence) E(benezer), 29 W. 39th St, New York, N. Y. *Mechanical engineering.* Utica, N. Y, March 15, 91. M.E, Rensselaer Polytech, 14. Production engineer, Remington Typewriter Co, 14–17, production supervisor, 18–20; assoc. ed, managing ed, asst. sec'y and exec. sec'y, *Am. Soc. Mech. Eng,* 20–34, *sec'y, 34–; col, office chief of ordnance, U. S. Army.* Ordnance Dept, U.S.A, 17–19. A.A; Mech. Eng; Eng. Educ; Soc. Automotive Eng; Management Asn; Eng. Inst. Can; Inst. Mech. Eng. Gt. Britain; Newcomen Soc. London (pres, 39). Industrial management.

Davies, Prof. Earl C(laudius) H(amilton), West Virginia University, Morgantown, W. Va. *Physical chemistry.* Delaware, Ohio, Jan. 13, 89. A.B, Ohio Wesleyan, 10, A.M, 11; Ohio State, 15; Ph.D, Chicago, 17. Instr. and asst. prof. chem, Ohio Wesleyan, 10–15; instr. physical chem. and electrochem, Washington (St. Louis), 17–18; prof. chem. and head dept, Butler, 18–20; assoc. prof. *physical chem, West Virginia,* 20–31, *prof, 31–* A.A; Chem. Soc. (pres, north W. Va. sect, 28, councilor, 29, sec'y-treas, 34); W. Va. Acad. (chairman, chem. sect, 26–28, 30). Colloid chemistry; orientation of molecules at surfaces; rhythmic bands by evaporation, diffusion in gels and intermittent light; gum colloids as influenced by electrolytes, time and agitation; rhythmic splitting and diurnal bands in silicic acid gels; Cellophane roll films; salt flowers; adsorption of methane on coal; adsorption of salts by cellulose; physical constants for glycerol-ethylene glycol-water.

Davies, Frank T(homas), Royal Canadian Navy, Naval Service Headquarters, Ottawa, Ont, Can. *Terrestrial magnetism.* Merthyr Tydfil, Wales, Aug. 12, 04. B.Sc, Wales, 25; M.Sc, McGill, 28. Demonstrator physics, Saskatchewan, 25–26; research asst. to Dr. A. N. Shaw and demonstrator physics, McGill, 26–28; physicist, Byrd Antarctic exped, 28–30; *assoc. physicist, dept. terrestrial magnetism, Carnegie Institution, 30–; naval service headquarters, Royal Can. Navy.* In charge, Can. Polar Year exped, Northwest Territories, 32–33; magnetic observatory, Carnegie Institution, Huancayo, Peru, 37. Geophys. Union; Philos. Soc. Wash. Auroral phenomena; aurora australis; magnetic variations at Little America, Antarctica; condensation nuclei over Pacific Ocean and at Little America, Antarctica.

Davies, Dr. G(eorge) F(rancis), Beloeil Station, Que, Can. *Chemistry, Chemical engineering.* London, Eng, June 9, 15. B.Sc, British Columbia, 38, M.Sc, 39; Standard Oil Co. of Calif. fellow, Oregon State Col, 39–41, Ph.D, 41. *Research chemist, research and develop. dept, Can. Industries, Ltd, 41–* Assoc. Can. Inst. Chem; Asn. Professional Eng. B. C. Shale oil; isomers of decahydronaphthalene; thermochemistry of isomeric heptanes.

Davies, Prof. George R(eginald), State University of Iowa, Iowa City, Iowa. *Statistics.* Abingdon, Eng, Feb. 3, 76. A.B, Des Moines Col, 99, A.M, 08; Ph.D, North Dakota, 14. Instr. and asst. prof. sociol, North Dakota, 13–19; asst. prof. econ, Princeton, 19–21; prof. sociol, North Dakota, 21–28; *prof. business statist, col. commerce, Iowa, 28–* Lecturer, Iowa, 27–28. Statist. Asn; Econ. Asn; Econometric Soc. Business statistics; statistical measurement of the volume of business in the state of Iowa by sampling processes, methods of measurement and the economic basis of interpretation.

Davies, Dr. John A(rchibald) V, 101 Bay State Road, Boston, Mass. *Pediatrics.* Ft. Wayne, Ind, Nov. 7, 96. A.B, Princeton, 19; B.A, Oxford, 23; M.D, Hopkins, 24; M.S, Yale, 26. Assoc. pediat. and instr. bacter, *Harvard Med. Sch,* 39–42, *asst. prof. pediat. and instr. bacter. and immunol, 42–; assoc. visiting physician and bacteriologist, Children's Hosp, 39–* Am. Med. Asn; fel. Acad. Pediat; Pediat. Soc; New Eng. Pediat. Soc. Infections in infancy and childhood in relation to immunology, chemotherapy and serotherapy; meningitis.

Davies, John M(orris), B. F. Goodrich Co, Dayton, Ohio. *Physics.* Akron, Ohio, Nov. 1, 00. B.S, Akron, 22, M.S, 24. Instr. physics, Akron, 24–26; *indust. physicist, physical research lab, B. F. Goodrich Co, 26–, director physical research, 43–* Physical Soc; Chem. Soc. Properties of rubber and plastics.

Davies, Prof. P(ercy) A(lbert), University of Louisville, Louisville, Ky. *Biology.* Ft. Collins, Colo, Feb. 10, 96. B.S, Colo. Agr. Col, 22, M.S, 23; Ph.D, Harvard, 26. Asst. prof. bot, *Louisville,* 26–28, assoc. prof, 28–29, prof, 29–31, *prof. biol. and head dept, 31–* A.A; Bot. Soc; Soc. Plant Physiol; Soc.

Bact; Ecol. Soc; Ky. Acad. Irreversible injury; the production of carbon dioxide; regeneration.

Davies, Dr. Thomas Harrison, Lederle Laboratories, Pearl River, N. Y. *Biochemistry.* Baltimore, Md, Feb. 21, 12. A.B, Hopkins, 35, Ph.D, 38. Nat. research fellow med, Calif. Inst. Tech, 38–40; *research chemist, Lederle Labs, 40–* Chem. Soc. Oxidation-reduction; metallo-porphyrins; protein chemistry.

Davis, Dr. A(lva) R(aymond), 1159 Keeler Ave, Berkeley, Calif. *Plant physiology.* Cascade, Iowa, Feb. 15, 87. A.B, Pomona Col, 12; Lackland fellow, Mo. Bot. Garden, 12–15; Ph.D, Washington (St. Louis), 15. Asst, Mo. Bot. Garden, 15–16; asst. prof. plant path. and physiol, Nebraska, 16–19; instr. soil chem. and bacter, *California,* 19–21, asst. prof. plant nutrition, 21–25, assoc. prof. *plant physiol,* 25–30, *prof, 30–, chairman dept. bot, 36–* Capt, C.A.C, 17–19. A.A. (exec. cmt, Pacific div, 33–38); Soc. Plant Physiol; West. Soc. Nat. (v. pres, 34); Calif. Bot. Soc. (pres, 42). Light relations, absorption and mineral nutrition; water relations.

Davis, Dr. Ardith P(aul), R.R. 2, Argos, Ind. *Physical chemistry.* Foresman, Ind, Oct. 18, 04. A.B, DePauw, 26; Ph.D, Cornell, 33. Asst, Detroit Edison Co, 30–32; prof, St. John's (Ohio), 33–36; asst. prof, Loyola (Ill), 36–40; *research assoc, Notre Dame, 41–* Physical Soc; Chem. Soc. Electric discharges.

Davis, A(rnold) R(ogers), American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Chemistry.* Montville, Maine, Oct. 31, 00. B.S, Mass. Inst. Tech, 21. Asst. chemist, Firestone Footwear Co, Hudson, Mass, 22–24, chief chemist, 24–36; supt. heel and sole plant, U. S. Rubber Co, Providence, 36; *head rubber sect, tech. service lab, Am. Cyanamid Co, 36–* Chem. Soc; Chem. Inst. Rubber chemistry; rubber and fabric combinations in rubber footwear.

Davis, Prof. A(rthur) R(andall), 76 Brooks St, West Medford, Mass. *Inorganic chemistry.* Augusta, Maine, Nov. 26, 91. A.B, Wesleyan, 15; A.M, Harvard, 25, Ph.D, 30. Instr. *chem,* Middlebury Col, 15–18, asst. prof, 18–21, prof, 21–23; instr, Harvard, 25–30; *Mass. Inst. Tech,* 30–35, asst. prof, 35–41, *assoc. prof, 41–* Chem. Soc. (trustee, northeast. sect, 41–). Reduction of isoxazoline oxides; catalytic hydrogenation; complex compounds of copper; incendiary materials.

Davis, Dr. Arthur W(illiam), Iowa State College, Ames, Iowa. *Mathematics.* Delmar, Iowa, July 20, 05. B.S, Iowa State Col, 29, M.S, 31, Ph.D, 39. Head dept. math, Buena Vista Col, 32–36; *instr,* S. Dak. State Sch. Mines, 37–41; *theoret. and applied mech, Iowa State Col, 41–* Math. Asn. Differentiability and continuity properties of solutions of partial differential equations of applied mathematics.

Davis, Dr. Benj(amin) F(ranklin), 1641 S. Oak Knoll Ave, Pasadena, Calif. *Surgery.* Chicago, Ill, Oct. 13, 84. A.B, Wisconsin, 07; Ph.D, Chicago, 10, M.D, Rush, 12. Instr. surg, Rush Med. Col, Chicago, 13–20; surgeon, Acad. Clin. Med, Duluth, Minn, 20–32; St. Luke's Hosp, 32–39; *indust. surgeon, Golden State Hosp, Los Angeles, 39–* Senn fellow, Rush Med. Col, Chicago, 13–14. Asst. attending surg, Presb. Hosp, 13–20; assoc. attending physician, Children's Mem. Hosp, 17–20. Ed, 'Surg. Clinics of Chicago,' 17–20. Fel. Col. Surg; Am. Med. Asn; West. Surg. Asn; Inst. Med. Chicago. Pathology; blastomycosis; Rocky Mountain spotted fever; anesthesia; paraffin cancer; pathological physiology of pleural cavity.

Davis, Dr. B(enjamin) H(arold), 68 Brunswick Ave, Metuchen, N. J. *Plant pathology.* Lafayette, Ind, Jan. 25, 05. A.B, Wabash Col, 28; Ph.D, Cornell, 34. Asst. plant path, Cornell, 28–29, instr, 29–34; science, Va. State Teachers Col, Fredericksburg, 34–35; bot, Ohio State, 35–39; *assoc. prof. plant path, Rutgers, and assoc. plant pathologist, N. J. Agr. Exp. Sta, 39–* Phytopath. Soc. Diseases of ornamental plants, especially roses.

Davis, Prof. B(enjamin) M(arshall), Miami University, Oxford, Ohio. *Physiology, Education.* North Salem, Ind, June 15, 67. B.S, Butler, 90, M.S, 92; Stanford, 95; Chicago, 96–97; Ph.D, California, 06. Acting prof. chem, Butler, 91–92; prof. chem. and physiol, Garfield Col, 92–93; biol, Whittier Col, 93–95; Butler, 95–97; Calif. State Nor. Sch, Los Angeles, 97–04; res. naturalist, Marine Biol. Sta, San Diego, 04–05; prof. biol, Calif. State Nor. Sch, Chico, 05–07; *Miami (Ohio),* 07–27, *physiol,* 27–37, *emer. prof, 37–* A.A; Nature Study Soc. (pres, 10–12); Ohio Acad. Ecology and development of enteropneusts; comparative physiology; physiology of exercise; science teaching.

Davis, Prof. Bergen, Columbia University, New York, N. Y. *[2]Physics.* Whitehouse, N. J, March 31, 69. B.S, Rutgers, 96, Sc.D, 29; fellow, Columbia, 99–00, A.M, 00, Ph.D, 01, John Tyndall fellow, 01–03, Sc.D, 29; Göttingen, 01–02; Cambridge, 02–03. Teacher, New York, 96–99; asst. *physics, Columbia,* 00–01, tutor, 03–07, instr, 07–09, adj. prof, 09–13, assoc. prof, 13–19, prof, 19–39, *emer. prof, 39–, mem. consulting board cancer research, 37–* Ernest Kempton Adams fellow, Columbia, 07–09. Physics div, Nat. Research Council, 23–26. Research Corp. medal, 29. Nat. Acad; A.A; fel. Physical Soc; Optical Soc. Sound waves; motion of ions in varying magnetic field; electrical phenomena of gases in the electrodeless discharge; coronal discharge; radiation and ionization by impact; reflection of x-rays from crystals; emission and refraction of x-rays; absorption and scattering of x-rays; high voltage for nuclear physics.

Davis, Prof. Bradley Moore, University of Michigan, Ann Arbor, Mich. *[2]Botany.* Chicago, Ill, Nov. 19, 71. Indiana, 89–91; A.B, Stanford, 92; A.B, Harvard, 93, A.M, 94, Ph.D, 95. Asst. *bot,* Chicago, 95–96, assoc, 96–98, instr, 98–02, asst. prof, 02–06; Pennsylvania, 11–14, prof, 14–19; *Michigan,* 19–42, *emer. prof, 42–* Head instr, Marine Biol. Lab, Woods Hole, 97–06, in charge bot, biol. surv, 03–09. Assoc. ed, 'Genetics'; ed, statist. div, Food Admin, 18. A.A; Soc. Nat. (sec'y, 13–19, v. pres, 20, pres, 21); Bot. Soc; Genetic Asn; Philos. Soc. (sec'y, 18); Am. Acad; New Eng. Bot. Club; Mich. Acad. Morphology and cytology of fungi, algae and liverworts; cytology and genetics of Oenothera; life histories; plant evolution.

Davis, Dr. Carl B(raden), 122 S. Michigan Ave, Chicago, Ill. *Surgery.* Chicago, Ill, Oct. 9, 77. A.B, Chicago, 00, M.D, Rush, 03. From assoc. prof. to *clin. prof. surg, Rush Med. Col, Chicago.* Attending surgeon, Presb. Hosp, Chicago. Surg. Asn; Soc. Clin. Surg.

Davis, Prof. C(arl) L(awrence), University of Maryland, Baltimore, Md. *Embryology.* Vermontville, Mich, 78. Georgetown, 98–01; M.D, George Washington, 02. Intern, Garfield Hosp, 02–03; demonstrator *anat,* George Washington, 12–14, *prof,* 14–19; *Maryland, 19–* A.A; Asn. Anat. Human embryology; young human embryo; embryology of the heart.

Davis, C(arroll) C(ampbell), 7 Abbott Road, Lexington, Mass. *Chemistry.* Boston, Mass, Sept. 4, 88. B.S, Dartmouth Col, 11, Mass. Inst. Tech, 14. Chem. engineer, *Boston Woven Hose and Rubber Co, Cambridge,* 14–25, chief chemist, 25–33, asst. tech. supt, 33–41, *chief chemist,* 41– Ed, 'Rubber Chem. and Technol,' 28–; asst. ed, 'Chem. Abstracts.' Chem. Soc. (ed, monographs). Rubber chemistry and technology; aging of rubber; specifications; synthetic rubber applications.

Davis, Dr. Charles (Henry), Bass River, Cape Cod, Mass. *Engineering.* Montgomery Co, Pa, May 4, 65. C.E, Columbia, 87; hon. D.E, Maryland, 36. Expert, Thomson-Houston Elec. Co, 87; engineer and asst. to pres, Sawyer-Man Elec. Co, 87–88; engineer and supt. construction, Westinghouse Elec. and Mfg. Co, 88–89; *practising engineer, Phila, Boston and New York, 89–* V. pres. in charge, State Line and Sullivant R.R. Co, Pa, 89; pres, John Stephenson Co, Ltd, 97; Am. Road Machine Co, 01–13; Kentenia Corp, 07– Nat. Emergency Highway Cmt; Fed. Highway Council. A.A; Civil Eng; Elec. Eng; Mech. Eng; Naval Archit. and Marine Eng; Naval Eng; Min. and Metal. Eng; Soc. Mil. Eng; Soc. Test. Mat; Forestry Asn; Heat. and Vent. Eng; Nat. Highway Traffic Asn; Nat. Highways Asn; Road Builders Asn. (director, 11; hon. pres, educational div, 36; life chairman, exec. financial foundation); Inst. Transport (hon. chairman, 36); Asn. State Highway Officials; Ry. Signalling Asn; Ry. Eng. and Maintenance of Way Asn; Math. Soc; Am. Geog. Soc; Acad. Polit. Sci; Franklin Inst; West. Soc. Eng; Eng. Inst. South; N. Y. Zool. Soc; Hort. Soc. N. Y; N. Y. Acad; Can. Soc. Civil Eng; Iron and Steel Inst. Gt. Britain; British Inst. Elec. Eng; Irish Inst. Civil Eng; New South Wales Eng. Asn; Int. Inst. Transport (hon. pres); Int. Traffic and Transport Asn. (hon. v. pres); various other societies. Railroad and street railway engineering, operation and management; traffic and highways; electric lighting and power; industrial works; automatic signals; world unity and peace; individual psychology.

Davis, C(harles) H(ollister), Cheshire, Conn. *Metallurgy.* Manchester, Conn, Nov. 5, 86. A.B, Yale, 09; A.M, Stanford, 12. Metal. lab, *Am. Brass Co,* 12–19, in charge lab, 19–38, *asst. tech. manager, 38–* Joint recipient Charles B. Dudley medal,

Am. Soc. Test. Mat, 30. Min. and Metal. Eng; Soc. Test. Mat. (chairman, cmt. metallog, 30–36; sec'y cmt. copper alloys, 37–). Non-ferrous metallurgy; physical properties and testing of wrought copper base alloys.

Davis, Dr. Charles Homer, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Glendale, Ariz, Feb. 13, 12. B.S, Arizona, 35; M.S, Iowa State Col, 36, Ph.D, 39. Asst. agronomist, Exp. Sta, Arizona, 37–43; *assoc. agronomist, guayule research project, bur. plant indust, U. S. Dept. Agr, 43–* Weed control under irrigation; plant growth in relation to moisture.

Davis, Prof. Charles M(oler), 714 Dewey Ave, Ann Arbor, Mich. *Geography.* Denver, Colo, Dec. 11, 00. A.B, Michigan, 25, A.M, 26, Ph.D, 35. Instr. *geog, Michigan, 25–27, 30–39, asst. prof, 39–; lieut. commander, U. S. Naval Res.* Asst. land negotiator, biol. surv, U. S. Dept. Agr, 35. Summers, geographer, Inst. Fisheries Research, Mich, 31–32. Asn. Geog; Mich. Acad. Regional geography; land utilization.

Davis, C(harles) P(rescott), 93 Fifth St, Stamford, Conn. *Chemical engineering.* Concord, N. H, July 10, 98. A.B, Columbia, 20, Chem.E, 22. Chem. engineer, *Am. Cyanamid Co,* 22–26, asst. to chief technologist, 26–29, asst. to v. pres, 29–33, *tech. dept, 33–* Chem. Soc; Chem. Eng. Applied chemistry; manufacture and use of chemicals; nitrogen fixation; ore dressing; fertilizers; industrial chemicals.

Davis, C(harles) W(esley), U. S. Bureau of Mines, Washington, D. C. *Metallurgy.* Concord, N. H, Jan. 6, 91. B.S, New Hampshire Col, 15, M.S, Nevada, 25. Junior chemist, *U. S. Bur. Mines,* 16–20, asst. chemist, 20–25, assoc. chemist, 25–35, asst. to chief engineer, metal. div, 35–37, asst. chief engineer, 37–41, asst. chief, 41–42, *chief labs. planning and mineral processes divs, 42–* Chem. Soc; Min. and Metal. Eng. Metallurgy of rare and precious metals; age of the earth by radioactive disintegration; measurement and control of magnetic properties of minerals; development of magnetic separators; hydrometallurgical treatment of manganese ores.

Davis, Dr. Clarke Edwin, Virginia Dare Extract Co, Bush Terminal Bldg. No. 10, Brooklyn, N. Y. *Chemistry.* Burnips, Mich, May 31, 88. B.Pd, Mich. State Nor. Col, Ypsilanti, 09, A.B, 12; A.M, Columbia, 13, Goldschmidt fellow, 13–14, Ph.D, 15. Lecturer chem, Mich. State Nor. Col, 07–12; prof, Utah Col, 15–17; lecturer chem. eng, Columbia, 17–20; chief chemist and consulting chem. engineer, Nat. Biscuit Co, 17–29, production manager, 29–32; *v. pres, Virginia Dare Extract Co, 34–* Chem. Soc. (chairman, N. Y. sect, 23–25); Soc. Chem. Indust. Freezing points and densities of denatured alcohol-water mixtures; surface tension of sulfuric acid-water mixtures; gelatin viscosity, jell strength, history, additional properties and specifications; pH measurements; indicator chart; shortenings; leavens.

Davis, Dr. Clyde O(liver), 62 N. Childs St, Woodbury, N. J. *Physical chemistry.* Akron, Ohio, Jan. 9, 10. A.B, Hiram Col, 31; M.S, Ohio State, 33, Ph.D, 34. Asst. chem, Ohio State, 31–34; *research chemist, east. lab, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. Calculation of thermodynamic properties of diatomic gases from spectroscopic data; chemical methods of separating hydrogen isotopes; ammonium nitrate explosives.

Davis, D(ale) S, Wayne University, Detroit, Mich. *Chemical engineering.* Hamilton, Ohio, April 24, 01. B.S, Mass. Inst. Tech, 23, M.S, 24. Instr. chem, Vermont, 24–25; chem. engineer, Int. Paper Co, 25–29; chem. engineer and staff mathematician, Mead Corp, Chillicothe, Ohio, 30–31, 33–34; instr. pulp and paper technol. and nomog, Wis. Educ. System, 31–32; *consulting mathematician, Dale S. Davis' Associates, 34–; instr. chem. eng, Wayne, 37–* Guest lecturer, Inst. Paper Chem, Lawrence Col, 32. Chem. Soc. Pulp and paper testing; industrial applications of mathematics.

Davis, Prof. D(arrell) H(aug), University of Minnesota, Minneapolis, Minn. *Geography.* St. Peter, Minn, Sept. 5, 79. A.B, Michigan, 03, Ph.D, 23; Chicago, 20. Head dept. geol. and geog, Col. City of Detroit, 17–20; asst. prof. *geog,* Michigan, 20–23; assoc. prof, *Minnesota, 23–25, prof, 25–, head dept, 24–* Summers, Ky. Geol. Surv, 21–23; Iowa, 23; California, 29, 35; Washington (Seattle), 32. Div. geol. and geog, Nat. Research Council, 29–32. A.A; Asn. Geog. (sec'y, 29–32). Regional geography; geography of the Jackson Purchase, the Kentucky Mountains and the Kentucky Blue Grass region; geography of Asia, particularly Japan.

Davis, Dr. David E(dward), 721 Elmwood Ave, Wilmette, Ill. *Zoology.* Chicago, Ill, July 18, 13. A.B, Swarthmore Col, 35; A.M, Harvard, 36, Atkins traveling fellow, 37–38, Ph.D, 39. Special agent, div. fur resources, bur. biol. surv, U. S. Dept. Agr, 39; Sheldon traveling fellow from Harvard, Argentina, 39–40; *zoologist, Rockefeller Foundation, 41–* Soc. Zool; Ornith. Union; Soc. Mammal; Ecol. Soc. Behavior of birds; correlation of endocrines and behavior; ecology of birds, mammals and mosquitoes in relation to yellow fever.

Davis, Dr. D(avid) J(ohn), 1853 W. Polk St, Chicago, Ill. *Pathology.* Racine, Wis, Aug. 9, 75. B.S, Wisconsin, 98; M.D, Rush, Chicago, 03, fellow, 03–04, Ph.D, Chicago, 05. Instr. path. and med, Rush Med. Col, Chicago; prof. path. and bacter, head dept. and dean col. med, Illinois; *retired.* Pathologist, Presb, St. Joseph and St. Luke's Hosps, Chicago. A.A; Asn. Path. and Bact; Soc. Bact; Soc. Clin. Invest; Am. Med. Asn. The spinal cord; influenza infections; bacteriology of meningitis and whooping cough; urinary infections; pathology of sporotrichosis and other fungus infections; septic sore throat.

Davis, Dr. David M(elvin), 255 S. 17th St, Philadelphia, Pa. *Urology.* Buffalo, N. Y, July 23, 86. B.S, Princeton, 07; M.D, Hopkins, 11. Assoc. urol, sch. med, Hopkins, 17–24, 28–30; asst. prof. urol. surg, sch. med, Rochester, 25–28; *practising physician; prof. urol, Jefferson Med. Col, 35–* Urol. Asn. (pres, mid-Atlantic sect); Asn. Genito-Urinary Surg; Am. Med. Asn; Med. and Surg. Asn. Southwest (pres, 34); Col. Physicians Phila; Acad. Surg. Phila. Urological surgery; pathology; physiology; anatomy.

Davis, Prof. D(avid) R(oy), State Teachers College, Montclair, N. J. *Mathematics.* Clarkshill, Ind, 93. A.B, Indiana, 17, A.M, 23; Ph.D, Chicago, 27. Head dept. math. and science, high sch, Ill, 20–24; *asst. prof. math,* Oregon, 26–31; *N. J. State Teachers Col, Montclair, 31–* A.A; Math. Soc; Math. Asn. Mathematical analysis.

Davis, D(elbert) Dwight, Field Museum of Natural History, Chicago, Ill. *Zoology.* Rockford, Ill, Dec. 30, 08. A.B, N. Cent. Col, 30; Chicago, 41–42. Asst, div. osteol, *Field Museum Nat. Hist,* 30–36, asst. curator, 37–40, *curator div. anat, 41–* Field work, south. Minn, 31, south. Ill, 33, W. Texas, 37; Mandel Caribbean exped, 40. Soc. Mammal; Soc. Ichthyol. and Herp. Anatomy; herpetology; biology of sex; adaptive radiation and taxonomy of the Carnivora.

Davis, Dr. Donald W(alker), 2401 Elmwood Blvd, Wausau, Wis. *Chemistry.* Bear Creek, Wis, April 4, 05. A.B, Lawrence Col, 27; Ph.D, Illinois, 31. *Research chemist,* rayon dept, E. I. du Pont de Nemours and Co, Buffalo, 31–41; *Marathon Paper Mills Co, 41–* Summer, research chemist, E. I. du Pont de Nemours and Co, 30. Chem. Soc. Organic chemistry; free organic radicals.

Davis, Prof. Donald W(alton), 349 W. Scotland St, Williamsburg, Va. *Zoology, Genetics.* Frazer, Pa, Feb. 25, 82. A.B, Harvard, 05, Ph.D, 13. Asst. zool, California, 05–06; prof. biol, Sweet Briar Col, 07–09; instr. zool, Radcliffe Col, 09–12; asst. prof, Clark, 12–14; *prof. biol,* DePauw, 14–16; *Col. of William and Mary, 16–* A.A; Genetics Soc; Bot. Soc; Va. Acad. (pres, 27). Regeneration in Sagartia; genetics of Impatiens.

Davis, Dr. Dorland J(ones), 4609 Harling Lane, Bethesda, Md. *Medicine.* Chicago, Ill, July 2, 11. B.S, Illinois, 33; M.D, Hopkins, 37, Dr.P.H, 39. *Passed asst. surgeon, nat. inst. health, U. S. Pub. Health Service, 39–* A.A; fel. Pub. Health Asn; Am. Med. Asn. Infectious diseases; epidemiology.

Davis, Dr. Dorothy N(ell), Mt. Wilson Observatory, Pasadena, Calif. *Astrophysics.* East St. Louis, Ill, April 19, 13. A.B, Vassar Col, 33; A.M, Mills Col, 34; Ph.D, California, 37. Instr. astron, Vassar Col, 37–38; Smith Col, 38–39; Am. Asn. Univ. Women Alice Freeman Palmer Mem. fellow, Mt. Wilson Observatory, Carnegie Institution, 39–40; asst, Princeton, 40–42; *computer and asst, Mt. Wilson Observatory, Carnegie Institution, 42–* Astron. Soc. Analysis of spectra of M type stars; astronomical spectroscopy.

Davis, Prof. Edward Wilson, University of Minnesota, Minneapolis, Minn. *Metallurgy.* Cambridge City, Ind, May 8, 88. B.S, Purdue, 11, E.E, 14. Westinghouse and Gen. Elec. Co, 11–12; sch. mines, Minnesota, 12–15; Mesabi syndicate, Minn, 15–18; *prof. and director mines exp. sta, Minnesota, 18–* A.A; Min. and Metal. Eng. Ore dressing; mining and milling; chemistry.

Davis, Lieut. Edwin G, 3049 Ordway St, N.W, Washington, D. C. *Organic chemistry.* Boise, Idaho, Sept. 1, 16. A.B, Harvard, 38, A.M, 40, Ph.D, 42. *Lieut, Field Artil, U. S. Army, 42–* Chem. Soc. Synthesis and stereochemistry of model compounds related to the sexual hormones.

Davis, Dr. E(lmer) F(red), 337 Conway Ave, Westwood, Calif. *Geology.* Hyde, Colo, Sept. 12, 87. B.S, California, 10, M.S, 12, Ph.D, 17. Instr. geol, California, 12–19; geologist, *Shell Co. of Calif,* 19–22, chief geologist, 22–29, *v. pres,* 29– A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Seismol. Soc. Franciscan formation of the California coast ranges.

Davis, Emily C(leveland), 4707 Connecticut Ave, Washington, D. C. *Archeology.* Atlanta, Ga, April 29, 98. Wilson Teachers Col; George Washington; American Univ. Staff writer, Haskins News Syndicate, 16–24; Science Service, 25–41; *assoc. specialist in information, bur. home econ, U. S. Dept. Agr, 41–* Popularization of science; American archeology; human nutrition and home economics.

Davis, Dr. Everett F(ogg), 10209 Connecticut Ave, Kensington, Md. *Plant physiology.* Manitou, Colo, Feb. 2, 01. B.S, Rutgers, 23; California; fellow, Boyce Thompson Inst, 26–27; Ph.D, Washington (St. Louis), 28. Asst. plant physiologist, Va. Exp. Sta, 27–29; nat. research fellow, Hopkins, 29–30; asst. prof. biol, Virginia, 30–37; research fellow, nat. cancer inst, nat. inst. health, U. S. Pub. Health Service, Wash, D. C, 38–41; *mem. staff, Board Econ. Warfare, 41–* Summer, asst. plant pathologist, U. S. Dept. Agr, 35. Ed, 'The Biologist,' 24–28. A.A; Bot. Soc. Oxidation reduction of living cells; mosaic diseases; cell physiology; walnut toxicity; ultracentrifugation; vitamin research.

Davis, Dr. Francis J(ohn), 4400 Jenifer St, N.W, Washington, D. C. *Physics.* Noonan, N. Dak, May 5, 15. B.S, North Dakota, 36; Ph.D, Wisconsin, 40. Asst, North Dakota, 30–37; Wisconsin, 37–40; radio engineer, U. S. Naval Research Lab, 40–41; *asst. physicist, Bur. Standards, 41–* Summer, plane table operator, Pierce Co, N. Dak, 37. Radioactivity.

Davis, Prof. Frank C(ornelius), 439 S. Bundy Drive, West Los Angeles, Calif. *Psychology.* South Framingham, Mass, May 25, 96. A.B, California, 21, A.M, 22, Ph.D, 31. Director physical educ. and dean men, Territorial Nor. Sch, Honolulu, 24–27; instr. *psychol,* N. Y. Training Sch. for Teachers, 27–28; research assoc, inst. child welfare, California, 29–31, instr, *California at Los Angeles,* 31–36, *asst. prof, 36–* Assoc. Psychol. Asn; West. Psychol. Asn. (sec'y-treas, 36–). Learning; imagery; perception; individual differences.

Davis, Dr. Franklin L(ouis), Agricultural Experiment Station, Louisiana State University, Baton Rouge, La. *Soils.* Cabool, Mo, Feb. 19, 02. B.S. (Agr), Missouri, 23, A.M, 28, Ph.D, 36. Asst. soils, Missouri, 26–29; asst. prof, N. C. State Col, 29–31; asst. soil chemist, Ala. Polytech, 31–35; *assoc. soil technologist, Exp. Sta, Louisiana, 35–* A.A; Soc. Agron; Soil Sci. Soc. Agronomy; relation of calcium to the inoculation of soy-beans; uniformity of soil types; fertility requirements of winter legumes; fixation of phosphorus by soils.

Davis, Garland H(ale) B(arr), Esso Laboratories, Standard Oil Development Co, Elizabeth, N. J. *Petroleum.* Lexington, Ky, Feb. 22, 01. A.B, Kentucky, 21, M.S, 22; Illinois, 23; Chicago, 23; Mass. Inst. Tech, 23–27. Research assoc, Mass. Inst. Tech, 23–27; asst. research director, Standard Oil Co. of La, 29–32; asst. director *Esso labs, Standard Oil Develop. Co,* 32–35, *director, 35–* Mem. subcmt. aviation fuels, Nat. Advisory Cmt. Aeronaut. A.A; Chem. Soc; Soc. Automotive Eng. Petroleum products; rectification of gases; corrosion; manufacture and use of lubricating oils; reduction in the pour point of lubricants; aviation and automotive fuels.

Davis, Prof. George E(arl), Duquesne University, Pittsburgh, Pa. *Physics, Biophysics.* Warsaw, Ind, Dec. 29, 89. A.B, Indiana, 14; fellow, Rice Inst, 19–20; M.S, Iowa State Col, 22; Mayo Foundation fellow, Minnesota, 27–29, Ph.D, 29. Teacher, high sch, Ind, 14–18; instr. and asst. prof. physics, Iowa State Col, 20–27; head dept. biophys, Desert Sanatorium and Inst. Research, Tucson, Ariz, 29–33; visiting research assoc, dept. physics, Iowa State Col, 33–34; coordinator and statist. coordinator, pub. works, State Planning Board, Iowa, 34–36, asst. prof. *physics, Duquesne,* 36–37, assoc. prof, 37–39, *prof. and head dept, 39–* A.A; Physical Soc; Iowa Acad. Spectrophotometry; diffusion of gases; biological effects of radiation; solar radiation.

Davis, Dr. George G(ilbert), 122 S. Michigan Ave, Chicago, Ill. *Surgery.* Chicago, Ill, Jan. 4, 79. A.B, Chicago, 01, M.D, Rush, 04. Assoc. prof. surg, Philippines, 13–14; Rush Med. Col, Chicago, 19; *attending surgeon, Cook County Hosp;* asst. clin. prof. and *assoc. prof. surg, Rush Med. Col, Chicago.* Surgeon, Philippine Gen. Hosp. Civil surgeon and hon. lieut. col, Royal Army M.C, 15–16; M.C, 17–19, lieut. col. Col. Surg; Am. Med. Asn. Cancer.

Davis, Dean Geo(rge) Jacob, Jr, University of Alabama, University, Ala. *Engineering.* Washington, D. C, June 28, 76. C.E, Cornell, 02; Sc.D, Alabama, 31. Instr. civil eng, Wisconsin, 02–03, hydraul. eng, 05–07, asst. prof, 07–12; *prof. civil eng. and dean col. eng, Alabama, 12–* Summers, asst, Wisconsin, 13, 14. Hon. judge, Fisher Body Craftsman's Guild, 31–37. Civil Eng; Eng. Educ. Experimental hydraulics; sewage treatment.

Davis, Dr. George K(elso), 471 Butterfield Drive, East Lansing, Mich. *Biological chemistry.* Pittsburgh, Pa, July 2, 10. B.S, Pa. State Col, 32; Ph.D, Cornell, 37. Asst. animal nutrition, Cornell, 34–37; *research asst. chem, Mich. State Col, 37–* Relation of nutrition to the development of disease with particular emphasis upon the water soluble vitamins.

Davis, Prof. Glen N(orton), College of Agriculture, University of California, Davis, Calif. *Botany, Plant pathology.* Vroman, Colo, Aug. 18, 06. B.S, Colo. State Col, 29; M.S, Iowa State Col, 30, Ph.D, 34. Asst, Iowa State Col, 30–34, *plant path,* 34–38; *instr. truck crops, col. agr, California, and junior olericulturist, Exp. Sta, 38–* Phytopath. Soc. Corn smut; seed-borne pathogenes; pink root and bulb rot of onions; breeding improved disease resistant varieties of onions, potatoes and melons.

Davis, Dr. Gordon E(rnest), U. S. Public Health Service, Hamilton, Mont. *Immunology.* Belvidere, Vt, June 8, 89. A.B, Oberlin Col, 17; M.S, Chicago, 22; Sc.D, Hopkins, 30. Instr. biol, Goucher Col, 17–18; bacteriologist, State Board Health, Md, 18–19; director, State Hygienic Lab, and asst. prof. bacter, sch. med, Arkansas, 19–22; director Mobile branch lab, State Board Health, Ala, 22–28; special mem, West. African Yellow Fever Cmn, int. health div, Rockefeller Foundation, 28–30; bacteriologist and later *senior bacteriologist, Rocky Mt. lab, U. S. Pub. Health Service, 30–* A.A; Soc. Bact; Pub. Health Asn; Soc. Trop. Med; Royal Soc. Trop. Med. and Hygiene. Bacteriostatic action of dyes; complement; intestinal parasites; yellow fever; tularemia; Rocky Mountain spotted fever; endemic typhus; boutonneuse fever; exanthematic typhus of São Paulo; Weil-Felix reaction; relapsing fever.

Davis, Gordon L(eslie), 2801 Upton St, N.W, Washington, D. C. *Physical chemistry.* Cambridge, Mass, Sept. 12, 12. B.S, Vermont, 34, M.S, 36; Columbia, 36–37, 38–41. Instr. chem, Vermont, 37–38; fellow, *geophys. lab, Carnegie Institution,* 41–42, *physicist, 42–* Chem. Soc; Philos. Soc. Wash. Mass-spectrometry; radium in rocks.

Davis, Grace E(vangeline), 8 Norfolk Terrace, Wellesley, Mass. *Physics.* North Chelmsford, Mass, June 6, 70. A.B, Wellesley Col, 98, A.M, 05. Instr. physics, Wellesley Col, 99–08, assoc. prof, 08–36; *retired.* A.A; Physical Soc; Meteorol. Soc.

Davis, Dr. Hallowell, 44 Langdon St, Cambridge, Mass. ***Physiology.* New York, N. Y, Aug. 31, 96. A.B, Harvard, 18, M.D, 22. Sheldon traveling fellow, Cambridge, 22–23; asst. biochem, *Harvard,* 22, instr. physiol, med. sch, 23–25, instr. and tutor biochem, 25–27, asst. prof. *physiol,* 27–36, *assoc. prof, 36–* Advisory board, 'Jour. Neurophysiol,' 38–; ed. board, 'Psychosomatic Med,' 38– A.A; Physiol. Soc. (treas, 41); Neur. Asn; Asn. Research Nervous and Mental Disease; Am. Acad; Acoustical Soc; Soc. Philomath. de Paris. Central nervous and auditory physiology.

Davis, Prof. H(annibal) A(lbert), 307 Duquesne Ave, Morgantown, W. Va. *Mathematics.* Marshall Co, W. Va, Aug. 1, 99. A.B, West Virginia, 23, A.M, 25; Ph.D, Cornell, 28. Instr. *math, West Virginia,* 24–26, asst. prof, 28–35, *assoc. prof, 35–* A.A; Math. Soc; Math. Asn. Cremona transformations.

Davis, Dr. Harold (Simmonds), 1937 W. Main, Stamford, Conn. *Chemistry.* Clifton, N. S, Can, April 19, 89. B.A, Dalhousie, 10, M.A, 12; 1851 Exhib. scholar, 12–14; Ph.D, Harvard, 14. Demonstrator physics, Dalhousie, 10–12; lec-

turer chem, Manitoba, 14–18; fellow, Mellon Inst, 18–22; research assoc, Arthur D. Little, Inc, 22–26; director and fellow, Petrol. Inst. Fellowship, Mass. Inst. Tech, 26–30; div. leader, research and develop. dept, Vacuum Oil Co, 30–34; *research div, Stamford labs, Am. Cyanamid Co, 34–* Chem. Soc.

Davis, Prof. H(arold) T(hayer), Northwestern University, Evanston, Ill. *[6]Mathematics.* Beatrice, Nebr, Oct. 5, 92. A.B, Colo. Col, 15; A.M, Harvard, 19; Ph.D, Wisconsin, 26. Instr. *math,* Wisconsin, 20–23; asst. prof, Indiana, 23–29, assoc. prof, 29–34, *prof,* 34–37; *Northwestern, 37–* Fellow, Waterman Inst, 26–30; mathematician, Cowles Cmn. Research Econ, 32– Assoc. ed, 'Isis,' 31–42. Math. Soc. (assoc. ed, 'Bul,' 30–41); Math. Asn. (sec'y-treas, Ind. sect, 24–34); Hist. Sci. Soc. (councilor, 35–42); Econometric Soc. (assoc. ed, 'Econometrica,' 33–). Integral and linear functional equations; mathematical tables, statistics, econometrics, analysis of times series and diffraction.

Davis, Dr. Harry A(aron), Louisiana State University School of Medicine, New Orleans, La. *Pathology, Physiology.* London, Eng, Sept. 27, 05. L.R.C.P, L.R.C.S, Edinburgh, 28; M.D, McGill, 31. Fellow surg, Mayo Foundation and Clinic, 31–33; asst. and Koessler Foundation fellow exp. med, Chicago, 33–35; instr. *path,* sch. med, George Washington, 35–37; assoc. prof, col. med, Tennessee, 37–39; instr. surg, sch. med, Louisiana, 39–42, *asst. prof, 42–* Subcmt. revision, 'U. S. Pharmacopoeia.' A.A; Am. Med. Asn; Soc. Exp. Biol. Water and electrolyte metabolism; shock; experimental liver degeneration; thyreotropic hormone; dehydration; ascitic fluid transfusion; blood substitutes; toxic effects of sulfanilamide in rats; physiological effects of oxygen; thyrotoxicosis in thyroid carcinoma; hypoproteinemia; anoxemic theory of shock.

Davis, Harry T(owles), North Carolina State Museum, Raleigh, N. C. *Geology.* Cape Hatteras, N. C, July 7, 95. A.B, North Carolina, 19, A.M, 20. Teacher, North Carolina, 18–20; curator geol, *N. C. State Museum,* 20–37, *director, 37–* Min. and Metal. Eng; Asn. Mus; Miner. Soc. Mineralogy; meteorites.

Davis, Prof. H(arry) W(illard), University of South Carolina, Columbia, S. C. *Organic chemistry.* Pelzer, S. C, Nov. 7, 15. B.S, South Carolina, 37; M.S, Cincinnati, 39, Laws fellow, 40–41, Ph.D, 41. *Adj. prof. chem, South Carolina, 41–* Chem. Soc. Local anesthetics.

Davis, Pres. Harvey N(athaniel), Stevens Institute of Technology, Hoboken, N. J. *[2]Physics.* Providence, R. I, June 6, 81. A.B, Brown, 01, A.M, 02, hon. Sc.D, 28; A.M, Harvard, 03, Ph.D, 06; LL.D, Rutgers, 28; D.Eng, N. Y. Univ, 36, Rose Polytech, 38; Sc.D, Northeastern, 38, Columbia, 40. Instr. math, Brown, 01–02; physics and math, Harvard, 04–10, asst. prof physics, 10–19, prof. mech. eng, 19–28; *pres, Stevens Inst. Tech, 28–; director office production research and develop, War Production Board, 42–* Engineer, Gen. Elec. Co, 17–18; consulting engineer, U. S. Bur. Mines; Franklin Ry. Supply Co; Air Reduction Co. Regent, Smithsonian Institution, 38–; trustee, Blair Acad, Blairstown, N. J. A.S, U.S.A, 18–22. A.A. (v. pres, M, 35); Physical Soc; Mech. Eng. (v. pres, 30–32, pres, 37); Math. Soc; Philos. Soc; Franklin Inst; Am. Acad; Wash. Acad. Thermodynamics; steamtables; liquefaction.

Davis, Prof. Helen I(sabel), Wellesley College, Wellesley, Mass. *Botany.* Lynn, Mass, May 15, 90. A.B, Wellesley Col, 12. Instr. *bot, Wellesley Col,* 15–19, 20–21, asst. prof, 21–30, *assoc. prof, 30–,* assoc. director *bot. gardens,* 24–30, *director, 30–* A.A; Soc. Hort. Sci; Bot. Soc; Mass. Hort. Soc. Horticulture.

Davis, Dr. H(enry) M(anzee), Pennsylvania State College, State College, Pa. *Physical chemistry.* Sherman, Texas, Oct. 25, 02. B.S, Oklahoma, 29, M.S, 30; Ph.D, Minnesota, 34. Asst. chem, Oklahoma, 29–30; Minnesota, 30–34; in charge dept, Itasca Junior Col, 34–36; asst. ceramics, Pa. State Col, 36–37, research assoc, 37–38, asst. prof, 38–41, assoc. prof, 41–42, *asst. prof. metal, 42–* A.A; Ceramic Soc; Chem. Soc; Soc. Metals. Molecular spectra and constitution; steel furnace refractories; special aspects of process metallurgy; phase equilibria.

Davis, Dr. Herbert L(eroy), 239 Harrison Ave, Highland Park, N. J. *Physical chemistry, Colloid chemistry.* Cedarville, N. J, Dec. 20, 97. A.B, Dickinson Col, 21; Ph.D, Cornell, 27. Instr. physics and chem, Dickinson Col, 21–25, assoc. prof. chem, 27–28; Heckscher research fellow, Cornell, 28–32; asst. prof, Westminster Col. (Pa), 32–34; Lawrence Col, 34–36, research assoc. and instr. colloid chem, Inst. Paper Chem, 36–39; *research chemist, Johnson and Johnson, 39–* Chem. Soc. Optical rotation; tautomerism; phase rule methods; dyeing methods; applications of colloid chemistry to biology and industry.

Davis, Prof. H(erbert) P(erry), University of Nebraska, Lincoln, Nebr. *Dairy husbandry.* Montague, Mich, Aug. 22, 89. B.S.A, Missouri, 11; M.S, Pa. State Col, 14. Asst. dairy husbandry, Illinois, 11; asst. and instr. exp. dairy husbandry, Pa. State Col, 11–14; dairy husbandman and ed, dairy div, U. S. Dept. Agr, 14–19; prof. dairy husbandry, Idaho, and v. director, Exp. Sta, 19–21; *prof. dairy husbandry, Nebraska, 21–* U. S. del, Int. Dairy Cong, Berlin, 37. A.A; Dairy Sci. Asn. (pres, 42); Soc. Animal Production; Genetic Asn; Acad. Polit. and Social Sci; Nebr. Acad. Feeding, management and genetics of dairy cattle.

Davis, Dr. H(erbert) S(pencer), U. S. Fish and Wildlife Service, Kearneysville, W. Va. *Zoology.* Oneida, N. Y, March 28, 75. Ph.B, Wesleyan, 99; Ph.D, Harvard, 07. Instr. zool, State Col. Wash, 01–04, asst. prof, 04–06; prof, Florida, 07–22; *fish pathologist, fish and wildlife service, U. S. Dept. Interior, 22–, in charge aquicult. investigations, 29–* A.A; Soc. Zool; Micros. Soc. Parasitology; fish culture, parasites of fishes.

Davis, Dr. Horace J(ewel), Louisiana State University, Baton Rouge, La. *Animal industry, Nutrition.* Grayson, La, Nov. 14, 10. B.S, Louisiana, 32; Ph.D, Cornell, 36. Instr. poultry husbandry, Cornell, 35–36; *animal indust, Louisiana,* 36–38, asst. prof, 38–41, *assoc. prof, 42–,* asst. nutritionist, 41–42, *assoc. nutritionist, 42–; capt, U. S. Army, 42–* A.A; Poultry Sci. Asn. Vitamin and fat nutrition in poultry; protein quality; nutritive value of rice by-products; dietary deficiencies in Louisiana.

Davis, Dr. H(ubert) G(reenidge), Trinity College, Hartford, Conn. *Chemistry.* Brooklyn, N. Y, July 8, 15. A.B, Columbia, 38, Ph.D, 43. Research chemist, Westvaco Chlorine Products Corp, 41–42; *instr. physical chem, Trinity Col. (Conn), 42–* Chem. Soc. Kinetics of chemical reactions in solution; chemistry of magnesium compounds.

Davis, Prof. H(ugh) L(eslie), 1132 N. Ridgeland Ave, Oak Park, Ill. *Organic chemistry.* Tarkio, Mo, July 16, 95. B.S, Tarkio Col, 18; M.S, Purdue, 21; Ph.D, Iowa, 25. Asst. *chem,* Purdue, 19–21, instr, 21–23; asst, Iowa, 23–25; asst. prof, *col. pharmacy, Illinois,* 25–41, *assoc. prof, 41–* Chem. Soc; Pharmaceut. Asn. Acyl derivatives of o-aminophenol; condensation products of benzalacetophenone and some of its derivatives; local anesthetics; antimalarials.

Davis, Prof. James E(lmer), 37 Amherst Ave, Swarthmore, Pa. *Mathematical physics.* Barneveld, Wis, April 22, 87. A.B, Wisconsin, 12, A.M, 13. Instr. math, Pa. State Col, 13–16, asst. prof, 16–17; instr, Wisconsin, 19–22; asst. prof, Arkansas, 22–23; Drexel Inst, 23–25; assoc. prof. eng. exten, Pa. State Col, 25–26; *math, Drexel Inst,* 26–41, *prof, 41–* Capt, U.S.A, 17–19; asst. commandant, univ. detachment, Toulouse, 19; capt, Inf. Res, 20–23, major, 24–29, lieut. col, 30–37, col, 38– Math. Soc; Math. Asn. Theoretical investigation of the flow of underground waters.

Davis, Dr. J(ames) E(rnest), 612 Woodland Park, Chicago, Ill. *Medicine.* St. Thomas, Ont, Can, April 2, 92. B.S, Chicago, 26, A.M, 28, Ph.D, 32. Research assoc, Lasker Foundation, dept. med, Chicago, 26–37; teacher science, pub. sch. system, Chicago, Ill, 37–42; private med. investigator, 37–42; *chief chemist, Biochem. Research Labs, 42–* A.A. Physiology; physiological chemistry; metabolism; endocrinology; cancer cause and cure; indolent wounds; vitamins.

Davis, Dr. James E(thelbert), 1825 Geddes Ave, Ann Arbor, Mich. *Pathology.* Woodstock, Ont, Can, Oct. 3, 70. M.D, Detroit Col. Med, 96; Vienna; Paris; A.M, Michigan, 17. *Prof. path,* Detroit Col. Med. and Surg, 17–34, *col. med, Wayne, 34–; emer. prof, Detroit Dental Col.* Extramural lecturer, Michigan. Consulting pathologist, Receiving Hosp, Detroit; pathologist, St. Joseph Hosp, Mt. Clemons, Mich. Asn. Path. and Bact; Asn. Obstet, Gynec. and Abdom. Surg. (sec'y, 22–30); Am. Med. Asn; hon. mem. Detroit Acad. Surg; hon. mem. Detroit Urol. Asn. Pathology of placenta, kidneys, pancreas, cervix uteri, Bartholin gland and of obstetrical deliveries; icterus index; abortions; hysterectomies; compilation of useful medical roots, prefixes and affixes;

art of learning; gynecological and obstetrical pathology; polycystic disease.

Davis, Dr. James W(iltse), 3 Langdon St, Cambridge, Mass. *Organic chemistry.* St. Louis, Mo, June 24, 18. A.B, Illinois, 39; Ph.D, Wisconsin, 42. Du Pont fellow, Harvard, 42–43; *research chemist, Hercules Powder Co, 43–* Summer, research chemist, Monsanto Chem. Co, 42. Chem. Soc. Catalytic dehydrogenation.

Davis, Prof. John A(lbert), 306 S. Ninth Ave, Pocatello, Idaho. *Organic chemistry.* Pomona, Kans, Oct. 9, 03. B.S, Ottawa (Kans), 27; Ottawa fellow, Kansas, 27–28, M.S, 28, Ph.D, 35. *Asst. prof. chem, south. branch, Idaho, 28–* Chem. Soc. Thiazolidones.

Davis, John A(llen), Siasconset, Mass. *Mining engineering.* Sioux City, Iowa, June 13, 84. B.S, Mass. Inst. Tech, 07. Junior and asst. geologist, U. S. Geol. Surv, 07–11; asst. mining engineer, U. S. Bur. Mines, 11–16, supt, Alaska Mining Exp. Sta, 17–24, mining engineer, 24–25, asst. chief mining engineer and acting asst. to director, 25–27, chief engineer, information div, 28–42; *retired.* Min. and Metal. Eng. Modern tunneling; mining and concentration of carnotite ores; geology of the Little Powder River coal field; Alaska mining development.

Davis, Dr. John B(enjamin), American International College, Springfield, Mass. *Chemistry.* Berwick, Maine, Dec. 28, 97. B.S, Bates Col, 23; Ed.M, Harvard, 31; Ph.D, Hopkins, 34. Fellow, Hopkins, 34–36; instr. chem, math. and physics, Tilton Junior Col, 36–42; *prof. chem, Am. Int. Col, 42–* Chem. Soc. Quantitative analysis.

Davis, Prof. John E(merson), University of Arkansas Medical School, Little Rock, Ark. *Physiology.* Detroit, Mich, Jan. 1, 07. A.B, Oberlin Col, 30; M.S, Michigan, 31; Ph.D, Chicago, 36. Instr. physiol, Med. Col. of Va, 35–37; physiol. and pharmacy, Alabama, 37–38; pharmacol. and biochem, Vermont, 38–39, asst. prof, 39–42; *assoc. prof. pharmacol, med. sch, Arkansas, 42–* A.A; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol. Physiology of exercise; experimental polycythemia.

Davis, Prof. John Eustace, 425 Miller Ave, Liberty, Mo. *Physics.* Pickering, Mo, Feb. 2, 83. A.B, William Jewell Col; fellow, Chicago, 11. *Prof. physics and head dept, William Jewell Col, 12–, business manager, 24–* A.A. Wave motion.

Davis, Prof. J(ohn) H(enry), Jr, Florida Geological Survey, Drawer 631, Tallahassee, Fla. *Plant ecology.* Cumberland Co, Va, July 16, 01. B.S, A.M, Davidson Col, 24; fellow, Chicago, 27–28, Ph.D, 29. Asst. prof. biol, Davidson Col, 23–24, assoc. prof, 25–30; prof, Presb. Col. (S.C), 30–35; Southwestern (Tenn), 35–41; *research asst, Fla. Geol. Surv, 41–* Summers, research assoc, Carnegie Institution, 36–40; prof, Mt. Lake Biol. Sta, Virginia, 41, 43. Ecol. Soc; Fla. Acad. Vegetation of the Black Mountains, North Carolina; mangrove swamps and everglades of Florida.

Davis, Prof. John J(une), Purdue University, Lafayette, Ind. *Entomology.* Centralia, Ill, Oct. 9, 85. B.S, Illinois, 07. Asst. entom, Illinois, 06–07; asst. to state entomologist, Ill, 07–11; in charge lab, U. S. Dept. Agr, Lafayette, Ind, 11–19, Japanese beetle control project, 19–20; *prof. entom. and head dept, Purdue, 20–, head dept, Exp. Sta, 20–* Summers, asst. state entomologist, Ill, 05, 06. Treas. and ed, Thomas Say Foundation. Fed. Fruit-Fly Board, 30. A.A; Entom. Soc. (sec'y-treas, 26–31, pres, 32); Asn. Econ. Entom. (v. pres, 35, pres, 38); Crop Protection Inst. (governor, 34–39); hon. mem. Pest Control Asn; Calif. Pest Control Asn; Ind. Pest Control Asn; Ind. Acad. (ed, 22–28, pres, 31); Ill. Acad. Economic entomology; Aphididae; Lachnosterna.

Davis, Dr. John Staige, The Severn Apartments, Baltimore, Md. *Surgery.* Norfolk, Va, Jan. 15, 72. Ph.B, Yale, 95, hon. A.M, 25; M.D, Hopkins, 99. *Assoc. prof. surg, Hopkins.* Dispensary surgeon and visiting surgeon, Hopkins Hosp. A.A; Col. Surg; Surg. Asn; S. Surg. Asn; Interurban Surg. Soc. Plastic surgery; transplantation of tissues.

Davis, Joseph D(ana), U. S. Bureau of Mines, Pittsburgh, Pa. *Chemistry.* Middleport, Ohio, April 17, 82. A.B, Ohio State, 05; George Washington; Pittsburgh; Carnegie Inst. Tech. Columbus Iron and Steel Co, 05; Lowe Bros. Paint Co, Dayton, 05–06; U. S. Geol. Surv, 07–11; *U. S. Bur. Mines, 11–, senior fuels chemist.* Teacher, cooperating with Carnegie Inst. Tech, 22–31. A.A; Chem. Soc. (sec'y, gas and fuel sect, 24); Soc. Test. Mat; Gas Asn; Mech. Eng. Analysis and low temperature heat of carbonization of coal; gas and coke making properties of coal; oxidation of ammonia to nitric acid; physical properties of coke; calorimetry.

Davis, Prof. J(oseph) S(tancliffe), 691 Mirada Ave, Stanford University, Calif. *Economics.* Frazer, Pa, Nov. 5, 85. A.B, Harvard, 08, Ph.D, 13. Instr. econ. and sociol, Bowdoin Col, 12–13; econ, Harvard, 13–17, asst. prof, 17–21; *director food research inst, Stanford, 21–, prof. econ. research, 38–* Chief economist, Fed. Farm Board, 29–31; consultant, Brookings Institution, 33–36. Tech. asst, Dawes Cmt, 24; Social Science Research Council, 24; mem. food and nutrition board, Nat. Research Council, 40– Contributing ed, 'Rev. of Econ. Statist,' 19–25. Asst. statistician, Am. Shipping Mission, London, 18–19; statistician, Allied Maritime Transport Council, 18–19. Econ. Asn; Statist. Asn. (v. pres, 27, pres, 36); Farm Econ. Asn. (pres, 36); Agr. Hist. Soc; Business Hist. Soc; Econ. Hist. Asn; Inter-Am. Statist. Inst; Royal Econ. Soc; Int. Statist. Inst. Early history of American corporations; economic and financial developments in Europe; world wheat situation; American agricultural policy; international commodity agreements; consumption economics.

Davis, Dr. Kenneth P(ickett), U. S. Forest Service, Washington, D. C. *Forest management.* Denver, Colo, Sept. 2, 06. B.S.F, Montana, 28; M.F, Michigan, 32, Ph.D, 40. Forest ranger, Abscroka Nat. Forest, 28–31; junior instr, Michigan, 32; silviculturist, North. Rocky Mountain Forest and Range Exp. Sta, *U. S. Forest Service,* 33–40, *senior silviculturist, Wash, D. C, 40–* Growing, improving and harvesting forest stands; methods of reproducing new forests.

Davis, Dr. Lannes E(dward), College of Agriculture, University of California, Davis, Calif. *Soil chemistry.* Los Angeles, Calif, Oct. 24, 94. B.S, California, 24, Ph.D, 41. Analyst, Smith Emory and Co, San Francisco, 24–25; junior chemist, branch lab, Bur. Standards, 25–26; asst. chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, 26–30, assoc. chemist, 30–38; *instr. soil technol, col. agr, California, 41–* Phosphate fixation; base exchange; electrochemical properties of soil colloids; hydrogen ion concentration of soils.

Davis, Dr. L(eonard) Reid, Bureau of Animal Industry, U. S. Department of Agriculture, Auburn, Ala. *Entomology.* Douglas, Ga, Oct. 29, 10. B.S, Union (Tenn), 31; M.S, Iowa State Col, 33, Ph.D, 37. Teaching fellow, Iowa State Col, 31–32, asst, 32–33, 35–36, instr, 36; assoc. prof. zool, Union (Tenn), 33–35, prof. and head dept. biol, 36–41; *asst. protozool. research, regional lab. animal disease research, bur. animal indust, U. S. Dept. Agr, 41–* A.A; Soc. Parasitol; Asn. Econ. Entom; Asn. South. Biol; Tenn. Sci. Teachers Asn. (board control); Tenn. Acad. Protozoology; insect life history; insect morphology; bovine coccidiosis; photomicrography.

Davis, Dr. Leslie Martz, Marshall College, Huntington, W. Va. *Geography.* Arcadia, Ind, April 2, 96. A.B, Indiana, 20; M.B.A, Northwestern, 26; Ph.D, Chicago, 35. Instr, Syracuse, 26–29; dean, Rider Col, 35–39; *assoc. prof. geog, Marshall Col, 39–, coordinator, col. training program, Air Force, U. S. Army.* Mem. div. land planning, Tenn. Valley Authority, 35. A.A; fel. Am. Geog. Soc. Service areas of Elwood, Indiana; urban geography along the Middle Ohio Valley.

Davis, Dr. Leverett, Jr, California Institute of Technology, Pasadena, Calif. *Physics.* Elgin, Ill, March 3, 14. Washington (Seattle), 30–32; B.S, Oregon State Col, 36; M.S, Calif. Inst. Tech, 38, research fellow, 40, 41, Ph.D, 41; fellow, Rockefeller Inst, 40–41. Asst. *physics, Calif. Inst. Tech,* 36–40, *instr, 41–* Physical Soc. Theory of metals; mathematical biophysics.

Davis, Lewis, 306 Main St, Worcester, Mass. *Chemistry.* Worcester, Mass, May 15, 89. B.S, Worcester Polytech, 11; M.S, Mass. Inst. Tech, 12. Chemist, N. J. State Lab. Hygiene, 12; biol. chemist, Parke, Davis and Co, 12–20; assoc. lab. director, Beebe Lab, Inc, 20–21; chief chemist, Brewer and Co, Inc, 21–23; *sec'y and treas, Davis and Bennett, Inc, 23–* A.A; Chem. Soc; fel. Inst. Chem; Soc. Bact; Asn. Textile Chem. and Colorists. Ultra-violet sterilization; chemical indicators of microbial life; diphtheria toxin; peptone; pepsin; concentration of serum; pollen; aqueous wax dispersions; water resistant glues; textile emulsions; adhesives and coatings for paper; decalcomanias; water resistant sealing tapes.

Davis, Dr. L(loyd) H(ayes), Mentone, Ind. *Medicine.* Crawfordsville, Ind, Jan. 10, 89. A.B, Wabash Col, 11; A.M,

Illinois, 13; M.D, Northwestern, 22. Asst. animal nutrition, Illinois, 11–13; pharmacol. and physiol, Northwestern, 19–22; asst. prof. bacter, Wabash Col, 29–33; *practising physician.* Am. Med. Asn. Chemical changes in meat during heating; moisture determination; drying in vacuo; blood chemistry of milk-fed and breast-fed infants; blood diastase.

Davis, Dr. Loyal, 54 E. Erie St, Chicago, Ill. *Surgery.* Galesburg, Ill, Jan. 17, 96. Knox Col, 12–14, hon. Sc.D, 33; M.D, Northwestern, 18, M.S, 21, Ph.D, 23. Mem. res. staff, Cook County Hosp, 18–19; asst. to Dr. Allen B. Kanavel, 20–23; nat. research fellow, *Northwestern,* 22–24, assoc. prof. *surg, med. sch,* 25–32, *prof. and chairman div, 32–,* director lab. surg. research, 25–32; *lieut. col, Med. Corps, U. S. Army, 42–* Junior assoc, Peter Bent Brigham Hosp, 23–24; attending surgeon, Passavant Mem. Hosp, 28–; Wesley Mem. Hosp; consulting neur. surgeon, U. S. Veterans Admin, Hines, Ill, 25– Assoc. ed, 'Surg, Gynecol. and Obstet,' 27–33, asst. ed, 33–39, ed, 39– Surg. Asn; Soc. Clin. Surg; Soc. Neur. Surg; Neur. Asn; Am. Med. Asn; West. Surg. Asn; Cent. Neuropsychiat. Asn; West. Surg. Asn; South. Surg. Asn; Chicago Surg. Soc; Chicago Neur. Soc. (sec'y-treas, 25–28, pres, 28–30); Chicago Med. Soc. Neurologic surgery.

Davis, Dr. L(uther) D(ent), College of Agriculture, University of California, Davis, Calif. *Pomology.* Mooreland, Ind, July 19, 95. B.S, Purdue, 25, M.S, 26; Ph.D, California, 29. Assoc. *pomol, col. agr, California,* 28–29, instr, 29–30, asst. prof, 30–37, *assoc. prof, 37–* Soc. Hort. Sci. Alternate bearing of fruit trees; effect of fruiting on the composition of fruit trees; black-end of pears.

Davis, M(alcolm) B, Experimental Farm, Ottawa, Ont, Can. *Horticulture.* Yarmouth, N. S, Jan. 19, 90. Diploma, Nova Scotia Agr. Col, 10; B.S.A, McGill, 12; M.Sc, Bristol, 30. Sec'y, United Fruit Companies of N. S, 12–14; asst. pomol, *Cent. Exp. Farm,* 14–20, chief asst, div. hort, 20–33, *Dom. horticulturist, 33–* A.A; Inst. Food Technol; Can. Soc. Tech. Agr. Nutrition of fruit plants; low temperature research; fruit and vegetable products research.

Davis, Dr. Michael M(arks), 1790 Broadway, New York, N. Y. *Medical economics.* New York, N. Y, Nov. 19, 79. A.B, Columbia, 00, fellow, 03–05, Ph.D, 06. Sec'y, People's Inst, New York, 04–09; director, Boston Dispensary, 10–20; exec. sec'y, Cmt. on Dispensary Develop, New York, 20–27; *consultant, hosp. and clinic surveys, 20–;* director med. services, Julius Rosenwald Fund, Chicago, 28–36; professorial lecturer, Chicago, 33–37; *chairman, Cmt. Research in Med. Econ, 37–* Lecturer, Columbia, 22–27; consultant, Social Security Board, 38– Ed, 'Med. Care,' 41– A.A; fel. Pub. Health Asn; Sociol. Soc. Economic aspects and relations of medical practise and medical institutions; psychological sociology; community surveys of medical institutions and of medical care.

Davis, Prof. M(orris) Edward, 5841 Maryland Ave, Chicago, Ill. *Obstetrics, Gynecology.* Wyo, Oct. 27, 99. B.S, Chicago, 20, M.D, Rush, 22; European clinics, 27–28. Res. obstetrician, Chicago Lying-in Hosp, 25–27; instr. obstet, med. sch, Northwestern, 28–30; from asst. prof. to *prof. obstet. and gynec, Chicago, 30–* Mem. advisory cmt. maternal and child health services and advisory cmt. maternal welfare, children's bur, U. S. Dept. Labor. Gold medal, Am. Med. Asn, 35; prize award, Cent. Asn. Obstet. and Gynec, 37. Fel. Am. Med. Asn; fel. Col. Surg; Soc. Exp. Biol; fel. Cent. Asn. Obstet. and Gynec; fel. Cent. Soc. Clin. Research; fel. Chicago Gynec. Soc; hon. fel. Des Moines Acad. Med. Physiology of normal pregnancy; the amniotic fluid and the mechanism of its accumulation; physical, chemical, pharmacologic properties and clinical applications of ergonovine; histologic and biologic studies of vaginal mucosa and its endocrine control; pathologic complications in obstetrics; endocrines of the reproductive tract.

Davis, Prof. N(athan) S(mith), 3d, 700 N. Michigan Ave, Chicago, Ill. *Internal medicine.* Chicago, Ill, June 25, 89. A.B, Harvard, 10; M.D, Rush, Chicago, 13. Asst. *med,* Rush Med. Col, Chicago, 15–20, assoc, 20; *med. sch, Northwestern,* 20–28, *asst. prof, 28–* Mem, State Planning Cmn, Ill, 34–42. A.A; fel. Am. Med. Asn; fel. Col. Physicians; Am. Heart Asn; Therapeut. Soc; Miss. Valley Med. Soc. (director, 39–); Cent. Soc. Clin. Research; Ill. Med. Soc. (sec'y, med. sect, 28, chairman, 29, director sci. exhibits, 35–40); Ill. Acad; Chicago Med. Soc. (councilor, 20–23, 26–29, 36–41, 43–, sec'y, 29–31, pres, 40); Chicago Soc. Int. Med; Chicago Path. Soc; Chicago Heart Asn; Geog. Soc. Chicago (v. pres, 25, 39–41, director, 26–38, pres, 41); Inst. Med. Chicago; Chicago Acad. (sec'y and sci. governor, 26–37, pres, 38–43). Diseases of the heart and blood vessels; geriontology.

Davis, Dr. N(ewton) F(raser) G(ordon), University of British Columbia, Vancouver, B. C, Can. *Geology, Geography.* Cookshire, Que, Oct. 7, 04. B.A, Manitoba, 24; M.A, British Columbia, 26; Ph.D, Princeton, 29. Geol. Surv. Can, 24–28; field geologist, Loangwa Concessions, North. Rhodesia, Africa, 29–31; Victoria Prospecting Co, South. Rhodesia, 31–34; *instr. geol. and geog, British Columbia, 35–* Chief instr, Dom-Provincial Youth Mining Training Plan, Dept. Mines, B. C, 39; field geologist, Consol. Mining and Smelting Co, Can, 41. Summers, field geologist, Geol. Surv. Can, 35, 36. A.A; Am. Geog. Soc; Asn. Pacific Coast Geog; Can. Inst. Min. and Metal. Clearwater Lake area, British Columbia; geography of northern Rhodesia; the Barkerville gold belt on Island Mountain, Cariboo District, British Columbia; climates of British Columbia; human adjustment in Northern Rhodesia; physiographic regions of British Columbia.

Davis, Dr. Paul B(ell), Davison Chemical Corp, Baltimore, Md. *Chemistry.* West Liberty, Ohio, Aug. 15, 89. A.B, Roanoke Col, 08, A.M, 09; Ph.D, Hopkins, 12. Asst. chem, Hopkins, 13–14, instr, 14–16, assoc, 16–19; *research chemist, Davison Chem. Corp, 19–* Research assoc, Carnegie Institution, 16–17. A.A; Chem. Soc. Viscosity; catalysis; silicic acid gels; refrigeration.

Davis, Prof. Ray J(oseph), 456 S. Eighth Ave, Pocatello, Idaho. *Taxonomy.* Provo, Utah, 95. B.S, Brigham Young, 15; Ph.D, Wisconsin, 24. Plant pathologist, Va. Truck Exp. Sta, 23–24; *prof.* biol, Ricks Col, 24–30; *bot, south. branch, Idaho, 30–* Soc. Plant Taxon; Torrey Bot. Club; Calif. Bot. Soc. Flora of Idaho.

Davis, Raymond, National Bureau of Standards, Washington, D. C. *Optics.* Washington, D. C, March 24, 88. *Bur. Standards, 11–, chief photog. tech. sect, 21–* Gold medal, Pan-Pacific Expos, 15. Optical Soc; Philos. Soc. Wash; Wash. Acad; Int. Cong. Photog. Photography; sensitometry; colorimetry; optical filters; color temperatures; identification; ballistics.

Davis, Prof. Raymond E(arl), 1811 Thousand Oaks Blvd, Berkeley, Calif. *Engineering.* Gorham, Maine, June 13, 85. B.S, Maine, 11, C.E, 14, D.E, 36; M.S, Illinois, 16. Draftsman, Maine, 05; transitman and junior engineer, Maine Cent. Ry. and Can. Govt. Rys, 06–08; civil engineer, Can. Paper Co, 10; instr. and assoc. civil eng, Illinois, 11–17; *consulting engineer and prof. civil eng, California, 20–, director eng. materials lab.* Consulting engineer, Boulder Dam, 29–34; San Francisco-Oakland Bridge, 31–38; Pine Canyon Dam, 30–32; Colo. River Aqueduct, 33–; Bonneville Dam, 34–37; Hiwassee Dam, 38–41; Grand Coulee Dam, 37–; Shasta Dam, 40– Wason medal, Am. Concrete Inst, 31, 35. U.S.A, 18–19, lieut. A.A; Civil Eng; Concrete Inst. (past pres; director, 30–39, chairman, cmt. on mass concrete; chairman advisory cmt, 38–); Eng. Educ; Soc. Test. Mat; Int. Soc. Test. Mat. Materials of engineering; hydraulics; flow of water through orifices; volume changes in concrete; flow of concrete under stress; mass concrete; effect of chemical composition of cement on properties of concrete; portland-puzzolan cements; effects of reaction between mineral aggregate and cement in concrete.

Davis, R(aymond) H(oward), Office of Management Control, Headquarters, Army Air Forces, Washington, D. C. *Soils.* Alba, Mo, June 1, 06. B.S. (Agr), 27. Asst. soil surv, Kans. State Col, 27–29; asst. and assoc. soil scientist, bur. chem. and soils, U. S. Dept. Agr, 29–33, regional director soil conservation service, 33–37, head flood control surveys sect, 37–39, chief project plans div, 39–42; *major, Air Forces, U. S. Army, 42–* Soil conservation; conservation of soil and water resources; soil, water and land use relationships.

Davis, Prof. R(ichard) N(aaman), University of Arizona, Tucson, Ariz. *Dairy husbandry.* Athens, Ala, Oct. 20, 85. B.S, Okla. Agr. and Mech. Col, 11; M.S, Minnesota, 28; Iowa State Col. Manager creamery, Idaho, 12–18; county agent, Fresno, Calif, 18–20; asst. prof. and exten. dairyman, *Arizona,* 20–27, assoc. prof. *dairying,* 27–36, *prof, 36–* Dairy Sci. Asn. Preservation of milk and milk products; milk powder; minimum milk requirement of calves; sprouted oats for barren heifers; solids in milk; control of infectious abortion; bacteria in milk in relation to reduction of methylene blue.

Davis, Prof. Roland C(lark), Indiana University, Bloomington, Ind. *Psychology.* Cambridge, Mass, Dec. 20, 02. A.B, Harvard, 24; Ph.D, Columbia, 30. Research assoc, Virginia, 29–31; assoc. prof. exp. psychol, *Indiana,* 31–38, *prof. psychol, 38–* Psychol. Asn; Midwest. Psychol. Asn. Muscular reactions and their psychological relations; physiological correlates of intelligence in racial groups.

Davis, Dean Roland P(arker), 333 Demain Ave, Morgantown, W. Va. *Civil engineering.* Beverly, Mass, Aug. 2, 84. B.S, Mass. Inst. Tech, 06; M.C.E, Cornell, 08, Ph.D, 14. Draftsman, Am. Bridge Co, 06–07; instr. *civil eng,* Cornell, 08–11; assoc. prof, *West Virginia,* 11–12, *prof, 12–,* asst. dean, 30–32, *dean, 32–* Bridge engineer, State Road Cmn, W. Va, 14–19; consulting bridge engineer, 19– Chairman cmt. eng. educ, Asn. Land-Grant Cols. and Univs, 40. Div. engineer, Camp Eustis, 18. Civil Eng. (director, 37–39, v. pres, 39); Ry. Eng. (cmt. on iron and steel structures); Soc. Test. Mat; Eng. Educ; Newcomen Soc. Foundations of bridges and buildings; concrete; timber; structural and hydraulic engineering.

Davis, Dr. Rose M(ay), 1601 N. Broom St, Wilmington, Del. *Chemistry.* Cumberland, Md, Nov. 17, 95. Chowan Col, 12–14; South. Conservatory Music, 14–16; A.B, Trinity Col. (N. C), 16; Virginia, 20–22; A.M, Duke, 27, Ph.D, 29. Teacher, high sch, Va, 16–17, head dept. chem, 17–19; law practise, Norfolk, Va, 22–23; prof. chem. and physics and head dept. science, Grenada Col, 23–24; prof. chem. and biol, Limestone Col, 24–25; asst. and teaching fellow anal. chem, Duke, 25–29; adj. prof. chem, Randolph-Macon Woman's Col, 29–33; instr, Duke, 33–35, research assoc, 33–34; *with legal dept, E. I. du Pont de Nemours and Co, 37–* Summer, visiting prof, New Hampshire, 35. Chem. Soc; Va. Acad; N. C. Acad. Pictet's berberine synthesis; synthesis of alkaloids; reactivity of doubly conjugated unsaturated ketones; catalytic reduction of certain aromatic aldehydes; dipole moments of certain organic compounds.

Davis, Prof. Roy B(enton), University of the South, Sewanee, Tenn. *Organic chemistry.* Bigelow, Mo, Aug. 25, 90. B.S, Earlham Col, 12; A.M, Missouri, 13. Instr. *chem,* Iowa, 13–17; asst. prof, *Univ. of South,* 17–18, *head dept, 18–* A.A; Chem. Soc; fel. Inst. Chem; Tenn. Acad. Hydrolysis and alcoholysis of acid amides; esters; organic catalysis; chemical education.

Davis, Dr. Roy L(iston), 22449 Beech St, Dearborn, Mich. *Chemistry.* Athens, Maine, June 21, 07. B.S, Bates Col, 27; M.S, Lawrence Col, 31, Ph.D, 33. Chemist, S. D. Warren Co, 27–30; Consol. Water Power and Paper, 33–35; *tech. director, Detroit Sulphite Pulp and Paper Co, 35–* Tech. Asn. Pulp and Paper Indust; Chem. Soc. Pulp and paper chemistry.

Davis, Dr. R(oyall) O(scar) E(ugene), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Newberry, S. C, July 11, 80. Ph.B, North Carolina, 01, Ph.D, 03; Leipzig, 04. Asst. anal. chem, North Carolina, 01–03, instr. physical chem, 03–05, gen. chem, 05–09, assoc. prof, 09; soil physicist, bur. soils, *U. S. Dept. Agr,* 09–12, in charge soil water investigations, 12–13, scientist, fertilizer investigations, and in charge soil physics investigations, 13–26, senior chemist. fixed nitrogen research lab, 26–29, senior chemist in charge nitrogenous fertilizer materials investigations, bur. chem. and soils, 29–39, acting chief fertilizer research, *bur. plant indust,* 40–41, in charge nitrogen investigations, 41–42, *asst. head div. soils and fertilizers, 42–* A.A; Chem. Soc. (sec'y, N. C. sect, 06–08, assoc. ed, 'Abstracts,' 15–18); Soc. Agron; Int. Soc. Soil Sci. Soils and fertilizers; atomic weight of thorium; phospho-platinum ammonia compounds; corrosion of iron; electrical conductivity of soil; soluble salts in soil; synthetic ammonia; ammonia absorbents; urea synthesis; ammoniation of peat.

Davis, Dr. Russell E(dmund), 4004 Kennedy St, Hyattsville, Md. *Biochemistry.* Leesburg, Ohio, Jan. 7, 03. B.S, Wilmington Col, 24; Ph.D, Ohio State, 28. Instr. chem, Wilmington Col, 28–29; research chemist, Spreckels Sugar Corp, Yonkers, 29–31; asst. biochemist, *bur. animal indust, U. S. Dept. Agr,* 31–39, *assoc. biochemist, 39–* Optical Soc; Chem. Soc. Metabolism of fats and proteins; fermentation of sugars by molds; oxidation of alcohols and aldehydes; spectrochemical analysis.

Davis, Dr. Selby B(rinker), 44 Irving St, Cambridge, Mass. *Organic chemistry.* Washington, D. C, Dec. 26, 14. B.S, George Washington, 37; A.M, Harvard, 41, Ph.D, 42. Research chemist, Socony-Vacuum Oil Co, 37–39; teaching fellow, *Harvard,* 41–42, *research fellow, 42–* Chem. Soc. Petroleum derivatives; stereochemistry of hexahydro- and perhydrodiphenic acids.

Davis, Dr. Tenney L(ombard), Norwell, Mass. *[6]*Chemistry.* Somerville, Mass, Jan. 7, 90. B.S, Mass. Inst. Tech, 13; M.S, Harvard, 15, Sheldon traveling fellow, 16–17, Ph.D, 17. Austin teaching fellow, Harvard, 13–16; instr. *org. chem, Mass. Inst. Tech,* 19–20, asst. prof, 20–26, assoc. prof, 26–38, prof, 38–42, *emer. prof, 42–; director research and develop, Nat. Fireworks, Inc, 42–* Summers, lecturer, Western Reserve, 31, 38. Ed. board, 'Jour. Chem. Educ.' and 'Isis.' Ordnance Dept, U.S.A, 17–19. A.A; Chem. Soc; Hist. Sci. Soc. (v. pres, 42); Am. Acad. (cor. sec'y, 30–37, recording sec'y, 37); Newcomen Soc; cor. mem. Royal Soc. Bohemia. The urea and guanidine series; oxidation of metadiphenols; metal-pyridine cyanates and thiocyanates; explosives; history of chemistry and alchemy; scientific methodology; effect of polarized light in organic synthesis.

Davis, Dr. Thomas, Virginia Polytechnic Institute, Blacksburg, Va. *Physics.* Petersburg, Va, Sept. 25, 09. B.S, Virginia, 30, M.S, 31, Ph.D, 35. Asst. bacter. and exp. path, Stanford, 35–37; instr. physics, Marshall Col, 37–38; *asst. prof, Va. Polytech. Inst, 38–* Control of high rotational speeds; ultracentrifugation.

Davis, Prof. Thomas W(ilders), New York University, University Heights, New York, N. Y. *Chemistry.* Nyack, N. Y, Aug. 1, 05. Fellow, N. Y. Univ, 25–27, B.S, 25, M.S, 26, fellow, 27–28, Ph.D, 28. Research chemist, Combustion Utilities Corp, Linden, N. J, 28–29; instr. *chem, N. Y. Univ,* 29–39, *asst. prof, 39–* Instr, Rand Sch. Social Sci, 33; research assoc, Chicago, 42. Chem. Soc; Inst. Chem. Reaction kinetics and mechanisms in solution and in the gas phase; special methods of qualitative analysis; theory of solution.

Davis, Dr. T(oye) George, West Virginia State College, Institute, W. Va. *Parasitology.* Rock Hill, S. C, Oct. 30, 09. A.B, Lincoln (Pa), 30; M.S, Pennsylvania, 32; A.M, Harvard, 39, Ph.D, 40. Teacher, Ga. Nor. Col, 33–35; Palmer Jr. Col, 35–37; *assoc. prof. biol, W. Va. State Col, 40–* Micros. Soc. Morphology and division in parasites.

Davis, Vernon Hayes, 2060 S. High St, Columbus, Ohio. *Horticulture.* Cambridge, Ohio, March 4, 77. B.S. (Agr), Ohio State, 00; M.S.A, Cornell, 01. Asst. hort. and forestry, Ohio State, 01–02, asst. prof. hort, 02–14, prof, 14–17; chief bur. markets and marketing, Ohio, 17–20; *manager,* Catawba Orchard Co, Port Clinton, Ohio, and *Ohio Hort. Services, 20–* Soil physics; orchard management and truck gardening; marketing.

Davis, Dr. Ward B, 148 S. Mission Road, Los Angeles, Calif. *Biochemistry.* Fortville, Ind, Oct. 24, 93. A.B, Ind. State Nor. Sch, 18; Toulouse, France, 19; M.S, Chicago, 22, Ph.D, 24. Asst. plant physiol, Chicago, 23–24; fellow biochem, Boyce Thompson Inst, 24–25; assoc. chemist, *bur. agr. chem. and eng, U. S. Dept. Agr,* 25–41, *chemist, 41–* A.A; Bot. Soc; Soc. Plant Physiol. Food research; enzymes.

Davis, Dr. Warren B, 135 S. 18th St, Philadelphia, Pa. *Surgery.* Jessamine Co, Ky, Sept. 6, 81. M.D, Jefferson Med. Col, 10; Sc.D, Georgetown, 38. Intern, hosp, Jefferson Med. Col, 10; Corinna Borden Keen research fellow, Berlin, 11; clin. asst. demonstrator anat, *Jefferson Med. Col,* 13–21, instr, 21, surg, 22–30, assoc, 30–31, asst. prof. oral surg, 31–32, assoc. prof, 32–36, *clin. prof,* 36–43, *plastic and reconstructive surg, 43–* Clin. asst, Jefferson Hosp, 13–22, chief maxillofacial clinic, 22–36, maxillofacial surgeon, 36–42, plastic and reconstructive surgeon, 42–; chief otolaryngol. clinic, St. Agnes Hosp, 13–15, otolaryngol. service, 15–18; maxillofacial dept, Phila. Gen. Hosp, 15–22; asst. surgeon in charge maxillofacial surg, Frankford Hosp, 22– Gold medal, Am. Med. Asn, 31. Capt, M.C, 18–19. Fel. Col. Surg; fel. Acad. Ophthal. and Otolaryngol; fel. Laryngol. Asn; Asn. Plastic Surg. (trustee, 37–39); Soc. Plastic and Reconstructive Surg. (mem. board; pres, 36); Asn. Mil. Surg; Am. Med. Asn; Asn. Anat; fel. Col. Physicians Phila. Development and anatomy of nasal accessory sinuses in man; congenital deformities of the face.

Davis, Watson, 1422 Rhode Island Ave, N.W, Washington, D. C. *Engineering.* Washington, D. C, April 29, 96. B.S, George Washington, 18, C.E, 20. Asst. engineer-physicist, Bur. Standards, 17–21; news ed, *Science Service,* 21–23, managing ed. 23–33, *sec'y, 23–, director, 33–, ed, 'Science News Letter,' 22–, 'Things of Science,' 40–;* 'Appleton New World

Science Books,' 29–34; *'Science Today,' 31–; 'Advance of Science,' 34–* William L. Honnold lecturer, Knox Col, 39– Science ed, 'Washington Herald,' 20–22. Pres, Am. Documentation Inst, 37–, chairman, U. S. delegation, World Cong. Documentation, 37; director, Science Clubs of Amer, 41–; mem. exec. board, Nat. Child Research Center. U. S. Naval Observatory eclipse exped, 25; Science Service eclipse exped, 32. Goodrich award, N. Y. World's Fair, 40. A.A; Soc. Test. Mat; Concrete Inst; Seismol. Soc; Popul. Asn; Hist. Sci. Soc; fel. Am. Inst; Asn. Sci. Workers (v. pres, 41–); Nat. Inventors Council; British Asn; Asn. française pour l'avanc. des Sci. Concrete; cement aggregates; history and popularization of science; microphotographic duplication; publication and bibliography; applications of science to industry; the story of copper.

Davis, Prof. Watson M, 603 N. Sixth St, W, Mt. Vernon, Iowa. *Mathematics.* Chelsea, Iowa, Oct. 5, 03. A.B, Cornell Col. (Iowa), 26; M.S, Iowa, 28; Ph.D, Chicago, 33. Asst. *math,* Iowa, 26–28; instr, Albion Col, 28–30; Ill. Inst. Tech, 31–35, *asst. prof,* 35–42; *Cornell Col, 42–* Math. Asn; Math. Soc; Eng. Educ. Conjugate nets.

Davis, Dr. William B, Box 254 F.E, College Station, Texas. *Wildlife conservation and management.* Rexburg, Idaho, March 14, 02. A.B, Chico State Teachers Col, Calif, 33; M.S, California, 36, Ph.D, 37. Prin. and teacher, elementary and high schs, Idaho, Wash. and Calif, 20–32; asst. zool, California, 34–37; *prof. and acting head dept. instruction in fish and game, Agr. and Mech. Col. Texas, 37–* Asst. leader, Texas Cooperative Wildlife Research Unit, 38–; curator, Texas Cooperative Wildlife Collection, 38–; collaborator, fish and wildlife service, U. S. Dept. Interior, 38– Summer, field asst, Museum Vert. Zool, 33; field biologist, wildlife div, Nat. Park Service, 34. Mem. evaluation cmt. in zool, Nat. Roster Sci. and Specialized Personnel, 40– A.A; Soc. Mammal. (cor. sec'y, 38–; ed, 'Jour. Mammal,' 40–); Ornith Union; Wildlife Soc; Cooper Ornith. Club; Wilson Ornith. Club. Ecology, differentiation and distribution of mammals in Idaho, Texas and Mexico; ecology and distribution of birds, reptiles and amphibians in the Southwest and Mexico.

Davis, Dr. W(illiam) H(arold), 28 Nutting Ave, Amherst, Mass. *Botany.* Hornell, N. Y, Aug. 25, 76. B.Pd, N. Y. State Col. Teachers, 03; A.B, Cornell, 12; A.M, Wisconsin, 16, Ph.D, 22. Teacher, pub. sch, 96–00; asst. science, N. Y. State Col. Teachers, 01–03; teacher, Elmira Free Acad, 03–10; asst. bot, Cornell, 11–12; prof. bot, nature study and agr, Iowa State Teachers Col, 12–20; asst. prof. bot. and path, Mass. State Col, 22–42; *retired.* A.A. (cmt. better teaching); Bot. Soc; Phytopath. Soc; New Eng. Phytopath. Soc; Iowa Acad; N. Y. Acad. Mycology; plant pathology.

Davis, W(illia)m T(hompson), 146 Stuyvesant Place, Staten Island, N. Y. *Entomology, Botany.* Staten Island, N. Y, Oct. 12, 62. Private schs. A.A; fel. Entom. Soc; N. Y. Entom. Soc. (treas, 04–28, pres, 29, 30, hon. pres, 40–); Linnaean Soc. N. Y; fel. N. Y. Acad; Brooklyn Entom. Soc. (pres, 12–16, 20–); Staten Island Inst. Arts and Sci. (v. pres, 05–29, pres, 30–34, emer. pres, 34–); Entom. Soc. Wash; Acad. Nat. Sci. Phila; Boston Soc. Nat. Hist; Staten Island Bird Club (pres, 19–30); Staten Island Hist. Soc. (pres, 22–38, emer. pres, 39–). Cicadas of North America.

Davis, Dr. W(illiam) W(inland), Eli Lilly and Co, Indianapolis, Ind. *Physical chemistry.* Parkersburg, W. Va, April 3, 08. A.B, Wabash Col, 33; Ph.D, Hopkins, 37. *Research chemist, Eli Lilly and Co, 37–* Chem. Soc; Asn. Cancer Research. Physical and surface chemistry of pure carcinogenic and related substances; industrial physical chemical and biological chemical research.

Davison, Dr. A(lbert) W(atson), Owens-Corning Fiberglas Corp, Newark, Ohio. *Chemical engineering.* Alexandria, Ohio, April 24, 88. B.S, Denison, 10; A.M, Ohio State, 11; Ph.D, Cornell, 14, Asst. chem, Ohio State, 10–12; Cornell, 13–14; asst. prof. physical chem, Cincinnati, 14–17; gen. manager, Va. Haloid Co, 19–20, consulting engineer, 21; prof. physical chem, Rensselaer Polytech, 21–25, William Weightman Walker prof. chem. eng. and head dept, 25–42; *sci. director research labs, Owens-Corning Fiberglas Corp, 43–* Trustee, research foundation, Denison, 43– U.S.A, 17–19, commanding officer, Buffalo plant, Edgewood Arsenal, 18–19. Chem. Eng; Chem. Soc. Physical and industrial chemistry.

Davison, Dr. F(orrest) R(amon), Upjohn Co, Kalamazoo, Mich. *Pharmacology, Biochemistry.* Hawley, Minn, 98. M.S, Minnesota, 23, Ph.D, 26; M.B, Chicago, 35. Asst. instr, research chemist and pharmacologist, Minnesota, 21–25, 30–31; head pharmacol. dept, Wm. S. Merrell Co, Cincinnati, Ohio, 25–27; asst. prof. biochem. and physiol, Rutgers, 27–29; pharmacol. and biochem, sch. med, West Virginia, 35–36, acting head depts. biochem. and toxicol, 36–37; asst. prof. pharmacol, col. med, Vermont, 37–39; Arkansas, 39–41; *mem. med. dept, Upjohn Co, 41–* Carbohydrate and toxicology investigations; blood coagulants; clinical and pharmacologic investigations on digitalis; cardiac drugs.

Davison, Dr. John A(lden), 246 Lafayette Ave, Passaic, N. J. *Physical chemistry.* Olinda, Brazil, May 25, 17. B.S, Brown, 38; M.S, Pennsylvania, 39, Harrison fellow, 39–41, E. I. du Pont de Nemours fellow, 41–42, Ph.D, 42. *Chemist,* Sun Oil Co, 39–41; *gen. labs, U. S. Rubber Co, 42–* Chem. Soc. Molecular condition of phenols in benzene solution.

Davison, Verne E(lbert), Soil Conservation Service, U. S. Department of Agriculture, Spartanburg, S. C. *Biology.* Ashland, Kans, Jan. 10, 04. Manager game refuge, State Game Dept, Okla, 21–35; *regional biologist,* region nine, *soil conservation service, U. S. Dept. Agr,* 35–37, *southeast. region two, 37–* Wildlife Soc. Wildlife developments with soil conservation practises on agricultural lands; life habits of lesser prairie chicken and bob-white quail; foods of bobwhite quail in southeast; influence of soil conservation measures in preventing silt damage to fish growth in farm ponds.

Davison, Dean Wilburt C(ornell), Duke University, Durham, N. C. *Pediatrics.* Grand Rapids, Mich, April 28, 92. A.B, Princeton, 13; Rhodes scholar, Oxford, 13–16, B.A, 15, B.Sc, 16, M.A, 19; M.D, Hopkins, 17; Sc.D, Wake Forest Col, 32. Instr. and assoc. pediat, sch. med, Hopkins, 19–23, assoc. prof, 23–26, acting head dept, 26–27, asst. dean, 24–27; *prof. pediat. and dean, sch. med, Duke, 27–* Mem, Nat. Research Council. M.C, 17–19, capt. Pediat. Soc; Soc. Pediat. Research; Col. Physicians; Soc. Clin. Invest; Acad. Pediat. Enzymes; bacteriology of diarrhea and dysentery; duodenal and gastric enzymes of infants; medical education.

Davisson, Dr. C(linton) J(oseph), Bell Telephone Laboratories, 463 West St, New York, N. Y. **Physics.* Bloomington, Ill, Oct. 22, 81. B.S, Chicago, 08; fellow, Princeton, 10–11, Ph.D, 11, hon. Sc.D, 38; hon. Sc.D, Purdue, 37, Colby Col, 40; hon. Dr, Lyon, 39. Instr. physics, Princeton, 05–10; Carnegie Inst. Tech, 11–17; eng. dept, West. Elec. Co, 17–25, *mem. tech. staff, Bell Tel. Labs, 25–* Nat. Research Council, 28–31, 33– Assoc. ed, 'Physical Rev,' 29– Comstock prize, 28; Elliott Cresson gold medal, 31; Hughes gold medal, Royal Soc. London, 35. Nobel prize physics, 37; alumni medal, Chicago, 41. Nat. Acad; A.A; fel. Physical Soc; Optical Soc; Philos. Soc; Am. Acad; Franklin Inst; hon. mem. N. Y. Acad. Thermionics; the scattering of electrons by solids; electron diffraction; electron geometrical optics.

Davisson, Prof. S(chuyler) C(olfax), Indiana University, Bloomington, Ind. *Mathematics.* Galveston, Ind, Jan. 2, 66. A.B, Indiana, 90, A.M, 92; fellow, Clark, 95–96; Harvard, 98–99; Sc.D, Tübingen, 00. Instr. *math, Indiana,* 90–93, assoc. prof, 93–05, junior prof, 05–08, prof, 08–38, *emer. prof, 38–* Summer, prof, N. Y. Univ, 09. Geodesic lines in higher space; spaces with given line element.

Davoll, D(avid) L(ake), Washington, N. J. *Chemistry.* Amesbury, Mass, Aug. 15, 69. Ph.C, Michigan, 93, B.S, 97; Chicago, 98. Asst. qual. anal, Michigan, 92–94; research chemist, Parke, Davis and Co, 94–96; instr. org. chem, Michigan, 96–97; asst. prof. applied chem, sch. pharmacy, Northwestern, 97–98, prof, 98–99; chief chemist, Peninsular Sugar Ref. Co, Mich, 99–03, tech. supt, 03–06; supt. and chief chemist, Guantanamo Sugar Co, 06–12; chief chemist, Henry Heide, 12–15; tech. supt, Org. Salt and Acid Co, 15–17; consulting chemist, 17–22; *supervising chemist, Arbuckle Bros, 22–* 5th, 6th and 7th Congresses Applied Chem. (organization cmt). A.A; fel. Inst. Chem; Chem. Eng. Technology of raw and refined sugar; coffee, flavoring extracts, spices and confectionery.

Davson, Prof. Hugh, Dalhousie University Medical School, Halifax, N. S, Can. *Physiology.* London, Eng, Nov. 25, 09. B.Sc, London, 28, M.Sc, D.Sc. Demonstrator chem, Univ. Col, London, 31–32, biophys, 32–39; asst. prof. *physiol, Dalhousie,* 39–41, *assoc. prof, 41–* Rockefeller Foundation fellow, Pennsylvania, 36–37; Beit Mem. fellow, Univ. Col, London, 37–39. Sch. research medal, Univ. Col, London, 36. Soc. Exp. Biol; Physiol. Soc; Biochem. Soc. Gt. Britain;

Physiol. Soc. Gt. Britain. The permeability of cell membranes; the physiology of the eye.

Davy, Edward D(awson), Winthrop Chemical Co, Rensselaer, N. Y. *Pharmacy.* Pandora, Ohio, June 15, 86. B.S, Ohio State, 11. Asst. chemist, Isthmian Canal Cmn, 11–14; pharmaceut. chemist, Rupp Bowman Co, Toledo, 14–16; instr. pharmacy, Ohio State, 16–18, asst. prof, 18–20; pharmaceut. chemist, Strong Cobb Co, Cleveland, 20–22; asst. prof. pharmacy, Western Reserve, 22–23, assoc. prof, 23–24, prof. anal. pharmacy, 24–34, pharmaceut. chem, 34–43, acting dean sch. pharmacy, 40–41, dean, 41–43; *director pharmaceut. div, Winthrop Chem. Co, 43–* Mem. revision cmt, U. S. Pharmacopoeia, 30–40. A.A; Pharmaceut. Asn. (mem. board canvassers); Chem. Soc; Pub. Health Asn. Phenylcinchoninic acid; sodium benzoate in oleomargarine; magnesium hydroxide; daturas affected by mosaic injury; caulophyllum thalictroides; cascara sagrada; pepo and cucurbita pepo; datura innoxia; assay methods of hyoscyamus; assay of sodium nitrite; assay procedures for camphorated tincture of opium; detergent qualities of soft soap.

Davy, Dr. Lee G(eorge), 1604 Pineola St, Kingsport, Tenn. *Organic chemistry.* Boulder, Colo, Nov. 16, 08. A.B, Cornell, 31, Ph.D, 34. Research chemist and chief chemist, hydroquinone div, *Tenn. Eastman Corp, 34–42, chem. control supt, Holston Ordnance Works, 42–* Chem. Soc. Dipole association of nitro compounds; stereochemistry of trivalent nitrogen; abnormal reactions of benzyl-magnesium chloride; synthetic chemicals; special explosives.

Dawe, C(harles) Newman, Vanadium Corporation of America, 2440 Book Tower, Detroit, Mich. *Engineering.* Detroit, Mich, June 14, 88. B.S. (Ch.E), Michigan, 11. Chief metal. engineer, Studebaker Corp, 11–26; *manager automotive div, Vanadium Corp. of Amer, 26–* Soc. Automotive Eng; Soc. Metals. Nickel molybdenum steel; carbon vanadium steel.

Dawes, Prof. Chester L(aurens), Harvard University, Cambridge, Mass. *Electrical engineering.* Somerville, Mass, Nov. 13, 86. B.S, Mass. Inst. Tech, 09. Asst, Mass. Inst. Tech, 09–11, instr. *elec. eng,* 16–19; *Harvard,* 11–19, asst. prof, 19–31, *assoc. prof, 31–* Prof, U. S. Naval Acad, 13–15. A.A; fel. Elec. Eng; Eng. Educ. Underground high-voltage cables; ionization phenomena.

Dawes, Prof. H(enry) F(ranklin), McMaster University, Hamilton, Ont, Can. *Physics.* Paisley, Ont, Oct. 15, 81. B.A, Toronto, 04, M.A, 05, Ph.D, 18; Cambridge, 06–08. Asst. demonstrator *physics,* Toronto, 04–06, lecturer, 08–11; *prof, McMaster, 11–* A.A; Physical Soc; Optical Soc; fel. Royal Soc. Can. Ionization by collision; image formation by crystalline media; dispersion by the interference method.

Dawes, Prof. R(oger) Clark, 404 E. Main St, Grove City, Pa. *Physical chemistry, Chemical engineering.* Kalkaska, Mich, Oct. 13, 08. B.S, Mich. State Col, 31, M.S, 32, Ph.D, 36, Chem.E, 41. Asst, Mich. State Col, 31–36; chief chemist, tin plate and electrochem. div, Pittsburgh Crucible Steel Co, 36–39; instr. chem. *eng. and metal, Grove City Col,* 39–40, *asst. prof, 40–* Chem. Soc. Measurement of chromium plate by recording interferometer; the electroplating of continuous steel strip; a universal laboratory amalgam lamp; the refractive index, molecular refraction and dispersion of phenol derivatives.

Dawley, Earle Reed, U. S. Forest Service, Madison, Wis. *Engineering.* Chillicothe, Ohio, June 8, 95. B.S, Illinois, 19; M.S, Kans. State Col, 27. Engineer, A. J. Yawger, 19–20; Dodge and Heiby, 20–21; asst. prof. applied mech, Kans. State Col, 21–25, assoc. prof, 25–33, prof. eng. materials, 33–43; *mem. staff, Forest Products Lab, U. S. Forest Service, 43–* Chairman sub-cmt. temperature changes, tech. cmt, Joint Cmt. Durability of Concrete, Highway Research Board, Am. Concrete Inst. and Am. Soc. Test. Mat. Concrete Inst; Civil Eng; Eng. Educ; Kans. Eng. Soc. (sec'y, 32–36). Durability and volume change of concrete; wind resistance of automobiles.

Dawley, W(alter) M(anville), 1212 Thurston St, Manhattan, Kans. *Engineering.* Near Chillicothe, Ohio, Jan. 24, 66. Ohio Mech. Inst, 87. Architectural draftsman, E. A. Anderson, Cincinnati, 86–87; draftsman, Laidlaw and Dunn Steam Pump Co, 87–88; city engineer, Chillicothe, 88–94; construction and maintenance depts, Baltimore and Ohio R. R, 97–03; div. engineer, Erie R. R. Co, Youngstown, 03–07, engineer, land and tax dept, New York and Cleveland, 07–39. A.A; Ry. Eng. (chairman, roadway cmt, 13–19, v. chairman, cmt. on stress in track, 14–); Civil Eng; Asn. Eng; Seismol. Soc. Railroad track and road-bed; earth vibrations due to trains and blasts; drainage of soft spots in old road-bed.

Dawsey, Dr. Lynn H(ugh), 131 Devonshire Road, Buffalo, N. Y. *Physical chemistry.* McHenry, Miss, Dec. 14, 04. B.S, Ala. Polytech, 26; scholar, Hopkins, 28–29, Ph.D, 29. Asst, Ala. State Lab, 25–26; Hopkins, 26–27; prof. chem, Mt. St. Mary's Col, 29–30; asst. chemist, bur. chem. and soils, U. S. Dept. Agr, New Orleans, La, 30, bur. entom. and plant quarantine, 30–37, assoc. chemist, 37–39; *engineer, Buffalo Electro-Chem. Co, 39–* Consultant, Mathieson Alkali Works, 33–35. Summer, junior chemist, U. S. Naval Testing Lab, 28. Chem. Soc. Photochemistry; surface chemistry; electrochemistry.

Dawson, Prof. Alden B(enjamin), Harvard University, Cambridge, Mass. **Zoology.* Tryon, P.E.I, Can, Oct. 12, 92. B.A, Acadia, 15, D.Sc, 38; Ph.D, Harvard, 18. Prof. biol, Mt. Allison, 18–19; asst. prof. micros. anat, Loyola Col, 19–23, assoc. prof. anat, 23–25; biol, N. Y. Univ, 25–28, prof, 28–29; assoc. prof. *zool, Harvard,* 29–38, *prof, 38–,* director biol. labs, 35–40, *chairman dept. biol, 40–* Trustee, 'Biol. Abstracts,' 38–, treas, 39–41. A.A; Soc. Nat; Soc. Zool. (treas, 31–34); Asn. Anat; Micros. Soc. (mem. exec. cmt, 37–39); Am. Acad; Soc. Develop. and Growth. Development and structure of integumental glands; crustacean and arterial anomalies; nerve cells; cloacal glands; mesonephros; gastric and intestinal mucosa; dye elimination; x-ray; ossification; vital staining cytology; blood cells; cartilage; lymph nodes; pituitary gland; ovary; uterus; lateral line.

Dawson, Prof. Bernhard H(ildebrandt), Observatorio Astronomico, La Plata, Argentina, S. Amer. *Astronomy.* Kansas City, Mo, Sept. 21, 90. B.S, Michigan, 16, Sc.D, 33. Astronomer, *Nat. Univ. Observatory, La Plata,* 12–14, 16–21, *chief astronomer, 21–, prof. astron, Nat. Univ, 17–* Acting director, La Plata Observatory, 21–22, 26, 28–29, 31. La Plata eclipse exped, 12, 27. A.A; Astron. Soc; Asn. Variable Star Observers; Astron. Gesell; Amigos de la Astron. (pres, 32–40); Int. Astron. Union. Measurement and discovery of southern double stars; orbits of binary stars; micrometric observation of comets and asteroids; occultations; variable stars; meridian circle; Nova Puppis.

Dawson, Prof. C(harles) R(eginald), Columbia University, New York, N. Y. *Organic chemistry.* Peterboro, N. H, April 9, 11. B.S, New Hampshire, 33, M.S, 35; univ. fellow, Columbia, 37–38, Ph.D, 38. Instr. inorg. and anal. chem, New Hampshire, 33–35; statutory asst. org. chem, Columbia, 36–37, Cutting fellow to Cambridge, 38–39, instr. *org. chem, Columbia,* 39–42, *asst. prof, 42–* Chem. Soc. (councilor, 35–). Organic synthesis; proteins; respiratory enzymes.

Dawson, Dr. D(avid) H(aigh), E. I. du Pont de Nemours and Co, Newport, Del. *Physical chemistry.* Philadelphia, Pa, Sept. 3, 08. B.S, Drexel, 30; M.S, Ohio State, 31, Ph.D, 33. Research chemist, *Krebs pigments dept, E. I. du Pont de Nemours and Co,* 33–35, *research div. head, 35–* Chemical physics and molecular spectra; titanium dioxide; titanium pigments and their applications; consistency measurement of paint systems; the hiding power of enamels.

Dawson, Dr. E(lmer) Yale, 2924 E. Fifth St, Long Beach, Calif. *Phycology.* Creston, Iowa, March 31, 18. A.B, California, 40, Ph.D, 42. Teaching asst. bot, California, 41–42; *lieut, U. S. Army, 43–* Calif. Bot. Soc. Marine algae of the Pacific American coasts, particularly Mexico, the Gulf of California.

Dawson, Dean F(rancis) M(urray), University of Iowa, Iowa City, Iowa. *Hydraulics, Sanitary engineering.* Truro, N. S, Can, Sept. 3, 89. B.Sc, N. S. Tech. Col, 10; McGraw fellow, Cornell, 12, M.C.E, Cornell, 13. Instr, N. S. Tech. Col, 10–12; engineer on dock construction, 13–15; asst. prof, Cornell, 21–22; assoc. prof. hydraul, Kansas, 22–24, prof, 24–28, student adviser, 26–28; prof. hydraul. and sanit. eng, Wisconsin, 28–36; *dean eng, Iowa,* 36– Mil. cross. Capt, Can. Eng, 15–19. Civil Eng; Eng. Educ; Water Works Asn; Sewage Works Asn. Hydrology; water supply and water power; sewerage; sewage disposal.

Dawson, Prof. Helen L(ucerne), University of Iowa, Iowa City, Iowa. *Anatomy.* Alton, Ill, April 21, 04. B.S, Shurtleff Col, 26; M.S, Washington (St. Louis), 29, Ph.D, 32. Research assoc. anthropom, child welfare research sta, Iowa, 32–35; nat. research fellow, Harvard, 35–36; instr. *anat, histol, embryol. and neuroanat, col. med, Iowa,* 36–38, assoc. and

later *asst. prof, 38–* Summer, Santa Fe fellow, Isle d'Orleans, Que, 31. Asn. Anat; Asn. Physical Anthrop. Hair growth; hair slope; growth of infants.

Dawson, Prof. H(enry) Donald, Bethany College, Bethany, W. Va. *Physical chemistry.* Haskins, Ohio, Jan. 7, 95. B.S, Denison, 16; M.S, Ohio State, 30, Ph.D, 40. Works chemist and solvent recovery supervisor, Nobel Plant, 16–19; asst. cordite supt. and cordite supt. and later chief chemist, Beloil plant, Canadian Explosives Ltd, 19–21; prin, high sch, Ohio, 22–23, supt. schs, 23–28; asst. *chem,* Ohio State, 28–30; *prof. and chairman dept, Bethany Col. (W. Va), 30–* A.A; Chem. Soc; W. Va. Acad. The catalytic oxidation of activated and non-activated carbon.

Dawson, Prof. J(ames) A(rthur), College of the City of New York, New York, N. Y. *Zoology.* Kings Co, N. S, Can, Oct. 10, 88. B.A, Dalhousie, 15; A.M, Yale, 17, Ph.D, 18. Instr. zool, Yale, 18–19; Goucher Col, 19–20; asst. prof, Dalhousie, 20–22; instr, Harvard, 23–29; asst. prof. *biol, Col. City of N. Y,* 29–36, assoc. prof, 36–42, *prof, 43–* Instr. Marine Biol. Lab, Woods Hole, 20–25, in charge invert. zool, 26–31. A.A; Soc. Zool; Ecol. Soc. Protozoology.

Dawson, J(ames) R(obert), 2121 New York Ave, Apt. 608, Washington, D. C. *Dairy husbandry.* Warrensburg, Mo, March 10, 94. B.S. (Agr), Kans. State Col, 17; M.S, Missouri, 18. Dairy specialist, Kentucky, 19–20; assoc. prof. dairy husbandry exten, Pa. State Col, 29–23; dairy husbandman and *senior dairy husbandman, bur. dairy indust, U. S. Dept. Agr, 23–* Dairy Sci. Asn. Feeding and breeding of dairy cattle.

Dawson, Dr. James R(obertson), Jr, Vanderbilt University Medical School, Nashville, Tenn. *Pathology, Bacteriology.* Birmingham, Ala, Jan. 19, 08. A.B, Vanderbilt, 28, M.D, 31. Asst. path, med. sch, Vanderbilt, 31–32, instr, 32–34; asst, Rockefeller Inst, 34–35; *instr. bacter,* med. col, Cornell, 35–38; asst. prof. *path, med. sch, Vanderbilt,* 38–42, *assoc. prof, 42–* Human encephalitis; rabies.

Dawson, Prof. J(ohn) Dudley, Antioch College, Yellow Springs, Ohio. *Mathematics.* Haskins, Ohio, Feb. 7, 02. B.S, Denison, 23; M.S, Ohio State, 24. Asst, Ohio State, 23–24; assoc. prof. *math, Antioch Col,* 24–26, *prof, 26–;* asst. dean, 30–33, assoc. director personnel, 35–37, *director personnel, 37–;* director training, Tenn. Valley Authority, Knoxville, 33–35. Col. Personnel Asn. Mathematics for liberal arts students.

Dawson, Dr. Leo H(enry), Naval Research Laboratory, Washington, D. C. *Physics.* Medfield, Mass, Aug. 9, 90. A.B, Clark, 12, A.M, 14; Ph.D, N. Y. Univ, 25. Lab. asst, Bur. Standards, 17–20; instr. physics, Lehigh, 20; assoc. prof, Maine, 20–24; teaching fellow, N. Y. Univ, 24–25; asst. physicist and assoc. physicist, *Naval Research Lab,* 25–41, physicist, 41–43, *senior physicist, 43–* Optics of quartz; piezoelectricity; mercury arcs; fluorescence; photometry.

Dawson, Prof. Lyle R(amsay), Louisiana Polytechnic Institute, Ruston, La. *Chemistry.* Long Point, Ill, April 21, 04. Ed.B, Ill. State Nor. Univ, 28; M.S, Illinois, 32; Ph.D, Iowa, 35. Teacher, high sch, Ill, 29–34; prof. chem, Wis. State Teachers Col, Eau Claire, 35–36; asst. prof, Omaha, 36–37; research chemist, Universal Atlas Cement Co, 37–39; asst. prof. *chem, La. Polytech,* 39–41, *assoc. prof, 41–* A.A; Chem. Soc. Rare earths; colored solutions; theory of color; non-aqueous solvents.

Dawson, Dr. Marion L(ucile), Lindenwood College, St. Charles, Mo. *Botany.* La Crosse, Wis, Aug. 6, 09. A.B, Wisconsin, 27; M.S, Northwestern, 29; Ph.D, Cornell, 36. *Instr.* bot, Northwestern, 29–33; Cornell, 34–36; *biol. science, Lindenwood Col, 36–* Plant morphology.

Dawson, Dr. M(artin) H(enry), Presbyterian Hospital, New York, N. Y. *Medicine.* Truro, N. S, Can, Aug. 6, 96. B.A, Dalhousie, 16; M.D, McGill, 23. Demonstrator path, Royal Victoria Hosp, Montreal, 23–24; lecturer, sch. med, Louisville, 24–25; asst. res. *med,* Royal Victoria Hosp, Montreal, 25–26; nat. research fellow, Rockefeller Inst, 26–28, asst, 28–29; asst. prof, *col. physicians and surg, Columbia,* 29–35, *assoc. prof, 35–* A.A; Harvey Soc. (councilor, 36). Chronic arthritis and rheumatic diseases; bacteriology and immunity; infectious diseases.

Dawson, Paul R(eber), U. S. Department of Agriculture, Southern Regional Research Laboratory, New Orleans, La. *Chemistry.* Ann Arbor, Mich, Sept. 6, 95. A.B, Clark, 16, 16–17; A.M, North Carolina, 21. Asst. biochemist, Pellagra Hosp, U. S. Pub. Health Service, 17, 19–20; teaching fellow chem, North Carolina, 20–21; asst. biochemist, bur. plant indust, *U. S. Dept. Agr,* 21–27, bur. chem. and soils, 27–28, assoc. biochemist, 28–34, bur. plant indust, 34–35, senior biochemist, 35–39, senior chemist, *south. regional research lab, bur. agr. chem. and eng,* 39–40, *prin. chemist and chief sweet potato products div, 40–* A.A; Chem. Soc; Inst. Chem; Wash. Acad. Biochemistry; organic chemistry; soil fertility; carbohydrates.

Dawson, Dr. Percy M(illard), 806 W. 31st St, Austin, Texas. *[1]*Physiology.* Montreal, Que, Can, May 19, 73. A.B, Hopkins, 94, M.D, 98; Harvard, 09–10. Fellow, Hopkins, 98–99, asst. physiol, 99–00, instr, 00–01, assoc, 01–04, assoc. prof, 04–09; Unitarian clergyman, 10–12; instr. physiol, Wisconsin, 13–16, asst. prof, 16–25, assoc. prof, 25–30. Adviser, exp. col, Wisconsin, 27–29; student visitor, U. S. S. R, 35–36. Summers, co-director girls' camp, Colo, 24–29. Mem, Simplified Spelling Board. A.A; Physiol. Soc; Physical Educ. Asn; Hist. Sci. Soc. Regeneration of nerves; circulation of the blood; biographies of Hales, Magendie and E. H. Weber; physiology of physical exercise and physical education.

Dawson, Prof. R(alph) W(ard), University of Minnesota, Minneapolis, Minn. *Zoology.* Lincoln, Nebr, May 1, 87. B.S, Nebraska, 12; Ph.D, Minnesota, 29. Instr. entom, Nebraska, 12–16, asst. prof, 16–22; asst. *zool, Minnesota,* 23–29, *asst. prof, 29–* A.A. Classification of beetles.

Dawson, Prof. Ray F(ields), Princeton University, Princeton, N. J. *Plant biochemistry.* Muncie, Ind, Feb. 13, 11. A.B, DePauw, 35; Ph.D, Yale, 38. Nat. research fellow, Columbia, 38–39; instr. *bot,* DePauw, 39–40; *asst. prof,* Missouri, 40–42; *Princeton, 42–* A.A; Chem. Soc; Soc. Plant Physiol; Bot. Soc. The origin and function of nicotine in tobacco; the mechanism of nitrate reduction in plant cells; relationship of mycorrhiza to mineral nutrition of short-leaved pine.

Dawson, Prof. Raymond F(illmore), University of Texas, Austin, Texas. *Civil engineering.* Pennville, Ind, Sept. 20, 00. B.S, Purdue, 23; M.S, Texas, 36. Junior testing engineer, State Div. Highways, Ill, 23–26; research engineer, U. S. Bur. Pub. Roads, 26–28; *assoc. prof. civil eng, testing eng. and asst. director bur. eng. research, Texas, 28–* Civil Eng. (v. pres, Texas sect, 41); Soc. Test. Mat; Concrete Inst. Soil mechanics and foundations; engineering materials.

Dawson, Dr. Walker M(yrick), U. S. Department of Agriculture, Beltsville, Md. *Animal husbandry.* Linden, Md, April 24, 02. B.S, Maryland, 25; M.S, Illinois, 26, Ph.D, 31. Asst. animal husbandry, Illinois, 30–36; *assoc. animal husbandman, bur. animal indust, U. S. Dept. Agr, 36–* A.A. Animal genetics and statistics; inheritance of wildness and tameness in mice; pulling ability of horses; effect of Fowler's solution on animals; inheritance of intelligence and temperament in farm animals; heredity in the dog; effect of certain plant substances on lactation; reproduction and growth in mammals.

Day, Albert M, U. S. Department of the Interior, Chicago, Ill. *Biology.* Humboldt, Nebr, April 2, 97. B.S, Wyoming, 22. Asst, bur. biol. surv, U. S. Dept. Agr, 18–19, leader rodent control, 20–28, predatory animal and rodent control, 28–30, biologist, 30–34, senior biologist, 34–38; chief fed. aid in wildlife restoration, *fish and wildlife service, U. S. Dept. Interior,* 38–42, *asst. director, 42–* Soc. Mammal; Wildlife Soc; Izaak Walton League (nat. director); Biol. Soc. Wash. Damage to range grasses by rodents; device to provide selectivity in traps set for predatory animals; problems in wildlife management.

Day, Prof. Alexander Alfred, 303 E. Chicago Ave, Chicago, Ill. *Bacteriology.* Boston, Mass, Feb. 15, 84. A.B, Clark, 06; M.D, Harvard, 11. Instr. *bacter, Northwestern,* 12–16, asst. prof, 16–21, assoc. prof, 21–24, *prof, 24–* Soc. Exp. Biol; Soc. Ill. Bact; Chicago Path. Soc; Inst. Med. Chicago. Metabolism of bacteria.

Day, Prof. Allan R(ussell), University of Pennsylvania, Philadelphia, Pa. *Chemistry.* Bluffton, Ohio, June 5, 99. A.B, Bluffton Col, 21; M.S, Pennsylvania, 25, Ph.D, 27. *Asst. prof. chem, Pennsylvania, 30–* Chem. Soc. Organic chemistry; organic medicinals; heterogeneous catalysis.

Day, Dr. Arthur L(ouis), 9113 Old Georgetown Road, Bethesda, Md. *[2]*Physical geology.* Brookfield, Mass, Oct. 30, 69. A.B, Yale, 92, Ph.D, 94; hon. Sc.D, Groningen, 14, Columbia, 15, Princeton, 18, Pennsylvania, 38. Instr. physics, Yale, 94–

97; sci. staff, Phys-Tech. Reichsanstalt, Charlottenburg, 97–01; physical geologist, U. S. Geol. Surv, 01–07; director geophys. lab, Carnegie Institution, 07–36; *retired.* Mem, Cmn. Inquiry Pub. Service Personnel, 34–35; science cmt, Nat. Resources Board, 39–43. John Scott medal, 23; Bakhuis Roozeboom medal, Royal Acad. Amsterdam, 39; William Bowie medal, Am. Geophys. Union, 40; Wollaston medal, Geol. Soc. London, 41. In charge optical glass production, W.I.B, 17–18. Nat. Acad. (home sec'y, 13–19, v. pres, 33–41); Geol. Soc. (v. pres, 34, pres, 38); Physical Soc; Chem. Soc; Geophys. Union (chairman, volcanol. sect, 32); Philos. Soc; Am. Acad; Franklin Inst; Geol. Soc. Wash; Philos. Soc. Wash. (pres, 11); Wash. Acad. (pres, 24); Geol. Soc. London; Acad. Sci. Russia; for. assoc. Reale Accad. dei Lincei; Accad. di Torino; Acad. Sci. Norway; Swedish Acad. Physical phenomena at very high and very low temperatures; thermal studies of rock-forming minerals; absolute measurement of high temperatures; chemical and physical problems of volcanos, hot springs and earthquakes.

Day, Prof. Cameron D(onald), Westminster College, Fulton, Mo. *Embryology, Histology.* Liberty Center, Ind, Dec. 25, 90. Indiana, 09–13; St. Louis, 13–15; A.B, Cent. Wesleyan Col; A.M, Kansas, 25, Ph.D, 27. Prof. biol. and head dept, Cent. Wesleyan Col, 17–19; *prof. zool. and head dept. biol,* Trinity (Texas), 20–28; *Westminster Col. (Mo), 28–*Summers, prof, Peabody Col, 30, 31. A.A; Soc. Anatomists; Soc. Mammal; N. Cent. Texas Biol. Soc. Morphology and physiology of the descent of the testis and of the Wolffian body in the mammal; seasonal changes in the histological picture of the fish stomach.

Day, Dr. Dorothy, California Central Fibre Corp, Pisgah Forest, N. C. *Botany.* Dayton, Ohio. A.B, Wellesley Col, 19; M.S, Wisconsin, 25, fellow, 26–27, Ph.D, 27. Instr. bot. and bacter, Hood Col, 21–24; asst. instr. bot, Wisconsin, 24–26; instr. bot. and bacter, Mills Col, 27–28, asst. prof, 28–29; bot, Smith Col, 29–37, assoc. prof, 37–42; asst, Cornell, 42–43; *plant physiologist, Calif. Cent. Fibre Corp, 43–* A.A; Bot. Soc; Soc. Plant Physiol; Ecol. Soc; Torrey Bot. Club. Plant physiology; nutrition; water relations; fibers; flax.

Day, Dr. Emerson, 27 East Ave, Ithaca, N. Y. *Cardiology.* Hanover, N. H, May 2, 13. A.B, Dartmouth Col, 34; M.D, Harvard, 38. Intern, med. service, Presbyterian Hosp, New York, N. Y, 38–40; Emanuel Libman fellow med, Johns Hopkins Hosp, 40–42. Hypertension; cardiac physiology and circulation.

Day, Dr. Frank, Jr, 89 E. First St, Corning, N. Y. *Chemistry.* Bellaire, Ohio, March 12, 14. A.B, Ohio State, 36; Ph.D, Pittsburgh, 41. Research engineer, Battelle Mem. Inst, 36–37; *research chemist, Corning Glass Works, 41–*Ceramic Soc. Glass chemistry.

Day, Prof. Harry G(ilbert), Indiana University, Bloomington, Ind. *Biological chemistry.* Monroe Co, Iowa, Oct. 8, 06. A.B, Cornell Col. (Iowa), 30; Sc.D, Hopkins, 33. Instr. chem, Cornell Col. (Iowa), 30–31; asst. endocrinol, E. R. Squibb and Sons, New York, 31; nat. research fellow, Hopkins, 33–34; Gen. Educ. Board fellow, Yale, 34–36; assoc. *biochem,* sch. hygiene and pub. health, Hopkins, 36–40; *asst. prof, Indiana, 40–* A.A; Chem. Soc; Inst. Nutrition. Metabolism of calcium, magnesium iron and phosphorus; nutritional significance of zinc and other trace elements; vitamins.

Day, Dr. Howard C(alvin), Sacramento Junior College, Sacramento, Calif. *Protozoology.* Lake Geneva, Wis, May 29, 02. A.B, Lawrence Col, 24; Colorado, 24–25; A.M, Stanford, 26, Ph.D, 28. Asst, Colorado, 24–25; Stanford, 25–28, acting instr, 28; assoc. prof, Howard Col, 28–29; *instr, Sacramento Junior Col, 30–* A.A; West. Soc. Nat. Contractile vacuole in Amoeba proteus, Spirostomum and Paramecium.

Day, Leonard H(errington), College of Agriculture, University of California, Davis, Calif. *Horticulture.* Calif, April 22, 83. B.S, California, 25, M.S, 28. Entomologist, San Benito County, Calif, 08–10, hort. commissioner, 10–20; teacher pomol, *California,* 21–25, asst, 25–28, asst. pomologist, *Exp. Sta,* 28–39, *assoc. pomologist, 39–* A.A; Soc. Hort. Sci; Ecol. Soc. Plant pathology; rootstocks for deciduous fruit trees.

Day, Dr. Maurice J(erome), Carnegie-Illinois Steel Corp, 208 S. LaSalle St, Chicago, Ill. *Physical chemistry.* Saginaw, Mich, Jan. 3, 13. B.S, Mich. State Col, 34, M.S, 35, Ph.D, 37. Metallurgist, Carnegie-Ill. Steel Corp, 37–38; physical chemist, research lab, U. S. Steel Corp, 38–41; *tech. trade rep, Carnegie-Ill. Steel Corp, 41–* Soc. Metals. Furnace atmospheres; method of determining austenite grain size in steels.

Day, Dr. M(axwell) F(rank) C(ooper), Washington University, St. Louis, Mo. *Zoology.* Sydney, Australia, Dec. 21, 15. B.Sc, Sydney, 38; A.M. and Ph.D, Harvard, 41. Asst. research officer, CS and IR, Australia, 38; *instr. zool, Washington (St. Louis), 41–* Soc. Zool. Insect physiology.

Day, Prof. Paul L(ouis), 2525 Chester St, Little Rock, Ark. *Physiological chemistry.* Grants Pass, Oregon, Dec. 26, 99. A.B, Willamette, 21; A.M, Columbia, 23, Ph.D, 27. *Prof.* chem, Intermountain Union Col, 23–25; *physiol. chem, sch. med, Arkansas, 27–* Asst, Columbia, 27. Chem. Soc; Soc. Biol. Chem; Am. Med. Asn; Pub. Health Asn; Inst. Nutrition; Soc. Exp. Biol. Distribution of riboflavin; ocular manifestations of riboflavin deficiency; xylose cataract; vitamin M and nutritional cytopenia in the monkey; keratitis and cataract from tryptophane deficiency.

Day, Dr. Paul R(ussell), 1346 El Centro Ave, Oakland, Calif. *Soil physics.* Hollister, Calif, Sept. 6, 12. A.B, California, 35, Ph.D, 41. Assoc. soils, *California,* 41, *instr. soils and junior soil physicist, 41–; U. S. Army, 42–* Thermodynamics of soil moisture.

Day, Ralph K(ing), U. S. Forest Service, Columbus, Ohio. *Forestry.* Washington, D. C, Sept. 6, 97. B.S, Syracuse, 22; M.S, Montana, 34; Ohio State. Junior forester, *U. S. Forest Service,* 22–27, asst. silviculturist, *Cent. States Forest Exp. Sta,* 27–34, assoc. silviculturist, 34–35, *silviculturist, 35–* Soc. Foresters (sec'y, cent. states sect, 34–38). Silviculture; forest management; flood control.

Day, Dr. Ralph K(ohlrausch), Spencer Lens Co, Buffalo, N. Y. *Physics.* Washington, D. C, Aug. 15, 04. Ph.B, Yale, 25; Ph.D, Calif. Inst. Tech, 30. Corning Glass Works, 30–37; *with Spencer Lens Co, 37–* Summers, Bur. Standards, 23–26; U. S. Dept. Agr, 28. Ceramic Soc; Optical Soc. Optical glass.

Day, Prof. R(euben) A(lexander), Jr, Emory University, Ga. *Physical chemistry.* Atlanta, Ga, Feb. 3, 15. A.B, Emory, 36, M.S, 37; Ph.D, Princeton, 40. Instr. *chem, Emory,* 40–42, *asst. prof, 42–* Chem. Soc. (sec'y Ga. sect, 40–). Oxidation characteristics of hydrocarbons.

Day, Prof. Thomas G(ordon), 1910 Vichy Road, Rolla, Mo. *Chemistry.* Milwaukee, Wis, Jan. 4, 09. A.B, Carroll (Wis), 30; M.S, Mo. Sch. Mines, 32; Ph.D, Missouri, 35. Asst, *Mo. Sch. Mines,* 30–35, instr. chem, 35–37, *asst. prof. org. chem, 37–* Summer, asst, Missouri, 31–39, asst. prof, 40, 41. Chem. Soc. Analytical chemistry; electrolytical determination of small amounts of lead; organic chemistry; vapor phase hydrolysis; reaction of metals with acid halides.

Day, Dr. William S(cofield), 220 Hobart Ave, Summit, N. J. *[21]Physics.* New York, N. Y, Jan. 2, 64. A.B, Columbia, 84; Ph.D, Hopkins, 97. Asst. physics, Hopkins, 95–96; Barnard Col, Columbia, 97–98, tutor, 98–03, lecturer, Columbia, 03–18. A.A; Physical Soc. Apparatus for exact comparison and testing of thermometers; experimental tests of electrical theories; residual rays in the infra-red spectrum.

Dayhaw, Dr. Lawrence T(oussaint), Fordham University, New York, N. Y. *Psychology.* Ottawa, Ont, Can, Nov. 1, 02. B.A, Montreal, 31, Lic. Ph, 38; D.Pd, Louvain, 34. Mem. faculty, Christian Brothers' Nor. Sch, Montreal, Que, Can, 22–26, 28–31; Mt. St. Louis Col, 26–28, 34–40; inst. pedag, St-Georges, Montreal, 34–40; *asst. prof. psychol, Fordham, 40–* Psychol. Asn; Asn. can-française pour l'avance. des Sci; Can. Psychol. Asn; Soc. de Pedag. de Montreal (pres, 38). Development of language in children; mental tests; statistics; genetic psychology; learning; differential psychology.

Dayton, Supt. Nell Avon, Mansfield Training School, Mansfield Depot, Conn. *Psychiatry.* Burton, Ohio, March 18, 93. M.D, Ohio State, 15. Intern, Huron Road Hosp, Cleveland, Ohio, 15–16; senior intern, Metrop. Hosp, New York, 16–17; chief res. staff, 17; asst. physician, Westborough State Hosp, 19–21, senior physician, 21; asst. supt, Wrentham State Sch, 22–26; asst. to commissioner, State Dept. Mental Diseases, Mass, 26, director div. mental deficiency, 26–41, statist, 27–41; *supt, Mansfield Training Sch, 41–* Instr, med. sch, Tufts Col, 30–41, asst. prof, 41– Summers, lecturer, Yale, 43– Director, Rockefeller Research Project in Mental Diseases and Mental Defect, 28–41. Mil. Cross Gt. Britain. Mem, White House Conf. Child Health and Protection, 30; White

House Conf. Children in a Democracy, 39. Capt, M.C, 17–19, major, M.C.Res, 19–29. Am. Med. Asn. (ed. board standard classification nomenclature of disease, 40–); Psychiat. Asn. (chairman cmt. nomenclature and statist, 36–); Asn. Mental Deficiency (v. pres, 37, pres, 38, sec'y-treas, 41–); Statist. Asn; New Eng. Soc. Psychiat; Mass. Psychiat. Soc; Mass. Med. Soc. New facts on mental disorders; outcome of mental disorders; mental deficiency.

Dayton, William A(dams), U. S. Forest Service, Washington, D. C. *Forestry.* New York, N. Y, Dec. 14, 85. A.B, Williams Col, 05, A.M, 08. Assoc. plant ecologist, plant ecologist and senior plant ecologist, *U. S. Forest Service,* 10–42, *prin. dendrologist in charge div. dendrol. and range forage investigations,* 42– U. S. Dept. Agr. rep. and mem. ed. cmt, 'Standardized Plant Names,' 39– Special gold medal, Mass. Hort. Soc, 40. A.A; Soc. Foresters (sec'y-treas, Wash. sect, 33–36, chairman, 40); Genetic Asn; Nature Asn; Forestry Asn; Wildlife Asn; Bot. Soc; Ecol. Soc; South. Appalachian Bot. Club; Torrey Bot. Club; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Acad. (v. pres, 38); Calif. Bot. Soc; S. Calif. Acad. Forest protection; economic, ecological and systematic forest botany; standardization of English plant nomenclature; dendrology.

Deabler, Dr. Herdis LeRoy, North Central College, Naperville, Ill. *Psychology.* Howell, Mich, Jan. 27, 10. A.B, N. Cent. Col, 31; Ph.D, Boston, 36. *Personnel director and prof. psychol, N. Cent. Col, 36–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Clinical psychology; college personnel work.

Deacon, Prof. W(arren) McA(llister), Vanderbilt University, Nashville, Tenn. *Bacteriology.* Conestoga Center, Pa, Aug. 27, 93. A.B, Wesleyan, 16, fellow, 16–17, A.M, 17. Asst. *biol,* Wesleyan, 16–17; instr, *Vanderbilt,* 19–23, asst. prof, 23–38, *assoc. prof, 38–* U.S.A, 17–19. A.A; Asn. Southeast. Biol; Tenn. Acad.

Deaderick, Dr. W(illiam) H(eiskell), Hot Springs, Ark. *Medicine.* Knoxville, Tenn, Feb. 7, 76. Southwest. Presb. Col, 91–95; Louisville, 95–97; M.D, Vanderbilt, 98. *Practising physician, 98–* City and county boards of health, Marianna, Ark, 99–12. Ed. staff, 'Am. Jour. Trop. Diseases'; assoc. ed, 'Annals Med'; 'Am. Jour. Syphilis.' Cmn. for Study Malaria. Soc. Trop. Med; fel. Col. Physicians (governor); Tri-State Med. Asn. (v. pres, 05, pres, 07); Soc. de Path. exot. Internal medicine; diseases of the southern states; malaria.

Deahl, Neulon, 405 Marlborough, Detroit, Mich. *Chemistry.* Martinsville, Ill, Oct. 19, 92. B.S, Illinois, 18. Asst. chief chemist, *Parke, Davis and Co,* 24–34, *director anal. labs, 34–* Auxiliary mem. revision cmt, U. S. Pharmacopeia XII. Pharmaceut. Asn. Physical and analytical chemistry.

Deakin, Dr. Alan, Dominion Experimental Farm, Ottawa, Ont, Can. *Genetics.* Wickeasly, Yorkshire, Eng, March 26, 00. B.S.A, McGill, 28; M.S, Wisconsin, 29, Ph.D, 31. *Geneticist, Dom. Exp. Farm, 31–* A.A. Animal genetics; sexual infantilism in the sow; melanic pigmentation of the mammary glands of the pig; bison and domestic cattle hybrids; artificial insemination; sterility.

Deakins, Dr. Martin, 25 Shattuck St, Boston, Mass. *Physiological chemistry.* Logan, Iowa, Dec. 18, 05. D.D.S, Creighton, 30, M.S, 32; Carnegie fellow, Rochester, 37–40, Ph.D, 40. Asst. gen. chem, Creighton, 30–32; pediat, Iowa, 35–37; instr. bacter, col. dentistry, Pennsylvania, 40–41; *assoc. clin. dentistry, sch. dental med, Harvard, 41–* Dentist, Peter Bent Brigham Hosp, 42–; visiting instr, dental col, Tufts Col, 42. Calcification and tooth development; dental caries.

Deal, Prof. John (Milton), Pennsylvania State College, State College, Pa. *Entomology.* Chillicothe, Mo, Dec. 16, 05. A.B, Kansas, 30, fellow, 30–31, A.M, 31; Cornell, 31–34; Ph.D, London, 39. Asst. exten. entomologist, Pa. State Col, 34; chief entomologist, United Fruit Co, 34–36; research entomologist, Rothamsted Exp. Sta, Harpenden, England, 37–40; *asst. prof. exten. entom, Pa. State Col, 40–* Summers, asst, corn borer control, U. S. Dept. Agr, 29; state entomologist, Kans, 30; mem. gipsy moth parasite lab, U. S. Dept. Agr, 31; N. Y. Exp. Sta, Geneva, 32, 33. Fel. Entom. Soc. London. Temperature preferendum of insects; reactions of the bedbug to humidity; insect pests of the banana and their control.

Deal, Prof. Ralph E(lbert), Wagner College, Staten Island, N. Y. *Biology.* Davenport, Nebr, April 21, 01. A.B, Nebr. Wesleyan, 26; M.S, Iowa, 29, Ph.D, 30. Asst. zool, Iowa, 26–30; instr. *biol,* St. Stephen's Col, Columbia, 30–33; *prof, Wagner Col, 33–* A.A. Anatomy; experimental embryology; histology; physiology.

Deal, Prof. R(oy) W(alter), Nebraska Wesleyan University, Lincoln, Nebr. *Psychology.* Davenport, Nebr, July 25, 89. A.B, Nebr. Wesleyan, 17; A.M, Nebraska, 24, Ph.D, 31. Assoc. prof. secondary educ, *Nebr. Wesleyan,* 24–27, *prof.* educ, 27–39, *psychol, 39–, dean col. lib. arts, 40–, director summer session, 41–, student personnel, 31–* Summers, instr, Nebraska, 35, 37, 39, 40, 42. Psychol. Asn; Midwest. Psychol. Asn. Teachers rating; reading habits in college students; improving study habits in college students.

Deam, Dr. Cha(rle)s C(lemon), Bluffton, Ind. *Forestry.* Bluffton, Ind, Aug. 30, 65. DePauw, hon. Sc.D, 32; hon. A.M, Wabash Col, 20; LL.D, Indiana, 39. State forester, Ind, 09–13, acting state forester, 17–19, state forester, 19–28, research forester, 28–40; *retired.* A.A; Soc. Foresters; Bot. Soc; fel. Ind. Acad. (pres, 23); fel. Ohio Acad. Trees, ferns and flowering plants of Indiana.

Dean, Dr. Archibald S(weetland), State Office Bldg, 65 Court St, Buffalo, N. Y. *Public health.* Portland, Maine, Dec. 14, 94. B.S, Bowdoin Col, 18; M.D, Hopkins, 22, Dr.P.H, 23. Psychiatrist, Nat. Cmt. Mental Hygiene, New York, 23–24; med. field worker, Cmt. on Drug Addictions, Wash, 24; pediatrician, *State Dept. Health, N. Y,* 24–26, *dist. state health officer, Buffalo, 26–; asst. prof. hygiene and pub. health, sch. med, Univ. Buffalo, 34–; sch. nursing, 41–* Fel. Pub. Health Asn; fel. Am. Med. Asn. Typhoid fever; lead poisoning; tuberculosis.

Dean, Dr. Arthur L(yman), Alexander and Baldwin, Ltd, Honolulu, Hawaii. *Industrial chemistry.* Southwick, Mass, Oct. 1, 78. A.B, Harvard, 00; Ph.D, Yale, 02. Asst. plant physiol, Sheffield Sci. Sch, Yale, 02–03, instr, 03–07; Carnegie research asst, 04–05; chief sect. wood chem, U. S. Forest Service, 05–07; in charge lab. of A. D. Little, Boston, 07–08; instr. indust. chem, Sheffield Sci. Sch, Yale, 08–09, asst. prof, 09–14; pres, Hawaii, 14–27; director, Exp. Sta, Asn. Hawaiian Pineapple Canners, 27–30; *Alexander and Baldwin, Ltd, 30–* Regent, Hawaii, 33–37. A.A; Chem. Soc. Inulin; proteolytic enzymes; creosote oils; chaulmoogra oil in the treatment of leprosy; pineapple culture and canning; sugar cane culture.

Dean, Prof. Catherine S(eeley Flynn) (Mrs. Ralph W. Dean), Vassar College, Poughkeepsie, N. Y. *Bacteriology.* Derby, Conn, Oct. 14, 08. A.B, Vassar Col, 29; Ph.D, Yale, 32. Asst, Nat. Acidophilus Milk Asn, 32–33; instr. bacter, Vassar Col, 33–34; assoc. bacteriologist, State Dept. Health, Md, 34–35; instr. *bacter, Vassar Col,* 35–37, asst. prof, 37–41, *assoc. prof, 41–* Soc. Bact. Bacterial variation; diagnostic procedures in typhoid fever; serological and cultural studies on Cl. histolyticum.

Dean, Dr. Charles E(arle), 5825 Little Neck Parkway, Little Neck, N. Y. *Engineering.* Pickens Co, S. C, May 23, 98. A.B, Harvard, 21; A.M, Columbia, 23; Ph.D, Hopkins, 27. Tech. asst, Bell Tel. Labs, 21–24; assisting physicist, otology, Hopkins, 24–26; tech. writer, Am. Tel. and Tel. Co, 27–29; *radio engineer, Hazeltine Electronics Corp, 29–* Radio Eng; Elec. Eng; Radio Club (ed, 'Proceedings,' 40–); Soc. Motion Picture Eng. Radio engineering.

Dean, Dr. Ernest W(oodward), Standard Oil Development Co, 26 Broadway, New York, N. Y. *Chemistry.* Taunton, Mass, Sept. 28, 88. A.B, Clark, 08; A.M, Yale, 12, Ph.D, 14. Instr. chem, Hobart Col, 08–11; asst, Yale, 12–14; *chemist,* U. S. Bur. Mines, 14–22; *Standard Oil Develop. Co, 22–, director standard inspection labs.* Chem. Soc; Petrol. Technol; Soc. Test. Mat. Hydrolysis of aliphatic esters; petroleum.

Dean, Prof. Geo(rge) A(dams), Kansas State College, Manhattan, Kans. *Entomology.* Topeka, Kans, April 19, 73. M.S, Kans. State Col, 05; Sc.D, Southwestern Col. (Kans), 43. Prin, Ward Sch, Topeka, 97–00; asst. *entom, Kans. State Col,* 02–06, asst. prof, 06–12, assoc. prof, 12–13, *prof. and head dept, 13–* Special investigator mill and stored grain insects, Europe, 11, 30; senior entomologist, U. S. Dept. Agr, 23–25; Mediterranean Fruit-Fly Board, 30– A.A; Entom. Soc. Amer. (pres, 25); Asn. Econ. Entom. (pres, 21); Kans. Acad. (pres, 37). Mill and stored grain insects; Hessian fly; the effect of temperature and moisture on insect life.

Dean, Dr. George R(hoades), 6054 Ingleside Ave, Chicago, Ill. *Physical chemistry.* Cleveland, Ohio, Sept. 8, 09. A.B, Hiram Col, 32; Ph.D, Pa. State Col, 37. *Research chem-*

ist, Miner Labs, 37–40; *Corn Products Ref. Co, 40–* Chem. Soc. Constitution of grain boundaries in solid solutions; commercial uses of dextrose; production of dextrose from corn starch.

Dean, Dr. H(enry) L(ee), State University of Iowa, Iowa City, Iowa. *Botany.* Cumberland, Md, March 13, 07. A.B, West Virginia, 29; M.S, Iowa, 30, Ph.D, 36. Asst. *bot*, West Virginia, 27–29; *Iowa*, 30–36, instr, 37–39, *assoc, 39–* Summer, mem. faculty, Louisiana, 39. Bot. Soc. (cmt. teaching methods, 40–42); South. Appalachian Bot. Club; Iowa Acad. Morpho-physiological relations of Cuscuta and its host plants; parasitic seed plants; methods in botanical microtechnique and plant histochemistry.

Dean, Dr. H(enry) Trendley, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Dental hygiene.* East St. Louis, Ill, Aug. 25, 93. D.D.S, St. Louis, 16. Acting asst. dental surgeon, *U. S. Pub. Health Service*, 21–22, 24–25, passed asst. dental surgeon, 25–30, dental surgeon, 30–42, *senior dental surgeon,* 42–, nat. inst. health, 31–33, dental hygiene investigations, 33–35, *nat. inst. health, 35–, div. infectious diseases, 37–* Lieut, Dental R.C, 17–18, capt, Dental C, 19. A.A; Pub. Health Asn; Dental Asn. (sec'y cmt. dental health surv, 33–35; mem. econ. cmt, 38–; research cmn, 39–); Asn. Mil. Dental Surg. (pres, 37); fel. Col. Dentists (chairman, Wash. sect, 41); Wash. Acad; Int. Asn. Dental Research (pres-elect, 43). Mandibular fractures; radium dial painter's poisoning; experimental fluorosis; epidemiology of endemic dental fluorosis and dental caries; epidemiological investigation of physiological effects.

Dean, Dr. John G(ilbert), 3955 Bigelow Blvd, Pittsburgh, Pa. *Physical chemistry.* Pawtucket, R. I, Feb. 16, 11. Ph.B, Brown, 31, M.S, 32; Ph.D, Columbia, 36. Director lab. research div, Permutit Co, 36–40; teacher science, Sarah Lawrence Col, 40–42; *Int. Nickel Co. research fellow, Mellon Inst, 42–* A.A; Chem. Soc. Solutions of electrolytes; organic derivatives of metals.

Dean, Dr. Lee Wallace, Washington University School of Medicine, St. Louis, Mo. *Otolaryngology.* Muscatine, Iowa, March 28, 73. M.S, Iowa, 94, M.D, 96; London and Vienna, 96–98. Prof. otolaryngol. and oral surg. and head dept, Iowa, 02–27, dean col. med, 12–27; prof. *otolaryngol, sch. med, Washington (St. Louis)*, 27–42, *emer. prof, 42–* Otolaryngologist in chief, Barnes, St. Louis Children's and McMillan Hosps; Oscar Johnson Research Inst. Ed. in chief, 'Annals Otol, Rhinol. and Laryngol.' De Roaldes medal, Am. Laryngol. Asn, 37. Lieut. col, M.O.R.C, commanding officer, Gen. Hosp. No. 54, 17–18. Am. Board Otolaryngol; Otol. Soc; Laryngol, Rhinol. and Otol. Soc. (past pres); Acad. Ophthal. and Otolaryngol. (pres, 36); Laryngol. Asn. (past pres); Am. Med. Asn; fel. Col. Surg; Soc. de Laryngol. des Hôpitaux de Paris. Nasal sinus disease in infants and children.

Dean, Dr. L(yman) A(rnold), U. S. Department of Agriculture, Beltsville, Md. *Soil chemistry.* Needham, Mass, Nov. 14, 07. B.S, Hawaii, 31; M.S, Wisconsin, 32, Ph.D, 34. Nat. research fellow, Rothamsted Exp. Sta, England, 35–36; asst. chem, Exp. Sta, Hawaii, 36–38, assoc. chemist, 38–43, assoc. prof. soil chem, univ, 38–43; *soil scientist, div. soil and fertilizer investigation, bur. plant indust, U. S. Dept. Agr, 43–* A.A; Soc. Agron; Int. Soc. Soil Sci. Soil fertility.

Dean, Prof. Paul Marshall, University of Colorado, Boulder, Colo. *Chemistry.* Newcastle, Pa, March 24, 85. A.B, Colorado, 08, A.M, 11; Ph.D, Illinois, 16; Col. de France, 24–25. Teacher, high sch, Colo, 08–09; chemist, West. Chem. Mfg. Co, 09–10; instr. *chem*, Colorado, 11–14; asst, Illinois, 14–15; instr, *Colorado*, 15–17, asst. prof, 17–20, assoc. prof, 20–23, *prof, 23–* A.A; Chem. Soc; Soc. de Chim. physique. Organic and analytical chemistry.

Dean, Dr. R(alph) W(illard), Cottage Road, Poughkeepsie, N. Y. *Entomology.* Cleveland, Ohio, March 20, 07. B.S, Ohio State, 30, M.S, 32, Ph.D, 39. *Asst. prof, div. entom, N. Y. Exp. Sta, Geneva, 31–* A.A; Asn. Econ. Entom; Entom. Soc. Insect control.

Dean, Dr. R(eginald) S(cott), 532 20th St, N.W, Washington, D. C. *Metallurgy.* Rolla, Mo, Aug. 23, 97. B.S, Missouri, 15, M.S, 16, Met.E, 22; fellow, Chicago, 17; Ph.D, Maryland, 36. Asst. physical chem, Harvard, 16–17; physical chemist, research dept, Am. Zinc, Lead and Smelting Co, 18; metallurgist, Anaconda Copper Co, 19; instr. metal, Armour Inst. Tech, 19–20; research engineer, West. Elec. Co, Chicago, 20–29; chief engineer and later chief metal div, *Bur. Mines*, 29–42, *asst. director, 42–* Chicago sect. award, Inst. Min. and Metal. Eng. Chem. Soc; Min. and Metal. Eng. Theoretical metallurgy; physical chemistry.

Dean, Dr. Robert B(erridge), Stanford University, Calif. *Physical chemistry, Physiology.* San Francisco, Calif, Feb. 20, 13. A.B, California, 35; Ph.D, Cambridge, 38. Asst. colloid science, Cambridge, 38–39; teaching asst. physiol, Rochester, 39–40; junior instr, Minnesota, 40–41; *research assoc. chem, Stanford, 41–, biol, 42–* Grant in aid, Am. Acad. Arts and Sciences, 41. A.A. Membranes and membrane phenomena, especially accumulation of electrolytes; physics and chemistry in biology.

Dean, Dr. Russell T(attershall), General Aniline and Film Corp, 247 Park Ave, New York, N. Y. *Organic chemistry.* Troy, Pa, Oct. 2, 12. B.S, Lehigh, 33; Ph.D, Yale, 36. Research chemist, Am. Cyanamid Co, 36–42; *develop. chemist, Gen. Aniline and Film Corp, 42–* Chem. Soc. Pharmaceuticals; synthetic resins; natural and synthetic rubber chemistry.

Dean, Dr. W(alter) A, 16902 Delaware Ave, Lakewood, Ohio. *Metallurgy.* Bridgeport, Conn, Feb. 5, 05. B.S, Cooper Union, 26; M.S, Rensselaer Polytech, 27, Ph.D, 29. *Research lab*, Int. Nickel Co, 28; *Aluminum Co. of Amer, 29–* Soc. Metals; Min. and Metal. Eng. Properties of the nickel-iron-chromium system; properties of aluminum alloys.

Deane, Charles W(illiam), 51 Beekman Road, Summit, N. J. *Chemical engineering.* Syracuse, N. Y, May 30, 10. Antioch Col, 27–28, 29–31; A.B, Rochester, 32, M.S, 35; Columbia, 35–36; N. Y. Univ, 39–42. Asst, research lab, Gen. Elec. Co, 28–29; chemist, Eastman Kodak Co, 29–30; engineer, U. S. Treasury Dept, 34–35; chem. research and develop. engineer, Am. Locomotive Co, 36–38; chem. engineer petrol. tech, Standard Oil Develop. Co, 38–41; *process engineer, Colgate-Palmolive-Peet Co, 41–* Chairman, Int. Grad. Science Forum, N. Y, 35–36. A.A; Chem. Soc; Chem. Eng. Chemical plant design; industrial catalysis; polymerization; physical and organic chemistry; aviation fuel; fatty oil processing and hydrolysis; chemical reaction rates; unit processes.

DeAngelis, Dr. Eugene, West Virginia University School of Medicine, Morgantown, W. Va. *Medicine.* New York, N. Y, March 6, 15. B.S, West Virginia, 35; M.B. and M.D, Northwestern, 38. *Asst. prof. path, sch. med, West Virginia, 40–* Consultant pathologist, Hopemont Tuber. Sanitarium, 42. Am. Med. Asn. Pathology; anencephalia; specific chemical tests for B anthracis; dissecting aneurysms.

Deans, Dr. Sidney A(lfred) V(indin), 5405 Fourth Ave, Rosemount, Montreal, Que, Can. *Organic chemistry.* Montreal, Que, Dec. 31, 18. B.Sc, McGill, 39, Nat. Research Council Can. bursar, 39, student, 40, fellow, 41, Ph.D, 42. *Research chemist, Can. Industries, Ltd, 42–* Preparation of ethers.

Dear, Prof. Paul S(tanford), P. O. Box 205, Blacksburg, Va. *Ceramic engineering.* Norfolk, Va, Dec. 1, 05. B.S, Va. Polytech, 27, M.S, 32; N. Y. State Col. Ceramics, 35; M.S, Pa. State Col, 37. Instr. applied mech. and exp. eng, *Va. Polytech*, 28–29, *ceramic eng*, 29–37, *asst. prof, 37–* Ceramic Soc; Ceramic Eng; Ceramic Educational Council; Va. Acad. (chairman eng. sect, 42). Performance characteristics of reinforced brick masonry slabs; elastico-viscous properties of several sodium metasilicate-silica glasses in the annealing range of temperatures.

Dearborn, Prof. Donald C(urtis), Catawba College, Salisbury, N. C. *Mathematics.* Osceola, Nebr, March 20, 10. A.B, Hastings Col, 31; A.M, Nebraska, 33; fellow, Duke, 33–35, Ph.D, 36. Asst. *math*, Nebraska, 31–33; asst. prof, *Catawba Col, 35–40, assoc. prof, 40–, registrar, 40–* Math. Soc; Math. Asn; N. C. Acad. Partial differential equations; Pfaffian systems.

Dearborn, Dr. Ned, Hilton Village, Va. *Ornithology, Mammalogy.* Alton, N. H, Nov. 24, 65. B S. Dartmouth Col, 91; Sc.D, New Hampshire, 01. Prin, schs, N. H, 89–93; supt. lens dept, Lord Brothers Mfg Co, 93–97; instr. math. and physics, New Hampshire, 97–01; asst curator ornith, Field Museum Nat. Hist, 01–09; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 09–20; fur culturist, Ont. Stock Farm, 20–28; asst. prof. forest zool, Michigan, 28–32. Sci. exped, Guatemala, 06, Venezuela, 08. Soc. Mammal. Economic relations of fur-bearing animals.

Dearborn, Dean R(ichard) H(arold), Oregon State Agricultural College, Corvallis, Oregon. *Electrical engineering.* Salem, Oregon, Nov. 2, 74. A.B, Willamette, 95; E.E, Cornell, 00. From instr. to prof. elec. eng, Oregon, 01–14; prof.

and head dept, Oregon State Col, 14–37, *dean sch. eng, 34–* Elec. engineer, Pub. Utilities Cmn, 13–15. Elec. Eng; Eng. Educ; Northwest Elec. Light and Power Asn. Electric power costs on the Pacific coast.

Dearborn, Lieut. Roland B, North Weare, N. H. *Horticulture.* Weare, N. H, Jan. 29, 06. B.S, New Hampshire, 27, M.S, 30; fellow, Cornell, 33–35, Ph.D, 35. Mem. hort. staff, Exp. Sta, New Hampshire, 29–32; fellow chem, N. Y. Agr. Exp. Sta, Geneva, 35–36; exec. seed dept, East. States Farmers Exchange, 36–42; *lieut, Air Corps, U. S. Army, 42–* Soc. Hort. Sci. Nitrogen nutation of Cucumis sativus.

Dearborn, Prof. Walter F(enno), Harvard University, Cambridge, Mass. **³Psychology.* Marblehead, Mass, July 19, 78. A.B, Wesleyan, 00, A.M, 03; Ph.D, Columbia, 05; M.D, Munich, 13; hon. A.M, Harvard, 42. Instr. educ. psychol, Wisconsin, 05–07, asst. prof, 07–09; assoc. prof. *educ,* Chicago, 09–12; *Harvard,* 12–17, *prof, 17–, director psycho-educ. clinic, grad. sch. educ, 17–* Trustee, Mass. State Infirmary, 13–14, 15–33; Walter E. Fernald Sch, 42– A.A; Psychol. Asn; fel. Am. Acad. Retinal local signs; the psychology of reading; the relative standing of pupils in school and university; the practice experiment in learning; forms of infantilism; measures of intelligence and school training; special disabilities; mental and physical growth; mental hygiene; visual fatigue.

Deardorff, Dr. Dwight L(uverne), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Physical chemistry.* Yale, Iowa, Dec. 1, 07. B.S, Iowa, 30, M.S, 35, Ph.D, 38. Pharmacist, McDonald Drug Co, Perry, Iowa, 30–33; asst. chem, Iowa, 35–38; research chemist, Corn Industries Research Foundation, New York, 38–40; prof. chem. and head dept, Iowa Wesleyan Col, 40–42; *research chemist, technol. of fur, Mellon Inst, 42–* Chem. Soc. (v. chairman, Iowa sect, 41); Iowa Acad. (chairman, sect. gen. and physical chem, 42). Streaming potentials of aqueous solutions; determination of moisture content of corn syrup.

Dearing, Prof. A(lfred) Willis, Hunter College, 68th St. and Park Ave, New York, N. Y. *Chemistry.* Rappahannock Co, Va. B.S, Va. Mil. Inst, 21; Ph.D, Hopkins, 26. Instr, Hopkins, 23–25; prof. *chem,* Col. of William and Mary, 26–34; instr, *Hunter Col,* 34–36, *asst. prof, 36–* A.A; Chem. Soc; N. Y. Acad; Va. Acad. Ethyl silicates and gels prepared from organic silicates; organic lead compounds.

Dearing, Cha(rle)s, Agricultural Experiment Station, Willard, N. C. *Horticulture.* Wichita, Kans, March 25, 88. B.S. (Agr), Missouri, 09. Asst. hort, Missouri, 08–09, instr, 09–10; sci. asst, *U. S. Dept. Agr,* 10–18, asst. horticulturist, 18–19, *assoc. horticulturist, 19–; asst. director in charge cooperative exp. sta, U. S. Dept. Agr. and State Dept. Agr, N. C, 20–* Soc. Hort. Sci; Pomol. Soc. Viticulture; pomology; plant breeding.

Dearing, Dr. L(eRoy) M(athew), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Parma, Mich, Jan. 26, 08. B.S, Antioch Col, 30, M.S, 33; fellow, Ohio State, 32–35, Ph.D, 35. Asst. chemist, Antioch Indust. Research Inst, 30–32; *chemist, Eastman Kodak Co, 35–; lieut, U. S. Naval Res, 42–* Chem. Soc. Sizes and shapes of organic molecules; color photography.

Dearing, Dr. William C(ockrum), Plaskon Co, Inc, 2112 Sylvan Ave, Toledo, Ohio. *Chemistry.* Oakland City, Ind, Oct. 24, 06. A.B, Oakland City Col, 26; A.M, Princeton, 27; Ph.D, Western Reserve, 35. Asst. chem, Princeton, 26–28; instr, Col. of Wooster, 29–37; *research chemist, Plaskon Co, Inc, 37–* Chem. Soc. Electrochemistry; theory of solutions; synthetic resins; adhesives.

Dearing, Dr. William H(ill), 102 Second Ave, S.W, Rochester, Minn. *Internal medicine.* Memphis, Tenn, Dec. 3, 08. A.B, Pennsylvania, 29, A.M, 34, M.D, 34; Mayo Foundation fellow, Minnesota, 36–39, Ph.D, 41. Assoc. *med,* Geisinger Mem. Hosp, 35–36; first asst, Mayo Foundation, Minnesota, 39–41; consultant, Mayo Clinic, 41; *instr, Mayo Foundation, grad. sch, Minnesota, 42–* Am. Med. Asn; Col. Physicians; Federation Clin. Research. Cardiology; gastroenterology.

Dearness, Dr. John, 30 Marley Place, London, Ont, Can. *Biology.* Hamilton, Ont, May 13, 52. B.A, M.A, Western Ontario, 01, LL.D, 26. Prof. biol, med. dept, Western Ontario, 88–14; prin, Provincial Nor. Sch; *retired.* King George V Jubilee medal, 35. A.A; Phytopath. Soc. (past pres, Can. div); Mycol. Soc. (pres, 37); fel. Royal Soc. Can; Entom. Soc. Ont. (past pres); Ont. Hist. Soc. (past pres); Ont. Educational Asn. (past pres). Mycology.

Dearstyne, Prof. R(oy) S(tyring), North Carolina State College, Raleigh, N. C. *Poultry husbandry, Bacteriology.* Rensselaer, N. Y, Sept. 11, 91. B.S, Maryland, 16; M.S, N. C. State Col, 22; North Carolina, 25–26. Asst. bacteriologist, City Health Dept, Baltimore, 16–17; sci. asst, U. S. Pub. Health Service, 17–18; bacteriologist, City Health Dept, Alexandria, Va, 18; City Health Dept, Charlotte, N. C, 19; Wake County Health Dept, Raleigh, N. C, 20–21; *prof. poultry science, N. C. State Col, and pathologist, Exp. Sta, 22–* A.A. Public health; market milk; avian pathology.

Deason, Dr. H(ilary) J(ohn), U. S. Department of the Interior, Washington, D. C. *Zoology.* Park City, Utah, May 21, 03. A.B, Michigan, 27, A.M, 28, Ph.D, 36. Asst, Bur. Fisheries, 27–30, asst. aquatic biologist, 30–40; assoc. aquatic biologist, *fish and wildlife service, U. S. Dept. Interior,* 40–43, *senior aquatic biologist, 43–, asst. to deputy coordinator of fisheries, 43–* Soc. Zool; Limnol. Soc; Fisheries Soc; Mich. Acad; Wis. Acad. Life history and races of pike-perches; age and growth of freshwater fishes as revealed by their scales; limnology of Lake Michigan; commercial fishing gear; commercial fisheries; international fishery investigations; war fishery programs.

Deason, Dr. W(ilborn) J(ohnathan), Diamond D Ranch, Happy Camp, Calif. *Surgery.* De Soto, Ill, April 9, 78. B.S, Ph.G, Valparaiso, 04, M.S, 05; D.O, Am. Sch. Osteopathy, 10; M.D, Chicago, 14. Mem. faculty, Am. Sch. Osteopathy, 09–13; director, A. T. Still Research Inst, 13–15; trustee, mem. board and prof. ear, nose and eye, col. osteopathy, Chicago, 15–28; mem. faculty, Kirksville Col. Osteopathy and Surg, 31–32; *private practise, 32–* Eye, ear, nose and throat surgeon, Osteopathic Hosp, Chicago, 15–28; mem. staff field naturalists, Field Museum, Chicago, 26. Thermogenic Fever Soc. (pres, 33–37); Osteop. Asn; Ill. Osteop. Asn; Chicago Osteop. Soc. Physiology; biology; otolaryngology; surgery and practise; methods of diagnosis and treatment; basic scientific principles upon which thermogenics was based; treatment of chronic disease.

Deasy, Dr. Clara L(ouise), Nazareth College, Nazareth, Mich. *Organic chemistry.* Cincinnati, Ohio, Dec. 10, 15. A.B, Cincinnati, 37, M.S, 39, Ph.D, 40. *Instr. chem, Nazareth Col, 40–* Chem. Soc. Oxidation-reduction indicators.

Deatherage, Dr. F(red) E, Kroger Food Foundation, Cincinnati, Ohio. *Biochemistry.* Waverly, Ill, Dec. 30, 13. A.B, Ill. Col, 35; A.M, Illinois, 36; Ph.D, Iowa, 38. Instr. biochem, col. med, Iowa, 38–40; Kroger Grocery and Baking Co. research fellow, Ohio State, 40–42; *mem. staff, Kroger Food Foundation, 42–* Chem. Soc; Oil Chemists Soc. Food chemistry and technology; medical biochemistry; chemistry of fats and oils.

Deaton, W(illiam) M(cKinley), 1117 Broadmoor, Amarillo, Texas. *Physical chemistry.* Tallula, Ill, Jan. 24, 97. A.B, Missouri, 21. *Physical chemist, petrol. and nat. gas div, U. S. Bur. Mines, 21–, chemist in charge cryogenic lab, 29–* Chem. Soc; Gas Asn. Petroleum; natural gas; helium; cryogenic research.

Deatrick, Dr. E(ugene) P(eyton), Ordnance Works, Morgantown, W. Va. *Soils.* Rimersburg, Pa, April 7, 89. A.B, Franklin and Marshall Col, 11; Ph.D, Cornell, 17. Instr, high sch, Pa, 11–13, asst. instr. *soils,* N. Y. State Col. Agr, Cornell, 13–17, instr, 20–21; Pa. Forestry Acad, 17–20; assoc. prof, West Virginia, 21–33; acting supt, Piedmont soil erosion exp. sta, U. S. Dept. Agr, Statesville, N. C, 34–36, assoc. soil conservationist, soil conservation service, 36–41; *inspector, Morgantown Ordnance Works, U. S. War Dept, 41–* C.W.S, U.S.A. Soc. Agron; Chem. Soc. Manganese fertilizers and nutrition; soil analyses; the soy-bean; fertility of West Virginia soils; auto irrigation of potted soils; fertilizer computations; erosion catchment basin technique; barge cargo computation.

Deatrick, Prof. Lily Bell Sefton, West Virginia University, Morgantown, W. Va. *Chemistry.* Beaver, Pa, March 16, 83. B.S, Denison, 11; M.S, Ohio State, Ph.D, 21. Asst. prof, Denison, 11–18; asst. chemist, Bur. Standards, 18–19; asst. prof. *chem, West Virginia,* 21–29, *assoc. prof, 29–* Chem. Soc. Standardization of well-water; determination of nitrites and nitrates in battery acid; oxidation of isopropyl alcohol and acetone in alkaline potassium permanganate.

Deay, Prof. Howard O(wen), Purdue University, Lafayette, Ind. *Entomology.* Eudora, Kans, March 5, 96. A.B, Kansas, 26, fellow, 26–28, A.M, 27, Ph.D, 34. Instr. and prin. pub. schs, Kans, 17–24; instr. *entom,* Kansas, 28–29; *Purdue,* 29–33, asst. prof, 33–38, *assoc. prof, 38–* Entom. Soc. Amer; Asn. Econ. Entom; Ind. Acad. Systematic entomology; Hemiptera; Coreidae; Corixidae; Homoptera; economic entomology.

De Bach, Dr. Paul (Hevener), Citrus Experiment Station, Riverside, Calif. *Entomology.* Miles City, Mont, Dec. 28, 14. B.S, California 37, Ph.D, 40. Asst. zool, *California,* 37–38, *entom, Citrus Exp. Sta,* 38–41, *research assoc, 41–* Asn. Econ. Entom; Entom. Soc. Amer; Pacific Coast Entom. Soc. Biological control; insect populations, especially the host-parasite population complex.

De Baufre, Prof. William L(ane), 2834 Stratford Ave, Lincoln, Nebr. *Mechanical engineering.* Baltimore, Md, April 19, 83. E.E, Lehigh, 07, M.E, 09, M.S, 19; Hopkins, 11; Nebraska, 25–26. Mech. engineer, eng. exp. sta, U.S.N, 12–19; chairman dept. mech. eng, Nebraska, 19–27; tech. adviser and head tech. research dept, Int. Combustion Eng. Corp, 26–31; *prof. eng. mech. and chairman dept, Nebraska, 31–* Consulting engineer, U. S. Bur. Mines, 21–26, mem. board helium engineers and advisory cmt. on use of oxygen in metal. processes. A.A; Mech. Eng. Thermodynamics; thermal properties of fluids; flow of fluids and heat transfer; combustion; steam generation; evaporation of liquids; separation of gases by liquefaction and rectification; purification of helium; separation of oxygen and nitrogen from atmospheric air and of helium from natural gas.

deBeer, Dr. Edwin J(ohn), 264 Scarsdale Road, Tuckahoe, N. Y. *Pharmacology.* Portsmouth, Ohio, April 19, 02. B.S, Pennsylvania, 25, M.S, 27, Ph.D, 32. Asst. physiol. chem, Pennsylvania, 25–33; physiol. chemist, *Burroughs Wellcome and Co, Inc,* 33–41, head dept. pharmacol, 41–42, *acting director research, 42–* Amino acids; chemistry of body fluids; hypnotics and drugs affecting circulation; bioassays; biostatistics.

De Benedetti, Prof. Sergio, Kenyon College, Gambier, Ohio. *Experimental physics.* Florence, Italy, Aug. 17, 12. Dr, Florence, 33. Asst. prof, Padua, 34–38; research fellow, Curie lab, Paris, 38–40; asst, Bartol Research Foundation, 40–43; *assoc. prof. physics, Kenyon Col, 43–* Fellow from Naples, Curie lab, Paris, 34–35. Mem. exped. for study of cosmic rays, Eritrea, E. Africa, 33. Physical Soc. Cosmic rays; radioactivity; nuclear physics.

DeBord, Dr. George G(orham), 1425 Manchester Lane, N. W, Washington, D. C. *Bacteriology.* Freeport, Kans, Dec. 16, 92. B.S, Okla. Agr. and Mech. Col, 14; M.S, Iowa State Col, 16; fellow, Harvard, 20–22, Ph.D, 22. Asst. bacter, Iowa State Col, 16; bacteriologist, bur. chem, U. S. Dept. Agr, 17–18, 19–20, 22–23; dairy dept, Iowa State Col, 23–25; DeBord Labs, 25–33; *with Health Dept, D. C, 36–* Asst. to bacteriologist, Great Bear Water Co, N. Y. Bacteriologist, U.S.A. Soc. Bact. Food and medical bacteriology; bacterial metabolism; anaerobes.

de Bretteville, Dr. Alexander, Jr, 64 Terrace Road, Medford, Mass. *Physical chemistry.* San Francisco, Calif, March 20, 11. A.B, Stanford, 32, Lever Brothers fellow, 40–41, Ph.D, 42; M.S, California, 38. Junior physicist, West. Sugar Refinery, 34–36; elec. engineer, Litton Eng. Lab, 39; *senior chemist, Lever Brothers Co, 41–* Chem. Soc; Physical Soc. X-ray investigation of sodium soaps; growth of soap crystals.

De Bruine, Prof. Harvey, Elmhurst College, Elmhurst, Ill. *Zoology.* Cedar Grove, Wis, June 22, 03. A.B, Hope Col, 25; M.S, Illinois, 26, Ph.D, Michigan, 34. Asst. zool, Illinois, 25–26; instr. biol, Allegheny Col, 26–28; asst. prof, Elmhurst Col, 28–30; teaching fellow zool, Michigan, 30–34; *prof. biol, Elmhurst Col, 34–* A.A; Ill. Acad. Embryology of the spleen.

De Bruyn, Dr. P(eter) P. H, University of Chicago, Chicago, Ill. *Histology.* Amsterdam, Holland, July 28, 10. M.D, Amsterdam, 38. Asst. histol, histol. lab, Amsterdam, 36–39, Stokvis-fonds fellow, 39; first asst, Inst. Prev. Med, Leyden, Holland, 39–40, chief bacter. dept, 40–41; *instr. anat, Chicago, 41–* Med. officer, Dutch Army, 39–40. Tissue culture; cellular lipoids; chemistry of ossification.

Debye, Dr. Peter J. W, Cornell University, Ithaca, N. Y. ***Chemistry, Electrical engineering.* Maastricht, Holland, March 24, 84. Dipl. Ing, Tech. Hochschule Aachen; E.E. and Ph.D, Munich; Oxford; Liege; Bruxelles; Sofia; Harvard. Lecturer, Munich, 06–10; prof. theoret. physics, Zurich, 11; Utrecht, 12; Göttingen, 14; Tech. High Sch. Zurich, 19; director physical inst, Leipzig, 27; Max Planck inst, Berlin, 35–40; *prof. chem. and chairman dept, Cornell, 40–* Director, Kaiser Wilhelm Inst. für Physik, 35–40; Baker lecturer, Cornell, 40. Ed, 'Physikalische Zeitschrift.' Nobel prize chem, 36; Rumford medal; Faraday medal; Lorentz medal; Franklin medal. Royal Soc. London. Molecular structure; physical chemistry.

Dec, Dr. Joseph, 401 Ridgeway Ave, Rochester, N. Y. *Organic chemistry.* Paterson, N. J, Jan. 12, 13. A.B, Indiana, 36; Ph.D, Illinois, 40. *Org. research chemist, Eastman Kodak Co, 40–* Chem. Soc. Polymers; iodinated organic compounds.

DeCamp, Prof. Joseph E(dgar), Pennsylvania State College, State College, Pa. *Psychology.* Desha, Ark, Feb. 19, 87. B.S, Arkansas Col, 05; A.M, Michigan, 12, fellow, 13–14, Ph.D, 14. Asst. *psychol,* Michigan, 12–13; Illinois, 14–15; instr, California, 15–16; Stanford, 16–19; asst. prof, *Pa. State Col,* 19–21, assoc. prof, 21–23, *prof, 23–* Summers, asst, Michigan, 14; instr, California, 16. U.S.A, 18. Psychol. Asn; Soc. Teachers Educ. Animal behavior; retroactive inhibition; influence of color upon apparent weight; mental tests.

Decherd, Dr. George M(ichael), Jr, University of Texas School of Medicine, Galveston, Texas. *Internal medicine.* Austin, Texas, Dec. 19, 06. A.B. and A.M, Texas, 26; Shevlin fellow, Minnesota, 26–27, M.B. and M.D, 30. Asst. pharmacol, med. sch, Minnesota, 27–29, fellow, 32–33; physiol, *sch. med,* Illinois, 32; instr. *med,* Texas, 33–36; asst. prof, Louisiana, 36–38; *assoc. prof, Texas, 38–* Fel. Col. Physicians; Soc. Exp. Biol; fel. Am. Med. Asn; Soc. Clin. Invest; Federation Clin. Research. Experimental and clinical cardiology.

Decherd, Prof. Mary E(lizabeth), 2313 Nueces St, Austin, Texas. *Mathematics.* Bastrop, Texas, Jan. 5, 74. Litt.B, Texas, 92, A.M, 96. Teacher, high sch, Texas, 92–02; tutor and instr. *pure math, Texas,* 02–23, *adj. prof, 23–* Math. Soc; Math. Asn. Teaching of mathematics in the lower schools.

De Cicco, Dr. John (Joseph), Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Brooklyn, N. Y, April 5, 11. B.S, Brooklyn Col, 33; scholar; Columbia, 35–36, Ph.D, 38. Instr. *math,* evening session, Brooklyn Col, 33–40; asst, Long Island, 39–40; *instr, Ill. Inst. Tech, 40–* Math. Soc; Math. Asn. Geometry of whirl series; geometry of differential elements and of polygenic functions; conformal and equilong geometries; pseudoconformal geometry; analytic transformations; dynamics.

Decius, L. Courtney, 79 New Montgomery St, San Francisco, Calif. *Geology.* Cumberland Co, Ill, Feb. 10, 90. A.B, Stanford, 13. Geol. and topog. surveys, Calif, 12–13; geol. explor, Argentine Republic, S. Amer, 13–14, geologist, ministry of interior, 14–15; asst. geologist, South. Pacific Co, Calif, 15–21; geologist, Associated and Pacific Oil Companies, 21–24; asst. chief geologist, *Associated Oil Co,* 25–29, chief geologist, 29–36, manager land dept, 30–36; *v. pres. in charge production, Tidewater Associated Oil Co, 37–* Sci. exped, Argentine Republic. Asn. Petrol. Geol; Min. and Metal. Eng. Natural resources of Tierra del Fuego.

Deck, Prof. Joseph F(rancis), University of Santa Clara, Santa Clara, Calif. *Chemistry.* St. Louis, Mo, March 19, 07. A.B, St. Louis, 28, M.S, 30; fellow, Kansas, 31–32, Ph.D, 32. Research chemist, Stewart Inso Board Corp, St. Joseph, Mo, 32–35; quality supervisor, U. S. Gypsum Co, 35; *prof. chem, Santa Clara, 36–* Anal. chemist, Richmond-Chase Co, 41–42. Chem. Soc. Heterocyclic nitrogen compounds; food research and analysis.

Decker, Prof. Charles E(lijah), University of Oklahoma, Norman, Okla. *Geology, Paleontology.* Dixon, Ill, Sept. 27, 68. A.B, Northwestern, 06; A.M, Chicago, 08, Ph.D, 17; hon. Sc.D, Okla. City Univ, 35. Instr. geol, Northwestern, 08–09; geol. and biol, Allegheny Col, 09–10, acting prof, 10–12, asst. prof, 10–12, asst. prof, 12–16; instr. geol, *Oklahoma,* 16–17, asst. prof, 17–19, assoc. prof, 19–25, prof, 25–30, *prof. and head dept. paleont, 30–* Asst, Chicago, 08, 12, 17. Summers, Illinois, 12, 13; Colo. State Col, 23; Cornell, 24–26. Nat. Research Cmn. Silurian N. Amer, 33– A.A; fel. Geol. Soc; fel. Paleont. Soc; Asn. Petrol. Geol. (sec'y-treas, 19–26); Soc. Econ. Paleont. and Miner. (pres, 30); Okla. Acad. (pres, 34). Petroleum and natural gas of the United States; minor faults and folds in the Great Lakes region; transverse structures in Arbuckle Mountains of Oklahoma; Arbuckle and

Simpson groups; Viola limestone; Henryhouse and Sylvan shales; graptolites.

Decker, Prof. F(loyd) F(iske), 312 Marshall St, Syracuse, N. Y. *Mathematics.* Dennison, Texas, March 23, 81. A.B, Syracuse, 01, A.M, 05, Ph.D, 10. Instr. *math, Syracuse,* 04–10, asst. prof, 10–14, assoc. prof, 14–17, *prof, 17–,* director exten. sch, 19–30. A.A; Math. Soc. Matrices; symmetric function tables.

Decker, Prof. George C(lemens), 623 Sixth St, Ames, Iowa. *Entomology.* Elkton, Mich, Sept. 5, 00. B.S, Iowa State Col, 24, M.S, 27, Ph.D, 30. Asst. zool, Iowa State Col, 24–25; entomologist, State Board Entom, Ga, 25–26; asst. entomologist, *Exp. Sta, Iowa State Col,* 26–34, asst. research prof. *zool. and entom,* 34–38, *research and exten. assoc. prof, 38–* Gen. supervisor grasshopper control in Miss. Valley and Great Plains states, bur. entom. and plant quarantine, U. S. Dept. Agr, 38. Entom. Soc. Amer; Asn. Econ. Entom; Iowa Acad. Economic entomology; field crop and stored grain insect pests; insect ecology.

Decker, Dr. H(arry) Ryerson, 1010 Professional Bldg, Pittsburgh, Pa. *Anatomy.* Jackson, Mich, Feb. 26, 83. A.B, Princeton, 03; M.D, Columbia, 07. Intern, Presb. Hosp, New York, 07–09; St. Francis Hosp, Pittsburgh, 10; *asst. prof. surg, Pittsburgh, 11–* Consultant and lecturer, Carnegie Inst. Tech, 15. Visiting surgeon, Presb. Hosp, 17–; City Hosp, 26–31; Tuber. League Hosp, 29–; consulting surgeon, Veterans Facility, Aspinwall, Pa, 36–; visiting surgeon, Womans Hosp, 38– M.C, 18–19, major. Col. Surg; Am. Med. Asn; Asn. Thoracic Surg. Surgery.

Decker, Prof. Mary G(resham), Alabama College, Montevallo, Ala. *Chemistry.* Lahore, Va, Nov. 7, 92. B.S, Westhampton Col, 18; M.S, Chicago, 23; Pa. State Col, 27; Wisconsin, 30; Cornell, 34. Teacher science, Cumberland Col, 18–19; instr. chem. and biol, Greenville Woman's Col, 19–22; *assoc. prof. chem, Ala. Col, 23–* A.A; Chem. Soc. Chemistry of nutrition; physiological chemistry.

Decker, Prof. S(amuel) W(esley), Kansas State College, Manhattan, Kans. *Horticulture.* Birmingham, Kans, Feb. 20, 00. B.S, Kans. State Col, 24; M.S, Illinois, 27. Asst. floricul, Illinois, 24–27, instr, 27–29, assoc, 29–32, fruit and veg. marketing, Exp. Sta, 32–37; asst. prof. floricul. and veg. gardening, *Kans. State Col, 37, assoc. prof. hort, 37–, olericulturist and florist, Exp. Sta, 41–* Ed, 'Kans. State Florists News Letter.' Kans. State Florists Asn. (sec'y-treas). Vegetable variety improvement and marketing; variety testing; old greenhouse soil investigations.

DeCleene, Rev. L(ouis) A(ntoine) V(ictor), St. Norbert College, West De Pere, Wis. *Mathematics, Physics.* De Pere, Wis, April 4, 93. A.B, St. Norbert Col, 16; A.M, Catholic Univ, 21, Ph.D, 28; Wisconsin; Chicago. Instr, high sch, Wis, 16; Mich, 19; *math. and physics, St. Norbert Col,* 18–23, assoc. prof, 23–26, *prof, 28–,* registrar, 23–24, dean, 29–37, student counselor and chaplain, 37–39, coordinator, civilian pilot training, 40–41, *mil. property custodian, 36–, Army faculty adviser, 42–* A.A; Math. Soc; Math. Asn; Physical Soc; Asn. Physics Teachers; Nature Study Soc; Forestry Asn; Wis. Acad; Wis. Hist. Soc. Geometry; light.

De Cou, Prof. E(dgar) E(zekiel), University of Oregon, Eugene, Oregon. *Mathematics.* Thamesville, Ont, Can, July 13, 68. B.S, Wisconsin, 94; M.S, Chicago, 97, 99–00; Yale, 00–01. Prof. math, Bethel Col, 97–99, 01–02, acting pres, 02; prof. *math, Oregon,* 02–39, *emer. prof, 39–,* head dept, 02–39. Summer, prof, Texas, 22. Math. Soc; Math. Asn. The conform representation by the function $w = az^2 - 2bz + c$, and the inverse function.

DeCoursey, Prof. R(ussell) M(yles), University of Connecticut, Storrs, Conn. *Entomology, Zoology.* Indianapolis, Ind, Jan. 17, 00. A.B, DePauw, 23; A.M, Illinois, 25, Ph.D, 27. Asst. prof. entom, Louisiana, 27–29; *entom. and zool, Connecticut,* 29–32, assoc. prof, 32–33, 33–35, *prof, 35–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Nymphs of Hemiptera; Coelenterata.

Dederer, Prof. P(aulIne) H(amilton), Connecticut College, New London, Conn. *Cytology.* Hoboken, N. J, Oct. 2, 78. A.B, Columbia, 01, A.M, 07, Ph.D, 15. Asst. *zool,* Barnard Col, Columbia, 03–05, tutor, 05–09, instr, 09–17; assoc. prof, *Conn. Col,* 17–22, *prof, 22–* A.A; Soc. Zool; Eugenics Soc. Spermatogenesis, oogenesis and variations in chromosome numbers in Lepidoptera.

Dederick, Dr. L(ouis) S(erle), Proving Ground, Aberdeen, Md. *Mathematics.* Chicago, Ill, May 8, 83. A.B, Kenyon Col, 05; A.M, Harvard, 07, Ph.D, 09. Instr. math, Princeton, 09–17; U. S. Naval Acad, 17–20, asst. prof, 20–24; prof, British Columbia, 24–26; mathematician, *Aberdeen Proving Ground,* 26–40, prin. mathematician, 40–42, *head mathematician, 42–* A.A; Math. Soc; Math. Asn. Singularities of transformations of two variables; ballistics.

Dedrick, Dr. Dallas S(mith), University of Oregon, Eugene, Oregon. *Physical chemistry.* Hobart, Okla, Oct. 6, 05. A.B, Okla. City Univ, 27; M.S, Iowa, 29, Ph.D, 31. Instr. *chem,* N. Dak. Col, 31–39; research assoc, Iowa State Col, 39–41; *asst. prof, Oregon, 41–* Chem. Soc; N. Dak. Acad. Diffusion in silica gels; effects of electrolytes on boundary tension of liquid-liquid systems.

DeEds, Dr. Floyd, Stanford University School of Medicine, San Francisco, Calif. *Pharmacology.* East Liverpool, Ohio, April 10, 94. A.B, Western Reserve, 16, A.M, 20; Ph.D, Stanford, 24. Demonstrator biochem, sch. med, Western Reserve, 16–17, 19–20; teaching fellow, Harvard Med. Sch, 20–21; instr. pharmacol, sch. med, Stanford, 21–25, asst. prof, 25–27; pharmacologist, hygienic lab, U. S. Pub. Health Service, 27–31; *senior toxicologist, bur. chem. and soils, U. S. Dept. Agr, 31–; research assoc, sch. med, Stanford, 31–* U.S.A, 17–18. A.A; Soc. Pharmacol; fel. Am. Med. Asn; Soc. Exp. Biol; Chem. Soc. Acid-base equilibrium; anaphylactoid phenomena; formic acid; hexamethylenamin; ephedrine; Veratrum californicum; vacuum-tube voltmeter; glass electrode; chronic toxicity; bioassays.

Deel, S(amuel) A(sher), 1227 Euclid St, N. W, Washington, D. C. *Physics.* Miami Co, Kans, Feb. 4, 78. Ph.B, Baker, 01, A.M, 25. Magnetic observer, U. S. Coast and Geod. Surv, 01–08, in charge magnetic observatory, Honolulu, 03–06, Baldwin, Kans, 06–08; prof. physics, Baker, 08–39, registrar, 12–37; asst. observer, Sitka Magnetic Observatory, 39–40; junior mathematician, *U. S. Coast and Geod. Surv,* 42–43, *asst. mathematician, 43–* Summers, magnetic observer, U. S. Coast and Geod. Surv, 18, 20, 28–30, 34, 37, 38, 39. Mayor, Baldwin City, Kans, 22–27. Geophys. Union; Kans. Acad. Terrestrial magnetism.

Deem, Lieut. A(rden) Garrell, Technical Command, Edgewood Arsenal, N. J. *Chemical engineering.* St. Louis, Mo, Oct. 6, 08. B.S, Illinois, 31, Ph.D, 34. Asst, eng. exp. sta, Illinois, 31–33; chem. engineer, E. I. du Pont de Nemours and Co, Wilmington, Del; *asst. prof. chem. eng, Illinois; lieut, U. S. Army.* Chem. Eng; Chem. Soc. High pressure synthesis; heterogenous catalysis of propane at high pressures; perchloric acid and the determination of sulfur in coal.

Deem, Prof. Arthur W, Colorado State College, Ft. Collins, Colo. *Bacteriology, Pathology.* Hilliards, Ohio, May 12, 95. D.V.M, Cincinnati Vet. Col, 18; M.S, Ohio State, 34. Instr. *bacter,* Ohio State, 29–36; *asst. prof, div. vet. med, Colo. State Col, 36–* Vet. Med. Asn. Equine brucellosis; swine erysipelas; antigens.

Deemer, R(alph) B(arbour), 213 Maple Ave, Takoma Park, Md. *Chemistry.* Manhattan, Kans, Feb. 24, 85. B.S, N. Mex. Col, 07. Asst. chemist, Exp. Sta, N. Mex. Col, 07–08; Exp. Sta, Pa. State Col, 08; Maryland Col, 08–10; deputy state chemist, Ind. Exp. Sta, 10–18; *assoc. chemist, soil fertility investigations, bur. plant indust, U. S. Dept. Agr, 18–* Ed, 'Proc. 1st Int. Cong. Soil Sci.' 28; chairman board of editors, 'Jour. Asn. Official Agr. Chem,' 28–31. Agricultural chemistry; preparation of neutral ammonium citrate; determination of boron in fertilizers; arsenic in plant materials; transformation products of calcium cyanamide; micro-determination of iodine.

Deen, Prof. A(rthur) H(arwood), 4011 Ave. G, Austin, Texas. *Geology.* Austin, Texas, Aug. 26, 96. A.B, Texas, 18, A.M, 22; California, 28–30. Instr. *geol, Texas,* 18–23, asst. prof, 24–28, assoc. prof, 30–39, *prof, 39–, chairman dept, 41–* Summers, asst. prof, California, 29, 30, assoc. prof, 31. A.A; Southwest. Geol. Soc; N. Y. Acad; Texas Acad. Petrology; geology of Mason County, Texas.

Deen, Dean J(oshua) L(ee), Colorado State College, Ft. Collins, Colo. *Forestry.* Minneota, Minn, Nov. 15, 96. B.S, Minnesota, 27; M.F, Yale, 29, Ph.D, 31. Field asst. silvics, Yale, 29–31; instr. silviculture, 31–33; asst. prof, Pa. State Col, 33–36, assoc. prof, 36–38; *dean forestry and range conservation, Colo. State Col, 38–* Wildlife Soc; Soc. Foresters; Ecol. Soc. Silviculture; forest ecology.

Deere, Dr. Charles J(oseph), 93rd Station Hospital, APO, 622, Care of Postmaster, Miami, Fla. *Chemistry, Bacteriology.* Lexington, Tenn, June 28, 09. B.S, Union (Tenn), 29; M.S, Tennessee, 32, Ph.D, 37, M.D, 39; Army Med. Sch, 42. Teaching fellow bot, Tennessee, 29–31, chem, 31–32, 33–37, instr, 32–33, med, 40–41; *med. officer, U. S. Army, 41–* Am. Med. Asn. Oxidation of alkali-cyanide-sugar systems; lactose metabolism of Escherichia coli mutabile.

Deere, Dean Emil O(laf), Bethany College, Lindsborg, Kans. *Biology, Geology.* Moline, Ill, Aug. 8, 77. A.B, Bethany Col, 04, A.M, 07; Colorado, 04; Kansas, 07; M.S, Chicago, 11. Instr. biol. and mech. drawing, *Bethany Col. (Kans),* 04–09, *prof. biol. and geol, 09–, v. pres. and dean, 18–* Curator museum, Bethany Col. (Kans). A.A; Ecol. Soc; Micros. Soc; Genetic Asn; Kans. Acad. (pres, 40). Ecology; pathology.

Deering, Dean A(rthur) L(owell), 160 College Road, Orono, Maine. *Agriculture.* Denmark, Maine, Jan. 13, 88. B.S, Maine, 12, Sc.D, 34. County agent, exten. service, Kennebec County, Maine, 12–20, county agent leader, 20–30, *director exten. service, col. agr, Maine, 30–, dean, 33–* Mem. state cmt, Regional Credit Corp, Maine; director 1st dist, Farm Credit Admin; mem. State War Board, Maine.

Dees, Prof. Bowen C(ausey), Mississippi College, Clinton, Miss. *Atomic physics.* Batesville, Miss, July 20, 17. A.B, Miss. Col, 37; Ph.D, N. Y. Univ, 42. Instr. *physics,* N. Y. Univ, 42–43; *prof, Miss. Col, 43–* Physical Soc. Scattering of electrons by thin metal foils.

Deese, Dr. R(obert) F(reeman), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Dublin, Ga, Oct. 7, 02. B.S, Emory, 24, M.S, 25; Ph.D, Hopkins, 29. Mem. faculty, Lambuth Col, 25–27; instr, Hopkins, 29–30; *chemist, Jackson lab, E. I. du Pont de Nemours and Co, 30–* Chem. Soc. Heat capacities of organic compounds.

Deetz, Charles H(enry), 2504 Cliffbourne Place, N. W, Washington, D. C. *Geodesy.* Sellersville, Pa, April 10, 64. Mass. Inst. Tech, 85–89. Field worker topog. and hydrog, 89–92, cartographer, *U. S. Coast and Geod. Surv,* 92–36, *cartographic publications revision, war service, 42–* Numis. Asn; Philos. Soc. Wash. Geography; nautical charts and map projections.

Deevers, Prof. Charles Lee, Mississippi College, Clinton, Miss. *Paleobotany.* Hagarville, Ark, Aug. 10, 00. A.B, Ouachita Col, 29; M.S, Chicago, 32, Ph.D, 36. Head dept. biol, Ouachita Col, 31–34; *asst. prof. biol, Mississippi Col, 36–; capt, Inf, U. S. Army, 41–* Structure of seeds of the Trigonocarpales from the Pennsylvanian strata of Arkansas.

Deevey, Dr. Edward S(mith), Jr, Rice Institute, Houston, Texas. *Zoology.* Albany, N. Y, Dec. 3, 14. A.B, Yale, 34, Ph.D, 38. Sterling fellow *biol,* Yale, 38–39; *instr, Rice Inst, 39–* Summers, limnologist, State Board Fisheries and Game, Conn, 38, 39. Limnol. Soc; fel. Texas Acad. Quaternary ecology; lake development.

DeFalco, Dr. Ralph J(ulius), Sharp and Dohme, Glenolden, Pa. *Serology, Zoology.* New York, N. Y, Jan. 14, 07. B.S, Col. William and Mary, 29; Yale, 29–32; Ph.D, Rutgers, 40. Asst. zool, Rutgers, 37–38, instr, 38–41; *med. research asst, labs, Sharp and Dohme, 41–* A.A. Serological investigations of animal relationships; the nature of antigens and antibodies in the precipitin reaction and factors influencing the reaction.

Defandorf, Dr. F(rancis) M(arion), 205 W. Bradley Lane, Chevy Chase, Md. *Physics.* Garrett Park, Md, April 18, 97. B.E, Hopkins, 20, Ph.D, 27; A.M, Harvard, 23. *Bur. Standards, 16–,* physicist, 31–39, *senior physicist, 39–* Physical Soc; Elec. Eng; Philos. Soc. Wash; Wash. Acad. High voltage measurements.

Defandorf, Dr. James H(olmes), 130 Hesketh St, Chevy Chase, Md. *Bacteriology, Pharmacology.* Washington, D. C, April 29, 92. A.B, Wesleyan, 15, A.M, 16; Ph.D, American Univ, 34. Asst. biol, Wesleyan, 15–16; lab. asst, Rockefeller Inst, 16–17; field asst, U. S. Dept. Agr, 19; lab. asst, Flower Hosp, New York, 19–20; assoc. prof. chem, physiol. and pharmacol, med. sch, George Washington, 20–38; assoc. pharmacologist, *Edgewood Arsenal,* 38–39, pharmacologist, 39–41, *senior pharmacologist, 41–;* asst. chief *med. research div,* 40–41; *chief, office of chief, Chem. Warfare Service, U. S. War Dept, 41–* Summers, instr, Culver Mil. Acad, 15, 21. Lieut, Sanit.C, 18–19, capt, Sanit. R.C, 23–28, major, 28–39, lieut-col, 39–42, col, 42– Soc. Exp. Biol; Soc. Pharmacol. Digitalis; paraldehyde; chemical warfare agents; treatment of chemical casualties.

DeFoe, Prof. O(na) K(enneth), St. Louis College of Pharmacy, St. Louis, Mo. *Physics.* Swedeborg, Mo, Dec. 18, 97. A.B, Drury Col, 20; M.S, Washington (St. Louis), 24, fellow, 24–26, Ph.D, 26. Prof. physics and chem, Col. of Ozarks, 20–21; Jackson Acad, St. Louis, 21–22; teaching fellow physics, Washington (St. Louis), 22–24; *prof. math. and physics,* Col. of Ozarks, 26–32; *St. Louis Col. Pharmacy, 32–* A.A; Physical Soc; Math. Soc. Scattering of x-rays.

de Forest, Prof. Alfred V(ictor), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* New York, N. Y, 88. B.S, Mass. Inst. Tech, 11. Draftsman, New London Ship and Engine Co, 12–13; instr, Princeton, 13–15; asst. research engineer, Remington Arms U.M.C, 15–19; research engineer, Am. Chain Co, 19–29; *consulting engineer, 29–;* assoc. prof. *mech. eng. in charge grad. study dynamic strength of materials, Mass. Inst. Tech,* 34–36, *prof, 36–; pres, Magnaflux Co, 30–* Dudley medal, Soc. Test. Mat, 28; Longstreth medal, Franklin Inst, 36; Sylvanus Albert Reed award, Inst. Aeronaut. Sciences, 38; Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A; Min. and Metal. Eng. (sec'y, cmt. on magnetic analysis; chairman, cmt. on non-destructive testing; Howe Mem. lecturer, 41); Am. Acad; Soc. Metals; Soc. Test. Mat; Am. Acad; Inst. Aeronaut. Sci; Newcomen Soc. Magnetic and mechanical testing.

DeForest, Prof. D(avid) M(cClellan), Wayne University, Detroit, Mich. *Zoology.* Schenectady, N. Y, Aug. 5, 03. A.B, Union (N. Y), 25; fellow, California, 28–29, Ph.D, 29. Instr. biol, Union (N. Y), 25–27; asst. zool, California, 27–28; *asst. prof,* Tennessee, 29–30; Am. Univ. Beirut, 30–35; *biol, Wayne, 35–* A.A. Biological effects of x-rays; genetics.

de Forest, Dr. H(oward), University of Southern California, Los Angeles, Calif. *Botany.* New York, N. Y, Nov. 2, 77. B.S, Princeton, 95; M.F, Yale, 11; fellow, Chicago, 19–20, Ph.D, 20. Field asst, U. S. Forest Service, 10, forest asst, 11–12; acting asst. prof. forestry, Missouri, 13; asst. prof. bot, Kansas, 20–21; head dept. science, Ind. Nor. Sch, Indianapolis, 21–22; asst. prof. *bot, Southern California,* 22–23, *prof, 23–,* chairman div, 23–26, chairman dept, 30–33. A.A; Bot. Soc; Ecol. Soc. (v. pres, 37); West. Soc. Nat; Calif. Bot. Soc; South. Calif. Botanists. Plant ecology.

de Forest, Dr. Lee, 8190 Hollywood Blvd, Los Angeles, Calif. *Radio engineering.* Ph.B, Yale, 96, Ph.D, 99, Sc.D, 26; hon. Sc.D, Syracuse, 19; D.Eng, Lewis Inst. (Ill). *Pres, de Forest Phonofilm Corp. and Lee de Forest, Inc.* Gold medal, La. Purchase Expos, 04; Pan-Pacific Expos, 15; Elliott Cresson medal, Franklin Inst; medal of honor, Inst. Radio Eng; John Scott medal and prize; Légion d'honneur. Radio Eng. (pres, 30); Elec. Eng; Franklin Inst; hon. mem. Soc. Motion Picture Eng; Veterans Wireless Tel. Asn. (hon. pres); N. Y. Elec. Soc. Radio phenomena and broadcasting; detectors and amplifiers in radio signaling; 3-electrode vacuum tube, amplifier and oscillator; television; high speed facsimile; radiotherapy; radio knife.

DeFrance, Prof. Jesse A(llison), Rhode Island State College, Kingston, R. I. *Agronomy.* Golden, Colo, Dec. 22, 99. B.S, Colo. State Col, 24, M.S, 26; Ph.D, Cornell, 32. Instr, Colo. State Col, 25–26, Cornell, 26–35; assoc. agronomist, soil conservation service, U. S. Dept. Agr, 35–36; *assoc. prof. agron. and hort, R. I. State Col, 36–* Soc. Hort. Sci. Agronomy; horticulture; agrostology.

De Frates, Dr. Joseph S(carborough), 125 Harvard Ave, Collingwood, N. J. *Biochemistry.* Philadelphia, Pa, Sept. 10, 01. B.S, Pa. State Col, 24; Ph.D, Harvard, 29. Asst. demonstrator physiol. chem, Jefferson Med. Col, 24–25; teaching fellow biochem, Harvard Med. Sch, 25–29; *research and biol. labs, E. R. Squibb and Sons, 30–* Pituitary sex hormones.

Defries, Prof. Rob(er)t D(avies), University of Toronto, Toronto, Ont, Can. *Bacteriology, Immunology.* Toronto, Ont, July 23, 89. M.B, Toronto, 11, M.D, 13, D.P.H, 14. Bacteriologist, Board Health, Ont, 13–14; asst, *Connaught anti-toxin lab, Toronto,* 15–16, asst. director, 16–17, assoc. director, 17–40, *director, 40–,* lecturer hygiene, 17–20, asst. prof, 20–22, assoc. prof. hygiene and prev. med, 22–30, *prof. hygiene and epidemiol. and head dept. epidemiol. and biometrics, 30–,* assoc. director *sch. hygiene,* 25–40, *director, 40–* A.A; Epidemiol. Soc; Soc. Bact; Soc. Exp. Biol; Pub. Health

Asn; Can. Med. Asn; Can. Pub. Health Asn. (ed, 'Jour,' 28–); Toronto Acad. Med. Hygiene; epidemiology; virus diseases; public health administration.

Degani, Dr. Meir H(ershtenkorn), American Export Airlines, Inc, LaGuardia Field, N. Y. *Meteorology, Climatology.* Warsaw, Jan. 4, 09. B.S, Mass. Inst. Tech, 32, M.S, 41, Sc.D, 42. Asst. meteorol, Mass. Inst. Tech, 41; instr. geophysics, Pa. State Col, 42, asst. prof, 42–43; *chief instr. meteorol, Am. Export Airlines, Inc, 43–* A.A; Meteorol. Soc; Physical Soc; Geophys. Union. Nocturnal radiation and forecasting of minimum night temperature; heat balance of the atmosphere; interaction of three hydrogen atoms.

de Gara, Dr. Paul F(rederick), 200 Pinehurst Ave, New York, N. Y. *Bacteriology, Immunology.* Meran, Austria, Nov. 11, 02. M.D, Heidelberg, 26, Padua, 27. Asst. prof. hygiene and bacter, Greifswald, 31–33; microbiol, Milan, 36–38; *instr.* bacter, col. med, N. Y. Univ, 39–40; *path, med. col, Cornell, 41–* Head labs, City Hosp, Milan, 36–38. A.A; Asn. Immunol; Soc. Bact. Antibodies; bactericidy; typhoid fever; undulant fever; tuberculosis; pneumococcal capsular polysaccharide.

De Garis, Dr. Charles F(rancis), University of Oklahoma School of Medicine, Oklahoma City, Okla. *Anatomy, Zoology.* Hannibal, Mo, Dec. 12, 86. M.D, Washington (St. Louis), 12; A.B, Wisconsin, 15; A.M, Hopkins, 26, Ph.D, 28. Intern and res. pathologist, St. Louis City Hosp, 12–13; asst. and instr. anat, Wisconsin, 13–16; prof, Mississippi, 17–22; asst. comp. anat. and embryol, Hopkins, 23–25, instr. *anat,* 25–27, assoc, 27–36; *prof, sch. med, Oklahoma, 36–* Ed. anat, 'Webster's Int. Dictionary'; assoc. ed, 'Biol. Abstracts'; 'Jour. Physical Anthrop.' Sec'y, State Anat. Board, Okla. A. Cressy Morrison prize, 40. A.A; fel. Col. Physicians; Asn. Anat; Soc. Zool; Asn. Physical Anthrop; Genetics Soc; Ornith. Union; Okla. Acad; N. Y. Acad; Hist. Soc. Mo. Anthropology; arteries of white and Negro stocks; aortic arch of primates; anatomical terminology; cranial nerves; nucleus of the facial nerve; anomalies; experimental cytology; genetics and physiology of Protozoa; inheritance of cataract in man; human cecum-appendix; brachial plexus of primates; autonomic nervous system; skeletal muscles.

Degener, Dr. Lyda May, Twin Acres, Ivyland, Pa. *Physiology, Public health.* Brooklyn, N. Y, Nov. 25, 90. A.B, Cornell, 14, A.M, 16, Ph.D, 20. Asst. zool, Cornell, 14–15; Wistar Inst, 18–21, research fellow, 22–23; acting head dept. biol. and asst. prof, Wells Col, 23–24; fellow physiol, sch. hygiene and pub. health, Hopkins, 24–25; head dept. health educ. and prof. physiol. and hygiene, Wells Col, 25–31. Fellow, Marine Biol. Lab, Woods Hole, 23. A.A; Soc. Zool; Genetic Asn; Pub. Health Asn; Soc. Bact; Eugenics Soc; Mental Hygiene Asn. Hygiene; comparative anatomy; experimental physiology; internal secretions; thyroid and hypophysis; effect of fatigue on thyroid.

Degener, Otto, 2234 University Ave, Honolulu, Hawaii. *Botany.* East Orange, N. J, May 13, 99. B.S, Mass. Col, 22; M.S, Hawaii, 23; N. Y. Bot. Garden, 25, 33–35. Asst. bot, Mass. Col, 24–25; instr; Hawaii, 25–27; private research, 27–35; *collaborator Hawaiian bot, N. Y. Bot. Garden, 35–* Summers, Marine Biol. Lab, Woods Hole, 24; botanist, Islands of Hawaii and Kauai, 26, Maui, 27, Molokai, 28, Hawaii, 29; naturalist, Hawaii Nat. Park, 29. Botanist, Archbold "Cheng-Ho" sci. exped, Fiji, 40–41. A.A; Torrey Bot. Club; Hawaiian Bot. Soc; Hawaiian Acad. Taxonomy of Hawaiian vascular plants; gametophytes of Lycopodium; Hawaiian hermit-crabs; flora of Hawaii; Degeneriaceae, a new family of flowering plants from Fiji.

Degering, Prof. Ed(ward) F(ranklin), Purdue University, Lafayette, Ind. *Organic chemistry.* Dodge City, Kans, May 17, 98. A.B, Union Col. (Nebr), 24; M.S, Nebraska, 29, Ph.D, 30. Asst, Nebraska, 25–30; instr. *org. chem, Purdue,* 30–31, asst. prof, 31–37, assoc. prof, 37–42, *prof, 42–* A.A; Chem. Soc. (sec'y-treas, Purdue sect, 35, chairman, 36, councilor, 37–39); Ind. Acad. (v. pres, 40); Ind. Chem. Soc. (pres, 40). Catalytic oxidation of d-glucose and related sugars by iron pyrophosphates; organic synthesis; carbohydrates; reaction mechanisms; antiseptics and germicides; synthetic resins; plastics; sulfonation; nitration; halogenation; oxidation-reduction.

Degler, Prof. H(oward) E(dward), University of Texas, Austin, Texas. *Mechanical engineering.* Womelsdorf, Pa, Nov. 1, 93. M.E, Lehigh, 14; M.S, Illinois, 27. Asst. testing engineer, Winchester Arms Co, 14–16; mech. engineer, Atlantic Ref. Co, 20–22; asst. prof. *mech. eng,* Illinois, 22–30; *prof. and chairman dept, Texas, 30–* Mech. Eng. (councilor); Eng. Educ. (councilor); Heat. and Vent. Eng. (councilor). Steam, air and gas power; internal combustion engines; motive power; power plant engineering.

Degman, Dr. Elliott S(anford), U. S. Pear Field Station, Medford, Oregon. *Pomology.* Springdale, Ky, June 7, 05. B.S, State Col. Wash, 28; Ph.D, Maryland, 31. Asst. pomologist and *assoc. pomologist, fruit production investigations, bur. plant indust, U. S. Dept. Agr, 31–* Soc. Hort. Sci. Effect of nitrogen fertilizers on the keeping quality of fruit; irrigation for apples; production of pears.

Degman, Mrs. Jane G(ehrett), 67 Oakland Road, Southington, Conn. *Organic chemistry.* Huntingdon, Pa, March 23, 14. B.S, Juniata Col, 35; Ph.D, Yale, 38. Instr, N. J. Col. for Women, Rutgers, 38–40; *asst. research chemist, Gen. Chem. Co, 41–* Chem. Soc. Exocyclic aminopyrimidines.

DeGolyer, Dr. E(verette Lee), Continental Bldg, Dallas, Texas. **Geology.* Greensburg, Kans, Oct. 9, 86. A.B, Oklahoma, 11; hon. Sc.D, Colo. Sch. Mines, 25. Field asst, U. S. Geol. Surv, 06–09, junior geologist, 10–15; geologist, Mex. Eagle Oil Co, 09–11, chief geologist and chief dept. geol. and lands, 12–15, consulting geologist, 16–23; pres. and gen. manager, Rycade Oil Corp, 23–41; director conservation, *Office Petrol. Coordinator Nat. Defense,* 41–42, *asst. deputy petrol. coordinator, 42–* V. pres. and gen. manager, Amerada Petrol. Corp, 19–26, pres. and gen. manager, 26–28, chairman board, 28–32; pres, Geophys. Research Corp, 25–32; Felmont Corp, 34–39; senior mem, DeGolyer and MacNaughton, 37–; Cyrus Fogg Brackett lecturer, Princeton, 39, Louis Clark Vanuxem lecturer, 41; distinguished prof, Texas, 40. Tech. adviser, petrol. code, Nat. Recovery Admin, 33; mem. advisory cmt. econ. and chairman eng. cmt, Interstate Oil Compact Cmn, 38–; mem, Temporary Nat. Econ. Cmt, 39. Assoc. ed, 'Econ. Geol,' 33–40. Nat. Research Council, 26–28. D. S. award, Texas Mid-Continent Oil and Gas Asn, 39; Anthony F. Lucas gold medal, 40; John Fritz medal, 42. A.A; fel. Geol. Soc. (councilor, 41–); Soc. Econ. Paleont. and Miner; Acad. Polit. and Social Sci; Soc. Econ. Geol. (exec. cmt, 24); Asn. Petrol. Geol. (pres, 25); Seismol. Soc; hon. mem. Soc. Explor. Geophys; Petrol. Inst. (director, 35–); Min. and Metal. Eng. (v. pres. and director, 20–26, 1st v. pres, 25, chairman, petrol. div, 23–25, exec. cmt, 20, 25, chairman, membership cmt, 23, 25, pres, 27, chairman, Lucas medal cmt, 36); Am. Geog. Soc; Geophys. Union; Texas Geog. Soc; Texas Statist. Council; fel. N. Y. Acad; fel. British Inst. Petrol. Technol. Economic geology of oil and gas; technique of oil prospecting.

DeGowin, Dr. Elmer L(ouis), University Hospitals, Iowa City, Iowa. *Internal medicine.* Cheboygan, Mich, Sept. 27, 01. A.B, Michigan, 23, M.D, 28. Instr. *int. med,* Michigan, 30–32; *Iowa,* 32–35, assoc, 35–40, research assoc, 40–41, *research asst. prof, 41–* Mem. subcmt. blood substitutes, Nat. Research Council, 40– Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Human Serum Asn; Cent. Soc. Clin. Research; Cent. Clin. Research Club. Blood transfusion reactions; renal lesions from blood transfusion; preservation of human blood for transfusion; osmotic changes in erythrocytes during storage.

De Graff, Dr. Arthur C(hristian), 850 Park Ave, New York, N. Y. *Medicine.* Paterson, N. J, Dec. 3, 99. B.S, N. Y. Univ, 20, M.D, 21. Instr. med, col. med, N. Y. Univ, 23–24; Crile research fellow and lecturer physiol, Western Reserve, 24–25; instr, *col. med, N. Y. Univ,* 25–27, med, 27–30, asst. prof. *therapeut,* 30–32, *Samuel A. Brown prof, 32–* Intern to resident physician, Bellevue Hosp, 21–24, adj. asst. visiting physician, 27–30, asst. visiting physician, 30–32, assoc. visiting physician, 32–36, visiting physician, 36–, chairman cmt. drugs and formulary; lecturer, dental col, N. Y. Univ, 30–; research, Univ. Col, London, 32; consulting cardiologist, Nassau Hosp, 30–; Meadowbrook Hosp, 35–; N. Y. Infirmary for Women and Children, 36–; med. director, Irvington House, 34–39, chief after-care clinic, 38–; consulting cardiologist, St. Agnes Hosp, White Plains, N. Y, 37–; Hackensack Hosp, N. J, 38–; Dept. Correction Hosps, New York, 42–; chief cardiac clinic, N. Y. Univ, 38–; mem. med. advisory board, McCosker-Hershfield Cardiac Home, 42– Summers, Marine Biol. Lab, Woods Hole, 25, 26. Research councilor, dept. hosps, New York, 35–39. Mem. revision cmt, U. S. Pharmacopoeia, 40– Chairman sch. cmt. and subcmt. on the physically handicapped child, Board Educ, New York, 38– Am. Med. Asn; Soc. Exp. Biol; fel. Col. Physicians; Thera-

peut. Soc; Soc. Pharmacol; Soc. Clin. Invest; Am. Heart Asn. (mem. research and criteria cmts); Harvey Soc; N. Y. Tuber. and Health Asn.: (chairman, sch. cmt, 33); fel. N. Y. Acad. Med. Therapeutics; physiology of the heart and circulation; diseases of the heart.

de Gutiérrez-Mahoney, Dr. C(arlos) G(uillermo), Vanderbilt University School of Medicine, Nashville, Tenn. *Neurology.* Silao, Mex, Oct. 27, 04. A.B, Col. of Holy Cross, 25; M.D, Harvard, 29. House officer, asst. res. and traveling fellow surg. at Breslau, Peter Bent Brigham Hosp, 29–32; asst. res. surgeon, New York Hosp, and asst. surg, med. col, Cornell, 32–34; asst. surg. and instr. physiol, sch. med, Yale, 34–35; Rockefeller fellow *neur,* Neur. Forschungsinstitut, Breslau, Hôpital Civil Strasbourg, Neur. Klin. Univ, Amsterdam, Nat. Hosp. Queen Sq. and Guy's Hosp, London, 35–38; asst. prof, *sch. med, Vanderbilt,* 38–41, *assoc. prof, 41–; lieut. col, Air Forces, U. S. Army.* Fellow, Int. Physiol. Cong, Leningrad, 35. Physiol. Soc; Soc. Exp. Path; Soc. Physiol. Neur; Federation Clin. Research; Cent. Neuropsychiat. Asn; Harvey Cushing Soc; Deuts. Gesell. Med. Anatomy and physiology of the hypothalamus and pituitary body; pupillary innervation and ptosis; cerebral tumors; phakomatosis; thallium poisoning; traumatic unconsciousness; vitamin E deficiency; neuromuscular atrophy.

Dehn, Dr. Edgar, Columbia University, New York, N. Y. *Mathematics, Economics.* Riga, Latvia, Oct. 17, 90. Ph.D, Göttingen, 21; A.M, Columbia, 26. *Instr. math, Columbia, 26–* Theory of algebraic equations; algebraic charts for solving equations; disproof of Keynes' theories.

Dehn, Dr. Max, Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Hamburg, Germany, Nov. 13, 78. Ph.D, Göttingen, 00. Prof. math, Münster, 01–11; Kiel, 11–13; Breslau, 13–22; Frankfurt, 22–35; Trondhjem, 39–40; asst. prof. math. and philos, South Branch, Idaho, 41–42; *visiting lecturer, Ill. Inst. Tech, 42–* A.A; Math. Soc; Acad. Sci. Oslo. Foundation of mathematics; geometry; theory of groups; history of mathematics.

Dehn, Prof. William M(aurice), University of Washington, Seattle, Wash. *Chemistry.* Chesning, Mich, June 24, 72. A.B, Hope Col, 93, A.M, 96; Ph.D, Illinois, 03. Instr. *chem,* Illinois, 00–07; *prof, Washington (Seattle), 07–* Chem. Soc. Organic chemistry; explosives.

Deichmann, Dr. Elisabeth, Harvard University, Cambridge, Mass. *Zoology.* Copenhagen, Denmark, June 12, 96. M.Sc, Copenhagen, 22; Ph.D, Radcliffe Col, 27. Asst. zool, Royal Agr. Col, Copenhagen, 21–23; Danish Rask Oersted Foundation for Research, Pacific Grove, Calif, 24, British Museum, 26; asst, Bur. Fisheries, 27–28; Agassiz fellow, *museum comp. zool, Harvard,* 28–35, asst. curator *marine invertebrates,* 30–42, *curator, 42–* Summers, asst. instr, Stanford, 31, 33, 36, 39, 42. A.A; Soc. Mammal; Nat. Hist. For. Copenhagen. Echinoderms; corals.

Deichmann, Dr. Wilhelm, 527 McAlpin, Cincinnati, Ohio. *Toxicology.* Sept. 9, 02. A.B, Western Reserve, 32, M.S, 34; fellow, Cincinnati, 37–39, Ph.D, 39. Asst. biochem, Western Reserve, 28–34; jr. toxicologist, Haskell Lab. Indust. Toxicol, 34–37; *toxicologist, Kettering lab, med. col, Cincinnati, 37–, instr. physiol, 39–* A.A; Indust. Hygiene Asn; Chem. Soc; Soc. Pharmacol; Ohio Acad. Toxicity of phenylhydrazines; chloroprene; alkyl rhodanates; amides of aliphatic acids; pentachlorophenol; phenol; glycerol; vanillin; ethyl-vanillin; n, n-amyl-benzyl-cyclohexylamine; lauryl diethylene-triamine; duprene; cresols; methacrylates; detoxification of organic compounds by glucuronic acid conjugation; method for glucuronates in urine.

Deignan, H(erbert) G(irton), U. S. National Museum, Washington, D. C. *Ornithology.* East Orange, N. J, Dec. 5, 06. A.B, Princeton, 28; Walter Rathbone Bacon scholar, Europe, 39. Master, Prince Royal's Col. (Siam), 28–32, 35–37; sci. aid, *div. birds, U. S. Nat. Museum,* 38–40, asst. curator, 40–42, *assoc. curator, 42–,* field assoc, Siam, 35–37. Mem, Asiatic Primate exped, N. Borneo, 37. Ornith. Union; Baird Ornith. Club (sec'y, 42); Biol. Soc. Wash; British Ornith. Union; Royal Australasian Ornith. Union; Thailand Research Soc. Zoogeography of southeastern Asia.

Deignan, Prof. J(ohn) V(incent), S.J, Spring Hill College, Mobile, Ala. *Chemistry.* Bailieborough, Ireland, May 22, 90. Royal Univ, Ireland; A.B, Nat. Univ, Ireland; A.B, Fordham, 15, A.M, 17, Ph.D, 29. *Prof. chem, Spring Hill Col, 17–, head dept, 29–* Chem. Soc. Binary system magnesium and magnesium iodide and the aldehydes; effect of gaseous ammonia on the reduction product of magnesium, magnesium iodide and the aldehydes.

Delmel, Prof. R(ichard) F(rancis), Stevens Institute of Technology, Hoboken, N. J. *Mechanics.* New York, N. Y, June 27, 81. B.S, Col. City of N. Y, 02; A.M, Columbia, 03. Asst. mech, Columbia, 03–05, lecturer physics, 05; instr. math. and physics, Col. City of N. Y, 05–06; math. and mech, *Stevens Inst. Tech,* 06–09, asst. prof. mech, 09–27, assoc. prof, 27–34, *prof. mech. eng, 34–* A.A; Math. Soc; Mech. Eng. Dynamics; gyroscopic apparatus; elasticity; fluid mechanics.

Delscher, Prof. Claude K(nauss), University of Pennsylvania, Philadelphia, Pa. *Chemistry.* Emmaus, Pa, Oct. 14, 03. B.S, Muhlenberg Col, 25; M.S, Pennsylvania, 28, Ph.D, 33. Teacher, pub. schs, 21–24, 25–27; instr. *chem, Pennsylvania,* 28–36, *asst. prof, 36–* Chem. Soc. Quantitative analysis; history of chemistry.

Deiss, Prof. C(harles) F(rederick), University of Montana, Missoula, Mont. *Geology.* Covington, Ky, March 18, 03. A.B, Miami, 25; Ph.D, Michigan, 28. Asst. *geol,* Miami, 22–25; Michigan, 25–28; asst. prof, *Montana,* 28–30, assoc. prof, 30–37, *prof, 37–;* asst. geologist, *U. S. Geol. Surv,* 40–42, *geologist, 42–* Summers, Mich. Geol. Surv, 26–27; Bur. Mines and Geol, Mont, 30–36. Grant, Nat. Research Council, 37; Geol. Soc. Amer, 38, 39. Univ. Mich. Vert. Paleont. Museum exped, west. U. S, 26, 29. A.A; Paleont. Soc; Geol. Soc. Devonian Fenestellidae of Michigan; stratigraphic correlation of the Belt rocks; Lower and Middle Cambrian stratigraphy, paleogeography and paleontology of Cordilleran area; northern Rocky Mountain structure; exploration of dolomite deposits as source of magnesium, western division, United States.

Deitz, Dr. V(ictor) R, National Bureau of Standards, Washington, D. C. *Physical chemistry.* Downingtown, Pa, April 13, 09. Ph.D, Hopkins, 32. Asst, Hopkins, 32–33; nat. research fellow, Illinois, 33–35, special research assoc, 36–37; with research lab, Gen. Elec. Co, 37–38; *Bur. Standards, 39–* Research assoc, U. S. Cane Sugar Research Project. Chem. Soc. Vapor pressure of alkali halide crystals; infra-red spectroscopy; charcoals and bone char; nature of decolorizing carbons and bone char.

DeJarnette, David L(loyd), University, Ala. *Archeology.* Bessemer, Ala, June 2, 07. B.S, Alabama, 29. *Curator, Ala. Museum Nat. Hist, 30–* Asst. archeologist, Tenn. Valley Authority, 36–37. An archeological survey of the Pickwick Basin in the adjacent portions of the states of Alabama, Mississippi and Tennessee; the Bessemer site; natural history.

de Jesus, Dr. P(ablo) I(gnacio), University of the Philippines, Manila, P. I. *Public health.* Malabon, Rizal, P. I, Aug. 19, 01. M.D, Philippines, 27; Dr.P.H, Mass. Inst. Tech, 30. Bacteriologist, Bur. Health, P. I, 27; instr, col. med, *Philippines,* 27–30, *asst. prof, inst. hygiene, 31–, acting head dept. sanit. eng, indust. physiol. and chem, 31–* Fellow, Rockefeller Foundation, 28–30; mem. and analyst, board food inspection, Bur. Health, P. I, 36–; tech. adviser, biologic products board, Dept. Health and Pub. Welfare, 37–; consultant, nutrition clinic, Philippine Gen. Hosp, 41. Chairman advisory cmt. on occupational diseases, Dept. Labor, 36– Mem. Nat. Research Council P. I, 34– A.A; Soc. Adv. Research; Philippine Med. Asn. (chairman cmt. proprietary medicines, 27–). Malaria; water analysis; food and drug analysis; nutrition.

De Juhasz, Prof. K(alman) J(ohn), 730 N. Atherton St, State College, Pa. *Engineering.* Csap, Hungary, Feb. 4, 93. M.E, Univ. Eng. Sciences, Budapest, 14. Asst. prof. and assoc. prof, Univ. Eng. Sciences, Budapest, Hungary, 14–23; chief engineer, Lehmann and Michels, Germany, 23–25; consulting engineer, Fiat Co, Italy; Officine Mecchaniche, Italy, and Gamma, Ltd, Budapest, 25–26; chief engineer, Ministry of Indust, Hungary, 26–27; instr. mech. eng, Minnesota, 27–28; asst. prof. *eng. research, Pa. State Col,* 28–37, assoc. prof, 37–39, *prof, 39–* Silver medal, Soc. Hungarian Engineers and Architects, 22; Rudolph Diesel award, Soc. Mech. Eng, 31; gold medal, Franklin Inst, 39. Eng. Educ. High speed and Diesel engine indicators; exhaust and intake phenomena in high speed internal combustion engines; fuel injection phenomena in Diesel engines; testing internal combustion engines; fuel injection apparatus.

DeKay, Prof. H(enry) George, 711 Meredian St, West Lafayette, Ind. *Pharmaceutical chemistry.* Randolph, Nebr, Aug. 14, 98. A.B, Nebr. State Teachers Col, 23; B.S, Nebraska,

28; M.S, Chicago, 30; Ph.D, Purdue, 34. Teacher, pub. schs, Nebr, 20–22, prin, high sch, 22–23, sch. supt, 23–27; instr. *pharmacy, Purdue,* 28–34, asst. prof, 34–39, *assoc. prof, 39–* Pharmaceut. Asn; Ind. Pharmaceut. Asn; Ind. Acad. Pharmacy; pharmaceutical education; plant chemistry.

Dekker, Prof. Albert O(rno), 1201 E. California St, Pasadena 4, Calif. *Physical chemistry.* Chicago, Ill, Nov. 4, 13. B.S, Calif. Inst. Tech, 35, Ph.D, 40; Inst. Int. Educ. Am-German exchange fellow, Munich, 35–36. Assoc. prof. *chem,* Berea Col, 39–43; *mem. dept, Calif. Inst. Tech, 43–* A.A; Chem. Soc. The kinetics of chemical reactions; oxidation of ascorbic acid catalyzed by cupric ion; reduction of peroxysulfate catalyzed by silver ion.

Dekker, Prof. H(arry) G(arret), 1309 Alexander St, S.E, Grand Rapids, Mich. *Chemistry.* Chicago, Ill, March 15, 87. B.S, Armour Inst. Tech, 09; A.M, Chicago, 29. Teacher, high sch, Ind, 13–15; Ill, 15–17; Mich, 19–20; *prof. chem, Calvin Col, 21–* Contributions of the Dutch to chemistry.

DeLaBarre, Prof. Cecil F(ranzen), Virginia Polytechnic Institute, Blacksburg, Va. *Biology.* Amherst, Nebr, July 5, 00. B.S, Va. Polytech, 26, fellow, 29–30, M.S, 30; George Washington, 31; Columbia, 41–42. Asst. director, Boys Club, Norfolk, Va, 26–28; manager, Master Plumbers and Heating Asn, 28–29; *instr. biol, Va. Polytech,* 30–36, acting asst. prof, 36–37, asst. prof, 37–39, *assoc. prof, 39–; U. S. Naval Res, 41–, lieut. commander.* Director educ, State Cmn. Game and Inland Fisheries, Va, 40–; asst. leader, Va. Cooperative Wildlife Research Unit, 37– Sec'y-treas, Wildlife Federation, 37–; pres, Va. Asn. Izaak Walton League Chaps, 40–A.A; Asn. Biol. Teachers; Va. Acad. Animal ecology; wildlife conservation; game management; demonstrating ecological principles and scientific method.

Delabarre, Prof. E(dmund) B(urke), 9 Arlington Ave, Providence, R. I. *[1]*Psychology.* Dover, Maine, Sept. 25, 63. Brown, 82–83; A.B, Amherst Col, 86; Berlin, 87–88; A.M, Harvard, 89; Ph.D, Freiburg, 91; Paris, 91–92. Assoc. prof. *psychol, Brown,* 91–96, prof, 96–32, *emer. prof, 32–* Director psychol. lab, Harvard, 96–97. Officer, Order of St. James of the Sword. A.A; Psychol. Asn; Am. Acad; cor. mem. Phila. Geog. Soc; R. I. Hist. Soc; cor. mem. Asn. Archeol. Portugal; cor. mem. Geog. Soc. Lisbon. Muscular contributions to consciousness; space-perception; emotions; effects of drugs.

de la Chapelle, Dr. Clarence E(wald), 140 E. 54th St, New York, N. Y. *Medicine.* New York, N. Y, Dec. 6, 97. B.S, N. Y. Univ, 21, M.D, 22. Intern and house physician, Bellevue Hosp, 22–24; instr. path, *N. Y. Univ,* 24–26, med, 26–32, asst. prof, 32–38, acting chairman dept, 37–38, *prof. clin. med, 38–, lecturer med. and post-grad. surg, 30–, instr. med, col. dentistry, 31–* Physician, sch. nursing, Bellevue Hosp, New York, 25–, asst. physician to outpatient dept. and adj. asst. visiting physician, hosp, 25–30, asst. visiting physician, 30–32, assoc. visiting physician, 32–36, visiting physician, 36–, acting director third med. div, 37–38; chief cardiac clinic and assoc. visiting physician, Lenox Hill Hosp, 33–; consulting physician, St. Lukes Hosp, Newburgh, 33–Asn. Path. and Bact; fel. Am. Med. Asn; fel. Col. Physicians; Heart Asn. (councilor, 28; chairman cmt. films and slides, 36–; director, 37); Harvey Soc; N. Y. Path. Soc; fel. N. Y. Acad. Med; N. Y. Heart Asn. (councilor; cmt. research, 33–; criteria cmt, 35–). Clinical and pathological aspects of cardiovascular diseases.

de Laguna, Prof. Frederica, 221 Roberts Road, Bryn Mawr, Pa. *Archeology.* A.B, Bryn Mawr Col, 27; Ph.D, Columbia, 33. Field director univ. museum, Pennsylvania, 31–36; nat. research fellow, 36–37; lecturer *anthrop, Bryn Mawr Col,* 38–41, *asst. prof, 41–; lieut, W.A.V.E, U.S. Naval Res.* Assoc. soil conservationist, soil conservation service, U. S. Dept. Agr, 36. Asst, Danish Govt. archeol. exped, W. Greenland, 29; leader, Univ. Pa. archeol. exped, Alaska, 30, 31, 32; joint leader, Danish Nat. Museum and Univ. Pa. ethnol. and archeol. exped, Alaska, 33; leader, Univ. Pa. and Am. Philos. Soc. archeol. surv, Yukon, 35. Anthrop. Asn; Soc. Archeol; Soc. Pa. Archeol. Ethnology; Eskimo archeology.

Delaney, Rev. John P, S.J, Loyola College, Baltimore, Md. *Physics.* Washington, D. C, Aug. 23, 94. A.B, Woodstock Col. (Md), 17, A.M, 18, 24–28; St. Andrew-on-Hudson, 24–28. Asst. prof. physics, Boston Col, 18–19; prof, Brooklyn Col, Col. City of N. Y, 19–20; St. Joseph's Col. (Phila), 20–24; Canisius Col, 28–38, director seismol. observatory, 28–38; *head dept. physics, Loyola Col. (Md), 38–* Director Canisius Col. eclipse exped, Maine, 32; student exped, Athens, Palestine and Turkey, 33. A.A; Physical Soc; Geophys. Union; Seismol. Soc; fel. Royal Astron. Soc. Seismology; geophysics.

Delaney, Dr. P. Arthur, 5421 Morgan St, Chicago, Ill. *Histology, Pathology.* Friar's Head, N. S, Can, Oct. 5, 93. B.S, Chicago, 21, Ph.D, 25, M.D, 26. Instr. anat, Chicago, 23–27, intern, Billings Hosp, 27–28, nat. research fellow *path, Chicago,* 28–29, *Douglas Smith fellow, 29–* Pathologist, Englewood Hosp, 29–34; Evangelical Hosp, 34–A.A; Am. Med. Asn; Chicago Path. Soc. Mitochondria; mesothelium in turtles; intra-epidermal relation of connective tissue in Trionyx muticus; histopathology of tumors; thyroid pathology; hematology; histopathological technique.

DeLanney, Lieut. Louis E(dgerton), 19th Altitude Training Unit, Hamilton Field, Calif. *Embryology.* Omaha, Nebr, Feb. 2, 12. A.B, California at Los Angeles, 35, A.M, 36; Abraham Rosenberg fellow, Stanford, 39–40, Ph.D, 40. Teaching asst, California at Los Angeles, 35–36; Stanford, 36–39, instr. biol, 40–41; physiol, San Jose State Col, Calif, 41–43; *2nd lieut, Air Corps, U. S. Army, 43–* Size regulation in amphibian eyes; pigment production in Amphibia.

Delano, Frederic Adrian, 2400 16th St, N. W, Washington, D. C. *Engineering.* Hong Kong, China, Sept. 10, 63. A.B, Harvard, 85. Ry. service, Chicago and West, 85–14; mem, Fed. Reserve Board, 14–18; receiver, U. S. Supreme Court, Texas-Okla. Boundary Case, 20–25; *retired.* Regent, Smithsonian Inst, 22–; director, Carnegie Institution, 29–, trustee, 37–Col, Transportation C, 18–19, Eng. R. C, 20– A.A; Min. and Metal. Eng; Am. Civic Asn. (pres, 24–). Railways; economic engineering; city planning.

Delaplane, Dr. John P(aul), Agricultural and Mechanical College of Texas, College Station, Texas. *Veterinary science.* Greenville, Ohio, Dec. 4, 06. D.V.M, Ohio State, 29, M.S, 31. Asst. research prof. poultry husbandry, R. I. State Col, 31–39, assoc. research prof, 39–42; *poultry pathologist, Exp. Sta, Agr. and Mech. Col. Texas, 42–* Poultry Sci. Asn; Vet. Med. Asn; World's Poultry Cong; Int. Vet. Cong. Animal industry; entero-hepatitis in turkeys; avian coccidiosis; hemophilus gallinarum infection in chickens and infectious bronchitis of chickens.

De La Salle, Brother Louis, St. Mary's College, Winona, Minn. *Mathematics.* Chicago, Ill, Dec. 8, 10. A.B, De Paul, 31; Ph.D, Catholic Univ, 36. Instr. math, La Salle Nor. Col, 31–33; assoc. prof, *St. Mary's Col. (Minn),* 36–38, *prof. math. and dean studies, 38–* Math. Soc; Math. Asn. Theory of algebraic numbers.

de la Torre Bueno, J(ose) R(ollin), 311 E. Fourth St, Tucson, Ariz. *Entomology.* Lima, Peru, Oct. 6, 71. Col. City of N. Y, 88–90; Columbia, 90–92. Ed. board, 'N. Y. State List of Insects'; ed, 'Entomologica Americana.' Agassiz Asn; Entom. Soc. Wash; Brooklyn Entom. Soc. (rec. sec'y, 15, 18, pub. cmt, 13–, ed, 18–, v. pres, 20–40; ed, 'Bul'); Entom. Soc. London; Soc. entom. de France; Soc. linn. de Lyon; Soc. Cubana Hist. Nat. Life histories, ethnology, distribution and taxonomy of heteropterous Hemiptera; a glossary of entomology; the Hemiptera Heteroptera of America north of Mexico.

de Laubenfels, Dr. M(ax) W(alker), 400 S. Bonnie Ave, Pasadena, Calif. *Biology.* Mt. Pleasant, Iowa, May 9, 94. A.B, Oberlin Col, 16; A.M, Stanford, 26, Carnegie Institution fellow, 28–29, Ph.D, 29. In charge dept. zool. and museum, Pasadena High Sch, 23–27; instr, Oberlin Col, 27–28; *teacher premed. zool, Pasadena Junior Col, 29–* Consultant, Bur. Fisheries, 36– Summer, Stanford, 30. Sect. ed, 'Biol. Abstracts,' 31– A.A. Morphology; taxonomy and physiology of Porifera; sponge fauna of the West Indies; ecology of birds.

De Launay, Prof. Jules, Texas Technological College, Lubbock, Texas. *Biophysics.* Columbia, S. C, July 9, 11. A.B, Howard Col, 31; Princeton, 31–32; B.A, Oxford, 35, M.A, 39; Ph.D, Stanford, 39. Prof. optics, South Col. Optometry, 39–41; *assoc. prof. physics, Texas Tech. Col, 41–* Physical Soc. Photo-reflex; color mixing.

Delaup, Prof. Paul Sidney, 132 General Gardner, Lafayette, La. *Physics.* New Orleans, La, Sept. 1, 02. B.E, Tulane, 23, M.S, 25; Ph.D, Chicago, 30. Instr. physics, Tulane, 23–25, 29–30; physics and astron, Chicago, 31–32; *prof. physics, Southwest. La. Inst, 34–* Band spectra; vacuum tube circuits.

Delavan, Prof. C(arlyn) C(hase), Syracuse University, Syracuse, N. Y. *Forestry.* Alma, Mich, Feb. 18, 91. A.B, Michigan, 14, M.S, 15. U. S. Forest Service, 15–22; asst.

forester in charge protection, Vt, 22; *prof.* forestry, *N. Y. State Col. Forestry, Syracuse,* 23–29, forest exten, 30–32, *forest eng,* 32– Soc. Foresters. Climate and forest fires.

Delbridge, Dr. T(homas) G, 3144 Passyunk Ave, Philadelphia, Pa. *Chemistry.* Batavia, N. Y, Feb. 20, 84. A.B, Union (N. Y), 03; Ph.D, Cornell, 07. Instr. chem, Cornell, 04–09; chemist, *Atlantic Ref. Co,* 09–14, asst. supt, 14–18, chief chemist, 18–22, asst. plant manager, 23–24, process supervisor, 24–34, *manager research and develop. dept, 35–* Chem. Soc; Soc. Test. Mat. (pres, 39); Franklin Inst; Petrol. Inst; British Inst. Petrol. Technol. Tetrachlorgallein; tetrachlorphthalic acid; petroleum refining.

Delbrück, Dr. M(ax), Vanderbilt University, Nashville, Tenn. *Biology.* Berlin, Germany, Sept. 4, 06. Tübingen and Berlin, 24, 25; Bonn and Berlin, 25, 26; fellow, Bristol, 29–30; Ph.D, Göttingen, 30. Rockefeller Foundation fellow physics, Copenhagen and Zurich, 31; asst, Kaiser Wilhelm Inst. für Chem, 32–37; Rockefeller Foundation fellow biol, Calif. Inst. Tech, 37–39; *instr. physics, Vanderbilt, 40–* A.A; Physical Soc; L. I. Biol. Asn; Tenn. Acad. Bacterial viruses; nuclear physics; quantum mechanics; mutations.

De Lemon, Hugo, Standard Brands, Inc, 1015 Independence Blvd, Chicago, Ill. *Chemistry.* Appleton, Wis, Dec. 24, 85. Armour Inst. Tech, 08. Asst. chemist, Royal Baking Powder Co, 08–13, supt, 13–27, *manager, 27–, Standard Brands, Inc.* A.A; Chem. Soc; Chicago Acad.

de Leon, Dr. A(ntonio) I(gnacio), College of Agriculture, University of the Philippines, Los Baños, Laguna, P. I. *Inorganic chemistry.* Manila, P. I, July 31, 93. A.B, Philippines, 18, B.S, 20, M.S, 22; Univ. Philippines fellow, Minnesota, 27–29, Ph.D, 30. Chemist, Cristobal Oil Mills, 20; asst. instr. chem, Philippines, 20–22, instr, 20–26; instr, Mont. State Col, 29–30; asst. prof, *col. agr, Philippines,* 30–32, *assoc. prof. agr. chem, 32–* Assoc, Nat. Research Council P. I, sec'y sect. biol. and agr. A.A; Chem. Soc; Soc. Adv. Research; N. Y. Acad; Chem. Soc. Philippines (sec'y); P. I. Sci. Soc. Industrial chemistry; hydrazine complexes; inorganic food constituents; processing of agricultural by-products.

De Leon, Dr. Donald, 341 Giannini Hall, Berkeley, Calif. *Forestry.* Milford, Conn, Sept. 26, 02. B.S, Syracuse, 26, M.S, 27; California, 27–28; Ph.D, Cornell, 33. Asst. entomologist, bur. entom, U. S. Dept. Agr, 28–31; *assoc. entomologist,* Nat. Park Service, 34–37; *bur. entom, U. S. Dept. Agr, 37–,* forest insect surv, trop. forest exp. sta, P.R, 40. A.A; Entom. Soc. Amer; Soc. Foresters; Pacific Coast Entom. Soc. Bionomics of forest insects; taxonomy.

DeLiee, Dr. Elvira M, New York University College of Medicine, New York, N. Y. *Medicine.* Yonkers, N. Y, Sept. 12, 11. A.B, Columbia, 32, M.P.H, 42; M.D, N. Y. Univ, 36, Nemours Foundation fellow, 39–41; Mary Putnam Jacobi traveling fellow, Cambridge, 38–39. Sch. physician, Yonkers, N. Y, 39–41; asst. med, *col. med, N. Y. Univ,* 41–42, *instr. prev. med, 42–* Physician, Nat. Youth Admin, 41–42. A.A; Am. Heart Asn; Pub. Health Asn; Rheumatism Asn. Rheumatic fever; streptococcal infections; bacterial allergy; fractions of group A hemolytic streptococcus; laboratory diagnostic tests in various forms of arthritis.

Delisle, Prof. Albert L(orenzo), College of William and Mary, Williamsburg, Va. *Botany.* Holyoke, Mass, Dec. 7, 10. B.S, Mass. State Col, 32; A.M, Harvard, 33, Atkins traveling fellow to Cuba, 36, Ph.D, 37. Asst, Harvard and Radcliffe Col, 33–37; Cabot research fellow, Harvard, 37–39; prof. *biol,* Suffolk, 39; *asst. prof, Col. William and Mary, 39–* A.A; Bot. Soc; Ecol. Soc. (cmt. preservation nat. resources); New Eng. Bot. Club. Morphogenesis; genetics; vegetative propagation; auxins; cytology.

Dellenbaugh, Dr. Frederick S(amuel), Jr, 91 Spooner Road, Chestnut Hill, Mass. *Electrical engineering.* Ellenville, N. Y, Feb. 23, 88. E.E, Columbia, 10; M.S, Mass. Inst. Tech, 21, Sc.D, 26. Asst. designer, Crocker Wheeler Co, N. J, 10–12; indust. sales dept, Westinghouse Elec. and Mfg. Co, 12–17; from asst. to assoc. prof. elec. eng, Mass. Inst. Tech, 19–26; engineer, research dept, United Fruit Co, 26–29; pres, Delta Mfg. Co, 31–34; v. pres, Raytheon Mfg. Co, 33–35; *research assoc. physics, Mass. Inst. Tech, 35–* Capt, U.S.A, 17–19. A.A; Elec. Eng; Radio Eng; Franklin Inst; Naval Inst. Transmission of power; harmonic analysis and mechanical computing machines; theory of alternating current rectification; gaseous conduction devices.

Dellinger, Dr. J(ohn) H(oward), National Bureau of Standards, Washington, D. C. ***Physics.* Cleveland, Ohio, July 3, 86. Western Reserve, 03–07; A.B, George Washington, 08, Sc.D, 32; fellow, Princeton, 12–13, Ph.D, 13. Instr. physics, Western Reserve, 06–07; *physicist, Bur. Standards, 07–, chief radio sect, 19–* Chief engineer, Fed. Radio Cmn, 28–29; chairman, Radio Tech. Cmn. Aeronaut; U. S. Govt. Interdept. Radio Advisory Cmt. U. S. del, Interallied Tech. Conf. on Radio Communication, Paris, 21, The Hague, 29, Copenhagen, 31, chairman, Am. del, Lisbon, 34, Bucharest, 37; Conf. on Limitation of Armament; sect. cmt. radio, Am. Eng. Standards Cmt, Nat. Radio Conf, 22–25; Int. Conf. on Telecommunications, Washington, 27, Madrid, 32. Fel. Radio Eng. (v. pres, 24, pres, 25); Geophys. Union; Wash. Acad; Int. Sci. Radio Union (v. pres). Mathematics; electrical properties of copper; electric units; science and development of radio communications; applications of radio in aeronautics.

Dellinger, Dean O(ris) P(olk), 1714 S. Olive St, Pittsburg, Kans. *Cytology, Protozoology.* Bicknell, Ind, Aug. 14, 77. Chicago, 00–01; A.B, Indiana, 05; fellow, Clark, 05–07, Ph.D, 07. Asst. physiol, Clark, 04–07, instr. biol, 07–08; prof, Winona Nor. Col, 08–09; biol, *Kans. State Teachers Col, Pittsburg,* 09–39, *dean col. and grad. sch, 39–* A.A; Genetics Soc; Kans. Acad. Locomotion of the amoeba and allied forms; cilium as a key to the structure; contractile protoplasm; structure and function in Amoeba proteus; fibrillar structure of flagella; biology of Amoeba proteus.

Dellinger, Prof. S(amuel) C(laudius), University of Arkansas, Fayetteville, Ark. *Zoology.* Lincolnton, N. C, Jan. 14, 92. A.B, Duke, 15; A.M, Columbia, 17. Prof. biol, Hendrix Col, 15–16, 17–18; asst. prof. *zool, Arkansas,* 21–22, acting prof, 22–25, *prof, 25–, curator museum.* A.A; Soc. Mammal; Ecol. Soc; South. Pre-hist. Soc. (chairman, 34). Encystment in Protozoa; origin of the neuro-motor system in Protozoa; archeology of the Ozark region; herpetology and mammalogy of Arkansas.

Del Mar, William A(rthur), Habirshaw Cable and Wire Division, Phelps Dodge Copper Products Corp, Point St, Yonkers, N. Y. *Electrical engineering.* San Francisco, Calif, Dec. 15, 80. Assoc, City and Guilds Inst, London, 00; tech. asst, N. Y. Cent. R. R, 04–15; asst. elec. engineer, Interborough Rapid Transit Co, 15–17; *chief engineer, Habirshaw Cable and Wire Div, Phelps Dodge Copper Products Corp, 17–* Lecturer, Pennsylvania, 23. Chairman advisory cmt. on insulation, War and Navy Depts, 17–19. Fel. Elec. Eng. (v. pres, 21); Insulated Power Cable Eng. Asn. (pres, 38); Inst. Elec. Eng. Gt. Britain. Electric cables; insulating materials; dielectrics.

Delo, Prof. David M(arion), 998 N. Prairie St, Galesburg, Ill. *Geology.* Mt. Morris, Ill, Dec. 20, 05. A.B, Miami (Ohio), 26; A.M, Kansas, 28; Ph.D, Harvard, 35. Instr, Washington (St. Louis), 29–30; Northwestern, 30–32; asst. paleont. and stratig, Harvard, 33–34; instr. *geol,* Lawrence Col, 34–36, asst. prof, 36–37; *Knox Col,* 37–38, assoc. prof, 38–39, *prof, 39–* Fel. Geol. Soc; Paleont. Soc; Ill. Acad. Paleontology; stratigraphy; the phacopid trilobites; valley glaciation of the Wind River area, Wyoming.

DeLong, B(erton) H(enry), 33 Howard St, West Lawn, Pa. *Engineering.* Taylor, N. Y, Aug. 16, 85. A.B, Cornell, 09. Chemist, Stanley Works, New Britain, Conn, 09–10; *metal. dept, Carpenter Steel Co, 10–* A.A; Soc. Metals; Soc. Test. Mat; Soc. Automotive Eng; Iron and Steel Inst. Gt. Britain. Stainless steels, particularly the free-machining types; comprehensive study of inherent properties of carbon and alloy tool steels.

DeLong, C(arl) R(aymond), 50 Broadway, New York, N. Y. *Chemistry.* Cuyahoga Falls, Ohio, Oct. 15, 92. B.S, Ohio State, 14. Asst. chemist, Ohio Geol. Surv, 14–16; asst. to supt. chlorine dept, Fed. Dyestuff and Chem. Corp, Tenn, 16–17; research chemist, Electron Chem. Co, Maine, 17; special expert, U. S. Tariff Cmn, 18–26, chief chem. div, 20–26; commercial research, Fed. Phosphorus Co, Ala, 26–29; in charge tech. information service, Amusol Corp, 29–35; *consulting engineer, 35–* Chem. expert, Ways and Means and Senate Finance Cmts, 22. Chem. Soc. (treas, N. Y. branch, 37); Chem. Eng. (treas, 38). Economic and tariff problems of the chemical industry.

DeLong, Prof. D(wight) M(oore), Ohio State University, Columbus, Ohio. *Entomology.* Corning, Ohio, April 6, 92. B.S, Ohio Wesleyan, 14, hon. Sc.D, 41; M.S, Ohio State, 16, Ph.D, 22. Asst. zool, Ohio State, 14–17, instr, 18; sci. asst,

bur. plant indust, State Dept. Agr, Pa, 18–21; asst. prof. *entom, Ohio State*, 21–23, *prof, 23–*, director Franz Theodore Stone lab, 36–37. Summers, field asst, bur. entom, U. S. Dept. Agr, 15, 17, 24–32; state nursery inspector, Wis, 16; investigator, Crop Protection Inst, 33; asst. entomologist, Ill. Nat. Hist. Surv, 34, 35, 36, 38. A.A; Entom. Soc; Asn. Econ. Entom; Ohio Acad. Economic entomology; insect ecology and control; Homoptera.

DeLong, Prof. James H(enry), 621 Parsons St, Easton, Pa. *Chemistry.* B.S, Lafayette Col, 04. From asst. to asst. prof. *chem, Lafayette Col*, 04–31, *assoc. prof, 31–* Chemist, Republic Iron and Steel Co; Atlantic Potash Co. Chem. Soc. (sec'y and treas, Lehigh Valley sect, 18, chairman, 35–). Extraction of potash from rocks; silicofluorids.

DeLong, Prof. W(alter) A(nthony Scott), Macdonald College, Que, Can. *Biochemistry.* Acaciaville, N. S, Oct. 20, 94. B.S.A, 20; M.Sc, McGill, 24; Ph.D, Minnesota, 28. Asst. chem, Nova Scotia Agr. Col, 21–23; Macdonald Col, McGill, 24–26; agr. biochem, Minnesota, 27–28; chemist, Minn. Valley Canning Co, Minn, 28; asst. prof. *chem*, Acadia, 28–29, assoc. prof, 29–36; *asst. prof, Macdonald Col, McGill, 36–* A.A; Chem. Soc; Soc. Plant Physiol; Biochem. Soc; Can. Soc. Tech. Agr; Can. Inst. Chem. Hardiness in dormant woody tissues; effects of fungicides upon the keeping quality of the apple; soil fertility and plant nutrition; analytical determination of the structural components of plant tissues.

del Rosario, Prof. Casimiro, 104 Nebraska, Manila, P. I. *Physics.* Bantayan, Cebu, P. I, June 13, 96. B.S, Philippines, 18; M.S, Yale, 24; Ph.D, Pennsylvania, 32. Instr. *physics, Philippines*, 18–22, 28–29, *asst. prof, 33–* Physical Soc. Thermionics; biophysics; soft x-rays.

Delsasso, Dr. L(eo) P(eter), 10307 Ilona Ave, Los Angeles, Calif. *Physics.* Central City, Colo, Oct. 9, 95. A.B, California, 25; Ph.D, Calif. Inst. Tech, 41. Asst, South. Calif. Edison Co, 19–25; *assoc. physics, California at Los Angeles, 25–* U.S.N.R, lieut. commander. Physical Soc; fel. Acoustical Soc. Acoustics.

Delsasso, Dr. L(ewis) A(lexander), Princeton University, Princeton, N. J. *Physics.* Leadville, Colo, June 9, 03. A.B, California at Los Angeles, 30; Ph.D, Calif. Inst. Tech, 37. *Instr. physics, Princeton, 37–* Physical Soc. Nuclear physics.

DeLuca, Dr. Horace A(nthony), 446 King St, London, Ont, Can. *Biochemistry, Physical chemistry.* Denver, Colo, Dec. 23, 12. B.A, Western Ontario, 33, M.A, 35; Ph.D, McGill, 37. Research fellow, Can. Pulp and Paper Asn, 37–38; asst. path. chem, *med. sch, Western Ontario*, 39–40, *instr. biochem, 40–* Lecturer, Sir George Williams Col, 37–38. Measurement of dielectric constant of cellulose and adsorbed water vapor; influence of hormones on composition of bone; effect of shock and drugs on inorganic constituents of brain.

De Lury, Prof. Alfred T(ennyson), Manilla, Ont, Can. *Mathematics.* Manilla, Ont, May 13, 64. B.A, Toronto, 90, M.A, 02; Clark, 90, 91, LL.D, 24. Lecturer *math, Toronto*, 92–02, assoc. prof, 02–08, prof, 08–34, *emer. prof, 34–*, dean *faculty of arts*, 22–34, *emer. dean, 34–* Lecturer, Ont. Nor. Col, 94–96. Math. Soc; Royal Soc. Can.

De Lury, Dr. Daniel B(ertrand), University of Toronto, Toronto, Ont, Can. *Mathematics.* Walker, Minn, Sept. 19, 07. B.A, Toronto, 29, M.A, 30, Ph.D, 36; Columbia, 36–37. Instr. *math*, Saskatchewan, 31–34; *lecturer, Toronto, 37–* A.A; Math. Soc; Statist. Asn; Inst. Math. Statist. Mathematical statistics.

De Lury, Prof. J(ustin) S(arsfield), University of Manitoba, Winnipeg, Man, Can. *Geology, Mineralogy.* Manilla, Ont, Jan. 15, 84. B.A, Toronto, 05; Ph.D, Minnesota, 25. Asst. miner, Toronto, 05–06; *prof. geol. and miner*, Idaho, 06–13; *Manitoba*, 16–27, 28– Saskatchewan, 27–28. Geol. Surv. Can, 04, 23–24; commissioner mines, Man, 28–30; provincial geologist, Man, 30– Advisory cmt, Can. Munitions Board, 18. Geol. Soc; Can. Inst. Min. and Metal. (v. pres, 25, pres, 30); fel. Royal Soc. Can. Precambrian and economic geology; glaciation; petrology; crustal dynamics; auto-traction hypothesis.

De Lury, Dr. Ralph E(merson), Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* Manilla, Ont, Nov. 23, 81. B.A, Toronto, 03, fellow, 03–06, M.A, 04, Ph.D, 07; Chicago, 05. Asst. physical chem, Princeton, 06–07; observer, *Dom. Observatory*, 07–13, asst. astronomer, 13–19, research astronomer, 19–29, asst. director, 29–36, *first asst. to Dom. astronomer, 36–, in charge solar physics div, 13–* A.A; Astron. Soc; Soc. Mammal; Statist. Asn; Optical Soc; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; fel. Royal Astron. Soc. Can. (pres, 36–38); fel. Royal Soc. Can; fel. Royal Astron. Soc; fel. London Chem. Soc; Deuts. Astron. Gesell; Soc. astron. de France; Int. Astron. Union (sec'y, nat. cmt. Can). Kinetics; amalgam potential; spectroscopy; solar rotation; radiation; spots; wave lengths; arc spectra; solar variations and related phenomena of the earth and solar system.

Delwiche, Prof. E(dmond) J(oseph), R. R. 2, Green Bay, Wis. *Agriculture.* Orbais, Belgium, March 25, 74. B.S.A, Wisconsin, 06, M.S, 09. Teacher, pub. schs, Wis, 97–02; supt. agr. substations, *Wisconsin*, 06–09, asst. prof. and assoc. prof. *agron*, 10–20, *prof, 20–* A.A; Soc. Agron; Genetic Asn. Grain and forage crop breeding; hardy wheats; early corn; high yielding peas; crop adaptation and culture.

Demaree, Dr. Delzie, Agricultural and Mechanical College of Arkansas, Monticello, Ark. *Botany.* Benham, Ind, Sept. 15, 89. A.B, Indiana, 20; M.S, Chicago, 21; Ph.D, Stanford, 32. Teacher biol, Hendrix Col, 22–26; bot, Arkansas, 26–29; forester, Forestry and Park Service, Ohio, 33–36; *prof. biol. and chairman div. nat. sci. and math, Agr. and Mech. Col. Ark, Monticello, 36–* Mem. faculty, Oklahoma, 36. Summers, mem. faculty, forest sch, Yale, 24, 25; Oklahoma, 36. Bot. Soc; Ecol. Soc; Fern Soc; Sullivant Moss Soc; Ark. Acad; Ind. Acad; La. Acad; Calif. Bot. Soc. Flora of Arkansas.

Demaree, J(uan) B(rewer), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Madison, Ind, July 22, 85. B.S.A, Purdue, 10. Asst. botanist, Maryland, 10–12; Ohio Exp. Sta, 12–13; Pa. State Col, 13–15; *bur. plant indust, U. S. Dept. Agr*, 18–22, asst. pathologist, 22–26, assoc. pathologist, 26–29, pathologist, 29–35, *senior pathologist, 35–* Phytopath. Soc. Taxonomy and control of pecan fungi; rosette of pecan trees; diseases of small fruits.

DeMarinis, Dr. F(rank), 2611 Exeter Road, Cleveland Heights, Ohio. *Chemistry.* Italy, Dec. 14, 12. A.B, Western Reserve, 36, A.M, 37, Ph.D, 40. Asst, Western Reserve, 37–40; research chemist, Petri Wine Lab, 40–41; *research electro chemist, S. K. Wellman Co, 41–* Electrochemistry and physiological gènetics; electrodepositions of alloys, especially those of the iron group; relative growth and genic action in Drosophila.

Dember, Dr. Alexis B(erthold), California Institute of Technology, Pasadena, Calif. *Physics.* Dresden, Germany, May 30, 12. Inst. Tech, Dresden, 30–31; Göttingen, 32–33; Ph.D, Prague, 35. Instr. *physics*, Istanbul, 35–36; *research fellow, Calif. Inst. Tech, 37–* Physical Soc; Optical Soc. Low temperature physics; photoelectric phenomena.

Dembo, Dr. Tamara, State University of Iowa, Iowa City, Iowa. *Psychology.* Baku, Russia, May 28, 02. Ph.D, Berlin, 30. Asst, Groningen, 29; research assoc. exp. psychol, Smith Col, 30–32; research, Worcester State Hosp, 32–34; asst, Cornell, 34–35; research fellow, *child welfare research sta, Iowa*, 35–36, *research assoc. child psychol, 36–* Summer, asst. prof, Stanford, 41. Soc. Research Child Develop; assoc. Psychol. Asn; Iowa Acad. Psychology of emotions; theory of anger; frustration; abnormal, social and child psychology.

De Ment, Jack, 701 Couch Bldg, Portland, Oregon. *Chemistry.* Portland, Oregon, Feb. 6, 20. Reed Col, 38–41. *Research chemist, Mineralogist Labs, and assoc. ed, 'Mineralogist Mag,' 39–* Chemist, Mont. Assay Office, Portland, Oregon, 40; chemist and asst, Charlton Labs, 41–42. Contributing ed, 'Strength Jour,' 40–42. A.A; Electrochem. Soc; Micros. Soc; Soc. Research Meteorites; Soc. Mil. Eng; Oregon Mineral Soc. Fluorescence of chemicals, minerals and gems; uranium chemistry, physics and mineralogy; photochemistry in oil technology; ultra-violet light in criminology and military intelligence; fluorescence in the ultra-violet; luminescence of water; x-rays; radium; myodynamics and human strength; popularization of science; the research personality.

Demerec, Dr. M(illislav), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. ***Zoology, Genetics.* Kostajnica, Jugoslavia, Jan. 11, 95. Col. Agr, Jugoslavia, 14–16; Grignon, France, 19; Ph.D, Cornell, 23. Adj, Krizevci Exp. Sta, Jugoslavia, 16–19; asst. plant breeding, Cornell, 21–23; *sta. for exp. evolution, dept. genetics, Carnegie Institution*, 23–36, asst.

director, 36–41, acting director, 41–43, *director, 43–* A.A; Soc. Zool; Soc. Nat. (treas, 32–35); Genetics Soc. (sec'y-treas, 35–38, v. pres, 38, pres, 39); Genetic Asn; Bot. Soc; L. I. Biol. Asn. (director biol. lab, 41–). Genetics of maize, Drosophila and Delphinium; unstable genes; nature of the gene.

Demeritt, Prof. Dwight B, 15 University Place, Orono, Maine. *Forestry.* Sangerville, Maine, Aug. 13, 98. B.S, Maine, 22; M.F, Yale, 23. Asst. prof. forestry, Maine, 23–26; exten. forester, Louisiana, 26–28; asst. prof. *forestry,* Pa. State Col, 28–30, assoc. prof, 30–31; Iowa State Col, 31–34; *prof. and head dept, Maine, 34–* Soc. Foresters. Forest extension and mensuration.

de Milt, Prof. Clara (Marie), 7820 Jeannette St, New Orleans, La. *Chemistry.* New Orleans, La, May 8, 91. A.B, Tulane, 11, M.S, 21; Ph.D, Chicago, 25. Teacher, high sch, La, 12–19; instr. *chem, Newcomb Col, Tulane,* 19–24, asst. prof, 25–27, assoc. prof, 27–29, *prof, 30–, chairman dept, grad. sch, 41–* A.A; Chem. Soc; Hist. Sci. Soc. Organic chemistry; history of chemistry.

Deming, Prof. Clyde Leroy, 2 Marshall Road, New Haven, Conn. *Surgery.* Cornish, N. H, Aug. 18, 85. A.B, Bowdoin Col, 10, hon. Sc.D, 35; M.D, Yale, 15. Intern, New Haven Hosp, 15–17, res. surgeon, 17–19; instr. surg, sch. med, Yale, 18–19; res. staff, Brady Urol. Inst, Hopkins Hosp, 19–20, res. urologist, 20–21; asst. prof. surg, *sch. med, Yale,* 21–24, assoc. clin. prof, 24–29, *urol,* 29–32, *clin. prof, 32–* Urologist-in-chief, New Haven Hosp. and New Haven Dispensary; consulting urologist, Meriden Hosp; Griffin Hosp, Derby; Windham Community Mem. Hosp, Willimantic. A.A; fel. Col. Surg; Asn. Genito-Urinary Surg; Urol. Asn. (pres, New Eng. branch, 35); Am. Med. Asn; Clin. Soc. Genito-Urinary Surg; New Eng. Surg. Soc; New Eng. Urol. Soc; hon. mem. Associated Physicians L. I; Int. Urol. Asn. Urology.

Deming, G(eorge) W(arren), U. S. Department of Agriculture, Ft. Collins, Colo. *Agronomy.* Fleming, Ohio, March 31, 90. B.S, Nebraska, 18. Asst. agronomist, Colo. Exp. Sta, 23–31; asst. agronomist and later *assoc. agronomist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 31–* Inheritance in barley, particularly linkages and chlorophyl deficiencies; agronomy and breeding of sugar beets.

Deming, Prof. H(orace) G(rove), Station A, Lincoln, Nebr. *Chemistry.* San Bernardino, Calif, Feb. 25, 85. B.S, Washington (Seattle), 07; M.S, Wisconsin, 09, Ph.D, 11. Teacher, high sch, Alaska, 08–09; instr. chem, Wisconsin, 10–11; assoc. prof, Philippines, 11–15, prof. and chief dept, 15–16; assoc, Illinois, 16–18; *prof. physical chem, Nebraska, 18–* In charge dept. information, Arthur D. Little, Inc, 28–29; consulting chemist. Chem. Soc. Diffusion of gases through metals; identification of colors by photography; chemical textbooks.

Deming, Lola S(hupe) (Mrs. W. Edwards Deming), Selective Service System, Washington, D. C. *Mathematics, Statistics.* Columbus, Kans, May 31, 06. A.B, Col. of Emporia, 28; A.M, George Washington, 31. Asst. sci. aid and junior physicist, bur. chem. and soils, U. S. Dept. Agr, 28–40; *assoc. statistician and chief reports, Selective Service System, 40–* Physical properties of compressed gases; ozone absorption; electron diffraction; molecular structure; mathematical statistics; curve fitting.

Deming, Prof. M(eryl) W(illiam), University of Nevada, Reno, Nev. *Chemistry.* Forest Hill, Mich, March 5, 01. A.B, Oregon, 23, A.M, 25; Ph.D, Washington (Seattle), 28. Instr. *chem,* Oregon State Col, 28–29; *Nevada,* 29–30, asst. prof, 30–33, *assoc. prof, 33–* Chem. Soc. (chairman, Sacramento sect, 40). Inorganic and physical chemistry.

Deming, Prof. R(aymond) M(ark), Upper Iowa University, Fayette, Iowa. *Mathematics.* Arlington, Iowa, Oct. 5, 82. B.C.E, Iowa State Col, 08, M.S, 35; hon. Sc.D, Upper Iowa, 35. Instr. math. and eng, Lawrence Col, 08–11; Howard, 11–12; *math,* Case, 12–22; *prof, Upper Iowa, 22–, registrar, 24–* Math. Asn. Unification and application of the elliptic integral.

Deming, Dr. W(illiam) Edwards, Bureau of the Census, Washington, D. C. *Mathematical statistics.* Sioux City, Iowa, Oct. 14, 00. B.S, Wyoming, 21; M.S, Colorado, 24; Ph.D, Yale, 28. Instr. elec. eng, Wyoming, 21–22; physics, Colo. Sch. Mines, 22–23, asst. prof, 23–24; Colorado, 24–25; instr, Yale, 25–27; asst. physicist, bur. chem. and soils, U. S. Dept. Agr, 27–28, assoc. physicist, 28–36, physicist, 36–39; senior mathematician, *Bur. Census,* 39–40, math. adviser, 40–42, *head mathematician, 40–; adviser in sampling, U. S. Bur. Budget, 42–* Special lecturer, Bur. Standards, 30–; head dept. math. and statistics, grad. sch, U. S. Dept. Agr, 33–; consultant to U. S. Sec'y War, 40–; lecturer, Stanford, 42; consultant, Office Sci. Research and Develop. Mem. cmt. math. statist, Nat. Research Council. Mem. board editors, 'Annals Math. Statist.' A.A; Statist. Asn; fel. Inst. Math. Statist. (v. pres, 43–); Popul. Asn; Wash. Acad. (board editors, 'Proc'); London Math. Asn. Nuclear packing; kinetics of ammonia decomposition; equations of state; physical properties of compressed gases; probability; least squares and curve fitting; theory of errors; sampling in population inquiries; quality control; statistical inference.

Demmon, E(lwood) L(eonard), 2134 St. Charles Ave, New Orleans, La. *Forestry.* Kendallville, Ind, Sept. 23, 92. A.B, Michigan, 14, M.S, 16. Forester and tech. adviser, Goodyear Tire and Rubber Co, Sumatra, 16–23; assoc. silviculturist, *South. Forest Exp. Sta, U. S. Forest Service,* 25–27, silviculturist, 27–28, *director, 28–* Exped, Firestone Tire and Rubber Co, Cent. Amer. and Panama, 24. A.A; Soc. Foresters (councilor, 32–35); Forestry Asn; Arbitration Asn. (motion picture panel arbitrators); South. Asn. Sci. and Indust; New Orleans Acad. (sec'y, 33–35, 37, pres, 35); cor. mem. Soc. Forestry Finland. Rubber culture in the East Indies and Central America; forestry in the southern United States; early American history.

DeMonbreun, Dr. William A(ndrew), 753 Murfreesboro Road, Nashville, Tenn. *Pathology.* College Grove, Tenn, July 12, 99. A.B, Vanderbilt, 21, M.S, 22, M.D, 27. Asst. surgeon, U. S. Navy, 27–29; res. pathologist, univ. hosp, *Vanderbilt,* 29–30, instr. *path, sch. med,* 29–33, *asst. prof, 33–* A.A; Asn. Path. and Bact; Soc. Trop. Med; Am. Med. Asn; Soc. Clin. Path. Granuloma inguinale; infectious oral papillomatosis of dogs; contagious lymphosarcoma of dogs, histoplasmosis; blastomycosis; infectious diseases; canine distemper.

Demorest, Prof. D(ana) J(ames), Ohio State University, Columbus, Ohio. *Metallurgy.* Marysville, Ohio, Aug. 21, 82. B.S, Ohio State. Chemist, U. S. Bur. Mines, 07; U. P. Ry, 08; asst. prof. *metal, Ohio State,* 08–12, *prof, 12–* Major, C.W.S, 18. Chem. Soc; Soc. Test. Mat; Electrochem. Soc; Soc. Metals; Min. and Metal. Eng; Gas Asn. Metallurgical analysis; engineering chemistry.

Demos, Prof. M(iltiades) S(tavros), University of New Hampshire, Durham, N. H. *Mathematics.* Constantinople, Turkey, Jan. 19, 02. B.S, Robert Col, Constantinople, 22; Ph.D, Harvard, 26. Sheldon traveling fellow from Harvard, Munich, 26–27; instr, Harvard, 27–28; Columbia, 28–31; *asst. prof. math, New Hampshire, 31–; lieut, Air Corps, U.S. Army, 43–*

Dempsey, Dr. Edward W(heeler), Harvard Medical School, Boston, Mass. *Anatomy, Physiology.* Buxton, Iowa, May 15, 11. A.B, Marietta Col, 32; M.S, Brown, 34, Ph.D, 37. Nat. research fellow, 37–38; instr. physiol, *Harvard Med. Sch,* 38–41, assoc. *anat,* 41–42, *asst. prof, 42–* Asn. Anat; Physiol. Soc. Anatomy and physiology of reproduction; electrophysiology of forebrain mechanisms.

Dempster, Prof. A(rthur) J(effrey), University of Chicago, Chicago, Ill. ***Physics.* Toronto, Ont, Can, Aug. 14, 86. B.A, Toronto, 09, M.A, 10, fellow, 10–11, hon. D.Sc, 37; 1851 Exhib. scholar, Germany, 12–14; Ph.D, Chicago, 16. Asst. *physics, Chicago,* 15–17, instr, 17–19, asst. prof, 19–23, assoc. prof, 23–27, *prof, 27–* Lewis prize, 38. Sig.C, U.S.A, 17–19. Nat. Acad; A.A; Philos. Soc. Positive rays; proton and ion absorption; ionization and radiation processes; isotopic structure of elements; atomic masses.

Dempster, Dr. Everett R(oss), 744 Keeler Ave, Berkeley, Calif. *Genetics.* San Francisco, Calif, March 17, 03. B.S, California, 28, Ph.D, 41. Elec. engineer, Magnavox Co, 27–33; teaching asst. and asst. *genetics, California,* 33–41, *instr, 41–* Genetic effects of radiations.

Dempster, Dr. Richard R(oy), P. O. Box 205, Mills College, Calif. *Theoretical physics.* Oakland, Calif, April 28, 08. A.B, California, 30, A.M, 31, Ph.D, 42. Teaching asst. physics, California, 33–34; instr. chem, Cora Williams Inst, 35–36; *instr. math. and physics, Mills Col, 36–; physicist, Armor and Projectile Lab, Naval Proving Ground, Va, 42–* Physical Soc; Astron. Soc. Astrophysics; calculation of transition probabilities of photoionization of sodium from the 3P-state; influence of fluorescence upon the central intensities of the solar D-lines.

Dempster, Dr. W(ilfrid) T(aylor), University of Michigan, Ann Arbor, Mich. *Anatomy.* Windsor, Ont, Can, Nov. 11, 05. B.S, Michigan, 26, A.M, 27, Sc.D, 29. Asst. zool, *Michigan, 26–27, instr. anat, 29–* A.A; Asn. Anat; Soc. Zool; Hist. Sci. Soc; Soc. Study Develop. and Growth; Mich. Acad. Vertebrate morphology; embryonic growth and differentiation; the vertebrate ear; history of science; evaluation of microtechnique.

Denbow, Prof. Carl (Herbert), 3 Sunnyside Drive, Athens, Ohio. *Mathematics.* East Fultonham, Ohio, Dec. 13, 11. B.S, Chicago, 32, M.S, 34, Ph.D, 37. Instr. *math, Ohio,* 36–40, *asst. prof, 40–* Math. Soc; Math. Asn. The problem of Bolza in the calculus of variation.

Dence, W(ilford) A(lbert), R. D. 3, Syracuse, N. Y. *Ichthyology.* Brewerton, N. Y, Nov. 2, 94. B.S, Syracuse, 20. Asst, *Roosevelt Wild Life Forest Exp. Sta, Syracuse,* 20–23, asst. ichthyologist, 23–25, *ichthyologist, 25–, asst. director, 28–* Soc. Ichthyol. and Herp; Fisheries Soc; Soc. Foresters; Wildlife Soc. Freshwater fishes.

Dengler, Dr. F(elton) S(amuel), Port Neches, Texas. *Chemistry.* Steelton, Pa, May 19, 86. B.S, Pa. Col, 09; Ph.D, Hopkins, 12. Chemist and later *supt, Texas Co, 12–* A.A; Chem. Soc.

Den Hartog, Commander J(acob) P(eter), Broxburn Drive, R.F.D. 3, Bethesda, Md. *Engineering mechanics.* Ambarawa, Java, D.E.I, July, 01. E.E, Delft, 24; Ph.D, Pittsburgh, 29. Research labs, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 24–30, 31–32; mem. faculty, Göttingen, 30–31; asst. prof, Harvard, 32–36, assoc. prof. applied mech, 36–42; *commander, U. S. Naval Res, 41–; prof. mech. eng, Mass. Inst. Tech, 43–* Lecturer, Pittsburgh, 28; Harvard, 31–32. Mech. Eng; fel. Am. Acad; fel. Inst. Aeronaut. Sci. Dynamics and mechanical vibration; elasticity.

Denison, Dr. I(rving) A(lson), 130 Park Crest Drive, Silver Spring, Md. *Chemistry.* Washington, D. C, Feb. 22, 96. B.S, Illinois, 20, M.S, 21; Ph.D, George Washington, 29. Asst. chemist, bur. chem. and soils, U. S. Dept. Agr, 22–29; assoc. chemist and *chemist, Bur. Standards, 29–* Philos. Soc. Corrosion of metals in soils.

Denison, Dr. Robert H(owland), Dartmouth College, Hanover, N. H. *Vertebrate paleontology.* Somerville, Mass, Nov. 9, 11. A.B, Harvard, 33; A.M, Columbia, 34, Ph.D, 38. *Asst. curator museum, Dartmouth Col, 37–, instr. zool, 38–* A. Cressy Morrison prize, 37. Paleont. Soc; Soc. Vertebrate Paleont. Primitive fossil fishes.

Dennis, Prof. Earl A(ubrey), American University, Washington, D. C. *Zoology.* Bloomdale, Ohio, June 9, 02. A.B, Col. of Wooster, 25; Ph.D, Chicago, 34. Instr, Tusculum Col, 27–28; *biol,* Allegheny Col, 28–31; asst. prof, *American Univ,* 35–39, assoc. prof, 39–42, *prof, 42–* Experimental embryology of the chick.

Dennis, Prof. E(mery) Westervelt, American University of Beirut, Beirut, Lebanese Republic. *Bacteriology, Parasitology.* Oklahoma City, Okla, Dec. 19, 05. A.B, Okla. City Univ, 27; A.M, California, 29, Ph.D, 31. Teaching fellow, California, 27–30, assoc, California at Los Angeles, 30–31; adj. prof. *bacter, Am. Univ. Beirut,* 31–35, *assoc. prof, 35–, chairman dept, 31–, dept. parasitol, 35–* Rockefeller Foundation fellow, Harvard Med. Sch, 34–35. Bacterial toxins in blood dyscrasias; immunization against echinococcus; mechanism of invasion of streptococci; streptococcal products affecting blood coagulation; streptococcal polysaccharides; typhoid toxin; typhoid leukocidin.

Dennis, Dr. F(oster) L(eroy), Ursinus College, Collegeville, Pa. *Geometry.* West Milton, Pa, Jan. 1, 10. B.S, Ursinus Col, 31; M.S, Cornell, 32; Ph.D, Illinois, 38. Teacher, Milton High Sch, 33–34; instr. *math,* Ursinus Col, 34–35; asst, Illinois, 35–38; *instr, Ursinus Col, 38–* Math. Asn. Geometric properties of algebraic correspondences.

Dennis, Prof. Joe, Texas Technological College, Lubbock, Texas. *Biological chemistry.* Sherman, Texas, Dec. 5, 11. A.B, Austin Col, 33; A.M, Texas, 37, Ph.D, 42. Tutor biol. chem, sch. med, Texas, 34–36, instr, 36–38; *chem, Texas Tech. Col,* 38–41, *asst. prof, 41–* Chem. Soc. Protein denaturation; blood potassium.

Dennis, P(hilip) E(ldon), 303 Federal Bldg, Salt Lake City, Utah. *Geology.* Spring Glen, Utah, Jan. 17, 05. A.B, Brigham Young, 29, A.M, 31; Stanford, 31–35. Instr. geol, Brigham Young, 35–39; junior geologist, *ground water div, U. S. Geol. Surv,* 39–42, *asst. geologist, 42–* Ground water.

Dennis, Prof. Wayne, Louisiana State University, Baton Rouge, La. *Psychology.* Sitka, Ohio, Sept. 1, 05. A.B, Marietta Col, 26; A.M, Clark, 28, Ph.D, 30. Instr. *psychol,* Mich. State Col, 29; acting asst. prof, Virginia, 29–30, asst. prof, 30–42; *prof. and head dept, Louisiana, 42–* Social Sci. Research Council fellow, 36–37; visiting prof, Clark, 37–38. A.A; Psychol. Asn; fel. Soc. Research Child Develop; S. Soc. Philos. and Psychol. (councilor, 41, sec'y-treas, 42–); Va. Acad. (chairman, psychol. sect, 32–34). Social and genetic psychology; child care in primitive societies.

Dennison, Prof. Boyd Coe, 1005 Lancaster St, Pittsburgh, Pa. *Electrical engineering.* Hannibal, N. Y, Sept. 9, 81. M.E, Cornell, 04, M.E.E, 08. Instr. *elec. eng,* Cornell, 05–10; from instr. to *prof, Carnegie Inst. Tech, 10–* Consulting elec. engineer, Morris Knowles Co, 26–38. Summers, mem. staff, Westinghouse Elec. and Mfg. Co, 13, 15, 16, 23, 26. Elec. Eng. (chairman, Pittsburgh sect, 20); Eng. Educ. Electrical laboratory experiments; electrical problems.

Dennison, Prof. David M(athias), University of Michigan, Ann Arbor, Mich. **5Physics.* Oberlin, Ohio, April 26, 00. A.B, Swarthmore Col, 21; Ph.D, Michigan, 24. Int. Educ. Board fellow, 24–26; instr, *Michigan,* 27–28, asst. prof, 28–30, assoc. prof. *physics,* 30–35, *prof, 35–* Fel. Physical Soc. Theoretical physics; specific heat of hydrogen gas; structure of polyatomic molecules as shown by their infra-red spectra.

Dennison, Capt. R(ichard) W(heeler), 243 W. Tulpehocken St, Germantown, Pa. *Physics.* Oswego, N. Y, July 16, 14. B.S, Carnegie Inst. Tech, 36, M.S, 38, Sc.D, 41. Test engineer, Gen. Elec. Co, 36–37; teaching asst. and fellow, Carnegie Inst. Tech, 37–41; officer in charge inspection lab, Phila. procurement dist, *Sig. Corps, U. S. Army,* 41–42, *in charge lab, intelligence and planning, Phila. inspection zone, 42–* Physical Soc. Ferromagnetic change in volume of some alloys of copper and nickel.

Denniston, Prof. R(ollin) H(enry), University of Wisconsin, Madison, Wis. *Botany.* Oakfield, Wis, March 21, 74. Ph.G, Wisconsin, 97, B.S, 99, fellow, 99–00, Ph.D, 04. Asst. instr. *bot, Wisconsin,* 00–03, instr, 03–07, *asst. prof, 07–* A.A; Bot. Soc; Wis. Acad. (treas, 05). Anatomy of flowering plants; lichens.

Denniston, Dr. R(ollin) H(enry), II, University of Wyoming, Laramie, Wyo. *Physiology, Zoology.* Chicago, Ill, Dec. 16, 14. A.B, Wisconsin, 36, A.M, 37; Ph.D, Chicago, 41. *Instr. zool. and physiol,* Arizona, 41–43; *Wyoming, 43–* Endocrinology; seasonal reproductive cycles.

Denny, Prof. Charles S(torrow), Wesleyan University, Middletown, Conn. *Geology.* Brookline, Mass, Sept. 17, 11. A.B, Harvard, 34, Ph.D, 38. Instr. *geol,* Dartmouth Col, 38–42; *asst. prof, Wesleyan, 42–* Cenozoic geology of New Mexico; glacial geology of New England.

Denny, Dr. Francis P(arkman), 111 High St, Brookline, Mass. *Medicine, Bacteriology.* Brookline, Mass, Jan. 2, 69. A.B, Harvard, 91, M.D, 95. Asst. bacter, Harvard Med. Sch, 99–04, clin. med, 04–06. Health officer and bacteriologist, Board Health, Brookline. Pub. Health Asn.

Denny, Dr. F(rank) E(arl), Boyce Thompson Institute, 1086 Broadway, Yonkers, N. Y. **5Plant physiology.* Tekamah, Nebr, March 31, 83. A.B, Nebraska, 06; Ph.D, Chicago, 16. Asst. hort, Nebraska, 06–08; plant physiol, Chicago, 16; plant physiologist, U. S. Dept. Agr, 16–18, assoc. chemist, 19–23; *plant physiologist, Boyce Thompson Inst, 24–* A.A. (chairman, G, 37); Bot. Soc. (treas, 36); Chem. Soc; Torrey Bot. Club (v. pres, 36). Permeability of plant membranes; maturity of fruits and vegetables; effect of stimulative chemicals, especially vapors and gases, on plants; dormancy of plants.

Denny, M(arion) V(aughn), University of Michigan, Ann Arbor, Mich. *Mineralogy.* Brentwood, Mo, March 15, 11. B.S, Michigan, 32, M.S, 33. Asst. miner, *Michigan,* 31–36, asst. curator *minerals,* 36–40, *curator, 40–* Mem, Eastman Kodak Advisory Panel, 40– Miner. Soc; Mich. Acad. Physical and chemical properties of minerals, gems and meteorites; geographical occurrence of minerals; museum technique; photographic research.

Denny, Dr. Wayne B(elding), 1186 Emory Drive, Atlanta, Ga. *Physics.* Oberlin, Ohio, Feb. 4, 14. A.B, Oberlin Col, 35; Columbia, summers, 36–39; Ph.D, Yale, 41. *Instr,* high sch, N. Y, 35–38; educ, Connecticut, 40–41;

physics, Emory, 41– Physical Soc; assoc. Radio Eng. Philosophy of science; electronics.

Denny-Brown, Dr. D(erek) E(rnest), Neurological Unit, Boston City Hospital, Boston, Mass. *Medicine.* Christchurch, N. Z, June 1, 01, M.B, Otago Univ, 23, Ch.B, 24; Beit Mem. fellow, Oxford, 25–28, Ph.D, 28; hon. A.M, Harvard, 42. Neurologist, St. Bartholomew's Hosp, and physician, Nat. Hosp, London, England, 35–41; *prof. neur, Harvard Med. Sch, 41–* Rockefeller traveling fellow, 36. Physiol. Soc; fel. Royal Soc. Med; fel. Royal Col. Physicians. Neurology; applied physiology.

Deno, Prof. R(ichard) A(nthony), Rutgers University College of Pharmacy, Newark, N. J. *Zoology.* Newark, Mich, May 16, 06. Ph.G, Ferris Inst, 25; A.B, Michigan, 30, Ph.D, 35. Instr. pharmacy, Ferris Inst, 25–27; asst. zool, Michigan, 31–34, teaching fellow, 34–35; instr. biol, Bowling Green State Univ, 35–36; instr. biol. and pharmacy, Med. Col. of Va, 36–37, assoc, 37–38; asst. prof. biol, *col. pharmacy, Rutgers,* 38–40, *assoc. prof. biol. sciences, 40–* A.A; Pharmaceut. Asn. Histology of the uterus; macrophages.

Denoon, Dr. C(larence) E(ngland), Jr, Landers Corp, Toledo, Ohio. *Organic chemistry.* Richmond, Va, Feb. 25, 15. B.S, Richmond, 34, M.S, 35; du Pont fellow, Illinois, 37–38, Ph.D, 38. Asst, Illinois, 35–37; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 38–42; *develop. manager, Landers Corp, 42–* Chem. Soc. Organic synthesis; constitution of vinyl polymers; synthetic rubber; textile processing.

Denslow, Dr. Roy R(ichard), 227 Grant Ave, Nutley, N. J. *Chemistry.* Brooklyn, N. Y, Oct. 22, 94. B.S, Col. City of N. Y, 15; A.M, Columbia, 17; Ph.D, N. Y. Univ, 26. Asst. chemist, Citro Chem. Co, 15; asst, Col. City of N. Y, 15–18; instr. and asst. prof, Smith Col, 18–28; *research chemist, pigments dept, E. I. du Pont de Nemours and Co, 28–* Chem. Soc; fel. Inst. Chem. Pigment chemistry.

Densmore, Miss Frances, Red Wing, Minn. *Ethnology.* Red Wing, Minn, May 21, 67. Oberlin Conservatory of Music, 84–86; private study, 88–90, 98–00; hon. A.M, Oberlin Col, 24. Teacher piano and organist, Minn, 87–04; *research Indian music, Bur. Am. Ethnol, 07–, collaborator, 26–* Special research, Southwest Museum, Los Angeles, Calif, 35, 37, 38. consultant, Nat. Archives, 41–43. Nat. cmt, Nat. Folk Festival, St. Louis, Mo, 34, Chattanooga, Tenn, 35, Washington, D. C, 36–42, Philadelphia, Pa, 43; expert consultant, U. S. sect, Int. Cmt. on Folk Arts, 30– Mem. Indian achievement medal cmt. of award, Indian Council Fire, 35; award, Nat. Asn. Am. Composers and Conductors, 41. 19th, 20th and 25th Int. Congs. of Americanists. A.A; Soc. Women Geog. (exec. cmt, 33–42); Anthrop. Soc. Wash. (sec'y, 16–18); Minn. Hist. Soc; hon. mem. Minn. Archeol. Soc. Music of the American Indians.

Dent, Prof. John A(dlum), University of Pittsburgh, Pittsburgh, Pa. *Mechanical engineering.* Brookland, Pa, Jan. 16, 85. M.E, Lehigh, 05. Asst. engineer, Bethlehem Steel Co, 05–07; N. Y. Transit Co, 07–10; instr. *mech. eng,* Illinois, 10–17; asst. prof, Kansas, 19–20, assoc. prof, 20–26, prof, 26–28; *prof, Pittsburgh, 28–,* head dept, 28–40. Capt, Ordnance Dept, 17–19. Mech. Eng. (chairman, Pittsburgh sect, 31); Eng. Educ; Eng. Soc. West. Pa. Dynamics of machinery.

Denton, Prof. George B(ion), 2719 Walnut Ave, Evanston, Ill. *Dentistry.* Detroit, Mich, March 22, 84. A.B, Michigan, 07, A.M, 09, Ph.D, 16. Instr. tech. composition, *dental sch, Northwestern,* 17–18, asst. prof, 18–19, *prof,* 19–34, *dental hist. and lit, 35–* Int. Asn. Dental Research. History of dentistry.

Denton, Dr. J(ohn) J(oseph), 31 W. Franklin St, Bound Brook, N. J. *Organic chemistry.* Newkirk, Okla, Nov. 24, 15. B.S, Okla. Agr. and Mech. Col, 37; Ph.D, Illinois, 41. Asst. chem, Illinois, 37–40, special asst, 40–41; *chemist,* Nat. Aniline and Chem. Co, 40; *Calco Chem. Div, Am. Cyanamid Co, 41–* Chem. Soc. Abnormal reaction in the sommelet aldehyde synthesis; coupling action of the Grignard reagent and the ortho effect.

Denton, Dr. W(illiam) W(ells), Great Lakes College, Detroit, Mich. *Mathematics.* Detroit, Mich, Aug. 18, 82. A.B, Michigan, 07; A.M, Illinois, 09, Ph.D, 12. Asst. math, Illinois, 07–11, instr, 11–16; Worcester Polytech, 17; Michigan, 18–19, asst. prof, 20–34; director, Detroit-Cass Freshman Col, 34–35; Detroit-Northwest. Community Col, 35–36; Detroit Community Col, 36–37; dean, Great Lakes Col, 37–38, sec'y, 40; director, Detroit Adult Educ. Inst, 38–39; asst. prof. math. and physics, Earlham Col, 40–41; instr, James Millikin, 41–42; *dean, Great Lakes Col, 42–* Math. Soc; Math. Asn; Gesell. für angewandte Math. und Mech. Projective differential geometry; foundations of mathematics.

Denues, Lieut. A(rthur) R(ussell) T(aylor), U. S. Bureau of Mines, Bruceton, Pa. *Chemical engineering.* Aug. 16, 14. B.E, Hopkins, 35, M.S, 37; fellow, Maryland, 38–39, Ph.D, 39. Chem. engineer in charge explosives research unit, U. S. Bur. Mines, 37–42, cooperative investigator liquid-oxygen explosives, Chile Exploration Co, 37–38; *lieut, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc; Soc. Develop. and Growth; Gas Asn. Fuels and combustion; flame propagation; gas explosions; use, safety and efficiency of explosives; munitions.

Deobald, Dr. H(arold) J(ohn), Allied Mills, Inc, Peoria, Ill. *Biochemistry.* Cleveland, Ohio, Oct. 6, 06. B.S, Ohio State, 28; fellow, Wisconsin, 29–37, M.S, 31, Ph.D, 35. Asst. agr. chem, Ohio State, 28–29; asst. and indust. fellow animal husbandry, Wisconsin, 29–37; assoc. director biol. research, *Allied Mills, Inc,* 37–39, *chemist, eng. dept, 39–* Chem. Soc; Poultry Sci. Asn. Calcium metabolism of fowl; relation of iron and aluminum to phosphorus metabolism; soy-beans.

DeOme, Dr. K(enneth) B(enton), 709 Coventry Road, Berkeley, Calif. *Animal pathology.* Kalkaska, Mich, July 22, 06. A.B, Albion Col, 28; M.S, Mich. State Col, 34; Ph.D, California, 38. *Instr. animal path, div. vet. science, California, and junior animal pathologist, Exp. Sta, 38–* Asn. Cancer Research. Neoplastic diseases of domestic animals.

de Ong, Dr. E(lmer) R(alph), 216 Pine St, San Francisco, Calif. *Entomology.* Villisca, Iowa, Sept. 29, 82. B.S, California, 15, M.S, 23; Ph.D, Stanford, 28. Asst. entom, California, 15–17, instr, 17–25, asst. entomologist, Exp. Sta, 25–28; *consulting entomologist and agr. technologist, 28–* Consulting entomologist, State Food Admin, Calif, 18–19. Asn. Econ. Entom. Economic entomology; cyanide and potassium xanthate as soil fumigants; nicotine, petroleum oil, precipitated sulfur, vegetable oils, fatty acids and pine tar oils as insecticides; control of the red spider in deciduous orchards; weed killers; insects attacking stored products.

Deonier, Dr. Christian C(harles), Box 3391, Orlando, Fla. *Medical entomology.* Harrah, Okla, Oct. 1, 07. B.S, Okla. Agr. and Mech. Col, 32, M.S, 33; fellow, Iowa State Col, 33–34, Ph.D, 39. Asst, Iowa State Col, 34–35; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–39, asst. entomologist, 39–42, *assoc. entomologist, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Toxicology, physiology and ecology of the Culicidae and Calliphoridae which are of importance to medical and veterinary entomology.

Depew, Dr. Harlan A(rmstrong), Sherwin-Williams Co, Gloucester City, N. J. *Chemistry.* Chelsea, Mich, Sept. 25, 91. B.S.E, Michigan, 13, M.S.E, 14; Ph.D, Columbia, 29. Research chemist, U. S. Bur. Mines, 15–18; chief rubber sect, research div, N. J. Zinc Co, 19–32; director research, Am. Zinc Sales Co, 32–40; *supt. titanium div, Sherwin-Williams Co, 40–* C.W.S, U.S.A, 18. A.A; Chem. Soc; Soc. Test. Mat. (chairman, cmt. D-11, 32–36); Chem. Eng; Chemists' Club. Pigments of paint and rubber.

dePort, Theophile, Wright Field, Dayton, Ohio. *Aerodynamics.* Prague, Czechoslovakia, Aug. 12, 87. B.S, High Tech. Sch, Prague; Col. Fine Arts, Paris. Airplane designer, Deperdussin Airplane Co, Paris, 10–16; Gen. Aeroplane Co, Detroit, 16–17; *aeronaut. engineer,* G. Elias Brothers, Buffalo, 22–24; *mat. div, A.S, U.S.Army, 24–* A.S, U.S.A, 17, Lockhart Mission, France, 18. Mem. cmt. aerodynamics and seaplanes, Nat. Advisory Cmt. Aeronaut. Aerodynamics as applied to aircraft design, performance, flight and wind tunnel testing; hydrodynamics and dynamics of shock absorbers.

De Porte, Dr. J(oseph) V(ital), New York State Department of Health, Albany, N. Y. *Statistics.* Korop, Russia, Jan. 1, 92. A.B, Oklahoma, 12; A.M, Princeton, 14; Ph.D, Cornell, 16. Asst. math, Cornell, 15–16; instr, N. Y. State Col. for Teachers, Albany, 16–18, asst. prof, 18–25; *director div. vital statist, State Dept. Health, N. Y, 25–* Lecturer, Univ. State of N. Y, 20–25; statist. consultant, State Cmt. Tuber. and Pub. Health, N. Y, 26– Summer, lecturer, N. Y. Univ, 24. Resource manager, uniform sect, Q.M.C, 18. A.A; Statist. Asn; fel. Pub. Health Asn. (chairman, vital statist. sect, 32, 33); fel. Popul. Asn. Vital statistics; medical statistics; sociology.

Deppe, Prof. Charles A(lexander), 89 Henry St, Franklin, Ind. *Biology.* Bay, Mo, July 27, 81. A.B, Missouri, 02; A.M,

La Grange Col, 10; hon. Sc.D, Kalamazoo Col, 20. Teacher chem. and German, Columbia Mil. Acad, Mo, 01–02; high sch, Mo, 02–07; sch. supt, Mo, 07–08; physics, chem. and biol. and acting pres, La Grange Col, 08–11; *prof. biol, Franklin Col, 11–* Lecturer, Johnson County Teachers Asn, Ind, 12; Hamilton County Teachers Asn, Ind, 15. Summers, Ind. State Teachers Col, Terre Haute, 28, 29; Butler, 30; Ball State Teachers Col, Ind, 31, 32. Ind. Acad. (chairman, program cmt, 30). Prolongation of the sex urge in the male rabbit after castration.

Derbigny, Dean Irving Anthony, Tuskegee Normal and Industrial Institute, Tuskegee Institute, Ala. *Chemistry.* New Orleans, La, 00. A.B, Talladega Col, 21; A.M, Cornell, 25, Minnesota, 40; Ph.D, Columbia, 32. Instr. chem, Va. State Col, 21–25, prof, 25–31; Talladega Col, 31–36; *dean, Tuskegee Inst, 36–* Vitamins; general chemistry.

Derby, Dr. H(erbert) A(ndrew), Department of Agriculture, Ottawa, Ont, Can. *Dairying.* Ettyville, Ont, Jan. 27, 98. B.S.A, Toronto, 23; M.S, Iowa State Col, 28, Ph.D, 31. Instr, dairy dept, Dept. Agr, Edmonton, Alta, 23–27; dairying, Iowa State Col, 28–31; director research, Dairy Corp. of Can, Ltd, Toronto, 31–33; *chief div. dairy markets and cold storage, Dept. Agr, Ottawa, 33–* Dairy Sci. Asn; Can. Soc. Tech. Agr.

Derbyshire, Prof. A(rthur) J(ames), Jr, Wayne University, Detroit, Mich. *Medical physiology.* Beverly, Mass, March 23, 09. A.B, Harvard, 30, Ph.D, 35. Instr, Ohio State, 35–37; asst. prof, *col. med, Wayne,* 37–42, *assoc. prof, 42–* Hearing and the nervous system.

Derbyshire, Dr. Russel Clay, University of Omaha, Omaha, Nebr. *Zoology.* Omaha, Nebr, July 1, 96. B.S, Kans. State Col, 30, M.S, 31; Ph.D, Iowa State Col, 38. *Instr. zool. and comp. anat, Omaha, 31–* A.A; Soc. Zool; Soc. Parasitol; Nebr. Acad. Comparative anatomy; parasitology; protozoology.

De Remer, Jay Grant, Hollow Tree Road, Darien, Conn. *Electrical engineering.* Racine, Wis, 82. B.S, California, 07. Sales engineer, Westinghouse Mfg. Co, 07–10; v. pres. and chief engineer, United Light and Power Co, 10–14; consulting engineer, Am. Dist. Steam Co, 15; New York, 16; consulting and research engineer, 19–20; consulting engineer and pres, Savage-De Remer Corp, 21–30; *pres, J. G. De Remer Research Corp, 30–* Tech. expert, U.S.N, 17–18, A.A; Elec. Eng; Mech. Eng. Electrical refrigeration; air conditioning.

de Rényi, Dr. Geo(rge) S(tephen), University of Pennsylvania, Philadelphia, Pa. *Anatomy.* Budapest, Hungary, April 24, 92. M.D, Budapest, 16. Instr. anat, med. sch, Royal Hungarian Univ, Budapest, 16–17, instr. ophthal, 18–19, asst. prof, 20–25, prosector *anat,* 25–26; asst. prof, *sch. med, Pennsylvania,* 26–27, *assoc. prof, 28–, grad. sch, 29–* A.A; Asn. Anat; Col. Physicians Phila. Histology.

Derge, Prof. G(erhard Julius), Carnegie Institute of Technology, Pittsburgh, Pa. *Metallurgy.* Lincoln, Nebr, Feb. 11, 09. A.B, Amherst Col, 30; Ph.D, Princeton, 34. Metallurgist, metals research lab, *Carnegie Inst. Tech,* 34–39, *asst. prof. metal, 39–* Chem. Soc; Min. and Metal. Eng; Soc. Metals; Electrochem. Soc. The palladium-hydrogen system; crystallography of metallic transformations and reactions; factors controlling grain size in steel; properties of tin and its alloys; ferrous metallurgy.

Derick, Dr. C(larence) G(eorge), 360 Cliff Road, Sewaren, N. J. **3*Chemistry.* Sutton, Que, Can, Oct. 29, 83. B.S, Worcester Polytech, 06; M.S, Illinois, 09, Ph.D, 10. Asst. org. chem, Mass. Inst. Tech, 06–07; from asst. to prof, Illinois, 07–16; director research, Schoellkopf Aniline and Chem. Co, 16–17; Nat. Aniline and Chem. Co, 18–21; v. pres, By-Products Steel Corp, and mem, C. G. Derick and Co, 21–24; *pres, Derick Labs, Inc, Buffalo, 25–; consultant, 25–* Sec'y and chairman div. org. chem, Nat. Research Council, 14–16, councilor, 17–24; mem. advisory cmt, bur. chem. and soils, U. S. Dept. Agr. Consulting chemist, U. S. Bur. Mines and Edgewood Arsenal, 17–19. Organic and physical chemistry; molecular rearrangements of carbon compounds; correlation of ionization with structure of substituted organic acids; dyes and intermediates; zinc salts.

Derick, Dr. C(lifford) L(ambie), 721 Huntington Ave, Boston, Mass. *Medicine.* Noyan, Que, Can, Oct. 20, 94. M.D, McGill, 18. Asst, Rockefeller Inst, 24–28; asst, prof. *med, Harvard Med. Sch,* 28–35, *assoc, 35–* Am. Physicians; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc. Internal medicine; uric acid metabolism in gouty patients and animals; rheumatic fever.

Derick, R(ussell) A(rthur), Central Experimental Farm, Ottawa, Ont, Can. *Agronomy.* Clarenceville, Que, Nov. 2, 94. B.S.A, McGill, 20, M.Sc, 23. Asst. agron, British Columbia, 20–24; asst. agrostologist, Exp. Farm, Brandon, Man, 24–27; *senior asst. agr. scientist, cereal div, Cent. Exp. Farm, 27–* Can. Soc. Tech. Agr. Oat breeding.

Derickson, Prof. Donald, Tulane University, New Orleans, La. *Structural engineering.* Meadville, Pa, July 14, 78. C.E, Dartmouth Col, 02. Asst. prof. struct. eng, Cornell, 05–13; *head sch. civil eng, Tulane, 13–, prof.* Consulting engineer, 15– U. S. Coast and Geod. Surv, 98–00; Alaska Boundary Surv, 07; La. Board Eng. Examiners; chairman, struct. eng. cmt, New Orleans Bldg. Code. Civil Eng; Inst. Steel Construction (tech. advisory board); Eng. Council Professional Develop. (delegatory cmt); La. Eng. Soc. Bridge engineering; harbor works; soil and foundation engineering.

Derickson, Prof. S(amuel) H(offman), Lebanon Valley College, Annville, Pa. *Biology.* Newport, Pa, April 9, 79. B.S, Lebanon Valley Col, 02, M.S, 03, Sc.D, 25; Hopkins, 02–03, 10; Brooklyn Inst; Trop. Bot. Lab, Jamaica. *Prof. biol. sciences, Lebanon Valley Col, 04–,* acting pres, 12. Land zoologist, exped, Bahamas, 04. A.A; Bot. Soc; Fern Soc; Soc. Zool; Torrey Bot. Club; Pa. Acad. (pres, 34). Twinning in the Sauropsida.

Derieux, Prof. John B(ewley), North Carolina State College, Raleigh, N. C. *Physics.* Knoxville, Tenn, 81. B.S, Tennessee, 09, A.M, 14; Ph.D, Chicago, 19. Instr. physics, *N. C. State Col,* 16–18, asst. prof, 18–20, assoc. prof, 20–22, *prof. theoret. physics, 22–* Physical Soc; N. C. Physics Teachers Asn. (pres, 26, 37); N. C. Acad. (pres, 30). Arc spectra; elementary electrical charge; photoelectric effect; earth's gravitational and magnetic fields; mirages; mystical mountain light; wheel stresses; treads and skidding; friction of rubber; gasoline mileage; octane number and volatility; resiliency; air resistance.

Deringer, Dr. Margaret Keating, National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Zoology.* Spangler, Pa, Aug. 16, 15. A.B, Hood Col, 36; A.M, Hopkins, 38, Am. Asn. Univ. Women Margaret E. Maltby fellow, 40–41, Ph.D, 42. Asst, Carnegie Institution, 38–40; sch. med, Hopkins, 41–42; *research fellow, nat. cancer inst, U. S. Pub. Health Service, 42–* Experimental embryology; transplantation of optic vesicles.

de Rivas, Dr. Dámaso, 1831 Chestnut St, Philadelphia, Pa. *Medicine.* Diria, Granada, Nicaragua, Cent. Amer, Dec. 11, 74. B.S, Pennsylvania, 08, M.S, 09, fellow, 09–10, Ph.D, M.D, 10. Bacteriologist, Filtration Bur. Phila, 04–06; State Dept. Health, Pa, 07–10; *asst. director dept. comp. path. and sch. trop. med, Pennsylvania, 10–, asst. prof. parasitol, 17–, prof, grad. sch. med, 22–* Co-worker, Pasteur Inst, Paris, 99–00; asst, Koch Inst, 00–02; pathologist, Friends Hosp, Frankford, 16–; State Dept. Health, Pa, 17–; director lab, Pan-Am. Hosp, New York, 27; Skin and Cancer Hosp, 33. Malaria and Trop. Disease Cmn, Italy, 00–02. Pres, Nicaragua delegation, Pan-Am. Sci. Cong, Washington, 06–07, 16; Pa. del, Int. Cong. Tuber, Washington, 08; Quinto Cong. Med. Nacional Cuba, 21; Nicaragua del. and hon. pres, Cong. Med. Latino-Amer, Havana, 22; Nicaragua del, Pan-Am. Med. Cong, Havana, 28–29, Univ. Pa. del, Mex, 31. Am. Med. Asn; Soc. Parasitol; Asn. Path. and Bact; Soc. Trop. Med; Path. Soc. Phila; cor. mem. Soc. de Path. exot; hon. mem. Soc. de Estudios Clinicos Havana. Tropical medicine; clinical parasitology; bacteriology; pathology; hematology; serology; tuberculosis; leprosy; hygiene; sanitation.

Derleth, Prof. C(harles), Jr, 2834 Webster St, Berkeley, Calif. *Civil engineering.* New York, N. Y, Oct. 2, 74. B.S, Col. City of N. Y, 94; C.E, Columbia, 96; LL.D, California, 30. Asst. civil eng, Columbia, 96–99, lecturer, 99–01; prof, Colorado, 02–03; assoc. prof. struct. eng, *California,* 03–07, *prof. civil eng, 07–,* dean col. civil eng, 07–30, col. eng, 30–42. instr, evening schs, New York, 96–99; chief engineer, Carquinez Highway Bridge; consulting engineer, Oakland Estuary Subway; Univ. Calif; Golden Gate Bridge; San Francisco-Oakland Bay Bridge; San Francisco Civic Center; Alameda County. Summers, instr, Columbia, 96–00. Civil Eng; Soc. Test. Mat; Eng. Educ; Seismol. Soc; Philos. Soc; Pacific Asn. Consulting Eng; Int. Asn. Test. Mat. Structural engineering.

Dermen, Dr. Haig, U. S. Department of Agriculture, Beltsville, Md. *Botany.* Constantinople, Turkey, Oct. 22, 95. B.S, Conn. State Col, 25; M.S, Maine, 27; M.S, Harvard, 31, Ph.D, 33. Instr. bot. and genetics, Maine, 25–29; research asst. cytol, Arnold Arboretum, Harvard, 29–37; *asst. cytologist, bur. plant indust, U. S. Dept. Agr, 37–* A.A; Genetics Soc; Soc. Hort. Sci; Bot. Soc. Cytology; genetics.

Dermer, Prof. O(tis) C(lifford), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Organic chemistry.* Hoytville, Ohio, Nov. 11, 09. B.S, Bowling Green State Col. (Ohio), 30; fellow, Ohio State, 33–34, Ph.D, 34. Instr. *chem, Okla. Agr. and Mech. Col,* 34–36, asst. prof, 36–38, *assoc. prof, 38–* Chem. Soc; Okla. Acad. Organo-metallic compounds; identification of organic compounds.

Dernbach, Dr. C(lifford) J(ames), Route 1, Beaverton, Oregon. *Analytical chemistry.* Portland, Oregon, Sept. 18, 09. B.S, Oregon State Col, 33, Ph.D, 41; Washington (Seattle), summers, 35, 36, 37. Asst, Oregon State Col, 39–41; *chief chemist, Electrometal. Co, 41–* Newer methods of volumetric analysis using standard ceric sulfate as titrating agent; determination of hydrazine and aluminum using ceric sulfate.

De Robertis, Dr. E(duardo), University of Buenos Aires, Buenos Aires, Argentina, S. Amer. *Histophysiology.* Buenos Aires, Argentina, Dec. 11, 13. M.D, Buenos Aires, 39. *Instr, inst. gen. anat. and embryol. and chief practical works in histol. and embryol, Buenos Aires, 33–* Rockefeller Foundation fellow, Chicago, 39–40, Hopkins, 40–41. Gold medal, Buenos Aires, 38; Argentina nat. prize, 40. Asn. Anat; Argentine Soc. Biol. Histophysiology of liver, thyroid and parathyroid; microdissection of thyroid follicles.

DeRose, Lieut. H(oward) Robert, 37 Farview Way, Amherst, Mass. *Plant biochemistry.* Princeton, Ill, July 7, 93. B.S. and M.S, Kans. State Col, 27; Ph.D, Mass. State Col, 40. Assoc. food chemist, Kans. State Col, 20–27; asst. chemist, Mass. State Col, 27–42; *lieut, Chem. Warfare Service, U. S. Army, and staff mem. research and develop. lab, Mass. Inst. Tech, 42–* Soc. Plant Physiol; Soc. Agron. Relative value of copper, chromium, molybdenum and zinc in nutrient medium for certain plants.

Derow, Dr. Matthew A(rnold), 80 E. Concord St, Boston, Mass. *Immunology.* New York, N. Y, April 29, 09. B.S, Col. City of N. Y, 29; A.M, Columbia, 30; M.D, Boston, 34, Ph.D, 41; Dipl, Army Med. Sch, 43. Teaching fellow biochem, *sch. med, Boston,* 35–37, *instr. bacter. and immunol, 36–,* biochem, 42, *trop. med, 43–; chemist and bacteriologist, Natick, Mass, 35–* Visiting physician, allergy clinic, Mass. Mem. Hosp, 36–43; path. consultant, Norfolk County Hosp, 42– A.A; Soc. Bact; Am. Med. Asn; N. Y. Acad. Vitamins; blood grouping; synthetic protein antigens; allergy; salt metabolism, with special reference to potassium; textbook of medical bacteriology.

Derr, Dr. P(aul) F(ranklin), Box 831, Waynesboro, Va. *Physical chemistry.* Nuremberg, Pa, Feb. 24, 16. B.S, Duke, 38, A.M, 39, fellow, 40–41, Ph.D, 41. Teaching asst, Duke, 38–40; *research chemist cellulose acetate, tech. div, acetate research sect, rayon dept, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Electromotive force cells; stability of complex metal-amine ions in aqueous solution; cellulose acetate products.

Derrick, Dr. G(race) Ethel, 505 North Blvd, Edmond, Okla. *Embryology.* Guthrie, Okla, April 14, 06. A.B, Phillips, 25; A.M, Oklahoma, 27, Ph.D, 35. Teacher, pub. schs, Ariz, 27–30; instr. biol, Phillips, 30–32; zool, Oklahoma, 33–35; *assoc. prof. biol, Cent. State Teachers Col, Okla, 35–* A.A; Okla. Acad. Embryology of the insect eye; mitotic index of chick embryos.

Derry, Flight Lieut. Duncan R(amsay), Room 2810, 25 King St, W, Toronto, Ont, Can. *Mining geology.* Eng, June 27, 06. B.A, Cambridge, 27; M.A, Toronto, 28, Ph.D, 31. Lecturer geol, Toronto, 30–35; geologist, Ventures, Ltd, and associated companies, 35–40; *flight lieut, Royal Can. Air Force, 40–* Summers, field geologist, Ont. Dept. Mines, 29, 30; field work, Cyril Knight Prospecting Co, 32, 33; Ventures, Ltd, 34. Fel. Geol. Soc; Geol. Asn; Can. Inst. Min. and Metal. Pegmatites and associated deposits; structures controlling ore deposition.

Derryberry, Dr. C(arley) M(ayhew), U. S. Public Health Service, Washington, D. C. *Public health.* Columbia, Tenn, Dec. 25, 02. A.B, Tennessee, 25; A.M, Columbia, 27; Ph.D, N. Y. Univ, 33. Assoc. director research, Am. Child Health Asn, 26–35; sec'y to sanit. supt, dept. health, New York, 35–36; asst. educ, N. Y. Univ, 32–37; *chief field activities in health educ, U. S. Pub. Health Service, 36–* Pub. Health Asn; Psychol. Asn; Statist. Asn. Health protection for the preschool child; statistical methods; measurement of health attitude; effectiveness of public health effort; methods of health education.

Dershem, Dr. Elmer, McDonald Observatory, Ft. Davis, Texas. *Physics.* Norwood, Kans, Dec. 31, 81. B.S, Kansas, 12; M.S, Iowa, 15, Ph.D, 17. Asst. physics, Iowa, 14–17; instr. astron, Illinois, 17–19; physics, California, 19–22, asst. prof, 22–29; *research assoc, Chicago,* 29–42, *astron, 42–, astronomer in charge construction and maintenance, McDonald Observatory, Chicago-Texas, 42–* A.A; fel. Physical Soc; fel. Optical Soc. Indices of refraction and absorption coefficients of x-ray; photoelectric photometry; small portable electrometers; standard x-ray ionization chambers.

De Ryke, Prof. Willis, 242 Westminster St, Jacksonville, Ill. *Zoology.* Ann Arbor, Mich, March 4, 85. A.B, Indiana, 17, A.M, 22; Ph.D, Iowa, 25. Asst, biol. sta, Indiana, 19–21; instr. zool, Iowa, 21–25, assoc, 25–26; acting prof. *biol, Ill. Col,* 26–27, *prof, 27–* A.A; Ill. Acad. Embryology; renal portal system and associated veins; development of kidney and venous system; fish culture; foods of fishes.

de Savitsch, Dr. Eugene, 1150 Connecticut Ave, Washington, D. C. *Experimental pathology, Surgery.* Petrograd, Russia, Aug. 19, 03. A.B, Denver, 32; Pasteur Inst, Paris, 32; fellow, Chicago, 33–34, M.D, 35. Asst. immunol, N. J. Hosp, Denver, Colo, 27–31; Henry Strong Denison Foundation fellow, 28–29; res. staff, Albert Merritt Billings Hosp, Chicago, 35; Belgian-Am. Educational Foundation fellow, Brussels, 36–37; assoc. surg, Laennec Hosp, Paris, France, 36–38; *practising surgeon, 39–; clin. instr, Georgetown, 41–* Consulting surgeon, Glen Dale, Md, Sanatorium; mem. staff, Doctors' Hosp, Washington, D. C; Home for the Incurables. Mem. Congo exped, 36. Soc. Exp. Biol; Soc. Exp. Path; Tuber. Asn; fel. Col. Chest Physicians; Am. Med. Asn; fel. Int. Col. Surg. Tuberculosis; elephantiasis; trypanosomiasis; vitamins.

de Schauensee, Rodolphe Meyer, Devon, Pa. *Ornithology.* Rome, Italy, Jan. 4, 01. Italy; Switzerland; Hoosac Sch, N. Y. *V. pres, curator birds and trustee, Acad. Nat. Sciences, Phila.* Collector birds, expeds, Siam, Burma, Malaya, Bali, Sumatra, Kalahari Desert, S. Africa, Brazil, Guatemala. Orchid Soc. (trustee). Asiatic birds.

Deschner, Prof. W(alter) W(illiam), 1423 Ohio St, Lawrence, Kans. *Chemical engineering.* Friestatt, Mo, Nov. 14, 01. B.S, Washburn Col, 29; Ph.D, Michigan, 35. Chemist, Corn Products Ref. Co, Mo, 28–29; Standard Oil Co, 29–31; instr. chem. eng, Pratt Inst, 35–38; asst. prof, Kansas, 38–42; *in charge chem. div, J. F. Pritchard and Co, 42–* Chem. Eng; Eng. Educ. Pressure-volume-temperature relationships for propane.

Desha, Prof. L(ucius) J(unius), Washington and Lee University, Lexington, Va. *Chemistry.* Cynthiana, Ky, June 14, 83. A.B, Washington and Lee, 06; Ph.D, Hopkins, 09. Chemist, Tenn. Food and Drugs Inspection, 09–12; prof. gen. and biol. chem, col. med, Tennessee, 12–20, acting dean, 17, registrar-bursar, 19–20; *prof. chem, Washington and Lee, 20–* Capt, Sanit.C, 17–19. Chem. Soc; fel. Inst. Chem; Soc. chim. de France. Drug analysis; applications of chemistry to clinical diagnosis; hydrogen electrode; fluorometry; organic chemistry.

DeSilva, Dr. Harry R(eginald), Yale University, New Haven, Conn. *Psychology.* Pensacola, Fla, June 8, 98. A.B, Florida, 20; Berlin, 25; Ph.D, Harvard, 27, Cambridge, 28. Lecturer *psychol,* McGill, 22–24; nat. research fellow, Harvard, 25–26, Cambridge, 27–28; asst. prof, Kansas, 28–30, assoc. prof, 30–32; prof. and director lab, Mass. State Col, 32–35; lecturer, Harvard, 36–38; *research assoc, Yale, 38–* A.A; Psychol. Asn. Vision; orientation; theoretical psychology; highway accident prevention.

Desjardins, Dr. A(rthur) U(lderic), Mayo Clinic, Rochester, Minn. *Radiology.* Waterville, Maine, May 6, 84. M.D, Pennsylvania, 12; Cambridge, 20; M.S, Minnesota, 21. *Therapeut. radiologist and head sect. therapeut. radiol, Mayo Clinic, 19–;* assoc. prof. and *prof. radiol, Mayo Foundation, Minnesota.* Asst. surgeon, Am. Ambulance and Am. Hosp, Paris, 14–15, Mil. Hosp, France, 15–16; pathologist, U.S.A, 18–19. Radiol. Soc. N. Amer; Roentgen Ray Soc; Radium Soc; Col. Radiol; Am. Med. Asn. (council physical therapy); Roentgen Soc. England. Radiological treatment of inflam-

matory conditions and tumors; the radiosensitiveness of normal tissues and malignant processes.

de Smitt, Vladimir P(eter), 575 Riverside Drive, New York, N. Y. *Meteorology, Climatology, Oceanography.* Russia, March 1, 83. Grad, Russian Naval Acad, 02; sci. hydrographer, Russian Post-Grad. Naval Acad, 10. Asst. prof, Russian Naval Post-Grad. Electrotech. and Torpedo Officers Class, 05–08; prof. astron, Naval Acad, Petrograd, 10–12; *instr. meteorol, climat. and oceanog, Columbia, 25–* Eng. dept, West. Union Tel. Co, 25– Lieut, Russo-Japanese War, 04, capt, Russian Navy, 14–18. A.A; Meteorol. Soc; fel. Am. Geog. Soc; Geophys. Union; N. Y. Acad. Differential and integral calculus; mathematical physics; hurricanes in Florida; ocean bottom relief on the continental shelf off Cape Cod; storms off the British Islands; effect of earthquakes on ocean telegraph cables in the North Atlantic ocean; tidal waves; sunspots as related to geophysical conditions on the earth.

De Sola, Ralph, 210 Riverside Drive, New York 25, N. Y. *Vertebrate zoology, microphotography.* New York, N. Y, July 26, 08. Columbia; Swarthmore Col. Collector and interpreter, N. Y. Zool. Soc. exped, Galapagos, 28; field herpetologist for N. Y. Zool. Soc. and Am. Museum Nat. Hist, Cuba, 29; lecturer, Sch. Nature League, Am. Museum Nat. Hist, 30; collector, N. Y. Aquarium, 31; curator, Trop. Biol. Soc, 32–34; zool. ed, Fed. Writers Project, 35–40; *tech. director, Microstat Corp, ed, 'Microstat Technicians Handbook,' 41–* Soc. Ichthyol. and Herp. (governor); N. Y. Zool. Soc; N. Y. Acad. Neotropical exploration; life history of chelonians and crocodilians; sex determination and taxonomy of turtles; remora fishing; conservation; natural history of fishes, amphibians, reptiles, birds and mammals; microfilming techniques and formulas.

Dessauer, Dr. G(erhard), University of Rochester, Rochester, N. Y. *Physics.* Aschaffenburg, Germany, Sept. 19, 10. M.Sc, Frankfurt, 35; A.M, California, 39; Ph.D, Rochester, 41. *Research assoc. physics, Rochester, 41–* Physical Soc. Nuclear physics.

de Takats, Dr. G(eza), 122 S. Michigan Ave, Chicago, Ill. *Surgery.* Budapest, Hungary, 92. M.D, Budapest, 15, fellow, 16–18, M.Surg, 18. Assoc. surg, Budapest, 21; asst. prof, med. sch, Northwestern, 23–25, assoc. *surg*, 26–27, asst. prof, 27–35; *col. med, Illinois*, 35–36, *assoc. prof, 36–* Traveling fellow, Rockefeller Foundation, 23–24. Senior attending surgeon, St. Luke's Hosp; Ill. Research and Educ. Hosp. Fel. Col. Surg; Am. Med. Asn. (chairman, cmt. on varicose veins, 30); Cent. Soc. Clin. Research; Chicago Surg. Soc; Inst. Med. Chicago. Surgery of the orbit; gastric and vascular surgery; local anesthesia; varicose veins; surgical attempts to increase sugar tolerance; acute pancreatitis; sympathectomies; peripheral vascular disease; pulmonary embolism; hypertension.

De Terra, Dr. Hellmut, R. D. 2, Quakertown, Pa. *Physiography, Anthropogeography.* Guben, Germany, July 11, 00. Ph.D, Munich, 24. Asst. geol, Munich, 25–27; instr. geol, Yale, 30–31, asst. prof, 32–36; asst, Carnegie Institution, 36–40; *assoc. prof. geog, New Sch. for Social Research, 40–; consultant, U. S. Dept. Agr, 40–* Director, Yale exped, N. India, 32–33; Yale-Cambridge exped, Northwest India, 35; Am. Southeast Asiatic exped, 37–38. Asn. Geog; Am. Geog. Soc; East Indies Inst. Physiography; Pleistocene geology and prehistoric archeology with special reference to early human evolution; ice age in India; early man in Burma.

Dethier, Dr. V(incent) G(aston), 15 Beech St, Norwood, Mass. *Entomology.* Boston, Mass, Feb. 20, 15. A.B, Harvard, 36, A.M, 37, Ph.D, 39. Entomologist, Pierce Lab, Franklin, N. H, 37, 38; asst, Cruft Lab, Harvard, 39; instr. *biol, John Carroll*, 39–41, *asst. prof, 41–; lieut, U. S. Army.* N. Y. Entom. Soc; South. Calif. Acad; Cambridge Entom. Club (sec'y, 36–39). Sensory physiology of Lepidoptera; chemistry of food plant choice by larvae; life histories of Lepidoptera.

Detjen, Prof. L(ouis) R(einhold), University of Delaware, Newark, Del. *Horticulture.* Algoma, Wis, Feb. 27, 84. B.S, Wisconsin, 09; M.S, N. C. State Col, 11. Asst. nursery inspector, Wis, 09; asst. *hort.* and asst. horticulturist, N. C. State Col, 09–20; assoc. prof. and assoc. horticulturist, *Delaware*, 20–28, *prof, 28–* A.A; Soc. Hort. Sci; Genetic Asn; Geog. Soc. Physiological drop of fruits; sterility and fertility in blackberries and dewberries and in cabbage and grape breeding; peach pollination.

Detlefsen, Dr. J(ohn) A, Swarthmore, Pa. ***Zoology, Physiology.* Norwich, Conn, Sept. 12, 83. A.B, Dartmouth Col, 08; A.M, Harvard, 10, Sc.D, 12. Austin teaching fellow, Harvard, 08–12; asst. prof. genetics, Illinois, 12–18, assoc. prof, 18–19, prof, 19–22; Wistar Inst, 22–25; assoc. ed, 'Biol. Abstracts,' 25–28; consultant, O.C.S, 41; state supervisor statist, Pa, 42; *deputy chief research and statist, War Production Board, 43–* Chevalier, Order of Dannebrog. Soc. Nat; Soc. Zool; Genetic Asn; Acad. Nat. Sci. Phila; Ky. Acad; Int. Asn. Dental Research. Genetics; coat color, size, growth and fertility in mammals and mammalian species crosses; dental etiology and public health.

Detling, Dr. Kenneth D(wight), 2466 Virginia St, Berkelev, Calif. *Chemistry.* Ansonia, Ohio, March 29, 09. A.B, Miami (Ohio), 30; A.M, Ohio State, 32, Ph.D, 34. Asst. chem, Ohio State, 30–34; *research chemist*, Pittsburgh Plate Glass Co, 34–36; *Shell Develop. Co, Emeryville, Calif, 36–* Chem. Soc. Oxidation of carbon and coal; adsorption and catalysis; alkali, soda and hypochlorite manufacture; petroleum technology.

Detling, Prof. LeRoy E(llsworth), University of Oregon, Eugene, Oregon. *Botany.* Groton, S. Dak, Oct. 23, 98. A.B, Oregon, 21; A.M, Stanford, 33, Ph.D, 36. Instr. romance languages, Willamette, 23–26; Oregon, 27–30; bot, Idaho, 30–32; asst. biol. sciences, Stanford, 33–36; *asst. prof. bot, Oregon, 36–* Bot. Soc. Taxonomy of the higher plants, particularly Cruciferae; revisions of Pacific coast species of Dentaria and Cardamine; North American species of Descurainia.

Detrick, Dr. Stanley R(awlings), 206 North Road, Lindamere, Wilmington, Del. *Organic chemistry.* DeGraf, Ohio, Oct. 7, 03. B.S, Ohio Northern, 25; M.S, Ohio State, 28, Ph.D, 30. *Chemist, E. I. du Pont de Nemours and Co, 30–* Chem. Soc. Dyestuffs; dye intermediates and pigments.

Dettwyler, Dr. William, 120 Morris Ave, Pitman, N. J. *Chemistry.* Grellingen, Switzerland, Jan. 11, 99. Ph.D, Bern, 21. *Research chemist*, Newport Co, 23–31; *E. I. du Pont de Nemours and Co, 31–* Chem. Soc. Vat dyestuffs.

DeTurk, Prof. E(rnest) E, 106 E. John St, Champaign, Ill. *Agronomy.* Martinsville, Ind, Sept. 24, 87. B.S.A, Purdue, 13; M.S, Pa. State Col, 16; fellow, Illinois, 17–19, Ph.D, 19. Asst. agr. chem, Pa. State Col, 13–14, instr, 14–16, asst. prof, 16–18; assoc. *soil fertility, Illinois*, 19–20, asst. prof, 20–23, assoc. prof, 23–25, *prof*, 25– A.A; Soc. Agron; Soil Sci. Soc. (sec'y, soil chem, 37, chairman, 38); Chem. Soc; Soc. Plant Physiol; Ill. Acad. Soil chemistry with special reference to genesis, morphology and fertility; chemistry of clay minerals; forms of soil phosphorus and potassium in relation to plant availability; plant nutrition; plant symptoms of malnutrition.

DeTurk, Dr. W(illia)m E(rnest), Vanderbilt University, Nashville, Tenn. *Zoology, Parasitology.* State College, Pa, March 7, 16. A.B, Illinois, 37, A.M, 38; Ph.D, Duke, 40. Instr. biol, *Vanderbilt*, 40–43, *research asst. pharmacol, 40–* Soc. Parasitol; Tenn. Acad. Trematoda; Sporozoa.

Detwiler, James G(arfield), 32 E. 36th St, New York, N. Y. *Chemistry.* Norristown, Pa, Jan. 12, 88. B.S, Pa. State Col, 10. Lackawanna Steel Co, 10; Jones and Laughlin Steel Co, 10–11; Dow Chem. Co, 11; *The Texas Co*, 11–17, *19–* U.S.A, 17–19. A.A; Chem. Soc. (chairman, southwest. Texas sect, 25, mem, exec. cmt, N. Y. sect, 31, councilor, 37); Soc. Chem. Indust. (exec. cmt, Am. div); Soc. Test. Mat; Petrol. Inst; Franklin Inst; fel. Chem. Soc. London.

Detwiler, Prof. John D, 844 Hellmuth Ave, London, Ont, Can. *Entomology.* Roseville, Ont, July 21, 78. B.A, Queen's (Can), 12, M.A, 13; Ph.D, Cornell, 21. Teacher, pub. schs, Sask. and Ont; res. sci. master, St. Andrew's Col, Ont, 13–18; asst. and instr. entom. and rural educ, Cornell, 18–21; asst. prof. zool, *Western Ontario*, 21–25, assoc. prof, 25–29, *prof. applied biol, 29–* Investigator, biol. board, Dept. Marine and Fisheries, Can, 18. A.A; Entom. Soc; Asn. Econ. Entom; Can. Conserv. Asn. (pres, 40–); Entom. Soc. Ont. (pres, 29–31). Pearly fresh-water mussels of Ontario; clover insects; the ventral prothoracic gland of some notodontid caterpillars and especially the red-humped apple caterpillar; feeding of brook trout.

Detwiler, Samuel B(ertolet), U. S. Department of Agriculture, Washington, D. C. *Forestry.* Mont Clare, Pa, Sept. 18, 81. Yale, 01–02; B.S.F, Minnesota, 06. Forest asst, U. S. Forest Service, 03–07; asst. prof. forestry, Minnesota, 07–08; forester, Forest Products Co, 08–11; gen. supt, Chestnut Tree Blight Cmn, Pa, 11–13; forest engineer, 13–16; senior patholo-

gist and prin. pathologist in charge div. blister rust control, bur. plant indust, *U. S. Dept. Agr*, 16–34, prin. horticulturist in charge erosion plant studies, div. plant explor, 34–35, prin. soil conservationist in charge div. hillculture, *soil conservation service*, 35–42, *research specialist, 43–* Soc. Foresters (treas, 26–27); Phytopath. Soc; Bot. Soc. Wash; Wash. Acad. (v. pres. for forestry, 34–39). Reforestation and forest protection; control of forest diseases; erosion control vegetation.

Detwiler, Samuel B(ertolet), Jr, U. S. Department of Agriculture, Washington, D. C. *Chemistry*. Wabasha, Minn, Sept. 21, 09. B.S, George Washington, 34; A.M, Illinois, 41. Mem. staff, Bur. Standards, 27–37; junior chemist, regional soy-bean indust. products lab, *bur. agr. and indust. chem, U. S. Dept. Agr*, 37–41, *assoc. chemist, office of chief, 41–* Chem. Soc; Oil Chemists Soc. Ignition points of flammable liquids; textile flameproofing; industrial utilization of soy-beans and soy-bean products; molecular distillation; pigment formation in corn syrups.

Detwiler, Prof. S(amuel) B(andall), Columbia University, New York, N. Y. ***Zoology, Anatomy*. Ironbridge, Pa. Feb. 17, 90. Ph.B, Yale, 14, A.M, 16, Ph.D, 18, hon. M.S. Asst. instr. biol, Yale, 14–17, instr. anat, 17–20; assoc, Peking Union Med. Col, 20–23; asst. prof. zool, Harvard, 23–26, assoc. prof, 26–27; *prof. anat, Columbia, 27–* Junior physiologist, U. S. Bur. Mines, 17–18. Nat. Acad; Asn. Anat; Philos. Soc; Soc. Exp. Biol; Neur. Asn; Am. Acad; Soc. Nat; Harvey Soc. Experimental neuro-embryology.

Deuber, Dr. Carl G(eorge), Stauffer Chemical Co, Chauncey, N. Y. *Plant physiology*. St. Louis, Mo, Dec. 19, 98. B.S. (Agr), Missouri, 21, Ph.D, 25; M.S, Washington (St. Louis), 22. U. S. Biol. Surv, 18–20; instr. biol, Clemson Col, 22–23; plant physiol, Yale, 25–29, asst. prof, 30–40; research fellow, Harvard, 40–41; *chemist, fermentation dept, Stauffer Chem. Co, 41–* Plant physiologist, Bartlett Tree Research Labs, 28–39. A.A; Soc. Plant Physiol; Bot. Soc; Conn. Bot. Soc; Conn. Acad. Chloroplast pigments; mineral nutrition; chemical stimulation; tree physiology; fermentation.

Deuel, Prof. H(arry) J(ames), Jr, University of Southern California School of Medicine, Los Angeles, Calif. *Biochemistry, Physiology*. St. Paul, Minn, Oct. 15, 97. A.B, Carleton Col, 18; George Washington, 17–20; Ph.D, Yale, 23. Junior chemist, U. S. Dept. Agr, 18–20; instr. physiol, med. col, Cornell, 23–27, asst. prof, 27–28; *prof*, Maryland, 28–29; *biochem, sch. med, Southern California, 29–* A.A; Soc. Biol. Chem; Physiol. Soc; Soc. Exp. Biol; Harvey Soc. Digestibility of food-stuffs; intermediary metabolism; mechanism of phlorhizin action; ketolytic action of sugar; sexual differences in carbohydrate metabolism; beta oxidation; milk composition and diet; vitamin A metabolism.

Deuel, Dr. Thorne, 2150 Illini Road, Springfield, Ill. *Anthropology, Education*. Millbrook, N. Y. B.S, U. S. Mil. Acad, 12; Ph.D, Chicago, 35. From 2nd lieut. to major, U.S.A, 12–19; instr. sociol, Syracuse, 28–29, asst. prof, 29–33; asst. anthrop, Chicago, 31–34, research assoc, 34–38; *chief, Ill. State Museum, 38–; major, Air Forces, U. S. Army, 42–* Director, Chicago archeol. exped, cent. and south. Ill, 32–37. Asst. ed, 'Am. Antiquity,' 35–39. Aviation sect, Sig.C, U.S.A, 17–19. A.A; Anthrop. Asn; Ethnol. Soc; Soc. Am. Archeol. (sec'y-treas, 40–); Ill. Acad. (librarian, 38–). Archeology of the United States east of the Rocky Mountains; visual education.

Deussen, Alexander, Shell Bldg, Houston, Texas. *Geology*. San Antonio, Texas, Jan. 19, 82. B.S, Texas, 03, fellow, 03–04. M.S, 04. Asst. zool, Texas, 02–03, tutor geol, 04–05, instr, 05–08; asst. geologist, U. S. Geol. Surv, 08–15; geologist, Gulf Production Co, 15–16; consulting geologist, 16–24; v. pres. and geologist in charge Gulf Coast operations, Marland Oil Co, 24–28; *consulting geologist, 28–* A.A; Geol. Soc; Asn. Petrol. Geol. (pres, 18); Min. and Metal. Eng. Stratigraphy and economic geology of the Texas coastal plains; Gulf Coast salt domes.

D'Eustachio, Dr. D(ominic), 99 Livingston St, Brooklyn, N. Y. *Spectroscopy, Photography*. Pittsburgh, Pa, Feb. 19, 04. Ph.D, N. Y. Univ, 37. *Instr. physics*, N. Y. Univ, 35–37; *Polytech Inst. Brooklyn, 37–* Physical Soc. Isotope shifts in lithium; increasing resolution of photographic plates.

D'Eustachio, G(abriel) J(oseph), General Cable Corp, Bayonne, N. J. *Chemistry, Metallurgy*. Naples, Italy, Sept. 23, 76. Eng, Naples, 01. Engineer of tests, Allegheny County Light Co, Pittsburgh, 02–06; chem. engineer in charge chem. lab, Standard Underground Cable Co, Perth Amboy, 06–27; *chief and research chemist, high tension labs, Gen. Cable Corp, 27–* A.A; Soc. Test. Mat; Chem. Soc; fel. Inst. Chem; Electrochem. Soc. Chemistry of insulating materials; metallurgy of non-ferrous metals.

Deutsch, Dr. Emmanuel, 469 Beacon St, Boston, Mass. *Medicine*. Cambridge, Mass, March 4, 09. B.S, Tufts Col, 31, M.D, 35. Intern, Boston City Hosp, 36–37, res, 37–38; *asst. med, med. sch, Tufts Col, 38–*, instr. clin. med, dental sch, 38–41. Research fellow, surg. research lab, Boston City Hosp, 37– Instr. grads, Harvard Med. Sch, 39–42. Diseases of the gastro-intestinal tract; diseases of the liver; total and ester cholesterol determination; phospholipids and total lipids determination; hippuric acid excretion; urinary urobilinogen excretion; fractional bromsulphalein excretion; prothrombin levels in the blood.

Deutsch, Dr. Felix, 44 Larchwood Drive, Cambridge, Mass. *Medicine, Psychiatry*. Vienna, Austria, Aug. 9, 84. M.D, Vienna, 10. Asst. prof. med, Vienna, 19–36; research fellow psychiatry, Harvard Med. Sch, 36–39; assoc. prof. clin. psychosomatic med, med. sch, Washington (St. Louis), 39–41; *director, Psychiat. Clinic, Boston, Mass, 42–* Assoc. psychiatrist, Mass. Gen. Hosp, Boston, 37–39; assoc, Beth Israel Hosp, 37–39; assoc. psychiatrist, Barnes Hosp, St. Louis, Mo, 39–41. N. Y. Acad; Psychoanal. Soc. Boston; Neur-Psychiat. Soc. Boston. Psychosomatic medicine; psychoanalysis.

Deutsch, Dr. Martin, Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Vienna, Austria, Jan. 29, 17. B.S, Mass. Inst. Tech, 37, Ph.D, 41. Teaching fellow *physics, Mass. Inst. Tech*, 39–41, *instr, 41–* A.A; Physical Soc. Nuclear physics.

DeVaney, Fred D(aniel), Pickands Mather and Co, Hibbing, Minn. *Metallurgy*. Waubay, S. Dak, Jan. 8, 01. E.M, Minnesota, 23; M.S, Alabama, 24. Junior mining engineer, U. S. Bur. Mines, Ala, 24–26, asst. metallurgist, Ala. and Mo, 26–29, assoc. metallurgist, Rolla, Mo, 29–40, metallurgist, 40–42; *research metallurgist, Pickands Mather and Co, 42–* Min. and Metal. Eng. Ore dressing; concentration of iron and manganese ores.

DeVault, Dr. Don (Charles), Care of R. P. DeVault, 114 El Sur, Arcadia, Calif. *Physical chemistry*. Battle Creek, Mich, Dec. 10, 15. B.S, Calif. Inst. Tech, 37; Ph.D, California, 40. Teaching asst, California, 37–40; *junior research assoc. chem, Stanford, 40–* Artificial radioactivity; photochemistry.

De Vault, Prof. Samuel H, University of Maryland, College Park, Md. *Agricultural economics*. Jonesboro, Tenn, July 1, 89. A.B, Carson and Newman Col, 12; A.M, North Carolina, 15; Ph.D, Mass. Col, 31. Asst. agr. econ, North Carolina, 15–16; instr, Mass. Col, 17–18; special agent, bur. census, U. S. Dept. Commerce, 19–22; research specialist in transportation, U. S. Dept. Agr, 22; *prof. agr. econ, Maryland, 22–, head dept, 25–* Summer, special agent, U. S. Chamber of Commerce, 23. W. J. Bryan prize. Farm Econ. Asn; Nat. Asn. Marketing Officials. Marketing of farm products; agricultural production; farm taxation.

Devereux, Prof. E(dward) D(onald), 550 University Drive, East Lansing, Mich. *Bacteriology*. Downers Grove, Ill, July 18, 01. B.S, Knox Col, 23; M.S, Illinois, 25, Ph.D, 27. *Asst. prof. bacter, Mich. State Col, 27–* General bacteriology.

Devers, P(hilip) K(noderer), 3467 Glencairn Road, Shaker Heights, Ohio. *Engineering*. York, Pa, Dec. 7, 89. B.S, Pa. State Col, 11. Research engineer, *fused quartz products, Gen. Elec. Co*, 11–42, *managing engineer, 42–* Charles A. Coffin medal. A.A; Chem. Soc; Electrochem. Soc. Fused quartz; ultra-violet sources; high temperature refractories.

Devlin, Dr. H(enry) B(lessing), 4850 Bedford Road, Detroit, Mich. *Biochemistry*. Detroit, Mich, June 21, 14. B.S, Wayne, 37, M.S, 39; Lever Brothers fellow, Iowa, 39–42, Ph.D, 42. *Research asst, Parke, Davis and Co, 42–* Chem. Soc; Physiol. Soc. Detroit. Vitamin E.

De Voe, Dr. Charles F(reeman), 148 High Road, Corning, N. Y. *Physics*. Freeport, Ill, April 5, 09. Ph.B, Wisconsin, 30, Ph.M, 32, Ph.D, 36. Asst. to Dr. C. E. Mendenhall, Wisconsin, 30–36; *physicist, Corning Glass Works, 36–* Ceramic Soc; Physical Soc. Glass melting; photoelectric properties of single crystal of tungsten and evaporated zinc.

De Vol, Prof. Charles E(dward), Marion College, Marion, Ind. *Botany.* Luho, Ku, China, Oct. 2, 03. A.B, Marion Col, 26; A.M, Indiana, 39. Asst. prof. biol, Marion Col, 28–30; missionary, China, 31–36; *asst. prof. biol, Marion Col, 37–; prin, Friends Acad, Luho, China, 39–* A.A; Fern Soc; Ind. Acad. Cytology; taxonomy; oriental ferns and grasses; ferns of eastern China.

Devol, Dr. (Manson) Lee, 1108 Bellefield St, Drexel Hills, Pa. *Physics.* Marietta, Ohio, April 16, 00. A.B, Marietta Col, 22; M.S, Pittsburgh, 26, Ph.D, 36. Elec. tester, Westinghouse Elec. and Mfg. Co, 22–24; asst. physics, Pittsburgh, 24–26; research engineer, Union Switch and Signal Co, 26–32; research, Pittsburgh, 32–36; *indust. fellow, Mellon Inst, 36–* Physical Soc. Train signaling and brake control; time relations in radioactive events; glass.

DeVolt, Prof. H(arold) M(oon), University of Maryland, College Park, Md. *Poultry pathology.* Utica, N. Y, Aug. 25, 98. D.V.M, Cornell, 23, M.S, 26; B.S, Maryland, 36. Instr. poultry diseases, Farmingdale branch, Cornell, 26–27; asst. pathologist, *Maryland,* 27–35, *assoc. prof. animal path, 35–* Diseases of poultry; infectious enterohepatitis of turkeys; pullorum disease; vitamin A deficiency; leucosis; quail disease.

DeVore, Dr. H(enry) B(lythe), RCA Laboratories, Princeton, N. J. *Physics.* Monongahela, Pa, Dec. 20, 07. B.S, Pa. State Col, 26, M.S, 27; Ph.D, Calif. Inst. Tech, 34. Physicist, E. I. du Pont de Nemours and Co, 27–31; *research engineer,* RCA Mfg. Co, Camden and Harrison, N. J, 34–41, *RCA Labs, 42–* Physical Soc; Radio Eng. Electrical properties of materials; radio tube research.

DeVore, Prof. Lloyd T(homas), 1245 Arbor Ave, Dayton, Ohio. *Physics.* Monongahela, Pa, Nov. 14, 09. B.S, Pa. State Col, 30, fellow, 30–34, M.S, 31, Ph.D, 33. Instr. *physics, Pa. State Col,* 34–37, *asst. prof, 37–; radio engineer, aircraft lab, Wright Field, U. S. War Dept, 42–* Radiation measurement; wave mechanics; photographic and electromagnetic theory; magnetic transitions in ferromagnetic alloys; theory of errors.

De Voss, Dean J(ames) C(larence), San Jose State College, San Jose, Calif. *Psychology.* Knox Co, Nebr, Sept. 29, 84. A.B, Colorado, 11, A.M, 12; fellow, Stanford, 21–22, Ph.D, 24. Asst. psychol, Colorado, 12–13; prin. and sch. supt, Kans, 12–14; director bur. educ. measurements and standards, Kans. State Teachers Col, 14–18; *prof. psychol, director research and dean upper div, San Jose State Col, 22–* Summers, visiting prof, California, 24–27; Southern California, 28, 38; Northwestern, 37. Capt, Sanit.C, 18. A.A; Psychol. Asn; Educ. Research Asn. Animal and educational psychology; color blindness of cats; abilities and educational achievement of gifted children; handwriting; genetics of genius.

DeVries, Prof. J(ohn), Calvin College, Grand Rapids, Mich. *Physical chemistry.* Smilde, Netherlands, March 19, 07. A.B, Calvin Col, 29; Ph.D, Illinois, 33. Asst, Illinois, 29–32; head div. science, Huron Col, 32–34; *prof. chem,* Knox Col, 34–39; *Calvin Col, 39–* Dipole moments of semi-polar bonds; band spectrum of boron hydride; valence and molecular structure.

De Vries, Prof. Tho(ma)s, Purdue University, Lafayette, Ind. *Physical chemistry.* Smilde, Netherlands, July 15, 01. A.B, Hope Col, 23; M.S, Illinois, 24, Ph.D, 26. Instr. *physical chem, Purdue,* 26–27, asst. prof, 27–34, assoc. prof, 34–40, *prof, 40–* Chem. Soc. Electrode potentials; heat capacity of vapors; chemical spectroscopy; physico-chemical methods of analysis.

DeVries, Wade (Everett), U. S. Forest Service, 423 U. S. Court House, Portland, Oregon. *Economics.* Manton, Mich, June 22, 99. A.B, Michigan, 21; A.M, California, 22. Land economist, State Land Econ. Sury, Mich, 23–29; in charge sale and exchange state lands, State Dept. Conservation, Mich, 29–30; taxation economist, forest taxation inquiry, *U. S. Forest Service, senior forest economist,* Calif. Forest and Range Exp. Sta. and *Pacific Northwest Forest Exp. Sta, 34–* Soc. Foresters. Forest taxation; land economics; local government.

Dew, Dr. Walter A(rthur), E. I. du Pont de Nemours and Co, River Ridge, Jeffersonville, Ind. *Physical chemistry.* Wilmington, Del, June 4, 00. B.S, Princeton, 21, A.M, 22, Ph.D. Instr, high sch, N. J, 22–24; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 24–25; operations and research, Lazote, Inc, 25–29; chief chemist, Belle works, du Pont Ammonia Corp, 29–31; instr. exten, West Virginia, 30–31; asst. director Burnside lab, E. I. du Pont de Nemours and Co, 31–40; director, Carney's Point Training Sch, 40–41; tech. supt, Ind. ordnance works, E. I. du Pont de Nemours and Co, 41–42; gen. supt, Okla. Ordnance Works, 42–43; *tech. specialist, E. I. du Pont de Nemours and Co, 43–* Princeton geol. exped, White River Badlands, S. Dak, 21. Chem. Soc. (sec'y, Kanawha Valley sect, 29–31); Chem. Eng. Adsorption and heat of adsorption of ammonia by metallic catalysts; synthesis of ammonia and alcohols at high pressures; manufacture of hydrogen and of nitrocellulose; manufacture of smokeless powder; solvent recovery.

de Weerdt, Dr. Ole N(iehuis), 206 Goodwin Bldg, Beloit, Wis. *Psychology.* Franeker, Netherlands, June 7, 84. A.B, Rochester, 18; fellow, Chicago, 18–19; Ph.D, Yale, 23. Instr. psychol, Yale, 19–23; prof. and head dept, Beloit Col, 23–43; *consulting psychologist, 43–* Summers, instr, Rochester, 21–23. A.A; Psychol. Asn; Midwest. Psychol. Asn.

Dewell, Henry D(levendorf), 604 Mission St, San Francisco, Calif. *Civil engineering, Seismology.* Springfield, Ohio, Oct. 24, 81. B.S, California, 06. *Consulting engineer, 15–* Chief struct. engineer, Panama-Pacific Int. Expos, 15. V. pres, State Board Registration for Civil Engineers, Calif, 33–36, pres, 37–42. Tech. ed, State Building Code, Calif. Civil Eng. (director, 25–27, v. pres, 34–36); Seismol. Soc. (publication cmt, treas, 31). Structural properties of timber; effect of earthquakes on engineering structures.

Dewey, Prof. Bartlett T(aggart), 1704 Cascade Ave, Boulder, Colo. *Organic chemistry, Chemical microscopy.* Royalton, Vt, Dec. 7, 02. A.B, Colorado, 26, A.M, 34, Ph.D, 35. Asst. sanit. chem, Colorado, 30–35; assoc. prof, John Tarleton Col, 35–37; prof. chem, North Pacific Col, 37–41; *asst. prof, Colorado, 41–* Summers, prof, Stephen F. Austin State Teachers Col, Texas, 35–37. Chem. Soc; Pharmaceut. Asn; Colo-Wyo. Acad. Optical properties of organic compounds.

Dewey, Bradley, 62 Whittemore Ave, Cambridge, Mass. *Chemistry.* Burlington, Vt, Aug. 23, 87. A.B, Harvard, 08; B.S, Mass. Inst. Tech, 09. Director research lab, Am. Sheet and Tin Plate Co; *pres, Dewey and Almy Chem. Co;* U. S. Deputy Rubber Administrator, 43, *U. S. Rubber Administrator, 43–* Mem. corp, Mass. Inst. Tech. Trustee, Cambridge Hosp. D.S. medal, 19. Col, C.W.S. Chem. Soc; Soc. Test. Mat. Applied colloid chemistry, especially as pertaining to rubber latex and Portland cement.

Dewey, Dr. Bradley, Jr, 37 Fayerweather St, Cambridge, Mass. *Colloid chemistry.* Pittsburgh, Pa, April 10, 16. B.S, Harvard, 37; Sc.D, Mass. Inst. Tech, 41. *Indust. research, Dewey and Almy Chem. Co, 40–* Chem. Soc. Creaming of latex.

Dewey, Dr. Jane M(ary Clark), U. S. Rubber Co, Passaic, N. J. *Physics.* Chicago, Ill, July 11, 00. A.B, Columbia, 22; Ph.D, Mass. Inst. Tech, 25. Asst. physical chem, Mass. Inst. Tech, 24–25; Univ. Inst. for Theoret. Physics, Copenhagen, 25–27; nat. research fellow, 27–29; research fellow, Rochester, 29–31; assoc. physics, Bryn Mawr Col, 31–33, assoc. prof, 33–36; lecturer, Hunter Col, 40–42; *physicist, gen. labs, U. S. Rubber Co, 42–* Fel. Physical Soc. Stark effect; recombination spectra.

Dewey, Prof. John, Columbia University, New York, N. Y. *[1]*Philosophy.* Burlington, Vt, Oct. 20, 59. A.B, Vermont, 79, LL.D, 11; Ph.D, Hopkins, 84; LL.D, Wisconsin, 04, Michigan, 13, Hopkins, 15, Ill. Col, 17, Peking, 20, Columbia, 29, Paris, 30, Harvard, 32. Instr. and asst. prof. philos, Michigan, 84–88; prof, Minnesota, 88–89; Michigan, 89–94; head dept. philos. and educ, Chicago, 94–04, director sch. educ, 02–04; prof. *philos, Columbia,* 04–30, *emer. prof, 30–* William James lecturer, Harvard, 31. Nat. Acad; Soc. Nat; Philos. Soc; Psychol. Asn. (pres, 99); Philos. Asn. (pres, 05); cor. mem. Inst. de France. Logical theory; social and political philosophy; philosophy of education.

Dewey, Lyster H(oxie), 182 Knowlton Ave, Kenmore, N. Y. *[1]*Botany.* Cambridge, Mich, March 14, 65. B.S, Mich. State Col, 88. Instr. bot, Mich. State Col, 88–90; botanist in charge fiber investigations, U. S. Dept. Agr, 90–35; *retired.* A.A; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Acad. Grasses; weeds troublesome to agriculture; fiber plants; production of fiber from hemp, flax, sisal and abaca plants.

Dewey, Dr. Virginia C(aroline), 41 Wendell St, Cambridge, Mass. *Protozoology.* Forest Hills, Mass, Dec. 18, 13. B.S, Simmons Col, 34; A.M, Vassar Col, 39; Michigan, 38; Ph.D, Brown, 42. Lab. technician, Harvard Med. Sch, 34–37; asst. physiol, Vassar Col, 37–39; protozool, Marine Biol. Lab, 39–41; *research and anal. chemist, Lever Brothers Co, 42–* Vitamins; growth factors of protozoa.

De Witt, Prof. Clyde C(olvin), Michigan State College, East Lansing, Mich. *Chemical engineering.* Hyndman, Pa, Nov. 9, 93. B.S. (Ch.E), Michigan, 25, Ph.D, 27. Steel works analyst, Pittsburgh, 10–14; foreman, Aniline Oil Plant, Cambria Steel Co, Pa, 15–16; chemist, Ford Motor Co, 16–17; chem. engineer, C. G. Spring and Bumper Co, Detroit, 23–24; asst. prof. chem, Mich. Col. Min. and Tech, 27–29, assoc. prof, 29–40; *prof. chem. eng. and chairman dept. chem. and metal. eng, Mich. State Col, 40–* Sergt, C.W.S, 17–19. Chem. Soc; Min. and Metal. Eng; Eng. Educ; Chem. Eng; Inst. Chem; Mich. Eng. Soc. Colloidal ferric oxide in natural and synthetic molding sands; wettability of copper compounds, air films and contact angles; surface relations of the xanthates and pine oil; molal entropy and molal sensible heat of gases; froth flotation concentration; correlation of rate data; discriminant function applied to coal mine data.

DeWitt, Dr. Thomas Ward, Tennessee Valley Authority, Wilson Dam, Ala. *Chemistry.* June 3, 12. B.S, Carnegie Inst. Tech, 34, fellow, 34–35, M.S, 35; Ph.D, Wisconsin, 38. Asst, Wisconsin, 35–38; Hopkins, 38–39; instr. and asst. prof. chem, Va. Polytech, 39–41; assoc. chemist and *chemist, Tenn. Valley Authority, 41–* Physical chemistry; adsorption of gases on solids; kinetics; thermodynamics; phosphorus.

DeWolf, Prof. Frank W(albridge), University of Illinois, Urbana, Ill. *Geology.* Vail, Iowa, March 22, 81. B.S, Chicago, 03, 03–04. Asst. geol, Chicago, 03–04; geol. aid, U. S. Geol. Surv, 04–08; asst. state geologist, Ill. Geol. Surv, 08–09, acting director and director, 09–17, chief, 17–22; chief geologist, Humphreys Corp, 23–28; v. pres. and gen. manager, La. Land and Explor. Co, 28–31; *prof. geol. and head dept, Illinois, 31–* Div. states relations and div. geog. and geol, Nat. Research Council, 17–23. Asst. director, U. S. Bur. Mines, 17–18. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol. (past v. pres); Asn. State Geol. (past pres); Min. and Metal. Eng; Ill. Acad. (past pres). Administration of geological investigation; coal and oil; geological and geophysical exploration for oil structures and oil production.

DeWolf, Prof. L. Harold, 73 Grayfield Ave, West Roxbury, Mass. *Philosophy.* Columbus, Nebr, Jan. 31, 05. A.B, Nebr. Wesleyan, 24; S.T.B, Boston, 26, Borden Parker Bowne fellow, 33–34, Ph.D, 35; Nebraska, 29–30. Lecture logic, *Boston Univ,* 34–35, instr, 35–36, asst. prof. *philos,* 36–39, assoc. prof, 39–42, *prof, 42–* Philos. Asn. Premises of the arguments concerning immortality in the Ingersoll lectures from 1896 to 1934; logic and scientific method.

Dexter, Prof. Emily S(mith), Agnes Scott College, Decatur, Ga. *Education, Psychology.* Chicago, Ill, June 4, 89. A.B, Ripon Col, 08; A.M, Wisconsin, 15, fellow, 21–23, Ph.D, 23. Pub. sch, Wis, 08–10; Northland Col, 11–17; Mo. Wesleyan Col, 17–21; *assoc. prof. psychol. and educ, Agnes Scott Col, 23–* Summers, Emory, 24, 25. A.A; Psychol. Asn; South. Soc. Philos. and Psychol; Ga. Acad. Correlations between individuals of varying degrees of relationship; intelligence of children of men in various occupations; relation between pitch discrimination and French accent; imagination.

Dexter, Dr. Ralph W(arren), Kent State University, Kent, Ohio. *Ecology.* Gloucester, Mass, April 7, 12. B.S, Mass. State Col, 34; Ph.D, Illinois, 38. Asst. zool, Illinois, 34–37; instr. *biol, Kent State Univ,* 37–40, *asst. prof, 40–* A.A; Ecol. Soc; Limnol. Soc; Malacol. Union; Ornith. Union; Inland Bird-Banding Asn; Ohio Acad. Ecology of marine communities; ecology of Crustacea and Mollusca.

Dexter, Prof. S(tephen) T(orrey), Michigan State College, East Lansing, Mich. *Chemistry, Physiology.* New London, Wis, Oct. 28, 97. B.S.A, Wisconsin, 19, M.S, 25, fellow, 29–31, Ph.D, 31. Teacher, high sch, Minn, 19–20; prof. chem. and physics, Northland Col, 21–30; nat. research fellow biol, 31–33; head dept. science, Minn. State Teachers Col, Bemidji, 33–34; *asst. prof. farm crops, Mich. State Col, and research assoc, Exp. Sta, 34–* A.A; Chem. Soc; Soc. Plant Physiol; Soc. Agron. Agronomy; plant chemistry and physiology; determination of hardiness of plants by the electrical conductivity method; physiology of weeds; forage crops.

Dexter, Dr. Wilbur B(rooks), National Carbon Co, Cleveland, Ohio. *Chemistry.* Newton Center, Mass, Jan. 21, 92. B.S, Colby Col, 14; A.M, Clark, 15, fellow, 16–17, Ph.D, 17. In charge control lab, Atlantic Ref. Co, 17; in charge lab. and tech. asst. to commanding officer, Naval Fuel Oil Testing Plant, 17–19; *research chemist, Nat. Carbon Co, 19–,* asst. director research labs, 27–30, head carbon works control and process eng. labs, 32–36. Chem. Soc. Theoretical and applied physical and inorganic chemistry; carbon products.

DeYoung, William, 4912 N. Idlewild Ave, Milwaukee, Wis. *Agronomy.* Augusta, Mich, Dec. 21, 95. B.S, Mich. State Col, 18; A.M, Missouri, 25. Asst. soil surv. and instr. soils, Missouri, 18–25; asst. agron, exp. sta, Mont. State Col, 25–28, asst. prof. and asst. agronomist, soil surv, 28–34; *erosion specialist, soil conservation service, U. S. Dept. Agr, 34–,* soil scientist, region V, 36. Scientist, soil surv, bur. soils, U. S. Dept. Agr, 19; land classifier, U. S. Indian Field Service, 28. Soc. Agron; Soil Sci. Soc. Soil surveys; land classification; soil survey as a basis for land classification as applied to irrigation projects.

Deyrup, Dr. A(lden) J(ohnson), 719 Westfield Ave, Westfield, N. J. *Physical chemistry.* Chicago, Ill, Nov. 30, 09. A.B, Columbia, 28, A.M, 29, Ph.D, 32. Nat. research fellow, Wisconsin, 32–34; Wisconsin Alumni Research Foundation fellow, 34–35; *research supervisor, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 35–* Chem. Soc. Very acid solutions; reaction kinetics; catalysis of acetal reaction; adiabatic calorimetry; ceramic product and pigment development.

Deysach, Dr. Leonard J(oseph), 2639 N. 86th St, Wauwatosa, Wis. *Physiology.* La Crosse, Wis, Aug. 10, 08. B.S, Marquette, 32, M.D, 33. Asst. physiol. and pharmacol, *sch. med, Marquette,* 30–31, instr, 33–36, therapeut, 36, *physiol,* 37–38, *asst. prof, 38–, instr. physical diagnosis, dental sch, 40–* A.A; Am. Med. Asn. Angio-architecture of erectile tissues; indirect calorimetry; endocrines; electrocardiography; intrahepatic circulation.

de Zafra, Prof. Carlos, New York University, University Heights, New York, N. Y. *Industrial engineering.* New York, N. Y, May 8, 82. B.S, N. Y. Univ, 06, M.E, 07. From boat builder's helper to sales engineer, Consol. Shipbuilding Co, N. Y, 06–17; dist. manager, Telautograph Corp, Pittsburgh, 17; naval constructor, Foundation Co. of N. Y, 17–18; French High Cmn, Naval Bur, N. Y, 18–19; *asst. prof.* mech. eng, *N. Y. Univ,* 19–37, *indust. eng, 37–, asst. curator James Arthur collection of clocks and watches, 38–; chief ordnance gage lab, N. Y. Ordnance Dist, 40–* Indust. consultant; recording sec'y, Popular Science Inst. Standards, 25–27, asst. director, 27–32, director, Eng. Index Service, 27–30; in charge marine transportation sect, N. Y. Museum of Science and Indust, 30–31; curator shipbuilding and navig, Chicago Museum Science and Indust, 31–32. Co-editor, 'Eng. Index,' 25–27. Mem, Fed. Specifications Exec. Cmt, 38–; tech. adviser, Chilean Govt. Purchasing Cmn, 41– Major, Ordnance R. C. Mech. Eng. (asst. sec'y management div, exec. cmt, 43–); Soc. Test. Mat; Eng. Educ; Management Asn; Army Ordnance Asn. Ordnance; tool testing; naval architecture; marine and industrial engineering.

de Zeeuw, Prof. Richard, 533 Evergreen Ave, East Lansing, Mich. *Botany.* Alton, Iowa, March 15, 80. A.B, Hope Col, 06, hon. A.M, 09; A.B, Michigan, 07, Ph.D, 09. Instr. *bot, Mich. State Col,* 09–10, asst. prof, 10–15, *assoc. prof, 15–* A.A; Bot. Soc; Mich. Acad. (sec'y, 11–17). Comparative viability of seeds; seed sterilization; botanical technique; cytology.

d'Herelle, Prof. F(elix), Institute of Bacteriology, Tiflis, U.S.S.R. *Bacteriology.* Montreal, Que, Can, April 25, 73. M.D, Laval; hon. M.D, Leiden, 23, Montreal, 30; hon. A.B, Yale, 28. Director lab, Guatemala, 01–06; Merida, Mex, 07–08; asst, Pasteur Inst, Paris, 08–14, chief lab, 14–21; lecturer, Leiden, 21–23; director, Int. Sanit. Council, Egypt, 23–27; prof. bacter, Yale, 27–33; *research prof. and med. adviser, Inst. Bacter, Tiflis.* Lane lecturer, Stanford, 27; Harvey lecturer, 27. Sci. expeds, Argentine, 11, 12, 13; N. Africa, 14; Asia Minor, 14; Tunis, 15; Indo-China, 20; India, 27. Hon. prof, Tiflis; hon. prof, Sch. Med. Baku; Leeuwenhoek medal, Amsterdam Acad, 25; William Wood Gerhard medal, Phila, 28; Schaudinn medal, Hamburg Inst, 30. Sci. Club Winnipeg; Kaiser. Deuts. Akad. der Naturforscher; Soc. biol. de Paris; Convegno Volta Rome; Med. Soc. Georgia, U.S.S.R; Leningrad Soc. Microbiol; Int. Soc. Microbiol. Diseases of

insects; immunity and bacteriology in natural infectious diseases; behavior and clinical applications of bacteriophage.

Diachun, Dr. Stephen, University of Kentucky, Lexington, Ky. *Plant pathology.* Phenix, R. I, Aug. 20, 12. B.S, R. I. State Col, 34; M.S, Illinois, 35; Ph.D, 38. *Asst. plant path, Exp. Sta, Kentucky, 37–* A.A; Phytopath. Soc; Bot. Soc; Ky. Acad. Tobacco diseases; virus diseases; bacterial leaf spot diseases; fungus leaf spot diseases.

Diakoff, Prof. A(lexis) J(ohn), 522 Hamline St, Grand Forks, N. Dak. *Mechanical engineering.* Koursk, Russia, Oct. 7, 96. M.E, Moscow Inst. Tech, 18; B.S, Michigan, 27. Chief engineer, Submarine Russian Black Sea Fleet, 19–21; testing and designing engineer, Renault Works, France, 21–23; tool designer, Ford Motor Co, Detroit, 24–25; designer, Detroit Edison Co, 26–28; asst. prof. *mech. eng, North Dakota,* 28–32, acting head dept, 33–34, *prof. and head dept, 34–* Internal combustion engines.

Dial, Dr. William R(ichard), 438 Roslyn Ave, Akron, Ohio. *Organic chemistry.* Washington Court House, Ohio, Aug. 30, 14. A.B, Ohio Wesleyan, 36; fellow, Illinois, 36–39, Ph.D, 39. *Org. chemist, Columbia chem. div. Pittsburgh Plate Glass Co, 39–* Development of synthetic organic resins and plastics.

Diamond, Prof. Ainsley H(erbert), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Mathematics.* San Francisco, Calif, May 27, 09. A.B, California, 30, A.M, 31, Ph.D, 33. Teaching fellow, California, 31–33; Am. Field Service fellow, Paris, 33–34; instr. math. and physics, Col. of St. Scholastica, 34–35; instr. *math,* exten. div, California, 35–37, lecturer, California at Los Angeles, 37–38; *prof. and head dept, Okla. Agr. and Mech. Col, 38–* Fluid dynamics; conformal mapping; foundations of mathematics; actuarial mathematics.

Diamond, Grant S(idney), 76 Rosedale Ave, Hamburg, N. Y. *Chemistry.* Buffalo, N. Y, Dec. 25, 01. A.C, Buffalo, 23. Research chemist, *Electro Refractories Corp,* 23–26, research director, 26–28, *plant manager, 28–;* v. pres, *Electro Refractories and Alloys Corp,* 33–41, *exec. v. pres, 41–* Fel. Ceramic Soc. (chairman, membership cmt, 35–37; data and educ. cmt, 42); Ceramic Eng; Ceramic Asn. N. Y. (pres, 42). Fused magnesia, silicon carbide and fused alumina refractories; kiln constructions.

Diamond, Harry, 3226 Northampton St, Washington, D. C. *Radio engineering.* Quincy, Mass, Feb. 12, 00. B.S, Mass. Inst. Tech, 22; M.S, Lehigh, 25. Research mech. eng, Gen. Elec. Co, 22–23; instr. elec. eng, Lehigh, 23–27; assoc. radio engineer, *Bur. Standards,* 27–28, radio engineer, 28–30, senior radio engineer, 30–36, prin. physicist, 36–42, *head physicist, 42–* Lecturer, George Washington, 40–42. Mem. div. four, Nat. Defense Research Cmt. Eng. award; Wash. Acad. Sci, 40. Radio Eng; Wash. Acad; Union Radio Sci. Int. Radio directional systems for the guidance of aircraft; radio methods for upper-air meteorological soundings in unmanned balloons; standards for radio-frequency voltage and field intensity.

Diamond, Dr. H(yman), Shell Development Co, 4560 Horton St, Emeryville, Calif. *Physical chemistry.* Pittsburgh, Pa, June 20, 10. A.B, Swarthmore Col, 31; A.M, Princeton, 33, Ph.D, 35. Research math. physical chem, Princeton, 35–36; *research chemist,* Shell Oil Co, Inc, 36–42; *petrol. tech. div, lubricating oil dept, Shell Develop. Co, 42–* Chem. Soc. Petroleum chemistry; oxidation stability of lubricants and fuels; correlation of properties and performance characteristics of lubricating oils with composition; kinetics and catalysis; reactions of hydrogen isotopes; quantum mechanical calculations.

Diamond, Prof. Moses, 200 Central Park South, New York, N. Y. *Embryology.* Rumania, June 4, 94. D.D.S, N. Y. Univ, 14. Instr. oral anat, *dentistry sch, Columbia,* 22–24, asst. prof, 24–27, *assoc. prof. dentistry, div. oral anat, 27–* Chaim prize, 41. A.A; Dental Asn; N. Y. Acad; Int. Asn. Dental Research. Formation and calcification of enamel; dental anatomy; development of dentio-enamel junction; Hertwig's epithelial sheath; development of dentition and facial bones; hypoplasia and hypocalcification.

Diaz, Marcial R(afael), College of Agriculture, Mayaguez, P. R. *Chemical engineering.* Morovis, P. R, June 30, 98. B.S, Puerto Rico, 22; M.S, Michigan, 26. Asst. sugar chem, *Puerto Rico,* 21–22, instr. chem, 23–24, asst. prof. sugar chem, 24–25, chem, 25–29, assoc. prof, 29–30, prof. and head dept, 30–32, 33–36, *acting dean col. agr. and mech. arts, 36–* Bench chemist, sugar factory, P. R, 21, chief, 22–23, asst. supt, 27–28, supt, 32–; Colombia, S. Amer, 24–25. Chem. Eng; P. R. Sugar Technol. Asn; Hawaiian Sugar Technol. Asn; Int. Sugar Technol. Asn. Utilization of Puerto Rican wild oranges; evaporation of cane juices in the forced circulation evaporator; olivarius process for recovery of sucrose from cane molasses; formaldehyde as a preservative of cane juices in storage.

Dibble, Barry, 120 E. Palm Ave, Redlands, Calif. *Electrical engineering.* St. Paul, Minn, July 6, 81. E.E, Minnesota, 03. Asst. elec. engineer, Twin City Rapid Transit Co, Minn, 06–08; asst. and elec. engineer and project manager, Minidoka project, Idaho, and chief elec. engineer, U. S. Reclamation Service, 09–24; *consulting engineer, 25–* Elec. Eng; Civil Eng. The application of electrical power to irrigation pumping; electric heating; industrial, domestic and rural use of electric power; design of electric generating stations, transmission and distribution systems.

Dibble, Samuel E(dward), Patton Trade School, Elizabethtown, Pa. *Engineering.* New Haven, Conn, Dec. 31, 82. Carnegie Inst. Tech; Pittsburgh; Ohio State. Instr. heating, ventilating and plumbing, Carnegie Inst. Tech, 15–17, asst. prof, 17–25, Ahrens prof, 25–31; *supt, Patton Trade Sch, Elizabethtown, 31–* Heat. and Vent. Eng. (pres, 26). Heating, ventilating and sanitation; vocational education.

Dice, Prof. J(ames) R(enfrew), 1021 Ninth Ave, N, Fargo, N. Dak. *Dairy husbandry.* B.S, Mich. State Col, 08; A.M, Missouri, 19. Instr. animal indust, Maine, 09–10; *head dairy husbandry,* N. Y. State Sch. Agr, Morrisville, 10–20; *prof, N. Dak. Col, 20–* Dairy Sci. Asn. Feeding dairy cattle.

Dice, Dr. Lee R(aymond), University of Michigan, Ann Arbor, Mich. *[*7]Zoology.* Savannah, Ga, July 15, 87. A.B, Stanford, 11; M.S, California, 14, Ph.D, 15. Deputy fur warden, Alaska Fisheries Service, 11–13; instr. zool, Kans. State Col, 16–17; asst. prof. biol, Montana, 17–18; curator mammals, museum zool, Michigan, 19–38, *assoc. curator, 38–,* instr. *zool,* 19–28, asst. prof, 28–34, assoc. prof, 34–42, *prof, 42–,* research assoc. mammalian genetics, 27–34, *director lab. vert. biol, 34–* Field asst, bur. biol. surv, U. S. Dept. Agr, 18; asst. zool, Illinois, 19; field work, State Geol. and Biol. Surv, Mich, 19, 20; State Dept. Conservation, Mich, 23, 27; research assoc, Carnegie Institution, 24, 25, 30, 32–39; trustee, Cranbrook Inst. Science, 31–, acting director, 34–35, consulting zoologist, 34– A.A; Genetics Soc; Genetic Asn; Soc. Mammal; Ecol. Soc. (v. pres, 38); Eugenics Soc; Soc. Vertebrate Paleont; Wildlife Soc; Pacific Northwest Bird and Mammal Soc; Mich. Acad. (v. pres, zool, 23, sec'y-treas, 23–26, sec'y, 27, v. pres, 35, pres, 36); Detroit Acad. Nat. Sci; British Ecol. Soc. Biogeography; ecology; variation and genetics of Peromyscus; rate of evolution of species and subspecies.

Dice, Marion E(nglish), 108 W. Second St, Los Angeles, Calif. *Chemical engineering.* Quincy, Ill, Aug. 15, 99. B.S, Colorado, 22, Chem.E, 26. Instr. eng. math, Colorado, 22–23; testing engineer, *Gen. Petrol. Corp. of Calif,* 23–29, *research engineer, 30–* A.A; Chem. Eng. (chairman, Los Angeles sect, 34); Chem. Soc. (chairman, South. Calif. sect, 34). Filtration; electrical conductance; lightning protection; thermal expansion of petroleum hydrocarbons.

Dick, Dean G(eorge) A(lexander), 39th St. and Woodland Ave, Philadelphia, Pa. *Veterinary medicine.* Cheapside, Ont, Can, Nov. 29, 77. D.V.M, Pennsylvania, 04; B.S, Iowa State Col, 19. Asst. prof. and assoc. prof. *animal indust, sch. vet. med, Pennsylvania,* 17–20, *prof, 20–, dean sch. vet. med, 31–* Summer, research, Bur. Animal Indust, Pa, 16. Vet. Med. Asn. (state sec'y and v. pres); Pa. Vet. Med. Asn. (v. pres); Keystone Vet. Med. Asn. Animal industry.

Dick, Dr. George F(rederick), 1015 Greenwood Blvd, Evanston, Ill. *[*4]Internal medicine.* Fort Wayne, Ind, July 21, 81. M.D, Rush, Chicago, 05; hon. Sc.D, Cincinnati, 25, Northwestern, 27. Intern, Cook County Hosp, 05–06; instr. path, Chicago, 10–11; McCormick Inst. for Infectious Diseases, 11–14; pathologist, St. Luke's Hosp, 16–18; *prof. clin. med, Rush Med. Col, Chicago, 18–, chairman dept. med, 33–* Major, M.C, 18–19. Am. Med. Asn; Asn. Path. and Bact; Am. Physicians; Soc. Clin. Path. Medicine; bacteriology; scarlet fever; infectious diseases.

Dick, Dr. Macdonald, Duke Hospital, Durham, N. C. *Physiology.* Sumter, S. C, Sept. 4, 00. A.B, Virginia, 22, A.M, 23; M.D, Hopkins, 28. Asst. physics, Virginia, 20–22; physiol,

Hopkins, 28; med, Vanderbilt, 28–30; Rockefeller Inst, 30–32; instr. med, *Duke*, 32–33, instr. and assoc. *physiol. and pharmacol*, 33–43, *asst. prof*, *43–* Blood; blood proteins; respiration.

Dicke, F(erdinand) F(rederick), 1920 Parkwood Ave, Toledo, Ohio. *Entomology.* New Bremen, Ohio, Aug. 25, 99. B.S, Ohio State, 27. Field asst, *bur. entom. and plant quarantine, U. S. Dept. Agr*, Monroe, Mich, 27–28, junior entomologist, 28–29, asst. entomologist, Charlottesville, 29–33, Arlington Farm, 33–42, Beltsville research center, 42, *assoc. entomologist, European corn borer research lab, 42–* A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Cereal and forage insects; entomogenous fungi; corn ear worm; wheat joint worm.

Dicken, Prof. Samuel N(ewton), University of Minnesota, Minneapolis, Minn. *Geography.* Fleming Co, Ky, Jan. 26, 01. A.B, Marietta Col, 24; Ph.D, California, 30. Instr. geol. and geog, Carleton Col, 28–29; *geog, Minnesota*, 29–33, asst. prof, 33–41, *assoc. prof, 41–; consultant, Air Forces, U. S. Army, 43–* Summers, geographer, Ky. Geol. Surv, 27, 28; research consultant, Study Popul. Redistribution, 35; conservationist, soil conservation service, U. S. Dept. Agr, 36, 37. Assoc. ed, 'Inter-Am. Rev,' 43– Fel. Am. Geog. Soc; Asn. Geog. The Kentucky barrens; Kentucky karst; dry farming area in the San Joaquin Valley, California; central Florida farms; Sierra Madre Oriental, Mexico; Monterrey and northeastern Mexico; soil erosion in Kentucky; cotton regions of Mexico; corn and wheat in Mexico.

Dickerman, Dr. E(ldie) E(ugene), Bowling Green State University, Bowling Green, Ohio. *Biology.* Oswego, Kans, Jan. 22, 03. A.B, Grand Island Col, 26; M.S, Northwestern, 31, Ph.D, 36. Teacher, high sch, Nebr, 26–29; asst. zool, Northwestern, 29–31, *instr*, 31–36; *biol, Bowling Green State Univ, 36–* A.A; Soc. Parasitol; Micros. Soc; Ohio Acad. Trematode life history.

Dickerson, Dr. Gordon Edwin, U. S. Department of Agriculture, Ames, Iowa. *Animal breeding.* La Grande, Oregon, Jan. 30, 12. B.S, Mich. State Col, 33; scholar, Wisconsin, 33–34, M.S, 34, Ph.D, 37. Asst. genetics, Wisconsin, 34–35, instr. genetics and dairy records, 35–39, genetics and dairy husbandry, 39–41; *assoc. geneticist, regional swine breeding lab, bur. animal indust, U. S. Dept. Agr, 41–* A.A; Dairy Sci. Asn; Soc. Animal Production; Genetics Soc; Genetic Asn. Producing ability in dairy cattle; effects of inbreeding on growth in dairy cattle; breeding management production; reproduction and growth in dairy cattle; inbreeding and selection techniques for the improvement of swine.

Dickerson, Dr. L(aurence) M(ajor), Hillcrest, R. F. D. 2, Spartanburg, S. C. *Biology.* Cadiz, Ohio, June 26, 99. B.S, Col. of William and Mary, 24; fellow, Virginia, 27–30, M.S, 29, Ph.D, 30. Asst. biol, Col. of William and Mary, 22–24; teacher, high sch, W. Va, 24–26; Va, 26–27; prof. biol, Cumberland, 30–35; asst. wildlife technician, Nat. Park Service, 35–37, assoc. wildlife technician, 37–38; chief regional div. biol, *Soil Conservation Service*, region three, U. S. Dept. Agr, 38–42, *soil conservationist, 42–* A.A; Tenn. Acad; Va. Acad; Ohio Acad. Genetics of pisum; animal parasites of the native fauna; conservation of native wildlife resources.

Dickerson, Dr. R(oy) E(rnest), Room 815, 260 S. Broad St, Philadelphia, Pa. *Paleontology, Geology.* Monticello, Ill, Aug. 8, 77. B.S, California, 00, M.S, 10, Ph.D, 14. Prin. and teacher, high schs, Calif, 00–18; asst. curator *paleont, Calif. Acad. Sciences*, 14–17, curator, 17–19, *hon. curator, 19–*; chief geologist, for. div, Atlantic Ref. Co, 28–42; *prin. petrol. specialist, tech. branch, B. E. W, 42–* Geol. supt, Standard Oil Co. of Calif, 18–26. Summers, asst, California, 10–12, instr, 12–13. A.A; Paleont. Soc. (sec'y, Pacific div, 12, v. pres, 13, pres, 14); Geol. Soc; Calif. Acad; Le Conte Geol. Club (sec'y, 18). Paleontology and geology of the Pacific Coast and Mexico; the fauna of the Eocene; the Tertiary of Peru, southern California and the Philippines; the Mesozoic of Cuba.

Dickey, Dr. Howard C, Colorado State College, Ft. Collins, Colo. *Dairy husbandry.* Durand, Mich, June 26, 13. B.S, Mich. State Col, 34; M.S, West Virginia, 36; Ph.D, Iowa, 39. Asst. dairy husbandry, West Virginia, 34–36; teaching asst, Iowa State Col, 36–39; *asst. prof. animal husbandry, Colo. State Col, 39–* Dairy Sci. Asn. Alfalfa proteins for dairy heifers; the relationship between the curd tension in milk and its rate and percentage of digestibility.

Dickey, Dr. Joseph B(enjamin), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Auburndale, Fla, Sept. 22, 03. B.S. (Ch.E), Florida, 25; fellow, Iowa State Col, 27–30, Ph.D, 30. *Research dept. synthetic org. chem, Eastman Kodak Co, 30–* Teaching fellow, Florida. Chem. Soc. Synthetic chemistry; Grignard reagent; derivatives of furfural; synthetic dyes.

Dickey, Dr. Lloyd B(lackwell), 343 Summit Ave, Mill Valley, Calif. *Pediatrics.* Racine, Wis, April 7, 94. A.B, Fargo Col, 15; A.M, Illinois, 17; B.S, Minnesota, 21, M.B, 22, M.D, 23. Asst. zool, Illinois, 15–18; technician, dept. nervous and mental diseases, Minnesota, 19, instr. anat, 19–21, asst. med, 22; intern, Glen Lake Sanatorium, 22–23; State Hosp. Crippled Children, St. Paul, 23; Lane Hosp, 23–25, res. pediat, 25–26; instr. and asst. prof. med, *sch. med, Stanford*, 25–28, *assoc. prof. pediat. and chief clinic, 28–* Asst, Stanford Univ. Hosp, 25–26; asst. visiting pediatrician, San Francisco Hosp, 27, visiting pediatrician, 28– Asst, Puget Sound Marine Sta, Washington (Seattle), 21; special worker, San Francisco Tuber. Asn, 25–28. 2nd Int. Pediat. Cong. Lieut, M.O.R.C, 25–31. Fel. Acad. Pediat; Am. Med. Asn; Tuber. Asn; Calif. Acad. Med; Int. Union against Tuber. Zoology; parasitology; tuberculosis.

Dickey, Dr. Parke A(therton), Oxford, Pa. *Geology.* Chicago, Ill, March 3, 09. Ph.D, Hopkins, 32. Geologist, Trop. Oil Co, 32–38; Pa. Topographic and Geol. Surv, 38–42; consultant, Office Petrol. Coordinator, 42; *mem. staff, Forest Oil Corp, 42–* Inst. Min. Eng; Petrol. Inst; Am. Geog. Soc; Asn. Petrol. Geol. Geology of northern South America, and northwest Pennsylvania; secondary methods of recovering petroleum.

Dickey, R(alph) D(avis), University of Florida, Gainesville, Fla. *Horticulture.* Auburndale, Fla, Sept. 21, 04. B.S.A, Florida, 27; M.S.A, Cornell, 39. Instr. entom. and plant path, col. agr, *Florida*, 27–30, asst. prof, 30–33, *asst. horticulturist, Exp. Sta, 33–; U. S. Army.* Soc. Hort. Sci; Fla. State Hort. Soc. Propagation and culture of tung oil and micro element deficiencies.

Dickey, Dr. R(obert) M(cCullough), Bucyrus-Erie Co, Chicago, Ill. *Mining geology.* Cleveland, Ohio, Oct. 4, 09. A.B, Michigan, 30, M.S, 31; Ph.D, Wisconsin, 36. Instr. geol, Wisconsin, 34–36; assoc. prof. geol. and head dept. geol. and miner, Mich. Col. Min. and Tech, 36–37, prof. geol, 37–39; *sales engineer, Bucyrus-Erie Co, 39–* Min. and Metal. Eng. Precambrian geology; structural geology; ore deposits; mechanized mining.

Dickey, Prof. Robert W(illiam), Liberty Hall Road, Lexington, Va. *Physics, Electrical engineering.* Bath Co, Va, May 13, 91. B.S, Washington and Lee, 10, A.B, 11, A.M, 12; Hopkins, 15, fellow, 15–16, Ph.D, 16. Instr. physics and math, Washington and Lee, 10–13; physics, Hopkins, 14–15; assoc. prof. and director physical lab, *Washington and Lee*, 16–22, assoc. prof. elec. eng, 22–24, prof. and head dept, 24–28, physics and elec. eng, 28–33, *McCormick prof. physics, 33–* Tech. adviser on instruments and photog. equipment, A.S, 17–19, lieut, 19. Asn. Physics Teachers. Physics; index of refraction for gases; airplane instruments.

Dickinson, Prof. Charles A(lexius), Bennock St, Orono, Maine. *Psychology.* Riverton, New Zealand, May 20, 79. Int. Y. M. C. A. Col, 07–10; A.M, Clark, 22, Ph.D, 25. Ruggles St. Neighborhood House, Boston, 10–12; community work, Rockford, Ill, 12–20; hon. research fellow, Cornell, 25–26; *prof. psychol. and head dept, Maine, 26–* A.A; Psychol. Asn; Acad. Polit. and Social Sci; East. Psychol. Asn; Maine Pub. Health Asn. (chairman, mental hygiene div); Maine Teachers Asn. (sec'y mental hygiene dept); Maine Teachers Mental Hygiene Asn. (sec'y-treas; ed, 'Bul'). Mental health; the high school girl and mental health; experience and visual perception; the course of experience; psychological factors involved in the presentation of class material.

Dickinson, Dr. David F(ranklin), 718 N. First Ave, Winterset, Iowa. *Chemical engineering.* Coffeyville, Kans, Jan. 28, 14. A.B, Kans. State Teachers Col, 34, M.S, 36; Illinois, 36–37; Ph.D, Iowa State Col, 41. Teaching fellow physical chem, Illinois, 36–37; Iowa State Col, 37–38; *research chemist*, Maytag Co, 41–43; *Benson Process Eng. Co, 43–* Chem. Soc. The mechanism of drying of ideal porous materials.

Dickinson, Dr. E(rnest) M(ilton), Oregon State College, Corvallis, Oregon. *Veterinary medicine.* Boston, Ohio, May

12, 05. D.V.M, Ohio State, 27; M.S, Oregon State Col, 35. Asst. poultry pathologist and asst. prof. vet. med, Oregon State Col, 27–36; junior veterinarian, California, 36–38; assoc. prof. vet. med. and assoc. veterinarian, *Oregon State Col*, 38–41, *prof. vet. med. and veterinarian, 41–* Vet. Med. Asn; Poultry Sci. Asn; Oregon State Vet. Med. Asn. Poultry diseases; coccidiosis; fowl pox; erysipelas infection in turkeys; salmonellosis in chickens and turkeys.

Dickinson, Dr. H(obart) C(utler), National Bureau of Standards, Washington, D. C. **²Physics.* Bangor, Maine, Oct. 11, 75. A.B, Williams Col, 00, A.M, 01; Clark, 02–03, Ph.D, 10. Asst, Williams Col, 00–02; Bur. Standards, 03–06, asst. physicist, 06–10, assoc. physicist, 10–16, physicist, 16–20; research manager, Soc. Automotive Engineers, 20–22; *chief div. heat and power, Bur. Standards, 22–* A.A; Physical Soc; Mech. Eng; Soc. Test. Mat; Soc. Automotive Eng. (past pres); Soc. Refrig. Eng; Wash. Acad. Thermometry; calorimetry; specific heats of liquids; heats of combustion and fusion; thermal properties of refrigerants; thermal conductives; internal combustion engines; highway safety; applications of principles of physics to social problems.

Dickinson, Prof. L(awrence) S, Massachusetts State College, Amherst, Mass. *Agronomy.* Amherst, Mass, Aug. 29, 88. B.S, Mass. Col, 10, M.S, 36. Supt. ground, Mass. Col, 11–30, *asst. prof.* hort, 21–31, *agron, Mass. State Col, 31–* A.A; hon. mem. Nat. Greenkeepers Asn; Soc. Agron; hon. mem. Greenkeepers Club New Eng. Culture of turf grasses.

Dickinson, Dr. Robert Latou, 438 W. 116th St, New York, N. Y. *Gynecology.* Jersey City, N. J, Feb. 21, 61. M.D, L. I. Col. Hosp, 82. Clin. prof. obstet. and gynec, L. I. Col. Hosp, 90–30. Chief of service, various hosps. and Brooklyn Hosp; consultant, several hosps. Sec'y and hon. chairman, Nat. Cmt. Maternal Health, New York, 23– Lieut. col, U.S.A, 17–18. Gynec. Soc. (pres, 20); N. Y. Obstet. Soc. (pres, 10). Obstetrics; normal sex life; contraception; marriage; sex anatomy; walking; hospital inspection in Europe, Near East and Far East; hospital histories; electric cautery in cervicitis and sterilization; models for teaching delivery and pelvic anatomy.

Dickinson, Prof. Roscoe G(ilkey), California Institute of Technology, 1201 E. California St, Pasadena 4, Calif. **⁸Physical chemistry.* Brewer, Maine, June 10, 94. B.S, Mass. Inst. Tech, 15; Ph.D, Calif. Inst. Tech, 20. Asst. theoret. chem, Mass. Inst. Tech, 15–16, *physical chem*, 16–17; research assoc, *Calif. Inst. Tech*, 17–26, asst. prof, 26–28, assoc. prof, 28–38, *prof, 38–* Nat. research fellow, 20–23; Int. Educ. Board fellow, Europe, 24–25. Chem. Soc. Crystal structure; photochemistry; reaction kinetics.

Dickinson, Dr. S(heldon) J(ames), Lawrence Brook Manor, New Brunswick, N. J. *Metallurgy.* Dundee, Ill, Feb. 2, 95. B.S, Wisconsin, 20, M.S, 21, Ph.D, 26. Asst. instr. chem, Wisconsin, 21–25; research metallurgist, research dept, *Am. Smelting and Ref. Co*, 26–31, *tech. adviser, 31–* Chem. Soc; Chem. Eng; Min. and Metal. Eng; Electrochem. Soc; Soc. Test. Mat; British Inst. Metals. Non-ferrous metallurgy.

Dickinson, Prof. Sherman, University of Missouri, Columbia, Mo. *Agricultural education.* Polk Co, Iowa, May 5, 91. B.S, Iowa State Col, 13; M.S, Minnesota, 20, Ph.D, 26. Director agr, Minneapolis, 14–19; instr. *agr. educ*, Minnesota, 19–20; prof. and prin, sch. agr, Idaho, 20–21; instr, Minnesota, 21–24; *prof, Missouri, 24–* Ed, 'Agr. Educ.' Live stock and poultry enterprises; agricultural tests; visual education.

Dickinson, W(illiam) E(ugene), 429 Federal Bldg, Los Angeles, Calif. *Hydraulic engineering.* Geneseo, N. Y, April 10, 89. C.E, Cornell, 14. From junior to *senior hydraul. engineer, U. S. Geol. Surv, 16–*, dist. engineer in charge surface water investigations in Ariz. and on Colo. River, 23–38, *water utilization investigations, Colo. River Basin, 38–* Mem, Ariz. State Board Tech. Registration of Architects, Engineers, Land Surveyors and Assayers, 32–38. Civil Eng. (pres, Ariz. sect, 31). Water resources; stream-flow investigations.

Dickman, Dr. A(lbert), 1419 W. Erie Ave, Philadelphia, Pa. *Biology.* Lake Placid, N. Y, Nov. 3, 03. A.B, Hopkins, 24; M.S, Pennsylvania, 31, Ph.D, 33. Teacher, pub. schs, Md, 24–25; asst. to curator, Commercial Museum, Phila, 25–26; teacher biol, pub. schs, 28–36; Olney High Sch, 36–41; *director, Dickman Labs, 33–* Intestinal flora of termites; digestion of wax and resistance to tubercle bacillus of the wax-moth; beneficial insects; analysis of beer and brewery products.

Dickman, Dr. S(herman) R(ussell), University of Illinois, Urbana, Ill. *Biochemistry.* Buffalo, N. Y, Jan. 15, 15. B.S, Pa. State Col, 36; M.S, Illinois, 37, Ph.D, 40. First asst. soil surv. anal, *Illinois*, 40–41, *special research asst. chem, 41–* Chem. Soc. Syntheses of compounds of biochemical interest.

Dicks, Prof. Charles B(arber), Jr, Specialty Products Co, 433 Bourbon St, New Orleans, La. *Chemistry.* Natchez, Miss, Sept. 27, 95. B.E, Tulane, 20; M.S, Mass. Inst. Tech, 21. Asst, Mass. Inst. Tech, 21–22; production manager and chemist, La Valliere Co, New Orleans, 22–26; asst. prof. and assoc. prof. chem. eng, Tulane, 26–38; *production manager, Specialty Products Co, 38–* Chem. Soc; Chem. Eng. Industrial and physical chemistry.

Dickson, A(lbert) M(axcy), 3380 Stuyvesant Place, N. W, Washington, D. C. *Agricultural economics.* Darlington, S. C, Sept. 24, 96. B.S, Clemson Col, 16; M.S, Okla. Agr. and Mech. Col, 32. Agent, State Plant Board, Fla, 16–17; teacher agr, West. Ga. Junior Col, Carrollton, 17–18; county agr. agent, Tifton, Ga, 19; farm manager, R. C. Neely Co, Waynesboro, Ga, 20; county agr. agent, Snow Hill, N. C, 20–23; supervisor agr. training, U. S. Veterans Bur, 25–26; assoc. agr. economist, bur. agr. econ, *U. S. Dept. Agr*, Atlanta, Ga, and Dallas, Texas, 28–34, senior agr. economist, agr. adjust. admin, 34–40, prin. marketing specialist, *agr. marketing admin*, 41–42, *prin. agr. economist, 42–* U.S.A, 18. A.A; Farm Econ. Asn. Cotton, cottonseed, fats and oils, soybean and peanut marketing; price and market analysis.

Dickson, Dr. Allan D(avid), University of Wisconsin, Madison, Wis. *Biochemistry.* Moxee, Wash, March 27, 00. B.S, Wisconsin, 24, Ph.D, 29. Assoc. biochemist, *bur. plant indust, U. S. Dept. Agr*, 29–42, *chemist, 42–* Chem. Soc; Soc. Brewing Chem; Asn. Cereal Chemists. Biochemistry of plant diseases and barley quality.

Dickson, Prof. Frank, University of British Columbia, Vancouver, B. C, Can. *Plant pathology.* Leicester, Eng, May 10, 91. B.A, Queen's (Can), 20; Ph.D, Cornell, 30. Instr. plant path, Cornell, 21–23; asst. prof. *bot, British Columbia*, 23–27, *assoc. prof, 27–* Phytopath. Soc. Sclerotinia sclerotiorum.

Dickson, Dr. Frank D(ake), 3615 Gillham Road, Kansas City, Mo. *Orthopedic surgery.* Pittsburgh, Pa, 82. M.D, Pennsylvania, 05. Instr. orthop. surg, Pennsylvania, 11–16; *orthop. surgeon, Kansas City Gen. Hosp, 16–, St. Luke's Hosp, 26–; assoc. clin. prof. surg, med. sch, Kansas, 40–* Orthop. Asn. (pres, 40); Acad. Orthop. Surg. (pres, 35); Col. Surg; Am. Med. Asn; Surg. Asn; West. Surg. Asn; South. Surg. Asn; Int. Orthop. Surg. Exercises for health and correction; posture; functional disorders of the foot.

Dickson, Geo(rge) H(erbert William), Vineland Station, Ont, Can. *Horticulture.* Sawyerville, Que, March 18, 94. B.Sc. (Agr), McGill, 17. *Asst. in charge hardy fruits, Hort. Exp. Sta, Vineland Sta.* Soc. Hort. Sci; Can. Soc. Tech. Agr. Apple seedlings; plum thinning; pears in Ontario; apple cultivation.

Dickson, Prof. James G(eere), University of Wisconsin, Madison, Wis. *Plant pathology.* Yakima, Wash, Feb. 7, 91. B.S, State Col. Wash, 15; M.S, Wisconsin, 17, Ph.D, 20. Asst. soil chem. and asst. librarian, State Col. Wash, 15; asst. bot, Wisconsin, 16–17; *agent, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 18–*; from asst. to *prof. plant path, Wisconsin, 19–* A.A; Phytopath. Soc; Soc. Agron. Plant physiology; plant chemistry; cereal diseases.

Dickson, Dr. J(ohn) B(ernard), 307 Abbington Hall, 155 Union Ave, Rutherford, N. J. *Physical chemistry.* Zanesville, Ohio, Sept. 8, 89. A.B, Ohio (Athens), 12; A.M, Ohio State, 13; Austin fellow, Mass. Inst. Tech, 16–17, Ph.D, 17. Asst. chem, Ohio State, 12–15; instr. physical chem, Mass. Inst. Tech, 17–18; research chemist, B. F. Goodrich Rubber Co, 19–23; director research, A. G. Spalding and Bros, 23–41; *tech. director, Am. brakeblok div, Am. Brake Shoe and Foundry Co, 41–* Chemist, U. S. Bur. Mines, and capt, C.W.S, 18–19. Chem. Soc; Physical Soc; Soc. Chem. Indust; Soc. Test. Mat; Textile Inst. Free energy; colloids.

Dickson, Prof. L(eonard) E(ugene), University of Chicago, Chicago, Ill. **¹Mathematics.* Independence, Iowa, Jan. 22, 74. B.S, Texas, 93, teaching fellow, 93–94, A.M, 94; fellow, Chicago, 94–96, Ph.D, 96; Leipzig and Paris, 96–97; hon. Sc.D, Harvard, 36, Princeton, 41. Chemist, Texas Geol. Surv, 92–93; instr. *math*, California, 97–99; assoc. prof, Texas,

99–00; asst. prof, *Chicago*, 00–07, assoc. prof, 07–10, *prof, 10–* Visiting prof, California, 14, 18, 22. A.A.A.S. prize, 24. Nat. Acad; A.A; Math. Soc. (pres, 16–18, ed, 'Trans'); Philos. Soc; Am. Acad; London Math. Soc; cor. Paris Acad; hon. mem. Czechoslovakia Union Math. and Physics. Theory of finite and infinite groups; theory of numbers; invariants; algebras and their arithmetics; history of mathematics.

Dickson, Dr. Virgil E(verett), 1414 Walnut St, Berkeley, Calif. *Education.* Unionville, Mo, March 29, 85. B.Pd, Mo. State Teachers Col, Kirksville, 04; A.B, State Col. Wash, 08; A.M, Stanford, 17, Ph.D, 19. Sch. supt, Wash, 08–11; supt, Wash. State Nor. Training Sch, Cheney, 11–16; asst. supt. *schs. and director bur. research and guidance, Berkeley,* 18–36, *supt, 36–* Deputy supt. schs. and director bur. research and guidance, Oakland, Calif, 17–25; lecturer, California, 25–Educ. Research Asn. (v. pres, 22); Calif. Research and Guidance Asn. (pres, 22–26). The measurement of intelligence; vocational guidance.

Dicus, Dr. A(aron) W(esley), Tennessee Polytechnic Institute, Cookeville, Tenn. *Physics.* Festus, Mo, May 30, 88. A.B, Indiana, 26, A.M, 28, Ph.D, 32. Asst. *physics,* Indiana, 26–30; *head dept, Tenn. Polytech, 30–* A.A. (councilor, 39–42); Physical Soc. (exec. cmt, southeast. sect, 42–); Asn. Physics Teachers; South. Asn. Physicists; Tenn. Acad. (pres, 39). Sensitive flames and jets; sound and optics.

Didlake, M(ary) L(e Grand), 248 Market St, Lexington, Ky. *Entomology, Botany.* Lexington, Ky, March 28, 74. B.S, Kentucky, 95, M.S, 97, Chicago, 01. Asst. entomologist and botanist, *Exp. Sta, Kentucky,* 01–35, *assoc. entomologist and botanist, 35–* Summer, acting head dept. entom. and bot, Kentucky, 29. A.A; Ky. Acad. Nodule bacteria of legumes; Mantidae; spiders; wild flowers of Kentucky; weeds.

Didusch, Rev. J(oseph) S(tephen), S.J, 5401 N. Charles St, Baltimore, Md. *Biology.* Baltimore, Md, Nov. 25, 79. A.B, Loyola Col. (Md), 98; A.M, Woodstock Col. (Md), 04. Prof. biol, St. Joseph's Col. (Pa), 07–09, 15–25; prof. biol. and dean, Woodstock Col. (Md), 27–30; rector, Jesuit novitiate, Wernersville, Pa, 30–35; *prof. biol, Loyola Col. (Md), 35–* Regent, med. and dental schs, Georgetown, 26–27. A.A; Ecol. Soc; Genetic Asn; Nat. Hist. Soc. Md; Md. Acad. Plant pigments; hemoglobin.

Diebold, Dr. Charles H, U. S. Forest Service, Washington, D. C. *Forestry.* Macedon, N. Y, Nov. 7, 09. B.S, Cornell, 30, Ph.D, 37. Asst. soil surveyor, Exp. Sta, Cornell, 30–33; asst. soil expert, soil erosion service, U. S. Dept. Agr, 34–35; junior forester, Nicolet Nat. Forest, 36–37; Rocky Mountain Forest and Range Exp. Sta, *U. S. Forest Service,* 37–39, senior rep. upper Susquehanna and Youghiogheny flood control survs, 39–40, *assoc. silviculturist, div. forest influences, 40–* Soc. Foresters; Ecol. Soc; Soil Sci. Soc; Geophys. Union; East. Snow Conf. Infiltration and soil moisture; effect of land use and vegetal cover upon infiltration and movement of soil moisture, especially during flood periods.

Diebold, Prof. Frances, 129 Lathrop St, Madison, Wis. *Zoology.* Madison, Wis, July 14, 00. A.B, Wisconsin, 21, A.M, 27. Director nature study, Wis. State Teachers Col, Eau Claire, 22; instr. *biol,* Kalamazoo Col, 23–27; Whitman Col, 27–28; *prof, Kalamazoo Col, 28–, head dept, 34–* A.A; Hist. Sci. Soc; Genetic Asn; Mich. Acad. Vertebrate anatomy; embryology; genetics.

Dieckmann, Dr. Henry Chabot, 464 Chetwood St, Oakland, Calif. *Geometry.* Oakland, Calif, Dec. 12, 04. A.B, California, 25, L.B, 28, A.M, 30, Ph.D, 37; Harvard, 26–27. *Instr. math, Occidental Col, 38–* Higher geometry.

Dieckmann, Prof. William J(oseph), University of Chicago, Chicago, Ill. *Obstetrics, Gynecology.* Belleville, Ill, Oct. 20, 97. B.S, Washington (St. Louis), 20, M.D, 22. Instr. obstet, sch. med, Washington (St. Louis), 24–28, asst, 28–29, *assoc. prof. obstet. and gynec,* 29–31; *Chicago, 31–, chairman dept.* A.A; Gynec. Soc; Am. Med. Asn; fel. Col. Surg; Cent. Soc. Clin. Research; Cent. Asn. Obstet. and Gynec. Puerperal infection; diet and vomiting in pregnancy; eclampsia; necrosis of the liver; toxemias of pregnancy.

Diefenderfer, Prof. Alpha A(lbert), 725 W. Broad St, Bethlehem, Pa. *Chemistry.* Jenner Cross Roads, Pa. B.S, Lehigh, 02, M.S, 08; Kaiser Wilhelm Univ, 27–28. Asst. chem, *Lehigh,* 02–03, instr, 03–11, asst. prof, 11–20, assoc. prof. *quantitative analysis and assaying,* 20–28, *prof, 28–* A.A; Chem. Soc. Determination of phosphorus in bronze; coking of anthracite coal culm; methods of filtration in quantitative analysis; use of the Shimer filter.

Diefendorf, Prof. A(delbert), 1212 S. 13th East, Salt Lake City, Utah. *Civil engineering.* Newark, N. J, May 19, 91. B.S, Ohio Northern, 11, C.E, 14; Illinois, 21–24; Iowa State Col, 32–33. With Am. Bridge Co, 11–14; engineer of structures, Guggenheim Co, New York, 14–16; chief engineer, Krajewski-Pesant Corp, Cuba, 16–17; plant maintenance engineer, Semet Solvay Co, N. Y, 17–20; chief engineer, Lackawanna Bridge Co, 20–21; instr, col. eng, Illinois, 21–24; asst. prof. *civil eng,* S. Dak. Sch. Mines, 24–27; prof. and head dept, New Mexico, 27–30; prof, Pittsburgh, 30–39; *prof. and head dept, Utah, 39–* Mem. cmt. transportation and economics, Highway Research Board; mem, Nat. Research Council. Road Builders' Asn. (pres, educational div; v. pres); Civil Eng; Eng. Educ. Highway accidents as applied to civil engineering construction.

Dieffenbach, Rudolph, 18 Argyle Ave, Garrett Park, Md. *Forestry.* Westminster, Md, Dec. 25, 84. B.F, Biltmore Forest Sch, 08. From junior forester to deputy forest supervisor, west. states, U. S. Forest Service, 08–12, Washington, D. C, 12–24; forest valuation engineer, U. S. Treasury Dept, 24–26; land valuation engineer, *div. land acquisition, bur. biol. surv, U. S. Dept. Agr,* 25–29, senior land valuation engineer in charge, 29–41, *prin. valuation engineer, 41–* Sec'y, Migratory-Bird Conservation Cmn, 30– Rehabilitation and conservation of land and water resources.

Diehl, Dr. H(arold) S(heely), 40 Barton Ave, S. E, Minneapolis, Minn. *Public health.* Nittany, Pa, Aug. 4, 91. A.B, Gettysburg Col, 12, Sc.D, 35; Syracuse, 14; M.D, Minnesota, 18, fellow, 20, A.M, 21. Teacher and asst. prin, high sch, N. Y, 12–14; instr. chem, Augsburg Sem, 14–16; asst. bacter. and path, *Minnesota,* 16–18, pathologist and electrocardiologist, Univ. Hosp, and instr. path, *univ,* 21, director students' health service, 21–35, *dean med. sciences, 35–,* from asst. prof. to prof. prev. med. and pub. health and chief dept, 22–35. Chairman health service sect, Nat. Conf. on Col. Hygiene, Syracuse, N. Y, 31; mem. health council, Boys Clubs Amer; director health studies, Am. Youth Cmn; mem, nat. advisory health council, U. S. Pub. Health Service, 39–; chairman cmt. allocation med. personnel, U. S. Procurement and Assignment Service for Physicians, Dentists and Veterinarians, 41– Exec. councilor, Asn. Am. Med. Cols, 40– Pologna Restituta medal, Polish Sejm, 22. Med. and path. service, Base Hosp. No. 26, France, 18–19; chief north. div, Red Cross Cmn, Poland, 19–20. A.A; fel. Pub. Health Asn; fel. Am. Med. Asn. (chairman sect. prev. and indust. med. and pub. health, 39); Student Health Asn. (pres, '27–29, sec'y-treas, 34); Cent. Soc. Clin. Research; Cent. Clin. Research Club; Minn. Acad; Minn. Pub. Health Asn. (director, 25–); Minn. State Med. Asn. (chairman cmt. med. educ. and hosps); Hennepin County Tuber. Asn. (director, 22–). Preventive medicine; blood pressure and albuminuria in young adults; student health; acute respiratory infections, especially treatment and prevention; anthropometry; physique and health in relation to unemployment.

Diehl, Prof. Harvey (Clarence), Iowa State College, Ames, Iowa. *Analytical chemistry.* Detroit, Mich, Nov. 2, 10. B.S, Michigan, 32, Ph.D, 36. Instr. *anal. chem,* Cornell, 36–37; Purdue, 37–39; asst. prof, Iowa State Col, 39–42, *assoc. prof, 42–* Soc. Test. Mat; Chem. Soc; Ind. Acad; Iowa Acad. Coordination compounds and chelate rings.

Diehl, H(elmut) C(harles), Western Regional Research Laboratory, U. S. Department of Agriculture, Albany, Calif. *Food chemistry.* Bridgeport, Conn, June 6, 94. B.S, Mich. State Col, 18; Hopkins, 19–21; Maryland, 23–24; State Col. Wash, 38–39. Bur. plant indust, *U. S. Dept. Agr,* 21–23, physiologist, hort. field lab, Wenatchee, Wash, 24–31, senior physiologist, U. S. Frozen Pack Lab, Seattle, 31–35, senior chemist in charge, U. S. Frozen Pack Lab, Seattle, and U. S. Fruit and Veg. Products Lab, Pullman, bur. chem. and soils, 35–40, *prin. chemist and chief commodity processing div, west. regional research lab, bur. agr. and indust. chem, 40–* Tech. adviser, Nat. Asn. Frozen Food Packers; cooperative consultant frozen foods, Office Quartermaster Gen, U. S. Army. Mem. research advisory council, Asn. Refrig. Warehouses. A.A; fel. Inst. Chem; Chem. Soc; Pub. Health Asn; Inst. Food Technol; Frozen Food Locker Asn. (food preservation cmt). Food technology; chemistry and technology of freezing preservation of foods.

Diehl, Dr. William W(ebster), U. S. Department of Agriculture, Washington, D. C. *Botany.* Logansport, Ind, Jan. 15, 91. A.B, Miami (Ohio), 14; M.S, Iowa State Col, 15; Ph.D, Harvard, 32. Teaching fellow, Iowa State Col, 14–16;

instr. bot, Clemson Col, 16–17; sci. asst. *mycol, bur. plant indust, U. S. Dept. Agr*, 17–19, asst, 19–26, *assoc, 26–* Lecturer, George Washington, 28–32, adj. prof, 36– A.A; Bot. Soc; Phytopath. Soc; Bot. Soc. Wash. (pres, 35); Biol. Soc. Wash; Wash. Acad. Mycology; Ascomycetes.

Diehm, Dr. Margaret May, Drexel Institute, Philadelphia, Pa. *Bacteriology.* Reading, Pa, Feb. 23, 03. B.S, Pennsylvania, 25, M.S, 27, George B. Wood fellow, 27–29, Ph.D, 29. *Instr.* bacter, Pennsylvania, 29–31; *biol. sciences, Drexel Inst, 31–; lieut, W.A.V.E, U. S. Naval Res.* Junior bacteriologist, Phila. Gen. Hosp, 30, senior bacteriologist, 30–31. A.A; Soc. Bact; Pub. Health Asn. Bacteriology of cottage cheese; nature of pin-point colonies in raw and pasteurized milk; large city milk handling; microbiology.

Diehm, Dr. R(obert) A(dam), Container Corp. of America, Chicago, Ill. *Biochemistry.* Avilla, Ind, Aug. 22, 03. B.S.A, Purdue, 26; M.S, Rutgers, 28, Ph.D, 30. Field asst. soil fertility, N. J. Exp. Sta, 26–28, research asst. soil microbiol, 28–30; instr. bacter, N. J. Col. for Women, 28–30; *microbiologist,* Rohm and Haas Co, Phila; *Container Corp. Amer.* Soc. Bact. Composting of green and stable manures; decomposition of soil organic matter; the hemicelluloses and their decomposition by microorganisms; enzyme production on commercial scale by microorganisms.

Dieke, Prof. G(erhard) H(einrich), Johns Hopkins University, Baltimore, Md. ***5Physics.* Rheda, Germany, Aug. 20, 01. Nat. Ph.Dr, Leiden, 25; Ph.D, California, 26. Nat. research fellow, Calif. Inst. Tech, 26–27; research assoc, Inst. Physical and Chem. Research, Tokyo, 27–28; conservator and privat-docent, Groningen, 28–30; assoc. *physics, Hopkins,* 30–31, assoc. prof, 31–39, *prof, 39–* Theoretical and experimental spectroscopy; structure of molecules and band spectra; industrial spectroscopy.

Dienes, Dr. Louis L(adislaus), 38 Arlington St, Cambridge, Mass. *Bacteriology, Immunology.* Tokay, Hungary, Sept. 4, 85. M.D, Budapest, 08; Paris. Asst. prof. and assoc. prof. hygiene, Budapest, 08–21; director, von Ruck Research Lab. Tuber, Asheville, N. C, 21–30; *bacteriologist, Mass. Gen. Hosp, Boston, 30–* Privat-docent, Budapest, 15. A.A; Asn. Immunol; Soc. Exp. Biol; Soc. Bact. Microchemical methods; Weil-Felix reaction; antigenic substances of the tubercle bacillus; hypersensitiveness; influence of the infection on the immunity response; pleuro-pneumonia group of organisms.

Dienst, Prof. Robert Barton, University of Georgia School of Medicine, Augusta, Ga. *Bacteriology, Public health.* Temple, Texas, June 19, 05. A.B, Baylor, 25, A.M, 26; fellow, Chicago, 29–30, Ph.D, 33. Instr, Baylor, 26–27; asst. prof. biol, John Tarleton Col, 27–29; instr, Chicago, 30–33; bacteriologist, Dept. Health, Chicago, Ill, 33–34; asst. prof. *bacter. and pub. health, sch. med, Georgia,* 34–38, *assoc. prof, 38–* Soc. Bact; Pub. Health Asn. Carriers in typhoid fever; amebiasis; bacterial variation; 'G' colony forms of bacteria; diagnosis of primary syphilis; diagnosis of granuloma venereum; preparation of chancroidal vaccine.

Dieter, Prof. Clarence D(ewey), 103 Dewey Ave, Washington, Pa. *Microscopic anatomy.* Pittsburgh, Pa, July 19, 98. B.S, Pittsburgh, 22, Ph.D, 34; fellow, Washington and Jefferson Col, 22–24, M.S, 24; Chicago. Asst, Pittsburgh, 20–22; instr, *Washington and Jefferson Col,* 24–27, asst. prof. *biol,* 27–35, *prof, 35–* A.A. Bacteriology; structure and function of Crenothrix polyspora; morphology of the central nervous system of Triturus vividescens; histology of Triturus; general zoology.

Diethelm, Dr. Oskar, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Psychiatry.* Lachen, Switzerland, June 18, 97. Staatsexamen, Zurich, 22; M.D, Berne, 23. Asst, Tuber. Sanatorium, Barmelweid, Switzerland, 22–23; Kraukenasyl Rüti, 23–24; asst. physician, psychiat. clinic, Zurich, 24–25; instr, Hopkins, 25–28, assoc. *psychiat,* 28–32, assoc. prof, 32–36; *prof, med. col, Cornell, 36–; psychiatrist in chief, New York Hosp, 36–* Fel. Psychiat. Soc. Panic and fear reactions; treatment in psychiatry.

Dietrich, Prof. Harold G(lenn), 88 Vista Terrace, New Haven, Conn. *Chemistry.* Reading, Pa, March 25, 99. A.B, Oberlin Col, 22; Ph.D, Yale, 26. Instr. *elementary chem, Yale,* 23–29, *asst. prof, 29–* Chem. Soc. Inorganic and physical chemistry; zinc hydroxide equilibria; preparation of crystalline hydroxides and their solubility in aqueous solutions; qualitative analysis.

Dietrich, Dr. Henry, Cornell University, Ithaca, N. Y. *Entomology.* Erfuhrt, Germany, Oct. 24, 94. B.S, Cornell, 17, Ph.D, 37; California, 19–20. Curator entom, Cornell, 17–19; U. S. Forest Service, 20; fruit grower, 21–28; inspector, State Plant Board, Miss, 29–32; asst. *entom, Cornell,* 33–34, *instr, 34–, curator, 40–* U.S.A, 18. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Pacific Coast Entom. Soc; N. Y. Entom. Soc; Brooklyn Entom. Soc. Coleoptera.

Dietrich, Dr. J(oseph) R(obert), Langley Memorial Aeronautical Laboratory, National Advisory Committee for Aeronautics, Langley Field, Va. *Physics.* Miles City, Mont, Aug. 25, 14. B.S, Col. of William and Mary, 35; M.S, Virginia, 37, Ph.D, 39. Asst. physics, Yale, 39–40; junior physicist, *Nat. Advisory Cmt. Aeronautics,* 40–41, *asst. physicist, 41–* Physical Soc. Conduction of electricity through gases.

Dietrich, Dr. M(elvin) A(dam), Green Hill, Claymont, Del. *Chemistry.* Reading, Pa, Aug. 7, 00. A.B, Oberlin Col, 21, A.M, 24; A.M, Princeton, 30; Ph.D, Ohio State, 33. Teacher, high sch, N. Y, 21–23; in charge process lab, De Laval Separator Co, 25–32; *research chemist, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Olefins; refining and maintenance of petroleum products; petroleum chemicals; lubricating oils.

Dietrich, W(aldemar) F(enn), Sacramento Junior College, Sacramento, Calif. *Mining, Ceramics.* Portland, Oregon, April 10, 92. A.B, Stanford, 13, E.M, 14. Engineer, Copper Queen Consol. Mining Co, Ariz, 14–15; engineer and assayer, Consol. Ariz. Smelting Co, 16; lecturer and asst. prof. mining, Stanford, 16–19, assoc. prof, 19–29, prof, 29–30; mineral technologist, Pacatome, Ltd, Calif, 30–31; consulting mineral technologist and mining engineer, 32–35; assoc. metallurgist, U. S. Bur. Mines, 35–36; *teacher, Sacramento Junior Col, 36–* Chief efficiency engineer, Santa Gertrudis Mining Co, Mex, 23–24; ceramic engineer, State Mining Bur, Calif, 25–27; teacher, San Mateo Junior Col, 34–35. Asst. director oil div, Pacific Coast, U. S. Fuel Admin, 18. Min. and Metal. Eng; Ceramic Soc. Metallurgy; mineral technology; efficiency engineering; ceramic resources of California; ore dressing.

Dietrich, W(illia)m, Owen, Wis. *Animal husbandry.* Black River Falls, Wis, March 24, 71. B.S.A, Wisconsin, 99; M.S, Illinois, 06. Soil expert, bur. soils, U. S. Dept. Agr, 03–04; instr. and asst. prof. swine husbandry, Illinois, 04–12, asst. chief, Exp. Sta, 08–12; asst. prof. dairy and animal husbandry, Minnesota, 13–18; county agent, Fillmore County, Minn, 18–22; Floyd County, Iowa, 22–29; *farmer, Wis,* 29– Soc. Animal Nutrition. Animal nutrition; swine husbandry.

Dietrichson, Prof. Gerhard, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Menomonie, Wis, April 1, 84. A.B, Minnesota, 09, B.S, 10; Ph.D, Wisconsin, 14. Instr. chem, Minnesota, 14–17; instr. and *asst. prof. physical chem,* Illinois, 17–25; *Mass. Inst. Tech,* 25–A.A. (asst. sec'y, C, 23–24, sec'y, 24–28); Chem. Soc. Densities of gases and related constants.

Dietrick, Prof. L(eander) B(urton), Virginia Polytechnic Institute, Blacksburg, Va. *Horticulture.* Carbondale, Pa, Sept. 13, 97. B.S, Pa. State Col, 21; M.S, Va. Polytech, 29. Instr. hort, *Va. Polytech,* 23–25, *assoc. prof. hort. and in charge veg. exten, 25–, admin. asst. to exten. director, 42–* Terminal growth in apple trees with fruit bud formation; certification of the sweet potato in Virginia; gardening; truck crop production.

Diettert, Prof. R(euben) A(rthur), Montana State University, Missoula, Mont. *Botany.* North Judson, Ind, Sept. 22, 01. A.B, DePauw, 25; M.S, Mich. State Col, 27; Ph.D, Iowa, 37. Asst. *bot,* Mich. State Col, 25–27; asst. prof, Idaho, 27–35; asst, Iowa, 36–37; instr, *Montana,* 37–38, asst. prof, 38–41, *assoc. prof, 41–* Summers, prof. and acting head dept, Wash. State Nor. Sch, Cheney, 28; Idaho State Nor. Sch, Lewistown, 30; agent, Blister Rust Control, Spokane, Wash, 31, 33, 34. Bot. Soc; Northwest Sci. Asn. (sec'y, biol. div, 29, 32); Mont. Acad. Mycology and morphology; fungi and Myxophyceae of northern Idaho; abnormal conjugation in Spirogyra; morphology and life history of Artemisia tridentata.

Dietrtich, Prof. Sigismond de Rudesheim, University of Florida, Gainesville, Fla. *Geography.* Budapest, Hungary, Feb. 7, 06. Diploma, Budapest, 28; fellow, Clark, 28–31, Ph.D, 31; Chicago, 29; Sc.D, Royal Hungarian Palatine Joseph Univ, Budapest. Instr. econ. geog, *Florida,* 31–35, asst. prof.

geog, 35–41, *assoc. prof, 41–, acting head geog. sect, div. geog. and geol, 42–, chairman Air Force war training course in geog, 43–* Visiting lecturer, Royal Hungarian Palatine Joseph Univ, Budapest, and acting asst. director inst. geog, 35. Summer, acting head dept. geog, Ala. State Teachers Col, Florence, 35. Am. Geog. Soc; Acad. Polit. and Social Sci, Royal Hungarian Geog. Soc. Historical geography of the Thames River Valley, Connecticut; sociography of the Negro in the South; land use of Florida; foreign trade of the Western Hemisphere; world agriculture; Florida's transition from rural to urban economy; Florida's regional economy.

Dietz, Dr. Albert A(rnold Clarence), Toledo Hospital Institute of Medical Research, Toledo, Ohio. *Organic chemistry, Biochemistry.* Port Huron, Mich, Aug. 15, 10. B.S, Toledo, 32, M.S, 33; Heidelberg, 34; Michigan, 35; fellow, Purdue, 39–41, Ph.D, 41. Biochemist, Enza-Vita Labs, Toledo, Ohio, 33–39; Research Foundation fellow, Purdue, 41–42; *mem. staff*, U. S. Rubber Co, 42–43; *biochemist, inst. med. research, Toledo Hosp, 43–* A.A; Chem. Soc. Cereals; preservation of vitamins; antioxidants for oils; carbohydrates; explosives.

Dietz, Dr. Albert (George Henry), Room 5–304, Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Lorain, Ohio, March 7, 08. A.B, Miami (Ohio), 30; B.S, Mass. Inst. Tech, 32, Sc.D, 41. Asst, *Mass. Inst. Tech*, 34–36, instr, 36–41, *asst. prof. struct. eng, dept. bldg. eng. and construction, 41–* Civil Eng; Soc. Test. Mat; Eng. Educ. Building materials; stress-strain relations in timber beams; energy absorption characteristics of wood-resin combinations in high-frequency fields; behavior of plywood under repeated stress; laminated beams.

Dietz, David (Henry), Cleveland Press Bldg, Cleveland, Ohio. *General science.* Cleveland, Ohio, Oct. 6, 97. A.B, Western Reserve, 19. *Ed. staff, Cleveland Press, 15–; science ed, Scripps-Howard Newspapers, 21–* Sci. correspondent, United Press Associations, 33–; lecturer, Cleveland Col, Western Reserve, 27– Summer, lecturer, Yale, 42. Mem. cmt. publicity, div. med. sciences, Nat. Research Council, 39– Shared Pulitzer prize in journalism, 37; Goodrich award, 39. A.A; Nat. Asn. Sci. Writers (pres, 33); Astron. Soc; Franklin Inst; Astron. Soc. Pacific; fel. Ohio Acad; fel. Royal Astron. Soc; Soc. astron. de France. General science; scientific journalism; relations of science and press; popularization of science; history of science; popularization of medicine.

Dietz, Dr. Emma M(argaret), General Aniline and Film Co, Easton, Pa. *Organic chemistry.* Brooklyn, N. Y, Sept. 23, 05. A.B, Columbia, 25, A.M, 26; Ph.D, Bryn Mawr Col, 29. Asst, Harvard, 29–34; Am. Asn. Univ. Women fellow, Munich, 34–35; research chemist, exp. sta, Hercules Powder Co, 35–37; instr, Moravian Col. for Women, 38–41; research chemist, Merck and Co, 41; asst. prof, Conn. Col, 41–43; *research chemist, Gen. Aniline and Film Co, 43–* Chem. Soc. Benzanthraquinones; structure of chlorophyl; bile acids.

Dietz, Dr. F(rederick) C(urt), 2430 Allwood Road, Westfield, N. J. *Organic chemistry.* San Francisco, Calif, April 20, 11. A.B, Stanford, 32; Harvard; Ph.D, Illinois, 41. *Chemist, Gen. Aniline Works, 41–* Chem. Soc. Free radicals; dyestuff intermediates.

Dietz, Dr. Harry F(rederic), E. I. du Pont de Nemours and Co, Wilmington, Del. *Entomology.* Indianapolis, Ind, Dec. 8, 90. A.B, Butler, 14; fellow, Ohio State, 29–31, A.M, 30, Ph.D, 31. Asst. state entomologist, Ind, 14–16; entom. inspector, fed. hort. board and bur. entom, U. S. Dept. Agr, 17–20; asst. state entomologist, Ind, 20–29; research entomologist, Grasselli Chem. Co, 32–37, *with exp. sta, E. I. du Pont de Nemours and Co, 37–* A.A; Asn. Econ. Entom; Ohio Acad; Ind. Acad. Insecticides.

Dietz, Prof. Nicholas, Jr, Creighton University School of Medicine, Omaha, Nebr. *Biochemistry.* Brooklyn, N. Y, Dec. 17, 00. A.B, Columbia, 24, A.M, 26, Ph.D, 30. Asst. chem, Columbia, 25–29; instr, Pittsburgh, 29–33; *asst. prof. biochem, sch. med, Creighton, 33–; lieut, Sanit. Corps, U. S. Army.* A.A; Chem. Soc. (v. chairman, Omaha sect, 34, chairman, 35); Electrochem. Soc; fel. Am. Geog. Soc; Nebr. Acad. Non-aqueous solutions; histamine.

Dietz, Prof. S. M, Iowa State College, Ames, Iowa. *Botany, Plant pathology.* Garner, Iowa, April 6, 93. B.S.A, Iowa State Col, 17, M.S, 18, Ph.D, 24. Field asst, cereal investigations, bur. plant indust, U. S. Dept. Agr, 17, asst. pathologist, 18–26, assoc. pathologist, 26–27; assoc. prof. bot, Iowa State Col, 27–32, prof, 32–37; plant pathologist, State Col. Wash, 37–38; *prof. bot, Iowa State Col, 38–* 2nd lieut, F.A, 18. Phytopath. Soc; Bot. Soc; Iowa Acad. Rusts of oats; resistant varieties; limit of the host; genetics of disease resistance; improvement of botanical teaching.

Dietz, Thomas J(ulius), Biochemical Research Foundation, Newark, Del. *Physics.* Oswego, N. Y, Oct. 4, 08. B.S, Union (N. Y), 32, M.S, 34. Special asst. physics, Union (N. Y), 34–35; physicist, research lab, Gen. Elec. Co, 35–36; research biophysicist, *biochem. research foundation, Franklin Inst*, 36–40, *asst. director, 40–* X-rays; radiation effects on biological systems; protein aggregation; ultra-centrifuge techniques.

Dietze, Prof. Alfred G(odfrey), 2737 Mt. Royal Road, Pittsburgh, Pa. *Psychology.* Monroe Co, Ohio, July 14, 99. Elmhurst Col; A.B, Washington, 21; A.M, Pennsylvania, 26; B.D, Eden Theol. Sem, 28; Ph.D, Pittsburgh, 30. Instr. English and German, Elmhurst Col, 21–22; *psychol, Pittsburgh*, 26–30, *asst. prof, 30–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn; Pa. Acad. Factual memory; influence of various conditions upon memory; mental hygiene; learning and attention; work and fatigue; attitude measurement.

Dieuaide, Dr. F(rancis) R(aymond), Massachusetts General Hospital, Boston, Mass. *Internal medicine.* New York, N. Y, Oct. 22, 92. A.B, Col. City of N. Y, 13; Columbia, 14–16; M.D, Hopkins, 20. Dept. med, Hopkins and Hopkins Hosp, 20–24; Peiping Union Med. Col, 24–26, prof. and head dept, 26–39; assoc. prof, Harvard Med. Sch, 39–42, *clin. prof, 42–; lieut. col, Med. Corps, U. S. Army.* Physician, Mass. Gen. Hosp, 40– A.A; fel. Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest; Am. Heart Asn; Am. Physicians; fel. Col. Physicians; Med. Asn. China; Physiol. Soc. China. Heart disease; electrocardiography; metabolism in disease.

Diggs, Dr. L(emuel) W(hitley), Whitehaven, Tenn. *Medicine.* Hampton, Va, Jan. 8, 00. A.B, Randolph-Macon Col, 21, A.M, 22; M.D, Hopkins, 26. Intern and asst. res. med, Rochester and Strong Mem. Hosp, 26–28, instr. med, 28–29; asst. prof. path, *col. med, Tennessee*, 29–36, *med*, 36–38, *assoc. prof, 38–* Consultant, Tenn. Valley Authority, 42– Summer, malarial surv, Int. Health Bur, 25; powder plant, E. I. du Pont de Nemours and Co, 41. Soc. Clin. Path; Am. Med. Asn; South. Med. Asn. Blood transfusion; hematology; sickle cell anemia.

Diggs, Dr. S(terling) H(enry), 112 Monroe St, Charlottesville, Va. *Chemistry.* Mathews Co, Va, May 16, 79. B.S, M.S, Virginia, 12, Ph.D, 14. Instr. physics, Virginia, 10–11, psychol, 12–13, chem, 13–14; research chemist, Standard Oil Co. of Ind, 14–23, director research, 23–40; *research assoc, Rouss lab, Virginia, 41–* Summers, instr, Virginia. A.A; Chem. Soc. Diffusion of iodin; reactions of phosphorus and copper; oil in paraffine wax; racial psychology.

Di Giullo, Dr. Armand, 15831 Hartwell, Detroit, Mich. *Metallurgy.* Alfedena, Italy, July 25, 06. Diploma, Royal Tech. Inst, 24; B.S, Michigan, 30, M.S, 32, Sc.D, 35. *Research metallurgist*, Ford Motor Co, 35–38, 40–41; asst. prof. metal, Detroit, 38–40; *research metallurgist, Bundy Tubing Co, 41–* Welding Soc; Soc. Metals. Properties of gray cast iron; alloys for welding electrodes; metallic protective coatings; steel tubes for refrigeration.

Dike, Dr. Paul H(arrison), 4901 Stenton Ave, Philadelphia, Pa. *Physics.* Crystal Lake, Ill, Feb. 22, 78. B.S, Northwestern, 01, fellow, 02–03, M.S, 03; Berlin, 05–06; Cambridge, 06; Ph.D, Wisconsin, 11. Magnetic observer, U. S. Coast and Geod. Surv, 04–05; dept. terrestrial magnetism, Carnegie Institution, 05–09; asst. physics, Wisconsin, 09–11; Cornell, 11–14; instr, Missouri, 14–15; prof, Robert Col, Constantinople, 15–23; assoc. prof, North Carolina, 23–24; Vermont, 24–25; research physicist, *Leeds and Northrup Co*, 25–37, *asst. director research, 37–* Magnetic surv, yacht 'Galilee,' 07–08. Lieut, Sig.C, 17–19; acting sci. attache, U. S. Embassy, Paris, 19. A.A; Physical Soc; Optical Soc; Soc. Test. Mat; Geophys. Union. Radioactive emanation in atmosphere; atmospheric electrical conductivity at sea; dip circle corrections; photoelectric potentials; radio telegraphy; sound ranging of airplanes; pyrometry; photo-electric cell applications; power factor of dielectrics; standards of resistance and capacitance.

Dikkers, Dr. M(elchior), 4832 Tilden Ave, Van Nuys, Calif. *Biochemistry.* Amsterdam, Holland, Aug. 25, 99. Ph.D, Lausanne, 23. Research worker, California, 24–27; *prof.* biochem. and organic chem, Loyola (Calif), 29–34; *biochem. and food chem, Immaculate Heart Col, 34–* Instr,

dental sch, Southern California, 38. Herpetological Soc. Calif; South. Calif. Acad. Sci. The value of vitamins and mineral substances in feeds; the development of special feed formulas for domestic animals.

Dikmans, Dr. Gerard, U. S. Department of Agriculture, Washington, D. C. *Parasitology.* Bolsward, Netherlands. B.S.A, Tennessee, 17; D.V.M, Mich. State Col, 20; M.S, Minnesota, 27; Ph.D, Georgetown, 31. Asst. bacter, Tennessee, 14–17; Mich. State Col, 17–20; asst. prof. vet. science and asst. veterinarian, Louisiana, 20–22; asst. parasitol, Minnesota, 22–24; assoc. parasitologist, P. R. Exp. Sta, *U. S. Dept. Agr, 24–26, zool. div, bur. animal indust, 26–36, parasitologist, 36–* Vet. Med. Asn; Micros. Soc; Helminth. Soc. Wash; Wash. Acad. Parasites of domestic and wild ruminants.

Dildine, Dr. Glenn C(rawford), State Teachers College, Moorhead, Minn. *Zoology.* Yung Chung, Fukien, China, April 7, 09. A.B, DePauw, 29; M.S, Northwestern, 30, Ph.D, 34. Asst, Northwestern, 29–30, instr. zool, 30–37; *co-chairman div. science and math, Minn. State Teachers Col, Moorhead, 37–* Sex conditions in fishes.

Dill, Prof. D(avid) B(ruce), 6 Oakland Ave, Arlington, Mass. *[*7]Physiology.* Winchester, Kans, April 22, 91. B.S, Occidental Col, 13; A.M, Stanford, 14, fellow, 23–25, Ph.D, 25. Teacher, high sch, 14–18; asst. chemist, bur. chem, U. S. Dept. Agr, 18–22, assoc. chemist, 22–25; nat. research fellow chem, *Harvard,* 25–27, asst. prof. biochem, 27–36, assoc. prof. *indust. physiol,* 36–38, *prof, 38–;* major, *Air Forces, U. S. Army,* 41–42, *lieut. col, 42–* A.A; Soc. Biol. Chem; Inst. Nutrition; Chem. Soc. Physicochemical properties of blood; muscular activity; physiology of high altitudes; high temperature; low temperature.

Dill, Homer R(ay), State University of Iowa, Iowa City, Iowa. *Zoology.* Gardiner, Maine, Oct. 30, 77. Curator, State Museum, Maine, 00–06; *Iowa, 06–, director nat. hist. museum, 27–* In charge exped. to Laysan Island, 11, La. Gulf Coast, 18, 19, Cascade Mountains, 20, Mex, 25. A.A; Asn. Mus; Iowa Acad. Museum work; habits of Laysan birds.

Dillé, Dr. G(lenn) S(cott), 808 Atlas Life Bldg, Tulsa, Okla. *Geology.* Shannon, Ill, July 13, 96. A.B, Coe Col, 21; M.S, Iowa, 24, Ph.D, 29. Asst. prof. geol, Coe Col, 21–27; paleontologist, Texas Co, 27–36; *consulting geologist, 36–* Asn. Petrol. Geol; Paleont. Soc; Iowa Acad. (chairman, geol. sect, 26); Tulsa Geol. Soc. (ed, 'Digest,' 34, v. pres, 35, pres, 42); Tulsa Stratig. Soc. (sec'y, 33, pres, 35). Anticlines of Iowa; oolitic limestones from Devonian of Iowa; extinct glacial pond; meteorites; geology and paleontology of the Mississippian of the Black Hills, South Dakota; Minnelusa of the Black Hills.

Dille, Dr. James M(adison), University of Washington, Seattle, Wash. *Pharmacology.* Omaha, Nebr, June 9, 07. B.S, Nebraska, 30, M.S, 33; Ph.D, Georgetown, 35. Instr. physiol, Nebraska, 32–34; teaching fellow *pharmacol,* sch. med, Georgetown, 33–34, instr, 35–36; assoc. prof, *Washington, (Seattle),* 36–40, *prof, 40–* A.A; Chem. Soc; Soc. Pharmacol; Pharmaceut. Asn. Barbiturates; synergism and antagonism; metabolism of drugs.

Dillehunt, Dr. Richard B(enjamin), 1553 S. W. Hall St, Portland, Oregon. *Surgery.* Decatur, Ill, July 12, 86. Illinois, 04–06; M.D, Rush, Chicago, 10. Prof. anat, *med. sch, Oregon,* 12–16, asst. dean, 13–16, *dean and clin. prof. orthop. surg, 20–* Chief of staff, Portland Free Dispensary, 20–31; surgeon in chief, Shriners Hosp, 23–; mem. staff, Emanuel Hosp; Multnomah County Hosp; chief orthop. service, Doernbecher Mem. Hosp. for Children, 26– Chairman, Portland Pub. Health Surv, 30. A.A; fel. Col. Surg; Acad. Orthop. Surg; Orthop. Asn; Pacific Coast Surg. Asn. (pres, 39); N. Pacific Surg. Asn; N. Pacific Orthop. Soc. (pres, 36); Pacific Northwest. Med. Asn; Oregon Tuber. Asn. (director); Oregon Mental Hygiene Soc. (director); hon. mem. Seattle Surg. Asn; Portland Acad. Med. (pres, 31). Orthopedic surgery.

Diller, Dr. J(esse) D, U. S. Department of Agriculture, Washington, D. C. *Forest pathology.* Columbus Grove, Ohio, Aug. 16, 99. A.B, Bluffton Col, 23; A.M, Ohio State, 26; M.F, Yale, 30, Ph.D, 40. Rubber planter, Firestone Plantations, Liberia, W. Africa, 26–28; field asst. research, U. S. Forest Service, 30–31; technician, Emergency Conservation Work, 32–34; *assoc. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 35–* A.A; Soc. Foresters; Phytopath. Soc; Bot. Soc. Wash. The pine canker disease of eastern hard pines caused by Atropellis; blight resistance of Asiatic chestnuts under forest conditions.

Diller, Dr. O(liver) D(aniel), Ohio Agricultural Experiment Station, Wooster, Ohio. *Forest ecology.* Columbus Grove, Ohio, Jan. 16, 05. A.B, Bluffton Col, 30; M.S, Ohio State, 32, Ph.D, 34. Asst. bot, Ohio State, 30–34; technician, U. S. Forest Service, 34, asst. conservationist, 35–37; asst. forester, *Ohio Exp. Sta, 37–38, assoc. forester, 38–; asst. prof. forestry, Ohio State, 43–* Director, Ohio Forest Surv, 38–43. Summers, field asst, U. S. Forest Service, 31–33. Limiting factors in the natural regeneration of oak-hickory woodlands following excessive grazing.

Diller, Dr. William F(rey), University of Pennsylvania, Philadelphia, Pa. *Zoology.* Lancaster, Pa, July 26, 02. A.B, Franklin and Marshall Col, 23; Ph.D, Pennsylvania, 28. Instr. zool, Pennsylvania, 23–25, 27–30; Franklin and Marshall Col, 25–27; Sterling fellow, Yale, 30–31; instr. *zool,* Dartmouth Col, 31–36, *asst. prof,* 36–39; *Pennsylvania, 39–* A.A; Soc. Parasitol; Micros. Soc; Soc. Zool. Protozoology; nuclear behavior and life history of ciliated Protozoa.

Dillinger, Joy F(ranklin), Western Electric Co, Hawthorne Station, Chicago, Ill. *Physics.* Custar, Ohio, July 24, 02. B.S, Otterbein Col, 25; A.M, Ohio State, 27. Asst. physics, Ohio State, 25–28; research physicist, Bell Tel. Labs, 28–37; *engineer, West. Elec. Co, 37–* Physical Soc; Soc. Metals. Magnetic Barkhausen effect; heat treatment of magnetic materials; relief of strains by annealing; non-ferrous metallurgy.

Dillingham, Prof. Frank T(hompson), University of Hawaii, Honolulu, Hawaii. *Chemistry.* Honolulu, Hawaii, Feb. 11, 78. B.S, Worcester Polytech, 01; Harvard; fellow, Yale, 15–16, A.M, 16; fellow, California, 22–23. Asst. and instr. agr. chem, Bussey Inst, Harvard, 01–08; chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, 08–09; *prof. chem, Hawaii, 09–, head dept, 27–* Chief chemist, Exp. Sta, Asn. Hawaiian Pineapple Canners, 25–29. A.A; Chem. Soc. (chairman, Hawaiian sect, 25); Asn. Hawaiian Sugar Technologists (pres, 21). Agriculture; biochemistry.

Dillman, Arthur C(harles), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Marshall, Minn, Feb. 12, 81. B.S, S. Dak. State Col, 07; M.S, Maryland, 26. *Div. cereal crops and diseases, U. S. Dept. Agr, 08–, assoc. agronomist in charge seed flax investigations.* A.A; Soc. Agron; Bot. Soc. Wash. Breeding forage crops for drought resistance; classification and breeding of flax varieties; water requirement of crop plants.

Dillman, Pres. G(rover) C(leveland), Michigan College of Mining and Technology, Houghton, Mich. *Civil engineering.* Bangor, Mich, July 18, 89. B.S, Mich. State Col, 13, M.Hy.Eng, 27; hon. D.Eng, Mich. Col. Mines, 36. Mem. eng. staff, State Hy. Dept, Mich, 13–22, deputy commissioner, 22–29, chief engineer, 24–29, commissioner, 29–33; director pub. service, Grand Rapids, 33–35; State Welfare Dept, 35; *pres, Mich. Col. Min. and Tech, 35–* Director budget, Mich, 39. Civil Eng; Min. and Metal. Eng; Eng. Educ; Lake Superior Min. Inst; Mich. Eng. Soc. (past pres). Transportation; highway engineering; engineering education.

Dillon, Dr. J(ohn) H(enry), Firestone Tire and Rubber Co, Akron, Ohio. *Physics.* Ripon, Wis, July 10, 05. A.B, Ripon Col, 27; A.M, Wisconsin, 28, Ph.D, 31. Asst. physics, Wisconsin, 27–31; physicist, *Firestone Tire and Rubber Co,* 31–37, *head physics div, 37–* Physical Soc; Soc. Rheol. (v. pres, 39–41); Chem. Soc. Photoelectric properties of metal single crystals; physics of rubber; breakdown voltage of spark plugs.

Dillon, Dr. Robert T(routman), G. D. Searle and Co, Box 5110, Chicago, Ill. *Organic chemistry, Biochemistry.* Pasadena, Calif, Feb. 2, 04. B.S, Calif. Inst. Tech, 25, M.S, 27, Ph.D, 29. Asst, Calif. Inst. Tech, 25–26, teaching fellow, 28–29; research asst, Petrol. Inst, 26–28; Rockefeller Inst, 29–31, hosp, 31–37; *mem. staff, G. D. Searle and Co, 37–, head anal. div, 41–* Chem. Soc. Normal butenes; synthesis and identification; reaction rates; Raman spectra; intestinal nucleotidases; gas and electrolyte equilibria in blood; bile and bile acids; analytical chemistry.

Dills, Dr. L(eslie) E(dward), Pennsylvania State College, State College, Pa. *Entomology.* Minburn, Iowa, Feb. 12, 00. B.S, Iowa State Col, 23, M.S, 27; Ph.D, Cornell, 32. Asst. entom, Exp. Sta, West Virginia, 26–28; investigator, Crop Protection Inst, 29–30; *asst. prof.* entom. exten, *Pa. State Col,* 31–42, *entom, 42–* Entom. Soc. Amer; Asn. Econ. Entom. Fatty acids and soaps as contact insecticides.

Dills, Dr. William Leonard, 3605 Tatnall St, Wilmington, Del. *Chemistry.* Newton, Kans, July 9, 11. A.B, Columbia, 37, Ph.D, 42. *Research chemist, Krebs pigments dept, E. I. du Pont de Nemours and Co.* Isolation of a copper protein from cows' milk; inorganic white pigments.

Dilworth, Prof. Robert P(almer), California Institute of Technology, Pasadena, Calif. *Mathematics.* Hemet, Calif, Dec. 2, 14. B.S, Calif. Inst. Tech, 36, Ph.D, 39. Teaching fellow, Calif. Inst. Tech, 36–39; Sterling research fellow, Yale, 39–40, instr. *math,* 40–43; *asst. prof, Calif. Inst. Tech, 43–* Math. Soc. Algebra; lattice theory.

Dimick, Capt. Chester E(dward), U. S. Coast Guard Academy, New London, Conn. *Mathematics.* Manchester, N. H, Nov. 6, 80. A.B, Harvard, 01; A.M, Pennsylvania, 07. Instr. *math,* Pennsylvania, 03–06; from instr. to *prof. and head dept, U. S. Coast Guard Acad, 06–* A.A; Math. Soc; Math. Asn; Eng. Educ.

Dimitroff, Dr. George Z(akharieff), Harvard Observatory, Cambridge, Mass. *Astronomy.* Svistov, Bulgaria, Aug. 24, 01. Robert Col, Constantinople, 17–20; B.S, Boston, 27, 27–28; A.M, Harvard, 31, Ph.D, 37. Asst. prof. physics, Colo. Agr. Col, 29–34; asst. astron, Radcliffe Col, 34–36; tutor physical science, *Harvard,* 36–37, *research assoc. astron, 39–,* mem. staff, *Harvard Observatory,* 37–39, *supt, Oak Ridge sta, 39–* Physical Soc; Astron. Soc. Photography; photometry; astrophysics.

Dimler, Dr. Robert J(ullus), U. S. Department of Agriculture, Peoria, Ill. *Organic chemistry.* Pekin, Ill, Sept. 28, 14. B.S, Bradley Polytech, 36; Alumnae fellow, Wisconsin, 36–38, M.S, 38, Ph.D, 40. Asst. biochem, Wisconsin, 38–40, biochem. and carbohydrate chem, 40–41; *assoc. chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Chemical transformations and utilization of dextrose and starch for the preparation of industrially useful organic materials; carbohydrate characterization and lactic acid identification as benzimidazole derivatives; derivatives of aldehydo-d-galacturonic acid.

Dimmick, Prof. Forrest L(ee), 91 St. Clair St, Geneva, N. Y. *Psychology.* Dansville, N. Y, July 17, 93. A.B, Cornell, 15, Ph.D, 20. Instr. *psychol,* Northwestern, 20–21; instr. and asst. prof, Michigan, 21–25; *prof. and research assoc, Hobart Col, 25–* U.S.A, 18–19. Psychol. Asn; Optical Soc. Experimental psychology; sensation and perception.

Dimmick, Prof. Graham Bennett, University of Kentucky, Lexington, Ky. *Psychology.* Southern Pines, N. C, Oct. 3, 98. A.B, North Carolina, 26, A.M, 27, Ph.D, 30. Asst, inst. research social science, North Carolina, 26–27, asst. *psychol,* 27–29, instr, 29–30; *Kentucky,* 30–31, asst. prof, 31–35, assoc. prof, 35–40, *prof, 40–, director child guidance clinic, 34–* Psychol. Asn. Experimental, clinical and abnormal psychology.

Dimock, Prof. A(rthur) W(atson), R. D. 2, Ithaca, N. Y. *Plant pathology.* Middleboro, Mass, June 20, 08. B.S, California, 33, M.S, 34, Ph.D, 36. Asst. div. plant path, California, 32–35; asst. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 35–38; *asst. prof. plant path, Cornell, 38–* A.A; Phytopath. Soc. Diseases of ornamentals; fungicides; inheritance in fungi.

Dimock, Dr. William Wallace. University of Kentucky, Lexington, Ky. *Veterinary science.* Tolland, Conn, Feb. 20, 80. B.S.A, Conn. Col, 01; D.V.M, Cornell, 05; Cuba, 08. Asst. chief animal husbandry, Cuban Exp. Sta, Santiago, 06–08; chief veterinarian, Nat. Board Health, Cuba, 08–09; prof. path. and bacter, Iowa State Col, 09–19; *prof. vet. science, Kentucky, and head dept. animal path, Exp. Sta.* A.A; Vet. Med. Asn. (pres, 42). Biology; pathology; bacteriology; animal parasites; sanitary science.

Dimond, Dr. Albert E(ugene), University of Nebraska, Lincoln, Nebr. *Plant physiology.* Spokane, Wash, May 11, 14. A.B, Wisconsin, 36, A.M, 37, Ph.D, 39. Research fellow, crop protection inst, Exp. Sta, Connecticut, 40–42; *asst. prof. bot, Nebraska, 42–* Bot. Soc; Soc. Plant Physiol; Phytopath. Soc. Ultra-violet radiation on fungi; pharmacology and physiology of fungi; dosage response curves.

Dimond, Dr. Naomi S(orkin), University of Nebraska, Lincoln, Nebr. *Plant physiology.* New York, N. Y, May 26, 14. A.B, Wisconsin, 36, A.M, 37, fellow, 38–39, Ph.D, 39. Mycologist, med. sch, Yale, 40–42; *instr. bot, Nebraska, 42–* Physiology of the fungi, with particular reference to the effects of drugs on fungus metabolism; effects of sulfonamides on athlete's foot fungi; combined action of heat and other environmental factors and drugs on fungi.

Dimsdale, Dr. Bernard, 1723 Woodland Ave, Park Ridge, Ill. *Mathematics.* Sioux City, Iowa, Aug. 3, 12. B.Ch, Minnesota, 33, A.M, 35, Ph.D, 40. Instr, Idaho, 38–42; *assoc. instr, U. S. War Dept, 42–* A.A; Math. Soc; Math. Asn. Approximation.

Diner, Dr. Irene C(aroline Koenigsberger), 3749 McKinley St, Washington, D. C. *Chemistry.* New York, N. Y, Sept. 21, 96. A.B, Hunter Col, 17; A.M, Columbia, 18; Ph.D, N. Y. Univ, 20. Assoc. chemist, C.W.S, 20–22; *consulting and research chemist.* Chem. Soc; fel. Inst. Chem. Microscopy of rubber and rubber fillers.

Dines, Prof. Lloyd L(yne), Carnegie Institute of Technology, Pittsburgh, Pa. *Mathematics.* Shelbyville, Mo, March 29, 85. A.B, Northwestern, 06, fellow, 06–07, A.M, 07; fellow, Chicago, 08–11, Ph.D, 11. Instr. *math,* Evanston Acad, 07–08; Columbia, 11–13; assoc. prof, Arizona, 13–14; asst. prof, Saskatchewan, 14–19, prof, 19–33; *prof. and head dept, Carnegie Inst. Tech, 33–* A.A; Math. Soc. (councilor, 22–24); Math. Asn. (trustee, 31–34, v. pres, 35); fel. Royal Soc. Can; Soc. math. de France; Circolo Mat. di Palermo. Elimination; implicit functions; general algebra and analysis.

Dingle, Dr. John H(olmes), Thorndike Memorial Laboratory, Boston City Hospital, Boston, Mass. *Medicine, Bacteriology.* Cooperstown, N, Dak, Nov. 24, 08. Ph.C, B.S, Washington (Seattle), 30, M.S, 31; Sc.D, Hopkins, 33; M.D, Harvard, 39. Asst, McDermott foundation, Washington (Seattle), 29–31; asst. bacteriologist, State Dept. Health, Md, 33; bacteriologist, Upjohn Co, 33–35; house officer med, Infants and Children's Hosp, Boston, Mass, 39–40; asst. med, bacter. and immunol, *Harvard Med. Sch,* 40–41, *Francis Weld Peabody fellow med. and instr. bacter. and immunol, 40–,* instr. *med,* 41–42, *assoc, 42–; director cmn. acute respiratory diseases, Board Investigation and Control Influenza and Other Epidemic Diseases, U. S. Army, 42–* Asst, Boston City Hosp, 40–, research fellow, Thorndike Mem. Lab, 40–41, asst. physician, 41– Summers, field asst, bur. plant indust, U. S. Dept. Agr, 31, 32. Pub. Health Asn; Asn. Immunol; Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Soc. Bact; Federation Clin. Research; N. Y. Acad. Immunology, infectious diseases.

Dings, Dr. McClelland G(riffith), U. S. Geological Survey, 707 Peyton Bldg, Spokane, Wash. *Geology.* St. Louis, Mo, Feb. 1, 02. A.B, Colorado, 32; M.S, Washington (St. Louis), 35; Ph.D, Rochester, 37. Geologist, Los Angeles County Flood Control, 33–34; teaching asst. geol, Washington (St. Louis), 34–35; Rochester, 35–37; instr, Occidental Col, 37–39; geologist, Shell Oil Co, Inc, Texas, 39–41; Pan Am. Production Co, 41–42; *assoc. geologist, U. S. Geol. Surv, 42–* Summer, field asst, San Juan region of Colo, U. S. Geol. Surv, 38. Miner. Soc. Metamorphism; differentiation in igneous rocks; Wilcox formation of the Gulf Coast.

Dingwall, Dr. A, 133 Front St, New York, N. Y. *Biochemistry.* Glasgow, Scotland, May 25, 92. Royal Tech. Col, Scotland, 14; Caleb Dorr fellow, Minnesota, 22–24, Ph.D, 24. Grain chemist, Dom. Grain Research Lab, Winnipeg, Man, Can, 21; research chemist, Royal Baking Powder Co, 25–30; research assoc. chem, spectrographic lab, Columbia, 28–34; *consulting scientist, 34–* Chem. Soc; Ceramic Soc; Fire Protection Asn; fel. Inst. Chem. Gt. Britain and Ireland. Applied spectroscopy; chemistry and physics applied to legal problems.

Dinsmore, R(ay) P(utnam), Goodyear Tire and Rubber Co, Akron, Ohio. *Chemistry.* Tewksbury, Mass, April 24, 93. B.S, Mass. Inst. Tech, 14; D.Eng, Case, 40. Tech. staff, *Goodyear Tire and Rubber Co, Ohio,* 14–16, asst. chemist, Can, 16–19, chief chemist, Calif, 19–21, chief chemist and research director, Ohio, 21–32, asst. to factory manager, 32–39, asst. develop. manager, 39–40, *develop. manager, 40–* A.A; Chem. Soc. (councilor, 22–25, pres, Akron sect, v. chairman, rubber div, 25, chairman, 26); Chem. Eng. (patents cmt, 34–); Automotive Eng; fel. Inst. Chem; fel. Inst. Rubber Indust. Gt. Britain. Rubber chemistry; effect of accelerators on rubber variability; Hevea rubber; development of the rayon tire; technology of rubber tires; synthetic rubber.

Dinwiddie, Dr. James A(lvin), 804 E. Murrill St, Goose Creek, Texas. *Chemical engineering.* Tyler, Texas, Oct. 25, 12. A.B, Texas, 35, A.M, 35, Ph.D, 41. Instr. chem. and chem. eng, Texas, 34–38; asst. supt, Water Purification Plant, Austin, Texas, 38–39; *research chemist, Humble Oil and Ref.*

Co, 39– Deviations from Raoult's law; vapor-liquid equilibrium in the system ethanol-methanol-water; nitrogen bases from petroleum.

Dinwiddie, Dr. J(oseph) G(ray), du Pont Rayon Co, Waynesboro, Va. *Chemistry.* Charlottesville, Va, Oct. 27, 89. B.S, Virginia, 11, M.S, 12; Ph.D, Yale, 16. Asst. prof. chem, Louisville, 16–17; research chemist, Fed. Dyestuff and Chem. Co, 17–18; Chem. Eng. and Research Corp, 18; E. I. du Pont de Nemours and Co, 18–29; supervisor acetate rayon, *du Pont Rayon Co,* 29–32, research engineer, 32–37, research supervisor, 37–40, *process asst. supervisor, 40–* Bromination of phenol; hydrofluosilicic acid; fluorids; sulfur colors; thioindigoes; brominated indigoes; sulfo-acids.

DiPalma, Dr. Joseph R(upert), 40-12 76th St, Jackson Heights, N. Y. *Physiology.* New York, N. Y, March 21, 16. B.S, Columbia, 36; fellow, L. I. Col. Med, 38, M.D, 41. *Instr. physiol. and pharmacol, L. I. Col. Med, 40–* Human physiology; smallest blood vessels of the human skin; reactive hyperemia; peripheral vascular diseases.

Dirks, Prof. C(harles) O(rville), 52 College Ave, Orono, Maine. *Entomology.* Pawnee Rock, Kans, March 29, 95. B.S. (Agr), Kans. State Col, 24; M.S, Iowa State Col, 25; Ph.D, Cornell, 35. Instr. *entom,* Purdue, 25–27; asst. prof, *Maine,* 27–37, *assoc. prof, 37–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Biology of apple insects, especially Rhagoletis pomonella Walsh; seasonal occurrence, distribution and biology of the Macrolepidoptera of Maine; biological control of European spruce sawfly.

Dirks, Dean H(enry) B(ernhard), 637 Grove St, East Lansing, Mich. *Mechanical engineering.* Chicago, Ill, June 21, 84. B.S, Illinois, 04, M.E, 05. Asst, Ill. Eng. Exp. Sta, 05–08; instr. mech. eng, Illinois, 08–10; asst, Nat. Machine Works, Chicago, 10–15; asst. prof, Princeton, 15–19; prof, *Mich. State Col,* 19–31, *dean eng, 31–* A.A; Mech. Eng; Eng. Educ. Tests of high speed tool steel for cutting cast iron; fuel tests of Illinois coals; tests of coal and coke mixtures in house-heating boilers.

Dirks, Dr. J(ane) Claire, Linfield College, McMinnville, Oregon. *Bio-ecology.* Baxter Co, Ark, June 9, 12. A.B, Linfield Col, 37; Ph.D, Illinois, 41. Asst. zool, Illinois, 37–41; *instr. biol, Linfield Col, 41–* A.A; Ecol. Soc; Soc. Mammal; Ill. Acad. Comparison of Douglas fir-hemlock and oak-hickory biotic communities.

Dirkse, Dr. T(hedford) P(reston), Hamline University, St. Paul, Minn. *Chemistry.* Holland, Mich, Jan. 5, 15. A.B, Calvin Col, 36; A.M, Indiana, 37, Ph.D, 39. *Instr.* gen. chem, Iowa State Col, 39–41; *physical and org. chem, Hamline, 41–* Chem. Soc. Physical chemistry; electrodeposition of metals from non-aqueous solutions; conductance of salts in monoethanolamine.

Dirksen, Dr. A(lvin) J(oseph), 1345 Maple Ave, Niagara Falls, N. Y. *Inorganic chemistry.* Springfield, Ill, Nov. 17, 15. B.S, Illinois, 38; Ph.D, Wisconsin, 41. Asst, Wisconsin, 38–41; *plant chemist, Oldbury Electro-Chem. Co, 41–* Chem. Soc. Polarography; instrumental analysis.

Dirstine, Dean P(earl) H, College Station, Pullman, Wash. *Pharmacy.* Thornville, Mich, Sept. 15, 86. Ph.G, Valparaiso, 05; D.V.M, State Col. Wash, 12, B.S, 16; Stanford. Practising pharmacist, 05–10; instr, *State Col. Wash,* 12–15, asst. prof, 15–17, *prof. mat. med. and pharmacy, 17–,* head *sch. pharmacy,* 17–24, *dean, 24–* Chairman pub. health and head, Finch Mem. Hosp, State Col. Wash. Pharmaceut. Asn. (sec'y, sect. practical pharmacy and dispensing, 28, chairman, 29); Asn. Cols. Pharm. (nat. cmt. pure foods and drugs); Wash. State Pharmaceut. Asn. Cosmetic formulae; synthetic medicinals.

Dirstine, Dr. Philip H(ugh), Dow Chemical Co, Pittsburg, Calif. *Organic chemistry.* Pullman, Wash, March 11, 15. B.S, Gonzaga, 36; M.S, Washington (Seattle), 38; Ph.D, Stanford, 42. *Research chemist, Dow Chem. Co, 41–* Halogenation of aliphatic hydrocarbons.

Diserens, Dr. Charles M(urdoch), 431 Wood Ave, Cincinnati, Ohio. *Psychology.* Cincinnati, Ohio, Jan. 25, 89. B.L, Ohio Mech. Inst, 12; A.B, Lebanon Valley Col, 15; A.M, Cincinnati, 17, Ph.D, 22; Chicago, summers, 18–22. Instr. chem, Ohio Mech. Inst, 11–13; math, Lebanon Valley Col, 14–16; pharmaceut. physics, Queen City Col. Pharmacy, 16–17; asst. psychol, *Cincinnati,* 17–18, philos, 18–20, instr. *psychol,* 20–24, *asst. prof, 24–* Abstracter, 'Psychol. Bul,' 20–, ed, 31–A.A; Psychol. Asn. Psychology of music; history of psychological concepts; esthetics; laughter; psychology of primitive peoples; reactions to musical stimuli; psychological objectivism; motivation.

Disher, Prof. D(orothy) R(ose), Florida State College for Women, Tallahassee, Fla. *Psychology.* Whitehouse, Ohio, July 6, 06. A.B, Ohio Wesleyan, 28; A.M, Ohio State, 29, Ph.D, 33. Asst, Ohio State, 28–33; asst. prof. *psychol, Fla. State Col. for Women,* 33–42, *assoc. prof, 42–* A.A. Cutaneous and olfactory sensitivity; infant behavior; motivation.

Disque, Dean Robert C(onrad), Drexel Institute of Technology, Philadelphia, Pa. *Engineering.* Burlington, Iowa, March 14, 83. B.L, Wisconsin, 03, B.S, 08; Sc.D, Northwestern, 42. Instr. elec. eng, Wisconsin, 09–13, asst. prof, 13–17; prof, *Drexel Inst,* 19–25, *dean sch. eng, 22–, dean faculty, 32–* Mem. board educ, Swarthmore, Pa. U.S.A, 17–19, major. Eng. Educ. (councilor, 29–32); Elec. Eng. Electrical engineering.

Distad, Dr. Merril F(rancis), 2318 Cheverly Ave, Cheverly, Md. *Physics.* Williston, N. Dak, Oct. 11, 10. A.B, Concordia Col, 31; A.M, Minnesota, 34, Ph.D, 38. Teaching asst. physics, Minnesota, 31–35, lab. asst, 35–37; instr. physics, math. and elec. eng, Va. Junior Col, 38–39; contract employee, *radio div, U. S. Naval Research Lab,* 39–41, *physicist, 42–* Physical Soc; assoc. Radio Eng. Electrical properties of insulators; vacuum tube amplifiers for very small direct currents; effect of electron bombardment on the electrical conductivity of zincblende crystals; special high-power radio oscillators.

Ditman, Prof. Lewis P(olster), University of Maryland, College Park, Md. *Entomology.* Oxford, Ohio, June 30, 03. B.S, Maryland, 26, M.S, 29, Ph.D, 31. Asst. entom, Exp. Sta, *Maryland,* 27–31, asst. entomologist, 31–37, *asst. prof. entom, 37–* Entom. Soc. Amer; Asn. Econ. Entom; Insecticide Soc. Wash. (treas, 38). Economic entomology; corn ear worm and pea aphid; insect physiology and metabolism, hibernation, dormancy and cold-hardiness; insecticides.

Dittmar, Dr. Harry R(obert), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Fond du Lac, Wis, Feb. 3, 03. B.S, Wisconsin, 25, M.S, 26, Ph.D, 28. Instr. chem, Wisconsin, 28–30; *research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 30–* Chem. Soc. Homogeneous catalysis; enzymes; resins.

Dittmer, Prof. Howard J(ames), 6800 S. Stewart, Chicago, Ill. *Botany, Morphology.* Pekin, Ill, Jan. 29, 10. A.B, New Mexico, 33, A.M, 34; Ph.D, Iowa, 38. *Prof. science, Chicago Teachers Col, 38–* Summers, instr, New Mexico, 34; prof, Dubuque, 38. Quantitative studies of the subterranean members of plants; structure and function of roots and root hairs in binding soil.

Ditto, Prof. R(aymond) C(lyde), 231 Philadelphia Ave, Alma, Mich. *Physics.* Delphos, Ohio, July 19, 80. B.S, Denison, 08; A.M, Princeton, 11; Chicago, 21; Michigan, 31. Instr, Purdue, 08–10; Denison, 13–14; Mechanics Inst, Rochester, N. Y, 14–17; Ohio State, 17–20; *prof. physics, Alma Col, 20–* A.A; Physical Soc. Possible source of the rare gases in the atmosphere.

Diven, Prof. (Robert) Kenneth, Pine Manor Junior College, Wellesley, Mass. *Psychology.* New Hamburg, N. Y, July 13, 00. A.B, Reed Col, 33; A.M, Harvard, 35, Ph.D, 37. Teaching and clinic asst, psychol. clinic, Harvard, 34–37; *prof. psychol, Pine Manor Junior Col, 35–; consulting psychologist, Dana Hall Schs, 35–* A.A; Psychol. Asn; Asn. Applied Psychol; Mass. Soc. Clin. Psychol. Personality; clinical psychology; psychosomatic phenomena; anxiety determinants, psychosomatic concomitants; Dandy's radical extirpation of brain tissue in man.

Diwoky, Dr. Fred F(rank), 920 McPherson Ave, Alton, Ill. *Organic chemistry.* Council Bluffs, Iowa, Dec. 18, 03. B.S, Oregon State Col, 26; M.S, Wisconsin, 27, Ph.D, 30. Teaching asst, Wisconsin, 26–27, 28–30; asst. prof. chem, Ill. Col, 27–28; research chemist, *Standard Oil Co. of Ind,* 30–40, *foreman asphalt dept, Wood River, Ill, 40–* Summer, research chemist, Trona Potash and Borax Co, Calif, 26. Lieut, C.W.Res. Chem. Soc. Lubricating oils; high pressure catalytic hydrogenation of organic compounds; lead alkyls from hydrocarbons; solvent extraction in the refinement of lubricating stocks; teaching general chemistry with pictures.

Dix, Dr. C(harles) Hewitt, 628 Alameda St, Altadena, Calif. *Geophysics.* Los Angeles, Calif, March 27, 05. B.S,

Calif. Inst. Tech, 27; A.M, Rice Inst, 28, fellow, 28–29, Ph.D, 31. Instr. math, Rice Inst, 29–34; research geophysicist, Humble Oil and Ref. Co, 34–37; geophysicist, Socony-Vacuum Oil Co, 39–41; *chief seismologist, United Geophys. Co, 41–* Math. Soc; Physical Soc; Soc. Explor. Geophys; Geophys. Union; Seismol. Soc. Pure and applied seismology.

Dix, E(dgar) H(utton), Jr, Aluminum Company of America, New Kensington, Pa. *Metallurgy.* Baltimore, Md, Aug. 11, 92. M.E, Cornell, 14, M.M.E, 16. Instr, Cornell, 14–16; asst. to master mechanic, Baltimore Copper, Smelting and Rolling Co, 16–18; asst. engineer tests, Aluminum Castings Co, 19–20; chief metals branch, material sect, div. eng, Air Service, 20–23; metallurgist and *chief metallurgist, aluminum research labs, Aluminum Co. of Amer, 23–, asst. director research, 42–* Director corrosion projects, aviation fuels div, Cooperative Research Council; mem. cmt. and subcmt. metals used in aircraft, cmt. aircraft materials, Nat. Advisory Cmt. Aeronaut. Chief dept. testing, Bur. Aircraft Production, U.S.A, 18–19. Soc. Metals (chairman, Pittsburgh chap, 31); Min. and Metal. Eng. (chairman, Pittsburgh sect, 35, v. chairman, inst. metals div, 35, chairman, 36); Soc. Test. Mat; Soc. Automotive Eng; Aeronaut. Asn; British Inst. Metals. Mechanical testing of metals; casting of non-ferrous alloys; aluminum metallurgy and alloy development; corrosion and its prevention.

Dixon, Dr. Alfred L(eonard), Western Electric Co, Hawthorne Station, Chicago, Ill. *Physical chemistry.* Chicago, Ill, Nov. 15, 01. B.S, Illinois, 23, M.S, 24, Ph.D, 27. *Engineer, special chem. develops, West. Elec. Co, 26–* Chem. Soc. Specific heats of metals; vapor pressures of metals; development of magnetic materials; organic finishes; plastics; condensers.

Dixon, Dr. Claude F(rank), Mayo Clinic, Rochester, Minn. *Surgery.* Piedmont, Kans, Jan. 28, 94. B.S, Kansas, 19, M.D, 21; M.S, Minnesota, 26. Assoc. *surg, Mayo Foundation, Minnesota,* 26–32, asst. prof, 32–35, *assoc. prof, 35–* Surgeon, Mayo Clinic, 28– Am. Med. Asn; Surg. Asn; Col. Surg; Asn. Study Goiter; West. Surg. Asn; Minn. Med. Asn; Minn. Surg. Soc. General abdominal surgery; surgery of the colon and of the neck.

Dixon, Prof. E(lls) H(oward), University of Georgia, Athens, Ga. *Physics.* Glascock Co, Ga, Aug. 15, 98. A.B, Georgia, 22, M.S, 25; Ph.D, Wisconsin, 30. Instr. *physics, Georgia,* 22–25, adj. prof, 25–28, assoc. prof, 28–37, *prof. and head dept, 37–* Physical Soc; Asn. Physics Teachers; Ga. Acad. Mathematics; chemistry; photoelectric and thermionic properties of rhodium.

Dixon, Dr. Helen, 1711 E. Forest Ave, Wheaton, Ill. *Botany.* Chicago, Ill, Oct. 11, 95. B.S, Chicago, 19, M.S, 26, Ph.D, 33. *Instr. biol, pub. schs, Chicago, 21–, head dept. science, Tuley High Sch.* A.A; Ecol. Soc; Asn. Biol. Teachers. Plant ecology.

Dixon, Dr. J(ames) K(enneth), American Cyanamid Co, Stamford, Conn. *Physical chemistry.* Baltimore, Md, March 20, 06. B.S, Hopkins, 26; Ph.D, Yale, 29. Nat. research fellow, Princeton and Berlin, 29–31; Sterling chem. lab, Yale, 31–33; *with* Calco Chem. Co, *Am. Cyanamid Co,* N. J, 33–41, *Conn, 41–* Chem. Soc; Chem. Eng. Physics; catalysis; colloids.

Dixon, Joseph S(cattergood), U. S. Fish and Wildlife Service, Berkeley, Calif. *Zoology.* Cherokee Co, Kans, March 5, 84. Grad, Throop Acad, 08; Stanford, 07–10. Asst. curator mammals, museum vert. zool, California, 15–18, econ. mammalogist, 18–31; *field naturalist,* wildlife div, Nat. Park Service, 31–41; *sect. nat. park wildlife, fish and wildlife service, U. S. Dept. Interior, 41–* Alexander exped, Alaska, 07, 08; Harvard exped, Alaska and Siberia, 13–14. Ornith. Union; Cooper Ornith. Club; Soc. Mammal; Wildlife Soc. (v. pres, 37); Calif. Acad. Ornithology; economic mammalogy.

Dixon, L(awrence) F(itch), Box 124, Pisgah Forest, N. C. *Chemistry.* Durham, N. C, Dec. 15, 95. Duke, 12–15; Pennsylvania, 16. Research dept, Liggett and Myers Tobacco Co, 19–33; indust. research chem, Duke, 34–35; *research dept,* Champagne Paper Corp, 35–37; *v. pres, Cent. Fibre Corp. and Calif. Cent. Fibre Corp, 37–; research dept, Ecusta Paper Corp, 38–* 2nd lieut, F.A, 17–18. Tobacco and tobacco manufacture; paper making fibres; cigarette paper; flax.

Dixon, Dr. Tod G(alloway), Pratt Institute, Brooklyn, N. Y. *Chemical engineering.* Columbus, Ohio, April 17, 00. B.Ch.E, Ohio State, 23, M.S, 30, fellow, 30–31, Ph.D, 32. Chem. engineer, Logan Gas Co, 23–25; ventilation, Jeffrey Mfg. Co, 25–28; Heider Ind. Chem. Co, 28–29; corrosion, Columbia Eng. and Management Corp, 29–30; asst. chem. eng, Ohio State, 30–31; asst. prof. chem. eng. and purchaser chem. apparatus, *Pratt Inst,* 32–38, *head dept. chem. eng, 38–, supervisor course, 40–* Consultant, State Office Bldg, Columbus, Ohio, 32; consultant, Alpha Metal and Rolling Mills, 32–; tech. adviser, Patho-Pack Corp; chem. engineer and adviser, Tracy-Kent and Co. Chem. Soc; Chem. Eng; Eng. Educ. Corrosion; technical chemistry; floor waxes; solders and fluxes; unit operations.

Doak, Prof. Clifton C(hildress), Box 124 F. E, College Station, Texas. *Plant morphology.* Hico, Texas, Jan. 15, 95. B. S, N. Texas State Teachers Col, 22; M.S, Agr. and Mech. Col. Texas, 28; Ph.D, Illinois, 33. Teacher, high schs, Texas, 22–25; instr. *biol, Agr. and Mech. Col. Texas,* 25–28, asst. prof, 28–34, assoc. prof, 34–37, *prof. and head dept, 37–* A.A; Bot. Soc; Texas Acad. Pollen tubes; evolution of Pinus.

Doak, Dr. G(eorge) O(smore), Johns Hopkins Hospital, Baltimore, Md. *Pharmaceutical chemistry.* Prince Albert, Sask, Can, Dec. 25, 07. B.A. (Chem), Saskatchewan, 29, B.A. (Pharm), 30; A.M, Wisconsin, 32, Ph.D, 34. Asst, Wisconsin, 32–33; asst. chemist, N. Dak. Regulatory Dept, Bismarck, 34–36; research chemist, George A. Breon Co, 36–38; *chemist, U. S. Pub. Health Service, 38–; instr. med, Hopkins Hosp, 38–* Chem. Soc. Organic chemistry of arsenic and bismuth.

Doak, Dr. K(enneth) D(avis), University of Pennsylvania, Philadelphia, Pa. *Plant pathology.* Hebron, Ind, Dec. 2, 03. B.S.A, Purdue, 26, N.V. Potash MY fellow, 27–30, M.S, 29, Ph.D, 31. Asst. bot, Purdue, 26–27; *asst. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Phytopath. Soc; Soc. Plant Physiol; Bot. Soc; Entom. Soc. Amer; Torrey Bot. Club; Hist. Sci. Soc; Pa. Acad; Ind. Acad. Mycorrhizae of Vaccinium and of forest trees; parasitism of Conopholis americana; nutritional requirements of forest trees; anatomy and cytology of insect galls; nutrition and reaction of cereals to rusts; culture of mycorrhizal fungi; sterile culture of higher plants and synthesis of mycorrhizae.

Doak, Dr. Kenneth W(orley), U. S. Rubber Co, Passaic, N. J. *Physical organic chemistry.* Gallatin, Mo, Jan. 27, 16. A.B, Cent. Col. (Mo), 38; Warner nat. fellow, Hopkins, 38–42, Ph.D, 42. *Research chemist, U. S. Rubber Co, 42–* Summer, junior chemist, Edgewood Arsenal, 41. Chem. Soc. Kinetics of pyrrole substitutions and condensations; absorption spectra of dipyrryl methenes; chemistry of rubber.

Doan, Dr. Charles A(ustin), Ohio State University College of Medicine, Columbus, Ohio. *Medicine.* Nelsonville, Ohio, June 5, 96. B.S, Hiram Col, 18; M.D, Hopkins, 23. Asst. anat, Hopkins, 23–24; med, Harvard, and Thorndike Mem. Lab, Boston City Hosp, 24–25; assoc, Rockefeller Inst, 25–30; prof. med. and director dept. med. and surg. research, *col. med, Ohio State,* 30–36, *chairman dept. med. and director med. research, 36–* Director chem. gas warfare courses, Office Civilian Defense. Sec'y cmt. physiol, path. and methods of producing fever, Int. Cong. Fever Therapy, New York, 37. A.A; Asn. Anat; Soc. Clin. Invest; fel. Col. Physicians; Soc. Exp. Biol; Soc. Exp. Path; Soc. Clin. Path; Tuber. Asn. (sec'y, path. sect, 28, 35; mem. research cmt, 38–); Ohio Pub. Health Asn. (sec'y, 34–38, pres, 38–40). Harvey Soc; Cent. Soc. Clin. Research (pres, 40); fel. Ohio Acad. (v. pres, 36, pres, 37). Hematology.

Doan, Prof. C(harles) S(hambaugh), 415 Russell St, West Lafayette, Ind. *Mathematics.* Wilmington, Ohio, June 30, 90. B.S, Wilmington Col, 11; A.B, Swarthmore Col, 12; A.M, Pennsylvania, 17. Teacher, high sch, Ohio, 12–14; Friends' Select Sch, Phila, 14–18; *asst. prof. math, Purdue, 18–* Math. Asn.

Doan, Prof. F(rancis) J(anney), 711 Holmes St, State College, Pa. *Dairying.* Philadelphia, Pa, Sept. 20, 96. B.S, Pa. State Col, 22, M.S, 28. Plant chemist, Nestlé's Food Co, 19–22; lab. director, Waddington Condensed Milk Co, 22; instr. dairying, Maryland, 22–25; from asst. prof. to *prof. dairy mfg, Pa. State Col, 25–* Dairy Sci. Asn; Int. Asn. Milk Sanit. Dairy manufacturing; dairy chemistry; digestibility and curd-tension of milk; properties of mastitis milk; homogenization of dairy fluids; freezing of milk and cream; chemical analysis of dairy products.

Doan, Dr. Gilbert Everett, Lehigh University, Bethlehem, Pa. *Metallurgy.* Lansdale, Pa, Jan. 16, 97. Ch.E, Lehigh,

19; Ph.D, Berlin, 27. Metallographist, U. S. Naval Exp. Sta, Annapolis, 19–20; director research, Una Welding Co, Cleveland, Ohio, 20–24; special investigator, Berlin, 25–26; assoc. prof. and *prof. metal, Lehigh, 26–, head dept, 39–* Consultant, U. S. Naval Research, Anacostia, D. C, 29; Gen. Elec. Co, 29–; Roller Smith Co, 29–; director, Eng. Foundation Welding Research, 30–; Air Reduction, 34; guest lecturer, Franklin Inst, 32. Summer, U. S. Naval Research Lab, 29. Trustee, Moravian Sem, 42– Soc. Metals; Welding Soc; Mech. Eng; Franklin Inst; Archeol. Inst; Bunsen Gesell; Gesell. für Metal. Physical metallurgy; electric welding; radiography by means of gamma-rays.

Doan, Dr. Kenneth H(enry), Put in Bay, Ohio. *Zoology.* Toronto, Ont, Can, March 8, 15. B.A, Toronto, 37, M.A, 38; Ph.D, Ohio State, 41. Asst. ichthyol, elem. biol, nat. hist. and comp. anat, Toronto, 35–38; *ichthyol, Franz Theodore Stone Lab, Ohio State, 38–42, research assoc, 42–* Soc. Ichthyol. and Herp; Fisheries Soc; Limnol. Soc; Ohio Acad. Fisheries biology; fluctuations in abundance in fish populations.

Doan, Dr. Richard L(loyd), 1337 Cherokee Ave, Bartlesville, Okla. *Physics.* Lapel, Ind, Sept. 7, 98. A.B, Indiana, 22, A.M, 23; Ph.D, Chicago, 26. Instr, Indiana, 22–23; Reed Col, 23–24; research engineer, West. Elec. Co, 26–33; physicist, Chicago, 33–36; sect. chief in charge geophys. research and *assoc. director research, Phillips Petrol. Co, 36–* Nat. research fellow, 26. A.A; Physical Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Econ. Geol. Refraction and reflection of x-rays; cosmic rays; magnetic materials; petroleum exploration and production.

Doane, S(amuel) E(verett), Pine Orchard, Conn. *Electrical engineering.* Swampscott, Mass, Feb. 28, 70. High sch; hon. E.E, Case, 27. Foreman, incand. lamp dept, Thomson-Houston Co, 86–90, asst. foreman, lamp dept, 90–92, engineer, 91–92, manager repair lamp dept, 95–96; asst. engineer, Edison Lamp Works, Harrison, N. J, 92–96, supt, 93–94; acting engineer for. dept, Gen. Elec. Co, 96–97; supt, Bryan Marsh Co, 97–02; chief engineer, Nat. Lamp Works, Gen. Elec. Co, Cleveland, 01–30; consultant, Edison and Nat. Lamp Works, 30–35; *retired.* A.A; Mech. Eng; fel. Elec. Eng; Illum. Eng. Soc. (past pres). Incandescent electric lamp making.

Dobbel, Prof. Charles Arthur, 1129 Cowper St, Palo Alto, Calif. *Mining engineering.* San Francisco, Calif, March 14, 00. A.B, Stanford, 21. Chief engineer, North Butte Mining Co, Butte, Mont, 22–23; engineer in charge prospecting, Chief Consol. Mining Co, Eureka, Utah, 23–25; geol, Moctezuma Copper Co, Mex, 25–26; supt, Ahumada Lead Co. and Erupcion Mining Co, 26–28; asst. prof. mining and metal, Stanford, 28–29; exec. asst. to U. S. Sec'y Interior, 29–33; asst. prof. *mining, Stanford,* 33–36, *assoc. prof, 36–* Mining eng. consultant, 33–; mining engineer, M. A. Hanna Co. and Manganese Ore Co, 41–43. Min. and Metal. Eng. Application of hammer drill with jointed steel to prospecting; deep hole prospecting.

Dobbie, Dr. James M(cQueen), Northwestern University, Evanston, Ill. *Mathematics.* Pittston, Pa, March 1, 13. B.S, Bucknell, 33, fellow, 33–34, M.S, 34; fellow, Illinois, 34–38, Ph.D, 38. Asst. *math,* Illinois, 34–38; *instr,* Case, 38–40; *Northwestern, 40–* Math. Soc; Elec. Eng. Mathematical analysis; Lambert series; analytic number theory.

Dobbin, Dr. C(arroll) E(dward), U. S. Geological Survey, Denver, Colo. *Geology.* West Jonesport, Maine, Oct. 2, 92. A.B, Colby Col, 16, hon. Sc.D, 41; Ph.D, Hopkins, 24. *Geologist, U. S. Geol. Surv, 18–* A.A; Geol. Soc; Geophys. Union; Asn. Petrol. Geol. (assoc. ed, 33–36, v. pres, 36); Min. and Metal. Eng; Colo. Sci. Soc. (sec'y, 32–); Geol. Soc. Wash. Structural geology; oil; gas; coal.

Dobbin, Dr. Catherine N(ancy) (Mrs. L. Franklin Evenson), Smith College, Northampton, Mass. *Zoology.* Enterprise, Oregon, April 18, 09. B.S, Washington (Seattle), 32, M.S, 33; Ph.D, Cornell, 39. Teacher, elementary and high sch, Enterprise, Oregon, 30–31, 33–37; *instr. invert. zool, Smith Col, 39–* Summer, instr, Mt. Desert Biol. Lab, 40. A.A; Soc. Ichthyol. and Herp. Limnology; fresh-water Ostracoda; fish swim-bladders.

Dobbins, Prof. J(ames) T(almage), University of North Carolina, Chapel Hill, N. C. *Analytical chemistry.* Boonville, N. C, Feb. 11, 88. A.B, North Carolina, 11, A.M, 12, Ph.D, 14. Instr. chem, N. C. State Col, 14–18; assoc. prof, *North Carolina,* 18–30, *prof. anal. chem, 30–* Consulting anal. chemist. Chem. Soc; Soc. Pub. Analysts and Anal. Chemists. Analytical methods; application of organic reagents in analytical chemistry; systematic separation of acids and alums; semi micro qualitative analysis of cations and anions.

Dobbins, Prof. R(aymond) A(nson), 620 Union St, Ada, Ohio. *Biology.* Kokomo, Ind, Dec. 31, 95. B.S, Ohio Northern, 17; A.B, Ohio State, 20, M.S, 22, Ph.D, 37. Instr. bot, Ohio State, 23–26; *asst. prof. biol, Ohio Northern, 26–* Summers, field asst, U. S. Dept. Agr, 20–23. A.A; Bot. Soc; Phytopath. Soc; Ecol. Soc; Ohio Acad. (chairman bot. sect, 38). Ecology of the original vegetation of the Virginia military lands of Ohio.

Dobbs, Prof. Carey C(ranful), Washington College, Chestertown, Md. *Organic chemistry.* Mathiston, Miss, July 15, 95. B.S, Miss. Col, 18; A.B, Howard, 20; M.S, Virginia, 23; Sc.D, Besançon, 27. Head dept. science, Delta State Teachers Col, Miss, 27–37; chemist, oil corp, 37–41; prof. *chem,* Baylor, 41–42; *prof. and head dept, Washington Col. (Md), 42–* C.W.S, 18–19. Chem. Soc; Texas Acad; Miss. Acad. (pres, 35). Oil found in schist; essential oil in plants in Mississippi; metallography of iron and steel.

Dobbs, Dr. Edward C(larence), 4902 Alson Drive, Baltimore, Md. *Pharmacology, Therapeutics.* Holyoke, Mass, May 8, 03. D.D.S, Maryland, 29. Visiting oral surgeon, Church Home and Infirmary Hosp, Baltimore, 29-30; Rockefeller fellow biochem. and pharmacol, sch. med. and dentistry, Rochester, 30–32; instr. and later *assoc. prof. pharmacol. and therapeut. and head dept. pharmacol. and therapeut, dental sch, Maryland, 35–* Am. Dental Asn; Md. Biol. Soc; int. fel. Col. Dentists. Local factors in dental caries; efficacy of local anesthetics; dental therapeutics.

DoBell, Prof. H(oward) A(dams), New York State College for Teachers, Albany, N. Y. *Mathematics.* Sayre, Pa, May 9, 96. A.B, Syracuse, 19, A.M, 24; Ph.D, Cornell, 28. Instr. and asst. prof, Colgate, 20–27; asst. prof. *math, N. Y. State Col. Teachers,* 28–40, *prof, 40–* Math. Soc; Math. Asn. Geometry of the triangle.

Dobrin, Milton B(urnett), Naval Ordnance Laboratory, Navy Yard, Washington, D. C. *Physics.* Vancouver, B. C, Can, April 7, 15. B.S, Mass. Inst. Tech, 36; Columbia, 36–37; M.S, Pittsburgh, 41. Asst. physics, Columbia, 37; asst. geophysicist, Gulf Research and Develop. Co, 37–40, geophysicist, 40–42; *asst. physicist, Naval Ordnance Lab, 42–* Physical Soc; Geophys. Union; Soc. Explor. Geophys. Seismic prospecting; tectonophysics; popularization of science.

Dobriner, Dr. Konrad, Memorial Hospital, York Ave. at 68th St, New York, N. Y. *Medicine, Biochemistry.* Elberfeld, Germany, Oct. 14, 02. M.D, Munich, 27. Research fellow med, med. sch, Rochester, 34–36; fellow, Rockefeller Inst. Hosp, 36–39; *research chemist, Mem. Hosp, New York, 39–* Asn. Cancer Research. Porphyrins; pigment metabolism; metabolism of carcinogens and steroid hormones; cancer research.

Dobroscky, Dr. Irene D(orothy) (Mrs. Carleton Van de Water), New Paltz, N. Y. *Entomology.* Yonkers, N. Y, Dec. 27, 99. B.S, Cornell, 23, Schuyler fellow, 24, M.S, 24, Ph.D, 28. Asst. entom. and plant path, Boyce Thompson Inst, 24–30; beneficial insect explorer, Exp. Sta, Asn. Hawaiian Pineapple Canners, 31–33; *consulting entomologist, 33–* A.A; Entom. Soc. Amer; Phytopath. Soc; Asn. Econ. Entom; N. Y. Entom. Soc. Insect vectors of plant virus diseases; parasitic insects.

Dobrovolny, Prof. Charles G(eorge), University of New Hampshire, Durham, N. H. *Parasitology.* Budapest, Hungary, July 19, 02. A.B, Montana, 28; M.S, Kans. State Col, 33; Ph.D, Michigan, 38. Teacher, high sch, Idaho, 28–29; instr. *zool,* Kans. State Col, 29–35; Michigan, 35–40; *asst. prof, New Hampshire, 40–* A.A; Soc. Parasitol; Micros. Soc; Soc. Zool; Kans. Acad; Mich. Acad; N. H. Acad. Nematode parasites of insects; anomalous tapeworms; cestode technique; trematode life cycles; embryology of trematodes.

Dobson, G(ilbert) C(olfax), Soil Conservation Service, Washington, D. C. *Civil engineering.* Philadelphia, Pa, Feb. 27, 81. B.S, Missouri, 05, C.E, 09. Surveyor and asst. city engineer, Manila, P. I, 05–09; special agent land investigations, U. S. Gen. Land Office, 09–10; asst. engineer construction and design, Panama Canal, 10–16; bridge designer, Kansas City Terminal Ry, 16–17; engineer, Hoffman, O'Connell and Dobson, 20–25; field engineer and lecturer,

Portland Cement Asn, 25–28; assoc. engineer, flood control investigation, U. S. Engineers, 28–35; *chief sedimentation div, soil conservation service, U. S. Dept. Agr, 35–* C.Eng, 17–20, major. Civil Eng; Geophys. Union. Sedimentation; the entrainment, transportation and deposition of erosional debris.

Dobzhansky, Prof. Th(eodosius), Columbia University, New York, N. Y. **[6]*Zoology, Biology.* Nemirov, Russia, Jan. 25, 00. Diploma, Kiev, 21; fellow, Russian Acad, 26; Int. Educ. Board fellow, 28. Asst. zool, Polytech. Inst, Kiev, 21–24; lecturer genetics, Leningrad, 24–27; asst. prof. genetics, Calif. Inst. Tech, 29–36, *prof*, 36–40; *zool, Columbia, 40–* Chief exped. study domestic animals, middle Asia, 26–27. A.A; Genetics Soc. (pres, 41). Genetics.

Dochez, Dr. A(lphonse) R(aymond), Columbia University, New York, N. Y. *[3]*Medicine.* San Francisco, Calif, April 21, 82. A.B, Hopkins, 03, M.D, 07; hon. Sc.D, N. Y. Univ, 25, Yale, 26, Western Reserve, 31. Fellow path, Rockefeller Inst, 08–10, bacteriologist, Rockefeller Hosp, 10–11, asst. res. physician, 10–13, res. physician, 14, asst. med, 11–14, assoc, 14–16, assoc. mem, 16–19; assoc. prof. med, sch. med, Hopkins, and assoc. physician, Hopkins Hosp, 19–21; assoc. prof. med, *col. physicians and surg, Columbia*, 21–25, prof, 25–40, *John E. Borne prof. med. and surg. research, 40–* Visiting physician, Presb. Hosp, 21– Nat. Acad; Am. Physicians; Soc. Exp. Path; Soc. Exp. Biol. (pres, 32–34, 36–); Soc. Clin. Invest; Harvey Soc. Pathology; bacteriology and immunity; clinical medicine.

Dock, Dr. George, 94 N. Madison Ave, Pasadena, Calif. *[1]*Medicine.* Hopewell, Pa, April 1, 60. M.D, Pennsylvania, 84, hon. Sc.D, 04; hon. A.M, Harvard, 95. Asst. clin. path, Pennsylvania, 87–88; prof. path, Texas Med. Col. and Hosp, 88–91; med, med. sch, Michigan, 91–08; sch. med, Tulane, 08–10; sch. med, Washington (St. Louis), 10–22. Physician, Univ. Hosp. Dispensary, Phila. V. pres, Int. Med. Cong, Moscow, 97, London, 13. A.A; Am. Physicians (pres, 17); Am. Med. Asn. Pathology of malaria and dysentery; protozoan diseases of the blood; pernicious anemia; ductless glands; hookworm.

Dock, Dr. W(illiam), 1300 York Ave, New York, N. Y. *Pathology.* Ann Arbor, Mich, 98. B.S, Washington (St. Louis), 20; M.D, Rush, Chicago, 23. Asst. prof. med, Stanford, 27–29, assoc. prof, 29–36, *prof. path*, 36–41; *med. col, Cornell, 41–* A.A; Asn. Physicians; Soc. Clin. Invest; Soc. Exp. Biol. Cardiovascular disease.

Dockeray, Prof. F(loyd) C(arlton), Ohio State University, Columbus, Ohio. *Psychology.* A.B, Michigan, 07, A.M, 09, Ph.D, 15. Asst. instr. *psychol*, Michigan, 08–09; instr, Kansas, 10–13, asst. prof, 13–16, assoc. prof, 16–20; *prof*, Ohio Wesleyan, 20–29; *Ohio State, 29–* In charge psychol. dept, med. research lab, A.S, U.S.A. A.A; Psychol. Asn; South. Soc. Philos. and Psychol; Midwest. Psychol. Asn; fel. Ohio Acad; Kans. Acad. General and physiological psychology; neurology; the span of vision in reading; physical fatigue and mental efficiency; volumetric measurements of the brain of a human fetus; psychology of aviation; infant behavior.

Dod, Will C(lifton), 363 Naymut St, Menasha, Wis. *Physics.* Knox City, Mo, July 22, 02. B.S, Mo. State Teachers Col, 24; A.M, Miami (Ohio), 31. Instr. physics, Miami (Ohio), 30–34, asst. prof, 34–41; *research physicist, Kimberly-Clark Corp, 41–* Teacher, Nat. Band and Orchestra Camp, Interlochen, Mich, 34. Acoustical Soc. Harmonic space curves; musical instruments; paper and printability.

Dodd, Prof. C(harles) M(itchener), 2009 Cessna St, Ames, Iowa. *Ceramic engineering.* New Philadelphia, Ohio, Aug. 13, 95. Hiram Col, 14–15; B.Cer.E, Ohio State, 27, Cer.E, 33. Construction engineer, Eljer Co, Ford City, Pa, 20; ceramic engineer, Canton Brick Co, New Philadelphia, Ohio, 26; asst. ceramic engineer, Robinson Clay Product Co, Akron, 27; asst. prof. ceramics, Mo. Sch. Mines, 27–29, assoc. prof, 29–35, prof, 35–39; *head dept. ceramic eng, Iowa State Col, and research prof, Eng. Exp. Sta, 39–* Director, Mo. Clay Testing and Research Labs, 32–39. Ceramic Soc; Ceramic Eng; Eng. Educ; Soc. Test. Mat. (cmt. manufactured masonry units); Nat. Brick Mfrs. Asn. (sec'y, dry press process cmt, 29–31); Iowa Acad; Iowa Eng. Soc. Red hearts in fire clay brick; effects of various factors on pressure transmission in dry press mixes; auxiliary fluxes for white ware bodies; hot load test for refractories; x-ray studies of physical and chemical properties of diaspore clay and halloysite.

Dodd, Prof. D(avid) R(ollin), Ohio State University, Columbus, Ohio. *Agronomy.* Martinsburg, W. Va, July 11, 89. B.S.Agr, West Virginia, 14; Ph.D, Cornell, 31. Teacher, high sch, W. Va, 14–16; county agr. agent, Clay Co, West Virginia, 14–16, Mason Co, 16–19, exten. agronomist, 19–30, asst. agronomist, Exp. Sta, 28–30; *prof. soils and exten. agronomist, Ohio State, 30–; assoc. agronomist, Ohio Agr. Exp. Sta, 32–* A.A; Soc. Agron. (pasture cmt, 36–); Ohio Acad; Int. Soc. Soil Sci. Production and management of pasture.

Dodd, Dr. Katharine, Vanderbilt Hospital, Nashville, Tenn. *Pediatrics.* Providence, R. I, March 24, 92. A.B, Bryn Mawr Col, 14; M.D, Hopkins, 21. Intern pediat, Hopkins Hosp, 21–22, asst. res, 22–23; New Haven Hosp, 23–24; intern, Boston Psychopath. Hosp, 24–25; asst. prof. *pediat, Vanderbilt Univ. Hosp*, 25–28, *assoc. prof, 28–* Physician, Friends Relief Organization, Russia, 24. Am. Med. Asn. Guanidine intoxication.

Dodd, Prof. L(aurence) E(llsworth), 1263 Woodruff Ave, Los Angeles, Calif. *Physics.* Cascade, Iowa, July 16, 86. B.S, Cornell Col. (Iowa), 10; M.S, Iowa, 14, Ph.D, 18. Instr, high sch, Iowa, 10–12; asst. physics, Iowa, 14–18; asst. physicist, glass sect, Bur. Standards, 18–20, assoc. physicist, 20–21; asst. prof. *physics, California at Los Angeles*, 21–24, *assoc. prof, 24–* Lecturer, Iowa, 21. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Iowa Acad. Light; sound; geometrical optics; simultaneous measurements of small distances; stroboscopic effect; vapor pressure curves of solid and liquid selenium; striae in optical glass; miscibility of liquids; pitch effect on vocal tones; Abbe refractometer; motion picture flood lamps; physics of deep-sea diving; teaching of geometrical optics; optical instruments.

Dodd, Dr. Matthew C(harles), Norwich Pharmacal Co, Norwich, N. Y. *Bacteriology.* Circleville, Ohio, March 24, 10. A.B, Ohio State, 33; Ph.D, Michigan, 41. Asst. pharmacologist, Parke, Davis and Co, Detroit, Mich, 33–37; asst. instr. bacter, med. sch, Michigan, 37–41; *bacteriologist, Norwich Pharmacal Co, 41–* Chemotherapy; experimental syphilis; pathogenicity of Bacillus violaceus.

Dodd, Prof. S(tuart) C(arter), American University of Beirut, Beirut, Lebanese Republic. *Sociology.* Talas, Turkey, Oct. 3, 00. B.S, Princeton, 22, special nat. research fellow, 23–26, A.M, 24, Ph.D, 26. Res. psychologist, State Home for Boys, N. J, 22–23; nat. research and Rockefeller Foundation fellow, London, 26–27; adj. prof. *sociol, American Univ. Beirut*, 27–30, *assoc. prof, 30–, director social science research sect, 29–* Sociol. Soc. Intelligence tests; mathematical theory of intelligence; social problems of the Near East; bibliography of the three Arab mandates; measurement of social forces.

Dodds, Prof. G(ideon) S(tanhope), West Virginia University, Morgantown, W. Va. *Anatomy.* Parnassus, Pa, July 11, 80. A.B, Colorado, 04, A.M, 05; Harrison fellow, Pennsylvania, 08–10, Ph.D, 10. Instr. biol, Colorado, 05–08; asst. prof, St. Louis, 10–11; zool, Missouri, 11–18; *histol. and embryol, sch. med, West Virginia*, 18–20, assoc. prof, 20–25, *prof, 25–* Summers, instr, Marine Biol. Lab, Woods Hole, 09–11, 18; Mt. Lab, Colorado, 12–17. A.A; Soc. Zool; Soc. Anatomists. Primordial germ cells; ecology of Entomostraca and aquatic insects; development and growth of bones; bone changes in rickets; the epiphyseal cartilage; anomalies of development.

Dodds, Prof. J(ohn) S(impson), Iowa State College, Ames, Iowa. *Civil engineering.* Northfield, Minn, Aug. 10, 85. B.S. (C.E), Iowa State Col, 12, C.E, 17. Engineer, State Highway Cmn, Iowa, 13–17; assoc. prof. *civil eng, Iowa State Col*, 17–34, *prof, 34–* Chairman, Iowa-Nebr. Boundary Cmn; mem, State Board Eng. Examiners, 27– Pres, Am. Cong. Surv. and Mapping, 42, 43. Eng. Council (v. pres, 39); Soc. Planning Officials; Soc. Photogrammetry; Civil Eng; Geophys. Union; Council State Boards Eng. Examiners (pres, 36); Iowa Eng. Soc. (pres, 43). Good roads and community life; maps and mapping; surveys of the United States public land system; surveying; retracing old surveys.

Dodds, Dr. Mary L(etitia), University of Tennessee, Knoxville, Tenn. *Nutrition.* Latakia, Syria, March 29, 01. B.S, Pittsburgh, 25, M.S, 27, fellow, 39–40, Ph.D, 40. Fellow, Mellon Inst, 27–35, 36–38; *assoc. home economist, Tennessee, 40–* Chem. Soc. Toxicology of aluminum; industrial uses of cane sugar; dental caries; organic synthesis in pharmaceutics and medicine; catalytic oxidation of ascorbic acid; human nutrition.

Dodge, Prof. Barnett F(red), Yale University, New Haven, Conn. *Chemical engineering.* Akron, Ohio, Nov. 29, 95. B.S, Mass. Inst. Tech, 17; Sc.D, Harvard, 25. Chem. engineer, E. I. du Pont de Nemours and Co, 17–20; Lewis Recovery Corp, 20–22; lecturer *chem. eng,* Harvard, 21–25; asst. prof, *Yale,* 25–30, assoc. prof, 30–35, *prof, 35–,* acting chairman *dept,* 30–31, *chairman, 31–; official investigator, Nat. Defense Research Cmt, 41–* Lecturer, Worcester Polytech, 22–25; chem. engineer, fixed nitrogen research lab, U. S. Dept. Agr, 25. Am. Inst. Chem. Eng. rep, Eng. Council Professional Develop. A.A; Chem. Eng. (director, 38–41); Chem. Soc. (chairman indust. and eng. div, 39–41). Thermodynamics; low temperature separation of gases; gas reactions at high pressures; properties of compressed gases; solubility and rate of absorption of gases.

Dodge, Dr. Bernard O(gilvie), New York Botanical Garden, Bronx Park, New York, N. Y. *[4]*Botany.* Mauston, Wis, April 18, 72. Ph.B, Wisconsin, 09; Ph.D, Columbia, 12; N. Y. Bot. Garden, 10, 14. Prin, high sch, Wis, 95–00, 02–08; asst. bot, Columbia, 09–13, instr, 13–20; pathologist fruit diseases, bur. plant indust, U. S. Dept. Agr, 20–28; *plant pathologist, N. Y. Bot. Garden, 28–* Consultant, Presb. Hosp, New York, 29–39; lecturer, col. physicians and surg, Columbia, 29–Cmn. microbiol. soils, Nat. Research Council. Del, Int. Bot. Cong, Cambridge, 30, Amsterdam, 35. Nat. Acad; A.A; Soc. Nat; Bot. Soc; Torrey Bot. Club (sec'y-treas, 11–20, ed, 32–34; pres, 40); Phytopath. Soc; Mycol. Soc. (pres, 35); Am. Acad; Wis. Acad; N. Y. Acad. Morphology of Ascomycetes; cytology and genetics of fungi; diseases of ornamentals; infection and immunity.

Dodge, Dr. Carroll W(illiam), Missouri Botanical Garden, St. Louis, Mo. *[5]*Botany.* Danby, Vt, Jan. 20, 95. A.B, Middlebury Col, 15, A.M, 16; fellow, Washington (St. Louis), 15–18, Ph.D, 18; hon. Dr, Guatemala, 42. Instr. *bot,* Brown, 19–20, asst. prof, 20–21; instr, Harvard, 21–24, asst. prof. and curator, Farlow Library and Herbarium, 24–31; *prof, Shaw sch. bot, Washington (St. Louis), and mycologist, Mo. Bot. Garden, 31–* Asst. prof, California, 21; fel, Inst. Research Trop. Amer, 25; Guggenheim Mem. Foundation fellow, Costa Rica, 29–30, Europe, 30–31; U. S. exchange prof, Guatemala, 40–42. Ed. board, 'Bot. Abstracts,' 20–26; 'Biol. Abstracts,' 26–; assoc. ed, 'Rhodora,' 23–31. Harvard bot. exped, Gaspé Peninsula, 23; Washington (St. Louis) bot. exped, Panama, 34–35, Costa Rica, 36. Sergt, M.C, 18–19, lieut, Sanit.R.C, 25–30. A.A. (councilor, 35); Bot. Soc. (sec'y, mycol. sect, 27, 28, chairman, 29); Micros. Soc. (pres, 38); Phytopath. Soc; Mycol. Soc; Hist. Sci. Soc; Torrey Bot. Club; New Eng. Bot. Club (sec'y, 22–31); Boston Soc. Nat. Hist; Boston Med. Library Soc; British Mycol. Soc; Soc. linn. de Lyon. Mycology; basidiomycetes; fungi which cause human disease; physiology of fungi; lichens; history of biology.

Dodge, Dr. E(ldon) R(aymond), University of Wisconsin, Madison, Wis. *Civil engineering.* Eland, Wis, June 17, 10. B.S, Wisconsin, 32, M.S, 35, Ph.D, 42. Engineer, Wis. Highway Cmn, 32–33; *instr. civil eng, Case,* 35–37; *Wisconsin, 37–; hydraul. research engineer, Fairbanks, Morse and Co, 43–* Summers, engineer, Wis. Highway Cmn, 34, 35; asst. engineer, U. S. Army Engineers Corps, Huntington, W. Va, 36; engineer, Consol. Water Power and Paper Co, 38; asst. engineer, Conover, Townsend and Quinlan, 42. Civil Eng; Eng. Educ. Uniform flow in open channels; flow water through circular end-cap orifices; vibrated concrete.

Dodge, F(rank) E(llsworth), 1738 E. Main St, West Frankfort, Ill. *Chemistry.* Barre, Vt, Oct. 23, 66. Ph.B, Vermont, 89. Chemist, manager and supt, commercial companies, 89–09; consulting chem. engineer, 09–12; chem. engineer, Barrett Co, 12–21; v. pres. and mfg. manager, Protexol. Corp, 21–23; Nat. Lead Co, 23–31; *chem. engineer, Midwest-Radiant Corp, 33–* Chem. Eng; West. Soc. Eng; Chicago Eng. Club. Recovery of pyridin bases from the direct ammonium sulfate process; neutral sulfate of ammonia; coal tar and its distillation products; recovery of benzol and toluol from illuminating gas.

Dodge, H(arold) F(rench), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Lowell, Mass, Jan. 23, 93. B.S, Mass. Inst. Tech, 16; A.M, Columbia, 22. Instr. elec. eng, Mass. Inst. Tech, 16–17; develop. engineer, West. Elec. Co, 17–25; *quality results engineer, Bell Tel. Labs, 25–; tech. consultant, quality control, ordnance, War Dept, 42–* V. chairman borough planning board, Mountain Lakes, N. J. Soc. Test. Mat. (chairman tech. cmt. interpretation and presentation of data, 34–); Statist. Asn; Inst. Math. Statist; Standards Asn. (chairman emergency tech. cmt. quality control, 41–). Statistical methods as applied to quality control and sampling inspection techniques; electric stethoscope and analysis of heart sounds; quality rating of manufactured products; submarine detection.

Dodge, Dean Homer L(evi), University of Oklahoma, Norman, Okla. *Physics.* Ogdensburg, N. Y, Oct. 21, 87. A.B, Colgate, 10, Sc.D, 32; M.S, Iowa, 12, Ph.D, 14. Asst. instr. *physics,* Iowa, 10–12, demonstrator, 12–13, instr, 13–15, asst. prof, 15–19; *prof, Oklahoma, 19–,* head dept, 19–42, director sch. eng. physics, 24–42, *dean grad. sch, 26–, director univ. research inst, 41–; office sci. personnel, Nat. Research Council, 42–* Topog. aid, U. S. Geol. Surv, 06–11, junior topographer, 11–14; director, Bur. Standards, Okla, 19–; field director surv, col. teaching, Asn. Univ. Prof, 32–33. Pres. board trustees, Okla. Sch. Religion, 27–; mem. governing board, Inst. Physics, 32–39. Ed. research in physics, 'Sch. Science and Math,' 16–24. Mem. cmt. on educ. and special training, War Dept, 19; nat. advisory cmt, Eng, Science and Management Defense Training, 41– A.A; Physical Soc. (councilor, 36); Eng. Educ; Asn. Physics Teachers (pres, 30–32); Okla. Acad. (pres, 25); Physical Soc. London; Newcomen Soc. Elasticity; electrical measurements and instruments.

Dodge, Prof. John F(rankln), University of Southern California, Los Angeles, Calif. *Engineering.* Los Angeles, Calif, Jan. 13, 90. B.S, California, 12, E.M, 24; M.S, Southern California, 15. Petrol. engineer, fuel oil dept, S. P. Co, Pacific Oil Co. and Standard Oil Co. of Calif, 19–29; *prof. petrol. eng, Southern California, 29–* Lecturer, Stanford, 24–29; consulting geologist and petrol. engineer, State R.R. Cmn, Calif, 41– Petrol. Inst; Asn. Petrol. Geol; Min. and Metal. Eng. Petroleum engineering; oil well drilling and production practise; production.

Dodge, Dr. Ralph L(aurence), Room 13-016 du Pont Bldg, Wilmington, Del. *Physical chemistry.* Peabody, Mass, Nov. 4, 95. A.B, Harvard, 17, Ph.D, 24. Catalytical chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20–25; chemist, Lazote, Inc, Del, 25–26, Belle Works, W. Va, 26–27; *ammonia dept, E. I. du Pont de Nemours and Co, Wilmington,* 27–29, *36–,* manager process sect, Charleston, 29–36, *special asst. to manager, 36–* A.A. Nitrogen fixation; synthetic alcohols; catalysis.

Dodge, Prof. Richard E(lwood), Storrs, Conn. *[1]Geography, Agriculture.* Wenham, Mass, March 30, 68. A.B, Harvard, 90, A.M, 94. Asst. geol, Harvard, 91–94, instr, 94–95; instr. and assoc. prof. nat. science, Teachers Col, Columbia, 95–97, prof. geog, 97–16; county agent leader, exten. service, Conn. Agr. Col, 18–20, dean two-year course, 20–30, prof. *geog,* 27–33, *Connecticut,* 33–38, *emer. prof, 38–* Asst, U. S. Geol. Surv, 90–95. Ed, 'Jour. Sch. Geog,' 97–01; 'Jour. Geog,' 02–10. A.A; Asn. Geog. (ed, 'Annals,' 11–22, pres, 15); Geol. Soc; fel. N. Y. Acad; hon. mem. Australasian Royal Geog. Soc. Scientific geography for elementary and secondary schools; geographical factors in agriculture.

Dodge, Prof. Stanley D(alton), University of Michigan, Ann Arbor, Mich. *Geography.* New York, N. Y, Oct. 23, 97. Harvard, 17; B.S, Chicago, 22, Ph.D, 26. Instr. *geog, Michigan,* 25–27, asst. prof, 27–35, *assoc. prof, 35–* Summers, Cincinnati, 23; Iowa, 27; California, 38. A.A; fel. Am. Geog. Soc; Asn. Geog; Popul. Asn; Geophys. Union; Mich. Acad; N. Y. Acad. Geography of population.

Dodson, Prof. Helen W(alter), Wellesley College, Wellesley, Mass. *Astronomy.* Baltimore, Md, Dec. 31, 05. A.B, Goucher Col, 27; A.M, Michigan, 32, Dean Van Meter fellow from Goucher Col, 32–33, Ph.D, 34. Asst. statistician, State Dept. Educ, Md, 27–31; instr. *astron, Wellesley Col,* 33–37, *asst. prof, 37–* Asst, Goucher Col, 27–31; Michigan, 32. Summers, asst. astronomer, Maria Mitchell Observatory, Nantucket, Mass, 34, 35; l'Observatoire de Meudon, France, 37, 38. Astron. Soc; Soc. astron. de France; Int. Astron. Union (cmn. solar chromosphere). The spectrum of 25 Orionis; chromospheric eruptions.

Dodson, Dr. Richard W(olford), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Kirksville, Mo, Jan. 15, 15. Northeast Mo. State Teachers Col, 32–34; B.S, Calif. Inst. Tech, 36; Ph.D, Hopkins, 39. Asst, Hopkins, 39–40; *nat. research fellow, Calif. Inst. Tech, 40–* Physical Soc. Artificial radioactivity; radioactive tracers: nuclear fission.

Dodson, W(illiam) R(ufus), Louisiana State University, University, La. *Botany, Agronomy.* Belton, Texas, July 17,

67. Fellow, Missouri, 89–90, B.S, 90; A.B, Harvard, 94; hon. Sc.D, Louisiana, 36. Asst. prof. biol, Missouri, 90–94; asst, Harvard, 94; prof. bot, Louisiana, 94–02, asst. director, Exp. Sta, 02–05, director, 05–20, 21–28, dean col. agr, 12–20, 21–28; supt, Iberia Livestock Exp. Farm, U. S. Dept. Agr, 28–36; prof. *agron, Louisiana*, 36–39, *emer. prof, 39–* In charge La. forestry exhib, La. Purchase Expos, 04; La. commissioner, Jamestown Expos, 07; State Museum Board, La; Board Agr, La; State Conservation Cmn, La; advisory council, agr. cmn, Am. Bankers Asn. Head agr. relations sect, Food Admin, 18. Soc. Agron; Soc. Animal Production; Asn. South. Agr. Workers; La. Nature Soc. Bacteriology; root tubercles of legumes; rice; forage crops.

Doebbeling, Dr. Susie E(velyn), 39–06 Sunderland Drive, Fair Lawn, N. J. *Chemistry.* Craig, Mo, May 26, 01. B.S, Northwest Mo. State Teachers Col, 28; A.M, Columbia, 30, Ph.D, 34. Asst. chem, Columbia, 30–33, research asst, 33–37; *chemist, Takamine Lab, Inc, 37–* Prof. physics, Marymount Col. (N. Y), 34–35. Chem. Soc. Enzymes, especially amylases.

Doede, Dr. Clinton M(ilford), 26 Underhill Road, Hamden, Conn. *Chemistry.* Bonfield, Ill, Oct. 17, 10. B.S, Chicago, 31, fellow, 32–34, Ph.D, 34. Research chemist, Firestone Tire and Rubber Co, Akron, Ohio, 34–37, head physical chem. research div, 37–39; *v. pres. in charge research and production, Conn. Hard Rubber Co, 39–* Chem. Soc. (chairman, New Haven sect, 41; councilor, 42); Physical Soc. Separation of the isotopes of hydrogen; physical chemistry of surfaces; rubber; dielectric constant of rubber; beryllium.

Doell, Prof. J(acob) H(omer), Bethel College, Newton, Kans. *Botany.* Hampton, Nebr, May 15, 79. B.S, Fremont Nor. Sch, Nebr, 06; A.B, Oberlin Col, 11; Ph.D, Kansas, 35. Instr. science, Freeman Junior Col, S. Dak, 08–10; Bethel Col. (Kans), 11–19; high sch, Honolulu, Hawaii, 19–21; *Bethel Col. (Kans)*, 21–31, *prof. biol, 32–* Bot. Soc; Genetic Asn. Ecology of the sand-hills of central Kansas; the anatomy of Eclipta alba.

Doering, Dr. Carl Rupp, Harvard School of Public Health, Boston, Mass. *Statistics.* Philadelphia, Pa, June 28, 89. Leipzig, 11–14; A.B, Texas Christian, 21; M.D, Baylor, 21; C.P.H, Hopkins, 22, Int. Health Board fellow, 22–24, Sc.D, 24. Instr. music, Texas Christian, 16–17; *vital statist, sch. pub. health, Harvard*, 24–26, *asst. prof, 27–* Consulting statist. epidemiologist, State Dept. Health, Mass, 27–31; consultant, Boston Psychopathic Hosp, 26–; rehabilitation program, State Prison Colony, Mass, 31– A.A; Pub. Health Asn; Epidemiol. Soc; Am. Med. Asn; Am. Acad. Vital statistics; epidemiology.

Doering, Dr. Kathleen C(lare), 1214 Tennessee St, Lawrence, Kans. *Entomology.* Cottonwood Falls, Kans. A.B, Kansas, 22, A.M, 23, Ph.D, 29. Asst. instr. *entom, Kansas*, 23, instr, 24–29, *asst. prof, 29–* Entom. Soc. Amer; Kans. Entom. Soc. Biology, morphology and taxonomy of Cercopidae; taxonomy and morphology of Fulgoridae.

Doermann, Prof. F(rederick) W(illiam), New York University, University Heights, New York, N. Y. *Mathematical physics.* Washington, D. C, Nov. 29, 00. A.B, Hopkins, 23; Ph.D, Vienna, 25. Instr. physics, *N. Y. Univ*, 26–29, *asst. prof.* math, 29–31, *physics, 31–* Physical Soc; Math. Asn. Atomic structure.

Doerner, Henry A(lfred), 608 Gladstone, Pullman, Wash. *Metallurgy.* Denver, Colo, March 18, 89. B.S, Colorado. Instr, Colo. Agr. Col, 13; research chemist, Chem. Products Co, 14–20, radium technologist, 20; metallurgist and later *engineer in charge Pullman unit, U. S. Bur. Mines, 20–* Min. and Metal. Eng; Electrochem. Soc. Metallurgy of radium; vanadium; molybdenum; zinc; centrifugal concentration of ores; electrothermal production of magnesium metal; thermodynamics of chromium chlorides.

Doerr, J(ohn) E(dward), National Park Service, Chicago, Ill. *Geology.* Mt. Vernon, Ind, Nov. 10, 01. A.B, Wisconsin, 24, A.M, 26. Asst. geol, Pa. State Col, 26–27; prof. and head dept, N. Dak. Col, 27–31; park naturalist, Hawaii Nat. Park, 31–35; Crater Lake Nat. Park, 35–40; asst. supt, Rocky Mountain Nat. Park, 40–41; *chief, naturalist div, Nat. Park Service, 41–* Field seasons, Wis. Geol. and Nat. Hist. Surv, 21–30. A.A. Sedimentation; glacial geology of Wisconsin relative to highway construction.

Doetschman, W(illis) H(ackett), Biological Research Institute, Balboa Park, San Diego, Calif. *Medical zoology, Parasitology.* Denver, Colo, April 8, 09. A.B, San Diego State Col, 34; A.M, Southern California, 41. *Instr. science, schs, San Diego, Calif, 34–; research assoc. parasitol, San Diego Zool, Hosp. and Labs. and Biol. Research Inst, Zool. Soc. of San Diego, 38–* A.A; Soc. Parasitol; Micros. Soc; Int. Board Hygiene. Acarology; ectoparasitic and endoparasitic mites; microbiological technique.

Doggett, Prof. Leonard Allison, 357 E. Prospect Ave, State College, Pa. *Electrical engineering.* Boston, Mass, Nov. 10, 88. A.B, Harvard, 08, M.E.E, 10; E.E, Pa. State Col, 30. Asst, Harvard, 09–10, instr, 11–13; *prof. elec. eng*, U. S. Naval Acad, 13–23; *Pa. State Col, 23–* Elec. Eng. (counselor, Pa. State Col. branch, 26–36, chairman, educ. cmt, 33–35, student branches cmt, 33–35, mem, publication cmt, 33–35); Eng. Educ. (cmt. elec. eng, 34–); Centre Co. Eng. Soc. (past pres). Design and operation of electrical apparatus and machinery; meters and measurements; circuits; electric power.

Dohanian, S(enekerim) M(ardiros), U. S. Department of Agriculture, Eugene, Oregon. *Entomology.* Malatia, Armenia, Oct. 12, 89. B.S, Tufts Col, 13; M.S, Harvard, 15. *Bur. entom. and plant quarantine, U. S. Dept. Agr*, 15–17, asst. entomologist, 19–25, *assoc. entomologist, 26–* Entomologist, Am. Cyanamid Co, 25–26. M.C, U.S.A, 17–19. A.A; Asn. Econ. Entom; Oregon Entom. Soc; Entom. Soc. Wash; Cambridge Entom. Club (v. pres, 27). Insect parasitism; mosquito control; filbert insects.

Doherty, Pres. Robert E(rnest), Carnegie Institute of Technology, Pittsburgh, Pa. *Electrical engineering.* Clay City, Ill, Jan. 22, 85. B.S, Illinois, 09; M.S, Union (N.Y), 21; A.M, Yale, 31; LL.D, Pittsburgh, 36; Tufts Col, 36. Designing engineer, Gen. Elec. Co, 10–18; asst. to Dr. C. P. Steinmetz, 18–23, consulting engineer, 23–31; prof. elec. eng, Sheffield Sci. Sch, Yale, 31–33, dean sch. eng, 33–36; *pres, Carnegie Inst. Tech, 36–* Mem, Nat. Advisory Cmt, Eng, Science and Management War Training, 40–; chairman production planning board, Office Production Management, 41; civilian advisory staff, Mil. Training Div, Ordnance Dept, 42–; chairman consultative cmt. eng, War Manpower Cmn, 42–; mem. advisory cmt, Army Specialized Training Program, 43– Mem, Nat. Advisory Cmt. Aeronautics, 40–41. Lamme medal, 38. Elec. Eng; Council Professional Develop. (chairman, 40–); Mech. Eng; Eng. Educ. (chairman admin. div, 42–). Short circuit currents; fly wheels; exciter instability; influence of altitude on temperature rise; mechanical forces due to short circuits; power transmission.

Dohme, Dr. A(lfred) R(obert) L(ouis), Roland Park, Baltimore, Md. *Pharmaceutical chemistry.* Baltimore, Md, Feb. 15, 67. A.B, Hopkins, 86, Ph.D, 89. Asst, Fresenius's lab, Wiesbaden, Germany, 90–91; chemist, Sharp and Dohme, Baltimore, 91–29, pres, 11–29. Instr, sch. med, Hopkins, 00–12. Revision cmt, U. S. Pharmacopoeia. Chem. Soc; Pharmaceut. Asn. (pres, 17); Soc. Chem. Indust; Md. Pharmaceut. Asn.. (pres, 98). Alkaloids; assay of vegetable drugs; chemistry, pharmacognosy and histology of drugs; Cascara sagrada; Podophyllum; scammony; hexylresorcinol.

Dohrenwend, Dr. Clayton O(liver), Armour Research Foundation, 33rd, Federal and Dearborn Sts, Chicago, Ill. *Engineering mechanics.* New Britain, Conn, May 20, 09. C.E, Rensselaer Polytech, 31, M.C.E, 35, M.S, 37; Ph.D, Michigan, 40. Instr. civil eng. and eng. mech, Rensselaer Polytech, 31–37; Armour Inst. Tech, 37–39; staff mem. stress analysis, Armour Research Foundation, 37–39; asst. prof. civil eng. and eng. mech, Connecticut, 39–41; research engineer eng. mech, *Armour Research Foundation*, 41–42, *chairman eng. mech. research, 42–* Assoc. Civil Eng; Eng. Educ; Mech. Eng; Conn. Soc. Civil Eng. Stress analysis by photoelastic methods; elasticity and stress problems.

Doisy, Prof. Edward A, St. Louis University School of Medicine, St. Louis, Mo. *[*5]Physiology, Biochemistry.* Ill, Nov. 13, 93. A.B, Illinois, 14, M.S, 16; Ph.D, Harvard, 20; hon. Sc.D, Washington (St. Louis), 40, Yale, 40, Chicago, 41, Central Col, 42. Asst. *biochem*, Harvard Med. Sch, 15–17; instr, sch. med, Washington (St. Louis), 19–20, assoc, 20–22, assoc. prof, 22–23; *prof, sch. med, St. Louis, 23–, director dept, 24–* Biochemist, St. Mary's Hosps, 24– Harvey lecturer, 34; Porter lecturer, 35; Mellon lecturer, 37; Julius Stieglitz lecturer, 40; Lower lecturer, 40. Cmt. on standardization sex hormones, League of Nations, 32, 35. Gold medal, St. Louis Med. Soc, 35; Philip A. Conné medal, 35; St. Louis Civic award, 39; Willard Gibbs medal, 41; award, Am. Pharmaceut. Mfg. Asn, 42. U.S.A, 17–19. Nat. Acad; A.A; Soc. Biol. Chem. (ed. board,

38–); Chem. Soc; Soc. Exp. Biol; Philos. Soc. Metabolism; insulin; blood buffers; isolation and chemical characterization of theelin, theelol and dihydro-theelin; ovarian hormones and estrogenic substances; gonadotropic and thyrotropic principles; isolation of vitamins K_1 and K_2; synthesis of K_1.

Doland, Prof. J(ames) J(oseph), University of Illinois, Urbana, Ill. *Civil engineering.* Denver, Colo, Aug. 1, 90. B.S, Colorado, 14, C.E, 28; M.S, Illinois, 32. Instr. eng. math, Colorado, 14–16; supt. construction, Hoy Construction Co, 16–18, 20–23; engineer, U. S. Bur. Reclamation, 23–26; from asst. prof. to *prof. civil eng, Illinois, 26–* Engineer, irrig. power and flood control, U. S. War Dept, 30–31; consultant, Nat. Resources Planning Board, 36–; prin. engineer, Caribbean air bases, U. S. War Dept, Trinidad, B.W.I, 41; expert, specialized training div, 42– Lieut, construction div, U.S.A, 18–19. Civil Eng; Geophys. Union. Design of hydraulic structures; water power.

Dole, Prof. E(leazer) J(ohnson), University of Vermont, Burlington, Vt. *Botany.* Danville, Vt, July 4, 88. A.B, Vermont, 12, A.M, 17, M.S, 21, Ph.D, 23. Asst, *Vermont,* 19–21, instr. *bot,* 21–23, asst. prof, 23–31, *assoc. prof, 31–* Asst. botanist, Exp. Sta, Vermont, 21–31. Vt. Bot. and Bird Clubs (sec'y-treas, 24–). Morphology; systematic botany; flora of Vermont.

Dole, Prof. Malcolm, Northwestern University, Evanston, Ill. *[7]Physical chemistry.* Melrose, Mass, March 4, 03. A.B, Harvard, 24, A.M, 26, Ph.D, 28; Leipzig, 29. Asst, Rockefeller Inst, 28–30; instr. *physical chem, Northwestern,* 30–35, asst. prof, 35–38, *assoc. prof, 38–* A.A; Chem. Soc; Electrochem. Soc. (v. pres, 40). Electrochemistry; glass electrode; surface tension; hydrogen and oxygen isotopes.

Dole, Robert M(ontgomery), Airport, Portland, Maine. *Meteorology, Astronomy.* Philadelphia, Pa, June 13, 84. Harvard, 03–06. Asst, Harvard Observatory, 03–04; Lowell Observatory, 04; newspaper work, 06–12; from asst. observer to junior meteorologist, *U. S. Weather Bur,* 12–28, *asst. meteorologist, 28–, in charge Portland Weather Sta, 29–* Lecturer, Chicago, 16–20; Mich. State Col, 22–29. Meteorol. Soc; Deuts. Meteorol. Gesell; Soc. astron. de France; Astron. Soc. Mex. Meteors; hurricanes; prognostication of weather; meteor showers.

Dolecek, Prof. R(ichard) L(eroy), Texas Technological College, Lubbock, Texas. *Physics.* Wilson, Kans, Dec. 28, 10. A.B, Kansas, 32, A.M, 34, Ph.D, 38. Instr. physics and educ, Kansas, 37; *physics,* Univ. Kansas City, 38; asst. prof, S. Dak. State Col, 38–40, *assoc. prof,* 40–42; *Texas Tech. Col, 42–* Physical Soc; Asn. Physics Teachers. Mathematics; theory of beta-decay; physics applied to agriculture.

Dolian, Dr. Frank E(ugene), 606 S. 25th St, Terre Haute, Ind. *Chemistry.* Coalmont, Ind, Aug. 16, 09. A.B, Indiana, 30, A.M, 31, Ph.D, 33. Asst. instr. chem, Indiana, 30–33; research staff, Commercial Solvents Corp, 30–39, market develop. staff, 30–42; *lieut, Inf, U. S. Army, and adjutant, Army Finance Sch, Duke, 42–* Chem. Soc. Catalysis in the formation of esters; physical properties of non-aqueous solutions of inorganic salts; solvents.

Doll, Dr. Alfred W(illiam), 215 Ryerson St, Brooklyn, N. Y. *Physics.* Philadelphia, Pa, June 5, 03. B.S, Pennsylvania, 24, M.E, 31; A.M, Columbia, 28; Ph.D, N. Y. Univ, 32. Instr. in charge planning and installing courses in physical elements eng. and eng. measurements, *sch. science and tech, Pratt Inst,* 25–38, *head dept.* physics, 38–42, *mech. eng, 42–, supervisor mech. eng, 40–; chairman physics of eng, Defense Training Inst, N. Y, 41–* Mech. Eng; Eng. Educ. Physical elements of engineering; mechanical engineering; applied mechanics.

Doll, Prof. Charles G(eorge), 31 S. Prospect St, Burlington, Vt. *Geology.* Providence, R. I, Aug. 22, 98. Ph.B, Brown, 24, A.M, 26; A.M, Harvard, 31. Asst. geol, Brown, 24–26; instr, *Vermont,* 27–33, *asst. prof. geol. and miner, 34–, asst. curator geol. collections, Robert Hull Fleming Museum.* Acting state geologist, Vt, 40. Summer, mem. staff, Vermont, 41. A.A; Geol. Soc. Boston. Geology of Vermont.

Doll, Dr. Edgar A(rnold), Bonnie Brae Farm for Boys, Millington, N. J. *Psychology.* Cleveland, Ohio, May 2, 89. A.B, Cornell, 12; Pd.M, N. Y. Univ, 16; fellow, Princeton, 19–20, Ph.D, 20. Instr. exp. psychol, Wisconsin, 12; asst. psychologist, research lab, The Training Sch, Vineland, 12–17; chief psychologist and director div. educ. and classification, State Dept. Institutions and Agencies, N. J, 20–23; asst. prof. clin. psychol, Ohio State, 23–25; director research, The Training Sch, Vineland, N. J, 25–43; *director, Bonnie Brae Farm for Boys, 43–* Lecturer, N. Y. Univ, 15–16; California, 17; Cleveland Sch. Educ, 20; Northwestern, 24; expert consultant to U. S. Sec'y War. Summers, mem. faculty, Cornell, 12; Montana, 14; N. Y. Univ, 15–16; Pa. State Col, 41– Trustee, The Training Sch, Vineland, 21–25. Mem. Int. Council. Exceptional Children; mem. board managers, N. J. Reformatory, Rahway, 29– Chairman subcmt. mental deficiency, emergency cmt. psychol, Nat. Research Council, subcmt. surv. and planning. Lieut, Sanit.C, 17–18. A.A; Psychol. Asn. (sec'y, clin. sect, 23–26, chairman, 33); fel. Asn. Applied Psychol. (chairman clin. sect, 38, pres, 40); fel. Orthopsychiat. Asn. (v. pres, 30, pres, 36); fel. Asn. Mental Deficiency (v. pres, 34, pres, 35); Psychometric Soc; Soc. Research Child Develop; Soc. Study Educ; hon. mem. Royal Med-Psychol. Asn; Belgian Nat. Center Educ. Mental tests; anthropometry; educational, clinical and criminal psychology; feeble-mindedness.

Dollard, Prof. John (Adrian), Yale University, New Haven, Conn. *Social anthropology.* Menasha, Wis, Aug. 29, 00. A.B, Wisconsin, 22; A.M, Chicago, 30, Ph.D, 31. Asst. to pres, Chicago, 26–29; asst. prof. anthrop, *Yale,* 32–33, asst. sociol, *inst. human relations,* 33–35, *research assoc,* 35–40, *social anthrop, 41–* Caste and class in a southern town; frustration and aggression; social learning and imitation.

Dolley, Dr. Charles S(umner), Nassau, N. P, Bahamas. *Biochemistry.* Elyria, Ohio, June 16, 56. Syracuse, 78; M.D, Pennsylvania, 82; Hopkins, 83–84; Leipzig and Naples Zool. Sta, 84–85. Prof. biol, Swarthmore Col, 85–88; Pennsylvania, 85–92; Cent. High Sch, Phila, 92–07; *private tech. research biochem, 00–* Soc. Nat; Philos. Soc; Franklin Inst; Acad. Nat. Sci. Phila. Marine biology; biochemistry.

Dolley, John S(elver), Vashon Island High School, Seattle, Wash. *Zoology.* Lebanon, Ill, July 2, 08. B.S, McKendree Col, 30; M.S, Illinois, 31. Asst. zool, Illinois, 30–34; asst. prof. biol, Parsons Col, 34–36; acting asst. prof, Mississippi, 36–37; field instr, Miss. plant and animal surv, Works Progress Admin, 37–39; biol. aide, fish and wildlife service, U. S. Dept. Interior, 40–42; *instr. science, Vashon Island High Sch, 42–* A.A; Micros. Soc. Freshwater biology; stream pollution; helminthology; salmon salvage.

Dolley, Prof. W(illiam) L(ee), Jr, University of Buffalo, Buffalo, N. Y. *Zoology.* Greenville, Va, April 13, 87. A.B, A.M, Randolph-Macon Col, 08; Ph.D, Hopkins, 14. Instr. *biol,* Western Reserve, 10–11; prof, Randolph-Macon Col, 14–25; asst. prof. and *prof, Buffalo, 25–* A.A; Soc. Zool; Soc. Exp. Biol; N. Y. Acad. General physiology; reactions of insects to light and to intermittent light; physiology of Eristalis.

Dolloff, Dr. Albert F(ranklin), 51 Winnicooash St, Laconia, N. H. *Public health.* Beverly, Mass, Nov. 23, 96. B.S, New Hampshire, 21; C.P.H, Yale, 22, Ph.D, 27. Asst, Yale, 25–27; assoc. prof. biol, Col. of William and Mary, 22–31; asst. supt, New Haven Hosp, 31–41; *supt, Laconia Hosp, 41–* Summers, Fuller and McClintock, 26; inspector, Dept. Health, New Haven, 27; entomologist, U. S. Pub. Health Service, 28–30; lecturer, Richmond Sch. Social Work and Pub. Health, 28–31. Nat. Malaria Cmt. Pub. Health Asn; Hosp. Asn; Col. Hosp. Admin; New Eng. Hosp. Assembly; N. H. Hosp. Asn. Sanitary bacteriology; mineral salts and bacteria; larvicides for mosquito control.

Dolmage, Dr. Victor, 1318 Marine Bldg, Vancouver, B. C, Can. *Geology.* Souris, Man. B.A, Manitoba, 12; Ph.D, Mass. Inst. Tech, 17. Austin teaching fellow, Mass. Inst. Tech, 16-17; asst. geologist, Geol. Surv. Can, 17–20, assoc. geologist, 20–25, geologist, 25–28, in charge B. C. branch, 23–28; *consulting geologist, 28–* A.A; Geol. Soc; Soc. Econ. Geol; Can. Inst. Min. and Metal. (councilor, 25, chairman, B. C. div, 30, 31); fel. Royal Soc. Can. Economic geology; geology of British Columbia and Vancouver Island.

Dolman, Dr. Claude E(rnest), University of British Columbia, Vancouver, B. C, Can. *Bacteriology, Preventive medicine.* Porthleven, Cornwall, Eng, May 23, 06. L.R.C.P, London, 29, M.B, B.S, 30, D.P.H, 31, Ph.D, 35. House surgeon, St. Mary's Hosp, 29; clin. asst, Royal Chest Hosp. and Hosp. for Sick Children, London, 30; asst, St. Mary's Hosp. Inst. Path. and Research, 31; clin. assoc. and research asst, *Connaught*

labs, Toronto, 31–33, research and clin. assoc, 33–35, *research mem, 35–,* demonstrator hygiene and prev. med, 33–35; assoc. prof. and *prof. bacter. and prev. med, British Columbia; director provincial board health labs, Vancouver, 35–* Hon. consulting bacteriologist, Vancouver Gen. Hosp. Can. Pub. Health Asn; Pub. Health Asn; Royal Col. Physicians; Royal Col. Surg. Staphylococcus toxin, toxoid and antitoxin; food poisoning.

Dolnick, Dr. Arthur (Aaron), 13th and Lindley Ave, Philadelphia, Pa. *Organic chemistry.* Chicago, Ill, July 17, 16. B.S, Chicago, 38, Ph.D, 41. *Research chemist, Publicker Commercial Alcohol Co, 42–* Chem. Soc. Alkyl halides; butadiene.

Dolve, Dean R(obert) M(artinus), 1135 Fifth St, N, Fargo, N. Dak. *Engineering.* Portland, N. Dak. B.S, N. Dak. Col, 05; M.S, Cornell, 19. Instr. agr. eng, *N. Dak. Col,* 06–08, asst. prof, 08–10, prof, 10–12, asst. prof. mech. eng, 12–15, prof, 15–26, *dean eng, 26–* Mech. Eng; Eng. Educ; N. Dak. Acad. (past pres). Thermodynamics.

Domm, Dr. L(incoln) V(alentine), University of Chicago, Chicago, Ill. ***Zoology.* Near Ayton, Ont, Can, Oct. 22, 97. A.B, N. Cent. Col, 21; fellow, Chicago, 22–23, Ph.D, 26. Asst. biol, N. Cent. Col, 20–21; *zool, Chicago,* 23–28, *research assoc, 28–* R.O.T.C, 18. A.A; Soc. Nat; Soc. Zool. (sec'y, 40–); Asn. Anat; Asn. Study Int. Secretions; Soc. Exp. Biol; Wilson Ornith. Club; Ill. Acad. Sexuality in the fowl; effects of sinistral and bilateral ovariotomy; phenomena of sex-inversion; hyperthyroidism; plumage modifications; skin transplantation; hybridization; pituitary gonadal relationships; effects of embryonic hormone treatment on embryonic and post-embryonic development; nature and physiological basis of sex; internal secretions.

Domogalla, Dr. Bernhard (Paul), University Club, Madison, Wis. *Biochemistry.* Milwaukee, Wis, Aug. 20, 96. B.S, Wisconsin, 22, M.S, 23, Ph.D, 25. Chem. supervisor, Newport Chem. Co, 19–21; *city biochemist, Madison, and lake research asst, Wis. Geol. and Nat. Hist. Surv, 22–* A.A; Chem. Soc; Soc. Bact; Pub. Health Asn; Sewage Works Soc; Water Works Asn; Wis. Acad. Organic compounds in water; proteolytic action of bacteria; optical rotation and acidity of flavoring extracts; treatment of lake and industrial waste waters; sewage disposal and gases; water pollution; sludge as a fertilizer; treatment of skin and fish diseases.

Domonoske, Prof. Arthur B(oquer), Stanford University, Calif. *Mechanical engineering.* Artois, Calif, Jan. 1, 84. B.S, California, 07, M.S, 09. Instr, California, 07–10; mech. engineer, 11–13; instr. machine design, Illinois, 13–15; eng. draftsman, Holt Mfg. Co, Stockton, 15–16; instr, U. S. Shipping Board Sch. and California, 18–21; asst. prof. mech. eng, California, 19–22; chief engineer, Doble Steam Motors Co, 22–23; assoc. prof. exp. eng. and director shops, California, 23–26; *prof. mech. eng. and exec. head dept, Stanford, 26–; lieut. col, Ordnance Dept, U. S. Army, 42–* A.A; Mech. Eng; Eng. Educ; Soc. Automotive Eng. Cutting of metals; thermodynamics of internal combustion engines.

Donaghho, Prof. J(ohn) S(hape), 913 Alewa Drive, Honolulu, Hawaii. *Mathematics.* Fredericktown, Pa, June 11, 67. A.B, Marietta Col, 89, hon. A.M, 97; Cornell, 93; Chicago, 96; Stanford, 97–99. Teacher, high sch, W. Va, 92–93; Marietta Acad, 93–97; high sch, Calif, 04; Honolulu, 04–08; prof. *math. and astron,* Col. Hawaii, 08–18, *Hawaii,* 18–34, *emer. prof, 34–* Summer, transitman, surv. harbor of Midway Island, 06. Math. Asn; Hawaiian Acad. Astronomy; latitude; longitude; the true azimuth of a line; planets; nebulae; double stars.

Donahue, Prof. J(ames) Kenneth, 4 Green St, Charleston, S. C. *Biology.* New Haven, Conn, Dec. 16, 05. A.B, Iowa, 30; Ph.D, Princeton, 33. Asst, Princeton, 33–35; *prof. biol, Col. of Charleston, 35–* Summer, acting director, Bermuda Biol. Sta, 34. A.A; Soc. Study Int. Secretions; S. C. Acad; N. Y. Acad. The endocrine system; lactation, secondary shock; hormonal control of ciliation and the presence of sex hormones in eggs of marine vertebrates and invertebrates.

Donahue, Prof. Roy L(uther), Agricultural and Mechanical College of Texas, College Station, Texas. *Soils, Forestry.* Ringgold, Texas, Nov. 3, 08. B.S, Mich. State Col, 32, 33–35; Ph.D, Cornell, 39. Instr. soils, Mich. State Col, 34–35; assoc. prof. forest soils and head dept. forestry, Miss. State Col, 35–37; asst. forestry, Cornell, 37–39; *assoc. prof. agron, Agr. and Mech. Col. Texas, 39–; senior forester, Rubber Develop. Corp, Brazil, 43–* Soc. Foresters; Soil Sci. Soc; Texas Acad. Forest soils of the University of Michigan biological tract; land use and forest soils in northern Michigan; tree growth as related to soil morphology in the central Adirondack Mountains of New York; influence of forest fires on soil fertility; forest soil nursery management.

Donal, Dr. John S(cott), Jr, RCA Research Laboratories, Princeton, N. J. *Engineering.* Philadelphia, Pa, June 19, 05. A.B, Swarthmore Col, 26; M.S, Michigan, 27, Ph.D, 30. Instr. physics, Michigan, 26–30; Johnson Foundation fellow and research assoc. pharmacol, Pennsylvania, 30–32, fellow pharmacol, 32–36; *engineer,* research and develop. lab, radiotron div, RCA Mfg. Co, 36–42, *RCA Research Labs, 42–* Physical Soc; Radio Eng. Cardiac output in man; blood-gas micromethod; abnormal shot-effect; television; ultra-high frequencies.

Donaldson, Dr. J. Kenneth, 701 Main St, Little Rock, Ark. *Surgery.* Oak Grove, Ark, Oct. 15, 05. B.S, Arkansas, 25; M.D, Tulane, 28. Intern and res, San Francisco Gen. Hosp; Clifton Springs Sanitarium and Clinic; Newell and Newell Sanitarium; assoc. surgeon, Robert B. Green Hosp, San Antonio, Texas; *assoc. prof. surg, med. sch, Arkansas, 36–* Am. Med. Asn; Col. Surg; South. Med. Asn. Mesenteric thrombosis; intestinal obstruction; abdominal adhesions; abdominal surgery.

Donaldson, Prof. John C(alvert), University of Pittsburgh, Pittsburgh, Pa. *Anatomy.* Rondout, N. Y, Aug. 29, 88. Ph.B, Yale, 10; M.D, Hopkins, 14. Intern psychiat, Hopkins Hosp, 14–15; instr. *anat,* col. med, Cincinnati, 15–19, asst. prof, 19–21; *Pittsburgh,* 21–22, assoc. prof, 22–32, *prof, 32–* A.A; Asn. Anat; Asn. Study Int. Secretions; Soc. Exp. Biol. Ductless glands; histology of the adrenal glands.

Donaldson, Prof. Lauren R(ussell), University of Washington, Seattle, Wash. *Biology.* Tracy, Minn, May 13, 03. A.B, Intermountain Union Col, 26; M.S, Washington (Seattle), 31, Ph.D, 39. Prin. and teacher science and athletics, high sch, Shelby, Mont, 26–30; from asst. to *asst. prof. fisheries, Washington (Seattle), 32–* Consultant in fisheries, fish and wildlife service, U. S. Dept. Interior, 35–40. Summers, mem. staff, State Dept. Fisheries, Mont, 26–31. Fisheries Soc. (div. v. pres, 38); Soc. Ichthyol. and Herp. Nutrition of fish; temperature relationship; fisheries management.

Doneen, Dr. L(loyd) D(avid), University of California, Davis, Calif. *Irrigation.* Oakesdale, Wash, Sept. 22, 05. B.S, State Col. Wash, 28, fellow, 28–32, M.S, 30, Ph.D, 33. *Asst. irrig. agronomist, div. irrig, Exp. Sta, California, 32–* Nutrition of the wheat plant; irrigation of field and truck crops; quality of water.

Donelson, Dr. Eva G(race), 1408 Hythe St, St. Paul, Minn. *Nutrition.* Ogden, Iowa, Aug. 8, 05. B.S, Iowa State Col, 27; Ph.D, Chicago, 34. Merrill Palmer Sch, 27–28, 29–31; Children's Fund of Mich, 31–32; from instr. to *assoc. prof. home econ, Minnesota, 34–* Metabolism of women during the reproductive cycle; vitamin content of human milk; nutritional status of college women.

Doner, Prof. Ralph D(ouglas), Alabama Polytechnic Institute, Auburn, Ala. *Mathematics.* Onida, S. Dak, Sept. 20, 92. B.S, Chicago, 16; M.S, Illinois, 20, Ph.D, 26. Research, Hall Radio Corp, 19; prof. math. and physics, Huron Col, 20–23; asst, Illinois, 23–26; instr. *math,* Purdue, 26–27; prof, *Ala. Polytech,* 27–36, *head prof, 36–* Math. Asn. Soil dynamics; dynamics of granular media; reproduction of diffraction gratings by stamping.

Doney, Charles Francis, Brooklyn Botanic Garden, Brooklyn, N. Y. *Horticulture.* Buffalo, N. Y, July 21, 07. B.S, Cornell, 29; M.S, N. Y. Univ, 35. Curatorial asst, *Brooklyn Bot. Garden,* 31–36, *asst. woody plants, 37–* Torrey Bot. Club. Woody plant materials.

Donham, Dr. C(harles) R(umpel), Purdue University, West Lafayette, Ind. *Veterinary science.* Rockport, Ind, Aug. 1, 98. D.V.M, Iowa State Col, 21; Washington (St. Louis), 27; M.S, Oregon State Col, 28; Minnesota, 29–35. Instr. and asst. prof. vet. med, Oregon State Col, 22–29; asst. prof. and assoc. prof, Minnesota, 29–35; prof, Ohio State, 35–40; *prof. vet. med. and head dept, Purdue, and chief veterinarian, Exp. Sta, 40–* Vet. Med. Asn. (chairman special cmt. on Bang's disease, 36–); Livestock Sanit. Asn.

(cmt. Bang's disease, 40–). Brucellosis in hogs; sterility in cattle; so-called salmon poisoning in dogs; fundamentals of agglutination phenomenon; Bang's disease in cattle.

Donlan, Theo(dore) R(othwell), 626 Duquesne Terrace, Union, N. J. *Chemistry.* Elizabeth, N. J, Aug. 12, 01. Chem.E, N. Y. Univ, 28; M.S, Rutgers, 42. Construction inspector, West. Elec. Co, 21–22; lab. asst, Standard Oil Co, N. J, 24–25; research chemist, Johns-Manville Co, 28–29; Stanco Inc, 29–32; *director solvents develop. lab, Standard Alcohol Co, 32–* A.A; Chem. Soc. (house chairman, north Jersey sect, 41–); Soc. Test. Mat; Soc. Automotive Eng. Purification, properties and utilization of oxygenated solvents and hydrocarbons derived from petroleum.

Donleavy, Dr. John Joseph, General. Chemical Co, New York, N. Y. *Organic chemistry.* New Haven, Conn, Dec. 29, 95. Ph.B, Yale, 16, A.M, 18, Ph.D, 20. Instr. *org. chem, Yale,* 18–24, asst. prof, 24–39; manager lab. research, *Gen. Chem. Co,* 39–41, *tech. director, 41–* Lieut, Sanit.C, 17, instr, army lab, Rockefeller Inst, 18. A.A; Chem. Soc. (chairman, New Haven sect, 31); fel. Inst. Chem. Alkylation of amines; pseudothioureas; ester condensations; synthetic drugs and resins; essential oils; pyrimidines; sesquiterpenes; industrial chemicals.

Donley, Dr. Hugh L(ancelot), 3 Harris Road, Princeton, N. J. *Physics.* Seneca Falls, N. Y, Aug. 9, 07. B.S, Hobart Col, 30; M.S, Brown, 32, fellow, 34, Ph.D, 35. Asst. physics, Brown, 30–33; *research engineer,* RCA Mfg. Co, Inc, Camden, 35–42, *RCA Labs, 42–* Radio Eng; Physical Soc. Communications.

Donnay, Prof. J(oseph) D(ésiré) H(ubert), University of Laval, Quebec, Que, Can. *Mineralogy.* Grandville, Belgium, June 6, 02. E.M, Liége, 25; Cmn. Relief Belgium Educ. Foundation fellow, 25–26, 27–28; Ph.D, Stanford, 29. Engineer and geologist, Syndicat des Pétroles au Maroc, French Morocco, 29–30; teaching fellow miner. and research assoc. geol, Stanford, 30–31; assoc. miner, Hopkins, 31–39; *prof. crystallography and miner, Laval, 39–* Summer, instr, Stanford, 28, research assoc, 34; Harvard, 37. Fel. Geol. Soc; Miner. Soc; Miner. Soc. Gt. Britain and Ireland; Soc. géol. de France; Soc. française de Minér; Soc. géol. de Belg; Asn. des Ingénieurs de Liége; cor. mem. Soc. royale des sciences de Liége; Norsk. Geol. For. Crystallography, especially the relationships between crystal morphology and crystal structure.

Donnel, C(harles) A, 6140 Kimbark Ave, Chicago, Ill. *Meteorology.* Olean, N. Y, March 7, 81. High sch. Asst, U. S. Weather Bur, 02–20, *Chicago, Ill,* 20–22, asst. dist. forecaster for N. Cent. States, 22–30, prin. meteorologist and dist. forecaster in charge, 30–42; *retired.* A.A; Meteorol. Soc; assoc. fel. Inst. Aeronaut. Sci; Ill. Acad; Chicago Acad. Weather forecasting.

Donnell, Prof. L(loyd) H(amilton), Illinois Institute of Technology, Chicago, Ill. *Mechanics.* Kents Hill, Maine, May 20, 95. B.S, Michigan, 15, Ph.D, 30. Engineer, Franklin, Packard and Dodge automobile companies, 15–23; instr. eng. mech, Michigan, 23–28, asst. prof, 28–30; Guggenheim Mem. Foundation fellow aeronaut, Calif. Inst. Tech, 30–33; in charge stress analysis and structure research, Goodyear Zeppelin Corp, 33–39; assoc. prof. *mech. eng, Ill. Inst. Tech,* 39–41, *prof, 41–* Eng. Educ; Mech. Eng; Inst. Aeronaut. Sci. Dynamics; elasticity and plasticity; stability problems; wave transmission; airship structures.

Donnell, Dean Philip S(tone), Hillcrest Road, Stillwater, Okla. *Electrical engineering.* Minneapolis, Minn, Dec. 16, 89. A.B, Clark, 10; M.E.E, Harvard, 15. U. S. Coast and Geod. Surv, 10–13, 15; transmission design engineer, West. Elec. Co, 15–17; instr, Carnegie Inst. Tech, 19–23; assoc. prof. and prof. elec. eng, New Mexico, 23–29, *dean* col. eng, 27–29; *div. eng, Okla. Agr. and Mech. Col, 29–; col, Inf, U. S. Army, 41–* Lieut. col, U.S.A, 17–19. Elec. Eng; Eng. Educ. Educational administration.

Donnell, Prof. Ralph T(insley), W. Spring St, Lebanon, Tenn. *Mathematics.* Shop Spring, Tenn, Oct. 6, 00. A.B, Cumberland, 26, LL.B, 27; Tennessee, 28–29; A.M, Vanderbilt, 37. Instr, high sch, Tenn, 27–29; *prof. math, Cumberland, 29–* Fellow, Vanderbilt, 36–37. Sterile mathematics; educational blackboard.

Donnellon, Prof. James A, Villanova College, Villanova, Pa. *Physiology.* Niagara Falls, N. Y, Sept. 10, 06. A.B, Villanova Col, 29; M.S, Pennsylvania, 36, Ph.D, 39. *Asst. prof. biol, Villanova Col, 34–* A.A; Physiol. Soc. Blood clotting in invertebrates.

Donnelly, Dr. Maurice, U. S. Department of Agriculture, Riverside, Calif. *Geology.* Patton, Pa, Oct. 22, 03. E.M, Colo. Sch. Mines, 29; M.S, Calif. Inst. Tech, 33, Ph.D, 35. Engineer, U. S. Fuel Co, Hiawatha, Utah, 29–30; teaching fellow, Calif. Inst. Tech, 30–34, acting prof. optical miner, 34–35; junior soil conservationist and asst. soil conservationist, *soil conservation service, U. S. Dept. Agr,* 35–36, assoc. soil conservationist, 36–37, *soil conservationist, 37–* Soc. Hort. Sci; Agr. Eng; Ecol. Soc; Geol. Soc. Wash. Transportation of debris by running water; man as a geologic agent; land sculpture.

Donner, Prof. Henry F(rederick), 3094 E. Overlook Road, Cleveland Heights, Ohio. *Geology.* Wilson, N. Y, Sept. 1, 02. B.S, Michigan, 25, M.S, 27, Sc.D, 36. Testing dept, Gen. Elec. Co, 25–26; astronomer, Lamont-Hussey Observatory, Michigan, Bloemfontein, S. Africa, 27–33; instr. *geol, Western Reserve,* 36–38, *asst. prof, 38–* Summer, U. S. Geol. Surv, Colo, 36. New double star discoveries; geology of Thaba N'Chu Mountain, South Africa; geology of McCoy area, Colorado.

Donoghue, David (Patrick), Ft. Worth National Bank Bldg, Ft. Worth, Texas. *Geology.* San Antonio, Texas, Jan. 19, 91. B.S, St. Mary's, 09; Texas, 09–12. Geologist, Gulf Production Co, 14–21; consulting geologist, 21–24; asst. to v. pres, Marland Oil Co. of Texas, 24–25; director, Texas Pacific Coal and Oil Co, 25–29; *consulting geologist, 29–* Pres, Fed. Royalties Co, Inc, 33– Tech. adviser, Cent. Proration Cmt. of Texas, 30–31. A.A; Asn. Petrol. Geol. (sec'y-treas, 27, 2nd v. pres, 28); Min. and Metal. Eng; Texas Hist. Soc; London Inst. Petrol. Technol. Geology and history of Texas.

Donohoe, Dr. Heber C(lark), P. O. Box 1, Trenton, N. J. *Entomology.* Hampton, Iowa, Feb. 15, 05. B.S, Mont. State Col, 27; fellow, State Col. Wash, 27–28, M.S, 28; Illinois, 28–29; Ph.D, Minnesota, 38. Asst, Illinois, 28–29; instr, sch. agr, Minnesota, 29–31; asst. entomologist, dried fruit insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–38, *assoc. entomologist in charge Japanese beetle treatment tests, div. control investigations, 38–* Asn. Econ. Entom; Entom. Soc. Wash. Development of materials and methods for treatment of commodities to comply with Japanese beetle quarantine regulations; methyl bromide fumigation; methyl bromide solutions; development of fumigation equipment.

Donovan, Dr. J(ohn) E(dward), Civil Service Commission, Washington, D. C. *Physical chemistry.* Haverhill, Mass, June 29, 04. B.S, New Hampshire, 26; M.S, N. Y. Univ, 27, Ph.D, 30. Teaching fellow, N. Y. Univ, 26–30; asst. research chemist, Am. Potash and Chem. Corp, 30–32; prof. chem, St. Benedict's Col, 32–34; instr, Bergen Junior Col, N. J, 34–35; *tech. examiner, Civil Service Cmn, 35–* A.A; Chem. Soc. Rare earths; phase rule.

Donovan, Dr. Paul B(laine), Rees-Stealy Clinic, 2001 Fourth Ave, San Diego, Calif. *Physiological chemistry.* Terre Haute, Ind, May 8, 92. A.B, Ind. State Teachers Col, Terre Haute, 23; M.S, Chicago, 26, fellow, 31–33, Ph.D, 33. Teacher, pub. schs, Ind, 11–25; instr, Ill. State Nor. Univ, 26–27; head dept. science, N. Dak. State Teachers Col, Mayville, 27–31; asst, Chicago, 31–33, asst. and research fellow physiol. chem, 33–36, fellow biochem, dept. surg, 36–38; *director research, Rees-Stealy Med. Research Fund, Ltd, 38–* Allergy; acid-base balance of blood; experimental anemias; vitamin B.

Doob, Dr. J(oseph) L(eo), University of Illinois, Urbana, Ill. ***Mathematics.* Cincinnati, Ohio, Feb. 27, 10. A.B, Harvard, 30, A.M, 31, Ph.D, 32. Nat. research fellow math, Columbia, 32–34, *assoc.* theoret. statist, 34–35; *math, Illinois, 35–* Math. Soc. Probability and statistics.

Doob, Dr. Leonard W, 2711 S. Inge St, Arlington, Va. *Social psychology.* New York, N. Y, March 3, 09. A.B, Dartmouth Col, 29; A.M, Duke, 30; Frankfurt, 30–32; Ph.D, Harvard, 34. Instr. sociol, Dartmouth Col, 32–33; *asst. prof. psychol, Yale, 34–; chief anal. sect, Office Coordinator Inter-Am. Affairs, 40–* Investigator, Nye Munitions Cmt, 34. Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues (councilor, 37–42). Propaganda; public opinion; planning; attitudes; personality.

Doole, Prof. H(oward) P(ollock), University of Nebraska, Lincoln, Nebr. *Mathematics.* Horton, Kans, 98. A.B, Park Col, 20; A.M, Missouri, 22; Ph.D, Nebraska, 29. Asst.

physics, Missouri, 20–22; instr. *math*, Iowa State Col, 22–24; Wisconsin, 24–26; *Nebraska*, 26–37, *asst. prof, 37–* Math. Soc. Expansion problems in differential equations; integration of certain step functions.

Dooley, Prof. Donald, Hiram College, Hiram, Ohio. *Physics.* Plymouth, Pa. B.S, Bethany Col, 19; M.S, Chicago, 25; Ph.D, Ohio State, 40. Sch. supt, Ohio, 20–24; instr. *physics*, Chicago, 26–27; *prof, Hiram Col, 27–* Physical Soc. Infra-red spectroscopy.

Dooley, Prof. Glenn, Agricultural and Mechanical College of Texas, College Station, Texas. *Chemistry.* South Haven, Kans, May 18, 05. B.S, Southwest Mo. State Teachers Col, 28; M.S, Iowa, 32, Ph.D, 35. Research assoc, Iowa, 35–36; prof. *chem*, Huron Col, 36–37; instr, *Agr. and Mech. Col. Texas*, 37–40, *asst. prof, 40–* Chem. Soc. Crystal structure analysis by x-rays; optical crystal analysis by polarized light; organic reagents in analytical chemistry.

Dooley, Dr. Lucile, 2440 16th St, N. W, Washington, D. C. *Psychiatry.* Stanford, Ky, Aug. 12, 84. A.B, Randolph-Macon Woman's Col, 05; A.M, Tennessee, 15; Ph.D, Clark, 16; M.D, Hopkins, 22. Asst. clin. psychiatrist, St. Elizabeths Hosp, 16–24, med. officer, 24–25; *physician psychiatrist, 25–; teacher, Washington-Baltimore Psychoanal. Inst.* Psychiat. Asn; Psychol. Asn; Psychoanal. Asn; Am. Med. Asn; Woman's Med. Soc; Wash-Baltimore Psychoanal. Asn. (sec'y, 24, pres, 33–35, 38); Woman's Med. Soc. D. C. (v. pres, 33–36); Am. Med. Asn. Vienna. Psychoanalysis; abnormal psychology; genius; manic-depressive psychosis; involutional psychoses; psychoanalysis of humor; concept of time.

Dooley, Prof. M(arion) S(ylvester), 309 S. McBride St, Syracuse, N. Y. *Pharmacology.* Cedar Grove, Mo, Dec. 21, 79. A.B, Missouri, 07; Michigan, 09; Harvard, 12; M.D, Syracuse, 14. Asst. physiol, Missouri, 06–07; instr. physiol. and pharmacol, *col. med, Syracuse*, 07–10, asst. prof, 10–11, assoc. prof, 11–17, *prof. pharmacol, 17–* Consultant, Hosp. Bur. Standards and Supplies, Inc. Revision cmt, U. S. Pharmacopoeia, 30–40. Ed, 'Interns' Handbook.' Soc. Pharmacol; Soc. Exp. Biol; assoc. fel. Am. Med. Asn; fel. Int. Col. Anesthetists; Int. Anesthesia Research Soc. Physiology of respiratory reflexes; reflex effects of anesthetics on the kidney, of epinephrine upon the eye, kidney and spleen, of phenobarbital on lower segments of the brain and of drugs on motility and emptying of the stomach; digitalis bio-assay methods.

Dooley, Sister M(ary) Denise, College of Notre Dame of Maryland, Baltimore, Md. *Chemistry.* Boston, Mass, April 24, 91. A.B, Fordham, 21, A.M, 22; Ph.D, Hopkins, 34. *Prof. chem, Col. of Notre Dame (Md), 21–*, dean, 31–41. Chem. Soc. Organic physical chemistry; free radicals.

Dooley, Dr. Thomas P(rice), Prairie View College, Prairie View, Texas. *Genetics, Cytology.* Elberton, Ga, Oct. 12, 04. A.B, Morehouse Col, 27; M.S, Iowa, 31; Ph.D, Iowa, 39. *Prof. biol*, Ark. State Col, 29–31; *Prairie View Col, 34–* A.A; Micros. Soc; Genetic Asn. Inheritance of two mutant factors in the Drosophila melanogaster; influence of colchicine on the germ cells of insects, with special reference to the mitochondria and dictyosomes.

Doolittle, A(rthur) K(ing), Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Chemistry.* Oberlin, Ohio, Nov. 15, 96. A.B, Columbia, 19, B.S, 20, Class of 85 fellow, 21–23, Chem.E, 23. Research engineer, Dorr Co, 23–25; plant engineer, Sherwin-Williams Co, Chicago, 25–29, chief lacquer div, Newark, 29–31; develop. engineer, Bowen Research Corp, New York, 31; director lacquer research, Bradley and Vrooman Co, Chicago, 31–32; *protective coatings research, Carbide and Carbon Chem. Corp, 32–* A.S, U.S.A, 18–19. Chem. Soc; Chem. Eng; Soc. Test. Mat. Solvents; plasticizers; resins; spray drying.

Doolittle, Prof. Dortha B(ailey) (Mrs. Arthur K. Doolittle), 11 W. Eighth Ave, South Charleston, W. Va. *Chemistry.* Oberlin, Ohio, April 16, 96. A.B, Oberlin Col, 18; Michigan, 18; M.S, Illinois, 20; Ellen Richards fellow, Mass. Inst. Tech, 21–22. Instr. *chem*, Oberlin Col, 18–19; Illinois, 19–21; prof, Oxford Col. Women, 22–23; asst, Yale, 23; instr, Barnard Col, Columbia, 24–25, 28–29; prof, Kanawha Col, 32–39; *assoc. prof, Morris Harvey Col, 39–* Summers, instr, Oberlin Col, 20. Chem. Soc; W. Va. Acad. Antidimmers for gas masks; midriatic compounds; energy output of women in walking experiments.

Doolittle, Dr. H(oward) D(aniel), 26 Concord Ave, Cambridge, Mass. *Physics.* Willimantic, Conn, Feb. 18, 10. B.S, Trinity Col. (Conn), 31; Ph.D, Chicago, 36. Instr. *physics, Trinity Col. (Conn)*, 31–32, 35–40, *asst. prof, 40–* Nuclear physics; magnetic effects in iron; electronics.

Doolittle, Dr. S(ears) P(olydore), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Beaver Dam, Wis, March 21, 90. B.S, Mich. State Col, 14, M.S, 15; Ph.D, Wisconsin, 18. Sci. asst, *bur. plant indust, U. S. Dept. Agr*, 18–19, asst. pathologist, 19–21, assoc. pathologist, 21–24, pathologist, 24–28, *senior pathologist, 28–* A.A; Phytopath. Soc; Wis. Acad; Bot. Soc. Wash. Diseases of tomato, cucumber, lettuce and celery, especially virus diseases.

Doran, Prof. E(dwin) B(eale), University Station, Baton Rouge, La. *Agricultural engineering.* Loudon, Tenn, Oct. 11, 85. M.S, Illinois. From instr. to assoc. prof. *agr. eng, Louisiana*, 11–19, *prof, 19–* Agr. Eng. (chairman, south. sect, 20; sec'y southwest sect, 40, v. pres, 41).

Doran, Prof. William L(eonard), 148 Lincoln Ave, Amherst, Mass. *Botany.* Dartmouth, Mass, July 28, 93. B.S, Mass. Col, 15, M.S, 17. Instr. bot, New Hampshire, 16–17, asst. prof, 19–23, asst. botanist, Exp. Sta, 16–23; sci. asst, bur. plant indust, U. S. Dept. Agr, 17–19; *research prof. bot, Exp. Sta, Mass. State Col, 23–* A.A. Plant pathology and propagation; fungicides.

Dorcas, Dr. M(errill) J(ames), 159 Stanford Drive, Berea, Ohio. *Chemistry.* Alburnett, Iowa. A.B, Baker, 19; A.M, Harvard, 21, Ph.D, 32. Chemist, Bermuda Biol. Sta, 23–25; research lab, *Nat. Carbon Co*, 25–28, physicist, sales dept, 28–31, *manager specialty dept, carbon sales div, 35–* Research assoc, Bur. Standards, 26. A.A; Chem. Soc; Illum. Eng. Soc; Inst. Chem; Dairy Sci. Asn; Asn. Textile Chem. and Colorists; Int. Asn. Milk Sanitarians. Atomic weights; catalytic gas reactions; general physiology; physiological effects of ultraviolet sources; corrosion resistant materials of construction.

Dorchester, Prof. C(harles) S, Iowa State College, Ames, Iowa. *Agronomy.* State Center, Iowa, Sept. 8, 89. B.S, Iowa State Col, 13, Ph.D, 35; M.S, Minnesota, 23. Asst. farm crops exten, *Iowa State Col*, 13–16, asst. prof. *farm crops*, 17–35, *assoc. prof, 35–* Soc. Agron. Farm crops; effect of atmospheric electricity on crop plants; determination of grade in grain.

Dorcus, Dr. Mildred Day (Mrs. Roy M(elvin) Dorcus), 1508 Midvale Ave, Los Angeles, Calif. *Psychology.* Baltimore, Md, Feb. 12, 01. A.B, Goucher Col, 20; A.M, Hopkins, 22, Ph.D, 23. Asst. prof. psychol, Hollins Col, 23–25; research asst, child inst, Hopkins, 25–26; instr, Goucher Col, 27–30, asst. prof, 30–36; prof, Mt. Vernon Sem, 36–37; Holmby Col, 38–39. Psychol. Asn; Soc. Research Child Develop; S. Soc. Philos. and Psychol. Mental activity and vascular processes; perception in children; animal learning.

Dorcus, Prof. Roy M(elvin), University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Woodboro, Md, Feb. 9, 01. A.B, Hopkins, 22, A.M, 24, Ph.D, 25. Instr. *psychol*, Hopkins, 25–27, assoc, 27–37; asst. prof. and *assoc. prof, California at Los Angeles, 37–* Summer, U. S. Bur. Mines, Pittsburgh, 27. Managing ed, 'Jour. Comp. Psychol'; ed, 'Comp. Psychol. Monographs.' Psychol. Asn; Soc. Abnormal and Gen. Psychol; Eugenics Soc; S. Soc. Philos. and Psychol. (councilor, 31, pres, 34). Abnormal psychology; personality traits; mental traits of athletes; vestibular investigation; tobacco effects; animal behavior.

Dore, Rev. Francis J(ames), S.J, Boston College, Chestnut Hill, Mass. *Biology.* Boston, Mass, March 7, 76. A.B, Boston Col, 98; M.D, Harvard, 02; A.M, Woodstock Col. (Md), 15; Ph.D, Fordham, 17. Regent, med. sch, Fordham, 18, dean sch. social service, 19; *head dept. biol, Boston Col, 25–* A.A; Genetics Soc; assoc. fel. Am. Med. Asn; hon. fel. Mass. Med. Asn.

Dore, Walter H(arrington), 2447 Russell St, Berkeley, Calif. *Chemistry.* San Francisco, Calif, March 24, 82. B.S, California, 07. Asst. chemist, Standard Oil Co, 05; chemist, San Francisco Chem. Co, 07–08; Leona Chem. Co, 09–11; asst. chemist, State Fertilizer Control, Calif, 12–20; instr. agr. chem, *California*, 20–21, asst. prof, 21–25, assoc. chemist, *Exp. Sta*, 25–30, *chemist, 30–* A.A; Chem. Soc. Plant nutrition; carbohydrate chemistry; x-ray crystal structure.

Dorety, Sister Helen Angela, College of Saint Elizabeth, Convent Station, N. J. *Botany.* Kaolin, S. C, May 4, 70. A.B, Col. of St. Elizabeth, 03; A.M, Chicago, 07, fellow, 08–

09, Ph.D, 09. *Prof. bot. and head dept, Col. of St. Elizabeth, 09–* A.A; Bot. Soc. Plant physiology; physiographic plant ecology.

Dorf, Prof. Erling, Princeton University, Princeton, N. J. *Geology, Paleobotany.* Nysted, Nebr, July 19, 05. B.S, Chicago, 25, Ph.D, 30. Asst. instr, Chicago, 25–26; instr. *geol, Princeton,* 26–30, asst. prof, 30–40, *assoc. prof, 40–, curator paleobot, 36–* Lecturer, Pennsylvania, 40– Summers, research asst, Carnegie Institution, 26–31, 35– A.A; Bot. Soc; Paleont. Soc; Geol. Soc. Mesozoic and Cenozoic stratigraphy and paleobotany of western North America.

Dorfman, Dr. Albert, University of Chicago, Chicago, Ill. *Biochemistry.* Chicago, Ill, July 6, 16. B.S, Chicago, 36, Ph.D, 39. Asst. *biochem, Chicago,* 37–40, *research assoc, 40–* Chem. Soc; Soc. Exp. Biol. Bacterial nutrition; bacterial metabolism; sulfonamide compounds; respiratory enzymes.

Dorfman, Dr. Maurice E(dward), Agfa Ansco Corp, Binghamton, N. Y. *Chemistry.* Portland, Oregon, Dec. 6, 03. A.B, Reed Col, 25; A.M, California, 26; Russell scholar, Harvard, 31–32, Thayer fellow, 32–33; Heidelberg, 32; Ph.D, Vienna, 35. Chemist, South. Calif. Gas Co, 26–30; asst, Harvard, 30–31, 35–36; *chemist, Agfa Ansco Corp, 36–* Chem. Soc. (councilor, Binghamton sect, 41); fel. Inst. Chem. Solubility; electron affinity; organic free radicals; organic boron compounds; electrochemistry; photochemistry; photography.

Dorfman, Prof. Ralph I(sadore), Western Reserve University, Cleveland, Ohio. *Biochemistry.* Chicago, Ill, June 30, 11. B.S, Illinois, 32; Ph.D, Chicago, 34. Asst. physiol. chem, Chicago, 33–35; instr. pharmacol, sch. med, Louisiana, 35–36; physiol. chem, Yale, 36–39, *asst. prof,* 39–41; *biochem, Western Reserve, and chemist, Brush Foundation, 41–* Sub-chairman cmt. standardization of androgens, U. S. Pharmacopoeia. A.A; Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Asn. Cancer Research; Asn. Study Int. Secretions (chairman cmt. standardization of androgens). Allergens; nutrition; metabolism of the steroid hormones; endocrinology; cancer.

Dorland, Dr. W(illiam) A(lexander) Newman, 1236 N. Dearborn Parkway, Chicago, Ill. *Medicine.* Hilton Head, S. C. A.B, Cent. High Sch. Phila, 82, A.M, 90; M.D, Pennsylvania, 86. Assoc. prof. gynec, Phila. Polyclinic, 92–10; *prof.* obstet. and gynec, Loyola Col, 10–14; gynec, Valparaiso, 14–19; Post-Grad. Med. Col, Chicago, Ill, 13–33; Post-Grad. Hosp. and Med. Sch, 33–39. Am. Board Obstet. and Gynec. Lieut, M.R.C, 97–03, capt, 17, major, 18, lieut. col, 24. Fel. Am. Med. Asn; fel. Am. Acad. Med. (past v. pres); Col. Surg; Cent. Asn. Obstet. and Gynec; fel. Col. Physicians Phila; Chicago Gynec. Soc. (pres, 26). Surgery; hydatidiform mole; chorioepithelioma; placental transmission; age of mental virility; action of x-rays on living tissue; sum of feminine achievement; x-ray in embryology and obstetrics.

Dorman, Prof. C(larence) (Robert), Mississippi State College, State College, Miss. *Soils.* Carthage, Miss, May 23, 02. B.S, Miss. State Col, 26; M.S, West Virginia, 29; Ph.D, Mich. State. Col, 32. Asst, West Virginia, 27–29; instr, Mich. State Col, 29–34; prof. soils, *Miss. State Col,* 34–37, agronomist and asst. director, *Exp. Sta,* 37–38, *director, 38–, coordinator agr. educ, 41–* Soc. Agron. Base exchange; phosphorus requirements and fixation; land utilization.

Dorman, Dr. Henry P(ickett), 6718 N. Talman Ave, Chicago, Ill. *Medicine.* Moultrie, Ga, Sept. 22, 98. B.S, Georgia, 22; fellow, Cold Spring Harbor, 23; M.S, Illinois, 24, Ph.D, 27, M.D, 32. Asst. zool, Illinois, 22–26; research fellow, Mayo Foundation, Minnesota, 26–27; intern, Univ. Hosp, Chicago, 31–32; *practising physician, 32–; instr. med, Illinois, 32–* Asst, Scripps Inst, California, 25, 26. Am. Med. Asn. Animal parasitology; distribution of marine Protozoa; phylogenesis of the liver; origin of pathologic blood cells.

Dorman, Dr. S(tephen) C(harles), Shell Oil Co, Wood River, Ill. *Chemistry.* San Bernardino, Calif, May 19, 10. B.S, Calif. Inst. Tech, 31; Ph.D, California, 37. Lab. asst, citrus exp. sta, California, 31–33; *senior research chemist, Shell Oil Co, 37–* Asn. Econ. Entom; Chem. Soc. Insecticides; blowfly repellents.

Dorn, Dr. Harold F(red), 15 Burning Tree Court, Bethesda, Md. *Statistics.* Tompkins Co, N. Y, July 30, 06. B.S, Cornell, 29, M.S, 30; Miami (Ohio), 31–32; Ph.D, Wisconsin, 33. Social Sci. Research Council fellow, London, 33–34; *statistician,* Nat Resources Planning Board, 36; *U. S. Pub. Health Service, 36–* A.A; Statist. Asn; Inst. Math. Statist; Popul. Asn; Sociol. Soc. Vital statistics; public health; demography.

Dorn, Dr. Herman William, 4113 Thornton Ave, Toledo, Ohio. *Organic chemistry, Biological chemistry.* New York, N. Y, Sept. 14, 11. A.B, Clark, 35, scholar, 35–36, A.M, 36, fellow, 36–38, Ph.D, 38. Instr. chem. and physics, schs, Mass, 38–39; research chemist and chem. production supervisor, Amino Products Co, 39–42; *senior research chemist, Int. Minerals and Chem. Corp, 42–* War research, Iowa, 43. Chem. Warfare Service, U.S.A, 39– A.A; Chem. Soc. (v. chairman, Toledo sect, 42–); Soc. Metals; fel. Inst. Chem. Halogenation, nitration and sulfonation of di- and trihydroxy benzenes and proof of structures by synthesis; isolation, purification and reactions of cardiac glycosides, cinchona alkaloids and dimethylxanthines; protein and amino acid purification, isolation and derivatives.

Dorn, Prof. John Emil, 287 Lake Drive, Berkeley, Calif. *Metallurgy.* Chicago, Ill, April 10, 09. B.S, Northwestern, 31, M.S, 32; Ph.D, Minnesota, 36. Research assoc, Battelle Mem. Inst, 36–38; *asst. prof. mech. eng, California, 38–* Research metallurgist, Dow Chem. Co, 41. Chem. Soc; Soc. Metals. Structure of metals; diffusion in metals; mechanism of phase changes; properties of magnesium alloys; x-ray radiography.

Dorner, Prof. H(erman) B(ernard), University of Illinois, Urbana, Ill. *Horticulture.* Lafayette, Ind, April 10, 78. B.S, Purdue, 00, M.S, 01. Asst. bot, Ind. Exp. Sta, 01–02; Wabash Col, 06–08; *floricul, Illinois,* 08–11, asst. prof. and asst. chief, 11–18, *prof. and chief, 18–* A.A. Scientific and commercial floriculture; window gardening.

Dornfeld, Dr. Ernst J(ohn), Oregon State College, Corvallis, Oregon. *Zoology.* Milwaukee, Wis, April 6, 11. B.S, Marquette, 33; A.M, Wisconsin, 35, Ph.D, 37. Asst. zool, Wisconsin, 35–37; instr. histol. and embryol, sch. med, Oklahoma, 37–38; *zool, Oregon State Col,* 38–42, *asst. prof, 42–* Summer, lecturer, Wisconsin, 40. A.A; Soc. Zool; Wis. Acad. Cytology of the ovary; general and experimental cytology; histology.

Dornte, Dr. Ralph W(illiam), Standard Oil Development Co, P. O. Box 243, Elizabeth, N. J. *Physical chemistry.* Fort Wayne, Ind, Nov. 27, 05. B.S, Purdue, 27; M.S, Cornell, 29; fellow, Princeton, 29–31, Ph.D, 31. Asst. chem, Purdue, 27–28; Cornell, 28–29; nat. research fellow chem, California, 31–33; research chemist, Gen. Elec. Co, 33–42; *chemist, Esso Labs, Standard Oil Develop. Co, 42–* Chem. Soc. Electric moments and molecular structure; electron diffraction in gases; kinetics of oxidation hydrocarbons; electrical conductance in dielectrics.

Dorough, Dr. George L(owrance), 4842 Lewiston Road, Niagara Falls, N. Y. *Organic chemistry.* Quitman, Ga, June 16, 04. B.S, Emory, 25, M.S, 26; Ph.D, Hopkins, 29. Research chemist, Exp. Sta, *E. I. du Pont de Nemours and Co,* 28–41, *Roessler and Hasslacher chem. dept, 41–* A.A; Chem. Soc. High polymers; synthetic resins; plastics.

Dorr, Prof. Henry, Jr, University of Tennessee, Knoxville, Tenn. *Forest economics.* Chicago, Ill, July 2, 94. B.S, Mich. State Col, 18; M.F, Michigan, 31. Instr. forestry, Purdue, 30–32, asst. gen. manager, Alexander Warehouse and Sales Co, 32–35; Resettlement Admin, Ind, 35–37; *asst. prof. forestry, Tennessee, 37–* Soc. Foresters. Economic basis of farm forestry.

Dorr, Dr. John V(an) N(ostrand), 570 Lexington Ave, New York, N. Y. *Metallurgy, Chemistry.* Newark, N. J, Jan. 6, 72. B.S, Rutgers, 94, hon. M.E, 14, Sc.D, 27; hon. D.Eng, S. Dak. Sch. Mines, 40, Mich. Col. Mines, 40. Edison's lab, 88–90; indust. research, 94–95; indust. chemist, 95–01; managing partner, Lundberg, Dorr and Wilson, 01–13; *consulting metallurgist, 01–; pres,* Dorr Cyanide Machinery Co, 10–15; *Dorr Co, Inc, 16–* Brackett lecturer, Princeton. Trustee, Rutgers; Eng. Foundation. Mem. advisory cmt. metals and minerals, Nat. Research Council; mem. nat. advisory council to cmt. on patents, U. S. House of Representatives; chairman board, Petree and Dorr, Inc. John Scott medal, Franklin Inst, 16; Douglas medal, Inst. Min. and Metal. Eng, 30. Nat. Acad; Min. and Metal. Soc; Min. and Metal. Eng; Chem. Eng. (pres, 32); Chem. Soc; Can. Inst. Min. and Metal; London Inst. Min. and Metal; S. Africa Chem, Metal. and Min. Soc. Metallurgical, chemical, industrial and sanitary engineering; sedimentation; cyanidation and concentration of gold and silver ores; cyanidation and concentration of gold and silver ores.

Dorr, John Van N(ostrand), 2nd, U. S. Geological Survey, Washington, D. C. *Geology.* New York, N. Y, May 16, 10. B.S, Harvard, 32; Geol.E, Colo. Sch. Mines, 37. Geologist, Superior Oil Co, Calif, 37–38; junior geologist, *U. S. Geol. Surv,* 38–41, *asst. geologist, 41–* Asn. Petrol. Geol; Geol. Soc. Wash. Economic geology.

Dorris, Prof. Thomas B(asil), Manhattan College, Bronx, N. Y. *Chemistry.* Cape Vincent, N. Y, Aug. 17, 06. B.S, Notre Dame, M.S, 34, Ph.D, 36; M.C.E, N. Y. Univ, 42. Asst. *chem,* Notre Dame, 33–36; instr, sch. nursing, St. Joseph Hosp, South Bend, Ind, 34–36; *asst. prof, Munhattan Col, 36–* Lecturer, Eng. Defense Training Inst, New York, N. Y, 40– Chem. Soc. Catalytic condensations with boron trifluoride; potentiometric methods in sanitary measurements; organic chemistry; sanitary engineering.

Dorroh, Dr. J(oe) L(ee), Louisiana State University, Baton Rouge, La. *Mathematics.* Rosebud, Texas, Sept. 22, 04. A.B, Texas, 26, A.M, 27, Ph.D, 30. Instr. math, Texas, 26–30; nat. research fellow, Calif. Inst. Tech, 30–31; Princeton, 31–32, asst, 32–33; instr, Hopkins, 33–35, scholar biostatist, sch. hygiene, 35–36; assoc. prof. *math,* Judson Col, 36–38; prof, Ouachita Col, 38–42; *asst. prof, Louisiana, 42–* Math. Soc; Math. Asn. Point-set theory; foundations of geometry; abstract algebras.

Dorroh, Prof. J(ohn) H(azard), University of New Mexico, Albuquerque, N. Mex. *Civil engineering.* Madison, Miss, April 29, 78. B.E, Vanderbilt, 03, C.E, 13. *Practising engineer, 03–;* prof. civil eng, Mississippi, 10–30, dean sch. eng, 15–30; *prof. civil eng. and head dept, New Mexico, 30–* Chairman, New Mex. Board Registration Engineers; v. pres. and director, Nat. Council State Boards Eng. Examiners. Civil Eng.

Dorsey, Dr. C(arl) K(ester), Box 639, Gulfport, Miss. *Insect morphology.* Fulton, Mo, Sept. 20, 11. A.B, Westminster Col. (Mo), 33; M.S, Illinois, 36; Ph.D, Maryland, 41. Asst. entomologist, State Dept. Agr, Mo, 37–38; agent in charge white fringed beetle larval survs, bur. entom. and plant quarantine, U. S. Dept. Agr, 38–39; asst. entom, Maryland, 39–41; *agent ecol. studies, bur. entom. and plant quarantine, U. S. Dept. Agr, 41–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. Insect anatomy.

Dorsey, Dr. Geo(rge) E(dwin), 1432 John St, Baltimore, Md. *Geology.* Baltimore, Md, July 13, 92. A.B, Hopkins, 14, fellow, 17–18, Ph.D, 18. Geol. aid, U. S. Geol. Surv, 16–18; chief subsurface geol, Carter Oil Co, 18–20, consulting geologist, 20–26; chief geologist, Magnolia Petrol. Co, Texas, 26–34; in charge for. producing operations and chief geologist, Socony-Vacuum Oil Co, 34–37; *consulting and appraisal petrol. geologist, 37–* Asst. geologist, Md. Geol. Surv, 15–18. Asn. Petrol. Geol; Geol. Soc. Structural geology; color of Red Beds; carbon-ratio theory; stratigraphy and structure of the Newark system; preservation of oil during erosion of reservoir rocks.

Dorsey, Prof. Henry, University of Connecticut, Storrs, Conn. *Agronomy.* Mt. Nebo, W. Va, May 14, 82. B.S. (Agr), West Virginia, 14, M.S, 16; Ph.D, Iowa State Col, 26; Cambridge. Asst, asst. agronomist and assoc. prof. agron, West Virginia, 14–18; exten. agronomist, Conn. Agr. Col, 18–20, asst. prof. *agron,* 20–22, assoc. prof, 22–24, *prof,* 24–33, *Connecticut, 33–* A.A; Soc. Agron; Int. Soc. Soil Sci. Soils; soil acidity; crop production.

Dorsey, Dr. Herbert Grove, U. S. Coast and Geodetic Survey, Washington, D. C. *Physics, Engineering.* Kirkersville, Ohio, April 24, 76. B.S, Denison, 97, M.S, 98, hon. Sc.D, 37; Hopkins, 97; Harvard, 00–01; Ph.D, Cornell, 08. Instr. physics, Maine, 98–00; asst. prof, Florida, 01–03; instr, Mech. Inst, Rochester, 03–04; asst, Cornell, 04–05, instr, 05–10; engineer, research branch, West. Elec. Co, 10–12; elec. engineer, Nat. Cash Register Co, 12–16; physicist, Hammond Radio Research Lab, 16–22; research engineer, Submarine Sig. Corps, 22–26; senior elec. engineer, *U. S. Coast and Geod. Surv,* 26–28, prin. elec. engineer, 28–41, *chief research sect, 41–* First annual award, Philos. Soc. Washington, 41. A.A; Physical Soc; Elec. Eng; Radio Eng; Optical Soc; Acoustical Soc; Asn. Physics Teachers; Geophys. Union; Wash. Soc. Eng; Philos. Soc. Wash; Wash. Acad. (v. pres, 42). Coefficients of expansion at low temperatures; telephone repeaters; phonelescope; dynamic speaker for radio receivers; radio acoustic ranging; sub-aqueous acoustics; the Dorsey fathometer and chronograph; criftig; precision time for ships.

30

Dorsey, Herbert G(rove), Jr, U. S. Weather Bureau, Washington, D. C. *Meteorology.* East Orange, N. J, Sept. 15, 12. B.S, Harvard, 38; Mass. Inst. Tech, 37–39. Observer, Mt. Washington Observatory, 36–37; asst. meteorologist, Blue Hill Observatory, Harvard, 37–38; asst. meteorologist, Am. Export Airlines, 39; junior meteorologist, U. S. Antarctic exped, 39–41; *asst. meteorologist, U. S. Weather Bur, 41–* Meteorol. Soc. Fine grain developers; use of Mt. Washington observations in forecasting heavy winter precipitation at Blue Hill; forecasting for exploratory flights in Antarctica; meteorology of Palmer Peninsula, Antarctica; long range forecasts of upper air and surface weather conditions.

Dorsey, Dr. John M(orris), Maccabees Bldg, Detroit, Mich. *Psychiatry, Psychology.* Clinton, Iowa, Nov. 19, 00. M.D, Iowa, 25, A.B, 26, M.S, 28. Intern, State Psychopathic Hosp, Iowa, 25–26, senior res. physician, 26–27, acting asst. director, 27–28; mental hygienist and lecturer sociol, *Michigan,* 28–38, senior instr. *psychiat,* 28–31, asst. prof, 31–34, assoc. prof, 34–38, *lecturer post-grad. med, med. sch, 38–; training psychiatrist and director children's center, Children's Fund of Michigan, and mental hygiene clinic, Wayne.* State Psychopathic Hosp, Mich, 28–38; consulting psychiatrist, Wayne County Juvenile Court, Detroit; lecturer, Wayne. Psychiat. Asn; assoc. Psychol. Asn; Am. Med. Asn; Psychopath. Asn; Psychoanal. Soc; Asn. Mil. Surg; Mich. Soc. Neur. and Psychiat. (pres, 42); Mich. Speech Correction Asn. (chairman). Neurophysiology; electrophysiology; electropathology; comparative neurology; pharmacodynamics; speech correction; education.

Dorsey, Prof. L(lewellyn) M(orse), University of Maine, Orono, Maine. *Animal industry.* Ellsworth, Maine, Oct. 13, 92. B.S, Maine, 16, M.S, 23. Instr. *dairy husbandry, Maine,* 17–20, asst. prof, 20–24, assoc. prof, 24–32, *prof, dairy div, dept. animal indust, 32–* Dairy Sci. Asn; Soc. Refrig. Eng; Inst. Food Technol; Int. Asn. Milk Sanitarians. Dairy products.

Dorsey, Prof. M(axwell) J(ay), University of Illinois, Urbana, Ill. *Horticulture.* Dresden, Ohio, May 3, 80. B.S, Mich. State Col, 06; M.S, Cornell, 10, Ph.D, 13. Instr. hort, Maine, 06–07; asst. horticulturist, N. Y. Exp. Sta, Geneva, 07–10; asst. plant breeding, Cornell, 10–11; in charge fruit breeding, Exp. Sta, Minnesota, 11–21; hort, West Virginia, 21–25; *prof. pomol, Illinois, and chief, Exp. Sta, 25–, head dept. hort, 40–* A.A; Genetic Asn; Pomol. Soc; Soc. Nat; Soc. Hort. Sci. (pres, 24); Bot. Soc; Minn. Hort. Soc. Pomology; fruit breeding; history and taxonomy of fruits; sterility, inheritance and hardiness in fruits; flower types in the grape; winter injury; adaptation; bud variation.

Dorsey, Dr. N(oah) Ernest, Cosmos Club, Washington, D. C. *[1]*Physics.* Annapolis Junction, Md, March 15, 73. A.B, Hopkins, 93, fellow, 96–97, Ph.D, 97. Asst. physics, Hopkins, 93–96, 97–99, assoc, 99–01; asst. physicist, bur. soils, U. S. Dept. Agr, 01, scientist, 02–03; asst. physicist, Bur. Standards, 03–07, assoc. physicist, 07–12, 13–17, physicist, 17–25, 28–43; *retired.* Research fellow, Yerkes Observatory, Chicago, 99; research assoc, Carnegie Institution, 12–13; consulting physicist, 20–30. Assoc. ed, 'Int. Critical Tables,' 22–29. A.A; Physical Soc; Optical Soc; Geophys. Union; hon. mem. Radium Soc; Philos. Soc. Wash; Wash. Acad; Soc. française de Physique. Capillarity; light; physics of soil; ratio of electrical units; absolute measurements in electricity; radioactivity; self-luminous materials; x-rays; viscosity; lightning; physics of medical sciences; properties of water, water vapor and ice; supercooling of water.

Dorst, H(oward) E(arl), U. S. Department of Agriculture, Utah State Agricultural College, Logan, Utah. *Entomology.* Pomeroy, Ohio, Sept. 19, 04. A.B, Kansas, 29, A.M, 30. *Junior entomologist,* sugar beet insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30–36, *tomato insect investigations, 36–* Taxonomy, especially of Homoptera; control of insects affecting tomatoes.

Dorst, Paul W(illiam), 3433 Lyleburn Place, Cincinnati, Ohio. *Lithography.* New Albany, Ind, June 8, 03. Chem.E, M.S, Cincinnati, 27. *Research engineer and assoc. prof. lithographic research, Cincinnati, 27–* Chem. Soc; Optical Soc; Royal Photog. Soc. Light-sensitive dichromated colloids; lithographic fountain solutions; dot etching; half-tone reproduction.

Dorwart, Prof. Harold L(aird), Washington and Jefferson College, Washington, Pa. *Mathematics.* Greenville, Pa, Aug. 27, 02. A.B, Washington and Jefferson Col, 24; Ph.D, Yale,

31. Asst. instr. *math*, Yale, 24–27, instr, 27–28; Williams Col, 28–30, 31–35; *asst. prof, Washington and Jefferson Col, 35–* Math. Soc; Math. Asn. Algebra.

Doscher, Dr. N(athan), 1280 Ocean Ave, Brooklyn, N. Y. *Hygiene.* New York, N. Y, June 13, 08. B.S, Col. City of N. Y, 29; A.M, Columbia, 32; LL.B, Fordham, 32; Ph.D, N. Y. Univ, 39. *Instr. hygiene,* Col. City of N. Y, 29–39; *Brooklyn Col, 29–, special teacher to train first aid instrs, Am. Red Cross.* Asn. Health, Physical Educ. and Recreation. Comparative values of visual aids in safety work; safety in athletics; physical education.

Dosdall, Dr. Louise, University Farm, St. Paul, Minn. *Plant pathology.* Waco, Texas. A.B, Minnesota, 16, A.M, 17, Ph.D, 22. Teaching fellow, Macalester, 16–17; asst. plant path, *Minnesota,* 17–20, *mycologist, Exp. Sta, 20–* A.A; Phytopath. Soc; Mycol. Soc. Mycology; diseases of ornamental plants.

Dostal, Prof. B(ernard) F(rancis), 330 N. Oak St, Gainesville, Fla. or 4032 N. Prospect Ave, Milwaukee, Wis. *Mathematical physics.* Vienna, Austria, Jan. 11, 88. A.B, Wisconsin, 14; A.M, Indiana, 15, fellow, 15–16; fellow, Pennsylvania, 16. Research staff, Am. Tel. and Tel. Co; research engineer, Kortsa Diesel Motor Co, 19–23; instr, eng. col, Michigan, 23–27; *asst. prof. math, Florida, 27–* Sig.C, U.S.A, 17–19. A.A; Math. Soc; Math. Asn. Mathematics; engineering; number-theoretic functions and electrical engineering; number-theoretic functions and quantum mechanics; non-Aristotelian logic in mathematical physics; harmonic analysis of weather phenomena; operational calculus and differential equations.

Doten, Prof. S(amuel) B(radford), University of Nevada, Reno, Nev. *Entomology.* Gold Hill, Nev, Dec. 14, 75. B.S, Nevada, 98, fellow, 98–99, A.M, 12. Asst. *entom, Nevada,* 99–02, asst. prof, 02–06, *prof, 06–, director, Exp. Sta, 13–* A.A. Anabrus; Gossyparia spuria; ecological relationships of the San Jose scale; parasites of the codling moth; relation of nutrition to reproduction and longevity in hymenopterous parasites; photography of living insects.

Dott, Robert H(enry), Oklahoma Geological Survey, Norman, Okla. *Geology.* Sioux City, Iowa, Jan. 8, 96. B.S.F, Michigan, 17, A.M, 20. Asst. miner, Michigan, 16–17, geol, 19–20; geologist, Empire Gas and Fuel Co, 17–19; for. producing dept, Standard Oil Co. of N. J, 20–22; Carter Oil Co, 22–26; Mid-Continent Petrol. Corp, 26–29; chief geologist, Sunray Oil Co, 29–31; consulting geologist, 31–35; *director, Okla. Geol. Surv, 35–* Int. Geol. Cong, 33. Geol. Soc; Asn. Petrol. Geol. (assoc. ed, 31–); Asn. State Geol. (sec'y, 41–); Tulsa Geol. Soc. (v. pres, 28, pres, 32). Pennsylvanian paleogeography and Permian correlations in Oklahoma; Ordovician waters in mid-continent; oil possibilities of western Kansas; petroleum reserves in Oklahoma and Kansas; overthrusting in Arbuckle Mountains; regional stratigraphy of mid-continent.

Dotterer, Prof. J(ohn) E(zra), 404 Miami St, North Manchester, Ind. *Mathematics.* Union Bridge, Md, Oct. 4, 88. A.B, Blue Ridge Col, 12; A.M, Illinois, 17; Chicago, 30–31, summers, 14, 19, 22, 23, 28, 31, 35. Instr. math, Park Col, 12–15; Kentucky, 15–16; *prof.* math. and physics, *Manchester Col,* 19–27, *math. and head dept, 27–* U.S.A, 17–18. Math. Asn. (pres, Ind. sect, 27). Cubic surfaces.

Dotti, Dr. L(ouis) B(asil), 80 Oakdene Ave, Palisades Park, N. J. *Physiology.* New York, N. Y, Aug. 13, 03. B.S, Columbia, 29, A.M, 31, Ph.D, 36. Asst. research, col. physicians and surg, Columbia, 29–31, physiol, 31–34, instr, 34–36; asst. prof. *physiol. and biochem, N. Y. Med. Col,* 36–43, *assoc, 43–* Chemist, St. Luke's Hosp, New York. Summers, investigator, Carnegie Institution, Cold Spring Harbor, 34–38. A.A; Soc. Exp. Biol; Chem. Soc; Physiol. Soc; Harvey Soc. Carbohydrate metabolism; endocrinology.

Doty, Dr. D(elbert) M(alcolm), Purdue University, Lafayette, Ind. *Agricultural biochemistry.* Union Co, Ind, April 27, 08. B.S.A, Purdue, 29, M.S, 32, Ph.D, 41. Asst. chemist, *Exp. Sta, Purdue,* 29–41, *acting state chemist, 41–, asst. prof. agr. chem. and acting head dept, univ, 41–* Chem. Soc. Chemical composition and quality of canned pumpkin; factors affecting chemical composition and nutritive quality of farm crops.

Doty, Prof. H(iram) S(moots), 911 N. Buxton St, Indianola, Iowa. *Botany, Geology.* Massillon, Iowa, Jan. 11, 89. B.S, Iowa State Col, 12, M.S, 15; Chicago. Asst. and instr. bot, Iowa State Col, 13–16; instr, Kans. State Col, 16–17; *prof.* biol, *Simpson Col,* 19–41, *biol. and geol, 41–* A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Soc. Plant Taxon; Geog. Soc. N. Y; Iowa Acad. Ecology; geography; physiography.

Doty, Dr. J(ohn) Roy, American Dental Association, Bureau of Chemistry, Chicago, Ill. *Physiology, Biochemistry.* Stuttgart, Ark, Feb. 13, 06. B.S, Monmouth Col, 27; Ph.D, Illinois, 33. Instr. chem, Monmouth Col, 28–30; asst, Illinois, 33–35; instr. physiol, sch. med, Louisiana, 35–41, asst. prof, 41–43; *assoc. chemist, bur. chem, Am. Dental Asn, 43–* Soc. Biol. Chem. Gastro-intestinal absorption; renal tubular reabsorption and metabolism of amino acids and related compounds.

Doubt, Dr. Thomas E(aton), Ferndale, Wash. *Physics.* Louisville, Ky, Feb. 15, 70. B.S, Nebr. Wesleyan, 92; fellow, Nebraska, 94–97, A.M, 96; fellow, Chicago, 03–04, Ph.D, 04. Instr. physics, Nebr. Wesleyan, 92–94; prof, Washington (Seattle), 97–02; assoc. prof, *Armour Inst. Tech,* 04–23, prof. *exp. physics,* 23–34, *emer. prof, 34–;* physicist, Underwriters' Labs, 23–34. Physical Soc; Optical Soc. Absolute color equation; effect of the intensity upon the velocity of light; effect of the motion of the medium upon the velocity of light; Talbot's band and the resolving power of the spectroscope; absorption of gases by charcoal; nature of light.

Doucette, Charles F(elix), U. S. Department of Agriculture, Sumner, Wash. *Entomology.* Wilmington, Mass, June 16, 98. B.S, Mass. Col, 20. *Assoc. entomologist in charge entom. lab, bur. entom. and plant quarantine, U. S. Dept. Agr,* Willow Greve, Pa, 21–25, Santa Cruz, Calif, 25–27, *Sumner, Wash, 27–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Insects affecting ornamental plants; greenhouse and bulb insects.

Doudoroff, Dr. Michael, University of California, Berkeley, Calif. *Microbiology.* Petrograd, Russia, Nov. 14, 11. A.B, Stanford, 33, A.M, 34, Ph.D, 39. *Instr. bacter, California, 40–* Metabolism, nutrition, variation and adaptation of microorganisms.

Doudoroff, Dr. Peter, P. O. Box 9055, University Station, Baton Rouge, La. *Zoology.* Libau, Russia, June 22, 13. A.B, Stanford, 35; Ph.D, California, 41. Asst. biologist, U. S. Bur. Fisheries, 34; teaching asst. biol, Stanford, 34–35; asst. oceanog, Scripps Institution Oceanog, California, 35–41; *biologist, div. research and statistics, State Dept. Conservation, La, 41–* Fisheries Soc. Physiology and ecology of fishes and animals; temperature relations, reactions and acclimatization in fishes; susceptibility of fishes to poisons and other lethal agents; pigmentation in fishes.

Dougherty, Prof. Gregg, 95 Library Place, Princeton, N. J. *Organic chemistry.* Steubenville, Ohio, Nov. 14, 92. B.S, Princeton, 17, A.M, 19, Charlotte Elizabeth Procter fellow, 19, Ph.D, 21. Junior chemist, U. S. Bur. Mines, 17; instr. *chem, Princeton,* 20–23, asst. prof, 23–28, *assoc. prof, 28–* Lieut, C.W.S, 18. Chem. Soc. Catalytic hydrogenation; velocity measurements of organic reactions; syntheses of organic compounds containing sulfur; aluminum chloride catalysis.

Dougherty, Rev. J(oseph) M(ary), Villanova College, Villanova, Pa. *Bacteriology.* Haverford, Pa, Aug. 15, 96. A.B, Villanova Col, 20; A.M, Catholic Univ, 24, Ph.D, 26. *Dean sch. science, Villanova Col, 26–* A.A. Histology; immunology.

Dougherty, Dean N(athan) W(ashington), University of Tennessee, Knoxville, Tenn. *Civil engineering.* Hales Mill, Va. B.S, Tennessee, 09; C.E, Cornell, 13, M.C.E, 14. Instr. civil eng, Cornell, 10–14; asst. prof, George Washington, 14–16; assoc. prof. and prof, *Tennessee,* 16–40, *dean eng, 40–* Asst, Highway Dept, Tenn, 23–30; state rep, U. S. Coast and Geod. Surv, 33– Summers, maintenance of way, South. Ry, 17–20. Chairman, State Board Examiners, Tenn; pres, Nat. Council State Boards Eng. Examiners, 34. A.A; Eng. Educ. (councilor, 41–); Civil Eng; Tenn. Acad. Highway economics and transport; professional status of the engineer.

Dougherty, Dr. P(atrick) H(enry), The Upjohn Co, Kalamazoo, Mich. *Chemistry.* Dayton, Ky, March 24, 09. B.S, Iowa, 30, scholar, 30–31, M.S, 31; Ph.D, Yale, 33. Plant production, du Pont Rayon Co, 30; lab. instr, Yale, 31–33; chemist, Calco Chem. Co, 33–34; patent specialist, rayon div, E. I. du Pont de Nemours and Co, 34–39; patent attorney, Briesen and Schrenk, 39–40; special asst. to v. pres. in charge new products, Merck and Co, Inc, 40–41; *research chemist and special asst, Upjohn Co, 41–* Chem. Soc. Bromination of acetoxybenzoic acids; synthesis and aminoester derivatives of

cinchophen homologs; dyes; synthetic fibers and films; hormones; vitamins; pharmaceuticals.

Doughtie, Prof. V(enton) L(evy), University of Texas, Austin, Texas. *Engineering.* Montgomery Co, Texas, April 22, 97. B.S, Texas, 20, M.S, 40. Service engineer, Westinghouse Elec. and Mfg. Co, 20; instr. mech. eng, Hopkins, 21–24; pres, S. Texas Producers Asn, 27–28; adj. prof. *mech. eng,* Texas, 29–30; asst. prof, Texas Tech, 30–32, assoc. prof, 32–35, prof, 35–38; assoc. prof, *Texas,* 38–39, *prof,* 39– Mech. Eng; Eng. Educ. Strength of bolts; aeronautical manufacturing in Texas; machine design problems in the petroleum industry.

Doughty, Dr. E(dward) W(illiam), 113 Forest Ave, South Charleston, W. Va. *Chemistry.* Parker, S. Dak, March 8, 09. A.B, South Dakota, 31; M.S, Iowa, 33, Ph.D, 35. Asst. chem, Iowa, 31–35; *indust. research, Carbide and Carbon Chemicals Corp, 35–* Chem. Soc. Diffusion of solutes in gels.

Doughty, Prof. Howard W(aters), Amherst College, Amherst, Mass. *Chemistry.* Baltimore, Md, Aug. 13, 71. Hopkins, 90–93, fellow, 03–04, Ph.D, 04, fellow by courtesy, 04–05, B.E, 27; hon. A.M, Amherst Col, 16. Carnegie research asst, 04–05; instr. *chem,* Missouri, 05–06; Wisconsin, 06–07; *Amherst Col,* 07–08, asst. prof, 08–09, assoc. prof, 09–13, prof, 13–41, *emer. prof, 41–* A.A; Chem. Soc. Organic chemistry; diphenylsulfoneorthocarboxylic and benzeneselenonic acids and their related compounds; derivatives of trimethylparaconic and of camphoronic acids; organo-selenic acids; reactions with various metals of compounds containing the trihalogen methyl group; dichloroacetic acid and related compounds.

Doughty, Dr. J(esse) L(owell), Dominion Soil Research Laboratory, Swift Current, Sask, Can. *Soils.* Eureka, Ill, Nov. 18, 92. B.S.A, Alberta, 21; M.S, California, 25; Ph.D, Wisconsin, 34. Asst. soils, Alberta, 25–27, 31–32; soil surv, Research Council Alta, 29–30; soil surv, 34–35; *soil specialist, Dom. Soil Research Lab, 36–* Can. Soc. Tech. Agr. Phosphates.

Douglas, Dr. A(lice) Vibert, Queen's University, Kingston, Ont, Can. *Astrophysics.* Montreal, Que, 94. B.A, McGill, 20, M.Sc, 21, Ph.D, 25; Cambridge, 21–23; M.B.E, London, 18. Lecturer astrophys, McGill, 27–39; *dean women, Queen's (Can), 39–* Astron. Soc; Asn. Variable Star Observers; Royal Astron. Soc. Can; fel. Royal Astron. Soc. Spectroscopic parallaxes of A stars; spectra of Cepheid variables; electric fields in B star atmospheres.

Douglas, Dr. Beverly, Vanderbilt University Hospital, Nashville, Tenn. *Surgery.* Nashville, Tenn, Sept. 23, 91. Litt.B, Princeton, 14; M.D, Hopkins, 18; M.S, Yale, 21; D.Sc, Lyons, 25. Instr. surg, Yale, 19–21, instr. and asst, 21–22; asst. prof, *Vanderbilt,* 25–28, *asst. dean, 26–, assoc. prof. surg, 28–* Nat. research fellow, 21–23. Mem. Am. Board Surgery. Fel. Col. Surg; fel. South. Soc. Clin. Surg; Tenn. Acad. Reaction of leucocytes in epidemic influenza; rate of flow and interchange in the capillaries; influence of vasoconstrictor drugs upon absorption through the capillaries; mercurochrome as an antiseptic agent; empyema thoracis; skin grafting; wound healing; plastic surgery; circulation of pedale flaps.

Douglas, Dr. B(ruce) H(utchinson), Department of Health, Detroit, Mich. *Medicine.* Des Moines, Iowa, Aug. 26, 92. A.B, Whittier Col, 15; M.D, Rush, Chicago, 21. Asst. chief res. physician, Herman Kiefer Hosp, Detroit, 21–22; med. director, Wm. H. Maybury Sanatorium, 23–24, supt, 24–33; controller tuber, *Dept. Health, Detroit,* 33–41, *commissioner of health, 41–;* asst. prof. *prev. med. and pub. health, col. med, Wayne,* 34–41, *prof. and head dept, 41–* Lecturer, sch. pub. health, Michigan. Cmt. tuber, Nat. Research Council, 40– Fel. Am. Med. Asn; Tuber. Asn. (pres, 41); fel. Col. Physicians; fel. Pub. Health Asn; Sanatorium Asn. (chairman, cmt. treatment, 30; pres, 39); Hosp. Asn; Mich. Tuber. Asn. (v. pres, 31, pres, 33–38); Mich. Trudeau Soc. (pres, 26); Mich. Acad; Int. Union against Tuber. Clinical tuberculosis; sanocrysin treatment of tuberculosis; tuberculosis in childhood; the acute onset in pulmonary tuberculosis; acute subapical lesion in pulmonary tuberculosis; tuberculosis case finding; miniature x-ray film or fluorography.

Douglas, Prof. F(rank) W(illiam), Colorado College, Colorado Springs, Colo. *Chemistry.* Galesburg, Mich, Oct. 19, 78. A.B, Albion Col, 05; A.M, Michigan, 08; Ph.D, Cornell, 19. Asst. prof. *chem,* Albion Col, 08–18; assoc. prof, *Colo. Col,* 19–21, *prof. and head dept, 21–* A.A; Chem. Soc; Inst. Chem; Colo-Wyo. Acad. Germanium; low temperature carbonization; micro-chemical analysis.

Douglas, Prof. G(eorge) V(ibert), Dalhousie University, Halifax, N. S, Can. *Geology.* Montreal, Que, Can, July 2, 92. B.Sc, McGill, 20, M.Sc, 21. Geologist, Shackleton Antarctic exped, 21–22; research fellow, Scott Polar Inst, Cambridge, 22–23; asst. geol, Harvard, 23–26; chief geologist, Rio Tinto Co, London, 26–30; Rhodesian Congo Border Co, Africa, 30–31; *Carnegie prof. geol, Dalhousie, 31–; acting prov. geologist, N. S.* Mil. cross, British Exped. Forces, 17. Capt, British Exped. Forces, 15–19. Fel. Geol. Soc; Can. Inst. Min. and Metal; Eng. Inst. Can; fel. Geol. Soc. London; Miner. Soc. London. Mining; spectroscopy; sedimentation; oreshoots; continental drift; geology of northern Rhodesia, the Belgian Congo, Rio Tinto and various areas of Canada.

Douglas, Prof. Gertrude E(lizabeth), New York State College for Teachers, Albany, N. Y. *Botany.* Gardner, Mass, March 12, 83. A.B, Smith Col, 04; A.M, Cornell, 07, fellow, 14–15, Ph.D, 17. Instr. bot, Randolph-Macon Col, 09–13; Lake Erie Col, 15–17; N. Y. State Col. Agr, Cornell, 17–19; *biol, N. Y. State Col. Teachers, Albany,* 19–29, *asst. prof, 29–* Summers, sci. asst, N. Y. Biol. Surv, 26, 28. A.A; Bot. Soc; Genetic Asn; Forestry Asn. Floral anatomy.

Douglas, Prof. J(ames) M(cDowell), Davidson College, Davidson, N. C. *Physics.* Fairfield Co, S. C. A.B, Davidson Col, 93, A.M, 94; Ph.D, Hopkins, 01. *Prof. physics and head dept, Davidson Col, 01–* Asn. Physics Teachers; N. C. Acad.

Douglas, Lieut. J(ames) R(ussell), Medical Department, U. S. Marine Corps Base, San Diego, Calif. *Medical parasitology, Veterinary parasitology.* Los Angeles, Calif, Sept. 29, 12. A.A, Chaffey Junior Col, 33; B.S, California, 35, James Rosenberg Mem. scholar, 37–39, Ph.D, 39. Asst, California, 35–37, Hooper Foundation med. research, 40–42; *lieut, U. S. Naval Res, and sanitation officer, U. S. Marine Corps Base, 42–* Bionomics and seasonal incidence of Trichostrongylus; internal anatomy of Rocky Mountain spotted fever tick, Dermacentor andersoni; resistance of various breeds of sheep to Ostertagia infestation; relative efficiency of sylvatic plague vectors; the fate of Pasteurella pestis in the flea.

Douglas, Prof. Jesse, 878 West End Ave, New York, N. Y. ***Mathematics.* New York, N. Y, 97. B.S, Col. City of N. Y, 16; Ph.D, Columbia, 20. Instr. *math,* Columbia, 20–26; nat. research fellow, Princeton, Harvard, Chicago, Paris and Göttingen, 26–30; assoc. prof, Mass. Inst. Tech; *asst. prof, Brooklyn Col.* Fields medal, Int. Cong. Math, 36. Math. Soc. Geometry; minimal surfaces.

Douglas, Prof. John F. H, Marquette University, Milwaukee, Wis. *Electrical engineering.* Bucksport, Maine, Oct. 9, 84. B.S, Mass. Inst. Tech, 05; Ph.D, Cornell, 14. Instr. elec. eng, Cornell, 07–14; physics, Iowa State Col, 14–17; asst. prof, Agr. and Mech. Col. Texas, 17–20; *assoc. prof. elec. eng, Marquette, 21–* Elec. Eng; Eng. Educ; Physical Soc. Magnetic and electrostatic fields in machinery.

Douglas, Dr. John G(ray), Mene Grande Oil Co, Apt. 234, Maracaibo, Venezuela, S. A. *Paleontology.* Baltimore, Md, Aug. 1, 00. A.B, Hopkins, 21, Ph.D, 28. Geologist, Venezuela Gulf Oil Co, 24–25, 26–27; paleontologist, Lago Petrol. Corp, Venezuela, 28–31; acting assoc. prof. paleont, North Carolina, 31–32, assoc. prof, 32–34; *geologist,* Venezuela Gulf Oil Co, 34–37, *Mene Grande Oil Co, 37–* A.A; Asn. Petrol. Geol. Miocene mollusks from northwestern Venezuela.

Douglas, Prof. O(scar) B(erry), University of Texas, Austin, Texas. *Educational psychology.* Munday, Texas, Nov. 21, 92. A.B, Texas Christian, 20; A.M, Texas, 24; Ph.D, Chicago, 28. Instr. educational psychol, Texas, 24–26; assoc. prof. educ, Duke, 27–28; asst. prof. *educational psychol, Texas,* 28–36, assoc. prof, 36–42, *prof, 42–* Collaborator, div. child develop. and teacher personnel, cmn. teacher educ. Am. Council Ed, Chicago, Ill, 40–41. A.A; assoc. Psychol. Asn. Reading; spelling; child development.

Douglas, Dr. S(tuart) D(unshee), 9 Walton Apts, Maple Terrace, Charleston, W. Va. *Chemistry.* Bristol, Vt, Sept. 2, 97. B.S, Middlebury Col, 19; M.S, Pennsylvania, 23, Ph.D, 26. *Research chemist, Carbide and Carbon Chem. Corp, 26–* Chem. Soc. Synthetic resins.

Douglas, Dr. Thomas B(asil), Montana State College, Bozeman, Mont. *Physical chemistry.* Elkins, W. Va, May

15, 09. B.S, North Carolina, 31, M.S, 32; Ph.D, Ohio State, 38. Teaching fellow and asst, North Carolina, 31–33; teaching asst, Ohio State, 33–36, du Pont fellow chem, 36–37, Comly fellow in surgical research, 39; instr. *physical chem, Mont. State Col*, 39–42, *asst. prof*, 42– Chem. Soc. Ionic equilibria; iodine metabolism; kinetics; heat capacity of gases; sound dispersion; calorimetry.

Douglass, Prof. A(ndrew) E(llicott), University of Arizona, Tucson, Ariz. ***Astronomy, Dendrochronology.* Windsor, Vt, July 5, 67. A.B, Trinity Col. (Conn), 89, hon. Sc.D, 08; hon. Sc.D, Arizona, 38. Asst, Harvard Observatory, 89–94; first asst, Lowell Observatory, 94–01; probate judge, Coconino County, Ariz, 02–06; *prof.* physics and astron, *Arizona*, 06–18, astron, 18–38, *astron. and dendrochronology, 38–*, director, *Steward Observatory*, 18–38, *emer. director, 38–* Instr, North. Ariz. Nor. Sch, 05–06; acting pres, Arizona, 10–11, dean col. arts, 15–18; research assoc, Carnegie Institution, 24–38. Harvard exped, Peru, 90–93. Research Corp. of New York award, 31. A.A. (pres, southwest. div, 21, v. pres. and chairman, D, 25); Astron. Soc. (councilor, 30); fel. Meteorol. Soc. (v. pres, 24, councilor, 27–32); fel. Am. Geog. Soc; Geophys. Union; Philos. Soc; Astron. Soc. Pacific; cor. mem. Acad. Nat. Sci. Phila; Ariz. Archeol. and Hist. Soc. (v. pres, 23, pres, 29); hon. mem. Ariz. Geog. Soc; hon. mem. S. Calif. Acad; fel. Royal Astron. Soc; Int. Geog. Union (cmt. on climatic variations). Mars; Jupiter's satellites; observatory sites; climatic history in tree ring growth; cycloscope analysis; age of prehistoric ruins by tree ring method.

Douglass, Dr. Donald W(ickware), Game Division, State Department of Conservation, Lansing, Mich. *Zoology.* Los Angeles, Calif, Sept. 21, 08. A.B, Grinnell Col, 30; A.M, Michigan, 32, Ph.D, 34. Instr. zool, Texas Tech. Col, 34–39; *game ornithologist, State Dept. Conservation, Mich, 39–* Wilson Ornith. Club; Mich. Acad. Michigan grouse.

Douglass, Dr. Irwin B(ruce), University of Maine, Orono, Maine. *Organic chemistry.* Des Moines, Iowa, Sept. 2, 04. B.S, Monmouth Col, 26; Ph.D, Kansas, 32. Teacher, high sch, Ill, 26–28; instr. *chem*, Kans. City Junior Col, 30–31; asst. instr, Kansas, 29–30, 31–32; acting assoc. prof, N. Dak. Col, 32–33; asst. prof, North. Mont. Col, 33–37, 38–40; Sterling prof. and research asst, Yale, 37–38; asst. prof, *Maine*, 40–42, *assoc. prof, 42–, acting head dept, 41–* Summer, temporary ranger-naturalist, Yellowstone Nat. Park, 36–40. Chem. Soc. (sec'y treas, Maine sect, 41); Eng. Educ. Acyl isothiocyanates and isoselenocyanates; chlorination of organic sulfur compounds; aliphatic sulfonyl chlorides.

Douglass, J(ames) R(obert), U. S. Department of Agriculture, Twin Falls, Idaho. *Entomology.* Asbury, S. C, Nov. 8, 94. B.S, Clemson Col, 18; Cornell, 22; M.S, Kans. State Col, 23; Ohio State, 30–32. Field asst, *bur. entom. and plant quarantine, U. S. Dept. Agr*, 21, sci. asst, 21–22, junior entomologist, 23–24, asst. entomologist, 24–30, assoc. entomologist, 30–41, *entomologist, 41–, in charge*, Estancia Field Sta, 23–34, *Twin Falls Field Sta, 35–* Lieut, Inf, 18–20. A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Kans. Acad. Bean insects; Mexican bean beetle; hibernation; emergence from hibernation; beet insects.

Douglass, Dr. Leigh C(arroll), 1482 S. Fillmore St, Denver, Colo. *Psychology.* Braddock, Pa, Nov. 18, 84. A.B, Willamette, 17; A.M, Oregon, 21; Ed.M, Harvard, 23; Pennsylvania; Columbia; Stanford; Ph.D, Iowa, 40. Instr. psychol, Princeton, 24–25; educ. and psychol, Grinnell Col, 25–26, asst. prof. psychol, 26–40; personnel research technician, *Social Security Board*, 41–42, *regional personnel methods consultant, 42–* Summers, asst. prof, Missouri, 25; Mass. Col, 28. Psychol. Asn; Asn. Applied Psychol; Soc. Psychol. Study Social Issues; Iowa Acad. (chairman, psychol. sect, 33, 38). Psychometrics; personnel.

Douglass, Prof. R(aymond) D(onald), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Gorham, Maine, Dec. 29, 94. A.B, Maine, 15, A.M, 16; Ph.D, Mass. Inst. Tech, 31. Prin, high sch, Mass, 16–17; submaster, high sch, N. H, 17–18; instr. *math, Mass. Inst. Tech*, 19–30, asst. prof, 30–34, assoc. prof, 34–39, *prof, 39–* Univ. exten. lecturer, 25– Examiner, Edison scholarship contest, Orange, N. J, 29–30. Ensign, U.S.N, 18–19. A.A; Math. Soc; Math. Asn; Eng. Educ. Stirling's series; graphical mathematics; roulettes; nomographic charts; evaluation of definite integrals.

Doull, Dr. J(ames) A(ngus), Western Reserve University School of Medicine, Cleveland, Ohio. *Epidemiology, Hygiene.* New Glasgow, N. S, Can, Sept. 8, 89. B.A, Dalhousie, 11, M.D, 14; Dr.P.H, Cambridge, 19, Hopkins, 21. Assoc. and assoc. prof. epidemiol, Hopkins, 21–30, director clin. studies, Abel Fund, 28–30, asst. physician, Hopkins Hosp, 28–30; *prof. hygiene and pub. health, sch. med, Western Reserve, 30–* Lecturer, Rio de Janeiro, 26; de Lamar lecturer, Hopkins, 34. Visiting prof, Columbia Sch. Trop. Med, Puerto Rico, 40. Chairman med. advisory board, Am. Leprosy Foundation. A.A; Pub. Health Asn. (exec. cmt); Epidemiol. Soc; Am. Med. Asn. Diphtheria; acute upper respiratory diseases; leprosy; tuberculosis.

Doumani, Dr. Thomas F(uzzy), Union Oil Co. of California, Wilmington, Calif. *Organic chemistry.* Victoria, B.C, Can, July 26, 13. B.S, Washington (Seattle), 35, M.S, 39, Ph.D, 40. Teaching asst. industrial chem, Washington (Seattle), 35–39; *petrol. research chemist, Union Oil Co. of Calif, 40–* Chem. Soc. Nitration and reduction of p-cymene; nitration of 2-amino-p-cymene; monomercuration of p-cymene.

Dounce, Dr. Alexander L(atham), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Biochemistry.* Syracuse, N. Y, Dec. 7, 09. Hamilton Col, 26–28; A.B, Cornell, 30, Ph.D, 35. Chemist, Continental Can Co, 35–36; *instr. biochem*, Cornell, 36–41; *sch. med. and dentistry, Rochester, 41–* Chem. Soc. Catalase; urease; arginase; liver proteins; enzymes and nucleoproteins of isolated hepatic cell and hepatoma cell nuclei.

Doutt, Prof. Margaret T. (Mrs. J. K. Doutt), Pennsylvania College for Women, Pittsburgh, Pa. *Botany.* Pittsburgh, Pa, Jan. 3, 05. B.S, Pittsburgh, 26, M.S, 28; Ph.D, Mich. State Col, 30. Asst. bot, Mich. State Col, 28–30; instr. *biol, Pa. Col. for Women*, 35–36, *asst. prof, 36–* Summers, asst, Pittsburgh, 26–28. Morphology and anatomy.

Douty, Alfred, American Chemical Paint Co, Ambler, Pa. *Chemistry.* Philadelphia, Pa, March 2, 99. B.S, Pennsylvania, 19. Engineer, Julian S. Simsohn, Phila, 19–23; *chief chemist, Am. Chem. Paint Co, 23–* Chem. Soc. Inhibitors in the acid treatment of metals; non-metallic coatings for metals; preparation of metals for finishing.

Douty, D(aniel) E(llis), 1415 Park Ave, Hoboken, N. J. *Physics, Engineering.* Omro, Wis, April 3, 72. B.S, Washington (Seattle), 92; fellow, Clark, 98–01; Cornell, 01, 03. Asst. and tutor physics, Washington (Seattle), 95–98; dept. supervisor, high sch, Seattle, 01–03; asst. physicist and assoc. physicist, Bur. Standards, 03–12; v. pres, *U. S. Test. Co, Inc*, 12–34, *pres, 34–* Physical Soc; Soc. Test. Mat; Mech. Eng; Philos. Soc. Wash. General and textile testing.

d'Ouville, Dr. Edmond L(awrence), 11059 Ave. M, Chicago, Ill. *Organic chemistry.* Philadelphia, Pa, June 10, 09. B.S, Villanova Col, 32; M.S, Pennsylvania, 34, Ph.D, 37. Instr. chem, Villanova Col, 33–37; *research chemist, Standard Oil Co. of Ind, 37–* Synthesis of sulfonylamides.

Dove, Leonard P(ercy), Bowman, N. Dak. *Geology.* Guthrie Co, Iowa, April 20, 83. B.S, Simpson Col, 09; M.S, Chicago, 22. Instr. and prin, high schs, Iowa and S. Dak, 09–16; instr. geol, Northwestern, 18–19; asst. prof, North Dakota, 19–25; manager, Dakalite Products Co, 25–30; *staff engineer, Mariner and Hoskins, Inc, 31–* Field asst. and asst. geologist, U. S. Bur. Mines, 18; Ind. Geol. Surv, 18; asst. state geologist, N. Dak. Geol. Surv, 19–25; mem. tech. staff, Nat. Aluminate Corp, Chicago, Ill, 40–41. N. Dak. Acad. (exec. cmt, 25–). Pyrite in the coals of Indiana; lignite of North Dakota; Dakalite dyes and stains from lignite.

Dove, Dr. W(alter) E, Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, Washington, D. C. *Entomology.* Hamburg, Miss, April 14, 94. B.S, Miss. Agr. and Mech. Col, 13; Sc.D, Hopkins, 27. Commercial work, 19–24; sci. asst, *div. insects affecting man and animals, bur. entom. and plant quarantine, U. S. Dept. Agr*, 13–17, asst. entomologist, 24–27, assoc. entomologist, 27–30, entomologist, 30–35, senior entomologist, screw worm control in southeast. states, 35–36, prin. entomologist in charge screw worm control, 36–38, grasshopper control, 38–39, senior entomologist in charge research on dog flies, 40–41, *prin. entomologist in charge research on insects affecting man and animals, 42–* Am. Med. Asn. silver medal, 31. A.S, U.S.A, 17–19. Entom. Soc. Amer; Asn. Econ. Entom; Soc. Parasitol; Soc. Trop. Med; Helminth. Soc. Wash. Overwintering of the housefly; bots of horses; creeping eruption; warbles of reindeer; goat lice; tropical rat mites; sand flies; dog and cat hookworms; trans-

mission of endemic typhus; biting midges of man and animals; dog flies; insects and arthropods affecting armed forces.

Dove, Dr. W(illiam) Franklin, 142 Park St, Orono, Maine. *Biology.* Marion, Iowa, April 11, 97. B.S, Iowa State Col, 22; M.S, Wisconsin, 23, Ph.D, 27. Asst. genetics, Wisconsin, 23–26; assoc. biologist, *Exp. Sta, Maine,* 26–31, *biologist and head dept, 31–* A.A; Genetics Soc; Soc. Study Develop. and Growth. Transplantation of tissues and development of the gene; individuality; the nutritive instincts; anthropogeography; appetite levels and food patterns.

Dow, A(lan) W(ade), 801 Second Ave, New York, N. Y. *Chemical engineering.* New York, N. Y, Aug. 24, 66. Ph.B, Columbia, 88. Asst. chemist, Barber Asphalt Paving Co, 88–94; inspector asphalt and cements, D. C, 94–06; consulting chem. engineer, 06–35; v. pres. and chief engineer, Colprovia Roads, Inc, 35–40; *pres, A. W. Dow, Inc, 40–* A.A; Chem. Eng; Asn. Asphalt Paving Tech. (pres); Chem. Soc; Soc. Test. Mat; Int. Asn. Test. Mat. Road building; manufacture and testing of petroleums, bitumens and paving materials.

Dow, Prof. C(larence) L(orenzo), Ohio University, Athens, Ohio. *Geography, Geology.* Cattaraugus, N. Y, 97. A.B, Nebraska, 26, A.M, 30, fellow, 32–33, Ph.D, 33. Teacher, pub. schs, Kans. and Nebr, 20–25; Nebr. Wesleyan, 25–30; teaching fellow, Nebraska, 30–31; Illinois, 31–32; Pa. State Teachers Col, Clarion, 33–36; *assoc. prof. geol. and geog, Ohio (Athens), 36–* Conservation banker-farmer cycle in Nebraska; precipitation maps of Nebraska; geographical interpretation of the Upper North Platte Valley of Nebraska.

Dow, J(ames) N(eal), Bigelow-Sanford Carpet Co, Inc, Thompsonville, Conn. *Chemical engineering.* Washington, D. C, Nov. 12, 08. B.S, Lehigh, 30, M.S, 31. *Tech. director, Bigelow-Sanford Carpet Co, Inc, 38–* A.A; Chem. Soc; Soc. Test. Mat; Asn. Textile Chem. and Colorists; Indust. Research Inst; Textile Research Inst, Inc.

Dow, Prof. Peter S(taub), Box 83, Hanover, N. H. *Engineering.* Knoxville, Tenn, Feb. 11, 87. Tennessee; C.E, Dartmouth Col, 11. Field instr, Thayer Sch, Dartmouth Col, 10; asst. supt, Hastings Pavement Co, 10–11; instr. *graphics and eng, Dartmouth Col,* 11–17, asst. prof, 17–25, *prof, 25–* Summers, instr, Stevens Inst. Tech, 12–14. Concrete highway inspector, Asn. Am. Portland Cement Mfrs, 14. U.S.A, 17–19. A.A; Civil Eng; Soc. Mil. Eng; Am. Geog. Soc; N. H. Acad. Highways; sanitation; septic tank.

Dow, Prof. Philip, University of Georgia School of Medicine, Augusta, Ga. *Physiology.* Ann Arbor, Mich, 05. B.S, Michigan, 27; Ph.D, Yale, 35. Asst. chem, Michigan, 24–27; physiol. chem, Yale, 28–30, reader applied physiol, 29–32; research fellow *physiol, sch. med, Georgia,* 35–39, instr, 36–39, asst. prof, 39–41, *assoc. prof, 41–* Senior instr, sch. med, Western Reserve, 39–40. Physiol. Soc. Physical chemistry of proteins; hemodynamics.

Dow, Lieut. R(ichard) B(urt), 7 Holloway Lane, Aberdeen, Md. *Physics.* Willimantic, Conn, Sept. 3, 04. A.B, Clark, 27, A.M, 28; Ph.D, Harvard, 33. Asst. physics, Clark, 27–28; instr, Worcester Polytech, 28–32; research assoc. geophys, Harvard, 33–35; asst. prof. physics and chem, Pa. State Col, 35–39, assoc. prof, 39–41; *ballistician, Aberdeen Proving Ground, 41–* Mem. governing board, Am. Inst. Physics, 42– Soc. Rheol. (sec'y, 42–); fel. Physical Soc. Metallic friction; viscosity of liquids and thermodynamic properties at high pressures; compressibility of rocks; biochemical properties by high pressure treatment; combustion and inflammability of gases; interior ballistics; naval ordnance.

Dow, Lieut. Richard (Phelps), 47 Sanborn St, Reading, Mass. *Entomology.* Reading, Mass, May 14, 07. A.B, Harvard, 28, M.S, 29, Ph.D, 35. Asst. curator insects, Boston Soc. Nat. Hist, 32–35, curator, 35–41, ed, 39–41; special research assoc, Nat. Defense Research Cmt, Harvard, 41–42; *lieut, Sanit. C, U. S. Army, 42–* Taxonomy and behavior of aculeate wasps; prey of sphecoid wasps.

Dow, Dr. Robert S(tone), University of Oregon Medical School, Portland, Oregon. *Anatomy, Physiology, Clinical neurology.* Wray, Colo, Jan. 4, 08. B.S, Linfield Col, 29; A.M, M.D, Oregon, 34, Ph.D, 35. Asst. anat, med. sch, Oregon, 30–35; intern, Wis. Gen. Hosp, Madison, 35–36; nat. research fellow physiol, sch. med, Yale, 36–37; Belgian Am. Educational Foundation fellow, Brussels and Nat. Hosp, London, 37–38; fellow, Rockefeller Inst, 38–39; *clin. instr. neur, med. sch, Oregon, 39–,* asst. prof. *anat,* 39–42, *assoc. prof, 42–* Asn. Anat; Physiol. Soc; Soc. Exp. Biol; North-Pacific Soc. Neur. and Psychiat. Neurological anatomy and physiology; innervation of the lung; comparative anatomy of the cerebellum; anatomy and physiology of the cerebellum and vestibular systems; pathology of multiple sclerosis; action potentials in central nervous system.

Dow, Willard H(enry), 923 W. Park Drive, Midland, Mich. *Chemistry.* Midland, Mich, Jan. 4, 97. B.S, Michigan, 19, hon. D.Eng, 41; hon. Sc.D, Mich. Col. Min. and Tech, 39. *Director, Dow Chem. Co, 22–,* asst. gen. manager, 26–30, asst. treas, 28–30, *pres. and gen. manager, 30–,* chairman board, 41. Pres. and director, Ethyl-Dow Chem. Co, Wilmington, N. C; Midland Ammonia Co, Mich; pres, Dow Chemicals, Can, Ltd. A.A; Chem. Soc; Chem. Eng. Chemical engineering; electrochemistry and organic syntheses; heavy organic chemicals.

Dow, Prof. W(illiam) G(ould), University of Michigan, Ann Arbor, Mich. *Electrical engineering.* Faribault, Minn, Sept. 30, 95. B.S, Minnesota, 16, E.E, 17; M.S.E, Michigan, 29. Sales correspondent and salesman, Westinghouse Elec. and Mfg. Co, 20–26; from instr. to *assoc. prof. elec. eng, Michigan, 26–* Lieut, C.Eng, 17–19. Elec. Eng; assoc. Eng. Educ; Radio Eng; Welding Soc; Eng. Soc. Detroit. Engineering electronics; ultra-high frequency electronics; industrial electronic circuits; electric welding.

Dowdell, Prof. R(alph) L(ewis), 1466 Como Ave, W, St. Paul, Minn. *Metallography.* St. Paul, Minn, Sept. 27, 96. Met.E, Minnesota, 18, M.S, 21, Ph.D, 26. Asst. metallog, Minnesota, 18–19, instr, 19–26, asst. prof, 26–28; senior metallurgist, Bur. Standards, 28–30; *prof. metallog. and head dept, Minnesota, 30–* Howe medal, Soc. Steel Treat, 28. Asst. manganese war investigation, U. S. Bur. Mines, 18. Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat. (high temperature cmt); Foundrymen's Asn. (steel castings cmt); Eng. Club Minneapolis. Treatment of steel for permanent magnets; dilatometric method of heat treatment; decomposition of the austenitic structure in steel; rail steel; effect of deoxidation and mold conditions on the tensile properties of carbon steel castings; transformation of austenite; quenching steel in hot lead; non-toxic lead shot for waterfowl; general metallography.

Dowden, P(hilip) B(erry), 56 Hillhouse Ave, New Haven, Conn. *Entomology.* Milton, Mass, Dec. 30, 01. B.S, Mass. Col, 23. From asst. entomologist to *entomologist, div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr,* 23–Entom. Soc. Amer; Asn. Econ. Entom. Parasitic Hymenoptera; Tachinidae.

Dowdy, Dr. Andrew H, Strong Memorial Hospital, Rochester, N. Y. *Radiology.* Longwood, Mo, Nov. 24, 04. A.B, Cent. Col. (Mo), 29; M.D, Washington (St. Louis), 31. Intern, Henry Ford Hosp, 31–32, research int. med, 32–34, radiol, 34–37; instr. med. and radiol, *sch. med. and dentistry, Rochester,* 37–38, asst. prof. *radiol,* 39–42, *assoc. prof, 42–; asst. radiologist, Strong Mem. Hosp, 37–* Responsible investigator on grants, Am. Cyanamid Corp. and Office Sci. Research and Develop, exp. Clostridium infection in dogs, 41– Am. Med. Asn; Soc. Cancer Research; Soc. Control Cancer; Radiol. Soc. N. Amer; Tumor Clinic Asn. N. Y. (v. pres, 41). Experimental clostridial infection in dogs; treating deaf children with small amounts of radium; constructing and testing of a new type of radium loading device; cancer and infection.

Dowdy, Prof. W(illiam) W(allace), Lincoln University, Jefferson City, Mo. *Biology.* Eastover, S. C, Oct. 10, 95. A.B, Iowa, 23; M.S, Cornell, 28; Ph.D, Western Reserve, 42. *Prof. biol,* Shaw, 23–27; Langston, 29; *Lincoln (Mo), 29–* Summer, prof, Fisk, 28. A.A; Ecol. Soc; Mo. Acad. Invertebrates in disturbed areas.

Dowell, Prof. A(ustin) A(llyn), University Farm, St. Paul, Minn. *Agricultural economics.* Gaynor City, Mo, Sept. 27, 91. B.S, Iowa State Col, 15; M.S, Minnesota, 25, Ph.D, 32. Instr. animal husbandry, Iowa State Col, 15–17; prof. and chief dept. animal and dairy husbandry, Alberta, 17–22; exten. specialist, *Minnesota,* 22–27, prof. and supt, Northwest Sch. and Exp. Sta, 27–37, *prof. agr. econ, univ, 37–* In charge special study, live-stock marketing, bur. agr. econ, U. S. Dept. Agr, 33–34. Summer, mem. cmn. Alta. govt, study live-stock marketing in Great Britain, 21. Econ. Asn; Farm Econ. Asn; Soc. Farm Managers and Rural Appraisers. Red River Valley Dairymen's Asn. (pres, 32–37); Red River Valley Live Stock Asn. (pres, 35–37); Minn. Statist. Asn. (pres, 41). The American farmer and the export market; land economics; livestock marketing.

Dowell, Dr. C(arr) T(homas), Louisiana State University, Baton Rouge, La. *Agricultural chemistry.* Mt. Sylvan, Texas, Dec. 3, 78. A.B, Texas Christian, 01; B.S, Texas, 02; Ph.D, California, 15. Teacher, nor. schs, Okla, 07–10; instr. chem, Texas, 10–16; assoc. prof, Tulane, 16–18; chemist, Exp. Sta, Okla. Agr. and Mech. Col, 18–21, director, 21–23; acting dean sch. agr, 23–24, dean, 24–28, director, 23–28; dean sch. agr, *Louisiana,* 28–31, director, Exp. Sta, 28–41, *prof. agron, 41–* Chem. Soc. Reactions of nitrogen trichloride; bolly refuse; the action of furfural and dextrose on amino-acids and protein hydrolysates; cyanogenesis in Sudan grass; Francis-Connell method of determining hydrocyanic acid; phenylhydrazine method of determining pentosans; saccharine sorghum silage; farm profits; unused lands in Louisiana.

Dowling, Dr. P(hilip) H(erschel), 628 Cascade Road, Wilkinsburg, Pa. *Physics.* Madison, Wis, Nov. 13, 00. A.B, Wisconsin, 21, A.M, 22, Ph.D, 24. Instr. physics, Yale, 24–27; *research physicist, Union Switch and Signal Co, Swissvale, Pa, 27–* Physical Soc. Electromagnetic apparatus; circuits; industrial application of x-rays; rectifiers; Volta effect.

Down, Prof. E(ldon) E(ugene), 639 Collingwood Drive, East Lansing, Mich. *Plant breeding.* Ithaca, Mich, 92. B.S, Mich. State Col, 15, M.S, 30; Ph.D, Cornell, 40. Asst. prof. *farm crops, Mich. State Col,* 24–29, assoc. prof, 29–41, *research prof, 41–* Agent, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 24–32. Soc. Agron. Phases of plant breeding.

Downes, Dr. Alfred W, Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Plastics.* Fostoria, Ohio, July 3, 07. A.B, Oberlin Col, 29; A.M, Western Reserve, 30; Ph.D, Wisconsin, 32. Chemist, works lab, *Carbide and Carbon Chem. Corp,* 33–35, group leader, *process develop. lab,* 35–42, *supervisor, 42–* A.A; Chem. Soc. (sec'y, Kanawha Valley sect, 41). Synthetic resins.

Downes, A(rthur) C(aldwell), National Carbon Co, Cleveland, Ohio. *Chemistry.* Ipswich, Mass, Feb. 26, 82. B.S, Mass. Inst. Tech, 04. Chemist, Hartford Lab. Co, Conn, 04–05; *Nat. Carbon Co,* Cleveland and Fostoria, 05–17, asst. supt, Fostoria works, 18–21, Cleveland works, 21–22, Niagara works, 22, head works labs, *Cleveland,* 22–25, *develop. and research labs, 25–* Chem. Soc; Illum. Eng. Soc; Motion Picture Eng. Illuminating carbons; energy measurements on sunlight; projector carbons.

Downes, Dr. Harold C(orbin), Kingston, Mass. *Chemistry.* Yonkers, N. Y, Aug. 12, 04. A.B, Harvard, 26; Ph.D, Columbia, 33. Teacher, Brent Sch, 27–29; asst, Columbia, 29–32; research chemist, Gustavus J. Esselen, Inc, 34–35; *instr. chem, Lafayette Col, 36–* Chem. Soc; N. Y. Acad. Electrochemistry of solutions; non-aqueous solutions.

Downes, Dr. Helen R(upert), 403 W. 115th St, New York, N. Y. *Biochemistry.* Scriba, N. Y, Dec. 29, 93. A.B, Columbia, 14, A.M, 18; Ph.D, Cambridge, 27. Asst. chem, Vassar Col, 14–16; Barnard Col, Columbia, 16–18; asst, med. col, Cornell, 18–20; instr. chem, Peking Union Med. Col, 20–25; asst. chemist and chemist, Mem. Hosp, New York, 27–40; lecturer, *Barnard Col, Columbia,* 32–34, instr, 34–43, *asst. prof, 43–* A.A; Biochem. Soc. Gt. Britain. Cell metabolism; organic chemistry of blood in cancer patients; antidiuretic factor of the pituitary; cell respiration.

Downey, Prof. Hal, University of Minnesota, Minneapolis, Minn. *[5]Anatomy.* State College, Pa, Oct. 4, 77. A.B, Minnesota, 03, A.M, 04, Ph.D, 09. From asst. to *prof.* animal biol, *Minnesota,* 04–17, histol, 17–29, *anat, 29–* Am. ed, 'Folia Haematologica'; ed. and contributor, 'Handbook of Hematol.' A.A; Asn. Anat; Minn. Path. Soc. Hematology; origin and relationships of blood cells; blood diseases; blood-forming organs.

Downey, Dr. Thomas B(rlley), Kind and Knox Gelatin Co, Camden, N. J. *Chemistry.* Keezletown, Va, March 13, 94. A.B, Trinity Col. (N. C), 15; B.S, Pittsburgh, 17, M.S, 20, Ph.D, 22. Prin. and teacher, high sch, N. C, 15–16; instr. org. chem, Pittsburgh, 19–22; senior fellow, Mellon Inst, 22–25; *v. pres. in charge research and production, Kind and Knox Gelatin Co, 25–* C.W.S, U. S. Army, 17–19, capt. Chem. Soc; Leather Chem. Asn; Soc. Biol. Chem; Franklin Inst. Dye intermediates; manufacture of gelatin; industrial applications of gelatin with particular reference to its use in photography, pharmacy, medicine and nutrition.

Downing, Dr. D(ouglas) C(rawford), 286 Huron St, Toronto, Ont, Can. *Organic chemistry.* Brandon, Man, Aug. 3, 18. B.A, McMaster, 38; M.A, Toronto, 40, Nat. Research Council Can. student, 41–42, Ph.D, 42. Asst. chem, Toronto, 38–40; *research chemist, Nat. Research Council Can, 42–* Chem. Soc; assoc. Can. Inst. Chem. Organomercurials; high explosives.

Downing, Dr. E(lliot) R(owland), Box 147, Williams Bay, Wis. *Biology, Education.* Boston, Mass, Nov. 21, 68. B.S, Albion Col, 89, M.S, 94; Ph.D, Chicago, 01. Instr. science, Beloit Col, 91–96; asst. zool, Chicago, 00–01; prof. biol, North. State Nor. Sch, Mich, 01–11; asst. prof. nat. science, Chicago, 11–14, assoc. prof, 14–34, asst. dean, 12–16; *retired.* Ed, 'Univ. Chicago Sch. Science Series.' A.A; Nature Study Soc. (sec'y-treas, ed, 11–17); Nat. Asn. Research Sci. Teaching (pres); Mich. Acad. Spermatogenesis of Hydra and Arenicola; ovogenesis of Hydra; muscle movement in Pelecypoda; heredity; pedagogy of science; elementary eugenics; science and health.

Downing, F(rederick) B(axter), 30 Fenwick Drive, Penns Grove, N. J. *Chemistry.* Woodhaven, L. I, N. Y, Oct. 13, 94. Ch.B, Cornell, 16. Aluminum Co. Amer. and Champion Fibre Co, 16–17; *E. I. du Pont de Nemours and Co, 17–, head gen. org. div, Jackson lab.* Mod. Pioneer award, Nat. Asn. Mfrs. A.A; Soc. Automotive Eng; Chem. Soc.

Downing, George V, 427 Market St, Salem, Va. *Chemistry.* Wilmington, Del, July 7, 91. B.S, Haverford Col, 14, A.M, 21. Chemist, J. E. Rhoads and Sons, Wilmington, 14–17; research engineer, I. P. Thomas and Son Co, Phila, 20–21; *chemist in charge labs, Leas and McVitty, Inc, Salem, 21–* Chem. Soc; Leather Chem. Asn. Leather chemistry and technology.

Downing, Prof. H(arold) H(ardesty), 138 State St, Lexington, Ky. *Mathematics.* Lexington, Ky, Nov. 29, 86. B.C.E, Kentucky, 08; M.S, Chicago, 16, Ph.D, 29. From asst. to *prof. math, Kentucky, 08–* Asst, Chicago, 26–27. Summers, assoc. prof, Alabama, 28, 30–32. A.A; Math. Soc; Math. Asn. Calculus; calculus of variations.

Downing, Dr. J(ames) R(obert) O(xley), 120 Riverway, Boston, Mass. *Nuclear physics.* Oxford, N. S, Can, Dec. 8, 13. B.A, Mt. Allison, 36; M.A, Dalhousie, 38; scholar, Mass. Inst. Tech, 40–41, Ph.D, 42. Teaching fellow physics, Mass. Inst. Tech, 38–40, research assoc, 41–42; *physicist, Nat. Research Corp, 42–* Nuclear spectroscopy.

Downing, Dr. John Godwin, 520 Commonwealth Ave, Boston, Mass. *Dermatology.* Boston, Mass, June 22, 90. A.B, Boston Col, 11; M.D, Harvard, 15, 22–24. Surg. intern, *Boston City Hosp,* 15–17, asst. dermatologist and *dermatologist, 24–; dermatologist, U. S. Marine Hosp, 20–; St. Elizabeth's Hosp, 22–; Chelsea Mem. Hosp, 26–; St. Margaret's Hosp, 27–; prof. dermat, med. sch, Boston; chief dermat. service, Mass. Mem. Hosp.* Consulting dermatologist, U. S. Pub. Health Service, 20–; U. S. Veterans Bur, 24– Teaching fellow, Harvard, 22, asst, 30–33; instr, Boston, 22–25; asst. prof, med. sch, Tufts Col, 24. U.S.N, 17–21. Am. Med. Asn. (v. chairman, sect. dermat. and syphilol, 35, chairman, 39; mem. exec. cmt, 40–42); Acad. Dermat. and Syphilol. (v. pres, 40, director, 40–42); Soc. Investigative Dermat; New Eng. Dermat. Soc. (pres, 41). Industrial dermatitis; mycology.

Downing, Dr. Joseph R(ichard), 22 S. Cannon Drive, Wilmington, Del. *Physical chemistry.* New Florence, Mo, May 20, 15. A.B, Cent. Col. (Mo), 37; Ph.D, Illinois, 40. *Chemist, exp. sta, E. I. du Pont de Nemours and Co, 40–* Chem. Soc; assoc. Optical Soc. Molecular spectroscopy; hydrogen bonding of nitrogen compounds; industrial chemical applications of infrared spectroscopy.

Downing, Dean Lewis K(ing), 2213 Fourth St, N. W, Washington, D. C. *Civil engineering.* Roanoke, Va, Jan. 2, 96. A.B, Johnson C. Smith Univ, 16; B.S, Howard, 21, Mass. Inst. Tech, 23; M.S.E, Michigan, 24. Instr. *civil eng, sch. eng. and archit, Howard,* 24–26, asst. prof, 26–30, assoc. prof, 30–37, *prof, 37–,* acting dean, 35–37, *dean, 37–* Mem, Int. Road Cong, 33– Eng. Educ; Nat. Tech. Asn. (exec. cmt, 35–). Highway transport.

Downing, P(aul) M(ilton), 245 Market St, San Francisco, Calif. *Electrical engineering.* Newark, Mo, Nov. 27, 73. B.S, State Col. Wash, 91; A.B, Stanford, 95. With, Tacoma Light and Power Co, 95–96; Market Street Ry. Co, San Francisco, 96–97; Blue Lakes Water Co, 98–99; Standard Consol. Mining Co, 99–01; manager, Colusa Gas and Elec. Co, 01–02;

div. supt, Bay Counties Power Co, 02–03; Calif. Gas and Elec. Corp, 03–08; engineer of operation and maintenance, *Pacific Gas and Elec. Co*, 08–17, chief engineer elec. dept, 17–20, v. pres. in charge elec. construction and operation, 20–29, *v. pres. and gen. manager, 29–* Elec. Eng; Edison Elec. Inst. (v. pres, 35); Pacific Coast Elec. Asn. (pres, 28); Pacific Coast Gas Asn.

Downing, Prof. Roderick L(yle), 983 14th St, Boulder, Colo. *Civil engineering.* Lamar, Colo, June 14, 92. B.S. (C. E), Colorado, 14, C.E, 29. Rodman and draftsman, A. T. and S. F. Ry. Co, 14–16; draftsman, Oregon Short Line R. R, 16–17; levelman, chief of party and highway engineer, bur. pub. roads, U. S. Dept. Agr, 17–23; private practise, 23–25; field engineer, Am. Beet Sugar Co, 25–26; instr. *civil eng, Colorado,* 26–27, asst. prof, 27–31, assoc. prof, 31–39, *prof, 39–* Summers, transitman, Grand Junction Mining and Fuel Co, 13; asst. engineer, Denver and Rio Grande West. Ry, 27; Denver and Salt Lake Ry, 28; drainage investigations, Gering and Ft. Laramie Irrig. Dist, 29; surv, Laramie River, Colo, 31. Civil Eng; Eng. Educ; Road Builders Asn; Colo. Soc. Eng. Highways; water supply; hydraulics; sewerage; city planning.

Downs, Prof. Ardrey W(hidden), 11036 88th Ave, Edmonton, Alta, Can. *Physiology, Pharmacology.* Philadelphia, Pa, Aug. 17, 82. M.D, Pennsylvania, 04; D.Sc, McGill, 20. Asst, Pennsylvania, 07–09; assoc. prof, Temple, 09–14; prof, Medico-Chirurg. Col. of Phila, 14–16; assoc. prof, McGill, 16–20; *prof. physiol. and pharmacol, Alberta, 20–* Med. and Dental Boards, Alta. A.A; Physiol. Soc; fel. Col. Physicians; Edmonton Acad. Med; British Physiol. Soc.

Downs, Dr. Charles R(aymond), Weiss and Downs, Inc, 50 E. 41st St, New York, N. Y. *Chemical engineering.* New Haven, Conn, March 17, 88. Ph.B, Yale, 09, Ph.D, 12. Lab. instr. chem, Sheffield Sci. Sch, Yale, 09–12; asst. chief chemist, research dept, Barrett Co, 12–17, chief chemist, 17–22; in charge special develop. work, Nat. Aniline and Chem. Co, 22; partner, Weiss and Downs, 23–27, v. pres. and sec'y, Weiss and Downs, Inc, 27–43; *consulting chem. engineer, 43–* Pres, Calorider Corp; mem. referee board, Office Production Research and Develop, War Production Board, 42– Consulting ed, 'Chem. Industries,' 27– Potts medal, Franklin Inst, 22; Grasselli medal, Soc. Chem. Indust, 26. A.A; Chem. Soc. (councilor, N. Y. sect, 27, 29, chairman, 28, West. Conn. sect, 36, councilor, 38, 41); Chem. Eng. (director, 29–31, 33–35, 39–42; admissions cmt, 31–); Mech. Eng; Inst. Chem; Gas Asn; Am. Inst. (board managers, 32–35; council on awards, 40–43); Soc. Professional Eng; Heat. and Vent. Eng; Army Ordnance Asn; Chemists' Club (v. pres, 26–28, 39–40, trustee, 28, 40–, chairman, Symposiarchs, 36–38); Soc. Chem. Indust. (exec. cmt, Am. sect, 39–42). Chemical engineering and economics; catalytic processes; coal carbonization and coal-tar products; patent litigation; air conditioning; development and administration of technical organization; vapor phase oxidation of benzene to maleic acid; catalytic oxidation of organic compounds in the vapor phase.

Downs, Prof. Cornelia M(itchell), 1625 Alabama, Lawrence, Kans. *Bacteriology.* Kansas City, Kans, Dec. 20, 93. A.B, Kansas, 15, A.M, 20, Ph.D, 24. Instr. *bacter, Kansas,* 17–21, asst. prof, 21–25, assoc. prof, 25–35, *prof, 35–* Asn. Path. and Bact; Asn. Immunol; Soc. Bact; Harvey Soc. Immunology; metabolic and antigenic studies on Bacillus typhosus; antigenic properties of tissue fibrinogen; precipitin reaction; tularemia.

Downs, Leslie E, 4118 Cherokee Drive, Madison, Wis. *Chemistry, Physics.* Glidden, Iowa, Nov. 6, 00. B.S, Iowa State Col, 26; M.S, Wisconsin, 32. Research engineer, U. S. Gypsum Co, Iowa and Ill, 26–28; junior physicist, Bur. Standards, 28; asst. chem. engineer and *assoc. chem. engineer, Forest Products Lab, U. S. Forest Service, 28–* Chem. Soc. Gypsum products; thermal conductivity of building materials; paint and other protective coatings; control of shrinkage of wood; water repellents and sash-dipping compounds for wood.

Downs, Dr. M(artin) L(uther), Thilmany Pulp and Paper Co, Kaukauna, Wis. *Chemistry.* Reading, Pa, March 12, 10. B.S, Pa. State Col, 31; M.S, Lawrence Col, 32, Ph.D, 34. Develop. dept, Mead Corp, 34–37; *chief chemist, Thilmany Pulp and Paper Co, 37–* Chem. Soc; Asn. Pulp and Paper Indust. Paper chemistry; paper sizing; stock processing.

Downs, Prof. Paul Andrew, 1301 N. 38th St, Lincoln, Nebr. *Dairy husbandry.* Waterbury, Conn, March 4, 91. B.S, Conn. Agr. Col, 18; M.S, Cornell, 20, Ph.D, 23. Instr. dairy bacter, Cornell, 18–23; *prof. dairy husbandry, Nebraska, 23–* Assoc. referee microbiol. exam. of condensed and evaporated milk, Standard Methods Cmt. on Anal. Frozen Desserts. Dairy Sci. Asn. (mem, cmt. on dairy products judging contest, chairman, subcmt. cream quality); Pub. Health Asn. (cmt. milk and dairy products, food and nutrition sect). Dairy bacteriology; bacterial thickening of sweetened condensed milk; powdered milk; ice cream; market milk problems; methods of cooling milk and cream on the farm; mastitis and milk flavors.

Downs, Dr. Thomas L(uther), Jr, Trinity College, Hartford, Conn. *Mathematics.* Revere, Mass, Jan. 26, 06. A.B, Bowdoin Col, 27; A.M, Harvard, 30, Ph.D, 34. Instr. math. and German, Franklin and Marshall Col, 27–29; *instr. math,* Harvard, 32–34, 35–36; Sweet Briar Col, 34–35; *Trinity Col. (Conn), 36–* Math. Soc. Differential geometry.

Downs, Prof. W(illiam) S(mith), West Virginia University, Morgantown, W. Va. *Highway engineering.* Martinsburg, W. Va, March 15, 83. B.S, West Virginia, 06, C.E, 15. Topographer, Cmn. Study Railroads, Bolivian govt, 04–05; chief draftsman, M. and K. R.R, 06–09; div. engineer, State Road Cmn, W. Va, 16–29; *consulting engineer, 29–; prof. railway-highway eng, West Virginia, 31–* Consultant, W. Va. Road Cmn, 31–; Asn. Am. Railroads, 32–; Railway Asn. Can. Civil Eng. (pres, W. Va. sect, 40); Eng. Educ. Theory and costs of highway design; motor vehicle taxation and highway costs; highway economics and design.

Downsbrough, Dr. George A(tha), Boonton Radio Corporation, Boonton, N. J. *Physics.* Firthcliffe, N. Y, Feb. 14, 10. B.S, Rutgers, 31, M.S, 33, Ph.D, 36. Asst, Rutgers, 31–36; physicist and senior physicist, research lab, Johns-Manville Corp, 36–40; senior physicist, bur. ordnance, U. S. Navy Dept, 40–42; *gen. manager, Boonton Radio Corp,* 42– A.A; Physical Soc; Radio Eng. Photoelectricity; elastic constants; electricity; magnetism.

Dows, Chester L(awrence), General Electric Co, Cleveland, Ohio. *Engineering.* Salem, Mass, June 12, 87. B.S, Mass. Inst. Tech, 12. *Head elec. and photometric measurements, Gen. Elec. Co, 12–* Lecturer, Case, 30– Fel. Elec. Eng. (chairman, Cleveland sect, 25); Illum. Eng. Soc. (chairman, Cleveland sect, 23). Foot candle meters; general electric light meter; light measurements.

Dox, Dr. Arthur W(ayland), 764 Fifth Ave, N, St. Petersburg, Fla. *Chemistry.* Corning, N. Y, Sept. 19, 82. B.S, Pennsylvania, 04; A.M, Columbia, 05; Ph.D, Yale, 09. Chemist, dairy div, U. S. Dept. Agr, 05–10; chief chemist, Exp. Sta, Iowa State Col, 10–20; research chemist, Parke, Davis and Co, 20–36. Chairman cmt. on hypnotics, Nat. Research Council, 25. Capt, food div, Sanit.C, 17–19; lieut. col, C.W.S, O.R.C, 23–28. Chem. Soc. (sec'y, div. biol. chem, 20, chairman, 21, sec'y, div. med. chem, 26, chairman, 27, asst. ed, 'Chem. Abstracts,' 32–); Soc. Biol. Chem. Organic and biological chemistry; synthesis of naphthotetrazin; cheese ripening; enzymes of fungi; polysaccharids of lower fungi; silage; gelatinization of starch; barbituric acids; heterocyclic derivatives; synthetic drugs.

Doxsee, W(illiam) W(esley), Dominion Observatory, Ottawa, Ont, Can. *Geophysics.* Glenalda, Ont, April 17, 87. M.A, Queen's (Can), 09. Surveys physicist, Can. Dept. Interior, 14–20; *astronomer, Dom. Observatory, 20–* Seismol. Soc. Seismology.

Doyle, C(onrad) B(artling), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Washington, D. C, Aug. 12, 84. George Washington. *Prin. agronomist, div. cotton and other fiber crops and diseases, bur. plant indust, U. S. Dept. Agr.* A.A; Soc. Agron. Cotton production and improvement.

Doyle, Dr. L(eo) P(hilip), Purdue University, West Lafayette, Ind. *Animal pathology.* Loogootee, Ind, Oct. 15, 85. B.S.A, Purdue, 11; M.S, Michigan, 24; D.V.M, Mich. State Col, 31; Ph.D, Chicago, 32. Teacher, high sch, Minn, 11–14; asst. animal pathologist, *Purdue,* 15–18, *assoc. animal pathologist, 18–* Paratyphoid bacilli from chicks; rickets and pullorum disease in chickens; fowl paralysis; swine dysentery; pathogenic bacteria in hog cholera blood; infectious abortion of swine; anemia in young pigs.

Doyle, Dr. T(homas) C(arlson), Stanford University, Calif. *Mathematics.* Seattle, Wash, Oct. 1, 08. B.E, Washington (Seattle), 31; Ph.D, Princeton, 39. Asst. *math,*

Washington (Seattle), 33–35; *instr*, Princeton, 35–39; Wyoming, 39–40; *Stanford, 40–* Math. Soc. Differential invariant theory.

Doyle, Rev. William C(letus), Rockhurst College, Rockhurst, Ill. *Mathematics.* St. Louis, Mo, April 27, 02. A.B, St. Louis Univ, 26, A.M, 27, Ph.D, 38. *Asst. prof. math, Rockhurst Col, 38–* Math. Soc. Infinite series; generalized Lambert series; a new Moebius coefficient.

Doyle, Prof. W(illiam) L(ewis), University of Chicago, Chicago, Ill. *Zoology.* Brooklyn, N. Y, May 19, 10. A.M, Hopkins, 32, Ph.D, 34. Bruce fellow, 34–35; Rockefeller fellow, Cambridge, 35–36, Carlsberg Lab, Copenhagen, 36–37; asst. prof. biol, Bryn Mawr Col, 37–42; *research assoc. and asst. prof. pharmacol, Chicago, 42–* Soc. Zool; Soc. Nat; Physiol. Soc. Phila. Cytoplasmic cytology; cellular physiology; origin and localization of enzymes.

Dozier, Prof. Carrie Castle, Mills College, Oakland, Calif. *Home economics.* Whitehouse, Ohio, June 13, 83. B.S, Oregon Col, 18; A.B, California, 18, A.M, 19, Hooper Foundation fellow, 20–23, Ph.D, 23. Prof. foods and nutrition and dean sch. home econ, Utah Col, 23–27; *prof. foods and nutrition and chairman dept. home econ, Mills Col, 27–* Summer, California, 28. Bacteriology; household science; biochemistry.

Dozier, Dr. H(erbert) L(awrence), U. S. Department of the Interior, Cambridge, Md. *Entomology, Zoology.* Wilmington, N. C, June 24, 95. B.S, South Carolina, 15; M.S, Florida, 17; fellow, Ohio State, 19–20, 21–22, Ph.D, 22; Univ. de Clermont-Ferrand, France, 19. Asst. entomologist, State Plant Board, Miss, 20–21; entomologist in charge New Orleans sta, bur. entom, U. S. Dept. Agr, 22–23; entomologist, Gulf Coast Citrus Exchange, Ala, 23–24; chief entomologist, Insular Exp. Sta, P. R, 24–25; entomologist, Exp. Sta, Delaware, 25–29; head dept. zool. and entom, Ecole cent, and chief entomologist, Exp. Sta, Service Technique, Port-au-Prince, Haiti, 29–31; plant quarantine inspector, U. S. Dept. Agr, 32–33; asst. state director pest mosquito control, Civil Works Admin, La, 34; assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, Mayaguez, P. R, 35–36; research entomologist, State Dept. Agr, La, 36–37; *director fur animal field sta, Blackwater refuge, fish and wildlife service, U. S. Dept. Interior, 37–* Wildlife Soc; Soc. Mammal; Asn. Econ. Entom. Economic and systematic entomology; plant and animal ecology; biology of the muskrat; marsh management.

Dozois, Dr. K. Pierre, Lederle Laboratories, Inc, 30 Rockefeller Plaza, New York, N. Y. *Chemistry, Medical bacteriology.* Helena, Mont, Sept. 20, 02. B.S, Mont. State Col, 27; M.S, Pa. State Col, 30; Ph.D, Maryland, 37. Sanitarian, State Health Dept, Md, 31–34; research fellow, sch. med, Maryland, 37–40; *med. lecturer, Lederle Labs, Inc, 40–* Colloidal chemistry; electrophoretic migration velocity of microorganisms; effect of ultra-violet irradiation on electrophoretic migration velocity of E. coli; rare sugar carbohydrate reaction of E. coli.

Dozois, Dr. T(heodore) F(rederick), 2085 Adelbert Road, Cleveland, Ohio. *Bacteriology.* Helena, Mont, Sept. 20, 04. B.S, Mont. State Col, 27; M.S, Maryland, 31; Hopkins, 35–36; Ph.D, Pennsylvania, 42. Analyst, div. water and sewage, State Dept. Health, Mont, 27–28; asst. bacter, Maryland, 28–30; bacteriologist, bur. bacter, State Dept. Health, Md, 30–37; director div. labs, N. Dak, 37–42; *research bacteriologist and immunologist, inst. path, Western Reserve, 42–* Pub. Health Asn. Digestion of sewage solids at high temperatures; immunochemical studies on human serum.

Dozzi, Dr. D(aniel) L(ouis), 46 E. Willow Grove Ave, Philadelphia, Pa. *Medicine.* Cardiff, Colo, May 11, 07. A.B, Utah, 29; M.D, Pennsylvania, 32, M.S, 39, Sc.D, 39. *Instr. med, grad. sch. med, Pennsylvania, 36–,* asst. research univ, 38–40; *assoc. physician, Chestnut Hill Hosp, 37–* Fel. Am. Med. Asn; fel. Col. Physicians. Clinical medicine.

Drabkin, Dr. David L(ion), University of Pennsylvania, Philadelphia, Pa. *Physiological chemistry.* Russia, May 3, 99. A.B, Col. City of N. Y, 19; M.D, Cornell, 24. Nat. research fellow med, Yale, 24–26; instr. *physiol. chem, med. sch, Pennsylvania,* 26–31, asst. prof, 31–42, *assoc. prof, 42–* Guggenheim Mem. Foundation fellow, sch. med, Hopkins, 40–41. Optical Soc; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Nutrition; Physiol. Soc. Phila. Anhydremia; urinary pigments; surface area; experimental anemia; spectrophotometry of hemoglobin and derivatives; pigment metabolism; biological oxidations.

Draffin, Prof. Jasper O(wen), University of Illinois, Urbana, Ill. *Engineering.* Noyan, Que, Can, Sept. 24, 84. B.S, Vermont, 13; fellow, Illinois, 14–16, M.S, 16. City and gen. engineer, McIntosh and Crandall, Vt, 13–14; instr. mech, Ohio State, 16–19; *theoret. and applied mech, Illinois,* 19–21, assoc, 21–23, asst. prof, 23–31, assoc. prof, 31–35, *prof, 35–* Summers, Highway Dept, Vt, 15–17, 19–25. Civil Eng; Soc. Test. Mat; Eng. Educ; Hist. Sci. Soc; West. Soc. Eng. History of engineering; strength of materials; cement; tensile strength of Portland cement constituents.

Dragstedt, Prof. Carl A(lbert), Northwestern University Medical School, Chicago, Ill. *†*Physiology, Pharmacology.* Anaconda, Mont, Oct. 26, 95. B.S, Chicago, 16, M.S, 17, Ph.D, 23, M.D, Rush, 21, fellow, 22–23. Instr. pharmacol, Iowa, 17–18; asst. physiol, Chicago, 16–17, 19–20, 22; *prof. pharmacol, med. sch, Northwestern, 26–* Mem. revision cmt, U. S. Pharmacopoeia. Lieut, Sanit.C, 18–19. A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Asn; Inst. Med. Chicago. Epinephrine; diuretics; intestinal obstruction; local anesthetics; physiology of bone; parathyroid; secretin; esophagus; acute dilatation of the stomach; morphine; intestinal flora; cocaine poisoning; anaphylaxis; anemia.

Dragstedt, Prof. Lester R(eynold), University of Chicago, Chicago, Ill. *Surgery, Physiology.* Anaconda, Mont, Oct. 2, 93. B.S, Chicago, 15, M.S, 16, Ph.D, 20, M.D, 21. Assoc. physiol, Chicago, 15–16; instr. pharmacol, Iowa, 16–17, asst. prof. physiol, 17–19; Chicago, 19–23; prof. physiol. and pharmacol, Northwestern, 23–25; assoc. prof. *surg, Chicago,* 25–30, *prof, 30–* Lieut, U.S.A, 18–19. A.A; Surg. Asn; Soc. Clin. Surg; Physiol. Soc; Am. Physicians; Am. Med. Asn; Soc. Exp. Biol; Chicago Surg. Soc; Inst. Med. Chicago. Pathogenesis of gastric ulcer; intestinal obstruction; physiology of the parathyroid glands; physiology of the stomach and duodenum; pathogenesis of tetany; acute pancreatitis; lipocaic.

Dragt, Dr. G(errit), 1337 Beach Ave, Lakewood, Ohio. *Analytical chemistry.* Grand Rapids, Mich, Aug. 28, 08. A.B, Calvin Col, 31; Ph.D, Purdue, 37. *Research chemist, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Ortho-tolidine method for the determination of chlorine in drinking water.

Drain, Dr. Brooks D(aniel), University of Tennessee, Knoxville, Tenn. *Horticulture.* Roxbury, Ohio, Dec. 9, 91. B.S, Ohio State, 17; M.S, Chicago, 25; Ph.D, Mich. State Col, 33. Instr. hort, Ohio State, 17–18; asst. prof. pomol, Mass. Col, 18–31; assoc. horticulturist, *Exp. Sta, Tennessee,* 31–32, *horticulturist and head dept. hort, 32–* A.A; Soc. Hort. Sci. Enzymes; bud mutations; fruit breeding; pyrethrum.

Draisin, W(ilburt) M(ilton), 5455 Everett Ave, Chicago, Ill. *Mineralogy, Crystallography.* New York, N. Y, Nov. 19, 16. A.B, Wisconsin, 36; A.M, Harvard, 40. Asst. to curator miner. museum, Harvard, 39–40, asst, x-ray lab, 40–41; inspector, U. S. Naval Gun Factory, 42; *crystallographer, Majestic Radio and Television Corp, 42–* Miner. Soc; Boston Geol. Soc. Physico-chemical relations of the amphibole group.

Draize, Dr. J(ohn) H(enry), Federal Security Agency, Washington, D. C. *Pharmacology, Toxicology.* Brussels, Wis, May 21, 00. B.S, Wisconsin, 22, Ph.D, 31. Asst. pharmacologist, Exp. Sta, Wyoming, 31–35; asst. toxicologist, Edgewood Arsenal, 35–36, toxicologist, 36–39; *pharmacologist, food and drug admin, Fed. Security Agency, 39–* A.A; Soc. Pharmacol. Thyrotoxicosis; toxicology of poisonous plants of western stock ranges; vesicant chemical warfare agents; physiology of skin.

Drake, Bryant S(tillman), 233 Molino Ave, Mill Valley, Calif. *Chemical engineering.* Lehigh, Iowa, Aug. 13, 77. B.S, California, 02. Bethlehem Shipbuilding Corp, 09–20; Gould and Drake, 20–26; Am. Distilling Co, 26–40; *retired.* Del, Panama-Pacific Expos, 15. A.A; Chem. Soc. (sec'y, Calif. sect, 10–19, v. pres, 19, pres, 20); Soc. Test. Mat. Nitrogen in California crude oils; nitric acid; low temperature concentration of citrus fruit juices.

Drake, Prof. Carl John, 413 Ash Ave, Ames, Iowa. *Entomology.* Eagleville, Ohio, July 28, 85. B.S, B.Pd, Baldwin-Wallace Col, 12; Ph.D, Ohio State, 21. Asst. zool. and entom, Ohio State, 13–15, instr, 15–17; entom, Syracuse, 17–18, asst. prof, 18–20, *prof,* 20–22; *zool. and entom. and head dept, Iowa State Col, and entomologist, Exp. Sta,* 22– State entomologist, Iowa, 22– Summers, instr, Baldwin-Wallace Col, 12–15; research entomologist, Exp. Sta, Florida, 18; Exp.

Sta, Miss. State Col, 21. A.A; Entom. Soc. Amer; Entom. Soc; Asn. Econ. Entom. (v. pres, 26); Soc. Parasitol; Fla. Entom. Soc; Ohio Acad; Iowa Acad; Entom. Soc. Wash; Brooklyn Entom. Soc; Biol. Soc. Wash; Wash. Acad. Experimental, applied and taxonomic entomology; Hemiptera.

Drake, Dr. Charles A(rthur), 16 W. 22nd St, New York, N. Y. *Psychology.* Avon, Ill, May 20, 94. A.B, Illinois, 17; A.M, Columbia, 25, Ph.D, 31; D.C.S, N. Y. Univ, 36. Teacher, schs, Pa, 11–12, 13–14; supervisor and specialist educ, U.S.A, Hawaii, 20–21; adviser, Pacific Fleet, U.S.N, 21–22; proprietor automobile service sta, Calif, 22–23; instr. lib. arts, Mechanics Inst, Rochester, N. Y, 23–24; asst. prof. psychol. and econ, Adelphi Col, 25–27, prof. psychol, 27–36; instr. and asst. prof. management, N. Y. Univ, 34–37; consultant, N. Y. Board of Trade, 37–38; director bur. instructional research, West Virginia, 38–41; head methods dept, United Merchants and Mfrs. Management Corp, 41–42; *U. S. Army, 42–, lieut. col.* Acting pres, Hilo Junior Col, Hawaii, 31–32. Capt, Inf, 17–20. A.A; fel. Asn. Applied Psychol; Nat. Vocational Guidance Asn; Educational Research Asn; Soc. Adv. Management; Management Asn. Industrial psychology; personnel; management; training; safety; tests.

Drake, Dr. Chester F(rancis), Pittsburgh Filtration Plant, Aspinwall, Pa. *Water purification.* Cambridge, Mass, July 1, 74. B.S, Mass. Inst. Tech, 98; hon. D.Sc, Duquesne, 23. *Supt. filtration, Pittsburgh, 08–* Lecturer, sch. med, Pittsburgh, 10– Eng. Soc. West. Pa. Typhoid fever statistics; stream pollution abatement; effect of mine drainage on streams.

Drake, E(ugene) T(olman), 6119 William St, Omaha, Nebr. *Bacteriology.* Kirksville, Mo, Nov. 6, 99. B.S, Cornell, 21; M.S, Wisconsin, 23. Asst. agr. bacter, Wisconsin, 21–23; instr, N. Dak. Col, 23–24; *research bacteriologist, Cudahy Packing Co, Omaha, 24–* Soc. Bact. Putrefactive anaerobes; derivatives of muscle pigment; aroma of margarine.

Drake, Prof. G(eorge) Wilson, University of Houston, Houston, Texas. *Chemistry.* Beattie, Kans, Jan. 13, 08. B.S, Texas Tech. Col, 30, A.M, 32; Ph.D, Texas, 36. Instr. *chem,* Texas Tech. Col, 30–33; Texas, 33–36; *prof, Houston, 36–* Preparation and physical properties of gallium; parachor of some hydrazine derivatives; specific heat of gaseous hydrogen cyanide and hydrogen sulfide.

Drake, Dr. L. R, 13 Norwich Court, Midland, Mich. *Organic chemistry.* Seattle, Wash, May 12, 11. B.S, Northwestern, 33, fellow, 34–35, M.S, 35; fellow, Illinois, 36–37, Ph.D, 37. Instr, Northwestern, 33–34; Illinois, 35–36; *org. chemist, Dow Chem. Co, 37–* Chem. Soc. Validity of structure assigned to cyclo octa tetraene; pyrolysis of bisquaternary NH_4OH related to 1, 242, 3 butenes; phosphonic acids and their alkyl esters from α,β unsaturated ketones.

Drake, Dr. Leonard C(hapman), Wenonah, N. J. *Physical chemistry.* Buford, Ga, Aug. 12, 07. A.B, Oglethorpe, 28; Ph.D, Virginia, 32. Geochemist, U. S. Geol. Surv, 34–35; *research chemist, Socony Vacuum Oil Co, 35–* Chem. Soc. Adsorption; reaction kinetics; bleaching clays; petroleum refining.

Drake, Prof. Lewis E(thelbert), University of Wisconsin, Madison, Wis. *Psychology.* Eagle Grove, Iowa, Jan. 25, 00. A.B, Minnesota, 28, Ph.D, 31. Asst. *psychol,* Minnesota, 28–31; asst. prof, *exten. center, Wisconsin,* 31–39, *assoc. prof, 39–* Assoc. Psychol. Asn. Guidance and tests.

Drake, Dr. Miles E, Jefferson Medical College, Philadelphia, Pa. *Pharmacology.* Salt Lake City, Utah, March 20, 10. B.S, Oregon State Col, 33, Fairchild scholar, 33, M.S, 34; Ph.D, Southern California, 38; Michigan, 39–40; Maryland, 41– Asst. *pharmacol,* Oregon State Col, 33–34; Southern California, 35–38; *assoc, Jefferson Med. Col, 38–* Toxicologist, Los Angeles County Coroner and Health Service, 37–38. Phila. Physiol. Soc. Digitalis; barbiturates; autonomic nervous drugs; dilantin and its relation to vitamin C and its pharmacology.

Drake, Prof. N(athan) L(incoln), 6820 Pineway, College Heights, Md. *Organic chemistry.* Watertown, Mass, Dec. 21, 98. A.B, Harvard, 20, A.M, 21, Ph.D, 22. Sheldon traveling fellow, 22–23; research chemist, Mallinckrodt Chem. Works, 23–25; Procter and Gamble Co, 25–26; *prof.* indust. chem, *Maryland,* 26–28, *org. chem, 28–, chairman dept. chem, 40–* Chem. Soc. (chairman org. sect, 40); Wash. Acad. Organic synthesis; natural products.

Drake, Dr. N(oah) F(ields), Fayetteville, Ark. *Geology.* Summers, Ark, Jan. 30, 64. C.E, Arkansas, 88; A.M, Stanford, 95, Ph.D, 97. Asst. geologist, Ark. Geol. Surv, 87; Texas Geol. Surv, 89–93; U. S. Geol. Surv, 97; prof. geol. and mining, Imp. Tientsin Univ, 98–00; consulting geologist, Am-China Develop. Co, 02–04; prof. geol. and mining, Pei Yang Univ, 05–11; assoc. prof. econ. geol, Stanford, 11; head dept. geol. and mining eng, Arkansas, 12–19; *consulting geologist, 20–* Asst. topographer, U. S. Geol. Surv, 94; engineer, pub. works dept, Tientsin Provisional Govt, 00–01. A.A; Geol. Soc; Min. and Metal. Eng. Chinese coal fields.

Drake, Prof. Raleigh M(oseley), Mary Washington College, Fredericksburg, Va. *Psychology.* Odell, Nebr, Jan. 17, 02. B.B.A, Boston, 26, A.M, 30; Ph.D, London, 31. Asst, Boston, 27; assoc. prof. *psychol,* Wesleyan Col. (Ga), 31–41; *prof. and head dept, Mary Washington Col, 41–* Assoc. Psychol. Asn; South. Soc. Philos. and Psychol; Ga. Acad. Psychology of music; tests of musical talent; statistics; adolescent, general, social, abnormal and educational psychology; student-teacher aids in psychology.

Drake, Dr. W(ray) V(ernon), Case School of Applied Science, Cleveland, Ohio. *Organic chemistry.* Brantford, Ont, Can, March 14, 99. B.Sc, Alberta, 22, M.S, 30; Ph.D, Wisconsin, 34. Teacher, high sch, Alta, 23–29; teaching asst, Alberta and Wisconsin, 29–35; asst, Inst. Paper Chem, Lawrence Col, 35–36; *instr. chem, Case, 36–* Chem. Soc. Diphenyl thio-ethers and derivatives; rate and course of reaction of piperidin with bromo-esters; relation between basicity of certain amines and rate of reaction with n-butyl-bromide.

Drant, Dr. Patricia (Hart), Medical Arts Bldg, Philadelphia, Pa. *Dermatology.* Grenola, Kans, 95. B.S, Kansas, 18; M.D, Pennsylvania, 20. *Practising dermatologist.* Dermatologist, Woman's, Meth. and Phila. Gen. Hosps; consultant dermatologist, Chester Hosp. A.A; Am. Med. Asn; Acad. Dermat. and Syphilol; Phila. Dermat. Soc. (pres, 26). Acne rosacea; acne vulgaris; intertrigo; lentigo; leukoderma; lichen planus; miliaria; milium; mycosis fungoides; epidermolysis bullosa; treatment of pemphigus; Fox-Fordyce disease.

Draper, Prof. C(arroll) I, 507 Campus Ave, Pullman, Wash. *Poultry nutrition.* Maroni, Utah, Sept. 27, 14. B.S, Utah State Col, 39; fellow, Iowa State Col, 39–41, Ph.D, 42. *Asst. prof. poultry husbandry, State Col. Wash, and asst. Exp. Sta, 41–* Poultry Sci. Asn. Protein requirements of poultry; value of various protein feeds in the poultry diets; perosis of turkeys.

Draper, Prof. C(harles) S(tark), Massachusetts Institute of Technology, Cambridge, Mass. *Aeronautical engineering.* Windsor, Mo, Oct. 2, 01. A.B, Stanford, 22; B.S, Mass. Inst. Tech, 26, M.S, 28, Sc.D, 38. Asst. *aeronaut. eng, Mass. Inst. Tech,* 29–30, research assoc, 30–35, asst. prof, 35–38, assoc. prof, 38–39, *prof, 39–; consultant.* Mech. Eng; fel. Am. Acad; Army Ordnance Asn; Soc. Automotive Eng; fel. Physical Soc; fel. Inst. Aeronaut. Soc. High speed pressure indicators; vibration measuring equipment; gyroscopic instruments; detonation in engines; vibration; aircraft instruments.

Draper, Dr. George, 33 E. 68th St, New York, N. Y. *Medicine.* New York, N. Y, 80. A.B, Harvard, 03; M.D, Columbia, 06. *Assoc. prof. clin. med, col. physicians and surg, Columbia, 25–* Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol. Clinical medicine; constitution and psychology in internal medicine.

Draper, Glen H(ilding), U. S. Naval Observatory, Washington, D. C. *Astronomy.* Hinckley, Utah, May 15, 00. A.B, Utah, 23. Junior astronomer, *U. S. Naval Observatory,* 27–30, asst. astronomer, 30–35, *assoc. astronomer, 35–* Astron. consultant, Scripps Howard newspapers. A.A; Astron. Soc; Soc. Philos. Inquiry. Philosophy of astronomy; Kepler's equation table; comet orbit theory; general theory of gravitation; American ephemeris and nautical almanac; star catalogues; testing and verifying theories of natural phenomena.

Draper, Prof. Hal D(aniel), Chico State College, Chico, Calif. *Physical chemistry.* Eddy, N. Mex, Aug. 17, 93. A.B, California, 17, Ph.D, 22. Instr. chem, Rice Inst, 18–20; teaching fellow, California, 20–22; instr, Calif. State Teachers Col, Fresno, 22–23, asst. prof, 23–29, assoc. prof, 30–35; custom assayer and consulting chemist, 35–42; *assoc. prof. chem, Chico State Col, Calif, 42–* Junior chemist, U. S. Bur. Mines, 18. A.A; Chem. Soc. Common cation constituents.

Draper, Dr. William B(anford), University of Colorado School of Medicine, Denver, Colo. *Pharmacology.* Mt. Holly, N. J, Oct. 7, 93. M.D, McGill, 24, M.Sc, 26. *Anesthetist, sch. med, Colorado, 26–,* asst. prof. and *assoc. prof. physiol. and pharmacol, 29–* Soc. Exp. Biol; Soc. Pharmacol. and Exp. Therapeut. Anesthetics; physiology of respiration; analeptics.

Drayton, Dr. F(rank) L(isle), 333 Fairmont Ave, Ottawa, Ont, Can. *Botany.* Barbados, B. W. I, Aug. 13, 92. B.Sc. (Agr), McGill, 14; Ph.D, Cornell, 32. Asst. plant path. and bacter, *div. bot, Can. Dept. Agr,* 14–19, *plant pathologist, 19–* Nat. research fellow, Harvard, 32–33. Officer, Can. Inf, 15–19. Phytopath. Soc; Mycol. Soc; Can. Soc. Tech. Agr; fel. Royal Soc. Can. Diseases of bulbous ornamentals; sexuality in Sclerotineae.

Drechsler, Dr. Charles, U. S. Department of Agriculture, Beltsville, Md. *[7]*Botany.* Butternut, Wis, May 1, 92. B.S, Wisconsin, 13, M.S, 14; Ph.D, Harvard, 17. Field asst, *bur. plant indust, U. S. Dept. Agr,* 17–18, sci. asst, 19–20, asst. pathologist, 20–24, assoc. pathologist, 24–29, *pathologist, 29–* A.A; Bot. Soc; Torrey Bot. Club; Phytopath. Soc; Mycol. Soc; Micros. Soc; Bot. Soc. Wash; Wash. Acad; Wis. Acad; Deuts. Bot. Gesell. Taxonomy of economic fungi; predacious and parasitic fungi destructive to soil-inhabiting rhizopods and nematodes.

Dreese, Prof. E(rwin) E(rnest), 2419 Onondago Road, Columbus, Ohio. *Electrical engineering.* Edmore, Mich, Sept. 10, 95. B.S, Michigan, 20, M.S, 22, E.E, 29. Instr. elec. eng, Michigan, 20–25; chief engineer, Lincoln Elec. Co, Cleveland, 25–30; *prof. elec. eng. and chairman dept, Ohio State, 30–* Elec. Eng. (cmt. on electrophysics, 35–, cmt. on educ, 35–); Eng. Educ. Induction motor theory; synchronous motor effects in induction machines.

Dreese, Dean Mitchell, George Washington University, Washington, D. C. *Educational psychology.* Harrisburg, Pa, Jan. 28, 01. B.S, Columbia, 26, A.M, 27, Ph.D, 29. Teacher, high sch, N. J, 27–29; director personnel, Grinnell Col, 29–31; asst. prof. *educ. psychol, George Washington,* 31–33, assoc. prof, 33–38, *prof, 38–,* exec. officer, dept, 34–39, *dean summer sessions, 39–; capt, Air Corps, U. S. Army.* Educational Research Asn; Vocational Guidance Asn. (chairman, individual anal. sect); fel. Asn. Applied Psychol; assoc. Psychol. Asn. Psychology of vocational adjustment.

Dregne, Dr. Harold E(rnest), 706 E. Fourth St, Marshfield, Wis. *Soil chemistry.* Sept. 25, 16. B.S, Wis. State Teachers Col, 38; M.S, Wisconsin, 40; Ph.D, Oregon State Col, 42. Asst, Oregon State Col, 40–42; junior soil scientist, soil conservation service, U. S. Dept. Agr, 42–43; *ensign, U. S. Naval Res, 43–* Boron in relation to the growth and composition of alfalfa and table beets.

Dreher, Carl, Haines Falls, N. Y. *Acoustics, Radio engineering.* Vienna, Austria, Feb. 16, 96. B.S, Col. City of N. Y, 17. Research and receiving engineer, Marconi Wireless Tel. Co. and Radio Corp. of Amer, 17–23; engineer in charge broadcasting sta, WJZ, 23–26; staff engineer, Nat. Broadcasting Co, 26–28; chief engineer, RCA Photophone, 28–29; director sound, RKO Studios, 29–36; *writer tech. subjects, 37–* Acoustical Soc; Radio Eng; Motion Picture Eng; Elec. Eng; Acad. Motion Picture Arts and Sci. Radio communication; sound reproduction and recording; motion picture technique.

Dreier, Prof. Theodore, Black Mountain College, Black Mountain, N. C. *Mathematics.* Brooklyn, N. Y, May 21, 02. A.B, Harvard, 23, B.S, 25. Elec. eng, Gen. Elec. Co, 25–30; asst. prof. *physics* and head dept, Rollins Col, 30–33; *assoc. prof, Black Mountain Col, 33–* A.A; Physical Soc. Physics.

Dreisbach, Dr. Dale, University of Akron, Akron, Ohio. *Physical chemistry.* Akron, Ohio, Sept. 16, 08. A.B, Hiram Col, 32; Ph.D, Western Reserve, 37. *Instr.* chem. eng. and metal, Grove City Col, 37–39; gen. and physical chem, Baldwin-Wallace Col, 39–41; *physical chem, Akron, 41–* Chem. Soc. Solutions.

Dreisbach, Dr. Paul F(ranklin), 254 Mt. Prospect Ave, Newark, N. J. *Organic chemistry.* Allentown, Pa, Oct. 22, 10. B.S, Muhlenberg Col, 31; Ph.D, N. Y. Univ, 37. Asst. chem, Univ. Heights col, N. Y, Univ, 32–36; *org. research chemist,* Pyridium Corp, 36–38; *G. W. Carnrick Co, 38–* Chem. Soc. Cholines and thio derivatives; pyridines and local anesthetics in the pyridine series; steroids; hormones.

Dresbach, Dr. Melvin, 4109½ Locust St, Philadelphia, Pa. *Physiology.* Kingston, Ohio, July 8, 74. B.S, Ohio State, 97, M.S, 00; M.D, Starling-Ohio Med. Col, 03; Wurzburg, 04; Leiden, 12. Asst. physiol, Ohio State, 97–02, instr, 02–05; Starling-Ohio Med. Col, 00–04; Cornell, 05–09, asst. prof. pharmacol, 09–11, physiol, 11–18; prof, Albany Med. Col, Union (N. Y), 18–36; *research, sch. med, Pennsylvania, 36–* Physiol. Soc; Soc. Exp. Biol. Elliptical human erythrocytes; urine; inhibition; blood pressure; diabetes; vision; electrocardiography; nitrobenzol; amytal; alpha-lobelin; digitalis; strophanthus; strophanthidin; emesis; hypothermia.

Dresch, Dr. Francis W(illiam), U. S. Naval Proving Ground, Dahlgren, Va. *Mathematical statistics.* Sharon, Pa, Sept. 21, 13. A.B, Stanford, 32, A.M, 34; Ph.D, California, 37. Florence Noble traveling fellow math, Cambridge and Paris, 37–38; instr. math, California, 38–41; *lieut. O-V(S), U. S. Naval Res, 41–* Math. Soc; Inst. Math. Statist; Econometric Soc. Mathematical economics; exterior ballistics; applications of statistics to ordnance problems.

Dresden, Prof. Arnold, Swarthmore College, Swarthmore, Pa. *[8]*Mathematics.* Amsterdam, Holland, Nov. 23, 82. Amsterdam, 01–03; M.S, Chicago, 06, Ph.D, 09. Instr. math, univ. high sch, Chicago, 06–09; Wisconsin, 09–12, asst. prof, 12–21, assoc. prof, 21–27; *prof, Swarthmore Col,* 27–29, *math. and astron, 29–* Visiting prof, Stanford, 39. Summer, assoc. prof, Pennsylvania, 28. A.A; Math. Soc; Math. Asn. (v. pres, 31, pres, 32); Philos. Soc; Soc. math. de France; Acad. de Mâcon. Calculus of variations; algebra; philosophical foundations of mathematics.

Dressel, Prof. F(rancis) G(eorge), 309 Francis St, Durham, N. C. *Mathematics.* Hart, Mich, Sept. 22, 04. B.S, Mich. State Col, 28; M.S, Michigan, 29; Ph.D, Duke, 33. Instr. *math, Duke,* 29–41, *asst. prof, 41–* Math. Soc; Math. Asn; N. C. Acad. Mathematical analysis.

Dressel, Prof. Karl, R 3, Maplewood Manor, Lansing, Mich. *Forestry.* Hart, Mich, Aug. 31, 96. B.S. (Forestry), Mich. State Col, 22, M.F, 26. Asst. prof. *forestry, Mich. State Col,* 30–40, *assoc. prof, 40–, acting head dept, 43–* Mem. advisory board Yankee Spring recreational demonstration area, Nat. Park Service, 38. Ed. board, 'Trees Mag.' V. pres, Nat. Shade Tree Conf, 38, pres, 39–42; mem, South. Shade Tree Conf. Park Soc; Soc. Foresters; Mich. Forestry and Park Asn; Mich. Acad. Woodlot and forest taxation; sand fixation; municipal forestry.

Dressel, Dr. Paul L(eroy), Michigan State College, East Lansing, Mich. *Mathematics, Statistics.* Youngstown, Ohio, Nov. 29, 10. A.B, Wittenberg Col, 31; A.M, Mich. State Col, 34; Ph.D, Michigan, 39. Instr. *math, Mich. State Col,* 34–40, *asst. prof, 40–, exec. sec'y, orientation office, 40–* Gen. Educ. Board fellow, 39–40. Inst. Math. Statist. Applications of statistics to educational research, particularly to evaluation techniques and to psychological testing.

Dresser, Dr. A(lfred) Laurence, 101 Clinton St, Whitesboro, N. Y. *Chemistry.* Eaton, N. Y, March 23, 05. B.S, Colgate, 26; Ph.D, Cornell, 30. Asst. inorg. chem, Cornell, 26–28, quantitative anal, 28, gas and fuel anal, 28–30, August Heckscher fellow, 30–31; prof. *chem,* Pa. State Teachers Col, Slippery Rock, 31–32; *teacher, Utica Free Acad, 32–* Summer, asst, Cornell, 31. N. Y. Sci. Teachers Asn. (pres, central zone, 39; director, 39–42). Inorganic chemistry; preparation of calcium and barium trinitride; calcium trinitride and ammonia; barium trinitride and ammonia; preparation of anhydrous hydrazine; hydrazine trinitride and hydrazine; calcium trinitride and hydrazine.

Dresser, Dr. John A(lexander), Bank of Nova Scotia Bldg, Montreal, Que, Can. *Geology.* Richmond, Que, June 27, 66. B.A, McGill, 93, M.A, 97, LL.D, 33; Harvard, 94–95. Prin, St. Francis Col, Richmond, 95–03; lecturer geol, McGill, 07–09; geologist, Geol. Surv. Can, 09–11; manager lands dept, Algoma Cent. and Hudson's Bay Ry, 11–15; *consulting mining geologist, 15–; directing geologist, Que. Bur. Mines,* 27– Lecturer, Provincial Agr. Col, Compton, Que, 02–03. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Royal Soc. Can. (past pres, geol. sect); Can. Min. Inst. (past pres). Petrographic studies; geology of copper-bearing rocks; asbestos and chromite deposits of Quebec; geology of Lake St. John district; petroleum resources of the Peace River district.

Dresser, Dr. Thorpe, 1636 Brown Ave, Whiting, Ind. *Chemical engineering.* Garfield, Utah, March 2, 11. B.S, Mo. Sch-

Mines, 33; scholar, Rensselaer Polytech, 33–34, M.S, 34, fellow, 34–36, D.Chem.E, 36. *Process engineer, Sinclair Ref. Co, 36–* Use of ultra-violet in the investigation of vegetable oils; new type of fractionating column.

Drew, Phil(ip) W(arner), Goodyear Tire and Rubber Co, Box 3339, Terminal Annex Station, Los Angeles, Calif. *Chemistry.* Salem, Oregon, Feb. 28, 04. B.S, Knox Col, 25. *Chief chemist, Goodyear Tire and Rubber Co, 26–* Chem. Soc. Rubber processing.

Drew, Prof. Thomas B(radford), Columbia University, New York, N. Y. *Chemical engineering.* Medford, Mass, Feb. 9, 02. B.S, Mass. Inst. Tech, 23, M.S, 24. Asst, Mass. Inst. Tech, 24–25; instr. chem. eng, Drexel Inst, 25–28; Mass. Inst. Tech, 28–34; chem. engineer, exp. sta, E. I. du Pont de Nemours and Co, 34–40; *assoc. prof. chem. eng, Columbia, 40–* William H. Walker award, Am. Inst. Chem. Engineers, 37. A.A; Eng. Educ; Mech. Eng. (chairman head transfer div, 38–40, 41; research sec'y, 40); Chem. Soc; Chem. Eng; Army Ordnance Asn; N. Y. Acad. Diffusional processes; heat transmission; flow of fluids.

Drew, Prof. William B(rooks), University of Missouri, Columbia, Mo. *Plant ecology.* Greenwich, Conn, Dec. 11, 08. B.S, Mass. State Col, 30; A.M, Harvard, 31, Ph.D, 34. Prof. biol. and ecol, Am. Int. Col, 35–36; visiting asst. prof. *bot,* Tennessee, 36–37; Missouri, 37–38; visiting assoc. prof. and acting head dept, Carleton Col, 38–39; *asst. prof, Missouri, 39–* Bot. Soc; Ecol. Soc; Asn. Plant Taxon; New Eng. Bot. Club; Sullivant Moss Soc. Bryology; taxonomy; ecology; taxonomy of North American Ranunculi; ecology of abandoned cropland in Missouri; weeds in Missouri; flowering plants of Tennessee and Missouri.

Drews, Dr. Robert S(eymour), 12500 Broadstreet Blvd, Detroit, Mich. *Biological science.* Brooklyn, N. Y, Dec. 25, 00. M.B, Wayne, 25, M.D, 26; M.S, Michigan, 35, Dr.P.H, 38. *Practising physician, 26–;* acting dean, *Great Lakes Col,* 37–41, *assoc. dean, 41–, director dept. biol. sciences and hygiene, 37–* A.A; Am. Med. Asn; Pub. Health Asn; Acad. Polit. and Social Sci; Nat. Cmt. Mental Hygiene; Asn. Hist. Med; Mich. Pub. Health Asn. History of the public health movement of the city of Detroit; biological and genetic aspects of the myth of racial superiority; role of the physician in the development of social thought; history of the care of sick poor of Detroit.

Drexler, Dr. R(obert) V(irgil), Coe College, Cedar Rapids, Iowa. *Bryology.* Morton, Ill, Sept. 19, 10. B.S, Bradley Polytech, 34; M.S, Illinois, 36, Ph.D, 40. Asst. bot, Illinois, 35–40; *instr. bot. and zool, Coe Col, 40–* Bot. Soc; Sullivant Moss Soc. Taxonomy and ecology of bryophytes.

Dreyer, Prof. Nicholas B(ernard), Long Island College of Medicine, Brooklyn, N. Y. *Pharmacology.* Stockenstrom Co, S. Africa, Sept. 7, 93. B.A, Cape of Good Hope, 14; Christopher Welch scholar, Oxford, 19–23, B.A, 22, M.A, 25; Sharpey scholar, London, 22–23. Demonstrator physiol, Oxford, 19; St. Bartholomew's Hosp, 19–22; lecturer pharmacol, Univ. Col, London, 23; asst. prof, McGill, 27–30; prof, Dalhousie, 30–38; *prof. physiol. and pharmacol, L. I. Col. Med, 42–* A.A; Soc. Pharmacol; Can. Physiol. Soc; Physiol. Soc. Gt. Britain. Physiology; gastro-intestinal tract; kidney function in birds; involuntary muscle of fishes; antispasmodic action of certain drugs; opium alkaloids.

Dreyer, Prof. Robert M(arx), University of Kansas, Lawrence, Kans. *Economic geology.* Chicago, Ill, Jan. 6, 14. B.S, Northwestern, 34; M.S, Calif. Inst. Tech, 37, Ph.D, 39. Lab. asst. geol, Northwestern, 34–35; teaching fellow econ. geol, Calif. Inst. Tech, 36–39; instr. *geol, Kansas,* 39–41, *asst. prof, 41–; ensign, U. S. Naval Res, 42–* Junior soil surveyor, soil conservation service, U. S. Dept. Agr, 36. Miner. Soc; Min. and Metal. Eng. Mineralogy; mineragraphy; geophysics; quicksilver mineralization; building stones.

Dreyer, Dr. William A(lbert), University of Cincinnati, Cincinnati, Ohio. *Zoology.* Chicago, Ill, March 7, 04. A.B, Illinois, 26; Ph.D, Chicago, 31. Instr. *zool, Cincinnati,* 31–37, *asst. prof, 37–* Summer, mem. staff, Biol. Lab, Cold Spring Harbor, 39, 40. A.A; Soc. Zool; Ecol. Soc. (sec'y, 42–); Ohio Acad. Respiration and water content of insects in hibernation.

Dreyfus, Dr. W(illiam), West Disinfecting Co, 16 West St, Long Island City, N. Y. *Chemistry.* Oberendingen, Switzerland, June 17, 69. Zurich; diploma, Geneva, 93, Sc.D, 94. Chemist, Chem. Fertilizing Co, Switzerland, 94–95; Forbes-Abbott and Lenard, Ltd, London, 95–99; *chemist and director chem. dept, West Disinfecting Co, 99–* Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Pub. Health Asn; Chemists' Club. Coal tar disinfectants; cattle and sheep dips; liquid soaps; bacteriological standardization of disinfectants; insecticides.

Driblin, Dr. Daniel M(accabaeus), Office of the Chief Signal Officer, U. S. War Department, Washington, D. C. *Algebra, History of mathematics.* Chicago, Ill, Dec. 10, 13. B.S, Chicago, 33, M.S, 34, fellow, 34–36, Ph.D, 36. Nat. research fellow, 36–38; *instr. math, Nebraska, 38–; junior research analyst, office chief sig. officer, U. S. War Dept.* Math. Soc; Math. Asn. Algebraic number fields; history of mathematical development since the sixteenth century.

Drier, Prof. Roy W(ard), 319 Eighth St, Calumet, Mich. *Metallurgy.* Calumet, Mich, June 6, 97. B.S, E.M, E.Met, M.S, Mich. Col. Mines, 27, Ph.D, 34. Estimating elec. eng, 20–21; roentgenologist, x-ray installation, 21–23, safety engineer, 27–28; instr. metal, metallog. and roentgenol, *Mich. Col. Min. and Tech,* 28–31, asst. prof, 31–33, *assoc. prof. metal, 33–, in charge roentgenol, 31–; lieut. commander, Bur. Ordnance, U. S. Navy.* Min. and Metal. Eng; Eng. Educ. Photo-electric ore separation; metallurgy of copper; physical metallurgy and roentgenology; rare metal x-ray metallography; copper wire drawing; sherd taxonomy; parapsychology.

Driftmier, Prof. R(udolph) H(enry), University of Georgia, Athens, Ga. *Agricultural engineering.* Clarinda, Iowa, March 10, 98. B.S, Iowa State Col, 20; M.S, Kans. State Col, 26, Agr.E, 29. From instr. to prof. *agr. eng,* Kans. State Col, 20–30; *prof. and head dept, Georgia, 30–, supervising engineer, regents, 35–, supt. bldgs. and supervisor dining halls and dormitories, 43–* U.S.A, 18–19. Fel. Agr. Eng; Ga. Acad. Soil water conservation; power and machinery; rural electrification; farm structures.

Driggers, Dr. B(yrley) F(loyd), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Entomology.* Summerville, S. C, Feb. 8, 01. B.S, Clemson Col, 23; M.S, Rutgers, 24, Ph.D, 27. Assoc. cranberry specialist, *N. J. Exp. Sta,* 26–27, *assoc. entomologist, 27–,* instr. *entom, Rutgers,* 30–31, asst. prof, 31–33, *assoc. prof, 33–* Entom. Soc. Amer; Asn. Econ. Entom; N. Y. Entom. Soc. Economic entomology.

Driggs, Dr. F(rank) H(oward), Fansteel Metallurgical Corp, North Chicago, Ill. *Inorganic chemistry, Metallurgy.* Clinton, Mo, Oct. 25, 95. A.B, Baker, 17; M.S, Illinois, 21, Ph.D, 24. Asst. chem, Illinois, 19–24, instr, 24–27; *research chemist,* Westinghouse Lamp Co, Bloomfield, N. J, 27–34; *Fansteel Metal. Corp, 34–, v. pres.* Chem. Soc; Min. and Metal. Eng. Rare metals; atomic weight of lanthanum and holmium; purification of hafnium; preparation of ductile uranium, thorium, tantalum and tungsten.

Drill, Dean Harry T, Seattle College, Seattle, Wash. *Engineering.* Browerville, Minn, May 9, 86. A.B, Oregon, 16, A.M, 32; Ph.D, Washington (Seattle), 39. Instr. physics, Oregon State Col, 20–31; teaching fellow, Oregon, 31–32; Washington (Seattle), 32–37; *dean eng, Seattle Col, 37–* Physical Soc. An electrostatic analog to the gravitational red shift.

Drill, Dr. Victor A(lexander), Princeton University, Princeton, N. J. *Mammalian physiology.* Sunderland, Eng, June 10, 16. B.S, Long Island, 38; Ph.D, Princeton, 41. Jacobus fellow, Princeton, 41–42; *nat. research fellow, Northwestern, 42–* Adrenal gland and shock; interrelationships between endocrine function and vitamin metabolism.

Drinkard, Dr. A(lfred) W(ashington), Jr, Virginia Polytechnic Institute, Blacksburg, Va. *Horticulture.* Appomattox, Va, Jan. 10, 83. B.S, Va. Polytech, 06, M.S, 08; Ph.D, Cornell, 13. Record clerk hort, *Exp. Sta, Va. Polytech,* 06–08, asst. horticulturist, 08–12, assoc, 12–16, *director, 16–* A.A; Soc. Hort. Sci. Plant breeding; plant physiology.

Drinker, Dr. C(ecil) K(ent), Harvard University School of Public Health, Boston, Mass. ***Physiology.* Philadelphia, Pa, March 17, 87. B.S, Haverford Col, 08, Sc.D, 33; M.D, Pennsylvania, 13. Med. house officer, Peter Bent Brigham Hosp, Boston, 14–15; instr. physiol, Hopkins, 15–16; *Harvard Med. Sch,* 16–17, asst. prof, 17–19, assoc. prof. applied physiol, 19–23, *prof. physiol, 23–,* asst. dean *sch. pub. health, Harvard,* 23–35, dean, 35–42. Asst. to visiting physicians, Boston City Hosp, 22–24. Managing ed, 'Jour. Indust. Hygiene,' 19–32, assoc. ed, 32– Physiol. Soc. (treas, 24–26); Pub. Health Asn;

Am. Physicians; emer. mem. Soc. Clin. Invest. Physiology and pathology of blood formation and destruction; pulmonary circulation; lung ventilation; lymph formation.

Drinker, Mrs. C(ecil) K(ent) (Dr. Katherine R(otan) Drinker), 64 Colbourne Crescent, Brookline, Mass. *Physiology.* Waco, Texas, Jan. 12, 89. A.B, Bryn Mawr Col, 10; M.D, Woman's Med. Col. of Pa, 14; Harvard, 14–15, 16–17, 21–23; Hopkins, 15–16. Asst. res. physician, Peter Bent Brigham Hosp, Boston, 17; managing ed, 'Jour. Indust. Hygiene,' 18–20; lecturer hygiene, Bryn Mawr Col, 21–23; research asst. physiol, sch. pub. health, Harvard, 23–26, med. ed. work, 37–43, instr. pub. health practice, sch. pub. health, 39–43. Physiol. Soc. Human physiology; coagulation of blood; blood formation; lung fibrosis; hygiene of zinc.

Drinker, Prof. Philip, Harvard University School of Public Health, Boston, Mass. *Public health.* Haverford, Pa, Dec. 12, 93. B.S, Princeton, 15; Ch.E, Lehigh, 17; hon. Sc.D, Norwich, 40; LL.D, Hahnemann Med. Col, 42. Instr. applied physiol, Harvard Med. Sch, 19–22, ventilation and illumination, *sch. pub. health, Harvard,* 22–26, asst. prof, 26–31, assoc. prof. *indust. hygiene,* 31–36, *prof, 36–* John Scott medal, City of Phila, 31. Lieut, A.S, 17–19. Pub. Health Asn; Heat. and Vent. Eng; Illum. Eng. Soc; Chem. Soc. Ventilation; illumination; the determination, microscopy, physical chemistry, physiology and pharmacology of gases, dusts, fumes and smokes; cellulose acetate and dopes; zinc toxicity; humidity control in residence; dust masks; artificial respiration; air conditioning.

Drisko, John B(ucknam), Stevens Institute of Technology, Hoboken, N. J. *Engineering.* Winchester, Mass, May 11, 06. B.S, Mass. Inst. Tech, 27, traveling fellow, Germany, 27–29. Asst. and instr. civil eng, Mass. Inst. Tech, 29–33; asst. engineer, U. S. Bur. Reclamation, 33–35; assoc. engineer, soil conservation service, U. S. Dept. Agr, 36; engineer, U. S. Eng. Dept, R. I, 37–42; *tech. asst. to director exp. towing tank, Stevens Inst. Tech, 42–* Geophys. Union. Hydraulics.

Drisko, William J(ohnson), Addison, Maine. *Experimental physics.* Addison, Maine, Sept. 8, 66. B.S, Mass. Inst. Tech, 95. Asst. physics, Mass. Inst. Tech, 95–96, instr, 96–99; prof, Colby Col, 99; instr, Mass. Inst. Tech, 01–05, asst. prof, 05–10, assoc. prof, 10–23, prof, 23–35; *retired.* A.A; Optical Soc; Eng. Educ; Illum. Eng. Soc. (v. pres, 22–24); Am. Acad. Light and illumination.

Driver, Dr. Ernest C(harles), Northampton, Mass. *Zoology.* Croydon, Eng, Oct. 14, 99. A.B, Iowa State Teachers Col, 24; A.M, Illinois, 26, Ph.D, 30. Asst, Illinois, 24–29; asst. prof. *zool, Smith Col,* 29–36, *assoc. prof, 36–* A.A; Genetics Soc. Animal ecology; relationship of environmental factors to gene expression.

Driver, Herschel L(ivingston), 630 W. Palm Drive, Glendale, Calif. *Paleontology.* Portland, Oregon, Jan. 19, 96. A.B, Stanford, 19, E.M, 21; M.S, Southern California, 39. Asst. micropaleontologist, Associated and Pacific Oil Companies, 23–25; *micropaleontologist, Standard Oil Co. of Calif, 25–* A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol. Micro-paleontology.

Driver, Dr. R(obert) L(ee), University of Kentucky, Lexington, Ky. *Physiology.* Chester, S. C, Nov. 5, 10. B.S, Tennessee, 36, M.S, 37; Ph.D, Rochester, 40. Teaching fellow chem, Tennessee, 36–37; asst. physiol, Rochester, 37–40; asst. prof, Kentucky, 40–42; *foods and nutrition div, med. dept, sanit. corps, U. S. Army, 42–, capt.* A.A; Chem. Soc; Asn. Mil. Surg; South. Asn. Adv. Sci; Ky. Acad. Absorption of insulin, salts and sugars; experimental production of ulcers; vitamin C and amino acid metabolism.

Drogin, Dr. I(saac), United Carbon Co, Inc, Charleston, W. Va. *Chemistry.* Russia, Dec. 8, 91. A.B, Col. City of N. Y, 13; M.S, Pittsburgh, 17, fellow, 17–19, Ph.D, 19. Fellow, Mellon Inst, 19–22; J. M. Huber, Inc, 22–40; *director research, United Carbon Co, Inc, 40–* A.A; Chem. Soc; Chemists' Club. Halogens in organic compounds; inversion of cane sugar; distillation; gasoline; natural gas; carbon black; rubber technology.

Dropkin, Dr. David, Cornell University, Ithaca, N. Y. *Engineering.* Vitebsk, Russia, Sept. 13, 08. M.E, Cornell, 33, McMullen research scholar, 34–37, M.M.E, 35, Ph.D, 38. Westinghouse research assoc, *Cornell,* 37–41, *instr. mech. eng. and research assoc. course in temperature measuring instruments and exp. eng, 41–* Soc. Heat. and Vent. Eng. Psychrometry; heat transfer; thermal conductivities of insulating materials; heating radiators, convectors and radiation panels; ventilation and heat distribution.

Dropkin, Dr. Victor H(arry), University of Chicago, Chicago, Ill. *Zoology.* Richmond Co, N. Y, March 21, 16. A.B, Cornell, 36; Ph.D, Chicago, 40. *Instr. zool, Chicago, 41–; Air Corps Tech. Sch, Chanute Field, 42–* Ecol. Soc. Ecology of termite protozoa; host-specificity of termite protozoa.

Drosdoff, Dr. Matthew, Box 2817, University Station, Gainesville, Fla. *Soil science.* Chicago, Ill, Dec. 15, 08. B.S, Illinois, 30; M.S, Wisconsin, 32, Ph.D, 34. Asst. soils, Wisconsin, 30–35; junior soil surveyor, bur. chem. and soils, *U. S. Dept. Agr,* 35–38, asst. chemist, 38–40, *assoc. soil technologist, bur. plant indust, 40–* A.A; Soc. Agron; Soil Sci. Soc; Soc. Hort. Sci; Fla. Acad. Soil chemistry and fertility.

Drouet, Dr. Francis (Elliott), Field Museum of Natural History, Chicago, Ill. *Botany.* Philadelphia, Pa, March 1, 07. A.B, Missouri, 28, A.M, 29, Ph.D, 31; Missouri fellow, Woods Hole, 30. Asst. bot, Missouri, 28–31, herbarium, 31–35; Bur. Fisheries, Mo, 30–31; asst. to state plant pathologist, Mo, 31–35; botanist, Cmn. Tech. Piscicult, Brazil, 35; Seessel fellow bot, Yale, 36–38; *curator cryptogamic bot, Field Museum Nat. Hist, 38–* Instr, Marine Biol. Lab, Woods Hole, 34, 36–38. Taxonomy; morphology of algae; algae of Missouri; flora of Columbia, Missouri; taxonomy of Myxophyceae.

Browne, Henry B(ernardin), 165 Eaton Ave, Meriden, Conn. *Civil engineering.* Providence, R. I, June 28, 82. C.E, Brown, 03. Instr. civil eng, Brown, 05–06, 08–11; highway eng, Columbia, 11–16; *engineer, Lane Construction Corp, 12–* Engineer, Am. Bridge Co, South. Ry. Co. and R. I. State Board Pub. Roads, 03–12. A.A; Civil Eng; Nat. Highways Asn; Road Asn; Mass. Highway Asn; Asn. int. du Cong. de la Route. Highway engineering.

Drucker, Dean A(rthur) E(llert), 1817 B St, Pullman, Wash. *Metallurgy.* San Francisco, Calif, Aug. 25, 77. Calif. Sch. Mech. Arts, 94–97; B.S, California, 02. From assayer to mill supt, Minas del Tajo, Sinaloa, Mex, 02–04; foreman, Kuk San Dong and Taracol Cyanide Plants, Korea, 05–08; metal. exams, Asia, Australasia and Africa, 08–10; consulting metallurgist and construction engineer, Oriental Con. Mining Co, Korea, Asia, 10–13; tech. manager, Concession Minière française, N. Korea, 13–14; consulting metal. engineer, London, 14–15, New York, 16–20; metal. exams, Colombia, S. A, Pellew-Harvey and Co, Eng, 15–16; prof. metal. eng; Wis. State Mining Sch, 20–21; asst. prof. mining eng, Illinois, 21–26; *prof. and head dept. mining and metal, State Col. Wash, 26–, dean sch. mines and geol, 26–* Electrochem. Soc; Min. and Metal. Eng; Northwest Sci. Soc. Hydrometallurgy and electrometallurgy; ore dressing; gold; silver; copper; manganese; aluminum and magnesium metals.

Drury, Prof. D(ouglas) R(ichard), University of Southern California, Los Angeles, Calif. *Physiology.* Victoria, B. C, Can, March 16, 98. A.B, Stanford, 18, fellow, M.D, 22. Asst, Rockefeller Inst, 22–27, assoc, 27–29; research fellow and physician, Harvard, 29–31; *prof. physiol, Southern California, 31–* A.A. Physiology of the kidney and liver.

Drury, Dr. H(orace) F(eatherstone), Brooklyn College, Brooklyn, N. Y. *Biology.* Columbus, Ohio, June 4, 15. B.S, George Washington, 37; A.M, Harvard, 38, Ph.D, 40. Asst. zool, George Washington, 35–37; *biol,* Radcliffe Col, 38–40; instr, Suffolk, 40–41; *tutor, Brooklyn Col, 41–* A.A; assoc. Soc. Zool; Soc. Study Develop. and Growth. Experimental embryology; development of competence.

Dryden, Prof. (Abraham) Lincoln, (Jr), Bryn Mawr College, Bryn Mawr, Pa. *Geology.* Baltimore, Md, Dec. 30, 03. A.B, Hopkins, 25, Ph.D, 30. Asst. geologist, Sinclair Explor. Co, Venezuela, 28; geologist, Sinclair Explor. Co, 28–29; assoc. *geol, Bryn Mawr Col,* 30–34, *assoc. prof, 34–* Summers, geologist, Md. Geol. Surv, 27, 29, 31. A.A; Geol. Soc. Wash; Geol. Soc. Phila. Sedimentation and stratigraphy of Tertiary of Atlantic coastal plain; geology of Charles County, Maryland; stratigraphy of the Miocene of Maryland.

Dryden, Dr. Hugh L(atimer), 2020 Pierce Mill Road, N. W, Washington, D. C. *Physics.* Pocomoke City, Md, July 2, 98. A.B, Hopkins, 16, A.M, 18, Ph.D, 19. *Physicist and chief mech. and sound div, Bur. Standards, 19–* Ed, 'Jour. Aeronaut. Sciences.' V. chairman, aerodynamics cmt, Nat. Advisory Cmt. for Aeronautics. A.A; fel. Physical Soc;

Mech. Eng; hon. fel. Inst. Aeronaut. Sci. (pres, 43); Wash. Acad; assoc. fel. Royal Aeronaut. Soc. Aerodynamics; properties of airfoils at high speeds; wind tunnel investigations; wind pressure on structures; turbulence.

Dubilier, William, 72 Esplanade, New Rochelle, N. Y. *Wireless telegraphy.* New York, N. Y, June 25, 88. N. Y. Tech. Inst; Cooper Union. Chief engineer, Continental Tel. and Tel. Co, 08–09; tech. director, Commercial Wireless Tel. and Tel. Co, 09–10; organizer, Dubilier Elec. Syndicate, London, 12; *pres. and tech. director, Dubilier Condenser Co, 17–; pres, Radio Patents Corp, 17–; v. pres. and tech. director, Cornell-Dubilier Corp, New York, 33–* Gold medal, Seattle Expos, 00. Fel. Elec. Eng; fel. Radio Eng; Franklin Inst; London Soc. Arts; hon. mem. Soc. acad. d'Hist. int, Paris. Wireless telegraphy and telephony; submarine detection apparatus; aeroplane wireless apparatus; high frequency currents; designing and construction of electric condensers.

Dubin, Dr. H(arry) E(nnis), 250 E. 43rd St, New York, N. Y. *Biochemistry.* Russia, March 4, 91. B.S, Col. City of N. Y, 12; fellow, Pennsylvania, 15–16, Ph.D, 16. Chemist, Phila. Polyclinic, 13–15; instr. research med, Pennsylvania, 16–17; in charge chem. labs, Montefiore Home and Hosp, New York, 17–18; chief chemist, Grain Chem. Co, 18–20; research chemist, H. A. Metz Labs, New York, 20–23, director biochem. dept, 23–32; *pres, H. E. Dubin Labs, 33–; tech. director, U. S. Vitamin Corp, 36–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Biochem. Soc. Chemotherapy; metabolism; vitamins.

Dublin, Dr. Louis I(srael), 1 Madison Ave, New York, N. Y. *Statistics.* Kovno, Lithuania, Nov. 1, 82. B.S, Col. City of N. Y, 01, fellow, 01–04; Ph.D, Columbia, 04. Instr. math, Col. City of N. Y, 01–08; lecturer actuarial science, N. Y. Univ, 09; *statistician, Metropolitan Life Ins. Co, 11–, 3rd v. pres, 31–* Lecturer, Yale, 17–23. Chairman board, Am. Museum Health, 40– Popul. Asn. del, Int. Union Sci. Invest. Popul. Problems and Int. Popul. Cong, Paris, 37. A.A. (v. pres, 15, sect. social and econ. sciences, 16); fel. Statist. Asn. (pres, 24); Popul. Asn. (pres, 35); fel. Pub. Health Asn. (v. pres, 21, treas, 25–28, 30, 33–, pres, 32). Race and occupational mortality; incidence of and mortality from disease; population problems; value of human life; health and wealth; money value of a man.

Dublin, Dr. Thomas D(avid), Long Island College of Medicine, Brooklyn, N. Y. *Epidemiology.* New York, N. Y, Jan. 18, 12. A.B, Dartmouth Col, 32; M.D, Harvard, 36; M.P.H, Hopkins, 40, Dr.P.H, 41. Intern, Boston City Hosp, 36–38; asst. res. physician, Rockefeller Inst. Hosp, 38–39; instr. prev. med, sch. med, Hopkins, 40–41; mem. staff, State Dept. Health, N. Y, 39–42; instr. prev. med, Albany Med. Col, 42; *assoc. prof. prev. med. and community health and acting exec. officer dept, L. I. Col. Med, 42–* Fel. Pub. Health Asn. Epidemiology of communicable diseases; streptococcal infections; rheumatic fever.

DuBois, Dr. Cora, 62 East End Ave, New York, N. Y. *Anthropology.* New York, N. Y, Oct. 26, 03. A.B, Barnard Col, Columbia, 27, A.M, Columbia, 28; Ph.D, California, 32. Teaching fellow *anthrop,* California, 30–32, research assoc, 32–35, nat. research fellow, 35–36; instr, Hunter Col, 36–39; Sarah Lawrence Col, 39–42; *mem. staff, Office Strategic Services, 42–* A.A; Anthrop. Asn; Ethnol. Soc. (sec'y); Folklore Soc; East Indies Inst. (director). Californian ethnography; primitive religion; psychology of culture; ethnology of Netherlands East Indies.

DuBois, Delafield, Yale University School of Medicine, New Haven, Conn. *Electrical engineering.* Staten Island, N. Y, Feb. 27, 80. B.S, Harvard, 03. Eng. dept, Gen. Elec. Co, 06–12; Crocker-Wheeler Co, 12–13; instr, Vermont, 14–15, acting asst. prof, 16, asst. prof. elec. eng, 16–17; head research lab, Safety Cable Co, 17–28; research, Cambridge and N. Y. Univ, 29–31; *research asst. physiol, sch. med, Yale, 31–* A.A; Elec. Eng. Electrical apparatus; lightning protection; insulation; skin surface area of human body; vacuum tube potentiometer; glass electrode.

DuBois, Dr. Eugene F(loyd), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. **[3]Pathological physiology.* West New Brighton, N. Y, June 4, 82. A.B, Harvard, 03; M.D, Columbia, 06. Intern, Presb. Hosp, 07–08, asst. pathologist, 09; instr. applied pharmacol, *med. col, Cornell,* 10–13, lecturer physiol, 13–19, assoc. prof. med, 19–30, *prof,* 30–41, *physiol, 41–* Med. director, Russell Sage Inst, 12–; director 2nd med. div, Bellevue Hosp, 19–32; physician in chief, N. Y. Hosp, 32–41. Capt, M.C, U.S.N.R. Nat. Acad; Physiol. Soc; Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Inst. Nutrition (v. pres, 34–36, pres, 36–); Harvey Soc. Basal metabolism; metabolic diseases.

Dubois, Prof. Evan C(yril), S.J, Boston College, Chestnut Hill, Mass. *Genetics.* Springfield, Mass, Aug. 28, 98. A.B, Boston Col, 23, Ph.D, 27; A.M, Woodstock Col. (Md), 24; Weston Col, 27–31. Asst. prof. *biol, Boston Col,* 32–36, *assoc. prof, 36–* A.A; Genetics Soc. Cytology; eugenics; color inheritance in Lebistes; chromosome structures in Scilla.

DuBois, Dr. Franklin S(mith), New Canaan, Conn. *Psychiatry.* Liberty, Ind, Jan. 26, 06. A.B, Wabash Col, 26; M.S, Chicago, 28, M.D, Rush, 31. Asst. neur, Chicago, 27–28; asst. anat, Illinois, 28–29; instr, Alabama, 29–30; house physician, St. Luke's Hosp, Chicago, 30–31; asst. prof. anat. and acting exec. dept, Alabama, 31–33, prof, 33–37; asst. med. director, Silver Hill Foundation, 37–43. Asst, Neur. Clinic, Vanderbilt Clinic and Columbia-Presbyterian Med. Center, 39–43. Summers, fellow, Minnesota, 32; Northwestern, 33; visiting prof, Tennessee, 35; Neuropsychiat. Inst, Hartford, Conn, 37. Psychiat. Asn; Asn. Anat; Soc. Exp. Biol; Am. Med. Asn. Anatomy of the nervous system.

DuBois, Gaston (Frédéric), 8 Crestwood Drive, Clayton, Mo. *Chemical engineering.* Switzerland, Aug. 9, 80. Grad, Polytech, Zurich, 03. Mfg. chemist, Monsanto Chem. Co, 03–15, production manager, 15–25, tech. director, 25–30, v. pres. in charge research and develop, *Monsanto Chem. Co. and subsidiaries,* 30–39, *v. pres. and mem. exec. cmt, 39–, director.* Mem. advisory board, St. Louis Museum Nat. Hist. Chem. Soc. (chairman, St. Louis sect, 20); Chem. Eng. (director, 37–); Electrochem. Soc; Soc. Chem. Indust. Gt. Britain; Inst. Chem. Eng. England; Deuts. Chem. Gesell. Research and manufacture of pharmaceuticals, fine chemicals, intermediates, insecticides, disinfectants, plasticizers, rubber chemicals, petroleum cracking and heavy chemicals; economics in chemical projects.

DuBois, H(enry) M(athusalem), R. D. 1, Clackamas, Oregon. *Paleontology, Botany, Ornithology.* Logansport, Ind, Aug. 22, 87. A.B, Indiana, 13, A.M, 14; Illinois, 14–17. Asst. geol, Illinois, 14–17; *consulting geologist, 17–;* prin, high sch, Oregon, 17–21, sch. supt, 21–30; curator, Portland Museum Nat. Hist, 30–33; *director, Northwest Nature Sch, 33–* Asst. geologist, Ind. Univ. Geol. Surv, 12–13; Ill. Geol. Surv, 16, 17. Cooper Ornith. Club; Ornith. Union; Northwest Bird and Mammal Soc. Brachiopods; marine biology of the Oregon coast.

Dubois, Dr. Norman A, 1200 Great Plain Ave, Needham, Mass. *Organic and physical chemistry.* Fall River, Mass, Dec. 25, 77. B.S, Mass. Inst. Tech, 01; M.S, Brown, 03, Ph.D, 05. Inst. qualitative and quantitative chem, Brown, 01–03; qualitative and indust. chem, Syracuse, 03–04; asst. prof. anal. and indust. chem, N. Y. Univ, 04–07; instr. org. and indust. chem, Case, 07–12; head dept. chem. and pharmacy, Franklin Univ, 14–40; *instr. inorg. chem, Northeastern, 40–* Dean col. pharmacy, Western Reserve, 10–12; treas. and factory manager, Sweet Nut Butter Co, 17–24; chemist and asst. to agent, Board Health, Brookline, Mass, 40– A.A; Chem. Soc. (sec'y, Cleveland sect, 10–12). Constitution of ferric chloride in aqueous solution; application of colloidal silver to the preparation of conducting fibers; paints and paint pigments; condensation products of alpha phenylnaphthalen decarboxylic anhydride.

DuBois, Prof. Philip Hunter, University of New Mexico, Albuquerque, N. Mex. *Psychology.* Newburgh, N. Y, July 8, 03. A.B, Union (N. Y), 25; A.M, Columbia, 29, Ph.D, 32. Instr. English, American Univ. Beirut, 25–28; *psychol,* univ. classes, Columbia, 30–33; asst. prof, south. branch, Idaho, 33–35; *New Mexico,* 35–39, *assoc. prof, 39–* Intern, N. Y. State Psychiat. Inst, 32–33. A.A; assoc. Psychol. Asn; Psychometric Soc. Tests and measurements.

DuBois, Prof. Robert, 1575 N. Van Ness Ave, Fresno, Calif. *Chemistry.* Denver, Colo, Aug. 30, 98. A.B, Carleton Col, 18; M.S, Okla. Agr. and Mech. Col, 19; fellow, Stanford, 27–29, Ph.D, 29. Asst. prof. *chem,* Okla. Agr. and Mech. Col, 19–22, assoc. prof, 22–25; asst. prof, Okla. City Univ, 25–26; instr, Stanford, 29–35; asst. prof, *Fresno State Col,* 35–36, *assoc. prof, 36–* Teaching fellow, Stanford, 26–27. A.A; Chem. Soc. Physical chemistry; adsorption at solution surfaces; Gibbs adsorption theorems; electrokinetics.

Dubos, De René (Jules), Harvard Medical School, Boston, Mass. **7Pathology.* Saint-Brice, France, Feb. 21, 01. B.S, Inst. nat. agronomique, Paris, 22; Ph.D, Rutgers, 27; Sc.D, Rochester, 41. Research asst. soil microbiol, N. J. Exp. Sta, 24–27; asst, Rockefeller Inst, 27–29, assoc, 29–38, assoc. mem, 38–41, mem, 41–42; *George Fabyan prof. comp. path. and prof. trop. med, Harvard Med. Sch, 42–* John Philips Mem. award, Am. Col. Physicians, 40; Mead Johnson award, Am. Acad. Pediat, 40. Nat. Acad. Cellulose decomposition by aerobic bacteria; oxidations and reductions in bacterial cultures; decomposition of capsular polysaccharides of pneumococcus by bacterial enzymes and their use in the study of infections; use of specific bacterial enzymes in biochemistry; antibacterial agents of biological origin; bacterial toxins; bacillary dysentery; bacteriology.

Dubpernell, Dr. G(eorge), United Chromium, Inc, Waterbury, Conn. *Electrochemistry.* Detroit, Mich, May 30, 01. B.S, Michigan, 24, Ph.D, 33; A.M, Columbia, 27. Research chemist, Mich. Smelting and Ref. Co, 24; Apollo Metal Works, 24–25; Manhattan Elec. Supply Co, 25; Chem. Treatment Co, 25–26; Chromium Corp. of Amer, 26–27; chief chemist, Gen. Chromium Corp, 27–28; Udylite Process Co, 28–32; *research engineer, United Chromium, Inc, 33–* Chem. Soc; Electrochem. Soc; Electroplaters Asn; Soc. Test. Mat. Electroplating; theory of overvoltage and electrolysis of aqueous solutions; insulating lacquers.

DuBridge, Dean Lee A(lvin), University of Rochester, Rochester, N. Y. **5Physics.* Terre Haute, Ind, Sept. 21, 01. A.B, Cornell Col. (Iowa), 22, Sc.D, 40; A.M, Wisconsin, 24, Ph.D, 26. Instr. *physics,* Wisconsin, 25–26; nat. research fellow, Calif. Inst. Tech, 26–28; asst. prof, Washington (St. Louis), 28–33, assoc. prof, 33–34; *prof. and chairman dept, Rochester, 34–, dean faculty arts and sciences, 38–; consultant, Nat. Defense Research Cmt, and director radiation lab, Mass. Inst. Tech, 40–* Physical science div, Nat. Research Council, 36– Assoc. ed, 'Am. Physics Teacher,' 35–38; 'Physical Rev,' 36–39; 'Rev. Sci. Instruments,' 36– A.A; fel. Physical Soc. (councilor, 41); Asn. Physics Teachers; Radio Eng; Optical Soc; Rochester Optical Soc. (v. pres, 35, pres, 36). Biophysics; nuclear disintegration; photoelectric and thermionic emission; direct current amplification; energy distribution of photoelectrons; theory of photoelectric effect.

Dubuar, James F(rancis), Wanakena, N. Y. *Forestry.* Northville, Mich, March 17, 91. A.B, Michigan, 13, M.S.F, 15. Forest asst, U. S. Forest Service, 15–17; prof. forestry, *N. Y. State Ranger Sch,* 19–20, *director, 20–* U.S.A, 17–19. A.A; Soc. Foresters. Practical application of silviculture.

du Buy, Prof. H(erman) G(erard), University of Maryland, College Park, Md. *Plant physiology.* Borne, Netherlands, Oct. 3, 04. Dr.Biol. Utrecht, 30, Ph.D, 33. Asst. cytol, Utrecht, 27–30, physiol, 27–34; research fellow, Harvard, 35–36; *asst. prof. gen. physiol, Maryland, 36–* F. C. Dondersfonds fellow, 35–36. Bot. Soc; Deuts. Bot. Gesell; Nederlandsche bot. Vereen; Natuurkundig Gezelschap. Growth regulators; phototropism in plants; radiation; electric phenomena in plants and animals; chemical mediation.

Duckering, Dean W(illia)m Elmhirst, University of Alaska, College, Alaska. *Engineering education.* England, Jan. 31, 82. A.B, Washington (Seattle), 03, B.S, 09, C.E, 16. Subordinate eng. positions, Oregon Short Line R. R, 03–05, asst. engineer, Idaho div, 05–08, prin. asst, 08–13; engineer, city engineer's office and King County engineer's office, Seattle, 13–14; instr. civil eng, Washington (Seattle), 14–17, asst. prof, 17–18; prof. eng. problems, Iowa State Col, 19–23; civil eng. and head dept, British Columbia, 23–30; *prof. civil eng, Alaska, 32–,* head dept. civil eng. and math, 32–35, *dean, 35–* C.Eng, 18–19, capt. Civil Eng; Eng. Educ.

Duckworth, Dr. H(enry) E(dmison), 327 King Edward Ave, Ottawa, Ont, Can. *Physics.* Brandon, Man, Can, Nov. 1, 15. B.A, Manitoba, 35, B.Sc, 36; Sheldon fellow, Chicago, 41, univ. fellow, 41–42, Ph.D, 42. Lecturer physics, United Col, 38–40; *junior physicist, radio lab, Nat. Research Council, Can, 42–* Physical Soc. Mass spectroscopy.

Dudley, Homer (Walter), 150 Ashland Road, Summit, N. J. *Electrical engineering.* Oranda, Va, Nov. 14, 96. B.S, Pa. State Col, 21; A.M, Columbia, 24. *Mem. tech. staff, Bell Tel. Labs, 21–* A.A; Elec. Eng; Radio Eng; fel. Acoustical Soc. Acoustics; communication circuit research and development; analysis and synthesis of speech.

Dudley, Dr. H(orace) C(hester), 111 E. Glenbrook Road, Bethesda, Md. *Toxicology.* St. Louis, Mo, June 28, 09. A.B, Mo. State Teachers Col, 31; Maryland, 31–34; Hopkins, 35–36; Ph.D, Georgetown, 41. Lab. asst, Bur. Standards, 31–32; junior chemist, bur. chem, U. S. Dept. Agr, 33–34; junior toxicologist, med. research div, Chem. Warfare Service, 34–36; assoc. biochemist and toxicologist, U. S. Pub. Health Service, 36–42; *lieut, U. S. Navy, 42–* Capt, O.R.C, C.W.S. A.A; Pub. Health Asn; Chem. Soc; Soc. Exp. Biol. Industrial poisons; hygiene; toxicology of selenium; methyl bromide; organic arsenicals; chemical warfare agents; vinyl cyanide.

Dudley, Dr. James R(obert), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* St. Paul, Minn, April 23, 17. A.B, Carleton Col, 36; M.S, Iowa, 38, Ph.D, 40. *Research chemist, Am. Cyanamid Co, 40–* A.A; Chem. Soc. Synthetic ion exchange resins.

Dudley, John E(dward), Jr, 424 University Drive, Madison, Wis. *Entomology.* Wellesley, Mass, Aug. 28, 86. Mass. Col, 08–11; B.S, Wisconsin, 26, M.S, 28. Gipsy and brown tail moth lab, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 11–13, insecticide and fungicide board, 13–18, assoc. entomologist and *entomologist, div. truck crop and garden insect investigations, 18–* A.A; Asn. Econ. Entom. Aphids attacking vegetables.

Dudley, Dr. Josephine, Wilson College, Chambersburg, Pa. *Embryology.* Clinton, N. Y, Nov. 25, 10. A.B, Wellesley Col, 31; A.M, Mt. Holyoke Col, 33; Ph.D, Cornell, 41. Asst. zool, Mt. Holyoke Col, 31–33; *instr. biol,* Adelphi Col, 34–36; Skidmore Col, 36–37; *Wilson Col,* 37–40, *41–* A.A; Ornith. Union. Embryology of the pharyngeal region.

Dudley, Dr. Margaret G(ertrude), University of Manitoba, Winnipeg, Man, Can. *Botany, Zoology.* Birtle, Man. B.Sc, Manitoba, 28, M.Sc, 31; Ph.D, Minnesota, 35. *Asst. bot,* Manitoba, 28–31; Minnesota, 31–35; *Manitoba, 35–, lecturer bot. and zool, Brandon Col, 39–* Taxonomic Soc. Taxonomy; cytology; morphology; embryology of the Araceae; air-borne allergens.

Dudley, Paul H(arwood), 109 San Antonio Drive, Long Beach, Calif. *Geology.* Canton, Ohio, Dec. 30, 03. A.B, Pomona Col, 25; California, 25–27. Instr. geol, Pomona Col, 27–28; *geologist,* Shell Oil Co, 36–37; *Richfield Oil Corp, 37–* Asn. Petrol. Geol. Stratigraphy and structure of California oil fields.

Dudley, Prof. S(amuel) W(illiam), 400 Temple St, New Haven, Conn. *Mechanical engineering.* New Haven, Conn, Oct. 18, 79. Ph.B, Yale, 00, M.E, 03. Asst. instr, Yale, 03; chief publicity dept, Westinghouse Air Brake Co, 07–09, asst. mech. engineer, 09–10, asst. chief engineer, 10–14, chief engineer, 14–21; *prof. mech. eng, sch. eng, Yale, 21–, chairman dept, 23–, dean sch. eng, 36–* Mech. Eng. Air brakes for railroad and electric traction service.

Dudley, Prof. W(inston) M(ansfield), Case School of Applied Science, Cleveland, Ohio. *Engineering mechanics.* Swissvale, Pa, Feb. 21, 12. B.S, Swarthmore Col, 32; M.S, Michigan, 33, univ. fellow, 33–34, Sc.D, 38. Instr. *applied mech, Case,* 34–41, *asst. prof, 41–* Mech. Eng; Eng. Educ. Dynamics; vibration; shock absorbers; stress analysis.

Dudycha, Prof. George J(ohn), Ripon College, Ripon, Wis. *Psychology.* Cedar Rapids, Iowa, June 26, 03. A.B, Coe Col, 25; A.M, Iowa, 26; Ph.D, Columbia, 36. Instr. *psychol, Ripon Col,* 26–30, asst. prof, 30–36, *prof, 36–,* asst. registrar, 36–37, registrar, 37–40. A.A; Psychol. Asn; Soc. Psychol. Study Social Issues; Midwest. Psychol. Asn. Personality traits; student beliefs and attitudes; childhood memories; synesthesia; philosophy of evolution.

Duecker, Dr. W(erner) W(ilfred), Texas Gulf Sulphur Co, New York, N. Y. *Chemistry.* Kiel, Wis, May 23, 94. B.S, Wisconsin, 16; Ph.D, Iowa State Col, 25. Bacteriologist, Swan Myers Co, Indianapolis, 18–20; instr. chem, Iowa State Col, 20–25; fellow, Mellon Inst, 25–37; *manager research dept, Texas Gulf Sulphur Co, 37–* 2nd lieut, C.W.S, 17–18. Chem. Soc; Chemists' Club; Chem. Eng; Min. and Metal. Eng. Applications of sulfur to agriculture and industry; development of sulfur plastics and cements.

Duell, Col. Clifford C(leophas), Ordnance Tank-Automotive Center, Detroit, Mich. *Automotive engineering.* Seneca Falls, N. Y, May 17, 99. M.E, Rensselaer Polytech, 21; M.S, Mass. Inst. Tech, 25, Sc.D, 27. Lieut, Field Artil, *U. S. Army,*

21–35, capt, 35–40, major, 40–41, lieut. col, 41–43, *col, 43–*, instr, Field Artil. Brigade Motor Sch, Hawaii, 27–30; asst. prof. mil. science and tactics, Purdue, 30–36, *liaison officer*, motor transport div, Quartermaster Corps, 40–42, *headquarters, ground forces with Ordnance Dept, 42–* Mem, Field Artil. Board, 36–40. Theoretical metallurgy; operation and maintenance of automotive transportation; motor vehicles; military automotive specifications and tests.

Duell, Prentice, Harvard University, Cambridge, Mass. *Archeology.* New Albany, Ind, Aug. 17, 94. A.B, California, 16; A.M, Arizona, 17; Pennsylvania, 19–20; Charles Eliot Norton fellow from Harvard, Am. Sch. Classical Studies, Athens, 23–24, 24–25; M.Archit, Harvard, 24. Research Spanish mission archit, Southwest and Mex, 20–21; instr. hist. of archit, Illinois, 21–22; asst. prof. ancient archit, Cincinnati, 25–26, prof, 26–27; lecturer classical archeol, Bryn Mawr Col, 27–29; Guggenheim Mem. Foundation fellow, Italy, 29–30; consulting archeologist, restoration of colonial Williamsburg, Va, 29–31; assoc. prof. ancient Mediterranean art, Chicago, 31–36, field director Sakkarah exped, Egypt, oriental inst, 30–36; *Fogg Museum fellow Etruscan art, Harvard, 39–* Archeol. Inst; Am. Hist. Asn; Inst. Archit; Oriental Soc; N. Y. State Asn. Archit; fel. Royal Soc. Arts; Am. Acad. Rome; Inst. di Studi Etruschi, Florence. Mediterranean and ancient archeology; technique and pigments of ancient painting, copying and publishing Etruscan paintings of the fifth century B. C. in the tombs at Tarquinia, Italy.

Duer, J(ohn) V(an) B(uren), Pennsylvania Railroad, Broad Street Station Bldg, Philadelphia, Pa. *Electrical engineering.* Poultney, Vt, April 9, 82. M.E, Stevens Inst. Tech, 03. Special apprentice, Gen. Elec. Co, Lynn and Schenectady, 03–05; elec. inspector, West, Church, Kerr and Co, 05–06; various positions, L.I.R.R, 06–10; foreman motorman, *Pa. R. R*, 10–13, asst. engineer, 13–19, elec. engineer, lines, East Pittsburgh, 19–20, elec. engineer, system, 20–35, chief elec. engineer, 35–41, *asst. to v. pres. operation, 41–* Pa. R. R. del, Int. Ry. Cong, Italy, 22; reporter, Int. Ry. Cong, 29. Fel. Elec. Eng; Ry. Asn. (v. chairman, elec. sect, 28–33, chairman, 33–35). Railroad electrification.

Duerksen, J(acob) A(rthur), 3134 Monroe St, N.E, Washington, D. C. *Mathematics.* Hillsboro, Kans, Oct. 17, 95. A.B, Bethel Col. (Kans), 22; Pomona Col, 21–23. Asst. valuation engineer, Los Angeles Ry, 23–24; San Diego Elec. Ry, 24–25; junior mathematician, *U. S. Coast and Geod. Surv*, 25–27, asst. mathematician, 27–35, assoc. mathematician, 35–40, *mathematician, 40–* Math. Asn; Geophys. Union; Philos. Soc. Wash. Geodetic astronomy and gravity; deflections of the vertical in the United States.

Duff, Prof. A(lexander) Wilmer, 52 Fruit St, Worcester, Mass. *[#1]Physics.* St. John, N. B, Can, May 23, 64. B.A, New Brunswick, 84, LL.D, 20; B.A, London, 87; Berlin, 88; M.A, Edinburgh, 88, B.Sc, 93, D.Sc, 01. Prof. *physics*, Madras, India, 89–90; New Brunswick, 90–93; Purdue, 93–99; *Worcester Polytech, 99–36, emer. prof, 36–* Physical Soc; Am. Acad. Viscosity; acoustics; tidal phenomena; cathode rays.

Duff, Prof. C(arl) M(athias), 1347 N. 37th St, Lincoln, Nebr. *Engineering mechanics.* Versailles, Mo, Dec. 5, 84. B.S, Colorado, 10, M.S, 12. Instr. drawing and math, Colorado, 10–13; erection engineer, Morava Construction Co, Chicago, 13–16; asst. prof. eng. drawing, *Nebraska*, 20, applied mech, 20–24, assoc. prof, 24–29, *prof, 29–35, eng. mech, 35–* Testing engineer, State Dept. Pub. Works, Nebr, 22–35, State Dept. Roads and Irrigation, 35–43. Summers, field engineer, C. P. D. Co, St. Louis, Mo, 10–11; draftsman, Chicago, Milwaukee and St. Paul R.R, 12; computer tractor testing, Nebraska, 20; paving inspector, State Dept. Pub. Works, Nebr, 21. Soc. Test. Mat; Civil Eng; Concrete Inst; Eng. Educ; Nebr. Eng. Asn. Highway construction.

Duff, Prof. David C(ecil) B(uchanan), University of British Columbia, Vancouver, B. C, Can. *Bacteriology.* Edinburgh, Scotland, Oct. 15, 01. B.A, Toronto, 26, M.A, 27, Ph.D, 30. Asst, sch. hygiene, Toronto, 26–29; instr. and *asst. prof. bacter, British Columbia, 29–* Consulting pathologist, Pacific Biol. Sta, 30–; investigator, Atlantic Biol. Sta, 26, Fisheries Exp. Sta, Prince Rupert, 29. Can. Pub. Health Asn; B. C. Acad. (sec'y, 39, v. pres, 41–). Pathogenic anaerobes; bacterial variation; microbial nutrition.

Duff, Prof. G(eorge) Lyman, McGill University, Montreal, Que, Can. *Pathology.* Hamilton, Ont, Jan. 26, 04. B.A, Toronto, 26, M.A, 27, M.D, 29, George Brown Mem. fellow, 30–31, Ph.D, 32. Demonstrator path, Toronto, 29–30; nat. research fellow, Hopkins, 31–32, asst, 31–33, instr, 33–35, asst. pathologist, hosp, 33–35; lecturer path, Toronto, 35–37, asst. prof, 37–39; *Strathcona prof, McGill, 39–; consulting pathologist, Royal Victoria Hosp, 39–* Asst. pathologist, Toronto Gen. Hosp, 35–39. Starr gold medal, Toronto, 32. Asn. Path. and Bact. Experimental arteriosclerosis; diseases of the arteries; diseases of pancreas; atrophy of adrenal glands in Addison's disease; bilateral cortical necrosis of kidneys; renal arteriolar disease in hypertension.

Duffee, Prof. F(loyd) W(aldo), 427 Virginia Terrace, Madison, Wis. *Agricultural engineering.* Wayne Co, Ind, Jan. 21, 93. B.S. (Agr), Ohio State, 15. Instr. agr. eng, Conn. Agr. Col, 15–18; from instr. farm machinery to *prof. agr. eng. and in charge farm machinery and farm power, Wisconsin, 18–* Agr. Eng. Design and performance of ensilage cutters and small hammer type feed mills; design of brush-breaking plows.

Duffendack, Prof. O(ra) S(tanley), University of Michigan, Ann Arbor, Mich. *[#5]Physics.* Napoleon, Mo, 90. B.S, Chicago, 17; A.M, Princeton, 21, fellow, 20–22, Ph.D, 22. Prof. *physics* and head dept, Tulsa, 17–20; instr, *Michigan*, 22–24, asst. prof, 24–32, assoc. prof, 32–37, *prof, 37–* Guggenheim Mem. Foundation fellow, Göttingen, 29–30. Summer, research physicist, Gen. Elec. Co, 24. Mem. subcmt. physics, Nat. Research Council, 28– A.A; fel. Physical Soc; Optical Soc. Conduction of electricity through gases; origin of spectra.

Duffett, Dr. Nicholas D(ecker), P. O. Box 63, Saugatuck Station, Westport, Conn. *Bacteriology.* Henrietta, Mo, March 28, 09. B.S, Cent. Mo. State Teachers Col, 31; fellow, Colorado, 31–38, M.S, 33, Ph.D, 38. Instr. bacter. and pub. health, sch. med. and hosps, Colorado, 38–39; *bacteriologist, C. B. Dolge Co. Labs, 39–* Soc. Bact. Anaerobic bacteriology; fungicides; bacteria of cutting oils and cutting compounds.

Duffey, Dr. H(omer) R(ussell), Vulcan Copper and Supply Co, 120 Sycamore St, Cincinnati, Ohio. *Chemical engineering.* Chicago, Ill, July 27, 04. B.S, Shurtleff Col, 26; du Pont fellow, Illinois, 32–33, Ph.D, 33. Instr. chem, Shurtleff Col, 30–31; *chem. engineer*, E. I. du Pont de Nemours and Co, 33–39; *Vulcan Copper and Supply Co, 39–* Chem. Eng; Chem. Soc. Distillation; absorption; extraction.

Duffield, Thomas J(efferson), 525 W. 238th St, New York, N. Y. *Vital statistics.* Eden, Bucks Co, Pa, March 25, 88. B.S, Mass. Inst. Tech, 14. Health officer, Summit, N. J, 14–17; statistician, Cmn. against Tuber. in France, 19–22; instr. vital statist, sch. pub. health, Harvard, 22–23; epidemiologist, health sect, League of Nations, 23–24; statist. research, Milbank Mem. Fund, 25–26; sec'y and director field studies, New York Cmn. on Ventilation, 26–29; exec. sec'y, cmt. outdoor cleanliness, New York Acad. Med, 30–31; statist. research, Metropolitan Life Ins. Co, 32–34; *registrar records and director bur. vital statist, Dept. Health, New York, 35–* Sanit. C, U.S.A, 17–19, major. Statist. Asn; fel. Pub. Health Asn. Effects of air conditions on health; analysis of maternal deaths and hospital obstetrical statistics; cancer mortality in New York City; birth weight and its relation to neonatal mortality.

Duffin, Dr. R(ichard) J(ames), 5241 Broad Branch Road, Washington, D. C. *Mathematics, Physics.* Chicago, Ill, Oct. 13, 09. B.S, Illinois, 32, Ph.D, 35. Instr. *math*, Purdue, 36–40; assoc, Illinois, 40–42; *mem. staff, dept. terrestrial magnetism, Carnegie Institution, 42–* Math. Soc; Physical Soc. Thermomagnetic effects; mesotron theory; Markoff's inequality; Bernstein's inequality; analytic number theory; lattice theory; partial differential equations.

Dufford, Dr. R(ay) T(heodore), 312 S. Garth Ave, Columbia, Mo. *Physics.* Bonfield, Ill, 91. B.S, Northwestern, 18, M.S, 21; Chicago; Ph.D, Missouri, 31. Asst. *physics*, Northwestern, 16–18, instr, 18–21; *Missouri*, 21–31, *asst. prof, 31–* A.A; Physical Soc; Asn. Physics Teachers; Mo. Acad. (sec'y, 33–). Luminescence; photovoltaic effect; Raman effect.

Duffy, Dr. Carl E(dward), Children's Hospital Research Foundation, Elland and Bethesda, Cincinnati, Ohio. *Pediatrics.* Corning, Ohio, June 15, 06. A.B, Ohio (Athens), 34; M.S, Cincinnati, 38, Ph.D, 40. Teaching fellow zool, Ohio (Athens), 35–36; res. bacteriologist, contagious div, Cincinnati Gen. Hosp, 36–39; asst. *pediat, Children's Hosp. Research Foundation*, 36–39, *research assoc, 40–* A.A; Soc. Bact. Filtrable viruses.

Duffy, Prof. Elizabeth, Woman's College of the University of North Carolina, Greensboro, N. C. *Psychology.* New Bern, N. C, May 6, 04. A.B, N. C. Col. for Women, 25; A.M, Columbia, 26; nat. research scholar, Hopkins, 27–28, Ph.D, 28. Nat. research fellow child develop, 28–29; fellow *psychol,* Sarah Lawrence Col, 29–37; *prof, Woman's Col, North Carolina, 37–* Instr, N. Y. Univ, 31. A.A; Psychol. Asn; fel. Soc. Research Child Develop; Soc. Psychol. Study Social Issues; Council Women Psychol; South. Soc. Philos. and Psychol. (councilor, 42–); N. C. Acad. (chairman psychol. sect, 43). Theoretical psychology; physiological psychology; personality; attitudes; emotion; galvanic skin response; theory; muscular tension; post-war planning, especially for women.

Dufrenoy, Dr. Jean, Louisiana State University, Baton Rouge, La. *Plant pathology.* Paris, France, June 13, 94. Ing. Agron, Inst. Nat. Agron, France, 20; M.S, Bordeaux, 19; Sc.D, Paris, 25. Director, Sta. Path. Veg. Southwest France, 30; prof, Ecole des Manufactures des Tabacs, 30–38; maitre de conferences, faculty sciences, Bordeaux, 38–39; exchange prof. *bot, Louisiana,* 39–40, *visiting prof, 40–* Rockefeller Foundation fellow, Cornell, 28, California, 34. Mem, Research Council for Applied Research, Paris, 39. Gold medal, Acad. d'Agr, Paris, 25; Acad. de Med, 26; Bouchard prize, Soc. de Biol, 39; gold medal, Soc. de Statist, 40. A.A; Bot. Soc; Phytopath. Soc; cor. mem. Soc. de Biol; Asn. française pour l'avanc. des Sci. (councilor, 39); Soc. Statist. (councilor, 40). Cell structure in relation to resistance of plants to diseases.

Dufresne, Prof. A(lphonse) O(livier), 181 Bougainville Ave, Quebec, Que, Can. *Mineralogy.* Montreal, Que, April 10, 90. B.Sc, Laval, 11; M.Sc, McGill, 13. Inspector mines, 14–28; director, Que. Bur. Mines, 28–41; *deputy-minister, Que. Dept. Mines, 41–; prof. miner. and geol, sch. forestry and land surveying, Laval, 26–,* min. econ, sch. mines, 40.

Duggan, Prof. L(eo) F(rancis), Michigan College of Mining and Technology, Houghton, Mich. *Mathematics.* Port Sanilac, Mich, Sept. 28, 88. Ferris Inst, 10; B.S, Michigan, 17, M.S, 27; M.E, Mich. Col. Min. and Tech, 26. Instr. math. and physics, *Mich. Col. Min. and Tech,* 20–21, asst. prof, 21–23, assoc. prof, 23–27, *prof. math. and registrar, 27–* Chemist, Cement City, Mich, 17; asst. testing engineer, highway dept, Springfield, Ill, 18; physicist, Navy Yard, Wash, D. C, 19. Vocational guidance.

Duggar, Prof. B(enjamin) M(inge), University of Wisconsin, Madison, Wis. *[1]*Plant physiology and pathology.* Gallion, Ala, Sept. 1, 72. Alabama, 87–89; B.S, Miss. Agr. and Mech. Col, 91; M.S, Ala. Polytech, 92; A.B, Harvard, 94, A.M, 95; Ph.D, Cornell, 98; Germany, France and Italy, 99–00, 05–06. Asst. director, Ala. Exp. Sta, Uniontown, 92–93; asst. bot, Radcliffe Col, 94–95; asst. botanist, State Lab. Nat. Hist, Illinois, 95–96; instr. plant physiol, Cornell, and asst. crypt. botanist, Exp. Sta, 96–00, asst. prof, 00–01; physiologist, bur. plant indust, U. S. Dept. Agr, 01–02; prof. bot, Missouri, 02–07; plant physiol, Cornell, 07–12; plant physiol. and in charge grad. lab, Washington (St. Louis), and physiologist, Mo. Bot. Garden, 12–27; *prof. physiol. and econ. bot, Wisconsin, 27–* Chairman div. biol. and agr, Nat. Research Council, 25–26. Trustee, Marine Biol. Lab, Woods Hole; Oceanog. Inst, Woods Hole; Bermuda Biol. Sta. Int. Cong. Arts and Science, St. Louis, 04; gen. sec'y and chairman exec. cmt, Int. Cong. Plant Science, Ithaca, 26. Nat. Acad; A.A; Soc. Nat; Bot. Soc. (v. pres, 12, 14, pres, 23); Phytopath. Soc; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Philos. Soc; Wis. Acad; Acad. Nat. Sci. Phila. Physiological pathology.

Duggar, Prof. J(ohn) F(rederick), Alabama Polytechnic Institute, Auburn, Ala. *Agriculture.* Near Demopolis, Ala, Aug. 24, 68. B.S, Miss. Agr. and Mech. Col, 87, M.S, 88; George Washington, 93–94; Cornell, 06. Asst. agr, Agr. and Mech. Col. Texas, 87–89; asst. director, S. C. Exp. Sta, 90–92; ed, U. S. Dept. Agr, 93–95; prof. agr, *Ala. Polytech,* 96–21, director, *Exp. Sta,* 03–21, agr. exten, 14–20, *research prof. special investigations, 21–* Ed, 'South. Live-stock Jour,' 89–90. Soc. Agron. (v. pres); Asn. South. Agr. Workers (pres); Ala. Acad. (pres, 32). Southern field and forage crops; cotton; leguminous plants; corn; oats; feeding of animals; plant breeding; farm management; agricultural education.

Duke, Dr. Frederick R(obert), Princeton University, Princeton, N. J. *Analytical chemistry.* Unityville, S. Dak, March 17, 17. A.B, South Dakota, 37; G. F. Smith fellow, Illinois, 37–40, Ph.D, 40. Research fellow, Illinois, 40–41; research chemist, rayon dept, E. I. du Pont de Nemours and Co, 41–42; *instr. anal. chem, Princeton, 42–* Chem. Soc. Methods of analysis for organic compounds in mixtures.

Duke, Dr. Kenneth L(indsay), Box 3422, Duke Hospital, Durham, N. C. *Anatomy.* Heber City, Utah, Feb. 22, 12. A.B, Brigham Young, 36; fellow, Duke, 39–40, Ph.D, 40. Asst. zool, Brigham Young, 36–37; *Duke,* 37–39, *instr. anat, sch. med, 40–* Histology; cytology; morphology of mammalian ovaries; germ cells of mammals.

Dukes, Prof. H(enry) H(ugh), New York State Veterinary College, Cornell University, Ithaca, N. Y. *Veterinary physiology.* St. George, S. C, Sept. 9, 95. B.S, Clemson Col, 15; D.V.M, Iowa State Col, 18, M.S, 23. Asst. prof. vet. science, Clemson Col, 18–20; city health officer, Greer, S. C, 20–21; instr. and asst. prof. vet. physiol, Iowa State Col, 21–29, asst. prof. vet. research, 29–32; *prof. vet. physiol, N. Y. State Vet. Col, Cornell, 32–* A.A; Vet. Med. Asn; Physiol. Soc; Soc. Exp. Biol. Physiology of duodenal glands and the ruminant stomach; hemoglobin content of the blood of fowls; energy metabolism of chickens; cardiovascular studies of pigs; intestinal motility; electrocardiography.

Duley, Dr. F(rank) L(eslie), Soil Conservation Service, Lincoln, Nebr. *Soils.* Grant City, Mo, Dec. 21, 88. B.S.A, Missouri, 14, A.M, 15; hon. fellow, Wisconsin, 21–22, Ph.D, 23. Asst. soils, Missouri, 15–17, instr, 17–19, asst. prof, 19–20, assoc. prof, 20–25; prof, Kans. State Col, 25–33; regional director *soil conservation service,* U. S. Dept. Interior, 33–35; *in charge research, U. S. Dept. Agr, 36–* A.A; Soc. Agron. Soil fertility; acidity and calcium content of soils; plant nutrition; soil erosion; moisture conservation; a new system of farming land with crop residues on the surface to aid in soil moisture storage, reduction of runoff and erosion by water or wind.

Duling, Prof. H(ugo) B(ruce), Georgia School of Technology, Atlanta, Ga. *Electrical engineering.* Spencer, W. Va, Aug. 23, 92. B.S, West Virginia, 18; M.S, Ga. Tech, 27. Gen. Elec. Co. Testing Lab, 18; inspection eng. dept, West. Elec. Co, 20; *prof. elec. eng, Ga. Tech, 20–* Elec. Eng. Speed measuring equipment for rotating equipment.

Dull, Prof. Malcolm F(eldheiser), De Paul University, Chicago, Ill. *Organic chemistry.* Chattanooga, Ohio, Feb. 17, 05. A.B, Hope Col, 26; M.S, Mass. State Col, 28; Ph.D, Northwestern, 31. Instr. chem, De Paul, 32–33; chemist, Universal Oil Products Co, 33–34; *prof. chem. and chairman dept. chem. and physics, De Paul, 34–* Chem. Soc. Ketenes; free radicals; diphenylmethane derivatives; plant enzymes.

Dull, Dr. Raymond B(roadwell), 17333 Fries Ave, Lakewood, Ohio. *Physics.* White Cloud, Mich, Oct. 15, 08. A.B, Kalamazoo Col, 32; M.S, Chicago, 35; Ph.D, Pa. State Col, 38. *Research physicist, Nat. Carbon Co, 39–* A.A; Physical Soc. Batteries.

Duman, Prof. M(aximilian) G(eorge), St. Vincent College, Latrobe, Pa. *Systematic botany.* Nicktown, Pa, Feb. 21, 06. A.B, St. Vincent Col, 32; M.S, Catholic Univ, 37, Ph.D, 41. Instr. *biol, St. Vincent Col,* 32–36, 37–39, *assoc. prof, 41–* Mem. Arctic exped, Catholic Univ, 39. A.A; South. Appalachian Bot. Club. Taxonomic and distributional studies of Arctic carices.

DuMez, Dean A(ndrew) G(rover), University of Maryland, Baltimore, Md. *Chemistry.* Horicon, Wis, April 26, 85. B.S, Wisconsin, 07, M.S, 10, hon. fellow, 16–17, Ph.D, 17. Instr. chem, Wisconsin, 07–10; asst. prof, Okla. Agr. and Mech. Col, 11–12; director sch. pharmacy, Philippines, 12–16; assoc. pharmacologist, hygienic lab, U. S. Pub. Health Service, 17–26; *dean sch. pharmacy, Maryland, 26–* Revision cmt, U. S. Pharmacopoeia, 20, v. chairman, 30, chairman subcmt. nomenclature, 40; sec'y cmt. investigation narcotic drug traffic, U. S. Treasury, 18; sec'y, Council Pharmaceut. Educ, 32–Del, Int. Conf. on Formulae for Heroic Medicaments, Brussels, 25. A.A; Chem. Soc; Pharmaceut. Asn. (councilor, 20–41, sec'y, council, 20–23, reporter, progress pharmacy, 22–41, chairman, pub. cmt, 25–41; pres, 39); Asn. Cols. Pharm. (pres, 28); Pub. Health Asn; Wis. Acad. Plant chemistry; therapeutic agents; standardization of drugs; drug addiction.

Dumke, Prof. Walter H(enry), 3385 W. 36th Ave, Denver, Colo. *Physical chemistry.* Sleepy Eye, Minn, July 12, 05. B.S, Minnesota, 27; fellow, Colo. Sch. Mines, 27–29, M.S, 29; fellow, Iowa, 29–31, Ph.D, 31. Research chemist, Gates Rubber

Co, Denver, Colo, 32–33; research engineer, bur. reclamation, U. S. Dept. Interior, 33–37; *asst. prof. chem, Colo. Sch. Mines, 37–* Chem. Soc; Colo. Soc. Eng; Colo-Wyo. Acad. Sulfur compounds in oil-shale; gasometric determination of oxygen in coals; dielectric constants and electric moments of fatty acids; particle size analysis of Portland and pozzolan cement.

DuMond, Prof. Jesse W(illiam) M(onroe), 530 S. Greenwood, Pasadena, Calif. **8*Physics.* Paris, France, July 11, 92. B.S, Calif. Inst. Tech, 16, Ph.D, 29; M.S, Union (N. Y), 19. Testing dept, Gen. Elec. Co, N. Y, 16–17, consulting eng. dept, 17–18; designer, turbo alternator dept, French Thomson-Houston Co, Paris, 19–20; asst. elec. engineer, Bur. Standards, 20–21; teaching fellow *physics, Calif. Inst. Tech,* 21–29, research fellow, 29–31, research assoc, 31–38, *assoc. prof, 38–; consultant, Nat. Defense Research Cmt. and senior physicist, Bur. Standards, 41–; official investigator, Calif. Inst. Tech, 42–* Acting assoc. prof, Stanford, 31. Ed. board, 'Annual Tables Physical Constants.' Mem. cmt. fundamental physical constants and conversion factors and chairman subcmt. atomic constants, Nat. Research Council. C.Eng, U.S.A, 18–19. Fel. Physical Soc; Soc. de Physique. Complex quantity slide-rule; stereofluoroscope; Compton modified line structure; momenta of electrons in solid and gaseous matter; multi-crystal spectrograph; curved crystal x-ray spectrograph; precision two crystal x-ray spectrometer; high intensity x-ray tube; precision measurements of the atomic constants e, h/e, h/m; new consistency diagram for the atomic constants.

Dunavan, Prof. David, 116 N. Clemson Ave, Clemson, S. C. *Entomology, Apiculture.* Lakefield, Minn, July 15, 95. B.S, Oregon State Col, 25; M.S, Iowa State Col, 28. Agent, U. S. Dept. Agr, 24–25; asst, Iowa State Col, 25–26; *asst. prof. entom. and zool, Clemson Col, 26–* Entom. Soc. Amer; Asn. Econ. Entom; S. C. Acad. Taxonomy of Haliplidae, Dytiscidae, Hydrophilidae.

Dunbar, Prof. Bertrand Ackley, South Dakota State College, Brookings, S. Dak. *Chemistry.* Brunswick, Ohio, Sept. 9, 71. A.B, Ohio Wesleyan, 91, A.M, 92; Chicago. Sch. supt, 92–10; instr. chem, *S. Dak. State Col,* 10–11, asst. prof, 11–12, assoc. prof. org. chem, 12–18, chemist, Exp. Sta, 18–23, *prof. chem. and head dept, 18–* Chem. Soc. (pres, S. Dak. sect, 18); S. Dak. Acad. (state chairman, Garvan prize cmt, 24–31). By-products of cereals and coals; digestion constants; dairy cattle; constants of wool and of vegetable oils; fermentation of fruit juices.

Dunbar, Prof. Carl O(wen), Yale University, New Haven, Conn. **8*Geology.* Hallowell, Kans, Jan. 1, 91. A.B, Kansas, 13; Ph.D, Yale, 17. Dana fellow, Yale, 17–18; instr. geol, Minnesota, 18–20; asst. prof. hist. geol, *Yale,* 20–27, assoc. prof, 27–30, *prof. paleont. and stratig, 30–,* asst. curator, *Peabody Museum,* 20–26, *curator, 26–, director, 42–* Assoc. ed, 'Am. Jour. Science.' A.A; Geol. Soc. (councilor, 40–42); Soc. Econ. Paleont. and Geol; Philos. Soc; Paleont. Soc. (treas, 24–37, pres, 40); Conn. Acad. Paleontology and stratigraphy of the late Paleozoic; Fusulinidae; Brachiopoda.

Dunbar, Dr. (Helen) Flanders, 3 E. 69th St, New York, N. Y. *Internal medicine, Psychiatry.* Chicago, Ill, May 14, 02. A.B, Bryn Mawr Col, 23; A.M, Columbia, 24, Ph.D, 29, Med. Sc.D, 35; M.D, Yale, 30. Traveling fellow, Vienna and Zurich, 29–30; asst. med, *col. physicians and surg, Columbia,* 30–34, *asst. physician, Presb. Hosp. and Vanderbilt Clinic, 31–,* instr. *psychiat,* 31–36, *assoc, 36–,* asst. attending psychiatrist, 31–36, *assoc. attending psychiatrist, 36–* In charge psychosomatic research, Presb. Hosp. and Vanderbilt Clinic; director and med. adviser, Council for Clin. Training Theol. Students, Inc, 30–; exec. cmt, N. Y. City Cmt. Mental Hygiene and mental hygiene sect, Welfare Council, 35–; clin. asst. visiting physician, Bellevue Hosp, 35–37. Contributing ed, 'Psychoanal. Quarterly,' 38–41; managing ed, 'Psychosomatic Med,' 39– Chairman, subcmt. on psychiat. problems in somatic disorders. Fel. Am. Med. Asn; fel. Psychiat. Asn; Psychopath. Asn. (v. pres, 42–); Psychoanal. Asn. (treas, 42–); Asn. Research Nervous and Mental Disease; N. Y. Soc. Clin. Psychiat; fel. N. Y. Acad. Med. (sec'y and assoc. treas, cmt. emotions and health, and mem. subcmt, pub. health relations); Int. Psychoanalytic Asn. Symbolism; physiological changes accompanying emotions; psychiatric education of medical students; education of the theological and law students in social and preventive public health problems.

Dunbar, Dr. P(aul) B(rown), 311 Cumberland Ave, Chevy Chase, Md. *Chemistry.* Lebanon, Pa, May 29, 82. B.S, 31 Gettysburg Col, 04, M.S, 06, Sc.D, 37; Ph.D, Hopkins, 07. Chemist, bur. chem, U. S. Dept. Agr, 07–25, asst. chief, 25–27, *food and drug admin,* 27–40; asst. commissioner, *Fed. Security Agency,* 40–42, *assoc. commissioner, 42–* Chem. Soc; Agr. Chem. Food chemistry.

Dunbar, Prof. Ralph E(dwin), North Dakota Agricultural College, Fargo, N. Dak. *Chemistry.* Platte, S. Dak, Aug. 22, 95. B.S, Dakota Wesleyan, 21; A.M, Columbia, 26; Northwestern; Ph.D, Wisconsin, 33, 34; Iowa State Col, 36–37. Teacher, high sch, S. Dak, 21–25; asst. instr. *chem,* Dakota Wesleyan, 25–26, prof. and head dept, 26–36; instr, Iowa State Col, 36–37; *prof, N. Dak. Agr. Col, 37–* Chem. Soc; N. Dak. Acad. Organic and inorganic chemistry; organic catalysis; dehydrogenations; chemical education.

Dunbrook, Dr. Raymond F(rederick), Firestone Tire and Rubber Co, Akron, Ohio. *Organic chemistry.* Grand Rapids, Mich, May 9, 96. B.S, Michigan, 17; M.S, Pittsburgh, 21, Ph.D, 23. Research and plant control chemist, Holland Aniline Co, Mich, 17–20; instr. org. chem, Pittsburgh, 20–23; assoc. prof, Wittenberg Col, 23–27, prof, 27–29; *org. research div, Firestone Tire and Rubber Co, 29–* A.A; Chem. Soc. Electrochemistry; dyes and intermediates; organic selenium compounds; rubber organic accelerators and antioxidants; synthetic rubber; rubber compounding.

Duncan, Prof. A(lbert) B(enjamin) F(ord), University of Rochester, Rochester, N. Y. *Physical chemistry.* Memphis, Tenn, June 26, 03. B.S, Virginia, 24; Ph.D, Hopkins, 29. Instr. *chem,* Tennessee, 24–26; Hopkins, 28–30, assoc, 30–33; asst, Brown, 34–35, instr, 35–38; *asst. prof, Rochester, 38–* Assoc. ed, 'Chem. Abstracts.' Photochemistry; spectroscopy.

Duncan, Prof. Bertha K(athleen), Box 604, C. I. A. Station, Denton, Texas. *Psychology.* Shannon, Texas, March 20, 00. A.B, Texas Col. for Women, 20; A.M, Texas, 24, fellow, 25–28, Ph.D, 29. Prof. math. and director dept, Grenada Col, 24–25; asst. educ. psychol, Laura Spelman Rockefeller Foundation Fund, Texas, 28–29; *assoc. prof. philos. and psychol, Texas State Col. for Women, 29–* Summers, instr, Texas State Col. for Women, 23; Texas, 27, 29; clin. psychologist and psychiat. social service worker, San Antonio State Hosp, 28. Psychol. Asn; Statist. Asn; Math. Asn. Educational psychology; measurement of pressure in handwriting; visual vocal reaction time in reading; comparison of the maze learning of the blind with sighted subjects; principles of psychology and mental hygiene of value to teachers.

Duncan, Prof. Carl D(udley), San Jose State College, San Jose, Calif. *Entomology.* Dallas, Texas, Nov. 2, 95. A.B, Stanford, 23, A.M, 28, Ph.D, 31. Instr. biol. and bot, *San Jose State Col,* 22–28, asst. prof, 28–30, assoc. prof. *entom. and bot,* 30–34, *prof, 34–* Mem. faculty, West Coast Sch. Nature Study, 31– Summers, sci. asst, Fish and Game Cmn, Calif, 20; Bur. Fisheries, 23; instr, Wash. State Nor. Sch, Bellingham, 27; field asst, Stanford, 21, lab. technician, 22. Pacific Coast Entom. Soc. (pres, 38–40). Biology of Stenopelmatus; soundmaking in Orthoptera; biology and systematics of Vespinae.

Duncan, Dr. Catherine G(ross) (Mrs. Robert E. Duncan), 317 E. Gorham St, Madison, Wis. *Botany, Bacteriology.* Manilla, Ind, April 4, 08. A.B, DePauw, 31; A.M, Wisconsin, 33, Ph.D, 35. Asst. bot, Wisconsin, 31–36; asst. prof. bot. and bacter, Hood Col, 36–42; *junior pathologist, forest products lab, U. S. Forest Service, 42–* A.A; Bot. Soc; Ind. Acad. Cytology of Vaucheria and Hepaticae; division of the nutritive cells of Sphaerocarpos; meiosis in Sphaerocarpos.

Duncan, Prof. D(avid) C(hristie), Pennsylvania State College, State College, Pa. *Physics.* Churchville, N. Y, July 30, 89. A.B, Michigan, 11, A.M, 13, Ph.D, 24. Instr. *physics,* Purdue, 11–16, asst. prof, 16–18; *prof, Pa. State Col, 18–* A.A; Physical Soc; Asn. Physics Teachers; Eng. Educ. Optical, heat and temperature measurements; spectroscopy.

Duncan, Dr. David R(obardson) L(incoln), 2930 E. Iliff Ave, Denver, Colo. *Biochemistry.* Denver, Colo, Feb. 12, 09. B.S, Denver, 29; Gen. Educ. Board fellow, Western Reserve, 37–40; Ph.D, Chicago, 41. *Assoc. prof. chem, Denver, 41–* Colo-Wyo. Acad. Male sex hormones.

Duncan, Prof. Donald, Louisiana State University, New Orleans, La. *Anatomy.* Marietta, Minn, Jan. 31, 03. A.B, Carleton Col, 23; A.M, Minnesota, 27, Ph.D, 29. Asst. prof. *anat,* Utah, 29–30; Buffalo, 30–32; assoc. prof, *sch. med,* Texas, 32–41, prof, 41–42; prof. and head dept, Buffalo, 42–

43; *prof, Louisiana, 43–* A.A; Asn. Anat. Structure of peripheral nerves and spinal nerve roots; pathology of the spinal cord; action of oil anesthetics.

Duncan, Donald C(ave), U. S. Geological Survey, Washington, D. C. *Geology.* Medford, Oregon, Dec. 31, 11. A.B, Montana, 35, A.M, 37; Princeton, 37–40. *Geologist, coal and strategic mineral investigations, U. S. Geol. Surv, 38–* A.A; Paleont. Soc; Geol. Soc. Wash. Upper Cambrian stratigraphy and paleontology; examination of coal and strategic mineral deposits in western states.

Duncan, Helen (Margaret), U. S. Geological Survey, Washington, D. C. *Paleontology, Geology.* Medford, Oregon, May 3, 10. A.B, Montana, 34, A.M, 37; Cincinnati, 39–41. Library sec'y and instr, Montana, 34–39; asst. geol, Cincinnati, 39–41, applied sci. research lab, 41–42; *junior geologist, U. S. Geol. Surv, 42–* Paleont. Soc. Bryozoa; Trepostomata and Fistuliporidae; North American Devonian Trepostomata and Cyclostomata.

Duncan, Dr. I(ra) J(eriah), West Virginia University, Morgantown, W. Va. *Agricultural chemistry.* Carroll Co, Ga, Feb. 16, 06. B.S, Georgia, 30; M.S, West Virginia, 33, Ph.D, 36. Asst. chem, *Exp. Sta, West Virginia,* 30–36, *asst. chemist, 36–* Chem. Soc. (sec'y, north. W. Va. sect, 38, v. pres, 39, pres, 40); W. Va. Acad. Coumarin investigation in sweet clover; anthocyan pigments of apples.

Duncan, James A(rmstrong), Brooklyn Edison Co, 55 Johnson St, Brooklyn, N. Y. *Electrophysics.* Sumter, S. C, Feb. 28, 98. B.S, South Carolina, 17; A.M, Harvard, 20. Asst. physics, Harvard, 18–20; instr, Cambridge-Haskell Sch, 19–20; Austin teaching fellow, Harvard, 20–21; instr. math. and physics, Mt. Auburn, Cambridge, 21–23; instr. physics, Stone Sch, Boston, 22–23; asst. prof, Kentucky, 23–24; asst. engineer, *Brooklyn Edison Co,* 24–26, research engineer, 26–37, *research physicist, 37–* Physical Soc; Elec. Eng. Insulation; oil-impregnated paper cables for high voltage use.

Duncan, Prof. James F(rancis), State Teachers College, Oshkosh, Wis. *Physics.* Mears, Mich, April 28, 00. A.B, Kalamazoo Col, 23; A.M, Michigan, 27, Ph.D, 30. Instr. *physics,* Kalamazoo Col, 24–25; asst, Yale, 26–27; *prof,* Lombard Col, 28–29; Hastings Col, 29–30; *Wis. State Teachers Col, Oshkosh, 30–* A.A; Physical Soc. Certain electronic bands of carbon dioxide.

Duncan, Prof. John C(harles), Whitin Observatory, Wellesley, Mass. **Astronomy.* Duncan's Mill, Ind, Feb. 8, 82. A.B, Indiana, 05, A.M, 06; Lawrence fellow, Lowell Observatory, 05–06; fellow, Lick Observatory, California, 07–09, Ph.D, California, 09. Asst. astron, Indiana, 04–05, instr. astron. and mech, 06–07; *astron,* Harvard, 09–16; Radcliffe Col, 11–16; *prof, Wellesley Col, and director, Whitin Observatory, 16–;* astronomer, *Mt. Wilson Observatory, Carnegie Institution,* 20–21, *research asst, 22–* A.A; Astron. Soc. (councilor, 33–36; sec'y, 36–39); Asn. Variable Star Observers; Am. Acad; Maria Mitchell Asn; Astron. Soc. Pacific; Soc. astron. de France; Soc. Astron. de Mex. Micrometric and photographic observations of comets; stellar spectroscopy; photography of nebulae and star clusters; determination of orbits; methods of astronomical instruction.

Duncan, Dr. Ralph W(infred), 247 Green Ave, Lansdowne, Pa. *Physics.* Oakland City, Ind, Sept. 19, 82. A.B, Indiana, 09; fellow, Pennsylvania, 10–12, Ph.D, 12. Instr. *physics,* high sch, Ind, 07–09; *Pennsylvania,* 09–10, 12–21, asst. prof, 21–29, *prof, 29–* Assoc. physicist, Bur. Standards, 18. Physical Soc; Optical Soc; Asn. Physics Teachers. Optical constants of metals; cotton fabrics; measurement of photographic densities.

Duncan, R(obert) A(ndrew), 129 Wyoming Ave, Wyoming, Ohio. *Chemistry.* Exeter, Mo, Sept. 6, 89. A.B, Missouri, 13, A.M, 14. Instr. chem, Oregon State Col, 14–17; in charge phenol plant, Monsanto Chem. Works, 17–19; chemist, *Procter and Gamble Co,* 19–20, supervisor by-products, 20–21, oil products, 21–23, in charge soap process develop, *chem. div,* 23–40, *assoc. director in charge tech. service to for. factories, 40–* A.A; Chem. Soc; Oil Chemists Soc; Chem. Eng. Oil and fats; soaps; glycerin.

Duncan, Dr. Robert C(arlthers), U. S. Navy Department, Washington, D. C. *Physics.* Loveland, Colo, July 14, 86. A.B, Indiana, 09; fellow, Pennsylvania, 10–12, Ph.D, 12. Instr. physics, Pa. State Col, 08–09; Pennsylvania, 09–10, 13–17; asst. physicist, Bur. Standards, 17–18, assoc. physicist, 18–19, *physicist,* 19–20; *bur. ordnance, U. S. Navy Dept, 20–* Physical Soc; Philos. Soc. Wash. Optical constants of sodium and potassium; ballistics.

Duncan, Dr. Robert D(aman), 324 Somerset St, W, Ottawa, Ont, Can. *Physical chemistry.* Sackville, N. B, Oct. 19, 14. B.Sc, Mt. Allison, 36; Ph.D, McGill, 41. *Research chemist, Can. Int. Paper Co.* An adiabatic calorimeter to measure the heat effects of a slow reaction at elevated temperatures; heat effects produced when gaseous sulphur dioxide reacts on moist wood; stock preparation and quality control in newsprint industry.

Duncan, Dr. Robert E(ll), 317 E. Gorham St, Madison, Wis. *Botany.* Covington, Ohio, June 28, 12. A.B, Miami (Ohio), 34; A.M, Wisconsin, 36, fellow, 38, Ph.D, 38. Asst, Wisconsin, 34–37; nat. research fellow, Manchester, 39; instr, Maine, 40; *research assoc. to Dr. Schubert, orchid grower, 40–* Bot. Soc; Torrey Bot. Club. Cytology and genetics of ferns and seed plants; fruit development.

Duncan, Prof. Wallace E(dwin), Southwest Texas State Teachers College, San Marcos, Texas. *Chemistry.* New Albany, Ind, June 29, 02. A.B, Baker, 24; Ph.D, Hopkins, 31. Teacher science, high sch, Kans, 24–28; asst. chem, Hopkins, 29–31, instr, 31–32; prof, Col. of Ozarks, 33–37; junior chemist, U. S. Geol. Surv, 37–39; asst. curator sect. chem. industries, U. S. Nat. Museum, 39–42; prof. *chem. and physics,* Blackburn Col, 42–43; *assoc. prof, Southwest Texas State Teachers Col, 43–* Summers, research asst, Am. Petrol. Inst, 29, 30. A.A; Chem. Soc. Copper mercaptides; reaction of lead mercaptides with sulfur; lead polysulfides; history of chemistry.

Duncombe, Prof. C(harles) G(ross), University of Detroit, Detroit, Mich. *Chemical engineering.* Gordonville, Va, March 14, 89. B.Ch.E, Ohio State, 16, M.S, 29, Ph.D, 31. Instr. *chem. eng,* Ohio State, 27–31, asst. prof, 31–36; *prof. and head dept, Detroit, 36–* Chem. Soc; Chem. Eng; Eng. Educ. Particle size of industrial powders; waterproof coatings.

Dundon, Dr. Merle L(eroy), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Edinburg, Ohio, Oct. 27, 92. B.S, Mt. Union Col, 17; M.S, Ohio State, 19, Grasselli fellow, 21–22, Ph.D, 22. Nat. research fellow, 22–23; research chemist, *Eastman Kodak Co,* 23–29, *plant exec, 30–* Bronze medal, Soc. française de Photographie, 24. C.W.S, U.S.A, 18–19. Chem. Soc. Physical and photographic chemistry; solubility and surface energy of fine powders; photographic developing solutions; sensitizing and desensitizing dyes.

Dunegan, John C(lymer), University of Arkansas, Fayetteville, Ark. *Plant pathology.* Philadelphia, Pa, Feb. 1, 98. B.S, Pa. State Col, 21; M.S, Arkansas, 37. Field asst, potato wart surv, fed. hort. board, *U. S. Dept. Agr,* 20–21, sci. asst, 21, office fruit disease investigations, *bur. plant indust,* 21–22, junior pathologist, 22–25, asst. pathologist, 25–28, assoc. pathologist, *div. fruit and veg. crops and diseases,* 28–42, *pathologist, 42–* Phytopath. Soc. Fruit disease; brown rot, rust and bacterial spot of peaches; control of apple and peach diseases by spray experiments.

Dunford, Prof. Nelson, 215 Norton St, New Haven, Conn. *Mathematics.* St. Louis, Mo, Dec. 12, 06. Ph.B, Chicago, 31, A.M, 32; Ph.D, Brown, 36. Instr. *math,* Brown, 34–36; *Yale,* 36–38, asst. prof, 38–43, *prof, 43–* Assoc. ed, 'Am. Jour. Math.' Math. Soc. (assoc. ed, 'Trans'). Integration and linear operations.

Dunford, Dr. R(alph) E(merson), University of Tennessee, Knoxville, Tenn. *Psychology.* Amanda, Ohio, Dec. 17, 96. A.B, Ohio State, 24, A.M, 25, Ph.D, 29. Instr. psychol, Ohio State, 24–26; asst. prof. and assoc. prof, Tennessee, 26–36, prof, 36–40; *head employment officer, Tenn. Valley Authority, 40–* Psychol. Asn; S. Soc. Philos. and Psychol. Genetic and experimental psychology; cutaneous and visual discriminations.

Dungan, Prof. Geo(rge) H(arlan), University of Illinois, Urbana, Ill. *Agronomy.* Rocklane, Ind, Dec. 12, 87. B.S, Illinois, 17, M.S, 21; Ph.D, Wisconsin, 25. Asst. *crop production, Illinois,* 17–19, instr, 19–20, assoc, 20–23, asst. prof, 25–29, assoc. prof, 29–36, *prof, 36–* Collaborator, plant disease surv, U. S. Dept. Agr, 20–25. A.A; Soc. Agron; Soc. Plant Physiol; Bot. Soc; Ill. Acad. Crop production; physiologic adaptation of corn, wheat, oats and barley strains.

Dungay, Prof. Neil S(tanley), 611 E. 3rd St, Northfield, Minn. *Zoology, Medicine.* Near Faribault, Minn, Sept. 28.

82. A.B, Minnesota, 04, M.D, 25; Ph.D, Chicago, 13. Instr, high sch, Minn, 04–06; from instr. to *prof.* zool, *Carleton Col,* 07–27, *hygiene and pub. health,* 27–, director health service, 25–36. Asst, Minn. Geol. and Nat. Hist. Surv, 03–04. Woods Hole Corp. A.A; fel. Am. Med. Asn; fel. Pub. Health Asn; Minn. Acad. Experimental embryology; effects of injury upon sperm.

Dunham, Prof. D(avid) H(anon), Purdue University, West Lafayette, Ind. *Bacteriology.* Indianapolis, Ind, Nov. 23, 95. B.S, Purdue, 20, M.S, 22; Ph.D, Wisconsin, 31. Asst. and instr. biol, Purdue, 21–27; bacteriologist, Monroe Cheese Co, Ohio, 28–29; instr. *biol, Purdue,* 29–30, asst. prof, 30–38, *assoc. prof, 39–* Summer, field man, Exp. Sta, Purdue, 26. A.A. Agricultural bacteriology; physiological relationships between strains of rhizobia and the Leguminosae.

Dunham, Dr. D(onald) W(est), Evansville College, Evansville, Ind. *Zoology.* Stuyvesant Falls, N. Y, Dec. 2, 08. B.S, Muskingum Col, 34; A.M, Ohio State, 36, Ph.D, 41. Asst. zool, Ohio State, 37–41; *instr. biol, Evansville Col, 41–* Limnol. Soc; Ind. Acad. Protozoology; freshwater Coelenterata.

Dunham, Dr. Ethel Collins, U. S. Department of Labor, Washington, D. C. *Child health.* Hartford, Conn, March 12, 83. A.B, Bryn Mawr Col, 14; M.D, Hopkins, 18. House officer, Hopkins Hosp, 18–19; asst. res, New Haven Hosp, 19–20; instr. pediat, *sch. med, Yale,* 20–24, asst. prof, 24–27, assoc. clin. prof, 27–35, *lecturer clin. pediat, 35–;* med. officer in charge neonatal studies, New Haven, Conn, *children's bur, U. S. Dept. Labor,* 27–34, acting director div. maternal and child health, 35, director div. research in child develop, 35–40, *consultant pediat, 40–* Attending pediatrician, New Haven Hosp. and Children's Community Center, New Haven, Conn, 20–34; Grace Hosp. 28–30; mem. board, State Dept. Pub. Welfare, 32–34; med. consultant, Child Welfare Asn, New Haven, 33–35. Director, Bryn Mawr Col, 37–42. Fel. Am. Med. Asn; Pediat. Soc. (chairman, cmt. neonatal studies, 34–36); Heart Asn. (cmt. rheumatic diseases); fel. Acad. Pediat. (Conn. chairman, 30–34; mem, joint cmt. problems fetus and newborn infant); Soc. Research Child Develop; Pub. Health Asn. (mem, subcmt, stillbirths, 34–); assoc. D. C. Med. Soc. (cmt. contact infections). Tuberculosis and syphilis in infants and children; neonatal mortality and morbidity; premature infants; growth and development.

Dunham, Dr. G(eorge) C(lark), U.S.A, Army Medical School, Washington, D. C. *Medicine.* Mitchell, S. Dak, July 27, 87. M.D, Oregon, 14; Dr.P.H, Hopkins, 21; D.T.M. and H, London Sch. Trop. Med, 22; A.M, George Washington, 25. Chief div. prev. med, Office Surgeon Gen, *War Dept,* 22–25, director mil. sanit, med. field service sch, Carlisle barracks, Pa, 26–31, tech. adviser pub. health to Governor-Gen. of P. I, 31–35, *director labs, Army Med. Sch, 36–* Am. Med. Asn; Asn. Mil. Surg; Soc. Bact; Soc. Trop. Med; Pub. Health Asn. Preventive medicine.

Dunham, Harman W(arren), 1117 17th St, S, Arlington, Va. *Biology.* Indianapolis, Ind, May 27, 99. B.S, Purdue, 22, M.S, 28. Instr. biol, Detroit, 28–35; grad. student, Michigan, 35–39; *mem. staff, U. S. Dept. Agr, 39–* A.A. Plant physiology.

Dunham, Henry G(urney), 920 Henry St, Detroit, Mich. *Bacteriology.* Monument Beach, Mass, June 4, 95. B.S, Mass. State Col, 17. Asst. bacteriologist, *Difco Labs, Inc,* 17–19, asst. plant supt, 19–21, *director dept. bacter, 21–* Soc. Bact; Pub. Health Asn; Water Works Asn; Inst. Food Technol; Mich. Acad. Development of complete dehydrated culture media; standardized ingredients for use in culture media and serological reagents.

Dunham, Dr. H(enry) H(oward), University of Kansas, Lawrence, Kans. *Zoology.* Galesburg, Kans, Aug. 16, 12. B.S, Kans. State Teachers Col, 35; M.S, Brown, 37, Ph.D, 39. Asst, Carnegie Institution, 39–41; *asst. instr. anat, Kansas, 41–* Soc. Zool. Physiology and genetics of cladocerans; avian intersexuality; physiology of ovulation.

Dunham, Dr. (Henry) Kennon, Union Central Bldg, Cincinnati, Ohio. *Medicine.* Fairview, Ohio, March 3, 72. Miami Med. Col, 91–94; M.D, Cincinnati, 94; Hopkins, 10; Wisconsin, summers, 15–17. Asst. med, Miami Med. Col, 96–99; prof. electrotherapeut, col. med, Cincinnati, 04–14. Chairman board trustees, Hamilton County Tuber. Hosp. M.C, 18–19, major. A.A; Am. Med. Asn; Col. Physicians; Asn. Thoracic Surg; Clin. and Climat. Asn; Tuber. Asn. (pres, 34); Roentgen Ray Soc; Ohio Pub. Health Asn. (pres, 30, 42); Cincinnati Acad. Med. (pres, 20); Cincinnati Anti-Tuber. League (past pres). Medical education; tuberculosis; specific Roentgen markings characteristic of pulmonary tuberculosis.

Dunham, Prof. R(aymond) S(tarr), Northwest School and Experiment Station, Crookston, Minn. *Agronomy.* Binghamton, N. Y, April 12, 90. B.S, Illinois, 14; M.S, Minnesota, 33. Soil chemist, Beaumont and Dunham, 16–17; agriculturist, Home Lands, Inc, Wis, 18–21; *asst. prof. agron, Minnesota, and agronomist, northwest exp. sta, 21–* Corn; forage crops; cereals; soils.

Dunham, Dr. Theodore, Jr, Mt. Wilson Observatory, Pasadena, Calif. ***Astronomy, Astrophysics.* New York, N. Y, Dec. 17, 97. A.B, Harvard, 21; M.D, Cornell, 25; Ph.D, Princeton, 27. Nat. research fellow physics, 27–28; asst. astronomer, *Mt. Wilson Observatory, Carnegie Institution,* 29–36, *astronomer, 36–* Assoc. prof. astron, Princeton, 34–36; sci. director, Inst. Research in Astrophys; research assoc, Oxford Observatory, 38– A.A; Astron. Soc; Physical Soc; Astron. Soc. Pacific; Royal Astron. Soc. Photographic spectrophotometry; contours of absorption lines in stellar and solar spectra; application of photoelectric cells to astrophysics; spectra of planetary atmospheres.

Dunham, Prof. W(inston) E(dson), Ohio State University, Columbus, Ohio. *Agriculture.* Bethel, Vt. B.S, Vermont, 25; M.S, Ohio State, 27, Ph.D, 30. Instr. *apicult, Ohio State,* 26–34, asst. prof, 34–43, *assoc. prof, 43–, exten. specialist, 34–; asst. entomologist, Ohio Exp. Sta, 34–* Summers, exten. specialist, Ohio State, 27; field asst, Bee Culture Lab, Washington, D. C, 30–32. Temperature reactions of honeybees during the summer; gross anatomy and histological structures of the digestive system of the carpenter bee; influence of honeybees on pollination of legumes and orchards.

Dunihue, Prof. F(red) W(illiams), University of Vermont, Burlington, Vt. *Anatomy.* Bowling Green, Ky, June 9, 06. A.B, Wabash Col, 29; M.S, N. Y. Univ, 31, Ph.D, 34. Asst. biol, N. Y. Univ, 29–35, instr. histol. and embryol, 35–36; *neuro-anat, histol. and embryol, col. med, Vermont,* 36–38, *asst. prof, 38–* Soc. Zool. Renal hypertension.

Dunkel, Dr. Otto, Washington University, St. Louis, Mo. *Mathematics.* Richmond, Va, May 25, 69. M.E, Virginia, 96, A.B. and A.M, 98; A.M, Harvard, 99, Shattuck scholar, 00–02, Ph.D, 02; Göttingen, 04–05; Paris, 05–06. Asst. astron, Virginia, 96–97; instr. *math,* Wesleyan, 02–04; Minnesota, 06–07; Missouri, 07–16; asst. prof, *Washington (St. Louis),* 16–19, *assoc. prof, 19–* Assoc. ed, 'Am. Math. Monthly,' A.A; Math. Soc. Regular singular points of a system of homogeneous linear differential equations of the first order; algebraic equations.

Dunkelberg, Prof. Tobias H(enry), N. Y. State College of Ceramics, Alfred University, Alfred, N. Y. *Physical chemistry, Microchemistry.* Paxinos, Pa, Nov. 4, 09. B.S, Dickinson Col, 30; Ph.D, Pittsburgh, 37. Asst. *chem,* Pittsburgh, 31–36; *asst. prof,* N. Texas Agr. Col, 36–37; Idaho, 37–38; Duquesne, 38–41; *N. Y. State Col. Ceramics, Alfred, 41–* Summer, teacher, exten. defense courses, Pa. State Col, 41. A.A; Chem. Soc. Heats of dilution of cadmium sulfate, solutions.

Dunker, Dr. Carl F(rederick), Box 113, College Park, Md. *Chemistry.* B.S, Mass. State Col, 36, M.S, 37, Ph.D, 39. Supervisor water anal. lab, Dept. Pub. Health, Westfield, Mass, 38; research chemist, Exp. Sta, Mass. State Col, 39; biol. director vitamin div, LaWall and Harrisson, Phila, Pa, 40; *supervisor meat dehydration, exp. research pilot plant, U. S. Dept. Agr, 40–* Chem. Soc; Inst. Food. Technol; Pa. Chem. Soc. Vitamin C content of sweetcorn as affected by shipping, freezing and canning; vitamin C content of spinach; comparison of four methods of determining vitamin C with a twenty-five day weight response assay; food chemistry; food technology.

Dunker, Dr. Melvin F(rederick) W(illiam), University of Wisconsin, Madison, Wis. *Pharmaceutical chemistry.* Baltimore, Md, June 12, 13. B.S, Maryland, 34, M.S, 36, Ph.D, 39. Teaching asst, Maryland, 34–39, William R. Warner fellow, 39–40; Rockefeller fellow, Northwestern, 40–41; *instr. pharmaceut. chem, Wisconsin, 41–* Chem. Soc; Pharmaceut. Asn. Fluorine substituted organic mercurials; aliphatic amines; sterols.

Dunkerley, Mother Dorothea, College of New Rochelle, New Rochelle, N. Y. *Psychology.* Ennis, Texas, Nov. 19, 97.

A.B, Col. of New Rochelle, 19; A.M, Fordham, 34; Ph.D, Catholic Univ, 40. Instr. educ, *Col. of New Rochelle*, 29–37, *assoc. prof. psychol, 40–, asst. dean, 40–* Assoc. Psychol. Asn; Soc. Research Child Develop. Interests of college women; statistical study of leadership among college women.

Dunkle, Capt. Cyrus G(rant), Jr, O.C.S. No. 4. A.A.S, State College, Miss. *Physical chemistry.* Oil City, Pa, April 8, 01. Ch.B, Pittsburgh, 22; M.S, Carnegie Inst. Tech, 27. Asst. physical chemist, U. S. Bur. Mines, 26–27; asst. sanit. chemist, State Dept. Health, Pa, 27; research chemist, Picatinny Arsenal, Dover, N. J, 28–42; *capt, Chem. Warfare Service, 42–* Chem. Soc. (sec'y, Pittsburgh sect, 25); fel. Inst. Chem. Nitrocellulose; pyrotechnics.

Dunkle, Dr. David H(osbrook), Cleveland Museum of Natural History, 2717 Euclid Ave, Cleveland, Ohio. *Vertebrate paleontology.* Winnipeg, Man, Can. A.B, Kansas, 35; Ph.D, Harvard, 39. Teaching asst. comp. anat, Harvard, 36–39; *asst. curator in charge dept. paleont, Cleveland Museum Nat. Hist, 39–* Summers, field work, Mex, 34; United States, 36– Soc. Zool; Soc. Vert. Paleont; Soc. Ichthyol. and Herp; Kans. Acad. Osteology and morphology of fossil fishes; upper Devonian Arthrodira of Ohio.

Dunkle, Dr. Ellsworth C(hisolm), Pennsylvania State College, State College, Pa. *Agronomy.* Huntingdon, Pa, Jan. 9, 14. B.S, Pa. State Col, 36, M.S, 39, Ph.D, 40. Asst. county exten. agent, agr. exten. service, Missouri, 36–37; *asst. prof. soil technol, Pa. State Col, 40–* Plant nutrient deficiencies of Pennsylvania soils; soil chemistry and fertility.

Dunlap, Dr. A(lbert) A(tkinson), Agricultural and Mechanical College of Texas, College Station, Texas. *Plant pathology.* Bowdoinham, Maine, Oct. 31, 02. A.B, Bates Col, 23; M.S, Yale, 27, Ph.D, 29. Instr. plant path, Yale, 27–29; nat. research fellow bot, Wisconsin, 29–30; asst. mycologist and plant physiologist, Conn. Exp. Sta, 30–38; *chief div. plant path, Exp. Sta, Agr. and Mech. Col. Texas, 38–* A.A; Soc. Plant Physiol; Bot. Soc; Phytopath. Soc; Texas Acad. Physiological effects of plant diseases; fruiting of cotton.

Dunlap, Prof. A(rchibald) Lee, Tulane University, New Orleans, La. *Mechanical engineering.* Philadelphia, Pa, May 2, 95. B.S. (M.E), Pennsylvania, 17, M.E, 28. Dirigible develop. dept, Goodyear Tire and Rubber Co; field and test engineer, utilities div, Int. Shipbuilding Corp; instr. *mech. eng,* Pennsylvania; *assoc. prof, Tulane; insurance engineer, New Orleans Pub. Service, Inc.* Eng. Educ; Fire Protection Asn; La. Eng. Soc. (past pres).

Dunlap, Dr. Charles E(dward), Harvard Medical School, Boston, Mass. *Pathology.* New York, N. Y, June 8, 08. A.B, Harvard, 30, M.D, 34. *Instr. path, Harvard Med. Sch, 41–* Asst. pathologist, Collis P. Huntington Hosp. for Cancer Research, 42. Soc. Exp. Path; Asn. Cancer Research; New Eng. Path. Soc. Experimental cancer; biological effects of radiation.

Dunlap, Frederick, 1500 University Ave, Columbia, Mo. *Forestry.* Near Chillicothe, Ohio, June 17, 81. Ohio State, 99–01; F.E, Cornell, 04. Forest asst, U. S. Forest Service, 04, examiner, 13, physicist, Forest Products Lab, 09–13; lecturer forestry, Wisconsin, 10–13; prof, Missouri, 13–21; consulting forester, 21–25; state forester, Mo, 25–33; in charge management, Ottawa Nat. Forest, 33–37; *manager and owner forest and grazing property.* Exten. forester, Mo. State Agr. Exten. Service, 25–28; research councilor, Cent. States Forest Exp. Sta, U. S. Forest Service, 29–33. Director, Cent. States Forestry Cong, 30–33. Assoc. ed, 'Forestry Quarterly,' 02–16. Soc. Foresters; Forestry Asn; Mo. Forestry Asn. (sec'y, 21–33; Biol. Soc. Wash; Royal Soc. Arts. Forest ecology; silviculture; growth and management of mixed stands.

Dunlap, Dr. Frederick L(evy), 1545 E. 60th St, Chicago, Ill. *Chemistry.* Chillicothe, Ohio, May 16, 70. Ohio State, 88–89; B.S, Michigan, 92; Sc.D, Harvard, 95; Yale, 96. Instr. indust. chem, Worcester Polytech, 96–00; inorg. chem, Michigan, 00–01, anal. chem, 01–07; assoc. chemist, bur. chem, U. S. Dept. Agr, and mem, Board Food and Drug Inspection, 07–12; consulting chemist, Victor Chem. Works, 12–15; *consulting chemist, 15–* Summers, instr, Harvard, 93–95. A.A; Chem. Soc; Chem. Eng; Inst. Food Technol; for. mem. Masaryk Acad, Czechoslovakia. Foods; cereal chemistry; manufacturing processes.

Dunlap, Dr. G(eorge) Wesley, 130 N. Toll St, Scotia, N. Y. *Electrical engineering.* Gardnerville, Nev, April 13, 11. A.B, Stanford, 31, Harris J. Ryan High-Voltage Research Lab. fellow, 32–35, Ph.D, 36. *Develop. engineer, Gen. Elec. Co, 35–* Alfred Noble prize, 42. Elec. Eng. Electrical measurements; high voltage and high speed phenomena.

Dunlap, Dr. Henry F(rancis), University of New Mexico, Albuquerque, N. Mex. *Nuclear physics.* Ennis, Texas, Oct. 4, 16. A.B, Rice Inst, 38, A.M, 39, fellow, 39–41, Ph.D, 41. Asst. physicist, dept. terrestrial magnetism, Carnegie Institution, 41–42; *physicist, New Mexico, 42–* Physical Soc. Scattering of fast neutrons.

Dunlap, Prof. H(oward) L(eroy), Ohio University, Athens, Ohio. *Chemistry.* Flushing, Ohio, Jan. 22, 86. B.S, Ohio (Athens), 12; fellow, Ohio State 13–14, A.M, 14, Ph.D, 25. Prin, high sch, Ohio, 12–13; instr. chem, Iowa, 14–17; asst. prof, Mo. Sch. Mines, 17–19, assoc. prof, 19–28, *prof.* chem. eng, 32–36; *chem, Ohio (Athens), 36–* Exp. chem. engineer, Goodyear Tire and Rubber Co, 19, 20; White Star Refinery, 23, 25; consulting chemist, Phillips Petrol. Co, 26–34. Chem. Soc; Ohio Acad. Distillation of cannel coals; solubility of waxes; neutral salt catalysis in organic reactions; alcohols as inorganic salt solvents; molecular weights of lubrication oils.

Dunlap, Prof. Jack W(ilbur), University of Rochester, Rochester, N. Y. *Statistics, Psychology.* White Eagle, Okla, Aug. 11, 02. B.S, Kans. State Col, 24, M.S, 26, scholar, Stanford, 26–27; Ph.D, Columbia, 31. Teacher, junior high sch, Kans, 21–25, high sch, 24–26; asst. psychol, Stanford, 26–27; dean men, Territorial Nor. Sch, Honolulu, 27–30; asst, Columbia, 30–31; *assoc. prof. educ,* grad. sch, Fordham, 31–37; *Rochester, 37–; lieut. commander, U. S. Naval Res, 42–* Ed, 'Jour. Educational Psychol'; 'Psychometrika'; 'Jour. Exp. Educational Statist.' Director research cmt. pilot selection and training, Nat. Research Council, 41–42. Trustee, Scudder Sch. A.A; Psychol. Asn; Statist. Asn; Asn. Applied Psychol. (treas, 38–); Educational Research Asn; Psychometric Soc. (treas, 35, sec'y, 36–39, pres, 40); fel. N. Y. Acad. Statistics and test theory in educational psychology; personnel management.

Dunlap, Prof. Knight, University of California at Los Angeles, Los Angeles, Calif. *[#3]Psychology.* Diamond Spring, Calif, Nov. 21, 75. Ph.B, California, 99, M.L, 00, Le Conte fellow, 00–01; A.M, Harvard, 01, James Walker fellow, 01–02, Ph.D, 03; L.H.D, Callaudet Col, 31. Asst. psychol, California, 02–04, instr, 04–06; Hopkins, 06–10, assoc, 10–11, assoc. prof, 11–16, prof. exp. psychol, 16–36; visiting prof. *psychol, California at Los Angeles,* 35–36, *prof, 36–* Chairman div. anthrop. and psychol, Nat. Research Council, 27–29; pres, Nat. Inst. Psychol, 30–35. Joint ed, 'Jour. Comp. Psychol'; 'Comp. Psychol. Monographs'; 'Mental Measurements Monographs.' A.A; Psychol. Asn. (councilor, 16, pres, 22); S. Soc. Philos. and Psychol. (pres, 20). Effects of subliminal stimulations; time-perception; attention; reaction times; rhythm; effects of oxygen depletion and of narcotics; interrelations of optical and semi-circular canal mechanisms; emotional responses; sex differences; habit formation; stammering and neurotic readjustment.

Dunlap, Dr. Lawrence H(allowell), Armstrong Cork Co, Lancaster, Pa. *Organic chemistry.* Madison, Wis, Oct. 23, 10. A.B, Missouri, 31, B.S, 33, A.M, 35; Ph.D, Illinois, 39. *Research chemist, cent. tech. lab, Armstrong Cork Co, 39–* Chem. Soc. Oxidation and polymerization of drying oils; synthetic resins.

Dunlap, M(atthew) E(lbridge), 1122 Waban Hill, Madison, Wis. *Forestry.* De Smet, S. Dak, Sept. 10, 91. B.S, Illinois, 14. *Forest Products Lab, U. S. Forest Service, 16–, senior engineer.* Soc. Test. Mat. (chairman, subcmt. moisture in timber); Forestry Asn. Moisture-humidity relationships, electrical resistance and moisture proofing of wood; manufacture of glues and plywood; heat and moisture transmission through wall sections; electrostatic heating of wood.

Dunlavy, Henry E(lis), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agronomy.* Bushnell, Ill, March 2, 97. B.S, Okla. Agr. and Mech. Col, 19; M.S, Agr. and Mech. Col. Texas, 27. Commercial cotton breeder, Texas, 19–26; supt, Exp. Sta, Agr. and Mech. Col. Texas, Temple, 27–36; sec'y, Brazos River Conservation Dist, Temple, Texas, 36–38; *agronomist, Okla. Agr. and Mech. Col, 38–* Soc. Agron. Cotton breeding; cotton variety testing; cotton fiber studies.

Dunlay, Dr. E(dward) E(rik), 3937 Fourth St, Port Arthur, Texas. *Chemistry.* Houston, Texas, April 21, 95. A.B, Texas,

20; fellow, Rice Inst, 21–23, A.M, 24; Pub. Health Inst. fellow, Northwestern, 24–26; scholar, Pa. State Col, 30–31, Ph.D, 32. Tutor chem, Texas, 18–21; research chemist, H. Koppers Co, 21; head tutor chem, Texas, 26–29; asst, Pa. State Col, 29–30; *research chemist, Gulf Ref. Co, Port Arthur, 33–* Chem. Soc Organic mercurials; anthracene and anthraquinone derivatives; aluminum chloride in organic syntheses; petroleum; catalytic petroleum refining.

Dunlevy, Prof. R(obert) B(aldwin), 302 College St, Winfield, Kans. *Geology.* Sparta, Wis, Dec. 14, 70. B.L, Wisconsin, 93, A.M, 10. Sch. supt, Wis, 93–94; head dept. science, Southwestern Col. (Kans), 95–09, dept. chem, 10–14; asst. chem, Wisconsin, 09–10; chief geologist, Inter-Sea Service Corp, 19–22; dept. chem, *Southwestern Col. (Kans),* 23–24, *prof. geol, 24–* Consulting geologist, Foreign Concessions Corp, N. Y, and Compagnia Italiana Petroli, Italy, 24. A.A; Asn. Petrol. Geol; Southwest Sci. Club (pres, 26–); Kans. Geol. Soc; Kans. Acad.

Dunlop, H(arry) A(dam), 2725 Montlake Blvd, Seattle, Wash. *Zoology.* Dunrea, Man, Can, July 8, 98. B.A, British Columbia, 19, M.A, 22. Instr. zool, British Columbia, 20–24; asst. director, *Int. Fisheries Cmn,* 25–36, acting director, 37–39, *director, 40–* A.A; Soc. Ichthyol. and Herp; Fisheries Soc. Life history of salmon and halibut; condition of Pacific halibut fishery.

Dunlop, R(ichard) D(e Muth), 103 Field Road, Longmeadow, Mass. *Chemistry.* Webster Groves, Mo, Feb. 2, 08. B.S, Washington (St. Louis), 31, M.S, 33. Operating chemist, org. div, Monsanto Chem. Co, 33–38; production supt, Shawinigan Resins Corp, 38–39; *asst. director research and develop, plastics div, Monsanto Chem. Co, 39–* Chem. Soc. Research and development of plastic materials and applications.

Dunmore, Francis W, R. F. D. 1, Rockville, Md. *Radio engineering.* Haverhill, Mass, Jan. 24, 91. B.S. Pa. State Col, 15. *Radio lab, Bur. Standards, 18–, senior radio engineer.* Radio navigational aids to marine and air navigation; ultra high radio frequencies; radio meteorography.

Dunn, Prof. C(ecil) G(ordon), Massachusetts Institute of Technology, Cambridge, Mass. *Biology.* Chatham, Mass, Feb. 28, 04. B.S, Mass. Inst. Tech, 30, Ph.D, 34. Asst. *biol. and pub. health, Mass. Inst. Tech,* 30–32, teaching fellow, 32–34, Upjohn research fellow, 34–35, instr, 34–39, *asst. prof, 39–; prof. sanit, evening sch, State Dept. Educ, Mass, 40–; capt, Quartermaster Corps and chief sect. research, develop. and refrig, subsistence branch, supply div, Office Quartermaster Gen, Washington, D. C, 41–, lieut. col. and chief sect. dehydration, 42–* A.A; Inst. Food Technol; Soc. Bact; Pub. Health Asn. (cmt. foods, 38–40); Chem. Soc; Quartermaster Asn; Mass. Pub. Health Asn; Boston Bact. Club (sec'y-treas, 38–41). Food technology; industrial microbiology; germicides and antiseptics.

Dunn, Prof. Clark A(llan), 317 N. Husband St, Stillwater, Okla. *Civil engineering.* Stickney, S. Dak, Sept. 9, 01. B.S, Wisconsin, 23; C.E, Okla. Agr. and Mech. Col, 34, M.S, 37; McMullen scholar, Cornell, 40–41, Ph.D, 41. Asst. prof. *civil eng, Okla. Agr. and Mech. Col,* 29–36, *assoc. prof, 36–* Civil Eng; Eng. Educ. Electric welding inspection.

Dunn, Dr. Edwin E(rvin), Dow Chemical Co, Midland, Mich. *Biochemistry.* Cody, Wyo, Oct. 4, 07. A.B, Wyoming, 29; M.S, Cincinnati, 30, Ph.D, 32. Research biochemist, Agr. Research Labs, Inc, Princeton, N. J, 32–33; instr. biochem, col. med, Nebraska, 33–35; *assoc. director biochem. research lab, Dow Chem. Co, 35–* Toxicology and industrial hygiene; investigation and development of insecticides, agricultural fungicides, disinfectants and preservatives; enzymes; physiology of microorganisms; fermentations.

Dunn, Prof. E(mmett) R(eid), Haverford College, Haverford, Pa. **Zoology.* Alexandria, Va, Nov. 21, 94. A.B, Haverford Col, 15, A.M, 16; Ph.D, Harvard, 21. Asst. zool, Smith Col, 16–17, instr, 17–18, asst. prof, 21–26, assoc. prof, 27–29; assoc. *biol, Haverford Col,* 29–33, *prof, 34–* Aid, U. S. Nat. Museum, 19; field naturalist, Am. Museum Nat. Hist, 16, 26; museum comp. zool, Harvard, 19–21, 23–25; Guggenheim Mem. Foundation fellow, 28; curator reptiles, Acad. Nat. Sciences Phila, 37–; mem, Cmt. Inter-Am. Artistic and Intellectual Relations, S. Amer, 43– Expeds, south. Appalachians, Mex, Costa Rica, Panama, Cuba, Jamaica and E. Indies. Ensign, U.S.N.R, 19. Soc. Mammal; Ecol. Soc; Soc. Ichthyol. and Herp. (sec'y, and ed, 'Copeia,' 24–29, pres, 30–32); Am. Geog. Soc; Explorers Club; Boston Soc. Nat. Hist; Biol. Soc. Wash. Herpetology; comparative anatomy; distribution; ecology.

Dunn, Dr. F(rank) Lowell, 737 Medical Arts Bldg, Omaha, Nebr. *Medicine.* Erie, Pa, March 26, 98. B.S, Chicago, 20; M.D, Harvard, 24; A.M, Nebraska, 31. Asst. prof. med, *col. med, Nebraska,* 31–36, *assoc. prof. clin. physiol, 34–, int. med, 36–* A.A; Am. Med. Asn; fel. Col. Physicians; Chem. Soc; Federation Clin. Research; Rheumatism Asn; Diabetes Asn; Asn. Study Int. Secretions; Cent. Soc. Clin. Research. Stomach gas; hydraulic micro-manipulation; spectro-photometry of biological fluids; nasal accessory sinusitis; anuria; electrocardiography; nutrition; rheumatic fever; arthritis; electrostethography.

Dunn, Gano, 80 Broad St, New York, N. Y. *[1]*Electrical engineering.* New York, N. Y, Oct. 18, 70. B.S, Col. City of N. Y, 89, M.S, 97; E.E, Columbia, 91, hon. M.S, 14, hon. Sc.D, 38; hon. Sc.D, Rutgers, 38, N. Y. Univ, 41; hon. D.Eng, Lehigh, 42. Operator, West. Union Tel. Co, 86–91; v. pres. and chief engineer, Crocker-Wheeler Co, 98–11; v. pres. in charge eng. and construction, J. G. White and Co, 11–13; *pres, J. G. White Eng. Corp, 13–; steel consultant, Office Production Management, 41–* Chairman, Nat. Research Council, 23–28; Eng. Foundation, 15–16; visiting cmt, Bur. Standards, 24–, mem, Science Advisory Board. Townsend Harris medal, Col. City of N. Y, 33; Edison medal, Am. Inst. Elec. Eng, 37; Hoover medal, 39; Egleston medal, 39. Trustee, Barnard Col, Columbia; pres, Cooper Union. Int. Electrotech. Cmn, 10–32; Int. Elec. Cong, St. Louis, 04, U. S. del. and v. pres, Turin, 11; Pan-Am. Sci. Cong, Wash, D. C, 15; Pan-Pacific Sci. Cong, Honolulu, 22. Nitrate cmn, U. S. War Dept, 16–18; chairman cmt. on submarine cables, State Dept, 18–19. Nat. Acad; A.A; Elec. Eng. (pres, 11); Radio Eng; Mech. Eng; Civil Eng; Illum. Eng. Soc; Optical Soc; Franklin Inst; Philos. Soc; Am. Acad; N. Y. Elec. Soc. (pres, 00–02); N. Y. Zool. Soc; N. Y. Eng. Club; Inst. Elec. Eng. Gt. Britain (hon. sec'y for U. S); Royal Micros. Soc. Dynamo and motor design; commutation of direct current machines; distribution of power in factories; power transmission; hydroelectric development.

Dunn, Dr. Halbert L(ouis), U. S. Bureau of the Census, Washington, D. C. *Medicine, Statistics.* New Paris, Ohio, May 17, 96. A.B, Minnesota, 19, A.M, 20, M.B, 21, M.D, 22, Ph.D, 23. Instr. anat, Minnesota, 22–23; asst. med, Presb. Hosp, New York, 23–24; fellow, Mayo Clinic, 24–25; assoc. prof. biometry and vital statist, sch. hygiene and pub. health, Hopkins, 25–29; head dept. med. statist, Mayo Clinic, 29–32; prof. med. statist. and director, hosp, Minnesota, 32–35; *chief statistician vital statist, U. S. Bur. Census, 35–* Am. Med. Asn; Asn. Anat; Pub. Health Asn; Statist. Asn. (v. pres, 37–); Soc. Exp. Biol; Harvey Soc. Human growth; statistical medicine; variability by biometric constants; hospital statistics; vital statistics; population statistics.

Dunn, Harold Houghton, 26 E. Parkway, Scarsdale, N. Y. *Railway engineering.* Tiskilwa, Ill, Oct. 30, 84. B.S, Illinois, 08, fellow, 10–11, M.S, 15. Research asst. ry. eng, Exp. Sta, Illinois, 12–15, research assoc, 17–20; ry. engineer, Westinghouse Elec. and Mfg. Co, 20–23; consulting engineer, The Beeler Organization, 23–40; contract valuation engineer, Pub. Service Cmn. N. Y, 40–42; *prin. transportation specialist, highway div, Transportation Corps, U. S. Army, 42–* Train resistance; valuation; engineering and management of electric railway and bus properties.

Dunn, Dr. Hugh K(enneth), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Shawneetown, Ill, Oct. 31, 97. A.B, Miami (Ohio), 18; Ph.D, Calif. Inst. Tech, 25. Asst. prof. physics, Miami (Ohio), 18–22; teaching fellow, Calif. Inst. Tech, 22–25; *research physicist, Bell Tel. Labs, 25–* A.A; Physical Soc; fel. Acoustical Soc. Photoelectric effect in mercury; statistical measurements and analyses of speech and music.

Dunn, Dr. J(esse) T(homas), 1592 Quarrier St, Charleston, W. Va. *Organic chemistry.* Foraker, Okla, Aug. 10, 10. B.S, Munic. Univ. Wichita, 32, M.S, 33; A.M, Harvard, 36, Ph.D, 37. *Research chemist, Carbide and Carbon Chem. Corp, 37–* Synthesis of plumbagin; addition of dienes to hydroxylated and halogenated naphthoquinones, halogenated phenanthrenequinones and naphthacenediquinone.

Dunn, Dr. J(oseph) A(very), 904 N. Riverside Ave, St. Clair, Mich. *Chemistry.* Newark, N. J, 00. B.S, Rutgers, 21; A.M, Columbia, 26; Strietman fellow, Minnesota, 27–28, Ph.D, 28. Cereal chemist, Wallace and Tiernan Co, 21–25, 29–31;

research, Pillsbury Flour Mills, Inc, 26–27; Procter and Gamble Co, 28–29; research chemist, Lever Brothers Co, 32–40; *tech. director, Diamond Crystal Salt Co, Inc, 40–* A.A; Asn. Cereal Chemists; Inst. Food Technol. Cereal chemistry; milling; baking; food technology.

Dunn, Lawrence H, Ovid, N. Y. *Medical entomology.* Ovid, N. Y, July 6, 82. Asst, Board Health Lab, Panama Canal, Ancon, 11–15, entomologist, 15–18, 19–20; entomologist and supervising inspector, int. health div, Rockefeller Foundation, 21–22; asst. entomologist, Rocky Mountain Spotted Fever Lab, U. S. Pub. Health Service, 22–23; entomologist and supervising inspector, int. health div, Rockefeller Foundation, S. Amer, 23–25, entomologist, W. African Yellow Fever Cmn, 25–27; retired, 27–29; med. entomologist and asst. director, Gorgas Mem. Lab, Panama, 29–34; *retired.* Sanit. C, 18–19, major. Taxonomy, biology and ecology of insects affecting man and animals; transmission and control of insect-borne diseases; vampire bats as transmitters of trypanosomal diseases of equines.

Dunn, Dr. L(eslie) C(larence), Dodge Lane, Riverdale, New York, N. Y. *[5]Zoology, Genetics.* Buffalo, N. Y, Nov. 2, 93. B.S, Dartmouth Col, 15; M.S, Harvard, 17, Sc.D, 20. Asst. zool, Harvard, 15–17, 19; geneticist, Storrs Exp. Sta, Conn. State Col, 20–28; *prof. zool, Columbia, 28–, exec. officer dept, 40–* Consulting geneticist, 30– Mem. council, Columbia, 37–41. Managing ed, 'Genetics,' 36–41, ed. board, 41–; gen. ed, 'Columbia Biol. Series.' Nat. Acad; A.A; Genetics Soc. (pres, 32); Genetic Asn; Soc. Zool. (sec'y and treas, genetics sect, 25–28); Soc. Nat. (v. pres, 42); Soc. Mammal; Soc. Exp. Biol; Philos. Soc; cor. mem. Norwegian Acad. Sci. Zoology; genetics and development.

Dunn, Prof. Marin S(heppard), 3744 Huey Ave, Drexel Hill, Pa. *Botany.* Merchantville, N. J, Dec. 23, 98. A.B, Pennsylvania, 20, A.M, 21, Ph.D, 26. Instr. *bot, Phila. Col. Pharmacy,* 20–22, asst. prof, 22–34, *prof. and head dept, 34–, director, Kilmer Bot. Garden, 34–* Bot. Soc; Pharmaceut. Asn. (pres, Phila. branch, 30–31). Plant physiology; the isolation of single spores; effects of certain acids and their sodium salts upon the growth of Sclerotinia cinerea (Bon) schröt.

Dunn, Prof. M(ax) S(haw), University of California at Los Angeles, Los Angeles, Calif. *Biochemistry.* Milo, Iowa, Aug. 22, 95. A.B, Simpson Col. (Iowa), 16; M.S, Illinois, 18, fellow, 20–21, Ph.D, 21. Asst. *chem,* Illinois, 17–18, 19–20; instr, med. sch, California, 21–22, *California at Los Angeles,* 22–24, asst. prof, 24–27, *assoc. prof,* 27– 2nd lieut, Sanit. C, 18. Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Hydrolysis and reactions of casein; origin of endogenous uric acid; reactions of nitrous acid; sardine and iodine oil; solubility, formol titration, dissociation constants, metabolism and ultra-violet absorption spectra of amino acids.

Dunn, Dr. Paul H(eaney), Mississippi State College, State College, Miss. *Paleontology, Geology.* Shawneetown, Ill, July 25, 95. A.B, Miami (Ohio), 22; A.M, Ohio State, 24; fellow, Chicago, 30–32, Ph.D, 32. Teacher, pub. schs, Ohio, 14–18; instr. geol, Miami (Ohio), 22–24, asst. prof, 24–30; acting prof, *Miss. State Col,* 34–35, *prof. geol. and geog, 35–; lieut, U. S. Naval Res, 43–* Asst. geologist, Ky. Geol. Surv, 27–30. Summers, Ill. Geol. Surv, 33–35. A.A; Paleont. Soc; Miss. Acad. Upper Ordovician, Cynthiana and Cumberland formations of Kentucky; the Fernvale formation and the microfauna of the Bainbridge limestone of southeastern Missouri; Silurian Foraminifera of the Mississippi basin; microfaunal technique; Silurian stratigraphy.

Dunn, Dean Paul M(illard), Oregon State Agricultural College, Corvallis, Oregon. *Forestry.* Lennox, S. Dak, Oct. 15, 98. B.S, Iowa State Col, 23, M.S, 33. Teaching fellow, Iowa State Col, 23–24; dist. forester and assoc. forester, State Forestry Dept, Mo, 26–31; asst. prof. forestry, Utah State Col, 31–32, assoc. prof, 32–35, prof, 35–42, exten. forester, 31–35, in charge *sch. forestry,* 35–38, dean, 38–42; *prof. forestry and dean, Oregon State Col, 42–* Mem. State Board Forestry, Oregon, director forest products research. Inf, U.S.A, 17–19. A.A; Soc. Foresters (chairman, intermountain sect, 36, 41, 42); Northwest. Sci. Asn; fel. Utah Acad. Silviculture; nursery practices; forest management; forest practices; wood utilization.

Dunn, Prof. Stuart, University of New Hampshire, Durham, N. H. *Botany.* Amboy, Minn, Aug. 12, 00. B.S, Minnesota, 23, Ph.D, 31; M.S, Iowa State Col, 25. Asst. plant physiol, Minnesota, 23–24; Iowa State Col, 24–26; instr. *bot, New Hampshire,* 26–37, *asst. prof,* 37– A.A; Soc. Plant Physiol. Influence of soil texture and aeration on plant growth; propagation of sugar maple.

Dunn, Dr. William L(ewis), 719 Fifth Ave, N, Mt. Vernon, Iowa. *Analytical chemistry.* Lake Village, Ark, Oct. 18, 14. A.B, Illinois, 36; Ph.D, Wisconsin, 41. *Instr. chem, Cornell Col, 41–* Chem. Soc. Polarography; water treatment.

Dunnam, Dr. E(rastus) W(aldon), Delta Branch Station, Stoneville, Miss. *Entomology.* Richton, Miss, Dec. 29, 92. B.S, Miss. Agr. and Mech. Col, 21; M.S, Iowa State Col, 23, Ph.D, 31. Asst, Iowa State Col, 21–23; asst. prof. entom, Louisiana, 23–24; asst. entomologist, boll weevil lab, bur. entom, *U. S. Dept. Agr,* 24–27, assoc. entomologist, Delta Lab, La, 27–29, *entomologist, bur. entom. and plant quarantine,* Exp. Sta, Agr. and Mech. Col. Texas, 30–34, *Delta Branch Sta, Miss. State Col, 34–* Summers, asst. state entomologist, Iowa, 22–23. A.A; Entom. Soc; Asn. Econ. Entom; Iowa Acad. Apple trumpet leaf-miners; biology and migratory habits of the cotton boll weevil; cotton boll growth in relation to boll weevil injury; biology and control of the cotton bollworm; cotton insects; insect resistant characters in cotton varieties.

Dunnells, Prof. Clifford George, 141 Riverview Ave, Pittsburgh, Pa. *Civil engineering.* Pittsburgh, Pa, July 8, 75. C.E, Lehigh, 97. With Pittsburgh Bridge Co, 97–00; Am. Bridge Co, 00–10; prof. civil eng, Carnegie Inst. Tech, 10–43; *mem. firm, Hunting, Davis and Dunnells, 25–, v. pres; in charge eng. work,* Regulating Sta, Marietta, Pa, and *Deshon Gen. Hosp, Butler, Pa, U. S. Army.* Civil Eng. (director, 40–42); Concrete Inst; Eng. Soc. W. Pa.

Dunnewald, Prof. T(heodore) J(ohn), University of Wyoming, Laramie, Wyo. *Soils.* Sheboygan Co, Wis, Oct. 1, 84. B.S.A, Wisconsin, 10, M.S, 12, 32. Mem. staff, Wis. Geol. and Nat. Hist. Surv, 09–25; asst. prof. *soils, Wyoming,* 25–32, *assoc. prof, 32–, assoc. research, Exp. Sta, 32–* Soil surveys of Wisconsin and Wyoming; soil-plant relations; soil problems of the arid west.

Dunning, Dr. Charles A(lexander), Charles and Chase Sts, Baltimore, Md. *Organic chemistry.* Baltimore, Md, March 4, 16. A.B, Hopkins, 37, Ph.D, 40. *Research chemist, Hynson, Westcott and Dunning, 40–* Chem. Soc. Organic medicinal chemicals.

Dunning, Duncan, 1857 San Pedro Ave, Berkeley, Calif. *Forestry.* Mariposa, Calif, Sept. 14, 91. B.S, California, 15, M.S, 16. From forest ranger to *senior silviculturist, U. S. Forest Service, 16–* U.S.A, 17–19. Soc. Foresters. Silviculture; natural regeneration, growth, competition and succession of California forests.

Dunning, Dr. H(enry) A(rmitt) B(rown), Charles and Chase Sts, Baltimore, Md. *Pharmacy.* Denton, Md, Oct. 24, 77. Md. Col. Pharmacy, 97; Phar.D, Maryland, 08, hon. Sc.D, 41; hon. Phar.M, Phila. Col. Pharmacy, 26; hon. Sc.D, Washington Col, 40; LL.D, Hopkins, 42. Assoc. prof. chem, Maryland; *director research lab, Hynson, Westcott and Dunning, Inc, pres, 30–* V. pres, U. S. Pharmacopoeia, 30. Remington honor medal, 26. U. S. Army, 98. A.A; Pharmaceut. Asn. (pres, councilor, 37); Chem. Soc; Inst. Chem; Drug Mfrs. Asn. (chairman sci. sect); Md. Pharmaceut. Asn. (pres); Md. Acad. (trustee). Production and development of phenolsulfonphthalein; urease; hydrogen ion indicator dyes.

Dunning, Dr. (Henry Armitt) Brown, Jr, Charles and Chase Sts, Baltimore, Md. *Chemistry.* Baltimore, Md, Oct. 5, 09. Ph.D, Hopkins, 34. *Research chemist, Hynson, Westcott and Dunning, 34–* Chem. Soc. Organic medicinal chemicals; relation of physical to physiological properties.

Dunning, Dr. (J. H) Fitzgerald, Charles and Chase Sts, Baltimore, Md. *Chemistry.* Baltimore, Md, Aug. 26, 02. A.B, Hopkins, 24, Ph.D, 27. Research chemist, *Hynson, Westcott and Dunning, Inc,* 25–28, director chemical research, 28–35, *sec'y-treas, 32–, gen. manager, 41–* A.A; Chem. Soc; Pharmaceut. Asn; Inst. Chem. Organic medicinal chemicals; chemotherapeutics; chemical composition and bacteriological activity; isolation and identification of biological products.

Dunning, Prof. John R(ay), Columbia University, New York, N. Y. *[6]Physics.* Shelby, Nebr. Sept. 24, 07. A.B, Nebr. Wesleyan, 29; fellow, Columbia, 32–33, Ph.D, 34. Asst. *physics, Columbia,* 29–32, instr, 33–35, asst. prof, 35–39, *assoc.*

prof, 39– Cutting traveling fellow, Columbia, 35-36. Assoc. ed, 'Jour. Physics,' 40– A.A; Physical Soc; Optical Soc; Radio Eng; Asn. Physics Teachers; N. Y. Acad. Detection of ionizing particles; nuclear transformations; properties of neutrons; production of high energy ions for nuclear disintegrations; nuclear fission; nuclear energy; matter energy and radiation.

Dunning, Dr. John W(alcott), 108 Edgehill Court, Peoria, Ill. *Organic chemistry.* Ottumwa, Iowa, Dec. 20, 12. B.S, Iowa State Col, 35, Parke, Davis and Co. fellow, 35–37, Ph.D, 38. Lab. and pilot plant director, Anderson Clayton and Co, 37–42; *assoc. chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc. Bacterial oxydations; vitamin C synthesis; saccharification; pyrolysis; esterification; pulping; pilot plant developments.

Dunning, Dr. W(ilbur) G(roendyke), Westtown, Pa. *Chemistry.* New Orleans, La, Aug. 19, 90. Chem.E, Pratt Inst, 10; B.S, Temple, 26, A.M, 29; Ph.D, Pennsylvania, 35. Chem. engineer, Barrett Co, 10–22; instr. *chem, Temple,* 22–34, *asst. prof, 34–* Chem. Soc. Physical chemistry.

Dunning, Dr. Wilhelmina F(rances), Wayne University College of Medicine, Detroit, Mich. *Pathology.* Topsham, Maine, Sept. 12, 04. A.B, Maine, 26; A.M, Columbia, 28, Ph.D, 32. Assoc. cancer research, inst. cancer research, Columbia, 30–41; *research assoc. path, col. med, Wayne, 41–* A.A; Genetics Soc; N. Y. Acad. Etiology, prevention and cure of malignant disease.

Dunnington, Prof. F(rancis) P(erry), University, Va. **Chemistry.* Baltimore, Md, March 3, 51. B.S, Virginia, 71, C.E, M.E, 72. Adj. prof. anal. chem, Virginia, 73–84, prof, 84–03, indust. and anal. chem, 08–19; *retired.* Herty medal, 35. A.A. (sec'y, C, 85); Chem. Soc; Electrochem. Soc; British Asn; London Chem. Soc. Inorganic chemistry; universal occurrence of titanic oxide in soils; synthesis; analysis of unusual products and rare minerals; analysis of ashes of weeds; determination of chlorid, bromid and iodid.

Dunnington, Prof. Frank G(lass), Rutgers University, New Brunswick, N. J. *Physics.* Colorado Springs, Colo, May 7, 03. B.S, California, 29, Ph.D, 32. Nat. research fellow *physics,* Calif. Inst. Tech, 32–35, research fellow, 35–37; *asst. prof, Rutgers, 37–; staff mem, radiation lab, Mass. Inst. Tech, Nat. Defense Research Cmt, 41–* Physical Soc. Electro-optical shutter; spark breakdown; specific charge of the electron.

Dunstan, Prof. A(rthur) St. C(harles), 117 N. Gay St, Auburn, Ala. *Electrical engineering.* Fredericksburg, Va, 71. B.S, Ala. Polytech, 89, M.E, 90, C.E, 92; Hopkins. Assoc. prof. *elec. eng,* Kansas, 95–00; *prof, Ala. Polytech, 00–* Consulting engineer.

Duntley, Prof. S(elbert) Q(uimby), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Bushnell, Ill, Oct. 2, 11. B.S, Mass. Inst. Tech, 33, Sc.D, 39; M.S, Calif. Inst. Tech, 35. Asst. *physics,* Calif. Inst. Tech, 33–34; teaching fellow, *Mass. Inst. Tech,* 37–39, instr, 39–42, *asst. prof, 42–* Optical Soc. Optics; spectrophotometry; diffusing materials; color; photometric instruments; biophysics; spectrophotometry of living human skin.

Dupertuis, Dr. C(larence) Wesley, Presbyterian Hospital, 168th St. and Broadway, New York, N. Y. *Physical anthropology.* Yacolt, Wash, June 2, 07. B.S, Harvard, 29, A.M, 31, Ph.D, 40. Asst. anthrop, Harvard, 32–34, mem. staff racial surv. of Ireland, 34–36; *research assoc, constitution clinic, Presbyterian Hosp, 36–* Asn. Physical Anthrop. Human constitution in relation to disease susceptibility.

Du Porte, Dr. E(rnest) Melville, Macdonald College, Que, Can. *Entomology.* Nevis, B. W. I, Oct. 24, 91. B.S.A, McGill, 13, M.S, 14, Ph.D, 21. Asst. prof. zool. and entom. and later *assoc. prof. entom, Macdonald Col, McGill.* Entom. Soc; Ont. Entom. Soc. Insect morphology; medical zoology.

DuPriest, Prof. J(ohn) R(andolph), 144 Melbourne Ave, S.E, Minneapolis, Minn. *Mechanical engineering.* Campbell Co, Va, Jan. 3, 82. B.S, Va. Polytech, 01; M.E, M.M.E, Cornell, 13. In charge math. and shop work, high sch, S. C, 01–02; in charge math. and shops, Pa, 02–05; drafting and design, Gen. Elec. Co. and Ingersoll Rand Co, 05–06; designer on steam and gas engines, C. and G. Cooper Co, Ohio, 06–09; chief engineer, Columbus Machine Co, Ohio, 09–11; instr. machine design, Cornell, 11–13; steam and gas eng, Wisconsin, 13–15; prof. mech. eng, Idaho, 15–17; steam and gas eng, Rensselaer Polytech, 17–20; consulting engineer, Ellicott Machine Corp, Baltimore, 20–21; prof. *mech. eng,* Oregon State Col, 21–27; *prof. and head dept, Minnesota, 27–* Consulting engineer. Summers, teacher, Va. Polytech, 01; drafting, Glamorgan Pipe and Foundry Co, Va, 02; Ellicott Machine Corp, 12; teacher, Wisconsin, 14; design mech, U. S. Smelting Co, 16; engineer, high sch, Idaho, 17; consulting engineer, Port of Portland, 21–27. Mil. research, U. S. Govt, 18–19; Fuel Admin; Naval Consulting Aid. A.A; Mech. Eng; Eng. Educ. (v. chairman, 39; chairman north. midwest sect, 40). Gas engineering; steam engineering; hydraulics; relation of port area to power for large gas engines; friction in dredge pipes; calibration of large nozzles; the place of industrial engineering and management courses in education; the machine design laboratory; the Clackamas dredge.

DuPuis, Dr. Robert N(ewell), Miner Laboratories, 9 S. Clinton St, Chicago, Ill. *Chemistry.* Indianapolis, Ind, June 4, 10. A.B, Illinois, 31; Ph.D, N. Y. Univ, 34. *Research chemist, Miner Labs, 35–* Chem. Soc. Organic chemistry; catalytic hydrogenation; glycerine; alkyd resins.

Durand, Dr. Eric, 3613 Norton Place, N.W, Washington, D. C. *Biophysics.* Washington, D. C, Nov. 29, 11. B.S, Harvard, 34; Ph.D, Hopkins, 39. Teacher physics and physical science, Wilson Junior Col, 38–39; junior, asst. and assoc. physicist, U. S. Pub. Health Service, 40–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Optical Soc. Optics; energy transfer in intermolecular collisions; ultra-violet microscopy; gas analysis with infra-red; war research.

Durand, Dr. Louise (Mrs. Stuart Tucker Morris), 65 Washington St, East Orange, N. J. *Chemistry.* Scranton, Pa, Jan. 8, 03. A.B, Vassar Col, 24; A.M, Columbia, 26, Ph.D, 28. Asst. chem, Vassar Col, 24–25; *research chemist,* Royal Baking Powder Co, 28–29; *Air Reduction Co, 29–* Rare and industrial gases.

Durand, Prof. Loyal, Jr, 4150 Nakoma Road, Madison, Wis. *Geography, Physiography.* Milwaukee, Wis, July 12, 02. A.B, Wisconsin, 24, A.M, 25, Ph.D, 30. Instr. *geog, Wisconsin,* 24–30, *asst. prof, 30–* Land planning consultant, Nat. Resources Board, 34–35; land analyst, Nat. Resources Planning Board, Wis, 41. Regional geography; geography of Wisconsin and northwestern Europe; block diagrams.

Durand, Prof. W(illiam) F(rederick), Stanford University, Calif. *Engineering.* Bethany, Conn, March 5, 59. Grad, U. S. Naval Acad, 80; Ph.D, Lafayette Col, 99; LL.D, California, 23, Utah, 27. C.Eng, U.S.N, 80–87; prof. mech. and supt. dept, Mich. State Col, 87–91; prof. marine eng, Cornell, 91–04, acting director, Sibley Col, 03–04; prof. *mech. eng, Stanford,* 04–24, *emer. prof, 24–* Special duty, Lafayette Col, 83–85; consultant on dams, U. S. Bur. Reclamation, 30–43. Chairman, Nat. Advisory Cmt. for Aeronaut, 16–18; Nat. Research Council, 17–; Guggenheim Fund for Promotion Aeronautics, 26–30. Advisory ed, 'Marine Eng,' 01–03. Gold medal, Naval Eng, 00; Guggenheim medal, 35; John Fritz medal, 36. Sci. attache, Paris, 18. Nat. Acad; A.A; hon. mem. Mech. Eng. (pres, 24); Eng. Educ; Naval Eng; Naval Archit; Sigma Xi (pres, 37); Soc. de Technique maritime. Hydrodynamics; thermodynamics; aerodynamics; resistance and propulsion of ships; performance of the screw propeller; air propellers.

Duran-Reynals, Dr. (Francisco), Yale University School of Medicine, New Haven, Conn. *Medicine.* Barcelona, Spain, Dec. 5, 99. M.D, Barcelona; Madrid fellow, Pasteur Inst, Paris, 25–26, Rockefeller Inst, 26–28. Asst, *Rockefeller Inst,* 28–34, assoc, 34–38; asst. prof. *bacter, sch. med, Yale,* 38–41, *assoc. prof, 41–* Lecturer, faculty med, Barcelona, 35. Soc. Exp. Biol; Soc. Cancer Research; Soc. Control Cancer; Harvey Soc; N. Y. Acad; Soc. Biol. Cuba; Asn. française pour l'Etude du Cancer. Factors increasing permeability of tissues to bacteria and to animal poisons and their importance in infection; filterable tumors; cancer.

Durant, Prof. A(drian) J(ackson), University of Missouri, Columbia, Mo. *Veterinary science.* Bromley, Ala, Dec. 9, 86. B.S. (Agr), Missouri, 13, M.S, 15; D.V.M, Mich. State Col, 25. Asst. *vet. science, col. agr, Missouri,* 12–21, asst. prof, 21–27, assoc. prof, 27–31, *prof. and chairman dept, 31–* Cmt. training sch. for flock selection and pullorum testing agents, nat. poultry improv. plan, bur. animal indust, U.S. Dept. Agr. F.A, 18–19, 2nd lieut. Vet. Med. Asn. (cmt. poultry diseases); Livestock Sanit. Asn. (cmt. poultry dis-

eases); Milk Goat Record Asn. (pres); Mo. Vet. Med. Asn; Mo. Milk Goat Breeders Asn. (pres, 39–). Abortion disease in cattle and swine; enterohepatitis or blackhead in turkeys; leukemia and pullorum disease in fowls.

Durant, Dr. R(ollin) R(ay), 3392 N. High St, Columbus, Ohio. *Physiology.* New Lexington, Ohio, Oct. 15, 94. A.B, Ohio State, 21, M.S, 24, Ph.D, 27, M.D, 32. Asst. *physiol, Ohio State,* 22–25, instr, 25–36, *asst. prof, 36–* Am. Med. Asn; Ohio Acad. Physiology of circulation; pharmacology of adrenalin; cardiovascular system.

Durban, Dr. Sebastian (Anthony), R.F.D. 2, Box 5319M; Des Plaines, Ill. *Chemistry.* Augusta, Ga, Feb. 17, 01. B.S, Ala. Polytech, 23; A.M, Texas, 26; Ph.D, Nebraska, 29. Chemist, Eastman Kodak Co, 29–36; Northwest Mo. State Teachers Col, 36–37; head dept. chem, Ind. Cent. Col, 37–39; *mem. faculty, Wright Junior Col, 39–* Chem. Soc. Physical and analytical chemistry; vapor pressures; densities and derived quantities for acetone; chromic-chromate electrode potential; teaching films.

Durbin, Prof. Frank M(arshall), 824 Jefferson St, Stillwater, Okla. *Physics.* Unionville, Mo, Sept. 11, 92. B.S, Mo. State Teachers Col, Kirksville, 19; M.S, Chicago, 22, Ph.D, 26. Prof. *physics,* Mo. State Teachers Col, Kirksville, 22–24, 26–27; research investigator, Michigan, 27–29; assoc. prof, *Okla. Agr. and Mech. Col,* 29–40, *prof, 40–* Positive rays; measurement of sound intensity; roughness of machined surfaces.

Durea, Prof. Mervin A(rnold), 207 W. Weber Road, Columbus, Ohio. *Psychology.* Huntington, W. Va, Feb. 21, 92. A.B, Ohio State, 22, A.M, 24, Ph.D, 28. Clin. psychologist, Bur. Juvenile Research, 21–22; asst. psychol, Ohio State, 22–28; exec. sec'y cmt. on child develop, Nat. Research Council, 28–29; asst. prof. *psychol, Ohio State,* 29–42, *assoc. prof, 42–* Summer, prof, Miami (Ohio), 29. Asn. Applied Psychol; Psychol. Asn. Clinical and child psychology; personality; juvenile delinquency.

Durell, Dr. Fletcher, Belleplain, N. J. *Mathematics.* Clarksburg, N. J, Dec. 17, 59. A.B, Princeton, 79, A.M, 82, Ph.D, 87. Master math, Pennington Sem, 79–83; prof. math. and astron, Dickinson Col, 83–95; master math, Lawrenceville Sch, 95–25. A.A; Math. Soc; Circolo Mat. di Palermo. Principles of efficiency; cooperation.

Duren, Prof. W(illiam) L(arkin), Jr, 3323 Joseph St, New Orleans, La. *Mathematics.* Macon, Miss, Nov. 10, 05. A.B, Tulane, 26, A.M, 28; fellow, Chicago, 28–30, Ph.D, 30. Asst. *math,* Tulane, 25–26, instr, 26–28; Col. City of Detroit, 30–31; asst. prof, *Tulane,* 31–37, *assoc. prof, 37–* Math. Soc; Math. Asn. Calculus of variations.

Durfee, Dean Walter H(etherington), 645 Main St, Geneva, N. Y. *Mathematics.* Geneva, N. Y, Jan. 31, 89. A.B, Hobart Col, 08; M.C.E, Harvard, 11; Ph.D, Cornell, 30. Draughtsman, McClintic-Marshall Co, Pittsburgh, Pa, 11–13; engineer, Turners Falls Power and Elec. Co, Mass, 13–17; asst. to engineer, Locks and Canals Co, Lowell, 17–21; asst. prof. *math, Hobart Col,* 21–30, *prof, 30–, dean, 38–* A.A; Math. Soc; Math. Asn; London Math. Soc. Infinite series.

Durgan, Dr. E(lford) S(turtevant), 500 Eighth St, Shenandoah, Va. *Physical chemistry.* Portland, Maine, May 22, 05. A.B, Clark, 26; A.M, Princeton, 27, Ph.D, 30. Asst. Am. Petrol. Inst, Princeton, 26–29; instr. chem, Maine, 29–30; research chemist, Godfrey L. Cabot Co, 30–33; sales dept, Grasselli chem. dept, E. I. du Pont de Nemours and Co, 34–39; research chemist, Chem. and Pigment Co, 39–40; *chemist, Merck and Co, 40–* Chem. Soc. Equilibria and kinetics of gas reactions; hydrocarbons.

Durham, Prof. E(dward) J(osephl), New York University, University Heights, New York, N. Y. *Chemistry.* Portland, Oregon, Oct. 15, 02. A.B, Reed Col, 24; fellow, Rice Inst, 26–30, A.M, 28, Ph.D, 30. Chemist, Crown-Willamette Paper Co, Oregon, 24–26; instr. *chem, N. Y. Univ,* 30–40, *asst. prof, 40–, asst. director, Nichols lab, 41–* Chem. Soc. (councilor, N. Y. sect, 38–); Inst. Chem. Physical, colloid and analytical chemistry.

Durham, Dr. Floyd E(arl), 232 S. Milton Ave, Whittier, Calif. *Zoology.* Lamar, Mo, July 19, 01. A.B, Whittier Col, 30; A.M, Haverford Col, 31; Ph.D, California, 42. Master biol. and gen. science, Loomis Sch, Conn, 31–35; instr. bot. and geol, Whittier Col, 35–37; zool, Los Angeles City Col, 40–41; *research asst, Hastings Nat. Hist. Reservation, California, 42–* Soc. Mammal; Cooper Ornith. Asn; West. Birdbanding Asn. Vertebrate natural history; variations in the color of rodents resulting from changes in climate.

Durham, Prof. George B(enjamin), Rhode Island State College, Kingston, R. I. *Horticulture.* Newcastle, N. Y, Sept. 14, 96. B.S, Conn. Agr. Col, 19, M.S, 21; Wisconsin, 22–24. Asst. hort, Conn. Col, 18–22, bot, 19–22; plant breeder, Conn. Agr. Col, 24–29; *asst. prof. hort, R. I. State Col, 29–* A.A; Soc. Hort. Sci; Bot. Soc; Genetic Asn. Plant breeding; inheritance and morphology of squash; sterility in tomatoes; genetics and growth of cucurbita.

Durham, Dr. George S(tone), University of Illinois, Urbana, Ill. *Chemistry.* Portland, Oregon, Dec. 26, 12. A.B, Reed Col, 35; Ph.D, N. Y. Univ, 39. *Instr. chem,* Oregon State Col, 40–41; *Illinois, 41–* Chem. Soc. Inorganic and physical chemistry; solid solutions of isomorphous salts.

Durham, Col. Henry Welles, Sandwich, Mass. *Civil engineering.* Chicago, Ill, Sept. 15, 74. C.E, Columbia, 95. Asst. engineer, N. Y. subway construction and Nicaragua Canal Surveys, 95–04; in charge munic. eng. works, Panama Canal, 04–07; Cape Cod Canal, 07–12; chief engineer highways, New York and Bergen County, N. J, 12–16; engineer sanit, Lima and Cuzco, Peru, 20–22; designs, N. Y, Mass, N. C, 23–24; in charge sanit. and paving, Managua, Nicaragua, 24–31; *consulting engineer, 31–* Lecturer, Columbia, 14–15; North Carolina, 24; research, U. S. War Dept, 43. Highway projects, Guatemala, 31–32; munic. works, Barranquilla, Colombia, 33–34; mining projects, El Salvador, 35; road construction, Paraguay, 39–41. Surveys and roads, N. Y. World's Fair, 36–39. Officier du mérite agricole, France, 19. Major, C. Eng, 17–19. A.A; Civil Eng; Soc. Mil. Eng; Pub. Works Asn; Road Builders Asn; Boston Soc. Civil Eng; Soc. de Ingenieros del Perú; Asn. int. du Congrés de la Route. Roads and municipal problems.

Durham, Prof. Howard A(dam), Colorado State College, Ft. Collins, Colo. *Chemistry.* Bostwick, Nebr, Nov. 22, 93. A.B, Nebr. Wesleyan, 16; A.M, Ohio State, 20. Prof. *chem,* Nebr. Wesleyan, 17–38; instr, *Colo. State Col,* 38–41, *asst. prof, 41–* C.W.S, U.S.A, 18–19. Chem. Soc; Colo. Acad. Carbohydrates.

Durham, Dr. J(ohn) Wyatt, University of California, Berkeley, Calif. *Invertebrate paleontology.* Okanogan, Wash, Aug. 22, 07. B.S, Washington (Seattle), 33; A.M, California, 36, Ph.D, 41. Geologist, Standard Oil Co. of Calif, 36–39; *research asst, museum paleont, California, 40–* Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol. Marine Oligocene of Washington; late Tertiary paleontology of Gulf of California area; Tertiary corals; Mollusca.

Durham, O(ren) C, 629 Judge Ave, Waukegan, Ill. *Botany.* Hamilton Co, Kans, April 2, 89. *Chief botanist,* Swan-Myers Co, 25–30; *Abbott Labs, 30–* A.A. Geographical distribution of hay fever plants; aerobiology.

Durkee, Prof. P(earl) W(hitfield), 1137 E. River St, El Paso, Texas. *Engineering.* Lockport, N. S, Can, July 4, 82. B.A, Acadia, 03; B.Sc, McGill, 06; Chicago, 15–17; M.S, Cornell, 35. Instr. math. and graphics, Lafayette Col, 08–09; prof. eng. and head dept, Acadia, 09–11; hydroelec. eng. construction, Calgary Power Co, Alta, 11–12; asst. prof. physics, Ohio Wesleyan, 14–17; prof. elec. measurements, Northeastern, 18–21; adj. prof. *math. and physics, col. mines and metal, Texas,* 27–32, *assoc. prof, 32–* Asn. Eng; Eng. Educ; Physical Soc; Asn. Physics Teachers. Physics; electrical measurements; synchronous generators.

Durland, Prof. Merrill A, 1300 Fremont St, Manhattan, Kans. *Mechanical engineering.* Centralia, Kans, Jan. 6, 97. B.S. (E.E), Kans. State Col, 18, M.E, 22, M.S, 23; Pittsburgh; London. Instr. applied mech. and machine design, *Kans. State Col,* 19–21, asst. prof. *machine design,* 21–25, assoc. prof, 25–28, *prof. and asst. dean eng, 28–* Summers, Westinghouse Elec. and Mfg. Co, 17, 32; asst. testing engineer, State Highway Dept, Kans, 20, 23, 24, 26. C.Eng, U.S.A, 18–19. Mech. Eng; Eng. Educ; Kans. Eng. Soc. Engineering and education; gear teeth; strength of Portland cement; relation of intelligence test scores to college grades.

Durley, R(ichard) J(ohn), 2050 Mansfield St, Montreal, Que, Can. *Mechanical engineering.* Buckinghamshire, Eng, Feb. 11, 68. B.Sc, London, 87; Ma.E, McGill, 98. Asst. prof. mech. eng, McGill, 98–01, prof, 01–12; consulting engineer,

12–15; sec'y, Can. Eng. Standards Asn, 19–25; Eng. Inst. Can, 25–38. Officer in charge gauges and standards, Imp. Ministry Munitions, 15–19. Mech. Eng; Eng. Inst. Can. (emer. sec'y, 38–); British Inst. Civil Eng. Flow of air; fuel testing.

Durnford, Prof. A(ndrew) M(ontague) I(saacson) A(lexander) W(illiam), University of Western Ontario, London, Ont, Can. *Physics.* Sarnia, Ont, Aug, 04. B.A, Western Ontario, 25, M.A, 26; Nat. Research Council Can. bursar, Toronto, 26–27, student, 27–28, fellow, 28–29, Ph.D, 31. Asst. *physics,* Toronto, 29–30; instr. and *asst. prof, Western Ontario, 30–* Physical Soc. Zeeman effect of spectral lines; thermionic valve as a voltage amplifier.

Durrant, Prof. E(dwin) P(oe), 111 Fallis Road, Columbus, Ohio. *Physiology, Entomology.* Berlin Cross Roads, Ohio, July 21, 65. Ohio Wesleyan, 82–85; A.B, Otterbein Col, 04; A.M, Ohio State, 08, Ph.D, 27. Instr. biol. and geol, Otterbein Col, 04–05, prof, 05–09, 11–12, 23–24; instr. physiol, Ohio Med. Col, 10; asst. prof. anat. and physiol, *Ohio State,* 10–17, physiol, biochem. and pharmacol, 17–20, instr. *physiol, col. med,* 20–25, asst. prof, 25–30, assoc. prof, 30–33, *emer. prof, 33–* Summer, assoc, McCormick Mem. Foundation, Woods Hole, 27. A.A; Physiol. Soc; Soc. Exp. Biol. Systematic studies; isolation, specialization and life history of the Mallophaga; endocrinology; adrenal; ovary.

Durrant, Prof. S(tephen) D(avid), University of Utah, Salt Lake City, Utah. *Zoology.* Salt Lake City, Utah, Oct. 11, 02. A.B, Utah, 29, A.M, 31; Minnesota, 32; California, 38. Instr. *zool, Utah,* 32–42, *asst. prof, 42–* Soc. Mammal; Biol. Soc. Wash. Vertebrate anatomy; anatomy, taxonomy, distribution and life histories of mammals.

Durrell, Prof. Cordell, 1042 25th St, Santa Monica, Calif. *Geology.* San Francisco, Calif, Aug. 7, 08. A.B, California, 31, Ph.D, 36. Instr. geol, California, 36–37; field geol, 37–38; instr. *geol, California at Los Angeles,* 38–41, *asst. prof, 41–* Asn. Petrol. Geol. Metamorphism; petrology.

Durrell, Prof. Donald D(eWitt), Boston University, Boston, Mass. *Education.* French, Minn, Dec. 18, 03. A.B, Iowa, 26, A.M, 27; Ed.M, Harvard, 29, Ed.D, 30. Teacher, high sch, Iowa, 22–23; asst. educ, Iowa, 23–25, clin. psychol, psychopath. hosp, 25–27; educ, Harvard, 27–28, instr, 28–30; asst. prof, *Boston,* 30–33, assoc. prof, 33–35, *prof. educ. and director educational clinic, 35–* A.A; Educ. Research Asn. Educational measurement; special disabilities in reading and language; individual differences in learning.

Durrell, Prof. L(aurence) W(ood), 1003 Remington Ave, Ft. Collins, Colo. *Botany, Plant pathology.* Lincoln, Nebr, Feb. 16, 88. B.S.A, Ohio State, 14; fellow, Iowa State Col, 15–17, M.S, 17, Ph.D, 23. Instr. path, Iowa State Col, 17–19; field asst, U. S. Dept. Agr, 17–19; pathologist, State Fruit Sta, Mo, 19–21; asst. pathologist, Exp. Sta, Iowa State Col, 21–24; *prof. bot. and path. and head dept, Colo. State Col, and plant pathologist, Exp. Sta, 24–* Phytopath. Soc. Cereal diseases.

Durrett, Dr. J(ames) J(ohnson), Federal Trade Commission, Washington, D. C. *Medicine.* Tuscaloosa Co, Ala, March 2, 89. B.S, Alabama, 08, M.S, 09, Ph.G, 10; M.D, Harvard, 14. Instr. biol, Alabama, 08–10; asst. chemist, Ala. Geol. Surv, 08–09; health officer, Tuscaloosa County, 15–17; passed asst. surgeon, U. S. Pub. Health Service, 18–20; health officer, Memphis, and prof. pub. health, Tennessee, 20–28; chief drug control, food and drug admin, U. S. Dept. Agr, 28–31; director professional relations, E. R. Squibb and Sons, 31–35; chief drug div, food and drug admin, U. S. Dept. Agr, 36–38, prin. tech. adviser, Fed. Security Admin, 38–41; *director med. advisory div, Fed. Trade Cmn, 41–* Public health.

Durst, Dr. C(harles) E(lmer), Durst Hybrid Corn Co, Champaign, Ill. *Genetics, Horticulture.* Knox City, Mo, May 3, 84. B.S, Illinois, 09, M.S, 12, Ph.D, 24. Asst. olericulture, Illinois, 09–10, instr, 10–11, assoc, 11–18, asst, Exp. Sta, 09–11, assoc, 11–18; county agent, Union County, Ill, 18–20; Cook County, 20–21; director fruit and veg. marketing, Ill. Agr. Asn, 21–23; managing ed, 'Am. Fruit Grower,' 24–28; sec'y, Nat. Hort. Council, 30–32; *proprietor, Durst Gardens and Nursery, 32–, Durst Hybrid Corn Co, 37–* Sec'y, Nat. Fruit Cmt, 21. Hort. ed, 'Am. Poultry Jour,' 26–; 'Mo. Ruralist,' 30–31; east. ed, 'Better Fruit,' 30–32. Ill. Hort. Soc; Ill. Veg. Growers Asn. (pres, 36–40); hon. mem. Ill. Press Asn.

Duruz, Dr. Willis P(ierre), Oregon State Agricultural College, Corvallis, Oregon. *Horticulture.* Rockaway Beach, N. Y, Feb. 7, 96. B.S, Rutgers, 17; M.S, California, 22; Ph.D, Stanford, 29. Fruit specialist, State Dept. Agr, N. J, 17; county club leader, Wyoming, 19–20; asst. pomol, California, 20–23, instr, 23–26, asst. pomologist, 26–29; *prof. pomol, Oregon State Col, 29–, horticulturist, Exp. Sta, 34–; U. S. Army, 41–* Inf. R.C, major. Subtropical pomology; history and literature of pomology; fruit handling; tree and orchard judging; spraying; stationary spray plants; peach and grape culture; fruit varieties; plant propagation.

Duryee, Dr. William R(ankin), Oakland Area Station Hospital, Oakland, Calif. *Zoology.* Saranac Lake, N. Y, Nov. 11, 05. A.B, Yale, 27, Ph.D, 33; Bern, Munich, Copenhagen, 35–36. Instr. zool, Northwestern, 30–35; guest investigator, Columbia, 36–37; asst. prof. biol. and special lecturer gen. science, N. Y. Univ, 37–40; lieut, *Med. Admin. Corps, U. S. Army,* 40–42, *capt, 42–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; assoc. Soc. Zool. Cellular physiology; respiration; nuclear colloids; structure of chromosomes; medical administration; laboratory service.

Du Sault, Prof. Donald Dudley, 301 N. Polk St, Moscow, Idaho. *Chemistry.* Hotchkiss, Colo. B.S, Idaho, 23, M.S, 25. *Asst. prof. chem, Idaho, 24–* Organic chemistry.

Duschak, Dr. Alice D(ay), 221 Norwood Ave, Buffalo, N. Y. *Chemistry.* Buffalo, N. Y. A.B, Vassar Col, 16; A.M, California, 17; Ph.D, Minnesota, 29. Anal. chemist, Carborundum Co, 17–20, 22–26; research chemist, Eastman Kodak Co, 20–21; asst. chem, Minnesota, 26–29; asst. prof, Ala. Col, 29–33; *tech. librarian, Carborundum Co, 34–* Chem. Soc. Inorganic and analytical chemistry; qualitative analysis.

Duschak, Prof. L(ionel) H(erman), 86 Tamalpais Road, Berkeley, Calif. *Chemistry.* Buffalo, N. Y, Sept. 25, 82. A.B, Michigan, 04; A.M, Ph.D, Princeton, 08. Instr. chem, Princeton, 07–09; research chemist, Corning Glass Works, 09–13; chem. engineer in charge, Exp. Sta, U. S. Bur. Mines, Calif, 13–21; *consulting chem. engineer, 21–; prof. metal, California, 38–* Summers, asst, Michigan, 05, 06, instr, 08. A.A; Chem. Soc; Min. and Metal. Eng. Physical chemistry; industrial inorganic chemistry; non-ferrous metallurgy.

Dusham, Prof. E(dward) H(enry), Pennsylvania State College, State College, Pa. *Entomology.* Amesbury, Mass, Sept. 1, 87. A.B, Dartmouth Col, 10; M.S, Pa. State Col, 15; Ph.D, Cornell, 24. Asst. zool. and physiol, Iowa State Col, 10–12; instr. zool. and entom, Pa. State Col, 12–14, asst. prof, 15–16; asst. biol, Cornell, 16–17, instr. nat. hist, 17–18; entom. inspector, fed. hort. board, U. S. Dept. Agr, 18; *prof. entom, Pa. State Col, 18–* A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Pa; Pa. Acad. Insect morphology; economic entomology.

DuShane, Prof. Graham P(hillips), University of Chicago, Chicago, Ill. *Experimental embryology.* South Bend, Ind, July 20, 10. A.B, Wabash Col, 30; Ph.D, Yale, 34. Assoc, Iowa, 34–35; nat. research fellow, Stanford, 35–36; instr. *zool, Chicago,* 36–41, *asst. prof, 41–* Origin of pigment cells in Amphibia; induction of melanin formation by strange ectoderm.

Dushman, Dr. Saul, General Electric Co, Schenectady, N. Y. *[*3]Physics, Chemistry.* Rostov, Russia, July 12, 83. B.A, Toronto, 04, Ph.D, 12; hon. Sc.D, Union Col, 40. Demonstrator electrochem, Toronto, 04–09, lecturer, 09–12; *research lab, Gen. Elec. Co, 12–, asst. director, 30–* Director research, Edison Lamp Works, 22–25. A.A; Chem. Soc; Physical Soc; Elec. Eng. Quantum mechanics; determination of electromotive force; molecular gage; photoelectric cell; electronics; atomic structure; the quantum theory; electron emission; unimolecular reactions; high vacuum.

Dushnik, Dr. Ben, University of Michigan, Ann Arbor, Mich. *Mathematics.* Minsk, Russia, Aug. 15, 97. A.B, Michigan, 25, A.M, 26, Ph.D, 31. Instr. *math, Michigan,* 25–36, *asst. prof, 36–* Math. Soc. Theory of point-sets; arithmetic of transfinite numbers.

Dustheimer, Prof. Oscar L(ee), John Carroll University, Cleveland, Ohio. *Mathematics, Astronomy.* Near Newark, Ohio, Oct. 3, 89. B.S, Ohio (Athens), 13; fellow, Clark, 13–14, A.M, 14; M.S, Michigan, 25, Ph.D, 27. Teacher, high sch, Ohio, 10–11; *prof. math. and astron,* Baldwin-Wallace Col, 14–41; *John Carroll, 41–* Math. Soc; Astron. Soc; Royal Astron. Soc. Can. Determinants; Phi Persei; W, Ursae Minores.

Dustman, Prof. Robert B(arclay), 108 Cornell Ave, Morgantown, W. Va. *Agricultural chemistry.* Youngstown, Ohio,

Jan. 9, 92. B.S, Ohio State, 15; M.S, Chicago, 23, Ph.D, 24. Exten. agronomist, West Virginia, 16–18; asst. prof. soils, Ohio State, 19–22; chem, *West Virginia*, 24–26, assoc. prof, 27–28, *agr. chemist, Exp. Sta, and prof. agr. chem, 29–* A.A; Chem. Soc; Soc. Plant Physiol. Mineral nutrition; plant and animal metabolism.

Dutcher, Prof. R(aymond) Adams, Pennsylvania State College, State College, Pa. *Biochemistry.* Raymond, S. Dak, March 28, 86. B.S, S. Dak. State Col, 07, M.S, 10; A.M, Missouri, 12; Sc.D, Puerto Rico, 36. Instr. chem, S. Dak. State Col, 07–10; asst, Missouri, 10–12; Illinois, 12–13; instr. and asst. prof. biochem, Oregon State Col, 13–17; asst. prof, Minnesota, 17–18, assoc. prof. and head sect. animal nutrition, 18–21; *head dept. agr. and biochem, Pa. State Col, 21–* Oberlaender traveling fellow, 34. Cmt. on vitamin standards, U. S. Pharmacopoeia; Nat. Vitamin Cmt, 25–; Gen. Board Dairy Research; Nat. Research Council. A.A; Soc. Biol. Chem; Chem. Soc. (chairman, div. biochem, 24); Soc. Exp. Biol; Inst. Nutrition; Inst. Food Technol; N. Y. Acad; Pa. Acad; Biochem. Soc. Gt. Britain. Agricultural chemistry; vitamins; deficiency diseases.

Duthie, Lieut. W(illiam) D(wight), Post Graduate School, U. S. Naval Academy, Annapolis, Md. *Mathematics.* Pullman, Wash, June 30, 12. A.B, Washington (Seattle), 35, M.S, 37; J. S. K. fellow, Princeton, 38–40, Ph.D, 40. *Instr. math, Michigan, 40–*; ordnance and gunnery, U. S. Naval Res. Midshipmen's Sch, Northwestern, 40–42; *lieut, U. S. Naval Res.* Math. Soc. Abstract algebra; lattice theory; mathematical logic; applications of mathematics to meteorology.

Dutilly, Rev. A(rtheme), Catholic University of America, Washington, D. C. *Biology.* Roxton-Falls, Que, Can, Nov. 22, 96. B.A, Ottawa, 32; B.Sc.A, Montreal, 33, L.Sc.A, 34, L.L, 36. Prof. gen. sciences, Gravelbourg Col. (Can), 24–32; director, Sch. Farm, Rougemont, Que, Can, 35–36; *research assoc. biol, Catholic Univ, 37–* Naturalist, Arctic Oblate Missions, Montreal, Que, Can, 36– Summers, mem. expeds. to Can. Arctic, 33– Am. Polar Soc; Can. Soc. Tech. Agr; Corp. des Agron. du Que. Biology in the Arctic of America; soils of the Arctic.

Dutton, Prof. Carl E(vans), 16244 Greenlawn, Detroit, Mich. *Geology.* Dunkirk, Ohio, Jan. 24, 04. A.B, DePauw, 26; A.M, Illinois, 28; Ph.D, Minnesota, 31. Asst, Illinois, 26–28; instr. geol, Minnesota, 28–36; asst. prof, Wayne, 36–42; visiting asst. prof, Michigan, 43; *geologist, U. S. Geol. Surv, 43–* Asst, Ill. State Geol. Surv, 27–28, assoc, 31; asst, Minn. Geol. Surv, 29–30, 32–33; surv. geologist, Mich. Geol. Surv, 37–42. Structural and economic geology; restudy of Menominee iron range.

Dutton, Prof. Frederic B(ooth), 372 Front St, Berea, Ohio. *Inorganic chemistry.* Cleveland, Ohio, Dec. 24, 06. A.B, Oberlin Col, 28, A.M, 32; Ph.D, Western Reserve, 37. Instr. *chem,* Baldwin-Wallace Col, 31–34, asst. prof, 34–39; instr, Yale, 39–40; prof, Olivet Col, 41; *assoc. prof, Baldwin-Wallace Col, 41–* Instr, Cleveland Col, Western Reserve, 38–39, summer, 39. Chem. Soc; Northeast. Ohio Chem. Teachers Organization (pres, 39, 40, 42). Fluorination of non-polar inorganic halides; reactions in anhydrous hydrogen fluoride.

Dutton, Dr. Herbert J(asper), Western Regional Research Laboratory, U. S. Department of Agriculture, Albany, Calif. *Chemistry, Plant physiology.* Evansville, Wis, May 30, 14. A.B, Wisconsin, 36, A.M, 38, Ph.D, 40. Asst. bot. and chem, Wisconsin, 39–40, limnol, 40, bot, 40–41; *asst. chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Photosynthesis; plant pigments; absorption of radioactive and inactive phosphate.

Dutton, Dr. L(oraine) O(rr), 310 Roberts Banner Bldg, El Paso, Texas. *Pathology.* Waco, Texas, Aug. 2, 98. A.B, Texas Christian, 18, M.S, 21; M.D, Tennessee, 31. Teaching fellow, California, 20; instr. bacter, Texas Christian, 20–21; asst. director labs, Baptist Mem. Hosp, Memphis, 21–24; *director* labs, Methodist Hosp, 24–29; *private clin. and path. labs, 32–* Instr, Tennessee, 21–22; field investigation, U. S. Pub. Health Service, 18. Labs, U.S.A, Siberia, 18–19. Am. Med. Asn; Asn. Study Allergy; Med. and Surg. Asn. Southwest. Clinical pathology and allergy; fungi as respiratory allergens.

Dutton, W(alter) C(urtis), Dow Chemical Co, Midland, Mich. *Horticulture.* Hockingport, Ohio, July 27, 89. B.S, Ohio State, 12; M.S, Mich. State Col, 25. Asst. hort, Exp. Sta, Mich. State Col, 13–19, research assoc, 19–36; *horticulturist, Dow Chem. Co, 36–* Soc. Hort. Sci; Asn. Econ. Entom. The effects of fungicides and insecticides on plants; development work with insecticides, fungicides and phytocides; plant growth regulators.

Duus, Dr. H(ans) C(hristian), R. F. D. 2, Wilmington, Del. *Physical chemistry.* Tyler, Minn, March 17, 97. B.S, Carleton Col, 18; Parker traveling fellow, Harvard, 24–25, Ph.D, 25. Instr, Carleton Col, 19–20; *chemist,* U. S. Smelting, Ref. and Mining Co, Cambridge, Mass, 25–26; *ammonia dept, E. I. du Pont de Nemours and Co, 26–* Chem. Soc; Soc. Automotive Eng; Chem. Eng. Chemical engineering; acid-base catalysis; thermodynamics of refrigeration; reaction velocity; distillation; petroleum cracking; internal combustion engines; heat transfer; gas purification and scrubbing; phase rule.

Duval, Dr. Anna Marie, Child Research Council, 4200 E. Ninth Ave, Denver, Colo. *Biochemistry.* Denver, Colo, Nov. 1, 13. A.B, Denver, 34, A.M, 36; Ph.D, Colorado, 42. Instr. chem, Cent. Sch. of Nursing, 34–36; *fellow biochem, Child Research Council, 36–* Basal metabolism of children.

Duval, Prof. Charles W(arren), 8 Richmond Place, New Orleans, La. *Pathology, Bacteriology.* Annapolis, Md, Sept. 28, 76. Hon. A.M, St. John's Col. (Md), 97; Rockefeller fellow, Pennsylvania, 02–03, M.D, 03. Path. house officer, Boston City Hosp, 03–04, asst. pathologist, 04–06; lecturer *path. and bacter,* McGill, 06–09; prof. and head dept, *Tulane,* 09–43, *emer. prof, 43–* Director path. lab, Montreal Gen. Hosp, 06–09; visiting pathologist, 24–; director path. dept, Charity Hosp, New Orleans, 13–23; Touro Infirmary, 10–22, consulting pathologist, 26–; director path. div, Presb. Hosp, 12– Asn. Path. and Bact; Soc. Exp. Path; Soc. Bact; Soc. Exp. Biol. (councilor, 26–, chairman, south. branch, 26–); Am. Med. Asn; Pub. Health Asn; Col. Physicians; Soc. Trop. Med; South. Med. Asn. (chairman, path. sect, 26–). Experimental pathology; acute bacillary dysentery; summer diarrhoeas in infants; vascular and respiratory diseases; leprosy; cancer; meningitis; scarlet fever; experimental tuberculosis; nephritis; dengue fever; measles.

Duval, Prof. E(dmund) P(endleton) R(andolph), 1505 Oklahoma Ave, Norman, Okla. *Mathematics.* Va, Dec. 4, 71. B.S, Texas, 01, A.M, 02; A.M, Harvard, 04; Princeton, 11–12. Instr. *math,* Wisconsin, 06–08; assoc. prof, Oklahoma, 08–11; instr, Princeton, 11–12; assoc. prof, Kansas, 12–14; *Oklahoma,* 14–20, 29–40, *prof, 40–* Math. Asn. Algebra.

Duvall, Dr. Harry M(orean), 30 Bowen Ave, Woodstown, N. J. *Organic chemistry.* Lanham, Md, Oct. 27, 10. B.S, Maryland, 32, Ph.D, 36. Lab. asst. gen. and org. chem, Maryland, 32–36; E. R. Squibb and Sons fellow, Virginia, 36–38; research chemist, Jackson lab, *E. I. du Pont de Nemours and Co, Inc,* 38–39, sulfur colors lab, 39–42, *junior supervisor sulfur colors area dye works, 42–* Lecturer, Cobb chem. lab, grad. sch, Virginia. Chem. Soc. Catalytic dehydrogenation of methoxy ethyl alcohol; selenium dehydrogenation of ursolic acid; synthesis of estrogenic compounds; dyestuffs, principally sulfur dyes; plant processes for the manufacture of sulfur dyestuffs and related intermediates.

Duvall, Prof. T(rumbull) G(illette), 36 Forest Ave, Delaware, Ohio. *Philosophy, Psychology.* Indianapolis, Ind, March 20, 61. A.B, DePauw, 88; S.T.B, Boston, 89, Ph.D, 92. Instr. *philos,* DePauw, 92–95, prof, 95; *Ohio Wesleyan,* 95–31, *emer. prof, 31–,* dean faculty, 00–05. Psychol. Asn; West. Philos. Asn. Psychology and logic of cognition; psychology of religion.

DuVall, Prof. W(illett) C(linton), 1081 Lincoln Place, Boulder, Colo. *Electrical engineering.* Jefferson, N. C, Jan. 21, 88. B.S. (E.E), Colorado, 12, E.E, 21. Pennsylvania, 15–19; *prof. elec. eng, Colorado, 19–, head dept, 41–* Elec. Eng. (chairman, Denver sect, 24); Eng. Educ. Transmission and distribution.

Duvel, Dr. J(oseph) W(illiam) T(ell), 1225 Decatur St, Washington, D. C. *Botany.* Wapakoneta, Ohio, Nov. 16, 73. B.S, Ohio State, 97; Dexter M. Ferry fellow, Michigan, 99–02, Sc.D, 02. Asst. botanist, Ohio Exp. Sta, 98–99; asst. seed lab, U. S. Dept. Agr, 02–08, in charge grain standardization, 08–18; grain expert, U. S. Grain Corp, 18–20; grain merchant, Winnipeg grain exchange, 20–22; grain exchange supervisor, grain futures admin, U. S. Dept. Agr, Chicago, 22–25, chief, 25–36, commodity exchange admin, 36–42; *retired.* A.A; Bot. Soc. Wash. (v. pres, 16); Int. Asn. Bot. Vitality of seeds; respiration in dry seeds; effect of gases on vitality; cold storage

ot cow-peas; storage and germination of wild rice and of seed-corn; moisture in grain; deterioration of grain in storage; handling grain in Australia; grain futures.

du Vigneaud, Prof. Vincent, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. **6Biochemistry.* Chicago, Ill, May 18, 01. B.S, Illinois, 23, M.S, 24; Ph.D, Rochester, 27. Asst. biochemist, Phila. Gen. Hosp, and asst. biochem, grad. sch. med, Pennsylvania, 24–25; asst. vital econ, sch. med, Rochester, 25–27; nat. research fellow pharmacol, sch. med, Hopkins, 27–28; Kaiser Wilhelm Inst, Germany, and dept. med. chem, med. sch, Edinburgh, 28–29; assoc. physiol. chem, dept. chem, Illinois, 29–30, asst. prof, 30–32; *prof. biochem. and head dept,* sch. med, George Washington, 32–38; *med. col, Cornell, 38–* Hillebrand prize, Chem. Soc. Wash, 36; Mead-Johnson Vitamin award, Am. Inst. Nutrition, 43. A.A. (councilor, 37); Soc. Biol. Chem; Chem. Soc. (councilor-at-large, 43; chairman N. Y. sect, 43); Soc. Exp. Biol; Inst. Nutrition; Soc. Int. Secretions; Harvey Soc; Wash. Acad. Med; London Chem. Soc. Chemistry of insulin and posterior pituitary hormones; biotin; choline; transmethylation; intermediary sulfur metabolism; amino-acid, peptide and protein chemistry.

Dvorak, Dr. Beatrice J(eanne) (Mrs. Paul R. Lavin), 3206 Wisconsin Ave, N.W, Washington, D. C. *Industrial psychology.* Hopkins, Minn, May 15, 08. A.B, Minnesota, 29, A.M, 30, Ph.D, 34. Teaching asst. psychol, Minnesota, 29–31, asst, Minn. employment stabilization research inst, 31–34; tech. asst, *worker-anal. sect, U. S. Employment Service,* 34–39, *chief, worker-anal. sect, War Manpower Cmn, 39–* Psychol. Asn; Asn. Applied Psychol. Development of aptitude test batteries; trade tests; job families.

Dwight, Col. Arthur S(mith), 19 Rector St, New York, N. Y. *Mining, Metallurgy.* Taunton, Mass, March 18, 64. Polytech. Inst. Brooklyn; M.E, Columbia, 85, hon. M.S, 14, hon. Sc.D, 29. Colo. Smelting Co, Colo, 85–89, supt, 89–96; gen. supt, Consol. Kans. City Smelting and Ref. Co, 96–99; mem. operating cmt, Am. Smelting and Ref. Co, Denver, 99–00; asst. to pres, Co. Metal. Mexicana, Mex, 00–03; asst. to pres. and consulting engineer, Cananea Consol. Copper Co, 03–04, gen. manager, 04–06; *consulting mining engineer, New York, 06–; pres, Dwight and Lloyd Metal. Co; Dwight and Lloyd Sintering Co; col, U. S. Army.* Lecturer, Columbia. Chevalier, Légion d'honneur; Companion, D. S. Order Gt. Britain; Order of Purple Heart. Major, C.Eng, 17–19, col, Eng.R.C. Min. and Metal. Eng. (pres, 22); hon. mem. London Inst. Min. and Metal; hon. mem. Soc. Eng. Louvain. Sintering process for the treatment of fine ores and metallurgical products.

Dwight, Prof. C(harles) Harrison, 1356 Hillcrest Road, Cincinnati, Ohio. *Physics.* Closter, N. J, July 9, 97. A.B, Bellevue Col, 19; M.S, Chicago, 25; Ph.D, Cincinnati, 31; Mt. Allison; Clark; Oklahoma; Illinois; Mass. Inst. Tech, 32. Asst, Oklahoma, 19–21; instr, Illinois, 21–22; asst, Chicago, 22–23; instr. *physics, col. eng, Cincinnati,* 23–41, *asst. prof, 41–* Meteorol. Soc; Physical Soc; Asn. Physics Teachers. Atmospheric electricity; heat.

Dwight, Prof. H(erbert) B(ristol), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Geneva, Ill, 85. Toronto, 03–05; B.Sc, McGill, 09, D.Sc, 24. Designer elec. machinery, Westinghouse Co, Can, 09–25; *prof. elec. eng, Mass. Inst. Tech, 25–* Fel. Elec. Eng. (chairman, Boston sect, 28). Electrical calculations for alternating currents and transmission lines.

Dwight, Prof. T(heodore) W(oolsey), University of Toronto, Toronto, Ont, Can. *Forestry.* Geneva, Ill, June 30, 89. B.Sc.F, Toronto, 10; M.F, Yale, 11. Asst. director forestry, Can. Dept. Interior, Ottawa, 12–22; assoc. prof. *forestry, Toronto,* 22–41, *prof, 41–* Soc. Foresters; Can. Soc. Forest Eng. (treas, 18–22). Forest mensuration.

Dworkin, Dr. Simon, McGill University, Montreal, Que, Can. *Physiology.* Glukow, Russia, Oct. 15, 99. D.D.S, McGill, 23, M.D, 27, M.Sc, 28; fellow, Harvard, 28–30. Demonstrator physiol, McGill, 27–28; nat. research fellow med, Harvard, 28–30; *lecturer physiol, McGill, 30–* Physiol. Soc; Can. Physiol. Soc. Hibernation and heat regulation; sympathetic nervous system; conditioned reflexes; audition.

Dwyer, Prof. John D(uncan), Albany College of Pharmacy, Albany, N. Y. *Systematic botany.* Newark, N. J, April 26, 15. A.B, St. Peters Col, 36; M.S, Fordham, 38, Ph.D, 41. Asst. biol, Fordham, 37–41; *prof,* St. Francis Col. (N. Y), 42; *bot. and mat. med, Albany Col. Pharmacy, 42–* Soc. Plant Taxon; Torrey Bot. Club. American species of Ochnaceae; flowering plants and ferns of Litchfield, Connecticut.

Dwyer, Prof. Orrington E(mbry), University of Rochester, Rochester, N. Y. *Chemical engineering.* Newfoundland, May 22, 12. B.S, Northeastern, 34; M.S, Mass. Inst. Tech, 36; D.Eng, Yale, 40. Develop. engineer, Boston Woven Hose and Rubber Co, Cambridge, Mass, 36–37; *asst. prof. chem. eng, Rochester, 39–* Summers, research engineer, E. I. du Pont de Nemours and Co, Buffalo, N. Y. Chem. Soc; Chem. Eng. Gas absorption; counter-current absorption of gases by liquids in packed towers.

Dwyer, Prof. Paul S(umner), University of Michigan, Ann Arbor, Mich. *Mathematics.* Chester, Pa, Dec. 8, 01. A.B, Allegheny Col, 21; A.M, Pa. State Col, 23; Ph.D, Michigan, 36. Instr. math, Pa. State Col, 21–26; asst. prof, Antioch Col, 26–29, assoc. prof, 29–33, prof, 33–36; asst. *educ. investigations, Michigan,* 36–41, *research assoc, 41–,* asst. prof. *math,* 37–42, *assoc. prof, 42–* A.A; Math. Soc; Math. Asn. (sec'y-treas, Mich. sect, 37–41); Statist. Asn; fel. Inst. Math. Statist; Psychometric Soc. Mathematical and educational statistics; use of Hollerith machines in statistical work; statistical computational techniques.

Dwyer, Prof. Robert J(oseph), Trinity College, Hartford, Conn. *Physics.* Norwood, Ohio, Jan. 11, 07. A.B, Cincinnati, 29, 29–30; A.M, Harvard, 37, Charles A. Coffin Foundation fellow, 39–41, Ph.D, 42. Instr. radio eng, RCA Institutes, Inc, 37–39; *physics,* Lafayette Col, 41–42; *Trinity Col. (Conn),* 42–43, *asst. prof, 43–* Physical Soc; Radio Eng; Asn. Physics Teachers. Persistence of molecular vibrations in collisions; energy of dissociation of water vapor; electronics.

Dwyer, Prof. Wendell A, 4812 Webster St, Omaha, Nebr. *Mathematics, Statistics.* Randolph, Nebr, March 25, 09. B.S, Creighton, 30; summers, Wisconsin, 31, 33, Minnesota, 32; Ph.D, Nebraska, 37. Asst. *math, Creighton,* 30–32, instr, 32–37, asst. prof, 37–42, *assoc. prof, 42–* Math. Asn. Elliptic functions.

Dyce, Dr. Elton James, Finger Lakes Honey Producers Cooperative, Inc, Groton, N. Y. *Apiculture.* Meaford, Ont, July 15, 00. B.S.A, Toronto, 23; M.Sc, McGill, 28; Schuyler fellow, Cornell, 29–30, Ph.D, 31. Demonstrator *apicult, Ont. Agr. Col,* 24–28, lecturer, 28–33, prof. and head dept, and provincial apiarist, 33–40; *gen. manager, Finger Lakes Honey Producers Co-operative, Inc, 40–* Cmt. on honey, Nat. Research Council, Can, 33–; sec'y-treas, Can. Honey Fed. Marketing Board, 35–; Can. Soc. Tech. Agr. (pres, Ont. Agr. Col. branch, 35–40); Ont. Beekeepers' Asn. (sec'y-treas, 33–). Bee diseases; fermentation and crystallization of honey; cooperative marketing and packing of honey.

Dyche, Prof. H(oward) E(dward), University of Pittsburgh, Pittsburgh, Pa. *Electrical engineering.* Jan. 19, 84. M.E.(E.E), Ohio State, 06. Eng. dept, Westinghouse Elec. and Mfg. Co, 06–10; *dept. elec. eng, Pittsburgh, 11–, prof. and head dept.* Consulting engineer. Elec. Eng; Eng. Educ. Special devices for oscillographic work.

Dyck, Dr. A(bram) Wolff J(acob), Instituto Agronomico do Norte, Belem, Para, Brazil. *Chemistry.* Ekaterinoslaw, Russia, Dec. 13, 06. A.B, Bluffton Col, 30; M.A, Saskatchewan, 33; Ph.D, McGill, 35. Asst, McGill, 33–35; research soil chem, Dept. Agr, Ottawa; *mem. staff, Inst. Agron. do Norte, Brazil.* Research, Rubber Research Inst, Malaya. Assoc. Soc. Chem. Indust. Acyl diurethans; soil organic nitrogen compounds; spectrographic determination of boron in soils and plants.

Dye, Prof. Clair A(lbert), 2201 Starr Road, Columbus, Ohio. *Pharmacy, Pharmacognosy.* Zeno, Ohio, June, 69. Ph.G, Ohio State, 91, 96–98; Ph.D, Bern, 01. Asst. chem. and pharmacy, *Ohio State,* 90–94, *pharmacy,* 94–98, asst. prof, 98–06, assoc. prof, 06–09, prof, 09–39, *emer. prof, 39–,* acting dean *col. pharmacy,* 15–21, dean, 21–39, *emer. dean, 39–* Revision cmt, U. S. Pharmacopoeia, 20–30. Asn. Cols. Pharm. (pres, 21); Pharmaceut. Asn. (chairman, sect. educ. and legis, 19); Ohio Pharmaceut. Asn. (cmt. on educ, 29–32). Educational standards for pharmacists; general pharmaceutical training; practical pharmaceutical problems.

Dye, Dr. Harry Wilmer, Niagara Sprayer Co, Middleport, N. Y. *Plant pathology.* New Matamoras, Ohio, May 17, 92. B.S, Wisconsin, 15; M.S.A, Cornell, 16, fellow, 17–20, Ph.D, 19. Instr. plant path, N. Y. State Col. Agr, Cornell, 19–20,

asst. prof, 20-22; *Niagara Sprayer and Chem. Co, Inc, 22–* A.A; Phytopath. Soc. Vegetable and fruit diseases; fungicides.

Dye, Prof. J(oseph) A(lma), 325 Dryden Road, Ithaca, N. Y. *Physiology.* Basalt, Idaho, March 8, 92. A.B, 16; Ph.D, Cornell, 25. Asst. *physiol, Cornell,* 16–18, instr, 23–25, asst. prof, 26–41, *assoc. prof, 41–* A.A; Physiol. Soc; Soc. Exp. Biol. Biochemistry; anatomy; thyroid and parathyroid glands; oxidation and tissue respiration; ultra-violet in the prevention and cure of rickets; the thyroid gland; the pancreas; the pituitary; sympathin; carbohydrate and fat metabolism; ketone bodies.

Dye, Prof. Leaman A(ndrew), The Citadel, Charleston, S. C. *Mathematics.* Canandaigua, N. Y, May 21, 00. A.B, Rochester, 21, A.M, 25; Ph.D, Cornell, 30. Instr. *math,* Rochester, 25–27; Cornell, 28–35; *asst. prof, The Citadel, 35–* A.A; Math. Soc; Math. Asn. Algebraic geometry; involutorial Cremona transformations.

Dye, Dean Marie, Michigan State College, East Lansing, Mich. *Home economics.* Chicago, Ill, Sept. 13, 91. B.S, Chicago, 14, M.S, 17, fellow, Michael Reese Hosp, 21–22, Ph.D, 22. Teacher, Starretts Sch. for Girls, Chicago, 16–17; Tech. Nor. Sch, Chicago, 17–18; Univ. Chicago high sch, 18–19; research assoc. prof. home econ, *Mich. State Col,* 22–30, *dean, 30–* A.A; Home Econ. Asn. (sec'y, 31–33, treas, 42–); Inst. Nutrition; Chem. Soc; Soc. Biol. Chem; Dietetic Asn; Mich. Home Econ. Asn. (pres, 30–32). Nutrition; respiratory metabolism; metabolism in obesity; vitamins.

Dyer, Prof. Elizabeth, Women's College, Newark, Del. *Chemistry.* Haverhill, Mass, May 10, 06. A.B, Mt. Holyoke Col, 27, A.M, 29; Ph.D, Yale, 31. Asst. chem, Mt. Holyoke Col, 27–29; Yale, 29–31, Chem. Foundation fellow, 31–33; instr. *chem, Women's Col, Delaware,* 33–40, *asst. prof, 40–* Sarah Berliner research fellow, Am. Asn. Univ. Women, 37–38. A.A; Chem. Soc. Organic chemistry; hydantoins; guanidines; pyrimidines; beta amino acids.

Dyer, Prof. Helen M(arie), Apt. 302 C, Tilden Gardens, Washington, D. C. *Biochemistry.* Washington, D. C, May 26, 95. A.B, Goucher Col, 17; fellow, George Washington, 29–30, M.S, 29, Ph.D, 35. Instr. physiol, Mt. Holyoke Col, 19–20; junior and asst. pharmacologist, hygienic lab, U. S. Pub. Health Service, 20–28; assoc. biochem, sch. med, George Washington, 29–39, asst. prof, 39–42; *research fellow, nat. cancer inst, U. S. Pub. Health Service, 42–* War work, 18–19. A.A; Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Inst. Nutrition. Chemotherapeutics in syphilis; biochemistry of experimental cancer; chemistry and metabolism of sulfur compounds; chemistry of the hormones of the posterior pituitary gland; relation of vitamins to gastric function.

Dyer, Dr. Hugh N(elson), Jr, Behr-Manning Corp, Troy, N. Y. *Physical chemistry.* Martinsville, Va, March 24, 13. B.S, Va. Polytech, 33, M.S, 34; du Pont fellow, Virginia, 36–37, Ph.D, 38. *Research chemist, Behr-Manning Corp, 37–* Chem. Soc. Synthetic binders and adhesives for coated abrasives.

Dyer, Dr. R(olla) E(ugene), National Institute of Health, U. S. Public Health Service, Bethesda, Md. **7Pathology.* Delaware Co, Ohio, Nov. 4, 86. A.B, Kenyon Col, 07, LL.D, 32; Cumberland, 08–09; M.D, Texas, 15. Intern, Phila. Gen. Hosp, 15–16; asst. surgeon, *U. S. Pub. Health Service,* 16–20, passed asst. surgeon, 20–24, surgeon, 24–36, *senior surgeon, 36–,* asst. director *nat. inst. health,* 22–41, *director, 42–,* chief div. infectious diseases, 36–42. Special lecturer, George Washington. Mem. board directors and sci. board, Gorgas Mem. Inst; cmt. med. research, Nat. Research Council. A.A; fel. Am. Med. Asn; Soc. Trop. Med; Epidemiol. Soc; Soc. Exp. Biol; fel. Pub. Health Asn; hon. mem. Harvey Soc; N. Y. Acad; Wash. Acad. Med; Wash. Acad. Diphtheria; scarlet fever; pellagra; typhus; Rocky Mountain spotted fever; Q fever; public health.

Dyer, Prof. Walter S(herman), University of Arkansas, Fayetteville, Ark. *Organic chemistry.* Russellville, Ark, Sept. 30, 01. B.S, Arkansas, 24; M.S, Minnesota, 25, Ph.D, 38. Asst. chem, Minnesota, 24–25, teaching asst, 36–37, instr. *chem,* 37–38; prof, Union Col. (Ky), 25–29; instr, *Arkansas,* 29–36, asst. prof, 38–42, *assoc. prof, 42–* Chem. Soc. Oxidation of monoketoximes.

Dyer, Dr. William J(ohn), Fisheries Experiment Station, Halifax, N. S, Can. *Biochemistry.* Antigonish, N. S, Oct. 30, 13. B.Sc, St. Francis Xavier, 34; M.Sc, McGill, 37, Ph.D, 40. Analyst soil surv. soil analysis, N. S. Agr. Col, 34–35; asst. soil research, Nat. Research Council, Can, Macdonald Col, McGill, 36–39, analyst gen. research, 39–40; *biochemist, Atlantic Fisheries Exp. Sta, Fisheries Research Board, Can, 40–* Junior biochemist wood products, Forest Products Lab, Dept. Mines and Forests, Ottawa, 40. Summer, analyst, chem. dept, Dom. Exp. Farms, Ottawa, 36. Assoc. Can. Inst. Chem; Can. Soc. Tech. Agr. Determination of inorganic and organic phosphorus in soils and soil extracts by photoelectric colorimetry; forms of organic phosphorus present in soils, nucleotide, phytin and other compounds; spoilage of fresh fish; salting and drying fish; fractionation of fish proteins.

Dyk, Dr. Karl, Stanolind Oil and Gas Co, 603 Philcade Bldg, Tulsa, Okla. *Seismology.* Halberstadt, Germany, Aug. 16, 03. A.B, California, 30, Ph.D, 34. Submarine acoustic research, U. S. Coast and Geod. Surv, 33–35; computer, geophys. explor, 35–36; chief field party mapping subsurface, West. Geophys. Co, 36–40; *seismologist, Stanolind Oil and Gas Co, 40–* Soc. Explor. Geophys; Seismol. Soc; Geophys. Union. Submarine acoustics.

Dyke, R(ay) A(rthur), U. S. Weather Bureau, New Orleans, La. *Meteorology.* Livermore, Pa, Oct. 7, 81. Vermont, 10. Teacher, pub. schs, W. Va, 00–02; *U. S. Weather Bur, 03–, forecaster, New Orleans, 16–, senior meteorologist.* A.A; Meteorol. Soc; Geophys. Union; New Orleans Acad. Temperature relations; minimum temperature frequencies; forecasting; tropical cyclones.

Dyklns, Dr. Fred A(lexander), 303 E. North Ave, Flora, Ill. *Analytical chemistry.* Flora, Ill, June 28, 03. Phar.B, St. Louis Col. Pharmacy, 24; B.S, Illinois, 29, M.S, 30, Ph.D, 33. Asst. chem, Illinois, 30–33; *eng. chemist, bur. materials, State Div. Highways, Ill, 33–* Chem. Soc; Ill. Acad. (chairman, chem. sect, 33–36). Analytical determination of sugars; ethylene on the activity of enzymes; levulose from the polysaccharides of the Jerusalem artichoke; product testing of the petroleum industry.

Dykstra, Dr. Harry B(en), 807 Greenwood Road, Westover Hills, Wilmington, Del. *Chemistry.* Riverside, Ill, March 6, 02. A.B, Hope Col, 24; M.S, Ohio State, 25, Ph.D, 27. *Research chemist, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Unsaturated hydrocarbons and their derivatives; synthetic rubber; synthetic resins; nylon.

Dykstra, Dr. K(enneth) G, 451 Mitchell Ave, Elmhurst, Ill. *Biophysical chemistry.* Pella, Iowa, May 23, 11. A.B, Cent. Col. (Iowa), 33; Ph.D, Iowa State Col, 38. Chemist, Am. Can Co, 37–42; *chief chemist, Snider Packing Corp, 42–* Inst. Food Technol. Methods of preservation and packaging foods; food chemistry.

Dykstra, Dr. R(alph) R(alph), Kansas State College, Manhattan, Kans. *Veterinary medicine.* Groningen, Holland, Sept. 24, 79. D.V.M, Iowa State Col, 05. Prof. anat. and obstet, Iowa State Col, 05–11; *prof. surg. and dean sch. vet. med, Kans. State Col, 11–* Vet. Med. Asn. (pres, 31). Animal sanitation and disease control.

Dykstra, Dr. T(heodore) P, U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Oldeboorn, Netherlands, Dec. 23, 96. B.S, Oregon State Col, 23, Ph.D, 38; M.S, Wisconsin, 25. From asst. plant pathologist to *pathologist, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 26–* Phytopath. Soc; Potato Asn. Potato virus diseases; weed hosts of potato virus diseases; comparison of American and European potato virus diseases.

Dyme, Dr. H(arry) Ch(alm), 152 W. 44th St, New York, N. Y. *Chemistry.* Toronto, Ont, Can, April 26, 12. B.S.A, Ont. Agr. Col, 34; fellow, Iowa State Col, 35–39, Ph.D, 39. Demonstrator and lab. asst, dept. chem, Ont. Agr. Col, 34–35; in charge quality control lab, Kraft Cheese Co, 40–41; *supt. and chief chemist, Afral Corp, 41–* A.A; Chem. Soc. Physiological and nutritional chemistry; meat curing and flavoring; quality control; food preservation; development of new products; production control; spices; flavors; emulsions; vitamins; essential oils; effect of treated fats on the activity of vitamin A.

Dymond, Prof. J(ohn) R(ichardson), University of Toronto, Toronto, Ont, Can. *Zoology.* Kerwood, Ont, Oct. 4, 87. B.A, Toronto, 12, M.A, 20. Dept. Agr, Ottawa, Ont, 12–20; lecturer *syst. zool, Toronto,* 20–23, asst. prof, 23–28, assoc. prof, 28–39, *prof, 39–* Sec'y, Royal Ont. Museum Zool, 22–31, asst. director, 31–34, director, 34– Mem, Fisheries Research Board, Can, 38–, exec. cmt, 41– A.A; Ecol. Soc; Soc.

Ichthyol. and Herp. (pres, 40–42); Audubon Soc. (director, 38–); Royal Can. Inst. (hon. sec'y, 31–34; pres, 39); fel. Royal Soc. Can. (ed, sec. v, 39–41, sec'y, 41–); Toronto Field Nat. Club (pres, 29–31). Taxonomy and distribution of vertebrates of Canada, especially fish.

Dysinger, Prof. Donald W(arren), University of Nebraska, Lincoln, Nebr. *Psychology.* Logansport, Ind, Sept. 8, 04. A.B, California at Los Angeles, 28; A.M, Iowa, 29, Ph.D, 31. Research assoc, Iowa, 31–32; instr. *psychol, Nebraska,* 32–40, asst. prof, 40–42, *assoc. prof, 42–* Assoc. Psychol. Asn. Emotions; clinical and abnormal psychology.

Dyson, Dr. James L(indsay), New Bloomfield, Pa. *Glaciology.* Lancaster, Pa, May 23, 12. B.S, Lafayette Col, 33; M.S, Cornell, 35, Ph.D, 38. Junior asst. geol, Lafayette Col, 31–32, senior asst, 32–33; asst, Cornell, 34–36, instr, 36–38; Colgate, 38–41; *U. S. Army, 41–* Structure, motion and erosive work of cirque glaciers; glacier recession.

Dytrt, Dr. L(umir) F(rank), 6901 Elmwood Ave, Philadelphia, Pa. *Applied physics.* Cedar Rapids, Iowa, Sept. 2, 06. B.S, Iowa State Col, 28, M.S, 29, Ph.D, 33; Pittsburgh, 29–32. Designing engineer, Westinghouse Elec. and Mfg. Co, 29–31; research engineer, Philco Radio and Television Corp, 35–36; application and develop. engineer, Gen. Elec. Co, 36–39; designing engineer, Panama Canal, 39–40; *application and develop. engineer, Gen. Elec. Co, 40–* Mechanism of Barkhausen-Kurz oscillations; solution of certain mechanical systems by means of equivalent electrical circuits.

Dziemian, Dr. Arthur J(ohn), Johns Hopkins University Medical School, Baltimore, Md. *Physiology.* Jersey City, N. J, June 30, 13. A.B, Princeton, 36, Ph.D, 39. Nat. research fellow, *med. sch,* Pennsylvania, 40–41; *fellow anat, Hopkins, 41–* Permeability; thyroid physiology.

D'Zmura, Dr. Andrew P(eter), Physicians' Bldg, Pittsburgh, Pa. *Medicine.* Braddock, Pa, Oct. 8, 90. St. Vincent Col, LL.D, 31, Duquesne; M.D, Pittsburgh, 12. Demonstrator *med, Pittsburgh,* 13–17, instr, 19–21, asst. prof, 21–37, *assoc. prof, 37–* Mellon research fellow, Pittsburgh, 14–15. Capt, M.C, 17–19. A.A; Am. Med. Asn; Am. Heart Asn; Soc. Biol. Research Pittsburgh. Cardiology.

E

Eachus, Dr. Joseph J(ackson), Purdue University, Lafayette, Ind. *Mathematics.* Anderson, Ind, Nov. 5, 11. A.B, Miami, 33; A.M, Syracuse, 36; Ph.D, Illinois, 39. Asst. *math,* Syracuse, 34–36; Illinois, 36–39; *instr, Purdue, 39–* Math. Soc. Differential equations; q-difference equations.

Eade, George W(illiam), South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. Dak. *Plant pathology.* Central City, S. Dak, June 9, 05. B.S, S. Dak. State Col, 29, M.S, 31. Seasonal field agent, *div. plant disease control, bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–35, asst. pathologist in charge barberry eradication in S. Dak, *S. Dak. State Col,* 35–41, *assoc. pathologist, 41–* Barberry eradication for the control of stem rust of small grains.

Eadie, Prof. G(eorge) S(harp), Duke Hospital, Durham, N. C. *Physiology.* Toronto, Ont, Can, 95. B.A, Toronto, 15, M.B, 21, M.A, 22; Ph.D, Cambridge, 27. Demonstrator biochem, Toronto, 21–25; assoc. *physiol,* sch. med, Hopkins, 28–30; *prof, Duke, 30–* A.A; Physiol. Soc. Enzymes; insulin; epinephrin.

Eadie, Prof. W(illiam) Robert, Cornell University, Ithaca, N. Y. *Zoology.* Manchester, N. H, May 5, 09. B.S, New Hampshire, 32, M.S, 33; Ph.D, Cornell, 39. Asst. *zool,* New Hampshire, 33–35, instr, 35–39, *asst. prof,* 39–42; *Cornell, 42–* A.A; Wildlife Soc; Soc. Mammal. Vertebrate zoology; mammalian life histories; food habits; anatomy.

Eager, Prof. Sherman W(esley), 802 Jefferson St, Stillwater, Okla. *Physics.* Vincennes, Ind, Jan. 28, 88. A.B, Indiana, 23, Ph.D, 38; M.S, Okla. Agr. and Mech. Col, 26. Asst. prof. *physics, Okla. Agr. and Mech. Col,* 23–29, assoc. prof, 29–41, *prof, 41–* Okla. Acad. Photoelectricity and effect of ionization on the velocity of sound waves at ultrasonic frequencies.

Eagle, Dr. Edward, 951 E. 58th St, Chicago, Ill. *Physiology.* Baltimore, Md, Nov. 27, 08. A.B, Hopkins, 29, 31–34; du Pont fellow, Virginia, 29–31, M.S, 31; univ. fellow, Chicago, 35–36, Ph.D, 40. Asst. *physiol, Chicago,* 36–38, *research asst, 38–* Adrenal extracts; conditioned reflexes; choline; metabolism; antipyretics and analgesics.

Eagle, Dr. Harry, 2800 Lawina Road, Baltimore, Md. *Medicine.* New York, N. Y, July 13, 05. A.B, Hopkins, 23, M.D, 27. Intern. Hopkins Hosp, 27–28, research fellow, sch. med, Hopkins, 28–29, asst, 29–30, instr, 30–32; research fellow, Harvard Med. Sch, 32–33; assoc. bacter, sch. med, Pennsylvania, 33–35, asst. prof, 35–36; passed asst. surgeon, *U. S. Pub. Health Service,* 36–43, *surgeon, 43–* Eli Lilly Co. bronze medal, 36; Alvarenga prize, Col. Physicians Phila, 36. A.A; Soc. Bact; Soc. Exp. Path; Soc. Clin. Invest. Urine sugars; complement fixation and hemolysis; antigen-antibody reactions; serodiagnosis of syphilis; chemistry of antibodies; blood coagulation; chemotherapy of syphilis.

Eagle, Dr. Sam, 4117 Barrett Ave, Richmond, Calif. *Chemical engineering.* St. Anthony, Idaho, July 11, 12. B.S, Mont. State Col, 34; M.S, Carnegie Inst. Tech, 35, Sc.D, 38. Teaching fellow chem, Carnegie Inst. Tech, 34–37, night sch. instr, 37–38; research chemist, research and develop. dept, *Standard Oil Co, Calif,* 38–41; *asst. foreman by-product plants, cracking div, Richmond Refinery, 41–* Chem. Soc; Chem. Eng. Kinetics of the reactions of alkyl halides with bases in hydroxylic solvents.

Eagles, Dr. Blythe A(lfred), University of British Columbia, Vancouver, B. C, Can. *Dairying.* New Westminster, B. C, April 23, 02. B.A, British Columbia, 22; M.A, Toronto, 24, Ph.D, 26. Teaching fellow, Toronto, 22–26; senior Sterling fellow, Yale, 26–28; asst. biochem, Nat. Inst. Med. Research, London, 28–29; asst. prof. *dairying, British Columbia,* 29–30, assoc. prof, 30–36, *prof. and head dept, 36–* B. C. Acad; Biochem. Soc. Gt. Britain. Creatine and uric acid metabolism; ergothioneine and glutathione in blood; constitution of glutathione; ripening of cheese; nutrition of bacteria; bios.

Eagleson, Prof. Halson V(ashon), Morehouse College, Atlanta, Ga. *Physics.* Bloomington, Ind, March 14, 03. A.B, Indiana, 26, A.M, 31, Gen. Educ. Board fellow, 35–36, Ph.D, 39. *Prof. physics, Morehouse Col, 27–* A.A; Acoustical Soc; Ind. Acad. Acoustics.

Eakin, Prof. Richard M(arshall), University of California, Berkeley, Calif. *Zoology.* Florence, Colo, May 5, 10. A.B, California, 31, Ph.D, 35. Nat. research fellow, Erlangen and Freiburg, Germany, 35–36; instr. *zool, California,* 36–39, *asst. prof, 39–, chairman dept, 43–, asst. dean col. letters and science, 40–* A.A; Soc. Zool; Soc. Develop. and Growth; West. Soc. Nat. Determination and regulation in amphibian development.

Eakin, Dr. Robert E(dward), Naval Medical Research Institute, Bethesda, Md. *Biochemistry.* LeGrande, Oregon, Jan. 23, 16. B.S, Oregon State Col, 37, M.S, 39; Standard Brands fellow, Texas, 39–41, Ph.D, 42. Research biochemist, nutrition clinic, Hillman Hosp, Ala, 41–43; *ensign, U. S. Naval Res, 43–* Chem. Soc. Factors promoting growth of yeast; microbiological methods for B vitamins; avidin.

Eames, Prof. Arthur J(ohnson), 150 Highland Ave, Ithaca, N. Y. ***Botany.* Framingham, Mass, Oct. 10, 81. A.B, Harvard, 08, A.M, 10, Sheldon traveling fellow, 10–11, Ph.D, 12. Asst. *bot,* Harvard, 06–10, 11–12; instr, *Cornell,* 12–14, asst. prof, 14–20, *prof, 20–* Exchange prof, Hawaii, 37–38. Ed, 'Annals Bot,' 33–; 'Am. Jour. Bot,' 40– A.A; Bot. Soc. (sec'y, 27–31, v. pres, 32, pres, 38); Am. Acad; Soc. Nat. Morphology, phylogeny and anatomy of vascular plants.

Eardley, Prof. A(rmand) J(ohn), University of Michigan, Ann Arbor, Mich. *Geology.* Salt Lake City, Utah, Oct. 25, 01. Stanford, 19–20; A.B, Utah, 27; Ph.D, Princeton, 30. Junior geologist, U. S. Geol. Surv, 29–36; instr. *econ. geol, Michigan,* 30–34, asst. prof, 34–38, *assoc. prof, 38–; director geol. field work, Camp Davis, Wyo.* Geologist, Univ. Pa. exped, Alaska, 35. Fel. Geol. Soc. Late geologic history of the Rocky Mountains, Colorado plateaus, Great Basin in Utah; structural geology; petroleum geology; sedimentation.

Eargle, D(olan) Hoye, 854 Abelia Road, Columbia, S. C, *Geology.* Blythewood, S. C, Dec. 8, 05. A.B, South Carolina, 26; Cincinnati, 27–28; Cornell, 28–29. Field geologist, Columbia Gas and Elec. Corp, Pittsburgh, 29–30; micropaleontologist, Skelly Oil Co, Tulsa, 30–31; teacher, high sch, S. C, 31–32, supt, 32–34; field asst, U. S. Geol. Surv, 34; asst. geologist, sedimentation div, *soil conservation service, U. S. Dept. Agr,* 34–36, *assoc. soil conservationist, climatic and physiog. div, office of research, 36–* A.A; S. C. Acad; Carolina Geol.

Soc. Sedimentation; genesis and history of soils and surface of the Piedmont of the southeastern United States.

Earhart, Dr. Rob(er)t F(rancis), 342 W. Ninth Ave, Columbus, Ohio. **²Experimental physics.* Toledo, Iowa, Feb. 2, 73. B.S, Northwestern, 93; Hopkins, 97–98; Chicago, 98–99, fellow, 99–00, Ph.D, 00. Electrician, Peoples Power Co, Ill, 93–97; instr. physics, Mich. Mil. Acad, 00–01; Rose Polytech, 01–03; asst. prof, Ohio State, 03–09, assoc. prof, 09–12, prof, 12–33; *retired.* Sparking distances; properties of natural gas.

Earl, Prof. James M(ayberry), 528 S. 53rd St, Omaha, Nebr. *Mathematics.* New Brunswick, N. J, Dec. 17, 96. A.B, Carleton Col, 19; A.M, Minnesota, 26, Ph.D, 28. Instr. *math,* Mich. State Col, 22–24; St. Lawrence, 24–25; asst, Minnesota, 25–28, instr, 28–29; Iowa, 29–30, assoc, 30–31; assoc. prof, *Munic. Univ. Omaha,* 31–32, *prof, 32–* Math. Soc; Math. Asn. Polynomials of best approximation on an infinite interval.

Earl, Prof. R(ollo) O(thwell), Queen's University, Kingston, Ont, Can. *Botany.* Brockville, Ont, Aug. 30, 92. B.A, Queen's (Can), 14; M.S, Chicago, 23, Ph.D, 26. Asst. prof. *biol, Queen's (Can),* 20–27, assoc. prof, 27–29, *prof, 29–, head dept, 36–* A.A; Bot. Soc. Cytogenetics.

Earle, Prof. Frances M, University of Washington, Seattle, Wash. *Geography.* Walhalla, S. C. A.B, Winthrop Col, 18; M.S, Columbia, 26; Ph.D, George Washington, 29; London, 29–30. Asst. prof. geog, Vermont, 26–27; assoc. commerce, George Washington, 27–28; asst. prof. *geog, Washington (Seattle),* 31–42, *assoc. prof, 42–* Summer, asst. prof, Vermont, 31– A.A; Meteorol. Soc; Econ. Asn; Soc. Women Geog; Asn. Pacific Coast Geog. (v. pres, 39, sec'y-treas, 40, pres, 41); British Geog. Asn. Human geography; the Far East; Australasia.

Earle, Dr. I(mogene) P(helps), U. S. Department of Agriculture, Beltsville, Md. *Biochemistry.* Bagwell, Texas, Sept. 25, 97. B.S, George Peabody Col, 24; A.M, Vanderbilt, 28, Ph.D, 29. Asst. biochem, sch. med, Vanderbilt, 26–29; collaborator, *bur. animal indust, U. S. Dept. Agr,* 30–31, *assoc. biochemist, 31–* A.A; Soc. Animal Production; Chem. Soc. Acid-base equilibria in blood; colostrum and its physiological significance; nutrition of young farm animals; mineral metabolism of farm animals; nutrition of horses.

Earle, Dr. Marshall D(elph), University of Pennsylvania, Philadelphia, Pa. *Physics.* Greenville, S. C, July 28, 13. B.S, Furman, 33; A.M, Cornell, 35; Sherwin-Williams fellow, Pennsylvania, 40–41, Corning Glass Works fellow, 41–42, Ph.D, 42. Teacher, D.C, 37–38; *instr. physics, Pennsylvania, 41–* Physical Soc. Theory of solids; electrical conductivity of semi-conductors; photoconductivity.

Earle, Dr. Richard B(lair), 4 Humboldt St, Cambridge, Mass. *Chemistry.* Worcester, Mass, May 29, 76. B.S, Worcester Polytech, 97; M.S, Harvard, 99, Sc.D, 02. Private asst, Worcester Polytech, 97–98; asst. org. chem, Chicago, 02–03; Mass. Inst. Tech, 03–04, instr, 04–06; research chemist, Hood Rubber Co, 06–19; chemist, Agawam Chem. Works, 19; partner, Cadmus Chem. Co, 19–21; *chemist,* Gen. Adhesive Co, 21–22; U. S. Finishing Co, 22–29; *A. Harrison and Co, Inc, 29–* Chem. Soc. (chairman, R. I. sect, 39); Asn. Textile Chem. and Colorists (chairman, R. I. sect, 29–31). Organic chemistry.

Earle, Dean S(amuel) B(roadus), Clemson Agricultural College, Clemson, S. C. *Engineering.* Gowensville, S. C, March 11, 78. A.B, Furman, 98, A.M, 99, LL.D, 32; M.E, Cornell, 02. Asst. prof. mech. eng, *Clemson Col,* 02–03, assoc. prof, 03–10, prof. and director eng. dept, 10–33, *dean col. eng, 33–, director eng. exp. sta, 24–,* acting pres, 19, 24–25. Mem, Pub. Service Cmn, S. C; mem. cmt. on unemployment, Eng. Council, S. C. A.A; fel. Mech. Eng. (mem, exec. cmt, 27, chairman, Greenville sect, 26, 35, manager and councilor, 37–40, v. pres, 40–); Eng. Educ. (councilor, 27–30, mem. exec. cmt, institutional div, 29, v. pres, 35, pres, 37); Newcomen Soc; Land Grant Col. Asn. (mem, cmt. teaching agr, home econ. and mech. arts, 29–32, 35, chairman, eng. sect, 33); S. C. Soc. Eng. (director, 29, pres, 33); fel. S. C. Acad. Powers used on the farm.

Earle, Dr. T(homas) T(heron), Tulane University, New Orleans, La. *Botany.* Greenville, S. C, July 23, 05. B.S, Furman, 28; Ph.D, Minnesota, 37. Teaching asst. bot, Minnesota, 33–37; instr. *biol, Newcomb Col, Tulane,* 38–41, *asst. prof, 41–* A.A; Bot. Soc; Ecol. Soc; Fern Soc; Soc. Plant Taxon; Torrey Bot. Club; New Orleans Soc. Plant Sciences (pres, 40); New Orleans Acad. (treas, 41–). Morphology; embryology.

Earle, Dr. W(alter) C(larence), 307 S. Wright St, Champaign, Ill. *Medicine.* Des Plaines, Ill, Aug. 26, 97. B.S, Chicago, 18, M.D, Rush, 20; Harvard, 29–30. Intern, Cook County Hosp, Chicago, 20–21; asst. res, New Haven Hosp, 21, res. physician, 21; mem. field staff, int. health div, Rockefeller Foundation, 21–39; *director, Champaign-Urbana Pub. Health Dist, 39–; regional director health and sanit. for Venezuela, Colombia, Panama and Ecuador, Coordinator Inter-Am. Affairs, 42–* Asst. prof. parasitol, Columbia Sch. Trop. Med, Puerto Rico; sch. hygiene and pub. health, Hopkins, 36–37. A.A; fel. Am. Med. Asn; Soc. Trop. Med; fel. Pub. Health Asn; Malaria Soc; Royal Soc. Trop. Med. and Hygiene. Malaria control; medical case reports; hookworm disease; public health work.

Earle, Dr. Wilton R(obinson), National Institute of Health, U. S. Public Health Service, Washington, D. C. *Pharmacology.* Greenville, S. C, June 22, 02. B.S, Furman, 23; M.S, North Carolina, 24; Denison fellow, Vanderbilt, 26–27, Ph.D, 28. Lab. instr. zool, Furman, 23; asst. chem, North Carolina, 25; nat. research fellow med, 28; cytologist, *nat. inst. health, U. S. Pub. Health Service,* 29–42, *senior cytologist, 42–* Tissue culture technique; experimental cytology of normal and malignant tissues.

Earley, Dr. Ernest B(enton), University of Illinois, Urbana, Ill. *Plant physiology.* Orangeburg, S. C, Dec. 19, 06. B.S, Clemson Col, 28; M.S, Va. Polytech, 29; Ph.D, Illinois, 41. Teaching fellow, Va. Polytech, 28–29; asst. soil fertility, Illinois, 29–37; *asst. agronomist, regional soybean indust. products lab, bur. agr. chem. and eng, U. S. Dept. Agr, 37–* Soybean physiology, with emphasis upon the influence of temperature and nutritive elements on the chemical composition of the seed.

Earls, Prof. Lester T(homas), Centenary College, Shreveport, La. *Physics.* Solon, Ohio, Nov. 14, 06. A.B, Wisconsin, 27, M.S, 29; Ph.D, Michigan, 34. Exten. center, Wisconsin, 29–33; prof. math. and physics and chairman div. nat. sciences, Col. of Ozarks, 34–36; *assoc. prof. physics, Centenary Col, 36–* Spectroscopy.

Eash, Dr. John T(rimble), International Nickel Co, Bayonne, N. J. *Metallurgy.* Albany, Ind, Sept. 1, 06. B.S, Purdue, 28; M.S, Michigan, 29, Ph.D, 32. Teaching asst, Michigan, 29–31; *research metallurgist, research lab, Int. Nickel Co, 31–* Min. and Metal. Eng; Soc. Metals (mem, exec. cmt, 35–37); Foundrymen's Asn. Tensile properties and structure of precious metal dental alloys; constitution, aging characteristics and properties of copper-nickel-tin alloys; production and properties of alloy cast steel and iron; ladle inoculation of cast iron; cupola operation.

Easley, Dr. Howard, 4714 Duke Station, Durham, N. C. *Educational psychology.* Newbern, Tenn, Sept. 13, 02. A.B, Union (Tenn), 23; A.M, George Peabody Col, 25, Ph.D, 30. Teacher, high sch, Tenn, 23–24; asst. prof. psychol, Idaho, 25–28; asst, child welfare research sta, Iowa, 28–29; asst. psychol, George Peabody Col, 29–30; *asst. prof. educ. psychol, Duke, 30–; U. S. Naval Res, 42–* Assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Learning.

Easley, M(ary) Adelaide, Lamp Development Laboratory, Nela Park, Cleveland, Ohio. *Physics.* Colorado Springs, Colo, Dec. 18, 02. A.B, Colo. Col, 24; fellow, Northwestern, 25–26, A.M, 26. Instr, Northwestern, 26–28; *physicist, Lamp Develop. Lab, Gen. Elec. Co, 28–* Physical Soc; Optical Soc; Photog. Soc. Infra-red absorption spectra; ultra-violet absorption spectrum of mercury; sources of ultra-violet radiation; photoflash lamps.

Easlick, Prof. Kenneth A(lexander), 1508 Shadford Road, Ann Arbor, Mich. *Dentistry.* Ridgeway, Mich, Sept. 12, 93. A.B, Michigan, 17, D.D.S, 28, A.M, 36. Instr. operative dentistry, *Michigan,* 28–37, asst. prof, 37–41, operative dentistry and pub. health dentistry, 41–42, *assoc. prof. dentistry and pub. health dentistry, 42–* A.A; Col. Dentists; Dental Asn. (chairman dentistry for children and oral hygiene sect, 42); Pub. Health Asn; Soc. Dentistry for Children (exec. council, 37–42, ed. board and asst. editor, 38–42); Int. Asn. Dental Research. Technics for the improvement of children's teeth; dentistry for children; dental public health.

Easter, G(eorge) J(ones), 2434 South Ave, Niagara Falls, N. Y. *Ceramic engineering.* Sewanee, Tenn, 93. B.S, Mass. Inst. Tech, 15. Chemist, A. S. and R. Co, Texas, 15–17; *asst. director research, Carborundum Co, Niagara Falls, 20–* Inspector, Ordnance Dept, U.S.A, 17–19. Ceramic Soc. (cmt. educ, 39–42; chairman cmt. professional status, 42); Ceramic Eng. (chairman cmt. professional status, 43); N. Y. State Soc. Professional Eng; Ceramic Asn. N. Y. (director). Sizing of fine powders; flow of air through porous membranes; adhesion of abrasives to glue; specialized refractories of super-refractory material; catalysis of oxidation; thermal conductivity; evaluation of abrasive properties; electric resistor furnaces; prevention of furnace erosion; patents and trade-marks; cast fused refractories; cubic silicon carbide; coated abrasives.

Eastes, Lieut. John W(esley), Edgewood Arsenal, Md. *Chemistry.* Greenfield, Ind, April 4, 10. B.S, Butler, 31; A.M, Cincinnati, 33, Ph.D, 36. Research chemist, Rohm and Haas Co. and Resinous Products and Chem. Co, 36–42; *second lieut, Chem. Warfare Service, U. S. Army, and mem. physical sect, chem. research div, research and develop. dept, Edgewood Arsenal, 42–* Chem. Soc. A vacuum-tube voltmeter; reduction of nickel compounds with alkali metals in anhydrous liquid ammonia solutions; Friedel and Crafts reaction; mercaptothioazolines; chlorination of carbon-sulfur compounds; synthetic resins for ion-exchange purposes.

Eastham, Dr. James N(orman), Nazareth College, Rochester, N. Y. *Mathematics.* Cumberland, R. I, Dec. 10, 03. B.S, Providence Col, 26; A.M, Catholic Univ, 28, Ph.D, 31. Instr. *math,* Providence Col, 30–31; *head dept, Nazareth Col. (N. Y), 31–* Summers, instr, grad. sch, mid-west branch, Catholic Univ, Dubuque, Iowa, 38– Math. Asn. The triangles in and circumscribed to the tacnodal rational quartic curve with the residual crunode.

Eastham, J(ohn) W(illiam), Court House, Vancouver, B. C, Can. *Plant pathology.* Liverpool, Eng, Dec. 4, 79. B.S, Edinburgh, 99. Lecturer biol, Cheshire Agr. Col, 02–06; bot, Ont. Agr. Col, 06–10; chief asst, div. bot, Can. Dept. Agr, 10–14; *provincial plant pathologist, B. C, 14–* Phytopath. Soc. General plant pathology; mycology.

Eastham, Melville, 30 State St, Cambridge, Mass. *Electrical engineering.* Oregon City, Oregon, June 26, 85. *Pres. and engineer, Gen. Radio Co, 15–* A.A; Elec. Eng; fel. Radio Eng; Physical Soc; Acoustical Soc. Communication; electrical frequency measurements; electrical measuring instruments.

Eastlack, Dr. Herbert E(ugene), Parlin, N. J. *Chemistry.* Crawfordsville, Ind, May 17, 90. A.B, Wabash Col, 12; Ph.D, Columbia, 16. Instr. chem, Illinois, 16–18; assoc. prof, Nebraska, 18; research chemist, Exp. Sta, *E. I. du Pont de Nemours and Co,* 18–24, asst. chem. supt, *Parlin, N. J,* 24–32, *director lab, 32–* Chem. Soc. Colloid and inorganic chemistry; nitrocellulose lacquers and related products.

Eastlick, Prof. H(erbert) L(eonard), 406 Campus Ave, Pullman, Wash. *Zoology.* Platteville, Wis, April 24, 08. A.B, Montana, 30; M.S, Washington (St. Louis), 32, Ph.D, 36. Asst, Washington (St. Louis), 31–34, instr. zool, 34–35, asst, 35–36, instr, univ. col, 35–36; Stephens Col, 36–37; Missouri, 37–39; nat. research fellow, Chicago, 39–40; *asst. prof. zool, State Col. Wash, 40–* Phi Sigma scholar, Marine Biol. Lab, Woods Hole, 32, 'Collecting Net' scholar, 33. Soc. Zool; Asn. Anat; Soc. Develop. and Growth; Northwest. Sci. Asn. (sec'y bot-zool. sect, 40). Cytology of invertebrate and vertebrate muscle; cytology of glands; origin of melanophores in birds; localization of pigment-forming areas in blastoderms; feather character in transplanted limbs; interspecies incompatibility.

Eastman, Prof. A(lbert) S(herman), University of Delaware, Newark, Del. *Chemistry.* Charlotte, Vt, Jan. 24, 82. B.S, Vermont, 05, M.S, 11; Harvard fellow, Princeton, 14–16, Ph.D, 16. Instr. chem, Union (N. Y), 06–12; asst, Princeton, 12–13, instr, 13–14; asst. prof, Univ. of the South, 16–17; research chemist, Hercules Powder Co, 17–19; chief control chemist, Calco Chem. Co, N. J, 19–22; *prof. chem, Delaware, 22–, chairman dept, 25–* Chem. Soc. (councilor, Del. sect, 28, 35). Trinitrotoluene.

Eastman, Prof. Austin V(itruvius), University of Washington, Seattle, Wash. *Electronics, Radio, Communications.* Seattle, Wash, May 16, 02. B.S, Washington (Seattle), 22, M.S, 29. Testman and engineer, Gen. Elec. Co, 22–24; instr. *elec. eng, Washington (Seattle),* 24–29, asst. prof, 29–37, assoc. prof, 37–42, *prof. and head dept, 42–* Mem. transportation cmn, Seattle, Wash, 41– Fel. Radio Eng. (chairman, Seattle sect, 29); Elec. Eng. Transit problems; vacuum tubes.

Eastman, Prof. Ermon D(wight), University of California, Berkeley, Calif. **[6]Physical chemistry.* Calif, 91. Ph.D, California, 17. Asst. *chem, California,* 12–17, instr, 17–20, asst. prof, 20–25, assoc. prof, 25–31, *prof, 31–* Guggenheim Mem. Foundation fellow, 32. Chem. Soc. Specific heat, entropy and free energy of various substances; conductivity of solutions; reduction equilibria of metals and oxides; crystal structures; the metallic state; the third law of thermodynamics; non-isothermal systems; theory of titration; vapor pressure of amalgams; multiple bonds; energy and composition of atomic nuclei.

Eastman, Evelyn E, Board of Education, Toledo, Ohio. *Psychology.* Menominee, Mich, June 29, 99. A.B, Michigan, 24; A.M, Columbia, 28. Asst. psychologist, psychopathic clinic, Juvenile Court, Detroit, 23–24; Merrill-Palmer Sch, Detroit, 25–26; instr. psychol, Stephens Col. (Mo), 26–27; asst. prof. child study, Vassar Col, 28–30; *director parent educ,* United Parents Asns, New York, 30–32; *pub. schs,* Dallas, Texas, 32–38; *Toledo, Ohio, 38–* Orientation test for children.

Eastman, Dr. Irene M(argaret), Bathgate, N. Dak. *Chemistry.* Bathgate, N. Dak, 98. A.B, North Dakota, 18; M.S, Chicago, 25; Ph.D, Columbia, 33. Instr. chem, high sch, N. Dak, 18–22; Elmira Col, 26–31; asst, sch. dental and oral surg, Columbia, 31–32; mem. exten. dept, Hunter Col, 32; substitute prof, Keuka Col, 36–37; mem. faculty, Brainerd Col, 38–41; Lindenwood Col, 41–42; teacher, sch. chem. technol, N. Dak. Agr. Col, 42. Chem. Soc. Organic and bio-chemistry.

Eastman, Dean M(oses) Gale, University of New Hampshire, Durham, N. H. *Agricultural economics.* Sanbornton, N. H, Sept. 13, 86. B.S, New Hampshire, 13; M.S, Cornell, 16, Ph.D, 31. County agr. agent, Sullivan County, N. H. 13–14; asst. commissioner agr, Concord, N. H, 15–16; asst. prof. agron, *New Hampshire,* 18–25, assoc. prof, 25–29, prof. agr. econ, 29–38, head dept, 29–31, assoc. dean *col. agr,* 31–32, *dean, 32–,* v. director, *Exp. Sta,* 38–39, *director, 39–* Farm Econ. Asn. Farm management; marketing.

Eastman, Dr. Nicholson J(oseph), Johns Hopkins Hospital, Baltimore, Md. *Obstetrics.* Crawfordsville, Ind, Jan. 20, 95. A.B, Yale, 16; M.D, Indiana, 21. Instr. obstet, Indiana, 22–24; assoc. obstet. and gynec, Peiping Union Med. Col, 24–28, prof, 33–35; instr. and assoc. *obstet, Hopkins,* 28–33, *prof, 35–,* assoc. obstetrician, *Hopkins Hosp,* 28–33, *obstetrician in chief, 35–* Am. Med. Asn; Gynec. Soc; Soc. Exp. Biol; Asn. Obstet, Gynec. and Abdom. Surg. Clinical obstetrics; physiology of fetus; asphyxia neonatorum; nutrition in pregnancy; toxemias of pregnancy.

Eastman, Prof. Wesley C(oburn), 625 Byron St, Mankato, Minn. *Education.* Orwell, Pa, 00. B.S, Pa. State Col, 24; A.M, Columbia, 27; Ph.D, Cornell, 34. Sec'y, Y.M.C.A, Col. City of N. Y, 24–27; instr. agr. eng, Cornell, 29–34; director rural educ, East. Ill. State Teachers Col, Charleston, 34–36; prof. psychol. and educ, Blackburn Col, 36–41; *asst. prof. educ. and rural field supervisor, Minn. State Teachers Col, 41–* Pre-vocational agricultural pupils; agricultural education; farm management; agricultural engineering.

Eastom, Prof. Frank A(mos), University of Colorado, Boulder, Colo. *Electrical engineering.* Leipsic, Ohio, 94. B.S, Colorado, 21, E.E, 25. Instr. *elec. eng, Colorado,* 21–26, asst. prof, 26–30, assoc. prof. *in charge elec. eng. labs,* 30–37, *prof, 37–* Electrician, Morse Brothers Machinery and Supply Co, Denver, 15–16; Denver Tramway Co, 16–17; machinist, Westinghouse Elec. and Mfg. Co, Turtle Creek, Pa, 17– Research engineer, Zero Hour Torpedo Co, Tulsa, Okla, 29. Summers, elec. eng, Westinghouse Elec. and Mfg. Co, 24; elec. transmission engineer, Pub. Service Co, Denver, 26–28. Elec. Eng. Testing of electrical machinery; high voltage insulation; oil-less circuit breakers; mercury vapor rectifiers; effects of lightning discharges at high altitudes.

Easton, Prof. Charlotte, Furman University, Greenville, S. C. *Botany.* Burnside, Conn, 80. A.B, Oberlin Col, 15, A.M, 17; Chicago. Prof. biol, Skidmore Col, 19–23; *asst. prof,* Greenville Woman's Col, 28–33, *Furman, 33–*

Easton, Dr. W(illia)m H(eyden), State Geological Survey, Urbana, Ill. *Geology.* Bedford, Ind, Jan. 14, 16. B.S, George Washington, 35, A.M, 38; fellow, Chicago, 38–39, Ph.D, 40. Voluntary asst, U. S. Nat. Museum, 36–38; asst, Chicago, 39–40; *asst. geologist, Ill. Geol. Surv, 40–* As-

George Washington, 37–38. Summers, student technician, Nat. Park Service, 36, 37; geologist, Ark. Geol. Surv, 39. Paleont. Soc; Soc. Econ. Paleont. and Miner; assoc. Asn. Petrol. Geol; Ind. Acad; Ill. Acad; N. Y. Acad. Pegmatite minerals in North Carolina; paleontology and stratigraphy in Arkansas, Illinois, Indiana and Maryland; structural studies relating to oil and gas in Illinois; carboniferous corals.

Eastwood, Miss Alice, California Academy of Sciences, Golden Gate Park, San Francisco, Calif. **1Botany.* Toronto, Ont, Can, Jan. 19, 59. High sch. Teacher, high sch, Denver, 80–90; *curator dept. bot, Calif. Acad. Sciences, 92–* A.A; Bot. Soc; Ecol. Soc; Calif. Acad. Systematic botany; phanerogams.

Eastwood, Prof. E(verett) O(wen), University of Washington, Seattle, Wash. *Mechanical engineering.* Portsmouth, Va, Feb. 5, 76. C.E, Virginia, 96, fellow, 96–00, B.S, 97, A.B, A.M, 99; B.S, Mass. Inst. Tech, 02. Sci. dept, bur. construction and repairs, Navy Dept, Washington, D. C, 02–03; Fore River Shipbuilding Co, 03–04; instr. naval archit. and mech. eng, Lehigh, 04–05; *prof. mech. eng. and head dept, Washington (Seattle), 05–, head dept. aeronaut. eng, director Guggenheim aeronaut. labs.* Marine standards cmt, U. S. Dept. Commerce; Am. Soc. Mech. Eng. rep, Am. Eng. Council. Assoc. ed, 'Eng. and Finance'; consulting ed, 'Heating, Piping and Air Conditioning.' U.S.N, 17–19. Mech. Eng. (manager, 23–26, v. pres. and councilor, 26–28, sec'y-treas, exec. cmt, del, Wash. sect, mem, nominating cmt, 19); Heat. and Vent. Eng. (director; councilor; pres, 40–43). Heating and ventilation; air conditioning; refrigeration.

Eastwood, Dr. L(a Verne) W(infield), 2360 Lalemant Road, University Heights, Ohio. *Metallurgy.* Wiota, Wis, May 12, 04. B.S, Wisconsin, 29, M.S, 30, Ph.D, 31. Instr. physical metal, col. mining and tech, Michigan, 31–34, asst. prof, 34–35; *research metallurgist, lab, Aluminum Co. of Amer, 35–* Soc. Metals; Min. and Metal. Eng. Recrystallization of polycrystalline metals; cast gray iron; structure of eutectics; recrystallization and grain growth in aluminum; fluidity of aluminum casting alloys; aluminum-zinc-magnesium-copper alloys.

Eaton, Prof. A(lonzo) G(uy), Louisiana State University Medical Center, New Orleans, La. *Physiology.* Edinboro, Pa, Feb. 18, 01. B.S, Pa. State Col, 24; A.M, West Virginia, 28; Ph.D, Rochester, 32. Instr, high sch, 24–27; zool, West Virginia, 27–30; asst. *physiol,* sch. med, Rochester, 30–32, instr, 32–33; asst. prof, *sch. med, Louisiana,* 33–42, *assoc. prof, 42–* A.A; Physiol. Soc; Chem. Soc; Soc. Exp. Biol. Hormones; vitamins; metabolism.

Eaton, Dr. D(urward) L(esli e), 523 S. Third St, De Kalb, Ill. *Physics.* Liberty, Ind, April 28, 81. B.S, Earlham Col, 07; A.M, Colorado, 08; Chicago, 13; Ph.D, Indiana, 27. Prof. math. and physics, Ind. Cent. Col, 09–31; prof. and head dept, Battle Creek Col, 31–38; *mem. dept. physical science, North. Ill. State Teachers Col, 38–* Summer, lecturer, Indiana, 27. Asn. Physics Teachers; Physical Soc; Ill. Acad. Photography of sound waves; internal resistance of cells.

Eaton, Dr. Frank M(orris), U. S. Department of Agriculture, College Station, Texas. *Plant physiology.* Nebr, Jan. 12, 93. B.S, Minnesota, 23, M.S, 24, Ph.D, 26. Asst. plant nutrition, *bur. plant indust, U. S. Dept. Agr,* 19–23, 26–28, assoc. physiologist in charge Rubidoux lab, 28–35, physiologist, 35–38, *senior physiologist, 38–* Instr, Minnesota, 23–25. A.A; Soc. Plant Physiol; West. Soc. Soil Sci. Boron, salt and nutritional relations; physiology of the cotton plant.

Eaton, Dr. George F(rancis), 360 Prospect St, New Haven, Conn. *Paleontology.* New Haven, Conn, May 30, 72. A.B, Yale, 94, Ph.D, 98. Instr. osteol, Yale, 99–16, curator univ. museum, 02–20, assoc. curator vert. paleont, 04–10, assoc. paleont, 19–20; *retired.* A.A; Soc. Nat; Paleont. Soc; Anthrop. Asn; Soc. Vert. Paleont; Conn. Acad. (sec'y, 06–). Comparative osteology; vertebrate paleontology; archeology; anthropology.

Eaton, Dr. Gerald A(lmond), Texas Co, Beacon, N. Y. *Inorganic chemistry.* Murdo, S. Dak, June 7, 13. B.S, S. Dak. State Sch. Mines, 35; Ph.D, Iowa State Col, 42. Teaching asst, Iowa State Col; *chemist, Texas Co, 42–* Chem. Soc. Preparation of new rubber substitutes from petroleum products; hydrogen overvoltage.

Eaton, Dr. H(arry) N(elson), 101 Comstock Ave, Syracuse, N. Y. *Geology.* Eaton, N. Y, Jan. 11, 80. A.B, Colgate, 04; A.M, Harvard, 06; Ph.D, Pittsburgh, 12. Asst. geol, Harvard, 05–06; Radcliffe Col, 06–07; instr, North Carolina, 07–10; Pittsburgh, 10–12; asst. prof. and assoc. prof, Pa. State Col, 12–18; assoc. prof, Syracuse, 19–28; prof, Elmira Col, 29–33; assoc. geologist, Tenn. Valley Authority, 34–36. Summers, asst. geologist, N. Dak. Geol. Surv, 20; Pa. Geol. Surv, 21; junior geologist, U. S. Geol. Surv, 34. A.A; Geol. Soc; N. Y. Geol. Asn. (pres, 30); Utah Acad. Stratigraphy; structural geology in Pennsylvania, Massachusetts and Utah; lower Devonian faunas of New York and Pennsylvania.

Eaton, H(erbert) N(elson), 3 E. Inverness Driveway, Chevy Chase, Md. *Hydraulic engineering.* Auburn, Mass, Nov. 4, 92. B.S, Worcester Polytech, 16; A.M, Hopkins, 23. Aeronaut. engineer, Bur. Standards, 18–26; John R. Freeman traveling scholar hydraul, 27–28; *hydraul. engineer, Bur. Standards, 28–* A.A; Mech. Eng; Geophys. Union; Philos. Soc. Wash; Wash. Acad. (v. pres, 34). Hydraulics; hydrodynamics; aeronautics.

Eaton, Dr. J(ames) E(dmonds), 43–55 Kissena Blvd, Flushing, N. Y. *Algebra.* March 27, 12. B.S, Yale, 36, Ph.D, 39. Asst. prof. *math,* Hofstra Col, 39–40, assoc. prof. and chairman dept, 40–41; *instr, Queens Col. (N. Y), 41–* Summer, director civilian pilot training, Hofstra Col, 40. Math. Soc. Group theory and group-like systems.

Eaton, Dr. James T(ucker), 131 Webster Ave, Wyncote, Pa. *Organic chemistry.* Bonne Terre, Mo, Feb. 24, 07. A.B, Cent. Col. (Mo), 28; A.M, Illinois, 31, Ph.D, 34. Instr. chem, Cent. Col. (Mo), 28–29; asst, Illinois, 29–33; research chemist, Ill. Geol. Surv, 34; Nat. Aniline and Chem. Co, 34–38; org. research supervisor, *E. F. Houghton and Co,* 38–40, *research asst. to v. pres, 40–* Summer, instr, Wittenberg Col, 32. A.A; Chem. Soc. Organic chemical synthesis; textile finishing compounds; soluble oils; sulphonated oils; leather oils; synthetic wetting and washing agents.

Eaton, Dr. Monroe D(avis), 139 University Ave, Berkeley, Calif. *Bacteriology.* Stockton, Calif, Dec. 2, 04. A.B, Stanford, 27, A.M, 28; M.D, Harvard, 30. Asst. bacter, Harvard Med. Sch, and instr. biochem. sciences, Harvard, 30–33, res. tutor, 31–33; instr. bacter, sch. med, Yale, 33–36; asst. prof. bacter. and immunol, sch. med, Washington (St. Louis), 36–37; *mem. staff, int. health div, Rockefeller Foundation, 37–* Director research lab, State Dept. Pub. Health, Calif. Soc. Bact; Asn. Immunol; Soc. Exp. Biol; Harvey Soc. Bacteriophage therapy; bacterial variation; chemistry of bacterial toxins; immunology of malaria; filterable viruses in acute respiratory disease; etiology of acute hepatitis.

Eaton, Dr. Orson N(orthrop), 4320 Clagett Road, Hyattsville, Md. *Genetics.* Camden, N. Y, Dec. 27, 91. B.S, Cornell, 17; M.S, Maryland, 23, Ph.D, 35. Sci. asst, *bur. animal indust, U. S. Dept. Agr,* 18–23, asst. animal husbandman, 24–26, *assoc. animal husbandman, 27–* A.A; Genetic Asn; Genetics Soc; Soc. Zool. Animal genetics; inbreeding in animals.

Eaton, Prof. P(aul) B(urns), 719 Cattell St, Easton, Pa. *Mechanical engineering.* Scranton, Pa, May 31, 88. M.E, Cornell, 11. Allis-Chalmers Mfg. Co; Dominion Bridge Co; Can. Tap and Die Co; instr, Cornell; Carnegie Inst. Tech; prof, Pa. State Col; Lafayette Col; prof. mech. eng. and head dept, Chinese Govt. Eng. Col; Lafayette Col; *mech. eng. specialist, div. cultural relations, U. S. Dept. State to Govt. Republic of China.* Chia Ho decoration, Chinese Govt. Engineer, tech. dept, U. S. Shipping Board, Emergency Fleet Corp. Mech. Eng. (councilor, 40–); Eng. Educ; Eng. Club Lehigh Valley (pres, 37). Machine design.

Eaton, Prof. Scott V(erne), University of Chicago, Chicago, Ill. *Plant physiology.* Liberty, Ind, Nov. 7, 85. A.B, Earlham Col, 08; M.S, Chicago, 13, Ph.D, 20. Asst. prin, high sch, Ind, 09–12; instr. and asst. prof. bot, Washburn Col, 13–17; asst. plant physiologist, Md. Exp. Sta, 18–19; asst. *bot, Chicago,* 19–21, instr. and *asst. prof. 21–* A.A; Soc. Plant Physiol. (sec'y-treas, 26–28, v. pres, 28, pres, 29); Bot. Soc; Ecol. Soc; Ill. Acad. Mineral nutrition; plant chemistry.

Eaton, Dr. Theodore H(ildreth), Jr, University of Buffalo, Buffalo, N. Y. *Zoology.* Boston, Mass. Nov. 16, 07. A.B, Cornell, 30; Ph.D, California, 33. Teaching fellow, California, 30–33; research zoologist, Cornell, 33–34; wildlife technician, Nat. Park Service, 34–35; instr. zool, Union (N. Y), 37–40; asst. *agron,* Cornell, 40–42; *asst. prof, Buffalo, 42–* A.A; Soc. Ichthyol. and Herp; Soc. Vertebrate Paleont. Vertebrate morphology and evolution; ichthyology; herpetology; ento-

mology; muscular system and mechanisms of vertebrates; soil fauna.

Eaton, Prof. V(ernet) E(ller), Wesleyan University, Middletown, Conn. *Physics.* Castleton, Ind, Dec. 25, 95. A.B, Indiana, 21, A.M, 24, Ph.D, 31. Instr, Williams Col, 21–25; *Wesleyan, 25–27, asst. prof. physics, 27–* A.A; Physical Soc; Asn. Physics Teachers. Galvanomagnetic effects; physical and chemical properties of surfaces and of thin films.

Eatough, Dr. H(arry), R. F. D. 1, Marshalltown, Del. *Chemistry.* Fall River, Mass, Sept. 10, 06. B.S, Brown, 26, M.S, 27, Ph.D, 29. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Organo-inorganic and organic chemistry.

Eaves, Prof. Edgar D, University of Tennessee, Knoxville, Tenn. *Mathematics.* Johnson Co, Texas, May 27, 04. B.S, Oklahoma, 28, A.M, 30; Ph.D, Texas, 39. Instr. *math, Tennessee,* 30–35, asst. prof, 36–41, *assoc. prof, 41–* Math. Soc; Math. Asn; Tenn. Acad. The double-slot, salient field-pole problem of the dynamo electric machine.

Ebaugh, Prof. Franklin Gessford, University of Colorado, Denver, Colo. *Psychiatry.* Reisterstown, Md, May 14, 94. A.B, Hopkins, 15, M.D, 19. Res. house officer, Phipps Psychiat. Clinic, Hopkins, and asst. dispensary psychiatrist, Hopkins Hosp, 19–20; asst. physician, N. J. State Hosp, 20–22; instr. *psychiat,* Pennsylvania, 22–25; *prof, Colorado, and director, Colo. Psychopathic Hosp, 25–; psychiat. consultant, Eighth Service Command, U. S. Army, 42–* Visiting psychiatrist, N. J. State Home for Boys, 20–22; director dept. neuropsychiat, Phila. Gen. Hosp, 22–25; clin. prof, Woman's Med. Col. of Pa, 23–25; consultant at large, U. S. Pub. Health Service. Summer, Hawaii, 37. Contributing ed, 'Am. Jour. Med. Sciences'; ed. board, 'Am. Jour. Psychiat.' Am. Board Psychiat. and Neur, 34–; Advisory Board Med. Specialties; director div. psychiat. educ, Nat. Cmt. Mental Hygiene, 32–A.A; Asn. Psychiat. (councilor, 31–34); Neur. Asn; Cent. Neuropsychiat. Asn. (pres, 30–, chairman, sect. nervous and mental diseases); Am. Med. Asn; Phila. Psychiat. Soc. (v. pres, 24); cor. mem. Royal Medico-Psychol. Asn. Clinical psychiatry; mental hygiene.

Ebaugh, Prof. Newton C(romwell), University of Florida, Gainesville, Fla. *Mechanical engineering.* New Orleans, La, Oct. 8, 07. B.E, Tulane, 28, M.E, 30; M.S, Ga. Tech, 32. Asst. power engineer, Texas Co, 28–29; from instr. to assoc. prof. *mech. eng,* Ga. Tech, 29–35; *prof. and head dept, Florida, 35–* Consulting engineer. Eng. Educ; Mech. Eng; Fla. Eng. Soc. Engineering thermodynamics; steam power; refrigeration; air conditioning.

Ebaugh, Prof. W(illiam) Clarence, Denison University, Granville, Ohio. *Chemistry.* Philadelphia, Pa, Jan. 3, 77. B.S, Pennsylvania, 98, Ph.D, 01. Asst. and chief chemist, iron and steel lab, near Reading, Pa, 98–99; director pro tem, dept. physics and chem, Kenyon Col, 01–02; chemist, Am. Smelting and Ref. Co, and public analyst, Salt Lake City, 02–03; director dept. chem, Utah, 03–15; *prof. chem, Denison, 17–; consulting chemist, 02–* Visiting prof, Robert Col, Istanbul, 30–31. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08–11; ed, 'Jour. Sci. Labs,' Denison, 24– A.A; Chem. Soc; Eng. Educ; West. Asn. Tech. Chem. and Metal; Utah Soc. Eng. (sec'y); Utah Acad. (pres, 09); Ohio Acad. Industrial chemistry; atomic weight of arsenic; steel analysis; pollution of atmosphere by smelter fumes; smelter smoke; gas producers.

Ebeling, Dr. Albert H(enry), Lederle Laboratories, Inc, Pearl River, N. Y. *Biology.* New York, N. Y, Feb. 17, 83. George Washington; Columbia; M.D, N. Y. Univ, 19. Asst, div. exp. surg, Rockefeller Inst, 19–22, assoc, 22–39; *dept. virus research, Lederle Labs, Inc, 39–* A.A; Harvey Soc. Experimental surgery; cell physiology; virus diseases.

Ebeling, Dr. Walter, Citrus Experiment Station, Riverside, Calif. *Entomology.* San Bernardino, Calif, Nov. 26, 07. B.S, California, 28, M.S, 29, Ph.D, 35. Asst. entom, California, 29; agent, U. S. Dept. Agr, 30; junior entomologist, grad. sch. trop. agr. and *Citrus Exp. Sta, California,* 30–36, *asst. entomologist, 36–* A.A; Asn. Econ. Entom. Oil sprays; control of citrus insects.

Eberhard, Dr. Harry Martin, 270 N. Bowman Ave, Merion, Pa. *Medicine.* Philadelphia, Pa, Nov. 15, 77. M.D, Hahnemann Med. Col. (Pa), 98, Sc.D, 43. Visiting physician, Hahnemann Hosp. (Pa.), and head dept. med, Women's Homeop. Hosp, 15–20; from lecturer to *prof. gastro-enterol. and head dept, Hahnemann Med. Col. and Hosp. (Phila), 21–; head dept. metabolic diseases, Broad St. Hosp, Phila, 31–* Consulting physician, Women's Homeop. Hosp. Inst. Homeop; Am. Med. Asn; assoc. Col. Physicians. Gastro-intestinal diseases; investigations of alimentary temperature by means of resistance thermometer; nutrient feeding by the drop method; value of buffer solutions in colitis; apparent cause of failure of abdominal operations.

Eberhardt, Dr. J(ohn) E(rnst), 1126 W. Market St, Bethlehem, Pa. *Chemical engineering.* Ames, Iowa, Dec. 5, 11. Ch.E, Cincinnati, 33; Sc.D, Mass. Inst. Tech, 36. Instr. chem. eng, Mass. Inst. Tech, 35–36, director, Buffalo sta, sch. chem. eng. practise, 36–38, asst. prof, 37–38; *research engineer, Bethlehem Steel Co, 38–* Chem. Soc; Chem. Eng; Min. and Metal. Eng. Radiant heat transmission; furnace design; ferrous metallurgy.

Eberhart, Dr. Dale R(aymond), 201 Chestnut St, Bound Brook, N. J. *Chemistry.* Savannah, Ohio, Dec. 6, 06. A.B, Ohio State, 29, M.S, 33, Ph.D, 35. Research chemist, E. I. du Pont de Nemours and Co, 29–31; mem. junior staff, Ohio State, 31–35; *research chemist, Calco Chem. Co, 35–* Chem. Soc. Relation of absorption spectra to structure of azo dyes; dye intermediates; industrial dyes; odor and chemical constitution of organic compounds; organic reactions induced by radiant energy.

Eberhart, Prof. John C(arol), 1103 Simpson St, Evanston, Ill. *Psychology.* Lima, Ohio, Dec. 26, 07. A.B, Oregon, 29; A.M, Northwestern, 31, Payne Fund fellow, 31–33, Ph.D, 34. Asst. psychol, *Northwestern,* 29–31, 33–34, director new students and lecturer *psychol,* 34–36, instr, 36–41, *asst. prof, 41–* Social Science Research Council fellow, 40–41. Assoc. Psychol. Asn. Nature and development of attitudes towards property; measurement of attitudes; political behavior.

Eberl, Dr. J(ames) J, University of Delaware, Newark, Del. *Physical chemistry.* Dunkirk, N. Y, Oct. 7, 16. A.B, Buffalo, 38, Ph.D, 41. *Instr. chem, Delaware, 41–; group leader in charge research and develop, paper makers chem. dept, Exp. Sta, Hercules Powder Co, 42–* Summers, laboratorian, du Pont Cellophane Co, 38–41; research chemist and chem. consultant, Exp. Sta, Hercules Powder Co, 42. Chem. Soc; Inst. Chem. Pyrolysis of butane; magnetic susceptibility of the chalcogenides of ferrous iron; Cellophane mechanism of water adsorption; mechanism of plasticizers; protein denaturation; use of proteins in paper coating, plastics, glues and fibers; rosin size in the paper industry; specialty papers.

Ebers, Dr. Earle S(treet), 119 Cedar St, Nutley, N. J. *Physical chemistry.* Sask, Can, May 20, 10. B.Sc, Dalhousie, 31; A.M, Harvard, 33, Ph.D, 36. Royal Soc. Can. fellow, Ohio State, 36–37; *research chemist, U. S. Rubber Co, 37–* Dissociation constants of some free radicals; ultra-violet spectrum of heavy formaldehyde; the infra-red spectrum of ordinary and heavy formaldehyde in the vapor phase; chemical and physical behavior of rubber and rubber-like materials.

Eberson, Dr. Frederick, U. S. Veterans Administration Facility, Pittsburgh, Pa. *Pathology, Bacteriology.* New York, N. Y, Feb. 10, 92. B.S, Col. City of N. Y, 12; fellow, Iowa State Col, M.S, 15; A.M, Columbia, 16, Ph.D, 18; M.B, M.D, Minnesota, 24. Asst, Mass. Inst. Tech, 12–13; instr. bacter, Iowa State Col, 14; research bacteriologist in charge dept. research bacter. and path, N. Manchurian Plague Prevention Service, China, 16–17; asst. path. and bacter, Rockefeller Inst, 17–18; assoc. dermat. and in charge syphilis research lab, Washington (St. Louis), 19–21; assoc. dermat. research and in charge lab, Mayo Clinic, 22–23; instr. med, med. sch, California, 24–26, asst. prof, 26–33, physician, Univ. Hosp. and Chest Clinic, 24–33, epidemiologist, 26–31; bur. communicable diseases, Dept. Pub. Health, San Francisco, 34–38; pathologist and chief lab. service, U. S. Veterans Admin. Facility, 38–40; pathologist, and director labs, Gallinger Hosp, Washington, D. C, 40–42; *pathologist and chief lab. service, U. S. Veterans Admin. Facility, 42–* Physician in chief, children's tuber. dept, San Francisco Hosp, 27–28; director clin. labs. and research and chief epidemiologist, Mt. Zion Hosp, 29–32. Ed. staff, 'Nelson's System of Med,' 20– Cmt. Standardization Wassermann Technique, 21– Instr, Rockefeller Inst. Army Med. Sch; army lab, Yale. A.A; Soc. Bact. (cmt. bacter. technique, 20–23); fel. Pub. Health Asn; Soc. Exp. Biol; Tuber. Asn; fel. Am. Med. Asn; Calif. Acad. Med. Epidemiology; immunology; infectious diseases; typhoid-paratyphoid group; hog cholera; plague; poliomyelitis; menin-

gitis; diphtheroids; Hodgkin's disease; measles; pneumonia; syphilis; tuberculosis.

Ebert, F(rederick) C(harles), 1710 Ramona Ave, South Pasadena, Calif. *Hydraulics.* Tomah, Wis, Sept. 3, 81. B.S, Wisconsin, 07. Apprentice engineer, *water resources branch, U. S. Geol. Surv,* 09–10, junior engineer, 10–13, asst. engineer, 13–19, engineer, 19–20, hydraul. engineer, 20–28, *senior hydraul. engineer, 28–* Geophys. Union. Water resources.

Eberz, Dr. W(illiam) Ferdinand, 1023 Attica St, Altadena, Calif. *Organic and physical chemistry.* New York, N. Y, June 14, 09. B.S, Calif. Inst. Tech, 31, Ph.D, 34. Nat. Canners Asn, 34–37; *Petrol. Rectifying Co,* 37–43, *chief chemist, 43–* Chem. Soc. Hydration of isobutene; food canning and analysis; petroleum dehydration and desalting.

Eblin, Prof. Lawrence P(owell), 151 Grosvenor St, Athens, Ohio. *Chemistry.* Rutland, Ohio, Oct. 28, 09. B.S, Ohio (Athens), 31; Ph.D, Ohio State, 35. Asst. *chem,* Ohio State, 31–35; instr, *Ohio (Athens),* 35–41, *asst. prof, 41–* Chem. Soc. Vapor pressures; colloids.

Ebling, Dr. Walter H(enry), 726 Seneca Place, Madison, Wis. *Agricultural economics, Statistics.* Richfield, Wis, Jan. 15, 92. B.S.A, Wisconsin, 22, M.S, 25, Ph.D, 29. Teacher, pub. schs, Wis, 12–17; asst. to dean col. agr, Wisconsin, 22–27; *senior agr. statistician, bur. agr. econ, U. S. Dept. Agr, and State Dept. Agr, Wis, 27–; asst. prof. agr. econ, col. agr, Wisconsin, 36–* Chairman, state board of rev, agr. adjust. admin, U. S. Dept. Agr, 34; mem. research cmt, Field Seed Inst. N. Amer, 41. Mem, State Defense Board, Wis, 41–2nd lieut, F.A, 18–19. Farm Econ. Asn; Statist. Asn; Agr. Hist. Soc; Wis. Hist. Soc. Wisconsin agriculture, dairying and geography.

Ebrey, Dr. G(lenn) O(gle), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Franklin, Ill, 01. B.S, Ill. Col, 24; Ph.D, Pittsburgh, 30. Research chemist, Sinclair Ref. Co, 30–31; chief chemist, Pennzoil Co, 32–39; *research chemist, Mellon Inst, 39–* Chem. Soc. Petroleum and associated products; hydrocarbon gas decomposition; lubricating oil deterioration and treatment.

Eby, Prof. Frank H(obart), 109 Fairview Road, Springfield, Pa. *Pharmacognosy.* Lancaster Co, Pa, Aug. 12, 96. Phar.D, Temple, 21. *Prof. pharmacog, Temple, 25–* Pharmaceut. Asn. (sec'y, Phila. branch, 29, pres, 33); Pa. Acad. Chemistry of stramonium; crude drugs.

Eby, Dr. J(ames) Brian, Box 962, Houston, Texas. *Geology.* Littlestown, Pa, Dec. 18, 96. A.B, Hopkins, 18, Ph.D, 22. Geologist, U. S. Geol. Surv, 19–25; Shell Petrol. Corp, 25–31; *consulting geologist, 31–* Lecturer, Georgetown, 23, 24. A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Explor. Geophys; Houston Geol. Soc. (v. pres, 29, pres, 30). Geophysics; geology and mineral resources of Wise County, Virginia; economic relation of geophysics to geology on the Gulf Coast.

Eccles, Dr. David C(harles), 681 Tenth St, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, Dec. 10, 76. B.S, Columbia, 00, A.M, 01; M.D, L. I. Col. Hosp, 10. Instr. chem, State Col. Wash, 01–02; sch. pharmacy, Northwestern, 02–05, asst. prof, 05–06; *physician and pharmacist.* Chem. Soc. New derivatives of antipyrin.

Echols, Dr. L(eonard) S(idney), Jr, Shell Oil Co, Wood River, Ill. *Physical chemistry.* Charleston, W. Va, Oct. 9, 14. B.S, Carnegie Inst. Tech, 35; A.M, Princeton, 37, du Pont fellow, 37–38, Ph.D, 38. Asst. instr, Princeton, 36–37, 38–39; senior research chemist, Houston research lab, *Shell Oil Co,* 39–41, research coordination, develop. div, 41–43, *senior research chemist, Wood River research lab, 43–* Kinetics of hydrocarbon reactions; lubricants; aviation fuel; synthetic rubber intermediates.

Echols, Dr. Robert Lewis, U. S. Naval Academy, Annapolis, Md. *Mathematics.* B.S, M.S, Ph.D, Virginia, 30. Asst. physics, Columbia, 30; tutor math, Col. City of N. Y; *asst. prof. physics, U. S. Naval Acad.* Math. Soc; Math. Asn; Physical Soc. Mathematical physics; transformation from the Z plane to the W plane in complex variable; quantum phenomena.

Eck, Dr. J(ohn) C(lifford), Air Reduction Co, Stamford, Conn. *Chemistry.* Livingston, Mont, Dec. 2, 09. B.S, Mont. State Col, 31; M.S, Illinois, 32, Ph.D, 35. Research asst. animal chem. and nutrition, Exp. Sta, Iowa State Col, 35–40, research assoc, 40–41; *mem. staff, Air Reduction Co, 42–* Chem. Soc. Organic chemistry; biochemistry; sterol chemistry; chemical antirachitic activation of sterols.

Eckart, Prof. Carl (Henry), 734 S. Coast Blvd, La Jolla, Calif. *[5]Physics.* St. Louis, Mo, May 4, 02. B.S, Washington (St. Louis), 22, M.S, 23; Edison Lamp Works fellow, Princeton, 23–25, Ph.D, 25. Teaching fellow, Washington (St. Louis), 22–23; nat. research fellow, Calif. Inst. Tech, 25–27; Guggenheim Mem. Foundation fellow, 27–28; asst. prof. *physics, Chicago,* 28–31, *assoc. prof, 31–; asst. director div. war research, California, 42–* A.A; Physical Soc. Quantum theory; electric discharges through gases; propagation of sound.

Eckel, Prof. C(larence) L(ewis), University of Colorado, Boulder, Colo. *Civil engineering.* Buffalo, Ill, March 2, 92. B.S. (C.E), Colorado, 14, C.E, 21. Instr. *civil eng,* Colorado, 14–17; asst. prof, Pennsylvania, 19–23; *prof, Colorado, 23–, head dept, 26–* Capt, C.Eng, 17–19. Civil Eng; Eng. Educ. Stresses; reinforced concrete; mechanics.

Eckel, Edwin B(utt), U. S. Geological Survey, Washington, D. C. *Geology.* Washington, D. C, Jan. 27, 06. B.S, Lafayette Col, 28; M.S, Arizona, 30. Teaching fellow geol, Arizona, 28–30; junior geologist, *U. S. Geol. Surv,* 30–34, asst. geologist, 34–38, assoc. geologist, 38–41, geologist, 41–42, *senior geologist in charge investigations domestic quicksilver deposits, 42–* Fel. Geol. Soc; fel. Miner. Soc; Min. and Metal. Eng; Soc. Econ. Geol; Geol. Soc. Wash. Economic and engineering geology; ground water and geology of northeastern Arizona; brown iron ores of eastern Texas; ore deposits of La Plata district, Colorado; geology of sites for numerous dams and other engineering structures; geology of California quicksilver deposits.

Ecker, Prof. E(nrique) E(duardo), Western Reserve University, Cleveland, Ohio. *Pathology.* Willemstad, Curaçao, D. W. I, Jan. 26, 87. Wageningen, Holland, 04–08; Ph.D, Chicago, 17. Diagnostician, Board Health, Cleveland, 18–19; demonstrator hygiene and bacter, *Western Reserve,* 18–19, instr. *immunol,* 19–21, senior instr, 21–24, asst. prof, 24–27, assoc. prof, 27–42, *prof, 42–* Assoc. visiting immunologist and bacteriologist, City and Univ. Hosps. Soc. Exp. Path; Asn. Path. and Bact; Soc. Bact. (advisory mem, cmt. research on syphilis). Bacteriology; immunity.

Eckerson, Dr. Sophia H(ennion), 2915 Coleridge Road, Cleveland Heights, Ohio. *[6]Botany.* A.B, Smith Col, 05, fellow, 05–06, A.M, 07; Ph.D, Chicago, 11. Asst. plant physiol, Chicago, 11–15, instr, 15–20; microchemist, State Col. Wash, 14; bur. plant indust, U. S. Dept. Agr, 19, cereals div, 21–22; Wisconsin, 21–23; *Boyce Thompson Inst, 23–* A.A; Bot. Soc. (v. chairman, physiol. sect, 34, chairman, 35). Plant physiology; microchemistry; germination; mineral nutrition; reduction of nitrates by plants; nitrate reducase; cell walls; endophytic fungi.

Eckert, Dr. Charles F(ranklin), General Laboratories, U. S. Rubber Co, Passaic, N. J. *Physical chemistry.* Moline, Kans, Jan. 2, 17. A.B, Baker, 38; Ph.D, Northwestern, 42. *Research chemist, U. S. Rubber Co, 42–* Chem. Soc. Apparent molal volumes and the Debye-Hückel theory; molecular structure and the physical properties of polymers.

Eckert, Prof. J(ohn) E(dward), College of Agriculture, University of California, Davis, Calif. *Apiculture.* Wooster, Ohio, Jan. 1, 95. B.S, Ohio State, 16, M.S, 17, fellow, Ph.D, 31. Asst, Ohio State, 11–17; Ohio apiary inspection, 17; inspector, N. C. State Nursery, 17–19; asst. prof. entom, N. C. State Col, 19–22, assoc. prof, 22–24; assoc. apiculturist, bur. entom, U. S. Dept. Agr, 24–31; asst. prof. *apicult, col. agr, California,* 31–37, *assoc. prof, 37–* Entom. Soc. Amer; Asn. Econ. Entom. (v. pres, apicult. sect, 41). Bee culture; package bee investigations; toxicity of insecticides to bees; queen-rearing; analysis of California honeys; disease resistance; nectar and pollen plants of California; ants and their control.

Eckert, Dr. W(allace) J(ohn), U. S. Naval Observatory, Washington, D. C. *[7]Astronomy.* Pittsburgh, Pa, June 19, 02. A.B, Oberlin Col, 25; A.M, Amherst Col, 26; Ph.D, Yale, 31. Asst. astron, Columbia, 26–27, instr, 27–31, asst. prof, 31–40, prof, 40; *director, Nautical Almanac Office, 40–* Astron. Soc; Wash. Acad; Int. Astron. Union. Celestial mechanics; numerical methods.

Eckfeldt, Prof. H(oward), R. D. 1, Fleetwood, Pa. *Mining engineering.* Conshohocken, Pa, Oct. 17, 73. B.S, Lehigh, 95, E.M, 96. Mining engineer, Mazapil Copper Co, Zacatecas, Mex, 96–00; instr. *mining eng, Lehigh,* 00–02, asst. prof. in

charge dept, 02–04, prof, 04–42, *emer. prof, 42–*, head dept, 04–39. Railroad work, Mex, 07, 10–11. Min. and Metal. Eng. Coal and metal mining; ore dressing.

Eckhard, Dean Geo(rge) F(rederick), University of Vermont, Burlington, Vt. *Engineering.* Waverly, Iowa, Nov. 21, 78. M.Di, Iowa State Nor. Sch, 00; B.S. (C.E), Iowa, 05, C.E, 10. Prof. civil eng, N. Mex. Sch. Mines, 07–09; James Millikin, 09–12; assoc. prof. *struct. eng,* Pa. State Col, 12–15; *prof, Vermont, 15–, dean col. eng, 32–* Consulting civil engineer. A.A; Civil Eng; Eng. Educ; Vt. Soc. Eng. Structural engineering.

Eckhardt, Dr. E(ngelhardt) A(ugust), Gulf Research and Development Co, P. O. Box 2038, Pittsburgh, Pa. *Physics.* Cedarburg, Wis, 88. B.S, Pennsylvania, 08; Ph.D, 12, Harrison fellow from Pennsylvania, Göttingen, 12–13. Instr. physics, Pennsylvania, 08–12, asst. prof, 13–17; assoc. physicist, Bur. Standards, 17–19, physicist, 19–24, senior physicist, 24–25; asst. chief research dept, Marland Oil Co, 25–28; *v. pres. and asst. director, Gulf Research and Develop. Co,* 29– A.A; Physical Soc; Acoustical Soc; Geophys. Union (pres, sect. terrestrial management and electricity, 41–); Soc. Explor. Geophys. (pres, 39); Seismol. Soc; Min. and Metal. Eng; Asn. Petrol. Geol; Petrol. Inst; Franklin Inst; Wash. Acad; Physical Soc. London. Magneto-optics and acoustics; ballistic measurements; geophysics.

Eckis, Rollin (Pollard), Richfield Oil Corp, 560 Haberfelde Bldg, Bakersfield, Calif. *Geology.* Oakland, Calif, June 26, 05. A.B, Pomona Col, 27, fellow, Claremont Col, 29–30; M.S, Calif. Inst. Tech, 30. Asst, Calif. Inst. Tech, 27–28, teaching fellow, 28–29; consultant, Metropolitan Water Dist. South. Calif, 30; engineer-geologist, State Div. Water Resources, Calif, 30–34; geologist, The Texas Co, 34–37; *dist. geologist, Richfield Oil Corp, 37–* Hydrology; stratigraphy and petroleum geology in California.

Eckstein, Dr. Gustav, University of Cincinnati College of Medicine, Cincinnati, Ohio. *Physiology.* Cincinnati, Ohio, Oct. 26, 90. D.D.S, Cincinnati Col. Dental Surg, 11; M.D, Cincinnati, 24; hon. L.H.D, Hamilton Col, 39. Instr. *physiol, col. med, Cincinnati,* 22–33, asst. prof, 33–36, *assoc. prof, 36–* Physiology of the central nervous system; animal behavior.

Eckstein, Prof. Henry C, University of Michigan, Ann Arbor, Mich. *Physiological chemistry.* Sheboygan, Wis. A.B, Illinois, 15, M.S, 18; Ph.D, Yale, 23. Instr. *physiol. chem, Michigan,* 23–26, *asst. prof, 26–* Soc. Biol. Chem. Chemistry of the fats and proteins.

Eckstrom, Dr. Hartley C(layton), Brown University, Providence, R. I. *Physical chemistry.* Fargo, N. Dak, May 15, 11. B.S, N. Dak. Agr. Col, 34; M.S, Iowa, 35, Ph.D, 37. Asst, Iowa, 34–37; physical chemist, Aluminum Research Labs, 37; *research instr. chem, Brown, 37–* Lieut, Inf. Res, 34– Chem. Soc. Thermodynamics; aqueous and non-aqueous electrolytic solutions.

Eddie, Dr. B(ernice) U(rsula), George William Hooper Foundation, San Francisco, Calif. *Bacteriology, Serology, Public health.* San Francisco, Calif, Dec. 12, 03. A.B, California, 22, A.M, 23; Dr.P.H, Michigan, 42. Teaching fellow hygiene, *California,* 22–23, asst, 23–24, dental bacter, 24–25, teaching fellow bacter, 25–26, asst, 26–28, assoc, 28–30, *research med, sch. med,* 30–37, instr, 37–40, *asst. prof, 40–, asst. director, Hooper Foundation, 40–* Pub. Health Asn; Soc. Bact. Smallpox; typhoid; Malta fever; plague; psittacosis; leptospirosis.

Eddins, Dr. A(uther) H(amner), University of Florida, Hastings, Fla. *Plant pathology.* Keytesville, Mo, March 16, 93. B.S, Missouri, 24, A.M, 26; Ph.D, Iowa State Col, 28. Asst. instr, Missouri, 25–26; asst, Iowa State Col, 26–28; asst. plant pathologist, *Florida,* 28–31, assoc. plant pathologist, 31–34, plant pathologist, 34–38, *plant pathologist in charge potato disease lab, 38–* A.A; Phytopath. Soc; Mycol. Soc. Diseases of potatoes and cabbage.

Edds, Prof. Jess H(obart), Lincoln Memorial University, Harrogate, Tenn. *Psychology.* Tenn, Sept. 23, 97. A.B, Lincoln Mem. Univ, 23; A.M, George Peabody Col, 28, Ph.D, 30. Teacher and prin, high sch, 24–28; asst. educ. psychol, George Peabody Col, 29–30; *prof.* psychol. and educ. psychol, Milligan Col, 30–33; *psychol. and head dept, Lincoln Mem. Univ, 33–* Summer, instr, George Peabody Col, 30. A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Educational psychology; mental measurements; statistics.

Eddy, Dr. Bernice E(laine), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Bacteriology.* Glendale, W. Va, Sept. 30, 03. A.B, Marietta Col, 24; Taft fellow, Cincinnati, 24–25, M.S, 25, Harrington Hogan fellow, 25–28, Ph.D, 27. Asst. pediat. and bacter, Cincinnati, 28–29, Davis teaching fellow bacter, 29–30; laboratorian leprosy, Marine Hosp, Carville, La, *U. S. Pub. Health Service,* 31–35, assoc. bacteriologist, *nat. inst. health,* 37–42, *bacteriologist, 42–* Lecturer, Cincinnati Col. Pharmacy, 29–30. A.A; Soc. Bact; Pub. Health Asn; Soc. Trop. Med; N. Y. Acad; Int. Leprosy Asn. Classification of pneumococci; potency testing and standardization of antipneumococcic serums; hemoglobinophilic bacilli; tuberculin; Dick and Schick reactions; etiology of leprosy; monilia.

Eddy, Dr. C(harles) Roland, 305 Meehan St, Philadelphia, Pa. *Chemistry.* Providence, R. I, Aug. 31, 14. B.S, Brown, 35; Ph.D, Illinois, 38. Instr. physical chem, Illinois, 38–41; *mem. staff, east. regional research lab, U. S. Dept. Agr, 41–* A.A; Chem. Soc. Physical chemistry of agricultural products; theory of dielectric constants of solutions.

Eddy, Prof. C(larence) L(eroy), 2584 Fenwick Road, Cleveland, Ohio. *Engineering.* Atlanta, Ill, Oct. 20, 77. B.S, Illinois, 00, C.E, 09. Practising ry. engineer, 00–07; assoc. prof. and *prof.* ry. eng, *Case,* 07–25, struct. eng, 25–31, *eng. admin, 31–* A.A; Eng. Educ; Ry. Eng. Railroad engineering; engineering administration; rolling resistance of cars.

Eddy, Dr. C(lifford) O(tis), Louisiana State University, Baton Rouge, La. *Entomology.* Ellicottville, N. Y, Feb. 17, 94. A.B. B.S, Ohio State, 20, M.S, 23, Ph.D. 29. Asst. zool. and entom, Ohio State, 20–21; instr, N. C. State Col, 21–23; assoc. prof. entom. and assoc. entomologist, Clemson Col, 23–31; research staff, Exp. Sta, Kentucky, 31–36; *entomologist, Exp. Sta, Louisiana, and head dept. entom, univ, 36–* A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; N. C. Acad. Economic entomology; insecticides and spreaders; biology and control of economic insects; Mexican bean beetle; persimmon Psylla; cotton pests; fruit pests; field crop pests.

Eddy, Prof. Corbin T(heodore), Michigan College of Mining and Technology, Houghton, Mich. *Metallurgy.* Lake Linden, Mich, April 17, 04. B.S, E.M, Mich. Col. Mines, 25, M.S, 27, Ph.D, 33. Asst. metal, *Mich. Col. Min. and Tech,* 25–26, instr, 26–29, asst. prof, 29–31, assoc. prof. and head dept. physical metal, 31–40, director metallurgical research, 35–40, *prof. metal. eng. and head dept, 40–* Consulting metallurgist. McNair medal, 29; Alfred Noble prize, 31. A.A; Min. and Metal. Eng; Foundrymen's Asn; Soc. Metals; Eng. Educ; Lake Superior Min. Inst; Inst. Metals (London). Copper metallurgy; constitution of copper base alloys; recrystallization; beneficiation of iron ores; development of automatic apparatus for thermal analysis and constant temperature and heating-rate control; development of high strength cast irons containing copper and copper bearing chilled irons.

Eddy, Prof. M(ilton) W(alker), 249 W. Louther St, Carlisle, Pa. *Zoology.* Calcutta, India, Dec. 6, 84. B.S, Northwestern, 10, M.S, 12; Ph.D, Pennsylvania, 28. Instr. zool, Pa. State Col. 10–11, head dept, 12–18; Atlas Powder Co, 18; U. S. Pub. Health Service, Md, 20–21; *prof. biol. and head dept, Dickinson Col, 21–* Summer, visiting prof, Pennsylvania, 31, 34; Brooklyn Col, 39, 40. Ordnance Dept, U.S.A, 19. A.A; Soc. Zool; Asn. Econ. Entom. Animal ecology; hair, fur and wool classification and identification.

Eddy, Dr. Nathan B(rowne), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physiology, Pharmacology.* Glens Falls, N. Y, Aug. 4, 90. M.D, Cornell, 11. Instr. physiol, McGill, 16–20; asst. prof. physiol. and pharmacol, Alberta, 20–28, assoc. prof, 28–30; research prof. pharmacol, dept. mat. med. and therapeut, Michigan, 30–39; *prin. pharmacologist, nat. inst. health, U. S. Pub. Health Service, 39–* A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol. Secretin; spleen; muscle; regulation of respiration; salivary secretion; caffeine and its allies; barbiturates; morphine and its allies; relation of chemical structure and action of morphine derivatives; anti-malarial substances.

Eddy, Dr. Robert D(evereux), Tufts College, Medford, Mass. *Physical chemistry.* Providence, R. I, Oct. 15, 14. A.B, Brown, 35; A.M. and Ph.D, Princeton, 38. Asst. *chem,* Princeton, 37–38, research asst, 38–39; *instr,* Dartmouth Col, 39; *Tufts Col, 39–* Chem. Soc; New Eng. Asn. Chem. Teachers. Phase rule studies; solubility in deuterium water.

Eddy, Prof. Samuel, University of Minnesota, Minneapolis, Minn. *Biology.* Decatur, Ill, March 26, 97. A.B, James Millikin, 24; A.M, Illinois, 25, Ph.D, 29. Asst. prof. biol, James Millikin, 24–26; *zool, Minnesota,* 29–38, *assoc. prof, 38–* Fisheries Soc; Ecol. Soc; Micros. Soc. Limnology; ecology.

Eddy, Prof. Walter Hollis, Teachers College, Columbia University, New York, N. Y. *Physiological chemistry.* Bratleboro, Vt, Aug. 26, 77. B.S, Amherst Col, 98; A.M, Columbia, 08, Ph.D, 09. Teacher, high schs, Mass, N. J. and N. Y, 98–17; asst. prof. *physiol. chem, Teachers Col, Columbia,* 19–20, assoc. prof, 20–21, *prof, 21–* Research chemist, N. Y. Hosp, 14–; director bur. food sanit. and health, 'Good Housekeeping Magazine,' 27– Major, Sanit. C, 17–19. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Harvey Soc. Protein chemistry; vitamin content of foods; isolation of a bios; chemical and physiological properties of the vitamins.

Edel, Walter L(ester), 1800 K St, N.W, Washington, D. C. *Mechanical engineering.* Baltimore, Md, March 17, 95. B.E, Hopkins, 20; M.S, Mass. Inst. Tech, 39. Asst. testing engineer, Pa. Water and Power Co, Md, 16–17; elec. engineer, U. S. Shipping Board, 17–18; designing engineer, Oliver Iron Mining Co, Minn, 20; field engineer, South. Calif. Edison Co, 20–21; refrigeration engineer, Davison Chem. Co, Md, 22–26; Winchester Repeating Arms Co, Conn, 26–29; Frigidaire Corp, Ohio, 29–30; asst, Mass. Inst. Tech, 30–31; dean eng, Connecticut, 31–42; *mem, British Pur. Cmn, 42–* Field draftsman, Utah Power and Light Co, 17. Lieut, C.W.S, 18–19. Mech. Eng; Newcomen Soc. Eng. Laboratory ventilation; laboratory type precision pressure gauge.

Edell, Prof. G(erard) M(unz), 213 Westminster Ave, Syracuse, N. Y. *Chemical engineering.* Holland Patent, N. Y, Oct. 24, 90. B.S, Syracuse, 26, M.S, 27; Ph.D, Columbia, 32. Junior engineer, N. Y. State Pub. Service Cmn, 12–16; asst. engineer, U. S. Reclamation Service, 17–18; Miami Conservancy Dist, Dayton, Ohio, 18–19; exp. engineer and service rep, H. H. Franklin Mfg. Co, 19–24; instr. chem, *Syracuse,* 24–26, asst. prof. *chem. eng,* 27–39, *assoc. prof, 39–, acting head dept, 42–* Research engineer, War Dept, McCook Field, 18–19. Chem. Soc. (chairman, Syracuse sect, 40); Eng. Educ; assoc. Chem. Eng. Determination of small amounts of carbon monoxide in air; phenol-formaldehyde condensation.

Eder, Lieut. Harvey P(aul), Apt. A, 2119 N. Summit Ave, Milwaukee, Wis. *Organic chemistry.* Milwaukee, Wis, Oct. 25, 15. B.S, Wisconsin, 37; Ph.D, Cornell, 41. Special investigator high explosives research, Carnegie Inst. Tech, 41–42; *lieut, ordnance dept, U. S. Army, 42–*

Edgar, Dr. D(onald) E(dwards), 3500 Grays Ferry Ave, Philadelphia, Pa. *Chemistry.* South St. Paul, Minn, April 8, 98. B.S, Minnesota, 23, M.S, 25, Ph.D, 27. *E. I. du Pont de Nemours and Co, 27–* A.A; Inst. Chem. Coating compositions; terpenes; halogenation; synthetic resins.

Edgar, Dr. Graham, Ethyl Corp, 405 Lexington Ave, New York, N. Y. ***Chemistry.* Fayetteville, Ark, Sept. 19, 87. B.S, Kentucky, 07; Ph.D, Yale, 09. Instr. chem, Virginia, 09–10, adj. prof, 10–12, assoc. prof, 12–17; prof, Throop, 17–18; Virginia, 19–24; *director research, Ethyl Corp, 24–, v. pres, 32–, Ethyl-Dow Chem. Co, 34–* Exec. sec'y research information service, Nat. Research Council, 18–19. Consulting chemist, nitrate div, Ordnance Dept, 19. Chem. Soc; Soc. Test. Mat; Petrol. Inst; Inst. Petrol. Technol; Soc. Automotive Eng; Inst. Aeronaut. Sci. Physical and analytical chemistry; analysis of vanadium; reaction velocity in heterogeneous systems; diffusion of iodine; fuels; hydrocarbons; oxidation.

Edge, Prof. Elton R, San Bernardino Junior College, San Bernardino, Calif. *Mammalogy, Ecology.* Lincoln Co, Nebr, Oct. 7, 87. A.B, Oregon, 28, Ph.D, 31; A.M, Princeton, 29. Demonstrator *zool,* Oregon, 29–31; *asst. prof, San Bernardino Junior Col, 31–* A.A; Soc. Mammal; Ecol. Soc; Cooper Ornith. Soc. Ecology, taxonomy and distribution of Pelecypoda; ecology, distribution and reproduction of mammals, especially the Douglas ground squirrel.

Edgecombe, Prof. A(lbert) E(dward), Northwestern University, Evanston, Ill. *Botany.* Devonshire, Eng, Feb. 9, 97. B.A, Queen's (Can), 23, M.A, 25; Ph.D, Chicago, 29. Asst. prof. *bot, Northwestern,* 29–39, *assoc. prof, 39–* A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc. Phytopathology; mycology; immunology of wheats resistant and susceptible to rusts; serology of pathogenic bacteria; rise of sap in plants; obligate parasitism in rusts; physiology of fungi.

Edgecombe, Prof. A(rthur) C(larence), 3201 Sixth Ave, Beaver Falls, Pa. *Engineering.* Fredericton, N. B, Can, Oct. 7, 96. B.Sc, New Brunswick, 19, M.Sc. (C.E), 22; M.Sc, Pittsburgh, 33. Res. engineer, State Highway Dept, Del, 19 21; *prof. applied math. and eng. and head dept. eng, Geneva Col, 21–* Properties of duralumin.

Edgecombe, Dr. S(amuel) W(heeler), Iowa State College, Ames, Iowa. *Horticulture.* Decatur, Ill, July 7, 07. B.S.A, Manitoba, 30; M.S, Iowa State Col, 31, Ph.D, 36. Research fellow, Iowa State Col, 30–33, exten. specialist, 33; forest pathologist, Emergency Conservation Service, 33–34; state director subsistence gardens, Emergency Relief Admin, Iowa, 34–35, transient relief program, 34–35; *exten. horticulturist, Iowa State Col, 35–* Soc. Hort. Sci; Can. Soc. Tech. Agr. Fruit breeding; fine turf grasses; pomology.

Edgerton, Prof. A(lanson) H(arrison), University of Wisconsin, Madison, Wis. *Education.* Elba, N. Y, May 16, 88. B.S, Columbia, 13, A.M, 17, Ph.D, 25. Head dept, East. Ill. State Nor. Sch, 13–14; supervisor indust. educ. and apprentices, Panama, 14–16; teacher, Lincoln sch, Teachers Col, Columbia, 17–20; asst. prof. vocational educ, Indiana, 20–21; chief vocational information div, Board Educ, Detroit, 21–23; exp. teaching, Teachers Col, Columbia, 23–24; prof. and head dept. indust. educ. and applied arts, *Wisconsin,* 24–28, *prof. guidance, sch. educ, and director vocational guidance,* 28– Lecturer, Michigan, 21–23. Summers, lecturer, Columbia; California; Wyoming; Indiana; Southern California. Sect. ed, 'Book of Knowledge'; 'Popular Science Monthly,' 18–20. Medal, Sesquicentennial Expos, 26. Soc. Study Educ. (ed. director, 'Yearbook,' part II, 23); Nat. Vocational Guidance Asn. (v. pres. and ed, 'Yearbook,' 25–27, pres, 27, trustee, 36–); Am. Vocational Asn. (chairman, guidance cmt, 25–29). Industrial studies; prevocational education; occupational trends; vocational and educational guidance; life-career; civic life.

Edgerton, Dr. C(laude) W(ilbur), Louisiana State University, Baton Rouge, La. *Botany, Plant pathology.* Woodbine, Iowa, March 9, 80. B.S, Nebraska, 03; Ph.D, Cornell, 08. Asst. bot, Cornell, 05–07, instr, 07–08; *plant pathologist, Exp. Sta, Louisiana, 08–, prof. bot. and plant path, 24–* Assoc. ed, 'Phytopathology,' 16–18. A.A; Bot. Soc; Phytopath. Soc. (pres, 25). Anthracnose diseases of plants; diseases of cotton, rice, sugar-cane, alfalfa and truck crops.

Edgerton, Major Glen E(dgar), 224 Administration Bldg, Balboa Heights, C. Z. *Civil engineering.* Parkerville, Kans, April 17, 87. B.S, Kans. State Col, 04, C.E, 16; grad, U. S. Mil. Acad, 08; Eng. Sch, U.S.A, 10. Asst. engineer, Isthmian Canal Cmn, 08–09; chief engineer, Alaska Road Cmn, 11–15; dist. engineer in charge river and harbor improv, Jacksonville, Fla, 19, Rock Island, Ill, 31–33; director sales, War Dept, 21–23; chief engineer, Fed. Power Cmn, 25–29; in charge civil and mil. eng. dept, U. S. Mil. Acad, 30; asst. to chief of engineers, War Dept, 33–36; from 2nd lieut. to *major, C.Eng, U. S. Army, 08–,* engineer of maintenance, *Panama Canal,* 36–40, *governor, 40–* Mil. eng, Mexican punitive exped. Civil Eng; Elec. Eng; Soc. Mil. Eng; fel. Royal Geog. Soc. Railroad construction; highway design and construction; hydroelectric power development; improvement of rivers for navigation; flood control and other purposes; design, construction and operation of canals and harbors; navigation channels and works.

Edgerton, Prof. Harold A(sahel), Ohio State University, Columbus, Ohio. *Psychology, Statistics.* Russell, Kans, Jan. 18, 04. B.S, Kans. State Teachers Col, Emporia, 24; A.M, Ohio State, 26, Ph.D, 28. Asst. *psychol,* Minnesota, 24–25; *Ohio State,* 25–30, asst. prof, 30–41, *assoc. prof, 41–,* counselor, col. arts and sciences, 37–41, *director occupational opportunities service, 41–* Research consultant on statist, employment service, U. S. Dept. Labor, 35–36. Summers, asst, Stanford, 26, 27. A.A; Psychol. Asn; Statist. Asn; Psychometric Soc. (sec'y); Asn. Applied Psychol. Personnel in higher education; statistical techniques in psychology and education.

Edgerton, Prof. H(arold) E(ugene), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Fremont, Nebr, April 6, 03. B.S, Nebraska, 25; M.S, Mass. Inst. Tech, 27, Sc.D, 31. Test lab, Gen. Elec. Co, 25–26; instr. and *asst. prof. elec. eng, Mass. Inst. Tech.* Summer, research lab, Gen. Elec. Co, 28. Elec. Eng. Angular transients of synchronous machines; stroboscopic motion pictures of rapidly moving mechanisms.

Edgerton, Dr. R(ichard) O(liver), 15 Menlo Place, Rochester, N. Y. *Organic chemistry.* Rochester, N. Y, May 15, 14. A.B, Rochester, 36; M.S, Michigan, 37, Ph.D, 40. Research assoc, Mass. Inst. Tech, 40–41; *chem. photog. develop. work, Eastman Kodak Co.* Chem. Soc. Synthesis of polycyclic compounds; vitamin synthesis.

Edgeworth, Dr. Harriet (Isabel), 213 N. Chicago Ave, Kankakee, Ill. *Biochemistry, Medicine.* Eureka, Utah, June 20, 92. Ph.B, Chicago, 13, M.S, 16; Ph.D, Columbia, 22; Rush, Chicago, 17–18, 19, 22–25. Prof. home econ, Drake, 16–17; sci. asst, food and drug admin, U. S. Dept. Agr, 18; *retired.* A.A. Vitamin investigation; myasthenia gravis.

Edgington, Dr. B(ruce) H(elmick), Animal Disease Laboratories, Ohio Agricultural Experiment Station, Reynoldsburg, Ohio. *Veterinary medicine.* Harrisburg, Ohio, Feb. 27, 85. M.D.C, Chicago Vet. Col, 07; D.V.M, Ohio State, 12. Field veterinarian, Ohio State, 13–15; director lab, State Serum Inst, Ohio, 15–21; state veterinarian, Ohio, 21–23; *animal pathologist, Ohio Exp. Sta, 23–; prof. vet. research, col. vet. med, Ohio State, 29–* Infectious and nutritional diseases of live stock.

Edinger, Dr. Tilly, Harvard University, Cambridge, Mass. *Vertebrate paleontology.* Frankfurt, Germany, Nov. 13, 97. Heidelberg; Munich; Ph.D, Frankfurt, 21. Asst, Senckenberg Museum, Frankfurt, 21–27, curator fossil vertebrates, 27–28; translator, inst. anat. path, Istanbul, 39–40; *research assoc. paleont, museum comp. zool, Harvard, 40–* Asst, Geol. Inst, Frankfurt, 21–27; adviser, Museum für Natur- und Völkerkunde, Essen, 29–30; asst, Neuf. Inst, Frankfurt, 31–33. Soc. Vert. Paleont; N. Y. Acad; Paläont. Gesell; Senckenbergische natur. Gesell. Comparative anatomy of fossil vertebrates.

Edington, Prof. Will(iam) E(dmund), DePauw University, Greencastle, Ind. *Mathematics.* Rantoul, Ill, Dec. 8, 86. A.B, Ind. State Nor. Sch, 09; A.M, Illinois, 19, Ph.D, 21. Head dept. *math,* New Mexico, 14–17; asst. prof, Pa. State Col, 21–22; assoc. prof, Purdue, 22–30; *prof. and head dept, DePauw, 30–* A.A; Math. Soc; Math. Asn. (chairman, Ind. sect, 37); fel. Ind. Acad. (press sec'y, 30–34, 38–41; pres, 37). Mathematical physics; group theory; corona losses in high voltage transmission lines; differential equations.

Edison, Dr. Austin G(lenmore), Martinsville, Va. *Chemistry.* Martinton, Ill, Dec. 21, 97. B.S, Antioch Col, 23, M.S, 27; fellow, Ohio State, 28–29, Ph.D, 30. Instr, Antioch Col, 23–27; chemist, *E. I. du Pont de Nemours and Co,* 29–40, *tech. supt. Martinsville plant, 41–* Chem. Soc. Inorganic and physical chemistry.

Edison, Prof. Oskar E(dwin), 3248 T St, Lincoln, Nebr. *Electrical engineering.* Gothenburg, Nebr, Jan. 2, 92. B.S, Nebraska, 14, M.S, 15, E.E, 24. Operating dept, Commonwealth Edison Co, Chicago, 15–17; instr. *elec. eng, Nebraska,* 17–19, asst. prof, 19–25, *assoc. prof, 25–* Summers, Gen. Elec. Co. Elec. Eng; Eng. Educ. Electrical engineering laboratory practice.

Edison, Theodore M(iller), Llewellyn Park, West Orange, N. J. *Physics.* West Orange, N. J, July 10, 98. B.S, Mass. Inst. Tech, 23. *Research engineer, Thomas A. Edison Industries, 24–; research engineer and pres, Calibron Products, Inc, 31–* A.A; Acoustical Soc; Math. Soc; Radio Eng; Optical Soc; Soc. Motion Picture Eng. Applied physics; economics.

Edlefsen, Prof. N(iels) E(dlef), College of Agriculture, University of California, Davis, Calif. *Soils.* Logan, Utah, Jan. 29, 93. B.S, Utah Col, 16; A.M, California, 23, Ph.D, 30. County agr. agent, Sevier County, Utah, 16–17; instr. physics, Utah Col, 18–22; teaching fellow, California, 22–23; asst. prof. physics, Utah Col, 23–28; instr, *California,* 28–30, asst. prof. *irrigation, col. agr,* 30–37, *assoc. prof, 37–; staff mem, radiation lab, Mass. Inst. Tech.* U.S.A, 17–18. Physical Soc; Geophys. Union (chairman cmt. physics of soil moisture, 39–41); Soil Sci. Soc; West. Soc. Soil Sci. Photoelectric effect in alkali vapors; ultra-violet light; thermodynamics of soil moisture and plant relations; dielectric capacity of water in soils; vapor pressure of water in soils; high speed protons in connection with the early developments of the cyclotron.

Edler, G(eorge) C(hristian), 5428 31st St, Washington, D. C. *Agriculture.* Chicago, Ill, Dec. 13, 89. B.S, Illinois, 11. Traveling buyer and salesman, The Albert Dickinson Co, Minn, 12–16; asst. chief and later *senior marketing specialist in charge seed sect, bur. agr. econ, U. S. Dept. Agr, 16–* Asst, Illinois, 10–11. Del, Int. Inst. Agr, Rome, 24; Int. Seed Testing Cong, England, 24. Marketing of grass and clover seeds; the seed industry.

Edlund, Dr. K(arl) R(ichard), 160 Southampton Ave, Berkeley, Calif. *Chemistry.* Fresno, Calif, Aug. 29, 98. A.B, California, 19, M.S, 20, Ph.D, 22. Head dept. chem, Humboldt Col, 22–23; Albany Col. (Oregon), 23–24; research chemist, Associated Oil Co, 24–27; Shell Oil Co, 27–28; Shell Develop. Co, 28–37; research director, Shell Petrol. Corp, 37–43; *assoc. director research, Shell Develop. Co, 43–* A.A; Soc. Test. Mat; Chem. Soc. Petroleum; organic synthesis; kinetics.

Edminster, Frank C(uster), Soil Conservation Service, U. S. Department of Agriculture, Upper Darby, Pa. *Biology.* Ithaca, N. Y, Dec. 26, 03. B.S, Cornell, 26, M.S, 30. Supervisor game management, State Conservation Dept, N. Y, 30–37; *chief regional biol. div, soil conservation service, U. S. Dept. Agr, 37–* Wildlife Soc. (sec'y, 40–42). Wildlife conservation and management; ecology and management of the ruffed grouse; agricultural conservation techniques.

Edminster, Dr. Lynn Ramsay, 4314 Klingle St, N. W, Washington, D. C. *Economics.* Chillicothe, Ill, Jan. 2, 93. A.B, Harvard, 16; Ph.D, Brookings Inst, 30. Instr, Lake Forest Acad, Ill, 15–17; prof. polit. science, Kans. State Nor. Univ, 17–18; econ. staff, div. planning and statist, U. S. Shipping Board, 19; U. S. Tariff Cmn, 19–22; mem. staff, inst. econ, Brookings Inst, 22–30; prin. economist, for. agr. service div, bur. agr. econ, U. S. Dept. Agr, 31–33, chief import-export sect, agr. adjust. admin, 33–36; chief econ. analyst, for. trade agreements div, U. S. Dept. State, 36–38; special asst. to U. S. Sec'y State, 38–42; *v. chairman, U. S. Tariff Cmn, 42–; chairman cmt. reciprocity information, Trade Agreement, 42–* Mem. faculty, sch. for. service, Georgetown, 21–32; grad. sch, American Univ, 31–32, 34–; assoc. prof, Virginia, 26–27. U.S.A, 18. Econ. Asn; Acad. Polit. and Social Sci; Acad. World Econ. Economics; tariffs; international commercial policy; international control of raw materials.

Edmister, Prof. F(loyd) H(arris), University of North Carolina, Chapel Hill, N. C. *Inorganic chemistry.* Canaseraga, N. Y, Oct. 31, 81. B.S, Syracuse, 12, Ph.D, 18; M.S, Louisiana, 13. Instr. chem, Clemson Col, 14–15; prof. physical sciences, Puerto Rico, 18–23; asst. prof. *chem, North Carolina, 23–25, assoc. prof, 25–* Chem. Soc. Fluorides of the heavy metals; compounds of columbium and tantalum.

Edmister, W(ayne) C(linite), Standard Oil Co. of Indiana, Whiting, Ind. *Petroleum.* Cleveland, Okla, March 22, 09. B.S, Okla. Agr. and Mech. Col, 32, Chem.E, 42; Telluride Asn. fellow, Cornell, M.M.E, 34. *Research and design chem. engineer, Standard Oil Co. of Ind, 34–* Chem. Soc; Chem. Eng. Petroleum refining process development and design and application of thermodynamics thereto; thermodynamic properties of hydrocarbon mixtures; multicomponent separation processes; thermal and catalytic petroleum refining processes; heat transfer; fluid flow; refrigeration; compression; combustion and furnace design.

Edmond, Prof. J(oseph) B(alley), Clemson Agricultural College, Clemson, S. C. *Horticulture.* Yorkshire, Eng, Oct. 11, 94. B.S, Mich. State Col, 23; M.S, Iowa State Col, 24; Ph.D, Maryland, 33. Instr. *hort,* Mich. State Col, 24–29; *assoc. prof,* Miss. Agr. and Mech. Col, 31–32, Miss. State Col, 32–35; *Clemson Col, 35–* A.A; Soc. Hort. Sci. Vegetable crops.

Edmonds, Prof. J(ames) L(loyd), University of Illinois, Urbana, Ill. *Animal husbandry.* Carroll Co, Mo, 85. B.S. (Agr), Ohio State, 08. Asst. animal husbandry, agr. col, Minnesota, 08–10; instr. horse husbandry, *dept. animal husbandry, Illinois,* 10–18, *prof. and chief horse husbandry, 18–* Soc. Animal Production. Feeding, breeding and management of farm horses.

Edmonds, Dr. Sylvan M(ilton), 1675 Grand Concourse, New York, N. Y. *Chemistry.* New York, N. Y, Nov. 29, 08. B.S, Col. City of N. Y, 29, fellow, 29; A.M, Columbia, 31, Ph.D, 33. Tutor *chem, Col. City of N. Y,* 31–36, *instr, 36–; lieut, Chem. Warfare Service, U. S. Army.* Chem. Soc. Oxidation potential indicators and their applications to analytical chemistry; oxidimetric methods for the determinations of iron and vanadium; methods in qualitative and quantitative analysis; chemical equilibrium studies.

Edmondson, Prof. C(harles) H(oward), University of Hawaii, Honolulu, Hawaii. *Zoology.* Milton, Iowa, Oct. 14, 76. Ph.B, Iowa, 03, M.S, 04, Ph.D, 06. Prof. biol, Iowa Wesleyan, 06–07; nat. hist, Washburn Col, 07–08, zool. and physiol, 08–13; asst. prof. and prof. *zool,* Oregon, 13–20; *Hawaii,* 20–42, *emer. prof, 42–, zoologist, Bishop Museum, 20–* A.A; Soc. Zool; Micros. Soc. Protozoa of Iowa; high mountain lakes of Colorado and Japan; Devil's Lake; reformation of the crystalline style in Mya arenaria; Crustacea; corals; autotomy in starfishes; wood-boring mollusks; fouling organisms; shipworms of Hawaii.

Edmondson, Dean C(larence) E(dmund), Indiana University, Bloomington, Ind. *Physiology, Hygiene.* Ellettsville, Ind, April 9, 83. A.B, Indiana, 06, A.M, 12, Ph.D, 14. Instr. physiol, *Indiana,* 12–16, asst. prof, 16–19, assoc. prof. *hygiene,* 19–25, *prof, 25–, dean men, 19–* A.A; Asn. Deans Men (pres, 32–); Ind. Acad. Physiology of the thyroid and thymus glands.

Edmondson, Dr. E(verett) L(aufman), Northwestern University, Evanston, Ill. *Aeronautics.* Galveston, Texas, Nov. 22, 03. A.A, Lewis Inst, 32, B.S, 33; M.S, Northwestern, 34, fellow, 38, Ph.D, 40. Lieut. and capt, pilot and observer, Air Corps, U. S. Army, 27–32; instr. and teaching fellow, *Northwestern,* 39–40, *director aeronautics and professorial lecturer, tech. inst, 40–* Chief pilot and senior instr, Texas Airplane Corp, 28. Summer, lecturer, Northwestern, 40. Aeronautics in the American secondary school; aerodynamics and course materials for high schools and colleges; nation-wide educational problems of the Civilian Conservation Corps.

Edmondson, Dr. Frank K(elley), Indiana University, Bloomington, Ind. *Astronomy.* Milwaukee, Wis, Aug. 1, 12. A.B, Indiana, 33, A.M, 34; Lawrence fellow, Lowell Observ; 33–34; Agassiz fellow, Harvard, 35–36, Ph.D, 37. Asst, Indiana, 29–33; Lowell Observ, 34–35; Harvard, 36–37; instr. *astron, Indiana,* 37–40, *asst. prof, 40–* Math. Soc; Astron. Soc; Astron. Soc. Pacific. Stellar motions and distribution; photographic photometry; variable stars; radial velocities of faint stars.

Edmondson, Dr. Hugh A(llen), 1200 N. State St, Los Angeles, Calif. *Pathology.* Maysville, Ark, Jan. 3, 06. A.B, Oklahoma, 26; M.D, Chicago, 31. Instr. *path, Southern California,* 38–41, *asst. prof, 41–* Asst. pathologist, Los Angeles County Gen. Hosp, 38–39; pathologist, St. Luke's Hosp, Altadena, Calif, 41– Fel. Am. Med. Asn; Asn. Path. and Bact.

Edmondson, Dr. Yvette Hardman (Mrs. W. T. Edmondson), Bennington College, Bennington, Vt. *Bacteriology, Limnology.* New York, N. Y, Sept. 20, 15. A.B, Bennington Col, 36; M.S, Minnesota, 38; Ph.D, Wisconsin, 40. Teaching asst. bacter, Minnesota, 37–38; asst. limnol. and bacter, Wisconsin, 38–39, Works Progress Admin. project, 39–40; teaching fellow science, *Bennington Col,* 40–42, *instr. bacter, 42–* Asst, research project, U. S. Navy, 43. Summer, asst, Oceanog. Inst, Woods Hole, 37. Limnol. Soc; Soc. Bact. Description, metabolism and physical relationships of lake bacteria; surface tension of natural lake waters.

Edmonson, Prof. Nat, Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics.* Sherman, Texas, Nov. 23, 01. A.B, Austin Col, 24, A.M, 25; Ph.D, Rice Inst, 29. Teaching fellow, Rice Inst, 25–29; asst. prof. *math,* Texas Tech. Col, 29–31; *assoc. prof, Agr. and Mech. Col. Texas, 31–* Math. Soc; Math. Asn. Potential theory; hydrodynamics; application of functions of plurisegments in theory of harmonic functions.

Edmund, Dr. R(udolph) W(illiam), 1303 S. Atlanta Place, Tulsa, Okla. *Structural geology.* Lockridge, Iowa, March 9, 10. A.B, Augustana Col, 34; M.S, Iowa, 38, Ph.D, 40. Instr. geol, Coe Col, 39–40; *geologist, Shell Oil Co, Inc, 40–* Structural geology and physiography of the north end of the Teton Mountain range, Wyoming; finding of new oil reserves; stratigraphy.

Edmunds, Dr. Cha(rle)s K(eyser), Pomona College, Claremont, Calif. *Physics, Electrical engineering.* Baltimore, Md, Sept. 21, 76. A.B, Hopkins, 97, fellow, 02–03, Ph.D, 03. Acting prof. physics, Utah, 98–99; magnetic observer, U. S. Coast and Geod. Surv, 00; instr, high sch, Washington, D. C, 00–01; prof. physics and elec. eng, Canton Christian Col, China, 03–24, pres, 07–24; provost, Hopkins, 24–27; pres, *Pomona Col,* 28–41, *emer. pres, 41–* Observer in charge Magnetic Surv. of China, Carnegie Institution, 06–17. Trustee, Canton Christian Col, 24–26, Lingnan Univ, 26– Physical Soc; Pacific Geog. Soc. (pres). Optical properties of selenium; the magnetic field of the earth; geography of China.

Edmunds, Prof. F(rederic) H(arrison), 1105 Aird St, Saskatoon, Sask, Can. *Geology.* B.Sc, Liverpool, 22, M.Sc, 23. Asst. chemist, Lever Brothers, Port Sunlight, 14–15; Asiatic Petrol. Co, 15–17; chemist and geologist, Buckley Collieries, Ltd, North Wales, 23–25; asst. prof. soils, *Saskatchewan,* 25–28, *prof. geol, 28–, lecturer soils.* Can. Inst. Min. and Metal; Can. Soc. Tech. Agr; fel. Geol. Soc. London. Soil mapping and mineralogy; sedimentary petrology.

Edmundson, Dr. R(aymond) S(mith), State Geological Survey, University, Va. *Geology.* McKeesport, Pa, Feb. 13, 08. B.S, Virginia, 29, M.S, 30; Ph.D, Cornell, 35. Asst. instr. geol, Virginia, 28–30; Cornell, 30–35, instr, 35–36; *with Va. Geol. Surv, 36–* Summers, asst. field geologist, Va. Geol. Surv, 28–35. A.A; Geol. Soc; Va. Acad. Economic geology; Virginia barite deposits; structure and stratigraphy of the Appalachians of Virginia.

Edmundson, W(ilbur) C(lifford), Box 747, Greeley, Colo. *Horticulture.* Moscow, Idaho, Jan. 31, 88. B.S. (Agr), Idaho, 11, M.S. (Agr), 13. Deputy state hort. inspector, Idaho, 11–12; asst. horticulturist, Idaho, 13–18; *horticulturist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 18–* Irrigation studies of potatoes, including time, rate, tuber development and vigor of seed; response of potatoes to photoperiods in blossom formation, fertility of pollen and seed production.

Edsall, Dr. David L(inn), Tryon, N. C. **²Medicine.* Hamburg, N. J, July 6, 69. A.B, Princeton, 90, hon. Sc.D, 13; M.D, Pennsylvania, 93, Woodward fellow, 05; Mercy Hosp. and Rosalia Foundling Asylum, Pittsburgh, 93–94; London, Vienna and Graz, 94–95, 01; hon. Sc.D, Harvard, 28. Assoc, William Pepper lab, Pennsylvania, 95–99, instr. med, 99–03, assoc, 03–05, asst. prof, 05–07, prof. therapeut. and pharmacol, 07–10; prev. med, sch. med, Washington (St. Louis), 11–12; Jackson prof. clin. med, *Harvard Med. Sch,* 12–23, dean *faculty med. and sch. pub. health, Harvard,* 18–35, *emer. dean, 35–* Trustee, Rockefeller Foundation. Am. Physicians; Soc. Clin. Invest. (pres, 09); Pediat. Soc. (pres, 09); Philos. Soc; Am. Acad. Physiology and pathology of digestion and metabolism; clinical medicine; industrial disease and hygiene.

Edsall, Dr. Geoffrey, 375 South St, Jamaica Plain, Mass. *Immunology, Medicine.* Philadelphia, Pa, Jan. 28, 08. M.D, Harvard, 34. Research fellow med, Harvard Med. Sch, 36–37, pediat, 37–39; asst. director *div. biol. labs, State Dept. Pub. Health, Mass,* 39–42, *acting director, 42–* A.A; fel. Am. Med. Asn; Pub. Health Asn. Metabolism following total thyroidectomy; nature and occurrence of L-organisms; blood coagulation.

Edsall, Prof. John T(ileston), Harvard Medical School, Boston, Mass. **⁷Chemistry.* Philadelphia, Pa, Nov. 3, 02. A.B, Harvard, 23, M.D, 28; Cambridge, 24–26. *Tutor biochem. sciences, Harvard, 28–,* instr, 28–32, asst. prof. *biochem,* 32–38, *assoc. prof, 38–* Guggenheim Mem. Foundation fellow, Calif. Inst. Tech, 40–41. A.A; Chem. Soc; Soc. Biol. Chem; Am. Acad; N. Y. Acad. Physical chemistry of animo acids and proteins; dipolar ions; double refraction of flow; muscle proteins; Raman spectra; biochemistry.

Edson, Fanny Carter, 1835 N. Locust St, Denton, Texas. *Geology.* Chicago, Ill, Oct. 5, 87. A.B, Wisconsin, 10, A.M, 13; Oklahoma, 21–23; Stanford, 23–24. Geologist, Ecogal Explor. Co, Deerwood, Minn, 10–18; clerical positions, 18–21; asst. geol, Oklahoma, 21–23; director geol. lab, Shell Petrol. Corp, 24–38; *retired.* Geol. Soc; Asn. Petrol. Geol. Stratigraphy and tectonics of Ordovician sediments in Mid-Continent region; identification of heavy minerals in Mid-Continent sediments.

Edson, Prof. Frank George, University of Missouri, Columbia, Mo. *Chemistry.* St. Joseph, Mo, Feb. 21, 01. A.B, William Jewell Col, 25; fellow, Colorado, 28–29, A.M, 29, Ph.D, 33. Instr, high sch, Mo, 24–25, 26–28; Ill, 25–26; prof. chem, William Jewell Col, 29–42; chief chemist, Jayhawk Ordnance Works, 42–43; *asst. prof. chem, Missouri, 43–* Chem. Soc. A colorimetric method for quantitative determination of reducing sugars in food products; sanitary examination of water.

Edson, Dr. H(oward) A(ustin), 3810 Fourth St, N. W, Washington, D. C. *Plant pathology.* Randolph, Vt, Aug. 14,

75. B.S, Vermont, 06, M.S, 10; Ph.D, Wisconsin, 13. Instr. bacter, Vermont, and asst. botanist, Exp. Sta, 06–08, asst. prof. and bacteriologist, 08–10; physiologist and pathologist, bur. plant indust, U. S. Dept. Agr, 10–24, senior pathologist in charge cotton truck and forage crop disease investigations, 24–27; chief examiner, U. S. Civil Service Cmn, 27–34; *prin. pathologist in charge* plant disease surv, *bur. plant indust, U. S. Dept. Agr, 34–35, mycol. and disease surv, 35–, mem. board rev. of efficiency ratings, 41–* Plant disease surv, P. I, 16; sugar beet and Irish potato diseases in Europe, 14. Director, Agr. Employees Credit Union, 35–42, pres, 36, 39–42. Joint Congressional Cmn, Reclassification of Salaries, 19–20; staff, Personnel Classification Board, 23–24. Assoc. ed, 'Phytopathology,' 17–19, business manager, 35– A.A; Bot. Soc; Phytopath. Soc. (treas, 35–); Bot. Soc. Wash; Wash. Acad. Bacteriology of maple products; vegetable diseases; distribution of plant diseases; personnel.

Edwards, Dr. A(lbert) E(dward), Aluminum Co. of Canada, Ltd, Arvida, Que, Can. *Physical chemistry.* Perth, N. B, Can, Sept. 21, 15. B.Sc, New Brunswick, 36; M.S, Maine, 38; du Pont fellow, Wisconsin, 40–41, Ph.D, 41. Asst. chem, Maine, 36–38; physical chem, Wisconsin, 38–40; *research chemist, Aluminum Co. of Can, Ltd, 41–* Can. Chem. Asn. Electrochemistry.

Edwards, Prof. A(ustin) S(outhwick), University of Georgia, Athens, Ga. *Psychology.* Oswego, N. Y, March 2, 85. B.S, Columbia, 08; A.M, Minnesota, 10; Ph.D, Cornell, 12. Instr. *psychol,* Minnesota, 12–16; assoc. prof, *Georgia,* 16–19, *prof, 19–* Summers, Kansas, 16; George Peabody Col, 23–26; Virginia, 28; Texas, 38, 39. Psychol. examiner, Sanit. C, 18, educ. service, 19. A.A; Psychol. Asn; fel. Asn. Applied Psychol; S. Soc. Philos. and Psychol. (pres, 27); Ga. Acad. (pres, 35, sec'y-treas, 40–). Sensory suggestion; learning and distribution of time; habit and education; nature and procedure of studying; average individuals and normality; social psychology; etiology of student success and failure; clinical studies; effects of one hundred hours loss of sleep; static ataxia; ataxiameter for body sway; hand steadiness apparatus.

Edwards, Prof. Beatrice, St. Mary of the Woods College, Ind. *Biochemistry.* Denver, Colo, July 21, 02. A.B, Denver, 24, A.M, 28; Ph.D, Iowa, 42. Research assoc, Oklahoma, 32–37; *prof. chem, St. Mary of the Woods Col, 42–* Chem. Soc. Chemistry of keratins; sugar of normal urine.

Edwards, Prof. C(harles) W(illiam), Duke University, Durham, N. C. *Physics.* Arkadelphia, Ark, 73. A.B, Trinity Col. (N.C), 94; A.M, Tulane, 96; M.S, N. Y. Univ, 98; Columbia, 98–99. Instr. math, Tulane, 94–96; *prof. physics, Duke, 98–* Physical Soc. (sec'y, southeast. sect, chairman, 43); assoc. Elec. Eng; Asn. Physics Teachers; N. C. Acad. (pres). Experimental physics; electrical engineering; armature reactions; radioactivity and application of electrical waves to wireless telegraphy.

Edwards, Dr. David G(ray), 536 Sixth St, Oakmont, Pa. *Physical chemistry.* Washington, D. C, June 23, 18. B.S, Carnegie Inst. Tech, 39; Ph.D, Mass. Inst. Tech, 42. Teaching fellow, Mass. Inst. Tech, 39–42; *research assoc, Carnegie Inst. Tech, 42–* Chem. Soc; Chem. Eng. Critical regions of hydrocarbons.

Edwards, Prof. Dayton J(ames), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Physiology.* Otisfield, Maine, Sept. 7, 82. B.S, Maine, 06; Ph.D, Columbia, 13. Asst. and instr. biol, Maine, 06–08; asst. zool, Columbia, 08–09; tutor and instr. *physiol,* Col. City of N. Y, 09–17; asst. prof. and *assoc. prof, med. col, Cornell, 18–, asst. dean, 36–* A.A; Soc. Nat; Physiol. Soc; Soc. Exp. Biol. (v. pres, 30, pres, 31); Harvey Soc. (sec'y, 29–31). Compensatory blood flow; adrenal gland and splanchnic blood flow; circulatory dynamics following occlusion and histamine; cardiodynamics with insulin and parathyroid; radium emanation destruction and corpus striatum function; hydrostatic pressure effect on heart muscle.

Edwards, Everett E(ugene), U. S. Department of Agriculture, Washington, D.C. *Agricultural history.* Waltham, Minn, Feb. 12, 00. A.B, Carleton Col, 21; A.M, Harvard, 24, 25–27; Minnesota, 23; Chicago, 26. Asst. prin. and teacher, high sch, Minn, 21–22; teacher hist, Northwestern, 23–25; *agr. historian, bur. agr. econ, U. S. Dept. Agr, 27–* Summer, teacher, Miami (Ohio), 26; Catholic Univ, 36; Missouri, 39. Ed, 'Agr. Hist.' Agr. Hist. Soc. (pres, 39); Asn. State and Local Hist; Soc. Archivists; Econ. Hist. Asn. (exec. councilor; mem. ed. board); Hist. Asn; Miss. Valley Hist. Asn. (exec. councilor, 38–41); South. Hist. Asn; State Hist. Soc. Wis; Minn. Hist. Soc. Bibliography of the history of American agriculture.

Edwards, F(rancis) R(ees), 597 Morton Ave, Athens, Ga. *Animal industry.* Ottawa, Ohio, March 31, 97. B.S.A, Florida, 18; M.S, Ohio State, 21; Iowa State Col, 24. Asst. animal husbandry and dairying, Florida, 18; prof, Puerto Rico, 21–23; teaching scholar *animal husbandry,* Iowa State Col, 23–24; *head dept, Exp. Sta, Georgia, 24–; U. S. Army, 41–* U. S. Marine Corps, Aviation, 18. A.A; Soc. Animal Production; Dairy Sci. Asn; South. Agr. Workers Asn; Ga. Acad. Animal feeding and breeding; effects of climatic factors on animals; pasture management and use; effects of oils, fats and chlorophyl in diet; sweet potato feeding; peanut feeding.

Edwards, Dr. Gail P(hillips), 29–44 215th Place, Bayside, N. Y. *Chemistry.* Chicago, Ill, Oct. 4, 95. B.S, Illinois, 18, M.S, 21, Ph.D, 23; M.S, Harvard, 33. Chemist, State Water Surv, Ill, and asst, Illinois, 19–23; asst. chemist, Sanit. Dist. Chicago, 23–28, prin. sanit. chemist, 28–32; acting assoc. prof. munic. and sanit. eng, North Carolina, 33–34; lab. coordinator, State Dept. Pub. Health, Mass, 34–38; prin. sanit. chemist, *City Dept. Pub. Works, New York,* 38–42, *chief labs, 42–* Chem. Soc. Water purification; sewage treatment; industrial wastes.

Edwards, H(arry) T(aylor), 2032 Belmont Road, N. W, Washington, D. C. *Agriculture.* Chesterfield, Mass, Oct. 28, 77. B.S, Mass. Col, 96. Fiber expert, Govt. P. I, 02–12, asst. director agr, 12–14, director, 14–17; fiber specialist, *U. S. Dept. Agr,* 17–24, *technologist, 24–* A.A; Bot. Soc. Wash. Production and uses of plant fibers.

Edwards, Dr. Henry L(eltner), Georgia School of Technology, Atlanta, Ga. *Analytical chemistry.* Micanopy, Fla, March 12, 02. B.S, Florida, 24; M.S, North Carolina, 34, Ph.D, 37. Prin, Seabreeze High Sch, Daytona Beach, Fla, 24–36; *instr. chem, Ga. Tech, 37–* Chem. Soc; Ga. Acad. The use of organic reagents in qualitative inorganic analysis.

Edwards, Dr. H(erbert) R(obert), Department of Health, 125 Worth St, New York, N. Y. *Public health.* Kalamazoo, Mich, Sept. 9, 90. M.D, Col Med. Evangelists, 18. Tuber. clinician, State Board Health, Va, 21–23; med. field sec'y, Nat. Tuber. Asn, 23–26; director bur. tuber, Dept. Health, New Haven, 27–30; clin. instr. med, sch. med, Yale, 28–34; *director bur. tuber, Dept. Health, New York, 34–, health officer, Kips Bay-Yorkville Health Center; asst. prof. pub. health, sch. pub. health and prev. med, col. med, Cornell, 42–* Med. director, Bon Air Sanatorium, Bradford, Pa, 21; health consultant, surv. Indian affairs, Inst. Govt. Research, 26–27; asst. attending physician, dispensary, Yale, 28–34; acting health officer, Dept. Health, New Haven, 34. Mem. subcmt. tuber, cmt. med, Nat. Research Council. Fel. Am. Med. Asn; Col. Physicians; Pub. Health Asn; Trudeau Soc; Tuber. Asn; N. Y. Acad. Med; Int. Union Against Tuber. Tuberculosis; clinic and dispensary practices; administrative procedures.

Edwards, Prof. Hiram W(heeler), University of California at Los Angeles, Los Angeles, Calif. *Pedagogy, Physics.* Spring Valley, Minn, Sept. 9, 85. B.S, California, 08, Ph.D, 11. Prof. physics, Baylor, 11–12; director science, Calif. State Nor. Sch, Fresno, 12–18; supervisor training of science teachers, California, 18–22, asst. prof. *physics, California at Los Angeles,* 22–24, *assoc. prof, 24–* Inspector, instr. and efficiency expert, U. S. Sch. Mil. Aeronautics, 18. Physical Soc. Electricity; conductors carrying high frequency currents; energy in x-rays; total reflection of x-rays; optical characteristics of metal mirrors; aluminum magnesium evaporated mirrors; university and school articulation.

Edwards, Dr. Ira, Public Museum, Milwaukee, Wis. *Geology.* Hulberton, N. Y, April 22, 93. B.S, Rochester, 13, M.S, 14; Ph.D, George Washington, 30. Asst. paleont, N. Y. State Museum, 15–16; *geol,* Milwaukee Pub. Museum, 16–19; adj. prof, Texas, 20–21; curator, *Milwaukee Pub. Museum,* 21–39, *director, 40–* Instr, Milwaukee exten. center, Wisconsin, 35–39. Geol. Soc; fel. Paleont. Soc; Wis. Acad. Geology and paleontology of the Upper Mississippi Basin; Cambrian paleontology of Wisconsin.

Edwards, Prof. J(ames) F(ranklin), 2813 Leek St, Ames, Iowa. *Hygiene, Public health.* Pittsburgh, Pa, Jan. 10, 74. A.B, Grove City Col, 94, A.M, 96; M.D, Pennsylvania, 98.

Health commissioner, Pittsburgh, Pa, 06–17; *prof. hygiene and student health work, Iowa State Col, 21–* Lecturer, Pittsburgh, 15–17. Chairman, Pa. Typhoid Cmn, 08–12. M.C, U.S.A, 17-19; instr, Infantry and Cavalry Sch, Leavenworth, 02–06. Pub. Health Asn; Am. Med. Asn; Student Health Asn. Health reports; personal and community hygiene.

Edwards, Dr. Jesse E(frem), Deshon General Hospital, Butler, Pa. *Pathology.* Hyde Park, Mass, July 14, 11. B.S, Tufts Col, 32, M.D, 35. Res. path, *Mallory inst. path, Boston City Hosp,* 35–36, asst, 37–40, *assoc. pathologist, 41–;* intern, Albany Hosp, N. Y, 36–37; instr. path, Boston Univ, 38; path, bacter. and surg, med. sch, Tufts Col, 39–40; *research fellow, nat. cancer inst, nat. inst. health, U. S. Pub. Health Service, 40–; capt, Med. Corps, U. S. Army.* Cardio-vascular diseases; pathology of the central nervous system; pathology of human and animal neoplasms; experimental pyelonephritis; cirrhosis of the liver; cancer.

Edwards, Prof. J(ohn) Graham, 24 High St, Buffalo, N. Y. *Physiology, Anatomy.* Surry Co, Va, Oct. 13, 93. A.B, A.M, Virginia, 15; Bruce fellow, Hopkins, 20–21, Ph.D, 21. Asst. zool, Virginia, 15–16, instr. biol, 16–17; asst. zool, Hopkins, 21–22, physiol, sch. med, 22–23, instr, 24–26; Naples Zool. Sta, 26–27; asst. prof. *anat, Buffalo,* 27–43, *assoc. prof, 43–* A.A; Physiol. Soc; Asn. Anat; Soc. Exp. Biol; assoc. Buffalo Acad. Med. Protozoology; renal structure and function; comparative anatomy, physiology and pathology of the kidney of vertebrates; the aglomerular kidney.

Edwards, Junius D(avid), Aluminum Co. of America, New Kensington, Pa. *Chemistry.* Minneapolis, Minn, March 17, 90. B.S, Minnesota, 12, Chem.E, 13. Assoc. chemist, Bur. Standards, 13–19; physical chemist, *research labs, Aluminum Co. of Amer,* 19–20, *asst. director research, 21–* Chem. Soc. (councilor, 30, 37, 39, 41); Electrochem. Soc. (v. pres, 31–33, 35–37, 39–41); Chem. Eng; Heat. and Vent. Eng; Illuminating Eng. Soc; Pa. Chem. Soc. Gas chemistry; chemistry and physical metallurgy of aluminum; aluminum paint.

Edwards, Prof. Leroy D(elos), Hibiscus Park, R. R. 2, Gainesville, Fla. *Pharmacognosy, Pharmacology.* Lancaster, Wis, May 12, 97. Ph.G, Wisconsin, 21, B.S, 23; A.M, Western Reserve, 31, Ph.D, 36. Instr. pharmacog. and bot, Indianapolis Col. Pharmacy, 24–28; Western Reserve, 28–33, teaching fellow pharmacol, 34–36, asst. prof. *pharmacog. and pharmacol,* 36–39, *prof,* 39–40; *Florida, 40–* Pharmaceut. Asn; Fla. State Pharmaceut. Asn. Chemical constituents of crude drugs; pharmacology of soaps; anti-malarial drugs; digitaloid drugs.

Edwards, Prof. Linden F(orest), Ohio State University, Columbus, Ohio. *Anatomy.* Lewisville, Ohio, Nov. 25, 99. A.B, Ohio State, 22, M.S, 23, Ph.D, 28. Instr. zool, Ohio State, 23–25; Illinois, 25–29; asst. prof. *anat, Ohio State,* 30–34, assoc. prof, 34–39, *prof, 39–* Asn. Anat; Ohio Acad; Int. Asn. Dental Research. Embryology; origin of taste buds, pharyngeal teeth, mouth and gill slits of carp; nail growth; effect of nerve resection on tooth development; morphology of the fore-limb of the mole; effect of splenectomy of rat on endocrine glands.

Edwards, Dr. Llewellyn N(athaniel), Public Works Agency, Washington, D. C. *Bridge engineering.* Otisfield, Maine, Oct. 6, 73. B.C.E, Maine, 98, C.E, 01, D.E, 27. Bridge design and construction, bridge companies, 98–04; U. S. and Can. railroads, 04–13; Dept. Works, Toronto, Ont, 13–18; senior highway bridge engineer, bur. pub. roads, U. S. Dept. Agr, 19–21; *bridge engineer,* Maine, 21–28; bur. pub. roads, U. S. Dept. Agr, and *pub. roads admin, Fed. Works Agency, 28–* Capt, C.Eng, 18. A.A; Civil Eng; Concrete Inst; Soc. Test. Mat; Asn. State Highway Officials; Royal Soc. Arts; Newcomen Soc. Bulking effect of moisture in sands and the effect of mixing water on physical properties of mortars and concretes; surface area method of proportioning mortars and concretes; evolution of early American bridges and design practices.

Edwards, Dr. M(erwin) G(uy), Shell Oil Co, Shell Bldg, Los Angeles, Calif. *Geology.* Ashland, Wis, Nov. 28, 89. A.B, Wisconsin, 12, A.M, 13; Ph.D, California, 23. Instr. geol, Case, 14–16; California, 16–17; chief geologist and asst. supt, Cerro de Pasco Copper Corp, Peru, 17–22; asst. prof, California, 23–24; geologist, *Shell Oil Co,* 24–38, manager, Los Angeles Basin div, 38–41, *chief geologist, 41–* Geol. explors, Lake Superior Iron Dist, south. Appalachians, Alaska, Peru, Calif. A.A; Asn. Petrol. Geol; Min. and Metal. Eng.

Edwards, Dr. O(gden) F(razelle), 503 W. Charles St, Champaign, Ill. *Bacteriology.* Leslie, Mich, April 26, 09. B.S, Mich. State Col, 31, M.S, 33; Ph.D, Yale, 36. Asst, Mich. State Col, 31–33; *instr. bacter, Illinois, 36–* Respiratory enzymes of bacteria.

Edwards, Paul W(omer), 531 E. Willow Grove Ave, Chestnut Hill Station, Philadelphia, Pa. *Chemical engineering.* Osceola Mills, Pa, July 18, 93. B.S, Pa. State Col, 17. Develop. engineer, Westinghouse Lamp Co, 17–19; planning engineer, Goodyear Tire and Rubber Co, 19–21; *chem. engineer, bur. agr. chem. and eng, U. S. Dept. Agr, 21–* Chem. Soc. Explosibility of dusts; ignition temperatures; industrial utilization of farm products; oxygen concentration for explosion prevention.

Edwards, Dr. Philip R(arick), University of Kentucky, Lexington, Ky. *Bacteriology.* Owensboro, Ky, Aug. 30, 01. B.S, Kentucky, 22; Ph.D, Yale, 25. *Bacteriologist, dept. animal path, Exp. Sta, Kentucky, 25–* Soc. Bact. (councilor, 40–); Soc. Exp. Biol. Paratyphoid bacilli; encapsulated bacteria; genital diseases of horses; prenatal infections in foals; hemolytic streptococci.

Edwards, Prof. P(rentice) D(earing), 25 Warwick Road, Muncie, Ind. *Mathematics.* Owensville, Ind, Dec. 21, 95. B.S, Oakland City Col, 15; A.M, Indiana, 23, fellow, 28–29, Ph.D, 29. Prin, high sch, Ind, 15–17, teacher, 17–18; high sch. and exten. div, Indiana, 19–26; asst. prof. *math, Ball State Teachers Col. (Ind),* 26–29, assoc. prof, 29–40, *prof, 40–* Instr, Harvard, 24–25. U.S.A, 18–19. Math. Soc; Math. Asn. (pres, Ind. sect, 30, sec'y, 33–41; pres, 42); Ind. Acad. (ed, 'Proc,' 40–). Analysis.

Edwards, Prof. Preston H, University of North Carolina, Chapel Hill, N. C. *Physics.* Darlington, S. C, June 25, 77. A.B, A.M, Virginia, 00; Ph.D, Hopkins, 10. *Prof. physics,* Allahabad Christian Col, India, 02–21; Texas, 21–22; Winthrop Col, 22–27; Sweet Briar Col, 27–43; *North Carolina, 43–* Sound dept, Bur. Standards, 17–18. A.A; Physical Soc; fel. Acoustical Soc. Analysis of sound.

Edwards, Prof. R(ay) L(ee), Miami University, Oxford, Ohio. *Physics.* Forest Grove, Oregon, Nov. 12, 85. A.B, Oberlin Col, 08; B.S, Ohio Wesleyan, 09; fellow, Ohio State, 10–11, A.M, 11; Michigan; Chicago; Ph.D, Iowa, 25. Prof. *physics,* Park Col, 11–26; *prof. and head dept, Miami (Ohio), 26–* Instr, Iowa, 24–25. Summers, asst. instr, Chicago, 21, 23; lecturer, Iowa, 27, 29; prof, Ohio State, 42. A.A; Physical Soc; Asn. Physics Teachers; Ohio Acad. (v. pres, 34, 43). Simple lecture table galvanometer of high sensitivity; magnetic properties of evaporated nickel and iron films; physics as a cultural subject; theory of reduction of acceleration data; viscosity and molecular arrangement in liquid octyl alcohols; physics game for advanced undergraduates.

Edwards, Prof. Richard A(rcher), 732 N. W. Ninth Ave, Gainesville, Fla. *Paleontology.* Niagara Falls, N. Y, April 24, 08. B.S, Michigan, 31; A.M, Cincinnati, 33; Ph.D, North Carolina, 38. Asst. geol, Michigan, 29–31; Cincinnati, 31–34; teaching fellow, North Carolina, 34–35, instr, 35–38, 39–40; junior geologist, U. S. Geol. Surv, 38–39; asst. prof. physical sciences, Florida, 40–42; *lieut, U. S. Naval Res, 42–* Fla. Acad. Ostracoda of the Miocene duplin of North Carolina.

Edwards, Dr. Thomas I(saac), 6219 33rd St, N. W, Washington, D. C. *Medical statistics.* Whiting, Kans, Aug. 20, 07. A.B, Baker, 28; Ph.D, Hopkins, 32. Instr. biol, sch. hygiene and pub. health, Hopkins, 32–35; *statistician,* U. S. Pub. Health Service, 35–41; *nat. headquarters, Selective Service System, 41–* Statist. Asn. Statistical methods in medical research and epidemiology.

Edwards, Prof. W(arrick) Rigeley, Jr, Louisiana State University, Baton Rouge, La. *Organic chemistry.* Baltimore, Md, Oct. 9, 01. B.S, Hopkins, 22, Ph.D, 28. Chemist, James P. Hooper Mfg. Co, 23–24; asst. prof. *chem, Louisiana,* 28–32, assoc. prof, 32–42, *prof, 42–* Chem. Soc. Cyclopentyl, diphenyl and furfural derivatives; the use of synthetic resins in water treatment.

Edwards, Prof. W(illiam) G(rimm), Pennsylvania State College, State College, Pa. *Forestry.* Beaver Falls, Pa. B.S, Geneva Col, 10; B.S, Pa. State Col, 14, M.S, 15; M.S, California, 25. Instr. forestry and bot, *Pa. State Col,* 15–17, from asst. prof. to *prof. lumbering, 17–* Lecturer, div. forestry, California, 25. Soc. Foresters (chairman, Allegheny sect, 40).

Anatomy of woody plants; lumbering methods; utilization of waste products from lumber-using industries.

Eells, Dr. Walter C(rosby), 730 Jackson Place, Washington, D. C. *Educational statistics.* Union, Wash, March 6, 86. A.B, Whitman Col, 08, hon. Sc.D, 38; A.M, Chicago, 11; Ph.D, Stanford, 27. Instr, high schs, Wash, 08–10; prof. math, Whitworth Col, 11–14; instr, U. S. Naval Acad, 14–16; prof. applied math, Whitman Col, 16–26, educ, 26–27; assoc. prof, Stanford, 27–31, prof, 31–38; *exec. sec'y, Am. Asn. Junior Cols, 38–* Coordinator, Cooperative Study Secondary Sch. Standards, 35–40. Summers, instr, Harvard, 16; acting assoc. prof, Stanford, 26–27; California, 39; Colorado, 40; Boston, 41; Texas, 42. Board overseers, Whitman Col. Ed, 'Junior Col. Jour.' Educational statistics and surveys; primitive number systems; secondary school standards; junior college organization and administration; higher education.

Egan, Charles H(enry), 48 Oakley Road, Belmont, Mass. *Colloid chemistry.* Boston, Mass, July 27, 90. Lowell Textile Inst. Analyst, A. D. Little, Inc, 07–17; chemist, *Dewey and Almy Chem. Co,* 19–35, *research director, 35–* 2nd lieut, C.W.S, 17–19. Chem. Soc. Utilization of rubber latex; synthetic rubber.

Egan, Dr. J(ames) E(verett), 421 Henderson Ave, Staten Island, N. Y. *Chemistry.* Neoga, Ill, Feb. 25, 86. A.B, DePauw, 08; A.M, Illinois, 10, fellow, 11–12, Ph.D, 12. Acting prof. chem, DePauw, 12–13; asst. prof, Miami (Ohio), 13–18; *chem. engineer, Procter and Gamble Co, 18–* Chem. Soc; Inst. Chem. Soaps; edible fats.

Egbert, Dr. Robert B(aldwin), 301 A Rosemont Court, South Charleston, W. Va. *Chemical engineering.* Chosica, Peru, S. Amer, Dec. 13, 16. B.Ch.E, Cooper Union, 38; M.S, Mass. Inst. Tech, 40, Emil Schweinburg fellow, Sc.D, 41. Asst, Mass. Inst. Tech, 39–41; *chem. engineer, Carbide and Carbon Chem. Corp, 41–* Heat transmission by radiation from gases.

Egeberg, Dr. B(irger), 53 Parker Ave, Meriden, Conn. *Metallurgy.* Oslo, Norway, Oct. 22, 89. M.E, Oslo, 12; Dr.Ing, Aachen, 14. Metallographist, Phoenix Steel Works, Germany, 14–16; metallurgist, Bamle Copper and Nickel Works, Norway, 16–18; chief metallurgist, Stavanger Electro-Steel Works, 19–23; metallurgist, Crucible Steel Co. of Amer, 23–26; *chief metallurgist and dept. manager, Int. Silver Co, 26–* Consultant, Norwegian War Dept, 18–19. A.A; Soc. Metals; Min. and Metal. Eng; British Inst. Metals; Iron and Steel Inst. Gt. Britain; Verein Deuts. Ingenieure. Steels; non-ferrous metals; electroplating.

Eggan, Prof. Fred(erick R), University of Chicago, Chicago, Ill. *Anthropology.* Seattle, Wash, Sept. 12, 06. Ph.B, Chicago, 27, A.M, 28, Ph.D, 33. Instr, Wentworth Junior Col, Lexington, Mo, 28–29; asst. *anthrop, Chicago,* 33–34; research assoc, 34–35, instr, 35–40, asst. prof, 40–42, *assoc. prof, 42–* Sec'y, Cong. Prehistorians, Far East, 35. Anthrop. Asn. (sec'y, 41–43). Ethnology; social anthropology; acculturation.

Eggers, Prof. H(arold) E(verett), 42nd St. and Dewey Ave, Omaha, Nebr. *Pathology.* Royalton, Wis, March 1, 82. B.S, Wisconsin, 03, A.M, 05; fellow, Chicago, 06, M.D, Rush, 09. Res. physician, Cook County Hosp, 09–10; *prof. path. and bacter,* Harvard Med. Sch. of China, 11–16; *col. med, Nebraska, 16–* A.A. Bacteriology; opsonins of normal serum; spirochaetal infection of ulcers; morphology and etiology of tumors.

Eggers, Prof. H(enry) C(laus) T(homas), University of Minnesota, Minneapolis, Minn. *Mathematics.* Minneapolis, Minn, Feb. 21, 93. B.S, Minnesota, 15, E.E, 16; Ph.D, Michigan, 31. Telegraph engineer, Am. Tel. and Tel. Co, 16–19; instr. and *asst. prof. drawing and descriptive geometry, Minnesota, 23–* Eng. Educ. Descriptive geometry.

Eggerth, Dr. Arnold H(enry), Long Island College of Medicine, Brooklyn, N. Y. *Bacteriology.* Luverne, Iowa, Aug. 15, 89. A.B, Michigan, 15, A.M, 17; Ph.D, Columbia, 26. Asst, Michigan, 14–18; asst. prof. and *assoc. prof, L. I. Col. Med, 19–* A.A; Soc. Exp. Path; Soc. Bact; Harvey Soc. 2nd lieut, Sanit.C, 18–19. Anaphylatoxin; membrane permeability; agglutination and cataphoresis of cells; chemotherapy; soaps; fecal anaerobes; histamine; ninhydrinized antibodies.

Eggler, Prof. Willis A(lexander), Alma, Mich. *Botany.* La Crosse, Wis, March 28, 04. A.B, Northland Col, 27; M.S, Minnesota, 36, Ph.D, 39. Instr, high schs, Wis, 27–34; teaching asst. bot, Minnesota, 35–39; instr. bot, zool. and geol, Gogebic Junior Col, 39–42; *prof. biol. and head dept, Alma Col, 42–* Summers, ranger-naturalist, Yellowstone Nat. Park, 36–42. A.A; Ecol. Soc. Ecology of deciduous forests; primary succession on volcanic deposits.

Eggleston, Dr. Cary, 125 E. 74th St, New York, N. Y. *Internal medicine, Pharmacology.* Brooklyn, N. Y, Aug. 18, 84. Jena, 03; M.D, Cornell, 07. Intern, N. Y. Hosp, 08–10; Sloane Hosp. for Women, 10; instr. pharmacol, *med. col, Cornell,* 11–18, *asst. prof,* 18–21, *clin. med, 21–* Asst. physician, outpatient dept, N. Y. Hosp, 10–12, attending physician, dept. contagious diseases, 11, assoc. attending physician, 32–; tuber. clinic, Bellevue Hosp, 10–12, asst. and assoc. visiting physician, 21–34, visiting physician, 34–; chief clinic, children's dept, de Milt Dispensary, 11–12; consulting cardiologist, Willard Parker Hosp, 32–; consulting physician, N. Y. Infirmary for Women and Children, 35–; consulting cardiologist, Ruptured and Crippled Hosp, 40– Assoc. ed, 'N. Y. Med. Jour,' 12–18; ed, 'Progress of Therapeut'; 'Am. Jour. Med. Sciences.' V. pres, U. S. Pharmacopoeial Conv, 40, pres, 41–A.A; fel. Am. Med. Asn. (chairman, sect. pharmacol. and therapeut, 23); Soc. Clin. Invest; Am. Heart Asn; fel. Am. Physicians; N. Y. Acad. Med. (chairman, sect. med, 18). General pharmacology; the digitalis bodies; cardiac diseases.

Eggleston, Prof. H(arla) R(ay), Marietta College, Marietta, Ohio. *Zoology.* Walton, N. Y, Feb. 25, 90. B.S, Hamilton Col, 12, Root fellow, 12–13; A.M, Harvard, 13; Chicago, 16. *Prof. biol,* Buena Vista Col, 13–15; *Marietta Col, 15–* Bermuda Biol. Sta, 15; Ohio State Lake Lab, 26–27; biol. sta, Michigan, 28. City bacteriologist, Marietta, 19– Mem, Conf. on Water Purification, Ohio; surv. Mollusca of Ohio, Ohio Biol. Surv, 29–32. Pub. Health Asn; Water Works Asn; Limnol. Soc; Malacol. Union; Ohio Acad. Animal ecology; Mollusca.

Eggleston, Dr. Julius W(ooster), 20 Copperas Hill, Cuttingsville, Vt. *Geology.* New London, Conn, Oct. 1, 75. B.S, Amherst Col, 98; A.M, Harvard, 01, Ph.D, 24. Asst, U. S. Geol. Surv, 01–02; asst. and instr. geol. and miner, Colo. Sch. Mines, 01–05; asst. geol, Harvard, 05–10, 16–17; asst. prof. geol. and miner, Mo. Sch. Mines, 10–13; prof. geol. and bot, Occidental Col, 13–15; curator museum, State Mining Bur, Calif, 18; asst. prof. geol, miner. and physical geog, Riverside Junior Col, 19–28, 36–41; *retired.* Summers, instr, Harvard, 06, 10. A.A; fel. Am. Geog. Soc; Miner. Soc; Nat. Asn. Audubon Societies; assoc. mem. Ornith. Union; Cooper Ornith. Club. Petrography; glacial geology.

Eggleton, Prof. Frank E(gbert), University of Michigan, Ann Arbor, Mich. *Zoology.* Rutland Center, N. Y, Sept. 24, 93. A.B, Hillsdale Col, 22; A.M, Michigan, 23, Ph.D, 30. Asst. biol, Hillsdale Col, 19–22; *zool,* Michigan, 22–23; instr, Syracuse, 23–26; *Michigan,* 26–30, asst. prof, 31–37, *assoc. prof, 37–,* asst. limnologist, *biol. sta,* 26–30, *mem. staff, 31–* Russel award, Michigan, 37. A.A; Soc. Zool; Limnol. Soc; Ecol. Soc; Micros. Soc. (1st v. pres, 38); Mich. Acad; Wis. Acad. Limnology; benthic animals of fresh water lakes; vertical migration and distribution of limnetic organisms; stream pollution; natural history of terrestrial and freshwater invertebrates.

Eggston, Dr. Andrew A, 653 Park Ave, New York, N. Y. *Pathology.* Joelton, Tenn, Jan. 6, 90. B.S, Dickson Col; M.D, Vanderbilt, 12. Asst. histol, path. and bacter, Vanderbilt, 12–13, instr. path. and bacter, 13–14, path, 14–16, asst. prof, 16–18; assoc, Columbia, 18–20; *pathologist, Manhattan Eye, Ear, Nose and Throat Hosp, 18–* Chief pathologist, St. Thomas Hosp, Nashville, Tenn, 16–18; pathologist, Presb. Hosp, New York, 18–20; Mt. Vernon Hosp. Soc. Exp. Path; Am. Med. Asn; Asn. Path. and Bact. Serum ferments and protein; split products in relation to pathology; epidemiology of pellagra; allergy; blood transfusion apparatus; pathology of chronic nasal sinusitis; treatment of septicemia by blood transfusions; pathology of nose and throat.

Egler, Prof. Frank E(dwin), New York State College of Forestry, Syracuse University, Syracuse, N. Y. *Botany.* New York, N. Y, April 26, 11. N. Y. State Col. Forestry, Syracuse, 30–31; Michigan, 31; Columbia, 32; B.S, Chicago, 32; M.S, Minnesota, 33–34; Eaton scholar, Yale, 35, fellow, 36, Ph.D, 36; Sorbonne, 36. Research fellow, Yale and Bishop Museum, 37–38; *asst. prof. forest bot, N. Y. State Col. Forestry, Syracuse, 38–, instr. physics, 65 C.T.D, 43–; director exp. sta, Chicle Develop Co, 42–* Senior dendrologist Latin Am. forest resources surv, war service dept, U. S. Forest Service, 43. A.A;

Ecol. Soc; Am. Geog. Soc; Soc. Plant Taxon; Torrey Bot. Club; Conn. Bot. Soc; Hawaiian Acad. Forest and range ecology; vegetation science.

Eglin, Dr. James M(ilton), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Berea, Ohio, May 12, 01. A.B, Oberlin Col, 19; fellow, Chicago, 20–22, Ph.D, 22. *Research physicist,* West. Elec. Co, 22–25; *Bell Tel. Labs, 25–* Fel. Physical Soc. The law of fall of a sphere in gases at low pressures; coefficients of viscosity and slip of carbon dioxide; vacuum tubes and thermionic phenomena; adsorbed films and surface tension; direct current amplifier; cable design and interference.

Eglof, Prof. Warren K(line), Niagara University, Niagara Falls, N. Y. *Chemistry.* Troy, N. Y, March 19, 99. Ch.E, Rensselaer Polytech, 21; M.S, Niagara, 35. Instr, Rensselaer Polytech, 21–24; munic. chemist, Newburgh, N. Y, 24–26; *asst. prof. chem, Niagara, 26–* Chem. Soc. Analytical chemistry; electrochemistry.

Egloff, Dr. Gustav, Universal Oil Products Co, 310 S. Michigan Ave, Chicago, Ill. *[6]*Physical chemistry.* New York, N. Y, Nov. 10, 86. A.B, Cornell, 12; A.M, Columbia, 13, Barnard fellow, 14–15, Ph.D, 16; hon. Sc.D, Polytech. Inst. Brooklyn, 38, Armour Inst. Tech, 40. U. S. Bur. Mines, 15–16; hydrocarbon engineer and chief chemist, Aetna Chem. Co, 16–17; *director research, Universal Oil Products Co, 17–* Mem. advisory cmt, Office Naval Officer Procurement; ref. cmt, dist. two, Petrol. Indust. War Council; adviser, Office Petrol. Admin; Congressional Cmt. Coal Hydrogenation and Oil Shale; Board Econ. Warfare; on aviation gasoline to France and England; indust. research and develop. consultant, referee board, Office Production Research and Develop, 42–; oil expert, U. S. War Dept, 42– Lecturer. Adviser, Museum Science and Industry, Chicago; mem. tour of indust. explor. of S. Amer, Nat. Research Council, 41. Mem. cmt. petrol. and chem. exhibits, A Century of Progress Expos, Chicago, 33; advisory cmt, Nat. Chem. Expos, 40, 42. Gold medal, Am. Inst. Chemists, 40; Octave Chanute medal, West. Soc. Engineers, 40; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Del, Int. Bituminous Coal Convention, Pittsburgh, 26, 28, 31; World Power Conf, London, 28, Berlin, 30, London, 36; Cong. Automobile Transportation, Rome, 28; World Eng. Cong, Tokyo, 28; World Petrol. Cong, London, 33, mem. permanent council, pres, Am. delegation, Paris, 37, chairman cmt. science and technol, Tulsa, 38, 40–42; del, Int. Cong. Chem, Rome, 38; del, World Conf. Oil Shale and Cannel Coal, Glasgow, 38; chairman petrol. sect, Conf. Instrumentation in Process Industry, Pittsburgh, 39. A.A; Chem. Soc. (councilor at large, 36–; Willard Gibbs medal award cmt; director, Chicago sect, 34); Chem. Eng. (director; mem. joint cmt. Inter-Am. eng. cooperation, 42–); Soc. Chem. Indust. (director); Soc. Test. Mat; Soc. Automotive Eng; Min. and Metal. Eng. (chairman, Chicago sect, 34; mem. cmt. correlation of research, 42); Petrol. Inst. (advisory cmt. on pure hydrocarbon research, 38–43; on fundamental research on composition and properties of petrol, 42–; mem. project advisory cmt); Franklin Inst; fel. Inst. Chem. (director, pres, 42); N. Y. Acad; Chemists' Club (v. pres, 39); Chicago Chemists Club (pres, 34); Adult Educ. Soc. Chicago (director); Newcomen Soc; Royal Soc; Inst. Petrol. Technol. Gt. Britain (for. correspondent); Deuts. Chem. Gesell; Soc. de Chim. indust; hon. mem. Chem, Metal. and Min. Soc. S. Africa; hon. mem. Soc. Colombiana de Quimicos. Petroleum; coal tar, shale, vegetable and fatty oils; cracking and refining of oil; chemistry of hydrocarbons; effect of catalytic reactions; physical constants of oils; petroleum formation; earth oil; reaction of pure hydrocarbons.

Egly, Dr. Richard S(amuel), Commercial Solvents Corp, Terre Haute, Ind. *Chemical engineering.* Grabill, Ind, July 6, 14. B.S, Purdue, 36; M.S, Illinois, 38, Ph.D, 40. *Research chem. engineer, Commercial Solvents Corp, 40–* Chem. Soc; Chem. Eng. Viscosity of vapors at elevated pressures.

Eheart, James F(rank), Virginia Polytechnic Institute, Blacksburg, Va. *Agricultural chemistry.* Roanoke Co, Va, Aug. 29, 97. B.S, Va. Polytech, 19, M.S, 21; A.M, Columbia, 29; Pa. State Col, 31–32. *Asst. chemist, Exp. Sta, Va. Polytech, 25–* Chem. Soc.. (sec'y-treas, Va. Blue Ridge sect, 33–35, v. chairman, 39, chairman, 40). Biological chemistry; metabolism studies with large animals; chemical composition of pasture grasses; vitamin research with vegetables.

Ehlers, Prof. George M(arion), University of Michigan, Ann Arbor, Mich. *Paleontology.* Baltimore, Md, March 17, 91. A.B, Michigan, 13, Ph.D, 30. Asst. *geol,* Williams Col, 13–14; *Michigan,* 14–18, instr, 18–21, asst. prof, 21–34, *assoc. prof, 34–,* curator museum paleont. and director geol. field sta, 24–42. Summers, geologist, State Geol. Surv, Mich. A.A; Geol. Soc; Paleont. Soc; Mich. Acad; Ohio Acad. Invertebrate paleontology; stratigraphy and paleontology of the Paleozoic rocks of Michigan.

Ehlers, Prof. J(ohn) H(enry), University of Michigan. Ann Arbor, Mich. *Botany.* Piqua, Ohio, Nov. 4, 68. A.B, Michigan, 99, Ph.D, 14. Prin. and supt, schs, 00–08; instr. *bot,* Agr. and Mech. Col. Texas, 14–15; *Michigan,* 15–20, asst. prof, 20–34, assoc. prof, 34–39, *emer. assoc. prof, 39–* Asst. prof, biol. sta, Michigan, and curator phanerogamic herbarium, 16–39. Business manager, 'Bot. Abstracts,' 24– A.A; Bot. Soc; Ecol. Soc; Soc. Nat; Soc. Plant Taxon; Limnol. Soc; Mich. Acad. Plant geography; taxonomy of flowering plants.

Ehlers, Dr. R(ussell) W(illiam), 613 W. Witherbee St, Flint, Mich. *Chemistry.* Middletown, Conn, Jan. 2, 09. B.S, Wesleyan, 28, Wilbur Fisk scholar, 28–29, A.M, 29; du Pont fellow, Yale, 31–32, Ph.D, 32. *Research chemist,* Russell Mfg. Co, Conn, 32–35; Sayles Finishing Co, 35; *A. C. Spark Plug Co, Flint, 35–* Chem. Soc. Thermodynamics of hydrochloric acid solutions and solutions of organic acids; dissociation constants.

Ehman, Dr. P(hilip) J(ohn), 1670 Pierce Ave, Marinette, Wis. *Chemistry.* Bozeman, Mont, Aug. 29, 11. B.S, Mont. State Col, 32; fellow, Chicago, 34–35, Ph.D, 35. *Research chemist,* Continental Can Co, 35–36; *Ansul Chem. Co, 36–* Chem. Soc. Organic chemistry; molecular rearrangements; fungicides; insecticides; refrigerants.

Ehrenfeld, Louis, 4440 N. Farwell Ave, Milwaukee, Wis. *Chemistry.* Houston, Texas, Aug. 23, 00. B.S, Rice Inst, 21; fellow, Northwestern, 21–26, M.S, 22. Instr, Northwestern, 26–27; consulting chemist, 26–30; curator chem, Museum Science and Indust, Chicago, 30–37; asst. to manager and dean, Wahl-Henius Inst, Chicago, 33–38; *manager, Milwaukee div, Pabst Brewing Co, 38–* Ed. staff, Encyclop. Britannica, 26–28. Chem. Soc; Soc. Brewing Chem. (ed, 34–); Malt Research Inst. (director, 35–); Hop Research Inst. (director, 37–); Chicago Chemists Club (treas, 27–33, chairman, finance cmt, 33–38); Inst. Brewing Great Britain. Metallo-organic compounds; humanization of chemistry; fermentation.

Ehrenfried, Dr. Albert, 520 Beacon St, Boston, Mass. *Surgery.* Lewiston, Maine, Feb. 9, 80. A.B, Harvard, 02, M.D, 05. *Practising surgeon, 05–* Asst, Harvard Med. Sch, 09–13, 12–16. Surgeon, Boston Sanatorium, 10–36; asst. surgeon, Children's Hosp, 12–18; asst. visiting surgeon, Boston City Hosp, 13–18. Instr, Army Med. Service Sch, World War. A.A; fel. Col. Surg; Am. Med. Asn; Eugenics Research Asn; Mass. Med. Soc. (councilor, 15–18, 37–, sec'y, surg. sect, 17; v. pres, Norfolk dist, 43–). Abdominal surgery; skin-grafting; club-foot; intratracheal insufflation anesthesia; blood vessel surgery; hereditary deforming chondrodysplasia; surgical treatment of lung tuberculosis; surgical after-treatment.

Ehrenkranz, Dr. Florence A(nna), 307 Wayne St, Highland Park, N. J. *Physics.* Newark, N. J, Jan. 29, 10. Ph.D, California, 38. Physicist, Int. Geophysics, Inc, 38–40; *engineer, ordnance dept, U. S. War Dept, 41–* Gaseous discharge.

Ehrenstein, Dr. Maximilian R(ichard), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Chemistry.* Munich, Germany, May 11, 99. Realgym, Göttingen, 18, Ph.D, 21. Asst. org. chem, Göttingen, 21–23; Tech. Hochschule, Breslau, 23–25; Rockefeller Foundation fellow, Zurich, 25–26; research assoc. org. chem, Munich, 26–29; asst. pharmaceut. chem, Berlin, 29–31, privat-docent, 31–34; research assoc. physiol. chem, dept. med, Virginia, 34–37; *asst. prof. chem, George S. Cox Med. Research Inst, sch. med, Pennsylvania, 37–* Prize, Royal Acad. Amsterdam. Chem. Soc; Soc. Biol. Chem; Pharmaceut. Asn; Physiol. Soc. Phila; Schweiz. Chem. Gesell. Organic, pharmaceutical and physiological chemistry; configuration of amino acids; enzyme chemistry; alkaloids of tobacco; catalytic dehydrogenation of cyclic bases; chemistry of the hormones; steroids.

Ehret, Prof. William F(rederick), New York University, Washington Square, New York, N. Y. *Physical chemistry.* New York, N. Y, July 18, 02. B.S, Col. City of N. Y, 23, fellow, 23–24; A.M, Columbia, 24, Ph.D, 27. Asst. *chem,* Columbia, 24–26; instr, *N. Y. Univ,* 26–29, asst. prof, 29–32, assoc.

prof, 32–36, *prof, 36–* Exchange lecturer, Edinburgh, 29–30. Chem. Soc; N. Y. Acad. Phase equilibria in saturated salt solutions; x-ray crystal structure analysis; inorganic chemistry; metals and alloys.

Ehrhardt, Dr. C(harles) H(enry), 321 W. Calendar Ave, LaGrange, Ill. *Physics.* Plainfield, Wis, Dec. 21, 10. B.S, Hillsdale Col, 33; Ph.D, Purdue, 39. Instr. physics, Purdue, 34–39; *research physicist, Universal Oil Products Co, 40–* Physical Soc. X-rays and crystal structure.

Ehrlich, Dr. William E(rnst), University of Pennsylvania, Philadelphia, Pa. *Pathology.* Dahmen, Germany, Nov. 29, 00. M.D, Rostock, Germany, 24. Pathologist, Rockefeller Inst. Hosp, 26–30; privat-docent, Rostock, Germany, 31–35; instr. *path, Pennsylvania, 36–38, assoc, 38–* Asn. Path. and Bact; Harvey Soc; Path. Soc. Phila; Physiol. Soc. Phila; Int. Asn. Dental Research. Hematology; kidney diseases; cardiac diseases; stomatology; cancer.

Ehrlich, Prof. John, University of Idaho, Moscow, Idaho. *Forest pathology.* New York, N. Y, Dec. 13, 07. B.S, Cornell, 28; fellow, Duke, 28–29, A.M, 29; M.S, Harvard, 30, Anna C. Ames mem. scholar, 31–33, Ph.D, 33. Asst, Harvard and Radcliffe Col, 29–30, Austin teaching fellow, Harvard, 30–31; nat. research fellow, Imp. Mycol. Inst, Kew, England, 33–34, research grant, Royal Bot. Gardens, 35; asst. prof. *forestry, Idaho, 35–40, assoc. prof, 40–* Summers, field asst, U. S. Dept. Agr, 28, agent, 29; grant-in-aid, Nat. Research Council Can, 30–32. Mycol. Soc; Phytopath. Soc; Soc. Foresters; Northwest Sci. Asn. (councilor). Mycology; areolate mildew of cotton; beech bark disease; Nectriaceae; Armillaria mellea; Cronartium ribicola.

Eichelberger, Prof. Lillian (Mrs. Ralph Cannon), 5849 N. Kostner Ave, Chicago, Ill. *Chemistry.* B.S, Miss. State Col. for Women, 15; M.S, Chicago, 19, Ph.D, 21. Research instr, Chicago, 21–24; research chemist, Munic. Tuber. Sanatorium, Chicago, 24–28; from fellow to *asst. prof. biochem, dept. med, Chicago, 29–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Chemotherapy in tuberculosis; acid-base balance between blood and tissue; salt and water exchange between blood and muscle; experimental edema; hydronephrosis; tissue electrolytes; relative distribution of water and electrolytes in tissues.

Eichelberger, Dr. W(illiam) C(uster), 433 Brattle Road, Syracuse, N. Y. *Chemistry.* Pana, Ill, Nov. 18, 06. A.B, Oberlin Col, 27; Ph.D, Hopkins, 30. Nat. research fellow chem, Columbia, 30–31, asst, 31–32; *research chemist, Solvay Process Co, Syracuse, 34–* A.A; Chem. Soc. Osmotic pressure of dilute benzene solutions by the porous disk method; determination of molecular weights in non-aqueous solvents by the freezing-point method; heavy water.

Eichelberger, Dr. W(illiam) S(nyder), 1447 St. Paul St, Rochester, N. Y. *[*1]Astronomy.* Baltimore, Md, Sept. 18, 65. A.B, Hopkins, 86, fellow, 87–88, Ph.D, 91. Instr. math. and asst. astron, Wesleyan, 90–96; asst, 'Nautical Almanac' Office, 89–90, 96–98, director, 10–29; computer, U. S. Naval Observatory, 98–00, in charge astron. observations, 07–08; prof. math, U. S. Navy, 00–29, *retired; mem. sci. dept, Hawk-Eye works, Eastman Kodak Co, Rochester, 29–* U. S. eclipse exped, Pinehurst, N. C, 00; in charge eclipse sta, Sumatra, 01; Spain, 05. For. correspondent, Bur. des Longitudes. A.A. (v. pres, A, 06); Astron. Soc. (councilor, 03–16); Wash. Acad. (non-res. v. pres, 32); Philos. Soc. Wash. (pres, 15); for. assoc. Royal Astron. Soc; Astron. Gesell. The orbit of Hyperion; perturbations of Minerva by Jupiter; star catalogues; satellite orbits; observations of the sun, moon, planets and fundamental stars, 1903–1911; positions and proper motions of 1,504 standard stars for the equinox 1925.0.

Eichhorn, Dr. Adolph, Bureau of Animal Industry, U. S. Department of Agriculture, Beltsville, Md. Lipto Szt, Miklos, Hungary, May 27, 75. Royal Vet. Col, Budapest, 92–95; D.V.S, N. Y. Vet. Col, 00. Asst. surgeon, Am. Vet. Col. Hosp, New York, 00–01; meat inspection service, bur. animal indust, U. S. Dept. Agr, 01–06, path. div, 06–15, chief, 15–17; director vet. dept, Lederle Labs, 17–38; *director animal disease sta, bur. animal indust, U. S. Dept. Agr, 38–* Prof, vet. dept, George Washington, 10–11; N. Y. Univ, 17–21. U. S. del, Int. Vet. Cong, Budapest, 05, London, 30. Vet. Med. Asn. (past v. pres); Soc. Bact; U. S. Live Stock Sanit. Asn; N. Y. State Vet. Med. Asn; Hudson Valley Vet. Med. Soc. (pres). Infectious diseases in animals; control and prevention of anthrax, glanders, blackleg, rabies and brucellosis.

Eichinger, Dr. J(ack) W(aldo), Jr, University of Detroit, Detroit, Mich. *Industrial chemistry.* Ottumwa, Iowa, Sept. 11, 04. B.S, Iowa State Col, 26, Ph.D, 31. Asst. chem, Iowa State Col, 27–31, instr, 31–34; asst. prof. chem. and chem. eng, *Detroit, 34–40, assoc. prof. chem, 41–; consulting chem. engineer;* capt, *U. S. Army,* 41–42, major, 42, *lieut. col, 43–* Chem. Soc. Levulose sugar; corrosion of metals; sour taste of acids; caramels; chemical process patents.

Eichlin, Prof. Charles G(arfield), 1204 Jefferson St, N. W, Washington, D. C. *Physics.* Easton, Pa, May 8, 93. A.B, Lafayette Col, 13, M.S, 22. Instr. physics, Lafayette Col, 13–17; radio engineer, Nat. Elec. Supply Co, 17–20; asst. physicist, Bur. Standards, 21; *prof. physics, Maryland, 22–* Wash. Soc. Eng. Investigation of glass.

Eickelberg, Dr. E(lmer) W(illiam), 307 E. First St, Fairmont, Minn. *Food chemistry.* Cedar Falls, Iowa, Dec. 19, 11. B.S, Iowa State Col, 33, M.S, 35, Ph.D, 37. Asst, Iowa State Col, 33–37; *lab. director, Fairmont Canning Co, 37–* Factors influencing the utilization of dextrose in the commercial canning and preserving of fruits and vegetables.

Elde, Prof. Carl J(ohn), 2228 Hillside Ave, St. Paul, Minn. *Plant pathology.* Carrington, N. Dak, Aug. 20, 04. B.S, Minnesota, 28, M.S, 29, Ph.D, 34. Instr. bot, Louisiana, 29–30; *plant path, Minnesota, 30–37, asst. prof, 37–* Phytopath. Soc. Genetics and pathogenicity of Gibberella saubinetii; diseases of potatoes and truck crops.

Eldinoff, Dr. Maxwell Leigh, Queens College, Flushing, N. Y. *Physical chemistry.* New York, N. Y, Feb. 16, 15. A.B, Brooklyn Col, 34; Ph.D, Pa. State Col, 38. Asst. physical chem, Pa. State Col, 34–38; *instr. chem, Queens Col. (N. Y), 38–* Chem. Soc. Statistical thermodynamics; low temperature calorimetry; electrochemistry; polarographic analysis.

Elesland, Prof. John (Arndt), West Virginia University, Morgantown, W. Va. *[*2]Mathematics.* Near Kristiansand, Norway, Jan. 27, 67. Gym, Kristiansand, Norway; Ph.B, South Dakota, 91; Ph.D, Hopkins, 98. Instr. *math,* Luther Acad, 91–92; prof, Thiel Col, 95–03; instr, U. S. Naval Acad, 03–07; *prof. and head dept, West Virginia, 07–* A.A; Math. Soc; Math. Asn; W. Va. Acad. (pres, 25); Math. Verein; Circolo Mat. di Palermo. Differential equations; kinematics; surface theory; geometry of n-dimensional space; differential and flat-sphere geometry; a Plücker geometry in odd-dimensional space; ruled surfaces in n-space; the sphere geometry in non-Euclidean odd n-space.

Elfrig, C(harles) W(illiam) G(ustave), Windermere, Fla. *Ornithology.* Doebeln, Saxony, Germany, Sept. 23, 71. Concordia Col; Concordia Theol. Sem; Chicago. Minister, McKees Rocks, Pa, 95–99; Cumberland, Md, 99–03; Ottawa, Ont, Can, 03–09; instr. science and religion, high sch, Concordia Teachers Col, 09–42. Ornith. Union; Wilson Ornith. Club; Soc. Mammal; Ill. Audubon Soc. (pres); Ill. Acad; Chicago Acad; Chicago Ornith. Soc; Can. Field Nat. Club. Birds; bird migration; mammals; reptiles; amphibians; fishes.

Elgenbrodt, Prof. Harold J(ohn), North Central College, Naperville, Ill. *Zoology.* Faribault, Minn, Aug. 2, 98. A.B, N. Cent. Col, 21; A.M, Illinois, 22, fellow, 22–23, 24–25, Ph.D, 25. Asst. *zool,* Illinois, 23–24; *prof, N. Cent. Col, 25–* Summers, State Nat. Hist. Surv, Ill, 24–26. A.A. Experimental zoology; effects of external factors on development.

Elgsti, Prof. O(rie) J(acob), University of Oklahoma, Norman, Okla. *Botany.* Morton, Ill, July 23, 08. A.B, Goshen Col, 31; A.M, Illinois, 33, fellow, 34–35, Ph.D, 35. Asst. bot, Illinois, 32–34; research asst, sta. for exp. evolution, Carnegie Institution, 35–37; research technician, Triarch Bot. Products, Ripon, Wis, 37; prof. biol. and head dept, Greenville Col, 37–38; asst. prof. *bot, Oklahoma,* 38–41, *assoc. prof, 41–* Summers, asst, Carnegie Institution, 33, 35; prof, Goshen Col, 38. A.A; Bot. Soc; Genetics Soc; Okla. Acad. Experimental morphology and embryology; cytogenetics of Resedaceae; cytotaxonomy Polygonatum; pollen tube studies in angiosperms; mitotic phenomena in pollen tubes; colchicine and polyploidy; cytology.

Elkenberry, Dr. W(illiam) L(ewis), Temple University, Philadelphia, Pa. *Botany.* Waterloo, Iowa, July 12, 71. B.S, Michigan, 94; Chicago, 01–03, 13–14; Sc.D, Mt. Morris Col, 12. Prof. science, Mt. Morris Col, 94–01; head dept. bot, high sch, Mo, 03–09; instr, sch. educ, Chicago, 09–16; asst.

prof. educ, Kansas, 16–19, assoc. prof, 19–22; head dept. science, Pa. State Nor. Sch, East Stroudsburg, 22–29; N. J. State Teachers Col, 29–42; *instr.* job instruction training, East. Aircraft, Gen. Motors Corp, 42–43; *defense courses, Temple, 43–* Summer, Harvard, 25. A.A; Bot. Soc; Sci. Teachers Asn; Nat. Asn. Research Sci. Teaching (pres, 28–30); Cent. Asn. Sci. and Math. Teachers (sec'y, 13). Plant physics; transpiration.

Ellenberg, Prof. Samuel, University of Michigan, Ann Arbor, Mich. *Mathematics.* Warsaw, Poland, Sept. 30, 13. M.A, Warsaw, 34, Ph.D, 36. Instr. *math, Michigan,* 40–41, *asst. prof, 41–* Math. Soc; Polish Math. Soc. Topology.

Eller, Prof. John J(oseph), University of California Medical Center, San Francisco, Calif. *Biochemistry.* Jacksonville, Fla, Jan. 24, 10. A.B, California, 33, Ph.D, 37. Mem. enzymes research staff, Cutter Labs, 37–38; instr. *biochem. and pharmacy, California,* 38–41, *asst. prof, 41–* Chem. Soc. Chemistry and metabolism of purines; carbohydrate metabolism.

Ellers, Dr. Louis K(enneth), 56 Stonybrook Drive, Rochester, N. Y. *Organic chemistry.* Gillespie, Ill, April 11, 07. B.S, Illinois, 29; nat. research junior fellow, Virginia, 29–30, M.S, 30; Am. Petrol. Inst. junior fellow, Northwestern, 30–32, Ph.D, 32. Chemist, Marsene Transparent Paper Co, 33; Van Cleef Brothers, 33–34; *asst. supt. roll coating dept, Eastman Kodak Co, Rochester, 34–* Chem. Soc. (chairman, Rochester sect, 40). Pyrolysis of olefines; hydrogenation of morphine derivatives.

Ellerts, Kenneth, 1517 Dewey, Bartlesville, Okla. *Physical chemistry.* Charleston, Okla, Nov. 7, 04. B.S, Okla. Agr. and Mech. Col, 27. Mem. staff, Indust. Process Co, Calif, 27–29; Apache Powder Co, Ariz, 29–30; *physical chemist, petrol. div, U. S. Bur. Mines, 30–* Chem. Soc. Determination of thermodynamic properties of natural hydrocarbon mixtures required for the efficient recovery of fluids from oil, gas and gas-condensate reservoirs.

Einarsen, Arthur S(kogman), Oregon State Agricultural College, Corvallis, Oregon. *Biology.* Seattle, Wash, 97. B.S, Washington (Seattle), 24. Field surv, Bur. Fisheries, 22–23; biologist, State Dept. Fisheries, Wash, 23–33, State Dept. Game, Wash, 33–34; *assoc. biologist, fish and wildlife service, U. S. Dept. Interior, 34–* Ornith. Union; Cooper Ornith. Club; Pacific Northwest Bird and Mammal Soc. Fishes; birds; game.

Einarsson, Prof. S(turla), University of California, Berkeley, Calif. *Astronomy.* Iceland, Dec. 15, 79. A.B, Minnesota, 05; Ph.D, California, 13. Asst. *practical astron, California,* 05–10, instr, 10–17, asst. prof, 18–20, assoc. prof, 20–28, *prof, 28–* Expert recruiting service, U. S. Shipping Board, 17–18, lieut, U.S.N.R, 27–39, lieut. commander, 39– A.A; Astron. Soc; Astron. Soc. Pacific (pres, 34). Comet, planet and satellite orbits.

Einhorn, Dr. Max, 20 E. 63rd St, New York, N. Y. *Medicine.* Grodno, Russia, Jan. 10, 62. A.B, Gym, Riga, Russia, 79; Kiev, Russia, 80; M.D, Berlin, 84. *Prof. med, N. Y. Post-Grad. Med. Sch, Columbia, 96–* Visiting physician, Lenox Hill Hosp, New York; consulting physician, White Plains Hosp, Hackensack Hosp, N. Y. German Dispensary. Chairman Am. cmt, Int. Cong. Gastro-Enterol, 35. A.A; Am. Med. Asn; Gastro-Enterol. Asn. (pres, 00–02); N. Y. Acad. Med; cor. mem. Munich Med. Gesell; cor. mem. Paris Med. Soc; hon. mem. Japanese Soc. Digest. Diseases. Fermentation; gastro-diaphany; radium; gastric and intestinal digestion; digestive test capsule; duodenal and intestinal tubes; diseases of the stomach and intestines; dietetics; saccharometer.

Einhorn, Dr. Nathan H(arry), University of Pennsylvania, Philadelphia, Pa. *Pediatrics.* Bakau, Roumania, April 9, 01. A.B, Colorado, 23, M.D, 26; M.S, Pennsylvania, 34, Sc.D, 36. *Assoc. research, Phila. Inst. Med. Research, 34–; instr. pediat, Pennsylvania, 37–; capt, Med. Corps, U. S. Army.* Asst. pediatrician, Phila. Gen. Hosp; senior endocrinologist, Jewish Hosp. Fel. Acad. Pediat; fel. Col. Physicians. The rôle of the thymus and pineal glands in growth and development.

Einstein, Prof. Albert, 112 Mercer St, Princeton, N. J. *[6]Theoretical physics.* Ulm, Germany, March 14, 79. Hon. degrees, Geneva; Oxford; Cambridge; Glasgow, 33; Manchester; Princeton; Paris; Madrid; Rostock; Buenos Aires; Zurich; L.H.D, Yeshiva Col, 34; Sc.D, Harvard, 35, London, 36; LL.D, Univ. State of N. Y, 36. Prof. theoret. physics, Zurich, 09–11; Prague, 11–14; Tech. Hochschule, Zurich, 12–14; Preuss. Akad. d. Wissenschaft, Berlin; Berlin, 14–33; hon. prof, Leiden; *Rhodes lecturer, Oxford; prof. math, Inst. Advanced Study, 33–, staff mem. extraordinary, U. S. Navy Ordnance Bur, 43–* Visiting prof, Calif. Inst. Tech, 31–33. Franklin Inst. medal, 35. For. assoc. Paris Acad. Theory of relativity;* theory of Brownian movement; Zionism; living philosophies; builders of the universe; war; evolution of physics.

Einstein, Dr. Hans Albert, Brookwood Drive, Greenville, S. C. *Hydraulics.* Bern, Switzerland, May 14, 04. Dipl, Fed. Inst. Tech, Switzerland, 26, Ph.D, 36. Design and steel construction engineer, 27–31; first engineer, hydraulic lab, Fed. Inst. Tech, Switzerland, 31–38; *hydraulic engineer, soil conservation service, U. S. Dept. Agr, 38–* Geophys. Union; Civil Eng. Hydraulics of rivers; sediment transportation.

Eisele, Prof. C(harles) Wesley, University of Chicago Clinics, 950 E. 59th St, Chicago, Ill. *Medicine.* New Albany, Ind, April 6, 06. A.B, North Central Col, 28; M.S, Northwestern, 31, M.D, 33. Instr. *med, Chicago,* 35–41, *asst. prof. and sec'y dept, 41–* Assoc. Col. Physicians; Chicago Soc. Int. Med. Acid-base equilibrium; electrolyte equilibrium of tissue and blood; tuberculosis; peptic ulcer.

Eisele, Dr. Harold F(rank), 2102 T St, S.E, Washington, D. C. *Botany.* Hastings, Nebr, Jan. 23, 08. A.B, Grand Island Col, 29; M.S, Iowa State Col, 31, Ph.D, 33. Teaching fellow bot, Iowa State Col, 29–33; prof. biol. and head dept, Sioux Falls Col, 33–35; soil conservationist, soil conservation service, *U. S. Dept. Agr,* 35–43, *senior admin. officer, office of personnel, 43–* A.A; Soc. Pub. Admin. Plant ecology.

Eiseley, Prof. Loren C(orey), University of Kansas, Lawrence, Kans. *Anthropology.* Lincoln, Nebr, Sept. 3, 07. A.B, Nebraska, 33; Harrison scholar, Pennsylvania, 34–35, A.M, 35, Harrison fellow, 36–37, Ph.D, 37. Asst. sociol, Nebraska, 35–36; asst. prof. *anthrop, Kansas,* 37–42, *assoc. prof, 42–* Social Science Research Council fellow, Columbia and Am. Museum Nat. Hist, 40–41. Morrill paleont. expeds, Nebraska, 31–33; Pennsylvania-Carnegie Institution sci. exped. to Southwest, 34; Smithsonian Institution exped, north. Colo, 35. A.A; Anthrop. Asn. (councilor); Asn. Physical Anthrop; Soc. Archeol; Texas Archeol. and Paleont. Soc; Nebr. Hist. Soc. Cultural evolution of man; plains archeology; the Folsom culture; pollen analysis and pre-history; craniology of southwestern basket makers, Cañons del Muerto and de Chelly; hunting territory systems of the Algonkians.

Eiseman, Dr. Charles, 310 S. Michigan Blvd, Chicago, Ill. *Physiology, Medicine.* Baltimore, Md, April 30, 02. B.S, 24, M.S, 25; Ph.D, Chicago, 28, M.D, Rush, 31. Asst. physiol, Chicago, 27–28; intern, Buffalo Gen. Hosp, 30–31; asst. res. *med,* Billings Hosp, Chicago, 31–32; *instr, med. sch, Northwestern, 34–* Asst. physician, Evanston Hosp, 34– Cataracts in parathyroprivia; rabbit syphilis; isospermatoxin; serum sickness.

Eiseman, John H(artshorn), 4600 Stanford St, Chevy Chase, Md. *Engineering.* Cincinnati, Ohio, Dec. 23, 97. B.S, Maryland, 21, M.E, 24, M.S, 35. Asst. gas engineer, *Bur. Standards,* 21–25, assoc. gas engineer, 25–41, *physicist, 41–* Summer, U. S. Geol. Surv, 16. Gas engineering.

Eisen, Dr. Milton J(oseph), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Cancer.* Yonkers, N. Y, May 21, 06. B.S, N. Y. Univ, 26, M.D, 29. *Instr. cancer research, Columbia, 38–* Asn. Path. and Bact; Asn. Cancer Research; N. Y. Path. Soc. Experimental cancer.

Eisenberg, Dr. Moses Joel, 444 Wafren St, Roxbury, Boston, Mass. *Dentistry.* New York, N. Y, July 22, 95. Harriett Newell Lowell Soc. Dental Research fellow, D.M.D. Harvard, 17. Asst. dental research, dental sch, Harvard, 17–18; asst. neur, Forsyth Infirmary, 18–22, acting chief dept. dental orthop, 23–25, chief dept, 25–30; *practising dentist, 30–; chief dental service, Jewish Mem. Hosp, Boston, Mass, 40–* Fellow, Harvard, 33, instr. dental histol, 34. Assoc. ed, 'Am. Dental Surgeon,' 25– Harriet Newell Lowell medal, 17. A.A; Dental Soc; Chem. Soc; Mass. Dental Soc; fel. Royal Micros. Soc. Dental anatomy and histology; embryology; chemistry; general theory and practise of dentistry; optics of dental enamel; fluorescence; microscopy; spectrography of enamel.

Eisenbrandt, Dr. L(eslie) L(ee), University of Kansas City, Kansas City, Mo. *Parasitology, Zoology.* Chanute,

Kans, June 23, 08. A.B, Col. of Emporia, 32; M.S, Kans. State Col, 34; Ph.D, Rutgers, 36. Asst, Kans. State Col, 32–34; teaching asst, Rutgers, 34–36; instr. biol, *Univ. Kansas City*, 36–41, *asst. prof*, 41–42, *research, sch. dentistry*, 42– Soc. Parasitol; assoc. Soc. Zool. Resistance and immunity of hosts to parasitism; phylogeny of parasites; saliva.

Eisenhart, Prof. C(hurchill), University of Wisconsin, Madison, Wis. *Mathematical statistics.* Rochester, N. Y, March 11, 13. A.B, Princeton, 34, A.M, 35; Ph.D, London, 37. Instr. *math, Wisconsin*, 37–40, *asst. prof, 40–, statistician, Exp. Sta*, 37– Cmt. math. tables and aids to computation, Nat. Research Council, 39– Statist. Asn. (rep, joint cmt. develop. of statist. applications in eng. and mfg, 38–); Inst. Math. Statist. (chairman war preparedness cmt, 40); Math. Soc. Mathematical statistics and its applications in biological sciences, industry and engineering.

Eisenhart, Dean Luther Pfahler, Princeton University, Princeton, N. J. **²*Mathematics.* York, Pa, Jan. 13, 76. A.B, Gettysburg Col, 96, Sc.D, 21, LL.D, 24; Ph.D, Hopkins, 00; Sc.D, Columbia, 31, Pennsylvania, 33, Lehigh, 35; LL.D, Duke, 40. Tutor *math*, Gettysburg Col, 96–97; instr, *Princeton*, 00–05, preceptor, 05–09, *prof, 09–, dean* faculty, 25–33, *grad. sch, 33–* Chairman div. physical sciences, Nat. Research Council, 37– Nat. Acad; A.A. (v. pres, A, 17); Math. Soc. (v. pres, 14, pres, 31, ed, 'Trans,' 17–23); Math. Asn; Philos. Soc. (exec. officer, 42–); Asn. Am. Cols. (pres, 30). Differential geometry and its physical applications.

Eisenman, Dr. Anna J(osephine), 265 Ellsworth Ave, New Haven, Conn. *Biochemistry.* Bridgeport, Conn, Nov. 29, 99. A.B, Columbia, 21; Ph.D, Yale, 28. Technician, *sch. med, Yale*, 21–25, asst, 25–28, *instr. med, 28–* Soc. Biol. Chem. Carbon dioxide curve of human blood; acid base equilibrium of plasma in health and disease; ionic equilibrium between red blood cells and serum.

Eisenmenger, Dr. Walter S, Massachusetts State College, Amherst, Mass. *Plant physiology.* Warrensville, Pa, Dec. 18, 86. B.S, Bucknell, 12, M.S, 15; A.M, Columbia, 23, Ph.D, 28. Prof. chem, Albright Col, 19–25; biochem, Fla. State Col. for Women, 27–28; instr, Hahnemann Med. Col, 28–30; *research prof. agron*, Mass. Col, 30–31, *Mass. State Col, 31–, head dept, 34–* A.A; Soc. Plant Physiol; Soc. Agron; Chem. Soc. Biochemistry; toxicity, additive effects and antagonism of salt solutions; toxicity of aliphatic alcohols and phenol; nitrogen metabolism of tobacco; effects of alcohols on some colloidal systems.

Eisenschiml, Otto, 1645 S. Kilbourn Ave, Chicago, Ill. *Chemistry.* Vienna, Austria, June 16, 80. Polytech, Vienna. Chemist, Carnegie Steel Co, 01–04; chief chemist, Am. Linseed Co, 04–12; *pres, Sci. Oil Compounding Co, 12–* Chairman, Paint and Oils Standard Cmn, Ill, 27– Chief ed, 'Chicago Chem. Bul,' 14–17. Chem. Soc. (chairman, Chicago sect, 14); Chicago Chem. Club (pres, 22). Oils.

Eisman, Dr. P(hilip) C(arl), Lederle Laboratories, Pearl River, N. Y. *Bacteriology.* Nov. 16, 07. B.S, Cornell, 31, Ph.D, 34. Asst. bacteriologist, Cornell, 30–31; research bacteriologist; U. S. Indust. Alcohol Co, 31–37; milk production div, Borden Co, 37–38; *research staff, Lederle Labs, 38–* Soc. Bact. Development of industrial fermentations; streptococcus diagnostic sera; scarlet fever toxin and toxoid.

Eisner, Dr. Abner, U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* Philadelphia, Pa, Dec. 10, 09. B.S, Pennsylvania, 30, M.S, 31, Ph.D, 34. Asst. instr. chem, Pennsylvania, 31–35; *junior org. chemist, U. S. Bur. Mines, Pittsburgh, Pa, 35–* Chem. Soc. Condensation of amines with formaldehyde in acid media; products from hydrogenation of coal.

Ekblaw, Dr. George E(lbert), State Geological Survey, Urbana, Ill. *Geology.* Rantoul, Ill, June 1, 95. A.B, Illinois, 22, A.M, 23; fellow, Stanford, 25–27, Ph.D, 27. Asst, *Ill. Geol. Surv*, 20–21, asst. geologist, 21–22, 23–25, assoc. geologist, 25–26, 27–29, *geol. ed. and geologist, 29–*, in charge eng. geol, 29–31, *head eng. and areal geol. div, 31–* A.A; fel. Geol. Soc; Soc. Photogrammetry; Cong. Surveying and Mapping; Wilson Ornith. Club; West. Soc. Eng; Ill. Soc. Eng. (cmts, 29–32, 34, 36–43; v. pres, Champaign Co. chap, 42); Ill. Acad. (2nd v. pres, 41). Kankakee and Alto Pass quadrangles in Illinois; gravel resources and road materials in Illinois; playa deposits in southwestern United States; glacial, stratigraphic, areal and engineering geology in Illinois; ornithology.

Ekblaw, K(arl) J(ohn) T(heodore), 212 S. Ridgeland Ave, Oak Park, Ill. *Engineering.* Rantoul, Ill, July 14, 84. B.S, Illinois, 09, M.S, 13; M.E, Yale, 17. Mem. agr. eng. staff, Illinois, 09–16; prof. agr. eng, Kans. State Col, 17–19; agr. engineer, Portland Cement Asn, 20–26; v. pres, Frank B. White Co, 26–31; *agr. engineer, Am. Zinc Inst, 31–* Soc. Agr. Eng. (pres, 39). Structural design; farm structures.

Ekblaw, Dr. Sidney E(verette), University of Kansas City, Kansas City, Mo. *Geography.* Rantoul, Ill, March 24, 03. A.B, Illinois, 29, B.S, 30; fellow, Clark, 32–34, Ph.D, 34. Asst. geologist, State Geol. Surv, Ill, 30–32; *instr. geog, Univ. Kansas City, 34–* A.A; Am. Geog. Soc; Meteorol. Soc; Mo. Acad; Ill. Acad. Geology; historical geography of Babylonia and the Fertile Crescent; grasslands of the world.

Ekblaw, Prof. W(alter) Elmer, Clark University, Worcester, Mass. *Geography, Geology.* Rantoul, Ill. A.B, Illinois, 10, A.M, 12, fellow, 17–19. Instr, Illinois, 10–13; research assoc, Am. Museum Nat. Hist, 17–23; hon. fellow, *Clark*, 24–26, assoc. prof. *geog*, 26–28, *prof, 28–* Asst. ed, 'Econ. Geog.' Geologist and botanist, Crocker Land Arctic exped, 13–17. A.A; Am. Geog. Soc; Meteorol. Soc; Ornith. Union; Wilson Ornith. Club; Soc. Mammal; Ecol. Soc; Explorers Club; Anthrop. Soc; Asn. Geog. Lands and life north of 60° N; human and plant geography; land utilization and planning.

Ekdahl, Prof. Adolph G(ustavus), University of New Hampshire, Durham, N. H. *Psychology.* Chicago, Ill, Nov. 21, 92. D.M.D, Tufts Col, 12; A.B, Clark, 19, A.M, 20; Ph.D, Ohio State, 25. Instr. *psychol*, Syracuse, 20–22, asst. prof, 22–23; instr, Ohio State, 23–25; asst. prof, *New Hampshire*, 26–28, *assoc. prof, 28–* Clin. psychologist, Manchester State Indust. Sch, 32–34; consulting psychologist, Golden Rule Farm for Problem Boys. Summers, prof, Howard Col. (Ala), 26–28. Assoc. Psychol. Asn; Asn. Mental Deficiency. Free association reaction times; pitch of noises; abnormal psychology.

Ekdahl, Dr. N(aomi) M(arguerite) G(oldthwaite), Massachusetts Congregational Conference, Boston, Mass. *Psychology.* Nashua, N. H, Nov. 1, 93. A.B, Syracuse, 22, A.M, 23; Ph.D, Ohio State, 25. Instr. psychol, New Hampshire, 26–28, asst. prof, 29–39; *exec. sec'y woman's work, Mass. Congregational Conf, 39–* Clin. psychologist, Mental Hygiene Clinic, Manchester, N. H, 31–33; lecturer, North. New Eng. Sch. Religious Educ, 29–, dean women, 36–, trustee, 37–43; Psychol. Clinic, Portsmouth, N. H, 30. Summers, dean women and prof, Howard Col. (Ala), 27; dean women and asst. prof, New Hampshire, 28–38; consulting psychologist, Golden Rule Farm for Problem Boys, 36– Assoc. Psychol. Asn; Council Women Psychol. Psychology of the child.

Eke, Dr. Paul A(xel Clarence), University of Idaho, Moscow, Idaho. *Agricultural economics.* Pierre, S. Dak, Jan. 7, 94. B.S, Wisconsin, 20, M.S, 21, fellow, 23, Ph.D, 23. Instr, Illinois, 23–25; asst. prof. farm econ, West Virginia, 25–29; *agr. economist, Exp. Sta, Idaho, 29–* Cost of producing butterfat surv, U. S. Tariff Cmn, 24. Instr, A.E.F. Univ, France. Farm Econ. Asn; Econ. Asn; Asn. Marketing Officials; West. Farm Econ. Asn. (sec'y, 30, pres, 34). Land economics; farm management; land use planning.

Ekeley, Prof. John B(ernard), 703 11th St, Boulder, Colo. *Chemistry.* Orebro, Sweden, Jan. 1, 69. A.B, Colgate, 91, A.M, 93, hon. Sc.D, 11; Ph.D, Freiburg, 02. Asst. chem, Colgate, 91–93; science master, St. Paul's Sch, Garden City, N. Y, 93–00; prof. *chem.* and head dept, *Colorado*, 02–37, *emer. prof, 37–* State chemist, Colo, 11–33; Colo. Coal Mine Cmn, 11; manufacturer tungstic acid, 16–28; pres, Tungstic Acid Corp, 22–28. A.A; Chem. Soc; Electrochem. Soc; Chem. Eng; Inst. Chem; Faraday Soc; Colo-Wyo. Acad; Colo. Sci. Soc. (v. pres, 19). Chemistry of thioquinanthrenes; dihydroquinoxalines; benzmetoxazins; glyoxalines; acetic anhydride derivatives of benzalanilines; condensation of ketones; organic tungstates; toxicology; commercial extraction of tungstic acid from tungsten ores; pyrimidines; aromatic amidines; compounds of indium; aminoguanidine-anilidosulfite esters; compounds of glyoxal and its homologues with amidines and with ureas; composition of tungsten minerals.

Eklund, Carl R(obert), 2411 S. Fremont Ave, Minneapolis, Minn. *Biology.* Tomahawk, Wis, Jan. 27, 09. A.B, Carleton Col, 32; Am. Wildlife Inst. fellow, Oregon State Col, 36, M.S, 38. Forestry foreman, Shenandoah Nat. Park, U. S. Nat. Park Service, 33–36; biologist, Seney nat. wildlife refuge, U. S. Biol. Surv, 37–38; ornithologist, U. S. Antarctic exped, 39–41; *regional wildlife biologist, fish and wildlife service,*

U. S. Dept. Interior, 41–; lieut, arctic sect, arctic, desert and tropic information center, Air Forces, U. S. Army, 43– Wildlife Soc; Ornith. Union. Ornithology of the Palmerland region of Antarctica; ecological and mortality factors affecting the nesting stage of the Chinese pheasant in the Willamette Valley, Oregon.

Ekroth, Clarence V(ictor), Ekroth Laboratories, Inc, 60 Freeman St, Brooklyn, N. Y. *Chemistry.* New York, N. Y, April 6, 87. Chem.E, Pratt Inst, 07; B.S, Polytech. Inst. Brooklyn, 09; P.E, Univ. State of N. Y, 24. State chemist, N. Y, 10–16; asst. chief chemist, New York, 09–17; asst. prof. tech. chem, Pratt Inst, 14–17; head dept. chem, high sch, New York, 17–21; pres. and director, *Ekroth Labs, Inc,* 21–35, director and chairman board, 36–38, *pres. and director, 38–* Consulting chemist and chem. engineer, 12–; director, Harriman Food Research Lab, 17–19; special lecturer, Col. City of N. Y, 18; chem. expert, U. S. and for. govts, 20–27. A.A; fel. Inst. Chem; Chem. Soc. (councilor, New York sect, 33); Asn. Consulting Chem. (sec'y, 27–30); Asn. Consulting Chem. and Chem. Eng. (director, 30–33); Agr. Chem; Pub. Health Asn. Industrial chemical engineering; nutrition and hygiene; biochemistry and immunochemistry; vitamins; concentration and dehydration of organic materials; composition and legal standards of foods and drugs; technical processes; toxicology; analysis.

Eksergian, Dr. Rupen, Rose Tree Road, Media, Pa. *Mechanical engineering.* Somerville, Mass, March 30, 89. B.S, Mass. Inst. Tech, 14, M.S, 15; M.S, Harvard, 15; fellow, Clark, 16–17, Ph.D, 28. Tech. asst. to v. pres, Baldwin Locomotive Works, 20–29; *consulting engineer,* E. I. du Pont de Nemours and Co, 29–34; *E. G. Budd Mfg. Co, 34–* Consultant, Gen. Steel Castings Corp. Henderson gold medal, Franklin Inst, 37; Worcester Reed Warner medal, Am. Soc. Mech. Eng, 39. C.Eng. and Ordnance Dept, 17–20; lieut. col. Fel. Mech. Eng. (exec. cmt; past chairman applied mech. div); Franklin Inst. (assoc. ed, 'Jour'); Army Ordnance Asn. Development of generalized dynamic methods for machine analysis and ordnance artillery design; railway research on steam, Diesel and light-weight trains.

Elam, Dr. Daniel W(esley), 2998 Shasta Road, Berkeley, Calif. *Protein chemistry.* Walla Walla, Wash, Dec. 28, 08. A.B, Whitman Col, 31; Ph.D, Washington (Seattle), 40. Mem. physics staff, American Univ, Beirut, 31–33; teaching fellow chem, Washington (Seattle), 34–40; *asst. chemist,* west. regional lab, bur. agr. and indust. chem, U. S. Dept. Agr, 40–43; *Shell Develop. Co, 43–* Proteolytic enzymes; synthetic resins.

Elberg, Dr. Sanford S(amuel), University of California, Berkeley, Calif. *Bacteriology.* San Francisco, Calif, Dec. 1, 13. A.B, California, 34, Ph.D, 38. Asst. bacter, Hooper Foundation, California, 36–38, lecturer pub. health lab. practice, univ, 38–40; *instr. bacter,* State Col. Wash, 40; San Francisco Junior Col, 40–41; *California, 41–; capt, Sanit. Corps, U. S. Army.* A.A; Pub. Health Asn; Biochem. Soc. Gt. Britain. Nutritional requirements of pathogenic anaerobic bacteria; bacteriology of war wounds; mechanism of immunity in Brucella infections.

Elbin, Guy H(erbert), 555 Evening St, Worthington, Ohio. *Civil engineering.* Clearville, Pa, Dec. 23, 90. B.S, Ohio Northern, 16, C.E, 20; M.S, Iowa State Col, 32. Construction work, Pa. R. R, 16–17; Carnegie Steel Co, 17–19; asst. prof. civil eng, Ohio Northern, 19–33; deputy county engineer, Hardin County, *Ohio,* 33–35; chief specification engineer, Works Progress Admin, 35–37; *bridge engineer, Franklin County, 37–* Civil Eng; Eng. Educ; Soc. Professional Eng. Distribution of shearing stresses in reinforced concrete bridge slabs under concentrated loads.

Elcock, Harry A, Amalgamated Sugar Co, Twin Falls, Idaho. *Bacteriology, Plant pathology.* Avalon, Santa Catalina Island, Calif, Nov. 29, 01. B.S, State Col. Wash, 26; M.S, Mich. State Col, 28. Prof. bacter, S. Dak. State Col, 28–29; pathologist, sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–33; v. pres. and gen. manager, West. Seed Production Corp, Phoenix Falls, Ariz, 33–37; *dist. manager, Amalgamated Sugar Co, 37–* Sugar plants.

Elder, Prof. Albert L(awrence), Syracuse University, Syracuse, N. Y. *Chemistry.* Lexington, Ill, June 19, 01. A.B, Illinois, 23, M.S, 25, Ph.D, 28. Asst. *chem,* Illinois, 26–28; instr, Oberlin Col, 28–30; asst. prof. and *assoc. prof, Syracuse, 30–* A.A; Chem. Soc; Water Works Asn. Sanitary and colloid chemistry; biochemical oxygen demand; bacteriophage; silica gel; catalysis; sulfur compounds; boron.

Elder, Prof. Cecil, University of Missouri, Columbia, Mo. *Veterinary science.* Aurora, Ill, June 23, 93. D.V.M, Kans. State Col, 16; M.S, Ohio State, 24. Asst. pathologist, Kans. State Col, 16–18; research pathologist, Wyoming, 19–31; *prof. vet. science, Missouri, 31–* V.C, U.S.A, 18–19. Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Intermountain Live Stock Sanit. Asn. (sec'y-treas, 29–31); Mo. Vet. Med. Asn; Mo. Acad; Colo-Wyo. Acad. Avian tuberculosis in cattle; corpus luteum; infectious abortion; tuberculosis of fowls; necrobacillosis; fowl paralysis; roup; diseases of sheep; Bang's disease in cattle and swine; vitamin deficiencies in swine.

Elder, Dr. Frank R(ose), General Electric Co, Schenectady, N. Y. *Chemistry.* Rochester, Minn, May 31, 89. B.S, Amherst Col, 11; A.M, Columbia, 13, Ph.D, 27. Assoc. prof. chem, Richmond, 14–17; *research lab, Gen. Elec. Co, 19–* Sig.C, U.S.A, 17–19. Physical Soc. Organic chemistry; vacuum tubes; electric discharges in gases; mercury arc discharges; direct current transmission.

Elder, Prof. J(ames) H(arlan), Louisiana State University, Baton Rouge, La. *Psychology.* Marshall, Ind, Sept. 24, 02. A.B, Colorado, 30; Ph.D, Yale, 33. Asst. psychol, Colorado, 27–30; psychobiol, Yale, 30–33, research asst, 33–39; lecturer *psychol,* Wisconsin, 39–40; instr, Virginia, 40–42; *asst. prof, Louisiana, 42–; psychologist, office chief sig. officer, U. S. War Dept, 43–* Psychol. Asn. Adolescence; physiology.

Elder, Prof. Jay Clinton, 456 S. 12th St, San Jose, Calif. *Biology.* Hubbell, Nebr, Nov. 22, 86. A.B, Nebraska, 07, A.M, 08, fellow, 08–09; California, 09–10, Ph.D, 12. Asst. exp. physiol, California, 09–10; head dept. biol, high sch, Calif, 10–21; *head dept. biol. and dean lower div, San Jose State Col, 21–, prof. biol. science.* Private investigator, Herzstein Research Lab, 09–19. A.A. Physicochemical reactions in developing eggs of marine animals; intestinal parasites of marine fish; botulism.

Elder, Prof. Joseph D(enison), Lynchburg College, Lynchburg, Va. *Physics.* Denver, Colo, Aug. 20, 05. A.B, Princeton, 27, A.M, 28, 32–33; Columbia, 33–35. Instr. physics, Vermont, 28–32; Haverford Col, 37–39; asst. prof. *physics and math, Lynchburg Col,* 39–40, *assoc. prof, 40–* Assoc. ed, 'Demonstration Experiments in Physics,' Am. Asn. Physics Teachers, 35–38; 'Am. Jour. Physics,' 43– Physical Soc; Asn. Physics Teachers; Franklin Inst; Va. Acad. Atomic spectra; demonstration experiments in physics.

Elder, Dr. Lucius Williams, Jr, 25 Vinton Road, Madison, N. J. *Chemistry.* Wayne, Pa, March 26, 00. A.B, Haverford Col, 20; A.M, Harvard, 23, Ph.D, 26. Sheldon fellow from Harvard, Cambridge, 26–27; assoc. chem, Illinois, 27–30; supt. process lab, du Pont Ammonia Corp, 30–32; research chemist, *Gen. Foods Corp,* Battle Creek, Mich, 32–37, *Hoboken, N. J,* 37–42, *director sect. physical chem, cent. research labs, 42–* Combustion engineer, U. S. Coal Eliminator Corp, Chicago. Chem. Soc. (sec'y, Ill. sect, 29). Physicochemical methods in analytical chemistry; food technology.

Elder, Dr. W(illia)m H(anna), University of Chicago, Chicago, Ill. *Pharmacology.* Oak Park, Ill, Dec. 24, 13. B.S, Wisconsin, 36, Ph.M, 38, Ph.D, 42; Michigan, 37. Asst. zool, Wisconsin, 36–41; game technician, Ill. Nat. Hist. Surv, 41–43; *research asst. pharmacol, Chicago, 43–* Physiology of reproduction; sexual cycle of the cottontail rabbit; biology of the Canada goose.

Elderfield, Prof. R(obert) C(ooley), Columbia University, New York, N. Y. **†Organic chemistry.* Niagara Falls, N. Y, May 29, 04. A.B, Williams Col, 26; Ph.D, Mass. Inst. Tech, 30. Instr, Colby Col, 30; asst, Rockefeller Inst, 30–32, assoc, 32–36; asst. prof. *chem, Columbia,* 36–37, assoc. prof, 37–41, *prof, 41–* Summer, instr, Illinois, 38. Chem. Soc; Soc. Biol. Chem. Pharmacology; guanidine and derivatives; cardiac drugs; sugars; pyridine derivatives; alkaloids.

Eldering, Dr. Grace, 720 Fuller, N.E, Grand Rapids, Mich. *Bacteriology, Immunology.* Myers, Mont, Sept. 5, 00. A.B, Montana, 27; Sc.D, Hopkins, 41. *Bacteriologist, State Dept. Health, Mich, 28–* A.A; Soc. Bact; fel. Pub. Health Asn. Pertussis and related organisms.

Eldred, Dr. Frank R(andall), Reed and Carnrick, Jersey City, N. J. *Chemistry.* Ligonier, Ind, Oct. 21, 74. Ph.C, Purdue, 97; Phar.D, Medico-Chirurg. Col. Phila, 13. Asst. chem, Purdue, 98; anal. chemist, 99–01; chemist, Eli Lilly

and Co, 01–09, chief chemist and director sci. div, 09–20, chem. consultant, 20–21; consulting chem. engineer, 21–24; *chem. engineer and director research, Reed and Carnrick, 24–* A.A; Chem. Soc. (sec'y, div. pharmaceut. chem, 11–13, chairman, 14, pres, Ind. sect, 11); Inst. Chem; Chem. Eng; Pharmaceut. Asn. (chairman, sci. sect, 12); Soc. Chem. Indust; Chemists' Club. Medicinal and food products; endocrinology.

Eldredge, I(nman) F(owler), U. S. Forest Service, New Orleans, La. *Forestry.* Camden, S. C, March 24, 83. Clemson Col, 00–03; B.F, Biltmore Forest Sch, 05. From junior forester to forest inspector, U. S. Forest Service, 05–17, 19–25; manager, Suwanee Forest, Superior Pine Products Co, Fargo, Ga, 26–31; *prin. economist and regional director forest surv, South. Forest Exp. Sta, U. S. Forest Service, 31–* Mem. advisory board, Pack Forestry Foundation; south. divs, Nat. Resources Planning Board. C.Eng, 17–19, capt. Soc. Foresters (councilor, 40); New Orleans Acad; New Orleans Plant Soc. Forest management; forest economics of the South.

Eldredge, Prof. J(ohn) C(rosby), Iowa State College, Ames, Iowa. *Agronomy.* Earlville, Iowa, April 21, 86. B.S, Iowa State Col, 15, M.S, 24, Ph.D, 33. County agent, 15–20; asst. prof. *farm crops, Iowa State Col,* 21–36, *assoc. prof, 37–* Soc. Agron. Farm crops; plant physiology; genetics of corn; artificial damage to corn and small grain and its effect on yield; popcorn breeding and storage.

Eldridge, Prof. John A(dams), 112 S. Governor St, Iowa City, Iowa. *Physics.* Washington, D. C. A.B, Wesleyan, 13; Ph.D, Wisconsin, 22. Instr. *physics,* Wisconsin, 18–24; assoc. prof, *Iowa,* 24–29, *prof, 29–* Conduction in gases; resonance and ionization potentials; kinetic theory of gases.

Eldridge, Dr. Robert W(alker), 194 Hillside Ave, Nutley, N. J. *Organic chemistry.* Moscow, Idaho, Jan. 24, 03. B.S, Idaho, 23; Ph.D, Yale, 27. *Research chemist, U. S. Rubber Co, Passaic, N. J, 26–, patent liaison, 30–* Chem. Soc. Syntheses in the quinoline series; rubber antioxidants and accelerators; vulcanization and aging of rubber.

Elek, Dr. Adalbert, Rockefeller Institute for Medical Research, New York, N. Y. *Chemistry.* Hungary, May 3, 87. Dipl, Royal Univ. Budapest, 05, Ph.D, 11. *Micro-anal. chemist, Rockefeller Inst, 17–* Chem. Soc; Metrop. Micro-Chem. Soc. (v. chairman, 38–40; chairman Pregl group, 38–40). Micro-analytical chemistry; micro-analytical determination of carbon, hydrogen, nitrogen, phosphorus, sulphur and the halogens; micro bomb method of analysis; micro-analytical determination of acetyl and alkoxyl groups.

Elftman, Dr. Herbert, Columbia University, New York, N. Y. *Anatomy.* Minneapolis, Minn, Oct. 31, 02. A.B, California, 23, A.M, 25; Ph.D, Columbia, 29. Asst. paleont. and geol, California, 23–25; zool, *Columbia,* 26–28, lecturer, *Seth Low Junior Col,* 28–29, asst. prof, 29–40, *instr. anat, 40–* A.A; Soc. Mammal; Asn. Physical Anthrop; Asn. Anat; Physiol. Soc. Evolution of the locomotor system of vertebrates; mammalian paleontology; evolutionary adaptations of anthropoids; physiology of locomotion.

Elges, Lieut. Col. Carl H(enry), Jr, P. O. Box 1664, Reno, Nev. *Hydrology.* Sparks, Nev, June 20, 10. B.S, Nevada, 32, M.S, 34. Asst. meteorologist, Exp. Sta, Nevada, 32–41; *lieut. col, U.S.A, 41–* Mem, Int. Cmn. Snow. Geophys. Union (sec'y cmt. snow, 36–41); Meteorol. Soc. Scientific hydrology; forecasting streamflow from snow.

Elgin, Prof. Joseph C(lifton), Princeton University, Princeton, N. J. *Chemical engineering.* Nashville, Tenn, Feb. 11, 04. Chem.E, Virginia, 24, fellow, 24–25, du Pont fellow, 25–26, M.S, 26; du Pont fellow, Princeton, 27–28, Procter fellow, 28–29, Ph.D, 29. Acting asst. prof. physical chem, Virginia, 26–27; instr. *chem. eng, Princeton,* 29–31, asst. prof, 31–35, assoc. prof, 35–39, *prof, 39–, chairman dept, 36–; consultant, Nat. Defense Research Cmt, 40–; chief copolymer equipment develop. branch, Office Rubber Director, 42–* Am. Petrol. Inst. fellow, Princeton, 29–31; research consultant, indust. firms, 31– Summer, control chemist, Johns-Manville Co, 25; Brookes industrial traveling fellow, eng. sch, Princeton, 31. Chem. Eng. (chairman cmt. student chaps, 37–39; mem. admissions and educ. cmts, 40–); Min. and Metal. Eng; Chem. Soc; Eng. Educ. Chemical engineering; heterogeneous catalysis and reaction velocity; photochemistry; gas absorption; adsorption; liquid-liquid solvent extraction; friction materials; rubber plastics; textile finishing.

Elhardt, Dr. W(alter) P(hilipp), 12 W. Central Ave, Miamisburg, Ohio. *Physiology.* Miamisburg, Ohio, Sept. 29, 93. B.S, Ohio State, 22, A.M, 25, Ph.D, 32; summers, Wisconsin, 26–29; Illinois, 31–32. Teacher, high sch, Ohio, 22–24; asst. *physiol,* Ohio State, 27–29; *Illinois,* 29–32, instr, 32–40, *assoc, 40–* Alcohol with relation to growth and activity; anesthetizing power of alcohol; pain and weather; effect of water polo on blood pressure and pulse rate.

Elias, Prof. Hans (Michael), 103 Riverview Ave, Waltham, Mass. *Embryology.* Darmstadt, Germany, June 28, 07. Berlin, 28; Ph.D, Giessen, 31. Teacher, schs, Germany, 31–34; research fellow, Fed. Polytechnicum, Zurich, 35; Padua, 36; research worker in charge lab. histol. and cinematography, Italian Nat. Research Council, 37–38; *prof. histol. and embryol, Middlesex, 39–* Soc. Zool; Soc. Adv. Educ; Boston Soc. Biol; Asn. pour la documentation photographique et cinématographique dans les sciences. Comparative histology; amphibian integument; chromatophores; the problem of syncytia; histogenesis; educational questions.

Elias, Prof. M(axim) K(onradovich), State Geological Survey, University of Nebraska, Lincoln, Nebr. *Paleontology, Paleoecology, Stratigraphy.* Minsk, Russia, Aug. 12, 89. E.M, Mining Inst. of St. Petersburg, 17; Ph.D, Yale, 39. Geologist, Verk-Isetsk Mining Co, Russia, 17–18, chief geologist, 18–20; geologist, Kans. Geol. Surv, 27–37; *paleontologist, Nebr. Geol. Surv, 39–, assoc. prof. paleont, Nebraska.* Docent, Ural Mining Inst, Russia, 17; prof, Vladivostok Polytech. Inst, 20–23; Nat. Acad. grant, 33; Carnegie Inst. New York grant, 38. A.A; fel. Geol. Soc; fel. Paleont. Soc. Fossil grasses and cryptogams; earliest conifers; ammonites, bryozoa and other late Paleozoic and Cretaceous marine invertebrates; environment and evolution; size in evolution.

Elias, N(athaniel) M, 14 Washington Square, New York, N. Y. *Chemical engineering.* New York, N. Y, Feb. 21, 95. B.S, Columbia, 15, 29–30. Research chemist, Thomas A. Edison, 15–16; Edison Storage Battery Co, 16–17; research and develop. intermediates and dyes, E. I. du Pont de Nemours and Co, 17–21; chief chemist, Tower Mfg. Co, 21–22; Fletcher Chem. Co, 22–23; *consulting chemist and private research, 23–* A.A; Chem. Soc; Min. and Metal. Eng; assoc. Elec. Eng; Chemists' Club. Organic chemistry; dyes; intermediates; pharmaceutical products; plastic materials; thermal insulating materials; solvents and lacquers; textile materials and processes; synthetic rubber.

Eliason, Prof. A(fton) Y(eates), 6126 Sunset Drive, Fresno, Calif. *Physics.* Garland, Utah, Oct. 14, 06. B.S, Utah State Col, 28; A.M, California, 30, Ph.D, 33. Teaching fellow, California, 28–32, research assoc, 33–34; from instr. to *assoc. prof. physics, Fresno State Col, 35–* Line spectra.

Eliason, Major E(verett) J(ohn), Ft. Lawton, Seattle, Wash. *Forestry.* Richmond, Ind, March 1, 01. B.S, Purdue, 23; M.S, Syracuse, 25, 25–27, 28–29; Am-Scandinavian Foundation fellow, Sweden, 27–28. *Asst. forest pathologist, Conservation Dept, N. Y, 29–;* capt, Field Artil, *U. S. Army,* 40–43, *major, Transportation Corps, 43–* Phytopath. Soc; Soc. Foresters. Forest pathology; forest nursery; tree seeds.

Elicaño, Victoriano, 181 David, Manila, P. I. *Geology, Mining.* Masinloc, Zambales, P. I, March 5, 87. B.S, Mo. Sch. Mines, 09. Surveyor and building inspector, Olongapo Naval Sta, U.S.N, 09–11; assayer, Keystone Mining Co, Aroroy, 13–16; asst. geologist, Bur. Science, P. I, 17–21, geologist, 21–23, chief div. geol. and mines, 23–33, asst. director, 24–30; *tech. v. pres, Consol. Mines, Inc, 33–* Mem, Philippine Board Examiners for Mining Engineers, 27–33, chairman, 27, 29; Nat. Research Council, P. I, 34– Del, Pan-Pacific Sci. Cong, Australia, 23, Japan, 26. Min. and Metal. Eng; P. I. Sci. Soc. (pres, 24).

Eliot, Prof. Theodore S(essinghaus), 875 Monroe Ave, Memphis, Tenn. *Histology, Embryology.* Milwaukee, Wis, May 24, 00. A.B, Reed Col, 21; fellow, Kansas, 21–22, A.M, 22; fellow, Chicago, 22–25, Ph.D, 25. Instr. *histol. and embryol,* sch. med. and sch. dentistry, Western Reserve, 25–27; *assoc. prof, col. med. and col. dentistry, Tennessee, 27–* A.A. Blood circulation.

Eliot, Prof. Thomas D(awes), 768 Foxdale Ave, Winnetka, Ill. *Sociology.* Portland, Oregon, 89. A.B, 10, A.M, 12, Ph.D, 14. State Col. Wash, 16–17; *prof. sociol, Northwestern, 19–* Lecturer, Nat. Col. Educ, 22–28; Presb. Hosp. Sch. for Nurses, 23–28; acting prof, Pomona Col; Washington (Seattle). Summers, California, Oregon and Washington (Seattle). Capt, Sanit.C, 17–19. Sociol. Soc. (exec. cmt, 27–29, finance cmt, 25–31); Asn. Social Workers; Soc. Social

Research; Soc. Personality Study; Conf. Social Work; Soc. Gen. Semantics; Chicago Acad. Criminol. Social psychology; juvenile courts; prevention of delinquency; social hygiene; social economy; standards of living; bereavement.

Elkin, Prof. Daniel C(ollier), 618 Doctors Bldg, Atlanta, Ga. *Surgery.* Louisville, Ky, March 26, 93. A.B, Yale, 16; M.D, Emory, 20. Asst. *surg,* Harvard, 22–23; instr, *Emory,* 23–24, assoc, 24–30, prof, 30–40, *Whitehead prof, 38–; lieut. col, Med. Corps, U. S. Army.* Rudolf Matas medal, Tulane, 40. Fel. Col. Surg; Surg. Asn; Soc. Clin. Surg; East. Surg. Soc. (sec'y, 31–); South. Surg. Soc; South. Med. Asn. (sec'y, surg. sect, 30, chairman, 32). Surgery of the lung and heart.

Elkin, Dr. Eugene M(itchell), 4949 Queen Mary Road, Montreal, Que, Can. *Chemistry, Chemical engineering.* Poltava, Russia, May 9, 06. B.Sc, Manitoba, 29; B.E, M.Sc, McGill, 33, Ph.D, 35. Demonstrator physics, Manitoba, 28–31; asst. and demonstrator chem, McGill, 32–35; chemist, Donald-Hunt, Ltd, Montreal, 35; *research chemist and chem. engineer, Can. Copper Refiners, Ltd, Montreal, 36–* Soc. Chem. Indust. Kinetics of gaseous reactions; catalysis; electrolysis; refining of copper; recovery of precious metals and of nickel selenium and tellurium; manufacture of selenium dioxide and copper sulphate; utilization of pyrite.

Elkind, Dr. Henry B(yron), 3 Joy St, Boston, Mass. *Public health.* Lawrence, Mass, May 10, 93. M.D, Tufts Col, 15; Dr.P.H, Harvard, 25. Private practise, Worcester, 16–22; State Hosp. Mental Diseases, Howard, R. I, 22–23; *med. director, Mass. Soc. Mental Hygiene, 25–* Pub. Health Asn; Am. Med. Asn; Psychiat. Asn; New Eng. Psychiat. Soc; Mass. Psychiat. Soc. Mental hygiene in industry; statistics of mental disease; mental hygiene and education.

Elkins, Dr. Hervey B(ertrand), Edgewood Arsenal, Md. *Chemistry.* Bath, N. H, Aug. 13, 05. A.B, Harvard, 28, A.M, 30, Ph.D, 33. Asst. and instr. qualitative anal, Harvard, 28–33, Sheldon traveling fellow chem, 33–34; chemist, div. occupational hygiene, State Dept. Labor and Industries, Mass, 34–42; *lieut, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Electrochemistry of fused salts; photochemistry; optical activity; industrial hygiene.

Elkins, Thomas A(nthony), 3255 Parkview Ave, Pittsburgh, Pa. *Mathematics.* Pittsburgh, Pa, Nov. 17, 06. B.S, Carnegie Inst. Tech, 27, M.S, 31; A.M, Princeton, 35. Instr. math, night sch, Carnegie Inst. Tech, 25–28; draftsman, McClintic-Marshall Construction Co, Rankin, Pa, 27–30; *geophysicist, Gulf Research and Develop. Co,* 30–33, 34, *35–* Physical Soc; Soc. Explor. Geophys; Inst. Math. Statist; Physical Soc. Pittsburgh. Geophysical prospecting; mathematical and statistical problems arising in the interpretation of gravity and magnetic prospecting data; mountain building.

Ell, Pres. Carl S(tephens), Northeastern University, Boston, Mass. *Engineering.* Staunton, Ind, Nov. 14, 87. A.B, DePauw, 09, Sc.D, 35; B.S, Mass. Inst. Tech, 11, M.S, 12; Ed.M, Harvard, 32. Instr. civil eng, *sch. eng, Northeastern,* 10–17, asst. dean, 14–17, dean, 17–40, v. pres. *univ,* 25–40, *pres, 40–* Sanit. engineer, State Dept. Health, N. Y, 11, 14, 17. A.A; Civil Eng; Eng. Educ. (chairman, New Eng. sect, 35–37, chairman cmt. instructional methods, 39–; councilor, 40–); Soc. Adv. Educ; Mech. Eng; Eng. Socs. New Eng; Boston Soc. Civil Eng. Educational administration; teaching methods.

Elledge, Dr. H(arvey) G(erald), 843 Mentor Ave, Painesville, Ohio. *Industrial chemistry.* McKune, Kans, July 1, 82. B.S, Kansas, 08; M.S, Pittsburgh, 16, Ph.D, 21. Chemist, Kans. Geol. Surv, 08; U. S. Bur. Mines, 09–11; indust. fellow, Mellon Inst, 14–23; *research chemist, Diamond Alkali Co, 23–* Chem. Soc. Alkalies and the surface tension of soap solutions; the bactericidal value of soap solutions; solubility determinations of calcium and magnesium soaps; laundering.

Ellefson, Dr. Bennett, 116 W. Fourth St, Emporium, Pa. *Physical chemistry, Ceramics.* Canby, Minn, Jan. 10, 11. A.B, St. Olaf Col, 32; fellow, Minnesota, 32–33, M.S, 33; N. Y. Univ, 33–34; Ph.D, Pa. State Col, 37. Teaching fellow, N. Y. Univ, 33–34; asst, Pa. State Col, 34–37; *research chemist, Sylvania Elec. Products, Inc, 37–* A.A; Chem. Soc. (chairman, N. Y-Pa. west. border sect, 40); Ceramic Soc; Radio Eng. Crystal structure x-ray; electrokinetics; surface properties of molten salts and glasses; fluorescent materials.

Ellegood, Dr. John A(lan), Sharp and Dohme, Inc, Glenolden, Pa. *Pharmaceutical chemistry.* Tanana, Alaska, Dec. 18, 04. B.S, Washington (Seattle), 36, M.S, 38, Ph.D, 42. Asst. state chemist, Wash, 37–41; chemist, State Board Pharmacy and prof. pharmaceut. analysis, sch. pharmacy, Oregon State Col, 41–42; *asst. director control, Sharp and Dohme, Inc, 42–* A.A; Pharmaceut. Asn. Quantitative extraction of alkaloidal poisons from desiccated animal tissue.

Ellenberger, Prof. H(oward) B(owman), University of Vermont, Burlington, Vt. *Animal and dairy husbandry.* Dallas, Iowa, Nov. 15, 82. B.S.A, Iowa State Col, 05; M.S.A, Cornell, 15, Ph.D, 17. Farm supt, 06–13; instr. dairy indust, Cornell, 14–17; *prof. animal and dairy husbandry, Vermont, 17–, head dept, 18–* Chairman, New Eng. Governors Dairy Advisory Board, 32–33. Dairy Sci. Asn. (chairman, production sect, 30, pres, 31); Soc. Animal Production. Animal nutrition; dairy production and manufacturing.

Ellenwood, Prof. Frank O(akes), 111 Harvard Place, Ithaca, N. Y. *Mechanical engineering.* Little Hocking, Ohio, Nov. 10, 78. A.B, Stanford, 04, M.E, 22. Construction dept, C. C. Moore and Co, Calif, 04; Tonopah Ry. Co, Nev, 05–06; mem, Garage Co, Calif, 07–08; instr. mech. eng, Stanford, 08–11; asst. prof. *heat-power eng, Cornell,* 11–16, prof, 16–41, *John Edson Sweet prof. eng, 41–* Develop. dept, Goodyear Tire and Rubber Co, Ohio, 19–21. Summers, Gen. Elec. Co, Schenectady, 13, 14, 16. Head engine dept, Sch. Mil. Aeronautics, U.S.A, Cornell, 17–19. Mech. Eng. (chairman, Akron sect, 21); Eng. Educ; Soc. Refrig. Eng. Temperatures of pneumatic truck tires; steam charts suited for steam turbine calculations; effect of steam pressure and cycle on steam power plant economy; efficiency of steam prime movers and of Otto and Diesel engines; heat-power engineering; steam ejectors and specific heats of gases under high pressure.

Eller, Dr. C(harles) Howe, 1923 E. Monument St, Baltimore, Md. *Epidemiology, Public health administration.* Bloomington, Ind, June 5, 04. A.B, Stanford, 27; M.D, Colorado, 30; Dr.P.H, Hopkins, 34. Health officer, N. Mex. and Va, 32–36; assoc. prof. prev. med, sch. med, Virginia, 35–36; director rural health, State Dept. Health, Va, 36–37; *director east. health dist, Baltimore, Md, 37–; assoc. prof. pub. health admin, sch. hygiene and prev. med, Hopkins, 38–* Lecturer, sch. med, Hopkins, 37–40. Fel. Am. Med. Asn; fel. Pub. Health Asn. Diphtheria.

Eller, Prof. Willard H(enry), University of Hawaii, Honolulu, Hawaii. *Physics.* Stockton, Calif, Aug. 15, 92. B.S, California, 14; M.S, Washington (Seattle), 25; Whiting fellow, California, 27–28, Ph.D, 28. Instr. elec. eng, Idaho, 16–19, *physics,* 19–20; Washington (Seattle), 20–25; teaching fellow, California, 25–27; instr, *Hawaii,* 28–29, asst. prof, 29–35, assoc. prof, 35–40, *prof, 40–, head dept, 32–* Physical Soc; Seismol. Soc; Asn. Physics Teachers; Geophys. Union; Hawaiian Acad; Soc. Nautical Research Gt. Britain. Photoconductivity in dielectric liquids; a new recording tiltmeter; control unit for experiments on hysteresis loops and magnetization curves.

Ellery, Prof. Edward, Union University, Schenectady, N. Y. *Chemistry.* Albany, N. Y, July 24, 68. A.B, Colgate, 90, A.M, 93, Sc.D, 14; Ph.D, Heidelberg, 96; Berlin, 09; Sc.D, Pittsburgh, 31; LL.D, George Washington, 37. Instr. chem, Colgate, 90–91; science, Vt. Acad, 91–94, prin, 97–04; prof. *chem, Union (N. Y.),* 04–41, *emer. prof, 41–,* dean faculty, 19–34, acting pres, 34–35, chairman faculty, 35–41. Tour of Am. univs, 14–15; lecturer, univs, England, 25–26; visiting lecturer, Hawaii, 41. Mem. div. chem. and chem. technol, Nat. Research Council. A.A; Chem. Soc. (councilor, sect. east. N. Y, mem, cmt. on relation of industries and univs); Sigma Xi (nat. sec'y, nat. pres). Inorganic chemistry; organic derivatives; sulfuric acid; silicon compounds; mineral waters; sanitation; history of Sigma Xi.

Ellestad, Dr. R(euben) B, University of Minnesota, Minneapolis, Minn. *Chemistry.* Lanesboro, Minn, May 10, 00. B.S, Minnesota, 22, M.S, 24, Ph.D, 29. Asst, Harvard, 26–28; *instr. chem,* Tufts Col, 28–29; *Minnesota, 29–* Chemist, Rock Anal. Lab, 29–42; Metalloy Corp, 42– Chem. Soc. Inorganic and analytical chemistry.

Ellett, Prof. A(lexander), State University of Iowa, Iowa City, Iowa. **5Physics.* Chillicothe, Mo, Sept. 5, 94. A.B, Colorado, 21; Ph.D, Hopkins, 23. Instr. *physics,* Colorado, 19–20, 21–22; Hopkins, 22–23; nat. research fellow, 23–25; asst. prof, *Iowa,* 25–28, assoc. prof, 28–29, *prof, 29–* Assoc. ed, 'Physical Rev,' 34–36. Physical Soc. Polarization of resonance radiation and of light excited by electron impact; scattering of atoms by crystals.

Elley, Dr. Harold W(alter), 716 Greenhill Ave, Wilmington, Del. *Chemistry.* Madison, Nebr, May 16, 91. B.S, Nebraska, 12, A.M, 13; Ph.D, Cornell, 16. Asst. instr. chem, Nebraska, 10–13; Cornell, 13–16; head org. div, east. lab, *E. I. du Pont de Nemours and Co,* 16–19, asst. chem. director org. sect, chem. dept, 19–21, head intermediates div, Jackson lab, 21–26, assoc. director lab, 26–29, chem. director org. chem. dept, 29–33, assoc. chem. director consol. org. chem. dept. and Newport Chem. Co, 33–38, *chem. director org. chem. dept, 38–* Chem. Soc. (chairman, dye div, 29–31); Chem. Eng; Franklin Inst. Organic chemistry; intermediates for dyes; dyes; accelerators for the vulcanization of rubber; flotation reagents; solvents; organic chemicals; detergents; petroleum chemicals; perfumes; vitamins.

Ellickson, Dr. Raymond T(horwald), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Physics.* Charlson, N. Dak, March 5, 10. A.B, Reed Col, 35; A.M, Oregon State Col, 36; fellow, Chicago, 37–38, Ph.D, 38. Instr. *physics, Polytech. Inst. Brooklyn,* 38–42, *asst. prof, 42–* A.A; Physical Soc. Cosmic rays; theory of diffusion in solids.

Ellicott, Dr. Valconlon LeMoyne, Rockville, Md. *Public health.* Md, Nov. 15, 93. B.S, Mass. Inst. Tech, 16; M.D, Hopkins, 20, Dr.P.H, 21. Epidemiologist, State Health Dept, N. Y, 21–23; Health Dept, Baltimore, 23–32; *health officer, Montgomery County, Md, 32–* A.A; fel. Pub. Health Asn.

Elliker, Prof. P(aul) R(euben), Purdue University, West Lafayette, Ind. *Dairy bacteriology.* La Crosse, Wis, Feb. 12, 11. B.S, Wisconsin, 34, M.S, 35, Ph.D, 37. Instr. dairy and food bacter, Wisconsin, 37–38; indust. fellow food refrigeration research, Maryland, 38–39; instr. agr. bact, Wisconsin, 39–40; asst. prof. *dairy bacter, Purdue,* 40–42, *assoc. prof, 42–, assoc. in research in dairy bacter, 40–* Dairy Sci. Asn. (ed. bact. sec, 'Jour. Dairy Sci. Abstracts,' 40–); Int. Asn. Milk Sanitarians. Microbiology of butter, milk and cheese.

Ellingboe, Dr. E(llsworth) K(nowlton), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Menasha, Wis, Oct. 14, 09. A.B, Lawrence Col, 30; A.M, Illinois, 32, Carr fellow, 33–34, Ph.D, 34. *Chemist, exp. sta, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. Grignard reagent; cyclobutane derivatives; organic synthesis.

Ellingson, Prof. E(mil) O(scar), 701 W. Third St, Northfield, Minn. *Chemistry.* Nicollet, Minn, Oct. 14, 77. B.S, St. Olaf Col, 06; A.M, Wisconsin, 10, Ph.D, 12. Instr. chem, St. Olaf Col, 06–09; Wisconsin, 09–19; *prof. org. and anal. chem, St. Olaf Col, 19–, head dept. chem, 24–* Chem. Soc. (treas, Wis. sect, 17). Abietic acid; heat of neutralization; action of ferric chloride on wood; adsorption of bromine by dry lime; qualitative analysis.

Ellingson, Sister M(ary) A(loyse), Loretto Teachers College, Nerinx, Ky. *Protozoology, Horticulture.* Denver, Colo, Sept. 28, 93. A.M, De Paul, 25; Ph.D, St. Louis, 32. Instr. *biol,* Loretto Heights Col, 22–25; prof. and director dept, Webster Col, 25–32; Loretto Heights Col, 32–37; *prof. and consulter biol. sciences, Loretto Teachers Col, 37–* A.A; Genetic Asn; Colo-Wyo. Acad; St. Louis Acad. Physiological conditions of Amoeba proteus; morphological and physiological characteristics of Endamoeba histolytica; plant physiology; conifer culture; insecticides; fungicides; growth stimulants.

Ellingson, Dr. R(udolph) C(onrad), 620 Sunset Ave, Evansville, Ind. *Organic chemistry.* Madison, Wis, March 8, 11. A.B, St. Olaf Col, 33; Ph.D, Hopkins, 38. Instr. chem, Hopkins, 38–39; *research chemist, Mead Johnson and Co, 39–* Chem. technician, Mass. Inst. Tech, 33–34. Summers, Thiokol Corp, 36–37. Chem. Soc. Organic chemistry of vitamins; chemotherapeutics and the pyrrole series.

Ellington, Prof. E(lmer) V(erne), 1809 Monroe St, Pullman, Wash. *Dairy husbandry.* Peru, Mo, Feb. 8, 88. B.S, Missouri, 10. Exten. specialist dairying, Idaho, and U. S. Dept. Agr, 10–11; assoc. prof, Idaho, 12–13, prof. dairy husbandry and dairyman, Exp. Sta, 13–16; asst. in charge dairy exten, U. S. Dept. Agr, 17–22; *prof. dairy husbandry and head dept, State Col. Wash, and dairy husbandman, Exp. Sta, 22–, v. dean col. agr. and v. director, Exp. Sta, 34–* A.A; Dairy Sci. Asn. (chairman, west. div, and mem, exec. cmt, 26); Northwest Sci. Asn. Nutrition of dairy cattle; genetics of dairy cattle breeding.

Elliot, Dr. A(lbert) H, Cottage Hospital, Santa Barbara, Calif. *Medicine.* Oakland, Calif, June 5, 02. A.B, California, 23, M.D, 27. Res. physician, *Santa Barbara Cottage Hosp,* 28–29, assoc. cardiovascular research, 29–36, *mem, Santa Barbara Clinic, 37–* Am. Med. Asn; fel. Col. Physicians; fel. Am. Heart Asn. Etiology and statistics of essential hypertension; experimental production of hypertension and arteriosclerosis; chronic nephritis; degenerative heart disease; peripheral vascular disease.

Elliot, Dr. Alfred J(ohnston), Vision Laboratory, McGill University, Montreal, Que, Can. *Ophthalmology.* Calgary, Alta, Aug. 16, 11. B.A, British Columbia, 32; M.D, Toronto, 37; Med.Sc.D, Columbia, 41. Res. ophthal. surgeon, New York Eye and Ear Infirmary, 38–41; *squadron leader, Med. Corps, Royal Can. Air Force, 41–* Can. Med. Asn. Aviation ophthalmology; diseases of the cornea, conjunctiva, lacrimal apparatus and extra-ocular muscles.

Elliott, Prof. A(lfred) M(arlyn), State Teachers College, Bemidji, Minn. *Zoology.* Humboldt, S. Dak, 05. A.B, Yankton Col, 28; fellow, N. Y. Univ, 30–34, M.S, 31, Ph.D, 34. *Prof. biol, Minn. State Teachers Col, Bemidji, 34–, chairman div. science, 38–* Summers, instr, Col. City of N. Y, 34; investigator, Stanford, 36. A.A; Micros. Soc; Soc. Zool; Minn. Acad. (v. pres, 38). Protozoology; cytology and life histories; bacteria-free culture of ciliates; protein, fat and carbohydrate utilization; hormones and vitamins in protozoan nutrition.

Elliott, Prof. Ben(jamin) G(eorge), University of Wisconsin, Madison, Wis. *Engineering.* North Platte, Nebr, Feb. 17, 89. B.S, Rose Polytech, 10, M.S, 11; fellow, Wisconsin, 12–13, M.E, 13. Instr. *mech. eng,* Wisconsin, 13–15; assoc. prof, Nebraska, 15–17; *Wisconsin,* 17–19, *prof, 19–* Mech. Eng. Gas and steam engineering; gas engines and turbines; fuels and combustion.

Elliott, Dr. Charlotte, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Berlin, Wis, Aug. 2, 83. A.B, Stanford, 07, A.M, 13; Asn. Col. Alumnae fellow, Wisconsin, 17–18, Ph.D, 18. Teacher, high sch, S. Dak, 07–08; instr. biol. and geog, S. Dak. State Nor. Sch, Spearfish, 08–12; bot, S. Dak. State Col, 14–16; sci. asst, *lab. plant path, bur. plant indust, U. S. Dept. Agr,* 18–22, asst. pathologist, 22–23, assoc. pathologist, 23–40, *pathologist, div. cereal crops and diseases, 40–* A.A; Phytopath. Soc; Bot. Soc. Wash. (pres, 42); Wash. Acad. Bacterial diseases of corn.

Elliott, Prof. D(aniel) S(tanley), Tulane University, New Orleans, La. *Physics.* Baltimore, Md, Aug. 3, 85. A.B, Hopkins, 11, A.M, 13, fellow, 13–14, Ph.D, 14. Instr. *physics,* Ga. Tech, 14–15, asst. prof, 15–16, assoc. prof, 16–17, acting prof, 18–19; prof, *Tulane,* 20–35, *W. R. Irby prof, 35–, head dept, 20–* V. pres. acad. board and head depts. radio and airplanes, Sch. Mil. Aeronautics, U.S.A, 17–18, O.T.C, 18. A.A; fel. Physical Soc. (chairman, southeast. sect, 36); Eng. Educ. (councilor, 37–39); Asn. Physics Teachers (exec. cmt, 38; chairman, La. sect, 40); La. Eng. Soc; New Orleans Acad. (treas, 33). Engineering physics; photoelectricity; acoustics.

Elliott, Pres. Edward C(harles), Purdue University, Lafayette, Ind. *Education.* Chicago, Ill, Dec. 21, 74. B.S, Nebraska, 95, fellow, 95–97, A.M, 97; fellow, Columbia, 04–05, Ph.D, 05, LL.D, 29; LL.D, DePauw, 28, Butler, 28, Oregon State Col, 30, Nebraska, 36, Indiana, 40; Litt.D, Hahnemann Med. Col, 41. Instr, high sch, Colo, 97–98, sch. supt, 98–03; assoc. prof. educ, Wisconsin, 05–07, prof, 07–16, director course for training of teachers, 09–16; chancellor, Montana, 16–22; *pres, Purdue, 22–* Chief div. professional and tech. training, War Manpower Cmn, 42–43. Summers, lecturer, Columbia, 07, 25; Chicago, 11, 26; George Peabody Col, 30. Special investigations, U. S. Bur. Educ, 06–10; sch. inquiry, New York, 11–12, Vt, 13; Educ. Finance Inquiry, 21–25; conciliator, Ind. coal indust, 29–30; mem, Regents Inquiry, N. Y, 35–37; adviser, Philippines, 38. Pres, Purdue Research Foundation, 30; mem, Nat. Advisory Cmt. on Educ, 29–; science cmt, Nat. Resources Planning Board, 35–; trustee, Carnegie Foundation, 34; mem. cmt. wartime requirements specialized personnel, Nat. Resources Planning Board, 42– Educ. director, northwest. states, S.A.T.C, 18. A.A; Am. Council Educ. (chairman, 37); Nat. Occupational Conf; Inst. Social Sci; Ind. Acad. Statistical analysis of expenditures for public education; educational legislation; unit costs of higher education; measurement of selective forces in higher education; government of higher education; occupational training.

Elliott, Prof. E(mmet) R(oach), Hampden-Sydney College, Hampden-Sydney, Va. *Mathematics.* Darlington Heights, Va, 08. B.S, Hampden-Sydney Col, 28; A.M, Duke, 29, fel.

low, 32-34, Ph.D, 35. Instr. math, N. C. State Col, 29–31; Pennsylvania, 31–32; asst. prof. *math, Hampden-Sydney Col,* 34–35, *assoc. prof, 35–* Summers, assoc. prof, Fla. State Col. for Women, 39; mem. faculty, eng. defense training program, Pa. State Col, 41. Math. Soc; Va. Acad. Lebesque and Stieltjes integrals with reference to boundary value problems.

Elliott, Dr. F(oster) F(loyd), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Eubank, Ky, Jan. 3, 95. B.S, Kentucky, 19; M.S, Illinois, 20; Ph.D, Wisconsin, 26. Exten. economist, Illinois, 20–22; statistician, Nat. Milk Production Federation, 25; from assoc. agr. economist to senior agr. economist, div. farm management and costs, bur. agr. econ, U. S. Dept. Agr, 25–30; agr. expert in charge tabulations by type of farm and value of products, bur. census, U. S. Dept. Commerce, 30–32; chief production planning sect, program planning div, agr. adjust. admin, *U. S. Dept. Agr,* 34–35, director div, 36–39, *chief agr. economist, bur. agr. econ, 39–* Farm Econ. Asn. (past pres). Elasticity of supply and other phases of price analyses; type of farm; agricultural adjustment, conservation and planning.

Elliott, Dr. Frances Howland (Mrs. K. A. C. Elliott), 20 Montrose Ave, Upper Darby, Pa. *Organic chemistry.* Athens, N. Y, Aug. 21, 06. A.B, Mt. Holyoke Col, 27; A.M, Smith Col, 29; Ph.D, McGill, 32. Asst. pharmacol, sch. med, Yale, 32–33; instr. chem, Smith Col, 33–35; research chemist, biochem. research foundation, Franklin Inst, 35–38; biochem. lab, Inst. of Pa. Hosp, 39–41. Kinetics of oxidation of acetaldehyde; preparation and rates of formation of cyclic acetals; tissue metabolism; analytical biochemistry.

Elliott, Dr. F(rank) R(oy), Valparaiso University, Valparaiso, Ind. *Zoology.* Spartansburg, Ind, May 19, 88. B.S, Earlham Col, 11, A.M, 12; A.B, Wilmington Col, 16; Ph.D, Ohio State, 29. Head dept. biol, Wilmington Col, 12–19; asst. prof, Earlham Col, 19–24, 28–29; instr. zool, Ohio State, 26–28; assoc. prof. and *prof. and head dept. biol, Valparaiso, 29–* A.A; Ecol. Soc; Ind. Acad; Ind. Student Health Asn. (pres, 38). Ecology of spiders of Beech Maple Forest, Ohio; list of the Araneae of Indiana.

Elliott, H(arold) F(arley), 1320 Webster St, Palo Alto, Calif. *Engineering.* Durango, Colo, June 17, 92. A.B, Stanford, 16, E.E, 25. Engineer, Fed. Tel. Co, San Francisco, 16–22; consulting engineer, Fed. Tel. Companies of Calif. and Del, 22–25; consulting engineer, Victor Talking Machine Co, 27–30; research engineer, RCA Victor Co, 30–31; *consulting engineer, 32–; lecturer communication eng, Stanford, 32–; radio research lab, Harvard, 42–* A.A; Elec. Eng; Radio Eng. Communication engineering; design and development of equipment of radio transmission and receiving.

Elliott, Dr. H(arry) Chandler, University of Toronto, Toronto, Ont, Can. *Neuroanatomy.* Toronto, Aug. 26, 09. B.A, Toronto, 30, Richardson fellow, 34–36, M.A, 35, Banting fellow, 36–38, Ph.D, 41. Tech. asst. anat, *Toronto,* 33–34, asst. histol, 38–41, Banting research fellow anat, 41–42, *nat. research fellow, 42–* Asn. Anat. Anatomy and pathology of motor cells in the spinal cord; poliomyelitis.

Elliott, Dr. John H(abersham), 3203 Lancaster Ave, Wilmington, Del. *Physical chemistry.* Baltimore, Md, July 20, 13. A.B, Haverford Col, 35; M.S, Pennsylvania, 37, Ph.D, 40. Research chemist, Phila. lab, E. I. du Pont de Nemours and Co, 35–37; chief chemist, J. E. Rhoads and Sons, 37–42; *research chemist, exp. sta, Hercules Powder Co, 42–* Chem. Soc. Effect of substituents on the acid strength of benzoic acid; new analytical methods.

Elliott, Dr. K(enneth) A(llan) C(aldwell), 111 N. 49th St, Philadelphia, Pa. *Biochemistry.* Kimberley, S. Africa, Aug. 24, 03. M.Sc, South Africa, 24; Ph.D, Cambridge, 30. Research chemist, biochem. research foundation, Franklin Inst, 33–39; *in charge chem. research lab, inst, Pa. Hosp, 39–; asst. prof. biochem. in psychiat, med. sch, Pennsylvania, 40–* Beit Mem. fellow, 29, fourth year fellow, 32; fellow, Cambridge, 33–36. A.A; Soc. Biol. Chem; Asn. Sci. Workers (v. pres, 40); Biochem. Soc. England. Biological oxidations; tissue respiration; intermediary metabolism.

Elliott, Dr. Louis D(unshee), Falls Church, Va. *Chemistry.* Ithaca, N. Y, April 4, 89. A.B, Stanford, 11, Ph.D, 23; Cornell, 11–13. Nat. Canners Asn, 18–22; bur. chem, U. S. Dept. Agr, 13–18, 23–27, *food and drug admin,* 27–39; *Fed. Security Admin, 39–, chief interstate div.* Chem. Soc. Food chemistry; chemistry of ammonia.

Elliott, Dr. Martin A(nderson), 4800 Forbes St, Pittsburgh, Pa. *Engineering.* Baltimore, Md, Feb. 21, 09. B.S, Hopkins, 30, Ph.D, 33. Instr, Hopkins, 30–34; *gas engineer,* Consol. Gas, Elec. Light and Power Co, 34–38; *U. S. Bur. Mines, 38–* Chem. Soc; Soc. Automotive Eng. Gas engineering; catalysis of steam-carbon reactions; Diesel engines; explosives.

Elliott, Dr. M(erle) H(ugh), 1025 Second Ave, Oakland, Calif. *Psychology.* Redlands, Calif, April 2, 01. A.B, California, 24, A.M, 28, Ph.D, 29. Teaching fellow psychol, California, 25–29; instr, Harvard, 29–35; asst. prof, Utah, 35–36; *psychologist, pub. schs, Calif, 36–* Psychol. Asn. Motivation; learning.

Elliott, Dr. Myron A(ndrew), Naval Research Laboratory, Washington, D. C. *Physical chemistry.* Taylorville, Ill, June 21, 10. B.S, Illinois, 35; Ph.D, Wisconsin, 38. Asst, Wisconsin, 35–38; mem. staff, Gen. Elec. Lab, 38; research assoc, Bur. Standards, 38–40; *mem. staff, Naval Research Lab, 40–* A.A; Chem. Soc; N. Y. Acad. Dielectric constant of protein solutions; conductivity of non-aqueous solutions; dipole moments of hydrogen ion indicators; plastics.

Elliott, Dr. Ralph B(enjamin), 5 Darwin Drive, Snyder, N. Y. *Chemistry.* Buffalo, N. Y, July 4, 07. A.B, Buffalo, 29; A.M, Princeton, 32, Ph.D, 34. Asst. director research, Williams Gold Ref. Co, N. Y, 29–31; chemist, *electrochem. dept, E. I. du Pont de Nemours and Co,* 33–39, *develop. chemist, 39–* Chem. Soc. Physical and inorganic chemistry; electrochemical research on units of electrical measurement, including standard cells.

Elliott, Prof. Richard M(aurice), University of Minnesota, Minneapolis, Minn. *Psychology.* Lowell, Mass, Nov. 3, 87. A.B, Dartmouth Col, 10; A.M, Harvard, 11, Ph.D, 13; Berlin, 13–14. Instr. *psychol,* Harvard, 14–15; Yale, 15–18; assoc. prof, *Minnesota,* 19–23, *prof, 23–, chairman dept, 19–* Ed, 'Century Psychol. Series.' Director, Psychol. Corp, 31– Mem. council of directors, Social Science Research Council, 39– Capt, Sanit.C, 18–19. A.A; Psychol. Asn. (director, 31–33). Systematic psychology; psychology of behavior; mechanical ability.

Elliott, Prof. Rush, 3 Marietta Ave, Athens, Ohio. *Zoology.* New Concord, Ohio, 03. A.B, Ohio (Athens), 24; A.M, Ohio State, 26; fellow, Michigan, 28–30, Ph.D, 30. Instr. biol, *Ohio (Athens),* 24–26, asst. prof, 26–28, 30–32, assoc. prof, 32–35, comp. anat, 35–38, *prof. anat, 38–* Summers, instr, Michigan, 29, 31; research guest, Wistar Inst, 35, 37, 41. Soc. Zool; Asn. Anat; fel. Ohio Acad. (v. pres). Embryology and comparative anatomy; comparative neurology.

Elliott, Prof. S(eth) E(arl), Butler University, Indianapolis, Ind. *Physics.* Miller, S..Dak. A.B, Morningside Col, 12; M.S, Iowa, 15; Ph.D, Indiana, 31. Teacher, high sch, Iowa, 15–17; math. and physics, Hibbing Junior Col, Minn, 20–24; *prof. physics, Butler, 24–* Ind. Acad. Effect of sound on space currents.

Elliott, Prof. W(illiam) W(hitfield), Duke University, Durham, N. C. *Mathematics.* Darlington Heights, Va, May 28, 98. A.B, Hampden-Sydney Col; fellow, Kentucky, 18–19, A.M; Chicago; fellow, Cornell, 21–22, Ph.D, 24. Head dept. *math,* Gordon Inst, 19–20; instr, Ga. Tech, 20–21; Cornell, 22–23; Yale, 23–25; asst. prof, *Duke,* 25–27, *prof, 27–, director undergrad. math.* Math. Soc; Math. Asn. Differential and integral equations.

Ellis, Dr. A(lexander) Caswell, 1701 San Gabriel St, Austin, Texas. *Education.* Franklin Co, N. C, May 4, 71. A.B, North Carolina, 94; Harvard, 94; Ph.D, Clark, 97; Berlin, 05. Adj. prof. pedag, Texas, 97–03, assoc. prof. science and art of educ, 03–08, prof. philos. of educ, 08–26, director exten, 11–13, 14–16; director, *Cleveland Col, Western Reserve,* 26–41, *emer. director, 41–* Summers, lecturer, North Carolina, 95, 96; N. Y. Univ, 08; Columbia, 30. Board visitors, U. S. Naval Acad, 02, 03. A.A; Soc. Study Educ; Asn. Adult Educ. (councilor); Asn. Col. Teachers Educ. Child psychology; philosophy of education; religious education; dolls; methods of testing fatigue; literary tastes of children; relation of educational systems to social ideals; stubbornness; individual instruction; retardation period; formal discipline; money value of education; rating of university professors; education of adults.

Ellis, Prof. Brooks F(leming), 72 Clarendon Road, Scarsdale, N. Y. *Geology.* Jonestown, W. Va, Aug. 2, 97. A.B, Marietta Col, 23; M.S, N. Y. Univ, 29, Ph.D, 32. Instr. sci-

ence, high sch, W. Va, 23–26; N. Y, 27–29; *geol, N. Y. Univ,* 30–36, asst. prof, 36–43, *assoc. prof. and chairman dept, 43–* Instr, evening sessions, Brooklyn Col, Col. City of N. Y, 33–39; curator micropaleont, Am. Museum Nat. Hist, 41– A.A; Paleont. Soc; fel. Am. Geog. Soc; Soc. Econ. Paleont. and Miner; N. Y. Acad. Micropaleontology; micro-technique and instruments; taxonomy and nomenclature.

Ellis, Dr. Cecil B(yrne), College of the City of New York, New York, N. Y. *Physics.* Glasgow, Ky, June 3, 12. A.B, Michigan, 31, A.M, 32, Ph.D, 35. Asst. *physics,* Michigan, 31–33, 35–36; *instr, Col. City of N. Y, 36–* Physical Soc. Analysis of spectra; absorption spectra of crystals; nature of solids.

Ellis, Prof. Charles A(lton), Purdue University, Lafayette, Ind. *Civil engineering.* Parkman, Maine, June 23, 76. A.B, Wesleyan, 00; C.E, Illinois, 22. Engineer, Am. Bridge Co, 02–08; asst. prof. civil eng, Michigan, 08–12; designing engineer, Dom. Bridge Co, 12–14; asst. prof. civil eng, Illinois, 14–15, prof. struct. and bridge eng, 15–21; v. pres, The Strauss Eng. Corp, Chicago, Ill, 21–32; private consulting engineer, 32–34; *prof. struct. eng, Purdue, 34–* Designing and erection engineer, Milliken Brothers, Inc, 14. Concrete Inst; Civil Eng; Ry. Eng. Statically indeterminate and framed structures; reinforced concrete arches.

Ellis, Don E(dwin), North Carolina State College, Raleigh, N. C. *Plant pathology.* Ames, Iowa, April 8, 08. A.B, Nebr. Cent. Col, 28, B.S, 29; Iowa State Col, 30, 31, 34; M.S, Louisiana, 32, 33. Teacher, high sch, Nebr, 29–31; asst. plant path, Exp. Sta, Louisiana, 31–33; supervising technician forest path, State Emergency Conservation Work, Iowa, 33; asst. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 34–40; *asst. plant pathologist, Exp. Sta, N. C. State Col, 40–* Phytopath. Soc; Mycol. Soc. Forest tree and vegetable diseases.

Ellis, Prof. D(ouglas) S(tewart), 418 Earl St, Kingston, Ont, Can. *Hydraulics.* Cobourg, Ont, March 16, 85. B.A, Queen's (Can), 07, M.A, 08, B.Sc, 10; M.C.E, Cornell, 20. Lecturer math, *Queen's (Can),* 10–14, asst. prof. *civil eng,* 20–30, *prof, 30–* Can. Engineers, 14–18, lieut. col. D.S. medal, 18. Assoc. Eng. Inst. Can; Ont. Land Surveyors Asn. Hydraulics; aerodynamics.

Ellis, Dr. Emory L(eon), 432 N. San Marino, San Gabriel, Calif. *Biochemistry.* Grayville, Ill, Oct. 29, 06. B.S, Calif. Inst. Tech, 30, fellow, 31–34, M.S, 32, Ph.D, 34. Asst, Riverside Cement Co, 28–29; food and drug admin, U. S. Dept. Agr, 35–36; *research asst. biol, Calif. Inst. Tech, 36–* A.A; Chem. Soc; Soc. Bact; N. Y. Acad. Entropies and free energies of substances of physiological interest; biochemistry of bacteria and bacteriophage.

Ellis, Dr. Fred W(ilson), Jefferson Medical College, Philadelphia, Pa. *Pharmacology, Biochemistry.* Heath Springs, S. C, April 24, 14. B.S, South Carolina, 36; fellow, Florida, 37–38, M.S, 38; fellow, Maryland, 38–41, Ph.D, 41. Research fellow pharmacol, Maryland, 41–42, supt. biochem. lab, univ. hosp, 41–42; *assoc. pharmacol, Jefferson Med. Col, 42–* Antispasmodic activity of certain benzyl alcohols; vaso-depressor activity of some organic nitrates; metabolism and toxicity of mannitol and sorbitol; metabolism of sorbitol in diabetics.

Ellis, Dr. F(rederick) W(arren), 1175 Center St, Newton Center, Mass. *Physiology, Biophysics.* Wales, Mass, April 10, 57. M.D, Harvard, 81, 83–86. A.A; Physiol. Soc; Optical Soc. Physiology of vasomotor nerves; plethysmographic experiments with the piston-recorder; photography of minute movements; visual sensations; circulation of the blood in the orbit; action of drugs on motor nerves; development of double refraction in embryonic muscle; the nerve impulse; physiology of the retina.

Ellis, Dr. Gordon H(uff), Cornell University, Ithaca, N. Y. *Biochemistry, Animal nutrition.* Auburn, N. Y, Feb. 12, 10. Ch.B, Cornell, 32, A.M, 33, Ph.D, 36; Rochester, 33–34. Research instr. *animal nutrition, Cornell,* 36–40, *asst. prof, 40–* A.A; Chem. Soc. Relationship between soil and nutritional value of plants.

Ellis, Prof. Hazel R(osetta), Keuka College, Keuka Park, N. Y. *Botany.* Chittenango, N. Y, July 1, 98. A.B, Syracuse, 22, B.M, 25. *Prof. biol, Keuka Col, 22–* A.A; Ornith. Union; Forestry Asn; Nat. Asn. Audubon Societies. Effect of agents upon the protoplasmic streaming of Elodea; common tern colonies at Oneida Lake.

Ellis, Dr. James H(awes), Glendora, Calif. *Physical chemistry.* Covington, Ky, July 8, 90. B.S, Mass. Inst. Tech, 12, Savage fellow, 14, Ph.D, 16. Asst. physics, Mass. Inst. Tech, 12–14, research assoc. physical chem, 14–16; Calif. Inst. Tech, 16–20, assoc. prof, 20–24; *research chemist, 24–* A.A; Chem. Soc; Physical Soc; Optical Soc. Photochemistry; optics.

Ellis, J(ames) L(awton), Georgia School of Technology, Atlanta, Ga. *Electrical engineering.* Barnwell, S. C, Oct. 14, 93. B.S. (E.E), Ga. Tech, 17, M.S. (E.E), 27. Engineer, Gen. Elec. Co, 17–19; instr. elec. eng, Wisconsin, 19–20; asst. prof, Ga. Tech, 20–28, assoc. prof, 28–40; mem. faculty, U. S. Naval Acad, 40–43; *U. S. Navy, 43–* Assoc. Elec. Eng. Short circuits in transmission lines.

Ellis, Prof. J(ohn) M(arshall), 910 Russell St, Augusta, Ga. *Zoology.* Midland, Ga, Sept. 24, 03. A.B, Emory, 24, M.S, 26; Ph.D, California, 34. *Prof. biol,* Southern Col. (Fla), 24–26; *Junior Col. Augusta, 26–* A.A; Soc. Parasitol; Micros. Soc; Asn. South. Biol; Ga. Acad. Protozoology; parasitology; entomology.

Ellis, Prof. Joseph W(esley), University of California at Los Angeles, Los Angeles, Calif. *Physics.* Richfield, Ohio, April 20, 97. A.B, Oberlin Col, 20; A.M, California, 22, Ph.D, 23. Asst. *physics,* California, 20–23, instr, *California at Los Angeles,* 23–26, asst. prof, 26–31, *assoc. prof, 31–* A.A; fel. Physical Soc. Infra-red and visible absorption spectra of polyatomic molecules.

Ellis, Dr. L(illian) N(elson), 85–21 167th St, Jamaica, N. Y. *Chemistry.* Haverhill, Mass, March 15, 06. A.B, Mt. Holyoke Col, 27; Ph.D, Columbia, 32. Asst. food chem, Columbia, 27–39; instr. and later *asst. prof. chem, Adelphi Col, 39–* Instr, Marymount Col, 36–38. A.A; Inst. Nutrition; Chem. Soc. Nutrition.

Ellis, Dr. Linus M(arvin), 2310 W. 14th St, Wilmington, Del. *Chemistry.* Jasper Co, Ga, May 5, 04. B.S, Emory, 25, M.S, 26; Ph.D. Hopkins, 29. Am. Petrol. Inst. fellow, Hopkins, 29–31; instr. chem, Florida, 31–35, asst. prof, 35–36; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 36–* Organic sulfur compounds; synthetic resins.

Ellis, Dr. Lippert S, 1900 N. Jackson St, Little Rock, Ark. *Agricultural economics.* Bridgeport, Mich, June 6, 99. B.S, Wisconsin, 23, Ph.D, 30. Prof. agr. econ, Okla. Agr. and Mech. Col, asst. dean and director sch. agr, acting dean, v. director, Exp. Sta, 39–42; *regional research supervisor, div. land econ, U. S. Dept. Agr.* Exten. specialist, Farm Credit Admin, 34–35. Farm Econ. Asn; Southwest Social Sci. Asn. Tariff; farm credit; cotton prices and marketing.

Ellis, Prof. M(ax) M(apes), University of Missouri, Columbia, Mo. *Physiology.* Lawrence, Ind, Dec. 3, 87. Vincennes, 05, Sc.D, 14; Illinois, 06; A.B, Indiana, 07, fellow, 07–08, A.M, 08, Ph.D, 11. Prof. nat. science, Vincennes, 08–09; teaching fellow zool, Indiana, 09; instr. and asst. prof. biol, Colorado, 14–19; physiol, *Missouri,* 19–23, assoc. prof, 23–27, *prof,* 27–36, *physiol. and pharmacol, 36–* Summer, asst. state entomologist, Ind, 09. Director Gimble exped, British Guiana, 10. A.A; Physiol. Soc; Soc. Exp. Biol. Respiration; ichthyology.

Ellis, N(ed) R(oyce), 3417 22nd St, Washington, D. C. *Biochemistry.* Lancaster, Wis, Aug. 1, 94. B.S, Wisconsin, 18, M.S, 20. Asst. Exp. Sta, Wisconsin, 19–20; asst. biochemist, *bur. animal indust, U. S. Dept. Agr,* 20–24, assoc. biochemist, 24–30, chemist, 30–37, *senior chemist, 37–* Soc. Animal Production; Soc. Biol. Chem; Chem. Soc. Nutrition in animal husbandry; biochemistry of fats; vitamins.

Ellis, O(wen) W(illiam), Ontario Research Foundation, 43 Queens Park, Toronto, Ont, Can. *Metallurgy.* Swindon, Eng, Sept. 22, 88. B.Sc, Birmingham, 14, M.Sc, 17. Metallurgist, royal lab. dept, Royal Ordnance Factories, England, 14–21; asst. prof. metal. eng, Toronto, 21–25; indust. fellow, Mellon Inst, 25–26; research dept, Westinghouse Elec. and Mfg. Co, 26–29; *director eng. metal. dept, Ont. Research Foundation, 29–* Plummer medal, Eng. Inst. Can, 41, Duggan medal and prize, 42. Min. and Metal. Eng; Soc. Metals (trustee, 36–38); Mech. Eng; Eng. Inst. Can; Iron and Steel Inst. Gt. Britain. Effect of plastic deformation on ferrous and non-ferrous metals and alloys; bearing metals; high strength brasses; oxides in brass; gases in copper; wear of ferrous alloys.

Ellis, Dr. Ralph V(ictor), University of Minnesota, Minneapolis, Minn. *Preventive medicine.* Norwood, Mo, June 6, 93. M.D, Nat. Univ, 16, Minnesota, 34; A.B, Stanford, 24, A.M, 25. Health director, Southwest Mo. State Teachers Col, 25–30; instr. prev. med. and pub. health, *Minnesota,* 31–32, asst. prof, 32–36, med, 36–39, *assoc. prof. med, prev. med. and pub. health, 39–* Gold medal, Minn. State Med. Asn, 33. Lieut, M.C, 17–19. Am. Med. Asn. Immunology; allergy; hay fever; asthma.

Ellis, Prof. Rob(er)t S(idney), Pomona College, Claremont, Calif. *Psychology.* Cordova, Tenn, Oct. 2, 90. A.B, Arkansas, 11; Ph.D, Clark, 14; Chicago, 15–16. Instr. psychol. and educ, W. Tenn. Nor. Sch, 14–15; acting prof, exten. dept, Ohio, 16–17; fellow, Wistar Inst, 17–19; prof. philos. and psychol, Tennessee, 19–23; instr. *psychol,* Princeton, 23–24; asst. prof, Syracuse, 24–26, assoc. prof, 26–27; Colo. Col, 27–28, *prof,* 28–31; *Pomona Col, 31–* A.A; Psychol. Asn; Genetic Asn. Mental growth; individual differences.

Ellis, Prof. Ruth H(umphrey), Vassar College, Poughkeepsie, N. Y. *Chemistry.* Ansonia, Conn, Nov. 11, 00. A.B, Wellesley Col, 24; A.M, Illinois, 28, Ph.D, 30. Asst. chem. and zool, Conn. Col, 24–25, instr. *chem,* 25–26; asst, Illinois, 26–30; instr, *Vassar Col,* 30–36, asst. prof, 36–42, *assoc. prof, 43–* Physiological chemistry; creatine; creatinine; amino acids.

Ellis, Dr. S(amuel) B(enjamin), 85–21 167th St, Jamaica, N. Y. *Chemistry.* Reardan, Wash, 04. B.S, Washington (Seattle), 26; Hart fellow, Lafayette Col, 26–27, M.S, 27; fellow, Columbia, 30, Ph.D, 33. Asst, Columbia, 27–30, instr, 30–32; *research chemist,* U. S. Rubber Products, Inc, 33–37; *Hellige, Inc, 37–* Chem. Soc. Physical chemistry; rheology; electrical measurements; determination of hydrogen-ion concentration; chemistry of rubber; general colorimetric analysis.

Ellis, Dr. Sydney, 52 Lawrence Ave, Roxbury, Mass. *Pharmacology, Biochemistry.* Boston, Mass, April 20, 17. B.S, Boston, 38, A.M, 39, Ph.D, 41. Asst. biochem, Boston, 39–41; research fellow pharmacol, Harvard Med. Sch, 41–42; Nat. Defense Research Cmt. toxicologist, N. Y. Univ, 42; *asst.* pharmacol, *Harvard Med. Sch,* 42, *pharmacol. and pharmacotherapy, 42–* Chem. Soc. Specificity and inhibitors of enzymes; drugs, especially in relation to actions on enzymes; chemistry and biochemistry of drug decomposition and metabolism.

Ellis, Dr. W(illiam) C(arleton), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Metallurgy.* Barrington, N. Y, Aug. 23, 02. Chem.E, Rensselaer Polytech, 24, M.S, 25, Russell Sage fellow, 25–26, Ph.D, 27. *Metallurgist, Bell Tel. Labs, 27–* Min. and Metal. Eng. Physical metallurgy of copper and copper alloys; metallurgy and properties of magnetic materials.

Ellison, Eckley S(anderson), U. S. Weather Bureau, Lakeland, Fla. *Agricultural meteorology.* Corning, N. Y, Dec. 21, 95. Oberlin Col, 18; Pennsylvania, 19; California, 24–27. *Meteorologist, U. S. Weather Bur, 18–; meteorologist and head dept, Exp. Stations, Florida, 35–; director, Fed-State Hort. Protection Service, 35–* A.A; Meteorol. Soc; Fla. Hort. Soc. Temperature surveys of agricultural regions; minimum temperature forecasting; critical temperatures for fruits and vegetables; protection against damage by frost; physical principles involved in weather forecasting.

Ellison, Dr. Samuel (P, Jr), Missouri School of Mines and Metallurgy, Rolla, Mo. *Geology.* Kansas City, Mo, July 1, 14. A.B, Univ. Kansas City, 36; A.M, Missouri, 38, Ph.D, 40. *Instr. geol, Mo. Sch. Mines, 39–* Asst. geologist, U. S. Geol. Surv, 42– Summer, ranger-naturalist, Nat. Park Service, Yellowstone Nat. Park, 41. Asn. Petrol. Geol; Paleont. Soc. Micropaleontology; stratigraphy.

Ellisor, Alva C, Humble Oil and Refining Co, Houston, Texas. *Paleontology, Geology.* Galveston, Texas. A.B, A.M, Texas. Instr. geol, Texas, 19–21; *paleontologist, Humble Oil and Ref. Co, 21–* Fel. Paleont. Soc; Geol. Soc; Asn. Petrol. Geol. Subsurface stratigraphy; Arkansas chalk; the Claiborne of Texas and Louisiana; coral reefs in the Oligocene.

Ellms, Joseph W(ilton), Department of Public Utilities, Cleveland, Ohio. *Sanitary engineering.* Ayer, Mass, Oct. 4, 67. Mass. Inst. Tech, 90–93; hon. Sanit.E, Case, 42. Asst. chemist, State Board Health, Mass, 93–96; Louisville Water Co, 96; chemist, Dept. Health, Brooklyn, N. Y, 97; asst. chemist, Cmn. Water Works, Cincinnati, 98, chemist in charge, Exp. Sta, 99–07, supt, Filtration Plant, 07–18; consulting sanit. engineer, 18–32; sanit. engineer, div. water, *Dept. Pub. Utilities, Cleveland, Ohio,* 32–37, *commissioner sewage disposal, 37–* Rudolf Hering medal, Am. Soc. Civil Eng, 40. A.A; Civil Eng; Chem. Soc. (pres, Cincinnati sect, 10, councilor and chairman, sect. water, sewage and sanit, 20); fel. Pub. Health Asn. (cmt. on water anal, 02–05); Water Works Asn. (trustee, 23–25, pres, cent. states sect, chairman, water purification div, 32–). Water purification; chemistry, microscopy and physical characteristics of natural waters; colloids in relation to water purification; sewage treatment.

Ells, Dr. Victor R(aymond), Norwich Pharmacal Co, Norwich, N. Y. *Physical chemistry.* Benton Harbor, Mich, Dec. 7, 14. A.B, Kalamazoo Col, 35; M.S, Brown, 38; Ph.D, Rochester, 39. Instr. chem. and spectros, Missouri, 39–43; *physical chemist, research labs, Norwich Pharmacal Co, 43–* A.A; Chem. Soc; Physical Soc; Optical Soc; Mo. Acad. Spectroscopy and photochemistry of ketones; absorption spectra and spectrographic analysis of vitamins and pigments; methods of spectrographic analysis of metallic elements.

Ellson, Prof. Douglas G(eorge), University of Mississippi, University, Miss. *Psychology.* Stafford, Eng, July 12, 13. A.B, Miami (Ohio), 35; Ph.D, Yale, 39. Asst. research, Yale, 35–38; T. W. Stanford fellow psychical research, Stanford, 39–41; *asst. prof. psychol, Mississippi, 41–* Summer, instr, Stanford, 41. Assoc. Psychol. Asn. Psychology of learning; personality; perception.

Ellsworth, C(larence) E(ugene), 302 W. 15th St, Austin, Texas. *Hydraulic engineering.* Wentworth, N. H, April 25, 82. B.S, Dartmouth Col, 07, C.E, 11. *U. S. Geol. Surv, 07–, dist. engineer in charge surface water supply investigations, Texas.* Assoc. Civil Eng. Surface water supply; stream pollution; water powers; flood studies and soil erosion.

Ellsworth, Dr. Elmer W(illiam), Wham Bldg, 212 E. Broadway, Centralia, Ill. *Geology, Geophysics.* Norfolk, Va, June 17, 07. A.B, Wisconsin, 29, A.M, 30; Royal Victor fellow, Stanford, 31–33, Ph.D, 32. Consulting geologist and geophysicist and west coast rep, W. C. McBride, Inc, 30–33; geologist in charge surv. Ala. tin and graphite deposits, U. S. Geol. Surv, 34; geophysicist and geologist, Electro-Geometer Corp, 34–35; W. C. McBride, Inc, 35–38, geologist, Ill. dist, 38–39; consultant and exec. sec'y, Independent Oil Producers Asn, Ill, 39–42; *chief information collecting and records sect, arctic, desert and tropic information center, Air Forces, U. S. Army, 42–* Summers, geologist, Wis. Geol. Surv, 27, 28, 29. A.A; Asn. Petrol. Geol; Soc. Explor. Geophys; Min. and Metal. Eng; Ill. Acad; Ill. Geol. Soc. Sedimentary petrology; physiography; oilfield subsurface structures; magnetic characteristics of geologic structures.

Ellsworth, Dr. H(ardy) V(incent), Geological Survey, Ottawa, Ont, Can. *Mineralogy.* Ridgeway, Ont, Sept. 1, 89. B.A, Toronto, 13, fellow, 13–16, M.A, 14, Ph.D, 16. Demonstrator electrochem, Toronto, 16–17; *mineralogist, Geol. Surv. Can, 18–* Cmt. measurement of geologic time, Nat. Research Council. Fel. Miner. Soc; Chem. Soc; Can. Inst. Min. and Metal; Miner. Soc. Gt. Britain and Ireland. Geology; radioactivity.

Ellsworth, Capt. Joe K(oebele), 2207 Oregon St, Berkeley, Calif. *Entomology, Parasitology.* Las Vegas, N. Mex, Oct. 20, 05. B.S, California, 31, M.S, 32, Ph.D, 39. Asst. entom, California, 25–40; *capt, Sanit, Corps, U. S. Army, and med. inspector and chief sanitation branch, Camp Adair, Oregon, 42–* Utilization of monochromatic light in insect electrocutors for the control of insects; taxonomy of Coccinellidae; medical entomology.

Ellsworth, Dean J(ohn) O(rval), Texas Technological College, Lubbock, Texas. *Agricultural economics.* Providence, Utah, Nov. 15, 91. B.S, Utah Col, 17; M.S, Cornell, 24, Ph.D, 26. Exten. service, Idaho, 17–23, asst. state leader county agents, 21–23; assoc. prof. agr. econ, Okla. Agr. and Mech. Col, 26–28; prof. and head dept, Texas Tech. Col, 28–36; senior economist and chief farm management, research admin, U. S. Dept. Agr, 36–37; head dept. econ. and business admin, *Texas Tech. Col,* 37–42, *dean div. commerce, 42–* Econ. Asn; Farm Econ. Asn. Farming in Oklahoma, Kansas and Colorado; Texas farm prices; sugar marketing; irrigation by deep wells; the combine harvester; marketing.

Ellsworth, Dr. Louis Daniel, 22 Johnson Road, Arlington, Mass. *Physics.* Hamler, Ohio, April 27, 17. B.S, Case, 37; M.S, Ohio State, 38; univ. fellow, 40–41, Ph.D, 41. Asst. physics, Ohio State, 37–40; instr, Haverford Col, 41–42; *staff*

mem, radiation lab, Mass. Inst. Tech, 41– Physical Soc; Asn. Physics Teachers. Lethal and dissociative effects of x-rays on bacteria.

Ellwood, Prof. Charles A(bram), 129 Pinecrest Road, Durham, N. C. *Sociology.* Near Ogdensburg, N. Y, Jan. 20, 73. Ph.B, Cornell, 96; Berlin, 97–98; Ph.D, Chicago, 99; Oxford, 14; hon. LL.D, Bethany Col, 22. *Prof. sociol,* Missouri, 00–30; *Duke, 30–* Visiting prof, Columbia, 13; Chicago, 16, 20; Colorado, 11, 15, 17, 21–23, 24; Southern California, 23, 26; Colo. State Col, 27; Wisconsin, 28; lecturer, Yale Divinity Sch, 22; Cole lecturer, Vanderbilt, 29; visiting prof, Harvard, 34; Northwestern, 36; California at Los Angeles, 39. Summer, Nat. Summer Sch, Logan, Utah, 25. Chairman sect. social psychol, Int. Cong. Arts and Sciences, St. Louis, 04. A.A; Sociol. Soc. (pres, 24); hon. mem. Masaryk Sociol. Soc, Prague; hon. mem. Soc. de Sociol. Geneva; Int. Inst. Sociol. (pres, 35). Social psychology; history of social philosophy.

Ellwood, Dr. Walter B(reckenridge), 96 Wadsworth Terrace, New York 33, N. Y. *Physics.* Columbia, Mo, Feb. 15, 02. A.B, Missouri, 24; A.M, Columbia, 26, Ph.D, 33. *Mem. tech. staff, Bell Tel. Labs, 30–; scientist, bur. ordnance, U. S. Navy Dept, 40–* A.A; Soc. Metals; fel. Physical Soc; N. Y. Acad. Thermal effects accompanying magnetization in iron; magnetic measurements at low flux densities and at high fields; properties of magnetic materials; high vacuum ballistic galvanometer; applications of magnetic materials to apparatus.

Elm, Dr. Adolf C, 475 Lafayette Ave, Palmerton, Pa. *Paint and varnish chemistry.* Germany, Sept. 25, 00. Ph.D, Marburg, 23. Paint chemist, E. I. du Pont de Nemours and Co, 24–26; paint technologist, Am. Asphalt Paint Co, Ill, 26–28; asst. tech. director, McCloskey Varnish Co, 28–29; *research investigator, N. J. Zinc Co, 29–* Chem. Soc. (sec'y-treas, Lehigh Valley sect, 33, chairman, 43; paint, varnish and plastics div, 39–); Inst. Chem; Lehigh Valley Engineers' Club (manager, 40–42). Oils; paints; pigments.

Elman, Dr. Robert, Washington University School of Medicine, St. Louis, Mo. *Surgery.* Boston, Mass, Nov. 9, 97. B.S, Harvard, 19; M.D, Hopkins, 22. Asst. surg, Hopkins, 22–23; path, Rockefeller Inst, 23–25; *surg, Washington (St. Louis),* 25–28, instr, 28–30, asst. prof, 30–36. *assoc. prof, 36–* Gastro-Enterol. Asn; Surg. Asn; Harvey Soc. Urobilin physiology and pathology; motor function of gall bladder and bile ducts; external secretion of pancreas; blood amylase; intestinal obstruction; regulation of gastric acid in duodenal ulcer; cholesterol function of the gall-bladder; pancreatitis; plasma protein deficiency in burns; use of amino acid mixtures for parenteral protein alimentation and regeneration of plasma proteins; surgical shock from hemorrhage and burns.

Elmen, Dr. G(ustaf) W(aldemar), 104 High St, Leonia, N. J. *Engineering.* Sweden, Dec. 22, 76. B.S, Nebraska, 02, A.M, 04, D.Eng, 32. Research labs, Gen. Elec. Co, 04–06; eng. dept, West. Elec. Co, 06–25; *with Bell Tel. Labs, New York, 25–* John Scott medal, Phila, 27; Elliott Cresson medal, Franklin Inst, 28. Magnetic properties of powdered iron dust, and of iron, nickel and cobalt alloys; permalloy; perminvar.

Elmendorf, Dr. John E(dward), Jr, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Preventive medicine.* New Brunswick, N. J, May 28, 93. A.B, Rutgers, 14; M.D, Hopkins, 18. Intern, pub. med. ward, Hopkins Hosp, 18–19; asst. res. med, Barnes Hosp, 19–20; *mem. field staff, Rockefeller Foundation, 20–; director bur. malaria investigation and control, State Board Health, Fla, 41–, supervising director activities, malaria control war areas for Fla, U. S. Pub. Health Service, 41–; supervising director, Malaria Investigation and Control Training Sch. for Army and Navy Officers, Fla, 42–* Mem. Mobile Suwannee drainage basin cmt, Nat. Resources Planning Board, 40. A.A; Soc. Trop. Med; Malaria Soc. (chairman subcmt. statistics, 39–41; mem. membership cmt, 41–); fel. Pub. Health Asn; Fla. Anti-Mosquito Asn. (2nd v. pres, 38, v. pres, 39, pres, 40). Yellow fever; malaria.

Elmer, Dr. O(tto Herman), Kansas State College, Manhattan, Kans. *Plant pathology.* Oregon City, Oregon, Feb. 26, 91. B.S, Oregon State Col, 11, M.S, 16; Ph.D, Iowa State Col, 24. Sci. asst. *plant path,* Exp. Sta, Oregon State Col, 15–17; asst, Exp. Sta, Iowa State Col, 21–24, asst. chief, 24–27; asst. prof, *Kans. State Col,* 27–37, *assoc. prof, 37–,* asst. plant pathologist, *div. agr, Exp. Sta,* 27–37, *plant pathologist,* 37– Mosaic and cucurbit diseases; potato and vegetable crop diseases.

Elmore, Dr. Kelly L(ee), Tennessee Valley Authority, Wilson Dam, Ala. *Physical chemistry.* Lowell, N. C, Feb. 23, 99. A.B, Trinity Col. (N. C), 22; Harvard, 23; fellow, Duke, 24–25, Angier B. Duke Mem. fellow, 26–27, Ph.D, 31; Columbia, 27–28. Teacher, high sch, N. C, 22–24; instr. chem, Duke, 24–26; asst. prof. chem. and physics, Tenn. State Teachers Col, Memphis, 28–29; head dept. chem, Ark. Polytech. Col, 30–31; instr, N. C. State Col, 31–32; high sch, Raleigh, N. C, 32–34; asst. chemist, *dept. chem. eng, research div, Tenn. Valley Authority,* 34–37, assoc. chemist, 38–40, chemist, 40–41, *senior chemist, 41–* Chem Soc. Hysteresis in the Weston standard cell; cyanamid derivatives; thermodynamics of calcium phosphates; equilibrium in the system of calcium oxide, phosphorus pentoxide and water; elemental phosphorus; defluorination of fused phosphate rock; reduction of phosphate rock; dicalcium phosphate.

Elmore, Prof. W(illiam) C(ronk), Swarthmore College, Swarthmore, Pa. *Physics.* Montour Falls, N. Y, Sept. 16, 09. B.S, Lehigh, 32; Ph.D, Yale, 35. Asst. *physics,* Yale, 32–34; instr, Mass. Inst. Tech, 35–38; *Swarthmore Col,* 38–41, *asst. prof, 41–* A.A; Physical Soc. Magnetic powder patterns; magnetic powders; electrolytic polishing.

Elmslie, Dr. W(allace) P(arker), 2201 State St, Quincy, Ill. *Biochemistry.* Milwaukee, Wis, June 8, 01. B.S, Wisconsin, 23, M.S, 24, fellow, 27–29, Ph.D, 28. *Director research, Moorman Mfg. Co, Ill, 29–* A.A; Chem. Soc; Soc. Animal Production; Pub. Health Asn; Ill. Acad. Mineral and vitamin requirements of laboratory and domestic animals; effects of fluorine on animals; parasitology of domestic animals.

Eloesser, Dr. Leo, 490 Post St, San Francisco, Calif. *Surgery.* San Francisco, Calif, July 29, 81. B.S, California, 00; M.D, Heidelberg, 07. Asst, surg. clinic, Heidelberg, 06, cancer inst, 06–07; Royal Surg. Clinic, Kiel, 08–09; Augusta Hosp, Berlin, 09; *surg,* California, 10–12; *clin. prof, Stanford, 13–* Visiting surgeon, San Francisco Hosp; consulting surgeon, U. S. Veterans Admin, U. S. Marine Hosp, San Francisco; surgeon, reserve hosp, Ettlingen, and reserve hosps, III, IV, V, Karlsruhe, 15–16. Major, M.C, 18–19; commanding officer in charge surg. unit, Republican Army, Spain, 37–38. Asn. Thoracic Surg. (pres, 37); Am. Med. Asn; Surg. Asn; Pacific Coast Surg. Asn; Gesell. für Chirurgie. Surgery of the chest.

Elrod, Prof. Morton J(ohn), 205 S. Fifth St, E, Missoula, Mont. *Zoology.* Monongahela, Pa, April 27, 63. A.B, Simpson Col, 87, A.M, 90, M.S, 98; Ph.D, Ill. Wesleyan, 05; LL.D, Montana, 38. Prin, high sch, Iowa, 87–88; adj. prof. nat. science, Ill. Wesleyan, 88–89, prof. biol. and physics, 91–97; *biol, Montana,* 97–35, *emer. prof, 35–,* director biol. sta, 99–35. Lit. ed, 'Iowa Schs,' 89–95; ed, 'Intermountain Educator,' 13–25. Park naturalist, Glacier Nat. Park, 21–29, director nature guide service, 22–; chairman, State Board Game and Fish, Mont, 99–00. A.A; Soc. Zool; Soc. Mammal; Ecol. Soc; Entom. Soc; Micros. Soc; Am. Bison Soc. (director); Inland Empire Educ. Asn. (pres, 28); Northwest Sci. Asn; Mont. Acad. (pres, 01–04). Limnobiology of Flathead Lake; Odonata; conchology of Montana; butterflies of Montana; mountain lakes.

Elsasser, Dr. Walter M, Blue Hill Meteorological Observatory, Milton, Mass. *Physics, Meteorology.* Mannheim, Germany, March 20, 04. Heidelberg; Munich; Ph.D, Göttingen, 27. Teaching asst, Tech. Hochschule, Berlin, 28–30; instr. physics, Frankfurt, 30–33; research fellow, Inst. Henri Poincaré, Sorbonne, 33–36; asst. meteorol, Calif. Inst. Tech, 36–41, research fellow and cooperative agent, U. S. Weather Bur, 37–41; *research assoc, Blue Hill Meteorol. Observatory, Harvard, 41–; U. S. Army, 42–* Guest lecturer, Sorbonne, 35, 36; lecturer, Mass. Inst. Tech, 38. German Physical Soc. prize, 32. Fel. Physical Soc; fel. Meteorol. Soc. Physics of the atmosphere.

Elsberg, Dr. C(harles) A, 168th St. and Ft. Washington Ave, New York, N. Y. *Surgery.* New York, N. Y, Aug. 24, 71. A.B, Col. City of N. Y, 90; M.D, Columbia, 93. *Col. physicians and surg, Columbia, 93–, emer. prof. neur. surg, 40–; emer. surgeon in chief, N. Y. Neur. Inst.* Consulting surgeon, Mt. Sinai, Fifth Ave, Knickerbocker and Montefiore Hosps; Hosp. for Joint Diseases; Manhattan State Hosp, Ward's Island. Surg. Soc; Soc. Neur. Surg; fel. Col. Surg; Soc. Exp. Biol; Am. Med. Asn; Neur. Asn. (pres, 37); N. Y. Acad. Med. (v. pres, 30). Neurological surgery; surgery of the brain and spinal cord.

Else, Prof. Frank L(ester), 33 Shawnee Road, Ardmore, Pa. *Embryology.* Conyngham, Pa, Dec. 18, 96. B.S, Delaware, 23; Ph.D, Pennsylvania, 32. Instr. zool, Pennsylvania, 24–29; asst. prof. physiol, med. sch, Oklahoma, 29–30; instr. zool, *Temple,* 30–34, *assoc. prof. histol, schs. dentistry and chiropody, 34–; indust. hygienist and safety engineer, 42–* Developmental anatomy of male genitalia of Melanoplus differentialis; laboratory guide for histology.

Elser, Prof. William J(ames), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Bacteriology, Immunology.* Milwaukee, Wis, Nov. 28, 72. M.D, Bellevue Med. Col, 95; Berlin, 97–98; Vienna, 98–01; Graz, 01. Asst. pathologist, N. Y. Hosp, 03–05, director path. labs, 05–32, cent. labs, 32–38; instr. bacter. and immunol, *med. col, Cornell,* 01–06, asst. prof, 06–09, prof, 09–32, *applied path. and bacter,* 32–38, *emer. prof, 38–* Mem, State Board Med. Examiners, N. Y, 38– Asst. director div. labs. and infectious diseases, U.S.A, 17–18. A.A; Asn. Path. and Bact; Soc. Exp. Biol; Asn. Immunol; Asn. Mil. Surg; Harvey Soc; assoc. fel. N. Y. Acad. Med. Meningitis; super-immunization; drying serological products in the frozen state.

Elsey, Dr. C(harles) R(oy), British Columbia Packers Ltd, Vancouver, B. C, Can. *Fisheries.* Manitoba, Dec. 14, 98. B.A, British Columbia, 24, M.A, 28; Ph.D, Rutgers, 34. Teacher, high schs, B. C, Can, 20–22, 24–27, 29–31; science, Brandon Col, 27–28; shell-fish investigator, Pacific Biol. Sta, Biol. Board Can, 31–37; *gen. fisheries research, British Columbia Packers Ltd, 37–* Shell-fish; morphology, ecology and growth of commercial clams of British Columbia; morphology, growth, spawning, physiology of feeding and culture of oysters; woodboring organisms, infestation periods and ecology.

Elsey, Dr. H(oward) M(cKee), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Physical chemistry.* Seattle, Wash, Jan. 25, 91. A.B, Stanford, 14, A.M, 15, Ph.D, 19. Teaching fellow, Stanford, 17–18; asst. prof. chem, Kansas, 18–21, assoc. prof, 21–25; research chemist, *Westinghouse Elec. and Mfg. Co,* 25–30, *manager chem. div. research labs, 30–, consulting chemist, 36–* A.A; Chem. Soc; Soc. Chem. Indust; Hist. Sci. Soc; Chemists' Club; London Chem. Soc. The alkyl amins as electrolytic solvents; properties of helium; nonaqueous solutions; corrosion; chemical reactivity of refrigerants; electrographitic brushes.

Elson, Jesse, Soil Conservation Service, Blacksburg, Va. *Soil erosion.* Brooklyn, N. Y, April 6, 10. Diploma, Nat. Farm Sch, 32; B.S, Rutgers, 37; M.S, N. C. State Col, 39. Soil surveyor, Soil Conservation Service, 38–39; soil technologist, Exp. Sta, Va. Polytech, 39–41; *project supervisor, soil conservation service, U. S. Dept. Agr, 41–* Research fellow, N. C. State Col. in cooperation with Soil Conservation Service. Soil Sci. Soc. Physicochemical investigations of soil structure; measurement of soil erosion under different cropping conditions.

Elson, Prof. J(ohn) A(lfred), Gustavus Adolphus College, St. Peter, Minn. *Entomology.* Sweden, April 29, 92. A.B, Augustana Col, 20; Washington (Seattle), 26; M.S, Minnesota, 27; Ph.D, California, 33. Teacher, high sch, Minn, 20–25; instr. *biol, Gustavus Adolphus Col,* 25–27, asst. prof, 27–29, *prof, 29–, head dept, 30–* Asst, California, 31–33. A.A; Entom. Soc. Morphology and histology of Hemiptera; predatory habits of Vespula diabolica, Protozoa and beetles; effect of cone nose bites.

Elson, Dr. Paul F(rederick), Fisheries Research Board, University of Toronto, Toronto, Ont, Can. *Fisheries research, Ecology.* Chengtu, China, Dec. 14, 10. B.A, Western Ontario, 34, M.A, 36; Ph.D, Toronto, 39. Demonstrator zool, Western Ontario, 33–36; asst, Toronto, 36–40; *sci. asst. biol, Fisheries Research Board, Can, 40–* Asst, Ont. Dept. Game and Fish, 39. Summers, asst, Fisheries Research Board, Can, 35–38. Mammalogy; ecology of Brewer's mole; movement of speckled trout; rearing maskinonge; ecology of the Atlantic salmon.

Elston, Prof. E(llsworth) D(avid), 1 Dana Road, Hanover, N. H. *Geology.* Port Jervis, N. Y, Jan. 15, 89. A.B, Cornell, 12, A.M, 15. Instr. geol, Cornell, 12–20; asst. prof. *geol, Dartmouth Col,* 20–26, *prof, 26–*

Elston, Dr. T(homas) Sidney, 1662 Francisca St, Pasadena, Calif. *Physics.* Woodland, Calif, Dec. 16, 72. B.S, California, 99; Ph.D, Hopkins, 06. *Instr. physics,* Wisconsin, 06–07; California, 07–15; *Pasadena Junior Col, 24–*

Elting, Dr. Arthur Wells, 119 Washington Ave, Albany, N. Y. *Surgery.* South Cairo, N. Y, Oct. 6, 72. A.B, Yale, 94; M.D, Hopkins, 98; LL.D, St. Lawrence, 16. *Practising surgeon, 00–;* prof. surg, Albany Med. Col, Union (N. Y), 11–37; chief surgeon, Albany Hosp. Surg. Asn; Soc. Clin. Surg; fel. Col. Surg; Am. Med. Asn; Interurban Surg. Soc. Primary cancer of the vermiform appendix; fat embolism as a complication of accident and surgery; production of malaria by inoculation.

Elting, E(rwin) C(ecil), Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C. *Dairy husbandry.* Carthage, Mo, Aug. 18, 01. B.S, Missouri, 23, A.M, 25. Instr. dairying, Missouri, 25–29; assoc. dairy husbandman, Exp. Sta, South Carolina, 29–36; assoc. animal husbandman, *office exp. stations, U. S. Dept. Agr,* 36–39, dairy husbandman, 39–42, *senior animal husbandman, 42–, exp. sta. administrator, 39–* Dairy Sci. Asn. (pres, south. div, 35). Growth and development of dairy cattle; dairy cattle feeding and management; dairy cattle nutrition.

Eltinge, Prof. Ethel T(aber), Mt. Holyoke College, South Hadley, Mass. *Botany.* Syracuse, N. Y, June 1, 99. A.B, Syracuse, 21, A.M, 22; Ph.D, Washington (St. Louis), 28. Instr. *bot,* Albion Col, 22–23; Lindenwood Col, 23–26; *Mt. Holyoke Col,* 28–32, asst. prof, 32–42, *assoc. prof, 42–* Research assoc, California, 38. A.A; Bot. Soc; Soc. Plant Physiol. Effect of ultra-violet light upon higher plants; effect of boron deficiency on structure of Zea mays; role of the minor elements in plant nutrition.

El-Tobgy, Dr. H(assan) A(li), P. O. Box 175, Berkeley, Calif. *Genetics, Agronomy.* Mansura, Egypt, June 29, 14. B.S, California, 37, scholar, 37–41, M.S, 39, Ph.D, 41. Teaching asst, *col. agr, Fouad I Univ,* 35–36, *instr, 41–; mem. div. genetics, California, 41–* A.A; Genetics Soc; Soc. Agron. Cytogenetics of interspecific hybrids; cotton and other fiber plants.

Elton, J(ames) O(rr), 1377 Butler Ave, Salt Lake City, Utah. *Engineering.* Klickitat Co, Wash, 79. State Col. Wash, 99–02; B.S, Idaho, 09, hon. Met.E, 20. Asst. testing engineer, Anaconda Copper Mining Co, 09–10; supt, Success Mine, Idaho, 11–12; metallurgist, Anaconda Smelter Cmn, 13–15; supt. electrolytic zinc plants, Anaconda Copper Mining Co, 16–18; asst. supt, Great Falls Reduction Works, 18–21; *manager, Int. Smelting Co, Salt Lake City, 21–* V. pres. and director, Walker Mining Co; Nat. Tunnel and Mines Co; manager, Tooele Valley R. R. Co; pres, North Lily Mining Co; Mountain City Copper Co. Mem, State Bldg. Cmn, Utah, 31– Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; Zinc Inst. (v. pres. and director); Chemists' Club. Metallurgical engineering; arsenic trioxide from flue dust; electrolytic zinc plant; Salt Lake as an electrochemical center.

Elton, Lieut. Col. W(illiam) Norman, Hq. Mobile Force, A.P.O. 827, care of Postmaster, New Orleans, La. *Pathology.* Dorchester, Mass, Nov. 1, 98. A.B, Harvard, 20; M.D, Boston, 26. Research fellow path, sch. med, Wayne, 29–30; asst. med, sch. med, Boston, 30–31, path, 31–32; *pathologist,* St. Joseph's Hosp, Reading, Pa, 32–37; *Millard Fillmore Hosp, Buffalo, 37–;* major, *Med. Corps, U. S. Army,* 41–42, *lieut. col, 42–* Certificate of honor, sci. exhib, Am. Med. Asn, 30, hon. mention, 40. Mem. Am. cmt, Int. Cong. Hepatic Insufficiencies, 37. Fel. Am. Med. Asn; fel. Soc. Clin. Path; Asn. Path. and Bact; assoc. fel. Nat. Gastroenterol. Asn. (pres, northeast Pa. chap, 37). Pathologic physiology of jaundice; jaundice mechanism in lobar pneumonia; gall-bladder and liver; association of biliary tract disease with duodenal ulcer; modification of suture technic in Cesarean section for prevention of rupture of uterus.

Elvehjem, Prof. C(onrad) A(rnold), 741 Oneida Place, Madison, Wis. **7Physiology, Biochemistry.* McFarland, Wis, May 27, 01. B.S, Wisconsin, 23, M.S, 24, Ph.D, 27; Sc.D, Ripon Col, 42. Asst. agr. chem, Wisconsin, 23–25, instr, 25–29; nat. research fellow, Cambridge, 29–30; asst. prof. agr. chem, *Wisconsin,* 30–32, assoc. prof, 32–36, *prof. biochem, 36–* Ed. board, 'Jour. Nutrition.' Mem. food and nutrition board, Nat. Research Council. Willard Gibbs medal, 43. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition (councilor, 36); Soc. Exp. Biol. (ed. board, 'Proc'); Am. Med. Asn. (council food and nutrition). Iron metabolism; function of copper and manganese in animal nutrition; distribution of minor inorganic elements in foods; vitamins; tissue respiration.

Elvey, Dr. C(hristian) T(homas), McDonald Observatory, Ft. Davis, Texas. **6Astronomy, Astrophysics.* Phoenix, Ariz, April 1, 99. A.B, Kansas, 21, A.M, 23; Ph.D, Chicago, 30. Instr. astron, Kansas, 21–25; Northwestern, 26–28, astrophys, Yerkes Observatory, Chicago, 28–32, asst. prof, 32–35,

astronomer in charge, McDonald Observatory, Chicago-Texas, 35– A.A. (chairman physical sci. sect, southwest. div, 41); Astron. Soc. (councilor, 39–); Int. Astron. Union. Stellar spectroscopy and spectrophotometry; photoelectric photometry; night sky.

Elvidge, Dr. Arthur R(oland), Montreal Neurological Institute, McGill University, Montreal, Que, Can. *Neurosurgery.* London, Eng. M.D, McGill, 24, Cooper scholar, 24–26, M.Sc, 25, Ph.D, 27. Demonstrator physiol, *McGill*, 24–28, asst. demonstrator *neurosurg*, 31–32, lecturer, 33–39, *asst. prof, 39–; lieut, R.C.A.M.C, 40–* Res. neurosurg, Royal Victoria Hosp, 29–31, neuropath. fellow, 31–32, clin. asst, 32, assoc. neurosurgeon, 33–; junior asst. neurosurg, Montreal Gen. Hosp, 30–31, asst. neur, 31–33, traveling fellow, 32–33, assoc. surg. and neur, 33–; assoc. neurosurg, Montreal Neurological Inst, McGill, 34–; assoc. neurosurgeon, Verdun Protestant Hosp, 34–35; consulting neurosurgeon, Montreal Children's Hosp, 35–; St. Mary's Hosp, 39; assoc. neurosurgeon, Children's Mem. Hosp, 40. Can. Army, 16–19. A.A; Asn. Neuropath; Acad. Neurosurg; Neur. Asn; Can. Med. Asn; fel. Royal Col. Surg. Can; Montreal Medico-Chirurg. Soc. (v. pres, sect. neur, 39); Montreal Physiol. Soc. Neurophysiology; neuropathology; hematology; immunology; blood coagulation and blood platelets; haematopoiesis and reticulo-endothelial system; leucocyte reactions; opsonin and the reticulo-endothelial system; hydrocephalus; acute anterior poliomyelitis; gliomata; pathology of psychosis; arteriography; head injuries.

Elving, Prof. Philip J(ulber), Purdue University, Lafayette, Ind. *Analytical chemistry.* Brooklyn, N. Y, March 14, 13. A.B, Princeton, 34, A.M, 35, Ph.D, 37. Instr. chem, Pa. State Col, 37–39; *anal. chem, Purdue,* 39–41, *asst. prof, 41–; head anal. div, Publicker Commercial Alcohol Co, Phila, 43–* Chem. Soc; Ind. Acad. Microchemistry; organic analysis; analytical chemistry of the alkaline earth metals.

Elvove, Dr. Elias, U. S. Public Health Service, Washington, D. C. *Chemistry.* Russia, March 31, 83. B.S, Kentucky, 03, fellow, 03–04, M.S, 04; Phar.D, George Washington, 10, Ph.D, 20. Research chemist, Int. Metal Savings Co, 04–07; chemist and *senior chemist, U. S. Pub. Health Service, 07–* Chem. Soc. Biological, pharmaceutical and sanitary chemistry.

Elwood, Dr. Mary Isabel, Board of Public Education, Pittsburgh, Pa. *Psychology.* Leechburg, Pa, April 21, 09. A.B, Pittsburgh, 29, A.M, 30, Ph.D, 34. Asst. psychol, Pittsburgh, 29–31; *psychologist, pub. schs, Pittsburgh, 31–* Summer, relief psychologist, Pittsburgh Child Guidance Center, 33. Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Asn. Mental Deficiency; Council Admin. Women Educ; Pa. Asn. Clin. Psychol. (exec. cmt, 40–; ed, 41–); Int. Council Exceptional Children. Clinical psychology; tests and measurements.

Elwyn, Prof. Adolph, Croton-on-Hudson, N. Y. *Anatomy, Neurology.* Libau, Baltic Provinces, Feb. 2, 88. B.S, Columbia, 15, A.M, 17. Instr. anat, L. I. Col. Hosp, 14–17, asst. prof, 17–20; assoc, *Columbia,* 18–20, asst. prof, 20–29, *neur,* 29–35, *assoc. prof, 35–* A.A; Asn. Anat; Asn. Research Nervous and Mental Disease; Harvey Soc; N. Y. Acad. Invertebrate neurology; history of medicine; neuroanatomy.

Ely, Fred(erick) B(urchard), 25 Broadway, New York, N. Y. *Geology.* Hoosick Falls, N. Y. B.S, Harvard, 04. Gen. examination work, U. S, Can, Mex. and Alaska, 04–17; petrol. geologist, Standard Oil Co. of N. J, 19–27; *consultant in petrol. and mining, 27–* Lieut, U.S.A, 18–19. Petrol. Inst; Asn. Petrol. Geol; Min. and Metal. Eng; Min. and Metal. Soc. Oil and mining properties.

Ely, Dr. J(acob) O(wen), Biochemical Research Foundation, Newark, Del. *Biochemistry.* Luzerne Co, Pa, July 22, 95. B.S, Pa. State Col, 23, M.S, 27, Ph.D, 29. The Cancer Research Fund, Scranton, Pa, 29–34; *cancer research, biochem. research foundation, Franklin Inst, 34–*

Ely, Prof. John A(ndrews), Cooper Union, New York, N. Y. *Engineering.* New York, N. Y, April 2, 78. C.E, Princeton, 99; M.S, Columbia, 37. Civil engineer, 99–12; instr. and *prof. math. and eng, St. John's, China, 11–,* dean col. arts and science, 21–26, *head dept. eng, 22–,* acting pres, 25–26, *dean sch. eng, 26–; adj. prof. civil eng, Cooper Union, 42–* Prof, Hawaii, 41–42. Civil Eng; Asn. Chinese and Am. Eng; Eng. Soc. China. Engineering education.

Ely, Dr. Leonard W(heeler), Lane Hospital, San Francisco, Calif. *Medicine.* Brooklyn, N. Y, Nov. 28, 68. A.B, Columbia, 89, M.D, 95. Assoc. prof. *surg, Stanford,* 13–23, prof, 23–34, *emer. prof, 34–* Am. Med. Asn. Joint tuberculosis; anatomy, physiology and pathology of bones and joints.

Ely, Prof. S(umner) B(oyer), 520 Roslyn Place, Pittsburgh, Pa. *Mechanical engineering.* Watertown, N. Y, Nov. 5, 69. B.S, Mass. Inst. Tech, 92. Machinist, Yale and Towne Mfg. Co, 92–93; Wm. Cramp and Sons Shipyard, 94; draftsman, Harrisburg Foundry and Machine Works, Pa, 95; with Pressed Steel Car Co, Pittsburgh, 97–01; chief engineer, Am. Sheet and Tin Plate Co, 00–05; v. pres, Albree Iron Works Co, 05–20; asst. prof. commercial eng, *Carnegie Inst. Tech,* 20–29, assoc. prof. power eng, 30–33, assoc. prof. *mech. eng.* in charge power plant, 33–40, *emer. prof, 40–* Consulting engineer, Pa. Giant Power Surv, 24; partner, Associated Engineers, 40–41; supt. bur. smoke prevention, Pittsburgh, Pa, 41–; tech. adviser, Cmn. Smoke Elimination, 41. Mem, State Sanit. Board, Pa, 28. Sec'y, Int. Conf. Bituminous Coal, 26, 28, v. chairman, 31; consultant to director, World's Power Conf, Washington, D. C, 36. A.A; Mech. Eng; Eng. Soc. West. Pa. Power statistics.

Emberson, Dr. Richard M(aury), University of Pittsburgh School of Medicine, Pittsburgh, Pa. Columbia, Mo, April 2, 14. A.B, Missouri, 31, A.M, 32, Ph.D, 36. Mem. faculty, col. observatory, Harvard, 36–39; *instr. biophys, sch. med, Pittsburgh, 39–; mem. staff, radiation lab, Mass. Inst. Tech, Nat. Defense Research Cmt, 41–* Magnetic properties of organic compounds; optics, especially thin film and surface phenomena with polarized light; stellar radiometry; artificial radio-activity and its therapeutic applications.

Embree, H(arland) C(aleb), 1992 Beverly Drive, Pasadena, Calif. *Chemistry.* Iowa, 90. M.S, Chicago, 24. Senior chemist, coroner's lab, Cook County, Ill, 26–27; prof. chem, Youngstown Col, 27–30; Flint Junior Col, Mich, 30–36; *retired.* A.A; Chem. Soc. Organic and biological chemistry; synthetic sugars; toxicology.

Embree, Prof. John F, University of Toronto, Toronto, Ont, Can. *Anthropology.* New Haven, Conn, Aug. 26, 08. A.B, Hawaii, 31; M.A, Toronto, 34; Ph.D, Chicago, 37. Asst. *anthrop,* Chicago, 35–36; research assoc, Hawaii, 37–39, *asst. prof,* 40–41; *Toronto, 41–* Anthrop. Asn; Royal Anthrop. Inst. Acculturation; peoples and cultures of southeast Asia.

Embree, Dr. Norris (Dean), 755 Ridge Road, W, Rochester, N. Y. *Chemistry.* Kemmerer, Wyo, Nov. 29, 11. A.B, Wyoming, 31; Ph.D, Yale, 34. Research chemist, Eastman Kodak Co, *Rochester,* 34–39; *asst. director research, Distillation Products, Inc, 39–* Oil Chem. Soc; Chem. Soc. High vacuum distillation; fats, oils and oil soluble vitamins.

Emch, Prof. Arnold, University of Illinois, Urbana, Ill. *[1]*Mathematics.* Gossliwil, Switzerland, March 24, 71. Cantonal Col, Solothurn, 86–90; Polytech, Zurich, 90–93; Ph.D, Kansas, 95. Asst. prof. graphics, Kansas, 95–97; prof. math, Technicum, Biel, Switzerland, 97–99; graphic math, Kans. Col, 99–00; asst. prof. pure and applied math, Colorado, 00–03, prof. graphics and math, 03–05; *math,* Cantonal Col, Solothurn, 05–10; Obere Realschule, Basel, 10–11; asst. prof, *Illinois,* 11–19, assoc. prof, 19–27, prof, 27–39, *emer. prof, 39–* Math. Soc; Schweiz. Math. Gesell. Problems of closure; transformations realized by linkages; applications of elliptic functions; projective geometry; algebraic geometry; finite groups and their geometric representation; mathematical models.

Emenhiser, Dr. Lee K(enneth), Medical Arts Bldg, Oklahoma City, Okla. *Anatomy.* Davidson, Okla, Dec. 7, 06. B.S, Oklahoma, 28, M.D, 31. Instr. anat, *sch. med, Oklahoma,* 29, asst. prof, 32–34, assoc. prof. and head dept, 34–36, *assoc. otolaryngol, 38–* Asst. res, Washington (St. Louis), 37–38. Fel. Am. Med. Asn. Gross anatomy; otorhinolaryngology.

Emerson, Prof. A(lfred) E(dwards), University of Chicago, Chicago, Ill. *[2]*Zoology.* Ithaca, N. Y, Dec. 31, 96. B.S, Cornell, 18, A.M, 20, Ph.D, 25. Asst, Cornell, 16–18; research asst, trop. research sta, N. Y. Zool. Soc, 19–20, assoc, 20–21; instr. *zool,* Pittsburgh, 21–22, asst. prof, 22–24, assoc. prof, 25–29; *Chicago,* 29–34, *prof, 34–* Asst, Am. Museum Nat. Hist, 20, research assoc, 40–; instr, biol. lab, Cold Spring Harbor, 22; asst. director trop. research sta, N. Y. Zool. Soc, 24; Guggenheim Mem. Foundation fellow, 26–27; research assoc, Field Museum Nat. Hist, 42– Summer, assoc. prof, Chicago, 26. Ed, 'Ecology,' 32–39. A.A; Soc. Nat; Soc. Zool; Entom. Soc; Ecol. Soc. (sec'y-treas, 31, pres, 41); Genetics Soc; Soc. Speciation (sec'y, 40–) Chicago Acad. (board sci. governors, 40–). Animal ecology; entomology;

classification, morphology, zoogeography and ecology of termites; speciation.

Emerson, Dr. Edgar I(ronton), 120 Ridgewood Road, West Hartford, Conn. *Organic chemistry.* Chicago, Ill, Dec. 30, 07. B.S, Chicago, 31, Ph.D, 38. Director *chem,* Hillyer Junior Col, 39–40; *instr, Trinity Col. (Conn), 41–* A.A; Chem. Soc. Oxidations of aminoantipyrine in presence of aromatic amines, phenoles and heterocyclic keto and hydroxy compounds.

Emerson, Prof. Fred W(ilbert), 926 Seventh St, Las Vegas, N. Mex. *Botany.* Georgetown, Ill, Feb. 8, 86. B.S, Earlham Col, 13; M.S, Chicago, 18, Ph.D, 21. Instr. *biol,* Earlham Col, 13–14; prof, Friends, 14–18; prof. and head dept, Penn Col. (Iowa), 18–27; prof, Earlham Col, 27–30; *prof. and head dept, N. Mex. Highlands Univ, 30–* Summers, Allegany Sch. Nat. Hist, 28; George Peabody Col, 29. A.A; Bot. Soc; Ecol. Soc; N. Mex. Acad. (v. pres, 31, pres, 40). Subterranean organs of bog plants; origin of mesophyl; tension zone between grassland and pinyon-juniper associations; ecology of Big Basin; anatomical behavior of Encelia farinosa under different environmental conditions; vegetation of the white sands.

Emerson, Prof. George A(lbert), West Virginia University School of Medicine, Morgantown, W. Va. *Pharmacology, Biochemistry.* San Francisco, Calif, Feb. 27, 12. A.B, California, 32, M.S, 33, fellow, 32–34, Ph.D, 34. Chemist, state narcotic div, Calif, 34; asst, sch. med, Vanderbilt, 34–35; asst. prof. *pharmacol, sch. med, West Virginia,* 35–38, *assoc. prof, 38–, head dept, 35–* Chem. Soc; Soc. Pharmacol; Soc. Exp. Biol; Int. Col. Anesthetists; W. Va. Acad. Anesthesiology; biochemorphology; chemotherapy; drug distribution.

Emerson, Dr. Gladys Anderson, Merck Institute, Rahway, N. J. *Nutrition, Biochemistry.* Caldwell, Kans, July 1, 03. A.B, B.S, Okla. Col. for Women, 25; A.M, Stanford, 26; Ph.D, California, 32; Göttingen, 32–33. Teaching asst, Stanford, 25–26; teaching fellow, California, 27–30; asst, Iowa State Col, 30–31; research assoc, inst. exp. biol, California, 33–42; *senior nutritionist, Merck Inst. Therapeutic Research, 42–* A.A; Soc. Exp. Biol; Chem. Soc. Vitamin E; vitamin B_2 complex.

Emerson, Dr. Haven, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Medicine.* New York, N. Y, Oct. 19, 74. A.B, Harvard, 96; A.M, M.D, Columbia, 99. Intern, Bellevue Hosp, 99–01; demonstrator physiol, Columbia, 02–10, asst. med, 06–10; visiting physician, Seton Hosp, 05–09; asst. visiting physician, Bellevue Hosp, 09–14; sanit. supt. and deputy commissioner, Dept. Health, New York, 14–15, commissioner health and pres, Board Health, 15–17; prof. hygiene and prev. med, Cornell, 19–20; med. adviser and asst. director bur. war risk insurance, U. S. Treasury Dept, 20–21; prof. pub. health practise and director inst. pub. health, col. physicians and surg, Columbia, 22–40, *emer. prof. pub. health practise, 40–* Lecturer, Teachers Col, Columbia, 12–17, 19–41. Cmt. exp. statisticians and surv. health for health sect, League of Nations, Greece, 29; Nat. Advisory Health Council, 31; Board Health, New York, 34–; director, Hosp. Surv, New York, 35–37. Chevalier, Légion d'honneur. Silver medal, Epidémies, France, 19; D.S. medal, 19; Sedgwick mem. medal, Am. Pub. Health Asn, 35. M.C, U.S.A, 18–19, col. A.A; Am. Med. Asn; Am. Physicians; Pub. Health Asn. (pres, 34); Epidemiol, Soc; Harvey Soc; N. Y. Acad. Med; hon. fel. Royal Sanit. Inst; cor. mem. Acad. Athens. Experimental physiology; internal medicine; public health; epidemiology; vital statistics; medical administration.

Emerson, Dr. Henry S(eelye), 58 Seelye St, Amherst, Mass. *Experimental embryology.* Amherst, Mass, March 21, 07. A.B, Amherst Col, 29; Ph.D, Yale, 39. Asst. biol, Amherst Col, 35–37; instr. anat, Michigan, 38–41; *biol, Amherst Col,* 41–43, *asst. prof, 43–* Asn. Anat; assoc. Soc. Zool. Regeneration; effects of mutual transplantations between embryonic and regenerating tissue.

Emerson, Prof. Herbert W(illiam), University of Michigan, Ann Arbor, Mich. *Bacteriology.* Milton, Ont, Can, Oct. 6, 79. Ph.C, Michigan, 01, B.S, 02, M.D, 15. Instr. pharmacy, Kansas, 03–06; *asst. prof. hygiene and director Pasteur inst, Michigan, 19–* Am. Med. Asn; Mich. Acad. (v. pres, 16). Peroxids; separation of by-products from buttermilk; immunity and blood relationship; gelsemium and its alkaloids; color reaction of protein split products; botulism from ripe olives; antirabic canine vaccination.

Emerson, Dr. Oliver H(udleston), University of Minnesota, Minneapolis, Minn. *Biochemistry.* Honolulu, Hawaii, Oct. 15, 00. B.S, Harvard, 22; Ph.D, California, 29. Research assoc. biochem, California, 29–32; Eli Lilly fellow, Göttingen, 32–33; research assoc, inst. exp. biol, California, 33–40; *mem. staff chem. dept, nat. defense lab, Minnesota, 40–* Chem. Soc. Metabolism of pyrimidines; isolation and properties of amino acids; chemistry of vitamin E.

Emerson, Dr. Ralph, 2511 Hearst Ave, Berkeley, Calif. *Cryptogamic botany.* New York, N. Y, April 19, 12. B.S, Harvard, 33, Ph.D, 37. Nat. research fellow, Cambridge, 37–39; *instr. bot, California, 40–* Mycol. Soc; Torrey Bot. Club; British Mycol. Soc. Experimental studies of the lower plants.

Emerson, Prof. Robert, 648 S. Arroyo Blvd, Pasadena, Calif. *Plant physiology.* New York, N. Y, Nov. 4, 03. A.B, Harvard, 25; Ph.D, Berlin, 27. Nat. research fellow, Harvard, 27–29, instr. gen. physiol, 29–30; *asst. prof. biophys, Calif. Inst. Tech, 30–* Research assoc. plant biol, Carnegie Institution, Stanford, 37– Bot. Soc; Soc. Plant Physiol; South. Calif. Botanists (sec'y-treas, 34–36). Photosynthesis.

Emerson, Prof. R(ollins) A(dams), Cornell University, Ithaca, N. Y. ***§***Genetics.* Pillar Point, N. Y, May 5, 73. B.S, Nebraska, 97, LL.D, 17; Sc.D, Harvard, 13. Horticulturist, office exp. stations, U. S. Dept. Agr, 97–98; asst. prof. hort, Nebraska, 99–04, *prof,* 05–14; *plant breeding, Cornell, 14–,* dean grad. sch, 25–30. Nat. Research Council, 25–26. Faculty rep, board trustees, Cornell, 25–27. Collector maize, Cornell and U. S. Dept. Agr, S. Amer, 24. Nat. Acad; A.A; Soc. Nat. (pres, 23); Genetic Asn; Bot. Soc. Heredity in Zea mays.

Emerson, Prof. Sterling (Howard), California Institute of Technology, Pasadena, Calif. *Genetics, Immunology.* Lincoln, Nebr, Oct. 29, 00. B.S, Cornell, 22; A.M, Michigan, 24, Ph.D, 28; Int. Educ. Board fellow, Scandinavia, 25–26. Instr. bot, Michigan, 24–28; asst. prof. *genetics, Calif. Inst. Tech,* 28–36, *assoc. prof, 37–* A.A; Genetics Soc; Soc. Nat. Biological specificities.

Emerson, Prof. Walter Davis, Norwich University, Northfield, Vt. *Mechanical engineering.* Monmouth, Maine, Aug. 14, 94. B.S. (M.E), Maine, 16, M.E, 20. Asst. prof. mech. eng, Maine, 18–24; assoc. prof. eng. mech, *Norwich,* 24–33, prof, 33–36, *prof. mech. eng. and head dept, 36–* Summers, Westinghouse Elec. and Mfg. Co; Radio Corp. Amer; Bausch and Lomb Optical Co; Jones and Lamson Machine Co. Eng. Educ; Inst. Aeronaut. Sci; Vt. Soc. Eng. (director, 30–33, v. pres, 33–35, pres, 35).

Emerson, Dr. William S(tevenson), Monsanto Chemical Co, Dayton, Ohio. *Organic chemistry.* Boston, Mass, March 25, 13. A.B, Dartmouth Col, 34; Ph.D, Mass. Inst. Tech, 37. Du Pont fellow, Illinois, 37–38, instr. chem, 38–41; *chemist, Monsanto Chem. Co, 41–* Chem. Soc. Reductive alkylation.

Emery, Alden H(ayes), 8101 Park Crest Drive, Silver Spring, Md. *Chemistry, Mineralogy.* Lancaster, N. H, June 2, 01. A.B, Oberlin Col, 22; A.M, Ohio State, 23. U. S. Bur. Mines, 23–36, asst. to chief engineer, exp. sta. div, 27–35, asst. chief engineer, 35–36; *asst. manager, Am. Chem. Soc, 36–* Summers, lecturer, George Washington, 29–32. Asst. ed, 'Chem. Abstracts,' 30–37; sect. ed, 'Metal. Abstracts,' 31–39. A.A; Chem. Soc. (sec'y, div. gas and fuel chem, 33–37); Miner. Soc; Min. and Metal. Eng. (chairman, chem. raw materials cmt, 35, 37; sec'y, indust. minerals div, 38, v. chairman, 39). Sources of rock strata gases; sources and collection of dust in mines; mineragraphic identification of minerals; microscopic mineralogy; treatment and utilization of nonmetallic minerals; mineral fillers.

Emery, Prof. Frederick E(arl), 24 High St, Buffalo, N. Y. *Physiology.* Ottawa, Kans, Dec. 29, 97. D.V.M, Kans. State Col, 23, M.S, 24; Ph.D, Wisconsin, 27. Asst, Illinois, 24–26; instr. *physiol,* Wisconsin, 27–28; assoc, *Buffalo,* 28–34, asst. prof, 34–40, *assoc. prof, 40–* Asn. Int. Secretions; Soc. Zool; Physiol. Soc; Asn. Anat; Soc. Exp. Biol. Physiology of reproduction; muscle tonus; metabolism.

Emery, Dr. K(enneth) O(rris), U. S. Navy Radio and Sound Laboratory, San Diego, Calif. *Geology.* Swift Current, Sask, Can, June 6, 14. B.S, Illinois, 37, scholar, 37–38, fellow, 38–39, M.S, 39, fellow, 39–40, Ph.D, 41. Assoc. geologist, Ill. State Geol. Surv, 41–43; *mem. staff, radio and sound lab, U. S. Navy, 43–* Soc. Econ. Paleont. and Miner. Physiography and lithology of sea floor off California; general marine geology; tracing glacial deposits by measurements of electrical earth resistivity.

Emery, Dr. W(illiam) O(rrin), 2232 Cathedral Ave, N. W, Washington, D. C. *Chemistry.* Vernon, Vt, March 29, 63. B.S, Worcester Polytech, 85; Ph.D, Erlangen, 88. Instr. chem, Bonn, 87–92, privat-docent, 91–95; prof. chem, Wabash Col, 95–01; research in drug and invalid food products, Bonn, Berlin and Siegburg, 02–06; chemist, bur. chem, U. S. Dept. Agr, and later senior chemist in charge special collaborative investigations, food and drug admin, 08–33; *retired.* A.A; Chem. Soc. Synthetic organic chemistry; methods for detection and determination of synthetic drugs in medicine.

Emery, Dr. Wilson B(arton), Ohio Oil Co, Findlay, Ohio. *Geology.* Philadelphia, Pa, March 21, 90. A.B, Yale, 11, Ph.D, 14. Geol. aid, U. S. Geol. Surv, 14, asst. geologist, 14–17, assoc. geologist, 17–19; geologist, Rocky Mt. div, *Ohio Oil Co,* 19–26, div. geologist, 26–32, asst. manager in charge acquisition of property, 32–39, gen. supt. production, N. Mex, 36–39, *chief geologist, 39–* Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. Geology of oil and gas.

Emig, Prof. W(illiam) H(arrison), University of Pittsburgh, Pittsburgh, Pa. *Biology.* Coulterville, Ill, Dec. 21, 88. A.B, Washington (St. Louis), 11, Ph.D, 15. Instr. *bot,* Oklahoma, 14–16; *Pittsburgh,* 16–17, asst. prof, 17–26, *assoc. prof, 26–* Okla. Geol. Surv, 16–18. A.A; Bot. Soc; Bot. Soc. West Pa. (pres, 21–23). Microtechnique; morphology of gymnosperms.

Emlen, Prof. John T(hompson), Jr, College of Agriculture, University of California, Davis, Calif. *Zoology.* Philadelphia, Pa, Dec. 28, 08. B.S, Haverford Col, 31; Ph.D, Cornell, 34. Junior biologist, bur. biol. surv, U. S. Dept. Agr, 34–35; instr. *zool, California,* 35–41, *asst. prof, 41–, asst. zoologist, Exp. Sta, 41–* Ranger naturalist, Nat. Park Service, 32, 33. Acad. Nat. Sci. Phila. exped, Haiti, 27, Honduras, 30. A.A; Ornith. Union; Ecol. Soc; Cooper Ornith. Club (pres, north div, 38); Wilson Ornith. Club; Wildlife Soc. Geographical distribution of vertebrates; animal ecology; economic zoology; wildlife management; animal behavior.

Emley, Warren E(dwards), 3604 Fulton St, Washington, D. C. *Chemistry.* Philadelphia, Pa, Jan. 9, 86. B.S, Michigan, 06, Ch.E, 12. Chemist, Fletcher Paper Co, Mich, 06–08; Bur. Standards, 09–17; gen. manager, Riverton Lime Co, Va, 17–18; *chemist, Bur. Standards, 18–* Trustee, American Univ. Rep, Soc. Test. Mat, Int. Eng. Cong, Rio de Janeiro, 22; rep, Bur. Standards, Brazilian Expos, 22; rep, 100th anniversary Tech. Hoch. Fredericiana, Karlsruhe, Germany, 25. Gold medal, Brazilian Expos, 22. Am. Soc. Test. Mat. rep, Int. Cong. for Test. Mat, London, 37. Chem. Soc; Chem. Eng; Soc. Test. Mat; Leather Chemists Asn. (councilor); Inst. Textile Research; Wash. Acad. Lime; gypsum; sand-lime brick; paper; textiles; rubber; leather.

Emling, Prof. Bertin L(eo), St. Vincent College, Latrobe, Pa. *Organic chemistry.* Erie, Pa, July 9, 05. A.B, St. Vincent Col, 31; A.M, Hopkins, 38; Ph.D, Notre Dame, 41. Instr. *org. chem, St. Vincent Col,* 37–39, *prof, 40–* Lecturer, Latrobe Hosp, 41. Chem. Soc. Olefins and acetylenes.

Emmart, Dr. Emily Walcott, National Institute of Health, U. S. Public Health Service, Washington, D. C. *Cytology.* Baltimore, Md. A.B, Goucher Col, 22; A.M, Hopkins, 24, Ph.D, 30. Assoc. prof. biol, Western Maryland Col, 24–28; assoc. entomologist, bur. entom, U. S. Dept. Agr, Mexico City, Mex, 30–31; instr. histol, Hopkins, 32–36; *assoc. cytologist, div. pharmacol, nat. inst. health, U. S. Pub. Health Service, 36–* A.A; assoc. Soc. Exp. Biol. Histology; tissue culture; entomology; cytology; history of medicine; chemotherapy.

Emmel, Dr. M(ark) W(irth), University of Florida, Gainesville, Fla. *Animal husbandry.* Chillicothe, Ohio, Feb. 23, 95. D.V.M, Iowa State Col, 19; M.S, Mich. State Col, 29. Instr. bacter, Mich. State Col, 30; prof. path, Ala. Polytech, 31–32; *veterinarian, Exp. Sta, Florida, 33–* Mem. State Board Examiners Basic Sciences, Fla. Vet. Med. Asn; Southeast. States Vet. Med. Asn. Fowl paralysis; leukemia in animals; poultry diseases.

Emmel, Dr. Victor M(eyer), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Cytology.* St. Louis, Mo, March 22, 13. A.B, Brown, 35, M.S, 37, Ph.D, 39. Nat. research fellow med. sciences, sch. med, Yale, 39–40; *instr. anat, sch. med. and dentistry, Rochester, 40–* Asn. Anat. Cytology; kidney.

Emmert, Prof. E(mery) M(yers), University of Kentucky, Lexington, Ky. *Horticulture.* Cedar Rapids, Iowa, July 18, 00. B.S, Mt. Morris Col, 23; M.S, Iowa State Col, 24, Ph.D, 30. Asst. chem. and manager greenhouses, Mt. Morris Col, 21–23; asst. hort, Iowa State Col, 23–25, instr. chem, 26–27, *hort,* 27–28; *asst. prof. and asst, Exp. Sta, Kentucky, 28–* Soc. Hort. Sci; Soc. Plant Physiol. Analysis of plants and soils; chemical tests of plant tissues as indicators of nutrients available to the plant from the soil.

Emmett, Dr. A(rthur) D(onaldson), Parke, Davis and Co, Detroit, Mich. *Biochemistry.* Lee, Ill, Dec. 19, 78. B.S, Illinois, 01, A.M, 05; Columbia, 06–07, Ph.D, 15. Asst. chemist, State Water Surv, Ill, 01–02; Armour and Co, 02–03; research chemist, Illinois, 03–06, assoc. chief animal nutrition, 08–15; instr. biochem, Columbia, 15–16; *asst. director research labs, Parke, Davis and Co, 16–* A.A; Soc. Biol. Chem; Chem. Soc; Inst. Nutrition. Chemistry of flesh; animal nutrition; fatigue; vitamins; proteins in serums; antitoxins.

Emmett, Prof. P(aul) H(ugh), Johns Hopkins University, Baltimore, Md. *[6]*Physical chemistry.* Portland, Oregon, Sept. 22, 00. B.S, Oregon State Col, 22, Sc.D, 39; Ph.D, Calif. Inst. Tech, 25. Teaching fellow, Calif. Inst. Tech, 22–25; instr, Oregon State Col, 25–26; from asst. to chemist, fixed nitrogen research lab, bur. chem. and soils, U. S. Dept. Agr, 26–37; *prof. chem. and gas eng, sch. eng, Hopkins, 37–* Lecturer, George Washington, 27–29, 31–32, 33–34, 35–36. Cmt. contact analysis, Nat. Research Council, 37–42. Chem. Soc. (assoc. ed, 'Jour'). Contact analysis; adsorption of gases by solids; gas-solid equilibria and kinetics.

Emmons, Dr. C(hester) W(ilson), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Medical mycology.* What Cheer, Iowa, Aug. 21, 00. B.S, Penn Col. (Iowa), 26; M.S, Iowa, 27; Roberts fellow, Columbia, 29, Ph.D, 31. Teacher, prep. sch, Iowa, 19, Ohio, 21, 28; assoc. mycol, col. physicians and surg, Columbia, 29–34; mycologist, Vanderbilt Clinic, 30–34; sch. trop. med, Puerto Rico, 35–36; senior mycologist *med, nat. inst. health, U. S. Pub. Health Service,* 36–42, *prin. mycologist, 42–* Professorial lecturer, med. sch, George Washington, 41– A.A; Mycol. Soc; Soc. Bact; Soc. Trop. Med; Wash. Acad. General and medical mycology; cytology of fungi.

Emmons, Prof. C(lyde) W(ilbur), 1009 N. B St, Indianola, Iowa. *Mathematics.* Kent Co, Mich, June 6, 81. A.B, Albion Col, 03; A.M, Illinois, 09; Iowa, summers, 21–24, 32. Instr. math. and Greek, Albion Col, 03–05; asst. *math,* Illinois, 05–10; *prof, Simpson Col, 10–, registrar, 12–* A.A; Math. Asn; Iowa Acad. Applications of harmonic functions in mathematics and physics.

Emmons, Dr. Howard W(ilson), Harvard University, Cambridge, Mass. *Mechanical engineering.* Morristown, N. J, Aug. 30, 12. M.E, Stevens Inst. Tech, 33, M.S, 35; Sc.D, Harvard, 38. Research engineer, 37–39; asst. prof. mech. eng, Pennsylvania, 39–40; faculty instr, *grad. sch. eng, Harvard,* 40–42, *asst. prof,* 42– A.A. Thermodynamics; heat transfer; fluid mechanics.

Emmons, J(oseph) V(ictor), 3284 Chadbourne Road, Cleveland, Ohio. *Metallurgy.* North Lewisburg, Ohio, Jan. 24, 88. A.B, Nat. Nor. Univ, 07; Case, 08, 09, Met. E, 36. Night chemist, blast furnace dept, Upson Nut Co, 09; chief chemist and later *metallurgist, The Cleveland Twist Drill Co, 09–* Lecturer, Case. Henry Marion Howe medal, Soc. Metals, 33. A.A; Min. and Metal. Eng; Soc. Metals (chairman, Cleveland chap, 20, nat. treasurer, 21–23); Soc. Test. Mat; Chem. Soc; Forestry Asn; Cleveland Eng. Soc. (pres, 27); British Iron and Steel Inst; Verein Deuts. Eisenhüttenleute. Metallurgy of tool steels and other cutting alloys; cutting and wearing tools and their development; the micro-structure, heat treatment and physical properties of tool steels; high speed steel; materials for cutting tools.

Emmons, Dean Lloyd C(lement), 651 Hillcrest Ave, East Lansing, Mich. *Mathematics.* Lawrenceville, Ill, 87. A.B, Indiana, 09; A.M, Harvard, 17. Instr. *math, Mich. State Col,* 09–13, asst. prof, 13–17, assoc. prof, 17–25, *prof, 25–,* institutional admin, 29–34, *dean div. liberal arts, 34–* Summers, director, Mich. State Col, 27, 28. Statist. Asn. Algebra; land contract, yield and maturity tables.

Emmons, Prof. R(ichard) C(onrad), University of Wisconsin, Madison, Wis. *Geology.* Winnipeg, Man, Can, 98. B.A, British Columbia, 19, M.A, 20; Ph.D, Wisconsin, 24. Instr. *geol,* Chicago, 24; *Wisconsin,* 25, asst. prof, 26–30, assoc. prof, 30–37, *prof, 37–* Geologist, Geol. Surv. Can, 20–28.

A.A; fel. Geol. Soc; fel. Miner. Soc. (councilor, 37–41); Can. Min. Inst. Mineralogy; optical mineralogy; petrology; geology of the original Huronian area; the Ontario Precambrian; modified universal stage; optical properties of feldspars; silicosis; geology of central Wisconsin.

Emmons, Prof. W(alter) J(ohnson), University of Michigan, Ann Arbor, Mich. *Highway engineering.* Hope, R. I, April 14, 90. B.S, Brown, 12; A.M, Columbia, 14. Supt. construction, United Gas Improv. Co, 13–16; inspector and asst. engineer, State Highway Dept, Pa, 16–19; asst. to director, Pittsburgh Testing Lab, 20; prof. highway eng, Agr. and Mech. Col. Texas, 20–24; highway research specialist, bur. pub. roads, U. S. Dept. Agr, 24–27; director, State Highway Lab, Mich, 27–33; *assoc. prof. highway eng, Michigan, 27–* Mem, Highway Research Board. Civil Eng; Asn. Asphalt Paving Tech. (pres, 29, sec'y-treas, 33–); Soc. Test. Mat; Concrete Inst; Road Builders Asn. Materials of highway construction; bituminous materials and paving mixtures; materials testing and inspection.

Emmons, Prof. William H(arvey), University of Minnesota, Minneapolis, Minn. **Geology.* Mexico, Mo, Feb. 1, 76. A.B, Cent. Col. (Mo), 97; fellow, Chicago, 01–02, Ph.D, 04. Asst. geol, Chicago, 03–04; aid, U. S. Geol. Surv, 04–06; lecturer ore deposits, Chicago, 07, petrol, 08, asst. prof. petrol. and econ. geol, 08–09, assoc. prof. econ. geol, 09–11; *prof. geol. and head dept, Minnesota, and director, Minn. Geol. Surv, 11–* Asst. geologist, U. S. Geol. Surv, 06–09, geologist, 09–15. Assoc. ed, 'Jour. Geol.' Mining cmn, China, 21. A.A; Geol. Soc; Soc. Econ. Geol. (pres, 28); Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad. Ore deposits of mining districts in Nevada, Montana, Colorado, Tennessee, Maine and New Hampshire; superficial alteration and secondary enrichment of gold deposits of the United States; principles of economic geology; petroleum geology; enrichment of ore deposits; zonal series of lode deposits; gold deposits of the world.

Emory, Kenneth P(ike), Bishop Museum, Honolulu, Hawaii. *Ethnology.* Fitchburg, Mass, Nov. 23, 97. B.S, Dartmouth Col, 20; California, 21; A.M, Harvard, 23; Yale, 40–41. Asst. ethnologist, *Bishop Museum, Honolulu,* 20–25, *ethnologist, 26–; lecturer anthrop, Hawaii, 39–* Head archeol. explor, Hawaiian Islands; archeologist, U.S.S. Tanager exped, Nihoa and Necker Islands, 24, Kaimiloa exped, South Seas, 25–26, Mangareva Island, 34, leader, Tuamotu Island, 29–31; ethnologist, Islander exped, Mangareva, 34. Anthrop. Soc; Anthrop. Soc. Hawaii; Polynesian Soc. Archeology of Hawaii, the Society Islands, the Pacific Equatorial Islands, and Tuamotu and Mangareva Islands; ethnology of Tuamotuan Archipelago, the Society Islands and Hawaii.

Emory, Prof. S(amuel) T(homas), University of North Carolina, Chapel Hill, N. C. *Geography.* Chase City, Va, Oct. 3, 96. A.B, Randolph-Macon Col, 17, A.M, 18; A.M, Columbia, 21; D.Pd, Chicago, 39. Asst. prof. *geog, North Carolina,* 33–34, *assoc. prof, 40–* Consultant, Nat. Resources Planning Board, 40. Council Geog. Teachers (state director, N. C, 33–38); N. C. Acad. Bright tobacco.

Emory, V(ernon) H(ope), Fraser Companies, Ltd, Edmundston, N. B, Can. *Engineering.* Toronto, Ont, March 21, 97. B.A.Sc, Toronto, 21, Nat. Research Council Can. bursar, 21–22. Research engineer, Abitibi Power and Paper Co, Iroquois Falls, Ont, 22–29; chief chemist, Can. Paper Co, Windsor Mills, Que, 29–30; service engineer, Fraser Paper, Ltd, Madawaska, Maine, 30–31, acting asst. mills manager, 32–35, asst. mills manager, 35, gen. supt. *Fraser Companies, Ltd, Edmundston,* 35–40, *mill manager, 40–* Nitrogen metabolism of Bacillus granulobacter pectinovorum.

Emslie, Dr. A(lfred) G(eorge), Williams College, Williamstown, Mass. *Physics.* Aberdeen, Scotland, Nov. 28, 07. M.A, Aberdeen, 28; Commonwealth fellow, Cornell, 30–33, Ph.D, 33; Ph.D, Cambridge, 38. Asst. physics, Aberdeen, 28–30; Carnegie fellow physical chem, Cambridge, 34–37; instr. *physics, Williams Col,* 37–42, *asst. prof, 42–* Asst. demonstrator, Cavendish lab, Cambridge, 34–35. Physical Soc. Diffraction of electrons and positive ions.

Emsweller, Dr. S(amuel) L(eonard), Bureau of Plant Industry Station, Beltsville, Md. *Horticulture.* Tarentum, Pa, Nov. 1, 98. B.S, 21; Ph.D, California, 32. Instr, Bluefield Col, 26–28; assoc. truck crops, California, 28–32, asst. prof, 32–35; *prin. horticulturist in charge floricul. and ornamental hort. plant investigations, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 35–* Soc. Hort. Sci; Wash. Acad. Cytology and genetics of ornamentals.

Enders, Prof. Henry C(ornelius), Cooper Union, New York, N. Y. *Chemistry.* New York, N. Y, Nov. 30, 71. B.S, Cooper Union; A.M, Columbia, 15, Chem.E. *Asst. prof. chem, Cooper Union, 04–* N. Y. Soc. Professional Eng. Chemical engineering; geology.

Enders, Dean Howard E(dwin), 249 Littleton St, West Lafayette, Ind. *Zoology.* Enders, Pa, June 18, 77. B.S, Lebanon Valley Col, 97, M.S, 00; B.S, Michigan, 98; Harvard, 02; Ph.D, Hopkins, 06. Teacher, high sch, Mich, 98–00; prof. biol, Lebanon Valley Col, 00–03; from instr. to assoc. prof. *zool, Purdue,* 06–15, *prof, 15–, head dept. biol, 26–,* acting dean *sch. science,* 30–32, *dean, 32–* Lecturer, St. Elizabeth Hosp, Lafayette, 15– Summers, field asst, Mich. Geol. Surv, 99; investigator, U. S. Fisheries Lab, Beaufort, N. C, 03–08; prof, Indiana, 11–15; Hopkins, 16–20; investigator parasitol. and field assoc, Kartabo Jungle Lab, British Guiana, 25; Barro Colo. Lab. Trop. Biol, Panama, C. Z, 27; tropical research, Honduras, 33. A.A; Soc. Zool; Entom. Soc; Soc. Parasitol; fel. Ind. Acad. (sec'y, 15–20, pres, 21). General biology; morphology of Annulata; food of fledgling birds; commensalism; parasitology.

Enders, Dr. John F(ranklin), 40 Griggs Terrace, Brookline, Mass. *Bacteriology.* West Hartford, Conn, Feb. 10, 97. A.B, Yale, 19; A.M, Harvard, 22, Ph.D, 30. Asst. *bacter. and immunol, Harvard Med. Sch,* 29–31, instr, 31–35, asst. prof, 35–42, *assoc. prof, 42–,* acting head dept, 40–42. A.A; Soc. Bact; Asn. Immunol; Soc. Exp. Biol. Immunology and bacteriology of the pneumococcus; bacterial anaphylaxis; rickettsia; viruses.

Enders, Prof. Robert K(endall), Swarthmore College, Swarthmore, Pa. *Biology.* Essex, Iowa, Sept. 22, 99. Col. of Wooster, 21–23; A.B, Michigan, 25, Hinsdale fellow, 25–27, Ph.D, 27. Asst. prof. biol, Union (N. Y), 27–28; prof. and head dept, Mo. Valley Col, 28–30; nat. research fellow *zool,* 30–32; asst. prof, *Swarthmore Col,* 32–38, *assoc. prof, 38–* Biologist, Biol. Surv, 38–39; bur. animal indust, U. S. Dept. Agr, 39–41; U. S. Dept. Interior, 41– Ed. cmt, 'Frontiers.' A.A; Soc. Mammal. (recording sec'y, 33–38); Soc. Zool; Asn. Anat; Wildlife Soc; Soc. Vert. Paleont; Acad. Nat. Sci. Phila. Anatomy; reproduction of mammals; mammals of Panama; didelphids.

Endicott, Dr. Margaret M, Woman's College, University of North Carolina, Greensboro, N. C. *Organic chemistry.* Pleasantville, N. J, Dec. 28, 13. A.B, Mt. Holyoke Col, 35, A.M, 37, Mary E. Woolley fellow, 37–38; univ. fellow, Yale, 38–39, Ph.D, 39. Instr. *chem,* Hollins Col, 39–41; *asst. prof, Woman's Col, North Carolina, 41–* Chem. Soc; N. C. Acad. Synthetic organic chemistry; hydantoins; imino acids; pyrimidines.

Endress, Herbert A, 35 N. 14th St, Easton, Pa. *Chemistry.* Akron, Ohio, Oct. 14, 96. A.B, Stanford, 20; Goodyear fellow, Akron, 20–21, M.S, 21. Research chemist, Goodyear Tire and Rubber Co, Ohio, 22–24; Celite Co, Calif, 24–28; Goodyear Tire and Rubber Co, 28–37; v. pres, N. H. Diatomite Co, 37–38, pres, 39; *chief research chemist, C. K. Williams and Co, 39–* Chem. Soc. Vulcanization of rubber; crystallization of sulfur in rubber; reinforcing value of fillers in compounded rubber; size of pigments; applications of rubber to paint industry.

Endsley, Prof. Louis E(ugene), 516 East End Ave, Pittsburgh, Pa. *Railway engineering.* Wayne Co, Ind, Sept. 9, 79. B.S, Purdue, 01, M.E, 03. Instr, locomotive lab, Purdue, 02–06, assoc. prof. *ry. mech. eng,* 06–12, *prof,* 12–14; *Pittsburgh, 14–* In charge master car builders lab, Purdue, 06–14. Trustee, Franklin Col, 09–14. Mech. Eng; Eng. Educ; assoc. Asn. Am. Railroads (draft gear cmt, 15–26, chairman, 15); Master Mech. Asn. (locomotive testing cmt); West. Ry. Club; Pittsburgh Ry. Club (pres, 31). Friction of freight car trucks; locomotive efficiency; stresses in side frames for freight cars; stresses in rolled wheels.

Engard, Dr. Charles J(oseph), University of Hawaii, Honolulu, Hawaii. *Plant physiology, Plant morphology.* Philadelphia, Pa, Sept. 4, 12. B.S, State Col. Wash, 35, M.S, 37; Ph.D, Chicago, 38. *Asst. prof. bot, Hawaii, 38–* Translocation of organic and inorganic materials in plants; comparative ontogeny of Rubus.

Engel, Prof. Edward William, American University, Washington, D. C. *Chemistry.* Amsterdam, N. Y, June 1, 03.

B.S, Union (N. Y), 25; A.M, Princeton, 26, Ph.D, 28. Asst. *chem*, Princeton, 25-28; instr, *American Univ*, 28-31, asst. prof, 31-37, assoc. prof, 37-41, *prof, 41–, chairman dept, 42–*, acting pres, 40-41, admin. asst. to pres, 41-42, *director summer and evening divisions, 42–* Summer, special expert, nat. inst. health, U. S. Pub. Health Service, 31. Chem. Soc. Conductivity of glass; vapor pressures of binary liquid mixtures; toxic effect of certain esters of phenolic compounds and its relation to chemical constitution; modified sensitive magnesium test; molecular refraction; latent heat of vaporization apparatus.

Engel, Dr. H(arry) C(harles), Mellon Institute for Industrial Research, Pittsburgh, Pa. *Engineering.* Pittsburgh, Pa, Dec. 24, 13. B.S, Carnegie Inst. Tech, 38; indust. fellow, Mellon Inst, 38-40; Ph.D, Pittsburgh, 41. Instr. chem. eng, Pittsburgh, 39-40; *indust. fellow special plastics, Mellon Inst, 41–* Chem. Soc; Chem. Eng. Chemical and plastics engineering; special plastics for use in aircraft.

Engel, Dr. K(arl) H(enry), 1310 Princeton Road, West Englewood, N. J. *Organic chemistry.* Stormarn, Holstein, Germany, June 14, 89. Freiburg, 09-10; diploma, Univ. Kiel, 12; Ph.D, Pa. State Col, 29. Research and operating chemist, Nat. Aniline and Chem. Co, 16-20; asst. supt, Am. Aniline Products, Inc, 20-26; instr. chem, Pa. State Col, 29; *research chemist, Barrett Co, 29–* Chem. Soc. Azo dyes and intermediates; synthetic resins; solvents.

Engel, Dr. Lewis L(ibman), Mayo Foundation, Rochester, Minn. *Biological chemistry.* New York, N. Y, Sept. 2, 09. B.S, Harvard, 30; fellow, Columbia, 33-35, Ph.D, 36. Asst. biol. chem, Columbia, 31-33; fachhörer, Fed. Polytech. Inst, Zurich, Switzerland, 35-36; guest research worker, research inst, Royal Cancer Hosp, London, 36-37; fellow med, Hopkins, 37-39, instr, 39-41; *asst. biochem, Mayo Foundation, Minnesota, 42–* Asn. Cancer Research; Chem. Soc. The chemistry and intermediary metabolism of the steroid hormones, with particular reference to the adrenal cortical hormone.

Engel, Prof. Martha (S), 1111 Rutledge St, Madison, Wis. *Botany.* Sun Prairie, Wis, April, 97. Milwaukee-Downer Col; A.B, Wisconsin, 19, A.M, 22. Asst. biol, Parsons Col, 19-21; teaching asst. bot, Wisconsin, 21-22; asst. prof. *biol*, Parsons Col, 22-26; *teacher, East High Sch, Madison, Wis, 29–* Asst. prof, Ill. State Nor. Univ, 27. Bot. Soc; Eugenics Soc; Genetic Asn. Taxonomy.

Engel, Dr. René L(aurent) H(enri), 1148 Constance St, Pasadena, Calif. *Geology, Mining engineering.* Chatou, S. and O, France, June 15, 87. Ch.E, Paris, 09, M.S, 12; Ph.D, Calif. Inst. Tech, 33. Instr. chem, Conservatoire des Arts et Métiers, Paris, 11-12; with Anaconda Copper Mining Co, Mont, 13-14, 20-23; chem. engineer, mil. research lab, Sorbonne, 14-17; mem. sci. cmns, U. S. and England, 17-18; geologist, Saar Coal Mines, Saarbrucken, 18-19; prof. geol, Okla. Sch. Mines and Metal, 23-24; asst. prof. geol. and miner, N. Mex. Sch. Mines, 24-25; instr. miner, Calif. Inst. Tech, 25-34; *consulting mining geologist and engineer, 35–* Officier l'Acad. Miner. Soc; Min. and Metal. Eng; Chem. Soc; Soc. des Ing. civils de France; Soc. de Chim. indust. Mineralogy; geochemical relations in processes of ore deposition; economic geology of mining districts in Nevada and California.

Engel, Dr. R(uben) W(illiam), Alabama Polytechnic Institute, Auburn, Ala. *Biochemistry.* Shawano, Wis, July 10, 12. Ph.B, Wisconsin, 36, Ph.D, 39. Asst, Wisconsin, 36-39; *assoc. animal nutritionist, Ala. Polytech, 39–; food and nutrition officer, U. S. Army, 43–* Choline in nutrition; pathology associated with B-vitamin deficiencies.

Engelbrecht, Prof. Mildred A(manda), 22 Prince Apts, Tuscaloosa, Ala. *Bacteriology.* Marengo, Ill. A.B, Wisconsin, 27, fellow, 29-30, M.S, 30, Ph.D, 34. Technician, Pelton Clinic, Elgin, Ill, 27-29; instr. agr. bacter, Wisconsin, 30-38; asst. prof. *bacter. and physiol. chem, Alabama*, 38-43, *assoc. prof, 43–* Soc. Bact; Pub. Health Asn; Ala. Acad. Physiological chemistry; streptococci in milk; streptococci in relation to mastitis; classification of streptococci.

Engelder, Prof. Carl J(ohn), University of Pittsburgh, Pittsburgh, Pa. *Chemistry.* Punxsutawney, Pa, Jan. 11, 90. A.B, Cornell, 13, B.Ch, 14, Ph.D, 17. Asst. instr. chem, Cornell, 13-17; instr. fuel technol, Illinois, 17; asst. prof. and *prof. anal. chem, Pittsburgh, 21–*

Engelfried, Lieut. Comdr. John J(acob), National Naval Medical Center, Bethesda, Md. *Biochemistry, Immunology.* New York, N. Y, Sept. 16, 06. B.S, Michigan, 32, M.S, 34, Dr.P.H, 36. Technician in clin. med. and bacter, *Michigan*, 32-34, chemist, *dept. pediatrics and infectious diseases*, 34-38, *instr, 38–*, biol. chem, Horace Rackham Sch. Grad. Studies, 38-39, *chemist, univ. hosp; lieut. commander, H–V(S), U. S. Naval Res.* Lieut, M.C, U.S.N.R. Pub. Health Asn; Mich. Acad. Allergy; the relationship between the allergic activity and the protein fractionization of foods; sensitization of animals; iodized salt; use of sulfonamides for the treatment of diseases of man; distribution of the sulfonamide drugs in tissues and fluids of the body.

Engelhart, Dr. Max D(issette), 5454 Greenwood Ave, Chicago, Ill. *Education.* Cleveland, Ohio, Feb. 28, 01. B.S, Illinois, 23, M.S, 26, Ph.D, 32. Chemist, Ill. Steel Co, 23-24; Int. Lead Ref. Co, 24-25; instr. chem, Ga. Tech, 26-27; asst, bur. educ. research, Illinois, 27-32; *director dept. examinations, Chicago City Colleges, 34–* Ed. board, 'Psychometrika'; 'Educational and Psychol. Measurement.' Educ. Research Asn; Psychometric Soc. Measurement; statistical methods.

Engels, Dr. W(illiam) H(enry), Merck and Co, Rahway, N. J. *Chemistry.* Karlsruhe, Germany, May 25, 85. Dipl. Ing, Tech. Inst. Karlsruhe, 08, D. Ing, 11. *Assoc. director research and develop, Merck and Co, 11–* Chem. Soc. Industrial developments in the field of organic and biolog cal chemistry.

Engels, Prof. William L(ouis), University of North Carolina, Chapel Hill, N. C. *Zoology.* Green Bay, Wis, Oct. 28, 05. B.S, Notre Dame, 30; Ph.D, California, 37. Instr. biol, Notre Dame, 30-32; asst. paleont, California, 34, museum vert. zool, 35, *zool*, 35-37; instr, *North Carolina*, 37-39, asst. prof, 39-41, *assoc. prof, 41–* Soc. Mammal; Ecol. Soc; Wildlife Soc; Soc. Zool. Distribution; speciation of mammals; geographic variation; ecology, habits and adaptive anatomy of birds; game fish resources of North Carolina rivers.

Enger, Dean Melvin L(orenius), University of Illinois, Urbana, Ill. *Hydraulics.* Decorah, Iowa, May 5, 81. B.S, Illinois, 06, C.E, 11, M.S, 16. Instrument man, C. M. and St. P. Ry, 06-07; instr. theoret. and applied mech, *Illinois*, 07-09, assoc, 09-11, asst. prof, 11-17, assoc. prof, 17-19, *prof. mech. and hydraul, 19–*, head dept. theoret. and applied mech, 26-34, *dean col. eng. and director eng. exp. sta, 34–* A.A; Civil Eng. (director, 31-34); Soc. Test. Mat; Water Works Asn; Eng. Educ; West. Soc. Eng; Ill. Soc. Eng. Resistance to flow through locomotive water columns; penstock design; air inlet valves for hydraulic pipe lines; transmission of pressure in granular materials; tests on cast iron pipe.

Engerrand, Prof. George C, University of Texas, Austin, Texas. *Anthropology.* France. B.S, Bordeaux, 95; grad. geol, State Univ, France, 97, bot, 98; Ph.D, Texas, 35. Prof. geol, Geog. Inst. Brussels, 98-05; geologist, Belgian Geol. Surv, 01-07; prof. prehist. archeol, Ecole des Hautes Etudes, Brussels, 01-03; chief geologist, Mex. Govt, 07-15; prof. prehist. archeol, Mex, 09-14; instr. geol, Mississippi, 19-20; adj. prof. *anthrop, Texas*, 20-23, assoc. prof, 23-29, prof, 29-38, *grad. prof, 38–* Director, Int. Sch. Am. Archeol. and Ethnol, 12-13. Fossil man; ethnic boundaries of Europe; foreign population of Texas; the American Indian.

England, Prof. C(harles) W(alter), University of Maryland, College Park, Md. *Dairy industry.* Rising Sun, Md, Dec. 5, 99. B.S, Maryland, 23; M.S, Cornell, 31, Ph.D, 33. Chemist and bacteriologist, Simpson's Dairy, Inc, Washington, D. C, 23-29; private dairy lab, Frederick, Md, 29-30; asst. bacter, Cornell, 31-33; instr. *dairy mfg, Maryland*, 33-34, asst. prof, 34-35, assoc. prof, 35-38, *prof, 38–* Bacteriologist, Inlet Valley Farms, Inc, Ithaca, N. Y, 31-32. Dairy Sci. Asn; Dairy Tech. Soc. Md-D. C. (sec'y-treas, 39, v. pres, 40, pres, 41); Int. Asn. Milk Sanitarians. Dairy manufacture.

Engle, Prof. Dorothy G(all), Albion College, Albion, Mich. *Chemistry.* Denver, Colo, April 12, 00. A.B, Denver, 22; A.M, Illinois, 24; Ph.D, Michigan, 40. Instr. *chem, Albion Col*, 24-27, asst. prof, 27-41, *assoc. prof, 41–* A.A; Chem. Soc. Luminescence; basic chromium solutions.

Engle, Prof. Earl A(gard), University of Denver, Denver, Colo. *Chemistry.* Litchfield, Mich, Oct. 11, 97. A.B, Denver, 18, A.M, 19; du Pont fellow, Illinois, 21-22, Ph.D, 22. Asst, Illinois, 19-21; *prof. chem. and chem. eng, Denver, 22–* Chem. Soc; Electrochem. Soc; Colo-Wyo. Acad. Chemistry, metallurgy and alloys of beryllium; hydrol equilibrium in

water; hydration of metaphosphoric acid; phosphoric acid; wetting agents; contact angles; hydrous oxides of aluminum.

Engle, Prof. Earl Theron, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Anatomy.* Waterloo, Iowa, March 19, 96. A.B, Nebr. Wesleyan, 20; A.M, Colorado, 23; Ph.D, Stanford, 25. Instr. zool, Colorado, 21–23; *anat,* Stanford, 25–27, asst. prof, 27–28; *col. physicians and surg, Columbia,* 28–29, assoc. prof, 29–39, *prof, 39–* Mem. Columbia Univ. and Am. Museum Nat. Hist. exped, Africa, 29–30. Asn. Anat; Physiol. Soc; Soc. Exp. Biol. Physiology of reproduction; pituitary gonadal relationships.

Engle, E(ldon) B, 3841 Dudley St, Lincoln, Nebr. *Soils.* Morrill, Kans, Oct. 12, 97. McPherson Col, 15–17; Nebr. Wesleyan, 18–19; A.B, Nebraska, 20, M.S, 24; Cornell, 20–21; Missouri, summers, 27–30. Asst. soils, Cornell, 20–21; instr, Nebraska, 23–27, asst. prof, 28–34; *soil conservation service, U. S. Dept. Agr, 34–;* capt, *Chem. Warfare Service, U. S. Army,* 42–43, *major, 43–* Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Physical analysis of soils; soil profiles in central prairies; organic matter, content and color of soils in central grassland states; physical humus and clay colloids; lime-induced chlorosis; soil morphology and classification.

Engle, Dr. Harvey R(oosevelt), 1330 James Ave, Niagara Falls, N. Y. *Chemistry.* Waynesburg, Ohio, May 28, 09. A.B, Hiram Col, 32; A.M, Boston, 34; Ph.D, Cornell, 39. Asst. chem, Boston, 32–34; Cornell, 34–38; asst. operation chemist, *Hooker Electrochem. Co,* 39–43, *chemist, 43–* Summers, chemist, State Conservation Dept, N. Y, 34–39. Chem. Soc. Sesquioxide and hydroxides of gallium; use of titanous chloride in the reduction of organic compounds.

Engle, Melvin D(arke), 39 Boylston St, Boston, Mass. *Engineering.* Forest Glen, Md, July 29, 96. B.S. (E.E), Michigan, 18. Asst. to elec. engineer, Consol. Gas, Elec. Light and Power Co, Baltimore, 19–22; asst. to chief mech. engineer, McClellan and Junkersfield, Inc, New York, 22–25; asst. to supt. sta. eng. dept, Edison Elec. Illum. Co. of Boston, 25–35, supt, 35–38; *asst. supt. eng. dept, Boston Edison Co, 38–; mem. staff, Office War Utilities, War Production Board, 42–* Elec. Eng; Mech. Eng. (chairman, Boston sect, 30); Nat. Dist. Heat. Asn. (1st v. pres, 35, pres, 36); Eng. Soc. New Eng. Boiler plant and steam electric generating station design and operation; high steam pressures and temperatures; smoke and dust abatement; subaqueous corrosion; dehydration of fine solids.

Engle, Prof. O(hmer) H(arold), 1409 Robinwood Road, Alliance, Ohio. *Zoology, Anatomy.* Enon, Ohio, Jan. 2, 92. A.B, Wittenberg Col, 14; A.M, Columbia, 25; Wisconsin, 30, 33. Asst. prof. *biol, Mt. Union Col,* 25–27, *assoc. prof, 27–* A.A; Ohio Acad. Comparative vertebrate anatomy.

Engle, Dr. R(obert) F(ry), Jr, Anthracite Industries Laboratory, Primos, Pa. *Chemistry.* Philadelphia, Pa, Jan. 6, 10. B.S, Haverford Col, 32; Ph.D, Cornell, 37. *Research chemist,* Solvay Process Co, 37–43; *Anthracite Industries Lab, 43–* Chem. Soc. Physical chemistry; electrochemistry.

Engle, Dean W(ilber) D(wight), 2233 S. Columbine St, Denver, Colo. *Chemistry.* Portland, Mich, Aug. 31, 70. A.B, Albion Col, 93, A.M, 94; Ph.D, Columbia, 98; hon. Sc.D, Denver, 14; LL.D, Colorado, 27. Asst. prof. *chem,* Albion Col, 94–95; *prof, Denver, 95–, v. chancellor, 17–, dean sch. science and eng, 30–, grad. sch, 33–* Prof, Denver and Gross Col. Med, 98–08. A.A; Chem. Soc; Electrochem. Soc; Colo. Sci. Soc; Denver Teknik Club; Deuts. Chem. Gesell. Organic chemistry.

Englerth, Dr. George H(enry), P. O. Box 4137, Portland, Oregon. *Forest pathology.* Grand Rapids, Mich, Aug. 7, 07. B.S.F, Washington (Seattle), 33; M.F, Michigan, 35; Ph.D, Yale, 40. Junior pathologist, bur. plant indust, U. S. Dept. Agr, 34; asst, Michigan, 34–35; asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 35–36, 37–42, *assoc. pathologist, 42–* Soc. Foresters; Phytopath. Soc. Deterioration of fire-killed timber; decay of western hemlock; wood pathology.

Englis, Prof. D(uane) T(aylor), 906 S. Busey St, Urbana, Ill. *Chemistry.* Eureka, Ill, April 29, 91. A.B, Eureka Col, 12; A.M, Illinois, 14, Ph.D, 16. Instr. plant chem, *Illinois,* 16–17, assoc, 18, *chem,* 18–22, asst. prof, 22–36, *assoc. prof, 36–* Summers, special research chemist, Dickinson and Co, Washington, Ill, 13; Sprague-Sells Co, Hoopeston, 29, 30. A.A; Chem. Soc; Optical Soc; Inst. Food Technol; Agr. Chem; Ill. Acad. Carbohydrate analysis; enzymes; color of sugar products; levulose from artichokes; spectroscopic analysis; ion exchangers; foods.

English, Geo(rge) L(etchworth), 50 Brighton St, Rochester, N. Y. *Mineralogy.* Philadelphia, Pa, June 14, 64. Grad, Friends' Cent. Sch, Phila, 81. Practising mineralogist, 87–03; expert, Nat. Light and Thorium Co, 03–13; mineralogist, Ward's Nat. Science Estab, 13–34; *consulting mineralogist, 34–* Lecturer, Board Educ, New York, 02–03. Miner. Soc. (v. pres, 27); N. Y. Miner. Club; Acad. Nat. Sci. Phila; Rochester Acad. (pres, 19–21); Brooklyn Inst. Penfieldite; graftonite; pyroxmangite; skemmatite.

English, Prof. Horace B(idwell), Ohio State University, Columbus, Ohio. *Psychology.* Eagle, Nebr, Oct. 1, 92. Nebraska, 09–11; Rhodes scholar, Oxford, 11–14, B.A, 14; Ph.D, Yale, 16. Asst. psychol, Yale, 14–16; instr. philos. and psychol, Wellesley Col, 16–17, 19–20, asst. prof, 20–21; prof. *psychol,* Antioch Col, 21–25; assoc. prof, Wesleyan, 25–27; *prof,* Antioch Col, 27–30; *Ohio State, 30–* Educational consultant, Antioch Col, 40–; collaborator-consultant, U. S. Forest Service, 39– Summer, assoc. prof, Indiana, 20; prof, Nebraska, 35. Collaborator, child develop. center, Am. Council Educ, 41; consultant, State Board Educ, W. Va, 41–42. Consulting ed, 'Dictionary of Psychol'; mem. ed. board, 'Jour. of Psychol.' Sanit.C, 17–19, capt. A.A. (chairman advisory council on human relations, 39–); Psychol. Asn. (director, 40–42); Midwest. Psychol. Asn. (sec'y-treas, 29–32, pres, 32); Soc. Psychol. Study Social Issues (councilor, 36–); Asn. Applied Psychol. (exec. sec'y, 37–40, pres, 40); fel. Ohio Acad. (v. pres, 31); fel. British Psychol. Soc. Learning; mental tests; psychological terms; child psychology.

English, Dr. Jackson P(ollard), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* Richmond, Va, Jan. 25, 15. B.S, Va. Mil. Inst, 35; Ph.D, Hopkins, 40. *Research chemist, Am. Cyanamid Co, 39–* Chem. Soc. Chemotherapy.

English, Dr. James, Jr, 363 St. Ronan St, New Haven, Conn. *Organic chemistry.* New Haven, Conn, March 17, 12. A.B, Yale, 33, Loomis fellow, 35–36, Ph.D, 36. Research fellow, Calif. Inst. Tech, 36–42; *instr. chem, Yale, 42–* Synthesis of local anesthetics; isolation of plant hormones.

English, Dr. L(ester) L(amar), Box 331, Spring Hill, Ala. *Entomology.* Decatur, Ala, May 8, 99. B.S, Ala. Polytech, 20; M.S, Iowa State Col, 24, Ph.D, 27. Junior entomologist, bur. entom, U. S. Dept. Agr, 21–23; research fellow, Crop Protection Inst, 25–28; research assoc. entomologist and later *entomologist, Ala. Polytech, 28–* A.A; Asn. Econ. Entom; Chem. Soc. Oil emulsions for insect control.

English, Prof. P(ennoyer) F(rancis), Pennsylvania State College, State College, Pa. *Wildlife management.* Farmington, Wash, Feb. 21, 94. B.S, Oregon State Col, 19; M.S, Agr. and Mech. Col. Texas, 25; fellow, Michigan, 31–33, Ph.D, 34. Instr. zool, Oregon State Col, 19–21; head dept. biol, Col. of St. Teresa, 24–26; asst. prof, Agr. and Mech. Col. Texas, 21–24, assoc. prof, 26–34; research wildlife management, game div, State Dept. Conservation, Mich, 33–35; assoc. prof. forestry and wildlife management, Conn. State Col, 35–38; asst. prof. *wildlife management, Pa. State Col,* 38–39, *assoc. prof, 39–* Soc. Mammal; Soc. Foresters; Wildlife Inst; Wildlife Soc; Ornith. Union; Wilson Ornith. Club. Mammalogy; ecology.

English, Dr. (William) Harley, Box 99, Wenatchee, Wash. *Plant pathology.* Lacrosse, Wash, April 12, 11. B.S, State Col. Wash, 35, Ph.D, 40. Asst. plant path, State Col. Wash, 35–37, instr, 37–39; *junior pathologist, U. S. Dept. Agr, 39–* Phytopath. Soc. Cause and control of decay in deciduous fruits.

Englund, Carl R(obert), Holmdel, N. J. *Physics.* Sioux City, Iowa, Nov. 13, 84. B.S, South Dakota, 09. Chemist, State Food and Drug Cmn, S. Dak, 09; teacher, high sch, S. Dak, 10; prof. physics and geol, Western Maryland Col, 12–13; *tech. staff, research dept,* West. Elec. Co, 14–25; *Bell Tel. Labs, 25–* A.A; Physical Soc; Radio Eng. Radio transmission.

Englund, Dr. Eric, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Trehorningsjo, Sweden, April 1, 93. B.S, Oregon State Col, 18; A.B, Oregon, 19; M.S, Wisconsin, 20; Ph.D, Harvard, 36. Prof. agr. econ, Kans. State Col, 21–26; special asst. to sec'y agr, *U. S. Dept. Agr,* 27–28, *in charge div. agr. finance, bur. agr. econ, 28–, asst. chief in charge research, 30–* Lieut, Inf, 18. Taxation in relation to agriculture and agricultural economics.

Engman, Dr. M(artin) F, Beaumont Medical Bldg, 3720 Washington Blvd, St. Louis, Mo. *Medicine.* New Orleans, La, Aug. 20, 69. ; M.D, Col. City of N. Y. *Prof. clin. med, Washington (St. Louis); chief staff, Barnard Free Skin and Cancer Hosp.* A.A; Am. Med. Asn; Dermat. Asn. (pres, 19). Skin diseases; syphilis; cancer.

Engstrom, E(lmer) W(illiam), RCA Laboratories, Princeton, N. J. *Physics.* Minneapolis, Minn, Aug. 25, 01. B.S, Minnesota, 23. Engineer, Gen. Elec. Co, 23–30; div. engineer, RCA Mfg. Co, Inc, 30–35; *director* research labs, 35–40; *gen. research, Radio Corp. of Amer, 42–* Fel. Radio Eng. Applied physics; radio; electronics; acoustics.

Engstrom, Prof. H(oward) T(heodore), Yale University, New Haven, Conn. *Mathematics.* Boston, Mass, April 23, 02. B.Ch.E, Northeastern, 22; M.S, Maine, 25; Ph.D, Yale, 29. Instr, Maine, 23–26; Trinity Col. (Conn), 26–27; Yale, 27–29; nat. research fellow, Calif. Inst. Tech, 29–30; int. research fellow Göttingen, 30–31; asst. prof. *math, Yale,* 31–39, *assoc. prof, 39–; lieut-commander, U. S. Naval Res.* A.A; Math. Soc; Math. Asn; Deuts. Math. Verein. Theory of algebraic numbers and abstract algebras.

Engstrom, Dr. Ralph Warren, RCA Manufacturing Co, Lancaster, Pa. *Physics.* Grinnell, Iowa, Oct. 24, 14. A.B, St. Olaf Col, 35; M.S, Northwestern, 37, univ. fellow, 38–39, Ph.D, 39. Lab. asst. physics, St. Olaf Col, 34–35; asst, Northwestern, 35–38; instr. physics and math, St. Cloud State Teachers Col, Minn, 39–41; *research engineer,* Nat. Defense Research Cmt, 41; *RCA Mfg. Co, 41–* Physical Soc. A photoelectric method of delineating periodic currents and its application to time-lag in gaseous discharges; time-lag analysis of the Townsend discharge in an argon filled tube with activated caesium electrodes.

Enlows, Dr. Ella M(organ Austin), 2753 Brandywine St, Forest Hills, Washington, D. C. *Bacteriology.* St. George, W. Va, Aug. 21, 89. A.B, George Washington, 15, M.S, 16, Ph.D, 23; M.D, Hopkins, 29. Sci. asst, U. S. Dept. Agr, 10–17, asst. pathologist, 17–18; bacteriologist, hygienic lab, U. S. Pub. Health Service, 18–26; *practising physician otorhinolaryngol, 29–* Asst, George Washington, 14–16. Am. Med. Asn; Med. Women's Nat. Asn; Acad. Ophthal. and Otolaryngol; Med. Soc. D. C. (2nd v. pres, 34). Otorhinolaryngology; plant pathology; standardization of antibacterial and antitoxic serums; effectiveness of antiseptics against infection of the paranasal sinuses and the middle ear.

Enlows, Dr. Harold E(ugene), University of Tulsa, Tulsa, Okla. *Petrography.* Mason City, Ill, June 11, 11. B.S, Tulsa, 35; M.S, Chicago, 36; Ph.D, Arizona, 39; Colorado, 39. *Instr. geol, Tulsa, 38–* Okla. Acad; Tulsa Geol. Soc. Stratigraphy of southern Arizona; basement rocks of the mid-continent area.

Ennis, Prof. William D(uane), Stevens Institute of Technology, Hoboken, N. J. *Engineering economics.* Bergen Co, N. J, Jan. 6, 77. M.E, Stevens Inst. Tech, 97, hon. D.E, 34; Pittsburgh, 98–00. Engineer, Am. Linseed Co, 00–04; Am. Locomotive Co, 05–07; prof. mech. eng, Polytech. Inst. Brooklyn, 07–17; Columbia, 18–19; prof, U. S. Naval Acad, and tech. adviser, claims board, War Dept, 19–20; v. pres, Tech. Advisory Corp, 20–28, director research, 28–34; *Alexander Crombie Humphreys prof. econ. of eng, Stevens Inst. Tech, 28–* Consultant indust. develop. and econ. anal. Major, Ordnance Dept, 17–18. A.A; fel. Mech. Eng. (treas); Civil Eng; Eng. Educ; Econ. Asn; Management Asn; fel. Royal Econ. Soc. Management.

Enns, Dr. Theodore, University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Physics.* Alexanderkrone, Russia, Jan. 10, 16. B.E, Saskatchewan, 37; Ph.D, Rochester, 40. Asst. physics, Rochester, 37–40; Washington (St. Louis), 40–41; *research fellow radiol, sch. med. and dentistry, Rochester, 41–* Nuclear physics; electron scattering; isotope tracers applied to biological problems.

Eno, Prof. F(rank) H(arvey), 222 16th Ave, Columbus, Ohio. *Civil engineering.* Elmwood, Ill, July 27, 65. B.S, Illinois, 91, C.E, 94. Asst. engineer and supt. water supply, sewerage and fire protection, World's Columbian Expos, 91–94; consulting engineer, 94–95; engineer and supt. pub. works, Winnetka, Ill, 95–98; asst. engineer and directing chief drafting and design, city engineer's office, Columbus, Ohio, 98–02; assoc. prof. civil eng, *Ohio State,* 02–05, prof. munic. eng, 05–26, *highway research, eng. exp. sta,* 26–36, *emer. prof, 36–* Cmts, Highway Research Council; Nat. Conf. City Planning. Civil Eng; Water Works Asn; Eng. Educ; Forestry Asn; Ohio Eng. Soc; Columbus Eng. Club. Improvement of bearing power of subsoils for highway betterment.

Enos, Lieut. Col. George M(agee), 32 Edwards Court, Ft. Thomas, Ky. *Metallurgy.* Dubuque, Iowa, July 8, 96. B.S, S. Dak. Sch. Mines, 21, Met.E, 22; fellow, Carnegie Inst. Tech, 21–22, M.S, 22; Ph.D, Cincinnati, 25. Anal. asst, S. Dak. Mining Exp. Sta, 18; junior metallurgist, U. S. Bur. Mines, Pittsburgh, 22–23; instr. *metal, Cincinnati,* 23–28, asst. prof, 28–37, *assoc. prof, 37–; lieut. col, Ordnance Dept, U. S. Army.* Metallurgist, resource surv, Univ. Cincinnati. Min. and Metal. Eng; Soc. Metals (chairman, Cincinnati chapter, 28, subcmt. heat treatment of spline shafts, 30–, pub. cmt, 30–); Army Ordnance Asn. Corrosion in acid mine waters; general corrosion; chromium plating; heat treatment of iron and steel; foundry practise.

Enright, Dr. John J(oseph), Mellon Institute, Pittsburgh, Pa. *Bacteriology.* New Haven, Conn, March 1, 96. Ph.B, Yale, 17, M.S, 20, Ph.D, 23. Research, U. S. Bur. Mines, 17; chief lab, Hosp. No. 41, U. S. Veterans' Bur, 20–26, *research,* diagnostic clinic, 26; *Mellon Inst, 26–* Instr, Tuber. Post-Grad. Sch, 23. Sanit.C, U.S.A, 18–19. Soc. Bact; Asn. Cereal Chem; Inst. Food Technol; Int. Asn. Dental Research. Secondary organisms and urinary antigens in tuberculosis; tooth decay; acidophilus therapy; food technology; yeasts; industrial bacteriology; dehydration of foods.

Ensign, Prof. N(ewton) E(dward), 610 Indiana Ave, Urbana, Ill. *Mechanics.* Altamont, Ill, June 3, 82. A.B, McKendree Col, 05; Rhodes scholar, Oxford, 05–08, B.A, 08, M.A, 32; B.S, Illinois, 11. Instr. *theoret. and applied mech, Illinois,* 10–15, assoc, 15–21, asst. prof, 21–30, *assoc. prof, 30–* Theoretical and applied mechanics; analytical mechanics for engineers.

Ensor, Dr. Elwood H(enderson), Hercules Powder Co. Experiment Station, Wilmington, Del. *Organic chemistry.* Baltimore, Md, Feb. 1, 18. B.S, Northwestern, 38, Ph.D, 42; A.M, Boston, 39; Illinois, 39–40. Teaching fellow org. chem, Boston, 38–39; research chemist, develop. lab, U. S. Indust. Chem. Co, 41; asst. chem, Northwestern, 40–42, men's tutor, 40–41; *research chemist, Exp. Sta, Hercules Powder Co, 42–* Chemistry of morpholine; stereochemistry; large ring compounds; pyrolysis of nitrogen compounds; exhaustive methylation; alkyd resins; terpenes.

Entemann, Dr. Charles E(manuel), Jr, 30–16 152nd St, Flushing, L. I, N. Y. *Organic chemistry.* New York, N. Y, Feb. 6, 06. A.B, Cornell, 29, Ph.D, 33. Instr. gen. chem, Essex County Junior Col, Newark, N. J, 33–35; chemist, Ekroth Labs, Brooklyn, N. Y, 35–36; *research chemist,* Pyridium Corp, Nepera Park, N. Y, 36; Zonite Products Corp, New Brunswick, N. J, 36–41; *Laurel Hill research lab, Gen. Chem. Co, 41–* A.A; Chem. Soc; Inst. Chem. Grignard reagents; optical activity; pyridine derivatives and urinary antiseptics; insecticides; moth-proofing agents.

Entrikin, Prof. John B(ennett), Centenary College, Shreveport, La. *Organic chemistry.* Canton, Kans, Oct. 6, 99. A.B, Southwestern (Texas), 22, A.M, 23; Ph.D, Iowa, 29. Asst. prof. chem, Southwestern (Texas), 23–26; prof. chem. and zool, Temple Junior Col. (Texas), 26–27; asst. *chem,* Iowa, 27–29; *prof. and head dept, Centenary Col, 29–* A.A; Chem. Soc; fel. Inst. Chem; La. Acad. (pres, 33–35). Chemical education; chemurgy; water chemistry; amino acids.

Enz, Dr. W(alter) W(illiam) F(red), 2821 W. Michigan Ave, Route 8, Kalamazoo, Mich. *Plant chemistry.* Ft. Wayne, Ind, April 29, 05. B.S, Purdue, 27; M.S, Florida, 29; Fritzche Bros. fellow, Wisconsin, 29–31, Ph.D, 31. Instr. pharmacy, Florida, 27–29; asst. prof. pharmaceut. chem, Purdue, 31–32; with Upjohn Co, 32–42; *U. S. Army, 42–, lieut. col.* Chem. Soc; Pharmaceut. Asn. Solution of arsenous and mercuric iodide; chemistry of Brazil nut oil; thymoquinone and its oxidation products.

Enzie, Prof. Walter Denton, 91 Highland Ave, Geneva, N. Y. *Olericulture, Plant breeding.* Dansville, N. Y, Oct. 12, 04. B.S, Oregon State Col, 29, M.S, 39. Instr. *veg. crops,* Oregon State Col, 29–30; *asst. prof, Cornell, 31–* Soc. Hort. Sci; Asn. Veg. Growers Amer. Systematic olericulture; the vegetables of New York; plant breeding of vegetable crops.

Enzmann, Dr. E(rnest) V(inzenz), Harvard University, Cambridge, Mass. *Physiology, Biophysics.* Markhausen, Austria, May 23, 93. B.A, Komotau, 12, M.A, Prague, 16; A.M,

Harvard, 31, Ph.D, 33. Teacher, pub. schs, Austria, 12–31; asst, Harvard, 32–35; *research assoc, Haskins lab, Schenectady, 35–* Deuts. Realschule, Peking, China, 19–32; research assoc, Mass. Inst. Tech, 41– Fel. N. Y. Acad; fel. Soc. Nat. Hist. Peking. Physiology of reproduction; radiation genetics; ant genetics and sytematics.

Ephrussi, Prof. Boris, Johns Hopkins University, Baltimore, Md. *T*Zoology*. Moscow, Russia, May 9, 01. Sc.D, Paris, 32. Asst, Inst. de Biol. Physico-chem, Paris, 28–35, assoc. director lab, 35–41; *assoc. prof.* educational biol, New Sch. for Social Research, 41–42; *biol, Hopkins, 42–* Director lab. genetics, Ecole des Hautes Etudes, Paris, 37–41; master of research, Centre Nat. de la Recherche Sci, Paris, 37–41; lecturer, Hopkins, 41–42. Genetics Soc. Eye color differentiation in Drosophila; physiological genetics.

Epling, Prof. Carl (Clawson), University of California at Los Angeles, Los Angeles, Calif. *Botany.* Waverly, Ill, April 15, 94. A.B, California, 21; Rufus J. Lackland fellow, Washington (St. Louis), A.M, 23, Ph.D, 24. Instr. *bot,* Oregon State Col, 21–22; *California at Los Angeles,* 24–26, asst. prof, 27–35, *assoc. prof, 36–* Traveling fellow, Nat. Research Council, 27–28. Office blister rust control, U. S. Dept. Agr. Taxonomy of flowering plants, especially Labiatae.

Eppelsheimer, Prof. Daniel S(nell), University of New Hampshire, Durham, N. H. *Industrial engineering.* Chicago, Ill, March 17, 09. B.S, Harvard, 32, Sc.D, 35. Asst. metal, Harvard, 34–35; research metallurgist, research lab, Union Carbide and Carbon Co, 35–38; research assoc. prof. *indust. eng, New Hampshire,* 38–39, *research prof, 39–, acting director, Eng. Exp. Sta, 40–* Min. and Metal. Eng; Eng. Educ; Soc. Test. Mat; Soc. Metals; Franklin Inst; British Iron and Steel Inst. General industrial research.

Eppley, Prof. Geary (Francis), University of Maryland, College Park, Md. *Agronomy.* Washington, D. C, Dec. 30, 95. B.S, Md. State Col, 20; M.S, Maryland, 26. Asst. agron, Exp. Sta, Maryland, 20–21; training asst, U. S. Veterans' Bur, 21–22; asst. prof. *agron, Maryland,* 22–28, *assoc. prof, 28–* 2nd lieut, Cavalry, 18–19. Soc. Agron. Forage crops; pasture grasses, red clover strains and alfalfa management in Maryland; grass selections; pasture management.

Eppley, Dr. Marion, 12 Sheffield Ave, Newport, R. I. *Physical chemistry.* West Orange, N. J, June 19, 83. B.S, Princeton, 06, A.M, 12, Ph.D, 19. Partner, Robert Goodbody and Co, 09–14; research, Princeton, 14–17; *pres, Eppley Lab, and director, Eppley Research Lab, 17–* Lecturer, Princeton, 17– Staff, 'Sci. American,' 07. Howard N. Potts gold medal, Franklin Inst, 26. Lieut. commander, N.R.F, 17–20, commander, 20–37, capt, 37– A.A; Chem. Soc; fel. Physical Soc; Electrochem. Soc; fel. Optical Soc; Elec. Eng; Inst. Physics (advisory council applied physics, 35–); Franklin Inst; fel. N. Y. Acad; N. Y. Miner. Club. Standards of electromotive force; cadmium standard cells; Ostwald dilution law; theory of solutions; radiant energy; platinum resistance thermometry; potentiometers.

Epps, F(rederick) W(illiam), 1404 Plass Ave, Topeka, Kans. *Civil engineering.* Denmark, Iowa, Aug. 31, 80. B.S, Kansas, 04, C.E, 29. Office engineer, bridge dept, Kansas City Terminal Ry. Co, 11–18; bridge engineer, Highway Cmn, Kans, 18–23; mem. firm, Kans. Eng. Co, 23–30; special engineer, *Highway Cmn, Kans,* 30–38, *maintenance bridge engineer, 38–* Civil Eng. (sec'y-treas, Kans. sect, 22–38, v. pres, 39, pres, 40); Kans. Eng. Soc. (exec. cmt, 22–24, 31); Topeka Eng. Club (sec'y-treas, 19–21, v. pres, 21–23, pres, 23). Bridge engineering.

Epps, Lieut. William M(onroe), Technical Division, Chemical Warfare Service, Edgewood Arsenal, Md. *Plant pathology.* Latta, S. C, Oct. 31, 16. B.S, Clemson Col, 37; Ph.D, Cornell, 42. Asst. plant path, Cornell, 38–42; *lieut, Infantry, U. S. Army, 42–* Phytopath. Soc. Potato disease.

Epstein, Dr. Albert A, 1111 Madison Ave, New York, N. Y. *Biochemistry.* Russia, July 4, 80. B.S, N. Y. Univ, 02, M.D, 05. Assoc. attending physician and assoc. physiol. chemist, Mt. Sinai Hosp, 11–26; attending physician and *physician, Beth Israel Hosp. and Hosp. for Joint Diseases, 30–; prof. clin. med, col. med, N. Y. Univ.* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Soc. Clin. Invest; Am. Med. Asn. Metabolism; internal medicine.

Epstein, Albert K(uba), 5 S. Wabash Ave, Chicago, Ill. *Chemistry.* Lodz, Poland, June 30, 90. B.S, Chicago, 12. Food chemist and research, Kankakee Co, Ill; Columbus Labs, Chicago, 12–14; food chemist, State Food Cmn, 14–19; consulting chemist, mem, Epstein, Reynolds and Harris, 19–43; *pres, Emulsol Corp; Kress Products Co.* A.A; Chem. Soc; Asn. Cereal Chemists; fel. Inst. Chem. (chairman, Chicago chap, 23); fel. Pub. Health Asn; Oil Chemists Soc; Inst. Food Tech; Soc. Sci. Workers; Pharmaceut. Asn; Egg Production Asn. (chairman tech. cmt, 41–43). London Soc. Chem. Indust. Industrial chemistry; oils; foods; organic synthetics; colloids; emulsions; food and drug regulation.

Epstein, Dr. Benjamin, 4721 Leiper St, Philadelphia, Pa. *Mathematics.* Boston, Mass, March 5, 18. B.S, Mass. Inst. Tech, 37, M.S, 38; Ph.D, Illinois, 41. Asst. math, Illinois, 39–41, instr, 41–42; *physicist, ballistics lab, Frankford Arsenal, 42–* Math. Soc; Math. Asn; Physical Soc. Function theory; Laplace transforms; applied mathematics.

Epstein, Dr. Leo F(rancis), 536 Franklin Ave, Hartford, Conn. *Physical chemistry.* New York, N. Y, Dec. 9, 13. B.S, Mass. Inst. Tech, 35, Ph.D, 39. Asst. photochem, solar energy research cmt, Mass. Inst. Tech, 39–41; asst. chemist, high explosives research div, Nat. Defense Research Cmt, 41–42; *lieut, Ordnance Dept, U. S. Army, 42–* Chem. Soc; assoc. N. Y. Acad. Non-aqueous solutions; electrolyte solutions; properties of dyestuff solutions; high explosives; mathematical analysis and number theory; utilization of solar energy.

Epstein, Dr. Leon J(oseph), U. S. Naval Aviation Cadet Selection Board, Dallas, Texas. *Psychology.* Jersey City, N. J, June 7, 17. A.B, Vanderbilt, 37, A.M, 38; Ph.D, Peabody Col, 41. Teaching fellow, Peabody Col, 38–40; psychologist in charge test construction, State Civil Service Cmn, Tenn, 41; *aviation psychologist, U. S. Navy, 41–* Assoc. Psychol. Asn. Psychological tests and measurements; child psychology; test construction and validation; attitudinal measurement; aviator selection.

Epstein, Dr. Nathan I(sidor), 935 Park Ave, New York, N. Y. *Biochemistry.* Yanova, Russia, Oct. 13, 01. B.S, Mass. Inst. Tech, 22; Ph.D, Columbia, 28; Paris, 29–30; Berlin, 30; Freiburg, 30–31; Vienna, 31–32; M.D, Munich, 34. Asst. biochem, Columbia, 25–28; research chemist, New Rochelle Research Lab, N. Y, 28–29; Charlton fellow pediat. for med. sch, Tufts Col, Boston Floating Hosp, 35–38; asst. instr. pediat, med. col, Tufts Col, 38–39; *asst. pediatrician, N. Y. Hosp. and med. center, Cornell, 40–* Asst. physician, Boston Dispensary, 38–39. N. Y. Med. Soc. Sulfur gas oxidation; phosphate metabolism; morphology and chemistry of the uric acid infarct in the kidney of infants; blood phosphorus studies in rheumatic fever.

Epstein, Prof. Paul S(ophus), California Institute of Technology, Pasadena, Calif. **†Mathematical physics.* Warsaw, Poland, March 20, 83. B.Sc, Moscow, 05, M.Sc, 09; Ph.D, Munich, 14. Instr, Inst. Agr, Moscow, 06–07; Moscow, 07–09, privat-docent, 09–14; Zurich, 19–21; *prof. math. physics, Calif. Inst. Tech, 21–* Exchange prof, Aachen (Germany), 27, 29; non-res. lecturer, Cornell, 34. Nat. Acad; A.A; Physical Soc; Soc. française de Physique; Moscow Physical Soc. Quantum theory; structure of atoms; thermodynamics; theory of elasticity.

Epstein, Dr. S(amuel) S(idney), 1335 Eastern Parkway, Apt. 5B, Brooklyn, N. Y. *Bacteriology.* Russia, July 14, 06. B.S, R. I. State Col, 29; M.S, Iowa State Col, 32, Ph.D, 34. Bacteriologist, Schwarz Labs, 34–37; director bacter. research, Camel Lead, Color and Chem. Products Mfg. Corp, Brooklyn, 37–38; bacteriologist, Climax Rubber Co, 38–39; *chief chemist, Kirsch's Beverages, Inc, 39–, v. pres, 42–; consulting bacteriologist, Foster D. Snell, Inc, 39–* Pub. Health Asn; Inst. Food Technol. Colon-aerogenes groups of bacteria; micro-organisms encountered in the brewing industry; germicidal properties of paints; bacteriology of paper board; germicide testing; isolation of pathogenic fungi; scientific control methods in the beverage plant.

Erasmus, H(endrik) deWet, Union Carbide and Carbon Research Laboratories, Niagara Falls, N. Y. *Chemical engineering.* Sterkstroom, S. Africa, June 19, 99. B.Sc, Stellenbosch, 18, M.Sc, 19; Dipl.Ing, Tech. Hochschule Berlin, 28. Asst. prof. physics, Huguenot Univ. Col, 20; math, Pretoria, 21–22; Witwatersrand Univ, 25; asst. to consulting engineer, S. African Rys, 28–29; *chem. research engineer,* Union Carbide and Carbon Research Labs, 29–38; Linde Air Products Co, 39–41; *Union Carbide and Carbon Research Labs, 41–*

Min. and Metal. Eng; Chem. Soc. Development of chemical and metallurgical processes.

Erb, Prof. J(ohn) Hoffman, 1697 Berkshire Road, Columbus, Ohio. *Dairy technology.* Harrisburg, Pa, Nov. 7, 05. B.S, Pa. State Col, 27; M.S, Ohio State, 28; Chicago, 32; Wisconsin, 36. Asst. supt. production, Reid Ice Cream Co, 28–29; instr. *dairy technol, Ohio State,* 29–34, *asst. prof,* 34– Dairy Sci. Asn; Cleveland Dairy Technol. Soc. (sec'y, 40–). Condensed milk; dry milk; ice cream; nutritional changes in milk due to pasteurization.

Erb, Prof. Russell C(asper), 1006 Maple St, Conshohocken, Pa. *Chemistry.* Bethlehem, Pa, Feb. 22, 99. B.S, Lafayette Col, 21; Lehigh, 21–22; Pennsylvania, 22–24; M.S, Temple, 27; Sc.D, Phila. Col. Osteop, 43. Lab, Bethlehem Steel Co, 17; head dept. science, schs, Pa, 21–25; *prof. and head dept, Phila. Col. Osteop, 25–, prof. toxicol. and medicolegal science and assoc. dean.* Mem. staff, dept. path, Osteop. Hosp, Phila, 26–39; consulting toxicologist, Lancaster Osteop. Hosp, 42– Past pres, Asn. Osteopathic Cols. Chem. Soc. (ed, 'Catalyst'); fel. Inst. Chem. Physiological chemistry; biochemistry; chemistry of odor and taste; blood clotting; gastric acidity; antimony electrode for gastric studies; chemical tests; toxicity of cosmetics.

Erdman, Prof. H(enry) E(rnest), University of California, Berkeley, Calif. *Agricultural economics.* Armour, S. Dak, Nov. 6, 84. B.S, S. Dak. State Col, 12; Ph.D, Wisconsin, 20. Deputy state dairy inspector, S. Dak, 12–14; asst, Wisconsin, 16–17; asst. prof. rural econ, Ohio State, 17–22; assoc. prof. rural institutions, *California,* 22–25, *prof. agr. econ,* 25– In charge cost of marketing div, U. S. Dept. Agr, 21–22; lecturer, Am. Inst. Cooperation, 25, 27–28. Ed, 'Jour. Farm Econ,' 30–33. Farm Econ. Asn. (pres, 29–); Econ. Asn; Asn. Marketing Officials. Marketing of farm products; cooperative marketing.

Erdman, Dr. Lewis W(ilson), The Nitragin Co, Inc, Milwaukee, Wis. *Soils.* Atlanta, Ga, Sept. 18, 95. B.S, Maryland, 16; fellow, Iowa State Col, 20–22, M.S, 21, Ph.D, 22. Asst. soil investigations, Exp. Sta, Maryland, 17–19; nat. research fellow, State Col. Wash, 22–23; asst. prof. soils, Iowa State Col, and asst. chief soil bacter, Exp. Sta, 23–28; prof. soil technol, Maryland, 28; *director research and production, Nitragin Co, 29–* A.A; Soc. Agron; Soc. Bact; Int. Soc. Soil Sci. Soil bacteriology; rhizobium as applied to commercial legume inoculation.

Erdmann, Charles E(dgar), U. S. Geological Survey, 224 Custom House, Denver, Colo. *Geology.* Minneapolis, Minn, Sept. 22, 97. E.M, Minnesota, 23, M.S, 24; Dana fellow, Yale, 25–26; Colo. Sch. Mines, 33–34, 37. Instr. geol, Minnesota, 24–25; junior geologist, *U. S. Geol. Surv,* 24–27, asst. geologist, 27–30, assoc. geologist, 30–37, *geologist, 37–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Mil. Eng; Geol. Soc. Wash. Economic geology of mineral fuels; non-metallics; engineering geology.

Erdmann, Dr. John F, 122 E. 70th St, New York, N. Y. *Surgery.* Cincinnati, Ohio, March 27, 64. M.D, Univ. and Bellevue Hosp. Med. Col, 87. Prof. practical anat. and clin. prof. surg, Univ. and Bellevue Hosp. Med. Col, 90–08; prof. surg, *N. Y. Post-Grad. Med. Sch, Columbia,* 08–34, exec. officer, dept. surg, 15–34, *attending surgeon, 34–* Consulting surgeon, various hosps, New York. Fel. Col. Surg; Am. Med. Asn; Asn. Obstet, Gynec. and Abdom. Surg; N. Y. Surg. Soc; N. Y. Acad. Med. Abdominal surgery; diseases of the pancreas, stomach, colon and gall-bladder.

Erdös, Dr. Paul, University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Budapest, Hungary, March 26, 13. Ph.D, Budapest, 34; D.Sc, Manchester, 39. Fellow, Manchester, 34–38; Inst. Advanced Study, 38–40; *Harrison fellow, Pennsylvania, 40–* Number theory; interpolation.

Erf, Prof. O(scar), Ohio State University, Columbus, Ohio. *Dairy science.* Monroeville, Ohio, Dec. 17, 74. B.S, Ohio State, 99. Asst. dairying, Ohio State, 99–01; prof, Illinois, 01–03; prof. animal husbandry and dairying, Kans. State Col, 03–06; *prof. dairying, Ohio State, 07–* Chief dairyman, La. Purchase Expos, 03, medal award for exhibit. Dairy Sci. Asn. (v. pres, 04); Ohio State Dairymen's Associations (sec'y, 07–27). Standardization of milk and cream; system of sprouting grains for dairy cows; feeding sprouted grain; developing mold for ration; mineral feeding; calcium, iodine, manganese, zinc, cobalt and protein feeding found as important; hay drying system and use of chlorophyll as the therapeutic for the development of green grass.

Ergle, Dr. David R(amsey), Box 509, Atmore, Ala. *Chemistry.* Columbia, S. C, Aug. 16, 03. B.S, Clemson Col; M.S, North Carolina, 28, Ph.D, 30. Instr. chem, Med. Col. State of S. C, 26–27; asst. chemist, bur. chem. and soils, *U. S. Dept. Agr,* 30–35, *bur. plant indust,* 35–40, *assoc. chemist, 40–* A.A; Chem. Soc. Organic chemistry; biochemistry; plant fibers.

Erickson, Arnold B(urton), University Farm, St. Paul, Minn. *Zoology.* Minneapolis, Minn, Sept. 15, 09. B.S, Minnesota, 35, A.M, 37, Ph.D, 42. Teaching asst. ornith, museum nat. hist, *Minnesota,* 38–39, *jr. entomologist, div. entom. and econ. zool, 39–* Game parasitologist, div. game and fish, Minn. Conserv. Dept, 39– Assoc. Ornith. Union; Soc. Mammal; Soc. Parasitol; Wilson Ornith. Club; assoc. Wildlife Soc; Minn. Acad; Minn. Ornith. Union (ed, 'The Flicker,' 39–). Relation of parasite populations to fluctuations in host numbers; helminth parasites of rodents; Sarcocystis; population studies of birds and mammals.

Erickson, Prof. C(arl) I(mmanuel), 613 Michigan Ave, Pullman, Wash. *Psychology.* Alta, Iowa, Dec. 13, 87. A.B, Iowa State Teachers Col, 14; A.M, Iowa, 17, Ph.D, 21. Asst. prof. *psychol, State Col. Wash,* 21–26, *assoc. prof, 26–* A.A; assoc. Psychol. Asn; Northwest Sci. Asn. Violators versus non-violators among paroled criminals; true-false tests; illusions; classroom seating in relation to grades and other variables.

Erickson, Dr. Cyrus C(onrad), Duke University Hospital, Durham, N. C. *Experimental pathology.* Aug. 18, 09. B.S, Minnesota, 30, M.B, 32, M.D, 33. Research assoc. *path,* med. sch, Rochester, 35–37; *assoc, Duke, 37–; major, Med. Corps, U. S. Army.* Soc. Exp. Path; Asn. Path. and Bact. Liver function and blood plasma protein formation; blood plasma proteins as influenced by gum acacia and carbon tetrachloride; pregnant dogs and rabbits following renal artery construction.

Erickson, Prof. E(ric) E(lmer), Miami University, Oxford, Ohio. *Mathematics.* Trent, S. Dak. B.S, S. Dak. State Col, 22; M.S, Iowa, 23. Asst. *math,* Iowa, 23–24, instr, 24–25; *asst. prof, Miami (Ohio), 25–, freshman adviser, 28–* Eng. Asn. Computation of various loci problems.

Erickson, Prof. Franklin C(arl), University of North Carolina, Chapel Hill, N. C. *Geography, Geology.* Worcester, Mass, Dec. 16, 03. A.B, Clark Col, 28; A.M, Clark Univ, 30, Ph.D, 35; Swiss-Am. exchange fellow, 32–33; Zurich, 33. Instr. *geog. and geol,* Dartmouth Col, 30–32; assoc. prof, *South Carolina,* 35–36, *asst. prof, 36–* Elisha Mitchell Sci. Soc; Carolina Geol. Soc; N. C. Acad. Soils; land use.

Erickson, Dr. Harvey, West Virginia University, Morgantown, W. Va. *Forest utilization.* Belgrade, Minn, April 12, 12. B.S, Minnesota, 33, 34, Am. Creosoting Co. fellow, 34–37, M.S, 36, Ph.D, 37. *Asst. prof. forest utilization, West Virginia, 37–* A.A; Soc. Foresters; Tech. Asn. Pulp and Paper Indust; Chem. Soc. Permeability of woods to liquids; effect of chemicals on the physical and mechanical properties of wood; the relationship of tree growth conditions to some physical and mechanical properties of wood.

Erickson, Prof. J(ulius) L(yman) E(dward), Louisiana State University, Baton Rouge, La. *Chemistry.* Lake Charles, La, Oct. 8, 01. A.B, Rice Inst, 23, M.S, 26; A.M, Harvard, 27, Ph.D, 32. Instr. *chem, Louisiana,* 30–32, asst. prof, 32–37, *assoc. prof, 37–* A.A; Chem. Soc; fel. Inst. Chem; La. Acad; British Chem. Soc. Organic chemistry; substituted amides; preparation of primary amines; cleavage by organic magnesium compounds; beta diketones, malonitriles, alpha cyano-ketones and esters; beta hydroxy ketones; cyclic diketones; toxic properties of tung nuts; chemical constitution of the musk of the muskrat; synthesis of di-tertiary butyl ether.

Erickson, Dr. Mary M(arilla), Santa Barbara State College, Santa Barbara, Calif. *Zoology.* Ripon, Wis, Sept. 2, 05. A.B, Willamette, 27; A.M, California, 29, Ph.D, 35. Teacher, high sch, Oregon, 27–28; teaching fellow zool, California, 29–33, research assoc, museum vert. zool, 35–36; asst. prof. biol, Willamette, 36–38; instr. *science, Santa Barbara State Col,* 38–42, *asst. prof, 42–* A.A; Wilson Ornith. Club; Cooper Ornith. Club. Ornithology; life history; population.

Erickson, Dr. Milton H(yland), Eloise Hospital and Infirmary, Eloise, Mich. *Psychiatry, Psychology.* Aurum, Nev, Dec. 5, 01. A.B, Wisconsin, 27, A.M, M.D, 28. Clin. and research psychologist, State Board Control, Wis, 24–27; asst.

psychiatrist, State Hosp. Mental Diseases, R. I, 29; senior psychiatrist, research service, Worcester State Hosp, 30–32, chief psychiatrist, 32–34; *director psychiat. research and training, Eloise Hosp. and Infirmary, 34–; asst. prof. psychiat, col. med, Wayne, 40–* Psychopath. Asn; Psychol. Asn; fel. Psychiat. Asn; Am. Med. Asn. Crime and intelligence; blood in cancer; experimental and clinical psychiatry; schizophrenia; dynamic psychopathology; psychosomatic interrelationships; experimental and clinical hypnotism; abnormal psychology.

Erickson, Dr. T(heodore) C(harles), University of Wisconsin, Madison, Wis. *Neurosurgery, Neurophysiology.* Alexandria, Minn, Sept. 23, 06. B.S, Minnesota, 28, fellow, 28–29, A.M, 29, M.D, 31; fellow, McGill, 33–34, M.Sc, 34, Ph.D, 39. Univ. Hosp, Pennsylvania, 31–33; asst. surgeon, Montreal Neurol. Inst, McGill, 34–35, lecturer neurosurg, univ, 39–41; *assoc. prof. surg, Wisconsin, 41–* Montreal Neurol. Soc; Montreal Physiol. Soc. Anatomy of skin and cranial nerves; grading of carcinoma; pharmacology of small bowel; physiology of temperature regulation; neurogenic hyperthermia; epilepsy.

Ericson, E(ric) J(ohn), 7551 Chappel Ave, Windsor Park Station, Chicago, Ill. *Chemistry.* Gustafsfors Bruk, Sweden, Feb. 3, 71. Grad, Filipstad's Sch. Mines, Sweden, 89. Indust. companies, 90–05; chief chemist, Edgar Zinc Co, 05–16; chem. engineer, Pan-Am. Manganese Corp, 17–18; chief chemist, Chicago div, J. H. Williams Co, 19–21; chemist and metallographist and later chief chemist, Standard Forgings Co, Ind, 22–40; *retired.* Swedish Eng. Soc. Chicago. Determinations of sulfur in steel; lead in ores; lead and cadmium in spelter; titanium in alloys; fluorspar analysis; powdered coal application in zinc smelting; oxygen in steel.

Erikson, Prof. Carl M(artin), 101 Wallace Blvd, Ypsilanti, Mich. *Mathematics.* Oscoda, Mich, March 28, 95. A.B, Mich. State Nor. Col, 25; A.M, Michigan, 26, Ph.D, 30. Instr. *math, Mich. State Nor. Col, Ypsilanti,* 26–28, asst. prof. and *assoc. prof, 29–* Math. Soc; Math. Asn. Systems of linear difference equations.

Erikson, Prof. Henry A(nton), 1207 Genoa St, Coral Gables, Fla. ***²***Experimental physics.* Mt. Morris, Wis, July 30, 69. B.E.E, Minnesota, 96, Ph.D, 08; Chicago, 99; Cambridge, 08–09. Instr, high sch, Minn, 96–97; *physics, Minnesota,* 97–06, asst. prof, 06–14, assoc. prof, 14–15, prof. and chairman dept, 15–38, *emer. prof, 38–* A.A; Physical Soc. (councilor, 37–); Asn. Physics Teachers. Physical measurements; light intensity at different depths in lake water; ionization of gases at high pressure; rate of recombination of ions at different temperatures; absorption of gamma rays from radium by air; the mobility and nature of ions; elements of mechanics.

Erikson, Prof. Statie E(stelle), 129 State St, Lexington, Ky. *Nutrition.* Ouray, Colo, 92. A.B, Colo. Col, 15; Ph.D, California, 30. Prin, high sch, 16–18, instr, 18–20; sch. supt, 20–22; teaching fellow, California, 23–25; asst. prof. *home econ, Kentucky,* 25–27, assoc. prof, 27–29, *prof, 29–* Home Econ. Asn; Dietetics Asn; Ky. Acad; Sigma Xi (v. pres, 35). Intermediary metabolism of women; vitamins.

Erlanger, Dr. Joseph, Washington University School of Medicine, St. Louis, Mo. ***²***Physiology.* San Francisco, Calif, Jan. 5, 74. B.S, California, 95, LL.D, 32; M.D, Hopkins, 99; hon. Sc.D, Wisconsin, 36, Pennsylvania, 36, Michigan, 37. Res. med. officer, Hopkins Hosp, 99–00, fellow path. and asst. physiol, sch. med, Hopkins, 00–01, instr. *physiol,* 01–03, assoc, 03–04, assoc. prof, 04–06; *prof,* med. sch, Wisconsin, 06–10; *sch. med, Washington (St. Louis), 10–* Hitchcock lecturer, California, 30; Johnson lecturer, Pennsylvania, 36. Med. fellowship board, Nat. Research Council, 22–26. Nat. Acad; A.A. (v. chairman, N, 20); Physiol. Soc. (councilor, 10–25, pres, 26–28); Am. Physicians; Soc. Exp. Biol; Philos. Soc; hon. mem. Harvey Soc; Halle Wissensch. Akad; Soc. philomat. de Paris. Metabolism in dogs with shortened small intestines; principles of sphygmomanometry; mechanism of sound production in arteries; impulse initiation and conduction in the heart; influence of pulse pressure on renal secretion; induction shocks as stimuli; traumatic shock; nerve action potentials by cathode ray oscillograph.

Erlanson, C(arl) O(scar), U. S. Department of Agriculture, Beltsville, Md. *Ecology.* Aurora, Ill, July 11, 01. A.B, Michigan, 24, M.S, 25. Instr. bot, Michigan, 25–30; assoc. ecologist, div. for. plant introd, *bur. plant indust, U. S. Dept. Agr,* 30–36, *ecologist, div. plant explor. and introd, 36–* Botanist, Univ. Mich. exped, Greenland, 27–28; agr. explor, U. S. Dept. Agr, Mex, 30–31; Chile, Peru and Bolivia, 31–32. U. S. del, S. Am. Bot. Cong, Rio de Janeiro, 38. Phytogeography.

Ernsberger, Dr. M(aurice) L(eon), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Toledo, Ohio, Aug. 14, 11. B.S, Toledo, 33; A.M, Ohio State, 34, Ph.D, 36. *Chemist, exp. sta, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Absorption spectra of metal complex compounds.

Ernst, Dr. E(dwin) C(harles), 3720 Washington Ave, St. Louis, Mo. *Radiology.* St. Louis, Mo, June 26, 85. Moravian Col, 05; St. Louis, 06–09; M.D, Washington (St. Louis), 12. *Radiologist,* Mullanphy Hosp, *St. Louis,* 13, St. Luke's Hosp, St. Vincent's Sanitarium, *U. S. Marine Hosp, 19–; director x-ray dept, Barnard Free Skin and Cancer Hosp, 20–* Consulting radiologist, U. S. Veterans Bur, 19–25; radiologist, DePaul Hosp, 30– Gold medal, Radiol. Soc. N. Amer, 36. Examiner, Am. Board Radiol. Del. Int. X-ray Cong, London, 25, Stockholm, 28, Paris, 31; Int. Cong. Radiol, 25, 28, 31, 37; chairman radiol, Pan-Am. Med. Asn. Cong, 37. Lieut, M.R.C, 17–19, major. Fel. Am. Med. Asn; fel. Col. Physicians; Roentgen Ray Soc; Radiol. Soc. N. Amer. (pres, 27); Col. Radiol. (chancellor, 37); Radium Soc. (pres, 28); South. Med. Asn; Chicago Roentgen Soc; St. Louis Roentgen Soc. Diagnosis of diseases by means of roentgen ray; treatment of benign and malignant lesions by means of x-ray and radium applications.

Ernst, F(rank) A(rthur), Solvay Process Co, Hopewell, Va. *Engineering.* Keyport, N. J, June 18, 92. C.E, Lafayette Col, 15. Construction and operating engineer, 15–17; research engineer and chief div. eng, fixed nitrogen research lab, U. S. Dept. Agr, 22–27; engineer and manager production, Atmospheric Nitrogen Corp, 27–34; asst. gen. manager, nitrogen div, *Solvay Process Co,* 35–41, *plant manager, 42–* Consulting engineer, nitrate div, Army Ordnance, 17–22. Special agent, nitrogen surv, west. Europe, U. S. Dept. Commerce, 23. A.A; Chem. Soc. Mechanical and chemical engineering; fixation and utilization of nitrogen.

Ernst, G(eorge) C(ampbell), 310 Campbell St, Madison, Wis. *Structural engineering.* Des Moines, Iowa, Oct. 15, 05. B.S.E, Michigan, 29; M.S, Iowa State Col, 32. Instr. and junior materials eng, Iowa State Col, 30–36; instr. civil eng, Maryland, 36–37, asst. prof, 37–41; director materials lab. and asst. prof. civil eng, L. C. Smith col. applied science, Syracuse, 41–42; *senior engineer, Forest Products Lab, U. S. Forest Service, 42–* Soc. Test. Mat; Concrete Inst. (cmt. bond and research); assoc. Civil Eng. Structural uses of reinforced concrete; stresses in framed structures; structural uses of timber and plywoods.

Ernst, Prof. R(obert) C(raig), 3315 Oriole Drive, Louisville, Ky. *Chemical engineering.* Cincinnati, Ohio, Sept. 27, 00. B.S, N. C. State Col, 21; M.S, Minnesota, 23, Ph.D, 30. Instr. *chem. eng,* Minnesota, 23–26; asst. prof, *Speed sci. sch, Louisville,* 26–32, assoc. prof, 32–33, *prof. and head dept, 33–, director div. indust. research, 40–* Consulting engineer, 26– Chem. Eng. (accrediting and projects cmt); Chem. Soc. (chairman, Louisville sect, 33, councilor); Eng. Educ. (past chairman, Ky. sect. and Lamme medal cmt; councilor); Ky. Soc. Professional Eng. (director, 35). Colors; drying of solids; heat transfer; electrode deposition of alloys; properties of ternary systems.

Ernstene, Dr. A(rthur) Carlton, Cleveland Clinic, 2020 E. 93rd St, Cleveland, Ohio. *Internal medicine.* Parker, S. Dak, Aug. 4, 01. A.B, Iowa, 22, M.D, 25. Intern, Henry Ford Hosp, Detroit, 25–26; asst. res. physician, Thorndike Mem. Lab, Boston City Hosp, 26–27, res. physician, 27–28; asst. med, Beth Israel Hosp, 28–32; Harvard Med. Sch, 27–30, instr, 30–32; *assoc. physician in charge cardio-respiratory div, Cleveland Clinic, 32–; lieut. commander, U. S. Naval Mobile Hosp. No. 4, 42–* A.A; Am. Med. Asn; Soc. Clin. Invest; Am. Heart Asn; Soc. Exp. Biol; Clin. and Climat. Asn; Col. Physicians; Cent. Soc. Clin. Research. Sedimentation rate of erythrocytes; cardiovascular diseases.

Errington, Dr. Paul L(ester), Iowa State College, Ames, Iowa. *Vertebrate ecology.* Bruce, S. Dak, June 14, 02. B.S, S. Dak. State Col, 30; indust. fellow, Wisconsin, 29–32, Ph.D, 32. Research asst. prof. *entom. and econ. zool, Exp. Sta, Iowa State Col,* 32–38, *research assoc. prof, 38–* Ed. board, 'Ecology,' 38–; 'Ecol. Monographs,' 39– Award, Wildlife Soc, 41. A.A; Ecol. Soc; Soc. Mammal; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Wildlife Soc. (cmt. professional

standards, 38–); Iowa Acad; Wis. Acad. Ecology of bobwhites, ring-necked pheasants, waterfowl, minks and muskrats; food habits of avian and mammalian predators; influence of predation on animal populations; animal territories and competition.

Ershoff, Dr. B(enjamin) H, 1207 S. Vermont Ave, Los Angeles, Calif. *Nutrition.* Philadelphia, Pa, Jan. 31, 14. A.B, California at Los Angeles, 37; Abbott Labs. fellow, California, 40–41, Ph.D, 42. *Director research, Emory W. Thurston Labs, 42–* Vitamin-endocrine interrelationships.

Erskine, Dr. A(rchibald) M(ortimer), E. I. du Pont de Nemours and Co, Newark, N. J. *Chemistry.* New York, N. Y, Aug. 2, 92. Ch.B, Cornell, 14, Ph.D, 21. Instr. chem, Cornell, 17–18; research chemist, E. I. du Pont de Nemours and Co, 18–21; asst. prof. chem, Smith Col, 21–22; prof, Hamilton Col, 22–28; *asst. director color research, pigments dept, E. I. du Pont de Nemours and Co, 28–* C.W.S, U.S.A, 18. Chem. Soc; Inst. Chem. Chemistry of petroleum; pigments.

Erskine, Dr. William H(enry), 1170 S. Thomas St, Arlington, Va. *Mathematics.* Akita, Japan, Dec. 6, 08. A.B, Bethany Col. (W. Va); Ph.D, Hopkins, 35. *Instr. math, Bethany Col. (W. Va), 35–; assoc. research analyst, Sig. Corps, U. S. War Dept.* Math. Soc. Applied mathematics; analysis.

Ersner, Prof. Matthew Shayne, 1915 Spruce St, Philadelphia, Pa. *Medicine.* Russia, July 23, 90. M.D, Temple, 12. *Assoc. prof. otol, sch. med, Pennsylvania, 21–; prof, sch. med, Temple, 29–* Assoc. otologist, Grad. Hosp; chief otologist, Temple Univ. Hosp; otolaryngologist, Mt. Sinai Hosp; Northwest. Gen. Hosp. Am. Med. Asn; Laryngol, Rhinol. and Otol. Soc; fel. Am. Board Otolaryngol; Acad. Ophthal. and Otolaryngol; fel. Col. Surg; Phila. Laryngol. Soc. Otolaryngology; acute and chronic suppurative otitis media; mastoid disease; blood clot dressing; insulin with postoperative mastoiditis; non-suppurative maxillary sinusitis; plastic surgery of nose; prosthesis.

Erspamer, Dr. August, 138 S. Main St, Spring Grove, Pa. *Physical chemistry.* Eagarville, Ill, Oct. 12, 12. B.S, Washington (St. Louis), 34, fellow, 34–35, M.S, 35; Ph.D, Lawrence Col, 39. Chief chemist, P. H. Glatfelter Co, Spring Grove, Pa, 39–42; *assoc. chem. engineer, Edgewood Arsenal, Md, 42–* Flocculation and dispersion of paper making fibers; colloids.

Ertl, Prof. Tell, 1608 Edgehill Road, Lawrence, Kans. *Petrology.* Seattle, Wash, Sept. 8, 14. B.S, Washington (Seattle), 37; M.S, Columbia, 41. Lecturer mining, Columbia, 40–42; *asst. prof. mining and metal. eng, Kansas, 42–, asst. dean eng. sch, 43–* Consultant, Kans. State Geol. Surv, 43– Junior mem. Min. and Metal. Eng. Mechanical properties of rocks; administration of methods and working time in metal mines.

Erve, Prof. J(ohn) van de, Medical College of the State of South Carolina, Charleston, S. C. *Physiology.* Willemstad, Netherlands, Sept. 30, 71. A.B, Hope Col, 95; A.M, Princeton, 97, B.D, 10; M.S, Chicago, 10, M.D, Rush, 11. Presb. minister, 97–11; prof. physiol. and pharmacol, Alabama, 11–13; prof. physiol. and pharmacol, director dept. and assoc. dean sch. med, Marquette, 13–19; *prof. physiol, Med. Col. State of S. C, 19–* Am. Med. Asn. Diastases in the blood; hunger movements of the stomach; stomachics; capillaries; liver; kidney; reaction of degeneration; hydrogen chloride and anesthesia; tungsten.

Ervin, Dr. Clyde D(elford), State Teachers College, Oshkosh, Wis. *Cytology.* French Creek, W. Va, Oct. 25, 11. B.S, W. Va. Wesleyan Col, 34; Ph.D, Wisconsin, 40. Asst. bot, Wisconsin, 37–40; *instr. biol, Wis. State Teachers Col, 40–* Summer, instr, West Virginia Wesleyan Col, 37. Bot. Soc. Polysomaty in Cucumis Melo.

Ervin, Prof. Robert F(rancis), University of Notre Dame, Notre Dame, Ind. *Bacteriology.* Jackson, Ohio, Dec. 28, 13. B.S, Notre Dame, 36, M.S, 38. *Research asst, labs. bacter, Notre Dame, 38–, asst. prof. biol, 39–* Soc. Bact; Ind. Acad; Ind. Student Health Asn. Bacteriological and photographic research as part of the research program in the laboratories of bacteriology at the University of Notre Dame.

Erwin, Prof. A(rthur) T(homas), Iowa State College, Ames, Iowa. *Horticulture.* Fulton, Mo, Nov. 8, 74. Washington (St. Louis), 92–96; Missouri, 96–98; B.S, Arkansas, 00; M.S.A, Iowa State Col, 02. Asst. *hort,* Exp. Sta, Arkansas, 98–99; instr, *Iowa State Col,* 00–03, assoc. prof, 03–40, *research prof, 40–,* chief veg. crop sect, Exp. Sta, 15–40. Soc. Hort. Sci. (pres, 30); fel. Iowa Acad. Vegetable crops.

Erwin, Prof. William G, Henderson State Teachers College, Arkadelphia, Ark. *Genetics, Ornithology.* Boonshill, Tenn, Jan. 12, 08. B.S, Peabody Col, 31, A.M, 33; Ph.D, Mich. State Col, 40. Prin. and teacher, high schs, Miss, 26–36; instr. biol, Henderson State Teachers Col, Ark, 36–37; grad. asst. zool; Mich. State Col, 37–40, instr, 40–42; *prof. biol, Henderson State Teachers Col, 42–* Nesting habits of the brown thrasher; genetics of dental caries in the albino rat.

Esarey, Prof. Ralph E(merson), 924 E. Atwater Ave, Bloomington, Ind. *Economic geology.* Cannelton, Ind, April 25, 01. A.B, Indiana, 22, A.M, 23. Instr. and *asst. prof. econ. geol, Indiana, 24–; state geologist, Ind, 36–* Geologist, Ind. Southwest. Gas Corp, New York and Vincennes, Ind, 28–30. Ind. Acad. Structural features of Mount Carmel fault in Indiana; stratigraphic and economic study of Indiana Oolitic limestone.

Esau, Dr. J(acob) Nick, 11439 Michigan Ave, Chicago, Ill. *Physiology.* Inman, Kans, Feb. 23, 03. A.B, Tabor Col, 25; A.M, Kansas, 28, Ph.D, 29; M.D, Rush, Chicago, 32. Instr. physiol, Kansas, 26–29, asst. path, 29–30; instr. physiol, Illinois, 30–31; prof. micros. anat, Chicago Med. Sch, 31–34; *practising physician and surgeon, Chicago, 32–* Intern, Roseland Community Hosp, 31–32. Inorganic and total acid soluble phosphorus in the blood of dogs suffering from parathyroid deficiency.

Esau, Dr. Katherine, College of Agriculture, University of California, Davis, Calif. *Botany.* Ekaterinoslav, Russia, April 3, 98. Grad, Agr. Col, Berlin, 22; Ph.D, California, 31. Plant breeder, Spreckels Sugar Co, Calif, 24–27; asst. *bot, col. agr, California,* 28–30, instr. and junior botanist, 31–37, asst. prof, 37–43, *assoc. prof, 43–,* asst. botanist, 37–43, *assoc. botanist, 43–* Guggenheim Mem. Foundation fellow, 40; research fellow, Radcliffe Col, 40. A.A; Bot. Soc. Anatomy of healthy and diseased crop plants; phloem anatomy.

Eschelman, Dr. Karl F(erdinand), 351 Linwood Ave, Buffalo, N. Y. *Medicine.* Toronto, Ont, Can, Oct. 15, 82. D.D.S, Buffalo, 04, M.D, 08. Prof. anat, dental dept, *Buffalo,* 14–18, *assoc. prof. med, sch. med, 27–* Attending physician, Buffalo City Hosp, 19–, director cancer clinic, 28–; consulting oral surgeon, Buffalo Gen. Hosp, 10–19, asst. attending physician, 19–; bronchoscopist, Children's Hosp, 19–34; consulting gastro-enterologist and bronchoscopist, Buffalo State Hosp, 27– A.A; Am. Med. Asn; fel. Col. Physicians; Radiol. Soc. N. Amer; Buffalo Acad. Med. (sec'y, path. sect, 17–18). Congenital stenosis and cancer of the esophagus.

Eschmeyer, R(euben) W(illiam), Norris, Tenn. *Fisheries.* New Knoxville, Ohio, June 29, 05. A.B, Heidelberg Col. (Ohio), 27; A.M, Michigan, 31, Ph.D, 37. In charge lake investigations, univ. museums, Michigan, 30–38; *assoc. aquatic biologist, biol. readjustment div, Tenn. Valley Authority, 38–* Fisheries Soc; Limnol. Soc; Tenn. Acad. Fish management; fisheries biology.

Eschweiler, Dr. Paul Chadbourne, University of Arkansas School of Medicine, Little Rock, Ark. *Medicine.* Milwaukee, Wis, Dec. 10, 02. M.D, Wisconsin, 28. Instr. *med,* L. I. Col, 33–40; asst. prof, *sch. med, Arkansas,* 40–41, *assoc. prof, 41–* Am. Med. Asn; fel. Col. Physicians; Diabetic Asn. Diabetes.

Eshleman, Dr. S(ilas) Kendrick, 733 E. Lassiter St, Cainesville, Fla. or Paradise, Pa. *Engineering.* Leaman Place, Pa, July 3, 86. A.B, Florida, 25, A.M, 27, J.D, 36; M.S, Harvard; M.E, E.E, Lehigh. Testing engineer, Winchester Repeating Arms Co, 10–12; metal. engineer, Columbia Steel and Shafting Co, Pittsburgh, 12–21; mill supt, Crucible Steel Co. of Amer, 21–22; *teacher indust. eng, Florida, 22–* Chief sect, Ordnance Dept, 18–19. Mech. Eng. Heavy hardware manufacture; power costs; educational briefs.

Eshner, Dr. Augustus A, 1019 Spruce St, Philadelphia, Pa. *Medicine.* Memphis, Tenn, Nov. 17, 62. A.B, Cent. High Sch. Phila, 79, A.M, 84; M.D, Jefferson Med. Col, 88. Prof. clin. med, Phila. Polyclinic, 95–18; *consulting physician, Mercy Hosp, Phila, 05–* Physician, Phila. Gen. Hosp, 96–14; asst. physician, Phila. Orthop. Hosp. and Infirmary for Nervous Diseases, 00–17; physician, Hosp. for Diseases of Lungs, 01–03. Lieut, M.R.C, 17. A.A; Am. Med. Asn; Sci.

League Amer; Franklin Inst; Hist. Soc. Pa; Path. Soc. Phila; Zool. Soc. Phila; Col. Physicians Phila; Acad. Nat. Sci. Phila. Clinical and physiological medicine.

Espach, Ralph H(omeward), U. S. Bureau of Mines, Laramie, Wyo. *Petroleum engineering.* Jefferson Center, Pa, Aug. 5, 00. B.S.(C.E), N. Y. Univ, 21, M.S, 22, M.E, 27. Assoc. petrol. engineer and *petrol. engineer, U. S. Bur. Mines,* Bartlesville, Okla, and *Laramie, Wyo, 26–* Asn. Petrol Geol. Petroleum reservoirs and production of oil.

Espe, Dr. D(wight) L(eonard), Iowa State College, Ames, Iowa. *Dairy husbandry.* Storm Lake, Iowa, Oct. 1, 00. B.S, Iowa State Col, 22; Am. Dry Milk Inst. fellow, Cornell, 27–28, M.S, 28, Ph.D, 30. Asst, med. col, Cornell, 28–30; *asst. prof. dairy husbandry, Iowa State Col, 30–* Dairy Sci. Asn; Physiol. Soc. Physiology of digestion in young ruminants; milk secretion.

Espenschied, Lloyd, 99 Newbold Place, Kew Gardens, New York, N. Y. *Electrical engineering.* St. Louis, Mo, April 27, 89. Pratt Inst, 09. Develop. engineer, Am. Tel. and Tel. Co, 10–34; director high frequency transmission develop, Bell Tel. Labs, 34–37; *research consultant, 37–* Medal of honor, Inst. Radio Engineers, 40. A.A; Elec. Eng; Radio Eng; Acoustical Soc; Inst. Aeronaut. Sci. Radio and high frequency transmission by wire; electric communications.

Espenshade, Dr. G(ilbert) H(owry), U. S. Geological Survey, Washington, D. C. *Geology.* State College, Pa, Nov. 28, 12. B.S, Pa. State Col, 33; A.M, Princeton, 35, Ph.D, 37. Mine geologist, Cerro de Pasco Copper Corp, 37–39; *asst. geologist, U. S. Geol. Surv, 40–* Geology and ore deposits of the Pilleys Island area, Newfoundland; mapping and examination of manganese deposits in the Piedmont belt of Virginia; copper deposits.

Esper, Prof. Erwin A(llen), University of Washington, Seattle, Wash. *Psychology.* Columbus, Ohio, Aug. 14, 95. A.B, Ohio State, 17, A.M, 20, fellow, 22–23, Ph.D, 23; Vienna and Phonetics Inst, Hamburg, 24. Asst. Greek, Ohio State, 17–18, Eng, 18–19, instr, 19–20, *psychol,* 20–25; asst. prof, Illinois, 25–27; assoc. prof, *Washington (Seattle),* 27–34, *prof, 34–* Mem. faculty, Linguistic Inst, 30. A.A; Psychol. Asn. Psychology of language; verbal and manual learning.

Espino, Dr. Raf(ael) B, College of Agriculture, Los Baños, Laguna, P. I. *Plant physiology.* Bataan, P. I, Oct. 24, 90. B.Agr, Philippines, 15; fellow, Hopkins, Ph.D, 19. Asst. bot, *Philippines,* 15–17, instr. agron, 19–20, asst. prof, 20–24, assoc. prof. *plant physiol,* 24–29, *prof,* 29–, acting head dept, 24–28, *head dept, 28–* Assoc. ed, 'Philippine Jour. Science,' 25–; mem. advisory board, 'Philippine Agriculturist,' 27– Chairman plant physiol. sect, Nat. Research Council P. I, 34– Philippine Soc. Tech. Agr; Los Baños Biol. Club (pres, 28). Crop physiology; salt requirements of plants; influence of climate on development; the coconut; abaca; rice; sugar-cane.

Esselen, Dr. Gustavus J(ohn), 857 Boylston St, Boston, Mass. *Chemistry.* Roxbury, Mass, June 30, 88. A.B, Harvard, 09, A.M, 11, Ph.D, 12. Austin teaching fellow, Harvard, 09–11; research chemist, Gen. Elec. Co, 12–14; asst. manager and manager, Chem. Products Co, 14–18; research dept, A. D. Little Inc, 18–21; v. pres. and director research, Skinner, Sherman and Esselen, Inc, 21–30; *pres, Gustavus J. Esselen, Inc, 30–* Appleton lecturer, Brown, 26; mem. referee board, Office Production Research and Develop. Mem, div. chem. and chem. tech, Nat. Research Council, 36–43; v. pres. and director, Chemist Advisory Council, Inc; chairman, State Board Registration of Professional Engineers and Land Surveyors, Mass. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Nat. Research Council and Nat. Acad. rep, Int. Union Pure and Applied Chem, Liége, 30, Lucerne, 36; del, Cong. Indust. Chem, Liége, 30; Nat. Research Council del, Int. Union Chem, Lucerne, Switzerland, 36. C.W.S, 25–40, lieut. col. A.A; Chem. Soc. (chairman, cellulose div, 22–24, northeast. sect, 23, councilor, 24–, director, 34–41); fel. Inst. Chem; Asn. Consulting Chem. and Chem. Eng. (director, 36–39); Inst. Consulting Eng; Electrochem. Soc; Asn. Pulp and Paper Indust; Chem. Eng. (director, 31–33, 34–36); fel. Am. Acad; Eng. Socs. New Eng; Soc. Chem. Indust. Gt. Britain. Cellulose and its compounds; paper; rayon; plastics.

Esselen, Dr. William B, Jr, Massachusetts State College, Amherst, Mass. *Food technology.* Boston, Mass, July 31, 12. B.S, Mass. State Col, 34, M.S, 35, Ph.D, 38. Asst. nutrition, Mass. State Col, 36–38; food technologist, Owens-Ill. Glass Co, 39–41; *asst. research prof. food technol, Mass. State Col, 41–; tech. consultant processing and packaging sect, office agr. war relations and food production admin, U. S. Dept. Agr,* 42– Chem. Soc; Pub. Health Asn; Soc. Bact; Inst. Food Technol. Effect of processing on nutritive value of foods; methods of home food preservation; glass containers for foods; synthetic and substitute rubber materials for glass-packed foods.

Esselstyn, Prof. A(lbert) J(ames), Otterbein College, Westerville, Ohio. *Chemistry.* Lansing, Mich, Feb. 4, 92. B.S, Alma Col, 15; M.S, Cornell, 26. Chemist, Lansing Chem. Co, 17–18; prof. *chem,* Urbana Junior Col. (Ohio), 24–28; asst. prof, *Otterbein Col,* 28–42, *prof,* 42– Chem. Soc. Thymoltetrachlorophthalein and some of its derivatives.

Essenberg, Dr. J(acob) M(artin), Loyola University School of Medicine, Chicago, Ill. *Anatomy.* Courland, Latvia, March 22, 83. B.Pd, B.S, Valparaiso, 13; Ph.D, Chicago, 22. Asst. prof. biol, Valparaiso, 13–18; *anat,* Missouri, 22–23; *assoc. prof,* Oklahoma, 23–29; *sch. med, Loyola (Ill), 29–* A.A; Asn. Anat; Ill. Med. Research Club; Ill. Acad. Endocrinology; sex-differentiation; sex determination; x-ray bird eggs.

Essex, Prof. Harry, Syracuse University, Syracuse, N. Y. *Chemistry.* Meadville, Pa, Nov. 2, 84. A.B, Cornell, 07; Ph.D, Göttingen, 14. Instr. chem, Kentucky, 07–10; head dept, high sch, Utah, 10–11; research assoc, Mellon Inst, 14–18, prof. chem, Pittsburgh, 15–18; research chemist, E. I. du Pont de Nemours and Co, 18–20; *prof. physical chem, Syracuse, 20–* Compressibility of liquids and solids; synthesis of amyl acetate, glycerine and glycols; reaction kinetics in homogeneous systems; fugacity and free energy; ion yield in alpha ray decomposition of ammonia.

Essex, Dr. Hiram E(ll), Mayo Clinic, Rochester, Minn. *Physiology.* Glasford, Ill, Jan. 28, 93. B.S, Knox Col, 19; M.S, Illinois, 24, Ph.D, 27. Instr. zool, Illinois, 27–28; asst. prof. *physiol, grad. sch, Minnesota,* 28–37, *assoc. prof, 37–, assoc. div. exp. surg. and path, inst. exp. med, Mayo Foundation and Mayo Clinic, 28–* A.A; Physiol. Soc. (councilor, 41–); Soc. Exp. Biol; Soc. Parasitol; Soc. Zool; Micros. Soc; Minn. Acad. (councilor, 38–42). Life histories of cestodes; experimental surgery and pathology; toxicology; immunity; circulation.

Essex, J(esse) L(yle), 2709 Milton Road, Middletown, Ohio. *Chemistry.* Lebanon, Ind, Oct. 24, 90. A.B, Wabash Col, 14; M.S, Purdue, 17; fellow, Syracuse, 17–18. Instr. chem, Wabash Col, 14–15; Purdue, 15–17; forest chem, N. Y. State Col. Forestry, Syracuse, 17–18; staff chemist, E. I. du Pont de Nemours and Co, Wilmington, 18–22; research chemist, Standard Oil Co. of Ind, Whiting, 22–24; raw materials engineer, West. Elec. Co, Ill, 24; indust. engineer, Grice assoc. and registrar, LaSalle Exten. Univ, Minneapolis, 25; chief chemist, Universal Oil Products Co, Ill, 26–31; consulting chemist, Cooper and Essex, Chicago, 31–35; chief engineer, Ill. Clay Products Co; *chief insulation and paint div, Armco Int. Corp.* Consulting chemist. Major, C.W.S, 25– Chem. Soc. Applied, physical and petroleum chemistry; cellulose products; ceramics; insulation.

Essick, Dr. Charles Rhein, 700 Centre Ave, Reading, Pa. *Anatomy.* Reading, Pa, Feb. 17, 83. A.B, Yale, 05; M.D, Hopkins, 09. Asst. anat, Hopkins, 09–10, instr, 10–12, assoc, 12–14; manager lens grinding plant, *Pa. Optical Co,* 15–30, partner, 30–35, *proprietor, 35–* Capt, M.C, 18–19. A.A; Asn. Anat; Chem. Soc; Ceramic Soc. The nervous system.

Essig, Prof. E(dward) O(liver), University of California, Berkeley, Calif. *Entomology.* Arcadia, Ind, Sept. 29, 84. B.S, Pomona Col, 09, M.S, 12. Hort. commissioner, Ventura Co, Calif, 10–11; sec'y, State Hort. Cmn, Calif, 11–14; asst. prof. *entom, California,* 14–20, assoc. prof, 20–26, *prof. and entomologist, Exp. Sta, 26–* Mem, Nat. Research Council. Dykes medal, Am. Iris Soc, 36; Chevalier du Mérite agricole. A.A; Entom. Soc. (pres, 28); Asn. Econ. Entom; Hist. Sci. Soc; Hort. Soc; Am. Fuchsia Soc. (v. pres, 31–33, pres, 33); Am. Iris Soc; West. Soc. Nat; Pacific Coast Entom. Soc. (pres, 33–36, 41); Calif. Entom. Club (pres, 31); Calif. Acad. Economic entomology; taxonomic and economic Aphididae and Coccidae; history of entomology.

Estabrook, Dr. Arthur H(oward), Chatham Center, N. Y. *Biology.* Leicester, Mass, May 9, 85. A.B, Clark, 05, A.M, 06, fellow, 06–07; Ph.D, Hopkins, 10; N. Y. Sch. Philanthropy, 14. Asst. zool, Clark, 06–07; eugenics record office, sta. for exp. evolution, Carnegie Institution, 10–29; research work, Am. Soc. Control Cancer, 29–41. Investigator, Cmt. on Mental

Defectives, Ind, 17–18. Sanit.C, 18, capt. A.A; Soc. Nat; Eugenics Research Asn. (pres, 25); hon. mem. Soc. Bird Restoration; Ind. Acad. Zoology; botany; heredity; eugenics.

Estabrook, E(dward) L(ewis), Standard Oil Company of New Jersey, 30 Rockefeller Plaza, New York, N. Y. *Petroleum engineering.* Brandon, S. Dak, May 10, 85. E.M, Pittsburgh, 11. Instr. geol, Lehigh, 11–13; geol. and surveying, State Mining Sch, Wis, 13–14; geologist, Standard Oil Co. of N. Y, 14–16; Wis. Zinc Co, 16–17; Johnson and Huntley, 17–18; Midwest Ref. Co, 18–25; chief petrol. engineer, Pan-Am. Petrol. and Transport Co, 25–32; *petrol. engineer and exec, Standard Oil Co. of N. J, 32–* Asn. Petrol. Geol; Min. and Metal. Eng.

Estabrook, Prof. G(aylord) B(eale), Cambridge Arms, Baltimore, Md. *Physics.* Loganport, Ind, Oct. 9, 99. B.S, Purdue, 21; M.S, Ohio State, 22; Hopkins, 28–30; Ph.D, Pittsburgh, 32. Asst. chem, Ohio State, 21–22; instr. physics, Ga. Tech, 22–24, asst. prof, 24–28; asst. physics, Pittsburgh, 30–32; Md. Acad. Sciences, 33–36; instr. *physics, Maryland,* 37–39, *asst. prof, 39–* A.A; Physical Soc. Vaporization of metals under high electrostatic fields; thermodynamics.

Estabrooke, Prof. W(illiam) L(udlow), College of the City of New York, New York, N. Y. *Chemistry.* New York, N. Y, April 15, 76. B.A, New Brunswick (Can), 00, M.A, 03, Ph.D, 05; Harvard, 01; hon. Sc.D, Muhlenberg Col, 27. Teacher, pub. schs, N. B, Can, 94–95; asst. geol, Harvard, 00–01; teacher, Kingston Acad, 01–04; high sch, N. Y, 04–08; *assoc. prof. chem, Col. City of N. Y, 08–* Lecturer, Board Educ, New York, 07; prof, Columbia, 17. Chem. Soc; Chemists' Club. Elementary chemistry; food gelatin; soya bean casein; gas masks; iron; steel and cement; reactions of cations and anions.

Estabrooks, Prof. G(eorge) H(oben), Colgate University, Hamilton, N. Y. *Psychology.* St. John, N. B, Can. B.A, Acadia, 20; diploma, Oxford, 24; Ph.D, Harvard, 26. Prof. *psychol,* Springfield Col, 26–27; assoc. prof, *Colgate,* 27–35, *prof, 35–, director placement, 27–* Summer, mem. faculty, Duke, 29. Psychol. Asn; East. Col. Personnel Officers. Abnormal psychology; personnel research; placement work.

Estermann, Prof. I(mmanuel), 5448 Bartlett St, Pittsburgh, Pa. *Physics.* Berlin, Germany, March 31, 00. D.Sc, Hamburg, 21. Asst. physics, Rostock Univ, 21–22; instr. physical chem, Hamburg, 22–28, privat-docent *physics,* 28–33; *assoc. prof, Carnegie Inst. Tech, 33–* Rockefeller Foundation fellow, California, 31–32. A.A; Physical Soc; Pittsburgh Physical Soc. Dipole moments; molecular rays; low temperatures.

Estes, Prof. Stanley G(oddard), Northeastern University, Boston, Mass. *Psychology.* China, Maine, Oct. 26, 01. A.B, Colby Col, 23; A.M, Columbia, 30; Ph.D, Harvard, 37. Asst. educ, Colby Col, 23–24; instr. *psychol, Northeastern,* 24–28, asst. prof, 28–33, assoc. prof, 33–36, *prof. and chairman dept, 37–* Lecturer, Mass. Inst. Tech, 38; Mass. State Teachers Col, Hyannis, 39. Consulting ed, 'Jour. Abnor. and Social Psychol,' 40– Psychol. Asn; Asn. Applied Psychol; Mass. Soc. Clin. Psychol. (sec'y). Tests; personality.

Estes, Dr. W(illiam) L(awrence), Jr, St. Luke's Hospital, Bethlehem, Pa. *Medicine.* Bethlehem, Pa, March 1, 85. A.B, Lehigh, 05; M.D, Hopkins, 09. Intern, Hopkins Hosp, 09–10; asst, Mayo Clinic, 10–12; med. adviser, Lehigh, 13–22; chief staff, *St. Luke's Hosp,* 12–18, senior adj. surgeon, 20–31, *chief surgeon, 31–* A.A; Am. Med. Asn; Am. Acad. Med. (asst. sec'y, 13–15); Surg. Asn; Col. Surg; S. Surg. Asn; N. Y. and New Eng. Ry. Surg. Asn; Surg. Research Soc; Diabetic Asn; Am. Geog. Soc; Pa. Med. Soc. (chairman, surg. sect, 23–); Path. Soc. Phila; N. Y. Acad. Med; Newcomen Soc; Int. Surg. Soc. Surgery; fractures; gynecology.

Estey, Dr. R(oger) S(hepherd), 382 Millicent Ave, Buffalo, N. Y. *Physics.* Boston, Mass, Feb. 10, 03. B.S, Colgate, 24; M.S, N. Y. Univ, 26, Ph.D, 30. Instr. physics, N. Y. Univ, 24–30; physicist, Elec. Testing Labs, 30–37; *research physicist, Spencer Lens Co, 37–* Physical Soc; Optical Soc; Illum. Eng. Soc; Oil Chemists Soc. Measurements of ultraviolet radiation; ultra-violet spectroscopy; radiometry; photometry; colorimetry; optical instruments.

Esty, Dr. James Russell, 322 Battery St, San Francisco, Calif. *Bacteriology.* Slatersville, R. I, March 22, 93. B.S, R. I. State Col, 14; M.S, Brown, 15, Ph.D, 18. Instr. bacter, Brown, 14–16; bacteriologist, milk dept, Providence, R. I, 16–17, chemist, 17–19; bacteriologist, *Nat. Canners Asn,* 19–27, *director west. branch research labs, 27–; asst. prof. bacter, Hooper Foundation, California, 39–* A.A; Soc. Bact; Pub. Health Asn; Inst. Food Technol. Bacteriology of canned foods; thermophilic organisms; biology of Clostridium welchii; heat resistance of bacterial spores.

Esty, Prof. T(homas) C(ushing), Amherst College, Amherst, Mass. *Mathematics.* Amherst, Mass, Dec. 8, 70. A.B, Amherst Col, 93, A.M, 97, LL.D, 41. Instr. math. and drawing, Case, 94–95; *math,* Amherst Col, 95–98, 99–01; prof, Rochester, 01–05; *Amherst Col,* 05–33, Walker prof, 33–41, *emer. prof, 41–,* acting pres, 33–41, acting dean, 20–21, dean, 22–29. Trustee, Amherst Acad, 13– A.A; Math. Soc; Math. Asn. Algebra; geometry; analytical mechanics; use of vector analysis in discussing the integrability of the differential equation $Pdx + Qdy + Rdz = 0$; vectorial treatment of certain algebraic theorems.

Etcheverry, Prof. Bernard Alfred, 2678 Buena Vista Way, Berkeley, Calif. *Civil engineering.* San Diego, Calif, June 30, 81. B.S, California, 02. Assoc. prof. civil eng, Nevada, 03–05; *prof. irrig. eng, California, 05–* Consulting engineer. Civil Eng. (director, 34–36). Irrigation engineering practise and drainage.

Etheredge, M(ahlon) P(adgett), Mississippi State College, State College, Miss. *Chemistry.* S. C, Sept. 27, 97. B.S, Clemson Col, 18; M.S, Miss. State Col, 40. Asst. chemist, *Miss. State Col,* 18–23, *asst. state chemist, 23–, collaborator chem. dept, 38–,* supervisor, Am. Oil Chemists Soc. analyses, chem. lab, 26–39. A.A; Chem. Soc; Oil Chemists Soc. (supervisor, Smalley Foundation awards, 26–39); Feed Control Officials; Asn. Official Agr. Chem. Organic and analytical chemistry; starch in raw and cooked cereals; methods for quantitative estimation of starch; potash and nitrogen.

Etheridge, Prof. W(illiam) C(arlyle), University of Missouri, Columbia, Mo. *Agronomy.* Roanoke Island, N. C, June 30, 85. B.S, N. C. State Col, 06; M.S, Cornell, 12, Ph.D, 15. Asst. and assoc. agronomist, Exp. Sta, N. C. State Col, 06–11; asst. farm crops, Cornell, 11–15; *prof.* agron, Florida, 15–16; *field crops, Missouri, 16–* Field crops.

Etherington, Dr. T(homas) J(ohn), 3163 W. Laurelhurst Drive, Seattle, Wash. *Geology.* Joplin, Mo, May 13, 99. B.S, Washington, 25, M.S, 26; Ph.D, California, 30. *Geologist, Standard Oil Co. of Calif, Colombia, S. Amer, 30–* Paleontology; stratigraphy and fauna of the Astoria Miocene of southwestern Washington.

Etkin, Dr. William, College of the City of New York, New York, N. Y. *Zoology.* New York, N. Y, Dec. 10, 06. B.S, Col. City of N. Y, 28, fellow, 28–29; A.M, Cornell, 30; Ph.D, Chicago, 34. Tutor, Col. City of N. Y, 29–31; asst. zool, Chicago, 32–34; tutor *biol, Col. City of N. Y,* 34–35, *instr, 35–* Research assoc, Am. Museum Nat. Hist, N. Y, 35– A.A; Soc. Zool; Asn. Anat. Endocrines in development; hormone action in the metamorphosis of the frog; activities of the pituitary; pigmentation.

Ets, Prof. Harold N(orris), Loyola University School of Medicine, 706 S. Wolcott Ave, Chicago, Ill. *Physiology, Pharmacology.* Rochester, N. Y, June 10, 98. B.S, Rochester, 20; Ph.D, Illinois, 29. Assoc. pharmacol, col. med, Illinois, 25–29; asst. prof. *physiol. and pharmacol, sch. med, Loyola,* 29–31, assoc. prof, 31–41, *prof, 41–* A.A; Physiol. Soc; Soc. Pharmacol; Chem. Soc. Blood chemistry; iron in anemia; inorganic ions and smooth muscle reactions; muscle nerve reactions. *(Died June, 1943)*

Ettinger, Prof. G(eorge) Harold, Queen's University, Kingston, Ont, Can. *Physiology.* Kingston, Ont, May 9, 96. B.A, Queen's (Can.), 16, M.D, 20; Edinburgh, 28–29. Lecturer *physiol, Queen's (Can),* 20–28, asst. prof, 29–33, assoc. prof, 33–37, *prof, 37–* Research assoc, Toronto, 31–35. Mem. assoc. cmt. med. research, Nat. Research Council, Can, 38, hon. sec'y, 42. Mem. cmt. de collaboration sci, 'Rev. Can. de Biol.' A.A; Asn. Anat; Physiol. Soc; fel. Royal Soc. Can; Can. Physiol. Soc. (sec'y, 36–40). Cardiovascular physiology.

Ettlinger, Prof. H(yman) J(oseph), 3110 Harris Park Ave, Austin, Texas. *Mathematics.* St. Louis, Mo, Aug. 30, 89. A.B, Washington (St. Louis), 10; A.M, Harvard, 11, Ph.D, 20; Chicago, 17; *Prof. math, Texas, 13–* A.A; Math. Soc; Math. Asn. Pure and applied mathematics; boundary values; definite integrals; differential and integral equations.

Etzelmiller, Dr. R(obert) E(ugene), Minden, Nebr. *Chemistry.* Minden, Nebr, May 3, 01. A.B, Cotner Col, 23; M.S, Nebraska, 28, Ph.D, 30. Chemist, E. I. du Pont de Nemours and Co, 30–36. Organic chemistry.

Eusterman, Dr. George B, Mayo Clinic, Rochester, Minn. *Internal medicine.* Lewiston, Minn, Feb. 7, 82. Minnesota, 03, M.D, 08. *Chief sect. med, Mayo Clinic, 19–; prof. med, Mayo Foundation, Minnesota, 34–* Assoc. ed, 'Year Book Gen. Med,' 34– Capt, M.C, 18, major. Am. Med. Asn; Gastro-Enterol. Asn. (past pres); Col. Physicians; Cent. Interurban Clin. Club; Cent. Soc. Clin. Research; Minn. Soc. Int. Med. (pres, 37); for. cor. mem. Soc. de Gastro-Enterol. de Paris; Int. Cong. Gastro-Enterol. Diseases of the digestive tract, metabolism and nutrition.

Eustis, Dr. F(rederic) A, 131 State St, Boston, Mass. *Metallurgy, Chemistry.* Milton, Mass, Oct. 7, 77. A.B, Harvard, 01, A.M, 02, M.S, 03, Sc.D, 15; Mass. Inst. Tech. *Practising metallurgist, 03–* U. S. Shipping Board, 17–18. Min. and Metal. Eng; Min. and Metal. Soc; Chem. Soc; Boston Affiliated Tech. Societies (chairman, 26). Washing of smelter smoke; production of electrolytic iron from sulfide ores; liquid sulfur dioxide.

Evans, Prof. Alexander W(illiam), Osborn Botanical Laboratory, New Haven, Conn. **Botany.* Buffalo, N. Y, May 17, 68. Ph.B, Yale, 90, M.D, 92, Ph.D, 99. Instr. *bot, Yale,* 95–01, asst. prof, 01–06, Eaton prof, *Sheffield sci. sch,* 06–36, *emer. Eaton prof, 36–* A.A; Soc. Nat; Bot. Soc. (v. pres, 11); Torrey Bot. Club (assoc. ed, 07–14, 24–, ed, 14–24); Am. Acad; Conn. Acad. (sec'y, 97–03). Hepaticae; lichens.

Evans, Dr. Alice C(atherine), 6601 Strathmore St, Chevy Chase, Md. *Bacteriology.* Neath, Pa, Jan. 29, 81. B.S, Cornell, 09; M.S, Wisconsin, 10; hon. M.D, Woman's Med. Col. of Pa, 34; hon. Sc.D, Wilson Col, 36. Dairy bacteriologist, U. S. Dept. Agr, 10–18; assoc. bacteriologist and later *senior bacteriologist, U. S. Pub. Health Service, 18–* Cmt. on infectious abortion, Nat. Research Council, 25–31. Del, Int. Microbiol. Cong, Paris, 30. A.A; Soc. Bact. (sec'y-treas, Wash. branch, 21–27, nat. pres, 28); Wash. Acad. Cheese ripening; bacteria in the cow's udder; bacteriotropins; brucellosis; etiology of epidemic encephalitis; hemolytic streptococci; bacterial pleomorphism; bacteriophage.

Evans, Prof. Arthur T(hompson), Miami University, Oxford, Ohio. *Botany.* Wellington, Ill, May 22, 88. A.B, Illinois, 12; M.S, Colorado, 15; fellow, Chicago, 17–18, Ph.D, 18. Prin, high sch, Mich, 12–14; instr. bot, Colorado, 14–17; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18–19; prof. biol. and dean, Huron Col, 19–20; assoc. prof. agron, S. Dak. State Col, and assoc, Exp. Sta, 20–23, *prof.* bot. and plant path. and head dept. bot, 23–28; *bot. and head dept, Miami (Ohio), 28–* A.A; Bot. Soc; Ind. Acad; fel. Ohio Acad. (v. pres, 30). Morphology; ecology. *(Died Oct, 1943)*

Evans, Prof. Charles A(lbert), University of Minnesota, Minneapolis, Minn. *Bacteriology.* Minneapolis, Minn, Feb. 18, 12. B.S, Minnesota, 35, M.B, 36, M.D, 37. Nat. research fellow, Rochester, 41–42. Teaching asst. bacter, Minnesota, 37–38; agent diseases fur animals and wildlife, bur. biol. surv, U. S. Dept. Agr, 38–40; assoc. scientist *bacter, Minnesota,* 40–41, *asst. prof, 42–; biol. research supervisor, State Dept. Conservation, Minn, 42–* A.A; Soc. Bact. Virus diseases; thiamine deficiencies of fur animals; diseases of wild animals.

Evans, Lieut. Col. Charles C(layton), 709 Main St, Stevens Point, Wis. *Medical sciences.* Norwalk, Ohio, July 10, 86. B.S, Ohio Wesleyan, 08; Yale, 10–11; M.S, Chicago, 28. Teacher, high sch, Ohio, 12–14; Oak Park, Ill, 14–18; *head dept. biol, Wis. State Teachers Col, 20–* City bacteriologist, Stevens Point, Wis, 29– Summers, mem. staff, eng. lab, West. Elec. Co, Chicago, Ill, 14–18. Deck officer, officers sch, U.S.N.R, 17–21. A.A; Soc. Bact; fel. Am. Geog. Soc; Pub. Health Asn. Diseases of school children; bacteriology of milk.

Evans, Dr. C(harles) S(parling), Union Gas Co. of Canada, Ltd, Chatham, Ont, Can. *Geology.* Galt, Ont, March 31, 94. B.A.Sc, British Columbia, 24; Ph.D, Princeton, 27. Assoc. prof. geol, Bryn Mawr Col, 27–29, head dept, 28–29; asst. geologist, Geol. Surv. Can, 29–30, assoc. geologist, 30–37; *geologist, Union Gas Co. Can, 37–* Paleont. Soc. Stratigraphy and structure in Alberta; geology of the Rocky Mountain trench in British Columbia; oil and gas in southwestern Ontario peninsula.

Evans, Prof. Clytee R(ebekah), Mississippi State College for Women, Columbus, Miss. *Plant physiology.* Houston, Miss, Oct. 13, 89. B.S, Miss. State Col. for Women, 11; Federated Club scholar, Chicago, 15–16, M.S, 21, Ph.D, 30. Instr. biol, *Miss. State Col. for Women,* 12–23, acting prof, 23–30, dean women, 30–32, *prof. biol, 32–* A.A; Soc. Plant Physiol. Effect of temperature on rate of germination of Amaranthus retroflexus; germination of Magnolia grandiflora.

Evans, Dr. Cyril D(avid), Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, Peoria, Ill. *Protein chemistry.* Anaconda, Mont, May 18, 09. B.S, Mont. State Col, 31, M.S, 33; Ph.D, Minnesota, 38. Asst. chem, Exp. Sta, Mont. State Col, 31–35; instr, Minnesota, 38–39; research chemist, Armour Research Foundation, 39–41; assoc. chemist, *north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr,* 41–42, *chemist, 42–* A.A; Chem. Soc. Peptization of proteins; stabilization of protein dispersions; protein plastics and plasticizers.

Evans, Dr. E(arl) A(lison), Jr, University of Chicago, Chicago, Ill. *Biochemistry.* Baltimore, Md, March 11, 10. B.S, Hopkins, 31; fellow, Columbia, 34–37, Ph.D, 36. Asst. pharmacol, sch. med, Hopkins, 31–32, asst, endocrine research, 32–34; instr. *biochem, Chicago,* 37–39, asst. prof, 39–41, assoc. prof. and acting chairman dept, 41–42, *prof. and chairman dept, 42–* Rockefeller fellow, Sheffield, England, 40–41. A.A; Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Biochem. Soc. Gt. Britain. Chemistry of insulin; toadpoisons; sterols; mechanism of action of tetanus toxin; intermediary metabolism of carbohydrates; radioactive isotopes.

Evans, Mrs. E(dith) Gertrude S(elene), 350 S. Main St, Freeport, N. Y. *Anthropology, Egyptology.* Eng, March 21, 78. N. Y. Univ. *Custodian, private lab, 07–, lecturer, 23–; research asst. anat, N. Y. Med. Col, 41–* Lecturer, Adelphi Col, 37. A.A; Soc. Am. Archeol; N. Y. Soc. Exp. Study Educ; Egypt Explor. Soc. London. Form and color; plastic materials; chemistry of Egyptian blue; human and other primate hair; tempera; design; Italian art; racial interrelations of design; striate bodies in brain and patterns of coordination.

Evans, Prof. E(dwin) V(ictor), Ontario Agricultural College, Guelph, Ont, Can. *Nutritional chemistry.* Toronto, Ont, March 30, 14. B.A, Western Ontario, 36, M.A, 37; Ont. Research Foundation fellow, Toronto, 37–41. *Asst. prof. animal nutrition, Ont. Agr. Col, 41–* Chem. Soc; Can. Inst. Chem. Chemical and biological vitamin assays and investigations.

Evans, Dr. Everett I(dris), Medical College of Virginia, Richmond, Va. *Surgery.* Norfolk, Eng, April 15, 09. B.S, Coe Col, 29; fellow, Chicago, 29–30, Ph.D, 34, M.D, 36. Chief chemist, John F. Jelke Co, 29; assoc. physiologist, bur. dairy indust, U. S. Dept. Agr, 32–37; house physician, Pa. Hosp, Phila, 37–39; Rockefeller Foundation fellow surg, Mass. Gen. Hosp, 40–41; res. surgeon, *Med. Col. Va,* 41–42, *asst. prof. surg, 42–* Physiol. Soc; Va. Acad. Etiology of senile and experimental cataract; diabetogenic hormone; physiology of reproduction; mechanism of shock; treatment of burns; thoracic surgery.

Evans, Dr. Florence L(ydia), State Board of Health Hygienic Laboratory, Little Rock, Ark. *Bacteriology.* Parker, S. Dak, April 24, 06. A.B, South Dakota, 28; A.M, Illinois, 29, fellow, 29–30, Ph.D, 31. Junior pathologist, State Charity Hosp, La, 32–36; asst. bacter, sch. med, Louisiana, 32–34, instr, 34–36; asst. bacteriologist, U. S. Marine Hosp, Carville, 36–38, assoc. bacteriologist, 38–42; *mem. staff, hygienic lab, State Board Health, Ark, 42–* A.A; Soc. Bact; Pub. Health Asn; N. Y. Acad. Meat curing solutions and anaerobic bacteria; Pseudomonas aeruginosa meningitis; histology of normal chick chorio-allantoic membrane; bacterial toxins and embryonic chicks; culture and infection with Mycobacterium leprae; staining methods; mice cages; aseptic grinding of tissue.

Evans, Dr. Francis C(ope), Department of Zoology, University of California College of Agriculture, Davis, Calif. *Zoology.* Germantown, Pa, Dec. 2, 14. B.S, Haverford Col, 36; Rhodes scholar, Oxford, 36–39, Ph.D, 40; Claypole Mem. fellow, California, 39–40. Asst, Hooper Foundation, *California,* 39–41, *junior zoologist, Exp. Sta. and col. agr, 42–* A.A; Ecol. Soc; British Ecol. Soc. Economic vertebrate zoology; problems of ecology; population dynamics of small mammals; wildlife conservation and management.

Evans, Dr. F(rancis) Gaynor, Duke University, Durham, N. C. *Zoology.* Le Mars, Iowa, Dec. 7, 07. A.B, Coe Col,

31; Lydia C. Roberts fellow, Columbia, 31–32, 33–34, 35–36, A.M, 32, Ph.D, 39. Lecturer zool, Columbia, 36; *instr.* biol, Col. City of N. Y, $7, 38; *zool,* New Hampshire, 38–41; *Duke, 41–* Summer, instr; Coe Col, 34. Grant in aid of research, Am. Asn. Adv. Science, 41. A. Cressy Morrison prize, N. Y. Acad. Sciences, 38. A.A; Soc. Vertebrate Paleont; N. Y. Acad. The morphology and functional evolution of the atlas-axis complex in vertebrates; form and function of the vertebral column in vertebrates; structure of the vertebral column in Crossopterygians; the osteology and relationships of the Macroscelididae.

Evans, Dr. Frank A(lexander), 5300 Wilkins Ave, Pittsburgh, Pa. *Internal medicine.* Pittsburgh, Pa, April 23, 89. A.B, Washington and Jefferson Col, 10, A.M, 14; M.D, Hopkins, 14. Instr. med, hosp. and sch. med, Hopkins, 14–21; *physician in chief, West. Pa. Hosp, Pittsburgh, 30–* British Mil. Cross. Col. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn; Asn. Am. Physicians. Diseases of the blood; nutritional disorders; metabolism.

Evans, Dr. G(eo). Harlowe, Huntingdon College, Montgomery, Ala. *Physical chemistry.* Dallas, Texas, Dec. 12, 03. B.S, Michigan, 25, M.S, 26, Ph.D, 34; Iowa, summers, 28–30. Chem. research, Newport Co, Carrollville, Wis, 26–28; *prof.* math. and physics, John Fletcher Col, 28–32; *chem,* Taylor, 33–41; *Huntingdon Col, 41–* A.A; Chem. Soc; Iowa Acad; Ind. Acad; Ala. Acad. Anomalous dispersion of dielectric constants.

Evans, Dr. (George) Foster, University of Colorado, Boulder, Colo. *Physics.* Salt Lake City, Utah, Jan. 16, 15. B.S, Brigham Young, 36; Ph.D, Chicago, 41. Asst. physics, Brigham Young, 35–36; instr. optics, North. Ill. Col. Optometry, 40; acting instr. *physics,* Wisconsin, 41; instr, *Colorado,* 41–43, *asst. prof, 43–* Summer, research fellow, radiation lab, California, 42. A.A; Physical Soc; Colo-Wyo. Acad. Theory concerning the nature of primary cosmic radiation; theory of the correlation between world-wide cosmic ray and geomagnetic variations.

Evans, Dr. Gerald T(aylor), 39 Barton Ave, S. E, Minneapolis, Minn. *Medicine.* Galt, Ont, Can, March 11, 00. M.D, McGill, 32, Osler scholar, 32–33, M.Sc, 33; Ph.D, Pennsylvania, 37. Clin. asst, Royal Victoria Hosp, Montreal, 31–33; fellow, George S. Cox med. research inst, Pennsylvania, 33–37, assoc. med, sch. med, 33–37; asst. prof. physiol. chem, sch. med, Yale, 37–39; *assoc. prof. med. and director lab, univ. hosp, Minnesota, 39–, director course in med. technol, 40–* Soc. Exp. Biol; Soc. Clin. Path; Asn. Study Int. Secretions; Physiol. Soc; Cent. Soc. Clin. Invest. Physiology; chemistry of the heart; adrenal cortex; carbohydrate metabolism; clinical pathology.

Evans, Dr. Gertrude, Beloit College, Beloit, Wis. *Zoology.* Erie, Pa, Aug. 27, 06. A.B, Mt. Holyoke Col, 28; fellow, Chicago, 31–32, Ph.D, 36. Sci. asst. biol, Am. Museum Nat. Hist, 28–31; asst, Chicago, 32–36; *instr.* zool, Mt. Holyoke Col, 36–38; *biol, Beloit Col, 38–* Soc. Zool. Aggregations studies; vitamin requirements of fish; oxygen consumption of salamanders; effect of crowding on development of sea urchin eggs.

Evans, Prof. Gregg M(iller), 310 E. 15th St, Yankton, S. Dak. *Chemistry.* Emporia, Kans, June 14, 90. A.B, Col. of Emporia, 12; M.S, Chicago, 22; Ph.D, Pa. State Col, 28. *Prof. chem, Yankton Col, 22–* Chem. Soc. Corona discharge chemistry; limestone.

Evans, Prof. Griffith C(onrad), University of California, Berkeley, Calif. *[3]*Mathematics.* Boston, Mass, May 11, 87. A.B, Harvard, 07, A.M, 08, Ph.D, 10. Instr. math, Harvard, 09–10, Sheldon traveling fellow, Rome, 10–12; asst. prof. pure math, Rice Inst, 12–16, *prof,* 16–34; *math, California, 34–* Summer, Walker Ames prof, Washington (Seattle), 41. Nat. Research Council, 27–30, 40– Ed, 'Am Jour. Math,' 27–35. Nat. Acad; A.A. (v. pres, K, 31, A, 36); Math. Soc. (v. pres, 24–26, pres, 38–40); Math. Asn. (v. pres, 32); fel. Econometric Soc; Philos. Soc; Am. Acad. Differential, integral and integro-differential equations; mathematical economics.

Evans, Prof. H(enry) B(rown), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Dayton, Ohio, July 2, 71. M.E, Lehigh, 93; Ph.D, Pennsylvania, 01. Instr. math. and astron, Lehigh, 94–95; Pennsylvania, 95–01; asst, 'Nautical Almanac,' 01–04; asst. prof. *math, Pennsylvania,* 04–11, prof, 11–42, *emer. prof, 42–* Dean, Towne Sci. Sch, 18–19. A.A; Math. Soc; Astron. Soc. Vector analysis and its application to engineering.

Evans, Prof. Herbert M(cLean), University of California, Berkeley, Calif. *[3]*Anatomy.* Modesto, Calif, Sept. 23, 82. B.S, California, 04; M.D, Hopkins, 08; hon. M.D, Freiburg, 30, Catholic Univ. Chile, 41; hon. Sc.D, San Marcos, 41. From asst. to assoc. prof. *anat,* Hopkins, 08–15; *prof, California, 15–, Herzstein prof. biol. and director inst. exp. biol, 30–* Research assoc, Carnegie Institution, 13–15; faculty research lecturer, California, 25; Bacon lecturer, col. med, Illinois, 31; Herzstein lecturer, California and Stanford, 34; Beaumont lecturer, Wayne Co. (Mich) Med. Soc, 37; Jackson lecturer, Minnesota, 37; Welch lecturer, Mt. Sinai Hosp, N. Y, 39; Jones lecturer, Oregon, 40; hon. prof, Chile and Univ. Cent. del Ecuador, 41; Messenger lecturer, Cornell, 42; Mellon lecturer, Pittsburgh, 42; Nat. Sigma Xi lecturer, 42; Guiteras lecturer, Am. Urol. Asn, 42. John Scott medal, Phila, 28. Joint ed, 'Am. Anat. Memoirs,' 18–38. Nat. Acad; A.A. (pres, Pacific div, 36); Asn. Anat. (pres, 30–32); Am. Med. Asn; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; fel. Am. Acad; Hist. Sci. Soc; Halle Akad. der Naturforscher; Soc. Reg. Med. Budapestin; hon. for. mem. Acad. Nac. Med. Buenos Aires; hon. mem. Soc. Med. Santiago (Chile); cor. mem. Soc. Argentina de Biol; hon. mem. Soc. Biol. de Santiago (Chile). Experimental biology; histology; embryology; endocrinology; nutrition; physiology of reproduction; development of vertebrate vascular trunks from capillary plexuses; vital dyes of benzidin group; macrophages of mammals; discovery of 48 chromosomes in man; hormones of the anterior hypophysis; experimental production of gigantism and luteinization of ovary; discovery of fat soluble vitamin E(x) essential for mammalian reproduction.

Evans, Prof. H(erbert) P(ulse), University of Wisconsin, Madison, Wis. *Mathematics.* Chattanooga, Tenn, Jan. 5, 00. B.S, 23; M.S, Wisconsin, 27, Ph.D, 29. Research engineer, Bell Tel. Labs, 23–25; instr. elec. eng, *Wisconsin,* 25–28, *math,* 28–29, asst. prof, 29–38, assoc. prof, 38–42, *prof, 42–* A.A; Math. Soc; Math. Asn. Theory of probability; applied mathematics.

Evans, Prof. Herbert S(ilas), University of Colorado, Boulder, Colo. *Electrical engineering.* Stella, Nebr, July 20, 75. B.S, Nebraska, 98, E.E, 01, D.E, 28. Electrician, C. B. and Q. Ry. Co, 98–01; instr. and adj. prof. *elec. eng,* Nebraska, 01–05; *prof, Colorado, 05–, dean col. eng, 19–, v. pres, univ, 30–* Summers, Gen. Elec. Co, 05–10. Elec. Eng. (chairman, Denver sect, 19, v. pres, 29–31); Eng. Educ. (v. pres, 20, pres, 31, councilor, 22–24, 32–); Colo. Soc. Eng. Electrical transmission at high altitudes; electrical measuring instruments; dielectron strength of insulating materials.

Evans, Dr. Hiram J(ohn), Granville, N. Y. *Biology.* Granville, N. Y, May 13, 16. A.B, Hamilton Col, 37; A.M, Williams Col, 39; Ph.D, Harvard, 42. Teaching asst, Williams Col, 37–39; teaching fellow, Harvard, 39–42; *2nd lieut, Air Corps, U. S. Army, 42–* Experimental embryology; innervation of the ear of the bird.

Evans, Dr. James W(illiam), General Mills, Inc, Minneapolis, Minn. *Agricultural biochemistry.* Chilhowee, Mo, Sept. 21, 08. B.S, Cent. Mo. State Teachers Col, 28; Missouri, 29; Ph.D, Minnesota, 40. Special analyst, Union Starch and Ref. Co, 30–32, research chemist, 32–37; asst. biochem, Minnesota, 38–39, instr, 39–40; *research chemist,* Union Starch and Ref. Co, 40–43; *Gen. Mills, Inc, 43–* Chem. Soc; Asn. Cereal Chem; Inst. Food Technol. Starch and its hydrolytic products.

Evans, Prof. J(ennette) (Mrs. James Shepard Webb), Cornell University, Ithaca, N. Y. *Medicine.* N. Y, Jan. 1, 92. B.S, Cornell, 14, M.D, 22. *Med. adviser women, Cornell, 23–,* instr. *hygiene,* 23–24, *asst. prof, 24–* Acne; attenuation of bacteria by high frequency oscillations.

Evans, Prof. J(ohn) E(lls), Iowa State College, Ames, Iowa. *Psychology.* Brazil, Ind, Jan. 1, 82. A.B, Indiana, 10, A.M, 11; Ph.D, Columbia, 16. Teacher, pub. schs, 99–09; asst. educ, Indiana, 09–14; instr. psychol, Ohio State, 14–20; develop. expert, sect. testing and grading, War Dept, 19–22; *prof. psychol. and head dept, Iowa State Col, 22–, instr. eng, science and management war training, 41–* Asst, Columbia, 13–14. A.A; Psychol. Asn; Iowa Acad. General, experimental, industrial and vocational psychology.

Evans, Pres. John R(obert), 643 13th St, Brandon, Man, Can. *Geology.* Nanaimo, B. C, 91. B.A, McMaster, 13; Ph.D, Chicago, 24. Instr. science, *Brandon Col,* 13–15, prin. acad, 15–20, *prof. geol, 24–,* dean dept. science, 27–28, dean

col, 28, *pres, 28–* Asst, Chicago, 22–23. Summers, visiting prof, Chicago, 26–29. Can. Inst. Min. and Metal. Richmond fauna of northeastern Illinois; Paleozoic life of North America.

Evans, Dr. John S(tone), 1276 Grand Prairie Road, Kalamazoo, Mich. *Endocrinology.* Sterling, Ill, Sept. 14, 10. B.S, West. Mich. Col. Educ, 33; Ph.D, Chicago, 39. Research chemist, Upjohn Co, 34–36; research assoc. biochem, Chicago, 37–39; *research chemist, Upjohn Co, 40–* A.A; Chem. Soc; Asn. Study Int. Secretions.

Evans, Prof. John W(ainwright, Jr), Mills College, Oakland, Calif. *Astronomy.* New York, N. Y, May 14, 09. A.B, Swarthmore Col, 32; Pennsylvania, 32–34; A.M, Harvard, 36, Ph.D, 38. Instr. astron, Minnesota, 37–38; *astron. and math, Mills Col,* 38–41, *asst. prof, 41–; optical research worker, Nat. Defense Research Cmt, 42–* Astron. Soc; Astron. Soc. Pacific. Optics; stellar statistics; application of optics to solar problems; space distribution of the stars; solar prominences and the instruments for observing them.

Evans, Prof. Joseph A(ndrew), Cornell University, Ithaca, N. Y. *Entomology.* Lawrence, Mass, Oct. 1, 04. B.S, Mass. State Col, 28; Ph.D, Cornell, 42. Asst. county agr. agent, N. Y. Exten. Service, 29–36; instr. *entom, exten, Cornell,* 36–43, *asst. prof, 43–* Asn. Econ. Entom. Economic entomology.

Evans, Prof. Joseph P(atrick), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Neurology.* La Crosse, Wis. A.B, Harvard, 25, M.D, 29; M.Sc, McGill, 30, Ph.D, 37. Surg. training, McGill and Chicago; Minnesota; Cambridge; Nat. Hosp, Queen Square, London, England; Neurologisches Forschungsinstitut Breslau; Rockefeller fellow, 35–36; asst. neurosurgeon and research fellow, Montreal Neurol. Inst, 37; asst. prof. *surg, col. med, Cincinnati,* 37–42, *assoc. prof, 42–, in charge neurol. surg, 37–* Asn. Research Nervous and Mental Disease; Soc. Neur. Physiol; Acad. Neurosurg. Neurology and allied fields.

Evans, Dr. J(oseph) S(pragg), University of Wisconsin Medical School, Madison, Wis. *Medicine.* West Chester, Pa, March 6, 75. A.B, Haverford Col, 95; M.D, Pennsylvania, 99. Instr. clin. med. and assoc, Pepper lab, Pennsylvania, 02-09; *prof. med, med. sch, Wisconsin, 09–* Col. Physicians; Col. Physicians Phila. Bacteriology; clinical medicine.

Evans, Dr. Lacey H(eintzman), 2010 E. Hennepin Ave, Minneapolis, Minn. *Chemistry.* Vancouver, B. C, Can, March 10, 02. B.S, Washington (Seattle), 25, M.S, 28, Ph.D, 32. Chemist, Sperry Flour Co, Vallejo, Calif, 37–39; *research chemist, Gen. Mills, Inc, 39–* A.A; Chem. Soc. Food materials.

Evans, Prof. L(lewellyn) T(homas), University of Denver, Denver, Colo. *Zoology.* Elizabeth, Colo, Sept. 15, 04. A.B, Denver, 25, A.M, 31; Ph.D, Harvard, 36. Teacher, high sch, Colo, 25–27; asst. prof. and head dept. biol, Robert Col, Istanbul, 27–33; Austin teaching fellow *zool,* Harvard, 34–35, asst, 35–36; nat. research fellow, 36–37; asst. prof, Montana, 37–39; Missouri, 39–41; *research assoc, Denver, 41–* Summer, Atkins scholar, Cuba, 36. Soc. Zool. Developmental mechanics and morphology of lizards; morphology and behavior of diurnal and nocturnal reptiles; hormonal effects upon behavior and anatomy of reptiles.

Evans, Prof. M(ildred) W(illiams), Wheaton College, Norton, Mass. *Organic chemistry.* South Easton, Mass, Aug. 18, 96. A.B, Radcliffe Col, 18, A.M, 27, Ph.D, 28. Anal. chemist, E. I. du Pont de Nemours and Co, 18; Gillette Safety Razor Co, 19; anal. and research chemist, Lehn and Fink, Inc, 20–24; from asst. prof. to *prof. chem. and head dept, Wheaton Col. (Mass), 29–* Research fellow, Radcliffe Col. A.A; Chem. Soc. Analysis of salicylic acid and other phenolic substances; rate of dissociation of certain dixanthyl derivatives; thymol iodide; analysis of zinc phenolsulfonate.

Evans, Morgan W(illiam), U. S. Department of Agriculture, Wooster, Ohio. *Agronomy.* Neath, Pa, Feb. 22, 79. B.S, Cornell, 06; M.S. George Washington, 20; research fellow, Oberlin Col, 27–28. Sci. asst, *U. S. Dept. Agr,* 07–18, asst. agronomist, 18–24, *assoc. agronomist, 24–; assoc. agron, Ohio Agr. Exp. Sta, 40–* A.A; Soc. Agron; Agr. Hist. Soc; Genetic Asn; Bot. Soc; Ecol. Soc; fel. Ohio Acad. Breeding of timothy; life history of grasses.

Evans, Prof. Nevil Norton, McGill University, Montreal, Que, Can. *Chemistry.* Montreal, Que, Sept. 28, 65. B.Sc, McGill, 86, M.Sc, 92, hon. LL.D, 36; Royal Sch. Mines, Freiberg, 89–90; Leipzig, 90–91. Demonstrator *chem, McGill,* 86–89, lecturer, 91–01, asst. prof, 01–07, assoc. prof, 07–28, prof, 28–36, *emer. prof, 36–* Lecturer, Nor. Sch. Montreal. Can. Inst. Chem. Rock and mineral analysis.

Evans, Prof. Newton (Gurdon), 1200 N. State St, Los Angeles, Calif. *Pathology.* Hamilton, Mo, June 1, 74. B.S, Union Col. (Nebr), 95; M.D, Cornell, 00. Instr. and *prof.* path. and histol, Am. Med. Missionary Col, 00–05; *path,* Tennessee, 08–11; *Col. of Med. Evangelists, 14–,* pres, 14–27, dean, 29–31, v. pres, 31–36. Pathologist, Los Angeles County Hosp, 28– Summer, pathologist, Michael Reese Hosp, Chicago, 08. A.A; Asn. Path. and Bact; Am. Med. Asn; Col. Physicians; Soc. Clin. Path; Los Angeles Cancer Soc. (pres, 36); Los Angeles Clin. and Path. Soc; Los Angeles Path. Soc. (pres, 29). Blastomycetic dermatitis; coccidioidal granuloma and blastomycosis of the central nervous system; brain tumors; nephritis from high protein diet; malignant myoma of the uterus; mitosis in malignant tumors; torula disease; coronary artery disease; symmetrical cortical necrosis of the kidneys; Laennec's cirrhosis of liver; carcinoma of the prostate; chorioepithelioma in the male.

Evans, Prof. Oren F(rank), University of Oklahoma, Norman, Okla. *Geology.* Shelby, Mich, 78. A.B, Albion Col, 10; A.M, Michigan, 20, Ph.D, 40. Teacher, high schs, 98–17; instr. math. and physics, Albion Col, 17–19; asst. prof. *geol, Oklahoma,* 20–39, *assoc. prof, 39–* Summers, Okla. Geol. Surv, 21, 22, 27. A.A; fel. Okla. Acad. (pres, 43). Oklahoma geology; stream erosion and control; ripple marks; wave forms; sedimentation in lakes; control of shore erosion.

Evans, Dr. R(alph) L(iggett), 250 E. 43rd St, New York, N. Y. *Chemistry.* Texarkana, Ark, April 15, 95. B.S, Chicago, 19; Ph.D, Columbia, 25. Lecturer, Columbia, 20–24; *chemist and exec,* Inecto, Inc, 23–28; *Marinello Corp, 28–* V. pres, Sales Affiliates, Inc, 29–; director, Evans Chems, Ltd, 38–; pres, Evans Chemetics, Inc, 40–; mem, Ralph L. Evans Associates, 41– A.A; Chem. Soc; Soc. Chem. Indust; Inst. Chem; Chemists Club. Organic chemistry.

Evans, Dr. R(aymond) N(orris), 52 Cambridge Ave, Garden City, N. Y. *Chemistry.* Scranton, Pa, Dec. 4, 97. B.S, Pa. State Col, 20; Ph.D, Yale, 26. Asst. prof. org. chem, Vermont, 26–28; *asst. research engineer and asst. director, system eng. dept, Brooklyn Edison Co, 28–* Chem. Soc; fel. Inst. Chem. Physical and organic chemistry.

Evans, Dr. R(ichard), University of Wisconsin, Madison, Wis. *Botany.* Ft. Wayne, Ind, June 24, 02. B.S, Purdue, 26; M.S, Wisconsin, 28, Ph.D, 31. Instr. *bot, Wisconsin,* 30–37, *asst. prof, 37–* A.A. Cytology of fungi; taxonomy of mosses.

Evans, R(obert) D(avid), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Electrical engineering.* Springwater, Wis, Oct. 14, 92. B.S, Oklahoma, 14, E.E. *Consulting transmission engineer, Westinghouse Elec. and Mfg. Co, 14–* Electrical circuit theory; stability and electrical transients of power systems.

Evans, Dr. Richard Edgar, 376 Mill Hill Road, Southport, Conn. *Physics.* Chillicothe, Ohio, Jan. 22, 08. A.B, Miami (Ohio), 30; M.S, Mass. Inst. Tech, 32, Ph.D, 36. Head physics and ballistics sect, research div, *Remington Arms Co, Inc,* 37–41, chief supervisor process eng. and control, 41–42, *asst. supt. product eng. and control, 42–* Spectrum of nickel in the extreme ultra-violet.

Evans, Dr. R(obert) J(ames), Utah State Agricultural College, Logan, Utah. *Agronomy.* Lehi, Utah, July 2, 81. B.S, Utah Col, 09; Ph.D, Cornell, 12. Dry farm investigations, 12–13; county agent leader and exten. agronomist, 13–20; exten. director, 20–24; farming, 24–31; *head dept. agron. and soils and sect. agronomist, Utah State Col, 31–* Soc. Agron. Alfalfa; pasture; clover; weeds.

Evans, Dr. Robert John, State College of Washington, Pullman, Wash. *Poultry nutrition.* Logan, Utah, March 18, 09. B.S, Utah State Agr. Col, 34, M.S, 36; Ph.D, Wisconsin, 39. Instr. chem. and physics, Carbon Col, 39–40; *asst. poultryman, State Col. Wash, 40–* Chem. Soc. Factors influencing the sulfur content of alfalfa; the metabolism of traces of fluorine in the diet; the effect of storage on egg quality.

Evans, Prof. Robley D(unglison), Massachusetts Institute of Technology, Cambridge, Mass. **Physics.* University Place, Nebr, May 18, 07. B.S, Calif. Inst. Tech, 28, M.S, 29, Ph.D,

32. Asst. eng, Calif. Inst. Tech, 28, hist, 27–30, 31–32, teaching fellow *physics*, 29–32; nat. research fellow, California, 32–34; asst. prof, *Mass. Inst. Tech*, 34–38, *assoc. prof, 38–* Director research lab, C. F. Braun and Co, Alhambra, Calif, 29–31; instr, Polytech. Sch, Pasadena, 31–32. Assoc. ed, 'Jour. Applied Physics.' Chairman cmt. standards of radioactivity, Nat. Research Council, 38– Theobald Smith medal, Am. Asn. Adv. Sci, 37. Chairman, Conf. Applied Nuclear Physics, 40. A.A; fel. Soc. Research Meteorites; fel. Physical Soc; Asn. Physics Teachers; Geophys. Union; hon. for. mem. Royal Sci. and Lit. Soc. Göteborg. Radioactivity; geologic and cosmic time scale; nuclear structure; biophysics; radium poisoning; applied nuclear physics.

Evans, Dr. S(olomon) D(avid), 5-C474 Pentagon Bldg, Washington, D. C. *Industrial psychology.* March 16, 97. A.B, Rio Grande Col, 24; A.M, Ohio State, 29, Ph.D, 36. Teacher, elementary sch, 16–18; prin, high sch, 21–24; sch. supt, 25–32; asst, Ohio State, 32–36; psychologist, State Bur. Juvenile Research, Ohio, 36–37; occupational analyst, occupational anal. sect, U. S. Employment Service, 37–42; *personnel technician, indust. personnel div, headquarters, Army Service Forces, 42–* A.A; Psychol. Asn; fel. Asn. Applied Psychol; Midwest Psychol. Asn; Ill. Soc. Consulting Psychol. Aptitude tests; trade tests; proficiency tests; development of testing programs.

Evans, Dr. Theodore W(illiam), 5500 Proctor Ave, Oakland, Calif. *Chemistry.* Aberdeen, Wash, June 26, 07. B.S, Col. of Puget Sound, 27; Denny fellow, Washington (Seattle), 28–29, pu Pont fellow, 29–30, Ph.D, 30. *Research chemist, Shell Develop. Co, Calif, 30–* Chem. Soc; Chem. Eng. Organic chemistry.

Evans, Prof. Thomas Horace, 350 S. Main St, Freeport, N. Y. *Anatomy.* Philadelphia, Pa, Oct. 2, 78. M.D, Pennsylvania, 99; Cornell, 14. Asst. demonstrator anat, Pennsylvania, 00–04; med. director, Christ's Hosp, Phila, 05–06; asst. physician neur. clinic, med. col, Cornell, 08–11; assoc. prof. *anat*, L. I. Col. Med, 12–38; *research prof, N. Y. Med. Col, 34–* Registrar, univ. hosp, Pennsylvania, 00–02; lecturer, Board Educ, New York, 32–; Friends' Sch, Brooklyn, 32–33. Subed. work, 'Gould's Year Books,' 00–02; 'Cunningham's Human Anat.' Instr, U. S. Marine Hosp. Corps, 18. A.A; Asn. Anat; Soc. Mammal; Asn. Biol. Teachers; Asn. Biol. Teachers N. Y. Anthropology; human morphology; concomitant groups of racial variation; sound and music; pedagogy.

Evans, Dr. Titus C(arr), Columbia University, New York, N. Y. *Zoology.* Lorena, Texas, Dec. 7, 07. A.B, Baylor, 29; M.S, Iowa, 31, Ph.D, 34. Asst. zool, Iowa, 29–34, research assoc, 34–36; asst. prof, Agr. and Mech. Col, Texas, 36–38; research asst. prof. *radiol*, Iowa, 38–43; *asst. prof, Columbia, 43–* A.A; Soc. Zool; Soc. Exp. Biol; Asn. Cancer Research; Texas Acad; Iowa Acad. Effects of roentgen radiation on respiration and development; radiosensitivity during development; secondary embryos and other abnormalities produced by roentgen radiation; experimental modification of radiosensitivity of mammalian tissues; effects of the medium on the radiosensitivity of cells.

Evans, Prof. W(ard) V(inton), Northwestern University, Evanston, Ill. *Physical chemistry.* Rawlinsville, Pa, June 8, 83. Ph.B, Franklin and Marshall Col, 07, Sc.D, 32; Ph.D, Columbia, 16. Asst. chem, Columbia, 15–16; instr, *Northwestern*, 16–17, *prof.* physical chem, 18–19, *chem, 19–, chairman dept.* Lieut, U.S.A, 17–18. Chem. Soc. (chairman, Chicago sect, 29, physics div, 29; mem. cmt. accrediting cols). Surface tensions of mutually soluble liquid systems; interatomic arrangements; detonation rates of high explosives; electromotive force of non-aqueous solvents; critical solution constants of furfurol; luminescent Grignard compounds; electrolysis and ionic nature of Grignard reagent; refrigeration.

Evans, Prof. W(eston) S(umner), 8 Kell St, Orono, Maine. *Civil engineering.* Standish, Maine, Nov. 14, 96. B.S, Maine, 18, M.S, 23. Field engineer, Great North. Paper Co, 19–20; instr. and asst. prof. *civil eng, Maine*, 20–29, assoc. prof, 29–34, *prof. and head dept, 34–* Civil Eng; Planning and Civic Asn. (pres, Maine chap, 39); Eng. Educ; Maine Asn. Eng. (pres, 39).

Evans, Dr. W(illiam) A(ugustus), Aberdeen, Miss. *Public health.* Marion, Ala, Aug. 5, 65. B.S, Miss. Agr. and Mech. Col, 83, M.S, 85; M.D, Tulane, 85, LL.D; M.D, Illinois, 99; Dr.P.H, Michigan. Demonstrator path, col. med, Illinois, 91–95, prof, 95–08; hygiene and sanit. science, *Northwestern*, 08–28, *emer. prof. pub. health, 28–* Commissioner health, Chicago, 07–11.

Evans, Prof. William Ellsworth, Jr, 4506 Seminole Ave, Baltimore, Md. *Pharmacology.* Brunswick, Md, Sept. 17, 05. B.S, George Washington, 28, fellow, 28–29, M.S, 29; Ph.D, Maryland, 36. Asst. *pharmacol, sch. med, Maryland*, 29–30, instr, 30–36, *asst. prof, 36–* Soc. Pharmacol. Metabolism of anhydrides of sugar alcohols; anesthetics; toxicology.

Evans, Prof. W(illia)m Lloyd, Ohio State University, Columbus, Ohio. ***Chemistry.* Columbus, Ohio, Dec. 22, 70. B.S, Ohio State, 92, fellow, 95–96, M.S, 96; Löwenthal fellow, Chicago, 04–05, Ph.D, 05. Chemist, Am. Encaustic Tile Co, Ohio, 92–94; asst. ceramics, Ohio State, 96–98; instr, high sch, Colo, 98–02; asst. prof. *chem, Ohio State*, 05–08, assoc. prof, 08–11, prof, 11–41, *emer. prof, 41–*, chairman dept, 28–41; *consulting chemist, carbohydrate div, nat. inst. health, U. S. Pub. Health Service, 43–* Lecturer, Starling-Ohio Med. Col, 11–15. Mem. cmt. on chem. and chem. tech, Nat. Research Council, 34–40. William H. Nichols medal, 29; medal, Am. Inst. Chemists, 42. Am. del, Int. Union Chem. Liége, 30. Major and director chem. lab. and inspection div, Edgewood Arsenal, C.W.S, 17–19. A.A. (councilor, C, 16); Chem. Soc. (chairman, org. div, 28, councilor-at-large, 34–40, pres, 41); Am. Acad; fel. Ohio Acad. (chairman, chem. sect, 32–34; pres, 40). Dissociation phenomena in aromatic carbinols; oxidation of organic compounds; mechanism of carbohydrate oxidation; reactions of carbohydrates in alkaline solutions.

Evaul, Dr. Edward E(verett), Soil Conservation Service, New Brunswick, N. J. *Agriculture.* Palmyra, N. J, April 27, 01. B.S, Rutgers, 25, M.S, 27, Ph.D, 32. Asst. agronomist, Exp. Sta, Rutgers, 25–28, assoc. turf management, 28–35; agronomist, *soil conservation service, U. S. Dept. Agr*, 35–42, *asst. state soil conservationist, N. J, 42–* Soc. Agron. Crops; fine turf; conservation.

Eveleth, Prof. Donald F(rancis), University of Arkansas, Fayetteville, Ark. *Veterinary science.* Salt Lake City, Utah, Nov. 3, 05. B.S, California, 28, A.M, 30; Ph.D, Western Reserve, 32; D.V.M, Iowa State Col, 34. Asst, Western Reserve, 30–32; Iowa State Col, 32–34, asst. prof. vet. research, 34–35, assoc. prof, 35–39; *prof. bacter. and vet. science and head dept, Arkansas, 39–* Soc. Biol. Chem; Vet. Med. Asn; Research Workers in Animal Diseases N. Amer; Ark. Vet. Med. Asn. Chemical pathology and physiology of the blood of animals; nutritional pathology of animals.

Evenden, J(ames) C(awston), U. S. Department of Agriculture, Coeur d'Alene, Idaho. *Entomology.* McMinnville, Oregon, June 19, 89. B.S, Oregon State Col, 14, F.E, 36. U. S. Forest Service, 12–14; *bur. entom. and plant quarantine, U. S. Dept. Agr, 14–, entomologist, forest insect investigations, and in charge forest insect field sta.* Asn. Econ. Entom; Soc. Foresters. Forest entomology.

Evenson, Oscar L, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Jackson, Minn, 81. B.S, St. Olaf Col, 05; A.M, Columbia, 13; George Washington, 15. Chemist, Oliver Iron Mining Co, 05–12; Clinton Sugar Ref. Co, 12; bur. chem, *U. S. Dept. Agr*, 14–27, *food and drug admin, 27–, assoc. chemist.* Chem. Soc; fel. Inst. Chem. Food colors and dyes; milk and milk powder.

Everest, Prof. F(rederick) Alton, 1011 Encino Row, Coronado, Calif. *Electrical engineering.* Gaston, Oregon, Nov. 22, 09. B.S, Oregon State Col, 32; E.E, Stanford, 36. Television engineer, Don Lee Broadcasting Co, 36; *asst. prof. elec. eng, Oregon State Col, 36–; engineer, Office Sci. Research and Develop, 41–* Assoc. Elec. Eng; assoc. Radio Eng. (student counselor, 41). Television video amplifiers; high efficiency radio-telephone transmitters; electric fence controllers; underwater acoustics; directional broadcast antenna arrays.

Everett, Dr. C(ornelius) J(oseph), 2554 Kendall, Madison, Wis. *Mathematics.* New Orleans, La, Sept. 19, 14. B.S, Tulane, 35; A.M, Wisconsin, 38, Ph.D, 40. Sterling research fellow *math*, Yale, 40–41; *instr*, Michigan, 41–42; *Wisconsin, 42–* Math. Soc. Abstract algebra; ring structure; vector spaces over rings; lattice ordered Abelian groups.

Everett, Prof. Franklin L(eland), University of Michigan, Ann Arbor, Mich. *Engineering.* Pontiac, Mich, June 10, 03. B.S.E, Michigan, 25, M.S.E, 29, Ph.D, 31. Engineer, gen. eng. dept, Standard Oil Co. of N. J, Elizabeth, 25–29; research assoc. eng. research, *Michigan*, 29–31, instr. *eng.*

mech, 31–36, *asst. prof, 36–; senior engineer, Office Sci. Research and Develop, applied physics lab, Hopkins, 42–* Partner, Ann Arbor Instrument Works. Eng. Educ. (exec. board, mech. div); Mech. Eng. Applied mechanics; strength of materials at high temperatures; fatigue of metals; stress analysis; mechanical properties of materials; engineering statics problems.

Everett, Prof. H(arold) A(rthur), Pennsylvania State College, State College, Pa. *Engineering.* Manchester, N. H, March 17, 80. B.S, Mass. Inst. Tech, 02; M.E, Pa. State Col, 25. Instr. and assoc. prof, Mass. Inst. Tech, 03–15; prof. marine eng, U. S. Naval Acad, 15–18; chief engineer and naval architect, Union Shipbuilding Co, Md, 18–22; *prof. thermodyn, Pa. State Col, 22–, head dept. mech. eng, 31–* Mech. Eng; Naval Archit; Eng. Educ; Inst. Aeronaut. Sci; Soc. Automotive Eng. Naval architecture; marine and mechanical engineering.

Everett, Prof. H(arry) S(heidy), University of Chicago, Chicago, Ill. *Mathematics.* Lehigh Co, Pa, Jan. 25, 91. A.B, Bucknell, 12, A.M, 13, M.S, 14; fellow, Chicago, 21–22, Ph.D, 22. Prof. applied math. and astron, Bucknell, 15–27, director observatory, 23–27; *exten. prof. math. and sec'y dept, Chicago, 27–* Prof, dept. home study, Chicago, 22–27; dean, cols, Chicago, Ill, 29–31; lecturer, Adler Planetarium, 33– Ed. board, 'Am. Math. Monthly,' 26–33. Math. Soc; Math. Asn. Algebra; expression of forms as determinants whose elements are forms.

Everett, Dr. H(ouston) S(pencer), 11 E. Chase St, Baltimore, Md. *Gynecology.* Richmond Co, N. C, June 27, 00. A.B, North Carolina, 20, A.M, 21; M.D, Hopkins, 25. Intern gynec, *Hopkins Hosp*, 25–26, asst. res, 26–29, res, 29–31, *asst. visiting gynecologist, 31–*, asst. *gynec, sch. med, Hopkins*, 26–29, instr, 29–40, assoc, 40–43, *assoc. prof, 43–* Pathologist, St. Agnes Hosp, 30–41; Bon Secours Hosp, 31–41; assoc, Maryland, 40– Am. Med. Asn; Urol. Soc; Gynec. Soc; South Med. Asn; Baltimore Med. Soc. Female urology; gynecological pathology; gynecological therapy.

Everett, Prof. James Roy, Colorado School of Mines, Golden, Colo. *Mathematics.* Brownsburg, Ind, Aug. 22, 85. A.B, Ind. State Nor. Sch, 15; A.M, Wisconsin, 16. Prin, high sch, Ill, 16–19; asst. prof. *math*, Baker, 19–20; instr, Carnegie Inst. Tech, 20–22; *assoc. prof, Colo. Sch. Mines, 22–* A.A; Math. Asn. Centrosurfaces of central quadrics; mathematics of gear cutting and of gear-cutting machines.

Everett, Dr. John W(endell), Box 3209, Duke Station, Durham, N. C. *Anatomy.* Ovid, Mich, March 5, 06. A.B, Olivet Col. (Mich), 28; Ph.D, Yale, 32. Instr. biol, Goucher Col, 30–31; *anat, Duke*, 32–35, assoc, 35–39, *asst. prof, 39–* A.A; Asn. Anat; Asn. Study Int. Secretions. Physiology of reproduction; placenta; ovary; persistent estrus; rat.

Everett, Prof. M(ark) R(euben), 1302 N. W. 21st St, Oklahoma City, Okla. *Biochemistry.* Slatington, Pa, Nov. 2, 99. Chem.E, Bucknell, 20; Ph.D, Harvard, 24. Teaching fellow, Harvard, 20–24; *prof.* biochem. and pharmacol, *Oklahoma, 24–35, biochem, 35–* A.A; Soc. Biol. Chem; Chem. Soc. (councilor, 34, pres, Okla. sect, 33); Soc. Exp. Biol; fel. Inst. Chem; fel. Okla. Acad. Chemistry and metabolism of the carbohydrates and phenols.

Everhart, Dr. W(illiam) Alfred, P. O. Box 564, Granville, Ohio. *Physical chemistry.* Bloomingburg, Ohio, Jan. 21, 91. A.B, Miami (Ohio), 14; M.S, Lehigh, 22; fellow, Ohio State, 25, Ph.D, 30. Instr, high schs, Ohio, 14–18; *chem*, Lehigh, 18–20; asst. prof. and *assoc. prof, Denison, 20–*, acting head dept, 30–31. Chem. Soc; Ohio Acad. Water analysis; molecular dimensions.

Evering, Dr. B(ernard) L(ewis), Standard Oil Co. of Indiana, Whiting, Ind. *Chemistry.* Baltimore, Md, Sept. 22, 08. A.B, Loyola Col. (Md), 30; Heidelberg, 32; Ph.D, Hopkins, 34. *Research chemist, Standard Oil Co. of Ind, 34–* Chem. Soc. Free radicals.

Everitt, Dr. Edward L(ewis), Georgetown University Dental School, Washington, D. C. *Physiological chemistry.* Sayre, Pa, Dec. 22, 05. B.S, Pa. State Col, 30, M.S, 31; Ph.D, Georgetown, 37. Instr. *physiol. chem*, dental and med. schs, *Georgetown*, 32–37, asst. prof, *dental sch*, 37–39, *prof, 39–, asst. prof, med. sch, 37–* A.A; Chem. Soc; assoc. Soc. Exp. Biol. Tryptophane determination; mold metabolism.

Everitt, Prof. W(illiam) L(ittell), 1616 N. Abington St, Arlington, Va. *Electrical engineering.* Baltimore, Md. April 14, 00. E.E, Cornell, 22; M.S, Michigan, 26; Ph.D, Ohio State, 33. Instr. elec. eng, Cornell, 20–22; engineer, North Elec. Mfg. Co, Ohio, 22–24; instr. *elec. eng*, Michigan, 24–26; asst. prof, *Ohio State*, 26–29, assoc. prof, 29–34, *prof, 34–; director operational research, office chief signal officer, U. S. War Dept.* Summers, engineer, dept. develop. and research, Am. Tel. and Tel. Co, 25–30. Mem, Nat. Defense Research Cmt, 40– Fel. Elec. Eng. (chairman, Columbus sect, 31, communication cmt, 37); fel. Radio Eng. (director, board editors, 42–); Eng. Educ; Acoustical Soc. Communication systems; high frequency transmission lines; vacuum tube detectors and amplifier; impedance matching networks; antenna models; radio frequency circuits.

Everly, Ray T(homas), Purdue Agricultural Experiment Station, West Lafayette, Ind. *Entomology.* St. Joseph, Mo, Aug. 29, 02. B.S, Ohio State, 28, M.S, 35. Agent, bur. plant indust, *U. S. Dept. Agr*, 26–29, junior entomologist, *bur. entom. and plant quarantine*, 29–42, *asst. entomologist, 42–* Entom. Soc; Asn. Econ. Entom; Ohio Acad. Taxonomy of the Carabidae; histology and morphology of the reproductive systems of the margined blister beetle; resistance of field corn to attack by the European corn borer; spiders and insects found associated with sweet corn.

Evers, Clifford F(rederick), 20 Beech Terrace, Millburn, N. J. *Chemistry.* Brooklyn, N. Y, July 27, 04. B.S, Michigan, 29. Asst. librarian, Worden Lab. and Library, 23–25; research chemist, Celluloid Corp. of Amer, 29–30; Gen. Foods Corp, Gloucester, Mass, 30–34; chief chemist, Ste. Pierre Smirnoff Fls, 34–37; *tech. adviser, Frosted Foods Sales Corp, 37–* Inst. Food Technol; Chem. Soc. Production of frozen foods.

Evers, Prof. C(ornelius), 125 W. First St, Pella, Iowa. *Biophysics.* Holland, Mich, 88. A.B, 10, M.S, 27. Sch. supt, 13–20; instr. math, Mich. State Col, 23–28; *prof. biol. and physics, Cent. Col. (Iowa), 28–* Math. Asn; Asn. Physics Teachers.

Evers, Dr. Dillon, 1036 Los Angeles Ave, Atlanta, Ga. *Metallurgy.* Iowa Falls, Iowa, May 2, 08. B.S, Iowa, 31, M.S, 32, Ph.D, 36. Asst. chem, Iowa, 34–36; *instr. metal, Ga. Tech, 36–* Summers, metallurgist, Rock Island Arsenal, Ill, 34–36. Action of sulfur on silver; etching of inconel.

Evers, Dr. E(rnest) Charles, Brown University, Providence, R. I. *Chemistry.* Denver, Colo, June 5, 16. B.S, N. Dak. Col, 37, M.S, 38; Ph.D, Brown, 41. *Research chemist, Brown, 40–* Chem. Soc. Interfacial tensions; conductance in non-aqueous solutions; general inorganic chemistry; physical chemistry.

Evers, Dr. William L(ewis), 13 E. Maple Ave, Moorestown, N. J. *Organic chemistry.* Pittsburgh, Pa, Aug. 13, 06. B.S, Akron, 28; Parke-Davis fellow, Northwestern, 28–29, M.S, 29; fellow, Pa. State Col, 29–31, Ph.D, 32. *Research chemist,* Socony-Vacuum Oil Co, 31–36; *Resinous Products and Chem. Co, Phila, 36–* Summers, chemist, B. F. Goodrich Co, 28, 30. Chem. Soc. Organic arsenicals; bromination, dehydration and rearrangement of organic tertiary alcohols; ozonization and identification of olefines; improvement of film strength of lubricating oils; resins.

Eversole, Dr. James F(rank), Linde Air Products Co, E. Park Drive and Woodward Ave, Tonawanda, N. Y. *Physical and organic chemistry.* Caledonia, Mo, Oct. 14, 03. A.B, Westminster Col. (Mo), 25; M.S, Iowa, 27, Ph.D, 28. Prof. physical chem, South Dakota, 28–29; *research chemist,* Carbide and Carbon Chem. Corp, Niagara Falls, 29–31, South Charleston, W. Va, 31–39; *Tonawanda, N. Y, labs, Linde Air Products Co, 39–* Electromotive force; adsorption by activated charcoal; organic synthesis.

Eversole, Dr. Wilburn J(ohn), Princeton University, Princeton, N. J. *Physiology.* Jackson, Ky, Oct. 29, 15. A.B, Berea Col, 36; M.S, N. Y. Univ, 38, Ph.D, 40. Teaching fellow, N. Y. Univ, 36–40, asst. instr. *biol*, 40–42; *instr. and research assoc, Princeton, 42–* Adrenal and gonad physiology; experimental shock.

Eversole, Prof. W(illiam) G(eorge), State University of Iowa, Iowa City, Iowa. *Physical chemistry.* Caledonia, Mo, June 9, 98. A.B, Westminster Col. (Mo), 20; M.S, Iowa, 22, Ph.D, 24. Instr. *chem*, sch. med, St. Louis, 24–28; asst. prof, *Iowa*, 28–35, *assoc. prof, 35–* Chem. Soc. (sec'y-treas, Iowa sect, 29, chairman, 31, councilor, 38–). Colloids; solutions; interfacial tension; diffusion.

Evert, Dr. Henry E(arl), 723 Sixth Ave, Laurel, Miss. *Organic chemistry.* Sherwood, Mich, March 2, 15. B.S, Mich. State Col, 37, M.S, 38; Ph.D, Iowa, 41. Asst. org. chem, Mich. State Col, 37–38; inorg. chem, Iowa, 38–39, sanit. chem, 39–40, storeroom asst, 40–41; *research chemist, Masonite Corp, 41–* Chem. Soc. Preparation of xylose from organic wastes and some derivatives of xylose; wood chemistry; sanitary chemistry.

Evjen, Dr. H(aakon) M(uus), 3423 Robinhood, Houston, Texas. *Physics.* Oslo, Norway, 04. E.E, Cornell, 26; A.M, Calif. Inst. Tech, 27, Ph.D, 29. Geophysicist, Gulf Oil Co, 29–31; nat. research fellow physics, Calif. Inst. Tech, 31–33; geophysicist, Shell Oil Co, 34–41; *tech. director, Elflex Co, 41–* A.A; Physical Soc; Soc. Explor. Geophys. Electrolytes; crystals; geophysics.

Evvard, Prof. John M(arcus), Casita Querida, 317 W. Cypress St, Phoenix, Ariz. *Animal husbandry and nutrition.* Saunemin, Ill, Nov. 6, 84. B.S.A, Illinois, 07; M.S, Missouri, 09; Ph.D, Arizona, 27. Asst. city ed, 'Pontiac Daily Sentinel,' 04; asst. to dean col. agr, Missouri, and asst. to director, Exp. Sta, 07–10; asst. chief animal husbandry, Exp. Sta, Iowa State Col, 10–14, in charge sect. and chief swine production, 11–29, chief animal nutrition, 11–19, chief sheep and beef cattle production, 19–29, assoc. prof. animal husbandry, col, 16–18, prof, 18–30; educ. and research director and later head research dept. and assoc. educ. div, *Allied Mills, Inc, Chicago,* 29–33, *exec. on leave of absence, 33–;* prof. agr. and head dept, Ariz. State Teachers Col, Tempe, 35–37; *consultant in applied nutrition and feeding problems.* Instr, Arizona, 22; special asst, office of sec'y agr, U. S. Dept. Agr, 22–24. Cor. ed, 'Farm and Fireside,' 24–30. Mem, Farmers Live Stock Marketing Cmt. of 15; U. S. Live Stock Indust. Cmn, 17; chairman swine cmn. and advisory cmt. on swine, Food Admin, 17–18. A.A; Soc. Animal Production (v. pres, 16, pres, 18); fel. Iowa Acad. Foods and dietetics; feeds; applied nutrition.

Ewart, Dr. William H, Box 763, Crystal City, Texas. *Economic entomology.* Radersburgh, Mont, March 8, 13. A.B, Ohio State, 36, M.S, 37; Ph.D, Cornell, 41. Asst. entom, Cornell, 37–42; *entomologist, Texas Agr. Exp. Sta, Winter Haven, 42–* Asn. Econ. Entom. Biology and control of various insect pests in the winter garden area of Texas.

Ewell, Prof. Arthur W(oolsey), Worcester Polytechnic Institute, Worcester, Mass. *²Physics.* Bradford, Mass, Oct. 20, 73. A.B, Yale, 97, Sloane fellow, 97–99, Ph.D, 99; Hopkins, 99–00; Berlin, 04. Asst. *physics,* Yale, 97–99; instr, *Worcester Polytech,* 00–04, asst. prof, 04–10, *prof, 10–,* director dept, 36–39. Lecturer, Mass. Inst. Tech; consulting refrig. engineer; mem. research staff, Westinghouse Elec. and Mfg. Co. Trustee and v. pres, Governor Dummer Acad. Capt, major and head bomb unit, A.S; tech. expert aerial bombs, War Dept; lieut. col, O.R.C. Fel. Physical Soc; Soc. Refrig. Eng. (director; chairman publication cmt); Am. Acad; Newcomen Soc; Soc. française de Physique. Artificial optical rotatory polarization; magnetic double refraction; electrolytic electrode potentials; current-potential curves of glow discharge; explosive waves; priming of steam; low temperature hygrometry; production, decomposition and quantitative determination of ozone; ozone and ultra-violet light in cold storage and air-conditioning; storage and ripening of meat; cold storage technique.

Ewell, Prof. R(aymond) H(enry), Apt. 209, 1801 16th St, N. W, Washington, D. C. *Chemistry.* Brockton, Mass, June 18, 08. B.S, Toledo, 28; M.S, Purdue, 35; A.M, George Washington, 35; Plaut research fellow, Princeton, 36–37, Ph.D, 37. Asst. chem, Purdue, 28–30; junior chemist and petrographer, ceramics, div, Bur. Standards, 30–35; asst. *chem,* Princeton, 35–36; instr, *Purdue,* 37–39, *asst. prof, 39–; senior tech. aide, Nat. Defense Research Cmt, 41–* Chem. Soc; Soc. Rheol. (v. pres, 39–41). Applied chemical thermodynamics; equilibrium in organic reactions; distillation; azeotropes; viscosity and plasticity; viscosity of solutions; silicates; clay minerals.

Ewer, Prof. Bernard C(apen), 706 Indian Hill Blvd, Claremont, Calif. *Psychology.* Vernon, Conn, Oct. 5, 77. A.B, Brown, 99, A.M, 00; Ph.D, Harvard, 04. Instr. and asst. prof. philos, Northwestern, 05–11; prof, Reed Col, 11–15; acting prof, Brown, 15–16; *prof. psychol, Pomona Col, 16–* Summers, lecturer, Stanford, 22; Oregon, 24. Extrasensory perception.

Ewer, Dr. S(eth) Judson, Massachusetts State College, Amherst, Mass. *Botany.* Springfield, Mass, June 15, 05. B.S, Mass. State Col, 28; M.S, Illinois, 30; Ph.D, Rutgers, 34. Instr. *bot, Mass. State Col,* 38–41, tech. asst, 41–42, *instr, 42–* A.A. Comparative morphology of the pteridophytes, particularly the lycopods and ferns.

Ewerhardt, Dr. F(rank) H(enry), Washington University School of Medicine, St. Louis, Mo. *Medicine.* Sheboygan, Wis, Jan. 25, 77. M.D, Washington (St. Louis), 10. Director physical educ, *Washington (St. Louis),* 05–12, *assoc. prof. physical therapeut. and surgeon, dept. orthop, sch. med, 14–* A.A; Am. Med. Asn; Cong. Physical Therapy (past pres); Soc. Physical Therapy Physicians (pres, 40); St. Louis Acad. Scoliosis and posture; therapeutic exercise in medicine; physical therapy; technique and application of deep-seated heat; treatment of the female pelvis.

Ewers, Dr. Lela A(rminda), Cottey College, Nevada, Mo. *Zoology.* Fredericktown, Ohio, Feb. 27, 93. A.B, Ohio (Athens), 16, B.S, 17; M.S, Ohio State, 23, Ph.D, 29. Instr, high sch, W. Va, 20–22, 23–25; asst. zool, Ohio State, 25–30; *instr. physiol,* Ill. State Nor. Univ, 31–32; North. Ill. State Teachers Col, 32–33; *Cottey Col, 33–* Asst. aquatic biologist, Div. Conservation, Ohio, 29–31. A.A; Limnol. Soc; Fisheries Soc; Student Health Asn; Mo. Acad. Fresh-water Crustacea; larval development of fresh-water Copepoda; food of young commercial fishes of Lake Erie and Buckeye Lake, Ohio.

Ewing, Prof. Alfred M, 3008 Ave. D, Ft. Worth, Texas. *Chemical education.* Gallipolis, Ohio, Aug. 10, 00. A.B, Rio Grande Col, 21; A.M, Ohio State, 23, M.S, 28; Colorado. Instr. chem, Ohio Northern, 28–30; chemist, U. S. Dept. Agr, Lake City, Fla, 34–35; *prof. chem, Texas Wesleyan, 35–* Chem. Soc; Texas Acad. Consumer education.

Ewing, Dr. Douglas H(ancock), 58 Foster Road, Belmont, Mass. *Physics.* Mitchell, Ind, June 24, 15. A.B, Butler, 35; M.S, Rochester, 37, Ph.D, 39. Asst, Rochester, 35–39; instr. *physics, Smith Col,* 39–41, *asst. prof, 41–* Research assoc, Mass. Inst. Tech, 41– Physical Soc. Theory of solids; nuclear physics.

Ewing, Prof. D(ressel) D(ewitt), 321 University St, West Lafayette, Ind. *Engineering.* Vanlue, Ohio, Oct. 7, 83. E.E, Ohio Northern, 05, M.E, 06, D.E, 36; Purdue, 12–13. Asst. engineer, Mo. Pacific Ry, 06–07; prof. elec-mech. eng, Ohio Northern, 07–12; asst. prof. and assoc. prof. *elec. eng, Purdue,* 12–18, *prof, 18–* Consulting engineer, 10–; director, Duncan Elec. Mfg. Co. Trustee, Ohio Northern. Fel. Elec. Eng; Eng. Educ; Transit Asn; Ind. Eng. Soc. (pres, 31). Electric railway engineering; electric power transmission.

Ewing, Prof. Dwight T, Michigan State College, East Lansing, Mich. *Chemistry.* Iowa. B.S, Parsons Col, 11; M.S, Chicago, 15, du Pont fellow, 18–19, Ph.D, 20. Asst. prof. chem, *Mich. State Col,* 14–23, assoc. prof, 23–30, *prof. physical chem, 30–* Summer, asst, Chicago, 18. A.A; Physical Soc; Optical Soc; Chem. Soc. (chairman, Mich. sect); Electrochem. Soc. Adsorption; electrometric titration of uranium salts; density of charcoals; surface energy; electromotive force of hydrobromic acid concentration cells; electrolytic chromium; state of water in silica gel; spectrograph analysis; physico-chemical methods applied to vitamins; absorption spectra vitamin K and A; electro-chemical preparations; oxidred potential of cerium.

Ewing, Dr. Galen W(ood), 48 Broadway, Rensselaer, N. Y. *Physical chemistry.* Boston, Mass, March 14, 14. B.S, Col. of William and Mary, 36; Ph.D, Chicago, 39. Prof. chem, Blackburn Col, 39–42, head dept. physics, 40–42; *research physical chemist, Winthrop Chem. Co, 42–* Summer, instr, Col. of William and Mary, 41. Chem. Soc. Calorimetry; absorption spectrophotometry.

Ewing, Prof. George M(cNaught), University of Missouri, Columbia, Mo. *Mathematics.* Lexington, Mo, Sept. 30, 07. A.B, Missouri, 29, A.M, 30, Ph.D, 35. Instr. *math, Missouri,* 30–39, *asst. prof, 39–* Instr, Princeton, 40–41; mem, Inst. Advanced Study, 40–41. Math. Soc; Math. Asn. The calculus of variations.

Ewing, Dr. H(enry) E(llsworth), U. S. National Museum, Washington, D. C. *Entomology.* Arcola, Ill, Feb. 11, 83. Knox Col, 02–04; A.B, Illinois, 06, A.M, 08; Chicago, 06–07; Schuyler fellow, Cornell, 10–11, Ph.D, 11. Asst. biol, Knox Col, 03–04; zool, Illinois, 07–08; teacher, high sch, 08–09; asst. zool, Iowa State Col, 09–10; entom, Exp. Sta, Oregon State Col, 11–14; asst. prof, Iowa State Col, 14–16, assoc. prof, 16–19; specialist in Arachnida, *bur. entom. and plant quaran-*

tine, U. S. Dept. Agr, 19–23, assoc. entomologist, 23–30, *entomologist, 30–* A.A; Entom. Soc; Asn. Econ. Entom; Soc. Mammal; Soc. Ichthyol. and Herp; Soc. Parasitol; Ecol. Soc; Iowa Acad; Iowa Ornith. Union; Ill. Acad; Entom. Soc. Wash. (pres, 41); Helminth. Soc. Wash. (pres, 31); Wash. Acad. Arachnida; animal parasites; primitive orders of arthropods.

Ewing, Dr. Paul L(eon), 1502 17th St, Galveston, Texas. *Pharmacology.* Bridgeton, N. J, June 15, 04. A.B, Milton Col, 26; M.S, Illinois, 29, Ph.D, 34. Asst, chem. lab, Battle Creek Sanitarium, 26; instr, high sch, Wis, 26–27; med, col. med, Illinois, 27–30, assoc. *pharmacol,* 30–36, asst. prof, 36–41; assoc, *med. sch, Texas,* 41–43, *asst. prof, 43–* Soc. Pharmacol. and Exp. Therapeut. Iron in anemias; ultraviolet irradiation of sympathomimetics; effect of drugs on blood sugar; digitalis; commercial ethylene; alcohol metabolism.

Ewing, Dr. Scott (Preston), Bureau of Ships, U. S. Navy Department, Washington, D. C. *Physics.* Smithfield, Utah, May 20, 98. B.S, Utah Col, 20; Ph.D, California, 25. Asst. physics, Utah Col, 17–20; teaching fellow, California, 21–25; instr, Lehigh, 25–26; junior physicist, Bur. Standards, 26–28, research assoc. pipe castings and soil corrosion, Am. Gas Asn, 28–40; electrolysis engineer, Panama Canal, 40–41; *metallurgist, bur. ships, Navy Dept, 41–* Summers, soil technologist, bur. soils, U. S. Dept. Agr, and Bur. Reclamation, 20–22, 23–26. A.A; Physical Soc. Determination of number of molecules in gas by measurement of light-scattering coefficient; cathodic protection, coatings, electrolysis and corrosion.

Ewing, Prof. T(homas) N(ewell), Ohio Northern University, Ada, Ohio. *Social psychology.* Decatur, Ill, Nov. 6, 13. A.B, DePauw, 35; A.M, Syracuse, 37; Ph.D, Duke, 40. *Asst. prof. psychol, Ohio Northern, 39–* Assoc. Psychol. Asn. Factors involved in changes of opinion.

Ewing, Prof. Warren W(alter), Lehigh University, Bethlehem, Pa. *Physical chemistry.* Winterset, Iowa, Nov. 4, 89. B.S, Parsons Col, 12; M.S, Chicago, 18, Ph.D, 20. Teacher, high sch, India, 12–16; asst. chem, Chicago, 19; asst. prof. *physical chem, Lehigh,* 20–27, assoc. prof, 27–37, *prof, 37–* C.W.S, U.S.A, 18. A.A; Chem. Soc. Surface tension of mercury; activation of chlorine; electrolytic calomel; equilibria of hydrated salts; adsorption.

Ewing, Prof. (William) Maurice, Lehigh University, Bethlehem, Pa. *Physics.* Lockney, Texas, May 12, 06. A.B, Rice Inst, 26, A.M, 27, Ph.D, 31. Instr. *physics,* Pittsburgh, 29–30; *Lehigh,* 30–36, asst. prof, 36–40, *assoc. prof, 40–* Guggenheim Mem. Foundation fellow, 38–40; research assoc, Oceanog. Inst, Woods Hole, 40– Am. Geophys. Union gravity exped, 36–37. Chief scientist, U. S. Navy, lieut, U. S. Naval Reserve, 38– A.A; Math. Soc; Geol. Soc; Am. Geog. Soc; Physical Soc; Geophys. Union; Soc. Explor. Geophys; Seismol. Soc; Min. and Metal. Eng; Pa, Acad; N. Y. Acad; Bermuda Biol. Soc. Research. Geophysics; electrical properties of insulating waxes; seismic, electrical, magnetic and gravitational surveys; structure of continental shelves and oceanic basins; gravity at sea; photography of the ocean bottom; development of oceanographic instruments.

Exline, Paul G(ettis), Box 2038, Pittsburgh, Pa. *Physics.* Midvale, Ohio, April 18, 03. B.S, Mt. Union Col, 27; M.S, Pittsburgh, 33. Physicist, Koppers Research Corp, 28–32; *engineer, Gulf Research and Develop. Co, 33–* Indust. fellow, Mellon Inst, 30–32. A.A; Mech. Eng; Soc. Measurement and Control; Pittsburgh Physical Soc. Applied physics; lubrication; instrument design.

Exner, Frank M(etcalf), 4136 Abbott Ave, S, Minneapolis, Minn. *Physics.* Madelia, Minn, April 8, 98. A.B, Carleton Col, 19; A.M, Yale, 28. Asst. physics, Peking Union Med. Col, 22–24, instr, 24–25; assoc, Columbia, 30–42; *physicist, aero div, Minneapolis Honeywell Regulator Co, 42–* A.A; Physical Soc; Asn. Physics Teachers. Use of x-rays in biological investigations; problems related to radiotherapy; aeronautical instruments.

Exner, Prof. Franz F(rederick), Carleton College, Northfield, Minn. *Chemistry.* Silesia, Austria, March 23, 68. A.B, Carleton Col, 95; Ph.D, Pennsylvania, 03. Teacher, high schs, Minn, 95–00; instr. gen. chem, Pennsylvania, 01–02; prof. *chem, Carleton Col,* 03–41, *emer. prof, 41–* A.A; Chem. Soc. Complex inorganic acids of tungsten trioxide, vanadium trioxide and phosphorus pentoxide; purification of tungsten and its atomic weight; halids of tungsten; rapid precipitation of metals by electrolysis; determination of lead in baking powders and of ferric oxide in phosphate rocks; quantitative sublimation; catalytic dehydration of amides to nitriles; rapid electroanalysis in a boiling cell.

Eyer, Dr. John R(obert), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Biology, Entomology.* Dayton, Ohio, March 15, 95. A.B, Cornell, 17; M.S, Pa. State Col, 22; Ph.D, Minnesota, 24. Instr. entom, Pa. State Col, 19–22; asst. parasitol. and econ. entom, Minnesota, 22–24; entomologist, bur. plant indust, Dept. Agr, Pa, 24–27; asst. prof. *biol, N. Mex. Col,* 27–30, *assoc. prof, 30–, entomologist, Exp. Sta, 30–* Asst. plant quarantine inspector, 28. Phytopath. Soc; fel. Entom. Soc. Amer; Asn. Econ. Entom. Economic entomology; codling moth traps and insecticides; dusting and spraying for insect pests of Irish potatoes; insect pests and diseases of New Mexico crops; culture media for onion root maggot; Microlepidoptera.

Eyerman, John, 1851 N. Normandie Ave, Hollywood, Calif. *Chemistry, Mineralogy, Mining.* Easton, Pa, Jan. 15, 67. Lafayette Col, 84–87; Harvard, 87; Princeton, 88–94. Lecturer determinative miner, Lafayette Col, 87–92; assoc. ed, 'Jour. Anal. Chem'; 'Am. Geologist,' 89–99; chief research chemist, Kemet Labs; *consulting geologist.* Fel. Miner. Soc. Mining geology and ore deposits; vertebrate paleontology; mineralogical chemistry; rare earths and precious and rare metals; Temnocyon; Hypotemnodon; zirconium; tungsten; tantalum; glucinum; vanadium; molybdenum; gold; silver.

Eyre, F(rancis) H(owlett), U. S. Forest Service, St. Paul, Minn. *Forestry.* Little Valley, N. Y, April 12, 98. B.S, Michigan, 22. Junior forester, *U. S. Forest Service,* 22–24, asst. forest supervisor, 25–26, assoc. silviculturist, 27–30, silviculturist, *Lakes States Forest Exp. Sta,* 31–37, *senior silviculturist, 37–* Silviculture.

Eyre, Prof. Mary B(rooks), 1134 College Ave, Claremont, Calif. *Psychology.* Florence, N. J, Jan. 7, 76. Swarthmore Col; Columbia; Colorado; A.B, Stanford, 22, A.M, 23. Supt. nurses, St. Luke's Hosp, Denver, 01–05; mem, State Board Nurse Examiners, Colo, 06–21, sec'y, 06–13; asst. inspector, State Board Health, Calif, 18–19; director nursing sch, Minnequa Hosp, Pueblo, and Univ. Colo, 19–21; educ. director nursing sch, California, 23–24; asst. prof. psychol, *Pomona Col,* 24–30, assoc. prof, 30–31, *consultant, student mental hygiene, 24–, Scripps Col, 24–, prof. psychol, 31–* Ed, 'Colo. Nursing News.' A.A; assoc. Psychol. Asn; West. Psychol. Asn. Child guidance and psychology; nursing education; mental hygiene; emotion in tuberculosis; psychology and mental hygiene for nurses; intelligence of diabetic children.

Eyre, Prof. Thomas T(aylor), University of Southern California, Los Angeles, Calif. *Engineering.* Dolington, Pa, Jan. 8, 83. B.S, Purdue, 05, M.E, 27. Instr, Purdue, 05–13; asst. prof. applied mech. and hydraul, Case, 13–14; Purdue, 14–17, 19–20; dean eng, New Mexico, 20–26; *prof. mech. eng, Southern California, 26–* Capt, C.Eng, 17–19. Mech. Eng; Eng. Educ. Physical properties of adobe used as a building material.

Eyring, Dean Carl F(erdinand), 827 N. University Ave, Provo, Utah. *Physics.* Colonia Juárez, Chihuahua, Mex, Aug. 30, 89. A.B, Brigham Young, 12; A.M, Wisconsin, 15; Columbia, 19; Chicago, 20; Ph.D, Calif. Inst. Tech, 24. Instr. physics, Brigham Young, 12–14; asst, Wisconsin, 14–15; Calif. Inst. Tech, 22–23; asst. prof. *physics and math, Brigham Young,* 15–16, *prof, 16–, dean col. arts and sciences, 24–; physicist, Nat. Defense Research Cmt, 41–* Acoustical engineer, Bell Tel. Labs, 29–31; pres, New Eng. mission, Latter Day Saints Church, 37–39. Science and research div, A.S, 18. A.A; Physical Soc; Acoustical Soc; Utah Acad. (pres, 23). Determination of Ne for hydrogen from measurements of Brownian movements; the pulling of electrons out of metals by intense electrical fields; reverberation time in coupled and in dead rooms; residual sound in reverberant rooms; calculation of the average coefficient of sound absorption.

Eyring, Prof. Henry, Princeton University, Princeton, N. J. *°*Physical chemistry.* Colonia Juárez, Chihuahua, Mex, Feb. 20, 01. B.S, Arizona, 23, Ariz. Bur. Mines fellow, 23–24, M.S, 24; Ph.D, California, 27. Instr. *chem,* Arizona, 24–25; teaching fellow, California, 25–27; instr, Wisconsin, 27–28, research assoc, 28–29; nat. research fellow, Berlin, 29–30; lecturer, California, 30–31; research assoc, *Princeton,* 31–36, assoc. prof, 36–38, *prof, 38–* Am. Asn. Adv. Sci. award, 33. A.A; Chem. Soc; Philos. Soc. Ionization of gases by alpha particles; reaction rates; application of quantum mechanics and statistical mechanics to chemistry; theory of liquids.

Eyster, Dr. Eugene H(enderson), 4800 Forbes St, Pittsburgh, Pa. *Physical chemistry, Physics.* Wheaton, Minn, March 21, 14. Ch.B, Minnesota, 35; Ph.D, Calif. Inst. Tech, 38. Teaching fellow chem, Calif. Inst. Tech, 35–38; nat. research fellow, Michigan, 38–40; *George Ellery Hale fellow radiation chem, Calif. Inst. Tech, 40–, instr. explosives, eng. defense training course, 41–; mem. staff, explosives research lab, U. S. Bur. Mines, 42–* Chem. Soc. Molecular spectra of diatomic and polyatomic molecules; electron diffraction.

Eyster, Prof. H(enry) Clyde, University of South Dakota, Vermillion, S. Dak. *Botany.* Dornsife, Pa, July 10, 10. A.B, Bucknell, 32; A.M, Illinois, 34, fellow, 35–36, Ph.D, 36. Asst, Illinois, 32–35; instr. plant physiol, N. C. State Col, 36–37, *asst. prof. bot. and head dept, South Dakota, 37–* Summers, asst, Carnegie Institution, Cold Spring Harbor, 34–37. A.A; Bot. Soc; Soc. Plant Physiol; Genetics Soc; S. Dak. Acad. Plant physiology; genetics; influence of soaking on vitality of seeds; conditioning process for seeds; mechanism of enzymes, auxins and vitamins.

Eyster, Prof. J(ohn) A(ugustine) E(nglish), University of Wisconsin, Madison, Wis. **3Physiology, Pharmacology.* Augusta Co, Va, July 31, 81. B.S, Maryland, 99; Hopkins, 99–01, M.D, 05, fellow, 05–06; Freiburg, 06. Asst. physiol, Hopkins, 06–07, instr, 07–08, assoc, 08–09; *prof.* pharmacol, Virginia, 09–11; *physiol, Wisconsin, 11–* Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Am. Physicians; Am. Med. Asn. Physiology of respiration and circulation.

Eyster, Prof. William H(enry), Bucknell University, Lewisburg, Pa. *Genetics.* Fishers Ferry, Pa, July 13, 89. A.B, Bucknell, 14, A.M, 15; Ph.D, Cornell, 20. Instr. biol, Pa. State Forest Acad, 14–16; nat. science and head dept. science, Cortland State Nor. and Training Sch, N. Y, 16–18; asst. plant breeding, Cornell, 18–19, instr. bot, 19–20; asst. prof, Missouri, 20–24; prof, Maine, 24–27; Guggenheim Mem. Foundation fellow, 27–28; *prof. bot, Bucknell, 28–, research prof. genetics and director research, Bucknell Alumni Research Foundation.* Genetic consultant, W. Atlee Burpee Co, Phila. A.A; Genetic Asn; Bot. Soc; Soc. Nat; Soc. Plant Physiol; Torrey Bot. Club; N. Y. Acad; Pa. Acad. Genetics of maize; creating new horticultural varieties of flowering plants and hybrid corns.

Ezekiel, Dr. Mordecai (Joseph Brill), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Richmond, Va, May 10, 99. B.S, Maryland, 18; M.S, Minnesota, 23; Ph.D, Robert Brookings Institution, 26. Junior agr. economist, bur. agr. econ, U. S. Dept. Agr, 22–23, asst. agr. economist, 23–25, assoc. agr. economist, 25, agr. economist, 25–27, senior agr. economist, 27–29; asst. chief economist, Fed. Farm Board, 30–33; *econ. adviser to sec'y agr, U. S. Dept. Agr, 33–; exec. asst. to v. chairman, War Production Board, 42–* Guggenheim Mem. Foundation fellow, Europe, 30–31. Farm Econ. Asn; Econ. Asn; Statist. Asn; Econometric Soc. Multiple and multiple curvilinear correlation; farm organization and production; quantitative analysis of the forces affecting demand and price of individual commodities; agricultural adjustment and farm relief legislation; economic policies.

Ezekiel, Dr. Walter N(aphtali), Agricultural and Mechanical College of Texas, College Station, Texas. *Plant pathology.* Richmond, Va, April 26, 01. B.S, Maryland, 20, M.S, 21, Ph.D, 24. Asst. plant pathologist, Exp. Sta, Maryland, 20–25; nat. research fellow bot, Minnesota, 25–27; agent, bur. plant indust, U. S. Dept. Agr, 27–28; *mem. grad. faculty, Agr. and Mech. Col. Texas and plant pathologist, Exp. Sta, 28–* A.A; Phytopath. Soc. (exec. councilor, south. sect, 32); Mycol. Soc; Texas Acad. Phymatotrichum root-rot; cotton diseases; physiology of parasitism; fruit-rotting Sclerotinias.

Ezell, Boyce D(eWitt), U. S. Horticultural Station, Beltsville, Md. *Horticulture.* Spartanburg, S. C, June 5, 99. B.S, Clemson Col, 24; M.S, Mich. State Col, 26. Asst. hort, Mich. State Col, 24–26; instr, Clemson Col, 26–28; asst. horticulturist, field lab, *bur. plant indust, U. S. Dept. Agr,* Wenatchee, Wash, 28–41, *assoc. physiologist, hort. field sta, 41–* A.A; Soc. Hort. Sci; Chem. Soc; Soc. Plant Physiol. Plant physiology; fruit maturity, handling and storage.

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Faber, Dr. E(dgar) M(cCreary), Edgewood Arsenal, Edgewood, Md. *Organic chemistry.* Gettysburg, Pa, April 21, 90. B.S, Gettysburg Col, 14; Ph.D, Hopkins, 17. Research chemist, E. I. du Pont de Nemours and Co, 17–21; *Edgewood Arsenal,* 21–29, *chief org. dept, 29–* Chem. Soc. Development of manufacturing processes; esterification; organic synthesis.

Faber, Dr. Harold K(niest), Stanford University School of Medicine, San Francisco, Calif. *Pediatrics.* Westfield, N. Y, June 19, 84. A.B, Harvard, 06; M.D, Michigan, 11. Res. pathologist, Babies Hosp, N. Y, 13–14; fellow, Rockefeller Inst, 14–15; instr. and asst. prof, *sch. med, Stanford,* 15–23, *prof. pediat, 23–* A.A; Pediat. Soc; Soc. Exp. Biol. Blood pressure in childhood; standard weight tables for children; oxycephaly; poliomyelitis; eczema; growth of children; congenital syphilis; cerebral atrophy; coccidioidomycosis.

Fabian, Prof. F(rederick) W(illiam), Michigan State College, East Lansing, Mich. *Bacteriology, Hygiene.* Diamond, Pa, March 26, 88. B.S, Allegheny Col, 14; M.S, Mich. State Col, 24; Ph.D, Yale, 29. Asst. chem, Allegheny Col, 13–14; head dept. science, high sch, Pa, 14–15; Board Health, Detroit, 16–17; hygienic dept, Ford Motor Co, 16; assoc. prof. bacter. and hygiene and research assoc, *Mich. State Col,* 17–41, *research prof. bacter, 41–* 2nd lieut, M.C, 18. A.A; Soc. Bact; fel. Pub. Health Asn. (chairman cmt. frozen desserts, 39–; food and nutrition sect, 40); Inst. Food Technol; Chem. Soc; Dairy Sci. Asn; Mich. Acad. (chairman, sanit. sect, 35); Mich. Pub. Health Asn; Int. Asn. Dairy and Milk Inspectors; Int. Asn. Milk Sanitarians (pres, 41). Fermentation; ice cream manufacture; vinegar; pickles; honey; maple syrup.

Fabricius, Dr. N(els) E(jner), Golden State Co, San Francisco, Calif. *Dairy industry.* Audubon, Iowa, July 20, 04. B.S, Iowa State Col, 28, M.S, 30, Ph.D, 36. Instr. dairy indust, Iowa State Col, 28–43; *mem. staff, Golden State Co, 43–* Buttermakers Asn. Strawberries for ice cream manufacture; bacteria in ice cream; factors influencing the flavor and keeping quality of butter.

Fabyan, Dr. Marshal, 379 Commonwealth Ave, Boston, Mass. *Pathology.* Brookline, Mass, Feb. 17, 79. A.B, Harvard, 00, M.D, 04. Intern, Mass. Gen. Hosp, 04–05; asst. res. physician, Hopkins Hosp, 06–07; instr. comp. path, Harvard Med. Sch, 09–12, asst. prof, 12–32. Asn. Path. and Bact. Comparative pathology.

Fadum, Dr. Ralph E(gil), Harvard University, Cambridge, Mass. *Civil engineering.* Pittsburgh, Pa, July 19, 12. B.S, Illinois, 35; M.S, Harvard, 37, Sc.D, 41. *Instr. civil eng, Harvard, 41–* Civil Eng. Building settlements.

Faessler, Prof. Carl, 250 Parc Champoux, Quebec, Que, Can. *Mineralogy, Geology, Petrography.* Steinen, Switzerland, Sept. 24, 95. Certificate, Maria-Hilf Col, Switzerland; Ph.D, Univ. Fribourg, 23. *Prof. miner, Laval, 23–; visiting prof, Montreal, 41–* Geologist, Que. Bur. Mines. Miner. Soc; Geol. Soc; N. Y. Acad; Can. Inst. Min. and Metal; Schweiz. Geol. Gesell. Geology of north shore of St. Lawrence River and Côte de Beaupré; anorthosites; minerals of Grenville formation.

Fagan, Prof. F(rank) N(elson), Pennsylvania State College, State College, Pa. *Horticulture.* Richmond, Ind, Sept. 29, 88. B.S, Ohio State, 10. Farm manager, Everett Ranch, Texas, 10–11; inspector nurseries and orchards, State Dept. Agr, Columbus, Ohio, 11–12; asst. prof. and *prof. pomol, Pa. State Col, 12–* A.A; Soc. Hort. Sci. Pomology; propagation of tree nursery stock; orchard pest control; pruning and shaping fruit trees; orchard soil management.

Fagan, Prof. Leo B(ernard), 15 N. Grand Blvd, St. Louis, Mo. *Educational psychology.* Marion, Iowa, Feb. 18, 99. A.B, Creighton, 25; A.M, Iowa, 27, Ph.D, 29. Asst. clin. psychol, Iowa, 27–29, asst. prof. psychol. and speech path, 29–31; *assoc. prof. educ. psychol, St. Louis, 31–* Psychologist, St. Louis Psychiat. Child Guidance Clinic. Psychol. Asn; fel. Speech Correction Asn; Mo. Acad. Bodily tonus; reflexes during stuttering; relation of dextral training to speech, reading and writing; graphic stuttering; re-education of the speech of stutterers; mental and learning traits of correction children; academic causation of delinquency.

Fager, Dr. E(dward) W(illiam), Yale University, New Haven, Conn. *Organic chemistry.* Calif, April 2, 17. A.B, Yale, 39, Ph.D, 42. *Instr. elementary gen. chem, Yale, 41–* Chem. Soc. Chemistry of organic compounds containing sulphur.

Fagerstrom, Prof. W(illiam) H(enry), 706 Riverside Drive, New York, N. Y. *Mathematics.* Bucatunna, Miss, March 24, 93. A.B, Tulane, 24; A.M, Columbia, 27, Ph.D, 33.

Instr, high sch, Ala, 16–29; *math, Col. City of N. Y, 30–* Mem. faculty, Manhattanville Col. of Sacred Heart, 33; Manhattan Col, 41–42. Summers, head dept. math, Ala. Col, 28, prof, Ala. Polytech, 29; lecturer, Southern California, 41. Math. Asn. Fundamental processes prerequisite to the study of calculus.

Fahey, Prof. Charlotte W(ieghard), Skidmore College, Saratoga Springs, N. Y. *Organic chemistry.* St. Louis, Mo, Oct. 3, 09. A.B, Washington (St. Louis), 30, M.S, 31; Ph.D, Yale, 37. Asst. applied biochem, sch. med, Washington (St. Louis), 31–34; asst. prof. *chem, Skidmore Col*, 37–39, *assoc. prof, 39–* Summer, asst, Harvard, 41. Chem. Soc; Physical Soc. Bacterial polysaccharides; immunochemistry; lipids of the tubercle bacillus; naphthoquinones.

Fahey, Dr. John J, Loyola University School of Medicine, Chicago, Ill. *Anatomy.* Freemansburg, W. Va, Sept. 8, 06. M.D, Ohio State, 31. Intern, St. Francis Hosp. and Chicago Lying-In Hosp, Evanston, Ill, 31–32; res. surgeon, Mercy Hosp, Baltimore, Md, 33–34; asst. surg, univ. clinics, Chicago, 34–36; prof. anat, Mississippi, 36; *assoc. bone and joint surg, med. sch, Loyola, 37–; attending orthop. surgeon, St. Francis Hosp, Evanston, Ill, 37–* Fel. Col. Surg; fel. Acad. Orthop. Surg. Congenital abnormalities of bone; fate of horn and tendon transplants in bone; circulation at the upper end of the femur.

Fahey, Joseph J(ohn), 1601 Monroe St, N. E. Washington, D. C. *Chemistry.* Massena, N. Y, July 30, 01. Catholic Univ, 19–21; George Washington, 21–25. Lab. asst. chem, bur. pub. roads, U. S. Dept. Agr, 22–27; junior chemist, *U. S. Geol. Surv*, 27–31, asst. chemist, 31–40, assoc. geochemist, 40–41, *geochemist, 41–* Fel. Miner. Soc; Chem. Soc; Wash. Acad. Geochemistry; optical mineralogy.

Fahnestock, Prof. M(aurice) K(endall), University of Illinois, Urbana, Ill. *Mechanical engineering.* Wanda, Ill, April 7, 00. B.S, Illinois, 24, M.S, 30. Mech. engineer, Roxana Petrol. Corp, 24–26; research asst. prof. and *research assoc. prof. mech. eng, Illinois, 26–* Heat. and Vent. Eng. Heating; ventilating; air conditioning; effect of atmospheric environment on the human organism.

Fahr, Prof. G(eorge), University of Minnesota Medical School, Minneapolis, Minn. *Physiology, Internal medicine.* Meadville, Pa, Jan. 25, 82. B.S, 04; M.D, Wurzburg, 09. Asst. physiol, Wurzburg, 07–10; Leiden, 11–13; instr. *med*, Wisconsin, 19–21; assoc. prof. and *prof, med. sch, Minnesota, 23–* Physiology of muscle; electrophysiology; diseases of the heart; edema of nephritis.

Fahrenwald, Prof. A(rthur) W(illiam), University of Idaho, Moscow, Idaho. *Metallurgy.* Yankton, S. Dak, May 22, 90. B.S, S. Dak. Sch. Mines, 14, Met.E, 16; E.M, N. Mex. Sch. Mines, 16. Prof. mining and metal, N. Mex. Sch. Mines, 15–17; engineer, Phelps Dodge Corp, Ariz, 17–18; instr. and head dept. science, high sch, Mont, 18–19; metal, Idaho Sch. Mines, 19–20; engineer ore dressing, U. S. Bur. Mines, 20–28; *dean sch. mines, Idaho, 28–29, 34–, prof. metal. and head dept. mining and metal, 29–;* director metal. research, *Idaho Bur. Mines and Geol*, 29–34, *director, 34–* Min. and Metal. Eng. Ore grinding and classification; concentration of ores by flotation and gravity.

Fahy, Frank P, 31 Sidney St, New Rochelle, N. Y. *Physics.* New Haven, Conn, May 5, 82. Ph.B, Yale, 02. Gen. Elec. Co, 02–04; Pa. R. R. Co, 04–16; *private research, 16–* Research assoc, Bur. Standards, 11–16. John Scott medal, 18. Soc. Test. Mat. (chairman, cmt. on magnetic anal, 22–26); fel. Elec. Eng. Electrical engineering; ferromagnetism; magnetic testing and research apparatus.

Faig, John Theodore, 3345 Whitfield Ave, Cincinnati, Ohio. *Engineering, Education.* Lexington, Ky, Feb. 5, 75. B.M.E, Kentucky, 94, M.E, 97. Draftsman, Lane and Bodley Co, 94–96; instr. eng, Michigan, 96–98; asst. prof. and prof, Kentucky, 98–06; prof. mech. eng. and head dept, Cincinnati, 06–18; *pres. depts, Ohio Mechanics Inst, 18–* Mem, Am. Eng. Council, 24–27; pres, United City Planning Cmt. of Cincinnati, 27–28. Int. jury awards, Pan-Pacific Expos, 15. In charge S.A.T.C, Ohio Mechanics Inst, 18; supervised training, ex-service men, Veterans' Bur, 19–25. A.A; Mech. Eng; Eng. Educ; Newcomen Soc, London. Education and training for industries.

Faigenbaum, Prof. Harold M(orris), 1 St. Paul's Place, Troy, N. Y. *Chemistry.* Watervliet, N. Y, Sept. 4, 02. Chem.E, Rensselaer Polytech, 23, Ph.D, 26. Instr. *chem, Rensselaer Polytech*, 26–30, asst. prof, 30–40, *prof, 40–* Chief chemist and consultant, State Biol. Surv, N. Y, 29–40. Chem. Soc. Industrial and physical chemistry; water pollution; petroleum technology; fungi.

Faigle, Prof. Eric Henry, Syracuse University, Syracuse, N. Y. *Geography.* Hancock, N. Y, Aug. 16, 00. B.S, Syracuse, 28, M.S, 30; Ph.D, Michigan, 35. Asst. prof. *geog, Syracuse*, 35–40, *assoc. prof, 40–*, admin. asst, *col. lib. arts*, 40–42, *asst. dean, 42–* Summers, lecturer, British Columbia, 38, 39. Urban geography; land use of Syracuse; teacher-student relationships.

Falley, Dr. C(rawford) F(airbanks), University of Chicago, Chicago, Ill. *Chemistry.* Terre Haute, Ind, Jan. 30, 00. Ph.B, Yale, 21; Ph.D, California, 26. Instr. pharmacol, sch. med, Hopkins, 29–30; asst. prof. biochem, Columbia, 30–37; *research assoc. pharmacol, Chicago, 42–* Soc. Biol. Chem; Chem. Soc. Thermodynamics of aqueous solutions.

Failla, Dr. G(ioacchino), 4740 Iselin Ave, New York 63, N. Y. *Radiology, Physics.* Italy, July 19, 91. E.E, Columbia, 15, President's scholar, 16–17, univ. fellow, 17, A.M, 17; D.Sc, Paris, 23. Physicist, Mem. Hosp, New York, 15–42; *research assoc. physics, Columbia, 36–, prof. radiol. and director radiol. research lab, col. physicians and surg, 43–* Physicist, Marine Biol. Lab, Woods Hole, 31–; consultant, U. S. Pub. Health Service, 38; research assoc, metal. lab, Chicago, 42–; asst. prof, col. med, Cornell, 41–42; consultant, U. S. Veterans Admin, 42. Ed. cmt, 'Cancer Research,' 42. Examiner, Am. Board Radiol. Leonard prize, Am. Roentgen Ray Soc, 23, 25; Janeway medal, Am. Radium Soc, 39. Am. Physical Soc. rep, Int. Cong. Radiol, London, 25, Am. Radium Soc. del, Zurich, 34, chairman radiophysics sect. and hon. chairman int. cmt. radiol. units, Chicago, 37; chairman biophys. sect, Int. Cancer Cong, Atlantic City, 39. Asst. to sci. attaché, Am. Embassy, Rome, 18–19. A.A; Radiol. Soc. N. Amer; Radium Soc; fel. Physical Soc; Optical Soc; Roentgen Ray Soc; N. Y. Elec. Soc. (pres, 40); N. Y. Acad. Radium and x-rays; correlation of physical properties and biological effects of radium and x-rays.

Fain, Dr. J(acob) Mitchell, 305 Washington St, Brooklyn, N. Y. *Chemistry, Chemical engineering.* Brooklyn, N. Y, Sept. 15, 01. A.B, Columbia, 21, Chem.E, 23, Ph.D, 32. Asst. supt, Neidich Elec. Mfg. Co, 24–26; chemist, Flintkote Co, 26–31; *consulting chemist, 31–; Foster D. Snell, Inc, 33–* Major, C.W.S.R. Chem. Soc; Inst. Chem. Eng. Applied chemistry; industrial colloids; pigmentation of bitumens; protective coatings; tooth discoloration; artificial aging of spirits.

Fain, Prof. John R(ichard), University of Georgia, Athens, Ga. *Agronomy.* Jefferson City, Tenn. B.S, Tennessee, 00; hon. Sc.D, Georgia, 21. Supt. farm, Tennessee, 98–04; asst. prof. *agron*, Va. Polytech, 04–07; *prof, Georgia, 07–* A.A; Soc. Agron; Farm Econ. Asn. (pres, 19). Farm economics.

Fair, Prof. Fred C(harles), New York University, University Heights, New York, N. Y. *Chemical engineering.* Redkey, Ind, Feb. 7, 97. B.S, Carnegie Inst. Tech, 19; A.M, Columbia, 23; Ph.D, N. Y. Univ, 34. Steel chemist, McConway Torley Co, 15–17; research chemist, Cent. Ry. Signal Co, 20–23; instr. chem. and chem. eng, *N. Y. Univ*, 24–42, *asst. prof. chem. eng, 42–* Chem. Soc; Chem. Eng; Soc. Metals. Ignition temperatures; color of flames; flow of liquids; dezincification and steel heat treatment.

Fair, Prof. Gordon M(askew), 7 Scott St, Cambridge, Mass. *Sanitary science.* Burghersdorp, Union S. Africa, July 27, 94. Mass. Inst. Tech; B.S, Harvard, 16; hon. M.S, Tufts Col, 34. Instr, *Harvard*, 18–21, 22–26, asst. prof, 26–29, assoc. prof. sanit. eng, 29–35, *Gordon McKay prof. sanit. eng, 35–, Abbott and James Lawrence prof. eng, 38–* Asst. director sanit, Red Cross Societies, Switzerland, 21; research director, Cleveland Health Council, 22. Can. Army, 16–17. A.A; fel. Pub. Health Asn; Water Works Asn; Civil Eng; Geophys. Union; Eng. Educ; fel. Am. Acad; New Eng. Water Works Asn; New Eng. Sewage Works Asn; Boston Soc. Civil Eng. Sanitation of water supplies and sewerage systems.

Fair, Dr. W(illiam) F(rancis), Jr, Mellon Institute, Pittsburgh, Pa. *Chemistry.* South Natick, Mass, Nov. 11, 03. A.B, Harvard, 25; A.M, Columbia, 27, Ph.D, 30. Research chemist, Boyce Thompson Inst, 29; Barrett Co, New York, 29–31, 32; Bridges Paving Co, St. Louis, 31–32; prof. chem, Col. of Sacred Heart (N. Y), 32–37; *fellow, Mellon Inst, 37–* Chem. Soc. (councilor, New York sect, 37); Soc. Test. Mat; Rheol. Soc. (v. pres, 41–43). Colloid chemistry; rheology

Fairbairn, Prof. H(arold) W(illiams), Massachusetts Institute of Technology, Cambridge, Mass. *Geology.* Ottawa, Ont, Can, July 10, 06. B.Sc, Queen's (Can), 29; Wisconsin, 30; A.M, Harvard, 31, Ph.D, 32. Field asst, Geol. Surv. Can, 26–32; Royal Soc. Can, traveling fellow, Innsbruck, Göttingen and Berlin, 32–34; instr. miner, Queen's (Can), 34–37; asst. prof. and later *assoc. prof. petrog, Mass. Inst. Tech, 37–* Field geologist, Ont. Dept. Mines, 35–39; Que. Dept. Mines, 40– Fel. Geol. Soc; fel. Miner. Soc. Structural geology and petrology; mineralogy.

Fairbank, H(erbert) S(inclair), Public Roads Administration, Federal Works Agency, Washington, D. C. *Highway engineering.* Baltimore, Md, Sept. 16, 88. C.E, Cornell, 10. Student civil engineer, bur. pub. roads, U. S. Dept. Agr, 10–11, junior engineer, 11–12, highway engineer, 12–16, senior highway engineer, 16–28, prin. highway engineer, 28–39, *pub. roads admin, Fed. Works Agency,* 39–41, *chief highway engineer, 41–, chairman research cmt, 27–* Director statewide highway planning surveys, 35– U. S. del, 7th Int. Road Cong, Munich. Asn. State Highway Officials; Int. Asn. Road Congresses (mem, permanent int. cmn, 31–33, 36). Highway economics; highway transportation; highway system planning.

Fairbanks, Prof. B(erthler) W(esley), University of Illinois, Urbana, Ill. *Animal husbandry.* Chicago, Ill, Jan. 10, 94. B.S, Illinois, 17, Ph.D, 35; M.S, Wyoming, 31. Asst. prof. animal husbandry, Colo. Agr. Col, 19–24, assoc. prof, 28–33, live-stock specialist, exten. service, 24–28; special research asst. animal nutrition, *Illinois,* 33–39, *prof. swine husbandry, 39–* Lieut, U.S.A, 17–19. A.A; Soc. Animal Production. Effect of heat upon nutritive value of proteins with special reference to dry skim milk; calcium and protein metabolism; comparison of dry skim milk with other sources of calcium; protein levels for swine; water soluble vitamins in swine nutrition.

Fairbanks, Prof. Floyd C(ooper), University of Rochester, Rochester, N. Y. *Physics.* Williamson, N. Y, Nov. 27, 73. A.B, Rochester, 01, 04–05; Cornell, 05–06. Instr, high sch, N. Y, 01–04; *physics,* Drexel Inst, 06–14, senior instr, 14–18; asst. prof, *Rochester,* 18–34, *prof, 34–* A.A; Physical Soc; Optical Soc; Rochester Acad. (pres, 30–). Heat of vaporization of liquid air; density of rocks from deep mines.

Fairbanks, Dr. H(arold) W(ellman), 137 Surf St, Ocean Park, Calif. *Geology, Geography.* Conewango, N. Y, Aug. 29, 60. B.S, Michigan, 90; Ph.D, California, 96. State Mining Bur, Calif, 90–94; asst, U. S. Geol. Surv, 95–96; independent research geol, 96–10; *writer and lecturer geog, 10–* Asn. Geog; Am. Geog. Soc. School geography; mining geology; geography of California.

Fairchild, Dr. (Alexander) G(raham) B(ell), Gorgas Memorial Laboratory, Panama, Republic of Panama. *Entomology.* Washington, D. C, Aug. 17, 06. B.S, Harvard, 32, M.S, 34, Ph.D, 42. Asst. entomologist, Exp. Sta, Florida, 34–35; entomologist, yellow fever service, int. health div, Rockefeller Foundation, 35–37; *junior med. entomologist, Gorgas Mem. Lab, 38–* Soc. Trop. Med; Entom. Soc. Amer. Taxonomy of arthropods of medical importance; insects affecting man and animals, especially Tabanidae, Simuliidae, Psychodidae and Ixodidae.

Fairchild, C(harles) O(wen), C. J. Tagliabue Mfg. Co, Brooklyn, N. Y. *Physics.* Marinette, Wis, Feb. 27, 90. B.S, Rose Polytech, 12, M.S, 20. Chem. engineer, West. Chem. Mfg. Co, 12–14; Bur. Standards, 15–26, assoc. physicist, 19–20, physicist, 20–26; research engineer and *director research, C. J. Tagliabue Mfg. Co, 26–* Mem. science advisory cmt, A Century of Progress Expos, Chicago, 30. Chairman advisory cmt. temperature symposium, Inst. Physics, 39–40. Physical Soc; Optical Soc; Ceramic Soc; Soc. Metals. Thermometry; pyrometry; temperature control.

Fairchild, Dr. David (Grandison), 4013 Douglas Road, Coconut Grove, Fla. *[1]Botany, Agriculture.* Agricultural College, Mich, April 7, 69. B.S, Kans. State Col, 88, M.S, 93, Sc.D; Naples Zool. Sta, 93; Breslau and Berlin, 94; Bonn, 95; Buitenzorg Bot. Gardens, 96; Ph.D, Oberlin Col, 16; hon. Sc.D, Florida. 2nd asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 89–92, asst. pathologist, div. veg. path, 92–93; special agent and organizer in charge sect. seed and plant introd, 97–98, agr. explorer, 98–03, in charge office, 03–28, senior agr. explorer, 28–33, *collaborator, div. for. plant introd, 33–* Asst. to Barbour Lathrop on expeds. in search of valuable seeds and plants, 98–00, 01–03; sci. leader, Allison V. Armour exped, 25–27, 30, 32; Fairchild Garden exped, Molukka Islands, 40. George Robert White medal, 30; Harvard Travelers Club medal, 31; bronze medal, Soc. d'Acclimatation de France; Hartley pub. welfare gold medal, Nat. Acad, 33; Meyer medal, Am. Genetic Asn. A.A; Bot. Soc. (councilor, 14–16); Genetic Asn. (pres, 13–); Pomol. Soc; Soc. Nat; Asn. Prom. Teaching Speech to Deaf (hon. director); Int. Asn. Bot. Plant diseases; microscopic fungi and marine algae; introduction into America of valuable seeds and plants.

Fairchild, Prof. Fred R(ogers), 35 Rogers Road, Hamden, Conn. *Economics.* Crete, Nebr, Aug. 5, 77. A.B, Doane Col, 98, LL.D, 29; Ph.D, Yale, 04. Instr. *polit. econ, Yale,* 04–08, asst. prof, 08–13, *prof, 13–* Expert taxation, U. S. Forest Service, 08–14, 25–38, director forest taxation inquiry, 25–35; tax adviser, Santo Domingo, 17–18; Colombia, 23; Hawaii, 30–31. Mem. Cmn. Taxation of Corporations, Conn, 11–13; Nat. Cmt. Inheritance Taxation, 25; chairman, Special Tax Cmn, Conn, 33–35. Econ. Asn; Nat. Tax Asn. (sec'y, 16–18, v. pres, 28, pres, 29). Factory legislation of New York; taxation of timber-lands; Connecticut tax system; essentials of economics; forest taxation.

Fairchild, Prof. H(erman) L(eRoy), 106 Winterroth St, Rochester, N. Y. *[1]Geology.* Montrose, Pa, April 29, 50. B.S, Cornell, 74; hon. Sc.D, Pittsburgh, 10. Teacher, Wyoming Sem, Pa, 74–76; lecturer, New York private schs. and Cooper Union, 77–88; prof. *geol, Rochester,* 88–20, *emer. prof, 20–* Ad interim prof, Vassar Col, 78; asst. and expert, N. Y. Geol. Surv, 06–20. A.A. (gen. sec'y, 94, v. pres, 98); Geol. Soc. (sec'y, 91–06, pres, 12); N. Y. Acad. (sec'y, 85–88); Rochester Acad. (pres, 89–18); hon. and cor. mem. of various other societies. Pleistocene geology.

Fairchild, J(ohn) G, U. S. Geological Survey, Washington, D. C. *Chemistry.* Monticello, N. Y, May, 82. A.B, Cornell, 03. *Chemist,* Nichols Copper Co, 06–09; *U. S. Geol. Surv, 09–* Chemist, insecticide and fungicide board, U. S. Dept. Agr, 15–17. Chem. Soc; fel. Miner. Soc. Mineralogical chemistry; tin; tungsten; improvement in analysis of strategic minerals.

Faires, Prof. V(irgil) M(oring), Agricultural and Mechanical College of Texas, College Station, Texas. *Machine design.* Gainesville, Fla, Dec. 8, 97. B.S, Colorado, 22, M.E, 26, M.S, 27. Instr, Colorado, 22–26; asst. prof. *mech. eng,* Vermont, 26–27; *Agr. and Mech. Col. Texas,* 27–29, assoc. prof, 29–30, *prof, 30–* Mech. Eng; Eng. Educ. Mechanism; elementary and applied thermodynamics; design of machine elements; analytic mechanics.

Fairfield, Prof. John G(uthrie), 75 Euclid Ave, Troy, N. Y. *Mechanical engineering.* Bedford, Mass, Aug. 1, 93. B.S, Mass. Inst. Tech, 16; M.S, Rensselaer Polytech, 37. Instr. mech. eng, *Rensselaer Polytech,* 16–20, asst. prof, 20–25, *prof. heat. eng, 25–* A.A; Mech. Eng; Eng. Educ. Thermodynamics; heat engineering.

Fairhall, Dr. L(awrence) T(urner), 407 Fairfax Road, Bethesda, Md. *Chemistry.* Chicago, Ill, Aug. 30, 88. B.S, Illinois, 11, M.S, 12; A.M, Harvard, 15, Ph.D, 18. Austin teaching fellow, Harvard, 13–14, head asst. chem, 14–17, faculty instr, Harvard Med. Sch, 21–24, sch. pub. health, Harvard, 24–27, asst. prof, 27–37; *prin. indust. toxicologist, nat. inst. health, U. S. Pub. Health Service, 37–* U.S.A, 17–19, O.R.C. A.A; Chem. Soc; Soc. Biol. Chem; fel. Royal Micros. Soc. Equilibrium of iridium amines; specific heats of dilute solutions; the system lead oxide-phosphoric anhydride-water; microchemical methods for analysis of lead, copper, zinc, nickel and cadmium; industrial toxicology.

Fairley, Dr. Arthur S(amuel), South Brooksville, Maine. *Astronomy.* Roseland, N. J, Oct. 29, 01. A.B, Amherst Col, 23, A.M, 25; Thaw fellow, Princeton, 26–27, Ph.D, 27. Instr. physics, Amherst Col, 23–24; prof. astron, Cent. Col. (Mo), 27–28; instr, Yerkes Observatory, Chicago, 28–32; teacher, high sch, New York, 32–36; *prin, high sch, Brooksville, 36–* Astron. Soc. Astrophysics; stellar photometry.

Fairlie, Andrew M(iller), 22 Marietta St, Atlanta, Ga. *Chemical engineering.* Glasgow, Scotland, Feb. 11, 77. A.B, Harvard, 00. Chief chemist, Tenn. Copper Co, 06–07, asst. supt. acid dept, 08–16, supt, 16–17; chem. engineer, 17–18; *consulting chem. engineer, 18–* Chem. Soc; Chem. Eng; Inst. Metals (sec'y, 07). Design, construction, operation and equipment of sulfuric acid plants; water-cooled sulfuric acid chambers; manufacture of sulfuric acid.

Fairman, Prof. Seibert, Purdue University, West Lafayette, Ind. *Mechanics.* Wakefield, Kans, Sept. 12, 96. B.S, Kans.

State Col, 19, M.E, 24; M.S, Purdue, 23. Turbine eng. dept, Gen. Elec. Co, Lynn, Mass, 19–21; assoc. prof. *applied mech, Purdue, 21–40, prof, 40–* Eng. Educ. (councilor, 41–); Mech. Eng. Graphic statics; engineering mechanics.

Faith, Prof. W(illiam) L(awrence), State University of Iowa, Iowa City, Iowa. *Chemical engineering.* Hancock, Md, May 12, 07. B.S, Maryland, 28; M.S, Illinois, 29, Ph.D, 32. Asst. chem. eng, eng. exp. sta, Illinois, 31–33; research chemist, Nat. Aluminate Corp, Chicago, 33; asst. prof. *chem. eng,* Kans. State Col, 33–36, prof, 36–42, head dept, 39–42; *prof. and head div, Iowa, 42–; consultant, chem. industries branch, office production research and develop, War Production Board, 42–* Chemist, U. S. Indust. Chem. Co, Baltimore, Md, 26, 27, summers, 26, 29. Chem. Soc; Chem. Eng; Eng. Educ. Catalytic oxidation of organic compounds; engineering analysis of organic chemical processes.

Fajans, Prof. Kasimir, University of Michigan, Ann Arbor, Mich. **[7]*Physical chemistry.* Warsaw, Poland, May 27, 87. Leipzig, 04–07; Ph.D, Heidelberg, 09; Zurich, 10; Manchester, 11. Asst. and privat-docent physical chem, Tech. Hochschule, Karlsruhe, Germany, 11–17; prof. and director inst. physical chem, Munich, 17–35; *prof. chem, Michigan, 36–* Non-res. lecturer, Cornell, 30. Co-editor, 'Zeitschrift für Kristallographie,' 24–39. A.A; Physical Soc; Chem. Soc; Faraday Soc; hon. mem. Royal Inst; Akad. Wissensch. Munich; hon. mem. Chem. Soc. Karlsruhe; hon. mem. Soc. Española Física y Química; hon. mem. Soc. Doctors Madrid; Acad. Sci. Leningrad; Acad. Sci. Cracow. General chemistry; radioactivity; isotopes; thermochemistry; theory of chemical forces; photochemistry; light absorption; refractivity; solutions of electrolytes; adsorption; volumetric analysis.

Fajardo, Dr. Tranquilino G(anzon), Bureau of Plant Industry, Manila, P. I. *Plant pathology.* Binalonan, Pangasinan, P. I, July 6, 99. B.S. (Agr), M.S, Idaho, 24; Ph.D, Wisconsin, 30. Instr. bot. and plant path, Oregon State Col, 28–29; *plant pathologist,* Bur. Science and *Bur. Plant Indust, P. I, 29–* Nat. Research Council, P. I, 35. Phytopath. Soc; Wis. Acad; P. I. Sci. Soc; Philippine Soc. Adv. Research. Mosaic diseases of the bean and properties of the mosaic virus; mosaic disease of sincamas; root knot nematode, sclerotium stem rot and bacterial wilt of the tomato in the Philippines.

Fales, Prof. Doris E(dna), College of William and Mary, Richmond, Va. *Embryology.* Worcester, Mass, Oct. 23, 02. A.B, Mt. Holyoke Col, 25; A.M, Western Reserve, 27; fellow, Yale, 29–30, Ph.D, 31. Asst, Western Reserve, 25–27; Yale, 28–29; Albertus Magnus Col, 28–30; instr. *biol, Richmond Professional Inst, Col. of William and Mary,* 31–33, asst. prof, 33–35, *assoc. prof, 35–, chairman dept. science.* A.A. Experimental embryology; light receptive organs of barnacles; pronephros of Amblystoma punctatum; relative growth of earthworm setae.

Fales, E(lisha) N(oel), Civil Aeronautics Administration, Washington, D. C. *Aeronautics.* Lake Forest, Ill, Dec. 23, 87. A.B, Harvard, 08; B.S, Mass. Inst. Tech, 11; Lake Forest Col; Armour Inst. Tech. Prof. aeronaut, Illinois, 16–17; *aeronaut. engineer.* Inst. Aeronaut. Sci. Wind tunnel design; tip vortex formation in airplanes; high lift coefficients of wings; airplane stability; propeller fans and windmills; effect of sound waves on vortical flow in aerodynamics.

Fales, Prof. Harold A(thelstane), Columbia University, New York, N. Y. *Chemistry.* Brooklyn, N. Y, Aug. 5, 82. B.S, Polytech. Inst. Brooklyn, 11; A.M, Columbia, 14, Ph.D, 16. Instr. *chem, Columbia,* 13–19, asst. prof, 19–23, assoc. prof, 23–29, *prof, 29–, acting director chem. labs, 41–* A.A; Chem. Soc; Math. Soc. Analytical and physical chemistry; thermodynamics.

Fales, Dr. W(illiam) Thurber, Municipal Bldg, Baltimore, Md. *Statistics, Epidemiology.* Milford, Mass, April 29, 94. B.S, Massachusetts, 17; C.P.H, Harvard, 20; Sc.D, Hopkins, 24. Health officer, Glen Ridge, N. J, 17; instr. epidemiol, Hopkins, 20–24; state registrar and director bur. vital statist, State Board Health, Ala, 24–34; *director bur. vital statist, Health Dept, Baltimore, 34–* Assoc. sanitarian, Framingham Tuber. Demonstration, 17; munic. pub. health admin, Pub. Health Asn, 21; special mem, int. health div, Rockefeller Foundation, as consultant to Ministry of Health, Bucharest, Roumania, 31–32; Md. state supervisor, Nat. Health Inventory, U. S. Pub. Health Service, 35; lecturer biostatist, Hopkins, 36– U. S. del, Int. Conf. Revision of Int. List of Causes of Death, Paris, 38. Sergt, M.C, 17–19. A.A; Statist. Asn; fel. Pub. Health Asn. (chairman, vital statist. sect, 29–31). Vital statistics.

Falk, Mrs. C(arolyn) R(osenstein), 40 E. 66th St, New York, N. Y. *Bacteriology.* Elmsford, N. Y, April 28, 02. A.B, Smith Col, 23. Lab. asst, *bur. labs, City Health Dept, New York,* 24–30, *bacteriologist, 30–* A.A; Soc. Bact; Pub. Health Asn. Typhoid in oysters; classification of pneumococci; preservatives in biologic products; media used in testing sterility of biologic products; standardization of antimeningococcic serum.

Falk, Dr. I(sidore) S(ydney), 41 W. Kirke St, Chevy Chase, Md. *Public health.* Brooklyn, N. Y, Sept. 30, 99. Ph.B, Yale, 20, Ph.D, 23. Asst. pub. health, Yale, 15–21, instr, 21–23; asst. prof. hygiene and bacter, Chicago, 23–26, assoc. prof, 26–29, prof, 29; assoc. director study, Cmt. on Costs of Med. Care, Wash, D. C, 29–33; research assoc, Milbank Mem. Fund, New York, 33–36; chief health studies, *Social Security Board, Wash, D. C,* 36–38, asst. director, 38–40, *director bur. research and statist, 40–* Director surveys, City Dept. Health, Chicago, 25–27. A.A; fel. Pub. Health Asn; Econ. Asn; Statist. Asn; Acad. Polit. and Social Sci. Bacteriology; immunology; vital statistics; economics of medicine and public health; social insurance; social security.

Falk, Dr. K(aufman) George, 40 E. 66th St, New York, N. Y. **[3]*Chemistry.* New York, N. Y, Sept. 8, 80. B.S, Columbia, 01; Hopkins, 01–03; Ph.D, Strassburg, 05; Berlin, 05–06. Asst. physical chem, Columbia, 06–07, tutor physics, 07–09; research assoc. physical chem, Mass. Inst. Tech, 09–11; chemist, Harriman research lab, Roosevelt Hosp, 11–28, consultant, Plaut research lab, 25–27; chemist, Harriman research fund, Univ. and Bellevue Hosp. Med. Col, 29–31; biochemist, bur. labs, Dept. Health, New York, 31–39; prof. chem. bacter. in prev. med, col. med, N. Y. Univ, 33–36; *director, Lab. Indust. Hygiene, Inc, 36–* Capt, Sanit.C, 18–19. A.A; Pub. Health Asn; Chem. Soc. (v. chairman, N. Y. sect, 14); Soc. Biol. Chem; Soc. Exp. Biol; Inst. Chem; Asn. Consulting Chem. and Chem. Eng; Am. Inst; Harvey Soc; fel. N. Y. Acad. (sec'y, sect. astron, physics and chem, 18); London Chem. Soc. Valence; enzymes; catalysis; meat spoilage; food dehydration; glycin; refractive indices and temperatures; ignition temperatures; condensation of o-phthaldehyde; hexamethylenetetramin; antibodies and antitoxins; chemistry of bacterial growth; transference numbers; ionic theory; Manoilov test; vitamins.

Falk, Dr. Myron S(amuel), 126 E. 70th St, New York, N. Y. *Civil engineering.* New York, N. Y, Sept. 13, 78. C.E, Columbia, 99, Ph.D, 04; M.E, Stevens Inst. Tech, 00. *Consulting civil engineer, 00–; consulting engineer, ammunition div, Ordnance Dept, U. S. Army, 40–* Tutor, instr. and lecturer, Columbia, 00–10; chief engineer, Godwin Construction Co, 06–31; H. H. Oddie, Inc, 09–25; N. Y. Bay Pollution Cmn, 03; consulting engineer, State Water Supply Cmn, N. Y, 05–07; chairman board directors, Wonham, Bates and Good Trading Corp, 20–23; v. pres, Am. Bemberg Corp, 25–27. Ordnance Dept, 17–19, lieut. col. Civil Eng; Soc. Test. Mat. Cements, mortars and concretes; influence lines for bridges; metallic bridges.

Falkner, Col. F(rancis) H(oward), Engineer Amphibian Command, Camp Edwards, Mass. *Hydraulics.* Philadelphia, Pa, Sept. 27, 05. B.S, U. S. Mil. Acad, 28, California, 32. Co. officer, Combat Engineers, 28–31; asst. director, U. S. Waterways Exp. Sta, 33–34, director, 34–37; co. officer, Combat Eng, U.S.A, 38–39; exec. officer, U. S. Engineer Office, Huntington, W. Va, 39–40, dist. engineer, 40–42; *director procurement and supply, Engineer Amphibian Command, 42–* Mem. hydraulic cmt, Nat. Research Council, 37; Kanawha River region, Nat. Resources Planning Board, 40–41. Civil Eng; Soc. Mil. Eng. Soil mechanics; hydraulic model experimentation in open channels; transportation of debris by flowing water; Mississippi River levee design; hydraulic cavitation.

Fall, Pres. Paul H(enry), Hiram College, Hiram, Ohio. *Physical chemistry.* Fountain City, Ind, May 8, 92. A.B, Oberlin Col, 14, A.M, 18, LL.D, 42; Palmolive fellow, Cornell, 23–25, Ph.D, 25; LL.D, Houghton Col, 37, Williams Col, 40. Teacher, high sch, Ill, 14–15; Houghton Col, 15–16; asst. chem, Oberlin Col, 16–18; prof. and head dept, Hiram Col, 20–36; research chemist, dye lab, E. I. du Pont de Nemours and Co, 18–20; assoc. prof. chem, Williams Col, 36–40; *pres, Hiram Col, 40–* Acting prof, Williams Col, 31–32. Chem. Soc. (sec'y div. chem. educ, 39–). Colloids.

Fallis, Dr. A(lbert) M(urray), 43 Queen's Park, Toronto, Ont, Can. *Parasitology.* Ont, Jan. 2, 07. B.A, Toronto, 32, Ph.D, 37. Asst. biol, *Toronto, 31–32, demonstrator hygiene and prev. med, 37–; fellow path. and bacter, Ont. Research Foundation, 32–* Soc. Parasitol; Entom. Soc. Animal parasites.

Fallon, Prof. Leslie D(odds), Geneva College, Beaver Falls, Pa. *Chemistry.* N. Y, Feb. 1, 16. B.S, Geneva Col, 36; Ph.D, Yale, 39. Asst. prof. *chem, Geneva Col, 39–42, prof, 42–* Ionization constant of water in water-dioxane mixtures.

Falls, Dr. Frederick H(oward), 30 N. Michigan Ave, Chicago, Ill. *Obstetrics, Gynecology.* Chicago, Ill, Dec. 14, 85. A.A, Lewis Inst. Chicago, 06; B.S, Chicago, 08, M.D, Rush, 10; M.S, Illinois, 16. *Prof. obstet. and gynec, col. med,* Iowa, 21–26; *Illinois, 26–* Attending staff gynec, Cook County Hosp, 26–; chief obstet. staff, Grant Hosp, 33–; consultant, Augustana and W. Suburban Hosps. Treas, Am. Cmt. Maternal Welfare. Asn. Obstet, Gynec. and Abdom. Surg. (pres, 41); Gynec. Soc; Am. Med. Asn; Col. Surg; Chicago Gynec. Soc. (pres, 31–). Bacteriology; pathology; chemistry.

Falls, Olive, 5537 Dorchester Ave, Chicago, Ill. *Entomology.* Altoona, Kans, March 17, 02. B.S, Kans. State Teachers Col, 28; Oklahoma, 28–29; Chicago, 29–30; M.S, Kans. State Col, 33. Teacher, high sch, Kans, 20–23, head biol. dept, 23–27; entomologist, terminix div, E. L. Bruce Co, 35–36; Am. Lumber and Treating Co, 36–38; The Antimite Co, St. Louis, 36–38; mem. faculty, Minn. State Teachers Col, St. Cloud, 38–39; *independent consultant entomologist and lecturer, 39–; horticulturist, Servicised Products Corp, 42–* Summer, exten. entomologist, Minnesota, 38. A.A; Asn. Econ. Entom; Entom. Soc. Amer; Kans. Acad; Kans. Entom. Soc. Isoptera; reaction of termites to light; wood-destroying insects; live termite displays.

Famulener, Dr. L(emuel) W(illiam), 275 Engle St, Englewood, N. J. *Pharmacology, Bacteriology.* Galesburg, Ill, Aug. 27, 75. Ph.C, Michigan, 00, A.B, 03, M.D, 06. Asst. prof. path, Indiana, 06–07; bacteriologist and asst. director research lab, Dept. Health, New York, 07–14; *bacteriologist, St. Luke's Hosp, 13–* A.A; Soc. Bact; Asn. Immunol; Asn. Path. and Bact; Soc. Exp. Biol; fel. N. Y. Acad. Med. Immunology; serology; pathology; allergy; physiological assays.

Fancher, Prof. George H(omer), University of Texas, Austin, Texas. *Petroleum engineering.* San Francisco, Calif, Sept. 3, 01. B.S, Southern California, 23; M.S, Maryland, 26; Am. Petrol. Inst. fellow, Michigan, 26–27; Sc.D, Colo. Sch. Mines, 30. Research engineer, Universal Oil Products Co, 23–24; gas engineer, Chanslor-Canfield Oil Co, 24–25; teaching fellow, Maryland, 25–26; instr. petrol. and nat. gas eng, Colo. Sch. Mines, 28–30, assoc. prof, 30–31; Pa. State Col, 31–34; petrol. engineer, York State Oil Co, 34–35; *prof. petrol. eng, Texas, 35–* Consultant, Universal Oil Products Co. Chem. Soc; Petrol. Technol; Petrol. Inst. (research cmt; chairman cmt. permeability); Independent Oil Producers Asn. (research cmt). Cracking of petroleum; vaporization mechanism; flow of fluids through rocks; analysis of oil field cores; repressuring; water-flooding; secondary recovery; drilling fluid research.

Fanelli, Dr. Rocco, 676 Webster Ave, New Rochelle, N. Y. *Inorganic chemistry.* New Rochelle, N. Y, March 2, 94. B.S, Columbia, 18, A.M, 19, Harriman fellow, Ph.D, 23. Research chemist, Nat. Biscuit Co, 19–21; prof. chem, Col. of New Rochelle, 22–28; *consultant and research chemist, Texas Gulf Sulphur Co, 26–* Asst, Columbia, 18–23, dental sch, 23–24; instr, Polytech. Inst. Brooklyn, 24–25. Chem. Soc. Sulfur, especially its recovery from compounds; gaseous reactions involving sulfur compounds.

Fankhauser, Prof. G(erhard), Princeton University, Princeton, N. J. ***Zoology.* Burgdorf, Switzerland, March 11, 01. Geneva; Zurich; Ph.D, Berne, 24. Asst, zool. lab, Berne, 25–29; Rockefeller Foundation fellow *biol,* Chicago, 29–30; Yale, 30–31; asst. prof, *Princeton,* 31–39, *assoc. prof, 39–* A.A; Soc. Zool; Asn. Anat; Soc. Nat; Genetics Soc; Schweiz. Zool. Gesell; Schweiz. Natur. Gesell. Experimental embryology and cytology of amphibians; organization of egg, polyspermy, merogony, haploidy and polyploidy in salamanders; comparative natural history and animal behavior.

Fankuchen, Dr. I(sidor), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Physics.* Brooklyn, N. Y, July 19, 04. B.S, Cooper Union, 26; Heckscher fellow, Cornell, 29–33, Ph.D, 33; Schweinburg research fellow, Manchester, England, 34–36; Ph.D, Cambridge, 42. Research worker, crystallographic lab, Cambridge, 36–38; Birkbeck col, London, 38–39; nat. research fellow protein chem, Mass. Inst. Tech, 39–41; assoc. director, Anderson Inst. for Biol. Research, 41–42; *adj. prof. crystal chem, Polytech. Inst. Brooklyn, 42–* Physical Soc; Chem. Soc; Soc. X-Ray and Electron Diffraction; Physical Soc. London. X-ray crystallography; sterols; crystalline and virus proteins; high polymers.

Fano, Dr. U(go), Carnegie Institution, Cold Spring Harbor, N. Y. *Theoretical physics, Biology.* Torino, Italy, July 28, 12. D.Sc, Torino, 34. Research fellow, Leipzig, 36–37; instr. physics, Rome, 38; research assoc, Wash. Biophysical Inst, 39–40; research fellow, *Carnegie Institution,* 40–42, *research assoc, 42–* Physical Soc; Genetics Soc. Quantum theory; theory of diffraction; radiobiology; genetics of Drosophila.

Fanselow, Dr. J(ohn) R(ay), 921 E. Alton, Appleton, Wis. *Chemistry.* Dows, Iowa, Dec. 13, 92. A.B, Ellsworth Col, 16; M.S, Chicago, 21; Ph.D, Wisconsin, 27. Instr. chem, Wisconsin, 26–28; research chemist, *Kimberly-Clark Corp,* 28–30, supt. research, 30–39, *staff supt, 39–* Chem. Soc. Optical activity and relative resistance to shear of gelatin systems.

Fanshawe, Dr. John R(ichardson), II, Petroleum Administration for War, Denver, Colo. *Geology.* Philadelphia, Pa, Oct. 20, 06. A.B, Princeton, 29, A.M, 31, Ph.D, 39; Dr. Sci. Nat, Lille, 30. Asst. geol, Princeton, 30–32; master physics and geol, Deerfield Acad, Mass, 33–35; instr. geol, Williams Col, 35–39; geologist, State Royalty Petrol. Co, S. Dak, 39; Ohio Oil Co, 40–42; consulting geologist, 42; *dist. geologist, dist. IV, Petrol. Admin. War, 43–* Asn. Petrol. Geol; Paleont. Soc. Petroleum geology; stratigraphy; structure; tectonic theory; field methods; general geology; secondary school geology; coal microscopy.

Farabee, Prof. Ray L(ittleton), University of Alabama, University, Ala. *Metallurgy.* Coal City, Ala, June 8, 00. B.S, Alabama, 22, Met.E, 28. Asst. chemist, Cent. Iron and Coal Co, 20–22; chemist, Gulf States Steel Co, 22–24; asst. metallurgist, Exp. Sta, Alabama, and assoc. prof. *metal,* sch. mines, 24–38; assoc. prof, Purdue, 38–39; *prof, Alabama, 39–* Asst. prof, Purdue, 29. Soc. Metals; Foundrymen's Asn; Am. Iron and Steel Inst; British Inst. Metals. Powder metallurgy; growth of cast iron; magnesium from dolomite.

Faragher, Dr. Paul V(ance), Aluminum Company of America, Pittsburgh, Pa. *Metallurgy.* Sabetha, Kans, June 17, 88. A.B, Kansas, 09, 10; Ph.D, Mass. Inst. Tech, 13; fellow, California, 12–13. Instr. chem, Kansas, 10–11, asst. prof, 13–18, assoc. prof, 18; fellow, Mellon Inst, 18–19; research lab, *Aluminum Co. of Amer,* 20–21, tech. dept, 21–32, *metal. dept, 32–* Soc. Test. Mat; Soc. Automotive Eng. Electromotive force in aqueous solvents; metallurgy of light alloys.

Faragher, Dr. W(arren) F(red), Catalytic Development Co, 1608 Walnut St, Philadelphia, Pa. *Chemistry.* Sabetha, Kans, April 25, 84. A.B, Kansas, 05, fellow, 07–09, Ph.D, 10. Instr. chem, Kansas, 05–07; research chemist, Alden Speare's Sons Co, 09–18; fellow, Mellon Inst, 18–23, asst. director, 23–26, lecturer chem. and technol. of petrol, Pittsburgh, 18–22, prof. and head dept. petrol. ref, sch. mines, 22–26; director research lab, Universal Oil Products Co, Chicago, 26–31; research chemist, Vacuum Oil Co, Paulsboro, N. J, 31; *director research,* Houdry Process Corp, Sun Oil Co, 31–36; *Catalytic Develop. Co, 36–* Chem. Soc; Soc. Test. Mat; Petrol. Inst; Inst. Petrol. Eng; Kans. Acad; Deuts. Chem. Gesell; Soc française de l'Indust. chim. Petroleum products; refining processes.

Farber, Dr. L(ionel), 1482 28th Ave, San Francisco, Calif. *Biochemistry.* Chicago, Ill, Sept. 7, 08. B.A, Toronto, 30, M.A, 31, Ph.D, 34; fellow, N. Y. Univ, 31–32. Asst. chem, Toronto, 30–31, fellow biochem, 34–37; instr. agr. chem, Exp. Sta, Arkansas, 37; instr. research med. and *research assoc, Hooper Foundation, California, 37–* A.A; Soc. Bact; Chem. Soc; Inst. Food Technol; Can. Physiol. Soc. Rate of organic reactions; enzymes; chemistry and metabolism of micro-organisms; physiology of internal secretions; biochemistry and bacteriology of fish spoilage and technology.

Farber, Dr. Sidney, Harvard Medical School, Boston, Mass. *Pathology.* Buffalo, N. Y, Sept. 30, 03. B.S, Buffalo, 23; Freiburg and Heidelberg, 23–24; M.D, Harvard, 27. Asst

path, Harvard Med. Sch, 27–28; Munich, 28–29; instr, *Harvard Med. Sch*, 29–34, assoc, 34–38, *asst. prof, 38–; pathologist, Boston Children's Hosp, 29–* Moseley traveling fellow, Harvard, 35–36. Asn. Path. and Bact; Soc. Exp. Path; Soc. Pediat. Research; Pediat. Soc; New Eng. Path. Soc. (pres, 39); Boston Path. Soc. (sec'y, 33, pres, 34). Pathologic physiology of respiratory and cardiovascular systems; tumors; pathology of infancy and childhood.

Fargo, Prof. J(ohn) M(errill), University of Wisconsin, Madison, Wis. *Animal husbandry.* Dane Co, Wis, June 16, 93. B.S, Wisconsin, 19, M.S, 21, Ph.D, 39. From asst. to *asst. prof. animal husbandry, Wisconsin, 19–; major, U. S. Army, 41–* Soc. Animal Production. Feeding of swine; meat curing and storage.

Faribault, Dr. E(ugène) Rodolphe, care of Geological Survey, Ottawa, Ont, Can. *Geology.* L'Assomption, Que, Nov. 4, 60. B.A.S, C.E, Laval, 82; D.Sc, Montreal, 02. Geologist, Geol. Surv. Can, 82–33; *retired.* Consulting geologist. Jury awards, Paris Expos, 00. Gold medal, Pan-Am. Expos, 04. Int. Geol. Cong, Paris, 00, Spain, 26. Fel. Royal Soc. Can; N. S. Inst; hon. mem. N. S. Min. Soc; cor. mem. Soc. géol. de Belg. Geological survey, mapping and study of the gold fields of Nova Scotia; structure of the anticlinal folds and auriferous saddleveins and their recurrence in depth.

Farinacci, Dr. N(icholas) T(homas), Chemical Construction Co, 30 Rockefeller Plaza, New York, N. Y. *Chemistry.* Brewster, N. Y, March 4, 03. B.S, Columbia, 35, Am. Tobacco Co. fellow, 37–40, Ph.D, 38. *Research chemist,* exp. sta, Hercules Powder Co, 41–43; *Chem. Construction Co, 43–* A.A; Chem. Soc. Physical and organic chemistry; solvolysis of organic halides; unsaturation; electrolytic syntheses; polarography; terpenes and resin acids; tobacco alkaloids; essential oil constituents.

Farinholt, Prof. L(arkin) H(undley), Washington and Lee University, Lexington, Va. *Chemistry.* Baltimore, Md, Sept. 24, 05. B.S, Hopkins, 27; Rhodes scholar, Oxford, 28–31, Ph.D, 31. Research, Hynson, Westcott and Dunning, Inc, Baltimore, 32–33; asst. prof. *chem, Washington and Lee, 33–37, assoc. prof, 37–* Chem. Soc. Synthesis of organic chemicals, particularly of a medical nature.

Faris, Prof. Ellsworth, 1401 N. Green Bay Road, Lake Forest, Ill. *Psychology.* Salem, Tenn, 74. B.S, Texas Christian Col, 94; Ph.D, Chicago, 14. Prof. philos, Texas Christian Col, 06–11; instr, Chicago, 12–13, psychol, 14–15; asst. prof, Iowa, 13–14, assoc. prof. and prof, 15–20, acting director child welfare research sta; prof. sociol, Chicago, 19–39, *emer. prof, 39–,* chairman dept. sociol. and anthrop, 25–29, sociol, 29–39. A.A; Psychol. Asn; Sociol. Soc. (pres, 37); Philos. Asn; Anthrop. Asn. Pyschology of punishment; primitive peoples; social psychology.

Farkas, Dr. Adalbert, 1617 E. Third St, Long Beach, Calif. *Physical chemistry.* Hungary, July 10, 06. Chem.E, Vienna, 28, Dr.chem.eng, 32; Ph.D, Frankfort, 30. Instr. physical chem, Frankfort, 30–33; research fellow, Cambridge, 33–36; instr. physical chem, Hebrew Univ. Jerusalem, 36–41; *research chemist, research dept, Union Oil Co, 42–* Chem. Soc; Faraday Soc. London; Chem. Soc. London. Reaction kinetics; catalysis; chemistry of hydrogen modifications and isotopes; orthohydrogen, parahydrogen and heavy hydrogen; experimental methods in gas reactions; gas reactions.

Farley, Prof. Arthur J(ames), Rutgers University, New Brunswick, N. J. *Agriculture.* Waltham, Mass, Sept. 2, 85. B.S, Mass. Col, 08. Asst. hort, N. J. Exp. Sta, 08–12, assoc. exten. horticulturist, 12–19, acting horticulturist, 19–22; instr. hort, *Rutgers,* 14–16, asst. prof, 16–18, assoc. prof, 18–26, assoc, 26–28, *prof. pomol. and exten. horticulturist, 28–* Sec'y, State Peach Council, N. J, 30– Soc. Hort. Sci; N. J. Hort. Soc. (sec'y, 26–).

Farley, Dr. E(ugene) D(odson), R.F.D. 1, Box 671 C5, Loyola Drive, Los Altos, Calif. *Organic chemistry.* Oshkosh, Wis, Aug. 29, 10. A.B, Wisconsin, 31; M.S, Illinois, 33, Ph.D, 35; LL.B, Fordham, 43. Chemist, Shell Develop. Co, Emeryville, Calif, 35–36; instr. chem, Rollins Col, 36–39; chemist, Standard Oil Develop. Co, 39–43; *patent chemist, Shell Develop. Co, 43–* Chem. Soc. Rearrangements of polyynes; development and utilization of the by-products of the petroleum industry.

Farley, Dr. F(rancis) F(rederic), Shell Oil Co, Wood River, Ill. *Chemistry.* Perrysburg, Ohio, Oct. 9, 12. A.B, St. John's (Ohio), 34; M.S, Detroit, 36; Ph.D, Iowa State Col, 41. Asst. chemist, Nat. Biscuit Co, Toledo, Ohio, 33–37; asst. plant chem, Exp. Sta, Iowa, 36–41; instr. chem, Detroit, 41–42; senior research chemist, *Shell Oil Co,* 42–43, *head chem. research on lubricants, 42–* Asst, Detroit, 34–36. Chem. Soc.

Farlow, Dr. Mark W(endell), 202 Silverside Road, Wilmington, Del. *Chemistry.* Mt. Vernon, Ill, Feb. 15, 11. B.S, Illinois, 31; Ph.D, Wisconsin, 35. Asst. org. chem, Wisconsin, 31–34; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 35–* Catalytic organic chemistry.

Farmer, Prof. C(hester) J(efferson), 303 E. Chicago Ave, Chicago, Ill. *Biochemistry.* North Andover, Mass, July 18, 86. Diploma, Lowell Textile Sch, 07; A.M, Harvard, 13. Teaching fellow, Harvard Med. Sch, 09–11, asst. biochem, 11–13; prof. *chem,* Marquette, 13–18; assoc. prof, *Northwestern,* 18–19, *prof, 19–* Chem. expert, referee board, U. S. Dept. Agr, 08–09. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Bacterial metabolism; urine analysis; physiological effects of carbon monoxide; vitamins.

Farmer, F(rank) M(alcolm), 79th St. and East End Ave, New York, N. Y. *Electrical engineering.* Ilion, N. Y, March 28, 77. M.E, Cornell, 99. Student engineer, Gen. Elec. Co, 99–00; inspector, U. S. Navy Dept, Brooklyn, 00–03; tech. asst, *Elec. Testing Labs,* 03–06, engineer, 06–12, *chief engineer, 12–, v. pres, 29–; coordinator of inspection, N. Y. ordnance dist, U. S. War Dept, 42–* Lecturer, Cooper Union, 02–06. Trustee, United Eng. Trustees, 38–, v. pres, 41–; mem. Am. Eng. Council; Elec. Standards Cmt. A.A; fel. Elec. Eng. (director; pres, 39); Mech. Eng; Soc. Test. Mat. (pres, 24); Welding Soc. (pres, 26–28); Standards Asn. (chairman standards council, 39–41); Eng. Foundation (chairman, 37–39); British Inst. Elec. Eng. Electrical measurements, tests and materials; insulating materials; electric power cables.

Farnau, Prof. E(arl) F(rederick), University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Covington, Ky, July 5, 83. A.B, Cincinnati, 05, A.M, 07; Ph.D, Cornell, 12. Instr. chem, Cincinnati, 07; N. Y. Univ, 12–16, asst. prof, 16–18; assoc. prof. org. chem, *Cincinnati,* 18–26, *prof,* 26–28, *physical chem, 28–* Chem. Soc; Math. Soc. Luminescence; colloids.

Farner, Dr. Donald S(ankey), University of Wisconsin, Madison, Wis. *Zoology.* Waumandee, Wis, May 2, 15. B.S, Hamline, 37; A.M, Wisconsin, 39, Ph.D, 41. Teaching asst. *zool,* Hamline, 35–37; grad. asst, *Wisconsin,* 37–41, *instr, 41–* Summers, asst, Wisconsin, 38; ranger-naturalist, Nat. Park Service, 39–41; biologist, State Board Health, Wis, 42. Assoc. ed, 'Bird-Banding,' 43– Ornith. Union; Wilson Ornith. Club; Wis. Soc. Ornith. Avian physiology; physiology of digestion in birds; fish biology of Crater Lake, Oregon; kraft effluent pollution in the upper Wisconsin River.

Farnham, Dr. A(lford) G(alley), Bakelite Corp, Bloomfield, N. J. *Organic chemistry.* Traer, Iowa, April 17, 15. B.S, Monmouth Col, 37; M.S, Iowa, 39, Ph.D, 41. *Research chemist, Bakelite Corp, 41–* Reactions of monochloroamine with organomagnesium compounds; azoyl derivatives of sugars and separation by chromatographic adsorption.

Farnham, Prof. Charles S(herman), 15 Prospect St, New Haven, Conn. *Civil engineering.* Canton, Conn, May 14, 78. Ph.B, Yale, 02, C.E, 07. Asst. to city engineer, Hartford, 02–05; instr. *civil eng, sch. eng, Yale,* 05–10, asst. prof. and *assoc. prof, 11–* Civil Eng; Eng. Educ; Conn. Soc. Civil Eng. (pres, 34). Surveying and highway engineering.

Farnham, Prof. F(rank) C(ecil), P. O. Box 106, Rolla, Mo. *Geophysics.* Archer, Nebr, July 16, 01. A.B, Nebr. Wesleyan, 24; M.S, N. Y. Univ, 26. Instr. physics, *Mo. Sch. Mines,* 26–28, *asst. prof,* 28–38, *physics and geophysics, 39–; asst. geophysicist, U. S. Geol. Surv, 39–* A.A; Geophys. Union. Geophysical prospecting.

Farnham, Dr. G(ordon) S(tuart), 78 Fourth Ave, Ottawa, Ont, Can. *Metallurgy.* Copper Cliff, Ont, Nov. 25, 08. B.A, Queen's (Can), 29, B.Sc, 31, M.Sc, 32; 1851 Exhib. scholar, Manchester, 32–34, Ph.D, 34. Research metallurgist, Ont. Research Foundation, Toronto, 34–36; *metallurgist, Bur. Mines, Can, 36–* Consultant metallurgist, British Cent. Sci. Office, Washington, D. C, 41– Soc. Metals; British Inst. Metals; British Iron and Steel Inst. X-ray crystallography as applied to metallurgy; ferrous and non-ferrous physical metallurgy.

Farnsworth, Prof. Alice H(all), Mt. Holyoke College, South Hadley, Mass. *Astronomy.* Williamstown, Mass, Oct.

19, 93. A.B, Mt. Holyoke Col, 16; M.S, Chicago, 17, Ph.D, 20. Instr. *astron, Mt. Holyoke Col,* 20–22, asst. prof, 22–28, assoc. prof, 28–37, *prof, 37–, director, J. P. Williston Observatory, 36–* Instr, Chicago, 25–26; Martin Kellogg fellow, Lick Observatory, California, 30–31. A.A; Astron. Soc; Asn. Variable Star Observers (pres, 29–31). Stellar photometry.

Farnsworth, Prof. G(oldena), Hollins College, Va. *Physics.* La Tour, Mo, Jan. 4, 88. B.S, Missouri, 12; M.S, Chicago, 28. Teacher, high sch, Mo, 12–16, 17–20; math. and physics, Carthage Col, 20–21; *prof. physics, Hollins Col, 23–* A.A; Physical Soc; Asn. Physics Teachers. Spectroscopy; intensity variations with voltages; variable stars.

Farnsworth, Prof. H(arry) E(dward), Brown University, Providence, R. I. *Physics.* Ripon, Wis, March 24, 96. A.B, Ripon Col, 18; A.M, Wisconsin, 21, Ph.D, 22. Research physicist, West. Elec. Co, 18; instr. *physics,* Pittsburgh, 18–19; nat. research fellow, Wisconsin, 22–24; assoc. prof, Maine, 24–26; asst. prof, *Brown,* 26–29, *assoc. prof, 29–, chairman dept, 42–* Research assoc, Nat. Defense Research Cmt, Mass. Inst. Tech, 41, official investigator, 42– Cooperating expert, Int. Critical Tables. A.A; fel. Physical Soc; fel. Am. Acad. Secondary electron emission from metals; contact potentials between different faces of metal single crystals; soft x-rays from and photoelectric characteristics of metal single crystals; electron diffraction and refraction; thermionic emission from crystals.

Farnsworth, Dr. Helen C(herington), 715 Salvatierra St, Stanford University, Calif. *Food economics.* Columbus, Ohio, Jan. 23, 03. B.S, Ohio State, 24, A.M, 24; fellow, Stanford, 26–27, Ph.D, 30. Asst. psychol, Ohio State, 23–24, teaching asst. econ, 24–26; Stanford, 27–28; asst. *food research inst, Stanford,* 29–32, junior research assoc, 32–36, *assoc. economist, 36–* Econ. Asn; Statist. Asn; Farm Econ. Asn. Wheat prices; trade and consumption; cereal price relationships.

Farnsworth, Dr. Marie, 276 W. 11th St, New York, N. Y. *Chemistry.* Holden, Mo, July 19, 96. B.S, Chicago, 18, Ph.D, 22. Instr. chem, Iowa State Col, 22–23; research chemist, U. S. Bur. Mines, 23–26; instr. chem, N. Y. Univ, 26–35; research, Munich and London, 35–36; research chemist, Fogg Art Museum, Harvard, 36–37; chemist, agora excavations, Athens, Greece, 38–40; *research chemist, Metal and Thermit Corp, Rahway, N. J, 40–* Chem. Soc. Analysis; x-rays; spectra; radioactivity.

Farnsworth, Prof. P(aul) R(andolph), Stanford University, Calif. *Psychology.* Waterbury, Conn, Aug. 15, 99. A.B, Ohio State, 21, A.M, 23, fellow, 24–25, Ph.D, 25. Instr. *psychol,* Ohio State, 22–24; *Stanford,* 25–26, asst. prof, 26–31, assoc. prof, 31–42, *prof, 42–* Summers, Ohio State, 31; Wisconsin, 38, acting prof, 39–40; Chicago, 42. A.A; Psychol. Asn; West. Psychol. Asn. (sec'y-treas, 29–31, v. pres, 32, pres, 37). Psychology of music; social psychology.

Farnsworth, Philo T(aylor), Farnsworth Television, Inc, 127 E. Mermaid Lane, Philadelphia, Pa. *Physics.* Beaver, Utah, Aug. 19, 06. Brigham Young. Director research, Crocker Research Lab, San Francisco, 26–29; v. pres. in charge research, Television Labs, Ltd, Inc, San Francisco, 29–35; *Farnsworth Television, Inc, 35–* A.A; Radio Eng; Franklin Inst; fel. Television Soc. London. Television by electron image scanning.

Farnum, Walter W(illis), Naval Powder Factory, Indian Head, Md. *Chemistry.* Brockton, Mass, Feb. 6, 82. A.B, Harvard, 04, A.M, 05. *Chief chemist,* Naval Torpedo Sta, 05–12; *Naval Powder Factory, 12–* Chem. Soc; Chem. Eng. Smokeless powder; explosives; ordnance materials.

Farquhar, Dr. B(ruce) S(traub), 2735 W. Sixth St, Wilmington, Del. *Organic chemistry.* Bethlehem, Pa, July 12, 10. B.S, Kentucky, 32; A.M, Cincinnati, 34, Ph.D, 36. Teaching asst. gen, org. and anal. chem, Cincinnati, 32–35; Annie Laws grad. fellow, 35–36, research chemist, rayon dept, acetate div, *E. I. du Pont de Nemours and Co,* 36–40, *manager cellulose acetate flake sect, 40–* A.A; Chem. Soc. Preparation of mixed ethers; interaction of primary and secondary aryl amines with carbon disulfide in the presence of pyridine and iodine; manufacture of cellulose acetate and vinyl acetate for plastics use.

Farquhar, Dr. Donald W(ells), 296 Ames St, Lawrence, Mass. *Entomology.* Lawrence, Mass, June 6, 07. B.S, Tufts Col, 29; M.S, Harvard, 30, Ph.D, 34. Asst. zool, Harvard, 30–34; tutor *biol, Col. City of N. Y,* 35–37, *instr, 37–* Seasonal worker, gipsy moth lab, U. S. Dept. Agr, 26–32. A.A; fel. Am. Geog. Soc; Entom. Soc. Amer; Cambridge Entom. Club (sec'y, 33). Food-plants and distribution of Lepidoptera of New England.

Farquharson, Dr. James, Colorado State College, Ft. Collins, Colo. *Veterinary medicine.* Aberdeen, Scotland, Jan. 19, 97. D.V.M, Colo. State Col, 21; Iowa State Col, 22; Mayo Foundation, 40. Asst. prof. anat, *Colo. State Col,* 21–26, assoc. prof, 26–30, *prof,* 30–32, vet. med, 32–34, *vet. surg. and clinic, 34–* Action of the sulfonamides in animals.

Farquharson, Dr. Ray F(letcher), University of Toronto, Toronto, Ont, Can. *Internal medicine.* Claude, Ont, Aug 4, 97. M.B, Toronto, 22, fellow, 22–23; fellow, Royal Col. Physicians Can. Junior intern, Toronto Gen. Hosp, 23–24, senior intern med, 24–25, res. fellow, 25–37; Alexander McPhedran fellow med, Harvard, 27–28; junior demonstrator and senior demonstrator med, *Toronto,* 28–34, *asst. prof. med. and therapeut. and head dept. therapeut, 34–, asst. attending physician, Toronto Gen. Hosp.* Soc. Clin. Invest; Clin. and Climat. Asn; Am. Physicians; Asn. Study Int. Secretions; Can. Physiol. Soc; Can. Med. Asn; Ont. Med. Asn; Acad. Med. Toronto. Calcium metabolism; anemia; pigment metabolism; endocrine diseases.

Farr, Dr. C(lifford) B(alley), 111 N. 49th St, Philadelphia, Pa. *Medicine.* Vineland, N. J, April 17, 72. A.B, Haverford Col, 94, A.M, 12; M.D, Pennsylvania, 98. Instr. and assoc. med, Pennsylvania, 01–19, prof. gastro-enterol, grad. sch. med, 15–19; assoc, div. med. research, B. F. Goodrich Co, 20–22; med. director in charge labs, inst. and dept. mental and nervous diseases, *Pa. Hosp,* 22–37, *mem. staff, 37–* Major, M.R.C, 17–19. A.A; Psychiat. Asn; Col. Physicians Phila. (chairman, sect. med, 16–18). Influence of certain drugs on nitrogenous excretion; non-protein nitrogen and urea of blood in nephritis; gastric secretion and motility in mental patients; basal metabolism in mental cases; insulin in under-nutrition; anthropometry.

Farr, Dr. Lee E(dward), 800 Devon Ave, Los Angeles 24, Calif. *Medicine.* Albuquerque, N. Mex, Oct. 13, 07. B.S, Yale, 29, M.D, 33. Asst. pediat, sch. med, Yale, 33–34; med, Rockefeller Inst. Hosp, 34–37, assoc, 37–40; *director research and pediatrician in chief, Alfred I. du Pont Inst, 40–; visiting assoc. prof. pediat, sch. med, Pennsylvania, 40–; lieut, Med. Corps, U. S. Naval Res.* A.A; Soc. Clin. Invest; Pediat. Soc; Soc. Exp. Biol; Soc. Exp. Path; Soc. Pediat. Research; Am. Med. Asn; Harvey Soc. Protein metabolism; renal diseases.

Farr, Wanda K(irkbride), Celanese Corp, Cumberland, Md. *Cytology.* New Matamoras, Ohio, Jan. 9, 95. B.S, Ohio (Athens), 15; A.M, Columbia, 18. Asst. bot, Ohio (Athens), 15; instr, Kans. State Col, 17–18; Agr. and Mech. Col. Texas, 18–19; research assoc, Barnard Free Skin and Cancer Hosp, St. Louis, 26–27; instr, Shaw Sch. of Bot, St. Louis, 28; investigator plant physiol, Boyce Thompson Inst, 28–29; assoc. cotton technologist, div. cotton marketing, bur. agr. econ, U. S. Dept. Agr, 29–36; director cellulose lab, chem. foundation, Boyce Thompson Inst, 36–40; research chemist, Am. Cyanamid Co, 40–43; *mem. research div, Celanese Corp. Amer, 43–* Research grant, Bache Fund, Nat. Acad. Sciences, 28. A.A; Bot. Soc; Torrey Bot. Club; Chem. Soc. Plant cell physiology; cell division of pollen mother cells; root hair development; development, structure and properties of cellulose membranes from the standpoint of microscopic, chemical and x-ray diffraction analysis.

Farrar, Dr. C(larence) B, 2 Surrey Place, Toronto, Ont, Can. *Psychiatry.* New York, N. Y, 74. A.B, Harvard, 96; M.D, Hopkins, 00; Heidelberg, 02–04. Asst. physician, Shepard Pratt Hosp, Baltimore, 00–02, asst. physician and director lab, 04–13; research asst, Carnegie Institution, 04–06; instr. psychiat, Hopkins, 06–08, assoc, 08–13; lecturer abnormal psychol, Princeton, and asst. physician, N. J. State Hosp, Trenton, 13–16; chief psychiatrist, Dept. Soldiers Civil Re-establishment, Can, 16–23; med. supt, Homewood Sanatorium, Guelph, Ont, 23–25; *prof. psychiat, Toronto, and director, Toronto Psychiat. Hosp, 25–* Consultant, Hosp. for Sick Children, Toronto; Dept. Pensions and Nat. Defense, Can. Chairman board examiners, hosps. div, Dept. Health, Ont. Ed, 'Am. Jour. Psychiat,' 31– C.A.M.C, 16–19, major. A.A; Psychiat. Asn; Hist. Sci. Soc; Can. Med. Asn; Royal Col. Physicians and Surg. Can; Col. Physicians and Surg. Ont; Toronto Acad. Med; hon. mem. Verein für Angewandte Psychopath. und Psychol; cor. mem. Verein für Psychiat. und

Neur. Mental hygiene; cerebral histology and histopathology; clinical and military psychiatry; delinquency.

Farrar, Dr. C(layton) L(eon), U. S. Bee Culture Laboratory, King Hall, University of Wisconsin, Madison, Wis. *Apiculture.* Abilene, Kans, Feb. 22, 04. B.S, Kans. State Col, 26; Ph.D, Mass. Col, 31. Instr. entom. and beekeeping, Mass. Col, 26–30, asst. prof, 30–31; *assoc. apiculturist, intermountain bee culture lab, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–* Summer, field asst, bee culture lab, U. S. Dept. Agr, 31. A.A; Asn. Econ. Entom; Honey Producers League. Bee behavior; sesaonal changes in colony characteristics; photoelectric flight recording apparatus.

Farrar, Prof. Clyde L(eo), University of Oklahoma, Norman, Okla. *Electrical engineering.* Klamath Falls, Oregon, Dec. 30, 96. B.S. (E.E), Colorado, 21, E.E, 26. Instr. *elec. eng,* N. Mex. Col, 22–23; Idaho, 23–26, asst. prof, 26–29; *assoc. prof,* Arkansas, 29–32; *Oklahoma, 32–* Elec. Eng; Eng. Educ. (pres, Okla-Ark. sect, 35). Radio engineering.

Farrar, Dr. George E(lbert), Jr, Temple University Hospital, Philadelphia, Pa. *Internal medicine.* Winter Park, Fla, March 12, 06. B.S, Wesleyan, 27; M.D, Hopkins, 31. Asst. res. int. med, univ. hosp, Michigan, 32–33, instr, univ. and T. H. Simpson Mem. Inst, 33–35; assoc. pharmacologist, food and drug admin, U. S. Dept. Agr, 35–36; *asst. prof. internal med, sch. med, Temple, 36–* Fel. Am. Med. Asn; fel. Col. Physicians; Rheumatism Soc. Phila (v. pres, 41). Ergot; monocytic leukemia; analysis and metabolism of iron; hemoglobin formation; lymphatic leukemia; hemolytic anemia; osteoporosis; purpura.

Farrar, Dr. Lilian K. P, 380 Riverside Drive, New York, N. Y. *Gynecology, Obstetrics.* A.B, Boston, 96; M.D, Cornell, 00. *Attending surgeon, Woman's Hosp, 17–; asst. prof. obstet. and gynec, med. col, Cornell, 20–* Consulting surgeon, Booth Mem. Hosp. Fel, Am. Board Obstet. and Gynec. Fel. Gynec. Soc; fel. Col. Surg. (governor); fel. Am. Med. Asn; fel. N. Y. Acad. Med. Radium therapy for cervical cancer; plastic operations and auto blood transfusion in gynecology; prevention of shock; anatomy of the pelvis; total abdominal hysterectomy; abnormal gestation; hernia of the uterus.

Farrar, Dr. M(ilton) D(yer), 123 Natural Resources Bldg, Urbana, Ill. *Entomology.* Lawrence, Kans, Oct. 15, 01. B.S, Iowa State Col, 25, Ph.D, 33; M.S, S. Dak. State Col, 27. Instr, S. Dak. State Col, 25–28; investigator, Crop Protection Inst, 28–31; *research entomologist, Nat. Hist. Surv, Ill, 31–* Asn. Econ. Entom. Insecticides.

Farrell, Prof. Elliston, 1430 Tulane Ave, New Orleans, La. *Medicine.* Reading, Pa, July 27, 04. A.B, Yale, 26; M.D, Hopkins, 30; Calcutta Sch. Trop. Med, 34–35; D.T.M. and H, London, 36. Instr. med, L. I. Col. Med, 36–40, asst. clin. prof, 40–41; *asst. prof. trop. med, Tulane, 41–; major, Med. Corps, U. S. Army, 42–* A.A; fel. Col. Physicians; Soc. Trop. Med; Federation Clin. Research. Leptospirosis; infectious diseases; tropical diseases.

Farrell, Dr. F(rancis) D(avid), Kansas State College, Manhattan, Kans. *Agriculture.* Smithfield, Utah, March 13, 83. B.S, Utah Col, 07; D.Agr, Nebraska, 25. Sci. asst, bur. plant indust, U. S. Dept. Agr, 07–09; director exp. farms, Idaho, 10–11; agronomist, bur. plant indust, U. S. Dept. Agr, 12–14; agriculturist in charge agr. develop, govt. irrig. projects, 14–18; dean, *Kans. State Col,* and director, Exp. Sta, 18–25, pres, 25–43, *emer. pres, 43–* Mem, State Planning Board, Kans, 34– Chairman, Kans. Cmt. Relation Elec. to Agr, 25–37; State Board Health, Kans, 25– A.A; Soc. Agron; Eng. Educ. Agronomy; agricultural economics; land utilization.

Farrell, Dr. James (Irving), 636 Church St, Evanston, Ill. *Physiology, Urology.* Butte, Mont, Nov. 15, 00. B.S, Chicago, 24, M.S, 25, M.D, Rush, 28; Ph.D, Northwestern, 27. Instr. physiol, Chicago, 24–25; Northwestern, 25–28; fellow surg. and urol, Cleveland Clinic, 28–31; res. urologist, N. Y. Post-Grad. Med. Sch, Columbia, 31–32; *assoc. urol, Northwestern, 32–* Physiology of the stomach and pancreas; abductor paralysis of vocal cords; renal reflexes; physiology of prostate and epididymis.

Farrell, Dr. James (Kenneth), 5 Rowley Ave, Kenmore, N. Y. *Organic chemistry.* Fremont, Ohio, April 26, 08. A.B, Ohio State, 30, M.S, 32, Ph.D, 34. *Research chemist, rayon div, E. I. du Pont de Nemours and Co, 35–* Chem. Soc. Substituted olefins; viscose rayon.

Farrell, Dr. Kenneth T(homas), Wheaton Road, Kensington, Md. *Food technology.* Brookline, Mass, March 21, 14. B.S, Mass. State Col, 38, fellow, 38–40, Ph.D, 40. Lab. asst. physiol, Mass. State Col, 37–40; research food technologist, Beech-Nut Packing Corp, 40; chief chemist, Sardik Food Products Corp, New York, 40–41; junior marketing specialist, *agr. marketing admin, U. S. Dept. Agr,* 41–42, asst. marketing specialist, 42, *assoc. marketing specialist, 42–* Pub. Health Asn; Inst. Food Technol. Influence of freezing, canning and dehydration on the vitamin content of vegetables.

Farrell, Lieut. Col. Malcolm J(oseph), Office of the Surgeon General, U. S. Army, Washington, D. C. *Neuropsychiatry.* Woburn, Mass, May 7, 06. B.S, Tufts Col, 28, M.D, 31. *Instr. psychiatry, med. sch, Boston, 36–; asst. supt, W. E. Fernald State Sch, 38–; lieut. col, Med. Corps, U. S. Army, and asst. chief div. neuropsychiatry, Office of Surgeon Gen, 42–* Am. Med. Asn; Psychiat. Asn; Asn. Mental Deficiency; Mass. Psychiat. Soc; Mass. Soc. Research in Psychiat. Morquio's disease associated with mental defect; influence of locomotion on the plantar reflex in normal and inferior persons; insulin shock; prostigimin as a preparation for abdominal roentgenography.

Farrell, Prof. Michael A(nthony), 420 Adams Ave, State College, Pa. *Bacteriology.* New York, N. Y, Jan. 14, 04. B.S, Pa. State Col, 28; M.S, Lehigh, 30; Ph.D, Yale, 34. Instr. *bacter,* Lehigh, 30–32; asst, *Pa. State Col,* 34–36, assoc. prof, 36–40, *prof. and head dept, 40–* Soc. Bact. (sec'y-treas, cent. Pa. sect, 37, pres, 38); Pub. Health Asn; Pa. Approved Dairy Lab. Directors Asn. (sec'y-treas, 40). Bacterial respiration and metabolism; water purification; bacteria in coal.

Farris, Dr. Edmond J(ohn), Wistar Institute, 36th St. and Woodland Ave, Philadelphia, Pa. *Anatomy, Zoology.* Buffalo, N. Y, July 28, 07. A.B, Buffalo, 28; fellow, Wistar Inst, 36–38; Ph.D, Pennsylvania, 38. Research assoc, dept. exp. biol, Am. Museum Nat. Hist, 28–29; instr. anat, Med. Col. S. C, 29–34; Georgetown, 34–35; Buffalo, 35–36; in charge operations, *Wistar Inst,* 35–36, *exec. director and assoc. anat, 38–* Assoc. ed, 'Am. Anat. Memoirs,' 40. A.A; Asn. Anat; Soc. Zool; Eugenics Soc; Biol. Photog. Asn; Pa. Acad. Fine Arts (lecturer, 39–); Int. Asn. Med. Mus. Physiological effects of emotional stimuli; aging; functions of the spleen; museum methods and scientific motion picture films; reproduction.

Farris, Dean M(arshall) E(imer), University of New Mexico, Albuquerque, N. Mex. *Mechanical engineering.* Cabol, Mo, Aug. 16, 95. B.S, Purdue, 22; M.S, Texas, 26. Instr. mech. eng, Texas, 22–27; asst. prof, Texas Tech. Col, 27–30; prof. and acting head dept, Arkansas, 30–31; *prof. mech. eng. and dean col. eng, New Mexico, 31–* Consulting engineer. Mech. Eng; Eng. Educ. Power plant tests; designs for power and heating plants.

Farris, Dr. Nolan F(ern), Soil Conservation Service, State College, Pa. *Agronomy.* Manes, Mo, Feb. 15, 06. B.S, Colo. Agr. Col, 28; M.S, Rutgers, 30, Ph.D, 32. Asst. and instr. agron, Rutgers, 28–33; emergency agr. agent wheat control, agr. adjust. admin, *U. S. Dept. Agr,* New Brunswick, N. J, 33, *asst. agronomist, soil conservation service, 34–* A.A. Agronomy in soil conservation; soils and field crops.

Farstad, Dr. C(hristian) W, Entomological Laboratory, Lethbridge, Alta, Can. *Entomology.* Norway, Aug. 5, 06. B.Sc, Saskatchewan, 31, M.Sc, 35; Ph.D, Iowa State Col, 40. Junior entomologist, *div. entom, Can. Dept. Agr,* 33–37, *asst, entomologist in charge sawfly investigations, 37–* Asn. Econ. Entom; Professional Inst. Civil Service, Can. Wheat stem sawfly.

Farwell, Carroll A(ndrew), 11 Beacon St, Boston, Mass. *Civil engineering.* Bolton, Mass, Sept. 13, 83. B.S, Mass. Inst. Tech, 06. Asst. on eng. corps, Pa. Lines Southwest, 06–07; asst. engineer, U. S. Reclamation Service, N. Dak, Mont, and Washington, D. C, 07–10; supt, Chem. Eng. and Operating Co, Rumford, Maine, 10–11; engineer, Medina Irrigation Co, San Antonio, Texas, and res. engineer, Ebro Irrigation and Power Co, Barcelona, Spain, 11–14; engineer, *Fay, Spofford and Thorndike,* 15–22, *partner, 22–* Civil Eng. (past pres. Northeast. sect; exec. cmt. city planning div); Consulting Eng; Pub. Works Asn; Boston Soc. Civil Eng. (director, 37–39). Design and supervision of construction of power plants, bridges, industrial buildings and foundations.

Farwell, Prof. H(ermon) W(aldo), Columbia University, New York, N. Y. *Physics.* Keene, N. H, Dec. 29, 79. A.B, Dartmouth Col, 02, A.M, 06. Instr. *physics,* Dartmouth Col,

04–06; asst, *Columbia*, 06–09, tutor, 09–10, instr, 10–17, asst. prof, 17–23, assoc. prof, 23–29, *prof, 29–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers. Ionization in gases; optics; laboratory management; objective tests; optical properties of plastics.

Farwell, Dr. Oliver A(tkins), Box 265, Lake Linden, Mich. *Botany.* Dorchester, Mass, Dec. 13, 67. Mich. Nor. Sch, 90–92; hon. Sc.D, Col. City of Detroit, 33. Teacher, pub. schs, 89–90; curator herbarium and drug inspector, Parke, Davis and Co, 92–33; *retired.* Prof, Detroit Col. Pharmacy, 18–19. U. S. Pharmacopoeia Convention, 20, 30; revision cmt, Nat. Formulary 5th and 6th editions. Soc. Plant Taxon; Gray Mem. Bot. Asn; Torrey Bot. Club. Michigan flora.

Farwell, Dr. Stanley P(rince), 79 W. Monroe St, Chicago, Ill. *Electrical engineering.* Chicago, Ill, Sept. 29, 83. B.S, Illinois, 07, M.S, 10, fellow, 13–14, Ph.D, 14. Asst. prof. elec. eng, Cent. Univ. of Ky, 08–10; instr. theoret. and applied mech, Illinois, 10–13; service engineer, Pub. Utilities Cmn. of Ill, 14–17; indust. engineer, Arthur Young and Co, 17–20; *pres, Business Research Corp.* Elec. Eng. Corona produced by continuance potentials; business research.

Fasce, Dr. E(gi) V(ictor), Oak Drive, Bernard Grove, Baton Rouge, La. *Organic chemistry.* Marsano, Italy, Sept. 2, 02. A.B, Williams Col. 23; du Pont fellow, Mass. Inst. Tech, 27, Ph.D, 32. Dept. chem, Mass. Inst. Tech, 24–27, research lab. applied chem, 28–30; *research chemist,* Humble Oil and Ref. Co, Houston, Texas, 30–32; *Standard Oil Co. of La, 32–* Chem. Soc; Inst. Chem. Reaction velocity measurements of substituted acyl chlorides with ethyl alcohol; development of petroleum products.

Fassett, Prof. Norman C(arter), University of Wisconsin, Madison, Wis. *Botany.* Ware, Mass, March 27, 00. B.S, Harvard, 22, A.M, 23, Ph.D, 25. Instr. *bot, Wisconsin,* 25–29, asst. prof, 29–37, *assoc. prof, 37–* A.A; Bot. Soc; Torrey Bot. Club; Soc. Plant Taxon; New Eng. Bot. Club; Wis. Acad. Taxonomy and distribution of flowering plants; flora of the middle western states.

Fassnacht, Dr. H(artwell) H(enry), Wenonah, N. J. *Chemistry.* Easton, Pa, June 19, 06. B.S, Albright Col, 27; A.M, Columbia, 28, univ. fellow, 28–29, Ph.D, 30. *Research chemist, E. I. du Pont de Nemours and Co, Gibbstown, N. J, 30–* Chem. Soc. Yeast invertase activity; explosives; solvents; cellulose derivatives.

Fasten, Prof. Nathan, Oregon State College, Corvallis, Oregon. *Zoology.* Austria, Dec. 4, 87. B.S, Col. City of N. Y, 10; Ph.D, Wisconsin, 14. Prof. biol, Marshall Col, 10–11; asst. *zool,* Wisconsin, 11–14; instr, Washington (Seattle), 14–19, asst. prof, 19–20; assoc. prof, *Oregon State Col,* 20–21, *prof. and head dept, 21–* Summers, asst, Bur. Fisheries, Woods Hole, 11; special investigator, Fish Cmn, Wis, 12–14, Wash, 19, Oregon, 23; in charge invert. zool, Puget Sound Biol. Sta, 15, 16, 20; animal biol, Dept. Educ, B. C, 22, 23. Chairman, Oregon Basic Science Exam. Cmt, 34– A.A; Soc. Nat; Soc. Zool; Genetics Soc; Limnol. Soc; West. Soc. Nat. (v. pres, 24, pres, 25). Cytology of Decapoda; parasites of fishes; game fishery problems; oyster culture; evolution; genetics; eugenics.

Fath, Dr. A(rthur) E(arl), 905 Lancaster Bldg, Calgary, Alta, Can. *Geology.* Muscatine, Iowa, Aug. 7, 87. A.B, A.M, Oberlin Col, 10; Ph.D, Chicago, 22. Geologist, U. S. Geol. Surv, 13–22; Vacuum Oil Co, 22–26; consulting geologist, 26–32; *Socony-Vacuum Oil Co, Inc, 32–* A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Geol. Soc. Wash. Petroleum geology.

Fath, Prof. E(dward) A(rthur), Carleton College, Northfield, Minn. *Astronomy.* Rheinbischofsheim, Germany, Aug. 23, 80. B.S, Carleton Col, 02; fellow, Lick Observatory, California, 06–09, Ph.D, 09. Instr. math, Wilton, 02–04; Redfield Col, 04–05; astron, Illinois, 05–06; asst. astronomer, Mt. Wilson Observatory, Carnegie Institution, 09–12; director observatory, Beloit Col, 12–14; pres, Redfield Col, 14–20; prof. math. and astron, *Carleton Col,* 20–26, *prof. astron. and director, Goodsell Observatory, 26–* Assoc. ed, 'Popular Astron,' 20–38. Eclipse exped, Goldendale, Wash, 18; Catalina Island, 23; Bayfield, Wis, 25, Fryeberg, Maine, 32. A.A; Astron. Soc; fel. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France. Astrophysics; zodiacal light; nebulae; spectra of nebulae and star clusters; variable stars.

Faull, Prof. Anna F(orward), Wheaton College, Norton, Mass. *Botany.* Toronto, Ont, Can, Nov. 13, 05. A.B, Radcliffe Col, 27, A.M, 28, Ph.D, 34. Asst. to I. W. Bailey, Harvard, 28–34; instr. bot. and zool, *Wheaton Col,* 34–38, *asst. prof. bot, 38–*

Faull, Prof. J(oseph) H(orace), Arnold Arboretum, Harvard University, Jamaica Plain, Boston, Mass. ****Botany.** L'Anse, Mich, May 3, 70. B.A, Toronto, 98, 00–01; Ph.D, Harvard, 04, 09–10; Munich, 10. Master math, Albert, 98–00; Austin fellow, Harvard, 01–03; lecturer bot, Toronto, 02–07, assoc. prof, 07–18, *prof,* 18–28; *forest path, Harvard,* 28–40, *emer. prof, 40–* A.A; Soc. Nat; Phytopath. Soc; Mycol. Soc; Soc. Foresters; fel. Am. Acad; fel. Royal Soc. Can. (pres, E, 19); hon. mem. Can. Inst. (ed, 'Trans,' 17–24). Cytology; mycology; plant pathology; anatomy of ferns; forest pathology.

Faull, Dr. J(oseph) Horace, Jr, 72 Fresh Pond Lane, Cambridge, Mass. *Chemistry.* Toronto, Ont, Can, Oct. 4, 04. A.B, Harvard, 27, A.M, 29, Ph.D, 32. Asst, Harvard, 27–28, instr, 28–29; acting prof. chem, Mem. Univ. Col, Newfoundland, 31–33; John Harvard traveling fellow, Germany, 33–34; research assoc. geol, Harvard, 34–36; with Kaysam Corp, 36–38; Firestone Tire and Rubber Co, 38–41; head research lab, *Gen. Latex and Chem. Co,* 41–43, *gen. tire tech. supt, synthetic rubber div, 43–* Chem. Soc. Interhalogen compounds; equilibria and electrochemistry in solution; refractive indices and deformability of ions in solution; atomic weights of radiogenic leads; rubber latex; synthetic rubber.

Faull, Dr. R(ichard) Francis, 355 N. 14th St, San Jose, Calif. *Chemistry.* San Jose, Calif, April 21, 12. B.S, California, 35, Ph.D, 37. *Research chemist, Standard Oil Co. of Calif, 37–* Chemical kinetics.

Faunce, W(ayne) M(oody), American Museum of Natural History, Central Park West at 79th St, New York, N. Y. *Natural history.* Hardwick, Vt, Dec. 11, 99. B.S, Brown, 21. Instr. eng, Brown, 21–25; asst. sec'y, *Am. Museum Nat. Hist,* 25–33, asst. to director, 27–30, asst. director *gen. admin,* 30–35, *v. director, 35–,* asst. exec. sec'y, 33–35, *exec. sec'y, 35–,* asst. director and asst. exec. sec'y *planetarium authority,* 33–35, *v. director and exec. sec'y, 35–* Trustee, Brown, 40–

Faust, Dr. Charles L(awson), Battelle Memorial Institute, Columbus, Ohio. *Chemical engineering.* St. Louis, Mo, Nov. 8, 06. B.S, Washington (St. Louis), 30, indust. fellow, 30–31, M.S, 31; Ph.D, Minnesota, 34. Asst. chem, Minnesota, 31–34; *research engineer, Battelle Mem. Inst, 34–, asst. supervisor research, 41–* Electrochem. Soc. (manager, 42–, chairman electrodeposition div, 43); Electroplaters Soc; Chem. Soc. Electrochemistry; electrodeposition and electropolishing; metal finishing; electrochemical engineering.

Faust, Prof. Ernest Carroll, Tulane University School of Medicine, New Orleans, La. ****Zoology, Parasitology.** Carthage, Mo, Sept. 7, 90. A.B. Oberlin Col, 12; A.M, Illinois, 14, Ph.D, 17. Asst. parasitol, Illinois, 12–14, instr. zool, 17–19; assoc. *parasitol,* Peking Union Med. Col, 19–23; assoc. prof. in charge div, 23–28; *prof. and chief lab, sch. med, Tulane, 28–* Visiting assoc. prof, Hopkins, 23–24; consultant, nat. inst. health, U. S. Pub. Health Service; to U. S. Sec'y War, 41–Mem. Nat. Research Council, 43– A.A. (sec'y secretaries conf, 38–); Soc. Parasitol. (v. pres, 30, councilor, 31–34, 38–41); Soc. Trop. Med. (councilor, 31–35, pres, 41); Malaria Soc; Acad. Trop. Med. (sec'y, 35–); Soc. Exp. Biol; Helminth. Soc. Wash; Orleans Parish Med. Soc; New Orleans Acad. (v. pres, 33, pres, 36–38); hon. mem. La. Soc. Mex. Hist. Nat; Acad. Nac. Med. Mex; fel. Royal Soc. Trop. Med. and Hygiene; Far East Asn. Trop. Med; fel. Chinese Med. Asn. Tropical medicine; morphology, life history and clinical significance of digenetic trematodes parasitic in man and mammals; strongyloidiasis; experimental and human amebiasis; human parasitic diseases; parasitic Protozoa and worms; human helminthology; clinical parasitology; epidemiology and geographical distribution of malaria; the teaching of clinical parasitology and tropical medicine.

Faust, Dr. George T(obias), U. S. Geological Survey, Washington, D. C. *Mineralogy.* Philadelphia, Pa, Aug. 27, 08. B.S. Pa. State Col, 30; M.S, Michigan, 31, fellow, 32–34, Ph.D, 34. Asst. miner, Michigan, 30–35; asst. prof. ceramic miner, Rutgers, 35–38; asst. chemist-petrographer, nonmetals div, U. S. Bur. Mines, 38–40; asst. mineralogist-petrographer, soil and fertilizer investigations, bur. plant indust, U. S. Dept. Agr, 40–42; *assoc. mineralogist, U. S. Geol. Surv, 42–* Instr, Gemol. Inst. Amer, 35–38. Soc. X-Ray and Electron Diffraction; fel. Miner. Soc; Geophys. Union; Ceramic

Soc; Miner. Soc. Gt. Britain. Mineralogical chemistry; mineralogy; glass technology; petrology.

Faust, Prof. H(omer) M(organ), 4001 Westerville Road, Columbus, Ohio. *Engineering.* Youngstown, Ohio, July 7, 99. B.M.E, Ohio State, 23, Robinson fellow, 22–24, M.S, 24. Combustion engineer, Ohio River Edison Co, 25–26; service engineer, Consol. Coal Co, 26–29; senior research engineer, eng. exp. sta, Ohio State, 30–33, asst. prof. mech. eng, 32–35; *research engineer, New York Coal Co, 33–* Coal; combustion.

Faust, Dr. L(awrence) Y(oder), Box 2040, Tulsa, Okla. *Physics.* Clearville, Pa, March 24, 04. B.S, Franklin and Marshall Col, 25; Ph.D, Pennsylvania, 30. Physicist, Sun Oil Co, 26–27; W. C. McBride, Inc, 27–28; party chief, *Geophys. Research Corp,* 30–33, *div. chief, 33–* Geophys. Union; Soc. Explor. Geophys; Asn. Petrol. Geol. Applied geophysics; soft x-rays and their structure.

Faust, Prof. Mildred E(lizabeth), Syracuse University, Syracuse, N. Y. *Botany.* Emporia, Kans, Oct. 21, 99. A.B, Penn Col. (Iowa), 21; M.S, Chicago, 23, fellow, 25–26, Ph.D, 33. Teacher science, pub. schs, Iowa, 21–22; Junior Col, Mo, 23–25; instr. *bot, Syracuse,* 26–40, *asst. prof, 40–* A.A; Bot. Soc; Ecol. Soc. Seed germination of aspens with particular reference to respiration.

Favill, Dr. John, University of Illinois College of Medicine, Chicago, Ill. *Neurology.* Madison, Wis, Sept. 9, 86. A.B, Yale, 09; M.D, Harvard, 13. Asst. med, Rush Med. Col, Chicago, 15–21, instr. nervous and mental disease, 21–24, asst. clin. prof. *neur,* 24–29, assoc. clin. prof, 29–34, clin. prof, 34–41; *prof, col. med, Illinois, 41–* Psychiatrist, Ill. Inst. for Juvenile Research, 20–21; attending neurologist, Cook County Hosp, 21–37; neurologist, Cent. Free Dispensary, 22–41; St. Luke's Hosp, 29–37; attending neurologist and psychiatrist, Presb. Hosp, 37– Mem. Research Council Human Reproduction; Nat. Med. Council on Birth Control; Nat. Cmt. Mental Hygiene. M. C, 18–19, capt; lieut. col, M. R. C, 31–38, col, 38– A.A; Neur. Asn. (2nd v. pres, 35); fel. Psychiat. Asn; Asn. Research Nervous and Mental Disease; fel. Am. Med. Asn; fel. Col. Physicians; Asn. Study Int. Secretions; Asn. Mil. Surg; Cent. Neuropsychiat. Asn. (pres, 37); Chicago Neur. Soc. (pres, 26–28). Voluntary cardiac acceleration; nystagmus; psychoneuroses; mental hygiene.

Faville, A(lpheus) D(avis), Wheatland, Wyo. *Animal husbandry.* Lake Mills, Wis, Feb. 27, 80. B.S, Lawrence Col, 02; Wisconsin, 06–08, M.S, 15. Instr, high sch, Wis, 02–03; prof. animal husbandry, Wyoming, 08–22, dean agr. col. and director, Exp. Sta, 18–22; *commissioner agr, Wyo, 23–* Soc. Animal Production. Stock feeding and management, especially in Wyoming.

Fawcett, Prof. C(harles) D(eVan), 200 S. 33rd St, Philadelphia, Pa. *Electrical engineering.* Washington, D. C, Dec. 31, 87. B.S, Colorado, 11; E.E, Pennsylvania, 29. Engineer, Boulder, Colo, 11; instr. elec. eng, Colorado, 11–12; testman, Gen. Elec. Co, 12–13, eng. dept, 13; instr. elec. eng, Pennsylvania, 13–16; consulting engineer, 13–16; asst. sec'y, Illum. Eng. Soc, 16–17; *prof. elec. eng, Moore sch. elec. eng, Pennsylvania, 19–; consulting engineer, 19–* Authorized rep, Emergency Fleet Corp, 18–19. Elec. Eng; Illum. Eng. Soc; Eng. Club Phila.

Fawcett, Edna H, U. S. Horticultural Field Station, Beltsville, Md. *Plant pathology.* Feb. 26, 79. Smith Col, 01; fellow, Marine Biol. Lab, Woods Hole, 01; Columbia, 02–03. Sci. asst. soil bacter, *bur. plant indust, U. S. Dept. Agr,* 06–13, plant path, 21–22, junior pathologist, 22–30, *asst. pathologist, 30–* Phytopath. Soc; Soc. Bact. Bacterial variation in relation to the composition and hydrogen ion concentration control of culture mediums.

Fawcett, Dr. Harold P(ascoe), Ohio State University, Columbus, Ohio. *Mathematics.* Upper Sackbille, N. B, Can, July 20, 94. A.B, Mt. Allison, 14; A.M, Columbia, 24, Ph.D, 28. Instr. math, Columbia, 28–32; asst. prof. *mathematics educ, Ohio State,* 32–35, *assoc. prof, 35–,* assoc. director, Univ. Sch, 38–41. Summers, lecturer, Northwestern, 35–41. Progressive Educ. Asn; Council Teachers Math; Ohio Ed. Asn. Mathematics education; the nature of proof.

Fawcett, Prof. H(oward) S(amuel), Citrus Experiment Station, Riverside, Calif. *[5]Plant pathology.* Salem, Ohio, April 12, 77. B.S, Iowa State Col, 05; M.S, Florida, 08; Johnston scholar, Hopkins, 16–17, Ph.D, 18. Asst. bot. and hort, Florida, 05–06, plant pathologist, Exp. Sta, 06–12; State Cmn. Hort, Calif, 12–13; assoc. prof. *plant path, California,* 13–18, *prof, 18–* A.A; Bot. Soc; Phytopath. Soc. (pres, 30); Mycol. Soc; West. Soc. Nat; Calif. Bot. Soc. Mycology; citrus diseases.

Fay, Dr. Arthur C(ecil), 500 Rutherford Ave, Boston, Mass. *Bacteriology.* St. John, Kans, Feb. 18, 96. B.S. (Agr), Missouri, 20; M.S, Wisconsin, 21; Ph.D, Iowa State Col, 33. Instr. bacter, Kans. State Col, 21–23, asst. prof, 23–27, assoc. prof, 27–34, prof, 34–37, dairy bacteriologist, Exp. Sta, 27–37; *director labs, H. P. Hood and Sons, 37–* Soc. Bact; Dairy Sci. Asn. Dairy bacteriology; bacteriology of ice cream and its ingredients; oxidation-reduction potentials of ice cream mixes; methylene blue reduction; thermal resistance and mechanism of death of cells.

Fay, Prof. Charles H(emphill), University of Tulsa, Tulsa, Okla. *Theoretical physics.* Austin, Texas, Jan. 29, 10. A.B, Texas, 30, A.M, 31; Whiting fellow, Harvard, 32–34, Thayer scholar, 34–35, Ph.D, 36. Tutor *physics,* Texas, 30–31; asst, Harvard, 36–37; instr, *Tulsa,* 37–38, *asst. prof. and head dept, 38–* Physical Soc; Asn. Physics Teachers. Ferromagnetic theory; scattering of fast neutrons by heavy nuclei; theoretical problems in atomic and nuclear physics; experimental station seismology.

Fay, Frederic H(arold), 11 Beacon St, Boston, Mass. *Engineering.* Marlborough, Mass, July 5, 72. B.S, Mass. Inst. Tech, 93, M.S, 94. Mem. staff, City Engineer's Office, Boston, Mass, 95–10, city div. engineer in charge bridge and ferry div, 11–14; *mem. firm, Fay, Spofford and Thorndike, 14–* Lecturer, Mass. Inst. Tech, 11–13. Mem, Boston City Planning Board, 19–39, chairman, 22–39; chairman, Board Zoning Adjust, Boston, 24–; mem, Metrop. Planning Div, Mass, 29–39, v. chairman, 34–39; mem, State Planning Board, 35–; New Eng. Regional Planning Cmn, 34– A.A; Inst. Consulting Eng. (pres, 27); Civil Eng. (director, 17–19); Concrete Inst; fel. Am. Acad; New Eng. Water Works Asn; Eng. Soc. West. Mass. (v. pres, 21); Boston Soc. Civil Eng. (pres, 13); Eng. Inst. Can. Bridge and structural engineering; waterfront and harbor development; engineering economics; commerce of the Great Lakes region and its bearing on the economic development of lake ports.

Fay, Prof. Marion (Spencer), Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Physiological chemistry.* New Orleans, La, July 24, 96. A.B, Tulane, 15; A.M, Colorado, 22; Ph.D, Yale, 25. Asst. biochem, Colorado, 20–21, instr, 21–22; asst. *physiol. chem,* Yale, 23–25; instr, sch. med, Texas, 25–26, adj. prof, 26–30, assoc. prof, 30–35; *prof, Woman's Med. Col. of Pa, 35–* Soc. Biol. Chem; Chem. Soc. Nitrogen and sulfur metabolism; proteins; absorption; blood constituents after anesthesia.

Fay, Prof. Paul J(ohnson), DePauw University, Greencastle, Ind. *Psychology.* Canisteo, N. Y, April 19, 98. B.S, Ohio State, 23, Ph.D, 30; A.M, Columbia, 27. Teacher, high sch, Ohio, 23–26; instr. hist. of educ, Ohio State, 27–31; asst. prof. *psychol, DePauw,* 31–34, assoc. prof, 34–41, *prof, 41–* Summer, lecturer, Wisconsin, 34; Hunter Col, 39. Soc. Psychol. Study Social Issues; assoc. Psychol. Asn; Midwest. Psychol. Asn; Ind. Acad. Drug effects; motivation; conditioning; personality traits; attitudes; radio.

Fay, Prof. R(ichard) D(udley), 177 Coolidge Hill, Cambridge, Mass. *Electrical engineering.* Boston, Mass, Jan. 13, 91. A.B, Harvard, 13, B.S, 17; B.S, Mass. Inst. Tech, 17. Research engineer, Submarine Signal Co, 17–19; Hayes-Fay Labs, 19–25; Acme Apparatus Co, 25–28; research assoc, *Mass. Inst. Tech,* 28–30, asst. prof, 30–34, *assoc. prof. elec. communications, 34–* Elec. Eng; Acoustical Soc. Acoustics in communications.

Fay, Dr. Temple, 250 S. 17th St, Philadelphia, Pa. *Neurosurgery.* Seattle, Wash, Jan. 9, 95. B.S, Washington (Seattle), 17; M.D, Pennsylvania, 21. Assoc. neur, sch. med, Pennsylvania, 24–29, instr. surg. and later neuropath, 25–28; prof. neur. and neurosurg, sch. med, Temple, 29–43; *neurosurgeon, 43–* Neurosurgeon and consulting neurologist, Phila. Gen. Hosp; Montgomery County Hosp; Scranton State Hosp. Med. rep, State Board of Appeals, I-A Selective Service, Pa; capt, Civil Air Patrol. Neur. Asn; fel. Col. Surg; Am. Med. Asn; Soc. Neur. Surg; Psychiat. Asn; Phila. Neur. Soc. Epilepsy; dehydration; brain injuries; refrigeration in cancer; methods for control of pain.

Fazel, Dr. Charles S(tever), Solvay Process Co, Hopewell, Va. *Physics.* Wichita, Kans, May 31, 93. A.B, Fairmount Col, 14; A.M, Illinois, 15, Ph.D, 20. Asst. physics, Illinois, 15–

17, 19–20; asst. physicist, Bur. Standards, 19; instr, Michigan, 20–23; physicist, fixed nitrogen research lab, U. S. Dept. Agr, 23–26; Atmospheric Nitrogen Corp, Syracuse, N. Y, 26–29, asst. chief research, 29–30, *chief research*, 30–35; *nitrogen div, Solvay Process Co*, 35– Instr, Sch. Mil. Aeronautics, U.S.A, 17–18. A.A; Physical Soc; Chem. Soc; Philos. Soc. Wash; fel. Royal Soc. Arts. Nitrogen fixation; physical chemistry; electrical corona discharge; activated states of molecules and atoms.

Fearing, Prof. Franklin (Smith), University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Durango, Colo, Nov. 24, 92. A.B, Stanford, 23, A.M, 24, Ph.D, 26. Director, Psychol. Clinic, Louisville, Ky, 19–21; psychologist, Nat. Cmt. Mental Hygiene, Cincinnati, 21–22; instr. *psychol*, Stanford, 23–26; assoc. prof, Ohio Wesleyan, 26–27; asst. prof, Northwestern, 27–30, assoc. prof, 30–36; *prof, California at Los Angeles, 36–* Visiting prof, California at Los Angeles, 35–36; collaborator, U. S. Forest Service, 43– Summers, visiting lecturer, Oregon, 27, 28; California at Los Angeles, 30; California, 37. Chairman, South. Calif. Advisory Council Human Relations, 43– Ed. board, 'Jour. Psychol.' Psychologist, med. dept, U.S.N, 18–19. A.A; Psychol. Asn. (program cmt, 33); Soc. Exp. Biol; Midwest. Psychol. Asn. (chairman, program cmt, 35); Soc. Psychol. Study of Social Issues (councilor, 37); Nat. Inst. Psychol. (director, 37–42). Postural and tendon reflexes; functions of semi-circular canals in pigeons; modification of reflex action; history of theories of reflex action; pressure groups and propaganda; appraisal methods for public personnel; 'habituation' of vestibular responses; reconstitution of behavior following labyrinthectomy.

Feasley, Dr. C(harles) F(rederick), Thorofare, N. J. *Organic chemistry.* Lexington, Ill, Jan. 21, 15. A.B, Hanover Col, 37; M.S, Purdue, 40, Ph.D, 42. Asst. chem, Purdue, 37–41; *research chemist, Socony-Vacuum Oil Co, Inc, 41–* Chem. Soc. Bacteriostatic properties of ortho-substituted phenylacetic acids; bactericidal properties of commercial antiseptics; utilization of secondary nitroalkanes; preparations of byproducts from petroleum.

Feaster, Dr. J(ames) F(loyd), 409 Berkley Ave, Elmhurst, Ill. *Chemistry.* Delta, Iowa, Dec. 7, 05. A.B, Drake, 28; Ph.D, Iowa State Col, 34. Instr, Iowa State Col, 28–34; *research chemist, Am. Can Co, 34–* Chem. Soc. Nutritional and physiological chemistry; requirements of the rat for vitamins B and G during lactation.

Featherly, Prof. H(enry) I(ra), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Botany.* Iuka, Ill, Feb. 27, 93. B.S, Iowa State Col, 24, M.S, 25, Ph.D, 37. Teacher, high sch, Ill, 20–22; teaching fellow, Iowa State Col, 24–25; from asst. prof. to *prof. bot. and plant path, Okla. Agr. and Mech. Col, 25–* Ecol. Soc; Fern Soc; British Ecol. Soc. Grasses; ferns.

Feder, Dr. Daniel D, Illinois Civil Service Commission, Springfield, Ill. *Personnel psychology.* Philadelphia, Pa, April 12, 10. A.B, Denver, 31, A.M, 31; Colorado, 31; Ph.D, Iowa, 34. Asst. psychol, Iowa, 32–34, research assoc, 34–36, assoc. psychol. and personnel, 36–38; asst. prof. psychol. and asst. director personnel bur, Illinois, 38–42; *exec. officer and supervisor, State Civil Service Cmn, Ill, 42–; lieut. commander, bur. naval personnel, U. S. Naval Res, 42–* Test consultant, Cooperative Test Service, 41– Col. Personnel Asn. (sec'y, 40–); assoc. Psychol. Asn; Ed. Research Asn; Midwest. Psychol. Asn; Ill. Soc. Consulting Psychologists. Student personnel; tests and measurements; student motivation; experimental evaluation of counseling procedures.

Feder, Dr. Virginia Heard, 1404 Emory Road, N.E, Atlanta, Ga. *Biochemistry.* Auburn, Ala, Feb. 17, 11. A.B, Agnes Scott Col, 33; M.S, Emory, 34; Ph.D, Michigan, 37. Instr. chem, Wells Col, 37–38; asst. prof, Furman, 38–40; instr. *biochem, Emory*, 41–42, *research assoc, 42–* Intermediary metabolism of methionine; nutritional status of riboflavin.

Federer, Charles A(nthony), Jr, Harvard University, Cambridge, Mass. *Astronomy.* St. Louis, Mo, Jan. 1, 09. B.S, Col. City of N. Y, 37. Asst. underwriter, Appleton and Cox, Inc, 26–34; staff asst. and planetarium lecturer, Am. Museum Nat. Hist, 35–37; head junior science clubs, Am. Inst. New York, 37–38; *ed. and publisher*, 'Sky,' 39–41; *'Sky and Telescope,' 41–; asst. to director, col. observatory and teaching fellow, Harvard, 41–* Pres. and owner, Sky Publishing Corp, 38–; assoc. lecturer, Hayden Planetarium, 39–41. A.A; Astron. Soc; Amateur Astron. Asn. (sec'y, 36–41). Popular and educational astronomy.

Federighi, Prof. H(enry), Antioch College, Yellow Springs, Ohio. *Biology.* New York, N. Y, June 14, 00. B.S, Rutgers, 23; A.M, Harvard, 24, Thayer fellow, 24–26, Ph.D, 26. Asst, Bur. Fisheries, 26–29; asst. prof. *biol, Antioch Col*, 29–34, assoc. prof, 34–39, *prof, 39–, chairman dept, 42–* Summer, asst, Carnegie Institution, 24; asst. in charge Texas coast oyster investigation, Bur. Fisheries, 35. Ecol. Soc. Morphology; animal behavior; temperature characteristics; annelid blood vessels; physiology and ecology of the oyster drill; tropisms; color changes in amphibians.

Federspiel, Dr. Matthew Nicholas, 1403 N. Astor St, Milwaukee, Wis. *Surgery.* Lincoln, Wis, Sept. 15, 79. D.D.S, Marquette, 00, B.S, M.D, 10. *Prof.* orthodontia, *sch. med, Marquette*, 07–20, *oral surg, 20–* Mem. staff, Milwaukee, St. Joseph's and St. Michel's Hosps. Mem. Am. Board Surg; Am. Board Plastic Surg; Soc. Ry. Surg; hon. mem. Soc. Orthodontists (pres, 16); Dental Asn; Oral and Plastic Surg; fel. Col. Surg; fel. Col. Dentists; Am. Med. Asn; Milwaukee County Dental Soc. (pres, 14). Oral and plastic surgery; hare lip and cleft palate.

Feemster, Prof. Howard C(alvin), York College, York, Nebr. *Mathematics.* Columbus, Miss. A.B, Drury Col, 02; A.M, Nebraska, 11. Instr, high sch, Mo, 02–06; *prof. math, York Col, 06–*, v. pres, 12–13. Math. Asn; Circolo Mat. di Palermo. Imaginary parabola; algebra problems; approximate number theory.

Feemster, Dr. Roy F, 57 York Terrace, Brookline, Mass. *Immunology, Bacteriology.* Silverton, Texas, July 5, 94. A.B, Southwestern (Texas), 21; M.D, Hopkins, 24, Dr.P.H, 25. Lecturer pub. health and instr. path, bacter. and clin. micros, Louisville, 25–27; instr. path. and bacter, Tulane, 27–29, asst. prof, 29–31; asst. director div. communicable diseases, State Dept. Pub. Health, Mass, 31–33, biol. lab, 33–37; instr. applied immunol, *Harvard Med. Sch*, 33–37, *lecturer pub. health admin, sch. pub. health, 37–* Director, State Div. Communicable Diseases, Mass, 37– Pub. Health Asn; Am. Med. Asn; Soc. Bact. Pathology; epidemiology; immunity; serology; blood stains.

Feenberg, Dr. Eugene, Sperry Gyroscope Co, Garden City, L. I, N. Y. *Physics.* Ft. Smith, Ark, Oct. 19, 06. A.B, A.M, Texas, 29; Parker traveling fellow, Harvard, 31–33, Ph.D, 33. Physicist, Raytheon, Inc, 30–31; instr. physics, Harvard, 33–35; lecturer, Wisconsin, 35–36; temporary mem, Inst. Advanced Study, 36–38; asst. prof. physics, Wash. Sq. Col, N. Y. Univ, 38–42; *mem. staff, Sperry Gyroscope Co, 42–* Physical Soc. Electron scattering and unitary field theory; neutron-proton interaction.

Fegel, Dr. A(rthur) C(hristian), 3 English Village, Cranford, N. J. *Wood technology.* Perth, N. Y, Aug. 25, 10. B.S, Syracuse, 33, M.S, 34, Ph.D, 38. Teaching fellow, N. Y. State Col. Forestry, Syracuse, 33–37; *engineer, West. Elec. Co, Inc. 37–* Soc. Foresters; Mech. Eng. (sec'y wood industries div, 41–). Comparison of the strength and structure of root, stem and branchwood; engineering characteristics of veneers and plywoods.

Fehlandt, Prof. Philip R(aymer), College of Puget Sound, Tacoma, Wash. *Chemistry.* Creston, Ill, Sept. 12, 00. A.B, Ripon Col, 22; A.M, Wisconsin, 30, Ph.D, 34. Head dept. chem, high sch, Wis, 22–29; asst. instr, Wisconsin, 29–34; asst. prof. *chem*, Wittenberg Col, 34–37; *prof. and head dept, Col. of Puget Sound, 37–* Chem. Soc. Thermo-chemistry; ester equilibria; relative reactivities.

Fehr, Roy B(enner), 704 Forestdale Road, Royal Oak, Mich. *Mechanical engineering.* Perkasie, Pa, Oct. 27, 90. B.S, Pa. State Col, 10, M.E, 12, M.S, 14. Special eng. apprentice, Westinghouse Machine Co, 10–11; teaching fellow eng, Pa. State Col, 11–12, instr. mech. eng. and electrochem, 12–15, asst. prof. mech. eng, 15–18, in charge investigations, eng. exp. sta, 11–18; asst. physicist, Recording and Computing Machines Co, 18–19; physicist, Dayton Photo Products Co, 20–22; develop. engineer, Rail Welding and Bonding Co, 22–26; director research, UNA Welding and Bonding Co, Cleveland, 26–28; director lab, Copland Gear Lapping Syndicate, 26–28; tech. director, Gear Processing, Inc, Cleveland, 28–34; mech. engineer, United Shoe Machinery Corp, Beverly, Mass, 34–36; chief engineer, UNA Welding, Inc, Cleveland, 36–41; *production engineer, aircraft div, Packard Motor Car Co, 41–* A.A; Mech. Eng. Engineering thermodynamics; heat treatment of steel; grain dust explosions; corrosion; optical manufacturing, designing and inspection; arc welding processes; electrodes and automatic welding heads; production of silent

automotive gears; shoe machinery; production problems in aircraft engines.

Fehrer, Prof. Elizabeth, Bryn Mawr College, Bryn Mawr, Pa. *Psychology.* Munich, Germany, Jan. 18, 09. A.B, Bryn Mawr Col, 30, Ph.D, 34; A.M, Columbia, 31. Asst. personnel, Tenn. Valley Authority, 34–37; psychologist, Long Lane Farm, Conn, 38; instr. psychol, Wellesley Col, 38–40; *asst. prof. educ. and psychol, Bryn Mawr Col, 40–* Assoc. Psychol. Asn. The role of form in perception; the learning of visually perceived form.

Felker, Frederick M(orris), 2137 Bancroft Place, N.W, Washington, D. C. *Electrical engineering.* Northampton, Mass, June 16, 81. B.S, Worcester Polytech, 04, hon. D.Eng, 38. Tech. journalist, Gen. Elec. Co, 06–07; ed. director, A. W. Shaw Co, Chicago, 07–16; v. pres. and chairman ed. board, McGraw-Hill Co, New York, 16–22; operating v. pres, Soc. for Elec. Develop, 22–26; managing director, Associated Business Papers, 26–30; director, Bur. For. and Domestic Commerce, 30–32; *educ. surv. and consultant, Textile Foundation, 33–, prof. eng. admin. and dean sch. eng, George Washington.* Asst. to Sec'y Commerce, Washington, D. C, 21–22; exec. sec'y, Am. Eng. Council, 34–39. Ed, 'Factory,' 07–16; 'Managing System Magazine,' 07–16; 'Elec. World,' 16–22; 'Elec. Merchandising,' 16–22. A.A. (sec'y, M, 36–); Elec. Eng; Mech. Eng; Wash. Soc. Eng; N. Y. Eng. Club. Engineering and economics; retail census of the United States; business costs; relation between trade and government.

Fell, Prof. Harold, 25 Prospect Ave. W, Cleveland, Ohio. *Cardiovascular disease.* Bay Shore, N. Y, June 26, 89. A.B, Denver, 14; M.D, Ohio Wesleyan, 11. Demonstrator *med, Western Reserve,* 15–27, clin. instr, 27–33, asst. clin. prof, 33–38, *assoc. clin. prof, 38–, assoc. physician, univ. hosps, 33–* Volunteer asst, Univ. Col. Hosp. Med. Sch, London, England, 19–20; assoc. physician, Mt. Sinai Hosp, 16–33; physician, Cleveland City Hosp, 21–33. Fel. Col. Physicians; Soc. Exp. Biol; Heart Asn; Am. Med. Asn; Cent. Soc. Clin. Research; Acad. Med. Cleveland. Experimental and clinical investigation of cardiovascular diseases.

Felld, A(lexander) L(ittlejohn), 3400 E. Chase St, Baltimore, Md. *Metallurgy.* Oxford, N. C, Nov. 14, 90. A.B, North Carolina, 11; M.S, N. C. State Col, 14. Asst. chemist, Exp. Sta, N. C. State Col, 13–14; junior physical chemist, U. S. Bur. Mines, Pittsburgh, 14–16, asst. metallurgist, 16–17; research physical chemist, Nat. Carbon Co, 18–19; research metallurgist, Electro Metal. Co, 19–21; Union Carbide and Carbon Research Labs, 21–25; Cent. Alloy Steel Corp, 25–27; Union Carbide and Carbon Corp, 27–29; research metallurgist and melting supt, Simonds Saw and Steel Co, 29–31; pres, *Alloy Research Corp,* 31–35, *v. pres, 35–; consulting metallurgist, Rustless Iron and Steel Corp, 31–, director research, 40–* Prof. metal. Carnegie Inst. Tech, 35. J. E. Johnson, Jr, award, Min. Eng, 23; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Min. and Metal. Eng. (iron and steel cmt, 23–27, v. chairman, iron and steel div, 29, exec. cmt, 30–); Soc. Metals; Chem. Soc; Electrochem. Soc; British Iron and Steel Inst. Ferrous metallurgy; electrometallurgy; zirconium steel; stainless iron.

Feinberg, Dr. B(enjamin) G(eorge), 118 W. 44th St, New York, N. Y. *Chemistry.* New York, N. Y, Aug. 16, 89. B.S, Col. City of N. Y, 06; A.M, Columbia, 10, Ph.D, 13. Instr. chem, Col. City of N. Y, 16–18; *consulting and mfg. chemist, 19–* Lieut, U.S.A, 18–19, capt, O.R.C, 28. A.A; Chem. Soc; fel. Inst. Chem. Analysis and reactions of aldehydes.

Feingold, Dr. Gustave A(lexander), 32 Cone St, Hartford, Conn. *Psychology, Education.* Russia, June 17, 83. B.S, Trinity Col. (Conn), 11, M.S, 12; A.M, Harvard, 12, Ph.D, 14. Asst. philos. and psychol, Harvard, 12–14; psychol, Clark, 15–16; v. prin. and director mental tests, Pub. High Sch, *Hartford,* 17–26, *prin, Bulkeley High Sch, 26–* A.A; Psychol. Asn; fel. Asn. Applied Psychol; Soc. Study Educ. General and applied psychology; mental tests; educational administration.

Feinstone, Dr. W(olfe) Harry, Pyridium Corp, Nepera Park, Yonkers, N. Y. *Bacteriology.* Poland, Oct. 1, 13. B.S, Arkansas, 36; univ. scholar, Hopkins, 36–39, Sc.D, 39. Asst. chemotherapy, Hopkins, 37–39; research bacteriologist, Am. Cyanamid Co, 39–43; *director biol. research, Pyridium Corp, 43–* A.A; Soc. Exp. Biol; Soc. Bact; Pub. Health Asn. Chemotherapy of infectious diseases; bacteriology and pharmacology of chemotherapeutic agents.

Feirer, Dr. W(illia)m A(nthony), 918 Bryn Mawr Ave, Penn Valley, Narberth, Pa. *Bacteriology.* Roselle Park, N. J, Jan. 18, 00. B.S, Rutgers, 22; Sc.D, Hopkins, 25, M.D, 30. From asst. to assoc. bacter, Hopkins, 24–30; research, H. K. Mulford Labs, 30–32; instr, med. staff dispensary, Hopkins, 32–33; *director* biol. labs, *Sharp and Dohme, Glenolden, Pa,* 36–37, med. div, 37–40, *director med. research div, 40–, v. pres, 42–* A.A; Soc. Bact; Am. Med. Asn. Antiseptics; hexylresorcinol; oral hygiene; drug fasteners in bacteria; thermophilic bacteria; di-hydranol-intestinal antiseptic.

Fekete, Elizabeth (Anna), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Histology, Pathology.* Moson, Hungary, Oct. 29, 93. B.A, Teachers Col, Hungary, 14; A.M, Michigan, 29. Teacher, pub. schs, Hungary, 15–22; asst, Michigan, 27–30; *research assoc, Roscoe B. Jackson Mem. Lab, 30–* A.A; Asn. Cancer Research; Genetics Soc. Normal and abnormal growth in mice; development, histology and pathology of the mammary gland in mice.

Feld, Dr. Jacob, 103 Park Ave, New York, N. Y. *Civil engineering.* Austria, March 3, 99. B.S, Col. City of N. Y, 18; Baldwin fellow, Cincinnati, 19–22, C.E, A.M, 21, Ph.D, 22. *Consulting engineer, 23–* Director, N. Y. Soc. Adv. Haifa Tech. Sch, 40– Collingwood prize, Am. Soc. Civil Eng, 23; Alfred T. White prize, Brooklyn Eng. Club, 26. Mem, Highway Research Board. A.A; Civil Eng; N. Y. Acad; Brooklyn Eng. Club (director, 26–30). Mechanics; lateral earth pressure; soils mechanics; elastic cables; foundations.

Feld, Dr. J(oseph) M(eyer), 1116 Amsterdam Ave, New York, N. Y. *Mathematics.* Poland, Jan. 21, 00. A.B, Columbia, 21, Chem.E, 23, Ph.D, 31. *Instr. math,* Columbia, 27–30; Brooklyn Col, 31–42; *Queen's Col. (N. Y), 41–* Math. Soc; Math. Asn. Groups of contact transformations; expansions of analytic functions; differential invariants; algebraic geometry.

Feldman, C(arl) B(randt), Box 107, Red Bank, N. J. *Electrical engineering.* St. Peter, Minn, March 26, 02. B.S, Minnesota, 26, M.S, 28. *Mem. tech. staff, Bell Tel. Labs, New York, 28–* Radio Eng. Short radio wave propagation and point-to-point radio systems.

Feldman, Dr. Horace W(enger), Room 1307 A, Federal Bldg, Boston, Mass. *Agricultural statistics.* South Bend, Ind, March 22, 99. B.S.A, Purdue, 21; M.S, Illinois, 22; M.S, Harvard, 23, Sc.D, 25. Asst. genetics, Illinois, 21–22; asst. instr. zool, Harvard, 22–23, 24–25, nat. research fellow, Bussey Inst, 25–27; instr. zool, Michigan, 27–28, asst. prof, 28–34, director vert. genetics, 29–34; statist. research, Boston City and Boston State Hosps, 34–41; *junior agr. statistician, U. S. Dept. Agr, 42–* A.A; Genetic Asn.

Feldman, Dr. Hyman M(orris), 5820 Clemens Ave, St. Louis, Mo. *Mathematics.* Pinsk, Poland, Dec. 15, 05. A.B, Washington (St. Louis), 30, M.S, 31, Ph.D, 33. Teacher *math,* Soldan High Sch, St. Louis, Mo, 34–43; *lecturer, Washington (St. Louis), 43–* Inst. Math. Statist. Mathematical statistics.

Feldman, Dr. William H, Mayo Foundation, Rochester, Minn. *Experimental surgery, Pathology.* Glasgow, Scotland, Nov. 30, 92. D.V.M, Colo. Agr. Col, 17, M.S, 26. Asst. prof. vet. path, Colo. Agr. Col, and asst. vet. pathologist, Exp. Sta, 17–27; assoc. exp. surg. and path. and *assoc. prof. comp. path, Mayo Foundation, Minnesota, 27–* Soc. Exp. Path; Asn. Path. and Bact; Vet. Med. Asn; Minn. Vet. Med. Asn; Minn. Trudeau Soc; Trudeau Soc; Int. Asn. Med. Mus. Neoplasms of lower and of domesticated animals; pathology and chemotherapy of tuberculosis.

Feldstein, Leonard H(eilbron), 2061 Hudson St, Denver, Colo. *Chemistry.* Philadelphia, Pa, Aug. 5, 83. B.S, Pennsylvania, 06. Chemist assayer, Phila. Cyanide Process Co, 06–08; asst. chemist, bur. chem, U. S. Dept. Agr, 08–30, *food and drug admin,* 30–35, *assoc. chemist,* 35–39; *Fed. Security Admin, 39–* Oils, waxes and metals in foods.

Feldstein, Marc J(ulius), 14170 Superior Road, Cleveland Heights, Ohio. *Statistics.* Russia, May 9, 02. A.B, Western Reserve, 30, A.M, 32. Statistician, *sch. applied social sciences, Western Reserve,* 31–33, *lecturer social measurement, 33–;* senior statistician in charge div. develop. and special studies, Works Progress Admin, Cleveland, 35–39; *statistician for defense training, U. S. Office Educ, 39–* Statist. Asn. Genetics; constants of relative growth; sociology; group formation; labor market analysis.

Felgar, Prof. J(ames) H(uston), 743 DeBarr St, Norman, Okla. *Engineering.* Stuart, Iowa, July 27, 74. A.B, Kansas, 01; B.S, Armour Inst. Tech, 05, M.E, 11, hon. D.E, 28. Mech. draftsman, Featherstone Foundry and Machine Works, Chicago, 05–06; instr. *mech. eng,* Okla. Agr. and Mech. Col, 06; *Oklahoma,* 06–09, *prof, 09–,* dean *col. eng,* 11–37, *emer. dean, 37–* Mech. Eng; Eng. Educ; Okla. Soc. Eng. (pres, 12).

Felger, Dr. Maurice M(onroe), Sheffield, Ala. *Chemistry.* Ft. Wayne, Ind, Feb. 5, 08. A.B, Indiana, 30, A.M, 31, Ph.D, 33. Asst. chem, Indiana, 29–33, instr, exten. div, 33–39, asst. prof, Ft. Wayne *center,* 39–41; *assoc. chemist, U. S. Nitrate Plant No. 2, Wilson Dam, Ala, 41–; mem. faculty eng, science and management defense training, Fed. Security Agency, Alabama, 41–* Summers, chemist, Int. Harvester Co, 29; Int. Smelting and Ref. Co, 36; Ind. State Geol. Surv, 31, 32. Chem. Soc. Electrochemistry; electroplating and refining of tin; acid inhibitors in electrodeposition; synthetic ammonia.

Fellciano, Prof. José M(aria), University of Philippines, Manila, P. I. *Geology.* San Fernando, Pampanga, P. I, Oct. 22, 87. Ph.G, Philippines, 16, A.B, B.S, 17, M.S, 21; Phar.D, Univ. Sto. Tomas, P. I, 21; fellow, Chicago, 21–23, Ph.D, 23. Asst. pharmacy, *Philippines,* 16–17, asst. instr. chem, 17–20, instr, 20–24, asst. prof. *geol,* 24–28, *assoc. prof, 28–,* acting head dept, 24–30, *head dept. geol. and geog, 30–* Fellow, Stanford, 23–24; geologist, Bur. Science, P. I, 27– Nat. Research Council P. I. Univ. Philippines and P. I. Govt. rep, Pan-Pacific Science Cong, Tokyo, 26. Philippine Pharmaceut. Asn; P. I. Sci. Soc; Philippine Acad. Social Sci. Sedimentation; mineral and thermal underground water; physiographic geology; ore deposits.

Felix, E(arl) L(ouis), General Development Division, U. S. Rubber Co, Passaic, N. J. *Plant pathology.* Knoxville, Tenn, Oct. 13, 99. B.S.A, Tennessee, 22, fellow, 23–24; fellow, Cornell, 24–26. *Plant pathologist,* A. A. Grinnell Co, 26–31; Porter and Bonney, 32–40; *U. S. Rubber Co, 41–* A.A; Phytopath. Soc; Mycol. Soc. Organic fungicides and bactericides.

Fell, Dr. Norbert, 8340 St. Paul Ave, Detroit, Mich. *Biochemistry.* Wilmington, Del, April 6, 01. B.S, Mass. Inst. Tech, 22; Ph.D, Michigan, 35. Research chemist, Am. Potash and Chem. Co, 23–25; asst. to pres, Buick Motor Co, 25–32; biochemist, *Parke, Davis and Co, Detroit,* 35–42, *director biol. mfg. labs, 42–*

Feller, Prof. Will, Brown University, Providence, R. I. *Mathematics, Statistics.* Zagreb, Yugoslavia, July 7, 06. Zagreb; Ph.D, Göttingen. Lecturer and head lab. applied math, Kiel; Stockholm; asst. prof. and later *assoc. prof. math, Brown.* Math. Soc; Inst. Math. Statist; fel. Yugoslav Acad.

Fellers, Dr. Carl R(aymond), Massachusetts State College, Amherst, Mass. *Food technology, Nutrition.* Hastings, N. Y, Oct. 4, 93. A.B, Cornell, 15; fellow, Rutgers, 15–17, M.S, 16, Ph.D, 17. Asst. bacter. and agron, Rutgers and N. J. Exp. Sta, 17; sanit. bacteriologist, U. S. Pub. Health Service, 18–19; bacteriologist, bur. chem, U. S. Dept. Agr, 19–20; Nat. Canners Asn, Wash, 21–24; assoc. prof. food preservation, Washington (Seattle), and state bacteriologist, Wash, 24–26; research prof. hort. manufactures, *Mass. State Col. and Exp. Sta,* 26–41, *head food technol. dept, 41–; U. S. Army, 42–, capt.* Capt, C. W. Res. A.A; Soc. Bact; Chem. Soc; Soc. Hort. Sci; Pub. Health Asn; Fisheries Soc; N. Y. Acad. Foods; microbiology and biochemistry of food; sanitary science; food preservation; nutrition.

Fellowes, Dr. O(liver) N(elson), Sharp and Dohme, Glenolden, Pa. *Bacteriology.* Steubenville, Ohio, July 23, 08. B.S, Mt. Union Col, 30; M.S, Ohio State, 34, Ph.D, 38. Instr. bacter, col. med, Iowa, 38–41; asst. bacteriologist, Exp. Sta, Tennessee, 41–42, director diagnostic lab, dept. bacter, univ, 41–42; *research virologist, Sharp and Dohme, 42–* A.A; Soc. Bact. Vaccinia and laryngotracheitis viruses; Duran-Reynals factor; polysaccharide and protein fractions of staphylococcus; local immunity; synergistic effect of x-rays and sulfanilamide on staphylococcus.

Fellows, Dr. Edwin J(ohn), Temple University School of Medicine, Philadelphia, Pa. *Pharmacology.* Lima, Ohio, Nov. 2, 04. Ph.C, Ohio State, 24, B.S, 31, M.S, 32, Ph.D, 35. Asst. physiol. chem. and pharmacol, Ohio State, 32–35; instr. *pharmacol, sch. med, Temple,* 35–42, *asst. prof, 42–* Soc. Pharmacol; Soc. Exp. Biol; Physiol. Soc. Creosote derivatives; Passiflora incarnata; quaternary ammonium compounds; local anesthetics; sulfonamides; analgesics; antispasmodics; sympathomimetic amines.

Fellows, Dr. Hurley, Kansas State College, Manhattan, Kans. *Plant pathology.* Oregon City, Oregon, Oct. 31, 92. B.S, Oregon State Col, 20; M.S, Ph.D, Wisconsin, 23. Asst. and *assoc. pathologist, wheat foot-rot investigations, bur. plant indust, U. S. Dept. Agr, 23–* Relation of growth in the potato tuber to the potato scab disease; resistance of the host plant wheat to Ophiobolus graminis; wheat foot-rots.

Fellows, Dr. John A(lbert), Mahwah, N. J. *Metallurgy.* Greenfield, Mass, July 27, 06. A.B, Williams Col, 28; indust. fellow, Mass. Inst. Tech, 30–37, M.S, 32, Sc.D, 42. Asst. metallurgist, *Am. Brake Shoe and Foundry Co,* 37–39, foundry metallurgist, Am. Manganese Steel Div, 39–41, *asst. chief metallurgist, 41–* Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn. Physical and process metallurgy; creep strength of high chromium-nickel steels; development of superior alloyed irons and steels; electric arc melting of high and low alloyed steels.

Fellows, Prof. Julian R(obert), University of Illinois, Urbana, Ill. *Mechanical engineering.* Jackson, Mich, Nov. 9, 00. B.S, Michigan, 24; M.S, Illinois, 34. Training for works management, Westinghouse Elec. and Mfg. Co, 24–25; production control work, Hudson Motor Co, 25–26; sales engineer, Marshall Blow Pipe Co, 26–27; engineer, plant eng. dept, Dodge Truck Corp, 28–30; *asst. prof. mech. eng, Illinois, 30–* Mech. Eng; Eng. Educ. Smokeless combustion of bituminous coal in hand-fired furnaces, stoves, boilers and water heaters.

Felsen, Dr. Joseph, 120 E. 39th St, New York, N. Y. *Medicine.* New York, N. Y, Sept. 4, 92. A.B, Col. City of N. Y, 11; M.D, Columbia, 15. Director labs, U. S. Pub. Health Service Hosps. 38 and 81 and St. Bartholomew's Hosp, 19–25; *director labs. and research, Bronx Hosp, 25–* Director lab, Base Hosp. 17, 18–19. Pub. Health Asn; Gastro-Enterol. Asn; Am. Med. Asn; Asn. Mil. Surg; Asn. Hist. Med; N. Y. Med. Soc; N. Y. Gastro-Enterol. Asn; N. Y. Path. Soc; N. Y. Acad. Med; Int. Soc. Gastro-Enterol. Diseases of the intestinal tract.

Felsing, Prof. W(illiam) A(ugust), 3007 Washington Square, Austin, Texas. *Physical and inorganic chemistry.* Denton, Texas, May 19, 91. A.B, Texas, 13, A.M, 15; Savage fellow, Mass. Inst. Tech, 17–18, Ph.D, 18. Tutor *chem, Texas,* 13–16, asst. prof, 19, assoc. prof, 19–25, *prof, 25–, chairman dept, 39–* Capt, C.W.S. Chem. Soc; Inst. Chem; Texas Sci. Club; Texas Acad. Free energy and electromotive work; thermochemistry; low temperature research and refrigerating fluids; activities; p-v-T and thermodynamic relations of hydrocarbons.

Felt, Dr. E(phraim) P(orter), Bartlett Tree Research Laboratories, Stamford, Conn. ***Entomology.* Salem, Mass, Jan. 7, 68. Mass. Col, 91; B.S, Boston, 91; fellow, Cornell, 92–93, Sc.D, 94. Teacher science, Clinton Liberal Inst, 93–95; asst. to state entomologist, N. Y, 95–98, state entomologist, 98–28; *chief entomologist and director, Bartlett Tree Research Labs, 28–* Collaborator, bur. entom, U. S. Dept. Agr, 20–23; chief entomologist, Conservation Cmn, N. Y, 23–24. Entom. ed, 'Country Gentleman,' 98–11; supervisory board, 'Am. Year Book'; ed, 'Jour. Econ. Entom,' 08–35; 'Index Am. Econ. Entom.' Gold medal and three silver medals, Pan-Am. Expos, 01. A.A; Entom. Soc. (v. pres, 16); Asn. Econ. Entom. (pres, 02); N. Y. Entom. Soc; Entom. Soc. Wash. Shade and forest tree insects.

Felton, Dr. George (Edwin), American Maize-Products, Roby, Ind. *Chemistry.* Eldora, Iowa, May 22, 09. B.S, Iowa State Col, 31, M.S, 33, Ph.D, 35. Asst. plant chem, subsect, Exp. Sta, Iowa State Col, 35–36; *research dept,* Gen. Foods Corp, 36–38; *Am. Maize-Products, 38–* Chem. Soc. Carbohydrate chemistry.

Felton, Dr. Lloyd D(err), National Institute of Health, U. S. Public Health Service, Bethesda, Md. ***Pathology, Preventive medicine.* Pine Grove Mills, Pa, Nov. 18, 85. A.B, Col. of Wooster, 10, Sc.D, 25; M.D, Hopkins, 16. Instr. bacter. and immunol, Hopkins, 16–17; assoc. and director clin. lab, Joseph Hosp, 17–20; assoc. path. and bacter, Rockefeller Inst, 20–22; asst. prof. prev. med. and hygiene, Harvard Med. Sch, 22–35; assoc. path. and bacter, sch. med, Hopkins, 35–38; *senior surgeon, nat. inst. health, U. S. Pub. Health Service, 38–* Trustee, Col. of Wooster, 35–38. A.A; Soc. Bact. (councilor, 35–38); Soc. Immunol; fel. Pub. Health Asn; Chem. Soc;

Asn. Mil. Surg; fel. Am. Med. Asn; N. Y. Acad; Wash. Acad. Cerebrospinal fluids; experimental meningitis; virulence; pneumonia antibodies and antigens; chemotherapy.

Felts, Dr. Wayne M(oore), Phillips Petroleum Co, P. O. Box 1751, Amarillo, Texas. *Geology.* Oakland, Calif, Aug. 5, 12. B.S, Oregon State Col, 34, M.S, 36; Ph.D, Cincinnati, 38. Instr. geol, col. eng. and commerce, Cincinnati, 38–42; assoc. geologist, Ohio River div, Cincinnati Testing Lab, U. S. Eng. Corps, 42–43; *mem. geol. dept, Phillips Petrol. Co, 43–* A.A; Min. and Metal. Eng. Igneous and metamorphic petrography; petrology; reactions between aggregate and cement in concrete; petrography of pottery from ancient Troy; petrography of concrete aggregates.

Fender, Dr. Frederick A(llen), 2361 Clay St, San Francisco, Calif. *Surgery.* Waitsburg, Wash, Jan. 27, 02. A.B, California, 24; M.D, Harvard, 29. Surg. house officer, Peter Bent Brigham Hosp, 29–31; res. neurosurg, Harvard Neur. Unit, Boston City Hosp, 31–32. Abner Perry Hard fellow neur. surg, sch. med, Rochester, 32–33, asst. res, 33–34; fellow, Rockefeller Foundation, 34–36; *clin. instr. surg, sch. med, Stanford, 36–* Asst. attending surgeon, San Francisco Hosp, 36– Neurological surgery.

Fenimore, Dr. Edward P(ugh), 1125 Belfield Ave, Drexel Hill, Pa. *Chemical engineering.* Camden, N. J, June 11, 94. B.S, Pennsylvania, 18, Ph.D, 29, Chem.E, 31. Chem. engineer, Barrett Co, 18–20; instr. chem, Pennsylvania, 20–30, asst. prof, 30–38; *v. pres, Gum, Inc, 38–* Chem. Soc. Determination of mercury in organic compounds of mercury; catalytic oxidations; errors in the gravimetric determination of mercury; fundamental measurements in unit operations.

Fenimore, Dr. H(arold) Emory, 201 N. Celia Ave, Muncie, Ind. *Chemistry.* Economy, Ind, Nov. 7, 98. A.B, Indiana, 24; A.M, Wisconsin, 26; Ph.D, Pennsylvania, 28. Asst. chem, Wisconsin, 25–26; instr, Towne Sci. Sch, Pennsylvania, 26–28; *research chemist and consultant, 28–; research chemist, Ind. Steel and Wire Co, 41–* Summers, research labs, E. I. du Pont de Nemours and Co, Phila, 26; instr, Ball State Teachers Col, Ind, 31– A.A; Chem. Soc. Organic, inorganic and electro-organic chemistry.

Fenkell, Geo(rge) H(arrison), Almont, Mich. *Civil engineering.* Chagrin Falls, Ohio, Feb. 4, 73. B.S, Michigan, 95. Civil engineer, water works, Erie, Pa, 02–08; engineer, Pa. Dock Cmn, 08; civil engineer, Dept. Water Supply, *Detroit,* 08–13, commissioner pub. works, 13–18, gen. manager, Dept. Water Supply, 18–36. Chief engineer, New Water Supply Project, Detroit, 24–34. Norman medal, Am. Soc. Civil Eng, 02. Lieut. col, C. Eng, O.R.C. Hon. mem. Civil Eng. (director, 23–26); hon. mem. Water Works Asn. (v. pres, 30, pres, 31, director, 32); hon. mem. Mich. Eng. Soc. (pres, 26); Detroit Eng. Soc. (pres, 25). Hydraulics.

Fenn, Prof. Irwin H, 99 Livingston St, Brooklyn, N. Y. *Mathematical physics.* Odessa, Russia, Feb. 12, 83. E.E, M.S, Polytech. Inst. Brooklyn. Asst. prof. and *prof. math, Polytech. Inst. Brooklyn.* Math. Soc; Physical Soc. Theory of elasticity; electromagnetic shielding.

Fenn, Prof. Wallace O(sgood), 1394 Highland Ave, Rochester, N. Y. *[5]Physiology.* Lanesboro, Mass, Aug. 27, 93. A.B, Harvard, 14, A.M, 16, Ph.D, 19. Instr. *physiol,* Harvard Med. Sch, 19–23; traveling fellow, Rockefeller Inst, 23–25; *prof, sch. med. and dentistry, Rochester, 25–* Mem. div. biol. and agr, Nat. Research Council, 32–35. Second lieut, Sanit.C, 18. Nat. Acad; A.A; Physiol. Soc. (treas, 36–40; sec'y, 42–); Soc. Exp. Biol; hon. mem. Harvey Soc; British Physiol. Soc. Effects of electrolytes on gelatin; phagocytosis; heat production of muscles; oxygen consumption of nerves and muscles; mechanics of running; nerve and muscle electrolytes; radioactive potassium.

Fenne, S(anford) B(ernell), Virginia Polytechnic Institute, Blacksburg, Va. *Plant pathology.* Madison, Wis, Aug. 14, 03. B.S, Va. Polytech, 27, M.S, 30; Cornell, 30–34. County agr. agent, Va. Polytech, 24–30; plant pathologist, forest service, U. S. Dept. Agr, 34–37; exten. plant pathologist, Georgia, 38; Va. Polytech, 39–42; *plant pathologist, Coordinator Inter-Am. Affairs, Brazil, 43–.* Lieut, Inf.Res. Phytopath. Soc. (exten. cmt, 42–). Ring-spot disease of burley tobacco in Washington County, Virginia; peanut diseases; cereal diseases; tobacco diseases.

Fennell, Prof. Richard A(dams), Michigan State College, East Lansing, Mich. *Zoology.* Decatur, Ala, April 19, 03. A.B, Birmingham-Southern Col, 27; Ph.D, Hopkins, 36. Labs, State Board Health, Ala, 22–23; asst, Birmingham-Southern Col, 27–28; Duke, 28–30; instr. and asst. prof. biol, Birmingham-Southern Col, 30–33; asst, Hopkins, 33–36; instr. *zool, Mich. State Col,* 36–41, *asst. prof, 41–* Frequency of ingestion of food and digestion in Amoebae.

Fenneman, Prof. Nevin M, University of Cincinnati, Cincinnati, Ohio. *[3]*Geology.* Lima, Ohio, Dec. 26, 65. A.B, Heidelberg Col. (Ohio), 83; A.M, Chicago, 00, Ph.D, 01; LL.D, Cincinnati, 40. Prof. physical science, Colo. State Nor. Sch, 92–00; geol, Colorado, 02–03; Wisconsin, 03–07; *geol. and geog, Cincinnati,* 07–37, *emer. prof, 37–* Geologist, U. S. Geol. Surv; chairman div. geol. and geog, Nat. Research Council, 22–23; in charge sci. work on Africa for inquiry preparatory to Paris Peace Conf. Assoc. ed, 'Jour. Geomorphol.' Gold medal, Geog. Soc. Chicago, 38. A.A. (v. pres, chairman, E, 23); Soc. Nat; Geol. Soc. (pres, 35); Asn. Geog. (pres, 18); Ohio Acad. Work of waves on shores; survey of Wisconsin lakes; oil fields of Colorado and the Gulf states; areal and economic geology in Colorado, Missouri and Ohio; physiography of the United States.

Fenner, Dr. C(larence) N(orman), 64 Broad St, Clifton, N. J. *[5]*Geology.* Clifton, N. J, July 19, 70. E.M, Columbia, 92, A.M, 09, Ph.D, 10. Mining geologist, U. S, Can, Mex. and S. Amer, 92–07; petrologist, geophys. lab, Carnegie Institution, 10–38; *retired.* Rep, Geol. Soc, Nat. Research Council, 25–28. N. Y. Acad. exped, P. R, 14; geologist, Nat. Geog. Soc. exped, Mt. Katmai, Alaska, 19; leader geophys. lab. exped, 23; geol. investigations, Yellowstone Nat. Park, 28–34; Peru, 39. In charge optical glass plant, W.I.B, 17–18. A.A; Geol. Soc; Physical Soc; Am. Geog. Soc; Min. and Metal. Eng; Seismol. Soc; Geophys. Union (chairman, sect. volcanology, 33–35); Geol. Soc. Wash. (pres, 33); Philos. Soc. Wash; Petrol. Club Wash; Wash. Acad; N. Y. Acad; for. cor. Geol. Soc. London. Geology of Yellowstone Park and of New Jersey Trias; zeolites; silica minerals; ore deposition; gneisses of New Jersey; volcanoes; petrogenesis; radioactive minerals.

Fenner, L(awrence) M(yron), 209 River St, Hoboken, N. J. *Plant pathology.* Miami Co, Ohio, May 29, 95. B.S, Ohio State, 20. Asst. plant path, Cornell, 20–24; asst. plant pathologist, State Crop Pest Cmn, S. C, 24–29; assoc. plant pathologist, State Plant Board, Miss, 29–30; agent, Dutch elm disease lab, *U. S. Dept. Agr,* Ohio Exp. Sta, 31–33, technician, office forest path, *Morristown,* 34–35, asst. forest pathologist, bur. plant indust. and later *mycologist, lab. Dutch elm disease eradication, bur. entom. and plant quarantine, 36–* Summer, agent barberry eradication, U. S. Dept. Agr, 19. Diseases of vegetable crops; bacterial canker of tomato; Dutch elm disease; fungus flora of elm.

Fenning, Dr. Con, 1620 S. 15th East, Salt Lake City, Utah. *Physiology.* Alliance, Nebr, Sept. 7, 05. B.S, Nebraska, 29, A.M, 31, M.D, 32. Intern, Mercy Hosp, Cedar Rapids, Iowa, 33; asst. prof. *pharmacol. and physiol,* Utah, 34–38; instr, Chicago, 39–40; *assoc. prof, Utah, 40–* A.A. Physiological aspects of the circulatory, respiratory and reproductive systems; development and perfection of electrical recording equipment.

Fenninger, W(illiam) N(orman), Industrial Education Bureau, State Education Bldg, Albany, N. Y. *Physics.* Gap, Pa, Feb. 28, 89. Ph.B, Franklin and Marshall Col, 10; fellow, Ohio State, 12–13, A.M, 13; Columbia. Asst. instr. physics, Ohio State, 11–13; teacher, Pratt Inst, 13–15, instr, 15–19; educ. director, Brooklyn Edison Co, Inc, 19–22, coordinating asst, 22–23; *supervisor* elec. courses, Rochester Athenaeum and Mech. Inst, 23–30; *tech. and cooperative educ, Indust. Educ. Bur, N. Y, 30–* Teacher, N. Y. Univ, 37–38. Summers, special investigator, Rochester Gas and Elec. Corp, N. Y, 26, 29; teacher, N. Y. State Nor. Sch, Oswego, 32, 33; Cornell, 35, 36. Vocational Asn; Management Asn. (job anal. cmt, 21; cmt. teaching of Eng, 21–23); N. Y. Vocational Asn. Hall effect in mercury; variation of stray power losses in a generator and motor with change of load.

Fenska, R(ichard) R(obert), 312 Tarrytown Road, White Plains, N. Y. *Forestry.* Germany, Nov. 21, 84. B.S, Beloit Col, 11; M.F, Yale, 13. Instr. forestry, Wisconsin, 13–15; forest eng, Wyman Sch. of the Woods, Mich, 15–17; asst. prof. forestry, Montana, 17–21; prof. forest eng, N. Y. State Col. Forestry, 21–32; *consulting forester and tree expert, Bartlett Tree Expert Co, White Plains, N. Y, 32–; instr. math. and science, Irving Sch. for Boys, 42–* Forestry asst, Board

Forestry, Wis, 13–15; fire warden, Pub. Domain Cmn, Mich, 17; technician, U. S. Bur. Pub. Roads, Mont, 18; scaler and forestry expert, U. S. Forest Service, 19–20; forester, paper companies, 23–25; Mass. Forestry Asn, 27–28; field engineer, West Coast Lumbermen's Asn, 28. Soc. Foresters. Form and yield of forest trees; growth of shade trees; tree expert's manual.

Fenske, Prof. M(errell) R(obert), Pennsylvania State College, State College, Pa. **7Chemistry, Chemical engineering.* Michigan City, Ind, June 5, 04. A.B, DePauw, 25; Sc.D, Mass. Inst. Tech, 28. Research assoc, Mass. Inst. Tech, 27–29; asst. prof. *chem. eng, Pa. State Col,* 29–34, assoc. prof, 34–36, *prof, 36–* Director, div. indust. research and in charge, Petrol. Ref. Lab, 29– Chem. Soc; Soc. Test. Mat; Chem. Eng. Applied chemistry; catalytic gas reactions; synthesis of organic solvents and fuels; distillation and solvent extraction; production of special fuels and lubricants; refining of oils; composition, analysis and separation of petroleum products.

Fenske, Prof. Theodore H(erman), University of Minnesota, Morris, Minn. *Animal husbandry.* Bemidji, Minn, Nov. 24, 04. B.S, Minnesota, 29, M.S, 39. Instr. *agr, Minnesota,* 29–36, asst. prof, 36–38, *west. cent. sch,* 38–40, *assoc. prof, 40–, supt, Exp. Sta, 38–* Minn. Acad. Animal breeding; body measurements in swine appraisal; sheep breeding.

Fenton, Dr. Carroll Lane, 905 Columbus St, West Liberty, Iowa. *Invertebrate paleontology.* Near Costor, Iowa, Feb. 12, 00. B.S, Chicago, 21, fellow, 23–25, Ph.D, 26. Instr. geol, Michigan, 22–23; prof. biol, Southern Col, 25–26; nat. research fellow and instr. geol, Cincinnati, 26–29; asst. prof. physical science, Buffalo, 29–31; *author, 31–* Director sch. broadcasts, Am. Asn. Adv. Science, 38–39. Summer, geologist, N. J. State Museum, 29. Assoc. ed, 'Am. Midland Naturalist,' 22– A.A. Devonian faunas of Iowa; evolution of Brachiopoda; paleoecology; Devonian corals; Precambrian of Montana.

Fenton, Lieut. Col. C(hauncey) L(ee), 33 Thayer Road, West Point, N. Y. *Chemistry.* Edinburg, Pa, Jan. 14, 80. U. S. Mil. Acad, 04; Coast Artil. Sch, 15; Army War Col, 23; Command and Gen. Staff Sch, 28. Instr. math, *U. S. Mil. Acad,* 06–10, assoc. prof, 24–27, *prof. chem. and elec, 28–* A.A; Eng. Educ. Electricity.

Fenton, Prof. Clement C(oleman), 360 Maple Ave, Morgantown, W. Va. *Pathology.* New York, N. Y, July 19, 92. A.B, Columbia, 15; M.S, West Virginia, 22, B.S, 33; M.D, Cornell, 35. *Prof. path, West Virginia, 26–* Am. Med. Asn; Asn. Path. and Bact; Int. Asn. Med. Mus; South. Med. Soc. Causes of fetal and neonatal death; effects of certain drugs and toxins on smooth muscle contractions and on agglutinins.

Fenton, Prof. Faith, Cornell University, Ithaca, N. Y. *Food chemistry.* Zearing, Iowa. B.S, Iowa State Col; M.S, Columbia, 23; Ph.D, Chicago, 38. Teacher, pub. schs, Iowa; instr. *home econ, Cornell,* 22–25, asst. prof, 25–41, *assoc. prof, 41–* Summer, mem. faculty, Iowa State Col, 24. A.A; Home Econ. Asn. Losses of vitamins during the quick freezing and dehydrating of vegetables and during the cooking of fresh, frozen, canned and dehydrated vegetables.

Fenton, Prof. F(rederick) A(zel), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Entomology.* Willimantic, Conn, Nov. 4, 92. A.B, Clark, 14; M.S, Wisconsin, 15; fellow, Ohio State, 16–18, Ph.D, 18. Sci. asst, bur. entom, U. S. Dept. Agr, 15–16; research entomologist, Iowa State Col, 19, assoc. prof. entom, 20–24, asst. chief entom. sect, Exp. Sta, 19–20, 22–24, acting chief, 20–22; entomologist, bur. entom, U. S. Dept. Agr, 24–28, senior entomologist, in charge El Paso lab, div. cotton insects, 28–34; *prof. entom. and head dept, Okla. Agr. and Mech. Col, 34–.* Acting state entomologist, Iowa, 20–22. Summers, deputy state nursery inspector, Wis, 15; field asst. in charge white pine blister rust eradication, Wis, 18. A.A; Asn. Econ. Entom; Asn. South. Agr. Workers; fel. Okla. Acad; Texas Entom. Soc. Life history and control of injurious insects.

Fenton, Prof. F(rederick) C(harles), Kansas State College, Manhattan, Kans. *Agricultural engineering.* Waterloo, Iowa, June 30, 91. B.S, Iowa State Col, 14, M.S, 30; Missouri; Oxford. Asst, Iowa State Col, 14–16; asst. prof, Missouri, 16; assoc. prof, Iowa State Col, 19–28; *prof. agr. eng, Kans. State Col, 28–* U.S.A, 17–19. Agr. Eng; Eng. Educ. Structure design; land reclamation.

Fenton, Mildred Adams, 905 Columbus St, West Liberty, Iowa. *Invertebrate paleontology.* West Branch, Iowa, Nov. 14, 99. B.S, Chicago, 22. Research, Michigan, 22–23; acting curator paleont, Cincinnati, 26–28, research, 28–29; asst. geologist, N. J. State Museum, 29; *private research, 29–* Upper Devonian faunas of Iowa; Belt algae; paleoecology; Devonian corals; Precambrian of Montana.

Fenton, Dr. Norman, Stanford University, Calif. *Psychology, Education.* New York, N. Y, March 21, 95. B.S, Harvard, 17, A.M, 18; Ph.D, Stanford, 25. Psychologist, Boston Psychopathic Hosp, 17–18; Nat. Cmt. Mental Hygiene, 19–20; prof. educ, Ariz. State Teachers Col, Tempe, 22–26; assoc. prof. psychol, Ohio (Athens), 26–28; director, State Bur. Juvenile Research, Calif, 28–40; *prof. educ, Stanford, 37–* Consultant, U. S. Children's Bur, 37–; Menlo Sch. and Junior Col, Calif. Ed, 'Jour. Juvenile Research,' 28–38. Psychologist, U.S.A, 18–19. Psychol. Asn; Orthopsychiat. Asn; Nat. Cmt. Mental Hygiene. Mental hygiene.

Fenton, Dr. Ralph A(lbert), 806 Medical Arts Bldg, Portland, Oregon. *Otolaryngology.* Lafayette, Oregon, Nov. 5, 80. California, 99–01; A.B, Oregon, 03; M.D, Northwestern, 06. Clinician ophthal. and otolaryngol, *med. sch, Oregon,* 11–27, *clin. prof. otolaryngol. and head dept, 27–* Director, Am. Board Otolaryngol, 27. Shared Casselberry prize, Am. Laryngol. Asn, 28. U. S. del, Int. Cong. Mil. Med. and Pharmacy, The Hague, 31. Senior consultant, ophthal, U.S.A, 18–19. A.A; Laryngol. Asn. (v. pres, 28); Laryngol, Rhinol. and Otol. Soc. (councilor, 26–29); Acad. Ophthal. and Otolaryngol. (v. pres, 27); Otol. Soc; Am. Med. Asn. (trustee, 35–, chairman, laryngol, rhinol. and otol. sect, 35); Pacific Coast Oto-Ophthal. Soc. (v. pres. and sec'y; pres, 42); Oregon Acad. Ophthal. and Otolaryngol. (pres); Portland Acad. Med. (pres, 31). Dichloramin treatment of mastoid wounds; etiology of otalgia from sphenopalatine ganglion connections; presence of histiocytes in mucosa of the nasal accessory sinuses, the eustachian tube and the middle ear.

Fenton, Dr. William N(elson), Smithsonian Institution, Washington, D. C. *Ethnology.* New Rochelle, N. Y, Dec. 15, 08. A.B, Dartmouth Col, 31; Ph.D, Yale, 37. Community worker, U. S. Indian Field Service, 35–37; instr. sociol. and anthrop, St. Lawrence, 37–38, asst. prof, 38–39; *assoc. anthropologist, bur. Am. ethnol, Smithsonian Institution, 39–* Research assoc, Ethnogeographic Board, 43– Summers, instr, Alleghany Sch. Natural Hist. Buffalo, 38, St. Lawrence Univ. lecturer, 40. Sec'y, Smithsonian War Cmt, 42– Anthrop. Asn. (councilor); Soc. Am. Archaeol; Folklore Soc; Anthrop. Soc. Wash. (sec'y); Wash. Acad. Ethnology of the Iroquois Indians of western New York and Ontario; ethnology of the Indians of eastern woodlands of North America; ethnobotany; social organization; ceremonialism; Iroquois government; application of anthropology to problems of society and world politics.

Ference, Prof. Michael, University of Chicago, Chicago, Ill. *Physics.* Whiting, Ind, Nov. 6, 13. B.S, Chicago, 33, M.S, 34, Ph.D, 37. Instr. *physics, Chicago,* 37–40, *asst. prof, 41–* Physical Soc. Auger effect.

Fergus, Prof. E(rnest) N(ewton), 122 Waller Ave, Lexington, Ky. *Agronomy.* Shelby Co, Ohio, March 19, 92. B.S. (Agr), Ohio State, 16, M.S, 18; Ph.D, Chicago, 31. Asst. soils and crops, Exp. Sta, Purdue, 18–20; instr. *farm crops, Kentucky,* 20–23, asst. prof, 23–28, assoc. prof, 28–38, *prof, 38–,* asst. agronomist, *Exp. Sta,* 20–36, *agronomist in charge pasture and crop investigations, 36–* Collaborator, bur. plant indust, U. S. Dept. Agr, 36– A.A; Soc. Agron; Soc. Plant Physiol; Ky. Acad. Red clover failures; clover and grass improvement; pasture production and management.

Ferguson, Dr. Alex(ander) J(ohn), 642 Murray Hill, Westmount, Que, Can. *Physics.* Ottawa, Ont, March 15, 15. B.Sc, McGill, 35, Nat. Research Council Can. scholar, 37–39, Ph.D, 39. Demonstrator physics, McGill, 35–37; *research physicist, Nat. Research Council Can, 39–* Physical Soc.

Ferguson, A(lexander) M(cGowen), Howe, Texas. *Seed breeding.* Belton, Texas, Jan. 7, 74. B.S, Agr. and Mech. Col. Texas, 94, M.S, 96; Mo. Bot. Garden, 97–98; Cornell, 01–02; Missouri, 03–05. Asst. and assoc. asst, Exp. Sta, Agr. and Mech. Col. Texas, 93–96; assoc. prof. hort. and mycol, Agr. and Mech. Col. Texas, 99–00; instr. bot, Texas, 00–03, assoc. prof, 03–06; manager, Texas Seed Breeding Farms, 06–08; *pres. and plant breeder, Ferguson Seed Farms, and Ferguson Pub. Co, 08–* Special agent, U. S. Dept. Agr, 03–04, 08–09; supply prof. and special lecturer, Okla. Agr. and Mech. Col, 07–13. U.S.A, 98–99. A.A; Pomol. Soc; Soc. Agron; Soc.

Hort. Sci; Texas Ginners Asn. (v. pres, 25–33); Texas Crop Improv. Asn. (pres, 12–18); Texas Corn Growers Asn. (pres, 06–14); fel. Texas Acad. Crotons of the United States; embryology of Ephedra; ant fungus gardens; mushrooms; flora of Austin quadrangle; plant physiology; applied seed breeding; agricultural education; principles of agriculture.

Ferguson, Prof. A(lfred) L(ynn), 928 Forest Ave, Ann Arbor, Mich. *Chemistry.* Grass Lake, Mich, June 6, 84. B.Pd, Mich. State Nor. Col, 04; A.B, Michigan, 08, A.M, 09, Ph.D, 15. Prin, high sch, 04–07, supt, 09–10; asst, *Michigan,* 10–11, *gen. and physical chem,* 11–15, instr, 15–21, asst. prof, 21–36, *assoc. prof, 36–* A.A; Chem. Soc; Electrochem. Soc; Electroplaters Soc; Mich. Acad. Physical chemistry; electrochemistry.

Ferguson, Dr. A(rthur) N(ewton), Duemling Clinic, 2902 Fairfield Ave, Ft. Wayne, Ind. *Histology.* Mercer, Mo, July 2, 97. B.S, Chicago, 23, M.S, 25, M.D, Rush, 29; Ph.D, Northwestern, 27. Asst. anat, Chicago, 23–25; Northwestern, 25–27; intern, Cook County Hosp, 28–29; instr. med, Chicago, 30–33; *Duemling Clinic.* Diagnosis and internal medicine; microscopic anatomy of the stomach, especially the healing process in experimental acute ulcer.

Ferguson, Carl S(imeon), 45 Everett St, Newton Centre, Mass. *Food and drug chemistry.* Jonesburg, Mo, April 3, 98. A.B, Harvard, 25, 25–26, 27–28. Lab. technician, John Hancock Mutual Life Ins. Co, 27–29; asst. chemist, *food and drug div, State Dept. Pub. Health, Mass,* 29–30, senior chemist, 30–31, *chief lab, 31–* Chem. Soc; Inst. Food Technol. Food and drug chemistry in relation to public health.

Ferguson, C(harles) V(aughan), 1322 Stratford Road, Schenectady, N. Y. *Engineering.* Hartford, Conn, Aug. 15, 85. B.S, Trinity Col. (Conn), 07; Met.E, Harvard, 11. Asst. to metallurgist, Carpenter Steel Co, 11–12; *research engineer. Gen. Elec. Co, Schenectady, 13–*

Ferguson, Prof. Frank A(lexander), Storrs, Conn. *Physics.* Palermo, Ont, Can, 82. A.B, Michigan, 08, A.M, 14. Assoc. prof. *physics,* Carnegie Inst. Tech, 16–18; Rutgers, 19–23; *prof, Connecticut, 23–*

Ferguson, Prof. Frederick F(erdinand), College of William and Mary, Norfolk, Va. *Microbiology.* Knoxville, Tenn, July 7, 08. A.B, Tennessee, 32, M.S, 34; Ph.D, Virginia, 38. *Instr. biol, Col. of William and Mary, 39–* Consultant, U. S. Pub. Health Service, 40–42. Old Dom. Hort. Soc. (director, 41); Va. Acad; N. C. Acad. Taxonomy and morphology of the Turbellaria.

Ferguson, Dean George O(scar), Jr, University, Va. *Psychology.* Leesburg, Va, Nov. 16, 85. A.B, Col. of William and Mary, 07; A.M, Columbia, 11, Ph.D, 17. Adj. prof. philos. and educ, Col. of William and Mary, 07–11, prof. philos. and psychol. and assoc. prof. educ, 11–16; assoc. prof. *psychol. and educ,* Colgate, 16–19; *prof, Virginia, 19–,* asst. dean *col. arts and sciences,* 26–34, *dean, 34–* Prin, William and Mary Nor. Acad, 13–16. Lieut, Sanit.C, 17. Psychol. Asn. Mental tests.

Ferguson, Dr. Henry G(ardiner), U. S. Geological Survey, Washington, D. C. ***Geology.* San Rafael, Calif, June 21, 82. A.B, Harvard, 04, B.S, 05, A.M, 06; Ph.D, Yale, 24. Asst. geologist, Cleveland Cliffs Iron Co, 06–07; *econ. geologist,* Bur. Science, P. I, 07–10; *U. S. Geol. Surv, 11–*

Ferguson, Prof. J(ames) K(enneth) W(allace), University of Toronto, Toronto, Ont, Can. *Pharmacology.* Tamsui Formosa, Japan, March 19, 07. B.A, Toronto, 28, fellow, 28–29, M.A, 29, M.D, 32. Nat. research fellow, 33–34; instr. *physiol,* sch. med, Western Ontario, 34–35, *asst. prof,* 35–36; Ohio State, 36–38; *Toronto, 38–* Mem. med. branch, R.C.A.F, 41– Pharmacol. Soc; Physiol. Soc; Can. Physiol. Soc. Carbon dioxide depots and transport in blood; respiratory reflexes; control of uterine motility.

Ferguson, Dr. James W(illiams), 5802 Dewey Ave, Indianapolis, Ind. *Chemistry.* Camden, Ohio, April 9, 08. A.B, Miami (Ohio), 29; A.M, Oberlin Col, 31; Ph.D, Michigan, 34. Teaching fellow, Michigan, 31–34; grad. asst, Oberlin Col, 29–31; chemist, research and develop. dept, Nat. Aniline and Chem. Co, 34–36; instr. org. chem, Oregon State Col, 36–39, asst. prof, 39–42, teacher chem. of explosives, summer, 41; *chemist, Eli Lilly and Co, 42–* Instr, Miami (Ohio), 30. Chem. Soc. (councilor, Oregon sect, 39, sec'y-treas, 41, v. chairman, 42). Pinacol-pinacolone rearrangement.

Ferguson, Dr. J(asper) N(ewton), Jr, 206 Watauga Ave, Corning, N. Y. *Physics.* Elephant Butte, N. Mex, June 14, 13. B.S, Agr. and Mech. Col. Texas, 35; Ph.D, Cornell, 40. Asst. physics, Cornell, 35–40; *physicist, Corning Glass Co, 40–* Photoconductivity of alkali halide crystals; glass technology.

Ferguson, Dr. John, University of Alberta, Edmonton, Alta, Can. *Physiology, Pharmacology.* Cleveland, Ohio, Feb. 8, 92. B.A, Toronto, 15; A.M, Stanford, 25; Ph.D, Northwestern, 40. Teacher, Sask. and Alta, Can, 16–17, 19–24, 25–29; asst. biol, Stanford, 24–25; *lecturer physiol. and pharmacol, Alberta, 29–* R.A.F, 18, hon. lieut. Can. Physiol. Soc. Intestinal physiology; smooth muscle.

Ferguson, Prof. J(ohn) B(right), University of Toronto, Toronto, Ont, Can. *Physical chemistry.* Londesborough, Ont, Nov. 2, 89. B.A, Toronto, 12. Physical chemist, geophys. lab, Carnegie Institution, 12–19; West. Elec. Co, 19–20; *assoc. prof. chem, Toronto, 20–* Manufacturer optical glass, W.I.B, 17–18; Ordnance Dept, U.S.A, 18. Chem. Soc; Wash. Acad; Can. Chem. Asn; fel. Can. Inst. Chem; fel. Royal Soc. Can; fel. Royal Inst. Can. Equilibria in systems of refractory oxides, of partially miscible liquids, of miscible volatile liquids and of gases at high temperatures; high temperature technique; properties of silica; electrochemical properties of glasses; base-exchange; solubility of gases in liquids; isopiestic studies.

Ferguson, John G(ilbert), 463 West St, New York, N. Y. *Electrical engineering.* New South Wales, Australia, June 5, 92. B.S, California, 15, M.S, 16. Develop. elec. measuring apparatus, West. Elec. Co, 16–25; *in charge elec. measurement develop. Bell Tel. Labs, 25–* Elec. Eng; Soc. Test. Mat. Electrical measurement; measuring apparatus; communication engineering.

Ferguson, Dr. J(ohn) H(enry), Johns-Manville Corp, Manville, N. J. *Chemistry.* Worcester, Mass, June 22, 03. A.B, Clark, 25, scholar, 25–26, A.M, 26; Ph.D, Pittsburgh, 31. Asst, Clark, 25–26; Pittsburgh, 27–30; indust. fellow, Mellon Inst, 30–34; asst. director research, Am. Maize Products Co, 34–35, cellulose-lignin-resin research, Burgess Cellulose Co, 35–40; *org. research, Johns-Manville Corp, 40–* Summer, asst, hygienic lab, U. S. Pub. Health Service, 29. Chem. Soc. Organic, cellulose, lignin, resin, oil and carbohydrate chemistry.

Ferguson, Prof. John H(oward), University of North Carolina School of Medicine, Chapel Hill, N. C. *Pharmacology, Physiology.* Edinburgh, Scotland, March 1, 02. B.A, Cape Town, 21; Rhodes scholar, Oxford, 23–26, B.A, 25, M.A, 31; M.D, Harvard, 28. Lecturer pharmacol, Cape Town, 23; asst. path, Harvard, 26–28; asst. prof. bacter, Cape Town, 28–31; instr. physiol, sch. med, Yale, 31–34; asst. prof. physiol. and pharmacol, sch. med, Alabama, 34–35, assoc. prof, 35–37; asst. prof. pharmacol, med. sch, Michigan, 37–43; *prof. physiol. and head dept, sch. med, North Carolina, 43–* A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Pharm. and Exp. Therapeut; Mich. Acad. Autonomic nervous control of digestive functions; blood coagulation.

Ferguson, Dr. J(ohn) H(oward), 766 Irving Ave, Syracuse, N. Y. *Pathology, Medicine.* Elmira Heights, N. Y, Sept. 5, 02. M.D, Syracuse, 26. Instr. *path, col. med, Syracuse,* 26–27, asst. prof, 27–29, assoc. prof, 29–42, *prof, 42–* Attending pathologist, Univ. Hosp; City Hosp; Syracuse Psychopath. Hosp; necrotomist, Onondaga County; pathologist, Syracuse Mem. Hosp. Asn. Path. and Bact; Am. Med. Asn; Syracuse Acad. Med. Benzol poisoning; bone marrow necrosis and regeneration.

Ferguson, Dr. Leonard W(ilton), Metropolitan Life Insurance Co, 1 Madison Ave, New York, N. Y. *Psychology.* Turlock, Calif, March 2, 12. A.B, Stanford, 33, A.M, 35, Ph.D, 42. Asst, Stanford, 33–39; instr. psychol, Menlo Junior Col, 39–40; Connecticut, 39–42, asst. prof, 42–43; *mem. field training div, Metrop. Life Ins. Co, 43–* A.A; assoc. Psychol. Asn; Psychometric Soc; Life Office Management Asn. (sec'y cmt. tests, 40–). Social, applied and educational psychology; attitude testing; employment testing; prediction of scholastic success.

Ferguson, Dr. L(loyd) C, University of Wisconsin, Madison, Wis. *Veterinary science, Genetics.* Lebanon, Ind, Sept. 10, 12. D.V.M, Ohio State, 34; M.S, Wisconsin, 36, Ph.D, 40. Asst. vet. science, *Wisconsin,* 34–36, *instr. vet. science and genetics, 36–, cooperative agent, bur. animal indust, U. S. Dept. Agr, 36–; capt, U. S. Army.* Vet. Med. Asn; Dairy Sci. Asn; Genetic Asn. Cellular antigens in the blood of cattle; disease resistance; hematology of cattle.

Ferguson, Dr. M(alcolm) S(tuart), Rockefeller Institute for Medical Research, Princeton, N. J. *Biology.* St. Thomas, Ont, Can, April 1, 08. B.A, Western Ontario, 32, M.A, 34; fellow, Illinois, 34–35, Ph.D, 37. Demonstrator zool, Western Ontario, 32–34; asst, Illinois, 34–36; research investigator, inst. parasitol, Macdonald Col, 38; Royal Soc. Can. fellow, *Rockefeller Inst,* 38–39, fellow, 39–40, *asst, 40–* Soc. Parasitol. Distribution and biology of Crustacea; economic importance of birds; parasitic diseases of fish; life histories and in vitro cultivation of trematodes.

Ferguson, Prof. Margaret C(lay), Seneca Castle, N. Y. **2Botany.* Phelps, N. Y, Aug. 20, 63. Wellesley Col, 89–91; B.S, Cornell, 99, fellow, 99–00, Ph.D, 01; Sc.D, Mt. Holyoke Col, 37. Teacher and prin, pub. schs, 77–88; dept. science, Harcourt Place Sem, Gambier, Ohio, 92–93; instr. *bot, Wellesley Col,* 94–96, 01–04, assoc. prof, 04, prof. and head dept, 05–30, research prof, 30–32, *emer. research prof, 32–,* director bot. greenhouses and gardens, 22–32. Summers, asst, Cornell, 01, 02, instr, 03, 04. A.A; Soc. Nat; Bot. Soc. (v. pres, 22, pres, 29); Genetics Soc; N. Y. Acad. Cytology; comparative morphology; fertilization and related phenomena; germination of the spores of basidiomycetous fungi; spongy tissue of Strasburger; life history of Pinus; cytology and genetics of Petunia.

Ferguson, Dr. Noel M, St. Louis College of Pharmacy, St. Louis, Mo. *Pharmacognosy, Botany.* East St. Louis, Ill, Dec. 20, 07. Ph.G, St. Louis Col. Pharmacy, 30, Ph.C, 32, B.S, 33; A.B, Washington (St. Louis), 34, M.S, 35, Ph.D, 42. Asst. chem, *St. Louis Col. Pharmacy,* 30–32, instr. *bot. and pharmacog,* 32–33, asst. prof, 33–41, *prof, 41–* A repetitorium of pharmacognosy; effects of individual environmental factors on the chemical constituents of plants; biosides of hydroxyanthraquinones.

Ferguson, Dean Olin Jerome, 2772 Rathbone Road, Lincoln, Nebr. *Electrical engineering.* Annawan, Ill, Nov. 21, 75. B.S.(E.E), Nebraska, 03; M.E.E, Union (N. Y), 09. Instr. *elec. eng,* Union (N. Y), 05–06, asst. prof, 06–10, assoc. prof, 10–12; *prof, Nebraska, 12–, dean col. eng, 20–* A.A; fel. Elec. Eng. (v. pres, 27–29); Eng. Educ. (v. pres, 23, pres, 39). Engineering education.

Ferguson, Prof. Phil M(oss), University of Texas, Austin, Texas. *Civil engineering.* Bartlett, Texas, Nov. 10, 99. B.S, Texas, 22, C.E, 23; M.S, Wisconsin, 24. Structural detailing and design, Dwight P. Robinson and Co, New York, N. Y, 24–27, coordinating subcontract work on construction, 27–28; assoc. prof. *civil eng, Texas,* 28–39, *prof, 39–* Summers, structural design, R. O. Jameson, Dallas, Texas, 29, coordinating subcontract work on construction, Dwight P. Robinson and Co, New York, N. Y, 30, designer, bridge div, State Highway Dept, Texas, 31, 32, 35, 39, structural engineer on design of dam, Southwest. Eng. Co, Austin, Texas, 36. Civil Eng; Soc. Professional Eng; Concrete Inst; Eng. Educ. Study of the stresses in joints and their effect upon the members which comprise the structural frame.

Ferguson, Dr. R(alph) H(olmes), Procter and Gamble Co, Ivorydale, Ohio. *Chemistry.* Jamestown, Ohio, Jan. 21, 01. B.Ch.E, Ohio State, 23, Nat. Lime Asn. fellow, 24, M.S, 24, Ph.D, 27. Asst. chem, Ohio State, 24–27; research chemist, *Procter and Gamble Co,* 27–38, *in charge physical chem. research, 38–* Chem. Soc. (councilor, 29, sec'y-treas, 33; chairman, 39); Oil Chemists Soc; Soc. X-Ray and Electron Diffraction. Physical and chemical nature of soaps and soap solutions; the phase theory of matter; oils and fats.

Ferguson, Dr. R(obert) P(aul), 1 Lenox Ave, Cranford, N. J. *Inorganic chemistry.* Belle, Mo, Aug. 25, 05. A.B, Hiram Col, 28; Ph.D, Cornell, 35. Instr. chem, Hiram Col, 31–33; inorg. chem, Cornell, 34–36; lube oil chemist, Standard Oil Develop. Co, 36–41; *head lube oil group, tech. service div, Standard Oil Co. of N. J, 41–* Surface tension and parachor of diborane.

Ferguson, Dr. Russell S, 121 E. 60th St, New York, N. Y. *Medicine.* New York, N. Y, May 3, 94. A.B, Maine, 15; M.D, Cornell, 20. Instr. *clin. surg, med. col, Cornell,* 32–34, *asst. prof, 34–* Director urol. research lab, Mem. Hosp, 29–Bunts lecturer, Crile Clinic, Cleveland, Ohio, 33; visiting prof, Washington (Seattle), 35. Am. Med. Asn; Urol. Asn. (chairman, bladder tumor registry, 35–); N. Y. Acad. Med. Urological cancer; relation of hormones to the growth of neoplasms.

Ferguson, Prof. W(alter) F(innall) C(ross), New York University, Washington Square, New York, N. Y. *Physics.* Leesburg, Va, June 15, 98. A.B, Col. of William and Mary, 19; M.S, N. Y. Univ, 26, Ph.D, 29. Asst, Bur. Standards, 20; optical computer, Washington Navy Yard, 20–23; instr. *physics, N. Y. Univ,* 23–29, asst. prof, 29–36, *assoc. prof, 36–* A.A; Physical Soc; Optical Soc. Band spectra.

Fergusson, S(terling) P(rice), Blue Hill Meteorological Observatory, Harvard University, Milton, Mass. *Meteorology.* Dixon's Spring, Tenn, Nov. 8, 68. Pub. schs. Asst, Blue Hill Observatory, 87–11; prof. meteorol, 01, Nevada, and assoc. meteorologist, Exp. Sta, 11–16; meteorologist, U. S. Weather Bur, 16–31, in charge testing lab, 17–31; *research assoc, Blue Hill Meteorol. Observatory, Harvard, 31–* Aerologist, Univ. Mich. exped, Greenland, 26. A.A; Meteorol. Soc; Inst. Aeronaut. Sci; Am. Acad; Philos. Soc. Wash. Anemometry; apparatus for aerology; meteorology of total solar eclipses; exploration of atmosphere with kites and balloons; hygrometry.

Fermi, Prof. E(nrico), 382 Summit Ave, Leonia, N. J. **7Physics.* Rome, Italy, Sept. 29, 01. Dr. Physics, Pisa, 22. Lecturer, Florence, 24–25; *prof.* theoret. physics, Rome, 27–38; *physics, Columbia, 39–* Nobel prize, 38. Fel. Physical Soc; Philos. Soc. Statistics of electron gas and of systems containing particles that obey the Pauli principle; statistical model of the atom; magnetic moments of atomic nuclei; theory of beta-ray emission; artificial radioactivity by neutron bombardment; slow neutrons.

Fernald, Prof. Ernest M(ercer), R. D. 2, Easton, Pa. *Mechanical engineering.* New York, N. Y, Oct. 7, 93. M.E, Cornell, 15, M.M.E, 25. Asst. mech. engineer, Remington Arms Co, 15–17; asst. engineer of tests, Washington Navy Yard, 17–23, instr. exp. eng, Cornell, 23–27; from asst. prof. to *prof. mech. eng, Lafayette Col, 27–* Mech. Eng. Thermodynamics.

Fernald, Prof. Evelyn I(da), Rockford College, Rockford, Ill. *Botany.* Boston, Mass, March 22, 89. A.B, Vassar Col, 12; A.M, Cornell, 20, Ph.D, 24. Instr, high schs, Mass, 12–15; biol, Mass. State Nor. Sch, Framingham, 15–18; bacter, Women's Col, Delaware, 18–19; *bot,* N. Y. State Col. Agr, Cornell, 19–24; asst. prof, Rockford Col, 24–25; Conn. Col, 25–31; assoc. prof, *Rockford Col,* 31–35, *prof, 35–* A.A; Bot. Soc; Soc. Hort. Sci; Torrey Bot. Club; Ill. Acad. (second v. pres, 36, v. pres, 38, pres, 39); Wis. Acad. Osmotic concentration of cell sap; growth; flora of Winnebago County, Illinois.

Fernald, Prof. Grace M(axwell), University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Clyde, Ohio, Nov. 29, 79. A.B, Mt. Holyoke Col, 03, A. M, 05; Bryn Mawr Col, 04–06; fellow, Chicago, 06–07, Ph.D, 07. Asst, psychol. and educ, Bryn Mawr Col, 07–08; acting head dept. psychol, Lake Erie Col, 08–09; asst. director, Chicago Psychopathic Inst, 09; director psychol. lab, Calif. State Nor. Sch, Los Angeles, 09–18; asst. prof. *psychol, California at Los Angeles,* 18–20, *assoc. prof, 20–* Psychol. Asn. Peripheral vision; Purkinje phenomenon in peripheral vision; delinquent and atypical children; psychology of special disabilities in reading, spelling and mathematics.

Fernald, Prof. H(enry) T(orsey), 1128 Oxford Road, Winter Park, Fla. *Entomology.* Litchfield, Maine, April 17, 66. B.S, Maine, 85, M.S, 88; Wesleyan, 85–86; Ph.D, Hopkins, 90. Prof. zool, Pa. State Col, 90–99; state zoologist, Pa, 98–99; prof. *entom, Mass. State Col,* 99–30, director, grad. sch, 28–30, *emer. prof, 30–* State nursery inspector, Mass, 02–18. A.A; Entom. Soc; Asn. Econ. Entom. (pres, 14). Sphecinae of America.

Fernald, Dr. H(erbert) B(yron), 18113 Olympia Road, Cleveland, Ohio. *Chemistry.* Larchland, Ill, May 11, 12. B.S, Monmouth Col, 35; Samuel Avery fellow, Nebraska, 38–39, B.S. and Ph.D, 40. *Research chemist, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Organic and inorganic chemistry.

Fernald, Dr. Mabel R(uth), 2516 Cleinview Ave, Cincinnati, Ohio. *Psychology.* Springfield, Ohio, May 7, 83. A.B, Mount Holyoke Col, 06; Ph.D, Chicago, 10. Instr, prep. dept, Denison, 06–07; psychol, Chicago Nor. Col, 10–14; psychologist, Lab. Social Hygiene, Bedford Hills, N. Y, 14–18; S.G.O, 18–19; asst. prof. psychol, Minnesota, 19–21; *director psychol. lab, vocation bur, Cincinnati Pub. Schs, 21–* Summers, instr, Bryn Mawr Summer Sch. for Women in Indust, 22, 23; lecturer, Wisconsin, 24, 25. A.A; Psychol. Asn; Nat.

Vocational Guidance Asn. The diagnosis of mental imagery; mental tests; delinquency; educational problems.

Fernald, Prof. M(erritt) L(yndon), Harvard University, Cambridge, Mass. **[1]Botany.* Orono, Maine, Oct. 5, 73. B.S, Harvard, 97; hon. D.C.L, Acadia, 32, hon. D.Sc, Montreal, 38. Asst, *Gray Herbarium, Harvard,* 91–02, *curator, 35–, director, 37–,* instr. bot, 02–05, asst. prof, 05–15, *Fisher prof. nat. hist, 15–* Instr, Alstead Sch. Nat. Hist, N. H, 99–01. Assoc. ed, 'Rhodora,' 99–28, ed. in chief, 29– Leidy medal, Acad. Nat. Sciences, Phila, 40. Int. Bot. Cong, Cambridge, England, 30. Nat. Acad; A.A. (v. pres, 41); Bot. Soc. (pres, 42); Asn. Geog; Am. Acad; Soc. Plant Taxon. (pres, 38); Philos. Soc; New Eng. Bot. Club. (pres, 11–14); Acad. Nat. Sci. Phila; Bot. Soc. Exchange Club Gt. Britain; for. mem. Linnean Soc. London; Soc. Phytogeog. Suecana. Relationships and distribution of higher plants of North America; relations of North American and Old World plants; systematic and geographic botany of North America, especially from Virginia to eastern Canada and Newfoundland; edible wild plants.

Fernald, Dr. Robert L(eslie), 218 S. Seventh St, Monmouth, Ill. *Experimental embryology.* Larchland, Ill, Aug. 27, 14. A.B, Monmouth Col, 37; Ph.D, California, 41. *Instr. zool, Coe Col, 41–; U. S. Naval Res, 42–* Development of blood island of Hyla regilla.

Fernández, Prof. C(arlos) Graef, Calle 23 Sur 502, Puebla, Puebla, Mex. *Mathematics, Astrophysics.* Guanacevri, Durango, Mex, Feb. 25, 11. Guggenheim Mem. Foundation fellow, Mass. Inst. Tech, 37–41, Ph.D, 40. *Prof. math,* Escuela Superior de Construcción, 32–37; *Mexico, 33–; asst. director, Observatorio Astrofisico Nacional de Tonanzintla, 41–* Mathematician, Dept. de Irrigacion, Mex, 37; Lazaro Cardenas fellow, 40; hon. prof, Univ. de Morelia, Michoacan, Mex, 41. V. pres, Nat. Math. Cong, Saltillo, 42. Astron. Soc; Acad. Nacional de Ciencias Antonio Alzate. Theory of groups; internal constitution of the stars.

Fernández-García, Prof. R(afael), Box 182, Río Piedras, P. R. *Agricultural chemistry.* Luquillo, P. R, Aug. 28, 98. B.S, Puerto Rico, 18; M.S, California, 27. Sugar chemist, 18–22; asst. chemist, Insular Exp. Sta, Rio Piedras, 22–25, chief chemist, 25–28, director, 28–31; prof. chem. and head dept, Puerto Rico, 31–39; *director gen, Instituto Exp. de Agr. y Zootecnia and Escuela Superior de Agr-El Valle, Venezuela, S. Amer, 39–* Chief rural rehabilitation div, P. R. Reconstruction Admin, 35–36. Mem, P. R. Policy Cmt, 34. Del, Cong. Int. Soc. Sugar Cane Technol, Java, 29. A.A; Chem. Soc; Soil Sci. Soc; P. R. Col. Chemists; Sugar Cane Technol. P. R; Int. Soc. Soil Sci; Int. Soc. Sugar Cane Technol. (chairman, cmt. on cultivation and field operations, mem, exec. cmt. for 4th cong, P. R).. Fertilizers for sugar cane; methods of soil analysis; soil classification.

Fernán-Núñez, Prof. M(arcos), 561 N. 15th St, Milwaukee, Wis. *Pathology.* Savannah, Ga, Aug. 15, 96. A.B, L.M, M.D, S.D, Univ. Madrid, 25. Asst. path, *sch. med,* Vanderbilt, 25–27; *assoc. prof. path, Marquette, 27–, director dept, 29–* Health director, Colombia Syndicate Colony, Republic Colombia, 19–23; pathologist, coroner's office, Milwaukee County, 30– Asn. Path. and Bact; fel. Soc. Clin. Path; fel. Col. Physicians; fel. Am. Med. Asn; fel. Pub. Health Asn; Radiol. Soc. N. Amer; Wis. Acad; Chicago Path. Soc; fel. Royal Soc. Trop. Med. and Hygiene; Nat. Acad. Med. Spain; Pan-Am. Med. Asn. Tropical medicine; histology; cancer.

Fernberger, Prof. Samuel W(eiller), University of Pennsylvania, Philadelphia, Pa. **[5]Psychology.* Philadelphia, Pa, June 4, 87. B.S, Pennsylvania, 08, A.M, 09, Ph.D, 12. Asst. psychol, Pennsylvania, 08–10, instr, 10–12; asst. prof. exp. psychol, Clark, 12–20; *Pennsylvania,* 20–29, *prof. psychol, 29–; prin. tech. aid, S 7, Nat. Defense Research Cmt, 41–* A.A; Psychol. Asn. (treas, 22–24, sec'y, 26–29, pres. east. branch, 36, hon. pres, 37). Experimental psychology; psychophysical measurement methods.

Fernelius, Prof. W(illis) Conard, Purdue University, Lafayette, Ind. *Chemistry.* Riverdale, Utah, Aug. 7, 05. A.B, Stanford, 26, A.M, 27, fellow, 27–28, Ph.D, 28; Munich, 30. Asst, Stanford, 26–27; instr. *chem,* Ohio State, 28–32, asst. prof, 32–36, assoc. prof, 36–40, *prof,* 40–42; *Purdue, 42–* A.A; Chem. Soc; Ohio Acad. Ammonia system of acids, bases and salts; reactivity of the alkali bases; nitridation; constitution of compounds analogous to potassium ammonozincate; reductions in liquid ammonia solution; molecular addition compounds.

Ferner, Dr. Joseph (Johnson), R. D. 4, Johnstown, Pa. *Biochemistry, Internal medicine.* Stoyestown, Pa, 83. M.D, Pittsburgh, 09. Mem. staff, Eye and Ear Hosp, Pittsburgh, 11–12; West Penn Hosp, 13–16; med. director, Pa. Reformatory, 26–27; *practising physician.* Med. examiner, N. Y. Life Ins. Co, 14; John Hancock Life Ins. Co, 10–11. Capt, M.C, 17–19. A.A; Am. Med. Asn; Austin Flint Med. Soc. (sec'y, 15–17); fel. Pa. Acad. Endocrinology.

Fernholz, Dr. Donald L(eslie), 124 S. Second St, Delavan, Wis. *Botany.* Delavan, Wis, April 25, 07. A.B, Milton Col, 29; M.S, Wisconsin, 31; Ph.D, Ohio State, 35. Asst, Ohio State, 31–35; instr. bot, Idaho, 35–37; *U. S. Navy, 42–* Summers, agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 34–36, bur. plant indust, 39–42. A.A; Bot. Soc; Soc. Hort. Sci; La. Acad. Plant physiology and plant morphology.

Fernow, Prof. B(ernard) E(dward), Clemson Agricultural College, Clemson, S. C. *Mechanical engineering.* Brooklyn, N. Y, Oct. 5, 83. A.B, Cornell, 04, M.E, 06. Asst. eng. tests, Solvay Process Co, 06–08; shop supt. and chief engineer, Cutler Hammer Clutch Co, 09–21; instr, Sibley Col, Cornell, 21–23; asst. prof, Worcester Polytech, 23–27; *prof. mech. eng. and head dept, Clemson Agr. Col, 27–* Mech. Eng; Eng. Educ; S. C. Soc. Eng. Thermodynamics; internal combustion engines.

Fernow, Prof. Karl H(ermann), Jacksonville, N. Y. *Plant pathology.* Washington, D. C, Oct. 12, 93. B.S, Cornell, 16, Ph.D, 25. Instr. *plant path, Cornell,* 24–25, *exten. asst. prof, 25–* A.A; Phytopath. Soc. Mosaic diseases of plants.

Ferns, Prof. H(erman) H(arvey), 1030 Colony St, Saskatoon, Sask, Can. *Mathematics.* Jaffa, Ont, Dec. 24, 94. B.A, Saskatchewan, 27; fellow, Toronto, 31–33, Ph.D, 33. Asst. *math,* Illinois, 27–28; instr, *Saskatchewan,* 28–31, *asst. prof, 34–* Math. Asn. Theory of groups.

Ferrari, Dr. Charles G(uido), 3806 Abbott Ave, S, Minneapolis, Minn. *Chemistry.* Philadelphia, Pa, April 9, 97. B.S, Pa. State Col, 19; Ph.D, Minnesota, 28. Asst. chem, Pa. State Col, 19; chemist, P. E. Sharpless Co, 19–21; head dept. baking, Dunwoody Indust. Inst, Minneapolis, 21–25; research assoc, Bur. Standards, 28–29; *research chemist, Gen. Mills, Inc,* 29–35, asst. manager research labs, 35–40, asst. director research service, 40–42, *director chem. research, 42–* Managing ed, 'Cereal Chem,' 24–27. A.A; Chem. Soc. (v. chairman, Minn. sect, 35, chairman, 41, counsellor, 42–); Asn. Cereal Chem; Dairy Sci. Asn; Optical Soc; Inst. Food Technol; Minn. Indust. Chem. Forum; Minn. Acad; Inter-Soc. Color Council. Cereal and biological chemistry; spectrophotometry; colorimetry; carotinoid pigments of wheat and flour; flour bleaching; organic peroxides; electron activated ergosterol and vitamin D; cereal nutrition.

Ferraro, Dr. A(rmando), Psychiatric Institute, 722 W. 168th St, New York, N. Y. *Neuropathology.* Naples, Italy, Dec. 15, 94. M.D, Naples, 14. Asst. and chief, Clinic Nervous and Mental Diseases, Sassari, Italy; for. asst, Clinic Nervous Diseases, Paris, 23–24; asst, Clinic Nervous Diseases, Utrecht, Holland, 24; neuropathologist, St. Elizabeths Hosp, Washington, D. C, 25–26; *prin. research neuropath, Psychiat. Inst, New York; attending neuropsychiatrist, N. Y. Post-Grad. Med. Sch, Columbia, clin. prof. psychiat, col. physicians and surg.* Director, neuro-psychiat. service, Dept. Correction, New York; adj. neurologist, Neur. Inst. A.A; Asn. Neuropath; Neur. Asn; Am. Med. Asn; Soc. Exp. Biol; Wash. Soc. Nervous Diseases; N. Y. Acad. Med; Italian Soc. Neur; Italian Soc. Oto-Neuro-Ophthal. Neuropsychiatry; neuro-anatomy.

Ferrell, Dr. John A(tkinson), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Public health.* Clinton, N. C, Dec. 14, 80. B.S, North Carolina, 02, M.D, 07; Dr.P.H, Hopkins, 19. Teacher and county supt, pub. schs, N. C, 02–05; county supt. health and county physician, Duplin County, N. C, 07–10; asst. sec'y, State Board Health, N. C, and state director, Rockefeller Sanit. Cmn, 10–13; asst. director int. health board, *Rockefeller Foundation,* 13–26, *assoc. director int. health div,* 27– Chairman, Nat. Malaria Cmt, 24. Hon. mem. and field sec'y, Conf. of State and Provincial Health Authorities N. Amer. Pub. Health Asn. (councilor, 26–29, mem, exec. board, 29–, pres, 32); Am. Med. Asn. (chairman, pub. health sect, 22); South. Med. Asn; N. C. Med. Soc. (sec'y, 12–15); hon. mem. Can. Pub. Health Asn; hon. fel. Royal Sanit. Inst; Royal Inst. Pub. Health. The prevention and control of diseases, especially malaria and those of the

filth-borne group; nutrition; improved practises in public health.

Ferrill, Prof. H. Ward, University of North Carolina, Chapel Hill, N. C. *Physiology.* Cobden, Ill, May 5, 04. A.B, Missouri, 30, Ph.D, Chicago, 36. Asst, Chicago, 30–31, asst. *physiol,* 33–36; asst. prof, sch. med, Texas, 31–33; *assoc. prof, sch. med, North Carolina, 36–,* acting chairman dept, 39–41. A.A; Elisha Mitchell Sci. Soc; N. C. Acad. Endocrinology.

Ferrin, Prof. E(van) F, University Farm, St. Paul, Minn. *Animal husbandry.* Cherokee Co, Iowa, Feb. 9, 88. B.S, Iowa State Col, 11, M.Agr, 20. Instr. and asst. prof. *animal husbandry,* Iowa State Col, 11–18; assoc. prof, Kans. State Col, 19–20; *prof, Minnesota, 20–* Chairman, Nat. Swine Record of Performance Cmt, 28– Soc. Animal Production; Nat. Swine Growers' Asn. (v. pres, 40–). Nutritional deficiencies of rye grain; individual versus group feeding of swine; record of swine performance.

Ferris, Prof. C(harles) E(dward), Kingston Pike, Knoxville, Tenn. *Mechanical engineering.* Napoleon, Ohio, Sept. 23, 64. B.S, Mich. State Col, 90, McGill, 04. Civil engineer, Mich. and Ky, 90–92; instr. mech. eng. and drawing, *Tennessee,* 92–98, prof, 98–03, mech. eng, 03–14, indust. eng, 14–40, dean *col. eng,* 15–40, *emer. dean, 40–* Mech. Eng. Internal cooling of the gas engine; descriptive geometry.

Ferris, Prof. G(ordon) F(loyd), Stanford University, Calif. **7Zoology.* Bayard, Kans, Jan. 2, 93. A.B, Stanford, 16, A.M, 18. Asst. *entom, Stanford,* 16–17, instr, 17–21, asst. prof, 21–27, assoc. prof, 27–37, *prof, 37–* Guggenheim Mem. Foundation fellow, Mexico, 25–26; Molteno Inst, 30–31. Summer, exped, Lower Calif, 19, Panama, 38. A.A; fel. Entom. Soc. Amer; Pacific Coast Entom. Soc. Scale insects; ectoparasites of birds and mammals; methods for the study of minute insects; systematic methods in entomology; morphology of arthropods.

Ferris, Dr. Henry W(hiting), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Pathology.* New Haven, Conn, May 2, 99. A.B, Yale, 21, M.D, 25. Intern, Hartford Hosp, 25–27; asst. *path,* sch. med, Yale, 27–28, *instr,* 28–30; *med. col, Cornell, 30–* Asst. res, New Haven Hosp, 27–28; asst. pathologist, New York Hosp, 30–; consulting pathologist, New York Eye and Ear Infirmary, 35– Asn. Path. and Bact. Tumors of the kidney; comparative histology of skin lesions of yaws and syphilis; urinary calculi.

Ferris, Mrs. R(oxana) S(tinchfield), Stanford University, Calif. *Botany.* Sycamore, Calif, April 13, 95. A.B, Stanford, 15, A.M, 16. Asst, *Dudley Herbarium, Stanford,* 16–29, *asst. curator, 29–* Systematic botany.

Ferris, S(eymour) W(ashington), 3144 Passyunk Ave, Philadelphia, Pa. *Chemistry.* Hunter, N. Y, Feb. 22, 00. B.Chem, Cornell, 22. Instr, high sch, N. J, 22–23; research chemist, *Atlantic Ref. Co,* 23–36, *chief chemist, 36–* A.A; Chem. Soc. (chairman, Phila. sect, 41); Franklin Inst; Petrol. Inst; N. Y. Acad. Solvent extraction; composition of petroleum; crystal behavior of wax; dewaxing; fractional distillation; physical properties of petroleum; color determination; pyrolysis.

Ferry, Dr. C(layton) W(alton), 345 Grand View Blvd, Tuckahoe, N. Y. *Organic chemistry.* Pingree, N. Dak, June 9, 08. B.S, North Dakota, 31; Ph.D, Hopkins, 35. Instr, Hopkins, 34–35; research chemist, *Burroughs-Wellcome and Co, Tuckahoe, N. Y,* 35–38, develop. chemist, 38–41, *director chem. develop. lab, 41–* Chem. Soc. Synthesis of substituted phenols; complex amines and substituted ureas.

Ferry, Prof. E(rvin) S(idney), 33-29 145th St, Flushing, N. Y. **2Physics.* Croydon, N. H, June 14, 68. B.S, Cornell, 89, 91–93; Hopkins, 93–94; Upsala, 97–98. Instr. physics, Wisconsin, 95–99; prof, Purdue, 99–33; *retired.* Electrochem. Soc; Soc. française de Physique. Radiation; physiological optics; specific inductive capacity; pyrometry; applied gyrodynamics; physics measurements.

Ferry, Dr. Frederick C(arlos), 324 Hart St, New Britain, Conn. *Mathematics.* Braintree, Vt, Jan. 22, 68. A.B, Williams Col, 91, A.M, 94, LL.D, 17; A.M, Harvard, 95; Ph.D, Clark, 98; Christiania, 98–99; hon. Sc.D, Colgate, 09, Knox Col, 36, Clark, 37; LL.D, Hamilton Col, 17, George Washington, 21, Rutgers, 35, Houghton Col, 37. Instr. math. and classics, Williams Col, 91–94, asst. prof. math, 99–02, prof, 02–17, dean faculty, 02–03, dean col, 03–17; pres, prof. math. and trustee, *Hamilton Col,* 17–38, *emer. pres, 38–* Nat. Conf. Cmt. on Standards of Cols. and Secondary Schs. Trustee, Teachers Ins. and Annuity Asn; Carnegie Foundation Adv. Teaching; Guggenheim Mem. Foundation. A.A; Math. Soc; Math. Asn; Asn. Cols. State of N. Y. (pres). Geometry; the special geometries of particular surfaces; geometry on the crunodal cubic cone and on the cubic scrolls of the first kind and of the second kind.

Ferry, Dr. James F(rederick), West Virginia University, Morgantown, W. Va. *Plant anatomy.* Weston, W. Va, Aug. 14, 03. A.B, W. Va. Wesleyan Col, 28; M.S, West Virginia, 32; Ph.D, Ohio State, 35. Asst. instr. bot. and biol, West Virginia, 30–32; bot, Ohio State, 32–34; asst. land planning consultant, Nat. Resources Board, 34–35; state land use planning specialist, Resettlement Admin, 35–38; state rep. bur. agr. econ, U. S. Dept. Agr, 38–43; *exec. sec'y, State Planning Board, W. Va, 43–* Summer, asst. to technician, U. S. Forest Service, 34. A.A; South. Appalachian Bot. Club; W. Va. Acad. Plant morphology and ecology.

Ferry, Dr. John D(ouglass), Oceanographic Institution, Woods Hole, Mass. *Chemistry.* Dawson, Yukon Territory, Can, May 4, 12. A.B, Stanford, 32, Ph.D, 35. Attached worker, Nat. Inst. Med. Research, London, 32–34; private asst, Hopkins Marine Sta, Stanford, 35–36; instr. and tutor biochem. sciences, *Harvard,* 36–38, junior fellow, soc. fellows, 38–41, *special research assoc, 42–; assoc. chemist, antifouling project, U. S. Navy, Oceanog. Inst, Woods Hole, 41–* Chem. Soc; Soc. Biol. Chem; N. Y. Acad. Ultrafiltration; polymers of high molecular weight; physical chemistry of proteins.

Ferry, Dr. N(ewell) S(immons), 265 McKinley Road, Grosse Pointe Farms, Mich. *Bacteriology.* New Haven, Conn, Feb. 7, 76. Ph.B, Yale, 98; M.D, Hopkins, 02. Intern, Barnes Hosp, Washington, D. C, 02, asst. res. physician, 03; teacher path, bacter. and physiol, col. med, Tennessee, 03–08; *senior research bacteriologist, Parke, Davis and Co, Detroit, 08–, asst. director research, 37–* Past pres, Conf. Biologists of Mich, Ohio and Ind. A.A; Soc. Bact. (past pres, Detroit branch); Asn. Immunol; fel. Pub. Health Asn; Mich. State Pub. Health Asn; Mich. Acad; Wayne County Med. Soc; Int. Soc. Microbiol. Diseases of animals, especially canine distemper and equine influenza; bacterial antigens; pollen and protein extracts; bacteriology and immunology of infectious diseases of man; meningococcal toxin and antitoxin.

Ferry, Dr. Ronald M(ansfield), Harvard University, Cambridge, Mass. *Biochemistry.* June 14, 91. A.B, Harvard, 12; M.D, Columbia, 16. Intern, Presb. Hosp, N. Y, 17–19; research fellow biochem, *Harvard,* 20–22, nat. research fellow med, 22–24, instr. *biochem,* 24–28, asst. prof, 28–31, *assoc. prof, 31–* Master, John Winthrop House, Harvard, 30– Lieut, M.C, 18–19. A.A; Soc. Biol. Chem; Chem. Soc. Physical chemistry of hemoglobin; immunochemistry; proteins.

Fertig, George J(oseph), 4301 Cliff Road, Birmingham, Ala. *Chemical engineering, Metallurgy.* Louisville, Ky, Oct. 29, 99. Purdue, 17–21; Harvard, 21–22; Mass. Inst. Tech, 22–24. Asst. metallurgist, Tenn. Coal, Iron and R. R. Co, 25–27; chem. engineer, Birmingham Slag Co, 28–30; director chem. and physical labs, Pittsburgh Testing Labs, Birmingham, Ala, 30–33; *pres, George J. Fertig, Inc, 33–* Lecturer, Birmingham-Southern Col, 26–36. Chem. Soc. (chairman, Ala. sect, 30–32); Ala. Acad. (pres); Ala. Blast Furnace and Raw Mat. Asn. Corrosion hardness and plating effect of copper steels; atomic weight determination of titanium; use of blast furnace slag in bituminous and in seawater construction; aromatic and pungent spices; heat treated cast irons; Bessemer converter steel; by-product gas purification.

Fertig, Dr. John W(illiam), 600 W. 168th St, New York, N. Y. *Biostatistics.* Lebanon, Pa, Oct. 13, 11. A.B, Ursinus Col, 31; Ph.D, Minnesota, 35. Assoc. biometrician, Mem. Foundation Neuro-Endocrine Research, 35–37; research assoc. *biostatistics,* Hopkins, 37–40; *prof, col. physicians and surg, Columbia, 40–* Lecturer, Kentucky, 38–40. A.A; Inst. Math. Statist; Statist. Asn. Application of statistical methods to medical data and biological data.

Feshbach, Dr. Herman, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* New York, N. Y, Feb. 2, 17. B.S, Col. City of N. Y, 37; Ph.D, Mass. Inst. Tech, 42. Tutor *physics,* Col. City of N. Y, 37–38; *instr, Mass. Inst. Tech, 41–* Physical Soc. Theoretical physics; nuclear physics; acoustics; mathematical physics.

Fessenden, Prof. E(dwin) A(llan), 140 Oakwood Ave, Troy, N. Y. *Mechanical engineering.* Seven Mile, Ohio,

Aug. 14, 82. Washington (St. Louis); B.S, Missouri, 04, M.E, 06. Draftsman, Aetna Foundry and Machine Co, Springfield, Ill, 04–05; from instr. to assoc. prof. mech. eng, Missouri, acting head dept, acting dean sch. eng. and acting director eng. exp. sta, 05–16; *prof. mech. eng. and head dept*, Pa. State Col, 16–22; *Rensselaer Polytech*, 22– Mech. Eng; Eng. Educ; East. N. Y. Eng. Soc. Thermodynamics; heat transmission; steam power plants.

Fessenden, Prof. R(ichard) W(illiam), Massachusetts State College, Amherst, Mass. *Chemistry*. Middleboro, Mass, Dec. 29, 02. B.S, Mass. Col, 26, M.S, 28; Ph.D, Columbia, 33. Asst, Columbia, 28–31; *asst. prof. chem, Mass. State Col, 31–* Chem. Soc. Physical chemistry; rate of reaction.

Fessler, A(ibra) H(enry), A. C. Spark Plug Co, Flint, Mich, *Ceramics*. Elkland, Pa, Oct. 18, 98. B.S, Illinois, 21. U. S. Bur. Mines, 21–24; Westinghouse Elec. and Mfg. Co, 24–27; *ceramic research, A. C. Spark Plug Co, 27–* Ceramic Soc; Soc. Rheol. Ceramic problems pertaining to porcelain.

Fessler, Dr. W(illiam) A(lfred), Solvay Process Co, Solvay, N. Y. *Organic chemistry*. Harriman, Tenn, Oct. 17, 14. B.S, Tulsa, 34; M.S, Illinois, 35. Chem. Foundation fellow, 35–37, Ph.D, 37. *Research chemist, nitrogen div. research lab, Solvay Process Co, 37–* Chem. Soc. Esterification of tertiary alcohols; structure of salts of nitro compounds.

Fetcher, Dr. E(dwin) S(tanton), Jr, University of Minnesota, Minneapolis, Minn. *Physiology*. Winnetka, Ill, Aug. 9, 09. B.S, Harvard, 31; Ph.D, Chicago, 34. Research chemist, Universal Oil Products Co, 34–36; research assoc. *physiol*, Chicago, 37–40; *instr, Minnesota, 40–* A.A; Chem. Soc. Membrane phenomena; oxidation reduction; physiology of marine mammals; transport of salt and water.

Fetherstonhaugh, Dean E(dward) P(hillips), 801 Dorchester Ave, Winnipeg, Man, Can. *Electrical engineering*. Montreal, Que. B.Sc, McGill, 99. Manager, Ottawa office, Fetherstonhaugh and Co, 00–05; demonstrator and lecturer, McGill, 05–07; electrical engineer, Can. Westinghouse Co, 07–09; *prof. elec. eng, Manitoba, 09–, dean faculty eng. and archit, 22–* Mem. Nat. Research Council Can, 37. Mil. Cross, 17; King's Jubilee medal, 35. Eng. Inst. Can. (chairman, Winnipeg branch, 23). Corrosion of underground cast iron pipe lines.

Fett, Dr. G(ilbert) H(oward), University of Illinois, Urbana, Ill. *Electrical engineering*. Chicago, Ill, June 19, 09. B.S. Illinois, 31, Ph.D, 40; M.S, Iowa State Col, 32. Engineer, Littelfuse Labs, Chicago, Ill, 33–35; asst, instr. and *assoc. elec. eng, Illinois, 35–* Junior engineer, Fed. Power Cmn, 37. Elec. Eng. (chairman, Urbana sect, 39); Physical Soc; Welding Soc. Electronics; glow and arc discharges; welding arcs and electrodes; electric circuits.

Fetter, Dr. Dorothy, Brooklyn College, Brooklyn, N. Y. *Physiology*. St. Paul, Minn, 00. B.S, Minnesota, 22; M.S, Michigan, 25; Ph.D, Chicago, 31. Research assoc. pediat, Chicago, 31–35; *instr. physiol, Brooklyn Col, 35–* Gastrointestinal physiology.

Fetters, Prof. Karl L(eroy), Carnegie Institute of Technology, Pittsburgh, Pa. *Engineering*. Alliance, Ohio, Nov. 28, 09. B.S, Carnegie Inst. Tech, 31; hon. fellow and Am. Inst. Mining and Metal. Engineers fellow, Mass. Inst. Tech, 39–40, Sc.D, 40. Asst. metallurgist, Nat. Tube Co, 33–36; open hearth metallurgist, Youngstown Sheet and Tube Co, 36–38, metallurgist, 40–41; asst, Mass. Inst. Tech, 38–39; *asst. prof. metal, Carnegie Inst. Tech, 41–* Soc. Metals; Min. and Metal. Eng; Soc. Indust. Quality Statist; Iron and Steel Inst. Gt. Britain. Equilibria between molten iron and lime; silica; iron oxide slags; open hearth steel making; process metallurgy.

Fettke, Prof. Cha(rle)s R(einhard), Carnegie Institute of Technology, Pittsburgh, Pa. *Geology, Petrology*. San Francisco, Calif, March 25, 88. B.S, Washington (Seattle), 10; A.M, Columbia, 11, Ph.D, 14. Field asst, Wash. Geol. Surv, 09–11; asst. *geol*, Columbia, 11–13; instr, *Carnegie Inst. Tech*, 13–18, asst. prof, 18–20, assoc. prof, 20–29, *prof, 29–* Summer, instr, Columbia, 12; geol. aid, U. S. Geol. Surv, 13; geologist, Pa. Topog. and Geol. Surv, 14–15, 17–19; Nat. Hist. Surv, P. R, 16; cooperating geologist, Pa. Geol. Surv, 19; hon. curator, Carnegie Museum, 26–37; consulting geologist, proposed Lake Erie-Ohio River canal, C.Eng, U.S.A, 36–37. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol; fel. Miner. Soc; Min. and Metal. Eng; Ceramic Soc; Geophys. Union. Economic geology; Manhattan schist; geology of Puerto Rico; iron ore deposits; coal; oil shale; oil and gas sands of Pennsylvania; clays, glass sands and other ceramic materials; recovery of oil by water flooding and air and gas drives; subsurface stratigraphy of Appalachian Plateau Province; the Bradford oil field.

Fetzer, Dr. L(ewis) W(illiam), 1107 Sarasota Circle, Dallas, Texas. *Physiology, Biochemistry*. Brooklyn, N. Y, Oct. 3, 78. Cooper Union, 00; Ph.D, Munich, 02; M.D, George Washington, 10; Sc.D, Dallas, 20. Tech. biologist and sanit. engineer, 03–06; instr. chem, George Washington, 07; physiol. chemist, Exp. Sta, Maryland, 07–09; specialist biochem, office exp. stations, U. S. Dept. Agr, 09–15; assoc. prof. path. chem, Georgetown, 12–15; prof. physiol. and biochem, Fordham, 15–16; pharmacol, Baylor, 16–17, physiol. and pharmacol, 18–19, physiol, pharmacol. and biochem, 19–20; biol, Dallas, 19–25; *consulting physician, 22–* Sch. Aviation Med, U.S.A, 25, Med. Field Service Sch, 28. M.O.R.C, 17–, lieut. col, 31–, flight examiner div. aviation med, A.S, U.S.A, 25–A.A; Chem. Soc. (mem, cmt. on occupational diseases in chem. trades, 19, chairman, 20–27, chairman, cmt. on indust. toxicol, 27); fel. Am. Med. Asn; fel. Texas Acad; Texas State Med. Asn. Plant and animal chemistry and physiology; pharmacology; diseases of metabolism and of the digestive system; industrial toxicology.

Fetzer, Dr. M(aurice) C(harles), Carpenter Steel Co, Reading, Pa. *Physical metallurgy*. Minneapolis, Minn, March 16, 07. Met.E, Minnesota, 29; Hennin Jennings scholar, Harvard, 32–34, Sc.D, 34. Asst. metallurgist, E. I. du Pont de Nemours and Co, 30–32; research metallurgist, Am. Steel and Wire Co, 34–36; asst. prof. metal, State Col. Wash, 36–37; Pa. State Col, 37–42; *metal. dept, Carpenter Steel Co, 42–* Soc. Metals; Inst. Min. Eng. Heat treatment of tool steels; torsional creep of metals.

Fetzer, Dr. Wallace G(orden), Edificio Federico Restrepo. Medellín, Colombia, S. Amer. *Mining, Geology*. Minneapolis, Minn, Feb. 11, 05. E.M, Minnesota, 29, Ph.D, 34. Mining engineer and geologist, Soc. Int. Forestière et Minière du Congo, E. Africa, 29–31; tech. director and engineer in charge investigations for the establishment of nat. metal. plants, Colombian Govt, 35–38; *consulting mining engineer and geologist, 38–* Solubility of gold in placers and veins. gold deposits of Antioquia, Colombia.

Fetzer, Dr. W(alter) R(aymond), 425 Oakley Drive, Clayton, Mo. *Chemistry*. Russelville, Ind, July 13, 95. A.B, Nebr. Wesleyan, 17; M.A, Toronto, 19, Ph.D, 22. Demonstrator chem, Toronto, 17–19, electrochem, 19–22; research chemist, Miner Labs, Chicago, 22–25; chief chemist, A. P. Callahan and Co, 25–29; *chief chemist and director research, Union Starch and Ref. Co, Granite City, Ill, 29–* Chem. Soc. (councilor, 34, 40; chairman, sugar div, 37). Electrolysis of aqueous solutions of sodium sulfide; corrosion; composition of starch hydrolytic products.

Feuer, Dr. Bertram, 175 N. Michigan Ave, Chicago, Ill. *Bacteriology*. Chicago, Ill, Jan. 20, 96. B.S, Illinois, 18, M.S, 20; Patten fellow, Northwestern, 24–26, Ph.D, 28. Research chemist, E. I. du Pont de Nemours and Co, 18; asst, Illinois, 18–20; chemist and bacteriologist, State Water Surv, Ill, 18–20; chemist, Newport Co, 20–21; prof. biol, Campion Col, 21–22; *senior* bacteriologist, Dept. Health, Chicago, 22–24; instr. bacter, Northwestern, 24–28; *consulting bacteriologist, 28–* A.A; Chem. Soc; fel. Inst. Chem; fel. Pub. Health Asn; Franklin Inst; fel. Royal Soc. Arts. Biochemistry; pharmacology; microbiology.

Feusse, Prof. E(lmer) G(eorge), 213 Brashear St, Lafayette, La. *Physical chemistry*. Cincinnati, Ohio, Nov. 27, 97. A.B, Cincinnati, 19, A.M, 20, Ph.D, 22. Instr. *chem*, Cincinnati, 21–23; *prof. and head dept, Southwest. La. Inst, 23–* Research, Columbia, 29–30. A.A; Chem. Soc; Eng. Educ. Additive properties of the chlorbenzenes and their electronic formulas.

Feustel, Dr. Irvin C(arl), 1126 Park Hills Road, Berkeley, Calif. *Chemistry*. Spokane, Wash, Feb. 3, 06. B.S, State Col. Wash, 27; M.S, George Washington, 29; Ph.D, American Univ, 34. Asst. sci. aid to junior chemist, bur. pub. roads, *U. S. Dept. Agr*, 26–29, asst. chemist and later assoc. chemist, bur. chem. and soils, 29–39, chemist and later *senior chemist, bur. agr. and indust. chem, west. regional research lab, 39–* A.A; Chem. Soc. Industrial fermentations; utilization of agricultural surpluses and wastes by fermentation and composting.

Fevold, Dr. H(arry) L(eonard), 139 Ardmore Road, Berkeley, Calif. *Chemistry.* Badger, Iowa, Oct. 21, 02. A.B, St. Olaf Col. 25; M.S, Wisconsin, 26, Ph.D, 28. Asst. chem, Wisconsin, 26–28, research assoc. chem, dept. zool, 28–35; asst. prof. biol. chem, Harvard, 35–41; *senior biochemist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Chem. Soc. Chemistry and physiology of hormones; purification and separation of gonadotropic hormones and their interaction in ovarian development; thyrotropic and adrenalotropic hormones of the hypophysis; osmosis; corpus luteum hormones.

Feynman, Dr. R(ichard) P(hillips), Princeton University, Princeton, N. J. *Theoretical physics.* New York, N. Y, May 11, 18. B.S, Mass. Inst. Tech, 39; Procter fellow, Princeton, 40–42, Ph.D, 42. *Visiting asst. prof, Wisconsin, 42–; war research, Princeton, 43–* A.A; Physical Soc. Quantum electrodynamics.

Fialkow, Dr. Aaron (David), 226 E. 203rd St, New York, N. Y. *Mathematics.* New York, N. Y, Aug. 9, 11. B.S, Col. City of N. Y, 31, M.S, 31; scholar, Columbia, 33–34, fellow, 35–36, Ph.D, 36. Teacher, high schs, N. Y, 32–33, 35; nat. research fellow math, Princeton and Inst. Advanced Study, 36–37; *instr. math,* Brooklyn Col, 37–42; *Defense Training Inst, 41–; lecturer, sch. pharmacy, Columbia, 42–* Math. Soc. Differential geometry.

Fichter, Dr. Edson (Harvey, Jr), University of Nebraska, Lincoln, Nebr. *Animal ecology.* Randolph, Iowa, July 3, 10. B.S, Nebraska, 35, M.S, 37, Ph.D, 42. Lab. asst. zool, *Nebraska,* 35–39, museum asst, *state museum,* 39–41, *asst. curator, 41–* Soc. Mammal; Nebr. Acad. Distribution and life histories of mammals.

Fick, Nat(haniel) C(row), Battelle Memorial Institute, Columbus, Ohio. *Metallurgy, Metallography.* Lake Wawasee, Ind, July 13, 13. B.S, Butler, 35; M.S, Purdue, 38. Metal. asst, sheet and tin div, Fairfield works, Tenn. Coal, Iron and R.R. Co, 38–39; research metallurgist, research lab, U. S. Steel Corp, 40–41; Gary work, Carnegie-Ill. Steel Corp, 41–42; *mem. tech. staff, Battelle Mem. Inst, 43–* Instr, eng, science and management war training courses, U. S. Office Educ, 42–43. Min. and Metal. Eng; Soc. Metals. Physical metallurgy; rapid control methods of chemical analysis; the Fe-C-Si constitution diagram; surface problems; erosion; coatings.

Ficken, Prof. Frederick A(rthur), University of Tennessee, Knoxville, Tenn. *Mathematics.* Moore's Hill, Ind, Aug. 13, 10. A.B, Oberlin Col, 31; A.M, Ohio State, 32; Rhodes scholar, Oxon, 32–35, B.A, 34; Ph.D, Princeton, 38. Instr. *math,* Lafayette Col, 37–38; Cornell, 38–42; *prof, Tennessee, 42–* Geometry; partially ordered sets.

Fickett, Prof. Elmer E(dward), Lowell Textile Institute, Lowell, Mass. *Chemistry.* Chelsea, Mass, May 19, 84. B.S, Tufts Col, 08. Asst. chemist, Walworth Mfg. Co, 08–09; supt. and assayer, U. S. Nickel Co, 09–11; instr. ore dressing, North Dakota, 11–15; *chem,* Washington (St. Louis), 15–17; *asst. prof, Lowell Textile Inst, 17–* Summers, inspector for French and Italian Armies, 17–19; expert consultant, Office of Quartermaster Gen, 42. Chem. Soc. (councilor, St. Louis sect, 17); Asn. Textile Chem. and Colorists. Quantitative analysis.

Ficklen, J(oseph) B(urwell), 3d, U. S. Rubber Co, Charlotte, N. C. *Chemical engineering.* Fredericksburg, Va, April 11, 02. Virginia; B.S, Calif. Inst. Tech, 28; Yale. Chem. engineer, Travelers Ins. Co, 28–41; consultant occupational diseases, City of Los Angeles, 41–42; *director safety, Charlotte plant, U. S. Rubber Co, 42–* Special health officer, Los Angeles Co, Calif, 41–42. A.A; Chem. Eng; Inst. Chem; Elec. Eng; Mil. Eng; Chem. Soc; Asn. Eng; Soc. Chem. Indust. Gt. Britain. Qualitative and quantitative chemical analysis, especially with reference to industrial health problems; application of photography to estimation of dust in air.

Fiddes, Prof. John, 831 Temperance St, Saskatoon, Sask, Can. *Physiology.* Aberdeen, Scotland, July 16, 81. M.B, Ch.B, Aberdeen, 19, M.D, 26. Asst. physiol. and Carnegie teaching fellow, Aberdeen, 23–26; exp. physiologist, Baker Inst, Melbourne, Australia, 26–30; *prof. physiol, Saskatchewan, 30–* Pathologist, Alfred Hosp, Melbourne, 26–30; hon. mem. med. staff, City Hosp. and St. Paul's Hosp, Saskatoon, 30– British Med. Asn. The lower vertebrate heart; endometriosis; pathology.

Fidlar, Dr. Edward, University of Toronto, Toronto, Ont, Can. *Physiology.* Trenton, Ont, Dec. 23, 83. B.A, Toronto, 05, M.B, 07, fellow, 20–22, M.D, 22. Asst, Provincial Board Health, Ont, 07–08; demonstrator path, Minnesota, 08–11; lab. director, City Hosp, Hamilton, Ont, 11–12; chief path. and bacter. div, Inst. Pub. Health, London, Can, 12–16; *research fellow physiol, Toronto, 20–* Lieut, R.A.M.C, 16–17, capt, C.A.M.C, 17–19. Pathology; bacteriology; complement fixation in tuberculosis; physiology of respiration; blood platelets.

Fidler, Dr. Harold A(lvin), 322 Donner Laboratory, University of California, Berkeley, Calif. *Civil engineering.* Philadelphia, Pa, Aug. 2, 10. B.S, Drexel, 32; M.S, Mass. Inst. Tech, 34, Savage fellow, 34–35, Sc.D, 40. Asst. soil mech, Mass. Inst. Tech, 35–38, instr. civil eng, 38–40; asst. to engineer in charge foundation investigation sect, U.S. Engineer Office, Binghamton dist, 40–41, engineer in charge, Syracuse dist, 42; *capt, Eng. Corps, U. S. Army, 43–* Civil Eng. Soil mechanics; soil as an engineering material of construction; development of the cylindrical compression device for determining the stress-strain characteristics of soil.

Fiedler, A(lbert) G(eorge), U. S. Geological Survey, Washington, D. C. *Hydraulic engineering.* Philadelphia, Pa, Jan. 4, 97. B.S. (C.E), C.E, Pa. State Col. Junior engineer, surface water investigations, *U. S. Geol. Surv,* 18–19, asst. engineer, 19–23, engineer, 23–25, assoc. engineer, ground water investigations, 25–28, hydraul. engineer, 28–35, senior hydraul. engineer, 35–41, *asst. chief div. ground water, 42–* Supt. construction, Coon Construction Co, Pa, 20. Assoc. mem. Civil Eng; Water Works Asn; Geophys. Union. Ground water investigations; well drilling methods.

Fiedler, Prof. George J(oseph), 1206 S. Third Ave, Bozeman, Mont. *Electrical engineering.* Bushton, Kans, March 18, 04. B.S, Kans. State Col, 26; E.E, 34; M.S, Kansas, 32. Student engineer, Gen. Elec. Co, 26–28; radio engineer, Radio Corp. of Amer, 28–29, dist. service manager, Atlanta, Ga, 29–31; asst. and instr, Kansas, 31–33; asst. to dean, N. Y. State Col. Teachers, 33–35; instr. *elec. eng,* Union (N. Y), 35–39; *assoc. prof, Mont. State Col, 39–* Elec. Eng; assoc. Radio Eng; Eng. Educ; Mont. Soc. Eng. Radio loud speakers; radio receiver test equipment; training electrical engineers for the Army Signal Corps; ultra high frequency techniques.

Fiedler, R(eginald) H(obson), U. S. Fish and Wildlife Service, Washington, D. C. *Fisheries.* Williamsport, Pa, May 29, 98. B.S, Washington (Seattle), 21. Asst, State Dept. Fisheries and Game, Wash, 21; commercial fisheries, 23–24; asst, Bur. Fisheries, 24–29, *chief div. fishery industries,* 29–40, *fish and wildlife service, U. S. Dept. Interior, 40–* Chief fishery sect, agr. adjust. admin, U. S. Dept. Agr, 33; deputy administrator in charge fishery codes, Nat. Recovery Admin, 34; chief, U. S. Fisheries mission to Peru, 41; chief, Caribbean Fisheries Mission, 42; mem, Fisheries Board Econ. Warfare Mission, South Pacific Islands, 43. Statist. Asn; Fisheries Soc; Asn. Marketing Officials. Economic and technical investigations of the fisheries of the United States, Virgin Islands, Puerto Rico, Hawaii, South America, South Pacific Islands and Alaska; Alaska crab investigations and crab migrations of Chesapeake Bay; bacteriology of canned salmon; international fishery relations; fishing port facilities.

Fieger, Prof. Ernest A(ugust), 2148 Government St, Baton Rouge, La. *Agricultural chemistry.* St. Paul, Minn, May 16, 97. B.S, Minnesota, 20, Ch.E, 21, Ph.D, 24. Instr. *agr. chem, Louisiana,* 24–26, asst. prof, 26–30, assoc. prof, 30–36, *prof, 36–, acting head nutrition research labs, Exp. Sta.* Summers, State Soil Surv, Minn, 26–, surveyor in charge, Washington County, 35, 36. Chem. Soc; Soil Sci. Soc; La. Acad. (permanent sec'y, 37–). Soil; colloids; protein coagulation; chemical studies of egg yolk discoloration.

Fiekers, Rev. B(ernard) A(lbert), S.J, Holy Cross College, Worcester, Mass. *Organic chemistry.* Cambridge, Mass, Jan. 19, 06. A.B, Boston Col, 27, M.S, 34; Ph.L, Weston Col, 33; Jgnatiuskolleg, Valkenburg (Holland), 35–39; Ph.D, Clark, 42. Asst. prof. inorg. chem. anal, Boston Col, 34–35; *prof. org. chem. and chairman dept. chem, Col. of Holy Cross, 42–* A.A; Chem. Soc; Inst. Chem; Franklin Inst; Electrochem. Soc; New Eng. Asn. Chem. Teachers. Neutral reduction intermediates of nitrobenzene; aromatic nitrogen compounds.

Field, Dr. Ada M(artitia), R. F. D. 1, Guilford College, N. C. *Nutrition.* Climax, N. C, Sept. 30, 77. A.B, Guilford Col, 98; A.M, Washington (Seattle), 09; Ph.D, Columbia, 28. Instr. science, Intermountain Inst, Idaho, 04–07; prof. chem, Guilford Col, 10–12; lecturer nutrition, Woman's Med. Col. of N. Y, 13–14; asst. prof. home econ, George Peabody Col, 14–16,

assoc. prof, 16–25; lecturer, California, 29–31; *manager, Goodwheat Products.* A.A. Purification of protein; foods.

Field, Crosby, 205 Water St, Brooklyn, N. Y. *Engineering.* Jamestown, N. Y, March 12, 89. B.S, N. Y. Univ, 09; M.E, Cornell, 12; M.S, Union (N. Y), 14. Engineer, Gen. Elec. Co, 12–14; consulting engineer, 14–15; chief engineer, Standard Aniline Products, Inc, 15–17; eng. manager, Nat. Aniline and Chem. Co, 19–23; *factory and develop. manager, v. pres, sec'y and director, Brillo Mfg. Co, 23–; pres, Flaklce Corp, 28–; col. and asst. director safety, safety and security branch, Ordnance Dept, U. S. Army, 42–* Ordnance Dept, 17–19, col. Ordnance Res. Corps, 19– A.A; fel. Elec. Eng; fel. Mech. Eng; Chem. Eng; Soc. Refrig. Eng. (pres, 38); Inst. Refrig; Chem. Soc; Soc. Tool Eng; Army Ordnance Asn; Farm Chemurgic Council; N. Y. Eng. Club; Chemists' Club. Electrical, chemical and mechanical machinery; lightning arrester; vapor mercury heating; cooling, freezing and temperature control systems; processes for manufacturing metal wool and their subsequent fabrications; management engineering.

Field, Dr. Cyrus W(est), 88 N. Portage St, Westfield, N. Y. *Pathology.* New York, N. Y, April 27, 78. M.D, Yale, 00. Asst, path. lab, Presb. Hosp, New York, 00–03; bacteriologist, research lab, Dept. Health, New York, 03–08; prof. path, sch. med, Fordham, 05–08; path. and bacter, med. dept, Louisville, 08–10; asst. director, Bellevue and allied hosps, 10–15. Tutor, Columbia, 02. Asn. Path. and Bact; Soc. Exp. Biol; Soc. Biol. Chem. Bacteriology; tetanus toxin; etiology of scarlet fever and measles; typhoid infection from oysters; colloidal chemistry and immunity; standard antigens for Wassermann reaction.

Field, Dr. E(dmund), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Chicago, Ill, Jan. 22, 11. B.S, Armour Inst. Tech, 32; Ph.D, Northwestern, 36. *Chemist, chem. div, ammonia dept, Exp. Sta, E. I. du Pont de Nemours and Co.* Chem. Soc. Catalytic organic synthesis, particularly under elevated pressures.

Field, Dean Floyd, Georgia School of Technology, Atlanta, Ga. *Mathematics.* Salem, Oregon, Dec. 19, 73. A.B, Willamette Col, 97; A.B, Harvard, 00, A.M, 02. Instr. math. and physics, Allen Sch, West Newton, Mass, 00–01; Pa. State Col, 02–03; head dept. math, Evanston Acad, Ill, 03–06; adj. prof, *Ga. Tech,* 06–07, junior prof, 07–09, prof. and head dept, 09–34, *dean men, 22–, director personnel, 34–,* acting registrar, 35–36. Math. Asn; Eng. Educ; Ga. Acad.

Field, Dr. Geo(rge) S(ydney), 53 Fentiman Ave, Ottawa, Ont, Can. *Physics.* Wimbledon, Eng, Oct. 23, 05. B.Sc, Alberta, 29, Nat. Research Council Can. bursar, 29–30, M.Sc, 30, D.Sc, 37. Junior research physicist and *physicist, Nat. Research Council Can, 30–* Assoc. Radio Eng. Ultra-short radio waves; ultrasonics; acoustics.

Field, Prof. Hazel E(lizabeth), 1543 N. Ave. 46, Los Angeles, Calif. *Physiology.* Princeton, Ill, Feb. 25, 91. A.B, Western Col, 12; M.S, Chicago, 15; Ph.D, California, 27. Instr. biol, Randolph-Macon Woman's Col, 15–16; zool, Milwaukee-Downer Col, 16–17; biol, Newcomb Col, Tulane, 17–19, 21–24; asst. physiol, California, 24–25; asst. prof. zool, *Occidental Col,* 27–29, *biol,* 29–32, *assoc. prof, 32–* A.A; Eugenics Soc; West. Soc. Nat. Effect of tobacco smoke on activity; adrenals.

Field, Dr. Henry, 2713 Dumbarton Ave, Washington, D. C. *Anthropology.* Chicago, Ill, Dec. 15, 02. B.A, Oxford, 25, M.A, 28, D.Sc, 37. Asst. curator physical anthrop, Field Museum Nat. Hist, Chicago, 26–36, curator, 36–41; *govt. research on Near East, Library of Congress, 41–* Leader, 1st and 2nd Marshall Field expeds, N. Arabian Desert; asst, Field Museum, Oxford Univ. exped, Kish, Iraq; mem. archeol. expeds, West. Europe; Near East exped, 34. Nat. advisory councilor, Lingnan Univ, China. U. S. del, Cong. Int. des Sciences préhist. et protohist, Oslo, 36; Int. Cong. Archeol. and Ethnol, Copenhagen, 38. A.A; Anthrop. Asn; Inst. Iranian Art and Archeol. (director); Am. Geog. Soc; Oriental Soc; New Orient Soc. (chairman, exec. cmt); Genetic Asn; British Asn; fel. Royal Anthrop. Inst. Gt. Britain and Ireland; fel. Royal Geog. Soc; fel. Royal Asiatic Soc; fel. Geol. Soc. London; fel. Zool. Soc. London; hon. mem. Glasgow Archeol. Soc; Acad. Latine des Sci; fel. Royal Italian Geog. Soc; cor. mem. Acad. Coimbra; hon. mem. Archeol. Soc. Brussels; Inst. int. d'Anthrop. Anthropometric survey and prehistory of southwestern Asia; archeology of Russia.

Field, Horace H(opkins), Commonwealth Edison Co, 72 W. Adams St, Chicago, Ill. *Engineering.* Fall River, Mass, Nov. 27, 87. B.S, Worcester Polytech, 08. Mfg. dept, Gen. Elec. Co, 08–09; management utility properties, Stone and Webster, 09–15; Sanderson and Porter, 16–17; mem. firm, Norton, Bird and Whitman, 17–20; consulting engineer utility and indust. management, 20–22; sec'y and ed. publications, power survey cmt, Great Lakes div. and E. Cent. div, Nat. Elec. Light Asn, 22–28, ry. electrification cmt, 27–33; *special asst. to chairman, Pub. Service Co. of North. Ill, 32–; Commonwealth Edison Co, 34–* Elec. Eng. (cmt. on transportation); Gas Asn; West. Soc. Eng. (trustee, 30–33). Physical characteristics and economics of steam railway electrification; economic surveys.

Field, H(ugh) W(illiam), 3144 Passyunk Ave, Philadelphia, Pa. *Chemical engineering.* Indianapolis, Ind, Aug. 21, 06. B.S, Pennsylvania, 28. Research chem. engineer, *Atlantic Ref. Co,* 28–38, supervisory engineer, 38–40, *asst. manager research and develop. dept, 40–* Instr, Drexel, 36–38. Chem. Eng; Chem. Soc. General petroleum technology; oil cracking; distillation; solvent extraction.

Field, James E(dward), 2530 Maplewood Ave, Cuyahoga Falls, Ohio. *Physics.* Bucyrus, Ohio, June 20, 04. B.S, Heidelberg Col. (Ohio), 27; M.S, Michigan, 29, Ph.D, 36. Asst. prof. physics, Battle Creek Col, 29–32; *research physicist, Goodyear Tire and Rubber Co, Akron, 35–* Physical Soc. Infra-red and x-ray spectra; x-rays.

Field, Prof. J(ohn), 2d, 542 Alvarado Row, Stanford University, Calif. *Physiology.* Philadelphia, Pa, May 11, 02. A.B, Stanford, 23, A.M, 24, Ph.D, 28. Asst. chem, *Stanford,* 23–24, fellow, food research inst, 24–25, instr. *physiol,* 25–29, asst. prof, 29–35, assoc. prof, 35–42, *prof, 42–* Assoc. prof, Col. Physicians and Surg, San Francisco, 35–40. A.A; Physiol. Soc; Soc. Exp. Biol. (sec'y-treas, Pacific Coast sect, 36–38); Hist. Sci. Soc; West. Soc. Nat; Calif. Acad. Med. Metabolic stimulants; fermentation; chemistry of muscular contraction and recovery; biological oxidation; vertebrate and invertebrate metabolism; hypothermia.

Field, Dr. John E(llis), 2510 Cherry St, Denver, Colo. *Civil engineering.* Ph.D, Yale, 88. Mining eng, Aspen Pub. Sampling Co. and Taylor and Brunton, 87–92; consulting mining engineer, 92–94; chief examiner, U. S. Surveyor General's Office, 94–97; state engineer, Colo, 97–98, 13–14; sewer construction engineer in charge, Denver, 01–03; project engineer, U. S. Bur. Reclamation, Colo. and Wyo, 03–07; *consulting civil engineer, 07–;* chief res. engineer inspector, Pub. Works Admin, 33–42; *supervising engineer, Reconstruction Finance Corp, 42–* Engineer mem, State Land Board, Colo, 13–19. Civil Eng. (pres, Colo. chapter, 16). Irrigation drainage; water supplies and resources; inter-state litigation of water and appraisals; reservoir dam construction.

Field, Dr. Madeleine E(lizabeth) (Mrs. Henry Warren), 9 High Rock St, Needham, Mass. *Physiology.* Greenfield, Mass, March 9, 03. A.B, Oberlin Col, 25; A.M, Radcliffe Col, 29, Ph.D, 32. Asst. *physiol,* Mt. Holyoke Col, 25–27; instr. biol, Simmons Col, 27–28; fellow, *sch. pub. health, Harvard,* 31–33, instr, 33–35, assoc, 35–37, 39–41, *asst. prof, 41–* Am. Asn. Univ. Women fellow, Copenhagen, 34–35. Physiol. Soc. Lymphatic system.

Field, Prof. Peter, 904 Olivia Ave, Ann Arbor, Mich. *Mathematics.* Mitchell Co, Iowa, Sept. 1, 76. B.S, Minnesota, 96, M.S, 97; fellow, Cornell, 98–99, Ph.D, 02. Prof. *math,* Carthage Col, 99–03; instr, *Michigan,* 03–07, asst. prof, 07–13, assoc. prof, 13–19, *prof, 19–* Asst, Cornell, 01–02. A.A; Math. Soc. Analytical mechanics; forms of quintic curves; the circuits of a plane curve; theory of friction; projective geometry with applications to engineering; the unsymmetrical top.

Field, Prof. Richard M(ontgomery), Princeton University, Princeton, N. J. *Geology.* Jamaica Plain, Mass, April 21, 85. B.S, Harvard, 10, A.M, 14, Ph.D, 19. Asst. geol, Harvard, 15; lecturer, and instr, Brown, 16–19; asst. vert. paleont, museum comp. zool, Harvard, 18; asst. prof. geol, Brown, 20; *Princeton,* 22–26, *assoc. prof. and curator stratig. and hist. geol, 26–* Director, Int. Summer Sch. Geol. and Nat. Resources. Collaborator, Smithsonian Inst, 25. Gulf and Caribbean cmt, Nat. Research Council. Shaler Mem. exped, south. Appalachians, 18; Brown Univ. exped, Europe, 22; Princeton-Smithsonian exped, Europe, 25; Princeton-Buffalo exped, Bahamas, 27, Princeton-U. S. Coast and Geod. Surv. exped, 29; director, Int. exped, West Indies, 31; U. S. Navy-Princeton exped, 32. U. S. del, Int. Geophys. Union, Edinburgh, 36. A.A; fel. Geol. Soc. (chairman, cmt. applications

geol); fel. Paleont. Soc; Geophys. Union (v. chairman, 35–, chairman, cmt. on geol. and geophys. of oceanic basins); Boston Malacol. Club (pres, 20); Boston Soc. Nat. Hist; for. cor. mem. Geol. Soc. London; Int. Union Geod. and Geophys. Sedimentation; stratigraphy; tectonics; geophysics; lower Paleozoic of Europe and North America.

Field, Robert F(ranklin), 104 Church St, Watertown, Mass. *Physics.* Center Tuftonboro, N. H, July 10, 85. A.B, Brown, 06, A.M, 07; Harvard, 16. Instr. physics, Brown, 10–15; Harvard, 17–26, asst. prof. applied physics, 26–29; *engineer, Gen. Radio Co, 29–* A.A; Physical Soc; Radio Eng. Communication frequency measurements.

Field, Dr. Theodore E(stes), 16th and Lee Sts, Louisville, Ky. *Chemistry.* Auburn, Maine, Feb. 19, 08. B.S, Bates Col, 29; Ph.D, Hopkins, 34. Research chemist, *Corhart Refractories Co, Louisville, Ky, 35–38, director research, 38–* A.A; Chem. Soc; Electrochem. Soc; Ceramic Soc. Physical chemistry; effect of pressure on vapor pressure; electrocast refractories.

Field, William D(ewitt), U. S. National Museum, Washington, D. C. *Entomology.* Lawrence, Kans, Dec. 3, 14. A.B, Kansas, 36, A.M, 38, grad. fellow, 38–40. *Asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 40–* Entom. Soc. Amer; Kans. Entom. Soc; Entom. Soc. Wash. Taxonomy of Lepidoptera.

Field, William L(usk) W(ebster), Milton Academy, Milton, Mass. *Zoology, Geography.* Milton, Mass, July 17, 76. Harvard, 94–98, hon. A.M, 24. Instr. nat. science, *Milton Acad,* 00–14, asst. headmaster, 14–17, headmaster, 17–42, *emer. headmaster, 42–, trustee, 32–* Entom. consultant, 13–25. Summers, instr, Alstead Sch. Nat. Hist, 99–04. Ed, 'Psyche,' 04–09. A.A; Soc. Nat; Entom. Soc; Am. Geog. Soc; Headmasters Asn. (pres, 29); Am. Acad; New Eng. Bot. Club; N. Y. Acad; Boston Soc. Nat. Hist. (trustee, 30–35); Cambridge Entom. Club. Experimental evolution; variation and inheritance in Lepidoptera; science teaching in secondary schools; geographical distribution.

Fieldner, Dr. A(rno) C(arl), U. S. Bureau of Mines, Washington, D. C. *[3]*Chemistry.* Ney, Ohio, Dec. 12, 81. B.S, Ohio State, 06, Chem.E, 23; hon. Sc.D, Alabama, 36. Indust. fuel engineer and chemist, 06–07; asst. chemist, U. S. Geol. Surv. and U. S. Bur. Mines, 07–13; chemist in charge fuels, chem. lab, Pittsburgh Exp. Sta, *U. S. Bur. Mines,* 13–17, supervising chemist, 19–25, supt, 21–27, chief chemist, 25–27, chief engineer, exp. stations div, 27–36, chief technol. branch and chief engineer coal div, 36–42, *chief fuels and explosives service, 42–* Lamme medal, Ohio State, Joseph Sullivant medal, 40; Melchett lecturer and medal, Inst. Fuel, London, 42. Chemist in charge gas mask research sect, Am. Univ. Exp. Sta, U. S. Bur. Mines, 17–18; major, C.W.S, 19. Chem. Soc. (chairman, Pittsburgh sect, 15, councilor, 16–27, councilor at large, 35–); Min. and Metal. Eng; Soc. Test. Mat. (v. pres, 34–36, pres, 36); Coal Research Club, London. Fuels; gas; coal and coke; coal ash and slags; gas masks; ventilation.

Fields, Dr. E(llis) K(irby), 5111 University Ave, Chicago, Ill. *Organic chemistry.* Chicago, Ill, May 10, 14. B.S, Chicago, 36, Ph.D, 38. Lilly research fellow, Chicago, 38–41; *director research, Develop. Lab. of Chicago, 41–* Chem. Soc. Pharmaceuticals.

Fields, Prof. Paul E(idon), Ohio Wesleyan University, Delaware, Ohio. *Psychology.* Gallipolis, Ohio, Jan. 5, 05. A.B, Ohio Wesleyan, 26, A.M, 27; Ph.D, Ohio State, 30. Instr. psychol, Iowa State Col, 27–28; Ohio State, 28–30; nat. research fellow, Stanford, 30–32; prof. psychol. and educ. and head dept, Maryville Col, 32–36, dean men, 33–34; *prof. psychol. and head dept, Ohio Wesleyan, 36–; lieut, Adj. Gen. Dept, and personnel consultant headquarters, 8th Service Command, U. S. Army.* A.A; Psychol. Asn; Midwest. Psychol. Asn; S. Soc. Philos. and Psychol; Ohio Acad. Concept formation in rats and raccoons; sensory discrimination; comparison of human and animal learning; effect of phenobarbital on learning; personality adjustment.

Fields, W(alter) S(amuel), U. S. Department of Agriculture, 209 River St, Hoboken, N. J. *Plant pathology.* Buffalo, N. Y, July 22, 86. B.S, Mich. State Col, 13. Instr. plant path, Arkansas, 13–16, asst. prof, 16–18; asst. state pathologist, Ark, 13–18; exten. pathologist, U. S. Dept. Agr. and Miss. Agr. and Mech. Col, 18–19; path. inspector, *fed. hort. board, U. S. Dept. Agr,* 19–24, *assoc. pathologist, 24–* Phytopath. Soc; Bot. Soc.

Fierke, Dr. S(cheuring) S(session), 305 Pinecrest Drive, Rochester, N. Y. *Photography.* Anna, Ill, June 1, 11. Ed.B, South. Ill. Nor. Univ, 32; M.S, Illinois, 33, Ph.D, 36. *Org. research chemist, Eastman Kodak Co, Kochester, 36–* Chem. Soc. Amino acids; nutrition; color photography.

Fiero, Prof. George W(illiam), University of Buffalo, Buffalo, N. Y. *Pharmacognosy.* Detroit, Mich, Feb. 7, 06. Ph.G, Southern California, 25, Ph.C, 26, B.S, 27, M.S, 28; Phar.D, Buffalo, 31; Hollister fellow, Wisconsin, 31–32, Ph.D, 32. Instr. pharmacy, Southern California, 25–28; *mat. med, Buffalo,* 28–29, asst. prof, 29–40, *assoc. prof, 40–; chief drug and cosmetics unit, office civilian supply, War Production Board, 42–* Pharmaceut. Asn. (pres, local branch, 38, sec'y, 40); Chem. Soc; fel. Inst. Chem. (v. chairman local chap, 41). Pharmaceutical and plant chemistry; fats and oils; practical pharmacy.

Fies, Milton H(enry), 1008 Transportation Bldg, Birmingham, Ala. *Mining engineering.* Birmingham, Ala, Aug. 31, 82. Min.E, Columbia, 04; hon. Sc.D, Alabama, 36. Res. engineer and div. engineer, Republic Steel and Iron Co, Birmingham, Ala, 04–06, supt. mines, 06–08; gen. supt. mines, Birmingham Coal and Iron Co, 09–12; *v. pres,* DeBardeleben Coal Co, 12–23, *DeBardeleben Coal Corp, 23–; consulting mining engineer, Ala. Power Co, 41–* Consultant, electrotech. lab, U. S. Bur. Mines. Trustee and treas, Ala. Research Inst. Min. and Metal. Eng. (coal carbonization cmt; health and safety cmt; Saunders medal award cmt); South. Asn. Sci. and Indust. (pres); Ala. Acad. The blending of Alabama coals for coking purposes.

Fieser, Prof. Louis F(rederick), Converse Memorial Laboratory, Cambridge, Mass. *[5]*Organic chemistry.* Columbus, Ohio, April 7, 99. A.B, Williams Col, 20, D.Sc, 39; Ph.D, Harvard, 24. Assoc. and assoc. prof. *chem,* Bryn Mawr Col, 25–30; asst. prof, *Harvard,* 30–34, assoc. prof, 34–37, prof, 37–39, *Sheldon Emery prof. org. chem, 39–* Consultant, Merck and Co, 40– Nat. Advisory Cancer Council grant-in-aid, Harvard, 37–40. Ed. board, 'Org. Syntheses,' 33– Katherine Berkham Judd prize, 41. Nat. Acad; A.A; Chem. Soc; Philos. Soc; fel. Am. Acad; Deuts. Chem. Gesell. Oxidation-reduction potentials; theoretical aromatic chemistry; quinones; carcinogenic hydrocarbons; synthesis of carcinogenic compounds; natural and synthetic therapeutic agents; organic reactions; experiments in organic chemistry; natural products related to phenanthrene.

Fife, Harvey R(owe), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Buffalo, W. Va, Dec. 12, 00. B.S, Morris Harvey Col, 23; M.S, West Virginia, 25; Chicago; N. Y. Univ; Pittsburgh. *Carbide and Carbon Chem. Corp. indust. fellow, Mellon Inst, 27–* Chem. Soc. Aliphatic chemicals; protective coatings; synthetic resins.

Fife, Dr. J(ames) M(ilton), 3949 Lime St, Riverside, Calif. *Biochemistry.* Idaho Falls, Idaho, Nov. 8, 01. B.S, Utah Col, 24, A.M, 25; fellow, Iowa State Col, 25–27, Ph.D, 27. Nat. research fellow biol. and research assoc, div. plant nutrition, California, 27–29; *biochemist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–* Respiration of Azotobacter under controlled conditions; chemical nature of the resistance of certain varieties of sugar beets to curly-top.

Fife, Prof. W(alter) M(axwell), 44 Lakewood Road, Newton Highlands, Mass. *Civil engineering.* Peterboro, Ont, Can, June 9, 90. B.Sc, Alberta, 13; M.S, Mass. Inst. Tech, 22. Instr. *civil eng,* Alberta, 13–16, 19–20, asst. prof, 21–22; *Mass. Inst. Tech,* 22–28, *assoc. prof, 28–* A.A; assoc. Civil Eng; Concrete Inst; Boston Soc. Civil Eng; assoc. Eng. Inst. Can. Theory of structures.

Fifield, W(illard) M(erwin), University of Florida, Gainesville, Fla. *Horticulture.* Schenectady, N. Y, Jan. 17, 08. B.S.A, Florida, 30, M.S, 32. Asst. horticulturist, Subtrop. Exp. Sta, *Florida,* 32–38, acting horticulturist in charge, 39–40, *asst. director, Exp. Sta, 41–; capt, U. S. Army,* 42– A.A; Soc. Hort. Sci; Potato Asn; Fla. Hort. Soc; Fla. Acad. Vegetable crops; potato and tomato fertilizer, variety and culture.

Figge, Prof. Frank H(enry) J(ohn), University of Maryland School of Medicine, Baltimore, Md. *Anatomy.* Silver Cliff, Colo, Dec. 23, 04. A.B, Colo. Col, 27; Ph.D, Maryland, 34. Asst. biol. and comp. anat, Colo. Col, 25–28; *anat, sch. med,* Colorado, 28–29; *Maryland,* 29–30, instr, 30–34, assoc, 34–35, asst. prof, 35–36, *assoc. prof, 36–* Observer in charge meteorol. sta, Colo. Col, 26–28; Rockefeller fellow,

med. sch, Yale, 40–41. Mem, Marine Biol. Corp. A.A; Asn. Anat; Soc. Exp. Biol; Chem. Soc; Asn. Cancer Research; Soc. Zool; Md. Biol. Soc. (councilor, 35–40). Comparative, human and gross anatomy; amphibian morphology and metamorphosis; neurohumoral control of circulation; production of eye and pigmentary defects by dyes; photoelectric determinations of tyrosinase reactions; sex hormones; fluorescence phenomena; porphyrins; cancer.

Filbert, Dr. William F(rederick), E. I. du Pont de Nemours and Co, Gibbstown, N. J. *Organic chemistry.* Twin Brooks, S. Dak, Aug. 21, 07. B.S, Dakota Wesleyan, 28; M.S, Minnesota, 33, Ph.D, 34. Asst. chem, Minnesota, 28–32; instr, Dakota Wesleyan, 32–33; *research chemist, east. lab, E. I. du Pont de Nemours and Co, 35–* Chem. Soc; fel. Inst. Chem. Explosives chemistry; allyl ether rearrangements

Filby, Dr. Edgar A(lan), Buckingham, Que, Can. *Chemistry.* London, Eng, 04. B.Sc, Saskatchewan, 28, Nat. Research Council Can. bursar, 29, student, 30, M.Sc, 30; Ph.D, McGill, 32. *Research chemist, Elec. Reduction Co. Can, 33–* Activation of hydrogen by electric discharge; absorption of gases on cellulose; sorption of water vapor on cellulose, wood and wood pulp; phosphorus and phosphorus compounds; specific volume of water adsorbed on cellulose.

Filinger, Prof. G(eorge) A(lbert), 209 N. Delaware Ave, Manhattan, Kans. *Horticulture.* Cuba, Kans, April 23, 97. B.S. (Agr), Kans. State Col, 24, M.S, 25; Ph.D, Ohio State, 31. Asst. entomologist, Ohio Exp. Sta, 26–31; asst. prof. *pomol, Kans. State Col, 31–37, assoc. prof, 37–* Soc. Hort. Sci; Asn. Econ. Entom; Czechoslovak Entom. Soc. Pomology.

Filler, E(dmund) C(oe), Federal Bldg, Cambridge, Mass. *Pathology.* Syracuse, N. Y, April 17, 92. B.S, Syracuse, 16. Agent, *div. blister rust control, bur. plant indust, U. S. Dept. Agr,* 16–17, field asst, 17–18, assoc. pathologist, 21–23, pathologist, 23–28, *senior pathologist, 28–* Soc. Foresters; Forestry Asn; Mass. Forestry Asn. Blister rust control; blister rust damage to white pine.

Fillinger, Prof. Harriett H(uldah), Hollins College, Va. *Chemistry.* Bristol, Va, June 27, 90. Sullins Col, 08–10; Women's Col. of Ala, 10–11; B.S, Chicago, 20, M.S, 21, 24, 35, 41. Head dept. science, Sullins Junior Col, 11–15, 16–18; Miss. Synodical Junior Col, 15–16; *prof. chem. and head dept, Hollins Col, 21–* Summer, lecturer, Syracuse, 27; Centre Col. (Ky), 36. A.A; Chem. Soc; fel. Inst. Chem; Asn. Univ. Women; Va. Acad; Southwest Va. Chemists Club (pres, 29). Preparation of ammonia derivatives of sulfuric acid and electrolysis in liquid ammonia systems; effect of temperature on precipitation in silica gels; experiments in general chemistry for colleges.

Fillman, Prof. Louise, Simpson College, Indianola, Iowa. *Geology.* Gardner, Ill, Sept. 3, 99. A.B, Iowa, 20, M.S, 21, Ph.D, 24. Asst, Iowa, 21–24; *prof. geol, Simpson Col, 25–* Fel. Iowa Acad. Physiography; Cenozoic history of the northern Black Hills of South Dakota; Wassonville formation and its fossils.

Filmer, Prof. Robert S(terling), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Entomology.* Stratford, Conn, May 23, 02. B.S, Conn. Agr. Col, 26; M.S, Rutgers, 30. Junior entomologist, bur. entom, U. S. Dept. Agr, 27–29; asst, *Rutgers,* 29–30, instr. *entom,* 30–36, *asst. prof, 36–, assoc. entomologist in charge apicult. research, N. J. Exp. Sta, 39–* Entom. Soc. Stomach poison; arsenic substitutes; breeding bees for resistance to disease.

Filson, Dr. G(eorge) W(illiam), E. I. du Pont de Nemours and Co, Inc, Wilmington, Del. *Chemistry.* Healy, Kans, April 19, 01. A.B, Kansas, 24; B.S, Wisconsin, 26, Ph.D, 29. Research chemist, du Pont Rayon Co, 29–34, chief supervisor process control, 34–35; tech. supt. rayon div, *E. I. du Pont de Nemours and Co,* 35–40, director rayon research, 40–42, *asst. manager tech. div, 42–* Physical organic catalysis and autoxidation.

Filson, Prof. Malcolm H(arold), Central Michigan College of Education, Mt. Pleasant, Mich. *Chemistry.* Chattanooga, Tenn, Oct. 19, 07. Okla. Baptist Univ, 25–27; B.S, Kentucky, 29, M.S, 31; Ph.D, Michigan, 36. Asst. chem, Okla. Baptist Univ, 26–27; asst. anal. chem, Kentucky, 29–31, asst. research chemist, Exp. Sta, 29; teaching fellow, Michigan, 31–34; instr. chem, Ohio Northern, 34–35; prof. chem. and head dept. chem. and physics, Miss. Woman's Col, 35–36, dean summer session and acting dean lit. col; *asst. prof. chem. and physics, Cent. Mich. Col. Educ, 36–* A.A; Chem. Soc. Inorganic and analytical chemistry; chromium plating baths; chromyl chloride; chromyl fluoride; periodates; perchloric acid in analytical processes; solubilities and viscosity as applied to silver, lead and mercury compounds.

Filz, Frank R(alph), 105 Electric Ave, Fitchburg, Mass. *Chemistry.* Fitchburg, Mass, Oct. 25, 06. Grad, Int. Correspondence Schs, 27. Asst. chemist, Wheelwright Paper Co, 27–30, chief chemist, 30–34, *Wheelwright div, Mead Corp,* 34–40, *tech. supervisor, 40–* A.A; Chem. Soc; Asn. Pulp and Paper Indust. (waste cmt, 31). Determination of paraffin in paper; differentiation of bleached and unbleached fibers; water purification and control.

Finan, Prof. E(dward) J(erome), Catholic University, Washington, D. C. *Mathematics.* Zanesville, Ohio, Oct. 30, 00. B.S, Dayton, 22; A.M, Ohio State, 28, Ph.D, 30. Instr. *math, Catholic Univ,* 30–36, asst. prof, 36–38, *assoc. prof, 38–* Math. Soc; Math. Asn. Algebra; group theory; theory of numbers.

Finan, Dr. John L(incoln), Oberlin College, Oberlin, Ohio. *Psychology.* Waltham, Mass, Dec. 27, 11. A.B, Harvard, 33; A.M, Duke, 37; Ph.D, Yale, 37. Asst. prof. *psychol,* St. John's Col. (Md), 37–39; instr, Illinois, 39–40; *Oberlin Col,* 40–42, *asst. prof, 42–* A.A; Psychol. Asn. Psychology of motivation; mechanism of frontal lobes.

Finch, Prof. Alton H(arold), 1122 Blacklidge Drive, Tucson, Ariz. *Plant physiology, Horticulture.* Omaha, Nebr, June 29, 00. B.S, Oregon State Col, 25; M.S, Iowa State Col, 26; Ph.D, Wisconsin, 29. Asst. bot, Oregon State Col, 24–25; teaching fellow hort, Iowa State Col, 25–26; asst. and instr, Wisconsin, 26–29; asst. horticulturist, nut culture investigations, bur. plant indust, U. S. Dept. Agr, Ga, 30–31; asst. prof. *hort, Arizona,* 31–35, *assoc. prof, 35–, head dept, 38–,* asst. horticulturist, *Exp. Sta,* 31–35, assoc. horticulturist, 35–37, acting horticulturist, 37–38, *horticulturist, 38–* Soc. Hort. Sci. Physiology of apple varieties; pecan rosette; zinc in pecan tissue; pecan and citrus fruiting; citrus chlorosis and decline; vegetable fertilization and breeding.

Finch, E(lmer) H(arrison), Apt. 42, 1734 P St, N.W, Washington 6, D. C. *Geology.* Grand Rapids, Mich, May 14, 89. George Washington. From asst. geologist to geologist, U. S. Geol. Surv, Washington, D. C, 12–20, chairman div. mineral land classification, 19–20; geologist, Shell Co, Calif, 20–22; metal mine examinations and petrol. geologist, I. J. Paderewski, 22–23; valuation engineer, oil and gas div, Bur. Int. Revenue, Washington, D. C, 23–24; v. pres. and gen. manager, Bristol Oil and Gas Co, 25–27; div. geologist, Atlantic Oil Producing Co, 27–33; geologist, Consol. Oil Co, 33–38; mem, Selective Service Board, 40–42; *tech. asst. to director reserves, Petrol. Admin. for War, 43–* Geol. expeds, Guatemala, 22, 23; geol. and seismog. expeds, Venezuela, 34, 35; geol. exped, Cuba, 36, Africa, 37–38. A.A; Asn. Petrol. Geol; Min. and Metal. Eng; South Texas Geol. Soc; Geol. Soc. Wash. Petroleum geology; land classification for oil and gas; phosphate and metalliferous minerals; appraisals and geophysics.

Finch, Prof. Glen, Yale University Laboratories of Primate Biology, Orange Park, Fla. *Psychology.* Portland, Ind, Oct. 23, 09. A.B, DePauw, 30; A.M, Illinois, 31, fellow, 31–35, Ph.D, 35. Nat. research fellow, Phipps psychiat. clinic, Hopkins, 35–36; asst. primate biol, *Yale,* 36–39, *asst. prof. psychobiol, 39–* Experimental psychology; conditioned reflex; primate biology.

Finch, Prof. James Kip, Columbia University, New York, N. Y. *Civil engineering.* Peekskill, N. Y, Dec. 1, 83. C.E, Columbia, 06, A.M, 11. Instr. *civil eng, Columbia,* 10–15, asst. prof, 15–17, assoc. prof, 17–27, prof, 27–30, *Renwick prof, 30–, head dept, 32–, assoc. dean sch. eng, 41–* Summer, director sch. surv, Columbia, 14– Trustee, White Mem. Foundation, Litchfield, Conn, 28– Civil Eng. (director, Metropolitan sect, 32, director, 36–39); Eng. Educ. Hydraulics; surveying; engineering economics; history of engineering.

Finch, Dr. J(ohn) W(ellington), Room 1726, 25 Broadway, New York, N. Y. *Geology.* Lebanon, N. Y, Nov. 3, 73. A.B, Colgate, 97, A.M, 98; fellow, Chicago, 98–99, Sc.D, 13; LL.D. Alabama, 36; D.Eng, Colo. Sch. Mines, 38. Instr. geol. and physics, Colgate, 98; geol, Chicago, 99; consulting geologist, 01–16; state geologist, Colo, 01–04; gen. manager, Goldfield Consol. Mines Co, 06–07; N. Y. Orient Mines Co, 16–23; prof. min. geol, Colo. Sch. Mines, 25–29; dean sch. mines, Idaho, 30–34; director, U. S. Bur. Mines, 34–40; *consulting engineer.*

40– Director, Anglo-Am. Corp, S. Africa, 22–23; indust. adviser to governor, Yunnan, China, 22–26. Explor, Asiatic countries, 16–20, Africa, 21. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Eng. Educ; Min. and Metal. Eng. (director, 14–16); Northwest Sci. Asn; Colo. Sci. Soc. (pres, 28–30). Mining and geological engineering; processes of ore deposition; mineral deposits of Asia and Africa.

Finch, R(uy) H(erbert), Hawaii National Park, Hawaii. *Seismology, Volcanology.* Sunbury, Ohio, Aug. 31, 90. George Washington. Meteorologist, U. S. Weather Bur, 19–24; *volcanologist,* U. S. Geol. Surv, 24–35; *Hawaiian Nat. Park, 40–* Instr. meteorol. and forecaster U. S. naval aviation. A.A; Geophys. Union; Seismol. Soc. Volcanology; volcanic processes.

Finch, Prof. V(ernor) C(lifford), Shorewood Hills, Madison, Wis. *Geography.* Tecumseh, Mich, 83. B.S, Kalamazoo Col, 08, hon. Sc.D, 33; Chicago, 08; Ph.D, Wisconsin, 16. From instr. to *prof. geog, Wisconsin, 11–* Asst, U. S. Dept. Agr, 15; special expert for. trade and shipping, U. S. Shipping Board, 18–19. Asn. Geog. (pres, 38; ed, 'Annals'). Economic and regional geography.

Finch, V(olney) C(ecil), Bureau of Aeronautics, Navy Department, Washington, D. C. *Mechanical engineering.* Smith River, Calif, Aug. 24, 92. M.S, Mass. Inst. Tech, 27. Eng. work with North. Pacific Ry. Stone and Webster, Inc, Chicago, Milwaukee and St. Paul Ry, Pacific Coast Milk Co. and Fleischmann Yeast Co, 12–25; in charge eng. div, aircraft squadron, U. S. Navy, 27–29; consulting engineer, 29–30; head dept. aeronaut. eng, Ala. Polytech, 30–33; assoc. prof. mech. eng, Stanford, 33–36, prof, 36–41; *asst. exp. and develop. officer, bur. aeronaut, U. S. Navy Dept, 41–* Mech. Eng; Int. Asn. Hydraulic Struct. Research. Pumping machinery; hydroelectric power stations.

Fincher, Prof. J(ohn) Albert, Millsaps College, Jackson, Miss. *Zoology.* Union, S. C, Sept. 8, 11. B.S, South Carolina, 33, M.S, 35; Ph.D, North Carolina, 39. Prin, sch, S. C, 33–34; instr. biol, South Carolina, 34–35; asst. zool, North Carolina, 35–39; instr. biol, Cumberland Col, 39; asst. prof. and later *assoc. prof. biol, Millsaps Col, 40–* Miss. Acad. Invertebrate zoology; cell behavior and gametogenesis in sponges.

Finck, Dr. J(oseph) Louis, J. L. Finck Laboratories, 10 W. 47th St, New York, N. Y. *Physics.* Russia, Oct. 5, 93. B.S, Mass. Inst. Tech, 15; fellow, Harvard, 21–22, A.M, 22; Ph.D, Hopkins, 23. Bur. Standards; *director, J. L. Finck Labs.* A.A; Physical Soc; Chem. Soc. Thermodynamics; heat transfer.

Fincke, Prof. Margaret L(oulse), Oregon State College, Corvallis, Oregon. *Nutrition.* Astoria, N. Y, Oct. 24, 00. A.B, Mt. Holyoke Col, 21; A.M, Columbia, 32, Ph.D, 35. Asst. chem, Columbia, 28–35; *assoc. prof. foods and nutrition, Oregon State Col, 35–* A.A; Chem. Soc; Inst. Nutrition; Dietetics Asn. Availability of calcium; thiamin in foods; ascorbic acid metabolism; nutritional status of children.

Findlay, Dr. Donald M(unro), 723 S. 56th St, Omaha, Nebr. *Chemistry.* Niagara Falls, Ont, Can, Oct. 13, 01. B.A, Toronto, 21, M.A, 22, Ph.D, 24. *Research chemist,* Sharp and Dohme, 24–36; U. S. Rubber Co, 36–38; *Cudahy Packing Co, 38–* Chem. Soc. (exec. councilor, Omaha branch, 42). Enzymes; peptones; mucin; hormones; pharmaceuticals of animal origin.

Findlay, Dr. G(ordon) H(amilton), McMasterville, Que, Can. *Chemistry.* Levis, Que, April 4, 09. B.A, Bishop's (Can), 30; M.Sc, McGill, 32, Ph.D, 34. Asst, Macdonald Col, McGill, 30–34; works chemist, Can. Industries, Ltd, Beloeil, Que, 34–36; *chief chemist,* Can. Titanium Pigments, Ltd, 36–38; *Can. Industries, Ltd, 38–* Agricultural chemistry; maple flavor; explosives; pigments.

Findlay, Dr. J(ohn) H(amley), 6 Stonehenge Road, Upper Montclair, N. J. *Physics.* Paisley, Scotland, June 6, 03. B.A, Queen's (Can), 25, B.Sc, 27, Nat. Research Council Can. bursar, 27–28, M.Sc, 28; fellow, Princeton, 28–30, Ph.D, 30. Transmission engineer, Bell Tel. Co. of Can, 27; research physicist, Union Switch and Signal Co, Swissvale, Pa, 30–33; *physicist, Westinghouse lamp div, Westinghouse Elec. and Mfg. Co, 33–* A.A; Physical Soc. Spectroscopy; gas discharge; x-ray tubes; radio tubes.

Findlay, Prof. M(erlin) C(hamberlin), Park College, Parkville, Mo. *Anatomy.* Franklinville, N. Y, Oct. 24, 68. A.B, Hamilton Col, 92, A.M, 95; Chicago; Minnesota; Sc.D, Park Col, 17. *Prof. biol, Park Col, 92–* A.A; Micros. Soc; Health League; Mo. Acad. Methods of teaching comparative anatomy and physiology.

Findlay, Prof. William, McMaster University, Hamilton, Ont, Can. *Mathematics.* Glanford, Ont, June 21, 74. B.A, McMaster, 96, M.A, 98; Ph.D, Chicago, 01. Tutor *math,* Barnard Col, Columbia, 01–05; *prof, McMaster, 05–* Math. Soc; Math. Asn; Royal Astron. Soc. Can. (pres, 37, 38). Finite groups.

Fine, Dr. M(orris) S, General Foods Corp, Battle Creek, Mich. *Food chemistry.* Bridgeport, Conn. Nov. 8, 86. Ph.B, Yale, 08, Ph.D, 11. Instr. path. chem, N. Y. Post-Grad. Med. Sch, 11–14, lecturer, 14–15, adj. prof, 15–17; *director* therapeut, Calco Chem. Co, 17–21; research, Postum Co, Inc, 21–29; *Gen. Foods Corp,* 29–39, chem. research, 39–41, *research, 41–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc; assoc. fel. N. Y. Acad. Med. Utilization of vegetable proteins; metabolism in pellagra; creatin, creatinin and uric acid metabolism and elimination; mineral metabolism; uremia; nutrition.

Fine, Dr. Paul Charles, 2101 Constitution Ave, Washington, D. C. *Physics.* Dallas, Texas, June 28, 15. A.B, Oklahoma, 35; Charles A. Coffin fellow, Calif. Inst. Tech, 35–36, M.S, 36, Ph.D, 39. Asst, Calif. Inst. Tech, 36–38; instr. physics, Oregon, 39; Texas, 39–42; *tech. aide, Nat. Defense Research Cmt, 42–* Theoretical physics; normal modes of vibration of the atoms in crystal lattices.

Fineman, Dr. M(orton) Z(almon), University of Chicago, Chicago, Ill. *Organic chemistry.* Chicago, Ill, April 18, 16. B.S, Chicago, 37, Eli Lilly fellow, 40–41, Ph.D, 41. *Research assoc, Office Sci. Research and Develop, Chicago, 41–* Chem. Soc. Factors involved in halogenation; free radicals in solution.

Finerty, Dr. John C(harles), University of Michigan, Ann Arbor, Mich. *Physiology.* Chicago, Ill, Oct. 20, 14. A.B, Kalamazoo Col, 37; M.S, Kans. State Col, 39; Ph.D, Wisconsin, 42. Asst. zool, Kans. State Col, 37–39; Wisconsin, 39–42, physiol, 42; Rackham Foundation fellow, *Michigan,* 42–43, *instr,* 43, *anat, 43–* Mich. Acad; Kans. Acad. Quantitative studies of cell types in hypophysis in relation to gonadotropic secretion; effects of carbon dioxide on muscular contraction.

Finesinger, Dr. Grace Lubin, 59 Fletcher Road, Belmont, Mass. *Physiology.* New York, N. Y, May, 00. A.B, Bryn Mawr Col, 21, A.M, 22, Pres. M. Carey Thomas European fellow, London, 22–23; Ph.D, Hopkins, 25. Nat. research fellow chem. and fellow by courtesy, Hopkins, 25–27; research chemist, bur. labs, State Dept. Health, Mich, 27–28, chief serol. div, 28–29; chemist, Littauer Pneumonia Research Fund, Harlem Hosp, New York, 29–32; lab. asst, dept. nervous and mental diseases, Harvard Med. Sch, 35–37. Asst, Hopkins, 26–27. Chem. Soc. Physical chemistry; plant physiology; evaporation rates from capillary surfaces; movement of water in plants; oxygen therapy; Kahn test for syphilis; thermal conductivity method of gas analysis for oxygen and carbon dioxide in air mixtures; atmosphere control in oxygen tents and chambers; conditioned reflexes.

Finesinger, Prof. Jacob E(llis), Massachusetts General Hospital, Boston, Mass. *Psychiatry.* New Castle, Pa, Oct. 28, 02. A.B, Hopkins, 23, A.M. 25, M.D, 29. House officer, neur. unit, Boston City Hosp, 29–30, res. neurologist and junior visiting neurologist, 30–32; asst. neuropath. *Harvard Med. Sch,* 30–32, Commonwealth Fund fellow *psychiat,* 32–35, assoc, 35–36, *asst. prof, 36–;* asst. psychiatrist, *Mass. Gen. Hosp,* 35–37, *psychiatrist, 37–* Consulting neuropsychiatrist, U. S. Marine Hosp, Chelsea, 35– A.A; Am. Med. Asn; Neur. Asn; Asn. Research Nervous and Mental Disease; Psychoanal. Asn; Boston Soc. Psychiat. and Neur. Cerebral circulation; autonomic nervous system; conditioned reflexes.

Finger, Dr. Frank W(hitney), Brown University, Providence, R. I. *Psychology.* Naples, N. Y, April 16, 15. A.B, Syracuse, 36, A.M, 37; Ph.D, Brown, 40. *Instr. psychol, Brown, 40–* A.A; assoc. Psychol. Asn; East. Psychol. Asn. Experimental and comparative psychology; abnormal and social behavior.

Finger, Dr. G(lenn) C(harles), State Geological Survey, Urbana, Ill. *Chemistry.* Bloomington, Ill, May 3, 05. B.S, Illinois, 27, M.S, 28; J. K. Lilly fellow, Purdue, 29–30, Ph.D, 38. Asst. chem, Purdue, 28–29; Illinois, 30–32; asst. chemist, *Ill. Geol. Surv,* 33–38, *assoc. chemist, 38–* Chem. Soc; Ind.

Acad; Ill. Acad. Synthesis of organic fluorine compounds; inorganic fluorides; utilization of fluorspar.

Fink, Prof. Colin G(arfield), 440 Riverside Drive, New York, N. Y. *[3]Electrochemistry.* Hoboken, N. J, Dec. 31, 81. A.B, Columbia, 03; M.A, Ph.D, Leipzig, 07; Sc.D, Oberlin Col, 36. Asst. electrochem, Leipzig, 06–07; research chemist, Gen. Elec. Co, 07–17; director research lab, Chile Explor. Co, 17–21; *head div. electrochem, Columbia, 22–* Metallurgist, Metropolitan Museum Art, New York, 22– Ed, 'Tungsten,' 13– Acheson medal, Electrochem. Soc, 33; Perkin medal, Am. Soc. Chem. Indust, 34. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Mem, Nat. Research Council. Am. del, Int. Union Chem. and Int. Cong. Chem, Rome, 38. Chairman, tungsten cmt, U. S. Munitions Board. A.A; Electrochem. Soc. (pres, 17, sec'y, 21–); Chem. Soc. (ed, sect. electrochem, 'Chem. Abstracts'); Min. and Metal. Eng. Kinetics of contact sulfuric acid; electrometallurgy; vacuum furnace metallurgy; tungsten; ductile tungsten and molybdenum; leading-in wires; insoluble anodes; corrosion; catalysis; copper; tin; chromium; nickel; restoration of ancient bronzes; Drake plate; photovoltaic cells; rhenium; aluminum plate.

Fink, Dr. David Ely, 5235 C St, Philadelphia, Pa. *Entomology.* Russia, Nov. 28, 81. B.S, Cornell, 11, M.S, 13; Ph.D, Pennsylvania, 25. Assoc. entomologist and entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 12–37. Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Economic entomology and metabolism of insects.

Fink, Dr. D(elmar) S(imon), Cornell University, Ithaca, N. Y. *Biology.* Chicago, Ill, Sept. 17, 07. B.S, Wisconsin, 30, M.S, 31, Ph.D, 34. Asst. biologist, Exp. Sta, Maine, 34–42; *asst. agronomist, Cornell, 43–* Pasture fertility; grassland investigations.

Fink, Dr. G(all) J, U. S. Gypsum Co, 1253 Diversey Parkway, Chicago, Ill. *Chemistry.* Yountsville, Ind, June 19, 87. A.B, Wabash Col, 09; Ph.D, Cornell, 14. Asst. prof. chem, Iowa State Col, 15–16; research chemist, Hooker Electrochem. Co, 16–21; Nat. Lime Asn, 21–23, chem. director, 23–27; tech. director, Nat. Aluminate Corp, 27–37; consultant, 37–41; *supervisor lime research, U. S. Gypsum Co, 41–* Chem. Soc; Chem. Eng. Uses and manufacture of aluminates; conditioning of industrial waters; manufacture of lime and its uses.

Fink, Dr. Robert M(organ), University of Rochester, Rochester, N. Y. *Biochemistry.* Greenville, Ill, Sept. 22, 15. A.B, Illinois, 37; fellow, Lehigh, 37–38; fellow, Rochester, 38–41, Ph.D, 42. *Research fellow radiol, Rochester, 41–* Preparation of phosphorylated textile oils; purification of enterocrinin, the hormone exciting intestinal secretion; use of isotopes as tracers in physiological and chemical reactions.

Fink, Dr. W(illia)m L(a Villa), P. O. Box 772, Aluminum Co. of America, New Kensington, Pa. *Metallurgy.* Fairmount, Ind, Sept. 14, 96. B.S.E, Michigan, 21, M.S.E, 23, Charles A. Coffin fellow, 23–25, Ph.D, 26. Asst. chem, Michigan, 21–23; *research labs, Aluminum Co. of Amer, 25–30, in charge fundamental metal. research and corrosion investigations, 30–, chief div. physical metal, 43–* Instr, Carnegie Inst. Tech, 36–37. Cmt. x-ray and electron diffraction, Am. Soc. Testing Materials and Am. Soc. X-Ray and Electron Diffraction. A.A; Min. and Metal. Eng; Soc. X-Ray and Electron Diffraction; Army Ordnance Asn; Chem. Soc; Soc. Metals; Soc. Test. Mat. (cmt. E 4); British Inst. Metals. Physical metallurgy; structure of steel; use of x-rays with metals; aluminum alloy systems; mechanism of corrosion of aluminum; theory of precipitation-hardening; development of new aluminum alloys and new fabricating methods.

Finkel, Prof. B(enjamin) F(ranklin), 1227 N. Clay Ave, Springfield, Mo. *Mathematics, Physics.* Fairfield Co, Ohio, July 5, 65. B.S, Ohio Northern, 88; Chicago, 95–00; special fellow, A.M, Pennsylvania, 04, Harrison fellow, 05–06, Ph.D, 06; LL.D, Drury Col, 23. Teacher, pub. schs, Ohio, 84–88; instr. math, Fostoria Acad, 89; prin, Gibson Acad, Tenn, 90; sch. supt, Ohio, 90–92; instr. math, Kidder Inst, 92–95; prof. *math. and physics, Drury Col, 95–37, emer. prof, 37–* Summers, director, Drury Col, 16–18; head dept. math, Colorado, 13–18. Founder and ed, 'Am. Math. Monthly,' 94– A.A; Math. Soc; Math. Asn. (v. pres, 21, councilor); Mo. Acad. (chairman, math. sect, 34); London Math. Soc; Circolo Mat. di Palermo. Pure mathematics; mathematical solution.

Finkelstein, Dr. Leo, Edgewood Arsenal, Edgewood, Md. *Physical chemistry.* Chicago, Ill, July 28, 90. B.S, Armour Inst. Tech, 14; Ph.D, Chicago, 21. Research chemist, U. S. Bur. Mines, 20–23; *senior chemist, Chem. Warfare Service, 24–* Chief control div, Paris lab, C.W.S, 18, lieut. A.A; Chem. Soc. Radium content of meteorites; ranges of alpha particles from radium and its decomposition products; purification of helium by means of charcoal adsorption; smoke filtration; photoelectrical estimation of smoke; aerosols.

Finkelstein, Dr. R(obert) J(ay), 26 Spadina Parkway, Pittsfield, Mass. *Physics.* Pittsfield, Mass, March 26, 16. A.B, Dartmouth Col, 37; Ph.D, Harvard, 41. *Physicist, bur. ordnance, U. S. Navy, 41–* Theoretical physics; quantum theory.

Finland, Dr. Maxwell, Boston City Hospital, Boston, Mass. *Bacteriology.* Russia, March 15, 02. B.S, Harvard, 22, M.D, 26. Asst. res. physician, Boston Sanitarium, 26–27; med. house officer, second med. service, Boston City Hosp, 27–28; Charles Follen Folsom teaching fellow hygiene and teaching fellow *med, Harvard Med. Sch,* 28–29, asst, 29–32, Francis Weld Peabody research fellow, 32–37, instr, 35–37, assoc, 37–39, *asst. prof, 39–* Res. physician, second med. service and for pneumonia patients, Boston City Hosp, 28–29, asst. med, 28–38, junior visiting physician, 38–, physician in chief, fourth med. service, 39–; asst. res. physician, Thorndike Mem. Lab, 29–32, asst. physician, 32–41, assoc. physician, 41–; visiting physician, Pondville Hosp, Wrentham, 33– A.A; Am. Med. Asn; Soc. Clin. Invest; Asn. Immunol; Col. Physicians; Asn. Physicians; Soc. Exp. Biol. Infectious diseases; pneumonia; clinical investigations; chemotherapy.

Finlay, Prof. G(eorge) I(rving), New York University, New York, N. Y. *Geology.* Ulster Co, N. Y, July 9, 76. A.B, Harvard, 98; Ph.D, Columbia, 03. Asst. *geol,* Columbia, 01–03; *prof,* Colo. Col, 03–13; *N. Y. Univ, 13–* Asst. geologist, U. S. Geol. Surv, 01– N. Y. Acad. (v. pres, 36). Petrography; general geology; geologic folio of the Colorado Springs region.

Finlay, Dr. Gordon R(oy), Norton Co, Niagara Falls, Ont, Can. *Inorganic chemistry.* Innisfail, Alta, Oct. 24, 13. B.Sc, Alberta, 38, Robert Tegler fellow, 38–39, M.Sc, 39; Ph.D, Cornell, 42. Asst. chem, Cornell, 39–42; *mem. staff, Norton Co, 42–* Chem. Soc. Chemistry of boron.

Finlay, J(ames) R(alph), South Ave, Redlands, Calif. *Mining engineering.* Blenheim, Ont, Can, Sept. 30, 69. A.B, Harvard, 91. Mine supt, Minn, 95; Ecuador, 96–99; manager mines, Idaho and Colo, 00–04; *mining engineer, 04–* Gen. manager, Goldfield Consol. Mines Co, 10. Lecturer, Harvard, 08– Min. and Metal. Eng; Min. and Metal. Soc. (sec'y). Ore deposits; costs of mining.

Finlayson, Dean John (Norlson), University of British Columbia, Vancouver, B. C, Can. *Civil engineering.* Merigomish, N. S, Aug. 27, 80. B.Sc, McGill, 08, M.Sc, 09; LL.D, Manitoba, 40. Lecturer, McGill, 08–11; prof. civil eng, Dalhousie, 13–19; Manitoba, 19–36; *dean faculty applied science, British Columbia, 36–* Chairman land drainage arrangement cmn, Man, 35. Bridge designer, 10– Civil Eng; Soc. Test. Mat; Concrete Inst; Water Works Asn; Eng. Inst. Can; Asn. Professional Eng. Man. (pres, 35). Determination of shearing strength of ice; effect of cold weather on rubber; effect of sulfate ground water on concrete.

Finley, Dr. Cecile Bolton, University of Virginia, University, Va. *Psychology.* Charlottesville, Va, Sept. 14, 97. A.B, Bryn Mawr Col, 21; A.M, Virignia, 31, Ph.D, 35; Cambridge, 37–38. Psychologist and director, neuropsychiat. and child guidance clinics, Univ. Hosp, Virginia, 36–37; instr. *psychol,* Sweet Briar Col, 38–42, *acting asst. prof, Virginia, 42–* Summers, instr, Virginia, 40–42. A.A; Psychol. Asn; South. Soc. Philos. and Psychol; Va. Acad. Electro-physiology; binocular stimulus summation; cortical localization; nerve potentials; cord potentials.

Finley, Dean Cha(rle)s W(illiam), Keeseville, N. Y. *Biology.* Cooks Mills, Ill, Aug. 10, 80. A.B, Chicago, 10, M.S, 11; Ph.D, Columbia, 26. Instr, elementary sch, Univ. Chicago, 08–12; head dept. biol, Ill. State Teachers Col, Macomb, 12–17; Lincoln Sch, Teachers Col, Columbia, 17–22, prin, high sch. div, and instr. nat. science, univ, 22–27; prof. biol. and dean instruction, N. J. State Teachers Col, Montclair, 27–43. Summer, instr, Minn. State Teachers Col, Mankato, 11. A.A; Soc. Study Educ; Soc. Study Sci. Educ; N. J. Sci. Teachers Asn; Ill. Acad. Animal ecology; ecology of swift-water fauna; field study of birds.

Finley, George William, 1739 Fairacres Drive, Greeley, Colo. *Mathematics.* Parallel, Kans, Nov. 22, 76. B.S, Kans. State Col, 96, M.S, 20. Teacher and sch. supt, Kans, 97–02; prof. math, prep. sch, Okla, 02–12; Colo. State Teachers Col, Greeley, 12–41; *retired.* Math. Asn; Nat. Council Teachers Math. Junior high school mathematics.

Finley, Prof. Harold E(ugene), Morehouse College, Atlanta, Ga. *Protozoology.* Palatka, Fla, Nov. 30, 05. B.S, Morehouse Col, 28; M.S, Wisconsin, 29, Ph.D, 42. Assoc. prof. *biol,* W. Va. State Col, 29–38; *prof, Morehouse Col, 38–* A.A; Micros. Soc; Genetic Asn. Taxonomy and physiology of Vorticella; somatic mutations in the pigeon.

Finley, Col. John Parke, 712 Tappan Ave, Ann Arbor, Mich. *Meteorology, Climatology.* Ann Arbor, Mich, April 11, 54. B.S, Mich. State Col, 73, M.S, 82; fellow, Hopkins, 84; Michigan, 76. Sig.C, U.S.A, and U. S. Weather Bur, 80–04, dept. judge advocate, U.S.A, 04–15, commanding officer, Inf, 15–18; prof. mil. science and tactics, Columbia, Manhattan Col. and N. Y. Col. Dental Surg, 17–18; consulting meteorologist and statistician, Nat. Storm Ins. Bur, N. Y, 20–34; *director, Nat. Weather and Aviation Sch, 34–* Ed, 'U. S. Monthly Weather Rev,' 89. Order Mejidieh, Turkey, 13. A.A; Meteorol. Soc; Seismol. Soc; fel. Am. Geog. Soc; Franklin Inst; Ins. Soc. N. Y; Calif. Acad; P. I. Meteorol. Soc; hon. fel. Royal Soc; Edinburgh Meteorol. Asn; Deuts. Meteorol. Gesell; Soc. météorol. de France; Soc. Meteorol. Ital; Meteorol. Inst. Sweden. Meteorological statistics; military science and tactics.

Finley, Dr. William Lovell, R.F.D. 10, Portland, Oregon. *Ornithology.* Santa Clara, Calif, Aug. 9, 76. A.B, California, 03; hon. Sc.D, Oregon State Col, 31. Lecturer for Nat. Asn. Audubon Societies, 10–23; state game warden, Oregon, 11–15, state biologist, 15–20, mem, State Game Cmn, 25–27; ed. staff, 'Nature Magazine,' 23–37. Field naturalist, Am. Nature Asn; advisory board, U. S. Dept. Agr. Migratory Bird Treaty Act; v. pres, Nat. Wildlife Federation. Ornith. Union; Wildlife Soc. (trustee, 38); Soc. Mammal; Izaak Walton League (v. pres); Oregon Audubon Soc. (hon. pres); Oregon Acad. American birds; the California condor; birds of the desert areas; wild animal pets; natural history motion pictures.

Finn, Dr. D(onovan) B(artley), Department of Fisheries, Ottawa, Ont, Can. *Fisheries.* London, Eng, March 1, 00. B.Sc, Manitoba, 24, M.Sc, 28; Ph.D, Cambridge, 33. Assoc. chemist, Am. Cyanamid Co, 24–25; sci. asst, Atlantic Fisheries Exp. Sta, Halifax, N. S, 25–26, director, 34–39, sci. asst, Pacific Fisheries Exp. Sta, Prince Rupert, B. C, 26–27, acting director, 27–28, director, 28–34, chairman, Salt Fish Board, Halifax, 39–40; *Deputy Minister Fisheries, Can, 40–* Chairman cmt. fisheries technol, Fifth Pacific Science Cong. Chem. Soc; fel. Can. Inst. Chem; N. S. Inst. Sci; Biochem. Soc. Gt. Britain. Muscle proteins; influence of low temperature on muscle systems; food chemistry and preservation.

Finn, Prof. J(ames) B(ernard), Jr, Mt. Mercy College, Pittsburgh, Pa. *Biology.* Hollidaysburg, Pa, March 14, 11. B.S, Villanova Col, 32; M.S, Pittsburgh, 37, Ph.D, 41. Asst. zool, Pittsburgh, 34–36; instr. *biol,* Cent. Catholic High Sch, 35–37; *Mt. Mercy Col,* 36–37, *assoc. prof, 37–* A.A; Micros. Soc; Asn. Biol. Teachers; Pa. Acad. Cytogenetics; histology; embryology; general zoology.

Finnegan, Prof. Joseph B(ernard), Illinois Institute of Technology, Chicago, Ill. *Engineering.* Stoneham, Mass, Sept. 27, 80. B.S, Mass. Inst. Tech, 04. *Prof. fire protection eng, Ill. Inst. Tech.* Consulting engineer. A.A; Mech. Eng; Eng. Educ. (pres, Ill-Ind. sect, 35); Polar Soc; Asn. Univ. Teachers Ins; Nat. Fire Protection Asn; West. Soc. Eng. Fire protection engineering; building materials; fire retardant devices; fire insurance.

Finnegan, Thomas J(oseph), 55 Johnson St, Brooklyn, N. Y. *Chemistry.* Waterbury, Conn, June 11, 01. Polytech. Inst. Brooklyn. Lab. asst, Scoville Mfg. Co, 18–24; chemist, New York Steam Corp, 24–29, chemist in charge, 29–38; *research assoc, Consol. Edison Co. of New York, Inc, 38–* Chem. Soc; fel. Inst. Chem; Heat. and Vent. Eng. (corrosion cmt, 38–); Nat. Dist. Heat. Asn. (corrosion cmt, 30–, chem. cmn, 36, chairman, 40–). Corrosion of metals; water conditioning; power plant problems.

Finnell, H(enry) H(oward), Soil Conservation Service, Amarillo, Texas. *Agronomy.* Oakley, Miss, Oct. 27, 94. B.S, Okla. Agr. and Mech. Col, 17. Asst, Okla. Exp. Sta, 17–20; prin. and sch. supt, 21–23; director and agronomist, Panhandle Exp. Sta. and assoc. agronomist, Okla. Exp. Sta, 24–34; regional director, *soil conservation service, U. S. Dept. Agr,* 35–42, *research specialist, 42–* Soc. Agron; Soil Sci. Soc; Friends of the Land. Semi-arid soil and water conservation; crop management.

Finner, Dr. Lucy L(ouise), U. S. Food and Drug Adminstration, Washington, D. C. *Medicine.* Arcadia, Wis, 98. B.S, Wisconsin, 19, M.S, 25; Columbia, 22; Chicago, 25–27, M.D, Rush, 30. Chemist, E. I. du Pont de Nemours and Co, 20–21; asst. biochemist, Clifton Springs Sanitarium, N. Y, 21–23; asst, dept. path, Sprague Mem. Inst, Chicago, 25–29; intern, Los Angeles County Gen. Hosp, 29–31; chief chemist and asst. pathologist, Clifton Springs Sanitarium, N. Y, 31–32; private practise, 33–34; clin. pathologist, Wis-i-ah Tuber. Sanatorium, Auberry, Calif, 34; physician, North. State Hosp, Sedro Woolley, Wash, 35–36; *assoc. pharmacologist, food and drug admin,* U. S. Dept. Agr, 36–39; *Fed. Security Agency, 39–* Tuberculosis; nephritis; lead and arsenic intoxication.

Finner, Dr. Paul F(rederick), 930 W. Park Ave, Tallahassee, Fla. *Psychology.* Arcadia, Wis, Nov. 19, 85. Ph.B, Wisconsin, 11, fellow, Ph.D, 23; A.M, Chicago, 15. Prin. and sch. supt, Wis. and Mich, 06–15; asst, Wisconsin, 15–17; head dept. educ. and psychol, N. Dak. State Teachers Col, Mayville, 17–22; *prof. psychol. and head dept, Fla. State Col. for Women, 22–* A.A. Standardization of intelligence tests; the individual and the group; history of ideas.

Finney, Dr. Gladys D(onaldine), San Francisco Junior College, San Francisco, Calif. *Physics.* San Francisco, Calif, July 31, 10. A.B, California, 30, A.M, 32, Ph.D, 34. Teaching fellow physics, California, 30–33; instr. chem. and math, San Francisco Col. for Women, 33–35; *instr. physics, San Francisco Junior Col, 35–* Physical Soc. Radioactivity.

Finzel, Dr. Theron G, E. I. du Pont de Nemours and Co, Buffalo, N. Y. *Chemistry.* Monroe, Mich, April 18, 00. B.S. (Ch.E), Michigan, 22; M.S, Wisconsin, 25, Ph.D, 27. Research chemist, Champion Spark Plug Co, Toledo, 22–23; asst. instr, Wisconsin, 23–27, instr. chem, 27–28; *research chemist, rayon div, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Finely divided iron; regenerated cellulose, Cellophane; rayon.

Flock, Dr. Ernest F(ranklin), 417 E. Leland St, Chevy Chase, Md. *Physics.* Olney, Ill, Oct. 17, 02. B.S, Illinois, 23, M.S, 24, Ph.D, 26. Asst. physicist, *Bur. Standards,* 26–28, assoc. physicist, 28–30, physicist, 30–40, *senior physicist, 40–* Chem. Soc; Philos. Soc. Wash. Thermal properties of saturated water, steam and organic compounds; flame speeds and explosion pressures during gaseous combustion; combustion in engines; handling and metering of liquid fuels.

Fippin, Elmer O(tterbein), Tennessee Valley Authority, Knoxville, Tenn. *Agriculture.* Columbus, Ohio, Sept. 18, 79. B.S. (Agr), Ohio State, 00; Cornell, 04–05. Asst, bur. plant indust, U. S. Dept. Agr, 00–01, bur. soils, 01–05; asst. prof. soils, Cornell, 05–09, prof. soil technol, 09–13, exten. prof, 13–19; manager agr. dept, Nat. Lime Asn, 19–20, gen. manager, 20–22, agr. consultant, 22–24; chief agron. and director, Exp. Sta, Republic Haiti, 24–26; exec. sec'y, State Conservation and Develop. Cmn, Va, 26–30; N.E. regional rep, Fed. Farm Board, 31–32; econ. analyst, agr. adjust. admin, U. S. Dept. Agr, 33–35; *agr. adviser, Tenn. Valley Authority, 35–* A.A; Soc. Agron; Soil Sci. Soc. Soil classification and surveying; physical properties of soil; soil granulation; lateral capillary movements of soil moisture; land drainage; lime in relation to soil improvement; lime in animal nutrition; tropical field crops; coffee culture; agricultural economics; results and methods of fertilizer field tests; soil conservation.

Fireman, Dr. Peter, Lambertville, N. J. *[1]*Chemistry.* Lipovetz, Russia, April 4, 63. Odessa, 81; Königsberg, Zurich and Bern, 88–93; Ph.D, Bern, 93. Asst. chem, George Washington, 93–95, instr, 95–98, asst. prof, 98–01; prof, Mo. Sch. Mines, 01–02; chem. geologist, U. S. Nat. Museum, 01, in charge chem. research lab, Alexandria, Va, 04–06; *mfg. chemist, 06–; pres, Magnetic Pigment Co, 11–* A.A; Chem. Soc. (pres, Wash. sect). Preparation of organic phosphins; action of ammonium chlorid on certain chlorids; action of phosphonium iodid on polychlorids; replacement of three atoms of hydrogen by one of nitrogen in organic compounds; iron oxid pigments.

Firestone, Prof. F(loyd) A(lburn), University of Michigan, Ann Arbor, Mich. *Physics.* Marysville, Ohio, Sept. 21, 98. B.S, Case, 21; Ph.D, Michigan, 31. Asst. prof. *physics, Michigan,* 23–41, *assoc. prof, 41–* Physical Soc; Acoustical Soc. (ed, 'Jour,' 39–). Acoustics; design of radiation thermo-

piles and infra-red spectrographs; binaural localization of tones; reduction of noises in machinery; hearing phenomena.

Firkins, Prof. Bruce J(udson), 2224 Storm St, Ames, Iowa. *Soils.* Rollo, Ill, Feb. 18, 96. B.S, Iowa State Col, 17, M.S, 18. Asst. soil surv, *Iowa State Col,* 19, asst. prof. *soils,* 19–26, assoc. prof. and research assoc. prof, 26–37, *prof. and research prof, 37–* Soc. Agron; Soil Sci. Soc. Soil science; base exchange in soils; fineness of division of lime and rate of application on degree of saturation in soils; land use policy; soils of Iowa; soil testing; soil management and conservation.

Firor, Prof. John William, University of Georgia, Athens, Ga. *Agricultural economics.* Thurmont, Md, Sept. 23, 87. B.S, Maryland, 08; Chicago, 09; Cornell, 10; M.S.A, Georgia, 32. Commandant and instr, Bethel Mil. Acad, 08–10; asst. horticulturist, Exp. Sta, West Virginia, 10–12; exten. horticulturist, Ga. State Col, Georgia, 12–17; manager, Planters Products Co, Ga, 20–22; county agent, Ga, 23–25; state agent marketing, Ga. State Col, *Georgia,* 26–27, prof. agr. econ. and marketing, 28–35, *head dept.* rural organization and marketing, 36–37, *agr. econ. and rural sociol, 37–; major, Air Forces, U. S. Army, 42–* Horticulturist, A. B. and A. Ry, 20–22. Co-editor, 'South. Fruit Grower,' 14–17. Lieut, F.A, 17–19, F.A.Res, 23–41, major. Farm Econ. Asn; Asn. Marketing Officials; Southeast. Econ. Asn; South. Agr. Workers; Ga. Hort. Soc. Production of pecans, peaches and apples; watermelon and cantaloupe field tests; watermelon industry of Georgia; marketing farm products.

Firor, Prof. Warfield M(onroe), Johns Hopkins Hospital, Baltimore, Md. *Surgery.* Baltimore, Md, Nov. 7, 96. A.B, Hopkins, 17, M.D, 21. Res. surgeon, Hopkins Hosp, 26–27, assoc. *surg, sch. med, Hopkins, 27–29, assoc. prof, 29–* A.A; Surg. Soc; Soc. Clin. Surg; Physiol. Soc; South. Surg. Asn. Tetanus and sulfonamides in intestinal surgery; hypophysectomy in the monkey and the rabbit; the effect of hypophysectomy in pregnancy; the adrenal cortical hormone.

Fischelis, Dr. Robert P(hilipp), 640 W. State St, Trenton, N. J. *Pharmacy, Pharmaceutical chemistry.* Philadelphia, Pa, Aug. 16, 91. Ph.C, Medico-Chirurg. Col. Phila, 11, Ph.C, 12, Phar.D, 13; B.S, Temple, 12; Ph.M, Phila. Col. Pharmacy, 18; hon. Phar.D, Conn. Col. Pharmacy, 34; hon. Sc.D, Rutgers, 42. Instr. pharmacy and org. chem, Medico-Chirurg. Col. Phila, 12–14; assoc. ed, 'The Druggists Circular,' 14–16; chemist and tech. exec, H. K. Mulford Co, 16–19; *consulting pharmacist and chemist, 19–; lecturer, Phila. Col. Pharmacy, 16–; sec'y,* chemist *and chief chemist, State Board Pharmacy, N. J, 26–; chief chem, drugs and health supplies branch, office civilian requirements, War Production Board, 41–* Dean and prof, N. J. Col. Pharmacy, 21–25. Cooperating state official food and drug admin, Fed. Security Agency, 26–; State Governor's Sch. Surv. Cmn, N. J, 32–33; State Social Security Cmn, N. J, 35–36; mem, State Board of Health, 39– Managing ed, 'Indust. and Eng. Chem,' 22–27, consulting ed, 28–; ed, 'Pa. Pharmacist,' 16–19; 'N. J. Jour. Pharmacy,' 27–30, 35– Research staff, Cmt. on Costs of Med. Care, 29–33; Pharmaceut. Recipe Book Cmt; v. pres, Nat. Asn. Boards of Pharmacy, 31–34; pres, Drug Trade Bur. Pub. Information, 20–29, director and ed, 29–32; mem, Nat. Pharmaceut. Syllabus Cmt, 30–; Research Council Problems of Alcohol; revision cmt, U. S. Pharmacopoeia, 40–; chairman joint cmt. venereal disease control, Am. Social Hygiene Asn. and Am. Pharmaceut. Asn; Conf. Allied Med. Professions N. J, 34; mem, Nat. Health Conf, 38; N. J. Health and Welfare Conf, 39–; Am. Council Pharmaceut. Educ. C.W.S, U.S.A, 18. A.A; Pharmaceut. Asn. (v. pres, 33, pres, 34; councilor, 23–26, 33–; sec'y, 23–25; chairman council, 41–); Chem. Soc; Asn. Cols. Pharm. (v. pres, 24); Pub. Health Asn; Am. Med. Asn; Acad. Polit. and Social Sci; N. J. Pharmaceut, Asn. (v. pres, 23–25, sec'y, 26–29; pres, 42); Pa. Pharmaceut. Asn. (sec'y, 16–19, pres, 19); Chemists' Club. Principles and practise of pharmacy; basic material for a pharmaceutical curriculum; industrial pharmacy; pharmaceutical education; pharmacy law enforcement; creosote; digitalis; costs of medicines; medical materials industry; ethyl nitrite; drug control.

Fischer, Dr. Anthony J(oseph), Dorr Co, 570 Lexington Ave, New York, N. Y. *Sanitary engineering.* Philadelphia, Pa, Jan. 8, 02. B.S. Pennsylvania, 24; M.S, Rutgers, 26, Dorr sewage fellow, 25–28, Ph.D, 28. Junior chemist, sewage investigations lab, N. J. Exp. Sta, 24–25; *sanit. develop. engineer, Dorr Co, 28–* Chem. Soc; assoc. Civil Eng. Sewage disposal; sludge digestion.

Fischer, Prof. Arthur F(rederick), University of the Philippines, Manila, P. I. *Forestry.* Chicago, Ill, Feb. 6, 88. C.E, Ohio Northern, 09; M.F, Yale, 11. Asst. to state forester, Ohio, 10–11; asst. prof. forest eng, *Philippines,* 11–12, forestry, 14–16, *prof. trop. forestry, 16–,* dean sch. forestry, 17–36; *forester, Bur. Forestry, P. I, 11–, director, 17–* Acting director, Bur. Science, P. I, 34–35. Chairman agr. and forestry div, Nat. Research Council P. I, 34–; adviser nat. resources, Commonwealth Govt, P. I, 37– P. I. rep, Am. Mining Cong, Colo, 20; P. I. del, World's Forestry Cong, Rome, 26; Pacific Sci. Cong, Batavia, Java, 29. Board bot. sect, 'Philippine Jour. Science.' A.A; Soc. Foresters. Philippine bamboos; Philippine mangrove swamps; Philippine sources of paper pulp; tropical forest administration.

Fischer, Prof. Carl H(ahn), Wayne University, Detroit, Mich. *Mathematics.* Newark, N. J, Aug. 22, 03. B.S, Washington (St. Louis), 23; M.S, Iowa, 30, Ph.D, 32. Special engineer, Am. Steel Foundries, 23–26; instr. math, Beloit Col, 26–29; asst, Iowa, 29–32; instr, Minnesota, 32–33; actuarial research, Northwest. Nat. Life Ins. Co, 33–34; instr. *math, Wayne,* 34–37, *asst. prof, 37–* Visiting lecturer, Michigan, 41–42. Statist. Asn; Inst. Math. Statist; Math. Soc; Math. Asn. Mathematical statistics; actuarial theory.

Fischer, Dieterich P(aul), 302 W. Washington St, Medina, Ohio. *Chemistry, Biochemistry.* New York, N. Y, Dec. 14, 96. B.S, Columbia, 20. Research chemist, Ward Baking Co, 21–22, chief biol. labs, 22–23; chief chemist, Alfred W. McCann Labs, New York, 23–30; director food research, Foster D. Snell, Inc, Brooklyn, 30–36; *chief chemist, H. W. Madison Co, 36–* Chem. Soc. Food technology; nutrition; vitamins; animal experimentation on bakery products, dairy products, canned foods and tea.

Fischer, Prof. E(arl) B, 4921 Fremont Ave, S, Minneapolis, Minn. *Pharmacognosy.* Winona, Minn, Aug. 27, 92. B.S, Minnesota, 19, Ph.D, 40. Asst. chemist, McLaughlin, Gormley, King and Co, Minneapolis, 20–22; instr. pharmacog, *Minnesota,* 22–26, asst. prof. pharmacog. and pharm. bot, 26–34, assoc. prof, 34–40, *prof. pharmacog, 40–* Mem. exec. cmt, Plant Science Seminar; auxiliary mem, cmt. bot. and pharmacog, Nat. Formulary Revision Cmt; U. S. Pharmacopoeia Revision Cmt. Mem. cmt. educ. and curriculum, Am. Asn. Cols. Pharmacy. Sergt, C.W.S, 17–19. Inter-Soc. Color Council; Minn. Pharmaceut. Asn. Biological assay of digitalis; inorganic constituents of ash of vegetable drugs; effect of the preparation and of storage conditions on the physiological activity and chemical composition of the digitalis glucesides; volatile oil of Chrysanthemum balsamita, variety tanacetoides; silica in drug plants; domestic ergots; inducement of polyploidy in medicinal plants by use of colchicine; distribution of medicinal plants in Minnesota.

Fischer, Dr. Earl K(nudt), Interchemical Corp, 432 W. 45th St, New York, N. Y. *Chemistry.* Milwaukee, Wis, Nov. 21, 05. A.B, Southern California, 27, fellow, 27–28, A.M, 28; Ph.D, Wisconsin, 30. Asst. chem, Wisconsin, 28–29, physiol. chem, med. sch, 29–30; Stieglitz fellow med. chem, Chicago, 30–33; *research chemist, Interchem. Corp, 33–* A.A; Chem. Soc. Emulsions; surface phenomena; industrial finishes; chemistry and technology of pigments; dispersion of pigments; printing inks.

Fischer, Dr. Ernst, 3318 Chatham Road, Richmond, Va. *Physiology.* Breslau, Germany, Sept. 27, 96. M.D, Frankfurt, 24. Asst. *physiol,* Frankfurt, 24–28, privat-docent, 28–34; visiting assoc, Rochester, 34–35; assoc, *Med. Col. of Va,* 35–37, *assoc. prof, 37–* Physiol. Soc; Soc. Exp. Biol. Physiology and pharmacology of muscle, heart, nerve and central nervous system.

Fischer, Dr. George W(illiam), Route 2, Pullman, Wash. *Plant pathology.* Indianapolis, Ind, April 30, 06. B.S, Butler, 28; M.S, Northwestern, 29; Emma J. Cole fellow, Michigan, 32–34. Ph.D, 34. Instr. bot, Butler, 29–30; plant path, State Col. Wash, 34–36; agent, *bur. plant indust, U. S. Dept. Agr,* 36–37, *assoc. pathologist, 37–* Phytopath. Soc; Mycol. Soc. General biology of the Ustilaginales; grass rusts and smuts; diseases of forage crops.

Fischer, Prof. Hermann O(tto) L(aurenz), University of Toronto, Toronto, Ont, Can. *Organic chemistry.* Wurzburg, Bavaria, Dec. 16, 88. Cambridge; Berlin, Ph.D, Jena, 12. Asst. prof. *org. chem,* Berlin, 22–32; assoc. prof, Basle, 32–37; *research prof, Toronto, 37–* A.A; Chem. Soc; Soc. Biol. Chem; fel. Can. Inst. Chem; Royal Can. Inst; Deuts. Chem. Gesell. Syntheses of depsides, amino acids, Fischer-Baer ester, hexoses, optically active glycerides, glycerophosphates and glycerol ethers; configuration of plant acids; conduritol, allo- and muco-inositol.

Fischer, Prof. Louis, 5627 Park Road, Seattle, Wash. *Pharmaceutical chemistry.* Seattle, Wash, Aug. 18, 05. Ph.C, B.S, Washington (Seattle), 26, M.S, 28, Ph.D, 33. Pharmacy stockman, Washington (Seattle), 26–28, teaching fellow org. chem, 28–29; asst. state chemist, Wash, 29–35; instr, *col. pharmacy, Washington (Seattle),* 35–37, asst. prof, 37–41, *assoc. prof, 41–* Summers, dairy chemist and bacteriologist, 29; special research chemist, Nat. Canners Asn, 36–37; canned salmon examiner, 41–42. Polypodium occidentale; licorice fern and wild licorice; oils of Washington conifers; fluorides in wine; cultivation of tea in the Pacific Northwest; composition of fireweed honey; synthesis of several dialkylmalonylguanidines; ophthalmic zinc sulfate solutions, buffered, isotonic and preserved; Cornus Nuttallii.

Fischer, Dr. Martin H(enry), University of Cincinnati College of Medicine, Cincinnati, Ohio. ***Chemistry, Physiology, Medicine.* Kiel, Germany, Nov. 10, 79. Fellow, Rush, Chicago, 00, M.D, 01; Holmes scholar, Marine Biol. Lab, Woods Hole, 00, 01; hon. Phar.D, Cincinnati, 25; hon. Sc.D, Wittenberg Col, 32. Asst. path, Rush Med. Col, Chicago, 98–00, physiol, Chicago, 00–01, assoc, 01–02; asst. prof, California, 02–05; *prof.* path, Oakland Col. Med. and Surg, 05–10; *physiol, col. med, Cincinnati, 10–* Cutter lecturer, Harvard, 17; lecturer, N. Y. Univ, 31. Trustee, Helen S. Trounstine Foundation, pres, 17–20. Nathan Lewis Hatfield prize, Phila. Col. Physicians, 09; Cartwright prize, col. physicians and surg, Columbia, 11; gold medal, Am. Med. Asn, 13, diploma, 15, 20, silver medal, 16; diploma, Ohio Acad, 23; Int. prize, Kolloid-Gesell, 24. A.A; Physiol. Soc; Soc. Exp. Biol; Am. Med. Asn; Soc. Biol. Chem; Chem. Soc. (pres, Cincinnati sect, 22); Cincinnati Research Soc. (pres, 12); for. mem. Kolloid-Gesell; Soc. Spinozana; for. mem. Leopold-Carl Acad. Sci; Czecho-Slovak. Bot. Soc. Histopathology; toxic effects of formaldehyde; artificial alimentary excretion; edema, nephritis, glaucoma and coma; theories of growth, muscular contraction and hemolysis; absorption and secretion of water and dissolved substances by plants and animals; water absorption by colloids; emulsions; soaps; indicators; physico-chemical properties of mutually soluble systems and protoplasm; theory of lyophilic colloids; fatty degeneration; focal infection; technique of the fine arts; livering of paints; production of base-protein-acid compounds; protein nature of catalase.

Fischer, Prof. Richard, University of Wisconsin, Madison, Wis. *Chemistry.* New Ulm, Minn, Nov. 18, 69. Ph.C, Michigan, 92, B.S, 94; Ph.D, Marburg, 00. Asst. chem, Michigan, 92–94; instr. pharmacy, *Wisconsin,* 94–98, asst. prof, 00–09, prof. *chem,* 09–40, *emer. prof, 40–* State chemist, Wis, 03–09; consulting chemist, Food and Drug Cmn, Wis, 09–31; mem, Madison Rivers and Lakes Cmn, 24–, sec'y, 24–26, chairman, 26–28. A.A; Chem. Soc; Asn. State and Nat. Food and Dairy Depts. (chairman, cmt. on food standards, 06–09); Wis. Acad. Organic chemistry; alkaloids; chemistry of foods.

Fischer, Dr. Richard P(hilip), U. S. Geological Survey, Washington, D. C. *Economic geology.* Marietta, Ohio, July 2, 10. A.B, Ohio Wesleyan, 32; A.M, Princeton, 34, Ph.D, 36. *Assoc. geologist, U. S. Geol. Surv, 37–* A.A; Min. and Metal. Eng. Geology of vanadium deposits.

Fish, Lieut. Commander Charles J(ohn), Rhode Island State College, Kingston, R. I. *Zoology.* Fall River, Mass, May 13, 99. Ph.B, Brown, 21, M.S, 22, Ph.D, 23. Asst, U.S.S. 'Albatross,' 22–24; marine investigator, Bur. Fisheries, 24–27; director, Buffalo Museum Science, 27–34; research prof. ichthyol, Buffalo, 29–32; assoc. prof. *zool, R. I. State Col,* 34–37, *prof, 37– lieut. commander, U. S. Naval Res, 42–* Pres, Niagara Frontier Research Council, 30; director cooperative oceanog. investigations, Gulf of Maine, 29–30; exec. sec'y, Int. Passamaquoddy Fisheries Cmn, 31–33; director cooperative state and fed. investigations, Narragansett Bay, 35–; Narragansett Biol. Lab, 37– Chairman cmn. marine and commercial fisheries, R. I. Wildlife Federation, v. pres, 40–; mem, Governor's Advisory Council Fish and Game, R. I, 39–; State Cmn. to Administer Atlantic States Marine Fisheries Compact, 41– Expeds, plankton surv, L. I. Sound, 22–23, Vineyard Sound and Buzzards Bay, 23–24, Labrador Current, Newfoundland, 24, Continental Plateau to Gulf Stream, 24; oceanographer, 'Arcturus' oceanog. exped, 25; Princeton-Buffalo exped, 28; oceanog. exped, Bermuda, 29; int. oceanog. exped, Bahamas, 30; biol. surv, Coast of Maine and Mass. Bay, 24; oceanog. surv, Mass. Bay, 24–25, 26; director cooperative surv, Lake Erie, 28–29. A.A; Geophys. Union; Asn. Mus. (sect. sec'y, 30); R. I. Audubon Soc. (v. pres, 38–). Seasonal, vertical and horizontal distribution of plankton organisms with governing physical and biological factors; physical oceanography; food, enemies, spawning centers and distribution of pelagic young fish with controlling factors.

Fish, E(dwards) R(ussell), 56 Prospect St, Hartford, Conn. *Mechanical engineering.* Stone Mountain, Ga, Aug. 4, 70. M.E, Washington (St. Louis), 92. Sec'y, Heine Safety Boiler Co, 97–18, v. pres, 18–28; consulting engineer, Combustion Eng. Corp, 28–30; *eng. consultant, boiler div, Hartford Steam Boiler Inspection and Ins. Co, 30–* Am. Eng. Council, 22–23. Mech. Eng. (manager, 24–26, v. pres, 27, mem. and chairman, boiler code cmt, 18–); Eng. Club St. Louis (pres, 07). Boiler and pressure vessel construction and operation.

Fish, Prof. Floyd H(amilton), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Camden, N. Y, Oct. 7, 89. B.S, Clarkson Tech, 16, Ch.E, 22; M.S, Illinois, 26. Asst. chemist, Robert Gair Co, Brooklyn, 16–17; chief of tests, Texas Oil Co, N. J, 17–19; research chemist, Great West. Sugar Co, Denver, 19–20; eng. exp. sta, Illinois, 20; assoc. prof. chem, Agr. and Mech. Col. Texas, 20–25; asst, Illinois, 25–26; asst. prof. chem. and exp. eng, *Va. Polytech,* 26–27, assoc. prof, 27–28, *prof. anal. chem, 28–* A.A; Inst. Chem; Chem. Soc; Va. Acad. Water purification and sewerage disposal; coal; quantitative analysis; the settling rate of the lime particle; germanium and beryllium.

Fish, Prof. F(red) A(lan), Iowa State College, Ames, Iowa. *Electrical engineering.* Milan, Ohio, Feb. 21, 75. M.E, Ohio State, 98; hon. fellow, Wisconsin, 01. Asst. prof. *elec. eng,* Ohio State, 01–05; assoc. prof, *Iowa State Col,* 05–09, *prof, 09–* Fel. Elec. Eng; Eng. Educ.

Fish, Dr. Frederic F(orward), 2725 Montlake Blvd, Seattle, Wash. *Zoology.* Rochester, N. Y, July 25, 05. B.S, Cornell, 28; Sc.D, Hopkins, 31. *Assoc. aquatic biologist, Bur. Fisheries, 31–* Lecturer, Washington (Seattle), 34– A.A; Limnol. Soc. (mem, exec. cmt, 37); Soc. Parasitol. Avian coccidiosis; parasites, diseases and culture of fish.

Fish, H(arold) D(ufur), 350 Madison Ave, New York, N. Y. *Zoology.* Tunbridge, Vt, Aug. 13, 83. A.B, Dartmouth Col, 06, 08; Kans. State Col, 12; M.S, Harvard, 15; Columbia, 27–28. Sch. supt, Vt, 09; prof. biol, Highland Col, 11–12; Austin teaching fellow zool, Harvard, 13–14, research asst. genetics, Bussey Inst, and zool, Harvard and Radcliffe Col, 14–15; prof. zool, Denison, 15–19; Pittsburgh, 20–27; research assoc, dept. genetics, Carnegie Institution, 19–24; director, Kartabo Lab. Trop. Biol, British Guiana, 24–26; res. investigator cancer research, Michigan, 28–29; *chairman, Trop. Research Board, 29–* Teaching staff, Marine Biol. Lab, Cold Spring Harbor, 19–20; research investigator, Pittsburgh Skin and Cancer Foundation, 23–26; conservation director, Izaak Walton League, 31; teacher, Nichols Sch, Evanston, 32–37; prof, Chicago Med. Sch, 38–40; asst. managing director, Am. Soc. Control Cancer, 41– Mem. cmt. trop. biol, Nat. Research Council, 27–28. Ecol. Soc; Soc. Mammal; Eugenics Research Asn; Ornith. Union. Animal genetics; inheritance in mammals and Drosophila; cancer.

Fish, Dr. H(arold) S(omers), Johns Hopkins University Medical School, Baltimore, Md. *Zoology.* Sidney, Maine, March 5, 03. A.B, Bowdoin Col, 25; Ph.D, Harvard, 35. Instr, Colby Col, 28–30; teaching fellow, Harvard, 31–32, 33–34, asst, 32–33, 34–35; prof. biol, Presb. Col. (S. C), 35–41; *instr. histol. and embryol, Maryland, 41–; anat, med. sch, Hopkins, 42–* A.A; assoc. Soc. Zool. Cytology; somatic cells of earthworms; taste papillae of mammalian tongue.

Fish, Prof. J(ohn) C(harles) L(ounsbury), Stanford University, Calif. *Engineering economics.* Near Berlin Heights, Ohio, June 3, 70. C.E, Cornell, 92. Asst. to city engineer, Sandusky, Ohio, 86–88; asst. engineer, Sandusky and Columbus Ry, 91; instr. civil eng, Cornell, 92–93; asst. prof, *Stanford,* 93–98, assoc. prof, 98–09, prof. railroad eng, 09–25, *civil eng,* 25–35, exec. head dept, 28–35, *emer. prof, 35–* Recorder, U. S. Coast and Geod. Surv, 99; field asst, U. S. Geol. Surv, 00; res. engineer, line west, N. Y. Cent. R. R, 05–07; div. engineer, 07–09. Fuertes gold medal, Cornell, 15. Civil Eng; Ry. Eng; Eng. Educ. (councilor, 21–24). Earthwork haul and overhaul; the engineering profession.

Fish, Marie Poland (Mrs. Charles J. Fish), Kingston, R. I. *Ichthyology.* Paterson, N. J, May 22, 02. A.B, Smith Col, 21. Research asst. cancer problems, Carnegie Institution, 21–22; field asst, Bur. Fisheries, 23–27; curator ichthyol, Buffalo Museum Science, 28–31. Asst, dept. trop. research, N. Y.

Zool. Soc, 25–32; research assoc, *Narragansett Marine Lab*, 37–39, *ichthyologist, 39–; instr. zool, R. I. State Col*, 42– Newspaper columnist, 38–41. Asst, 'Arcturus' oceanog. exped, 25; Bermuda oceanog. exped, 29; ichthyologist, Cooperative Surv. Lake Erie, 28–30; surv, Gulf of Maine, 29–30; int. exped, Bahamas, 30. Soc. Ichthyol. and Herp; Soc. Women Geog; Buffalo Soc. Nat. Sci. Embryology and early life history of fresh-water fishes; early life histories of deep-sea fishes; embryology and development of the American eel.

Fish, Dr. Maurice J(ulius), Combustion Engineering Co, 200 Madison Ave, New York, N. Y. *Mathematics, Mechanical engineering.* Bangor, Maine, Feb. 8, 05. B.S, Mass. Inst. Tech, 26, Ph.D, 35. Practicing engineer, 26–32; *asst. tech. adviser, Combustion Eng. Co, 37–* Differential equations; theory of elasticity; strength of materials.

Fishback, Prof. H(amilton) R(odell), 303 E. Chicago Ave, Chicago, Ill. *Pathology.* Marshall, Ill, Jan. 10, 90. A.B, Illinois, 12; M.S, Jefferson Med. Col, 15, M.D, 16, Sc.D, 17. Asst. chem, Jefferson Med. Col, 12–18; *path*, sch. med, Western Reserve, 23–24; assoc, *med. sch, Northwestern*, 24–27, asst. prof, 27–40, *assoc. prof, 40–* A.A; Asn. Path. and Bact; Chicago Path. Soc; Inst Med. Chicago. Gastric digestion; immunology; muscle degenerations.

Fishbein, Dr. Morris, 535 N. Dearborn St, Chicago, Ill. *Medicine.* St. Louis, Mo, July 22, 89. B.S, Chicago, 10, M.D, Rush, 12. Research investigator, McCormick Inst. for Infectious Diseases, 12–13, assoc. clin. prof. *med, Rush Med. Col, Chicago*, 24–25, *asst. clin. prof, 25–; lecturer med. econ, sch. med, Illinois, 34–* Asst. ed, 'Jour,' Am. Med. Asn, 13–24, ed, 24–; 'Hygeia,' 23– A.A; Am. Med. Asn; Pub. Health Asn; Path. Soc. Chicago. Isoagglutination; carbon monoxide poisoning and kidney function; medical research; journalism; medical economics and history; fads and quackery in medicine; foods; health superstitions.

Fishberg, Dr. Arthur M(aurice), 1136 Fifth Ave, New York, N. Y. *Internal medicine.* New York, N. Y, June 17, 98. A.B, Columbia, 19, M.D, 21. Adj. physician, Montefiore Hosp, 23–29; *Mt. Sinai Hosp*, 26–32, *assoc. med, 32–* Assoc. physician, Beth Israel Hosp, 30–35. Am. Med. Asn; Soc. Clin. Invest; Harvey Soc; N. Y. Acad. Med. Pathological anatomy of arteries; renal function; clinical aspects of hypertensive, renal and cardiac disease; hypertension and nephritis.

Fishberg, Dr. Ella H(arriet), 910 Park Ave, New York, N. Y. *Biochemistry.* New York, N. Y. A.B, Columbia, 20, A.M, 22; M.D, Berlin, 24. *Biochemist, Beth Israel Hosp, New York, 26–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; fel. N. Y. Acad. Med. Experimental pathology.

Fishel, Vinton C(rews), U. S. Geological Survey, Lawrence, Kans. *Physics.* Cisne, Ill, Aug. 5, 07. B.S, South. Ill. State Nor. Univ, 31. From junior physicist to *assoc. physicist, U. S. Geol. Surv, 29–* Geophys. Union. Hydrology.

Fishel, Prof. W(alte) P(hilip), 1023 17th Ave, S, Nashville, Tenn. *Chemistry.* Pleasant City, Ohio, Dec. 9, 90. A.B, Ohio (Athens), 18; M.S, Iowa State Col, 22, Ph.D, 37. Instr. chem, Ohio (Athens), 18–20; asst, Iowa, 20–23; asst. prof. *metal*, Vanderbilt, 23–38, *assoc. prof, 38–* Chem. Soc. (sec'y-treas, Nashville sect, 26); Soc. Metals. Analysis of the Grignard reagent; carburizing iron with carbon monoxide; reactions of vanadium carbide; metallic carbides.

Fisher, A(lbert) K(enrick), U. S. National Museum, Washington, D. C. *Biology.* Ossining, N. Y, March 21, 56. Columbia, 76–79. Asst. ornithologist, U. S. Dept. Agr, 85–96, asst. biologist, 96–02, asst. chief biol. surv, 02–06, in charge econ. investigations, 06–31; *zool. collaborator, U. S. Nat. Museum, 31–* Fel. Ornith. Union (pres, 14); Soc. Mammal; Cooper Ornith. Club; Nuttall Ornith. Club; Game Protect. Asn; Del. Valley Ornith. Club; Baird Ornith. Club (pres); Biol. Soc. Wash; Wash. Biol. Field Club (past pres); cor. mem. Linnaean Soc. N. Y; Int. Soc. Game Commissioners. Geographic distribution and natural history of vertebrates.

Fisher, Dr. A(lbert) M(adden), 168 Stibbard Ave, Toronto, Ont, Can. *Chemistry.* Toronto, Ont, May 27, 07. B.A, Toronto, 31, M.A, 32, Ph.D, 34. Asst. chem, Toronto, 31–32; research asst, *Connaught Labs*, 32–39, *research assoc, 39–* Can. Physiol. Soc; Can. Chem. Asn. Chemistry of insulin; pancreas and insulin; dried blood serum.

Fisher, Dr. A(lexander) Murray, 18 E. Eager St, Baltimore, Md. *Internal medicine.* Ruxton, Md, Sept. 9, 01. B.S, Princeton, 24; M.D, Hopkins, 28. *Assoc. med, sch. med, Hopkins, 37–* Am. Med. Asn; South. Med. Asn. Pulmonary diseases; properties of staphylococcus; sarcoid.

Fisher, Prof. Anna B(athsheba), 615 Third St, Alva, Okla. *Botany.* Salt Lake City, Utah, Dec. 17, 99. A.B, California, 22; fellow, Chicago, 22–27, M.S, 24; research fellow, Oklahoma, 41–42, Ph.D, 42. Asst, Chicago, 22–27; dept. biol, *Northwest. State Col, Okla*, 27–41, *assoc. prof. biol, 41–* Lecturer, Northwestern Sch. of Nurses; asst. to Dr. W. H. Taliaferro, Tela, Honduras, 26. Parasitology; bacteriology.

Fisher, Arne, 60 Hudson St, New York, N. Y. *Mathematics, Statistics.* Randers, Denmark, Dec. 15, 86. Danish Realgym. Various positions, insurance companies; *mathematician, West. Union Tel. Co.* Lecturer, Hopkins; Michigan. Fel. Statist. Asn; Asn. des Actuaires suisses; cor. mem. Royal Danish Actuarial Soc. Actuarial science; mathematical theory of probabilities; elementary treatise on frequency curves; compound frequency curves and mortality tables.

Fisher, Prof. Benj(amin) A(twood), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Electrical engineering.* St. Louis, Mo, Oct. 27, 99. B.S, Missouri, 24; M.S, Iowa State Col, 29, E.E, 30; M.S, Harvard, 37. Assoc. prof. *elec. eng, Okla. Agr. and Mech. Col*, 27–39, *prof, 39–; lieut, D-V(S), U. S. Naval Res, 41–* Elec. Eng. (sec'y, Okla. City sect, 29); Eng. Educ. Electrical communication; communication networks.

Fisher, Dr. C(atherine) Virginia, 113 W. 18th St, New York, N. Y. *Bacteriology.* Valparaiso, Ind, June 10, 08. A.B, Wisconsin, 29; M.S, Illinois, 31, Ph.D, 34. Assoc. bacter. and prev. med, col. med, Illinois, 34–37; *bacteriologist*, Killian Research Labs, 37–39; *Warner Inst. Therapeut. Research, 39–* Soc. Bact; Pub. Health Asn. Classification of Monilias; antiseptics; sulfonamides.

Fisher, Dr. Charles, 22 E. 89th St, New York, N. Y. *Neurology.* Los Angeles, Calif, March 26, 08. Ph.B, Chicago, 29; fellow neur, Northwestern, 32–34, Ph.D, 34, M.D, 39. Asst. neur, med. sch, Northwestern, 34–36, instr, 36–39; junior med. officer, St. Elizabeths Hosp, 39–41; mem. staff, Chestnut Lodge Sanitarium, Rockville, Md, 41–42; *passed asst. surgeon, U. S. Pub. Health Service, U. S. Marine Hosp, Ellis Island, 42–* Student in training, Washington-Baltimore Psychoanal. Asn, 40– Marshall Field III research grant, 41. Asn. Anat. Diabetes insipidus and the hypothalamico-hypophyseal control of water metabolism; relation of the hypothalamus to temperature regulation and fat metabolism; posterior pituitary physiology; nerve fiber size and sensation; dream psychology.

Fisher, Dr. C(harles) Harold, 104 Rosemont Lane, Abington, Pa. *Organic chemistry.* Hiawatha, W. Va, Nov. 20, 06. B.S, Roanoke Col, 28; M.S, Illinois, 29, Ph.D, 32. Asst. chem, Illinois, 29–32; instr, Harvard, 33–35; *research chemist*, exp. sta, U. S. Bur. Mines, Pittsburgh, 35–40; *east. regional research lab, U. S. Dept. Agr, 40–* Summers, chemist, Pa. Coal Products Co, 31, 32. Cmt. chem. utilization of coal, Nat. Research Council, 39– Chem. Soc. Coal hydrogenation; tar chemistry; hydroxy acids derivatives; resin intermediates.

Fisher, C(harles) K(ing), 712 Elizabeth St, Fresno, Calif. *Agriculture.* Rural Retreat, Va, April 1, 92. B.S, Va. Polytech, 17. Asst. prin, high sch, Va, 17–18; U. S. Dept. Agr, 19–21; county agr. agent, Va, 21–23; junior entomologist and *asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 23–* Asn. Econ. Entom; Entom. Soc. Amer. Dried-fruit insects.

Fisher, Chester G, 717 Forbes St, Pittsburgh, Pa. *Chemistry.* Pittsburgh, Pa, Aug, 10, 81. M.E, Pittsburgh. Founder and *pres, Fisher Sci. Co, 02–* A.A; Chem. Soc. (chairman, Pittsburgh sect, 36, councilor); Chemists' Club. Developments in scientific instruments.

Fisher, Prof. D(aniel) Jerome, University of Chicago, Chicago, Ill. *Geology, Mineralogy.* Canton, N. Y, June 14, 96. B.S, Chicago, 17, M.S, 20, Ph.D, 22; Berlin, 30–31. Instr. *geol. and miner, Chicago*, 21–26, asst. prof, 26–28, *assoc. prof, 28–* Geologist, Ill. Geol. Surv, 21–34; junior geologist, U. S. Geol. Surv, 24–25, asst. geologist, 25–36, senior geologist, 43–; geologist, S. Dak. Geol. Surv, 41–42. A.A; fel. Geol. Soc; fel. Miner. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Ill. Acad. Crystallography and mineralogy; areal and stratigraphic geology; geology of coal; pegmatites.

Fisher, Dr. D(onald) V(ince), Experimental Station, Summerland, B. C, Can. *Agriculture.* Kelowna, B. C, Feb. 3, 14.

B.S.A, British Columbia, 33, M.S.A, 36; Ph.D, Iowa State Col, 41. Agr. asst, *Dom. Exp. Sta*, 36–41, *asst. supt, 41–* Soc. Hort. Sci. (membership cmt, 42–); Can. Soc. Tech. Agr. (pres, B. C. interior branch, 39). Fruit maturity; cold storage; maturity indices for fruits; physiology of fruit in storage; controlled atmosphere storage of fruit; cold storage warehouse operation and mechanics; cold storage problems of fruits and vegetables.

Fisher, Dr. Dorothy A(lice), Asheville College, Asheville, N. C. *Science education.* Hartford, Conn, Feb. 21, 11. B.S, Keuka Col, 33; M.S, Cornell, 34, Ph.D, 42. Asst. biol, Keuka Col, 34–37; instr. science, Asheville Col, 39–41; biol, Moravian Sem. and Col, 41–42; *head dept. science, Asheville Col, 42–* Establishment of small-community museums with special reference to the use of natural history material.

Fisher, D(urward) F(rederick), U. S. Department of Agriculture, Washington, D. C. *Horticulture.* Clarence, N. Y, Aug. 17, 88. B.S, Mich. State Col, 12, M.Hort, 18. Pathologist, fruit disease investigations, *div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr*, Wenatchee, Wash, 12–30, *prin. horticulturist, 30–* A.A; Soc. Hort. Sci; Soc. Refrig. Eng. (councilor); Bot. Soc. Wash. Fruit diseases; fruit and vegetable storage and transportation.

Fisher, Prof. Edna M(arie), 2410 Fulton St, Berkeley, Calif. *Zoology.* Riverside, Ind. A.B. and A.M, California, 21. Teaching fellow zool, California, 22–23, asst. curator osteol, museum vert. zool; instr. *biol, San Francisco State Col, Calif*, 30–35, asst. prof, 35–41, *assoc. prof, 41–* A.A; Ornith. Union; Soc. Ichthyol. and Herp; Soc. Mammal; Cooper Ornith. Club. Herpetology; osteology; comparative anatomy; sea otter.

Fisher, Dr. Elizabeth (Gault), 20 Blythewood Road, Baltimore, Md. *Entomology.* Baltimore, Md, April 29, 09. B.S, Cornell, 34, Ph.D, 37. *Research asst, Acad. Nat. Sciences Phila, 37–; junior bacteriologist, Baltimore City Health Dept, 42–* Entom. Soc; Entom. Soc. Amer. Taxonomy of Mycetophilidae.

Fisher, Dr. Emory D, Kansas State College, Manhattan, Kans. *Chemistry.* Walker, Iowa, May 4, 08. B.S, Dakota Wesleyan, 31; Ph.D, Wisconsin, 35. Asst. instr, Wisconsin, 31–35; *instr. chem, Kans. State Col, 35–*

Fisher, Dr. G(eorge) A(lbert), P. O. Box 325, Selinsgrove, Pa. *Chemistry.* Selinsgrove, Pa, 90. Ph.C, Medico-Chirurg. Col. Phila, 11, Phar.D, 14; Sc.D, Susquehanna, 22. Director research and control labs, Van Camp Packing Co, Indianapolis, 12–35; *consultant chem. eng, 35–* A.A; Chem. Soc. Chemistry of foods; nutrition.

Fisher, Dr. (George) Clyde, American Museum of Natural History, New York, N. Y. *Astronomy, Botany.* Near Sidney, Ohio, May 22, 78. A.B, Miami (Ohio), 05, LL.D, 26; Ph.D, Hopkins, 13. Prin, acad, Palmer, 07–09, acting pres, 09–10; asst. curator dept. pub. educ, *Am. Museum Nat. Hist*, 13–17, assoc. curator, 17–24, curator visual instruction, 24–34, in charge *astron*, 23–28, curator *dept*, 28–41, *hon. curator, 41–*, head, *Hayden Planetarium*, 35–41, *hon. curator, 41–* A.A; Astron. Soc; Asn. Variable Star Observers; Soc. Research Meteorites; Amateur Astron. Asn; Nature Study Soc; Torrey Bot. Club; Explorers Club; fel. N. Y. Acad; fel. N. Y. Zool. Soc; Linnaean Soc. N. Y; fel. Royal Astron. Soc. Nature education; solar eclipses; meteors; meteor craters.

Fisher, Prof. Geo(rge) E(lmer), 500 W. Pine St, Selinsgrove, Pa. *Chemistry.* Kreamer, Pa, Jan. 17, 69. Ph.B, Bucknell, 91; hon. A.M, Susquehanna, 98; Ph.D, Ill. Wesleyan, 02. Prin, Friends' Nor. Inst, Md, 91–92; teacher science, Bucknell Acad, 92–96; *prof.* nat. sciences, *Susquehanna*, 96–14, chem. and physics, 14–20, *chem, 20–, director labs, 27–* Chemist, Snyder and Northumberland Counties, Pa, 20– A.A; Chem. Soc; Social Hygiene Asn; Pa. Acad; Pa. Hist. Asn; Snyder County Hist. Soc. (pres). Mineral analysis; limestones and natural waters of Snyder County, Pa; evidences of glacial action in Snyder County, Pa.

Fisher, Dr. Harry J(ohnstone), Pool Road, North Haven, Conn. *Organic and analytical chemistry.* Boston, Mass, April 26, 96. A.B, Harvard, 19; Ph.D, Yale, 31. Anal. chemist, 20–21; *asst. chemist, Conn. Exp. Sta, and chemist, Storrs Exp. Sta, Connecticut, 21–* Chem. Soc; Agr. Chem. (cmt. recommendations of referees, 35–). Analytical methods; rearrangement of pyrimidine compounds; convicin.

Fisher, Dr. Harry L(inn), U. S. Industrial Chemicals, Inc, Stamford, Conn. *Chemistry.* Kingston, N. Y, Jan. 19, 85. A.B, Williams Col, 09; A.M, Columbia, 10, Ph.D, 12. Asst. org. chem, Columbia, 10–11; instr, med. col, Cornell, 11–12; Columbia, 12–19; research chemist, B. F. Goodrich Co, Akron, Ohio, 19–26; develop. dept, U. S. Rubber Co, 26–36; *director org. research, U. S. Indust. Chems, Inc. and Air Reduction Co, 36–* Assoc, biochem. research foundation, Franklin Inst, 33–40; Edgar Marburg lecturer, Am. Soc. Test. Mat, 41. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Sec'y, org. sect, Int. Cong. Applied Chem, 12. A.A; Inst. Chem. (pres, 40–42); Chem. Soc. (sec'y, org. div, 15–19, chairman, Akron sect, 25, rubber div, 27; west. Conn. sect, 40); fel. Inst. Rubber Indust. Gt. Britain. Rubber; resins; organic combustions; nitrogen heterocycles; alcohol derivatives.

Fisher, Dr. Harvey I(rvin), Museum of Vertebrate Zoology, University of California, Berkeley, Calif. *Vertebrate morphology.* Edgar, Nebr, June 15, 16. B.S, Kans. State Col, 37; Ph.D, California, 42. Asst. zool, *California*, 37–41, vert. zool, *museum vert. zool*, 41–42, *tech. curator, 42–* Avian anatomy; vertebrate natural history.

Fisher, Dr. Howard J(ackson), Explosives Research Laboratory, 4800 Forbes St, Pittsburgh, Pa. *Organic chemistry.* Limon, Colo, June 7, 15. A.B, Colorado, 36, A.M, 38, Ph.D, 41. *Mem. chem. div, research dept, Procter and Gamble Co; mem. staff, Nat. Defense Research Cmt, explosives research lab, U. S. Bur. Mines.* Synthesis of organic nitrogen compounds, including heterocyclics having a physiological action; chemistry of fats and oils; explosives.

Fisher, Prof. Irving, Box 1825, New Haven, Conn. *Political economy.* Saugerties, N. Y, Feb. 27, 67. A.B, Yale, 88, Ph.D, 91; Berlin and Paris, 93–94; LL.D, Rollins Col, 32, Battle Creek Col, 34, Lausanne, Switzerland, and Athens, 37. Tutor math, *Yale*, 90–93, asst. prof, 93–95, *polit. econ*, 95–98, prof, 98–36, *emer. prof, 36–* Mem, Roosevelt Cmn. for Conservation of Nat. Resources; Hitchcock lecturer, California, 17; lecturer, sch. econ. and polit. science, London, 21; Geneva Sch. Int. Studies, 27; Southern California, 41. Director, Cowles Cmn. Econ. Research. A.A; Econ. Asn. (pres, 18); Econometric Soc. (pres, 31–34); Acad. Polit. and Social Sci; Asn. Labor Legis. (pres, 15–17); Inst. Social Sci. (pres, 17); Math. Soc; fel. Statist. Asn. (pres, 32); Eugenics Soc. (pres, 22–26); Eugenics Research Asn. (pres, 20); Philos. Soc; Anthrop. Asn; Am. Acad; Conn. Acad; Royal Econ. Asn; fel. Royal Statist. Soc; Reale Accad. dei Lincei; Reale Inst. Lombardo, Milan; Norwegian Acad. Sci. and Letters; Int. Statist. Inst. Mathematical economics; statistics; public health; alcohol; world peace; capital and income; rate of interest; purchasing power of money; high cost of living; commodity and stock index numbers.

Fisher, Prof. James, 215 Clark St, Houghton, Mich. *Mathematics, Physics.* Hancock, Mich, March 29, 73. E.M, Mich. Col. Mines, 93; hon. D.E, 34; Cornell, 99. Draftsman, Mich. Col. Mines, 93–94; Hodge Iron Works, 94–95; instr. *math. and physics, Mich. Col. Min. and Tech*, 95–99, *prof, 99–, head depts, 00–, dean, 36–* A.A; Physical Soc; Eng. Educ; Min. and Metal. Eng; Geophys. Union; Mich. Eng. Soc; Lake Superior Min. Inst. Geophysical prospecting.

Fisher, Prof. J(ohn) H(eber), University of Western Ontario, London, Ont, Can. *Pathology, Bacteriology.* Glanworth, Ont, April 18, 99. M.D, Western Ontario, 22, M.Sc, 24. Instr. path. and bact, Western Ontario, 22–24; intern, N. Y. Lying-In Hosp, 24; St. Mary's Free Hosp. for Children, New York, 24–25; asst. prof. bacter, *Western Ontario*, 25–26, assoc. prof, 26–29, *prof*, 29–37, *path, 37–* Bacteriologist, Victoria Hosp, Ont, 25–37, pathologist, 29– Summer, asst, Prof. Holman's Bacter. Lab, Toronto, 25. Soc. Bact; fel. Royal Col. Physicians Can; Ont. Asn. Path. Pyorrhoea alveolaris; upper respiratory and middle ear infections; spontaneous pulmonic interstitial and mediastinal emphysema.

Fisher, Prof. Kenneth C(larke), University of Toronto, Toronto, Ont, Can. *Physiology.* St. John, N. B, 11. B.A, Acadia, 32; M.A, Toronto, 34, Ph.D, 36. Instr. zool, Maine, 36–37; *asst. prof.* exp. biol, *Toronto*, 37–41, *physiol. zool, 41–* Summer, instr, Marine Biol. Lab, Woods Hole, 35– A.A; Physiol. Soc. Relation of the oxidative metabolism of living cells to such functions as cell division, light production, contraction and in the heart rhythmicity; physiology of animal behavior in temperature gradients; action of narcotics.

Fisher, Lawrence C(arl), U. S. Weather Bureau, Seattle. Wash. *Meteorology.* Wellington, Ohio, Nov. 9, 76. A.B,

Ohio Wesleyan. *U. S. Weather Bur, 02–, meteorologist in charge Seattle office and director Wash. sect.* A.A; Meteorol. Soc.

Fisher, L(awrence) E(lbert), 17182 Griggs, Detroit 21, Mich. *Electrical engineering.* Sweetsir, Ind, March 31, 05. B.S, Michigan, 27. Lab. engineer, mech. lab, Michigan, 27–28; design and lab. engineer, Reynolds Spring Co, 28–29; design engineer, Square D Co, 29–33; Hudson Motor Car Co, 33–34; *director research, Bull Dog Elec. Products Co, 34–* A.A; Elec. Eng. (nat. tech. cmt, 43–). Industrial electrical distribution equipment, especially the theory and design of busways, together with circuit breakers, switches, panelboards and other low voltage distribution and control apparatus.

Fisher, Dr. Lee William, Box 524, Route 3, Waverly Road, Lansing, Mich. *Wildlife conservation.* Chassel, Mich, Feb. 19, 99. B.S, Mich. State Col, 33, M.S, 35, Ph.D, 37. *Game manager, State Game, Fish and Oyster Cmn, Texas, 38–* Wildlife Soc; Mich. Acad; Texas Acad. Pronghorned antelope in Texas.

Fisher, Prof. Lloyd W(ellington), Bates College, Lewiston, Maine. *Geology.* Reading, Pa, Feb. 15, 97. A.B, Lehigh, 21; M.S. Pa. State Col, 23; Ph.D, Hopkins, 29. Teaching fellow, Pa. State Col, 21–22; asst. instr, Syracuse, 22–23; instr, Brown, 23–27; asst. prof. and assoc. prof. *geol, Bates Col, 29–41, prof, 41–, head dept, 29–* Summers, instr, Lehigh, 23; geologist, Pa. Geol. Surv, 21; C.Eng, U.S.A, 28; limestone surv, Pa, 29. A.A; fel. Miner. Soc; fel. Geol. Soc; fel. Am. Geog. Soc; Maine Miner. Soc; Pa. Acad. Mineralogy; economic geology; petrology; Helderberg limestone; colloid chemistry and mineralogy; crystal forms; dam sites; chromite; geology and mineralogy of Maine; structure and metamorphism of the Lewiston, Maine, region.

Fisher, Dr. L(oyal) W(itherow), Legumogen Laboratories, Delphi, Ind. *Serology, Immunology.* Rossville, Ind, June 30, 96. B.S, Purdue, 18, Ph.D, 31. Research serologist, Parke, Davis and Co, 20–29; fellow, Mellon Inst, 31–35; *research bacteriologist, Legumogen Labs, 35–* Soc. Bact. Bacteriology.

Fisher, Dean M(artin) L(uther), 325 Vine St, Lafayette, Ind. *Agriculture.* Near Murray, Ind, Oct. 24, 71. B.S, Purdue, 03; M.S, Wisconsin, 11. *Prof. agron, Purdue, 10–, dean men, 26–* Ind. Audubon Soc. (pres, 19); Ind. Acad. Agronomy; forage crops; corn pollination; correlation of phenological data with corn planting dates.

Fisher, Dr. Mary Jones, 204 S. 42nd St, Philadelphia, Pa. *Biology.* Talbot Co, Md. A.B, Cornell, 06, A.M, 16, Ph.D, 23. Practise sch, Puerto Rico, 06–08; nat. sciences, Int. Inst. for Girls, Madrid, 08–12; bot. and biol, Westlake Sch. for Girls, Los Angeles, 13–14; Western Maryland Col, 14–17; asst. and instr. zool, Cornell, 17–26; asst. and later assoc. ed, 'Biol. Abstracts,' Pennsylvania, 26–38, asst, herbarium, 38–40; *Acad. Nat. Sciences, Phila,* 40–42. A.A; Bot. Soc. Histology; morphology.

Fisher, Prof. M(iles) Bruce, Fresno State College, Fresno, Calif. *Psychology.* Berkeley, Calif, Oct. 2, 07. A.B, California, 28; Ph.D, Yale, 37. Instr. educ. and psychol, R. I. State Col, 36–38, asst. prof, 38–40, assoc. prof, 40–41; *asst. prof. psychol, Fresno State Col, 41–; U. S. Naval Res, 42–* A.A; assoc. Psychol. Asn; Soc. Study Educ. Experimental psychology; vision; relation of the surrounding field to foveal function; psychological testing.

Fisher, Dr. N(elson) F(ranklin), 1713 W. 95th St, Chicago, Ill. *Physiology.* Selinsgrove, Pa, July 1, 95. A.B. Gettysburg Col, 18, M.S, 22; Ph.D, Chicago, 23, M.D, Rush, 26. Asst. prof. physiol, col. med, Baylor, 23–24; col. med, Illinois, 24–25; *practising physician; instr. med, med. sch, Northwestern, 34–* Am. Med. Asn; Cent. Soc. Clin. Research; Physiol. Soc. Pancreas and parathyroid hormones; function of the seminal vesicles; effects of x-ray on the pancreas and adrenal glands.

Fisher, Dr. N(orman) G(all), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Akron, Ohio, May 28, 09. B.S, Akron, 30; Ph.D, Wisconsin, 34. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 34–, asst. head intel. div, 38–* Chem. Soc. Chemical literature and nomenclature; technical library and information service.

Fisher, O(ra) S(tanley), 3228 Rittenhouse St, N. W, Washington, D. C. *Agronomy.* Washburn, Ill, Sept. 1, 78. B.S, Illinois, 08. From asst. to assoc. prof. agron, Illinois, 08–15; agriculturist and *senior agronomist, U. S. Dept. Agr, 15–* Soc. Agron. Agronomy extension; inbreeding of corn and the development of pure lines of seed.

Fisher, Dr. Paul L(ewis), Examining Division, Civil Service Commission, Washington, D. C. *Physics, Chemistry.* Washington, D. C, Oct. 6, 07. B.S, Maryland, 29, fellow, 29–31, 32–34, M.S, 30, Ph.D, 34; fellow, Chicago, 31. Junior plant physiologist, div. forest path, U. S. Dept. Agr, 34–36, assoc. plant physiologist, Lake States Forest Exp. Sta, U. S. Forest Service, 36–37; chairman bot. dept, Riverside Junior Col, Calif, 37–41; collaborator, div. forest path, U. S. Dept. Agr, 37–41; farm program director, Radio Sta. KPRO, Riverside, Calif, 41; *training specialist, Civil Service Cmn, 42–* A.A; Soc. Plant Physiol. Nutrition; seed germination.

Fisher, Dr. Reginald (Gilbert), School of American Research, Santa Fe, N. Mex. *Anthropology.* Lawton, Okla, April 19, 06. B.S, New Mexico, 27, A.M, 29; Ph.D, Southern California, 35. U. S. Geol. Surv, 27–28; research assoc, *Sch. Am. Research,* 29–31, asst. director, 31–41, *assoc. director, 41–, Museum of N. Mex, 41–* Instr, New Mexico, 29–31, asst. prof, 34–; lecturer, Archeol. Inst, 31, 32; anthropologist in charge, Chaco Canyon Research Sta, 34–; asst. prof, Southern California, 35–38. Exec. sec'y, Science Cmn, N. Mex, 31– Archeol. Inst. (sec'y, Southwest. sect, 31–34). Culture history of New Mexico, especially of the Hispanic peoples; mission monuments of New Mexico.

Fisher, R(ichard) F(orrest), University of Illinois, Urbana, Ill. *Geology.* Foosland, Ill, May 21, 13. A.B, Illinois, 36, M.S, 41. *Asst. geologist, areal and eng. geol. div, Ill. State Geol. Surv.* A.A; Ill. Acad. Areal and engineering geology; mapping the bedrock surface of the Chicago area.

Fisher, Prof. Robert A(nderson), 3205 Alabama Ave, Alexandria, Va. *Chemical engineering.* Beaver Falls, Pa, Nov. 2, 95. B.Ch.E, Ohio State, 18, M.S, 19, Ph.D, 32. Chem. engineer, Ohio Fuel Oil Co, 19–21; junior research chemist, Chem. Warfare Service, 21–22; research engineer, Jones and Laughlin Steel Corp, 23–25; chem. engineer, Westinghouse Elec. and Mfg. Co, 25–30; teacher *chem. eng,* Ohio State and Louisville, 30–36; asst. prof, *Va. Polytech,* 36–41, *assoc. prof, 41–* U.S.A, 18. Chem. Soc; Soc. Mil. Eng; Eng. Educ; Va. Acad. Industrial chemistry; materials of construction; fluid flow; industrial wastes; drying oils; explosives.

Fisher, Prof. R(ussell) A(rden), 3027 Thayer St, Evanston, Ill. *Physics.* Ludington, Mich, Sept. 11, 04. A.B, Michigan, 27, A.M, 29, Ph.D, 31. Instr. *physics,* Michigan, 27–31; *Northwestern,* 31–32, asst. prof, 32–37, *assoc. prof, 37–; capt, U. S. Army, 42–* Physical Soc; Optical Soc. Spectroscopy; interferometry.

Fisher, Prof. S(ara) C(arolyn), University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Bridgeport, Conn, Sept. 17, 89. A.B, Lombard Col, 09; A.M, Illinois, 10; Ph.D, Clark, 13. Instr. *psychol,* Wellesley Col, 13–14; asst, Clark, 14–15; Calif. State Nor. Sch, Los Angeles, 15–19; *asst. prof, California at Los Angeles, 19–* Psychologist, Los Angeles Juvenile Court, 21–29. Psychol. Asn. Higher mental processes; social psychology; personality.

Fisher, Dr. V(ivian) E(zra), Idaho Falls, Idaho. *Psychology.* Annis, Idaho, Oct. 23, 97. A.B, Utah, 21, M.S, 22; fellow, Hopkins, 24–25, Ph.D, 26. Asst. psychol, Worcester State Hosp, 25; instr, Kentucky, 25–26; N. Y. Univ, 26–28, asst. prof, 29–36; consulting psychologist, 36–38; psychologist and psychotherapist, Idaho State Hosp, Blackfoot, 38–40; *consulting psychologist, 40–* Asn. Applied Psychol; Psychol. Asn. Abnormal psychology; tobacco smoking; industrial psychology; mental tests.

Fisher, Prof. W(alter) K(enrick), Hopkins Marine Station, Stanford University, Pacific Grove, Calif. **Zoology.* Ossining, N. Y, Feb. 1, 78. A.B, Stanford, 01, A.M, 03, Ph.D, 06. Special field naturalist, U. S. Biol. Surv, 97–01; asst. *zool, Stanford,* 02–05, acting instr, 05–07, instr, 07–09, asst. prof, 09–20, assoc. prof, 20–25, prof, 25–43, *emer. prof, 43–,* director, Hopkins Marine Sta, 17–43. Curator, Calif. Acad, 16–32. Ed, 'The Condor,' 02–06. Asst, 'Albatross' exped, U. S. Fish Cmn, 02, 04. A.A; Ornith. Union; Cooper Ornith. Club (pres); West. Soc. Nat; Calif. Acad. Anatomy of gastropods; ornithology; Echinodermata of the Hawaiian Islands; Asteroidea of the north Pacific, Antarctic and East Indies; classification of the Asteroidea, Sipunculoidea, Echiuroidea and Hydrocorallina.

Fisher, W(arren) Samuel, U. S. National Museum, Washington, D. C. *Entomology.* Highspire, Pa, April 4, 78. High sch; Harrisburg Business Col. Asst. zoologist, State Dept. Agr, Pa, 02–12; specialist forest Coleoptera, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 12–28, assoc. entomologist, 28–39, *entomologist, 39–* Entom. Soc. Wash; Cuban Nat. Hist. Soc. Coleoptera.

Fisher, Dr. W(ilton) M(onroe), Baylor University College of Medicine, Dallas, Texas. *Bacteriology.* Ryan, Okla, Aug. 4, 12. A.B, Oklahoma, 32, M.S, 37; M.D, Baylor, 42. *Instr. parasitol. and bacter, col. med, Baylor, 39–* Medical entomology and parasitology; relapsing fever.

Fishman, Dr. W(illiam) H(arold), Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C. *Biochemistry.* Winnipeg, Man, Can, March 2, 14. B.Sc, Saskatchewan, 35; Ph.D, Toronto, 39. Teaching fellow biochem, Toronto, 36–39; Royal Soc. Can. research fellow, Edinburgh, 39–40; med. col, Cornell, 40–41; *instr. biochem, Bowman Gray sch. med, Wake Forest Col, 41–* Enzymes; sex hormones; isotopes; lipids.

Fisk, Dr. Charles F(ranklin), Reservoir Ave, Johnston, R. I. *Chemistry.* Attleboro Falls, Mass, Sept. 6, 11. B.S, Brown, 33, fellow, 35–37, Ph.D, 37. Asst. physical chem, Brown, 33–35; *chemist, U. S. Rubber Co, 37–* Chem. Soc. Photochemistry.

Fisk, Prof. Emma L(uella), University of Wisconsin, Madison, Wis. *Botany.* Newark, N. Y, July 28, 92. A.B, Wellesley Col, 14; A.M, Wisconsin, 21, Ph.D, 25. Asst. *bot,* Wellesley Col, 14–16, instr, 18–20; Sweet Briar Col, 16–18; asst, *Wisconsin,* 20–23, instr, 23–26, asst. prof, 26–37, *assoc. prof, 37–* A.A; Bot. Soc; Wis. Acad. Plant morphology; cytology.

Fisk, Prof. Harold N(orman), Louisiana State University, Baton Rouge, La. *Geology.* Medford, Oregon, Aug. 31, 08. B.S, Oregon, 30, A.M, 31; Ph.D, Cincinnati, 35. Asst, Oregon, 30–31; Cincinnati, 31–33; instr, Northwestern, 33–35; geologist, La. Geol. Surv, 35–40; instr. *miner, Louisiana,* 36–38, asst. prof, 38–40, *assoc. prof, 41–* Consultant, Miss. River Cmn. Microscopy of basalt flows; petrography of and differentiation in Columbia River basalts; geology of Grant, La Salle, Rapides and Avoyelles Parishes, Louisiana; depositional terrace slopes in Louisiana; stratigraphy and physiography of the Gulf Coast.

Fisk, Dr. H(enry) G(runsky), Armour Research Foundation, Chicago, Ill. *Mineralogy.* San Francisco, Calif, April 26, 01. B.S, Occidental Col; M.S, Illinois; fellow, Ohio State, 24–27, Ph.D, 27. Ceramic engineer, Gladding-McBean and Co, Los Angeles, 27–28; petrographer, Universal Atlas Cement Co, 28–36; chem. engineer, Calaveras Cement Co, 36–38; *mineralogist in charge ceramics and non-metals research, Armour Research Foundation, 38–* A.A; Miner. Soc; Ceramic Soc. (chairman, Chicago sect, 42); Min. and Metal. Eng. Silicate chemistry; constitution of hydraulic cements; spinel minerals; petrographic methods; ceramics.

Fisk, Dr. J(ames) B(rown), Bell Telephone Laboratories, Inc, 463 West St, New York, N. Y. *Physics.* Providence, R. I, Aug. 30, 10. B.S, Mass. Inst. Tech, 31, Ph.D, 35, Redfield Proctor traveling fellow, Cambridge, 32–34. Asst. aeronaut, Mass. Inst. Tech, 31–32, teaching fellow physics, 34–36; junior fellow, soc. fellows, Harvard, 36–39; assoc. prof. physics, North Carolina, 38–39; *electronics research engineer, Bell Tel. Labs, 39–* Physical Soc. Nuclear theory; electron scattering; electronics.

Fisk, Dr. Roy T, Huntington Memorial Hospital, Pasadena, Calif. *Bacteriology.* Prosser, Wash, Dec. 28, 06. B.S, Washington (Seattle), 29, M.S, 30; Ph.D, Southern California, 34. Teaching fellow, Washington (Seattle), 29–30; asst. *bacter, Southern California,* 32–34, instr, 34–40, *asst. prof, 40–* Med. microbiologist, Los Angeles Co. Hosp, 34–40; research assoc, Huntington Mem. Hosp, 40– Soc. Bact; Soc. Exp. Biol. Immunity studies in virus diseases; chemotherapy in experimental infections; bacteriophage; pathogenic staphylococci.

Fiske, Dr. Augustus H(enry), Kikamuit, Long Lane, Warren, R. I. *Chemistry.* Boston, Mass, May 28, 80. A.B, Harvard, 01, A.M, 02, Ph.D, 12. Austin teaching fellow, Harvard, 06–08; instr. chem, 08–12; asst. chemist and research director, *Rumford Chem. Works, R. I,* 12–15, *chief chemist and mem. board directors, 15–, asst. sec'y.* Asst. chemist and v. pres, Agawam Chem. Works, 18–30, pres, 30– Mem. board visitors, chem. dept, Brown, 23–; assoc. mem. Am. Mus. Nat. Hist. Mem, U. S. Coast Guard Res, 40, Auxiliary, 41. A.A; Chem. Soc. (mem, senate chem. educ); Soc. Chem. Indust. Gt. Britain; Electrochem. Soc; Chem. Eng; Asn. Cereal Chemists; Inst. Bakery Eng; Electroplaters Soc; Inst. Chem. Organic chemistry; halogen and nitrogen derivatives of benzol; orthoquinones; acidic value of phosphates; baking powder ingredients; leavening; purification of phosphoric acid; production of pyrophosphates and pure phosphorus.

Fiske, Prof. Cyrus H(artwell), Harvard Medical School, Boston, Mass. *Biochemistry.* St. Paul, Minn, Sept. 22, 90. A.B, Minnesota, 10; M.D, Harvard, 14. Asst. biol. chem, Harvard Med. Sch, 14–15; assoc. *biochem,* Western Reserve, 15–17, asst. prof, 17–18; *Harvard Med. Sch,* 18–29, assoc. prof, 29–35, *prof, 35–* A.A; Soc. Biol. Chem. (treas, 31–36); fel. Am. Acad; fel. Inst. Chem; Chem. Soc. Metabolism; biochemical methods; phosphorus compounds in tissues; physiologically active constituents of the liver.

Fiske, David L(ewis), 50 W. 40th St, New York, N. Y. *Engineering.* Cambridge, Mass, June 19, 98. B.S, Mass. Inst. Tech, 20; M.S, Illinois, 24; Ph.D, Columbia, 43. Asst, Illinois, 22–27; *sec'y, Am. Soc. Refrig. Eng, 27–; major, Service of Supply, U. S. Army.* Ed, 'Refrig. Eng,' 27–; 'Refrig. Data Book,' 32– Econ. Asn; Management Asn. Refrigeration; thermodynamics.

Fiske, Prof. Jessie G(ladys), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Botany.* Brookfield, Vt, March 29, 95. Ph.B, Vermont, 17; M.S, Rutgers, 20. *Prof. bot, Rutgers, 18–; state seed analyst, N. J. Exp. Sta, 20–* A.A; Asn. Seed Anal. (v. pres, 21, cmt, 28–30). Seed analysis; seeds and factors in germination; drying and disinfection of seeds; poison ivy; common thistles, weeds and poisonous plants of New Jersey; fruits and seeds of common New Jersey trees.

Fiske, Dr. Milan D(erbyshire), General Electric Research Laboratory, Schenectady, N. Y. *Physics.* Sharon, Wis, Nov. 15, 14. B.S, Beloit Col, 37; univ. fellow, Wisconsin, 40–41, Ph.D, 41. Asst, Wisconsin, 37–40; *research physicist, Gen. Elec. Research Lab, 41–* Thermionics.

Fiske, Prof. Thomas S(cott), 2 Oak Crescent, Poughkeepsie, N. Y. *[1]*Mathematics.* New York, N. Y, May 12, 65. A.B, Columbia, 85, fellow, 85–88, A.M, 86, Ph.D, 88. Tutor *math, Columbia,* 88–91, instr, 91–94, adj. prof, 94–97, prof, 97–35, *emer. prof, 35–* Acting dean, Barnard Col, Columbia, 99; sec'y, Col. Ent. Exam. Board, 01–36. A.A; Math. Soc. (sec'y, 88–95, ed, 'Bul,' 91–99, v. pres, 98–01, ed, 'Trans,' 99–05, pres, 02–04); Asn. Teachers Math. Middle States and Md. (pres, 04); London Math. Soc. Theory of functions; algebra; theory of assemblages; properties of assemblages and their application to functions.

Fiske, Dr. Virginia M(ayo), Main St, Sherborn, Mass. *Endocrinology.* Brooklyn, N. Y, Sept. 21, 10. A.B, Mt. Holyoke Col, 32, A.M, 34; Ph.D, Radcliffe Col, 39. Asst, Mt. Holyoke Col, 32–34; head sci. dept, Dana Hall Sch, 34–37; teacher science, Winsor Sch, 37–38; asst. to Prof. Hisaw, Harvard, 38–39; *teacher science, Winsor Sch, 39–* Research, Pratt Diagnostic Clinic, Boston, Mass. Summers, teacher, science sch, Woods Hole, 36–37. New Eng. Biol. Asn. Pituitary-gonad relationships; possible endocrine function of the uterus.

Fitch, Dr. Henry S(heldon), U. S. Department of Agriculture, O'Neals, Calif. *Zoology.* Utica, N. Y, Dec. 25, 09. A.B, Oregon, 30; A.M, California, 32, Ph.D, 37. Teaching fellow zool, California, 34–36; asst, Hastings Wildlife Reserve, 37–38; *junior biologist, fish and wildlife service, U. S. Dept. Interior, San Joaquin Exp. Range, 38–* Soc. Ichthyol. and Herp; Soc. Mammal; Cooper Ornith. Club. Vertebrate zoology; alligator lizards; ecology of rodents and reptiles; garter snakes.

Fitch, Prof. J(ames) B(urgess), University Farm, St. Paul, Minn. *Dairy husbandry.* Hunterton, Ind, June 26, 88. B.S, Purdue, 10; M.S, Kans. State Col, 35. Asst. dairying, Kans. State Col, 10–11, instr, 11–13, asst. prof, 13–15, assoc. prof, 15–18, *prof. dairy husbandry,* 18–35; *Minnesota, 35–, chief dairy div, Exp. Sta, 35–* A.A; Dairy Sci. Asn. (sec-treas, 21–25, pres, 27); Soc. Animal Production. Feeding, management and breeding of dairy cattle.

Fitch, Prof. Mary A(lida), Howard University, Washington, D. C. *Botany.* Warrensburg, Mo, June 16, 80. Mo. State Nor.

Sch, 01; B.S, Missouri, 05, A.M, 06; Ph.D, Cornell, 12. Teacher, high schs. and junior cols, 04-05, 06-08; asst. bot, Exp. Sta, Purdue, 10–12; teacher, Oxford Col. for Women, 16–18; Lake Erie Col, 18–19; home econ, *Howard*, 19–31, *prof. bot, 31–* A.A. Cryptogamic botany.

Fitch, Dr. Natalie K, Teachers College, Columbia University, New York, N. Y. *Chemistry.* Newark, N. J, Aug. 2, 91. B.S, Columbia, 19, A.M, 24, Ph.D, 40. Instr. foods, Russell Sage Col, 19–22; assoc. home econ, Illinois, 24–27; *asst. prof. home econ, Teachers Col, Columbia, 27–* Chem. Soc; Home Econ. Soc; Dietetic Soc. Colloidal chemistry; complex basic ceric and cerate hydrosols.

Fite, Prof. A(rra) B(urton), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Horticulture.* Cloudcroft, N. Mex, Nov. 28, 88. B.S, N. Mex. Col, 15, M.S.A, 24. Instr. *hort, N. Mex. Col*, 15–18, asst. prof, 18–24, *assoc. prof, 24–*, assoc. horticulturist, Exp. Sta, 24–35, *exten. horticulturist, exten. service, 35–, director, 40–*, county agent leader, 37. Pomol. Soc; Agr. Econ. Soc. Life history of the codling moth; spraying schedules and preliminary smudging; pecans; almonds; plum and pear variety tests; cabbage fertilizers; hot beds and cold frames; grape and Grano onion culture; home gardens; cherry variety tests; orchard management; onion fertilizers; potato culture in New Mexico; growing the home garden.

Fite, Dr. William Benjamin, Columbia University, New York, N. Y. *[1]Mathematics.* Marion, Ohio, Aug. 23, 69. Ph.B, Cornell, 92, Ph.D, 01. Teacher *math*, Mich. Mil. Acad, 92–98; instr, Cornell, 01–05, asst. prof, 05–10; prof, *Columbia*, 10–36, Davies prof, 36–42, *emer. Davies prof, 42–* Math. Soc; Math. Asn. Theory of groups of finite order; differential equations.

Fitelson, Dr. J(acob), 201 Varick St, New York, N. Y. *Food chemistry.* Boston, Mass, Feb. 8, 05. B.S, Pennsylvania, 25; Ph.D, N. Y. Univ, 37. Anal. chemist, *food and drug admin, U. S. Dept. Agr*, 25–34, assoc. chemist and later *chemist in charge food lab, New York Sta, 34–* Chem. Soc; Oil Chemists Soc; Agr. Chem. Methods of analysis for chocolate products; eggs; sulfur dioxide; arsenic; oils.

Fitterer, Dr. G(eorge) R(aymond), University of Pittsburgh, Pittsburgh, Pa. *Metallurgy.* Newark, Ohio, April 10, 01. B.S, Rose Polytech, 24; fellow, Carnegie Inst. Tech, 26–27, M.S, 27; Ph.D, Pittsburgh, 30. Metallurgist, Am. Chain Co, Terre Haute, Ind, 24–25; metallographist, Stanley Works, New Britain, Conn, 25–26; asst. and assoc. metallurgist and asst. director research, U. S. Bur. Mines, 27–31, head dept. *metal*, 31–33; *lecturer, Pittsburgh, 33–, head dept. metal. eng.* Min. and Metal. Eng; Soc. Metals. Physical chemistry of steel making; non-metallic carbon-silicon carbide thermocouple for use at high temperatures.

Fitterer, Prof. J(ohn) C(onrad), Colorado School of Mines, Golden, Colo. *Mathematics, Civil engineering.* Clyde, Ohio, Dec. 15, 71. B.S, Ohio State, 98; B.S. (C.E), Colorado, 04, C.E, 12. Instr. eng. math, Colorado, 04; prof. civil and irrig. eng, Wyoming, 08–28; assoc. prof. *math, Colo. Sch. Mines*, 28–29, *prof. and head dept, 29–* U. S. Geol. Surv; U. S. Reclamation Service; res. engineer, Glenwood Tunnel, Colo. A.A; Math. Soc; Math. Asn; Civil Eng; Eng. Educ. Hydroelectricity; irrigation; drainage.

Fitts, Prof. Paul M(orris), Jr, University of Tennessee, Knoxville, Tenn. *Psychology.* Martin, Tenn, May 5, 12. B.S, Tennessee, 34; A.M, Brown, 36; Ph.D, Rochester, 38. Teacher, high sch, Tenn, 34–35; asst, lab. psychol, Brown, 35–36; Rochester, 36–37; psychologist, psychiat. clinic, sch. med. and dentistry, Rochester, 37–38; *asst. prof. clin. psychol. and supervisor psychol. clinic, Tennessee, 38–; capt, Air Forces, U. S. Army, 42–* Test construction analyst, U. S. War Dept, 41–42. Assoc. Psychol. Asn; Asn. Applied Psychol; South. Soc. Philos. and Psychol. Motivation; emotional stability; college personnel; aviation psychology.

Fitz, Dr. Reginald, 319 Longwood Ave, Boston, Mass. *Medicine.* Boston, Mass, Feb. 28, 85. A.B, Harvard, 06, M.D, 09. Assoc. prof. med, *Harvard Med. Sch*, 22–36, *lecturer hist. med, 36–, asst. to dean, 40–* Wade prof, sch. med, Boston, 36–40; director, Evans Mem. Hosp, 36–40. Mem, Nat. Board Med. Examiners; Am. Board Int. Med. Trustee, Brookline Pub. Library, Mass; Wellesley Col. Chairman, State Cmt. Procurement and Assignment Service, Mass. Chairman med. advisory board, 13, State Selective Service, Mass. A.A; Am. Acad; Am. Physicians; Soc. Clin. Invest; Col. Physicians (regent); Asn. Hist. Med; Am. Med. Asn; Council Med. Educ. and Hosps; Colonial Soc, Mass. Nephritis; diabetes mellitus.

Fitzgerald, Prof. A(rthur) E(ugene), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Brooklyn, N. Y, Sept. 22, 09. E.E, Polytech. Inst. Brooklyn, 29; M.S, Mass. Inst. Tech, 31, Sc.D, 37. With Gen. Elec. Co, 29–31; asst. and later instr, *Mass. Inst. Tech*, 31–41, *asst. prof. elec. eng, 41–* Asst. engineer, Jackson and Moreland, 34– Elec. Eng. Applications of electric power; analysis and design of electric power systems.

FitzGerald, Prof. Dorothea M(ary), 114 Edgewood Ave, Syracuse, N. Y. *Chemistry.* Syracuse, N. Y, May 14, 01. Ph.D, Syracuse, 33. From teaching fellow to instr. *chem*, Syracuse, 26–33; prof, Col. of St. Elizabeth, 33–34; asst. prof, Marygrove Col, 35–37; *prof*, St. Mary-of-the-Woods Col, 37–43; *D'Youville Col, 43–* Chem. Soc. Chemical effects of alpha particles.

Fitzgerald, Dr. F(red) F(inley), Morris, Ill. *Chemistry.* Clarion, Pa, June 27, 82. A.B, Stanford, 05, A.M, 06, Ph.D, 10. Instr. chem, Cooper Med. Col, 06–09; chemist, South. Pacific Ry, 09–12; asst. chemist, bur. chem, U. S. Dept. Agr, 12–13; chemist, Nat. Canners' Asn, 13–20; manager research dept, Am. Can Co, 20–35, director research, 35–42; *retired.* A.A; Chem. Soc. Food chemistry and preservation; reactions of potassium amid; discoloration of canned food products; viscosity and conductivity of solutions.

Fitzgerald, Gerald A(rthur), 236 N. Governor's Ave, Dover, Del. *Chemistry.* Lynn, Mass, Dec. 12, 99. B.S, Mass. Inst. Tech, 23. Asst. biol, Mass. Inst. Tech, 23–24; asst. technologist, Bur. Fisheries, 24–28; research chemist, Gen. Foods Corp, 28–34, chief chemist and director quality control, Birdseye Labs, Boston, 34–40, chief dept. biochem. and microbiol, cent. research labs, Hoboken, 40–41; *director research, Richardson and Robbins Co, 42–* Mem. advisory board, New Eng. Regional Planning Cmn, 34– Chem. Soc. (sec'y-treas, agr. and food div, 36–38, chairman, 39); Inst. Food Technologists (councilor, 40–42); Soc. Chem. Indust; Pub. Health Asn; Inst. Am. Poultry Indust. (operating research cmt, 39–). Fisheries technology; chemistry of fruit and vegetable products; plant sanitation; refrigeration; canning; chemistry and technology of poultry products; nutrition.

FitzHugh, Dr. O(scar) Garth, Food and Drug Administration, Federal Security Agency, Washington, D. C. *Pharmacology.* Hoods, Va, Aug. 26, 01. B.S, Virginia, 27, M.S, 33, Ph.D, 36. Instr. physiol. and pharmacol, Vermont, 34–36, asst. prof, 36–37; research assoc. pharmacol, sch. med, Vanderbilt, 37–39; *pharmacologist, food and drug admin, Fed. Security Agency, 39–* A.A; Soc. Pharmacol; Soc. Exp. Biol. Cortico-adrenal extracts; relationship of the adrenal cortex to the sex glands; anesthetics; toxicology.

Fitz-Hugh, Dr. Thomas, Jr, 2016 DeLancey Place, Philadelphia, Pa. *Medicine.* Baltimore, Md, Dec. 1, 94. A.B, Virginia, 15, A.M, 17; M.D, Pennsylvania, 21. Asst. clin. micros, *Pennsylvania*, 23–26, *chief hematol. sect, med. clinic, 29–*, asst. med, 31–33, *asst. prof. clin. med, 33–; lieut. col, Med. Corps, U. S. Army, chief med. service, 20th Gen. Hosp.* Soc. Clin. Invest; Col. Physicians; Am. Med. Asn; Asn. Physicians; Clin. and Climat. Asn; Col. Physicians Phila; Physiol. Soc. Phila; Path. Soc. Phila. Hematology.

Fitzpatrick, Prof. F(rederick) L(inder), Columbia University, New York, N. Y. *Biology.* Iowa City, Iowa, May 6, 00. A.B, Iowa, 19, M.S, 21, Ph.D, 24. Asst, Iowa, 20–23; asst. prof. biol, Colo. State Teachers Col, 23–24, head dept, 24–25; zool, Coe Col, 25–31; assoc. prof. *nat. science, Teachers Col, Columbia*, 31–38, *prof, 38–; U. S. Army, 42–* A.A; Ecol. Soc; Nat. Asn. Biol. Teachers. Ecology and economic biology; science interests; ecology and economic status of Citellus tridecemlineatus; bilateral ovaries in birds; abnormal development; biology of flight.

Fitzpatrick, Prof. H(arry) M(orton), 220 Bryant Ave, Ithaca, N. Y. *[6]Botany, Mycology.* Greenwood, Ind, June 27, 86. Wabash Col, 05–08; A.B, Cornell, 09, Ph.D, 13. Asst. bot, *Cornell*, 08–11, instr. *mycol*, 11–13, asst. prof, 13–22, *prof, 22–* Visiting lecturer, Harvard, 20–21. Summer, instr, Michigan, 20. Assoc. ed, 'Mycologia'; ed. mycol. sect, 'Bot. Abstracts.' Exec. sec'y mycol. sect, 4th Int. Bot. Cong; mem. cmt. sect. 6, Third Int. Cong. for Microbiol. A.A; Bot. Soc; Mycol. Soc. (sec'y, 32–35, pres, 36, historian, 37–); Phytopath. Soc; British Mycol. Soc. Discomycetes; Auricu-

lariales; subterranean Basidiomycetes; Coryneliales; Pyrenomycetes; Phycomycetes.

Fitzpatrick, Dr. Randal E(velyn), Dominion Laboratory of Plant Pathology, Summerland, B. C, Can. *Botany.* Barbados, B. W. I, June 27, 07. B.S.A, McGill, 29; Nat. Research Council Can. bursar, Toronto, 30–31, Ph.D, 33. Asst. bot, Toronto, 33–35; *asst. plant pathologist, Dom. Lab. Plant Path, Summerland, 36–* Can. Soc. Tech. Agr; Can. Phytopath. Soc. Diseases of fruit trees; peach curl; boron deficiency.

Fitzpatrick, Prof. T(homas) J, 2002 N. 68th St, Lincoln, Nebr. *Botany.* Centerville, Iowa, April 2, 68. B.S, Iowa, 93, M.S, 95; fellow, Nebraska, 13–18. Prof. math. and bot, Graceland, 95–99; collector, Iowa Hist. Soc, 04–07; prof. math, Graceland Col, 08–12; science, Cotner Col, 13–14; *asst. prof. bot, Nebraska, and curator herbarium, 18–* Fel. Iowa Acad. Flora of Iowa and midland states; bibliography of scientific literature of Iowa; history of science.

Fivaz, A(lfred) E(dward), U. S. Department of Agriculture, Washington, D. C. *Forestry.* Fulton, N. Y, July 1, 00. B.S. (Forestry), Syracuse, 21. Agent, div. blister rust control, bur. plant indust, *U. S. Dept. Agr,* 22–30, forester in charge east. investigations, Warrensburg, N. Y, 30–33, asst. in charge Dutch elm disease eradication, White Plains, 33–35, *asst. head forestry div, soil conservation service, 35–* Summers, field asst, N. Y. State Col. Forestry, Syracuse, 18, 20, 21. Soc. Foresters (sec'y-treas, Wash. sect, 30–32, v. chairman, 32, chairman, 39); Ecol. Soc. Forest pathology; entomology and ecology; zoology; ecology of Ribes; blister rust control.

Fix, Prof. Philip F(orsyth), Occidental College, Los Angeles, Calif. *Geology.* Indianapolis, Ind, June 25, 08. A.B, Indiana, 29, A.M, 31; Mont. State Col, 34; fellow, Colorado, 39–40, Ph.D, 40. Asst. geol, Indiana, 29–30, hist, 30–31; instr, high sch, Mont, 31–37; asst. *geol,* Colorado, 37–39; instr, *Occidental Col,* 40–42, *asst. prof, 42–* Summers, mem. staff, Ind. Geol. Surv, 29, 31; ranger-naturalist, Yellowstone Nat. Park, U. S. Nat. Park Service, 34–40. Min. and Metal. Eng. Petrology and structural geology; morphology of geysers and hot springs; mining geology; structure of Gallatin Valley, Montana; the Knobstone Escarpment in central Indiana.

Fjeld, Dr. Harriett (Anderson), 235 E. 22nd St, New York, N. Y. *Psychology.* Hedrick, Iowa, Feb. 22, 97. A.B, Illinois, 20, A.M, 22; Ph.D, Columbia, 34. Asst. psychol, Illinois, 20–22, 23–25; prof. educ. Buena Vista Col, 22–23; research, Columbia, 31–32, 34–35, 36; *research psychologist,* Arthur Sunshine Home and Nursery Sch. for Blind, Summit, N. J, 36–38; *Research Council for Blind Children, New York, 38–; instr, Hunter Col, 42–* A.A; assoc. Psychol. Asn; Soc. Research Child Develop; Am. Foundation for the Blind; Council Women Psychol; East. Psychol. Asn. Genetic psychology; racial psychology; psychology of the blind.

Flad, Edward, 828 U. S. Court House, St. Louis, Mo. *Engineering.* Arcadia, Mo, Nov. 23, 60. C.E, Washington (St. Louis), 81. Water commissioner, St. Louis, 99–03; *mem,* Pub. Service Cmn, Mo, 17–21; *Miss. River Cmn, 24–; consulting engineer.* Civil Eng. (director, 11); Mech. Eng; Eng. Club St. Louis (past pres).

Flagg, A(rthur) L(eonard), 29 Holly St, Phoenix, Ariz. *Engineering, Geology.* Woonsocket, R. I, June 29, 83. A.B, Brown, 06. Asst. geol, miner. and petrog, Brown, 04–06; assaying, surveying, mining, Ariz, 06–07; mine exam, Mex, 08; mining eng, Santa Cruz Mining Co, 08–12; private practise, Wash, 12; receiver, Kelvin Sultana Copper Co, 13–19; *consulting engineer, 19–* Trustee, Ariz. Museum, v. pres, 35–A.A. (exec. cmt, southwest div, 20–24, v. pres, 24–26, pres, 27, pres, Phoenix branch, 36); Min. and Metal. Eng; Rocky Mountain Fed. Miner. Societies (pres, 42). Economic geology; mining districts; silver ores in Mexico; vanadium in the Southwest.

Flagg, Frederick P(otter), 65 Fairmont Ave, Waltham, Mass. *Chemistry.* Waltham, Mass, July 16, 94. B.S, Tufts Col, 16. Chief chemist, Waltham Watch Co, 16–38; *consulting chemist and metallurgist, 38–* Instr, Tufts Col, 41. A.A; Chem. Soc; Min. and Metal. Eng; Soc. Metals (chairman, Boston sect, 34). Metallography.

Flagg, Dr. John F(erard), University of Rochester, Rochester, N. Y. *Analytical chemistry.* Wellsville, N. Y, Dec. 30, 14. B.S, Rochester, 36; A.M, Princeton, 37, LeRoy Wiley McCay fellow, 38–39, Ph.D, 39. Instr. *chem, Rochester, 39–43, asst. prof, 43–* Levy medal, Franklin Inst, 40. Chem. Soc. Application of organic compounds to quantitative inorganic analysis; application of artificial radioactivity to inorganic and analytical chemistry.

Flammer, Prof. Ernest, Queen's University, Kingston, Ont, Can. *Physics.* San Francisco, Calif, April 18, 80. B.S, California, 03; Munich, 08–12; Berlin, 12–13; Göttingen, 13–15; Ph.D, Harvard, 17. Elec. engineer, 03–07; instr. elec. eng, Wisconsin, 07–08; asst. prof. physics, *Queen's (Can),* 17–24, assoc. prof, 24–30, *prof. math. physics, 30–* Mathematical physics.

Flanagan, Lieut. Col. John C(lemans), 5616 Oak Place, Bethesda, Md. *Psychology, Education.* Armour, S. Dak, Jan. 7, 06. B.S, Washington (Seattle), 29, A.M, 32; Yale, 31; Ph.D, Harvard, 34. Teacher, sch, Wash, 29–30, teacher math. and coach, Cleveland High Sch, Seattle, 30–32; asst. educ, grad. sch. educ, Harvard, 34–35; assoc. director cooperative test service, Am. Council on Educ, 35–41; *chief psychol. div, air surgeon's office, U. S. Army, 41–* Lecturer, Teachers Col, Columbia, 36–41. A.A; Statist. Asn; Psychomet. Soc; Psychol. Asn; Soc. Adv. Educ; Educational Research Asn; fel. Asn. Applied Psychol; N. Y. Acad. (v. pres, 41). Mental measurement; personality; social psychology; statistics.

Flanders, Prof. Donald A(lexander), Box 134, University Heights Station, Bronx, New York, N. Y. *Mathematics.* Pawtucket, R. I, Aug. 14, 00. A.B, Haverford Col, 22; Ph.D, Pennsylvania, 27. Nat. research fellow *math, 27–29;* instr, *N. Y. Univ,* 29–31, asst. prof, 31–36, *assoc. prof, 36–* A.A; Math. Soc; Math. Asn. Postulates of geometry; analysis situs.

Flanders, Dr. Fred F(ord), Room 540, State House, Boston, Mass. *Chemistry.* Yolo Co, Calif, Sept. 5, 76. A.B, State Col. Wash, 02, A.M, 05; Ph.D, Harvard, 12. Instr. chem, State Col. Wash, 02–07; asst. chemist, bur. chem, U. S. Dept. Agr, 07–10; chemist, State Dept. Mental Diseases, Mass, 12–17, 21–23; director sardine inspection, Nat. Canners' Asn, 19–21; chemist, purchase lab, *State Dept. Pub. Health, Mass,* 23–25, *chief lab, cmn. on admin. and finance, 25–* Capt, Sanit.C, 17–19. A.A; Chem. Soc. (sec'y, div. food and agr. chem). Biological and food chemistry.

Flanders, Dr. H(yrum) Edward, American Brake Shoe and Foundry Co, 230 Park Ave, New York, N. Y. *Physical chemistry.* Lehi, Utah, Nov. 18, 94. B.S, Utah Col, 21; M.S, Iowa State Col, 24, Ph.D, 28. Asst, Iowa State Col, 22–25, instr, 25–28; research engineer, Am. Rolling Mill Co, 28–41; *mem. research staff, Am. Brake Shoe and Foundry Co, 41–* Malleable iron; open hearth; alloys.

Flanders, Paul B(eecher), 463 West St, New York, N. Y. *Acoustics.* Concord, N. H, May 22, 99. A.B, Harvard, 20, B.S, 22. Transmission engineer, eng. dept, West. Elec. Co, 22–25; *physicist, Bell Tel. Labs, 25–* Physical Soc; Acoustical Soc. Physics.

Flanders, Dr. Ralph E(dward), Box 476, Springfield, Vt. *Engineering.* Barnet, Vt, Sept. 28, 80. M.E, Stevens Inst. Tech, 32; A.M, Dartmouth Col, 32; Sc.D, Middlebury Col, 34, Rose Polytech, 35; D.E, Polytech. Inst. Brooklyn, 34, Vermont, 35. Designing engineer, Int. Paper Box Machinery Co, N. H, 03–05; assoc. ed, 'Machinery,' N. Y, 05–10; engineer, Fellows Gear Shaper Co, Vt, 10–12; *Jones and Lamson Machine Co, Vt,* 12–15, manager, 15–17, *director, 17–,* v. pres, 32–33, *pres, 33–; Bryant Chucking Grinder Co, 34–* Aldred lecturer, Hopkins, 21. Trustee, Norwich, 35; Goddard Col, 37–41; mem. corp, Mass. Inst. Tech; v. pres, Am. Eng. Council, 37. Mem, Nat. Screw Thread Cmn, 20–24; director, Social Science Research Council, 32–36; mem. fed. cmt. on apprenticeship, U. S. Dept. Labor; business advisory council, U. S. Dept. Commerce, 33–41; indust. advisory board, Nat. Recovery Admin, 33–35; advisory board, Subsistence Homestead Admin; mem, State Special Milk Investigational Cmt, Vt, 37; mem. machine tool coordinating cmt, Nat. Defense Council; chairman research cmt, Cmt. Econ. Development; mem. advisory board, Econ. Stabilization Board. Econ. Asn; Asn. Acad. Polit. and Social Sci; Mech. Eng. (pub. cmt, 20–, chairman, manager, 26–29; councilor, 26–29; v. pres, 29–34, pres, 34); Machine Tool Builders Asn. (pres, 23); Franklin Inst; Acad. Polit. and Social Sci; Econ. Asn. Gear tooth curves; screw thread and machine tool design; gear tooth systems; design, manufacture and production control of standard machines; gear cutting machines; machine turning.

Flanders, Prof. Roger Lee, 210 Admiral Road, Stillwater, Okla. *Civil engineering.* Lancaster, N. H, Feb. 3, 01. B.S, Norwich, 22; M.C.E, Cornell, 30. Instr. math, Norwich, 22–24, asst. prof, 24–25; *civil eng, Okla. Agr. and Mech. Col,* 25–29, assoc. prof, 29–37, *prof, 37–* Eng. Educ; Math. Asn. Applied mechanics; strength of materials.

Flanders, Dr. Stanley E(llsworth), Citrus Experiment Station, Riverside, Calif. *Entomology.* Chula Vista, Calif, Jan. 4, 94. A.B, California, 23, Ph.D, 35. Entomologist, Saticoy Walnut Growers' Asn, Calif, 23–29; parasite collector, *California,* 29–32, assoc, *Citrus Exp. Sta,* 32–36, asst. entomologist, 36–41, *assoc. entomologist, 41–* Explor. for beneficial insects, east. Australia, 31. U.S.A, 18–19. A.A; fel. Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. S. Calif. Mass production of entomophagous insects; ecology of the egg parasite Trichogramma evanescens; interaction of host-parasite populations; physiology of the parasitic Hymenoptera.

Flanigan, G(eorge) E(verett), Dry Milk Co, Bainbridge, N. Y. *Chemistry.* Watervliet, N. Y, Jan. 3, 94. B.S, Cornell, 17. Chemist, Nestlé's Food Co, 17–21; *research chemist, Dry Milk Co, 22–* Soc. Bact. Nutrition; chemistry and biology of dairy products.

Flannery, Dr. Regina (Mrs. Karl F. Herzfeld), 2716 Fourth St, N.E, Washington, D. C. *Anthropology.* Washington, D. C, Dec. 12, 04. A.B, Trinity Col, 27; A.M, Catholic Univ, 31, Ph.D, 38. Teaching asst. *anthrop, Catholic Univ,* 32–35, instr, 35–38, *research assoc, 38–* Anthrop. Asn. (councilor, 35–); Folk-Lore Soc; Catholic Anthrop. Conf. (v. pres, 42–); Anthrop. Soc. Wash. (sec'y, 37–); Wash. Acad. Cultural anthropology; ethnology of Indians of Canada, Gros Ventres of Montana and other Algonquian groups.

Flath, Dean E(arl) H(ugo), Southern Methodist University, Dallas, Texas. *Electrical engineering.* Dayton, Ohio, June 5, 95. E.E, Cincinnati, 19; M.S, Ga. Tech, 26. Univ. apprentice, Nat. Cash Register Co, Ohio, 14–19; assoc. prof. physics and elec. eng, Alabama, 19–20; develop. and research engineer, Bell Tel. Labs, New York, 20–22; director cooperative courses, Ga. Tech, 22–25; *dean sch. eng, South. Methodist, 25–* Elec. Eng; Eng. Educ. Base metal thermocouples; combustion in the cylinder of internal combustion engines.

Fleck, Dr. Elmer E(llsworth), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Sterling, Ill, Dec. 24, 02. A.B, Nebraska, 24, A.M, 25; Ph.D, Princeton, 28. Asst. chem. pharmacol, Rockefeller Inst. 28–31, assoc, 31–34; chemist, E. I. du Pont de Nemours and Co, 35–36; assoc. chemist, *naval stores research div, bur. agr. chem. and eng, U. S. Dept. Agr,* 36–41, *chemist, 41–* Hydroxylamines; triterpenes; saponins; cardiac glucosides; intermediates; naval stores.

Fleck, Dr. Louis C(arl), 211 N. Drew St, Appleton, Wis. *Chemistry.* Kaukauna, Wis, Oct. 25, 95. B.S, Wisconsin, 17, M.S, 23, Ph.D, 27. Chemist, N. J. Zinc Co, Pa, 17–18; U. S. Nitrate Plant No. 2, Muscle Shoals, 18–19; chief chemist, Frankfort Grain Products Co, 19–21; *research chemist,* Forest Products Lab, U. S. Forest Service, 21–30; *Kimberly Clark Corp, Kimberly, Wis, 30–* Chem. Soc. Chemistry of pulp, paper, wood, lignin and sulfite pulping; effect of decay on wood constituents; durability of wood and chemical composition; acetylation of wood and cellulose; isolation of activatable antirachitic sterols from seed flax; straw wax; bleaching of sulfate pulps; development of new products of pulp and paper.

Fleddermann, Prof. H(arry) T(aylor), 6315 Barrett St, New Orleans, La. *Mathematical analysis.* New Orleans, La, Feb. 20, 10. B.S, Spring Hill Col, 29; B.S.M.E, Detroit, 31; M.S, Louisiana, 37, Ph.D, 40. Instr. *math, Loyola (La),* 31–34, asst. prof, 34–41, *assoc. prof, 41–* Math. Soc; Math. Asn. The theory of measure.

Fleer, Dr. Alfred W(illiam), Shell Development Co, 100 Bush St, San Francisco, Calif. *Chemical engineering.* Quincy, Ill, July 19, 09. B.S, Michigan, 32, fellow, 32–33, M.S, 33, Mich. Gas Asn. fellow, 33–35, Ph.D, 35. Chem. engineer and petroleum technologist, Shell Petrol. Corp, 35–38; asst. prof. chem. eng, Virginia, 38–39; process engineer, Gulf Oil Corp, 39–41; *research chem. engineer, Shell Develop. Co, 41–; capt, Ordnance Res, U. S. Army, 39–* Lieut, Ordnance R.C, 32–39. Chem. Eng; Chem. Soc. Catalysis in gasification of fuels; combustion of solid fuels; chemical and petroleum process design.

Fleet, Prof. R(obert) R(yland), Central College, Fayette, Mo. *Mathematics.* Urbana, Va, Sept. 16, 70. A.B, William Jewell Col, 96; Missouri, 98, fellow, 99–00, A.M, 00; Berlin and Heidelberg, 00–03; Ph.D, Heidelberg, 03. *Prof. math,* Clarksburg, 96–98; William Jewell Col, 03–28; *Cent. Col. (Mo), 28–* Math. Soc. Partial differential equations.

Flege, R(aymond) K(ennett), Kendall Mills, Slatersville, R. I. *Chemistry.* Williamstown, Ky, March 17, 05. A.B, Kentucky, 25, M.S, 27; M.S, Mass. Inst. Tech, 32. Research assoc. chem. eng, Mass. Inst. Tech, 27–29, 31–32; Nat. Synthetic Corp, 29–30; *research chemist,* Bauer and Black, 32–37; *Kendall Mills, 37–* Chem. Soc. Synthetic aromatic mercaptans; hydration and oxidation in high pressure reactions; surgical ligatures; cotton textile finishing.

Fleharty, Prof. Vernon B(ishop), Hastings College, Hastings, Nebr. *Analytical and physical chemistry.* Hastings, Nebr, Jan. 28, 04. B.S, Hastings Col, 28; M.S, Iowa, 29, Ph.D, 31. Acting head dept. chem, Geneva Col, 31–32, asst. prof. chem. and math, 32–36; *assoc. prof. chem, Hastings Col, 36–, head dept, 37–* Chem. Soc. Oxidation-reduction potentials of the ferric-ferrous-ion system and heat of reaction from equilibrium data.

Fleischer, Dr. Arthur, 81 Navajo St, Salt Lake City, Utah. *Chemistry.* Bridgeport, Conn, March 1, 04. B.S, Yale, 24, Loomis fellow, 25–26, Sterling fellow, 26–27, Ph.D, 27. Asst. chem, Yale, 24–25; consulting chemist, Healey-Fleischer Labs, 27–30; *chief chemist, Kalunite Co, 30–* A.A; Chem. Soc; Electrochem. Soc; Min. and Metal. Eng. Absorption and capillary condensation of vapors by oxide absorbents; treatment of alunite ore and clays by acid processes for the production of alumina; aluminum stearate and other metallic soaps.

Fleischer, Dr. J(oseph), Alton, Ill. *Physical chemistry.* Bridgeport, Conn, Dec. 26, 05. B.S, Yale, 27, Ph.D, 30. *Research chemist,* Frigidaire Corp, 30–32; Cellulose Research Corp, 34–36; *West. Cartridge Co, 36–* Chem. Soc. Addition compounds of sulfur dioxide with alkali iodides and thiocyanates and with organic amino compounds; organic chlorofluorides; absorption refrigeration; cellulose and cellulose derivatives; copper alloys; chemistry of smokeless powder and explosives.

Fleischer, Dr. Michael, U. S. Geological Survey, Washington, D. C. *Geochemistry.* Bridgeport, Conn, Feb. 27, 08. B.S, Yale, 30, Ph.D, 33. Fellow, Yale, 33–34; asst. ed, 'Dana's System of Mineralogy,' 35–36; asst. physical chemist, geophys. lab, Carnegie Institution, 36–39; assoc. geochemist, *U. S. Geol. Surv,* 39–42, *geochemist, 42–* Asst. ed, 'Chem. Abstracts,' 40–; assoc. ed, 'Am. Mineralogist,' 41– Fel. Miner. Soc; Chem. Soc; Geophys. Union; Miner. Soc. Gt. Britain. Equilibrium in systems containing volatile components; solubility; mineralogical chemistry.

Fleisher, Prof. Edward, 295 St. John's Place, Brooklyn, N. Y. *Mathematics.* New York, N. Y, April 22, 84. B.S, Col. City of N. Y, 03; M.S, N. Y. Univ, 12, Ph.D, 35. Head dept. *math,* high sch, N. Y, 20–26; asst. prof, *Col. City of N. Y,* 26–30, *Brooklyn Col,* 30–36, *assoc. prof, 36–* Lecturer, Brooklyn Inst, 12–20. A.A; Math. Soc; Math. Asn; Linnaean Soc. N. Y. Geometry; finite groups; Euler squares.

Fleisher, Dr. Moyer S(pringer), Jewish Hospital, St. Louis, Mo. *Bacteriology.* Philadelphia, Pa, May 13, 84. B.S, Pennsylvania, 04, M.D, 07. Asst. exp. path, Pennsylvania, 07–10; path, Barnard Free Skin and Cancer Hosp, St. Louis, 10–15; asst. prof. bacter, sch. med, St. Louis, 15–19, prof. bacter. and hygiene, 19–39; *bacteriologist, Jewish Hosp, 39–* A.A; Soc. Bact; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Am. Med. Asn; Asn. Cancer Research; St. Louis Acad. Bacteriology; immunity; edema; pathology of the kidneys and of the cardio-vascular system; coagulation of blood; tumor and tissue growth; venom of Heloderma; monilia in human beings; etiology of psoriasis; absorption in anaphylaxis; physical chemistry of blood in thyroidectomized animals; experimental serum sickness.

Flemer, J(ohn) A(dolph), Oakgrove, Westmoreland Co, Va. *Topography.* New York, N. Y, April 1, 59. Polytech. Sch, Cassel, Germany, 78; C.E, Charlottenburg, 81. Topographer, D. C. Topog. Surv, 82–86; asst, U. S. Coast and Geod. Surv, 86–00; topog. and landscape engineer, Springfield, N. J, 00–02; engineer to U. S. commissioner for demarcation of Alaskan boundary, 04–06; topog. engineer, Jamaica Bay Improv. Cmn, 09–10. A.A; Am. Geog. Soc; Soc. Mil. Eng; Soc.

Eng; U.S. Naval Inst; Wash. Soc. Eng. Topographical and landscape engineering; photo-topography.

Fleming, Prof. Annie W(ilson), 719 Douglas Ave, Ames, Iowa. *Mathematics.* Traer, Iowa, Nov. 26, 70. B.S, Iowa State Col, 94; A.M, California, 21. Teacher, high sch, Iowa, 95–98; instr. and *asst. prof. math, Iowa State Col, 00–* Math. Asn. Systems of equalities among the roots of a sixth degree binary equation.

Fleming, Dr. Gertrude (Marjory), Russell Sage College, Troy, N. Y. *Physics.* Seattle, Wash, Jan. 30, 12. A.B, Washington (Seattle), 34, Ph.D, 39. *Instr. physics,* Mt. Holyoke Col, 39–40; *Russell Sage Col, 40–* Field current and thermionic emission.

Fleming, Prof. H(arold) K(enneth), Erie County Field Research Laboratory, North East, Pa. *Horticulture.* Williamsport Pa, Dec. 27, 02. B.S, Pa. State Col, 24, M.S, 36. Assoc. hort, Nat. Farm Sch, 27–34; instr. *pomol, Pa. State Col,* 37–41, *asst. prof, 41–* Pomology; propagation of fruit plants; root stocks; winter injury.

Fleming, Dr. John A(dam), 5241 Broad Branch Road, N. W, Washington, D. C. *Geophysics.* Cincinnati, Ohio, Jan. 28, 77. B.S, Cincinnati, 99, Sc.D, 33; Sc.D, Dartmouth Col, 34. Aid, U. S. Coast and Geod. Surv, 99–03, asst, 03–04, magnetic observer, 04–10; *magnetician, dept. terrestrial magnetism, Carnegie Institution, 04–,* asst. director, 22–29, acting director, 30–35, *director, 35–* Ed, sci. results of Ziegler polar exped, 03–05; 'Jour. Terrestrial Magnetism and Atmospheric Elec,' 28– Trustee, Oceanog. Inst, Woods Hole, 30–; Int. Cmn. Terrestrial Magnetism and Atmospheric Elec, 30–; Wash. Biophysical Inst. William Bowie medal, Am. Geophys. Union, 41. Nat. Acad; A.A; Geophys. Union (gen. sec'y, 25–, ed, 'Trans,' 26–); Physical Soc; Meteorol. Soc. (councilor, 30–39); Am. Geog. Soc; Wash. Acad; Philos. Soc. Wash. (sec'y, 13–16, pres, 25); Maryland Acad; hon. mem. Royal Soc. N. Z; cor. mem. Geog. Soc. Finland; cor. mem. Michelsen Inst. Sci. and Intellectual Freedom; hon. cor. mem. Russian Geog. Soc; Int. Union Geod. and Geophys. (pres, terrestrial magnetism and elec, 30–). Terrestrial magnetism and electricity; oceanography.

Fleming, Dr. Richard H(owell), Scripps Institution of Oceanography, La Jolla, Calif. *Oceanography.* Victoria, B. C, Can, Sept. 21, 09. B.A, British Columbia, 29, M.A, 31; Ph.D, California, 35. Asst. chem, British Columbia, 29–31; research asst. *oceanog, Scripps Institution, California,* 31–35, research assoc, 35–36, *instr, 36–* Summer, chemist, Biol. Board Can, 30. Geophys. Union; West. Soc. Nat; Oceanog. Soc. Pacific. Chemistry; nitrogenous compounds and calcium carbonate equilibria in sea water; oceanography of the Central American Pacific.

Fleming, Dr. Walter E(rnest), Moorestown, N. J. *Economic entomology.* West Orange, N. J, Jan. 4, 99. B.S, Rutgers, 21, M.S, 22, Ph.D, 24. Insecticide investigator, N. J. Dept. Agr, 21–24; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 24–26, assoc. entomologist, 26–29, *entomologist, 29–* Asn. Econ. Entom; Chem. Soc. Development of insecticides for control of the Japanese beetle and of methods for destroying or preventing infestations on agricultural commodities to be shipped through quarantine.

Fleming, Prof. William L(eRoy), University of North Carolina, Chapel Hill, N. C. *Syphilology.* Morgantown, W. Va, Aug. 29, 05. A.B, Vanderbilt, 25, M.S, 27, M.D, 32. Asst. bacter, sch. med, Vanderbilt, 25–28; intern and house physician, second div, Bellevue Hosp, New York, N. Y, 33–34; asst. res. and res. physician, med. service, Vanderbilt Hosp, Nashville, Tenn, 34–37; instr. med, Hopkins, and Milbank fellow, syphilis clinic, Hopkins Hosp, 37–39; mem. staff, int. health div, Rockefeller Foundation, 39; *research prof. syphilol, sch. pub. health, North Carolina, 39–* Am. Med. Asn; Soc. Clin. Invest; Pub. Health Asn. Bacteriology; experimental and clinical syphilis; biology and immunology of pneumococci.

Fleming, W(illia)m Melvin, Dominion Experimental Station, Summerland, B. C, Can. *Horticulture.* Middlesex Co, Ont, Nov. 18, 87. B.Sc.Agr, Alberta, 19; M.Sc.Agr, British Columbia, 25. Asst. forage crops, Alberta, 19; dist. supervisor education agr. educ, Duncan, B. C, 20–22, dist. agriculturist, 22–25; *asst. supt, Dom. Exp. Sta, 25–* Can. Soc. Tech. Agr. (pres, B. C. branch, 30). Live stock; vegetable nutrition and vegetable seed production.

Flemion, Florence (Mrs. Lawrence P. Miller), Boyce Thompson Institute for Plant Research, 1086 Broadway, Yonkers, N. Y. *Physiology.* Colfax, Ind, June 21, 03. A.B, Indiana, 26. Asst. zool, Indiana, 23–26; asst. physiologist, dept. genetics, Carnegie Institution, Cold Spring Harbor, 26–27; *asst. plant physiologist, Boyce Thompson Inst, 27–* A.A; Ind. Acad. Endocrinology; dormancy in seeds.

Flemister, Dr. Launce(lot) J(ohnson), George Washington University School of Medicine, Washington, D. C. *Physiology.* Atlanta, Ga, Dec. 11, 13. A.B, Duke, 35, A.M, 39, Ph.D, 41; Harvard, 35–37. Asst, Duke, 38–41; *instr. pharmacol, sch. med, George Washington, 41–* Assoc. fel. Am. Med. Asn. Water balance; respiration.

Flemming, Dr. Cecile White (Mrs. Edwin G. Flemming), Teachers College, Columbia University, New York, N. Y. *Psychology.* Anderson, Ind, June 13, 89. A.B, Indiana, 13, A.M, 15; Ph.D, Columbia, 26. Sec'y bur. cooperative research, Indiana, 15–16, acting director and instr. psychol, 16–17; asst. director educ. measurements, State Dept. Pub. Instruction, Wis, 17–18, director, 18–20; directing psychologist, *Horace Mann High Sch, Teachers Col, Columbia,* 24–29, *director individual develop. and guidance, 30–; consulting psychologist.* Summers, prof, Col. of William and Mary, 29, 30; Teachers Col, Columbia, 32–35; prin, Demonstration High Sch, 36– A.A; Psychol. Asn; Asn. Applied Psychol; Progressive Educ. Asn. (cmt. records and reports, 33–40); Educ. Research Asn; fel. Council Women Psychol; Wis. Research Asn. (sec'y). Educational psychology, measurement and guidance; clinical psychology; curriculum.

Flemming, Dr. Edwin G(eorge), 445 Riverside Drive, New York, N. Y. *Psychology.* Buffalo, N. Y, April 19, 89. LL.B, Buffalo, 10; A.B, Cornell, 15; A.M, Wisconsin, 20; Ph.D, Columbia, 28. Asst. instr. pub. speaking, Cornell, 16–17; acting head dept. speech, Utah, 17; instr. pub. speaking, Wisconsin, 19–20; high sch, N. Y, 21–22; asst. prof, Miami (Ohio), 23–25; asst. psychol, Columbia, 25–27, instr, 27–28; assoc. prof, Col. of William and Mary, 28–30; consulting psychologist, 30–41; *assoc. ed, Liveright Publishing Corp, 42–* Lecturer, Rutgers, 30–32. Summers, asst. instr, Cornell, 17; lecturer, St. John's Col. (N. Y), 28; assoc. prof, Col. of William and Mary, 29, 30. Psychol. Asn.

Flentje, Martin E(rnest), American Water Works and Electric Co, 50 Broad St, New York, N. Y. *Chemical engineering.* Sibley, Iowa, May 20, 97. B.S, Iowa, 20, M.S, 21. Water analyst, Iowa State Water Lab, 21–22; chemist, K. I. Herman Chem. Corp, 22–24; Chicago Northwest. R. R, 24–26; supt. filtration, water softening and purification plant, Oklahoma City, 26–27; *supt. purification,* Community Water Service Co, *New York,* 27–37, *Am. Water Works and Elec. Co, 37–* Water Works Asn. Water purification and treatment.

Fletcher, Dr. C(harles) C(loyes), R. R. 4, Anacostia Sta, Washington, D. C. *Agronomy.* Jamestown, N. Y, Aug. 29, 83. M.D, Nat. Univ, 03; George Washington. *Scientist,* bur. chem. and soils, U. S. Dept. Agr, 06–34, bur. plant indust, 34–39; *retired.* A.A; Soc. Agron; Chem. Soc. Fertilizers; soil fertility and amendments.

Fletcher, Dr. David A(dams), Pompton Plains, N. J. *Chemistry.* Nov. 20, 06. A.B, Minnesota, 29; Ph.D, Cornell, 34. Asst. chem, Cornell, 29–33; *research chemist,* Muralo Co, Staten Island, N. Y, 34; du Pont Viscoloid Co, *Arlington, N. J,* 34–38, *plastics dept, E. I. du Pont de Nemours and Co, 38–* Chem. Soc. Phase rule studies on polyiodides of calcium; synthetic resins and plastics.

Fletcher, Prof. D(onald) E(dmund), University of Arkansas School of Medicine, Little Rock, Ark. *Neuro-anatomy.* Boise, Idaho, March 13, 06. A.B, Kansas, 31, A.M, 32, Ph.D, 40. Asst. instr. anat, Kansas, 33–35, instr, 35–37; *sch. med, Arkansas,* 37–39, *asst. prof, 39–* Neuro-embryological development of diencephalon.

Fletcher, Fred W(alker), Dow Chemical Co, Midland, Mich. *Entomology.* Marion, Ohio, Aug. 6, 04. A.B, Miami (Ohio), 27; A.M, Ohio State, 29. Asst. zool, Ohio State, 27–28, asst. entomologist, 28–30, instr, 30–31; forest entom, N. Y. State Col. Forestry, Syracuse, 31–37, asst. prof, 37; *entomologist, Dow Chem. Co, 37–* Summers, field asst, bur. entom, U. S. Dept. Agr, 28–30, agent, 30–32; instr, Ohio State, 31. Entom. Soc. Amer; Asn. Econ. Entom; Ohio Acad. Insect morphology; physiology and economic entomology.

Fletcher, Dr. Harry H(untington), U. S. Rubber Co, Passaic, N. J. *Chemistry.* Pittsburgh, Pa, Nov. 4, 07. B.S,

Yale, 29; Ph.D, Columbia, 39. Research chemist, U. S. Rubber Co, 29–31; lab. asst, Columbia, 31–35; *research chemist, gen. labs, U. S. Rubber Co, 36–* Chem. Soc. Industrial organic chemistry; action of aqueous chlorine and hypochlorite on starches; adhesion of rubber to metal; antioxidants and accelerators for rubber; agricultural chemicals.

Fletcher, Dr. Harvey, 5 Westminster Road, Summit, N. J. **¹Physics.* Provo, Utah, Sept. 11, 84. B.S, Brigham Young, 07; fellow, Chicago, 10–11, Ph.D, 11; hon. Sc.D, Columbia, 33. Instr. physics, Brigham Young, 07–08, prof, 11–16; instr, Chicago, 09–10; *physical research director, Bell Tel. Labs, 16–* Summers, prof, Chicago, 13; lecturer, Michigan, 25; Mass. Inst. Tech, 27. Louis Edward Levy medal, Franklin Inst, 24. Nat. Acad; A.A. (chairman, B, 37); Physical Soc; Inst. Physics (exec. councilor); Acoustical Soc. (pres, 29–31); Elec. Eng; Franklin Inst; N. Y. Elec. Soc; Utah Acad. (pres, 14). Brownian movements; gaseous ionization; determination of elementary electrical charge and Avogadro's constant; Stoke's law of fall of small particles; physical measurements of audition; loudness of complex sounds; physical nature of speech, music and noise; high quality transmission of speech and music; theory of hearing; audiometers and audiphones; transmission and recording of sound in auditory perspective.

Fletcher, Dr. Hazel M(arie), Kansas State College, Manhattan, Kans. *Physics.* Economy, Ind, Nov. 28, 97. A.B, Indiana, 22, A.M, 27, Ph.D, 29. Teacher, pub. schs, Ind, 16–19, high schs, 22–27; asst. physics, Indiana, 27–29; instr, Wellesley Col, 29–30; Mt. Holyoke Col, 30–33; *asst. prof. clothing and textiles, Kans. State Col, 37–* Physical Soc; Kans. Acad; Ind. Acad. Effect of occluded gases and moisture on the resistance of air condensers at radio frequencies; effect of x-ray on the thermal conductivity of selenium; variation of resistance and power factor of glass condensers at radio frequencies; textiles.

Fletcher, Prof. John M(adison), 1220 Henry Clay Ave, New Orleans, La. *Psychology.* Murfreesboro, Tenn, June 27, 73. A.B, Vanderbilt, 01; A.M, Colorado, 04; fellow, Clark, 10–11, Ph.D, 12 Asst. educ, Colorado, 05–06; philos, Stanford, 09–10; lecturer psychol, Clark, 11–12; asst. prof. exp. and clin. psychol, Tulane, 12–14, prof. psychol. and head dept, 14–24, head dept. educ, 19–23, acting dean grad. dept, 19, dean, 20–24; prof. psychol, Vanderbilt, and lecturer med. psychol, sch. med, 24–28; prof. *psychol.* and head dept, *Tulane,* 28–37, emer. prof, 37–42, *prof, 42–* Chairman and director surv, La. Educational Surv. Cmn, 40–41. A.A; Psychol. Asn; S. Soc. Philos. and Psychol. (v. pres, 19, pres, 20); New Orleans Acad. (pres, 16). Educational psychology; pathology of speech; mental hygiene; stuttering; psychology in education.

Fletcher, Dr. Robert D(awson), 10547 Rountree Road, Los Angeles, Calif. *Meteorology.* Lampacitos, Mex, Feb. 11, 12. B.S, Calif. Inst. Tech, 33, M.S, 34, 35; Sc.D, Mass. Inst. Tech, 41. Instr. mech. drawing, Calif. Inst. Tech, 33–34, asst. meteorol, 34–35; meteorologist, Am. Airlines, Inc, 35–38, lecturing and consulting meteorologist, 38–39; Bankhead-Jones agent, *U. S. Weather Bur,* 39–40, asst. meteorologist, 40–41, *assoc. meteorologist and supervising forecaster, 41–;* instr. *meteorol, California at Los Angeles,* 40–42, *research assoc, 42–* Asst, Mass. Inst. Tech, 39–40; civilian pilot training instr, Brown, 39–40; meteorologist in charge, Moscow to New York Russian flight, 39. A.A; Meteorol. Soc. Aspects of the general circulation of the atmosphere; forecasting; practical relations involving the vertical wind shear; methods of forecasting the arrival time of southern California stratus.

Fletcher, Dr. Robert K(emble), Agricultural and Mechanical College of Texas, College Station, Texas. *Entomology.* Curwinsville, Pa, Aug. 6, 84. A.B, Maine, 17; A.M, Ohio State, 19, Ph.D, 28. Asst. entom. and zool, Ohio State, 17–19; asst. prof. entom, *Agr. and Mech. Col. Texas,* 19–20, assoc. prof, 20–27, *entomologist, Exp. Sta. 27–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Texas Entom. Soc; Texas Acad. Cicadellidae of Brazos County, Texas; cotton bollworm.

Fletcher, Dean S(tevenson) W(hitcomb), Pennsylvania State College, State College, Pa. *Agriculture.* Littleton, Mass, Sept. 10, 75. B.S, Mass. Col, 96; M.S, Cornell, 98, fellow, 98–99, Ph.D, 00. Prof. hort, State Col. Wash, and horticulturist, Exp. Sta, 00–02; West Virginia, 02–03; asst. prof. exten. teaching agr, Cornell, 03–05; prof. hort, Mich. State Col, 05–07; director, Exp. Sta, Va. Polytech, 07–14; prof. hort, *Pa. State Col,* 16–36, v. dean and director research, *sch. agr,* 17–39, *dean, 39–* Strawberry growing; soils; strawberries of North America.

Fletcher, Prof. Worth A(lbert), Municipal University of Wichita, Wichita, Kans. *Chemistry.* Randolph Co, Ind, May 8, 00. A.B, Indiana, 25, A.M, 26, Ph.D, 27. *Prof. chem, Wichita, 27–* Chem. Soc; Kans. Acad; Ind. Acad. Organic chemistry; nitro compounds as oxidizing agents; azo derivatives of guaiacol; diazo thio-ethers of thio-beta-naphthol; developing latent finger prints.

Flexner, Dr. Louis B(arkhouse), Carnegie Institution, Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy.* Louisville, Ky, Jan. 7, 02. B.S, Chicago, 22; M.D, Hopkins, 27. Jacques Loeb fellow med, Hopkins Hosp, 27–28; res. house officer, Univ. Chicago Clinics, 28–29; instr. and assoc. anat, sch. med, Hopkins, 30–40; *research assoc, dept. embryol, Carnegie Institution, 40–; tech. aide cmt. aviation med, Nat. Research Council, 42–* Asn. Anat; Physiol. Soc. Meninges and cerebrospinal fluid; fetal physiology.

Flexner, Dr. Simon, Rockefeller Institute for Medical Research, New York, N. Y. **¹Pathology.* Louisville, Ky, March 25, 63. M.D, Louisville, 89; fellow, Hopkins, 91–92, Strassburg and Prague, 93; hon. Sc.D, Harvard, 06, Yale, 10, Princeton, 13, Pennsylvania, 29, Nat. Univ. Ireland, 36, Louisville, 37; LL.D, Maryland, 07, Brown, 15, Washington (St. Louis), 15, Hopkins, 15, Cambridge, 20, Western Reserve, 29; Dr, Strasbourg, 23, Catholic Univ, Louvain, Belgium, 27, Univ. Libre, Brussels, 30; fellow, Oxford, M.A, 37. Assoc. path, Hopkins, 92–95, assoc. prof, 95–98, prof. path. anat, 98–99; path, Pennsylvania, 99–03; director labs, *Rockefeller Inst,* 03–35, director, 20–35, *emer. director, 35–* Director, Ayer Clin. Lab, Pa. Hosp, 01–03; Huxley lecturer, Charing Cross Hosp. Med. Sch, 12; Hamilton lecturer, Smithsonian Inst, 12; Eastman visiting prof, Oxford, 37–38. Hopkins Cmn, Philippines, 99; U. S. Plague Cmn, 00; chairman fellowship board, Nat. Research Council; chairman, State Pub. Health Council N. Y, 23– Cameron prize, Edinburgh, 11; William Wood Gerhard medal, Path. Soc. Phila, 31. Trustee, Hopkins, 37–42. Nat. Acad; A.A. (v. pres, 01, pres, 20); Asn. Path. and Bact; Am. Physicians; Am. Med. Asn; Soc. Exp. Biol. (pres, 06); Harvey Soc. (pres, 10); Philos. Soc; Am. Acad; N. Y. Acad. Med; Royal Soc. London; hon. fel. Royal Soc. Med; Royal Soc. Trop. Med. and Hygiene; British Med. Asn; hon. mem. Med. Soc. Berlin; Halle Acad. der Naturforscher; for. assoc. Acad. nat. des Sci. Inst. de France; Paris Acad. Med; Soc. biol. de Paris; Soc. med. des Hôpitaux de Paris; Soc. de Path. exot; Reale Inst. Lombardo; Acad. royale de Med. de Belg; Soc. royale de Sci. med. Brussels; Soc. belge de Biol; Soc. belge de Med. trop; Imp. Inst. Exp. Therapy, Frankfurt; Bataafsch Genootschap de Profondervindelijke Wijsbegeerte, Rotterdam; Swedish Med. Soc; Copenhagen Med. Soc; hon. mem. Vienna Microbiol. Gesell; Gesell. der Ärzte in Wien; Caracas Acad. Med; Soc. Argentina de Biol; Bologna Medico-Chirurg. Soc; Micro-Biol. Soc. Leningrad; Royal Danish Sci. Soc; Soc. Med. quir. del Guyas, Guayaquil. Pathology of toxalbumin intoxication; biochemical constitution of snake venoms; experimental pancreatitis and fat necrosis; epidemic cerebrospinal meningitis and its serum treatment; cause, mode of transmission and serum treatment of poliomyelitis; experimental epidemiology; epidemic encephalitis; William Henry Welch.

Flexner, Prof. William W(elch), Cornell University, Ithaca, N. Y. *Mathematics.* New York, N. Y, Oct. 5, 04. B.S, Harvard, 26; A.M, Princeton, 27, Procter fellow, 28–29, Ph.D, 30. Research assoc. *math,* Princeton, 29–30, instr, 30–31; lecturer, Bryn Mawr Col, 31–32, assoc, 32–34; asst. prof, *Cornell,* 34–40, *assoc. prof, 40–* A.A; Math. Soc. Theory of determinants; topology.

Flexser, Dr. Leo A(aron), 1 DeWitt Road, Elizabeth, N. J. *Chemistry.* New York, N. Y, June 20, 10. A.B, Columbia, 31, A.M, 32, fellow, 34–35, Ph.D, 35. Asst. chem, Columbia, 31–34; *research chemist, Montrose Chem. Co, Newark, 35–,* plant supt, 36–38; *research chemist,* N. Y. Quinine and Chem. Co, Brooklyn, 38–41; *Hoffmann-La Roche, Inc, Nutley, N. J, 41–* Chem. Soc. Theory of acidity and measurement of acid and base strengths; ultra-violet spectrophotometric measurement of ionization; pharmaceutical chemicals; synthesis and manufacture of vitamins.

Flick, Fulton B(rooks), Brown, Critchlow and Flick, 1706 First National Bank Bldg, Pittsburgh, Pa. *Chemistry.* Dallas, Texas, Dec. 2, 95. B.S, Iowa State Col, 19, M.S, 21, Ch.E,

22; LL.B, 30. Asst. chem, Iowa State Col, 19–22; research chemist, Aluminum Co. of Amer, 22–27; chemist and patent attorney, Brown and Critchlow, 27–31, *partner, Brown, Critchlow and Flick, 32–* A.A; Ceramic Soc; Chem. Soc; Soc. Metals; Bar Asn. Metallography of aluminum and its light alloys; soldering aluminum; chemical and metallurgical patent causes.

Flick, Prof. Walter A, Box 652, Lexington, Va. *Psychology, Education.* Va, June 19, 95. A.B, Bridgewater Col, 22; A.M, Washington and Lee, 24; fellow, Ohio State, 27–28, Ph.D, 28. Teacher, pub. schs, Va, 16–21; prof. math, Shenandoah Junior Col, 21–23; from asst. to *prof. psychol. and educ. and head dept, Washington and Lee, 24–* Lecturer, exten. div, Virginia, 29– Summers, faculty, Emory, 29–35; Madison Col, 41– Va. Acad. Curriculum administration in higher education; influence of university life on students' attitudes towards the church.

Fliedner, Dr. Leonard J(ohn), 33–67 157th St, Flushing, N. Y. *Organic chemistry.* Brooklyn, N. Y, Sept. 3, 00. B.S, Col. City of N. Y, 22; A.M, Columbia, 24; Ph.D, Fordham, 31. Teacher, DeWitt Clinton High Sch, 23–29; Jamaica High Sch, 29–30; *head dept.* chem. and physics, George Washington High Sch, 30–34; *chem, physics and physiog, Flushing High Sch, 34–* Chem. Teachers' Club N. Y. (pres, 34). Nitration of disubstituted benzene derivatives with metallic nitrates; growth of crystals; tests in chemistry.

Flinn, Dr. Edwin S(tanley), 38 Lake View Drive, Moorestown, N. J. *Organic chemistry.* Boston, Mass, Sept. 11, 06. B.Ch.E, Northeastern, 28; Polytech. Hochschule, Zurich, 28; M.S, Pa. State Col, 35, Ph.D, 37. Chemist, A. C. Lawrence Leather Co, Mass, 28–29; chief chemist, Ashland Leather Co, Ky, 30–33; *research chemist and tech. rep, Röhm and Haas Co, 37–* Chem. Soc. High temperature catalytic depolymerization of triisobutylene; oxidation products of acenaphthene.

Flinn, Prof. Frederick B, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Physiology.* Reedsville, Pa, Sept. 16, 76. A.B, Hopkins, 00; Ph.D, Columbia, 23. Consulting metallurgist, Cia. Metal. Mexicana, 00–16; assoc. physiologist, U. S. Pub. Health Service, 19–24; asst. prof. physiol, *Columbia,* 24–28, assoc. prof, 28–37, *assoc. prof. indust. hygiene and head dept, 37–* Ed. indust. path. and hygiene sect, 'Biol. Abstracts.' A.A; fel. Pub. Health Asn. (director, indust. hygiene sect); Soc. Exp. Biol; Chem. Soc; fel. N. Y. Acad. Med; fel. N. Y. Acad. Effect of environmental temperature; fatigue; industrial toxicology.

Flinn, Helen Louise, Psychopathic Clinic, Recorder's Court, Clinton and St. Antoine St, Detroit, Mich. *Psychology.* Erie, Pa, Sept. 18, 96. Cornell, 16–17; Bryn Mawr Col, 17–18; A.B, Michigan, 20; A.M, Southern California, 24. Asst. psychol, Michigan, 19–20; psychiat. social worker, Wayne County Psychopathic Clinic, Detroit, 20–21; teaching fellow educ, Southern California, 22–23; educ. councilor, dept. psychol, pub. schs, Los Angeles, 23–25; *chief psychologist, Psychopathic Clinic, Recorder's Court, 25–* Summer, asst, Southern California, 25. A.A; assoc. Psychol. Asn; Asn. Social Workers; Statist. Asn; fel. Asn. Applied Psychol; Mich. Acad. Sociology; criminology.

Flint, Dr. Austin, Venice, Fla. and Millbrook, N. Y. *Medicine.* Ballston Spa, N. Y, 68. M.D, Bellevue Med. Col, 89; hon. A.M, Princeton, 93. Prof. obstet, N. Y. Univ, 95–32, emer. prof, 32–37; *retired.* Attending surgeon, Lying-in Hosp, 92–03; Bellevue Hosp, 95–25, consulting obstetrician, 25–; attending surgeon, Woman's Hosp, 07–18, consulting surgeon, 18–; attending surgeon, Manhattan Maternity Hosp, 07–32; consulting gynecologist, Newport Hosp, R. I, 02–; Hosp. for Ruptured and Crippled, 12–; consulting surgeon obstet. and gynec, Vassar Hosp, N. Y, 30– Am. Med. Asn; fel. Col. Surg; N. Y. Acad. Med; N. Y. Obstet. Soc. Obstetrics; gynecology.

Flint, Delos E(dward), U. S. Geological Survey, Washington, D. C. *Economic geology.* Pasadena, Calif, Dec. 5, 18. B.S, Calif. Inst. Tech, 39; M.S, Northwestern, 41. Teaching asst, Northwestern, 40–41; junior geologist, *U. S. Geol. Surv,* 41–42, *asst. geologist, 42–* Metamorphism and economic geology.

Flint, Dr. E(inar) P(hilip), 3755 Kanawha St, N. W, Washington, D. C. *Chemistry.* Wardner, Idaho, Aug. 10, 08. B.S, Washington (Seattle), 30; A.M, George Washington, 32; Ph.D, Maryland, 36. Junior chemist, *Bur. Standards,* 30–36. assoc. chemist, 36–41, *chemist, 41–* Chem. Soc. Cement; silicate chemistry; phase equilibria in oxide systems; hydrothermal synthesis; extraction of alumina from clay.

Flint, F(rancis) C(harles), 155 Le Moyne Ave, Washington, Pa. *Chemistry.* Chicago, Ill, Nov. 29, 90. B.S, Pomona Col, 15; California, 15–16. Instr. chem, Pomona Col, 16–17; E. I. du Pont de Nemours and Co, 17–19; *chief chemist and director research, Hazel-Atlas Glass Co, Wheeling, W. Va, 19–* Chem. Soc; fel. Ceramic Soc. (v. pres, 35, pres, 36, trustee, glass div, 23, chairman, 26, sec'y, 30); Chem. Eng; fel. British Soc. Glass Technol. (Am. treas, 26–). Glass formulas; refractories; feldspar.

Flint, Dr. Joseph Marshall, Care of Secretary's Office, Yale University, New Haven, Conn. *[1]*Anatomy, Surgery.* Chicago, Ill, July 8, 72. B.S, Chicago, 95; A.M, Princeton, 00; M.D, Hopkins, 00; hon. A.M, Yale, 07. Assoc. anat, Chicago, 00–01; prof, California, 01–07; surg, Yale, 07–21; *retired.* Research hypophyseal diabetes, med. clinic, Lausanne, 32–41. Summer, asst, Chicago, 97. Asst, Hopkins Med. Cmn. to Philippines, 99; acting asst. surgeon, Marine Hosp. Service, San Francisco, 01; attending surgeon, New Haven Hosp, 07–21; surgeon-in-chief, New Haven Dispensatory, 07–21. Ed, 'Am. Jour. Anat,' 04–07. Officier de l'Instruction pub, 19; citation for distinguished and meritorious services, U.S.A, 19, D.S. medal, 19. In command 6th surg. div, Arsakeion Hosp, Athens, Graeco-Bulgarian war; commanding officer, Hosp. 32, Chateau de Passy, France, 16; commanding officer, Mobile Hosp. 39, U.S.A, 17–19; liaison officer to French war office, U.S.A, 18. A.A; Asn. Anat. (v. pres, 04); fel. Col. Surg; Anthrop. Asn; Wash. Yellow Fever Inst; Manila Med. Soc; Wiener Physiol. Gesell. Suprarenal bodies; salivary glands; development of the blood vessels in organs; form of joint cavities; connective tissue; development of lung; intestinal anastomosis; hypertrophy of the intestine; healing of gastro-enterostomy; surgery of the lungs; empyema; stitch ulcers in gastro-intestinal surgery.

Flint, Prof. Lewis H(errick), Louisiana State University, Baton Rouge, La. *Plant physiology.* Milton, Vt, Feb. 5, 93. B.S, Vermont, 15, M.S, 16, Ph.D, 23. Instr. bot, Vermont, and asst. botanist, Exp. Sta, 15–23; asst. and assoc. plant physiologist, bur. plant indust, U. S. Dept. Agr, 23–36; plant physiologist, Boyce Thompson Inst, 36–37; *prof. bot, Louisiana, 37–* A.A; Bot. Soc; Soc. Plant Physiol; Phytopath. Soc. Paper mulch; electro-culture; hydration of ions; light-sensitive seed; quality of light and plant growth.

Flint, Prof. Richard Foster, Yale University, New Haven, Conn. *[1]*Geology.* Chicago, Ill, March 1, 02. B.S, Chicago, 22, Ph.D, 25. Asst. *geol,* Chicago, 22–25; instr, *Yale,* 25–28, asst. prof, 28–37, *assoc. prof, 37–; major, proving ground command, Air Corps, U. S. Army, 43–* Assoc. ed, 'Am. Jour. Sci,' 30– Chairman cmt. glacial map of N. Amer, Nat. Research Council. Mem, Boyd Arctic exped, 37. A.A; Geol. Soc; Am. Geog. Soc; Geophys. Union; cor. mem. Geol. Soc. Finland. Geomorphology; glacial geology.

Flint, Dr. Robert B(arnett), R. F. D. No. 2, Wilmington, Del. *Organic chemistry.* Salisbury, Conn, Oct. 5, 04. A.B, Yale, 27, Ph.D, 30. *Chemist, E. I. du Pont de Nemours and Co, Wilmington, 30–* Advisory councilor, biochem. research foundation, Franklin Inst. Chem. Soc. Ozonization of pyrimidines.

Flock, Dr. Eunice, Mayo Clinic, Rochester, Minn. *Physiological chemistry.* Kellogg, Idaho, Aug. 20, 04. B.S, Washington (Seattle), 26; M.S, Chicago, 31; fellow, Minnesota, 33–35, Ph.D, 35. Asst. physiol. chem, *Mayo Clinic,* 30–33, instr. exp. med, 36–39, *asst. prof. biochem, 39–* Soc. Biol. Chem; Chem. Soc. Phosphate compounds of liver and muscle; fat metabolism.

Flodin, John, Lidgerwood Mfg. Co, 775 Lidgerwood Ave, Elizabeth, N. J. *Mechanical engineering.* Helsingfors, Finland, July 3, 83. B.S, Washington (Seattle), 13, M.E, 19; A.M, Minnesota, 25, M.S, 28. Marine design, 13–23; asst. prof. mech. eng, Minnesota, 23–32; assoc. naval archit, U. S. Navy, 32–37, engineer, 37–39, senior mech. engineer, 39–41; *mem. staff, Lidgerwood Mfg. Co, 41–* Ship machinery.

Floe, Prof. Carl F(rederick), Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy.* Dawson, Yukon, Can, Jan. 1, 08. B.S, State Col. Wash, 30, M.S, 32; Sc.D, Mass. Inst. Tech, 35. Instr. metal. and metallog, State Col. Wash, 30–34, asst. prof, 35–36; metal, Notre Dame, 36–39; asst. prof. and later *assoc. prof. physical metal, Mass. Inst. Tech, 39–* Soc. Metals; Min. and Metal. Eng; British Inst. Metals; British Iron and Steel Inst. Non-ferrous metallurgy;

recovery of copper from concentrates by leaching; extraction of alumina from clays and magnesium from magnesite; production of sulfates from metallic oxides by baking with sulfuric acid; gas-metal reactions; nitriding of steel.

Flood, Dr. (Edward) Alison, Rockcliffe, Ottawa, Ont, Can. *Inorganic chemistry.* St. Johns, N. B, Jan. 26, 04. B.Sc, Mt. Allison, 25; M.S, Brown, 27, Ph.D, 30. Instr. chem, Vermont, 27–28; Brown, 30–35; *asst. research chemist, Nat. Research Lab, Can, 35–; lieut. col. and supt. research, Chem. Warfare Labs, Dept. Nat. Defence, Ottawa, Can. Army, 40–* A.A; Chem. Soc. Ethyl tin and ethyl germanium compounds; bromination reactions.

Flood, Dr. Merrill M(eeks), Princeton University, Princeton, N. J. *Mathematics.* Seward, Nebr, Nov. 28, 08. A.B, Nebraska, 29, A.M, 30; Ph.D, Princeton, 35. Instr. math, Nebraska, 29–31; asst, *Princeton,* 31–32, instr, 32–36, director statist. sect, survs, 36–40, *research assoc. math, 40–;* official investigator, Nat. Defense Research Cmt, 40–43; *tech. expert, ordnance dept, U. S. Army, 43–* Pub. finance consultant, Social Science Research Council, 36–37; tech. adviser to Governor, W. Va, 37–40; admin. consultant, grad. sch. educ, Harvard, 40. A.A; Statist. Asn; Econometric Soc; Math. Soc; Math. Asn; Inst. Math. Statist; Soc. Photogrammetry; Royal Econ. Soc. Algebra of matrices; mathematical statistics; applications of mathematics; mathematical economics; public finance.

Flor, Dr. H(arold) H(enry), North Dakota Agricultural College, Fargo, N. Dak. *Plant pathology.* St. Paul, Minn, May 27, 00. B.S, Minnesota, 22, M.S, 24, Ph.D, 29. Asst. plant pathologist, Louisiana, 26–29; assoc. pathologist, *bur. plant indust, U. S. Dept. Agr,* 29–36, *pathologist, 36–* A.A. Root diseases of sugar-cane; smut diseases of cereals; flax diseases.

Flora, Dr. Carroll C(ephas), Virginia Polytechnic Institute, Blacksburg, Va. *Dairy manufacturing.* Franklin Co, Va, March 21, 10. B.S, Va. Polytech, 33; M.S, Pa. State Col, 35, Ph.D, 38. Asst. dairy mfg, Pa. State Col, 36–38; *instr. dairying, Va. Polytech, 38–* Dairy Sci. Asn; Va. Acad. Digestibility of natural and processed soft curd milks.

Flora, Dr. Charles P(axson), 155 Church St, Watertown, Mass. *Industrial engineering.* Columbia, Pa, July 20, 78. A.B, Yale, 02, Ph.D, 05. Asst. instr, Kent chem. lab, Yale, 03–05; chemist, chem. engineer, production executive and *manager of standards and supt. salary admin, Hood Rubber Co, Watertown, 05–* Lecturer, Harvard; Mass. Inst. Tech; Boston; Northeastern. A.A; Soc. Adv. Management. Chemical estimation of cadmium; analysis of bronzes; commercial deresination of low-grade rubber; incentive systems of wage-payment; motion analysis.

Florell, Dr. V(ictor) H(omer), U. S. Department of Commerce, Washington, D. C. *Economics.* Kackley, Kans, Feb. 13, 85. B.S, Kans. State Col, 11, B.S. (Agr), 14; M.S, California, 23, Ph.D, 29. Supt, Cheyenne Exp. Sta, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 15–18, asst. agronomist, plant introd. sta, Chico, Calif, 18–21, assoc. agronomist, div. cereal crops and diseases, Davis, 21–28, Wash, D. C, 29–30, Moscow, Idaho, 30–33, seed stocks cmt, agr. adjust. admin, Minn, 34–35, soil conservation service, 35–40; *econ. analyst current mfrs. reports, U. S. Dept. Commerce, 42–* A.A; Soc. Agron. (sec'y, west. sect, 28). Agronomy and genetics.

Florence, Prof. Laura, New York Medical College, New York, N. Y. *Bacteriology.* Aberdeen, Scotland, June 17, 82. M.A, Aberdeen, 07, B.Sc, 09, Carnegie scholar, 09–11, fellow, 11–13, grantee, 13–14; A.M, Stanford, 16; Ph.D, Cornell, 20. Asst. biol. and entom, Cornell, 17–18; Rockefeller Inst, 18–22, assoc, 22–25; asst. prof. histol. and embryol, *N. Y. Med. Col,* 25–27, assoc. prof. *bacter,* 27–42, *prof, 42–* A.A; Soc. Parasitol; Soc. Exp. Biol; Soc. Trop. Med; Soc. Bact; Harvey Soc. Parasitology.

Florence, Dr. Robert T(hompson), 1610 Metropolitan Ave, Bronx, N. Y. *Chemistry.* Crecola, Okla, Jan. 20, 10. B.S, Oklahoma, 32, M.S, 34; Ph.D, Chicago, 38. Research fellow surface chem, Chicago, 39; *research chemist, Interchem. Corp.* Soc. Rheol; Chem. Soc. Physical and surface chemistry; monomolecular surface films; nonaqueous salt solutions.

Florestano, Dr. H(erbert) J(oseph), Pitman-Moore Co, Indianapolis, Ind. *Chemotherapy.* Annapolis, Md, July 23, 12. A.B, St. John's Col, 34; Georgetown, 35–36; M.S, Maryland, 37, Ph.D, 40. Research bacteriologist, Maryland, 37, teaching fellow bacter, 38, asst. bacteriologist, 38–40; *research bacteriologist,* chemotherapy, Am. Cyanamid Co, 41–43; *research div, Pitman-Moore Co, 43–* Research assoc, Fla. Citrus Cmn, 38–40. Soc. Bact. Bacteriology of intestine; acidophilus therapy; bacteriology of oral cavity; oral prophylaxis; dental caries; sulfonamides in chemotherapy.

Florio, Dr. Lloyd (Joseph), 4200 E. Ninth Ave, Denver, Colo. *Public health.* Batavia, N. Y, March 9, 10. A.B, Cornell, 31; M.D, Rochester, 35; Dr.P.H, Harvard, 41. Asst. director, Calhoun County Health Dept, W. K. Kellogg Foundation, 37–41; *assoc. prof. pub. health and lab. diagnosis, med. sch, Colorado, 41–* Summers, workshop, Michigan, 41. Fel. Pub. Health Asn; Am. Med. Asn. Maternal and child health preservation of human blood; etiology of Colorado tick fever.

Flory, Dr. Charles D(avid), 19 W. 44th St, New York, N. Y. *Clinical psychology, Educational psychology.* Nokesville, Va, Sept. 28, 02. A.B, Manchester Col, 24; A.M, Chicago, 28, Ph.D, 33. Teacher, high sch, Ind, 24–27; instr. educ, Park Col, 28–30; asst, lab. schs, Chicago, 30–31; Univ. Chicago, 31–33, Gen. Educ. Board fellow child develop, 34–35; asst. prof. and later prof. educ. and psychol, Lawrence Col, 35–43; *consulting psychologist, Stevenson, Jordan and Harrison, 43–* Summer, instr, Kans. State Teachers Col, Hays, 30; N. Texas State Teachers Col, Denton, 36, 37, 38, 40; Wisconsin, 41, 42. A.A; Soc. Research Child Develop; Nat. Soc. Col. Teachers Educ. Mental growth; physical growth; skeletal development; personality evaluations; school cumulative records; growth of mentally deficient children; child development.

Flory, Cha(rle)s H(enry), Soil Conservation Service, High Point, N. C. *Forestry.* York, Pa, Feb. 16, 98. B.S, Pa. State Col, 20. *Chief forester, soil conservation service, U. S. Dept. Agr, 34–* Soc. Foresters; N. C. Acad.

Flory, Dr. Curtis M, Cornell University Medical College, York Ave. and 68th St, New York, N. Y. *Pathology.* West Allis, Wis, Sept. 30, 13. B.S, Chicago, 35, M.D, 38, Ph.D, 40. Asst. *path,* Chicago, 38–41; *instr, med. col, Cornell, 42–* A.A; Asn. Cancer Research. Cancer.

Flory, Dr. Paul J(ohn), 32 Balmiere Parkway, Cranford, N. J. ***[7]***Physical chemistry.* Sterling, Ill, June 19, 10. B.S, Manchester Col, 31; M.S, Ohio State, 31, Ph.D, 34. *Research chemist,* exp. sta, E. I. du Pont de Nemours and Co, 34–38; basic science lab, Cincinnati, 38–40; *Esso labs, Standard Oil Develop. Co, 40–* Photochemistry; mechanism of polymerization; constitution of high polymers; viscosities of polymeric substances.

Flory, Dr. Walter S, Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Horticulture, Genetics.* Bridgewater, Va, Oct. 5, 07. A.B, Bridgewater Col, 28; A.M, Virginia, 29, Ph.D, 31. Research fellow, Blandy Exp. Farm, 28–31; in charge tech. work, Shaver Brothers, Inc, Fla, 31–32; instr. math. and chem, Greenbrier Junior Col, 32–34; prof. biol, Bridgewater Col, 34–35; nat. research fellow, Bussey Inst. and Arnold Arboretum, Harvard, 35–36; *horticulturist, Exp. Sta, Agr. and Mech. Col. Texas, 36–* A.A; Genetics Soc; Genetic Asn; Bot. Soc; Amaryllis Soc. Plant genetics and cytology; fruit, vegetable and ornamental plant breeding.

Flosdorf, Prof. Earl W(illiam), 305 Lincoln Ave, Lansdowne, Pa. *Chemistry, Biophysics.* Philadelphia, Pa, Jan. 27, 04. B.S, Wesleyan, 25, A.M, 26; A.M, Princeton, 28, Ph.D, 29. Asst. chem, Wesleyan, 24–26; instr, high sch, N. J, 26–28; asst. chem, Princeton, 28–29; instr, Haverford Col, 29–32; research assoc, *sch. med, Pennsylvania,* 32–35, nat. research fellow med, 33–34, assoc. *bacter,* 35–36, *asst. prof, 36–* Consulting chemist, 25–; chem. director, Bayuk Cigars, 28–; tutor, Hun Sch, 29; bact. chemist, U. S. Pub. Health Service, 40–41; sci. director, Lyophile-Cryochem Co, 41–; F. J. Stokes Machine Co, 41– A.A; Chem. Soc; Pub. Health Asn; Soc. Bact; Asn. Immunol; N. Y. Acad; Pa. Acad; Physiol. Soc. Phila. Surface catalysis; adsorbents; tobacco; qualitative analysis; protein fermentation; alkaloids; bacteriological chemistry; immunology; preservation of blood plasma, sera and bacteria; Lyophile, Cryochem and Desivac processes; chemical and biological action of sound of audible frequencies; antigenic structure of H. pertussis; skin test for susceptibility to and immunization against whooping cough.

Flower, Arthur H, 1927 Grand Ave, Dayton, Ohio. *Chemistry.* Akron, Ohio, Oct. 12, 82. B.S, Ohio State, 07, Ch.E,

35. Sanit. chemist, State Board Health, Ohio, 09–11; Columbus Filtration Plant, 11–17; research chemist and tech. supt, Falls Rubber Co, 17–26; *tech. director inland div, Gen. Motors Corp, Dayton, 26–* A.A; Chem. Soc; Soc. Test. Mat; Soc. Metals. Organic and inorganic accelerators in the vulcanization of rubber; sulfur determination in rubber compounds; rubber in the automotive industry.

Flower, Dr. Rousseau H, University of Cincinnati, Cincinnati, Ohio. *Geology, Paleontology.* Center Brunswick, N. Y, March 21, 13. A.B, Cornell, 34, A.M, 35; Indiana, 36–37; Ph.D, Cincinnati, 39. Temporary paleontologist, N. Y. State Museum, 38; *curator univ. museum, Cincinnati, 40–* A.A; Paleont. Soc; Paleont. Research Institution; Ohio Acad. Paleozoic paleontology and stratigraphy; taxonomy, morphology, phylogeny and ecology of Paleozoic Nautiloidea; Paleozoic plankton; graptolites.

Flowers, Dr. Alan E(stis), De Laval Separator Co, Poughkeepsie, N. Y. *Engineering.* St. Louis, Mo, Oct. 4, 76. M.E, Cornell, 02, M.M.E, 14, fellow, Ph.D, 15. Westinghouse Elec. and Mfg. Co, 03–04; instr. elec. eng, Missouri, 04–06, asst. prof, 06–12; prof, Ohio State, 12–18; test engineer, Nat. Aniline and Chem. Co, 19–22; manager, Chem. Machinery Construction Co, 22–23; *engineer in charge develop, De Laval Separator Co, 23–* Design office, Bullock Elec. Mfg. Co, 07; asst. supt. light and heat sta, Missouri, 08–; engineer, Telluride Power Co, 09; protective apparatus lab, Gen. Elec. Co, 12–14. Asst. ed, 'Elec. Jour,' 04. Mem. conf. insulation, Nat. Research Council. Capt, Sig.C, 18–19. Elec. Eng; Mech. Eng. (special research cmt. lubrication, 16–, chairman, 30–36); Physical Soc; Soc. Test. Mat. (chairman subcmt. sampling and gaging of petrol. products and lubricants); Soc. Metals. Solid contact rectifiers; oil friction testing machines; ball and slanted tube viscosimeter; lubrication; centrifugal separators.

Flowers, Dr. John W(ilson), Box 661, Ft. Lauderdale, Fla. *Physics.* Memphis, Tenn, Aug. 20, 10. B.S, Southwestern (Tenn), 31; Service fellow, Virginia, 31–35, M.S, 33, Ph.D, 35. Asst. physics, Southwestern (Tenn), 29–31; asst. elec. eng, Columbia, 35–37; *research asst, high voltage eng. lab, Gen. Elec. Co, 37–* A.A; Physical Soc. Spark discharges; high speed oscillographic development; transients; high voltage; high current phenomena; lightning.

Flowers, Dr. Ralph G(rant), 61 Bartlett Ave, Pittsfield, Mass. *Physical chemistry.* North Platte, Nebr, April 15, 15. A.B, West Virginia, 38, fellow, 38–39, M.S, 39; Ph.D, N. Y. Univ, 42. Teaching fellow, N. Y. Univ, 39–41; asst, Nat. Defense Research Cmt, Columbia, 41–42; *research chemist, Gen. Elec. Co, 42–* Chem. Soc. Photolysis of azomethane in the presence of hydrogen.

Flowers, Pres. R(obert) L(ee), Duke University, Durham, N. C. *Mathematics.* York Collegiate Institute, N. C, Nov. 6, 70. Grad, U. S. Naval Acad, 91; A.M, Trinity Col. (N.C), 00; LL.D, Davidson Col, 27, North Carolina, 42. Instr. math, Trinity Col. (N.C), 91–92, prof, 92–94, *Duke,* 24–34, sec'y-treas. and v. pres. in charge business div, 24–41, *pres, 41–* Sec'y corp, Duke, 10–, treas, 23–, trustee, Duke, 27, Duke endowment, 26–; Oxford Orphanage; Methodist Orphanage; Greensboro Col; chairman board trustees, N. C. Col. Negroes.

Flowers, Prof. Seville, University of Utah, Salt Lake City, Utah. *Botany.* Salt Lake City, Utah, Jan. 14, 00. A.B, Utah, 25; A.M, Brigham Young, 26; Ph.D, Chicago, 32. Teacher, high sch, Utah, 25–36; instr. and later *asst. prof. bot, Utah, 36–* Bryophytes; morphology; ecology.

Floyd, B(ayard) F(ranklin), Wilson and Toomer Fertilizer Co, Davenport, Fla. *Botany.* Kempton, Ind, March 18, 82. A.B, Indiana, 05; A.M, Missouri, 07. Asst. bot, Missouri, 05–07; plant physiologist, Exp. Sta, Florida, 07–20; *v. pres. and horticulturist, Wilson and Toomer Fertilizer Co, 20–* Research advisory cmt, Fla. Citrus Cmn, 41– A.A; Soc. Plant Physiol; Chem. Soc; Fla. Hort. Soc. (sec'y, 17–). Plant physiology; normal nutrition and malnutrition in tropical and subtropical plants; fertilizers for citrus trees and subtropical fruits; plant food deficiencies.

Floyd, Dr. Cleaveland, 246 Marlborough St, Boston, Mass. *Medicine.* Providence, R. I, Oct, 80. M.D, Harvard, 03; hon. Sc.D, Norwich, 35. *Physician in chief, div. tuber, Health Dept, Boston, Mass.* Consultant, Boston Lying-in Hosp. A.A; Am. Med. Asn; Asn. Immunol; Clin. and Climat. Asn; Asn. Path. and Bact. Bacteriology; tuberculosis.

Floyd, Prof. H(omer) H(arold), Alabama State Teachers College, Florence, Ala. *General science.* Whitesboro, Texas, Dec. 1, 91. B.S, George Peabody Col, 25, A.M, 27, Ph.D, 35; Texas, 33–34. Head dept. *science,* high sch, Texas, 20–27; assoc. prof. and *prof. and head dept, Ala. State Teachers Col, 27–* Soil survey of western Texas; individual differences in gustation.

Floyd, Prof. Lucius P(erry), Teachers College Station, Denton, Texas. *Chemistry.* Whitesboro, Texas, Oct. 16, 80. B.S, George Peabody Col, 18; M.S, Chicago, 23, 29–30, 31–32. Director training sch, *N. Texas State Teachers Col, Denton,* 14–17, *assoc. prof. chem, 19–,* chairman dept, 41–42. Critic teacher, George Peabody Col, 17–18. A.A; Chem. Soc; Texas Acad. Organic acids in vegetables; changes in the teaching of chemistry; high school chemistry.

Floyd, Prof. W(ilbur) L(eonidas), 635 E. Main St, N, Gainesville, Fla. *Horticulture.* Nichols, S. C, April 6, 66. B.S, The Citadel, 86; M.S, Florida, 06. Prof. nat. science, E. Fla. Sem, 92–05; bot. and hort, *Florida,* 05–15, *hort,* 15–38, *emer. prof, 38–,* asst. dean *col. agr,* 15–38, *emer. asst. dean, 38–* Soc. Hort. Sci; Fla. Hort. Soc. Avocado culture; deciduous fruits and peach growing in Florida; rose growing and breeding.

Floyd, Prof. W(illis) W(aldo), Sam Houston State Teachers College, Huntsville, Texas. *Organic and physical chemistry.* Whitesboro, Texas, Aug. 2, 03. A.B, N. Texas State Teachers Col, 25; A.M, Texas, 28; fellow, Iowa, 30–31, Ph.D, 31. Instr, high sch, Texas, 25–26; tutor chem, Texas, 26–29; asst, Iowa, 29–30; prof. and head dept, Ottawa (Kans), 31–36; prof. physics and chem. and head dept. physics, *Sam Houston State Teachers Col,* 36–41, *prof. chem, 41–* Am. Petrol. Inst. asst, Texas, 27–28. Texas Acad. Sci. Research fellow, 39–41. A.A; Chem. Soc; fel. Inst. Chem; Texas Acad. (v. pres, physical sciences sect, 39); Kans. Acad. (chairman, chem. sect, 32, assoc. ed, 'Trans,' 35–). Petroleum nitrogen bases; physical chemistry of sucrose solutions undergoing acid inversion; activity of organic radicals; chemical education; effect of boiling, canning, baking and dehydrating on vitamin C losses of vegetables; cellulose, oil and bast fiber yields from castor beans.

Fluevog, Dr. Edwin A, E. I. du Pont de Nemours and Co, Flint, Mich. *Chemistry.* Barton, N. Dak, March 4, 04. A.B. and B.S, North Dakota, 26; M.S, Nebraska, 28, Ph.D, 30. Teaching fellow, Nebraska, 26–30; *research chemist, E. I. du Pont de Nemours and Co, 30–, research supervisor, 36–* A.A; Chem. Soc. Nitrogen, organic and colloid chemistry; chemistry of carbohydrates; paint, lacquer and varnish; synthetic resins.

Fluhmann, Dr. C. F(rederic), Stanford University Hospital, San Francisco, Calif. *Obstetrics, Gynecology.* Roberval, Que, Can, Nov. 25, 98. B.A, Bishop's Col. (Can), 17; M.D, McGill, 22. Intern, Montreal Gen. Hosp, 22–24; Hopkins Hosp, 24–25; instr. *obstet. and gynec, sch. med, Stanford,* 25–26, asst. prof, 26–27, *assoc. prof,* 27– A.A; Gynec. Soc; Am. Med. Asn; Soc. Exp. Biol; Pacific Coast Obstet. and Gynec. Soc; Calif. Acad. Med. Cancer and reticulo-endothelial cells of the uterus; pathology of female pelvic organs; etiology of uterine bleeding; inter-relationship of anterior hypophysis and ovaries; ovarian and anterior pituitary sex hormones in the blood of patients.

Fluke, Prof. C(harles) L(ewis), Jr, University of Wisconsin, Madison, Wis. *Entomology.* Grand Junction, Colo, Aug. 7, 91. B.S, Colo. Agr. Col, 16; M.S, Wisconsin, 18, Ph.D, 28. Deputy, Colo. Agr. Col, 16; from asst. prof. to *prof. entom, Wisconsin, 16–, head dept, 42–* Entom. Soc. Amer; Asn. Econ. Entom; Wis. Acad. Economic and systematic entomology; Syrphidae; white grubs; apple maggot; cherry insects.

Fly, Dr. Claude L(ee), Soil Conservation Service, Lincoln, Nebr. *Chemistry.* Fulbright, Texas, June 23, 05. B.S, Okla. Agr. and Mech. Col, 27, M.S, 28; Ph.D, Iowa State Col, 31. Teaching fellow, Okla. Agr. and Mech. Col, 27–28; Iowa State Col, 28–31; prof. chem. and head dept. science, Panhandle Agr. and Mech. Col, 31–35; assoc. soil scientist, *soil conservation service, U. S. Dept. Agr,* 35–38, *soil scientist, 38–* Chem. Soc; Soil Sci. Soc; Texas Acad. Inter-relationships of iron, manganese and organic matter in nutrient solutions; commercial utilization of plant residues; chemical and physical properties of dust and wind-eroded soils; soil and water conservation problem areas; physical land surveys.

Flynn, Prof. A(rthur) E(iward), Nova Scotia Technical College, Halifax, N. S, Can. *Mining.* London, Eng, Oct. 29,

90. A.R.S.M, D.I.C, London, 12. Mining engineer, Cobalt, Ont, 12–15; instr. mining, Haileybury Sch. Mines, Ont, 15–18; mine manager, Goudreau, Ont, 18–20; *prof. mining, N. S. Tech. Col, 21–* Develop. engineer, N. S, 25–31. Trustee, Fletcher Mem. Fund, 35–; mem, Advisory Board for Mineral Develop, N. S; board governors, N. S. Tech. Col. Min. and Metal. Eng; Min. Soc. N. S. (past pres); Eng. Inst. Can; Asn. Professional Eng, N. S; Inst. Min. and Metal. Eng. Gt. Britain. Development and utilization of mineral resources.

Flynn, Dr. Carl M(unro), University of Maine, Orono, Maine. *Zoology.* New Haven, Conn, Feb. 26, 07. A.B, Maine, 30; A.M, Wesleyan, 32; A.M, Harvard, 39, Ph.D, 40. Asst. zool, Maine, 29–30, instr, 33–36; asst. biol, Wesleyan, 30–32; Radcliffe Col, 37–39; *instr,* Suffolk, 39–40; *zool, Maine, 40–* Summers, asst, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–31, Marine Biol. Lab, Woods Hole, 35–36. A.A; Soc. Zool. Germ cell cycle; enzymes in chicken embryo.

Flynn, Dr. Charles W(atts), 425 Medical Arts Bldg, Dallas, Texas. *Surgery.* Baton Rouge, La, March 28, 84. B.S, Louisiana, 05; M.D, Pennsylvania, 11. Intern, St. Francis Hosp, 11–12, res. gynec, 12–13; instr. surg, *col. med, Baylor,* 13–17, assoc. prof, 17–27, *prof. clin. surg, 27–, director dept. surg, 35–* Surgeon, Baylor, St. Paul's, Methodist and Med. Arts Hosps. Fel. Col. Surg; Am. Med. Asn; S. Surg. Asn. (v. pres); Texas Surg. Soc. (pres, 35). Gynecology.

Flynn, Dr. John E(dward), 153 Wellington Road, Upper Darby, Pa. *Plant pathology.* Friendsville, Pa, Aug. 19, 97. B.S, Pa. State Col, 22; M.S, Maryland, 24; Ph.D, Cornell, 29. Asst. bot, Maryland, 22–24; instr. mycol, Cornell, 24–26, plant path, 26–28; asst. ed, '*Biol. Abstracts,*' 29–37, acting ed, 37–38, *editor in chief, 38–* A.A; Phytopath. Soc. Biology; mycology.

Foà, Dr. Piero P(io), University Hospital, Ann Arbor, Mich. *Experimental medicine.* Torino, Italy, April 13, 11. M.D, Royal Univ. Milan, 34, Ph.D, 38. Instr. biochem, Royal Univ. Milan, 34–36; asst. prof. physiol, Royal Univ. Pavia, 36–38; *research fellow med, Michigan, 39–* A.A. Arterial hypertension; vitamin B; metabolism.

Foard, Prof. Castle W(esley), 345 Potomac Ave, Youngstown, Ohio. *Physics.* Winfield, Kans, July 11, 97. A.B, Fairmount Col, 21; M.S, Kentucky, 23; Ph.D, Iowa, 30. *Prof.* physics, Lombard Col, 23–28; Sterling Col, 29–30; *math. and physics, Youngstown Col, 30–, coordinator, Civilian Pilot Training.* A.A; Math. Asn; Mech. Eng. Inelastic impacts of electrons with atoms.

Focht, Prof. John A(rnold), University of Texas, Austin, Texas. *Civil engineering.* Sweetwater, Texas, Feb. 15, 94. C.E, Texas, 14, M.S, 29. Engineer, Rockwall Co, Texas, 19–23, Nolan Co, 24–26; *prof. highway eng, Texas, 26–* Civil Eng. (pres, Texas sect, 35, sec'y-treas, 38–). Concrete pavements; soil stabilization.

Focke, Dr. Alfred B(osworth), 92 Savoy St, Providence, R. I. *Physics.* Cleveland, Ohio, Sept. 30, 06. B.S, Case, 28; Ph.D, Calif. Inst. Tech, 32. Fellow, Calif. Inst. Tech, 32–33; nat. research fellow, Yale, 33–34; instr. *physics, Brown,* 34–38, *asst. prof, 38–; physicist, bur. ordnance, U. S. Navy Dept, 40–* Special lecturer, R. I. State Col, 35–36. Summer, instr, Case, 28. A.A; fel. Physical Soc; Acoustical Soc. Electric and magnetic properties, distribution of impurities in metal single crystals; acoustics; supersonics.

Focke, Dr. Arthur E(ldridge), 5262 Kenwood St, Indianapolis, Ind. *Metallurgy.* Cleveland, Ohio, June 17, 04. B.Met.E, Ohio State, 25, M.S, 26, Ph.D, 28. Metallurgist, Cleveland wire div, Gen. Elec. Co, 27–29; chief engineer, P. R. Mallory and Co, 29–30; *research metallurgist, Diamond Chain and Mfg. Co, 30–* Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Iron and Steel Inst. Gt. Britain. Factors influencing the quality of tungsten incandescent lamp filaments; heat treating of steel; fatigue of metals; metallurgical education.

Focke, Dean Theo(dore) M(oses), Case School of Applied Science, Cleveland, Ohio. *Mathematical physics.* Massillon, Ohio, Jan. 3, 71. B.S, Case, 92; Ph.D, Göttingen, 98. Instr. math, Case, 92–93; physics, Oberlin Col, 93–96; *math, Case,* 98–02, asst. prof, 02–08, *Kerr prof, 08–, dean, 18–* A.A; Math. Soc; Math. Asn; Eng. Educ. Heat conductivity; coefficient of expansion; alloys of nickel and cast iron; heat conductivity of fire bricks; prediction of college success.

Foering, Dr. Louise, Russell Sage College, Troy, N. Y. *Physical chemistry.* Bethlehem, Pa, Nov. 27, 04. B.S, Simmons Col, 26; Ph.D, Yale, 37. *Instr. chem, Russell Sage Col, 41–* Chem. Soc. Theoretical electrochemistry.

Foerster, Dr. R(ussell) E(arle), Pacific Biological Station, Nanaimo, B. C, Can. *Biology.* Neepawa, Man, May 29, 99. B.A, British Columbia, 21, Nat. Research Council Can. bursar, 21–22, M.A, 22, Nat. Research Council Can. student, 22–23; Ph.D, Toronto, 24. Biol. Board Can, 24–31, chief biologist, 32–38; senior scientist, Int. Pacific Salmon Fisheries Cmn, 38–40; *director, Biol. Board Can, 40–* Fisheries and fish culture; coelenterates; Hydromedusae; Pisces; life history, propagation and ecology of sockeye salmon.

Fogelberg, Dr. Alma, George Washington University School of Medicine, Washington, D. C. *Physiology.* Hamilton, Mont, Aug. 9, 09. B.S, Chicago, 30, M.S, 32, Ph.D, 36. *Instr.* biol, Augustana Col, 33–34; *physiol, sch. med, George Washington, 34–* Soc. Exp. Biol. Parathyroid; bulbocapnine katatonia; hypertension.

Fogelberg, Dr. John M(arshall), 505 University Ave, Rochester, N. Y. *Chemistry.* South Range, Wis, July 24, 06. B.S, Wisconsin, 28, Ph.D, 31. *Research chemist, R. T. French Co, Rochester, 32–;* Chem. Warfare Service, U. S. Army, 41; *lieut, U. S. Naval Reserve, 42–* Summers, research chemist, Bur. Fisheries, 28, 29. Chem. Soc. Electric moments; molecular structure; fish net preservation.

Fogg, Prof. H(eman) C(harles), Bagdad Road, Durham, N. H. *Chemistry.* Bridgewater, Vt, Aug. 23, 94. B.S, New Hampshire, 18, M.S, 20; Ph.D, Michigan, 33. Instr. *chem, New Hampshire,* 22–27, asst. prof, 27–36, *assoc. prof, 36–* Chem. Soc. Rare elements, especially the rare earths.

Fogg, Dean John M(ilton), Jr, University of Pennsylvania, Philadelphia, Pa. *Botany.* Philadelphia, Pa, Nov. 8, 98. B.S, Pennsylvania, 25; Ph.D, Harvard, 29. Jessup fellow, Acad. Nat. Sciences Phila, 21–22; *curator herbarium, Pennsylvania, 22–,* instr. *bot,* 25–32, asst. prof, 32–41, *assoc. prof, 41–, dean col. arts and sciences, 41–* Mem, Gray Herbarium exped, Newfoundland, 26, 29. Del, Int. Bot. Cong, Cambridge, England, 30. A.A; Bot. Soc; Torrey Bot. Club; New Eng. Bot. Club; Bot. Soc. Pa. (sec'y, 29); Pa. Acad; Phila. Bot. Club (sec'y, 24, pres, 26, 34–); Acad. Nat. Sci. Phila. (mem, advisory editorial cmt); Sigma Xi (treas, 35–38). Flora of Pennsylvania, Virginia, New Jersey and Atlantic coastal plain; families of flowering plants; plant geography.

Fogg, Dr. L(loyd) C(larke), 17 Glenwood Ave, Newton Center, Mass. *Zoology.* Canaan, N. H, April 10, 99. B.S, Dartmouth Col, 22, M.S, 24; Ph.D, Columbia, 31. Asst. *zool,* Dartmouth Col, 20–23, instr, 23–24; Wash. Sq. Col, N. Y. Univ, 24–31, asst. sec'y, 28–31; *cytologist, U. S. Pub. Health Service, 32–;* research fellow, Harvard Med. Sch, 32–37; assoc. prof. zool, New Hampshire, 37–40; *asst. prof. histol, med. sch, Boston, 40–* A.A; Soc. Zool; Asn. Anat. Biology; cytology; chromatin diminution; history of the centriole; tissue culture; Golgi mitochondria in radiated tumor; cytologic aspects of therapeutic radiation; colchicine on stomach epithelium.

Fogle, Dr. Marlin E(arnest), 38 Beechwood Place, Hillside, N. J. *Chemistry.* Diagonal, Iowa, July 26, 07. B.S, Iowa, 29, M.S, 30; Lydia Roberts fellow, Columbia, 31, Weston fellow, 32–33, Ph.D, 34. Develop. research, West. Elec. Co, Hawthorne, Ill, 29; du Pont Rayon Co, Buffalo, N. Y, 30; *head photronic develop. research div, Weston Elec. Instrument Corp, 33–* Mem, Intersoc. Color Council. Chem. Soc; Electrochem. Soc. Use of photoelectric cells in chemical processes; color measurements of reflected and transmitted light; photronic light measuring devices such as automobile headlamp testers and illumination meters.

Fogler, Dr. Mayor F(arthing), Solvay Process Co, Hopewell, Va. *Chemistry.* Loogootee, Ill, Nov. 15, 96. B.S, Illinois, 20, M.S, 21, Ph.D, 23. Develop. engineer, West. Elec. Co, Chicago, 23–25; assoc. chem, fixed nitrogen research lab, U. S. Dept. Agr, 25–26; research chemist, asst. gen. supt. and asst. to gen. manager, Atmospheric Nitrogen Corp, Hopewell, Va, 26–35, asst. to director develop, *nitrogen div, Solvay Process Co,* 35–40, *director develop, 40–, asst. to v. pres, 41–* Chem. Soc. Physical properties of metals; oxides of nitrogen; nitric acid; nitrates.

Foglesong, Prof. John E(dward), University of Mississippi, University, Miss. *Chemistry.* Lucerne, Ind, July 20, 85. A.B, Wabash Col, 10; A.M, Ohio State, 12; Ph.D, Cornell, 19.

Commercial chemist, 12–16; asst. chem, Cornell, 16–17, instr, 17–19; research chemist, Barrett Co, 19–21; asst. prof. *chem*, Univ. of the South, 21–22, assoc. prof, 22–23; asst. prof, Trinity Col. (Conn), 23–28; *assoc. prof, Mississippi, 28–* Chem. Soc. Analytical chemistry.

Fohrman, M(ilton) H(enry), U. S. Department of Agriculture, Washington, D. C. *Dairy husbandry.* St. Louis, Mo, June 27, 86. B.S, Missouri, 17, A.M, 19. Assoc. prof. dairy husbandry, Minnesota, 20–21; dairy husbandman and *senior dairy husbandman, bur. dairy indust, U. S. Dept. Agr, 21–* Breeding of dairy cattle; genetics; inheritance, milk and butterfat and size in dairy cattle.

Fohs, F(erdinand) Julius, 183 Madison Ave, New York, N. Y. or Esperson Bldg, Houston, Texas. *Geology.* New York, N. Y, March 1, 84. Columbia, 09. Mine supt, Ky, 01; asst. field geologist, U. S. Geol. Surv, 02; engineer in charge mines, Ky, 02–05, asst. state geologist, 05–12; *consulting geologist and exec, various oil companies, 12–; pres, Fohs Oil Co, 32–* Lecturer, Kentucky, 06–08; Columbia, 27. Investigator nat. resources, Palestine, 19–20, water resources, 30, 36, 37. A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. (past chairman, petrol. div, past v. pres. and director, 27–30); N. Y. Eng. Club. Mineral resources; oil fields.

Folch-Pi, Dr. J(ordi), Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Biochemistry.* Barcelona, Spain, March 25, 11. M.D, Barcelona, 32. Intern physiol, med. col, Barcelona, 31–33, asst. res. physician, 33–35; vol. worker biochem, *Rockefeller Inst*, 35–37, asst. *chem*, 37–42, *assoc, 42–* Fellow, Rockefeller Foundation, 36–37. Lieut, M.C, Spanish Army, 34. Soc. Biol. Chem; Harvey Soc. Lipid, blood, and brain chemistry.

Foley, Prof. Arthur L(ee), 744 E. Third St, Bloomington, Ind. *†*Physics.* Hancock Co, Ind, Feb. 22, 67. Cent. Nor. Col, 82–84; Hayward, 86–87; A.B, Indiana, 90, A.M, 91; Chicago, 94; fellow, Cornell, 96–97, Ph.D, 97; Europe, 08. Teacher, pub. schs, 84–86, 87–88; instr. *physics, Indiana*, 90–91, assoc. prof, 91–97, prof. and head dept, 97–37, *emer. prof, 37–*, engineer, 98–28. Research prof, Waterman Inst, Indiana, 17–25; director research physics, Affiliated Cols. of Ind, 17–25; chairman, Bur. Science Service, 27–32. Acoustic cmt, Nat. Research Council, 19–21; cooperating expert, Int. Critical Tables. Chairman research cmt, State Council Defense, Ind, 15–18; director, U. S. Radio Sch, Indiana, 18. A.A; fel. Physical Soc; fel. Acoustical Soc; Asn. Physics Teachers; fel. Ind. Acad. (pres, 09, ed, 'Proc,' 12, chairman, research cmt, 23–); Sigma Xi (pres, 32). Surface tension; arc spectra; interference and diffraction; photographic studies of sound waves and electric sparks; velocity of sound; locomotive whistles; acoustic horns; microphones; architectural acoustics.

Foley, Dr. Frank C(lingan), care of State Engineer's Office, State Capitol, Cheyenne, Wyo. *Geology.* Belleville, Ont, Can, Aug. 8, 06. B.A, Toronto, 29; Ph.D, Princeton, 38. Instr. *geol*, Dartmouth Col, 29–30; asst, Princeton, 30–33; instr, North Dakota, 33–35, asst. prof. and prof, 35–41; *asst. geologist, U. S. Geol. Surv, 41–* Acting state geologist, N. Dak, 35–36, asst. state geologist, 36–38, state geologist, 38–41. Asst. on field parties, Geol. Surv. Can. Summer, chief field party, Newfoundland Geol. Surv, 36. Min. and Metal. Eng; Geophys. Union. Spectrographic and x-ray work on minerals; ground water in North Dakota, Utah and Wyoming. Precambrian of Newfoundland.

Foley, Prof. James Owen, University, Ala. *Anatomy.* Erie, Kans, March 1, 97. Ph.G, B.S, Oregon Col, 19, Ph.C, M.S, 21; Ph.D, Wisconsin, 25. Asst. zool, Oregon Col, 19–21; Wisconsin, 21–25; instr. micros. anat, *sch. med*, Tulane, 25–28, asst. prof, 28–30; *anat, Alabama*, 30–34, *assoc. prof, 34–* Rockefeller fellow, Cornell, 38. Asn. Anat; Soc. Exp. Biol. Microscopic and gross anatomy; neuroanatomy; cytology of cranial nerves; stain technology.

Foley, Dr. John P(orter), Jr, George Washington University, Washington, D. C. *Psychology.* Bloomington, Ind, May 16, 10. A.B, Indiana, 31; A.M, Columbia, 32, Ph.D, 35. Asst. exp. psychol, Indiana, 28–31; psychol, Barnard Col, Columbia, 31–32, comp. psychol, Columbia, 32–34, research assoc. psychol. and anthrop, 34–36; instr. *psychol, George Washington*, 36–37, *asst. prof, 37–* Lecturer, Barnard Col, Columbia, 33–34. Mem, Am-Russian Psychol. Cmt. A.A; Psychol. Asn; Anthrop. Asn; Ethnol. Soc; N. Y. Acad. Comparative psychology; behavior of primates; conditioning; human perception; emotional expression; esthetics; systematic psychology.

Foley, Lyndon L(yman), 429 N. Tacoma Ave, Tulsa, Okla. *Geology.* Racine, Minn, Aug. 19, 96. E.M, Minnesota, 18. Trinidad Petrol. Develop. Co, Ltd, 19–22; various positions, 22–26; Ohio Oil Co, 26–37; *consulting petrol. engineer and geologist, 37–* A.A; fel. Geol. Soc; Asn. Petrol. Geol; Geophys. Union; Petrol. Inst; Min. and Metal. Eng. Petroleum production engineering and geology; origin of geologic structures.

Folger, Prof. H(arry) T(homas), Fisk University, Nashville, Tenn. *Zoology.* Columbus, Ind, Feb. 12, 88. A.B, Indiana, 17; Ph.D, Hopkins, 22. Instr, Michigan, 22–28; *research prof. biol, Fisk, 28–* A.A; Soc. Zool. Reactions of organisms to light, mechanical shock and electricity; acclimatization of organisms to simple organic poisons.

Folinsbee, Dr. R(obert) E(dward), Geological Survey of Canada, Ottawa, Ont, Can. *Applied petrology, Mineralogy.* Edmonton, Alta, April 16, 17. B.Sc, Alberta, 38; M.S, Minnesota, 40, Ph.D, 42. Asst. geologist, Geol. Surv. Can, 41–43; *Royal Can. Air Force, 43–* Miner. Soc. Economic geology

Folk, Prof. Samuel B(yron), 1507 Cardiff Road, Columbus, Ohio. *Engineering.* Marion, Ohio, Oct. 18, 97. B.C.E, Ohio State, 20; M.S. (C.E), Case, 23; Michigan. Asst. astron, Ohio State, 18–19, instr. civil eng, 19–20; mech. and hydraul, Case, 20–24; civil eng, N. Dak. Col, 24–26; asst. prof. *mech, Ohio State*, 26–34, assoc. prof, 34–42, *prof, 42–* Senior inspector, State Highway Dept, Pa, 26. A.A; Civil Eng; Eng Educ. Theoretical mechanics; strength of materials.

Folkers, Dr. Karl (August), 617 Belvidere Ave, Plainfield, N. J. *†*Chemistry.* Decatur, Ill, Sept. 1, 06. B.S, Illinois, 28; Ph.D, Wisconsin, 31. Fellow, Yale, 31–34; *lab. pure research, Merck and Co, Inc, Rahway, N. J*, 34–38, *asst. director research, 38–* Summers, chemist, Sherwin-Williams Co, Chicago, 28; Commercial Solvents Corp, Terre Haute, Ind, 30; Merck and Co, Inc, Rahway, 33. Co-recipient Mead Johnson and Co. award, 40; Am. Chem. Soc. award, 41. A.A; Chem. Soc; N. Y. Acad. Reactions of aldehydes and alcohols over oxide catalysts; catalytic hydrogenation under elevated temperatures and pressures of esters to alcohols and of cyclic ureides; pyrimidine and morphine derivatives; isolation and synthesis of vitamin B_6; synthesis of pantothenic acid and biotin; isolation and structure of Erythrina alkaloids.

Follansbee, Robert, 230 Custom House, Denver, Colo. *Engineering.* Minneapolis, Minn, June 7, 79. C.E, Cornell, 02. *U. S. Geol. Surv, 04–, dist. engineer in charge surface water investigations, 06–* Fed. rep, Wyo-Idaho Boundary Cmn, 31. Civil Eng. Hydraulic engineering; Rocky Mountain region surface water supply, annual run-off, floods and evaporation.

Folley, Prof. K(arl) W(ilmot), 19230 Gainsborough Road, Detroit, Mich. *Mathematics.* Elgin, Man, Can, April 24, 05. B.Sc, M.Sc; Ph.D, Toronto, 28. Teaching fellow, Toronto, 26–28; asst. prof. *math*, Trinity Col. (Conn), 28–29; instr, Col. City of Detroit, 29–30, asst. prof, 30–33, *Wayne*, 33–38, *assoc. prof, 38–* Math. Soc; Math. Asn.

Folsom, Dr. Donald, Orono, Maine. *Plant pathology.* Henderson, Iowa, Oct. 23, 91. A.B, Nebraska, 12; A.M, Minnesota, 14, Ph.D, 17. Asst. bot, Minnesota, 12–17; instr. bot. and plant path, N. C. State Col, 17–18; asst. plant pathologist, *Exp. Sta, Maine*, 18–20, assoc. plant pathologist, 20–23, *chief plant pathologist, 23–* A.A; Bot. Soc; Phytopath. Soc; Potato Asn; Can. Phytopath. Soc. Potato, apple and virus diseases.

Folsom, Prof. Joseph K(irk), Vassar College, Poughkeepsie, N. Y. *Sociology, Psychology.* Poundridge, N. Y, Sept. 29, 93. B.S, Rutgers, 13; A.M, Clark, 15; Ph.D, Columbia, 17. Instr. physics, St. Lawrence, 14; asst. prof. social econ, Pittsburgh, 19–20; econ, Dartmouth Col, 22–24; *prof.* econ. and sociol, Sweet Briar Col, 24–31; *sociol, Vassar Col, 31–* Regional educ. director, Y.M.C.A, Czechoslovakia, 20–21; visiting prof, Columbia, 40–41. Summers, Boston, 24; N. C. Col. for Women, 26, 28; New Hampshire, 29; George Washington, 30; Virginia, 31; Harvard, 32; N. Y. State College for Teachers, Albany, 33, 34; Minnesota, 40. Ed, 'Am. Sociol. Rev.' Cmt. food habits, Nat. Research Council. Psychol. examiner, U.S.A, 18–19; collaborator social econ, Czechoslovakian Govt. Eugenics Soc. (director); Nat. Council Parent Educ. (chairman); Sociol. Research Asn. Personality, social interaction and cultural patterns, especially in the family; education for family life; cross-cultural studies.

Folsom, Prof. R(ichard) G(ilman), 1201 Queens Road, Berkeley, Calif. *Mechanical engineering.* Los Angeles, Calif, Feb. 3, 07. B.S, Calif. Inst. Tech, 28, M.S, 29, Ph.D, 32. Asst, Riverside Cement Co, 28–29; teaching fellow, Calif. Inst. Tech, 28–32; engineer, Pasadena, Calif, 32–33; instr. *mech. eng, California,* 33–37, asst. prof, 37–41, *assoc. prof, 41–* Mech. Eng; Inst. Aeronaut. Sci. Fluid mechanics as applied to hydraulic machinery and aerodynamics; model experimentation.

Foltz, Prof. L(eroy) S(tewart), 801 Sunset Lane, East Lansing, Mich. *Electrical engineering.* Chandlerville, Ill, Nov. 27, 84. B.S, Illinois, 11; M.S, California, 17. From instr. to prof. *elec. eng,* Colo. Agr. Col, 14–20; assoc. prof, *Mich. State Col,* 20–25, *prof. and head dept, 25–* Draftsman, operating engineer and elec. engineer. Elec. Eng; Eng. Educ. Mathematical treatments of electric circuits with variable factors; fire-detecting equipment for dwellings; transformer design; transients.

Folwell, Dr. A(mory) Prescott, 7 Erwin Park, Montclair, N. J. *Civil engineering.* Rondout, N. Y, Jan. 15, 65. A.B, Brown, 85; Mass. Inst. Tech, 88; Sc.D, Lafayette Col, 07. Practising civil engineer, 88–97; instr. civil eng, Lafayette Col, 97–99, assoc. prof. munic. eng, 99–04, prof, 04–06; *ed,* 'Munic. Jour. and Engineer,' 06–20; *'Pub. Works,' 20–* Civil Eng; Munic. Eng. (pres, 04); Water Works Asn; New Eng. Water Works Asn. Sewer design and construction; municipal sanitation; flow of water in pipes, tubes and jets; law of flow of water from orifices and standard tubes; municipal refuse disposal.

Fonda, Dr. G(orton) R(osa), General Electric Co, Schenectady, N. Y. *Engineering.* New York, N. Y, Nov. 27, 84. B.S, N. Y. Univ, 07, A.M, 08; D. Ing, Karlsruhe, 10. *Research chemist, research lab, Gen. Elec. Co, 10–* A.A; Chem. Soc; Physical Soc. Incandescent lamps; x-ray spectroscopy; electrical discharges; fluorescence.

Fonda, Dr. J(ohn) S(utliff), 4050A du Pont Bldg, Wilmington, Del. *Chemistry.* Johnstown, N. Y, Dec. 29, 00. Ch.B, Cornell, 22, Ph.D, 25. Asst. quantitative anal. and assaying, Cornell, 22–25; research chemist, du Pont Rayon Co, 25–29, research supervisor, 29–36, administrative manager rayon research, 36–37, manager develop. sect, *Grasselli chem. dept, E. I. du Pont de Nemours and Co,* 37–42, *asst. director sales, 42–* Chem. Soc. (exec. cmt, west. N. Y. sect, 29, 31, v. chairman, 34, 35, chairman, 36). Industrial, analytical and cellulose chemistry; chemistry of the manufacture of rayon, cellulose and Cellophane; whiteness and opacity of white paint pigments; viscose process as applied to manufacture of rayon and Cellophane.

Fonder, Dr. J(ohn) F(ranklin), 1217 Elm St, Glenview, Ill. *Soils.* Grand Junction, Colo, Sept. 4, 00. B.S, 23, M.S, 26; Ph.D, Mich. State Col, 29. Instr, Mich. State Col, 26–29; *soil technologist,* Swift and Co, 29–33; *Permalawn Products Co, 33–* Soc. Agron. Plant physiology.

Fondiller, William, 463 West St, New York, N. Y. *Electrical engineering.* Russia, Dec. 21, 85. B.S, Col. City of N. Y, 03; E.E, Columbia, 09, A.M, 13. Eng. dept, West. Elec. Co, 09–25; in charge gen. develop. lab, *Bell Tel. Labs,* 25–28, *asst. director apparatus develop, 28–; hon. research assoc. elec. eng, Columbia, 34–* Consultant, Nat. Defense Research Cmt. A.A; fel. Elec. Eng; Soc. Professional Eng. Loading of telephone lines; magnetic properties of iron.

Fons, Wallace L, U. S. Forest Service, Berkeley, Calif. *Forestry.* Ashland, Wis, Nov. 23, 99. B.S, California, 32, M.S, 40. Junior mech. engineer, eng. dept, Standard Oil Co, Calif, 30–31; lab. asst. photometry, California, 32–33; *assoc. mech. engineer forest fire research, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 34–* Improvement of fire control practice; the influence of natural factors on forest fires; the results of fire upon forest resources.

Fontaine, Dr. Francis E(phraim), Lederle Laboratories, Pearl River, N. Y. *Biochemistry.* Sheboygan, Wis, May 4, 16. B.S, Wisconsin, 38, M.S, 39, Ph.D, 41. Asst. fermentation of cellulose, Wisconsin, 36–41; *fermentation biochemist,* Stauffer Chem. Co, 41–42; *Lederle Labs, 42–* Chem. Soc. Fermentation biochemistry; cellulose fermentation; industrial utilization of molasses; production of biological compounds by fermentation.

Fontaine, Dr. T(homas) D(avis), U. S. Department of Agriculture, New Orleans, La. *Biochemistry.* Utica, Miss, April 12, 16. A.B, Miss. Col, 37; Ph.D, Pittsburgh, 42. Asst. chem, Pittsburgh, 37–38; asst, Cotton Research Foundation, Mellon Inst, 38–41; *asst. chemist, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Chem. Soc. Vegetable proteins; amino acids; lypolytic and proteolytic enzymes; protein fiber.

Fontana, Dr. B(eppino) J(ohn), University of California, Berkeley, Calif. *Chemistry.* San Francisco, Calif, Feb. 9, 16. B.S, California, 37, Ph.D, 40. *Research fellow,* radiation lab, *California,* 40–42, *chem, 42–* Chem. Soc. Physico-organic chemistry; solvent effect on chemical equilibria; hydrogen exchange in organic compounds.

Fontana, Dr. C(eleste) M(ichael), Magnolia Petroleum Co, 1920 McKinney Ave, Dallas, Texas. *Physical chemistry.* Lafferty, Ohio, May 16, 16. B.S, Ohio State, 37; M.S, Pa. State Col, 39, Ph.D, 42. Teacher, schs, Ohio, 35–36; asst. chem, Pa. State Col, 37–41; instr, Tulane, 41–42; *research chemist, field research dept, Magnolia Petrol. Co, 42–* Chem. Soc; South. Asn. Adv. Sci. Solubility; electromotive force; scattering of slow protons in gases; petroleum chemistry.

Fontana, Dr. Mars G, E. I. du Pont de Nemours and Co, Wilmington, Del. *Metallurgy.* Iron Mountain, Mich, April 6, 10. B.S, Michigan, 31, M.S, 32, fellow, 33, Ph.D, 35. Asst. eng. research, Michigan, 29–34; *asst. metallurgist, E. I. du Pont de Nemours and Co, 34–* Soc. Metals. Thermodynamics of steel deoxidation; gases in metals; sulfuric acid corrosion; stainless steel castings; lead alloys; stainless alloy development.

Foohey, Dr. William L(ogan), 36 Ziegler Tract, Pennsgrove, N. J. *Chemistry.* Fort Wayne, Ind, Jan. 1, 05. B.S, Notre Dame, 26, Ph.D, 29. Research chemist, Jackson lab, *E. I. du Pont de Nemours and Co,* 29–33, *chief chemist, control and develop. lab, du Pont Dye Works, 33–* Chem. Soc. Catalysts; reactions of acetylene; dyestuff intermediates.

Foord, Prof. Alvin G(eorge), 100 Congress St, Pasadena, Calif. *Pathology.* Minn, Jan. 23, 95. B.S, Chicago, 16, M.S, 17, M.D, Rush, 23. Director labs, Buffalo City Hosp, Buffalo, N. Y, 23–29, pathologist, Buffalo Gen. Hosp, 29–30; *director labs. and research, Huntington Mem. Hosp, Pasadena, Calif, 31–* Assoc, sch. med, Buffalo, 23–29, asst. prof, 29–30; assoc. prof, sch. med, Southern California, 33– Col. Physicians; Soc. Trop. Med; Pub. Health Asn; Asn. Path. and Bact; Soc. Clin. Path. (pres, 35); Am. Med. Asn. Hematology.

Foord, J(ames) A(lfred), 272 Lincoln Ave, Amherst, Mass. *Agriculture.* Portsmouth, Eng, Oct. 30, 72. B.S, New Hampshire, 98; M.S.A, Cornell, 02. Prof. agr, Del. Col, 03–06; assoc. prof. agron, Ohio State, 06–07; Mass. Col, 07–08, head div. agr, 08–25, prof. farm management and head dept, 08–33; *with Farm Credit Admin. and Farm Security Admin, 33–* A.A; Farm Econ. Asn. Animal husbandry; farm economics and management.

Foose, Dr. Richard M(artin), State Geological Survey, Harrisburg, Pa. *Geology.* Lancaster, Pa, Oct. 9, 15. B.S, Franklin and Marshall Col, 37; M.S, Northwestern, 39; univ. scholar, Hopkins, 41–42, Ph.D, 42. Asst. instr. geol, Northwestern, 37–39; asst. geologist, *State Topog. and Geol. Surv, Pa,* 39–42, assoc. geologist, 42–43, *senior geologist, 43–* Cooperating geologist, State Turnpike Cmn, Pa, 41. Min. and Metal. Eng. (chairman cmt. non-metallic mining geol, indust. mining div, 43); Pa. Acad. Structural and economic geology; Appalachian structural geology; identification of the manganese oxide minerals; high alumina clays.

Foot, Miss Katharine, 1829 Mill St, Camden, S. C. *[1]*Zoology.* Geneva, N. Y, Oct. 14, 52. Private schs. Soc. Nat; Soc. Zool. Cytology; maturation and fertilization of the egg of Allolobophora fetida; spermatogenesis and oogenesis of Hemiptera.

Foot, Dr. N(athan) C(handler), New York Hospital, 68th St. and York Ave, New York, N. Y. *[6]*Pathology.* New York, N. Y, July 27, 81. A.B, Harvard, 03; M.D, Columbia, 07. Intern, N. Y. Hosp, 08–09; voluntärasst. path, Munich, Jena, Berlin, 10–12; asst. instr, Harvard Med. Sch, 12, instr, 13–19, comp. path, 19–22; asst. prof. path, col. med, Cincinnati, 22–24, assoc. prof, 24–28, prof, 28–32; asst. director path. service, Cincinnati Gen. Hosp, 22–32; *prof. surg. path, med. col, Cornell, 32–; surg. pathologist, N. Y. Hosp, 32–* Trustee, Am. Board Path. A.A; Soc. Exp. Path; Asn. Path. and Bact. (councilor, 32–, pres, 36); Am. Med. Asn; Ornith. Union; N. Y. Path. Soc. (pres, 36); N. Y. Acad. Med; Boston Soc. Nat. Hist; Boston Hort. Soc; for. assoc. mem. Soc. d'Anat. de

Paris; for. assoc. mem. Soc. française pour l'Étude du Cancer; for. cor. mem. Path. Soc. Argentina. Int. Asn. Med. Mus. General and comparative pathology; growth of the chicken bone marrow in vitro; Rocky Mountain spotted fever; the endothelial phagocyte in inflammation and repair; reticulum; teratology; amyotonia congenita; techniques of silver impregnation of reticulum and nerve tissue; Gaucher's disease; histology of melanotic tumors; of meninges and of peripheral nerves; surgical pathology.

Foote, Dr. Charles L(ee), Wagner College, Staten Island, N. Y. *Endocrinology.* Haskell, Texas, Oct. 5, 12. B.S, N. Texas State Teachers Col, 34; M.S, Agr. and Mech. Col. Texas, 36; Ph.D, Iowa, 40. Asst. biol, Agr. and Mech. Col. Texas, 34–36, instr, 36–37; asst. zool, Iowa, 37–40, research assoc, 40–41; *instr. biol, Wagner Col, 41–; ensign, U. S. Naval Res, 42–* A.A. Influences of sex hormones on sex development in amphibians.

Foote, Dr. Florence M(artindale) (Mrs. Charles L. Foote), Wagner College, Staten Island, N. Y. *Endocrinology, Embryology.* Montague City, Mass, June 28, 11. A.B, Mt. Holyoke Col, 32, A.M, 34; Ph.D, Iowa, 40. Asst. zool, Mt. Holyoke Col, 32–34, *instr,* 35–38; Delaware, 40–41; *biol, Wagner Col, 42–* Initiation and development of thyrotropic function of anterior pituitary in embryo chick.

Foote, Prof. F(rancis) S(eeley), University of California, Berkeley, Calif. *Civil engineering.* Brooklyn, N. Y, March 31, 83. E.M, Columbia, 05. Engineer, coal, timber and railway companies, 05–07; asst. civil eng, Columbia, 07–10; instr. *ry. eng,* Illinois, 10–12; assoc. prof, *California,* 12–17, *prof, 17–* Director surv. camp, California, 12– Civil Eng; Ry. Eng.

Foote, Prof. Frank G(ale), Cooper Union, Cooper Square, New York, N. Y. *Physical metallurgy.* Owosso, Mich, July 21, 06. A.B, Ohio Wesleyan, 28; A.M, Ohio State, 29; Ph.D, Columbia, 41. Asst, sch. mines, Columbia, 30–38; instr. *metal, Cooper Union,* 38–42, *asst. prof, 42–* Physical Soc; Min. and Metal. Eng; Soc. Metals. X-ray metallography.

Foote, Capt. Gordon L(ee), B-6 Beech Drive, Middle River, Md. *Chemical engineering.* Evanston, Ill, Dec. 28, 16. B.S, Mass. Inst. Tech, 38, Ph.D, 40. Develop. engineer, Procter and Gamble Co, 40–41; *capt, Chem. Warfare Service, U. S. Army, tech. service command, Edgewood Arsenal, 41–* Chem. Soc. Identification of sulfonic acids; chemical engineering development.

Foote, Dr. H(erbert) Elliott, Mellon Institute, Pittsburgh, Pa. *Chemistry.* Winchester, Mass, Aug. 15, 92. Ph.B, A.M, Brown, 14, Ph.D, 17. Chemist, E. I. du Pont de Nemours and Co, 17–18; research chemist, U. S. Bur. Mines, 18–19; Indust. Chem. Co, Providence, R. I, 19–21; Picatinny Arsenal, 21–22; Bur. Science, P. I, 23–25; asst. manager Negros plants, Philippine Motor Alcohol Corp, 25–27; Indust. Alcohol Inst. research fellow, *Mellon Inst,* 27–29, Gas Industries Co. fellow, 30–31, Tire Bead research fellow, 31–35, *yeast research fellow, 35–* Lieut, Ordnance Dept, 18–19, major, C.W.Res. Chem. Soc. (treas, Pittsburgh sect, 33–). Organic chemistry; cyanids; industrial alcohol; oxygen; yeast.

Foote, Dr. James E(dward), 70 Court St, Plattsburgh, N. Y. *Paper chemistry.* Owosso, Mich, Oct. 25, 08. A.B, Ohio Wesleyan, 30; M.S, Lawrence Col, 32, Ph.D, 36. Chief chemist, Fox River Paper Co, 33–35; chemist, Munising Paper Co, 36–41; *tech. director, Berst-Forster-Dixfield Co, 41–* Instr, eng, science and management war training course, N. Y. State Teachers Col, Plattsburgh, 42–43. Tech. Asn. Pulp and Paper Indust. Measurements of the average pore diameter present in paper.

Foote, Dr. Paul D(arwin), Gulf Research and Development Co, P. O. Drawer 2038, Pittsburgh, Pa. **²*Physics.* Andover, Ohio, March 27, 88. A.B, Western Reserve, 09; A.M, Nebraska, 11; Ph.D, Minnesota, 17. Asst. physics, Nebraska, 09–11; lab. asst, Bur. Standards, 11–13, asst. physicist, 13–16, assoc. physicist, 16–19, physicist, 19–27; *director research, Gulf Oil Companies, 27–, exec. v. pres. and mem. board, Gulf Research and Develop. Co, 33–* Asst. manager, Sci. Materials Co, 16–17; instr, Minnesota, 16–17; senior fellow, Mellon Inst, 27–29; lecturer, Pittsburgh, 27– Sec'y pyrometry cmt, Nat. Research Council, 19–21, chairman cmt. on ionization potentials, 22–25. Ed. in chief, 'Rev. Sci. Instruments,' 22–32; assoc. ed, 'Jour. Franklin Inst,' 24– A.A; fel. Physical Soc. (pres, 33); Optical Soc. (sec'y, 20, ed. in chief, 'Jour,' 20–32); Min. and Metal. Eng; Petrol. Inst; Petrol. Technol; Geophys. Union; Philos. Soc; Wash. Acad. (v. pres, 36). Magneto-optics; pyrometry; critical potentials; radiation; photoelectric effect; spectroscopy; atomic structure; capillarity; oil recovery.

Foote, Prof. Perry A(lbert), 729 S. Seventh St, Gainesville, Fla. *Pharmaceutical chemistry.* Erie, Pa, July 25, 99. B.S, Wisconsin, 22, M.S, 26, Ph.D, 28. Instr. *pharmacy,* Wisconsin, 26–28; assoc. prof, *Florida,* 28–29, *prof, 29–, director sch. pharmacy, 39–, bur. professional relations, 40–* Chairman cmt. instruction for the protection of pub. bldgs, State Defense Council, Fla, 41– Mem. revision cmt, U. S. Pharmacopoeia, 40– Chairman chem. teachers conf, Asn. Cols. Pharmacy, 33, v. pres, 41. Pharmaceut. Asn; Chem. Soc. (chairman, Fla. sect, 32); Fla. Acad; Fla. Pharmaceut. Asn. Tablets; volatile oils; synthetic medicinals; plant analysis; nitrosyl chloride reactions.

Foraker, Prof. F(orest) A(lmos), 1313 Macon Ave, Pittsburgh, Pa. *Mathematics.* Sharon, Ohio, Dec. 26, 81. B.S, Ohio Northern, 03, M.S, 05; Chicago, 07; Columbia, 11; Sc.D, Pittsburgh, 42. Fairmount Acad, 04–08; Bradley Polytech, 08–12; *prof. math, Pittsburgh, 12–* A.A; Math. Soc; Math. Asn; Eng. Educ. Cubic and quartic curves.

Forbes, Dr. Alexander, Harland St, Milton, Mass. **⁴*Physiology.* Milton, Mass, May 14, 82. A.B, Harvard, 04, A.M, 05, M.D, 10; Liverpool, 11–12. Instr. *physiol, Harvard Med. Sch,* 10–11, 12–21, assoc. prof, 21–36, *prof, 36–* Charles P. Daly medal, Am. Geog. Soc, 38. Nat. Acad; A.A; Physiol. Soc; Am. Med. Asn; Am. Acad; Philos. Soc. The psychogalvanic reflex physiology of the central nervous system; reflex inhibition; electrophysiology of the nervous system; conduction of the nerve impulse.

Forbes, Dr. Charles S(avage), 68 William St, New York, N. Y. *Mathematics.* Warren, Mass, July 8, 79. A.B, Columbia, 01, A.M, 03, Ph.D, 04. Asst. math, Columbia, 01–04; statistician and supt, liability dept, Casualty Co. of Amer, 04–17; *consulting actuary, 17–; sec'y-treas, Smyth, Sanford and Gerard, Inc, 19–* Pres, Service Mutual Liability Ins. Co, 29–33. Reader, Col. Ent. Exam. Board, 03–04. Assoc. Actuarial Soc. Geometry of circles orthogonal to a given sphere.

Forbes, Dennis A(rthur), 18th Ave. Youth Center, Nashville, Tenn. *Chemistry.* Baltimore, Md, June 16, 87. A.B, Howard, 12; Chicago, summers, 15, 16, 23, 27, 26–27. *Teacher,* high sch, Ill, 13–16; physics, chem. and biol, New Orleans, 16–18; physics and chem, Livingstone Col, 18–21; physics, chem. and biol, Shaw, 21–24; chem. physics and physical science, Tenn. Agr. and Indust. State Teachers Col, 24–40; *vocational educ, Am. Youth Admin, 18th Ave. Youth Center, Nashville, 41–* Gen. Educ. Board scholar, Chicago, 26–27, summer, 23. Tenn. Negro Educ. Asn. (exec. cmt, 40–). Physics; physical science.

Forbes, Dr. E(rnest) B(rowning), Pennsylvania State College, State College, Pa. *Animal nutrition.* Normal, Ill, Nov. 3, 76. B.S. (Zool), Illinois, 97, B.S. (Agr), 02; Ph.D, Missouri, 08. Asst. zool, Ill. Biol. Sta, 94–96; asst. to state entomologist, Minn, 97–98; zool. asst, State Lab. Nat. Hist, Ill, 99–01; acting state entomologist, Minn, 01; asst. animal husbandry, Exp. Sta, Illinois, 01–02, instr, 02–03; asst. prof, Missouri, 03–07; chief dept. nutrition, Ohio Exp. Sta, 07–20; specialist nutrition, United Chem. and Org. Products Co, 20–21; *director,* dept. nutrition, Inst. Am. Meat Packers, 21; *inst. animal nutrition, Pa. State Col, 21–* Chairman subcmt. on animal nutrition, Nat. Research Council, 22–26. Major, Sanit.C, 18–19. A.A; Soc. Animal Production (pres, 14–16); Inst. Nutrition; Physiol. Soc; Chem. Soc; for. mem. l'Acad. Royale d'Agr. de Suede. Mineral, nitrogen and energy metabolism of animals; net energy values of feeds; animal rations and human diets.

Forbes, Prof. George S(hannon), Harvard University, Cambridge, Mass. **⁴*Chemistry.* Boston, Mass, March 17, 82. A.B, Harvard, 02, A.M, 04, Ph.D, 05; Leipzig and Berlin, 06–07. Austin teaching fellow physical chem, Harvard, 04–05, lecturer, 05–06; assoc. chem, Bryn Mawr Col, 07–09; instr. physical chem, *Harvard,* 09–10, *chem,* 10–13, asst. prof, 13–20, assoc. prof, 20–26, *prof, 26–* Assoc, Radcliffe Col, 17–20. A.A; Chem. Soc; Am. Acad. Photochemistry; electrochemistry; atomic weights; concentration effects in solutions.

Forbes, Dr. Grace Springer (Mrs. Russell Forbes), 2728 Henry Hudson Parkway, New York, N. Y. *Zoology, Physiology.* Savannah, Ohio, Feb. 9, 98. Brown, 16–17; Westminster Col, 17–18; A.B, Oberlin Col, 20, A.M, 22; Ph.D,

Columbia, 28. Asst. *zool*, Oberlin Col, 19–20, instr, 20–21; Lecturer, *Barnard Col, Columbia*, 21–23, *instr, 23–* A.A; N. Y. Acad. Embryology; ecology.

Forbes, Dr. Henry S(tone), Forest St, Milton, Mass. *Medicine.* Milton, Mass, May 27, 82. A.B, Harvard, 05, M.D, 11. Intern, Boston City Hosp, 11–13; Peter Bent Brigham Hosp, 13–14; physician, infirmary, California, 14–15; sanit. cmn, Am. Red Cross, Serbia, 15–16; Anglo Am. physiol. exped, Peru, 21–22; research fellow *neuropath, Harvard Med. Sch*, 23–37, *assoc, 37–* M.C, U.S.A, 17–19. A.A; Am. Med. Asn; Soc. Exp. Biol; Physiol. Soc. Ultra-violet light and heat effect on protoplasm;; effects of carbon monoxid poisoning; asphyxial headache; cerebrospinal fluid; cerebral blood circulation.

Forbes, Prof. I(rvin) L, Louisiana State University, Baton Rouge, La. *Botany.* Deerford, La, April 13, 02. B.S, Louisiana, 25, M.S, 28; Ph.D, Minnesota, 35. Instr. bot, Louisiana, 25–29; instr. plant path, Minnesota, 29–30, 31–32; asst. prof. *bot, Louisiana*, 30–31, 32–35, assoc. prof, 35–43, *prof, 43–, plant pathologist and asst. director, Exp. Sta, 43–* Plant pathology.

Forbes, Dr. James, 2986 Marion Ave, New York, N. Y. *Entomology.* Yonkers, N. Y, July 9, 10. B.S, Fordham, 32, fellow, 32–36, M.S, 34, Ph.D, 36. Instr. *biol, Fordham*, 36–40, *asst. prof, 40–* A.A; Entom. Soc. Amer; N. Y. Entom. Soc. Anatomy and histology of the Formicidae.

Forbes, Prof. J(ohn) C(ampbell), R. F. D. 12, Richmond, Va. *Biochemistry.* Melford, N. S, Can, Aug. 28, 94. B.A, Saskatchewan, 20, M.A, 22; Ph.D, McGill, 25. Sci. investigator, Biol. Board Can, 25–26; lecturer *chem*, Haverford Col, 26–27; asst. prof. and *assoc. prof, Med. Col. of Va, 27–* A.A; Chem. Soc; Inst. Chem; Soc. Biol. Chem; Soc. Exp. Biol; Va. Acad; Int. Asn. Dental Research. Chemistry of dental caries; calcium and magnesium metabolism; blood chemistry; relation of indoluria to disease; the detoxification of carbon tetrachloride and related compounds; fat metabolism.

Forbes, R(eginald) D(underdale), R. D. 1, Ambler, Pa., Philadelphia, Pa. *Forestry.* Morristown, N. J, July 8, 91. A.B, Williams Col, 11, hon. A.M, 32; M.F, Yale, 13. Forest asst, U. S. Forest Service, 13–16; asst. state forester, N. J, 16–17; state forester, La, 17–21; director, South. Forest Exp. Sta, U. S. Forest Service, 21–27, Allegheny Forest Exp. Sta, 27–39, senior forester in charge econ. research, 40–42; *consulting forester, 42–* A.A; Soc. Foresters (v. chairman, Allegheny sect, 30, chairman, 31). Silvical and economic research; forest management.

Forbes, Dr. R(obert) H(umphrey), 105 Olive Road, Tucson, Ariz. *Agriculture.* Cobden, Ill, May 15, 67. B.S, Illinois, 92, M.S, 97; Harvard, 93–94; Ph.D, California, 16; hon. Sc.D, Arizona, 25. Instr. chem, Illinois, 92–93; chemist, Exp. Sta, *Arizona*, 94–11, director, 99–18, prof, univ, 94–02, dean *col agr*, 15–18, *emer. dean, 18–*; agronomist, Soc. Sultanienne d'Agr. d'Egypt, 18–22; engineer in chief, Etudes Agronomiques, Soudan Français, 22–31; *rep, State Legislature, Ariz, 39–* Sec'y, State Cmn. Agr. and Hort, Ariz, 09–18; director, Exp. Sta, Service Technique of Haiti, 27–29. Agricultural applied sciences; subtropical agriculture; arid region soils and crops; date palm culture; effects of copper compounds on crops; cotton in Egypt, Haiti and the French Soudan.

Forbes, Dr. T(heodore) W(atson), Harvard University, Cambridge, Mass. *Psychology.* Honolulu, Hawaii, May 21, 02. A.B, Oberlin Col, 24, A.M, 27; Ph.D, Ohio State, 31; Harvard, 37. Instr. psychol, Ohio State, 29–31; asst, Columbia, 31–34, lecturer, 34–37; psychologist, N. Y. Psychiat. Inst, 31–36; Bur. Street Traffic Research fellow, Harvard, 36–37, research assoc, 37–38; asst. prof. transportation, bur. street traffic research, Yale, 38–41; personnel technician, trade test sect, tech. training command, Air Corps, U. S. Army, 41; research assoc, Stevens Inst. Tech, 41–42; senior investigator, dept. psychol. research project, Pennsylvania, 42–43; *special research assoc, psycho-acoustic lab, Harvard, 43–* A.A; Psychol. Asn; Acoustical Soc; Inst. Traffic Eng; fel. Asn. Applied Psychol; East. Psychol. Asn. Sleep of psychopaths; electrical skin response; auditory response; cortical action currents; sign efficiency; driver tests; psychological applications to traffic engineering; personnel selection; selection and training defense research.

Forbes, Dr. Thomas R(ogers), Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy.* New York, N. Y, Jan. 5, 11. A.B, Rochester, 33, fellow, 33–37, Ph.D, 37. Asst. *anat, sch. med, Hopkins*, 37–38, instr, 38–42; Guggenheim Mem. Foundation fellow, 42; *tech. aide, cmt. med. research, Office Sci. Research Develop, 42–* Agent, bur. biol. surv, U. S. Dept. Agr, 38–39, bur. animal indust, 39–41. Asn. Anat. Anatomy, embryology and endocrinology of reptilian reproductive system; reproduction in the muskrat; absorption of crystalline hormone pellets; embryology of human ovary.

Forbes, Dr. W(illiam) H(athaway), Fatigue Laboratory, Morgan Hall, Soldiers Field, Boston, Mass. *Physiology.* Milton, Mass, Feb. 21, 02. A.B, Harvard, 23, A.M, 31; Ph.D, Cambridge, 31; Hopkins, 36–38. Instr. physics, American Univ. Beirut, 23–24; teaching fellow physiol, Harvard Med. Sch, 28–29, instr. and tutor biochem. sciences, *Harvard*, 29–36, res. tutor, Eliot House, 31–35, asst, *fatigue lab*, 32–36, *research fellow, 38–*, acting director, 41–42. Lecturer, Wellesley Col, 38–39. A.A; Chem. Soc. Hemoglobin; respiration and blood gases; blood volume and tissue fluid volume; blood morphology; blood sugar; physiology of exercise and the effects of climate.

Forbes, Dr. William T(rowbridge) M(errifield), Cornell University, Ithaca, N. Y. *Entomology.* Westborough, Mass, 85. A.B, Amherst Col, 06; Cornell, 08–09; Ph.D, Clark, 10; Harvard, 10. Instr. biol, Robert Col, Constantinople, 06–08; zool. and entom, Rutgers, 10–11; asst. and *instr. entom, Cornell, 15–* Instr, Worcester Nat. Hist. Camp, 04. Cornell exped, Asia Minor, 07, S. Amer, 20, 27. A.A; fel. Entom. Soc; Am. Geog. Soc; fel. N. Y. Entom. Soc; Cambridge Entom. Club. Lepidoptera; optics.

Forbus, Dr. Wiley D(avis), Duke Hospital, Durham, N. C. *Pathology.* Zeiglerville, Miss, March 14, 94. A.B, Washington and Lee, 16; M.D, Hopkins, 23. Asst. and instr. *path*, sch. med, Hopkins, 23–27, assoc, 27–30; *prof, sch. med, Duke, 30–* Asst. res. pathologist, Hopkins Hosp, 23–27, res. pathologist, 27, assoc. pathologist, 29; pathologist, city hosps, Baltimore, 25–30; Duke, Watts and Lincoln Hosps, 30–; guest asst, Ludwig Maximilian, Munich, 28. Mem. and chairman path. sect, Nat. Board Med. Examiners. A.A. Degeneration and regeneration of voluntary muscle; tumors of the appendix and small intestine; sporotrichosis of lungs; miliary aneurysms of cerebral arteries; amyotonia congenita in identical twins.

Forbush, Scott E, 6509 Brennon Lane, Chevy Chase, Md. *Physics.* April 10, 04. B.S, Case, 25; Hopkins, 31–32; George Washington. Teaching asst, Ohio State, 25–26; junior physicist, Bur. Standards, 26–27; observer, *dept. terrestrial magnetism, Carnegie Institution*, 27–42, *math. physicist, 42–; defense work, lab, Naval Ordnance Bur, 40–* Philos. Soc; Geophys. Union. Terrestrial magnetism; cosmic radiation statistics; systematic world-wide changes in cosmic ray intensity and their relation to changes in terrestrial magnetism; statistical tests on reality of apparent periodic variations such as solar-diurnal variation.

Ford, Prof. Adelbert, 1408 W. Broad St, Bethlehem, Pa. *Psychology.* Cadillac, Mich, April 23, 90. A.B, Michigan, 20, A.M, 23, Ph.D, 26. Instr. *psychol*, Drake, 20–21; Michigan, 22–26, asst. prof, 26–31; *prof. and head dept, Lehigh, 31–* Exten. lecturer, Michigan. A.A; Am. Acad. Polit. and Social Sci; Psychol. Asn; Mich. Acad. (chairman, psychol. sect, 31). General experimental psychology; personnel management.

Ford, Prof. Cha(rle)s A(lfred), 2100 Connecticut Ave, N.W, Washington, D. C. *Psychology.* Columbus, Ohio, Jan. 19, 01. B.S, Ohio State, 23, A.M, 26, Ph.D, 30. Prin, high sch, Ohio, 24–25, supt, township schs, 25–27; director research, bur. juvenile research, Ohio State, 27–29; assoc. prof. *psychol, Temple*, 29–36, *prof, 36–, chairman dept, 37–, director psychol. clinic, 29–, evening exten. div, 34–; lieut. commander, office of chief of naval operations, U. S. Navy Dept, 42–* Chairman col. advisory board, Temple, 35–36, admin. asst. to pres, 36–41; consulting psychologist, Elwyn Training Sch, Media, 29–41; Homewood Sch, Phila, 29–41; Germantown Acad, Phila, 30–41; Jewish Hosp, 34–41. Psychol. Asn; Asn. Applied Psychol. (sec'y board affiliates and governor, 38–41); Pa. Asn. Clin. Psychol. (sec'y, 34–36, v. pres, 36, pres, 37). Clinical and abnormal psychology; juvenile delinquency.

Ford, Prof. C(lellan) S(tearns), Yale University, New Haven, Conn. *Anthropology.* Worcester, Mass, July 27, 09. Ph.B, Yale, 31, Henry A. Page scholar, 33–34, Ph.D, 35. Bishop Museum fellow, Fiji, 35–36; asst. sociol, inst. human relations, *Yale*, 36–39, *asst. prof. anthrop, 39–* Social science.

Ford, Prof. Earl W(illiam), 202 E. University St, Wooster, Ohio. *Physics.* Cambridge, Ohio, Dec. 13, 03. A.B, Muskin-

gum Col, 26; M.S, Ohio State, 28, Ph.D, 33. Asst, Ohio State, 28–31; instr. *physics, Col. of Wooster*, 31–39, *asst. prof, 39–* Ohio Acad. X-ray study of crystal structure.

Ford, Dr. E(dward) Gilmore, Allegheny College, Meadville, Pa. *Organic chemistry.* Pittsburgh, Pa, July 3, 05. B.S, Pittsburgh, 35; Chem. Foundation fellow, Princeton, 37–38, Ph.D, 38. Asst. instruction and org. chem, Princeton, 35–37, org, 37–38, Merck fellow, 38–39, research assoc, 39–40; *instr.* inorg. and org. chem, Brooklyn Col, 40–41; *inorg. and anal. chem, Allegheny Col, 41–* Summer, anal. chemist, Exp. Sta, Vermont, 40. Chem. Soc. Steroids; molecular rearrangements.

Ford, E(rnest) S(idney), Cornell University, Ithaca, N. Y. *Botany.* Springfield, Ark, Feb. 15, 04. A.B, Hendrix Col, 25; M.S, Chicago, 27, Ph.D, 42. Lab. asst, Libbey Glass Mfg. Co, 25–26; *instr.* biol, Doane Col, 27–29; *bot,* Northwestern, 30–38; *Cornell, 38–* Summer, lecturer, Mundelein Col, 31. A.A; Bot. Soc; Ecol. Soc. Plant morphology and ecology; morphology of citrus; Hepaticae.

Ford, Dr. Frank R(odolph), Johns Hopkins Hospital, Baltimore, Md. *Medicine, Neurology.* Baltimore, Md, Oct. 21, 92. A.B, Hopkins, 15, M.D, 20. Intern, Phipps psychiat. clinic, Hopkins Hosp, 20–21; res. physician neur, Bellevue Hosp, New York, 21–23; res. physician and *neurologist, Hopkins Hosp, 23–,* assoc. *neur, sch. med, Hopkins,* 25–32, *assoc. prof, 32–* Clinical neurology; birth injuries; nervous diseases of childhood.

Ford, Prof. Grover M(ancil), Berry College, Mt. Berry, Ga. *Organic chemistry.* Gadsden, Ala, Sept. 18, 99. B.S, Davidson Col, 24; M.S, Emory, 29; Duke, 29–30; Ph.D, Iowa State Col, 37. Prof. chem. and head dept, Berry Col, 25–28, 30–32; research chemist, Am. Cyanamid and Chem. Corp, 37–38; *prof. chem. and head dept, Berry Col, 38–* Capt, Inf. Res. Chem. Soc; Ga. Acad. High molecular weight fatty acids; organo-metallic compounds.

Ford, Dr. Helen W, 2523 Fremont Place, Denver, Colo. *Public health.* Denver, Colo. B.S, R. I. State Col, 14; Susan Rhodes Cutler fellow, Yale, 22–23, Ph.D, 25. Instr, Kans. State Col, 20–21; research, children's bur, U. S. Dept. Labor, 23–24; prof. child welfare and euthenics and head dept, Kans. State Col, 26–38; *consulting psychologist, 38–* A.A. Child welfare; statistics on infant mortality; bibliography on the development of the normal child.

Ford, Dr. J(ames) W(illson), 19 Doat St, Buffalo, N. Y. *Physics.* Chicago, Ill, Nov. 26, 12. A.B, Oberlin Col, 34; M.S, Case, 36; Ph.D, Pa. State Col, 40. Asst. physics, Case, 34–36; Pa. State Col, 36–40; *asst. physicist, Spencer Lens Co, 40–* X-ray diffraction studies of preferred orientation in cold-rolled metals; annealing of optical glass.

Ford, Dr. Jared H(ewes), The Upjohn Co, Kalamazoo, Mich. *Chemistry.* Oberlin, Ohio, June 14, 11. A.B, Oberlin Col, 31; A.M, Illinois, 32, Ph.D, 35. Asst. chem, Illinois, 32–35; *research chemist,* Kilgore Develop. Corp, 35–41; *Upjohn Co, 41–* Chem. Soc. Organic chemistry; insecticides; antioxidants; synthetic vitamins.

Ford, Prof. John J(oseph), Villanova College, Villanova, Pa. *Biology.* West Chester, Pa, Dec. 26, 03. B.S, Villanova Col, 24, M.S, 27, M.D, Temple, 34. *Assoc. prof. biol,* Villa Maria Col, 25–28; *Villanova Col, 25–* A.A; Soc. Parasitol; Pa. Acad.

Ford, Prof. Lester R, Illinois Institute of Technology, Chicago, Ill. *[5]Mathematics.* Rich Hill, Mo, Oct. 29, 86. A.B, Missouri, 11, A.M, 12; A.M, Harvard, 13, traveling fellow, Paris, 15–16, Ph.D, 17. Lecturer math, Edinburgh, 14–15, 16–17; instr. math. and life insurance, Harvard, 17–20; asst. prof. *math,* Rice Inst, 20–37; *prof. and chairman dept, Ill. Inst. Tech, 37–* Nat. research fellow, Leipzig, 26–27. Director math, F.A. Sch, 18. A.A; Math. Soc. (councilor, 34–36, 41–); Math. Asn. (editor in chief, 'Am. Math. Monthly,' 42–); Eng. Educ; Edinburgh Math. Soc. Functions of a complex variable; differential equations; fractions; approximate methods.

Ford, Prof. Norma (Henrietta Carswell), 12 Relmar Road, Toronto, Ont, Can. *Human biology.* St. Thomas, Ont, Sept. 3, 93. B.A, Toronto, 18, Ph.D, 23. Asst. biol, *Toronto,* 18–23, instr, 23–25, lecturer, 25–30, *asst. prof,* 30–37, *human biol, 37–,* acting dean women, Victoria Col, 31–34. A.A; Entom. Soc. Ont; Royal Can. Inst. Insect morphology; behavior of Wohlfahrtia vigil; behavior, anatomy and physiology of Grylloblatta; inheritance of physical character in multiple births; taste reactions; dermatoglyphics; dentition; genetical studies of mental defects and diseases; mongolism; harelip and cleft palate.

Ford, Prof. O(rfa) Rex, West Virginia University, Morgantown, W. Va. *Physics.* Salem, W. Va, May 1, 93. B.S, Salem Col. (W. Va), 15; A.M, West Virginia, 23; Ph.D, Cornell, 32. Instr, West Virginia, 00–23; Cornell, 23–25; asst. prof. *physics, West Virginia,* 25–32, *assoc. prof, 32–* Satellites of the k alpha lines of the elements germanium to sodium.

Ford, Dr. S(tanley) G(riffith), 208 Glenside Ave, Carrcroft, Wilmington, Del. *Organic chemistry.* Chicago, Ill, June 12, 03. B.S, Oregon State Col, 26; M.S, Illinois, 27, Ph.D, 29. *Chemist and supervisor, E. I. du Pont de Nemours and Co, 29–* Substituted alkyl acetic acids and their bactericidal action toward Bacillus leprae.

Ford, Dr. Thomas A(ven), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Washington, D. C, Aug. 29, 17. A.B, Wyoming, 37; univ. fellow, Yale, 39–40, Ph.D, 40. Asst. chem, Yale, 37–39; *research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Organic chemistry.

Ford, Dr. T(irey) Foster, 1740 Walnut St, Berkeley, Calif. *Chemistry.* Cle Elum, Wash, Feb. 16, 04. B.S, Washington (Seattle), 27, M.S, 29; Ph.D, Stanford, 36. Teaching fellow chem, Washington (Seattle), 27–29; research chemist, B. F. Goodrich Co, 29–33; junior research assoc, Stanford, 35–36; *research chemist, Shell Develop. Co, 36–* A.A; Chem. Soc. Rubber; adsorption and surface films; asphalt.

Ford, Dr. W(alter) B(urton), Hayts Corner, N. Y. *[2]Mathematics.* Oneonta, N. Y, May 18, 74. A.B, Harvard, 97, A.M, 98, Ph.D, 05. Instr. math, Albany Acad, 00–01; Michigan, 01–03; Williams Col, 04–05; prof, Michigan, 05–39; *retired.* Assoc. ed, 'Am. Math. Monthly,' 20–22, ed. in chief, 22–27. Rep, Carnegie Endowment Int. Peace, European univs, 28. Math. Soc. (chairman, Chicago sect, 15–17); Math. Asn. (pres, 27–29); Soc. math. de France. The convergence of the series developments of mathematical physics; the analytic extension of functions of a complex variable; divergent series; linear difference equations; calculus of residues.

Ford, Dr. W(illiam) L(ivingstone), Millers Road, Arden, Wilmington, Del. *Physical chemistry.* Montreal, Que, Can, Nov. 15, 13. B.A, British Columbia, 36, M.A, 37; Ph.D, Northwestern, 40. *Research chemist, rayon dept, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Thermal decomposition of butyricaldehyde; thermodynamic properties of aqueous solutions of some amino acids and their non-polar isomers.

Fordemwalt, Dr. Fred, 323 E. Union Ave, Bound Brook, N. J. *Physical chemistry research.* Pulaski, Iowa, Nov. 19, 02. B.S, Iowa Wesleyan, 25; M.S, Iowa, 27, Ph.D, 40; Harvard, 36. Instr. chem. and math, high sch, 25–26, 27–28; chem. and physics, Parsons Junior Col, 28–38; *indust. research, Am. Cyanamid Co, 40–* Chem. Soc. (v. chairman southeast. Kans. sect, 37). Vapor pressures; effect of electrolytes on gelatin; industrial applications of colloidal systems.

Fordrung, Prof. William J(ohn), Hunter College, 68th St. and Park Ave, New York, N. Y. *Physiology, Hygiene.* New York, N. Y, Nov. 12, 93. B.S, Fordham, 16, LL.B, 26; A.M, Columbia, 20; M.D, Georgetown, 23. Instr. bacter, Col. City of N. Y, 16–18; path, med. sch, Fordham, 18–20, prof. chem, grad. sch, 20–21; instr. surg. anat, Univ. and Bellevue Hosp. Med. Col, 28–33; *prof. physiol. and hygiene and head dept, Hunter Col, 33–* Director lab, St. Vincent's Hosp, 21–22. Lieut. commander, M.R.C, 34– A.A; Am. Med. Asn; Pub. Health Asn; Am. Geog. Soc; N. Y. Acad; N. Y. Acad. Med. Post-operative pulmonary embolism; variations in the galvanic skin reflex, pulse and blood pressure as a result of sense and ideation stimulation.

Fordyce, Dr. Charles R(edman), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Springville, Iowa, April 25, 02. A.B, A.M, Cornell Col. (Iowa), 25; Ph.D, Cornell, 29. *Chemist, Eastman Kodak Co, 29–* Fellow, Mellon Inst, 31. Chem. Soc. (sec'y-treas, cellulose div, 39–). Cellulose chemistry; aliphatic esters of cellulose.

Fordyce, Dr. Reid G(eorge), Monsanto Chemical Co, Nicholas Road, Dayton, Ohio. *Physical-organic chemistry.* Regina, Sask, Can, April 14, 14. B.A, British Columbia, 35, Carnegie

scholar, 35, M.A, 36; Nat. Research Council Can. bursar, McGill, 36, student, 37, Ph.D, 39. Asst, McGill, 36; *research chemist, Thomas and Hochwalt labs, Monsanto Chem. Co, 39–* Chem. Soc. Solubility of dotriacontane in propane and butane; synthesis of polyoxyethylene glycols and the relation of their solution viscosities to chain length.

Fore, Prof. R(obert) E(stes), Oregon State Agricultural College, Corvallis, Oregon. *Plant breeding, Genetics.* Cameron, Mo, Nov. 3, 07. B.S, Iowa State Col, 29; M.S, Illinois, 31, Ph.D, 35. Asst. agron, Illinois, 29–36; asst. prof. *farm crops, Oregon State Col,* 36–39, *assoc. prof, 39–* Yield analysis in Avena sativa; breeding for disease resistance in hops; corn breeding.

Foregger, Dr. Richard, 55 W. 42nd St, New York, N. Y. *Chemistry.* Vienna, Austria, June 27, 72. Ph.D, Bern, 96. *Pres, Foregger Co.* Silver medal, Jamestown Tercentennial Expos, 07. A.A; Associated Anesthetists U. S. and Can; East. Anesthetists Soc; Int. Anesthesia Research Soc. Artificial respiration; anesthesia.

Foreman, Dr. E(manuel) Leon, 6075 N. Kent Ave, Milwaukee, Wis. *Organic chemistry.* Nashville, Tenn, July 23, 08. B.S, Illinois, 30; M.S, Lawrence Col, 31; Ph.D, Wisconsin, 40. Asst. geol, Wisconsin, 38–39; research chemist, *Lakeside Labs, Inc,* 40–42, *director chem. research, 42–* A.A; Chem. Soc; Chem. Soc. London. Medicinal chemistry.

Foreman, Prof. F(rederick), 136 N. Main St, Oberlin, Ohio. *Geology.* Lidgate, Suffolk, Eng, Sept. 25, 99. B.A, Manitoba, 24, B.Sc, 26; Ph.D, Minnesota, 29. Instr. *geol, Oberlin Col,* 29–30, asst. prof, 30–39, *assoc. prof, 39–* Hydrothermal experiments; sedimentation.

Forgeng, Dr. W(illiam) D(aniel), Union Carbide and Carbon Research Laboratories, Inc, Niagara Falls, N. Y. *Metallurgy.* Scranton, Pa, May 31, 09. Ch.B, Cornell, 30, Ph.D, 34. Asst. chem, Cornell, 29–34; *metallurgist, research labs, Union Carbide and Carbon Corp, 34–* Soc. Metals. Metallography; optical and physical chemistry.

Forkner, Dr. Claude E(llis), 630 Park Ave, New York, N. Y. *Internal medicine.* Stevensville, Mont, Aug. 14, 00. A.B, California, 22, A.M, 23; M.D, Harvard, 26. Asst. anat, California, 22–23; teaching fellow histol, Harvard Med. Sch, 24–26; intern, Hopkins Hosp, 26–27; asst. path. and bacter, Rockefeller Inst, 27–29; nat. research fellow and asst. path, Freiburg, 29–30; Peabody fellow med, Harvard Med. Sch, 30–32; assoc. prof, Peiping Union Med. Col, 32–36; lecturer, 36–37; asst. prof. clin. med, med. sch, Cornell, 37–43; *director, China Med. Board, Inc, 43–* Asst. physician, Thorndike mem. lab, Boston City Hosp, 30–32; asst. attending physician, New York Hosp, 37–43. A.A; Am. Med. Asn; Col. Physicians; Soc. Exp. Biol. (councilor, 34); Soc. Clin. Invest; Harvey Soc. Histology and physiology of cells of the blood and blood-forming organs; pathology of tuberculosis; chronic arthritis; diseases of the blood and blood-forming organs; transmission of kala-azar.

Forman, Prof. A(lexander) H(ardie), West Virginia University, Morgantown, W. Va. *Electrical engineering.* Grafton, W. Va, June 12, 83. B.S, M.E, West Virginia, 06, E.E, 08, 08–09; fellow, Cornell, 08–09, M.M.E, 09, Sibley fellow, 09–10, Ph.D, 12. Research div, eng. dept, Westinghouse Elec. and Mfg. Co, 06–07; instr. physics, Cornell, 10–13; asst. prof. exp. and elec. eng, *West Virginia,* 13–16, *prof. elec. eng, 16–, head dept, 13–* Elec. Eng; Physical Soc. Special prony brake and recording mechanism; effect of magnetization on opacity of x-rays.

Forman, Dr. Jonathan, 394 E. Town St, Columbus, Ohio. *Pathology.* Austinburg, Ohio, Sept. 30, 87. A.B, Ohio State, 10; M.D, Starling Med. Col, 13. Asst. path, Starling Med. Col, 11–13; instr, Ohio State, 14–16, asst. prof, 16–19; teaching fellow physiol, Harvard Med. Sch, 19–20; pathologist, Grant Hosp, Columbus, Ohio, 20–33; *lecturer med, col. med, Ohio State, 33–* Ed, 'Ohio State Med. Jour,' 35–; 'Directory Physicians Interested in Clin. Allergy.' Am. Med. Asn; Asn. Anat; Asn. Study Allergy; Soc. Study Asthma and Allied Conditions; Int. Correspondence Soc. Allergy (director-gen, 36–); hon. mem. Soc. para el estudio de la Allergio, Argentine. Allergy.

Forman, Dr. Sylvan E(llis), University of Maryland School of Medicine, Baltimore, Md. *Organic chemistry.* Baltimore, Md, April 4, 15. B.S, Maryland, 36, M.S, 37, Ph.D, 40. *Research fellow pharmacol, sch. med, Maryland, 36–* Chem. Soc. (exec. cmt, Baltimore chap, 42). Preparation of ethers for possible use as anesthetics; preparation of nitrites and nitrates for use as blood pressure reducing agents.

Fornoff, Dr. Frank J(unior), Lehigh University, Bethlehem, Pa. *Inorganic chemistry.* Mt. Carmel, Ill, March 29, 14. A.B, Illinois, 36; M.S, Ohio State, 37, Procter and Gamble fellow, 38–39, Ph.D, 39. Nat. research fellow *chem,* California, 39–40; instr, *Lehigh,* 40–42, *asst. prof, 42–* Chem. Soc. Rare earth chemistry.

Fornwalt, Dr. Holmes J(ohn), Darco Corp, Wilmington, Del. *Physical chemistry.* Myerstown, Pa, April 13, 08. B. S, Lafayette Col, 29, du Pont fellow, 29–30, M.S, 30; A.M, Harvard, 32, Emerson scholar, 33–34, Ph.D, 35. Asst. chem, Harvard, 30–32, 34–35, private research asst, 30–33, 35; *exp. lab, Darco Corp, 35–* Chem. Soc. Fluidity and molecular association; sorption of gases on charcoal at high pressures; viscosity of solutions of electrolytes.

Forrest, C(harles) N(eedham), 422 Orchard St, Cranford, N. J. *Chemistry.* Baltimore, Md, Sept. 30, 73. Maryland Inst; Columbian Univ. Asst. chemist, Baltimore and Ohio Ry, 92–96; South. Ry, 96–97; chemist, L. I. Ry, 97–04; chief chemist, N. Y. Testing Lab, 04–14; manager tech. dept, Barber Asphalt Paving Co, 14–25, tech. adviser, 25–36, consulting chemist, Barber Asphalt Corp, 36–42; *consulting chemist, 42–* A.A; Chem. Soc; Soc. Test. Mat; Civil Eng. Asphalt and petroleum; composition of native bitumens and their application in the arts.

Forrest, H(enry) O(gley), M. W. Kellogg Co, 225 Broadway, New York, N. Y. *Chemical engineering.* Lawrence, Mass, Dec. 9, 97. B.S, Mass. Inst. Tech, 20, M.S, 21. Instr. chem. eng, Mass. Inst. Tech, 21–22, research assoc, research lab. applied chem, 22–27, asst. director, 27, director, 27–31, asst. prof. chem. eng, 27–29, assoc. prof, 29–31; *chem. engineer, M. W. Kellogg Co, 31–* Chem. Eng; Chem. Soc; Petrol. Inst. Combustion; oxidation; air conditioning; oil refinery processes.

Forrester, Dr. Glenn C, 334 Buffalo Ave, Niagara Falls, N. Y. *Chemistry.* Empire, Mich. A.B, Michigan, 19, M.S, 20, Ph.D, 23. Research chemist, Phosphorus Compounds Co, 23–24, manager, 24–28; personnel manager, du Pont Rayon Co, 28–30; personnel div. E. I. du Pont de Nemours and Co, 30–31; research, du Pont Rayon and Cellophane Companies, 31–32; private research and business, 32–40; *mem. tech. dept, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 40–* Research, Niagara Alkali Co. Chem. Soc. Trivalent carbon; history of the buried whirlpool, St. David's Gorge; falls of Niagara.

Forrester, Prof. J(ames) Donald, University of Idaho, Moscow, Idaho. *Geology.* Salt Lake City, Utah, April 6, 06. B.S, Utah, 28; M.S, Cornell, 29, Eleanor Tatum Long scholar, 33–34, Ph.D, 35. Instr. metal, Utah, 27–28; asst. instr. geol, Cornell, 28–29, instr, 34–35; geologist, Anaconda Copper Mining Co, 29–32, 35–39; *prof. geol. and head dept, Idaho, 39–* Min. and Metal. Eng. (sec'y, Mont. sect, 37–39); Soc. Econ. Geol. Economic and structural geology; field geology of ore deposits and nonmetalliferous resources.

Forsaith, Prof. C(arl) C(heswell), 242 Westminster Ave, Syracuse, N. Y. *Forestry.* Auburn, N. H, Sept. 2, 88. A.B, Dartmouth Col, 13; A.M, Harvard, 14, Sheldon traveling fellow, 14–15, Ph.D, 17. Asst. bot, Radcliffe Col, 14–16; Austin teaching fellow, Harvard, 15–16; instr. biol, Dartmouth Col, 16–17; *wood technol, N. Y. State Col. Forestry, Syracuse,* 17–19, *asst. prof, 19–* Head branch of wood structure and properties, Imp. Forestry Inst, Oxford, 25–26. Walker prize, Boston Soc. Nat. Hist, 16. A.A; Soc. Foresters; Bot. Soc. Structure and properties of wood.

Forsberg, Prof. J(unius) L(eonard), 624 Stover St, Ft. Collins, Colo. *Botany.* Bertrand, Nebr, June 15, 07. B.S, Colo. State Col, 30; M.S, Mich. State Col, 32. Asst. *bot,* Mich. State Col, 30–34; instr, *Colo. State Col,* 35, *asst. prof, 35–* Phytopath. Soc; Colo-Wyo. Acad. Plant pathology; diseases of ornamental plants; tree diseases; diseases of vegetable crops.

Forsee, Dr. W(illiam) T(homas), Jr, Everglades Experiment Station, Belle Glade, Fla. *Chemistry.* Owenton, Ky, March 14, 09. A.B, Georgetown Col. (Ky), 31; M.S, Florida, 32, Naval Stores fellow, 35, Ph.D, 35. Asst. chem, Florida, 31–35; asst. research chemist, Exp. Sta, Kentucky, 36–37; asst. chemist, *Everglades Exp. Sta, Florida,* 37–40, *assoc. chemist, 40–* Soil Sci. Soc. Fla; Fla. State Hort. Soc. Piperazine de-

rivatives; naval stores; aminophenol rearrangements; iodine determinations, distributions in soils, plants and animals; soil analysis and rapid soil testing; trace element investigations upon peat and muck soils of the Florida Everglades.

Forsling, C(larence) L, U. S. Forest Service, Washington, D. C. *Forestry.* Cheyenne, Wyo, Nov. 7, 93. B.S, Nebraska, 15. Range reconnaissance, intermountain region, *U. S. Forest Service,* 15–16, Jornada Range Exp. Sta, New Mexico, 16–20, in charge, 17–20, asst. in charge range investigations, Washington, D. C, 20–22, director, Great Basin Range Exp. Sta, Utah, 22–30; Intermountain Forest Exp. Sta, *U. S. Forest Service,* 30–35, Appalachian Forest Exp. Sta, 35–37, *asst. chief in charge forest research, 37–* Soc. Foresters. Silviculture; range management; relation of vegetative cover to run-off and erosion; artificial reseeding of depleted ranges; effect of climate on plant growth in relation to range management; influence of timber cover on water supply.

Forstall, Rev. A(rmand) W(illiam), S.J, Regis College, Denver, Colo. *Chemistry, Seismology.* Chaumont, France, July 10, 59. Amiens, France, 72–78; B.A, Douai, France, 78; St. Stanislaus Col, Paris, 78–79; Tronchiennes Sem, Belgium, 80–82; Jesuit Sem, Louvain, Belgium, 82–85; A.M, Woodstock Col. (Md), 94; Anger's Sem, France, 94–95; Sc.D, Denver, 35. Teacher math, Col. of Sacred Heart, 85–86; physics, chem. and math, Las Vegas, N. Mex, 86–88; Regis Col. (Colo), 88–90, 98–99; instr. physics, Georgetown, 95–96, 00–02; Col. of Holy Cross, 99–00; prof. chem, Woodstock Col. (Md), 02–04; math, *Regis Col. (Colo),* 04–25, chem, 04–23, *prof. physics and eng. drawing and director assaying dept, 04–, seismic observatory, 09–* Seismol. Soc; Meteorite Soc; Jesuit Seismol. Asn. Analytical chemistry; physics; assaying; carnotite as source of radium.

Forster, Dr. George F(rancis), Department of Public Health, 1800 W. Fillmore St, Chicago, Ill. *Bacteriology, Immunology.* Palmyra, Mo, Dec. 3, 95. A.B, Emory, 16; A.M, Wisconsin, 20, Ph.D, 22. Asst. zool, Wisconsin, 16–17, 19–22; prof. biol, Olivet Col. (Mich), 22–36; senior bacteriologist, State Dept. Health, Mich, 36–38; asst. chief div. labs, State Dept. Pub. Health, Ill, 38–41; assoc. prof. bact, sch. med, Loyola (Ill), 42–43; *asst. chief div. labs, State Dept. Pub. Health, Ill, 43–* Acting instr, Harvard Med. Sch, 25–26. A.A; Soc. Bact; Pub. Health Asn; Mich. Student Health Asn. (sec'y, 34, v. pres, 36, pres, 37); Ill. Pub. Health Asn; Soc. Ill. Bact. Prescriptions; horse dander and asthma; pneumococci; serology of syphilis.

Forster, Dr. Roy P(hilip), Dartmouth College, Hanover, N. H. *General physiology, Biochemistry.* Milwaukee, Wis, Sept. 28, 11. B.S, Marquette, 32; Ph.B, Wisconsin, 36, Ph.D, 38. Teaching asst. zool, Marquette, 32–34; Wisconsin, 35–38; instr. *zool, Dartmouth Col,* 38–42, *asst. prof, 42–; director, Mt. Desert Biol. Lab, 40–* A.A; Soc. Zool; N. H. Acad. Comparative physiology of the kidney; chemistry of biological fluids; the nature of secretory mechanisms in the renal tubule.

Forster, Dr. Warren S(chumann), 21 Oakview Ave, Maplewood, N. J. *Organic chemistry.* Denver, Colo, Aug. 16, 14. B.S, Denver, 36; M.S, Pa. State Col, 38, Ph.D, 40. Asst. chem, Pa. State Col, 36–40; *research chemist, Calco chem. div, Am. Cyanamid Co, 40–* Chem. Soc. Calorimetric study of dimethylamine; aliphatic organic chemistry; fluorescent dyestuffs; vat dyestuffs and intermediates.

Forsyth, Prof. C(hester) H(ume), Lebanon St, Hanover, N. H. *Mathematics.* Trafalgar, Ind, March 17, 81. A.B, Butler, 06; A.M, Illinois, 10; Ph.D, Michigan, 15. Asst. instr. *math,* Illinois, 07–11; instr, Michigan, 11–12, 13–16; prof, Eureka Col, 12–13; asst. prof, *Dartmouth Col,* 16–39, *prof, 39–* Math. Soc; Statist. Asn. Vital statistics.

Forsyth, Prof. John W(iley), Presbyterian College, Clinton, S. C. *Experimental morphology.* McKinney, Texas, March 18, 13. B.S, Texas Christian, 35, M.S, 37; John DeWitt Sterry junior fellow, Princeton, 38–40, William Greig Lapham fellow, 40–41, Ph.D, 41. Teaching fellow *biol,* Texas Christian, 34–36, instr, 36–38; *prof, Presbyterian Col. (S. C), 41–* Instr, Princeton, 41. A.A. Hind limb regeneration in the Anurans.

Forsythe, Dr. Warren E(llsworth), University of Michigan, Ann Arbor, Mich. *Medicine.* Joseph, Oregon, Nov. 8, 85. B.S, Oregon State Col, 07; Ph.C, Michigan, 08, M.D, 13; Dr.P.H, Hopkins, 25; hon. Sc.D, Oregon State Col, 37. Asst. physiol. chem, Michigan, 08–11, house physician, univ. hosp, 13–14, staff physician health service, 14–15; col. physician, Pa. State Col, 15–17; Int. Health Board, 17; *prof. hygiene and director health service, Michigan.* Am. Med. Asn; Am. Acad. Med; fel. Pub. Health Asn; Student Health Asn. (pres, 30). Physiological chemistry; trypsin; college health work.

Forsythe, Dr. W(illiam) E(lmer), General Electric Co, Nela Park, Cleveland, Ohio. *[3]*Physics.* Muskingum Co, Ohio, Aug. 22, 81. B.S, Denison, 07, Sc.D, 39; M.S, Wisconsin, 09, Ph.D, 11; Sc.D, Kenyon Col, 26. Teacher, schs, 99–03; asst. physics, Wisconsin, 07–08, instr, 09–13; physicist, Nela research lab, *Gen. Elec. Co,* 13–24, director, 24–28, *physicist, lamp develop. lab, 29–* Special lecturer, Case, 22– Mem. sect C-6, Nat. Defense Research Cmt, 41– A.A; Physical Soc; Optical Soc. (v. pres, 24, pres, 25); Illum. Eng. Soc. Black body and temperatures of metals; high temperature measurements; capacity and inductance; optical pyrometry; monochromatic and neutral screens; rotation of constant deviation prisms; acetylene flame energy; speed of light signals; brightness of black body; properties of tungsten and tantalum; ultraviolet radiation; photographic light sources; photometry; tungsten incandescent and mercury lamps; measurement of radiant energy.

Forsythe, Dr. William R(owe), 304 E. Touhy Ave, Park Ridge, Ill. *Physical chemistry.* Pleasant Hill, Mo, Nov. 20, 15. A.B, Illinois, 37; Ph.D, California, 40. Research chemist, Dow Chem. Co, 40–41; *Air Force, U. S. Army, 41–, capt.* Thermodynamic properties of nitric acid; heat capacities of nitric acid and its hydrates from 15 to 300 degrees A; heat of dilution of nitric acid; free energy of nitric acid and its aqueous solutions; low temperature heat capacities of silver and lead.

Fort, Charles A(therton), U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Mechanicsville, N. Y, Dec. 22, 92. B.S, Middlebury Col, 15; M.Sc, McGill, 16. Research chemist, Gen. Elec. Co, 16–20; chief chemist, Forest Products Chem. Co, 20–28; *sugar technologist,* bur. agr. chem. and eng, *U. S. Dept. Agr,* 28–43, *south. regional research lab, bur. agr. and indust. chem, 43–* Chem. Soc; fel. Inst. Chem. Composition and processing of sugar-cane and sugar beets versus quality of products.

Fort, Dr. Marron W(illiam), 126 Merrimac St, Newburyport, Mass. *Chemical engineering.* Boston, Mass, June 11, 06. B.S, Mass. Inst. Tech, 26, M.S, 27, Ph.D, 33. Instr. math. physics, S. C. State Col, 27–29; W. Va. State Col, 30; Rosenwald Foundation fellow, 33; chemist, *G. J. Caldwell, Inc,* 34–38, plant supt, 38–40, *gen. manager, 40–* Chem. Soc. Physical chemistry; industrial fermentations.

Fort, Dean Tomlinson, Lehigh University, Bethlehem, Pa. *[5]*Mathematics.* Albany, Ga, Dec. 17, 86. A.B, Georgia, 06, A.M, 09; Ph.D, Harvard, 12. Kirkland traveling fellow from Harvard, Europe, 12–13; instr. *math,* Georgia, 07–09; Harvard, 10–11; Michigan, 13–14, asst. prof, 14–17; *prof,* Alabama, 17–24; Hunter Col, 24–27; *Lehigh, 27–, dean grad. sch, 38–* A.A. (councilor, 26); Math. Soc. (councilor, 26–29, assoc. sec'y, 29–31; ed, 'Bul,' 38–); Math. Asn. (chairman, southeast. sect, 24, Phila. sect, 31). Linear differential, difference equations and infinite series.

Fort, Lieut. William B(eggs), 4595 Oakenwald Ave, Chicago, Ill. *Zoology.* Chicago, Ill, Jan. 25, 09. B.S. and Ph.D, Chicago, 38; M.D, Illinois, 43. Instr. comp. and vert. embryol, Montana, 36; chairman dept. zool, Herzl Junior Col, 38–42; *lieut, Med. Corps, U. S. Army, 42–* Neuromuscular connections; method to remove formalin from preserved biological specimens; function of the hemolymph and coelomic fluids of oligochaete worms.

Fortin, Prof. J(oseph) L(ouis)-de-G(onzague), Sainte-Anne-de-la-Pocatiere, Kamouraska County, Que, Can. *Animal husbandry.* St-Fabien, Rimouski, Que, March 4, 94. Litt.D, Seminaire de Rimouski, 14; B.S.A, Ecole d'Agr. de Ste-Anne-de-la-Pocatiere, 15; M.S, Laval, 40. *Prof. animal husbandry, Ecole d'Agr. de Sainte-Anne-de-la-Pocatiere, 17–* Owner and ed, 'Gazette des Campagnes,' 41– Summers, investigator, Ministry of Commerce, Que, 37, 38. Mem. jury agr. merit, Quebec, 40, 41, 43. Canadian breed of cattle; history of the Canadian breed of horses.

Fortner, Dr. Harry C(adwallader), Veterans' Administration Facility, West Los Angeles, Calif. *Pathology.* Beaver Valley, Pa, Nov. 8, 90. A.B, Michigan, 17, A.M, 20; M.D, Rochester, 31. Col. St. Thomas, 17–18; Tennessee, 19–22; asst. prof. histol, col. med, Vermont, 22–29; asst. path, sch. med. and

dentistry, Rochester, 31–32; assoc. physician and director lab, Veterans' Admin. Home, West Los Angeles, Calif, 32–34; physician and assoc. pathologist, *Veterans' Admin. Facility*, Ill, 34–37, *pathologist, Calif, 37–* 2nd lieut, Sanit.C, 18–19. Histopathology.

Fortune, Dr. Carl H(ale), 190 N. Upper St, Lexington, Ky. *Medicine.* Chagrin Falls, Ohio, Sept. 10, 00. A.B, Transylvania Col, 22; M.D, Michigan, 26. Instr. path, Michigan, 26–29, asst. res, *internal med*, univ. hosp, 29–30, instr, 30–31; *assoc, St. Joseph's and Good Samaritan Hosps, 31–* Fel. Am. Med. Asn; fel. Col. Physicians. Coincidence of tuberculosis and malignancy; correlation of clinical and pathological findings in goiter; pathology of unilateral kidney, lymphoblastoma and endocarditis.

Forward, Dr. Dorothy F(lorence), University of Toronto, Toronto, Ont, Can. *Botany.* Ottawa, Ont, April 15, 03. B.A, Toronto, 26, M.A, 28, Ph.D, 31; fellow, Royal Soc. Can, 33; Ph.D, Cambridge, 40. Asst. bot, Toronto, 27–33, 35–37; special lecturer, McMaster, 36–37; asst. and demonstrator plant physiol, *Toronto*, 37–41, *lecturer bot, 41–* Plant pathology; nature of rust resistance; plant physiology; respiratory and carbohydrate metabolism.

Forziati, Dr. A(lphonse) F(rank), 107 Bennington St, East Boston, Mass. *Physical chemistry.* Boston, Mass, Feb. 27, 11. A.B, Harvard, 32, A.M, 34, Ph.D, 39. Lab. asst. chem, Harvard, 32–33; Radcliffe Col, 33–38; asst. *physical chem*, Harvard, 39–41; *Am. Petrol. Inst. research assoc, Bur. Standards, 41–* Chem. Soc. Petroleum chemistry.

Fosberg, Dr. F(rancis) Raymond, R. F. D. 1, 39 Holmes Run Road, Falls Church, Va. *Botany.* Spokane, Wash, May 20, 08. A.B, Pomona Col, 30; M.S, Hawaii, 35; Morris Arboretum fellow, Pennsylvania, 37–39, Ph.D, 39. Asst. botanist in charge herbarium, Los Angeles Museum, 30–32; asst. bot, Hawaii, 32–37; asst. botanist, bur. plant indust, *U. S. Dept. Agr*, 39–42, *senior botanist, bur. emergency work, 42–* Mangarevan exped, Bishop Museum, 34. A.A; Bot. Soc; Soc. Plant Taxon. Taxonomy and distribution of higher plants, especially those of the Pacific Islands; systematics and distribution of higher plants.

Fosbinder, Dr. Russel J(ohn), Maltbie Chemical Co, Newark, N. J. *Chemistry, Physiology.* Dodgeville, Wis, June 29, 04. B.S, Wisconsin, 25, M.S, 26, Ph.D, 28. Asst. chem, Wisconsin, 24–28; research assoc. cancer, grad. sch. med, Pennsylvania, 28–32; Cambridge, 32–33; *director research, Maltbie Chem. Co, 33–* Chem. Soc. Activation of cholesterol and ergosterol; calcium electrode; hydrogen ion concentration of biological fluids; electrical and mechanical properties and reaction kinetics of unimolecular films; therapeutic agents.

Foscue, Prof. Edwin J(ay), Southern Methodist University, Dallas, Texas. *Geography.* Camden, Ark, Aug. 26, 99. A.B, South. Methodist, 22; M.S, Chicago, 25; fellow, Clark, 26–27, 30–31, Ph.D, 31. Instr, *South. Methodist*, 23–24, asst. prof. *geog*, 24–31, assoc. prof, 31–38, *prof, 38–; asst. director, U. S. Board Geog. Names.* Summer, visiting prof, Nebraska, 37, 38; Western Reserve, 39, 41; Colorado, 40, 42. A.A; fel. Am. Geog. Soc; Asn. Geog. Economic and regional geography; regional geography of North America; regional geography of Anglo-America.

Fosdick, Prof. L(eonard) S(amuel), 311 E. Chicago Ave, Chicago, Ill. *Chemistry.* Chagrin Falls, Ohio, 03. B.S, Southern Col. (Fla), 27; M.S, Northwestern, 29, Ph.D, 32. Instr. *chem, Northwestern*, 29–33, asst. prof, 33–38, assoc. prof, 38–42, *prof, 42–* A.A; Chem. Soc; Int. Asn. Dental Research (sec'y-treas, Chicago sect, 41, pres, 42). Local anesthetics; dental caries; sugar degradation by bacterial enzymes.

Foshag, Dr. W(illiam) F(rederick), U. S. National Museum, Washington, D. C. *[6]*Geology, Mineralogy.* Sag Harbor, N. Y, March 17, 94. A.B, California, 19, Ph.D, 23. Chemist, Riverside Portland Cement Co, 17–18; asst. curator, *U. S. Nat. Museum*, 19–29, *curator, 29–* Miner. Soc. (v. pres, 31, pres, 40); Geol. Soc. (v. pres, 41); Geol. Soc. Wash; Petrol. Club Wash; Wash. Acad; Geol. Soc. Mex. Chemical, physical and crystallographic properties of minerals; mineral paragenesis and classification; origin of borax and other saline deposits; ore deposits of Mexico.

Foshay, Dr. Lee, 2610 Handasyde Court, Cincinnati, Ohio. *Medicine.* Cleveland, Ohio, Jan. 20, 96. M.D, Pennsylvania, 20. Instr. med, Western Reserve, 25–26; asst. prof, Cincinnati, 26–28; Iowa, 28–29; lecturer physiol, *col. med, Cincinnati*, 30–32, assoc. prof. *bacter*, 32–37, *prof. and head dept, 37–* Fellow, inst. med. research, Christ Hosp, Cincinnati, Ohio, 29–32. A.A; Am. Med. Asn; Soc. Bact; Soc. Trop. Med; Cent. Soc. Clin. Research (pres, 29). Infectious diseases.

Foss, Dr. Noel E(lmer), 46 Lake Ave, Tuckahoe, N. Y. *Pharmaceutical chemistry.* Henry, S. Dak, Sept. 14, 05. Ph.C, B.S, S. Dak. State Col, 29; Dunning fellow, Maryland, 30–34, M.S, 32, Ph.D, 33. Prof. pharmaceut. chem, Duquesne, 34–37; *pharmaceut. chemist, Burroughs Wellcome and Co, Tuckahoe, 37–; capt, Sanit. Corps, U. S. Army.* Pharmaceut. Asn. Synthetic chemistry; aromatic sulfides and salicyl alcohol derivatives; balsam of Peru; sulfur ointment analysis; cinnamic acid esters.

Fossler, Prof. H(arold) R(ay), University of South Dakota, Vermillion, S. Dak. *Psychology.* Adeline, Ill, May 9, 91. A.B, Iowa, 21, A.M, 25, Ph.D, 28. Asst. prof. psychol, Wyoming, 28–30; hon. research assoc, Iowa, 30–31; *prof. psychol, South Dakota, 31–* Assoc. Psychol. Asn. Language and symbolic processes.

Fossler, Prof. Mary L(ouise), 550 N. Los Robles Ave, Pasadena, Calif. *Biochemistry, Zoology.* Lima, Ohio, Sept. 14, 67. B.S, Nebraska, 94, fellow, 97–99, A.M, 98; Chicago, 00, 01, 03, 27–28; Northwestern, 02. Prin, high sch, Nebr, 95–97; instr. chem, Nebraska, 99–08, asst. prof. and assoc. prof. org. and physiol. chem, 08–19; *asst. prof. zool, Southern California, 19–* A.A; Chem. Soc; Ornith. Union; Soc. Mammal; Soc. Nat; Genetics Soc; Cooper Ornith. Club. Organic chemistry; synthesis of glutaric acids; separation of alkaloids; composition of proteins and their products of dissociation; bacterial food poisoning; effects of ultra-violet irradiation on antiseptics and disinfectants; physiological effects of chemical structures.

Fossum, Prof. Peter E(ven), 118 Madison St, Northfield, Minn. *Physics.* Meridean, Wis, Aug. 30, 95. A.B, St. Olaf Col, 19; A.M, Wisconsin, 23. Instr, Wisconsin, 20–23, 28–30; mem. faculty, *St. Olaf Col*, 23–28, *assoc. prof. physics, 30–* Physical Soc; Asn. Physics Teachers. Ionization of mercury vapor with ultra-violet light.

Foster, Prof. A(driance) S(herwood), University of California, Berkeley, Calif. *[7]*Botany.* Poughkeepsie, N. Y, Aug. 6, 01. B.S, Cornell, 23; M.S, Harvard, 25, Sc.D, 26. Nat. research fellow *bot*, Leeds, 26–28; asst. prof, Oklahoma, 28–34; *California*, 34–38, *assoc. prof, 39–* Guggenheim Mem. Foundation fellow, 41. A.A; Bot. Soc. Morphology of vascular plants; comparative histogenesis and morphology of foliar organs; structure, growth and evolution of apical meri stems in vascular plants.

Foster, Prof. Alfred Leon, 954 Keeler Ave, Berkeley, Calif. *Mathematics.* New York, N. Y, July 13, 04. B.S, Calif. Inst. Tech, 26, M.S, 27; J. S. K. fellow, Princeton, 28–30, Ph.D, 30. Instr. *math*, Valparaiso, 27–28; Princeton, 30–31; int. research fellow, Göttingen, 31–33; instr, *California*, 33–37, *asst. prof, 37–* A.A; Math. Soc; Asn. Symbolic Logic. Mathematical physics; foundations of mathematics; group and invariant theory; abstract algebra.

Foster, Dr. Alice, University of Chicago, Chicago, Ill. *Geography.* Ashton, Iowa, Dec. 4, 72. A.B, Iowa, 18; M.S, Chicago, 21, Ph.D, 36. Asst. prof, dept. teaching, Iowa State Teachers Col, Cedar Falls, 19–20; geol, Mt. Holyoke Col, 21–26; instr. geog, lab. schs, Chicago, 28–33, *instr.* geog. by home study, 37–42; *geog. in premeteorol. for cadets, Air Force, U. S. Army, 42–* Summer, lecturer, Calif. State Teachers Col, San Diego, 24; Chicago, 36, 37; Western Reserve, 38; Kent State Univ, 39. A.A; Am. Geog. Soc; Asn. Geog; Council Geog. Teachers (pres, 41). Principal geographic divisions of Mexico; geography of Orizaba, Mexico, and the Vega de Valencia, Spain.

Foster, Arthur C(rawford), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Meridian, Miss, Nov. 27, 93. B.S, N. C. State Col, 17; fellow, Wisconsin, 19–21, M.S, 21. Asst. pathologist, Exp. Sta, N. C. State Col, 16–18; assoc. pathologist, office cotton, truck and forage crop disease investigations, *bur. plant indust, U. S. Dept. Agr*, 21–31, *senior pathologist, div. fruit and veg. crops and diseases, 31–* Sergt, U.S.A, 18–19. A.A; Bot. Soc; Phytopath. Soc; Soc. Plant Physiol; Chem. Soc; Wis. Acad. Non-parasitic diseases of celery, lettuce and tomatoes.

Foster, Dr. A(urel) O(verton), 4613 Drexel Road, Calvert Hills, College Park, Md. *Parasitology.* Marathon, N. Y, Sept.

25, 06. A.B, Wesleyan, 29, A.M, 30; Sc.D, Hopkins, 33. Asst. helminthol, sch. hygiene and pub. health, Hopkins, 30–33, instr, 33–34; helminthologist, Gorgas Mem. Lab, 34–39; asst. parasitologist, *bur, animal indust, U. S. Dept. Agr*, 39–41, assoc. parasitologist, 41–43, *parasitologist, 43–* A.A; Soc. Parasitol; Soc. Trop. Med; Micros. Soc; Wash. Acad; Helminth. Soc. Wash. (sec'y, 40, pres, 41); Royal Soc. Hygiene and Trop. Med. Hookworm anemia; prenatal hookworm infection; effect of diet and other factors upon resistance to Ancylostoma caninum; host-migration; equine Strongylidae; verminous aneurysm; anthelmintics.

Foster, Dr. B(ruce) E(llsworth), 435 View St, Mt. View, Calif. *Physics.* Colorado Springs, Colo, July 29, 06. A.B, Colo. Col, 27; A.M, Oregon, 29; Ph.D, Stanford, 35. Asst. sci. aide, *Bur. Standards*, 35–38, junior physicist, 38–40, asst. physicist, 40–42, *assoc. physicist, 42–, in charge permanente lab, 40–* Physical Soc. Fluorescent x-ray spectra.

Foster, Dr. Carroll Pross, 3807 Hamilton Ave, Baltimore, Md. *Pharmaceutical chemistry.* Wilmington, Del, March 6, 14. B.S, Maryland, 36, Ph.D, 42. Asst. chem, sch. pharmacy, Maryland, 36–41; pharmacist, Belmar Pharmacy, 36–43; chemist, *Bunting Chem. Co, 41–; drug and chem. inspector, St. Louis med. procurement dist, U. S. War Dept, 43–* Paraminopropriophenone and derivatives.

Foster, Prof. Charles E(dward), 3 University Ave, Hamilton, N. Y. *Entomology.* Lynn, Mass, Jan. 23, 99. A.B, Colgate, 26, A.M, 30; Ph.D, Cornell, 33. Instr. *biol, Colgate*, 26–35, asst. prof, 35–40, *assoc. prof, 40–* Entom. Soc. Amer. Coccidae.

Foster, Prof. C(lifford) H(amilton), Pack Forest, Warrensburg, N. Y. *Forestry.* Hampton Bays, N. Y, Aug. 18, 00. B.S, Syracuse, 21, M.F, 22; M.S, Harvard, 24. Forester, E. Murdock Co, Mass, 23–27; *asst. prof. forest management, N. Y. State Col. Forestry, Syracuse, 27–, director Pack demonstration forest.* Dendrology; forest management.

Foster, Dr. Donald (DeLacy), 640 Old Boonton Road, Boonton, N. J. *Physics.* West Torbrook, N. S, Can, March 19, 00. B.Sc, Acadia, 20; Loomis fellow, Yale, 21–24, Ph.D, 24. Eastman Kodak Co, Rochester, N. Y, 24–25; Bell Tel. Labs, 25–36; Westinghouse Elec. and Mfg. Co, 36–38; *asst. prof. math, Stevens Inst. Tech, 39–* Special adviser, Nat. Defense Research Cmt, 42. Fel. Physical Soc. Spectrum of chromium; ferromagnetism; metallic crystals; photographic sound recording; radiation from antennas; applied mathematics; ignitrons.

Foster, Prof. Duncan G(raham), Swarthmore College, Swarthmore, Pa. *Organic chemistry.* Worcester, Mass, May 26, 97. A.B, Harvard, 18, A.M, 21; Ph.D, Hopkins, 23. Instr. org. chem, Simmons Col, 19–20; assoc. prof. *chem*, St. Stephen's Col, 23–28; asst. prof, *Swarthmore Col*, 28–38, *assoc. prof, 38–* Chem. Soc. Azo dyes; selenium organic compounds.

Foster, Dr. E(dwin) M(ichael), University of Texas, Austin, Texas. *Bacteriology.* Alba, Texas, Jan. 1, 17. A.B, N. Texas State Teachers Col, 36, A.M, 37; Alumni Research Foundation scholar, Wisconsin, 37–38, univ. fellow, 38–39, Ph.D, 40. *Instr.* agr. bacter, Wisconsin, 40; *bacter, Texas, 41–; lieut, U. S. Army.* Soc. Bact. Bacteriology of brick cheese; the microbial flora of the paunch of ruminant animals.

Foster, Dr. F(ranklin) Leroy, Massachusetts Institute of Technology, Cambridge, Mass. *Mining, Metallurgy.* Avon, Mass, Dec. 22, 02. B.S, Mass. Inst. Tech, 25, M.S, 30, Sc.D, 39. Asst. instr. mining and metal, *Mass. Inst. Tech*, 25–27, instr, 27–31, asst. prof. mining, 31–40, *asst. to director of div. indust. cooperation, 39–* Min. and Metal. Eng. (sec'y-treas, Boston sect, 28–38, chairman, 41); Geophys. Union. Geophysics; mineral economics; personnel work.

Foster, Dr. Fred W(illiam), Michigan State College, East Lansing, Mich. *Geography.* Byron, Mich, July 14, 09. A.B, Michigan, 32, M.S, 34, Earhart fellow, 35–36, Ph.D, 40. Instr. geog. and geol, Flint Junior Col, 34–35; teaching fellow, Michigan, 36–37; *instr. geog, Mich. State Col, 37–* Am. Geog. Soc; Soc. Photogrammetry; Mich. Acad. Land utilization and settlement; interpretation of aerial photographs.

Foster, Prof. Frederick Songster, Franklin and Marshall College, Lancaster, Pa. *Zoology, Physiology.* Hopewell, Pa, June 12, 98. B.S, Lafayette Col, 23. Instr. org. chem, Juniata Col, 25–27; *biol, Franklin and Marshall Col*, 27–28, asst. prof, 28–35, *assoc. prof, 36–* Summers, teacher, Juniata Col, 27, 29, 31, 32. Establishment of collateral circulation.

Foster, Prof. G(oodwin) L(eBaron), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* Calcutta, India, June 4, 92. A.B, Dartmouth Col, 13; Ph.D, Harvard, 21. Teaching fellow, Shaw Sch. of Bot, 13–14; *biochem*, Harvard Med. Sch, 14–17; instr, California, 19–22, asst. prof, 22–28; *assoc. prof, col. physicians and surg, Columbia, 28–* Soc. Biol. Chem. Chemistry of the thyroid.

Foster, Dr. Harlan, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Dalton, Ga, March 27, 09. B.S, Emory, 30, fellow, 30–31, M.S, 31; Ph.D, Washington (St. Louis), 35. Asst. chem, Washington (St. Louis), 31–35; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 35–* Summer, prof, Tampa, 35. Chem. Soc. Anthraquinone derivatives; unsaturated hydrocarbons; synthetic polymers.

Foster, Dr. H(arold) H(omer), Truck Crops Experiment Station, Crystal Springs, Miss. *Plant pathology.* Arlington, Iowa, March 24, 02. A.B, Upper Iowa, 27; A.M, Nebraska, 30; Ph.D, Wisconsin, 35. Junior plant pathologist, div. tobacco investigations, bur. plant indust, U. S. Dept. Agr, 35–40; pathologist-geneticist, Tobacco Inst. P. R, 40–43; *acting supt. and plant pathologist, Miss. Truck Crops Exp. Sta, 43–* Assoc. Int. Crop Improv. Asn. Pathogenicity of physalospora obtusa; disease resistance in the genus Nicotiana; diseases of truck crops.

Foster, Dr. Jackson W(alter), Research Laboratories, Merck and Co, Inc, Rahway, N. J. *General microbiology.* Malden, Mass, June 15, 14. B.S, Mass. State Col, 36; Ph.D, Rutgers, 39. Nat. research fellow, Hopkins Marine Sta, Stanford, 39–40; *research microbiologist, Merck and Co, Inc, 40–, head microbiol. sect.* Soc. Bact. Biochemistry and physiology of micro-organisms.

Foster, Dr. J(ohn) E(rwin), North Carolina State College, Raleigh, N. C. *Animal husbandry.* Jefferson, N. C, April 1, 03. B.S, N. C. State Col, 26; M.S, Kans. State Col, 27; Ph.D, Cornell, 37. Instr. *animal husbandry, N. C. State Col*, 28–30, asst. prof, 30–34, assoc. prof, 34–41, *prof, 41–* Agent, U. S. Dept. Agr, 40– Supt. beef cattle and sheep, N. C. State Fair. Soc. Animal Production; Asn. South. Agr. Workers. Breeding, nutrition, management and parasitic control in beef cattle, sheep, swine and work stock; forest grazing of beef cattle; pasture studies with beef cattle and sheep.

Foster, Dr. John Farley, 170 Glencoe Road, Columbus 2, Ohio. *Chemistry.* Toledo, Ohio, June 29, 10. A.B, Ohio Wesleyan, 31; M.S, Syracuse, 32; Ph.D, Stanford, 35. Asst. chemist, elec. research sect, works lab, Gen. Elec. Co, Pittsfield, 34–43; *research engineer, fuels div, Battelle Mem. Inst, 43–* Chem. Soc. Surface chemistry; inorganic insulations; theory of high temperature dielectrics; gasification of coal.

Foster, J(ohn) P(reston), Paia Maui, Hawaii. *Chemistry.* Lime Springs, Iowa, July 7, 73. B.L, Lake Charles Congregational Col. (Iowa); Louisiana. Chemist, various plantations, La, Texas and Cuba; petrol. oil ref; customs house chemist, U. S. Govt; consulting chemist, La. Bagasse Paper Factory; chemist and later *supt. mfg, Maui Agr. Co, 06–* Hawaiian Chem. Asn. (acting pres, 19, pres, 20); Hawaiian Sugar Planters Asn; Hawaiian Sugar Technol. Asn. (pres, 30). Production of A cellulose from sugar-cane bagasse; production of lime from coral sand; the manufacture of Portland cement from Hawaiian lavas; the derivation of alcohol for motor fuel from waste molasses.

Foster, Prof. J(ohn) Stuart, 615 Lansdowne Ave, Montreal, Que, Can. *Physics.* Clarence, N. S, May 28, 90. B.Sc, Acadia, 11, hon. D.Sc, 34; Loomis fellow, Yale, 19–20, Ph.D, 21. Teacher, Mt. Allison Acad, 09–12; Acadia Acad, 12–15; instr. *physics*, Yale, 20–21, nat. research fellow, 21–24; asst. prof, *McGill*, 24–29, prof, 30–35, *Macdonald prof, 35–; mem. staff, radiation lab, Mass. Inst. Tech, Nat. Defense Research Cmt, 42–* Int. Educ. Board fellow, Copenhagen, 26–27; Sterling fellow, Yale, 30; visiting prof, Ohio State, 31. Levy medal, Franklin Inst, 30. Fel. Physical Soc. (councilor, 42–); fel. Royal Soc. Can; fel. Royal Soc. Normal Stark effect; effect of combined electric and magnetic fields; spectrographic analysis of biological material.

Foster, Dean Laurence, Lincoln University, Pa. *Anthropology.* Pensacola, Fla, Feb. 3, 03. A.B, Lincoln (Pa), 26, S.T.B, 29; scholar, Pennsylvania, 27–29, Ph.D, 31. Instr,

Lincoln (Pa), 26–29; teacher hist. of ancient civilization, Stowe Teachers Col, St. Louis, 30–32; dean instruction, Pa. State Teachers Col, Cheney, 33–37; *prof. hist. and educ, Lincoln (Pa), 37–* Nat. Research Council grant-in-aid fellow, 31; reesarch assoc, Univ. Museum, Pennsylvania, 34– Director research, St. Louis Urban League, 30–32. Special rep, 'Biol. Abstracts,' 36–37. Explor, U. S, Mex, Can. and Guatemala. A.A; Anthrop. Asn; Folk-Lore Soc; Int. Acad. Physical Anthrop. (pres). Anthropometrical statistics; history of civilization.

Foster, Prof. Laurence S(tandley), Brown University, Providence, R. I. *Chemistry.* Beverly, Mass, March 17, 01. A.B, Clark, 22, A.M, 23; Ph.D, Brown, 26. Instr. *chem,* Vermont, 23–24; Utah, 26–27; research instr, *Brown,* 27–29, instr, 29–30, *asst. prof, 30–* Summer, asst. prof, Brooklyn Col, 38. Assoc. ed, 'Jour. Chem. Educ,' 42– A.A; Chem. Soc; New Eng. Asn. Chem. Teachers (v. pres, 38–40, pres, 40–42). Metallo-organic chemistry; solutions in liquid ammonia; inorganic chemistry of germanium and gallium, including extraction from ores.

Foster, Dr. L(ewis) C(handler), 88 Blake Road, New Haven, Conn. *Surgery.* St. Louis, Mo, June 22, 96. A.B, Kansas; M.D, Harvard, 23. Instr, *sch. med, Yale,* 25–28, *asst. clin. prof, 28–* Surgeon, dept. univ. health, Yale. Am. Med. Asn; Col. Surg; New Eng. Surg Soc. Empyema thoracis; leutic gastritis; cancer.

Foster, Prof. Malcolm C(ecil), Wesleyan University, Middletown, Conn. *Mathematics.* West Torbook, N. S, Can, March 10, 94. B.Sc, Acadia, 14; Ph.D, Yale, 21. Instr. *math,* Yale, 21–25; asst. prof, Williams Col, 25–27; assoc. prof, *Wesleyan,* 27–31, *prof, 31–* Differential geometry.

Foster, Dr. Margaret D(orothy), U. S. Geological Survey, Washington, D. C. *Chemistry.* Chicago, Ill, March 4, 95. A.B, Ill. Col, 18; M.S, George Washington, 23; Ph.D, American Univ, 36. Junior chemist, *U. S. Geol. Surv,* 18–24, asst. chemist, 24–35, *assoc. chemist, 35–* A.A; Chem. Soc; Geophys. Union; Miner. Soc. Water analysis; methods of analysis and geochemical relations of ground waters; geochemistry and methods of analysis of rocks and minerals.

Foster, Dr. Mark G(ardner), Naval Ordnance Laboratory, Navy Yard, Washington, D. C. *Physics.* Winfield, Kans, March 17, 14. A.B, Miami (Ohio), 35; Ph.D, Calif. Inst. Tech, 39. Asst. physics, Calif. Inst. Tech, 35–39; physicist, research dept, Champion Paper and Fibre Co, 39–41; *assoc. physicist, Naval Ordnance Lab, 41–* A.A; Physical Soc. Electrical conductivity of thin metallic films.

Foster, Dr. Mary Louise, 309 Front St, Owego, N. Y. *Chemistry.* Melrose, Mass, April, 65. A.B, Smith Col, 91, A.M, 12; Mass. Inst. Tech, 93–97; Columbia, 07; Ph.D, Chicago, 14. Research chemist with C. A. Herter, 00–01; indust. works, Maywood, N. J, 01–04; C. A. Herter, 04–07; assoc. prof. chem, Smith Col, 08–33; *retired.* Founded, Foster Lab, Madrid, 20; Santiago Col, Chile, 32–33. Chem. Soc; Soc. Biol. Chem; Hist. Sci. Soc. (councilor, 31–34). Biochemistry; effect of micro-organisms on proteins; phosphatides; absorption spectra of organic compounds.

Foster, Prof. Norman B(aird), U. S. Weather Bureau, Washington, D. C. *Physics.* New Bedford, Pa, Sept. 11, 96. A.B, Cedarville Col, 20; M.S, N. C. State Col, 23; Chicago, summers, 21–24, 27; Asheville Nor. and Teachers Col, summers, 36, 37. Instr. physics, N. C. State Col, 20–23; asst. prof, N. C. Col. for Women, 23–28, assoc. prof, 28–32, Woman's Col, North Carolina, 32–35, acting head dept, 28; substitute, Clemson Col, 37; weather observer, *U. S. Weather Bur,* 37–39, sci. aid, 39–40, junior research physicist, 42–43, *asst. research physicist, 43–* Summer, asst, Chicago, 22. A.A; Asn. Physics Teachers; N. C. Acad. Effect of an electric field on colloids in non-conducting liquids; cost of gas versus electricity; water vapor and ozone spectrophotometer instruments; a spectroscopic hygrometer.

Foster, Dr. Paul C(ameron), Holzer Hospital, Gallipolis, Ohio. *Physiology.* Greensboro, N. C, April 12, 03. A.B, Penn Col, 24; Ph.D, Tulane, 30; M.D, Chicago, 37. Instr. physiol, Tulane, 30–32, asst. prof, 32–36; intern, univ. hosp, Iowa, 37–38; res. surg, Ohio State, 38–40; *assoc. surgeon, Holzer Hosp, 40–* Assoc. mem. Soc. Exp. Biol. The effect of ultra-violet irradiation on blood; oxygen capacity and hemoglobin content of blood; radiant energy and the tissue temperature gradient; heart position and initial ventricular deflections in bundle branch block.

Foster, Dr. R(obert) H(enry) K(ing), 160 Church St, Nutley, N. J. *Pharmacology.* Wollaston, Mass, May 1, 02. B.Ch.E, Ohio State, 23; Ph.D, Chicago, 32, M.D, 35. Instr. pharmacol, Chicago, 32; research instr, drug addiction lab, Michigan, 32–33; *chief pharmacologist, Hoffman-LaRoche, Inc, Nutley, N. J, 36–* A.A; Soc. Exp. Biol; Physiol. Soc. Bioassay of digitalis; method for measuring blood coagulation; pharmacology of codeine, dihydrocodeine and their isomers; hematopoietic effect of certain amino acids; safety margin of drugs; hypnotics; analgesics; heparin; vitamin K.

Foster, Ronald M(artin), 122 E. Dudley Ave, Westfield, N. J. *Mathematics.* Brooklyn, N. Y, Oct. 3, 96. B.S, Harvard, 17. Asst. math, Harvard, 16–17, instr, 21–22; eng. dept, Am. Tel. and Tel. Co, 17–19, dept. develop. and research, 19–21, 22–34; *with Bell Tel. Labs, New York, 34–* Lecturer, Polytech. Inst. Brooklyn, 39–40. A.A; Math. Soc; Math. Asn; Council Teachers Math; Asn. Symbolic Logic; Inst. Math. Statist; Edinburgh Math. Soc; London Math. Soc. Electrical network theory; earth-return circuits; Fourier integrals; postulate systems; popularization of mathematics.

Foster, Dr. S(tuart) B(rooks), 1 Maynard Road, Framingham Center, Mass. *Chemistry.* Somerville, Mass, July 12, 91. B.S, Mass. Col, 14; A.M, Columbia, 21, Ph.D, 25. Asst. chemist, McClure Labs, Mass, 15–17; *head dept. chem, Mass. State Teachers Col, Framingham, 21–* Lieut, Sanit.C, 18–19. Chem. Soc. Chemistry of leather formation; nutrition.

Foster, Wilder D(eAyre), 4800 Forbes St, Pittsburgh, Pa. *Petrography.* Toledo, Ohio, Aug. 25, 07. A.B, Ohio Wesleyan, 28; M.S, Ohio State, 29, Calcium Chloride Asn. fellow, 29–32. Calcium Chloride Asn. fellow, Bur. Standards, 32–35; *asst. chemist-petrographer, U. S. Bur. Mines, 35–* Chem. Soc; Miner. Soc. Better methods for microscopic identification of mineral components of atmospheric dust.

Foster, Dr. Wilfrid R(aymond), Champion Spark Plug Co, 8525 Butler Ave, Detroit, Mich. *Ceramic petrography.* Fredericton, N. B, Can, Feb. 14, 13. B.S, New Brunswick, 34; M.S, Catholic Univ, 36; Ph.D, Chicago, 40. Instr. petrol, Catholic Univ, 40–41; mineral preparation, Pa. State Col, 41–42; *ceramic petrographer, Champion Spark Plug Co, 42–* Summers, chief geol. surv. parties, N. B, Dept. Lands and Mines, 37, 39. Miner. Soc. Physico-chemical petrology; crossed Cannizzaro reactions with benzaldehyde, furfural and formaldehyde; the system $NaAlSi_3O_8$–$CaSiO_3$–$NaAlSiO_4$; geologic mapping of Sussex and St. Andrews map areas; froth-flotation beneficiation of glass sands.

Foster, William C(larence), Hahnemann Medical College, Philadelphia, Pa. *Physiological chemistry.* Providence, R. I, Jan. 27, 05. Ph.B, Brown, 29, 29–30; M.S, Minnesota, 39. Lab. asst. biol, Brown, 29–30; instr. biol, Morehouse Col, 30–32; lab. asst. physiol. chem, Minnesota, 34–36, asst, 36–39; *research chemist, Hahnemann Med. Col, 39–* A.A: Chem. Soc. Relation of fluorine to dental caries; relation of iodine to goiter; formation of ammonia by kidney.

Foster, W(illiam) R(obert), Saanichton, B. C, Can. *Plant pathology.* Edmonton, Alta, Oct. 21, 05. B.Sc, Alberta, 28, M.Sc, 30. Asst. plant path, Alberta, 28–30; *asst. provincial plant pathologist and geneticist, B. C, 30–* Phytopath. Soc; West. Soc. Agron; Can. Soc. Tech. Agr. Leptosphaeria foot-rot of wheat in Alberta; treatment of seed grain; overwintering of certain wheat pathogenes; bacterial fruit blight; anther and stigma blight of the loganberry; cereal smuts; a new stem-end rot of potatoes; a new species of Phomopsis; Mendelism; resistance of winter wheats to Hessian fly; dark berry of Cotoneaster; diseases and pests of cereals, fiber, forage and root crops.

Foster, Prof. Wilmot Coyne, 318 Mayer Bldg, Portland, Oregon. *Anatomy.* Sheridan, Oregon, June 21, 92. A.B, Oregon, 16, fellow, 16–17, M.D, 20, A.M, 23; Minnesota, 17; Chicago, 18. Instr. zool, Oregon, 15–16, anat, med. sch, 17–20, asst. prof, 20–26; fellow surg, Mayo Clinic, 26–30; *prof. surg. anat, Oregon, and practising surgeon, 30–* Experimental surgery and medicine.

Fostvedt, Dr. Gerald, 1758 W. Harrison St, Chicago, Ill. *Pharmacology, Toxicology, Clinical medicine.* Chetek, Wis, March 8, 12. B.S, Minnesota, 34, Minn. State Pharmaceut. fellow, 35–36, M.S, 36; Ph.D, Chicago, 39; M.D, Rush, 41. Asst, Chicago, 36–39; *research assoc, private toxicologist and lecturer toxicol, Rush Med. Col, 40–* Alkaloid reagents; bioassay of drugs; pituitary gland; mercurials; wetting agents.

Foter, Dr. Milton J(ohn), Research Laboratory, Pet Milk Co, Greenville, Ill. *Bacteriology.* New York, N. Y, March 4, 09. B.S, Cornell, 31, M.S, 32, Ph.D, 36. Instr. bacter, Cornell, 31–35; asst. prof. bacter, Connecticut, 35–42; *head div. bacter, research lab, Pet Milk Co, 42–* Inst. Food Technol; Soc. Bact; Dairy Sci. Asn; Int. Asn. Milk Sanitarians. Bacterial physiology; bioluminescence in bacteria; bacteriology of evaporated and powdered milk; cheese; milk quality; mold inhibitors; plant sanitation; bactericidal efficiency of can washing compounds; bactericidal properties of vegetable vapors and volatile chemicals.

Fothergill, Dr. R(obert) E(nos), 2043 Barry St, Wilmington, Del. *Chemistry.* Eagle Grove, Iowa, Sept. 26, 02. B.S, Iowa State Col, 24, M.S, 26, Ph.D, 29. Instr, Iowa State Col, 27–29; *chemist, E. I. du Pont de Nemours and Co, Wilmington, Del, 30–* Chem. Soc. Organic chemistry.

Foulger, Dr. John H(enry), 1212 Delaware Ave, Wilmington, Del. *Pharmacology.* Hastings, Eng, Aug. 4, 98. B.Sc, London, 20, M.Sc, 22; Ph.D, Cincinnati, 24, M.D, 30. Demonstrator chem, King's Col. (London), 21–23; instr. biochem, col. med, Cincinnati, 25–26, asst. prof, 27–28, pharmacol, 28–31, assoc. prof, 31–35; senior toxicologist, *Haskell Lab. Indust. Toxicol, 35–38, director, 39–; assoc. prof. indust. health, Med. Col. of Va, 39–* A.A; Chem. Soc; Heart Asn; Asn. Indust. Physicians and Surg; fel. Col. Physicians. Formaldehyde and blood serum; silicon in tissues; use of needle electrodes in electrocardiographic diagnosis; color tests for carbohydrates; electrocardiogram in acute pericardial effusion; therapy in pernicious anemia; antiseptic action of urea; industrial toxicology and medicine.

Foulk, Prof. C(harles) W(illiam), Ohio State University, Columbus, Ohio. *Chemistry.* Warren, Ohio, April 26, 69. A.B, Ohio State, 94; Leipzig, 99–01; hon. Sc.D, Mt. Union Col, 34. Asst. to chemist, Ohio Board Agr, 94–96; asst. chem, *Ohio State,* 96–98, asst. prof, 98–02, assoc. prof, 02–08, prof. *anal. chem,* 08–39, *emer. prof, 39–.* Consulting chemist, Ohio Geol. Surv, 14–16. Mem. cmt. award, J. T. Baker fellowship; chairman cmt. No. 3 joint research on boiler feedwater. A.A; Chem. Soc; Water Works Asn. Analytical chemistry; iodine, silver and constant boiling hydrochloric acid as ultimate standards in volumetric analysis; direct determination of sodium; dead-stop endpoint and electrometric indicators; chain hydrometer; foaming and priming in boiler water; general theory of liquid film formation.

Foulke, Prof. D(onald) Gardner, 218 Oreland Mill Road, Oreland, Pa. *Organic chemistry, Electrochemistry.* Burnham, Pa, Aug. 19, 12. B.S, Juniata Col, 34; M.S, Rutgers, 37, Ph.D, 41; Munich, 37. Asst, Rutgers, 35–38, instr. chem, 38–40; asst. prof, Beaver Col, 40–42; research assoc, A. Kenneth Graham and Assoc, 41–42; *research chemist, Jenkintown lab, United Eng. and Foundry Co, 42–* Chem. Soc. Reaction of secondary and tertiary dialkylmagnesiums with epichlorohydrin; reaction of dioxane with the Grignard reagent; micrptechnique of qualitative organic analysis; electroplating of tin from an acid solution.

Found, Clifton G(arwin), 2986 Meadowbrook Blvd, Cleveland Heights, Ohio. *Physics.* Claremont, Ont, Can, March 4, 93. B.A, Toronto, 14, M.A, 15. Physicist, research lab, *Gen. Elec. Co,* 16–42, *in charge lamp research, 42–* A.A; fel. Physical Soc; Ill. Eng. Soc. High vacuum and gaseous discharges.

Fountain, Prof. C(laude) R(ussell), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Ashland, Oregon, Nov. 2, 79. A.B, Oregon, 01; Ph.D, Columbia, 08. Asst. physics, Columbia, 02–05; assoc. prof, Idaho, 05–06; instr, Williams Col, 06–09; asst. prof, Kenyon Col, 09–13; adj. prof, Georgia, 13–18; prof. physics and astron, Mercer, 18–26; math. and physics, George Peabody Col, 26–27, physics, 27–39; math. and science, Hume-Fogg Tech. Sch, 40–41; *visiting prof. physics,* Amherst Col, 41–42; *Mass. Inst. Tech, 42–* Summers, asst, Columbia, 02–05; prof, George Peabody Col, 15–19, 23–39; Southwestern, 40; eng. defense training program, Pa. State Col, 41. Asst. dist. educ. director, S.A.T.C, 18. A.A; Physical Soc; Meteorol. Soc; Asn. Physics Teachers; Ga. Acad. (v. pres, 26); Tenn. Acad. (pres, 36). Electromagnetic waves; light of firefly; radio broadcasting; ultra short radio waves; x-rays; fever therapy; architectural acoustics; laboratory instruments.

Fouraker, Prof. R(aymond) S(pivey), North Carolina State College, Raleigh, N. C. *Electrical engineering.* Dallas, Texas, Dec. 24, 91. B.S, Agr. and Mech. Col. Texas, 14; M.S, Texas, 26. Westinghouse Elec. and Mfg. Co, East Pittsburgh, 14–17; instr, Agr. and Mech. Col. Texas, 19–23; asst. prof, Texas, 23–27; Texas Tech. Col, 27–28; *prof. elec. eng, N. C. State Col, 28–* A.S, U.S.A, 18. Elec. Eng. (sec'y, N. C. sect, 35).

Fournier, Prof. Ovila, University of Montreal, Montreal, Que, Can. *Entomology.* Upton, Que, Aug. 27, 99. M.S, Montreal, 30. *Prof. entom, Montreal.* Entom. Soc. Ont. Aquatic insects.

Fourt, Dr. Lyman (Edwin), Textile Foundation, Inc, Washington, D. C. *Molecular physics.* Aurora, Mo, May 27, 12. A.B, Missouri, 33; Ph.D, Washington (St. Louis), 37. Research instr. chem, Chicago, 37–39, instr. and Logan fellow bacter. and parasitol, 39–40; *research assoc.* pharmacol, Washington (St.Louis), 40–41; *textile foundation, bur. standards, U. S. Dept. Commerce, 41–* Chem. Soc; Mo. Acad. Unimolecular films; enzyme immunochemistry.

Foust, Prof. Alan S(hivers), 2220 Washtenaw Road, Ann Arbor, Mich. *Chemical engineering.* Dublin, Texas, June 26, 08. B.S, Texas, 28, M.S, 30; Ph.D, Michigan, 38. Tutor chem, Texas, 28–30, 32–33, instr, 33–35; chemist, Magnolia Petrol. Co, 30–32; Texas Pacific Coal and Oil Co, 32–33; assoc. prof. chem, col. mines, Texas, 35–36; instr. *chem. eng, Michigan, 37–39, asst. prof, 39–; major, Chem. Warfare Service, U. S. Army.* Chem. Eng. Heat transfer; drying.

Foust, Prof. H(arry) L(ewis), 2110 Country Club Blvd, Ames, Iowa. *Veterinary medicine.* Ohio, 86. D.V.M, Ohio State, 14; Minnesota, 24, 26, summer, 35; Wisconsin, summers, 17, 18. Vet. inspector, bur. animal indust, U. S. Dept. Agr, 14–16; asst. prof. vet. med, N. Dak. Col, 16–26, assoc. prof, 26–27; *prof. vet. anat. and head dept, Iowa State Col, 27–* A.A; Asn. Anat; Soc. Develop. and Growth; Vet. Med. Asn. (research councilor); Genetic Asn; Iowa Acad; Iowa Vet. Med. Asn. Avian tuberculosis; histology of bovine muscle; tough and tender beef; embalming; eye defect in guinea pig; innervation of ruminant stomach; endocrine organs; bovine mammary gland.

Fouts, Prof. E(verett) L(incoln), University of Florida, Gainesville, Fla. *Dairy manufactures.* LaFayette, Ind, March 12, 00. B.S, Purdue, 23; M.S, Okla. Agr. and Mech. Col, 31; Ph.D, Iowa State Col, 39. Foreman univ. creamery and instr. dairy mfrs, Purduc, 24–27; asst. prof. dairy mfrs, Okla. Agr. and Mech. Col, 28, assoc. prof, 30–35, 37–40; supt, Colverts Ice Cream Co, 29; asst, Iowa State Col, 36; *prof. dairy mfrs, Florida, and dairy technologist, Exp. Sta, 40–* Dairy Sci. Asn. Dairy bacteriology; decomposition of butterfat; storage of dairy products.

Fouts, Dr. Paul J(ones), Indianapolis City Hospital, Indianapolis, Ind. *Medicine.* Centerville, Ind, June 15, 05. A. B, Indiana, 26, M.D, 29. House officer, Boston City Hosp, Boston, Mass, 29–31; asst. *med, sch. med, Indiana,* 31–37, *assoc, 37–; major, Med. Corps, U. S. Army, 42–* Chief res. physician, Lilly Labs, Indianapolis City Hosp, 31–36, assoc. visiting physician, hosp, 33–36, visiting physician, 36–; mem. research staff, Lilly Lab. Clin. Research, 36– Fel. Am. Med. Asn; Soc. Clin. Invest; Soc. Trop. Med; Cent. Soc. Clin. Research. Clinical investigation; pernicious anemia and related deficiency diseases.

Fowerbaugh, Dr. Clarence Corodon, 818 Guardian Bldg, Cleveland, Ohio. *Psychology.* Huntington, Ind, March 5, 05. A.B, Indiana, 27, A.M, 28, Ph.D, 30; LL.B, Western Reserve, 34. *Psychologist,* Cleveland City Hosp, 29–30; *Child Guidance Clinic, Cleveland, Ohio, 30–* A.A; assoc. Psychol. Asn; assoc. Midwest. Psychol. Asn. Psychogenetics of the paranoid psychosis.

Fowler, Dr. C(harles) A(rman), Jr, 109 Le Conte Hall, University of California, Berkeley, Calif. *Physics.* Salt Lake City, Utah, April 23, 12. A.B, Utah, 33, M.S, 34; Ph.D, California, 40. Assoc. *physics, California,* 39–40, *instr, 40–* Absorption spectra of certain diatomic halides.

Fowler, Prof. Coleen, Greensboro College, Greensboro, N. C. *Physiology.* Ph.D, Hopkins, 33. *Asst. prof. biol, Greensboro Col, 36–* Cell physiology; passage of water through cell membranes.

Fowler, Earl D(onald), Bureau of Plant Industry, Soils and Agricultural Engineering, U. S. Department of Agriculture, Washington, D. C. *Soils.* Fairmount, Ind, Feb. 2, 90. B.S, Earlham Col, 15. U. S. Forest Service, 16–17; U. S. Soil Surv, 19–30; assoc. soil technologist, div. soil fertility

investigations, bur. plant indust, *U. S. Dept. Agr*, 31–36, senior soil scientist, soil conservation service, 36–42, *prin. soil scientist, bur. plant indust, soils and agr. eng, 43–* Ambulance Service, British Red Cross, 15–16; C. Eng, U.S.A, 18–19. Soil Sci. Soc; Soc. Agron; Pecan Asn; Int. Soc. Soil Sci. Soil characteristics in relation to classification; soil fertility in relation to pecans, cover crops and Cracca plants.

Fowler, Dr. Geo(rge) R(ockwell), Iowa State College, Ames, Iowa. *Veterinary surgery.* Grass Lake, Mich, 90. B.S, State Col. Wash, 25, D.V.M, 25. Instr. *vet. surg*, State Col. Wash, 25–28; asst. prof, *Iowa State Col*, 28–29, assoc. prof, 29–32, *prof. and head dept, 33–*

Fowler, Dr. George W(right), Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Organic chemistry.* Stoneboro, Pa, April 7, 12. B.S, Pa. State Col, 33; Ph.D, Northwestern, 37. *Research chemist, Carbide and Carbon Chem. Corp, 37–* Chem. Soc. Organic synthesis.

Fowler, H(arry) C, 4812 Western Ave, N. W, Washington, D. C. *Engineering.* Paso Robles, Calif, April 7, 93. A.B. (C.E), Stanford, 15. Res. engineer, field divisions, Associated Oil Co, 16–18, 19–23; petrol. engineer, *U. S. Bur. Mines*, 23–33, *senior petrol. engineer, 33–*, acting chief engineer, petrol. and natural gas div, 28–33. U.S.A, 18–19. Min. and Metal. Eng. (v. chairman, eng. research, petrol. div, 31–33). Production engineering; stimulative methods in oil recovery; safety engineering in the petroleum industry, especially the prevention of hydrogen sulfide poisoning; oil and gas reservoir performance.

Fowler, Henry W(eed), Academy of Natural Sciences, Philadelphia, Pa. *Zoology.* Holmesburg, Pa, March 23, 78. Stanford, 02. Asst, *museum, Acad. Nat. Sciences, Phila*, 03–22, Bishop Museum fellow, 22–23, assoc. curator vert. zool, 25–34. *curator fishes and reptiles, 34–* Consulting ichthyologist, Bishop Museum, Honolulu, 29. Soc. Ichthyol. and Herp. (treas, 14, pres, 27); Ornith. Union; Del. Valley Ornith. Club (pres, 16); Biol. Soc. Wash. Ichthyology; herpetology; fossil fishes; New Jersey Crustacea.

Fowler, Prof. J(ohn) R(obert), Louisiana Polytechnic Institute, Ruston, La. *Biology.* Hico, La, Oct. 7, 93. B.S, Louisiana, 24; M.S, Chicago, 27, Ph.D, 30. Instr. zool, Louisiana, 24–28, asst. prof, 28–33; *head dept. biol, La. Polytech, 33–* A.A; Genetics Soc; New Orleans Acad. (chairman, sect. biol. sci, 37). Ecology.

Fowler, Dr. L. Haynes, 1005 Medical Arts Bldg, Minneapolis, Minn. *Surgery.* Binghamton, N. Y, March 2, 96. A.B, Minnesota, 17, M.D, 20, fellow, 21–24, M.S, 24. *Instr.* anat, *Minnesota*, 25–30, *surg, 30–; lieut. col, Med. Corps, U. S. Army.* Fel. Col. Surg; Am. Med. Asn. Surgical anatomy of the thyroid gland; carcinoma and epithelioma of youth.

Fowler, Marvin E(dward), 3737 Van Ness St, N. W, Washington, D. C. *Forest pathology.* Salisbury, Mo, Oct. 12, 04. A.B, Cent. Col. (Mo), 26; A.M, George Washington, 31. Instr, high sch, Mo, 26–29; asst. sci. aid, *div. forest path, bur. plant indust, soils and agr. eng, U. S. Dept. Agr*, 29–35, asst. pathologist, 35–42, *assoc. pathologist, 42–* Mem, Nat. Shade Tree Conf. A.A; Mycol. Soc; Phytopath. Soc. Fungus diseases of shade trees; twig and nut diseases of the Asiatic chestnut; deterioration of oak and hemlock tanbark.

Fowler, Dr. R(obert) L(awrence), 2674 Olive St, Huntington Park, Calif. *Botany.* Roanoke, La, Sept. 16, 10. A.B, California at Los Angeles, 34, A.M, 35; Ph.D, Nebraska, 41. Instr. bot, Colo. State Col, 36–38; grad. asst, Nebraska, 39–41; *range investigation, U. S. Dept. Agr, 41–* Ecol. Soc; Soc. Plant Taxon; Torrey Bot. Club. Plant ecology; taxonomy.

Fowler, Dr. William Alfred, California Institute of Technology, Pasadena, Calif. *Physics.* Pittsburgh, Pa, Aug. 9, 11. B.Eng, Ohio State, 33; Ph.D, Calif. Inst. Tech, 36. Research fellow, Calif. Inst. Tech, 36–38, asst. prof. physics, 38–40; *research assoc, Nat. Defense Research Cmt*, Carnegie Institution, Bur. Standards and *Calif. Inst. Tech, 41–* Disintegration of light elements under bombardment by hydrogen nuclei using the electrostatic generator as the source of high voltage.

Fowler, Dr. W(illiam) A(lonzo), University of Oklahoma School of Medicine, Norman, Okla. *Medicine.* Valley Springs, Ark, July 29, 84. L.I, Peabody Col, 05; M.D, Nashville, 08. Prof. clin. obstet, sch. med, Oklahoma, 12–26; practicing physician, Fayetteville, Ark, 32–37; *director student health, Oklahoma, 37–* Am. Med. Asn; Col. Surg; Washington Co, Ark, Med. Soc. (pres, 37). Clinical medicine; clinical obstetrics; chronic infections in pregnancy; undulant fever.

Fowler, W(illiam) Frank, Jr, 4 San Rafael Drive, Rochester, N. Y. *Organic chemistry.* Rochester, N. Y, June 4, 16. B.S, Syracuse, 39, M.S, 40. *Research chemist, Eastman Kodak Co, 40–* Chem. Soc. Preparation and properties of synthetic resins; cellulose esters.

Fowler-Billings, Dr. Katharine (Mrs. Marland P. Billings), 115 Dover Road, Wellesley, Mass. *Geology.* North Hampton, N. H, June 12, 02. A.B, Bryn Mawr Col, 25; A.M, Wisconsin, 26; Ph.D, Columbia, 30. Geologist, Sierra Leone, W. Africa, 30; Maroc Gold Co, 31–32; instr. geol, Wellesley Col, 35–38; *mem. staff, New Eng. Museum Nat. Hist, 40–; asst. geol, Tufts Col, 42–* Geol. Soc. Anorthosites of the Laramie Mountains, Wyoming; iron ores and molybdenite, Sierra Leone, West Africa; geology of the Cardigan Quadrangle, New Hampshire, Monadnock region.

Fox, Adrian C(asper), Soil Conservation Service, U. S. Department of Agriculture, Mandan, N. Dak. Leeds, N. Dak, Jan. 28, 05. B.S, N. Dak. State Col, 30, M.S, 33. Asst. entomologist grasshopper control, exten. service, N. Dak. State Col, 34, asst. county agent, 34–35; *area biologist, soil conservation service, U. S. Dept. Agr, 35–; U. S. Naval Res.* Soc. Mammal; Wildlife Soc; Ornith. Union; Nature Asn; Wildlife Inst; Wilson Ornith. Club. Food habits of pheasants; the carpenter worm and its effect on the green ash tree.

Fox, Dr. Arthur L(awrence), General Aniline and Film Co, Easton, Pa. *Chemistry.* Chicago, Ill, April 25, 99. A.B, M.S, Illinois, 23; Ph.D, Northwestern, 27. Research chemist, bur. chem, U. S. Dept. Agr, 23–24; Jackson lab, E. I. du Pont de Nemours and Co, 27–42; *head applications sect, research lab, Gen. Aniline and Film Co, 42–* Chem. Soc. (sec'y, Del. sect, 28–30). Mercuration of naphthoic acids; thioindigo and indigo dyes; printing and dyeing assistants; dispersion and grinding of natural colors; stable leuco-derivatives of thioindigo colors; sulfur colors; difference in taste ability of individuals with regard to thiourea derivatives.

Fox, Prof. Augustus H(enry), 1101 Millington Road, Schenectady, N. Y. *Mathematics.* Mansfield, Ohio, Sept. 28, 02. A.B, Western Reserve, 25; A.M, Oberlin Col, 27; A.M, Harvard, 29; Ph.D, Yale, 35. Instr. *math*, Oberlin, 25–27; Harvard, 27–29; Yale, 31–32; *Union (N. Y)*, 29–31, 32–37, asst. prof, 37–43, *assoc. prof, 43–* Math. Soc; Math. Asn. Differential equations; mathematical physics.

Fox, Dr. Clement A(lphonsine), Northwestern University Medical School, Chicago, Ill. *Neuroanatomy.* Hart, Mich, April 15, 08. B.S, Marquette, 31, 33–35; A.M, Michigan, 36, Ph.D, 38. Asst, dept. zool, Marquette, 33–35; teaching fellow anat, Michigan, 35–38; instr, Marquette, 38–43; *assoc. neur, med. sch, Northwestern, 43–* Asn. Anat. Cat forebrain.

Fox, Prof. Denis L(lewellyn), Scripps Institution of Oceanography, La Jolla, Calif. *Biochemistry, Physiology.* Udimore, Sussex, Eng, Dec. 22, 01. A.B, California, 25; Royall Victor fellow, Stanford, 30–31, Ph.D, 31. Chemist, research labs, Standard Oil Co. of Calif, Richmond, 25–29; teaching asst. biochem, Stanford, 29–30, biol, 31; instr. physiol, *Scripps Institution, California*, 31–36, asst. prof, 36–37, *marine biochem*, 37–42, *assoc. prof, 42–* Rockefeller Foundation research fellow, Cambridge, 38–39. Research cmt, biol. research inst, Zool. Soc, San Diego, 40– A.A; Soc. Exp. Biol; West. Soc. Nat. (sec'y-treas, 39–43); Oceanog. Soc. Pacific; fel. San Diego Soc. Nat. Hist. (pres. of fellows, 36). Chemical and toxic properties of nitrogen bases from petroleum; narcotic effects of carbon dioxide upon protoplasm; physiology, nutrition, enzymes, osmosis and growth of marine organisms; physiological and biochemical studies of carotenoids and other natural pigments.

Fox, Edward J(ackson), U. S. Department of Agriculture, Washington, D. C. *Physical chemistry.* Mathews, Va, Aug. 31, 95. A.B, Richmond, 17; M.S, George Washington, 24. Teacher, high sch, Va, 17; junior chemist, U. S. Nitrate Plant, Ala, 18; fixed nitrogen research lab, *U. S. Dept. Agr*, 19–22, asst. chemist, bur. soils, 22–29, *assoc. chemist*, bur. chem. and soils, 30–40, *bur. plant indust, 41–* Chem. Soc. Fertilizer and fixed nitrogen; analytical methods for fixed nitrogen compounds; potash from American resources; treatment of phosphates.

Fox, Rev. Francis E(dward), 907 Michigan Ave, N. E, Washington, D. C. *Physics.* Wilmington, Del, May 22, 09. A.B, Catholic Univ, 32, M.S, 34, Ph.D, 38. Instr. and later *asst. prof. physics, Catholic Univ, 36–* Physical Soc. Sound; ultrasonics.

Fox, Prof. Frederick H(ewitt), Tulane University, New Orleans, La. *Engineering.* Chattanooga, Tenn, May 22, 94. B.E, Ohio State, 16; certificate, Paris, 19. Instr. *civil eng,* Kans. State Col, 20–21; asst. prof. and *assoc. prof, Tulane, 21–* La. Eng. Soc. (pres, 30).

Fox, Prof. Gerald W(illis), Iowa State College, Ames, Iowa. *Physics.* Three Rivers, Mich, Sept. 23, 00. A.B, Michigan, 23, A.M, 24, Ph.D, 26. Instr. physics, Michigan, 24–26, head dept. physics and chem, univ. high sch, 26–27, asst. prof. *physics,* univ, 27–30; assoc. prof, *Iowa State Col,* 30–35, *prof, 35–* A.A; Physical Soc. Conduction of electricity through gases; x-ray diffraction in piezoelectrically oscillating crystals.

Fox, Dr. Henry, R. F. D. 1, Cape May Court House, N. J. *Biology.* Germantown, Pa, Feb. 18, 75. B.S, Pennsylvania, 99, A.M, 03, Ph.D, 05. Instr. biol, Wisconsin, 02–03; prof. biol. and chem, Temple, 03–05; instr. science, N. E. Manual Training Sch, Phila, 05–07; prof. biol, Ursinus Col, 07–12; investigator, bur. entom, U. S. Dept. Agr, 12–18; prof. biol, Mercer, 18–24; assoc. entomologist, Japanese beetle project, bur. entom. and plant quarantine, U. S. Dept. Agr, 25–36; *lab. asst. biol, N. Y. Univ, 36–* Entom. Soc; Asn. Econ. Entom; N. Y. Entom. Soc. (sec'y-treas, 21–25); Acad. Nat. Sci. Phila. Vertebrate embryology; insect ecology and life histories; distribution, variation and specific integration in Orthoptera; biology of the Japanese beetle.

Fox, Dr. Howard, 140 E. 54th St, New York, N. Y. *Dermatology.* London, Eng, July 4, 73. A.B, Yale, 94; M.D, Columbia, 98; hon. Sc.D, Rollins Col, 31; Berlin; Vienna. Prof. *dermat. and syphilol, N. Y. Univ,* 25–38, *emer. prof, 38–* Attending dermatologist and syphilologist in charge, Bellevue Hosp; attending dermatologist, Willard Parker Hosp; U. S. Pub. Health Hosps, Dist. No. 2; consulting dermatologist to numerous hosps. Pres, Am. Board Dermat. and Syphilol. Ed. in chief, 'Archives Dermat. and Syphilol.' V. pres, 8th Int. Cong. Dermat, Copenhagen; hon. pres, 9th Int. Cong. Dermat, Budapest. Lieut. col, M.C, 17–19, col, M.R.C. Dermat. Asn. (pres, 24); Am. Med. Asn. (chairman, dermat. and syphilol. sect, 15); Am. Acad. Dermat. and Syphilol. (pres, 38); hon. mem. Soc. Investigative Dermat; hon. mem. New Eng. Dermat. Soc; N. Y. Dermat. Soc. (pres, 15, 29); N. Y. State Med. Soc. (chairman, dermat. and syphilol. sect, 26–28); N. Y. Acad. Med. (chairman, dermat. and syphilol. sect, 21–23); N. Y. Soc. Trop. Med. (pres, 39); Med. Soc. County of New York (pres, 38); cor. mem. British Asn. Dermat. and Syphilol; hon. mem. Royal Soc. Med; hon. mem. Soc. française de Dermat. et de Syphilig; cor. mem. Danish Dermat. Soc; hon. mem. Austrian Dermat. Soc; hon. mem. Hungarian Dermat. Soc; hon. mem. Polish Dermat. Soc; hon. mem. Spanish Acad. Dermat. and Syphilol; hon. mem. Med. Soc. Peru; hon. mem. Cuban Dermat. Soc; cor. mem. Med. and Surg. Soc. São Paulo. Skin diseases of infants and children, of Negroes and of the tropics; x-ray treatment of skin diseases; syphilis; leprosy.

Fox, Dr. Irving, University of Puerto Rico, Rio Piedras, P. R. *Medical entomology.* Hartford, Conn, Dec. 19, 12. A.B, George Washington, 37, A.M, 38; Ph.D, Iowa State Col, 40. Teaching asst. entom. and zool, Iowa State Col, 37–40; *instr. entom, Puerto Rico, 41–; lieut, Sanit. Corps, 42–* Collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–42. Biol. Soc. Wash; Entom. Soc. Wash. Taxonomy of Siphonaptera; taxonomy of Diptera; control of malarial mosquitoes; arachnology.

Fox, Dr. James C(harles), Jr, 789 Howard Ave, New Haven, Conn. *Neurology.* Middletown, Conn, Sept. 20, 95. A.B, Williams Col, 16; M.D, Hopkins, 20. Asst. med, *sch. med, Yale,* 21–22, instr, 22–25, asst. prof, 25–28, asst. clin. prof. *neur,* 28–32, assoc. clin. prof, 32–36, *clin. prof, 36–; lieut. col, med. corps, U. S. Army.* Gen. Educ. Board fellow, Zurich and Nat. Hosp, London, 25–26; attending physician, New Haven Hosp. and Dispensary. Neur. Asn; Asn. Research Nervous and Mental Disease. Photographic study of eye-movements under varying conditions of health and disease; cerebral function following lobectomy and resection of the human brain.

Fox, John E, 4225 Oakland Drive, Kalamazoo, Mich. *Mathematics, Physics.* Feb. 3, 74. B.S, Chicago; A.M, Pennsylvania. Prin, high sch, Mich, 98–06; dept. math, West. State Nor. Sch, Mich, 06–10, *chairman dept. physics, West. Mich. Col. Educ, 11–* Summer, asst, Michigan, 98. Physical Soc; Asn. Physics Teachers. Light spectroscopy; a laboratory clock with photo-electric signal control with an application to tuning a pendulum by method of coincidences.

Fox, Dr. J(ohn) G(aston), 222 W. 19th St, Wilmington, Del. *Physics.* Biggar, Sask, Can, March 5, 16. B.Sc, Saskatchewan, 35, M.Sc, 37; Ph.D, Princeton, 41. *Research physicist, Hercules Powder Co, 41–* Physical Soc. Nuclear physics; explosives; diatomic spectra; artificial radioactivity.

Fox, Prof. Lauretta E(wing), Louisiana State Normal College, Natchitoches, La. *Biology.* Clarion, Pa, April 25, 10. B.S, Westminster Col. (Pa), 31; fellow, Illinois, 31–34, M.S, 32, Ph.D, 34. Asst. biol, Westminster Col. (Pa), 30–31; head dept, Alderson-Broaddus Col, 34–35; science, Dodd Col, 35–36; asst. prof. *biol, La. State Nor. Col,* 36–42, *assoc. prof, 42–, navigation, U. S. Naval Flight Prep. Sch, 43–* A.A; Bot. Soc; Soc. Plant Physiol; Torrey Bot. Club; South. Appalachian Bot. Club; La. Acad; N. Y. Acad. Seeds; growth; flora of Louisiana; teaching of science in elementary schools.

Fox, Brigadier General Leon A(lexander), Care of Surgeon General, U. S. Army, Washington, D. C. *Public health, Epidemiology.* Birmingham, Ala, Nov. 2, 90. M.D, Cincinnati, 12; grad, Army Med. Sch, 17; M.S, American Univ, 31, Ph.D, 32; Dr.P.H, Hopkins, 35. Intern, St. Vincent's Hosp, 12; practising physician, 13–16; *Med. Corps, U. S. Army, 16–, brigadier gen, director, U. S. Typhus Cmn.* Order of the White Boar; Sir Henry S. Wellcome medal and prize, 35; Legion of Merit, U. S. Army, 43. Director labs. and epidemiologist, Am. Embarkation Center, U.S.A; chief lab. service, Ft. Bayard Gen. Hosp; Fitzsimons Gen. Hosp; director dept. admin, Med. Field Service Sch, U.S.A; chief med. sect, C.W.S; surgeon, Am. Forces in China, chief health officer, Caribbean and north Atlantic divs. A.A; Am. Med. Asn; fel. Col. Physicians; fel. Col. Surg; fel. Soc. Trop. Med. Bacteriology; zoology; general biology and philosophy; preventive medicine; anaphylaxis; salmonellosis; evolution; biological aspects of war; bacterial warfare; water purification and chlorination; sanitary surveys of island bases.

Fox, Dr. M(arvin), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Cleveland, Ohio, Feb. 1, 10. B.S, Carnegie Inst. Tech, 31; A.M, Columbia, 32, Ph.D, 36. Asst. physics, Columbia, 31–35, research assoc; *staff mem, radiation lab, Mass. Inst. Tech.* Physical Soc. Mechanical and magnetic moments of atomic nuclei; mass spectrographic analysis of isotopic constitution of gases; hyperfine structure separations by method of atomic beams.

Fox, Dr. Philip, Harvard University, Cambridge, Mass. **[3]Astronomy.* Manhattan, Kans, March 7, 78. B.S, Kans. State Col, 97, M.S, 01, Sc.D, 31; B.S, Dartmouth Col, 02; Berlin, 05–06; LL.D, Drake, 30. Asst. graphics, Kans. State Col, 98–99; commandant and teacher math, St. John's Mil. Sch, Kans, 00–01; asst. physics, Dartmouth Col, 02–03; Carnegie asst, Yerkes Observatory, Chicago, 03–05; instr. astrophys, Chicago, 05–09; prof. astron, Northwestern, and director, Dearborn Observatory, 09–29; director, Adler Planetarium and Astron. Museum, 29–37; Museum Science and Indust, 37–42; *lecturer, Harvard, 42–; col, Sig. Corps, U. S. Army, 41–* Chevalier, Légion d'honneur; officier de l'Ordre du Sauveur de la Grèce. 2nd lieut, Spanish-Am. War; major, Inf, 17–19, col, Inf.R.C. A.A. (sec'y, D, 25–33, v. pres, D, 37, exec. cmt, 33–35); Astron. Soc. (sec'y, 12–18, councilor, 21–23, v. pres, 38–40); Am. Acad; Royal Astron. Soc; Astron. Gesell; Soc. astron. de France. Solar physics; rotation of the sun; micrometric measures of double stars; stellar parallax.

Fox, Richard M(iddleton), Public Museum and Art Gallery, Reading, Pa. *Taxonomy.* Morrisville, Pa, April 15, 11. A.B, Pennsylvania, 41. Research volunteer, Acad. Nat. Sciences Phila, 37–41; *curator Mengel collection, Reading Pub. Museum and Art Gallery, 41–* Entom. Soc. Entomologic taxonomy; butterflies.

Fox, Prof. Robert K(riegbaum), Hiram College, Hiram, Ohio. *Chemistry.* Covington, Ohio, April 1, 07. A.B, Ohio State, 29, A.M, 30, Ph.D, 32. Asst. *chem,* Ohio State, 29–32; instr, Bethany Col. (W. Va), 32–34, *asst. prof,* 34–36; *Hiram Col, 36–* Chem. Soc; Northeast. Ohio Chem. Teachers Organization (pres, 41). Oxidation of carbon; adsorption in analytical chemistry; solubility of hydroxides.

Fox, Prof. Robert L(ee), Robert College, Istanbul, Turkey. *Inorganic chemistry.* Fayette, Iowa, April 11, 07. A.B,

Upper Iowa, 28; Lydia C. Roberts fellow, Columbia, 28–30, A.M, 30, Ph.D, 34. Asst, Columbia, 30–34; *asst. prof. inorg. chem, Robert Col, Istanbul, 34–* Trivalent columbium in acid solutions.

Fox, Prof. R(obert) M(yron), 3551 S. University Ave, Los Angeles, Calif. *Civil engineering.* Detroit, Mich, April 23, 76. B.S. (C.E), Michigan, 98; A.M, Southern California, 27. Asst. engineer, Chicago and West Mich. Ry, 99; bridges, Mich. Cent. R. R, 00–11; consulting struct. engineer, Ariz, 12–22; assoc. prof. and *prof. civil eng, Southern California, 22–, chairman dept, 23–* Capt, C. Eng, 18–20. Civil Eng; Eng. Educ; Water Works Asn. Structures.

Fox, Prof. Rolland D(avid), University of Akron, Akron, Ohio. *Bacteriology.* Peninsula, Ohio, Feb. 10, 99. B.S, Akron, 21, M.S, 23. Demonstrator, biol. lab, *Akron,* 18–21, research assoc, bacter. lab, 21–23, director lab. hygiene and bacter. and lecturer hygiene-sanit, 24–25, *assoc. prof. bacter. and hygiene, 25–; director div. labs, Health Dept, Akron, Ohio, 25–* Lecturer, City Hosp, Akron; collaborator, Venereal Clinic, Akron. Summit Lake surv, 21–23, Cuyahoga Valley surv, 23–29. A.A; Soc. Bact; Ohio Acad. Pathogenic bacteriology; field sanitation; morphology and pathogenicity of diphtheroids; cultivation of gonococcus.

Fox, Dr. Sidney W(alter), 1113 Curtis, Albany, Calif. *Chemistry.* Los Angeles, Calif, March 24, 12. A.B, California at Los Angeles, 33; fellow, Calif. Inst. Tech, 37–39, Ph.D, 40. Tech. asst, Rockefeller Inst, 34–35; asst, Calif. Inst. Tech, 35–37, 39–40; research chemist, Cutter Labs, 40–41; Upjohn Co. fellow, Michigan, 41–42; *research chemist, F. E. Booth Co, 42–* A.A; Chem. Soc; Swiss Chem. Soc. Amino acids; proteins; vitamins; cyclic nitrogen compounds.

Fox, Dr. Steven K, Princeton University, Princeton, N. J. *Geology, Micropaleontology.* New York, N. Y, Oct. 30, 11. A.B, Princeton, 33, A.M, 36, Ph.D, 39; Yale, 33–34. *Instr. geol,* West Virginia, 37–38; *Princeton, 38–* Leader field trips, summer sch. geol. and nat. resources, Princeton, 38–41. Asn. Petrol. Geol; Paleont. Soc. Stratigraphy and micropaleontology of late Cretaceous and early Tertiary of western interior.

Fox, Lieut. Wallace B(urgess), Pine Bluff Arsenal, Pine Bluff, Ark. *Organic chemistry.* Marshall, Mich, May 21, 11. B.S, Mich. State Col, 33, M.S, 34; Ph.D, Iowa, 38. Asst, Iowa, 35–38; research and develop. chemist, nat. aniline div, Allied Chem. and Dye Corp, Buffalo, N. Y, 38–42; *lieut, Chem. Warfare Service, Pine Bluff Arsenal, 42–* Chem. Soc. Reaction of aryl compounds with tertiary aliphatic carbinols in the presence of anhydrous aluminum chloride; geometric isomers of the oximes of some substitution products of vanillin.

Fox, Dr. William (Basil), Box 1766, Delray Beach, Fla. *Botany.* Talcott, W. Va, July 20, 15. B.S, West Virginia, 39, M.S, 40; Ph.D, Iowa, 42. Asst. bot, West Virginia, 39–40; Iowa, 40–42; *instr. tech. training command, Air Force, U. S. Army, 42–* Soc. Plant Taxon; South. Appalachian Bot. Club. Taxonomic botany; Leguminosae in Iowa.

Fox, W(illia)m J(oseph), Academy of Natural Sciences, Philadelphia, Pa. *Entomology.* Philadelphia, Pa, Nov. 21, 72. Pub. schs. Asst. librarian, *Acad. Nat. Sciences, Phila,* 88–33, *librarian, 33–,* ed, 21–38. Special Libraries Council. The fossorial Hymenoptera; bibliography of natural history.

Foxworthy, Dr. Fred W(illiam), 762 Arlington Ave, Berkeley, Calif. *Botany.* Goodland, Ind, July 3, 77. B.S, DePauw, 99; A.M, Cornell, 02, Ph.D, 04. Asst. bot, Cornell, 00–04; botanist, Bur. Science, P. I, 06–11; wood technologist, Bur. Forestry, P. I, 11–17, chief div. investigation, 13–17; assoc. prof. dendrol, Philippines, 11–17; forest research officer, Federated Malay States, 18–32; *research assoc. bot, California.* Lecturer, Cornell, 03–04. A.A; Bot. Soc; Soc. Foresters; Torrey Bot. Club; British Forestry Asn. Systematic and economic botany; dendrology; silviculture; woods of the Indo-Malayan region.

Foyles, Edward J(ohn), Taylor Instrument Co, Rochester, N. Y. *Geology.* Rutland, Vt, Oct. 18, 94. B.S, Columbia, 22; M.S, N. Y. Univ, 26. Am. Museum Nat. Hist, 15–26; director museums, Rochester, 26–27, museum nat. hist, 27–38; *personnel work, office indust. relations, Taylor Instrument Co, 39–*

Fracker, Dr. S(tanley) B(lack), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Ashton, Iowa, April 8, 89. A.B, Buena Vista Col, 10, Sc.D, 41; Michigan, 10–11; Cornell, 11; M.S, Iowa State Col, 12; Ph.D, Illinois, 14. Instr. econ. entom, Wisconsin, 14–15; asst. state entomologist, Wis, 15–18, acting state entomologist, 18–20, state entomologist, 20–27; in charge domestic plant quarantines, fed. hort. board, *U. S. Dept. Agr,* 27–28, plant quarantine and control admin, 28–32, bur. entom. and plant quarantine, 32–34, in charge plant disease control, 34–42, *research coordinator, Agr. Research Admin, 42–* Mem, Int. Cong. Entom, Ithaca, 28, Madrid, 35. A.A; Entom. Soc. Amer; Asn. Econ. Entom. (4th v. pres, chairman, sect. apicult, 23, sec'y, sect. plant quarantine and inspection, 28–34, chairman, 35; 1st v. pres, 42); Honey Producers League (sec'y, 22–25); Forestry Asn; Entom. Soc. Wash. (v. pres, 34, pres, 35). Reduviidae; lepidopterous larvae; Coreidae; apiary inspection methods; plant quarantines; white pine blister rust control; barberry eradication.

Fraenkel-Conrat, Dr. Heins L(udwig), 2881 Shasta Road, Berkeley, Calif. *Biochemistry.* Breslau, Germany, July 29, 10. Vienna; Munich; Geneva; M.D, Breslau, 33; Ph.D, Edinburgh, 36. Vol. asst, Rockefeller Inst, 36–37; research assoc, Instituto Butantan, São Paulo, Brazil, 37–38; *instr. exp. biol, California,* 38–42; *assoc. chemist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Endocrinology; protein chemistry.

Fragen, Dr. N(athan), 2030 Davis Ave, Whiting, Ind. *Chemical engineering.* Kansas City, Mo, May 10, 08. B.S, Washington (Seattle), 29; Rutgers, 29–32; M.S, Michigan, 33, Ph.D, 36. Junior physical chemist, U. S. Bur. Mines, 29–32; dept. eng. research, Michigan, 33–34; *chem. engineer, Standard Oil Co. of Ind, 34–* Nat. Research Council grant. Chem. Soc. Extraction of potash from polyhalite; heat transmission; evaporation losses in the handling of petroleum products; solution cycles in refrigeration and heat storage; catalytic processes in petroleum refining.

Frahm, Prof. Elmer E(dward), University of Florida, Gainesville, Fla. *Chemistry.* Davenport, Iowa, April 10, 05. B.S, Colo. State Col, 33; fellow, Iowa State Col, 33–37, M.S, 35, Ph.D, 38. Instr, Iowa State Col, 37–41; asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 41; *asst. prof. agr. chem, Florida, 41–* Chem. Soc. Agricultural and soil chemistry.

Fraim, Freeman W(atts), 47 Charles St, Providence, R. I. *Chemical engineering.* New York, N. Y, June 24, 10. B.S, Mass. Inst. Tech, 32. Chemist, United Piece Dye Works, 32–34; develop. engineer, Atlantic Rayon Corp, 34–40; *director research and asst. treas, Int. Braid Co, 40–* Chairman, Ordnance Dept. Industry Integration Cmt. for Rayon Bomb Cordage. Assoc. Chem. Eng; Chem. Soc.

Fraim, Prof. Parke B(enjamin), The Colonial, 38 Livingston St, Brooklyn, N. Y. *Physics.* Parkerford, Pa, Feb. 5, 87. E.M, Lehigh, 09, M.S, 19. Eng. corps, concentrating plant, Pa. Steel Co, Lebanon, 09–10; Tenn. Coal, Iron and R. R. Co, Ala, 10–11; head dept. chem. and physics, high sch, N. Y, 11–12; instr. *physics,* Lehigh, 12–18, asst. prof, 19–24; *Polytech. Inst. Brooklyn,* 24–36, *assoc. prof, 36–* Lieut, Ordnance Dept, 18–19. Physical Soc; Eng. Educ; N. Y. Elec. Soc. Electrical measurements.

Fraleigh, Prof. P(ercy) A(ustin), 160 Shelburne Road, Burlington, Vt. *Mathematics.* Hyde Park, N. Y, April 12, 95. A.B, Cornell, 17, A.M, 18, Ph.D, 27. Instr. *math,* Cornell, 20–27; asst. prof, *Vermont,* 27–31, *assoc. prof, 31–* Analysis.

Frame, Dr. Gordon F(lemming), 5147 St. Paul Blvd, Rochester, N. Y. *Organic chemistry.* Lunenburg, N. S, Can, March 11, 06. B.A, Dalhousie, 27, M.A, 30; Nat. Research Council Can. bursar, McGill, 30, student, 31, fellow, 32, Ph.D, 32; Tech. Hochschule Zurich, 32–33. *Chemist,* Imp. Oil, Ltd, 33–36; Shawinigan Chems. Ltd, 37; *Eastman Kodak Co, 38–* Chem. Soc. Gamma ketonic esters; triterpenes; anthraquinone dyes.

Frame, Prof. J(ames) Sutherland, Michigan State College, East Lansing, Mich. *Mathematics.* New York, N. Y, Dec. 24, 07. A.B, Harvard, 29, A.M, 30, Ph.D, 33. Instr. math, Harvard, 30–33; Rogers traveling fellow, Harvard, Göttingen and Zurich, 33–34; instr. *math,* Brown, 34–38, asst. prof, 38–42; assoc. prof. and chairman dept, Allegheny Col, 42–43; *prof. and chairman dept, Mich. State Col, 43–* Assoc. ed, 'Am. Math. Monthly,' 42– Math. Soc; Math. Asn. Theory of finite groups.

Frampton, Prof. Vernon L(achoneus), Cornell University, Ithaca, N. Y. *Biochemistry.* Springer, N. Mex, Jan. 29, 06. A.B, California at Los Angeles, 31; Ph.D, Minnesota, 36. Junior chemist, U. S. Dept. Agr, 32–33; asst. biochem, Minnesota, 34–36; *asst. prof. plant path, Cornell, 36–* Nat. research fellow, 36–37; exchange prof, National Univ. Colombia, 43. A.A; Chem. Soc; Phytopath. Soc. Plant biochemistry; colloids; chemistry of plant diseases; plant viruses.

France, Prof. Wesley G(eorge), Ohio State University, Columbus, Ohio. *Physical chemistry.* Detroit, Mich, June 19, 92. B.S, Michigan, 17, M.S, 18, Ph.D, 21. Lab. asst, Union Carbide Co, 11–13; asst. chem, Michigan, 17–20; asst. prof. physical chem, *Ohio State,* 20–28, assoc. prof. *colloid chem. and electrochem,* 28–32, *prof, 32–* Cmt. colloid science, Nat. Research Council, 40– A.A; Chem. Soc. (sec'y-treas, colloid div, 32, chairman, 33). Size-frequency and distribution of salts precipitated in the presence of hydrophyllic colloids; colloidal content of clays; adsorption at crystal interfaces; ultracentrifugal studies of sol stability; liquid ammonia as a dispersing medium; electro-organic reactions and electrodepositions.

Francioni, Prof. J(ohn) B(aptiste), Jr, Louisiana State University, Baton Rouge, La. *Animal industry.* Labadieville, La, May 13, 91. B.S, Louisiana, 14, M.S, 25; Iowa State Col, 30–31. Exten. div, *Louisiana,* 17–20, asst. prof. *animal indust,* 20–30, assoc. prof, 30–31, *prof. and head dept, 31–* A.A; Soc. Animal Production; Genetic Asn; South. Agr. Workers' Asn. Animal production and nutrition; farm meats.

Francis, Dr. Alfred W(est), Woodbury, N. J. *Chemistry.* Brookfield, Conn, March 11, 96. B.S, Worcester Polytech, 17, Ch.E, 29; Ph.D, Yale, 24. Asst. biochemist, U. S. Dept. Agr, 17–18; research chemist, E. I. du Pont de Nemours and Co, 18–22; nat. research fellow chem, Mass. Inst. Tech, 24–25; *research chemist,* Arthur D. Little, Inc, Mass, 25–31; *Socony-Vacuum Oil Co, Inc, 31–* A.A; Chem. Soc. (abstracter, 25–28); fel. Inst. Chem. Directive influence in the benzene ring; rates of ionic reactions; petroleum; free energies of organic compounds; correlation of properties of paraffin hydrocarbons.

Francis, Dr. Edward, U. S. Public Health Service, Washington, D. C. *[*5]Bacteriology.* Shandon, Ohio, March 27, 72. B.S, Ohio State, 94, hon. Sc.D, 33; M.D, Cincinnati, 97; LL.D, Miami (Ohio), 29. *Commissioned officer, nat. inst. health, U. S. Pub. Health Service, 00–* Gold medal, Am. Med. Asn, 28. Am. Med. Asn; Asn. Mil. Surg; Am. Physicians. Tularemia; yellow fever; pellagra; tetanus; filariasis; relapsing fever; Brucellosis; rat-bite fever.

Francis, Dr. E(lmer) E(llsworth), 1337 Peabody Ave, Memphis, Tenn. *Surgery.* Madison, Ind, July 18, 63. M.D, Cincinnati, 84; Louisville, 85. Prof. anat. and clin. surg, Memphis Hosp. Med. Col, 97–14; prof. and *emer. prof. surg, Tennessee, 15–* Fel. Col. Surg; Am. Med. Asn; Memphis and Shelby County Med. Soc. (pres, 28). Anatomy.

Francis, Dr. Howard T(homas), 4410 Drexel Blvd, Chicago, Ill. *Physical chemistry.* St. Louis, Mo, Oct. 22, 17. B.S, Mt. Union Col, 38; M.S, Pa. State Col, 40, Ph.D, 42. *Assoc. physical chemist, Armour Research Foundation, Ill. Inst. Tech, 42–* Chem. Soc. Electrolysis of organic compounds in liquid hydrogen fluoride; scattering of low velocity ions in water vapor at low pressures; electrochemical research.

Francis, Dr. Thomas, Jr, University of Michigan School of Public Health, Ann Arbor, Mich. *[*7]Pathology, Medicine.* Gas City, Ind, July 15, 00. B.S, Allegheny Col, 21, hon. Sc.D, 41; M.D, Yale, 25, hon. M.S, 41. Res. physician, New Haven Hosp, 26–27; instr. *med,* Yale, 27–28; asst, Rockefeller Inst, 28–31, assoc, 31–36; mem. staff, int. health div, Rockefeller Foundation, 36–38; prof. bact. and director bact. labs, col. med, N. Y. Univ, 38–41; *prof. epidemiol. and chairman dept, sch. pub. health, Michigan, 41–* Asst. res. physician, Rockefeller Inst. Hosp, 28–30, res. physician, 30–33; visiting physician, Bellevue Hosp, 38–41; Willard Parker Hosp, 38–41. Director influenza cmn, U. S. Army. A.A; Epidemiol. Soc; Soc. Bact. (chairman med. sect, 40); Asn. Physicians; Soc. Exp. Path; Hist. Sci. Soc; Asn. Immunol; Am. Med. Asn; Pub. Health Asn; Soc. Exp. Biol; Soc. Clin. Invest; Asn. Path. and Bact; Harvey Soc. (sec'y, 39–41); N. Y. Acad; N. Y. Acad. Med. Virus diseases; influenza and pneumonia; epidemiology; immunology.

Franck, Prof. James, Quadrangle Club, 1155 E. 57th St, Chicago, Ill. *[*6]Physics.* Hamburg, Germany, Aug. 26, 82. Ph.D, Berlin, 06; LL.D, California, 28. Kaiser Wilhelm Inst, 18–20; prof. and director physical lab, Göttingen, 20–34; Speyer prof, Hopkins, 34–35, *prof.* physics, 35–38; *physical chem, Fels Foundation, Chicago, 38–* Hitchcock prof, California, 31. Nobel prize, 25. A.A; Chem. Soc; Bot. Soc; fel. Physical Soc; Boston Acad; Wash. Acad; Philos. Soc. Phila; Soc. de Phys. et d'Hist. Nat. de Genéve; Copenhagen Acad; Uppsala Acad; Leningrad Acad. Atomic physics; photosynthesis; photochemistry.

Frandsen, Prof. Arden N, Utah State Agricultural College, Logan, Utah. *Psychology, Education.* Redmond, Utah, Feb. 4, 02. B.S, Utah, 27, M.S, 30; Ph.D, Minnesota, 32. Asst. psychol, Minnesota, 30–32; psychologist, div. research, State Dept. Pub. Institutions, Minn, 32–33; asst. prof. educ, Utah, 33–36; *prof. psychol. and head dept, Utah State Col, 36–* Psychol. Asn. Learning; eye-movements in reading; abilities of feeble-minded; tests and measurements.

Frandsen, Prof. J(ullus) H(erman), Massachusetts State College, Amherst, Mass. *Dairy industry.* Story City, Iowa, April 28, 77. B.S, Iowa State Col, 02, M.S, 04. Instr. agr. chem, Iowa State Col, 02–04; commercial work, 04–07; prof. dairying, Idaho, 07–11; dairy husbandry, Nebraska, 11–21; ed. work, Capper Farm Press, 21–24; *prof. dairy indust,* Mass. Col, 26–31, *Mass. State Col, 31–* Del, Am. Asn. Agr. Cols, 09; pres, Nebr. State Dairymen's Asn, 16; chairman dairy cmn, Fed. Food Admin. for Nebr, 17. Founder and ed. in chief, 'Jour. Dairy Science,' 16–28. A.A; Dairy Sci. Asn. (pres, 13, 14); Soc. Agr. Sci. Milk; health; vitamins; pasteurization; ice cream and ices; protein requirements of dairy cattle; contagious abortion in dairy herd; milk cooling by electricity; washing powders for dairy use; homogenized milk.

Frandsen, Dr. Mikkel, Naval Gun Factory, Navy Yard, Washington, D. C. *Chemistry.* Sonder Lem Sogn, Denmark, Oct. 23, 92. B.S, Royal Tech. Col, Copenhagen, 19; M.S, Iowa State Col, 23; Ph.D, California, 26. Research chemist, Union Oil Co. of Calif, 26–29; assoc. chemist, Bur. Standards, 29–34; *chemist, Naval Gun Factory, 34–* Chem. Soc. Adsorption; thermodynamics; chemical and spectrographic analyses of metals and alloys.

Frandsen, Prof. Peter, 210 Maple St, Reno, Nev. *Zoology.* Vilslev, Denmark, Sept. 27, 76. A.B, Nevada, 95, LL.D, 24; A.B, Harvard, 98, A.M, 99. Teacher, pub. schs, 95–96; asst. zool, Harvard and Radcliffe Col, 98–00; asst. prof. zool. and bacter, *Nevada,* 00–02, assoc. prof, 02–03, prof, 03–06, *biol,* 06–42, *emer. prof, 42–,* bacteriologist, *Exp. Sta,* 00–06, *consulting biologist, 06–* Lecturer, farmers' insts; pub. and nor. schs. A.A; Genetic Asn; Soc. Zool; Social Hygiene Asn. Animal behavior and habits; histology of the blood of various mammals and of the nervous system of flatworms.

Frank, Dr. A(rchie) H(enry), U. S. Department of Agriculture, Beltsville, Md. *Dairy husbandry.* Bethany, Mo, July 23, 02. B.S. (Agr), Missouri, 29, A.M, 30; D.V.M, Mich. State Col, 34. Research instr. dairy husbandry, Missouri, 30–32; *junior veterinarian, field work, bur. animal indust, U. S. Dept. Agr,* 34–36, *animal disease sta, 36–* Bovine and avian tuberculosis; artificial insemination.

Frank, Bernard, 201 Washington Ave, Chevy Chase, Md. *Forestry.* New York, N. Y, March 7, 02. B.S, Cornell, 25, M.F, 29; American Univ, 28–29; Charles Lathrop Pack fellow, Wisconsin, 30–32. Forester, Wayagamack Pulp and Paper Co, Three Rivers, Que, Can, 25–26; instr. forest utilization, Cornell, 26–27; junior forester, office econ, U. S. Forest Service, 27–29, asst. forest economist, Washington, D. C, and Lake States Forest Exp. Sta, 29–34; chief forest management planning, forestry relations dept, Tenn. Valley Authority, 34–36, asst. chief forester, 36–38; asst. to chief div. forest influences, U. S. Forest Service, 38–41; *prin. forester, tech. rev. board flood control, U. S. Dept. Agr, 41–* A.A; Soc. Foresters. Land utilization; land economics; forest economics; forest management.

Frank, Dr. C(harles) E(dward), du Pont Experimental Station, Wilmington, Del. *Organic chemistry.* Philipsburg, Pa, May 1, 14. B.S, Pa. State Col, 35; M.S, Ohio State, 36, du Pont fellow, 37–38, Ph.D, 38. Asst. chem, Ohio State, 35–37; *research chemist, du Pont Exp. Sta, 38–* Chem. Soc. Unsaturated hydrocarbons; formaldehyde; synthetic resins.

Frank, Dr. E(dward) R(aymond), Kansas State College, Manhattan, Kans. *Veterinary surgery.* Great Bend, Kans, April 4, 92. B.S, Kans. State Col, 28, D.V.M. and M.S, 29.

Instr. surg. and med, *Kans. State Col*, 26–29, asst. prof, 29–35, *prof. surg*, *35–* Epidural anesthesia in the horse, hog and dog.

Frank, Prof. H(arry) C(harles), 62 Pine Grove Ave, Summit, N. J. *Physics.* Newark, N. J, Feb. 13, 92. B.S, Cooper Union, 17; M.S, Stevens Inst. Tech, 32. Instr. physics, Stevens Inst. Tech, 20–23, asst. prof, 23–39; *research engineer, Gen. Cable Corp, 39–* Elec. Eng. Behavior of lead sheath under fatigue stresses.

Frank, Dr. Henry S(org), 2696 Cedar St, Berkeley, Calif. *Physical chemistry.* Pittsburgh, Pa, Aug. 6, 02. Ch.B, M.S, Pittsburgh, 22; Ph.D, California, 27. Instr. physics, Canton Christian Col, 22–25; *chem*, California, 27–28; assoc. prof, Lingnan Univ, 28–33, prof, 33–43, chairman dept, 31–43, dean col. science, 38–43; *lecturer, California, 43–* Visiting prof, Pittsburgh, 39–40. A.A; Chem. Soc; Electrochem. Soc; Faraday Soc; Bunsen Gesell. Adsorption of gases; thermodynamics; electrolyte theory; reaction rates.

Frank, Prof. J(oseph) O(tto), 50 Elmwood Ave, Oshkosh, Wis. *Inorganic chemistry, Metallography.* Lebanon, Ind, Feb. 14, 85. A.B, Indiana, 09, A.M, 12; Wisconsin; Chicago; Columbia; Iowa; Michigan. Prof. *chem*, Winona Col, 09–12; *prof. and head col. dept, Wis. State Teachers Col, Oshkosh, 12–* Summers, teacher, Colorado, Columbia, Harvard and Alabama. A.A; Chem. Soc. Preparation of salts of selenic acid; qualitative and quantitative analysis; preparation of strontium-aluminum alloys; wood preservatives; putty and wood fillers; composition of wood; glue.

Frank, Dr. Margaret, 1440 E. 52nd St, Chicago, Ill. *Psychology.* Columbus, Ohio, Sept. 24, 94. B.S, Ohio State, 14; Ph.D, Chicago, 30. Psychologist, Douglas Smith Fund, Chicago, 33–39; *consulting psychologist, 36–* Placement director, Ill. Emergency Relief Cmn, 33–35; Nat. Col. Educ, Ill, 35–36; consulting psychologist, 36–; instr, Ill. Inst. Tech, 37–; Englewood Evening Col, 41– A.A; Psychol. Asn; Asn. Applied Psychol; Chicago Psychol. Soc. (v. pres, 32). Personnel.

Frank, Prof. N(athaniel) H(erman), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Boston, Mass, March 18, 03. B.S, Mass. Inst. Tech, 23, Sc.D, 26. Asst. elec. eng, *Mass. Inst. Tech*, 23–24, instr. *physics*, 24–29, asst. prof, 30–37, *assoc. prof, 37–* Physical Soc. Theoretical physics.

Frank, Dr. Robert L(oeffler), University of Illinois, Urbana, Ill. *Organic chemistry.* Milwaukee, Wis, March 15, 14. A.B, Dartmouth Col, 36; A.M, Wisconsin, 38, Ph.D, 40. Asst. chem, Wisconsin, 39–40; du Pont asst, *Illinois*, 40–41, instr. *org. chem*, 41–43, *assoc, 43–* Summer, research chemist, Röhm and Haas Co, 40. Chem. Soc. Organic syntheses.

Frank, Dr. Robert T(ilden), 1035 Park Ave, New York, N. Y. *Gynecology.* New York, N. Y, 75. A.B, Harvard, 96; A.M, M.D, Columbia, 00. Assoc. prof. gynec, sch. med, Colorado, 20–25; gynecologist, *Mt. Sinai Hosp*, 25–37, *consulting gynecologist, 37–; clin. prof. gynec, Columbia, 36–* A.A; Gynec. Soc; Soc. Exp. Biol; Col. Surg; Am. Med. Asn; Harvey Soc; N. Y. Obstet. Soc; N. Y. Acad. Med; N. Y. Path. Soc; hon. fel. Chicago Obstet. Soc; Soc. obstet. y gynec. de Buenos Aires. Gynecological and obstetrical pathology; physiology of sex; anatomy of the female pelvis; female sex hormones.

Franke, Dr. F(lorent) E(dwin), St. Louis University, St. Louis, Mo. *Physiology.* Newton, Ill, June 6, 95. M.D, St. Louis, 18. Intern, St. Louis City Hosp, 18–20; instr. *physiol, St. Louis*, 23–28, senior instr, 28–32, *asst. prof, 32–* Physiol. Soc; Soc. Exp. Biol. Nicotin poisoning as a cause of death; the minimal fatal dose and mechanism of action of nicotin; reaction of pial blood vessels; transmission of intracranial pressure; circulatory effects of smoking tobacco.

Frankel, Dr. E(dward) M(ichaelson), 11 W. 42nd St, New York, N. Y. *Biochemistry.* Newark, N. J, Feb. 26, 93. B.S, Col. City of N. Y, 12; fellow, Yale, 14–15, Ph.D, 16. Asst. chemist, Phila. Polyclinic Hosp, 12–13; asst, Pennsylvania, 13–14; Sheffield Sci. Sch, Yale, 15–16; research chemist, Harriman research lab, Roosevelt Hosp, 16–18; indust. chem. engineer, 18–22; pres, E. M. Frankel, Inc, 22–28; director research lab, W. Va. Pulp and Paper Co, 28–35; v. pres, Oldetyme Distillers, 35–41; *consulting chem. engineer, 41–* Chem. Soc; Soc. Biol. Chem. Experimental diabetes; proteolytic ferments; metabolism of micro-organisms; industrial fermentations; pulp and paper by-products.

Frankel, Dr. Florence Hulton, 122 E. 42nd St, New York, N. Y. *Medicine, Biochemistry.* Philadelphia, Pa. B.S, Pennsylvania, 07, M.S, 14, Bennett fellow, 15–16, Ph.D, 16; M.D, N. Y. Univ, 24. Instr, high schs, Pa, 07–15; fellow, Rockefeller Inst, 16–17; bacteriologist and chemist, Roosevelt Hosp, 17–18; physician, div. women in indust, State Dept. Labor, N. Y, 28–37. Instr, col. physicians and surg, Columbia, 17–18; Univ. and Bellevue Hosp. Med. Col, 20–23; serologist, State Board Health, N. Y, 19–22; on staff, Montefiore Hosp, 24–27; ophthalmologist, N. Y. Infirmary for Women and Children, 29–30. Valentine Mott medal, 24. Fel. Am. Med. Asn. Protective ferments; bacterial fermentation; lipolytic actions; endocrines; industrial diseases.

Frankel, Dr. S(idney), 72-38 113th St, Forest Hills, New York, N. Y. *Mathematical electrophysics.* New York, N. Y, Oct. 6, 10. E.E, Rensselaer Polytech, 31, M.S, 34, fellow, 35–36, Ph.D, 36. Instr. math, Rensselaer Polytech, 31–33; asst. instrument engineer, Eclipse Aviation Corp, 37–38; *radio transmitter engineer, Fed. Tel. and Radio Corp, 38–* Radio Eng. (cmt. meetings and papers, New York sect, 42–). Expansion of functions in series of functions; complete approximate solutions of $x = \tan x$; reactance networks for coupling between unbalanced and balanced circuits; characteristic impedance of parallel wires in rectangular troughs.

Frankenburg, Dr. Walter G, 148 Kready Ave, Millersville, Pa. *Physical chemistry.* Nuernberg, Germany, Sept. 7, 93. Ph.D, Munich, 22. Director research group catalysis and photochem, I. G. Farbenindustrie, Ludwigshafen, Rh, 23–38; research assoc. studies on adsorption, Hopkins, 40–42; *director research, Gen. Cigar Co, 42–* A.A; Chem. Soc. Theory of heterogeneous catalysis, particularly synthetic ammonia and oxidation of hydrocarbons; photochemistry; gas reactions photosensitized with excited mercury; process for colored photoprints on paper; theory of adsorption of gases on metals; measurement of ultraviolet radiation; chemistry and mechanism of tobacco fermentation.

Frankforter, Prof. C(larence) J(ackson), University of Nebraska, Lincoln, Nebr. *Chemistry, Chemical engineering.* Lincoln, Nebr, Oct. 30, 85. B.S, Nebraska, 08, A.M, 09; Minnesota, 15, 16. From asst. instr. to *assoc. prof. chem, Nebraska, 08–, in charge chem. eng. branch, dept. chem.* Capt, Inf. and C.W.S, 17–19; col, Inf. R.C. Chem. Soc. Asphalt polymers of pinene; zeolite exchange reactions; Nebraska clays; treatment of oil and hydrocarbons; water treatment for removal of iron and manganese; removal of sulfur from petroleum products.

Frankforter, Prof. George B(ell), 525 E. River Road, Minneapolis, Minn. *[1]*Chemistry.* Potter, Ohio, April 22, 59. A.B, Nebraska, 86, A.M, 88; Ph.D, Berlin, 93. Instr. chem, Nebraska, 85–87; high sch, Nebr, 87–88; prof, Nebraska, 93–94; dean and director sch. chem, *Minnesota*, 94–17, prof. *org. and indust. org. chem*, 20–25, *emer. prof, 27–* Prof, Stanford, 26–27; U. S. Mint Commissioner, 01; director, O.T.C. for chemists, inspectors and linemen; supervisor control and research lab. for ordnance, Phila, Pa. Major, Ordnance Dept, 17–19; examiner explosives, chemicals and loading, Ordnance Claim Board, 18–19; tech. adviser, War Claims Board, 19–20; State Council of Defense, Minn. A.A. (v. pres, C, 10); Chem. Soc; Soc. Chem. Indust; Chemists' Club; Deuts. Chem. Gesell; Electrochem. Gesell. Alkaloids, narcotin, narcein, veratrin and isopyroin vegetable oils; the terpenes, including camphor and crude pitch; eugenol formaldehyde; the pitch of the northern pine; resins; mercury fulminate.

Frankland, F(rederick) H(erston), 101 Park Ave, New York, N. Y. *Civil engineering.* Wellington, N. Z, May 6, 82. Consulting engineer, Waddell and Son, 17–21; private consulting engineer, 21–23; supervisor struct. eng, D. P. Robinson and Co, 23–28; tech. director and chief engineer, *Am. Inst. Steel Construction*, 28–34, *director eng, 34–* Mem. exec. cmt, welding research council, Eng. Foundation; Advisory Cmt. Investigation Long-Span Suspension Bridges. A.A; Soc. Test. Mat; Civil Eng; Ry. Eng. Asn; Welding Soc; Soc. Mil. Eng; Standards Asn. (councilor). Metallic structures; design of bridges and buildings of steel and non-ferrous alloys; stress distribution in plates; rigid frames; columns; fatigue strength of butt and fillet welded structures.

Franklin, Dr. H(enry) J(ames), East Wareham, Mass. *Zoology, Entomology.* Guilford, Vt, Feb. 10, 83. B.S, Mass. Col, 03, Ph.D, 08. Instr. bot, Mass. Col, 04–06; asst. to state entomologist, Minn, 08–10; *supt. cranberry substa, Exp. Sta*, Mass. Col, 10–31, *Mass. State Col, 31–* Summers, asst, Exp. Sta, Mass. Col, 06, 07. A.A; Asn. Econ. Entom. Meteorol.

Soc; Boston Soc. Nat. Hist. Thysanoptera; Bombidae; cranberry insects.

Franklin, Dr. Milton W(ashington), 1500 Verdi St, Alameda, Calif. *Electrical engineering.* San Francisco, Calif, Feb. 22, 76. M.D, California, 99; A.M, Columbia, 06; Ph.D, Göttingen, 12. Lecturer dermat, N. Y. Post-Grad. Med. Sch, 01–03; prof. radiotherapy, N. Y. Polyclinic Med. Sch, and director radiog. clinic, Dept. Health, New York, 03–06; asst, power and mining eng. dept, Gen. Elec. Co, 06–16, manager, ozone dept, 16; pres. and gen. manager, C. and C. Elec. and Mfg. Co, 16–17; chief consulting engineer and works manager, E. Houghton Co, 17–19; chief consulting engineer and director inspection, Remy Elec. Div, Gen. Motors Corp, 19–21, gen. manager service, Gen. Motors Export Co, 21–27; *pres. and gen. manager, M. W. Franklin, Ltd, 27–; consulting indust. engineer.* Elec. Eng; Physical Soc; Heat. and Vent. Eng. (v. pres, 19); Chem. Soc; Franklin Inst; Electrochem. Soc; N. Y. Acad. (sect. sec'y, 06). Roentgen rays; physicotherapy; electrotherapeutics; electrochemistry; electrical transmission of energy; high tension electrical phenomena; factory administration and organization.

Franklin, Prof. Philip, Massachusetts Institute of Technology, Cambridge, Mass. **4*Mathematics.* New York, N. Y, Oct. 5, 98. B.S, Col. City of N. Y, 18; fellow, Princeton, 19–20, A.M, 20, Jacobus fellow, 20–21, Ph.D, 21. Instr. *math,* Princeton, 21–22; Benjamin Peirce instr, Harvard, 22–24; instr, *Mass. Inst. Tech,* 24–25, asst. prof, 25–30, assoc. prof, 30–37, *prof, 37–* Guggenheim Mem. Foundation fellow, Göttingen and Zurich, 27–28; worker, Inst. for Advanced Study, 35–36. Managing ed, 'Jour. Math. and Physics,' 29– Ballistic computer, Ordnance Dept, U.S.A, 18–19. A.A; Math. Soc. (councilor, 37–40); Math. Asn. (governor, 40–43); fel. Am. Acad. Analysis situs; theory of relativity; analysis; almost periodic functions; geometry of Pfaffians.

Franklin, Roswell E(arl), Franklin Engineering Co, Ann Arbor, Mich. *Engineering.* Oswego, N. Y, Aug. 27, 95. B.S, Michigan, 20. Research engineer, King-Seeley Corp, Ann Arbor, 20–22; instr. and asst. prof. eng. mech, Michigan, 22–33; *pres,* Franklin Glider Corp, 30–34; *Franklin Eng. Co, 34–* Soaring Soc. Amer. (director, 32–). Aeronautics; rammed earth houses; gliding and soaring flight; gliders.

Franklin, Prof. Samuel F(loyd), 233 Macalester St, St. Paul, Minn. *Psychology.* Wilmington, Del, June 7, 91. A.B, Princeton, 12, A.M, 14; B.D, Princeton Theol. Sem, 15; Ph.D, N. Y. Univ, 25. Asst. pastor, Trenton, N. J, 16–17; pastor, Stony Point, N. Y, 17–20; Liberty, 20–23; instr. psychol, philos. and religion, Ky. Col. for Women, 23–25; assoc. prof. religion, *Macalester Col,* 25–32, *prof. psychol, 32–* Assoc. Psychol. Asn; Interprofessional Inst; Minn. Acad; Minn. Soc. Applied Psychol; Mental Hygiene Soc. Minn. Content of individualism.

Franks, Prof. W(illiam) R(ounding), University of Toronto, Toronto, Ont, Can. *Physiology.* Weston, Ont, March 4, 01. B.A, Toronto, 24, fellow, 24–25, M.A, 25, M.B, 28. Intern, Toronto Gen. Hosp, 28–29; fellow *med. research, Toronto,* 31–33, asst. prof, *Banting Inst,* 33–37, *assoc. prof, 37–; squadron leader, Med. Corps, Royal Can. Air Force.* Tumor metabolism; precipitation and estimation of dusts; experimental silicosis.

Franseen, Prof. E(lizabeth) Brogdon, Mt. Holyoke College, South Hadley, Mass. *Physiology.* Ft. Worth, Texas, May 17, 09. A.B, Pomona Col, 30; M.S, Wisconsin, 33, Ph.D, 40. Instr. physiol, Wisconsin, 30–34, 38–39; physical educ, Minnesota, 34–37; asst. physiol, Wisconsin, 37–38, 39–40; *asst. prof. physiol, Mt. Holyoke Col, 40–* Physiology of exercise; cardiovascular response to prolonged standing.

Frantz, Dr. Harper W(ine), 2415 Las Lunas St, Pasadena, Calif. *Chemistry.* McPherson, Kans, Jan. 1, 96. A.B, Pomona Col, 17; M.S, Chicago, 21; Ph.D, California, 26. Prof. chem. and registrar, LaVerne Col, 19–37; lecturer physical chem, 37–38; *teacher chem. and physical sciences, Pasadena Junior Col, 37–* Chem. Soc.

Franz, Dr. Raymond A(mend), Wallingford, Pa. *Organic chemistry.* Dayton, Ohio, Sept. 15, 06. B.S, Miami (Ohio), 29; Ph.D, Iowa State Col, 36. Instr. chem, Iowa State Col, 29–37; *research chemist, United Gas Improv. Co, 37–* Chem. Soc. Grignard chemistry in the furan series; unsaturated hydrocarbons; plastics.

Franzen, Dr. Raymond (Hugo), 9 Rockefeller Plaza, New York, N. Y. *Psychology.* A.B, Harvard, 17; A.M, Columbia, 18, Ph.D, 20. Director research, pub. schs, Iowa, 20–22; asst. prof. psychol. and educ, California, 22–26; research director sch. health program study, Am. Child Health Asn, 26–36; *consultant on statist. research, 36–* Summers, California, 21–24; Utah Col, 24–26. Psychol. Asn; Asn. Applied Psychol; Statist. Asn. Statistical method; inheritance and acquisition; common factor of learning.

Frappier, Dr. Armand, University of Montreal, Montreal, Que, Can. *Bacteriology.* Valleyfield, Que, Nov. 26, 04. B.A, Montreal, 24, M.D, 30, Licencié-ès-Sciences, 31. Rockefeller fellow bacter, Rochester, 31–32; *prof. bacter. and director dept. and director inst. microbiol. and hygiene, Montreal, 33–; director clin. labs, St. Luke's Hosp, 33–* Mem. assoc. cmt. on tuber. research, Nat. Research Council Can, 33– Mem. nat. blood donor cmt, Can. Red Cross Soc. Asn. can-française pour l'avance. des Sci; Can. Physiol. Soc; Can. Pub. Health Asn; Soc. de Biol. de Montreal (sec'y, 35–); Soc. Med. de Montreal. Vaccines; allergy to tuberculin and immunization of guinea-pigs with Bacillus-Calmette-Guérin; tuberculosis.

Fraps, Dr. G(eorge) S(tronach), College Station, Texas. *Chemistry.* Raleigh, N. C, Sept. 9, 76. B.S, N. C. State Col, 96; fellow, Hopkins, 98–99, Ph.D, 99. Asst. chem, N. C. State Col, 95–96, asst. prof, 99–03, asst. chemist, *Exp. Sta,* 99–03; *Agr. and Mech. Col. Texas,* 03–04, assoc. chemist, 04–05, acting chemist, 05–06, chemist, 06–20, assoc. prof. *chem,* col, 04–05, acting prof, 05–06, assoc. prof, 06–12, *chief div, 20–; state chemist, Texas, 06–* A.A; Chem. Soc; Agr. Chem. (pres, 13); Soc. Agron; Soil Sci. Soc; Soc. Animal Nutrition; Asn. Feed Control Officials (pres, 29). Digestion experiments; soils; nitrification; phosphoric acid; methods of agricultural analysis; productive values of feeds; vitamins; minerals in feeds.

Fraps, Dr. Richard M(ason), Bureau of Animal Industry, U. S. Department of Agriculture, Beltsville, Md. *Experimental zoology.* Florence, S. C, April 29, 02. B.S, Chicago, 24, Ph.D, 29. Nat. research fellow, desert lab, div. plant biol, Carnegie Institution, 29–30; commercial research on photosynthesis of vitamin D, 31–33; with Whitman lab, Chicago, 33–37, *senior physiologist, bur. animal indust, U. S. Dept. Agr, 38–* A.A; Soc. Zool; Asn. Study Int. Secretions; Soc. Exp. Biol. Endocrine physiology of birds; physiology of reproduction.

Frary, Dr. Francis C(owles), Aluminum Co. of America, New Kensington, Pa. **3*Chemistry, Chemical engineering.* Minneapolis, Minn, July 9, 84. A.C, Minnesota, 05, M.S, 06, Ph.D, 12; Berlin, 06–07. Asst. chem, Minnesota, 03–05, instr, 05–11, asst. prof, 11–15; research chemist, Oldbury Electrochem. Co, 15–17; *director research, Aluminum Co. of Amer, 19–* Pittsburgh award, Am. Chem. Soc, 37; Acheson medal, Am. Electrochem. Soc, 39. Capt, Ordnance Dept, O.R.C, and major, C.W.S, 18. Chem. Soc. (councilor, 17, 31); Electrochem. Soc. (v. pres, 18, 25, pres, 29); Chem. Eng. (director, 38–40, pres, 41); Soc. Metals; Min. and Metal. Eng. Industrial chemistry; electrochemistry; aluminum.

Frary, Guy G(riffin), 200 Forest Ave, Vermillion, S. Dak. *Chemistry.* Mapleton, Iowa, Dec. 3, 80. B.S, Morningside Col, 02; M.S, Iowa, 09. Asst, Morningside Col, 02–03; teaching fellow chem, Iowa, 03–04; prof. science, Ft. Worth Univ, 04–07; chem. storekeeper, Iowa, 07–08, instr. chem, 08–09; South Dakota, 09–13; analyst for state food and drug commissioner, *S. Dak,* 09–13; state food and drug commissioner and director, State Food and Drug Lab, 13–25; *chemist and director, State Chem. Lab, 25–* Cmt. on definitions and standards for foods, U. S. Dept. Agr, 26–38, Fed. Security Agency, 38– Chem. Soc; Asn. Dairy, Food and Drug Officials (pres, 19); Asn. Official Agr. Chem. (v. pres, 41); Asn. Feed Control Officials (pres, 31); N. Cent. State Asn. Dairy, Food and Drug Officials (pres, 23). Analytical chemistry.

Fraser, Dr. C(harles) McLean, University of British Columbia, Vancouver, B. C, Can. *Zoology.* Bluevale, Ont, June 1, 72. B.A, Toronto, 98, M.A, 03; Ph.D, Iowa, 11; LL.D, British Columbia, 42. Lecturer and asst, Toronto, 01–03; fellow, Iowa, 11–12; director, Marine Biol. Lab. Can, B. C, 12–24; prof. *zool, British Columbia,* 20–40, *emer. prof, 41–* Research prof, Southern California, 40–41. A.A; Soc. Zool; Soc. Mammal; Fisheries Soc; Ecol. Soc; Pacific Fisheries Soc. (v. pres, 17–19, pres, 19); West. Nat. Soc; Oceanog. Soc. Pacific (v. pres, 35, pres, 36); Iowa Acad; fel. Royal Soc. Can. (pres, sect. V, 41); B. C. Acad. (pres, 16–18). Marine zoology; taxonomy and ecology of hydroids; life history of fishes.

Fraser, Dr. Donald M(cCoy), Bethlehem Steel Co, Bethlehem, Pa. *Geology.* Pueblo, Colo, June 1, 03. A.B, Oregon, 25, A.M, 26; fellow, Columbia, 28–29, Ph.D, 32. Asst, Oregon, 25–26; instr, Occidental Col, 26–28; asst. prof, Dana Col, Newark, 29–31; instr. geol, Lehigh, 31–33, asst. prof, 34–38, assoc. prof, 38–41, acting head dept, 37; *asst. geologist, Bethlehem Steel Co, 41–* Summers, instr, Hunter Col, 29; cooperating geologist, State Div. Mines, Calif, 30; State Topog. and Geol. Surv, Pa, 36, 37. A.A; Soc. Econ. Geol; Geol. Soc; Min. and Metal. Eng; Miner. Soc; Geophys. Union; Pa. Acad. Economic geology; petrology; geology of San Jacinto Mountains, California; petrology and economic geology of eastern Pennsylvania and New Jersey.

Fraser, Prof. Donald T(homas), University of Toronto, Toronto, Ont, Can. *Medicine.* Toronto, Ont, Sept. 27, 88. B.A, Toronto, 12, M.B, 15, D.P.H, 21; fellow, Royal Soc. Can; fellow, Acad. Med, Toronto; fellow, Ont. Col. Physicians and Surgeons. Bacteriologist, *Connaught Labs, Toronto,* 18–19, asst, 19–20, assoc, 21–25, asst. director, 25–32, *assoc. director, 32–,* lecturer *hygiene and prev. med, univ,* 20–21, asst. prof, 21–27, assoc. prof, 27–32, *prof, 32–* Capt, C.A.M.C, 16. Asn. Immunol; fel. Pub. Health Asn; Can. Pub. Health Asn. Preventive medicine; bacteriology; immunology; diphtheria immunity.

Fraser, Dr. Doris A(corn), 801 Federal St, Camden, N. J. *Anatomy.* Beverly, Mass, 04. A.B, Pennsylvania, 25, M.S, 27, Ph.D, 30. Asst. anat, sch. med, Pennsylvania, 27–34, research fellow, 34–37; instr. biol, Centenary Junior Col, 37–39; Pennsylvania, 39–40; Russell Sage Col, 40–41; *mem. staff, Smith, Kline and French Labs, 41–* Asn. Anat. Skin and hair of rats; melanophores in meninges and hypophysis; basal ganglia.

Fraser, Dr. H(avelock) F(rank), Wilson Dam, Sheffield, Ala. *Nutrition.* Sask, Can, Nov. 21, 03. A.B, Washington (Seattle), 25; Chicago, 27–28; M.D, Cornell, 32. Chief med. officer, U. S. Penitentiary, Atlanta, Ga, 35–36; *passed asst. surgeon, nat. inst. health, U. S. Pub. Health Service, 37–, develop. of research lab, Tenn. Valley Authority, 40–* Instr, sch. med, Emory, 35–36. Chem. Soc; assoc. Am. Med. Asn; Soc. Exp. Biol. Nutrition research on vitamins A, C, D, nicotinic acid and riboflavin, enzyme research on di-phosphopyridine nucleotide and tri-phosphopyridine nucleotide; availability of calcium and phosphorus in fertilizers for rats and chickens.

Fraser, Prof. H(orace) J(ohn), California Institute of Technology, Pasadena, Calif. *Geology.* Girvin, Sask, Can, 05. B.Sc, Manitoba, 25, M.Sc, 27, traveling fellow, 27–28; A.M, Harvard, 28, Ph.D, 30. Asst, Manitoba, 25–27; instr. econ. geol, Harvard, 28–30; nat. research fellow, 30–31; *research* assoc, Harvard, 31–32; geologist, Int. Nickel Co. Can, 32–35; *asst. prof. metalliferous geol. and miner, Calif. Inst. Tech, 35–* Summers, asst, Geol. Surv. Can, 25–27. A.A; Min. and Metal. Eng; Miner. Soc; Soc. Econ. Geol; Geol. Soc; Can. Inst. Min. and Metal. Mineralogy; economic geology; ore deposits.

Fraser, J(ohn) G(ordon) Carl, Central Experimental Farm, Ottawa, Ont, Can. *Agriculture.* Quebec, Que, Dec. 4, 93. B.Sc. (Agr), McGill, 16. Asst. cerealist, *cent. exp. farm, Can. Dept. Agr, Ottawa,* 19–21, *cerealist, 21–, chief asst, 27–* Can. Soc. Tech. Agr. (v. pres, east. Ont. sect, 31). Verification and classification of Canadian varieties of wheat.

Fraser, Prof. John H(addon), 913 Temperance St, Saskatoon, Sask, Can. *Chemistry.* Pictou Co, N. S, May 20, 93. B.Sc, Saskatchewan, 29, M.Sc, 32; Chicago, 34–35. Instr. *chem, Saskatchewan,* 29–31, *asst. prof, 31–* Reactions between silica sols and calcium hydroxide solutions; divalent compounds of gallium with bromine and with iodine.

Fraser, Dr. Lewis H(asselman) D(avis), Drawer F, Berlin, N. J. *Chemical engineering.* New York, N. Y. July 20, 06. B.S, Yale, 28; Ph.D, Mass. Inst. Tech, 34. Investigator, research div, N. J. Zinc Co, 28–35; asst. chem. engineer, research lab, fertilizer works, Tenn. Valley Authority, 35–40; chem. engineer, Dispersions Process Inc, Conn, 40; *research chemist,* Johns-Manville Corp, *N. J,* 41; *Owens Ill. Glass Co, 41–* Asst, Mass. Inst. Tech, 31–32. Chem. Soc; Muscle Shoals Chemists' Club (chairman, 35). Normal vapor pressure of crystalline iodine; zinc metallurgy.

Fraser, Prof. Roy, Mount Allison University, Sackville, N. B, Can. *Bacteriology.* Fitzroy Harbor, Ont. B.S.A, Toronto; A.B, A.M, Kansas. Res. pathologist, Seaside Hosp, N. Y, 13–14; supt, Arbuckle Inst, 14–19; *prof. biol. and bacter, Mt. Allison, 21–* Pub. Health Asn; Can. Pub. Health Asn; Can. Tuber. Asn; Can. Physiol. Soc; Can. Rheumatic Diseases Asn; fel. Royal Micros. Soc. The effect of purins on streptococcal pathogenesis; certain effects of ultra-violet radiation on bacteria; etiology of epidemic catarrhal jaundice; adsorption of bacterial toxins in vivo; bacterial antibiosis; viability of hemolytic streptococci in stock cultures; micro-pipette isolation of single cells; bactericidal light in surgery.

Fraser, Samuel, Geneseo, N. Y. *Agriculture.* Cheadle, Eng, Feb. 2, 76. Diploma, Cheshire Agr. Col, 98; M.S.A, Cornell, 05. Asst, Cheshire Agr. Col, 96–98; manager butter factory, 98–99; agriculturist, Sch. Practical Agr. and Hort, Briarcliff Manor, N. Y, 00–03; instr. agron, Cornell, 03–04, asst. agronomist, 04–06; *consulting agriculturist, 06–* Agr. adviser to W. A. Wadsworth, 06–14. A.A; Pomol. Soc; fel. Scottish High. and Agr. Soc; Int. Apple Asn. (asst. sec'y, 19–41, sec'y, 41–). The potato; root crops for stock; alfalfa and cultivated grasses; rotation of crops; timothy; methods of farm management; American fruits; strawberry; apple; marketing and distribution of fruits and vegetables.

Fraser, Dr. W(allace Charles Gordon), 59 Burnside Drive, Toronto, Ont, Can. *Mathematics.* Toronto, Ont, Aug. 2, 17. B.A, Toronto, 39, fellow, 39–42, M.A, 40, Ph.D, 42. Asst. gauge examiner, Nat. Research Council Can, 42, mathematician, div. mech. eng, 42–43; *Royal Can. Navy Vol. Res, 43–* Math. Soc. Theory of functions; aerodynamics.

Fraser, Dr. Walter A(lexander), 82 Belmeade Road, Rochester, N. Y. *Physics.* Algona, Iowa, July 9, 10. B.S, Iowa State Col, 32, M.S, 33, Ph.D, 35. Asst. physics, Iowa State Col, 32–35; *physicist in charge glass div, Bausch and Lomb Optical Co, 35–* Inst. Physics; Ceramic Soc; Franklin Inst. X-ray extinction in piezoelectric crystals; strength of glass; physical properties of glass; thermal shock; optical fluorcrown and barium crown glasses.

Fraser, Prof. W(ilber) J(ohn), 1002 S. Busey St, Urbana, Ill. *Dairy husbandry.* Lockport, Ill, July 1, 69. B.S, Illinois, 93, M.S, 02. Asst. agr, *Illinois,* 93–96, instr. *dairy husbandry,* 96–01, asst. prof, 01–03, prof, 03–37, *emer. prof, 37–* Dairy Sci. Asn; Soc. Animal Production; Agr. Econ. Asn; Econ. Asn. Animal nutrition; dairy farm management.

Frayne, Dr. John G(eorge), Electrical Research Products Division, Western Electric Co, 6601 Romaine St, Los Angeles, Calif. *Physics.* Trinity (Ireland), 12–14; A.B, Ripon Col, 17; Ph.D, Minnesota, 21. Research engineer, Am. Tel. and Tel. Co, 19; instr. math. and mech, Minnesota, 19–21, physics, 21–22; prof, Antioch Col, 22–28; nat. research fellow, Calif. Inst. Tech, 28–29; *consulting engineer, Elec. Research Products Div, West. Elec. Co, 29–* 2nd lieut, Sig.C, 18. Physical Soc; Soc. Motion Picture Eng. (chairman, Pacific coast sect, 41). Radio telephony; thermionic tubes; piezoelectricity; absorption spectra of metallic vapors; photography of sound pictures; densitometer design; vibration analysis.

Frazer, Dr. John, 8015 Navajo St, Philadelphia, Pa. *Chemistry.* Paris, France, Feb. 5, 82. B.S, Pennsylvania, 03, A.M, 04, Ph.D, 07. Instr. chem, Pennsylvania, 04–06, 07–08, asst. prof, 08–18, 19–21, prof, 21–33, dean, Towne Sci. Sch, 12–18, 19–28; *sec'y cmt. science and arts, Franklin Inst, 36–, asst. sec'y, 41–, acting asst. ed, 'Jour,' 41–* Sec'y board deans, Pennsylvania, 21–22; exchange prof, univs, France, 22–23. Capt, C.W.S, 18–19, lieut. col, O.R.C, 24–29. A.A; Chem. Soc; Franklin Inst; Soc. de Chim. indust. Electrodeposition of indium and certain electrolytic separations by the rotating anode; the effects of combustion products on vegetation; sulfur content of plants.

Frazer, Prof. J(oseph) C(hristie) W(hitney), Johns Hopkins University, Baltimore, Md. ***Chemistry.* Lexington, Ky, Oct. 30, 75. B.S, Kentucky, 97, M.S, 98; Ph.D, Hopkins, 01; Sc.D, Kenyon Col, 26. Asst. *chem,* Kentucky, 97–98, Exp. Sta, 98; *Hopkins,* 02–06, assoc, 06–14, *B. N. Baker prof, 14–,* chairman dept, 14–35. Head research lab, U. S. Bur. Mines, Pittsburgh, 05–11. Head Baltimore branch lab, C.W.S, 17–19. For. mem. Utrecht Soc. Osmotic pressure and vapor tension of solutions; catalysis and adsorption; surface chemistry.

Frazer, Dr. J(oseph) H(ugh), University of Buffalo, Buffalo, N. Y. *Chemistry.* Baltimore, Md, May 13, 05. A.B, Hopkins, 25, Ph.D, 28; Leipzig, 29–30. Nat. research fellow, California, 28–29; lecturer physics, Manchester, 30–31; instr. *chem, Buffalo,* 31–32, *asst. prof, 32–* Adsorption on glass surfaces; magnetic susceptibilities of inorganic complex compounds.

Frazier, Dr. Chester N(orth), University of Texas School of Medicine, Galveston, Texas. *Dermatology.* Portland, Ind, Jan. 27, 92. Col. of Wooster; B.S, Indiana, 15, M.D, 17; Hopkins, 26–27; Munich, 31–32; Hopkins, 41–43. Asst. *dermat. and syphilol, sch. med,* Indiana, 20–22, assoc, Peiping Union Med. Col, 22–26, assoc. prof, 26–31, *prof,* 31–42; *Texas, 42–* A.A; Soc. Exp. Biol. (councilor, 35); fel. Col. Physicians; Hist. Sci. Soc; Soc. Study Int. Secretions; Dermat. Asn; Soc. Investigative Dermat; Soc. Trop. Med; Hungarian Dermat. Soc; Dermat. Soc. China; Med. Hist. Soc. China; Med. Asn. China (chairman, sect. dermat, 35); Peiping Soc. Nat. Hist; Far East Asn. Trop. Med; Int. Leprosy Asn. Tissue reaction to hydnocarpates; nutritional dermatoses; experimental syphilis; sex in relation to disease; fungus diseases.

Frazier, Prof. J(ohn) C(arroll), Kansas State College, Manhattan, Kans. *Plant physiology.* Middletown, Ind, March 29, 00. A.B, DePauw, 25; A.M, Nebraska, 26; Ph.D, Chicago, 39. Instr. bot, Kans. State Col, 26–27; asst. prof. biol, Ill. Wesleyan, 27–36; instr. *bot, Kans. State Col,* 36–39, *asst. prof, 39–, asst. plant physiologist, Exp. Sta, 36–* A.A; Bot. Soc; Soc. Plant Physiol; Kans. Acad. (sec'y, 41–); Ill. Acad. Plant physiology and noxious weeds.

Frazier, Prof. Richard H(enry), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Bellevue, Pa, May 29, 00. B.S, Mass. Inst. Tech, 23, M.S, 32. Elec. engineer, Ry. and Indust. Eng. Co, 23–25; instr. *elec. eng, Mass. Inst. Tech,* 25–31, asst. prof, 31–37, *assoc. prof, 37–* Instr, Lowell Inst. Sch, 27–31, in charge elec. measurements lab, 31–35; exchange prof, Kansas, 35–36. Elec. Eng; Eng. Educ.

Frazier, Dr. W(illiam) A(llen), University of Hawaii, Honolulu, Hawaii. *Horticulture.* Carrizo Springs, Texas, April 26, 08. B.S, Agr. and Mech. Col. Texas, 30; fellow, Maryland, 30–33, M.S, 31, Ph.D, 33. Instr. olericulture, Maryland, 33–35, assoc. prof, 35–37; assoc. horticulturist, *Exp. Sta,* Arizona, 37–39; *horticulturist, Hawaii, 39–* Soc. Hort. Sci. Winter hardiness of plants; water relations; factors associated with occurrence of cracks in fruits; disease resistance in truck crops.

Frazier, Prof. William C(arroll), University of Wisconsin, Madison, Wis. *Bacteriology.* Madison, Wis, Sept. 26, 94. B.S, Wisconsin, 17, Ph.D, 24. Instr, Wisconsin, 19–24; assoc. bacteriologist and senior bacteriologist, bur. dairy indust, U. S. Dept. Agr, 24–34; *prof. agr. bacter, Wisconsin, 34–* Soc. Bact. (councilor, 38, pres, n. cent. branch, 37; sec'y-treas, 43–); Dairy Sci. Asn; Inst. Food Technol; Wash. Acad. Dairy and food bacteriology; proteolytic bacteria of milk; bacteriology of milk and cheese; food spoilage and preservation.

Frear, Prof. Donald E(lisha) H(arding), 311 Park Ave, State College, Pa. *Biochemistry.* Tunkhannock, Pa, Sept. 16, 06. B.S, Pa. State Col, 26, Ph.D, 37; M.S, New Hampshire, 28. Asst. biochem, New Hampshire, 26–28; asst. chemist, Exp. Sta, R. I. State Col, 28–30; assoc. animal nutrition, inst. animal nutrition, *Pa. State Col,* 30–33, *asst. prof. agr. and biol. chem, 33–* A.A; Chem. Soc. Chemistry of insecticides; analysis of plant materials; nitrogen relationships in plants; spray residues; mineral metabolism of plants.

Frear, Dr. George L(ewis), Wilson Dam, Ala. *Chemistry.* State College, Pa, Sept. 29, 01. B.S, Pa. State Col, 23; Ph.D, Yale, 26. Fellow, Yale, 26–27; research assoc, Am. Sheet and Tin Plate Co, 27–29; assoc. physical chemist, U. S. Bur. Mines, 29–33; from assoc. chemist to *senior chemist, Tenn. Valley Authority, 33–* A.A; Chem. Soc. Applied physical chemistry; fertilizer technology.

Fred, Dean E(dwin) B(roun), 610 N. Francis St, Madison, Wis. *[6]*Botany, Bacteriology.* Middleburg, Va, March 22, 87. B.S, Va. Polytech, 07, M.S, 08; Ph.D, Göttingen, 11. Asst. *bacter,* Va. Polytech, 07–08, asst. prof, 12–13; *Wisconsin,* 13–14, assoc. prof, 14–18, *prof, 18–, dean grad. sch, 35–* Consulting ed, 'Soil Science.' Lieut, C.W.S, 18. Nat. Acad; A.A; Soc. Bact. (pres, 32). Soil bacteriology; nitrogen-fixing bacteria; applications of microorganisms to industrial fermentations; solvents production by microorganisms.

Frederick, Dr. D(onald) S(herwood), 9 Mulberry Lane, Bowling Green, Media, Pa. *Organic chemistry.* Hamilton, Ohio, Nov. 13, 10. Inst. Int. Educ. fellow, Munich, 29–30; A.B, Miami (Ohio), 31; fellow, Illinois, 31–34, A.M, 32, Ph.D, 34. Research chemist, *Rohm and Haas Co, Phila,* 34–36, *sales manager, plastics div, 36–* Chem. Soc. Synthetic resins.

Frederick, Dr. Edwin L(ouis), 109 N. Rolling Road, Catonsville, Md. *Chemistry.* Baltimore, Md, March 17, 91. A.B, Hopkins, 11, fellow, 13–14, Ph.D, 14. Asst. chem, Hopkins, 11–12; asst. prof, N. C. State Col, 14–17; research chemist, E. I. du Pont de Nemours and Co, 19–21; Baltimore City Col, 22–24; *head dept. science, Forest Park High Sch, Baltimore, 24–* Lieut, C.W.S, 17–19. Chem. Soc; Md. Acad. Physical and organic chemistry; osmotic pressure of mannite solutions; poisonous gases; dyes.

Frederick, Halsey A(ugustus), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Engineering.* Essex, N. Y, Oct. 27, 87. B.S, Princeton, 10, Sayre fellow, 11, Munn fellow, 12, E.E, 12. West. Elec. Co, Inc, 12–24; transmission instruments director, *Bell Tel. Labs,* 25–35, electromech. apparatus director, 35–40, *director switching apparatus develop, 40–* A.A; fel. Elec. Eng; Physical Soc; fel. Acoustical Soc. (v. pres, 32–34). Telephone instruments; phonograph recording; reproducing apparatus; acoustics and electro-acoustic apparatus; electric stethoscope; development of the microphone; wax recording; vertical sound records.

Frederiksen, Dr. Norman (Oliver), Princeton University, Princeton, N. J. *Psychology.* Seibert, Colo, Feb. 9, 09 A.B, Nebr. Wesleyan, 31; A.M, Nebraska, 33; Ph.D, Syracuse, 37. *Instr. psychol,* Syracuse, 34–37; *Princeton, 37–* Psychologist, Mercer Co. Child Guidance Bur, N. J, 39–Psychol. Asn. Conforming behavior; personality; testing.

Frediani, Dr. H(arold) A(rthur), Eimer and Amend, 638 Greenwich St, New York, N. Y. *Chemistry.* New York, N. Y, Dec. 23, 11. A.B, Iowa, 34, fellow, 34–35, M.S, 35; Ph.D, Louisiana, 37. Teaching fellow, Louisiana, 35–37, instr. indust. and anal. chem, 37–40; asst. director develop. and research chemist, Fisher Sci. Co, 40–42; *chief chemist, Eimer and Amend, 42–* La. Acad. Sciences award, 36. Chem. Soc; Soc. Pub. Analysts, London. Industrial analytical chemistry; instrumental analysis; spectroscopy; chemical microscopy; electrometric titrations; polarography; colorimetry; chemical kinetics.

Fredrick, Dr. William G(eorge), 1151 Taylor Ave, Detroit, Mich. *Industrial hygiene.* Cincinnati, Ohio, Jan. 25, 09. B.S, Michigan, 30, Mallinckrodt fellow, 30–32, M.S, 32, Sc.D, 36. Chemist, Mallinckrodt Chem. Works, St. Louis, Mo, 33–34; dept. pediat. and infectious diseases, Michigan, 35–36, *chief chemist, bur. indust. hygiene, Dept. Health, Detroit, 36–* Chem. Soc; Pub. Health Asn; Eng. Soc. Detroit. Industrial toxicology; gas analysis; trace analysis; toxicity of gases and vapors; experimental silicosis.

Fredrickson, Prof. W(illiam) R(ussel), 202 Halton Road, Syracuse, N. Y. *Physics.* Chicago, Ill, June 28, 03. B.S, Chicago, 24, M.S, 26, Ph.D, 28. Instr. *physics, Syracuse,* 28–30, asst. prof, 30–35, assoc. prof, 35–38, *prof, 38–, chairman dept, 39–* Physical Soc; Asn. Physics Teachers. Molecular spectra.

Free, Dr. Alfred H(enry), Western Reserve University School of Medicine, Cleveland, Ohio. *Biochemistry.* Bainbridge, Ohio, April 11, 13. A.B, Miami (Ohio), 34; M.S, Western Reserve, 36, Ph.D, 39. Asst. *biochem,* Cleveland Clinic, 34–35; teaching fellow, *Western Reserve,* 35–39, instr, 39–43, *asst. prof, 43–* A.A; Chem. Soc. Nutrition; enzymes of gastrointestinal tract; intestinal absorption; acid-base balance of the body.

Freeborn, Prof. Stanley B(arron), University of California, Berkeley, Calif. *Entomology, Parasitology.* Hudson, Mass, Dec. 11, 91. B.S, Mass. Col, 14, Ph.D, 24. Quarantine inspector, Mass, 13–14; instr. *entom, California,* 14–18, asst. prof, 18–25, assoc. prof, 25–32, *prof, 32–, asst. dean, 37–,* asst. entomologist, *Exp. Sta,* 18–25, assoc. entomologist, 25–32, entomologist, 32–39, asst. to dean, 35–37, *asst. director, 37–; in charge malaria research* on *Pacific Coast, U. S. Army, 42–* Asst. sanitarian and assoc. sanitarian, U. S. Pub. Health Service, 19–36. Nat. Malaria Cmn. Officer, Sanit.C, 18–19. A.A; Entom. Soc. Amer; Asn. Econ. Entom. Mosquitoes; malaria; sheep and poultry parasites.

Freed, Prof. Simon, University of Chicago, Chicago, Ill. *Chemistry.* Lodz, Poland, Nov. 11, 98. B.S, Mass. Inst. Tech, 20; Paris, 20–21; Ph.D, California, 27. Instr. *chem,* California, 27–28, research assoc, 28–30; Guggenheim Mem. Foundation fellow, cryogenic lab, Leiden, 30–31; instr, *Chicago,* 31–37, *asst. prof, 37–* Assoc. ed, 'Jour. Chem. Physics.' Electronic isomers in solids and solutions; magnetism of ions; line spectra of crystals and solutions; specific heat of crystals

and electronic transitions; symmetries of fields about ions in solutions and in crystals; quasi-lattice vibrations in solutions; multipole radiation and wide-angle interference; magnetism and the metallic state.

Freedman, Dr. Louis, 250 E. 43rd St, New York, N. Y. *Chemistry.* New Haven, Conn, Jan. 28, 94. Ph.B, Yale, 15, Sheffield fellow, 15–16, indust. fellow, 16–17, M.S, 17; Ph.D, Columbia, 22. Research chemist, Calco Chem. Co, 17–19; H. A. Metz Labs, 19–32; Winthrop-Metz Chem. Labs, 32–36; asst. tech. director, *U. S. Vitamin Corp, New York,* 36–39, *director research, 39–* U.S.A, 18. Chem. Soc; Inst. Chem; Soc. Exp. Biol; N. Y. Acad. Synthetic organic chemistry; pharmaceutical chemistry; biochemistry; vitamins; nutrition.

Freedman, Dr. L(ouis) M(ark), 475 Commonwealth Ave, Boston, Mass. *Otolaryngology.* Boston, Mass, Aug. 26, 80. A.B, Harvard, 01, M.D, 04; Berlin; Vienna. *Surgeon in chief otolaryngol, Beth Israel Hosp, 20–, consultant, 43–;* Boston City Hosp, 35–42; *assoc. orthodontia, dental sch, Harvard.* A.A; fel. Col. Surg; Acad. Ophthal. and Otolaryngol; Am. Med. Asn. Lung abscess in relation to otolaryngology; recurrent nerve paralysis in relation to thyroidectomy; jugular puncture in mastoiditis; complications of peritonsillar abscess; unusual cases foreign body inhalation.

Freeland, Dr. R(alph) O(rlando), Northwestern University, Evanston, Ill. *Plant physiology.* Jasper Co, Ill, Sept. 27, 99. B.S, East. Ill. State Teachers Col, 26; M.S, Ohio State, 31, Ph.D, 34. Prin, high schs, Ill, 21–23, 24–30; *instr,* East. Ill. State Teachers Col, 24; *plant physiol,* Ohio State, 31–40; *Northwestern, 40–* A.A; Soc. Plant Physiol; Bot. Soc; Ill. Acad. Photosynthesis; transpiration and mineral absorption.

Freeman, Dr. Allen W(eir), Johns Hopkins University, Baltimore, Md. *Preventive medicine.* Lynchburg, Va, Jan. 7, 81. B.S, Richmond, 99; M.D, Hopkins, 05. *Prof. pub. health admin, sch. hygiene and pub. health, Hopkins, 21–,* dean, 34–37. Am. Med. Asn; Pub. Health Asn. (pres, 42); South. Med. Asn. Epidemiology; health administration.

Freeman, Andrew F(oster), U. S. Department of Agriculture, Bogalusa, La. *Chemistry.* Ottumwa, Iowa, June 4, 08. B.S, George Washington, 35. *Research chemist,* div. insecticide investigations, bur. entom. and plant quarantine, *U. S. Dept. Agr,* 36–38, *agr. chem. research div, bur. agr. and indust. chem, 38–, in charge tung oil lab, 39–* Chem. Soc; Oil Chemists Soc. A solvent process for the extraction of tung oil; synthesis of organic compounds for possible use as insecticides.

Freeman, Dr. Benjamin, 2245 E. 19th St, Brooklyn, N. Y. *Chemistry.* Poland, Sept. 2, 96. A.B, Amherst Col, 20; A.M, Ph.D, Columbia, 24. Instr. chem, Amherst Col, 20–21; nat. research fellow, 24–26; instr. biochem, Western Reserve, 26–27; *tech. director,* Nat. Chromium Corp, New York, 28–35; *Advance Chem. Products Co, Brooklyn, 35–* A.A; Chem. Soc. Reactions of trihalogenmethyl compounds with metals; retardation of invertase action; analysis of glomerular filtrates; electroplating with chromium; abrasives.

Freeman, Prof. Charles, 333 Orchard St, New Wilmington, Pa. *Chemistry.* Espyville, Pa, Oct. 16, 64. A.B, Allegheny Col, 91, Ph.D, 94; LL.D, Westminster Col. (Pa), 29. Prof. *chem.* and head dept, *Westminster Col. (Pa),* 94–40, *emer. prof, 40–* A.A; Chem. Soc. Synthesis with β, β^1-dichloroethyl ether; morpholine derivatives.

Freeman, Dr. Charles W(est), 311 E. Chicago Ave, Chicago, Ill. *Dental surgery.* Sharon, Vt, Jan. 18, 92. D.D.S, Northwestern, 12, M.S, 25. From instr. to *prof. oral surg. and dean, dental sch, Northwestern, 12–* Ed, 'Bul,' Chicago Dental Soc, 29–34. Lieut. col, Dental R.C. Dental Asn; Asn. Dental Editors; fel. Col. Dentists; Inst. Med. Chicago. Local anesthesia in dentistry; oral surgery.

Freeman, Prof. Chester P(eter), Memphis State College, Memphis, Tenn. *Biology.* Wyatte, Miss, Feb. 24, 90. B.S, Miss. Agr. and Mech. Col, 21; A.M, George Peabody Col, 22, Ph.D, 32; M.S, Chicago, 26. *Asst. prof.* bot, Agr. and Mech. Col. Texas, 27–29; Okla. Agr. and Mech. Col, 29–31; science, Ball State Teachers Col, Ind, 32–33; Miss. State Teachers Col, Hattiesburg, 33–34; biol, *Memphis State Col, 34–* A.A. Ecology of the cedar glade vegetation near Nashville, Tennessee.

Freeman, Dean E(dward) M(onroe), University Farm, St. Paul, Minn. *[*3]Botany.* St. Paul, Minn, Feb. 12, 75. B.S, Minnesota, 98, M.S, 99, Ph.D, 05; Cambridge, 01–02. Instr, col. pharmacy, Minnesota, 98–01, bot, 02–03, asst. prof, 03–05; pathologist, U. S. Dept. Agr, 05–07; *prof. bot. and plant path, Minnesota, 07–,* chief div, 07–40, asst. dean dept. agr, 13–17, *dean col. agr, forestry and home econ, 17–* Special agent, bur. statist, U. S. Dept. Agr, 05, collaborator, bur. plant indust, 08–33. Agr. cmt, Nat. Research Council, 17. Asst, Minn. Geol. and Nat. Hist. Surv, 98, 00, 02–05. Ed, 'Phytopath,' 11–14; 'Jour. Agr. Research,' 14. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc. (pres, 18); Minn. Acad. (pres, 35). Dendropathology; mycological botany; cereal rusts.

Freeman, Dr. Ellis, University of Tampa, Tampa, Fla. *Psychology.* Boston, Mass, Sept. 1, 96. B.S, Harvard, 19, A.M, 26; student exchange fellow, Frankfurt, 27–28, D.Sc, 28. Instr. psychol, Cornell, 28–29; asst. prof, Louisville, 29–32, assoc. prof, 32–35, prof, 35–37, chairman div. nat. sciences, 33–37; *private research psychol, 37–; prof. psychol. and head dept, Tampa, 39–* Psychol. Asn; South. Soc. Philos. and Psychol; Fla. Acad; Ky. Psychol. Asn. (pres, 37). Social psychology; visual acuity; color vision; principles of psychology.

Freeman, Dr. E(rnest) H(arrison), Illinois Institute of Technology, Chicago, Ill. *Electrical engineering.* Topeka, Kans, Sept. 26, 76. B.S, Kans. State Col, 95, D.E, 35; B.S, Armour Inst. Tech, 02, E.E, 06. Instr. elec. eng, Ill. Inst. Tech, 02–04, asst. prof, 04–06, assoc. prof, 06–09, prof, 09–43, head dept, 09–41; *retired.* Elec. Eng; Eng. Educ. Development and invention of electrical instruments for integrating, recording and indicating the flow of fluids.

Freeman, Prof. Frank N(ugent), 930 Creston Road, Berkeley, Calif. *[*5]Psychology.* Rockwood, Ont, Can, April 17, 80. A.B, Wesleyan, 04, Sc.D, 39; A.M, Yale, 06, Ph.D, 08. Asst. psychol, Yale, 06–08, traveling fellow, 08–09; instr. educ. psychol, Chicago, 09–13, asst. prof, 13–17, assoc. prof, 17–20, prof, 20–39, director orthogenic sch, 31–39; *prof. educational psychol, chairman dept. educ. and dean sch. educ, California, 39–* Acting prof, Washington Col. (Md), 07. Chairman cmt. child. develop, Chicago, 31–; rep, Nat. Research Council, 29–32; mem. problems and plans cmt, Am. Council Educ, 40– A.A. (sec'y, I, 19–28, chairman, sect. Q, 30); Psychol. Asn (exec. cmt, 39–42); Educ. Research Asn. (sec'y, 22, chairman, ed. board, 30–); Soc. Study Educ. (director, 30–32, 33–37, 38–42); Soc. Col. Teachers Educ. (exec. cmt). Psychology of writing; mental tests; illumination standards; visual education; tests of instruction; mental growth.

Freeman, Prof. Frank S(amuel), Cornell University, Ithaca, N. Y. *Education, Psychology.* St. Louis, Mo, Oct. 11, 98. B.S, Harvard, 20, Ed.M, 24, Ed.D, 26. Psychologist and director educ, State Infirmary, Tewksbury, Mass, 21–23; instr. educ, *Cornell,* 25–28, asst. prof, 28–35; *prof,* 35–41, *educ. and psychol, 41–* Mem. staff, div. child develop, and teacher personnel, Am. Council Educ, 39; consultant, cmn. human relations, Progressive Educ. Asn, 36–38; educational consultant, U. S. Navy Dept, 42. Mem. teachers certificating examinations cmt, State Educ. Dept, N. Y, 31–35. A.A; Soc. Research and Child Develop; Soc. Adv. Educ; Soc. Study Educ; Asn. Sch. Admin. (yearbook cmn, 44); N. Y. State Asn. Applied Psychol. Psychology of learning; education and intelligence; nature and nurture in intelligence; individual differences; psychological tests; human development.

Freeman, Prof. G(raydon) L(aVerne), Northwestern University, Evanston, Ill. *Psychology.* LaGrange, Ohio, Aug. 30, 04. B.S, Syracuse, 25; A.M, Cornell, 26, Ph.D, 29. Lecturer psychol, Edminster Sch, 28–29; nat. research fellow, Inst. Human Relations, Yale, 29–31; instr. *psychol, Northwestern,* 31–34, asst. prof, 34–38, *assoc. prof, 38–* Sage fellow, 29. Psychol. Asn. Physiological psychology; muscular tension and mental work.

Freeman, Prof. H(arold) A(dolph), Massachusetts Institute of Technology, Cambridge, Mass. *Statistics.* Wilkes-Barre, Pa, July 12, 09. B.S, Mass. Inst. Tech, 31; Harvard, 37–39. *Asst. prof. statist, Mass. Inst. Tech, 39–* Statist. Asn; Econometric Soc; Inst. Math. Statist; fel. Royal Statist. Soc. Application of statistical theory and methods to industrial problems.

Freeman, Dr. Harry, 390 Main St, Worcester, Mass. *Medicine.* Boston, Mass, Sept. 23, 03. A.B, Harvard, 24, M.D, 28. Intern, Beth Israel Hosp, Boston, Mass, 28–30; internist, research service, *Worcester State Hosp,* 30–35, *research, 35–; practising physician, 35–* Am. Med. Asn; Physiol. Soc; Psychiat. Asn; Mass. Soc. Research Psychiat. Physiology of

the cardio-vascular and autonomic nervous systems; heat regulatory mechanisms in normal and schizophrenic individuals; blood pressure; reaction to autonomic drugs; endocrines; temperature regulation.

Freeman, Capt. Harry F(rederick), Production Division, Edgewood Arsenal, Md. *Chemical engineering.* Kansas City, Kans, Dec. 6, 09. B.S, Kans. State Col, 36, M.S, 37; Ph.D, Iowa, 40. Chemist, Swift and Co, 34–35; chem. engineer, Nat. Aniline div, Allied Chem. and Dye Corp, 40–42; *capt, Chem. Warfare Service, U. S. Army, 42–* Clarification of Iowa River water with bentonite.

Freeman, Prof. Ira M(aximilian), Central Y.M.C.A. College, Chicago, Ill. *Physics.* Chicago, Ill, Aug. 15, 05. B.S, Chicago, 25, M.S, 26, Ph.D, 28. Inst. Int. Educ. fellow, Frankfurt, 28–29; fellow, von Humboldt Foundation, 29–30; physicist, Nat. Advisory Cmt. for Aeronautics, Langley Field, Va, 30–31; *prof. physics, Cent. Y. M. C. A. Col, 32–; physicist, cmt. fortifications design, Nat. Defense Research Cmt, Princeton, 43–* Visiting prof, Purdue, 42–43. A.A. Spectroscopy; astrophysics; applied mathematics.

Freeman, J(oe) F(rank), 149 Bell Court, W, Lexington, Ky. *Agronomy.* Pickens, S. C, Aug. 18, 00. B.S, Clemson Col, 21; M.S, Kentucky, 23. *Supt. soil exp. fields, Exp. Sta, Kentucky, 23–, asst. agronomist, 27–* A.A; Soc. Agron; Ky. Acad. Soil fertility.

Freeman, John (Ripley), Jr, Porter Hill, Middlebury, Conn. *Metallurgy.* Winchester, Mass, Oct. 25, 95. B.S, Mass. Inst. Tech, 16. Div. metal, Bur. Standards, 17–29, asst. chief, 29–30; in charge corrosion research, *Am. Brass Co, Waterbury, Conn,* 30–34, asst. tech. manager, 34–38, *tech. manager, 38–* Bur. Standards research exchange worker, Nat. Physical Lab, England, 21. A.A; Min. and Metal. Eng. (v. chairman, inst. metals, div, 29); Soc. Metals; Soc. Test. Mat; British Inst. Metals. Bearing metals; aluminum alloys; heat treatment of steel; transverse fissures in rails; fatigue of metals; brass die castings; corrosion of copper and copper alloys.

Freeman, Dr. L(eslie) Willard, 6113½ Ellis Ave, Chicago, Ill. *Physiology, Medicine.* Escanaba, Mich, Aug. 17, 15. A.B, Augustana Col, 37; Ph.D, Chicago, 40, M.D, 43. Asst. physiol, Chicago, 37–40; instr, col. med, Illinois, 40–41; *2nd lieut, Med. Corps, U. S. Army, 43–* A.A. Lymphatic pathways from the intestine; hemolytic action of chyle; role of fat in anemias.

Freeman, Dr. Louise Barton, Barland Farm, R. R. 1, Wilmore, Ky. *Geology.* Erlanger, Ky, March 3, 09. A.B, Kentucky, 32, M.S, 34; Ph.D, Chicago, 40. Lab. asst. and sec'y to head dept. geol, Kentucky, 32–36; asst. state geologist, State Dept. Mines and Minerals, Ky, 37–39; *part-time asst. prof. geol, Kentucky, 40–; asst. state geologist, Ky, 37–* A.A; Asn. Petrol. Geol; Paleont. Soc; Ky. Geol. Soc. Subsurface stratigraphy of Kentucky.

Freeman, Prof. Monroe E(dward), Massachusetts State College, Amherst, Mass. *Biochemistry.* Washington, D. C, April 1, 06. A.B. Minnesota, 28, M.S, 29, Ph.D, 31. Instr. chem, Arizona, 29–30; Minnesota, 30; asst. prof. biochem, Maine, 30–36; *research prof. chem, Exp. Sta, Mass. State Col, 36–; lieut, Sanit. Corps, U. S. Army, 42–* Chem. Soc; Inst. Food Tech. Hemicelluloses; plant virus diseases; hemicelluloses and starch; chemistry of foods; physicochemical properties of starch and proteins.

Freeman, Dr. N(orman) E(aston), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Research surgery, Physiology.* Cape May, N. J, July 22, 03. A.B, Yale, 24, M.D, 28. Intern, Univ. Hosp, Pennsylvania, 28–30; nat. research med. fellow and teaching fellow, dept. physiol, Harvard Med. Sch, 30–32; asst. res. surg, Mass. Gen. Hosp, 32–34, res, 35–36; Dalton research fellow, Mass. Gen. Hosp, 36; senior fellow *surg. research, Harrison dept. surg, Pennsylvania,* 36, *J. Wm. White asst. prof,* 37– Am. Med. Asn; Physiol. Soc; Heart Asn. (sec'y, peripheral vascular sect, 38–41, director, 41); Col. Surg; John Morgan Soc; Soc. Clin. Invest; Surg. Asn; Physiol. Soc. Phila. Physiology of circulation; hypertension; surgical shock.

Freeman, Dr. O(tis) W(illard), Eastern Washington College of Education, Cheney, Wash. *Geography, Geology.* Otsego, Mich, April 13, 89. A.B, Albion Col, 10; M.S, Michigan, 13; Ph.D, Clark, 29. *Instr,* high schs, Mich, Mont. and Calif, 10–23; *geol. and geog,* Northwestern, 23–24; Wash. State Nor. Sch, 24–37, *East. Wash. Col. Educ, 37–, head dept. physical science.* Acting prof, Hawaii, 26–27. Summers, instr, Cent. Mont. and San Francisco Nor. Schs, 16–24; Western Reserve, 29; Washington (Seattle), 41. Ed, 'Northwest Science,' 37– A.A; Asn. Geog; Nat. Council Geog. Teachers (director); Meteorol. Soc; Northwest Sci. Asn. (sec'y-treas, 33–38); Asn. Pacific Coast Geog. (pres, 35; ed, 'Yearbook,' 35–39). Physical geology; economic geography; geography of Hawaii, Alaska and Pacific Northwest.

Freeman, Dr. R(owland) G(odfrey), 103 E. 75th St, New York, N. Y. *Pediatrics.* New York, N. Y, June 11, 59. A.B, Columbia, 83, M.D, 86. Clin. lecturer *pediat,* Univ. and Bellevue Hosp. Med. Col, 01–09, asst. prof, 09–12, assoc. prof, 12–19, prof, 19–30, *emer. prof,* 30–35, *col. med, N. Y. Univ, 35–* Consulting pediatrist, Roosevelt, N. Y. Foundling, Somerset, St. Agnes and Holy Name Hosps, and N. Y. Nursery and Child's Hosp; Seaside Hosp. of St. John's Guild. Pediat. Soc; Path. Soc; Tuber. Asn; Am. Med. Asn; Am. Physicians; N. Y. Acad. Med. Bacteriology.

Freeman, Dr. R(owland) G(odfrey), Jr, 311 Beacon St, Boston, Mass. *Psychiatry.* New York, N. Y, Dec. 26, 94. Ph.B, Yale, 16; B.S, Columbia, 19, M.D, 21. Physician, child develop. inst, Columbia, 26–31, asst. psychiat. and neur, 30–37, asst. psychiatrist, Bellevue Hosp, 31–37; psychiatrist, Judge Baker Guidance Center, 37–39; *asst. psychiatrist, Boston Dispensary, 39–; lieut. commander, Med. Corps, U. S. Naval Res, 41–* Director child guidance clinic, pub. schs, Pelham, N. Y, 30–34; Inst. Child Guidance, 33–34; asst. attending neurologist, Lenox Hill Hosp, 34–37. Psychiat. Asn; Asn. Research Nervous and Mental Disease; Soc. Exp. Biol; Asn. Physical Anthrop; New Eng. Pediat. Soc. Biochemistry; child development.

Freeman, Dr. Sarah Elizabeth, 3225 St. Paul St, Baltimore, Md. *Archeology.* Bradford, Pa, Sept. 10, 06. A.B, Mt. Holyoke Col, 28; Am. Sch. Classical Studies, Athens, 31–33, Ph.D, Hopkins, 34. *Research asst. archeol, Hopkins, 34–* Archaeol. Inst. Amer; Photog. Soc. Amer. Classical archeology; Attic pottery.

Freeman, Prof. S(mith), 303 E. Chicago Ave, Chicago, Ill. *Biochemistry, Physiology.* Joplin, Mo, Aug. 14, 06. A.B, Park Col, 28; M.S, Northwestern, 30, Ph.D, 33, M.D, 38. Asst. chem, *med. sch, Northwestern,* 28–33, nat. research fellow med, 33–34, fellow physiol, 34–40, asst. prof. physiol. and pharmacol, 40–42, *assoc. prof. physiol, 42–* Consultant, Children's Mem. Hosp. Calcium, phosphorus and fat metabolism.

Freeman, Dr. Theo(dore) R(ussell), University of Florida, Gainesville, Fla. *Dairying.* West Plains, Mo, Dec. 13, 06. B.S.A, Kans. State Col, 29; M.S, Okla. Agr. and Mech. Col, 33; Ph.D, Pa. State Col, 37. Asst. buttermaker, Washington County Cooperative Creamery, Kans, 29–30; instr. science, high sch, West Plains, Mo, 30–32; asst, Okla. Agr. and Mech. Col, 32–33; gen. plant work, Quality Milk Products Co, Tulsa, Okla, 33–34; ice cream maker, Banner Ice Cream Co, Muskogee, 34–35; asst, Pa. State Col, 35–37; from instr. to assoc. prof. dairy husbandry, Agr. and Mech. Col. Texas, 37–41; *assoc. dairy mfrs, dairy products lab, Exp. Sta, Florida, 41–* Dairy Sci. Asn; Int. Asn. Milk Sanitarians. Dairy chemistry; storage of dairy products; production of casein and use in ice cream; cheese ripening.

Freeman, Dr. Walter, 1028 Connecticut Ave, Washington, D. C. *Neurology, Psychiatry.* Philadelphia, Pa, Nov. 14, 95. A.B, Yale, 16; M.D, Pennsylvania, 20; M.S, Georgetown, 29, Ph.D, 31. Anatomist, Phila. Gen. Hosp, 20–21, asst. pathologist, 23; asst. instr. path, Pennsylvania, 23; asst, Paris, 23; assoc, Georgetown, 24–32; *prof.* neuropath, *George Washington,* 24–27, *neur,* 27– Director lab, St. Elizabeths Hosp, 24–33; lecturer, U. S. Naval Med. Sch, 24– Sec'y, Am. Board Psychiat. and Neur, 34– Neur. Asn; Asn. Neuropath; Am. Med. Asn; Psychiat. Asn; Col. Physicians; Wash. Soc. Path. (pres, 29); Wash. Nervous and Mental Diseases Soc. (pres, 31); Wash. Acad. Med; Wash. Acad; Phila. Neur. Soc. Neuropathology; psychosurgery; constitutional and mental diseases; organic nervous diseases.

Freeman, Dr. W(illiam), 364 Plantation St, Worcester, Mass. *Pathology.* Boston, Mass, July 27, 01. B.Ch.E, Northeastern, 24; M.D, Boston, 29. Res. pathologist, Mass. Mem. Hosps, 30–31; *instr. path, sch. med, Boston, 31–* Pathologist and director lab, Mem. Foundation for Neuro-Endocrine Research and Worcester State Hosp, 31–; Worcester Hahnemann Hosp, 32–; consulting pathologist, Nantucket Cottage

Hosp, 31–; pathologist, Worcester Cancer Clinic, 34– Mem, Am. Board Path. Am. Med. Asn; Asn. Study Int. Secretions; Soc. Clin. Path; Asn. Path. and Bact; fel. Col. Physicians; New Eng. Path. Soc; Mass. Soc. Research in Psychiat; Mass. Med. Soc. Neuro-endocrine pathology.

Freer, Prof. Ruskin S(kidmore), Lynchburg College, Lynchburg, Va. *Biology.* Kenton, Ohio, April 2, 94. B.S, Hiram Col, 17; fellow, Ohio Wesleyan, 22–23, A.M, 24. Prof. science, Milligan Col, 17–20; instr, Ohio Wesleyan, 23–24; *prof. biol. and head dept, Lynchburg Col, 24–*, registrar, 26–31, dean men, 30–31, *chairman div. nat. sciences, 33–* Visiting prof, Johnstown Center, Pittsburgh, 31, 32. Ed, 'Claytonia,' 34–39; 'Va. Jour. Science,' 40– A.A; Ecol. Soc; assoc. Ornith. Union; Va. Ornith. Soc. (pres, 30–35); Va. Acad. (pres, 39). Plant histology; ecology; ornithology; gametophyte of Asplenium angustifolium; flora of Blue Ridge of Virginia; fossil pollens in Blue Ridge bog; birds of Virginia.

Frehafer, Prof. M(abel) Katherine, Goucher College, Baltimore, Md. *Physics.* Philadelphia, Pa, 86. A.B, Bryn Mawr Col, 08; A.M, Wisconsin, 09; Ph.D, Hopkins, 19. Demonstrator physics, Bryn Mawr Col, 10–14; asst, Wisconsin, 14–16; instr, Mt. Holyoke Col, 16–18; asst. and assoc. physicist, Bur. Standards, 19–23; prof. *physics,* Wilson Col, 24–25; instr. and asst. prof, *Goucher Col,* 25–33, *assoc. prof, 33–* A.A; assoc. Physical Soc; assoc. Acoustical Soc; Asn. Physics Teachers. Reflection and transmission of ultra-violet by sodium and potassium; physical measurement of color.

Freiberg, Dr. Albert D(aniel), Psychological Corporation, 522 Fifth Ave, New York, N. Y. *Psychology.* Stanton, Nebr, Feb. 9, 04. A.B, N. Cent. Col, 26; A.M, Illinois, 27; Ph.D, Cornell, 36. Asst. psychol, Illinois, 27–28; instr, Mich. State Col, 29–33; *mem. staff, Psychol. Corp, 35–, tech. director marketing research and sec'y, 40–* Lecturer, Columbia, 40– A.A; Psychol. Asn; Asn. Applied Psychol; N. Y. State Asn. Applied Psychol. Attention; copy testing; marketing and advertising; consumer and industrial relations.

Freiberg, Dr. George W(illiam), 5122 Waterman Blvd, St. Louis, Mo. *Plant pathology, Physiology.* Eitzen, Minn, May 22, 92. B.S, S. Dak. State Col, 13; Lackland fellow, Mo. Bot. Garden, 14–16; Ph.D, Washington (St. Louis), 17; LL.B, Benton Col. Law, St. Louis, Mo, 32. Asst. bot, Missouri, 13–14; Mo. Bot. Garden, 16–17; plant supt, Commercial Solvents Corp, Terre Haute, Ind, 20–22; instr. bot, Washington (St. Louis), 22–24; city bacteriologist, St. Louis, Mo, 25–27; head biol. div, research dept, Buckeye Incubator Co, Springfield, Ohio, 28–29; head dept. micro-biol, *Anheuser-Busch, Inc,* 29–40, *coordinator research and patent information, 40–* Lieut, Sanit.C, 17–19. A.A; Water Works Asn; Soc. Bact; St. Louis Acad. Microbiology; patent law; mosaic diseases; biochemistry.

Freilich, J(acob), Fleischmann Laboratories, 810 Grand Concourse, New York, N. Y. *Food chemistry.* Kamenetz-Podolsk, Russia, July 28, 99. B.S, Cooper Union, 25; Col. City of N. Y. *Chemist, Fleischmann Labs, 23–* Chem. Soc; Asn. Cereal Chemists. Baking technology; cereal chemistry.

Freimuth, Dr. Henry C(harles), 2307 24th St, S.E, Washington, D. C. *Analytical chemistry.* New York, N. Y, June 24, 12. B.S, Col. City of N. Y, 32; M.S, N. Y. Univ, 33, Ph.D, 38. Teaching fellow chem, Wash. Sq. Col, N. Y. Univ, 35–37, asst. instr, 37–38, asst. therapeut, med. col, 38–39; junior chemist, asst. chemist, chemist and *prin. chemist, Fed. Bur. Investigation, 39–* Chem. Soc; Metrop. Microchem. Soc. (chairman toxicol. cmt, 38). Toxicology; phase rule; carbon monoxide poisoning; serological studies as applied to criminological investigations.

Freitag, Dr. J(ulius) H(erman), University of California, Berkeley, Calif. *Entomology.* Berkeley, Calif, Jan. 6, 08. B.S, California, 31, M.S, 32, Ph.D, 35. Asst. entom, *California,* 31–35, junior entomologist, *Exp. Sta,* 35–42, *asst. entomologist, 42–, instr. entom, 39–* Asn. Econ. Entom; Phytopath. Soc. Insect vectors of plant virus diseases.

Fremont-Smith, Dr. Frank, Josiah Macy, Jr. Foundation, 565 Park Ave, New York, N. Y. *Medicine.* St. Augustine, Fla, March 19, 95. Mass. Inst. Tech; Harvard, 17, M.D, 21. Asst. neur, Mass. Gen. Hosp, 24–26; neuropath, Harvard Med. Sch, 25–26, instr, 26–29, asst. prof, 29–36; *med. director, Josiah Macy, Jr, Foundation, 36–* Moseley traveling fellow and Rockefeller Foundation traveling fellow, 26–27; junior visiting physician, Boston City Hosp, 27–29, in charge cerebrospinal fluid lab, 28–34, research fellow, 29; tutor, Harvard, 30–32; asst. visiting physician, neur. service, and chief of labs, neur. unit, Boston City Hosp, 30–34; assoc. psychiatrist, Mass. Gen. Hosp, 34–36. A.A; Am. Med. Asn; Am. Physicians; Asn. Research Nervous and Mental Disease; Psychiat. Asn; Neur. Asn; Soc. Clin. Invest; Soc. Research Child Develop; Soc. Research Psychosomatic Problems; fel. N. Y. Acad. Med; N. Y. Acad. Central nervous system; cerebrospinal fluid; regulation of body fluids; convulsions; psychosomatic problems; medical education.

French, Prof. Arthur P(erkins), Massachusetts State College, Amherst, Mass. *Pomology, Plant breeding.* Medina, Ohio, June 20, 95. B.S, Ohio State, 21; M.S, Mass. Col, 23. Instr. pomol, Mass. Col, 23–29, asst. prof, 29–31, *Mass. State Col,* 31–36, *prof. pomol. and plant breeding, 36–* Soc. Hort. Sci; Genetic Asn. Genetics of the peach and nasturtium; systematic pomology; plant characters of apples, cherries and other tree fruits; apomixis and hardiness in Rubus.

French, Prof. A(rthur) W(illard), 202 Russell St, Worcester, Mass. *Civil engineering.* Battle Creek, Mich, July 13, 68. C.E, Dartmouth Col, 92; hon. D.Eng, Worcester Polytech, 38. Practising engineer, 92–95; asst. prof. *civil eng,* Thayer Sch. Civil Eng, Dartmouth Col, 95–98; prof, *Worcester Polytech,* 99–38, *emer. prof, 38–* Board overseers, Thayer Sch. Civil Eng, Dartmouth Col, 25–39. Civil Eng; Eng. Educ; Boston Soc. Civil Eng; Worcester Soc. Civil Eng. Properties of structural materials.

French, Dr. Beals E(nsign) L(itchfield), Chicago Teachers College, 68th St. and Stewart Ave, Chicago, Ill. *Chemistry.* Ellicottville, N. Y, Sept. 22, 88. B.S, Alfred, 13; Ph.D, Chicago, 25. Teacher, high sch, N. Y, 13–15; Ky, 16–17; Mich. State Col, 17–19; Univ. of the South, 19–20; instr. biochem, Chicago, 20–24; chem, Chicago Nor. Col, 24–32; Calumet High Sch, 32–35; *prof.* physiol, Chicago Nor. Col, 35–39, *chem, Chicago Teachers Col, 39–* U.S.A, 17–18. A.A; Chicago Acad. Preparation and purification of calves' rennin.

French, Dean C(harles) Clement, Randolph-Macon Woman's College, Lynchburg, Va. *Chemistry.* Philadelphia, Pa, Oct. 24, 01. B.S, Pennsylvania, 22, M.S, 23, Ph.D, 27. Asst. *chem,* Pennsylvania, 22–23, instr, 23–30; *prof. and head dept, Randolph-Macon Woman's Col, 30–, dean, 36–* A.A; Chem. Soc; Va. Acad. Physical and analytical chemistry; catalysis; salt effects in catalytic decomposition.

French, Prof. C(harles) S(tacy), University of Minnesota, Minneapolis, Minn. *Plant physiology.* Lowell, Mass, Dec. 13, 07. B.S, Harvard, 30, A.M, 32, Ph.D, 34. Asst. gen. physiol, Radcliffe Col, 30–31; Harvard, 31–33; research fellow biol, Calif. Inst. Tech, 34–35; guest worker, Kaiser Wilhelm Inst, 35–36; Austin teaching fellow biochem, Harvard Med. Sch, 36–38; instr. chem, Chicago, 38–41; *asst. prof. bot, Minnesota, 41–* A.A; Bot. Soc; Soc. Plant Physiol; Chem. Soc; Asn. Sci. Workers; Minn. Acad. Cellular respiration; photosynthesis of purple bacteria, leaves and algae; characteristics and functions of plant pigments.

French, Dr. David M(ilton), U. S. Rubber Co, Passaic, N. J. *Physical chemistry.* Alexandria, Va, July 11, 14. Ph.D, Virginia, 40. *Chemist, U. S. Rubber Co, 40–* Chem. Soc. Adsorption; high polymeric solutions.

French, Dudley K(imball), 503 Hawthorne Lane, Winnetka, Ill. *Chemistry.* Chicago, Ill, May 1, 81. Chicago. Buckeye Cotton Oil Co, 04–05; Swartschild and Sulzberger, 05–07; chem. director, Dearborn Chem. Co, 07–32; *consulting chemist, 32–* Chem. Soc. (sec'y, Chicago sect, 10–19, chairman, 25, trustee, director and councilor); Soc. Test. Mat. (cmt. petrol. products and lubricants, 10–32, cmt. water for indust. uses, 32–, chairman subcmt. methods of sampling, permanent sec'y subcmt. methods of analysis); Mech. Eng. (mem. feed water studies cmt); Chem. Eng; Water Works Asn; Chem. Indust. Water in power production, heating and industrial use; corrosion control of structural materials; selection and use of lubricants.

French, Prof. Ethel L(ouetta), University of Rochester, Rochester, N. Y. *Chemistry.* Auburn, N. Y, June 18, 96. B.S, Rochester, 20, M.S, 26, Ph.D, 36. Instr. *chem,* Elmira Col, 20–23; asst, *Rochester,* 23–26, instr, 26–30, *asst. prof, 30–* Chem. Soc. Acylamido-benzenesulfonic acids and their derivatives; quantitative analysis of teeth.

French, G(eorge) Talbot, 1112 State Office Bldg, Richmond, Va. *Botany.* Stoughton, Mass, Jan. 14, 84. B.S, Mass. Col, 06; Cornell, 09–10. Asst. botanist, N. Y. Exp. Sta,

Geneva, 06–12; botanist in charge div. bot. and seed lab, *Dept. Agr. and Immigration, Va, 12–, chief botanist and state entomologist.* A.A; Phytopath. Soc; Asn. Seed Anal. (pres, 18, chairman, legislative cmt, 18–27). Plant pathology; entomology; seed testing and identification.

French, Dean H(arley) E(llsworth), 316 Hamline Ave, Grand Forks, N. Dak. *Anatomy.* Delphi, Ind, Dec. 7, 73. A.B, State Col. Wash, 02; M.D, Northwestern, 07; M.S, Chicago, 11. *Prof.* anat. and physiol, South Dakota, 07–11; *anat. and dean sch. med, North Dakota, 11–* Asst. prof, sch. med, Pennsylvania, 25–26; sec'y, State Board Health, N. Dak, 21–23, director, State Pub. Health Lab, 23–37. Asn. Anat; Am. Med. Asn; N. Dak. State Med. Asn. (pres, 22); N. Dak. Acad. (pres, 19); Grand Forks Dist. Med. Soc. (pres, 14–16). Medical education; development; neurology.

French, Prof. Helen S(omersby), Wellesley College, Wellesley, Mass. *Chemistry.* Lynn, Mass, 84. A.B, Wellesley Col, 07, A.M, 10; Ph.D, Zurich, 13. Asst. *chem, Wellesley Col,* 07–10, instr, 10–11, 13–17, asst. prof, 17–20, assoc. prof, 20–25, *prof, 25–* A.A; Chem. Soc. Absorption spectra, rotatory dispersion and magnetic susceptibility as related to molecular structure, chiefly of organic compounds.

French, Prof. H(erbert) E, 1511 Ross St, Columbia, Mo. *Organic chemistry.* Ireton, Iowa, Nov. 13, 89. A.B, Morningside Col, 15; A.M, Illinois, 17, Ph.D, 20. Instr. *chem, Missouri,* 20–21, asst. prof, 21–28, assoc. prof, 28–41, *prof, 41–* Chem. Soc. Reactions of alkyl halides; reaction rates of organic compounds as affected by structure; sunflower seed oil; furane derivatives; organo boric acids; structure of diacyl chlorides; unsaturated compounds.

French, H(erbert) J(ames), International Nickel Co, 67 Wall St, New York, N. Y. *Metallurgy.* New York, N. Y, May 27, 93. Met.E, Columbia, 15. Chemist, Am. Smelting and Ref. Co, Utah, 15; metal. engineer, Gen. Vehicle Co, N. Y, 16–17; asst. physicist, assoc. physicist, metallurgist, senior metallurgist and asst. chief, div. metal, Bur. Standards, 19–29; metallurgist, research labs, *Int. Nickel Co,* Bayonne, N. J, 29–31, *in charge alloy steel and iron develop, New York, 31–* Henry Marion Howe medal, Am. Soc. Steel Treat, 31, Edward deMille Campbell mem. lecturer, Am. Soc. Metals, 33. Metal. inspector, bur. aircraft production, U.S.A, Phila. and Pittsburgh, 17–19. Min. and Metal. Eng; Soc. Metals (trustee, 39–41; v. pres, 41, pres, 42); Iron and Steel Inst; Soc. Test. Mat. Physical metallurgy of ferrous and non-ferrous alloys and metals.

French, Dr. John R(obert) P(utnam), Jr, State University of Iowa, Iowa City, Iowa. *Psychology.* Boston, Mass, Aug. 7, 13. A.M, Harvard, 39, Ph.D, 40. Asst. psychol, Harvard, 37–40; instr, Black Mountain Col, 40–42; *research fellow, child welfare research sta, Iowa, 42–* Psychol. Asn; Soc. Psychol. Study Social Issues. Social psychology; life history; emotional behavior of groups.

French, Dr. John S(haw), Northwood, N. H. *Mathematics.* North Fayette, Maine, July 3, 73. A.B, Bowdoin Col, 95; fellow, Clark, 96–98, Ph.D, 98. Prof. math, Jacob Tome Inst, 98–08; prin, Morris Heights Sch, 08–18; sec'y and chairman board of admission, Clark, 18–21; prin, New Hampton Lit. Inst, N. H, 23–26; supervisor studies, Emerson Sch, 26–33; research, 33–39; *director studies, Emerson Sch, 39–; director, Radio Correspondence Inst, N. H, 42–* State director educ. Works Progress Admin, N. H, 35–36. Assoc. examiner, Col. Ent. Exam. Board. Math. Soc; Soc. astron. de France; Circolo Mat. di Palermo. The pertingents to a plane curve; the singularities and general class of a plane curve.

French, Dr. John W(inslow), Princeton University, Princeton, N. J. *Experimental psychology.* New York, N. Y, April 27, 18. A.B, Princeton, 39, Ph.D, 42. Lab. asst. *psychol, Princeton,* 40–42, *instr, 42–* Assoc. Psychol. Asn; assoc. East. Psychol. Asn. Trial and error learning in Paramecium; individual differences in Paramecium; effect of temperature on the retention of a maze habit in fish.

French, Norman R(ichards), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Ft. Fairfield, Maine, March 19, 93. A.B, Maine, 14, A.M, 16. Instr. physics, Maine, 14–16; Princeton, 16–17; *engineer, research dept,* Am. Tel. and Tel. Co, 19–35; *Bell Tel. Labs, 35–* Silver Palms, Order of Univ. Palms, France; Citation, U. S. Army, 19. C.Eng, 17–19, capt. A.A; Acoustical Soc. Acoustics; telephone transmission.

French, Owen B(ert), 3420 36th St, N. W, Washington, D. C. *Civil engineering.* Cleveland, Ohio, Dec. 7, 65. B.S, Case, 88, C.E, 05. Asst, U. S. Coast and Geod. Surv, 95–15; consulting geodesist, 16–17; prof. geod. and astron, Inst. Mil. Surv, Peking, China, 18–19; surv. and geod, George Washington, 20–33; *consulting geodesist, 20–* Wellman polar exped, 94. Wheat decoration, China. A.A; Civil Eng; Philos. Soc. Wash; Wash. Soc. Eng. (treas, 18, director, 30–); Wash. Acad. Invar tapes for measurement of primary base lines; telegraphic longitudes.

French, Dr. Paul K(endrick), 223 Pearl St, Burlington, Vt. *Internal medicine.* Orleans, Vt, 97. Ph.B, Vermont, 20, M.D, 23. From instr. med. to *assoc. prof. clin. med, Vermont, 24–* Practising physician; attending physician, Mary Fletcher and Bishop De Goesbriand Hosps. Fel. Col. Physicians (governor, Vt); Am. Med. Asn; Heart Asn; Diabetic Asn; Chittenden Co. (Vt) Clin. Soc. Value of sulfa drugs in the treatment of respiratory infection.

French, Prof. R(aymond) A(lbert), University of Dubuque, Dubuque, Iowa. *Botany.* A.B, Iowa, 07, Ph.D, 20. Prof. biol, Highland Park Col, 13–17; Des Moines Col, 17–19; *prof. biol. and head dept. biol. and geol, Dubuque, 20–* A.A; Iowa Acad.

French, Prof. R(oger) DeL(and), McGill University, Montreal, Que, Can. *Engineering.* North Brookfield, Mass, Aug. 20, 85. B.S, Worcester Polytech, 05, C.E, 08. *Prof. highway and munic. eng. and sec'y faculty eng, McGill, 20–* Consulting engineer. Gzowski medal, Eng. Inst. Can, 21. Civil Eng; Eng. Inst. Can; Can. Inst. Sewage and Sanit. Water supply; sewerage; highway design.

French, Dr. R(owland) B(arnes), University of Florida, Gainesville, Fla. *Biochemistry.* Haverhill, Mass, Dec. 20, 96. B.S, Dartmouth Col, 20; M.S, Mass. Col, 22; fellow, Yale, 31; Ph.D, Iowa, 33. Asst. chemist, inst. animal nutrition, Pa. State Col, 22–26, assoc. chemist, 26–30; fellow, Iowa, 34; *assoc. chemist, Exp. Sta, Florida, 35–* Sig.C, U.S.A, 17–19. Chem. Soc. Animal and plant nutrition; antioxidants.

French, Prof. Sidney J(ames), Colgate University, Hamilton, N. Y. *Chemistry.* Superior, Wis, March 1, 94. B.S, Chicago, 22; M.S, Wisconsin, 26, Ph.D, 28. Teacher, high sch, Wis, 19–22; *chem,* Wis. State Teachers Col, Superior, 22–25; prof. and head dept, Franklin Col, 28–32; asst. prof, *Colgate,* 32–38, *prof, 38–, coordinator, Naval Flight Prep. Sch, 43–* Chem. Soc; Soc. Metals. Inorganic chemistry; nature of gas-metal electrodes; indicator electrodes; catalysts for hydrogenation; models in teaching polarity; fusible alloys of indium and gallium.

French, Prof. Thomas E(wing), Ohio State University, Columbus, Ohio. *Engineering.* Mansfield, Ohio, Nov. 7, 71. M.E, Ohio State, 95; hon. Sc.D, Monmouth Col, 21. Assoc. prof. archit, *Ohio State,* 01–06, *prof. eng. drawing, 06–* Consulting engineer, Edward H. French and Co. A.A; Mech. Eng; Eng. Educ. (councilor, 16–19, v. pres, 27). Graphics; paleography; plant design.

Frenkel-Brunswik, Dr. Else (Mrs. Egon Brunswik), 2671 Shasta Road, Berkeley, Calif. *Psychology.* Lemberg, Austria, Aug. 18, 08. Ph.D, Vienna, 30. Assoc. psychol, Vienna, 31–38; *research assoc, inst. child welfare, California, 39–* Social Science Research Council fellow, 42– Assoc. Psychol. Asn. Personality; child, adolescent and social psychology.

Fretz, Prof. A(ugustus) Henry, 42 W. Market St, Bethlehem, Pa. *Geology.* Doylestown, Pa, Nov. 20, 82. C.E, Lafayette Col, 06, M.S, 22. Draftsman, Del, Lackawanna and West. R. R, 06–10; instr, Lafayette Col, 10–18; *geol, Lehigh,* 18–19, asst. prof, 19–33, *assoc. prof, 33–*

Freud, Prof. B(enjamin) B(all), 5858 Magnolia Ave, Chicago, Ill. *Chemistry, Chemical engineering.* Chicago, Ill, Feb. 12, 86. B.S, Chicago, 04, Ph.D, 27; Ch.E, Armour Inst. Tech, 15. From instr. to *prof. chem.* and chairman dept, *Ill. Inst. Tech, 04–, dean evening div; col, sixth civilian defense region, U. S. Army.* Consulting chemist and chem. engineer, 10– Capt, C.W.S, 18, major, C.W.S.R, 25, lieut. col, 31, col, 38. A.A; Chem. Soc; Chem. Eng. Industrial organic chemistry; physical chemistry.

Freud, Dr. Henrietta Zollman (Mrs. B. B. Freud), 5858 Magnolia Ave, Chicago, Ill. *Physical chemistry.* Chicago, Ill, 99. A.B, Smith Col, 20; M.S, Chicago, 22, Ph.D, 24. Chem-

ist, Miner Labs, 20–21; *instr*, Mundelein Col, 33–34; *physical science, Wright Junior Col, 37–* Chem. Soc. Surface tension.

Freudenberger, Dr. Clay B(riscoe), University of Utah, Salt Lake City, Utah. *Anatomy.* Centertown, Mo, April 30, 04. A.B, Colo. Col, 25; A.M, Colorado, 26; Ph.D, Minnesota, 31; M.D, Chicago, 38. Teaching fellow *anat*, Minnesota, 28–29, instr, 29–31; assoc. prof, *Utah*, 31–32, *prof. and head dept, 32–, assoc. dean med. sch, 42–* A.A; Asn. Anat; Soc. Exp. Biol; fel. Am. Med. Asn. Mammalian auditory ossicles; hybridization; the Norway rat with reference to middle ear infection; effect of spaying on body growth and organ weights; effect of cod liver oil on the thyroid; differences between Wistar albino and Long-Evans hybrid strains of rats; effects of estrogens on growth and organ weights; human anomalies.

Freund, Dean C(lement) J(oseph), University of Detroit, Detroit, Mich. *Industrial education.* Appleton, Wis, Aug. 7, 95. A.B, Campion Col, 16; M.E, Marquette, 22. Cooperative student, Falk Corp, Milwaukee, 21–22, student engineer, 22–23, foreman, foundry dept, 23–24, asst, apprentice dept, 24–26, in charge apprenticeship, educ. and personnel, 26–32; *dean col. eng, Detroit, 32–* Instr, Milwaukee Voc. Sch, 24–32; Foundrymen's Conf, Univ. Wis, 29, 30. Indust. Training Conf, Milwaukee, 24–27. Eng. Educ; Mech. Eng; Nat. Metal Trades Asn; Foundrymen's Asn; Nat. Founders' Asn; Eng. Educ. (councilor, 41); Indust. Relations Asn. Wis. (director); Mich. Eng. Soc. Industrial apprenticeship.

Freund, Dr. Hugo Abraham, 62 W. Kirby Ave, Detroit, Mich. *Internal medicine.* Detroit, Mich, Dec. 6, 81. A.B, Michigan, 03, M.D, 05. 1st asst. internal med, Michigan, 05–07; senior attending physician, *Harper Hosp*, 10, *physician in chief, dept. internal med.* Mem. Board Health, Detroit, 17–27, pres, 27–29. A.A; Asn. Path. and Bact; Col. Physicians; Am. Med. Asn; Asn. Endocrinol; Cent. Soc. Clin. Research. Internal medicine; cardiac and vascular diseases; intestinal parasitology; diseases of metabolism; rheumatoid arthritis; influenza; Tice practice of medicine.

Freund, Dr. Jules, Bureau of Laboratories, foot of E. 15th St, New York, N. Y. *Bacteriology.* Budapest, Hungary, June 24, 90. M.D, Budapest, 13, C.P.H, 21. Asst. prof. prev. med, med. sch, Budapest, 17–23; bacteriologist, Von Ruck Research Lab, 23–26; assoc. bacter, Henry Phipps Inst, Pennsylvania, 26–32; *asst. prof. path, med. col, Cornell, 32–; asst. director, Bur. Labs, New York, 38–* Hygienist, Austrian Army, 14–18. A.A; Asn. Immunol; Soc. Exp. Biol; Soc. Exp. Path; fel. Pub. Health Asn; N. Y. Trop. Soc. Public health laboratory methods; hypersensitiveness; antigens; physico-chemical aspect of immunity reactions; toxin-antitoxin reactions; relations of age to infection and immunity; vaccination; tuberculosis; serum production.

Frevel, Dr. Ludo K(arl), 216 Jerome St, Midland, Mich. *Chemistry.* Frankfurt am Main, Germany, May 31, 10. Ph.D, Hopkins, 34. Nat. research fellow chem, Calif. Inst. Tech, 34–36; *research chemist, Dow Chem. Co, 36–* Chem. Soc; Soc. X-ray and Electron Diffraction; Soc. Rheol. X-ray studies of substances under pressure; crystal structure; identification of compounds by x-ray and electron diffraction methods; chemical reaction; polymerization.

Frevert, Dr. Harry L(ouis), The Midvale Co, Philadelphia, Pa. *Chemistry.* Dayton, Ohio, June 21, 82. A.B, Harvard, 05, Ph.D, 08. Instr. physical chem, Harvard, 06–09; chief chemist, Midvale Steel Co, 09–11, supt. armor dept, 13–17, armor, ordnance and heat treatment, 17–21, gen. supt, 21–23, v. pres, *Midvale Co*, 23–31, *pres, 31–* Atomic weights; heats of combustion; amalgams; steel.

Frey, Prof. Austin R(ogers), 424 High St, Bethlehem, Pa. *Physics.* Newark, N. J, April 1, 97. B.S, Harvard, 20, A.M, 24, Ph.D, 29. Asst. *physics*, Harvard, 25–28, instr, 28–29; asst. prof, *Lehigh*, 29–42, *assoc. prof, 42–; mem. staff, radiation lab, Hopkins, 42–* Physical Soc; Radio Eng; Eng. Educ. Radio-frequency.

Frey, Prof. Carl A(dam), 54 Shannon Ave, Athens, Ohio. *Bacteriology.* Mt. Hope, Ohio, July 13, 00. A.B, Ohio (Athens), 25; A.M, Ohio State, 26; Ph.D, Cornell, 30. Teacher, schs, 18–22; asst. biol, *Ohio (Athens)*, 24–25, instr, 25–27, asst. prof, 27–32, assoc. prof. *bacter*, 32–38, *prof, 38–* A.A; Soc. Bact; Pub. Health Asn. Detection and distribution of acid fast bacteria in the soil; aerobic organisms found in periapical abscesses; blood group distribution; reliability of mastitis tests.

Frey, Dr. Charles N, 45 Cambridge Road, Scarsdale, N. Y. *Biochemistry.* Hopkins, Mich. B.S, Mich. State Col, 11; M.S, Wisconsin, 15, Ph.D, 19. Biologist, fed. hort. board, U. S. Dept. Agr, 15; inspection service, Wisconsin, 16–17; fellow, Mellon Inst, 20–22; research chemist, Ward Baking Co, 22–24; Fleischmann Co, 24–26, *director Fleischmann labs, Standard Brands, Inc, New York, 26–* Asst. ed, 'Chem. Abstracts.' Mem. cmt. foods and cmt. surv. of science, Nat. Research Council. U. S. del, Tech. and Chem. Cong. Agr. and Industries, Belgium, 35, Holland, 37, Hungary, 39. Lieut, Sanit. C, 17–19, capt, 19– A.A; Chem. Soc. (chairman, N. Y. sect); Asn. Cereal Chem. (pres, 41); Inst. Food Technol. (councilor); fel. Inst. Chem. (councilor); Soc. Bact; Acad. Polit. Sci; Am. Inst; Wis. Acad; Soc. Chem. Indust. Gt. Britain. Yeast metabolism; nutrition; vitamins; commercial production of yeast; foods; baking technology.

Frey, Dr. David G(rover), Fish and Wildlife Service, University of Maryland, College Park, Md. *Limnology, Aquatic biology.* Hartford, Wis, Oct. 10, 15. A.B, Wisconsin, 36, A.M, 38, Ph.D, 40. *Junior aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 40–* Limnol. Soc. Fishery biology; oyster physiology.

Frey, Fred E(rnest), Phillips Petroleum Co, Bartlesville, Okla. *Chemistry.* Canton, Ohio, Nov. 5, 99. B.S, Col. of Wooster, 22; M.S, Ohio State, 24. Instr, Col. of Wooster, 22–23; asst. chemist, U. S. Bur. Mines, 24–27; chief chemist and later *assoc. director research, Phillips Petrol. Co, 27–* Chem. Soc. Hydrocarbon chemistry; analysis; thermal reactions; thermodynamics.

Frey, Prof. Paul R(eheard), Colorado State College, Ft. Collins, Colo. *Physical chemistry.* Wrightsville, Pa, April 30, 02. B.S, Albright Col, 22; M.S, Colorado, 30; Ph.D, Oregon State Col, 36. Asst. research biochemist, Carnegie Institution, 23–24; prin. and instr. chem, high sch, N. Y, 24–26; prof. physical science, York Col, 30–33; instr. *chem, Colo. State Col*, 36–38, *asst. prof, 38–* Chem. Soc; Colo-Wyo. Acad. Dipole moments of hydrazine derivatives.

Frey, R(alph) W(ylie), 3104 Shepherd St, Mt. Rainier, Md. *Chemistry.* Washington, D. C, July 28, 89. B.S, George Washington, 12. From assoc. chemist to *prin. chemist, leather and tanning investigations, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 14–* Chem. Soc; Leather Chemists Asn. (councilor, 24–28, v. pres, 28–30, pres, 30–32); Int. Soc. Leather Trades Chemists. Hides; tanning materials; tanning; leather.

Freyd, Dr. Max, U. S. Civil Service Commission, Washington, D. C. *Psychology.* Seattle, Wash, June 4, 96. A.B, Washington (Seattle), 18, M.S, 20; Ph.D, Carnegie Inst. Tech, 22. Instr, Pennsylvania, 22–23; merchandising research, J. Walter Thompson Co, 23–25; research assoc, Personnel Research Federation, 25–28; merchandising research, Retail Research Asn, 28–33; market and management research, Tradeways, Inc, 33–36; *personnel research*, Social Security Board and Fed. Security Agency, 36–43; *U. S. Civil Service Cmn, 43–* Psychol. Asn. Psychological tests; personnel.

Freyer, Dr. Egbert (Barrows), Spencer Kellogg and Sons, Buffalo, N. Y. *Chemistry.* Marietta, Ga, July 4, 02. B.S, Univ. of the South, 24; fellow, Virginia; M.S, Louisiana, 26; Ph.D, Hopkins, 29. South. Cotton Oil Co, 26; research chemist, South Texas Cotton Oil Co, 29–36; *head cent. control lab, Spencer Kellogg and Sons, 36–* A.A; Chem. Soc; Oil Chemists Soc. Colloidal and physical chemistry; fats; oils.

Freyermuth, Dr. Harland B(enjamin), 545 Boulevard, Westfield, N. J. *Organic chemistry.* Muscatine, Iowa, Sept. 15, 17. A.B, Iowa, 38, M.S, 40, Ph.D, 42. Asst, Iowa, 40–42; *research chemist, Gen. Aniline and Film Corp, 42–* Chem. Soc; Iowa Acad. Formation and properties of uretediones; dye and plastic intermediates.

Freygang, Prof. Gustav G(eorge), Stevens Institute of Technology, Hoboken, N. J. *Mechanics.* New York, N. Y, April 15, 86. M.E, Stevens Inst. Tech, 09; A.M, Columbia, 13. Instr. *mech, Stevens Inst. Tech*, 11–17, asst. prof, 17–29, assoc. prof, 29–39, *prof, 39–*

Freyn, H(enry) J(oseph), Freyn Engineering Co, 310 S. Michigan Ave, Chicago, Ill. *Mechanical engineering.* Blansko, Austria, Aug. 12, 76. M.E, Tech. Univ, Prague. Engineer, Brietfeld, Danek and Co, Prague, 99–02; John Cockerill Co, Belgium, 02–03; Wellman-Seaver-Morgan Co, Cleveland, 03–06; asst. chief engineer, Ill. Steel Co, Chicago,

06–11; consulting engineer, Allis-Chalmers Mfg. Co, Milwaukee, Wis, 11–13; v. pres, H. Koppers Co, Chicago, Ill, 13–14; *chairman board and director, Freyn Eng. Co, 14–* Mech. Eng; Min. and Metal. Eng; Am. Iron and Steel Inst; Iron and Steel Elec. Eng; West. Soc. Eng; East. States Blast Furnace and Coke Oven Asn; British Iron and Steel Inst; Verein Deuts. Eisenhüttenleute; Soc. des Ing. Luxembourgeois. Metallurgical engineering.

Freytag, Prof. Fred C(lark), 1413 Kearney St, Laramie, Wyo. *Biochemistry.* Sherard, Ill, July 21, 98. A.B, Augustana Col. (Ill), 20; A.M, Colorado, 23; fellow, Iowa, 31–32, Ph.D, 32. Instr, high schs, Colo, 20–27; *Wyoming,* 27–33, asst. prof. *chem,* 33–38, *assoc. prof, 38–* Chem. Soc; Colo-Wyo. Acad. Chemistry of unsaponifiable lipids; autoxidation of fats.

Friant, R(ay) J(erome), 835 Price St, Morgantown, W. Va. *Agronomy.* Scranton, Pa, Aug. 5, 91. B.S, Pa. State Col, 16. Asst. prof, Delaware, 18–20; asst. county agr. agent, Missouri, 20–22; county agr. agent, Morgan County, W. Va, 22–29, *agronomist, exten. div, col. agr, West Virginia, 29–* A.A; Soc. Agron.

Friauf, Dr. James B(yron), 1411 N. Highland St, Arlington, Va. *Physics.* Racine, Wis, Oct. 8, 96. A.B, Montana, 18; Chicago, 18–20; Ph.D, Calif. Inst. Tech, 26. Instr. physics, Calif. Inst. Tech, 20–24; physicist, bur. metal research, Carnegie Inst. Tech, 24–30; dept. research, A. O. Smith Corp, 30–38; research assoc, Wisconsin, 38–39; private consultant, 39–40; bur. ordnance, *Navy Dept,* 40–42, *bur. ships, 42–* Consulting physicist, Pittsburgh Exp. Sta, U. S. Bur. Mines, 29–30. A.A; Physical Soc. Application of x-ray methods to the study of metals; propagation of explosions in detonating gas mixtures; flame temperatures of hydrocarbon gases.

Frick, Dr. Carl E(mmit), 8512 Constance Ave, Chicago, Ill. *Chemistry.* Akron, Ohio, June 17, 94. B.S, Akron, 16; A.M, Ohio State, 17; Ph.D, Wisconsin, 23. Instr, Case, 19; chemist, Phila. Rubber Works Co, 20–21; instr, Wisconsin, 22–23; research chemist and later *chief chemist, Van Cleef Bros, 23–* Pres, Chicago Rubber Group, 29–30. Gas chemist, Exp. Sta, American Univ, 18. Chem. Soc. The chemistry of rubber; organic selenium compounds.

Frick, Dr. Childs, Roslyn, L. I, N. Y. *Mammalogy.* Pittsburgh, Pa, March 12, 83. B.S, Princeton, 05, Sc.D, 41. *Hon. curator late Tertiary and Quaternary mammals, Am. Museum Nat. Hist.* Trustee, Am. Museum Nat. Hist. Mem. cmts. to visit museum comp. zool, Arnold Arboretum and Bussey Inst, Harvard, 31–43; chairman, Am. Cmt. Int. Wildlife Protection. A.A; N. Y. Zool. Soc. (trustee). Extinct mammals; tooth sequence in and remains of mastodons; horned ruminants; Hemicyoninae and an American Tertiary bear; extinct vertebrate faunas of Bautista Creek and San Timoteo Canyon; Carnivora; Camelidae.

Fricke, Dr. Hugo, Cold Spring Harbor, L. I, N. Y. *Physics.* Aarhus, Denmark, Aug. 15, 92. Ph.D, Copenhagen, 16, Lund, 18, Columbia, 19, Harvard, 20; Am-Scandinavian Foundation fellow, 19–20. Asst. physics, Harvard, 20; *biophysicist,* Cleveland Clinic Foundation, 21–27; *biol. lab, Cold Spring Harbor, 28–* Physical Soc; Optical Soc. X-rays; electric properties of biological cells; ultra-violet light.

Fridley, Prof. H(arry) M(arlon), West Virginia University, Morgantown, W. Va. *Geology.* Conde, S. Dak, Aug. 19, 93. B.S, S. Dak. State Col, 16; M.S, Cornell, 25, Ph.D, 28. Instr. *geol,* Cornell, 25–28; asst. prof, *West Virginia,* 28–35, *assoc. prof, 35–* W. Va. Geol. Surv. A.A; Geol. Soc; W. Va. Acad. Physiography of the northern Appalachians.

Fried, Prof. Bernard, State College of Washington, Pullman, Wash. *Physics.* Chicago, Ill, April 18, 12. B.S, Illinois, 34; Chicago, 34–35; Ph.D, Ohio State, 39. Asst. physics, Ohio State, 35–38, research engineer, eng. exp. sta, Ohio State, 39–40, research physicist, 40–41; asst. prof. mech. eng, *State Col. Wash, 41–* Physical Soc. Spectroscopy; photoelasticity; physical metallurgy.

Friedemann, Prof. Theodore E(dward), Northwestern University Medical School, Chicago, Ill. *Biochemistry, Bacteriology, Physiology.* Kiel, Okla, Feb. 22, 96. B.S, Okla. Agr. and Mech. Col, 15; A.M, Missouri, 21; Ph.D, Washington (St. Louis), 23. Instr. chem, Mich. Agr. Col, 15–17, asst. chemist, Exp. Sta, 17–19; asst. agr. chem, Exp. Sta, Missouri, 20–21; biochem, sch. med, Washington (St. Louis), 21–23, instr, 23–27; asst. prof. research bacter, Northwestern, 27–29; chem. bacter, dept. med, Chicago, 29–40; *assoc. prof. physiol, med. sch, Northwestern, 40–, director lab, Abbot Fund.* Soc. Biol. Chem; Chem. Soc. Antiketogenesis; methyl glyoxal; lactic acid; oxidation of sugars and acetone bodies; glycuronic acid; bacterial metabolism; human carbohydrate and fat metabolism; metabolism and methods for determination of alcohol; utilization and methods for determination of vitamins.

Friedemann, Dr. William G(ustav), Studebaker Corp, Chicago, Ill. *Chemistry.* Kiel, Okla, Aug. 28, 94. B.S, Okla. Agr. and Mech. Col, 14, M.S, 16; Harvard, 20, 21; Ph.D, Chicago, 25. Asst. chem, Exp. Sta, Okla. Agr. and Mech. Col, 14–17, research chemist, 18–22; asst. chem, Chicago, 22–24; chief chemist, Exp. Sta, Georgia, 25–29; prof. chem, Brenau Col, 29–30; research chemist, Shell Petrol. Corp, 30–42; *chemist, Studebaker Corp, 42–* A.A; Chem. Soc; Okla. Acad. (v. pres, 22). Saponification of methyl formate at 25 degrees centigrade; carbohydrates of pecan; acetylmethylcarbinol in saccharine sorghum silage; fats and fatty acids of grain sorghums.

Frieden, Dr. Alexander, Stein, Hall and Co. 285 Madison Ave, New York, N. Y. *Chemistry.* Oct. 5, 95. B.S, M.S, Virginia, 19; A.M, Columbia, 20, Ph.D, 22. Teacher, high sch, Va, 16–17; asst. chem, Columbia, 20–22; research chemist, Dr. R. F. Bacon, 23–33; consulting chemist, 33–36; tech. director food products dept, *Stein, Hall and Co,* 36–39, *tech. director, 39–* Lecturer, Col. of New Rochelle, 35–36. C.W.S, U.S.A, 17–18. A.A; Chem. Soc; Inst. Food Technol; Inst. Textile Research; Tech. Asn. Pulp and Paper Indust; N. Y. Acad. Colloid chemistry; synthetic resins; food and nutrition; starches; adhesives; textiles; paper.

Frieden, Dr. E(dward) H(irsch), University of Texas Medical Branch, Galveston, Texas. *Biochemistry.* Norfolk, Va, Jan. 4, 18. A.B, California at Los Angeles, 39, A.M, 41, Ph.D, 42. Teaching asst. *chem,* California at Los Angeles, 39–42; Lalor Foundation fellow, *Texas,* 42–43, *instr, med. branch, 43–* Chem. Soc. Physical chemistry of amino acids.

Friedenwald, Dr. Harry, 1212 Eutaw Place, Baltimore, Md. *Ophthalmology.* Baltimore, Md, Sept. 21, 64. A.B, Hopkins, 84; M.D, Col. Physicians and Surg, Baltimore, 86; hon. Sc.D, Maryland, 32; hon. L.H.D, Jewish Inst. Religion, 32. Asst, Prof. Hirschberg's Eye Hosp, Berlin, 87–89; assoc. prof. *ophthal. and otol,* Col. Physicians and Surg, Baltimore, 94–02, prof, 02–16; *Maryland,* 15–30, *emer. prof, 30–* Ophthalmic surgeon, Baltimore Eye, Ear and Throat Charity Hosp; Mercy, Union Mem, Woman's and Sinai Hosps. A.A; Ophthal. Soc; Otol. Soc; Am. Med. Asn; Med. and Chirurg. Faculty Md; Ophthal. Soc. United Kingdom.

Friedenwald, Dr. Jonas S(tein), 1212 Eutaw Place, Baltimore, Md. *Ophthalmology.* Baltimore, Md, June 1, 97. A.B, Hopkins, 16, M.D, 20; A.M, Harvard, 22. Instr. path. ophthal, *Hopkins,* 23–29, assoc. *clin. ophthal,* 29–31, *assoc. prof, 31–, pathologist, Wilmer inst, 25–* Asst. visiting ophthalmologist, Hopkins Hosp, 29–31, visiting ophthalmologist, 31– Lecturer, Maryland, 30. Howe medal, Am. Med. Asn, 35. A.A; Ophthal. Soc; Am. Med. Asn; Optical Soc; Acad. Ophthal. and Otolaryngol; fel. Col. Surg; Ophthal. Soc. United Kingdom. Pathology of the eye; clinical method of examining the eye; etiology of cataract and of glaucoma; biochemistry of the eye.

Friedewald, Dr. William F, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Medicine, Pathology.* St. Louis, Mo, June 3, 12. B.S, St. Louis, 33, M.D, 35. From intern to res. physician, St. Louis City Hosp, Mo, 35–38; asst. virus diseases and exp. tumors, Rockefeller Inst, 38–42; *mem. staff, int. health div, Rockefeller Foundation, 42–* Soc. Exp. Biol; Soc. Exp. Path; Harvey Soc. Virus diseases; experimental tumors.

Friedgood, Dr. Harry B(ernard), Harvard Medical School, Boston, Mass. *Medicine.* Ekaterinoslav, Ukraine, July 14, 04. A.B, Michigan, 24; M.D, Hopkins, 28. Research, Carnegie Institution, Hopkins, 25–27; intern, Simpson Mem. Inst. for Med. Research, 27–28; med. house officer, Peter Bent Brigham Hosp, 28–30; instr. internal med, Michigan, 30–32; asst. pharmacol. and exp. therapeut, Hopkins, 32–33, instr. and asst. dispensary physician, 33–34; nat. research fellow med, *Harvard Med. Sch,* 34–35, research fellow physiol, 34–39, Gen. Educ. Board fellow physiol, 35–36, *instr. med, 36–* Jacques Loeb fellow, Hopkins, 32–34; assoc. med, Peter Bent Brigham Hosp, 36– A.A; Physiol. Soc; Asn. Study Int. Secretions. Experimental anterior pituitary hyperthyroidism; exophthal-

mos; iodine effects on basal metabolism; relation of sympathetic nervous system to functional activity of the thyroid gland and the anterior pituitary gland; urinary ketosteroid excretion in hirsutism, virilism, adrenocortical tumors and related endocrinopathies.

Friedheim, Dr. Ernst A(lbert) H(ermann), 101 W. 58th St, New York, N. Y. *Pathology, Tropical medicine.* Zurich, Switzerland, Oct. 17, 99. M.D, Zurich, 24; Dipl, Pasteur Inst, 25; Dipl. Trop. Med, Hamburg, 27; Ph.D, Geneva, 38. Asst. path, Geneva, 24–26; guest research worker physical chem, Rockefeller Inst, 30–31; *assoc. prof. path, Geneva, 33–; director research, Panel Chem. Corp, New York, 42–* Mem. exped. to West Africa, British Colonial Office, 35–36; French Colonial Office, 39; expert to Chilean govt, Santiago, 40; guest worker, Bact. Inst. of the Argentine, 40–41; mem. staff, clinic dermat. and syphilol, Buenos Aires; research chemist, Mt. Sinai Hosp, New York, 41–42; consultant, Board Econ. Warfare, 43. Harvey Soc; N. Y. Acad; Biochem. Soc. London; Swiss Chem. Soc; Soc. de Physique et d'Hist. Nat, Geneva. Cell physiology; chemotherapy of tropical diseases.

Friedlander, Dr. G(erhart), University of Idaho, Moscow, Idaho. *Physical chemistry.* Munich, Germany, July 28, 16. B.S, California, 39, Ph.D, 42. Teaching asst. *chem,* California, 42; *instr, Idaho, 42–* Artificial radioactivity and its applications.

Friedline, Prof. C(ora) L(ouisa), Randolph-Macon Woman's College, Lynchburg, Va. *Psychology.* New York, N. Y, Jan. 21, 93. A.B, Nebraska, 13, A.M, 15; fellow, Bryn Mawr Col, 15–16; fellow, Cornell, 16–17, Ph.D, 18. Asst. *psychol,* Nebraska, 14–15; tutor, Cornell, 17–18; adj. prof, *Randolph-Macon Woman's Col,* 18–21, assoc. prof, 21–31, *prof, 31–* Director, Mental Clinic, Lynchburg, Va, 31– A.A; Psychol. Asn; Asn. Applied Psychol; S. Soc. Philos. and Psychol; Va. Acad. The discrimination of cutaneous patterns below the two point limen; attention; mental testing.

Friedman, Dr. Bernard M, 5454 Cornell Ave, Chicago, Ill. *Mathematics.* New York, N. Y, Aug. 19, 15. B.S, Col. City of N. Y, 34; M.S, Mass. Inst. Tech, 35, Ph.D, 36. Blumenthal research fellow, N. Y. Univ, 36–37; *instr,* Wisconsin, 37–40; *math, Wilson City Col, 40–* Summer, instr, Col. City of N. Y. A.A; Math. Soc. Tamberian theorems; Fourier series; equilibrium figures of rotating fluids.

Friedman, Dr. Bernard S(amuel), 1369 E. 52nd St, Chicago, Ill. *Chemistry.* Chicago, Ill, Jan. 4, 07. A.B, Illinois, 30, Ph.D, 36. Teacher, high sch, Ill, 30–33; *research chemist and supervisor, Universal Oil Products Co, 36–* Organic and petroleum catalytic chemistry; preparation of $HClO_4$ structure of gossypol; thiazole derivatives; cross-polymerization of olefins; depolyalkylation; reaction of thiols with olefins and identification of resultant products.

Friedman, Dr. Cecil A(lfred), 1165 Delaware Ave, Buffalo, N. Y. *Organic chemistry.* Tacoma, Wash, July 28, 10. B.S, Washington (Seattle), 33, Ph.D, 38. *Research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 38–* Condensation of certain aldehydes with ketones; organic industrial chemistry.

Friedman, Dr. E(manuel) David, 1192 Park Ave, New York, N. Y. *Neurology, Psychiatry.* New York, N. Y, Aug. 25, 84. B.S, Col. City of N. Y, 03; M.D, N. Y. Univ, 07; Europe, 08–09, 13. Instr. med, Univ. and Bellevue Hosp. Med. Col, 13–18, C. A. Herter fellow research med, 14–15, instr. neuropath, 19–22, lecturer, 22–24, clin. prof. *neur,* 24–28, *prof. and head dept,* 28–35, *col. med, N. Y. Univ, 35–* Adj. physician, Cent. Neur. Hosp, 12–21; Bellevue Hosp, 17–22, assoc. neurologist, 22–31, visiting neuropsychiatrist, 31–; adj. neurologist, Mt. Sinai Hosp, 20–25, assoc. neurologist, 25–32; Montefiore Hosp, 21–23; chief neur. service, United Israel Zion Hosp, 24–; attending physician, neuropsychiat. div, Beth Israel Hosp, 30–; consulting neurologist, Jersey City Hosp. Chairman cmt. neur. and psychiat, Workmen's Compensation Board, 35–38; neuropsychiatrist, Selective Service Med. Advisory Board, 19. A.A; Neur. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Harvey Soc; N. Y. Neur. Soc. (pres, 39); N. Y. Acad. Med. (chairman sect. neur. and psychiat, 25); Am. Med. Asn. Vienna; Anglo-Am. Med. Soc. Berlin. Neuropsychiatry; carbon dioxide content of the blood and alveolar air in obstructed expiration; pupillography.

Friedman, Prof. Harold B(ertrand), Georgia School of Technology, Atlanta, Ga. *Physical chemistry.* Montgomery, Ala, Oct. 13, 04. A.B, Alabama, 23; Ph.D, Virginia, 27. Teaching fellow, Alabama, 22–23; instr, high sch, Ala, 23–24; teaching fellow, Virginia, 24–27; instr. *physical chem,* Maine, 27–28; asst, Columbia, 28–29; asst. prof, *Ga. Tech,* 29–32, *assoc. prof, 32–* Summers, instr, Virginia, 26, 27; Columbia, 28, 29. Chem. Soc. (sec'y, Maine sect, 27, v. chairman, Ga. sect, 33, chairman, 34, councilor, 35); fel. Ga. Acad. Neutral salt action; activity coefficients of electrolytes; reaction velocity and catalysis; history of chemistry.

Friedman, Dr. Harris L(eonard), 620 W. 171st St, New York, N. Y. *Organic chemistry.* Dover, N. J, Jan. 17, 13. B.S, N. Y. Univ, 34, Ph.D, 38. Asst. chem, N. Y. Univ, 35–38; *research chemist, Pyridium Corp, 39–* Chem. Soc. Chemotherapy; heterocyclic organic chemistry.

Friedman, Dr. Herbert, Naval Research Laboratory, Anacostia, D. C. *Physics.* New York, N. Y, June 21, 16. A.B, Brooklyn Col, 36; Ph.D, Hopkins, 40. Instr, Hopkins, 39–40; *physicist, Naval Research Lab, 40–* Physical Soc; Philos. Soc. Wash. X-rays; electronics; electron optics.

Friedman, Dr. Joseph S(olomon), 732 Lyons Ave, Irvington, N. J. *Organic chemistry.* Cherkov, Russia, April 19, 99. B.S, Harvard, 21; Ph.D, Chicago, 26. Research assoc, Sprague Mem. Inst, Chicago, 24–26; research chemist, Mt. Sinai Hosp, N. Y, 27; Technicolor Motion Picture Corp, 29–30; Brewster Color Film Corp, 31–33; Photochrome Corp, 33–34; tech. director, Omnichrome Corp, 34–36; Color Processes, 36–37; Colorite Inc, 38–39; *research chemist, Pharma Chem. Co, 40–* Conductor photog. reviews and color photog. columns, 'Am. Photog,' 35– A.A; Chem. Soc; fel. Inst. Chem; N. Y. Acad. Photographic chemistry; color photography; mercuration of Nile blue; chemistry of dye-toned images; development of an artificial light polarizer.

Friedman, Prof. Leo, 3406 Polk St, Corvallis, Oregon. *Chemistry.* Randolph, Maine, Sept. 15, 03. B.S, Maine, 25; Ph.D, Wisconsin, 28. Asst. *chem,* Wisconsin, 25–28; instr, Oregon, 28–29, asst. prof, 29–32; *Oregon State Col,* 32–42, *assoc. prof, 42–* Summer, research chemist, Nat. Paper Products Co, Wash, 29; Crown Willamette Paper Co, 37; Weyerhaeuser Timber Co, 38; State Forest Products Research Lab, Oregon, 41. A.A; Chem. Soc. (sec'y, Oregon sect, 31, v. chairman, 37, chairman, 38, councilor, 40); Asn. Pulp and Paper Indust. Structure of agar and non-aqueous gels; emulsification properties and molecular and combining weights of gelatine; swelling of gelatine gels; refractive index of gelatine system; diffusion in gels; colloid chemistry in the pulp and paper industry; lignin chemistry.

Friedman, Prof. Maurice H(arold), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Physiology.* East Chicago, Ind, Oct. 27, 03. B.S, Chicago, 24, Ph.D, 28, M.D, 33. Instr. *physiol,* sch. med, Pennsylvania, 28–32; Chicago, 32–33; *asst. prof, sch. med, Pennsylvania, 33–; capt, Med. Corps, U. S. Army, 42–* A.A; Physiol. Soc; Physiol. Soc. Phila. Physiology of reproduction.

Friedman, Dr. Meyer W(erby), Mt. Zion Hospital, 2200 Post St, San Francisco, Calif. *Cardio-vascular physiology.* Kansas City, Kans, July 13, 10. A.B, Yale, 31; M.D, Hopkins, 35. Intern, Kansas City Gen. Hosp, 35–36; cardio-vascular dept, Michael Reese Hosp, 36–37, res, 37–38; med, univ. gen. hosp, Wisconsin, 38–39; *director cardio-vascular research, Harold Brunn Inst. for Cardio-vascular Research, 39–; clin. instr. med, Stanford, 40–* Am. Med. Asn; Soc. Exp. Biol; Heart Asn; Calif. Heart Asn. Diseases affecting the heart and kidneys.

Friedman, Dr. M(oe) H(egby) Fred, Jefferson Medical College, 1025 Walnut St, Philadelphia, Pa. *Physiology.* Montreal, Que, Can, April 28, 09. B.Sc, McGill, 30, fellow, 34–36, Emanuel Libman fellow, 36–37, Ph.D, 37; M.A, Western Ontario, 32. Demonstrator zool, McGill, 28–29, research assoc. physiol, 32–33, 37–38; demonstrator zool, Western Ontario, 30–32; research assoc. *physiol,* Wayne, 38–41; assoc, *Jefferson Med. Col,* 41–43, *asst. prof, 43–* Summers, research worker, Atlantic Biol. Sta, St. Andrews, N. B, Can, 29–33. A.A; Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Can. Physiol. Soc. Biological effects of low temperature; sex organs in elasmobranches; shock; gastric secretion and motility.

Friedman, Dr. Nathan B(aruch), 2398 Sacramento St, San Francisco, Calif. *Pathology.* New York, N. Y, Jan. 30, 11. B.S, Harvard, 30; M.D, Cornell, 34. Asst. *path,* Chicago, 38–39; fellow, Harvard, 40–41; *instr, Stanford, 41–* Soc. Exp. Path. Pathology of experimental diabetes; hypoglycemia; irradiation of intestine.

Friedman, Dr. Reuben, 877 N. Sixth St, Philadelphia, Pa. *Dermatology, Syphilology.* Philadelphia, Pa, Dec. 14, 92. M.D, Temple, 16; Vienna; Pennsylvania. Lecturer *dermat. and syphilol, sch. med, Temple,* 36–38, assoc, 38–40, asst. prof, 40–42, *assoc. prof, 42–* Fel. Am. Med Asn; Asn. Hist. Med; Acad. Dermat. and Syphilol; Soc. Investigative Dermat; fel. Col. Physicians Phila; Phila. Dermat. Soc; cor. mem. Italian Soc. Dermat. and Syphilography. Biology of Acarus scabiei.

Friedman, William F(rederick), War Department, Washington, D. C. *Cryptology.* Kishinev, Russia, Sept. 24, 91. B.S, Cornell, 14. Director dept. genetics, Riverbank Labs, Geneva, Ill, 15–17, cipher dept, 17–20; *head cryptanalyst and director communications research, War Dept, 21–* Special lecturer, Signal Sch, U.S.A. Tech. adviser, Am. delegation, Int. Telegraph Conf, Washington, 27, Madrid, 32; tech. adviser and sec'y Am. delegation, Int. Telegraph Conf, Brussels, 28, U. S. rep, Madrid, 32. Lieut, M. I, 18–19, capt, Sig. Res, 24–26, major, 26–36, lieut. col, 36–41. Cryptanalysis; commercial codes and ciphers; international telegraphy; history of codes and code language; cryptographic machines and devices.

Friedmann, Dr. Herbert, U. S. National Museum, Washington, D. C. **Vertebrate zoology, Ornithology.* New York, N. Y, April 22, 00. B.S, Col. City of N. Y, 20; Ph.D, Cornell, 23. Nat. research fellow zool, Bussey Inst, Harvard, 23–26; instr. biol, Brown, 26–27; zool, Amherst Col, 27–29; *curator ornith, U. S. Nat. Museum, 29–* Asst. prof, Howard, 31–33. Summers, instr, Cornell, 22; Virginia, 23; asst, Am. Museum Nat. Hist, 20–22. Expeds, Mex. border, Argentina, south, east and cent. Africa. Del, Int. Ornith. Cong, Oxford, 34. A.A; Soc. Nat; Soc. Zool; Ornith. Union (v. pres, 32–38, pres, 38); Cooper Ornith. Club; Biol. Soc. Wash. (ed, 32–); Wash. Acad; Paleont. Soc. Wash. (sec'y, 36, pres, 37). Theoretical biology; physiological cycles and cyclical instincts of birds; brood parasitism; birds of the world.

Friedrich, Dr. Martin E(dwin), Route 1, Penns Grove, N. J. *Chemistry.* Hobart, Ind, Jan. 29, 04. A.B, Augustana Col. (Ill), 25; M.S, Louisville, 26; Ph.D, Illinois, 30. *Research chemist, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Organic chemistry; arsonium compounds and acridine derivatives; azo dyes.

Friend, Dr. Dale Gilbert, 117 N. Washington St, North Attleboro, Mass. *Internal medicine.* Missouri Valley, Iowa, Sept. 19, 07. A.B, Iowa, 30, A.M, 31; M.D, Harvard Med. Sch, 35. Mosely traveling fellow, Harvard Med. Sch, London, 38–39; instr. pharmacol, Harvard Med. Sch, 39–41; *Med. Corps, U. S. Army, 41–, col.* Am. Med. Asn. Drugs in tissue metabolism; iron ascorbate in the treatment of anemia; medical aspects of air attacks; action of sodium thiocyanate upon tissue oxygen consumption; manometric estimation of the activity of cholinesterase in lymph; elimination of prostigmine.

Friend, Dr. Roger B(oynton), 34 Pickwick Road, Hamden, Conn. *Entomology.* Hyde Park, Mass, Nov. 2, 96. B.S, Mass. Col, 23; Ph.D, Yale, 27. Asst. entomologist, Conservation Cmn, Albany, N. Y, 23; *Conn. Exp. Sta,* 24–39, *entomologist, 39–;* instr. *forest entom, Yale,* 28–31, asst. prof, 31–40, *lecturer, 40.* State entomologist, Conn, 39– A.A; Entom. Soc. Amer; Asn. Econ. Entom; Soc. Zool; Soc. Foresters; Conn. Acad. Economic entomology; taxonomy of insects; Diptera.

Friend, W(illiam) H(eartsill), Box 548, Weslaco, Texas. *Horticulture.* Marshall, Texas, Oct. 31, 97. B.S, Agr. and Mech. Col. Texas. Instr, pub. sch, Texas, 22–23; *supt, Rio Grande Valley substa, Exp. Sta, Agr. and Mech. Col. Texas, 23–* Hort. Soc; Fla. Hort. Soc. Citriculture; olericulture; agronomy.

Frierson, Prof. W(illiam) Joe, Hampden-Sydney College, Hampden-Sydney, Va. *Chemistry.* Batesville, Ark, July 8, 07. A.B, Ark. Col, 27; M.S, Emory, 28; Ph.D, Cornell, 36. Asst, Ark. Col, 27; teaching fellow, Emory, 27–28; asst. prof. *chem, Hampden-Sydney Col,* 28–36, *assoc. prof, 36–* Teaching fellow, Cornell, 35–36. Summers, prof, Ark. Col, 27, 28; mem. staff, Cornell, 36, 37, 38, 39; prof, Richmond, 40, 41. A.A; Chem. Soc. (treas, Va. sect, 40); Va. Acad. (chairman, chem. sect, 39). Chemistry of leather; nitrogen compounds; organic compounds in inorganic analysis.

Fries, Major-Gen. Amos (Alfred), 3305 Woodley Road, N. W, Washington, D. C. *Engineering.* Debello, Wis, March 17, 73. Grad, U. S. Mil. Acad, 98; grad, U. S. Eng. Sch, 12. From 2nd lieut. to major gen, C.Eng, U.S.A, 98–29, *retired.* C.Eng, Philippine Islands, 01–03, asst. in charge harbor works, Oregon, 03–06, in charge Los Angeles river and harbor dist, 06–09, director, Mil. Eng. Sch, 11–14, in charge road and bridge construction, Yellowstone Nat. Park, 14–17, chief, Chem. Warfare Service, 17–18, 20–29. Ed, 'Friends of Pub. Schs. Bul,' 38– D.S. medal. Commandeur, Légion d'honneur; Companion, St. Michael and St. George, England. A.A; Civil Eng; hon. mem. S. Calif. Eng. and Archit. Asn; hon. mem. Chemists' Club. Chemical warfare; road building; harbor construction; river improvement.

Fries, Dr. B(ernard) A(lbert), University of California, Berkeley, Calif. *Physiology, Biochemistry.* Indianapolis, Ind, June 26, 17. B.S, California, 36, Ph.D, 41. Chemist, div. viticulture, *California,* 36–37, teaching asst. physiol, 39–41, Rosenberg fellow, 41–42, *research neurophysiologist, med. sch, 42–* Chem. Soc. Lipid metabolism of the brain.

Fries, Carl, Jr, U. S. Geological Survey, Washington, D. C. *Geology.* Chicago, Ill, Sept. 30, 10. A.B, Wisconsin, 37, A.M, 39. Junior geologist, *U. S. Geol. Surv,* 39–41, asst. geologist, 41–43, *assoc. geologist, 43–* Nat. Acad; A.A; Miner. Soc. Size, grade and origin of ore deposits.

Fries, Dr. E(rik) F(ritiof) B(jerkander), City College, New York, N. Y. *Biology.* Stockholm, Sweden, Feb. 15, 99. A.B, Harvard, 21, A.M, 25, Ph.D, 30. Sci. observer, Int. Ice Patrol, U. S. Coast Guard, 21–23; asst. ed. biol. sciences, Webster's New Int. Dictionary, G. and C. Merriam Co, 27–32; acting asst. prof. *biol,* Lafayette Col, 32–33; instr, *City Col,* 33–38, *asst. prof, 38–; lieut, U. S. Naval Res, 42–* Teaching fellow, Harvard, 27; asst, Oceanog. Institution, Woods Hole, 32. A.A; N. Y. Acad. Temperature characteristics; tropisms; color change in fish.

Fries, Dr. Harold H, 92 Reade St, New York, N. Y. *Chemistry.* Cincinnati, Ohio, Jan. 17, 66. Columbia, 85; Ph.D, Berlin, 87. *Owner, Fries Brothers, New York.* A.A; Chem. Soc; Soc. Chem. Indust; Electrochem. Soc; Franklin Inst; British Asn; Deuts. Chem. Gesell.

Fries, Dr. Karl W(ilhelm), 335 E. Frederick St. Rhinelander, Wis. *Engineering.* Zernikow, Germany, March 23, 99. Berlin, 23; Dipl. Eng, Tech. Hochschule Darmstadt, 25; Ph.D, Lawrence Col, 40. Research man, Oxford Paper Co, 26–38; *tech. director, Rhinelander Paper Co, 40–* Electrokinetic phenomena of aqueous clay suspensions.

Friesell, Dean H. Edmund, University of Pittsburgh, Pittsburgh, Pa. *Operative dentistry, Dental pathology.* Pittsburgh, Pa, 73. D.D.S, Pa. Col. Dental Surg, 95; B.S, Pittsburgh, 13, hon. Sc.D, 30; LL.D, Marquette, 20. *Prof. operative dentistry, Pittsburgh, 03–, dean, 04–* Mem. Dental Educational Council Amer, 10–30; mem. Nat. Board Dental Examiners, 30–; mem. curriculum surv. cmt, Am. Asn. Dental Schs, 30– Dental Asn. (pres, 31); Col. Dentists; Inst. Asn. Dental Res. Dental caries; dental anatomy; dental history.

Friesen, Prof. A(braham) P(enner), Bethel College, Newton, Kans. *Physics.* Steinbach, Man, Can, June 2, 87. A.B, Bethel Col. (Kans), 24; A.M, Colorado, 28; Ph.D, Kansas, 35. Teacher and prin, schs, Can, 06–23; asst. *physics,* Colorado, 24–25; *prof, Bethel Col. (Kans), 25–, chairman nat. science div, 32–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Council Math. Teachers; Kans. Acad. Properties and rectifying action of the aluminum cell; optical constants of liquid sodium, liquid sodium amalgams, liquid thallium and liquid thallium-bismuth alloys.

Friesenhahn, Sister Mary Clarence, Our Lady of the Lake College, San Antonio, Texas. *Chemistry.* New Braunfels, Texas, Feb. 16, 86. A.B, Our Lady of the Lake Col, 17; A.M, Catholic Univ, 18, Ph.D, 30. *Prof. chem, Our Lady of the Lake Col, 25–* Chem. Soc; Texas Acad.

Friesner, Prof. Ray C(larence), Butler University, Indianapolis, Ind. *Botany.* Bremen, Ohio, Feb. 8, 94. A.B, Ohio Wesleyan, 16; Ph.D, Michigan, 19. Asst. prof. *bot, Butler,* 19–22, assoc. prof, 22–25, *prof, 25–* Summers, instr, Michigan, 18, 19. A.A; Bot. Soc; fel. Ind. Acad. (sec'y, 25–35, pres, 36). Taxonomy and plant distribution.

Friis, H(arald) T(rap), Rumson, N. J. *Engineering.* Naestved, Denmark, Feb. 22, 93. E.E, Royal Tech. Col, Copenhagen, 16, D.Eng, 38; Am-Scandinavian Foundation fellow, Columbia, 19. Asst. to Prof. P. O. Pedersen, Copenhagen, 16; tech. adviser, Royal Gun Factory, Copenhagen, 17–18; *research engineer,* West. Elec. Co, *New York,* 20–25; *Bell Tel.*

Labs, 25– Fel. Elec. Eng; fel. Radio Eng. (director, 41–). Radio receiving; static; amplifiers; generators; transmission; measuring systems; direction.

Frings, Dr. Hubert (William), Snead Junior College, Boaz, Ala. *Physiology.* Philadelphia, Pa, Jan. 1, 14. B.S, Pa. State Col, 36; M.S, Oklahoma, 37; Ph.D, Minnesota, 40. Asst. prof. biol, Luther Col, 39–40; *head dept.* science, Monett Junior Col, 40–41; *natural sciences, Snead Junior Col, 41–* A.A. Invertebrate sensory physiology; olfactory sense of the blowfly; behavior of spiders.

Frink, Prof. Orrin, Jr, 706 Sunset Road, State College, Pa. *Mathematics.* New York, N. Y, May 31, 01. A.B, Columbia, 22, A.M, 23, Ph.D, 26. Instr, Princeton, 25–26; nat. research fellow, Chicago, 26–27; Princeton, 27–28; asst. prof. *math, Pa. State Col,* 28–29, assoc. prof, 29–33, *prof, 33–* A.A; Math. Soc; Math. Asn; Asn. Symbolic Logic. Logic; topology; calculus of variations; abstract algebra; linear spaces.

Frink, Mrs. Orrin, Jr. (Dr. Aline Huke), 706 Sunset Road, State College, Pa. *Mathematics.* Torrington, Conn, March 2, 04. A.B, Mt. Holyoke Col, 24; A.M, Chicago, 27, Ph.D, 30. Teacher, high sch, N. Y, 24–26; *instr. math,* Mt. Holyoke Col, 29–30; *Pa. State Col,* 30–31, *36–* Math. Soc. Calculus of variations; topology.

Frisch, Dr. Arthur W(ain), Wayne University College of Medicine, Detroit, Mich. *Bacteriology.* Chisholm, Minn, March 3, 10. A.B, Wisconsin, 31, A.M, 33, Ph.D, 35, M.D, 37. *Mem. dept. bacter. and clin. path, col. med, Wayne, 37–, asst. prof.* Soc. Bact; Soc. Immunol. Inhibition of bacteriophage by bacterial extracts; inhibition of bacteriophage by Salmonella; multiplication of bacteriophage; group A streptococci in normal throats; blood groups and their medico-legal applications; sputum studies in pneumonia.

Frisch, Prof. John A, S.J, Canisius College, Buffalo, N. Y. *Biology.* Buffalo, N. Y, Oct. 9, 89. A.B, Woodstock Col. (Md), 14, A.M, 15; M.S, Canisius Col, 26; Ph.D, Hopkins, 35. Instr. *biol,* Col. of Holy Cross, 15–20; Canisius Col, 24–26; *prof,* Georgetown, 27–30; Loyola Col. (Md), 30–35; *Canisius Col, 35–* A.A; Soc. Zool; Md. Acad. Animal behavior; life histories and behavior of hunting wasps; protozoan physiology.

Frische, Dr. Carl A(lfred), Meadow Woods Road, Lake Success, N. Y. *Physics.* Freeport, Kans, Aug. 13, 06. A.B, Miami (Ohio), 28; M.S, Iowa, 31, Ph.D, 32. Asst. physics, Iowa, 28–32; Columbia, 32–33; research director, *Sperry Gyroscope Co, Garden City, N. Y,* 33–43, *chief research director, 43–* Physical Soc; Inst. Aeronaut. Sci. Atomic physics; sound proofing of aircraft.

Frisk, P(aul) W(arner), 330 N. Charles St, Baltimore, Md. *Chemical engineer.* Aug. 31, 00. B.S, Drake, 24; M.S, Iowa, 26. Prof. chem, Asheville Sch, 27–28; chemist, Am. Enka Corp, 28–29, manager chem. lab, 29–40; tech. adviser research and develop. to I. R. F. Matarazzo, Sao Paulo, Brazil, 40–42; *mem. staff engineers, Sheppard and Powell, 42–* Lecturer, water works sch, N. C. State Col, 36–39. Chairman, State Cmn. Licensing Water Works Operators, N. C. A.A; Chem. Soc; Water Works Asn. (director; chairman membership cmt, N. C. sect); Eng. Club West. N. C. (pres, 38); Svenska Kemistsunfandet Stockholm. Viscose rayon processes; industrial water supply; manganese in water supplies; operation and control of industrial water supply; control of iron and manganese in filters; spore-forming bacteria in filter sand.

Frison, Dr. Theodore H(enry), Natural History Bldg, Urbana, Ill. *Entomology.* Champaign, Ill, Jan. 17, 95. B.S, Illinois, 18, A.M, 20, fellow, 20–21, Ph.D, 23. Asst. entomologist, Wis, 20; bur. entom, U. S. Dept. Agr, 21–22; asst. entom, Illinois, 22–23; syst. entomologist and curator, *State Nat. Hist. Surv, Ill,* 23–30, acting chief, 30–31, *chief, 31–; Ill. director, Cent. States Forest Exp. Sta, U. S. Forest Service, 34–* Ill. director, Cent. States Forestry Cong, 32–, sec'y, 33. Ed, 'Jour. Econ. Entom,' 36–41. A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Soc. Nat; Limnol. Soc; Wildlife Inst; Wilderness Soc; Wildlife Soc; Ill. Acad. (2nd v. pres, 29, 1st v. pres, 39–41, pres, 41). Economic entomology; ecology; systematic and biological studies of Hymenoptera, Homoptera and Plecoptera; renewable natural resource utilization.

Frissell, Dr. Lewis F(ox), 135 E. 65th St, New York, N. Y. *Medicine.* Bloomfield, N. J, Aug. 2, 72. A.B, Yale, 95, A.M, 97; M.D, Columbia, 00. From asst. clin. prof. to *prof. clin. med, Columbia, 13–* Director med. B, St. Luke's Hosp, 31–39, consultant, 39–42; consulting physician, Country Community Hosp, Glen Cove. Chairman, Med. Advisory Board Exam. of Troops, 17; Cardiovascular Board Contract Surg, 17; mem. cmn. prevention tuber. in France, Rockefeller Foundation, 18. A.A; fel. Col. Physicians; Tuber. Asn; Am. Med. Asn; Harvey Soc; N. Y. Clin. Soc; N. Y. Acad. Med. (trustee, 33–40, sec'y, 37–40). Internal medicine.

Frith, Dr. Gladys D(ykes), 521 W. Washington, South Bend, Ind. *Psychology.* Montgomery Co, Ind, Dec. 27, 99. A.B, Indiana, 22, A.M, 23, Ph.D, 25, M.D, 29. Asst. psychol, Indiana, 23–24, instr, 24–25; asst. clin. psychologist, J. W. Riley Hosp, 25–29; *lecturer psychol, exten. div, Indiana, 29–* Psychologist, Ind. Girls' Indust. Sch, 24–29; consulting psychologist, city schs, South Bend, 30–; asst, J. W. Riley Hosp, 31–35. Clinical psychology; psychometric survey.

Fritts, Dr. E(dwin) C(oulthard), Eastman Kodak Co, 343 State St, Rochester, N. Y. *Physics.* Carlisle, Ky, May 21, 94. B.S, Georgetown Col. (Ky), 17; M.S, Illinois, 20, Ph.D, 23. Asst. physics, Illinois, 17–23; *physicist, Eastman Kodak Co, 23–* Motion Picture Eng. Dielectric constants of gases; motion picture engineering.

Fritz, Dr. C(lara) W(inifred), Forest Products Laboratories of Canada, Ottawa, Ont, Can. *Forestry.* St. Martins, N. B. B.A, McGill, 14, M.Sc, 18; Ph.D, Toronto, 24. *Timber pathologist, Forest Products Labs. Can, 25–* A.A; Can. Phytopath. Soc. Timber pathology.

Fritz, Prof. Emanuel, University of California, Berkeley, Calif. *Forestry.* Baltimore, Md, Oct. 29, 86. M.E, Cornell, 08; M.F, Yale, 14. Instr. eng, Baltimore Polytech, 08–12; asst, U. S. Forest Service, 15–17; *assoc. prof. forestry, California, 19–* Exchange prof, Cornell, 30; consultant, U. S. Dept. Interior, 39, 40. Wood technologist, Calif. Pine Asn. and West Coast Lumberman's Asn, 27; forestry consultant, 34–Assoc. ed, 'Jour. Forestry,' 23–30, ed. in chief, 30–33. Councilor, Save-the-Redwoods League, 32– Wheeler prize, 14. Capt, A.S, 17–19. Soc. Foresters (councilor, 34–36, sec'y, Calif. sect, 24–27); Mech. Eng; Calif. Bot. Soc. (v. pres, 35). Wood technology; lumber industry; tree and wood of Sequoia sempervirens; decay in redwood; fire influences in redwood forests; forestry possibilities in the redwood region of California; sugar pine; forestry education.

Fritz, Dr. H(oward) E(arl), R. D. 1, Copley, Ohio. *Chemistry.* Barberton, Ohio, Dec. 28, 88. B.S, Ohio State, 13, A.M, 13, Ch.E, 23, Ph.D, 24. Research chemist, Ohio Match Co, 14–16; production supt, Hooker Electro-Chem. Co, Niagara Falls, 16–20; develop. engineer, Metals and Chem. Extraction Corp, 20–21; assoc. prof. chem. eng, Ohio State, 21–25; manager chem. sales, *B. F. Goodrich Rubber Co, Akron, Ohio,* 25–37, sales manager, synthetics div, develop. Koroseal and rubber-lined equipment for chem. and mining industry, 37–41, *director research, 42–*

Fritz, James C(larence), 22 Monroe St, Elgin, Ill. *Biochemistry.* Berlin, Pa, May 15, 10. B.S, Pa. State Col, 29. Asst, New Hampshire, 29–30; junior biologist, bur. animal indust, U. S. Dept. Agr, 30–37, asst. biochemist, 37; *biochemist in charge nutritional research lab, Borden Co, 37–* A.A; Chem. Soc; Poultry Sci. Asn; Dairy Sci. Asn. Nitrogen metabolism and physiology of digestion in the domestic fowl; vitamin requirements; stability of vitamins.

Fritz, Prof. Madeleine A(lberta), University of Toronto, Toronto, Ont, Can. *Geology.* St. John, N. B. B.A, McGill, 19; Ph.D, Toronto, 26. Asst. *paleont, Toronto.* 24–35, lecturer, 35–37, *asst. prof, 37–;* museum asst, *Royal Ont. Museum of Paleont,* 27–36, acting director, 36–37, *asst. director invertebrate paleont, 37–* Paleont. Soc; Geol. Soc; fel. Royal Soc. Can. Invertebrate paleontology.

Fritz, Dr. Martin F(rederick), 508 Lynn Ave, Ames, Iowa. *Psychology.* Broughton, Kans, 02. B.S, Kans. State Col, 24, M.S, 25; Ph.D, Chicago, 31. Asst. psychol, Kans. State Col, 24–25, instr. educ, 25–26; *psychol, Iowa State Col,* 27–29, asst. prof, 29–31, *assoc. prof, 31–* A.A; Psychol. Asn; Soc. Psychol. Study Social Issues; Midwest. Psychol. Asn; Iowa Acad. Animal psychology; diet and behavior; tests and measurements; motivation.

Frizzell, Dr. Don(ald) L(eslie), International Petroleum Co, Negritos, Peru, S. Amer. *Paleontology.* Bellingham, Wash, Oct. 19, 06. B.S, Washington (Seattle), 30, M.S, 31; Donald Porter Jacobs fellow, Stanford, 31–32, scholar, 33–34, Eric Knight Jordan fellow, 34, Ph.D, 36. Junior paleontol-

ogist, Northwest Exp. Sta, U. S. Bur. Mines, 31; paleontologist, Shell Petrol. Corp, 36–37; *geologist, Int. Petrol. Co, 37–* Paleont. Soc; Asn. Petrol. Geol. Classification of Mollusca and Foraminifera; zoological nomenclature; Cenozoic stratigraphy.

Frizzell, Dr. L(aurence) D(avid), Northwestern University, Evanston, Ill. *Chemistry.* South Portland, Maine, Nov. 18, 03. B.S, Bowdoin Col, 25; A.M, Harvard, 31, Ph.D, 33. Asst. chem, Radcliffe Col, 28–35; research chemist, Norton Co, Worcester, Mass, 36–37; private asst, Harvard, 38–39; instr, Northeastern, 38–39; *instr. chem, Northwestern, 39–* Private asst, Harvard, 33–35. Summer, instr, Harvard, 39. A.A; Chem. Soc. Determination of atomic weights; aqueous pressures of crystal hydrates; behavior of precipitates; analytical industrial research; surface tension of solutions of electrolytes.

Frobisher, Dr. Martin, Jr, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Bacteriology.* New York, N. Y, Jan. 17, 96. Cornell, 16–17, 19–20; B.S, Hopkins, 22, Sc.D, 25. Asst. bacter, sch. hygiene and pub. health, Hopkins, 22–23; asst. bacteriologist, State Dept. Health, Md, 22–23, acting chief bur. bacter, 23–24; chief div. chem, Dept. Health, Baltimore, 24–25; instr. and assoc. bacter, sch. med, Hopkins, 25–28; special mem, int. health div, Rockefeller Foundation, Brazil, 28–32; *assoc. bacter, sch. hygiene and pub. health, Hopkins, 32–* Asst, Presb. Hosp, New York, 20; sci. aid, bur. animal indust, U. S. Dept. Agr, 21; senior bacteriologist, U. S. Pub. Health Service, 36. Lab. service, U. S. A, 18–19. A.A; Soc. Bact. (program chairman, 41, chairman resolutions cmt, 43, councilor, 43); Soc. Exp. Biol; Pub. Health Asn. (referee bact. procedures, 37–). Filterable viruses; relations of physical forces to bacterial phenomena; Streptococci; yellow fever; diphtheria.

Frocht, Dr. M(ax) M(ark), Carnegie Institute of Technology, Pittsburgh, Pa. *Mechanics.* Warsaw, Poland, June 3, 94. B.S. (M.E), Michigan, 22, Ph.D, 31; M.S, Pittsburgh, 25. Automotive designer and asst, Gen. Motors Corp, Cadillac Motor Car Co. and Maxwell Motor Car Co, 12–19; instr. *eng. mech, Carnegie Inst. Tech,* 22–26, asst. prof, 26–30, *assoc. prof, 31–* Consultant, soils lab, U. S. Dept. Agr. A.A; Mech. Eng; Eng. Educ. Photoelasticity; strength of materials and structures; applied elasticity; stress concentration.

Froeberg, Prof. Sven, Gustavus Adolphus College, St. Peter, Minn. *Psychology.* Sweden, 80. A.B, Bethany Col, 03; Ph.D, Columbia, 08. Instr. and prof. psychol, Upsala Col, 08–15; instr, Michigan, 15–17; asst. prof, Pa. State Col, 17–18; Utah, 20–21; *prof. psychol. and educ, Gustavus Adolphus Col, 21–* Vocational adviser, Fed. Board for Vocational Educ, 19; U. S. Dept. Justice, 20. A.A; Psychol. Asn. Educational, applied and vocational psychology; mental efficiency tests; effects of smoking.

Froemke, Prof. John A(ugust), 908 W. 28th St, Sioux Falls, S. Dak. *Chemistry.* Marion, N. Dak, Nov. 12, 93. A.B, North Dakota, 24, M.S, 27, Ph.D, 31. Prin. schs, N. Dak, 20–22; asst, North Dakota, 24–30; *prof. chem, Augustana Col. (S. Dak), 30–* A.A; Chem. Soc. Condensation of vapors in dust-free un-ionized gases and of binary liquid mixtures.

Frohring, W(illiam) O(tto), Chagrin Falls, Ohio. *Biochemistry, Bacteriology.* Cleveland, Ohio, July 1, 93. B.S, Ohio State, 15. Director labs, Telling Belle Vernon Co, Cleveland, 16–25; v. pres. and gen. manager, *S. M. A. Corp, Cleveland,* 25–38, pres. and director research, 38–43, *chairman board directors, 43–* A.A; Chem. Soc; Soc. Bact; Soc. Chem. Indust; Dairy Sci. Asn; Pharmaceut. Asn; Biochem. Soc. Gt. Britain. Nutrition and resistance to infection; sense thresholds and poliomyelitis; color vision.

Frolich, Dr. Per K, Standard Oil Development Co, P. O. Box 243, Elizabeth, N. J. **Chemistry, Chemical engineering.* Kristiansand, Norway, June 29, 99. B.S, Norway Inst. Tech, 21; Am-Scandinavian Foundation fellow, Mass. Inst. Tech, 22–23, M.S, 23, Sc.D, 25. Asst. chem, Norway Inst. Tech, 19–21; instr, Kristiansand Business Col, 21–22; asst, Mass. Inst. Tech, 23–25, research assoc. and div. director research lab. applied chem, 25–27, asst. director research lab. applied chem. and asst. prof, 27–29, assoc. prof, 29; research chemist, *Standard Oil Develop. Co,* 29–31, asst. director research labs, 31–33, director, 33–35, chief chemist, 35–36, *director chem. div, Esso labs, 36–* Grasselli medal, 30. Assoc. ed, 'Chem. Rev,' 35. Exec. cmt, chem. div, Nat. Research Council, 41– A.A; Soc. Automotive Eng; Chem. Soc. (chairman, N. J. sect, 34; chairman petrol. div, 38–40; councilor at large, 40, pres, 43); Chemists Club (suburban v. pres, 41); Soc. Chem. Indust. Gt. Britain (exec. cmt, Am. sect, 38–40); London Chem. Soc. Hydrocarbon chemistry and petroleum products; applied colloid chemistry.

Froman, Dr. Darol (Kenneth), University of Denver, Denver, Colo. *Physics.* Downs, Wash, Oct. 23, 06. B.Sc, Alberta, 26, M.Sc, 27; Nat. Research Council Can. bursar, 27–28; fellow, Chicago, 28–29, Ph.D, 30. Asst. *physics,* Chicago, 29–30; lecturer, Alberta, 30–31; Macdonald Col, McGill, 31–36, asst. prof, 36–39, univ, 39–41; *prof, Denver, 41–* Director, Mt. Evans High Altitude Lab, 41– A.A; Physical Soc; Colo-Wyo. Acad. Ultra-high frequency sound; x-rays and electron distributions; dispersion and selective absorption of ultra-sound Faraday effect with x-rays; colorimeters and fluorimeters; cosmic rays.

Fromm, Prof. Fritz (Wilhelm), Polytechnic Institute of Puerto Rico, San Germán, P. R. *Chemistry.* Freiburg, Germany, June 8, 04. Vienna, 22–23; Ph.D, Munich, 28; Freiburg, 25. Research chemist, med. clinic, sch. med. Düsseldorf, 28–29; dept. med. chem, Vienna, 29–30; first asst, dept. technol, sch. econ, Königsberg, 30–33; instr, dept. med. chem, Vienna, 34–36; vice director, Raw Material Inst, Vienna, 36–38; research, Tirana, Albania, 38–39; *head dept. chem, Polytech. Inst, P. R, 39–* A.A; Chem. Soc; Asn. de Quimicos de P. R. Textile fibers; eradication of weeds; analytical chemistry.

Fromm, Prof. G(uy) C, 699 College Ave, Columbus, Ohio. *Physics.* Somerset, Ohio, Dec. 16, 89. B.S, Heidelberg Col. (Ohio), 15; M.S, Ohio State, 22. Prin, schs, Ohio, 15–17; instr. physics, Heidelberg Col. (Ohio), 17–18; teacher, high sch, Ohio, 19–27; asst. prof. *physics, Capital Univ,* 27–37, *assoc. prof, 37–* Physical Soc; Asn. Physics Teachers; Ohio Acad.

Fromme, Dr. F(red) D(enton), U. S. Department of Agriculture, Washington, D. C. *Botany.* St. Paris, Ohio, April 2, 86. B.S, S. Dak. State Col, 11; Ph.D, Columbia, 14. Asst. bot, Columbia, 12–13; asst. botanist, Exp. Sta, Purdue, 14–15; prof. plant path. and bacter, Va. Polytech, and plant pathologist and bacteriologist, Exp. Sta, 16–28; dean col. agr, West Virginia, and director, Exp. Sta, 28–38; *prin. exp. sta. administrator, office exp. stations, U. S. Dept. Agr, 38–* Div. biol. and agr, Nat. Research Council, 28–31. A.A; Bot. Soc; Phytopath. Soc. (v. pres, 23, pres, 24). Phytopathology; cytology, morphology and physiology of fungi.

Frommelt, H(orace) A, 1210 W. Michigan St, Milwaukee, Wis. *Mechanical engineering.* Dubuque, Iowa, Oct. 6, 91. B.S, Iowa State Col, 12; A.B, Campion Col, 14; A.M, St. Louis, 16. Asst. prof. mech. eng, Marquette, 18–21; asst. works manager, Falk Corp, 21–26; consulting engineer, 26–29; prof. mech. eng. and head dept, Marquette, 29–39; *director indust. research, Kearney and Tucker Corp, 39–* Mech. Eng; Eng. Soc. Milwaukee. Management; apprentice training; industrial relations; German translations.

Fronczak, Dr. Francis E(ustace), 806 Fillmore Ave, Buffalo, N. Y. *Public health.* Buffalo, N. Y, Sept. 20, 74. A.B, Canisius Col, 94, A.M, 95, hon. Dr.P.H, 17; M.D, Buffalo, 97, LL.B, 00; hon. M.D, Warsaw, 19; Jagellonian Univ, Krakow, Poland; hon. diploma, Army Sanit. Sch, Poland, 27. Physician, Erie County Penitentiary, Buffalo, 97–99; health officer, Cheektowaga, N. Y, 99–10; asst. health commissioner, *Buffalo,* 07–10, *health commissioner, 10–; assoc. prof. hygiene and prev. med, Buffalo and D'Youville Col.* Med. staff, Mercy Hosp; trustee, Mem. Hosp. Trustee and v. pres, Buffalo Eye and Ear Infirmary; Wettlaufer Clinic. Purple Heart; Chevalier, Légion d'honneur; Croix de Guerre; Medaille militaire; Crown of Belgium; Cross of Valor of Poland; Gold Cross of Merit; Commander, Order of Polonia Restituta. U. S. del, Int. Cong. Mil. Med. and Pharmacy, 27– Mem, Polish Nat. Cmt, France. M.C, 18–19, lieut. col; col, M.R.C, 21– Fel. Pub. Health Asn. (past v. pres); Am. Med. Asn; Child Hygiene Asn; Sch. Hygiene Asn. (past pres); Asn. Hygiene and Promotion Pub. Baths (pres); Clin. and Climat. Asn; Tuber. Asn; Asn. Mil. Surg; Polish Physicians and Dentists Asn. Amer. (hon. pres); Polish Social Workers Asn. (hon. pres); fel. Pub. Health and Hygiene Asn. Gt. Britain; Int. Soc. Med. Health Officers (past pres). Hygiene; preventive medicine.

Fronda, Dr. F(rancisco) M, University of the Philippines, Manila, P. I. *Poultry husbandry.* Aliaga, Nueva Ecija, P. I, Dec. 22, 96. B.S. (Agr), Philippines, 19; M.S, Cornell, 20, Ph.D, 22. Asst. animal husbandry, *Philippines,* 19–22, instr.

poultry husbandry, 22–25, asst. prof, 26–34, *assoc. prof, 35–, sec'y col. agr, 28–* Nat. Research Council, P. I. Poultry Sci. Asn; Philippine Soc. Adv. Research (sec'y, 30–36; v. pres, 36, pres, 37–). Poultry nutrition; marketing of poultry and poultry products; brooding and the management of stock in general; distribution of egg production and methods of control.

Frondel, Dr. Clifford, 12 Geological Museum, Oxford St, Cambridge, Mass. *Mineralogy.* New York, N. Y, Jan. 8, 07. Geol. Eng, Colo. Sch. Mines, 29; A.M, Columbia, 36; Ph.D, Mass. Inst. Tech, 39. *Research assoc. miner, Harvard, 39–* Fel. Miner. Soc; Crystallog. Soc. (sec'y, 41–); Soc. X-Ray and Electron Diffraction. Descriptive mineralogy; crystal growth and habit; crystal orientation phenomena; composition urinary calculi and sediments.

Froning, Prof. H(enry) B(ernhardt), University of Notre Dame, Notre Dame, Ind. *Chemistry.* Sebastian, Ohio, Sept. 7, 84. A.B, St. Joseph's Col. (Ind), 08; A.M, Ohio State, 12, 13–14; Hopkins, 12–13. Instr. chem, Catholic Univ, 09–11; bacter, Ohio State, 14–18, biochem, 18–19; research chemist and bacteriologist, Nizer Labs, Inc, Detroit, 19–20; *prof. chem. and chem. eng, Notre Dame, 20–, head dept.* chem. eng, 20–42, *chem, 20–, dean col. science, 40–* Chem. Soc; Inst. Chem; Eng. Educ; fel. Ind. Acad; N. Y. Acad; British Chem. Soc; Deuts. Chem. Gesell. Organic chemistry; biochemistry.

Frost, Dr. Arthur A(twater), Northwestern University, Evanston, Ill. *Physical chemistry.* Onarga, Ill, Aug. 3, 09. B.S, California, 31; Ph.D, Princeton, 34. Research fellow, Harvard, 34–36; instr. *chem, Northwestern, 36–42, asst. prof, 42–* Chemical kinetics; spectroscopy; electrochemistry.

Frost, Dr. Douglas V(an Anden), Abbott Laboratories, N. Chicago, Ill. *Chemistry.* Pittsburgh, Pa, Oct. 31, 10. A.B, Illinois, 33; M.S, Wisconsin, 38, Ph.D, 40. Animal nutrition chemist, Chappel Labs, 33–34; anal. and research chemist, Pacini Labs, Inc, 34–35; chief chemist, Rival Packing Co, 35; chemist and teaching asst, Siebel Inst, 36; asst. and instr, Wisconsin, 36–40; *research biochemist, Abbott Labs, 40–* Chem. Soc. Biological, pharmaceutical and medicinal chemistry; nutrition; vitamin B complex factors and preparations; anemia in relation to nutrition; trace elements; injectable vitamin preparations; animal nutrition.

Frost, Dr. Florence M(yrtle), University of California, Berkeley, Calif. *Entomology, Parasitology.* Evanston, Ill, Oct. 2, 85. A.B, Northwestern, 08; A.M, Wisconsin, 12; certificate, London Sch. Hygiene and Trop. Med, 27; Ph.D, California, 34. Prof. biol, West. Tenn. State Teachers Col, 18–23; director labs, The Polyclinic, Memphis, Tenn, 23–29; assoc. *entom, California,* 35–39, *instr, 39–* A.A; Soc. Parasitol; Entom. Soc. Amer; Soc. Trop. Med; Royal Soc. Trop. and Hygiene. Eggs and terminalia of anopheline mosquitoes; nutrition of mosquito larvae.

Frost, Dr. Frederick, S. D. Warren Co, Cumberland Mills, Maine. *Botany.* Hanover, N. H, Jan. 11, 02. B.S, Chicago, 23; Ph.D, California, 27. Nat. research fellow, Harvard, 28–29; *supt. coating div, S. D. Warren Co, 29–, research manager, 40–* Coated paper; wood technology; specialization in secondary xylem of angiosperms.

Frost, Prof. Grenville B(arker), Annandale Apts, Sydenham St, Kingston, Ont, Can. *Chemistry.* Orillia, Ont, Jan. 27, 91. B.A, Toronto, 15; Ph.D, California, 23. Chemist, Imp. Ministry of Munitions, Can, 16–19; explosives div, Can. Dept. Mines, 19–21; asst. chem, California, 21–24; research chemist, Am. Cyanamid Co, 24–25; lecturer and *asst. prof. chem, Queen's (Can), 25–* Liquid sulfur dioxide as analytical standard; heats of formation of sulfur dioxide and sulfuric acid; absorption of hydrogen cyanide by alkalies; ash fusibility; hydrocarbon syntheses.

Frost, Dr. Howard B(rett), Citrus Experiment Station, Riverside, Calif. *Botany, Genetics.* Dairyland, N. Y, Sept. 28, 81. B.S. (Agr), Cornell, 08, M.S.A, 10, Ph.D, 13. Asst. hort, N. Y. State Col. Agr, Cornell, 10–12; asst. plant breeding, *Citrus Exp. Sta. and grad. sch. trop. agr, California,* 13–17, instr, 17–20, research assoc, 20–22, assoc. plant breeder, 22–25, asst. plant breeder, 25–27, *assoc. plant breeder, 27–* Clerk, U. S. Civil Service Cmn, 09–10. A.A; Soc. Nat; Genetics Soc; Genetic Asn; Soc. Hort. Sci; West. Soc. Nat; Int. Sci. Asn. Esperantista; Int. Auxiliary Language Asn. Genetics and cytology of Citrus and Matthiola; polyploidy, nucellar embryony, heterozygosis and clonal modification in Citrus; trisomy and genetics of doubleness in Matthiola; terminology of genetics and cytology in Esperanto, English, French and German.

Frost, Prof. R(euel) B(ryan), 103 Forest St, Oberlin, Ohio. *Geography.* Bonham, Texas, March 5, 97. A.B, Oklahoma, 25; Ph.M, Wisconsin, 29, Ph.D, 32. Instr. *geol. and geog, Oberlin Col,* 29–35, asst. prof, 35–41, *assoc. prof. and head dept, 41–* Summers, Berea Col, 30, 33; Cincinnati, 31; North. State Teachers Col, Mich, 32, 34; Wash. State Nor. Sch, Cheney, 35; geol. camp, Oberlin Col, 37; Pa. State Teachers Col, Mansfield, 38; Kent State Univ, 41; Mich. State Col. Educ, 41. Nat. Council Geog. Teachers; fel. Ohio Acad. (v. pres, G); Ohio Council Geog. Teachers (exec. cmt). Regional geography; distribution of sheep in Wisconsin; urban geography of Lorain, Ohio.

Frost, Prof. S(tuart) W(ard), 465 E. Foster Ave, State College, Pa. *Entomology.* Tarrytown, N. Y, Dec. 4, 91. B.S, Cornell, 15, Ph.D, 25. Asst. entom, Cornell, 15–16; *Pa. State Col,* 18–23, assoc. prof, 23–30, *prof. econ. entom, 30–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Nat. Speleological Soc; Soc. Pa. Archeol; Soc. linn. de Lyon. Economic entomology; the food of frogs; ecology of leaf-mining insects; apple insects; ancient artizans; general entomology.

Frost, Dr. Walter S(prague), Burnham Soluble Iodine Co, 430 Lexington St, Auburndale, Mass. *Pharmaceutical chemistry.* Roxbury, Mass, Jan. 25, 90. B.S, Tufts Col, 12; Ph.D, Cornell, 23. Asst. chem, Exp. Sta, Mass. Col, 13–15; asst. and instr, col. agr, Cornell, 15–19; instr, West Virginia, 19–20; asst. prof. chem, New Hampshire, 20–26; *research chemist, Burnham Soluble Iodine Co, 29–; asst. prof. chem. eng, Northeastern, 42–* Instr, Lincoln Tech. Inst, 37– Res. capt, O.R.C, 24–34. A.A; Pharmaceut. Asn; Asn. Sci. Workers; Chem. Soc. (sec'y, Cornell sect, 18); fel. Inst. Chem. Ammonium trinitride; medical uses of iodine; amino acids.

Frost, Prof. W(illiam) D(odge), 1010 Grant St, Madison, Wis. *Bacteriology.* Lake City, Minn, Sept. 13, 67. B.S, Minnesota, 93, M.S, 94; Ph.D, Wisconsin, 03; Dr.P.H, Harvard, 13. Biologist, State Board Health, Minn, 94–95; instr. bacter, *Wisconsin,* 95–02, asst. prof, 02–07, assoc. prof, 07–15, prof. *agr. bacter,* 15–37, *emer. prof, 37–; exec. director, Morningside Sanatorium, 36–* Lecturer, Wis. Col. Physicians and Surg, 99–01. Soc. Bact; fel. Pub. Health Asn. Physiological botany; laboratory technique; antagonism among bacteria; effect of external conditions on bacteria; 'little plate' method of growing bacteria; cellular test for pasteurized milk; streptococci, with special reference to those in milk; acidophilous milk.

Frothingham, Dr. Channing, 1153 Centre St, Jamaica Plain, Mass. *Medicine.* Brooklyn, N. Y, May 10, 81. A.B, Harvard, 02, M.D, 06. Instr. med, Harvard Med. Sch, 13–21, asst. prof, 21–28, assoc. clin. prof, 28–33; *chief med. service, Faulkner Hosp, 33–* Overseer, Harvard, 36–42. Trustee, Boston Psychopath. Hosp, 20– Am. Physicians; Soc. Clin. Invest; Mass. Med. Soc. (pres, 37–39). Trichinosis; proteolytic ferments; pancreas; liver; hexamethylenamin; typhoid agglutinins; arteriosclerosis; renal function; influenza; diseases of the kidneys and esophagus; organization of community hospitals.

Frothingham, E(arl) H(azeltine), U. S. Forest Service, Asheville, N. C. *Forestry.* Manchester, Iowa, Aug. 31, 80. A.B, Michigan, 04, M.S, 06. Asst, *U. S. Forest Service,* 06–12, forest examiner, 12–20, silviculturist, 20–21, director, *Appalachian Forest Exp. Sta,* 22–35, *senior silviculturist, 35–* A.A; Soc. Foresters (sec'y, 11–14). Silviculture; growth, characteristics and requirements of forest trees.

Fruehan, Prof. A(ugust) G(eorge), Miami University, Oxford, Ohio. *Chemistry.* Scranton, Pa, Oct. 17, 01. B.S, Pa. State Col, 24; M.S, Wisconsin, 26, Ph.D, 28. Asst. prof. *inorg. and anal. chem, Miami (Ohio),* 28–35, *assoc. prof, 35–* Chem. Soc. Inorganic and analytical chemistry; seleno compounds of tungsten.

Frutchey, Dr. C(ecil) W(illiam), Soil Conservation Service, Washington, D. C. *Agronomy.* North Plains, Oregon, Jan. 2, 04. B.S, Oregon State Col; M.S, Ph.D, Mich. State Col, 35. Asst, Mich. State Col, 30–31, plant path, 31–35; *junior agronomist, soil conservation service, U. S. Dept. Agr, 35–* Phytopath. Soc. Potato scab; cereal smuts; Stewart's disease of sweet corn; range investigations.

Fruth, Dr. Hal F(rederick), 206 Poplar, Elmhurst, Ill. *Physics.* Albany, Minn, Feb. 27, 90. A.B. and A.M, St. John's

Col. (Minn), 14; M.S, Minnesota, 15; Ph.D, Michigan, 27. Instr. physics, Minnesota, 20–22; physics, Michigan, 22–25; *research engineer*, West. Elec. Co, Chicago, 22–32; P. R. Mallory Co, Indianapolis, 32–37; *West. Elec. Co, Chicago, 37–; prof. elec. mfg. defense training, Ill. Inst. Tech, 42–; asst. engineer, Galvin Mfg. Corp, 43–* Lecturer, De Paul; research director, Electro Mfg. Co, 42–43. A.A; fel. Physical Soc. Industrial research engineering; cosmic rays; variation with pressure of the residual ionization; critical potentials of iodine vapor; commercial application of cathode sputtering; microphonics; acoustics; electric contacts; ignition; dielectrics; wire insulation; aero instruments; quartz crystals; auto heaters; sputtered resistors.

Fruton, Dr. J(oseph) S(tewart), 340 E. 63rd St, New York, N. Y. *Biochemistry.* Poland, May 14, 12. A.B, Columbia, 31, Ph.D, 34. Asst. biochem, col. physicians and surg, Columbia, 33–34; *chem, Rockefeller Inst*, 34–38, *assoc, 38–* Chem. Soc; Soc. Biol. Chem; Harvey Soc; N. Y. Acad. Protein chemistry and metabolism; enzymes.

Fry, Dr. Cleota G(age), Purdue University, Lafayette, Ind. *Theoretical physics.* Shoshone, Idaho, Dec. 30, 10. A.B, Reed Col, 33; M.S, Purdue, 36, Ph.D, 39. Asst. instr. math, *Purdue*, 39–40, *instr. physics, 41–* Physical Soc. Acoustics; organization of intensive courses in physics for high school students.

Fry, Edith G(eraldine), Yale University School of Medicine, New Haven, Conn. *Biochemistry.* Franklin, Pa, Jan. 17, 06. A.B, Wilson Col, 26; Cox Research Inst. fellow, Pennsylvania, 33–36, M.S, 36. Tech. asst. to Dr. L. Kraeer Ferguson, Phila. Gen. Hosp, 27; biochemist, Presbyterian Hosp, Philadelphia, Pa, 27–28; Rockefeller grant research chemist, study of narcotic addiction, dept. pharmacol, Pennsylvania, 28–29, research chemist cancer research, 30–32, technician, Cox research inst, 32–33; *instr. physiol. chem, sch. med, Yale, 36–* Chem. Soc; Asn. Study Int. Secretions. Influence of the endocrine glands on carbohydrate metabolism.

Fry, Dr. F(rederick Ernest), University of Toronto, Toronto, Ont, Can. *Limnology.* Surrey, Eng, April 17, 08. A.B, Toronto, 33, A.M, 35, Ph.D, 36. *Lecturer biol. and asst, Ont. Fisheries Research Lab, Toronto.* The relation of fish to limiting factors in their environment.

Fry, Prof. Glenn A(nsel), Ohio State University, Columbus, Ohio. *Optics.* Welford, S. C, Sept. 10, 08. A.B, Davidson Col, 29; A.M, Duke, 31, Ph.D, 32. Nat. research fellow biol, sch. med, Washington (St. Louis), 32–34, asst. ophthal, 34–35; *asst. prof. physiol. optics, Ohio State, 35–* Optical Soc; Acad. Optometry. Physiological optics; retinal action potentials; visual acuity; brightness contrast; binocular fusion and rivalry; production of color sensations with intermittent white light; measurement of stray light in the eye; ocular motility and accommodation.

Fry, Prof. H(arry) Shipley, University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Cincinnati, Ohio, Oct. 24, 78. A.B, Cincinnati, 01, fellow, 01–02, A.M, 02, Ph.D, 05. Asst. *chem, Cincinnati*, 02–04, instr, 04–07, asst. prof, 07–10, assoc. prof, 10–18, *prof. and head dept, 18–* A.A; Chem. Soc. (pres, Cincinnati sect, 07); Dutch Chem. Soc. The electronic conception of valence; the constitution of benzene; the preparation and reactions of chromyl and sulfur carbon compounds; oxidation-reduction and caustic alkali fusion reaction mechanisms.

Fry, Prof. Horace P(ugh), 4806 Regent St, Philadelphia, Pa. *Mechanical engineering.* Philadelphia, Pa, May 9, 73. B.S, Pennsylvania, 95, M.E, 27. Draftsman and designer, Baldwin Locomotive Works, 97–02; instr. mech. drawing, *Pennsylvania*, 02–07, asst. prof, 07–25, *prof. mech. eng, 25–* Mech. Eng; Eng. Educ. Engineering drafting.

Fry, Prof. Howard M(assey), 509 State St, Lancaster, Pa. *Physics.* Drifton, Pa, Oct. 2, 89. E.E, Lehigh, 10, M.S, 15. Assoc. prof. physics, Lehigh, 10–25; *physics and elec, Franklin and Marshall Col*, 25–38, *prof, 38–, head dept, 42–* Telegraph sch, Lehigh, 18; ground sch. instr, Civil Aeronaut. Admin, 40– Exec. cmt, Pa. Conf. Col. Physics Teachers. A.A. (treas, Lancaster branch, 35–); Physical Soc; Elec. Eng; Eng. Educ; Asn. Physics Teachers; Franklin Inst; Pa. Acad. Laboratory physics.

Fry, Dr. Thornton C(arl), Bell Telephone Laboratories, 463 West St, New York, N. Y. **Mathematics.* Findlay, Ohio, Jan. 7, 92. A.B, Findlay Col, 12; A.M, Wisconsin, 13, Ph.D, 20. Instr. math, Wisconsin, 12–16; *mathematician*, West. Elec. Co, 16–24; *Bell Tel. Labs, 25–* Lecturer, Mass. Inst. Tech, 27; Princeton, 29–30. Div. physical sciences, Nat. Research Council, 32–34, 37–39, 41– A.A; Math. Soc. (trustee, 23, councilor, 30–32; v. pres, 40); Math. Asn. (trustee, 31–33, v. pres, 36); Astron. Soc; Physical Soc. Applied mathematics; mathematical physics; divergent integrals; theory of probability.

Frye, Prof. John C(hapman), University of Kansas, Lawrence, Kans. *Geology.* Marietta, Ohio, July 25, 12. A.B, Marietta Col, 34; Ohio State, 35; M.S, Iowa, 37, Ph.D, 38. Asst. geol, Iowa, 35–38; junior geologist, U. S. Geol. Surv, 38–40, asst. geologist, 40–41; *asst. state geologist and asst. director, Kans. State Geol. Surv, 42–; asst. prof. geol, Kansas, 42–* Asst, Ill. Geol. Surv, 37; Iowa Geol. Surv, 37. A.A; Kans. Geol. Soc. Physiography; Cenozoic geology of the southern High Plains; ground-water geology in Kansas.

Frye, Robert, 10851 S. Prairie Ave, Chicago, Ill. *Chemistry.* Frankfort, Ind, Oct. 10, 01. A.B, Indiana, 23, A.M, 24. Instr. chem, Mich. State Col, 25–26; assoc. prof, Centenary Col, 26–31; chief chemist, La. Pine Products Co, Alexandria, La, 31–33; Chem. Warfare Service, 33–35; *research chemist, Sherwin-Williams Co, 35–* Chem. Soc. Distillation of resinous wood; catalytic desulfurization of west Texas petroleums; pressure ammonolysis of nitro-phenolic compounds.

Frye, Prof. Royal M(errill), Boston University, Boston, Mass. *Physics.* Milford, N. H, May 27, 90. A.B, Boston, 11, A.M, 12, Ph.D, 34; Harvard, 12–13. Instr. *physics*, Boston, 13–15; Mass. Inst. Tech, 15–31; *grad. sch, Boston*, 32–36, asst. prof, 36–42, *prof, 42–* A.A; Physical Soc. Spectroscopy; residual rays; atomic structure; relativity.

Frye, Prof. T(heodore) C(hristian), University of Washington, Seattle, Wash. *Botany.* Washington, Ill, Sept 15, 69. B.S, Illinois, 94; Ph.D, Chicago, 02. Asst. bot, Chicago, 00–02; *prof.* biol, Morningside Col, 02–03; *bot, Washington (Seattle), 03–*, acting dean col. science, 14–16. Summers, in charge, Puget Sound Biol. Sta, 05, 07–10, director, 14–30. In charge, U. S. Dept. Agr. kelp exped, Alaska, 13. A.A. (exec. cmt, Pacific div, 16); Bot. Soc; Sullivant Moss Soc. (pres, 08, 09). Morphology; taxonomy of western mosses and liverworts; marine algae.

Frye, Dr. William E(merson), 3848 S. Capitol St, Washington, D. C. *Theoretical physics.* Detroit, Mich, June 20, 17. A.B, Illinois, 37, M.S, 38; Ph.D, Chicago, 41. *Physicist, Naval Research Lab, 42–* Physical Soc. Determination of potential fields from scattering.

Frye, Dr. William W, Vanderbilt University School of Medicine, Nashville, Tenn. *Medicine.* North English, Iowa, July 26, 03. B.S, Iowa Wesleyan Col, 26; M.S, Iowa State Col, 27, Ph.D, 31; M.D, Vanderbilt, 39. Asst, Iowa State Col, 26–27, instr. zool. and entom, 27–31; asst. *prev. med. and pub. health, sch. med, Vanderbilt*, 31–37, instr, 37–41, *assoc. prof, 41–* Preventive medicine and public health; parasitic diseases.

Fryer, Prof. Douglas (H), New York University, University Heights, New York, N. Y. *Psychology.* Willimantic, Conn, Nov. 7, 91. B.H, Springfield, 14; Brown, 15–16; A.M, Clark, 17, fellow, 19–20, 22–23, Ph.D, 23; Columbia, 21–22. Director vocational dept, Y.M.C.A, Brooklyn, 20–22; asst. prof. *psychol*, Utah, 23–24; *N. Y. Univ*, 24–28, *assoc. prof, 28–*, administrative chairman dept, Univ. Heights, 25–40. Visiting prof, Cambridge, 31–32. Ed. board, 'Jour. Indust. Psychol,' 25–26, assoc. ed, 26–28; 'Personnel Jour,' 29–, managing ed, 31–32; 'Vocational Guidance Magazine,' 29–32; 'Jour. Consulting Psychol,' 37–41. Int. Cong. Psychol, Oxford, 23, Groningen, 26, Yale, 29; Int. Psycho-Tech. Cong, Moscow, 31. 2nd lieut, U.S.A, 17–18, capt, Red Cross, 19. A.A. (advisory council human relations, 38–); Psychol. Asn. (sec'y-treas, east. branch, 29–31); Asn. Applied Psychol. (pres, 30, 37); Nat. Vocational Guidance Asn; Personnel Research Federation; British Psychol. Asn. Feelings; motivation; muscle tension; psychological apparatus.

Fryer, Dr. H(olly) C(lair), Kansas State College, Manhattan, Kans. *Experimental statistics.* Carlton, Oregon, Dec. 6, 08. M.S, Oregon State Col, 33; B.S, Oregon, 31; Illinois, 35–37; Ph.D, Iowa State Col, 40. Instr. *math*, Iowa State Col, 37–40; *asst. prof, Kans. State Col, 40–* Statist. Asn; Inst. Math. Statist. Application of mathematical statistics to biological and genetic research.

Fryer, Prof. Ja(me)s R(obert), University of Alberta, Edmonton, Alta, Can. *Genetics, Cytology.* Wilsonville, Ont, Jan. 9, 84. B.A, Toronto, 13, M.A, 15; Ph.D, California, 30. Seed analyst, Dom. Govt, 13–20; asst. prof. *field crops, Alberta,* 20–25, assoc. prof, 26–35, *prof, 35–* A.A; Can. Soc. Tech. Agr; West. Can. Soc. Agron. (pres, 31). Plant physiology; cytogenetics of species of Medicago and Agropyron; agrostology.

Fryer, Prof. Oscar G(ibson), 718 Kickapoo, Springfield, Mo. *Physics.* Harrisburg, Ill, Jan. 8, 96. A.B, B.S, Drury Col, 25; A.M, Colorado, 29; Ph.D, Indiana, 36. Instr. *physics,* Carnegie Inst. Tech, 29–34; asst, Indiana, 35–36; asst. prof, *Drury Col,* 36–38, assoc. prof, 38–40, *prof, 40–* Asn. Physics Teachers; Mo. Acad. Radioactivity of caves and springs.

Fryling, Dr. Charles F(rederick), 73 Borton Ave, Akron, Ohio. *Chemistry.* Newark, N. J, March 9, 97. B.S, Lafayette Col, 20; M.S, N. Y. Univ, 23, fellow, 23–24, Ph.D, 24. Chemist, glass develop. dept, Edison Lamp Works, Gen. Elec. Co, N. J, 20–21; nat. research fellow, Princeton, 24–26; head dept. and asst. to research director, research labs, Combustion Utilities Corp, N. J, 26–31; senior chemist, non-fuels sect, geochem. div, State Geol. Surv, Ill, 31–36; research director, Pulp Products Co, Ohio, 36–37; *research chemist, B. F. Goodrich Co, 37–* Chem. Soc; Chem. Eng. Chemical kinetics; mineral wool; industrial research; synthetic rubber polymerization.

Fryxell, Prof. F(ritiof) M(elvin), U. S. Geological Survey, Washington, D. C. *Geology.* Moline, Ill, April 27, 00. A.B, Augustana Col. (Ill), 22; A.M, Illinois, 23; Ph.D, Chicago, 29. Asst, Chicago, 27–28; asst. prof. geol, *Augustana Col. (Ill),* 23–26, assoc. prof, 26–29, *prof. geol. and curator geol. museum, 29–; geologist, sect. mil. geol, U. S. Geol. Surv, 42–* Laura Spelman Rockefeller Foundation fellow, 26; naturalist, Grand Teton Nat. Park, Wyo, 29–35; museum consultant, Nat. Park Service, 35–; senior geologist, Philippine Govt, 39–40. Trustee, Davenport Pub. Museum, 41– A.A; fel. Geol. Soc; Asn. Col. Geol. Teachers (pres, 38); fel. Am. Geog. Soc; Ill. Acad. (sec'y, 30, 1st v. pres, 41, pres, 42). Geomorphology; national parks; museum methods.

Fubini-(Ghiron), Prof. G(uido), Institute for Advanced Study, Princeton, N. J. *Mathematics.* Venice, Italy, Jan. 19, 79. Dr. Math, Pisa, 00, Docent Math, 03. Prof, Catania, 03–05; Genoa, 05–08; Royal Inst. Tech. and Royal Univ. Turin, 08–38; *mem, Inst. Advanced Study, 39–* Sigma Xi gold medal, 08; Royal prize, Acad. Lincei, 19. Reale Accad. dei Lincei; Acad. Sci. Turin; Reale Inst. Lombardo; Reale Accad. dell Scienze di Bologna; Russian Soc. Math; Soc. Matematica Española; Czech Soc. Math. Automorphic functions; differential calculus; differential geometry; continuous groups; technical applications of differential calculus.

Fuchs, Dr. Frieda W(einstock), 420 Central Park West, New York, N. Y. *Microbiology.* Posen, March 8, 05. Ph.D, Breslau, 28, M.D, 34. Practising physician, 34–36; asst. fuel technol, Pa. State Col, 38–42; *research chemist, 42–* Analytical and organic chemistry; microbiology of coal; microchemical analyses; synthetic organic chemistry.

Fuchs, Dr. N(athaniel), 837 Seymour Ave, Linden, N. J. *Chemistry.* New York, N. Y, July 20, 98. Ch.B, Cornell, 19, Grasselli fellow, 24–25. Ph.D, 25. U. S. Geol. Surv, 19–20; Navy Supply Depot, N. Y, 21–22; asst. org. chem, Cornell, 22–24; Grasselli Dyestuff Corp, Rensselaer, N. Y, 25–27; *with Gen. Aniline Works, N. J,* 27– Chem. Soc. Pyrogallolsulfonephthalein; dyestuff intermediates; synthetic resins; wetting agents.

Fuchs, Prof. Walter (Maxmilian), 420 Central Park West, New York, N. Y. *Chemistry.* Vienna, Austria, June 8, 91. Ph.D, Vienna, 14. Privat-docent, Tech. Hochschule, Brunn, 19–26; head dept. and asst. director, Kaiser-Wilhelm Inst, Mulheim, 26–31; prof. tech. chem, Tech. Hochschule, Aachen, 31–33; research prof. soil microbiol, Rutgers, 34–35; prof. fuel technol, Pa. State Col, 35–42; *consulting chemist, 43–* Chem. Soc; Min. and Metal. Eng. Fuel technology; organic, lignin and coal chemistry.

Fudge, Dr. B(onnie) R(eid), Box 5, Lake Alfred, Fla. *Chemistry.* Rock Hill, S. C. B.S, 23; M.S, Rutgers, 25, Ph.D, 28. N. J. legume inoculant inspector, 24–25; asst. bact, Rutgers, 26–27; plant physiol, N. J. Exp. Sta, 26–28, state plant physiologist, 28–29; asst. chemist, *Citrus Exp. Sta, Florida,* 29–32; *biochemist, 32–* A.A; Int. Soc. Soil Sci. Chemical changes in cranberries in storage; nutritional balance in normal and exanthema citrus trees.

Fudge, Dr. J(oseph) Franklin, College Station, Texas. *Soil chemistry.* Pittsfield, Ill, Nov. 8, 97. B.S, Illinois, 24; M.S, Wisconsin, 25, Ph.D, 28. Asst. soil chemist, Ala. Polytech, 26–28; *chemist,* Exp. Sta, Florida, 28–29; *Exp. Sta, Agr. and Mech. Col. Texas, 29–* Chem. Soc; Soc. Agron. Availability of plant nutrients in the soil; relation of composition of soil to plant and animal deficiencies.

Fuelleman, Prof. Robert F, University of Illinois, Urbana, Ill. *Agronomy.* Janesville, Wis, March 9, 95. B.S, Wisconsin, 32, M.S, 33, Ph.D, 38. Asst. *agron,* Wisconsin, 35–37; *asst. prof, Illinois, 37–* A.A; Soc. Agron. Forage crops; pasturé and field research; soybeans; war crops.

Fugassi, Dr. James Paul, Carnegie Institute of Technology, Pittsburgh, Pa. *Physical chemistry.* Trafford City, Pa, Feb. 1, 09. B.S, Carnegie Inst. Tech, 30, fellow, 30–33, M.S, 31; Ph.D, Wisconsin, 34. Instr. *chem, Carnegie Inst. Tech,* 35–38, *asst. prof, 38–* Chem. Soc; Electrochem. Soc; Faraday Soc. Reaction kinetics; electrochemistry.

Fugate, Dr. W(esley) O(rlean), 77 Highwood Ave, Tenafly, N. J. *Organic chemistry.* Providence, Ky, June 10, 14. B.S, West. Ky. Teachers Col, 33; fellow, Illinois, 37–39, Ph.D, 39. Teacher, high sch, Ill, 33–36; asst. chem, Illinois, 36–37; assoc. chemist, Minnesota, 39–40; instr. chem, Columbia, 40–41; *research chemist, Barrett div, Allied Chem. and Dye Corp, 41–* Chem. Soc. Magnesium derivatives of hindered ketones; chemistry of vitamin E; coal tar chemicals and derivatives.

Fuglestad, Prof. R(angvald) E(dwin), Concordia College, Moorhead, Minn. *Zoology.* Cooperstown, N. Dak. A.B, North Dakota, 23, M.S, 24; Wisconsin, 26; California, 31; Minnesota, 34. Instr. zool, Wentworth Mil. Acad, Mo, 24–27; *asst. prof. biol. and chem, Concordia Col, 27–* Univ. Pittsburgh trop. biol. research group, Kartabo, British Guiana. Length of life of Copepoda.

Fugo, Nicholas W(illiam), State University of Iowa, Iowa City, Iowa. *Endocrinology, Pharmacology.* Syracuse, N. Y, Sept. 15, 13. A.B, Syracuse, 35; M.S, Iowa, 37, Ph.D, 40. John Jones scholar, Biol. Lab, Cold Spring Harbor, 39; research assoc. zool, *Iowa,* 39–40, *instr. pharmacol, 40–* Drugs in relation to endocrine system.

Fugulitt, Dr. Robert E(ugene), 733 Columbus Apts, Rochester 4, N. Y. *Physical chemistry.* Boone Grove, Ind, July 17, 17. B.S, Florida, 37, A.B, 38, M.S, 40, Ph.D, 43. Asst. chem, Florida, 37–40, naval stores, 40–43; *research chemist, Distillation Products, Inc, 43–* Chem. Soc. Terpenes; fractional distillation; reaction kinetics.

Fulcher, Dr. Gordon S(cott), 3647 Van Ness St, N.W, Washington, D. C. *[3]Physics.* Evanston, Ill, March 21, 84. B.S, Northwestern, 05, M.S, 06; fellow, Clark, 07–08, Ph.D, 10. Asst. physics, Clark, 06–07; instr, Amherst Col, 08–09; Wisconsin, 09–15, asst. prof, 15–18; sci. assoc, Nat. Research Council, 19–20; physicist, Corning Glass Works, 20–31; in charge exhibits in physics, A Century of Progress Expos, Chicago, 31–33; physicist and later director research, Corhart Refractories Co, Louisville, 34–38; *retired; consultant, Nat. Defense Research Cmt, 42–* Managing ed, 'Physical Rev,' 23–25. Exp. engineer, U.S.A, 18–19. A.A; Physical Soc; Optical Soc; Ceramic Soc. Canal rays; band spectra; glass refractories; abstracting and indexing of scientific articles.

Fulcher, Prof. H(enry) E(mmett), Box 369, Davidson, N. C. *Physics.* Sandidges, Va, Aug. 10, 96. Teachers diploma, Col. of William and Mary, 17; B.S, M.S, Virginia, 25; Chicago. Prin, high sch, 17, 19–20; asst. and *assoc. prof. physics, Davidson Col, 25–* Summer, mem. faculty eng. defense training, Pa. State Col, 41. A.A; Asn. Physics Teachers; Southeast. Asn. Physicists; N. C. Acad. Seismology; determination of electromotive force by the Thompson method; cosmic rays; carbonated beverages at low temperatures; characteristics of carbonated beverages and their containers.

Fulford, Dr. Margaret H, Sutton Ave, Mt. Washington, Cincinnati, Ohio. *Botany.* Cincinnati, Ohio, June 14, 04. A.B, Cincinnati, 26, B.E, 27, A.M, 28; Ph.D, Yale, 35. Instr. *bot, Cincinnati,* 26–41, *asst. prof, 41–* Guggenheim Mem. Foundation fellow, 41; Howe fellow, N. Y. Bot. Garden, 43. A.A; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; Sullivant Moss Soc. (curator hepatics); Ohio Acad; Ind. Acad; N. Y. Acad. Bryophytes.

Fullaway, David T(immins), Board of Agriculture and Forestry, Box 3319, Honolulu, Hawaii. *Entomology.* Philadelphia, Pa, Sept. 21, 80. A.B, Stanford, 08; A.M, 10. Sec'y to pres, Stanford, 03–08; *entomologist,* Exp. Sta, Hawaii, 08–13; *Hawaii Board Agr. and Forestry, 13–* Entom. Soc; Asn. Econ. Entom; Hawaiian Entom. Soc. Hymenoptera; descriptive entomology.

Fuller, Prof. Almon H(omer), Iowa State College, Ames, Iowa. *Civil engineering.* Camptown, Pa, Dec. 29, 71. C.E, Lafayette Col, 97, M.S, 00, Sc.D, 36; fellow, Cornell, 97–98, M.C.E, 98. Prof. civil eng. and dean col. eng, Washington (Seattle), 98–17; *prof. civil eng,* Lafayette Col, 17–20; *Iowa State Col, 20–* Consulting bridge engineer, State Highway Cmn, Iowa, 20–25. Civil Eng. (pres, Iowa sect, 28); Eng. Educ. (councilor, 14–17); Soc. Test. Mat; Pacific Northwest. Soc. Eng. (pres, 07); Iowa Eng. Soc. (pres, 29). Structural engineering; time tests of concrete; stresses in steel bridges; impact in highway bridges; analysis and design of steel structures.

Fuller, Dr. C(alvin) S(outher), 42 Edgewood Road, Chatham, N. J. *Physical chemistry.* Chicago, Ill, May 25, 02. B.S, Chicago, 26, Ph.D, 29. Research chemist, Bell Tel. Labs, 30–42; *mem. staff, Office Rubber Director, 42–* A.A. (v. chairman, textile conf, 43); Chem. Soc. (chairman, north Jersey sect, 42; plastics sect, 43); Soc. X-Ray and Electron Diffraction. Magnetic studies on nitric oxide; drying oils; x-ray, viscosity and other studies on organic high-polymers.

Fuller, Prof. Cha(rle)s E(dward), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* South Boston, Mass, Jan. 8, 71. B.S, Mass. Inst. Tech, 92. Asst. instr. and instr. mech. eng, *Mass. Inst. Tech,* 92–00, asst. prof, 00–06, assoc. prof, 06–12, prof. *theoret. and applied mech,* 12–41, *emer. prof, 41–* Mem, Wellesley Water and Munic. Light Cmn, 03–27; Wellesley Sewer Cmn, 15–27; manager, Wellesley Light Plant and Water Works, 09– O.R.C, 23–, col. A.A; Mech. Eng; Soc. Test. Mat; Eng. Educ; Math. Soc; Am. Geog. Soc; New Eng. Water Works Asn. Mechanical engineering; applied mechanics; elasticity.

Fuller, Dr. Donald L(eask), 1431 Bushkill St, Easton, Pa. *Physical chemistry.* Duluth, Minn, Nov. 12, 06. B.Ch.E, Minnesota, 29, Shevlin fellow, 32–33, Ph.D, 33. Asst. chem, Minnesota, 29–32, fellow, 33–35; *research chemist,* Am. Cyanamid Co, Linden, N. J, 35–36, Stamford, Conn, 36–38; Shell Develop. Co, 38–42; *Gen. Aniline and Film Corp, 42–* Chem. Soc; Math. Soc. Thermodynamics; quantum mechanics; high pressures; gas reactions; catalysis.

Fuller, Prof. Edward C, Bard College, Annandale-on-Hudson, N. Y. *Physical chemistry.* Helena, Mont, Aug. 8, 07. B.S, Mont. State Col, 28; univ. fellow, Columbia, 34–35, Ph.D, 41. Asst. chem. and chem. eng, Mont. State Col, 28–31; *chem, Columbia,* 31–34, instr, lecturer and *asst. prof, Bard Col, 35–* A.A; Chem. Soc. Rate of oxidation of sulfite ions in solution by gaseous oxygen.

Fuller, E(verett) W, 262 Briar Hill Lane, Woodbury, N. J. *Chemistry.* Brooklyn, N. Y, June 8, 92. A.B, Amherst Col, 15; A.M, Columbia, 16. Research assoc. applied chem, Mass. Inst. Tech, 19–21; *research chemist,* Fisk Rubber Co, 21–30; *Socony-Vacuum Oil Co, Paulsboro, N. J, 30–* Lieut, C.W.S, 17–18. Chem. Soc. Rubber chemistry; chemical warfare gases; petroleum products; antioxidants.

Fuller, F(rederick) D(riggs), 602 Ennis Ave, Bryan, Texas. *Chemistry.* Hanover, N. H, May 14, 73. B.S, New Hampshire, 92; Worcester Polytech, 95–96; M.S, Purdue, 12. Asst. chemist, Exp. Sta, New Hampshire, 92–95; N. Y. Exp. Sta, 96–05; chief chemist, State Dept. Agr, Pa, 05–09; chief cattle feed and grain investigation lab, bur. chem, U. S. Dept. Agr, 09; chief chemist and gen. manager, Pa. Primo Feed Co, 09–10; chief deputy state chemist, Ind, 10–16; in charge sci. educ. dept, Am. Feed Mfrs.' Asn, 16–17; *chief div. feed control service, Exp. Sta, Agr. and Mech. Col. Texas, 17–* A.A; Inst. Chem; Asn. Feed Control Officials (pres, 25); S. Cent. States Asn. Food, Feed, Drug and Health Officials (pres, 23, 32); Texas Acad. Administration of the Texas feed law.

Fuller, Prof. Geo(rge) D(amon), University of Chicago, Chicago, Ill. *Plant ecology.* Adamsville, Que, Can, Jan. 18, 69. B.A, McGill, 01; McGill scholar, Marine Biol. Lab, Woods Hole, 01–02; Chicago, 06–07, Ph.D, 13. Asst. bot, McGill, 01–02; director, Macdonald Sch. Gardens, 02–06; asst. bot, *Chicago,* 07, assoc, sch. educ, 07–09, instr. *plant ecol,* 09–19, asst. prof, 19–28, assoc. prof, 28–33, prof, 33–34, *emer. prof, 34–* In charge plant ecol, Cold Spring Harbor, 08; acting prof, Ill. State Nor. Univ, 09; botanist, Ill. State Museum, 38– A.A; Ecol. Soc. (pres, 34, ed, 'Ecology,' 31–40); Bot. Soc; Ill. Acad. (pres, 39); Chicago Acad; British Ecol. Soc. Forest ecology of Illinois; pollen analysis; alpine and sand dune vegetation.

Fuller, Glenn L(oren), U. S. Department of Agriculture, Spartanburg, S. C. *Soil conservation.* Philadelphia, N. Y, Dec. 2, 91. B.S, Cornell, 15. In charge soil surv, col. agr, Georgia, 24–33; head sect. conservation surveys, div. conservation operations, *soil conservation service, U. S. Dept. Agr,* 33–37, *chief regional div. physical surveys, 37–*

Fuller, Dr. Harold Q, Albion College, Albion, Mich. *Physics.* Waynetown, Ind, April 21, 07. A.B, Wabash Col, 28; A.M, Illinois, 30, Ph.D, 32. Research asst. *physics,* Illinois, 32–33, instr, 37–38; Ill. Col, 33–35, *asst. prof,* 35–37; *Albion Col, 38–* Summer, eng. defense training program, Pa. State Col, 41. Physical Soc; Asn. Physics Teachers. Band spectroscopy; effect of oxygen upon fluorescence spectra of iodine; photoionization of caesium vapor; photochemistry; fluorescence of diacetyl; quantum yield and quenching by iodine.

Fuller, Dr. Harry J(ames), University of Illinois, Urbana, Ill. *Botany.* St. Louis, Mo, Oct. 8, 07. B.S, Washington (St. Louis), 29, M.S, 30, Ph.D, 32. Instr. *bot,* Washington (St. Louis), 30–32; *Illinois,* 32–35, asst. prof, 35–41, *assoc. prof, 41–; mem. staff, Rubber Reserve Corp, S. Amer.* Bot. Soc. Plant physiology; physiologic effects of ultra-violet radiations on plants; phototropism; contact movements of Mimosa and of sensitive stigmas; history of medicinal plants; economic botany.

Fuller, Prof. James E(verard), Massachusetts State College, Amherst, Mass. *Bacteriology.* Ft. Lupton, Colo, April 26, 87. A.B, Colo. Col, 11, A.M, 25; Ph.D, Yale, 29. Bacteriologist, Health Dept, Colorado Springs, Colo, 11–22; teacher, high sch, Colo, 22–24; instr. biol, Colo. Col, 24–25, asst. prof, 25–26; instr. *bacter,* Mass. Col, 26–27, asst. research prof, 28–31, *Mass. State Col,* 31–36, *research prof, 36–* A.A; Soc. Bact. (pres, Conn. Valley branch, 40); Pub. Health Asn; Inst. Food Technol. Bacteriology of soils; influence of combined nitrogen on nitrogen fixation by azotobacter; nitrogen fixation in field soil under cropping and soil treatment; influence of lime on microbial activities in soil; coli-aerogenic bacteria; food spoilage and preservation; effect of lignin in soil on nitrification.

Fuller, Prof. James G(arfield), University of Wisconsin, Madison, Wis. *Animal husbandry.* Waterman, Ill, Sept. 12, 80. B.S, Wisconsin, 04; Europe, 10; M.S, Iowa State Col, 28. Asst. *animal husbandry, Wisconsin,* 04–06, instr, 06–08, asst. prof, 08–13, assoc. prof, 13–21, *prof, 21–* Soc. Animal Production; Wis. Horse Breeders Asn. (sec'y-treas); Wis. Aberdeen Angus Breeders Asn. Beef cattle feeding and production; horse feeding and draft horse production.

Fuller, Dr. J(ames) Osborn, Ohio State University, Columbus, Ohio. *Geology.* Chaumont, N. Y, Aug. 14, 12. A.B, Lehigh, 34; Ph.D, Columbia, 41. Asst. petrol, Columbia, 36–37, econ. geol, 37–39; asst. prof. *geol,* Mt. Union Col, 39–41; *instr, Ohio State, 41–* Summers, field asst, U. S. Geol. Surv, 36; asst. geologist, Newfoundland Geol. Surv, 37. A.A; Inst. Min. Eng; Ohio Acad. Economic geology and stratigraphy; staining and polished surface technique; Newfoundland mineral deposits and stratigraphy; eastern Ohio economic geology and stratigraphy.

Fuller, Dr. John L(angworthy), 23 Grove St, Orono, Maine. *Zoology.* Brandon, Vt, July 22, 10. B.S, Bates Col, 31; Ph.D, Mass. Inst. Tech, 35. Teaching fellow, Mass. Inst. Tech, 31–35; instr. biol, Sarah Lawrence Col, 35–36; *zool,* Clark, 36–37; *Maine,* 37–41, *asst. prof, 41–* Fellow, Oceanog. Inst, Woods Hole, 35–36; asst. biologist, State Lake Surv, N. H, 37–38; Maine, 41. A.A; Soc. Zool. Ecology of land isopods; food of marine copepods; chemical mediation.

Fuller, Dr. Leonard F(ranklin), 2345 Waverley St, Palo Alto, Calif. *Electrical engineering.* Portland, Oregon, Aug. 21, 90. M.E, Cornell, 12; Ph.D, Stanford, 19. Chief elec. engineer, Fed. Telegraph Co, 12–19, exec. v. pres, 28–32; consulting engineer, 19–26; elec. engineer, Gen. Elec. Co, 26–28; *prof. elec. eng. and chairman dept, California, 30–* Consulting engineer, City of Alameda, Calif, 35; Grand Coulee Dam, 36–39; consultant, City of Los Angeles, 36. Mem. anti-submarine group, Nat. Research Council, 17–19. Morris

Liebmann prize, Inst. Radio Eng, 19. A.A; fel. Elec. Eng; fel. Radio Eng; Eng. Educ. Radio transmitting apparatus of large power; carrier currents; high voltage transmission lines; electric welding.

Fuller, M(artin) Luther, 158 Princeton Ave, Palmerton, Pa. *Metallurgy.* Philadelphia, Pa, Oct. 25, 04. B.S, Pennsylvania, 26. Anal. chemist, *N. J. Zinc Co, Palmerton, Pa, 26–27,* research investigator, 27–40, *chief x-ray and spectrographic sect, 40–* Soc. Test. Mat. (chairman subcmt. III, cmt. E-2); Soc. X-Ray and Electron Diffraction; Min. and Metal. Eng. X-ray and electron diffraction; radiography; spectrographic analysis; crystal structure; electron microscopy.

Fuller, Merton L(eonard), Route 2, Peoria, Ill. *Meteorology.* Wright Co, Iowa, April 2, 72. M.Di, Iowa State Teachers Col, 98; hon. A.M, St. Lawrence, 07. Prin. nor. dept, Buena Vista Col, 98–02; prof. meteorol, St. Lawrence, 07–09; meteorologist, U. S. Weather Bur, 20–42; *retired.* A.A. Weather.

Fuller, Prof. M(erton) O(tis), 1340 Madison Ave, Bethlehem, Pa. *Civil engineering.* Belleville, N. Y, April 13, 85. C.E, Syracuse, 10; M.S, Lehigh, 34. Instr, Purdue, 10–12; *civil eng, Lehigh,* 12–17, asst. prof, 17–22, *assoc. prof,* 22– Civil Eng. (sec'y-treas, Bethlehem sect, 22–). Steel and concrete structures; tests of slate; tests of riveted and welded steel columns.

Fuller, M(yron) L(eslie), 60 Main St, Brockton, Mass. *Geology, Hydrology.* Brockton, Mass, April 19, 73. B.S, Mass. Inst. Tech, 96. Asst. geologist, Mich. Geol. Surv, 97; asst. and instr. geol, Mass. Inst. Tech, 97–00; asst. geologist, U. S. Geol. Surv, 00–03, chief east. sect, div. hydrol, 03–07, geologist, 07–12; consulting hydrologist, water supplies, San Francisco, 12–13; oil explors, China, 13–15; Cuba, 16; chief geologist, Sun Oil Co, 17–20; *consulting geologist.* Reviewer miner. and geol. chem, 'Tech. Quarterly' and 'Rev. Am. Chem. Research,' 97–00. Special agent, Paris Expos, 99–00, gold medal; Walker prize, Boston Soc. Nat. Hist, 97, 05. A.A; Geol. Soc; Seismol. Soc. Petroleum engineering; glacial stratigraphic geology; geologic surveying in Indiana, Illinois, New York, Canada, West Indies and Brazil; underground water in the eastern and central states.

Fuller, Dr. Ralph H(enry), Cincinnati General Hospital, Cincinnati, Ohio. *Pathology.* Berlin Cross Roads, Ohio, Feb. 28, 06. B.Sc, Omaha, 29; M.D, Nebraska, 31; M.Sc, Cincinnati, 33. Intern, Iowa Methodist Hosp, 31–32; res. path, Cincinnati Gen. Hosp, 32–34; instr, *col. med, Cincinnati,* 34–37, *asst. prof,* 37– Asst. director path. service, Cincinnati Gen. Hosp, 41– Am. Med. Asn; Ohio Soc. Path. General pathology; environmental temperature in relation to incidence of spontaneous neoplasia in experimental animals; lipoid changes in the kidney.

Fuller, Dr. Richard E(ugene), 1642 Federal Ave, Seattle, Wash. *Geology.* New York, N. Y, June 1, 97. Ph.B, Yale, 18; B.S, Washington (Seattle), 24, M.S, 25, Ph.D, 30. Asst. prof. *geol, Washington (Seattle),* 30–34, research assoc. prof, 34–40, *research prof, 40–* A.A; fel. Geol. Soc; fel. Miner. Soc. Volcanic rocks and basin range structure; geomorphology and volcanic sequence of Steens Mountain, Oregon; petrology of volcanic and plutonic rocks.

Fuller, T(ruman) S(amuel), 2131 Grand Blvd, Schenectady, N. Y. *Metallurgy.* Saratoga Springs, N. Y, April 23, 88. B.S, Syracuse, 11. *Metallurgist, research lab, Gen. Elec. Co, 11–* Min. and Metal. Eng; Soc. Test. Mat; Soc. Metals; British Inst. Metals. Electrical properties of alloys; endurance properties of steels; the embrittlement of copper; corrosion.

Fulling, Dr. E(dmund) H(enry), 20 South Road, Bronxville, N. Y. *Botany.* New York, N. Y, April 29, 03. B.S, Syracuse, 26; Ph.D, Columbia, 34. Co-founder, *'Bot. Rev,'* 35, *manager and ed, 35–; business manager, 'Am. Jour. Bot,' 40–* Bot. Soc; Torrey Bot. Club; Forestry Asn. General and economic botany; legislation and litigation respecting plants.

Fullmer, Prof. E(dward) L(awrence), Baldwin-Wallace College, Berea, Ohio. *Biology.* Defiance, Ohio, July 30, 70. B.S, Ohio State, 97, M.S, 98, fellow, 98–99. Prof. nat. science, S. Dak. Wesleyan, 99–03; Baldwin Univ, 03–09, *biol,* 09–13, *Baldwin-Wallace Col,* 13–40, *emer. prof, 40–* Summers, instr, lake lab, Ohio State, 11–17. A.A; Ohio Acad. Variation; Myxomycetes of Ohio.

Fullmer, Irvin H(enry), 8720 Colesville Road, Silver Spring, Md. *Physics.* Lorain, Ohio, Dec. 20, 95. B.S, Case, 17. Junior physicist, *gage sect, Bur. Standards,* 17–18, asst. physicist, 18–20, assoc. physicist, 21–36, *physicist, 36–* Physical Soc; Mech. Eng. (chairman, Wash. sect, 30); Philos. Soc. Wash. Precision measurements applied to and standardization of contact length standards, dimensional gages, including precision gage blocks and screw threads; interferometry.

Fulmer, Prof. Ellis I(ngham), Iowa State College, Ames, Iowa. *Chemistry.* Nebr, 91. A.B, Nebr. Wesleyan, 12; A.M, Nebraska, 13; Ph.D, Toronto, 19. Asst. chem, Nebraska, 12–13; Pennsylvania, 13–14; in charge chem, Leander Clark, 14; Friends, 15–16; asst. chem, Toronto, 16–19; asst. prof. in charge agr. chem, *Iowa State Col,* 19–23, *prof. biophys. chem, 23–* Chemist in charge, Aetna Explosives Co, 17; chemist, Cent. Exp. Farm, Ottawa, 18. A.A; Soc. Nat; Chem. Soc. Biophysical chemistry; physiology of fermentation.

Fulmer, Prof. Herman K(yle), Georgia School of Technology, Atlanta, Ga. *Mathematics.* Como, Miss, Feb. 8, 94. B.S, Mississippi, 21; A.M, Columbia, 22. Instr. *math, Ga. Tech,* 22–24, asst. prof, 24–30, *assoc. prof, 30–* Math. Asn.

Fulmer, Prof. H(ugh) L(ehman), 62 Oxford St, Guelph, Ont, Can. *Biochemistry.* Kingsville, Ont, Oct. 29, 80. B.S.A, Toronto, 04; Chicago, 10; A.M, Michigan, 22. Lecturer chem, *Ont. Agr. Col,* 10–20, assoc. prof. org. chem. and biochem, 20–38, *prof. chem, 38–* A.A. Insecticides and fungicides; sweet clover; digestibility of breakfast foods; colorimetric determination of tyrosine and tryptophane in crude protein; embryonic mortality in the chick; calcium and phosphorus content of the egg and chick; the effect of diet on the copper content and composition of the proteins of the hen's egg; sweet clover for spring green manuring.

Fulmer, Prof. Jervis M(oissan), 612 Highwood Ave. Greencastle, Ind. *Organic chemistry.* Pullman, Wash, Aug. 10, 98. B.S, State Col. Wash, 20; M.S, Minnesota, 22; Ph.D, Colorado, 25. Instr. *chem,* Colorado, 22–26; prof, Robert Col, Istanbul, 26–30; asst. prof, Colo. Sch. Mines. 30–31; *DePauw,* 31–33, assoc. prof, 33–38, *prof, 38–* Chem. Soc; Ind. Acad. Organic and physical chemistry; pre-medical education courses.

Fulton, Dr. B(entley) B(all), North Carolina State College, Raleigh, N. C. *Entomology.* Newark, Ohio, Aug. 29, 89. A.B, Ohio State, 12; M.S, Chicago, 16; Ph.D, Iowa State Col, 26. Asst. entomologist, N. Y. Exp. Sta, Geneva, 12–19; assoc. entomologist, *Exp. Sta,* Oregon State Col, 19–24; asst. entomologist, Iowa State Col, 24–28; *research entomologist, N. C. State Col, 28–* Katmai exped, Nat. Geog. Soc, 15. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc. North American tree crickets; Orthoptera; fruit and field and truck crop insects; insect ecology.

Fulton, Prof. Charles H(erman), Montana School of Mines, Butte, Mont. *Metallurgy.* Ludwigshafen, Germany, July 16, 74. E.M, Columbia, 97; hon. Sc.D, South Dakota, 11. Prof. metal, S. Dak. Sch. Mines, 00–05, pres, 05–11; prof. metal, Case, 11–20; director, Mo. Sch. Mines, 20–37, research prof. *metal,* 37–38; *prof, Mont. Sch. Mines, 42–* A.A; Min. and Metal. Eng; Mo. Acad. (pres, 39). Metallurgy of gold, silver, copper and zinc.

Fulton, C(larence) E(dward), 1024 Carlisle St, Tarentum, Pa. *Ceramics.* New Brunswick, N. J, Jan. 22, 89. B.S, Rutgers, 11. Asst, *research dept, Pittsburgh Plate Glass Co,* 12–16, *chief ceramic engineer, 17–* Fel. Ceramic Soc; Soc. Test. Mat. (mem, cmt. C-8). Refractories for the glass industry.

Fulton, Prof. D(awson) G(erald), Ohio Northern University, Ada, Ohio. *Mathematics.* Bass River, N. S, Can, Dec. 23, 05. B.A, Acadia, 29; M.Sc, Michigan, 30, Ph.D, 32. Teaching fellow math, Michigan, 29–32, 37; teacher math. and science, Bridgewater High Sch, 33–37; instr. *math,* Armour Inst. Tech, 37–39; *asst. prof, Ohio Northern, 39–* Math. Soc; Ohio Acad. Generalizations of the Cauchy integral formula.

Fulton, Dr. Frank T(aylor), 273 Bowen St, Providence, R. I. *Internal medicine.* Westmoreland Co, Pa, April 28, 67. B.S, Knox Col, 94, hon. Sc.D, 24; A.B, Hopkins, 95, M.D, 99. Intern, Boston City Hosp, 99–00; instr. path. and nor. histol, Brown, 03–09; pathologist, *R. I. Hosp,* 00–10, attending physician and consulting pathologist, 10–29, *consulting physician and cardiologist, 29–* Consulting physician, Providence City, Pawtucket Mem, Woonsocket, Westerly and S. County Hosps.

Major, M.C, 18–19. Am. Med. Asn; Am. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn; Asn. Path. and Bact; Tuber. Asn; New Eng. Heart Asn. (pres, 33–35); R. I. Med. Soc. (pres, 29); Providence Med. Soc. (pres, 21). Infections with the Bacillus aerogenes capsulatus; home treatment of tuberculosis; serum treatment of cerebrospinal meningitis; cardio-vascular disease.

Fulton, Dr. George P(earman), 626 E. Evergreen St, San Antonio, Texas. *Physiology.* Milton, Mass, June 3, 14. B.S, Boston, 36, A.M, 38, Ph.D, 41. Teaching fellow, *Boston, 38–41, instr. biol, 41–; lieut, Air Corps, U. S. Army, 42–* Peripheral vascular system.

Fulton, H(arry) R(ascoe), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* University, Miss, Sept. 19, 80. A.B, Mississippi, 00; A.M, Missouri, 05; Harvard, 06. Plant pathologist, Exp. Sta, Louisiana, 06–08; asst. prof. bot, Pa. State Col, 08–10, assoc. prof, 10–12; prof. bot. and bacter, N. C. State Col, 12–16; *pathologist fruit disease investigations, bur. plant indust, U. S. Dept. Agr, 16–* Assoc. ed, 'Phytopathology,' 14–16. A.A; Phytopath. Soc. (councilor, 14). Physiology of fungi; diseases of crop plants, especially of citrus and subtropical fruits.

Fulton, Dr. John F(arquhar), Yale University School of Medicine, New Haven, Conn. **Physiology.* St. Paul, Minn, Nov. 1, 99. B.S, Harvard, 21, M.D, 27; Rhodes scholar, Oxford, 21–23, B.A, 23, Christopher Welch scholar, 23–25, M.A, Ph.D, 25, D.Sc, 41; hon. A.M, Yale, 30; LL.D, Kenyon Col, 39. Demonstrator physiol, Oxford, 23–25; junior assoc. neur. surg, Peter Bent Brigham Hosp, Boston, 28; fellow, Magdalen Col, Oxford, 28–30; *Sterling prof. physiol, sch. med, Yale, 30–* Mem. cmt. aviation med. and cmt. information, Nat. Research Council, 40–, chairman subcmt. hist. records, 40– A.A; Physiol. Soc; Soc. Zool; Neur. Asn; fel. Am. Med. Asn; Am. Acad; London Physiol. Soc; British Soc. Exp. Biol. Blood pigments of invertebrates, especially of Ascidians; affinities of the genus Trichodina pediculus; nature and significance of the electrical response of contractile tissues; reflex coordination of movement and posture; comparative physiology of the primate brain; history of physiology; aviation medicine.

Fulton, Dr. MacDonald, Baylor University College of Medicine, Dallas, Texas. *Bacteriology.* Oconto, Wis, Sept. 24, 08. A.B, Carroll Col. (Wis), 28; A.M, Brown, 30, Ph.D, 35. Instr. biol, Franklin and Marshall Col, 31–32; asst. prof, Middlebury Col, 32–33; instr. *bacter,* Brown, 35–36; senior instr, sch. med, St. Louis, 36–39; asst. prof, *col. med, Baylor,* 39–42, *assoc. prof,* 42– Soc. Bact. Multiplication of bacteria; colon group classification; salmonella typing.

Fulton, Dr. Marshall N(airne), Valley Forge General Hospital, Phoenixville, Pa. *Medicine.* Keokuk, Iowa, March 10, 99. Ph.B, Brown, 20; Rhodes scholar, Oxford, 20–23, B.A, 22; M.D, Hopkins, 25. Med. house officer, *Peter Bent Brigham Hosp,* 26–27, asst. res. physician, 27–29, res. physician, 29–31, junior assoc. med, 31–34, physician, 34–40, *senior assoc. med, 40–;* asst. *med, Harvard Med. Sch,* 29–33, instr, 33–36, *assoc, 36–; Med. Corps, U. S. Army, 42–, lieut. col,* asst. chief *med. service,* Walter Reed Gen. Hosp, 42, *chief, Valley Forge Gen. Hosp, 42–* Am. Med. Asn; Asn. Physicians; Heart Asn; Soc. Clin. Invest; Clin. and Climat. Asn. Heart disease; metabolism; diuretic drugs.

Fulton, Dr. Robert W(att), University of Wisconsin, Madison, Wis. *Plant pathology.* Sistersville, W. Va, Jan. 29, 14. A.B, Wabash Col, 35; Ph.D, Wisconsin, 40. Instr. bot, Wabash Col, 35–37; *research asst. hort, Wisconsin, 37–; Med. Corps, U. S. Army.* Phytopath. Soc. Virus diseases of plants.

Fulton, W(illiam) F(arrell), United Gas Pipe Line Co, P. O. Box 1407, Shreveport, La. *Chemistry.* Shreveport, La, March 1, 00. Chem.E, Louisiana, 19. Chief chemist, La. Oil and Ref. Co, 19–24; consulting engineer, Chalmette Petrol. Corp, 24–25; chief chemist and supt, Palmer Corp, 26–30; *chief chemist, United Gas Pipe Line Co, 30–* A.A; Chem. Soc. (pres, north. La. sect, 27). Gas; gasoline.

Fults, Dr. Jess L(afayette), 831 Alabama, Amarillo, Texas. *Plant cytology, Agrostology.* Colorado Springs, Colo, Jan. 15, 10. B.S, Colo. State Col, 31; M.S, Iowa State Col, 32; Ph.D, Nebraska, 41. Teaching fellow and asst. bot, Iowa State Col, 31–34; nursery manager, *soil conservation service, U. S. Dept. Agr,* 34–39, *research technician, 39–* Soc. Agron; Bot. Soc. Cytology of Bouteloua; methods of reestablishing perennial grass in the central great plains; methods of eradicating mesquite from range lands.

Fulweiler, W(alter) H(erbert), 1600 Arch St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Jan. 3, 80. B.S, Pennsylvania, 01. Chem. engineer, United Gas Improv. Co, 13; *consulting chem. engineer.* Grasselli medal, 22; Beal medal, Am. Gas Asn, 34. Chem. Soc; Soc. Chem. Indust; Physical Soc; Optical Soc; Mech. Eng; Soc. Test. Mat. (pres, 25); Civil Eng; Rittenhouse Astron. Soc. Phila. (pres, 36–); Int. Asn. Test. Mat. (v. pres, 34). Chemistry of bituminous materials.

Funchess, Dean M(arion) J(acob), Alabama Polytechnic Institute, Auburn, Ala. *Agronomy.* Orangeburg, S. C, April 9, 84. B.S, Clemson Col, 08; M.S, Wisconsin, 11. *Prof. agron, Ala. Polytech, 09–, dean col. agr. and director, Exp. Sta, 24–* A.A; Soc. Agron. (pres, 29). Soil fertility; decomposition of organic toxins in soils; solubility of manganese in acid soils; infertility in acid soils.

Funk, Dr. Casimir, care of Guaranty Trust Co, Fifth Ave, New York, N. Y. *Biochemistry.* Warsaw, Poland, 84. Ph.D, Bern, 04; Pasteur Inst, 04–06; Beit fellow, London, 11–13, D.Sc, 13. Biochemist, Town Hosp, Wiesbaden, 07; asst. to Prof. Abderhalden, Berlin, 06–07, 08–10; head dept. chem, Cancer Hosp. Research Inst, 13–15; chemist, cancer research, med. col, Cornell, 15–16; head research dept, H. A. Metz and Co, 17–23; assoc. biochem, col. physicians and surg, Columbia, 21–23; head dept. biochem, State Sch. Hygiene, Warsaw, 23–27; owner, Casa Biochemica, Rueil-Malmaison, France, 28–40. Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; London Physiol. Soc; London Biochem. Soc; for. mem. Halle Acad; Soc. de Chim. biol; cor. mem. Soc. de Biol. Synthetic organic chemistry; chemistry and physiology of vitamins; internal secretions.

Funk, Forest J(ames), 2124 Linden St, Wilmington, Del. *Public health.* LaGrange Co, Ind. B.S, Purdue, 14; Mass. Inst. Tech, 14–15. Asst, Mass. Inst. Tech, 15–16; chemist and bacteriologist, United Fruit Co, Costa Rica, 16–17; *research chemist and microbiologist, E. I. du Pont de Nemours and Co, 19–* Sanit. inspector, Red Cross, 17–18, capt, Sanit.C, 18–19. A.A; Chem. Soc; Soc. Bact. Industrial microbiology; Panama disease of bananas; seed disinfectants; industrial fermentations; anti-freeze compositions.

Funke, Dr. John, 712 Durant Place, N. E, Atlanta, Ga. *Pathology.* Hazleton, Pa, Aug. 20, 73. M.D, Jefferson Med. Col, 01. Demonstrator path, Jefferson Med. Col, 03–10; prof. path. and bacter, Emory, 10–19; *practising physician.* Asst. pathologist, Jefferson Med. Col. Hosp. and Phila. Gen. Hosp, 03–10; pathologist, St. Joseph's Hosp, 04–05. A.A; Asn. Path. and Bact; Am. Med. Asn. Bacteriology; gall stones; otitis media; tumor of the carotid body; acidosis; effect of ether on the liver during anesthesia; yatren in the treatment of amebic dysentery; effect of extract of anterior lobe of the pituitary on chronic productive mastitis.

Funkhouser, Dr. H(oward) Gray, Phillips Exeter Academy, Exeter, N. H. *Mathematics.* Winchester, Va, April 14, 98. A.B, Washington and Lee, 21; A.M, Columbia, 24, Ph.D, 37. Instr. *math,* Columbia, 23–24; asst. prof, Washington and Lee, 24–28, assoc. prof, 28–31; *instr,* Columbia, 31–32; *Phillips Exeter Acad, 32–* A.A; Math. Asn; Hist. Sci. Soc. History of mathematics and of symmetric functions of roots of equations; history of graphic methods in statistics.

Funkhouser, Prof. James A(lexander), University of New Hampshire, Durham, N. H. *Organic chemistry.* Dayton, Ohio, Dec. 28, 02. B.S, Carnegie Inst. Tech, 25; Ph.D, Ohio State, 30. Asst. *chem,* Ohio State, 26–30; asst. prof, *New Hampshire,* 30–38, *assoc. prof, 38–* Chem. Soc. Absorption spectra of certain diazo compounds in the visible and ultraviolet; alcohols; determination of the structure of dicarvacrol; preparation of substituted azo- and hydrazobenzenes.

Funkhouser, Dean William D(elbert), University of Kentucky, Lexington, Ky. *Entomology.* Rockport, Ind, March 13, 81. A.B, Wabash Col, 05, Sc.D, 29; hon. fellow, Cornell, 13, A.M, 13, Ph.D, 16. Headmaster, high sch, N. Y, 07–15; prin, Cascadilla Sch, 15–18; *prof. zool. and head dept, Kentucky, 18–, dean grad. sch, 25–, prof. anthrop, 30–* A.A; fel. Entom. Soc. Amer. (pres, 40); Soc. Zool; Ecol. Soc; Eugenics Soc; Ky. Acad; N. Y. Entom. Soc; Brooklyn Entom. Soc. Taxonomy of the family Membracidae.

Funnell, Prof. W(illiam) Stanley, 348 Davenport Road, Toronto 5, Ont, Can *Chemistry.* Hastings, Sussex, Eng, Oct. 19, 89. B.A, Toronto, 12, M.A, 13. Demonstrator

chem, Toronto, 12–16, lecturer, 16–21, asst. prof, 21–28, *assoc. prof, 28–* General chemistry.

Fuoss, Dr. Raymond M(atthew), General Electric Co, Schenectady, N. Y. *[6]Physical chemistry.* Bellwood, Pa, Sept. 28, 05. B.S, Harvard, 25; Sheldon fellow from Harvard, Munich, 25–26; Ph.D, Brown, 32. Research chemist, Skinner, Sherman and Esselen, Inc, Boston, Mass, 27–30; research instr, Brown, 32–33; Int. fellow, Leipzig and Cambridge, 33–34; asst. prof. chem, Brown, 34–36; *research chemist, Gen. Elec. Co, 36–* Award, Am. Chem. Soc, 35. Chem. Soc; N. Y. Acad. Experimental and theoretical studies of properties of electrolytic solutions and of high molecular weight polymers.

Furbay, Prof. John H(arvey), Mills College, Oakland, Calif. *Biology, Education.* Mt. Gilead, Ohio, Sept. 23, 03. A.B, Asbury Col, 24; A.M, N. Y. Univ, 27; Pasteur Inst, France, 30; Ph.D, Yale, 31. Assoc. prof. zool, Taylor, 27–29; prof. biol, Junior Col. of Conn, 30; zool, Taylor, 31–33; educ. and biol, Col. of Emporia, 33–34; research in Liberia, 34–36; pres, Col. West Africa, 36–39; *assoc. prof. educ, Mills Col, 39–* Guest lecturer, Hawaii, 41. Director, Taylor Univ. mastodon exped, 28. Mem, Cmn. for Reorganization Educ. System for Govt. Schs, Liberia, 36. A.A; Soc. Mammal; fel. Royal Geog. Soc; fel. Royal Anthrop. Soc. Mastodons of Indiana; history of sex education; habits of birds, animals and plants; African folk-lore from Liberia; marriage and the family; nature chats.

Furchgott, Dr. Robert F(rancis), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Biochemistry.* Charleston, S. C, June 4, 16. B.S, North Carolina, 37; John Jones scholar, Biol. Lab, Cold Spring Harbor, 39; Ph.D, Northwestern, 40. Asst. physiol. chem, med. sch, Northwestern, 37–40; research fellow *med, med. col, Cornell,* 40–41, *asst, 41–* Chem. Soc; Asn. Sci. Workers. Physical chemistry of red cell structure; radioactive tracer work on muscle metabolism; infra-red spectrophotometry of steroidal hormones.

Furcron, Dr. A(urelius) S(ydney), 425 State Capitol, Atlanta, Ga. *Geology.* The Plains, Va, April 3, 99. A.B, A.M, Virginia, 23; Ph.D, Iowa, 31. Asst. geol, Virginia, 18–23; Iowa, 23–25; instr, Western Reserve, 25–37; asst. geologist, *div. mines, mining and geol, State Dept. Nat. Resources, Ga,* 37–38, *geologist, 38–, asst. state geologist, 42–* Summers, State Geol. Surv, Va, 23, 25–30, geologist, 31. A.A; Miner. Soc; Min. and Metal. Eng; Ga. Acad. Crystalline rocks of Virginia and Georgia; mineral resources of Georgia; pegmatites of Georgia.

Furfey, Dr. Paul Hanly, Catholic University of America, Washington, D. C. *Sociology, Psychology.* Cambridge, Mass, June 30, 96. A.B, Boston Col, 17; A.M, St. Mary's (Md), 18; Knights of Columbus fellow, Catholic Univ, 17–18, Ph.D, 26; Berlin and Frankfurt, 31–32. Instr. *sociol, Catholic Univ,* 25–31, assoc. prof, 31–40, *prof, 40–* acting head dept, 34–40, *head dept, 40–, co-director, center for research in child develop, 34–* Mem. cmt. on presch. child and cmt. on recreation and physical educ, White House Conf. on Child Health and Protection, 31; cmt. on group work, Nat. Conf. Social Work; advisory cmt, Motion Picture Research Council; advisory board, Nat. Child Research Center; Nat. Cmt. Mental Hygiene. Assoc. ed, 'Studies in Psychol. and Psychiat'; 'Social Science Monographs'; 'Jour. Exp. Educ.' A.A; Psychol. Asn; Sociol. Soc; Soc. Research Child Develop. Social and child psychology; developmental age; statistical method; reflexes of the newborn; social therapy.

Furgason, Prof. Waldo H, University of Missouri, Columbia, Mo. *Zoology.* Canby, Minn, April 25, 02. A.B, St. Olaf Col, 24; fellow, Stanford, 33–34, Ph.D, 36; Am-German exchange fellow, zool. inst, Munich, 34–35. Asst. and instr. biol, Calif. State Teachers Col, San Diego, 26–28, 30–31; asst. and acting instr, Stanford, 28–30, asst, 32–34, 35–36; *asst. prof,* Whitman Col, 36–38; Wabash Col, 38–40; *zool, Missouri, 40–* Summer, leader biol. surv, Bur. Fisheries, 34. A.A; Limnol. Soc; West. Soc. Nat. Protozoology, morphology and taxonomy of Ciliata.

Furia, Dr. John J(oseph), 3830 Sedgwick Ave. New York, N. Y. *Industrial engineering.* White Plains, N. Y, Oct. 1, 91. A.B, Columbia, 16, A.M, 17, Ph.D, 22; M.S, N. Y. Univ, 20; I.E, Manhattan Col, 27. Instr. physics, Manhattan Col. 15; Columbia, 15–17; sch. eng, N. Y. Univ, 17–20; fed. coordinator, Col. City of N. Y, 20–23; prof. indust. eng. and director personnel, Manhattan Col, 23–35; *consulting indust. engineer, 23–; sec'y-treas, Nat. Management Council.* Indust. Research and Eng. Corp, 17–20; pres. and director, Queensboro Tire Co, 19; Queensboro Mfg. and Sales Corp, 19; Elec. Light Radio Corp, 23–27; officer, director or consulting engineer, various electrical products corporations; lecturer, grad. sch, N. Y. Univ; coordinator war training; director div. training and sec'y mayor's council pub. service training, Exec. Office of Mayor, New York. Nat. Management Council del. and U. S. Govt. del, Int. Cong. on Sci. Management, London, 35, gen. sec'y, Washington, D. C, 37. A.A; Indust. Eng. (v. pres, N. Y. chap, 25–27, pres, 28, nat. v. pres, east. region, 30, nat. v. pres, in charge educ, 32–34, nat. director, 34–); Eng. Educ; Radio Eng; Elec. Eng; Soc. Adv. Management (director and coordinating v. pres, mem. board editors, 36–); Soc. Professional Eng; Management Asn; Fed. Management Soc. (ed. cmt, joint 'Bul,' Taylor Soc. and Soc. Indust. Eng); Nat. Vocational Guidance Asn; Council Eng. Prof; Acad. Polit. and Social Sci; N. Y. State Soc. Professional Eng. Experimental physics; management; motion picture film loops; stereoscopic cinefoto screen; photographic photometer; natural color cine-photography; power supply radio broadcast receivers; soluble coffee; industrial education; employment stabilization; vocational guidance; slum clearance; mass production methods in building construction.

Furman, Prof. F(ranklin) De R(onde), 36 Reid Ave, Passaic, N. J. *Mechanical engineering.* Ridgely, Md, Aug. 30, 70. M.E, Stevens Inst. Tech, 93. Instr. mech. drawing, *Stevens Inst. Tech,* 93–99, asst. prof, 99–02, assoc. prof. mech. drawing and designing, 02–04, prof, 04–07, mechanism and machine design, 07–18, *machine design* and head dept, 07–41, *emer. prof, 41–,* dean junior class, 18–28, *col,* 28–41, *emer. dean, 41–* Trustee, Stevens Hoboken Acad, 32–, v. pres, 39–A.A; Mech. Eng; Eng. Educ. Valves and valve gears; cam and engine design; planetary gearing; basic mechanism; history and biography in engineering.

Furman, Prof. N(athaniel) Howell, 201 Prospect Ave, Princeton, N. J. *[5]Chemistry.* Lawrenceville, N. J, June 22, 92. B.S, Princeton, 13, A.M, 15, fellow, 16–17, Ph.D, 18. Asst. chem, Princeton, 13–16; instr, Stanford, 17–19; asst. prof. *anal. chem, Princeton,* 19–27, assoc. prof, 27–37, *prof, 37–* Assoc. ed. and anal. ed, 'Ind. Eng. Chem,' 35– Advisory revision cmt, U. S. Pharmacopoeia. Chairman cmt. award east. fellowship, J. T. Baker Chem. Co, 28– Mem. eutectic diagram cmt, Nat. Research Council. Chemist, C.W.S, 18. A.A; Chem. Soc. (chairman, div. physical and inorg. chem, 34; assoc. ed, 42–); Electrochem. Soc; Soc. Test. Mat; Optical Soc. Electroanalysis; hydrofluoric acid in analysis; potentiometric titrations; volumetric analysis; ceric sulfate in volumetric analysis; electrometric methods; oxidation-reduction; polarographic methods.

Furnas, Dr. C(lifford) C(ook), Curtiss-Wright Corp, Buffalo, N. Y. *Chemical engineering.* Sheridan, Ind, Oct. 24, 00. B.S, Purdue, 22; Ph.D, Michigan, 26. Teacher, sch, Minn, 22–24; physical chemist, U. S. Bur. Mines, 26–31; assoc. prof. chem. eng, Yale, 31–43; tech. aide, Nat. Defense Research Cmt, 41–43; *director research, airplane div, Curtiss-Wright Corp, 43–* Summers, chemist, Ill. Steel Co, 23, 24; field investigator, Mich. Geol. Surv, 25. A.A; Chem. Soc. (v. chairman, Minn. sect, 29, chairman, New Haven sect, 37; symposium cmt, indust. div, 41); Chem. Eng. (publications cmt, 41; chairman William H. Walker award cmt, 41). Reduction of iron oxides; chemical and physical reactions in blast furnaces; heat transfer; gas flow; distillation equilibria; combustion of carbon; ionic base exchange.

Furnas, Mrs. Sparkle Moore, Ives St, Hamden, Conn. *Home economics.* Zionsville, Ind, March 14, 01. B.S, Purdue, 24; M.S, Minnesota, 30. Teacher, high sch, Ind, 22–23, 24–25; instr, sch, Mich, 25–26; nutrition and physiol. chem, Minnesota, 26–31. Tech. aid, focal food exhibit, N. Y. World's Fair, 38–39. Preparing liver for the diet; distribution of protein and non-protein nitrogen content of blood of dogs under normal conditions and during blood regeneration; food and nutrition.

Furness, James Wilson, 58 Woodland Road, Asheville, N. C. *Economics.* Philadelphia, Pa, June 5, 74. B.S, Pa. Mil. Col, 95, B.M.S, 27. Mining in west. Can, U. S. and Mexico, 95–22; construction and mining engineer, U. S. Bur. Mines, 22–27; chief minerals div, bur. foreign and domestic commerce, U. S. Dept. Commerce, 28–34; *chief econ. and statist. branch, U. S. Bur. Mines, 34–* Lecturer, Army War Col, 23–35. Lieut. col, U.S.A. Min. and Metal. Eng; Min. and Metal. Soc: Acad. Polit. Sci. Minerals.

Furnival, Dr. G(eorge) M(itchell), Dominion Oil Co, Ltd, 700 Lancaster Bldg, Calgary, Alta, Can. *Economic geol-*

ogy. Winnipeg, Man, July 25, 08. B.Sc, Manitoba, 29; M.A, Queen's (Can), 34; scholar, Mass. Inst. Tech, 33–35, Ph.D, 35. In charge field parties, Nipissing Mining Co, 29–30; asst. geol, Manitoba, 30–31; geol. asst, Man. Dept. Mines, 31; asst. geol, Queen's (Can), 31–34; Geol. Surv. Can, 32–33; geologist, Bear Explor. and Radium, Ltd, 33; geol. asst, Dept. Mines, Ont, 34; geologist, O'Brien Gold Mines, 35–36; asst. supt. and geologist, Cline Lake Gold Mines, 36–39; geologist, Geol. Surv. Can, 39–42; Standard Oil Co, B.C, Ltd, 42–43; *dist. geologist, Dom. Oil Co, Ltd, 43–* Fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Econ. Geol; Can. Inst. Min. and Metal. Silver-pitchblende deposits of Great Bear Lake; gold and ore deposits of the Canadian Precambrian rocks.

Furr, Dr. J(oe) R(oudolph), U. S. Department of Agriculture, Orlando, Fla. *Horticulture.* Belen, Miss, Oct. 22, 00. B.S, Miss. Agr. and Mech. Col, 24; Ph.D, Cornell, 32. Asst. horticulturist and later *physiologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Bot. Soc; Soil Sci. Soc. Pomology; plant water relations.

Furrow, Prof. C(larence) L(ee), 819 Bateman St, Galesburg, Ill. *Biology.* Grand Junction, Iowa, March 22, 96. A.B, Oklahoma, 21, fellow, 21–22, A.M, 22; Class of 77 fellow, Princeton, 22–23; Ph.D, Iowa, 33. Asst. zool, Illinois, 23–24; instr, Kansas, 24–26; asst. prof. *biol, Knox Col,* 26–34, prof, 34–39, *Clara A. Abbott prof, 40–* Summer, instr, Nebr. State Teachers Col, Wayne, 25. A.A; Soc. Zool; Micros. Soc; Ill. Acad. (pres, 36). Cytology; embryology; physiology; experimental biology; sex differentiation.

Furry, Margaret S(mith), 4431 Georgia Ave, Washington, D. C. *Chemistry.* Alden, Iowa, July 20, 99. B.S, 21; M.S, Iowa State Col, 27. Teacher, high sch, Ill, 21–22; instr, Baldwin-Wallace Col, 22–23; teacher, high sch, Ohio, 23–26; asst, Iowa State Col, 26–28; *asst. textile chemist, bur. home econ, U. S. Dept. Agr, 28–* Chem. Soc. Textile chemistry.

Furry, Prof. W(endell) H(inkle), Harvard University, Cambridge, Mass. *[7]*Physics.* Prairieton, Ind, Feb. 18, 07. A.B, DePauw, 28; A.M, Illinois, 30, fellow, 31–32, Ph.D, 32. Asst. *physics,* Illinois, 28–31; nat. research fellow, California and Calif. Inst. Tech, 32–34; instr, *Harvard,* 34–37, asst. prof, 37–40, *assoc. prof, 40–* Physical Soc. Valence forces; relativistic quantum theory; isotope separation.

Furth, Prof. J(acob), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Pathology, Bacteriology.* Miskolcz, Hungary, 96. Fellow, German Univ, Prague, 20–21, M.D, 21. Asst, hygiene inst, German Univ, Prague, 21–22; fellow, Henry Phipps Inst, Pennsylvania, 24–25, asst, 25–27, assoc, 28–32; asst, Rockefeller Inst, 27–28; assoc. *path, med. col, Cornell,* 32–33, asst. prof, 33–38, *assoc. prof, 38–* Am. Med. Asn. gold medal, 31. A.A. Typhoid; tuberculosis; antigens; leucemia; blood; tumors.

Furtsch, Dr. Edward F(rank), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Traverse City, Mich, April 23, 06. B.S, Michigan, 28, M.S, 29; Ph.D, Pittsburgh, 36. Instr. *chem,* Pittsburgh, 29–31; *Va. Polytech,* 36–38, *asst. prof, 38–* Chem. Soc. Chemical thermodynamics.

Fuson, Prof. Reynold C(layton), 1207 W. Oregon St, Urbana, Ill. *[5]*Chemistry.* Wakefield, Ill, June 1, 95. A.B, Montana, 20; A.M, California, 21; Ph.D, Minnesota, 24. Nat. research fellow, Harvard, 24–26, instr, 27–28; assoc. *chem, Illinois,* 28–29, asst. prof, 29–30, assoc. prof, 30–32, *prof, 32–* A.A; Chem. Soc. (assoc. ed, 'Jour,' 32–). The coupling action of the Grignard reagent; haloform reaction; cyclobutane derivatives; dihydro-1, 4-pyrans; enediols.

Fussell, Dr. Lewis, Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Physics, Communications engineering.* Media, Pa, Dec. 16, 09. B.S, Swarthmore Col, 31; M.S, Mass. Inst. Tech, 32, Sc.D, 38. Asst, Bartol Research Foundation, 32–34; instr. *physics,* Harvard, 36–41; Radcliffe Col, 39–41; *research assoc, Mass. Inst. Tech, 41–* Elec. Eng; Physical Soc. Vacuum tubes; gas discharges; cosmic rays; cyclotron; acoustics.

Fussler, Dr. Karl H(artley), University of North Carolina, Chapel Hill, N. C. *Physics.* Greencastle, Ind, Aug. 6, 87. A.B, Indiana, 09; Ph.D, Pennsylvania, 16. Asst. *physics,* Indiana, 08–09; instr, DePauw, 09–10; instr. and asst. prof, Pennsylvania, 10–20; prof. and head dept, North Dakota, 20–29; *prof, North Carolina, 29–* Radio physicist, Jefferson Med. Col. Hosp, 14. Physical Soc; Elisha Mitchell Sci. Soc; N. C. Acad; N. Dak. Acad. (pres, 26). Radioactivity.

Fye, Prof. Paul M(cDonald), U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Physical chemistry.* Johnstown, Pa, Aug. 6, 12. B.S, Albright Col, 35; univ. fellow, Columbia, 37–38, Ph.D, 39. Lab. asst. chem, Albright Col, 32–35; statutory asst. chem, Columbia, 35–39; asst. prof, Hofstra Col, 39–41; *research assoc. in nat. defense, Carnegie Inst. Tech, 41–* Chem. Soc. Photochemistry; formation of phosgene; gas kinetics; purification of gases; chlorine and carbon monoxide.

Fyler, Dr. Harriet Morgan, 561 Taft St, Gary, Ind. *Home economics.* Spanish Fork, Utah, July 3, 05. B.S, Utah Col, 26, A.M, 28; Ph.D, Cornell, 33. Laura Spelman Rockefeller fellow, 29; mem. staff, Elizabeth McCormick Mem. Fund, 33–35; asst. prof. home econ, col. agr, California, 35–38; nutritionist, council foods and nutrition, Am. Med. Asn, 38–41. Light therapy; the penetration of ultra-violet rays through clothing; nutrition and dietotherapy; cellulose in the diet; the relation of cookery to edible quality of vegetables; honey as the sweetening ingredient in cakes.

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Gaba, Prof. M(eyer) G(rupp), University of Nebraska, Lincoln, Nebr. *Mathematics.* Syracuse, N. Y, June 25, 84. B.S, Chicago, 07, M.S, 08, fellow, 13–14, Ph.D, 14. Instr. *math,* Kansas, 08–10; Dartmouth Col, 10–12; Mo. Sch. of Mines, 12–13; Cornell, 15–18; assoc. prof, *Nebraska,* 18–26, *prof,* 26–Math. Soc; Math. Asn; Deuts. Math. Verein; Circolo Mat. di Palermo. Foundations of mathematics.

Gabbard, Prof. James L(awrence), Michigan State Normal College, Ypsilanti, Mich. *Physical chemistry.* Cow Creek, Ky, June 2, 02. B.S, Kentucky, 26, M.S, 32; Ph.D, Northwestern, 40. Prin, high sch, Ky, 26–28; instr. *chem,* Kentucky, 28–41; *asst. prof, Mich. State Nor. Col, 41–; chemist, U. S. Bur. Mines, 42–* Tutorial fellow, Northwestern, 37–38. Chem. Soc. (sec'y-treas, Lexington sect, 39–41, chairman, 41–). Protium-deuterium ratio in normal water; the properties of lithium glass electrodes; comparison of hydrogen, glass and quinhydrone electrodes in salt solutions.

Gabbard, Letcher P, Agricultural and Mechanical College of Texas, College Station, Texas. *Agricultural economics.* Booneville, Ky. B.S.A, Tennessee, 15; M.S, Wisconsin, 21. *Chief div. farm and ranch econ, Exp. Sta, Agr. and Mech. Col. Texas, 22–* Farm Econ. Asn; Tax Asn; Tax Inst; Southwest. Social Sci. Asn. Large scale cotton production; systems of farming for the Black Prairies; planning the ranch for greater profits; inequalities in taxation of farm lands; taxation of intangibles; trend of taxes on farm lands; possible savings in local government; land tenure.

Gabel, Dr. Charles E(rnst), 1107 Oakmont Road, Charleston, W. Va. *Bacteriology.* Milwaukee, Wis, March 9, 77. B.S, Wisconsin, 99; Leipzig and Wurzburg, 00–02; Ph.D, Vienna, 03; Besançon; Trieste; Chicago. Instr. biol, Oklahoma, 04; teacher, schs, 05–07; prof. biol, Highland Park, 07–11; bacteriologist and asst. chemist, State Dairy and Food Cmn, Iowa, 11–13; bacteriologist, State Food Cmn, Ill, 13–14; senior bacteriologist, Milwaukee, 14–15; bacteriologist and pathologist, Bur. Science, P. I, 15–17; instr. bacter, sch. med, Texas, 17–18; director, State Hygienic Lab, W. Va, 18–28; city chemist and bacteriologist, Charleston, 28–35; prof. biol. and German, Kanawha Junior Col, 35–39; assoc. prof. mod. langs, Morris Harvey Col, 39–42; *city chemist and bacteriologist, Charleston, W. Va, 43–* Serologist, Chicago Munic. Tuber. Sanatorium, 17. Pub. Health Asn; Chem. Soc. Microscopy; microscopical examination of drugs; examination of catsups; pasteurization of milk; bacteriology of swimming pool, river and sea waters; clinical laboratory methods.

Gabel, Dr. Norman E, University of Arizona, Tucson, Ariz. *Physical anthropology.* Detroit, Mich, Nov. 6, 06. A.B, Michigan, 28; A.M, Arizona, 31; Ph.D, Harvard, 41. Instr. *anthrop, Arizona,* 36–41, *asst. prof, 42–* Comparative racial studies of southwestern American Indians.

Gabriel, Dr. Alton, U. S. Bureau of Mines, College Park, Md. *Chemistry.* Portland, Oregon, Sept. 2, 02. B.S, Oregon, 25, M.S, 27; Ph.D, Cornell, 30. Instr. chem, Oregon, 27–28; Roessler and Hasslacher Chem. Co, 30–32; *chemist and petrographer, U. S. Bur. Mines, 32–* Chem. Soc. Inorganic chemistry; optical chemistry.

Gabriel, Dr. Harry S, 310 College Ave, Ithaca, N. Y. *Agricultural economics.* Watkins Glen, N. Y, Oct. 8, 92. B.S, Cornell, 15, M.S, 20, Ph.D, 25; Oxford, 19; Harvard, 22, 24.

Instr, Cornell, 20–25; high sch, N. Y, 25–26; asst. agr. economist, Exp. Sta, Delaware, 26–36, assoc. agr. economist, 36–40; *retired.* Assoc. agr. economist, U. S. Dept. Agr, 21–22. Croix de Guerre; D.S. cross. Farm Econ. Asn. Marketing.

Gabrielson, Dr. Ira N(oel), U. S. Department of the Interior, Washington, D. C. *Biology.* Sioux Rapids, Iowa, Sept. 27, 89. A.B, Morningside Col, 12, LL.D, 41; hon. Sc.D, Oregon State Col, 36. Teacher, sch, Iowa, 12–15; sci. asst. and asst. biologist, bur. biol. surv, U. S. Dept. Agr, 15–35, asst. chief, div. wildlife research, 35, chief bur, 35–40; *director fish and wildlife service, U. S. Dept. Interior, 40–* Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Distribution and economic importance of birds and rodents; alpine plants.

Gadaire, Prof. C(harles) Rice, Belchertown Road, Ludlow, Mass. *Biology.* Brookfield, Mass, Aug. 16, 10. A.B, Clark, 32; Ph.D, Toronto, 35. Demonstrator *biol,* Toronto, 32–35; *prof, Am. Int. Col, 35–, head dept, 36–* A.A; Asn. Biol. Teachers. Embryology; comparative anatomy; histology.

Gaddis, Dr. Helen (Lewis), 450 N. Beverly Drive, Beverly Hills, Calif. *Chemistry.* New Haven, Conn, Oct. 22, 96. A.B, Mt. Holyoke Col, 21; hon. scholar, Yale, 22–23, Ph.D, 26; Paris, 26–27; Claremont Col, 28; D.O, Col. Osteopathic Physicians and Surg, 41. Instr. chem, Conn. Col, 25; Long Beach Junior Col, 28–29; research assoc. biochem, Stanford, 31–34; academic prin, Miss Harker's Sch, Palo Alto, 34–35; instr. math, Beverly Hills High Sch, Beverly Hills, 35–37; instr. and later *asst. prof. biochem, Col. Osteopath. Physicians and Surg, Los Angeles, 37–; practicing osteopathic physician and surgeon, 41–* Chem. Soc; Osteopathic Asn; Calif. Osteopathic Asn. Vapor pressures of aqueous salt solutions; vapor pressures of metals; absorption of water by bakelite; protein metabolism; specific dynamic action of amino acids; implications of the hydrogen ion concentration to the practicing physician; dietary management of acute fevers.

Gaddis, Prof. Shirley, Eureka College, Eureka, Ill. *Analytical chemistry.* Mt. Sterling, Ill, Feb. 12, 06. A.B, Iowa, 28, M.S, 30; summers, 31, 32, 33, Illinois, 34–35, 40–41; summers, Michigan, 34, 36, 38, Columbia, 39, Chicago, 40. Asst. prof. *chem,* Colo. State Col, 30–37; *prof,* Green Mountain Junior Col, 37–40; *Eureka Col, 41–* Chem. Soc. Tar from the low temperature carbonization of Iowa coals; semimicro qualitative analysis.

Gadwa, Dr. T(ruman) A(llen), 214 Hillcrest Road, Mt. Vernon, N. Y. *Chemical engineering.* Hood River, Oregon, June 5, 07. B.S, Oregon State Col, 29; M.S, Pa. State Col, 31; Sc.D, Mass. Inst. Tech, 36. Research chemist, Anaconda Copper Co, 29; lab. asst, Pa. State Col, 29–31; student engineer, Socony-Vacuum Oil Co, 31–34; *process engineer, Lummus Co, New York, 36–* Chemist, Westvaco Chlorine Products, 30. Electrochemistry; packed distillation columns; fractionation of binary mixtures.

Gaebler, Dr. O(liver) H(enry), Henry Ford Hospital, Detroit, Mich. *Biochemistry.* Swiss, Mo, Nov. 14, 95. A.B, Cent. Wesleyan Col, 17; A.M, Missouri, 20; fellow, Toronto, 20–22, Ph.D, 22; M.D, Cornell, 31. Asst. physiol, Rochester, 24; assoc. biochem, Iowa, 24–25, asst. prof, 26–27, asst. path. chemist, univ. hosp, 25–27; *assoc. chem, Henry Ford Hosp, 28–* A.A; Soc. Biol. Chem; Soc. Exp. Biol. Creatinine and creatine metabolism; acid base balance; energy metabolism; blood chemistry; action of anterior pituitary extracts.

Gaehr, Prof. Paul F(rederick), Wells College, Aurora, N. Y. *Experimental physics.* Thoune, Switzerland, May 15, 80. A.B, Cornell, 02, A.M, 05, Ph.D, 18. Asst. physics, Cornell, 01–03, instr, 03–08; head dept. math, Robert Col, Constantinople, 08–11; *prof. physics, Wells Col, 11–* Summer, engineer, West. Elec. Co, 18. Acting prof, S.A.T.C, Cornell, 18. A.A; Physical Soc; Optical Soc. Photometry; pyrometry with applications to measurements of alternating currents; frequency measurement.

Gaerttner, Dr. Erwin R(udolf), 44 Dalton Road, Belmont, Mass. *Physics.* Denver, Colo, Feb. 27, 11. B.S, Denver, 32; A.M, Michigan, 33, Ph.D, 37. Nat. research fellow, Calif. Inst. Tech, 37–38, Rackham fellow, 38–39; *instr. physics, Ohio State, 39–; mem. staff radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Nuclear physics.

Gaessler, Prof. W(illiam) G(eorge), Iowa State College, Ames, Iowa. *Chemistry.* St. Louis, Mo, Dec. 15, 88. Cincinnati, 07–08; B.S, Ohio State, 11, M.S, 19. Asst, *Exp. Sta, Iowa State Col,* 11–12, anal. chemist, 12–13, assoc. chemist, 13–14. asst. chief chemist. 14–17, acting chief chemist, 17–31, *research assoc. prof. plant chem, 31–* Agent, bur. plant indust, U. S. Dept. Agr, 35–42. Abstracter, 'Chem. Abstracts,' 13–A.A; Chem. Soc. (sec'y-treas, Ames sect, 15, 39, chairman, 19); Agr. Chem; fel. Iowa Acad. Agricultural, analytical and plant chemistry.

Gafafer, Dr. W(illia)m (McKinley), U. S. Public Health Service, Washington, D. C. *Public health.* New Brunswick, N. J, Dec. 3, 96. Ph.B, Brown, 20; A.M, Columbia, 21; California; Chicago; Western Reserve; Michigan; Sc.D, Hopkins, 29. From asst. to instr. math, Columbia, 21–26; assoc. biostatist, sch. hygiene and pub. health, Hopkins, 29–34; research assoc, *U. S. Pub. Health Service,* 34–35, *senior statistician, 35–* U.S.A, 17–19. A.A; Pub. Health Asn; Statist. Asn. Mortality, morbidity and compensation for injuries of workers.

Gaffert, Dr. Gustaf A, 1224 Cherry St, Winnetka, Ill. *Mechanical engineering.* Worcester, Mass, Sept. 2, 01. B.S, Worcester Polytech, 23, M.E, 25; fellow, Michigan, 33–34, Sc.D, 34. Instr. mech. eng, Illinois, 25–27; mem. mech. eng. staff, Sargent and Lundy, 27–32; asst. prof. heat-power eng, Worcester Polytech, 34–35; *mech. engineer and partner, Sargent and Lundy.* Mech. Eng. Steam power stations.

Gaffron, Dr. Hans, University of Chicago, Chicago, Ill. *Biochemistry.* Lima, Peru, May 17, 02. Ph.D, Berlin, 25. Asst, Kaiser Wilhelm Inst. Biol, 25–30, 36–37; Kaiser Wilhelm Inst. Biochem, 32–35; *research assoc. chem. and biochem, Chicago, 39–* Guest instr, Calif. Inst. Tech, 31; Hopkins Marine Sta, Pacific Grove, 38–39. A.A; Bot. Soc; Soc. Biol. Chem. Photochemistry of chlorophyll and porphyrine; metabolism of purple bacteria; photosynthesis.

Gage, Prof. Geo(rge) Edward, Massachusetts State College, Amherst, Mass. *Bacteriology.* Springfield, Mass, Dec. 30, 83. A.B, Clark, 06; A.M, Yale, 07, Ph.D, 09. Asst. bacter. and hygiene, Yale, 07–09; assoc. biologist in charge avian diseases, Exp. Sta, Maryland, 09–10, biologist, 10–11; asst. prof. animal path, Mass. Col, 11–13, assoc. prof, 13–20, prof, 20–27, head dept, 22–27, bacter. and physiol, 27–31, *Mass. State Col,* 31–40, *prof. physiol. and head dept, 40–* Physiol. chemist, sodium benzoate investigation, U. S. Dept. Agr, 08. Capt, Sanit.C, 18–19. A.A; Soc. Bact. Physiology; animal pathology; serology.

Gage, Prof. George R(aymond), Vanderbilt University, Nashville, Tenn. *Botany.* Atlantic City, N. J, Aug. 6, 90. B.S, Pa. State Col, 14; M.S, Mich. State Col, 15; Ph.D, Cornell, 26. Teaching fellow, Mich. State Col, 14–15; instr, Cornell, 15–17; assoc. prof, DePauw, 22–28; *prof. bot, Vanderbilt, 28–* A.S, U.S.A. A.A; Phytopath. Soc. Plant pathology.

Gage, Dr. H(enry) Phelps, Corning Glass Works, Corning, N. Y. *Physics.* Ithaca, N. Y, Oct. 4, 86. A.B, Cornell, 08, A.M, 09, Ph.D, 11. Asst. physics, Cornell, 08–09; *physicist, Corning Glass Works, 11–, chief optical div.* A.A; Optical Soc; Illum. Eng. Soc; Motion Picture Eng. Radiant efficiency of arc lamps; optic projection; types of signal lenses; optical properties of colored glasses; standardization of colored glass for lighthouse and aviation signals.

Gage, Dr. (Idys) M(ims), 1430 Tulane Ave, New Orleans, La. *Surgery.* Greenwood, S. C, 93. M.D, Tulane, 17. Clin. asst. surg, *sch. med, Tulane,* 19–27, instr. surg. path, 21–23, asst. operative surg, 23–27, asst. prof. *surg,* 27–30, *assoc. prof, 30–; lieut. col, Med. Corps, U. S. Army, 40–* Visiting surgeon, Charity Hosp, New Orleans, 23–30, senior visiting surgeon, 30–, assoc. chief surg. service, outpatient dispensary service, 30–, v. chairman hosp. staff, 30–31, chairman, 31–; asst. surg, Touro Infirmary, 19–22, junior assoc, 22–27, visiting surgeon, 27–; asst. surgeon, U. S. Pub. Health Service, Honduras, 21; consulting surgeon, Ill. Cent. Hosp, New Orleans. Instr, Med. Officers' Sch, Tulane, 18; lieut, M.C, 18–19. Fel. Col. Surg; Am. Med. Asn; Soc. Exp. Biol; Asn. Surg. Trauma; Surg. Asn; Southeast. Surg. Asn; South. Surg. Asn; South. Med. Asn. (sec'y, sect. on surg, 29). Ileus; vascular surgery; granuloma inguinale; peptic ulcer; thoracic surgery.

Gage, Dr. O(tis) A(msden), Corning Glass Works, Corning, N. Y. *Physics.* Bellona, N. Y, Oct. 14, 77. Ph.B, Rochester, 99; Ph.D, Cornell, 10. Asst. math, Rochester, 01–03; instr. physics, Cornell, 04–07; asst. prof, Wisconsin, 07–17; prof, Rutgers, 17–20; tech. rep, *Corning Glass Works,* 20–29, *div. sales manager, 29–* A.A; Optical Soc; Illum. Eng. Soc; Motion Picture Eng. Discharge of electricity through gases; light projection; optical glass.

Gage, Prof. S(imon) H(enry), Lock Box 70, Interlaken, N. Y. *[1]*Histology, Embryology.* Maryland, N. Y, May 20,

51. B.S, Cornell, 77. Asst. instr. vert. zool, *Cornell*, 78-81, asst. prof, 81-89, assoc. prof, 89-96, prof. *histol. and embryol, 96-08, emer. prof, 08-; pres, Comstock Publishing Co, Inc, 33-* Co-editor, 'Jour. Anat,' 01-21. Advisory board, Wistar Inst; trustee, Cornell, 20-22. Chairman sect. embryol, Int. Cong. Arts and Science, St. Louis, 04. A.A. (v. pres, 85, 92, 99); Soc. Nat; Soc. Zool; Asn. Anat; Micros. Soc. (pres, 95, 06); assoc. Am. Med. Asn; Soc. Amateur Micros. (pres, 39). Life histories of animals; comparative histology and embryology, especially of domestic animals and of some characteristic American forms; optics of the microscope; ultra-violet microscope; history of optical apparatus.

Gage, Prof. Victor R, Cornell University, Ithaca, N. Y. *Mechanical engineering.* Vineland, N. J, Nov. 26, 82. M.E, Cornell, 06, M.M.E, 10. From instr. to *prof. exp. eng, Sibley Col, Cornell, 07-* Aircraft Power Plant, Nat. Advisory Cmt. Aeronautics; Bur. Standards. Mech. Eng; Soc. Automotive Eng. Internal combustion engines.

Gager, Dr. Leslie T(racy), 5301 Massachusetts Ave, N. W, Washington, D. C. *Internal medicine.* Norwich, Conn, Aug. 27, 90. A.B, Yale, 16; M.D, Hopkins, 18. Intern, Sloane Hosp. for Women, 19; house physician, N. Y. Hosp, 20-21; instr. *med*, Cornell, 21-27; adj. prof, N. Y. Polyclinic, 23-27; clin. prof, George Washington, 29-32; *prof. and head dept, Howard, 31-; major, Med. Corps, U. S. Army, 42-* Hopkins Hosp, U.S.A, 17-19. Am. Med. Asn; Am. Heart Asn. (cmt. educ. and publicity); D. C. Med. Soc. (chairman, sect. internal med, 29); Wash. Soc. Path. (pres, 29); Wash. Heart Asn. (v. pres, 30-). Diseases of the heart and circulation; hypertension.

Gagg, R(udolph) F(arwell), 718 Manor Ave, Fair Lawn, N. J. *Mechanical engineering.* Denver, Colo, March 14, 02. B.S, Colorado, 23; M.E, Yale, 25. Asst. mech. eng, Yale, 23-25; asst. engineer, Diesel engine div, Climax Eng. Co, Clinton, Iowa, 25-27, asst. chief engineer, 28-30; exp. engineer, *Wright Aeronaut. Corp, Paterson, N. J*, 30-33, *asst. chief engineer, 33-* Lecturer, Stevens Inst. Tech, 33-37. Mech. Eng; fel. Inst. Aeronaut. Sci; Soc. Automotive Eng. Operating cycle; utilization of internal combustion engines, especially for aircraft.

Gagge, Dr. A(dolf) P(haro), Pierce Foundation, New Haven, Conn. *Physics, Biophysics.* Columbus, Ohio, Jan. 11, 08. A.B, Virginia, 29, A.M, 30; scholar, Yale, 31-32, Charles A. Coffin fellow, 31-33, Ph.D, 33. Instr. math, Virginia, 28-30, asst. physics, 29-30; *Yale*, 30-31, fellow, 33-35, instr. *biophys*, 36-39, *asst. prof, 39-; research physicist, John B. Pierce Foundation, Conn, 33-; major and chief biophys. branch, aeromed. lab, Wright Field, Air Corps, U. S. Army, 41-* Mem, subcmt. altitude chambers, Nat. Research Council, 41. A.A; Physical Soc; Physiol. Soc; Aero-Med. Asn. Scattering of electrons in gases; atmospheric ionization; environmental physiology; partitional calorimetry; metabolism; muscular activity; aviation physiology.

Gagnon, Prof. Paul E(douard), Laval University, Quebec, Que, Can. *Chemistry.* Kingsey, Que, Feb. 26, 01. B.A, Laval, 21, B.Sc, 26, Ph.D, 33; scholarships, provincial govt, Que, 26-29; D.Sc, Sorbonne, 29; D.I.C, London, 30. Demonstrator, *Laval*, 25-26, *prof. chem, 30-* Fel. Can. Inst. Chem. (treas, 34-, sec'y, Que. branch, 35-); Can. Chem. Asn. (pres, 40); fel. British Chem. Soc; Soc. chim. de France. Organic chemistry; indene and anthracene derivatives; inorganic chemistry; precipitation of carbonates.

Gahagan, Dr. Lawrence, Station Hospital, Army Air Field, Rome, N. Y. *Medicine, Psychology.* Dallas, Texas, Feb. 10, 04. B.S, Princeton, 25, A.M, 27, Ph.D, 29; M.D, Cornell, 41. Instr. and asst. prof. psychol, California at Los Angeles, 29-36; intern, Bellevue Hosp, 41-42; *capt, Med. Corps, U. S. Army, 41-* Assoc. psychologist, Children's Hosp, Los Angeles, 30-36. A.A. Sensory and clinical psychology; experimental neurology.

Gahan, A(rthur) B(urton), U. S. National Museum, Washington, D. C. *Entomology.* Manhattan, Kans, Dec. 9, 80. B.S, Kans. State Col, 03; M.S, Maryland, 06. Asst. entomologist, Maryland and Exp. Sta, 04-13; asst, *bur. entom. and plant quarantine, U. S. Dept. Agr*, 13-25, entomologist, 25-28, *senior entomologist, 28-* Fel. Entom. Soc. Amer; Entom. Soc. Wash. (recording sec'y, 15-18, v. pres, 19-21, pres, 22). Systematic entomolgy; parasitic Hymenoptera.

Gahan, James B(onnet), U. S. Department of Agriculture, Sanford, Fla. *Entomology.* Berwyn, Md, July 19, 09. B.S, Maryland, 30, M.S, 32. *Junior entomologist insect toxicol, bur. entom. and plant quarantine, U. S. Dept. Agr, 35-* Asn. Econ. Entom; Entom. Soc. Wash. Insect toxicology; development of new insecticides.

Gaige, Prof. Frederick M(cMahon), University of Michigan, Ann Arbor, Mich. *Zoology.* Ann Arbor, Mich, July 3, 90. B.S, Michigan, 13. *Curator insects, museum zool, Michigan, 14-, director, 28-,* instr. *zool*, 16-28, *assoc. prof, 28-* A.A. Taxonomy, ecology and zoogeography of Formicidae.

Gaige, Mrs. Helen T(hompson), University of Michigan, Ann Arbor, Mich. *Zoology.* A.B, Michigan, 09, A.M, 10. Asst, *museum zool, Michigan*, 10-18, asst. curator reptiles and amphibians, 18-23, *curator amphibians, 23-* A.A; Soc. Ichthyol. and Herp. (ed. in chief, 'Copeia,' 37-). Geographical distribution, habits and life histories of amphibians.

Gail, Prof. Albert, 1706 Abbott, Ann Arbor, Mich. *Aerodynamics.* Kraehenwinkel, Germany, Dec. 9, 08. Dipl. Ing, Tech. Hochschule, Munich, 32. Research engineer, Bayerische Flugzeugwerke, 33-36; research engineer, United Air Lines, Chicago, Ill, 37-40; *asst. prof. aeronaut. eng*, Ga. Tech, 40; Minnesota, 40-42; *Michigan, 42-* Inst. Aeronaut. Sci. Method of dynamically balancing propellers; analysis or aerodynamic effects of ice on aircraft; analysis of propeller-tip fuselage interference.

Gail, Prof. Floyd W(hitney), University of Idaho, Moscow, Idaho. *Botany.* Topeka, Kans, Oct. 16, 84. A.B, Nebraska, 11, A.M, 12; Denny fellow, Washington (Seattle), 19-20, Ph.D, 20. Teacher, high sch, Nebr, 12-13; instr. *bot, Idaho*, 13-14, asst. prof, 14-16, assoc. prof, 16-22, *prof*, 22- Summers, assoc. prof, Puget Sound Marine Sta, 18-22. A.A; Bot. Soc. Distribution of Fucus; distribution of Pinus contorta and of Pseudotsuga taxifolia in semi-arid regions of the Northwest; photosynthesis of some red algae; poisonous plants of Idaho; deep-sea illumination; osmotic pressure; hydrogen ion; root aeration.

Gaines, Prof. E(dward) F(ranklin), 315 Columbia, Pullman, Wash. *Plant genetics.* Avalon, Mo, Jan. 12, 86. B.S, State Col. Wash, 11, M.S, 13; Sc.D, Harvard, 21. Instr. agron, *State Col. Wash*, 11-18, asst. prof. farm crops, 18-23, assoc. prof, 23-30, *prof. genetics in agron, 30-*, asst. cerealist, *Exp. Sta*, 11-17, *cerealist, 17-* Asst, Harvard, 15, 21. Wash. rep, Nat. Corn Show, Dallas, 14. A.A; Genetic Asn; Bot. Soc; Phytopath. Soc; Soc. Agron. (v. pres, 25-27); Northwest Sci. Asn. (councilor, 28-33; pres, 39). Inheritance of disease resistance in cereals; crop improvement.

Gaines, J. C, Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Entomology.* Sims, Texas, May 11, 03. B.S, Ala. Polytech, 25, M.S, 26; Ph.D, Iowa State Col, 37. State plant inspector, Ala, 26; *entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 26-; capt, Sanit. Corps, U. S. Army, 43-* Asn. Econ. Entom; Texas Entom. Soc. Control and biology of cotton insects.

Gaines, J(ohn) G(ordon), Coastal Plain Experiment Station, Tifton, Ga. *Plant pathology.* Honea Path, S. C, Jan. 1, 00. B.S, Clemson Col, 22; M.S, Rutgers, 24; fellow, Cornell, 25-28. Asst. plant path, N. J. Exp. Sta, 23-24; *asst. plant pathologist, bur. plant indust, U. S. Dept. Agr, 29-, plant pathologist, Ga. Coastal Plain Exp. Sta, 38-* A.A; Phytopath. Soc; Mycol. Soc. Economic entomology; truck crop and tobacco disease control; diseases caused by nematodes.

Gaines, Dr. John M(arshall), Jr, 1187 Elmwood Ave, Buffalo, N. Y. *Chemistry.* New Haven, Conn, Oct. 31, 02. Ph.B, Yale, 24; M.S, Mass. Inst. Tech, 26, Ph.D, 31. Instr. chem. eng. practise, Mass. Inst. Tech, 26; asst. physical chemist, U. S. Bur. Mines, 26-29, assoc. physical chemist, 29; research assoc. physical chem, Mass. Inst. Tech, 31-33; research staff, *Linde Air Products Co, Tonawanda, N. Y*, 33-36, *asst. supt, 36-* Welding Soc. Certain physico-chemical aspects of iron and steel production; correlation of the platinum resistance thermometer with the absolute scale of temperature.

Gaines, Prof. P(aschal) C(lay), Montana State College, Bozeman, Mont. *Chemistry.* St. John, Wash, March 7, 98. B.S, State Col. Wash, 19, M.S, 31. Chemist, Three Forks Portland Cement Co, Mont, 19-23; Cowell Portland Cement Co, Calif, 23; instr. *chem, Mont. State Col*, 23-29, asst. prof, 29-35, assoc. prof, 35-41, *prof, 41-* Chem. Soc. Effect of impurities on the electrode potential of lead.

Gaines, R(obert) C(allaway), Tallulah, La. *Entomology.* Lanett, Ala, Oct. 16, 98. B.S, Ala. Polytech, 20. Field asst,

div. cotton insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 20–24, asst. entomologist, 24–28, assoc. entomologist, 28–30, *entomologist, 30–* Asn. Econ. Entom. (v. chairman, cotton states branch, 35). Cotton insects.

Gaines, Prof. R(obert) E(dwin), University of Richmond, Richmond, Va. *Mathematics.* Abbeville Co, S. C, Dec. 7, 60. A.B, Furman, 84, A.M, 86, hon. Litt.D, 07; Hopkins, 87–88; Harvard, 99–00. Instr. *math*, Furman, 82–87; *prof, Richmond, 90–*, chairman grad. dept, 29–39, dean, Richmond Col, 19–23. A.A; Math. Soc; Math. Asn; Va. Acad. Sci Problems; solutions.

Gaines, Dr. (Samuel) Newton, Texas Christian University, Ft. Worth, Texas. *Physics.* Ft. Worth, Texas, July 7, 90. E.E, Texas, 12, fellow, 23–24, A.M, 24, fellow, 29–30, Ph.D, 31. *Prof. physics and head dept, Texas Christian, 24–* A.C, U.S.A, 18–19. A.A; Physical Soc; Texas Folk-Lore Soc. (pres, 28); fel. Texas Acad. Magnetostriction; physical and bactericidal effects of intense audible sound; the teaching of physics.

Gaines, Prof. W(alter) L(ee), University of Illinois, Urbana, Ill. *Dairy husbandry.* Crete, Ill, March 17, 81. B.S, Illinois, 08; Ph.D, Chicago, 15. Instr, *Illinois*, 08–13, *prof. milk production, 18–* A.A; Dairy Sci. Asn; Soc. Animal Production; Genetic Asn. Physiology of lactation; milk production.

Gainey, Prof. P(ercy) L(eigh), 1123 Houston St, Manhattan, Kans. *Bacteriology.* Fayetteville, N. C, March 9, 87. B.S, N. C. State Col, 08, M.S, 10; fellow, Washington (St. Louis), 10–11, A.M, 11, Ph.D, 27. Asst. bacter, Exp. Sta, N. C. State Col, 08–10; instr. bot, Missouri, 11–14; asst. *bacter, Kans. State Col*, 14–15, instr, 15–17, asst. prof, 17–19, assoc. prof, 19–21, *prof, 21–, soil bacteriologist, Exp. Sta, 14–* Chilean Nitrate of Soda nitrogen award, 29. Soc. Bact; Soc. Agron; Kans. Acad; Int. Soc. Soil Sci. Soil bacteriology.

Gaiser, Prof. L(ulu) O(dell), McMaster University, Hamilton, Ont, Can. *Botany.* Crediton, Ont, June 1, 96. A.B, Western Ontario, 16; A.M, Columbia, 21, E. L. Smith fellow, 23–24, Ph.D, 27. Asst. bot, Barnard Col, Columbia, 21–22; junior pathologist, bur. plant indust, U. S. Dept. Agr, 24–25; lecturer, asst. and assoc. prof, *McMaster*, 25–36, *prof. bot, 36–, acting head dept. biol, 37–, head dept. bot, 42–* Bot. Soc. Cytology; cyto-taxonomy of flowering plants.

Galambos, Dr. Robert, Harvard Medical School, Boston, Mass. *Physiology.* Lorain, Ohio, April 20, 14. A.B, Oberlin Col, 35, A.M, 36; A.M, Harvard, 38, Ph.D, 41. Teaching fellow physiol, *Harvard Med. Sch*, 39–41, *tutor biochem, 41–* Physiol. Soc. Smooth muscle; avoidance of obstacles by bats; auditory nerve and audition.

Galbraith, Dr. F(rederic) W(illiam), 3rd, University of Arizona, Tucson, Ariz. *Geology, Mineralogy.* East Orange, N. J, May 23, 03. B.S, Harvard, 27, M.S, 28; fellow, Arizona, 34–35, Ph.D, 35. Instr. *geol, Arizona*, 35–40, *asst. prof, 41–, curator miner. museum, 40–* A.A; Miner. Soc; Min. and Metal. Eng; N. Y. Acad. Mineralogy of Arizona; structural geology of southern Arizona; economic geology; petrography; opaque microscopy; geology of the pioneer mining district; relationships of minerals in the brown iron ores; minerals of Arizona.

Galbraith, Prof. M(erle) G(amble), 121 Magnolia St, New Brunswick, N. J. *Mathematics.* Mt. Morris, N. Y, Aug. 20, 96. E.E, Rensselaer Polytech, 24; M.S, Rutgers, 34. Westinghouse Elec. and Mfg. Co, East Pittsburgh, 24–25; instr. mech. eng, Rensselaer Polytech, 25–26, *math*, 26–34; *asst. prof, Rutgers, 34–* The potential theory.

Galdston, Dr. Iago, 2 E. 103rd St, New York, N. Y. *Medicine.* Russia, Dec. 8, 95. B.S, M.D, Fordham, 21. Director health div, Community Council, New York, 18–20, educ. director and med. officer, Union Health Center, 20–22; director div. health educ, New York Tuber. Asn, 21–30; *sec'y med. information bur, N. Y. Acad. Med, 30–* Prof, Fordham; lecturer, sch. educ, N. Y. Univ; N. Y. Homeop. Med. Col; consultant, Nat. Tuber. Asn. A.A; fel. Pub. Health Asn; fel. Am. Med. Asn; fel. N. Y. Acad. Med. Preventive medicine; psychology of health education; psychiatry.

Gale, Prof. Arthur S(ullivan), University of Rochester, Rochester, N. Y. *Mathematics.* Appleton, Wis, June 26, 77. A.B, Yale, 99, Ph.D, 01. Instr. *math*, Yale, 02–05; asst. prof, *Rochester*, 05–06, *Fayerweather prof, 06–*, dean freshmen, 21–36, men, 36–39. A.A; Math. Soc; Math. Asn; Inst. Social Sci. Geometry.

Gale, Prof. Grant O(scar), 502 Tenth Ave, Grinnell, Iowa. *Electrical engineering.* Prentice, Wis, Dec. 29, 03. B.S, Wisconsin, 26; M.S, Michigan, 33. Mem. eng. dept, Ill. Bell Tel. Co, 27; estimator, Kewaunee Mfg. Co, 28; *Grinnell Col, 29–, prof. physics and chairman dept.* Physical Soc; Asn. Physics Teachers. Temperature changes accompanying the adiabatic expansion and compression of metal wires.

Gale, Dr. Hoyt Rodney, 1775 Hill Drive, Eagle Rock, Los Angeles, Calif. *Geology, Economics.* Boston, Mass, Aug. 1, 04. A.B, Harvard, 26; Ph.D, Stanford, 29; A.M, California at Los Angeles, 36. Field geologist, Gulf Production Co, Texas, 30–31; asst. geologist, U. S. Gen. Land Office, Denver, 31–34; consulting geologist, 34–37; *teacher, Pasadena Junior Col, 38–* A.A; assoc. Petrol. Geol; Paleont. Soc; Econ. Asn; San Diego Soc. Nat. Hist. General geology; stratigraphy; Tertiary molluscan paleontology; Pliocene and Pleistocene Mollusca of California; business cycles.

Gale, Hoyt S(toddard), 1775 Hill Drive, Los Angeles, Calif. **[3]*Geology.* Cleveland, Ohio, Dec. 9, 76. A.B, Harvard, 00, B.S, 02. Asst. geologist, U. S. Geol. Surv, 02–10, geologist, 10–20, in charge sect. non-metal deposits, 12–20; staff geologist, Gulf Oil Corp, 21–23, in charge operations, Pacific coast, 23–29; *consulting geologist, 29–* A.A; Geol. Soc. (councilor, 37; v. chairman, Cordilleran sect, 42). General stratigraphic and structural geology; occurrence of oil and non-metallic minerals.

Gale, W(illiam) A(lexander), Box 84, Trona, Calif. *Physical chemistry, Chemical engineering.* Lakefield, Ont, Can, Feb. 3, 98. B.A.Sc, British Columbia, 22, Nat. Research Council Can. bursar, 22–23, M.A.Sc, 23. Research chemist, *Am. Potash and Chem. Corp, Calif, 23–27*, asst. director *research*, 27–33, *director, 33–* F.A, C.E.F, 16–19. A.A; Chem. Soc. Equilibria of salts in aqueous solution; development of processes for recovering constituents of Searles Lake brine.

Gall, Dr. Edward A(lfred), Bethesda Hospital, Cincinnati, Ohio. *Pathology.* New York, N. Y, June 10, 06. M.D, Tulane, 31. Instr. *path*, med. sch, Tufts Col, 35–40; Harvard Med. Sch, 40–41; *asst. prof, col. med, Cincinnati, 41–; major, Med. Corps, U. S. Army.* Pathologist, Bethesda Hosp, 41– Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Am. Med. Asn; Ohio Soc. Path; Cincinnati Acad. Med. Diseases of hematopoietic system; benzol poisoning; malignant lymphoma; pathologic effects of irradiation; infectious mononucleosis.

Gall, Dr. John F(rederick), Stonehurst Court Apts, Upper Darby, Pa. *Physical chemistry.* Chicago, Ill, April 15, 13. B.S, Northwestern, 34; univ. fellow, Chicago, 36–37, Ph.D, 39. Asst, Chicago, 37–38; *research physical chemist, Pa. Salt Mfg. Co, 38–* A.A; Chem. Soc; Electrochem. Soc. Electrochemistry; thermodynamics; calorimetry; electrolytic processes; percompounds; light metals; irreversible electrode phenomena.

Gallagher, Constance D(ann), 51 Highland Road, Andover, Mass. *Bacteriology.* New Haven, Conn, Feb. 16, 05. A.B, Vassar Col, 26. Technician, sch. med, Yale, 26–27, asst, 27–30; Henry Phipps Inst, Pennsylvania, 31–32; *investigative work, Phillips Acad.* Variants of streptococci; blood studies in health and disease among adolescents; color vision; tetanus toxoid in adolescents.

Gallagher, Dr. David, U. S. Geological Survey, Room 4212, Interior Bldg-N, Washington, D. C. *Economic geology.* Roxbury, Mass, May 4, 06. B.S, Yale, 29, Ph.D, 35; Harvard, 30–31. Instr. geol, Yale, 32–35, Samuel Franklin Emmons Mem. fellow, 39–40; geologist, Rhodesian Minerals Concession, Lusaka, North Rhodesia, Africa, 29–30; geologist, East African Goldfields, Ltd, Chunya, Tanganyika Territory, 35–38; from recorder to *geologist, U. S. Geol. Surv, 40–* Min. and Metal. Eng; Miner. Soc; Geol. Soc. S. Africa. Origin of the magnetite deposits of Lyon Mountain, New York; preliminary account of the geology of the Lupa Goldfield; albite and gold; geology of the quicksilver deposits near the Little Missouri River, Arkansas; mercury deposits of Mexico.

Gallagher, Dr. Fred W(illiam), 1402 S. Grand Blvd, St. Louis, Mo. *Bacteriology.* Cleveland, Ohio, Sept. 8, 03. A.B, Western Reserve, 29; A.M, Ohio State, 36, Eli Lilly Co. research fellow, 37–39, Ph.D, 39. Chemist, City Div. Water Purification and Sewage Treatment, Cleveland, Ohio, 29–33; *instr. bacter, sch. med, St. Louis, 39–* Propagation of virus agents in mammalian fetuses; chemotherapy of staphylococcal infections; the Rh antigen and erythroblastosis fetalis.

Gallagher, Dr. J(oseph) F(rancis Howard), 207 Fairfax Ave, Nashville, Tenn. *Surgery.* Nashville, Tenn, Feb. 13, 84. M.D, Nashville. 06. Demonstrator anat. and asst. to chair surg, med. dept, Nashville, 07–11; asst. to chairs, *sch. med, Vanderbilt,* 11–13, *asst. prof. gynec, 13–* Trustee, Nashville, 12. Ed, 'Jour. Tenn. State Med. Asn,' 25–28. Am. Med. Asn; fel. Col. Surg; Tenn. Acad. Gynecology; diseases of the vulva; displacements of the uterus; fractures of the femur.

Gallagher, Dr. Milton, Joseph E. Seagram and Sons, Inc, Louisville, Ky. *Chemistry.* Peru, Ill, May 13, 04. B.S, Illinois, 26, Ph.D, 34; M.S, Pittsburgh, 28. Asst. chem, Pittsburgh, 26–28; research chemist, Atmospheric Nitrogen Corp, Syracuse, N. Y, 28–29; asst. chem, Illinois, 30–34; research chemist, Tenn. Eastman Corp, 34–37; *research chemist and chief control chemist, Joseph E. Seagram and Sons, 37–* Chem. Soc. Physical chemistry.

Gallagher, Prof. R(obert) T(aylor), Lehigh University, Bethlehem, Pa. *Mining.* Johnstown, Pa, July 17, 05. B.S, Pa. State Col, 27; A.M, Missouri, 38; Dr. E.M, Colo. Sch. Mines, 41. Student engineer, Bethlehem Mines Corp, 27–29; instr. mining, Pa. State Col, 29–31; commercial accountant, 31–38; instr. *mining,* Colo. Sch. Mines, 38–42; *asst. prof, Lehigh, 42–* Min. and Metal. Eng. Mining subsidence in block caving; geophysics as a solution for mining problems.

Gallagher, Prof. T(homas) F(rancis), University of Chicago, Chicago, Ill. *Biochemistry.* Chicago, Ill, Dec. 29, 05. A.B, Fordham, 27; fellow, Chicago, 28–30, Ph.D, 31. Research assoc, *Chicago,* 31–37, asst. prof. *biochem,* 37–41, *assoc. prof, 41–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Study Int. Secretions. Biochemistry of testicular hormones; bile acids; pituitary hormones.

Gallaher, Dr. W(illia)m U(rnn), 838 E. Alton St, Appleton, Wis. *Water chemistry.* Warren, Ill, April 3, 98. B.S, Iowa, 20, M.S, 21; Ph.D, Illinois, 24. Supt. purification, Water Works, Highland Park, Mich, 24–27; asst. sanit. engineer, State Board Health, Wis, 28–29; chief chemist, Community Water Service, Harrisburg, Pa, 30–31; *supt. pumping and purification, Water Works, Appleton, 32–* Special lecturer, inst. paper chem, Lawrence Col. Chem. Eng; Water Works Asn. (chairman, Wis. sect, 38; director water purification div, 43). Water treatment.

Gallalee, Prof. John M(orin), University of Alabama, University, Ala. *Mechanical engineering.* Portsmouth, Va, May 4, 83. M.E, Virginia, 11, Sc.D, Alabama. Engineer, Dupont Co, 12; *prof. mech. eng. and head dept, Alabama, 12–* Prof, Wisconsin, 20–21; consulting engineer. Mech. Eng; Eng. Educ. Steam plant design, construction and operation.

Gallaugher, Dr. Arthur F(rederick), 4645 W. Fourth Ave, Vancouver, B. C, Can. *Chemistry.* Londonderry, Ireland, June 14, 05. B.A, British Columbia, 26, M.A, 28; Ph.D, McGill, 32. Asst. chem, British Columbia, 26–28; asst. chemist, Powell River Co, B. C, 28; instr. chem, Haverford Col, 28–29; chief chemist, Interlake Tissue Mills Co, Merritton, Ont, 31–33; *director, West. Chem. Industries, Vancouver, 34–* Physical and chemical properties of the polyethylene glycols and their derivatives; industrial chemistry of British Columbia fish oils and fish liver oils.

Gallay, Dr. W(ilfred), National Research Council, Ottawa, Ont, Can. *Chemistry.* Hawkesbury, Ont, April 12, 07. B.A, Alberta, McGill, 27, M.Sc, 28, Ph.D, 30. Demonstrator chem, McGill, 27–28, Moyse traveling fellow, Leipzig, 30, Kaiser Wilhelm Inst, 31; *in charge colloids and plastics lab, Nat. Research Council Can, 32–* Soc. Chem. Indust. (exec. cmt, 37). Colloid chemistry; starch; leather; lubricating greases; clays; plastics; casein; adhesives; polymerization.

Gallent, Prof. John B(ryant), Davidson College, Davidson, N. C. *Chemistry.* Wylam, Ala, March 28, 02. B.S, Davidson Col, 25; M.S, North Carolina, 28, Ph.D, 30. Teacher, pub. schs, N. C, 25–27; prof. *chem,* Jonesboro Agr. and Mech. Col, 30–31; Brenau Col, 31–42; *assoc. prof, Davidson Col, 42–* Composition of satin white; sulfonation of vegetable oils.

Galligar, Dr. Gladys C(harlotte), James Millikin University, Decatur, Ill. *Botany.* Fairfield, Ill, June 2, 04. Dorothy Frances Rice scholar, biol. lab, Cold Spring Harbor, 28, 34; A.B, James Millikin, 31; A.M, Illinois, 32, fellow, 33–34, Ph.D, 34. Asst. bot, Illinois, 32–33; instr. *biol, James Millikin,* 34–36, *asst. prof, 37–* Summers, asst, Illinois, 32. A.A; Bot. Soc; Soc. Plant Physiol; Ill. Acad. Tissue culture; bryophytes; plant physiology; prairie restoration.

Galliher, Dr. E(dgar) Wayne, 929 Petroleum Securities Bldg, Los Angeles, Calif. *Geology.* McPherson, Kans, Sept. 10, 07. A.B, Stanford, 29, A.M, 31, Ph.D, 32. Consultant, 32–35; geologist, *Barnsdall Oil Co,* 35–37, *chief geologist, 37–* Research assoc, Stanford, 35. Fel. Geol. Soc; Asn. Petrol. Geol. Recent marine sedimentation; petrology of glauconite; diagenesis of marine sediments.

Gallo, Prof. Joaquin, National Astronomical Observatory, Tacubaya, Mex. *Astronomy.* Mexico City, Nov. 24, 82. Geod.E, Mexico, 08. Aid and asst, *Nat. Astron. Observatory,* 03–04, computer and astronomer, 04–14, acting director, 14–15, *director, 15–; prof. math. and astron, Mexico, 12–* Eclipse exped, Spain, 05; Mex, 08. Astrographic Cong, Paris, 09, Rome, 22. Astron. Soc; Astron. Union; Soc. Astron. de Mex; Soc. Mex. de Geog. y Estadistica. Catalogue of photographs.

Galloway, Dr. D(avid) H(enry), P. O. Box 893, Roswell, N. Mex. *Medicine.* Bellevue, Iowa, Jan. 24, 59. Ph.G, Chicago Col. Pharmacy, 85; Harvard, summers, 87–90; M.D, Col. Physicians and Surg, Chicago, 93. Prof. anal. chem. and sec'y, Chicago Col. Pharmacy, 87–89; lecturer chem. and curator labs, Col. Physicians and Surg, Chicago, 92–93; *practising physician, 93–* Asst. surgeon, Mex. Cent. R. R, 93–95. A.A. Administration of anesthetics in surgery.

Galloway, Prof. J(esse) J(ames), Indiana University, Bloomington, Ind. *Geology, Paleontology.* Cromwell, Ind, Aug. 23, 82. A.B, Indiana, 09, fellow, 10–13, A.M, 11, Ph.D, 13. Instr. geol, Indiana, 13–16; curator paleont, Columbia, 16–17, instr, 17–21, asst. prof, 21–31, assoc. prof, 31; *prof. geol. and paleont, Indiana, 31–* Field asst, U. S. Geol. Surv, 07, 08, 10, 14. A.A; Geol. Soc; Paleont. Soc. (v. pres, 31); Asn. Petrol. Geol; Soc. Econ. Paleont. (pres, 27); Ind. Acad; N. Y. Acad. (v. pres, 29). Stratigraphy; micropaleontology; Ordovician stratigraphy and paleontology; Paleozoic Bryozoa; lithogenesis of sedimentary rocks; Foraminifera; petroleum geology; Stromatoporidae.

Gallup, Prof. Willis D(elancy), 313 Monticello Drive, Stillwater, Okla. *Biochemistry, Nutrition.* Clymer, N. Y, March 30, 99. B.S, State Col. Wash, 22; M.S, Okla. Agr. and Mech. Col, 27; California, 29–30; Ph.D, Cornell, 37. Instr. *agr. chem. research, Okla. Agr. and Mech. Col,* 22–27, asst. prof, 27–37, assoc. prof, 37–40, *prof, 40–,* asst. chemist, *Exp. Sta,* 22–37, assoc. chemist, 37–40, *chemist, 40–* Chem. Soc; Soc. Biol. Chem; Okla. Acad. Gossypol in cottonseed products; vitamins; protein digestibility; perosis in chicks; carotene requirements of dairy cattle; chemical and physical properties of butterfat.

Galpin, Dr. C(harles) J(osiah), Falls Church, Va. *Agricultural economics.* Hamilton, N. Y, March 16, 64. A.B, Colgate, 85, A.M, 88, Litt.D, 19; A.M, Harvard, 95; Clark, 98; Wisconsin, 08. Prof. hist, Kalamazoo Col, 88–91; prin, Union Acad, N. Y, 91–01; pastor, Univ. Wisconsin, 05–11, asst. prof. and assoc. prof. agr. econ, 11–19; economist in charge div. farm population and rural life, bur. agr. econ, U. S. Dept. Agr, 19–34. Mem. cmt. rural life research, Cmn. int. pour l'Embellissement de la Vie rurale; mem. nat. cmt. rural scouting and nat. council, Boy Scouts of Amer. Award, King of Belgium, 27. U. S. del, gen. assembly, Int. Nat. Agr, Rome, 26. Sociol. Soc. (v. pres, 32); Econ. Asn; Farm Econ. Asn; assoc. mem. Int. Inst. Sociol; cor. mem. Czechoslovak. Acad. Agr. Rural sociology; ecology of the rural community; farm population and its migrations; social aspects of farm tenancy.

Galpin, Dr. S(idney) L(ongman), 44 Jones Ave, Morgantown, W. Va. *Geology, Hydrology.* Jefferson, Ohio, Oct. 29, 86. A.B, Western Reserve, 07; A.M, Cornell, 10, Ph.D, 12. Asst. geol, Cornell, 07–10, instr, 10–12; asst. state geologist, Ga, 12–13; asst. prof. and assoc. prof. geol, Iowa State Col, 14–27; prof. and head dept, West Virginia, 27–34; *land consultant and assoc. consultant, Nat. Resources Cmt, 34–; hydrologist, Exp. Sta, West Virginia, 38–* Junior geologist, U. S. Geol. Surv, 10; asst. geologist, Iowa Geol. Surv, 16–17. Geol. Soc; Asn. Petrol. Geol; Ceramic Soc; Soil Sci. Soc. Clays; feldspar; quartz; mica; petroleum; coal; land utilization; water resources.

Galstaun, Dr. Lionel S(amuel), 3476 21st St, San Francisco, Calif. *Physical chemistry.* Kediri, Java, Dec. 17, 13. B.S, Dayton, 33; M.S, Mass. Inst. Tech, 34, Ph.D, 36. Reader and asst. chem, Mass. Inst. Tech, 34–36; *research chemist, Tide Water Associated Oil Co, 36–* Chem. Soc. System palladium and hydrogen; recovery of petroleum by-products; lubrication; distillation design; aviation gasoline.

Galt, Dr. Rogers H(arrison), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* San Francisco, Calif, July 3, 89. A.B, Hopkins, 07, Ph.D, 10. Instr. physics, Lehigh, 10; observer, dept. terrestrial magnetism, Carnegie Institution, 12; instr. physics, Stevens Inst. Tech, 12; prof, Univ. of the South, 13–16; *research physicist, West. Elec. Co. and Bell Tel. Labs, 19–* U.S.A, 17–19. A.A; Physical Soc; Acoustical Soc. Optics; acoustics.

Galt, Dr. William, Lifwynn Foundation, 27 E. 37th St, New York, N. Y. *Psychology.* Selma, Ala, May 5, 04. B.S, Columbia, 31, A.M, 32, Ph.D, 39. *Sci. asst, Lifwynn Foundation, 31–* Asst, research project, Council Research in the Social Sciences, 38–39. Abstracter, 'Biol. Abstracts.' A.A; assoc. Psychol. Asn; Psychopath. Asn; Sociol. Soc; South. Soc. Philos. and Psychol; N. Y. Acad. Phyloanalysis; social psychology; animal psychology.

Galtsoff, Dr. Paul S(imon), U. S. Fish and Wildlife Service, College Park, Md. *[5]*Zoology.* Moscow, Russia, March 28, 87. Grad, Imp. Moscow Univ, 10; Ph.D, Columbia, 25. Instr. zool, Moscow, 10–14; privat-docent, Univ. Crimea, Russia, 18; senior zoologist in charge, Sebastopol Biol. Sta, Russian Acad. Science, 17–21; naturalist, 'Albatross,' Bur. Fisheries, 22–25, biologist, 25–30, *senior biologist,* 30–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Director biol. sta, Kossino, Russia, 10–14; research assoc, grad. council, George Washington, 42. Exped, Russian Acad. Science to Black Sea and Bosporus, 14. Trustee, Bermuda Biol. Sta. A.A; Soc. Zool; Geophys. Union; Soc. Nat; Wash. Acad. Fresh-water biology; oceanographical observations along Atlantic Coast and Gulf of Mexico; regeneration of sponges; physiology and ecology of the oyster; physiology of reproduction and sex change in oysters; sponge mortality in the British West Indies.

Galvez, Prof. Nicolas L(aw), College of Agriculture, University of the Philippines, Laguna, P. I. *Soils.* Bay, Laguna, P. I, May 5, 05. B.S, Minnesota, 25; Ph.D, Göttingen, 34. Asst. sugar chemist, Pampanga Sugar Mills, 25–26; instr. agr. chem, *agr. col, Philippines,* 26–32, *asst. prof. soil chem, 35–* Assoc. Nat. Research Council P. I. Los Baños Biol. Club. Soil chemistry and fertility; fertilizers.

Gamble, Dr. Dean L(aFever), P. O. Box 24, Beechwood Station, Rochester, N. Y. *Zoology.* Olean, N. Y, Dec. 11, 92. B.S, Cornell, 16, Ph.D, 21. Asst. zool, Cornell, 16–18, instr, 18–22, asst. prof, 22–24; head dept, Gen. Biol. Supply House, Chicago, 24–30, v. pres, 30; *pres, Ward's Nat. Science Estab, Rochester, 31–* Asn. Anat; Rochester Acad. (v. pres). Comparative vertebrate morphology.

Gamble, Dr. E(dmund) Lee, Massachusetts Institute of Technology, Cambridge, Mass. *Inorganic chemistry.* Haymarket, Va, June 10, 06. B.S, Washington and Lee, 29; M.S, Mass. Inst. Tech, 30, Ph.D, 32; Sorbonñe, 33. Research assoc. *chem, Mass. Inst. Tech,* 33–36, instr, 36–37, *asst. prof, 37–* Chem. Soc. Chemistry of fluorine, silicon and boron.

Gamble, Dr. James A(lexander), 3100 24th St, N. E, Washington, D. C. *Animal husbandry.* Waupaca, Wis, Oct. 10, 82. B.S, Conn. Agr. Col, 09; M.S, George Washington, 15, Ph.D, 28. Exp. sta. farm, Georgetown, Conn, 09; chemist and bacteriologist, Board Health, Springfield, Mass, 09–14; market milk specialist, bur. animal indust, U. S. Dept. Agr, 14–18; prof. dairy husbandry, Maryland, 18–25; purchasing dept, West. Md. Dairy Corp, Baltimore, 25–27; *senior milk technologist, bur. animal indust, U. S. Dept. Agr, 27–* Analyst, State Board Agr, Mass, 11–14; mem. animal breeding cmt, Nat. Research Council, chairman surv. cmt; South. Live Stock Research Board, 20–26. Assoc. ed, 'Jour. Dairy Science,' 20–27. Nat. Research Council del, World's Dairy Cong, Washington, D. C, 23. Soc. Animal Production; Dairy Sci. Asn. (sec'y, south. sect, 20–24, v. pres, 24, chairman, production sect, 25); Asn. South. Agr. Workers (sec'y, animal husbandry sect, 20). Dairy husbandry; breeding and feeding of cattle; nutrition; chemistry; bacteriology; quality control of products and milk substitutes and supplements in the rearing of the young of farm animals; cattle products improvement.

Gamble, Dr. James L(awder), Harvard Medical School, Boston, Mass. *Physiology.* Millersburg, Ky, July 18, 83. A.B, Stanford, 06; M.D, Harvard, 10; hon. M.S, Yale, 30. Instr. *pediat,* sch. med, Hopkins, 15–18, assoc, 18–22; asst. prof, *Harvard Med. Sch,* 22–25, assoc. prof, 25–32, *prof, 32–* A.A; Pediat. Soc; Soc. Exp. Biol; Soc. Clin. Invest. (v. pres, 28–); Soc. Biol. Chem. Metabolism of inorganic substances.

Gamble, Prof. J(ohn) T(aylor), Thiel College, Greenville, Pa. *Zoology.* Moline, Ill, April 29, 00. B.S, Thiel Col, 25; M.S, Pittsburgh, 27, Ph.D, 31. Asst, Pittsburgh, 26–28; instr. *zool, Thiel Col,* 25, 28–30, asst. prof, 30–31, *prof, 31–* Summers, instr, Pittsburgh, 27, 28, 30. Ecology of aquatic Coleoptera.

Gamble, Dr. W(illiam) G(adsen), Jr, Clinical Laboratories, 2010 Fifth Ave, Bay City, Mich. *Pathology.* Kingstree, S. C, April 2, 97. Mil. Col. S. C, 15; Col. of Charleston, 18; M.D, Med. Col. State of S. C, 24. Pathologist, Florence Hosp, 24–26; asst. director labs, Roper Hosp, Charleston, 26–28; instr. clin. path, Med. Col. State of S. C, 26–28; asst. pathologist and parasitologist, Nat. Path. Labs, Chicago, 28–29; *pathologist and director labs, Clin. Labs, Mercy and Gen. Hosps, Bay City, and Mercy Hosp, Cadillac, Mich, 29–* Lecturer, Med. Col. State of S. C, 27–28; sch. med, Washington (St. Louis). Chief 5th med. dist, Emergency Med. Service; disaster cmt, Am. Red Cross. Fel. Soc. Clin. Path; Soc. Parasitol; Col. Physicians; Soc. Trop. Med; Am. Med. Asn; Mich. Soc. Path. Clinical pathology; parasitology.

Gamble, Prof. William H(enry), 627 Medary Ave, Brookings, S. Dak. *Electrical engineering.* Wessington, S. Dak, April 2, 03. B.S, S. Dak. State Col, 25; Wis. Utilities fellow, Wisconsin, 27–28, M.S, 29. Instr. mech. eng, S. Dak. State Col, 25–27; *elec. eng,* Arizona, 28–29; asst. prof, *S. Dak. State Col,* 29–34, assoc. prof, 34–41, *prof. and head dept, 41–* Engineer in charge of construction and operation, KFDY, 32–40; in educational charge eng, science and management training radio classes, S. Dak. Elec. Eng; Eng. Educ. (v. pres. Dak. chap); S. Dak. Eng. and Archit. (v. pres, 43). Communication; radio.

Gambrell, Dr. F(oster) L(ee), New York State Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Pendleton, S. C, Oct. 31, 00. B.S, Clemson Col, 23; M.S, Ohio State, 25, fellow, 29–30, Ph.D, 30. Asst. zool. and entom, Ohio State, 23–25; *entom, N. Y. Exp. Sta, Geneva,* 25–38, *asst. prof, 38–,* assoc. research, 38–41. Summers, asst, Exp. Sta, Clemson Col, 23; nat. research fellow, 24. Asn. Econ. Entom. Fruit-flies; red spiders; nursery, shade tree and ornamental insects.

Gambrell, Dr. W(inton) Elizabeth, Emory University, Ga. *Hygiene, Bacteriology.* Abbeville, S. C, June 7, 03. A.B, Randolph-Macon Womans Col, 25; M.S, Emory, 31; fellow, Chicago, 34–36, Ph.D, 37; Commonwealth Fund fellow, Hopkins, 40–41, M.P.H, 41; Sch. Trop. Med, San Juan, 41. *Instr,* high sch, S. C, 25–28; *bacter, Emory, 28–* Ricketts prize, 37. A.A; Soc. Trop. Med; Soc. Bact; Ga. Asn. Path; Ga. Acad. Pathogenic Protozoa and bacteria; malaria.

Gambrill, Charles M(cDonald), 1600 W. Eight Mile Road, Detroit, Mich. *Chemistry.* Baltimore, Md, Aug. 19, 01. B.S, Maryland, 24; Western Reserve, 36; Wayne, 36. Chemist, Hagen Corp, 24–25; asst. works chemist, Mathieson Alkali Works, Inc, 25–28; *research chemist and chief analyst, Ethyl Corp, 28–* Chem. Soc; Detroit Asn. Anal. Chem. (sec'y-treas, 41–, chairman, 43). Organo-metallics; research analyses; fuels and oils.

Gammon, Dr. George D(avis), University Hospital, 36th and Spruce Sts, Philadelphia, Pa. *Medicine.* Waxahachie, Texas, April 26, 02. A.B, Texas, 24; M.D, Pennsylvania, 27, Bok fellow, 29–30, fellow, 32, Godey-Seeger fellow, 33–38. Intern, univ. hosp, Pennsylvania, 27–29; *instr. med,* med. col, Baylor, 30–32; *Pennsylvania, 33–,* neur, 36–38, assoc, 38–42, *assoc. prof. clin. neur. and acting head dept, 42–* Outpatient physician in charge neurol. and consultant in wards, Children's Hosp, 38– Mem, Neurotropic Virus Cmn, U. S. Army, 41– Soc. Clin. Invest; Phila. Neur. Soc. (sec'y, 40–); fel. Col. Physicians Phila; Phila. Physiol. Soc. Chemistry of gastric juice; diseases of muscle; relation of potassium to family periodic paralysis; myasthenia gravis; myotonia; muscular dystrophy; action potentials of Pacinian corpuscles; sensory stimulation and brain action potentials.

Gamow, Prof. G(eorge), George Washington University, Washington, D. C. *[6]*Theoretical physics.* Odessa, Russia, March 4, 04. Dr.Physics, Leningrad, 28. Fellow, physics inst, Copenhagen, 28–29, 30–31; Rockefeller fellow, Cambridge, 29–30; *prof,* Leningrad, 31–33; *theoret. physics, George Washington, 34–* Visiting prof, Paris, 33. Summers, prof, Michigan, 34; Stanford, 36. Mem. Physical Cong, Rome, 31, London, 34, Solvay Cong, Brussels, 33; Int. Cong. Physics, Warsaw, 38. Physical Soc; Philos. Soc. Wash. The structure of the atomic nuclei and the properties of elementary particles; problems of stellar energy and evolution.

Gamrath, Dr. H(arry) R(andolph), Monsanto Chemical Co, St. Louis, Mo. *Organic chemistry.* Detroit, Mich, March 24, 08. B.S, Michigan, 31, Prescott fellow, 31, M.S, 32, Monsanto fellow, 34, Ph.D, 34. Asst, Michigan, 32–33; *research chemist, Monsanto Chem. Co, 34–* A.A; Genetic Asn; Chem. Soc. Industrial organic chemistry.

Gandrud, B(ennie) W(illiam), U. S. Bureau of Mines, University, Ala. *Metallurgy.* Glenwood, Minn, May 7, 94. Park Region Col; E.M, Minnesota, 21. State Highway Dept, Minn, 21–22; Fairview Fluorspar and Lead Co, Ill, 22–23; metallurgist and acting supervising engineer, *south. exp. sta, U. S. Bur. Mines,* 23–32, supervising engineer, 32–38, *metallurgist, 39–* Min. and Metal. Eng; Ala. Acad. Cleaning and preparation of coal; treatment and beneficiation of low grade metallic and non-metallic ores, especially iron, aluminum and graphite ores.

Gane, Dr. Henry S(tewart), Box 71, Vista, Calif. *Paleontology.* West Newton, Mass, May 30, 69. A.B, Amherst Col, 91; Ph.D, Hopkins, 95. With U. S. Geol. Surv; *retired.* Geol. Soc.

Gangloff, Dr. W(ilmer) C(harles), 27 Parkwood Place, Cincinnati, Ohio. *Chemistry.* Sandusky, Ohio, May 19, 93. A.B, A.M, Ohio State, 15, fellow, 16–17, Ph.D, 17. Asst. chem, Ohio State, 13–16; asst. chemist, Ohio Exp. Sta, 16; research chemist, Nat. Aniline and Chem. Co, 17–22; chief chemist, Dextro Products, Inc, 23; head dept. science, Judson Col, 24–25; *chem. director, Drackett Chem. Co, Cincinnati, 25–* Chem. Soc. Heavy chemicals; pharmaceuticals; organic and photographic products; cosmetics; action of anhydrous aluminum chlorid upon unsaturated organic compounds; toxic gases; dyes; soybean products development; plastics; paints; specialties.

Gangstad, Dr. Virginia (Beatrice), Woman's College of the University of North Carolina, Greensboro, N. C. *Botany.* Baton Rouge, La, Feb. 13, 14. A.B, Illinois, 34, A.M, 35, senior research fellow, 36–37, Ph.D, 37. Asst. bot, Illinois, 34–36; *instr. biol, Woman's Col, North Carolina, 39–* Summer, instr, Centenary Col. La, 39. Morphology of the Passifloraceae.

Ganier, Albert F(ranklin), 2112 Woodlawn Drive, Nashville, Tenn. *Ornithology.* Vicksburg, Miss, Sept. 9, 83. C.E, Purdue, 08. Ry. civil engineer; *engineer design, Nashville, Chattanooga and St. Louis Ry, Nashville.* A.A; Ornith. Union; Wilson Ornith. Club (sec'y, 18–23, pres, 24–26); Cooper Ornith. Club; Tenn. Ornith. Soc. (pres, 19, 30, curator, 21–); Tenn. Acad. (pres, 25); Nashville Eng. Asn. (pres, 24). Natural history; mammalogy; paleontology.

Gann, Dr. John A(dams), Dow Chemical Co, Midland, Mich. *Chemistry.* Wooster, Ohio, Aug. 8, 89. B.S, Case, 11; M.S, Mass. Inst. Tech, 13; D.Ing, Braunschweig, 15; Ph.D, Göttingen, 16. Asst. chem, Mass. Inst. Tech, 11–13; chief chemist, Rohm and Haas Co, 16–18; metallurgist and research chemist, *Dow Chem. Co,* 18–30, *metallurgist, 30–* Soc. Test. Mat; Min. and Metal. Eng; Foundrymen's Asn; Soc. Metals; British Inst. Metals. Colloidal chemistry; metallurgy of magnesium and its alloys.

Gannon, Dr. J(ames) A(lonzo), 1915 Biltmore St, N. W, Washington, D. C. *Surgery.* New York, N. Y, March 8, 84. M.D, Georgetown, 06. Chief surgeon and chief staff, Gallinger Munic. Hosp, 14–27; attending staff surgeon, Georgetown Hosp, 18–33, assoc. prof. surg, sch. med, Georgetown, 22–33. Dean, Capitol City Sch. Nurses, 14–27; lecturer, Cent. School Nursing, Washington, 25–33; Nat. Catholic Sch. Social Service, 27–33. Mem, *Board of Draft Appeals, D. C, 41–* Fel. Col. Surg; Am. Med. Asn; Wash. Med. Soc. (v. pres, 31, chairman, exec. cmt, 26, 29). Surgical infections; intestinal surgery; bone cysts; adrenalin in cardiac failure.

Gans, Dr. D(avid) M(anus), Interchemical Corp, 432 W. 45th St, New York, N. Y. *Chemistry.* Russia, May 5, 05. B.S, Chicago, 26, M.S, 27, fellow, Ph.D, 29. Instr. physical chem, Chicago, 29–36; research chemist, *Interchem. Corp,* 36–39, *asst. director research, 39–* Chem. Soc. Surface phenomena and tension; adsorption; photochemistry; spectroscopy; nuclear transmutation.

Gantt, Dr. W(illia)m Horsley, Johns Hopkins University School of Medicine, Baltimore, Md. *Neurophysiology, Psychiatry.* Nelson Co, Va. B.S, North Carolina, 16; M.D, Virginia, 20. Instr. anat, Virginia, 18; intern, Church Home and Infirmary and Univ. Hosp, Maryland, 19–22; chief, Petrograd. Unit, med. div, Am. Relief Admin, 22–23; *research* path, med. sch, univ. col, London, 23–24; collaborator, Pavlov's Physiol. Labs, Insts. Exp. Med. and Mil. Med. Acad, Russia, 25–29; *psychiat, Phipps Psychiat. Clinic, sch. med, Hopkins,* 29–32, *assoc. psychiat. and director Pavlovian lab, 32–* A.A; Physiol. Soc; Psychopath. Asn; Neur. Asn; British Asn; Int. Asn. Med. Hist. Liver and gastro-intestinal diseases; secretions of the digestive glands; conditioned reflexes and behavior; anatomy of conditioned reflex pathways; mathematical laws and physiology of conditioned reflexes; experimental neuroses; constitutional factors in disease; public health; effect of war and revolution in Russia on diseases.

Gantz, Prof. E(dwin) St. Clair, Jr, Purdue University, West Lafayette, Ind. *Chemistry.* Hynes, Iowa, March 17, 10. A.B, Iowa, 31, M.S, 32, Ph.D, 35. Instr. *chem,* Wabash Col, 35–37, *asst. prof,* 37–43; *Purdue, 43–* A.A; Chem. Soc; Ind. Acad. Co-precipitation; crystal structure of complex substances; analytical chemistry.

Gaposchkin, Dr. Sergei I(llarionowitsh), 94 Shade St, Lexington, Mass. *Astronomy.* Eupatoria, Crimea, Russia, July 12, 98. Ph.D, Berlin, 32. Asst, *Harvard Observatory,* 33–39, *research assoc, 39–* Variable stars and stellar photometry.

Garabedian, Prof. Carl A(rshag), Wheaton College, Norton, Mass. *Mathematics.* Boston, Mass, Aug. 17, 94. B.S, Tufts Col, 15, M.S, 16; A.M, Harvard, 21, Ph.D, 23; Paris, 23–24. Instr. *math,* New Hampshire, 16–18, asst. prof, 19–20; instr, Harvard, 20–22; asst. prof, Northwestern, 24–25; *assoc. prof,* Cincinnati, 25–29; St. Stephen's Col, Columbia, 29–35, Bard Col, 35–36; *Wheaton Col. (Mass), 36–* Ballistic div, U.S.A, 18. A.A; Math. Soc; Math. Asn. Elasticity; mathematics and music.

Garabedian, Prof. H(enry) L(eslie), 2236 Ridge Ave, Evanston, Ill. *Mathematics.* Dorchester, Mass, Nov. 22, 01. B.S, Tufts Col, 22; A.M, Harvard, 23; Ph.D, Princeton, 30. Instr. *math,* Harvard, 23–26; Rochester, 26–27; Northwestern, 27–28; Princeton, 28–30; *Northwestern,* 30–36, asst. prof, 36–40, *assoc. prof, 40–* Math. Soc; Math. Asn. Theory of summable series.

Garard, Prof. Ira D(ufresne), New Jersey College for Women, Rutgers University, New Brunswick, N. J. *Chemistry.* Dunkard, Pa, March 19, 88. B.S, Grove City Col, 11; A.M, Columbia, 16, Ph.D, 18. Instr, high sch, Pa, 11–15; assoc. prof. *chem, N. J. Col. for Women, Rutgers,* 19–23, *prof, 23–* U.S.A, 18–19. Chem. Soc; Inst. Chem; Asn. Official Agr. Chem; Inst. Food Technol. Colloids; foods; applied chemistry; organic chemistry; fats and oils.

Garbat, Dr. Abraham Leon, 103 E. 78th St, New York, N. Y. *Medicine.* Warsaw, Poland, Aug. 3, 85. M.D, Cornell, 06. Intern, Lenox Hill Hosp, 06–09; asst, med. clinic, Berlin Univ. Hosps, 09–10; *bacteriologist and serologist, Lenox Hill Hosp, 10–,* assoc. visiting physician and visiting physician, 12–27, *attending physician, 27–* Cartwright prize, Columbia, 19. A.A; Asn. Path. and Bact; Asn. Immunol; Soc. Exp. Biol; Gastro-Enterol. Asn; N. Y. Acad. Med. Internal medicine; bacteriology; immunity; diagnosis and therapy; typhoid fever; blood transfusion; gastric diseases.

Garber, Prof. H(arold) J(erome), University of Cincinnati, Cincinnati, Ohio. *Chemical engineering.* Cleveland, Ohio, March 12, 13. Chem.E, Cincinnati, 35. Instr. *chem. eng, Cincinnati,* 36–39, *asst. prof, 39–* Consulting chem. engineer. A.A; Chem. Eng; fel. Ohio Acad. Gas absorption; fractional crystallization; gas conditioning; infra-red radiant heat transfer; vacuum steam distillation; production of activated carbon; rate of solution; fluid flow in weirs.

Garber, Dr. Pauline, University of Kansas, Lawrence, Kans. *Biological chemistry.* Strasburg, Ohio, Sept. 4, 08. A.B, Wittenberg Col, 30; A.M, Kansas, 33, M.D, 39. Asst. instr. chem, *Kansas,* 31–33, *biochem,* 34–35, *asst. prof, 40–* Hemoglobin.

Garber, Dr. R(alph) J(ohn), U. S. Department of Agriculture, State College, Pa. *Agronomy, Genetics.* Deer Creek, Ill, April 24, 90. B.S, Illinois, 12; M.S, Minnesota, 17, Ph.D, 22. Teacher, high sch, 13–17; asst. prof. field crops, Minnesota, 17–18, plant breeding, 18–20; assoc. prof. agron, West Virginia, 20–22, prof. and head dept. agron. and genetics, 22–36; *director regional lab. pasture research, U. S. Dept. Agr, 36–* A.A; Soc. Agron. (v. pres, 37, pres, 38); Genetic Asn. Economic and genetic plant breeding.

Garby, Dr. D(ell) S, 905 N. Front St, Marquette, Mich. *Organic chemistry.* Leland, Idaho, June 5, 88. B.S, Idaho, 12; Ph.D, Chicago, 28. Junior chemist, U. S. Pub. Health Service, 21–23; instr. chem, Cent. State Teachers Col, Wis, 23–31; *head dept. physical science, North. Mich. Col. Educ, 31–* Visiting assoc. prof, Southern California, 29. Chem. Soc; Asn. Physics Teachers. Arsenic derivatives of phenylaminoacetic acid; synthesis of phenylaminoacetic-p-arsonic acid.

Garceau, Lovett, Electro-Medical Laboratory, Inc, Holliston, Mass. *Electrical engineering.* Boston, Mass, May 31, 06. A.B, Harvard, 28. Engineer, Int. Tel. and Tel. Corp, 30–31; Wired Radio Co, 31; J. H. Emerson Co, 31; research engineer, Harvard Med. Sch, 31–35; *director, Electro-Med. Lab, Inc, 35–* Assoc. Radio Eng; Elec. Eng. Design of electrophysiological apparatus; electroencephalography; applications to military medicine; direct writing oscillograph for naval ordnance and war industry.

Garcia, Dr. Eusebio Yatco, 628 Herran, Manila, P. I. *Parasitology.* Binan, Laguna, P. I, Oct. 29, 06. M.D, Philippines, 32, Baylon-de la Rama scholar, 32–33, C.P.H, 33. Lecturer *parasitol, sch. hygiene and pub. health, Philippines,* 33–34, *instr, 34–* Nat. Research Council P. I, 34– A.A; Soc. Parasitol; Am. Med. Asn; P. I. Med. Asn; Soc. Parasitol. P. I. Medical helminthology and protozoology.

Garcia, Dr. Fabian, New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Horticulture.* Chihuahua, Mex. B.S, N. Mex. Col, 94, M.S.A, 05, hon. D.Agr, 27; Cornell, 99–00. Teacher, 05–12; prof. hort, *N. Mex. Col,* 13–31, *lecturer hort. exten, 12–, director, Exp. Sta, 13–, horticulturist, 31–* Pomol. Soc. Fruits and vegetables.

Garcia, Prof. F(austino), University of the Philippines, Manila, P. I. *Pharmacology.* Baliuag, Bulacan, Feb. 18, 89. M.D, Philippines, 15; Munich, 27–28; Paris, 29; Western Reserve, 29. *Prof. pharmacol, col. med, Philippines, 30–* Anacleto del Rosario diploma, col. med. and pharmaceut, Philippines, 31, Argules dipl. and gold medal, 34. Mem. Nat. Research Council Philippines. Am. Med. Asn; Philippine Med. Asn. (v. pres, 35); German Pharmacol. Soc. Pharmacological studies of Philippine medicinal plants.

García-Benítez, Prof. Carlos R(afael), University of Puerto Rico, Rio Piedras, P. R. *Botany.* Vieques, P. R, Dec. 22, 14. B.S, Puerto Rico, 34; M.S, Chicago, 39, Ph.D, 41. Asst. *biol, Puerto Rico,* 34–37, instr, 37–39, asst. prof, 39–42, *prof. and head sect, 42–* Asst, Chicago, 39–40. A.A; Fern Soc; Torrey Bot. Club. Morphology; ontogeny of the leaf and indusium in Pteris and Pteridium.

García-Díaz, Prof. Julio, University of Puerto Rico, Rio Piedras, P. R. *Biology.* Trujillo Alto, P. R, April 13, 98. B.S, Puerto Rico, 21, A.B, 22; M.S, Cornell, 27, Ph.D, 37. Teacher, high sch, 21–26; instr. biol, *Puerto Rico,* 27–28, asst. prof. and acting head dept, 28–29, head dept, 29–30, acting dean col. lib. arts, 30–31, *prof. biol. and dean col. arts and sciences, 31–* A.A; Soc. Parasitol; Limnol. Soc; Real Soc. Española de Hist. Nat. Fresh-water biology; parasitology; economic entomology.

Gardescu, Dr. Ionel I(on), 3706 Rice Blvd, Houston, Texas. *Geology, Engineering.* Bucharest, Roumania, Dec. 23, 96. Petrol.Eng, Pittsburgh, 22; Ph.D, California, 31. Geologist, Standard Oil Co. of N. J, 23–26; petrol. engineer, Gulf Companies, 29–31; prof. petrol. eng, Pittsburgh, 29–33; Agr. and Mech. Col. Texas, 33–34; consulting geologist and petrol. engineer, 34–39; *petrol. engineer, Texas Co, 40–* Explor. work, Calif. Petrol. Corp. of Venezuela, 27. Lieut, Roumanian eng. troops, World War. Development of oil and gas fields; spacing of wells; efficiency of production; evaluation of recoveries.

Gardiner, John H(aines), U. S. Geological Survey, Box 1311, Tucson, Ariz. *Engineering.* Philadelphia, Pa, Oct. 15, 94. B. S, Arizona, 18. Junior field engineer, *U. S. Geol. Surv,* 19–23, office engineer, 23–29, *dist. engineer, 29–* Civil Eng. Water resources and water supply.

Gardiner, Prof. Mary S(ummerfield), Bryn Mawr College, Bryn Mawr, Pa. *Zoology.* Garden City, N. Y, Sept. 28, 96. A.B, Bryn Mawr Col, 18, A.M, 24, Ph.D, 27. Instr. *biol, Bryn Mawr Col,* 27–29, assoc, 29–31, *assoc. prof, 31–* A.A; Soc. Zool; Soc. Nat. Cytology; cell inclusions.

Gardiner, Dr. W(illiam) Cecil, 923 Kirby St, Lake Charles, La. *Chemistry.* Exeter, Ont, Can, Nov. 14, 04. B.A, Queen's (Can), 26, M.A, 27; Ph.D, Princeton, 29. Asst, Princeton, 27–29; *research chemist,* Comstock and Westcott, Inc, Niagara Falls, N. Y, 29–32; *Mathieson Alkali Works, Inc, 32–* Electrochem. Soc. prize, 29. Chem. Soc; Electrochem. Soc. (chairman, Niagara sect, 39–41); Can. Inst. Chem. Polarization in nickel plating solutions; hydrogen generator; standard cells; chlorine metallurgy; electrolytic alkali and chlorine production; hydrogen and chlorine overvoltage; glass electrode; magnesium production.

Gardner, E(ugene) D(elos), U. S. Bureau of Mines, Box 111, Rolla, Mo. *Mining engineering.* Utah, March 31, 85. B.S, Utah, 06, E.M, 15. Chief engineer, Utah Apex Mining Co, 07–11; mineral examiner, U. S. Forest Service, 11–18; mining and explosive engineer, *U. S. Bur. Mines,* 18–27, *supervising engineer, 27–* Min. and Metal. Eng. Metal mining practises, methods and costs; selection of mining methods to fit local conditions; economical use of explosives; sinking shafts; development of strategic minerals.

Gardner, Dr. Floyd W(illiam), College of Medical Evangelists, Loma Linda, Calif. *Physiology.* Battle Creek, Mich, Sept. 21, 91. A.B, Pacific Union Col, 15; M.D, Col. Med. Evangelists, 21. Prin, acad, Sanitarium, Calif, 15–16; supt. schs, 16–17; instr. chem, *Col. Med. Evangelists,* 21–24, *prof.* biochem, 25–35, *physiol, 36–* Am. Med. Asn; Chem. Soc. Vitamins; metabolism.

Gardner, Frank D(uane), Pennsylvania State College, State College, Pa. *Agriculture.* Gilman, Ill, Nov. 19, 64. B.S, Illinois, 91. Asst. agriculturist, Illinois, 91–95; soil expert, bur. soils, U. S. Dept. Agr, 95–01; director, Exp. Sta, Puerto Rico, 01–04; in charge soil management, bur. soils, U. S. Dept. Agr, 04–08; prof. agron. and head dept, Pa. State Col, 08–37; *retired.* Soc. Agron; Farm Econ. Asn. Soils; soil fertility; crop improvement; farm management.

Gardner, Dr. F(rank) E(aster), U. S. Department of Agriculture, Beltsville, Md. *Horticulture.* Washington, D. C, April 7, 01. B.S, Pa. State Col, 23; M.S, California, 24, Ph. D, 27. Asst, California, 24–27; assoc. plant propagation, Maryland, 27–30; senior pomologist, *div. fruit and veg. crops and diseases, hort. field sta, bur. plant indust, U. S. Dept. Agr,* 30–38, *prin. pomologist in charge citrus and subtrop. fruit production research, 38–* Soc. Hort. Sci; Fla. State Hort. Soc. Citrus and other subtropical fruits; plant hormone.

Gardner, Dr. Frank S(treeter), American Brake Shoe Co, Mahwah, N. J. *Metallurgy.* Baltimore, Md, Dec. 9, 16. B.S, Mass. Inst. Tech, 38, Sc.D, 41. *Asst. metallurgist, Am. Brake Shoe Co, 41–* Min. and Metal. Eng; Soc. Metals. X-ray method for the quantitative determination of retained austenite.

Gardner, Prof. F(ranklin) T(ruesdell), 430 S. Florence Ave, Tulsa, Okla. *Industrial chemistry.* Binghamton, N. Y, July 3, 03. B.S, Illinois, 24; Am. Creosoting Co. fellow, Cornell, 27–29, Ph.D, 29. Research chemist, Standard Oil Co. of Ind, 24–26; asst. prof. *chem, Tulsa,* 29–35, *assoc. prof, 35–* Chem. Soc; Okla. Acad. Wood preservation; chlorinated paraffin.

Gardner, Prof. G(erard), University of Montreal, Que, Can. *Biology.* Acton Vale, Que, Aug. 5, 97. B.A, L.Sc, Montreal, 27; D.Sc, Paris, 31. Lecturer nat. sciences, *sch. higher commercial studies, Montreal,* 27–43, *biol,* 28, *assoc. prof, 35–* Polar Soc; Can. Inst. Min. and Metal; Soc. de Biol. Montreal; British Ecol. Soc; Soc. Bot. de France. Spirochaetes; geology and flora of Labrador, Hudson Bay and James Bay.

Gardner, Harold Ward, Golden, Colo. *Civil engineering.* Brodhead, Wis, Nov. 29, 77. B.S, Wisconsin, 05; M.S, Kansas, 11; LL.B, Westminster Col. (Colo), 28. Instr. civil eng, Illinois, 05–07; prof. math. Iowa Wesleyan Col, 07–09; asst. prof. *civil eng,* Kansas, 09–13; instr, Illinois, 13–16; Cooper Union, 16–18; head dept. Colo. Sch. Mines, 20–30; instr, Westminster Law Sch. (Colo), 26–42; *consulting civil engineer and attorney at law.* State Senator, Colo. Asn. Eng; Colo. Soc. Eng; Colo. Bar Asn. Hydraulics; mechanics of fluids; law; the gradient diagram.

Gardner, Dr. Henry Alfred, 2201 New York Ave, Washington, D. C. *Chemistry.* Pawtucket, R. I, Oct. 12, 82. Brown, 02; Pennsylvania, 03; hon. Sc.D, Lehigh, 32. *Pres. and director, Inst. Paint and Varnish Research, Washington, D. C.* Director sci. sect, Nat. Paint, Varnish and Lacquer Mfrs. Asn, Inc. Chemist, small arms div, ordnance dept, U.S.A, lieut, U.S.N.R. Chem. Soc; Soc. Chem. Indust; Electrochem. Soc; Soc. Test. Mat; Soc. Rheol; Chemists' Club; British Oil and

Color Chem. Asn. Colors; oils; pigments; varnishes; paints; aviation.

Gardner, Dr. I(rvine) C(lifton), National Bureau of Standards, Washington, D. C. *Physics.* Idaville, Ind, Sept. 19, 89. A.B, DePauw, 10, Sc.D, 39; A.M, Harvard, 12, fellow, 14–15, Ph.D, 15. Instr, Harvard, 15–17; *physicist, Bur. Standards, 21–* Cutting research fellow, Harvard, 16. Mem. eclipse exped, Russia, 36, Canton Island, 37, Brazil, 40. Ordnance dept, U.S.A, 17–21. A.A; fel. Physical Soc; Optical Soc. (assoc. ed, 'Jour,' 26–); Soc. Photogrammetry; Philos. Soc. Wash; Wash. Acad. Fire control instruments; applied optics; vacuum spectroscopy; optical design.

Gardner, Prof. Iva C(ox), 802 Speight St, Waco, Texas. *Psychology.* Forrest City, Ark, Oct. 13, 91. A.B, Baylor, 26, A.M, 27; Ph.D, Chicago, 34. Prof. Bible, Cent. Col, 27–29; asst. prof. *psychol, Baylor,* 30–34, *prof, 34–, director personnel, 35–* A.A; assoc. Psychol. Asn. Attitudes.

Gardner, Dr. James H(enry), 326 Beacon Life Bldg, Tulsa, Okla. *Geology.* Sonora, Ky, April 25, 83. B.S, Kentucky, 04, M.S, 06; Ph.D, George Washington, 10. Asst. geologist, Ky. Geol. Surv, 04–06; field asst, U. S. Geol. Surv, 06–07, junior geologist, 08, asst. geologist, 09–10; Ky. Geol. Surv, 11–12; Pa. Geol. Surv, 12; consulting geologist, 13–18; *pres, Gardner Petrol. Co, 19–* Trustee, Tulsa. Asn. Petrol. Geol. (pres, 24); Geol. Soc; Okla. Hist. Soc. (director); Okla. Archeol. Soc. (pres, 38). Kentucky clay deposits; Broad-Topcoal field, Pennsylvania; coal classification in southwest Colorado and northwest New Mexico; Cretaceous and Tertiary geology of Ignacio quadrangle, Colorado; the Torrejon and Puerco formations of New Mexico; oil resources of Kentucky; mid-continent oil fields; origin and development of limestone caverns; connate water-drive theory of oil and gas accumulation.

Gardner, Dr. J(ames) L(inton), Navajo Experiment Station, Mexican Springs, N. Mex. *Botany.* Henry Co, Ind, Jan. 10, 01. A.B, Colo. Col, 27; Nebraska, 28; A.M, Colorado, 30; Ph.D, Texas, 35. Asst. bot, Colorado, 27–28; Nebraska, 28–29; tutor, Texas, 33–35; asst. soil conservationist *plant ecol, soil conservation service, U. S. Dept. Agr,* 35–38, *assoc. soil conservationist, 38–* Summers, research asst, Alpine lab, Carnegie Institution, 26–30, 32–35; field asst, bur. plant indust, U. S. Dept. Agr, 31. Ecol. Soc; Soc. Agron. Physiology and ecology of tillering in grasses; effects of heavily silted water on native vegetation and crops.

Gardner, Dr. John H(all), Washington University, St. Louis, Mo. *Organic chemistry.* Evanston, Ill, Oct. 26, 98. B.S, Case, 19; M.S, Michigan, 21; fellow, Illinois, 22–23, Ph.D, 23. Asst. *chem,* Illinois, 21–22; asst. prof, Maryland, 23–25; instr, West Virginia, 25–26; nat. research fellow, West Virginia and Hopkins, 26–28; *assoc. prof, Washington (St. Louis), 28–* Chem. Soc. (councilor, 30, 32, 33; chairman St. Louis sect, 39; med. chem. div, 41); Pharmaceut. Asn. Anthracene and morpholine derivatives; coupling of organic radicals; basis of action of local anesthetics; organic and medicinal chemistry.

Gardner, John S(amuel), University of Kentucky, Lexington, Ky. *Horticulture.* Doylestown, Ohio, Aug. 23, 85. A.B, Muhlenberg Col, 04; B.S, Pa. State Col, 15; A.M, M.S, Missouri, 18. Pa. State Col, 18–20; Penn's Manor Farms, Morrisville, Pa, 20; *field agent, hort. exten. div, Kentucky, 21–* Soc. Hort. Sci; Potato Asn. (pres, 31). Truck crops; certified seed potatoes.

Gardner, Prof. John W(illiam), Mt. Holyoke College, South Hadley, Mass. *Psychology.* Los Angeles, Calif, Oct. 8, 12. A.B, Stanford, 35, A.M, 36; Ph.D, California, 38. Teaching asst. *psychol,* California, 36–38; instr, Conn. Col, 38–40; *asst. prof, Mt. Holyoke Col, 40–; deputy chief anal. div, for. broadcast intel. service, Fed. Communications Cmn, 42–* A.A; assoc. Psychol. Asn. Social psychology; psychology of personality.

Gardner, Dr. Julia (Anna), Arts Club, 2017 I St, Washington, D. C. *♀*Geology, Paleontology.* Chamberlain, S. Dak, 82. A.B, Bryn Mawr Col, 05; Ph.D, Hopkins, 11. Asst. paleont, Hopkins, 11–15; paleontologist, *U. S. Geol. Surv,* 20–24, *geologist, 24–* A.A; Paleont. Soc; Geol. Soc; Asn. Petrol. Geol. Tertiary Mollusca of Virginia and North Carolina; Cretaceous Mollusca of Maryland; Mollusca of Alum Bluff formation and Texas Eocene.

Gardner, Leo R(ussell), California Spray-Chemical Corp, Richmond, Calif. *Entomology.* Des Moines, Iowa, Oct. 8, 04. Grad, Chaffey Col; Pomona Col; Southern California. *Entomologist,* Armstrong Nurseries, 22–26; *Calif. Spray-Chem. Corp, 26–* Chem. Soc. Citrus pest control in California, Spain, Italy, South Africa and Australia; deciduous pest control in South Africa and Australia.

Gardner, Dr. Leroy U(pson), 36 Old Military Road, Saranac Lake, N. Y. *Pathology.* New Britain, Conn, Dec. 9, 88. A.B, Yale, 12, M.D, 14. Instr. path, Harvard Med. Sch, 16–17; asst. prof, Yale, 17; *director and pathologist, Saranac Lab, 18–* Visiting lecturer, Rochester, 36. Cmt. silicosis, Int. Labor Office, Geneva, 32. Director, Trudeau Foundation, 38; trustee, Trudeau Sanatorium, 38. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Am. Med. Asn. (council indust. health, 39); Tuber. Asn. (trustee, 40). Experimental tuberculosis; silicosis and industrial hygiene.

Gardner, Louis S(amuel), U. S. Geological Survey, Washington, D. C. *Geology.* Hannibal, Mo, May 22, 04. A.B, Missouri, 27, A.M, 28; Yale, 28–29, 37. Instr. geol, Missouri, 29–31; asst. geologist, U.S. Gen. Land Office, 31–33; special agent, div. investigation, U. S. Dept. Interior, 33–38; asst. geologist, *U. S. Geol. Surv,* 38–41, *assoc. geologist, 41–,* Geol. Soc. Wash. Geology of an area in southwestern Utah and in southeastern Idaho.

Gardner, Prof. Max W(illiam), University of California, Berkeley, Calif. *♂*Botany, Plant pathology.* Lansing, Mich, May 11, 90. B.S, Mich. State Col, 12; M.S, Wisconsin, 15, Ph.D, 18. Instr. plant path, Michigan, 17–18; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18–19; assoc. botanist, Exp. Sta, Purdue, 19–29, chief in bot, 29–32; *prof. plant path. and plant pathologist, Exp. Sta, California, 32–* Mem. div. biol. and agr, Nat. Research Council, 39–42. A.A; Soc. Nat; Phytopath. Soc. (v. pres, 30, pres, 31); Bot. Soc; Mycol. Soc; Mich. Acad; Ind. Acad. Chestnut blight; diseases of vegetables and fruits; bacterial diseases; virus diseases.

Gardner, Dr. Milton E(ugene), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Santa Cruz, Calif, Feb. 10, 01. A.B, Pomona Col, 24; A.M, California, 34, Ph.D, 35. Junior physicist, Nat. Advisory Cmt. Aeronautics, Langley Field, Va, 27–28; Bur. Standards, 29–30; teaching asst, California, 31–35, instr. physics, col. agr, 35–42; *mem. staff, radiation lab, Mass. Inst. Tech, 42–* Recombination of ions in pure oxygen as a function of pressure and temperature.

Gardner, Prof. M(onroe) E(vans), North Carolina State College, Raleigh, N. C. *Horticulture.* Blacksburg, Va, Oct. 3, 96. B.S, Va. Polytech. Asst. horticulturist, Exp. Sta, Va. Polytech, 19–22; assoc. prof. hort, Clemson Col, 23–25; Smith-Hughes worker, Va, 26–27; from asst. horticulturist to *horticulturist, Exp. Sta, N. C. State Col, 27–, prof. hort,* acting head dept, 32–33, head dept, 33. A.A; Soc. Hort. Sci; Pomol. Soc; Potato Asn. Pomology; plant breeding.

Gardner, Prof. M(urray) F(rank), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Lansing, Mich, Dec. 17, 97. B.S, Michigan, 20; M.S, Mass. Inst. Tech, 24. Elec. engineer, cable works, Am. Steel and Wire Co, Worcester, 22–23; instr. *elec. eng, Mass. Inst. Tech,* 23–29, asst. prof, 29–37, *assoc. prof, 37–* A.A; Elec. Eng. Harmonic effects due to corona; artificial power systems for power system computations; Laplacian transformation; engineering applications.

Gardner, Dr. Raymond E(rl), 4915 Greenspring Ave, Baltimore, Md. *Immunology.* Terre Haute, Ind, Sept. 23, 03. A.B, Ind. State Nor. Sch, 26; Sc.D, Hopkins, 30. Instr. filterable viruses, *Hopkins,* 30–33, *immunol, labs. filterable viruses,* 33–35, *assoc, 35–* Experimental cancer and filterable viruses.

Gardner, Robert, 326 Garfield St, Ft. Collins, Colo. *Soils.* Pine Valley, Utah, May 22, 88. B.S, Utah Col, 16, M.S, 28. Agriculturist, Pacific Sugar Corp, Calif, 17–20; Wyoming Sugar Co, Wyo, 20–21; *assoc. plant indust, Exp. Sta, Colo. State Col, 29–; assoc. soil technologist, regional salinity lab, bur. plant indust, U. S. Dept. Agr, 43–* Soc. Agron; Chem. Soc; Soil Sci. Soc; West. Soc. Soil Sci. (v. pres, 36). Soil nitrates, phosphates and moisture; replaceable bases in soils; relation of plant composition to soil fertility.

Gardner, T(heodore) R(oosevelt), U. S. Department of Agriculture, 209 River St, Hoboken, N. J. *Entomology.* New York, N. Y, March 3, 99. B.S, Conn. Agr. Col, 22. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* Riverton, N. J, 22–24, asst. entomologist, Japan, 24–30,

assoc. entomologist, Moorestown, N. J, 30-37, *entomologist in charge for. parasite introd. sta, 40–* Entom. Soc. Amer; Asn. Econ. Entom. Insect parasites; introduction of foreign parasites.

Gardner, Dr. Thomas S(amuel), 344 Commonwealth Ave, Boston, Mass. *Organic chemistry.* Kingsport, Tenn, July 31, 08. B.S, Tenn. State Teachers Col, 31; fellow, Tennessee, 35-36, M.S, 36; Columbia, 38-39; Ph.D, Ohio State, 41. Chemist, Tenn. Eastman Corp, Kingsport, 33-35, 36-38; grad. asst, Ohio State, 40-41; *du Pont fellow, cellulose, Mass. Inst. Tech, 41–* Summers, chemist, Tenn. Eastman Corp, Kingsport, 39-40. Chem. Soc; Tenn. Acad. Carbohydrates; cellulose; parachor; thermodynamics of rocket fuels; wood distillation products; synthetic organic and plant development of wood distillation products.

Gardner, Prof. V(ictor) R(ay), Michigan State College, East Lansing, Mich. *Horticulture.* Ann Arbor, Mich, March 25, 85. B.S, Mich. State Col, 05; M.S.A, Iowa State Col, 07. Instr. hort, Iowa State Col, 05-07; Macdonald Col, McGill, 07-08; asst. prof, Maine, 08-10, prof. and acting head col. agr, 10-11; *prof.* pomol, Oregon State Col, 11-18; *hort,* Missouri, 18-22; *Mich. State Col, 22–, director, Exp. Sta, 28–* Bud mutations in deciduous fruits.

Gardner, Prof. Willard, Utah State Agricultural College, Logan, Utah. *Physics.* Pine Valley, Utah, Oct. 14, 83. B.S, Utah Col, 12; M.S, California, 15, Ph.D, 16. Asst. and instr, California, 13-16; prin, Murdock Acad, Beaver, Utah, 16-17; prof. physics and math, Brigham Young, 17-18; assoc. prof. *physics, Utah State Col,* 18-24, *prof, 24–, acting head dept,* assoc. physicist, *Exp. Sta,* 18-24, *physicist, 24–* Collaborator, soil conservation service, U. S. Dept. Agr. Award, Utah Acad. Science, 40. A.A; Physical Soc; Geophys. Union; Soil Sci. Soc. (chairman, I); West. Soc. Soil Sci. (pres, 32); Utah Acad. (councilor, 23, 25-27, 2nd v. pres, 27, 1st v. pres, 28, pres, 29). Soil physics; ground water.

Gardner, Prof. W(illia)m Howlett, 4830 Ninth St. N., Arlington, Va. *Chemistry, Chemical engineering.* New York, N. Y, Sept. 25, 02. Ch.B, Cornell, 23, Ph.D, 27; M.S, Dartmouth Col, 25. Instr. chem, Dartmouth Col, 23-26; research chemist, Vitreous Enameling Co, Cleveland, 27; fellow, shellac research bur, *Polytech. Inst. Brooklyn,* 28-31, asst. prof. *chem. eng,* 31-34, *research prof, 34– Chief chemist, materials sect, conservation div, War Production Board, 42–* A.A; Chem. Soc; Soc. Test. Mat. (cmt. on protective coatings, shellac, lacquer, plastics and elec. insulation); Chem. Eng; fel. Inst. Chem; N. H. Acad; fel. Royal Soc. Arts. Azidocarbondisulfide; mechanolysis of water; adsorption of mixed gases by charcoal; nature of shellac; electrometric titration of resins in alcohol; lacquer, varnishes and paint pigments; plastics; precipitation, extraction and filtration; high molecular weight compounds.

Gardner, Prof. William U(llman), 333 Cedar St, New Haven, Conn. *Anatomy.* Kinbrae, Minn, Nov. 11, 08. B.S, S. Dak. State Col, 30; fellow, Missouri, 30-32, A.M, 31, Gregory fellow, 32-33, Ph.D, 33. Nat. research fellow and instr. *anat, sch. med, Yale,* 33-36, asst. prof, 36-37, research assoc, 37-41, assoc. prof, 41-43, *prof. and chairman dept, 43–* Assoc. ed, 'Anatomical Record'; 'Cancer Research.' A.A; Asn. Anat; Asn. Cancer Research; Soc. Exp. Biol; Asn. Study Secretions; N. Y. Acad. Physiology of reproduction and the role of hormones in the stimulation of abnormal growths and cancer.

Gardner, Dr. Wright A(ustin), Auburn, Ala. *Plant physiology.* Fenton, Mich, June 6, 78. B.S, Albion Col, 02; A.M, Michigan, 15; Ph.D, Chicago, 16. Prof. biol, Northeast. State Nor. Sch, Okla, 10-16; asst. prof. bot, Idaho, 16-17; prof. bot. and plant physiol, Ala. Polytech, 17-32. Soc. Plant Physiol. (sec'y-treas, 25, 30-32); Bot. Soc; Phytopath. Soc; Ala. Acad. (pres, 24). Physiology of sweet potatoes; light germination; enzymes.

Garey, Dr. John C(harles), 205 St. James St, Peoria, Ill. *Bacteriology.* Jenningsville, Pa, Jan. 21, 11. B.S, Pa. State Col, 34, M.S, 36; univ. fellow, Wisconsin, 39-40, Ph.D, 40. Instr. bacter, Pa. State Col, 36-37; asst, Wisconsin, 37-39; instr, Illinois, 40-42; *research bacteriologist, Hiram Walker and Sons, 42–* Soc. Bact; Chem. Soc; Soc. Ill. Bact. Amino acid requirements of the streptococci; bacteriology of brick cheese; microbiology of sheep rumen; microbiological assay of vitamins; growth factor requirements of microorganisms.

Garfias, Valentin R, Cities Service Co, 60 Wall Tower, New York, N. Y. *Petroleum engineering.* Mazatlan, Mex, Jan, 83. A.B, Stanford, 07, A.M, 10, M.E, 14. Asst. civil eng, Stanford, 06-07; engineer, South. Pacific Ry, 07-08; consulting engineer, 10-13; petrol. engineer, U. S. Bur. Mines, 13-15; prof. petrol. eng, Stanford, 15-19; special tax cmn, U. S. Treas. Dept, 18-19; *manager for. dept, Cities Service Co, 19–* Petrol. commissioner, Mex. Govt, 20-21. Min. and Metal. Eng; Civil Eng; Asn. Petrol. Geol. Engineering; petroleum resources of the world; petroleum geology.

Garfield, Dr. Viola E(dmundson), University of Washington, Seattle, Wash. *Ethnology.* Des Moines, Iowa, Dec. 5, 99. A.B, Washington (Seattle), 28, A.M, 31; Ph.D, Columbia, 39. Asst. *anthrop,* Barnard Col, Columbia, 33; *assoc, Washington (Seattle), 38–* Summers, conductor cruise to Alaska, exten. service, Washington (Seattle), 34-41, research on hist. of Alaska totem poles, U. S. Forest Service, 40, 41. Ethnol. Soc; Folk-lore Soc. Social organization; totem pole history; tribes of British Columbia and Alaska.

Garfin, Dr. Louis, 525 E. Washington St, Belleville, Ill. *Mathematics.* Mason City, Iowa, June 7, 17. A.B, Iowa, 38, M.S, 39, Ph.D, 42. Asst. math, Iowa, 39-42; *assoc. instr. radio operating, training sch, Air Force, U. S. Army, Scott Field, 42–* Math. Soc. Pension fund reserves; linear integral equations.

Garis, Dean Charles F(rederick Fleming), Union University, Schenectady, N. Y. *Mathematics.* Easton, Pa, Feb. 1, 81. Ph.B, Lafayette Col, 03, A.M, 06, M.S, 11, hon. Sc.D, 23; Chicago, 08. Instr. *math, Union (N. Y),* 03-06, asst. prof, 06-08, *prof, 08–, dean* students, 19-34, *col, 34–* Math. Soc.

Garland, Dr. Fred M(cKee), Armour and Co, Union Stock Yards, Chicago, Ill. *Chemistry.* Corsicana, Texas, March 16, 12. B.S, Trinity (Texas), 34; M.S, Texas Tech, 36; Ph.D, Texas, 39. Instr. chem, Texas, 36-39; prof, Trinity (Texas), 39-41; *mem. staff, research labs, Armour and Co, 41–* Summer, mem. staff, research labs, Union Oil Co, Calif, 38. Nitrogen compounds in petroleum; derivatives of fatty acids and high molecular weight aliphatic amines.

Garland, Prof. J(ohn) H(enry), Western Reserve University, Cleveland, Ohio. *Geography.* Kirkland, Ill, Feb. 2, 04. Ph.B, Chicago, 28, M.S, 29, Ph.D, 40. Instr. geog, Ohio State, 29-30, 31-39; econ. geog, State Col. Wash, 30-31; *asst. prof. geog, Western Reserve, 39–* Economic, urban and regional geography; occupance of the eastern segment of the middle Ohio Valley; occupance and utilization of the Connecticut Western Reserve.

Garlock, Fred L(andreth), 7817 Old Chester Road, Bethesda, Md. *Agricultural economics.* Maxwell, Iowa, Feb. 24, 97. A.B, Iowa, 20; A.M, Columbia, 21, 22-23, 27-28. Asst. prof. econ, Iowa State Col, 23-29; *senior agr. economist, bur. agr. econ, U. S. Dept. Agr, 30–* Econ. Asn; Farm Econ. Asn. Agricultural finance; country banking.

Garlough, F(rancis) E(arl), Fish and Wildlife Service, U. S. Department of the Interior, Washington, D. C. *Biology.* Springfield, Ohio, Sept. 30, 77. Hillsdale Col; A.B, Bates Col, 00; Harvard, 05-06, 07. Teacher, sch, Washington, D. C, 00-01; Betts Acad, Conn, 01-02; instr. biol, Robert Col, Constantinople, 02-05; teacher, high sch, Ill, 06-07; traveling salesman, Ohio Grease Co, 07-14; biologist, operating div, bur. surv, U. S. Dept. Agr, 14-23, director research div, control methods research lab, Denver, 23-40; *tech. adviser, div. predator and rodent control, fish and wildlife service, U. S. Dept. Interior, 40–* A.A. Control of animal pests; habits of wild animals; effect of poisons on rodents and predators; antidotes for strychnine, thallium and other poisons.

Garlough, Prof. L(eslie) N(athan), 4712 Chicago St, Omaha, Nebr. *Biology.* St. Paul, Minn, Aug. 1, 92. A.B, Minnesota, 16, A.M, 27, Ph.D, 31. Zoologist, bur. animal indust, U. S. Dept. Agr, 17-18, pathologist, 19-25; instr. biol, col. educ, Minnesota, 26-31; *prof. biol. and head dept. science, Munic. Univ. Omaha, 31–* 2nd lieut, Sanit. C, 18-19. A.A; Bot. Soc; Soc. Bact; Nebr. Acad. (pres, 41). Biometrics; educational psychology.

Garman, Dr. C(ameron) G(eorge), Farm Credit Administration, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Niagara Falls, N. Y, April 18, 06. B.S, Cornell, 28, M.S, 31, Ph.D, 33; Social Science Research Council fellow, Columbia and Cornell, 30-31. Asst.

agr. econ, Ala. Polytech, 28–29, asst. prof, 29–31, research assoc. prof, 31–32; instr. farm management, exten. div, Cornell, 32–33; chief educ. sect. and asst. deputy commissioner, production credit div, Farm Credit Admin, *U. S. Dept. Agr*, 33–42, asst. to U. S. Sec'y Agr, 42, *asst. director finance, 42–* Farm Econ. Asn; Econ. Asn; Statist. Asn. Farm organization.

Garman, Prof. Harrison, 638 S. Limestone St, Lexington, Ky. *Biology.* Stephenson Co, Ill, Dec. 27, 58. Hopkins, 81–82. First asst, State Lab. Nat. Hist, Ill, 83–89; asst. prof. zool, Illinois, 85–89; entomologist and botanist, Exp. Sta, *Kentucky*, 89–29, prof. zool. and entom, 92–96, *entom*, 17–29, *emer. prof, 29–* Asst. state entomologist, Ill, 83–85; prof, Kentucky, 92–96; state entomologist, Ky, 97–29. Assoc. ed, 'Agr. Science.' A.A; Soc. Nat; Soc. Zool; Asn. Econ. Entom. (sec'y, pres); Forestry Asn; Phytopath. Soc; Bot. Soc; Ecol. Soc; Genetic Asn; Acad. Polit. and Social Sci; Asn. Agr. Col. (chairman, entom. sect); Ky. Acad. Economic entomology and botany; ecology; cave life.

Garman, Dr. Philip, Connecticut Agricultural Experiment Station, New Haven, Conn. *Entomology.* Lexington, Ky, Sept. 25, 91. B.S, Kentucky, 13; M.S, Illinois, 14, Ph.D, 16. Asst. entomologist, Exp. Sta, Md. State Col, 16–19; *Conn. Exp. Sta*, 19–39, *research assoc, 39–* Entom. Soc. Amer; Asn. Econ. Entom; N. Y. Entom. Soc. Odonata of Connecticut; oriental fruit moth; Acarina; control of orchard insects.

Garman, Prof. R(aymond) L(eroy), New York University, Washington Square, New York, N. Y. *Chemistry.* Stevens, Pa, July 21, 07. B.S, Franklin and Marshall Col, 29; M.S, N. Y. Univ, 31, Ph.D, 32. Teaching fellow, *N. Y. Univ*, 29–32, asst. *chem*, 32–34, instr, *Wash. Sq. Col*, 34–41, *asst. prof, 41–* Mem. staff, Office Sci. Research and Develop, 42– Radio Eng; Chem. Soc. Application of electronics to physical measurements.

Garman, Dr. Willard H(ershel), University of Georgia, Athens, Ga. *Soils chemistry.* Cherry Tree, Pa, Oct. 21, 12. B.S, Pa. State Col, 33, M.S, 34, Ph.D, 39. Asst. agr. and biol. chem, Pa. State Col, 33–34, soils chem. and morphol, 36–39; asst. state chemist, Agr. and Mech. Col. Texas, 34–36; asst. prof. *agron, Georgia*, 39–41, *assoc. prof, 41–* A.A; Soc. Agron; Soil Sci. Soc; Ga. Acad. Methods of base-exchange analysis from standpoint of plant nutrition; use of organic sources of nitrogen for cotton, corn and oats; restoration of eroded soils to productivity; rapid soil tests methods.

Garner, A(ubrey) Hamilton, 3828 Beverly Drive, Dallas, Texas. *Geology.* Ishpeming, Mich, Aug. 7, 89. A.B, Stanford, 12. Geologist and field manager, Caribbean Petrol. Co, Venezuela, 12–18; mem. firm, Brokaw, Dixon, Garner and McKee, New York, 19–34; *consulting geologist, 34–* Asn. Petrol. Geol; Min. and Metal. Eng; Inst. Petrol. Technol. Gt. Britain. Suggested correlation and nomenclature of geological formations in Venezuela; oil geology of Venezuela and Colombia.

Garner, Dr. Clement L(einster), 3400 McKinley St, N. W, Washington, D. C. *Geodesy.* Bogue, N. C, Sept. 22, 84. B.S, N. C. State Col, 07, D.Eng, 40. Commanding officer ships, *U. S. Coast and Geod. Surv*, and chief surv. party, U. S. Alaska, Hawaiian Islands, 13–27, inspector, N. Y. field sta, 27–29, asst. chief *div. geod, Washington, D. C*, 29–36, *chief, 36–* A.A; Civil Eng. (v. chairman, fed. board surveys and maps, 36, chairman, 37–39); Geophys. Union (chairman, sect. geod, 35–37); Soc. Mil. Eng; Eng. Educ; Soc. Photogrammetry; Wash. Acad; Philos. Soc. Wash. Geodetic engineering and surveying; precise triangulation in Texas-Rio Grande arc; geodetic operations in the United States; triangulation in Arizona.

Garner, Dr. Clifford S(ymes), University of Texas, Austin, Texas. *Chemistry.* Newark, N. J, Oct. 4, 12. A.A, Pasadena Jr. Col, 33; B.S, Calif. Inst. Tech, 35, Ph.D, 38. Asst. anal. chem, Calif. Inst. Tech, 35–36, teaching fellow anal. chem. and instrumental analysis, 36–38, Noyes Research fellow physical chem, 38–39; *instr. gen. and physical chem, Texas, 39–* Chem. Soc. Physical and inorganic chemistry; oxidation-reduction potentials; volumetric analytical methods; low-temperature calorimetry; thermodynamics of fluorine compounds.

Garner, Dr. J(ames) B(ert), 54 Lebanon Hills Drive, Mt. Lebanon, Pittsburgh, Pa. *Chemistry.* Lebanon, Ind, Sept. 2, 70. B.S, Wabash Col, 93, M.S, 95; fellow, Chicago, 95–97, Ph.D, 97. Instr. chem, Wabash Col, 93–95; head dept, Bradley Polytech, 97–01; prof. chem. and head dept, Wabash Col, 01–14; fellow chem, *Mellon Inst*, 14–15, *senior fellow* nat. gas, 15–41, *chem. storage, 42–* Director chem. and eng. research, Hope and affiliated Nat. Gas Companies, 15–33; manager propane-butane div, Standard Oil Co. of N. J, 30–33. A.A; Chem. Soc; Gas Asn. Organic chemistry; activated charcoal; charcoal as an adsorbent; natural gas; petroleum; solvent extraction processes; liquefied natural gas; storage of butadiene, styrene, acrylonitride and isobutene.

Garner, Prof. M(urvel) R(iley), Earlham College, Richmond, Ind. *Zoology.* Marion, Ind, Oct. 29, 96. A.B, Earlham Col, 23; Ph.D, Chicago, 33. Instr. *biol, Earlham Col*, 23–24, asst. prof, 24–33, *prof, 33–* Summers, prof, N. Mex. Nor. Univ, Las Vegas, 34, 38; field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 35, 36; instr, science summer camp, Wyoming, 40. A.A; Ind. Acad. Ecology and behavior of Protozoa; animal behavior; limnology; biological surveys.

Garner, Dr. R(aymond) L(oraine), 1308 Iroquois Drive, Ann Arbor, Mich. *Organic and bio-chemistry.* Louisiana, Mo, March 5, 06. A.B, Westminster Col. (Mo), 27; Ph.D, Hopkins, 32. Research chemist med, Hopkins Hosp, 32–35; *instr. biochem, Michigan, 35–* A.A; Chem. Soc; Mich. Acad. Molecular rearrangements of aliphatic diazo compounds; immuno-chemistry of hemolytic streptococci; tissue metabolism.

Garner, Dr. W(ightman) W(ells), U. S. Department of Agriculture, Washington, D. C. ***Plant physiology.* Timmonsville, S. C, July 15, 75. A.B, South Carolina, 96; Ph.D, Hopkins, 00; Sc.D, Clemson Col, 37, N. C. State Col, 37. Instr. chem, Tufts Col, 00–03; asst. chemist, bur. chem, *U. S. Dept. Agr*, 03–05, *physiologist, bur. plant indust, 05–, in charge tobacco and plant nutrition investigations, 08–* Stephen Hales prize, Soc. Plant Physiol, 30. A.A; Soc. Nat; Soc. Plant Physiol; Bot. Soc; Chem. Soc; Soc. Agron; Wash. Acad. Action of urea on aromatic sulfon chlorides; substitution processes in the fatty acids; chemistry and physiology of the tobacco plant; oil in plants; action of light and temperature on growth and development of plants; photoperiodism; mineral nutrition of plants.

Garnjobst, Dr. Laura, Box 953, Stanford University, Calif. *Biology.* Weigand, Nebr. B.S, Oregon State Col, 22; A.M, Stanford, 27, Am. Asn. Univ. Women fellow, 28–29, Ph.D, 39. Asst. *protozool*, California, 30–34; *researcher, Stanford, 37–* Morphology and physiology of protozoa.

Garran, Dean F(rank) W(arren), 3 Occum Ridge, Hanover, N. H. *Civil engineering.* Boston, Mass, June 17, 94. B.S, Norwich, 17; M.S, Mass. Inst. Tech, 24; hon. A.M, Dartmouth Col, 33. Instr. and asst. prof. civil eng, Norwich, 20–23; asst. prof, Arizona, 24–26; prof. eng, Col. of Charleston, 26–29; asst. prof. and *prof. civil eng. and dean, Thayer Sch, Dartmouth Col, 29–* Trustee, Norwich. Lieut, C. Eng, 17–19. Civil Eng; Eng. Educ. Structures.

Garrard, Prof. E(dward) H(enry), Ontario Agricultural College, Guelph, Ont, Can. *Agricultural bacteriology.* Durban, S. Africa, Oct. 25, 05. B.S.A, Ont. Agr. Col, 27, 37–38; M.S.A, Toronto, 38. Lab. asst, Dept. Pub. Health, Toronto, Ont, Can, 28; lecturer, Ont. Agr. Col, 28–37; exchange worker, div. bacter, Exp. Farm, Ottawa, 37–38; *prof. bacter. and head dept, Ont. Agr. Col, 39–* Mem, Poultry Indust. Cmt, Ontario, 39– East. State Lab. Workers in Pullorum Disease Control; Can. Pub. Health Asn; Int. Asn. Milk Sanitarians. Dairy bacteriology; pullorum disease control.

Garratt, Prof. George A(lfred), 205 Prospect St, New Haven, Conn. *Forestry.* Brooklyn, N. Y, May 7, 98. B.S, Mich. State Col, 20; M.F, Yale, 23, Ph.D, 33. Instr. forestry, Mich. State Col, 20–22; prof. forestry and eng, Univ. of the South, 23–25; asst. prof. forest products, *Yale*, 25–31, assoc. prof, 31–39, *Mfrs. Asn. prof. lumbering, 39–*, asst. dean, 36–39; *chief div. tech. service training, Forest Products Lab, U. S. Forest Service, 42–* Soc. Foresters; Int. Asn. Wood Anat. Wood technology; lumbering; wood-using industries.

Garrels, Dr. Robert M(inard), Northwestern University, Evanston, Ill. *Geology.* Detroit, Mich, Aug. 24, 16. B.S, Michigan, 37; M.S, Northwestern, 39, Ph.D, 41. *Instr. geol, Northwestern, 41–* Junior geologist, U. S. Geol. Surv, 41– Geochemistry; character of vein-forming solutions; chromite deposits.

Garren, Dr. Kenneth H(oward), University of Georgia, Experiment, Ga. *Botany, Plant pathology.* Asheville, N. C, Nov. 26, 12. A.B, Duke, 34, fellow, 35–38, A.M, 37, Ph.D,

38. Asst. prof. biol, Ala. State Teachers Col, Jacksonville, 38–41; *assoc. botanist, Exp. Sta, Georgia, 41–; U. S. Navy.* Summer, field asst, U. S. Forest Service, 38. Phytopath. Soc. Plant diseases; breeding plants for disease resistance; forest pathology and mycology; ecological effects of fire.

Garrett, A(lbert) O(sbun), 791 Ninth Ave, Salt Lake City, Utah. *Botany.* Lawrence, Kans, Nov. 15, 70. A.B, Kansas, 94; A.M, Brigham Young, 28. Instr, high sch, Kans, 95–02; bot. and physiog, E. High Sch, Salt Lake City, 02–10, head dept. biol, 10–40; *retired.* A.A; Bot. Soc; Soc. Plant Taxon; Calif. Bot. Soc; Utah Acad. (pres, 13); Kans. Acad. Systematic botany; parasitic fungi; rusts and smuts; systematics and life histories of the rusts and smuts of Utah.

Garrett, Prof. Alfred B, Ohio State University, Columbus, Ohio. *Chemistry.* Glencoe, Ohio, June 28, 06. B.S, Muskingum Col, 28; M.S, Ohio State, 30, Ph.D, 32. Asst. prof. *chem,* Kent State Col, 32–35; instr, *Ohio State,* 35–37, asst. prof, 37–40, *assoc. prof, 40–* A.A; Chem. Soc. (officer, local sect, 38–); fel. Ohio Acad. Photovoltaic cells; thermodynamic studies of aqueous solutions and of mixed solvents.

Garrett, Dr. Frederic D(augherty), University of Nebraska, College of Medicine, Omaha, Nebr. *Anatomy.* Oil City, Pa, July 3, 11. A.B, Cornell, 33, Ph.D, 39. *Instr. anat, col. med, Nebraska, 39–* Summer, instr, Cornell, 39. Teleostean endocrines; thalamus.

Garrett, Dr. G(eorge) A(lvin), 81 Elm St, Belmont, Mass. *Geophysics, Mathematics.* Sardis, Miss, Nov. 29, 10. A.B, Mississippi, 31; A.M, Rice Inst, 33, Ph.D, 35. Teaching fellow math, Rice Inst, 31–35; seismologist, Independent Explor. Co, 35–42; *research assoc, radiation lab, Mass. Inst. Tech, 42–* Soc. Explor. Geophys. Metric geometry; potential theory; electrical engineering.

Garrett, Prof. Henry E(dward), 35 Claremont Ave, New York, N. Y. **Psychology.* Clover, Va, Jan. 27, 94. A.B, Richmond, 15; A.M, Columbia, 21, Ph.D, 23. Teacher, high sch, Va, 15–17, 19–20; asst. *psychol, Columbia,* 20–22, lecturer, 22–23, instr, 24–26, asst. prof, 26–35, assoc. prof, 35–43, *prof, 43–, exec. head dept, 41–* Expert consultant, U. S. Sec'y War, 40– Summers, lecturer, California, 29; California at Los Angeles, 33; Southern California, 31, 35, 36, 39, 41; Hawaii, 37. Ed. board, 'Psychometrika'; 'Jour. Abnor. and Social Psychol'; gen. ed, 'Am. Psychol. Series,' Am. Book Co. Mem. div. psychol. and anthrop, Nat. Research Council, 37–40, 41–43, v. chairman, 40. C.A.C, U.S.A, 17–18. A.A; Psychol. Asn. (councilor, 33–35, 39–41); Asn. Applied Psychol; East. Psychol. Asn; N. Y. State Asn. Applied Psychol. (pres, 40); fel. N. Y. Acad. Mental traits; tests and experimental methods; learning; mental organization.

Garrett, J(ullus) B(enjamin), Jr, Stanolind Oil and Gas Co, Box 3092, Houston, Texas. *Stratigraphic paleontology.* Calhoun, La, June 18, 13. B.S, Louisiana, 32, M.S, 33. Instr, Louisiana, 33–34; asst. paleontologist, United Gas System, *Houston, Texas,* 34–35; *paleontologist, Stanolind Oil and Gas Co, 35–* Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol. Sabine Eocene ostracoda and stratigraphy; Vicksburg Oligocene foraminifera and stratigraphy; Gulf coast Oligocene and Miocene paleontology and stratigraphy.

Garrett, Prof. Milan W(ayne), 336 N. Princeton Ave, Swarthmore, Pa. *Physics.* Helena, Mont, 00. A.B, Stanford, 20, A.M, 21; Rhodes scholar, Oxford, 21–24, B.A, 24, Int. Educ. Board fellow, 24–26, Ph.D, 26. Physicist, Westinghouse Lamp Co, 26–27; asst. prof. *physics, Swarthmore Col,* 27–35, *assoc. prof, 35–* Physical Soc. Transmutation of elements.

Garrett, Prof. O(rlando) F(ord), Rutgers University, New Brunswick, N. J. *Dairy chemistry.* Metropolis, Ill, April 6, 01. B.S, Illinois, 26, M.S, 30, Ph.D, 36. Milk distribution, Borden's Farm Products Co. of Ill, Chicago, 26–27; instr. dairy chem, Illinois, 27–35; *dairy mfrs, Rutgers,* 35–38, *asst. prof, 38–* Dairy Sci. Asn; Inst. Food Technol. Dairy chemistry; dairy manufactures.

Garrett, Prof. W(illard) H(ayes), Baker University, Baldwin, Kans. *Mathematics, Astronomy.* Mendon, Ill, Nov. 20, 73. B.S, Ill. Col, 95, A.M, 23, Sc.D, 41; Chicago, 97, 00–02; Harvard, 14–15. Instr, Whipple Acad, Jacksonville, Ill, 95–98; *math. and astron,* Ill. Col, 98–00; *prof, Baker, 02–, v. pres.* Instr, Harvard, 14–15. Summers, Yerkes Observatory, Chicago, 05, 24–31. Math. Asn. (chairman, Kans. sect, 20, 25); Astron. Soc; Kans. Asn. Math. Teachers (pres, 04, 22). Magnitudes and color indices of planetary nebulae; correlation between freshman placement test scores in arithmetic and algebra and grades in freshman mathematics.

Garrett, Prof. W(illiam) T(rago), Northwest Missouri State Teachers College, Maryville, Mo. *Biology.* Portland, Mo, July 15, 99. A.B, Westminster Col. (Mo), 23; M.S, Chicago, 28, 33–34, summers, 37, 41. Asst. prof. *biol,* Ark. Col, 23–27; *prof. and chairman dept, Northwest Mo. State Teachers Col, 27–* A.A; Mo. Acad. (chairman biol. sect, 40–42). Animal behavior; ecology.

Garrey, Prof. W(alter) E(ugene), Vanderbilt University School of Medicine, Nashville, Tenn. **Physiology.* Reedsville, Wis, April 7, 74. B.S, Lawrence Col, 94; Berlin, 98; Ph.D, Chicago, 00, M.D, Rush, 09. Instr, high sch, Ill, 96–98; prof. physiol. and pharmacol, Cooper Med. Col, 00–10; assoc. *physiol,* Washington (St. Louis), 10–12, assoc. prof, 12–16; *prof,* Tulane, 16–25; *sch. med, Vanderbilt, 25–* Summer, instr, Marine Biol. Lab, Woods Hole, 99–25, trustee. Mem. at large, med. div, and mem. exec. cmt, biol. div, Nat. Research Council, 29– Nat. Board Med. Examiners, 22–34. A.A; Physiol. Soc. (pres, 37); Soc. Biol. Chem. (past pres); Federation Societies for Exp. Biol. (pres); Soc. Exp. Biol; Am. Med. Asn. (councilor, physical therapy, 27–, chairman, sect. path. and physiol, 37). Comparative physiology; tropisms; artificial parthenogenesis; saline solutions and protoplasm; adaptation of salivary secretion to diet; absorption by muscles; limulus heart; dynamics and inhibition of nerve cells; acetyl choline and heart action; vagus and chronaxia; physiological leucocytosis; respiratory effects in reflexes; cardiac neurology and physiology.

Garrido-Morales, Dr. Eduardo, Department of Health, San Juan, P. R. *Epidemiology.* San Lorenzo, P. R, Oct. 13, 98. M.D, Virginia, 24; Dr.P.H, Hopkins, 26. Collaborating epidemiologist, U. S. Pub. Health Service, 26–31; epidemiologist, *Dept. Health, P. R,* 31–33, *commissioner health, 33–* Instr, Columbia Sch. Trop. Med, Puerto Rico. Fel. Pub. Health Asn. (v. pres, 41); P. R. Med. Asn. (sec'y, 32); San Juan Med. Asn. (pres, 29). Typhoid fever; acute anterior poliomyelitis; value of convalescent and immune measles serums; mechanisms of natural immunity of diphtheria.

Garrigus, Prof. Harry L(uclen), University of Connecticut, Storrs, Conn. *Animal husbandry.* Wolcott, Conn. B.Agr, Conn. Agr. Col, 98; Ont. Agr. Col, 07. Instr. dairying, Baron de Hirsch Sch, 99–00; asst. agr, Storrs Exp. Sta, Conn. Agr. Col, 00–03; *prof. animal husbandry, Connecticut, 03–* Soc. Animal Production; Genetics Soc. Cattle feeding and breeding; sheep.

Garrigus, Prof. W(esley) P(atterson), University of Kentucky, Lexington, Ky. *Agriculture.* Storrs, Conn, June 16, 09. B.S, Conn. Agr. Col, 31; M.S, Illinois, 33, Ph.D, 35. Asst. animal husbandry, Illinois, 31–36; asst. soil conservationist, U. S. Dept. Agr, 36–37; instr, *Kentucky,* 37–39, asst. prof, 39–40, assoc. prof, 40–41, *prof. animal husbandry and head dept. and chairman animal indust. group, 41–* Soc. Animal Production. Pasture utilization; animal nutrition.

Garris, Prof. Edward W(alter), 609 Tuscawilla Ave, Gainesville, Fla. *Agriculture.* Round O, S. C, Jan. 17, 92. B.S, Clemson Col, 15, Sc.D, 37; A.M, South Carolina, 24; Ph.D, George Peabody Col, 26. Prin, high sch, 15–17; teacher, sch, S. C, 17–20; asst. state supervisor, S. C, 20–24; state supervisor, Fla, 25–27; *prof. agr. educ, Florida,* 27– Agricultural education; southern horticulture and field crops.

Garrison, Prof. Allen D(arnaby), Rice Institute, Houston, Texas. *Physical chemistry.* Lexington, Ky, July 29, 97. A.B, 18, M.S, 20; Ph.D, Rice Inst, 21. Nat. research fellow physical chem, 21–24; instr, *Rice Inst,* 24–26, *asst. prof. chem. eng. and physical chem, 26–* Chem. Soc; Chem. Eng; Min. and Metal. Eng. Photochemistry; electrochemistry; applied surface chemistry.

Garrison, Prof. Dwight N(orton), Texas College of Arts and Industries, Kingsville, Texas. *Physical chemistry.* Bowling Green, Ky, May 29, 95. A.B, Ogden Col, 20; Wisconsin, 22; M.S, Michigan, 27. Asst. prin, high sch, La, 20–21; head dept. *chem,* State Commercial Col, Tonkawa, Okla, 21–23; high sch, La, 27–29; *assoc. prof, Texas Col. Arts and Indust, 29–* Chem. Soc; Texas Acad. Plastics.

Garrison, Prof. Earl R(aymond), University of Missouri, Columbia, Mo. *Dairy bacteriology.* Centralia, Ill, Sept. 18, 00. B.S, Illinois, 26; A.M, Missouri, 28; Ph.D, Iowa State Col, 40. Asst. instr. *dairy husbandry, Missouri,* 26–28, instr,

28–30, *asst. prof, '30–* Dairy Sci. Asn. Optical determination of lactose; classification of the fluorescent bacteria; sources and biochemical characteristics of Oospora lactis; lactose fermenting yeasts.

Garrison, Dr. George N(elvin), 55 W. Mosholu Parkway, New York, N. Y. *Mathematics.* Walhonding, Ohio, Sept. 11, 05. B.S, Denison, 27; A.M, Ohio State, 29; Ph.D, Princeton, 39. Instr, Case, 29–31; teacher, high sch, New York, 34–37; *instr. math, Col. City of N. Y, 37–* Math. Soc. Quasi-groups; group theory.

Garrison, Prof. K(arl) C(laudius), Teachers College of Connecticut, New Britain, Conn. *Psychology, Education.* Gaston Co, N. C, Aug. 14, 00. B.S, George Peabody Col, 22, Ph.D, 27; M.S, North Carolina, 26. Teaching fellow, North Carolina, 25–26; instr. educ. psychol, George Peabody Col, 27–28; assoc. prof. psychol, N. C. State Col, 28–32, prof, 32–40; *asst. prof. educ. and psychol, Teachers Col. Conn, 40–* A.A; Educ. Research Asn. Learning; intelligence; beliefs; literature appreciation; vocabulary; psychology of elementary school subjects; spelling; psychology of adolescence.

Garrison, Pres. S(idney) C(larence), George Peabody College for Teachers, Nashville, Tenn. *Psychology.* Lincolnton, N. C, Oct. 17, 87. B.S, Wake Forest Col, 10, A.B, 11, A.M, 13; Ph.D, George Peabody Col, 19. Prin. and sch. supt, N. C; prof. educ. psychol. and director instruction, senior col. and grad. sch, *George Peabody Col,* 19–37, dean grad. sch, *pres, 37–* Capt, A.G.D. A.A; Psychol. Asn; Educ. Research Asn; S. Soc. Philos. and Psychol; Tenn. Acad. Educational psychology; child study; mental tests; age norms.

Garstka, Walter U(rban), Soil Conservation Service, East Lansing, Mich. *Soils.* Warsaw, Poland, May 25, 06. B.S, Pa. State Col, 29; Sage fellow, Yale, 29–30, M.F, 30; Charles Lathrop Pack fellow, California, 33. Instr. forestry, Pa. State Col, 30–33, mem. faculty, grad. sch, 32–33; assoc. conservationist, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 34–35; assoc. soil technologist and soil technologist, in charge soil science investigations, div. watershed and hydrologic studies, *soil conservation service, U. S. Dept. Agr,* 35–40, *project supervisor Mich. hydrol. research project in cooperation with Exp. Sta, Mich. State Col, 40–* Asst. to technician, Appalachian Forest Exp. Sta, U. S. Forest Service, 26, Northeast. Forest Exp. Sta, 30; collaborator, U. S. Dept. Agr, 32, 33. Summers, soil mapper, Mich. Land Econ. Surv, 28, 29. Mem, Int. Cmn. Snow and Glaciers. A.A; Soil Sci. Soc; Soc. Foresters; Geophys. Union. Soil science in its application to forestry; soil physics in its relation to the water cycle; instruments and techniques; cryologic hydrology.

Garth, Dr. John S(hrader), University of Southern California, Los Angeles, Calif. *Zoology.* Los Angeles, Calif, Oct. 3, 09. B.M, Southern California, 32, M.S, 35, Ph.D, 41; Cornell, 37; Pennsylvania, 40. *Research assoc. Crustacea, Allan Hancock Foundation, Southern California, 37–,* entomologist and carcinologist, expeds. to Mex, Cent. and S. Amer, 31–41. Invertebrate zoology; taxonomy, distribution and ecology of the brachyuran Crustacea, particularly of the West Coast of tropical America.

Gartlein, Dr. C(arl) W(itz), Cornell University, Ithaca, N. Y. *Physics.* Connersville, Ind, Nov. 13, 02. A.B, DePauw, 24; Ph.D, Cornell, 29. Asst. *physics, Cornell,* 25–27, instr, 27–36, *curator, 36–* Summers, Heckscher asst, Cornell, 28, 29. Physical Soc; Optical Soc; Geophys. Union; Standards Asn. Spectroscopy; arc spectrum of germanium; first spark spectrum of germanium and arsenic; use of inductance in the classification of spectrum lines; Z-38 photography; the aurora borealis.

Garver, R(aymond) D(aniel), U. S. Forest Service, Washington, D. C. *Forestry.* Fairfield, Nebr, July 6, 90. B.S, Nebraska, 12; M.F, Iowa State Col, 31. Tech. work and admin. forests, *U. S. Forest Service,* 12–25, research forest products, Forest Products Lab, 25–36, *director nation-wide forest surv, 36–* Lecturer, Wisconsin. Soc. Foresters (assoc. ed, 'Jour. Forestry'; chairman Wis. sect, 29). Forest products utilization; selective cutting and utilization for forest products and for forest management; cost reduction methods and improved logging and milling methods; forest resources and forest needs of the United States; forest economics.

Garvey, Dr. B(enjamin) S(t. John), Jr, B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Cambridge, Mass, Feb. 1, 00. B.S, Illinois, 21, M.S, 25; A.M, Harvard, 26, Ph.D, 27. Instr. chem, Boone Univ, China, 21–24; asst, Illinois, 24–25; *research chemist, B. F. Goodrich Co, 27–* A.A; Chem. Soc; Chem. Eng. Chemistry of rubber; catalytic reduction; free radicals; synthetic rubber.

Gaskell, Dr. Robert E(ugene), Brown University, Providence, R. I. *Mathematics.* Grelton, Ohio, Jan. 18, 12. A.B, Albion Col, 33; M.S, Michigan, 34, Ph.D, 40. Instr. math, Albion Col, 38–39; Alabama, 40–42; *fellow, sch. mech, Brown, 42–* Math. Soc; Math. Asn. Laplace transformations and boundary value problems.

Gaskill, Dean H(arold) V(incent), Iowa State College, Ames, Iowa. *Psychology.* Fayette Co, Ohio, Feb. 3, 05. A.B, Ohio State, 26, A.M, 27, Ph.D, 30. Instr. *psychol,* Ohio State, 26–30; asst. prof, *Iowa State Col,* 30–31, assoc. prof, 31–36, *prof, 36–,* asst. dean *science,* 36–38, *dean, 38–, director, indust. science research inst, 38–* A.A; Psychol. Asn; Statist. Asn; Midwest. Exp. Psychol; Iowa Acad; Ohio Acad. Criminal, legal and industrial psychology; quantitative measurement of emotions; reaction time; personality; vocational guidance; personnel selection; industrial marketing.

Gasser, Dr. Herbert S, Rockefeller Institute, New York, N. Y. ***Physiology.* Platteville, Wis, July 5, 88. A.B, Wisconsin, 10, A.M, 11, hon. Sc.D, 41; M.D, Hopkins, 15; hon. Sc.D, Pennsylvania, 36, Rochester, 40; LL.D, Washington (St. Louis), 40. Asst. physiol, Wisconsin, 11–12, instr, 12–13, pharmacol, 15–16; physiol, Washington (St. Louis), 16–18, assoc, 18–20, assoc. prof, 20–21, prof. pharmacol, 21–31; physiol. and head dept, med. col, Cornell, 31–35; *director, Rockefeller Inst, 35–* Co-editor, 'Jour. Exp. Med,' 36– Johnson lecturer, Pennsylvania, 36. Trustee, Rockefeller Foundation, 37– Nat. Acad; A.A; Physiol. Soc; Soc. Pharmacol; Asn. Research Nervous and Mental Disease; Soc. Exp. Biol; Philos. Soc; Am. Physicians; Neur. Asn; Harvey Soc; British Physiol. Soc; Soc. philomat. de Paris; hon. mem. Med. Asn. Argentine. Coagulation of blood; traumatic shock; electrophysiology of nerve with cathode ray oscillograph.

Gassner, Dr. Frank X(avier), Colorado State College, Ft. Collins, Colo. *Physiology, Pathology.* Munich, Germany, Jan. 12, 96. Munich; D.V.M, Colo. State Col, 37. *Asst. prof. physiol, Colo. State Col, 37–, asst. pathologist, Exp. Sta, 38–* A.A; Soc. Exp. Biol; Vet. Med. Asn; Asn. Study Int. Secretions; Poultry Sci. Asn; Conf. Research Workers in Animal Diseases, N. Amer; Colo-Wyo. Acad; Colo. Vet. Med. Asn. Canine coccidiosis; iodine requirements of poultry, sheep and cattle; experimental thyroidectomy in fowl; experimental sex reversal; endocrine relationship between thyroid and sex organs; nutrition, reproduction and diseases in fur-bearing animals; sex hormones and carcinogenesis.

Gast, Dr. Joseph H(enry), Baylor University College of Medicine, Dallas, Texas. *Biological chemistry.* New Orleans, La, April 18, 06. A.B, Michigan, 28, B.S, 36, M.S, 38, Sc.D, 40. Asst. qualitative anal, Michigan, 35–36, biol. chem, sch. med, 36–40; *instr.* physiol, N. Y. Med. Col, 40–42; *biochem, col. med, Baylor, 42–* A.A; Chem. Soc. Sulfur metabolism.

Gast, Dr. Paul F(rederick), Remington Arms Co, Inc, Barnum Ave, Bridgeport, Conn. *Physics.* St. Paul, Minn, May 29, 16. A.B, Ohio State, 37; Ph.D, Washington (Seattle), 41. *Research physicist, Remington Arms Co, Inc, 41–* A.A; Physical Soc. Cosmic rays; interior ballistics of small arms.

Gast, Prof. P(aul) R(upert), Harvard University, Cambridge, Mass. *Forestry, Biophysics.* Fitchburg, Mass, Jan. 27, 97. Ph.B, Brown, 20; M.S, Syracuse, 22; Sc.D, Harvard, 27. Asst. bot, N. Y. State Col. Forestry, Syracuse, 20–22; asst, *Harvard Forest, Harvard,* 22–24, instr. *forestry,* 24–29, *asst. prof, 30–* Asst, Harvard, 22–27; agent, U. S. Forest Service, 24–29; nat. research fellow, Sweden, 29–30. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol. Measurement of radiation; irradiational, meteorological and nutritional factors in growth and development of trees; profile development; nitrogen mobilization and fertility of forest soils; exchange reactions.

Gaston, Prof. Fannie (Frances) R(ebekah), Brown School for Girls, Glendora, Calif. *Mathematics, Astronomy.* East Liverpool, Ohio, July 20, 75. A.M, Cincinnati, 28; Ohio State, 31–32. Teacher, schs, Tenn, 95–97; asst. prof. math, Am. Temperance Univ, 97–00; E. Tenn. Wesleyan Col, 00–04; prof, Lincoln Mem. Univ, 05–07; instr, Tennessee, 10–11; computer, Cincinnati Astron. Observatory, 11–19; registrar, Muskingum Col, 28–29, asst. prof. math, 29–31; *assoc. prof. math. and astron,* Bob Jones Col, 32–37; *Brown Sch. for Girls, 37–* Astron. Soc. Zodiac of Dendera; constellations.

Gaston, T(homas) L(ee), Jr, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Myra, Texas, July 29, 02. B.S, Agr. and Mech. Col. Texas, 24, M.S, 29. Asst. farm management, Agr. and Mech. Col. Texas, 24–28; asst. agr. economist, Idaho, 29–31, assoc. agr. economist, 31; exten. economist farm management, Miss. State Col, 31–34; prin. agr. economist, south. div, agr. adjust. admin, *U. S. Dept. Agr,* 35, *prin. soil conservationist, soil conservation service, 36–* Farm Econ. Asn. Farm management, marketing and planning.

Gatch, Dr. W(illis) D(ew), Indiana University School of Medicine, Indianapolis, Ind. *Surgery.* Aurora, Ind, 78. A.B, Indiana, 01; M.D, Hopkins, 07. Intern and asst. res. surgeon, Hopkins Hosp, 07–11; res. surgeon, sch. med, Washington (St. Louis), 11; *prof. surg, sch. med, Indiana, 12–, dean, 31–* Fel. Col. Surg; Surg. Asn; Am. Med. Asn; South. Surg. Asn; West. Surg. Asn. Experimental and clinical surgery.

Gates, Prof. Arthur I(rving), Teachers College, Columbia University, New York, N. Y. *[1] *Psychology.* Red Wing, Minn, Sept. 22, 90. B.L, California, 14, A.M, 15; Ph.D, Columbia, 17. Lecturer *psychol, Teachers Col, Columbia,* 17–18, instr, 18–20, asst. prof, 20–22, assoc. prof, 22–24, *prof, 24–,* director sect. D, Inst. Educ. Research, 22–30, *head dept. educ. research and assoc. director, Advanced Sch. Educ, 35–, chairman, dept. psychol. and biol. foundations of educ, 34–* A.A. (v. pres. and chairman, Q, 29); Psychol. Asn. (councilor, 26–29); Educ. Research Asn. (v. pres, 41, pres, 43); Asn. Applied Psychol. (chairman educ. sect, 39–). General and educational psychology; psychology of learning; educational diagnosis.

Gates, Dr. Burton N(oble), 24 Charlotte St, Worcester, Mass. *Entomology, Botany.* Worcester, Mass, Dec. 19, 81. Cornell, 01–02; A.B, Clark, 05, A.M, 06, Ph.D, 09. Asst. biol, Clark, 06–07; collaborator, bur. entom, U. S. Dept. Agr, 07, expert apicult, 07–10; special lecturer, Mass. Col, 06–10, asst. prof. and assoc. prof. beekeeping; inspector apiaries, State Board Agr, Mass, 10–18; prof, Ont. Agr. Col, and apiarist, Province Ont, 18–19; *inspector apiaries, State Dept. Agr, Mass, 19–* Asn. Econ. Entom. Apiculture; statistics; economy and behavior of bees and allied forms; life histories of insects; Worcester County, Massachusetts, flora.

Gates, Prof. Cha(rle)s B(aldwin), State Teachers College, Milwaukee, Wis. *Chemistry.* Milwaukee, Wis, June 2, 81. Ph.B, Wisconsin, 03, Ph.M, 06, Ph.D, 10. Teacher, high sch, Wis, 03–05; asst. instr. chem, Wisconsin, 06–09; instr. anal. chem, Mich. Col. Mines, 10–14; *prof. chem. and head dept, Wis. State Teachers Col, Milwaukee, 14–* Lecturer, Columbia Hosp, Milwaukee. Chem. Soc. Phenomena in non-aqueous solutions.

Gates, Prof. Frank C(aleb), Kansas State College, Manhattan, Kans. *Botany.* Chicago, Ill, Sept. 12, 87. A.B, Illinois, 10; Ph.D, Michigan, 12. Instr. bot, Philippines, 12–15; prof. biol, Carthage Col, 16–19; asst. prof. *bot, Kans. State Col,* 19–22, assoc. prof, 22–28, *prof, 28–* Mich. Biol. Surv, 11; acting asst. prof, Michigan, 19–20. Summers, from instr. to prof, biol. sta, Michigan, 15– 2nd lieut, Sanit. C, 18. A.A; Soc. Taxon; Bot. Soc; Ecol. Soc; Kans. Acad. (ed, 30–41, pres, 41); Mich. Acad; Ill. Acad. Plant ecology; revegetation of Taal Volcano; evaporation and plant succession; dragoyle; poisonous plants; flora of Kansas; bogs.

Gates, Dr. Georgina Stickland, 464 Riverside Drive, New York, N. Y. *Psychology.* Brooklyn, N. Y, Jan. 2, 96. A.B, Columbia, 17, Ph.D, 19. Asst. psychol, Barnard Col, Columbia, 18–20, lecturer, 20–22, instr, 22–28, asst. prof, 28–33, assoc, 33–34. Psychol. Asn. Experimental and comparative psychology; individual differences; practise; emotion; social perception.

Gates, Dr. G(ordon) E(noch), Judson College, Rangoon, Burma, India. *Zoology.* Warner, N. H, Jan. 11, 97. A.B, Colby Col, 19; A.M, Harvard, 20, Ph.D, 34. *Head dept. biol, Judson Col. (India), 21–* Acting prof, Univ. Rangoon, 27, 35. A.A. Taxonomy, distribution and ecology of earthworms, especially in the Oriental region.

Gates, Dr. J(ohn) W(arburton), Jr, Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Pensacola, Fla, March 5, 14. A.B, Stanford, 35, A.M, 37, Ph.D, 38. Asst. chem, Stanford, 35–36; *research chemist, Eastman Kodak Co, 38–* Chem. Soc. Organic analytical reagents; polyaryl indenes.

Gates, Dr. Marshall D(eMotte), Bryn Mawr College, Bryn Mawr, Pa. *Organic chemistry.* Boyne City, Mich, Sept. 25, 15. B.S, Rice Inst, 36, A.M, 38; Ph.D, Harvard, 41. *Asst. prof. chem, Bryn Mawr Col, 41–* Chem. Soc. Synthetic organic chemistry, particularly of quinones.

Gates, Dr. Olive, 1397 Beacon St, Brookline, Mass. *Pathology.* Worcester, Mass, Nov. 3, 00. A.B, Vassar Col, 24; M.D, Yale, 29. Asst. path, Children's Hosp. and Peter Bent Brigham Hosp, Boston, 29–31; res. pathologist, Huntington Mem. Hosp, 31–33; asst. pathologist, New Eng. Deaconess Hosp, 33–34; *Huntington Mem. Hosp,* 34–40, *assoc. pathologist, 40–; asst. director, Mass. State Tumor Diagnosis Service, 34–; asst. visiting pathologist, Pondville Hosp, Wrentham, Mass, 36–* Instr, med. sch, Boston, 32; *research assoc, Harvard Med. Sch, 42–* Am. Med. Asn; Soc. Exp. Path; Am. Cancer Research; Asn. Path. and Bact; New Eng. Path. Soc; Mass. Med. Soc. Malignant diseases.

Gates, Dr. R(eginald) R(uggles), Woods Hole, Mass. *Anthropology, Botany, Cytology.* Middleton, N. S, Can, May 1, 82. B.A, Mt. Allison, 03, M.A, 04, LL.D, 27; B.Sc, McGill, 06; fellow, Chicago, 06–08, Ph.D, 08; D.Sc, London. Demonstrator biol, McGill, 05–06; asst. bot, Chicago, 08–09; experimenter, Mo. Bot. Gardens, 09–11; lecturer biol, St. Thomas Hosp, London, 12–14; acting assoc. prof. zool, California, 15–16; reader bot, *King's Col, London,* 19–21, prof, 21–42, *emer. prof, 43–* Asst, Marine Biol. Lab, Woods Hole, 08–10. Del. British and Am. Asn, Indian Science Cong, 37. Amazon exped, 25; Russia, 26; Mackenzie River exped, 28; S. Africa exped, 29. Mendel medal, 11; Huxley gold medal, Royal Col. Science, London, 13. A.A; Soc. Nat; assoc. Bot. Soc; Genetic Asn; Eugenics Soc. (councilor); Eugenics Research Asn; cor. mem. N. S. Inst; fel. Royal Soc; Linnean Soc. London; fel. Royal Anthrop. Inst. (councilor and v. pres); British Genetical Soc; Royal Micros. Soc. (past pres); cor. mem. Bot. Soc. Japan. Heredity and evolution; cytology; genetics; eugenics; racial crossing; blood groups.

Gates, Prof. W(illia)m H(azen), Louisiana State University, Baton Rouge, La. *Zoology.* Mahableshwar, India, May 11, 83. A.B, Williams Col, 06; Sc.D, Harvard, 26. Zoologist, Gulf Biol. Sta, La, 08–09; *prof. zool. and entom, Louisiana, 09–* Zoologist, Fish and Game Cmn, Mass. A.A; Soc. Nat; Soc. Zool; Genetic Asn; Eugenics Soc; La. Acad; Biol. Soc. Wash. Parasitism; animal genetics; embryology of deer; habits and life histories of bats; linkage in mice; the Southern Appalachian balds.

Gatewood, Prof. B(uford) E(chols), McDonnell Aircraft Corp, St. Louis, Mo. *Mathematics.* Byhalia, Miss, Aug. 23, 13. B.S, La. Polytech, 35; M.S, Wisconsin, 37; Ph.D, 39. Asst. math, Wisconsin, 35–39; asst. prof, La. Polytech; *stress engineer, McDonnell Aircraft Corp.* Summer, junior instr, tank dept, Armored Force Sch, 41. Math. Soc; Math. Asn. Thermal stresses in long cylindrical bodies.

Gathercoal, Prof. E(dmund) N(orris), 808 S. Wood St, Chicago, Ill. *Pharmacy, Botany.* Sycamore, Ill, Dec. 23, 74. Ph.G, Illinois, 95; Phar.M, Phila. Col. Pharmacy, 36. From instr. to *emer. prof. pharmacog, Illinois, 07–* Chairman, Nat. Formulary Revision Cmt, 29–40; Nat. Pharmaceut. Research Conf, 29– Remington medal, Pharmaceut. Asn, 36. Pharmaceut. Asn. (chairman, sci. sect, 18, v. pres, 22, pres, 37). Pharmacognosy; standards of drugs and medicines.

Gatz, Prof. Arthur J, Carleton College, Northfield, Minn. *Zoology.* Winona, Minn, Dec. 18, 07. A.B, Carleton Col, 31; A.M, Minnesota, 33, Ph.D, 36. Asst. *zool,* Minnesota, 31–35; instr, *Carleton Col,* 35–41, *asst. prof, 41–* A.A; Soc. Zool; Asn. Anat; Minn. Acad. Cytology of secretion; cytology of endocrine glands; effect of vitamin deficiency on endocrine glands; histology; comparative anatomy; embryology; experimental zoology.

Gauch, Dr. Hugh G(ilbert), U. S. Regional Salinity Laboratory, Riverside, Calif. *Plant physiology.* West Manchester, Ohio, April 5, 13. A.B, Miami (Ohio), 35; M.S, Kans. State Col, 37; Coulter fellow, Chicago, 37–39, Ph.D, 39. Research asst. plant physiol, Kans. State Col, 35–37; *agent, U. S. Regional Salinity Lab, 39–* Growth and metabolic responses of plants to saline substrates.

Gaucher, L(eon) P(hilip), Texas Co, Chrysler Bldg, 135 E. 42nd St, New York, N. Y. *Chemical engineering.* Spencer, Mass, July 15, 04. B.S, Mass. Inst. Tech, 28. Cracking research, *Texas Co,* Port Arthur, 28–38, *cracking research and process design, 38–* Conversion of petroleum fractions.

Gaudet, Prof. Frederick J, 31 Sutton Place, S, New York, N. Y. *Psychology.* Yarmouth, N. S, Can, March 5, 02. A.A; Harvard, 27, M.Ed, 28; Ph.D, Columbia, 38. Asst. prof. *psychol,* N. J. Law Sch, 28–30; *prof,* Dana Col, 30–36; *Newark, 36–* Lecturer, Stevens Inst. Tech, 40– Applied psychology; legal and personnel selection.

Gaudin, Prof. A(ntoine) M(arc), 32 Leonard Ave, Newton, Mass. *Metallurgy.* Smyrna, Asia Minor, Aug. 8, 00. B.S, Paris, 17; E.M, Columbia, 21; Sc.D, Montana, 41. Lecturer mining, Columbia, 24–26; assoc. prof. mining and metal. research, Utah, 26–29; research prof. *mineral dressing,* Mont. Sch. Mines, 29–39; *Richards prof, Mass. Inst. Tech, 39–; consulting metallurgist, 26–* A.A; Eng. Educ; Min. and Metal. Soc; Acad. Polit. Sci; Min. and Metal. Eng. (chairman, Mont. sect, 36–38); Chem. Soc. (chairman, Utah sect, 28); N. Y. Acad. Rock and ore crushing; the flotation process; mineragraphy; synthesis of minerals; leaching of ores.

Gauerke, Dr. Chester G(ustave), 2903 N. 57th St, Milwaukee, Wis. *Chemistry.* Portage, Wis, June 11, 98. A.B, Lawrence Col; M.S, Illinois, Ph.D, 28. Teacher, Illinois, 23–27; research chemist, E. I. du Pont de Nemours and Co, 27–35; *production manager synthetic resins, Pittsburgh Plate Glass Co, 35–* Identification of alkyl halides; reaction of Grignard reagent on esters of dibasic acids; drying oils; cellulose esters; synthetic resins for coating compositions.

Gauger, Prof. A(lfred) W(illiam), Pennsylvania State College, State College, Pa. *Chemistry, Chemical engineering.* St. Paul, Minn, July 31, 92. A.B, Minnesota, 14; A.M, Princeton, 20, Procter fellow, 21–22, Ph.D, 22. Asst. chem, Minnesota, 13–14; chemist, Great West. Sugar Co, 14–15; junior chemist, U. S. Bur. Mines, 15–17; research assoc, Am. Sheet and Tin Plate Co, 20–21; nat. research fellow, California, 22–24; chem. engineer and manager Westend plant, Burnham Chem. Co, 24–25; chemist, Roessler and Hasslacher Chem. Co, 26; director div. mines, North Dakota, 26–31; *prof. fuel technol. and director mineral indust. research, sch. mineral indust, Pa. State Col, 31–* Summer, instr, Minn, 14. Nat. Coal Board of Arbitration, 35; tech. cmt. sci. classification of coal. Capt, C.W.S, and director army gas sch, 18–19. Chem. Soc. (sec'y, Pittsburgh sect, 17, chairman, gas and fuel div, 33, chairman, cent. Pa. sect, 35); Soc. Test. Mat. (chairman cmt. gaseous fuels); Ceramic Soc; Min. and Metal. Eng; Gas Asn; Coal Research Club, London. Adsorption; catalysis; fuel technology.

Gaul, Dr. James H(arvey), 12 Dunmoyle Place, Pittsburgh, Pa. *Anthropology, Archeology.* Pittsburgh, Pa, May 17, 11. B.S, Harvard, 32, A.M, 38, Ph.D, 40; fellow, Am. Sch. Prehist. Research, Bulgaria and Balkans, 38–39. Instr, Am. High Sch, Paris, France, 32–33; asst. archeologist, Joint Persian exped, Iran, 35–36; instr. anthrop, Brooklyn Col, 40–41; special asst, European div, U. S. State Dept, 41; *U. S. Naval Res, 41–, lieut.* U. S. del, Int. Cong. Anthrop. and Prehist, Istanbul, 39. European prehistory; Near Eastern prehistory; prehistory of Russia.

Gauld, Dr. Ross L(aurier), 615 N. Wolfe St, Baltimore, Md. *Epidemiology.* Mimico, Ont, Can, Oct. 12, 00. M.B, Toronto, 24; C.P.H, Hopkins, 35, Dr.P.H, 36. Epidemiologist, State Health Dept, Tenn, 36–37; *assoc. epidemiol, Hopkins, 37–* Epidemiologist, Nat. Foundation Infantile Paralysis, 41. Pub. Health Asn; Epidemiol. Soc. Tuberculosis.

Gault, Dean A(rthur) E(ugene), 123 Summit Blvd, Peoria, Ill. *Mathematics.* Kecksburg, Pa, Sept. 9, 88. B.S, Grove City Col, 14; M.S, Chicago, 21. Teacher, high sch, Pa, 14–15; math. and athletics, Pa. State Nor. Sch, Slippery Rock, 15–17; assoc. prof. *math, Bradley Polytech,* 21–40, *prof. and head dept, 40–, dean arts and sciences, men's div, 24–* Summers, Grove City Col, 14–17, 21–27. U.S.A, 17–19. A.A; Math. Asn; Eng. Educ. Astronomy.

Gault, Prof. Edwin S(artain), Temple University School of Medicine, 3401 N. Broad St, Philadelphia, Pa. *Pathology, Bacteriology.* Philadelphia, Pa, Dec. 23, 93. M.D, Hahnemann Med. Col. (Pa), 20. Intern, Hahnemann Hosp, Philadelphia, Pa, 20–21; clin. pathologist, Sacred Heart Hosp, Allentown, Pa, 21–22; mem. faculty *path. and bacter, Temple Univ. Med. Sch,* 23–32, asst. prof, 32–36, *assoc. prof, 36–, parasitologist, 36–* Clin. pathologist, St. Agnes Hosp, Philadelphia, 23–24; Garretson Hosp, 23–26; Greatheart Hosp, 23–26; asst. pathologist, Phila. Gen. Hosp, 28–; Phila. State Hosp, 40– A.A; Asn. Path. and Bact; Soc. Bact; Inst. Homeopathy; Am. Med. Asn. Cardiovascular renal disease.

Gault, Dr. H(ugh) Richard, U. S. Geological Survey, Washington, D. C. *Geology.* Chicago, Ill, Feb. 7, 15. A.B, De-Pauw, 36; A.M, Missouri, 38; Pa. State Col, 38–39; Ph.D, Hopkins, 42. Junior geologist, *U. S. Geol. Surv,* 42, *asst. geologist, Alaskan branch, 42–* Summers, junior highway engineer, State Highway Dept, Ill, 36, 37; Ala. Geol. Surv, 40, 41. Miner. Soc; Min. and Metal. Eng; Ind. Acad; Geol. Soc. Wash. Structural geology; economic geology; heavy mineral studies of a sandstone in Indiana; etch figure studies with optically active acids; structural and petrographic studies in Alabama.

Gault, Prof. J(ames) S(herman), University of Michigan, Ann Arbor, Mich. *Electrical engineering.* Detroit, Mich, June 23, 99. B.S.E, Michigan, 21, M.S, 23. Mem. testing dept, Gen. Elec. Co, 21–22, turbine eng. dept, 22; instr. *elec. eng, Michigan,* 22–30, asst. prof, 30–41, *assoc. prof, 41–* Elec. engineer, Holland, Ackerman and Holland, 26–27, 41–42. Summers, research and develop, Howell Elec. Motors, Mich, 24, 27; asst, Parsons, Klapp, Brinckerhoff and Douglas, 29, 30. Elec. Eng. Storm loading and strength of wood pole lines; rotor bar currents in squirrel cage induction motors.

Gault, Prof. Robert H(arvey), Northwestern University, Evanston, Ill. *Psychology, Criminology.* Ellsworth, Ohio, Nov. 3, 74. A.B, Cornell, 02; Clark, 02–03; Ph.D, Pennsylvania, 05. Prof. psychol. and educ, Washington Col. (Md), 05–09; instr. psychol, Northwestern, 09–11, asst. prof, 11–12, assoc. prof, 12–15, prof, 16–41, *emer. prof, 41–* Nat. Research Council, 24–26; research assoc, Carnegie Institution, 26–29; admin. asst, State Dept. Pub. Welfare, Ill, 40. Summers, Col. of Wooster, 08, 09; N. Y. Univ, 13, 14; California, 18, 24, 39; California at Los Angeles, 22; European univs, 30. Ed. in chief, 'Jour. Criminal Law and Criminol'; ed, Criminal Science Monographs,' 11– Director criminol. investigation, City Council Cmt. on Crime, Chicago, 14; exec. cmt, Chicago Crime Cmn, 19–; pres, Social Hygiene League, Ill, 14–24; pres, Social Legislation, Ill, 18–20. A.A; Psychol. Asn; fel. Acoustical Soc; Inst. Criminal Law and Criminol. (exec. councilor, 11–); Asn. Clin. Criminol. (exec. councilor, 13–); Prison Asn; fel. Chicago Soc. Criminol. Social psychology; history of investigations on reflex action from 1853–1902; causes of crime in Chicago; social unity; suggestion; tactual sensitivity; interpretation of speech by tactual signs; use of the feel of speech in relation to improvements of deaf speech; morale; race prejudice and discrimination; propaganda; police.

Gaum, Prof. C(arl) G(ilbert), 605 S. Second Ave, New Brunswick, N. J. *Engineering.* Saginaw, Mich, Jan. 13, 84. B.S, Ala. Polytech, 08, M.E, 09. Instr. machine design, Ala. Polytech, 09–13; mech. eng, Pa. State Col, 13–15, eng. exten, 15–17, from instr. to prof, 20–30; *prof. univ. exten, Rutgers, 30–* Investigation of educ. of employed boys and continuation schs, Phila, 14–15. Ensign, U.S.N.R, 17–20. A.A; Mech. Eng; Eng. Educ; Asn. Adult Educ; Econ. Asn; Acad. Polit. Sci. Machine design; industrial psychology; executive training; personal efficiency; communism experiments in America.

Gaumnitz, Dr. E(dwin) W(illiam), 4010 N. 25th St, Arlington, Va. *Agricultural economics.* St. Cloud, Minn, Feb. 18, 99. B.S, Minnesota, 21, A.M, 22, Ph.D, 25. Instr. and asst. prof. agr. econ, Minnesota, 22–26; asst. prof. marketing, Iowa State Col, 26–28; agr. economist, State Dept. Agr, Calif, 28–30; senior agr. economist, bur. agr. econ, *U. S. Dept. Agr,* 31–33, prin. agr. economist, agr. adjust. admin, 33–35, chief dairy sect, 35–39, director div. marketing and marketing agreements, 39–40, asst. administrator, *surplus marketing admin,* 40–41, *assoc. administrator, 41–* Special asst. to exec. director, Board Econ. Warfare, 42–43. Dairy and poultry consumption and prices.

Gaunt, Prof. Robert, New York University, Washington Square, New York, N. Y. *Biology.* Macon, Mo, April 13, 07. A.B, Tulsa, 29; A.M, Princeton, 30, Ph.D, 32. Prof. *biol.* and head dept, Col. of Charleston, 32–35; asst. prof, *Wash. Sq. Col, N. Y. Univ,* 35–42, *assoc. prof, 42–* Guggenheim Mem. Foundation fellow, 43. Physiol. Soc; Asn. Anat; Soc. Zool; Asn. Study Int. Secretions; Soc. Exp. Biol. Adrenal cortex; endocrine glands in general.

Gauss, Prof. Henry F(allenstein), 721 E. First St, Moscow, Idaho. *Mechanical engineering.* Brazil, S. Amer, April 21, 85. B.S, Washington (St. Louis), 08, M.E, 18. Minor eng. positions, 08–10; mech. engineer in charge construction, St. Louis Water Div, 10–16; chief inspector boilers and elevators, City of St. Louis, 16–17; chief engineer, Ill. Stoker Co, 17–18, 23–25; prof. *mech. eng,* Akron, 18–23; *prof.*

and head dept, Idaho, 25– Mech. Eng; Eng. Educ. Power plant engineering; thermodynamics.

Gauthier, Prof. Roger, University of Montreal, Montreal, Que, Can. *Botany.* Gardner, Mass, April 3, 06. B.A, Montreal, 29, L.S, 37. *Asst. prof. bot, Montreal, 38–* Soc. can. d'Hist. nat; Asn. can-francaise pour l'avance. des Sci. General botany; morphology.

Gauvin, Dr. Dominique, Ancienne-Lorette, Que, Can. *Chemistry.* Ancienne-Lorette, Que, July 23, 08. B.A, Quebec Sem, 28; Price bursar, Laval, 29–31, 32, L.Sc, 30, M.A, 32, Nat. Research Council Can. bursar, 32–33, student, 33–35, D. Sc, 35. Demonstrator chem. and physics, Laval, 31–32; *director, Munic. Lab, Quebec, 36–* Summer, asst. chemist, labs, Int. Paper Co, Temiskaming, Que, 30. Silver medal, Lieut-Gov, Que. Pub. Health Asn; Can. Pub. Health Asn; Can. Chem. Asn; assoc. Can. Inst. Chem; Soc. Chem. Que. Polymers and polymerization; constitution of polyindenes and polystyrenes.

Gaviola, Dr. (Ramón) Enrique, Observatorio Astronómico, Córdoba, Argentina. *Astrophysics.* Mendoza, Argentine Republic, Aug. 31, 00. Bachiller, Col. Nacional, Argentine Republic, 17; LaPlata, 21; Ph.D, Berlin, 26. Rockefeller Foundation fellow, 27–28; asst. physicist, dept. terrestrial magnetism, Carnegie Institution, 28–29; research assoc, LaPlata, 29–30; prof. physics, Buenos Aires, *Argentina,* 30–36; La Plata Observatory, 36–37; *Córdoba Observatory, 37–* Guggenheim Mem. Foundation fellow, 34–35. Physical Soc; Deuts. Physik. Gesell. Physical optics; physical chemistry.

Gaw, Dean Esther Allen, Ohio State University, Columbus, Ohio. *Psychology.* Hudson, Ohio, Dec. 28, 79. A.B, Western Reserve, 00; Stern Conservatory, Berlin, 04–06; Ph.D, Iowa, 19. Teacher music, Salt Lake City, 00–15; instr. psychol, Iowa, 19–20; Calif. State Teachers Col, San Francisco, 20–22; assoc. dean in charge personnel, Mills Col, 22–23, assoc. prof. and assoc. dean, 23–27; *dean women, Ohio State, 27–* Consulting psychologist, Williams Inst, 22–27. Summers, instr, California, 22; Utah, 23; Ohio State, 28, 30–; Calif. State Teachers Col, San Diego, 29; Chile, 38; Costa Rica, 42. A.A; Psychol. Asn; Soc. Psychol. Study Social Issues. Measurement of social intelligence on the college level.

Gawthrop, D(onald) B(innix), E. I. du Pont de Nemours and Co, Gibbstown, N. J. *Chemical engineering.* Wilmington, Del, 96. B.S, Carnegie Inst. Tech, 20. Physical chemist, Grasselli Powder Co, 17; chemist, Gen. Chem. Co, 20; explosives research, U. S. Bur. Mines, 20–34; *chemist, E. I. du Pont de Nemours and Co, 34–* Explosives.

Gay, Dr. C(arl) W(arren), 821 Oxford St, Worthington, Ohio. *Animal husbandry.* Waverly, N. Y, March 14, 77. D.V.M, Cornell, 99; B.S.A. Iowa State Col, 05. Asst. prof, vet. dept, Iowa State Col, 01–02, animal husbandry, 04–05; asst. and assoc. prof, Ohio State, 05, 06; prof. animal indust, Pennsylvania, 07–16; prof. *animal husbandry* and chairman group, Minnesota, 16–20; *prof, Ohio State, 20–,* chairman dept, 20–40. Soc. Animal Production. Livestock production.

Gay, Prof. Harold J(oseph), Worcester Polytechnic Institute, Worcester, Mass. *Mathematics.* Troy, N. H, March 20, 98. A.B, Harvard, 19; A.M, Clark, 22; Chicago; Columbia. Instr. *math, Worcester Polytech,* 19–24, asst. prof, 24–38, *prof, 38–* Math. Soc; Math. Asn; Eng. Educ. Mathematical analysis; educational methods and administration.

Gay, Dr. Leslie Newton, 1114 St. Paul St, Baltimore, Md. *Internal medicine.* Shamokin, Pa, 91. Ph.B, Lafayette Col, 13; M.D, Hopkins, 17. Asst. clin. med, *sch. med, Hopkins,* 19–21, asst. instr, 21–23, instr, 23–32, *assoc. med, 32–* Director asthma-hay-fever clinic, Hopkins Hosp, 22, asst. visiting physician, 24–39, visiting physician, 39– A.A; Am. Med. Asn; Soc. Study Asthma (pres, 28); fel. Col. Physicians; Asn. Immunol; South. Med. Asn. Lymphatic leukemia of the skin; skin reactions to human sera and to pollen injections; passive transfer of hypersensitivity; asthma and ephedrine; treatment of asthma and hay-fever; ragweed dermatitis; diabetes mellitus and hyperthyroidism; urticaria and angioneurotic edema; allergic diseases.

Gayer, Dr. H(ubert) Kenneth, Grinnell College, Grinnell, Iowa. *Experimental embryology.* Trinidad, Colo, Sept. 14, 13. A.B, Oberlin Col, 36; Ph.D, Washington (St. Louis), 41. Asst. embryol, Washington (St. Louis), 41–42; *instr. biol, Grinnell Col, 42–* Embryology of hereditary eye defects in chicks.

Gaylor, Peter J(ohn), Standard Oil Development Co, Elizabeth, N. J. *Organic chemistry.* Lithuania, Oct. 12, 05. B.S, Pa. State Col, 26; Mass. Inst. Tech, 28; LL.B, Newark, 36. Research assoc, research lab. applied chem, Mass. Inst. Tech, 26–28; supt. exp. plant, Humble Oil and Ref. Co, 29; in charge indust. research div, *Standard Oil Develop. Co,* 31–32, *patent attorney, 36–* A.A; Chem. Soc; N. Y. Acad. Cracking; polymerization; oxidation of petroleum hydrocarbons; high pressure reactions; petroleum sulfur compounds; ketene; alkaloids; utilization of refinery gases.

Gaylord, Fay C(laude), Purdue University, Lafayette, Ind. *Horticulture.* West Lafayette, Ind, March 19, 89. B.S, Purdue, 17. Assoc. horticulturist, *Exp. Sta, Purdue,* 17–25, in charge hort. marketing, 25–35, *asst. chief hort, in charge truck crops and marketing investigations fruits and vegetables, 35–* Soc. Hort. Sci; Ind. State Veg. Growers' Asn. (sec'y). Standardization and quality of peaches, apples, onions, potatoes, sweet potatoes and strawberries; precooling and fast freezing fruits and vegetables; factors affecting grade, standardization and market value of mint oil; cannery tomatoes.

Gayton, Dr. A(nna) H(adwick), P. O. Box 880, Santa Cruz, Calif. *Anthropology.* Santa Cruz, Calif, Sept. 20, 99. A.B, California, 23, A.M, 24, Ph.D, 28. Asst. anthrop, California, 26–28; nat. research fellow, 29–30; ed. asst, anthrop. publications, Yale, 36–39; rev. ed, *'Jour. Am. Folk-Lore,'* 36–41, *assoc. ed, 36–* A.A; Anthrop. Asn; Ethnol. Soc; Soc. Archeol; Folk-Lore Soc; Calif. Folk-Lore Soc. Peruvian pottery; Indians of central California; folk-tales of California Indians.

Gazin, Dr. C(harles) Lewis, U. S. National Museum, Washington, D. C. *Geology.* Colorado Springs, Colo, June 18, 04. B.S, Calif. Inst. Tech, 27, M.S, 28, Ph.D, 30. Asst. vert. paleont, Calif. Inst. Tech, 27–29, teaching fellow geol. and paleont, 29–30; junior geologist, U. S. Geol. Surv, 30–32; asst. curator *vert. paleont, U. S. Nat. Museum,* 32–42, *assoc. curator, 42–; Air Force, U. S. Army, 42–* Paleont. expeds, Oregon, Nev. and Calif, Calif. Inst. Tech. and Carnegie Institution; leader expeds, Ariz, N. Mex, Idaho, Utah and Wyo, Smithsonian Institution. Geol. Soc. prize, 30. Geol. Soc; Soc. Vertebrate Paleont; Paleont. Soc; Soc. Mammal; N. Y. Acad; Geol. Soc. Wash; Wash. Acad. (ed, 38–40). Vertebrate paleontology; Tertiary and Quaternary mammalian faunas; geology of the coast ranges of southern California and of the San Andreas rift.

Geagley, W(illiam) C(arl), 1115 W. Genesee Drive, Lansing, Mich. *Chemistry.* Afton, Tenn, July 21, 90. B.S, Mich. State Col, 12. Teacher, high sch, *Mich,* 12–13; asst. chemist, dairy and food dept, *State Dept. Agr,* 13–16, asst. state analyst, 16–18, state analyst, food and drug dept, 18–21, *state analyst and chief chemist, 21–* Mem. food standards cmt, U. S. Dept. Agr, 26– Adviser, 'Home Economist and Am. Food Jour,' 28–29. Chem. Soc; Asn. Dairy, Food and Drug Officials (sec'y-treas, 22–); Asn. Feed Control Officials (v. pres, 31–); Agr. Chem. (chairman, subcmt. C, recommendations of referees, 23–25). Foods; beverages; cattle feeds; commercial fertilizers; standards.

Gealy, Dr. Wendell B(aum), P. O. Box 1166, Pittsburgh, Pa. *Geology, Geophysics.* Oil City, Pa, Dec. 23, 02. B.S, Allegheny Col, 24; Ph.D, Pittsburgh, 34. Geologist, Gulf Companies, 28–32; instr. geol, Pittsburgh, 32–33; geophysicist, seismograph div, Gulf Research and Develop. Co, 33–37; *geologist, Gulf Oil Companies, 38–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Explor. Geophys. Determination and interpretation of physical properties of rocks.

Gear, Harry B(arnes), 10769 S. Seeley Ave, Chicago, Ill. *Electrical engineering.* Marietta, Ohio, March 6, 72. A.B, Marietta Col, 92; M.E, Cornell, 95. Gen. inspector, *Commonwealth Edison Co,* 00–11, *engineer distribution, 11–,* asst. to v. pres, 21–36, *v. pres, 36–* Trustee, Univ. Chicago, 24– Sec'y and pres, Utilities Research Cmn, 26– Chanute medal, West. Soc. Eng, 10; Billings prize, Nat. Elec. Light Asn, 14. A.A; Elec. Eng; West. Soc. Eng. (v. pres, 30, pres, 33). Electrical distribution and economics; electrical central station distribution.

Gebhard, Dr. J(ack) W(endell), University of Illinois, Urbana, Ill. *Psychology.* Detroit, Mich, Aug. 9, 12. A.B, Wayne, 34; A.M, Michigan, 36, fellow, 36–39, Ph.D, 41. Instr. *psychol,* Maine, 39–42; *assoc, Illinois, 42–* A.A; Psy-

chol. Asn. Subjective phenomena produced by intermittent retinal stimulation.

Gebhardt, Prof. Geo(rge) F(rederick), 469 N. E. 69th St, Miami. Fla. *Mechanical engineering.* Salt Lake City, Utah, March 1, 74. B.S, Knox Col, 95, M.S, 99; M.E, Cornell, 97. Prof. *mech. eng.* and head dept, *Armour Inst. Tech,* 04–34, *emer. prof, 34–* Mech. Eng; Nat. Asn. Power Eng; West. Soc. Eng. Steam power plant engineering; dynamics of the steam engine; engine governors.

Gebhardt, Dr. Hans T(heodore), 418 Milford Ave, Marysville, Ohio. *Chemistry.* Baden-Baden, Germany, Dec. 1, 99. Eidgenossische Tech. Hochschule, Zurich, 19–20; Dipl. Agr, Landwirtschaftliche Hochschule, Hohenheim, Germany, 23; M.S, Wisconsin, 28, Ph.D, 30. Asst. dairy husbandry, Wisconsin, 28–31; *research chemist, Nestlé's Milk Products, Inc, Marysville, 31–* A.A; Chem. Soc; Dairy Sci. Asn. Agricultural and dairy chemistry and bacteriology; solubility of metals in milk and electrochemical phenomena of such solutions; physio-chemical properties of milk; thermal death times of bacteria.

Gebhardt, Dr. Louis P(hilipp), Jr, University of Utah School of Medicine, Salt Lake City, Utah. *Bacteriology, Pathology.* Jackson, Calif, Dec. 20, 05. A.B, Stanford, 29, A.M, 34, Ph.D, 37, M.D, 42. Asst. bacter. and exp. path, Stanford, 29–36, research assoc, 37–39, acting asst. prof, 41–42; *assoc. prof. bacter. and path, sch. med, Utah, 42–* Summer, research assoc, Stanford, 40. Soc. Bact. Poliomyelitis.

Geddes, Dr. A(mos) Leslie, B-59, Eastman Kodak Co, Rochester, N. Y. *Physical chemistry.* N. S, Can, Jan. 19, 11. B.Sc, Dalhousie, 33, M.Sc, 34; Nat. Research Council Can. bursar, McGill, 34–35, student, 35–36, Ph.D, 36. *Research chemist,* Shawinigan Chem, Ltd, Que, 36–39; *Eastman Kodak Co, Ltd, 39–* Chem. Soc. Development and research of synthetic resins; sensitizing dyes in photography.

Geddes, Dr. John A(lbert), Krebs Pigment and Color Corp, Newport, Del. *Chemistry.* Paterson, N. J, Feb. 11, 12. B.S, Lafayette Col, 31, M.S, 32; Ph.D, Brown, 35. Asst. chem, Brown, 32–34; *research chemist,* Nat. Carbon Co, 35–36; *Krebs pigment and color corp, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Viscosity; dielectric constants; pigmentation of rayon and rubber.

Geddes, Dr. Ray L(lewellyn), 272 Quinobequin Road, Waban, Mass. *Physical chemistry.* Wellington, Kans, Jan. 27, 05. B.S, Kans. State Col, 27; M.S, Ohio State, 28, fellow, 29–30, Ph.D, 30. Asst, Ohio State, 27–29; research chemist, Standard Oil Co. of Ind, 30–36; Alco Products, Inc, 36–39; *chem. engineer, Stone and Webster Eng. Corp, 39–* Chem. Eng; Chem. Soc.. Gas reactions; fractional distillation; chemical petroleum plant design.

Geddes, Dr. W(illiam) F(indlay), 2141 Doswell Ave, St. Paul, Minn. *Biochemistry.* Manotick, Ont, Can, Aug. 18, 96. B.S.A, Toronto, 18, M.A, 24; M.S, Minnesota, 27, Ph.D, 29. British Chem. Co, Trenton, Ont, 18; asst. chief chemist, Aetna Explosives Ltd, Drummondville, Que, 18–19; research chemist, Kellogg Cornflake Co, London, Ont, 19; asst. prof. agr. chem, Manitoba, 19–25, prof. and head dept, 25–33; chemist in charge Dom. grain research lab, Board Grain Commissioners, Winnipeg, 33–38; *prof. agr. biochem, Minnesota, 38–* Sec'y assoc. cmt. grain research, Nat. Research Council, Can, 32–38. A.A; Chem. Soc; Asn. Cereal Chem. (chairman, cmt. standardization lab. baking, 33, 34, assoc. ed, 'Cereal Chem,' 36–, v. pres, 37, pres, 39); fel. Can. Inst. Chem; Can. Soc. Tech. Agr. Enzymes; cereal chemistry.

Gee, Dr. A(lbert) Haldane, Schering and Glatz, Inc, 113 W. 18th St, New York, N. Y. *Bacteriology.* Manchester, Eng, Nov. 27, 01. B.A, Toronto, 22, M.A, 23, Ph.D, 25. Asst. chem, Toronto, 22–23, zymol, 23–26; nat. research fellow bacter, Yale, 26–28; asst. prof. and bacteriologist, Scripps Institution, California, 28–31; magazine writer, Toronto and New York, 31–35; director research, Sterisol Ampoule Corp, 35–36, pres, 36–39; *v. pres, Schering and Glatz, Inc, 39–* Summers, investigations, Atlantic Exp. Sta, Halifax, 25; Atlantic Biol. Sta, St. Andrews, 26–27; Bur. Fisheries Lab, Woods Hole, 27; marine lab, Carnegie Institution, Fla, 30. Soc. Bact. Influence of metallic salts on vital processes of micro-organisms; carbohydrate metabolism; fish spoilage; bacterial variation; bacteriological technique; marine bacteriology; chemistry of calcium equilibrium in sea water; bacterial flora of the Florida keys; solutions for intravenous therapy.

Gee, Dr. A(sta) O(hn), Kwantung Sulphuric Acid Electro-Soda Works, Saichuen, Canton, China. *Chemistry, Nutrition.* Carnadero, Calif, June 19, 03. A.B, California, 22, A.M, 24, Ph.D, 33. Teaching fellow, California, 24–27; consulting chemist and nutritionist, Gee Food Research Lab; *chemist in charge, Kwantung Sulphuric Acid Electro-Soda Works.* Chem. Soc. Chemistry of pectin; colloidal behavior of pectin; food chemistry; human nutrition.

Gee, Dr. Lynn L(aMarr), State Conservation Department, Madison, Wis. *Bacteriology.* St. Anthony, Idaho, June 21, 12. A.B, Brigham Young, 35; fellow, Colo. State Col, 35–37, M.S, 37; Ph.D, Wisconsin, 41. Teaching asst, Wisconsin, 37–39; *bacteriologist, State Conservation Dept, Wis, 39–; lieut, Air Corps, U. S. Army, and instr, preflight sch, 42–* Soc. Bact. Disinfection of trout eggs; immunology; pathology of trout furunculosis.

Gee, Prof. Wilson, University of Virginia, Charlottesville, Va. *Rural economics.* Union, S. C, Sept. 18, 88. B.S, Clemson Col, 08, hon. Sc.D, 37; A.M, South Carolina, 10; fellow, California, 12–13, Ph.D, 13; LL.D, Alabama, 38. Asst. biol, South Carolina, 08–09; zool, Wisconsin, 09–11; asst. prof, Clemson Col, 11–12; prof. biol, South Carolina, 13–14; Emory, 14–17; asst. director agr. exten, Clemson Col, 17–19; *prof. rural econ. and sociol,* South Carolina, 19–23; *Virginia, 23–, director inst. for research in the social sciences, 26–* Yale Army Med. Sch. and Cent. Med. Dept. Lab, U.S.A, 18–19. Econ. Asn; Sociol. Soc. (exec. cmt, 37–39); Farm Econ. Asn; South. Sociol. Soc. (pres, 37); Va. Social Sci. Asn. (pres, 28). Animal behavior; entomology; embryology; economics and sociology of rural life.

Geer, Dr. Harriet A(llyn), 635 N. Fairview St, Lansing, Mich. *Physical chemistry.* Norwich, Conn, April 29, 09. A.B, Smith Col, 30; A.M, Kansas, 32, Ph.D, 35. Asst. chem, Kansas, 30–35; asst. surg, med. sch, Yale, 35–40; *chemist, virus div, State Health Lab, Mich, 40–* Chem. Soc. Anhydrous acetic acid solutions.

Geer, Dr. William C(hauncey), 624 Highland Road, Ithaca, N. Y. *Chemistry.* Ogdensburg, N. Y, June 17, 76. A.B, Cornell, 02, fellow, 03–04, Ph.D, 05. Instr, high sch, N. Y, 98–99; asst. chem, Cornell, 02–03, instr, 04–06; expert wood distillation, U. S. Forest Service, 06–07; chief chemist, B. F. Goodrich Co, 07–16, director develop. goods and processes, 16–18, 2nd v. pres. in charge develop, 18–20, v. pres, 20–25; *private research, 25–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A; Chem. Soc; Chem. Eng; Inst. Chem; Inst. Aeronaut. Sci; Inst. Rubber Indust. Gt. Britain. Rubber chemistry.

Gegenheimer, Prof. Vida, Russell Sage College, Troy, N. Y. *Chemistry.* Millbury, Mass, March 10, 86. B.S, Simmons Col. (Mass), 12; A.M, Columbia, 21, Ph.D, 25. Instr, Vassar Col, 14–17; *prof. chem, Russell Sage Col,* 17–20, 21–22, *24–* A.A; Chem. Soc. Biochemistry.

Gehenio, Sister Pierre M(ary), Mt. Providence, Normandy, Mo. *Biology.* Crabtree, Pa, Oct. 8, 09. A.B, St. Louis, 36, Ph.D, 40. Teaching fellow, St. Louis, 36–40, instr. biol, 40–41; *research assoc, Biodynamica Research Lab, 41–* A.A; Mo. Acad. Physical properties of cellular constituents; mechanism of death; biological effects of low temperature and of desiccation.

Gehman, Prof. Harry Merrill, University of Buffalo, Buffalo, N. Y. *Mathematics.* Norristown, Pa, Jan. 15, 98. A.B, Pennsylvania, 19, A.M, 20, Ph.D, 25. Instr. *math,* Pennsylvania, 20–25; nat. research fellow, Texas, 25–26; instr, Yale, 26–27, asst. prof, 27–29; *prof. and head dept, Buffalo, 29–* A.A; Math. Soc; Math. Asn. Analysis situs; point sets; continuous curves.

Gehman, Dr. S(amuel) D(wight), 214 Kenilworth Drive, Akron, Ohio. *Physics.* Altoona, Pa, Dec. 7, 03. A.B, Pennsylvania, 24, A.M, 25, Ph.D, 28. Instr. physics, Emory, 26; *research div, Goodyear Tire and Rubber Co, 29–* Physical Soc; Chem. Soc. Reflection of soft x-rays from metal mirrors; microturbidimeter for determination of the rubber content of latex; measurement of the particle size of fine pigments; Raman spectrum of rubber; air friction of surfaces; colloidal structure of rubber in solution; x-ray structure of rubber; properties of rubber in vibration; heat generation in flexed rubber.

Geib, Dr. H(orace) V, Soil Conservation Service, Washington, D. C. *Soil and water conservation.* Caledonia, Mich,

Sept. 11, 90. B.S, Mich. State Col, 12; M.S, Wisconsin, 25; fellow, Iowa State Col, 28–29, Ph.D, 33. Farm manager, Mich, 12–13; soil surveyor, Exp. Sta, Wisconsin, 14–15; bur. soils, U. S. Dept. Agr, 16–17, 19–20; Exp. Sta, Agr. and Mech. Col. Texas, 21–23, asst. prof. agron, 23–25; Louisiana, 25–26; agronomist, Exp. Sta, Soc. Nacional Agr, Lima, Peru, 26–27, chief sect. agron, 27–28; asst. prof, Louisiana, 29–30; scientist soil erosion and in charge, Exp. Sta, Temple, Texas, bur. chem. and soils, U. S. Dept. Agr, 30–33; regional director soil erosion service, U. S. Dept. Interior, 33–34; *soil conservation service, U. S. Dept. Agr*, 35–36, field rep, div. research, 36–41, prin. soil conservationist and project inspector, 41–43, *agr. adviser, Am. Embassy, Bogota, Colombia, S. Amer, 43–* Geophys. Union; Soil Sci. Soc; Soc. Agron; Texas Agr. Workers Asn; Texas Acad. Agronomy; soil survey, cotton production in Peru; soil and water conservation.

Geidel, Carl D, Geidel Canneries, Inc, Adell, Wis. *Chemistry.* Brandon, Wis, Oct. 21, 88. B.S, Wisconsin, 11, M.S, 13. Asst. chemist and bacteriologist, State Lab. Hygiene, Wis, 11–13; bacter. chemist, State Dairy and Food Cmn, Wis, 13–17; junior chemist, bur. chem, U. S. Dept. Agr, 17–19; *director, Minn. Canners Lab, 19–; director inspection, Minn. dist, Nat. Canners Asn, 19–; bacteriologist, State Dairy and Food Cmn, Minn, 19–; chemist, Minn. Valley Canning Co;* buyer canned foods, Twin City Wholesale Grocer Co, 32–38; *pres, Geidel Canneries, 38–* Advisory chemist, Minn. Canners. Chem. Soc; Soc. Bact; Pub. Health Asn. Organic and food chemistry; food bacteriology; canning.

Geiger, Dr. Arthur J(oseph), Yale University School of Medicine, New Haven, Conn. *Medical sciences.* Austria-Hungary, March 15, 05. A.B, Cornell, 27; M.D, Harvard, 31. Res. physician, New Haven Hosp, 31–35; instr. pharmacol, *sch. med, Yale*, 33–34, *med*, 35–38, *asst. prof, 38–* Assoc. physician, New Haven Hosp. and Dispensary, 35– A.A; fel. Am. Med. Asn; Heart Asn; Soc. Clin. Invest; Soc. Exp. Biol. Hematology; pharmacology; cardiology.

Geiger, Charles F(rancis), 176 Maple Ave, Metuchen, N. J. *Ceramics.* Chicago, Ill, June 3, 93. B.S, Illinois, 15. Asst, Illinois, 15–16; instr. ceramic eng, Rutgers, 16–18; refractories dept, *Carborundum Co,* Niagara Falls, 19–20, *refractories engineer, refractories div, Perth Amboy, 20–* Mayor, Metuchen, N. J, 38. U.S.A, 18–19. Ceramic Eng; fel. Ceramic Soc. (sec'y, refractories div, 28, v. chairman, 29, chairman, 30); Ceramic Asn. N. J. (pres, 37). Silicon carbide refractories; kilns; combustion method for tunnel kilns; kiln setters; drying ceramic ware; sand seal for tunnel kilns; methods and apparatus for elimination of segregation in handling of granular materials.

Geiger, Dr. Ernest, 3434 W. 81st St, Inglewood, Calif. *Pharmacology, Physiology.* Muraszombat, Hungary, May 31, 96. M.D, Graz, 21, Pécs, Hungary, 23. Asst, inst. pharmacol, Graz, 21–22; asst, inst. exp. path. and pharmacol, Pécs, Hungary, 23–25, privat-docent and later prof. med. faculty, 25–36; research director, Gedeon Richter Ltd, London and Budapest, 36–39; assoc. prof. pharmacol, Chicago Med. Sch, 39–40; *research pharmacologist, Van Camp Labs, 40–* A.A; Soc. Exp. Biol; Pharmaceut. Asn; Biochem. Soc. London. Heat regulation; pharmacology and biochemistry of marine animals.

Geiger, Dr. George A(ugustus), 225 N. Wyoming Ave, South Orange, N. J. *Chemistry.* Orange, N. J, Aug. 24, 86. A.B, Harvard, 08; A.M, Columbia, 10, Ph.D, 11. Chemist, Am. Viscose Co, 12–13; research chemist, bur. chem, U. S. Dept. Agr, 13–17; manager, Fries Bros. Chem. Works, 17–23; *production manager, Burton T. Bush, Inc, 23–, purchasing agent, 35–* Quinazolin group; quantitative method for benzoic acid and benzaldehyde.

Geiger, Dr. H(oward) E(ugene), Albion College, Albion, Mich. *Psychology.* Perrysburg, Ohio, March 26, 10. A.B, Albion Col, 36; M.S, Purdue, 37, Ph.D, 40. Asst. educ. and applied psychol, Purdue, 36–39; *prof. psychol, Albion Col, 39–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn. Attitude measurement; test construction.

Geiger, Prof. I(saac) W(illiam), 104 Malcolm Ave, S. E, Minneapolis, Minn. *Analytical chemistry.* Bluffton, Ohio, Feb. 16, 78. A.B, Ohio State, 13, A.M, 14, Ph.D, 16. Instr, pub. schs, Ohio, 96–00; high sch, 05–12; *anal. chem, Minnesota,* 16–20, asst. prof, 20–25, *assoc. prof, 25–* Chem. Soc. Volumetric determinations of cobalt and chromium.

Geiger, Dr. J(acob) C(asson), 50 Ventura Ave, San Francisco, Calif. *Public health.* Alexandria, La, Nov. 18, 85. A.B, Tulane, 05, Ph.M, 08, M.D, 12, hon. Dr.P.H, 19; Sc.D, Louisiana, 35; LL.D, Santa Clara, 38; hon. A.M, Hahnemann Med. Col. (Pa), 39, Panama, 43. Asst. director and acting director labs. and bur. communicable diseases, State Board Health, Calif, 13–16; asst. prof. hygiene, California, 13–18; asst. epidemiologist and epidemiologist, U. S. Pub. Health Service, 16–24; asst. commissioner in charge med. service sect, Dept. Health, Chicago, Ill, 24–27, exec. officer, 27–28; assoc. prof. epidemiol, Chicago, 22–27, professorial lecturer, 27–28; assoc. prof. *epidemiol, Hooper Foundation, California,* 28–30, *prof, 30–,* clin. epidemiol, univ, 38–39; health officer, *City and County San Francisco,* 31–32, *director pub. health, 32–* Surgeon and senior surgeon, U. S. Pub. Health Service, 16–36; fellow, Hooper Foundation, California, 19–22; pub. health consultant, 28–; lecturer, Southern California; staff epidemiologist, Mt. Zion Hosp, San Francisco; clin. prof, Stanford, 40. Mem. Botulism Cmt, 19–22. Cruz de Caballero de la Orden del Merito, Chile, 37; first award, Nat. Canners Asn, 39; Order of the Jade, China, 40; Govt. citation, Mex, 40; Officer's Cross, Order of the South. Cross, Brazil, 41; Knight Commendador de la Orden del Merito Chile, 42; Govt. citation, Panama, 42. Lieut. col, U. S. Med. Res. A.A; fel. Pub. Health Asn; Soc. Trop. Med; fel. Col. Physicians; fel. Am. Med. Asn; South. Med. Asn; North. Calif. Pub. Health Asn. (pres, 35); Pasteur Soc. Cent. Calif. (pres, 37); San Francisco Co. Med. Soc. (pres, 35); Chicago Inst. Med; Pan Am. Soc. (pres, San Francisco chap, 41); fel. Royal Soc. Trop. Med. and Hygiene; fel. Pan-Am. Med. Asn; fel. and cor. mem. Nat. Acad. Panama. Botulism; malaria; typhoid fever; food poisoning; rabies; meningitis; brucelliasis; chemical poisonings; carbon monoxide and intravenous use of methylene blue.

Geiger, Dr. J(ohn) Theodore, Hospital for Ruptured and Crippled, 321 E. 42nd St, New York, N. Y. *Orthopedic surgery.* Oshkosh, Wis, April 29, 01. A.B, Vanderbilt, 29, Henry Strong Dennison fellow, 29–30, M.D, 30. House officer surg. service, Strong Mem. Hosp, Rochester, 30–31; sci. staff, Rockefeller Inst, 31–35; res. orthop. surgeon, *Hosp. for Ruptured and Crippled,* 35–37, *junior fellow, 37–* Tuberculosis.

Geiger, Prof. J(ohn) W(illiam), 702 N. Grant St, West Lafayette, Ind. *Mechanical engineering.* Hartford City, Ind, May 31, 98. B.S, Purdue, 20, M.S, 23. Asst, eng. exp. sta, *Purdue,* 20–21, instr. *mech. eng,* 21–30, *asst. prof, 30–* Summers, gen. machinist, Muncie Oil and Gas Engine Co, Ind, 18; draftsman, U. S. Automotive Co, Indianapolis, 19; instr, Twin Branch Power Sta, Mishawaka, Ind, 26. Mech. Eng; Eng. Educ. Thermodynamics; heat engineering; design and equipment of mechanical laboratories and power plants.

Geiger, Dr. M(arion) B(raxton), 121 58th St, Niagara Falls, N. Y. *Chemistry.* Paintsville, Ky, Sept. 4, 03. B.S, Georgetown Col. (Ky), 24; Mass. Inst. Tech, 25–26; M.S, Michigan, 30, Ph.D, 32. Instr. chem, Georgetown Col. (Ky), 24, physics, 24–25, chem, 27–29; chemist, *Oldbury Electrochem. Co, Niagara Falls, N. Y,* 32–35, *asst. works manager, 35–* Chem. Soc. (v. chairman, west. N. Y. sect, 36); Electrochem. Soc. Absorption spectra and chemical constitution of organic compounds; industrial chemistry.

Geiger, Sister M(ary) Joseph Therese, Clarke College, Dubuque, Iowa. *Botany.* Rock Island, Ill, Feb. 2, 98. Ph.D, Catholic Univ, 29. *Prof. bacter. and comp. anat. and head dept. science, Clarke Col, 29–* A.A; Iowa Acad. The preparation of kodachrome transparencies for the human brain, spinal cord and sense organs; the origin and development of the cormlet of gladiolus.

Geiger, Dr. Paul H, University of Michigan, Ann Arbor, Mich. *Physics.* Paris, Mich, 96. B.S, Michigan, 18, A.M, 19, Acme White Lead and Color Works fellow, Ph.D, 22. Asst, Michigan, 19–20, instr, 21–22; asst. director research, Union Switch and Signal Co, 22–29; *research physicist, Michigan, 29–* Physical Soc; Acoustical Soc. Photoelectric effects; direct conversion of light energy to electrical energy; copper oxide rectifier; crystal conduction; color analysis; automatic train control apparatus; reduction of machine noises; measurement of acoustic properties of materials.

Geiger, Dr. Walton B(owman), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Organic chemistry.* Williamsport, Pa, Aug. 6, 13. A.B, Bucknell, 35; Ph.D, Yale, 38. Leonard Wood Mem. fellow, Yale, 38–39; Charles Martin Hall research instr, Oberlin Col, 39–40; research assoc, Nat. Bur. Standards, 40–42; chemist, Office Sci. Research and Develop, Yale, 42–43; *mem. staff, dept. soil chem. and microbiol, N. J. Exp. Sta, 43–* Chem. Soc;

N. Y. Acad. Bacterial fats; animal fats; organic chemistry of proteins.

Geigle, Dr. William F(rederick), 319 W. Springfield Road, Springfield, Pa. *Physical chemistry.* Binghamton, N. Y, May 3, 08. B.Ch, Cornell, 30, Sage fellow and scholar, 34–35, Ph.D, 36. Develop. chemist, Roessler and Hasslacher Chem. Co, 30–31; asst. chem. qualitative anal, Cornell, 31–32, chem. qualitative anal. and electrochem, 32–34, instr. physical chem, 35–36; *develop. engineer, Sun Oil Co, 36–* A.A; Chem. Soc. Polyiodides of potassium; the system potassium iodide and iodine; polyiodides of sodium; the systems sodium iodide-water and sodium iodide-iodine-water; physical and colloid chemistry of petroleum specialties with special reference to emulsions.

Geil, Prof. Milton G(eorge), Albright College, Reading, Pa. *Psychology.* June 3, 98. A.B, N. Cent. Col, 18; B.D, Evangelical Theol. Sem, 21; A.M, Northwestern, 28, fellow, 28–30, Ph.D, 30; Chicago; Pennsylvania; Minnesota. Asst, psychol. clinic, dept. psychol, Northwestern, 29–33, asst. prof, sch. educ, 30–33; *prof. psychol. and head dept, Albright Col, 37–* Objective measurement of biblical comprehension; personnel guidance program for a small liberal arts college; predictive value of objective tests in a college admissions program.

Geiling, Dr. E(ugene) M(axmilian) K(arl), University of Chicago, Chicago, Ill. *⁶*Physiology, Pharmacology.* Orange Free State, S. Africa, May 13, 91. A.B, Univ. S. Africa, 11; M.S, Illinois, 15, Ph.D, 17; M.D, Hopkins, 23. Lecturer chem, Col. Agr, S. Africa, 17–18; physiol. chem, col. med, Univ. Cape Town, 18–19; Seessel fellow, Yale, 20–21; Govt. Union of S. Africa fellow, 21; asst. *pharmacol,* sch. med, Hopkins, 21–23, assoc, 23–25, assoc. prof, 25–35; prof. and chairman dept, *Chicago,* 36–41, *Frank P. Hixon distinguished service prof, 41–* A.A; Soc. Pharmacol. (sec'y, 34–37, v. pres, 37, pres, 39–42); Soc. Biol. Chem; Physiol. Soc; Soc. Mammal; Am. Physicians; Am. Med. Asn. (councilor, pharmacy and chem); Asn. Study Int. Secretions (v. pres, 41); Therapeut. Soc; Med. and Chirurg. Faculty Md; Inst. Med. Chicago. Physiological chemistry; nutritive value of amino acids; blood regeneration; pharmacology, chemistry, function and interrelation of endocrines; pharmacological action of protein split products; albumoses; insulin; pituitary gland.

Geiman, Dr. Quentin M(onroe), Harvard Medical School, Boston, Mass. *Parasitology.* Glen Rock, Pa, Oct. 16, 04. B.S, Gettysburg Col, 27; M.S, Pennsylvania, 31, Ph.D, 34. Asst. protozool, Pennsylvania, 31–33, instr, 33–34; nat. research fellow zool, *Harvard Med. Sch,* 34–35, asst. comp. path, 35–38, *instr. comp. path. and trop. med, 38–* Chief dept. parasitol, Instituto Nac. de Higiene y Salud Pub, Lima, Peru, 38–39. A.A; Soc. Parasitol; Soc. Zool; Mass. Pub. Health Asn; cor. mem. Acad. Nac. de Ciencias Lima. Protozoology; parasitic protozoa of reptiles; parasitic and pathogenic protozoa of man; dysentery; leishmaniasis; cultivation and immunology of bartonella infections.

Geiringer, Dr. Hilda (Pollaczek), Bryn Mawr College, Bryn Mawr, Pa. *Mathematics.* Vienna, Austria, Sept. 28, 95. Ph.D, Vienna, 18. Asst, inst. applied math, Berlin, 21–27, privat-docent, univ, 27–33, abteilungsvorstand, 29–33, assoc. prof, 33; research and writing, inst. mech, Brussels, 33–34; prof. *math,* Istanbul, 34–39; *lecturer, Bryn Mawr Col, 39–* Lecturer, Swarthmore Col, 41– Math. Soc; fel. Inst. Math. Statist. Pure and applied mathematics; theory of probability and statistics; theory of plasticity; differential equations.

Geise, Dr. Fred(erick) W(illiam), American Can Co, Chicago, Ill. *Plant pathology, Plant physiology.* Waterloo, Wis, April 1, 93. A.B, Nebr. Wesleyan, 16; M.S, Chicago, 17, Ph.D, 29. Sci. asst. and asst. plant physiologist, bur. plant indust, U. S. Dept. Agr, 18–20; assoc. pathologist and physiologist, Va. Truck Exp. Sta, 20–22; prof. veg. gardening, Maryland, 23, coordinator, canning crops investigations, 26–29; *crop production specialist, Am. Can Co, 30–* Storing, bedding and growing sweet potatoes; spraying and dusting vegetable crops; inoculated sulfur; greensand as a source of potassium; canning of tomatoes and spinach; spinach varieties.

Geiser, Prof. S(amuel) W(ood), 3543 Haynie Ave. Dallas, Texas. *Zoology.* Independence, Iowa, June 11, 90. A.B, Upper Iowa, 14, A.M, 19, Sc.D, 34; Bruce fellow, Hopkins, 21–22, Ph.D, 22. Prof. biol, Guilford Col, 14–16; Upper Iowa, 17–19; asst, Bur. Fisheries, 20–21; asst. prof. zool, Washington (St. Louis), 22–24; *prof. biol. and head dept, South. Methodist, 24–* Summer, instr, Marine Biol. Lab, Woods Hole, 23. A.A; Soc. Zool; Hist. Sci. Soc; Micros. Soc; Okla. Acad; Philos. Soc. Texas; Texas Acad; Iowa Acad; Biol. Soc. Wash. Biology of the poeciliid fishes and Isopoda; animal behavior; history of exploration in the Southwest; history of science.

Geisler, Dr. Alfred H(ollis), 413 Freeport Road, New Kensington, Pa. *Metallurgy.* Pittsburgh, Pa, Feb. 21, 16. B.S, Carnegie Inst. Tech, 38, Aluminum Co. of Amer. fellow, 39–41, Sc.D, 42. *Research metallurgist, aluminum research labs, Aluminum Co. of Amer, 41–* Min. and Metal. Eng; Soc. Metals. Precipitation from solid solutions.

Geisse, John H(arlin), 3350 Tennyson St, N. W, Washington, D. C. *Aeronautics.* Fond du Lac, Wis, July 17, 92. B.S, A.M, Wisconsin, 17; Mass. Inst. Tech, 18. A.C, U.S.A, 17–18, asst. chief power plants sect, 18–19; exp. engineer, Wright Aeronaut. Corp, 20–21; chief engineer, aeronaut. engine lab, Naval Aircraft Factory, 22–28; v. pres. and chief engineer, Comet Engine Corp, 28–30; chief aeronautics develop. sect, Bur. Air Commerce, 32–39; *consultant, Civil Aeronautics Admin, 39–* Soc. Automotive Eng; Inst. Aeronaut. Sci. Aviation engines; airplanes.

Geissman, Prof. T(heodore) A(lbert), 359 Beloit Ave, Los Angeles, Calif. *Organic chemistry.* Chicago, Ill, June 17, 08. B.S, Wisconsin, 30; Ph.D, Minnesota, 37. Asst, Illinois, 37–39; instr. *chem, California at Los Angeles,* 39–41, *asst. prof, 41–* Chem. Soc. Carbonyl compounds; Grignard reagents; naturally occurring substances; genetics of flower-color variation.

Geist, Dr. F(rederick) D(enkmar), University of Wisconsin, Madison, Wis. *Anatomy.* Pittsburgh, Pa, Sept. 18, 95. M.D, Tufts Col, 20. Instr. *anat, Wisconsin,* 20–25, asst. prof, 25–37, *assoc. prof, 37–* A.A; Asn. Anat. Osteology; bone repair; morphology of the nervous system.

Geist, Prof. H(enry) H(arrison), Pennsylvania State College, State College, Pa. *Analytical chemistry.* Girardville, Pa, March 5, 89. B.S, Pa. State Col, 11, M.S, 21; Illinois, 21; Munich, 25–26. Chemist, Phila. and Reading Coal and Iron Co, 12–17; Wright Martin Aircraft Corp, 17–19; asst. prof. and *assoc. prof. chem, Pa. State Col, 19–* Chem. Soc. Gas analysis; precipitations of metal with organic bases.

Geist, Prof. R(obert) M(iller), Capital University, Columbus, Ohio. *Entomology.* Columbus, Ohio, April 18, 97. A.B, Capital Univ, 23; M.S, Ohio State, 28, Ph.D, 30. Asst. prof. *biol, Capital Univ,* 28–30, *prof. and head dept, 30–* A.A; Genetic Asn; Ohio Acad. Mallophaga.

Geist, Dr. Samuel Herbert, 100 E. 74th St, New York, N. Y. *Gynecology.* New York, N. Y, July 1, 85. A.B, Col. City of N. Y, 04; M.D, Columbia, 08; Freiburg, 11–12. Intern, *Mt. Sinai Hosp,* 08–10, *mem. attending staff, 13–, gynecologist, 36–; clin. prof. gynec, col. physicians and surg, Columbia, 36–* Capt, M.C, 17–19. Gynecological pathology; neoplasms; chorio-epithelioma; endometriosis; ovarian neoplasms; endocrinology.

Geister, Carl H(enry), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Primghar, Iowa, Aug. 28, 95. B.S, Iowa State Col, 20, M.S, 23. Asst. chemist, Ft. Lupton Sugar Co, 20–21; chemist, eng. exp. sta, Iowa, 21–23; indust. fellow, Mellon Inst, 23–36; *with E. I. du Pont de Nemours and Co, 36–* Leather Chem. Asn; Chem. Soc. Flooring materials; tile; lime mortars; leather.

Gelarie, Dr. Arnold J(ames), 52 W. 74th St, New York, N. Y. *Experimental medicine.* Poland, March 29, 86. M.D, 09; Königsberg; Jena; London; Liverpool. Asst. med, Univ. Col. Hosp, Königsberg, 09; Jena, 10; London, 11; asst. director cancer research, Liverpool, 12–13; asst. biol, Rockefeller Inst. Med. Research, 13–14; expert bacteriologist, Quarantine Sta, S. I, N. Y, 15; *prof. diagnosis, sch. podiatry, med. dept, Long Island, 14–;* director research, Long Beach Hosp, 20; med. chief, Beth Israel Hosp, Passaic, N. J, 35; *chief arthritis clinic and director research lab, Stuyvesant Polyclinic Hosp, 38–* Soc. Exp. Biol. and Med; Pub. Health Asn; N. Y. Acad; Path. Soc. Gt. Britain and Ireland. Arthritis; virus diseases.

Gelbach, Prof. Ralph W(arren), State College of Washington, Pullman, Wash. *Chemistry.* Near Grangeville, Idaho, Jan. 5, 97. A.B, Iowa, 20, M.S, Ph.D, 23. Asst. instr. chem, Iowa, 18–22, asst. physical chem, 22–23; instr. *chem,*

State Col. Wash, 23–25, asst. prof, 25–36, *assoc. prof, 36–* A.A; Chem. Soc. (chairman, Wash-Idaho border sect, 31–41, councilor, 35, 42). Aqueous solutions of barium halides; potentiometric titration of lead by means of a thermionic titrometer; activity coefficients and transference numbers of potassium iodide; electrometric titration of selenic acid and selenates; secondary ionization constant of selenic acid; partial molal volumes of nickel sulfate.

Gelbart, Dr. Abe, North Carolina State College, Raleigh, N. C. *Mathematics*. Paterson, N. J, Dec. 22, 11. B.Sc, Dalhousie, 38; Ph.D, Mass. Inst. Tech, 40. Asst, Mass. Inst. Tech, 39–40; *instr. math, N. C. State Col, 40–* Research assoc, Brown, 42–43. Math. Soc; Eng. Educ. Fourier analysis; functions of one and several complex variables; fluid dynamics; applied mathematics.

Geldard, Lieut. F(rank) A(rthur), 3628 Potomac Ave, Ft. Worth, Texas. *Psychology*. Worcester, Mass, May 20, 04. A.B, Clark, 25, A.M, 26, Ph.D, 28. Instr. *psychol*, Clark, 28; assoc. prof, *Virginia*, 28–37, *prof, 37–; lieut. col, Air Force, U. S. Army*. A.A; Psychol. Asn; Optical Soc; Soc. Exp. Psychol; S. Soc. Philos. and Psychol. (councilor, 34–36, 39, sec'y-treas, 36–38. pres, 38); East. Psychol. Asn; Va. Acad. Psychophysiology; psychopathology.

Gelfan, Dr. Samuel, Van Patten Pharmaceutical Co, 500 N. Dearborn St, Chicago, Ill. *Physiology*. Russia, Jan. 16, 03. A.B, California, 25, Ph.D, 27. Asst. zool, California, 25–27, research assoc, 27–28; Donnelly fellow physiol, Chicago, 28–30; asst. prof. physiol. and pharmacol, Alberta, 30–32; Guggenheim Mem. Foundation fellow, Cambridge, 32–33; assoc. physiol, col. med, Illinois, 34–36; *director research, Van Patten Pharmaceut. Co, 41–* Physiol. Soc; Soc. Exp. Biol. Electrical conductivity of protoplasm; bioelectric potentials; anesthesia; mechanical and electrical studies of single muscle fibers; kidney secretion.

Geller, R(oman) F(erdinand), National Bureau of Standards, Washington, D. C. *Ceramics*. Fowler, Mich, Feb. 21, 95. B.S, Michigan, 18. *Chief*, refractories sect, *Bur. Standards*, 25–27, *whiteware sect, 30–* A.A; fel. Ceramic Soc; Ceramic Eng; Franklin Inst. Clays; pottery; insulators; refractories.

Gellermann, Prof. Louis W(anger), Southern Illinois State Normal University, Carbondale, Ill. *Psychology, Education*. Gig Harbor, Wash, Jan. 18, 20. A.B, Washington (Seattle), 22, A.M, 28; Ph.D, Clark, 30. Asst. *psychol*, Clark, 28–30; nat. research fellow, Yale, 30–32; assoc. prof, Conn. Col, 32–34; prof. and head dept, Blackburn Col, 34–36; *assoc. prof, South. Ill. State Nor. Univ, 36–* Psychol. Asn. Double alternation behavior of monkeys, chimpanzees and human subjects; rôle of the instruction stimulus in human maze learning.

Gellhorn, Dr. Alfred, Carnegie Institution of Washington, Wolfe and Madison Sts, Baltimore, Md. *Physiology*. St. Louis, Mo, June 4, 13. Amherst Col, 30–32; M.D, Washington (St. Louis), 37. House officer surg, Barnes Hosp, St. Louis, Mo, 37–39; gynec, Passavant Hosp, Chicago, Ill, 39–40; research fellow, *dept. embryol, Carnegie Institution*, 40–42, research assoc, 42–43, *investigator, 43–* Reproductive and placental physiology.

Gellhorn, Dr. E(rnst), University of Illinois College of Medicine, Chicago, Ill. *Physiology*. Breslau, Germany, Jan. 7, 93. M.D, Heidelberg, 19; Ph.D, Muenster, 19. Asst. prof. *physiol*, Halle, 21–22, assoc. prof, 25–29; Oregon, 29–31, *prof*, 31–32; *col. med, Illinois, 32–* A. Cressy Morrison prize, N. Y. Acad, 30; Alvarenga prize, Col. Physicians Phila, 34. A.A; Soc. Exp. Biol; Physiol. Soc. Physico-chemistry of the cell; physiology of sense organs and human central nervous system; permeability; muscle and internal secretions; insulin; autonomic nervous system; anoxia; experimental convulsions.

Gelstharp, F(rederick), Pittsburgh Plate Glass Co, Creighton, Pa. *Chemistry*. Gateshead on Tyne, Eng, Jan. 12, 77. Rutherford Col, England; Manchester Sch. Technol, England. Chemist and asst. supt, Union Plate Glass Co, England, 05–07; *chief chemist and director research, glass div, Pittsburgh Plate Glass Co, 07–* Chem. Soc; Electrochem. Soc; Ceramic Soc; Soc. Test. Mat. Glass.

Gemeny, Albin L(eroy), 4102 13th St, N. E, Washington, D. C. *Engineering*. Knoxville, Tenn, Sept. 5, 90. C.E, Virginia, 11. Engineer, ry. construction, South. Ry, 11–14; valuation engineer, Interstate Commerce Cmn, 14–17; bridge engineer, Dom. Dept. Pub. Works, 20; bur. pub. roads, U. S. Dept. Agr, 20–25; Mex. Highway Cmn, 25–26; *senior struct. engineer, bur. pub. roads, U. S. Dept. Agr, 26–* Mem. soils dept, Highway Research Board. C.Eng, U.S.A, 17–19. Nat. Acad; Welding Soc. (bridge cmt); Asn. State Highway Officials (chairman, cmt. bridges and structures). Structural engineering; methods of design and construction of concrete arches.

Gemeroy, Dr. Douglas G(ladstone), Rutgers University, New Brunswick, N. J. *Zoology*. Winchester, Ont, Can, Dec. 29, 97. B.Sc, New Brunswick, 36; M.A, Western Ontario, 38; Ph.D, Rutgers, 41. Asst, med. dept, Toronto, 41–42; *instr. zool, Rutgers, 42–; capt, Sanit. Corps, U. S. Army, 43–* Serological studies in animal relationships; agglutinin titers of pooled sera.

Gemmer, Eugene W(illiam), Oxford, Miss. *Silviculture*. Buffalo, N. Y, May 30, 00. B.S, Syracuse, 23, M.F, 24. Junior forester, Choctawhatchee Nat. Forest, *U. S. Forest Service*, 26–31, asst. silviculturist, *South. Forest Exp. Sta*, 31–35, *assoc. silviculturist, 35–* A.A; Soc. Foresters. Forestry; forest influences.

Gemmill, Dr. Anna M, State Teachers College, Buffalo, N. Y. *Science*. Royalton, N. Y, Sept. 23, 78. B.S, Buffalo, 22, A.M, 24; Ph.D, Columbia, 36. Instr. *science, N. Y. State Teachers Col, Buffalo*, 19–30, *asst. prof, 30–, head dept, 30–* Asst, Teachers Col, Columbia, 30. A.A; Asn. Research Sci. Teaching; Chem. Soc; Asn. Sci. Teachers; Sci. Asn. Northeast. States (pres, 41–); N. Y. State Sci. Asn. Science background necessary for an elementary science teacher.

Gemmill, Dr. Chalmers L(aughlin), Johns Hopkins University School of Medicine, Baltimore, Md. *Physiology*. Cresson, Pa, Nov. 24, 01. B.S, Lafayette Col, 22; M.D, Hopkins, 26. Asst. *physiol, sch. med, Hopkins*, 26–27, instr, 27–28, assoc, 28–41, *assoc. prof, 41–; commander, Med. Corps, U. S. Naval Reserve, 41–* A.A; Chem. Soc; Physiol. Soc; Soc. Biol. Chem; Biochem. Soc. Gt. Britain. Heat production in muscle; muscular training; metabolism of isolated muscle; respiration; anoxia.

Genaux, Prof. Charles M(urray), Iowa State College, Ames, Iowa. *Forestry*. Shinglehouse, Pa, July 19, 04. B.S, Pa. State Col, 24; M.S, Idaho, 29. Forester in charge, State Forest Nursery, Pa, 24; asst, bur. pub. roads, U. S. Dept. Agr, 25–26; forestry, State Col. Wash, 26–28; assoc. prof. and exten. forester, Utah State Col, 29–31; prof. and head dept. *forestry*, south. branch, Idaho, 31–35; *assoc. prof, Iowa State Col, 35–* Summers, field asst, North. Rocky Mt. Forest and Range Exp. Sta, U. S. Forest Service, 32, forester, emergency conservation work, Ogden, Utah, 33, 34. Soc. Foresters (v. chairman, intermountain sect, 33). Silviculture; forest pathology; blue stain fungi in woods of western yellow and white pine; defects which reduce quality and yield of oak-hickory stands in southeastern Iowa.

Genereaux, Raymond P(aul), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering*. Seattle, Wash, Sept. 20, 02. A.B, Stanford, 26; Ch.E, Columbia, 29. Research chem. engineer, design engineer and *project engineer, E. I. du Pont de Nemours and Co, 29–* Chem. Eng. Flow of fluids; viscosity data.

Gengerelli, Prof. J(oseph) A(nthony), University of California at Los Angeles, Los Angeles, Calif. *Psychology*. Glouster, Ohio, Feb. 2, 05. A.B, Ohio (Athens), 25; fellow, Wisconsin, 26–27, A.M, 27; Harrison fellow, Pennsylvania, 27–28, Ph.D, 29. Asst, Ohio (Athens), 24–25; Wisconsin, 25–26; nat. research fellow, Yale, 28–29; instr. *psychol, California at Los Angeles*, 29–32, *asst. prof, 32–* Psychol. Asn. Abstraction; imagery; theories of animal learning; mutual interference in the evolution of concepts; physiological psychology.

Geniesse, Dr. J(ohn) C(ollin), Atlantic Refining Co, 3144 Passyunk Ave, Philadelphia, Pa. *Chemical engineering*. Wausaukee, Wis, April 4, 95. B.S.E, Michigan, 20, M.S.E, 21, Ph.D, 24. Instr. chem. eng, Michigan, 20–25; *Atlantic Ref. Co, 25–* Chem. Eng; Chem. Soc. Motor fuels; fuel calorimetric determinations; specific and latent heats of petroleum fractions; fractional distillations; fuel and lubricant tests; fuel production from heavy petroleum products.

Gensamer, Prof. M(axwell), 630 Clyde St, Pittsburgh, Pa. *Physical metallurgy*. Bradford, Pa, June 3, 02. B.S, Carnegie Inst. Tech, 24, M.S, 31, Sc.D, 33. Metallurgist, Am. Chain Co, 24–29; *mem. staff metals research lab. Carnegie Inst. Tech, 29–*, asst. prof. *metal*, 35–38, *assoc. prof, 38–*

Howe medal, Am. Soc. Metals, 32. Soc. Metals; Min. and Metal. Eng. Mechanical metallurgy; plasticity of iron and steel; internal stresses; alloys of iron, manganese and carbon; metallurgy of steel wire and galvanizing; x-ray metallography; materials testing; microstructure and properties; strength of metals under combined stresses.

Genter, A(lbert) L(egrand), Wyman Park Apts, Baltimore, Md. *Chemistry.* Breckenridge, Colo, June 23, 81. Dipl. Ing, Technische Hochschule, Berlin, 04. Official, Kelly Filter Press Co, Salt Lake City, Utah, 06–11, Berlin, 11–14; chief engineer, United Filters Corp, 14–20; pres, Genter Thickener Co, 20–32; *private research, 32–* Engineer, Bartlett Hayward Co, 27–32. A.A; Civil Eng; Federation Sewage Works Asn; Chem. Soc; Md-Del. Water and Sewage Asn. Sewage colloids; elutriation and dewatering of sewage sludges; sewage treatment; sanitary engineering.

Gentry, Prof. Frank C(ook), 401 S. Bonner, Ruston, La. *Mathematics.* Mangum, Okla, May 17, 03. A.B, Oklahoma, 29, A.M, 30; Ph.D, Illinois, 37. Asst. prof. *math,* Oklahoma, 37–38; *La. Polytech,* 38–41, *assoc. prof, 41–* Math. Soc; Math. Asn. Algebraic geometry.

Gentry, Frank(lin) M(arion), 215 Manhasset Woods Road, Manhasset, N. Y. *Engineering.* New Orleans, La, March 10, 98. Kentucky, 18–20, 22, 23; B.S, Mass. Inst. Tech, 23. Asst. to consulting engineer, N. Y. Edison Co, 23–29; indust. dept, Lehman Bros, New York, 29, pub. utility specialist, Lehman Corp, 29–30; Tri-Continental Corp, 30–33; manager pub. utility dept, C. W. Young and Co, 33–34; investment banking and asst. sec'y, Fenner and Beane Corp, 35–38; *v. pres. and director research, Manhattan Foundation, Inc, 39–* A.A; assoc. Elec. Eng; Chem. Soc. General engineering, physics and chemistry; applied economics; corporate finance, organization and reorganization; security analysis; investment management; applied mathematics.

Gentry, Prof. J(ohn) R(obert), 163 N. Congress St, Athens, Ohio. *Psychology.* Montezuma, N. C, Aug. 8, 89. A.B, North Carolina, 14; M.Ed, Harvard, 23; summers, Col. City of N. Y, 33, 34, 36; Ph.D, Columbia, 40. Prin. and teacher schs, 14–20; *assoc. prof. psychol, Ohio (Athens), 24–* The immediate effects of interpolated rest periods on learning performance.

Gentry, Prof. Vernon S(cott), Florida Southern College, Lakeland, Fla. *Zoology.* Wheatley, Ky, March 25, 06. A.B, Georgetown Col. (Ky), 29; A.M, Kentucky, 31; Ph.D, Kansas, 34. Asst. instr. zool, Kansas, 31–34; instr. *biol,* Georgetown Col. (Ky), 34–35; prof, Southwest Baptist Col, 35–38; *assoc. prof, Fla. South. Col, 38–* Cytology.

Gentzkow, Col. C(leon) J(oseph), Deshon General Hospital, Butler, Pa. *Medicine, Biochemistry, Toxicology.* Minneiska, Minn, Jan. 1, 91. M.D, George Washington, 15; Ph.D, Mass. Inst. Tech, 29. *Med. Corps, U. S. Army, 17–, col,* surgeon, fifth ammunition train, fifth div, 18–19, chief lab. service, Base Hosp, Camp Pontenezon, France, 19, Station Hosp, Coblenz, Germany, 19–21, Camp Grant, Ill, 21, Fifth Corps Area lab, 21–24, Eighth Corps Area Lab, Ft. Sam Houston, Texas, 24–27, Fitzsimmons Gen. Hosp, 29–31, chief div. chem. and physics, Army Med. Sch, 32–36, 39–42, *commanding officer, Deshon Gen. Hosp, 42–* Guest worker, Rockefeller Inst, 36; mem, Army Med. Research Board, Ancon, C. Z, 36–37, pres, 38–39. Fel. Col. Physicians; fel. Am. Med. Asn; Soc. Trop. Med; Asn. Mil. Surg. Blood chemistry and other clinical analyses; pathology; malariology.

Genung, Albert B, 2651 Myrtle Ave, N. E, Washington, D. C. *Agricultural economics.* Freeville, N. Y, Dec. 7, 90. B.S, Cornell, 13. Exten. work, farm management, New Hampshire Col; *bur. agr. econ, U. S. Dept. Agr, 21–, senior agr. economist.* Economic developments in American agriculture during wartime and post-war periods.

Genung, Prof. Elizabeth F(alth), 41 West St, Northampton, Mass. *Bacteriology.* Ithaca, N. Y, March 12, 83. N. Y. State Nor. Sch, 05; B.S.A, Cornell, 11, M.S.A, 14. Instr. bacter, Iowa State Teachers Col, 14–15; Simmons, 15–18; instr. and asst. prof. bot, *Smith Col,* 19–26, *assoc. prof. bacter, 26–* Soc. Bact; fel. Pub. Health Asn; N. Y. Acad. The cause of color diffusion in Endo's medium; the effect of dyes and chemicals on bacterial growth.

Genung, Dr. Leo B(lunt), 57 Harvington Drive, Rochester, N. Y. *Chemistry.* Osage, Iowa, Sept. 7, 06. A.B, Cornell Col. (Iowa), 28; fellow, Brown, 28–29, M.S, 29; Ph.D, Ohio State, 33. Asst. chem, Ohio State, 29–33; *research chemist, Eastman Kodak Co, Rochester, 33–* Chem. Soc. Carbohydrate oxidation; cellulose derivatives; synthetic resins.

Geohegan, Dr. William A(nthony), 1300 York Ave, New York, N. Y. *Anatomy, Physiology.* Cincinnati, Ohio, Nov. 1, 07. E.E, Cornell, 29, 36, M.D, 42. *Instr. anat, med. col, Cornell, 40–, instr. physiol, 42–* Neuroanatomy and physiology.

George, Dr. A(nthony), 2701 Stratford Ave, Cincinnati, Ohio. *Chemistry.* Crete, Greece, Nov. 17, 96. A.B, Ohio State, 21, M.S, 22, Ph.D, 30. Research chemist, Mathieson Alkali Mfg. Co, 22–27; instr, Ohio State, 27–29, E. I. du Pont de Nemours and Co. fellow, 30–31; *mem. sci. inst, Cincinnati, 32–* A.A; Chem. Soc. Hypochlorites; chlorination of hydrocarbons; benzoic acid manufacture and related compounds; lithographic processes.

George, Dr. A(very) B(rewster), 29 Hamilton Ave, Cranford, N. J. *Chemistry.* Haverhill, Mass, Oct. 19, 06. B.S, New Hampshire, 28; fellow, Cornell, 29–31, Ph.D, 31. Asst. instr. chem, Cornell, 28–29; *research chemist,* United Color and Pigment Co., Newark, *N. J,* 31–36; *Standard Oil Develop. Co, Elizabeth, 36–* Chem. Soc. Contact catalysis; hydrogenation and dehydrogenation reactions; pigment chemistry; petroleum.

George, Prof. E(noch) F(ranklin), Hamilton College, Clinton, N. Y. *Physics.* Petersburg, W. Va, March 25, 78. B.S, Valparaiso, 07; A.B, West Virginia, 14, A.M, 16; Ph.D, Ohio State, 20. Dist. supervisor schs, P. I, 11–13; research physicist, B. F. Goodrich Co, 18–19; asst. prof. *physics,* West Virginia, 20–22, assoc. prof, 22–25; prof. and head dept, Texas Tech. Col, 25–42; *mem. faculty, Hamilton Col, 42–* Lieut, F. A, 17–18; capt, F. A. Res. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Seismol. Soc; Texas Acad; fel. Royal Soc. Arts. Absorption of light by mixtures of inorganic salts; fading in radio signals; sand-storm electricity; geomagnetism.

George, E(verett) E(lwood), 5004 U St, Little Rock, Ark. *Electrical engineering.* Madison, Ind, Nov. 27, 92. B.S, Purdue, 13. Test foreman, Am. Rotary Valve Co, Ind, 13; machine foreman, Platt Iron Works, Ohio, 14; production engineer, Nat. Steel Car Co, Ont, 15; master mechanic, Lodge and Shipley Machine Tool Co, Ohio, 16–17; maintenance engineer, Hercules Powder Co, W. Va, 18; valuation engineer, pub. utility cases, 19–22; relay engineer, Tenn. Elec. Power Co, 23–24, operating engineer, 25–26, supt. system operation, 27–39; engineer, Ebasco Services Inc, New York, 39–42; *elec. engineer, Southwest Power Pool, 42–* Fel. Elec. Eng; Radio Eng. Relay protection of power systems; load dispatching; communication; system planning.

George, Prof. R(obert) Wilfred, Tarkio College, Tarkio, Mo. *Psychology.* Xenia, Ohio, Jan. 16, 00. A.B, Geneva Col, 21; A.M, Columbia, 25; Angier B. Duke Mem. fellow, Duke, 30–31, Ph.D, 32. Teacher, Am. Acad, Cyprus, 21–24; *prof. psychol, Tarkio Col, 25–* Assoc. Psychol. Asn; Mo. Acad. Personality; extra-sensory perception.

George, Prof. R(oscoe) H(enry), 703 N. Main St, West Lafayette, Ind. *Electrical engineering.* Fairmount, Ind, Dec. 9, 96. B.S, Purdue, 22, M.S, 27. Asst, *elec. div, eng. exp. sta, Purdue,* 20–28, *research assoc, 28–, asst. prof. elec. eng, 34–* A.A; assoc. mem. Elec. Eng; Physical Soc. High voltage discharges; vacuum tubes; recording natural lighting; cathode ray oscillographs of the hot cathode type; television.

George, Prof. Ruggles, University of Toronto, Toronto, Ont, Can. *Anatomy.* Toronto, Ont, Aug. 22, 89. B.A, Toronto, 11, M.B, 16. Lecturer *anat, Toronto,* 31–35, *asst. prof, 35–* Asn. Anat; fel. Toronto Acad. Med. Human anatomy; human finger types; bipartite patellae; topography of abdominal aorta.

George, Prof. R(ussell) D, University of Colorado, Boulder, Colo. *Geology, Petrology.* Claremont, Ont, Can, May 5, 66. Woodstock Col. (Can), 84–85; B.A, McMaster, 97, M.A, 98, LL.D, 22; fellow, Chicago, 98–00. Master, Woodstock Col. (Can), 91–95, science master, 95–96; instr. *geol. and miner,* Chicago, 98–00; geol, Iowa, 00–01, asst. prof, 01–02, prof. petrol. and econ. geol, 02–03; *geol.* and head dept, *Colorado,* 03–34, *emer. prof, 34–; consulting geologist.* Asst, Ont. Bur. Mines, 98; U. S. Geol. Surv, 99; state geologist, Colo, 07–29. Summers, asst, Chicago, 00–02. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Colo. Sci. Soc. Min-

ing and use of metals by ancient Egyptians; topographic and geologic maps of Colorado; common rocks and minerals; cracking of oils; economic use of fuels; smoke reduction; geology and natural resources of Colorado; nature, occurrence and uses of minerals and rocks.

George, Lieut. T. S, U.S.S. Sangamon, Fleet Post Office, San Francisco, Calif. *Applied mathematics.* Grove City, Pa, Oct. 10, 11. B.S, Grove City Col, 32; A.M, Duke, 36, Ph.D, 42. Instr. math, Florida, 38–42; *U. S. Navy, 42–* Math. Soc; Fla. Acad. The equilibrium point of the Greens function for an n-dimensional spherical annulus.

George, Prof. W(esley) C(ritz), University of North Carolina, Chapel Hill, N. C. *Zoology.* Yadkin Co, N. C, Aug. 20, 88. A.B, North Carolina, 11, A.M, 12, Ph.D, 17. Instr. zool, North Carolina, 12–16; prof. biol, Guilford Col, 16–17; Maule fellow, Princeton, 17–18; adj. prof. zool, Georgia, 19; assoc. prof. *histol. and embryol,* Tennessee, 19–20; *North Carolina, 20–24, prof, 24–, head dept, 40–* A.A; Soc. Zool; Asn. Anat; Elisha Mitchell Sci. Soc. (pres, 27); N. C. Acad. Anatomy; taxonomy of sponges; vertebrate embryology; invertebrate blood.

Georges, Dr. Louis W(illiam), U. S. Department of Agriculture, Southern Regional Research Laboratory, New Orleans, La. *Organic chemistry.* Marcus, Iowa, June 12, 06. B.S, Notre Dame, 29; A.M, Ohio State, 31, Ph.D, 34. Asst, Ohio State, 30–34; Can. Int. Paper Co. fellow indust. and cellulose chem, McGill, 34–35; du Pont cellulose research fellow, Ohio State, 35–37; *mem. staff* research and develop. div, Celluloid Corp, 37–41; *south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Carbohydrates; cellulose; lignin; cellulose plastics; synthetic resins.

Georgi, Prof. Carl E(duard), University of Nebraska, Lincoln, Nebr. *Bacteriology.* Milwaukee, Wis, Feb. 18, 06. B.S, Wisconsin, 30, fellow, 30–31, M.S, 32, Ph.D, 34. Asst. agr. bacter. and agr. biochem, Wisconsin, 31–34, anal. chem, 34–35; instr. *bacter, Nebraska,* 35–38, *asst. prof, 38–* Sterling fellow, Yale, 35. A.A; Chem. Soc. (chairman, Nebr. sect, 42); Soc. Bact. (pres, Mo. Valley branch, 42); Soc. Exp. Biol. Nitrogen fixation by leguminous plants; physiology and biochemistry of microorganisms; fermentations.

Georgia, Dr. F(rederick) R(aymond), Forest Home, Ithaca, N. Y. *Chemistry, Bacteriology.* Sayre, Pa, Sept. 24, 92. Ch.B, Cornell, 15, Ph.D. 22. Instr. sanit. chem, Cornell, 15–17, 19–26; prof. chem, Rollins Col, 26–33; Black Mountain Col, 33–37, rector, 33–34, sec'y, 33–37; *sanit. chemist, dept. bldgs. and grounds, Cornell, 38–* Lieut, Sanit.C, 17–19. A.A; Water Works Asn; Soc. Bact; Chem. Soc. (sec'y, div. water sewage and sanit, 23); fel. Pub. Health Asn. Sanitary chemistry.

Gephart, Dr. F(rank) C(urtis), 23 E. 31st St, New York, N. Y. *Chemistry.* Valley Falls, Kans, July 15, 84. A.B, Kansas, 06; Ph.D, Cornell, 16. Teaching fellow chem, Kansas, 06–07; expert chemist, Remsen Referee Board, 07–11; chemist, Russell Sage Inst. Path, 12–17; *consulting chemist, 20–* Chief child feeding mission to Jugo-Slavia, Am. Relief Admin, 18–20. Order of St. Sava. Sanit. C, S.G.O, 17–19, major. Chem. Soc; Chem. Eng. Chemistry of food and its industrial applications.

Gerald, Dr. Herbert Franklin, Creighton University, Omaha, Nebr. *Pharmacology.* Turners Falls, Mass, Sept. 5, 81. Ph.G, Mass. Col. Pharmacy, 02; M.D, Tufts Col, 09; B.S, Creighton, 27. Pharmacist, 96–99, 02–04; instr. pharmacy, Mass. Col. Pharmacy, 04–09; intern, Worcester City Hosp, 10–11; practising physician, 11–12; *prof.* pharmacy, *Creighton,* 12–13, *physiol,* 12–15, *21–,* path, bacter, histol. and physiol, dept. dentistry, 15–21, asst. prof. pharmacol. and mat. med. and instr. physiol, dept. med, 13–14, assoc. prof, 14–15, *prof. pharmacol, 21–, head depts. physiol. med. and pharmacol, 30–* Lecturer, Lister Hosp, 14–17; St. Joseph's Hosp, 19, 23– A.A; Pharmaceut. Asn; Am. Med. Asn; Mid-West Clin. Soc; Nebr. Pharmaceut. Asn. Bacteriology.

Gerard, Prof. R(alph) W(aldo), University of Chicago, Chicago, Ill. **⁰Physiology.* Harvey, Ill, Oct. 7, 00. B.S, Chicago, 19, Ph.D, 21, M.D, Rush, 25. Prof. *physiol,* South Dakota, 21–22; nat. research fellow, Europe, 26–27; asst. prof, *Chicago,* 28–29, assoc. prof, 29–41, *prof, 41–* Ed, 'Jour. Neurophysiol'; assoc. ed, 'Physiol. Rev.' A.A; Soc. Nat; Physiol. Soc; Soc. Exp. Biol. (assoc. ed, 'Proc'); Neur. Asn; British Physiol. Soc; Biochem. Soc. Gt. Britain. Nerve metabolism and conduction; cell oxidation; brain potentials and metabolism.

Gerber, Dr. L(ouis), 682 W. Cushing St, Decatur, Ill. *Chemistry.* Cardiff, Wales, May 9, 04. B.S, Illinois, 25; fellow, Am. Inst. Baking, 25–27; M.S, Purdue, 29, Ph.D, 33; fellow, Iowa State Col, 29–30. Instr, Am. Inst. Baking, 25–27; asst. chem, Purdue, 27–29, 30–33; biochemist, Wm. S. Merrell Co, 33–35; chemist, State Dept. Agr, Ill, 35–37; biochemist, St. Francis Hosp, Peoria, 37–40; *research chemist,* Hiram Walker and Sons, Inc, 40–42; *A. E. Staley Mfg. Co, 42–* Chem. Soc. (sec'y, Peoria sect, 39–). Protein metabolism; blood coagulation; clinical chemistry and toxicology; preparation and utilization of amino acids.

Gerdel, Dr. Robert W(allace), 2114 O St, N.W, Washington, D. C. *Agronomy.* St. Louis, Mo, Oct. 4, 01. B.S, Mich. State Col, 23; M.S, Ohio State, 25, Ph.D, 29; Chilean Nitrate of Soda fellow, Ohio Exp. Sta, 26–28. Asst. farm crops, Ohio State, 24–25; plant chemist, Ohio Exp. Sta, 25–33; asst. soil scientist, soil conservation service, U. S. Dept. Agr, 33–39, assoc. soil scientist, 39–40, head soil management sect, regional agron. div, 40–42, microclimatic research center, soil conservation service and Corps Engineers, U. S. Army, 42–43; *physicist, U. S. Weather Bur, 43–* Soil Sci. Soc; Soc. Agron; Int. Soc. Soil Sci. Soil physics; soil chemistry; soil nutrient deficiency; soil erosion; evaporation from land and water surfaces; thermodynamics of snow.

Gerdes, F(rancis) L(eo), U. S. Department of Agriculture, Stoneville, Miss. *Agricultural economics.* Hallettsville, Texas, Jan. 14, 07. B.S, Agr. and Mech. Col. Texas, 28. Junior agr. economist, *div. cotton marketing, bur. agr. econ, U. S. Dept. Agr,* 28–30, asst. agr. economist, 30–32, asst. cotton technologist, 32–33, assoc. cotton technologist, 33–36, cotton technologist, 36–40, *senior cotton technologist, 40–* Summer, gin operator, C. Gerdes and Sons Gin Co, 24–27. Physical properties of cotton fibers; cotton fiber quality in relation to ginning; cotton harvesting, conditioning, cleaning, extracting and ginning methods.

Gergen, Prof. J(ohn) J(ay), Duke University, Durham, N. C. *Mathematics.* St. Paul, Minn, April 17, 03. A.B, Minnesota, 25, A.M, 26; Ph.D, Rice Inst, 28. Nat. research fellow, 28–30; Benjamin Peirce instr, Harvard, 30–33; asst. prof. *math,* Rochester, 33–36; assoc. prof, *Duke,* 36–39, *prof, 39–* Math. Soc; Math. Asn; N. C. Acad. Analysis.

Gerhard, Dr. S(herman) L(eidich), U. S. Rubber Co, Hogansville, Ga. *Physics.* Quakertown, Pa, May 25, 04. B.S, Pennsylvania, 24; fellow, Northwestern, 25–26, M.S, 26; Ph.D, Michigan, 32. Asst. chem. engineer, Procter and Gamble Mfg. Co, 24–25; asst. physicist, Eastman Kodak Co, 26–28; instr. math, physics and elec. eng, Wyomissing Polytech. Inst, 33–35; asst. physicist, explosives div, U. S. Bur. Mines, 36–39; *supervisor physics research, textile div, U. S. Rubber Co, 39–* Physical Soc. X-ray crystal structure analysis; infra-red absorption spectra; ignition of firedamp by explosive discharges; physical properties of fibers, yarns and cords.

Gerhard, W(illia)m J(osiah), Field Museum of Natural History, Chicago, Ill. *Entomology.* Berks Co, Pa, Jan. 3, 73. Jessup student, Acad. Nat. Sciences Phila, 95–98. Asst. curator *insects, Field Museum Nat. Hist,* 01–20, assoc. curator, 20–36, *curator, 37–* A.A; Entom. Soc. Amer; Ill. Acad; Chicago Entom. Soc. Hemiptera.

Gerhardt, Dr. Fisk, Box 99, Wenatchee, Wash. *Plant biochemistry.* Neillsville, Wis, July 10, 97. B.S, Wisconsin, 22, M.S, 23; Ph.D, Iowa State Col, 28. Asst, Wisconsin, 21–23; asst. chemist, Exp. Sta, Iowa State Col, 23–31; *plant physiologist, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–* Chem. Soc; Soc. Plant Physiol; Soc. Hort. Sci; Wash. Hort. Soc. Plant physiology; chemical changes in stored fruit; propagation and physiology of the milkweed; inheritance of chemical characters in corn; biochemistry of the hemicelluloses and of apples; physiology of pears; maturity, handling and storage of deciduous fruits; carbon dioxide gas storage of fruit; transportation studies of deciduous fruits.

Gerhart, Prof. Arthur R(ickenbaug), 348 College Ave, Lancaster, Pa. *Plant physiology.* Bedford, Pa, March 17, 90. B.S, Pa. State Col, 13; M.S, Wisconsin, 21; Ph.D, Chicago, 28. *Prof. biol,* Carson and Newman Col, 20–23; Monmouth Col, 23–28; *Pa. State Teachers Col, Millersville, 28–* Respiration in strawberry fruits.

Gerhart, Dr. H(oward) L(eon), 235 E. Pittsburgh Ave, Milwaukee, Wis. *Chemistry.* Boyertown, Pa, Sept. 3, 09.

B.S, Franklin and Marshall Col, 31; Ph.D, Northwestern, 35. Asst. chem, Northwestern, 32–34, asst, 34–35; *research chemist*, Standard Oil Co. of Ind, 35–36; *Pittsburgh Plate Glass Co, 36–* Chem. Soc. Alkyl sulfates; Grignard reagent; isolation of petroleum; hydrocarbons; polymerization.

Gericke, Prof. W(illiam) F(rederick), 1555 Scenic Ave, Berkeley, Calif. *Chemistry.* Fremont, Nebr, Aug. 30, 84. B.S.A, Iowa State Col, 12; M.S, California, 15; Ph.D, Hopkins, 21. Instr. soil chem. and bact, *California*, 12–16, *asst. prof. soil chem, 16–* In service, Nat. Research Council, 18–19. Aquaculture; plant nutrition; history of agriculture.

Gerjuoy, Dr. E(dward), R.F.D. No. 1, Cedar Grove, Norwich Road, Uncasville, Conn. *Physics.* New York, N. Y, May 19, 18. B.S, Col. City of N. Y, 37; A.M, California, 40, Ph.D, 42. *Research engineer underwater sound lab, U. S. Navy, div. war research, Columbia, 42–* Physical Soc. Problems in quantum spectroscopy.

Gerke, Dr. Roscoe H(arlan), U. S. Rubber Co, Passaic, N. J. *Physical chemistry.* Highland, Ill, Dec. 1, 95. B.S, Illinois, 18; fellow, California, 19–21, Ph.D, 22. Instr. chem, California, 21–22; physical chem, Mass. Inst. Tech, 22–26; *research chemist, U. S. Rubber Co, 26–* 2nd lieut, C.W.S, 18–19. Chem. Soc. (chairman N. J. sect, 39; rubber div, 40, exec. board, 41; councilor, N. J. sect, 41). Chemical thermodynamics; electromotive force of cells; dispersoids; photochemistry; rubber; rubber physics.

Gerkin, Dr. Ernest Hugh, 1814 High St, South Bend, Ind. *Physical chemistry.* Larwill, Ind, March 31, 98. A.B, Indiana, 22, A.M, 33, Ph.D, 37. *Instr. chem, exten. div, Indiana,* Chem. Soc. Grid design in storage battery plates.

Gerlach, Dr. George H(enry), 3537 172nd St, Flushing, N. Y. *Pharmaceutical chemistry.* Cleveland, Ohio, April 9, 10. Ph.C, Western Reserve, 31, B.S, 32, M.S, 37, Ph.D, 41. Sci. director, Strong, Cobb and Co, Inc, 34–38, v. pres. in charge production, 39–41; *tech. director new products div, Vick Chem. Co, 41–* A.A; Chem. Soc; Pharmaceut. Asn. Pharmacognostic study of Datura innoxia and other alkaloid bearing plants.

Gerlough, Tillman D(aniel), E. R. Squibb and Sons, New Brunswick, N. J. *Chemistry.* Vancouver, Wash, Sept. 3, 95. B.S, Idaho, 17. Instr. chem. and asst, Idaho, 19–22; *research chemist, serum dept, biol. labs, E. R. Squibb and Sons, 22–* Lieut, Inf, 17–19. Chem. Soc. Plant saps; stability of pituitary principles; antitoxic globulins; local anesthetics; insulin; hydrolysis of thyroglobulin; immune globulin; antipneumococcic rabbit sera; soluble specific substances of pneumococci; typhoid antigen; rabbit thermal test; refractive index of serum proteins.

German, Prof. Leslie, 430 Parade, Lexington, Va. *Chemistry.* Dayton, Ky. A.B, Centre Col, 26; du Pont fellow, Lafayette Col, 27, M.S, 27; Ph.D, Cincinnati, 33. Instr. chem, Va. Mil. Inst, 28–30; research chemist, Sinclair Ref. Co, 33–35; asst. prof. *chem, Va. Mil. Inst*, 35–40, assoc. prof, 40–42, *prof, 42–* Summer, chemist, Wis. Steel Co, 35. Chem. Soc. Electrode potential of cobalt; solvent extraction of oils.

Germann, Dr. Albert F(rederick) O(ttomar), South Whitley, Ind. *Biochemistry, Physical chemistry.* Peru, Ind, Feb. 18, 86. A.B, Indiana, 09, A.M, 10; Wisconsin, 10; D.Sc, Geneva, 12; Berlin, 12. Teaching fellow chem, Indiana, 09; asst, Wisconsin, 09–10; instr, Western Reserve, 13–15, asst. prof, 15–21, assoc. prof, 21; asst. prof, Stanford, 21–25; director research lab, Lab. Products Co, 25–26; prof. chem. and head dept, Valparaiso, 26–28, acting pres. and acting dean col. pharmacy, 27; director research div, S. M. A. Corp, Cleveland, 25–35; *consulting chemist, 35–; pres, Nutritional Research Associates, Inc, 36–* A.A; Chem. Soc. (sec'y-treas, Cleveland sect, 15–17, chairman, 29); Pharmaceut. Asn; Dairy Sci. Asn; Soc. Chem. Indust; Ind. Acad; Biochem. Soc. Gt. Britain; Soc. de Chim. physique; Soc. suisse de Chim. Physical chemistry of gases; phosgene; phosgenates; solvent systems; dairy chemistry; milk products; infant foods; nutrition; vitamin A and carotene; applications of carotene to food industries; dehydrated vegetables.

Germann, Prof. Frank E(hart) E(mmanuel), University of Colorado, Boulder, Colo. *Chemistry, Physics.* Peru, Ind, Dec. 6, 87. Wisconsin, 10; A.B, Indiana, 11; fellow, Berlin, 12; Lausanne and Neuchâtel, 13; D.Sc, Geneva, 14. Asst. and lecturer chem, Geneva, 12–13; instr. French, Indiana, 13–14; physics, Cornell, 14–18; *prof.* physics and elec. eng, Colo. Sch. Mines, 18–19; *physical chem, Colorado, 19–* Research fellow, Carnegie Institution, 15–18, 25–26. Mem, Colo. Eng. Council, 36– A.A. (councilor, 30–, exec. cmt, southwest. div, 24–27, v. pres, 32–34, pres, 36–38; exec. sec'y-treas, 39–); Chem. Soc. (v. pres, Colo. sect, 33, pres, 34–36; councilor, 37); Petrol. Inst. (chairman, Rocky Mt. div. tropical cmt. on production technol, 30–); Colo-Wyo. Acad. (exec. cmt, 27–31, pres, 31, ed, 'Jour,' 27–31); Soc. française de Physique; Soc. de Chim. physique; Soc. Suisse de Chimie. Gas apparatus; microanalysis of gases; absorption spectra of gases; vapor tension of oxygen; nitrosyl chlorid; atomic weights; colloid chemistry; radioactivity; fluorescence; photography; natural gas; petroleum; vapor pressure line coordinate charts; magnetic double refraction; dry ice from flue gas; solubility line coordinate charts.

Germann, Dr. George B(althasar), 167 Rutland Road, Brooklyn, N. Y. *Psychology, Education.* Brooklyn, N. Y, Feb. 27, 72. Pd.M, N. Y. Univ, 94; A.B, Columbia, 95, fellow, 98–99, Ph.D, 99. Teacher, pub. schs, N. Y, 89–91; asst. math, Columbia, 95–98, philos. and educ, 99–00, lecturer educ, 99–02, registrar, 00–02; *prin*, pub. sch, Brooklyn, 02–29; St. Clair McKelway Junior High Sch, 29–40; *retired.* A.A. Fatigue in the school room; growth and control of motor habits; fluctuations in retentiveness among school children.

Germer, Dr. L(ester) H(albert), Bell Telephone Laboratories, 463 West St, New York, N. Y. *[5]Physics.* Chicago, Ill, Oct. 10, 96. A.B, Cornell, 17; A.M, Columbia, 22, Ph.D, 27. *Physicist, Bell Tel. Labs.* Elliott Cresson medal, 31. A.A; fel. Physical Soc; Soc. X-Ray and Electron Diffraction; N. Y. Acad. Thermionics; electron diffraction; structure of surface films; surface chemistry; order-disorder phenomena; structure of black carbon.

Germond, Prof. Hallett H(unt), University of Florida, Gainesville, Fla. *Mathematics.* Oconto, Wis, May 26, 00. B.S, Wisconsin, 23, M.S, 24, Ph.D, 27. Research engineer, C. F. Burgess Labs, 23–24; asst. instr. physics, Wisconsin, 24–27, instr. math, 27–29; physicist, C. F. Burgess Labs, 29–31; asst. prof. *math, Florida*, 31–38, *assoc. prof, 38–; senior tech. aide, Nat. Defense Research Cmt, 42–* Summer, asst. physicist, Forest Products Lab, U. S. Forest Service, 28; supervisor research, sch. trade and indust. educ, Florida, 40– Fla. Acad. Applied mathematics; acoustical theory; empirical analysis; instrument design; statistics; econometrics.

Germuth, Dr. Frederick G(eorge), 6 Second Ave, Halethorpe, Md. *Chemistry.* Baltimore, Md, April 6, 91. B.S, Hopkins, 14; Maryland, 29–30, hon. Sc.D, 36; Am. Int. Acad, 37. Asst. tin testing div, Crown Cork and Seal Co, *Baltimore*, 16–18; chemist, Wilson Martin Co, 18–20; Bur. Water Supply, 21–25, *head div. research, Munic. Bur. Standards, 25–* Consulting and research chemist, Sheppard-Enoch Pratt Hosp, 31–; research consultant, McCormick and Co, 33– Double wreath, Int. Am. Acad, 31. Chem. Soc; fel. Inst. Chem; Franklin Inst; Md. Acad; fel. London Chem. Soc; Int. Am. Acad. Chemical analysis; catalytic oxidation; heterocyclic bases; the action of medicinals on urinary pigments; the quantitative determination of ureides; barbiturate intoxication; lactic acid; the toxicity of electropositive components of salts; synthesis of barbiturates.

Gernert, Prof. W(alter) B(yron), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agronomy.* Fredericksburg, Pa, Sept. 2, 81. B.S, Kans. State Col, 07; scholar, Illinois, 07–08, fellow, 08–11, M.S, 09, Ph.D, 11. Asst, Kans. State Col, 06–07; mem. Ill. State Soil Surv, 07–08; faculty plant breeding, Illinois, 11–17, exten. agronomist, 18, county agent, Edgar County, Ill, 18–21; farm supt, Shelburn, Ind, 21–23; farm operator, 23–27; rubber investigations, U. S. Dept. Agr, Haiti, 28; county agent, Choctaw County, Okla, 30–32, Okfuskee County, 32–34; *prof. forage crops, Okla. Agr. and Mech. Col, 34–* A.A. Forage crops and pastures; legumes; sorghums; grasses; corn; rubber.

Gerould, Elizabeth Wood, Colorado Woman's College, Denver, Colo. *Chemistry.* Elmira, N. Y, Jan. 21, 89. A.B, Colo. Col, 12, A.M, 21. Teacher, high sch, Colo, 12–14; instr. *chem*, Colo. Col, 16–24; *head dept, Colo. Woman's Col, 25–* A.A; Chem. Soc; Colo-Wyo. Acad. Sanitary chemistry.

Gerould, Prof. John H(iram), Dartmouth College, Hanover, N. H. *[1]*Zoology.* Stoddard, N. H, Oct. 2, 68. Litt.B, Dartmouth Col, 90; A.B, Harvard, 92, A.M, 93, Ph.D, 95. Instr. nat. science, Burr and Burton Sem, Vt, 90–91; *zool, Dartmouth Col*, 94–06, asst. prof, 06–15, assoc. prof, 15–18, prof, 18–38,

emer. prof, 38– A.A; Soc. Nat. (v. pres, 19); Soc. Zool. (sec'y-treas, 12); N. H. Acad. (pres, 29). Genetics; morphology of holothurians; embryology and cytology of sipunculids; sipunculids of the eastern coast of North America; genetics and general physiology of butterflies and moths; history of the cell theory; circulation in insects.

Gerritz, Dr. H(arold) W(illiam), 512 New Federal Bldg, San Francisco, Calif. *Biochemistry.* Pierce Co, Wash, July 2, 05. B.S, M.S, State Col. Wash, 31, R. C. McRosky fellow, 32–34, Ph.D, 34. Dairy chemist, State Col. Wash, 31–33, asst. state chemist, State Dept. Agr, 34–36; asst. to chief chemist, *food and drug admin,* U. S. Dept. Agr, 37–42; assoc. chemist and *chemist in charge lab, Fed. Security Agency, 42–* Utilization of agricultural waste; rapid methods of analyzing agricultural and food products.

Gerry, Dr. Bertram I(rving), Box 28, Wellesley Hills, Mass. *Entomology.* Salem, Mass, March 6, 96. B.S, Mass. Col, 23; M.S, Harvard, 29, Ph.D, 31. Instr. biol, Tufts Col, 23–28; *div. plant pest control, State Dept. Agr, Mass, 23–* Asst. entomologist, State Reclamation Board on Mosquito Control, Mass, 32–33; State Dept. Pub. Health poliomyelitis investigation, 38; consulting entomologist. Entom. Soc. Amer. Morphology of the female genitalia of Cuban mosquitoes; new species of Chironomidae from the Greater Antilles.

Gerry, Dr. Eloise, U. S. Forest Service, Madison, Wis. *Botany, Forestry.* Boston, Mass, 85. A.B, Radcliffe Col, 08, A.M, 09; fellow, Smith Col, 09; Ph.D, Wisconsin, 21. Expert, *Forest Products Lab, U. S. Forest Service,* 10–11, microscopist, 11–28, *senior microscopist, 28–; lecturer forest products, Wisconsin, 11–* A.A; Bot. Soc; assoc. Soc. Foresters; Forestry Asn; Soc. Plant Physiol; Chem. Soc; Ecol. Soc; Int. Asn. Wood Anat. Physiological anatomy and micro-analysis of forest products; tyloses; oleoresin production; parenchyma reactions; heartwood formation; cork.

Gerry, Dr. Harold T(irrell), 1828 Varina Ave, Petersburg, Va. *Physical chemistry.* Hartford, Conn, Feb. 6, 08. B.S, Mass. Inst. Tech, 29, Ph.D, 32. Asst, Mass. Inst. Tech, 31–33, assoc, 33–34, research assoc. and instr. chem, 34–40; *research chemist, Solvay Process Co, 40–* Chem. Soc. Thermodynamics of fluids.

Gersbacher, Prof. W(illard) M(arion), 510 W. Pecan St, Carbondale, Ill. *Zoology, Ecology.* Springerton, Ill, March 25, 06. Ed.B, South. Ill. State Nor. Univ, 26; A.M, Illinois, 28, Ph.D, 32. Asst. zool, Illinois, 27–29; instr. biol, South. Ill. State Nor. Univ, 29–30; prof. science and math. and head dept, East. N. Mex. Junior Col, 34–35; instr. biol, East. Ill. State Teachers Col, 35–36; asst. prof. *zool, South. Ill. State Nor. Univ,* 36–38, *assoc. prof. and head dept, 38–* Summers, West. Ill. State Teachers Col, 32, 35; Wis. State Teachers Col, River Falls, 33; U. S. Bur. Fisheries, 34. A.A; Ecol. Soc; Micros. Soc; Wildlife Soc; Tenn. Acad; Ill. Acad. Development of stream bottom communities; animals in tide pools; biological survey of streams.

Gersdorff, W(ilbur) A(ugust), McLean, Va. *Chemistry.* Washington, D. C. B.S, George Washington, 18, M.S, 20. Junior chemist, insecticide and fungicide board, *U. S. Dept. Agr,* 19–24, asst. chemist, bur. chem. and soils, 24–35, toxicologist, 27–35, *assoc. chemist and toxicologist,* div. insecticide investigations, *bur. entom. and plant quarantine,* 35–40, *div. control investigations, 40–* Chemist, C.W.S, 18. Insecticide chemistry; determination and comparison of toxicity; comparison of methods of expressing relative toxicity; relationship of toxicity to chemical structure.

Gersh, Dr. I(sidore), Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy.* New York, N. Y, Oct. 6, 07. A.B, Cornell, 28; Ph.D, Chicago, 32. Instr. *anat, sch. med, Hopkins,* 33–40, *assoc, 40–* Guggenheim Mem. Foundation fellow, 39. Asn. Anat. Histochemistry; cytology.

Gershenfeld, Prof. L(ouis), 281 S. 63rd St, Philadelphia, Pa. *Bacteriology, Hygiene.* Philadelphia, Pa, Dec. 25, 95. Pharm.D, Phila. Col. Pharmacy, 15, Clayton fellow, 16, B.S, 17, Pharm.M, 20, Sc.D, 40; Jefferson Med. Col, 16–18; Pennsylvania, 19. Asst. prof. bacter. and hygiene, *Phila. Col. Pharmacy,* 17–18, *director bacter. and clin. chem. labs, 17–,* acting prof. *bacter. and hygiene,* 19–20, *prof, 20–; director, Gershenfeld Lab, 18–* Chairman cmn. bacter. and immunol, Nat. Conf. Pharmacol. Research, 34; chairman lab. reagent cmn, Nat. Formulary VI and VII, 34–; mem. sterile advisory board, U. S. Pharmacopoeia XI and XII. Co-editor, 'U. S. Dispensary,' 37; mem. publication cmt, 'Am. Jour. Pharmacy.' Sec'y, Cmt. Standardization Biol. Stains. Emergency Fleet Corp, Hog Island, 17–18; bacteriologist, Intel. Dept, U.S.A, and Food Admin, 17–19. A.A; Soc. Bact. (chairman, program cmt, east. Pa. sect, 25); Chem. Soc; Pharmaceut. Asn. (sec'y, hist. sect, 31, pres, 32–34); Pa. Pharmaceut. Soc. (chairman, cmt. on pharmacog. and biol, 30). Phenol coefficient tests; disinfectants; antiseptics; human and animal milk; raticides; insecticides; snake venom; sterilization of medicaments; clinical chemistry; sanitation; air and atmospheric conditions; urine and urinalysis; iodine; volatile oils; bacteriological and biological products; hematology; historical science; sanitary science.

Gershinowitz, Dr. Harold, 40 E. Tenth St, New York, N. Y. *Physical chemistry.* Brooklyn, N. Y, Aug. 31, 10. B.S, Col. City of N. Y, 31; A.M, Harvard, 32, Ph.D, 34. Parker fellow from Harvard, Princeton, 34–35; research assoc. chem, Columbia, 35–36; Harvard, 36–38; *research director, Shell Oil Co, Inc, 38–* Chem. Soc. Quantum mechanics; chemical kinetics; molecular structure.

Gershon, Dr. S(olomon) D, University of Illinois College of Pharmacy, 808 S. Wood St, Chicago, Ill. *Chemistry.* Chicago, Ill, Oct. 18, 10. Ph.C, Illinois, 30; B.S, Chicago, 34, M.S, 35, Ph.D, 38. Asst. *chem, col. pharmacy, Ill,* 30–38, instr, 38–41, assoc, 41–42, *asst. prof, 42–* Chem. Soc; Pharmaceut. Asn. Catalytic dehydrogenation of sugar alcohols; derivatives of sulfanilamide; determination of volatile oils in aromatic drugs; proximate assays.

Gershoy, Prof. Alexander, 421 North St, Burlington, Vt. *Botany.* Krivoi Rog, Russia, Nov. 21, 96. B.S, Cornell, 18; Ph.D, Columbia, 34. Asst. *bot,* Columbia, 19–23; instr, *Vermont,* 23–34, asst. prof, 34–38, *assoc. prof, 38–, asst. botanist, Exp. Sta, 23–* A.A; Bot. Soc. Cytology, genetics, morphology and physiology of violets; graft hybrids; morphogenesis in plants; culture of plant embryos and tissue fragments in vitro; cytology and physiology of pollen tubes; clover breeding.

Gerst, Rev. F(rancis) J(oseph), S.J, Loyola University, Chicago, Ill. *Mathematics.* Cincinnati, Ohio, June 29, 82. A.B, St. Xavier Col, 02; A.M, St. Louis, 08, M.S, 11; Michigan, 20–21; Ph.D, Hopkins, 24. Instr. physics, Detroit Col, 09–10; *math,* St. Ignatius Col. (Ohio), 11–14; assoc. prof, Loyola (Ill), 18–19; prof, St. Louis, 24–31, director dept, 26–31; *prof. and director dept, Loyola (Ill), 31–, dean grad. sch, 33–* Math. Soc; Math. Asn. Image points and Riemann's theorem.

Gerstell, Dr. Richard, State Game Commission, Harrisburg, Pa. *Ecology.* Ardmore, Pa, July 30, 10. A.B, Dartmouth Col, 33, Cramer fellow, 38–39; univ. fellow, Michigan, 38–39, Ph.D, 42. *State Game Cmn, Pa, 33–, chief div. research.* Ornith. Union; Soc. Mammal; Wildlife Soc. Effects of various meteoroloigcal factors upon the physiology of birds and mammals.

Gerster, Dr. John C. A, 34 E. 75th St, New York, N. Y. *Surgery.* New York, N. Y. A.B, Columbia, 02, M.D, 05. Instr. *clin. surg, med. col, Cornell,* 14–19, *asst. prof, 19–; prof. clin. surg, col. med, N. Y. Univ, 43–* Attending surgeon, Lenox Hill Hosp, New York. Mem. Am. Board Surg. South. Surg. Asn; N. Y. Surg. Soc; fel. N. Y. Acad. Med. Fractures; traumatic and abdominal surgery.

Gertsch, Dr. Willis J(ohn), 42 Wyckoff Ave, Ramsey, N. J. *Entomology.* Montpelier, Idaho, Oct. 4, 06. A.B, Utah, 28, A.M, 30; Ph.D, Minnesota, 35. Teaching asst, Minnesota, 30–32; asst. curator *spiders, Am. Museum Nat. Hist,* 32–39, *assoc. curator, 39–* Am. Museum Nat. Hist. entom. exped, Panama, 36. Entom. Soc. Amer; N. Y. Entom. Soc. Biology and systematics of Arachnida.

Geruso, Dr. R(obert) L(ouis), 353 Garden Ave, Mt. Vernon, N. Y. *Metallurgy.* Mechanicville, N. Y, Dec. 27, 03. Chem.E, Rensselaer Polytech, 25, 26–27; Tech. Cooperative fellow, Carnegie Inst. Tech, 26–27, M.S, 27; fellow, Columbia, 27–28, Ph.D, 30. Instr. chem. eng, Rensselaer Polytech, 25–26; lecturer, New Rochelle Col. and Cathedral Col, 28–29; *consulting metallurgist and metallographist, 28–* Tech. staff, Bell Tel. Labs, 30. Soc. Metals (exec. cmt, New York sect). Testing of materials; metallography; mechanics of metals; contact metals; materials for communication industry.

Gerwe, Dr. E(lmer) G(eorge), E. R. Squibb and Sons, New York, N. Y. *Biochemistry.* Cincinnati, Ohio, Sept. 17, 02. B.S, Miami (Ohio), 25; A.M, Cincinnati, 27, Ph.D, 30. Director labs, Wm. S. Merrell Co, 30–43; prof. bacter, Cincin-

nati Col. Pharmacy, 34–39; *in charge control divisions, pharmaceut. and chem. mfg. labs, E. R. Squibb and Sons, 43–* A.A; Chem. Soc; Soc. Bact; Pub. Health Asn; N. Y. Acad; Cincinnati Acad. Med; Biochem. Soc. Gt. Britain. Cellular respiration; blood coagulation; germicides; bacterial antigens; medicinals.

Gerwe, Dr. R(aymond) D(aniel), Food Machinery Corp, Dunedin, Fla. *Chemistry.* Cincinnati, Ohio, May 28, 04. B.S, Miami (Ohio), 27; A.M, Cincinnati, 29, John Uri Lloyd fellow, 30–31, Ph.D, 32. Instr. chem, Oxford Col, 27–28; in charge research and develop, Kroger Food Foundation, 32–38; *research dept, Food Machinery Corp, 38–* Food chemistry; chemical education; photochemistry as applied to organic chemistry.

Geschickter, Dr. C(harles) F, 714 N. Charles St, Baltimore, Md. *Surgery.* Washington, D. C, Jan. 8, 01. A.B, George Washington, 20, A.M, 22; M.D, Hopkins, 27. Res. physician, Baltimore City Hosp, 27–28; fellow, Mayo Clinic, 29; asst. surg, surg. path. lab, Hopkins Hosp, 30–36, instr, 36–38, assoc, 38–40; pathologist, St. Agnes Hosp, 40–43. A.A; Am. Med. Asn; Asn. Study Neoplastic Diseases (pres, 36–); Soc. Clin. Path; South. Med. Asn. Pathology of tumors; cancer research; relation of endocrines to breast tumors; surgical pathology.

Gesell, Prof. Arnold (Lucius), 185 Edwards St, New Haven, Conn. ***Psychology, Pediatrics.* Alma, Wis, June 21, 80. Ph.B, Wisconsin, 03; Ph.D, Clark, 06, Sc.D, 30; M.D, Yale, 15. Prin, high sch, Wis, 03–04; prof. psychol, Calif. State Nor. Sch, Los Angeles, 08–11; asst. prof. educ, *Yale,* 11–15, *prof. child hygiene, 15–, director clinic child develop, 11–* Attending pediatrician, New Haven Hosp, 29–Summers, assoc. director sch. for special teachers, N. Y. Univ, 11–15; sch. psychologist, Board Educ, Conn, 15–19; Cmn. on Child Welfare, Conn, 19–21. A.A; Psychol. Asn. (director, 30–32); Psychiat. Asn; Orthopsychiat. Asn; Child Health Asn. (v. pres, 26–28, director, 25–); Nat. Cmt. Mental Hygiene (director, 22–); Am. Med. Asn; Acad. Pediat; Conn. Soc. Mental Hygiene (director, 12–, exec. cmt, 13–33); Conn. Child Welfare Asn. (exec. cmt, 18–34, v. pres, 18–); Asn. int. pour la Protection de l'Enfance (v. pres, 25–). Clinical and genetic psychology; systematic developmental psychology of normal and abnormal human infancy; normative and cinematic studies of infant behavior pattern; behavior development of twins; an atlas of infant behavior; clinical studies of developmental defects and deviations; psychological factors in accidents to children and in child adoption; mental hygiene of handicapped children; developmental diagnosis of infants and preschool children; educational and scientific talking pictures.

Gesell, Dr. Robert, University of Michigan, Ann Arbor, Mich. ***Physiology.* Alma, Wis, June 23, 86. A.B, Wisconsin, 10; M.D, Washington (St. Louis), 14. Asst. zool, Wisconsin, 09–10; *physiol,* Washington (St. Louis), 10–12, from instr. to assoc. prof, 12–19; *prof,* California, 19–22; *Michigan, 23–* A.A; Physiol. Soc; Soc. Exp. Biol. Electrical potentials of the submaxillary gland; relation of pulse pressure to renal secretion and filtration; relation of auricular systole to ventricular output; blood flow; relation of blood volume to tissue nutrition; traumatic shock; chemical and nervous regulation of circulation and respiration; structural and functional organization of the respiratory center; central and peripheral action potentials; nerve cell activation and nervous integration.

Gesell, W(illia)m H(ans), 235 Christopher St, Montclair, N. J. *Chemical engineering.* Jersey City, N. J, June 8, 90. Columbia; Michigan. Hamersley Mfg. Co, *N. J;* gen. manager, *Lehn and Fink Products Co, Bloomfield,* 15–19, *v. pres. in charge mfg, 19–* Chairman, Nat. Management Council. Chem. Eng; Indust. Eng; Mech. Eng; Chem. Soc; Electrochem. Soc; Asn. Pulp and Paper Indust; Soc. Advancement Management (pres); Taylor Soc. Manufacturing.

Gessler, Dr. Albert E(dward), 432 W. 45th St, New York, N. Y. *Chemistry.* Metzingen, Germany, May 8, 87. Ph.D, Berlin, 08. Chief chemist, G. Siegle Co, N. Y, 08–19; chief chemist and v. pres, Ultro Chem. Corp, 19–26; chief chemist, Zinsser and Co, 26–34; *director research, Interchem. Corp, New York, 34–* Chem. Soc; Chemists' Club. Pigments; dyes; solvents; resins; surface chemistry.

Gester, G(eorge) C(lark), Standard Oil Bldg, San Francisco, Calif. *Geology.* Buffalo, N. Y, June 16, 84. B.S, California, 08. Asst. instr. miner. and geol, California, 08–09; geologist, South. Pacific Ry, 09–14; Standard Oil Co. of N. Y, 14–16; *chief geologist, Standard Oil Co. of Calif.* Geol. exped, Peru. Paleont. Soc; Min. and Metal. Eng; Asn. Petrol. Geol; Petrol. Inst; Calif. Acad. Oil geology in California.

Gester, Stephen H(owell), 225 Bush St, San Francisco, Calif. *Geology.* Calif, 89. B.S, California, 13. Geol. surv, South. Pacific Ry, 13–14; *geologist,* Standard Oil Co. of N. J, 14–15; *Standard Oil Co. of Calif, 16–* A.A; Asn. Petrol. Geol; Petrol. Inst. Petroleum geology.

Getchell, Prof. B(assford) C(ase), Butler University, Indianapolis, Ind. *Mathematics.* Baring, Maine, July 5, 04. A.B, Colby Col, 27; A.M, Harvard, 28; Ph.D, Michigan, 34. Instr. *math,* Case, 28–31; Brown, 35–36; *Butler,* 36–37, *asst. prof, 37–* Mem. Case eclipse exped, Maine, 32. Math. Soc. Integration.

Getchell, Prof. R(obert) W(ard), Iowa State Teachers College, Cedar Falls, Iowa. *Chemistry.* Buchanan Co, Iowa, Oct. 1, 83. A.B, Iowa State Teachers Col, 11; M.S, Wisconsin, 14, Ph.D, 30. Instr. *chem,* Iowa State Col, 07–09; *prof, Iowa State Teachers Col, 09–* Chem. Soc; Iowa Acad. Dialysis through rubber membranes; enzymes; salt catalysis of hydrogen peroxide; activity of peroxidase; quantitative estimation of alcohol in human blood.

Getting, Dr. I(van) A(lexander), Yale University, New Haven, Conn. *Physics.* New York, N. Y, Jan. 18, 12. B.S, Mass. Inst. Tech, 33; Rhodes scholar, Oxford, 33–35, Ph.D, 35. Junior prize fellow, Harvard, 35–41; *asst. prof, Sheffield Sci. Sch, Yale, 41–* Div. mem, Nat. Defense Research Cmt; research assoc, Mass. Inst. Tech. Fel. Physical Soc. Nuclear physics.

Getting, Dr. Vlado A(ndrew), 7 Glen Road, Belmont, Mass. *Epidemiology.* Pittsburgh, Pa, July 20, 10. A.B, Hopkins, 31; M.D, Harvard, 35, M.P.H, 39, Dr.P.H, 40. Asst. epidemiologist, *State Dept. Pub. Health, Mass,* 37–39, tech. director mosquito surv, 39, epidemiologist, 39–40, asst. dist. health officer, 40–41, dist. health officer, 41–43, *commissioner pub. health, 43–* Asst, med. sch. and sch. pub. health, Harvard, 38– Commissioner pub. health, Worcester, Mass, 42–43. Am. Med. Asn; Pub. Health Asn; Mass. Pub. Health Asn. Public health; medicine; the transmission of disease by mosquitoes in Massachusetts; equine encephalomyelitis.

Gettinger, Dr. Raymond, 73–40 195th St, Flushing, N. Y. *Pathology.* New York, N. Y, Nov. 24, 05. B.S, Col. City of N. Y, 26; M.D, Cornell, 32. Asst. morbid anat, Mt. Sinai Hosp, 32–34, surg. path, 34–38; pathologist and director lab, New York Inst. Clin. Oral Path, 35–40; *pathologist and director lab, Crown Heights Hosp, Brooklyn, 40–* Reviewing physician, Life Exten. Inst, 34–39; pathologist, Lister Hosp, 37; lecturer, Nat. Cmt. Resettlement For. Physicians, 39–40. Ed, 'Int. Abstracts Oral Path, Archives Clin. Oral Path,' 38–40. First prize, Am. Dental Asn, 39. A.A; fel. Am. Med. Asn; Soc. Clin. Path; Asn. Path. and Bact; N. Y. Acad. Med; N. Y. State Soc. Path; N. Y. Path. Soc; Bedford Med. Soc. (pres, 42). Oncology; radiosensitivity of tumors; pathological physiology, anatomy and histology.

Gettler, Prof. Alexander O(scar), 32 Waverly Place, New York, N. Y. *Chemistry.* Austria, 83. B.S, Col. City of N. Y, 04; A.M, Columbia, 09, Ph.D, 12; LL.D, St. John's (N. Y), 34. Assoc. prof. *chem,* Univ. and Bellevue Hosp. Med. Col, 10–30, *prof, Wash. Sq. Col, N. Y. Univ, 30–, toxicol, med. col, 33–* Path. chemist, Bellevue Hosp, 15–; toxicologist, City of New York, 18–; consulting chemist, French Hosp, 23–; Jersey City Hosp, 29– Silver medal, Am. Med. Asn, 31; medal, Am. Soc. Clin. Path, 33. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc; N. Y. Soc. Med. Jurisprudence; N. Y. Acad. Med; London Chem. Soc. Toxicology; pathological chemistry.

Getz, Dr. Charles A(lbert), Cardox Corp, 307 N. Michigan Ave, Chicago, Ill. *Chemistry.* Lockwood, Mo, Jan. 7, 08. B.S, Illinois, 32, M.S, 34, Ph.D, 38. Asst, Wisconsin, 26–31; Illinois, 31–34; teaching asst, 34–38; chief chemist, *Cardox Corp,* 38–39, *director* research, 39–40, *research div, 40–* Chem. Soc; Electrochem. Soc. Electrochemistry; physical chemistry; process for whipping cream and other edible fat-containing liquids by saturation with nitrous oxide under pressure and subsequent release of the fluid; electrochemical preparation of potassium perchlorate; chemical burning powders; bulk low pressure liquid carbon dioxide storage, transportation and fire extinguishing systems; manufacture of CO_2.

Getz, Dr. Horace R(aymond), Seventh and Lombard Sts, Philadelphia, Pa. *Medicine.* Ill, Aug. 28, 07. B.S, Wisconsin, 28, M.D, 33. Asst, nutrition div, animal husbandry dept, col. agr, Illinois, 28–29; intern, Wis. Gen. Hosp, 33–34; asst. med. bacter, Wisconsin, 34–35, instr, 35–39; *instr. med, Henry Phipps Inst, Pennsylvania, 39–* A.A; Soc. Bact; Tuber. Asn; Am. Med. Asn; Trudeau Soc; Pa. Med. Soc. Tuberculosis; vitamin A nutrition; nutrition and other constitutional factors in the resistance to tuberculosis.

Gevorkiantz, S(uren) R(ubenian), U. S. Forest Service, St. Paul, Minn. *Forestry.* Tiflis, Caucasus, July 27, 99. B.S, California, 24; M.F, Harvard, 28. Forest asst, *U. S. Forest Service,* 25–26, asst. forestry, 26–27, sci. aid, 27, junior forester, 27–30; asst. silviculturist, 30–35, *silviculturist, Lake States Forest Exp. Sta, 35–* A.A; Soc. Foresters (sec'y-treas, Minn. sect, 34, 40, chairman, 41); Statist. Asn. Silviculture; forest mensuration; form and development of trees and stands; reliability of forest surveys; biometry.

Geyer, Dr. Bradford P(earson), 2491 Ellsworth St, Berkeley, Calif. *Organic chemistry.* Boston, Mass, April 23, 13. B.S, Northeastern, 35; univ. fellow, Washington (Seattle), 36–41, Ph.D, 41. *Research chemist, Shell Develop. Co, 41–* Chem. Soc. Polynuclear aromatic compounds; hydroxyquinone inner complexes; petroleum derivatives.

Gezelius, R(oy) A(rthur), 512 N. Chester Road, Swarthmore, Pa. *Metallurgy.* La Grange, Ill. B.S, Mich. State Col, 29, M.S, 30. Asst. metallurgist and assoc. metallurgist, U. S. Naval Research Lab, 30–37; Taylor-Wharton Iron and Steel Co, 37–38; *metal. engineer, Gen. Steel Castings Corp, 38–* Steel casting; sand control; radium radiography; hydrogen purification of iron; cast armor.

Ghent, Prof. Kenneth S(mith), University of Oregon, Eugene, Oregon. *Mathematics.* Hamilton, Ont, Can, June 29, 11. B.A, McMaster, 32; M.S, Chicago, 33, fellow, 34–35, Ph.D, 35. Instr. *math, Oregon,* 35–39, *asst. prof, 39–* Math. Soc. Theory of numbers.

Ghering, Dr. Leonard G(eorge), Preston Laboratories, Butler, Pa. *Physical chemistry.* Tyronville, Pa, March 29, 09. B.S, Antioch Col, 31; M.S, Brown, 33, fellow, 33–34, 34–35, Ph.D, 35. Teaching asst, chem. lab, Brown, 31–33; chemist, Am. Cyanamid and Chem. Corp, 35–36; *Preston Labs,* 36–40, *research director, 41–* Chem. Soc; Ceramic Soc. Adsorption of oxygen on copper and nickel catalysts; poisoning of copper catalysts by oxygen; chemical, physical and mechanical properties of glass.

Ghiselli, Prof. E(dwin) E(rnest), 3820 W. Fourth St, Ft. Worth, Texas. *Psychology.* San Francisco, Calif, June 28, 07. A.B, California, 30, A.M, 33, Ph.D, 36. National research fellow and research assoc, Harvard, 36–37; asst. *psychol,* Cornell, 37–38; instr, Maryland, 38–39; *asst. prof, California, 39–* A.A; Psychol. Asn; West. Psychol. Asn. Applied psychology; mental measurement.

Glanella, Prof. Vincent P(aul), 300 Nixon Ave, Reno, Nev. *Geology.* Honcut, Calif, Feb. 9, 86. B.S, Oregon State Col, 10, 11; M.S, Nevada, 20; Ph.D, Columbia, 37. Instr. metal, *Mackay sch. mines, Nevada,* 23–24, geol. and miner, 24–28, asst. prof, 28–29, assoc. prof, 29–35, *prof. geol, 35–,* acting head dept, 32–35, *head dept, 35–,* curator, Mackay Museum, 34–37. Geologist and mineralogist, State Anal. Lab, Nev, 28–, geologist, State Bur. Mines, 29– A.A; Seismol. Soc; Min. and Metal. Eng; Soc. Econ. Geol; Geol. Soc; Miner. Soc; Soc. Research Meteorites; Astron. Soc. Nev. (v. pres, 35); N. Y. Acad. Economic and structural geology; geology of the Comstock region, Nevada; ore deposits; earthquakes; mineralogy of Nevada.

Giannini, Prof. M(ario) C, New York University, New York, N. Y. *Mechanical engineering.* New York, N. Y, Jan. 15, 02. B.S, N. Y. Univ, 23, M.E, 26. Engineer, mech. equipment of bldgs, Tenney and Ohmes, Inc, 24–31; instr. heating, ventilating and air conditioning, *N. Y. Univ,* 27–36, *asst. prof. mech. eng, 36–, director eng, science and management war training, 42–* Heat. and Vent. Eng; Eng. Educ. Air conditioning.

Giardini, Dr. G(iovanni) I(ppolito), University of Pittsburgh, Pittsburgh, Pa. *Psychology.* Italy, April 19, 97. B.S, Pittsburgh, 21, M.S, 22; D.Ed, Harvard, 29. Teacher, high sch, Pa, 22–25; *psychologist, West. State Penitentiary, Pittsburgh, Pa,* 25–27, *28–; lecturer, Pittsburgh, 29–* Summer, asst. prof, Pa. State Col, 28. Asn. Applied Psychol; assoc. Psychol. Asn; Pa. Asn. Clin. Psychol. (pres, 40). Mental tests; crime and delinquency; penology.

Glauque, Prof. W(illiam) F(rancis), University of California, Berkeley, Calif. **5Physical chemistry.* Niagara Falls, Ont, Can, May 12, 95. B.S, California, 20, fellow, 20–22, Ph.D, 22; Sc.D, Columbia, 36. Instr. *chem, California,* 22–27, asst. prof, 27–30, assoc. prof, 30–34, *prof, 34–* Shared Pacific div. prize, A.A.A.S, 29; Chandler medal, Columbia, 36; Cresson medal, Franklin Inst, 37. Nat. Acad; Chem. Soc; fel. Physical Soc; Philos. Soc; Inst. int. du Froid (mem, cmn. I). Tests of the third law of thermodynamics; low temperature calorimetry, especially on condensed gases; cryogenic apparatus; conversion of ortho to para hydrogen; magnetic method for producing and attaining temperatures below 1° absolute; isotopes and band spectra; free energy and entropy from spectroscopy.

Gibb, Dr. Thomas R(obinson) P(irie), Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Organic chemistry.* Belmont, Mass, Feb. 10, 16. B.S, Bowdoin Col, 36; Ph.D, Mass. Inst. Tech, 40. Instr. and later *asst. prof. org. chem. and special methods of anal, Mass. Inst. Tech.* A.A; Chem. Soc; Optical Soc; Boston Microchem. Soc. (pres, 41). Sodium condensations with acenapthene; organic reagents for inorganic ions; optical methods of chemical analysis.

Gibbard, James, Department of Pensions and National Health, Ottawa, Ont, Can. *Bacteriology.* Toronto, Ont, Aug. 12, 01. B.S.A, Toronto, 23; M.S, Chicago, 26. Asst. engineer, Ont. Dept. Health, Toronto, 27–28; *senior bacteriologist and Dom. analyst, Dept. Pensions and Nat. Health, 28–* Soc. Bact; Pub. Health Asn. (v. chairman, lab. sect, 40, chairman, 41); Can. Pub. Health Asn. Physico-chemical studies in bacteriology and serology; oligodynamic action of silver; shellfish sanitation; mussel poisoning; assay of tetanus toxoid.

Gibbens, Prof. Gladys (Elizabeth Corson), University of Minnesota, Minneapolis, Minn. *Mathematics.* A.B, Tulane, 14, A.M, 16; Ph.D, Chicago, 20. Instr. *math, Minnesota,* 20–25, *asst. prof, 25–* A.A; Math. Soc; Math. Asn. Projective differential geometry.

Gibbon, Dr. John H(eysham), Media, Pa. *Surgery.* Charlotte, N. C, March 16, 71. M.D, Jefferson Med. Col, 91. Prof. surg, Jefferson Med. Col, 07–42; *retired.* Surgeon, Pa. Hosp, 03– Col, M.C. Fel. Surg. Asn. (past pres); Am. Med. Asn; Col. Physicians Phila. (past pres); Phila. Acad. Surg. (past pres).

Gibbons, Dr. Charles C(rew), 71 W. Frambes Ave, Columbus, Ohio. *Psychology.* Lost Springs, Wyo, June 21, 16. B.S, Ohio (Athens), 37, A.M, 38; Ph.D, Ohio State, 42. Teaching fellow psychol, Ohio (Athens), 37–38; asst, Ohio State, 38–42; *indust. psychologist, Owens-Ill. Glass Co, 42–* Assoc. Psychol. Asn; Midwest. Psychol. Asn; Ohio Acad. Industrial psychology; personality measurement for industrial employees; statistics; mortality of the insane.

Gibbons, Prof. E(ldred) H(arris), Agricultural and Mechanical College of Texas, College Station, Texas. *Biology.* Hamilton, Ohio, July 20, 97. Maryville Col, 16–18, 20–21; B.S.A, Tennessee, 25; M.S, Chicago, 29. Instr. *biol, Agr. and Mech. Col. Texas,* 25–26, *asst. prof, 26–* Bacteriology; industrial and dairy microbiology; fungi cultures for classroom work; autogenous vaccines.

Gibbons, Dr. N(orman) E(dwin), National Research Council, Ottawa, Ont, Can. *Bacteriology.* Niagara Falls, Ont, April 8, 06. B.A, Queen's (Can), 27, M.A, 28, Nat. Research Council Can. bursar, 28–29; Ph.D, Yale, 32. Demonstrator bacter, Queen's (Can), 27–28; sci. asst, Biol. Board Can, 32–37; asst. research biologist, *Nat. Research Council Can,* 37–41, *assoc. research biologist, 42–* Bacteriology of sea fish; fish handling and curing; bacteriology of meats and bacon curing; dried egg.

Gibbons, Prof. Rebekah, University of Nebraska, Lincoln, Nebr. *Nutrition.* Forty Fort, Pa, Oct. 22, 91. B.S, Cornell, 13; M.S, Pa. State Col, 21; Ph.D, Chicago, 29. Instr. chem, Pa. State Col, 18–21; assoc. prof. foods and nutrition, Mich. State Col, 21–22; asst. director nutrition service, Am. Red Cross, 23–26; *assoc. prof. foods and nutrition, Nebraska, 26–* Energy metabolism; home preservation of food.

Gibbons, Prof. Vernette L(ois), 1201 Oakes Blvd, San Leandro, Calif. *Chemistry.* Franklin, N. Y, Jan. 5, 74. B.S, Mt. Holyoke Col, 96, A.B, 99, fellow, 14–15; M.S, Chicago, 07; Cape of Good Hope, 08; fellow, Bryn Mawr Col, 11–12, 14–15, Ph.D, 14; fellow, Munich, 12–13. Teacher, schs, Mass, 96–97, asst. *chem,* Mt. Holyoke Col, 97–99, instr, 00–01; Wells Col, 02–04, assoc. prof, 04–06; prof, Huguenot, S. Africa, 07–11;

Mills Col, 15–18, 19–39, *emer. prof, 39–* Chemist, Nat. Aniline and Chem. Co, 18–19. A.A; Chem. Soc; Inst. Chem. Potentials of metals in non-aqueous solutions of their salts; alcoholic solutions of cadmium salts.

Gibbons, Dr. Willis A(lexander), 357 Park St, Montclair, N. J. *Chemistry.* Long Island City, N. Y, Nov. 1, 88. A.B, Wesleyan, 10, A.M, 11; Columbia, 13–14; Ph.D, Cornell, 16. Asst, chem, Cornell, 10–12; chemist, *U. S. Rubber Co*, 12–17, in charge research dept, *gen. labs*, 22–28, *director*, 28, develop. dept, 29–38, *gen. develop. div, 39–* Mem, Am. Rubber Mission, Soviet Union, 42. Asst. mil. attaché, Am. Embassy, London, 17–18, capt, Ordnance Dept, 18–19. A.A; Chem. Soc. (exec. cmt, rubber div, 25); Soc. Chem. Indust; Physical Soc; Soc. Rheol; Soc. Mil. Eng; Inst. Chem; Inst. Rubber Indust; Franklin Inst; fel. N. Y. Acad; fel. London Chem. Soc; Deuts. Chem. Gesell; Kautschuk Gesell. Heat of dilution; addition compounds; aeronautic materials; vulcanization of rubber; loading high explosive shells; rubber latex and its application; manufacturing rubber thread.

Gibbs, Dr. Carlin F(rary), 3069 Orchard Road, Silver Lake, Ohio. *Organic chemistry.* B.S, Knox Col, 30; M.S, Illinois, 32, Ph.D, 35. *Chemist*, West. Cartridge Co, 35–36; *B. F. Goodrich Co, 36–*

Gibbs, Dr. Frederic A(ndrews), Boston City Hospital, Boston, Mass. *Experimental neurology.* Baltimore, Md, Feb. 9, 03. A.B, Yale, 25; M.D, Hopkins, 29. Asst. neuropath, Harvard Med. Sch, 29–30; Johnson Foundation fellow, Pennsylvania, 30–32; research fellow neuropath, *Harvard Med. Sch*, 33–34, physiol, 34–36, *neur*, 36–37, *instr, 37–* Physiol. Soc; assoc. Neur. Asn. Symptomatology of brain tumors; cerebral circulation; cerebral action potentials; epilepsy.

Gibbs, O(wen) S(tanley), Plough Inc, Memphis, Tenn. *Physiology, Pharmacology.* Sileby, Eng, May 25, 98. M.B, Ch.B, Edinburgh, 21, M.D, 43. Asst. pharmacol, Edinburgh, 22, lecturer, 22–24; prof, Dalhousie, 24–30; visiting lecturer, Hopkins, 30–31; Rockefeller traveling fellow, Gt. Britain, 31–32; prof. physiol. and pharmacol, Georgia, 32–33; physiol, Georgetown, 33–35; pharmacol, Tennessee, 36–41; *director med. research, Plough Inc, 41–* A.A; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; British Physiol. Soc. Measurement of blood coagulation; p-phenylene-diamine poisoning; action of drugs on birds; function of the kidney of birds; isolation of soluble uric acid in birds; the artificial heart; antidiuretic test for pituitary; carbolic acid poisoning; humoral transmission of nerve impulse; mercury poisoning.

Gibbs, Ralph E(ugene), 1480 W. King St, York, Pa. *Chemistry.* Gloucester, N. J, Sept. 18, 98. B.S, Pa. State Col, 21. Chief chemist, York Ice Machinery Corp, 22–34; J. E. Baker Co, 34–42; *consulting engineer, 42–* Chem. Soc. Corrosion; water analyses; lime; dolomitic refractories; rotary kiln plants.

Gibbs, Prof. R(onald) Darnley, McGill University, Montreal, Que, Can. *Botany.* Ryde, Isle of Wight, Eng, June 30, 04. B.Sc, London, 25, Ph.D, 33; M.Sc, McGill, 26. Biochemist, Am. Rubber Producers, 26–27; demonstrator *bot. McGill*, 25–26, 27–29, lecturer, 29–37, *asst. prof, 37–* A.A; Bot. Soc; Soc. Plant Physiol; fel. Royal Soc. Can. Tree physiology.

Gibbs, Prof. R(oswell) Clifton, 221 Bryant Ave, Ithaca, N. Y. **5Physics.* Hume, N. Y, July 1, 78. A.B, Cornell, 06, A.M, 08, Ph.D, 10. Instr. *physics, Cornell*, 06–12, asst. prof, 12–18, *prof, 18–, chairman dept, 34–*, acting dean col. arts and sciences, 27. Research assoc, Calif. Inst. Tech, 23–24. Assoc. ed, 'Physical Rev,' 31–34. A.A; Physical Soc; Optical Soc. (v. pres, 35–37, pres, 37–); N. Y. Sci. Teachers Asn. (pres, 17). Spectroscopy; luminescence; absorption spectra of organic compounds in solution; extreme ultra-violet spectra of isoelectronic sequences; multiplet and hyperfine structure of spectra; fine structure of lines in spectra of hydrogen and deuterium; determination of e/m ratio from interval between H and D alpha lines.

Gibbs, Dr. W(illiam) M(erriott), 231 N. Central Ave, Glendale, Calif. *Medicine.* Versailles, Mo, March 24, 92. B.S, Missouri, 15; fellow, Wisconsin, 16, M.S, 16, Ph.D, 19; M.D, Northwestern, 30. Research chemist, Wis. Geol. Surv, 16–18; prof. bacter. and bacteriologist, Idaho, 19–26; Patten fellow bacter, Northwestern, 26–29; Los Angeles County Gen. Hosp, 29–30; *instr. med, sch. med, Southern California, 31–* Surgeon, Auto Club S. Calif. exped, Cent. Amer, 31. Lieut, Sanit. C, 18–19. Am. Med. Asn; Calif. Med. Soc. Bacteriology.

Gibney, Dr. R(obert) B(ernard), Bell Telephone Laboratories, Murray Hill, N. J. *Electrochemistry.* Wilmington, Del, Aug. 30, 11. B.S, Delaware, 32; Ph.D, Northwestern, 36. *Mem. tech. staff, Bell Tel. Labs, 36–* Chem. Soc; Electrochem. Soc. Deuterium abundance ratios in organic compounds; photovoltaic effect for sodium; electrochemistry of the corrosion of painted iron.

Gibson, Dr. Arthur, 30 Cooper St, Ottawa, Ont, Can. *Entomology.* Toronto, Ont, Dec. 23, 75. LL.D, Queen's (Can), 35. Asst. entom, exp. farms branch, *Can. Dept. Agr*, 99–05, asst. entomologist, 05–08, chief asst. entomologist, 08–14, chief div. field crop and garden insects, entom. branch, 14–20, Dom. entomologist and head entom. branch, 20–42; *retired.* Cor. mem. Entom. Soc; fel. Entom. Soc. Amer. (past pres); Asn. Econ. Entom. (past pres); fel. Royal Soc. Can; Entom. Soc. Ont. (past pres); hon. mem. Que. Soc. Protection Plants; hon. mem. Ottawa Field Nat. Club; fel. Entom. Soc. London. Control of cutworms, army worms, cabbage maggot and flea beetles; greenhouse, common garden, flower garden and household insects; Lepidoptera.

Gibson, Prof. (Charles) LeRoy, 435 N. Ash St, Albuquerque, N. Mex. *Physical chemistry.* Clovis, N. Mex, Feb. 19, 11. B.S, New Mexico, 33; M.S, Colorado, 36, Ph.D, 41. Teacher, high sch, N. Mex, 33–34; asst. *chem, New Mexico*, 34–35, instr, 36–42, *asst. prof, 42–* A.A; Chem. Soc. Absorption spectra of dyes and hydrogen-ion concentration study of slightly buffered solutions.

Gibson, Prof. Count Dillon, Georgia School of Technology, Atlanta, Ga. *Geology.* Dawson, Ga, Feb. 8, 88. Ph.B, Emory, 10, M.S, 24; Ga. Tech, 27, C.E, 27. Chair math. and science, Emory Univ. Acad, 22–26; assoc. prof. civil eng, *Ga. Tech*, 26–30, *prof. and head dept. geol, 30–; practising engineer, 10–* Author, rural rehabilitation, Ga, 34. Civil Eng; N. Y. Acad. Rural conditions in Georgia; origin of earth's moon; structural folds in earth's surface; Stone Mountain, De Kalb County, Georgia.

Gibson, Rev. Edmund Harrison, Trinity Church, Galveston, Texas. *Entomology.* Detroit, Mich, Jan. 15, 91. B.S, Mich. State Col, 12, M.Hort, 19. Bur. entom, U. S. Dept. Agr, 12–19; custodian Hemiptera, U. S. Nat. Museum, 19–28; *minister, Trinity Church.* Pres, Galveston Marine Museum, 33– Capt, eng. sect, Sanit. C, 17–19. Entom. Soc. Amer; Entom. Soc. Wash; Biol. Soc. Wash. Hemiptera; Heteroptera; Jassoidea; shells; marine life.

Gibson, Dr. Edward T(homas), 1228 Professional Bldg, Kansas City, Mo. *Neurology, Psychiatry.* Kansas City, Kans, Jan. 17, 81. A.B, Kansas, 08, A.M, 10, M.D, 12. Asst. neuropath, Harvard Med. Sch, 14–15, instr. psychiat, 15–16; clin. director and pathologist, Conn. State Hosp, Middletown, 16–20; asst. prof. neur, *Kansas*, 20–31, assoc. prof, 31–36, *prof. neur. and psychiat, 36–, head dept. nervous and mental diseases, 29–* Asst. physician, Boston Psychopath. Hosp, 14–16; chief staff, neur. service, Kansas City Munic. Hosp, 28–A.A; Psychiat. Asn; Am. Med. Asn; Cent. Neuropsychiat. Soc; Kansas City Acad. Med. Neuropathology; nervous and mental diseases.

Gibson, Prof. G(eorge) E(rnest), University of California, Berkeley, Calif. **5Chemistry.* Edinburgh, Scotland, Nov. 9, 84. B.Sc, Edinburgh, 06, Vans Dunlop scholar, 06–09; Ph.D, Breslau, 11. Asst. *chem*, Edinburgh, 12–13; instr, *California*, 13–18, asst. prof, 18–20, assoc. prof, 20–27, *prof, 27–* Chem. Soc; fel. Physical Soc. Thermodynamics; physical chemistry.

Gibson, Dr. George R(andall), Midland, Texas. *Geology.* Kendaia, N. Y, Oct. 2, 05. A.B, Minnesota, 30, Ph.D, 34. Asst. geologist, Minn. Geol. Surv, 30–32; instr. geol, Carleton Col, 31–32; Minnesota, 33–34; instr. and asst. prof, Carleton Col, 34–39; geologist, Socony-Vacuum Oil Co, Egypt, 39–40; instr. geol, Ohio State, 40–41; *geologist, Magnolia Petrol. Co, 41–* Consulting geol. engineer. Petrology and structural geology of the Precambrian of the Lake Superior region; sedimentary geology of southern Minnesota; glacial geology of the northern Rockies; petroleum geology of west Texas.

Gibson, Dr. J(ames) Donald, Phillips Petroleum Co, Bartlesville, Okla. *Organic chemistry.* Steubenville, Ohio, March 29, 12. B.S. and A.B, Wheaton Col. (Ill), 34; Ph.D, Ohio State, 38. Lab. asst, Wheaton Col. (Ill), 31–34; asst. inorg. chem, Ohio State, 35–36, org. chem, 36–38, research chemist, Am. Petrol. Inst. pure hydrocarbon project, 38; *master chemist, Phillips Petrol. Co, 39–* A.A; Chem. Soc. Olefins of types I and II from butadiene and relation of their physical properties to structure.

Gibson, Prof. James J(erome), Smith College, Northampton, Mass. *Psychology.* McConnelsville, Ohio, Jan. 27, 04. B.S, Princeton, 25, M.S, 26, Ph.D, 28. Instr. *psychol, Smith Col,* 28-29, asst. prof, 29-37, *assoc. prof, 37–* Psychol. Asn. Experimental and social psychology; visual perception.

Gibson, Prof. J(ames) L(ambert), University of Utah, Salt Lake City, Utah. *Mathematics.* Kamas, Utah, March 10, 73. B.S, Utah, 95; A.M, Columbia, 98; Ph.D, Vienna, 23; Cambridge, 02-03; Bonn, 22; Paris, 23; Göttingen, 31. Prof. *math.* and head dept, *Utah,* 04-41, *emer. prof, 41–,* dean *sch. arts and sciences,* 15-41, *emer. dean, 41–* Pres, Utah Conservation and Research Foundation, 37– A.A; Math. Soc; Math. Asn; fel. Utah Acad. Rotating surfaces and solids; higher plane curves.

Gibson, Prof. John A(rthur), Jr, West Virginia University, Morgantown, W. Va. *Chemistry.* Butler, Pa, Sept. 25, 01. B.S, Allegheny Col, 22; du Pont fellow, Mass. Inst. Tech, 25, Ph.D, 26. Instr. *chem, West Virginia,* 26-31, *asst. prof, 31–* Chem. Soc. (sec'y-treas, N. W. Va. sect, 30, v. chairman, 31). Heats of neutralization and dilution.

Gibson, Dr. K(asson) S(tanford), National Bureau of Standards, Washington, D. C. *Physics.* Afton, N. Y, Jan. 7, 90. A.B, Cornell, 12, Ph.D, 16. Instr. physics, Cornell, 12-16; asst. physicist, *Bur. Standards,* 16-19, assoc. physicist, 19-21, research assoc, 21-22, physicist and senior physicist, 22-36, *prin. physicist, 36–, chief* colorimetry sect, 33-41, *photom. and colorimetry sect, 41–, asst. chief optics div, 41–* Exec. mem. div. physical sciences, Nat. Research Council, 40-42; mem. exec. cmt, governing board, Am. Inst. Physics, 42– Journal award, Soc. Motion Picture Eng, 37. A.A; Physical Soc; Optical Soc. (chairman, spectrophotom. cmt, 22; photog. standard of intensity cmt, 30; assoc. ed, 27–; director, 35-37; v. pres, 37-39, pres, 39-41); Illum. Eng. Soc; Oil Chemists Soc; Philos. Soc. Wash; Wash. Acad. Spectrophotometry; colorimetry; photometry; luminosity of radiant energy; optical filters; spectral transmission and absorption.

Gibson, Dr. Norman R(othwell), Buffalo, Niagara and Eastern Power Corp, Buffalo, N. Y. *Engineering.* Guelph, Ont, Can, March 23, 80. B.A.Sc, Toronto, 04, D.E, 31. Draftsman and designer, companies, 04-08; in charge civil and hydraul. depts, Smith, Kerry and Chace, Toronto, 08-13; partner, Kerry and Chace, Ltd, 13-16; consulting engineer, Elec. Power Co, Ltd, 13-15, chief engineer, 15-16; asst. chief engineer, Ont. Power Co, Niagara Falls, Ont, 16-17; hydraul. engineer, Hydraulic Power Co, 18-25; exec. engineer, *Niagara Falls Power Co,* 25-26, *chief engineer, 26–, v. pres, 27–;* chief engineer, *Buffalo, Niagara and East. Power Corp,* 29-35, *v. pres, 29–; Niagara Hudson Power Corp, 31–; Buffalo Niagara Elec. Corp, 37–; pres, Can. Niagara Power Co, 36–; Niagara, Lockport and Ont. Power Co, 36–* Director, Niagara Hudson Power Corp; Buffalo, Niagara and East. Power Corp; Buffalo Niagara Elec. Corp; Can. Niagara Power Co, Ltd; Hydraul. Race Co; Lockport and Newfane Power and Water Supply Co; Lower Niagara River Power and Water Supply Co; Niagara Falls Power Co; Niagara Junction R. R. Co; Niagara, Lockport and Ont. Power Co. Elliott Cresson gold medal, Franklin Inst, 30. A.A; Soc. Mil. Eng; Civil Eng; Mech. Eng; Elec. Eng; Franklin Inst; Eng. Inst. Can; fel. Royal Soc. Arts. Hydraulics; pressures in penstocks caused by the gradual closure of turbine gates; method, process and apparatus for measuring the flow of water in closed conduits.

Gibson, Dr. R(alph) E(dward), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. **Chemistry. King's Lynn, Eng, March 30, 01. B.Sc, Edinburgh, 22, Carnegie scholar, 23-24, Ph.D, 24. *Physical chemist, geophys. lab, Carnegie Institution, 24–;* lecturer *chem, George Washington,* 29-32, *adj. prof, 32–* Hillebrand prize, Chem. Soc. Wash, 39. Chem. Soc. (pres, Wash. sect, 31; chairman div. physiol. and inorg. chem, 42); Philos. Soc. Wash. (v. pres, 36, 38, 39, pres, 40); Wash. Acad. Med; Wash. Acad. (v. pres, 31, 40). Electrosynthesis; calcium carbonate; high pressure; influence of pressure on solubility; compressibility and expansibility of solutions; lyotropic properties of solutions; thermodynamic properties of liquids; effect of pressure on absorption of light by solutions.

Gibson, Prof. R(obert) B(anks), University Hospitals, Iowa City, Iowa. *Physiological chemistry, Medicine.* Uncompahgre, Colo, March 8, 82. Ph.B, Yale, 02, Ph.D, 06. Asst, Sheffield sci. sch, Yale, 03-04; bacteriologist, Dept. Health, New York, 04-07; instr. physiol. chem. and pharmacol, Missouri, 07-11; asst. prof. physiol. chem, Minnesota, 11-12; prof. physiol. and head dept, Philippines, 12-19, acting head dept. pharmacol, 14-19; asst. prof. med. and director clin. chem. lab, *Iowa,* 19-28, *assoc. prof. biochem, 28–* Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Metabolism and nutrition; diurnal body temperature variation; blood plasma proteins; pharmacological action of proteoses; avitamin polyneuritis; blood chemistry and metabolism of muscular atrophies and of anemias; diabetic management; latent tolerance in diabetes mellitus; physiological action of gum acacia; lipid metabolism; medicolegal blood alcohol.

Gibson, Dr. R(obert) C(halmers), Parker Rust-Proof Co, 2177 E. Milwaukee Ave, Detroit, Mich. *Chemistry.* Clinton, Mich, Feb. 7, 04. B.S, Adrian Col, 25; M.S, Michigan, 26, Ph.D, 30. Asst. prof. chem, Ohio Northern, 30-34; *chemist, Parker Rust-Proof Co, 34–* Chem. Soc. Perchloric acid as an oxidizing agent.

Gibson, Prof. Russell, Harvard University, Cambridge, Mass. *Geology.* St. Louis, Mo, Oct. 21, 87. A.B, Washington (St. Louis), 20; A.M, Colorado, 22; Ph.D, Harvard, 29. Asst. *geol,* Washington (St. Louis), 18-20; instr, Colorado, 20-25, asst. prof, 25-26; instr, *Harvard,* 27-31, asst. prof, 31-39, *assoc. prof, 39–* Geologist, Bur. Geol. and Mines, Mo, 18; asst. geologist, Okla. Producing and Ref. Corp, 20; Colo. Geol. Surv, 21-25; lecturer, Wellesley Col, 27–; asst. geologist, U. S. Geol. Surv, 29-41. A.A; Soc. Econ. Geol; Min. and Metal. Eng; Geol. Soc. Metalliferous deposits in Colorado, Montana, South Dakota and Bolivia.

Gibson, Theodore W(hidden), Box 636, LaGuardia Field, New York, N. Y. *Mathematics.* Philadelphia, Pa, Aug. 9, 93. A.B, Colgate, 15; A.M, Columbia, 29. Instr, Long Island, 27-29, asst. prof. math, 29-30, assoc. prof. and head dept, 30-33; lecturer, Columbia, 35-42; prof, Wagner Col, 37-42; *dist. supt, war training service, Civil Aeronautics Admin, 42–* Assoc. prof, evening session, Polytech. Inst. Brooklyn, 30-37.

Giddings, Prof. Glenn W(ard), DePauw University, Greencastle, Ind. *Physics.* Wesley, Iowa, Oct. 15, 00. A.B, Cornell Col. (Iowa), 23; A.M, Wisconsin, 25, Ph.D, 30. Instr. *physics,* Wisconsin, 26-30; asst. prof, *DePauw,* 30-32, assoc. prof, 32-38, *prof, 38–, asst. dean men, 39–* Summer, teacher, emergency defense training program, Pa. State Col, 41. A.A; Physical Soc; Asn. Physics Teachers; Ind. Acad. Photoelectric effect in metal vapors.

Giddings, Prof. H(orace) A(lpheus), 45 Woodman Ave, Durham, N. H. *Mathematics.* Chocorua, N. H, Jan. 16, 02. B.S, New Hampshire, 23; Ph.D, Mass. Inst. Tech, 34. Instr. *math,* New Hampshire, 23-24; Vermont, 24-30; Mass. Inst. Tech, 30-36; asst. prof, Ill. Inst. Tech, 36-42; *assoc. prof, New Hampshire, 42–* Eng. Educ; Math. Soc. Physical chemistry; kinetics; differential geometry.

Giddings, Dr. N(ahum) J(ames), P. O. Box 31, Riverside, Calif. *Plant pathology, Bacteriology.* Ira, Vt, Nov. 13, 83. B.S, Vermont, 06, M.S, 09; Ph.D, Wisconsin, 18. Asst. botanist, Exp. Sta, Vermont, 06-09; bacteriologist and plant pathologist, Exp. Sta, West Virginia, 09-29, prof. plant path, 19-29; *senior pathologist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–* Acting dean col. agr, West Virginia, 21-22, 27-28. Nat. Research Council, 26–A.A; Phytopath. Soc. (councilor, 20, 40-42, v. pres, 22, advisory board, 23–, chairman, 26–); Bot. Soc; Crop Protection Inst. (board governors, 25–). Late blight of potato; bacterial rot of muskmelon; apple rust; effect of pressure on bacteria and enzymes; dust materials as fungicides; sugar beet diseases; virus diseases of plants; disease resistance.

Gidel, M(url) H(arold), 1127 W. Mercury St, Butte, Mont. *Geology.* Joliet, Ill, April 22, 89. M.E, Montana, 12. Geologist, *Anaconda Copper Mining Co,* 12-36, *asst. chief geologist, 36–* Geologist, Silesian Am. Corp, Europe, 25-26; Commerce Mining and Royalty Co, Tri-State Zinc Dist, 27; lecturer, Mont. Sch. Mines, 28-29. Soc. Econ. Geol; Min. and Metal. Eng. (chairman, Mont. sect, 31); Mont. Soc. Eng. Mining geology and engineering; mineral associations.

Gidley, Dean William Francis, University of Texas, Austin, Texas. *Pharmacy.* Mich, 82. Ph.C, B.S, Michigan, 08. Dean pharmacy, Mercer, 09-12; prof. mat. med, Purdue, 12-18; asst. chief sci. staff, E. R. Squibb and Sons, 18-19; prof. mat. med, Purdue, 19-20, *pharmacy,* 20-24; *prof. and head dept, Texas, 24–, dean col. pharmacy, 26–* A.A; Chem. Soc; Pharmaceut. Asn. Physiological chemistry; volatile oils; hormones.

Gier, Prof. Herschel T(homas), Ohio University, Athens, Ohio. *Cytology, Herpetology.* Hepler, Kans, May 11, 07. A.B, Kans. State Teachers Col, 31; Ph.D, Indiana, 36. Nat. research fellow, Harvard, 36–37; instr. *zool, Ohio (Athens),* 37–41, *asst. prof, 41–* A.A; Soc. Zool; Ornith. Union; Wilson Ornith. Club. Intracellular symbiosis; vertebrate taxonomy.

Gier, Dr. L(eland) J(acob), 502 S. Leonard, Liberty, Mo. *Plant ecology and pathology.* Hepler, Kans, March 10, 04. B.S, Kans. State Teachers Col, 28, M.S, 31, A.B, 34; fellow, Nebraska, 31–33; Ph.D, Duke, 40. Teacher, rural schs, Kans, 21–27; *head dept.* science, high sch, Kans, 28–30; *biol,* Campbell Col, 34–41; *William Jewell Col, 41–* A.A; Bot. Soc; Phytopath. Soc; Sullivant Moss Soc; Kans. Acad; Mo. Acad. Root systems of bright belt tobacco; root systems of burley tobacco.

Gierut, Rev. J(oseph) A(loysius), St. Mary's College, Orchard Lake, Mich. *Organic chemistry.* Chicago, Ill, March 18, 08. A.B, St. Mary's Col. (Mich), 29; M.S, Notre Dame, 34, Ph.D, 36; summers, Michigan, 38, St. Louis, 40, Chicago, 41. Asst, St. Mary's Col. (Mich), 29–32; Notre Dame, 34–36; *instr. chem, head dept. and dean studies, St. Mary's Col. (Mich), 36–, v. pres, 38–* A.A; Chem. Soc; Ind. Acad; Mich. Acad. Organic reactions with silicon compounds; silicon tetrafluoride in the formation of esters and its reaction with the Grignard reagent; Gierut system of grading; Polish as fulfillment for modern language requirement.

Gies, Prof. William J(ohn), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. **Biochemistry.* Reisterstown, Md, Feb. 21, 72. B.S, Gettysburg Col, 93, M.S, 96, Sc.D, 14, LL.D, 24; Ph.B, Yale, 94, Ph.D, 97; Bern, 99; Marine Biol. Lab, Woods Hole, 01, 02; LL.D, Baylor, 24; Sc.D, Temple, 38, Maryland, 40. Asst. zool, Yale, 95, physiol. chem, 94–98, tutor physiol, 96–98; instr. physiol. chem, *Columbia,* 98–02, adj. prof, 02–05, *prof,* 05–07, *biochem, 07–,* gen. chem, col. physicians and surg, 04–09, org. chem, 09–18, physiol. chem, N. Y. Col. Pharmacy, 04–21, Teachers Col, 09–28. Consulting chemist, N. Y. Bot. Garden, 02–21, board sci. directors, 11–28; path. chemist, Bellevue Hosp, 10–21; Presb. Hosp, 21–41; in charge study dental educ, Carnegie Foundation, 21–31. Sec'y faculty, col. physicians and surg, Columbia, 05–21, administrative board, sch. dentistry, 17–21. Chairman exec. cmt, Sch. Dental Hygiene, New York, 16–17; chairman, dental advisory board, Dept. Health, N. Y, 26–35; mem. exec. cmt, Guggenheim Dental Clinic, 29– Ed. biol. sect, 'Chem. Abstracts,' 11–21; 'Biochem. Bul,' 11–16; 'Jour. Dental Research,' 19–37; assoc. ed, 'N. Y. Jour. Dentistry,' 35–36. Trustee, Irving Col, 00–10; Gettysburg Col, 08–20. Award of merit, R. I. State Dental Soc, 27; Callahan medal, Ohio State Dental Soc, 28; William J. Gies fellowship founded by pupils and colleagues, 28; William J. Gies research awards and grants in aid, Am. Col. Dentists, 37; Distinguished Service award, Gettysburg Col. 38. Pres. annual conf. biol. chemists, 17–18. A.A; Soc. Biol. Chem. (sec'y and ed, 'Proc,' 06–10); Soc. Physiol. Chem. (pres, 99–02); Chem. Soc; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol. (sec'y and ed, 'Proc,' 03–09, v. pres, 09–12, pres, 19–21); fel. Col. Dentists (asst. sec'y, 33–, ed, 'Jour,' 34–); fel. Acad. Periodontol; Philos. Soc; Harvey Soc; N. Y. Acad. (v. pres, 19–21); Int. Asn. Dental Research (hon. pres, 22–28, sec'y, 28–37, pres, 39). Constituents of animal tissues and fluids; toxicology and pharmacology; chemistry and physiology of plants; nutrition and metabolism; antitoxic action of ions; proteins; mucoids and albuminoids; enzymes; protagon; animal excretions; biochemical factors in disease; influence of various dietary conditions on physiological resistance; blood and lymph; saliva in its relation to dental caries; the composition and constitution of protoplasm; nutrition and dentition; composition of teeth; chemical coordination in the body.

Giese, Prof. Arthur C(harles), 750 Amherst St, Palo Alto, Calif. *Biology.* Chicago, Ill, Dec. 19, 04. B.S, Chicago, 27; Ph.D, Stanford, 33. Teaching fellow, California, 28–29; asst, *Stanford,* 29–30, acting instr. *biol,* 30–33, instr, 33–36, asst. prof, 36–41, *assoc. prof, 41–* Rockefeller Foundation fellow, 39–40. Summer, instr, Cold Spring Harbor, 35; Marine Biol. Lab, Woods Hole, 42. A.A; Micros. Soc; Soc. Zool; West. Soc. Nat. General and comparative physiology; radiation biology.

Giese, Prof. Henry, 3407 Oakland St, Ames, Iowa. *Agricultural engineering.* Danville, Iowa, Dec. 23, 90. B.S, Iowa State Col, 19, M.S, 27, Arch.E, 30. Mem. staff, eng. exten, Iowa State Col, 16–19; vocational rehabilitation, U. S. Veterans' Bur, 19–22; instr. eng. math, *Iowa State Col,* 23, asst. and asst. prof. *agr. eng,* 23–30, *prof, 30–* Senior engineer and director farm structures, research surv, bur. agr. eng, U. S. Dept. Agr, 29–30. Agr. Eng. (2nd v. pres, 31, v. chairman, structures div, 31, chairman, 32); Fire Protect. Asn; Fire Waste Council; Iowa Eng. Soc; Iowa Acad. Farm structures and utilities.

Giese, Dr. John H, Purdue University, Lafayette, Ind. *Mathematics.* Chicago, Ill, March 10, 15. B.S, Chicago, 36; Ph.D, Princeton, 40. *Instr. math,* Princeton, 39–40, 41–42; Rutgers, 40–42; *Purdue, 42–* Math. Soc. Differential geometry; tension analysis.

Giesecke, Prof. F(rederick) E(rnest), Agricultural and Mechanical College of Texas, College Station, Texas. *Engineering.* Washington, Texas, Jan. 28, 69. M.E, Agr. and Mech. Col. Texas, 90; B.S, Mass. Inst. Tech, 04; Ph.D, Illinois, 24; Cornell; Tech. Hochschule, Charlottenburg. Faculty, Agr. and Mech. Col. Texas, 86–12; prof. archit. eng. and director bur. eng. research, Texas, 12–27; *prof. eng. research and col. architect, Agr. and Mech. Col. Texas, and director eng. exp. sta, 27–* Civil Eng; Heat. and Vent. Eng; Eng. Educ. (past pres, Texas sect); Mech. Eng; Asn. des Ing. de Chauf. et Vent. Architectural engineering; heating and ventilation; hydraulics; concrete construction; building construction and sanitation.

Gieseker, L(eonard) F(rederick), 726 S. Ninth Ave, Bozeman, Mont. *Agronomy.* Denver, Colo, Oct. 6, 83. B.S, Nebraska, 08; A.M, Cornell, 14. Asst, *Exp. Sta,* Nebraska, 07–09; asst. agronomist, *Mont. State Col,* 09–27, *assoc. agronomist in charge reconnaissance soil surv, 27–* Irrig. investigation, cooperative, U. S. Office Exp. Stations, 09–14; reconnaissance soil surv, bur. chem. and soils, U. S. Dept. Agr, 27. Mem, Blackfeet Indian Land Cmn, Bur. Indian Affairs, 31. Int. Soc. Soil Sci. Soil survey; land utilization.

Gieseking, Dr. J(ohn) E(ldon), University of Illinois, Urbana, Ill. *Soils.* Attamont, Ill, Oct. 1, 05. B.S, Illinois, 26, M.S, 27, Ph.D, 34; Bonn, 29–30. From asst. to *asst. prof. soils, Illinois,* 27–29, *34–* Nat. research fellow and asst, Missouri, 33–34. Int. Soc. Soil Sci. Analysis of plant materials; colloidal aluminosilicates; base exchange; x-ray studies on silicates.

Giesen, Prof. John, College of St. Thomas, St. Paul, Minn. *Biology.* Cologne, Germany, Oct. 26, 91. A.B, Gregorian Univ. (Rome), 12; A.M, Dallas, 17; Sc.D, De Paul, 28. Instr. biol, Marquette, 19–23, asst. prof. zool, 23–25; *prof,* Col. of Holy Cross, 25–29; *biol. and chairman div. science and math, Col. of St. Thomas, 29–* Asst. director, Baconian Science Foundation. Soc. Parasitol; Micros. Soc. Theoretical biology; philosophy of biology; protozoology.

Giesy, Prof. P(aul) M(iller), 181 Belleville Ave, Bloomfield, N. J. *Chemistry.* Cleveland, Ohio, Dec. 24, 90. A.B, Ohio State, 10, A.M, B.S, 12; Ph.D, Columbia, 20. Asst. chemist, bur. chem, U. S. Dept. Agr, 12–14; Procter and Gamble Co, 14–15; assoc. cancer research, Columbia, 16–17, 19–20; research chemist, Grasselli Chem. Co, 20; Calco Chem. Co, 20–22; director research labs, E. R. Squibb and Sons, Brooklyn, 22–26; instr. chem. eng, *Newark Col. Eng,* 26–27, asst. prof, 27–29, special lecturer in charge indust. investigations, 29–30, assoc. prof. chem. eng. and in charge dept. English, 30–37, *prof.* chem, 37–39, *chem. eng, 39–; consulting chemist, 26–* Mem. consulting board cancer research, Columbia, 26–40. Capt, U.S.A, 17–19. A.A; Chem. Soc; Inst. Chem; Eng. Educ; Soc. Chem. Indust; Chemists' Club; Newcomen Soc. London. Organic chemistry; dyestuffs; placental hormone; pharmaceuticals; laundering.

Giffin, Prof. H(erbert) Z(iegler), Mayo Foundation, Rochester, Minn. *Medicine.* Kirkwood, N. J, Oct. 25, 78. B.S, Princeton, 00; M.D, Hopkins, 04. *Head clin. sect, Mayo Clinic;* assoc. prof. *med, Mayo Foundation, Minnesota,* 15–34, *prof, 34–* A.A; Am. Med. Asn; assoc. Am. Physicians; Soc. Clin. Invest; fel. Col. Physicians; Asn. Hist. Med; Cent. Soc. Clin. Research; Cent. Interurban Clin. Club; Minn. Acad. Med; Minn. Soc. Int. Med. Diseases of the blood; spleen and lymph glands; splenectomy; hemolytic jaundice; hemorrhagic disease; polycythemia vera.

Gifford, Prof. E(dward) W(inslow), 2535 Le Conte Ave, Berkeley 4, Calif. *Anthropology.* Oakland, Calif, Aug. 14, 87. Asst. and asst. curator ornith, Calif. Acad. Sciences, 04–12; from asst. curator to *curator museum anthrop, California, 12–,* lecturer *anthrop,* 20–38, *assoc. prof, 38–* Lecturer, Washing-

ton (Seattle), 31. A.A; Ethnol. Soc; Folk-Lore Soc; Calif. Acad. American and Oceanian anthropology.

Gifford, Prof. John C(layton), 2937 S. W. 27th Ave, Miami, Fla. *Forestry.* May's Landing, N. J, Feb. 8, 70. B S. Swarthmore Col, 90; D.Oec, Munich, 99. Instr. bot, Swarthmore Col, 90–94; forester, N. J. Geol. Surv, 95–96; asst. prof. forestry, N. Y. State Col. Forestry, Cornell, 00–03; special agent, U. S. Forest Service, 05; *prof. trop. forestry, Miami (Fla).* A.A; Soc. Foresters. Tropical forestry; forest ecology.

Gifford, Dr. Sanford R(obinson), 720 N. Michigan Ave, Chicago, Ill. *Ophthalmology.* Omah, Nebr, Jan. 8, 92. A.B, Cornell, 13; M.D, Nebraska, 18, A.M, 25. Asst. prof. *ophthal,* Nebraska, 25–29; *prof, Northwestern, 29–* Assoc. ed, 'Archives of Ophthal.' Acad. Ophthal. and Otolaryngol; Ophthal. Soc. Bacteriology; diseases of the eye due to molds and higher bacteria; bacteriology of the conjunctivita and meibomian glands; biochemistry of the crystalline lens; clinical investigation; handbook of ophthalmic therapeutics; textbooks of ophthalmology.

Giguère, Dr. Paul A(ntoine), 34 St. Louis Road, Quebec, Que, Can. *Physical chemistry.* Quebec, Que, Jan. 13, 10. B.A, Laval, 30, B.Sc, 34; Nat. Research Council Can. scholar, McGill, 35–37, Ph.D, 37. Asst. research chemist, Can. Industries Ltd, 37–38; Provincial Govt. Que. fellow chem, Calif. Inst. Tech, 40–41; lecturer *physical chem, Laval,* 41–43, *asst. prof, 43–* Assoc, Can. Inst. Chem. Hydrogen peroxide and hydrazine; molecular structure.

Gilbarg, Dr. David, 2701 14th St, N.W, Washington, D. C. *Algebra.* Brooklyn, N. Y, Sept. 17, 18. B.S, Col. City of N. Y, 38; N. Y. Univ, 38–39; Ph.D, Indiana, 41. Teaching asst. math, Indiana, 39–41; junior physicist, Bur. Standards, 41–42; *asst. physicist, Naval Ordnance Lab, 42–* Math. Soc. Algebraic numbers.

Gilbert, Prof. Alfred H(olley), Soil Conservation Service, Mayfield, Ky. *Agronomy.* Dorset, Vt, Dec. 1, 78. B.S, Vermont, 04; M.S, Wisconsin, 13. Instr. bot, Kentucky, 07–09, asst. prof, 09–12, assoc. prof, 12–17; path. inspector, fed. hort. board, U. S. Dept. Agr, 17–18; exten. pathologist, Vt, 18–19; asst. prof. bot. and assoc. pathologist, Exp. Sta, Vermont, and path. inspector, State Dept. Agr, Vt. 19–28; prof. plant path. and head dept, Macdonald Col, McGill, 28–29; prof. bot, Miami (Fla), 29–32; agronomist, *soil conservation service, U. S. Dept. Agr, Ky,* 35–41, *asst. dist. conservationist, 41–* A.A; Bot. Soc; Phytopath. Soc; Potato Asn. Plant pathology; tropical botany; alfalfa stem rot; virus and degeneration diseases of Irish potatoes; erosion control.

Gilbert, Prof. B(asil) E(lijah), Rhode Island State College, Kingston, R. I. *Plant physiology.* Shedden, Ont, Can, June 25, 92. B.A, McMaster, 16, M.A, 20; Ph.D, Chicago, 25. Chemist, Imp. Varnish and Color Co, Can, 19–20; instr. biol, Brandon Col, 21–24; chemist, *Exp. Sta, R. I. State Col,* 25–28, *plant physiologist and director research, 28–, prof. agr. chem.* A A; Soc. Plant Physiol; Chem. Soc; Bot. Soc. Phytochemistry; interrelation of photoperiodism and temperature; optimum nutrient requirements of field crops.

Gilbert, Dr. Charles M(erwin), 108 Kenyon Ave, Berkeley, Calif. *Physical geology.* Washington, D. C, May 22, 10. A.B, Cornell, 33; Ph.D, California, 38. *Instr. geol, California, 38–* Geology of the California Coast ranges east of Santa Cruz.

Gilbert, Prof. C(hauncey) McL(ean), University of Virginia, Charlottesville, Va. *Zoology.* Troy, N. Y, April 6, 82. B.S, Mass. Col, 25; fellow, Virginia, 30–33, Ph.D, 34. Prin, high sch. Mass, 25–26; instr. zool. Mass. Col, 26–30; comp. anat, *Miller sch. biol, Virginia,* 33–36, *asst. prof. biol, 36–* A.A; Soc. Zool; Va. Acad. Comparative anatomy, embryology and histology of vertebrates.

Gilbert, Prof. E(arl) C, Oregon State Agricultural College, Corvallis, Oregon. *Chemistry.* Palmyra, Ohio, Feb. 2, 95. B.S, Hiram Col, 16, M.S, 17; Ph.D, Chicago, 22. Prin, high sch, Ohio, 17; instr. *chem,* Oregon State Col, 17–21; asst, Chicago, 21–22; asst. prof, *Oregon State Col,* 22–23, assoc. prof, 24–30, *prof, 30–, chairman dept, 40–* Guggenheim Mem. Foundation fellow, Copenhagen and Berlin, 28–29. Summer, instr, Oregon, 19. C.W.S, U.S.A, 18. A.A; Chem. Soc. (chairman, Oregon sect, 32–); Electrochem. Soc; Faraday Soc; N. Y. Acad. Molecular rearrangements; electrometric measurements; surface tension and activity; structure and thermochemistry of hydrazines; thermochemistry; precision calorimetry.

Gilbert, Prof. E(dward) M(artinius), University of Wisconsin, Madison, Wis. *Botany.* Blair, Wis, Sept. 20, 75. Ph.B, Wisconsin, 07, Ph.D, 14. Prof. biol, Wis. State Nor. Sch, Superior, 07–10; instr, *Wisconsin,* 10–11, asst. prof. and assoc. prof, 11–22, *prof. bot. and plant path, 22–, chairman dept. bot, 25–* A.A; fel. Bot. Soc; Phytopath. Soc; Micros. Soc; Mycol. Soc; Torrey Bot. Club; Wis. Acad; British Mycol. Soc. Clavarias.

Gilbert, Dr. E(verett) E(ddy), General Chemical Co, Long Island City, N. Y. *Organic chemistry.* Ithaca, N. Y, May 5, 14. A.B, Yale, 35, Ph.D, 38. *Research chemist,* Tide Water Oil Co, 38–41; *Gen. Chem. Co, 41–* Chem. Soc. Synthetic organic chemicals useful industrially.

Gilbert, Prof. Frank A(lbert), 15 Roland Park Drive, Huntington, W. Va. *Botany.* Exeter, N. H, March 22, 00. B.S, Mass. Col, 22; A.M, Harvard, 25, Ph.D, 27. *Prof. bot, Marshall Col, 27–* Harvard bot. exped, Newfoundland, 25. Bot. Soc; Mycol. Soc; New Eng. Bot. Club; S. Appalachian Bot. Club (pres); W. Va. Acad. Mycology; taxonomy; taxonomy and physiology of slime molds; flora of West Virginia.

Gilbert, F(rederick) C(hester), 717 Sixth Ave, Helena, Mont. *Metallurgy.* Cambridge, Mass, Feb. 18, 76. B.S, Mass. Inst. Tech, 98. Chemist, metallurgist and manager, Am. Smelting and Ref. Co, Colo, 99–23; consulting mining engineer, 23–27; prof. metal, Mont. Sch. Mines, 27–31; consulting mining engineer, 31–38; director, State Employment Service, *Mont,* 38; *chief research and statist, State Unemployment Compensation Cmn, 39–* Supervising engineer, mineral resources div, State Planning Board, Mont, 36–38. A.A; Min. and Metal. Eng. (sec'y-treas, Mont. sect, 37); Min. Asn. Mont. (sec'y-treas, 36–38); Mont. Soc. Eng. Economics of mineral industry; unemployment compensation.

Gilbert, Dr. Harvey N(icholas), 1246 Cayuga Drive, Niagara Falls, N. Y. *Chemistry.* Chambersburg, Pa, Aug. 22, 89. B.S, Pa. Col, 10; Ph.D, Cornell, 15. Anal. chemist, E. I. du Pont de Nemours and Co, 10–11; Pa. R. R. Co, 11; asst. instr. chem, Cornell, 11–14; chemist, A. D. Little, Inc, 14–15; chief chemist, Niagara Electrochem. Co, 15–25; *develop. chemist,* Roessler and Hasslacher Chem. Co, 25–28, *Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co,* 29– Chem. Soc; Electrochem. Soc. Inorganic and physical chemistry; sodium peroxide; sodium; hydrogen peroxide.

Gilbert, Dr. J(ames) Z(accheus), 3300 N. Griffin Ave, Los Angeles, Calif. *Biology, Paleontology.* North Manchester, Ind, Jan. 1, 66. Ph.B, McPherson Col, 94, Sc.D, 19; A.M, Kansas, 95; hon. LL.D, Mt. Morris Col, 19. Teacher, pub. schs, Ind, 84–88; tutor, McPherson Col, 91–94; prin, high sch, Kans, 95–97; head dept. science, Plattsburg, 98–00; pres, Botetourt Nor. Col, Va, 00–03; instr. zool. and physiol, high sch, Los Angeles, 04–39; prof. biol, La Verne Col, 31–32; *retired.* Lecturer, Southern California, 18– S. Calif. Acad; Physical Geog. Club Calif. (pres, 05). Cretaceous turtles of Kansas; fossil whales of California; fossil fishes; Rancho La Brea fossils; method of deposit.

Gilbert, Dr. Jeanne G(ifford), 281 Hicks St, Brooklyn, N. Y. *Psychology.* Haddon Heights, N. J, Nov. 24, 05. A.B, Cornell, 25; A.M, Pennsylvania, 26; Ph.D, Columbia, 35. Teacher, pub. schs, N. J, 26–28; *psychologist,* neuropsychiat. clinic, Pa. Hosp, Phila, 28–29; *St. Charles Child Guidance Clinic, 30–; instr. child psychol. and child psychologist, St. John's Univ. (N. Y).* Psychologist, neuro-psychiat. clinic, Mary Immaculate Hosp, Jamaica, N. Y, 37–; Little Flower Inst, Wading River, 41– A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Eugenics Research Asn; N. Y. Acad. Senescence; problem children; mental deficiency.

Gilbert, John J(oseph), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Philadelphia, Pa, Aug. 31, 87. A.B, Pennsylvania, 09; Harvard, 10–11; Chicago, 11–12; E.E, Armour Inst. Tech, 15. Instr. elec. eng, Armour Inst. Tech, 12–17; *submarine cable research engineer, eng. dept, West. Elec. Co. and Bell Tel. Labs, 19–* Sig. C, U.S.A, 17–19. A.A; Elec. Eng; Radio Eng; Physical Soc. Mathematical physics; telegraph and telephone transmission; submarine cable development.

Gilbert, Dr. Nathan, 501 E. Mobile St, Florence, Ala. *Physical chemistry.* New York, N. Y, Sept. 27, 13. B.S, California, 36; Ph.D, Wisconsin, 42. Lab. asst, Shell Develop. Co, 36–39; asst, Wisconsin, 39–42; *assoc. chemist, Tenn. Valley Authority, 42–* Chem. Soc. High temperature fixation of nitrogen.

Gilbert, Prof. Norman E(verett), Dartmouth College, Hanover, N. H. *[1]*Physics.* Middletown, Conn, Dec. 15, 74. A.B, Wesleyan, 95, A.M, 96; fellow, Hopkins, 00–01, Ph.D, 01. Instr, Cayuga Lake Mil. Acad, N. Y, 96–97; Genesee Wesleyan Sem, N. Y, 97–98; prof. *physics,* Hobart Col, 01–03; asst. prof, *Dartmouth Col,* 03–16, assoc. prof, 16–18, *prof, 18–* Asst, astrophys. observatory, Smithsonian Inst, 02; Cambridge and Paris, 09–10, 24–25, 30–31. U. S. Naval Observatory eclipse exped, N. C, 00, Sumatra, 01, Algeria, 05. A.A; Physical Soc; Astron. Soc. Elementary physics; relations between ether, matter and electricity; magnetic effect of electrical convection; eclipse problems; electricity and magnetism.

Gilbert, Dr. Perry W(ebster), Cornell University, Ithaca, N. Y. *Vertebrate morphology and ecology.* North Branford, Conn, Dec. 1, 12. A.B, Dartmouth Col, 34; Nathan Jenks Mem. prize, Marine Biol. Lab, Woods Hole, 34; Cramer fellow, Cornell, 36–37, Ph.D, 40. Instr. *zool,* Dartmouth Col, 34–36; asst, *Cornell,* 37–40, *instr, 40–* Morphology of fish, birds and mammals; ecology of amphibians.

Gilbert, Dr. (Philip) Geoffrey (Britton), 1074 Spokane St, Trail, B. C, Can. *Geology.* Montreal, Que, 93. B.Sc, McGill, 20; A.M, Harvard, 22, Ph.D, 24. Instr. geol, Lehigh, 24–27; geologist, N. J. Zinc Co, 27–29; Int. Nickel Co, Can, 31–36; manager, Petsamon Nikkeli O. Y, 37–38; *geologist, Consol. Mining and Smelting Co, Can, Ltd, 38–* A.A; fel. Geol. Soc. Mining geology; ore deposits.

Gilbert, Dr. Ralph W(esley), 123 Cedar Ave, Rockville Center, L. I, N. Y. *Psychology.* Passaic, N. J, June 26, 03. A.B, Clark, 24, A.M, 25, fellow, 25–27, Ph.D, 27. *Instr. psychol, Wash. Sq. Col, N. Y. Univ, 27–* A.A; Psychol. Asn; Asn. Applied Psychol. Intelligence of Negro criminals; dermal sensitivity and the differentiated nerve terminations of the human skin; human learning.

Gilbert, Dr. Ruth, R.F.D. 2, Altamont, N. Y. *Bacteriology.* Warren, Conn, Oct. 31, 83. A.B, Colo. Col, 07, A.M, 10; M.D, Albany Med. Col, Union (N. Y), 23. Instr. biol, Colo. Col, 07–12; asst, N. Y. Post-Grad. Hosp, 13; instr. bacter, N. Y. Woman's Med. Col, 13–16; *bacteriologist, State Dept. Health, N. Y, 14–* Referee, standardization of Wassermann test, Am. Pub. Health Asn. A.A; Soc. Bact; Asn. Path. and Bact; Am. Med. Asn; Pub. Health Asn; Asn. Immunol; Soc. Clin. Path; Royal Inst. Pub. Health. Complement fixation.

Gilbert, Dr. Seymour G, Box 2817, University Station, Gainesville, Fla. *Plant physiology.* Orange, N. J, March 24, 14. B.S, Rutgers, 35, M.S, 38, Ph.D, 41. Asst. bot, Rutgers, 36–39, plant physiol, 39–41, pomol, 41–42; *agent, field lab. tung investigations, U. S. Dept. Agr, 42–* Asn. Plant Physiol. Plant nutrition and mineral metabolism.

Gilbert, Dr. W(illiam) I(rwin), 613 Ridge Ave, New Kensington, Pa. *Petroleum chemistry.* Philadelphia, Pa, March 6, 15. B.S, Pa. State Col, 36; A.M, Princeton, 38, Ph.D, 39. Instr. chem, Western Maryland Col, 39–40; *research chemist, Gulf Research and Develop. Co, 40–* Chem. Soc. Physical Soc. Physical-organic research in petroleum products.

Gilbert, Dr. William J(ames), 218 Buena Vista St, Ann Arbor, Mich. *Botany.* Shelton, Wash, Feb. 10, 16. B.S, Washington (Seattle), 38; M.S, Michigan, 39, Ph.D, 42. Asst. *bot, Michigan,* 38–40, *teaching fellow, 40–* Mich. Acad; Sullivant Moss Soc. Cryptogamic botany; algae; marine algae.

Gilbert, Dr. W(illia)m M, University of Illinois, Urbana, Ill. *Personnel psychology.* Greencastle, Pa, Jan. 5, 11. B.S, Dickinson Col, 32; exchange fellow, Hamburg, 32–33; A.M, Michigan, 38, Ph.D, 40. Teaching fellow, Michigan, 37–40, asst. clinician, psychol. clinic, 37–40; clin. counselor, personnel bur, and instr. psychol, *Illinois,* 40–42, *acting asst. director personnel bur. and assoc. psychol, 42–* Assoc. Psychol. Asn; Midwest. Col. Psychiat. and Psychol. Problems of student personnel; memory.

Gilbert, Prof. W(illiam) P(aul), Lawrence College, Appleton, Wis. *Physics.* Centerburg, Ohio, Sept. 18, 04. A.B, Oberlin Col, 29; Ph.D, Cornell, 35. Asst. *physics,* Cornell, 29–35; instr, Oberlin Col, 35–37; asst. prof, *Lawrence Col,* 37–41, assoc. prof, 41–43, *prof, 43–* Summer, asst, inst. paper chem, Lawrence Col, 42. A.A; Asn. Physics Teachers; Physical Soc. Light; optical spectroscopy.

Gilbert, Prof. W(illiam) W(ayne), University of Michigan, Ann Arbor, Mich. *Metal processing.* Greeley, Colo, Nov. 6, 09. B.S, Colorado, 31; M.S, Michigan, 32, Sc.D, 35. Faculty research project, *Michigan,* 32–34, instr. *metal processing,* 34–38, asst. prof, 38–42, *assoc. prof, 42–* Summers, special research work, Nat. Twist Drill and Tool Co, 34, director, Civilian Pilot Training, 40. Eng. Educ; Mech. Eng; Soc. Metals; Jr. Research Club (sec'y-treas, 37–39). Machinability of metals; teaching metal processing.

Gilbertson, Prof. G(eorge) I(van), South Dakota State College, Brookings, S. Dak. *Entomology.* Castlewood, S. Dak, Aug. 28, 92. B.S, S. Dak. State Col, 14, M.S, 16. From asst. to *assoc. prof. entom, S. Dak. State Col, 14–, asst. entomologist, Exp. Sta, 18–* Asst. state entomologist and inspector, S. Dak, 14–25, entomologist, exten. service, 37– Asn. Econ. Entom; S. Dak. Acad. Zoology; grasshoppers; wheat stem maggots; spraying; insecticides; plum tree borers.

Gilbertson, Dr. L(yle) I(thiel), State College of Washington, Pullman, Wash. *Inorganic chemistry.* Beloit, Wis, July 10, 03. A.B, Augustana Col. (S. Dak), 25; A.M, Wisconsin, 26; Ph.D, Indiana, 40. Asst. chem, Augustana Col. (S. Dak), 24–25, instr, Carleton Col, 26–27; State Col. Wash, 27–37; research fellow, Am. Silver Producers Research Project, Indiana, 37–38; *asst. prof. chem, State Col. Wash, 38–; mem. div. war research, Columbia, 42–* Summer, prof, Utah State Agr. Col, 33. A.A; Chem. Soc. (sec'y-treas, div. chem. educ, Wash-Idaho border sect, 30); Electrochem. Soc; Northwest Sci. Asn. Analytical chemistry; inorganic chemistry of selenium and tellurium; peroxyacids of sulfur; electrodeposition of silver.

Gilboy, Prof. Glennon, Lincoln, Mass. *Civil engineering.* Duryea, Pa, Sept. 11, 02. B.S, Mass. Inst. Tech, 25, M.S, 27, Sc.D, 28. Asst, Mass. Inst. Tech, 25–27, research assoc, 27–29, asst. prof. soil mech, 29–32, assoc. prof, 32–37; *private consulting practice, 37–* Am. cmt, int. cmn. on large dams, World Power Conf. A.A; Civil Eng; Inst. Physics (advisory council applied physics); Am. Acad. Soil mechanics; hydraulic fill dams.

Gilchrist, Prof. Francis G(arritt), Riverside Junior College, Riverside, Calif. *Zoology.* Gettysburg, Pa, Feb. 16, 95. A.B, California, 21, Ph.D, 27. Asst. *zool,* California, 22–24; instr, Pomona Col, 24–28, *asst. prof,* 28–37; *Riverside Junior Col, 37–* A.A; Soc. Zool; Soc. Exp. Biol; West. Soc. Nat. Experimental embryology of Amphibia; regeneration of hydroids; physiological effect of temperature.

Gilchrist, Prof. Philippa (Garth), Agnes Scott College, Decatur, Ga. *Chemistry.* Courtland, Ala, July 26, 02. A.B, Agnes Scott Col, 23; M.S, Wisconsin, 28, scholar, 29–30, fellow, 30–31, Ph.D, 31. Instr. *chem, Agnes Scott Col,* 23–27, asst. prof, 28–29, *assoc. prof, 31–* Chem. Soc; Ga. Acad. Food chemistry.

Gilchrist, Dr. Raleigh, National Bureau of Standards, Washington, D. C. *Chemistry.* Windsor, Vt, Jan. 8, 93. A.B, Montana, 15; Cornell, 15–17; Ph.D, Hopkins, 22. Asst. chem, Cornell, 15–17; asst. and assoc. chemist, *Bur. Standards,* 19–36, *chemist, 36–* Lecturer, George Washington, 27–28, 29–34; Bur. Standards educ. course, 28–29, 31–32. Hillebrand prize, Chem. Soc. Wash, 38. U. S. del, Int. Tech. and Chem. Cong. Agr. Industries, Paris, 34; Int. Cong. Pure and Applied Chem. and Conf. Int. Union Chem, Madrid, 34. U.S.A, 17–19. A.A; Chem. Soc. (sec'y, Wash. sect, 25–27, pres, 29); Philos. Soc. Wash. Separation, purification and determination of the platinum metals; atomic weight of osmium; assay of gold-filled materials; analysis of dental gold alloys; analytical separations by means of controlled hydrolytic precipitation; assay and evaluation of iridioplatinum jewelry scrap.

Gildea, Dr. Edwin F(rancis), Washington University, St. Louis, Mo. *Psychiatry.* Colorado Springs, Colo, May 7, 98. A.B, Colo. Col, 20; M.D, Harvard, 24. Intern, Boston City Hosp, 24–26; Boston Psychopath. Hosp, 26–27, res, 27–28; res. neur, Boston City Hosp, 28, junior visiting neurologist, 28–29; asst. neuropathologist, Harvard Med. Sch, 28–29; asst, *Yale,* 29–30, instr. psychiat. and mental hygiene, sch. med, 30–32, asst. prof, 32–37, assoc. prof, 37–42; *prof. psychiat. and admin. head neuropsychiat, sch. med, Washington (St. Louis), 42–* Assoc. psychiatrist, New Haven Hosp. and New Haven Dispensary. A.A; Am. Med. Asn; Neur. Asn; Psychiat. Asn; Soc. Clin. Invest; Conn. Soc. Psychiat. Mental hygiene; the factors which control the output of energy in man; biochemical and physiological investigation of mental diseases.

Gilder, Dr. Helena, Hospital, Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Physio-*

logical chemistry. New York, N. Y, Nov. 11, 13. A.B, Vassar Col, 35; M.D, Cornell, 40. Vol. asst. path, col. physicians and surg, Columbia, 35–36; visiting investigator, Scripps Metabolic Clinic, 38–39; med. intern, Mary Imogene Bassett Hosp, Cooperstown, N. Y, 40–41; Mary Putnam Jacobi fellow, *Rockefeller Inst,* 41–42, *Commonwealth fellow and asst. res. hosp,* 42– Harvey Soc. Metabolism.

Gildersleeve, Dr. Benjamin, 153 Spence Place, Knoxville, Tenn. *Geology.* Damascus, Va, June 7, 07. B.S, Virginia, 30, M.S, 31; Ph.D, Hopkins, 39. Field asst, Va. Geol. Surv, 30–33; junior geologist, U. S. Geol. Surv, 34; asst. geologist, *Tenn. Valley Authority,* 34–38, assoc. geologist, 38–43, *geologist, 43–* A.A; Paleont. Soc; Min. and Metal. Eng; Tenn. Acad; Va. Acad. The geology of the Virginia Eocene; mineral resources of the Tennessee Valley region.

Gildow, Dr. E(lton) M(aurice), Carnation Co, Carnation, Wash. *Veterinary medicine.* Silverton, Oregon, Dec. 29, 98. B.S. and D.V.M, State Col. Wash, 22; Oregon State Col, 23; M.S, Wisconsin, 25. Asst. vet. science, Wisconsin, 23–25; asst, poultry dept, and poultry pathologist, New Hampshire, 25–28; asst. prof. vet. science, Idaho, and veterinarian, Exp. Sta, 28–40; *mem. staff, milk farms, Carnation Co, 40–* Oestrus ovis in sheep; mastitis in cattle; animal diseases; fowl paralysis; artificial insemination; reproduction in cattle; nutrition in relation to reproduction in dogs; nutrition in relation to growth and egg production in poultry; nutritional requirements of calves during early calfhood.

Gile, Philip L(indsey), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Melrose, Mass, Sept. 5, 83. A.B, Harvard, 07. Asst. chemist, Exp. Sta, Missouri, 07; Exp. Sta, Puerto Rico, 07–08, chemist, 08–18; Am. Agr. Chem. Co, 18–21; chief div. soil chem, *bur. chem. and soils, U. S. Dept. Agr,* 21–27, *senior chemist, soil investigations, 27–* A.A; Chem. Soc; Soc. Agron. Soil chemistry; soil colloids; fertilizers; mineral nutrition and physiological chemistry of plants; chlorosis.

Giles, Prof. Albert W(illiam), University of Arkansas, Fayetteville, Ark. *Geology.* Watkins, N. Y, Nov. 23, 85. A.B, Rochester, 09, M.S, 10; fellow, Northwestern, 12–13; Ph.D, Chicago, 22. Instr. *geol,* Allegheny Col, 11–12; prof, Kans. Wesleyan, 13–15; asst, Chicago, 15–16; adj. prof, Virginia, 16–20, assoc. prof, 20–25, prof, 25–26; *prof. and chairman dept, Arkansas, 26–* Asst. geologist, Va. Geol. Surv, 17–24, acting state geologist, 25. Sec'y, Water Power and Develop. Cmn, Va, 25. A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Meteorol. Soc; Seismol. Soc; Am. Geog. Soc; Soc. Econ. Paleont. and Miner; Tulsa Geol. Soc. General geology of western New York; economic, stratigraphic and structural geology of western Virginia; geography, climate and water power of Virginia; St. Peter sandstone; Ozark stratigraphy; paleoclimatology; chert.

Giles, David John, Latrobe Electric Steel Co, Latrobe, Pa. *Chemistry.* Youngstown, Ohio, Oct. 6, 90. Carnegie Inst. Tech, 07–12. Chief chemist and research engineer, Firth Sterling Steel Co, 04–19; *v. pres. in charge operations, Latrobe Elec. Steel Co, 19–* Elec. Metal Makers Guild (past pres). Alloy steel; ingot mold; cutlery.

Giles, Dr. Norman H(enry), Jr, Yale University, New Haven, Conn. *Botany, Cytogenetics.* Atlanta, Ga, Aug. 6, 15. A.B, Emory, 37; A.M, Harvard, 38, Ph.D, 40. Parker fellow, Harvard, 40–41; *instr. bot, Yale, 41–* Genetics Soc; Bot. Soc; Ornith. Union. Spontaneous and induced chromosomal rearrangements; genetic variation in natural populations.

Giles, Dr. R(oy) N(athan), Standard Oil Co. of Indiana, Whiting, Ind. *Physical chemistry.* Armour, S. Dak, Nov. 1, 05. B.S, S. Dak. Sch. Mines, 27; M.S, Ohio State, 28, Ph.D, 30. *Research chemist, Standard Oil Co. of Ind, 30–* Chem. Soc. Viscosity of binary liquid mixtures; refining of lubricating oil.

Gilfillan, Dr. Edward S(mith), Jr, Lincoln Ave, Manchester-by-the-Sea, Mass. *Chemical engineering.* Washington, D. C, March 3, 06. A.B, Kalamazoo Col, 28; A.M, Harvard, 29, du Pont fellow, 31–32, Ph.D, 32. Asst. chem, Harvard, 29–31, Sheldon traveling fellow, 32–33; nat. research fellow, Mass. Inst. Tech, 33–35, research assoc, 35–36; consulting chemist, Arthur D. Little, Inc, 35–36; consulting engineer, 36–40; mem. staff, Naval Ordnance Lab, 40–42; *lieut. commander, U. S. Naval Res, 42–* Chem. Soc. Separation of isotopes; thermodynamics of amalgams and gallium alloys; high temperature equilibria; paper technology; electroplating.

Gilfillan, Dean F(rancois) A(rchibald), Oregon State Agricultural College, Corvallis, Oregon. *Chemistry.* Ninnekah, Okla, Jan. 12, 93. B.S, Ph.C, Oregon State Col, 18; fellow, Yale, 20–21, Ph.D, 21. Research chemist, Calco Chem. Co, 21–22; assoc. prof. *pharmacy,* Oregon State Col, 22–25; prof, Florida, 25–27; assoc. prof, *Oregon State Col,* 27–30, *prof, 30–, dean sch. science, 38–,* acting pres, 41–42. Manager, Oregon Inst. Marine Biol, 39– A.A; Hist. Sci. Soc; fel. Inst. Chem; Chem. Soc. (state sec'y, Oregon, 23–). Dehydrogenation and dehydration catalysis; organic sulfur compounds; azo dyes; synthetic pharmaceuticals; alkaloids; phytochemistry.

Gilgut, Prof. C(onstantine) J(oseph), Massachusetts State College Agricultural Field Station, Waltham, Mass. *Nursery culture, Horticulture.* Athol, Mass, March 11, 09. B.S, Mass. State Col, 31, M.S, 34; A.M, Harvard, 37, Ph.D, 42. Instr. bot, *Mass. State Col,* 31–34, asst. phytopath, hort. field sta, Exp. Sta, 34–42, *asst. prof. nursery culture, 42–* Phytopath. Soc. Culture, propagation, hardiness and garden value of ornamental trees, shrubs and perennials grown by the nurseryman.

Gilhousen, Prof. H(oward) C(larke), University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Warsaw, Ill, Dec. 3, 95. A.B, California, 25, Ph.D, 30. Tutor and asst, Harvard, 30–31; instr. *psychol, California at Los Angeles,* 31–36, asst. prof, 36–42, *assoc. prof, 42–* Psychol. Asn. Animal and experimental psychology.

Gilkey, Dr. Helen M(argaret), Oregon State Agricultural College, Corvallis, Oregon. *Botany.* Montesano, Wash, March 6, 86. B.S, Oregon State Col, 07, M.S, 11; Ph.D, California, 15. Asst. bot, Oregon State Col, 08–09, instr, 09–11; asst, California, 12, sci. artist, 13–18; asst. prof. *bot, Oregon State Col,* 18–27, *assoc. prof, 27–, curator herbarium, 18–* A.A; Bot. Soc; Soc. Plant Taxon; Calif. Bot. Soc. Tuberales of North America; flowering plants of northwest America.

Gilkey, Prof. Herbert J(ames), Iowa State College, Ames, Iowa. *Civil engineering, Mechanics.* Montesano, Wash, Jan. 2, 90. B.S, Oregon State Col, 11, Mass. Inst. Tech, 16, Harvard, 16; M.S, Illinois, 23; hon. Sc.D, Buena Vista Col, 39. Eng, Oregon and Calif, 11–14; asst. engineer, track elevation, Pa. R. R, Chicago, 16–17; struct. engineer, Chicago, Ill, 19–21; teacher theoret. and applied mech, Illinois, 21–23; from asst. prof. to prof. civil eng, Colorado, 23–31; *prof. theoret. and applied mech. and head dept, Iowa State Col, 31–* Am. Relief Admin, Paris, 19. Consultant to Lorado Taft, 20–21; concrete consultant, Boulder Dam, 30–33; Eleven Mile Canyon Dam, Denver, 30–31. Mem. highway research board, Nat. Research Council. Mem. Third Joint Cmt. on Specifications for Concrete and Reinforced Concrete, 32–40; Special Cmt. Aims and Scope Eng. Curricula in U. S, 39–40. Medal, Iowa Eng. Soc, 36; Wason medal, Am. Concrete Inst, 39. C. Eng, U.S.A, 17–19. A.A; Civil Eng; Concrete Inst. (director, 37); Soc. Test. Mat; Eng. Educ. (councilor and chairman, mech. div, 36–39); Soc. Mil. Eng; West. Soc. Eng; Iowa Acad; Iowa Eng. Soc. Properties and mechanics of engineering materials and engineering structures.

Gilkey, Prof. Wallace Alfred, Sacramento Junior College, Sacramento, Calif. *Chemistry.* Burlington, Wash, Aug. 5, 97. A.B, Chem.E, Stanford, 23, Ph.D, 29. Chem. engineer, Standard Oil Co. of Calif, 23–24; instr. *chem,* San Diego State Teachers and Junior Col, 25–28; *prof, Sacramento Junior Col, 29–* Summers, chemist, Am. Smelting and Ref. Co, Calif, 23; research assoc, Stanford, 31, 32. U.S.N, 18. Chem. Soc. Limestone; glassy state; specific heats; ammonia chemistry; organic synthesis.

Gilkinson, Prof. Howard, University of Minnesota, Minneapolis, Minn. *Psychology.* Osakis, Minn, Oct. 9, 98. A.B, Carleton Col, 23; A.M, Iowa, 29; Ph.D, Minnesota, 35. Instr. speech, Yankton Col, 23–28; asst, Iowa, 28–29; instr, *Minnesota,* 29–31, asst. psychol, 34–35, *asst. prof. speech, 35–* Psychol. Asn; Asn. Teachers Speech. Psychology of personality; individual difference in speech; speech education.

Gill, Prof. Bennington P(earson), 302 Convent Ave. New York, N. Y. *Mathematics.* New York, N. Y, Feb. 27, 98. A.B, B.S, Col. City of N. Y, 17; A.M, Columbia, 18, Ph.D, 30. From asst. to assoc. prof. *math, Col. City of N. Y,* 17–38, *prof, 38–* Computer, Aberdeen Proving Grounds, 18. A.A; Math. Soc. (treas, 38–); Math. Asn. Approximation to algebraic functions by means of rational functions.

Gill, Dr. D(aniel) G(ordon), 13 Moreland Road, Montgomery, Ala. *Public health.* Victoria Harbor, Ont, Can, Sept. 20, 97. M.B, Toronto, 22, Dr.P.H, 24. *Epidemiologist and direc-*

tor bur. preventable diseases, State Dept. Health, Ala, 25– Surgeon, U. S. Pub. Health Service, 29–; lecturer, Alabama, 30– Int. health board, Rockefeller Foundation, 24; cmt. undulant fever, Nat. Research Council; Nat. Malaria Cmn. Am. Med. Asn; Surg. Asn; Pub. Health Asn; South. Med. Asn. Diphtheria; hookworm; undulant fever.

Gill, Prof. Denzell L(eigh), Louisiana State University, Baton Rouge, La. *Plant pathology.* Leesville, La, Nov. 15, 09. B.S, Louisiana, 31; fellow, Cornell, 31–35, Ph.D, 35. Instr. hort, col. agr, Louisiana, 35–37, asst. prof, 37–41; *agent, U. S. Dept. Agr, 41–* Hort. Soc; Phytopath. Soc; Mycol. Soc. Diseases of ornamental plants.

Gill, Dr. Eugene E(dward), 5905 Roberta Circle, Tampa, Fla. *Chemistry.* Boring, Md, Sept. 17, 75. Ph.B, Dickinson Col, 97, A.M, 98; Ph.D, Hopkins, 09. Assoc. prof. chem, Armour Inst. Tech, 09–35; *retired.* Osmotic pressure.

Gill, Prof. J(ames) E(dward), McGill University, Montreal, Que, Can. *Geology.* Nelson, B. C, Jan. 16, 01. British Columbia, 17–20; B.Sc, McGill, 21; fellow, Princeton, 23–24, Procter fellow, 24–25, Ph.D, 25. Asst. *geol,* Princeton, 22–23; instr, Rochester, 25–28, asst. prof, 28–29; *McGill,* 29–39, *assoc. prof, 39–* Mining and field geologist, 18–23; asst. geologist, Geol. Surv. Can, 24; consulting geologist, 25– A.A; Soc. Econ. Geol; Geol. Soc; Can. Inst. Min. and Metal; Royal Soc. Can. Structural and economic geology.

Gill, Prof. J(ames) H(erbert), 617 Grand St, Morgantown, W. Va. *Machine design.* River Falls, Wis, June 18, 67. B.M.E, Minnesota, 92, M.E, 94. Instr. metal working, Minnesota, 92–00; Mont. State Col, 00–01, asst. prof. mech. eng, 01–03; prof, James Millikin, 03–06; asst. prof. in charge eng. shops, Illinois, 06–10; director, Columbus Trade Sch, 10–17; research dept, Fed. Board Vocational Educ, 18–20; *prof. machine construction and supt. eng. shops, West Virginia, 20–* Machine construction and heat treating of steel.

Gill, J(ames) P(resley), 850 Weldon St, Latrobe, Pa. *Metallurgy.* Montgomery City, Mo, Jan. 21, 96. B.S, Missouri, 17, M.S, 18; Columbia, 18–19. *Metallurgist, Vanadium Alloy Steel Co, 20–,* director, 41–; *metallurgist, Anchor Drawn Steel Co, 26–; Colonial Steel Co, 28–* Campbell mem. lecturer, Soc. Metals, 36. Director, Halund Co, 41– Mem. advisory cmt. metals and minerals, Nat. Acad. Sciences and Nat. Research Council, 41. Soc. Metals (chairman, Pittsburgh sect, 26, handbook cmt, 37, trustee, 37–41, v. pres, 38, pres, 39; chairman ed. cmt, 'Handbook,' 39); Mech. Eng; Soc. Test. Mat; Soc. Tool Eng; Iron and Steel Inst; Iron and Steel Inst. Gt. Britain. Tool and special steels.

Gill, Dr. L(ake) S, P. O. Box 523, Albuquerque, N. Mex. *Forest pathology.* San Francisco, Calif, April 25, 00. A.B, Stanford, 23, 29–31; Ph.D, Yale, 34. Junior pathologist, *div. forest path, bur. plant indust, U. S. Dept. Agr,* San Francisco, Calif, 23–25, asst. pathologist, Washington, D. C, 26–28, assoc. pathologist, 28–29, San Francisco, Calif, 31–34, *Albuquerque, N. Mex,* 34–37, *senior pathologist, 37–* Soc. Foresters; Phytopath. Soc; Mycol. Soc; Conn. Acad; Bot. Soc. Wash. Chestnut blight; mistletoes; heart-rots; cactus diseases.

Gill, Stanley, 3501 Buffalo Drive, Houston, Texas. *Petroleum engineering.* Seattle, Wash, July 29, 99. B.S, Washington (Seattle), 20; Ch.E, Columbia, 23. Private consultant, New York, 23–24; fellow, Mellon Inst, 24–29; research engineer, Gulf Oil Companies, 29–32; consulting engineer, 32–42; *engineer in charge construction and operation of aviation gasoline, Old Ocean Field, Brazoria Co, Texas, 42–* A.A; Min. and Metal. Eng; Chem. Soc; Petrol. Inst. Corrosion in petroleum industry.

Gill, T(h)om(as Harvey), 1214 16th St, N. W, Washington, D. C. *Forestry.* Philadelphia, Pa, Jan. 21, 91. A.B, Pennsylvania, 13; M.F, Yale, 15. Asst. forest ranger, U. S. Forest Service, 15–17, deputy forest supervisor, 20–21, forest supervisor, 22, in charge educ. activities, 22–25; assoc. ed, 'Am. Forests Magazine,' 25–26; *forester, Charles Lathrop Pack Forestry Foundation, 26–; Trop. Plant Research Foundation, 26–* Oberlaender Trust fellow, 36. Conductor, Trop. Plant Research Foundation forest surv, Caribbean region, 26–30; special investigator, reforestation work in Cuba, United Fruit Co, 25–26; mem. advisory cmt, Timber Conservation Board, 30–32; sec'y, Charles Lathrop Pack Forest Educ. Board, 31–; director Forest Community Foundation, 31–35; Wm. Alanson White Psychiatric Foundation. Mem. publications cmt, 'Psychiatry.' Del, Int. Forestry Cong, Budapest, 36; Soc. Am. Foresters del, Am. Sci. Cong, 40. Soc. Foresters (mem, cmt. stabilization forest industries; finance cmt); hon. mem. Soc. Mexican Foresters. Forest education; tropical forestry; tropical forests of the Caribbean.

Gillam, Prof. W(illiam) Sherman, 815 Rose St, West Lafayette, Ind. *Soil chemistry.* Chadron, Nebr, Aug. 3, 08. A.B, DePauw, 30; M.S, Nebraska, 33, Ph.D, 38. Instr. agron, Nebraska, 35–38; head dept. chem, Nebr. Wesleyan, 38–39; asst. prof. soils, Mich. State Col, 39–40; *asst. prof. agr. chem, Purdue, 40–* A.A; Soil Sci. Soc; Chem. Soc. Soil organic matter; trace elements.

Gillander, Dr. Hugh E(nglish), Jr, Roosevelt Road, Bellevue, R. D. No. 3, Pa. *Organic chemistry.* Pittsburgh, Pa, Sept. 28, 05. B.Chem, Pittsburgh, 28, Ph.D, 33. *Research chemist, tar and chem. div, Koppers Co, 33–* A.A; Chem. Soc. Tars and tar products.

Gillaspie, Dr. Athey G(raves), Box 724, Canton, N. C. *Chemistry.* Big Island, Va, April 16, 04. B.S, Lynchburg Col, 28; Cornell, 28; A.M, Duke, 30, Ph.D, 33. Research chemist, Neon Research Co, Bridgeport, Conn, 34–35; research assoc. chem, Duke, 35–36; head dept. science, Chowan Col, 36–37; *research chemist, Champion Paper and Fibre Co, 37–* Geometrical configuration of ald-chlorimines.

Gillespie, Prof. Doris Kildale, 1402 D St, Eureka, Calif. *Botany.* Eureka, Calif, July 26, 03. A.B, Stanford, 26, A.M, 27, fellow, 28, Ph.D, 31; Harvard, 30–31. Asst. bot. and biol, Stanford, 27–28, bot, 29–30; instr. bot. and geol, Calif. State Teachers Col, Humboldt, 28–29; *asst. prof.* biol, Ariz. State Teachers Col, Tempe, 32–33; *nature study, Humboldt State Col, Calif, 35–* A.A; Bot. Soc; Calif. Acad. Systematic botany; botanical survey of the Siskiyou Mountains.

Gillespie, Dr. Horace B(eaven), College of Physicians and Surgeons, 630 W. 168th St. New York, N. Y. *Chemistry.* Hancock, Mich, Sept. 29, 02. A.B, Lawrence Col, 25; M.S, Illinois, 26, fellow, 28–30, Ph.D, 30; fellow, Northwestern, 26–27. *Research chemist biochem, col. physicians and surg, Columbia, 30–* Chem. Soc. Identification of amines; stability of hexasubstituted ethanes; acetylation of potato starch and other carbohydrates; guanidine and derivatives of guanidine; action of formaldehyde on amines and amino acids; identification of alkyl halides.

Gillespie, Lieut. R(ussell) W(illiam) H(eady), Army Medical School, Washington, D. C. *Bacteriology.* Woodmont, Conn, April 20, 05. B.S, Purdue, 31; Ph.D, Yale, 35. Bacteriologist, Brock-Hall Dairy Co, New Haven, Conn, 29–30; research fellow bacter, Yale, 35–37; instr, South Dakota, 37–40, asst. prof, 40–42; bacteriologist, State Health Lab, S. Dak, 37–42; *lieut, Sanit. Corps, U. S. Army, 42–* Soc. Bact; Pub. Health Asn; S. Dak. Acad. Bacterial oxidation-reduction studies.

Gillespie, Prof. William, Princeton University, Princeton, N. J. *Mathematics.* Hamilton, Ont, Can, Nov. 3, 70. B.A, Toronto, 93; fellow, Chicago, 93–97, Ph.D, 00. Instr. *math, Princeton,* 97–05, preceptor, 05–11, prof, 11–39, *emer. prof, 39–,* master-in-res, grad. col, 23–39. A.A; Math. Soc.

Gillett, Dr. Horace W, Battelle Memorial Institute, 306 Arden Road, Columbus, Ohio. *Metallurgy.* Steuben Co, N. Y, Dec. 12, 83. A.B, Cornell, 06, Ph.D, 10. Asst. chem, Cornell, 06–07, 08–10; chemist, A. D. Little, Inc, 07–08; manager research dept, Aluminum Castings Co, 10–12; chief alloy chemist, U. S. Bur. Mines, 12–24; chief div. metal, Bur. Standards, 24–29; director, *Battelle Mem. Inst,* 29–35, *chief tech. adviser, 35–* Ed. director, 'Metals and Alloys,' 29–42. McFadden medal, Am. Foundrymen's Asn, 32. Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; Soc. Test. Mat; Soc. Metals; Foundrymen's Asn; British Inst. Metals; Iron and Steel Inst. Gt. Britain. Electric furnaces; physical metallurgy.

Gillett, Dr. R(oy) L(ewis), R. D. 1, Delmar, N. Y. *Agricultural statistics.* Hamilton, Mo, April 8, 91. B.S, Cornell, 17, Ph.D, 22. Instr. farm management, Cornell, 17–20; scientist, soil surv, U. S. Dept. Agr, 20–22; from asst. statistician to *senior statistician and director agr. statist, N. Y. State Dept. Agr. and Markets, 22–; bur. agr. econ, U. S. Dept. Agr,* 22– Mem, State War Board, N. Y, U. S. Dept. Agr, 41– Statist. Asn; Farm Econ. Asn. Statistics of dairy industry in New York; statistics of crops and live stock production and prices.

Gillette, Halbert P(owers), 1125 Oak Grove Ave, San Marino, Calif. *Engineering.* Waverly, Iowa, Aug. 5, 69. E.M, Columbia, 92. Asst. to state engineer, N. Y, 96–98; consulting engineer, 98–03; assoc. ed, 'Eng. News,' 03–04; *consulting*

engineer and ed, 'Eng. and Contracting,' 04– A.A; Civil Eng. Engineering construction; rock excavation; earthwork; roads and pavements; efficiency of workmen and machines; chemistry; management and construction engineering; weather and climatic cycles and cycles correlated therewith.

Gillette, Prof. Norman J(ohn), University of Idaho, Moscow, Idaho. *Paleobotany.* Cicero, N. Y, March 17, 11. A.B, Syracuse, 32, A.M, 33; fellow, Chicago, 34–35, Ph.D, 37. Asst, Chicago, 35–37; *asst. prof. bot, Idaho, 37–* Morphology of some American species of Psaronius.

Gillette, Prof. R(oger) H(enry), University of Michigan, Ann Arbor, Mich. *Physical chemistry.* Orange, Mass, May 14, 11. A.B, Wisconsin, 33, A.M, 34, Ph.D, 36. Teaching fellow, Wisconsin, 34–36; instr. chem. and junior chemist, Exp. Sta, California, 36–37; instr. *chem, Michigan,* 37–40, *asst. prof, 40–* A.A; Chem. Soc. Infra-red spectroscopy; electron diffraction; molecular structural theory.

Gillham, C(harles) E(dward), Federal Bldg, Juneau, Alaska. *Biology.* Edwardsville, Ill, March 8, 98. B.S, Illinois; A.M, Wisconsin; Iowa State Col. *Senior biologist, fish and wildlife service, U. S. Dept. Interior.* Ornith. Union. Distribution and migration of waterfowl; southern waterfowl studies in Mexico; big game and furbearers in Alaska.

Gilliam, Dr. W(illiam) F(arr), General Electric Co, Schenectady, N. Y. *Inorganic chemistry.* Union, S. C, Aug. 13, 13. B.S, The Citadel, 34; Ph.D, Cornell, 39. Asst. chem, Cornell, 34–39; *chemist, research lab, Gen. Elec. Co, 39–* Chem. Soc. Metallo-organic compounds of aluminum, gallium, indium and silicon.

Gillilan, Dr. Lois A(dell), University of Pittsburgh, Pittsburgh, Pa. *Anatomy, Physiology.* Mapleton, Utah, June 15, 11. A.B, Mt. Holyoke Col, 35; A.M, Vassar Col, 37; Ph.D, Michigan, 40. Asst. physiol, Vassar Col, 35–38; anat, Michigan, 40, physiol, 41, Dr. Louis Merwin Gelston fellow, 41–42; *instr. anat, Pittsburgh, 42–* Asn. Anat. Comparative neurology; removal of foreign substances from snake lung; accessory optic tracts of mammals; midbrain of mammals.

Gilliland, Prof. A(dam) R(aymond), 2426 Marcy Ave, Evanston, Ill. *Psychology.* Reinersville, Ohio, Oct. 5, 87. B.O, Muskingum Col, 12, A.B, hon. M.Eloc, 13, LL.D, 38; A.M, Ohio State, 16; fellow, Chicago, 17–19, Ph.D, 22. Asst, Ohio State, 16–17; instr. *psychol,* Dartmouth Col, 18–19, asst. prof, 19–20; Lafayette Col, 20–21, assoc. prof, 21–23; *prof, Northwestern, 23–* A.A; Psychol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn. (pres, 26); Ill. Soc. Applied Psychol. Educational measurements; measurement of character traits; experimental, genetic and general psychology.

Gilliland, Prof. E(dwin) R(ichard), Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering.* El Reno, Okla, July 10, 09. B.S, Illinois, 30; M.S, Pa. State Col, 31; Sc.D, Mass. Inst. Tech, 33. Instr. *chem. eng, Mass. Inst. Tech,* 34–36, asst. prof, 36–39, *assoc. prof, 39–* Heat transmission; diffusion; distillation; high pressure synthetic chemistry.

Gilliland, Dr. Lois G(arrett), State Welfare Home, Smyrna, Del. *Psychology.* Hockessin, Del, Sept. 19, 00. A.B, Delaware, 24; A.M, Pennsylvania, 26; Ph.D, Michigan, 29. Teacher psychol, N. J. State Nor. Sch, Trenton, 26–27; psychologist, Warren State Hosp, Pa, 27–28; mental hygiene clinic, Del. State Hosp, 29–33; *director social service, State Welfare Home, Del, 33–* Assoc. Psychol. Asn. Abnormal psychology.

Gilliland, Theodore R(edmond), 2121 Tunlaw Road, N. W, Washington, D. C. *Radio engineering.* Danville, Ill, March 16, 03. B.S, Calif. Inst. Tech, 27; M.S, Harvard, 31. Junior physicist, *Bur. Standards,* 28–30, asst. physicist, *radio wave phenomena,* 31–36, assoc. physicist, 36–41, *physicist, 41–, head group on radio wave propagation studies, 41–* Bur. Standards radio exped, N. S, Can, 32; Nat. Geog. Soc-Bur. Standards eclipse exped, Brazil, 40. Award, Wash. Acad. Sciences, 41. Assoc. Radio Eng; Int. Sci. Radio Union (sec'y-treas, Am. sect, 41–). Radio wave phenomena; properties of the ionosphere; development of radio apparatus for study of ionosphere.

Gilliland, Prof. W(illiam) L(ester), University of Maine, Orono, Maine. *Organic chemistry.* Harrington, Wash, March 29, 00. B.S, Washington (Seattle), 20, M.S, 21; Ph.D, Mass. Inst. Tech, 25. Nat. research fellow *chem,* Harvard, 25–27; instr, *Maine,* 27–31, *asst. prof, 31–* A.A; Chem. Soc; Pharmaceut. Asn. Reaction of carbon monoxide and of nickel carbonyl with Grignard reagents; metallic carbonyls; zinc alkyls.

Gillin, Prof. John (Philip), Duke University, Durham, N. C. *Anthropology.* Waterloo, Iowa, Aug. 1, 07. A.B, Wisconsin, 27, A.M, 30, Harvard, 31, traveling fellow, British Guiana, 32–33, Ph.D, 34. Instr, Sarah Lawrence Col, 33–34; mem. staff, Peabody Museum, Harvard, 34–35; instr. sociol. and anthrop, Utah, 35–36, asst. prof. and curator museum, 36–37; asst. prof. *anthrop,* Ohio State, 37–41; *assoc. prof, Duke, 41–; mem. staff, Board Econ. Warfare, Lima, Peru.* Carnegie research fellow, Yale, 40–41. Summer, asst. prof, Latin Am. Inst, Michigan, 39. Mem. cmt. S. Am. anthrop, Nat. Research Council, 41– Logan Museum exped, Algeria, 30; Lab. Anthrop. exped, Mescalero Apache, 31; leader, Harvard exped, British Guiana, 32–33, Peabody Museum exped, Ecuador, 34–35; Utah exped, 36; Peabody Museum-Utah exped, 37; Ohio State field work, Chippewa of Wis, 38, 39; Duke exped, Guatemala, 42. A.A; Anthrop. Asn. (councilor, 33–); Ethnol. Soc; Sociol. Soc. South American anthropology; Utah archeology; acculturation; psychology and culture; anthropological theory.

Gillis, Dr. Andrew C(olin), 1033 N. Calvert St, Baltimore, Md. *Neurology, Psychiatry.* Antigonish, N. S, Can, June 9, 79. B.A, St. Francis Xavier (Can), 00; M.D, Maryland, 04; A.M, Loyola Col. (Md), 11, LL.D, 24; Hopkins, 11; Berlin, 13; London, 13. *Prof. neur. and clin. psychiat, Maryland, 16–* Neuropsychiatrist, Mercy Hosp, 10–; St. Agnes Hosp, 13–; Bon Secours Hosp, 19–; consulting neuropsychiatrist, St. Joseph's Hosp, 15–; S. Baltimore Gen. Hosp; consulting neurologist, Sheppard-Pratt Hosp, Towson, 20–; instr, Hopkins, 20–28; consulting neuropsychiatrist, Alleghany Gen. Hosp, Cumberland, 23– Mem. State Board Mental Hygiene, Md. Lieut. col, M.C, 18–19, col, 24– A.A; fel. Psychiat. Asn; Asn. Mil. Surg; fel. Psychopath. Asn; fel. Col. Physicians; fel. Am. Med. Asn; Md. Psychiat. Soc; Med. and Chirurg. Faculty Md. Physiology of nerve and muscle.

Gillson, Dr. Joseph L(incoln), 8063 du Pont Bldg, Wilmington, Del. *Geology.* Evanston, Ill, Feb. 12, 95. B.S, Northwestern, 17, A.M, 20; M.S, Mass. Inst. Tech, 21, Sc.D, 23. Instr. geol, Harvard, 21–22; Mass. Inst. Tech, 22–24, asst. prof, 24–27, assoc. prof, 27–29; econ. geol, Northwestern, 29–30; *geologist, E. I. du Pont de Nemours and Co, 30–* Junior geologist, U. S. Geol. Surv, 21–25. Fel. Geol. Soc; Soc. Econ. Geol; fel. Miner. Soc. (v. pres, 31). Mineralogy; petrography and economic geology of non-metallic minerals.

Gilluly, Prof. James, University of California at Los Angeles, Los Angeles, Calif. *[6]*Geology.* Seattle, Wash, June 24, 96. B.S, Washington (Seattle), 20; Ph.D, Yale, 26. Geol. aid, *U. S. Geol. Surv,* 21–23, asst. geologist, 23–25, assoc. geologist, 25–29, geologist, 29–36, senior geologist, 36–42, *prin. geologist, 43–; prof. geol, California at Los Angeles, 38–* Div. geol. and geog, Nat. Research Council, 31–34. A.A; Asn. Petrol. Geol; Soc. Econ. Paleont; Geophys. Union (sec'y volcanology, 38–40); Seismol. Soc; Am. Geog. Soc; Geol. Soc. (chairman, Cordilleran sect, 40; councilor, 43–); Soc. Econ. Geol. (councilor, 38–40); Miner. Soc; Geol. Soc. Wash; Wash. Acad. Petrology; metamorphism; stratigraphy of Utah; economic geology of districts in New York, Utah, Oregon and Arizona.

Gillum, Prof. Helen L(ouise), University of California, Berkeley, Calif. *Nutrition.* Terre Haute, Ind, June 23, 91. A.B, Ind. State Teachers Col, 15; A.M, Columbia, 20; fellow, California, 30–33, Ph.D, 35. Teacher, schs, Ind, 15–18; chief dietitian, U. S. Pub. Health Service, 20–23; asst. prof. home econ, Ind. State Teachers Col, Terre Haute, 24–30, assoc. prof, 33–34; lecturer *household science, California,* 34–35, instr, 35–36, *asst. prof, 36–* Home Econ. Asn; Dietetic Asn. Tissue lipids; effect of vitamin deficiency upon lipid metabolism; vitamin C metabolism.

Gilman, Prof. A(lbert) F(ranklin), 948 Chicago Ave, Oak Park, Ill. *Chemistry.* Hallowell, Maine, Sept. 9, 71. B.S, Amherst Col, 97, A.M, 01; Tennessee, 02; Harvard, 03; Chicago, 05, 06; England, France and Germany, 10; Ph.D, Denver, 13. Teacher, Maine, 97–98; *prof,* Dow Acad, 98–99; chem. and physics, Maryville Col, 00–06; *chem,* Ripon Col, 06–17; Huron Col, 17–18; Ill. Wesleyan, 18–20; Carroll Col, 20–21; *Cent. Y.M.C.A. Col, 21–* Chem. Soc; Ill. Acad; Wis. Acad; S. Dak. Acad; fel. Royal Soc. Arts. Food of mountain families of east Tennessee; chlorin content of drinking water

of Ripon, Wisconsin, and vicinity; indicators for acids and alkalies; oxycellulose.

Gilman, Prof. A(lbert) F(ranklin), Jr, 5449 Woodlawn Ave, Chicago, Ill. *Chemistry.* Meriden, Conn, July 28, 00. Ph.B, Chicago, 25, A.M, 27, M.S, 38. *Asst. prof. inorg. chem, Cent. Y.M.C.A. Col, 25–* A.A; Chem. Soc. Food chemistry.

Gilman, Dr. Alfred, Yale University School of Medicine, New Haven, Conn. *Pharmacology.* Bridgeport, Conn, Feb. 5, 08. B.S, Yale, 28, Ph.D, 31. Research fellow physiol. chem, *sch. med, Yale,* 31–32, *pharmacol. and toxicol,* 32–35, asst, 35–36, *asst. prof, 36–* Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol. Gastro-intestinal physiology; salt and water metabolism; renal functions.

Gilman, Prof. Henry, Iowa State College, Ames, Iowa. *[5]Chemistry.* Boston, Mass, May 9, 93. B.S, Harvard, 15, A.M, 17, Ph.D, 18. Asst. chem, Harvard, 14–17, instr, 18–19; assoc, Illinois, 19; asst. prof. *org. chem, Iowa State Col,* 19–20, assoc. prof, 20–23, *prof, 23–* Ed. board, 'Jour. Org. Chem'; 'Org. Syntheses.' A.A. (v. pres. and chairman, sect. chem, 39; mem. cmt. grants in aid); Chem. Soc. (councilor-at-large, 39–41, 42–; mem. awards cmt; ed. board, 'Jour'). Organic chemistry; organometallic compounds; free radicals; biological action and chemical constitution of furan and other heterocycles; organomagnesium compounds in synthetic chemistry; organic syntheses.

Gilman, Prof. Herbert L(ester), Cornell University, Ithaca, N. Y. *Veterinary medicine.* Woodbury, N. Y, Oct. 26, 95. D.V.M, Cornell, 17, M.S, 20, Ph.D, 22. Asst. path. and bacter, *Cornell,* 16–17, instr. vet. obstet, 19–22, asst. prof. *vet. research, vet. exp. sta,* 22–38, *prof, 38–* Asn. Official Research Workers N. Amer; Vet. Med. Asn; N. Y. Vet. Med. Asn. Diseases of genital organs of cattle.

Gilman, Prof. Joseph C(harles), Iowa State College, Ames, Iowa. *Plant pathology.* Hastings, Nebr, March 23, 90. B.S.A, Wisconsin, 12, M.S, 14; fellow, N. Y. Bot. Garden, 13; Lackland fellow, Mo. Bot. Garden, 14; Ph.D, Washington (St. Louis), 15. Asst. plant path, Wisconsin, 12–13; prof. biol, Ripon Col, 15–18; asst. plant pathologist, Exp. Sta, *Iowa State Col,* 18–21, asst. prof. *bot,* 21–24, assoc. prof, 24–35, *prof, 35–* Summer, asst, U. S. Dept. Agr, 18. A.A; Phytopath. Soc; Soc. Plant Physiol; Bot. Soc; Iowa Acad. (sec'y, 30–41). Attack of Fusarium on cabbage; fungicidal action of formaldehyde; mycology; thermogenesis in fungi.

Gilman, Lieut. Lauren C(undiff), Greenville Army Air Field, Greenville, Miss. *Biology.* Bozeman, Mont, Nov. 24, 14. A.B, Baker, 36; univ. scholar, Hopkins, 36–37, Ph.D, 40. Asst. biol, Hopkins, 37–40, research grant, 40–41; *U. S. Army, 41–,* chem. lab. technician, sta. hosp, Camp Haan, Calif, 41–42, *chem. warfare officer, Greenville Army Air Field, 42–, 2nd lieut.* Protozoan genetics; mating types in diverse races of Paramecium caudatum.

Gilman, Prof. R(ay) E(dwin), 44 E. Manning St, Providence, R. I. *Mathematics.* Lansing, Kans, June 19, 87. A.B, Kansas, 11; fellow, Princeton, 14–16, Ph.D, 16. Asst. *math,* Kans. State Col, 11–12; instr, Princeton, 12–14; Cornell, 16–17; asst. prof, *Brown,* 19–32, *assoc. prof, 32–* Capt, C.A.C, 17–19. Math. Soc; Math. Asn. Analysis.

Gilman, Dr. Robert L(ouis), 1930 Chestnut St, Philadelphia, Pa. *Medicine.* Dubuque, Iowa, Nov. 27, 96. B.S, Wisconsin, 20; M.D, Pennsylvania, 22, M.S, 28. *Med. assoc. dermat. research, sch. med, Pennsylvania, 32–,* asst. prof. *dermat. and syphilol, grad. sch. med,* 34–38, *assoc. prof, 38–; commander, Med. Corps, U. S. Navy, 41–* Dermat. Asn; Col. Physicians Phila. Dermatology; syphilology.

Gilmer, Prof. B(everly) von Haller, Carnegie Institute of Technology, Pittsburgh, Pa. *Psychology.* Draper, Va, June 15, 09. B.S, King Col, 30; M.S, Virginia, 32, Ph.D, 34. Prof. psychol, King Col, 34–36; instr. psychol. and educ, *Carnegie Inst. Tech,* 36–37, *asst. prof. psychol, 37–* Summers, visiting prof, Virginia, 35, 36. A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Physiological psychology; new-born infants; sensitivity to mechanical vibration; electrical vibration; pressure; habits of albino rats; neuro-vascular mechanisms of the skin; temperature sensitivity.

Gilmer, Dr. Paul M(cCullough), U. S. Department of Agriculture, Tifton, Ga. *Entomology, Physiology.* Miles, Iowa, Feb. 29, 88. A.B, Monmouth Col, 08; A.M, Minnesota, 22, Ph.D, 24. Prof. chem. and physics, Pacific (Oregon), 17–18; assoc. prof. biol, N. Mex. Col, 24–26; *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 26–* Entom. Soc. Amer; Ga. Entom. Soc. (pres, 39). Morphology of lepidopterous larval body wall; ecology of the codling-moth; parasites of cotton boll-weevil; boll-weevil in relation to Sea Island cotton.

Gilmer, Prof. Tho(ma)s E(dward), Hampden-Sydney College, Hampden-Sydney, Va. *Physics.* Draper, Va, Nov. 6, 01. B.S, Hampden-Sydney Col, 23; M.S, Virginia, 26, Ph.D, 37. Instr, W. Va, 23–25, 26–27; assoc. prof. math, *Hampden-Sydney Col,* 27–34, *prof. physics, 34–* Summer, instr, Pa. State Col, 41. Physical Soc; Va. Acad. The integrating power of the eye for short flashes of light.

Gilmore, Dr. B(ernard) H(arold), H. J. Heinz Co, Pittsburgh, Pa. *Chemistry.* Piedmont, W. Va, Oct. 9, 97. A.B, West Virginia, 19; M.S, George Washington, 23; Ph.D, Ohio State, 26. Chemist, U. S. Dept. Internal Revenue, 19–23; asst, Ohio State, 23–25; research chemist, Hall Labs, Inc, Pittsburgh, Pa, 32–33; indust. fellow, Mellon Inst, 26–31, 33–41; *research chemist, H. J. Heinz Co, 41–* Inst. Food Technol; Chem. Soc. Laundering and textile processes; water-conditioning; properties of sodium metaphosphate; detergents; microbiology of food processing.

Gilmore, Charles W(hitney), U. S. National Museum, Washington, D. C. *[5]Paleontology.* Pavilion, N. Y, March 11, 74. B.S, Wyoming, 01. Collector, dept. vert. paleont, Carnegie Museum, 01–04; preparator, sect. vert. paleont, *U. S. Nat. Museum,* 04–07, custodian, 07–11, asst. curator *fossil reptiles,* 11–18, assoc. curator, 18–23, *curator, 23–* Paleont. Soc. (pres, 38); Geol. Soc; Soc. Vert. Paleont. (pres, 43); Paleont. Soc. Wash. (pres, 34); Geol. Soc. Wash; Biol. Soc. Wash. Natural science; Mesozoic reptiles.

Gilmore, John Ulysses, Box 1011, Oxford, N. C. *Entomology.* Pittsburgh, Pa, Nov. 18, 93. B.S.A, Tennessee, 20. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 20–, asst. entomologist.* U.S.A, 17–19. Tobacco insects.

Gilmore, Dr. L(eonard) N(ason), Maritime Milling Co, Buffalo, N. Y. *Poultry science.* Moline, Ill, Oct. 31, 89. B.S, Illinois, 15; Ph.D, Cornell, 34. Prof. poultry husbandry, Syracuse, 21–32; *director research and service, Maritime Milling Co, 32–* A.A; Dairy Sci. Asn; Poultry Sci. Asn. Poultry and animal nutrition and research and its application to production of commercial rations for poultry and livestock animals, including the dog; nutritional requirements of the common laboratory animals and the production of complete diets for them.

Gilmore, Prof. Lester O(dell), University Farm, St. Paul, Minn. *Dairy husbandry.* Freeborn, Minn, March 3, 10. B.S, Minnesota, 32; M.S, Kans. State Col, 33; Ph.D, Minnesota, 39. Asst. county agent, Minneapolis, Minn, 33; emergency agr. agent, Minn, 33–34; instr. dairy exten, Minnesota, 35–36, asst. *dairy husbandry,* 36–39; assoc. prof. and exten. specialist, Kans. State Col, 39–42; *asst. prof, Minnesota, 42–* A.A; Dairy Sci. Asn; Asn. Animal Production; Genetic Asn. Bovine hypophysis; causes of variation of lactation curve; color inheritance in the bovine.

Gilmore, Prof. Ralph J(ohn), Colorado College, Colorado Springs, Colo. *Zoology.* Williamsport, Pa, Dec. 18, 85. A.B, Lehigh, 07, A.M, 10; Ph.D, Cornell, 14. Instr. biol, Lehigh, 07–10; asst, Cornell, 10–11, instr. zool, 11–12; acting prof. *biol,* Western Reserve, 12–13; *prof,* Huron Col, 14–20; *Colo. Col, 20–* A.A; Colo-Wyo. Acad. (sec'y, 31–35); S. Dak. Acad. (sec'y, 15–19). Skeletal variation in Amphibia; life history of Sphaeriidae and the spadefoot toad of western plains; renal portal systems in Amphibia; biological stream surveys.

Gilmore, R(oss) E(arlby), 334 First Ave, Ottawa, Ont, Can. *Chemical engineering.* Ringwood, Ont, May 25, 88. B.A, McMaster, 11, M.A, 13; M.S, Illinois, 17. Research chemist, forest products lab, Can. Dept. Interior, 17; Can. Dept. Mines, 17–19; chief chemist, Standard Chem. Co, Montreal, 19–22; *supt. fuel research labs, Can. Dept. Mines, Ottawa, 22–* Chem. Soc; Soc. Test. Mat. (chairman, sub-cmt. coal friability); Soc. Chem. Indust. (chairman, Ottawa sect, 31–33); fel. Can. Inst. Chem. (chairman, Ottawa branch, 33–35); Eng. Inst. Can; Can. Inst. Min. and Metal. Fuel technology; classification, sizing, friability, combustion and carbonization of coal; analyses and thermal reactions on wood, peat, coals, tar oils, bituminous sands, oil shale and crude petroleum products.

Gilmour, Charles H(offman), 4013 Kirby St, S.W, South Charleston, W. Va. *Chemical engineering.* Yonkers, N. Y,

Nov. 9, 02. B.S, Syracuse, 24, M.S, 26; U. S. Bur. Mines Exp. Sta. fellow, Pittsburgh, 26–27; M.S, Carnegie Inst. Tech, 27; Mass. Inst. Tech, 27–31; nat. research fellow, 30–31. Instr. chem. eng, Syracuse, 24–26; asst. director, sch. chem. eng. practice, Boston sta, Mass. Inst. Tech, 29–30; tech. director, Miner Edgar Chem. Corp, 31–33; *chem. engineer, Carbide and Carbon Chem. Corp, 33–* Heat transfer from steam to water flowing in a tube; heat transfer from carbon dioxide and water vapor by radiation; explosibility of dusts.

Gilroy, Dr. H(elen) T(urnbull), Wilson College, Chambersburg, Pa. *Physics.* Philadelphia, Pa, May 9, 87. A.B, Bryn Mawr Col, 09, A.M, 12; Chicago, 15–17, 20–21; Ph.D, Cornell, 31. Asst. physics, Bryn Mawr Col, 10–11; instr, Mt. Holyoke Col, 12–14; demonstrator, Bryn Mawr Col, 14–15; instr, Vassar Col, 17–20, asst. prof, 21–24; Lingnan Univ, 24–27; Agnes Scott Col, 27–28; asst, Cornell, 28–31; asst. prof, Lingnan Univ, 31–34; res. doctor, Cornell, 35; *prof. physics,* Beaver Col, 37–43; *Wilson Col, 43–* Director, Freeman Meteorol. Observatory, 24–27. A.A; Physical Soc; Asn. Physics Teachers. Refractive indices of solutions of the cadmium halids; secondary radiation; spectroscopy.

Gilson, Prof. Arthur S(cott), Jr, Washington University School of Medicine, St. Louis, Mo. *Physiology.* Portland, Maine, June 30, 96. B.S, Dartmouth Col, 19; A.M, Harvard, 22, Ph.D, 24. Instr. *physiol, sch. med,* Tulane, 22–25; *Washington (St. Louis),* 25–27, asst. prof, 27–30, *assoc. prof, 30–* A.A; Physiol. Soc. Chromatophore development and reactions; electrical reactions of skeletal and cardiac muscle; vagal cardio-inhibition.

Giltner, L(eigh) T, U. S. Department of Agriculture, Washington, D. C. *Pathology, Bacteriology.* Ithaca, N. Y, Feb. 17, 84. D.V.M, Cornell, 06; M.S, George Washington, 21. Vet. inspector, *bur. animal indust, U. S. Dept. Agr,* 06–14, vet. pathologist, *senior veterinarian and asst. chief, path. div, 14–* Soc. Bact; Vet. Med. Asn. Animal bacteriology and pathology; animal diseases.

Giltner, Dean Ward, Box 151, East Lansing, Mich. *Bacteriology.* Ithaca, N. Y, April 5, 82. D.V.M, Cornell, 06; M.S, Ala. Polytech, 08; D.P.H, Michigan, 33. Instr. bacter. and asst. vet. science, Exp. Sta, Ala. Polytech, 06–08; instr. bacter. and asst. bacteriologist, *Exp. Sta, Mich. State Col,* 08–12, *prof. bacter. and hygiene and bacteriologist, 12–, dean vet. med, 23–* State veterinarian, Mich, 11–13. Vet. Med. Asn. rep, Nat. Research Council. A.A; Soc. Bact; Asn. Path. and Bact; Pub. Health Asn; Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Mich. Acad. (pres). Hygiene; glanders; hog cholera; infectious abortion of cattle; veterinary education.

Gingrich, Prof. C(urvin) H(enry), Carleton College, Northfield, Minn. *Astronomy.* York, Pa, Nov. 20, 80. A.B, Dickinson Col, 03, A.M, 05, Sc.D, 41; Ph.D, Chicago, 12. Instr. math, Baker, 07–09; *Carleton Col,* 09–12, *prof. astron. and math, 12–,* acting dean, 14–15, dean, 15–17, asst. to pres, 17–19. Summers, prof, Columbia, 29, 30; asst, McCormick Observatory, Virginia, 35. Asst. ed, 'Popular Astron,' 10–12, assoc. ed, 12–26, ed, 26– Astron. Soc; Math. Asn. Micrometric measures of comet positions; stellar photometry; celestial photography; magnitudes of comparison stars in certain of the Hagen fields; photographic positions of asteroids; parallax and proper motion of stars.

Gingrich, Prof. Newell S(hiffer), 1 Brandon Road, Columbia, Mo. *Physics.* Orwigsburg, Pa, Jan. 29, 06. A.B, N. Cent. Col, 26; scholar, Lafayette Col, 26–27, A.M, 27; fellow, Chicago, 28–30, Ph.D, 30. Instr. *physics,* Lafayette Col, 27–28; asst. prof, Mt. Allison, 30–31; instr, Mass. Inst. Tech, 31–36; asst. prof, *Missouri,* 36–39, assoc. prof, 39–43, *prof, 43–* Summer, mem. staff, Naval Ordnance Lab, 41– A.A; fel. Physical Soc; Asn. Physics Teachers. Analysis of scattered x-rays; design of x-ray apparatus; diffraction of x-rays by fluids; Fourier analysis of diffraction patterns; stabilized voltage supplies; tube counter circuits; atomic distribution in liquid elements.

Gingrich, Prof. Wendell (Daniel), University of Texas School of Medicine, Galveston, Texas. *Parasitology, Bacteriology.* Orwigsburg, Pa, 04. A.B, N. Cent. Col, 26; Rockefeller Foundation fellow, Hopkins, 27–30, Sc.D, 30. Malaria surv, Grenada, B. W. I, int. health div, Rockefeller Foundation, 29; nat. research fellow med, dept. hygiene and bacter, Chicago, 30–32; *assoc. prof. bacter, sch. med, Texas, 32–* A.A; Soc. Parasitol; Malaria Soc. (subcmt. med. research); Soc. Trop. Med; Soc. Bact; Texas Acad. Malaria; immunity; chemotherapy; blood staining; nutrition of bacteria.

Ginnings, Dr. Defoe C(hildress), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Kirksville, Mo, Sept. 23, 05. B.S, Illinois, 26, M.S, 27, Ph.D, 29. *Research chemist, Bur. Standards, 29–* Chem. Soc. Electrical conduction in solid salts; calorimetry; thermal properties of organic liquids and of steam.

Ginnings, Dean P(aul) M(eade), Greensboro College, Greensboro, N. C. *Chemistry.* Columbia, Mo, April 7, 97. B.S, Illinois, 19, M.S, 20, Ph.D, 22. Asst, Illinois, 20–21; prof. *chem,* Centenary Col, 22–24; *prof. and head dept. chem. and physics, Greensboro Col, 24–, dean instruction, 41–* Summers, prof, West. Ill. State Teachers Col, 28, 29; Guilford Col, 36; Wake Forest Col, 42. Chem. Soc. (chairman, N. C. sect, 27); N. C. Acad. (v. pres, 30, 35, pres, 37). Organic and physical chemistry; chemical education.

Ginsberg, Dr. Bernard, Standard Oil Co, Whiting, Ind. *Physical chemistry.* Marlin, Texas, Jan. 30, 03. Baylor; B.S, Chicago, 26, fellow, 27–28, Ph.D, 29. Asst. physical chem, Chicago, 28–29; *research chemist, Standard Oil Co. of Ind, 29–* A.A; Chem. Soc. Surface tension; interfacial tension; polymolecular films; adsorption; general refining of lubricating oils.

Ginsburg, Prof. Jekuthiel, 610 W. 139th St, New York, N. Y. *Mathematics.* Russia, 89. A.M, Columbia, 16. *Assoc. math, Teachers Col, Columbia, 27–; prof. and head dept, Yeshiva Col, 28–* Ed, 'Scripta Mathematica.' A.A; Math. Soc; Hist. Sci. Soc. History of mathematics; history of the theory of numbers and of mathematical instruments.

Ginsburg, Prof. Joseph M(ichel), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Biochemistry, Entomology.* Russia, 95. B.S, Pa. State Col, 22; M.S, Rutgers, 23, Ph.D, 25. Asst. plant physiol, *Rutgers,* 22–25, instr. *entom,* 25–28, asst. prof, 28–37, *assoc. prof, 37–, biochemist entom, Exp. Sta, and assoc. entomologist, N. J. Exp. Sta,* 25– A.A; Chem. Soc; Asn. Econ. Entom. Plant nutrition; soil fertility; insecticides; mosquito larvicides; economic entomology; organic chemistry.

Ginsburg, Dr. Nathan, University of Texas, Austin, Texas. *Physics.* Casey, Ill, Aug. 25, 10. A.B, Ohio State, 31, A.M, 32; Ph.D, Michigan, 35. Eng. research fellow, Michigan, 35–36; Johnston scholar, Hopkins, 36–38, asst, 38–41; Carnegie Institution, 41–42; *instr,* eng, science and management defense training course in spectroscopy, Hopkins, 41–42; *physics, Texas, 42–* Infrared spectroscopy; atomic energy levels and Zeeman effect; intensities in molecular spectrum of hydrogen; determination of steroids.

Giordano, Dr. A(lfred) S(abato), 531 N. Main St, South Bend, Ind. *Pathology.* Avellino, Italy, Feb. 3, 93. B.S, Syracuse, 18, M.D, 20; M.S, Minnesota, 22. Asst. path. anat, Mayo Clinic, 20–21; *director, South Bend Med. Lab, 22–* A.A; fel. Am. Med. Asn; Asn. Path. and Bact; Soc. Clin. Path. (sec'y-treas, 30); Chem. Soc. Etiology of acute pancreatitis; postmortem bacteriologic studies; precipitins; anatomic and pathologic study of lesions of gall bladder, pancreas and liver; the pathology of the thyroid gland; exophthalmic, toxic and non-toxic goiters.

Giragossintz, Dr. G(eorge) M, University of California, Berkeley, Calif. *Biochemistry.* Russia, Oct. 15, 03. A.B, California, 26, A.M, 32, Ph.D, 37. *Research director, Samuel Merritt Hosp, Oakland, 30–; research assoc. biochem, California, 31–* The rôle of the endocrine system in adaptation to lowered atmospheric pressure; carbohydrate metabolism.

Girardi, Dr. Daniel J(ames), University of Wisconsin, Madison, Wis. *Metallurgical engineering.* Sault Ste. Marie, Can, Oct. 30, 15. B.S, Wayne, 36; M.S, Michigan, 38, Ph.D, 41. Research engineer, Michigan, 37–39; *instr. metal. eng, Wisconsin, 41–* Soc. Metals; Min. and Metal. Eng; British Inst. Metals. Equilibrium in the reaction of carbon dioxide with molten copper.

Girden, Prof. E(dward), Brooklyn College, Brooklyn, N. Y. *Psychology.* New York, N. Y, Dec. 8, 07. A.B, West Virginia, 30; A.M, Columbia, 31; fellow, Illinois, 31–34, Ph.D, 34. Tutor *psychol, Brooklyn Col,* 34–37, instr, 37–42, *asst. prof, 42–* Guggenheim Mem. Foundation fellow, 41–42. A.A; Psychol. Asn; Soc. Exp. Biol; East. Psychol. Asn. Experimental psychology; psychoneurology.

Girshick, M(eyer) A, Bureau of Agricultural Economics, U. S. Department of Agriculture, Washington, D. C. *Mathematical statistics.* Russia, July 25, 08. A.B, Columbia, 32,

A.M, 34, 34–36. Asst. theoretical statist, Columbia, 35–37; *instr. math. statist, grad. sch, U. S. Dept. Agr, 37–*, assoc. statistician, bur. home econ, 37–40, statistician, *bur. agr. econ*, 40–42, *senior statistician, 42–* Statist. Asn; Inst. Math. Statist; Math. Soc; Econometric Soc. Statistical economics.

Girton, Prof. Raymond E(lwood), 636 Vine St, West Lafayette, Ind. *Plant physiology.* Newton, Iowa, Sept. 9, 99. B.S, California, 22, Ph.D, 26. Asst, California, 22–26, research assoc, 39–40; nat. research fellow, 26–28; asst. prof. *plant physiol, Purdue*, 28–34, assoc. prof, 34–37, *prof, 37–* Int. Educ. Board fellow, 26–27. A.A; Soc. Plant Physiol. (exec. cmt, 30, 40); Bot. Soc; Ind. Acad. Respiration of roots; physiological apparatus and methods.

Gisborne, H(arry) T(homas), 517 E. Beckwith Ave, Missoula, Mont. *Forestry.* Montpelier, Vt, Sept. 11, 93. B.S, Michigan, 17. Forest asst. admin. work, Whitman Nat. Forest, Oregon, *U. S. Forest Service*, 20–22, forest pyrology, *North. Rocky Mt. Forest and Range Exp. Sta, 22–*, forest examiner, 22–23, asst. silviculturist, 23–24, assoc. silviculturist, 24–28, silviculturist, 28–35, *senior silviculturist in charge div. forest protection, 35–* Exec. cmt, West. Int. Snow Surv. Conf, 38–43. A.A; Geophys. Union; Soc. Foresters (sec'y-treas, North. Rocky Mt. sect, 24, chairman, 29, councilor, 40–43); Meteorol. Soc; Northwest Sci. Asn. (chairman, forestry sect, 36; trustee, 39, 42). Measuring forest fire danger; lightning storm occurrence and characteristics; forest fire control.

Gish, O(liver) H(olmes), 315 Essex Ave, Chevy Chase, Md. *Geophysics.* Abilene, Kans, Sept. 7, 83. B.S, Kans. State Col, 08; A.M, Nebraska, 13; Göttingen, 13–14; Chicago, summers, 15–17. Teacher, high sch, Kans, 08–09; observer, U. S. Weather Bur, 09–10; research observer, Va, 10–11; teaching fellow physics, Nebraska, 11–13, instr. math, 14–16, physics, 16–18; research engineer, Westinghouse Elec. and Mfg. Co, 18–22; assoc. physicist, *dept. terrestrial magnetism, Carnegie Institution*, 22–27, physicist, 27–28, *chief sect. terrestrial elec, 28–, asst. director, 33–* Consulting engineer, U. S. Bur. Mines, 27–29; consulting physicist, U. S. Pub. Health Service, 29–30; mem. subcmt. on lightning hazards to aircraft, Nat. Advisory Cmt. Aeronautics, 39– A.A; Geophys. Union (sec'y, sect. meteorol, 30–35, chairman, sect. terrestrial magnetism and atmospheric elec, 35–38); Meteorol. Soc; fel. Physical Soc; Aeroarctic; Philos. Soc. Wash. (treas, 27–29, mem, gen. cmt, 30, v. pres, 33, pres, 35); Wash. Acad; Organization Météorol. Int. Terrestrial electricity; optics; ionization of gases; metrology.

Gishler, Dr. Paul Ernest, National Research Council of Canada, Ottawa, Ont, Can. *Physical chemistry.* Golden Lake, Ont, July 30, 04. B.S, Alberta, 29, M.S, 31; Ph.D, McGill, 35. *Asst. research chemist, Nat. Research Council Can*, Calgary, 31–33, *Ottawa, 33–* Pyrolysis of Alberta natural gas; the system calcium oxide–sulfur dioxide–water; refractory materials; roasting of sulphide ores.

Gisvold, Prof. Ole, University of Minnesota, Minneapolis, Minn. *Pharmaceutical chemistry.* Stanley, Wis, Sept. 24, 04. Ph.G, Wisconsin, 26, B.S, 30, M.S, 32, Lloyd fellow, 33–34, Ph.D, 34. Junior chemist, Forest Products Lab, U. S. Forest Service, 34–35; instr, *col. pharmacy*, Minnesota, 35–38, asst. prof, 38–40; *prof. pharmacy*, Ohio State, 40–41; *Minnesota, 41–* Phytochemistry.

Githens, Prof. Sherwood, Jr, Wake Forest College, Wake Forest, N. C. *Physics.* Philadelphia, Pa, Oct. 31, 08. A.B, Bucknell, 31; Princeton, 33–34; A.M, North Carolina, 33, Ph.D, 36. Instr. *physics, Wake Forest Col*, 36–37, *asst. prof, 37–; instr, Air Corps Tech. Sch, Sheppard Field, Wichita Falls, Texas.* High frequency measurements.

Githens, Dr. Thomas S(totesbury), Cambridge Apts, Alden Park, Philadelphia, Pa. *Immunology, Pharmacology.* Philadelphia, Pa, July 29, 78. M.D, Pennsylvania, 99. Assoc. physiol. and pharmacol, Rockefeller Inst, 10–19; pharmacologist, H. K. Mulford Co. and later Sharp and Dohme Co, 19–40. Lecturer, Phila. Col. Pharmacy and sch. pharmacy, Temple, 31–33. Pharmaceut. Asn; Soc. Exp. Biol; Physiol. Soc; Am. Med. Asn; Col. Physicians Phila. Anesthesia in strychnine poisoning; relative effects of ether and chloroform on circulation and respiration; influence of cardiectomy and of decerebration on action of convulsant drugs on frogs; physiologic assay of drugs; influence of ergotoxin on body temperature; antipyretics; digitalis; diphtheria toxoid and antitoxin; snake venom and antivenin.

Givan, Prof. C(harles) V(ernon), 44 College Park, Davis, Calif. *Irrigation engineering.* Sacramento, Calif, Aug. 25, 04. A.B, Stanford, 25, Engineer, 33. Asst. construction engineer, Carmichael Irrig. Dist, Calif, 26; junior hydraul. engineer, state div. water resources, Calif, 26; tech. asst, *California*, 26–27, junior irrig. engineer, 27–33, *asst. irrig. engineer, 34–, asst. prof. irrig, 38–* Assoc. Civil Eng; Meteorol. Soc; Geophys. Union. Physical and economic aspects of water supply problems, particularly irrigation; hydraulics; motion of ground water; pumping plants.

Given, Dr. Guy C, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Auburn, Maine, May 2, 87. B.S, N. Mex. Col, 06; M.S, Pa. State Col, 10; Ph.D, Göttingen, 14. Asst. chemist, Pa. State Col, 07–10, asst. prof. chem, 10–15, assoc. prof, 15–17; research chemist, Atlas Powder Co, 17–19, director, Stamford Exp. Lab, 19–25; *asst. chem. supt, fabrics and finishes dept, E. I du Pont de Nemours and Co, 25–* A.A; Chem. Soc; Chem. Eng. Industrial chemistry; bacteriology.

Givens, Dr. J(ames) Wallace, Jr, Northwestern University, Evanston, Ill. *Mathematics.* Alberene, Va, Dec. 14, 10. B.S, Lynchburg Col, 28; du Pont fellow, Virginia, 30–32, M.S, 31; J. S. K. math. fellow, Princeton, 33–35, Ph.D, 36. Asst, Kentucky, 28–29; part-time instr, Princeton, 35–36; asst, Inst. Advanced Study, 35–37; instr. *math*, Cornell, 37–41; *Northwestern*, 41–42, *asst. prof, 42–* Math. Soc; Math. Asn. Geometry; tensor algebra.

Givens, Dr. John W(ilkinson), 144 Purdue Ave, Berkeley, Calif. *Chemistry.* Roxbury, N. Y, Feb. 19, 11. B.S, California, 32, Ph.D, 35. *Research chemist, Shell Develop. Co, Emeryville, Calif, 35–; Ordnance Dept, U. S. Army, 40–, capt.* A.A; Chem. Soc; Physical Soc. Photochemistry; use of physicochemical methods in agricultural research; petroleum technology; physics and chemistry of surfaces; physics and chemistry of explosives.

Givens, Dr. Maurice H(ope), Northwestern Yeast Co, Chicago, Ill. *Physiological chemistry.* Pittsburg, Ky, Dec. 9, 88. Ph.B, Yale, 09, Ph.D, 17. Instr. biochem, med. col, Cornell, 09–14; asst. biochemist, U. S. Pub. Health Service, 14–16; asst. physiol. chem, Sheffield Sci. Sch, Yale, 16–17, asst. and Seessel fellow, 17–18; asst. prof. biochem, Rochester, 18–19; biochemist, West. Pa. Hosp, 19–21; *chief biochemist, Northwest. Yeast Co, 21–* Special investigator, bur. chem, U. S. Dept. Agr, 18–19. A.A; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Purin metabolism; metabolism and gastric studies of pellagra; calcium and magnesium metabolism; dried foods; the antiscorbutic vitamin; chemistry of blood of mother and fetus; calcium and magnesium content of human fetus; toxemia of pregnancy; yeast.

Givens, Dr. M(iles) P(arker), Pennsylvania State College, State College, Pa. *Experimental physics.* Richmond, Va, June 9, 16. B.S, Richmond, 37; Ph.D, Cornell, 42. Teaching asst, Cornell, 37–42; *instr. physics, Pa. State Col, 42–* Optical properties of copper and beryllium.

Givler, Prof. J(ohn) P(aul), 1209 W. Market St, Greensboro, N. C. *Zoology.* Paola, Kans, Aug. 4, 82. Ph.B, Hamline, 06, A.M, 12; Hopkins, 06–07, 09–10; Columbia, 16–17; Yale, 18. Prof. *biol*, Southwestern Col. (Kans), 07–09, 11–16; instr, Haverford Col, 10–11; instr, Col. City of N. Y, 16–17; Tennessee, 17–18; *prof. and head dept*, N. C. Col. for Women, 20–32, *Woman's Col, North Carolina, 32–*, chairman faculty math. and sciences, 23–34. Summers, Hopkins, 12–14. Lieut, Sanit. C, 18–20. A.A; N. C. Acad. (v. pres, 23, pres, 25). Evolution; genetics; crustacean morphology; embryology of the horned lizard; relation between art and morphology.

Givler, Prof. R(obert) C(henault), 226 College Ave, Tufts College, Mass. *Psychology.* Ft. Scott, Kans, Dec. 1, 84. A.B, Hamline, 06; A.M, Harvard, 13. Walker fellow, 13–14, Ph.D, 14. Instr. psychol, Washington (Seattle), 14–17; Harvard, 18–19; asst. prof. philos. and psychol, *Tufts Col*, 19–22, prof, 22–25, Fletcher prof, 25–28, *Hunt prof. psychol, 28–* Psycho-physiological effects of speech elements in poetry; motor theory.

Gjullin, C(laude) M(elvin), 438 U. S. Court House, Portland, Oregon. *Entomology.* Little Falls, Minn, May 16, 03. B.S, Mont. State Col, 30; M.S, Oregon State Col, 36. Agent, *bur. entom. and plant quarantine, U. S. Dept. Agr*, 30–42, *assoc. entomologist, 42–* Asn. Econ. Entom. Biology, control and taxonomy of mosquitoes.

Gladden, Prof. Sanford C(harles), 1004 S. 11th St, Oxford, Miss. *Physics.* Whiting, Mo, July 6, 02. A.B, Mississippi, 24; M.S, Kentucky, 28. Instr. *physics*, N. C. State Col,

28–29; *asst. prof,* Clemson Col, 29–30; *Mississippi, 30–* A.A; Physical Soc; Asn. Physics Teachers; Miss. Acad. Laboratory apparatus; determination of refractive index of a liquid; photometry.

Gladding, E(rnest) K(night), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Newport, R. I, Aug. 16, 88. B.S, Worcester Polytech, 10. Chemist, du Pont Co, 10–15, acid supt, Wash, 15–18, plant supt, Tenn, 18–19, chem. director, dye works, 19–20; supt, du Pont Rayon Co, Buffalo, 20–24, asst. production manager, 24–25, production manager, 25–28, gen. manager tech. dept, New York, 28–30, Buffalo, 30–32, asst. gen. manager, 32–36; asst. manager, du Pont Co, 36–38; *manager, nylon div, E. I. du Pont de Nemours and Co, 38–* A.A; Chem. Soc; Am. Geog. Soc. Patents.

Gladding, Dr. Jeanne K(itenplon), Massachusetts Institute of Technology, Cambridge, Mass. *Organic chemistry.* Aurora, Ill, Oct. 23, 15. B.S, Mass. Inst. Tech, 38, Ph.D, 41. *Research assoc, research lab. org. chem, Mass. Inst. Tech, 41–* Chem. Soc. Synthesis of vitamin A; synthesis of heterocyclic nitrogen compounds.

Glading, Dr. Ralph E(dmond), 301 Fairview St, Luke, Md. *Chemistry.* Lorain, Ohio, March 16, 12. A.B, Oberlin Col, 36; M.S, Lawrence Col, 38, Ph.D, 40. *Research chemist, W. Va. Pulp and Paper Co, 40–* Chemistry of pulp, paper, cellulose and derivatives.

Gladson, Dr. W(illiam) N(athan), 820 W. Maple St, Fayetteville, Ark. *Engineering.* Corning, Iowa, Feb. 22, 66. B.M.E, Iowa State Col, 88, E.E, 11; Ph.D, McLennorsville Col, 98. Erecting engineer, Thomson-Houston Co, 88–90; Westinghouse Elec. and Mfg. Co, 90–92; asst. prof. elec. eng, Ohio State, 92–93; prof, Arkansas, 94–37, v. pres. and dean eng, 13–37; *retired.* Assoc. Naval Consulting Board, Ark. Elec. Eng; Electrochem. Soc; Eng. Educ. Water power of Arkansas rivers.

Gladstone, Dr. M(artell) M(aurice), 6126 Ellis Ave, Chicago, Ill. *Chemistry.* Russia, Dec. 17, 12. B.S, Chicago, 33, M.S, 35, Ph.D, 36. Research Corp. fellow chem, Chicago, 36–40; *research chemist, Emulsol Corp, 40–* Fel. Inst. Chem; Chem. Soc. Peroxide effect in olefine addition reactions; halogenation of alkyl halides; ergot and oxytocics; emulsifying agents.

Glancy, Dr. A(nna) Estelle, Sturbridge, Mass. *Optics.* Waltham, Mass, Oct. 29, 83. A.B, Wellesley Col, 05; Ph.D, California, 13. Asst. astron, California, 10–13; asst. astronomer, Argentine Nat. Observatory, Cordoba, 13–18; *asst, research dept, Am. Optical Co, 18–* Optical Soc; Astron. Soc. Geometrical optics; astronomy.

Glancy, Warren E(ugene), 75 Riverview Ave, Waltham, Mass. *Chemistry.* Waltham, Mass, Dec. 8, 90. B.S, Mass. Inst. Tech, 13. Asst. anal. chem, Mass. Inst. Tech, 13–14; anal. chemist, *Hood Rubber Co,* 14–15, tire chemist, 15–19. research chemist, 19–20, chief chemist, 20–22, *lab. manager, 22–* A.A; Chem. Soc; Soc. Test. Mat. The influence of compounding ingredients in hard rubber; rate of combination of sulfur with rubber in hard rubber; abrasion testing; rubber footwear testing.

Glanville, Prof. A(lbert) Douglas, University of Maine, Orono, Maine. *Psychology.* Auburn, N. Y, Jan. 5, 06. A.B, Cornell, 27, scholar, 28–30, Ph.D, 32; scholar, Illinois, 27–28, A.M, 28. Asst. psychol, Cornell, 30–32, Merriam fellow, 33; senior research fellow, The Training Sch, Vineland, 33–36; instr. *psychol, Maine,* 37–41, *asst. prof, 41–* Psychologist, Del. State Hosp, 36–37. Psychol. Asn. Experimental and clinical psychology; attention; visual perception; motor activities; automobile driving tests.

Glarum, Dr. Sivert N, Rohm and Haas, 222 W. Washington Square, Philadelphia, Pa. *Chemistry.* Elberta, Mich, April 11, 08. Olivet Col, 25–28; A.B, Kalamazoo Col, 29; Jesse Metcalf fellow, Brown, 31–32, Ph.D, 33. Asst. chem, Brown, 30–31; *research assoc.* Asn. Textile Chem. and Colorists, 33–37; *Rohm and Haas Co, 37–* Chem. Soc; Asn. Textile Chem. and Colorists. Textile research and development.

Glasebrook, Dr. Arthur L(awrence), Experiment Station, Hercules Powder Co, Wilmington, Del. *Physical chemistry.* Chicago, Ill, Oct. 22, 09. B.S, Michigan, 32; Ph.D, Hopkins, 34. *Research chemist,* Gen. Motors Corp, 34–42; *Exp. Sta, Hercules Powder Co, 42–* Chem. Soc; Eng. Soc. Detroit. Pyrolysis and isomerization of hydrocarbons; analytical fractionation; physical properties of pure hydrocarbons.

Glaser, Dr. Elizabeth B(ertha), 211 N. New Hampshire Ave, Los Angeles, Calif. *Biochemistry.* Nuremberg, Germany, Aug. 12, 09. B.S. and M.S, Munich, 34; Ph.D, Prague, 36. Research chemist, Fratelli Corti, Milan, Italy, 36–37; H. Runge and Co, Berlin, 37–38; prof. chem, Mercyhurst Col, 38–40; prof. and head dept, Clarke Col, 40–41; *research chemist, Don Baxter, Inc, 41–* Chem. Soc. Medicinal biochemistry; plastics chemistry.

Glaser, Prof. Otto (Charles), 233 S. Pleasant St, Amherst, Mass. *[2]Biology.* Wiesbaden, Germany, Oct. 13, 80. A.B, Hopkins, 00, fellow, 03–05, Ph.D, 04; A.M, Amherst Col, 22. Demonstrator embryol, comp. anat. and biol, Col. Physicians and Surg, Maryland, 01–03; instr. zool, Michigan, 05–08, asst. prof, 08–14, junior and assoc. prof, 14–18; Stone prof. *biol, Amherst Col,* 18–39, *E. S. Harkness prof, 39–* Lecturer, New Sch. for Social Research, 22–24. Summers, asst, U. S. Fisheries and N. C. Geol. Surv, 01–02; marine biologist, Gulf Biol. Sta, La, 03; instr, Marine Biol. Lab, Woods Hole, 05–07, trustee, clerk, 42– A.A; Soc. Nat; Soc. Exp. Biol; Soc. Zool; Physiol. Soc; Soc. Develop. and Growth; N. Y. Acad. Physiology of development; embryonic heart rates; growth; biogeometry; molecular biology.

Glaser, Dr. R(udolf) W(illiam), Rockefeller Institute, Princeton, N. J. *Entomology, Zoology.* Catonsville, Md, 88. A.B, Michigan, 11; Sc.D, Harvard, 14. Asst. entom, Harvard, 11–13; entomologist, bur. entom, U. S. Dept. Agr, 12–20; *Rockefeller Inst, 20–, assoc. mem.* Summers, asst. biologist, Md. Shell Fish Cmn, 09, 10. A.A; Entom. Soc. Amer; Soc. Parasitol; Wash. Acad; Cambridge Entom. Club. Physiology, pathology, bacteriology, protozoology and mycology of insects; virus diseases in insects; intracellular symbionts and rickettsiae; cultivation of Protozoa in the pure state; nematode parasites of insects.

Glasgow, Dr. Beulah Ennis (Mrs. Hugh Glasgow), 665 Castle St, Geneva, N. Y. *Ecology.* Petersburg, Ill, June 21, 94. A.B, Ill. Col, 16; Ph.D, Yale, 25. High schs, Ill, 16–20; instr, Newcomb Col, Tulane, 20–21; high sch, Conn, 21–23; Wellesley Col, 25–28; prof. bot, Lindenwood Col, 28–36; *curator, Geneva Nature Museum, 37–* Adviser, Endicott Col, 39–Summer, N. C. Col. for Women, 28. Life forms.

Glasgow, Dr. Hugh, New York Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Tennessee, Ill, Nov. 17, 84. A.B, Illinois, 08, Ph.D, 13. Asst. entom, Illinois, 12–13, instr, 13–14; assoc. entomologist, *N. Y. Exp. Sta, Geneva,* 14–28, chief research entom, 28–38, *entomologist, 38–* A.A; Entom. Soc; Asn. Econ. Entom. Economic entomology.

Glasgow, Dr. Robert Douglass, State Department of Education, Albany, N. Y. *Entomology.* Tennessee, Ill, April 3, 79. A.B, Illinois, 08, scholar, 08–09, fellow, 11–12, Ph.D, 13. Asst. entom, Illinois, 09–11, instr, 13–24, assoc, 24–28; *state entomologist, N. Y, 28–* Asst, State Nat. Hist. Surv, Ill, 05–06, 12–13. Summers, instr, Illinois, 09, 16–23, 24; asst, State Nat. Hist. Surv, Ill, 06–09, 12–15, 27. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc. Physiology and ecology of insects.

Glasgow, Prof. R(oy) S(tanley), Washington University, St. Louis, Mo. *Radio engineering.* St. Louis, Mo, May 20, 95. B.S, Washington (St. Louis), 18; M.S, Harvard, 22. Instr. *elec. eng, Washington (St. Louis),* 18–21, asst. prof, 22–28, assoc. prof, 28–37, *prof, 37–, chairman dept, 38–; radio consultant, U. S. War Dept, 42–* Radio Eng; Elec. Eng. Radio frequency amplifiers.

Glasoe, Dr. Alf M(elius), 340 Oakridge Drive, Rochester, N. Y. *Physical chemistry.* Spokane, Wash, Oct. 26, 09. A.B, St. Olaf Col, 30; M.S, N. Y. Univ, 32, Ph.D, 35. Teaching fellow, N. Y. Univ, 30–34; *research chemist,* Muralo Co, Staten Island, N. Y, 34–35; *Eastman Kodak Co, 35–* Chem. Soc. Photometry of color changes in cobalt solutions; physicochemical problems connected with the production of photographic film base; photographic problems in connection with reversal processes and color photography.

Glasoe, Dr. G. Norris, 60 Long Ave, Belmont, Mass. *Physics.* Northfield, Minn, Oct. 29, 02. A.B, St. Olaf Col, 24; A.M, Wisconsin, 26, Ph.D, 30. Instr. physics, St. Olaf Col, 28–29; Wisconsin, 30–31; Columbia, 31–41, *research assoc, Mass. Inst. Tech, 41–* Fel. Physical Soc; Asn. Physics Teachers. Contact potential difference between iron and nickel and their photo-

electric work functions; cyclotron; radioactive products in the fission of uranium.

Glasoe, Dr. Paul K(irkwold), 132 Dake Ave, Rochester, N. Y. *Photographic chemistry.* Northfield, Minn, Nov. 22, 13. A.B, St. Olaf Col, 34; Ph.D, Wisconsin, 38. Instr. gen. chem, Wisconsin, 38; Illinois, 38–39; *research chemist, Eastman Kodak Co, 39–* Chem. Soc. Factors involved in the preparation of colloidal gold solutions for use in the Lange test; acid catalysis in cyclohexylamine and butylamine; analytical methods for photographic developers.

Glasoe, Prof. P(aul) M(aurice), St. Olaf College, Northfield, Minn. *Chemistry.* Spring Grove, Minn, Aug. 24, 73. A.B, Minnesota, 97, fellow, M.S, 98, Ph.D, 02. Asst. chem, Minnesota, 95–97, instr, 98–01; chem. and physics, St. Olaf Col, 01–02, prof, 03–07, chem, 10–16; pres, Spokane, 07–10; Augustana Col. (S. Dak), 16–18; *prof. chem. and v. pres, St. Olaf Col, 18–* A.A; Chem. Soc. Derivatives of camphor oxim; periodic system as a basis for instruction.

Glass, Dr. Dudley B(rewer), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Shawnee, Okla, April 19, 12. A.B, Georgetown Col, 35; univ. fellow, Illinois, 38–39, Ph.D, 39. Asst. chem, Illinois, 35–38; *research chemist, Eastman Kodak Co, 39–* Chem. Soc. Optical activity; polymerization; synthetic chemistry.

Glass, Prof. H(iram) Bentley, Goucher College, Baltimore, Md. *Genetics.* Laichowfu, Shantung, China, Jan. 17, 06. A.B, Baylor, 26, A.M, 29; Ph.D, Texas, 32. Teaching fellow, Baylor, 29; nat. research fellow genetics, Oslo, Kaiser-Wilhelm Inst. and Missouri, 32–34; instr. zool, Stephens Col, 34–38; asst. prof. *biol, Goucher Col, 38–42, assoc. prof, 42–* Research assoc. bur. educ. research in science, Teachers Col, Columbia, 36–37. A.A; Genetics Soc; Genetic Asn; Soc. Zool. Mutation; effect of light on bioelectric phenomena in Elodea; genetics of dominant eye-color mosaics in Drosophila; segregation in translocations; unstable genes; genes and the man.

Glass, Dr. H(ugh) Bryson, 5 Prospect Place, New York, N. Y. *Chemistry.* Montgomery, Ala, June 29, 03. B.S, Washington and Lee, 26; du Pont fellow, Hopkins, 28–29, Ph.D, 29. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29; Swann Research, Inc, Anniston, Ala, 30–31; Wallace, Tiernan Co, Newark, N. J, 32; fellow by courtesy, Hopkins, 33–34; private research, 34–35; research director, Swann and Co, 35–40; *tech. director, F. W. Berk and Co, 41–* Fel. Inst. Chem; Chem. Soc. Organic chemistry.

Glass, Jewell J(eannette), U. S. Geological Survey, Washington, D. C. *Geology, Mineralogy.* Meridian, Miss, Dec. 24, 98. A.B, George Washington, 26, A.M, 29. Teaching fellow, North Carolina, 29–30; asst. petrol, *U. S. Geol. Surv,* 30–34, junior geologist, 34–39, asst. mineralogist, 39–43, *assoc. mineralogist, 43–* Geophys. Union; fel. Miner. Soc; Geol. Soc. Wash. Petrology.

Glass, Prof. L(eroy) C(onrad), 322 N. Monroe St, Moscow, Idaho. *Zoology, Genetics.* Tipton, Ind, Nov. 18, 93. B.S, Purdue, 21; M.S, Wisconsin, 23; Columbia, 23–24; Chicago, 27, 29; Michigan, 29–30. Teacher, high sch, Ill, 21–22, 24–25; prof. biol. and head dept. science, McMurry Col, 25–29; *asst. prof. zool, Idaho, 30–, head dept, 43–* Asst. biologist, Bur. Fisheries surv, Idaho, 34. A.A; Genetics Soc; Genetic Asn; Eugenics Soc; Asn. Research Human Heredity; Northwest Sci. Asn. (sec'y, bot-zool. sect, 35); Mich. Acad; N. Y. Acad. Mammalian genetics as related to human problems; human inheritance; genetics of domestic animals.

Glass, Dr. Stanley W(arren), 2619 Brookview Blvd, Parma, Cleveland, Ohio. *Chemistry.* Belding, Mich, June 7, 99. B.S, Kalamazoo Col, 22; A.M, Harvard, 24; Ph.D, Brown, 26. *Research chemist, Nat. Carbon Co, 26–* A.A; Chem. Soc. Physical chemistry.

Glasser, Dr. Otto, 2040 E. 93rd St, Cleveland, Ohio. *Biophysics.* Saarbruecken, Germany, Sept. 2, 95. Ph.D, Freiburg, 19. Asst. and instr, radiol. inst, Freiburg, 19–21; inst. for physical foundations med, Frankfurt, 22; biophysicist, Howard Kelly Hosp, Baltimore, 22–23; Cleveland Clinic Foundation, 23–24; asst. prof. biophys, N. Y. Post-Grad. Med. Sch, Columbia, 25–27; *biophysicist and head dept. biophys, Cleveland Clinic Foundation, 27–* Consulting biophysicist, Univ. Hosps, Western Reserve; prof, F. E. Bunts Educ. Inst, 37– Gold medal achievement award, Radiol. Soc. N. Amer, 36. A.A; Radiol. Soc. N. Amer; Roentgen Ray Soc; Soc. Exp. Biol; fel. Physical Soc; Hist. Sci. Soc. (councilor, 36–39); Asn. Hist. Med; hon. mem. Cleveland Radiol. Soc. (v. pres, 31); Deuts. Physik. Gesell; cor. mem. Deuts. Röntgen Gesell; Gesell. für Tech. Physik; Gesell. Natur. und Aerzte. Biological and physical effects of all types of radiation, especially roentgen rays and gamma-rays of radium; physical foundations of radiation therapy; construction of dosimeters; history of the roentgen rays; medical physics.

Glasstone, Prof. Samuel, University of Oklahoma, Norman, Okla. *Physical chemistry.* London, Eng, March 5, 97. B.Sc, London, 16, M.Sc, 20, Ph.D, 22, D.Sc, 26. Lecturer physical chem, London, 19–21; Univ. Col. of Southwest, 21–28; Univ. Sheffield, 28–39; research assoc. chem, Princeton, 39–41, sci. ed, univ. press, 41–42; prof. chem, Oklahoma, 42–43. Chem. Soc; Electrochem. Soc; Chem. Soc. London (publication cmt, 35–38). Oxides of lead; solubility influences; equilibria in salt solutions; overvoltage; electrolytic oxidation; electrodeposition of metals; molecular compounds; reaction kinetics; dissociation constants of acids and bases.

Glathart, Prof. J(ustin) L(eon), Shurtleff College, Alton, Ill. *Physics.* Findlay, Ohio, March 25, 03. B.S, Case, 25; M.S, Michigan, 31; Ph.D, Chicago, 39. Instr. *physics,* Williams Col, 25–29, 31–35; Michigan, 29–31; asst, Chicago, 36–38; *prof. and head dept, Shurtleff Col, 38–* A.A; Physical Soc; Asn. Physics Teachers. The inner, initial magnetic permeability of iron and nickel at ultra-high radiofrequencies.

Glattfeld, Prof. J(ohn) W(illiam) E(dward), University of Chicago, Chicago, Ill. *Chemistry.* Quincy, Ill, April 19, 83. B.S, Dartmouth Col, 07, M.S, 10; Ph.D, Chicago, 13. Instr. *chem,* Dartmouth Col, 09–10; *Chicago,* 13–18, asst. prof, 19–28, *assoc. prof, 28–,* dean col. arts, lit. and science, 23–31. Research assoc, desert lab, Carnegie Institution, 20. A.A; Chem. Soc. Oxidation of sugars; saccharinic acids.

Glaze, Prof. J(ohn) A(rthur), Kansas State Teachers College, Pittsburg, Kans. *Psychology.* Aiken, S. C, March 13, 92. B.S, Kans. State Col, 23, M.S, 24; Ph.D, Michigan, 28. Asst. prof. *psychol,* Colo. Col, 26–27; instr, Michigan, 27–28; prof. and head dept, Texas Christian, 28–31; *prof, Kans. State Teachers Col, Pittsburg, 31–* Fatigue and fasting; nonsense syllables; behavior in ants.

Glazier, Prof. Harriet E(udora), University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* Haverhill, N. H, March 3, 70. A.B, Mt. Holyoke Col, 96; A.M, Chicago, 08. Instr. *math,* Mt. Holyoke Col, 96–97; Western Col, 97–98, asst. prof, 98–01, prof, 01–20; asst. prof, *California at Los Angeles,* 20–40, *emer. asst. prof, 40–* Math. Soc; Math. Asn. Arithmetic for teachers.

Glazner, Prof. J(ohn) F(rank), 511 Pelham Road, Jacksonville, Ala. *Geography.* Collinsville, Ala, March 30, 84. B.S, Alabama, 18, M.S, 19; Ph.D, Peabody Col, 34. Chief chemist, Semet-Solvay Co, 19–21; *Ala. State Teachers Col, Jacksonville, 21–, prof. geog. and head dept.* Summer, operating chemist, Muscle Shoals. Geography of the Great Appalachian Valley of Alabama.

Gleason, Dr. A(nthony) H(owe), 532 Colonial Ave, Westfield, N. J. *Chemistry.* Boston, Mass, Dec. 17, 05. B.S, Dartmouth Col, 26; A.M, Princeton, 27, Ph.D, 29. *Research chemist, Standard Oil Develop. Co, 29–* Chem. Soc. Organic chemistry.

Gleason, Clark H(ough), 330 Giannini Hall, University of California, Berkeley, Calif. *Forestry.* Grand Rapids, Mich, May 12, 06. A.B, Oberlin Col, 28, A.M, 29. Ecologist, Inst. Forest Genetics, Placerville, Calif, 30–32; *mem. staff, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 33–* Soc. Foresters. Forest influences; flood control; revegetation for erosion control of mountain areas denuded by forest fires; watershed management.

Gleason, Dr. H(enry) A(llan), New York Botanical Garden, Bronx Park, New York, N. Y. ***Botany.* Dalton City, Ill, Jan. 2, 82. B.S, Illinois, 01, A.M, 04; fellow, Ohio State, 04–05; Ph.D, Columbia, 06. Curator herbarium, Illinois, 00–04, asst. *bot,* 01–03, instr, 03–04, 06–09, assoc, 09–10; asst. prof, Michigan, 10–16, assoc. prof, 16–19; 1st asst, *N. Y. Bot. Garden,* 19, asst. director, 20–24, curator, 24–32, *head curator, 32–,* deputy director, 35–36, acting director, 36–38, *asst. director, 38–* Director biol. sta, Michigan, 13–15, bot. gardens and arboretum, 15–19. Ed. board, 'Ecol. Monographs,' 30–34; assoc. ed, 'Bot. Rev,' 35– Bot. Soc. (treas, 33–35, v. pres, 36); Ecol. Soc; Torrey Bot. Club (assoc. ed, 24–, v.

pres, 33–35); Asn. Geog; Soc. Plant Taxon. (pres, 37); Bot. Soc. Czechoslovakia. Phytogeography; plant ecology; systematic botany of northern South America.

Gleason, Prof. Josephine M(ixer), Vassar College, Poughkeepsie, N. Y. *Psychology.* North Adams, Mass, Oct, 92. A.B, Vassar Col, 14; fellow, Cornell, 17, Ph.D, 18. Asst. *psychol,* Vassar Col, 14–16; instr, Cornell, 18; asst. prof. and *assoc. prof, Vassar Col, 18–, chairman cmt. admission, 30–* Psychol. Asn.

Gleason, Prof. Paul R(ay), 26 Payne St, Hamilton, N. Y. *Physics.* Corona, Calif, Feb. 10, 99. A.B, Redlands, 21; A.M, Harvard, 23, Ph.D, 29. Lecturer *physics* and head dept, Judson Col, Burma, 23–25; instr, Harvard, 28–29; asst. prof, *Colgate, 29–37, prof, 37–, acting head dept, 33–* Summers, instr, Harvard, 30–32. Acoustical Soc; Physical Soc; Optical Soc; Asn. Physics Teachers. Reflecting power in the extreme ultra-violet; fluorescent and photoelectric phenomena in the extreme ultra-violet; applications of barrier-layer photocells to photometry and to x-ray measurements; architectural acoustics.

Gleason, Prof. R(utherford) E(rwin), Temple University, Philadelphia, Pa. *Mathematics.* A.B, Stanford; Ph.D, Princeton. *Prof. math, Temple, 24–* Math. Soc. Analysis.

Gleeson, Prof. G(eorge) W(alter), Oregon State College, Corvallis, Oregon. *Chemical engineering.* Granite, Oregon, March 1, 05. B.S, Oregon State Col, 28, M.S, 34, Chem.E, 36. Eng. exp. sta. fellow, *Oregon State Col,* 28–29, instr. mech. and materials, 29–32, asst. prof. *chem. eng,* 32–36, assoc. prof. in charge dept, 36–37, *prof. and head dept, 37–* Chem. Eng; Chem. Soc; Farm Chemurgic Council. Unit operations of chemical engineering; industrial processes; metallurgy; engineering materials; applications of chemistry to industrial processes in the fields of sanitation, metallurgy, materials and gas generation.

Gleim, Dr. C(lyde) E(dgar), 14 N. Maple St, Akron, Ohio. *Chemistry.* Wheelersburg, Ohio, July 22, 13. B.S, Ohio (Athens), 35; M.S, Ohio State, 38; Ph.D, Pa. State Col, 41. Asst, Ohio (Athens), 35; asst. shift control chemist, Sharple Solvents, 35–36, research chemist, 36; storeroom asst, Ohio State, 36–38; asst, Pa. State Col, 39–41; *research chemist, Goodyear Tire and Rubber Co, 41–* Chem. Soc. Organic research and new products development; synthesis of new monomers in a synthetic rubber program; synthesis of new monomers for preparation of transparent glass-like resins.

Glen, Dr. Robert, 202 Clarence Ave, S, Saskatoon, Sask, Can. *Entomology.* Paisley, Scotland, June 20, 05. B.Sc, Saskatchewan, 29, M.Sc, 31; Caleb Dorr fellow, Minnesota, 31–32, Shevlin fellow, 32–33, Ph.D, 40. Insect pest investigator, *Dom. Entom. Lab,* 28–31, junior entomologist, 32, asst. entomologist, 32–37, *asst. agr. scientist, 37–* Wireworm control in the Prairie Provinces; morphology and taxonomy of the larval Elateridae.

Glendinning, Prof. Robert M(orton), University of California at Los Angeles, Los Angeles, Calif. *Geography.* Butte, Mont, April 14, 05. A.B, Michigan, 27, A.M, 30, Ph.D, 33. Sch. supt, Mich, 25–26, supervisor and instr, high sch, 27–29; asst. chief, State of Mich. Surv, Isle Royale, 30; instr. geog, Michigan, 29–34; assoc. geographer, Tenn. Valley Authority, 34–36; asst. prof. *geog, California at Los Angeles,* 36–42, *assoc. prof, 42–* A.A; Asn. Geog; Am. Geog. Soc; Meteorol. Soc; Nat. Council Geog. Teachers (sec'y, Mich. council, 30); Mich. Acad. (chairman geog. sect, 31). Regional geography and planning; land utilization and classification.

Glenk, Robert, 2407 Jefferson Ave, New Orleans, La. *Chemistry, Geology.* Esslingen, Germany, July 6, 70. Ph.G, Phila. Col. Pharmacy, 91, hon. Ph.M, 31; Pennsylvania, 98; B.S, Louisiana, 99. Green Chem. Co, 92–96; chemist, La. Sugar Exp. Sta, 99–06; *curator in charge, La. State Museum,* 06–35, dept. nat. science, 35–40, *tech. director, 40–, ed, 'Nat. Hist. Surv. Bul.'* Sci. adviser, dept. geol, State Dept. Conservation, La, 18–26. Am. advisory board, Yenching Univ, Peiping, China. Asst. state commissioner, Buffalo and Charleston expositions, 01–02; La. Purchase Expos, 04; Portland Expos, 05; Jamestown Expos, 07; Panama-Pacific Expos. A.A; Chem. Soc; Asn. Mus; Pharmaceut. Asn; La. Chem. Soc. (v. pres, 30); La. Hist. Soc. (sec'y, 11–17, ed, 'Proc'); La. Soc. Nat; La. Entom. Soc; Wis. Archeol. Soc; hon. mem. New Orleans Soc. Plant Sci. (pres, 42); New Orleans Acad. (pres, 33). Louisiana lignite; perfumes and aromatic chemicals; smokeless fuels.

Glenn, Prof. Earl R(ouse), New Jersey State Teachers College, Montclair, N. J. *Physics.* Vevay, Ind, June 12, 87. A.B, Indiana, 13; A.M, Columbia, 28. Teacher, Ind, 09–15; high sch, Ill, 15–17; Lincoln sch, Teachers Col, Columbia, 17–28, instr. nat. sciences, Teachers Col, 20–28; *prof. physics, N. J. State Teachers Col, Montclair, 28–* Asst, Chicago, 16. Ed, 'Science Educ.' Mem. cmt. lab. apparatus, Nat. Research Council. A.A; Physical Soc; Chem. Soc. (chairman, cmt. on chem. teaching, 24–29); assoc. Radio Eng; Educ. Research Asn; Cent. Asn. Sci. and Math. Teachers; Ind. Acad. An inventory of learning in physics; instruction and achievement tests in physics; chemistry and general science; laboratory designs; education of science teachers.

Glenn, Dr. Frank, 525 E. 68th St, New York, N. Y. *Surgery.* Ill, Aug. 7, 01. M.D, Washington (St. Louis), 27. Gorham Peters traveling fellow from Harvard, Edinburgh and surg. clinics, Europe and Orient, 31–32; asst. surg, *med. col, Cornell,* 32–33, instr, 33–35, research fellow, 35–36, assoc. *clin. surg,* 36–38, asst. prof, 38–41, *assoc. prof, 41–; major, Med. Corps, U. S. Army.* Am. Med. Asn; fel. Col. Surg; Surg. Asn; Soc. Univ. Surg. (sec'y, 38–40; pres, 41); Harvey Soc; N. Y. Surg. Soc; N. Y. Acad. Med. Experimental hypertension; transplantation of the pancreas; vascular surgery.

Glenn, Prof. L(eonidas) C(halmers), Vanderbilt University, Nashville, Tenn. *Geology.* Crowders Creek, N. C, Sept. 9, 71. A.B, South Carolina, 91; Ph.D, Hopkins, 99. Adj. prof. geol. and biol, South Carolina, 99–00; *geol, Vanderbilt,* 00–03, *prof, 03–* Prof, George Peabody Col, 14; asst. geologist, U. S. Geol. Surv, 00–08; assoc. geologist, Tenn. Geol. Surv; special work, N. Y, Md. and N. C. Geol. Surveys; coal work, Ky. Geol. Surv; geologist, Sinclair Oil Co, 16–17; special agent oil and gas valuation, U. S. Int. Revenue, 18–19; geologist, Red River boundary dispute, U. S. Dept. Justice, 19–21; consulting geologist, Tenn. Valley Authority, 35–; Eng. C, U. S. Army. A.A; Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Conchol. Soc; Min. and Metal. Eng; Geol. Soc. Wash; Tenn. Acad; Ky. Acad. Miocene paleontology; Devonian and Carboniferous stratigraphy; oil and gas; physiographic geology; initial stream development; bibliography and cartography of North and South Carolina geology; Appalachian coal field geology; denudation and erosion in southern Appalachians; river flood plains; stream changes; boundaries.

Glenn, Dr. Oliver E(dmunds), 127 McKinley Ave, Lansdowne, Pa. *[3]Mathematics.* Moorefield, Ind, Oct. 3, 78. A.B, Indiana, 02, A.M, 03; fellow, Pennsylvania, 03–05, Ph.D, 05. Prof. math, Drury Col, 05–06; instr, Pennsylvania, 06–10, asst. prof, 10–14, prof, 14–30. Assoc. ed, 'Am. Math. Monthly,' 05–06. Math. Soc. (councilor, 14–17, assoc. ed, 'Trans,' 21–23); Ind. Acad. Theory of invariants and of celestial mechanics; group theory; factorable forms; theory of numbers; optics.

Glenn, Dr. T(homas) H(algh), 107 N. Ardmore Ave, Los Angeles, Calif. *Bacteriology, Physiological chemistry.* Salt Lake City, Utah, Aug. 18, 79. A.B, Chicago, fellow, 08, Ph.D, 10; M.D, Northwestern, 13. Bacteriologist, Sanit. Dist, Chicago, 09; instr. bacter, med. sch, Northwestern, 10–11; prof. path. and bacter, Southern California, 16–17; *practising physician, 17–* A.A; Soc. Bact; fel. Am. Med. Asn. Bacterial content of milk; germicidal activity of cows' milk; variation of bacilli of proteus group; composition of invertase; bacterial vaccines.

Glenn, Prof. W(illiam) D(arby), Jr, 34 Wright Place, Tenafly, N. J. *Psychology.* York, S. C, March 9, 00. A.B, North Carolina, 21, A.M, 22, Ph.D, 31. Teaching fellow psychol, North Carolina, 21–22; asst, State Board Charities and Pub. Welfare, N. C, 23; inst. research social sciences, North Carolina, 24–27; instr. *psychol, Wash. Sq. Col, N. Y. Univ,* 28–34, *asst. prof, 34–; U. S. Navy.* Individual differences in the applied field of clinical psychology; a social and psychometric study of a cacogenic family.

Gleysteen, Dr. Leland F(rederic), 309 Holly Ave, Takoma Park, Md. *Chemistry.* Alton, Iowa, Oct. 4, 11. A.B, Grinnell Col, 32; Ph.D, Brown, 36. Instr. chem, Brown, 36–37; *research assoc,* Textile Foundation, 37–41; *U. S. Cane Sugar Refiners' research project, Bur. Standards, 41–* Chem. Soc. Conductance of solutions of electrolytes; physical properties of starch pastes;* physical chemistry of textile materials; physical and chemical nature of bonechar and charcoals; adsorption.

Glick, Dr. D(avid), Russell-Miller Milling Co, Minneapolis, Minn. *Chemistry.* Homestead, Pa, May 3, 08. B.S, Pitts-

burgh, 29, Ph.D, 32. Asst. chem, Pittsburgh, 29–32; Hernsheim fellow chem, Mt. Sinai Hosp, N. Y, 32–34; chief chemist, Mt. Zion Hosp, San Francisco, 34–36; visiting research chemist and Rockefeller fellow, Carlsberg Lab, Denmark, 33, 36–37; chief chemist, Newark Beth Israel Hosp, 37–42; war research, Mt. Sinai Hosp, 42–43; *head enzyme and vitamin research, Russell-Miller Milling Co, 43–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Esterase and lipase enzymes; vitamins; histological chemistry; choline and alkaloid ester enzymes; cereal chemistry.

Glick, Prof. Dudley P(eters), Colorado State College, Ft. Collins, Colo. *Bacteriology.* Pickaway Co, Ohio, Nov. 14, 05. A.B, Ohio State, 27, A.M, 32, Ph.D, 37. Asst. *bacter*, Ohio State, 29–32; asst. prof, *Colo. State Col*, 32–40, *assoc. prof, 40–* A.A; Pub. Health Asn; Dairy Sci. Asn; Potato Asn: Inst. Food Technol; Soc. Bact; Water Works Asn; Rocky Mt. Sewage Works Asn; Colo-Wyo. Acad; Colo. Pub. Health Asn. (pres, 41); Colo. Soc. Bact. (pres, 39); Colo. Tuber. Asn. (director). Microbiology of ceramic materials; bacterial ring rot of potato; sanitation and public health education; deterioration of disinfectants.

Glick, Prof. H(arry) N(ewton), 30 N. Hadley Road, Amherst, Mass. *Psychology.* Bridgewater, Va, Feb. 10, 85. A.B, Bridgewater Col, 13; A.M, Northwestern, 14; Ph.D, Illinois, 24. Prin, pub. sch, Va, 06–09; teacher, high sch, Ill, 14–17; *prof. psychol*, Mass. Col, 23–35, *Mass. State Col, 35–* Intelligence and aptitude testing; guidance.

Glick, Perry A(aron), Box 1218, Federal Bldg, Waco, Texas. *Economic entomology.* Hamilton, Mo, Dec. 21, 95. A.B, Illinois, 21, M.S, 22. Asst, Illinois, 21–22; asst. entomologist, State Cmn. Agr. and Hort, Ariz, 22–23; plant quarantine inspector, Fed. Hort. Board, New York, 23–25; asst. entomologist, south. field crop insect investigations, bur. entom, *U. S. Dept. Agr*, 25–36, *div. cotton insect investigations*, coastal plain exp. sta, 36–39, *bur. entom. and plant quarantine*, 39–43, *assoc. entomologist, 43–* A.A; Asn. Econ. Entom; Entom. Soc; Phytopath. Soc; N. Y. Entom. Soc; fel. Texas Acad. Migration and dissemination of insects; insect damage to cotton with reference to soil conservation.

Glidden, Dr. Kenneth E(ugene), 252 Denmark St, Berlin, N. H. *Chemistry.* South Berwick, Maine, Dec. 22, 06. B.S, New Hampshire, 29; Brown Co. fellow, Hopkins, 29–33, Ph.D, 32. Asst. chem, Hopkins, 32–33; instr, Conn. State Col, 33–34; *research chemist, Brown Co, 34–* Fel. Inst. Chem. Pulp and paper chemistry; adsorption at a mercury-solution interface.

Gliddon, Prof. G(ordon) H(arkness), Dartmouth College, Hanover, N. H. *Physiological optics.* Rochester, N. Y, Dec. 9, 94. B.S, Rochester, 15, M.S, 18; Ph.D, Dartmouth Col, 26. Instr, high sch, N. Y, 15–16; physics, Rochester, 16–18; lens designer, Eastman Kodak Co, 18–23; instr. physiol. optics, Rochester Sch. of Optometry, 20–23; asst. physics, Dartmouth Col, 23–24; prof. *physiol. optics*, Rochester Sch. of Optometry, 24–26; research fellow, *Dartmouth Col*, 26–29, asst. research prof, 29–37, *assoc. research prof, 37–* A.A; Optical Soc; Asn. Research Ophthal. Replica of the human eye and the retinal image; ocular measurements; size and shape of ocular images; corresponding retinal points; horopter.

Globus, Dr. J(oseph) H(aim), 960 Park Ave, New York, N. Y. *Neurology.* Russia, Nov. 25, 85. B.S, Columbia, 15; M.D, Cornell, 17. Asst. anat, N. Y. Univ, 10–11, physiol, 11–12; asst. and instr. anat, med. col, Cornell, 12–17; asst. prof. neuro-anat, N. Y. Univ, 23–27, assoc. prof. neuro-anat. and neuropath, 27–39; consulting neurologist and neuropathologist, Southside Hosp; John Mather Mem. Hosp; New Brunswick Hosp; assoc. neurologist, *Mt. Sinai Hosp, neuropathologist.* Exec. ed, 'Jour. Neuropath. and Exp. Neur.' A.A; Neur. Asn; Asn. Anat; Am. Med. Asn; N. Y. Acad. Med. Histopathology of gliogenous and other brain tumors; clinico-anatomy of vascular inflammatory and degenerative diseases of the central nervous system; malformation in the central nervous system.

Glock, Prof. Waldo S(umner), 5012 Ventnor Road, Washington, D. C. *Ecology, Geology.* Vinton, Iowa, Aug. 20, 97. Chicago, 19; A.B, Iowa, 20; Ph.D, Yale, 25. Asst, Iowa, 20–22; Yale, 22–23, instr. hist. geol, 24; geol. and physiog, Ohio State, 24–31; research assoc. and mem. staff, div. plant biol, Carnegie Institution, 31–38; instr. geol, *Texas Tech*, 38–40, asst. prof, 40, *assoc. prof, 41–; capt, Air Corps, U. S. Army.* Junior geologist, U. S. Geol. Surv, 20–36; Univ. Iowa nat. hist. exped, Fiji and New Zealand, 22. A.A; Geol. Soc; Bot. Soc. Paleoclimatology; physiography of drainage systems; quantitative aspects of topographic relief and relation to land form; algae and tree rings as climatic indicators; tree-ring dating; climatic cycles; anatomy and ecology of tree growth.

Glockler, Prof. Geo(rge), State University of Iowa, Iowa City, Iowa. **6*Chemistry, Physics.* Munich, Germany, Sept. 7, 90. B.S, M.S, Washington (Seattle), 15, Denny fellow, 15–16; Ph.D, California, 23. Anal. and consulting chemist, Japan, 16–21; teaching fellow, California, 22–23; nat. research fellow, Calif. Inst. Tech, 23–26; Petrol. Inst. research assoc, Minnesota, 26–29, assoc. prof. inorg. chem, 29–33, physical chem, 33–36, prof, 36–40; *prof. chem. and chem. eng. and head dept, Iowa, 40–* Research assoc, Naval Research Lab, Washington, D. C. Mem. subcmt. elec. insulation, Nat. Research Council. A.A; Chem. Soc; fel. Physical Soc. Resonance and ionization potentials; chemical activation by electrical discharge and by controlled electrons; light scattering by solids, liquids and gases; thermodynamic properties of gases.

Glomset, Dr. Daniel J(ohnson), 604 Locust St, Des Moines, Iowa. *Medicine.* Norway, Dec. 12, 81. B.S, Chicago, 09, M.D, Rush, 11. Instr. histol, Northwestern, 09; prof. path, Drake, 11–13; research fellow, German Univ, Prague, 14; pathologist, Des Moines, Iowa, 15–16; *practising physician.* M.R.C, 17–19, major. Col. Physicians; Heart Asn; Iowa Clin. Soc; Polk Co. Med. Soc. (pres, 41); Inst. Med. Chicago. Internal medicine; anatomy of the heart.

Gloor, W(alter) E(rvin), Hercules Powder Co, Wilmington, Del. *Chemistry.* Cleveland, Ohio, Nov. 9, 07. B.S, Case, 29, Chem.E, 34. Research chemist, exp. sta, *Hercules Powder Co*, Kenvil, N. J, and Wilmington, Del, 29–36, *chemist, Parlin, N. J, 36–* Chem. Soc. Cellulose esters; plastics.

Glover, Dr. Alan M(arsh), Radio Corp. of America, Lancaster, Pa. *Physics.* Rochester, N. Y, Sept. 26, 09. A.B, Rochester, 30, A.M, 32, Ph.D, 35; Cornell, 33. Physics dept, Inst. Paper Chem, Lawrence Col, 35–36; research and develop. lab, RCA radiotron div, RCA Mfg. Co, Harrison, N. J, 36–43, *engineer in charge special purpose tube dept*, 41–43, *RCA Victor div, Radio Corp. of Amer, 43–* Physical Soc; Radio Eng; Optical Soc. Anomalous dispersion; photoelectric emission; secondary emission; gaseous conduction.

Glover, Prof. Geo(rge) H(enry), 1015 W. Mountain Ave, Ft. Collins, Colo. *Animal pathology.* Eagle Grove, Iowa, April 2, 64. B.S, Colo. Agr. Col, 84, M.S, 05; D.V.M, Iowa State Col, 85. Prof. *vet. med.* and head dept, Colo. Agr. Col, 99–34, *emer. prof. and emer. head dept*, 34–35, *Colo. State Col, 35–, director vet. sect, Exp. Sta, 07–* Vet. Med. Asn. (pres, 11); Colo. Vet. Med. Asn. (pres, 14). Brisket disease of cattle; poisonous plants; lamb losses in feed lots; hog cholera; Bangs disease.

Glover, Sheldon L(atta), 517 O'Farrell Ave, Olympia, Wash. *Geology.* Tacoma, Wash, Dec. 24, 91. B.S, Washington (Seattle), 19, M.S, 21. Aid, Wash. Geol. Surv, 17, geologist, 19–21; consulting geologist, 21–28; res. manager and geologist, explor. and mining co, 28–34; chief geologist, *div. geol, State Dept. Conservation and Develop, Wash*, 34–35, *asst. supervisor, 35–, supervisor div. mines and mining, 41–* Assoc, Washington (Seattle), 21, 24, 25. Lieut, U.S.A, 17–19. Min. and Metal. Eng; Asn. Petrol. Geol; Northwest Sci. Asn. Mineral resources; clays and shales for ceramic use; oil and gas.

Gloyd, Dr. Howard K(ay), Chicago Academy of Sciences, Chicago, Ill. *Zoology.* De Soto, Kans, Feb. 12, 02. B.Sc, Ottawa, 24, hon. D.Sc, 42; M.S, Kans. State Col, 29; Ph.D, Michigan, 37. Instr. biol, Ottawa, 24–27; zool, Kans. State Col, 27–29; Michigan, 29–36; *director museum, Chicago Acad. Sciences, 36–* Consultant, Ill. State Nat. Hist. Surv. Advisory council, Southwest. Monuments Asn. A.A; Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp. (v. pres, 39); Wilson Ornith. Club (sec'y, 25–28); Ill. Acad; Texas Acad. Reptiles; taxonomy, distribution, life history and biology of North American snakes, especially Crotalidae.

Gloyer, W(alter) O(scar), 106 Lyceum St, Geneva, N. Y. *Plant pathology.* Milwaukee, Wis, Jan. 29, 86. A.B, Wisconsin, 09, A.M, 10. Asst. botanist, Ohio Exp. Sta, 10–12; *assoc. research, N. Y. Exp. Sta, Geneva, 12–* A.A; Phytopath. Soc; Wis. Acad. Apple cankers and scab; diseases of China asters, cabbage, beans and cultivated plants; hard-shell of seed and population studies of the hardshell character.

Gluecksohn-Schoenheimer, Dr. Salome, Columbia University, New York, N. Y. *Zoology.* Danzig, Germany, Oct. 6, 07. Ph.D, Freiburg, 31. Research fellow *zool,* Freiburg, 31–32; asst, Berlin, 32; *research assoc, Columbia, 36–* Soc. Zool; Genetics Soc. Genetics and development; experimental embryology.

Glynn, Dr. J(ohn) H(ubert), Armour and Co, Union Stock Yards, Chicago, Ill. *Bacteriology.* Chicago, Ill, Nov. 3, 02. B.S, Chicago, 28, M.D, 34; M.Sc, McGill, 31. Lecturer bacter, McGill, 34–37; bacteriologist, chem. research dept. labs, *Armour and Co,* 37–38, *med director labs, 38–* Histology of bacterial infections; safety control of biologicals.

Gobble, Prof. Carl Flindt, 426 Littleton St, West Lafayette, Ind. *Animal husbandry.* Abbington, Iowa, Sept. 7, 85. B.S.A, Iowa State Col, 11, hon. M.Agr, 20. From instr. to assoc. prof. *animal husbandry, Purdue,* 11–32, *prof, 32–* Soc. Animal Production. Pedigree of Shorthorn, Aberdeen-Angus and Hereford cattle; marketing of livestock.

Goble, Prof. A(lfred) T(heodore), Alfred University, Alfred, N. Y. *Physics.* River Falls, Wis, Jan. 24, 09. A.B, Wisconsin, 29, Ph.D, 33. Asst. *physics,* Wisconsin, 29–33, research assoc, 33–34; instr, Tulsa, 34–35, *asst. prof,* 35–37; *Alfred, 37–* Visiting asst. prof, Princeton, 42–43. Physical Soc; Asn. Physics Teachers. Theoretical spectroscopy.

Goble, Dr. F(rans) C(leon), State Conservation Department, Delmar, N. Y. *Animal pathology, Parasitology.* Chicago, Ill, July 11, 13. B.S, Battle Creek Col, 33; M.S, Michigan, 34, Sc.D, 39. Teaching fellow parasitol, Rice Inst, 34–35; tech. asst. histol, Michigan, 35–38; *pathologist, bur. game, State Conservation Dept, N. Y, 38–* Summer, asst, Michigan, 34. Soc. Parasitol; Soc. Mammal; Wildlife Soc. Histopathology of helminthic infections; lungworms of mammals; parasitism and disease in game birds, game mammals and furbearers.

Gochenour, Dr. W(illiam) S(ilva), Pitman-Moore Co, Zionsville, Ind. *Bacteriology, Pathology.* York, Pa, Sept. 22, 91. D.V.M, Pennsylvania, 13. Practising vet. med, 13–15; vet. inspector, field service, bur. animal indust, U. S. Dept. Agr, 15–17, bacteriologist and pathologist, path. div, 17–26; pres. and director, Gochenour-Collins Labs, Washington, D. C, 26–28; bacteriologist and pathologist, path. div, bur. animal indust, U. S. Dept. Agr, 28–38; *director biol. labs, Pitman-Moore Co, 38–* Vet. Med. Asn. Veterinary bacteriology and pathology; hemorrhagic septicemia; anthrax; blackleg.

Godbey, Prof. C(hauncey) B(arger), Agricultural and Mechanical College of Texas, College Station, Texas. *Genetics.* Middleburg, Ky, Aug. 21, 95. B.S, Kentucky, 25; M.S, Agr. and Mech. Col. Texas, 26. Asst. prof. *genetics, Agr. and Mech. Col. Texas,* 26–30, assoc. prof, 30–36, *prof, 36–* A.A; Poultry Sci. Asn. Poultry husbandry; animal genetics.

Godbey, Prof. J(ohn) C(ampbell), Southwestern University, Georgetown, Texas. *Chemistry.* Monroe Co, Mo, July 4, 82. A.B, Cent. Col. (Mo), 04, A.M, 05; Missouri, 05; Vanderbilt, 08–10; Leipzig, 11–12. Teacher, pub. sch, Mo, 05–08; Cent. Col. (Mo), 10–13; Southern (Ala), 13–17; *prof. chem. and biol, Southwestern (Texas), 17–, head dept. chem. and chairman div. nat. and applied sciences, 43–* A.A; fel. Inst. Chem; Chem. Soc. (chairman, cent. Texas sect, 28); fel. Texas Acad. (pres, 35). General chemistry; water gas and its residue; history of mercury; camphor from cedar leaves; slide rule for correcting gas volume; general chemistry laboratory manual.

Godbout, Hon. J. Adélard, Parliament Bldgs, Quebec, Que, Can. *Agriculture.* St. Eloi, Que, Sept. 24, 92. Rimouski Col, Que; Ecole Supérieure d'Agr, Que; Mass. Agr. Col; hon. D.Sc, Laval; hon. D.C.L, McGill. Prof. Ecole Supérieure d'Agr, Que, 18–22, prof. zootechny, 25–29; county agronomist, L'Islet, 22–25; *M.L.A, L'Islet,* 29–36, *39–*; Minister Agr, *Que,* 30–36, *Prime Minister, pres, Exec. Council, and Minister Agr. and Colonization, 36–* Hon. prof, faculty agr, Laval, 40. Commandèr Mérite Agricole, France. Asn. Can. Agron; Can. Soc. Tech. Agr. Animal breeding and feeding; apple growing.

Goddard, Dr. David R(ockwell), University of Rochester, Rochester, N. Y. *Botany, Plant physiology.* Carmel, Calif, Jan. 3, 08. A.B, California, 29, A.M, 30, fellow, 30–32, Ph.D, 33. Asst. and teaching fellow, California, 28–33; nat. research fellow *bot,* Rockefeller Inst, 33–35; instr, *Rochester,* 35–38, asst. prof. and acting chairman dept, 38–41, *assoc. prof. and chairman dept, 41–* Guggenheim Mem. Foundation fellow, 42–43. Mem. science council, Rochester Museum Arts and Sciences. Bot. Soc; Soc. Plant Physiol; Rochester Acad. (chairman pub. board, 'Proc'). Plant respiration; fermentation; respiratory enzymes; metabolism of fungi; physiological pathology.

Goddard, Dr. E(dwin) N(ewell), U. S. Geological Survey, Washington, D. C. *Economic geology.* Oshkosh, Wis, Oct. 22, 04. A.B, Michigan, 27, M.S, 28, Ph.D, 36. Instr. geol, Michigan, 28–30; junior geologist, *U. S. Geol. Surv,* 30–34, asst. geologist, 34–39, assoc. geologist, 39–43, *geologist, 43–* Geol. Soc; Miner. Soc; Soc. Econ. Geol; Geol. Soc. Wash. Ore deposits of mining districts in Colorado; geology of the Front Range, Colorado; geology of Judith Mountains, Montana; strategic minerals.

Goddard, Prof. Henry H(erbert), 1638 Granville St, Columbus, Ohio. **Psychology.* Vassalboro, Maine, Aug. 14, 66. A.B, Haverford Col, 87, A.M, 89, LL.D, 32; Ph.D, Clark, 99. Instr, Southern California, 88; prof. psychol. and pedag, Pa. State Nor. Sch, West Chester, 99–06; director psychol. research, Training Sch, Vineland, N. J, 06–18; Ohio Bur. Juvenile Research, 18–22; prof. *abnormal and clin. psychol, Ohio State,* 22–38, *emer. prof, 38–* Acting prof, Haverford Col, 00–01; lecturer, N. Y. Univ, 08–16. Summers, asst. and lecturer, Clark, 97, 98, 03; Southern California, 25, 27, 29, 35. A.A; Psychol. Asn; Asn. Mental Deficiency; hon. mem. Hungarian Psychol. Soc; Soc. belge de Pedotech; Leningrad Sci. Med. Soc. The psychology of faith cures; growth and heredity of feeble-minded children; delinquency; causes and consequences of feeble-mindedness; psychology of the normal and subnormal; training of defective children; human efficiency and levels of intelligence; education of gifted children.

Goddard, Dr. H(enry) N(ewell), Route 2, Madison, Wis. *Entomology.* Winnebago, Ill, Oct. 30, 67. Ph.B, Michigan, 93, Ph.D, 11. Prof. science, Wis. State Teachers Col, Oshkosh, 93–06; biol, Carroll Col, 06–09; head dept, Wis. State Teachers Col, Superior, 11–13; supervisor high schs, State Dept. Educ, Wis, 13–20; sch. supt, Chippewa Falls, Wis, 20–22; prof. biol, West. State Teachers Col, Mich, 23–39; *retired.* A.A; Micros. Soc; Mich. Acad; Mich. Audubon Soc. Nature study; agriculture for high schools; junior high school science; the teaching of biology; general biology.

Goddard, Prof. Richard H(alsey), Dartmouth College, Hanover, N. H. *Astronomy.* New London, Conn, March 13, 97. B.S, Dartmouth Col, 21; A.M, Yale, 30. Observer, dept research in terrestrial magnetism, Carnegie Institution, 21–27; instr. *astron, Dartmouth Col,* 27–34, *asst. prof. and director, Shattuck Observatory, 34–* Observer-in-charge, Huancayo Magnetic Observatory, Peru, 26–27. Magnetic observer for Carnegie Institution, MacMillan exped, Baffin Land, 21–22; MacMillan exped, North Greenland, 23–24; in charge magnetic observations, Carnegie Institution total solar eclipse party, 25. Astron. Soc. Terrestrial magnetism; summary of the parallaxes of fifteen stars; photometric observations of Uranus.

Goddard, Prof. Robert H(utchings), 1 Talawanda Drive, Worcester, Mass. and Mescalero Ranch, Roswell, N. Mex. **Physics.* Worcester, Mass, Oct. 5, 82. B.S, Worcester Polytech, 08; hon. fellow, Clark, 10–11, A.M, 10, Ph.D, 11. Instr. *physics,* Worcester Polytech, 08–09; Princeton, 12–13; instr. and hon. fellow, *Clark,* 14–15, asst. prof, 15–19, *prof, 19–, director physics lab, 23–* Guggenheim Foundation grant, rocket research, Roswell, N. Mex, 30–32, 34– A.A; Physical Soc; Meteorol. Soc; Inst. Aeronaut. Sci; Geophys. Union; Aeronaut. Asn. Electrical conduction of powders; crystal rectifiers; mechanical force on dielectrics in a magnetic field; interference colors in clouds; balancing of aeroplanes; production of gases by electrical discharges in vacuum tubes; method for researches at very high altitudes; rockets and jet propulsion.

Goddard, Prof. Verz R(ogers), University of California at Los Angeles, Los Angeles, Calif. *Home economics.* Columbus, Ohio, Dec. 24, 97. A.B, Radcliffe Col, 21; Ph.D, Yale, 27. Instr. physiol, Wellesley Col, 26–28, asst. prof, 28–30; *home econ, California at Los Angeles,* 30–42, *assoc. prof, 42–* A.A; Chem. Soc. Foods and nutrition; plant hemagglutinins.

Godeke, Prof. H(arry) F(rederick), Texas Technological College, Lubbock, Texas. *Mechanical engineering.* Olney, Ill, Jan. 31, 82. B.S, Illinois, 05, M.E, 16, M.S, 18. Instruction staff, Illinois, 05–18; chief engineer, Fisk Rubber Co, 18–30; *prof. mech. eng, Texas Tech. Col, 30–* Steam engineering.

Gödel, Dr. Kurt, Institute for Advanced Study, Princeton, N. J. **Mathematics.* Brunn, Czechoslovakia, April 28, 06. Ph D, Vienna, 30. Venia legendi and privat-docent, Vienna, 33–38; lecturer, Notre Dame, 38–39; *mem, Inst. Advanced Study,* 33–34, 35–36, 38–39, *40–* Mathematical logic.

Godfrey, Dr. Albert B(arney), U. S. Department of Agriculture, Washington, D. C. *Poultry genetics.* Gaffney, S. C, May 14, 06. B.S, Clemson Col, 28; M.S, Maryland, 32, Ph.D, 42. Junior poultry husbandman, *bur. animal indust, U. S. Dept. Agr,* 28–35, asst. poultry husbandman, 35–39, *assoc. poultry geneticist, 39–* Poultry Sci. Asn. Relative efficiency of selection of poultry breeding stock by means of individual performance, sib test and progeny test; inheritance of rate of feathering, body weight, egg quality and egg production.

Godfrey, Dr. Edward S(ettle), Jr, State Department of Health, Albany, N. Y. *Epidemiology.* Ft. Yates, N. Dak, Aug. 16, 78. M.D, Virginia, 00. Supt. health, Ariz, 08–12; epidemiologist, State Board Health, Ill, 16–17; *State Dept. Health, N. Y,* 17–20, director div. communicable diseases, 20–31, asst. commissioner local health admin, 31–36, *commissioner, 36–* Prof, Albany Med. Col, Union (N. Y), 20–31; clin. prof, col. physicians and surg, Columbia, 28–35. Mem. tech. board, Milbank Mem. Fund, 42– Mem. State Cmn. Study Prevalence and Facilities of Cancer and Treatment, N. Y, 37–39. A.A; Epidemiol. Soc. (pres, 34); Am. Med. Asn; Pub. Health Asn. (councilor, 28–42, chairman, sect. epidemiol, 31, pres, 39); Tuber. Asn; Soc. Control Cancer (director, 38–); Soc. Pub. Admin; Am. Acad. Polit. and Social Sci; N. Y. Acad. Med. Measles; diphtheria; poliomyelitis; syphilis; public health administration.

Godfrey, Dr. G(eorge) H(arold), Lower Rio Grande Experiment Station, Weslaco, Texas. *Plant pathology.* Madison, Kans, Oct. 28, 88. B.S, State Col. Wash, 13; M.S, Iowa State Col, 17; Ph.D, Wisconsin, 23. Asst. plant path, Exp. Sta, Oregon State Col, 13–14; sci. asst, bur. plant indust, U. S. Dept. Agr, 14–16, 18, asst. pathologist, 19–20, pathologist, 20–24; The Bayer Co, 24–26; nematologist, Asn. Hawaiian Pineapple Canners, 26–32; private research, 32–35; specialist on nematodes, div. entom. and parasitol, California, 35–36; *plant pathologist, Lower Rio Grande Exp. Sta, Agr. and Mech. Col. Texas, 37–* A.A; Phytopath. Soc. (assoc. ed, 29–31); Hawaiian Bot. Soc. (pres, 30). Nematode diseases of plants; seed and soil disinfectants; truck crop, cotton and citrus pathology.

Godfrey, Theodore B(ruce), National Bureau of Standards, Washington, D. C. *Physics.* Waukegan, Ill, March 14, 02. A.B. and A.M, Wisconsin, 25. *Physicist, Bur. Standards, 28–* Ordnance research, Nat. Defense Research Cmt. Gas thermometry; combustion phenomena in internal-combustion engines; viscosity of water.

Godlove, Dr. I(saac) H(ahn), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry, Physics.* St. Louis, Mo, June 13, 92. B.S, Washington (St. Louis), 14, A.M, 15; fellow, Illinois, 17, Ph.D, 26. Assoc. prof. chem, Oklahoma, 21–25; director research, Munsell Color Co, Baltimore, 26–30; director exhib. on color, N. Y. Museum of Science and Indust, 30–31; *special color ed, Webster's Int. Dictionary, 31–; physicist and chemist, dyestuffs div, E. I. du Pont de Nemours and Co, 35–* Ed, Inter-Soc. Color Council. Trustee, Munsell Color Foundation, 43– Asn. Textile Chem. and Colorists (chairman color cmt); Optical Soc. (colorimetry cmt). Measurement and specification of color.

Godsil, H(arry) C(arr), State Fisheries Laboratory, Terminal Island, Calif. *Fisheries.* Chefoo, China, May 7, 02. A.B, California, 26. *Fisheries research, State Div. Fish and Game, Calif, 28–* Fisheries; sardines and tunas.

Godwin, Dr. Francis W(ood), Armour Research Foundation, 35 W. 33rd St, Chicago, Ill. *Chemical engineering.* Washington, D. C, Sept. 8, 10. A.B, San Diego State Col, 33; M.S, Iowa, 34, Ph.D, 37. Research chemist, Iowa, 33, teaching asst. chem. and chem. eng, 34–37; director coal research, *Armour Research Foundation,* 37, director chem. eng. research, 38–41, *asst. director, 41–,* in charge econ. and indust. field surv, Argentina, 42. Consulting engineer and tech. adviser waste disposal, Chicago, Ill; chief of staff, State Fuel Lab, Iowa, 35–37. Chem. Soc; Chem. Eng. Chemical engineering processes; coal; food products; wastes; ultra-speed photography.

Godwin, Prof. M(elvin) C(rawford), West Virginia University School of Medicine, Morgantown, W. Va. *Embryology, Anatomy.* Moores Hill, Ind, Nov. 30, 08. A.B, DePauw, 31; Illinois, 32; Ph D, Cornell, 36. Asst. zool, DePauw, 31–32; teaching fellow and asst. histol. and embryol, med. col, Cornell, 32–36; instr. histol, *sch. med, West Virginia,* 36–40, *asst. prof. histol. and anat, 40–* Asn. Anat. Pharyngeal derivatives in mammalian forms, including man.

Goebel, Dr. Max T(heodore), 1042 Wagar Road, Rocky River, Ohio. *Chemistry.* Compton, Ill, Oct. 28, 06. Carthage Col, 24–27; A.B, Illinois, 28, Ph.D, 34. *Chemist,* exp. sta, *E. I. du Pont de Nemours and Co,* 34–41, *exp. lab, Grasselli chem. dept, 41–*

Goebel, Dr. Walther Frederick, Rockefeller Institute Hospital, New York, N. Y. *Biochemistry.* Palo Alto, Calif, Dec. 24, 99. A.B, Illinois, 20, A.M, 21, Ph.D, 23; Friedrich Maximilian Univ, 23–24. From asst. to *assoc. mem, Rockefeller Inst. Hosp, 24–* Soc. Biol. Chem; Chem. Soc; Asn. Immunol; Soc. Bact; Harvey Soc. Immuno-chemistry; chemistry of bacterial polysaccharides, synthetic carbohydrate-protein antigens and glucuronic acid; antigens of dysentery bacillus; heterophile antigens; structure of polysaccharides.

Goeder, Prof. Frank P(eat), 708 S. College Ave, Ft. Collins, Colo. *Physics.* Hillside, Colo, Aug. 17, 86. B.S, Colo. Agr. Col, 13, M.S, 22; Ph.D, Chicago, 28. Asst. prof. *physics,* Colo. Agr. Col, 13–19, *assoc. prof,* 19–35, *Colo. State Col, 35–* Fel. Colo-Wyo. Acad. (chairman, physics sect, 30). Crystal structure; molecular physics.

Goedicke, Dr. Victor (Alfred), Yale University, New Haven, Conn. *Astronomy.* Holt, Wyo, Sept. 25, 12. A.B, Michigan, 35, Horace H. Rackham fellow, 35–39, M.S, 36, Ph.D, 38. Instr. *astron,* Wesleyan, 40–41; lecturer, Brown, 41; *instr, Yale, 41–* A.A; Astron. Soc. Stellar spectroscopy; photographic photometry.

Goedrich, Dr. P(aul), 1 Lincoln Ave, Newark, N. J. *Chemistry.* Vienna, Austria, July 9, 86. D.Sc, Vienna, 15. Asst. prof, Vienna, 12–15; assoc. prof, Austrian Teaching and Research Inst, 12–15; co-worker, Dr. Anschuetz Labs, Munich, Germany, 19–23; director and research chemist, Gesellschaft f. Technische Physik und Chemie, Munich, Germany; *research fellow, N. J. Col. Pharmacy, Rutgers, 35–* Pharmaceut. Asn; Austrian Imp. Acad. Sciences. Colloid chemistry; biology; bacteriology; pharmaceutical chemistry; biochemistry.

Goepp, Dr. R(udolph) Max(imilian), Jr, 28 Strand, New Castle, Del. *Organic chemistry.* Philadelphia, Pa, April 3, 07. B.S, Lehigh, 28, N. J. Zinc Co. fellow, 28–29; Rhodes scholar, Pennsylvania and Oxford, 29, Ph.D, Oxford, 32. *Chemist, Atlas Powder Co, 32–* Chem. Soc. (chairman, sugar div, 41). Phenol-aldehyde condensations; synthetic resins, carbohydrates, particularly polyhydric alcohols.

Goerner, Prof. Alfred, 366 Sterling Place, Brooklyn, N. Y. *Biological chemistry, Chemical pathology.* New York, N. Y, March 6, 93. Ph.G, Brooklyn Col. Pharmacy, 12, Phar.D, 13; Columbia, 14–15; M.D, L. I. Col. Hosp, 24. Asst. chem, L. I. Col. Hosp, 14–15, instr, 15–25, asst. prof. *biol. chem,* 25–26, *assoc. prof,* 26–30, *L. I. Col. Med, 30–* Lecturer, univ. exten, Columbia, 19–20. Lieut, Sanit.C, 18–19. A.A; Soc. Biol. Chem; Soc. Study Develop. and Growth. Effect of carcinogenic compounds on chemistry of tissues; vitamins and carcinogenesis; vitamin A in normal and tumor cell mitochondria; vitamin A and toxicity of carcinogenic compounds.

Goerner, Dr. Gordon L(aVerne), Michigan State College, East Lansing, Mich. *Organic chemistry.* Loveland, Colo, Feb. 27, 12. A.B, Colorado, 34, Ph.D, 39. Asst. *chem,* Colorado, 34–39; assoc. prof, Culver-Stockton Col, 39–40; interim instr, Billings Polytech, 40–41; *instr, Mich. State Col, 41–* Summer, instr, Cent. Mich. Col. Educ, 42. Chem. Soc. The reaction of azomethines of anthronilic acid and negatively substituted aliphatic aldehydes with acetic anhydride.

Goetsch, Dr. Emil, Long Island College of Medicine, Brooklyn, N. Y. *Anatomy, Physiology, Surgery.* Davenport, Iowa, Jan. 23, 83. B.S, Chicago, 03, fellow, 04–05, Ph.D, 06; M.D, Hopkins, 09. Asst. anat, Chicago, 06–07, assoc, 07–08, asst. exp. therapeut, 08–09; surg. in charge Hunterian lab, Hopkins, 09–10, asst. res. surgeon, Hopkins Hosp, 10–12; asst. surg, Harvard Med. Sch, and res. surgeon, Peter Bent Brigham Hosp, 12–15; assoc. *surg,* Hopkins, 15–18, assoc. prof, 18–19; *prof, L. I. Col. Med, 19–, surgeon in chief, col. hosp, 19–* A.A; Asn. Anat; Surg. Asn; fel. Col. Surg; Asn. Study Int. Secretions (sec'y, 17–19); Goiter Asn. (pres, 28); Asn. Study Goiter (past pres); N. Y. Surg. Soc; Royal Soc. Surg, Rome. Surgery of the ductless glands; physiology and pathol-

ogy of goiter; disorders of the thyroid gland; chronic thyroiditis; interrelation of the thyroid and adrenal glands.

Goettsch, Dr. Elvira, Babies Hospital, 3975 Broadway, New York, N. Y. *Pediatrics.* Walcott, Iowa, Aug. 9, 96. A.B, Cincinnati, 18, M.D, 29. Instr. *pediat, col. physicians and surg, Columbia,* 31–36, *assoc, 36–* Soc. Pediat. Research; Soc. Exp. Biol; Harvey Soc. Edema; nephrosis; amino acids.

Goettsch, Dr. M(arianne), Columbia School of Tropical Medicine, San Juan, P. R. *Biochemistry.* Walcott, Iowa, March 28, 95. A.B, Cincinnati, 17, A.M, 18; Ph.D, Columbia, 30. Asst. anat, California, 23–27; mem. staff, Pharmaceut. Soc. Gt. Britain, London, 27–28; asst. biochem, Columbia, 29–30, instr, 30–41, *asst. prof,* 41–43; *chem, Columbia Sch. Trop. Med, Puerto Rico, 41–* A.A; Soc. Biol. Chem; Inst. Nutrition; Harvey Soc; N. Y. Acad. Med. Nutritional muscular dystrophy in guinea pigs and rabbits; nutritional encephalomalacia in chicks; relationship between nutrition and reproduction; diseases of muscle and brain in animals upon vitamin E deficient diets.

Goetz, Prof. Alexander, California Institute of Technology, Pasadena, Calif. *Experimental physics.* Wiesbaden, Germany, Nov. 17, 97. Ph.D, Göttingen, 21. Asst, Göttingen, 20–23, privat-docent, 23–27; Rockefeller fellow, *Calif. Inst. Tech,* 27–28, asst. prof. *physics,* 28–29; *assoc. prof, 29–* Lecturer, Univ. Nac. de Mex, 28–29; ausserord. prof, Göttingen, 29–39; Imp. Univs, Japan; Tsin Hua Univ, China; director research, Rare Metals Inst, 39– Fel. Physical Soc; British Inst. Metals; Deuts. Physik. Gesell. High vacuum; secondary emission of electron; thermionic and photoelectric emission from metals; physics of the solid state; vitrification and crystallization phenomena at low temperature; low temperature physics; application of rare metals.

Goff, Dean John A(lonzo), 623 Righters Mill Road, Narberth, Pa. *Mechanical engineering.* Colorado City, Colo, Oct. 19, 99. Colo. Agr. Col, 17–19; B.S, Illinois, 21, M.S, 24, Ph.D, 27. Asst. mech. eng, Illinois, 21–23, instr, 23–25, assoc, 25–27; geophysicist, Sun Oil Co, Texas, 27–28; engineer, Linde Air Products Co, N. Y, 28–29; research engineer, Westinghouse Research Lab, Pa, 29–30; assoc. prof. thermodyn, Illinois, 30–35, prof, 35–38; *Whitney prof. dynamical eng, director dept. mech. eng. and dean, Towne sci. sch, Pennsylvania, 38–* Consultant, research lab, Westinghouse Elec. and Mfg. Co, Pa, 30– Mech. Eng. (chairman, applied mech. div, 35); Heat. and Vent. Eng. (cmt. research); Math. Soc. Engineering thermodynamics; mathematics.

Goheen, Dr. Gilbert E(arl), 513 Fairmont Ave, Westfield, N. J. *Organic chemistry.* Barry, Ill, May 8, 12. B.S, Illinois, 34; M.S, Iowa, 35, Ph.D, 38. Asst. org. chem, Iowa, 34–38; research chemist, exp. div, Sun Oil Co, 38–42; *chemist, process develop, Gen. Aniline Works, 42–* Chem. Soc. Preparation and analysis of haloamines and their reaction with ketenes; preparation of pyrrolidines; conversion of naphthenic acids to naphthene hydrocarbons; synthesis of multicyclopentyl hydrocarbons.

Goin, Coleman J(ett), University of Florida, Gainesville, Fla. *Herpetology.* Gainesville, Fla, Feb. 25, 11. B.S, Florida, 39, M.S, 41. Teaching fellow *biol. sciences, Florida,* 41–42, *asst. instr, 42–* Soc. Ichthyol. and Herp. (v. pres, 42); Soc. Study Speciation; Fla. Acad. Taxonomy, life history, distribution and ecology of amphibia.

Gojdics, Prof. Mary, Barat College, Lake Forest, Ill. *Protozoology.* Horvati, Hungary, Aug. 16, 00. B.S, Pa. State Col, 22; A.M, Wisconsin, 31, Ph.D, 33. Instr, Carson Col. for Orphan Girls, 22–23, 25–29; high sch, Pa, 24–25; asst. zool, Wisconsin, 29–34; asst. prof. *biol,* Duchesne Col, 34–36, *prof,* 36–42; *Barat Col, 42–* A.A; Micros. Soc; Genetic Asn; Torrey Bot. Club. Taxonomy and cytology of the Euglenidae.

Gokhale, Prof. V(ishnu) D, University of the Philippines, Manila, P. I. *General analysis.* Poona City, India, Feb. 24, 92. B.A, Bombay, 11, M.A, 13; California, 18; Ph.D, Chicago, 22. Prof. *math,* Fergusson Col, Bombay, 14–17; exten. instr, Chicago, 22–23; assoc. prof, *Philippines,* 23–25, *prof, 25–* Math. Soc; Asn. Symbolic Logic. Kürschak fields.

Golay, Dr. Marcel J(ules) E(douard), 372 Hollywood Ave, West End, N. J. *Physics.* Neuchâtel, Switzerland, May 3, 02. B.Sc, Neuchâtel, 20; E.E, Zurich, 24; Ph.D, Chicago, 31. Bell Tel. Labs, 24–28; Automatic Elec, Inc, 30–31; assoc. physicist and later *physicist, Signal Corps Labs, 31–* Spectroscopy; hydracoustics; sound ranging; telephone cables.

Gold, Prof. Bertha, 7 E. 82nd St, New York, N. Y. *Physiology.* Hoosick Falls, N. Y, Jan. 21, 96. A.B, Hunter Col, 16; M.S, N. Y. Univ, 20. Instr, *Hunter Col,* 16–29, *asst. prof. physiol. and hygiene, 29–* Soc. Exp. Educ; Soc. Hygiene; Acad. Polit. and Social Sci; Home Econ. Asn; Conf. Family Life. Hygiene; family relationships.

Gold, Dr. Harry, Cornell University Medical College, 1300 York Ave, New York, N. Y. *Pharmacology.* Russia, Dec. 25, 97. A.B, Cornell, 19, M.D, 22. Instr. *pharmacol, med. col, Cornell,* 22–29, *asst. prof, 29–* Lecturer, Rutgers, 30– Asst. physician, cardiac clinic, Bellevue Hosp, 22–31; chief cardiac clinics, Hosp. Joint Diseases, 31–, attending physician, 42–; cardiographer, Beth Israel Hosp, 31–35, chief cardiac clinics, 31–, assoc. physician, 31–42, attending physician, 42–; attending cardiologist, Seaview Hosp, 32–; assoc. attending physician, Welfare Hosp, 40– Sect. therapeut, dept. progress med. science, 'Am. Jour. Med. Sciences.' Mem. cmt. revision, U. S. Pharmacopoeia XII. A.A; Soc. Pharmacol. (membership cmt); fel. Am. Med. Asn. (consultant, council pharm. and chem); Soc. Exp. Biol; Harvey Soc; N. Y. Heart Asn. (councilor; exec. cmt. cardiac clinics; program cmt; cmt. schs; cmt. research; cmt. educ; chairman cmt. institutional facilities; cmt. vascular diseases); fel. N. Y. Acad. Med. (consultant, cmt. med. information); N. Y. Acad; Int. Col. Anesthetists. Heart disease; digitalis; electrocardiography; cocain; vomiting; morphine; calcium; parathyroid; respiration; pherenic potentials; alcohol; convulsants; quinidine; ether.

Gold, Prof. John S(teiner), Bucknell University, Lewisburg, Pa. *Mathematics.* Turbotville, Pa, Nov. 24, 98. B.S, Bucknell, 18, A.M, 21. Instr. math, *Bucknell,* 20–25, asst. prof. *math. and astron,* 25–35, *assoc. prof, 35–* Math. Soc; Math. Asn. Expressibility of homogeneous polynomials as determinants with elements homogeneous by rows.

Gold, Dr. Kenneth Monroe, 251 Main St, Holyoke, Mass. *Geology.* Holyoke, Mass, June 20, 08. B.S, Mass. Inst. Tech, 29, M.S, 30, Sc.D, 32. Asst. to operating supt, Nat. Aniline and Chem. Co, Buffalo, 33–34; geologist, Karl Springer Explor. Co, Ltd, 35; instr. math. and science, Buffalo Collegiate Center, 36–37; research chemist, Mathieson Alkali Works, 37–38; officer, Civilian Conservation Corps, 39–40; mem. faculty, Sig. Corps Sch, 41; Tank Destroyer Sch, 42; *U. S. Army, 42–, major.* Rawson-MacMillan Field Museum exped, Labrador, 27. Mining geology; capillary theory of ore deposition.

Gold, Dr. Marvin H(arold), 7804 S. Paulina, Chicago, Ill. *Organic chemistry.* Buffalo, N. Y, June 23, 15. A.B, California at Los Angeles, 37; Ph.D, Illinois, 40. Anna Fuller Fund research fellow, Northwestern, 40–42; *research chemist, Visking Corp, 42–* Chem. Soc. Synthesis, absorption and fluorescence spectra of isobenzofurans; synthesis of carcinogenic hydrocarbons; synthetic resins.

Goldbach, Prof. L(eo) J(ohn), 6 E. Eager St, Baltimore, Md. *Ophthalmology.* Baltimore, Md, Jan. 2, 83. B.S, Loyola Col. (Md), 01, M.D, 05. Asst. *ophthal, Hopkins,* 14–16, instr, 16–21, assoc, 21–27, *assoc. prof, 27–* Ophthalmologist, Md. Sch. for the Blind. Mem. advisory board ophthal. med, Hopkins Hosp. Fel. Ophthal-Laryngol. Soc; fel. Col. Surg; Am. Med. Asn. Trachoma; glaucoma; encephalitis; leukemic retinitis; Kayser-Fleischer Ring-Wilson's disease.

Goldberg, Dr. Benjamin, Suite 2117, 58 E. Washington St, Chicago, Ill. *Internal medicine.* Chicago, Ill, June 28, 93. M.D, Illinois, 16. Res. staff, Cook County Hosp, 16–18; instr. med, *col. med, Illinois,* 16–21, asst. prof. path, bacter. and pub. health, 27–28, *assoc. prof. med, 28–* Chief med. consultant, State Eye and Ear Infirmary, Ill, 20–; attending physician, St. Lukes Hosp; Research and Educational Hosp; St. Joseph's Hosp. Director and trustee, Munic. Tuber. Sanitarium, Chicago, 18–31. Assoc. ed, 'Diseases of the Chest.' Gold medal, Rosenthal Foundation, 29. Fel. Am. Med. Asn; Tuber. Asn; Trudeau Soc; Am. Heart Asn; Med. Editors Asn; fel. Col. Chest Physicians (regent, pres, 41); fel. Col. Physicians; fel. Pub. Health Asn; hon. mem. Soc. Mex. de Estudios Sobre Tuber; Int. League against Tuber. Tuberculosis; procedures in tuberculosis control; clinical tuberculosis.

Goldberg, Dr. Leo, McMath-Hulbert Observatory, R.F.D. 4, Lake Angelus, Pontiac, Mich. *Astrophysics.* Brooklyn, N. Y, Jan. 26, 13. B.S, Harvard, 34, A.M, 37, Ph.D, 38. Special research fellow, Harvard Observatory, 38–41, *research assoc,* 41; *McMath-Hulbert Observatory, Michigan, 41–* Asst. ed,

'Telescope,' 39–41. Cmt. math. tables and aids to computation, Nat. Research Council, 40– Bowdoin prize, Harvard, 38. Astron. Soc; Int. Astron. Union. Quantum mechanics; theoretical line intensities; solar physics.

Goldberg, Michael, 5823 Potomac Ave, N. W, Washington, D. C. *Engineering.* New York, N. Y, Nov. 13, 02. B.S, Pennsylvania, 25; A.M, George Washington, 29. Elec. eng, Philadelphia Elec. Co, 25–26; *engineer, bur. ordnance, Navy Dept, 26–* A.A; Math. Soc; Math. Asn. (sec'y Md-Va-D. C. sect, 36–38, chairman, 38); Philos. Soc. Wash. Mathematics; geometry; polyhedra; problem-solving mechanisms; space linkages.

Goldberg, Dr. S(amuel) A(lexander), 179-43 Tudor Road, Jamaica Estate, L. I, N. Y. *Pathology.* Russia, Dec. 12, 90. D.V.M, Cornell, 14, A.M, 16, Ph.D, 17; M.D, N. Y. Univ, 30. Asst, Cornell, 13–15, instr, 15–17, asst. prof. comp. path, 17–27; *lab. director,* Bronx Hosp, 26–31; *Presb. Hosp, 31–* Pathologist, Ithaca City Hosp, 23–26. A.A; Asn. Path. and Bact; Soc. Clin. Path; Am. Med. Asn; Soc. Exp. Biol. Bacteriology.

Goldberg, Dr. Samuel D(avid), 2923 Atlantic Ave, Brooklyn, N. Y. *Organic chemistry.* New York, N. Y, Jan. 1, 98. B.S, Polytech. Inst. Brooklyn, 21, M.S, 27, Ph.D, 35. Novocol Chem. Mfg. Co, 21–41, chief chemist and v. pres; *pres, G-M Chem. Co, Inc, Long Island City, N. Y, 21–* A.A; Chem. Soc. Local anesthesia.

Goldblatt, Dr. Harry, 2085 Adelbert Road, Cleveland, Ohio. *[7]*Pathology.* Muscatine, Iowa, March 14, 91. B.A, McGill, 12, M.D, 16. Asst. prof, assoc. prof. path, *prof. exp. path. and assoc. director inst. path, sch. med, Western Reserve, 24–* Beit Mem. fellow med, London, 21–24. John Phillips medal, Am. Col. Physicians, 38. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Am. Med. Asn; Am. Heart Asn; Asn. Physicians; Cent. Soc. Clin. Research; Physiol. Soc. Gt. Britain; Path. Soc. Gt. Britain and Ireland. Experimental rickets; vitamins; light; experimental peritonitis; experimental hypertension.

Goldblatt, Dr. L(eo) A(rthur), 213 Eighth St, S.W, Washington, D. C. *Organic chemistry.* Corona, N. Y, Nov. 20, 03. A.B, Clark, 25, A.M, 26; Ph.D, Pittsburgh, 30. Asst, Clark, 25–26; Pittsburgh, 26–29, instr. chem, 29–40; assoc. chemist and later *chemist, div. naval stores, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Chem. Soc. Abietic acid; naval stores.

Goldbloom, Dr. A(braham) Allen, 65 E. 96th St, New York, N. Y. *Internal medicine.* Pittsburgh, Pa, Nov. 2, 97. Pittsburgh, 15–18; M.D, Jefferson Med. Col, 22. Intern, St. Francis Hosp, Pittsburgh, 22–23; asst. res. med, Montefiore Hosp, 23; research, Berlin and Vienna, 23–24, 27; *associated with Dr. Held, private practise, and assoc. cardiologist, Beth Israel Hosp, New York, 26–; asst. clin. prof. med, N. Y. Med. Col; major, Med. Res. Corps, U. S. Army.* Asst. adj, Sydenham Hosp, 29–30; Harlem Hosp, 29–30; Univ. Berlin, 31; assoc. physician, Beth Israel and Metropolitan Hosps. A.A; Am. Med. Asn; Soc. Exp. Biol; fel. Col. Physicians; N. Y. Acad. Med. Carbon and nitrogen ratio in urine; cardiac output in exercise with digitalis; cardiac physiology in hyperthyroidism and neurocirculatory asthenia; peptic ulcer; jaundice; electrocardiography; circulatory adjustments.

Goldbloom, Dr. Alton, 1543 Crescent St, Montreal, Que, Can. *Pediatrics.* Montreal, Que, Sept. 23, 90. B.A, McGill, 13, M.D, 16. Intern, Royal Victoria Hosp, Montreal, 16–17; senior intern, Boston Floating Hosp, 17; pathologist, intern and res, Babies Hosp, New York, 17–20; asst. physician, Children's Mem. Hosp, Montreal, 20–25; Shriner's Hosp, 25–33; consulting pediatrician, 33–39; Champlain Valley Hosp, Plattsburg, N. Y, 39; *asst. prof. pediat, McGill, 39–* Chief dept. pediat, Jewish Gen. Hosp, 34–; physician, Children's Mem. Hosp, Montreal; consulting pediatrist, Shriner's Hosp; Champlain Valley Hosp, Plattsburg, N. Y. A.A; Acad. Pediat; Can. Med. Asn; Can. Soc. Study Diseases Children (past pres); fel. Royal Col. Physicians Can. Icterus neonatorum; infant nutrition; poliomyelitis; the care of the child.

Golden, Capt. Walter R(ichard) C(halm), 29 Bank St, New Milford, Conn. *Physiological chemistry.* New Milford, Conn, Nov. 11, 13. B.S, Yale, 35, Ph.D, 40; Milbank Mem. Fund fellow, Cornell, 39–41. Research biochemist, dept. pub. health, med. col, Cornell, 41–42; *Sanit. Corps, U. S. Army, 42–, capt.* Avian carbohydrate metabolism; vitamins A and C.

Goldfarb, Dr. Arthur E(dward), 20 Park Ave, New York, N. Y. *Dermatology.* New York, N. Y, June 7, 03. B.S, N. Y. Univ, 23; M.D, Univ. and Bellevue Hosp. Med. Sch, 25. *Asst. visiting dermatologist, Bellevue Hosp, 33–; director Calif. Fruit Growers Exchange fellowship fund, col. med, N. Y. Univ, 40–, asst. clin. prof. dermat, 43–* Health officer, New Hyde Park, N. Y, 27–39; Floral Park, 33–40; deputy commissioner health, Nassau Co, 38–40. Am. Med. Asn; Pub. Health Asn. Effect of vitamin P on psoriasis and allied diseases of capillary permeability in dermatology and elsewhere in medicine.

Goldfeder, Dr. Anna, 414 E. 26th St, New York, N. Y. *Pathology.* Poland, July 25, 97. D.Sc, Prague, 23; fellow, Vienna, 28–29; Masaryk Univ. Asst. exp. path, Masaryk Univ, 23–25, research assoc. physiol, 25–28, in charge lab. cancer research, 28–31; research fellow cancer, Lenox Hill Hosp, New York, 31–33; research worker biol. chem, Harvard Med. Col, 33; bacter. and immunol, col. physicians and surg, Columbia, 34; research fellow, *cancer div, Dept. Hosps, New York, 34, in charge div, 34–* Research worker, N. Y. Univ, 34– A.A; Asn. Cancer Research; Soc. Exp. Biol; Genetic Asn. Acid-base balance of malignant tissues and of blood of cancerous patients; carbohydrate metabolism; cell specific antibodies; distribution of isoagglutinins in regard to malignant growth; radiation effects on specific tissue cells.

Goldfinger, Dr. George, 99 Livingston St, Brooklyn, N. Y. *Physical chemistry.* Budapest, Hungary, Dec. 24, 11. Dr.Chem, Paris, 37. Nitrogen production chemist, S.A.R. pour Engrais et Produits Chimiques, 37–38; tech. adviser, Fabrica de Celulosa Zarnesti, Rumania, 39–40; research collaborator, Forest Products Lab, U. S. Forest Service, 40–41; *research fellow, Polytech. Inst. Brooklyn, 41–* Chem. Soc; N. Y. Acad. Kinetics of polymerization; mechanism of oxidation of cellulose.

Goldforb, Prof. A(braham) J, College of the City of New York, New York, N. Y. *[8]*Zoology, Biology.* London, Eng, March 13, 81. B.S, Col. City of N. Y, 00; Ph.D, Columbia, 10. Tutor biol, *Col. City of N. Y,* 10–11, instr. nat. hist, 11–13, asst. prof. *biol,* 13–20, assoc. prof, 20–26, *prof, 26–* Carnegie Institution exped, P. R. Soc. Nat; Soc. Zool; Soc. Exp. Biol. (sec'y, chief ed, 'Proc,' sec'y-treas, 24–); Physiol. Soc; fel. Acad. Med; Marine Biol. Asn; fel. N. Y. Acad. Med. Experimental zoology; embryology; physiology.

Goldhaber, Prof. M(oritz), University of Illinois, Urbana, Ill. *Physics.* Lemberg, Poland, April 18, 11. Berlin, 30–33; Ph.D, Cambridge, 36. Charles Kingsley Bye fellow, Magdalene Col, Cambridge, 36–38; *asst. prof. physics, Illinois, 38–* Fel. Physical Soc. Nuclear photo-electric effect; selection rules in nuclear disintegrations; disintegration by slow neutrons; scattering and absorption of neutrons; metastable states of stable nuclei; properties of radioactive hydrogen.

Goldhamer, Prof. S. Multon, University of Michigan, Ann Arbor, Mich. *Medicine.* Cleveland, Ohio, March 4, 05. Pennsylvania, 22–24; B.S, Michigan, 27, M.D, 29. Interne, Mt. Sinai Hosp, Cleveland, Ohio, 29–30; res, Simpson Mem. Inst, *Michigan,* 30–31, instr. and asst, 31–36, *asst. prof. med, 36–; major, U. S. Army.* Soc. Clin. Invest; Col. Physicians; Cent. Soc. Clin. Research. Blood diseases.

Goldich, Dr. S(amuel) S, Agricultural and Mechanical College of Texas, College Station, Texas. *Geology.* Grand Forks, N. Dak, Jan. 17, 09. A.B, Minnesota, 29, Ph.D, 36; A.M, Syracuse, 30; Mo. Sch. Mines, 30–32; Washington (St. Louis), 32–34. Asst, Mo. Sch. Mines, 30–32; asst. and chemist, rock analysis lab, Minnesota, 34–36; instr. *geol, Agr. and Mech. Col. Texas,* 36–38, *asst. prof, 38–* Summer, asst, Ill. Geol. Surv, 30. A.A; Mineral. Soc; Geol. Soc; Texas Acad. Igneous and sedimentary petrology; rock-weathering; perthites; central Texas granites; Trans-Pecos Texas volcanics and structure.

Golding, Dr. N(orman) S(hirley), State College of Washington, Pullman, Wash. *Dairying.* Plaxtol, Kent, Eng, Feb. 13, 89. B.S.A, Toronto, 14; M.S, Iowa, 24, Ph.D, 29. Instr, Ont. Agr. Col, 10–13; Iowa State Col, 14–15; asst. prof. dairying, British Columbia, 20–24, assoc. prof, 24–32; *assoc. dairy husbandman, Exp. Sta, State Col. Wash, 32–* World's Dairy Cong, 28. Can. army, 15–19. Dairy Sci. Asn. Dairy mycology and bacteriology; enzyme chemistry; cheese making.

Goldman, E(dward) A(lphonso), Room 61, U. S. National Museum, Washington, D. C. *Zoology.* Mount Carroll, Ill, July 7, 73. Pub. schs. Field naturalist, bur. biol. surv, U. S. Dept. Agr, 92–17, biologist in charge div. biol. investigations, 19–25, in charge game and bird reservations, 25–28.

senior biologist, div. biol. research, 28–40; fish and wildlife service, U. S. Dept. Interior, 40– Biol. explor, Calif, N. Mex, Ariz, Panama and Mex. Major, Sanit. C, 18–19, Sanit. R.C, 21– A.A; Soc. Mammal; Ornith. Union; Cooper Ornith. Club; Biol. Soc. Wash. (past pres); Wash. Acad. Systematic and economic mammalogy of North America; ornithology; wildlife management.

Goldman, Dr. F(rederick) H, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Chemistry.* New York, N. Y, May 2, 04. A.B, Columbia, 25, A.M, 26, Ph.D, 28. Asst, Columbia, 27–29; indust. research, 29–31; chemist, *nat. inst. health, U. S. Pub. Health Service,* 31–42, *senior chemist in charge anal. unit, div. indust. hygiene, 42–* Mem, Conf. Govt. Indust. Hygienists. Fel. Pub. Health Asn. (chairman, subcmt. chem. methods in air anal); Chem. Soc. Activity coefficients of strong electrolytes; atmospheric dust; industrial hazards; air contaminants.

Goldman, Prof. Hetty, Institute for Advanced Study, Princeton, N. J. *Archeology.* New York, N. Y, Dec. 19, 81. A.B, Bryn Mawr Col, 03; Columbia, 03–04, 06–07; A.M, Radcliffe Col, 10, Ph.D, 16; Charles E. Norton fellow from Harvard, Am. Sch. Classical Studies, 10–12. Manuscript reader, Macmillan Co, 03–04; excavator, Halae, Greece, 11–14, 21, 31; director of excavations for Fogg Museum, Harvard, Colophon, Asia Minor, 22, 25, Eutresis, Greece, 24–27; visiting lecturer archeol, Hopkins, 28; Fogg Museum mem, Harvard Archeological exped, Jugoslavia, 32; archeological reconnaissance, Cilicia, Turkey, for Bryn Mawr Col, 34; director excavations, Tarsus, Turkey, for Bryn Mawr Col, Fogg Museum, Harvard, Inst. Advanced Study and Archeol. Inst. Amer, 35–38; *prof, sch. humanistic studies, Inst. Advanced Study, 36–* Mem. ed. board, 'Am. Jour. Archaeol.' Am. Red Cross, Greece, 18–19. Archaeol. Inst. Amer; Numismatic Soc; Oriental Soc. Classical Greek archeology; archeology of the eastern Mediterranean in prehistoric times.

Goldman, Dr. Marcus I(saac), U. S. Geological Survey, Washington, D. C. *Geology.* New York, N. Y, Jan. 11, 81. B.S, Harvard, 02; E.M, Columbia, 05; fellow, Hopkins, 12–13, Ph.D, 13. Asst. geologist, *U. S. Geol. Surv,* 07–09, assoc. geologist, 14–28, *geologist, 28–* Asst. sec'y in charge program and report, Int. Geol. Cong, 30–35. A.A; Geol. Soc; Geol. Soc. Wash. Petrology of sedimentary rocks; internal deformation of rocks.

Goldring, Dr. Winifred, State Museum, Albany, N. Y. *Paleontology.* Kenwood, N. Y, Feb. 1, 88. A.B, Wellesley Col, 09, A.M, 12; Teachers Sch. of Science, 09–11; Harvard, 10–11; Columbia, 13; Hopkins, 21; hon. Sc.D, Russell Sage Col, 37. Asst. geol. and geog, Wellesley Col, 09–12, instr, 12–14; expert, *N. Y. State Museum,* 14–15, asst. paleont, 15–20, assoc. paleontologist, 20–25, paleobotanist, 25–28, assoc. paleontologist, 28–32, asst. state paleontologist, 32–38, provisional state paleontologist, 38–39, *state paleontologist, 39–* A.A; Paleont. Soc; Geol. Soc; Asn. Mus. Popular paleontology; fresh-water conditions in the Pleistocene of the Champlain basin; Devonian crinoids and plants; Devonian stratigraphy; museum methods.

Goldsborough, Dr. Francis C, 188 North St, Buffalo, N. Y. *Medicine.* Baltimore, Md, Sept. 13, 77. B.S, Princeton, 99; M.D, Hopkins, 03. Instr. and assoc. *obstet,* Hopkins, 04–10; *prof, Buffalo, 10–* Attending gynecologist and obstetrician, Buffalo Gen. Hosp, 10–; chief obstetrician, Edw. J. Meyer Hosp, 18– Am. Med. Asn; Gynec. Soc; Buffalo Acad. Med. Obstetrics and gynecology; toxemia of pregnancy; blood pressure in pregnancy; involution and the position of the uterus.

Goldsborough, W(inder) E(lwell), 2 Crescent St, South Norwalk, Conn. *Electrical engineering.* Baltimore, Md, Oct. 10, 71. M.E, Cornell, 92. Adj. prof. elec. eng, Arkansas, 93; prof, Purdue, 94–05; v. pres, Denver Reservoir Irrig. Co, 07–10; gen. manager, Laramie Water Co, 10–13; gen. and financial manager, New Home Sewing Machine Co, 18–20; consulting engineer, 14–17, 20–23; director, Henry L. Doherty Research Labs, 23–32; *consulting engineer and economist, 32–* Chief dept. elec, La. Purchase Expos, 02–05; chairman exec. cmt, Elec. Ry. Test. Cmn, 03–06; with J. G. White and Co, 05–07. Knight, Order of the Crown, Italy. V. pres, Int. Elec. Cong, St. Louis, 04. A.A; fel. Elec. Eng. (v. pres); Eng. Educ; Mech. Eng; Electrochem. Soc; British Inst. Elec. Eng. Electromagnetic phenomena; heat.

Goldsby, Dr. A(rthur) R(aymond), Texas Development Corp, 135 E. 42nd St, New York, N. Y. *Organic chemistry.* Flora, Ill, Nov. 20, 04. A.B, Ill. Col, 28; M.S, Northwestern, 30, Ph.D, 32; Am. Petrol. Inst. junior fellow, 30–31. Asst chem, Northwestern, 28–30, 31–32; research chemist, Nat. Aluminate Corp, Chicago, 32–33; Nat. Aniline and Chem. Co, Buffalo, 35–36; *dept. director research on gasoline, Texas Develop. Corp, 36–* Pyrolysis of olefines; saturated hydrocarbons; furan and furfural; detergents; gasoline and oils.

Goldschmid, Dr. Otto, Ninth and May Sts, Shelton, Wash. *Physical chemistry.* Vienna, Austria, May 1, 10. Dipl.Ing, Tech. Hochschule, Stuttgart, 34; Vienna, 36–38; Ph.D, California, 39. *Research chemist, Rayonier Inc, 39–* Chem. Soc. Woodpulp; viscose; rayon.

Goldschmidt, Prof. R(ichard) B(enedikt), University of California, Berkeley, Calif. ***Zoology.* Frankfurt, Germany, April 12, 78. Ph.D, Heidelberg, 02; hon. M.D, Kiel, 28; hon. D.Sc, Madrid, 35. Lecturer, Heidelberg, 00–02; privat-docent, Munich, 04–09, assoc. prof, 09–14; head dept, Kaiser Wilhelm Inst, Berlin, 14–21, director, 21–36; *prof. zool, California, 36–* Prof, Tokyo, 24–26. A.A; cor. mem. Acad. Nat. Sci. Phila; cor. mem. Zool. Soc. London; Deuts. Genet. Gesell. (pres, 27–33); cor. mem. Bavarian Akad; cor. mem. Leopold-Carol. Deuts. Akad. der Naturforscher; hon. mem. Urania Wien; hon. mem. Soc. zool. de France; cor. mem. Reale Accad. delle Scienze Bologna; hon. mem. Bot. Soc. Japan; for. mem. Royal Soc. Uppsala; for. mem. Royal Soc. Copenhagen; hon. mem. Mendelsk Sällsk. Lund. Cytology; protozoology; neurology; histology; genetics; sex; geographical variation; physiological genetics; evolution.

Goldschmidt, Prof. Samuel, University of Pennsylvania, Philadelphia, Pa. *Physiology.* Norwalk, Conn, Aug. 14, 87. Ph.B, Yale, 11, Ph.D, 14. Fellow research med, Pennsylvania, 14–15; instr. path, sch. med, Hopkins, 15–19; lecturer *physiol,* med. col, Cornell, 19–21; asst. prof. and *assoc. prof, sch. med, Pennsylvania, 21–* Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. Mechanism of absorption from the intestine; blood gases; cyanosis; interionic forces in diffusion; oxygen penetration into skin; reactive hyperemia; effect of volatile anesthetics on the liver.

Goldsmith, Dr. Alfred N(orton), 580 Fifth Ave, New York, N. Y. *Radio engineering.* New York, N. Y, Sept. 15, 87. B.S, Col. City of N. Y, 07, fellow, 07–10; Ph.D, Columbia, 11; hon. Sc.D, Lawrence Col, 35. Tutor physics, *Col. City of N. Y,* 10–11, instr, 11–15, asst. prof, 15–19, *assoc. prof. elec. eng, 19–*; consulting radio expert, U. S. Dept. Justice, 12; consulting engineer, Gen. Elec. Co, 15–17; director research, Marconi Wireless Tel. Co. of Amer, 17–19; director research dept, *Radio Corp. of Amer,* 19–22, chief broadcast engineer, 22–33, v. pres. and gen. engineer, 27–33, *consulting engineer, 33–* Consulting radio engineer, Atlantic Communication Co, 14–; v. pres, Radio Corp. of Amer. and R.C.A. Photophone, Inc, 28–29; chairman board consulting engineers, Nat. Broadcasting Co. Mem. and panel chairman, Nat. Television System Cmt. Mod. Pioneer award, Nat. Asn. Mfrs, 40; medal of honor, Am. Inst. Radio Eng, 41; Townsend Harris medal, 42. 1st to 4th Nat. Radio Confs, 22–25. A.A; fel. Radio Eng. (director, 12–, ed, 'Proc,' 12–, chairman, cmt. on standardization, 14, sec'y, 18, pres, 27); fel. Elec. Eng; Physical Soc; Acoustical Soc; Motion Picture Eng. (pres, 32, director, 33–; chairman theater eng. cmt, 40–); Vet. Wireless Operators Asn; Am. Standards Asn. (chairman, sect. cmt. on radio, 28–, chairman, subcmt. insulating-material specifications for mil. services; sect. cmt. on motion pictures, 35–); hon. mem. Radio Club; Acad. Motion Pictures; Radio Soc. Gt. Britain; Comité int. de la Télégraphie sans Fil. Motion picture engineering; radio telegraphy; radio telephony; photophysics; transmission of canal rays through thin partitions; precision measurements in radio engineering; electrical musical instruments; sound motion pictures; radio television.

Goldsmith, Dr. Dale P(reston) J(oel), 519 S. Pugh St, State College, Pa. *Organic chemistry.* Catasauqua, Pa, Oct. 30, 16. B.S, Lehigh, 38; A.M, Harvard, 40; Ph.D, Pa. State Col, 42. Research chemist, Nat. Aniline and Chem. Co, 37; Socony Vacuum Oil Co, 38–39; *instr. org. chem, Pa. State Col, 42–* Chem. Soc. Steroidal sapogenins.

Goldsmith, Dr. E(li) D(avid), New York University, Washington Square East, New York, N. Y. *Zoology.* New York, N. Y, April 10, 07. B.S, Col. City of N. Y, 26; A.M, Harvard, 28, Ph.D, 34; M.S, N. Y. Univ, 30. Asst. zool, Harvard, 28–29; lab. instr. biol, N. Y. Univ, 29–31; *zool,* Harvard, 31–32. Austin teaching fellow, 32–34; *instr, Col. City of N. Y, 34–; research assoc, N. Y. Univ, 35–* Summer, Bermuda Biol. Sta, 34. Soc. Zool; Micros. Soc; Soc. Exp. Biol; Asn. Study Int.

Secretions; Harvey Soc; N. Y. Acad. Experimental embryology and morphology; regeneration; carcinogenesis; vitamin endocrine relationship.

Goldsmith, Dr. Ernest F(rederick), 349 State St, Portsmouth, N. H. *Internal medicine.* Mainz, Germany, June 24, 92. Gym, Mainz, Germany; Ph.D, Munich, 16; Dr. Juris, Heidelberg, 19; M.D, Prague, 37. Research fellow, Montefiore Hosp, New York, 28–29; Winthrop fellow surg, sch. med, Yale, 30–32; Petschek fellow gen. med, Prague, 32–38; *physician, Med. Corps, State Council Defense, N. H, 42–* Legal medicine; neurology; heart rate in man.

Goldsmith, Prof. G(lenn) W(arren), University of Texas, Austin, Texas. *Ecology, Physiology.* Hutchinson, Minn, Jan. 29, 86. A.B, Minnesota, 11; Ph.D, Nebraska, 24. Asst. bot, Minnesota, 11–12; prof. biol, Southwest. Inst, 12–18; instr, Agr. and Mech. Col. Texas, 18–19; investigator, Carnegie Institution, 20–30; *prof. bot, Texas, 30–* A.A; Ecol. Soc; Bot. Soc; Soc. Plant Physiol; Soc. Mammal; Micros. Soc. Aeration and biological relations of soils and roots; instrumentation and vital measurement of habitat factors; floral movement; physicochemical properties of tissue fluids; physiology of plant pathogens.

Goldsmith, Prof. Joseph B(enjamin), Oklahoma University School of Medicine, Oklahoma City, Okla. *Cytology, Embryology, Histology.* St. Francis, Ark, Aug. 31, 99. A.B, Southwestern Col. (Kans), 25; A.M, Oklahoma, 27; fellow, Wisconsin, 30–31, Ph.D, 31. Asst. zool, Oklahoma, 25–27; Wisconsin, 27–30; asst. prof. *histol. and embryol, sch. med, Oklahoma,* 31–36, *assoc. prof, 36–; lieut, Sanit. Corps, U. S. Army, 43–* Okla. Univ. Museum zool. exped, 27; asst, Bur. Fisheries, 28; Wis. Geol. and Nat. Hist. Surv, 30–31. A.A; Micros. Soc; Asn. Anat; Soc. Zool. Experimental embryology; cytology, histology and embryology of germ cells and gonads; cytology of Golgi apparatus and mitochondria; embryology of circulation; human inheritance.

Goldsmith, Prof. William M(arion), Central College, Pella, Iowa. *Zoology.* St. Francis, Ark, Feb. 19, 88. B.Pd, Mo. State Nor. Sch, 09; A.B, Hillsdale Col, 13; A.M, Indiana, 16, Ph.D, 20. Prof. chem. and biol, Oakland City Col, 13–15; biol, West. State Teachers Col, Colo, 17–19; Southwestern Col. (Kans), 20–30; prof. embryol. and histol. and lecturer eugenics, Wichita, 30–36; assoc. prof. biol. and director tri-state biol. sta, Dubuque, 39–43; *prof. biol, Cent. Col. (Iowa), 43–* Hopkins and Marine Biol. Lab, 20–21; educational director, Omnibus Col, 23–36. A.A; Soc. Zool; Genetic Asn; Iowa Acad. Eugenics; cytology; chromosomes of tiger beetles; plasmosomes; inheritance of various human characters; catlin mark; trephination.

Goldstein, Dr. Albert E(lias), 3505 N. Charles St, Baltimore, Md. *Urology.* New York, N. Y, March 8, 87. M.D, Maryland, 12. *Assoc. genito-urinary path, col. med, Maryland, 21–* Chief urol. dept, Sinai Hosp; med. director, Hebrew Home for Aged and Infirm. Am. Med. Asn; Urol. Asn; South. Med. Asn; Mid-Atlantic Urol. Asn. (pres, 34). Litholapaxy; fractional ureteropyelography; operation for polycystic degeneration of the kidneys; ligation of the ureter of a double kidney; ureterocutaneous transplantation; extraurethral, extravesical perineal prostatectomy.

Goldstein, Dr. Bessie, 333 W. 57th St, New York, N. Y. *Cytology, Pathology.* Pittsburgh, Pa, Aug. 28, 96. A.B, Hunter Col, 19; A.M, Columbia, 21, Ph.D, 26. *Instr. biol, George Washington High Sch, 26–* A.A; Torrey Bot. Club. Virus diseases of plants; insect diseases; cell plate formation; nuclear structure.

Goldstein, Dr. H(yman), 28 Ramsey Place, Albany, N. Y. *Psychology.* New York, N. Y, Jan. 14, 09. A.B, Columbia, 30, A.M, 13, Ph.D, 34. Asst. to Prof. Franz Boas, 30–32; Dr. R. A. McFarland, 32–35; psychologist, State Vocational Institution, *N. Y,* 36–39; *statistician,* bur. research and statist, State Social Welfare Dept, 39; *div. cancer control, State Health Dept, 39–* Pub. Health Asn; East. Psychol. Asn; N. Y. State Asn. Applied Psychol. Epidemiology of cancer; blood chemistry in functional mental disorders; metabolism of mental work; personality; individual differences and birth order; vocational guidance.

Goldstein, Dr. Hyman I(saac), 1425 Broadway, Camden, N. J. *Internal medicine, Gastroenterology.* Baltimore, Md, Nov. 2, 87. M.D, Pennsylvania, 09; Vienna, 29. Asst. visiting physician, Phila. Gen. Hosp; adj. physician and chief med. clinic, Mt. Sinai Hosp, Phila; *consultant physician, Deborah Sanatorium, Browns Mills, N. J.* Ed. board and collaborator, 'Rev. Gastroenterol'; in charge, 'Hist. Gastroenterol.' Del, Int. Cong. Hepatic Insufficiency, France, 37. Fel. Am. Med. Asn; assoc. Col. Physicians; fel. Nat. Gastroenterol. Asn; Heart Asn; Asn. Hist. Med; N. J. Gastroenterol. Soc. (pres, 41); N. J. State Med. Soc. (sec'y, sect. gastroenterol, 39, chairman, 40); North. Med. Asn. Phila. (pres, 39); cor. mem. Gastroenterol. Soc. Italy; Am. Med. Asn. Vienna; cor. mem, Hungarian Dermat. Soc; Int. Soc. Gastroenterol. Brussels. Diagnostic and therapeutic internal medicine; telangiectasia; hemorrhagic dyscrasias and dysplasias; anemias; antispasmodic therapy; pneumococcic meningitis and endocarditis; kinetocytes; coronarism; ulcer and cancer of the stomach.

Goldstein, Dr. I(srael), 825 E. 175th St, New York, N. Y, *Organic chemistry.* New York, N. Y, Aug. 3, 97. B.S, Col. City of N. Y, 19; A.M, Columbia, 24, Ph.D, 28; Talmudical Acad, Mir, Poland, 34–35. Chemist, Am. Tube and Stamping Co, 22; *instr. chem,* James Monroe High Sch; *Walton High Sch, 42–* Prin, Hebrew Parochial High Sch, 36–37. A.A. Odor and structure of cymene compounds.

Goldstein, Dr. Kurt, 334 Commonwealth Ave, Boston, Mass. *Neurology, Psychiatry.* Kattowitz, Germany, Nov. 6, 78. M.D, Breslau, 03. Prof, Königsberg, 12, head dept. path, neurol. inst, Univ. Frankfurt, 15; director hosp. brain-injured soldiers, Frankfurt, 17; prof. and director, neur. inst, Univ. Frankfurt, 22; head dept. neur, Moabit Hosp, Berlin, 29; prof, Univ. Berlin, 30; Rockefeller fellow, Amsterdam, 33–34; psychiat. inst, Columbia, 34–35, clin. prof. neur. and lecturer, psychopath. dept, 36–40; head neuro-physiol. lab, Montefiore Hosp, 36–40; *clin. prof. neur, med. sch, Tufts Col, 40–* William James lecturer, Harvard, 38–39, lecturer, 40–; head neur. lab, Boston Dispensary, 40– Asst. ed, 'Jour. Nervous and Mental Diseases.' Neur. Asn; Psychiat. Asn; Psychol. Asn; New Eng. Med. Asn; Boston Psychiat. and Neur. Soc. Psychopathology; comparative anatomy; normal and pathological anatomy; disorders of speech and of the optic sphere; tumors and injuries of the brain; schizophrenia.

Goldstein, Dr. Marcus S(olomon), University of Texas, Austin, Texas. *Anthropology.* Philadelphia, Pa, Aug. 22, 06. A.B, George Washington, 30, A.M, 32; Ph.D, Columbia, 37. Sci. aid, div. physical anthrop, U. S. Nat. Museum, 28–30; research assoc, div. child research, col. dentistry, N. Y. Univ, 33–39; research assoc. anthrop, *Texas,* 39–41, *Inst. Latin-Am. Studies research fellow, 41–* A.A; Asn. Physical Anthrop; Ethnol. Soc. Physical anthropology of American aborigines and of living man in relation to total environment; child growth.

Goldstein, Dr. Maxwell K(arl), U. S. Naval Research Laboratory, Anacostia Station, Washington, D. C. *Radio engineering.* Baltimore, Md, Jan. 15, 09. B.E, Hopkins, 30, trustees' scholar, 31–33, D.E, 33. Head dept. electronics, Molded Insulation Co, Phila, 34–35; develop. engineer radio aids to navigation, U. S. Signal Corps-Aircraft Radio Lab, 35–37; Civil Aeronaut. Authority, 37–39; *head direction finder unit, Naval Research Lab, 39–, in charge grad. courses, 39–* Naval rep, Nat. Defense Research Cmt. Assoc. Elec. Eng; assoc. Radio Eng; Radio Conferees. Color music systems; multiplex vacuum tube systems; telemetering systems; anti-aircraft gun control systems; aircraft navigation aids; radio compasses; blind flying-landing; artificial electromagnetic wave directing systems; naval direction finding systems; frequency modulation.

Goldstein, Dr. S(amuel) W(illiam), 3904 Woodhaven Ave, Baltimore, Md. *Chemistry.* Baltimore, Md, Sept. 10, 06. Ph.G, Maryland, 26, Ph.C, 27, B.S, 29, M.S, 31, Ph.D, 35. Instr. pharmacy and chem, Maryland; *asst. chemist, State Dept. Health, Md.* Pharmaceut. Asn. Pharmaceutical chemistry.

Goldstine, Dr. H. H, University of Michigan, Ann Arbor, Mich. *Mathematics.* Chicago, Ill, Sept. 13, 13. B.S, Chicago, 33, M.S, 34, Ph.D, 36. Asst. *math,* Chicago, 36–39; *instr, Michigan, 39–; lieut, Air Forces, U. S. Army.* Math. Soc; Math. Asn. Functional calculus and calculus of variations.

Goldsworthy, Dr. M(arion) C(harles), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Middleboro, Ky, March 10, 93. B.S, California, 23, M.S, 24, Ph.D, 28. Asst. plant path, California, 24–28; asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 29–31, *assoc. pathologist, 31–* Phytopath. Soc; Mycol. Soc; Bot. Soc. Wash; Insecticide Soc.

Wash. Control and life history of plant diseases; spray and fume injuries to agricultural plants.

Goldthorpe, Prof. Harold C(lifford), University of Utah, Salt Lake City, Utah. *Physiological chemistry.* Wakefield, Eng, Sept. 5, 95. B.S, Utah Col, 17; fellow, Chicago, 19-21, Ph.D, 25. Instr, Utah Col, 17-19; assoc. instr, Chicago, 21-25; research biochemist, Presb. Hosp, Chicago, 25-29; assoc. prof. *biochem, Utah, 29-31, prof, 31-* A.A; Chem. Soc; Utah Acad. Ammonia and urea formation.

Goldthwait, Cha(rle)s F(rancis), Southern Regional Research Laboratory, U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Cummington, Mass, April 23, 86. B.S, Worcester Polytech, 09. Chief chemist, S. Slater and Sons, Inc, Mass, 09-16; chemist in charge lab. and dyeing, Klear-flax Linen Looms, Inc, Minn, 16-23, supt. cotton mercerizing and dyeing, Md, 23-24; lab. installation, Heminway Silk Co, Conn, 24-25; indust. fellow, Mellon Inst, 25-39, 40-41; consultant, P. McGraw Wool Co, Pa, 39-40; *senior cotton technologist, south. regional research lab, U. S. Dept. Agr, 41-* A.A; Chem. Soc; Asn. Textile Chem. and Colorists; British Soc. Dyers and Colorists; British Textile Inst. Chemistry and physics of cotton and other textiles.

Goldthwait, Prof. J(ames) Walter, Dartmouth College, Hanover, N. H. **Geology, Physiography.* Lynn, Mass, March 22, 80. A.B, Harvard, 02, A.M, 03, Ph.D, 06. Instr. *geol,* Northwestern, 04-06, asst. prof, 06-08; *prof, Dartmouth Col, 08-* Geologist, State Highway Dept, N. H, 17- Geol. Soc; Am. Acad; N. H. Acad. (v. pres, 30, pres, 31). Hurricane fault in southwestern Utah; upwarped shorelines of Lake Algonquin and other extinct lakes of the Laurentian system; raised sea beaches and Champlain clays of southern Quebec and Ontario; glacial geology of New Hampshire and the maritime provinces.

Goldthwait, Dr. Richard P(arker), Brown University, Providence, R. I. *Glacial geology.* Hanover, N. H, June 6, 11. A.B, Dartmouth Col, 33; Ph.D, Harvard, 39. Instr, Dartmouth Col, 34-35; *geol, Brown,* 39-42, *asst. prof, 42-* Summers, mem. staff, U. S. Geol. Surv, 39-41. A.A; Geophys. Union; N. H. Acad; Boston Geol. Soc. Physiography.

Goldthwaite, Dr. N(ellie) E(sther), South Hadley, Mass. *Chemistry.* Jamestown, N. Y, Feb. 4, 63. B.S, Michigan, 94; fellow, Chicago, 94-97, Ph.D, 04. Head dept. chem, Mt. Holyoke Col, 97-05; assoc. physiol. chem, Rockefeller Inst, 06-08; asst. prof, dept. household science, Illinois, 08-15; head dept. home econ, New Hampshire, 15-16; assoc. prof, Colo. Agr. Col, 19-25; *retired.* In the Orient, 16-19. A.A; Chem. Soc. Substituted benzhydrol derivatives and bromcyanacetic ether; chemistry and physics of jelly making; principles of bread making; chemical composition of Colorado potatoes.

Goldwater, Dr. Leonard J(ohn), 44 E. 67th St, New York, N. Y. *Industrial hygiene.* New York, N. Y, Jan. 15, 03. A.B, Michigan, 24; M.D, N. Y. Univ, 28, Sc.D, 37; M.S, Columbia, 41. *Asst. prof. prev. med, col. med, N. Y. Univ, 40-* Am. Med. Asn; Pub. Health Asn. Industrial poisoning; studies on benzol, glycols, trichlorethylene, mercury and methanol.

Goll, Frank L(ouis), 6929 Ninth St, Washington, D. C. *Plant physiology.* Philadelphia, Pa, Jan. 19, 81. Pa. Museum and Sch. Indust. Arts. Asst. botanist, Homeop. Lab, Phila, 00-01; from asst. to *senior physiologist, bur. plant indust, U. S. Dept. Agr, 01-, asst. supt, hort. field sta.* Awards and medals as collaborator, World's Expositions, St. Louis, 04, Seattle, 09; expositions, Jamestown, Buenos Aires, 10, Turin, Italy, San Francisco, 15, Seville, Spain, 29. U.S. del, Int. Cong. Trop. and Subtrop. Agr, Seville, 29. A.A; Bot. Soc. Wash. Legume and soil bacteriology; photomicrography; photographic notes.

Golomb, Dr. M(ichael), 277 Littleton St, West Lafayette, Ind. *Mathematics.* Munich, Germany, May 3, 09. Ph.D, Berlin, 34. Research assoc. elec. eng, Cornell, 39-42, *instr. math,* 40-42; *Purdue, 42-* Math. Soc. Functional analysis and its applications to physics and engineering.

Golomshtok, Dr. Eugene A(lexandrovich), 175 E. 151st St, Bronx, New York, N. Y. *Anthropology.* Samara, Russia, May 14, 97. A.B, California, 22, A.M, 23; Ph.D, Pennsylvania, 35. Special research assoc. ethnol, univ. museum, Pennsylvania; ed. in chief, 'Dict. Archaeol.' Field director, Soviet-Am. exped, Crimea, 33. Anthrop. Asn. Ethnology of Atsugewi Indians of Californina; the old stone age in Russia; archeology of Altai.

Golumbic, Dr. Calvin, Rockefeller Institute for Medical Research, New York, N. Y. *Biochemistry.* Lock Haven, Pa, Nov. 8, 12. B.S, Pa. State Col, 34; scholar, Rutgers, 34-35, M.S, 35, Ph.D, 37. Research assoc. antioxygens, Iowa, 37-42; *investigator, Nat. Defense Research Cmt, Rockefeller Inst, 42-* Chem. Soc; Soc. Exp. Biol. Autoxidation and antioxidants of fats and oils; chemical and biological properties of vitamin E; antioxidant properties of vitamins E, C and K.

Gomberg, Prof. Moses, 712 Onondaga St, Ann Arbor, Mich. **Chemistry.* Elizabetgrad, Russia, Feb. 8, 66. B.S, Michigan, 90, M.S, 92, Sc.D, 94, LL.D, 37; Munich, 96-97; Heidelberg, 97; hon. Sc.D, Chicago, 30, Polytech. Inst. Brooklyn, 32. Instr. chem, *Michigan,* 93-96, 97-99, asst. prof. *org. chem,* 99-02, junior prof, 02-04, prof, 04-36, *emer. prof, 36-,* chairman dept, 27-36. Nichols medal, Chem. Soc, 14; Willard Gibbs medal, 25; Chandler medal, 27. Consulting chemist, U. S. Bur. Mines, 17-18; major, Ordnance Dept, 18. Nat. Acad; A.A. (v. pres. and chairman, C, 35-36); Chem. Soc. (pres, 31); Inst. Chem; Franklin Inst; Philos. Soc; hon. mem. Netherlands Chem. Vereen. Trivalent carbon and free radicals; tautomerism in triphenylmethane series; ethylene chlorhydrin; probable existence of magnesous halides.

Gomez, Prof. A(ngel) K(aingal), University of the Philippines, Manila, P. I. *Pathology, Bacteriology.* Manila, P. I, Aug. 2, 91. D.V.M, Philippines, 14; fellow, Pennsylvania, 16-17; fellow, Cornell, 17-18. Instr. vet. surg, *Philippines,* 14-16, asst. prof. vet. anat, 19-20, assoc. prof. *path. and bact,* 22-32, *prof, 32-,* asst. dean, 34-39, *acting dean,* 35, *39-* Practicing veterinarian, Manila, 21-22. Sec'y, Philippine Vet. Exam. Board, 22-26; mem. Philippine Nat. Research Council, 36-, chairman sect. bact. and immunol, 36-40. Vet. Med. Asn. (res. sec'y, 38-); Philippine Soc. Adv. Research; Philippine Soc. Parasitol; Los Baños Biol. Club (pres, 27). Animal diseases.

Gomez, Dr. E(liseo) T(ecson), P. O. Box 307, College Park, Md. *Physiology, Nutrition.* Manila, P. I, Dec. 18, 03. B.S.Agr, Philippines, 25; A.M, Missouri, 29, Ph.D, 37. Instr. dairy husbandry, Missouri, 34-38; *asst. physiologist, div. nutrition and physiol, bur. dairy indust, U. S. Dept. Agr, 38-* Asn. Anat; Dairy Sci. Asn; Soc. Exp. Biol. Influence of the prehypophysis on growth and function of the mammary glands.

Gonnerman, H(arrison) F(rederick), Portland Cement Association, Chicago, Ill. *Civil engineering.* Dixon, Ill, Aug. 24, 85. B.S, Illinois, 08, M.S, 13. Asst, eng. exp. sta, Illinois, 08-10, instr. theoret. and applied mech, 10-14, 1st asst, 14-17, research assoc, 17-18, research asst. prof, 18-20; business, 20-22; assoc. engineer, struct. materials research lab, Lewis Inst. (Ill), 22-26; *research lab, Portland Cement Asn,* 26-27, *manager,* 27- Summer, test. engineer, Emergency Fleet Corp, 18. Civil Eng; Soc. Test. Mat; Concrete Inst; West. Soc. Eng. Materials of construction; cement and concrete.

Gonser, Dr. Bruce W(infred), 1301 Arlington Ave, Columbus, Ohio. *Metallurgy.* Hudson, Ind, Sept. 9, 99. B.S, Purdue, 23, Chem.E, 30; M.S, Utah, 24; Sc.D, Harvard, 33. *Metallurgist, research dept,* Am. Smelting and Ref. Co, 24-31; Nat. Radiator Corp, 33-34; *Battelle Mem. Inst, 34-* Min. and Metal. Eng. (chairman, Ohio Valley sect, 42); Soc. Metals. Non-ferrous metallurgy; metallurgical heating; electrolytic processes; tin.

Gonzaga, Dr. Arcadio C(astillo), University of the Philippines, Manila, P. I. *Veterinary science.* Tanauan, Batangas, P. I, Jan. 12, 02. P. I. Gov't scholar, 21-26; D.V.M, Philippines, 26; Univ. Philippines fellow, Cornell, 31-33, Ph.D, 33. *Instr. vet. path. and bacter, col. vet. science, Philippines,* 28- Mem, Nat. Research Council P. I. Vet. Med. Asn; Vet. Med. Asn, P. I. Zootechnic physiology; blood chemistry; experimental pharmacology and therapeutics; endocrinology.

Gonzalez, Dean B(ienvenido) M(aria), University of the Philippines, Laguna, P. I. *Animal husbandry.* Apalit, Pampanga, P. I, March 22, 93. B.Agr, Philippines, 13; M.S, Wisconsin, 15; Sc.D, Hopkins, 23; fellow, U.S.A, Can, Europe, Australia, Java, Japan. Board regents, *Philippines,* 18-21, *prof. animal husbandry and head dept, col. agr, 20-, dean,* 28- Director, Pampanga Sugar Develop. Co, 27-; Nat. Develop. Co, 34-36. V. chairman, Nat. Research Council P. I, 34-35, 37- Ed, 'The Philippine Agriculturist,' 29- A.A; Genetic Asn; Philippine Soc. Tech. Agr. (pres, 31); Philippine Soc. Adv. Research (pres, 35); Philippine Econ. Asn; Los Baños Biol. Club (pres, 23-25). Animal genetics; improvement of Philippine live stock.

González-Martinez, Dr. I(saac Francisco), Box 2026, San Juan, P. R. *Medicine.* Utuado, P. R, July 8, 71. M.D, Madrid, 00; grad. radiologist, Paris, 20. Mem. Permanent Anemia Cmn, P. R, 06–08; health officer, Mayaguez, 08–09; director, Insular Biol. Lab, 09–14; monitor, Genito-Urinary Clinics, Necker Hosp, Paris, 20; *head dept. radiol. and radiumtherapy, Clinica Diaz Garcia, San Juan, 29–* Mem. Inst. Trop. Med. and Hygiene, P. R, 13–24; Insular Board of Med. Examiners, 04–06; pres, Liga Puertorriquena Contra el Cancer, 38– A.A; Am. Med. Asn; fel. Pub. Health Asn; Soc. Parasitol; Roentgen Ray Soc; Soc. Trop. Med; fel. Col. Radiol; Soc. zool. de France; Soc. Radiol. Méd. de France; Acad. Med. P. R. (pres, 17–19); Asn. Med. P. R. (pres, 20); Colegio de Médicos de Barcelona. Tropical medicine; radiotherapy.

Gooch, Dr. Marjorie (Eunice), 1812 K St, N.W, Washington, D. C. *Biometry.* Augusta, Maine, Dec. 25, 96. B.S, Maine, 19, M.S, 21; Sc.D, Hopkins, 34. Asst. biologist, Exp. Sta, Maine, 20–26; technician with staff privileges, Rockefeller Inst, 26–29; *assoc. statistician,* State Dept. Health, N. Y, 35–39; *children's bur, U. S. Dept. Labor, 39–* Pub. Health Asn; Statist. Asn. Public health statistics; biological statistics; genetics.

Gooch, Prof. W(ilby) T, 808 Speight Ave, Waco, Texas. *Chemistry.* Waco, Texas, Dec. 22, 85. B.S, Baylor, 06, M.S, 08; Ph.D, Chicago, 18. *Prof. chem, Baylor, 08–* Chemist, City Water Works, Waco, 18– A.A; Chem. Soc. (past chairman, Texas sect); Water Works Asn; Texas Water Works Asn. (pres, 24); fel. Texas Acad. The effect of light on the velocity of saponification of ethyl acetate; the velocity coefficient of saponification of methyl acetate; halogen reactivity; ethylene chlorbromide and chloriodide.

Good, Dr. A(rthur) J(ohn), 16 Crest Ave, Melrose, Mass. *Chemical engineering.* Faithorn, Mich, Aug. 19, 99. B.S, Michigan, 22, M.S.E, 24, Ph.D, 26. Exp. chemist, Sinclair Ref. Co, 22–24; petrol. research, dept. chem. eng, Michigan, 24–26; *engineer, E. B. Badger and Sons Co, 25, 26–* Chem. Soc; Chem. Eng. The equilibrium vaporization of crude petroleum; two methods of vaporization.

Good, Prof. C(harles) W(infred), University of Michigan, Ann Arbor, Mich. *Engineering.* Saginaw, Mich, May 17, 93. B.S, Michigan, 18. Instr. mech. eng, *Michigan,* 18–25, asst. to director *eng. research,* 23–35, *asst. director, 36–,* asst. prof. *mech. eng,* 25–33, *assoc. prof, 33–* Summer, instr, Michigan, 18. Mech. Eng. (exec. cmt, oil and gas power div, 38–42, chairman, 40); Soc. Automotive Eng; Eng. Soc. Detroit. Power loss with detonation; internal combustion engines.

Good, Prof. E(dwin) S(tanton), University of Kentucky, Lexington, Ky. *Animal husbandry.* Clarence Center, N. Y, March 16, 71. B.S, Mich. State Col, 03; European study, 05; M.S, Illinois, 06. Instr. and investigator *animal husbandry,* Illinois, 03–06; head dept, Exp. Sta, *Kentucky,* 06–42, prof, *univ,* 12–42, *emer. prof, 42–* Soc. Animal Production; Asn. South. Agr. Workers; Ky. Acad. Infectious abortion in cows and mares; live stock feeding.

Good, Dr. Frederick Leo, 20 Commonwealth Ave, Boston, Mass. *Surgery.* Cambridge, Mass, April 11, 82. M.D, Harvard, 04. Instr. gynec, Harvard Med. Sch; *prof. obstet, med. sch, Tufts Col.* Fel. Col. Surg; New Eng. Obstet. and Gynec. Soc. Obstetrics; gynecology.

Good, Prof. Henry G(eorge), Alabama Polytechnic Institute, Auburn, Ala. *Entomology, Ornithology.* Cleveland, Ohio, Dec. 9, 97. B.S, California, 20; M.S, Cornell, 23, Ph.D, 29. Asst. biol, Cornell, 21–22, syst. entom, 22–24, asst. prof. zool. and entom. and asst. entomologist, Exp. Sta, 24–27; asst. prof. *zool. and entom, Ala. Polytech,* 27–32, *assoc. prof, 32–* Entom. Soc. Amer; Ornith. Union; Wilson Ornith. Club; Pacific Coast Entom. Soc; Inland Bird Banding Asn. (councilor, 25–). Wing-venation of the Coleoptera; systematic coleopterology; Cerambycidae; Elateridae.

Good, Dr. Newell E(manuel), U. S. Public Health Service, Bethesda, Md. *Medical entomology.* Bellevue, Ohio, Dec. 31, 05. A.B, Heidelberg Col. (Ohio), 27; M.S, George Washington, 29, Ph.D, 35. Junior biol. aide, bur. animal indust, U. S. Dept. Agr, 27–29, junior entomologist, bur. entom. and plant quarantine, 29–31, asst. entomologist, 31–38; assoc. entomologist, *U. S. Pub. Health Service,* 38–43, *passed asst. sanitarian, 43–* A.A; Asn. Econ. Entom; Entom. Soc. Amer; Pacific Coast Entom. Soc; Kans. Entom. Soc. Taxonomy of siphonaptera; plague investigations; typhus and malaria control; biology and taxonomy of flour mill and stored grain insects.

Good, Dr. Walter A(mos), 2323 40th Place, N.W, Washington, D. C. *Physics.* Hillsdale, Mich, April 25, 16. A.B, Kalamazoo Col, 37; M.S, Iowa, 39, Ph.D, 41. *Physicist, nat. defense research, dept. terrestrial magnetism, Carnegie Institution, 41–* Physical Soc; Acad. Model Aeronaut. (chairman radio controlled model aircraft cmt). High-speed mechanical recorder; rigidity modulus of beta brass single crystals; radio controlled model airplanes.

Goodale, Prof. Alfred S(hepard), Amherst College, Amherst, Mass. *Botany.* Amherst, Mass, May 8, 76. A.B, Amherst Col, 98. Registrar, *Amherst Col,* 02–18, from instr. to assoc. prof. *bot,* 03–41, *emer. assoc. prof, 41–* A.A; Torrey Bot. Club; Fern Soc; New Eng. Bot. Club. Flora of Connecticut River watershed in Massachusetts.

Goodale, Dr. H(ubert) D(ana), 257 W. Main St, Williamstown, Mass. **³Zoology, Genetics.* Troy, N. H, June 5, 79. A.B, Trinity Col. (Conn), 03, A.M, 04; fellow, Columbia, 05–06, Ph.D, 13. Res. investigator, sta. for exp. evolution, Carnegie Institution, 11–13; research biologist poultry husbandry, Exp. Sta, Mass. Col, 13–22; biologist and *geneticist, Mt. Hope Farm, 22–* A.A; Soc. Nat; Soc. Zool; Genetics Soc; Poultry Sci. Asn. Embryology; inheritance and physiology of domestic fowls; animal genetics; improvement of farm animals by breeding.

Goodale, Dr. J(oseph) L(incoln), Argilla Road, Ipswich, Mass. *Laryngology.* Saco, Maine, Jan. 22, 68. A.B, Harvard, 89, A.M, M.D, 93. Assoc. physician, diseases of the throat, Mass. Gen. Hosp, 20–39; instr. laryngol, Harvard Med. Sch, 08–30, 39; *retired.* Consulting surgeon, Mass. Eye and Ear Infirmary. A.A; Laryngol. Asn. (pres, 16); Am. Med. Asn; Col. Surg; Am. Acad. Diseases of the nose and throat; pathology of the lymphoid tissue of the throat; infections entering the system through the nose and throat; anaphylaxis.

Goodale, Dr. Raymond H(amilton), 36 Otsego Road, Worcester, Mass. *Pathology.* Conn, Nov. 21, 98. B.S, Wesleyan, 20; M.D, Harvard, 24. Adj. prof. path, American Univ. Beirut, 26–29; *pathologist, City Hosp, Worcester, Mass, 29–; lieut. commander, Med. Corps, U. S. Naval Res, 42–* Visiting pathologist, Harrington Mem. Hosp, Southbridge, Mass, 34–; Belmont Hosp, Worcester, 35–; asst. prof, sch. med, Boston Univ, 35–41; visiting pathologist, Fairlawn Hosp, Worcester, Mass, 27–; Clinton Hosp, 38–; Worcester County Sanitarium, Boylston, 39– Am. Med. Asn; Asn. Path. and Bact; New Eng. Path. Soc. The use of urea-sulfanilamide solution in the treatment of acute and chronic pyogenic infections of the skin and subcutaneous tissue.

Goodale, Prof. Stephen L(incoln), 1156 Murrayhill Ave, Pittsburgh, Pa. *Metallurgy.* Saco, Maine, Aug. 31, 75. A.B, Colo. Col, 99, A.M, 09, Sc.D, 21; E.M, Colo. Sch. Mines, 04. Consulting mining engineer; *prof. metal, Pittsburgh, 09–* A.A; Min. and Metal. Eng; Electrochem. Soc; Soc. Metals; Eng. Soc. West. Pa. Mining.

Goodall, W(illiam) M(cHenry), Bell Telephone Laboratories, Deal, N. J. *Radio engineering.* Washington, D. C, Sept. 7, 07. B.S, Calif. Inst. Tech, 28. *Radio engineer, Bell Tel. Labs, 28–* Radio Eng. Structure of the ionosphere; radio propagation.

Goodchild, Prof. C(hauncey) G(eorge), Southwest Missouri State Teachers College, Springfield, Mo. *Zoology.* New Castle, Pa, June 18, 12. B.S, Westminster Col. (Pa), 33; Sandham fellow, N. Y. Univ, 40–41, Ph.D, 41. Instr. *biol,* Westminster Col. (Pa), 34–35, instr. and acting head dept, 35–36; asst, N. Y. Univ, 36–40; instr, Col. City of N. Y, 40–41; *assoc. prof, Southwest Mo. State Teachers Col, 41–* Digenetic trematodes.

Goodding, Leslie N(ewton), Bard, Calif. *Botany.* Macon, Mo, Feb. 3, 80. A.B. and B.Pd, Wyoming, 03; B.S, Nebraska, 04. Bot. collector for Transvaal, S. Africa, in Mex. and Ariz, 06–07; teacher, high sch, Ariz, 08–13, prin, 17–18; instr. sciences, North. Ariz. Nor. Sch, Flagtsaff, 13–16; assoc. pathologist, div. blister rust control, bur. plant indust, U. S. Dept. Agr, 19–34, botanist, soil conservation service, Southwest. Nurseries, 34–40; U. S. Indian Service, 40–42; *rubber plant investigations, U. S. Dept. Agr, 42–* Summers, bot. collector for Univ. Wyoming, Rocky Mountain region, 99–03. A.A; Phytopath. Soc; Soc. Foresters; Forestry Asn; N. Y. Acad. Plant taxonomy and mycology; Ribes of Oregon.

Goodding, Prof. T(homas) H(omer), 1430 N. 38th St, Lincoln, Nebr. *Agronomy.* Macon, Mo, April 9, 90. B.S, Nebraska, 16, M.S, 23; Ph.D, Cornell, 33. Asst. club leader,

agr. exten, *Nebraska*, 17–19, asst. prof. agron, 19–35, *prof. agron. and supervisor short courses, 35–* Adaptation of corn to soil; legume cross-inoculation.

Goode, Prof. Kenneth H(ancock), 1461 N. Broad St, Galesburg, Ill. *Chemistry.* Crookston, Minn, June 2, 02. B.S, Chicago, 21, M.S, 24; Ph.D, Pa. State Col, 28. Chief chemist, Sylvania Products Co, 28–29; asst. prof. chem, Colgate, 29–32; research, Chicago, 32–36; prof. chem. and physics, Bethany Col, 36; asst. prof. *chem*, Cornell Col. (Iowa), 36–37; head dept, Northland Col, 37–42; *assoc. prof, Knox Col, 42–* Summer, supervisor, Ashland Signal Corps Radio Sch, Wis, 42. Chem. Soc. Physical chemistry; electrochemistry; measurement with vacuum tubes.

Goodell, Prof. C(arrol) J(ohn), Mississippi State College, State College, Miss. *Animal husbandry.* Sheldon, Ill, March 19, 88. B.S, Purdue, 08. Farm manager and operator, 08–14; beef cattle specialist, Georgia, 14–17; sci. asst, U. S. Dept. Agr, 17, leader animal husbandry exten, animal husbandman, exp. sta, prof. animal husbandry and assoc. agr. econ, 18–27; dairy cattle specialist, Holmes and Lowndes Counties, Miss, 27–30; head dept. animal husbandry, *Miss. State Col,* 30–35, *exten. ed, exten. publications, 35–* Soc. Animal Production; Am. Geog. Soc. Beef cattle, swine and sheep production; livestock costs in Mississippi; live-stock finishing.

Goodell, G(eorge) A(rthur), Kentucky Color and Chemical Co, Louisville, Ky. *Chemistry.* Westminster West, Vt, Sept. 16, 71. A.B, Amherst Col, 94; A.M, Columbia, 98. Asst. chem, Columbia, 98–00, tutor, 00–04; instr, Wellesley Col, 04–11; supt, Henry Woods Sons Co, 11–13; dry color dept, Sherwin-Williams Co, 13–20; sec'y, v. pres. and gen. manager, *Ky. Color and Chem. Co,* 20–36, *pres, 36–, chairman board directors, 42–* Chem. Soc. (local chairman, 21–23). Soap and food chemistry; dry colors and dyes; general and household chemistry.

Goodemoot, Dr. Kenneth, American Cyanamid Co, Bridgeville, Pa. *Chemistry.* Lake Odessa, Mich, June 9, 04. A.B, Albion Col, 28; M.S, George Washington, 29; Ph.D, Mich. State Col, 33. Teaching fellow chem, George Washington, 28–29; Purdue, 29–31; chemist, Gen. Foods Corp, New York, 34–35; head dept. chem. and physics, Upper Iowa, 35–36; *chemist, Sheldon div, Am. Cyanamid and Chem. Corp, 36–* Chem. Soc. Organic chemistry; wetting agents; alkyl resins.

Goodenough, Prof. Florence L(aura), 629 University Ave, S. E, Minneapolis, Minn. ****Psychology.* Honesdale, Pa, Aug. 6, 86. B.Pd, Pa. State Nor. Sch, 08; B.S, Columbia, 20, A.M, 21; Ph.D, Stanford, 24. Teacher, pub. sch, and educ. research, 08–21; research asst, gifted children surv, Stanford, 21–24; psychologist, child guidance clinic, Minneapolis, 24–25; asst. prof. *research, inst. child welfare, Minnesota,* 25–28, assoc. prof, 28–30, *prof, 30–* Summer, lecturer, Minnesota, 25. A.A; Psychol. Asn; Midwest. Psychol. Asn. Genetic and clinical psychology; mental and educational tests.

Goodfellow, Dr. Louis D(eal), 731 Foster St, Evanston, Ill. *Psychology.* Altoona, Pa, Oct. 12, 05. A.B, Lafayette Col, 29; M.S, Pa. State Col, 30; Ph.D, Northwestern, 32. Research assoc. *psychol, Northwestern,* 32–34, *lecturer, 34–*; assoc. director and director research, Am. Inst. for the Deaf and Blind, 34–39; *director, Psycho-Educational Clinic for Handicapped Persons, 39–* Exec. director, Audio-Visual Research Foundation. A.A; Asn. Applied Psychol; Psychol. Asn; Ill. Acad. (chairman educ. and psychol. sect, 38). Auditory and tactile sensitivity; psychophysics; education of handicapped.

Goodhart, Dr. Robert S(tanley), 212 Indian Spring Drive, Silver Spring, Md. *Medicine.* Altoona, Pa, July 19, 09. B.S, Lafayette Col, 30; M.D, N. Y. Univ. and Bellevue Hosp. Col. Med, 34; Rockefeller Foundation fellow, Oxford, 38–39; M.D.S, N. Y. Univ, 40. Instr. *med, N. Y. Univ,* 39–42, *asst. prof, 42–; passed asst. surgeon, U. S. Pub. Health Service, 42–; tech. adviser nutrition in industry, nutrition div, Office Defense Health and Welfare Services, 42–* Cmt. nutrition in industry, food and nutrition board, Nat. Research Council, 41–, v. chairman, 42– Nutritional deficiency diseases in human beings, with particular attention paid to members of the vitamin B group.

Goodhart, Dr. S(imon) Philip, 115 E. 61st St, New York, N. Y. *Neurology.* New Haven, Conn, Jan. 8, 72. Ph.B, Yale, 92, M.D, 94; Vienna; Heidelberg; Berlin. *Prof. clin. neur, Columbia; neuropsychiat, N. Y. Polyclinic Med. Sch. and Hosp; chief neur. div, Montefiore Hosp; consulting neuropsychiat, Manhattan State Hosp. Insane, Morrisania, Riverside, Beth El, Bronx and Beth Israel Hosps.* Past consultant, N. Y. Neur. Inst; past neuropsychiatrist, U. S. Board Pension Examining Surgeons. Campbell gold medal, Yale, 94. Major, M.R.C. Neur. Asn; Psychiat. Asn; N. Y. Neur. Soc. (past pres); N. Y. Acad. Med. (past pres. neur. sect). Multiple personality; research and teaching nervous diseases by means of moving pictures.

Goodhue, Prof. E(lbridge) A(lvah), Missouri School of Mines and Metallurgy, Rolla, Mo. *Physical chemistry.* Williamsburg, Mass, Jan. 1, 97. A.B, Amherst Col, 17; B.S, Calif. Inst. Tech, 20; M.S, Mo. Sch. Mines, 27; Missouri, 27–29. Instr. chem, Vermont, 17–19, 20–25; *prof. math, Mo. Sch. Mines, 25–* Crystal structures of sodium chlorate and sodium bromate; neutral salt effect on the ketonic splitting of ethyl acetoacetate.

Goodhue, Dr. Lyle D(avid), U. S. Department of Agriculture, Washington, D. C. *Organic chemistry.* Newton, Iowa, Sept. 30, 03. B.S, Iowa State Col, 28, M.S, 29, Ph.D, 34. Research chemist, E. I. du Pont de Nemours and Co, 29–30; instr, Iowa State Col, 30–34; *insecticide chemist, bur. entom. and plant quarantine, U. S. Dept. Agr, 34–* Insecticides; carbohydrate chemistry; physical constants of organic compounds; the glass electrode and insecticidal aerosols.

Goodier, Dr. (James) N(orman), Cornell University, Ithaca, N. Y. *Mathematics, Physics.* Preston, Eng, Oct. 17, 05. B.A, Cambridge, 27, Commonwealth Fund fellow, 29–31, M.A. and Ph.D, 31; Sc.D, Michigan, 31. Research fellow, Ont. Research Foundation, 31–38; acting prof. *mech, Cornell,* 38–40, *prof, 40–, head dept. mech. in mech. eng, 40–, mech. in civil eng, 41–* Mech. Eng; Math. Soc. Theoretical and experimental elasticity; elastic stability; vibrations.

Gooding, Dr. C(hester) M(artin), Best Foods, Inc, Bayonne, N. J. *Organic chemistry.* Ypsilanti, Mich, Oct. 30, 08. A.B, Mich. State Nor. Col, 30; M.S, Michigan, 32, Ph.D, 34. Teaching fellow, Michigan, 30–34; *with Best Foods, Inc, 34–* Chem. Soc; Soc. Chem. Indust; Chem. Soc. London. Quantitative absorption spectra of organic compounds in solution; vegetable oils.

Goodings, Dr. A(lfred) C(ecil), Ontario Research Foundation, 43 Queen's Park, Toronto, Ont, Can. *Chemistry.* Leith, Scotland, Sept. 10, 02. B.Sc, Leeds, 24, M.Sc, 25, Ph.D, 27. *Director textile research, Ont. Research Foundation, 30–* Soc. Dyers and Colorists; Soc. Chem. Indust; Asn. Textile Chem. and Colorists; fel. Textile Inst; Textile Soc. Can. Structure and properties of textile fibres.

Goodloe, Dr. Paul M(iller), 2nd, 36 N. Childs St, Woodbury, N. J. *Chemistry.* Berea, Ky, May 21, 11. B.S, E. Ky. State Teachers Col, 32; Tennessee, 32–33; Ph.D, Hopkins, 36. Teaching fellow, Tennessee, 32–33; asst, Hopkins, 34–35; *research chemist, Socony-Vacuum Oil Co, Inc, 36–* Chem. Soc. Petroleum technology; emulsions; detergents.

Goodman, Dr. Charles H(ertzel), 805 W. Foster Ave, State College, Pa. *Psychology.* London, Eng, March 2, 15. B.S, Wilson Teachers Col, 36; M.S, Pa. State Col, 39, Ph.D, 41. Asst. psychol, Harvard, 36–37; Pa. State Col, 37–41, personnel research asst, eng, science and management defense training program, 41; *chief examiner, State Civil Service Cmn, Pa, 41–* A.A; Psychol. Asn. Psychometrics; personnel; industrial and clinical psychology.

Goodman, Dr. Clark (Drouillard), Massachusetts Institute of Technology, Cambridge, Mass. *Nuclear physics.* Memphis, Tenn, Sept. 9, 09. B.S, Calif. Inst. Tech, 32; Ph.D, Mass. Inst. Tech, 40. Research chemist, Union Oil Co, 32–33; Kelco Co, 33–34, sales engineer, 34–36; asst. *physics, Mass. Inst. Tech,* 36–40, research assoc, 40–42, *asst. prof, 42–* Sec'y cmt. standards of radioactivity, Nat. Research Council, 38– A.A; Physical Soc; Miner. Soc. Geological applications of nuclear physics; helium age measurements; genesis of petroleum; radioactive health hazards.

Goodman, Prof. George J(ones), Iowa State College, Ames, Iowa. *Botany.* Evanston, Wyo, Nov. 5, 04. A.B, Wyoming, 29; Rufus J. Lackland fellow, Washington (St. Louis), 29–33, M.S, 30, Ph.D, 33. Instr. *bot,* Oklahoma, 33–36; *asst. prof, Iowa State Col, 36–* A.A; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; Colo-Wyo. Acad; Calif. Bot. Soc; Okla. Acad; Iowa Acad. Taxonomy of the flora of the prairies and plains: Eriogoneae.

Goodman, Dr. H(enry) G(aines), Jr, Fairfax Apartments, 4614 Fifth Ave, Pittsburgh, Pa. *Organic chemistry.* Rich-

mond, Va, Aug. 26, 04. B.S, Va. Polytech. Inst, 27, M.S, 28; Ph.D, Pittsburgh, 38. Plant chemist, Curtin Howe Corp, 29–30; *research chemist*, Sylvania Indust. Corp, 30–33, *Mellon Inst, 34–* Chem. Soc; Inst. Chem. Organic syntheses.

Goodman, Dr. John B(en), Reed Apts, Mines Park, Golden, Colo. *Chemical engineering.* Denver, Colo, July 13, 06. B.S, Denver, 27, M.S, 28; Ph.D, Illinois, 31. Asst. chem, Denver, 25–28; chem. eng, Illinois, 28–31, research chemist, eng. exp. sta, 31–32; consulting engineer, Denver, Colo, 32–33; chem. engineer, Denver eng. lab, U. S. Bur. Reclamation, 33–35; plant supt. and chief chemist, Soluol Corp, Providence, R. I, 35–37; asst. engineer materials control, U. S. Bur. Reclamation, 37–38; *assoc. chem. engineer, U. S. Bur. Mines, 38–* Testing engineer, Pierce Testing Lab, 27–28; chemist-assayer, Root and Simpson Co, 28. Chem. Soc. Solubility of non-irradiated cholesterol in liquid ammonia; behavior of carbon dioxide under pressure; vapor pressure of toluene; solubility of nitrogen in water at high pressures and temperatures; chemical and thermal properties of normal and modified Portland cements; technologic investigations on subbituminous coal and lignite.

Goodman, Dr. L(ouis) S(anford), University of Vermont College of Medicine, Burlington, Vt. *Pharmacology.* Portland, Oregon, Aug. 27, 06. A.B, Reed Col, 28; A.M, M.D, Oregon, 32. Asst. psychol, Reed Col, 28–29; house med. officer, Johns Hopkins Hosp, 32–33; nat. research fellow med, 34; instr. pharmacol. and toxicol, sch. med, Yale, 35–37, asst. prof, 37–43; *prof. pharmacol. and physiol. and chairman dept, col. med, Vermont, 43–* Soc. Pharmacol; Soc. Exp. Biol. Toxicology; therapeutics; general pharmacology and experimental therapeutics; pharmacological basis of therapeutics.

Goodner, Dr. Kenneth, Rockefeller Foundation, New York, N. Y. *Bacteriology.* McCune, Kans, Jan. 18, 02. A.B, Kansas, 23; Ph.D, Harvard, 29. Instr. bacter. and immunol, sch. pub. health, Harvard, 30; asst, Rockefeller Inst, 30–34, assoc, 34–38, assoc. mem, 38–40; *mem. staff, int. health div, Rockefeller Foundation, 40–* A.A; Soc. Bact; Asn. Immunol; Soc. Exp. Biol; Harvey Soc. (treas, 38–43); Int. Asn. Microbiol. (treas, 37–). Experimental pneumococcus infections; nonspecific host factors in resistance; filterable viruses.

Goodpasture, Dr. E(rnest William), Vanderbilt University School of Medicine, Nashville, Tenn. ***Pathology.* Clarksville, Tenn, Oct. 17, 86. A.B, Vanderbilt, 07; M.D, Hopkins, 12; hon. M.S, Yale, 39; hon. Sc.D, Chicago, 41. Rockefeller fellow path, Hopkins, 12–13, instr, 13–15; Harvard Med. Sch, 15–18, asst. prof, Harvard, 19–22; director, Singer Mem. Research Lab, Pittsburgh, Pa, 22–24; *prof. path, sch. med, Vanderbilt, 24–* Acting res. pathologist, Hopkins Hosp, 13–15; res. pathologist, Peter Bent Brigham Hosp, 15–18; chief dept. path. and bacter, sch. med, Philippines, 21–22; Gen. Educ. Board scholar, Vienna, 24–25. Medal, South. Med. Asn, 37. Lieut, U.S.N.R, M.C, 17–19. Nat. Acad; A.A. (v. pres, 41); Asn. Path. and Bact. (councilor, 41); Soc. Control Cancer (director); Philos. Soc; Soc. Exp. Path. (pres, 40); South. Med. Asn; hon. mem. Gorgas Soc; Harvey Soc. Relation of senescence to tumors; hemorrhagic pancreatitis; fibrinogen; influenza; yaws; herpes; rabies; virus diseases.

Goodrich, Prof. Arthur L(eonard), Jr, Kansas State College, Manhattan, Kans. *Invertebrate embryology and morphology.* Marshall, Colo, May 31, 05. B.S, Col. of Idaho, 28; M.S, Idaho, 29; Ph.D, Cornell, 38. Instr. *zool, Kans. State Col,* 29–38, asst. prof, 38–43, *assoc. prof, 43–* Embryology of Isopoda; morphology of Trichoptera.

Goodrich, Dr. Ernest P(ayson), 161 Henry St, Brooklyn, N. Y. *Engineering.* Decatur, Mich, May 7, 74. B.Pd, Mich. State Nor. Col, 98, hon. M.Ed, 36; B.S, Michigan, 98, C.E, 01; hon. D.E, 35. Commissioned civil engineer, U.S.N, 99–03; chief engineer, Bush Terminal Co, New York, 03–07; *consulting engineer, 07–* Trustee, Polytech. Inst. Brooklyn; Packer Collegiate Inst. Collingwood prize, Soc. Civil Eng, 05. A.A; Civil Eng. (director); Inst. Consulting Eng; City Planning Inst; Inst. Traffic Eng. (past pres); Soc. Terminal Eng. Physics; daylight and health and its measurement and application in city planning; earth pressures; traffic control; concrete construction; pile driving.

Goodrich, Dean Forest J(ackson), 4870 E. 39th St, Seattle, Wash. *Pharmacology.* Norfolk, Nebr, June 23, 89. Ph.C, Washington (Seattle), 13, B.S, 14, M.S, 17, Ph.D, 26. Asst. state chemist, Wash, 14–17; instr. pharmacy and mat. med, *Washington (Seattle)*, 19–25, asst. prof, 25–29, assoc. prof, 29–35, *prof. pharmacog, 35–, dean col. pharmacy, 39–* Assoc. mem. revision cmt, U. S. Pharmacopoeia, 31–40, mem, 40– Lieut, C.W.S, 17–19. Pharmaceut. Asn; Wash. State Pharmaceut. Asn. Materia medica; chemical microscopical examination of plants and tissues.

Goodrich, Prof. H(ubert) B(aker), Wesleyan University, Middletown, Conn. ***Biology.* Salem, Mass, Sept. 11, 87. B.S, Amherst Col, 09; A.M, Columbia, 14, Ph.D, 16; fellow, Princeton, 14–15. Asst. biol, Amherst Col, 09–11; zool, Columbia, 12–14; instr. biol, Union (N. Y), 15–16; zool, *Wesleyan*, 16–17, assoc. prof, 17–23, *prof. biol, 23–* Instr, Marine Biol. Lab, Woods Hole, 18–21, in charge, 22–41, trustee, 31– Amherst exped. to Maine coast, 09. A.A; Soc. Nat; Soc. Zool. (sec'y, 33–36, v. pres, 39); Soc. Ichthyol. and Herp; Asn. Anat. Cytology; embryology of fish; micro-dissection; tissue culture; genetic characters; color patterns in fish.

Goodrich, Dr. Max, Louisiana State University, Baton Rouge, La. *Physics.* Calhoun, Mo, Dec. 11, 05. A.B, Westminster Col. (Mo), 27; Ph.D, Minnesota, 36. Instr. math, Salt Lake Collegiate Inst, 27–29; asst. instr. *physics*, Minnesota, 29–36; instr, *Louisiana*, 36–39, *asst. prof, 39–* Physical Soc; Asn. Physics Teachers. Electron scattering in gases.

Goodrich, Dr. M(urray) E(ugene), Corey Road, Box 216 A, R. R. 8, Toledo, Ohio. *Radiology.* Goodrich, Mich, Sept. 22, 96. M.D, Michigan, 26. Instr. x-ray, med. sch, Michigan, 27–29; *director dept. radiol, Toledo and Maternity Hosps. and Toledo Clinic, 29–* Lecturer, Leila Post Hosp, Battle Creek, 28; mem. radiol. staff, Lucas County Hosp, Ohio, 30. Am. Board Radiol. Roentgen Ray Soc; Am. Med. Asn; fel. Col. Radiol; Detroit Roentgen Ray Soc. X-ray diagnosis; x-ray treatment of cancer.

Goodrich, Dean R(alph) D(ickinson), University of Wyoming, Laramie, Wyo. *Civil engineering.* Manchester, Mich, March 18, 78. B.S, Michigan, 03, C.E, 13. Inspector, East River tunnels, Pa. Ry, 04–05; asst. and deputy state engineer, Wyo, 06–09; engineer, Cheyenne, Ypsilanti and Lansing, 11–18; hydrographer, Grand Canal Improv. Board, Tientsin, China, 18–19, engineer in charge works, Chihli River Cmn, 19–27; assoc. prof. civil eng, *Wyoming*, 27–28, prof. and in charge dept, 28–34, acting dean *col. eng*, 33–35, *dean, 35–* Senior engineer flood control problems, Sacramento and San Joaquin Rivers, War Dept, 30–31; consulting engineer, North. Pacific div, U. S. Engineers, 35–37. Mem. and treas, Cmt. for Custody Yung Ting Ho Funds, Peking, 26–27. Civil Eng; Eng. Educ; Wyo. Eng. Soc; Asn. Chinese and Am. Eng. River hydraulics and regulation; flood control and frequencies; diagrams for the solution of hydraulic problems; harbor improvement; straight line plotting of skew frequency curves; measurement of water for irrigation; capacity tests of groundwater sources.

Goodridge, R(ichard) S(amuel), 6703 44th St, Chevy Chase, Md. *Hydrology.* Chicago, Ill, Oct. 12, 97. Minnesota, 19–21; Wisconsin, 21–23; George Washington, 42– Engineering aide, Oliver and Meriden Iron Mining Co, 14–21; draftsman and res. engineer, State Highway Cmn, Wis, 23–24; draftsman, Los Angeles County Road Dept, Calif, 24–27; hydraulic engineer, Los Angeles County Flood Control Dist, 27–35; soil conservation service, U. S. Dept. Agr, 36–43; *engineer, Fed. Power Cmn, Water Power Bur, Washington, D. C, 43–* Civil Eng; Geophys. Union (cmt. run-off and flood waves, 36–42); Meteorol. Soc; Soc. Mil. Eng; Int. Asn. Hydraulic Structures Research. Hydrologic-climatologic-economic evaluations; functional flood indices; interpretative adjustment of basic records recognizing secular fluctuations, geographical-phase-changes, amplitudes and moisture-source regions of watersheds.

Goodsell, Dr. Julia E(lizabeth), University of Washington, Seattle, Wash. *Physiology, Endocrinology.* Fergus Falls, Minn, Feb. 28, 05. B.S, Washington (Seattle), 26, M.S, 28; Ph.D, Chicago, 40. Assoc. *physiol, Washington (Seattle)*, 29–38, *instr, 38–* A.A. Internal secretions; vitamin and endocrine interrelationships.

Goodspeed, Dr. Edwin W(illiam), Parker Rust-Proof Co, Detroit, Mich. *Chemistry.* Marcellus, Mich, Dec. 5, 03. A.B, Western State Teachers Col, Mich, 27; M.S, Michigan, 31, Ph.D, 34. Instr, high sch, Caro, Mich, 27–31; *research chemist, Parker Rust-Proof Co, 35–* Chem. Soc. Rust-proofing of metals.

Goodspeed, Prof. G(eorge) E(dward), 5504 21st Ave, N. E, Seattle, Wash. *Petrographic geology.* Boston, Mass, April 16, 87. B.S, Mass. Inst. Tech, 10. Asst, Mass. Inst.

Tech, 10–11, *geol*, 11–12; from instr. to prof, Oregon State Col, 12–19; from asst. prof. to *prof, Washington (Seattle)*, *19–* Geologist, Oregon Bur. Mines and Geol, 12–19; consulting mineral technologist, U. S. Bur. Mines, 21– A.A; Geol. Soc; Min. and Metal. Eng; Miner. Soc; Soc. Econ. Geol. Gold quartz veins; development of porphyroblasts, dilation and replacement dikes; orbicular rocks; criteria for distinguishing orthomagmatic from metasomatic rocks; mechanism of emplacement of batholiths of the Pacific Northwest.

Goodspeed, Prof. T(homas) H(arper), University of California, Berkeley, Calif. *⁵*Botany.* Springfield, Mass, May 17, 87. A.B, Brown, 09, hon. Sc.D, 40; Ph.D, California, 12; hon. Dr, LaPlata, 39. Asst. *bot, California*, 09–12, instr, 12–16, asst. prof, 16–20, assoc. prof, 20–28, *prof, 28–*, curator *bot. garden*, 26–34, *director, 34–* Am-Scandinavian Foundation fellow, 22–23; Guggenheim Mem. Foundation fellow, 30–31, 35–36; collaborator, bur. plant indust, U. S. Dept. Agr, 26–34, 35–40; nat. park service, U. S. Dept. Interior, 41–43; hon. prof, Nat. Col. Agr, Peru, 41– Sec'y cmt. sci. research, State Council Defense, Calif, 17–19. Organizer, bot. garden, California, exped. to W. China and Tibet, 32–33, director expeds. to Andes, 35–36, 38–39, 42–43. Rep, Int. Am. Cmt. Artistic and Cultural Relations in S. Amer, 42–43. V. pres. cytol. sect, Int. Bot. Cong, Stockholm, 40. A.A; Soc. Nat; Genetic Asn; Bot. Soc; Royal Hort. Soc; for. cor. mem. Valparaiso Sci. Soc; for. cor. mem. Argentine Sci. Soc; hon. mem. Argentine Anat. Soc; hon. mem. Nat. Acad. Sci. Argentina; hon. mem. Argentine Bot. Soc; hon. mem. Buenos Aires Hort. Soc; hon. for. mem. Chilean Acad. Sci; hon. mem. Biol. Soc. Montevideo; Int. Asn. Sci. Tobacco Research. Cytology and taxonomy of Nicotiana; interspecific hybridization; cytogenetic effects of high frequency radiation; plant distribution in western South America.

Goodwin, Prof. H(arry) M(anley), Massachusetts Institute of Technology, Cambridge, Mass. *¹*Physics, Electrochemistry.* Boston, Mass, April 18, 70. B.S, Mass. Inst. Tech, 90; Harvard, 90–92; Ph.D, Leipzig, 93. Asst. physics, *Mass. Inst. Tech*, 90–92, instr, 92–97, asst. prof, 97–03, assoc. prof, 03–06, prof. *physics and electrochem.* and in charge dept. electrochem, 06–34, *emer. prof, 40–*, dean grad. sch, 26–40. A.A; Physical Soc; Astron. Soc; Am. Acad. (librarian, 23–30, v. pres, 30–34); Wash. Acad. Electrochemical studies of the voltaic cell; viscosity of mercury vapor; vapor pressure determinations of certain ether solutions; electrical conductivity of dilute acid solutions; dielectric constants of liquid ammonia; Billitzer's method of absolute potential measurements; electrical conductivity and viscosity of fused salts; specific heat and latent heat of fusion of inorganic salts; electrical properties of inorganic salts at high temperatures.

Goodwin, James B(ennett), 2132 Cambridge Ave, Albuquerque, N. Mex. *Agronomy.* Ft. Collins, Colo, Sept. 6, 10. B.S, Colo. State Col, 32, M.S, 34. Asst. soils, Colo. State Col, 32–34, asst. prof. agron, 34–36; asst. soil conservationist, *soil conservation service, U. S. Dept. Agr*, 36–38, assoc. soil conservationist, 38–40, *soil conservationist, 40–; capt, Field Artil, U. S. Army, 42–* Electrodialysis of soils; phosphorus in calcareous soils; chlorosis in cherries.

Goodwin, Prof. L(eo) F(rank), Queen's University, Kingston, Ont, Can. *Chemistry. Chemical engineering.* A.C.G.I, London, 98; Leipzig, 01; Ph.D, Heidelberg, 03. Demonstrator chem, Univ. Col, London, 03–05; chief Carnegie asst. to Prof. Chas. Baskerville, 05–06; tutor chem, Col. City of N. Y, 06, instr. and head div. physical chem, 06–09; asst. prof. physical and indust. chem, *Queen's (Can)*, 09–12, assoc. prof, 12–14, *prof. indust. chem. and chem. eng, 13–, head dept, 22–* Univ. Research Council, Queen's (Can), 17–; chem. cmt, Nat. Research Council Can, 25–28. Mem, British Cmn. High Explosives and War Office, 14–15. Major, C.E.F, 14–16, lieut-col, 27. Chem. Soc; Soc. Chem. Indust; Chem. Eng; Eng. Inst. Can. (councilor, 33–37); fel. Can. Inst. Chem. (councilor, 18–22, 32–35, v. pres, 25–28, legislation cmt. chairman, exam. board); British Asn. (gen. cmt); fel. London Chem. Soc; fel. Inst. Chem. Gt. Britain and Ireland. Melting point determinations at low temperatures; specific and latent heats of ice and other substances; catalytic production of ketones; fixation of atmospheric nitrogen; high pressure syntheses; urea, acetone, acetic anhydride and derivatives; improving the manufacture of explosives and other chemicals.

Goodwin, Dr. Ralph A(bijah), 609 Taylor Ave, West Annapolis, Md. *Physics.* Chariton, Iowa, Jan. 1, 13. A.B, Simpson Col, 35; M.S, Iowa State Col, 37, Ph.D, 39. Instr. physics, N. Dak. Agr. Col, 39–40; asst. prof, Ft. Hays Kans. State Col, 40; *civilian instr. elec. eng, U. S. Naval Acad, 41–* Physical Soc. Quantitative spectrographic analysis of soils.

Goodwin, Dr. Ralph T(albot), 30 Greenacres Ave, Scarsdale, N. Y. *Petroleum engineering.* Sardis, Ohio, March 8, 92. Ph.C, Southern California, 14, A.B, 15, A.M, 16; A.M, Columbia, 20, Ph.D, 22. Hercules Powder Co, Calif, 17–18; Columbia, 19–22; petrol. technologist, Standard Oil Co. of N. J, 22–29; manager petrol. div, Dorr Co, New York, 29–32; fuel oil dept, Shell Petrol. Corp, 32–36; *manager* fuel oil dept, *Shell Oil Co, Inc*, 36–40, *aviation dept, 41–* Bur. Aircraft Production, 18–19; eng. div, A.S, 19; U.S.A. Balloon Sch, Nebr, 20; U.S.N. Fuel Cmn; lieut. commander, U.S.N.R. Inst. Aeronaut. Sci; Soc. Automotive Eng; Chem. Eng; Soc. Test. Mat. (sec'y, sect. E). Cellulose acetate and nitrate; aeroplane lacquers; oil shale; petroleum; stabilizing process for cracked residue; fuel oils; aviation fuels and lubricants.

Goodwin, Prof. Richard H(ale), University of Rochester, Rochester, N. Y. *Botany.* Brookline, Mass, Dec. 14, 10. A.B, Harvard, 33, A.M, 34, Ph.D, 37. Am-Scandinavian Foundation fellow, Copenhagen, 37–38; instr. *bot, Rochester*, 38–41, *asst. prof, 41–* Trustee, Bergen Swamp Preservation Soc, 39– A.A; Bot. Soc; Soc. Plant Physiol; New Eng. Bot. Club; Torrey Bot. Club. Cytogenetics, development and physiology of the genus Solidago; the physiology of growth inhibitors; physiology of growth inhibition by light; developmental morphology; plant hormones.

Goodwin, Prof. R(obert) C(abaniss), 3324 21st St, Lubbock, Texas. *Chemistry.* Brownwood, Texas, March 17, 98. A.B, Howard Payne Col, 17; A.M, Texas, 23; Ph.D, Harvard, 28. Asst. prof. *chem*, Florida, 26–30; *prof. and head dept, Texas Tech. Col, 30–, dean div. grad. studies, 38–* Chem. Soc. (sec'y, Fla. sect, 27–30). Organic chemistry.

Goodwin, W(illiam) N(elson), Jr, 30 Scheerer Ave, Newark, N. J. *Electrical engineering.* Philadelphia, Pa, Oct. 10, 76. B.S, Pennsylvania, 97, E.E, 08. Designer, Pa. Iron Works Co, 97–98; engineer, lab, *Weston Elec. Instrument Co*, 98–06, in charge research lab, 06–39, *chief engineer, 06–, v. pres. in charge research and eng, 39–* A.A; fel. Elec. Eng; Physical Soc; Radio Eng; Soc. Test. Mat. Instruments for precision measurements of alternating and direct current phenomena.

Goorley, Dr. John T(heodore), 20 William St, Mt. Vernon, N. Y. *Pharmacy.* Galion, Ohio, March 12, 07. B.S, Ohio State, 30; M.S, Purdue, 32, Ph.D, 34. Chief control chemist, Burroughs Wellcome Co, 33–38; director research, Laboratorios Lex, Cuba, 39–42; *Sanit. Corps, U. S. Army, 42–* N. Y. Acad. Enteric coatings; anti-pernicious anemia factor and vitamin B complex of liver; fatigue.

Gopal-Ayengar, Dr. A(nekal) R(amaswamiengar), University of Toronto, Toronto, Ont, Can. *Cytology.* Mysore State, India, Jan. 1, 09. B.Sc, Mysore Univ, 29, M.Sc, 33, univ. scholar, Cent. Col, Bangalore, 29–30; Vincent Massey scholar, Toronto, 38, Vincent Massey fellow, 38–39, M.A. and Ph.D, 42. Demonstrator *bot, Mysore*, 30–35, *lecturer, 35–;* demonstrator and asst, *Toronto*, 39–42, *senior demonstrator, 42–* Elizabeth Ann Wintercorbyn award, 41. Cytogenetics and morphology of angiosperms; chromosome structure in gymnosperms and angiosperms; cytology of the Scilloideae; inversion hybridity in Scilloideae; chromosome behavior in Botrychium; mechanics of chromosome behavior in meiosis and mitosis.

Goranson, Dr. E(dwin) A(lexander), East Malartic Mines, Ltd, Norrie, Que, Can. *Mining geology.* New Westminster, B. C, Nov. 12, 04. B.A.Sc, British Columbia, 28; scholar, Harvard, 28, A.M, 30, traveling scholar, 32, Ph.D, 33. Asst. to Prof. E. E. Larsen, Harvard, 29, instr. mining geol, 30–33; geologist, Labrador Explor. Co, 33; geologist and engineer, Base Metals Mining Corp, 33–37; *geologist, East Malartic Mines, Ltd, 37–* Summers, asst, Geol. Surv. Can, 25–30, asst. geologist, 31–32. Min. and Metal. Eng.

Goranson, Dr. Roy W(aldemar), 2801 Upton St, Washington, D. C. *Physics.* New Westminster, B. C, Can, Oct. 8, 00. B.A.Sc, British Columbia, 22; A.M, Harvard, 23, Ph.D, 31. *Physical geologist, geophys. lab, Carnegie Institution, 26–; consultant, Nat. Defense Research Cmt, 40–; sci. adviser, bur. ships, U. S. Navy, 41–* Fel. Physical Soc; fel. Geol. Soc; Geophys. Union; Chem. Soc; Wash. Acad. Thermodynamic relations in multi-component systems; mineralogy; geology; physical and chemical properties of substances at high temperatures and pressures.

Gorbman, Dr. Aubrey, Wayne University, Detroit, Mich. *Zoology.* Detroit, Mich, Dec. 13, 14. A.B, Wayne, 35, M.S, 36; Ph.D, California, 40. Teaching asst. zool, California, 36–40, research assoc. inst. exp. biol, 40–41; *instr. biol, Wayne, 41–* Soc. Zool. Comparative physiology; comparative anatomy and physiology of endocrine organs; gonadotropic hormone excretion in normal and cancerous men.

Gorcica, Dr. Henry J(an), The Pabst Brewing Co, Milwaukee, Wis. *Biochemistry.* Brno, Czechoslovakia, June 24, 07. B.S, Wisconsin, 29, M.S, 31, Ph.D, 34. Asst, Wisconsin, 31–35, *research chemist, Pabst Brewing Co, 35–* A.A; Chem. Soc. Malting and brewing; fermentations; vitamins in microorganisms; utilization of brewery by-products.

Gordée, Dr. A(lexander) B(ogart), 91 Hemingway St, Winchester, Mass. *Chemistry.* Amsterdam, Holland, March 15, 68. Ph.D, Leipzig, 89. Edison Co, 02–07; consulting anal. org. chemist, 07–12; Am. Ramie Co, 12–14; consulting chemist, 14–18; Am. Bead Co, 18–24; Marine Eng. Co, 24–26; Plastic Products Co, 26–28; Chem. Labs, Inc, 28–31; *director research, Plastic Research Corp, 31–* A.A; Chem. Soc. Synthetic plastics.

Gordon, Dr. A(aron), University of California, Berkeley, Calif. *Plant physiology.* Odessa, Russia, Feb, 94. B.S, California, 21, M.S, 22, James Rosenberg Mem. scholar, 24–26, fellow, 27–30, Ph.D, 31. Analyst, 23–24; asst. plant nutrition, California, 27–30, forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–34; *with Calif. Forest and Range Exp. Sta, U. S. Forest Service, 34–* Chem. Soc. Soils; plant nutrition; infertility of serpentine and other magnesian soils; wood preservation; chlorosis; physiology of injecting living trees; physiology of forage plants.

Gordon, Dr. Albert S(aul), New York University, Washington Square, New York, N. Y. *Physiology.* Brooklyn, N. Y, Aug. 8, 11. B.S, Col. City of N. Y, 30; M.S, N. Y. Univ, 31, Ph.D, 34. Asst. instr. *biol, Wash. Sq. Col, N. Y. Univ,* 31–36, *instr, 36–* Instr, Newark Inst. Arts and Sciences, 34–35. Soc. Zool; Asn. Anat; Physiol. Soc; N. Y. Acad. Red blood cell formation and destruction; reticuloendothelial activity; endocrinology.

Gordon, Dr. Alexander, La Carlota Sugar Central, La Carlota, Occidental Negros, P. I. *Agricultural engineering.* Calamba, Laguna, P. I, Jan. 4, 02. B.Agr, Philippines, 23, B.S.A, 24; P. I. Govt. scholar, Cornell, 24–25, 26–27, M.S, 25, Ph.D, 27; P. I. Govt. scholar of Cornell, Colo. Agr. Col, 25–26. Asst. agr. eng, col. agr, Philippines, 23–24, instr, 27–28, asst. prof, 28–31; *chief dept. agr. and experiments, La Carlota Sugar Cent, 31–* Nat. Research Council P. I. A.A; Philippine Soc. Tech. Agr; Philippine Soc. Sugar Technol. Sugar agronomy; horticulture.

Gordon, Dr. Alfred, 1900 Locust St, Philadelphia, Pa. *Neurology.* A.M, M.D, Paris, 99. Assoc. nervous and mental diseases and neuropath, Jefferson Med. Col, 99–14; *neurologist, hosps, 00–* Examiner of insane, Phila. Gen. Hosp. A.A; Neur. Asn; Psychiat. Asn; Acad. Nat. Sci. Phila; for. cor. mem. Soc. médicopsychol. de Paris. Neuropsychiatry.

Gordon, Dr. Alvin, 366 Bracken Ave, Pittsburgh 10, Pa. *Physical chemistry.* New York, N. Y, Oct. 25, 14. B.S, Polytech. Inst. Brooklyn, 37; Ph.D, N. Y. Univ, 41. Teaching fellow, N. Y. Univ, 37–41; asst. physical chemist, Boyce Thompson Inst, 41–42; *research asst, Nat. Defense Research Cmt, 42–* Summer, asst, Polytech. Inst. Brooklyn, 37. Conductivity in selenium oxychloride; photolysis of methyl bromide; photolysis of ketene; vapor pressure and rate of vaporization of sulphur; explosives.

Gordon, Prof. A(ndrew) R(obertson), 729 Avenue Road, Toronto, Ont, Can. *Physical chemistry.* Toronto, Ont, June 21, 96. B.A, Toronto, 22, M.A, 23, Ph.D, 25. Lecturer *chem, Toronto,* 25–28, asst. prof, 28–34, assoc. prof, 34–38, *prof, 38–* Chem. Soc; Can. Inst. Chem; fel. Royal Soc. Can. Transport and diffusion in solution; theory of solutions.

Gordon, Prof. C(larence) E(verett), Massachusetts State College, Amherst, Mass. *Geology, Zoology.* Clinton, Mass, Feb. 15, 76. B.S, Mass. Col, 01, Boston, 03; Clark, 01, 03; A.M, Columbia, 05, fellow, 05–06, Ph.D, 11; Rensselaer Polytech, 15; Harvard, 15. Master science, Cushing Acad, Mass, 01–04; asst. prof. zool. and geol, *Mass. State Col,* 06–10, prof, 10–38, head dept, 10–30, 37–38, *head div. physical and biol. sciences, 27–,* head dept. entom, zool. and geol, 30–37, *prof. geol. and miner. and head dept, 38–* Acting prof, Amherst Col, 23–25; field geologist, Vt. Geol. Surv, 11–14, asst. geologist, 18–33. Summers, asst. geologist, N. Y. Geol. Surv, 08, 09, 12; Princeton Int. Summer Sch. Geol. and Nat. Resources, west. U.S.A, 26, England, Scotland and Wales, 29. A.A; fel. Geol. Soc; Geophys. Union; fel. Paleont. Soc. Early Paleozoic corals; areal and structural geology of western Vermont; geology of the Poughkeepsie, New York, quadrangle.

Gordon, Prof. C(larence) McCheyne, Lafayette College, Easton, Pa. *Physics.* Fannettsburg, Pa, April 14, 70. A.B, Princeton, 91, fellow, 91–92, A.M, 93; Ph.D, Göttingen, 97. Asst. physics, Williams Col, 93–94, instr. physics and math, 94–95; asst. physical chem, Harvard, 97–98; *prof. physics,* Cent. Univ. of Ky, 98–09; *Lafayette Col, 09–* Physical Soc; Optical Soc; Electrochem. Soc. Polarization capacity; electromotive forces of fused salt cells; capacity and resistance of aluminum anode films; passivity of iron; theory of passive state of metals.

Gordon, Dugald, Gulf Bldg, Houston, Texas. *Geology.* Rose Center, Mich, Dec. 17, 86. Millikin, 05–06; Michigan, 06–09. *Geologist,* Tenn. Coal, Iron and R. R. Co, Birmingham, 09–19; Sinclair Oil and Gas Co, Ft. Worth and Tulsa, 19–24; Humphreys Corp, Dallas, 24–27; *with Brokaw, Dixon and McKee.* Shreveport, La, and *Houston, Texas, 27–* Asn. Petrol. Geol; Min. and Metal. Eng. Production of gas and oil; Richland gas field, Louisiana; engineering.

Gordon, Dr. Edgar S(tillwell), University of Wisconsin Medical School, Madison, Wis. *Biochemistry, Medicine.* Chicago, Ill, Nov. 6, 06. A.B, Wisconsin, 27, A.M, 29; M.D, Harvard, 32. Instr. biochem, *Wisconsin,* 37–41, *asst. prof. biochem. and clin. med, 41–* Am. Med. Asn; Asn. Study Int. Secretions; Cent. Soc. Clin. Research. Biological action of biotin and pantothenic acid; respiratory metabolism of muscle diseases; adrenal cortical hormone; tissue metabolism in thyroid disease.

Gordon, Prof. F(rancis) B(yron), 5724 Ellis Ave, Chicago, Ill. *Bacteriology.* Fairbury, Ill, March 15, 05. B.S, Ill. Wesleyan, 27; Ph.D, Chicago, 36, M.D, 38. Instr. *bacter, Chicago,* 36–39, asst. prof, 39–43, *assoc. prof, 43–* Managing ed, 'Jour. Infectious Diseases,' 41– Soc. Bact. Filterable viruses.

Gordon, Dr. Harold, 101 W. Chestnut St, Louisville, Ky. *Pathology.* Riversdale, Cape Province, S. Africa, May 1, 94. M.B, Toronto, 22, M.D, 26, L.M.C.C, 23; M.S, Michigan, 34. Asst. physician, Selkirk Mental Hosp, Man, Can, 22–23; practising physician, Hartney, Man, 23–26; asst. physician and acting pathologist, State Hosp, Kalamazoo, Mich, 26–27; asst. and instr. *path,* Michigan, 27–35; asst. prof. and *assoc. prof, Louisville, 35–; major, Med. Corps, U. S. Army.* A.A; Soc. Clin. Path; Asn. Path. and Bact; fel. Col. Physicians. Adrenalin injections for diagnosis in psychiatric disease; scleroderma; pathology of the appendix; cardiac pathology in hyperthyroidism; pathology of bone marrow; silver staining of reticulum; pathology of experimental measles; artificial substitute for blood plasma.

Gordon, Dr. H(ugh) B(yron), 1515 W. Wisconsin Ave, Milwaukee, Wis. *Chemistry.* Near Georgetown, Ohio, March 23, 87. A.B, Miami (Ohio), 08; M.S, Illinois, 10, Ph.D, 12; Columbia, 27–29. Bur. chem, U. S. Dept. Agr, 12–13; instr. chem, Oklahoma, 13; asst. prof, Agr. and Mech. Col. Texas, 13–15, assoc. prof, 15–17; asst. prof, Rutgers, 17–19; research chemist, U. S. Testing Co, 19–20, 21–28; Leeds and Northrup Co, 20–21; prof. chem. eng, Ala. Polytech, and chem. engineer, eng. exp. sta, 30–33; chemist, Julius Kayser and Co, 34–35; research dept, Johns-Manville Corp. Manville, 36–42; *assoc. prof. chem. eng, Marquette, 42–* Teacher, evening sch, Pratt Inst, 34–35. Chem. Soc; Asn. Textile Chem. and Colorists; Soc. Test. Mat; assoc. Chem. Eng; N. Y. Micros. Soc. Chemical engineering; measurements of vapor pressure lowering of solutions; effect of light on cottonseed oil; estimation of mercury; colorimetry and fastness of dyes; identification and grading of textile fibers; analyses of Alabama waters; electrolysis of silicates.

Gordon, Dr. John Everett, Harvard Medical School, Boston, Mass. *Epidemiology.* Austin, Minn, June 18, 90. Ph.G, Northwestern, 13, Ph.C, 14; B.S, Chicago, 16, Ph.D, 21, M.D, Rush, 24. Instr. bacter, Chicago, 19; assoc. prof, Western Ontario, 21; asst. med. supt, Munic. Contagious Disease Hosp, Chicago, 25; med. director div. communicable diseases, Herman Kiefer Hosp, Detroit, 27; special mem, int. health div, Rockefeller Foundation, 34–37; prof. *prev. med. and epidemiol, Harvard Med. Sch, 37–, Charles Wilder prof, 40–,*

director, Harvard-Red Cross Field Hosp, England, 40–; liaison officer, British Ministry of Health, 40– Clin. lecturer, Michigan, 31. Soc. Epidemiol; Pub. Health Asn; Am. Med. Asn. (chairman, sect. prev. and indust. med. and pub. health, 31); Soc. Bact; fel. Col. Physicians; fel. Acad. Pediat. Acute communicable diseases.

Gordon, Prof. Kate, University of California at Los Angeles, Los Angeles, Calif. *Psychology.* Oshkosh, Wis, Feb. 18, 78. Ph.B, Chicago, 00, Ph.D, 03. Col. Alumnae fellow, 03–04; instr. philos, Mt. Holyoke Col, 04–05, assoc. prof. psychol, 05–06; instr. educ. psychol, Teachers Col, Columbia, 06–07; assoc. prof. educ, Bryn Mawr Col, 12–16; asst. prof. psychol. and educ, Carnegie Inst. Tech, 16–19, assoc. prof, 19–21; lecturer *psychol, California at Los Angeles,* 21–22, assoc. prof, 23–34, *prof, 34–* Psychologist, children's dept, State Board Control, Calif, 18–19. A.A; Psychol. Asn; Philos. Asn. Memory and attention; affective memory; color vision of the peripheral retina; esthetics of color; memory for music; mental tests on children; group judgments on lifted weights; memory for odors for meaningful material; imagination.

Gordon, Prof. Kenneth, Oregon State Agricultural College, Corvallis, Oregon. *Zoology.* Taylorville, Ill, June 7, 99. A.B, Colo. Col, 23; A.M, Missouri, 25; Ph.D, Cornell, 36. Asst. prof. and later *assoc. prof. zool, Oregon State Col. 27–* Ecol. Soc; Ornith. Union; Cooper Ornith. Club. Ornithology; conservation of wildlife.

Gordon, Dr. Leon S(tuart), 1801 Eye St, N. W, Washington, D. C. *Internal medicine.* Baltimore, Md, Aug. 4, 04. A.B, George Washington, 29, M.D, 28, A.M, 30, Ph.D, 32; certificate, grad. sch. med, Pennsylvania, 33. Instr. bacter. and path, George Washington, 29–30, asst. prof. path, 30–32; *director in chief med. div, Metropolitan Police Boys Clubs, 33–* Lecturer, Cent. Sch. for Training Nurses, 29–32. Fel. Am. Med. Asn; fel. Am. Geog. Soc; Am. Heart Asn; Acad. Polit. Sci; fel. Col. Physicians; assoc. U. S. Naval Inst; Jacobi Med. Soc. (v. pres, 41); South. Med. Asn; Wash. Soc. Path. Diagnostic medicine; pathology of birth cerebral injuries; parasitology in under-privileged children.

Gordon, Dr. Myron, Aquarium, N. Y. Zoological Park, New York, N. Y. **Zoology, Genetics, Ichthyology. Odessa, Russia, Dec. 11, 99. B.S, Cornell, 25, M.S, 26, Ph.D, 29. Heckscher Research Foundation asst, Cornell, 25–29; nat. research fellow zool, Cornell and Michigan, 29–31; in charge fish genetics lab, Cornell, 31–37, Heckscher Research Foundation zoologist, 32–37; dept. anat, sch. med, Yale, 38; Guggenheim Mem. Foundation fellow, third Mexican exped, Michigan, N. Y. Univ, N. Y. Aquarium and Yale, 38–40; *research assoc. genetics, New York Zool. Soc, 41–* Summers, instr, Cold Spring Harbor, 25, 26; hon. collector, biol. inst, Univ. Mexico, 32; ichthyologist, biol. surv, State Fish and Game Dept, N. H, 37, 38. Leader, Univ. Michigan ichthyol. exped, Mex, 30; Cornell ichthyol. exped, Mex, 32. Soc. Ichthyol. and Herp. (v. pres, 34); Genetics Soc; Genetic Asn; Soc. Zool. Inheritance of sex and wild type patterns in fishes; inheritance and its influence on the development of spontaneous melanotic tumors in hybrid fishes; genetics and evolution of species differences in Mexican fishes.

Gordon, Prof. Neil E(lbridge), Wayne University, Detroit, Mich. *Physical chemistry.* Spafford, N. Y, Oct. 7, 86. Ph.B, Syracuse, 11, A.M, 12, Pd.B, 21; Ph.D, Hopkins, 17. Asst. prof. inorg. chem, Goucher Col, 17–19; prof. physical chem, Maryland, 19–28, director chem. dept. 21–28; prof. chem. educ, Hopkins, 28–36; chairman dept. *chem,* Cent. Col. (Mo), 36–42; *prof. and chairman dept, Wayne, 42–* State chemist, Md, 21–28. Ed, 'Jour. Chem. Educ,' 24–33. A.A. (sec'y, D, 37); Chem. Soc; Inst. Chem; fel. Faraday Soc; London Chem. Soc. Chemical education; infinite solubilities; dehydrating agents; adsorption; emulsions; dyes.

Gordon, Dr. Newell T(rimble), General Electric Co, Schenectady, N. Y. *Physical chemistry.* Boonton, N. J, Sept. 26, 90. B.S, Princeton, 13, Ph.D, 19. State Dept. Labor, N. J, 17–19; Nat. Lamp Works, 19–22; Edison Lamp Works, 22–26; *chemist, research lab, Gen. Elec. Co, 26–* A.A; Chem. Soc. Potentials of alloys; manufacture of tungsten; incandescent lamps; photo cells.

Gordon, Dr. Robert B(enson), 415 Sharpless St, West Chester, Pa. *Botany.* Erie, Pa, July 23, 01. B.S, Ohio State, 22, M.S, 28, Ph.D, 31. Teacher, high sch, W. Va, 24–26; asst. *bot,* Ohio State, 26–30, instr, 30–37, asst. prof, 37–38; *instr. science, Pa. State Teachers Col, 38–* Summers, instr, Allegany Sch. Nat. Hist, 30, 32–40, director, 36–40. A.A; Ecol. Soc; Torrey Bot. Club; Pa. Acad. Plant ecology; natural vegetation surveys of the eastern states.

Gordon, S(amuel) G(eorge), Academy of Natural Sciences, Philadelphia, Pa. *Mineralogy.* Philadelphia, Pa, June 21, 97. *Assoc. curator dept. miner, Acad. Nat. Sciences, Phila; technologist, quartz crystal sect, O.C. Sig. O, U. S. War Dept, 42–* Assoc. ed, 'Am. Mineralogist,' 16– Miner. exped. to Andes of Ecuador, Peru, Bolivia, Chile, 21, Greenland, 23, Andes of Bolivia and Chile, 25, S. Amer. and Africa, 29–30, Chile, 39. Fel. Miner Soc; Phila. Miner. Soc. (sec'y, 15–24); fel. London Miner. Soc. Crystallography; mineralogy of Pennsylvania, Greenland, Chile, Argentina and Bolivia; museum exhibition.

Gordon, Dr. Samuel M(orris), Endo Products, Richmond Hill, New York, N. Y. *Chemistry.* Boston, Mass, Oct. 15, 98. Harvard, 20; B.S, Tufts Col, 22; M.S, Iowa, 23; Inst. Agron, Paris, 19; Wrigley fellow, Wisconsin, 24–26, Ph.D, 26. Asst, Iowa, 22–23; chemist, Portland Cement Asn, 23–24; nat. research fellow biol, Wisconsin, 26–28; chief bur. chem, Am. Dental Asn, Chicago, 28–37, sec'y council on dental therapeut, 30–37; *v. pres. in charge research, Endo Products, 37–; major, Chem. Warfare Service, U. S. Army.* Consultant on drug admin, Health Dept, New York, 30. A.A; Chem. Soc; assoc. fel. Am. Med. Asn; Int. Asn. Dental Research. Phytochemistry; dental medicinal chemistry; pharmaceutical chemistry.

Gordon, Dr. Wallace E(merson), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Detroit, Mich, Sept. 25, 07. A.B, Col. City of Detroit, 27; M.S, Michigan, 31, Ph.D, 34. Teacher, high sch, Mich; *research chemist,* exp. sta. and later *speciality sales, Grasselli Chem. Dept, E. I. du Pont de Nemours and Co, 33–* A.A; Chem. Soc; N. Y. Acad. Synthetic resins; halochromism of triarylcarbinol halides.

Gordon, Dr. Wendell B, 3723 Brighton Road, Pittsburgh, Pa. *Electrocardiography.* Pittsburgh, Pa, Nov. 2, 98. B.S, Allegheny Col, 20; M.S, Pittsburgh, 21, M.D, 25. *Instr. med, Pittsburgh, 27–* Am. Med. Asn; Heart Asn; Therapeut. Soc. Treatment of the various forms of heart disease.

Gordon, Dr. William E(dwin), Bureau of Research, Minnesota Division of Social Welfare, Globe Bldg, St. Paul, Minn. *Statistics.* Morgan Co, Ill, Oct. 13, 11. Ph.D, Minnesota, 41. Instr. biostatist, Minnesota, 41–42; *head bur. research and statist, State Div. Social Welfare, Minn, 42–* A.A; Ecol. Soc; Minn. Acad. Medical and social statistics; quantitative biology.

Gordon, Dr. William G(eorge), Eastern Regional Research Laboratory, Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Biochemistry.* New York, N. Y, Jan. 31, 08. A.B, Cornell, 27, A.M, 28; Ph.D, Yale, 33. Asst. physiol. chem, Yale, 29–33, nat. research fellow, 33–34, Coxe fellow, 34–35; instr. biochem, Stanford, 35–39; research fellow agr. biochem, Pa. State Col, 39–41; *assoc. chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* A.A; Chem. Soc; Soc. Biol. Chem. Chemistry and metabolism of amino acids; protein chemistry.

Gordon, Dr. W(illiam) L(aurence), Dominion Rust Research Laboratory, Winnipeg, Man, Can. *Plant pathology.* Lachute, Que, March, 01. B.S.A, McGill, 22, M.Sc, 24, Nat. Research Council Can. bursar, 24–25; Ph.D, Wisconsin, 32. Plant disease investigator, div. bot, Cent. Exp. Farm, *Can. Dept. Agr,* Ottawa, 22–25, asst. plant pathologist, *Dom. rust research lab,* 25–28, *plant pathologist, 28–* Phytopath. Soc; Can. Phytopath. Soc; Can. Soc. Tech. Agr. Injurious effects of smut treatments on oats; physiological forms of Puccinia graminis avenae; effect of environment on Puccinia graminis avenae; root rots of cereals; taxonomy of the genus Fusarium.

Gordon, Dr. W(illis) O(wen), U. S. Department of Agriculture, Laurel, Miss. *Chemical engineering.* Grandview, Ill, Aug. 2, 87. B.S, Illinois, 11; M.S, Alabama, 31; Ph.D, American Univ. (D. C), 37. *Chem. engineer,* Bur. Standards, 30–38; south. regional research lab, bur. agr. chem. and eng, and later *div. agr. chem. research, bur. agr. and indust. chem, U. S. Dept. Agr, 38–* Sweet potato products; farm products utilization.

Gordy, Prof. Charles Burton, University of Michigan, Ann Arbor, Mich. *Industrial engineering.* Salisbury, Md, Dec. 12, 93. B.S, Pennsylvania, 17, A.M, 21; Ph.D, Michigan, 29. Instr, Pennsylvania, 19–21; asst. prof. *mech. eng, Michigan,* 21–34, assoc. prof, 34–37, *prof, 37–* Detroit ed, 'Am. Machinist,' 34–36; 'Factory Management and Maintenance,' 36–

Indust. Eng. (v. pres, 23-26). Management of quantity production manufacturing.

Gordy, Edward L(ee), 2030 Wooster Ave, Dover, Ohio. *Organic chemistry.* Danville, Pa, Feb. 27, 04. B.S, Haverford Col, 25; Harvard, 25-27. Research chemist and later plant supt, Pilot Labs, Inc, 27-30; ed, 'The Chemist,' 31-34; *director research and develop, W. C. Hardesty Co, Inc, 35-* A.A; Chem. Soc; Oil Chemists Soc; Inst. Chem. Fatty acids and derivatives.

Gordy, Prof. Walter, Mary Hardin-Baylor College, Belton, Texas. *Physics.* Lawrence, Miss, April 20, 09. A.B, Miss. Col, 32; A.M, North Carolina, 33, Ph.D, 35. Asst. physics, North Carolina, 32-33, 34-35; *assoc. prof. math. and head dept. physics and math, Mary Hardin-Baylor Col, 35-; staff mem, radiation lab, Mass. Inst. Tech, 42-* Nat. research fellow, Calif. Inst. Tech, 41-42. A.A; fel. Physical Soc. Infra-red absorption spectra studies of molecular structure and interactions; hydrogen bonding; determination of basicities of organic compounds; electron diffraction determination of molecular structure.

Gore, Prof. Bancroft, South Dakota State School of Mines, Rapid City, S. Dak. *Metallurgy.* Newton, Mass, July 5, 79. A.B, Harvard, 00. Prof. metal, sch. mines, Montana, 13-17; engineer copper smelting and ref, French High Cmn, 17-19; *prof. metal, S. Dak. Sch. Mines, 21-* Consulting engineer, Govt. Argentina, 25-26. Min. and Metal. Eng. Utilization of lignite fuel; refractory gold ores.

Gore, Dr. G(reenville) D, Central Y. M. C. A. College, Chicago, Ill. *Mathematics.* Freeman, Mo, June 5, 99. A.B, William Jewell Col, 23; M.S, Chicago, 25, Ph.D, 32. Instr. math, S. Dak. Col, 25-27; Rochester, 28-31; *chairman dept. math. and eng. science, Cent. Y.M.C.A. Col, 31-* Math. Soc; Math. Asn. (chairman, Ill. sect, 39); West. Soc. Eng. Plane trigonometry; projective differential geometry; transformations of surfaces.

Gore, Dr. Robert C(ummins), University of Illinois, Urbana, Ill. *Physical chemistry.* Evansville, Ind, Aug. 18, 07. A.B, Evansville Col, 29; A.M, Indiana, 30, fellow, 30-31, Ph.D, 33. Instr. *chem,* Indiana, 33-36; Kentucky, 36-37; *Illinois, 37-41, assoc, 41-* Properties of electrolytic solutions; dielectric constants of conducting solutions; infra-red spectroscopy; colloids.

Gore, Dr. U(lys) R(oy), Agricultural Experiment Station, University of Georgia, Experiment, Ga. *Agronomy.* Ark, Oct. 7, 00. B.S.A, Arkansas, 25; M.S, Iowa State Col, 26; Ph.D, Chicago, 34. Instr. biol, Tabor Col, 26-27; bot, Agr. and Mech. Col. Texas, 27-32; asst, Arkansas, 35-36; *assoc. agronomist, Exp. Sta, Georgia, 36-* Bot. Soc. Breeding cereals for disease resistance and high yields; plant diseases; morphology of cotton plant.

Goresline, Dr. Harry E(dward), 7909 Chicago Ave, Silver Spring, Md. *Bacteriology.* Gardner, Kans, Aug. 13, 98. B.S, Oregon State Col, 26; M.S, Iowa State Col, 28, Ph.D, 31. Junior bacteriologist, eng. exp. sta, Iowa, 26-30; assoc. bacteriologist and *senior bacteriologist, agr. chem. research div, bur. agr. chem. and eng, U. S. Dept. Agr, 30-* Lecturer, American Univ, 32-34; prin. food technologist, dairy and poultry branch, Food Distribution Admin. A.A; Soc. Bact; Chem. Soc; Agr. Chem; fel. Pub. Health Asn; Inst. Food Technol. Food microbiology and fermentations; biological treatment of creamery and other industrial wastes; agar digestion by micro-organism; eggs and poultry products.

Gorham, Dr. John E(verett), 214 Howell Ave, Spring Lake, N. J. *Electronic physics.* Moline, Ill, Nov. 11, 11. B.S, Iowa State Col, 33, scholar, 33-34, M.S, 34; Ph.D, Columbia, 38. Teaching asst. physics, Columbia, 34-37, asst. physics and chem, 37-38; test equipment engineer, Belmont Radio Corp, 39; elec. engineer, Continental X-ray Corp, 40; *senior physicist, Signal Corps, U. S. Army, 40-* Physical Soc; Radio Eng. U.H.F. power generation and transmission; mass spectroscopy; nuclear magnetic moment measurement; electrets.

Gorham, Dr. L(emuel) Whittington, 214 State St, Albany, N. Y. *Medicine.* Albany, N. Y, June 20, 85. A.B, Yale, 06; M.D, Hopkins, 10. Assoc. attending physician, *Albany Hosp,* 27-37, *physician in chief, 37-;* assoc. prof. *med, Albany Med. Col, Union (N. Y),* 31-37, *prof, 37-* Soc. Study Asthma and Allied Conditions; Am. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn. Diseases of the blood.

Gorham, R(aymond) P(addock), Dominion Entomological Laboratory, Fredericton, N. B, Can. *Entomology.* Kingston, N. B, Dec. 3, 85. B.S.A, McGill, 11. Asst. provincial horticulturist, 12-16; instr. agr. and nature study, nor. sch, 16-17, 18-19; asst. supt. exp. sta, 17-18; *asst. entomologist, field crop and garden insects div, entom. branch, Dom. Entom. Lab, N. B, 19-* Ed, 'Acadian Naturalist,' 43. A.A; Can. Soc. Tech. Agr. (pres, N. B. branch, 32); York and Sunbury Hist. Soc. (director, 33-); Fredericton Sci. Club (pres, 17, 28, 38); Nat. Hist. Soc. N. B. (v. pres). Control of field crop insects; history of agriculture.

Gorham, Prof. R(obert) C(harles), University of Pittsburgh, Pittsburgh, Pa. *Electrical engineering.* Kans, April 11, 93. A.B. Nebr. Wesleyan, 17; E.E, Cornell, 24; M.S, Pittsburgh, 41. Instr. elec. eng, Cornell, 21-24; special tests, N. Y. Edison Co, 24-25; instr. *elec. eng, Pittsburgh,* 25-27, asst. prof, 27-35, *assoc. prof, 35-* Elec. Eng; Eng. Educ; assoc. Radio Eng. Power economics for engineering students.

Gorham, Dr. W(ilbur) C(lark), Colgate University, Hamilton, N. Y. *Biophysics.* Chicago, Ill, Feb. 15, 99. A.B, Illinois, 22; A.M, Columbia, 25; Ph.D, Michigan, 31. Instr, Columbia and Lincoln Exp. Sch, 23-26; head dept. science, N. Y. State Col. for Teachers, Buffalo, 26-29; investigator, biol. sta, Michigan, 31; biochemist, research lab, Fifth Ave. Hosp, New York, 31; Ray Long and Richard R. Smith, Inc, 31-34; publisher's rep, Farrar and Rinehart, Inc, 34-41; *lecturer physics, Colgate, 43-* A.A; Mich. Acad. Physiology-limnology.

Gorin, Dr. M(anuel) H(arold), Field Research Department, Magnolia Petroleum Co, Dallas, Texas. *Physical chemistry.* New York, N. Y, May 25, 09. B.S, California, 29, Ph.D, 33. Instr. chem, California, 34-35; research electrokinetics and protein chem, Mt. Sinai Hosp. and biol. lab, Cold Spring Harbor, 38-40; *chem. research supervisor, Magnolia Petrol. Co, 40-* Chem. Soc. (chairman, Dallas-Ft. Worth sect, 42); N. Y. Acad. Kinetics of ionic reactions; properties of electrolytes; electrokinetics; physical chemistry of the proteins; catalysis; chemistry of petroleum.

Gorman, Rev. Lawrence C(lifton), S.J, Loyola College, Baltimore, Md. *Organic chemistry.* New York, N. Y, Sept. 28, 98. A.B, Fordham, 20; A.M, Boston Col, 26; S.T.L, Woodstock Col. (Md), 33; Ph.D, Gregorian, 38. Asst. prof. chem, Georgetown, 26-29, acting dean col. arts and sciences, 34, prof. org. chem. and head dept. chem, 34-35; *v. pres. and dean studies, Loyola Col. (Md), 36-*

Gorman, Dr. William A(lbert), 1303 Esperson Bldg, Houston, Texas. *Geology.* Minneapolis, Minn, March 9, 06. A.B, Minnesota, 28, Ph.D, 33. Geologist, Rhodesian Selection Trust, Ltd, 28-30; consulting geologist, 35-36; geologist, Empire Oil and Ref. Co; *manager, Royal Oil and Gas Corp.* Geology of Seine River, Ontario; water supply of southwestern Minnesota; subsurface geology of eastern Texas.

Gorrell, George Wollam, Estes Park, Colo. *Mathematics.* Ross Co, Ohio, April 29, 74. A.B, Ohio Wesleyan, 03; A.M, Ohio State, 14. Physics and math, Chattanooga, 07-16; asst. prof. math, DePauw, 16-20; prof, Colo. Sch. Mines, 20-22; Denver, 22-42; *retired.* Math. Asn.

Gorrill, Dr. W(illiam) S(terling), 67 Remsen St, Brooklyn, N. Y. *Physics.* Berkeley, Calif, Oct. 26, 12. A.B, California, 34, Ph.D, 39. Teaching asst, California, 36, 38; *engineer, Sperry Gyroscope Co, 39-* Discharge in gases; servo mechanisms.

Gorsuch, D(avid) M(ajor), U. S. Forest Service, Albuquerque, N. Mex. *Zoology.* Millcreek, Pa, Oct. 31, 94. A.B, Arizona, 25, fellow, 26, 30- Div. investigation, bur. biol. surv, U. S. Dept. Agr, 25; Gambel quail investigation, dept. zool, Arizona, 30-33; game technician, *U. S. Forest Service,* 22; Calif. Acad. ornith. exped, 26. Life history and nesting habits of Gambel quail; road-runners; vegetative factors in Gambel quail populations; destruction of hawks and owls.

Gorsuch, Dr. John H(enderson), Traymore Apartments, Virginia Beach, Va. *Clinical psychology.* Patton, Pa, July 19, 10. B.S, Pa. State Col, 31; A.M, Pittsburgh, 37, Ph.D, 42. Psychologist, Pa. Indust. Sch, Huntingdon, 37-41; senior psychologist and indust. counselor, Pa. Indust. Sch, Camp Hill, 41-42; *clin. psychologist, U. S. Pub. Health Service, 42-; senior research investigator, Pennsylvania, 42-* Junior psychologist, West. State Penitentiary, Pa, 33-37. Psychol. Asn; Pa. Asn. Clin. Psychol. Criminology; vocational and social training.

Gortner, Dr. Ross A(iken), Jr, Long Lane, Middletown, Conn. *Biochemistry.* Cold Spring Harbor, N. Y, June 2, 12. A.B, Minnesota, 33, M.S, 34; univ. fellow, Michigan, 34–35, Ph.D, 37. Asst. biol. chem, Michigan, 35–37; instr. *biochem, Wesleyan,* 37–41, *asst. prof, 41–; assoc. exec. sec'y food and nutrition board, Nat. Research Council, 43–* A.A; Chem. Soc. Nutritional aspects of selenium poisoning; protein chemistry.

Gortner, Prof. Willis A(lway), 104 Worth St, Ithaca, N. Y. *Biological chemistry.* Cold Spring Harbor, L. I, N. Y, Dec. 20, 13. A.B, Minnesota, 34; Ph.D, Rochester, 40. Research chemist, Gen. Mills, Inc, 34–37; teaching asst. biochem, Rochester, 37–40; research chemist, Gen. Mills, Inc, 40–42; *asst. prof. biochem, Cornell, 42–* A.A; Chem. Soc. Fats and lipids; wood chemistry; colloids; vitamins.

Gorton, Dr. Arthur F(eddeman), 625 W. Stocker St, Glendale 2, Calif. *Meteorology.* Baltimore, Md, Sept. 17, 91. A.B, Hopkins, 12, A.M, 14, fellow, 14–15, Ph.D, 15. Instr. physics, Minnesota, 15–16; Hopkins, 16–17; ceramic engineer, Buckeye Clay Pot Co, Toledo, 17–20; physicist, Nat. Malleable Castings Co, Cleveland, 20–23; ceramic engineer and physicist, West. Elec. Co, Chicago, 23–25; consulting engineer, 25–26; acting prof. physics, Occidental Col, 26–28; assoc. meteorol, Scripps Institution, California, 28–33; consulting statistician, San Diego Consol. Gas and Elec. Co, Calif, 34; instr. math, Glendale Evening High Sch, 34–35; physics, Long Beach Junior Col, 35–38; Compton Junior Col, 38–39; mem. staff, social security board, U. S. Employment Service, 41–42; mathematician, Aircomp, Ltd, 42–43; research physicist, Autoflight Corp, 43; *elec. engineer, plant eng. dept, Lockheed Aircraft Corp, 43–* Manufacture and testing of special refractories; long-range weather forecasting.

Gorton, Dr. F(rederick) R(ussell), 217 Normal St, Ypsilanti, Mich. *Physics.* Waterloo, Mich, Sept. 16, 71. B.Pd, Mich. State Nor. Sch, 99; B.S, Michigan, 00, A.M, 01; Ph.D, Berlin, 05. Instr. physics, Mich. State Nor. Col, Ypsilanti, 92–03, asst. prof, 05–08, assoc. prof, 08–11, prof, 11–41, head dept. physics and astron, 16–41; *retired.* A.A. Minimum potential of electrical discharge from points; light sensitivity of points.

Gorton, Dr. Kenneth Arnold, Purdue University, West Lafayette, Ind. *Structural geology.* Chelsea, Mich, June 20, 10. A.B, Michigan, 33, Ph.D, 41. Geologist, Mich. Geol. Surv, 35–39; *instr. geol. and miner, Purdue, 41–* A.A; Geophys. Union; Mich. Acad. Structural geology of the Rocky Mountain front range.

Gorton, Dr. W(illiam) S(tuart), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Baltimore, Md, March 28, 89. A.B, Hopkins, 08, A.M, 10, fellow, 10–11, 13–14, Ph.D, 14. Instr. elec. eng, Mass. Inst. Tech, 11–13; physicist, Brady Inst, Hopkins Hosp, 14–17; assoc. physicist, Bur. Standards, 17–19; *research physicist,* West. Elec. Co, 19–25; *Bell Tel. Labs, 25–* Physical Soc. (sec'y-treas, metropolitan sect, 34–); Elec. Eng. High voltage corona in air; x-rays; voltage transformers; submarine telegraph and telephone cables; electrical contacts.

Goshorn, Dr. R(oland) H(enry), 306 Helen Ave, Trenton, Mich. *Organic chemistry.* Ladoga, Ind, April 20, 07. A.B, Manchester Col, 29; M.S, Illinois, 32; fellow, Purdue, 36, Ph.D, 37. Asst. chem, Manchester Col, 28–29; Illinois, 29–30; Purdue, 34–36; *research chemist, Sharples Chem, Inc, 36–* Chem. Soc. Preparation of alkyl bromides; effect of hydrogen ion concentration on antiseptic and bactericidal action of benzoic acid and inorganic salts; preparation of alpha-phenylalkanoic acids and their bactericidal and physical properties; catalytic production of amines.

Gosline, Dr. Harold Inman, Arlington Heights, Mass. *Neuropsychiatry.* West Newton, Mass, July 2, 88. A.B, Harvard, 09, M.D, 14. Asst. physician, Danvers State Hosp, 14–15; asst. and instr. neuropath, Harvard Med. Sch, 14–16; pathologist, Worcester State Hosp, 15–16; N. J. State Hosp, 17; pathologist, state institutions, and clin. director, State Hosp. for Mental Diseases, R. I, 19–23; prof. mental hygiene, col. med, Baylor, 23–26; pathologist, Vicksburg Infirmary, Miss, 26–27; Sing Sing Prison, 27–29; Neur. Hosp, Welfare Island, N. Y, 29–30; alienist, senior grade, dept. hosps, Bellevue Hosp, New York, 30–39; res. neuropsychiatrist, Inst. for Social Adjust, 39; consulting psychiatrist, Greenmont-on-Hudson; *mem. staff, Ring Sanitarium and Hosp.* Exten. lecturer, Brown, 20–23; director and chief psychiatrist, Child Guidance Clinic, Dallas, 23–26; lecturer, South. Methodist, 24–26. Clin. asst, Vanderbilt Clinic, Presb. Hosp. and Neur. Inst, 29–32; asst, N. Y. Univ, 33–34. M.C, U.S.A, 17–19, major, M.O.R.C, 20–24, lieut-col, 24– Psychiat. Asn; Am. Med. Asn; fel. Col. Physicians; N. Y. Soc. Clin. Psychiat. Psychiatry; neurology; rôle of infections in mental diseases; localization of mental functions; classification of mental diseases; role of vitamins and allergy in nervous and mental diseases; theory of psychic allergy; incorporation of neuropsychiatry into the field of internal medicine.

Gosline, Dr. William (Alonzo, III), Natural History Museum, Stanford University, Calif. *Ichthyology.* Toledo, Ohio, Dec. 20, 15. B.S, Harvard, 38; Ph.D, Stanford, 41. Junior biol. aid, Pacific pilchard investigation, fish and wildlife service, U. S. Dept. Interior, 41; Am. Field Service Ambulance Unit, British Middle East Army, 41–43; *research, Stanford, 43–* Summers, asst, Oceanog. Institution, Woods Hole, 35, 38, 39; Hopkins Marine Sta, 37. Soc. Ichthyol. and Herp. Fresh-water fishes of South America; fisheries biology.

Goss, Dr. B(yron) C(assius), 1874 E. 59th St, Cleveland, Ohio. *Physical chemistry.* Rochester, Ind, March 27, 90. A.B, Wabash Col, 12; Ph.D, Princeton, 16; Columbia, 16. Instr. chem, Princeton, 13–17; asst. manager exp. eng. dept, nat. elec. lamp works, Gen. Elec. Co, 19–22; *pres. and gen. manager, Lake Erie Glass Co, 22–; pres, Lake Erie Chem. Co, 25–* Pres, U. S. Ordnance Engineers, Inc, 33– Summer, chemist, bur. chem, U. S. Dept. Agr, 14, consulting chemist, 16–17. D. S. medal. Lieut. col, C.W.S, 17–19. Chem. Soc. Colloid chemistry; light production at low temperature; solution of tin by canned foods.

Goss, Dr. Charles M(ayo), University of Alabama School of Medicine, Tuscaloosa, Ala. *Anatomy.* Peoria, Ill, Feb. 16, 99. A.B, Yale, 21, M.D, 26. Instr. *anat,* sch. med, Yale, 26–29; col. physicians and surg, Columbia, 29–31, asst. prof, 31–38; *prof, sch. med, Alabama, 38–* Asn. Physical Anthrop; Soc. Exp. Biol; Genetic Asn; Asn. Anat; Harvey Soc; Ala. Acad. Experimental embryology and cytology; histology; myology.

Goss, Prof. H(arold), College of Agriculture, University of California, Davis, Calif. *Nutrition.* Salt Lake City, Utah, July, 95. B.S, California, 18, Ph.D, 29. Instr. nutrition, *California,* 18–25, junior chemist, Exp. Sta, 25–28, asst. prof. *animal husbandry, col. agr,* 28–32, *assoc. prof, 33–* Soc. Biol. Chem; Inst. Nutrition; Soc. Exp. Biol. Mineral metabolism and reproduction; relation of glutathione to growth; animal nutrition; chemistry of the gonadotropic hormone.

Goss, Dr. Leonard J(oyce), N. Y. Zoological Park, Bronx Park, New York, N. Y. *Animal pathology.* Manhattan, Kans, Feb. 27, 13. D.V.M, Ohio State, 34; Ph.D, Cornell, 38. Instr. path, N. Y. State Vet. Col, Cornell, 34–38; bacteriologist, Exp. Sta, Kentucky, 38–39; *veterinarian, N. Y. Zool. Soc, 39–* Vet. Med. Asn; Asn. Path. Pathology of captive wild animals.

Goss, Dr. Leonard Whittlesey, Ohio State University, Columbus, Ohio. *Veterinary pathology.* Edinburg, Ohio, April 26, 77. D.V.M, Ohio State, 05; Michigan, 06; Berlin, 11–12. From asst. to prof. vet. path, Kans. State Col, 05–19; research pathologist, Parke, Davis and Co, Detroit, Mich, 19–20; *prof. vet. path, Ohio State, 20–* Vet. Med. Asn. (sec'y, educ. and research sect, 19–21, mem. cmt. educ, 20–25, sec'y, research workers in animal diseases, 25–28); Asn. Path. and Bact; U. S. Live Stock Sanit. Asn; Ohio State Vet. Med. Asn. Diseases of the reproductive organs; blackleg in cattle; goiter in dogs; parasitic infestations of muscular tissues of food animals.

Goss, Dean R(obert) W(hitmore), University of Nebraska, Lincoln, Nebr. *Plant pathology.* Fall River, Mass, May 28, 91. B.S, Mich. State Col, 14, M.S, 15; Ph.D, Wisconsin, 23. Asst. plant path, Mich. State Col, 15–16; asst. prof, Delaware, and asst. plant pathologist, Exp. Sta, 17–18; asst. pathologist, cereal office, bur. plant indust, U. S. Dept. Agr, 19–20; asst. prof. *plant path, Nebraska,* 20–23, assoc. prof, 23–30, *prof, 30–,* asst. plant pathologist, *Exp. Sta,* 20–23, assoc. plant pathologist, 23–37, *plant pathologist, 37–, dean grad. col, 41–* A.A; Phytopath. Soc. (v. pres, 38).

Goss, W(arren) H(and), U. S. Department of Agriculture, Peoria, Ill. *Chemical engineering.* Portland, Oregon, May 27, 12. B.S, Washington (Seattle), 33; Maryland, 34–36; Illinois, 38–39. Under sci. aide, Bur. Standards, 33–34, junior chemist, 35–37; junior chem. engineer, regional soybean lab, *U. S. Dept. Agr,* 37–38, asst. chem. engineer, 39–40, chem. engineer, 40–41, *senior chem. engineer,* 41–42, *north. regional research lab, bur. agr. chem. and eng, 42–* Chem. Soc; Chem. Eng; Oil Chemists Soc. Chemical engineering and development; industrial utilization of agricultural products; vegetable oils.

Gossard, Atherton C(lark), U. S. Horticultural Field Station, Meridian, Miss. *Horticulture.* Princeton, Ill, Aug. 6, 04. B.S. (Agr), Ohio State, 27; M.S, Wisconsin, 29. Asst. hort, Wisconsin, 27–29; inspector, Merchants' Despatch, Inc, Rochester, N. Y, 29–30; *asst. pomologist, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Soc. Hort. Sci. Stock and scion relations in the apple; pecan production and propagation in Alabama, Mississippi and the vicinity of the Gulf of Mexico.

Gossard, Dean H(arry) C(linton), Eastern New Mexico College, Portales, N. Mex. *Mathematics.* Helena, Ohio, March 13, 84. B.S, Ohio Northern, 07, Ed.D, 37; fellow, Hopkins, 12–13, Ph.D, 14. Instr. math, Oklahoma, 13–14, asst. prof, 14–16; instr, U. S. Naval Acad, 17–18; asst. prof, Oklahoma, 18; south. student sec'y int. cmt, Y.M.C.A, 19–21; prof. math. and head dept, Wyoming, 21–25; student sec'y nat. council, Y.M.C.A, Rocky Mountain area, 26–27; director personnel and dean men, Nebr. Wesleyan, 27–31; pres, N. Mex. Nor. Univ, 31–39; *dean, East. N. Mex. Col, 39–* Math. Soc; Math. Asn. Geometry; secondary mathematics; pedagogy.

Gosselin, Dr. Gaston, 5260 Clarke St, Montreal, Que, Can. *Physiological chemistry.* Montreal, Que, Jan. 28, 02. A.B, Montreal, 21, M.D, 29; D.Sc, Paris, 33; fellow, Can. Inst. Chem. *Prof. physiol. chem, faculty med, Montreal, 34–* Can. Physiol. Soc. Bound water in living cells.

Gotaas, Prof. Harold B(enedict), University of North Carolina, Chapel Hill, N. C. *Sanitary engineering.* Mellette, S. Dak, Sept. 3, 06. B.S, South Dakota, 28; M.S, Iowa State Col, 30; M.S, Harvard, 37, Sc.D, 42. Draftsman, Am. Bridge Co, 30; bridge designer, State Highway Cmn, Iowa, 31; chief draftsman, Clinton Bridge Works, 31–32; asst. prof. civil eng, South Dakota, 32–37; from asst. prof. to *prof. sanit. eng, North Carolina, 37–; consultant munic. eng. sanitation and indust. waste treatment; major, U. S. Army, and chief eng. sect, div. health and sanitation, Office Coordinator Inter-Am. Affairs, 42–* City engineer, Vermillion, S. Dak, 33–37; U. S. Dept. Labor special rep. in charge installation of merit system, State Employment Office, 36. Civil Eng; Pub. Health Asn; Indust. Hygiene Asn; Water Works Asn; Eng. Educ; Sewage Works Federation; Elisha Mitchell Sci. Soc. Industrial hygiene; sanitary science; textile waste treatment and disposal; sewage treatment by flotation; biochemical oxidation of sewage; swimming pool sanitation; air sanitation.

Gotsch, Dr. L(enard) P(aul), 615 N. Marion St, Oak Park, Ill. *Physical chemistry.* Oak Park, Ill, Dec. 9, 13. A.B, Valparaiso, 36; M.S, Va. Polytech, 37; Ph.D, Virginia, 40. *Chemist, Am. Can Co, 40–* Chem. Soc. Adsorption of gases on metals; food chemistry.

Gottfried, Dr. S(idney) P(aul), 80–59 210th St, Hollis, L. I, N. Y. *Organic chemistry.* New York, N. Y, Oct. 10, 12. B.S, N. Y. Univ, 33, Ph.D, 41; A.M, Columbia, 35. Research fellow org. chem. and biochem, Jewish Hosp, Brooklyn, 35–41; asst. chemist in charge biochem. lab, 41–42; *lieut, Sanit. Corps, U. S. Army, 42–* Chem. Soc; N. Y. Acad. Synthesis of sterols, hormones, vitamins and benzylisoquinolines; antirachitic activation of cholesteryl sulfates; effect of alcohol and cinchophen on the albino rat.

Gottlieb, Dr. Bernhard, 1420 Hall St, Dallas, Texas. *Dental pathology.* Kuty, Poland, July 14, 85. M.D, Vienna, 11; LL.D, Loyola (Ill); D.M.D, Bonn. Prof, Vienna, 11–38; *research prof, col. dentistry, Baylor, 41–* Mem. Allied Dental Council. Miller prize, 36. Fel. Acad. Periodontol; hon. mem. Royal Soc. Med, London; British Dental Asn; French Dental Asn; Dental Asn. Austria; Dental Asn. Netherlands; Dental Asn. Hungary; Dental Asn. Sweden; Dental Asn. Japan; Dental Asn. Nicaragua. Dental caries; biology of the teeth.

Gottschalk, Dr. V(ictor) H(ugo), U. S. Bureau of Mines, College Park, Md. *Physics.* St. Louis, Mo, May 19, 78. B.S, Mo. Sch. Mines, 98, M.S, 00; Cornell, 01; Ph.D, Chicago, 17. Prof. chem, Mo. Sch. Mines, 02–18; director research, Am. Cotton Oil Co. and associated companies, 18–21; metal. dept, West. Elec. Co, 21–22; asst. to research manager, Soc. Automotive Eng, 22–24; research assoc, Bur. Standards, 24–31; *senior physicist, metal. div, U. S. Bur. Mines, 31–* Soc. Metals; Min. and Metal. Eng. Physics and chemistry of process metallurgy; magnetic properties of minerals; mineral physics; theory of ore deposits; gases in metals.

Gottschall, Dr. R(ussell) Y, 3711 W. Willow St, Lansing, Mich. *Bacteriology.* Boyertown, Pa, Jan. 22, 07. B.S, Albright Col, 28; M.S, Pittsburgh, 29, Ph.D, 32. *Bacteriologist,* Wm. S. Merrell Co, 33–36; *State Dept. Health, Mich, 36–* A.A; Micros. Soc; Pub. Health Asn; Asn. Immunol; Soc. Bact. Tuberculosis; streptococci; anaphylaxis.

Gouaux, Dr. James L(uger), 2422 Audubon St, New Orleans, La. *Medicine.* Houma, La, Sept. 6, 08. M.D, Tulane, 32. Asst, heart sta, Charity Hosp, New Orleans, 29–37, asst. director, 37–41; dept. med, Tulane, 31; instr. physiol, *med. center, Louisiana,* 32–39, *clin. asst. prof. med, 39–* La. Med. Soc. Cardiology.

Goucher, Dr. Frederick S(hand), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Truro, N. S, Can, Sept. 30, 88. B.A, Acadia, 09, hon. D.Sc, 34; A.B, Yale, 11, A.M, 12; Ph.D, Columbia, 17. Research assoc, Columbia, 16–17; engineer, West. Elec. Co, 17–18; research, Univ. Col, London, 19; research physicist, research labs, Gen. Elec. Co, Ltd, N. Wembley, England, 19–26; *with Bell Tel. Labs, 26–* Ionization by electron impact; plastic deformation of single metallic crystals; contact phenomena and microphonic action.

Goudge, Dr. Mabel Ensworth, 421 Trust Bldg, Durham, N. C. *Psychology.* Halifax, N. S, Can, July 10, 85. B.A, Dalhousie, 08, M.A, 09; Sage fellow, Cornell, 13–14, Ph.D, 14; M.D, Ohio State, 22. Instr. psychol, Ohio State, 15–18, asst. prof, 18–19; intern, *Watts Hosp, 22–23, physician and clin. psychologist, 27–* Columbus State Hosp, Ohio, 22. A.A; Psychol. Asn; Am. Med. Asn; South. Med. Asn; S. Soc. Philos. and Psychol. Psychopathology.

Goudge, M(onson) F(raser), Canadian Department of Mines and Resources, Bureau of Mines, Ottawa, Ont, Can. *Mineralogy.* Windsor, N. S, April 15, 95. B.A, King's Col. (Can), 16; B.Sc, N. S. Tech. Col, 21. Exp. works on oils, Imp. Oil, Ltd, 22–23; *Can. Dept. Mines and Resources, Ottawa, 23–* Can. Inst. Min. and Metal. Mineral technology; non-metallic minerals; limestones; sodium carbonate; magnesium sulfate; mineral wool; magnesite; brucite; magnesia; asbestos; recovery of pure magnesia from brucitic limestone.

Goudsmit, Dr. A(rnoldus), Doctors Hospital, 17th and Summer Sts, Philadelphia, Pa. *Physiology.* Amsterdam, Netherlands, Oct. 13, 08. M.D, Amsterdam, 31; Netherland-Am. Foundation fellow, Cornell, 33–34, Ph.D, 36; M.S, Minnesota, 39. *Fellow* int. med, Mayo Clinic and Foundation, Minnesota, 36–39; *physiol, sch. med, Pennsylvania, 39–; assoc. med. and chief dept. metabolic diseases, Doctors Hosp, 40–; lieut, Med. Corps, U. S. Army, 42–* Physiol. Soc; Am. Med. Asn. Human physiology; internal medicine; clinical investigation; normal and pathologic physiology of the kidney; water distribution; water excretion.

Goudsmit, Prof. S(amuel Abraham), University of Michigan, Ann Arbor, Mich. *[5]Physics.* The Hague, Holland, July 11, 02. Leiden, 19–25; Int. Educ. Board fellow, 26–27; Ph.D, Leiden, 27. Asst, Amsterdam, 23–26; instr, *Michigan,* 27–28, assoc. prof. *physics,* 28–32, *prof, 32–* Visiting lecturer, Harvard, 41. Theory of atomic spectra; electron spin; hyperfine structure and nuclear spin.

Gould, Prof. Arthur B(enjamin), Box 17, Salem, W. Va. *Chemistry.* Lewis Co, W. Va, Nov. 7, 01. B.S, W. Va. Wesleyan Col, 23; M.S, Cornell, 26, Ph.D, 35. Teacher, high sch, W. Va, 24–25; *prof. chem, Salem Col, 26–* Summers, instr, W. Va. Wesleyan Col, 24–26. A.A; Chem. Soc; W. Va. Acad. Polymeric thiocyanogen; metallic azides.

Gould, Dr. Austin J(udson), Kodak Park, Rochester, N. Y. *Physical chemistry.* Stillwater, Okla, Dec. 12, 10. B.S, Okla. Agr. and Mech. Col, 31; Procter fellow, Princeton, 33–34, Ph.D, 34. *Asst. supt, Eastman Kodak Co.* Chem. Soc. Adsorption; catalysis; deuterium.

Gould, Prof. B(ernard) S(idney), Massachusetts Institute of Technology, Cambridge, Mass. *Biochemistry.* Boston, Mass, Oct. 15, 11. B.S, Mass. Inst. Tech, 32; Textile Foundation traveling fellow, 32–34; Ph.D, London, 34. Instr. biol. and pub. health, Mass. Inst. Tech, 34–35, instr. and research assoc, 35–37; Cmn. Relief Belgium Educ. Foundation fellow, Louvain, 37–; asst. prof. *biochem, Mass. Inst. Tech,* 37–43, *assoc. prof, 43–* Biochem. Soc. Biochemistry of micro-organisms; enzyme chemistry.

Gould, Dr. Cha(rle)s N(ewton), Box 88, Norman, Okla. *Geology, Engineering.* Lower Salem, Ohio, July 22, 68. B.S, Southwestern Col. (Kans), 99; A.M, Nebraska, 00, Ph.D, 06, hon. Sc.D, 28; LL.D, Okla. City Univ, 32. Instr. geol, Oklahoma, 00–03, prof. geol. and miner, 03–11; consulting geol-

ogist, 11–24; director, Okla. Geol. Surv, 08–11, 23–31; regional geologist, Nat. Park Service, 35–40. Res. hydrographer, U. S. Geol. Surv, 02–05; chairman, Okla. Conservation Cmn, 07–11. A.A; Geol. Soc; Paleont. Soc; Petrol. Technol; Asn. Petrol. Geol; Min. and Metal. Eng; Min. Cong. (v. pres, 06–08); Okla. Acad. (pres, 12, 24); Royal Soc. Arts. Water, oil, gas and coal resources of Oklahoma and adjacent states.

Gould, Dr. Charles W(ebster), West Mill Road, Flourtown, Pa. *Organic chemistry.* Atlanta, Ga, Feb. 16, 15. A.B, Oberlin Col, 36; fellow, Rochester, 39–40, Ph.D, 40. Asst, Rochester, 36–39; *research chemist,* Pittsburgh Plate Glass Co, 40–42; *Marco Chemicals, 42–* Chem. Soc. Synthetic organic research on amino alkane sulfonic acids; stereochemistry of alicyclic compounds; new synthetic resins.

Gould, Dr. C(lark) W(ebster), Jr, 1067 E. Del Mar, Pasadena, Calif. *Organic chemistry.* Portland, Oregon, May 21, 16. B.S, Col. of Puget Sound, 38; M.S, Calif. Inst. Tech, 40, fellow, 41–42, Ph.D, 42. *Research fellow chem, Calif. Inst. Tech, 41–* Chem. Soc. Stereochemistry; Walden inversion; organic analysis.

Gould, David F(oster), 6 Seventh St, Riverton, N. J. *Chemistry.* Beverly, Mass, June 7, 92. B.S, Mass. Inst. Tech, 14. Research chemist and later asst. supt. record dept, Victor Talking Machine Co, 22–29; research chemist, Calco Chem. Co, 29–30; research chemist and later *chief chemist, develop. dept, Barrett div, Allied Chem. and Dye Corp, 30–* A.A; Chem. Soc; Franklin Inst. Electrochemistry; plastics; petroleum; coal tar chemicals; synthetic organic chemicals.

Gould, Prof. Don(ald) B(oyd), Colorado College, Colorado Springs, Colo. *Geology.* Norman, Okla, Dec. 6, 06. B.S, Oklahoma, 28; M.S, Iowa, 30, Ph.D, 34. Instr. geol, Southwestern Col. (Kans), 28–29; *asst. prof.* geol. and geog, Cornell Col. (Iowa), 31–37; *geol, Colo. Col, 37–* Summer, geol. preparator, Davenport Pub. Museum, Iowa, 30. Asn. Petrol. Geol; Colo-Wyo. Acad. (exec. sec'y). Structural geology of central Colorado; stratigraphy of Permian rocks of Colorado; museum technique.

Gould, Edwin, University Experiment Farm, Kearneysville, W. Va. *Entomology.* Weston, W. Va, Feb. 18, 05. B.S. (Agr), West Virginia, 28. *Asst. entomologist in charge, Exp. Sta, West Virginia, 29–* Agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 34– Control of fruit insects with special reference to codling moth and pistol case-bearer.

Gould, Dr. George E(dwin), Purdue University, Lafayette, Ind. *Entomology.* Concordia, Kans, April 22, 05. A.B, Kansas, 27, A.M, 29; Ph.D, Purdue, 42. Asst. entom, museum, Kansas, 27–28; asst. entomologist, Va. Truck Exp. Sta, 28–31; asst. *entom, Exp. Sta, Purdue,* 31–38, *assoc, 38–* Summers, field scout, bur. entom, U. S. Dept. Agr, 26, 27. Entom. Soc. Amer; Asn. Econ. Entom; Ind. Acad. Household, vegetable and muck crop insects; taxonomy of aquatic Hemiptera.

Gould, Prof. Harley N(athan), Tulane University, New Orleans, La. *Anatomy.* West Springfield, Pa, Oct. 17, 87. A.B, Allegheny Col, 10; A.M, Princeton, 14, Ph.D, 16. Instr. zool, California, 16–17; asst. prof. anat, West Virginia, 17–18; Pittsburgh, 18–19; prof. biol, Wake Forest Col, 20–22; asst. prof. anat, *Tulane,* 22–24, *prof. biol, Newcomb Col, 24–* A.A; Asn. Anat; Soc. Exp. Biol. Germ cells; sex determination; the internal ear; physical anthropology.

Gould, H(arris) P(erley), 3909 13th St, N.W, Washington, D. C. *Pomology.* North Bridgton, Maine, Sept. 6, 71. B.S, Maine, 93; M.S.A, Cornell, 97. Asst. horticulturist, Exp. Sta, Maine, 93–96; asst, Exp. Sta, Cornell, 97; state inspector of nurseries, N. Y, 98; asst. entomologist and asst. horticulturist, State Dept. Hort, Md, and Exp. Sta, Maryland, 99–01; asst. pomologist, *bur. plant indust, U. S. Dept. Agr,* 01–07, pomologist, 07–28, senior pomologist, 28–38, prin. horticulturist in charge div. fruit and veg. crops and diseases, 38–41, *collaborator, 41–* Jury awards, La. Purchase Expos, 04. A.A; Pomol. Soc; Soc. Hort. Sci; Bot. Soc. Wash. Fruit production in the United States; fruit geography.

Gould, H(enry) W(illiam), Mills Bldg, San Francisco, Calif. *Metallurgy.* Seneca, Mo, Aug. 18, 82. High sch. Manager, metallurgist and consulting engineer, quicksilver mines; *pres, H. W. Gould and Co.* Min. and Metal. Eng. (cmt. rare minerals and metals). Quicksilver.

Gould, Prof. H(oward) W(oodham), Northern Illinois State Teachers College, DeKalb, Ill. *Chemistry, Physics.* Bone Gap, Ill, June 21, 96. B.S, McKendree Col, 18; M.S, Illinois, 22; Ph.D, Iowa, 29. Instr, McKendree Acad, Ill, 19–20; asst. and instr. chem. and physics, McKendree Col, 20–23; asst. chem, Illinois, 23–25; asst. and assoc. prof, James Millikin, 25–27; *prof. physical sciences and head dept, North. Ill. State Teachers Col, 27–* Mueller Brass Co, Decatur, 26–27. A.A; Inst. Chem; Inst. Physicists; Ill. Acad. Rare earths; element number 43; effects of silicon on the properties of brass.

Gould, Prof. I(ra) A, (Jr), Michigan State College, East Lansing, Mich. *Dairy industry.* Atchison, Kans, Sept. 28, 05. B.S. (Agr), West Virginia, 31; M.S, Mich. State Col, 33; Ph.D, Wisconsin, 38. Instr. *dairy husbandry, Mich. State Col,* 34–38, asst. prof, 38–42, *assoc. prof, 42–,* asst. in research, 34–38, asst, 38–42, *research assoc, 42–* Sulfhydryl compounds in milk due to heat and relationship of compounds to flavors in milk, especially cooked and oxidized flavors; moisture test for cheese; homogenization of milk with special reference to lipolysis.

Gould, Dr. King E(dward), 370 North Ave, Fanwood, N. J. *Electrical engineering.* Bone Gap, Ill, Sept. 11, 03. B.S, Okla. Agr. and Mech. Col, 24; M.S, Mass. Inst. Tech, 25, Coffin fellow, 25–26, Sc.D, 27. *Elec. engineer,* Am. Tel. and Tel. Co, 27–34; *Bell Tel. Labs, 34–* Transformer characteristics; mechanical methods of computations; railway electrification-coordination; atmospheric disturbances; wide-band transmission systems.

Gould, Prof. L(aurence) M(cKinley), Carleton College, Northfield, Minn. *Geology.* Lacota, Mich, Aug. 22, 96. B.S, Michigan, 21, A.M, 23, Sc.D, 25; Sc.D, Polytech. Inst. Brooklyn, 31. Instr. geol, Michigan, 21–26, asst. prof, 26–28; geologist, geographer and 2nd in command, Byrd Antarctic exped, 28–30; assoc. prof. geol, Michigan, 30–32; *prof. geol. and geog, Carleton Col, 32–; chief arctic sect, arctic, desert and tropic information center, Air Force, U. S. Army.* Asst. director and geologist, Univ. Mich. Greenland exped, 26; geographer and topographer, Putnam Arctic exped, 27. David Livingston gold medal, Am. Geog. Soc, 30; gold medal, Geog. Soc. Chicago, 31; gold medal, U. S. Congress, 31. A.A; fel. Geol. Soc; fel. Am. Geog. Soc; assoc. Asn. Geog; Geophys. Union (mem, int. cmt. on snow); Mich. Acad. (chairman, geol. miner. sect, 25); Minn. Acad. (v. pres, 35, pres, 39); Chicago Geog. Soc; cor. mem. Geog. Soc. Phila. Dynamical and structural geology; geology of the La Sal Mountains, Utah, and of Foxe Land, Baffin Island; geology and glaciology of Antarctica; Pleistocene geology of upper Mississippi regions.

Gould, Dr. Lawrence P(eabody), 608 Cumberland Ave, Syracuse, N. Y. *Chemistry.* Washington, D. C, Feb. 28, 07. B.Ch, Cornell, 29, Ph.D, 33. *Chemist, Solvay Process Co, 33–* Chem. Soc.

Gould, Prof. Miriam C(arls), Vassar College, Poughkeepsie, N. Y. *Psychology.* Oberlin, Ohio, April 13, 89. A.B, Smith Col, 11; A.M, Pittsburgh, 13; American Univ. fellow, Columbia, 16–18. Instr, Pittsburgh, 13–16; psychologist, N. Y. Probation and Protective Asn, 17–20; asst. prof. *psychol,* Smith Col, 18–19; *asst. prof. and director personnel research bur, Vassar Col, 20–* Summer, psychologist, Post-Grad. Hosp, New York. Prof, sch. for social work, Smith Col, 25–; consulting psychologist, Oakwood Sch, 25–35. Personnel Research Federation. A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn. Collegiate personnel problems.

Gould, Ralph E(dgar), 1230 Pinecrest Circle, Silver Spring, Md. *Physics.* Boston, Mass, Dec. 10, 86. B.S, Tufts Col, 09; Wesleyan, 10–11. Asst. physics, Wesleyan, 10–11; teacher, high sch, N. H, 11–12; teacher and prin, Mass, 12–18; asst. gage inspector, *Bur. Standards,* 18–20, asst. physicist, 20–23, *assoc. physicist, 23–, chief time sect, 23–* Chairman tech. cmt. fire alarms, clocks, etc, Fed. Specifications Exec. Cmt. Horological Inst. (certification cmt, 26–, cor. sec'y, 31–41, advisory councilor, 32–, exec. sec'y, 41–) Horology; time and timepieces; standard time; performance of timepieces; examination and certification of watchmakers.

Gould, Dr. R(obert) G(ordon), Jr, Harvard Medical School, Boston, Mass. *Chemistry.* Chicago, Ill, June 24, 09. B.S, Harvard, 30, Ph.D, 33. Instr. and tutor biochem, Harvard, 31–34; nat. research fellow, Columbia, 34–35; instr. biochem, Iowa, 35–36; with Rockefeller Inst, 36–42; Harvard Med. Sch, 42–43; *Sanit. Corps, U. S. Army, 43–* Chem. Soc. Synthesis of compounds related to vitamin A; renal function in fish; chemistry of certain alkaloids; nature of gonococcus.

Gould, Dr. Robert K, Fishkill, N. Y. *Physical chemistry.* Hamburg, N. J, May 20, 17. A.B, Duke, 38, A.M, 39, Ph.D, 41. *Research chemist, Texas Co, 41–* Chem. Soc. Identification of some complex ions in solution by means of spectrophotometric measurements.

Goulden, Dr. C(yril) H(arold), University of Manitoba, Winnipeg, Man, Can. *Agronomy.* Bridgend, Wales, June 2, 97. B.S.A, Saskatchewan, 21, M.S.A, 23; Ph.D, Minnesota, 25. Cerealist, Saskatchewan, 21–23; cereal specialist and *senior cereal specialist, rust research lab, Dom. Exp. Farms, Man, 25–* Fel. Royal Soc. Can; Can. Soc. Tech. Agr. Cereal breeding for rust resistance.

Goulden, H(arold) DeWitt, 57 Cobane Terrace, West Orange, N. J. *Organic chemistry.* Bridgeport, Conn, Sept. 28, 00. B.S, Rutgers, 23, Stanco, Inc, fellow, 31–32. Research chemist, Howe Rubber Co, New Brunswick, N. J, 23–24; E. R. Squibb and Sons, 24–27; instr. biol. sciences, N. J. Col. Pharmacy, Rutgers, 27–31; director chem. research, Mennen Co, Newark, *N. J,* 33–35; gen. manager, Jacqueline Cochran, Roselle, 35–42; *director board of standards, Toilet Goods Asn, Inc, 42–* Director labs, Health Products Corp, Newark, 27–31. A.A; fel. Inst. Chem; Chem. Soc; Pharmaceut. Asn; N. Y. Acad. Physiologic effect of ethylene, propylene, butylene, amylene, ether, chloroform, acetylene, methylacetylene and propadiene; cod-liver oil concentrates; experimental rickets; vitamin assays; germicides; antiseptics; fungicides; peroxide formation in ether.

Gourley, Prof. J(oseph) H(arvey), Ohio Agricultural Experiment Station, Wooster, Ohio. *Horticulture.* Homer City, Pa, July 1, 83. B.S, Ohio State, 08, M.S, 15; Ph.D, Chicago, 31. Asst. horticulturist, Ohio Exp. Sta, 08–10, asst. prof. hort, Ohio State, 10–12; prof, New Hampshire, and v. director, Exp. Sta, 12–20; prof, West Virginia, 20–21; *chief dept. hort, Ohio Exp. Sta, 21–; prof. hort. and forestry, Ohio State, 29–* Assoc. ed, 'Am. Fruit Grower Magazine.' A.A; Soc. Hort. Sci. (pres, 23), fel. Ohio Acad. Fertilization in orchards; flower-bud formation; pomology; orchard management.

Gouwens, Prof. Cornelius, Iowa State College, Ames, Iowa. *Mathematics.* South Holland, Ill, May 22, 89. B.S, Northwestern, 10; A.M, Illinois, 11; fellow, Chicago, 18, Ph.D, 24. Instr. *math,* Iowa, 12–16; Kansas, 19–20; asst. prof, *Iowa State Col,* 20–26, *assoc. prof, 26–* A.A; Math. Soc; Math. Asn. (sec'y, Iowa sect, 33–; governor, 41–43); Iowa Acad. Invariants; group and number theory; algebra.

Gow, Alexander M(urdoch), 3126 Coleman Road, Kansas City, Mo. *Metallurgy.* Pittsburgh, Pa, April 10, 02. E.M, Minnesota, 23; fellow, Minn. Mines Exp. Sta, 24. Instr, sch. mines, Minnesota, 24–28; asst. metallurgist, Mo. Sch. Mines, 28–30; U. S. Bur. Mines, 30–33; supt. projects, Civil Works Admin, *Mo,* 33–34; Emergency Relief Admin, 34–35; dist. engineer, senior engineer and state statistician, Work Projects Admin, 35–42; *procedures analyst, N. Am. Aviation, Inc, 42–* Ore dressing; fine grinding; milling methods; engineering economics and administration.

Gowan, Prof. E(dward) H(unter), University of Alberta, Edmonton, Alta, Can. *Physics.* Montreal, Que, June 26, 01. B.A, Alberta, 23, B.Sc, 25; Ph.D, Oxford, 28. *Asst. prof. physics, Alberta, 29–* Ozone and stratosphere temperature; biological ultra-violet.

Gowanloch, J(ames) N(elson), State Department of Conservation, New Orleans, La. *Zoology.* Cypress River, Man, Can, Sept. 7, 95. B.A, B.Sc, Manitoba, 18. Asst. zool, Chicago, 19–22; assoc. prof. histol. and embryol, Wabash Col, 22–23; zool, Dalhousie, 23–30, head dept. biol, 23–27, zool, 27–30; *state biologist, La, 31–* Mem. Biol. Board Can, 27–30. Marine zoology; physiology of marine forms; ecology; conservation.

Gowdy, Dean R(obert) C(lyde), University of Cincinnati, Cincinnati, Ohio. *Physics.* Springfield, Ohio, March 10, 86. A.B, Cincinnati, 06, Hanna fellow, 06–09, A.M, 07, Ph.D, 09; Cambridge, 10; Col. de France, 11. Instr. *physics,* Lehigh, 11–12; *Cincinnati,* 12–15, asst. prof, 15–18, assoc. prof, 18–20, *prof, 20–,* acting dean grad. sch, 24–25, asst. dean *col. eng. and commerce,* 25–39, *dean, 39–,* acting dean, 28–32. A.A; assoc. Physical Soc; Ohio Acad. (v. pres, 25); Soc. de Physique.

Gowen, George M(orton), U. S. Forest Service, San Francisco, Calif. *Forestry.* Winchester, Tenn, June 14, 95. B.S, California, 20. Forest ranger, *U. S. Forest Service,* 20–23, junior forester, 23–26, asst. forest supervisor, 26–29, forest supervisor, 29–31, silviculturist, fire research, Calif. Forest and Range Exp. Sta, 31–32, forest supervisor, 33–34, asst. chief div. operation, Washington, D. C, 35–36, *chief branch fire control, region 5, 37–* C.A.C, U.S.A, 17–18. Soc. Foresters. Fire control administration.

Gowen, Prof. John W(hittemore), Iowa State College, Ames, Iowa. **Zoology.* Evanston, Fla, Sept. 5, 93. B.S, Maine, 14, M.S, 15; Ph.D, Columbia, 17. Biologist, Exp. Sta, Maine, 17–26; assoc, Rockefeller Inst, 26–36; *prof. genetics, Iowa State Col, 36–* A.A; Soc. Nat; Soc. Animal Production; Genetics Soc. Biology; genetics; disease resistance.

Gower, Prof. Charlotte D(ay), Lingnan University, Canton, China. *Anthropology.* Kankakee, Ill, May 5, 02. A.B, Smith Col, 22; A.M, Chicago, 26, Ph.D, 28. Asst. psychol, Smith Col, 22–23; instr. educ, Texas, 23–24; Social Science Research Council fellow, 28–30; asst. prof. *physical anthrop,* Wisconsin, 30–38; *assoc. prof, Lingnan, 38–* Exchange lecturer, Chicago, 36. Asn. Physical Anthrop; Anthrop. Asn. Physical anthropology; ethnology.

Gower, Dr. William Carl, 224 Bailey St, East Lansing, Mich. *Parasitology, Zoology.* Carbondale, Ill, May 13, 11. B.Ed, South. Ill. Teachers Col, 32; fellow, Louisiana, 33–34, M.S, 34; Illinois, 34–35; Ph.D, Mich. State Col, 37. Asst. zool, Illinois, 34–35; W. K. Kellogg bird sanctuary, Mich. State Col, 35–37; biologist, game div, State Dept. Conservation, *Mich,* 37–39; biologist in charge, Swan Creek Wildlife Exp. Sta, Allegan, 39–42; *biologist, game div, State Dept. Conservation, 42–* Soc. Mammal; Soc. Parasitol; Micros. Soc; Wildlife Soc. Parasitology of game birds; wildlife management of small game species.

Goyan, Dr. Frank M(ayer), 625 Ashbury St, San Francisco, Calif. *Physical chemistry.* Placerville, Calif, June 22, 08. B.S, California, 30, M.S, 31, Ph.D, 37. Assoc. *chem,* Calif. Col. Pharmacy, 31–32; *instr, col. pharmacy, California, 32–* Chem. Soc. Development of physico-chemical instruments; hydrogen-ion concentration meter; sodium-hydrogen Geissler tube; molecular weight apparatus; the physical chemistry of drugs and alkaloidal salts; electrochemistry.

Graam, Dr. Dona G(ayler), Rose Dispensary, Terre Haute, Ind. *Biology, Medicine.* Hillsboro, Ind, Nov. 30, 92. A.B, Indiana, 20, A.M, 21, Ph.D, 33. Asst. prof, Ind. State Nor. Sch, 21–25, assoc. prof, 25–29, Ind. State Teachers Col, 29–34; *director med. lab, Rose Dispensary, 36–* A.A; Chem. Soc; Ind. Acad. Crustaceans; length of life of red corpuscles in mammals and in birds; malaria.

Grabau, Dr. A(madeus) W(illiam), Care of American Embassy, 5 Tou Ya Ts'ai Hutung, West City, Peiping, China. **Paleontology, Stratigraphy.* Cedarburgh, Wis, Jan. 9, 70. B.S, Mass. Inst. Tech, 96; M.S, Harvard, 98, fellow, 98–99, Sc.D, 00. Asst. paleont, Mass. Inst. Tech, 92–96, instr. paleont. and asst. geol, 96–97; instr. geol, Rensselaer Polytech, 99–00, prof, 00–01; lecturer *paleont,* Columbia, 01–02, adj. prof, 02–05, prof, 05–19; *China Foundation research prof, Nat. Univ. Peiping, and chief paleontologist, Chinese Geol. Surv, 20–; dean, Peiping Lab. Nat. Hist, 25–* Guide and lecturer, museum, Boston Soc. Nat. Hist, 92–00; lecturer, Tufts Col, 00–01. Research assoc, Cent. Asiatic exped, 23. Sec'y sect. paleozool, 7th Int. Zool. Cong. Paleont. Soc; Geol. Soc; fel. N. Y. Acad. (v. pres, sect. geol. and miner, 06–07); cor. mem. Phila. Acad. Sci; Deuts. Akad. Naturforscher; Geol. Soc. China (councilor, 22–25, v. pres, 25); Sci. Soc. China; hon. mem. Peiping Soc. Nat. Hist. (councilor); China Inst. Min. and Metal; Acad. Sinica; Acad. Pepinensis. Salt, oil and gas geology; applied stratigraphy; North American index fossils; geology of non-metallic mineral deposits other than silicates; succession of faunas in middle Devonic of the United States; phylogeny of invertebrates; Hamilton faunas of Michigan; stratigraphy and fossils of China; the pulsation theory; Asiatic origin of man.

Grabau, Dr. Martin (Christian Rudolph), 7 Maynard Place, Cambridge, Mass. *Physics.* Buffalo, N. Y, Oct. 2, 01. B.S, Harvard, 23, A.M, 25, Ph.D, 31. Asst. physics, Harvard, 22–24, 26–27; asst. prof, Wittenberg Col, 28–29; instr. and tutor, div. physical sciences, Harvard, 29–35, res. tutor, Eliot House, Harvard Col, 31–35; *physicist and manager tech. div, Polaroid Corp, 35–; prin. production specialist, Office Production Management and War Production Board, 41–* Optical Soc. Velocity of sound; absorption spectra of gases; polarized

light and its applications; properties of polarizing and birefringent media; optical engineering.

Grabbe, Dr. Eugene M(unter), General Laboratories, U. S. Rubber Co, Passaic, N. J. *Physics.* Johnstown, Pa, Dec. 4, 12. B.S, Duke, 35; M.S, Brown, 37; Ph.D, Yale, 40. *Research physicist, U. S. Rubber Co, 39–* A.A; Chem. Soc; Physical Soc. Ferromagnetic anisotropy; rubber physics.

Grabenstetter, Dr. Robert J(ohn), Room 136, Northwestern Technological Institute, Evanston, Ill. *Physical chemistry, Photochemistry.* Rochester, N. Y, Aug. 6, 16. B.S, Rochester, 37, fellow, 39–41, Ph.D, 41. Lab. asst, Rochester, 37–39; instr, Lafayette Col, 41; *research assoc, Nat. Defense Research Cmt,* Princeton and later *Northwestern, 41–* Chem. Soc. Photodecomposition of ethylene iodide; fluorescence of cyanine dyes.

Graber, Howard T, 19430 Cumberland Way, Detroit, Mich. *Chemistry.* Peoria, Ill. B.S, Illinois, Mass. Inst. Tech. Research chemist, Parke, Davis and Co, 03–10; chief chemist, Digestive Ferments Co, 10–42, v. pres. and director chem. lab. Lecturer, Detroit Inst. Tech; assoc, Naval Consulting Board. Mem. subcmt. No. 3, revision cmt, U. S. Pharmacopoeia, 30; chairman subcmt. on pharmacol. assays, Am. Drug Mfrs. Asn, 26– Chem. Soc; Pharmaceut. Asn; Asn. Study Int. Secretions; Detroit Soc. Chem. (pres, 17). Digestive ferments; ductless glands.

Graber, Prof. L(aurence) F(rederick), University of Wisconsin, Madison, Wis. *Agronomy.* Mineral Point, Wis, March 5, 87. B.S, Wisconsin, 10, M.S, 12; Ph.D, Chicago, 30. *Prof. agron, Wisconsin, 13–, head dept, 39–* A.A; fel. Soc. Agron; Soc. Plant Physiol; Ecol. Soc; Wis. Acad. Organic nutrition of herbaceous plants; ecological aspects of food reserves; winter injury; measurement of hardiness; insect injury of plants in relation to their environment; pasture renovation.

Graber, Prof. M(yron) Earle, Morningside College, Sioux City, Iowa. *Mathematics, Physics.* Mt. Eaton, Ohio, July 25, 80. A.B, Heidelberg Col. (Ohio), 01, A.M, 04, Sc.D, 37; fellow, Chicago, 17–18; Ph.D, Iowa, 24. Instr. math, Heidelberg Col. (Ohio), 03–05, *prof.* physics, 05–19; *physics and aviation, Morningside Col, 19–, coordinator civilian pilot training, 42–* A.A; Illum. Eng. Soc; Meteorol. Soc; Math. Soc; Math. Asn; Physical Soc; Aeronaut. Soc; fel. Iowa Acad; fel. Ohio Acad; Sioux City Acad. (sec'y, 30). Mathematical theory of projectiles; cyclidal surfaces; non-analytical functions in mathematics and physics; optical properties of zinc and manganese crystals; the teaching of physics.

Grabfield, Dr. G(ustave) Philip, 319 Longwood Ave, Boston, Mass. *Pharmacology, Medicine.* Cincinnati, Ohio, Sept. 28, 92. A.B, Williams Col, 12; M.D, Harvard, 15. *Assoc. pharmacol. and med, Harvard Med. Sch; senior assoc, Peter Bent Brigham Hosp; col, Med. Corps, U. S. Army, 41–* Consultant, U. S. Veterans Admin. A.A; Soc. Pharmacol. (sec'y, 37); fel. Am. Med. Asn; Am. Physicians; Soc. Clin. Invest. Path of faradic sensibility; pulmonary conditions; effects of endocrine products; effects of iodides on nitrogen metabolism; nitrogen and sulfur metabolism in Bright's disease; renal nerves.

Grace, Dr. Arthur W(illiam), 449 E. 58th St, New York, N. Y. *Medicine.* Sydney, Australia, March 31, 94. L.R.C.P, London, 24; Dipl. Trop. Med. and Hygiene, 24; M.B, B.S, London, 25; Dipl. Pub. Health, 26. Biochemist, Hosp. Trop. Diseases, London, 24–25; govt. bacteriologist and pathologist, Jamaica, B.W.I, 26, 30; in charge filariasis cmn, Royal Soc. London, British Guiana, S. A, 26–29; instr. med, med. col, Cornell, 32–41; *prof. dermat. and syphilol, L. I. Col. Med, 38–* Duncan and Lalcaca medals, London Sch. Hygiene and Trop. Med, 24. Fel. Soc. Exp. Biol; N. Y. Acad. Med; fel. Harvey Soc; Royal Col. Surg; fel. Royal Soc. Trop. Med. and Hygiene. Filariasis; epidemic dropsy and nephritis; dermatology; lymphogranuloma venereum; filariasis; epidemic dropsy and nephritis.

Grace, Dr. Norman S(ingers), Dunlop Tire and Rubber Goods Co, Toronto, Ont, Can. *Physical chemistry.* Naini Tal, U. P, India, Aug. 15, 06. B.Sc, Saskatchewan, 27, Nat. Research Council Can. bursar, 28–29, M.Sc, 29, Nat. Research Council Can. student, 29–30; Beit sci. fellow, Imp. Col. Science, London, 29–31, D.I.C, Ph.D, London, 31. Commonwealth Fund research fellow and research assoc. chem. and physics, California, 31–33; demonstrator physics, Toronto, 33–35; research chemist, Gutta Percha and Rubber, Ltd, Toronto, 35–37; Nat. Research Council Can, 37–39; *chief chemist, Dunlop Tire and Rubber Goods Co, 40–* Chem. Soc; Soc. Test. Mat; Can. Chem. Asn. (chairman, Ont. rubber sect, 40–42); fel. Can. Inst. Chem. Chemistry of rubber, resins and paints; phase rule of hydrated aluminates of calcium; polyiodides of the alkali metals; spectroscopy; hyperfine structure; nuclear studies; low temperature phenomena; colloid chemistry of rubber latex; rubber chemistry; physical testing; utilization and manufacture of synthetic rubbers.

Gradle, Dr. H(arry) S(earls), 58 E. Washington St, Chicago, Ill. *Ophthalmology.* Chicago, Ill, 83. A.B, Michigan, 06; M.D, Rush, Chicago, 08; Vienna, Prague, London, 09–10. *Extramural prof. ophthal, med. dept, Northwestern.* Michael Reese hosp; chief staff, Ill. Eye and Ear Infirmary. A.A; Ophthal. Soc; Acad. Ophthal. and Otolaryngol. (pres, 37); Am. Med. Asn.

Grady, Prof. Roy I, 1753 Burbank Road, Wooster, Ohio. *Chemistry.* Wooster, Ohio, Dec. 18, 90. B.S, Col. of Wooster, 16; M.S, Ohio State, 18, fellow, 22–23, Ph.D, 23. Dairy chemist, Ohio Exp. Sta, 16–18; instr. *chem, Col. of Wooster,* 18–20, asst. prof, 20–22, *prof. and head dept, 23–* A.A; Chem. Soc. (councilor); Ohio Acad; Ohio Chem. Teachers Asn. (pres, 32–34). Precise density determinations; influence of temperature on concentration of dilute solutions; determinations of the components of petroleum fractions; chemical education.

Graeber, Charles K(arsner), 5239 Walton Ave, Philadelphia, Pa. *Mineralogy, Geology.* Radnor, Pa, June 18, 96. B.S, Pa. State Col, 21, M.S, 25; A.M, Michigan, 27. Geol. aid, Pa. Geol. Surv, 21–22; instr. geol. and miner, Pa. State Col, 22–29; asst. miner, Michigan, 29–30; assoc. geologist, Pa. Geol. Surv, 30–36. Sec'y-treas, Field Conf. Pa. Geol, 35– Min. and Metal. Eng; Miner. Soc. Petrography of Peridotite Dike, Dixonville, Pennsylvania; ceramic petrography; geology of Greensburg and Brookville Quadrangles, Pennsylvania; structure of Bradford County, Pennsylvania.

Graef, Prof. I(rving), 477 First Ave, New York, N. Y. *Pathology.* New York, N. Y, March 21, 02. A.B, Cornell, 23, M.D, 26. Fellow med, *N. Y. Univ,* 29–30, asst, 30–31, instr. *path,* 31–34, asst. prof, 34–35, *assoc. prof, 35–,* asst. director path. labs, 35–41. Asst. pathologist, Bellevue Hosp, 31–34, pathologist, 41–; consultant to U. S. Sec'y War; Board Investigation of Epidemic Diseases, 41–; Nat. Defense Research Cmt, 42– Soc. Exp. Path; Soc. Exp. Biol; Asn. Path. and Bact; Interurban Path. Club; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc. (sec'y, 34–36). Rheumatic fever; cardiovascular pathology; pneumonia; experimental investigation of tissue reaction to lipids; transfusion reactions; pathology of experimental hypertension; renal blood supply; hepatic changes after hypothalamic injury; influence of adrenalectomy on hair growth and melanin formation.

Graesser, Prof. R(oy) F(rench), University of Arizona, Tucson, Ariz. *Mathematics.* Creighton, Nebr, Oct. 31, 92. A.B, Illinois, 19, A.M, 22, Ph.D, 26. Asst. *math,* Illinois, 20–22, 24–26; asst. prof, *Arizona,* 26–32, assoc. prof, 32–38, *prof. and head dept, 38–* A.A; Math. Soc; Math. Asn. (chairman, southwest. sect, 37); Eng. Educ. Analysis; statistics.

Graf, J(ohn) E(nos), 2035 Parkside Drive, Washington, D. C. *Entomology.* Banning, Calif, May 28, 89. A.B, Pomona Col, 10, 11–12. Asst. entom, bur. entom, U. S. Dept. Agr, 11–15; entomologist, Ky. Tobacco Products Co, 16; asst. entom, bur. entom, U. S. Dept. Agr, 17–18, entomologist in charge field work, truck crop insect investigations, Fla. and Ala, 18–23, entomologist in charge truck crop insects, 23–26, senior entomologist and prin. entomologist, 26–31, asst. chief bur. entom, 28–31; *assoc. director, U. S. Nat. Museum, 31–* Mem. fed. hort. board, U. S. Dept. Agr, 26–31. A.A; Asn. Econ. Entom; Entom. Soc. Wash. (pres, 29); Biol. Soc. Wash; Wash. Acad. Economic entomology.

Graf, Prof. S(amuel) H(erman), 306 S. Eighth St, Corvallis, Oregon. *Mechanical engineering.* Portland, Oregon, Aug. 4, 87. B.S. (E.E), Oregon State Col, 07, E.E, B.S. (M.E), 08, M.E, M.S, 09. Asst. mech. eng, *Oregon State Col,* 08–09, instr, 09–12, asst. prof. exp. eng. and head dept, 12–14, *prof,* 14–20, mech. and materials and head dept, 20–34, *mech. eng. and acting head dept, 34–,* assoc. director *eng. exp. sta,* 27–28, *director eng. research, 27–, in charge instruction.* S.A.T.C, U.S.A, 17–19. Research or consulting engineer, Fairbanks-Morse Co; Mammoth Copper Mining Co; Portland Gas and Coke Co; Port of Portland; U. S. Shipping Board;

A. G. A. Testing Labs; Iron Fireman Mfg. Co; Bonneville Power and Navigation Project. Mem. State Board Eng. Examiners, 27–, pres, 37– Mech. Eng; Soc. Test. Mat; Soc. Metals. Structural materials; highway materials; fuels; lubricants.

Graff, Prof. Paul W(eldemeyer), Emory and Henry College, Emory, Va. *Botany.* Indianapolis, Ind, Oct. 10, 80. B.S, Conn. Agr. Col, 07; A.M, Columbia, 16, Edna L. Smith fellow, 27–28, Ph.D, 32. Austin teaching fellow, Harvard, 07–09; asst. bot, Kans. State Col, and plant pathologist, Exp. Sta, 09–11; mycologist, Bur. Science, P. I, 11–14; instr. bot, Montana, 16–18, asst. prof, 18–26; lecturer, Columbia, 27–28; mycologist, Corn Products Ref. Co, N. J, 29–31; consulting mycologist, 31–41; head dept. *biol,* Atlantic Christian Col, 41–42, *prof. and head dept, Emory and Henry Col, 42–* Summers, instr, Conn. State Col, 04–07; botanist, biol. sta, Montana, 18–26. A.A; Micros. Soc; Mycol. Soc; Bot. Soc; Phytopath. Soc; Torrey Bot. Club. Cryptogamic botany; mycology.

Graffiin, Dr. Allan L(yle), Harvard Medical School, Boston, Mass. *Anatomy.* Baltimore, Md, May 10, 06. A.B, Hopkins, 25, M.D, 30. Instr. and tutor biochem. sciences, Harvard, 30–32; instr. *anat, Harvard Med. Sch,* 32–34, assoc, 34–37, *asst. prof, 37–* Asn. Anat. Renal structure and function in teleosts; comparative anatomy and physiology of the kidney; histology of mammalian glands; fluorescence microscopy.

Graham, A(rchibald) R(obert), 228 Dundas St, E, Belleville, Ont, Can. *Entomology.* Inverness, Que, Aug. 25, 02. B.Sc. (Agr), McGill, 23, M.Sc, 26; Nat. Research Council Can. bursar, Toronto, 27–28. Investigator, *Dom. Dept. Agr, Ont,* 23–25, *asst. entomologist, 25–* A.A; Genetic Asn; Can. Soc. Tech. Agr; Entom. Soc. Ont. Insect pests.

Graham, Dr. A(rthur) K(enneth), 632 Wadsworth Ave, Philadelphia, Pa. *Electrochemistry.* Philadelphia, Pa, Dec. 25, 96. B.S, Pennsylvania, 19, Ch.E, 24, M.S, 25, Ph.D, 27; Columbia, 21. Research worker, Scovill Mfg. Co, Conn, 19–20; instr. chem, Pennsylvania, 21–26; chem. engineer, Hanson Munning Co, N. J, 26–28; instr. chem. eng, Pennsylvania, 28–34; asst. prof, 34–37; *with A. Kenneth Graham and Associates, 35–* Consultant. Assoc. ed, 'Metal Indust,' 29–35; 'Monthly Rev,' 30–31. Electrochem. Soc. (sec'y-treas, 28, chairman, electrodeposition div, 30, chairman, membership cmt, 34–37, manager, 35–37, 41–; v. pres, 39); Soc. Test. Mat; Asn. Consulting Chem. and Chem. Eng. (mem. board, 37–40); Electrodepositors Tech. Soc; Chem. Soc; Electroplaters Asn; Chem. Eng. Electroplating; petroleum; restoration of ancient bronzes; electrochemical processes.

Graham, Dr. Charles Loren, 16 Boulevard Parkway, Rochester, N. Y. *Physical chemistry.* Crete, Nebr, Dec. 21, 07. A.B, Doane Col, 31; A.M, Nebraska, 33, Ph.D, 36. *Research chemist, Eastman Kodak Co, 36–* Chem. Soc. Photographic chemistry.

Graham, Dr. C(laire) E(mbley), Abingdon, Ill. *Biochemistry.* Abingdon, Ill, Jan. 6, 01. B.S, Illinois, 25; Ph.D, St. Louis, 31. State chemist, Ill, 25–26; asst. biochem, sch. med, St. Louis, 26–31; *director research, Wilson Labs, Chicago, 31–* Nutrition; vitamins; glandular derivatives; enzymes; bile acids; amino acids.

Graham, Prof. C(larence) H(enry), Brown University, Providence, R. I. *[47]Psychology.* Worcester, Mass, Jan. 6, 06. A.B, Clark, 27, A.M, 28, Ph.D, 30; Pennsylvania, 30–31. Instr. *psychol,* Temple, 30–31; asst. prof, Clark, 31–36; *Brown,* 36–37, assoc. prof, 37–41, *prof, 41–* Nat. research fellow, Johnson Foundation, Pennsylvania, 31–32. Howard Crosby Warren medal, Am. Soc. Exp. Psychol, 41. A.A; Psychol. Asn; Physiol. Soc; Optical Soc; Soc. Exp. Psychol; Am. Acad. General experimental psychology.

Graham, Dr. Donald P(enrose), 102 South Road, Lindamere, Wilmington, Del. *Physical and organic chemistry.* Adel, Iowa, Nov. 6, 04. B.S, Washington (Seattle), 26; M.S, Wisconsin, 27, Ph.D, 29. *Research chemist, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Catalytic oxidation mechanisms; synthesis of anthraquinone dyestuffs.

Graham, Prof. Duncan (Archibald), 100 College St, Toronto, Ont, Can. *Medicine.* Ivan, Ont, 82. M.B, Toronto, 05. Lecturer bacter, *Toronto,* 11–15, *prof. med, 19–; physician in chief, Toronto Gen. Hosp, 19–;* med. consultant, Royal Can. Army Med. Corps, 40–42. Mem, Nat. Research Council Can. C.A.M.C, C.E.F, 15–19. Am. Physicians; Soc. Clin. Invest; Can. Med. Asn. (pres, 40); fel. Royal Col. Physicians and Surg, Can. (pres, 33–35); fel. Royal Soc. Can; fel. Royal Col. Physicians, England; for. assoc. mem. Soc. méd. des Hôpitaux de Paris. Carbon monoxide poisoning; tuberculosis; bacillary dysentery; endocarditis; diseases of the liver, blood and blood vessels.

Graham, Dr. Edward H(arrison), U. S. Department of Agriculture, Washington, D. C. *Botany.* New Brighton, Pa, Nov. 30, 02. B.S, Pittsburgh, 27, Ph.D, 32. Asst. bot. and lecturer educ, Carnegie Museum, 22–29, asst. curator bot, 30–37; biologist, *soil conservation service, U. S. Dept. Agr,* 37–42, *chief biol. div, 42–* Summers, Univ. Pittsburgh exped, Kartabo, British Guiana, 24; head, Carnegie Museum bot. exped, south. Ariz, 27, south. Ariz. and Sonora, 28, Uinta Mountains and Mt. Rainier, 31, Uinta Basin, Utah and Colo, 33, 35. Am. Geog. Soc; Ecol. Soc; Soc. Plant Taxon; Wildlife Soc; Wash. Acad; Wash. Biol. Field Club. Poisonous plants of Pennsylvania; flora of the Kartabo region, British Guiana; phytogeography of the Uinta Basin; legumes for erosion control and wildlife; ecological aspects of land management.

Graham, Dr. E(lls) R(ay), University of Missouri, Columbia, Mo. *Soil fertility.* Fairview, Utah, May 12, 11. B.S, Brigham Young, 33, M.S, 36; Ph.D, Missouri, 38. *Research and instr. soils, Missouri, 38–* Soil mineralogy; plant nutrition.

Graham, Prof. Evarts A(mbrose), Washington University School of Medicine, St. Louis, Mo. *[45]Pathology, Surgery.* Chicago, Ill, March 19, 83. A.B, Princeton, 04, hon. Sc.D, 29; M.D, Rush, Chicago, 07, fellow, univ, 07–09; hon. Sc.D, Cincinnati, 27, Western Reserve, 31, Pennsylvania, 40, Chicago, 41; hon. M.S, Yale, 28; LL.D, Cent. Col, 26. Intern, Presb. Hosp, Chicago, 07–08; asst. *surg,* Rush Med. Col, Chicago, 10–14, instr, 14–19; *prof, sch. med, Washington (St. Louis), 19–* Harvey lecturer and Mütter lecturer, 24; McArthur lecturer, 26; Shattuck lecturer, 28; Alvarez lecturer, 30; Joyce lecturer, 31; Bevan lecturer, 32; Caldwell lecturer, 33; Balfour lecturer, 35; Judd lecturer, 37. Surgeon in chief, Barnes and St. Louis Children's Hosps; temporary surgeon in chief, Peter Bent Brigham Hosp, Boston, 25; temporary prof, St. Bartholomew's Hosp, London, England, 39. Mem. med. fellowship board, Nat. Research Council, 25–39, chairman cmt. surg, 40–; chairman, Am. Board Surg, 37–41; mem, Nat. Board Med. Examiners, 24–33. Co-editor, 'Archives of Surg,' 20–; ed, 'Year Book Surg,' 25– Gross prize, 20; gold medal, Radiol. Soc. N. Amer, 25; Leonard research prize, Am. Roentgen Ray Soc, 25; gold medal, St. Louis Med. Soc, 27; South. Med. Asn, 33; John Scott medal, Phila, 37. Major, M.C. Nat. Acad; A.A; Surg. Asn. (pres, 37); Col. Surg. (pres, 41); Asn. Thoracic Surg. (pres, 28, ed, 'Jour'); Am. Med. Asn. (chairman, surg. sect, 25); Asn. Path. and Bact; Soc. Clin. Invest; Philos. Soc; St. Louis Asn. Surg. (pres, 25); Royal Col. Surg. Eng; hon. mem. Soc. Argentina de Cirujanos; hon. mem. Royal Soc. Uppsala. Experimental surgery; effects of anesthetics on the body; liver infections; mechanics of the thorax; lung suppurations; cholecystography; carcinoma of lung.

Graham, Dr. George L(aurin), Rockefeller Institute, Princeton, N. J. *Helminthology.* Scribner, Nebr, Dec. 12, 02. A.B, Grand Island Col, 27; M.S, Kans. State Col, 30; Sc.D, Hopkins, 33. Asst. biol, Grand Island Col, 24–26; parasitol, Kans. State Col, 28–30, instr. zool. and parasitol, 30–31; asst. helminthol, sch. hygiene and pub. health, Hopkins, 31–33; fellow *animal and plant path, Rockefeller Inst,* 33–35, asst, 35–39, *assoc, 39–* Soc. Parasitol; Soc. Zool; Micros. Soc; N. Y. Soc. Trop. Med. Resistance of chickens to nematodes; resistance of rats to Nippostrongylus muris; parasite strains; effect of diet upon parasitism; migration of Ascaris; biology of Strongyloides.

Graham, Prof. H(arrington) B(idwell), 516 Sutter St, San Francisco, Calif. *Medicine.* Santa Barbara, Calif, April 9, 74. B.S, California, 96, M.D, 99. Assoc. clin. prof. *surg, Stanford,* 13–39, *emer. assoc. clin. prof, 39–* Chief otologist, South. Pacific Ry. Hosp. Am. Med. Asn. (v. pres, laryngol. sect, 24); fel. Col. Surg; Laryngol, Rhinol. and Otol. Soc; Laryngol. Asn. Otology; rhinology; laryngology; tuberculosis of the middle ear; removal of foreign bodies from the lungs; syphilis of the nose; labyrinthine disturbances; rheumatism; cancer of the larynx; plastic surgery of the nose and ear.

Graham, Prof. Helen Tredway (Mrs. Evarts Ambrose Graham), Old Jamestown Road, Florissant, Mo. *Chemistry, Pharmacology.* Dubuque, Iowa, July 21, 90. A.B,

Bryn Mawr Col, 11, A.M, 12; Göttingen, 12–13; Ph.D, Chicago, 15. Asst. *pharmacol*, Hopkins, 18; instr, *Washington (St. Louis)*, 26–31, asst. prof, 31–37, *assoc. prof, 37–* A.A; Chem. Soc; Soc. Pharmacol; Physiol. Soc. Narcosis; pharmacology of nerves; electrical response of nerves.

Graham, Prof. H(erbert) W(illiam), Mills College, Oakland, Calif. *Oceanography, Zoology.* New Brighton, Pa, Dec. 18, 05. B.S, Pittsburgh, 29; A.M, Stanford, 34, Ph.D, 38. Herbarium asst, Carnegie Museum, Pittsburgh, Pa, 24–28; asst. bot, Pittsburgh, 29; chemist and biologist, dept. terrestrial magnetism, Carnegie Institution, 29–38; asst. prof. biol, Texas Christian, 38–39; *assoc. prof. zool, Mills Col, 39–* Summers, botanist, Carnegie Museum exped, Arizona, 27, field asst, U. S. Biol. Surv, 28, chemist and biologist, yacht 'Carnegie,' Carnegie Institution, 29; visiting investigator, Hopkins Marine Sta, Pacific Grove, Calif, 31–38. A.A; Geophys. Union; West. Soc. Nat. (v. pres, 40). Chemical oceanography; marine planktology; taxonomy and geographic distribution of marine dinoflagellates.

Graham, Dr. Hugh C(ornelius), 1307 S. Main, Tulsa, Okla. *Zoology.* Fayetteville, N. C, Jan. 9, 96. A.B, Tulsa, 21; B.S, Chicago, 23, M.D, Rush, 25. Assoc. prof. zool, Tulsa, 26–40, adviser premed. students, 26–39. Board educ, Tulsa, Okla, 33–39. Am. Med. Asn; Acad. Pediat; Okla. Pediat. Soc. Physiology; immunity.

Graham, Dr. Jack B(ennett), U. S. Geological Survey, Office of State Engineer, Capital Bldg, Cheyenne, Wyo. *Physical geology.* Superior, Nebr, Oct. 16, 13. A.B, York Col, 35; B.S, Nebraska, 37; M.S, Iowa, 40, Ph.D, 42. Teaching asst. and asst. geol, Iowa, 38–42; *junior geologist, div. ground-water, U. S. Geol. Surv, 42–* Summers, mem, Morrill paleont. field expeds, Nebraska, 36–39; field asst, Iowa Geol. Surv, 40–41. Glacial geology of upper Mississippi Valley; ground-water geology of Wyoming.

Graham, James C(handler), Wildwood Farm, Andover, Mass. *Geology, Chemistry.* Brooklyn, N. Y, June 14, 68. B.S, Wesleyan, 90, 90–93. Instr. chem, Phillips Acad, 93–37; *retired.* Asst, U. S. Geol. Surv, 90–91. A.A; Chem. Soc. Sand transportation; artificial geysers.

Graham, James J(esse) T(homas), Bowie, Md. *Analytical chemistry.* Ingleside, Md, Jan. 28, 84. B.S, Maryland, 06, M.S, 17. Asst. chemist, Maryland Col, 06–07, Exp. Sta, 07–08; Miss. Agr. and Mech. Col, 09–13; insecticide and fungicide board, *U. S. Dept. Agr*, 13–24, assoc. chemist, 24–27, chemist, food and drug admin, 27–28, *senior chemist*, 28–40, *agr. marketing admin, 40–* Chem. Soc; Agr. Chem. (referee, insecticides and fungicides, 20–, referee, caustic poisons, 30); Insecticide Soc. Wash. Chemistry and methods of analysis of insecticides and fungicides; deterioration of insecticides and fungicides.

Graham, Prof. James L(armour), 1217 Monocacy St, Bethlehem, Pa. *Psychology.* Midway, Pa, Dec. 14, 88. A.B, Muskingum Col, 11; A.M, Columbia, 22; Fayerweather scholar, Union Theol. Sem, B D, 22; Ph.D, Peabody Col, 27; Jamison for. scholar, Edinburgh; Chicago. Instr, Assiut Col, Egypt, 11–13; prof. relig. educ, Sterling Col, 19–21; dean, Fisk, 23–25; asst. prof. *psychol*, Kentucky, 26–30; *assoc. prof, Lehigh, 30–* Psychol. Asn; Soc. Psychol. Study Social Issues. Comparison of Negro and white college students in rational tests; guidance in learning; generalizations; illusory trends in the observation of bar graphs and volumes; personality; attitudes; non-normal distributions.

Graham, Prof. John Cameron, 68 Lincoln Ave, Amherst, Mass. *Poultry husbandry.* Wayne, Wis, Oct. 31, 67. B.S.A, Wisconsin, 11. Teacher, schs, Wis, 89–92, 94–08; prof. *poultry husbandry* and head dept, Mass. Col, 11–31, *Mass. State Col*, 31–38, *emer. prof, 38–* Head dept. agr, Red Cross Inst. for Blind, Baltimore, 19–20. Medal, Mass. Soc. Prom. of Agr. Fel. Poultry Sci. Asn. (past pres). Temperature and egg production; determination and inheritance of egg qualities and production; egg size and body weight; individuality of pullets in balancing their ration; flock improvement.

Graham, Prof. J(ohn) H(oward), 7 Cliveden Ave, Glenside, Pa. *Organic chemistry.* Philadelphia, Pa, Dec. 29, 80. A.B, Cent. High Sch, Phila, 98; B.S, Pennsylvania, 02, A.M, 27. Chief chemist, Spanish Am. Iron Co, Cuba, 02–03; prof. chem. and geol, Cent. High Sch, Phila, 03–30; *prof. physics and head dept. org. chem. and physics, sch. pharmacy, Temple, 30–* Smith, Kline and French Co, Phila; Henry K. Wampole Co, Phila; Cent. Railway Signal Co, Pittsburgh; Rohm and Haas Co, Bristol, Pa. Summers and evening sch, Drexel Inst. Priestley prize, Sigma Xi. A.A; Chem. Soc. (sec'y, trustee and chairman, Phila. sect); Pharmaceut. Asn; Pa. Acad; Pa. Bee Asn. Inorganic chemistry; barbituric acid derivatives; cod-liver oil.

Graham, Prof. John Y(oung), 519 S. Orchard St, Madison, Wis. *Biology.* Montgomery, N. Y, Dec. 31, 69. B.S, Princeton, 92, M.S, 94; Ph.D, Munich, 97. Prof. biol, Alabama, 97–39; *retired.* A.A; Soc. Zool; Boston Soc. Nat. Hist. Trichina spiralis.

Graham, Prof. Margaret A(lexander), Hunter College, 68th St. and Park Ave, New York, N. Y. *Botany.* Jersey City, N. J, Sept. 23, 76. A.B, Cornell, 08, A.M, 09, Ph.D, 12. Substitute, Randolph-Macon Woman's Col, 09–10; instr. *bot*, Teachers Col, Columbia, 12–14; *Hunter Col*, 15–21, asst. prof, 21–24, assoc. prof, 24–26, *prof, 26–* A.A; Bot. Soc; Torrey Bot. Club; fel. N. Y. Acad. Cytology and morphology of the liverworts.

Graham, Prof. Minnie A(lmira), 204 Addison Apts, Charlotte, N. C. *Chemistry.* Lockport, N. Y, Sept. 17, 75. A.B, Mt. Holyoke Col, 00; Mt. Holyoke Col. fellow, Michigan, 05–06, A.M, 06; fellow, Bryn Mawr Col, 06–07, 10–11, fellow by courtesy, 11–12, Ph.D, 12. Instr. chem, Mt. Holyoke Col, 02–05; prof, Lake Erie Col, 07–10, 12–13; acting prof, Wells Col, 13–15; instr, Wellesley Col, 15–17; abstractor and librarian, research dept, Gen. Chem. Co, 17–20; instr. chem, Hunter Col, 20–21; acting prof, Wells Col, 21–22; assoc. prof, Mills Col, 22–27; prof, Dominican Col. (Calif), 27–28; acting prof, Keuka Col, 30; *prof. physical sciences, Queens Col. (N. C), 30–* A.A; Chem. Soc; fel. Inst. Chem; N. C. Acad. Laboratory methods in electrochemistry.

Graham, Prof. P(almer) H(ampton), New York University, Washington Square, New York, N. Y. *Mathematics, Astronomy.* Jonesville, Va, 87. A.B, Emory and Henry Col, 09; fellow, Virginia, 11–16, A.M, 14. Instr, Virginia, 12–13; prof. astron. physics, Agnes Scott Col, 16–17, 19–20; from instr. to *prof. math, N. Y. Univ, 20–, chairman dept, 32–*, asst. dean, 33–36, *assoc. dean, 36–* Lieut, U.S.A, 17–19. A.A; Math. Soc; Math. Asn. Algebra; analytic geometry; trigonometry.

Graham, Prof. R(ichard) P(ercival) D(evereaux), McGill University, Montreal, Que, Can. *Mineralogy, Petrology.* Co. Kildare, Ireland, June 14, 80. B.A, Oxford; D.Sc, McGill. *Prof. miner, McGill.* Miner. Soc; fel. Royal Soc. Can; Miner. Soc. Gt. Britain and Ireland; hon. mem. Royal Geol. Soc. Cornwall. Geology; crystallography.

Graham, Dr. Robert, 1010 S. Busey St, Urbana, Ill. *Animal pathology.* Ames, Iowa, July 16, 88. D.V.M, Iowa State Col, 10; B.S, Kentucky, 12. *Prof.* vet. science, Kentucky, 11–17; *animal path. and hygiene, Illinois, 17–, head dept, 41–* Veterinarian, State Board Health, Ky, 12–15; pathologist, State Live Stock Sanit. Board, Ky, 15–17; special investigations, Haiti, 24–25. Major, V.C. A.A; Soc. Bact; Vet. Med. Asn; Pub. Health Asn; U. S. Live Stock Sanit. Asn; Am. Acad; Ill. Acad. Animal hygiene; food poisoning in animals.

Graham, Prof. Samuel A(lexander), University of Michigan, Ann Arbor, Mich. *Entomology.* Salisbury, Md, March 22, 91. B.S, Minnesota, 14, Ph.D, 21; M.F, Cornell, 16. Asst, Cornell, 14–16; Minnesota, 16–18, instr. entom, 18–22, asst. prof, 22–27; assoc. prof. forestry, *Michigan*, 27–28, *prof. econ. zool, 28–* Entom. branch, Can. Dept. Agr, 19. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc; Soc. Foresters; Wildlife Soc. Forest zoology and entomology; ecology of the forest; defoliators of conifers; forest insects.

Graham, Dr. V(erne) O(vid), 4028 Grace St, Chicago, Ill. *Botany.* Marysville, Ohio, Jan. 6, 92. B.S, Ohio Northern, 15; M.S, Chicago, 24, Ph.D, 31. Instr, pub. sch, Mont, 17–18; high sch, *Ill*, 18–26, prin. 26–30, pub. sch, *Chicago*, 30–36, pres, Chicago Nor. Col, 36–38, *prin, Norwood Park Sch, 38–* Instr, Chicago, 27–30; prin, evening high sch, Ill, 29–31. Chairman, Chicago Conservation Council, 32–38. Sci. expeds, Bad Lands and Black Hills, 32, north. Minnesota, 33, Ozarks and La, 34, Yellowstone and Glacier Nat. Parks, 35, Sierra Nevadas, 39, Can. Rockies, 40, 41. A.A; Ill. Acad. (pres, 40, 41); Chicago Acad. (sci. governor, 31–, v. pres, 40–). Ecological botany; higher fungi; plant life; education.

Graham, Prof. V(ictor) E(dward), University of Saskatchewan, Saskatoon, Sask, Can. *Agricultural microbiology* Arundel, Que, July 2, 00. B.S.A, Saskatchewan, 27, Scott

scholar, 27, Agr. Res. Foundation scholar, 28–30; hon. scholar, Wisconsin, 29–30, 39, M.S, 30, Ph.D, 39. Asst. prof. *dairying, Saskatchewan*, 30–40, *prof, 40–* A.A; Pub. Health Asn; Soc. Bact; Can. Pub. Health Asn; Can. Soc. Tech. Agr. Film-forming yeasts.

Graham, Prof. V(iola), Florida State College for Women, Tallahassee, Fla. *Biochemistry.* Jan. 1, 91. A.B, Cornell, 17, A.M, 18, M.S, 23, Ph.D, 25. Instr. biochem, med. col, Cornell, 20–27; prof. biol, State Col. Wash, 27–29; *assoc. prof. physiol. and anat, Fla. State Col. for Women, 29–* Urease; dinitrosalicylic acid.

Graham, Dr. Virginia T(aylor), 3235 Harvey Ave, Cincinnati, Ohio. *Psychology.* Richmond, Va, Sept. 17, 97. A.B, Kentucky, 19, A.M, 21; Ph.D, California, 24. Psychologist, habit clinics, Div. Mental Hygiene, Mass, 24–25; research psychologist, U. S. Pub. Health Service, 25–26; instr. psychol, Territorial Nor. Sch, Honolulu, 26–27; psychologist, child guidance dept, N. J. pub. schs, Montclair, 27–28; State Mental Hygiene Clinic, Va, 28–30; Cent. Clinic, Cincinnati, 31–35; Girl's Service League, New York, 36–37; research, Longview Hosp, *Cincinnati, Ohio*, 38–39; *psychologist, Cent. Clinic, 39–; lecturer psychol, Cincinnati, 39–* Assoc. Psychol. Asn. Clinical psychology; tests; psychopathology; Rorschach.

Graham, W(illia)m J(oseph), Equitable Life Assurance Society, 393 Seventh Ave, New York, N. Y. *Life insurance.* Louisville, Ky, Sept. 23, 77. St. Xavier Col. (Ky); A.M, St. Francis Xavier (N. Y). Actuary, Sun Life Ins. Co, 95–02; Metropolitan Life Ins. Co, 02–05; in charge of examination, N. Y. Life Ins. Co, 05–06; v. pres, director and actuary, Northwest. Nat. Life Ins. Co, 06–11; west. supt, *Equitable Life Assurance Soc*, 11–12, supt. depts. of group insurance, monthly premium and home purchase, New York, 12–18, 3rd v. pres, 18–20, 2nd v. pres, 20–29, *v. pres, 29–, director, 37–* Consulting actuary, Am. Sch. of Insurance, 05; v. pres, State Chamber of Commerce, N. Y, 37– Ins. Inst. Amer. (pres, 34–36); fel. Actuarial Soc; Casualty Actuarial Soc; Management Asn. (pres, 30–34); Royal Soc. Management and industrial relations; group insurance; pensions; social security.

Graham, Dr. W(illiam) P(ratt), 120 Windsor Place, Syracuse, N. Y. *Physics.* Oswego, N. Y, Nov. 24, 71. B.S, Syracuse, 93; Ph.D, Berlin, 97; Darmstadt Polytech, 97–98. Assoc. prof. elec. eng, *Syracuse*, 98–01, prof, 01–22, dean col. applied science, 11–22, v. chancellor, 22–36, acting chancellor, 36–37, *chancellor, 37–* A.A; Astron. Soc; fel. Elec. Eng; Math. Gesell. Distribution of potential in vacuum tubes; nature of the electric spark; electrical engineering.

Graham, W(illiam) R(ichard), 21 Ontario St, Burlington, Ont, Can. *Poultry husbandry.* Belleville, Ont, April 16, 75. B.S.A. Prof. poultry, Ont. Agr. Col, 99–40; *retired.* Poultry Sci. Asn; Can. Soc. Tech. Agr. Poultry science.

Grahame, Prof. D(avid) C(aldwell), 46 Orchard St, Amherst, Mass. *Physical chemistry.* St. Paul, Minn, April 21, 12. B.Ch.E, Minnesota, 35; Ph.D, California, 37. Instr. *chem*, California, 37–39; *Amherst Col*, 39–42, *asst. prof, 42–* Chem. Soc; Physical Soc. Neutron scattering; photochemistry; electrical double layer.

Gramet, Charles A, 41 Eastern Parkway, Brooklyn, N. Y. *Biology.* New York, N. Y, Nov. 22, 95. A.B, Col. City of N. Y; A.M, Columbia, 28. Chairman dept. biol, John Adams High Sch, *New York, asst. prin, Midwood High Sch.* A.A; Asn. Research Sci. Teachers; N. Y. Acad. Science education; visual instruction.

Gramling, Prof. L(ea) G(ene), George Washington University, Washington, D. C. *Pharmacology.* High Springs, Fla, Nov. 3, 08. Ph.G, Florida, 31, B.S, 35, scholar, 35–38, M.S, 36, Ph.D, 38. *Asst. prof. pharmacol. and pharmacog, George Washington, 38–, acting exec. officer, sch. pharmacy, 42–* Res. Pharmaceut. Asn. (sec'y, Wash, D. C. branch, 40–); D. C. Pharmaceut. Asn. Biological assays; pharmacological action of amines.

Gran, Prof. John E(dward), 707 Eleventh St, Tuscaloosa, Ala. *Chemistry.* Wareham, Mass, Oct. 4, 00. B.S, Wesleyan, 24, A.M, 26; Ph.D, Ohio State, 32. Instr. chem, Birmingham-Southern Col, 26–28; asst, Ohio State, 28–32; teaching and research fellow, Wesleyan, 33–34; chemist, State Water Cmn, Conn, 34–35; instr. *chem, Alabama*, 35–38, *asst. prof, 38–* A.A; Chem. Soc; Water Works Asn; Federation Sewage Works Asn; Ga. Water and Sewage Asn. Water purification; river pollution; sewage disposal.

Gran, Prof. William H(enry), Miami University, Oxford, Ohio. *Physics.* Kingsley, Mich, April 23, 92. A.B, Olivet Col. (Mich), 15; M.S, Northwestern, 21; Ph.D, Michigan, 36. Prof. *physics*, Iowa Wesleyan Col, 18–20; Western Col, 20–41; *assoc. prof, Miami (Ohio), 41–* Asn. Physics Teachers; Physical Soc. Series regularity in the action cross section for collisions of the second kind between atoms and ions.

Granath, Dr. Louis P(eter), New York University, University Heights, New York, N. Y, and 1807 N. Danville St, Arlington, Va. *Physics.* Spokane, Wash, July 26, 01. B.S, State Col. Wash, 23; Ph.D, N. Y. Univ, 31. Teaching fellow, Minnesota, 24–26; asst. physicist, Bur. Standards, 27; junior physicist, Naval Research Lab, 27–29; *instr. physics, N. Y. Univ, 30–; consultant physicist, bur. ships, U. S. Navy Dept, 41–* A.A; fel. Physical Soc. Absorption of light in lower atmosphere and in fog; hyperfine structure of lithium and lead.

Grandfield, C(larence) O(wen), U. S. Department of Agriculture, Kansas State College, Manhattan, Kans. *Agronomy.* Maize, Kans, March 7, 93. B.S, Kans. State Col, 17, M.S, 29. Asst. land classifier, U. S. Geol. Surv, 17–20; county agr. agent, exten. dept, *Kans. State Col*, 20–27, asst. prof. agron, 27–29, exp. sta, 29, asst. agronomist, *div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr*, 29–42, *assoc. agronomist, 42–* Soc. Agron. Plant physiology; effect of different cultural treatments of crop plants on their growth habits.

Grandy, Prof. M(ichael) B(enedict), University of Dayton, Dayton, Ohio. *Physics.* Baltimore, Md, Dec. 11, 89. B.S, Dayton, 17; M.Sc, Freiburg, 25, Ph.D, 26. Instr. *physics*, Dayton, 20–22; Freiburg, 25–26; prof, Dayton, 26–40, head dept, 28–40; *prof. and head dept*, Trinity Col. (Iowa), 40–43; *Dayton, 43–* Physical Soc; Eng. Educ. Resonance frequencies and self-capacity of large multiple layer coils.

Granett, Dr. Philip, Rutgers University, New Brunswick, N. J. *Economic entomology.* Bayonne, N. J, April 4, 10. B.S, Rutgers, 33, M.S, 34, Ph.D, 41. Asst, *Rutgers*, 33–34, *research fellow, 34–* Asn. Econ. Entom. Insecticides; insect repellents.

Grangaard, Dr. D(onald) H(ammer), Kimberly Clark Corp, Kimberly, Wis. *Organic chemistry.* Douglas, N. Dak, Jan. 10, 12. A.B, North Dakota, 33; M.S, Ohio State, 25, Ph.D, 37. Asst, Ohio State, 33–37; research assoc. cellulose chem, Mass. Inst. Tech; *research dept, Kimberly Clark Corp.* Chem. Soc. Carbohydrates and cellulose.

Grange, Wallace B(yron), Babcock, Wis. *Biology.* Wheaton, Ill, Sept. 10, 05. Wisconsin, 24–25; Michigan, 26–27. Field asst, U. S. Forest Service, 25–25; bur. biol. surv, U. S. Dept. Agr, 26; supt. game, Conservation Cmn, Wis, 28–30; cooperative agent, bur. biol. surv, U. S. Dept. Agr, 30–32; game breeder and consultant, 32–40; *game biologist, grouse research, State Conservation Dept, Wis, 40–* Assoc. Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Inland Bird Banding Asn. Wildlife; ornithology; mammalogy.

Granger, Prof. Armour T(ownsend), University of Tennessee, Knoxville, Tenn. *Civil engineering.* Austin, Texas, March 21, 98. B.S, Texas, 18, C.E, 21. From instr. to assoc. prof, Texas, 20–28; asst. engineer, Ash-Howard-Needles and Tammen, 28–39; assoc. prof. *civil eng, Tennessee*, 39–40, *prof, 40–* Mem. Highway Research Board, 40– Soc. Civil Eng; Concrete Inst; Eng. Educ. Steel and reinforced concrete structures.

Granger, Arthur E(arle), U. S. Geological Survey, Washington, D. C. *Economic geology.* Salt Lake City, Utah, March 15, 11. A.B, Utah, 35; M.S, Washington (Seattle), 39. Teaching fellow, Washington (Seattle), 37–39; field asst, *U. S. Geol. Surv*, 38–40, junior geologist, 40–42, *asst. geologist, 42–* Minerals and metals; quicksilver; tungsten; manganese.

Granger, Dr. Christopher M(abley), U. S. Forest Service, Washington, D. C. *Forestry.* Detroit, Mich, Nov. 25, 85. B.S, Mich. State Col, 07, hon. D.F, 32. From forest asst. to *asst. chief in charge nat. forest admin, U. S. Forest Service, 07–* Soc. Foresters (pres, 32). Forest economics.

Granick, Dr. Sam, Rockefeller Institute for Medical Research, New York, N. Y. *Plant physiology.* New York, N. Y, Feb. 16, 09. B.S, Michigan, 31, M.S, 33, Newcombe fellow, 34–38, Ph.D, 38. Rockefeller fellow, 38–39; *asst, Rockefeller Inst, 39–* Oxidation-reduction of biological compounds; ferritin.

Granovsky, Prof. A(lexander) A(nastaclevitch), University Farm, St. Paul, Minn. *Entomology.* Berezcy, Ukraine, Nov. 4, 87. Kiev Inst, 08–09; B.S, Colo. Agr. Col, 18; Paris, 19; M.S, Wisconsin, 23, Ph.D, 26. Teacher and prin, high schs, Colo, 19–22; instr. *econ. entom,* Wisconsin, 22–26, asst. prof. and asst. entomologist, 26–30; *assoc. prof, Minnesota, and assoc. entomologist, Exp. Sta, 30–,* acting director forestry and biol. sta, 35–40. Asst. farm manager, Ukraine. A.A; fel. Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Phytopath. Soc; Soc. Agron; Wis. Acad; Entom. Soc. Wash; Minn. Acad; Entom. Soc. Ont. Economic zoology; biology and control of grasshoppers; insects in relation to plant diseases; intracellular symbionts of coccids; taxonomy of Aphididae; ecology of soil insects.

Grant, Dr. Adele Lewis, University of Southern California, Los Angeles, Calif. *Botany.* Carpinteria, Calif, July 3, 81. B.S, California, 02, 14–16, 17–18; Stanford, 16–17; A.M, Washington (St. Louis), 20, Ph.D, 23. Teaching fellow, Washington (St. Louis), 18–20; instr. *bot,* Cornell, 20–26; senior lecturer and head dept, Huguenot Univ. Col, Univ. S. Africa, 26–30; asst. prof, Washington (St. Louis), 30–31; *lecturer, univ. col, Southern California, 31–* Summers, instr, Sierra Summer Sch, 17, 18, 20; San Francisco State Col, 32–40. A.A; Calif. Bot. Taxonomy and morphology of Mimulus and allied genera.

Grant, Dr. Carroll W(alter), Brooklyn College, Brooklyn, N. Y. *Bacteriology.* Kalamo, Mich, Nov. 14, 00. A.B, Olivet Col, 24; A.M, Battle Creek Col, 27; Ph.D, Yale, 31. Bacteriologist, Battle Creek Sanitarium, 24–25; asst. prof. bacter, Battle Creek Col, 25–27, 28–31, assoc. prof, 31–33; instr, Brooklyn Col, 33–36, asst. prof, 36–41; research assoc. marine microbiol, Scripps Institution, California, 41–42; *asst. prof. bacter, Brooklyn Col, 42–* Summers, bacteriologist, Battle Creek Sanitarium, 26, 28–31. Soc. Parasitol. Biology of the Mucosus capsulatus group.

Grant, Major Chapman, U.S.A. (retired), 2970 Sixth Ave, San Diego, Calif. *Herpetology.* Salem Center, N. Y, March 22, 87. A.B, Williams Col, 10. Asst. director, N. Y. Aquarium, 10–12; asst. curator, Children's Museum, Brooklyn, 13; director, Detroit Aquarium, Belle Isle, 20; curator, Ark. Valley Museum, 27–30; preparator, Am. Museum Nat. Hist. exped, Orizaba, Yucatan, 10; collector, Bernice P. Bishop Museum exped, Leeward Islands, 23; collector, P. R. and V. I, 31–33, Calif, 34, V. I, 35, Carros Island, 36, Jamaica, 37, Cayman Islands, 38. Co-editor, 'Herpetologica.' A.A; Soc. Ichthyol. and Herp. (v. pres, west. div); Cooper Ornith. Club; Kans. Audubon Soc. (pres, 27–30); fel. San Diego Soc. Nat. Hist. Herpetology of the Antilles.

Grant, Dr. Charlotte (Liebtag), 3302 Graceland Ave, Indianapolis, Ind. *Botany.* Indianapolis, Ind, Jan. 24, 06. A.B, DePauw, 26; A.M, Illinois, 27, Ph.D, 35. *Instr. bot,* Illinois, 28–30, 33–35; *Arsenal Tech. Schs, Indianapolis, 35–* Asst. prof, Rockford Col, 30; lecturer, evening div, Butler, 39–; research assoc, bur. educational research in science, Teachers Col, Columbia, 41–42. Summers, Illinois, 27, 28, 34, 35. A.A. (conservation cmt, Q); Ecol. Soc; Bot. Soc; Torrey Bot. Soc; Cent. Asn. Sci. and Math. (chairman conservation cmt. and sect, 42); Ind. Acad. Plant anatomy; ecological relations of plants; influence of soil moisture upon plant growth; new plant-culture methods for studying soil moisture influence; techniques in teaching biology.

Grant, Dr. David A(lexander), University of Wisconsin, Madison, Wis. *Psychology.* Des Moines, Iowa, May 17, 16. A.A, Kansas City Junior Col, 36; A.B, Iowa, 38; A.M, Wisconsin, 39; Abraham Rosenberg research fellow, Stanford, 40–41, Ph.D, 41. *Instr. psychol, Wisconsin, 41–* Summer, lecturer, Colo. State Col, 40. Psychol. Asn; Midwest. Psychol. Asn. Conditioning and reflex sensitization; motor learning; statistics.

Grant, Dr. (Elizabeth) Rhoda, 805 Upper Lansdowne Ave, Montreal, Que, Can. *Physiology.* Hopewell, N. S, Jan. 12, 04. B.A, McGill, M.A, 30, Ph.D, 32. Banting Research Foundation grants, 32–34, 37; asst. *physiol,* Toronto, 35–36, demonstrator, 36; McGill, 36–37; asst. prof, Dalhousie, 38–39; *research fellow and demonstrator, McGill, 40–* Can. Physiol. Soc; N. S. Inst. Sci; Montreal Physiol. Soc. Medical sciences; physiological factors concerned in the formation, storage and discharge of liver glycogen; the regulation of gastric acidity.

Grant, Prof. Eugene L(odewick), 2045 Tasso St, Palo Alto, Calif. *Civil engineering.* Chicago, Ill, Feb. 15, 97. B.S, Wisconsin, 17, C.E, 28; A.M, Columbia, 28. From instr. to assoc. prof. civil eng, Mont. State Col, 20–29, prof. indust. eng, 29–30; assoc. prof. civil eng, *Stanford,* 30–39, *prof. econ. of eng, 39–* Soc. Adv. Management; Civil Eng; Eng. Educ; Econometric Soc; Statist. Asn. Economics of engineering.

Grant, Dr. G(ordon) A(llison), Research and Biological Laboratories, Ayerst, McKenna and Harrison Ltd, Montreal, Que, Can. *Biochemistry.* Yarmouth, N. S, Can, Aug. 4, 04. Ph.G, Maritime Col. Pharmacy, 25; B.Sc, Dalhousie, 27, M.Sc, 29; fellow, Toronto, 30–32, Ph.D, 32; Royal Soc. Can. research fellow, London, 33–34, Ph.D, 37. Lecturer biochem, Dalhousie, 27–30; Beit Mem. fellow med. research, Lister Inst, London, 34–37; *chief research chemist, research and biol. labs, Ayerst, McKenna and Harrison Ltd, 37–* Chem. Soc; Soc. Chem. Indust; Can. Physiol. Soc; Biochem. Soc. Gt. Britain. Carbohydrate metabolism; phosphorylation during galactose fermentation; influence of hormones on the regressing mammary gland; mechanism of lactose synthesis by the active mammary gland; chemistry of hormones and vitamins.

Grant, Prof. Harold S(inclair), 232 S. Fourth Ave, Highland Park, New Brunswick, N. J. *Mathematics.* Bangor, Ireland, Jan. 7, 05. A.B, Pennsylvania, 26, A.M, 27, Ph.D, 33. Asst. instr, Pennsylvania, 27–29; Buffalo, 29–30; instr. *math, Rutgers,* 30–35, *asst. prof, 35–* Math. Soc. Pure mathematics; number theory.

Grant, Prof. J(ohn) C(harles) Bolleau, 46 Bedford Road, Toronto, Ont, Can. *Anatomy.* Edinburgh, Scotland, Feb. 6, 86. Edinburgh, 02–08, M.B. and Ch.B. Demonstrator *anat,* Edinburgh, 09–11; Durham, 11–13; *prof,* Manitoba, 19–30; *Toronto, 30–* Fel. Royal Col. Surg. Edinburgh. A method of anatomy.

Grant, Dr. J(ohn) G(ray), College Hospital, Ames, Iowa. *Hygiene.* Brandon, Man, Can, Jan. 16, 99. B.A, McMaster, 19; M.D, Manitoba, 24. Asst. prof. hygiene, *Iowa State Col,* 30–36, *prof. hygiene, head dept. and director student health service, 36–* Am. Med. Asn; Pub. Health Asn; Student Health Asn. (pres, N. Cent. sect, 39–41). Nutritional status of college women, as related to their dietary habits, anthropometric measurements, the formed elements of the blood, basal metabolism and dietary balances.

Grant, Dr. Madeleine P(arker), Sarah Lawrence College, Bronxville, N. Y. *Zoology.* Dorchester, Mass, March 1, 95. B.S, Simmons Col, 16; A.M, Radcliffe Col, 24, Whitney fellow, 28–30, Ph.D, 32. Med. asst, Dr. Edward Reynolds and Peter Bent Brigham Hosp, 16–19; instr. zool, Mt. Holyoke Col, 20–25, asst. prof, 25–30; Smith Col, 30–33; *mem. faculty, Sarah Lawrence Col, 33–* Summers, Marine Biol. Lab, Woods Hole, 20, teaching staff, 25–30; Whitney research grant, Radcliffe Col, 30; mem. staff, sch. women workers in industry, Bryn Mawr Col, 37–40. Soc. Zool; Asn. Anat. Amphibian metamorphosis; thyroid histology; pituitary implantation; hibernating tissue.

Grant, Prof. Martin L(awrence), Iowa State Teachers College, Cedar Falls, Iowa. *Botany, Zoology.* Chelsea, Mich, Jan. 31, 07. A.B, Oberlin Col, 27; A.M, Minnesota, 29, Ph.D, 36. Asst. bot, Minnesota, 27–30, instr, 31–36; *asst. prof. biol, Iowa State Teachers Col, 36–* Investigator, State Forest Service, Minn, 27, 28; Bishop Museum fellow, Yale, 30–31; research assoc, Bishop Museum, Honolulu, 34. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Taxon; Sci. Teachers Asn; Iowa Acad. (chairman zool. sect, 40; bot. and bact. sect, 41); Iowa Ornith. Union (exec. councilor, 41; pres, 42); Iowa Asn. Sci. Teachers. Biology; plant geography; taxonomy; ecology; ornithology.

Grant, Dr. R(obert) Lorimer, Route 2, Silver Spring, Md. *Biochemistry.* Fremont, Mich, Jan. 21, 06. B.S, Alma Col, 28; M.S, Michigan, 29, Ph.D, 33. Asst. physiol. chem, Michigan, 29–33, research fellow, internal med, 33–36; *assoc. pharmacologist, food and drug admin, Fed. Security Agency, 36–* Soc. Biol. Chem. Silk fibroin; mineral and water metabolism; chronic toxicity of lead and arsenic; toxicity of coal tar colors.

Grant, Dr. Ronald, McGill University, Montreal, Que, Can. *Endocrinology.* London, Eng, May 25, 10. B.Sc, London, 30; English Ministry of Agriculture scholar, Edinburgh, 30–33, Ph.D, 33; Chicago, 35–36; Columbia, 36–37. Lecturer zool, Leeds, 33–35; Commonwealth Fund fellow, 35–37; *lecturer physiol. and zool, McGill, 37–* Assoc. Soc. Zool; fel. Royal Soc. Edinburgh. Reproductive physiology, especially of the Amphibia.

Grant, Dr. T(heodore) J(ames), Cooperative Rubber Plant Field Station, U. S. Department of Agriculture, Turrialba,

Costa Rica. *Forest pathology.* Auburndale, Mass, Jan. 20, 03. B.S, Mass. Col, 26; M.S, Wisconsin, 31, Ph.D, 33. Research dept, United Fruit Co, 27–30; asst, Wisconsin, 30–33; assoc. pathologist, div. forest path, *bur. plant indust, U. S. Dept. Agr*, 33–, cooperating with soil conservation service, 37–40, *agent rubber investigations, 40–* Banana wilt; host, range and properties of tobacco mosaic virus; nectria canker disease of hardwoods; 'witches broom' of black locust; rubber culture and diseases.

Grant, Prof. U(lysses) S, 4th, University of California at Los Angeles, Los Angeles, Calif. *Invertebrate paleontology.* Salem Center, N. Y, May 23, 93. A.B, Harvard, 15; Ph.D, Stanford, 29. Asst. invert. paleontologist, Los Angeles Museum, 30–31; instr. *geol, California at Los Angeles*, 31, asst. prof, 31–36, assoc. prof, 36–40, *prof, 40–, chairman dept*, 37–A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner. (v. pres, 35); fel. Geol. Soc; Geophys. Union; Conchol. Union; Calif. Acad; South. Calif. Acad. (v. pres, 30); fel. San Diego Soc. Nat. Hist; Conchol. Soc. Gt. Britain and Ireland; cor. mem, London Malacol. Soc; Malakozool. Gesell. Tertiary and Quaternary Mollusca of California; Pliocene and Pleistocene Mollusca of California; Tertiary stratigraphy of California; shoreline physiography; recent changes of elevation.

Grant, Dr. V(ernon) W(esley), 13500 Blenheim Road, Cleveland, Ohio. *Psychological optics.* Cleveland, Ohio, Sept. 6, 04. Ph.B, Chicago, 27; A.M, Columbia, 29; Ph.D, Northwestern, 41. Instr. psychol, St. Lawrence, 29–32; prof, North. Ill. Col. Optometry, 34–42; *Air Forces, U. S. Army, 42–* Assoc. Psychol. Asn. Accommodation and convergence in visual space perception.

Grant, Dr. Wilson C(lark), School of Aviation Medicine, U. S. Naval Air Station, Pensacola, Fla. *Respiratory physiology.* Bradley Beach, N. J, June 27, 15. A.B, Wesleyan, 37, A.M, 38; scholar, Marine Biol. Lab, Woods Hole, 37; fellow, Maryland, 40–42, Ph.D, 42. Asst. physiol, Wesleyan, 37–40; instr. histol, Maryland, 41–42; *U. S. Naval Res, 42–, lieut.* Tissue respiration; water balance; anoxia in aviation.

Grantham, Prof. G(eorge) M(anners), 138 Burcham Drive, East Lansing, Mich. *Soils.* Ladoga, Ind, March 5, 89. B.S, Illinois, 14; M.S, Nebraska, 27. Instr. *soils, Mich. State Col*, 14–17, asst. prof, 17–31, *assoc. prof, 31–, assoc, Exp. Sta, 21–*

Grantham, Prof. G(uy) E(verett), Cornell University, Ithaca, N. Y. *Physics.* Ladoga, Ind, Feb. 1, 86. A.B, Indiana, 09, A.M, 13; Ph.D, Cornell, 20. Instr. *physics*, Purdue, 09–15; Cornell, 15–17; assoc. prof, Agr. and Mech. Col. Texas, 20–21; asst. prof, post-grad. sch, U. S. Naval Acad, 21–25, assoc. prof, 25–28; asst. prof, *Cornell*, 28–36, *prof, 36–* Capt, Sig.C, 17–19. A.A; Physical Soc; Optical Soc; Eng. Educ. Infrared absorption spectra of glasses and alkali hydroxids; selenium resistance.

Gratias, Dr. O(rvald) A(rthur), Care of The Canadian Spool Cotton Co, P. O. Box 519, Montreal, Que, Can. *Physics.* Pekin, N. Dak, Jan. 25, 09. B.S, Saskatchewan, 28, Nat. Research Council Can. bursar, 29–30, M.S, 30; Rhodes scholar, Oxford, 30–33, Ph.D, 32; London Sch. Econ, 33–34. *Textile student, J. and P. Coats, Ltd, 34–* Radioactive aggregates; uranium Y; branching of actinium and uranium series; beta ray spectra.

Graton, Prof. L(ouis) C(aryl), Harvard University, Cambridge, Mass. ***Geology.* Parma, N. Y, June 10, 80. B.S, Cornell, 00, fellow, 02–03, Ph.D, 30. Demonstrator, McGill, 00–02; geologist, Ont. Crown Lands exploring exped, 02; U. S. Geol. Surv, 03–09; sec'y, Copper Producers' Asn, 09–14; asst. prof. *mining geol, Harvard*, 10–12, *prof, 12–* Consulting engineer, U. S. Bur. Mines, 30–; consulting geologist, Cerro de Pasco Copper Corp; Int. Nickel Co, Ltd. Expert mine valuation, U. S. Revenue Bur, 19–20; finance cmt. on geol, Nat. Research Council, 19–24, cmt. on geol, 25–28; sec'y, Copper Producers Cmt. for War Service, 18. A.A; Geol. Soc. (councilor, 20–23); Soc. Econ. Geol. (councilor, 22–24, pres, 31); Min. and Metal. Eng; Min. and Metal. Soc. (councilor, 36–39); Geophys. Union; Miner. Soc; fel. Am. Acad. (councilor, 26–30, 42–); Wash. Acad; Can. Inst. Min. and Metal; Geol. Soc. S. Africa; Chem, Metal. and Min. Soc. S. Africa (cor. mem. council, 34–). Mining geology; ore deposition.

Gratz, Dr. L(evi) O(tto), University of Florida, Gainesville, Fla. *Plant pathology.* Bluffton, Ohio, Jan. 29, 94. A.B, 15; fellow, Cornell, 20–22, Ph.D, 23. Asst. plant pathologist, potato diseases, Exp. Sta, *Florida*, Hastings, 23–26, assoc. plant pathologist, 27–29, assoc. plant pathologist in charge tobacco exp. sta, Quincy, 30–32, plant pathologist in charge, N. Fla. Exp. Sta, 32–39, plant pathologist, *Exp. Sta*, 39–42, *asst. director research, 42–* Summer, asst. exten. pathologist, Pa. State Col, 22. A.A; Phytopath. Soc; Fla. Acad; Fla. Soil Sci. Soc. Phytopathology; wire stem of cabbage; diseases of Irish potatoes, tobacco and eggplants; sheep; swine; cattle.

Grau, Dr. Fred(erick) V(ahlcamp), R. D, State College, Pa. *Agronomy.* Bennington, Nebr, Feb. 28, 02. B.S, Nebraska, 31; M.S, Maryland, 33, Ph.D, 35. *Exten. agronomist, Pa. State Col, 35–* The chemical control of weeds; grassland studies in permanent pastures.

Graubard, Dr. Mark A(aron), 3427 Oakwood Terrace, N.W, Washington, D. C. *Physiology.* Poland, Jan. 5, 04. B.S, Col. City of N. Y, 26; A.M, Columbia, 27, Ph.D, 30. Asst. zool, Columbia, 28–31; nat. research fellow, Manchester (England) and London, 31–33; asst. genetics, Columbia, 33–34, research assoc. biol. chem, 34–38; physiol, Clark, 38–41; *nutrition educ, food distribution admin, U. S. Dept. Agr, 42–* A.A; Physiol. Soc; Hist. Sci. Soc; Genetics Soc; Soc. Zool. Genetics; pigmentation; oxidases; hormone metabolism; history of science; food habits.

Grauer, Dr. R(obert) C(oleman), Singer Research Laboratory, Pittsburgh, Pa. *Pathology, Endocrinology.* Pittsburgh, Pa, Aug. 3, 02. B.S, Pittsburgh, 25, M.D, 27. Intern, Mercy Hosp, 27–28; res. pathologist, Allegheny Gen. Hosp, 28–29; pathologist, *Singer Research Lab*, 29–37, *head dept. research in endocrinol. and metabolism, 37–*; instr. *path, Pittsburgh*, 30–35, *lecturer, 35–* Visiting pathologist, Citizens Gen. Hosp, 32–; assoc, Allegheny Gen. Hosp, 37– A.A; Asn. Path. and Bact; Am. Med. Asn; Soc. Clin. Path; Asn. Study Int. Secretions; Soc. Exp. Path; Int. Asn. Med. Mus. Experimental breast tumors; vitamin D; fungous infections; bone dystrophies; blood iodine; sex hormones; thyroid gland.

Graul, Prof. E(dward) J(ohn), University of Wisconsin, Madison, Wis. *Soils.* Independence, Wis, March 23, 83. Northwestern Col; Lawrence Col; B.S, Wisconsin, 11, M.S, 18. Wis. Soil Surv, 11–12; instr. *soils*, Wisconsin, 12–16; chemist, Wis. Soils Lab, 16–20; asst. prof, *Wisconsin*, 20–26, assoc. prof, 26–34, *prof, 34–* Soc. Agron; Int. Soc. Soil Sci. Nitrogen fixation in soils by symbiotic nitrogen fixing bacteria; pasture improvement.

Graustein, Prof. Jeannette E(lizabeth), University of Delaware, Newark, Del. *Plant morphology.* Cambridge, Mass, Oct. 16, 92. A.B, Mt. Holyoke Col, 15; Ph.D, Radcliffe Col, 27. Asst. prof. *biol, Women's Col, Delaware*, 30–40, *assoc. prof, 40–* A.A; Bot. Soc. Cytology of hybrids.

Graustein, Dr. Mary Curtis (Mrs. William C. Graustein), 32 Shepard St, Cambridge, Mass. *Mathematics.* Westminster, Mass, April 12, 84. A.B, Wellesley Col, 06; Leipzig, 10–11; A.M, Radcliffe Col, 15, Ph.D, 17. Instr. *math*, Wellesley Col, 11–14; Western Reserve, 17–18; Wellesley Col, 18–20, asst. prof, 20–30; *tutor, Radcliffe Col, 26–* Math. Soc. Functions of elliptic cylinders; point transformations.

Gravatt, Mrs. Annie R(athbun), Apt. 503, 100 Maryland Ave, N.E, Washington, D. C. *Forest pathology.* West Greenwich, R. I, May 15, 94. A.B, Brown, 16, M.S, 18. From collaborator to *assoc. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 16–* Assoc. ed, 'Phytopathology,' 26–29, co-editor, 32– A.A; Phytopath. Soc. Plant physiology; damping off of conifers; white pine blister rust.

Gravatt, G(eorge) F(lippo), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Roanoke, Va, April 27, 91. B.S, Va. Polytech, 11, M.S, 12. *Div. forest path, U. S. Dept. Agr, 12–, senior pathologist.* Phytopath. Soc; Soc. Foresters; Wash. Acad; Bot. Soc. Wash. (pres, 38). Plant breeding; chestnut blight.

Grave, Prof. B(enjamin) H(arrison), DePauw University, Greencastle, Ind. *Zoology.* Monrovia, Ind, 78. B.S, Earlham Col, 03; M.S, Carleton Col, 06; fellow, Hopkins, 09–10, Ph.D, 10. Instr. biol, Carleton Col, 04–06; asst. prof, Earlham Col, 08–09; prof. zool, Wyoming, 10–13; biol, Knox Col, 13–20; *zool*, Wabash Col, 20–28; *prof, DePauw, 28–* Embryol. fellow, Marine Biol. Lab, Woods Hole. Embryology and physiology of lamellibranchs and annelids; physiology and longevity of gametes; rate of growth, age at sexual maturity and duration of life of marine invertebrates; sex inversion and hermaphroditism in mollusca.

Grave, Prof. Caswell, Winter Park, Fla. and Woods Hole, Mass. *[1]Zoology.* Monrovia, Ind, Jan. 24, 70. B.S, Earlham Col, 95, LL.D, 28; Ph.D, Hopkins, 99. Bruce fellow, Hopkins, 99–01, asst. *zool,* 01–02, assoc, 02–06, assoc. prof, 06–19; Rebstock prof. and head dept, *Washington (St. Louis),* 19–40, *emer. prof, 40–* Asst, U. S. Fish Cmn, 99–00; instr, Marine Biol. Lab, Woods Hole, 01, instr. in charge, 12–19, trustee, 20; director, U. S. Fisheries Lab, Beaufort, N. C, 02–06; prof, Goucher Col, 06; shellfish commissioner, Md, 06–12. Mem. board, fellowships in biol. sciences, Nat. Research Council, 35. Capt, C.W.S, 18. A.A; Soc. Nat; Soc. Zool. (sec'y-treas, 13–18, v. pres, 19, pres, 28). Embryology of echinoderms; structure and activities of compound ascidians; coordinating and regulatory mechanism of ciliated epithelia; metamorphosis of ascidian larvae and its acceleration.

Grave, Dr. Charlotte E(asby), 221 S. Bellevue Ave, Langhorne, Pa. *Psychology.* Philadelphia, Pa, June 23, 01. A.B, Pennsylvania, 21, A.M, 22, Ph.D, 24. Diagnostic teacher, psychol. lab, and clinic, Pennsylvania, 21–25; psychologist, med. div, munic. court, Phila, 25–27; Human Research Corp, 27–29; *consulting psychologist,* Children's Aid Soc. Pa, 29–32; Friends' Select Sch, Phila, 29–40; Sleighton Farm Sch. for Girls, Darling, Pa, 29–38; *Woods Schs, Langhorne, Pa, 33–* V. pres, Conf. Juvenile Agencies.

Grave, Dr. Thomas B(rooks), Madalin, N. Y. *Chemistry.* Richmond, Ind, Aug. 29, 98. A.B, Hopkins, 19, Ph.D, 23. Hynson, Westcott and Dunning fellow, Hopkins, 23–24, asst. med, 25–26; assoc. chem, Chem. Warfare Service, 26–28; Rockefeller Inst, 28–30; research chemist, E. R. Squibb and Sons, Brooklyn, 31–35; consultant, 35–42; *assoc. chem, Chem. Warfare Service, U. S. Army, 42–* Medicinal chemistry; catalytic hydrogenation; structural chemistry.

Gravell, Donald W(inchester), care of Atlantic Refining Co. of Cuba, Edificio Metropolitana 401, Havana, Cuba. *Geology, Paleontology.* Beverly, Mass, Sept. 14, 02. A.B, California, 26, A.M, 31. Asst, Scripps Institution, California, 28–29; geologist and paleontologist, Gulf Oil Corp, Texas, 29–40; *paleontologist, Atlantic Ref. Co, Cuba, 40–* Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Micro-paleontology; larger Foraminifera.

Graves, Dr. A(lvin) C(ushman), University of Texas, Austin, Texas. *Physics.* Washington, D. C, Nov. 4, 09. B.S, Virginia, 32; Ph.D, Chicago, 39. Instr. *physics, Texas,* 39–41, *asst. prof, 41–* Physical Soc; Texas Acad. Cosmic rays.

Graves, Dr. Arthur H(armount), Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany.* New Haven, Conn, Jan. 22, 79. A.B, Yale, 00, Ph.D, 07; London, 14–15. Asst. bot, Sheffield Sci. Sch, Yale, 02–04, instr. forest bot, sch. forestry, 04–06, bot, univ, 06–09, asst. prof, 09–14; assoc. prof. biol, Conn. Col. for Women, 16–17; pathologist and *collaborator, div. forest path, U. S. Dept. Agr, 09–; curator pub. instruction, Brooklyn Bot. Garden, 21–* Ed, 'Brooklyn Bot. Garden Leaflets,' 21–; ed. board, 'Am. Jour. Bot,' 21–35; asst. ed, bot. educ. sect, 'Bot. Abstracts,' 22–27; ed, plant sect. gen. biol, 'Biol. Abstracts,' 27–; 'Brooklyn Bot. Garden Contributions,' 28– A.A; Bot. Soc; Phytopath. Soc; Genetic Asn; Torrey Bot. Club (sec'y, 24–28, assoc. ed, 31–34, pres, 39); New Eng. Bot. Soc; Conn. Bot. Soc; Conn. Forest and Park Asn; N. Y. Forestry Asn; N. Y. Acad; Soc. linn. de Lyon. Morphology and physiology of fungi; North American forest trees and their diseases; breeding disease-resistant chestnut trees.

Graves, Prof. Clyde H(arvey), Pennsylvania State College, State College, Pa. *Mathematics, Statistics.* Jackson, Miss, Oct. 14, 08. B.S, Millsaps Col, 28; A.M, Chicago, 31, fellow, 32–33, Ph.D, 38; Pa. State Col. Instr. *math, Pa. State Col,* 29–39, *asst. prof, 39–; assoc. educational statistician, fed. security agency, U. S. Office Educ.* Summers, instr, Pa. State Col, 39–41. Math. Soc; Math. Asn; Econ. Soc; Inst. Math. Statist; Psychometric Soc. Surfaces in five-dimensional space; mathematical statistics; econometrics; psychometrics.

Graves, Dr. George W(est), Fresno State College, Fresno, Calif. *Botany.* Cedar Rapids, Iowa, May 1, 86. Ph.B, Chicago, 08, Ph.D, 31; M.S, State Col. Wash, 12. Teacher, high sch, Calif, 12–15; asst. supervisor agr, city schs, Los Angeles, 15–19; *head dept. agr. and biol, Fresno State Col, 19–* U.S.A, 18–19. A.A; Soc. Hort. Sci. Plant ecology; economic botany; plant pathology.

Graves, Prof. G(ordon) H(arwood), Purdue University, West Lafayette, Ind. *Mathematics.* Logansport, Ind, July 10, 84. B.S, Earlham Col, 05; A.B, Haverford Col, 06; A.M, Columbia, 09, Ph.D, 14. Instr. *math,* George Sch, Pa, 06–08; Columbia, 11–15; *Purdue,* 15–20, asst. prof, 20–27, *assoc. prof, 27–* Math. Soc; Math. Asn. Algebraic curves.

Graves, Prof. Grant O(strander), Ohio State University, Columbus, Ohio. *Anatomy, Neurology.* Columbus, Ohio, Jan. 21, 05. A.B, Ohio State, 26, A.M, 29, M.D, 32. Asst. anat, Ohio State, 28–31, substitute intern, Starling-Loving Univ. Hosp, 31–32, intern med, Duke Hosp, 32–33; asst. res. in med, Starling-Loving Univ. Hosp, *Ohio State,* 33–34, instr. *anat, univ,* 35–37, *asst. prof, 37–, instr. med, 38–* Early amblystoma; brain form; neural crest; development of eye in amblystoma; perineal body in human anatomy.

Graves, Prof. H(arold) E(dward), Worcester Polytechnic Institute, Worcester, Mass. *Chemical engineering.* Beardsley, Minn, Feb. 20, 09. B.Ch.E, Minnesota, 32, M.S, 32, Ph.D, 35. Research chemist, Calco Chem. Co, Bound Brook, N. J, 35–36; assoc. prof. chem. eng, Miss. State Col, 36–38; instr. *chem. eng,* Yale, 38–40; asst. prof, *Worcester Polytech,* 40–41, *prof, 41–* Summers, chem. engineer, northwest research inst, Minnesota, 37, 38. Chem. Soc; Chem. Eng; Eng. Educ. Liquid-liquid extraction.

Graves, Prof. Henry S(olon), Yale University, New Haven, Conn. *Forestry.* Marietta, Ohio, May 3, 71. A.B, Yale, 92, hon. A.M, 01, LL.D, 40; Harvard, 94–95, hon. A.M, 11; Munich, 95–96; LL.D, Syracuse, 23. Asst. chief div. forestry, U. S. Dept. Agr, 98–00; prof. forestry and director sch. forestry, Yale, 00–10; chief forester, U. S. Forest Service, 10–20; consulting forester, 20–22; Sterling prof. *forestry,* 22–39, *emer. prof, 39–,* dean *sch. forestry,* 22–39, *emer. dean, 39–,* provost, 23–27. Mem. cmt. on nat. resources, Nat. Research Council. Director joint forest educ. inquiry, Soc. Foresters and Carnegie Corp. Lieut. col, C.Eng. A.A; Soc. Foresters; Forestry Asn. (pres, 34–36, director, 37–41); Conn. Acad; Wash. Acad; hon. mem. British and Scottish Arbor Societies. Forest education; white pine; forest mensuration; principles of silviculture; factors affecting life of trees; public land and forest policies; forest policies; forest economics.

Graves, Dr. Howard B(radley), Jr, 1454 Jackson, Apt. 2, Memphis, Tenn. *Geology.* Yonkers, N. Y, June 21, 07. B.S, Beloit Col, 29; Chicago, 29–32; Ph.D, Washington (St. Louis), 36. Geologist, Texas Co, 36–41; *anal. chemist, Chickasaw Ordnance Works, 42–* A.A; Miner. Soc; St. Louis Acad. Precambrian structure of Missouri.

Graves, Prof. Lawrence M(urray), University of Chicago, Chicago, Ill. *[5]Mathematics.* Topeka, Kans, Aug. 7, 96. A.B, Washburn Col, 18, Sc.D, 41; A.M, Chicago, 20, fellow, 23–24, Ph.D, 24. Instr. *math,* Washington (St. Louis), 20–22; nat. research fellow, Harvard, 24–26; asst. prof, *Chicago,* 26–30, assoc. prof, 30–39, *prof, 39–* Visiting prof, Michigan, 30. Summer, prof, Stanford, 37. A.A; Math. Soc. (ed. cmt, 'Bul,' 38–); Math. Asn. Calculus of variations; general analysis.

Graves, R(oy) R(alph), U. S. Department of Agriculture, Washington, D. C. *Dairy husbandry.* Cherokee, Kans, Oct. 8, 86. B.S, Kans. State Col, 09; fellow, Missouri, 11–12, A.M, 12. Dairy husbandman, bur. animal indust, U. S. Dept. Agr, 12–13; prof. dairy husbandry, Oregon State Col, 13–17; in charge dairy cattle breeding investigations, bur. dairying, *U. S. Dept. Agr,* 17–28, *chief div. dairy cattle breeding, feeding and management, bur. dairy indust, 28–* Fed. del, Int. Dairy Cong, Copenhagen, 31. Dairy Sci. Asn. (sec'y-treas, 30–35, v. pres, 35, pres, 36); Genetic Asn. (ed. board). Growth, fertility, feeding, inheritance and type studies in dairy cattle.

Graves, Dr. Stuart, University of Alabama, University, Ala. *Pathology.* Boonville, N. Y, Feb. 6, 79. M.D, Syracuse, 11, A.B, 23; LL.D, Alabama, 37. Path. intern, R. I. Hosp, 11–12; intern and 2nd asst. path, Boston City Hosp, 12–13, 1st asst, 13–14; prof. path. and bacter, sch. med, Louisville, 14–28, acting dean, 22–23, dean, 23–28; *prof. path. and dean, sch. med, Alabama, 28–* Pathologist, Louisville City Hosp, 23–28, chairman hosp. staff, exec. cmt, 23–28; acting asst. surgeon, U. S. Pub. Health Service, 18–20; acting state health officer, Ala, 29–30. A.A; Asn. Path. and Bact; fel. Col. Physicians; Asn. Immunol; Am. Med. Asn; South. Med. Asn. Medical education.

Graves, Dr. William (Washington), 5136 Enright Ave, St. Louis, Mo. *Neuropsychiatry.* La Grange, Ky, 65. M.D, St. Louis Col. Physicians and Surg, 88; Heidelberg, Berlin,

Vienna and London, 01–04. Instr, *sch. med, St. Louis*, 05–08, asst. prof, 08–13, assoc. prof, 13–14, *prof. nervous and mental diseases, 14–, director dept, 24–* A.A; Neur. Asn; Psychiat. Asn; Am. Med. Asn. Comparative anatomy of the shoulder girdle; inherited variations of structure in relation to health or disease predisposition; inherited capacities for education, duration of life and adaptability in general.

Gravett, Prof. Howard L, Elon College, N. C. *Genetics.* Normal, Ill, Sept. 21, 11. A.B, James Millikin, 33; Kentucky, 31, 32; A.M, Illinois, 34, Ph.D, 39; Marine Biol. Lab, Woods Hole, 35, 40. Asst. biol, Illinois, 33–35; research asst. genetics, 35–37; asst. prof. *biol, Elon Col,* 37–39, *assoc. prof,* 39–42, *prof, 42–; lieut, Air Corps, U. S. Army, 43–* A.A; Genetic Asn; N. C. Acad. Phenogenetic studies in the bar series of Drosophila melanogaster.

Grawe, Prof. O(liver) R(udolph), 2 Vienna Road, Rolla, Mo. *Geology, Mineralogy.* St. Louis, Mo, Nov. 26, 01. A.B, Washington (St. Louis), 22, M.S, 24; Ph.D, Iowa, 27. Teaching fellow, Washington (St. Louis), 22–24; asst, Iowa, 24–26; instr. geol. and mineralogist, state mining lab, Mackay Sch. Mines, 26–28; asst. prof. miner, *Mo. Sch. Mines,* 28–35, *assoc. prof. geol, 35–* Nat. research fellow, 25–26; geologist, Mo. Geol. Surv, 37– A.A; Miner. Soc; Chem. Soc; Min. and Metal. Eng. Economic mineralogy.

Gray, Dr. Allen G(ibbs), 3092 Broadway, Cleveland, Ohio. *Physical chemistry, Electrochemistry.* Birmingham, Ala, July 28, 15. B.S, Vanderbilt, 37, M.S, 38; Ph.D, Wisconsin, 40. Instr. gen. chem, Vanderbilt, 37–38; eng. chem, Wisconsin, 38–40; *research chemist, E. I. du Pont de Nemours and Co, 40–* Lecturer. Electrochem. Soc. (chairman, 43); Chem. Soc. Modern electroplating; electrochemistry of inorganic reactions; overvoltage; electrodeposition; tungsten and tungsten alloys; hydrogen ion concentration control of alkaline plating baths; mechanism of oxidation and reduction in inorganic reactions; wetting agents; corrosion and high current density strip plating.

Gray, Dr. Alta O(doms), 12 Brooks Park, Medford, Mass. *Mathematics.* Fredonia, Ind, Oct. 1, 10. A.B, Cincinnati, 31, A.M, 32, Ph.D, 36. Ed. asst, Am. Math. Soc, 35–37; sec'y, 'Duke Math. Jour,' 37–41; sec'y radiation lab, Mass. Inst. Tech, 41–42. Summability of Fourier series.

Gray, Dr. Arthur W(ellington), 512 Colonial Ave, Westfield, N. J. *Physics, Metallurgy.* Brooklyn, N. Y, Feb. 19, 75. A.B, California, 96. Whiting fellow, 02–04; Ph.D, Berlin, 04. Asst. physics, California, 97–99; teacher math, Wilmerding Sch. Indust. Arts, Calif, 00; head science and math, high sch, 00–02; asst. to Prof. H. Kamerlingh Onnes, Leiden, 04–05; Whiting research instr. physics, California, 05–09; asst. physicist, Bur. Standards, 09–16; director physical research, L. D. Caulk Co, Del, 16–25; physicist, Calco Chem. Co, 25–28; v. pres. and director research, Dielectric Products, Inc, 28–29; assoc. director research, Brown Instrument Co, Phila, 29–30; consulting physicist and metallurgist, Baker and Co, Inc, Newark, 32–37; *consultant, 37–* In charge Bur. Standards exhib, Pan-Pacific Expos, 15. Preparatory cmn, int. cmn, Asn. int. du Froid, 13; Inst. Metals alternate del, Pan-Am. Sci. Cong, 15. A.A; fel. Physical Soc; Optical Soc; Min. and Metal. Eng; Soc. Test. Mat; British Inst. Metals; fel. Royal Soc. Arts. Ozonization; thermal expansivity; electrical conductivity; magnetostriction; the electric furnace; micrometer microscopes; dental amalgams; scientific apparatus.

Gray, Dr. A(rzy) R(obert), Imperial Paper and Color Corp, Glens Falls, N. Y. *Chemistry.* St. John, Kans, May 31, 06. A.B, Southwestern Col. (Kans), 29; M.S, Illinois, 31, Ph.D, 34. Asst. chem, Illinois, 29–34; research chemist, Eastman Kodak Co, 34–37, chief chemist dye works, Tenn. Eastman Kodak Corp, 37–41; *research chemist, Imp. Paper and Color Corp, 41–* Chem. Soc. Haloform reaction; steric hindrance; dyestuff and intermediates research and manufacturing; synthetic organic chemicals; pigment colors.

Gray, Dr. C. F, Iowa State College, Ames, Iowa. *Physical chemistry.* Sheridan, Mo, Aug. 10, 12. B.S, Northwest Mo. State Teachers Col, 36; Ph.D, Iowa State Col, 42. Instr, *Iowa State Col,* 38–42, *research assoc. physical chem. and metal, 42–* Summer, research chemist, U. S. Steel Corp, 41. Chem. Soc. Chemical equilibrium in the gas-solid phase.

Gray, Prof. C(larence) T(ruman), University of Texas, Austin, Texas. *Psychology, Education.* Russell, Kans, Nov. 22, 77. A.B, Indiana, 04; A.M, Chicago, 11, Ph.D, 16. Instr. *educ. psychol, Texas,* 11–15, adj. prof, 15–18, assoc. prof, 18–25, *prof, 25–* Research instr, Chicago, 16–17. Summers, Kansas, 18–20; Northwestern, 22; Cornell, 25; Pennsylvania, 30. A.A; Psychol. Asn; Educ. Research Asn. Educational and experimental psychology; field of reading.

Gray, Prof. Cora E(meline), Catawba College, Salisbury, N. C. *Nutrition, Home economics.* Chicago, Ill, 83. B.S, Chicago, 06, M.S, 09; Ph.D, Yale, 27. *Prof. home econ,* Fla. State Col. for Women, 19–21; *Catawba Col, 27–* A.A; Dietetic Asn; Home Econ. Asn.

Gray, Daniel M(cCabe), Stoner-Mudge, Inc, 2000 Westhall St, Pittsburgh, Pa. *Chemical engineering.* Indianapolis, Ind, Nov. 8, 01. B.S, Carnegie Inst. Tech, 23, Ch.E, 27. Chem. engineer, Hazel-Atlas Glass Co, 23–34, asst. supt, 34–39; gen. manager, *Stoner-Mudge, Inc,* 39–40, *v. pres, 40–* Mem. chem. div, protective coating sect, paint, varnish and lacquer unit, War Production Board, 42– Chairman standards and research cmt, Mayonnaise Mfrs. Asn, 27–32. Chem. Soc; Chem. Eng; Inst. Chem; Min. and Metal. Eng. Physical research; food products and packing; metal closures for glass containers; emulsions; lacquers and protective coatings; synthetic resins.

Gray, Dr. Dan(iel) T(homas), Fayetteville, Ark. *Agriculture.* Harrison Co, Mo, Jan. 27, 78. B.S, A.B, Missouri, 04; M.S, Illinois, 05; hon. Sc.D, Clemson Agr. Col, 39, Arkansas, 40. Prof. animal indust, Ala. Polytech, 05–13; N. C. State Col, 13–20; dean col. agr, Ala. Polytech, 20–23; Arkansas, 23–40, director, Exp. Sta. and exten. service, 23–40; *retired.* Asn. South. Agr. Workers (sec'y, 13–20, pres, 20). Animal nutrition.

Gray, Prof. D(onald) J(ames), 726 Columbia, Palo Alto, Calif. *Anatomy.* Spokane, Wash, Jan. 16, 08. B.S, Washington (Seattle), 31, M.S, 33, Ph.D, 37. Teaching fellow *anat,* Washington (Seattle), 31–34, asst, 34–35, assoc, 35–37, instr, 37–39; *asst. prof, Stanford, 39–* A.A. Length of lacunae and number of canaliculi in bones of several mammals; variations in human scapulae.

Gray, Capt. E(dward) LeB(reton), 46 Lincoln Road, Wellesley Hills, Mass. *Biochemistry.* Rochester, N. Y, July 24, 05. B.S, Hamilton Col, 27; Ph.D, Rochester, 34. Asst. biochem, Rochester, 31–35; consultant, Eastman Kodak Co, 35–36, research biochemist, 36–40, consulting, 40–41; research biochemist, Lever Brothers Co, 41–42; *Capt, Sanit. Corps, U. S. Army, 42–* A.A; Chem. Soc. Fats; high vacuum distillation; vitamins; nutrition.

Gray, Dr. Frank, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Alpine, Ind, Sept. 13, 87. B.S, Purdue, 11; M.S, Wisconsin, 13, Ph.D, 16. Asst. and instr. physics, Wisconsin, 11–18; *research physicist,* West. Elec. Co, 19–25; *Bell Tel. Labs, 25–* Research worker, U.S.N. Exp. Sta, 18–19. A.A; Physical Soc. Optical activity; television; electron-optics.

Gray, G(eorge) F(rancis), Microstat Corp, Norwalk, Conn. *Electrical engineering.* Wheelersburg, Ohio, May 24, 87. M.E, Ohio State, 09; Pittsburgh, 17. Student engineer, Gen. Elec. Co, 09–10, research worker and asst. director protective apparatus lab, 10–16; engineer, Standard Aniline Co, 16; fellow, Mellon Inst, 16–17; engineer, Nat. Aniline and Chem. Co, 19–24; asst. to pres, Dry Ice Corp, 24–25; chief engineer, Ware Radio Corp, 25–26; pres, Gray Products Inc, later Gray Elec. Corp, 24–38; production manager, Filmbook Corp, 36–40; *v. pres, Microstat Corp, 40–* Capt, Sig.C, 17–19. Elec. Eng; Mech. Eng. Physics; electrophysics; thermal insulation; radio telegraphy and telephony; chemical manufacture; laboratory design; industrial research organization and management; microfilming.

Gray, Prof. G(eorge) F(ranklin), Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma. *Horticulture.* State College, Pa, May 22, 98. B.S, Pa. State Col, 22, M.S, 24; Ph.D, Mich. State Col, 33. Asst, Pa. State Col, 22–23; asst. horticulturist, Exp. Sta, Delaware, 23–29; asst, Mich. State Col, 29–36; *asst. prof. hort, Okla. Agr. and Mech. Col, 36–* Soc. Hort. Sci. Histology of fruits; small fruits.

Gray, Dr. George R(obert), 6732 Sylvan Road, Houston, Texas. *Chemistry.* Florence, Texas, Oct. 29, 07. B.S, Texas Christian, 28; fellow, Rice Inst, 30–34, A.M, 32, Ph.D, 34. Anal. chemist, Ft. Worth Labs, 28–30; *research engineer, Humble Oil and Ref. Co, 34–* Min. and Metal. Eng; Chem. Soc; assoc. Inst. Chem. Adsorption and ionic exchange in the coagulation of sols by electrolytes; chemical treatment of drilling muds; evaluation of oil-well cores.

Gray, Prof. Greta, University of California at Los Angeles, Los Angeles, Calif. *Home economics.* Covington, Ky, 80. B.S, Mass. Inst. Tech, 01; A.M, Columbia, 14; Ph.D, Yale, 26. Instr, Illinois, 14–16; Kans. State Teachers Col, Pittsburg, 16–18; prof, Wyoming, 18–22; bur. home econ, U. S. Dept. Agr, 24–25; from asst. prof. to prof, Nebraska, 25–28; *assoc. prof. home econ, California at Los Angeles, 28–* Summers, teacher, State Col. Wash, Hopkins and Columbia. A.A; Pub. Health Asn; Home Econ. Asn. Economic problems of the home; housing; equipment; household production; cost of living.

Gray, Prof. Hamilton, New York University, New York, N. Y. *Civil engineering.* Gardiner, Maine, July 26, 10. A.B, Harvard, 33, M.S, 34, Sc.D, 38. Asst. civil eng, grad. sch. eng, Harvard, 34–36; soils engineer, Moran, Proctor, Freeman and Mueser, consulting engineers, 36–40; *asst. prof. civil eng, N. Y. Univ, 40–* Civil Eng. (div. sec'y, 37–). Physical and engineering properties of soils; construction materials.

Gray, Harold, 527 Vinita Ave, Akron, Ohio. *Chemistry.* Carlyle, Ill, Oct. 30, 94. A.B, Indiana, 22. Anal. chemist, Eli Lilly and Co, Indianapolis, 16–18, chem. research, 18–19; *B. F. Goodrich Co, Akron, Ohio,* 19–27, manager tire compounding and develop, 27–41, *tech. supt, tire div, 41–* Chem. Soc. (chairman, crude rubber cmt, rubber div, 35–); Chem. Eng; Soc. Professional Eng. Accelerators; age resisters; rubber isomers; rubber paint; cement; hard rubber articles; flotation reagents; rubber lined vessels; cable insulation.

Gray, Harold F(arnsworth), 2540 Benvenue Ave, Berkeley, Calif. *Sanitary engineering.* San Francisco, Calif, June 29, 85. B.S, California, 07, M.S, 12, Grad.P.H, 15. Health officer, Palo Alto, Calif, 13–16; state dist. health officer, State Board Health, Calif, 17–19; chief div. sanit. eng, State Bur. Pub. Health, N. Mex, 19–23; *consulting sanit. and hydraul. engineer, 26–; engineer, Alameda County Mosquito Abatement Dist, 30–* Lecturer, California, 36–40. A.A; fel. Pub. Health Asn; Civil Eng; Water Works Asn; Calif. Sewage Works Asn. (pres, 40). Public health.

Gray, Dr. Horace, Stanford University Hospital, San Francisco, Calif. *Medicine.* Boston, Mass, Oct. 11, 87. A.B, Harvard, 09, M.D, 14. Research, Inst. Juvenile Research, Chicago, Ill, 26–29; assoc. clin. prof. *med, sch. med, Stanford,* 29–33, *clin. prof, 33–* A.A; Soc. Clin. Invest. Diabetes; endocrinology.

Gray, Dr. Howard A(aron), Erpi Classroom Films Inc, 1841 Broadway, New York, N. Y. *Educational psychology.* Denver, Colo, Oct. 12, 00. A.B, Montana, 26, A.M, 28; A.M, Columbia, 29, Ph.D, 30. Asst, Montana, 25–26; supt. schs, Mont, 26–28; lecturer psychol, Barnard Col, Columbia, 29–30; research assoc, *Erpi Classroom Films Inc,* 30–36, assoc. director *field studies,* 36–38, *director, 38–; Air Forces, U. S. Army.* Asst, Teachers Col, Columbia, 29–30. Summer, visiting instr, Kent State Univ, 36; Oregon, 41. Educ. Research Asn; Psychol. Asn. Preparation and utilization of educational sound motion pictures.

Gray, Prof. Irving E, Duke University, Durham, N. C. *Zoology.* Providence, R. I, May 23, 97. B.S, Mass. Col, 21; M.S, Wisconsin, 24, Ph.D, 26. Instr. *zool,* DePauw, 21–22; asst, Wisconsin, 22–26; asst. prof, Tulane, 26–30; *Duke,* 30–36, assoc. prof, 36–42, *prof, 42–, chairman dept, 40–* Summers, special investigator, Bur. Fisheries, Woods Hole, 25–30. A.A; Soc. Zool; Soc. Ichthyol. and Herp. Biology of Amphibia; blood sugar of fishes; insect development and physiology.

Gray, Dean J(acques) P(ierce), Medical College of Virginia, Richmond, Va. *Epidemiology, Public health.* Redkey, Ind, July 17, 00. A.B, Grinnell Col, 22; M.D, Hopkins, 28; M.P.H, Harvard, 35. Asst. surgeon, U. S. Pub. Health Service, 28–29; asst. epidemiologist, State Dept. Pub. Health, Calif, 30; epidemiologist, City and County Dept. Pub. Health, San Francisco, 30–31, asst. director pub. health, 32–37, director pub. welfare, 37–39; assoc. clin. prof. pub. health and prev. med, sch. med, Stanford, 37–40; director, Hillsdale County Health Dept, W. K. Kellogg Foundation, 40–42; *prof. prev. and pub. health med. and dean, sch. med, Med. Col. Va, 42–* Lecturer, California, 39–40; visiting prof, sch. pub. health, grad. sch, North Carolina, 42. Fel. Pub. Health Asn; Am. Med. Asn; Pasteur Soc. Cent. Calif. Epidemiology; public health administration.

Gray, Prof. James A(rthur), Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Spokane, Wash, April 27, 12. B.S, Wyoming, 32, M.S, 39. Asst, wool dept, Wyoming, 38–40; *asst. prof. animal husbandry, Agr. and Mech. Col. Texas, 40–* Wool and mohair.

Gray, Prof. J(ames) C(larke), Western Reserve University, Cleveland, Ohio. *Zoology.* Schenectady, N. Y, Dec. 1, 02. A.B, Syracuse, 25, A.M, 27; Ph.D, Chicago, 29. Asst. zool, Syracuse, 25–27; Chicago, 27–29; instr. *biol, Western Reserve,* 29–37, *asst. prof, 37–* Summer, instr, Syracuse, 27. A.A; Soc. Zool; Ohio Acad. Embryology; histology; development and histology of the compensatory right gonad in the hen; origin of the rete testis in the domestic bird.

Gray, Prof. J(ohn) C(lifford), 141 Monticello Ave, Annapolis, Md. *Chemistry.* Arlington, Mass, Aug. 5, 84. A.B, Harvard, 08; A.M, Dartmouth Col, 13. Teacher, Thornton Acad, Maine, 08–13; prof. chem, St. John's Col. (Md), 13–16; instr. *elec. eng. and physics, U. S. Naval Acad,* 16–19, asst. prof, 19–26, assoc. prof, 26–38, *prof, 38–* Eng. Educ; Chem. Soc; Naval Inst. Chemistry.

Gray, Prof. J(ohn) Stanley, University of Pittsburgh, Pittsburgh, Pa. *Psychology.* Freeport, Ohio, Nov. 8, 94. A.B, Muskingum, 20; A.M, Michigan, 24; Ph.D, Ohio State, 29. Prof. speech, Gustavus Adolphus Col, 21–24; instr. English, Minnesota, 24–25; *asst. prof,* Oregon, 25–27; *psychol, Pittsburgh, 30–* Assoc. Psychol. Asn; Asn. Applied Psychol. Educational and applied psychology; mental hygiene; philosophy of education.

Gray, Dr. John S(tephens), 303 E. Chicago Ave, Chicago, Ill. *Physiology.* Chicago, Ill, Aug. 11, 10. B.S, Knox Col, 32; M.S, Northwestern, 34, Ph.D, 36, 36– Instr. *physiol, med. sch, Northwestern,* 36–39, *asst. prof, 39–* A.A; Physiol. Soc; Soc. Exp. Biol. Physiology and endocrinology of the gastrointestinal tract.

Gray, Prof. Joseph Alexander, Queen's University, Kingston, Ont, Can. *Physics.* Melbourne, Australia, Feb. 7, 84. B.Sc, Melbourne, 07; 1851 Exhib. scholar, 09–12; M.Sc, Manchester, 12, D.Sc, 13. Lecturer *physics,* McGill, 12–15, asst. prof, 15–19, assoc. prof, 19–24; *Chown research prof, Queen's (Can), 24–* Fel. Physical Soc; Royal Soc. Can; fel. Royal Soc. London. Radioactivity; x-rays; properties of radiations.

Gray, Dr. Joseph B(urnham), 7016 S. Clyde Ave, Chicago, Ill. *Chemical engineering.* Annapolis, Md, Aug. 8, 15. A.B, St. John's Col. (Md), 36; B.E, Hopkins, 38, Ph.D, 41. *Chem. engineer, process design div, research lab, Standard Oil Co, Ind, 41–* Chem. Soc; Chem. Eng. Hydrogenation of some olefines on iron synthetic ammonia catalysts.

Gray, Dr. Kenneth R(ussell), 222 Pine St, Shelton, Wash. *Chemistry.* Vancouver, B. C, Can, Dec. 4, 09. B.A, British Columbia, 30, M.A, 31; Nat. Research Council Can. bursar, McGill, 31–32, Ph.D, 34. Demonstrator chem, McGill, 32–34; chemist, Can. Indust, Ltd, Montreal, 35; *research chemist,* U. S. Rubber Products, Inc, 35–37; *Rayonier, Inc, 37–* A.A; Asn. Textile Chem. and Colorists; Chem. Soc. Cellulose and rayon chemistry; synthetic organic chemistry; constitution of lignin; rubber products; chemical wood pulp.

Gray, Dr. L(ewis) C(ecil), Route 2, Vienna, Va. *Agricultural economics.* Liberty, Mo, Dec. 2, 81. A.B, William Jewell Col, 00, A.M, 03, LL.D, 27; Chicago, 07, 08; Ph.D, Wisconsin, 11. Prof. hist. and econ, Okla. Agr. and Mech. Col, 05–08; instr. econ, Wisconsin, 10–13; prof, Saskatchewan, 13–15; rural econ, George Peabody Col, 15–19; *economist in charge div. land econ, bur. agr. econ, U. S. Dept. Agr, 19–,* chief land policy sect, agr. adjust. admin, 34–35; *director land utilization div. Resettlement Admin, 35–, asst. administrator, 35–* Special agent, Bur. Census, 11; rep. for agr. census, U. S. Dept. Agr. Chairman, Cmt. on Land Utilization; chairman census cmt, U. S. Dept. Agr; director land use sect, Nat. Resources Cmt; mem, Great Plains Cmt, 36; exec. sec'y and tech. director, Farm Tenancy Cmt, 36. U. S. Dept. Agr. rep, Int. Inst. Agr, Rome, 22, 28. In charge price fixing div, Food Admin, Tenn, 18. Farm Econ. Asn. (pres, 28). History of agriculture in the southern United States.

Gray, Dr. Marion C(ameron), 4008 170th St, Flushing, N. Y. *Mathematics.* Ayr, Scotland, March 26, 02. M.A, Edinburgh, 22; Ph.D, Bryn Mawr Col, 26. Instr. physics, Edinburgh, 26–27; asst. math, Imp. Col. Science, London, 27–30; asst. engineer, Am. Tel. and Tel. Co, 30–34; *tech. staff, Bell Tel. Labs, 34–* Math. Soc; London Math. Soc; Edinburgh Math. Soc. Electromagnetic theory.

Gray, Dr. Mildred Geneva, 17 Preston Road, Somerville, Mass. *Pharmacology, Biochemistry.* Cambridge, Mass, Oct. 19, 07. B.S, Boston, 28, A.M, 33, Ph.D, 38; Radcliffe Col, 33-34; Mass. Inst. Tech, 29-30. Asst, Mass. Gen. Hosp, 28-32; assoc. chemist, Commonwealth of Mass, 32-35; research fellow, Harvard Med. Sch, 36-39, research assoc, 40-42; instr. physiol, Brooklyn Col, 39-40; *mem. research staff, Arthur D. Little, Inc, 42–* Consulting clin. pathologist, Washingtonian Hosp, Boston, Mass, 40-42. Ed. board, 'Jour. Criminal Psychopath,' 41-42. A.A; Research Council Problems on Alcohol; Mass. Hort. Soc. Sedative and analgesic drugs; effect of drugs on behavior.

Gray, Prof. Nina E(stella), Illinois State Normal University, Normal, Ill. *Zoology.* Remington, Ind, Oct. 29, 01. A.B, DePauw, 24; A.M, Wisconsin, 30, Ph.D, 33. Teacher biol, high sch, Ill, 24-27; prof, Cent. Nor. Col, Danville, Ind, 27-29; asst. zool, Wisconsin, 30-32, 33-34, teaching fellow, 32-33, instr, 34-35; *asst. prof. biol, Ill. State Nor. Univ, 35–* Marine Biol. Lab, Woods Hole, 22, 31. A.A; Genetic Asn; Micros.. Soc. Protozoology.

Gray, Dr. P(ercival) A(llen), Jr, 1421 State St, Santa Barbara, Calif. *Internal medicine.* Richmond, Ind, April 26, 00. B.S, Chicago, 22, fellow, 23-24, Ph.D, 24; M.D, Rush, 27. Asst. anat, sch. med, Loyola (Ill), 24; attending staff, *Santa Barbara Cottage Hosp,* 27-36, *exec. staff, 36–*; lecturer metabolism, *Col. Med. Evangelists,* 35-36, asst. prof. *clin. med,* 36-37, *assoc. prof, 37–* Mem. staff, County Hosp, 31–; St. Francis Hosp, Santa Barbara, 34–; White Mem. Hosp, Los Angeles, 35– A.A. The motor cortex and cortical lamination pattern of the opossum; diet, physical therapy, surgery and insoluble insulin compounds in the treatment of diabetes; osseous development of diabetic children.

Gray, Prof. P(ercy) H(eath) H(obart), Macdonald College, Que, Can. *Bacteriology.* Woodland Heights, Va, Nov. 21, 91. B.A, M.A, Oxford, 20; D.Sc, London, 36. Asst. bacteriologist, Rothamsted Exp. Sta, Harpenden, Herts, Eng, 20-29; asst. prof. *bacter.* and head dept, *Macdonald Col, McGill,* 29-36, *assoc. prof, 36–* Asn. Applied Biol. Soil microbiology; bacterial physiology; bacteriological methods.

Gray, Dr. Peter, University of Pittsburgh, Pittsburgh, Pa. *Zoology.* London, Eng, June 4, 08. B.Sc. and A.R.C.S, London, 29, Ph.D, 31, D.I.C, 33. Asst. zool, Royal Col. Science, 27-29; zoologist, Castle Museum, Norwich, England, 29-31; lecturer embryol, Edinburgh, 31-37; Rockefeller Foundation fellow, 38-39; *assoc. prof. biol, Pittsburgh, 39–* A.A; Anat. Soc; Soc. Zool; British Soc. Exp. Biol. Development of amphibian kidney; Crustacean parasites; microtomic technique; chemical embryology; statistical procedures in biology.

Gray, Philip P(aul), 180 Madison Ave, New York, N. Y. *Chemistry.* Brooklyn, N. Y, May 29, 96. B.S, Col. City of N. Y, 17. Chemist, Pease Labs, *New York,* 19-24, director dept. chem, 24-34; *chief chemist, Wallerstein Labs, 34–* Chem. Soc; fel. Inst. Chem; Asn. Consulting Chem. and Chem. Eng; Chemists' Club. Analytical chemistry of foods, beverages, brewing and drugs.

Gray, R(eid) B(erry), 6847 Dunbar Road, Baltimore, Md. *Engineering.* Detroit, Mich, Dec. 6, 97. Notre Dame. *Chief testing labs. Glenn L. Martin Co, 19–* C.Eng, U.S.A, 17-19. Soc. Test. Mat; Soc. Metals; Soc. Automotive Eng; Aeronaut. Asn. Use of synthetic cements for sealing structures; new type furnace for melting zinc; the Mareng cell for commercial uses; the self-sealing Mareng cell for military combat aircraft.

Gray, R(ichard) W(ilson), Weather Bureau Bldg, Puerta de Tierra, San Juan, P. R. *Meteorology.* Charlotte, N. C, Aug. 26, 74. Pub. and private schs. *U. S. Weather Bur,* 93-01, observer, 01-11, local forecaster, 11-28, asst. meteorologist, 28-35, *senior meteorologist, 35–* A.A; Meteorol. Soc; fel. South. Cross Astron. Soc. (director). Climatology; hurricanes.

Gray, R(oy) B(urton), 3162 Key Blvd, Arlington, Va. *Agricultural engineering.* Hampton, Iowa, June 10, 84. B.S. (E.E), Iowa State Col, 09, B.S. (A.E), 10, A.E, 31. Exp. engineer, Int. Harvester Co, 10-20; prof. agr. eng, Idaho, 20-25; *agr. engineer and chief mech. equipment sect, div. agr. eng, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 25–* Agr. Eng; Soc. Automotive Eng. Farm machinery and power.

Gray, Dr. Royal C(lendening), Pouch A, Cambridge, Minn. *Neuropsychiatry.* Taylors Falls, Minn, June 10, 97. B.S, Minnesota, 22, M.B, 23, M.D, 24, M.S, 30, Ph.D, 31. Instr. *neuropsychiat, med. sch, Minnesota,* 31-35, asst. prof, 35-41, *assoc. prof, 41–* Supt, Colony for Epileptics, Minn, 41–Psychiat. Asn; Am. Med. Asn; Cent. Neuropsychiat. Asn; Minn. Soc. Neur. and Psychiat. (sec'y-treas). Familial and hereditary diseases.

Gray, S(amuel) D(ent), American Chemical Society Bldg, Washington, D. C. *Agronomy.* Nanjemoy, Md, Oct. 17, 90. B.S, Maryland, 10, M.S, 14. Rice expert and supt. rice exp. sta, U. S. Dept. Agr, Beaumont, Texas, 10–11; chairman dept. vocational educ, State Dept. Educ, Md, and supervisor agr. high schs, Montgomery County, Md, 11–14; asst. prof. agron. and head dept. vocational educ, Puerto Rico, 15–16; asst. agrostologist, in charge lawn and golf courses, grass investigations, and director cereal grass exp. stations, U. S. Dept. Agr, 16–20; in charge home estate, Md, 20–21; head dept. agron. and exten, State Inst. Applied Agr, L. I, 21–25; agronomist, Potash Importing Corp. Amer, 25–27; *manager,* agr. and sci. bur, N. V. Potash Export My, Inc, Amsterdam, Holland, 27-35; *northeast. territory, Am. Potash Inst, 35–* A.A; Soc. Agron; Soil Sci. Soc. Soil chemistry; agrostology; diagnosis of soil fertility.

Gray, Dr. S(amuel) H(arold), Jewish Hospital, St. Louis, Mo. *Pathology.* New York, N. Y, March 4, 97. A.B, Columbia, 20, M.D, 23. Asst. path, sch. med, Yale, 23–24; instr. and asst. prof, sch. med, Washington (St. Louis), 24–29; assoc. prof, sch. med, Colorado, 29–30; *pathologist, Jewish Hosp, St. Louis, 30–; director labs, City Hosp, 34–* A.A; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Soc. Clin. Path; Am. Med. Asn; Asn. Cancer Research; Int. Asn. Med. Mus. Thyroid gland; pancreas; lung.

Gray, Lieut. Stephen (Wood), 25th Altitude Training Unit, Tyndall Field, Fla. *Physiology.* Oakland, Calif, April 27, 15. A.B, Lake Forest Col, 36; A.M, Illinois, 37, univ. fellow, 38-39, Ph.D, 39. Instr. physiol, Illinois, 39–42; *lieut, Air Corps, U. S. Army, 42–* Assoc. Soc. Zool. X-ray motion picture photography; population problems; high altitude physiology.

Gray, Prof. T(ruman) S(tretcher), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Spencer, Ind, May 3, 06. B.S, Texas, 26, A.B, 27; Charles A. Coffin fellow, Mass. Inst. Tech, 28–29, M.S, 29, fellow, 29–30, Sc.D, 30. Asst. physics, Texas, 24–27; *elec. eng, Mass. Inst. Tech,* 27–28, instr, 30–35, asst. prof, 35–42, *assoc. prof, 42–* Summer, mem. staff, Naval Ordnance Lab, 41. Elec. Eng. (sec'y, cmt. instruments and measurements, 39-41, v. chairman, 41–). Machine methods for evaluation of integrals and integral equation solution; engineering aspects of gaseous conduction.

Gray, Dr. William D(udley), 214 Pearl St, Jeffersonville, Ind. *Plant physiology.* Jeffersonville, Ind, Sept. 21, 12. A.B, DePauw, 33; Ph.D, Pennsylvania, 38. Asst. instr. bot, Pennsylvania, 34–38; instr. plant path, Swarthmore Col, 38; nat. research fellow, Wisconsin, 38–39; research mycologist, Joseph E. Seagram and Sons, Inc, 39–40; instr. plant physiol. and plant path, Miami (Ohio), 40–42; research mycologist, *Joseph E. Seagram and Sons, Inc,* 42–43, *director fermentation div, 43–* Second prize, Walker Foundation Contest, Boston Soc. Nat. Hist, 37. Bot. Soc; Ind. Acad; Ky. Acad. Physiology of fungi; physiology of myxomycetes.

Gray, Prof. W(illiam) H(enry), 1426 State St, Emporia, Kans. *Psychology.* Hamilton, Ont, Can, May 25, 94. B.A, Manitoba, 18; A.M, Chicago, 26, Ph.D, 29. Wesley Col, Winnipeg, 21–23; asst. prin, high schs, Man, 23–25; asst, Chicago, 29; *assoc. prof. psychol, Kans. State Teachers Col, Emporia, 29–; lieut, U. S. Army, 42–* Psychol. Asn. Educational psychology.

Gray, Dr. William T(hurston, III), Corning Glass Works, Corning, N. Y. *Physics.* Cincinnati, Ohio, Sept. 6, 07. B.S, Northwestern, 28, E.E, 29, Ph.D, 35. Elec. engineer, Gen. Elec. Co, 29–32; *research physicist, Corning Glass Works, 35–* Elec. Eng; Ceramic Soc. Glass melting.

Graybiel, Dr. Ashton, 270 Commonwealth Ave, Boston, Mass. *Medicine.* Port Huron, Mich, July 24, 02. A.B, Southern California, 24, A.M, 25; M.D, Harvard Med. Sch, 30. Instr. med, courses for graduates, Harvard Med. Sch, *research assoc, fatigue lab, Harvard.* Cardio-vascular research.

Grayson, Dr. J(ames) M(cDonald), Virginia Polytechnic Institute, Blacksburg, Va. *Entomology.* Bland, Va, Aug. 6, 13. B.S, Va. Polytech, 35, M.S, 37; Gen. Educ. Board fellow, Iowa State Col, 39-40, Ph.D, 41. Lab. asst. *entom,* Exp.

Sta, *Va. Polytech*, 36–37, instr. *entom*, 37–39, 40–42, *asst. prof*, *42–* Life history and control of the European red mite; coloration in the grasshopper; laboratory fumigation tests with insects; insect coloration.

Grayzel, Dr. David M(athews), 105 Winthrop St, Brooklyn, N. Y. *Biochemistry, Pathology.* Russia, June 3, 97. A.B, Columbia, 18, Chem.E, 21, Ph.D, 27, M.D, 31. Chemist, bur. foods and drugs, Health Dept, New York, 22–24; asst. biochem, Columbia, 24–28; path, sch. med, Yale; *assoc. pathologist, Jewish Hosp, Brooklyn, 36–* A.A; Am. Med. Asn; Asn. Path. and Bact; Chem. Soc; N. Y. Path. Soc; N. Y. Acad. Hydrogen ion concentration of intestinal contents in relation to metabolism and rickets; coronary occlusion; convulsions due to hyper-insulinism and the resulting changes in the central nervous system; cardiovascular diseases.

Grayzel, Dr. Harold G(regory), Jewish Hospital, Brooklyn, N. Y. *Medicine.* April 30, 99. B.S, Col. City of N. Y, 20; M.D, Univ. and Bellevue Hosp. Med. Col, 24. Instr. and asst. clin. prof. pediat, L. I. Col. Med; *visiting pediatrician, Neponsit Beach Hosp. for Children; assoc. attending pediatrician, Jewish Hosp, Brooklyn, N. Y.* Blood and cerebrospinal fluid sugar; effect of intravenous insulin on blood sugar; vitamin D in tuberculosis; amyloidosis; chronic hypoglycemia; pancreatic extract in the treatment of diabetics with hepatomegaly.

Greacen, Dr. Katherine F(ielding), 190 College Ave, New Brunswick, N. J. *Paleontology, Stratigraphy.* Sierra Madre, Calif, Dec. 9, 13. A.B, Vassar Col, 34; Ph.D, Rutgers, 38. Asst. geol, Rutgers, 36–38; instr. geol. and geog. and curator, Greene Mem. Museum, Milwaukee-Downer Col, 38–43; *mem. paleont. sect, Shell Oil Co, 43–* Summer, instr, Rutgers, 37. A.A; Paleont. Soc; Asn. Col. Geol. Teachers; Wis. Geol. Soc. (v. pres, 39–41, pres, 41). The stratigraphy, fauna and correlation of the Vincentown formation; fossils of the Milwaukee region.

Greager, Major O(swald) H(erman), 1402 Riverview Ave, Wilmington, Del. *Chemistry.* Hyattsville, Md, Aug. 23, 05. B.S, Maryland, 25; M.S, Michigan, 27, Ph.D, 29. *Chemist, E. I. du Pont de Nemours and Co, 29–; major, U. S. Army.* Chem. Soc. Colloid chemistry.

Greaney, Dr. F(rank) J(ames), Dominion Rust Research Laboratory, University of Manitoba, Winnipeg, Man, Can. *Plant pathology.* Birmingham, Eng, Sept. 16, 97. B.S.A, Toronto, 22; M.S, Minnesota, 26, Ph.D, 31. Plant disease investigator, 20–23; asst. plant pathologist, *Dom. rust research lab, Can. Dept. Agr*, 23–26, *plant pathologist, 26–* Phytopath. Soc; Can. Phytopath. Soc; Can. Soc. Tech. Agr. Root-rot diseases of cereals; seed-borne diseases of cereals; soil microbiology.

Greathouse, Dr. Glenn A(rthur), U. S. Department of Agriculture, Washington, D. C. *Plant physiology.* West Salem, Ill, Aug. 16, 03. B.Ed, Ill. State Nor. Univ, 27; M.S, Illinois, 29; fellow, Duke, 30–31, Ph.D, 31. Asst. bot, Illinois, 27–30; asst. prof. plant physiol, Maryland, and asst. plant physiologist, Exp. Sta, 31–36; *physiologist, div. cotton, bur. plant indust, U. S. Dept. Agr, 36–, prof, grad. sch*, 35–36, *40–* Biophysics; cold hardiness; chemistry of disease resistance; cellulose chemistry and deterioration; methods of evaluating chemically treated fabrics for military uses.

Greathouse, Dr. L(uclen) H(elm), 7006 Dominican St, New Orleans, La. *Chemistry.* Louisville, Ky, June 21, 91. A.B, Michigan, 11, B.Ch.E, 12, fellow, 16–17, Ph.D, 17. Asst. inorg. anal, Michigan, 11–15; scientist, bur. soils, U. S. Dept. Agr, 15–18; asst. chemist, fixed nitrogen research lab, nitrate div, Ordnance Dept, U.S.A, 19–20; research chemist, Atmospheric Nitrogen Corp, 20–22; Edgewood Arsenal, Chem. Warfare Service, 22; consulting chemist and engineer, 22–29; private business, coal and oil, Arlington, Va, 30–34; special analyst, bur. plant indust, U. S. Dept. Agr, 34–36; chief chemist, Fowler Carbonic Co, Arlington, Va, 36–38; research assoc, chem. sect, Exp. Sta, Mich. State Col, 38–39; chemist, Citrus Exp. Sta, Florida, 39–40; *chemist, South. Regional Research Lab, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Lieut, C.W.S, 18–19, capt, C.W.R.C. Chem. Soc; Chemists' Club. Industrial research; periodates and periodic acid in analysis; nitrogen fixation; electrical and catalytic oxidation of ammonia; determination of selenium in plants; processing sweet potatoes for starch and other derived products.

Greaves, Dr. C(lifford), 19 Second Ave, Ottawa, Ont, Can. *Chemistry.* Barbados, B. W. I, Nov. 19, 93. B.Sc, McGill, 18, Nat. Research Council Can. scholar, 20–23, M.Sc, 22, Ph.D, 23. Chemist, Curtis and Harvey, Ltd, 17–18; demonstrator chem, McGill, 18–20, biochem, 23–24; *chemist, div. wood preservation, Forest Products Labs, Can, 24–* Chem. Soc; Soc. Chem. Indust. Wood preservatives.

Greaves, Mrs. Ethelyn O, 445 N. Third St, E, Logan, Utah. *Nutrition.* Taylorsville, Utah, Dec. 18, 96. B.S, Utah Col, 20, A.M, 21; Ph.D, California, 34. Teacher, Utah Col, 23–25; teaching fellow household science, California, 30–31; asst. prof, exten. service, Utah State Col, 34–35; assoc. director, State Rehabilitation of Resettlement Admin, *Utah*, 36–38; regional home management chief, *Farm Security Admin*, 38–39, *state director, 40–* Chairman, State Nutrition Council, Utah, 40. Dietetics Asn; Home Econ. Asn. Bacteriology; nutritional value of high and low calcium wheats; change in amino acid content of protein when heated to a high temperature; bacteria in relation to soil fertility.

Greaves, Prof. J(oseph) E(ames), Utah State Agricultural College, Logan, Utah. *Biochemistry.* Logan, Utah, Nov. 2, 80. B.S, Utah Col, 04; M.S, Illinois, 08; Thompson fellow, California, 10–11, Ph.D, 11. Asst. chemist, *Exp. Sta*, Utah Col, 04–08, assoc. chemist, 08–09, chemist and *bacteriologist*, 14–29, *Utah State Col, 29–*, asst. prof. chem, *col*, 08–11, in charge dept, 08–09, assoc. prof, 11–12, *prof. physiol. chem. and bacter, 12–* Consulting ed, 'Soil Science,' 18– A.A; Soc. Bact; Soc. Biol. Chem. Bacteriology; milling qualities of wheat; nitric nitrogen in irrigated soil; gliadin in flour; effect of soluble salts on insoluble phosphates; soil bacteria; crop rotation; azofocation; arsenic in soil; fertilizers; bacteria in relation to soil fertility; mineral content of grain and its relation to nutrition; agricultural bacteriology.

Greaves, Dr. Vera D(udley), 112 Giannini Hall, University of California, Berkeley, Calif. *Nutrition.* Logan, Utah, Nov. 29, 14. B.S, Utah State Col, 36; Ph.D, California, 40. Teaching asst. nutrition, California, 38–40; instr. foods and nutrition, State Col. Wash, 40–42; *agr. exten. specialist nutrition, California, 42–* A.A; Chem. Soc. Tissue changes in cholesterol anemia; food chemistry.

Greaves-Walker, Prof. A(rthur) F(rederick), North Carolina State College, Raleigh, N. C. *Ceramic engineering.* London, Eng, March 9, 81. Cer.E, Ohio State, 05; hon. Sc.D, Alfred, 38. Chief chemist, Olive Hill Fire Brick Co, Ky, 05–06; gen. supt, Utah Fire Clay Co, Salt Lake, 07–11; chief engineer, C. W. Raymond Co, Dayton, 11–12; asst. gen. manager, Sun Brick Co, Toronto, Ont, 12–17; production manager and chief research, Am. Refractories Co, Pittsburgh, 17–22; v. pres, Stevens and Co, Atlanta, 22–23; *prof. ceramic eng. and head dept, N. C. State Col, 23–, acting director eng. exp. sta, 42–* Deputy chief metals and minerals branch, office production research and development, War Production Board. Chief indust. furnace sect, U. S. Fuel Admin, Wash, D. C, 17–18. A.A; fel. Ceramic Soc. (v. pres, 18, pres, 24); Ceramic Eng. (pres, 38); Eng. Educ; Min. and Metal. Eng; fel. Utah Acad; N. C. Acad; Can. Ceramic Soc. (pres, 16). Ceramic plant design; ceramic raw materials and their properties; die design; vermiculite; olivine-magnesium; pyrophyllite; refractories; non-metallic minerals.

Greb, Prof. Raymond J(oseph), Huron College, Huron, S. Dak. *Genetics.* Conemaugh, Pa, Oct. 22, 99. A.B, Pittsburgh, 28, M.S, 29, Ph.D, 34. Asst. zool, Pittsburgh, 28, 32–33; research assoc, Pittsburgh Skin and Cancer Foundation, 33–37; *prof. biol, Huron Col, 38–* Pa. Acad. Science research grant, 36–37. Genetics Soc; S. Dak. Acad. Trauma and genetics in cancer; mosaics and genetics of variable traits in Habrobracon; genetics of Lupinus rootlets; phytopharmacological tests.

Grebe, Dr. John J(osef), Chippewa Lane, Route 5, Midland, Mich. *Physical chemistry.* Uerzig, Rhineland, Germany, Feb. 1, 00. B.S, Case, 24, M.S, 27, hon. Sc.D, 35. *Director physical research dept, Dow Chem. Co, 24–; Dowell, Inc; Ewing Develop. Co.* A.A; Electrochem. Soc; Chem. Soc; Chem. Eng; Inst. Physics (mem. advisory council); Physical Soc; Optical Soc; Mech. Eng; Mich. Acad; Eng. Soc. Detroit; Deuts. Physik. Gesell. Electrochemistry; electrometric measurements; thermodynamics; thermal cycles; heat transfer; automatic control; chemical treatment of oil wells; saran and styrene plastic development; insulation for high frequency currents.

Greeley, Dr. Charles E(ddy), University of Southern California, Los Angeles, Calif. *Physiology.* Los Angeles, Calif, March 19, 05. A.B, Southern California, 24, A.M, 25, M.D,

37; Ph.D, Michigan, 30. Instr. med. physiol, Michigan, 29–31; physiol, *col. dentistry, Southern California*, 25–26, 31–36, asst. prof. physiol. and physiol. chem, 36–41, *prof. physiol. chem. and bacter, 41–, assoc. prof. path, 42–, consulting physiologist aviation med.* Circulatory changes during periodic breathing; circulatory changes during periodic ventilation with apneas.

Greeley, Dr. Paul O(rson), 508 W. Redondo Blvd, Inglewood, Calif. *Physiology.* Los Angeles, Calif, Jan. 19, 01. A.B, Southern California, 21, A.M, 23, M.D, 37; Ph.D, Michigan, 30. Instr. zool, Southern California, 23–26; med. physiol, Michigan, 28–30; *Southern California*, 30–37, asst. prof, 37–40, *assoc. prof*, 40–42, *physiol. and aviation med. research, 42–* Fel. Am. Med. Asn; Diabetic Asn; Physiol. Soc; Soc. Exp. Biol; Federation Clin. Research. Circulatory changes during periodic ventilation with apneas and during periodic breathing; marine fishes; response of the left ventricle to changes in output; sugar utilization after hypophysectomy and hepatectomy; measurement of insulin action; pancreatic diabetes in Herbivora.

Greeley, Samuel A(rnold), 6 N. Michigan Ave, Chicago, Ill. *Sanitary and hydraulic engineering.* Chicago, Ill, Aug. 20, 82. A.B, Harvard, 03; B.S, Mass. Inst. Tech, 06. *Partner, Greeley and Hansen, 14–* Supervising engineer, Camp Custer, Mich, 17–19; sanit. engineer, U. S. Shipping Board, 17–18. James Laurie and Rudolph Hering medals, Soc. Civil Eng. Civil Eng. (chairman, exec. cmt, sanit. eng. div, 26); Munic. Eng. (pres, 33); Pub. Health Asn. (chairman, pub. health eng. sect, 24); Ill. Eng. (pres, 20). Water pollution; sewage treatment; financing; construction; chemistry; operation and purification of water supply.

Greeley, Dr. W(illiam) B(uckhout), West Coast Lumbermen's Association, Seattle, Wash. *Forestry.* Oswego, N. Y, Sept. 6, 79. B.S, California, 01, LL.D, 27; M.F, Yale, 04, A.M, 27. Inspector forest reserves, Calif, U. S. Forest Service, 04–06, supervisor in charge, Sequoia Nat. Forest, 06–08, forester in charge Dist. No. 1, Mont. and Idaho, 08–11, asst. forester, 11–20, chief forester, 20–28; *sec'y and manager, West Coast Lumbermen's Asn, 28–* Mem, U. S. Pub. Domain Cmn, 29. D.S. medal; British D.S.O; Légion d'honneur. Lieut. col, C. Eng, 17–19. Soc. Foresters (pres, 15); Forestry Asn. Forestry in the United States; forest-using industries.

Green, Dr. Arda Alden, Washington University School of Medicine, St. Louis, Mo. *Biological chemistry.* Pa, May 7, 99. A.B, California, 21; M.D, Hopkins, 27. Nat. research fellow med, Harvard, 27–29, fellow physical chem, Harvard Med. Sch, 27–32, *research assoc.* pediat, 32–41; *pharmacol, sch. med, Washington (St. Louis), 41–, asst. prof. biochem, 42–* Tutor, Radcliffe Col, 29–41. Soc. Biol. Chem. Protein chemistry; hemoglobin; antibodies in the placenta; blood coagulation; plasma proteins; enzymes.

Green, Prof. Boynton M(orris), 691 Salvatierra St, Stanford University, Calif. *Mechanical engineering.* Rochester, N. Y, Aug. 5, 91. A.B, Stanford, 14, M.E, 16. Engineer, H. Koppers Co, Pittsburgh, 16; Fed. Telegraph Co, Calif, 17, 19–20; from instr. to *prof. mech. eng, Stanford, 21–; capt, Ordnance Dept, U. S. Army, 42–* U.S.A, 17–19. Mech. Eng. (ex-officio cmt, San Francisco sect, 32); Eng. Educ; Army Ordnance Asn. Lubrication of bearings.

Green, Carl E(dwin), John W. Cunningham and Associates, 1112 Spalding Bldg, Portland, Oregon. *Sanitary engineering.* New York, N. Y, April 28, 06. A.B, Stanford, 28, C.E, 40. Sanit. engineer, State Board Health, Oregon, 28–41; *consulting engineer, John W. Cunningham and Associates, 41–* Lecturer, med. sch, Oregon, 29–41; consultant sanit, League of Oregon Cities, 34–41. Chairman, Interstate Tech. Advisory Cmt. Pollution of Columbia River, 41. Civil Eng. (sec'y, Oregon sect, 35–37, v. pres, 39–41, pres, 41); fel. Pub. Health Asn. (regional board and exec. cmt, west. branch, 33–36; chairman cmt. camp sanit, 36–39; cmt. waterways pollution, 39–41); Water Works Asn; Pacific Northwest Sewage Works Asn. (pres, 35). Shellfish sanitation; water supply treatment; sewage treatment; stream pollution; milk sanitation; camp sanitation.

Green, C(harles) W(illiam), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Waukegan, Ill, June 23, 84. B.S, Wisconsin, 07. Instr. elec. eng, Mass. Inst. Tech, 07–14, asst. prof, 14–17; *telephone engineer*, West. Elec. Co, 19–25; *Bell Tel. Labs, 25–* Major, C.A, 17–19.

Green, Prof. Darrell B(ennett), 5 Arden Place, Athens, Ohio. *Physics.* Martinsville, Ill, Feb. 11, 93. A.B, Indiana, 24, A.M, 25, Ph.D, 37. Asst. prof. and later *prof. physics and elec. eng, Ohio (Athens), 25–* Radio Eng; Acoustical Soc. Electrical communication; electronics.

Green, Dr. D(avid) F(rancis), 100 Bayard St, New Brunswick, N. J. *Physiological chemistry.* Lake City, Colo, Jan. 1, 11. B.S, Denver, 32, M.S, 33, 33–34; Ph.D, Rutgers, 38. Asst, Denver, 32–34; Rutgers, 35–38; research fellow, 38–39; *mem. med. dept, Merck and Co, Inc, 39–* A.A; Chem. Soc. Correlation of kidney function in the dog with urea clearances.

Green, Dr. Earl L(eroy), Ohio State University, Columbus, Ohio. *Genetics.* Meadville, Pa, Aug. 7, 13. B.S, Allegheny Col, 35; M.S, Brown, 37, Ph.D, 40. Corinna Borden Keen research fellow, Brown, 40–41; *instr. genetics, Ohio State, 41–* Summer, instr, Col. City of N. Y, 38. Genetics Soc; Soc. Zool. Mouse genetics; non-genetic causes of variation; mutant genes in development.

Green, E(dmund) L(ouis), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* St. Louis, Mo, May 20, 94. B.S, Washington (St. Louis), 16; M.S, State Col. Wash, 26. Asst. chemist, Gen. Chem. Co, E. St. Louis, 16–18; Ralston Purina Co, St. Louis, 19–22; asst. chemist and assoc. chemist, Exp. Sta, State Col. Wash, 23–30; research assoc. chem, N. Y. Exp. Sta, Geneva, 30–32; *assoc. biochemist, bur. plant indust, U. S. Dept. Agr, 32–* C.W.S, U.S.A, 18. Chem. Soc. Insecticide sprays containing lubricating oils; wetting; plasticity; constituents of vegetable crops; fungicides.

Green, Dr. Elizabeth Ufford (Mrs. Louis Craig Green), Bryn Mawr College, Bryn Mawr, Pa. *Cytology.* New York, N. Y, Feb. 12, 08. A.B, Bryn Mawr Col, 29, A.M, 34, Ph.D, 40. Tech. asst, Rockefeller Inst, 30–33; demonstrator *biol*, Bryn Mawr Col, 35–38; instr, Rosemont Col, 41–42; *demonstrator, Bryn Mawr Col, 42–* Assoc. Soc. Zool. Cellular reactions in the lungs of tumor-bearing mice.

Green, Ferris M(ilton), Orchard Substation, Austin, Colo. *Horticulture.* Milwaukee, Wis, March 22, 94. B.S, Oregon State Col, 22. County fruit inspector, deputy state inspector and fed. state shipping point inspector, 22–23; chief deputy state horticulturist, Colo; asst. horticulturist, *Exp. Sta, Colo. State Col*, in charge orchard substa, *Austin*, 23–41, *supt. fruit substa, 41–* A.A; Soc. Hort. Sci; Phytopath. Soc. Spray residue removal; fertilizers for orchards; soil management; harvesting and packing of fruit; chlorosis and rootstocks of fruit trees; fungicides and control of fire blight.

Green, Dr. Floyd W(ilson), 49 Lexington Ave, Glens Falls, N. Y. *Chemistry.* Pilot Knob, Mo, July 27, 12. A.B, De-Pauw, 38; Ph.D, Cornell, 42. *Research chemist, Imperial Paper and Color Corp, 42–* Chem. Soc. The fluocolumbates of lithium; potassium, rubidium and cesium; chemical pigment colors.

Green, Prof. Franklin Theodore, 1176 Fell St, San Francisco, Calif. *Pharmacy.* North San Juan, Calif, May 5, 63. Ph.G, California, 82. Prof. *chem, col. pharmacy, California*, 93–34, *emer. prof, 34–, emer. dean, 37–* A.A; Pharmaceut. Asn; Chem. Soc; Calif. Acad.

Green, G. D, State Department of Agriculture and Commerce, Stoneville, Miss. *Agronomy.* Philadelphia, Miss, Dec. 4, 07. B.S, Miss. State Col, 31, 34–35; M.S, Mont. State Col, 32; summers, N. C. State Col, 36; Minnesota, 39, 41. Asst. prof. agron, Miss. State Col, 36–43; *grain inspector, State Dept. Agr. and Commerce, Miss, 43–* Field crops; purity and improvement in small grains.

Green, Prof. George Rex, Pennsylvania State College, State College, Pa. *Forestry, Natural science.* Glen Hope, Pa, June 29, 84. A.B, Michigan, 11; M.S, Pa. State Col, 15. Asst. state forester, Ohio, 11–12; assoc. prof. forestry, *Pa. State Col*, 12–19, *prof.* wood technol. and nature study, 19–24, *nature study and director nature camps, 24–* Wood technologist and aeroplane inspector, Naval Aircraft Factory, 17–19. A.A; Soc. Foresters; Forestry Asn; Ecol. Soc; Nature Study Soc. (pres, 25–27); Soc. Mammal; Ornith. Union; Asn. Research Sci. Teaching; Pa. Acad. Nature study; conservation; wood technology; forest utilization; properties and uses of wood.

Green, Dr. Harold D(avid), Western Reserve University School of Medicine, Cleveland, Ohio. *Physiology.* Zanesville, Ohio, Aug. 11, 05. B.S, Col. of Wooster, 27; M.D, Western Reserve, 31. Instr. *physiol*, sch. med, Western Re-

serve, 33–35; med. sch, Yale, 35–36; senior instr, sch. med, Western Reserve, 36–37, asst. prof, 37–39; Commonwealth Fund fellow and guest, Mass. Inst. Tech, 39–40; *assoc. prof, sch. med, Western Reserve, 40–* Visiting asst. prof, col. med, Tennessee, 38. Physiol. Soc; Am. Med. Asn; Physical Soc; Heart Asn; Soc. Exp. Biol. (sec'y Cleveland sect, 38); Cleveland Acad. Med. Coronary circulation; vasomotor representation within the cerebral cortex; dynamics of peripheral circulation; shock.

Green, Henry, Interchemical Corp, 432 W. 45th St, New York, N. Y. *Chemistry.* Easton, Pa, Jan. 13, 88. B.S, Lafayette Col, 08. Chemist, Alpha Portland Cement Co, 09–10; John O. Wagener and Co, 10–15; N. J. Zinc Co, 15–27; Tubize Chatillon Corp, 27–32; consulting chemist and mem. firm, Hathorne and Green, 32–33, consulting chemist, 33–35; *mem. research staff, Interchem. Corp, 35–* A.A; Chem. Soc; Soc. Rheol; N. Y. Micros. Soc. (pres, 29). Plasticity of plants; microscopy of pigments; rayon; ink.

Green, Howard Whipple, 1001 Huron Road, Cleveland, Ohio. *Demography.* Woonsocket, R. I, April 25, 93. A.B, Clark, 14; B.S, Mass. Inst. Tech, 16; Harvard, 16. Sanit. engineer and bacteriologist, Miraflores Water Purification Plant and engineer of tests, Munic. Eng. Div, Panama Canal, 17–19; sanit. engineer, malaria control, int. health board, Rockefeller Foundation, Ark. and La, 19–20, in charge malaria control work, Aguirre, P. R, 20–23; director bur. statist. and research, Cuyahoga County Pub. Health Asn, *Ohio,* 23–25; *sec'y and director statist. and research, Cleveland Health Council, 25–; assoc. pub. health admin, sch. med, Western Reserve, 28–* Director, Nat. Health Council, 32–; Real Property Inventory, Metropolitan Cleveland, Inc, 32–; trustee and sec'y, Cleveland Health Museum, 36–; research and records advisory cmt, dist. four, Work Projects Admin, 40–42; regional director statist, State Board Housing, Ohio, 40– Asn. Social Workers; Sociol. Soc; Population Asn; Statist. Asn. (chairman cmt. census enumeration areas, 31–; v. pres, 40); fel. Pub. Health Asn; Civil Eng; fel. Am. Geog. Soc; Marketing Asn. (treas, 40–). Bacteriology in the tropics; malaria control; vital statistics; population and family statistics by census tracts; real property inventories; slum clearance; social welfare.

Green, Prof. J(ames) H(enry), State Colored Normal Industrial, Agricultural and Mechanical College of South Carolina, Orangeburg, S. C. *Analytical chemistry.* Washington, D. C, Dec. 31, 03. B.S, Howard, 25, M.S, 27; Cornell, 36–37. *Head dept.* science, Kittrell Col, 27–29; *chem,* Agr. and Tech. Col. N. C, 29–30; *State Agr. and Mech. Col. S. C, 30–* Chem. Soc. Indicators.

Green, Prof. Jerome B(oley), Ohio State University, Columbus, Ohio. *Physics.* New York, N. Y, Dec. 28, 98. B.S, Col. City of N. Y, 18, fellow, 18–19; M.S, Wisconsin, 21, Ph.D, 25. Asst. *physics,* Wisconsin, 19–24, instr, 24–25; nat. research fellow, Harvard, 25–27; instr, *Ohio State,* 27–32, asst. prof, 32–36, *assoc. prof, 36–* Guggenheim Mem. Foundation fellow, Tübingen, 31. Summers, instr, Col. City of N. Y, 18–21. Physical Soc. Spectroscopy; spectra of magnesium and tin; pressure shifts; Lloyd's mirror; hyperfine structure; Zeeman effect.

Green, J(erome) J(oseph), 405 N. 29th St, San Diego, Calif. *Physics, Electrical engineering.* Somerset, Ohio, Dec. 26, 66. M.E, Ohio State, 93; Paris, 08; Berlin, 09. Expert testing elec. apparatus, bur. awards, Chicago Expos, 93; chief instr, Nat. Sch. Elec, Chicago, 95; prof. physics and elec. eng, Notre Dame, 95–15; physics, San Diego Junior Col, 15–18; director vocational educ. and tech. dept, San Diego High Sch. and Junior Col, 18–20; educ. supervisor, west. dept. educ. activities, Knights of Columbus, 20–38; prof. elec. eng, Pacific Tech. Univ, and lecturer science, high sch, San Diego; *retired.* Prof, Southern California, 22–23; science dept, San Diego State Col, 35–37. Int. Elec. Cong, St. Louis, 04. Wireless telegraphy; the alternating arc.

Green, Jesse (Robison), 1016 S. Fifth Ave, Bozeman, Mont. *Chemistry.* Manhattan, Mont, April 18, 90. B.S, Mont. State Col, 26, M.S, 32. Farmer, 08–22; asst. chem, Mont. State Col, 26–27, asst. chemist, Exp. Sta, 27–34, asst. prof. chem, 34–38; *chemist, Anaconda Sales Co, 38–* Indicators; flour acidity and fermentation; analyses of Montana feeds; nitrogen analyses; plant respiration; injury caused to plants by petroleum insecticides; phosphate fertilizers and mineral supplements in stock feeds; placement phosphate fertilizers; minor elements in fertilizers; mineral deficiency symptoms in plants.

Green, Dr. J(ohn) J(oseph), 85 Union St, Ottawa, Ont, Can. *Aeronautics.* Portsmouth, Eng, Nov. 9, 05. B.Sc, Royal Col. Science, London, 28, A.R.C.Sc, 28, Busk studentship, 28–29, D.I.C, 29, Sir Otto Beit fellow, 29–30, Ph.D, 30. Junior research physicist, Nat. Research Council Can, 30–35, asst. research engineer, 35–43, sec'y assoc. cmt. aeronaut. research; *squadron leader, Royal Can. Air Force, 43–* Assoc. fel. Royal Aeronaut. Soc; assoc. fel. Inst. Aeronaut. Sci. Airflow in the boundary layer; general aerodynamics; streamlining of locomotives.

Green, J(ohn) W(ilbur), 5241 Broad Branch Road, Washington, D. C. *Terrestrial magnetism.* Jo Daviess Co, Ill, Aug. 7, 73. B.S, Upper Iowa, 99; Wisconsin; Chicago. Prof. physics, Morningside Col, 00–04; magnetic observer, U. S. Coast and Geod. Surv, 04–18; magnetician, dept. terrestrial magnetism, Carnegie Institution, 22–39, in charge Watheroo magnetic observatory, West. Australia, 36–39; *retired.* Magnetic surv, U. S. Coast and Geod. Surv, Kilauea and Mauna Loa volcanoes, Hawaii, 13, Alaska along the Yukon River, 08, 18, magnetic exped, S. Amer, 22–23, 31–32. A.A; Am. Acad; Philos. Soc. Wash. Effect of pressure on the critical temperature of magnetization of iron and other ferromagnetic materials.

Green, Prof. John W(illie), University of Rochester, Rochester, N. Y. *Mathematics.* Hearne, Texas, March 8, 14. A.B, Rice Inst, 35, A.M, 36; univ. fellow, California, 36–38, Ph.D, 38. Teaching asst. *math,* Rice Inst, 35–36; Benjamin Peirce instr, Harvard, 38–39; instr, *Rochester,* 39–41, *asst. prof, 41–* Math. Soc; Math. Asn. Potential theory; theory of functions.

Green, Dr. J(ohn) W(ilson), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Organic chemistry.* Seattle, Wash, March 12, 12. B.S, Princeton, 33, Ph.D, 37; M.S, Pennsylvania, 34. Rockefeller Foundation fellow, Princeton, 37–38; *research asst. cellulose, Inst. Paper Chem, Lawrence Col, 38–* Chem. Soc. (sec'y-treas, local sect, 42). Cellulose; viscosity.

Green, Dr. Louis C(raig), Haverford College, Haverford, Pa. *Astrophysics.* Macon, Ga, Feb. 2, 11. A.B, Princeton, 32, A.M, 33, Ph.D, 37. Instr, exten. dept, Rutgers, 32–33; *math. and astron,* Allegheny Col, 37–39, asst. prof, 39–41; instr, *Haverford Col,* 41–42, *asst. prof, 42–* Summers, instr, Rutgers, 31–33, 36. Physical Soc; Astron. Soc. Spectroscopy.

Green, Dr. Melvin W(illiam), American Institute of Pharmacy, 2215 Constitution Ave, Washington, D. C. *Pharmaceutical chemistry.* Bluffs, Ill, Feb. 28, 10. Ph.G, Pittsburgh, 31, B.S, 32, Ph.D, 37. Asst, U. S. Pharmacopoeia, Mellon Inst, 36–38; asst. prof. chem, Cincinnati Col. Pharmacy, 38–40; instr. pharmacol, sch. med, Georgetown, 40–42; *pharmaceut. chemist, Am. Inst. Pharmacy, 42–* A.A; Chem. Soc; Pharmaceut. Asn. Chemistry of cascara sagrada; standardization of drugs.

Green, Dr. Milton, 3118 Rodman St, N.W, Washington, D. C. *Physics.* Pueblo, Colo, Jan. 13, 12. B.S, Wyoming, 35; A.M, California, 37, Ph.D, 41. Teaching asst. physics, California, 36–39; *junior physicist, Bur. Standards, 42–* Physical Soc. Spectrum analysis of triply ionized cadmium, quadruply ionized indium and quintuply ionized tin.

Green, Morris N(athan), 1800 W. Fillmore St, Chicago, Ill. *Immuno-chemistry, Serology.* Chelsea, Mass, Aug. 12, 10. B.S, Mass. Inst. Tech, 33; univ. fellow, Boston, 34–35, A.M, 35; M.S, Michigan, 37. *Research serologist, State Dept. Pub. Health, Ill, 39–* A.A; Chem. Soc; Pub. Health Asn. Temperature sensitivity of serologic reactions; action of electrolytes on human and animal sera in the Kahn test.

Green, Prof. Robert G(ladding), 615 Second Ave, S, Minneapolis, Minn. *Bacteriology, Immunology.* Wadena, Minn, Jan. 11, 95. A.B, Minnesota, 19, A.M, 20, M.B, 21, M.D, 22. Instr. *bacter, Minnesota,* 18–22, asst. prof, 22–25, assoc. prof, 25–29, *prof, 29–* A.A; Soc. Bact; Soc. Exp. Biol; Sigma Xi (treas, 25). Surface energy of cellular suspensions; canine infectious diseases; wild-life cycles; tularemia; virus diseases.

Green, Prof. Robert M(ontraville), 80 Mason Terrace, Brookline, Mass. *Anatomy.* Boston, Mass, July 11, 80. A.B, Harvard, 02, M.D, 06. *Assoc. prof. applied anat, Harvard, 31–* Fel. Am. Med. Asn. Early history of medicine in America.

Green, Roy M(elvin), Western Laboratories, 921 Q St, Lincoln, Nebr. *Engineering.* McCook, Nebr, May 6, 92. B.S, Nebraska, 14; M.S, Columbia, 16. Draftsman, Frenchman Valley irrig. dist, Nebr, 13; asphalt plant chemist, 14–16;

from asst. prof. to prof. highway eng, Agr. and Mech. Col. Texas, 16–20; *pres. and manager, West. Labs, 20–* Director, Nat. Council State Boards Eng. Examiners, 41; chairman, State Board Examiners for Professional Engineers and Architects, Nebr, 38, 39, sec'y, 39– Civil Eng; Soc. Test. Mat; Asn. Asphalt Paving Technol. Bituminous pavements; concrete.

Green, Prof. Susan A(llen), Maryville College, Maryville, Tenn. *Biology.* Woburn, Mass, Feb. 26, 80. A.B, Smith Col, 05; A.M, Chicago, 06; hon. L.H.D, Maryville Col, 30. *Prof. biol, Maryville Col, 06–, chairman div. sciences, 39–* A.A; Nature Asn; N. Y. Acad; Tenn. Acad. Flora and fauna of the vicinity of Cold Spring Harbor, New York, and of the Great Smoky Mountain National Park.

Green, Lieut. W(alter) P(erry), 2134 Fourth Ave, N, St. Petersburg, Fla. *Organic chemistry.* Waterbury, Conn, June 12, 14. B.S, Mass. Inst. Tech, 35, Ph.D, 40. Chemist, Am. Brass Co, 35–37; chem. engineer, Gulf Research and Develop. Co, 40; lieut. and *capt, Ordnance Dept, U. S. Army, 40–* A.A; Chem. Soc. New reactions of compounds containing the carbonyl group.

Green, Prof. Warren K(imball), Amherst College, Amherst, Mass. *Astronomy.* Salem, Mass, Jan. 24, 91. A.B, Harvard, 13, A.M, 14; Ph.D, California, 16; hon. A.M, Amherst, 34. Martin Kellogg fellow, Lick Observatory, California, 16–17; instr. physics, Yale, 19–21; *director observatory, Amherst Col, 21–,* assoc. prof. *astron, col,* 22–26, *prof, 26–* U.S.A, 17–19. A.A; Astron. Soc; Physical Soc; fel. Royal Astron. Soc; Int. Astron. Union. Stellar and asteroid photometry.

Green, Prof. Willard W(ynn), University Farm, St. Paul, Minn. *Animal breeding.* Minneapolis, Minn, Nov. 17, 10. B.S, Minnesota, 33, M.S, 34, fellow, 35, Ph.D, 39. Instr. agr, Alaska, 35–37; *animal husbandry, Minnesota,* 37–42, *asst. prof, 42–* A.A; Soc. Animal Production. Physiology of reproduction; artificial insemination; endocrinology.

Green, Dr. William T(homas), 300 Longwood Ave, Boston, Mass. *Orthopedic surgery.* Waucoma, Iowa, Aug. 29, 01. A.B, Indiana, 21, A.M, 22, M.D, 25, 26. Instr. anat, sch. med, Indiana, 21–22, intern and res, Univ. Hosp, 25–26; Henry Ford Hosp, 26–29; Peter Bent Brigham Hosp, 29–30; asst. *orthop. surg, Harvard Med. Sch. and sch. pub. health,* 31–34, instr, 34–40, *asst. prof, 40–* Instr. and res, Children's Hosp, 31–32, junior asst. orthop. surgeon, 32–37, visiting surgeon, 37–; junior assoc. orthop. surgeon, Peter Bent Brigham Hosp, 33–39, senior assoc. orthop. surgeon, 39–; clin. consultant, Mass. Services for Crippled Children, 39– Director clinics, Harvard Infantile Paralysis Cmn, 40– Orthoped. Asn; Acad. Orthoped. Surg; Soc. Research Child Develop; Soc. Pediat. Research; Am. Med. Asn. Poliomyelitis; arthritis; osteomyelitis; growth and development; cerebral palsy.

Green, Dr. Wyman R(eed), Drew University, Madison, N. J. *Zoology.* Moultrie Co, Ill, June 1, 81. A.B, A.M, Kansas, 11; Ph.D, Chicago, 19. Asst. biol, Northwest. State Nor. Sch, Okla, 08–09; head dept. biol, high sch, Kans, 11–12; instr, Carleton, 14–19; zool, Northwestern, 19–20; *head dept. biol,* Chattanooga, 20–31; *Drew, 31–* A.A. Life cycle in relation to environment; fossil fishes; bird migrations; effect of selection on non-Mendelian characteristics in the banana fly.

Greenall, Major C(harles) H(untington), Frankford Arsenal, Philadelphia, Pa. *Mechanical engineering.* Allentown, Pa, Oct. 17, 98. M.E, Lehigh, 22. Mem. tech. staff apparatus anal, West. Elec. Co, 22–25; materials develop, Bell Tel. Labs, 25–30, supervisor non-ferrous materials, 30–32, metallic materials, 32–42; *consulting engineer, Frankford Arsenal, U. S. War Dept. and major, U. S. Ordnance Dept, 42–* Consultant div. A, nat. defense research cmt, Office Sci. Research and Develop, 40–42. Soc. Test. Mat; Soc. Metals. Fatigue of metals; application of materials of design to equipment; development of quality control requirements on materials specifications.

Greenbank, Dr. George R(ichard), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Woodsfield, Ohio, Aug. 27, 92. A.B, Ohio State, 17; Ph.D, American Univ, 30. Research and develop. engineer, 17–18; in charge tech. lab, Goodyear Rubber Co, 18–20; chief gas defense research sect, Chem. Warfare Service, 20–22; *research chemist, dairy research labs, bur. dairy indust, U. S. Dept. Agr, 22–* Chem. Soc; Wash. Acad. Chemistry of fats and oils; development and prevention of rancidity in fats, oils, butter, butter oil and milk powder; anti-oxidants.

Greenbaum, Dr. Frederick R, 548 Twickenham Road, Glenside, Pa. *Chemistry.* Vienna, Austria, Feb. 14, 96. Chem.E, Polytech, Vienna, 19; D.Sc, Vienna, 20. Research chemist, Combustion Utilities Corp, Long Island City, 22–24; Dermat. Research Labs, Phila, 25–28; Nat. Drug Co, Phila, 28–29; G. D. Searle and Co, Chicago, 29–33; Nat. Drug Co, Phila, 33–41; chief chemist and director research, S. F. Durst and Co, 41–42; *asst. director research, McNeil Labs, 42–* A.A; Inst. Chem; Chem. Soc; Pharmaceut. Asn. Chemotherapy.

Greenbaum, Dr. Sigmund Samuel, 320 S. 18th St, Philadelphia, Pa. *Dermatology, Syphilology.* Philadelphia, Pa, March 17, 90. B.S, Cent. High Sch, Phila, 09; M.D, Jefferson Med. Col, 13. *Practising physician, Phila, 13–;* instr. physical diagnosis, Jefferson Med. Col, 14–17; *clin. dermat. and syphilol, grad. sch. med, Pennsylvania,* 20–24, assoc. prof, 24–35, *prof, 35–* Attending chief dermatologist, Mt. Sinai Hosp; consulting dermatologist, Eagleville Sanitorium; Phila. Psychiat. Hosp; U. S. Veterans Bur, 22–30. Dermato-syphilologist, med. advisory board, Selective Service, Pa; mem, Phila. Defense Council. Capt, M.C, 17–20. A.A; Acad. Dermat. and Syphilol; Am. Med. Asn; fel. Col. Physicians; Pa. State Med. Soc. (sec'y and pres, dermat. sect, 30); Phila. Co. (Pa) Med. Soc. (chairman cmt. social and cutaneous diseases, 37–, sec'y and pres, southeast branch, 22); fel. Phila. Col. Physicians; Phila. Dermat. Soc. (sec'y and pres, 26). Diseases of the mouth.

Greenberg, Prof. D(avid) M(orris), University of California, Berkeley, Calif. *Biochemistry.* Boston, Mass, Sept, 95. A.B, California, 21, Ph.D, 24. Instr. *biochem, California,* 24–28, asst. prof, 28–31, assoc. prof, 31–41, *prof, 41–* Guggenheim Mem. Foundation fellow, 29–30. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. (sec'y, Pacific div). Physical chemistry of proteins; physiology of calcium and magnesium; biochemical analytical methods; physical chemistry of sea water; enzymes.

Greenberg, Dr. Leon A(rnold), 4 Hillhouse Ave, New Haven, Conn. *Physiology.* New Britain, Conn, April 27, 07. Ph.B, Yale, 30, Ph.D, 33. *Research assoc. and instr. applied physiol, Yale, 33–* Respiration; nutrition; toxicology.

Greenberg, Dr. Louis D(onald), 1738 17th Ave, San Francisco, Calif. *Biochemistry.* Pueblo, Colo, July 14, 05. A.B, California, 30, fellow, 32–34, Ph.D, 35. Asst. plant nutrition, California, 31–32, biochem, 34–35; *physiol. chemist,* South. Pacific Hosp, 35–39; *dept. path, med. sch, California, 39–, instr.* A.A. Physicochemical state of inorganic elements of blood; nutrition and metabolism; physiology and assay of the adrenal cortical hormone; bacteriology.

Greenblatt, Dr. Robert B(enjamin), University of Georgia School of Medicine, Augusta, Ga. *Experimental medicine.* Montreal, Que, Can, Oct. 12, 06. B.A, McGill, 28, M.D, 32. Asst. prof. path, *sch. med, Georgia,* 36–37, path. and gynecol, 37–39, *prof. exp. med, 39–* Special consultant, U. S. Pub. Health Service; investigator, cmt. med. research, Office Emergency Management. Crawford W. Long award, 41. Am. Med. Asn; Asn. Study Int. Secretions; South. Med. Asn; South Atlantic Asn. Obstet. and Gynecol. Minor venereal diseases; endocrinology.

Greenburg, Dr. Leonard, 44 W. 77th St, New York, N. Y. *Public health.* New York, N. Y, Aug. 16, 92. C.E, Columbia, 15; Ph.D, Yale, 23, M.D, 30. Sanit. engineer, State Pub. Service Cmn, N. Y, 15–16; engineer, Winchester Arms Co, New Haven, 16–18; sanit. engineer, U. S. Pub. Health Service, 18–32; assoc. director, Pierce Lab. Hygiene, New Haven, 32–34; health officer, New Haven, 34–35; *exec. director div. indust. hygiene, State Dept. Labor, N. Y, 35–* Clin. prof, sch. med, Yale; consultant, Pierce Lab. Hygiene. Fel. Pub. Health Asn; Am. Med. Asn; Heat. and Vent. Eng. Health administration; industrial hygiene; ventilation; occupational diseases.

Greenburg, Dr. Richard B(ernard), Barrett Division, Allied Chemical and Dye Corp, Philadelphia, Pa. *Organic chemistry.* Kokomo, Ind, Dec. 26, 16. B.S, Purdue, 37; M.S, Illinois, 38; Ph.D, Pa. State Col, 40. *Research chemist, H. W. Jayne lab, Barrett div, Allied Chem. and Dye Corp.* Chem. Soc. Metathetical reactions of alpha bromoketones.

Greene, Prof. Arthur M(aurice), Jr, Princeton University, Princeton, N. J. *Mechanical engineering.* Philadelphia, Pa, Feb. 4, 72. B.S, Pennsylvania, 93, M.E, 94, Sc.D, 16; D.E, Rensselaer Polytech, 22; LL.D, Missouri, 41. Instr,

Drexel Inst, 94–95; mech. eng, Pennsylvania, 95–02; prof, Missouri, 02–07, junior dean sch. eng, 06–07; prof. *mech. eng*, Rensselaer Polytech, 07–22; *prof, Princeton, 22–41, emer. prof, 41–*, dean *sch. eng, 22–41, emer. dean, 41–* Asst. engineer, Phila. Traction Co, 93, 97, 98, 04. Exec. cmt, Am. Eng. Foundation. Mech. engineer and chairman group jury, Nat. Export Expos, 99. A.A. (past v. pres); hon. mem. Mech. Eng. (manager, 13–16, v. pres, 16–18); Eng. Educ. (past pres); Franklin Inst; Eng. East. N. Y. (past pres). Heating; pumping; refrigeration; ventilation; steam engineering.

Greene, Dr. Carl H(artley), 140 E. 54th St, New York, N. Y. *Medicine.* South Bend, Ind, June 22, 96. A.B, Missouri, 14; fellow, Yale, 15–17, Ph.D, 17; M.D, Hopkins, 21. Res. house officer, Hopkins Hosp, 20–21; staff, Mayo Clinic, 21–32, instr. med, 24–27; asst. prof, Mayo Foundation, Minnesota, 27–32; assoc. med. and biochem, *N. Y. Post-Grad. Med. Sch, Columbia,* 32–35, asst. prof. *med, 35–37, assoc. prof, 37–; clin. prof, L. I. Col. Med, 35–* Lieut, C.W.S, 18. A.A; Am. Med. Asn. (sec'y, sect. on pharmacol. and therapeut, 31–33, v. chairman, 34, chairman, 35); fel. Col. Physicians; Soc. Exp. Biol; Soc. Clin. Invest; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Path; Gastro-Enterol. Asn; N. Y. Gastro-Enterol. Asn; fel. N. Y. Acad. Med. Chemistry of metabolism; nephritis; oxygen utilization; liver function; bile salts; Addison's disease.

Greene, Dr. C(arroll) Willard, New York State Conservation Department, Albany, N. Y. *Biology.* Robbins, Tenn, Dec. 25, 01. A.B, Michigan, 25, A.M, 28, Ph.D, 34. Asst, museum, Michigan, 25–26, asst. curator fishes, 26–28; *biologist, State Conservation Dept, N. Y, 28–* Asst, Bur. Fisheries, 28. Summers, ichthyol. surv, Wis. Nat. Hist. and Geol. Surv, 25–27. Fishes; distribution of fresh-water fishes; natural history; fish culture.

Greene, Dr. Charles H(erbert), Corning Glass Works, Corning, N. Y. *Chemistry.* Troy, Pa, Sept. 26, 04. A.B, Haverford Col, 26; A.M, Harvard, 27, Ph.D, 31. Research chemist, Corning Glass Works, 30–31; instr. chem, Harvard, 31–37; *research chemist, Corning Glass Works, 37–* A.A; Chem. Soc; Ceramic Soc. Analytical and physical chemistry; glass melting.

Greene, Cha(rle)s T(ull), 4805 Guilford Road, College Park, Md. *Entomology.* Philadelphia, Pa, March 27, 79. Indust. Art Sch, Phila, 94–95; Franklin Inst, 96–97, 03–04; Pa. Museum and Sch. Indust. Art, 98–01; Drexel Inst, 04–06; George Washington; B.S, American Univ, 33. Entom. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 12–15, specialist forest Diptera, 15–24, asst. entomologist, 24–28, *assoc. entomologist, 28–; hon. asst. custodian Diptera, U. S. Nat. Museum, 18–* A.A; Entom. Soc; Entom. Soc. Amer; Entom. Soc. Wash. (recording sec'y, 22–28, 2nd v. pres, 31, v. pres, 32, pres, 33); Biol. Soc. Wash; Cambridge Entom. Club; Acad. Nat. Sci. Phila. Diptera.

Greene, Prof. Cha(rle)s W(ilson), 814 Virginia Ave, Columbia, Mo. *[1]Physiology.* Crawford Co, Ind, Aug. 12, 66. A.B, Stanford, 92, A.M, 93; Ph.D, Hopkins, 98. Instr. physiol, Stanford, 93–98, asst. prof, 98–00; prof. physiol. and pharmacol, *Missouri,* 00–36, research, 36–37, *emer. prof. physiol. and pharmacol, 37–* Instr, Marine Biol. Lab, Woods Hole, 96–97, 00; special investigator, Bur. Fisheries, 01, 02, 04, 06–17; lecturer, Stanford, 39– Major, Sanit.C, in charge div. physiol, med. research lab, aviation field I, 18–19. A.A; Physiol. Soc. (sec'y, 16–23, pres, 34); Asn. Anat; Soc. Biol. Chem; Am. Med. Asn. (chairman, sect. path. and physiol, 25); Soc. Pharmacol; Chem. Soc; Union Biol. Societies (exec. cmt); Nat. Anesthesia Research Soc; Ind. Acad; Mo. Acad. Embryology and morphology; phosphorescent organs in fishes; inorganic salts and cardiac tissues; physiology and chemistry of salmon; chemistry and growth of animal tissues in inanition; storage of proteins in body tissue; cardiac changes in oxygen want and reactions of organs at the asphyxial crisis; the respiratory gas percentages in nitrous oxide anesthesia; nerve supply and reflex regulation of the coronary blood vessels; coronary reactions to cardiac drugs; coronary control in the monkey.

Greene, Pres. C(larence) W(ilson), Adrian College, Adrian, Mich. *Electricity.* Hadley, Mich, July 17, 73. A.B, Michigan, 03, A.M, 05, Ph.D, 12; B.Pd, Mich. State Nor. Col, 03, M.Pd, 05. Prin, high sch, Mich, 95–02; prof. physics, Albion Col, 04–20; *pres,* Hedding Col, 20–22; Albany Col. (Oregon), 23–28; Parsons Col, 28–38; Albany Col. (Oregon), 38–42; *Adrian Col, 42–* Pres, Bay View Univ. Summer Sch. and Assembly, 18–21. Physical Soc. Polarization in the aluminum rectifier.

Greene, Prof. Edward B(arrows), University of Michigan, Ann Arbor, Mich. *Psychology.* Andover, Mass, Sept. 25, 95. A.B, Amherst Col, 18; N. Y. Sch. Social Work fellow, 19–21; A.M, Columbia, 22, Ph.D, 28. Instr. psychol, Columbia, 21–22; asst, employment div, West. Elec. Co, New York, 22–25; instr. *psychol,* Wesleyan, 25–26; *Michigan,* 27–35, *asst. prof, 35–* Social Science Research Council fellow, 30–31. 2nd lieut, U.S.A, 17–19. Psychol. Asn. (sec'y-treas, clin. sect); Asn. Applied Psychol. (treas, 37–); Soc. Study Educ. Measurements of mental ability and achievement; lecture versus individual reading among college students; retention of information; non-language tests for success on pencil mazes and feature discrimination problems; a non-language test chart for visual acuity; vocabulary profile for adults; measurement of human abilities.

Greene, Dr. E(rnest) W(ilfrid), 1410 Elgin St, Lakeland, Fla. *Physical chemistry.* Yonkers, N. Y, Jan. 21, 02. B.S, Wisconsin, 24, Ph.D, 32. Develop. engineer, French Battery Co, Wis, 24–25; Westinghouse Lamp Co, N. J, 26–28; asst. physical chem, Wisconsin, 28–32, fellow, 33; *research engineer, Coronet Phosphate Co, 33–* Calcium phosphate recovery; dielectric constants and molecular structure; process of hydration of quick lime; flotation recovery of phosphates.

Greene, Prof. Evan, 8231 106th St, Edmonton, Alta, Can. *Anatomy.* Ottawa, Ont, Aug. 2, 73. M.D, McGill, 99. Asst. surgeon, *Alberta,* 20–28; lecturer *anat,* 22–25, assoc. prof, 25–31, *prof, 31–, lecturer surg. anat.* Royal Army Med. Corps, 15–16; Royal Can. Army Med. Corps, 16–19. Fel. Col. Surg; fel. Royal Col. Surg. Edinburgh. Anthropology; racial and inter-racial affinities of the British Columbia coast Indians.

Greene, F(rank) C(ook), Biltmore Arms, 900 E. Ninth St, Kansas City, Mo. *Geology, Paleontology.* New Albany, Ind, April 30, 86. A.B, Indiana, 08, A.M, 09. Geologist, State Bur. Geol. and Mines, Mo, 10–16; Cosden Oil and Gas Co, 16–20; consulting geologist, 20–26; chief geologist, Skelly Oil Co, 26–28; research geologist, Shell Petrol. Corp, 28–31; *geologist, State Bur. Geol. and Mines, Mo, 32–* Asst, Kans. Geol. Surv, 06; U. S. Geol. Surv, 09, junior geologist, 10–16. A.A; Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Ind. Acad; St. Louis Acad. Stratigraphy and paleontology of the Carboniferous of Western Interior Basin; Mississippian of Indiana.

Greene, Dr. Harry S(ylvestre) N(utting), Yale University School of Medicine, New Haven, Conn. *Pathology.* Woonsocket, R. I, Sept. 22, 04. Brown, 21–25; M.D, McGill, 30. Demonstrator path, McGill, 30–31; asst, Rockefeller Inst, 31–35, assoc. animal path, 35–41; *assoc. prof. path. and surg, sch. med, Yale, 41–* A.A; Soc. Path. and Bact; Soc. Exp. Path; Soc. Study Growth and Develop; Asn. Cancer Research; Soc. Exp. Biol; Genetic Asn; Harvey Soc. Constitution; cancer.

Greene, Prof. Hoke S(mith), University of Cincinnati, Cincinnati, Ohio. *Physical and organic chemistry.* Gray, Ga, Aug. 20, 06. A.B, Mercer, 27; M.S, Cincinnati, 28, Ph.D, 30. Teaching fellow, Cincinnati, 27–30; research chemist, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 30–31; Inst. Int. Educ. Am-German student exchange fellow, Germany, 31–32; research and develop. chemist, E. I. du Pont de Nemours and Co, Niagara Falls, N. Y, 32–34; asst. prof. and later *assoc. prof. chem. eng, Cincinnati, 34–* Chem. Soc. Electro-chemistry; electrolytic oxidations and reductions; industrial bacteriology; manufacture of organic medicinals and industrial chemicals.

Greene, Dr. J(ames) A(lexander), University Hospital, Iowa City, Iowa. *Internal medicine.* Blooming Grove, Texas, March 14, 00. South. Methodist; M.D, Harvard, 25. Instr. internal med, Michigan, 28–30; sch. med, Indiana, 30–32; asst. director, Lilly lab. clin. research, Indianapolis City Hosp, 30–32; assoc. *med, Iowa,* 32–35, asst. prof, 35–37, *assoc. prof, 37–* Soc. Clin. Invest; Soc. Exp. Biol. (sec'y, Iowa branch, 34–36; pres, 36); Physiol. Soc; Diabetes Asn; fel. Col. Physicians; Asn. Study Int. Secretions; Cent. Soc. Clin. Research. Respiration and metabolism; endocrinology.

Greene, Prof. J(ames) E(dward), 174 Highland Terrace, Athens, Ga. *Psychology.* Donaldson, Ark, Aug. 14, 00. A.B, Henderson-Brown Col, 22; A.M, Vanderbilt, 24; Ph.D, George Peabody Col, 31. Instr. psychol, Logan Col, 22–23; psychol-

ogist, Tenn. Indust. Sch, Nashville, 26–27; assoc. prof. psychol, *Georgia*, 27–37, *prof. educ*, 37– A.A; Psychol. Asn; fel. Asn. Applied Psychol; Soc. Psychol. Study Social Issues; Educational Research Asn; South. Soc. Philos. and Psychol. Psychology of religion; mental tests; psychopathology; social psychology.

Greene, Prof. J(ohn) W(illard), Kansas State College, Manhattan, Kans. *Chemical engineering.* Seattle, Wash, Sept. 8, 02. B.S, Washington (Seattle), 25; fellow, Mellon Inst, 26–30; M.S, Carnegie Inst. Tech, 27; Ph.D, Pittsburgh, 30. Research chemist, Standard Oil Co, Calif, 30–37; *prof. chem. eng, Kans. State Col, 37–, head dept, 42–* Chem. engineer, Chem. Warfare Service, 42. Chem. Soc. (local sect. chairman, 40); Chem. Eng; Eng. Educ. Starch production; application of reaction kinetics to chemical equipment designs.

Greene, Dr. Kenneth T(itsworth), 4008 Brandywine St, N.W, Washington, D. C. *Physical chemistry.* Alfred, N. Y, Feb. 7, 14. B.S, Alfred, 35; M.S, Rutgers, 37, Ph.D, 40. Instr. ceramics, Rutgers, 39–40; *physical chemist and Portland Cement Asn. fellow, Bur. Standards, 40–* Ceramic Soc. Physical chemistry of silicate glasses and portland cement clinker.

Greene, Prof. Laurenz, Purdue University, Lafayette, Ind. *Horticulture.* Lincoln, Kans, May 13, 83. B.S, Kans. State Col, 06; M.S.A, Iowa State Col, 09; Ph.D, California, 32. Asst. hort, Ft. Hays Exp. Sta, Kansas, 06; N. Mex. Col, 06–07; Iowa State Col, 07–09, experimentalist, Exp. Sta, 09–17; *prof. hort, Purdue, 17–, head dept, 22–* A.A; Soc. Hort. Sci. (pres, 33); Pomol. Soc; Soc. Plant Physiol; Ind. Acad; Ind. Hist. Soc. Orchard management; seed improvement; spraying; cold storage; crown gall; fruit setting; light and plant growth.

Greene, Lieut. Col. L(uther) Wilson, Arsenal, Huntsville, Ala. *Chemical engineering.* Portsmouth, Va, Nov. 3, 00. B.S, N. C. State Col, 22. Research chemist paint, varnish and lacquer, E. I. du Pont de Nemours and Co, 22–29; chem. engineer, research and munitions develop. divisions, *Chem. Warfare Service*, Edgewood Arsenal, 29–41, *lieut. col, prin. chem. engineer and chief operations div, Huntsville Arsenal, 41–* Micros. Soc; Chem. Soc. Drying oils as foundry core binders; chemical microscopy of fats and waxes; wax technology; compilation of literature on waxes; chemical warfare development; chemical plant design, erection and operation.

Greene, Dr. Richard D(aniel), 37 Jones Ave, New Brunswick, N. J. *Chemistry.* Newport, Ohio, Oct. 31, 01. A.B, Marietta Col, 22; M.S, Northwestern, 25, fellow, 26–27, Ph.D, 28. Instr. chem, Marietta Col, 22; junior chemist, U. S. Dept. Agr, 22–24; asst, Northwestern, 24–25; *research chemist, E. R. Squibb and Sons, 27–* A.A; Chem. Soc. Chemistry of the methylated sugars; chemistry and microbiology of vitamins.

Greene, Prof. Robert A(lva), University of Arizona, Tucson, Ariz. *Agricultural chemistry, Bacteriology.* Pea Ridge, Ark, April 26, 05. A.B, Arkansas, 24; M.S, Okla. Agr. and Mech. Col, 26; Ph.D, Arizona, 33. Asst. chem, Okla. Agr. and Mech. Col, 24–26; asst. chemist, Exp. Sta, R. I. State Col, 26–27; demonstrator biochem, McGill, 27–28; instr. agr. chem, *Arizona*, 28–33, asst. prof. *bacter*, 34–39, *assoc. prof, 39–*, asst. agr. chemist, Exp. Sta, 28–37, *director, State Labs, Ariz, 35–* Deputy state health officer, Ariz, 35–; inspector, State Board Pharmacy, 36– Pub. Health Asn; Soc. Bact; Soil Sci. Soc; West. Soc. Soil Sci. Microbiology of desert soils; nitrogen fixation; soil organic matter; chemistry of desert plants; physiology of bacteria.

Greene, R(obert) L(ee), Notre Dame, Ind. *Chemistry.* Somerset, Ohio, Oct. 4, 69. Ph.C, Ohio State, 92. Prof. and director dept. pharmacy, Notre Dame, 02–39; *retired.* Pharmaceut. Asn; Ind. Acad. Chemistry of health; economics; religion; cancer; longevity.

Greene, Dr. R(onald) R(owe), Northwestern University Medical School, Chicago, Ill. *Endocrinology.* Roslyn, Wash, Jan. 28, 08. B.S, Gonzaga, 29; M.B, Northwestern, 33, M.D, 35, M.S, 37. Assoc. gynec, *med. sch, Northwestern*, 36–41, *instr. physiol, 41–* Capp's prize, 37; gold medal, Am. Med. Asn, 38; prize, Am. Urol. Soc, 38. Sex hormones.

Greene, S(mith) W(inford), Great Lakes, Ill. *Animal husbandry.* Bloomington, Ind, Jan. 9, 90. B.S.A, Purdue, 15, M.S.A, 19. Landscape gardener and tree surgeon, 14–16; in charge beef cattle exp. work, Collins, Miss, 17–18; assoc. animal husbandman in charge McNeill Exp. Sta, Miss. State Col, and bur. animal indust, *U. S. Dept. Agr*, and later *asst. marketing specialist, agr. marketing service, 18–* Soc. Animal Production; Soc. Foresters; Asn. South. Agr. Workers. Beef cattle; pasture improvements; forestry; animal parasites; soil conservation.

Greene, Prof. W(alter) F(arrar), 766 Irving Ave, Syracuse, N. Y. *Anatomy.* Andover, Mass, April 25, 92. A.B, Amherst Col, 14; Ph.D, Yale, 24. Instr. nat. sciences, American Univ. Beirut, 14–19; asst. zool, Osborn zool. lab, Yale, 19–22, *anat*, sch. med, 22–23; asst. prof, sch. med, Buffalo, 23–26; *assoc. prof, col. med, Syracuse, 26–* Human anatomy; embryology; comparative neurology and physiology.

Greene-Bohun, Dr. Marius B(ohdan), 1519 President St, Brooklyn, N. Y. *Medicine, Physics.* New York, N. Y, Jan. 10, 88. B.A, M.Sc, Prague, 09; Polytech. Inst. Warsaw, 10, 11, 13; M.P, M.M, Alexander Univ. Med. Col. (Russia), 14; hon. M.D, Govt. Russia, 15. Junior undergrad. asst. exp. psychol, Polyclinic Inst. Warsaw, 12–14; *chief med. adviser, World Foundation Pub. Enlightenment on Traffic in Opium, 20–* Tech. adviser, Hudson River Air Transport, 21–24; director research dept, Post-Grad. Asn. Regional Anesthesia, 30–; consultant, various hosps, New York. Summers, intern, Cent. Munic. Hosp, Lemberg, Austria, 12. Gold medal, Int. Col. Anesthetists, 36. Mil. Cross of St. Ann; Mil. Cross of St. Stanislaus; Mil. Cross of St. Vladimir; Officers' Mil. Cross of St. George; Victory medal. Institutional del. and mem, Eighth Am. Sci. Cong. Sanit. instr, Russian Red Cross, 14–15, chief neuro-surgeon in charge 6th Div. Hosp, Russian Imp. Army, 15; chief, Neuro-surg. Service Aviation Sch, France, 18–19; special consultant and asst. surg, French Army, 19, major med. inspector, 20. Asn. Motor Vehicle Safety (exec. officer); Asn. Mil. Surg; Soc. Mil. Eng; Soc. Crystal Analysis and X-ray Diffraction; East Asn. Anesthetists; fel. N. Y. Acad; hon. mem. Ital. Asn. Anesthesia and Analgesia; fel. Int. Col. Anesthetists; Int. Anesthesia Research Soc; Int. Asn. Mil. Neuro-Surg. Summation of stimuli in peripheral and sympathetic nervous system; three-dimension x-ray localization and planographic measurements in crystallography; action of chemical substances on impulse transmission in peripheral and sympathetic nervous system; pain physiopathology in its relation to impulse summation and transmission; electro-testing research in aviation; peripheral neurosurgery in rehabilitation of wartime casualties and evacuation of the wounded.

Greenewalt, Dr. Crawford H(allock), Greenville, Del. *Chemical engineering.* Cummington, Mass, Aug. 16, 02. B.S, Mass. Inst. Tech, 22; hon. Sc.D, Delaware, 40. Research chemist, *E. I. du Pont de Nemours and Co*, 22–39, asst. director, Exp. Sta, 39–42, *mem. board directors, 41–*, chem. director, Grasselli Chem. Dept, 42, *tech. director explosives dept, 43–* Chem. Soc; Chem. Eng. High pressure reactions; catalysis; the separation of gaseous hydrocarbons; the partial pressure of water out of aqueous solutions of sulfuric acid; absorption of water vapor by sulfuric acid solutions.

Greenfield, Dr. Eugene W(illis), 41 Fraser Place, Hastings-on-Hudson, N. Y. *Physics, Electrical engineering.* Baltimore, Md, Nov. 27, 07. B.E, Hopkins, 29, D.E, 34. Research engineer, Nat. Elec. Light Asn, 29–33; transmission engineer, Pa. R. R, 34–35; *research engineer, Anaconda Wire and Cable Co, New York, 35–* Asst, dielectric research lab, Hopkins, 30–33. Mem. cmt. on elec. insulation, Nat. Research Council. Physical Soc; Elec. Eng; Soc. Test. Mat. Dielectric theory and practise; mechanism of impregnation of fibrous materials; dielectric behavior of high voltage impregnated paper insulation; residual moisture in fibrous dielectrics; surface tension measurements of viscous organic liquids; power; control and communication cable development.

Greenfield, Dr. Moses, 8 Webb Road, Bethesda Branch, Washington, D. C. *Astrophysics.* Brooklyn, N. Y, March 8, 15. B.S, Col. City of N. Y, 35; M.S, N. Y. Univ, 37, Ph.D, 41. Asst. physics, N. Y. Univ, 36–37; tutor, Col. City of N. Y, 37–39; junior mathematician, U. S. Coast and Geod. Surv, 39–40; junior examiner, U. S. Civil Service Cmn, 40–41; *physicist, David W. Taylor model basin, bur. ships, U. S. Navy Dept, 41–; assoc. math, George Washington, 42–* Energy sources in red giant stars; properties of steel under impact loading; measurement of underwater explosion pressure.

Greenfield, Dr. R(obert) Edman, A. E. Staley Mfg. Co, Decatur, Ill. *Sanitary chemistry.* Sabetha, Kans, Feb. 17, 94. A.B, Kansas, 14; A.M. Illinois, 16, Ph.D, 21. Asst, State Water Surv, Kans, 14; chem, Kans. State Col, 14–15; asst. chemist, State Water Surv, Ill, 16–18, 19–21, chemist, 21–26; instr. chem, Illinois, 21–24, assoc, 24–26; research chemist,

A. E. Staley Mfg. Co, 26–35, asst. gen. supt, 35– Sanit. C, 18–19, capt. A.A; Chem. Soc; Chem. Eng; Water Works Asn. Manufacture of corn products; stream pollution; water purification.

Greenfield, Dr. Sydney S(tanley), Columbia University, New York, N. Y. *Botany.* Brooklyn, N. Y, Nov. 28, 15. A.B, Brooklyn Col, 36; A.M, Columbia, 37, Ph.D, 41. *Teacher biol, high schs, New York, 37–;* teaching fellow, Brooklyn Col, 39–40; *research asst. bot, Columbia, 41–* A.A; Bot. Soc; Torrey Bot. Club; N. Y. Asn. Biol. Teachers. Plant physiology; photosynthesis; mineral toxicity.

Greengard, Dr. Harry, 303 E. Chicago Ave, Chicago, Ill. *Physiology.* Chicago, Ill, Dec. 6, 04. B.S, Northwestern, 25, M.S, 27, Ph.D, 37, M.D, 38. Asst. chem, *Northwestern,* 26–27, *physiol,* 31–37, research instr, 38–39, instr, 39–41, *asst. prof, 41–* A.A; Chem. Soc; Physiol. Soc. Gastro-intestinal hormones; enzymes; pharmacology of colloidal sulfur.

Greenhill, Dr. J(acob) P(earl), 55 E. Washington St, Chicago, Ill. *Obstetrics, Gynecology.* New York, N. Y, Feb. 28, 95. B.S, Col. City of N. Y, 15; M.D, Hopkins, 19. Assoc. obstet, med. sch, Northwestern, 23–32; *prof. gynec, Cook County Grad. Sch. Med, 32–; obstet. and gynec, sch. med, Loyola, Ill, 33–* Attending obstetrician, Chicago Lying-in Hosp, 23–; attending gynecologist, Cook County Hosp, 25–; attending obstetrician and gynecologist, Michael Reese Hosp. Mem. Am. Board Obstet. and Gynec. A.A; Asn. Obstet, Gynec. and Abdom. Surg; Am. Med. Asn; fel. Col. Surg; Pub. Health Asn; Asn. Anat; Cent. Asn. Obstet. and Gynec; Ill. Acad. Med; Chicago Gynec. Soc; Gynäk. Gesell. Embryology.

Greening, G(ershom) K(eyes), 2461 S. 13th E, Salt Lake City, Utah. *Meteorology.* Cornland, Ill, March 3, 86. Asst. meteorologist, *U. S. Weather Bur,* 21–41, *meteorologist, 41–* A.A; Meteorol. Soc; Geophys. Union. Floods and hailstorms in Iowa; climatic conditions as found by Lewis and Clark.

Greenleaf, Prof. Herrick E(rnest) H(erbert), 1024 S. College Ave, Greencastle, Ind. *Mathematics.* Waltham, Mass, Aug. 23, 94. B.S, Boston, 16, A.M, 25; Ph.D, Indiana, 32. Asst. physics, Boston, 16–17; teacher, high sch, Mass, 17–21; instr. *math, DePauw,* 21–24, asst. prof, 24–26, assoc. prof, 26–33, *prof, 33–* Summers, Boston Univ, 26, 27; director, DePauw, 30–31. Math. Asn. (chairman, Ind. sect, 28); Asn. Univ. Teachers Ins. Statistics; curve approximation by means of functions analogous to the hermite polynomials.

Greenleaf, Dr. William E(ben), 1818 Cedar Ave, New York, N. Y. *Zoology.* Henniker, N. H, July 16, 90. A.B, Middlebury Col, 13; A.M, Yale, 17, Ph.D, 26; N. Y. Univ. and Columbia, 39–41. Prin, high sch, Vt, 13–14; prof. biol, Defiance Col, 15–16; visiting substitute instr. bot, Wesleyan, 17; dist. commander, Near East Relief, Turkey and Caucasus, Russia, 19–20; instr. zool, Syracuse, 21–23; biol, Wesleyan, 24–29; asst. prof. zool, Marshall Col, 29–31, prof, 31–39, dean col. arts and sciences, 29–39; biol. master, Storm King Sch, Cornwall-on-Hudson, N. Y, 42; *head science dept, Larson Junior Col, 42–* Head lab. asst, Army Med. Sch, 2nd lieut, Sanit.C, 18–19. Asn. Med. Progress. The influence of volume of culture medium and cell proximity on the rate of reproduction of Infusoria.

Greenlee, Dr. K(enneth) W(illiam), Ohio State University, Columbus, Ohio. *Chemistry.* Leon, W. Va, Jan. 23, 16. B.S, Antioch Col, 38; Am. Petrol. Inst. fellow, Ohio State, 41–42, Ph.D, 42. Analyst, Roessler and Hasslacher Chem. Co, 36–37; *fellow hydrocarbon research, Am. Petrol. Inst, 42–* Summer, analyst, Carbide and Carbon Chem. Corp, 40. Chem. Soc. Synthetic organic chemistry; organic reactions in liquid ammonia; synthesis of pure hydrocarbons.

Greenlee, Dr. S(ylvan) O(wen), 420 Kingston Ave, Louisville, Ky. *Chemistry.* McLeansboro, Ill, March 15, 10. B.Ed, South. Ill. State Teachers Col, 35; A.M, Illinois, 36, Ph.D, 39. Asst. chem, Illinois, 36; *org. research chemist, Devoe and Raynolds Co, 39–, head dept. pure research on resins and polymers, research labs.* Chem. Soc. Synthetic organic chemistry; new synthetic resins and polymers for use as paint and varnish vehicles including high molecular weight polymeric polyhydric alcohols, phenolaldehyde condensates, furfuryl alcohol resins and cyclopentadiene polymers.

Greenlees, Prof. A(lec) Lloyd, Rutgers University, New Brunswick, N. J. *Physics.* Picton, Ont, Can, July 1, 96. M.A, Queen's (Can), 20; Ph.D, Calif. Inst. Tech, 25. Instr. *physics, Rutgers,* 24–26, asst. prof, 26–34, *assoc. prof, 34–* Physical Soc. Ionization processes.

Greenman, Dr. E(merson) F(rank), University of Michigan, Ann Arbor, Mich. *Anthropology.* Hartwellville, Mich, Sept. 10, 95. A.B, Michigan, 23, Ph.D, 27; diploma, Oxford, 24. Curator anthrop, museum anthrop, Michigan, 24–28; archeol, Ohio State Archeol. and Hist. Soc, 28–35; research assoc, *museum anthrop, Michigan,* 35–37, asst. curator, 38–41, *assoc. curator, 41–* Anthrop. Asn; Mich. Acad. Prehistoric archeology.

Greenman, Prof. Jesse More, Missouri Botanical Garden, St. Louis, Mo. *[1]*Botany. North East, Pa, Dec. 27, 67. B.S, Pennsylvania, 93; M.S, Harvard, 99, Kirkland fellow, 99–01; Ph.D, Berlin, 01. Asst. bot, Pennsylvania, 90–93; asst, Gray Herbarium, Harvard, 94–05, instr. bot, 02–05; asst. curator dept. bot, Field Museum Nat. Hist, 05–12; asst. prof. *bot,* Chicago, 08–13; assoc. prof, *Washington (St. Louis),* 13–17, *prof, 17–; curator herbarium, Mo. Bot. Garden, 13–* Del, Int. Bot. Cong, Cambridge, 30, Amsterdam, 35. A.A; Soc. Nat; Bot. Soc; Ecol. Soc; New Eng. Bot. Club; Ill. Acad; N. Y. Acad; cor. mem. Acad. Nat. Sci. Phila; St. Louis Acad. The flora of Mexico and western United States; North American species of the genus Senecio.

Greensfelder, Dr. Bernard S(utro), 7 Downey Place, Oakland, Calif. *Chemistry.* San Francisco, Calif, Nov. 15, 04. B.S, California, 26, Ph.D, 28; Kaiser Wilhelm Inst, Berlin, 28–29. Research chemist, Shell Oil Co, Wilmington, *Calif,* 29–33, chief research chemist, Martinez, 33–36, in charge research, San Francisco, 37; *research chemist and head dept, Shell Develop. Co, Emeryville, 38–, assoc. director, 42–* Chem. Soc. Thermodynamics of aqueous ions; rates of colloidal reactions; disposal of refinery wastes; composition and refining of California petroleums; manufacture of aviation fuels; thermodynamics and catalytic reactions of petroleum hydrocarbons.

Greenshields, Prof. Bruce D(ouglas), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Civil engineering.* Winfield, Kans, April 14, 93. B.S, Oklahoma, 20, C.E, 27; M.S, Michigan, 32, Detroit Edison Co. fellow, 32–33, Ph.D, 34. Rodman, A. T. and S. F. Ry. Co, 22; instr. civil eng, Marquette, 22–23; asst. prof, Va. Polytech, 23–26; prof. eng. science, Denison, 26–37; *assoc. prof.* civil eng, Col. City of N. Y, 37–40; *highway eng, Polytech. Inst. Brooklyn, 40–,* supervisor bldg. materials research and highway materials research, 40–42. Research engineer, traffic bur, State Dept. Highways, Ohio, 34–39. Summers, inspector concrete paving, Highway Cmn, Wis, 23–26. Assoc. Civil Eng; Eng. Educ. (chairman, Ohio sect, 35); Inst. Traffic Eng; Cent. Ohio Soc. Professional Eng. (v. pres, 35, pres, 36). Engineering education; an activated sludge sewage disposal plant; traffic capacity; photographic method of studying traffic behavior; comparative average speeds of traffic on different types of road surfaces.

Greenslade, Dr. G(rover) R(awle), Box 100, Route 5, Crafton, Pittsburgh, Pa. *Physics.* Moscow, Idaho, May 21, 86. B.S, Whitman Col, 12, M.S, 13; A.M, Washington (Seattle), 14; fellow, Wisconsin, 14–16, Ph.D, 21. Instr. physics, Wisconsin, 16–21; physics, U. S. Bur. Mines, Pittsburgh, 21–22; J. Rogers Flannery, 23–24; chief physicist, Flannery Bolt Co, Pittsburgh, 24–33; chief chemist, Pittsburgh Dry Stencil Co, 33–36; *director research, Flannery Bolt Co, Bridgeville, Pa, 37–* A.A; fel. Physical Soc; Army Ordnance Asn; N. Y. Acad; Physical Soc. Pittsburgh (v. pres, 34–36, pres, 39). Radiant energy of metals; smoke measurements; electrical testing of boiler stays; heat conduction of coal and ceramics; yielding temperature of and expansion of boiler sheets; staybolt breakage through boiler expansion; electrical testing of metals; thermal coefficients of electrical resistance of standard steels; amount and distribution of firebox and tube expansion in a locomotive firebox.

Greenspan, Dr. Joseph, 163 Eastern Parkway, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, July 8, 09. B.S, Col. City of N. Y, 29; A.M, Columbia, 30, fellow, 32–33, Ph.D, 33. Asst. chem, Columbia, 33–36; assoc. director biochem. lab, Jewish Hosp, Brooklyn, N. Y, 36–37; *lecturer, grad. div, and instr. chem, Brooklyn Col, 37–; special investigator, Rockefeller Inst, 42–* Chem. Soc; N. Y. Acad. Physico-organic chemistry; kinetics of reaction; instrument design.

Greenstein, Dr. Jesse L(eonard), Yerkes Observatory, Williams Bay, Wis. *Astrophysics.* New York, N. Y, Oct. 15, 09. A.B, Harvard, 29, A.M, 30, Ph.D, 37. Nat. research fellow, *Chicago,* 37–39; instr. *astrophys,* 39–42, *asst. prof, 42–* Research assoc, McDonald Observatory, Chicago and Texas. A.A; Astron. Soc; Midwest Group of Astronomers (sec'y).

High-dispersion spectrographic investigations of supergiant stars; abundances of elements in peculiar stellar atmospheres; galactic structure and interstellar absorption.

Greenstein, Dr. J(esse) P(hillp), 8405 16th St, Silver Spring, Md. *Chemistry.* New York, N. Y, June 20, 02. B.S, Polytech. Inst. Brooklyn, 26; Ph.D, Brown, 30. Nat. research fellow, Harvard Med. Sch, 30–31, Kaiser Wilhelm Inst, 31–32; research assoc, California, 32–33; instr. and tutor biochem. sciences, Harvard, 33–39, *research fellow,* physical chem, 33–39; *nat. cancer inst, nat. inst. health, U. S. Pub. Health Service, 39–* Chemistry of polypeptides; denaturation and sulfhydryl groups in proteins; enzymes; biochemistry of cancer.

Greenwald, Charles K(alman), Department of Health, Foot E. 15th St, New York, N. Y. *Bacteriology, Chemistry.* Hungary, Jan. 1, 79. Grad, Cooper Union, 01. Asst, *bur. labs, Dept. Health, New York,* 04–13, bacter. diagnostician, 13–30, *bacteriologist, 30–* Soc. Bact. Toxins; antitoxins; antibacterial substances; antiserums; refining of antiserums and antiplasmas; diphtheria and tetanus toxin and antitoxin; tetanus toxoid; vitamin C and diphtheria toxin; placental globulin in measles immunization; bullous Schick reactions; antitoxin response of partially immunized guinea pigs to infection with tetanus spores.

Greenwald, Dr. D(akota) U(lrich), 160 Elkton Road, Newark, Del. *Psychology, Engineering.* Jamestown, N. Dak, July 6, 10. A.B, Grinnell Col, 32; scholar, Iowa, 32–33, A.M, 33, fellow, 33–35, Ph.D, 35, B.S, 38. Research assoc. psychol, Iowa, 35–38; *instr. mech. eng, Delaware, 38–* A.A; Mech. Eng; Eng. Educ; assoc. Psychol. Asn. Emotion; industrial personnel.

Greenwald, H(arold) P(utnam), 936 Deely St, Pittsburgh, Pa. *Physics.* Boston, Mass, March 29, 93. B.S, Carnegie Inst. Tech, 22. Junior physicist, *U. S. Bur. Mines,* 14–18, asst. physicist, 18–26, assoc. physicist, 26–29, physicist, 29–35, senior physicist, 35–36, *supt, exp. sta, 37–* Exchange investigator, British Safety in Mines Research Board, 24, 29. A.A; Min. and Metal. Eng; Mine Inspectors Inst; Coal Min. Inst; Eng. Soc. West. Pa. Mine safety and efficiency; explosibility of coal, mineral, metal and resin dusts and of methane series hydrocarbons; mine ventilation; behavior and control of coal-mine roofs; strength of mine stoppings and dams and of coal strata in place; physical properties of potash salt from New Mexican deposits.

Greenwald, Prof. Isidor, 477 First Ave, New York, N. Y. *Biochemistry.* New York, N. Y, July 7, 87. A.B, Michigan, 09; Ph.D, Columbia, 11. Asst, med. col, Cornell, 05–08; Columbia, 09–11; chemist, Montefiore Home and Hosp, 11–14; Harriman research lab, Roosevelt Hosp, 14–28; Littauer pneumonia research fund, *N. Y. Univ,* 29–30, *assoc. prof. chem,* Univ. and Bellevue Hosp. Med. Col, 30–35, *col. med, 35–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; assoc. fel. Am. Med. Asn; Soc. Exp. Biol. (sec'y N. Y. sect, 36–41); N. Y. Acad. Med; N. Y. Acad. Physiology of parathyroid glands; blood and urine analysis; metabolism in pneumonia; incomplete dissociation of salts.

Greenway, James C(owan), Jr, Harvard University, Cambridge, Mass. *Zoology.* New York, N. Y, April 7, 03. A.B, Yale, 26. *Asst. curator birds, museum comp. zool, Harvard, 33–* French-Eng-Am. mission to Madagascar, 29; Delacour and Jabouille in Indo-China, 30. U. S. del, Int. Ornith. Cong, Rouen, France, 38. Taxonomy of birds of Yunnan, China, Laos, Indo China and of the Huon Gulf region of New Guinea.

Greenwell, Sister Rose Agnes, Nazareth College, Louisville, Ky. *Botany.* Leonardtown, Md, Jan. 8, 94. A.B, Notre Dame, 26; M.S, Marquette, 27; Ph.D, Catholic Univ, 35. Instr. *biol,* Nazareth Junior Col, 28–31; *head dept, Nazareth Col. (Ky), 31–* Taxonomy.

Greenwood, D(elbert) A, 947 E. 58th St, Chicago, Ill. *Biochemistry, Pharmacology.* Lehi, Utah, Oct. 15, 04. B.S, Brigham Young, 26, M.S, 30; Iowa State Col, 30–36; Chicago, 40–42. Asst. chem, Brigham Young, 26–27, instr, 27–30; asst. and instr, Iowa State Col, 30–36; *research biochemist, Am. Meat Inst, 36–; research assoc. and instr. pharmacol, Chicago, 39–* A.A; Chem. Soc; Iowa Acad; Utah Acad. Fluoride intoxication; the heme pigments of cured meats and factors related to the biological oxidation of meat products.

Greenwood, Lieut. Joseph Albert, 6319 Utah Ave, N.W, Washington, D. C. *Mathematics.* Breckenridge, Mo, Sept. 18, 06. A.B, Missouri, 27, A.M, 29, Ph.D, 31. Teaching fellow, Missouri, 27–30; instr. math, Duke, 30–37, asst. prof, 38–41, math. consultant, parapsychol. lab, 38–41; *statistician, bur. aeronautics, U. S. Navy Dept, 41–* Math. Soc; Math. Asn; Inst. Math. Statist. Mathematical statistics.

Greenwood, Dr. Robert E(wing), Jr, 2212 Nueces St, Austin, Texas. *Mathematics.* Navasota, Texas, June 21, 11. A.B, Texas, 33; fellow, Brown, 35–36; fellow, Princeton, 36–38, A.M, 38, Ph.D, 39. *Instr.* pure math, *Texas,* 34–35, *applied math, 38–; U. S. Navy Dept.* Math. Soc; Math. Asn. Orthogonal expansions; function theory.

Greenwood, Dr. S(ydney) H(ugh) J(ohn) Imperial Oil, Ltd, Sarnia, Ont, Can. *Organic chemistry.* Toronto, Ont, July 25, 15. B.Sc, McGill, 36, Ph.D, 40. Demonstrator org. chem, McGill, 36–39; inspecting officer explosives, Inspection Board United Kingdom and Can, 40–42; Dom. inspector explosives, Dept. Mines and Resources, 42; *chemist, tech. and research dept, Imp. Oil, Ltd, 43–* Molecular rearrangements.

Greenwood, Dr. W(illiam) Russell, Rutgers University, New Brunswick, N. J. *Cardiology.* Oxford, Ind, June 25, 06. B.S, Purdue, 28, M.S, 30; M.D, Pennsylvania, 35. Instr. bacter, Purdue, 28–31; physiol. and biochem, *Rutgers,* 36–40, asst. prof, 40, asst. univ. physician, 37–40, univ. physician, 40, *director student health and assoc. prof. physiol, 40–; lieut, U. S. Navy.* Summer, instr, Purdue, 32. A.A; Am. Med. Asn. Rabies; influence of athletic activity upon degenerative heart disease.

Greep, Dr. Roy O(rval), Squibb Institute for Medical Research, New Brunswick, N. J. *Pharmacology.* Longford, Kans, Oct. 8, 05. B.S, Kans. State Col, 30; M.S, Wisconsin, 32, Ph.D, 34. Asst. zool, Wisconsin, 30–33, fellow, 33–34, asst, 34–35; Harvard, 35–37, instr, 38; *research assoc, Squibb Inst. Med. Research, 38–* Soc. Zool; Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions. Thyrotropin; biology in purification and isolation of gonadotropins; pituitary-testis reciprocal regulation; hypophyseal grafts; parabiotic triplets; maintenance of pregnancy; experimental menstruation; mammogen; posterior pituitary hormone; toxicology of sulfathiazole; hermaphroditism; hereditary toothlessness in rats; blood substitutes in shock.

Greer, Dr. W(illiam) L(eonard) C(ralg), 209 Canora St, Winnipeg, Man, Can. *Geology.* Port Arthur, Ont, March 5, 05. B.Sc, Manitoba, 24; M.S, Wisconsin, 29, Ph.D, 31. Chief geol. surv. party, Man. and Ont. Dept. Mines, 28–29; mining geologist, Can, 31–38; director Que. exploration, Int. Mining Corp, 38–41; *supt. ammonia nitrate div, Welland Chem. Works, 41–* Can. Inst. Min. and Metal. Non-metallic minerals of Manitoba; geology of the Shoal Lake area, Ontario; mix-crystals of calcium and manganese orthosilicates.

Gregersen, Prof. Magnus I(ngstrup), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Physiology.* Kimballton, Iowa, Jan. 27, 03. A.B, Stanford, 23, A.M, 24; Ph.D, Harvard, 30. Austin teaching fellow *physiol,* Harvard Med. Sch, 25–28, instr, 28–35; prof, sch. med, Maryland, 35–37; *prof. and head dept, col. physicians and surg, Columbia, 37–* Mem. subcmt. on shock, div. med. Sciences, Nat. Research Council. A.A; Physiol. Soc; Soc. Exp. Biol; Harvey Soc; fel. N. Y. Acad. Salivary glands; mechanism of thirst and the regulation of water intake; cerebrospinal fluid pressure; spectral absorption and diffusibility of vital dyes; technic of determining blood volume with dyes; effects of vasomotor reflexes of adrenaline and of dehydration on the plasma volume and the internal fluid exchange; diabetes insipidus; blood volume in traumatic shock.

Gregg, Dr. Alan, 49 W. 49th St, New York, N. Y. *Medicine.* Colorado Springs, Colo, July 11, 90. A.B, Harvard, 11, M.D, 16. Intern, Mass. Gen. Hosp, 16–17; field staff mem, int. health div, *Rockefeller Foundation,* 19–22, assoc. director div. med. educ. 22–29, *med. sciences,* 29–31, *director, 31–* R.A.M.C, B.E.F, 17–19. A.A; Hist. Sci. Soc. Medical education.

Gregg, Clifford C(illey), Field Museum of Natural History, Chicago, Ill. *Education.* Cincinnati, Ohio, July 9, 95. B.S, Cincinnati, 17; Northwestern, 29. Jennison Wright Co, Boston, 20–23; Marshall Field Co, Chicago, 23–26; asst. to director, *Field Museum Nat. Hist,* 26–37, *director and sec'y, 37–;* major and lieut. col, Adjutant General's Dept, Sixth Corps Area, *U. S. Army,* 40–42, *col, Tank Destroyer Center, Camp Hood, Texas, 42–* Lieut, Inf, 17–18, major, O.R.C. A.A; Polar Soc. (exec. board); Asn. Mus; Asn. Mus. Admin; Izaak Walton League; N. Y. Acad.

Gregg, Prof. D(onald) E(aton), 2109 Adelbert Rd, Cleveland, Ohio. *Physiology.* Bridgeport, Conn, March 24, 02. B.S, Colgate, 24; Porter fellow, Rochester, 28–30, M.S, 29, Ph.D, 30. Instr. *physiol, sch. med, Western Reserve,* 30–34, asst. prof, 34–41, *assoc. prof, 41–* Physiol. Soc. Metabolism of fats and sugars; circulation.

Gregg, Dr. Donald C(rowther), 46 Orchard St, Amherst, Mass. *Organic chemistry.* Marlboro, N. H, June 25, 13. B.S, Vermont, 35; M.S, New Hampshire, 37; George W. Ellis fellow, Columbia, 39–40, Ph.D, 41. Asst. chem, New Hampshire, 35–37; Columbia, 38–39; Harvard, 40–41; research chemist, Wallace and Tiernan Products Inc, 41; *instr. chem, Amherst Col, 41–* Chem. Soc. Molecular rearrangements.

Gregg, Dr. F(red) M(arion), 5320 Leighton Ave, Lincoln, Nebr. *Psychology.* Nevada, Ohio, March 17, 67. A.B, Ohio Northern, 94; A.M, Chicago, 15; Ph.D, Nebraska, 35. Assoc. biol, Nebr. State Teachers Col, Peru, 05–13, head dept. educ, 13–19; prof. psychol. and head dept, Nebr. Wesleyan, 19–38; *psychol. consultant, 38–* A.A; Psychol. Asn. Parliamentary law; character and health education; inductive health studies; color-blindness in dogs, cats and raccoons; psychology of a growing personality; psychology of directional orientation; psychology of interest, meaning and attention; paths to personality.

Gregg, Dr. Robert E(dmond), State Teachers College, Duluth, Minn. *Zoology.* Chicago, Ill, April 19, 12. B.S, Chicago, 35, Ph.D, 41. *Instr. zool, Minn. State Teachers Col, 40–* A.A; Ecol. Soc; Minn. Acad. Origin of castes in ants with special reference to Pheidole morrisi Forel.

Gregory, Capt. Arthur S(tanley), Edgewood Arsenal, Md. *Organic chemistry.* Benton Co, Oregon, Oct. 22, 14. B.S, Oregon State Col, 36; Ph.D, Ohio State, 40. Second lieut, Chem. Warfare Service Res, U. S. Army, Edgewood Arsenal, 36–37; teaching asst, Ohio State, 37–40; research chemist, E. I. du Pont de Nemours and Co, 40–42; *Chem. Warfare Service, U. S. Army, Edgewood Arsenal, 42–, capt.* Chem. Soc. Structure of naturally occurring organic pigments; synthetic fibers and films.

Gregory, Dr. Charles T(ruman), 1022 First St, West Lafayette, Ind. *Plant pathology.* Ithaca, N. Y, Aug. 31, 87. B.S.A, Cornell, 10, Ph.D, 14. Asst. plant path, Cornell, 10–12, instr, 12–14, asst. prof, 14–19; *exten. pathologist, Purdue, 19–* Phytopath. Soc. Grape mildew; oospore germination and sexuality in Peronosporaceae; new bean disease; diseases of grasses and of greenhouse vegetables and flowers; control of loose smut in wheat.

Gregory, Dr. Christopher, University of Hawaii, Honolulu, Hawaii. *Physics.* Cleveland, Ohio, June 6, 16. B.S, Calif. Inst. Tech, 38, M.S, 39, Ph.D, 41. Asst. physics, Calif. Inst. Tech, 38–41; *instr. math, eng. and physics, Hawaii, 41–* Resonance broadening of spectral lines.

Gregory, Dr. Emily Ray, 3675 Chestnut St, Philadelphia, Pa. *Zoology.* Philadelphia, Pa, Nov. 1, 63. A.B, Wellesley Col, 85; fellow, Pennsylvania, 92–93, A.M, 96; Marine Biol. Lab, Woods Hole, 93–95; Chicago, 95–97, fellow, 97–99, Ph.D, 99; scholar, Am. woman's table, Naples Zool. Sta, 99–00. Teacher, Mrs. Mitchell's Sch. for Girls, Phila, 85–86; private teacher, 86–87; teacher, Misses Case and Hallowell's Sch, 87–88; proofreader, Am. Acad. Polit. and Social Sci, 90–91; teacher, Home Sch. for Girls, Baltimore, 93–94; Milwaukee Co, 94–95; asst. zool, Chicago, 97–99; prof. biol, Wells Col, 01–09; Am. Col. for Girls, Constantinople, 09–11; Akron, 13–15; substitute, Wellesley Col. and Sweet Briar Col, 15–17; U. S. Treasury Dept, 19–24. War Trade Board, 18–19. Biol. Soc. Wash. Origin of the pronephric duct in selachians; development of the excretory system in turtles; Echinarachnius parma; method for injecting embryos.

Gregory, Prof. Herbert E(rnest), Bishop Museum, Honolulu, Hawaii. ****Geography, Physiography.* Middleville, Mich, Oct. 15, 69. A.B, Yale, 96, Ph.D, 99. Instr. physical geog, *Yale,* 99–01, asst. prof. physiog, 01–04, Silliman prof. *geol,* 04–36, *emer. prof, 36–,* acting director, *Bishop Museum, Honolulu,* 19–20, director, 20–36, *emer. director, 36–* Asst. geologist, U. S. Geol. Surv, 00–09, geologist, 09–; supt, Conn. Geol. and Nat. Hist. Surv, 16–20. Assoc. ed, 'Am. Jour. Sci,' 04–28. Div. geol. and geog, Nat. Research Council, 18–21, chairman cmt. on Pacific investigations, 20–; regent, Hawaii, 36– Yale exped, Peru, 12–13. A.A; Geol. Soc. (councilor, 07–09, v. pres, 19); fel. Asn. Geog. (councilor, 11–13, cmt. on pub, 13–16, v. pres, 19, pres, 20); Philos. Soc; Am. Acad. Geology of Connecticut, Arizona and Utah; geography of Peru, Australia and Pacific Islands.

Gregory, Prof. H(oward) W(ilbur), 416 Stadium Ave, West Lafayette, Ind. *Dairying.* Sedan, Kans, Aug. 11, 89. B.S, Okla. Agr. and Mech. Col, 12; M.S.A, Purdue, 18. Asst, dairy dept, S. Dak. State Col, 12–16; *Purdue,* 16–17, instr. and asst. prof, 17–20, *prof. dairying and head dept, 20–* Dairy Sci. Asn. (pres, 38).

Gregory, Dr. Joseph T(racy), University of Michigan, Ann Arbor, Mich. *Vertebrate paleontology.* Eureka, Calif, July 28, 14. A.B, California, 35, Ph.D, 38. Lecturer zool, Columbia, 39; asst. technician, paleont. lab, bur. econ. geol, Texas, 39–40, technician, 40–41; *instr. geol, Michigan, 41–, curator vertebrates, museum paleont, 41–* Soc. Mammal; Paleont. Soc; Soc. Vertebrate Paleont. Late Tertiary mammals; Triassic vertebrates.

Gregory, Prof. Louise H(oyt), Barnard College, Columbia University, New York, N. Y. *Zoology.* Princeton, Mass, July 21, 80. A.B, Vassar Col, 03; A.M, Columbia, 07, Ph.D, 09. Asst. biol, Vassar Col, 03–05; *zool, Barnard Col, Columbia,* 08–09, instr, 09–18, asst. prof, 18–23, assoc. prof, 23–36, *prof, 36–, assoc. dean, 32–* A.A; Soc. Zool. Life history of Protozoa; cytology of conjugation of certain Protozoa.

Gregory, Prof. P(aul) W(allace), College of Agriculture, University of California, Davis, Calif. *Genetics, Embryology.* Frankfort, Ky, June 3, 98. B.S, Kentucky, 22; M.S, Kans. State Col, 24; George H. Emerson fellow, Harvard, 26–28, M.S, 27, Sc.D, 28. Asst, Kans. State Col, 22–24; assoc. prof. biol, La. State Nor. Col, 24–26; asst. zool, Harvard, 26–28; prof, Baker, 28–30; asst. prof. *animal husbandry, California,* 30–37, *assoc. prof, 37–* A.A; Genetic Asn; Soc. Zool. Inheritance of eye color in guinea pigs; embryology and size inheritance in the rabbit; glutathione in relation to growth; indices for evaluating conformation, progeny testing and carcass yield in domesticated live stock.

Gregory, Dr. Raymond (Leslie), University of Texas Medical Branch, Galveston, Texas. *Internal medicine.* Beeville, Texas, Feb. 20, 01. A.B, Texas, 22, A.M, 23; Ph.D, Minnesota, 27, M.D, 29. Tutor org. chem, Texas, 22–23; teaching fellow pharmacol, Minnesota, 23–26, instr. physiol. chem, 26–28; practising physician, 30–33; asst. med, sch. med, Iowa, 33–35, instr. internal med, 35–36; asst. prof. med, med. center, Louisiana, 36–37; prof. and head dept, col. med, Howard, 37–39; Arkansas, 39–40; *prof. med, med. branch, Texas, 40–* Soc. Exp. Biol; fel. Col. Physicians. Metabolic and endocrine diseases; experimental hypertension; metabolism of alcohol; azotemia associated with massive gastrointestinal bleeding.

Gregory, Prof. Walton C(arlyle), North Carolina State College, Raleigh, N. C. *Cytology.* Amherst, Va, Aug. 12, 10. A.B, Lynchburg Col, 34; A.M, Virginia, 35, Ph.D, 40. Asst. prof. biol, Tenn. Polytech, 40–42; *asst. prof. agron, N. C. State Col, and asst. agronomist, Exp. Sta, 42–* Andrew Fleming prize, Virginia, 40, Pres. and Visitors' research award, 41; research award, Va. Acad. Science, 40. A.A; Bot. Soc; Genetics Soc. Cyto-taxonomy; Ranunculaceae; cultivation of anthers in vitro; Lilium; cytogenetics of Physalis and Lobelia; corn.

Gregory, Dr. Wilbur S(mith), University of Nebraska, Lincoln, Nebr. *Psychology.* Johnstown, Pa, Oct. 6, 12. A.B, Muskingum Col, 33; A.M, Syracuse, 36, Ph.D, 37. Instr. *psychol, Nebraska,* 37–41, *asst. prof, 41–,* special adviser to freshmen, 37–40, *guidance consultant, 40–* A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Col. Personnel Asn; Midwest. Psychol. Asn. Relation of legal attitudes, beliefs and behaviors; tests of academic interests; relations between personality traits.

Gregory, Prof. W(illiam) B(enjamin), 630 Pine St, New Orleans, La. *Engineering.* Near Penn Yan, N. Y, March 13, 71. M.E, Cornell, 94, M.M.E, 08. Instr. drawing, *Tulane,* 94–97, asst. prof. *exp. eng,* 97–02, assoc. prof, 02–05, prof, 05–39, *emer. prof, 39–* Consulting engineer, Miss. River Cmn, 02–03; hydraul. expert, State Board Eng. La, 05–; irrig. engineer, U. S. Dept. Agr, 05–; consulting engineer to C. Eng, U.S.A, 29–30. Mem. advisory cmt. on Nat. Hydraul. Lab. and lab. inspector, Europe, 30– Major, C.Eng, 18–19, col, C.Eng.R, 30. Mech. Eng. (councilor, 16-19, v. pres, 19); Civil Eng; Eng. Educ; Soc. Mil. Eng; La. Eng. Soc. (pres, 10); New Orleans Acad. (pres, 14). Experimental engineering; hydraulics tests of centrifugal and rotary pumps and of pumping stations; the Pitot tube; rice irrigation; drainage inves-

tigations in Louisiana rainfall and run-off; tests of pumping plants handling large volumes of water through small lifts.

Gregory, Prof. William K(ing), 235 W. 76th St, New York, N. Y. ***Vertebrate paleontology.* New York, N. Y, May 19, 76. A.B, Columbia, 00, A.M, 05, Ph.D, 10; D.Sc, Witwatersrand, 38. Research asst. to Prof. H. F. Osborn, *Am. Museum Nat. Hist*, 99–13, asst. curator vert. paleont, 11–14, assoc, 14–26, *curator comp. anat, 21–, ichthyol, 25–*; from lecturer to *prof. paleont, Columbia, 07–* Ed, 'Am. Museum Jour,' 00–01. Nat. Acad; A.A. (v. pres, H, 31); Soc. Nat; Paleont. Soc; Geol. Soc; Anthrop. Asn; Asn. Physical Anthrop. (pres, 41–); Asn. Anat; Soc. Ichthyol. and Herp. (pres, 36–38); Soc. Mammal; Philos. Soc; Asn. Mus; Am. Acad; N. Y. Acad. (v. pres, 22, 23, pres, 32); N. Y. Zool. Soc; for. fel. Zool. Soc. London; for. fel. Geol. Soc. London; Linnean Soc. London; cor. mem. Anthrop. Gesell. Wien; Upsala Royal Soc. Sci; State Russian Paleont. Soc. Leningrad; Museo de la Plata, Argentina; Int. Asn. Dental Research. Eocene primates; morphology and evolution of the vertebrate skull and locomotor systems; evolution of mammalian molar teeth; phylogeny of fish skulls; origin of man.

Gregory, Prof. William M(umford), 2458 Queenstown Road, Cleveland, Ohio. *Geography.* Jonesville, Mich, Jan. 18, 76. Mich. State Nor. Col; Harvard, 04. Mich. Geol. Surv, 96–02; hydrographer, U. S. Geol. Surv, 02–05; special investigator water supply, Mich, 04; head dept. *geog*, Cleveland Teachers Col, 09–31; assoc. prof, grad. sch, *Western Reserve*, 25–35, *special lecturer, 35–* Director, Educ. Museum, Cleveland, 14–42. Summers, lecturer, Columbia, Pennsylvania, Washington (Seattle), Western Reserve, Wisconsin and George Peabody Col. Am. Geog. Soc; Asn. Mus. Visual Instruction. Visual instruction; water supply of lower Michigan; geography and history of Ohio; visual aids in school; geology of Arenac County, Michigan; urban geography; motion pictures in education.

Greibach, Dr. Emil H(enry), 75 Linda Ave, White Plains, N. Y. *Physics, Engineering.* Tarnau, Austria, June 22, 98. M.E, E.E, German Univ, Prague, 21; Ph.D, Pittsburgh, 28. Research dept, Westinghouse Elec. and Mfg. Co, 25–29; Sonotone Corp, New York, 29–32; *consulting and research engineer, 32–* Physical Soc; Radio Eng; Acoustical Soc. Development in acoustics; radio; talking movies; electrical meters; x-ray measuring systems; bone conduction receivers; throat microphones.

Greider, Dr. C(larence) E(dwin), National Carbon Co, Cleveland, Ohio. *Industrial chemistry.* Lawrence, Kans, Feb. 25, 99. B.S, Washburn Col, 20; M.S, Iowa, 21; Ph.D, Hopkins, 24. Asst. instr. chem, Iowa, 20–21; Hopkins, 22–23; indust. fellow, Mellon Inst, 24–27; *research engineer, Nat. Carbon Co, 27–* A.A; Chem. Soc. Radiation measurements; carbon technology.

Greider, H(arold) W(illiam), Philip Carey Mfg. Co, Lockland, Cincinnati, Ohio. *Chemistry.* Manchester, Kans, Aug. 1, 94. B.S, Washburn Col, 16; M.S, Kansas, 17. Chemist, Topeka Pure Milk Co, 14–16; instr. chem, Kansas, 16–17; indust. fellow, Mellon Inst, 19–26; research chemist, *Philip Carey Mfg. Co*, 27–30, *director research, 31–* Asst. tech. ed, 'India Rubber Rev,' 22–24. Mem. advisory research cmt, Asphalt Roofing Indust. Bur. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Asst. chemist, Ordnance Dept, 17–19. Chem. Soc; Ceramic Soc; Soc. Test. Mat. Physical properties of vulcanized compounded rubber; analysis of magnesia products; reactions of carbonyl diurethane; improvements in magnesia manufacturing processes; magnesia and high-temperature heat insulations; asphalt roofings; bitumens; asbestos and cement-asbestos products; inorganic adhesives; reconstitution of bituminous waste material; fire resistive building materials.

Greiff, Dr. Donald F(rancis) J(oseph), St. Louis University, St. Louis, Mo. *Physiological genetics.* Toronto, Ont, Can, Aug. 20, 15. B.S, Marquette, 38, 38–39; Sc.D, Hopkins, 42. *Instr. biol, St. Louis, 42–* Genetics Soc. Longevity in Drosophila melanogaster under various environmental conditions; effect of environmeat upon the physiological responses of inbred strains of Drosophila melanogaster.

Greiff, Dr. Lotti J(une), 159 Beach 142nd St, Neponsit, L. I, N. Y. *Chemistry.* New York, N. Y, June 20, 90. A.B, Columbia, 11, Ph.D, 31; M.S, Cornell, 27. Teacher, high schs, and lab. asst, Dept. Educ, New York, 13–18; anal. chemist, gen. lab, U. S. Rubber Co, 18–22; *teacher chem, Dept. Educ, New York, 22–* A.A; Chem. Soc. Physical chemistry; three-component systems; Debye-Hückel theory; isotopic exchange equilibria.

Greig, Dr. J(oseph) W(ilson), 2801 Upton St, N. W, Washington, D. C. *Petrology, Physical chemistry.* Wingham, Ont, Can, Feb. 7, 95. B.Sc, Queen's (Can), 21; Ph.D, Harvard, 27. *Petrologist, geophys. lab, Carnegie Institution, 22–* Can. F.A, 15–19. Igneous rocks; high temperature physical chemistry; refractories.

Greig, Dr. Margaret E(lizabeth), Vanderbilt University School of Medicine, Nashville, Tenn. *Chemistry.* Cumberland, Ont, Can, March 12, 07. B.A, McGill, 28, Ph.D, 32; M.A, Saskatchewan, 30. Demonstrator chem, Saskatchewan, 28–30; asst. cellulose chem, McGill, 32–33, 34–35; chemist, cancer research, Pennsylvania, 35; biochem. research foundation, Franklin Inst, 35–42; *mem. dept. pharmacol, sch. med, Vanderbilt, 42–* Organic chemistry; action of ammonia and amines on acyl urethanes; mechanism of migration of acyl radical; lignin; biochemistry; metabolism of normal and tumor tissues; bacterial metabolism; fat metabolism; shock induced by hemorrhage.

Greisheimer, Dr. E(sther) M(aud), Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Physiology.* Chillicothe, Ohio, Oct. 31, 91. B.S, Ohio, 14; fellow, Clark, 14–16, A.M, 16; fellow, Chicago, 16–18, Ph.D, 19; M.D, Minnesota, 23. Instr. *physiol*, Minnesota, 18–21; asst. prof, Wellesley Col, 21–22; Minnesota, 22–31, assoc. prof, 31–35; *prof, Woman's Med. Col. of Pa, 35–* Physiol. Soc. Sulfonamide drugs.

Greninger, Dr. Alden B(uchannon), Lamp Department, General Electric Co, Cleveland, Ohio. *Metallurgy.* Glendale, Oregon, Sept. 17, 07. A.B, Stanford, 28, Eng, 31; Sc.D, Harvard, 35. Metallurgist, Andes Copper Mining Co, Chile, 31–33; instr. metal, Harvard, 35–38, asst. prof, 38–41; *metallurgist, lamp dept, Gen. Elec. Co, 41–* Inst. of Metals award, Am. Inst. Min. and Metal. Engineers, 40, Robert W. Hunt award, 41. Soc. Metals; Min. and Metal. Eng. Metallography; alloy constitution.

Grennan, Mrs. Elizabeth B(ennett), 719 S. Seventh St, Ann Arbor, Mich. *Mathematics.* Shawnee, Pa, Oct. 9, 80. A.B, Ohio, 03; A.M, Illinois, 08, Ph.D, 10. Instr. math, Nebraska, 10–16; Illinois, 18–20. Math. Soc. Theory of groups.

Gresham, Dr. W(illiam) F(ranklin), 119 North Road, Lindamere, Wilmington, Del. *Organic chemistry.* Prattville, Ala, Oct. 19, 08. B.S, Emory, 29, M.S, 30; A.M, Harvard, 34, Ph.D, 36. Instr. chem, Ga. Sch. Tech, 30–33, asst. prof, 36–37; *research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Industrial research.

Gress, Dr. E(rnest) M(ilton), 2000 High St, Camp Hill, Pa. *Botany.* Pa, Aug. 1, 76. Ph.B, Bucknell, 07; A.M, Pittsburgh, 12, Ph.D, 20. Teacher, high sch, Pa; botanist, State Dept. Agr, Pa, 20–39; *retired.* A.A; Pa. Acad. Paleobotany; weeds, poisonous plants, wild flowers and grasses of Pennsylvania.

Grether, Lieut. Walter F(rank), Psychological Unit No. 2, Kelly Field, Texas. *Psychology.* Postville, Wis, March 26, 12. A.B, Wisconsin, 34, Ph.D, 38; A.M, Mississippi, 35. Asst, labs. primate biol, Yale, 38–41; visiting asst. prof, Missouri, 41–42; *lieut, psychol. unit, U. S. Army, 42–* Psychol. Asn; East. Psychol. Asn. Color vision of infra-human primates; neurophysiology of vision; learning.

Grettie, Dr. D(onald) P(omeroy), Swift and Co, Chicago, Ill. *Chemistry.* Salem, Oregon, June 23, 00. A.B, Willamette, 24; A.M, Oregon, 27; Ph.D, Pittsburgh, 29. Teacher, high sch, 24–25; asst, Oregon, 25–27; Pittsburgh, 27–29; *research chemist, Swift and Co, 29–* Adsorption of organic compounds on hydrous oxides; properties of vitamin C; rancidity in fats and oils.

Greulach, Prof. Victor A(ugust), University of Houston, Houston, Texas. *Botany.* Convoy, Ohio, Dec. 6, 06. A.B, DePauw, 29; M.S, Ohio State, 33, univ. scholar, 38–39, Ph.D, 40; Texas, 37; Buffalo; Muskingum Col. Instr. *biol*, Muskingum Col, 33–35; asst. prof, *Houston*, 35–41, *assoc. prof, 41–* A.A; Bot. Soc; Soc. Plant Physiol; fel. Texas Acad. (v. pres, east. region, 42). Plant physiology; photoperiodism; science education; history of botany.

Greulich, Prof. William Walter, Western Reserve University School of Medicine, Cleveland, Ohio. *Anatomy.* Columbus, Ohio, July 24, 99. Ph.B, Kenyon Col, 26; A.M, Denver, 28; Ph.D, Stanford, 34. Instr. biol, Regis Col. (Colo), 27–28;

Colorado, 28–31; teaching fellow anat, Stanford, 31–34; Gen. Educ. Board fellow, sch. med, Yale, 34–36, asst. prof, 36–38, assoc. prof. anat. and physical anthrop, 38–40, director adolescence study unit, 36–40; *prof. physical anthrop. and anat. and director Brush Foundation, Western Reserve, 40–* Mem. cmt. child develop, Nat. Research Council. A.A; Asn. Anat. (cmt. nomenclature); Asn. Physical Anthrop. (chairman cmt. race relations; assoc. ed, 'Jour'); Soc. Research Child Develop. Human twinning; anatomical aspects of child development; physiology of reproduction; human pelvic types.

Greuling, Prof. Eugene, University of North Carolina, Chapel Hill, N. C. *Physics.* Indianapolis, Ind, Oct. 23, 14. B.S, Butler, 37; Ph.D, Indiana, 42. Teacher, high sch, Ind, 38; instr. *physics,* Indiana, 42; *asst. prof, North Carolina, 42–* Theoretical nuclear physics; theoretical half-lives of forbidden beta transitions.

Greve, Prof. Elmer W(illiam), University of Delaware, Newark, Del. *Horticulture.* Cleveland, Ohio, Dec. 8, 06. B.S, Ohio State, 30, M.S, 32; Ph.D, Maryland, 35. Instr. *hort, Delaware,* 35–38, *asst. prof, 41–,* asst. horticulturist, 35–38, research horticulturist, 38–41, *asst. horticulturist, 41–* Soc. Hort. Sci. Strawberry fertilizers; chemistry and physiology of fruits; photoperiodism; apple tree rootstocks; apple and peach tree fertilizers.

Greve, Prof. F(rederick) W(illiam), Purdue University, West Lafayette, Ind. *Hydraulic engineering.* Brooklyn, N. Y, July 28, 85. B.S, Wisconsin, 08, M.E, 09. Designing dept, Int. Pump Co, 09–10; instr, Oregon State Col, 10–11; *prof. hydraul. eng, Purdue, 11–* Hydraulics.

Greville, Dr. Thomas N(all) E(den), 4872 Conduit Road, Washington, D. C. *Mathematics.* New York, N. Y, Dec. 27, 10. A.B, Univ. of the South, 30; fellow, Michigan, 31–33, A.M, 32, Ph.D, 33. Actuarial dept, Acacia Mutual Life Ins. Co, 33–37; instr, Michigan, 37–40; assoc. actuarial mathematician, *U. S. Bur. Census,* 40–42, *actuarial mathematician, 42–* Assoc. Actuarial Soc; assoc. Am. Inst. Actuaries; Math. Soc; Inst. Math. Statist; Statist. Asn. Actuarial science; theory of probability; mathematical statistics.

Grewe, Dr. Emily, Bellevue Hotel, Washington, D. C. *Chemistry.* B.Ed, 16; A.B, 17; A.M, 18; Fleischmann fellow, Minnesota, 25–26, Ph.D, 26. Asst, Nebraska, 17–18; chemist, Armour and Co, 18; director in charge lab, Seaboard Flour Co, Boston, 19–21; in charge lab, Fed. Mill, N. Y, 21–23; *chemist, bur. dairy indust.* and later *bur. agr. and indust. chem, U. S. Dept. Agr, 27–* Chem. Soc; Asn. Cereal Chemists; Agr. Chem; Home Econ. Asn. Cereal and dairy chemistry.

Gribbins, Dr. M(yers) F(loyd), 600 S. Allen St, State College, Pa. *Biological chemistry.* Tampa, Fla, Sept. 26, 16. B.S, Miami (Fla), 38; M.S, Pa. State Col, 40, Ph.D, 42. Field supervisor, Anti-Mosquito Dist, Dade Co, Fla, 35–38; asst, Pa. State Col, 38–40, instr. agr. and biol. chem, 40–42; *biochemist, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Nutritional studies on the tobacco plant and its effect upon the chemical composition of the seedling and mature tobacco plant.

Gribble, Prof. Lloyd R(aymond), West Virginia University, Morgantown, W. Va. *Zoology.* Fairchance, Pa, Sept. 7, 06. B.S, Waynesburg Col, 29; M.S, West Virginia, 31, Ph.D, 35. Instr. *zool, West Virginia,* 30–35, asst. prof, 35–43, *assoc. prof, 43–* A.A; W. Va. Acad. Comparative anatomy; reactions of brook lampreys to light; comparative neuro-anatomy.

Griem, W(alter) B, 4214 Wanetah Trail, Madison, Wis. *Agriculture.* New Holstein, Wis, Aug. 20, 00. B.S, Wisconsin, 22, M.S, 24. *Chemist, State Dept. Agr, Wis, 25–* Agr. Chem. Feeds; fertilizers.

Grier, Dr. G(eorge) W(ashington), 8095 Jenkins Arcade Bldg, Pittsburgh, Pa. *Roentgenology.* Sewell, N. J, Nov. 7, 82. M.D, Jefferson Med. Col, 04. Asst. prof. *radiol, Pittsburgh,* 15–21, assoc. prof, 21–35, *prof, 34–* Roentgenologist, West. Pa. Hosp, 06–16; St. Margaret's Hosp, 10–20; asst. roentgenologist, Allegheny Gen. Hosp, 13–17; roentgenologist, Passavant Hosp, 16–; acting roentgenologist, Mercy Hosp, 17–18; roentgenologist, St. John's Hosp, 20–; Elizabeth Steele Magee Hosp, 21–; Pittsburgh Diagnostic Clinic, 25–; Eye and Ear Hosp, 27–; Falk Clinic, 32–; Butler County Mem. Hosp, 34–40. A.A; Roentgen Ray Soc. (sec'y, 17–20, pres, 34–35); Radium Soc. (sec'y, 27–31, 2nd v. pres, 31–32, 1st v. pres, 32–34, pres, 35); Radiol. Soc. N. Amer; Col. Radiol; Col. Physicians; British Inst. Radiol. X-ray and radium treatment of cancer; x-ray diagnosis of disease.

Grier, Dr. N(orman) M(acDowell), 406 S. Broad St, Myerstown, Pa. *Biology, Psychology.* Pittsburgh, Pa, June 13, 90. B.S, Pittsburgh, 11, fellow, 11–12, A.M, 12, Ph.D, 19; Cold Spring Harbor, 11; Yale, 12–14; Harris Teachers Col, 14–18; Paris, 19; Columbia, 28, 30–31. Asst. biol, Yale, 12–14; instr, high sch, Mo, 14–18; prof. zool, Hollins Col, 19–20; biol, Washington and Jefferson Col, 20–23; asst. prof. evolution, Dartmouth Col, 23–26; prof. biol, Des Moines, 26–27; head dept. science, Pa. State Teachers Col, West Chester, 27–28; prof. biol, Elizabethtown Col, 28–30; Wagner Col, 30–33; asst. manager employment div, Pa. State Civil Works Admin, 33–34; area director, Nat. Youth Admin, Pa, 35–36; founder, *Lebanon County Mental Health Clinic, Pa,* 36, *chairman, 37–; personnel expert, State Social Security Board,* 37–Asst, Carnegie Museum, 14–16, Cold Spring Harbor, 21–22, in charge bot, 22–26; lecturer, Wagner Free Inst, 28; Col. of New Rochelle, 32; Columbiana fellow, 29. Summers, instr, Pittsburgh, 14, 15; Bur. Fisheries, 20, 25. Ed. zool, 'Am. Midland Nat,' 22– Lieut, C.W.S, 18–19. A.A. (cmt. place of science in educ, 25–32); Bot. Soc. (sec'y, syst. sect, 32–); Soc. Zool; Ecol. Soc; Paleont. Soc; Eugenics Soc; Acad. Polit. and Social Sci; fel. Iowa Acad; St. Louis Acad. (sec'y, 17). Zoology; botany; vertebrate paleontology; paleobotany of coal; ecology of fresh-water mussels; psychology of biological science; higher education; academic freedom and tenure.

Gries, Dr. George A(lexander), Connecticut Agricultural Experiment Station, New Haven, Conn. *Plant pathology.* Cambridge, Mass, May 2, 17. A.B, Miami (Ohio), 38; M.S, Kans. State Col, 40; Ph.D, Wisconsin, 42. Asst. plant physiol, Kans. State Col, 38–40; Wisconsin, 40–42; *agr. research asst. plant path, Conn. Agr. Exp. Sta, 42–* A.A; Phytopath. Soc. Physiology of root diseases; pathology of ornamentals.

Gries, Prof. John Paul, South Dakota State School of Mines, Rapid City, S. Dak. *Geology, Paleontology.* Washington, D. C, June 7, 11. A.B, Miami (Ohio), 32; M.S, Chicago, 33, Ph.D, 35. Asst. geologist, Ill. State Geol. Surv, 35–36; instr. *geol. and miner, S. Dak. Sch. Mines,* 36–37, asst. prof, 37–42, *assoc. prof, 42–* Summers, geologist, S. Dak. Geol. Surv, 38–41. Paleont. Soc. Cretaceous stratigraphy of South Dakota.

Grieve, Dr. Arthur D(ouglas), 781 William St, Montreal, Que, Can. *Physical chemistry.* Wilton Grove, Ont, Sept. 8, 06. B.A, Western Ontario, 29; Ph.D, McGill, 32. Demonstrator chem, Toronto, 29–30; McGill, 30–32; chemist, *Ayerst, McKenna and Harrison, Ltd,* 32–39, *chief control lab, 39–* Soc. Chem. Indust. Equilibria existing in sulfite pulp cooking liquors; conductivity of saturated solutions of calcium hydroxide; fractionation of pituitary extracts; vitamin and hormone assay methods.

Griffee, Dr. Fred, University of Maine, Orono, Maine. *Genetics.* Frankfort, Kans, May 2, 90. B.S, Kans. State Col, 19; M.S, Minnesota, 20, Ph.D, 24. Instr, asst. prof. and asst. plant breeder, Minnesota, 20–25; prof. in charge plant breeding, Okla. Agr. and Mech. Col, 25–28; biologist and head dept, *Exp. Sta, Maine,* 28–30, biologist and asst. director, 30–31, *director, 31–* Soc. Agron. Plant breeding; cytology.

Griffen, Prof. Allen B(eattie), University of Texas, Austin, Texas. *Zoology.* Corsicana, Texas, Jan. 6, 14. A.B, Texas, 35, Ph.D, 39. Tutor *zool, Texas,* 35–36, asst, 36–39, instr. and research assoc, 39–41, *assoc. prof, 41–* Genetics Soc. Genetics; chromosome structure; nature and effects of x-ray-induced breakage; speciation.

Griffin, Prof. Angus M(acIvor), George Washington University School of Medicine, Washington, D. C. *Bacteriology, Immunology.* Franklin, N. H, Feb. 4, 10. Ph.B, Brown, 31, A.M, 33, Ph.D, 38. Bacteriologist and serologist, Bassett Hosp. and Otsego Co. Lab, Cooperstown, N. Y, 34–35; instr. bacter, Brown, 38–40; *asst. prof. bacter. and immunol, sch. med, George Washington, 40–* Soc. Bact; Asn. Immunol; Pub. Health Asn. Antigenic structure of erythrocytes; serological classification of bacteria; bacterial ecology.

Griffin, Prof. Carroll W(ardlaw), Vassar College, Poughkeepsie, N. Y. *Chemistry.* Union Co, S. C, Oct. 14, 00. B.S, Clemson Col, 21; M.S, Virginia, 23, Ph.D, 27. Teaching fellow chem, Virginia, 21–23, 25–27; prof, high sch, S. C, 23–24; assoc. prof. chem. and physics, Brenau Col, 24–25; prof. *chem.* and director dept. science, Miss. Woman's Col, 27–31; N. J. Gas Asn. fellow, Rutgers, 31–32; asst. prof, *Vassar Col,* 32–39, *assoc. prof, 39–* Chemist, N. Y. State Biol. Surv, 36.

Summer, instr, Virginia, 26. A.A; Chem. Soc. (chairman mid-Hudson sect, 43); Miss. Acad. (councilor, 30). Adsorption of gases on solids; effects of poisoned catalysts; extraction processes.

Griffin, Dr. Donald R(edfield), Harvard University, Cambridge, Mass. *Biology.* Southampton, N. Y, Aug. 3, 15. B.S, Harvard, 38, A.M, 40, junior fellow, 40–41, Ph.D, 42. Asst. biol, *Harvard,* 38–40, *special research assoc, Nat. Defense Research Cmt. project,* 42– Lecturer, Lowell Inst, 42. Soc. Mammal; Ornith. Union. Migrations and life history of bats; sensory basis of the homing ability of birds; obstacle avoidance and supersonic cries of bats.

Griffin, Dr. Edward L(awrence), 420 Whittier St, N.W, Washington, D. C. *Chemistry.* Heath, N. Y, Aug. 18, 89. A.B, Kansas, 11, B.S, 12, M.S, 13; Ph.D, George Washington, 23. Instr. org. chem, Kansas, 11–13; asst. chemist, bur. chem, *U. S. Dept. Agr,* 13–23, *assoc. chemist,* 23–27, chemist, food and drug admin, 27–28, *senior chemist,* 28–40, *agr. marketing service, 40–* A.A; Chem. Soc; Asn. Econ. Entom; Insecticide Soc. Wash. Organic chemistry; chemistry of insecticides and disinfectants; oil emulsions; agricultural analysis; fungicides.

Griffin, Prof. F(rank) L(oxley), Reed College, Portland, Oregon. *Mathematics, Astronomy.* Topeka, Kans, Aug. 19, 81. B.S, Chicago, 03, M.S, 04, fellow, 04–06, Ph.D, 06. Instr. *math,* Williams Col, 06–09, asst. prof, 09–11; *prof, Reed Col, 11–* Summer, lecturer, Southern California, 37. A.A; Math. Soc; Math. Asn; Econometric Soc; Northwest Sci. Asn; Circolo Mat. di Palermo. Problem of n bodies; central orbits; differential equations; statistics; investments; center of population; mathematical analysis.

Griffin, Prof. Fred S(wigart), University of Akron, Akron, Ohio. *Mechanical engineering.* Copley, Ohio, March 29, 86. M.E, Ohio State, 11. Eng. dept, Goodyear Tire and Rubber Co, Akron, 11–12; Firestone Tire and Rubber Co, Akron, 12–21; instr. *mech. eng, Akron,* 21–23, asst. prof, 23–26, *prof, 26–* Mech. Eng; Eng. Educ. (pres, Ohio sect, 41). Industrial drafting as applied to the rubber industry.

Griffin, Dr. George R(obert), American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Chemistry.* Indianapolis, Ind, Sept. 2, 14. B.S, Indiana, 36; A.M, Boston, 38; A. D. Little fellow, Mass. Inst. Tech, 40–41, Ph.D, 41. Teaching fellow org. chem, Boston, 36–38; Mass. Inst. Tech, 38–40; *research chemist, Am. Cyanamid Co, 41–* Organic chemistry.

Griffin, Prof. Harriet (Madeline), 1575 Brooklyn Ave, Brooklyn, N. Y. *Mathematics.* Brooklyn, N. Y, April 6, 03. A.B, Hunter Col, 25; A.M, Columbia, 29; Ph.D, N. Y. Univ, 39. Teacher *math,* Hunter Col, 26, tutor, 26–28, instr, 29–30; *Brooklyn Col,* 30–40, *asst. prof, 41–* Math. Soc; Math. Asn. Algebra; the Abelian quasi-group.

Griffin, Prof. H(oward) C(ousens), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Bangor, Maine, Oct. 2, 81. A.B, Bowdoin Col, 04; Columbia; Hopkins, 27–29. Instr. chem, Hobart Col, 04–07; Col. City of N. Y, 07–11; Carnegie Inst. Tech, 11–17; chief chemist, Atlantic Chem. Co, 17–18; *assoc. prof. chem, Carnegie Inst. Tech, 18–* A.A; Chem. Soc.

Griffin, Dr. James B(ennett), 130 Fairview Ave, Ann Arbor, Mich. *Archeology.* Atchison, Kans, Jan. 12, 05. Ph.B, Chicago, 27, A.M, 30; fellow, Michigan, 33–36, Ph.D, 36. Research assoc, *museum anthrop, Michigan,* 36–37, asst. curator, 37–42, *assoc. curator, 42–* Anthrop. Asn; Soc. Archeol; Mich. Acad. (chairman, anthrop. sect, 37). Archeology of eastern United States and of North America; aboriginal ceramics.

Griffin, Dr. Judson R(oy), Western Kentucky State Teachers College, Bowling Green, Ky. *Geology.* Topeka, Ind, Sept. 10, 01. A.B, Illinois, 25, A.M, 27, Ph.D, 31. Asst, Illinois, 27–31; non-fuels div, Ill. Geol. Surv, 31–32; *head dept. geol. and geog, West. Ky. State Teachers Col, Bowling Green, 32–* Summers, Ky. Geol. Surv, 27–31. Stratigraphy and areal geological maps.

Griffin, Prof. Lawrence E(dmonds), Reed College, Portland, Oregon. *Zoology.* Dalton, N. Y, Sept. 10, 74. A.B, Ph.B, Hamline, 95; Minnesota, 95–98; Ph.D, Hopkins, 00. Instr. biol, col. for women, Western Reserve, 00–02; prof, Mo. Valley Col, 02–08; asst. prof, col. med, Philippines, 08–10, assoc. prof, 10–13, dean col. lib. arts, 11–13; *prof.* zool, Pittsburgh, 14–20; *biol, Reed Col, 20–* Asst, Carnegie Institution, 04–05; custodian, Carnegie Museum, 14–20. A.A; Soc. Zool; Micros. Soc. (pres, 18, 19). Anatomy of Nautilus pompilius; dissection of the dog-fish; structure and division of Euplotes.

Griffin, R(euben) Austin, Food Distribution Administration, U. S. Department of Agriculture, Denver, Colo. *Mathematics.* Pleasanton, Iowa, Jan. 13, 03. A.B, Simpson Col. (Iowa), 27; M.S, Iowa, 29; Missouri, 31. Asst. math, Iowa, 27–29; actuarial dept, Cent. Life Ins. Co, Des Moines, 29–30; prof. math, Dubuque, 30–34; asst. agr. econ. and instr. statist, Iowa State Col; *assoc. agr. economist, regional office of war food admin, food distribution admin, U. S. Dept. Agr.* Farm labor statistician, Nat. Research Project, 36. Agriculture; labor; insurance; statistics.

Griffin, Roger C(astle), 9 Washburn Ave, Needham, Mass. *Chemistry.* Montclair, N. J, Sept. 11, 83. A.B, Harvard, 04, A.M, 05, M.S, 06. Chemist, Mallinckrodt Chem. Works, Mo, 08; *Arthur D. Little, Inc,* 09–11, chief analyst, 11–17, *lab. director, 17–,* asst. treas, 20–35, treas. and asst. sec'y, 35–43, *mem. board directors, 24–, v. pres. and asst. sec'y, 43–* Chem. Soc; Soc. Test. Mat. (exec. cmt, 40); Tech. Asn. Pulp and Paper Indust. (exec. cmt, 36–41). Chemical analysis; paper technology.

Griffin, S(tuart) W, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Fairmount, N. Dak. A.B, Michigan, 15; M.S, Arizona, 20. Chemist, Jackson Munitions Corp, Mich, 18; asst. prof. agr. chem, Arizona, 20, asst. chemist, Exp. Sta, 19–20; junior chemist and assoc. chemist, U. S. War Dept, 20–28; assoc. chemist and chemist, bur. chem. and soils, *U. S. Dept. Agr,* 28–37, *senior chemist,* bur. agr. chem. and eng, 37–43, *bur. plant indust, soils and agr. eng, 43–* A.A; Chem. Soc; Agr. Chem; Asn. Econ. Entom; Inst. Chem. Detection and determination of gases and vapors in admixture with air as applied to war gases and industrial pollution of the atmosphere and effects on vegetation; water analysis; insecticides in orchards; gaseous fumigation of plants; herbicides.

Griffis, Prof. LeVan, 3300 Federal St, Chicago, Ill. *Mechanics.* Missoula, Mont, June 30, 16. B.S, Calif. Inst. Tech, 37, M.S, 38, fellow, 38–42, Ph.D, 41. Instr. civil eng, Armour Inst. Tech, 39–40; *asst. prof. mech, Ill. Inst. Tech, 41–* Determination of free-overall fluid surface; effect of deformation rate on materials in tension; propagation of longitudinal plastic stress and strain; motion of solids in real fluids.

Griffith, Prof. B(raham) G(rey), University of British Columbia, Vancouver, B. C, Can. *Forestry.* Swansea, Wales, Dec. 10, 02. B.A, British Columbia, 26, M.A, 28; M.F, Harvard, 29; Ph.D, Washington (Seattle), 38. Jr. forester, B. C. Forest Service, 29–35; teaching fellow, Washington (Seattle), 35–36; instr. *forestry, British Columbia,* 37–39, *asst. prof, 40–* Soc. Plant Physiol; Can. Soc. Forest Eng. Plant hormones in relation to rooting of coniferous cuttings.

Griffith, Prof. Coleman R(oberts), University of Illinois, Urbana, Ill. *Psychology, Education.* Guthrie Center, Iowa, May 22, 93. A.B, Greenville Col, 15; Ph.D, Illinois, 20; summers, Chicago, 23, 41, California at Los Angeles, 33. Instr. psychol, *Illinois,* 20–21, assoc, 21–22, asst. prof, 22–25, assoc. prof. educ. psychol, 25–35, *prof. educ, 35–, director* research in athletics, 25–31, *bur. institutional research, 33–* Guggenheim Mem. Foundation fellow, Berlin, 27–28. A.A; Psychol. Asn; Philos. Asn; Asn. Col. Teachers Educ. Educational and genetic psychology; history of psychology; systematic psychology; problems of university administration.

Griffith, Prof. D(alzell) M(elvin), College Park, Lewisburg, Pa. *Engineering.* Johnstown, Pa, May 17, 99. B.S, Bucknell, 23, M.S, 26; Michigan, 26; McGraw fellow, Cornell, 28–30, Ph.D, 30. Draftsman, Lorain Steel Co, 23–24; instr. *civil eng, Bucknell,* 24–25, asst. prof, 25–29, *prof. and head dept, 29–* Assoc. Civil Eng; Eng. Educ. Structural engineering; wind stresses in reinforced concrete buildings; steel and timber structures.

Griffith, Dr. Esther M(eryl), Devoe and Raynolds Co, Louisville, Ky. *Chemistry.* Ethel, Mo, Jan. 5, 98. A.B, Missouri, 20, A.M, 23; Ph.D, Illinois, 30. Instr. chem, Missouri, 23–27; asst. prof, Texas State Col. for Women, 30–32, assoc. prof, 32–42; *research chemist, Devoe and Raynolds Co, 42–* A.A; Chem. Soc; Asn. Textile Chem. and Colorists. Organic mercury compounds; oils and resins.

Griffith, Dr. Frank S(hoemaker), 647 Lafayette Ave, Palmerton, Pa. *Chemistry.* Salt Lake City, Utah, July 5, 07.

A.B, Montana, 29; M.S, Tulane, 31; Ph.D, Minnesota, 37. *Research investigator, N. J. Zinc Co, 37–* Chem. Soc. Post-precipitation of metal sulfides; physical and analytical chemistry.

Griffith, Prof. Fred(erick) R(eece), Jr, 24 High St, Buffalo, N. Y. *Physiology.* St. Louis, Mo, June 30, 92. A.B, A.M, Washington (St. Louis), 14; Ph.D, Harvard, 23. Teaching fellow *physiol,* Harvard, 20–22, instr, 22–23; assoc. prof, *Buffalo,* 23–35, *prof. and head dept, 35–* A.A; Physiol. Soc; Soc. Exp. Biol; Inst. Nutrition. Metabolism.

Griffith, Dean Ivor, Rhiwlas, Elkins Park, Pa. *Chemistry, Pharmacy.* Rhiwlas, Wales, Jan. 3, 91. P.D, Phila. Col. Pharmacy, 12, Ph.M, 21; hon. Sc.D, Bucknell, 32. *Prof. theory of pharmacy, Phila. Col. Pharmacy, 13–, dean pharmacy, 38–, pres, 41–; prof. org. chem. and sec'y faculty, Wagner Free Inst, 24–* Director research, John B. Stetson Co, 24–41; director labs, Stetson Hosp, 20–41, mem. board directors; lecturer, Brooklyn Inst. Arts and Sciences, 25; research adviser, McNeil Labs, Phila; Lee Industries, Conn, 41–; research director, Frank H. Lee Co, 43– Mem. State Advisory Board Health, Pa. Ed, 'Am. Jour. Pharmacy and Allied Sciences,' 20– 'Science Talks'; 'Recent Remedies'; collaborating ed, 'U. S. Dispensatory.' Pres, Science Teachers Conf. of Middle Atlantic States. A.A; Inst. Chem; Chem. Soc; Asn. Textile Chem. and Colorists; Pharmaceut. Asn. (ed, formula book, pres-elect, 43); Pa. Acad; fel. Royal Soc. Arts London. Industrial and pharmaceutical chemistry.

Griffith, Prof. James R(inaldo), Oregon State Agricultural College, Corvallis, Oregon. *Engineering.* Corinth, Miss, March 22, 94. B.S, Purdue, 16, C.E, 22. Instr. civil eng, State Col. Wash, 20–23; asst. prof, Armour Inst. Tech, 25–29; *prof. struct. eng, Oregon State Col, 29–; commander, U. S. Naval Reserve, and asst. dist. pub. works officer, 13th naval dist, Seattle, Wash.* Struct. designer, Westchester County Park Cmn; Ill. Cent. Ry; City of Chicago; City Dock Cmn, Portland; struct. squad boss, U. S. Gypsum Co; field engineer, univ. stadium, Northwestern; construction supt, sch. board, Chicago. Civil Eng. Structural engineering; reinforced concrete design; structural welded connections; dimensional models; nomographic solutions.

Griffith, Dr. J(ohn) H(ughes), Los Angeles City College, Los Angeles, Calif. *Chemistry.* Venedocia, Ohio, Jan. 14, 99. A.B, Miami (Ohio), 21; A.M, Ohio State, 22; Ph.D, Stanford, 29. Asst. chem, Ohio State, 21–22; instr, Tennessee, 22–24; head dept. science, N. Mex. State Teachers Col, Silver City, 24–27; chem, petrol. technol. and adult educ, Taft Junior Col, Calif, 28–30; *instr. chem, Los Angeles City Col, 30–* Mem. exten. staff, California, 32–36. Mem, Senate Chem. Educ, 25–30. A.A. (treas, southwest. div, 24); Chem. Soc. Para-alkyl phenols and catechols; ammonia system of compounds.

Griffith, Dr. Marion E(tta) (Mrs. James G. Steed), 1350 Canfield Ave, Dayton, Ohio. *Chemistry.* Rockford, Ill, Aug. 15, 00. B.S, Ohio State, 23, Ph.D, 34; M.S, Iowa State Col, 27. Teacher, high sch, Ohio, 23–26; asst. chem, Iowa State Col, 27–29; instr. home econ, Ohio State, 29–36, asst. prof, 36–37; asst, Ohio Exp. Sta, 29–36, assoc, 36–37; asst. prof. textiles, Purdue, 37–39. Summer, instr, Iowa State Col, 29. Chem. Soc; Home Econ. Asn; Asn. Textile Chem. and Colorists. Textile chemistry; physical and chemical properties of fabrics; chemical constitution of dyes as related to their fastness properties.

Griffith, Prof. Melvin E(ugene), North Dakota Agricultural College, Fargo, N. Dak. *Zoology, Entomology.* Lawrence, Kans, March 24, 12. A.B, Kansas, 34, A.M, 35, fellow, 35–38, Ph.D, 38; summers, Michigan, 37–41. Instr. *zool, N. Dak. Agr. Col,* 38–39, asst. prof, 39–41, *assoc. prof, 41–* Summers, asst, biol. sta, Mich, 37–38. A.A; Limnol. Soc; Entom. Soc. Amer; Kans. Entom. Soc; Kans. Acad; N. Dak. Acad. Alconeura; Collembola; morphology, biology and ecology of Corixidae; aquatic ecology.

Griffith, Dr. Robert L(ewis), Research Laboratories, Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Bogue, Kans, Aug. 28, 15. B.S, Kans. State Col, 37; Procter and Gamble fellow, Ohio State, 39–40, Ph.D, 40. *Research chemist, Eastman Kodak Co.* Chem. Soc; Soc. X-ray and Electron Diffraction. X-ray diffraction investigations of the structure of matter; electron distribution in metallic lithium and in lithium hydride.

Griffith, Prof. Wendell H(orace), 1402 S. Grand Blvd, St. Louis, Mo. *Biochemistry.* Churdan, Iowa, Nov. 7, 95. B.S, Greenville Col, 17; M.S, Illinois, 19, Ph.D, 23. Asst. *biochem,* Illinois, 20–22; instr, Michigan, 22–23; *sch. med, St. Louis,* 23–24, asst. prof, 24–27, assoc. prof, 27–40, *prof, 40–; Sanit. Corps, U. S. Army, 41–, lieut. col.* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Nutrition. Synthesis of amino-acids in the animal organisms; nutrition; metabolism of choline and of lipids.

Griffiths, Dr. Albert E, University of Arizona, Tucson, Ariz. *Horticulture.* Center Berlin, N. Y, Sept. 17, 11. B.S, Cornell, 33, M.S, 37, Ph.D, 39; fellow, Boyce Thompson Inst, 37. Instr. veg. crops, Cornell, 39–40; asst. horticulturist, *Exp. Sta, Arizona,* 40–42, *assoc. horticulturist, 42–* Soc. Hort. Sci. Physiology; chemistry; lettuce seed germination; plant breeding.

Griffiths, Dr. Francis P(riday), Oregon State Agricultural College, Corvallis, Oregon. *Bacteriology.* Seattle, Wash, July 12, 04. B.S, Washington (Seattle), 27; German-Am. exchange fellow, Hamburg, 30–31; M.S, Mass. State Col, 33, Ph.D, 35. Asst. and instr. hort. mfrs, Mass. Col, 27–30; junior bacteriologist, U. S. Bur. Fisheries, 31–36; *instr. fish and game management, Oregon State Col, 36–, asst. econ. biologist, Exp. Sta, 36–* Chem. Soc; Soc. Bact; Pub. Health Asn; Fisheries Soc. Bacteriology and chemistry of food products; food preservation; fish and game conservation; animal nutrition.

Griffiths, Dr. J(ames) T(hompson), Jr, Iowa State College, Ames, Iowa. *Insect physiology.* Alta Loma, Texas, Nov. 4, 14. A.B, Rice Inst, 37; M.S, Iowa State Col, 39, Ph.D, 41. Lab. asst, Houston, 35–37; asst. *zool, Iowa State Col,* 37–39, *instr, 39–* Effects of changes in hydrogen ion and salt concentrations on the activity of the excised crop of the American roach; biology of the American roach.

Griffiths, Prof. J(oseph) H(arry), 34 Bellaire Court, Appleton, Wis. *Psychology.* Longport, Eng, July 20, 89. A.B, Lawrence Col, 18; A.M, Northwestern, 20; Ph.D, Cornell, 23. Instr. philos, Cornell, 22–23; *prof. psychol, Lawrence Col, 23–* Assoc. Psychol. Asn. General and abnormal psychology.

Griffiths, Prof. L(ols) W(ilfred), Northwestern University, Evanston, Ill. *Mathematics.* Ph.D, Chicago, 27. From instr. to *assoc prof. math, Northwestern, 27–* Math. Soc. Representation by polygonal numbers.

Griffitts, Prof. C(harles) H(urlbut), University of Michigan, Ann Arbor, Mich. *Psychology.* Ozawkie, Kans, Jan. 5, 89. A.M, Kansas, 14; Ph.D, Michigan, 19. Instr. *psychol,* Park Col, 14–16; asst, *Michigan,* 16–17, instr, 17–22, asst. prof, 22–25, assoc. prof, 25–36, *prof, 36–* A.A; Psychol. Asn. Individual race differences; emotion; vocational and clinical psychology.

Griffitts, Prof. F(red) A(lbert), Maryville College, Maryville, Tenn. *Chemistry.* Philadelphia, Tenn, April 11, 03. A.B, Maryville Col, 25; M.S, Iowa State Col, 30; Ph.D, Indiana, 36. Instr. *chem, Maryville Col,* 25–29, assoc. prof, 30–37, *prof, 37–* Asst. chem, Indiana, 35–36. Summer, chemist, exp. sta, E. I. du Pont de Nemours and Co, 26; teacher, Indiana, 37. Chem. Soc; fel. Inst. Chem; N. Y. Acad. Inorganic chemistry; vanadium oxytrichloride as a solvent; sulfides as contact hydrogenation catalysts; chemical education.

Griffitts, Dr. T(homas) H(ouston) D(ow), 410 Calbira Ave, Miami, Fla. *Medicine.* Unitia, Tenn, Oct. 26, 78. M.D, Grant, 03; hon. Dr.P.H, Georgia, 30. Intern and acting asst. surgeon, U. S. Pub. Health Service, 03–07; asst. to sec'y and registrar vital statist, State Health Dept, Ill, 07–14; epidemiologist, *U. S. Pub. Health Service,* 15–30, surgeon, 30–36, senior surgeon, 36–42, *med. director, 42–,* director dist. no. 6, med. officer in charge and chief quarantine officer, P. R. and Virgin Islands, 39–42; *health commissioner, Greater Miami-Dade Co, Fla, 42–* Director, Henry R. Carter Mem. Lab, Savannah, Ga; health consultant, Tenn. Valley Authority; consulting health officer, Savannah, Ga; liaison officer with U. S. Army, P. R. Dept; visiting prof, sch, trop. med, Columbia. Nat. Drainage Cong; Nat. Malaria Cmt; Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; P. R. Pub. Health Asn; Royal Soc. Trop. Med. and Hygiene. Malaria; impounded waters; bionomics and economic effects of Anopheles mosquitoes; public health education and administration; camp sanitation; control of salt marsh mosquitoes; air traffic in relation to public health; yellow fever and dengue.

Griggs, D(avid) T(ressel), U. S. War Department, Washington, D. C. **Geology, Geophysics.* Columbus, Ohio, Oct. 6, 11. A.B, Ohio State, 32, A.M, 33; Ph.D, Harvard, 41. Asst, Harvard, 33, mem. Soc. of Fellows, 34–41; U. S. Geol. Surv,

41; research assoc, radiation lab, Mass. Inst. Tech, 41–42; *expert consultant, Office Sec'y of War, 42–* Lecturer, Lowell Inst, 38. Fel. Geol. Soc. High pressure investigations on flow and feature of rocks.

Griggs, Prof. Leland, Dartmouth College, Hanover, N. H. *Embryology, Ornithology.* Rutland, Vt, Aug. 22, 79. A.B, Dartmouth Col, 02, Ph.D, 08. Prof. biol, Doane Col, 05–08; instr. zool, *Dartmouth Col,* 08–16, asst. prof, 16–20, *prof. biol, 20–* A.A; Soc. Nat. Embryology of the salamander; zoology.

Griggs, Prof. Mary A(merman), Wellesley College, Wellesley, Mass. *Chemistry.* Somerville, N. J, Feb. 11, 86. A.B, Vassar Col, 08, Alumnae fellow; Barnard fellow, Columbia, A.M, 15, Ph.D, 17. Instr. *chem,* Vassar Col, 11–13, 16–18; Columbia, 19–20; assoc. prof, *Wellesley Col,* 20–35, *prof, 35–* Chem. Soc. Preparation and properties of pectin; determination of nickel; spectrographic analysis.

Griggs, Prof. Robert F(iske), George Washington University, Washington, D. C. *[7]*Botany.* Brooklyn, Conn, Aug. 22, 81. B.S, Ohio State, 03; A.M, Minnesota, 06; Ph.D, Harvard, 11. Asst. trop. agr, U. S. Dept. Agr, 01–02; prof. biol, Fargo, 03–05; asst. prof. *bot,* Ohio State, 06–20; *prof, George Washington, 21–* Govt. expeds, P. R, Guatemala, Texas, Alaska; director, Nat. Geog. Soc. exped, Katmai, Alaska, 15–18, 19, 30. Discoverer, Valley of Ten Thousand Smokes, 16. Chairman div. biol. and agr, Nat. Research Council, 40– A.A; Bot. Soc; Ecol. Soc; Wilderness Soc. (councilor); Nat. Parks Asn. (trustee); Bot. Soc. Wash. (pres, 27); Wash. Acad. (pres, 33).

Grigsby, Dr. Buford H(orace), Michigan State College, East Lansing, Mich. *General botany, Economic plants.* Rogersville, Ala, Oct. 14, 09. B.S, Ala. Polytech, 30; M.S, Mich. State Col, 32, Ph.D, 37. Asst. *bot, Mich. State Col,* 32–35, instr, 36–43, *asst. prof, 43–* Summers, botanist, State Dept. Health, Mich, 40, 41. Soc. Plant Physiol. Mineral nutrition of garden peas; physiology of mosaic of raspberries; pollen studies in Michigan.

Grigsby, H(arry) D(avett), Federal Security Agency, New Custom House, Philadelphia, Pa. *Chemistry.* Cuba, Ill, April 26, 84. B.S, Illinois, 06. Chemist, Chicago, Rock Island and Pacific Ry. Co, 07–12; Ill. State Food Cmn, 12–14; bur. chem, U. S. Dept. Agr, 14–18; U. S. Navy Dept, 18–20; research chemist, Ward Baking Co, 20–24; *chemist, food and drug admin, Fed. Security Agency, 24–* Agr. Chem. Food chemistry.

Grill, Dr. John C(arl), 561 N. 15th St, Milwaukee, Wis. *Pathology, Bacteriology.* Vienna, Austria, Aug. 25, 92. M.D, Vienna, 21. Asst. prof. *path. and bacter, sch. med, Marquette,* 22–28, *assoc. prof, 28–; director path. labs, Milwaukee County Gen. Hosp,* 28– Pathologist, Johnston Emergency Hosp, 24–; St. Joseph Hosp, 30–; St. Mary's Hosp, 33– A.A; Soc. Clin. Path; fel. Am. Med. Asn; Soc. Parasitol; Wis. Acad; Milwaukee Path. Soc. Serology; clinical pathology; pathology of the kidney; essential and malignant hypertension; flocculation reactions in syphilis; mastic test.

Grillot, Dr. Gerald F(rancis), University of Kentucky, Lexington, Ky. *Organic chemistry.* Versailles, Ohio, Jan. 24, 14. A.B, Ohio State, 36; Ph.D, Illinois, 40. Teaching asst. chem, Illinois, 36–40; head dept, Blue Ridge Col, 40–41; *instr. gen. chem, Kentucky, 41–* Summers, instr, eng, science and management defense training, Pa. State Col, 41, 42. Chem. Soc. (2nd v. chairman, Lexington sect, 42). Local anesthetics; preparation of some dialkylamino-methylnaphthols; catalytic reduction of a nitrosamine and related compounds.

Grim, Prof. H(arold) F(etter), Lincoln University, Pa. *Embryology.* Ottsville, Pa, May 28, 90. Pd.B, State Teachers Col, 08; A.B, Lafayette Col, 12; M.S, Chicago, 29. *Prof. biol, Lincoln (Pa), 20–* Effect of chorioallantoic transplants of thymus on the development of the chick embryo.

Grim, J(ohn) M(arshall), Mellon Institute, Pittsburgh, Pa. *Chemistry.* March 3, 06. A.B, Franklin and Marshall Col, 26; A.M, Columbia, 29; Leipzig, Munich, Freiburg and London, 32–34; Cornell, 34–35. Research chemist, Am. Cyanamid Co, 36–41; Nat. Oil Products Co, 41–42; *indust. fellow, Mellon Inst, 42–* Chem. Soc. Nitrogen chemistry; urea and triazine resins; plastic formulations.

Grim, Dr. Ralph E(arly), 506 S. Mathews Ave, Urbana, Ill. *Geology.* Reading, Pa, Feb. 25, 02. Ph.B, Yale, 24, 24–26; Ph.D, Iowa, 31. Asst. prof. geol, Mississippi, and asst. state geologist, Miss. Geol. Surv, 26–30; asst, Iowa, 30–31; *petrographer, Ill. Geol. Surv, 31–* Chairman sub-cmt. diagenesis, cmt. sedimentation, Nat. Research Council Ceramic Soc; Foundrymens Asn. (research cmt); Soc. Econ. Geol; Miner. Soc; Geol. Soc. Petrology; sedimentation; stratigraphy and sedimentary history of the Tertiary formations in Mississippi; sedimentary petrography; technique for clay petrography; petrology of fullers' earths, clays and shales; relation between properties of clays and clay petrography.

Grimes, Prof. J(ay) C(ook), Alabama Polytechnic Institute, Auburn, Ala. *Animal husbandry.* Clifton, Tenn, Feb. 20, 90. B.S.A, Tennessee, 16; M.S, Kentucky, 19. County agr. agent, Monroe County, Tenn, 17–18; instr, Kentucky, 19–20; *prof. animal husbandry, Ala. Polytech, 20–* Soc. Animal Production; Genetic Asn. Animal feeding.

Grimes, Prof. W(aldo) E(rnest), Kansas State College, Manhattan, Kans. *Agricultural economics.* Lees Summit, Mo, Oct. 5, 91. B.S, Kans. State Col, 13; Ph.D, Wisconsin, 23. *Kans. State Col, 13–,* prof. agr. econ. and head dept, 21–36, *prof. econ. and head dept, 36–,* acting director, Exp. Sta, 34. Visiting prof, Chicago, 39. A.A; Farm Econ. Asn. (pres, 35); Econ. Asn. Farm management.

Grimm, Prof. Samuel O(liver), Lebanon Valley College, Annville, Pa. *Physics.* Red Lion, Pa, Sept. 3, 89. B.Pd, Pa. State Nor. Sch, 10; A.B, Lebanon Valley Col, 12, A.M, 18; Columbia, summers, 13–16. Teacher, pub. sch, Pa, 07–09; prin, Lebanon Valley Acad, 12–15; *prof.* educ, *Lebanon Valley Col,* 15–20, *physics and math, 20–* Physical Soc.

Grimm, Prof. W(ilbur) W(infield), Bradley Polytechnic Institute, Peoria, Ill. *Zoology.* Cleveland, Ohio, Dec. 3, 06. B.S, Col. of Wooster, 30; A.M, Miami (Ohio), 32; Ph.D, Ohio State, 37. Asst. zool, Miami (Ohio), 30–32; Ohio State, 32–35; prof. nat. science and head dept, Lincoln Mem. Univ, 35–41; *prof. biol. and head dept, Bradley Polytech, 41–* Summers, asst. biologist, State Conservation Div, Ohio, 30; asst, Franz Theodore Stone lab, Ohio State, 33–35. Limnol. Soc; Ohio Acad; Ill. Acad. Fin development in fishes.

Grimshaw, Prof. Albert H(arvey), North Carolina State College, Raleigh, N. C. *Chemistry.* Providence, R. I, May 29, 83. Mass. Col. Pharmacy, 99–01; grad, New Bedford Textile Sch, 16; B.S, N. C. State Col, 27, M.S, 29. Pharmacist, 99–16; teacher *textile chem. and dyeing,* New Bedford Textile Sch, 16–25; assoc. prof, *N. C. State Col,* 25–36, *prof, 36–* A.A; fel. Inst. Chem; Asn. Textile Chem. and Colorists. Textile chemistry; dyeing; starches; rayon; sulfonated oils; textile compounds; mildewing of wool; mill paints; whiteness of raw cotton; mercerizing; textile waste and recovery.

Grimsley, Dr. G(eorge) P(erry), Baltimore and Ohio Railway Offices, Baltimore, Md. *Geology, Mineralogy.* Granville, Ohio, Feb. 21, 68. A.B, Ohio State, 90, A.M, 91; Ph.D, Hopkins, 94. Asst. geol, Ohio State, 90–91; asst. geologist, Ohio Geol. Surv, 90–93; Kans. Geol. Surv, 95–03; prof. geol. and nat. hist, Washburn Col, 95–04; asst. state geologist, W. Va. Geol. Surv, 04–10; geologist and gen. manager, Nat. Limestone Co, 09–15; *geol. engineer, Baltimore and Ohio Ry, 16–* Geologist, State Board Agr, Kans, 96–; Kans. mineral exhibit, La. Purchase Expos, 04. U. S. Fuel Admin, 18–19. A.A; Geol. Soc; Kans. Acad. Gypsum; cement clays; coal, gas and oil; gypsum deposits of Michigan and Kansas; clay industry of Kansas and West Virginia: iron ores of West Virginia; history of American oil development; mineral resources of Baltimore and Ohio Railroad.

Grimsley, Dr. Loren B(enjamin), 7806 S. Bennett Ave, Chicago, Ill. *Chemistry.* Mo, July 24, 92. A.B, Missouri, 20; M.S, Chicago, 31, Ph.D, 33. *Chemist, Simoniz Co, 32–, v. pres. research and production.* A.A; Chem. Soc. Reactions of conjugated systems, especially phenylbutadiene, 2, 3-dimethylbutadiene and butadiene.

Grindley, Prof. H(arry) S(ands), University of Illinois, Urbana, Ill. *[2]*Chemistry.* Champaign, Ill, April 13, 64. B.S, Illinois, 88; Morgan fellow, Harvard, 93–94, Sc.D, 94. Instr. chem, Illinois, 88–92; asst, Harvard, 92–93; asst. prof, *Illinois,* 94–99, assoc. prof, 99–04, prof. and director chem. lab, 04–07, prof. *animal nutrition,* 07–29, *emer. prof,* 29– Soc. Animal Nutrition. Animal and human nutrition; influence of preservatives upon the health; the nutrition value of silage and of the amino acids of proteins of feeding stuffs.

Grindley, Dr. T(homas) W(illiam), 4 Middleton Drive, Ottawa, Ont, Can. *Agricultural economics.* Douglas, Isle of

Man, Eng, Sept. 6, 01. B.A, Alberta, 23, B.S. (Agr), 25; A.M, Minnesota, 27, Ph.D, 29. Head statist. clerk, *Dom. Bur. Statist, Ottawa,* 29–30, *chief agr. branch, 30–* Del, Int. Wheat Conf, London, 34; sec'y Royal Grain Inquiry Cmn, 36. Farm Econ. Asn; Can. Soc. Tech. Agr. (pres, east. Ont, 36–37); Can. Soc. Agr. Econ. (v. pres, 35, pres, 36); Int. Conf. Agr. Econ. Agricultural statistics and economics, with particular reference to grain-growing and marketing in western Canada; the world wheat situation.

Gring, Dr. John L(ukins), P. O. Box 382, Lenox, Mass. *Chemistry.* Farmer City, Ill, June 1, 10. B.S, Illinois, 32, M.S, 33, Ph.D, 36. Anal. chemist, *Gen. Elec. Co,* 36–37, chem. eng. and plant control, 37–41, *develop. chemist, 41–* Chem. Soc. Spectrographic analysis and apparatus.

Grinker, Dr. Roy R(ichard), Michael Reese Hospital, Chicago, Ill. *Neuropsychiatry.* Chicago, Ill, Aug. 2, 00. B.S, Chicago, 19, M.D, Rush, 21; Europe, 24–25, 33–35. Intern, Psychopathic Hosp, Chicago, Ill, 21; Wesley Mem. Hosp, 21–22; Cook County Hosp, 22–24; instr. neur, med. sch, Northwestern. 24–27; Chicago, 27–28, asst. clin. prof. med, 28–29, asst. prof. neur, 29–31, assoc. prof, 31–35, assoc. prof. psychiat. and head dept, 35–36; *chairman dept. neuropsychiat, Michael Reese Hosp, 36–; lieut. col, U. S. Army, and consultant, Royal Air Forces.* Attending neurologist, Cook County Hosp, 26–28, 40–; Rockefeller fellow, 33–34; research assoc, Chicago Inst. Psychoanal, 40–; consulting psychiatrist, Chicago Traveler's Aid Society. Summers, attending psychiatrist, Cook County Psychopathic Hosp, Chicago, Ill, 40–41. A.A; Psychiat. Asn; Asn. Neuropath. (v. pres, 40); Asn. Research Psychoanal. and Psychodynamics; Psychoanal. Asn; Asn. Research Nervous and Mental Disease; Neur. Asn; Am. Med. Asn; Cent. Neuropsychiat. Asn. (v. pres, 31); Ill. Psychiat. Soc; Ill. Soc. Mental Hygiene; Chicago Med. Soc; Inst. Med. Chicago; Chicago Neur. Soc. (pres, 41); Chicago Psychoanal. Soc; Chicago Soc. Personality Study; Int. Psychoanal. Asn. Psychosomatic medicine; schizophrenia.

Grinnell, Dr. Stuart W(ood), U. S. Naval Laboratory, San Diego, Calif. *Physical chemistry, Physiology.* Berkeley, Calif, Dec. 9, 09. B.S, California, 31; A.M, Stanford, 35, Shell fellow, 37–38, Ph.D, 38. Research assoc. chem, Stanford, 38–39; zool, Swarthmore Col; *mem. staff, U. S. Naval Lab.* Chem. Soc; Geophys. Union. Effect of external fields of force on the electromotive force of galvanic cells; electrochemistry and thermodynamics; physiology of diving mammals.

Grinnells, Dr. C(laude) D(elbert), North Carolina State College, Raleigh, N. C. *Animal industry.* Stewart, Minn, July 1, 92. B.S, Minnesota, M.S; D.V.M, Cornell. Animal husbandman, N. Dak. Col, 19; asst. and assoc. animal husbandry, S. Dak. State Col, 20–25; dairy investigator, *N. C. State Col,* 20–32, *assoc. prof. vet. science, 32–,* head dairy sect, animal indust. dept, 43. Vet. Med. Asn; Dairy Sci. Asn; N. C. Vet. Med. Asn. Dairy cattle pastures; roughage; Bang's disease; mastitis.

Grinter, Dean Linton E(llas), Illinois Institute of Technology, Chicago, Ill. *Structural engineering.* Kansas City, Mo, Aug. 28, 02. B.S, Kansas, 23, C.E, 30; M.S, Illinois, 24, Ph.D, 26. Designing engineer, Standard Oil Co. of Ind, 26–28; assoc. prof. civil eng, Agr. and Mech. Col. Texas, 28–29, prof. struct. eng, 29–37; dean grad. div. and director civil eng, Armour Inst. Tech, 37–39, *v. pres. and dean grad. sch, Ill. Inst. Tech, 40–* Consultant, tech. div, War Manpower Cmn, 43. Civil Eng; Eng. Educ. (councilor, 35–38; chairman civil eng. div, 36–; cmt. grad. study); Concrete Inst; West. Soc. Eng; Int. Asn. Bridge and Struct. Eng. Theory of structures; analysis and design of tall buildings; theory of continuous frames; analysis and design of reinforced concrete road slabs.

Griscom, Ludlow, Harvard University, Cambridge, Mass. *Ornithology.* New York, N. Y, June 17, 90. A.B, Columbia, 12; A.M, Cornell, 15. Asst. biol. and ornith, Cornell, 15–16; dept. ichthyol, Am. Museum Nat. Hist, 16–17, dept. ornith, 19–21, asst. curator, 21–27; *research curator zool, museum comp. zool, Harvard, 28–* Summers, lecturer, Virginia, 14, prof, 15. V. pres, trustee and hon. curator birds, New Eng. Museum Nat. Hist; trustee, Children's Museum. Contributing ed, 'Audubon Magazine'; ed, 'Memoir and Bul. Series,' museum comp. zool, Harvard; assoc. ed, 'Rhodora.' Am. Museum Nat. Hist. exped, Nicaragua, 17, leader exped, interior west Panama, 24; bot. explor, Gray Herbarium exped, Que, 23, Arctic Newfoundland, 25, east Yucatan, 26, east Panama, 27, Guatemala, 30. A.A; fel. Ornith. Union; Ecol. Soc; Audubon Soc. (director); New Eng. Bot. Club; Linnaean Soc. N. Y. (sec'y and ed, 12–14, v. pres, 22, councilor, 25, pres, 27); fel. N. Y. Acad; British Ornith. Union. Systematic ornithology; ichthyology and botany; birds of Central America; ecology of Nicaragua and Costa Rica.

Griswold, Dr. Don M(orse), New York State Department of Health, Albany, N. Y. *Public health.* Sherman, Mich, Aug. 18, 87. M.D, Michigan, 12; A.M, Detroit Col. Med, 15, Dr.P.H, 22. Director labs, Dept. Health, Detroit, 13–15, med. service, 17–20; director for Antigua, int. health board, Rockefeller Foundation, 15–17; prof. hygiene and pub. health, Iowa, 20–27; special lecturer epidemiol. and prev. med, Michigan, 27–32; *consulting epidemiologist, State Dept. Health, N. Y, 32–* Asst, State Cmt. Health, Mich; Iowa; mem, Nat. Cmt. Costs Med. Care. A.A; Pub. Health Asn; Am. Med. Asn. Epidemiology.

Griswold, Prof. Ernest, 220 Linden Ave, Vermillion, S. Dak. *Chemistry.* Milan, Kans, Aug. 13, 05. A.B, Kansas, 27, Ph.D, 34. Instr. *chem, South Dakota,* 31–33, *asst. prof,* 33–39, *assoc. prof, 39–* Chem. Soc. Solutions in acetic acid.

Griswold, Dr. Grace H(all), Cornell University, Ithaca, N. Y. *Economic entomology.* Taylors Falls, Minn, Dec. 14, 72. B.S, Cornell, 18, Ph.D, 25. Research instr. *econ. entom, Cornell,* 24–41, *research assoc, 41–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Insects attacking ornamental plants; household insects; taxonomy of aphids.

Griswold, Prof. John, University of Texas, Austin, Texas. *Chemical engineering.* Chicago, Ill, May 24, 06. B.S, Illinois, 28; Sc.D, Mass. Inst. Tech, 32. Chem. engineer, Maro-Vitazene Oil Co, Chicago, Ill, 33; Pure Oil Co, 33–36; asst. prof. *chem. eng, Texas,* 36–39, assoc. prof, 39–41, *prof, 41–* Research assoc, Bur. Indust. Chem, 37– Chem. Eng; Chem. Soc. (sec'y-treas, cent. Texas sect, 39). Rectification; liquid-vapor equilibria; pure hydrocarbons from petroleum.

Griswold, Dr. R(ettig) A(rnold), Supply and Service Division, Med. Br, H.Q. 4th Service Command, P. O. Bldg, Atlanta, Ga. *Surgery.* Peru, Ind, April 17, 98. A.B, Harvard, 21; M.D, Louisville, 25. Grad. training path, Louisville City Hosp. and Univ. Louisville, 25–27; surg, Western Reserve and Lakeside Hosp, 27–32; assoc. prof. *surg, Louisville,* 32–37, *prof. and head dept, 38–; lieut. col, Med. Corps, U. S. Army.* Director surg. service, Louisville City Hosp; consulting surgeon, John W. Norton Mem. Infirmary, Kosair Crippled Children's Hosp; mem. surg. staff, Ky. Baptist Hosp; Jewish Hosp. Lieut, U. S. Navy, 17–21. Surg. Asn; Col. Surg; Asn. Surg. Trauma; Am. Med. Asn; Asn. Mil. Surg; South. Med. Asn; Cent. Surg. Asn; South. Surg. Asn; Southeast. Surg. Cong; Soc. Int. de Chirurg. Fractures; traumatic surgery; surgery of the heart.

Grizzard, Dr. A(lton) L(ee), Virginia Polytechnic Institute, Blacksburg, Va. *Agronomy.* Drewryville, Va, July 10, 04. B.S, Va. Polytech, 28, M.S, 29; Ph.D, Mich. State Col, 34. Asst. soils, Mich. State Col, 30–34; asst. agronomist in charge Tenn. Valley Authority fertilizer and soil research, Exp. Sta, Va. Polytech, 34–36; asst. agronomist, Nat. Fertilizer Asn, 36–38; *assoc. agronomist in charge pasture investigations and soil chem, Exp. Sta, Va. Polytech, 38–* A.A; Soc. Agron; Va. Acad. Soil chemistry; crop responses as influenced by fertilizer treatments and soil types; effect of boron on seed production of alfalfa time and rate of nutrient absorption by tobacco and peanuts.

Groat, B(enjamin) F(eland), Emlen Arms, 6733 Emlen St, Philadelphia, Pa. *Mathematics, Physics, Engineering.* Hannibal, Mo, Oct. 18, 67. B.S, Minnesota, 01, LL.B, 08, LL.M, 09. Instr. physics, Minnesota, 94–95, math. and mech, sch. mines, 98–01, asst. prof. in charge dept, 01–05, prof. mech. and math, 05–10; *patent attorney, 08–; consulting engineer, 10–* Norman medal, Soc. Civil Eng; silver medal, Eng. Soc. West. Pa. Math. Soc; Civil Eng. Mechanics; hydraulics; law; ice diversion works; rod float tables and theory; generalized quadrature; viscosity theory; treatment of gas flow with frictional heat and heat conduction.

Groat, Dr. William A(very), 713 E. Genesee St, Syracuse, N. Y. *Medicine.* Canastota, N. Y, Nov. 9, 76. B.S, Syracuse, 97, M.D, 00. *Prof. clin. path, col. med, Syracuse, 11–* Trustee, Syracuse, 20– A.A; Am. Med. Asn; Asn. Immunol; Asn. Study Goiter; Asn. Study Int. Secretions; fel. Col. Physicians; fel. Soc. Clin. Path; Med. Soc. N. Y. (chairman, cmt. sci. work, 32–36; pres, 38, 39; chairman board trustee, 41). Diseases of the blood and of metabolism.

Grobstein, Dr. Clifford, Oregon State College, Corvallis, Oregon. *Experimental zoology.* New York, N. Y, July 20, 16. B.S, Col. City of N. Y, 36; A.M, California at Los Angeles, 38,

Ph.D, 40. *Instr. zool, Oregon State Col, 40–* Soc. Zool; West. Soc. Nat. Role of hormones in morphogenesis, specifically the effect of male sex hormones on differentiation of the gonopod in poeciliid fishes.

Grodinsky, Dr. Manuel, 902 Medical Arts Bldg, Omaha, Nebr. *Anatomy, Surgery.* Omaha, Nebr, Aug. 5, 96. B.S, Omaha, 18; M.D, Nebraska, 20. Clin. asst. surg. and urol, *col. med, Nebraska,* 24–30, instr. *surg,* 30–34, asst. prof, 34–39, *assoc. prof, 39–,* asst. instr. *anat,* 25–27, instr, 27–28, asst. prof, 28–39, *assoc. prof, 39–* Asn. Anat; fel. Col. Surg; Am. Med. Asn. Anatomy and surgery related to sacral and spinal anesthesia; anatomical and surgical conditions in the foot, leg, neck, hand and arm; viscosity and sedimentation time of the blood; vermiform appendix.

Groening, Prof. A. A, 1706 S.E. Knapp St, Portland 2, Oregon. *Chemistry.* Kans, 94. A.B, Tabor Col, 15; A.M, Oregon, 20; Ph.D, Kansas, 25. Prof. chem. and physics, Albany Col. (Oregon), 30–36, dean, 31–35; *prof.* science, Linfield Col, 36–42; *physics, Lewis and Clark Col, 42–; lecturer, pre-meteorol. training course, Reed Col, 43–* Physical and inorganic chemistry; physics.

Groff, Prof. G(eorge) Weldman, Care of Col. Wm. R. Grove, Laurel, Fla. *Horticulture, Botany.* Annville, Pa, March 29, 84. B.S, Pa. State Col, 07, M.S, 18. Instr, Canton Christian Col, 07–11, director agr. work, 12–17, prof. hort, 18–21; dean col. agr, *Lingnan Univ,* 21–26, 29–34, *adviser and prof. hort, 34–* Collaborator, U. S. Dept. Agr, 17–34. Leader, Nat. Geog. Soc-Lingnan Univ. exped, north. Kwangsi, China, 37. A.A; Royal Asiatic Soc. (China branch); China Soc. Sci. and Arts; fel. Peking Nat. Hist. Soc. Chinese agriculture; plants of South China; citrus fruits; the lychee and lungan.

Grogan, Dr. Robert M(ann), Illinois State Geological Survey, Urbana, Ill. *Geology.* Mendota, Ill, July 17, 12. B.S, Chicago, 35; A.M, Minnesota, 36, Ph.D, 40. Asst. geologist and later *assoc. geologist, indust. minerals div, Ill. State Geol. Surv, 37–* Min. and Metal. Eng. Discovery, investigation of properties and uses of industrial minerals.

Groggins, Philip H(erkimer), 1709 Surrey Lane, Washington, D. C. *Chemistry.* Brooklyn, N. Y, Dec. 25, 88. B.S, Col. City of N. Y, 12. Chem. engineer, E. I. du Pont de Nemours and Co, 12–20; Veribest Chemicals, Inc, 21; Tower Mfg. Co, 21–25; Monsanto Chem. Works, 25–26; senior chemist and indust. analyst, bur. agr. chem. and eng, *U. S. Dept. Agr,* 26–41, *chief chem. div,* office agr. defense relations, 41–43, *War Food Admin, 43–* A.A; Chem. Soc; Chem. Eng. Aniline and its derivatives; unit processes in organic synthesis; application of organic synthesis to agricultural raw materials.

Groh, Herbert, Central Experimental Farm, Ottawa, Ont, Can. *Botany.* Preston, Ont, March 7, 83. B.S.A, Ont. Agr. Col, 08. Plant breeder, Hort. Exp. Sta, Vineland, Ont, 08; asst. botanist, *cent. exp. farm, Can. Dept. Agr,* 08–11, plant disease investigator, 20–22, botanist, 22–39, *assoc. botanist, 39–* Lecturer, Goshen Col, 18. A.A. Weed surveys and investigations.

Grollman, Dr. Arthur, Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C. *Medicine.* Baltimore, Md, Oct. 21, 01. A.B, Hopkins, 20, Ph.D, 23, M.D, 30. Instr. chem, Hopkins, 23–24, physiol, 24–26, assoc, 26–30, assoc. prof, 31–32, pharmacol. and exp. therapeut, 32–41; *research prof. med, Bowman Gray sch. med, Wake Forest Col, 41–* Guggenheim Mem. Foundation fellow, 30–31. Soc. Pharmacol; Chem. Soc; Physiol. Soc. Experimental therapeutics; osmotic and vapor pressure; ultrafiltration; cardiac output; hormones; cardiovascular disease.

Grondahl, Dr. L(ars) O(lai), 6937 Penn Ave, Pittsburgh, Pa. *°*Physics.* Hendrum, Minn, Nov. 27, 80. B.S, St. Olaf Col, 04, M.S, 05, hon. Sc.D, 40; Ph.D, Hopkins, 08. Instr. physics, St. Olaf Col, 04–05; lecture asst, Hopkins, 06–08; prof. physics and math, Spokane, 08–09; instr. physics, Washington (Seattle), 09–12; Carnegie Inst. Tech, 12–14, asst. prof, 14–17, assoc. prof, 17–20; *director* research, *Union Switch and Signal Co, 20–, research and eng, 37–; sect. mem, Nat. Defense Research Cmt, 40–,* sect. chief, 42. Nat. Research Council, 33–36. Howard N. Potts medal, Franklin Inst, 39; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Research, Naval Consulting Board, 17–19. A.A; fel. Physical Soc. (councilor, 33–36); Electrochem. Soc; Elec. Eng; Franklin Inst. Alternating current and direct current transformation; effects of magnetic field on thermal electromotive forces; thermoelectricity of Heussler alloys; box photometer; physical properties of magnetic substances; submarine detection; automatic control of trains; electrical properties of oxides; copper-copper oxide rectifier and photocell; train communication.

Grondal, Prof. Bror L(eonard), University of Washington, Seattle, Wash. *Forestry.* Round Rock, Texas, May 15, 89. A.B, Bethany Col, 10, Sc.D, 43; M.S.F, Washington (Seattle), 13. From instr. to assoc. prof. forest products, *Washington (Seattle),* 13–29, *prof. forestry, 29–,* Walker-Ames prof, 36–37, *sec'y forest products, eng. exp. sta.* A.A; Soc. Foresters. Svenska Skogsvärdsföreningen. Wood technology and utilization.

Groner, Miriam G(eorgia), W. Atlee Burpee Co, Fordhook Farms, Doylestown, Pa. *Plant physiology.* Ottawa, Kans, Aug. 24, 10. B.S, M.S, Bucknell, 31; Newcombe fellow, Michigan, 31–34, Ph.D, 34. Instr. bot, Bucknell, 34–35; prof. science, Louisburg Col, 35–37; Bucknell, 37–40; biol, Atlantic Christian Col, 40–41; private research, 41–42; *plant breeder, W. Atlee Burpee Co, 42–* Bot. Soc; Soc. Plant Physiol. Amino nitrogen and reducing sugar metabolism in genetic types of corn; effects of colchicine on cultivated plants.

Grosch, Dr. Herbert R(euben) J(ohn), U. S. Naval Observatory, Washington, D. C. *Astronomy.* Saskatoon, Sask, Can, Sept. 13, 18. B.S, Michigan, 38, fellow, 38–41, Ph.D, 42. Junior astronomer, U. S. Naval Observatory, 41–42; *asst. physicist, bur. ordnance, U. S. Naval Dept, 42–* Astron. Soc; Optical Soc. Orbits of comets, asteroids and outer satellites of Jupiter; photographic and visual astrometry; optical design.

Grosheintz, Dr. J(ohn) M(anfred), 100 College St, Toronto, Ont, Can. *Organic chemistry.* Basle, Switzerland, Nov. 21, 10. Ch.E, Fed. Tech. Univ, Zurich, 34, D.Sc, 37. *Research assoc, Banting Inst, Toronto, 37–* Chem. Soc; Swiss Chem. Soc. Carbohydrates; quinoline derivatives; oxidative cleavage.

Gross, Prof. Alfred O(tto), 11 Boody St, Brunswick, Maine. Minn. *Education, Psychology.* Joliet, Ill, Jan. 24, 81. Ph.B, Harvard, 12. Instr, *Bowdoin Col,* 12–13, asst. prof. *biol,* 13–22, *prof, 22–, director, Kent Island Sci. Sta.* Field ornithologist, Ill. Nat. Hist. Surv, 06–07; Roosevelt field ornithologist, N. Y, 24–25; prof, Mich. Biol. Sta, 28. In charge, Heath Hen Investigation, 23–30; Prairie Chicken Investigation, Wis. Conservation Cmn, 28–29; director, New Eng. Ruffed Grouse Investigation, 25–35; collaborator, fish and wildlife service, U. S. Dept. Interior, 42– Biologist, Bowdoin-MacMillan Arctic exped, 34, ornithologist, 37. Trustee, Am. Wildlife Inst. Soc. Zool; fel. Ornith. Union; Ecol. Soc. (pub. contact cmt); Game Protect. Asn; fel. Wilson Ornith. Soc; fel. Cooper Ornith. Soc; New Eng. Bird Banding Asn. (pres); Federation Bird Clubs New Eng. (councilor), Audubon Soc. Maine (pres, 42–). Economics and statistics of Illinois birds; reaction of arthropods to monochromatic lights; diseases of grouse; bird life in the tropics of Costa Rica, Panama, Ecuador and South America; ornithology of the Labrador coast; life history of American birds.

Gross, Prof. Alfred W(illia)m, 1631 E. Third St, Duluth, Minn. *Education, Psychology.* Joliet, Ill, Jan. 24, 81. Ph.B, North-Western Col, 09; Illinois, summers, 10–17, A.M, 17, 17–19. Teacher and prin, sch, Ill, 02–12, sch. supt, 12–16; acting asst. prof. educ, Miami, 20–21; *prof. educ. and psychol, Minn. State Teachers Col, Duluth, 21–* Summer, prof, Omaha, 21. A.A; Soc. Study Educ; Midwest. Psychol. Asn. Teachers' tests of eyesight of children; sex pedagogy; curriculum construction and organization; vicarious functioning; psychophysics; school adminstration; sound localization; plant physiology; parasite micrology; learning in the white rat.

Gross, Dr. C(harles) E(zra), 450 N. Court St, Ottumwa, Iowa. *Chemistry, Bacteriology.* Bellevue, Ohio, Dec. 28, 05. A.B, Ohio State, 27; M.S, Northwestern, 29, Ph.D, 31. Asst, Ohio State, 26–27; lecturer indust. chem, Northwestern, 27–30; *director research, John Morrell and Co, 30–* Summer, anal. chemist, Dow Chem. Co, 27; asst, Northwestern, 30. Chem. Soc; Oil Chemists Soc; fel. Inst. Chem; Inst. Food. Technol. Organic and carbohydrate chemistry; methylated sugars.

Gross, Prof. E(dward) R(obert), Rutgers University, New Brunswick, N. J. *Agricultural engineering.* Nebraska City, Nebr, Aug. 26, 83. B.S, Nebraska, 13; B.Ed, Nebr. State Nor. Sch, 13. Teacher, prin. and sch. supt, Nebr, 02–03, 08–14; grain farmer, Nebr, 03–06; from instr. to assoc. prof. farm mech, Colo. Agr. Col, 14–18; exten. specialist *agr. eng,* Miss. Agr. and Mech. Col, 18–19, *prof,* 19–22; *Rutgers, 22–* Chairman tractor cmt, Advisory Council of Defense, Colo, 17. Agr. Eng. (chairman, south. sect, 19, cmt. fertilizer application,

25–35). Farm buildings; ventilation; sprinkling irrigation; land drainage; terracing.

Gross, Dr. Eric T(aras) B(enjamin), 107 Cayuga Heights Road, Ithaca, N. Y. *Electrical engineering.* Vienna, Austria, May 24, 01. E.E, Univ. and Inst. Tech, Vienna, 23, D.Sc, 32. Junior lecturer elec. eng, Inst. Tech, Vienna, 21–24; elec. engineer, Union Elec. and Mfg. Co, Vienna, Austria, 24–38, in charge relay div, 29–34, cent. sta. dept, 35–38; consulting engineer, Elec. Co, Ltd, London, England, 38–39; res. doctor, grad. sch, Cornell, 39–40, research assoc, col. eng, 40–41; instr. *elec. eng,* Col. City of N. Y, 41–42; *asst. prof, Cornell, 42–* Special reporter, Int. Conf. Large High Voltage Power Systems, Paris, 37. A.A; Elec. Eng; Eng. Educ; Swiss Inst. Elec. Eng. Circuit analysis; protective devices in power systems; resonant neutral grounding; telemetering and supervisory control.

Gross, Dr. E(rwin) G(eorge), 622 Brooklyn Park Drive, Iowa City, Iowa. *Pharmacology.* Merrimac, Wis, May 12, 92. B.S, Wisconsin, 17, M.S, 19, Ph.D, 21; M.D, Iowa, 30. Asst. agr. chem, Wisconsin, 17–19, instr, 19–20; pharmacol. and toxicol, sch. med, Yale, 21–24, asst. prof, 24–29; assoc. prof. *pharmacol, Iowa,* 29–37, *prof, 37–* Soc. Pharmacol; Soc. Biol. Chem; Physiol. Soc; Soc. Exp. Biol. Metabolism and excretion of morphine and related alkaloids.

Gross, Dr. George L(loyd), Box 13 F.E, College Station, Texas. *Applied mathematics.* Algona, Iowa, June 24, 11. B.S, Iowa State Col, 32, M.S, 37, Ph.D, 39. Asst. *math,* Iowa State Col, 36–38, *instr,* 38–39; *Agr. and Mech. Col. Texas, 39–* Summer, teacher, Buena Vista Col, 37. A.A; Math. Soc. Use of functionals in obtaining approximate solutions of linear operational equations.

Gross, Henry Emmett, Suite 1336, 120 S. LaSalle St, Chicago, Ill. *Petroleum engineering.* Glendale, Mo, Aug. 8, 06. B.S, Mo. Sch. Mines, 28, E.M, 34; M.S, Illinois, 33. Engineer, Pacific West. Oil Co, 29–31; research grad. asst. min. eng, Illinois, 31–33; petrol. eng, Shell Petrol. Corp, 33–36; asst. prof. petrol. eng, Oklahoma, 36–38; assoc. prof, Agr. and Mech. Col. Texas, 38–42; *assoc. petrol. production analyst, Office Petrol. Coordinator, 42–* Summer, in charge nat. defense course, Kilgore Col, 41. Min. and Metal. Eng; Asn. Petrol. Geol. Froth flotation of fluorspar; oil well rotary drilling muds; marine oil well drilling.

Gross, Prof. Paul (Magnus), Duke University, Durham, N. C. *Chemistry.* New York, N. Y, Sept. 15, 95. B.S, Col. City of N. Y, 16; A.M, Columbia, 17, Ph.D, 19. Instr, Col. City of N. Y, 16–17; asst. prof. *chem,* Trinity Col. (N. C), 19–20, *prof. and head dept,* 20–24; *Duke, 24–, director tobacco research, 21–* Mem, Nat. Research Council. A.A; Chem. Soc. (pres, N. C. sect, 21); fel. Physical Soc. Theory of solutions; tobacco culture and diseases; dielectric properties of gases and liquids; solubilities.

Gross, Dr. Peter F(redrick), 20 Green St, Woodstown, N. J. *Organic chemistry.* Chicago, Ill, May 21, 09. A.B, Southern California, 30; M.S, Lawrence Col, 32; Ph.D, Cornell, 36. *Research chemist, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Dyes and pigments.

Grosse, Dr. Aristid V, Columbia University, New York, N. Y. *Chemistry.* Riga, Russia, Jan. 4, 05. Dipl. Ing, Tech. Hochschule, Berlin, 26, D.Ing, 26. Research assoc, Kaiser Wilhelm Inst, Berlin, 26–28, 29; Med. Anal. Lab, Shanghai, China, 29; Tech. Hochschule, Berlin, 30–32; asst. prof. chem, Chicago, 32–39; assoc. director research, Universal Oil Products Co, 32–39; Guggenheim Mem. Foundation research fellow, *Columbia,* 40–41, *assoc. to H. C. Urey, War Research Labs, 41–* Chief consultant synthetic rubber, War Production Board, 42– Mem, Am. Rubber Mission to Soviet Union, 41–42. A.A; Chem. Soc; N. Y. Acad; Deuts. Chem. Gesell. Radioactivity and nuclear chemistry; catalytic chemistry of hydrocarbons.

Grossenbacher, Dr. Karl A(lbert), Harvard Forest, Petersham, Mass. *Plant physiology.* Geneva, N. Y, Aug. 24, 10. Ph.B, Wisconsin, 33; Hopkins, 34–36; Ph.D, California, 39. Asst, Hopkins, 34–36; teaching asst, California, 36–38, asst. in charge plant nutrition exhibit, Golden Gate Int. Expos, 38–39; asst, Cabot Foundation, *Harvard,* 39–43, *instr. tree physiol, Harvard Forest, 43–* Soc. Plant Physiol. Water relations; mineral nutrition; vegetative propagation.

Grossman, Capt. Edward B(ertram), Care of Dr. Louis J. Soffer, 1155 Park Ave, New York, N. Y. *Medicine, Biochemistry.* New York, N. Y, April 3, 11. A.B, Harvard, 31; M.D, Hopkins, 35. Res. house officer, Hopkins Hosp, 35–36; asst. res. physician, diagnostic hosp, Boston Dispensary, 36–37; res. physician, univ. hosp, Vanderbilt, 37–38; *clin. asst. physician and research asst. chemist, Mt. Sinai Hosp, 38–; capt, Med. Corps, U. S. Army, 42–* A.A; Federation Clin. Research; Am. Med. Asn; Col. Physicians; N. Y. Soc. Hist. Med. Clinical medicine; physiology.

Grossman, Dr. Ja(me)s D(aniels), 1700 Guilford Road, Columbus, Ohio. *Veterinary anatomy.* Jackson Center, Pa, June 16, 84. Ph.G, Starling-Ohio Med. Col, 11; D.V.M, Ohio State, 14. Instr. anat. and histol, div. vet. med, Iowa State Col, 14–15, asst. prof, 15–17, assoc. prof. and acting head dept. anat, 17–19; *prof. vet. anat, col. vet. med, Ohio State, 19–, head dept. anat, 24–* 12th Int. Vet. Cong. Vet. Med. Asn. Anatomy of domestic animals.

Grossmann, Dr. Marcus A(urelius), Carnegie-Illinois Steel Corp, 208 S. La Salle St, Chicago, Ill. *Metallurgy.* Youngstown, Ohio, Sept. 15, 90. B.S, Mass. Inst. Tech, 11; Sc.D, Harvard, 30. Mass. Inst. Tech, 11–12; Pittsburgh Testing Lab, 12–15; Vanadium Corp. of Amer, 15–17, 19–20; Bur. Standards, 17–19; Elec. Alloy Steel Co, 20-22; Atlas Steel Corp, 22–24; United Alloy Steel Corp, Cent. Alloy Steel Corp. and Republic Steel Corp, 24–31; research engineer, *Carnegie-Ill. Steel Co,* 31–35, *director research, 35–* Campbell lecturer, 30. Howe gold medal, 41; Hunt gold medal, 43. Min. and Metal. Eng; Soc. Test. Mat; Am. Iron and Steel Inst; Soc. Metals; Iron and Steel Inst. Gt. Britain. Alloy and special steels.

Grossmann, S(amuel) W(eisiger), 1124 Overbrook Road, Petersburg, Va. *Chemical engineering.* Petersburg, Va, May 18, 11. B.S, Va. Polytech, 32; M.S, Mass. Inst. Tech, 33. Research chemist, Atmospheric Nitrogen Corp, 33, asst. chem. engineer, 33–42; *Solvay Process Co,* 33–42, *chem. engineer, 42–* Development in the nitric acid, sodium nitrate, ammonium nitrate and other industries; heat transfer; fluid flow; absorption.

Grosvenor, Dr. Gilbert H(ovey), 16th and M Sts, N. W, Washington, D. C. *Geography.* Constantinople, Turkey, Oct. 28, 75. A.B, Amherst Col, 97, A.M, 01, Litt.D, 26; LL.D, Georgetown, 21, Col. of William and Mary, 30, Lafayette Col, 38; Sc.D, S. Dak. Sch. Mines, 35; Litt.D, Maryland, 38. Instr, Englewood Acad, N. J, 97–99; asst. ed, *'Nat. Geog. Magazine,'* 99–00, managing and assoc. ed, 00–03, *ed, 03–* Trustee, George Washington; Clarke Sch, Mass. Mem. board managers, Walter Reed Mem. Asn. Helen Culver medal, Geog. Soc. Chicago; Bryant medal, Geog. Soc. Phila. A.A; Nat. Geog. Soc. (director, 99–20, pres, 20–); hon. and cor. mem. Geog. Soc. Rio de Janeiro, Australasia, Michoacan, Lima and Phila; Soc. de Geog. et Hist, Honduras. Commercial, political, physical and historical geography; educational editing and publishing.

Grosvenor, Dr. W(illiam) M(ason), 50 E. 41st St, New York, N. Y. *Chemical engineering.* St. Louis, Mo, Oct. 5, 73. B.S, Polytech. Inst. Brooklyn, 93; Hopkins, 94–95; Ph.D, Pennsylvania, 98. Chemist, Matheson Alkali Works, 96; designing engineer and asst. treas, Ampere Electrochem. Co, 99; asst. supt, Gen. Chem. Co, 00–02, asst. manager investigation dept, 03–04; supt, Contact Process Co, 05–06; treas, Geo. F. Westcott Co, 06–07; *consulting chem. engineer, 07–; pres, W. M. Grosvenor Labs, Inc.* Mem. textile cmn, Council Nat. Defense. A.A; Chem. Eng; Chem. Soc; Soc. Chem. Indust. (chairman, 15, N. Y. sect, 25); Electrochem. Soc; Inst. Chem; Chemists' Club. Solvents for perchloric acid; sulfuric acid; nitric acid; production of nitro bodies; magnesium; rapid drying varnish; recovery of solvent from artificial leather; prevention of clouds in clear celluloid sheet; cigarette paper; calculations for dryer design; moving pictures and projection for analysis of motion in industry.

Grosz, Dr. Oliver, 226 Henley Road, Penn Wynne, Philadelphia, Pa. *Chemistry.* Ashley, N. Dak, March 12, 06. A.B, Iowa, 28, M.S, 29, Ph.D, 31. Asst, Iowa, 28–31; instr. chem, Catholic Univ, 31–39; research chemist, *Collins and Aikman Corp, Phila,* 39–40, asst. chief chemist, 40–42, *chief chemist, 42–* Asn. Textile Chem. and Colorists; Chem. Soc. Organic, analytical and textile chemistry; sulfonyl derivatives of aminophenols; cresidine derivatives; analytical processes; textile finishing; wool scouring; synthetic detergents; mothproofing; dyestuffs; dyeing processes.

Grote, Prof. I(rvine) W(alter), University of Chattanooga, Chattanooga, Tenn. *Chemistry.* Chattanooga, Tenn, July 25, 99. B.S, Chattanooga, 22; A.M, Columbia, 23; Ph.D, Cin-

cinnati, 25. Research biochemist, Wm. S. Merrell Co, Cincinnati, 25–26; head dept. chem, Winthrop Col, 26–27; research chemist, Parke, Davis and Co, 27–31; assoc. prof. *chem, Chattanooga,* 31–41; *prof, 41–* A.A; Chem. Soc; Pharmaceut. Asn. Pituitary hormones; pharmaceuticals.

Grothaus, Dr. Clarence (Edward), Box 403, Bethany, Okla. *Organic chemistry.* Smith Center, Kans, Feb. 19, 08. A.B, Greenville Col, 30; A.M, Kansas, 33, Ph.D, 35. Asst. instr. chem, Kansas, 30–35; prof. and head dept, Bethany-Peniel Col, 35–36; head dept. chem. and director student industries, Greenville Col, 36–39; *prof. chem. and head dept, Bethany-Peniel Col, 39–* Thiazolidone derivatives of 5-nitro-2-amino-toluene; reactions of methylene hydrogen derivatives containing cyanide, thiocyanate or sulfinate radicals.

Grotlisch, Victor E(dward), 9016 Woodland Road, Silver Spring, Md. *Chemistry.* Cincinnati, Ohio, July 7, 89. Chem.E, Cincinnati, 12. Teacher, Rochester Mech. Inst, N. Y, 12–14; chemist, plant control lab, Eastman Kodak Co, 14; chemist and naval stores classifier, bur. chem. and soils, food and drug admin, and later *senior chem. technologist in charge naval stores sect, cotton and fiber branch, food distribution admin, U. S. Dept. Agr, 14–* Soc. Test. Mat. Chemical technology; analysis and technology of naval stores, including turpentine and rosin; administration and enforcement of the United States naval stores act; development of standards for and inspection of naval stores.

Groupe, Dr. Vincent, E. R. Squibb and Sons, New Brunswick, N. J. *Medical bacteriology.* Philadelphia, Pa, Sept. 13, 17. A.B, Wesleyan, 39; Ph.D, Pennsylvania, 42. Asst, influenza lab, Children's Hosp, Pa, 39–42; *asst. bacteriologist, virus div, E. R. Squibb and Sons, 42–* Soc. Bact. Epidemic influenza and related problems; typhus fever.

Grout, Dr. A(bel) J(oel), Newfane, Vt. and Manatee, Fla. *Botany.* Newfane, Vt, March 24, 67. Ph.B, Vermont, 90; Ph.D, Columbia, 97. Instr. science, Vt. State Nor. Sch, Johnson, 93–95; Plymouth, N. H, 97–99; Boys' High Sch, Brooklyn, N. Y, 99–08; Curtis High School, 08–30; *research staff, biol. lab, Cold Spring Harbor, 30–* Curator bot. dept, museum, Brooklyn Inst, 99–03; hon. curator mosses, N. Y. Bot. Garden, 41– Ed, 'Bryologist.' A.A; Bot. Soc; Fla. Bot. Garden Asn. (pres, 35–37). Taxonomy of mosses; moss flora of North America; ecology of mosses; photography of mosses.

Grout, Dr. Frank F(itch), 911 Seventh St, S. E, Minneapolis, Minn. *†*Geology.* Rockford, Ill, Jan. 24, 80. B.S, Minnesota, 04, M.S, 08; Ph.D, Yale, 17. Asst. chemist, W. Va. Geol. Surv, 04–06; asst. chemist and geologist, Ill. Geol. Surv, 06; instr. miner, Oklahoma, 06–07; *Minnesota,* 07–14, *prof. geol. and miner, 14–* Asst. geologist, U. S. Geol. Surv, 14–18, geologist, 18–25. Summers, field geologist, Wis. Geol. Surv, Colo. Geol. Surv. and Minn. Geol. and Nat. Hist. Surv. Mem, State Defense Council, Minn, 41– Geol. Soc. rep, div. geol, Nat. Research Council, 26–29. Special expert, U. S. Shipping Board, 18–19. A.A; Geol. Soc. (councilor, 33–36); Soc. Econ. Geol. (councilor, 35–); Min. and Metal. Eng; Chem. Soc; Miner. Soc. Petrology; petrography; plasticity of clay; composition and classification of coal; the minerals of copper-bearing rocks of Minnesota; clays, iron ores and building stone of Minnesota; Duluth gabbro; Vermilion granite; Sagavaga granite and structure; Canadian shield; petrology of batholiths; mineral resources of Minnesota; emergency reserves of manganese; formation of igneous-looking rocks by metasomatism.

Grove, Dr. Alvin R(ussell), Jr, Pennsylvania State College Forestry School, Mt. Alto, Pa. *Plant physiological anatomy.* Harrisburg, Pa, May 21, 14. B.S, Lebanon Valley Col, 36; M.S, New Mexico, 37; Wynchwood fellow, Chicago, Ph.D, 40. Lab. asst. biol, Lebanon Valley Col; asst, New Mexico, *instr.* biol, 38–41; *bot, forestry sch, Pa. State Col, 41–* A.A. (sec'y bot. sect, southwest. div, 40). Plant morphology.

Grove, Dr. Brandon H(ambright), Socony-Vacuum Oil Co, Room 1700, 26 Broadway, New York, N. Y. *Geology.* New York, N. Y, Sept. 9, 03. B.S, Chicago, 30, Ph.D, 34. *Petrol. geologist, Socony-Vacuum Oil Co, Inc, 35–* Asst, Ill. Geol. Surv, 29. Paleont. Soc; Asn. Petrol. Geol; Deuts. Geol. Gesell. Invertebrate paleontology; petroleum geology.

Grove, Prof. Charles C(layton), 143 Milburn Ave, Baldwin, L. I, N. Y. *Mathematics.* Hanover, Pa, Dec. 19, 75. A.B, Pa. Col, 00, A.M, 03; Ph.D, Hopkins, 06. Instr. math, Pa. State Col, 05; Baltimore Polytech, 05–06; asst. prof, Hamilton Col, 06–07; prof. math. and astron, Roanoke Col, 07–09; instr. *math,* Columbia, 09–10, asst. prof, 10–19; instr, Polytech. Inst. Brooklyn, 24–28; *evening session, Col. City of N. Y, 24–, day session, 28–, asst. prof, 35–* Board Educ, United Lutheran Synod, New York. A.A; Math. Soc; Math. Asn; Econometric Soc; Statist. Asn; Inst. Math. Statist; fel. Geog. Soc. N. Y; Circolo Mat. di Palermo. The syzygetic pencil and its Hesse group; the complete Pappus hexagon; business mathematics; mathematics of statistics; statistical cost analysis; life tables; mathematical research in public health and eugenics.

Grove, Dr. Clinton (Sheely), Douglas Road, R.F.D, Far Hills, N. J. *Physical chemistry.* Greencastle, Pa, March 12, 04. B.S, Pa. State Col, 25; Ph.D, Yale, 28. Am-Scandinavian Foundation fellow, Denmark, 28–29; research chemist, N. J. Zinc Co, 29–31; tech. adviser, United Color and Pigment Co, 31–43; *tech. director, Staso Milling Co, 43–* Chem. Soc; Soc. Test. Mat. Theories of solutions; solubility; rates of reaction.

Grove, Dr. Donald C(ooper), 7214 Glenside Drive, Takoma Park, Md. *Pharmaceutical chemistry.* Baltimore, Md, June 4, 09. Ph.G, Maryland, 29, B.S, 30, M.S, 33, Ph.D, 37. Lab. asst. chem, Maryland, 29–32; junior chemist *drug anal, food and drug admin,* U. S. Dept. Agr, 32–35, asst. chemist, 35–39, assoc. chemist, 39–42; *chemist, Fed. Security Agency, 42–* Phytochemistry of medicinal plants; quantitative pharmaceutical chemistry; separation of ergot alkaloids.

Grove, Prof. Vernon G(uy), 438 Rosewood Ave, East Lansing, Mich. *Mathematics.* Mentone, Ind, Dec. 15, 90. A.B, Olivet Col, 16; A.M, Kentucky, 18; Ph.D, Chicago, 25. Teaching fellow, Kentucky, 16–18; instr. *math,* Cornell, 19–20; asst. prof, *Mich. State Col,* 20–25, assoc. prof, 25–36, *prof, 36–* A.A; Math. Soc; Math. Asn. Projective differential geometry.

Grove, Dr. William R(ichard), 49 Pocono Drive, Greentree, Wabash Station, Pittsburgh, Pa. *Clinical psychology.* Bradford, Pa, June 21, 05. A.B, Muskingum Col, 28; A.M, Pittsburgh, 31, Ph.D, 37. Teacher, high sch, Ohio, 28–29; jr. high sch, Pa, 29–30; asst. psychologist, West. Penitentiary, 30–37; psychologist, behavior clinic, Criminal Court, Pittsburgh, Pa, 37–41; *asst. prof. psychol, Pittsburgh, 41–* Lecturer, Pittsburgh, 37–41. Mem. advisory cmt, State Cmt. Penal Affairs, Pa, 38– Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Pa. Asn. Clin. Psychol. (sec'y, 40–42). Psychometric techniques; psycho-clinical procedures.

Grover, Prof. F(rederick) O(rville), 180 Morgan St, Oberlin, Ohio. *Botany.* Bangor, Maine, July 31, 68. A.B, Dartmouth Col, 90, A.M, 93; A.B, Harvard, 95, Morgan fellow, 95–96, A.M, 96. Instr, St. James Mil. Acad, Mo, 90–92; West. Mil. Acad, Ill, 92–94; asst. *bot,* Harvard, 95–96; Radcliffe Col, 95–97; assoc. prof, *Oberlin Col,* 98–00, prof, 00–33, *emer. prof, 33–* Admin. board, Ohio Biol. Surv, 13– Trustee, Oberlin Kindergarten Training Sch, 11–33. Genetic Asn; New Eng. Bot. Club; fel. Ohio Acad. (v. pres, 12, 14, 41, pres, 16); Soc. linn. de Lyon. Developmental morphology of the Gramineae; flora of Ohio.

Grover, Prof. Frederick W(arren), Union University, Schenectady, N. Y. *Electrical engineering.* Lynn, Mass, Sept. 3, 76. B.S, Mass. Inst. Tech, 99; M.S, Wesleyan, 01; Ph.D, George Washington, 07; Munich, 08. Asst. physics, Wesleyan, 99–01; instr. elec. eng, Lafayette Col, 01–02; lab. asst, Bur. Standards, 02–04, asst. physicist, 04–07, 08–11, assoc. physicist, 11; prof. physics, Colby Col, 11–20; asst. prof. *elec. eng, Union (N. Y),* 20–22, assoc. prof, 22–32, *prof, 32–,* head dept. elec. eng. and co-chairman div. eng, 41–42. Asst, Wesleyan, 00–01; Bur. Standards, 17–18, consulting radio expert, 18–33. Summer, vol. observer, Harvard Observatory, 99. A.A; Elec. Eng; Radio Eng. (ed. board, 32–); Physical Soc. Measurement of inductance and capacity; absolute electrical measurements; principles underlying radio communication; calculation of inductance.

Grover, Dr. Horace J(ohn), Rensselaer Polytechnic Institute, Troy, N. Y. *Physics.* Cayuga, N. Y, May 14, 09. A.B, Rochester, 29, A.M, 31; Ph.D, Cornell, 37. Asst. instr. *physics,* Rochester, 29–31; Cornell, 34–36; *instr, Rensselaer Polytech. Inst, 36–* Physical Soc; Asn. Physics Teachers. Thermionic emission; ultra short waves; calorimetry; physical properties of metals and metal alloys.

Grover, Dr. N(athan) C(lifford), 4505 Dexter St, Washington, D. C. *Civil engineering.* Bethel, Maine, Jan. 31, 68. B.C.E, Maine, 90, C.E, 97, D.Eng, 30; B.S, Mass.

Inst. Tech, 96. Instr. civil eng, Maine, 91–94, asst. prof, 94–95, assoc. prof, 95–97, prof, 97–03; engineer, U. S. Geol. Surv, 03–07; hydro-construction and irrig. engineer, J. G. White and Co, 07–11; chief engineer land classification board, U. S. Geol. Surv, 11–13, chief hydraul. engineer in charge water resources branch, 13–39; *retired.* Civil Eng; Wash. Soc. Eng; Wash. Acad. River discharge; stream flow.

Groves, Dr. A(ncell) B(yron), 1415 Greystone Terrace, Winchester, Va. *Plant pathology.* Lebanon, Mo, April 17, 04. B.S, Okla. Agr. and Mech. Col, 26; M.S, Arkansas, 28; Mich. State Col, 28–29; Ph.D, West Virginia, 33. *Asst. plant pathologist, Exp. Sta, Va. Polytech, 29–* A.A; Phytopath. Soc. Apple diseases; fungicides.

Groves, Prof. J(ames) F(rederick), Ripon College, Ripon, Wis. *Plant physiology.* McLeansboro, Ill, 79. Ph.D, Chicago, 15. *Prof. bot,* Wyoming, 15–18; *Ripon Col, 18–* Summers, pathologist, bur. plant indust, U. S. Dept. Agr, 17–19. A.A; Bot. Soc; Phytopath. Soc; Pub. Health Asn. Botany; ecology; pathology.

Groves, Dr. J(ames) Walton, Central Experimental Farm, Ottawa, Ont, Can. *Mycology.* Kinburn, Ont, Oct. 18, 06. B.A, Queen's (Can), 30; M.A, Toronto, 32, Ph.D, 35. Asst, Toronto, 35–36; agr. asst, *Dom. Dept. Agr,* 36–40, *agr. scientist, 40–* Mycol. Soc; Can. Phytopath. Soc; British Mycol. Soc. Taxonomy of Dermateaceae; sexuality of Sclerotineae; seed-borne fungi.

Groves, J(ohn) Stuart, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Smyrna, Del, July 16, 81. A.B. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 04–10; research chemist and supt, Georgetown Alcohol Plant, 10–15; asst. supt, Hopewell plant, *E. I. du Pont de Nemours and Co,* 15–19, *special asst, dye div, 19–* Chem. Soc; Chem. Eng. Explosives; nitrocellulose; purification of crude fiber; ethyl alcohol from sawdust.

Groves, Dr. Kermit, 1208 Maiden Lane, Pullman, Wash. *Chemistry.* Mt. Ephraim, Ohio, June 22, 05. A.B, Muskingum Col, 26; M.S, Ohio State, 28, Ph.D, 31. *Asst. chemist, Exp. Sta, State Col. Wash, 31–* Chem. Soc. Physical chemistry; the structure of crystals studied by x-rays; boiler priming; sprays for insect control; spray residue removal.

Growden, Dr. C(larence) H(olmes), 5132 Fisher Road, Columbus, Ohio. *Psychology.* Denver, Ohio, Aug. 13, 87. B.S, Ohio (Athens), 17; A.M, Ohio State, 21, Ph.D, 28. Teacher, pub. schs, Ohio, 04–11; sch. supt, 13–14; asst. psychol, Ohio (Athens), 16–17, instr, 17–19, asst. prof, 19–23; instr, Ohio State, 23–25; *director* field clinics, *State Bur. Juvenile Research, Ohio,* 25–28, *research, 28–* A.A; Psychol. Asn. Clinical and child psychology; delinquency.

Grubb, Dr. G(eorge) A(lbert), 2919 Garfield, Lincoln, Nebr. *Dentistry.* Pawnee Co, Nebr, Feb. 18, 80. D.D.S, Nebraska, 12, A.B, 23. Instr. mat. med, *Nebraska,* 13–18, prof. dental science and lit. and chairman dept, 18–39, dean *col. dentistry,* 23–39, *emer. dean, 39–,* prof. diagnosis, radiography and root canal therapy, 26–39. Mem. exec. cmt, Am. Asn. Dental Schs, 36–39, v. pres, 39. Nebr. Dental Asn. (ed, 'Jour,' 16–18, 40–; sec'y, 22, treas, 23, 24, v. pres, 25, pres, 26); Lincoln Dental Soc. (past sec'y-treas. and pres). Relationship between patients' ability to pay for dental services and their value as teaching material; the dental curriculum.

Grubb, Prof. Thomas C(hristman), University of Maryland School of Pharmacy, Baltimore, Md. *Bacteriology.* Narberth, Pa, Nov. 17, 07. A.B, Hamilton Col, 30; Ph.D, Chicago, 33. Research bacteriologist, Borden Co, 33–35; div. labs, State Dept. Pub. Health, Ill, 35–36; assoc. bacteriologist, bur. bacter, State Dept. Health, Md, 36–37; *assoc. prof. bacter, sch. pharmacy, Maryland, 37–* Ricketts prize, Univ. Chicago, 34. Coccus forms of diphtheria bacillus; staphylococcus food poisoning.

Gruber, Dr. Charles M(ichael), Jefferson Medical College, Philadelphia, Pa. *Pharmacology.* Hope, Kans, March 11, 87. A.B, Kansas, 11, fellow, 11–12, A.M, 12; Ph.D, Harvard, 14; M.D, Washington (St. Louis), 21. Teaching fellow, Harvard, 12–14; instr. physiol, Pennsylvania, 14–15; prof. physiol. and pharmacol, Albany Med. Col, Union (N. Y), 15–17; assoc. prof, Colorado, 17–18, prof, 18–20; assoc. physiol, sch. med, Washington (St. Louis), 20–21, assoc. prof. *pharmacol,* 21–32; *prof, Jefferson Med. Col, 32–* A.A; Soc. Pharmacol. (treas, 35–39); Physiol. Soc; fel. Am. Med. Asn. (chairman, sect. pharmacol. and therapeut, 41); Soc. Exp. Biol; Physiol. Soc. Phila; Col. Physicians Phila. Endocrine organs; muscular fatigue; blood pressure; pharmacology of benzyl esters, barbituric acid derivatives, dilantin, demerol and of thiobarbiturates; ureteral peristalsis and the action of drugs upon these movements; uretero-vesical valves; cardiology; drugs acting upon the stomach and intestine.

Gruber, Dr. Elbert E, 2230 16th St, Cuyahoga Falls, Ohio. *Chemistry.* Cincinnati, Ohio, Sept. 11, 10. B.S, Xavier, 32; M.S, Illinois, 34, Ph.D, 37. Asst. chem, Illinois, 34–37; *org. research chemist, B. F. Goodrich Co, Akron, 37–* Chem. Soc. Synthesis of certain hydrogenated phenanthrenes; rubber antioxidants.

Gruenberg, Dr. Benj(amin) C(harles), 418 Central Park W, New York, N. Y. *Biology.* Russia, Aug. 15, 75. B.S, Minnesota, 96; N. Y. Univ, 01–02; N. Y. Bot. Garden, 02–09; A.M, Columbia, 04, Ph.D, 11. Polariscopist, U. S. Lab, New York, 98–02; instr, high schs, N. Y, 02–20; educ. director, U. S. Pub. Health Service, 20–22; director dept. educ, Urban Motion Picture Industries, 22–23; managing director, Am. Asn. for Med. Progress, 25–28; educ. ed, Viking Press, 29–32; Cmt. on Costs Med. Care, 32; assoc. science, Am. Asn. Adult Educ, 33–36; *instr. philos, Col. City of N. Y, 35–* Lecturer and coordinator, Dept. Educ, New York, 08–18; director and instr, Rand Sch. Social Science; supervisor summer play schs, Federation for Child Study, 18–20; labor adjuster, garment indust; lecturer, New Sch. for Social Research, 28–29, 32–33; Pa. Sch. Social Work, 35–36; Colo. State Col. Educ, 37; Hawaii, 38; special consultant, U. S. Pub. Health Service, 38–40; consulting economist, Social Security Board, 39–40, 43–; lecturer, Colorado, 40; Brooklyn Col, 40–; Denver, 41. Managing ed, 'Am. Teacher,' 11–20. Consultant, Nat. Resources Cmt, 36; Nat. Cmn. Revision Secondary Sch. Curriculum, 36–37; Pub. Health Asn, 37. A.A; Eugenics Soc; Genetic Asn; fel. Pub. Health Asn; Acad. Polit. and Social Sci; Soc. Study Educ; Nat. Asn. Research Sci. Teaching; Child Study Asn; Sociol. Soc; Nat. Asn. Biol. Teachers; N. Y. Biol. Teachers Asn; N. Y. Acad. Chemistry of bastard logwood; compensatory motions and semi-circular canals; mycorrhiza; sex education; science and adult education; education and social changes.

Gruener, Prof. Hippolyte, 2324 Coventry Road, Cleveland, Ohio. *Chemistry.* New Haven, Conn, Feb. 23, 69. A.B, Yale, 91, Ph.D, 93; Munich, 94–95. Instr. *chem,* Adelbert Col, *Western Reserve,* 95–03, asst. prof, 03–07, assoc. prof, *Mather Col,* 98–07, prof, 07–39, *emer. prof, 39–* A.A; Chem. Soc; Pub. Health Asn; Deuts. Chem. Gesell. Analytical methods, especially iodometric; vapor pressure of sulfur; water filtration and softening.

Gruhzit, Dr. O(swald) M(artin), 580 Hampton Road, Grosse Pointe, Detroit, Mich. *Pathology, Pharmacology.* Latvia, Aug. 11, 85. B.S, Mich. Agr. Col, 14, M.S, 16; M.D, Michigan, 22. State seed analyst, Mich, 13; bacteriologist and chemist, Armour Packing Co, 14; chemist, Darling Fertilizer Co, 14; state asst. bacteriologist and serologist, Mich, 17; director, City Board Health Lab, Flint, 18; clin. pathologist, City Hosp, Columbus, Ga, 22; *research pathologist and pharmacologist, Parke, Davis and Co, Detroit, 23–* Soc. Exp. Path; Soc. Clin. Path; fel. Am. Med. Asn; Acad. Dermat. and Syphilol. Toxicology; histopathology of drugs; chemotherapy of spirochetosis; parasitology; neoplastic and infectious diseases; relation of sulfur to hemopoiesis of blood-forming organs; pharmacology of thiobarbiturates; chemotherapy.

Grulee, Dr. Clifford G(roselle), 636 Church St, Evanston, Ill. *Pediatrics.* Newport, Ky, Jan. 3, 80. A.B, Miami (Ohio), 99, A.M, 01, LL.D, 19; M.D, Northwestern, 03. Asst. prof. *pediat,* Rush Med. Col, Chicago, 14–19, clin. prof. and chairman dept, 19–41; *Rush prof, col. med, Illinois, 41–* Consulting pediatrician, St. Francis Hosp, Evanston; attending pediatrician, Presb. Hosp, Chicago; past chief pediat. staff, Cook County Hosp; attending and consulting pediatrician, Provident Hosp. Ed. in chief, 'Am. Jour. Diseases of Children.' A.A; Pediat. Soc; Am. Med. Asn; Soc. Int. Med; Acad. Pediat. (sec'y); Cent. States Pediat. Soc. (sec'y, 16). Salt metabolism of spasmophilia.

Grumbach, Dr. Leonard, 252 E. 61st St, New York, N. Y. *Physiology.* Brooklyn, N. Y, July 24, 14. A.B, Cornell, 34, A.M, 35, Ph.D, 39. *Teaching fellow physiol, col. dentistry, N. Y. Univ, 40–; aviation physiologist, Air Forces, U. S. Army, 42–* Nerve and muscle physiology.

Grumbein, Prof. John Behny, 204 McLane Ave, Morgantown, W. Va. *Engineering.* Grantville, Pa, Feb. 14, 77.

B.S, West Virginia, 09; M.M.E, Cornell, 14. *West Virginia, 03–, prof. power eng, 16–* Supt. buildings and grounds, West Virginia, 32– Power engineering.

Grummann, H(erbert) R(ichard), 7330 Dorset, St. Louis, Mo. *Engineering.* Indianapolis, Ind, May 5, 95. A.B, Nebraska, 15; A.M, Minnesota, 24. Mem. sci. staff, yacht 'Carnegie,' world cruise, Carnegie Institution, 19–21; instr. math, Washington (St. Louis), 24–31, asst. prof, 31–41; *mem. eng. dept, Curtiss-Wright Corp, Robertson, Mo, 41–* Eng. Educ. Applied mathematics; fluid mechanics; aerodynamics; navigation.

Grummitt, Dr. Oliver J(oseph), Western Reserve University, Cleveland, Ohio. *Organic chemistry.* Cleveland, Ohio, Jan. 16, 10. A.B, Oberlin Col, 32; A.M, Western Reserve, 34, Ph.D, 36. Teaching asst. chem, Western Reserve, 32–36; research fellow, Cornell, 36–38; instr. *chem, Western Reserve,* 38–42, *asst. prof, 42–* A.A; Chem. Soc. Organo-boron compounds; aluminum chloride catalysis in organic chemistry; glycerides.

Grunder, L(awrence) J, 555 S. Flower St, Los Angeles, Calif. *Mechanical engineering.* Milwaukee, Wis, May 23, 05. B.S, Calif. Inst. Tech, 29; Texaco fellow, Pa. State Col, 29–30. Automotive test engineer, Hughes Develop. Co, Ltd, Hollywood, 30–31; *automotive research engineer,* fuels and lubricants, Richfield Oil Co. of Calif, Los Angeles, 31–37, *lubricating dept, Richfield Oil Corp, 37–; capt, Armored Corps, U. S. Army.* Summer, lubrication research, Texas Co, N. Y, 30. Soc. Automotive Eng. Petroleum and its use; lubrication and fuels; oil film pressures in a complete bearing; fuels research in motor performance; lubrication of motor vehicles.

Grundfest, Dr. H(arry), Rockefeller Institute, New York, N. Y. *Physiology.* Minsk, Russia, Jan. 10, 04. A.B, Columbia, 25, A.M, 26, univ. fellow, 27–28, Gottsberger fellow, 28–29, Ph.D, 29. Nat. research fellow biol, 29–31; Johnson Foundation fellow, Pennsylvania, 31–32; instr, Swarthmore Col, 32; *asst. physiol,* med. col, Cornell, 31–36; *Rockefeller Inst, 35–* A.A; Physiol. Soc. Effectiveness of spectral radiation for Lepomis; heterochronism in the single fiber nerve-muscle complex; kinetics of the excitation reactions in muscle and nerve; effect of high hydrostatic pressures on nerve; electrophysiology of nerve.

Gruner, Prof. John W(alter), University of Minnesota, Minneapolis, Minn. **7Geology, Mineralogy.* Neurode, Germany, July 12, 90. A.B, New Mexico, 17; M.S, Minnesota, 19, Ph.D, 22. Instr, New Mexico, 17–18; asst. prof, sch. mines, Oregon State Col, 19–20; instr, *Minnesota,* 20–23, asst. prof, 23–29, *assoc. prof. geol. and miner, 29–* Geologist, Minn. Geol. Surv, 19–; consulting geologist, Herrmann Goering Werke, Germany, 37–38. Miner. Soc; Soc. Econ. Geol; Geol. Soc; Deuts. Miner. Gesell. Archean and Huronian algae and bacteria; iron formations and iron ores; crystal structures; hydrothermal alteration of minerals.

Gruner, Dr. O(skar) C(ameron), Care of Bank of Montreal, Peel St, Montreal, Que, Can. *Pathology.* Altrincham, Cheshire, Eng, Aug. 15, 77. Manchester; M.D, London, 08. Pathologist, Leeds Gen. Infirmary, 04–10; asst. prof. path, McGill, 10–14; consulting pathologist, 20–30; *cancer research, McGill, 32–* War service, 14–20. Fel. Royal Soc. Med; Royal Col. Surg; Royal Col. Physicians. Cancer research; biochemistry; hematology; histology; cytology.

Gruntfest, Dr. I(rving) J(ames), Bell Telephone Laboratories, Murray Hill, N. J. *Physical and organic chemistry.* Philadelphia, Pa, Jan. 12, 17. B.S, Brown, 37, M.S, 38; Ph.D, Cornell, 41. Asst. chemist, Tenn. Valley Authority, 41–43; *mem. staff, Bell Tel. Labs, 43–* Chem. Soc. Physical chemistry of organic compounds; alumina from clay; Haber process; synthetic rubber.

Gruse, Dr. W(illiam) A(rthur), Mellon Institute, Pittsburgh, Pa. *Petroleum chemistry.* Wheeling, W. Va, March 11, 92. A.B, Hopkins, 13; A.M, Wisconsin, 15, fellow, 15–16, Ph.D, 16. Instr. *chem,* N. Y. Univ, 16–17; asst. prof, Syracuse, 17; indust. fellow, *Mellon Inst,* 19–23, *senior fellow, 23–* Asst. prof, Pittsburgh, 22–25, lecturer, sch. mines. Lieut, C.W.S, 17–18. A.A; Chem. Soc. (sec'y, petrol. div, 21–24); Petrol. Inst; Soc. Test. Mat; Soc. Automotive Eng; Pa. Acad; N. Y. Acad. Petroleum technology; mechanism of organic reactions; motor fuels; lubricants.

Guard, Prof. Arthur Thomas, 109 W. Columbia St, West Lafayette, Ind. *Botany.* Lawrenceburg, Ind, Oct. 2, 97. A.B, DePauw, 24; M.S, Purdue, 29, Ph.D, 35. Teacher, high sch, Ind, 25–28; asst. *bot, Purdue,* 28–29, instr, 29–36, *asst. prof, 36–* Bot. Soc; Ind. Acad. Plant anatomy, cytology and taxonomy.

Guba, Prof. E(mil) F(rederick), Field Station, Massachusetts State College, Waltham, Mass. *Plant pathology.* New Bedford, Mass, May 13, 97. B.S, Mass. Col, 19; Ph.D, Illinois, 23. Asst. exten. prof. plant path, Cornell, 23–25; *plant pathologist,* Mass. Col, 25–31, *Mass. State Col, 31–,* asst. research prof. *bot, Exp. Sta,* 25–36, *research prof, 36–* Pestalotia; Verticilium; tomato leaf mold; carnation diseases; control of cucumber powdery mildew; incompatibility of fungicides; survey of fungi of Nantucket Island; control of squash decay in storage; root-knot nematode; strawberry diseases; apple diseases and sulfur fungicides; control of damping-off.

Gubelmann, Dr. Ivan, Nemours Bldg, Wilmington, Del. *Chemistry.* Meilen, Switzerland, July 7, 86. Diploma, Fed. Tech, Zurich, 09, D.Sc, 12. Instr, Fed. Tech, Zurich, 09–12; research chemist, Monsanto Chem. Works, St. Louis, Mo, 12–16; chief chemist, Newport Co, Carrollville, Wis, 16–19, chem. director, 19–24, v. pres, 24–31; manager, Carrollville plant, *E. I. du Pont de Nemours and Co,* 31–32, chem. director org. chem. dept, 32–38, asst. manager *dyestuffs div,* 38–41, *manager, 41–* Chem. Soc; Chem. Eng; Swiss Chem. Soc. Dyestuffs; pigments; intermediates; perfume bases; petroleum, rubber and photographic chemicals; synthetic camphor and rubber; tetraethyl lead.

Gucker, Prof. Frank T(homson), Jr, Northwestern University, Evanston, Ill. **7Physical chemistry.* Philadelphia, Pa, April 8, 00. A.B, Haverford Col, 20, A.M, 21; Harris fellow, Harvard, 23–24, Ph.D, 25. Teaching fellow, Haverford Col, 20–21; Austin teaching fellow, Harvard, 21–22, asst. to Prof. T. W. Richards, 24–25, 27–28; nat. research fellow, Calif. Inst. Tech, 25–27; research chemist, du Pont Ammonia Corp, 28–29; asst. prof. *chem, Northwestern,* 29–36, assoc. prof, 36–42, *prof, 42–* Tech. aide, div. B, Nat. Defense Research Cmt, 41–42. Chem. Soc. Thermodynamic properties of solutions, including densities, compressibilities, specific heats, heats of dilution and of neutralization.

Gudernatsch, Dr. Friedrich, New York University, Washington Square East, New York, N. Y. *Anatomy, Physiology.* Germany, Jan. 8, 81. Ph.D, German Univ, Prague, 10; Munich, 12. Asst. and demonstrator animal path. and instr. comp. anat, med. sch, Prague, 05–07; asst. path, med. col, Cornell, 07–09, instr. embryol. and comp. anat, 09–10; research assoc. anat. and histol, med. sch, Munich, 10–12; instr. histol. and embryol, med. col, Cornell, 13–15, asst. prof, 15–16, anat, 16–20; sci. adviser, *Hoffmann-La Roche Research Labs,* 21–29, *director, 29–; visiting prof. biol, grad. sch, N. Y. Univ,* 28– A.A; Asn. Anat; Asn. Int. Secretions; Physiol. Soc; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med; Anat. Gesell; Deuts. Akad. Wissensch, Halle. Experimental morphology and physiology; internal secretion; clinical endocrinology; comparative anatomy; effect of chemical factors on growth and differentiation; normal and pathological development; malformations and cancer.

Gudger, Dr. E(ugene) W(illis), American Museum of Natural History, New York, N. Y. **1Ichthyology.* Waynesville, N. C, Aug. 10, 66. B.S, Nashville, 92, M.S, 93; Ph.D, Hopkins, 05. Instr, high sch, Ark, 95–01; prof. biol, N. C. Col. for Women, 05–20; *assoc. ichthyol, Am. Museum Nat. Hist, 21–, bibliographer, 25–, assoc. curator, 35–, hon. assoc, 38–* Summers, research, U. S. Fisheries Lab, Beaufort, N. C, 02–11, marine lab, Carnegie Institution, Tortugas, 12–15. Assoc. ed, 'Bibliog. of Fishes,' Am. Museum Nat. Hist, 17–19, ed, 19–23; 'Dean Mem. Volume,' 29–; ichthyol. terms, 'Webster's New Int. Dict,' 35. A.A; Soc. Nat; Soc. Ichthyol. and Herp; Soc. Zool; Hist. Sci. Soc; N. C. Acad. (sec'y, 07–18, pres, 18); N. Y. Zool. Soc; cor. mem. Salmon and Trout Asn. Gt. Britain; cor. mem. Zool. Soc. London. Morphology, life histories, habits and embryology of fishes; unusual methods of fishing practiced by primitive people; teratology and geographical distribution of fishes; ambicoloration in flounders; behavior of sword fish and of whale shark.

Guenther, Dr. E(rnest) S, 76 Ninth Ave, New York, N. Y. *Chemistry.* Munich, Germany, May 22, 95. Munich; Ph.D, Zurich, 21. *Chief research chemist and v. pres, Fritzsche Brothers, Inc, New York.* Chemists' Club. Essential oils.

Guenther, Dr. Paul E(rnest), Case School of Applied Science, Cleveland, Ohio. *Mathematics.* La Porte, Ind, May 25, 15. A.B, Wisconsin, 37; A.M, Harvard, 38, Ph.D, 41. Teach-

ing fellow, Harvard, 40–41; *instr. math, Case, 41–* Math. Soc. Differential and difference equations.

Guerin, Dr. F(rederick) J(ohn), Boston College, Chestnut Hill, Mass. *Chemistry.* Lawrence, Mass, June 30, 01. B.S, Mass. Inst. Tech, 22, M.S, 23; fellow, N. Y. Univ, 25–28, Ph.D, 28. Chemist, Gen. Elec. Co, 24–25; *instr. chem,* Maine, 29–34; *Boston Col, 34–* Chem. Soc. Urea-formaldehyde resins; arsenic analogues of betaine and choline; onium compounds related to betaine and chlorine.

Guernsey, Dr. E(rnest) W(illiam), 4113 Ridgewood Ave, Baltimore, Md. *Chemistry.* Vincennes, Ind, May 1, 96. B.S, Illinois, 18; M.S, American Univ, 22; Ph.D, George Washington, 24. Research chemist, Brown Co, N. H, 19; asst. and assoc. chem. eng, fixed nitrogen research lab, U. S. Dept. Agr, 19–26; research chemist and *asst. director research, Consol. Gas, Elec. Light and Power Co. of Baltimore, 26–* Lecturer, American Univ, 25–26. C.W.S, U.S.A, 18–19. A.A; Chem. Soc; Chem. Eng. Fixation of nitrogen; agriculturally available phosphate; fuels; corrosion.

Guerrant, Prof. N(ollie) B(urnham), Pennsylvania State College, State College, Pa. *Biochemistry.* Fulton, Mo, 99. A.B, Westminster Col. (Mo), 21; M.S, N. Dak. Col, 23; fellow, Iowa State Col, 23–24; Ph.D, Missouri, 25. Asst. chemist, Exp. Sta, N. Dak. Col, 21–23; asst, Missouri, 24–25; asst. prof. and assoc. prof. biochem, Okla. Agr. and Mech. Col, asst. biochemist and assoc. biochemist, Exp. Sta, 25–27; research assoc. prof. animal nutrition, Exp. Sta, Ala. Polytech, 27–30; assoc. prof. *biochem, Pa. State Col,* 30–37, *prof, 37–* A.A; Soc. Biol. Chem; Chem. Soc; Inst. Nutrition; Soc. Exp. Biol; Inst. Food Technol; Biochem. Soc. London. Nutrition; agricultural chemistry; functions and mode of action of vitamins; composition of foods; nutrition; factors influencing vitamin requirements.

Guerrant, Dr. R(alph) E(ugene), Shurtleff College, Alton, Ill. *Chemistry.* Arvonia, Va, Aug. 30, 11. A.B, Westminster Col. (Mo), 33; Pa. State Col, 33–34; A.M, Missouri, 35, Ph.D, 37. Instr. agr. chem, Missouri, 36; *prof. chem, Shurtleff Col, 38–* Anemia in rats caused by feeding deaminized casein.

Guess, Prof. Geo(rge) A(rthur), University of Toronto, Toronto, Ont, Can. *Metallurgy, Engineering.* Hartington, Ont, 73. M.A, Queen's (Can), 94. Chief chemist, Cananea Consol. Copper Co, Mex, 05–07; smelter supt, Tenn. Copper Co, 07–11; metal. supt, Cerro de Pasco Copper Co, 11–12; *prof. metal. eng, Toronto, 12–* Min. and Metal. Eng; Electrochem. Soc; Can. Inst. Min. and Metal. The metallurgy of copper and nickel.

Guest, Arthur E(dwin), Wm. Wrigley, Jr, Co, 400 N. Michigan Ave, Chicago, Ill. *Chemistry.* Iowa, Aug. 24, 01. A.B, Simpson Col, 23; Iowa State Col, 23–26. Asst. chem, Iowa State Col, 23–26; instr, Kans. State Col, 26–29; research chemist, Calco Chem. Co, Bound Brook, N. J, 29–30; fellow, Mellon Inst, 30–32; *research chemist, Wm. Wrigley, Jr, Co, 35–* Chem. Soc; Inst. Food Technol. Biological and organic chemistry; nutrition; chewing gum.

Guest, Dr. George M(artin), Children's Hospital Research Foundation, Cincinnati, Ohio. *Pediatrics.* Cheneyville, Ill, Jan. 14, 98. Ohio Wesleyan, 16–18; B.S, Cincinnati, 20, M.D, 22, M.S, 23. Asst. biochem, Cincinnati, 21–22; instr. path. and res. pathologist, Cincinnati Gen. Hosp, 22–23; Cmn. Relief Belgium Educ. Foundation fellow, Pasteur Inst, Brussels, 23–24; asst. pediat. and bacter, Harvard Med. Sch, 25–27; asst. prof. *pediat, Cincinnati,* 28–35, *assoc. prof, 35–* Intern, Boston Children's Hosp, 24–25, res. bacteriologist, 25–27; fellow, Children's Hosp. Research Foundation, 28–Soc. Pediat. Research (pres, 41); Pediat. Soc; Soc. Biol. Chem; Cent. Soc. Clin. Research. Blood glycolysis; phosphorus distribution and electrolyte equilibrium in blood plasma and cells; nutritional anemia of infants.

Guest, Dr. G(ordon) H(amilton), 147 Balfour Ave, Town of Mount Royal, Que, Can. *Agricultural biochemistry.* Winnipeg, Man, Oct. 7, 04. B.A, Saskatchewan, 24, M.A, 27; Minnesota, 29–31; Ph.D, McGill, 38. Chem. analyst, dept. soils, Saskatchewan, 24, teaching fellow chem, 25–27; lecturer, Regina Col, 37–39; acting provincial analyst, Sask, Can, 29; teaching fellow *chem,* Minnesota, 30–31; teacher, Tech. Collegiate, Saskatoon, Sask, 31–37; instr, Macdonald Col, McGill, 37–38; *head dept. high sch, Montreal, Que, 38–; lecturer, Sir George Williams Col, 38–* Action of aniline on gluoose in water solution in the presence of acetic acid; effect of fermentation on some properties of gluten; a new colorimetric method for the determination of hydroxy proline, pyrrole and proline.

Guest, Dr. H(arlan) P(reston), 6733 Emerald Ave, Chicago, Ill. *Inorganic chemistry.* Orient, Iowa, June 20, 04. A.B, 26; Ph.D, Iowa State Col, 30. Asst. prof. anal. chem, Mont. State Col, 30–31; with Malted Cereals Co, Burlington, Vt, 34–35; research chemist, Wm. Wrigley, Jr, Co, Chicago, 35–37; J. E. Siebel Sons Co. and Siebel Inst. Tech, 37–38; *prof, Wilson City Col, 38–* Chem. Soc. Reactions of inorganic compounds with liquid hydrogen sulfide.

Guest, Dr. Henry G(rady), Box 232, McAllen, Texas. *Geology.* Houston, Miss, Sept. 2, 08. B.S, Miss. State Col, 31; M.S, Iowa, 33, Ph.D, 35. *Geophysicist, Schlumberger Well Surveying Corp, 35–* The Ripley formation of east-central Mississippi and west-central Alabama.

Guest, Dr. Herbert H(artley), Glastonbury, Conn. *Chemistry.* Yonkers, N. Y, June 9, 84. Ph.B, Yale, 08, Ph.D, 12. Asst. chem, Yale, 09–10, 11–12; asst. protein research, Conn. Exp. Sta, 10–11; chemist, *J. B. Williams Co,* 12–18, *chief chemist, 18–* A.A; Chem. Soc; Oil Chemists Soc. Organic chemistry; higher acetylenes and derivatives; fatty acids; synthetic perfumes.

Guevara, Dr. R(ómulo), 28 Concepcion St, Pasay, Rizal, P. I. *Pharmacology.* Marikina, Rizal, P. I, Feb. 17, 93. M.D, Philippines, 18. Asst. *pharmacol, col. med, Philippines,* 18–19, instr, 19–21, asst. prof, 21–29, *assoc. prof, 30–* Sec'y sect. pharmacol, div. med. sciences, Nat. Research Council P. I, 35– Am. Med. Asn; Col. Medico-Farmaceutico de Filipinas. Philippine medicinal plants.

Guggenbühl, Prof. Laura, Hunter College, New York, N. Y. *Mathematics.* New York, N. Y, Nov. 18, 01. A.B, Hunter Col, 22; A.M, Bryn Mawr Col, 24, Ph.D, 27. *Asst. prof. math, Hunter Col.* Math. Soc. Integral equations.

Gul, Dr. Harry L(udwig), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Scandia, Kans, Jan. 20, 90. B.S. (Agr), Kans. State Col, 25, M.S, 26; Ph.D, Ohio State, 32. *Asst. entomologist, Ohio Exp. Sta, 26–* Asn. Econ. Entom; Ohio Acad. Vegetable crop pests; insects important to potato culture; household and stored grain pests.

Gullbert, H(arold) R(eed), College of Agriculture, University of California, Davis, Calif. *Animal husbandry.* Columbus, Ohio, Dec. 5, 97. B.S, Kans. State Col, 20, M.S, 24. Instr, Kans. State Col, 20–24; junior animal husbandman, *Exp. Sta, California,* 24–27, asst. animal husbandman, 27–35, *assoc. animal husbandman, 35–, assoc. prof. animal husbandry, 39–* Soc. Animal Production (sec'y west. branch, 39, v. pres, 40, pres, 41; v. pres, 41). Nutrition of range cattle with particular reference to reproduction; minimum vitamin A and carotene requirements of domestic species; beef cattle breeding; measuring performance and progeny testing of beef cattle.

Gulld, Philip W(hite), U. S. Geological Survey, Washington, D. C. *Geology.* Ann Arbor, Mich, Oct. 28, 15. A.B, Hopkins, 36, 36–39. Junior geologist, *U. S. Geol. Surv,* 39–40, *asst. geologist, 40–* Min. and Metal. Eng; Geol. Soc. Wash. Chromite deposits of Oregon, Alaska and Cuba.

Gulld, Dr. Stacy R(ufus), 17 Elmwood Road, Roland Park, Baltimore, Md. *[6]Anatomy, Otology.* Sterling, Kans, Aug. 22, 90. A.B, Washburn Col, 10; A.M, Michigan, 14, Ph.D, 18. Asst. histol, Michigan, 12–13, instr, 13–18, asst. prof. anat, 18–23, assoc. prof, 23–27; visiting lecturer, *sch. med, Hopkins,* 26–27, lecturer *otol,* 27–32, *assoc. prof, 32–, director otol. research lab, 27–* A.A; Asn. Anat; Otol. Soc; Col. Oto-Rhino-Laryngol. Prevention of deafness in war; circulation of endolymph; correlation of normal and pathological structure and function of the ear; technique for histologic preparation of temporal bones; impaired hearing in children.

Gulliford, Lieut. Col. J(oy) P(aul), U. S. Army Air Corps, Psychological Research Unit No. 3, A.A.B, Santa Ana, Calif. *[7]Psychology.* Marquette, Nebr, March 7, 97. A.B, Nebraska, 22, A.M, 24; Ph.D, Cornell, 27. Instr. *psychol,* Illinois, 26–27; asst. prof, Kansas, 27–28; assoc. prof, Nebraska, 28–33, *prof,* 33–40; *Southern California, 40–; lieut. col, Air Corps, U. S. Army.* A.A; Psychol. Asn. Experimental and abnormal psychology; psychometric methods.

Guillemin, Prof. E(rnest) A(dolph), 41 Woodlawn Ave, Wellesley Hills, Mass. *Electrical engineering.* Milwaukee, Wis, May 8, 98. B.S, Wisconsin, 22; M.S, Mass. Inst. Tech,

24; Saltonstall traveling fellow, 24–25; Ph.D, Munich, 26. Asst. *elec. eng, Mass. Inst. Tech*, 22–24, instr, 26–28, asst. prof, 28–36, *assoc. prof, 36–* Assoc. Elec. Eng. Electrical network theory, especially communication networks.

Guillemin, Dr. Victor, Jr, 1444 Cory Drive, Dayton, Ohio. *Physics, Biophysics.* Milwaukee, Wis, Feb. 10, 96. A.B, Wisconsin, 23; A.M, Harvard, 24; Sheldon fellow, Munich, 25–26, Ph.D, 26. Asst. physics, Harvard, 24–25, 28–29, nat. research fellow, 26–28, instr, 30–31, lecturer biophys, 31–35, asst. biol, 34–41; *senior physicist, aero med. research unit, Wright Field, 42–* Asst. prof, Mass. Inst. Tech, 31–34. A.A; Physical Soc; Asn. Physics Teachers. Biology; atomic and molecular structure; thermodynamics.

Guillet, Prof. G(eorge) L(eroy), 433 Mitchell Ave, State College, Pa. *Mechanical engineering.* Rochester, N. Y, Oct, 87. B.Sc, McGill, 08, M.Sc, 09. Asst. prof. mech. eng, McGill, 09–14; factory engineer, Bastian Brothers, Rochester, 14–15; prof. mech. eng, Queen's (Can), 15–21; research engineer, Can. Johns-Manville Co, 22–24; *assoc. prof. mech. eng, Pa. State Col, 24–* Mech. Eng. Kinematics of machines.

Guiscafre-Arrillaga, J(aime), Puerto Rico Experiment Station, Mayaguez, P. R. *Plant physiology, Horticulture.* Anasco, P. R, March 23, 11. B.S.A, Puerto Rico, 32; M.S, Pa. State Col, 34. Phytopathologist and coffee specialist, Dept. Agr, Venezuela, 32–33, director, Sch. Agr. and Animal Husbandry, 33; registrar and phytopathologist, col. agr. and mech. arts, *Puerto Rico, 34–35, coffee technologist, Exp. Sta, 35–; coffee technologist, P. R. Exp. Sta, U. S. Dept. Agr, 35–* Lecturer, col. agr, Puerto Rico. A.A; Phytopath. Soc; Soc. Agr. Sci. Physiological, agronomical and horticultural aspects of coffee culture.

Guise, Prof. Cedric H(ay), Cornell University, Ithaca, N. Y. *Forestry.* Findlay, Ohio, July 25, 90. B.S, Cornell, 14, M.F, 15. Instr. forestry, *Cornell*, 15–17, 19–21, asst. prof. forest management, 21–29, 31–33, *proj*, 33–37, *personnel admin, 37–* Asst. director forest educ. inquiry, Soc. Am. Foresters, 29–31; U. S. Forest Service; state forest service, Mass, Wis. and N. Y. Mem. advisory cmt. forestry, Oberlaender Trust, Carl Schurz Mem. Foundation. Instr, Sch. Mil. Aeronaut, U.S.A, 18–19. A.A; Soc. Forestry; Forestry Asn; N. Y. Forestry Asn; cor. mem. Soc. Forestry, Suomi, Finland. Forest management, finance and education.

Guiteras, Dr. A(ibert) F(rancis), Foster D. Snell, Inc, 305 Washington St, Brooklyn, N. Y. *Chemistry.* Matanzas, Cuba, May 15, 05. B.S, Lafayette Col, 26; Ph.D, Göttingen, 32. Junior chemist, food and drug admin, U. S. Dept. Agr, 27–28; food chemist, New York City Health Dept, 28–30; research chemist, Wallace and Tiernan Products Co, N. J, 33–34; Interchem. Corp, New York, 34–36; chief chemist, H. D. Roosen Co, Brooklyn, 36–39; research chemist, Winthrop Chem. Co, Rensselaer, N. Y, 39–40; *account exec, Foster D. Snell, Inc, 40–* Second lieut, C.W.Res, 28–38. Chem. Soc. Chemistry of sterols; organic synthesis; printing and lithographic inks.

Gulbransen, Dr. Earl A(lfred), 131 Edgewood Ave, Swissvale, Pa. *Chemistry.* Seattle, Wash, Jan. 20, 09. B.S, State Col. Wash, 31; Ph.D, Pittsburgh, 34. Asst, Pittsburgh, 31–34; nat. research fellow, California, 34–35, fellow, 35–36; instr. chem, Tufts Col, 36–40; *research engineer, research labs, Westinghouse Elec. and Mfg. Co, 40–* Chem. Soc. Thermochemistry of solutions; data of state of gases; fundamentals of gas-metal reactions.

Gulick, Prof. Addison, University of Missouri, Columbia, Mo. *Biochemistry, Physiology.* Osaka, Japan, April 2, 82. A.B, Oberlin Col, 04; A.M, Harvard, 05; Ph.D, Wurzburg, 10. Fellow, Toronto, 10–11; instr. physiol, Minnesota, 11–12; *Missouri*, 12–13, asst. prof, 13–18, assoc. prof, 18–21, *prof. physiol. chem, 21–* A.A; Soc. Nat; Physiol. Soc; Soc. Zool; Chem. Soc; Soc. Study Int. Secretions. Biochemistry of cell nuclei; carbohydrate luxus consumption; normal and abnormal basal metabolism in rats; temperature regulation; chemistry of chromosomes.

Gulick, Prof. Lee N(elson), University of Pennsylvania, Philadelphia, Pa. *Mechanical engineering.* Bacon Hill, N. Y, Sept. 11, 93. B.S, Pennsylvania, 16, M.E, 27, A.M, 30. Supervisor, Midvale Steel Co, Phila, 16–20; instr. *mech. eng, Pennsylvania*, 20–22, asst. prof, 22–27, *prof, 27–; consulting engineer, 20–* Mech. Eng. (chairman, Phila. sect, 43). Industrial engineering; machine shop and foundry practise; internal combustion engines; Rice two stroke cycle, double-acting gasoline engine.

Gullickson, Prof. T(hor) Wilhelm, 1346 Raymond Ave, St. Paul, Minn. *Dairy husbandry.* Cushing, Wis, Aug. 26, 87. B.S. (Agr), Minnesota, 18, M.S, 22, Ph.D, 34. Prin, pub. sch, 09–12, instr. agr, high sch, 13–16; specialist dairy cattle breeding, U. S. Dept. Agr, 18–21; instr, *Minnesota*, 23–26, *asst. prof. dairy husbandry, 26–* A.A; Soc. Animal Production; Dairy Sci. Asn. (sec'y, production sect, 31); Minn. Acad. Nutrient requirements of dairy cattle; effects of mineral deficiencies; calf raising.

Gulliksen, Prof. Harold (Oliver), University of Chicago, Chicago, Ill. *Psychology.* Washington, D. C, July 18, 03. A.B, Washington (Seattle), 26, A.M, 27; Ph.D, Chicago, 31. Asst. *psychol*, Washington (Seattle), 25–27; instr, Ohio State, 27–29; Chicago, 29–31; research assoc, Mooseheart Lab. for Child Research, Ill, 31–33; asst, *Chicago*, 33–34, examiner, board examinations, 34–40; asst. prof. *psychol*, 38–42, *assoc. prof, 42–; war research, 42–* Psychol. Asn. Learning; transfer of response; tests.

Gullum, Prof. F(rank) B(arnhart), Ohio University, Athens, Ohio. *Chemistry.* Hamden, Ohio, May 18, 85. B.S, Ohio (Athens), 07; M.S, Ohio State, 23. Chemist, Rock Island Ry, 08–09; instr, high schs, Ohio, 09–18; asst. prof. *chem, Ohio (Athens)*, 18–23, *assoc. prof, 24–* Hydrolysis of fatty esters by lipase of castor beans; estimation and recovery of bromine from salt brine.

Gumbel, Dr. Emil J(ulius), New School for Social Research, 66 W. 12th St, New York, N. Y. *Mathematical statistics.* Munich, Germany, July 18, 91. Ph.D, Munich, 14. Privatdocent *statist*, Heidelberg, 23–30, assoc. prof, 30–32; visiting prof, Paris, 33; research prof, Lyon, 34–40; *visiting prof, grad. faculty, New Sch. for Social Research, 40–* Calculus of probabilities; mathematical statistics with application to physics, biology, economics and engineering problems.

Gummer, Prof. C(uthbert) F(rancis), Queen's University, Kingston, Ont, Can. *Mathematics.* Salisbury, Eng, Jan. 5, 83. B.A, Oxford, 04, M.A, 08; Ph.D, Chicago, 24. Asst. master, Denstone Col. (England), 06–08; prof. *math*, Bishop's Col, 08–11; asst. prof, *Queen's (Can)*, 11–20, assoc. prof, 20–22, *prof, 22–* Assoc. ed, 'Am. Math. Monthly,' 20–25, ed, questions and discussion dept, 22–25. Math. Soc; Math. Asn. (trustee, 21–25). Algebraic equations; location of roots.

Gunder, Prof. Dwight F(rancis), 619 S. Sherwood St, Ft. Collins, Colo. *Mathematics, Mechanics.* Ames, Iowa, Dec. 11, 05. B.S, Iowa State Col, 25, M.S, 26; Ph.D, Wisconsin, 32. Asst. math, Iowa State Col, 25–26; instr, *Colo. State Col*, 26–28, asst. prof, 28–40, *assoc. prof*, 40–42, *civil eng, 42–* A.A; Eng. Educ; Math. Soc; Math. Asn. Elasticity and fluid mechanics.

Gundersen, Dr. Alfred, Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany.* Kragerö, Norway, July 1, 77. A.B, Stanford, 97; A.M, Harvard, 07; Dr. de l'Univ, Paris, 10. Teacher, secondary schs, 98–03; asst, Arnold Arboretum, 10–13; asst. curator, *Brooklyn Bot. Garden*, 14–24, *curator plants, 24–* A.A; Bot. Soc; Torrey Bot. Club. Flower development; classification of dicotyledons; trees; lilacs.

Gunderson, Dr. Frank L(ester), 6017 Wynnwood Road, Wood Acres, Washington, D. C. *Biochemistry.* Oconomowoc, Wis, March 16, 08. B.S, Wisconsin, 24, M.S, 26, Ph.D, 29. Asst. chemist, State Dept. Agr, Wis, 24–29; biochemist in charge nutrition lab, *Quaker Oats Co, Chicago*, 29–40, *director nutrition dept, 41–; exec. sec'y food and nutrition board, Nat. Research Council, 42–* Ed, 'Nutrition,' 38–; ed. assoc, 'Food Research,' 39– Asn. Cereal Chem; Chem. Soc; Pub. Health Asn. Nutrition; food chemistry; food research coordination.

Gunderson, Dr. Harold, Iowa State College, Ames, Iowa. *Entomology.* Butte, Mont, March 22, 13. B.Sc, Mont. State Col, 34, M.Sc, 35; Ph.D, Iowa State Col, 39. Agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 34, 39; teaching asst, *Iowa State Col*, 35–37, asst. exten. entomologist, 37–39, *exten. entomologist, 39–* Asn. Econ. Entom; Iowa Acad. Taxonomy of Aphididae; toxicology of fumigants; economic entomology.

Gunderson, Prof. Millard (Fillmore), University of Nebraska College of Medicine, Omaha, Nebr. *Bacteriology.* Waukon, Iowa, June 10, 02. B.S, Minnesota, 29, Hormel fellow, 28–31, M.S, 30, Ph.D, 32. Howard lab, Minneapolis, Minn, 22–27; analyst, exp. sta, Minnesota, 28, teaching fellow, 31–34, instr, 34; asst. prof. *path. and bacter, col. med,*

Nebraska, 35–40, *assoc. prof*, 40– Botulism investigation, bur. biol. surv, U. S. Dept. Agr, 31. Botulism; vitamins in micro-organisms; anaerobes; non-specific detoxification of toxins; biotic factors in avian botulism.

Gundlach, Prof. Ralph H(arrelson), University of Washington, Seattle, Wash. *Psychology.* Kansas City, Mo, June 17, 02. A.B, Washington (Seattle), 24, A.M, 25; Ph.D, Illinois, 28. Instr. *psychol, Washington (Seattle)*, 27–30, asst. prof, 30–37, *assoc. prof*, 37– Psychol. Asn; West. Psychol. Asn. (v. pres, 35, sec'y-treas, 39–). Experimental, social and animal psychology; personality; esthetics.

Gundy, Dr. Glen V(erlon), 424 W. Mineral, Platteville, Wis. *Chemistry.* Memphis, Mo, March 21, 01. B.S, Cent. Mo. State Teachers Col, 25; M.S, Iowa, 29, Ph.D, 35. Teacher, high schs, Mo, 23–26; Ill, 26–28; instr. chem, Case, 29–31; *teacher chem. and soils, Wis. State Teachers Col, Platteville*, 35– Chem. Soc; Iowa Acad. Vanillin derivatives.

Gunn, Dr. C(harles) K(enneth), Dominion Fox Experimental Station, Summerside, P. E. I, Can. *Animal ecology.* Man, Dec. 17, 03. B.Sc, Manitoba, 29, M.Sc, 31; Ph.D, Toronto, 37. Senior demonstrator zool. and lecturer microtechnique, Manitoba, 29–33; asst, Connaught Labs, 34–37; exp. farm asst, Dom. Dept. Agr, 37–40; *supt, Dom. Exp. Fox Ranch, 40–* Breeding, feeding, reproduction, fur and parasites of foxes; a new mutant strain of jaundiced rats.

Gunn, Dr. Francis D(owden), 1173 Willow Road, Winnetka, Ill. *Pathology.* Lexington, Ky, July 20, 99. A.B, Cornell, 21; M.D, Northwestern, 25, Ph.D, 30. Nat. research fellow, 25–27; instr. *path, med. sch, Northwestern*, 27–28, assoc, 28–31, asst. prof, 31–39, *assoc. prof, 39–, curator, F. R. Zeit museum, 37–* Pathologist, Wesley Mem. Hosp, Chicago, 27–28; Ill. Masonic Hosp, 29–30; Evanston Hosp. Asn, 30–36. Soc. Exp. Path; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Chicago Path. Soc. (pres, 38); Inst. Med. Chicago. General pathology; tissue immunity; pulmonary inflammation.

Gunn, Dr. Ross, U. S. Naval Research Laboratory, Washington, D. C. **5Physics.* Cleveland, Ohio, May 12, 97. B.S, Michigan, 20, M.S, 21; Ph.D, Yale, 26. Special instr. war courses, Michigan, 17–18; radio research engineer, Glenn L. Martin Co, 19; Air Service, 22–23; *consulting engineer, 24–;* instr. physics, Michigan, 20–22; Yale, 23–27; research physicist, *U. S. Navy*, 27–28, asst. supt, heat and light div, *Naval Research Lab*, 28–34, *tech. adviser, 34–, supt. mech. and electricity div, 38–* Research assoc, Carnegie Institution, 39–; mem. subcmts, Nat. Advisory Cmt. Aeronautics, 43– Fel. Physical Soc; Radio Eng; Astron. Soc; Meteorol. Soc; Geophys. Union. Naval physics; electrical measurements; aircraft instruments; radio; astrophysics; terrestrial and solar electricity and magnetism; geology.

Gunn, Selskar M(ichael), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Sanitary science.* London, Eng, May 25, 83. B.S, Mass. Inst. Tech, 05; C.P.H, Harvard-Tech. Sch. of Pub. Health, 17. Bacteriologist, Boston Bio-Chem. Lab, 05–06; 1st asst. bacteriologist, State Board Health, Iowa, 06–08; health officer, Orange, N. J, 08–10; instr. sanit. biol, Mass. Inst. Tech, 10–11, asst. prof. sanit. biol. and pub. health, 11–13, assoc. prof, 14–17; assoc. director, Cmn. for Prev. Tuber, France, 17–20; adviser, pub. health admin, Ministry Health, Czechoslovakia, 20–22; director Paris office, int. health board, *Rockefeller Foundation*, 22–27, *v. pres, 27–* Lecturer, Iowa, 06–08; Tufts Col, 12–14; asst. prof, Simmons Col, 12–14; sanit. expert, Bur. Econ. and Efficiency, Milwaukee, 11; director div. hygiene, State Health Dept, Mass, 15–16; sec'y health cmt, office for. relief, U. S. State Dept, 43– Managing ed, 'Am. Jour. Pub. Health,' 12–13, ed, 14–17. State Board Labor and Industries, Mass, 14–15. Officier, Légion d'honneur, 25, commander, 37. Fel. Pub. Health Asn. (sec'y, 12–17, v. pres, 40).

Gunness, Prof. C(hristian) I, Massachusetts State College, Amherst, Mass. *Agricultural engineering.* N. Dak, July 23, 82. B.S, N. Dak. Col, 07. Instr. mech. eng, N. Dak. Col, 07–12; educ. work, M. Rumely Co, Laporte, Ind, 12–14; *prof. agr. eng. and head dept*, Mass. Col, 14–31, *Mass. State Col, 31–* Agr. Eng. Fruit storage; poultry house ventilation.

Gunning, Dr. H(arry) Emmet, National Research Council, Ottawa, Ont, Can. *Physical chemistry.* Toronto, Ont, Can, Dec. 16, 16. B.A, Toronto, 39, Reuben Wells Leonard fellow, 39–40, A.M, 40, Ph.D, 42. *Nat. research fellow chem, Harvard, 42–; nat. defense research physical chem, Nat. Research Council Can.* Summer, research chemist, Imp. Oil Co, Can, 41. British Asn. for Advancement of Science medal. 39. Conductance and ionic mobilities for aqueous solutions of potassium and sodium chloride at temperatures from 15 to 45 degrees centigrade; conductance as a function of concentration; magnesium sulphate.

Gunning, Prof. H(enry) C(ecil), University of British Columbia, Vancouver, B. C, Can. *Geology.* Belfast, Ireland. B.A.Sc, British Columbia; M.S, Mass, Inst. Tech, 26, Ph.D, 28. Asst. geologist, Geol. Surv. Can, 28–30, assoc. geologist, 30–36, geologist, 36–39; *prof. econ. geol, British Columbia, 39–* Barlow mem. prize, Can. Inst. Mining and Metal, 38. Soc. Econ. Geol; fel. Geol. Soc; Can. Inst. Min. and Metal; fel. Royal Soc. Can. Economic geology; regional geology of British Columbia, Quebec and eastern Arctic.

Gunsalus, Prof. I(rwin) C(lyde), Cornell University, Ithaca, N. Y. *Bacteriology.* Sully Co, S. Dak, June 29, 12. B.S, Cornell, 35, M.S, 37, Ph.D, 40. Asst. *bacter, Cornell*, 35–37, instr, 37–40, *asst. prof, 40–* A.A; Soc. Bact; Chem. Soc. Physiology and metabolism of microorganisms.

Gunstad, Dr. Borghild, 3245 Nicollet Ave, Minneapolis, Minn. *Biometry, Mathematics.* Minneapolis, Minn, July 7, 06. B.S, Minnesota, 27, A.M, 31, Ph.D, 34. From asst. to *instr. biometry, Minnesota, 28–* Math. Soc; Math. Asn. Biometry of the newborn infant; mathematical theory of statistics.

Gunter, Gordon, State Game, Fish and Oyster Commission, Rockport, Texas. *Zoology.* Goldonna, La, Aug. 18, 09. A.B, La. State Nor. Col, 29; A.M, Texas, 31, 39; Louisiana, 33–34. Asst, U. S. Bur. Fisheries, 31–33, 34, 35–36; commercial fisheries, Texas coast, 36–38; junior aquatic biologist, Debris Dam fisheries surv, Calif, U. S. Engineers, 38; *marine biologist, State Game, Fish and Oyster Cmn, Texas, 39–* Cmt. ecol. of marine organisms, Nat. Research Council, 41, 42. A.A; Soc. Ichthyol. and Herp; Ecol. Soc; Texas Acad; New Orleans Acad. Marine zoology; ecology of marine and euryhalin animals; river shrimp; gastropods; crabs; oysters; taxonomy of fishes.

Gunter, Herman, State Geological Survey, Tallahassee, Fla. *Geology.* Brooklyn, N. Y, July 2, 85. B.S, Florida, 07. Asst, Fla. Geol. Surv, 07–19; *state geologist, Fla, 19–* Emergency coordinator mines, Fla. A.A; Geol. Soc; Asn. Petrol. Geol; Geophys. Union; Water Works Asn. (chairman, Fla. sect, 33); Soc. Vert. Paleont; Fla. Acad. (chairman, physical sciences sect, 34); Fla. Eng. Soc. Florida underground waters; mineral and natural resources and economic geology of Florida.

Gunter, Dr. Roy C(halmers), Jr, Clark University, Worcester, Mass. *Physics, Mathematics.* Brooklyn, N. Y, June 3, 16. B.S, Bowdoin Col, 38; Mass. Inst. Tech, 38; A.M, Boston, 39, fellow, 39–42, Ph.D, 42. Instr. physics and math, *Clark*, 41–43, *asst. prof. physics, 43–* Optical Soc. Spectroscopy in industry; cohesive force and lattice constant of silver by method of Fuchs.

Gunther, Lieut. Col. Charles O(tto), Stevens Institute of Technology, Hoboken, N. J. *Mathematics.* New York, N. Y, May 21, 79. M.E, Stevens Inst. Tech, 00. Instr. math, *Stevens Inst. Tech*, 00–02, asst. prof, 02–04, math. and mech, 04–08, *prof. math. and head dept, 08–, ordnance eng, 37–; consulting engineer.* Ordnance Dept, U.S.A, 18–19; lieut. col, Ordnance Reserve. A.A; Civil Eng; Mech. Eng; Army Ordnance Asn; Soc. Mil. Eng; Soc. astron. de France. Integration by trigonometric and imaginary substitution; interior and exterior ballistics; heat transfer; scientific identification of firearms and bullets in crime detection; identification of firearms from the ammunition fired therein.

Gunther, Prof. Erna, University of Washington, Seattle, Wash. *Anthropology.* Brooklyn, N. Y, Nov. 9, 96. A.B, Columbia, 19, A.M, 20, Ph.D, 29. Asst. *anthrop*, Barnard Col, Columbia, 19–21; assoc, *Washington (Seattle)*, 23, instr, 29–30, asst. prof, 30–37, assoc. prof, 37–41, *prof, 41–;* acting director, *Wash. State Museum*, 29–30, *director, 30–* Anthrop. Asn. (councilor); Ethnol. Soc; Folk-Lore Soc. Ethnology of the northwest coast of America; American Indian folk-lore.

Gunthorp, Dr. Horace, 2439 A St, San Diego, Calif. *Zoology.* Holbeach, Eng, Aug. 28, 81. Ph.B, Hamline, 05; A.B, Stanford, 09; A.M, Kansas, 12, Ph.D, 23; fellow, Minnesota, 17–18. Prof. biol, Southwestern Col. (Kans), 09–11; instr. zool, Kansas, 11–12; prof. biol, Monmouth Col, 12–16; zool, Wash-

burn Col, 18–20; asst. prof, Washington (Seattle), 20–24; prof, Mills Col, 24–27, director sch. science, 27; prof. biol, Arizona, 27–33. Kans. Biol. Surv, 10–12. Summer, prof, Ariz. State Teachers Col, Flagstaff, 31. A.A. Myriapoda; comparative thyroid feedings on tadpoles.

Gunton, Prof. J(ohn) A(berdeen), University of Western Ontario, London, Ont, Can. *Chemistry.* Simcoe, Ont, Sept. 11, 94. B.A, McMaster, 16, M.A, 17; Ph.D, Illinois, 21. Asst, McMaster, 16; pub. analyst, Inland Revenue Lab, Ottawa, Ont, 17; instr, med. dept, Louisville, 17–18; asst. *chem,* Illinois, 18–21; *prof,* Transylvania Col, 21–23; *Western Ontario, 23–* Summers, chemist, Can. Explosives, Ltd, 17; food and drug chemist, Exp. Sta, Kentucky, 22. Chem. Soc. (chairman, Lexington sect, 23); Soc. Chem. Indust; Ky. Acad. (v. pres, 23); fel. Can. Inst. Chem. Anthraquinone drug plants; glucosides; chemical education.

Gurchot, Prof. C(harles), 150 Palo Alto Ave, San Francisco, Calif. *Chemistry.* Paris, France, July 19, 98. B.S, Col. City of N. Y, 21; Heckscher fellow, Cornell, 24–25, Ph.D, 25; École de Médecine, Paris, 27. Asst. chem. spectros, Cornell, 22, micros, 22–24, instr. biochem, 25–26, research fellow pharmacol, 33–34; sch. med, Stanford, 28–30; director research lab, Sonoma State Home, Eldridge, Calif, 30–33; research assoc. *pharmacol, med. sch, California,* 34–37, instr, 37–41, *asst. prof, 41–* U.S.A, 18–19. A.A; Chem. Soc; Soc. Exp. Biol; Calif. Acad. Physical and optical chemistry; chemotherapy; biophysics.

Gurd, Dr. Fraser B(aillie), 1538 Sherbrooke St, W, Montreal, Que, Can. *Surgery.* Montreal, Que, Jan. 7, 83. B.A, McGill, 04, M.D, 06. Instr. path. and bacter, Tulane, 09–11; asst. prof. and *prof. surg, McGill, 11–* Attending surgeon and later chief surg. service and chairman surg. staff, Montreal Gen. Hosp; surgeon-in-chief, Grace Dart Home Hosp. Founder, Am. Board Surg. Major, R.C.A.M.C; hon. capt, R.A.M.C. Fel. Col. Surg. (2nd v. pres, 38); fel. Surg. Asn; Asn. Thoracic Surg. (pres, 40); Surg. Research Soc; fel. Asn. Surg. Trauma (pres, 40); fel. Cent. Surg. Asn; fel. Can. Asn. Clin. Surg. (pres, 39–41); fel. Royal Col. Surg. Can. Surgery of trauma; thoracic surgery; carcinoma.

Gurdjian, Dr. E(lisha) S(tephens), David Whitney Bldg, Detroit, Mich. *Neurology.* Smyrna, Asia Minor, April 18, 00. A.B, Michigan, 20, M.S, 24, M.D, 26, Ph.D, 27. Asst. anat, Michigan, 24–25, instr, 25–27; lecturer neuropath. and neurosurg, Detroit Col. Med. and Surg, 30–41; extramural lecturer, grad. sch. med, Michigan, 34–41; *asst. prof. surg, Wayne, 41–* Col. Surg; Am. Med. Asn; Asn. Anat; Cent. Neuropsychiat. Asn. Neurological sciences; experimental neurology and neurosurgery.

Gurin, Dr. Samuel, University of Pennsylvania School of Medicine, Philadelphia, Pa. *Chemistry.* New York, N. Y, July 1, 05. A.B, Columbia, 28, M.S, 30, fellow, 32–34, Ph.D, 34. Asst. physiol. chem, Teachers Col, Columbia, 28–32, chemist, dept. biochem, col. physicians and surg, 34–35; nat. research fellow, Illinois, 35–36; instr. *physiol. chem, sch. med, Pennsylvania,* 36–42, *asst. prof, 42–* Soc. Biol. Chem; Chem. Soc. Chemistry of vitamin B; protein chemistry; hormone chemistry; application of isotopes to intermediary metabolism.

Gurley, W(illia)m F(rank) E(ugene Reed), 6151 University Ave, Chicago, Ill. *Paleontology.* Oswego, N. Y, June 5, 54. Cornell, 73–75. State geologist, Ill, 93–97; *curator paleont, Chicago, 00–* A.A; Paleont. Soc; Geol. Soc; Malacol. Union; Ill. Acad; fel. Royal Soc. Arts; cor. mem. Austrian Imp. Royal Geol. Soc. Paleozoic paleontology.

Gurnee, Prof. Herbert, 3276 Cedarbrook Road, Cleveland, Ohio. *Psychology.* Providence, R. I, Nov. 3, 95. A.B, Wesleyan, 22, A.M, 23; Ph.D, Harvard, 29. Instr. *psychol,* Yale, 26–28; *asst. prof, Western Reserve, 28–* A.A; Psychol. Asn. Perception of bodily motion; human learning; group behavior.

Gurney, Dr. Ashley B(uell), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Cummington, Mass, May 16, 11. B.S, Mass. State Col, 33, M.S, 35, Ph.D, 40; Minnesota, 35–36. Asst. entomologist and later *assoc. entomologist, div. insect identification, bur. entom. and plant quarantine, U. S. Dept. Agr, 36–; lieut, Sanit. Corps, U. S. Army, 42–* Lecturer, Maryland, 41. Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. (recording sec'y, 38–42). Classification, biology and distribution of insects, with special reference to Orthoptera, Corrodentia, Zoraptera and related orders; distribution and control of mosquitoes.

Gurry, Dr. Robert W(ilton), U. S. Steel Corp, Kearny, N. J. *Physical chemistry.* Schenectady, N. Y, Sept. 27, 13. B.S, Union Col. (N. Y), 34; Ph.D, Yale, 37. *Research chemist, research lab, U. S. Steel Corp, 37–* Carburization and decarburization; diffusion in metals; slag-metal equilibria; equilibrium diagrams of slag components.

Gus, Prof. Charles E(dward), 8801 Shore Road, Brooklyn, N. Y. *Mechanical engineering.* London, Eng, Aug. 29, 02. B.S, N. Y. Univ, 23, Duryea fellow, 23–24, M.E, 24. Asst. eng, *N. Y. Univ,* 23–25, instr, 25–27, asst. prof. mech. and machine design, 27–32, assoc. prof. *eng. mech,* 32–41, *prof, 41–, exec. sec'y, col. eng, 37–* A.A; Mech. Eng; Eng. Educ. Elasticity of beams; dynamics of machinery; counseling for engineering students; engineering pedagogy; use of motion pictures in engineering education.

Guss, Prof. Lester S(amuel), South Dakota State College, Brookings, S. Dak. *Physical chemistry.* Wolford, N. Dak, June 10, 03. B.S, North Dakota, 23, M.S, 25; Ph.D, Minnesota, 38. Instr, high sch, Minn, 23–24; asst. chem, North Dakota, 24–25; instr, high sch, Minn, 25–28; *chem,* S. Dak. State Col, 28–36; asst, Minnesota, 36–38; *prof, S. Dak. State Col, 38–* Chem. Soc; S. Dak. Acad. Sci; Deuts. Chem. Gesell. Indicators in methanol, ethanol and other anhydrous solvents; acidity in anhydrous solvents.

Güssow, Dr. H(ans) T(heodor), Central Experimental Farm, Ottawa, Ont, Can. *Botany.* Breslau, Germany, Aug. 24, 79. Royal Bot. Gardens, Breslau, 94–96; Leipzig, 98–99; Berlin, 99–00; LL.D, Queen's (Can), 31. Asst. to consulting botanist, Royal Agr. Soc. England, 03–09; *Dom. botanist, Dom. Dept. Agr, 09–* Assoc. director science service, Dom. Dept. Agr. A.A; Phytopath. Soc. (assoc. ed, 'Phytopathology,' 16, pres, 35); Asn. Applied Biol; fel. Royal Soc. Can; Can. Phytopath. Soc. (pres, 30, councilor, 31, ed. in chief, 30–); hon. mem. Can. Soc. Forest Eng; hon. fel. Royal Hort. Soc; hon. fel. Bot. Soc. Edinburgh; Deuts. Akad. der Naturforscher; cor. mem. Verein für Angewandte Bot; Soc. de Path. vég. et d'Entom. agr; hon. mem. Royal Netherlands Bot. and Hort. Soc. General botany; phytopathology.

Gustafson, Prof. A(lton) H(erman), Main St, Williamstown, Mass. *Cytology.* Brockton, Mass, Sept. 16, 04. B.S, Mass. Col, 26; A.M, Harvard, 28, Ph.D, 30. Asst. biol, Williams Col, 26–27; Austin teaching fellow, Harvard, 27–30; instr. *biol, Williams Col,* 30–36, asst. prof, 36–43, *assoc. prof, 43–* Bot. Soc; New Eng. Bot. Club. Morphology; algae.

Gustafson, Prof. A(xel) F(erdinand), Cornell University, Ithaca, N. Y. *Agronomy.* Joy, Ill, Nov. 24, 80. B.S, Illinois, 07, M.S, 12; Ph.D, Cornell, 20. Asst. soil physics, Illinois, and Exp. Sta, 07–10, instr, 10–11, assoc, 11–15, asst. prof, 15–20; soils, N. Y. State Col. Agr, *Cornell,* 20–22, *prof. agron. and soil technol, 22–, soil technologist, Exp. Sta, 22–* Chief soil erosion control specialist, U. S. Dept. Agr, N. Y, 35. Soc. Agron; Soil Sci. Soc. Soil conservation; soil management; fertilizers.

Gustafson, Prof. F(elix) G(ustav), 917 Church St, Ann Arbor, Mich. *Botany.* Forsby, Finland, Jan. 8, 89. A.B, Wisconsin, 15; A.M, Harvard, 19, Ph.D, 21. Botanist, supply dept, Marine Biol. Lab, Woods Hole, 15–20; instr. *bot, Michigan,* 20–25, asst. prof, 25–34, *assoc. prof, 34–* A.A; Bot. Soc; Soc. Plant Physiol; Soc. Nat; Soc. Hort. Sci; Mich. Acad. Growth; growth hormones; parthenocarpy; respiration.

Gustafson, Dr. J(ohn) K(yle), Metals Reserve Co, 542 Lafayette Bldg, Washington, D. C. *Mining geology.* Chicago, Ill, March 13, 06. A.B, Washington (St. Louis), 27; A.M, Harvard, 28, Ph.D, 30. Austin teaching fellow, Harvard, 28–29, instr. miner, 29–30; geologist, Hollinger Consol. Gold Mines, Ltd, Can, 30–34; West. Mining Corp, West. Australia, 34–36; geologist in charge cent. geol. surv. for Zinc Corp, Ltd, Broken Hill South, Ltd, and North Broken Hill, Ltd, Australia, 36–39; geologist, Hollinger Consol. Gold Mines, Ltd, 39–42; *adviser, Metals Reserve Co, 42–* Summers, rodman, U. S. Geol. Surv, 28; geologist, Homestake Mining Co, 29. Min. and Metal. Eng; Soc. Econ. Geol; Can. Inst. Min. and Metal. Ore deposits.

Gustafson, Rudolph O, U. S. Department of the Interior, Washington, D. C. *Forestry.* Underwood, Minn, April 3, 03. B.S, Washington (Seattle), 28; M.F, Yale, 29. Forest engineer, Chas. R. McCormick Lumber Co, Seattle, 29–30; junior forester, bur. biol. surv, U. S. Dept. Agr, 30–33, administrative asst, 33–38; assoc. equipment engineer in charge equipment operation, selection and safety on nat. wildlife,

refuges, *fish and wildlife service, U. S. Dept. Interior*, 38–42, *equipment engineer in charge equipment management and safety, 42–* Soc. Foresters. Management of wildlife refuges, especially those for migratory waterfowl.

Gustavson, Prof. R(euben) G(ilbert), University of Colorado, Boulder, Colo. *Chemistry.* Denver, Colo, April 6, 92. A.B, Denver, 16; Ph.D, Chicago, 25. Instr. *chem*, Colo. Agr. Col, 17–19, assoc. prof, 19–20; asst. prof, Denver, 20–21, assoc. prof, 21–30, *prof*, 30–37; *Colorado, 37–, dean grad. sch, 42–* Visiting prof, Chicago, 29–30. Int. Cong. Sex Research, London, 30. Chem. Soc; Svensk Kemist Samfundet. Volumetric determination of cobalt in presence of nickel; successive electrometric titration of iron, uranium and vanadium; the true dry substance in beet sugar molasses; growth-promoting substances of the ovary and placenta; production of female feathers in capons and normal cocks from hormone injections; assay of estrogens in blood and urine.

Gustus, Dr. E(dwin) L(ysle), 5321 Cornell Ave, Chicago, Ill. *Organic chemistry.* Moline, Ill, July 27, 00. A.B, Stanford, 21; M.S, Northwestern, 23, fellow, 23–25, Ph.D, 26. Asst. biochem, med. sch, Northwestern, 21–23; chem. pharmacol, Rockefeller Inst, 26–28, assoc, 28–30; nat. research fellow, Eidgenossische Tech. Hochschule, Zurich, 30–31; research assoc. chem, Pa. State Col, 31–32; guest worker endocrinol, Rockefeller Inst, 32–33; fellow biochem, research labs, Upjohn Co, 33–34, biochemist, 34–36; asst. to gen. manager, Wilson Labs, Wilson and Co, 36–43; *director research, research and develop. branch, mil. planning div, Office Quartermaster Gen, 43–* Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Cardiac aglucones; pharmaceuticals of animal origin.

Gutenberg, Prof. B(eno), California Institute of Technology, Pasadena, Calif. *[8]*Geology, Geophysics, Meteorology.* Darmstadt, Germany, June 4, 89. Ph.D, Göttingen, 11. Asst, Zentralbüro Int. Seismol. Asn, Strassburg, 13–18; privat-docent geophys, Frankfurt, 24–26, *prof*, 26–30; *geophys. and meteorol, Calif. Inst. Tech, 30–* Ed. board, 'Physics of the Earth.' Mem. cmt. Pacific seismol. and cmt. Pacific investigations, Nat. Research Council. A.A; Seismol. Soc. (director); Geol. Soc; Asn. Petrol. Geol; Soc. Explor. Geophys; Geophys. Union; Meteorol. Soc; Physical Soc; Oceanog. Soc. Pacific; Royal Astron. Soc; Deuts. Geophys. Gesell; Gesell für Tech. Physik; cor. mem. Finnish Geog. Soc. Seismology; structure of the earth; gravity and isostasy; viscosity; structure of the atmosphere, especially temperature of the stratosphere; propagation of sound waves through the stratosphere.

Guterman, Prof. Carl E(dward) F(rederick), Cornell University, Ithaca, N. Y. *Plant pathology.* West Springfield, Mass, Oct. 27, 03. B.S, Mass. Col, 25; lily disease investigation fellow, Cornell, 27–30, Ph.D, 30. Asst. prof. *plant path, Cornell*, 30–36, *prof, 36–*, asst. director, Exp. Sta, 36–42, *director research, N. Y. State Col. Agr. and N. Y. State Col. Home Econ, 42–, director exp. sta, 42–* A.A; Phytopath. Soc; N. Y. Agr. Soc. Diseases of ornamental plants; lily diseases.

Guth, Dr. Earl P(eter), 2996 Neil Ave, Apt. 81–B, Columbus, Ohio. *Pharmacy, Pharmaceutical chemistry.* Peoria, Ill, Dec. 2, 04. Ph.D, Washington (Seattle), 29, B.S, 30, M.S, 31, Am. Pharmaceut. Asn. fellow, 31–32, Ph.D, 37. Teaching fellow pharmacy, Washington (Seattle), 35–37; instr. pharmacy and pharmaceut. chem, Duquesne, 37–40; asst. prof. *pharmacy, Ohio State*, 40–42, *assoc. prof, 42–* Mem. U. S. Pharmacopoeia Revision Sub-cmt. No. 12. Chairman Conf. Teachers Pharmacy, 41. Pharmaceut. Asn. (v. chairman sect. practical pharmacy, 41). Extraction as applied to National Formulary fluid; phytochemical and pharmacological study of solanum villosum; relief medicine in Pennsylvania.

Guth, Prof. E(ugene), University of Notre Dame, Notre Dame, Ind. *Physics.* Budapest, Hungary, Aug. 21, 05. Ph.D, Vienna, 28. Research assoc. *physics*, Vienna, 28–30, 31–37; Inst. Tech, Zurich, 30–31; instr, *Notre Dame*, 37–40, *asst. prof, 40–* Fel. Physical Soc; Chem. Soc. Theoretical physics; quantum mechanics of solids and nuclei; physics of rubber and high polymers.

Guthe, Dr. Carl E(ugen), 420 Lakeview Drive, R.F.D. 1, Ann Arbor, Mich. *[7]*Anthropology.* Kearney, Nebr, June 1, 93. B.S, Michigan, 14; A.M, Harvard, 15, Ph.D, 17. Austin teaching fellow anthrop, Harvard, 15–17; assoc. director Andover-Pecos exped, dept. archeol, Phillips Acad, 17–20; research assoc, Carnegie Institution, 21–22; assoc. director *anthrop. museum, Michigan*, 22–29, *director, 29–, univ. museums, 36–*, chairman div. social sciences, 35–38. Chairman cmt. state archeol. surveys, Nat. Research Council, 27–37, div. anthrop. and psychol, 38–41. Lapham medal, 30. Pres, Mich-Ind. Museums Conf, 29–33; pres, Midwest Museums Conf, 40–A.A. (chairman, H, 30); Anthrop. Asn. (pres, cent. sect, 28). Archeology of the Mississippi Basin and of North America.

Guthe, Dr. Otto E(mmor), 3245 Livingston St, N.W, Washington, D. C. *Geography.* Washington, D. C, Oct. 6, 04. A.B, Michigan, 27, A.M, 28, Ph.D, 33 Instr. geog, Michigan, 29–35; bur. biol. surv, U. S. Dept. Agr, 35; asst. geographer, Tenn. Valley Authority, 35–36, assoc. geographer, 36–37; assoc. soil conservationist, climat. and physiog. div, soil conservation service, U. S. Dept. Agr, 37–39, soil conservationist, 39–40, senior soil conservationist, 40–41; *prin. divisional asst, office of geographer, U. S. Dept. State, 41–* A.A; Asn. Geog; Geophys. Union. Cover mapping in Michigan; geography of the Black Hills of South Dakota and Wyoming; land use planning in Tennessee Valley; land use and flood control.

Guthmann, Dr. W(alter) S, 732 Federal St, Chicago, Ill. *Chemistry.* Chicago, Ill, April 3, 07. B.S, Yale, 28; Ph.D, Chicago, 32. Research chemist, Int. Filter Co, 31–32; chemist, Puritan Mills, 32–33; *consulting chemist, v. pres. and treas, Edwal Labs, 33–; mem. staff, office of chief, Chem. Warfare Service, 42–, major.* Capt, C.W.R. Chem. Soc. Molecular rearrangements; detergents; paints; egg products; new organic compounds.

Guthrie, Dr. A(lbert) N(elson), Rhode Island State College, Kingston, R. I. *Physics.* Carlsbad, N. Mex, Sept. 10, 03. B.S, Arizona, 26; M.S, Illinois, 28, Ph.D, 30. Asst, Illinois, 26–29; instr. *physics*, Columbia, 30–36; assoc. prof, *R. I. State Col*, 36–42, *prof. and chairman dept, 42–* Physical Soc; Asn. Physics Teachers; Eng. Educ. Magnetism; molecular beams.

Guthrie, Dr. Andrew, 2301 Cedar St, Berkeley, Calif. *Nuclear physics.* Ladysmith, B. C, Can, July 22, 15. B.A, British Columbia, 34; M.S, Purdue, 39, Ph.D, 41. Instr, high sch, B. C, Can, 35–37; asst. physics, Purdue, 37–41, instr, 41–42; *assoc. physicist, radiation lab, California, 42–* Physical Soc. Low voltage arc discharges; gamma ray measurements and nuclear structure.

Guthrie, Prof. C(harles) C(laude), University of Pittsburgh, Pittsburgh, Pa. *[2]*Physiology.* Gilmore, Mo, May 13, 80. B.S, Woodlawn Inst, 97; M.D, Missouri, 01, fellow, 01–02; Ph.D, Chicago, 07; Sc.D, Pittsburgh, 35. Demonstrator physiol, Western Reserve, 02–03; instr, Chicago, 03–06; *prof. physiol. and pharmacol*, Washington (St. Louis), 06–09; *Pittsburgh, 09–* A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Pharmacol; Soc. Biol. Research; fel. Am. Med. Asn; Pittsburgh Acad. Med. Blood reactions and alterations; resuscitation; phenomena attending and following cerebral and other anemias; survival of isolated tissues; engrafted tissues; suture of blood vessels; organ transplantation with anastomosis of blood vessels; pharmacology of magnesium salts and digitalis; reactions of skeletal and heart muscle; experimental and clinical shock; influenza; respiration; alteration of thyroid circulation in goiter; fundamental physiology and pharmacology, particularly of the heart.

Guthrie, Prof. David Vance, Louisiana State University, Baton Rouge, La. *Physics.* Staunton, Va, Oct. 15, 84. A.B, Washington and Lee, 03, A.M, 04; Ph.D, Hopkins, 08. Asst, Yerkes Observatory, Chicago, 08; instr. physics, Virginia, 08–10, adj. prof, 10–11; *prof. physics and astron, Louisiana, 11–* A.A; Physical Soc; Astron. Soc; Asn. Variable Star Observers. Terrestrial magnetism; astrophysics.

Guthrie, Prof. Edward Sewall, Cornell University, Ithaca, N. Y. *Dairying.* Coin, Iowa, Dec. 27, 80. B.S.A, 05, M.S.A, 10; Ph.D, Cornell, 13. Instr. dairying, Ohio State, 05–08; *dairy indust, Cornell*, 08–13, *prof, 13–* A.A; Dairy Sci. Asn. (pres, 39). The causes of flavors in milk and butter; economic aspects of creamery organization; theory of churning; cultured cream; microbiology of butter; long time storage of butter; deaeration of milk.

Guthrie, Prof. E(dwin) R(ay), University of Washington, Seattle, Wash. *[7]*Psychology.* Lincoln, Nebr, Jan. 9, 86. A.B, Nebraska, 07, A.M, 10; Ph.D, Pennsylvania, 12. Fellow, Pennsylvania, 12–14; instr. *psychol, Washington (Seattle)*, 14–19, asst. prof, 19–27, *prof, 27–, dean grad. sch, 43–; head psychologist, overseas branch, Office War Information, 42–* A.A; Psychol. Asn; Philos. Asn. General and social psychology.

Guthrie, Dr. John D(aulton), Bureau of Agricultural and Industrial Chemistry, U. S. Department of Agriculture, New

Orleans, La. *Biochemistry.* Detroit, Mich, March 19, 03. B.S, Ohio State, 25, Ph.D, 29. Asst. biochem, Boyce Thompson Inst, 25–27, asst. biochemist, 29–41; *senior chemist, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Asst, Ohio State, 27–29. A.A; Chem. Soc; Oil Chemists Soc; Bot. Soc. Leg mutant in Drosophila; chloroplast pigments; oxidative enzymes; effect of stimulative chemicals on plants; glutathione in plants; utilization of agricultural commodities.

Guthrie, John D(ennett), Villevue, Charlotte Court House, Va. *Forestry.* Charlotte Court House, Va, July 15, 78. Ph.B, Union (N. Y), 02, hon. M.S, 32; M.F, Yale, 06. Investigations, U. S. Forestry Service, 02–04, boundaries, 04–08, forest supervisor, Southwest, 08–17, Northwest, 20–33, asst. regional forester in charge pub. relations, Portland office, 20–33, liaison officer, civilian conservation corps, Ft. Sam Houston, 33–34, gen. inspector, 34–43; *retired.* Charles Lathrop Pack prize, Soc. Am. Foresters; chevalier, Mérite agricole, France; Orders St. Anne, St. Nicholas and Compassionate Heart, Russia. C.Eng, U.S.A, 17–19, Major, O.R.C. A.A; fel. Soc. Foresters (v. pres, 29–33); Forestry Asn; Soc. Mil. Eng. (pres, Portland post, 24, 29); fel. Am. Geog. Soc; fel. Inst. Am. Geneal; cor. mem. Soc. Forestry Finland.

Guthrie, Prof. Mary J(ane), University of Missouri, Columbia, Mo. *[8]*Zoology.* New Bloomfield, Mo, Dec. 13, 95. A.B, Missouri, 16, A.M, 18; fellow, Bryn Mawr Col, 21–22, Ph.D, 22. Demonstrator biol, Bryn Mawr Col, 18–20, instr, 20–21; asst. prof. *zool, Missouri,* 22–26, assoc. prof, 27–37, *prof, 37–* A.A; Soc. Zool; Soc. Mammal; Genetics Soc; Asn. Anat. Mesenchyme formation in Toxopneustes; cytoplasmic inclusions in ovarian and developing eggs; cytology of the reproductive system and related endocrine glands in female bats.

Guthrie, Prof. Ned, Hanover College, Hanover, Ind. *Chemistry.* Shelby Co, Ill, Feb. 8, 99. B.S, Ill. Wesleyan, 25; M.S, Illinois, 26. Teacher, rural schs, Ill, 18–20, instr, high sch, 22–23; *prof. chem, Hanover Col, 26–* A.A; Chem. Soc; Ind. Acad. Organic chemistry.

Guthrie, Prof. R(obert) Vernon, (Jr), University of San Antonio, San Antonio, Texas. *Physics.* Tanglewood, Texas, June 18, 97. A.B, Austin Col, 20, A.M, 21; M.S, Iowa, 24. Asst. *physics.* Iowa, 22–24; N. Y. Univ, 24–25; *assoc. prof,* Southwestern (Texas), 25–32; *San Antonio, 32–* Peacock Mil. Acad, San Antonio, 32–35. Theoretical physics; high frequency electric currents; seismology.

Gutman, Dr. Alexander B(enjamin), Presbyterian Hospital, New York, N. Y. *Medicine.* New York, N. Y, June 7, 02. A.B, Cornell, 23, A.M, 24, Ph.D, 26; M.D, Vienna, 28. Asst. *med, col. physicians and surg, Columbia,* 29–35, instr, 35–37, assoc, 37–40, *asst. prof, 40–* Asst. attending physician, Presb. Hosp, 29–; Vanderbilt Clinic, 39– A.A; Am. Med. Asn; Soc. Clin. Invest; fel. Col. Physicians; fel. N. Y. Acad. Total, inorganic and thyroxine iodine content of pathological thyroid glands; calcium, phosphorus, phosphatase of the blood in bone diseases; phosphatase in liver diseases; acid phosphatase of prostate gland; serum proteins; calcification.

Gutsell, Dr. James S(uler), U. S. Fisheries Experimental Station, Kearneysville, W. Va. *Zoology.* Locke, N. Y, Aug. 30, 87. A.B, Cornell, 11, Ph.D, 29; scholar, Illinois, 12. Asst. stream studies, State Conservation Dept, N. Y, 16; sci. asst, *Bur. Fisheries,* 16–24, assoc. biologist, 24–36, *asst. biologist, 36–* Collector, bur. biol. surv, U. S. Dept. Agr, 11. Limnol. Soc. Hydrobiology; yolk formation and cytoplasmic inclusions in eggs of Penaeus; life history and biology of oysters, scallops and shrimps; ecology of trout and bass streams; influence of chemical conditions on trout; selective breeding of trout and trout diets.

Guttmacher, Dr. Alan F(rank), 1039 N. Calvert St, Baltimore, Md. *Obstetrics.* Baltimore, Md, May 19, 98. A.B, Hopkins, 19, M.D, 23. Asst. anat, Hopkins, 23–24; instr, Rochester, 24–25; from intern to res. obstet, Hopkins Hosp, 25–29, instr. *obstet, Hopkins,* 29–32, assoc, 32–38, *assoc. prof, 38–* Res. gynec, Mt. Sinai Hosp, New York, 27–28; chief obstetrics, Sinai Hosp, Baltimore, Md, 43– Asn. Anat. Anatomy and physiology of the female reproductive tract.

Guttman, Dr. John, 263 Eastern Parkway, Brooklyn, N. Y. *Physiology.* Uj-Leszna, Hungary. B.S, Col. Eperjes, Hungary, 86; M.D, Vienna, 92. Asst. surgeon, N. Y. Ophthalmic and Aural Inst, 96–05; *asst. prof. otology, N. Y. Post-Grad. Med. Sch, Columbia, 23–; instr. oto-rhino-laryngol, col. med, N. Y. Univ, 29–* Asst. visiting surgeon, Bellevue Hosp, 29–Am. Med. Asn; Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol; N. Y. Acad. Med. Physiology of the ear; vacuum tube audiometer; electrical phenomena associated with hearing.

Guttman, Dr. Rita, Brooklyn College, Brooklyn, N. Y. *Physiology.* New York, N. Y, March 17, 12. A.B, Columbia, 33, A.M, 35, Ph.D, 39. *Instr. physiol, Brooklyn Col, 36–* Electrophysiology; neurophysiology; respiration in nerve; bioelectric potentials; electrical impedance of living tissues; action of narcotics and various ions upon nerve and muscle; electrical rectification in single nerve fibers.

Guy, Hubert G(raham), 922 Koppers Bldg, Pittsburgh, Pa. *Entomology.* Boston, Mass, June 19, 06. B.S, Florida, 28; M.S, Ohio State, 33; research fellow, Delaware, 33–37. Asst, United Fruit Co, 28–30; field aid, U. S. Dept Agr, 30–31; asst, New Hampshire, 31–32; Ohio State, 32–33; entomologist, E. I. du Pont de Nemours and Co, 37–41; *supt. agr. research, Koppers Co, 41–* A.A; Phytopath. Soc; Asn. Econ. Entom. Development of agricultural chemicals from coal and its derivatives; organic insecticides and fungicides.

Guy, Prof. J(ames) Samuel, Emory University, Ga. *Chemistry.* Chester, S. C, April 1, 84. B.S, Davidson Col, 05, M.S, 06; fellow, Hopkins, 10, Ph.D, 11. Asst, Hopkins, 11–13; *prof. chem. and head dept,* Agnes Scott Col, 13–16; Arkansas, 16–19; *Emory, 19–* Leon P. Smith medal, 39; Charles Herty medal, 40. A.A; Chem. Soc. Physical chemistry; dissociation in glycerol solutions; absorption spectra at high dilutions, high pressures and high temperatures; the use of the radio micrometer in making quantitative measurements in absorption values of solutions; quantitative analysis.

Guy, Prof. W(illiam) G(eorge), College of William and Mary, Williamsburg, Va. *Chemistry.* Carbonear, Newfoundland, March 17, 99. B.Sc, Mt. Allison, 19; Rhodes scholar, Oxford, 20–23, B.A, 22; du Pont fellow, Chicago, 24, Ph.D, 25. Asst. prof. *chem, Col. of William and Mary,* 25–27, assoc. prof, 27–30, *prof, 30–* A.A; Chem. Soc; Va. Acad. Radioactivity.

Guyer, Dr. E(dwin) M(ichael), 7 W. Fourth St, Corning, N. Y. *Physics.* Cincinnati, Ohio, Nov. 25, 00. A.B, Wisconsin, 23, M.S, 25, Ph.D, 29. Teacher, high sch, Wis, 24; asst. physics, Wisconsin, 26–29; *physicist, Corning Glass Works, Corning, 29–* Summers, physicist, Mason, Slichter and Hay, Madison, Wis, 25–28. A.A; Radio Eng; Physical Soc. Dielectrics and high frequency fields.

Guyer, Prof. Michael F(rederic), University of Wisconsin, Madison, Wis. *[2]*Zoology.* Plattsburg, Mo, Nov. 17, 74. Missouri, 90–92, LL.D, 24; B.S, Chicago, 94, fellow, 97–00, Ph.D, 00; A.M, Nebraska, 96; Paris and Naples, 08–09; Smithsonian table, Naples Zool. Sta, 09. Asst. zool, Nebraska, 95–96; teacher, high sch, Nebr, 96–97; head dept. biol, Cincinnati, 00–11; *prof. zool, Wisconsin, 11–* Wis. Board Examiners in Basic Sciences; Nat. Cmt. on Med. Educ. A.A. (v. pres, F, 28); Soc. Nat; Soc. Zool. (pres, 23); Asn. Anat; Micros. Soc. (pres, 16, 17); Soc. Exp. Biol; Wis. Acad; Acad. Nat. Sci. Phila; cor. mem. Peking Soc. Nat. Hist. Cytology; embryology; experimental evolution; genetics.

Guyton, Dean Billy S(ylvester), Guyton Clinic, Oxford, Miss. *Ophthalmology.* Blue Mountain, Miss, Jan. 11, 84. B.S, Miss. Col, 08; B.S, Mississippi, 10, A.M, 11; M.D, Virginia, 13; Oph.D, Colorado, 19. Intern, Martha Jefferson Sanatorium, Charlottesville, Va, 12–13; Orange Mem. Hosp, N. J, 13–14; prof. bacter. and path, *sch. med, Mississippi, 15–20,* assoc. prof, 20–26, instr. physical diagnosis and minor surg, 26–30, *minor surg,* 30–35, *prof, 36–,* dean, 35–43. Oculist and aurist, Oxford Hosp, Miss, 16–; univ. hosp, Mississippi, 16– Am. Med. Asn; fel. Col. Surg; Acad. Ophthal. and Otolaryngol; South. Med. Asn; La-Miss. Ophthal. and Otolaryngol. Asn; Miss. State Med. Asn.

Guyton, Prof. F(ay) E(rastus), Wrights Mill Road, Auburn, Ala. *Zoology.* Winterset, Ohio, May 4, 93. B.S, Ohio State, 20, M.S, 21. Asst, Ohio State, 20–21, instr. entom, 21; asst. prof. *zool. and entom, Ala. Polytech,* 21–28, assoc. prof, 29–39, *prof, 39–* Summer, instr, Ohio State, 26. Entom. Soc. Amer; Asn. Econ. Entom; Soc. Ichthyol. and Herp; Ala. Acad. Entomology; fishes of Alabama.

Guyton, Dr. T(homas) L(ee), State Department of Agriculture, Harrisburg, Pa. *Entomology.* Winterset, Ohio, July 22, 84. B.S.A, Ohio State, 13, M.S, 16, fellow, Ph.D, 23. Asst. entomologist, Ohio Exp. Sta, 17–18; sci. asst, State Dept. Agr,

Pa, 18–22, entomologist, 22–24, chief entomologist, 24–35; entomologist, Sherwin-Williams Co, 35–38; *head entomologist, State Dept. Agr, Pa, 39–* A.A; Entom. Soc; Asn. Econ. Entom; Pa. Acad. Economic entomology; insecticide development.

Gwathmey, Dr. A(llan) T(albott), University of Virginia, Charlottesville, Va. *Physical chemistry.* Richmond, Va, July 29, 03. B.S, Va. Mil. Inst, 23, Mass. Inst. Tech, 28; Ph.D, Virginia, 38. Hydroelectric construction, Claiborne and Taylor, 23–24; draftsman, Va. Elec. and Power Co, 26–27; research chemist, contact catalysis, Atmospheric Nitrogen Co, 29; plant research chemist, du Pont Ammonia Corp, 29–31; *research assoc, dept. chem, Virginia, 38–* Jefferson prize, Va. Acad. Science, 41. Chem. Soc. Surface chemistry; adsorption; contact catalysis; corrosion; chemical properties of metal single crystals; electrochemistry.

Gwinn, Prof. Ira J(ames), Morningside College, Sioux City, Iowa. *Physics.* Maplewood, W. Va, April 19, 98. A.B, Morningside Col, 22; M.S, Iowa, 26. Instr, Morningside Col, 23–24; asst, Iowa, 24–26; *asst. prof. physics, Morningside Col, 26–* Physical Soc; Optical Soc; Math. Soc; Math. Asn; Eng. Educ. Micro-photometry.

Gwinn, Dr. W(illia)m D(ulaney), 119 Gilman Hall, University of California, Berkeley, Calif. *Physical chemistry.* Bloomington, Ill, Sept. 28, 16. A.B, Missouri, 37, A.M, 39; Ph.D, California, 42. *Instr. chem, California, 42–* Thermodynamics.

Gwyn, James D(aniel), 532 E. Eighth St, Perrysburg, Ohio. *Organic chemistry.* Kennett, Mo, May 20, 09. B.S, Michigan, 33. Research chemist, Libbey-Owens-Ford Glass Co, 34–37; manager, Gibralter-Beardmore Mining Co, 37–40; *research chemist, Libbey-Owens-Ford Glass Co, 40–* Chem. Soc. Synthesis by polymerization and condensation of new transparent resins and plastics and improvements in established transparent plastics.

Gwynn, Dr. Bernard H(enry), Gulf Research and Development Co, P. O. Box 2038, Pittsburgh, Pa. *Chemistry.* Bellefontaine, Ohio, Sept. 24, 15. A.B, Ohio Northern, 37; M.S, Purdue, 39, Ph.D, 42. *Research chemist,* Westvaco Chlorine Products, 41–42; *Gulf Research and Develop. Co, 42–* Chem. Soc. Bacteriostats; reactions of ketene; chlorination of hydrocarbons; hydrocarbon chemistry.

Gwynne, Prof. C(harles) S(umner), Iowa State College, Ames, Iowa. *Geology.* New York, N. Y, Dec. 23, 85. A.B, Cornell, 07, Ph.D, 27; M.S, Syracuse, 25. Chemist, Int. Paper Co, 07–11; chem. engineer, U. S. Forest Service, 11–14, 22; chemist, E. I. du Pont de Nemours and Co, 16–21; Great South. Lumber Co, 21; asst. *geol,* Syracuse, 23–24; instr, Cornell, 24–27; asst. prof, *Iowa State Col,* 27–31, *assoc. prof, 31–* Geologist, Wis. Geol. Surv, 13; Ill. Geol. Surv, 30; Iowa Geol. Surv, 32– A.A; Min. and Metal. Eng; Iowa Acad. Economic geology; clays and shales of Iowa; the Mankato Lobe in Iowa; structure and petrography of the Rocky Mountain Precambrian; improved methods of teaching.

György, Dr. Paul, 2103 Adelbert Road, Cleveland, Ohio. *Pediatrics.* Nagyvarad, Hungary, April 7, 93. M.D, Budapest, 15; Heidelberg, 23. Prof. pediat, Heidelberg, 27–33; visiting research worker, nutritional lab, Cambridge, 33–35; visiting asst. prof. *pediat, Western Reserve,* 35–37, *assoc. prof, 37–* Assoc. pediatrist, Babies and Childrens Hosps, Univ. Hosps, Cleveland, Ohio, 35–; Rainbow Hosp, 35– A.A; Am. Med. Asn; Soc. Biol. Chem; Pediat. Soc; Soc. Exp. Biol. (chairman, Cleveland sect, 41); Acad. Med. Cleveland (chairman exp. med. sect, 41); Biochem. Soc. Gt. Britain. Nutrition; vitamin B_6 complex.

Gzemski, Dr. Felix C(asimir), 4629 Spruce St, Philadelphia, Pa. *Chemistry.* Nanticoke, Pa, Feb. 28, 10. B.S, Pennsylvania, 32, M.S, 33, Ph.D, 37. *Research chemist, Atlantic Ref. Co, 33–* Instr, Bok Vocational Sch, Pa. State Col. Chem. Soc. Industrial petroleum research.

H

Haag, Dr. Harvey B(ernhardt), Medical College of Virginia, Richmond, Va. *Pharmacology.* Richmond, Va, Sept. 16, 00. Ph.G, Med. Col. of Va, 23, M.D, 28, B.S, 31. Asst. pharmacy, Med. Col. of Va, 23–24, physiol. and pharmacol, 24–26, assoc, 26–28; asst. *pharmacol,* med. col, Cornell, 28–29; asst. prof, *Med. Col. of Va,* 29–31, assoc. prof, 31–33, *prof, 33–* A.A; Soc. Pharmacol; Pharmaceut. Asn; Am. Med. Asn; Soc. Exp. Biol; South. Med. Asn; Va. Acad; Va. Acad. Med; Richmond Acad. Med. Digitalis; nicotine; derris and its constituents.

Haag, Dr. J(oseph) R(oy), Oregon State Agricultural College, Corvallis, Oregon. *Biochemistry.* Troutville, Pa, Jan, 96. B.S, Pa. State Col, 18, M.S, 23; Ph.D, Minnesota, 26. Chemist, Atlas Powder Co, 18–19; asst. chemist, Exp. Sta, R. I. State Col, 19–20; Exp. Sta, Maryland, 20–21; instr. agr. chem, Pa. State Col, 21–23, asst. prof, 26–27; instr. agr. biochem, Minnesota, 23–26; *nutrition chemist, Exp. Sta, Oregon State Col, 27–* Chem. Soc; Inst. Nutrition. Animal nutrition.

Haag, Prof. Wm. G(eorge), University of Kentucky, Lexington, Ky. *Ethnozoology.* Henderson, Ky, Aug. 15, 10. B.S, Kentucky, 32, M.S, 33; Michigan, 35–36, 41–42. Junior archeologist, Tenn. Valley Authority, 34, '36–37; asst. geol, Michigan, 35–36; *asst. prof. anthrop. and archeol. and curator museum anthrop, Kentucky, 37–* Asst, Michigan, 41–42. Ed, 'Newsletter,' Southeast. Archeol. Conf, 38– Anthrop. Asn; Soc. Am. Archeol; Soc. Mammal. Dogs of the American aborigines; archeology of southeastern North America; ethnozoology of the American Indian.

Haagensen, Dr. Cushman D, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Medicine.* Hillsboro, N. Dak, July 6, 00. M.D, Harvard, 23. Assoc. cancer research, *col. physicians and surg, Columbia,* 30–38, *asst. prof. surg, 39–; asst. attending surg. pathologist, Presb. Hosp, 35–, asst. attending surgeon, 40–* Clinical and experimental cancer research and therapy.

Haagen-Smit, Prof. A(rie) J(an), California Institute of Technology, Pasadena, Calif. *Biology.* Utrecht, Holland, Dec. 22, 00. B.A, Rijks Univ. Utrecht, 22, M.A, 26, Ph.D, 28. Head asst. org. chem, Utrecht, 29–34, lecturer, 34–36; biol. chem, Harvard, 36–37; assoc. prof. *biol, Calif. Inst. Tech,* 37–40, *prof, 40–, exec. officer dept, 39–* A.A; Chem. Soc; Swiss Chem. Soc; Hollandsche Chem. Vereen. Chemistry of natural products; plant hormones; essential oils; alkaloids; physiologically active substances; chemistry of micro organisms.

Haanel, B(enjamin) F(ranklin Cocker), 236 First Ave, Ottawa, Ont, Can. *Engineering.* Cobourg, Ont, 77. B.S, Syracuse, 99; Mass. Inst. Tech, 00–01. Am. Bridge Co, New York, 01–02; United Eng. and Contracting Co, 03–04; *Fed. Dept. Mines, Can, 05–, chief engineer in charge div. fuels and fuel testing and fuel research labs, 08–* Fed. Govt. rep, investigation peat, lignite and coal, 12. Dom. del, World Power Conf, London, 24, rep. chairman, Can. nat. cmt, 28. Chem. Eng; Eng. Inst. Can; Can. Inst. Min. and Metal. Fuel resources of Canada; peat; lignite; coal; high and low temperature carbonization and synthetic fuel processes.

Haas, Dr. A(lbert) R(ichard) C(arl), Citrus Experiment Station, Riverside, Calif. *Plant physiology.* Scranton, Pa, May 29, 88. B.S, Pa. State Col, 13, M.S, 14; A.M, Harvard, 16, Ph.D, 17; Chicago, 13, 14; Marine Biol. Lab, Woods Hole, 16, 17. Asst. bot, Pa. State Col, 13–14, instr, 14–15; Sheldon traveling fellow, California, 17–18; instr. agr. bacter. and soils, Wisconsin, 19; asst. prof, *California,* and asst. plant physiologist, *Citrus Exp. Sta,* 19–27, *assoc. plant physiologist, 27–* Respiration and photosynthesis; hydrogen ion concentration and plant metabolism; nutrition of subtropical trees.

Haas, Dr. Dorothea, 412 Saxonwoods Road, White Plains, N. Y. *Chemistry.* Baltimore, Md, Aug. 17, 07. A.B, Mt. Holyoke Col, 28; Ph.D, Illinois, 32. Sec'y and asst. treas, Barsky and Strauss, 33–38; Insulating Products Co, 38–42; Mellon Inst, 42–43. Chem. Soc. Physical chemistry; synthetic resins; carbohydrates.

Haas, Dr. Erwin, University of Chicago, Chicago, Ill. *Biochemistry.* Budapest, Hungary, Sept. 11, 06. M.E, Gauss Sch, Berlin, 28; Ph.D, Chicago, 42. Asst. *chem,* Kaiser-Wilhelm Inst. for Cellphysiol, Berlin, 28–38; *research instr, Chicago, 38–* Chemistry of respiratory enzymes.

Haas, Dr. Eugene G(eorge), 30 Wolcott Road, R. D. 6, Akron, Ohio. *Chemistry.* Akron, Ohio, Sept. 14, 99. B.S, Akron, 20; M.A, Toronto, 21; Ph.D, Pittsburgh, 35. Instr, Vanderbilt, 22–26; asst, Pittsburgh, 26–28, 34–35, instr, 28; chem, Akron, 29–34, asst. prof, 35–41; *research chemist, B. F. Goodrich Co, 41–* A.A; Chem. Soc. (sec'y, Akron sect, 40). Specific heat of lead sulfate; heterogeneous equilibrium.

Haas, Dr. Fritz, Field Museum of Natural History, Roosevelt Road and Field Drive, Chicago, Ill. *Zoology.* Frankfurt am Main, Germany, Jan. 4, 86. Ph.D, Heidelberg, 10. Asst. keeper invertebrate zool, Senckenberg Museum, 11–21, keeper, 22–36; adviser, Commissão Technica de Piscicultura do Nordeste do Brazil, 37; *curator lower invertebrates, Field Museum Nat. Hist, 39–* Ed, 'Archiv für Molluskenkunde,' 20–36; 'Abhandlungen des Archivs für Molluskenkunde,' 20–36. Malacol. Union; cor. mem. Acad. Nat. Sci. Phila; London Malacol. Soc; Conchol. Soc. Gt. Britain and Ireland; Deuts. Malakozool. Gesell. (sec'y, 19–36); cor. mem. Inst. Catalana d'hist. nat, Barcelona; cor. mem. Real Acad. de ciencias y artes, Barcelona; Real Soc. Española de hist. nat. Madrid; Peiping Soc. Nat. Sci. Brazilian and central African land and fresh water Mollusca; disconnected river connections in Europe and Africa; European historical zoology; malacology and zoogeography of the Pyrenees; anatomy, taxonomy, ecology and physiology of the bivalves.

Haas, Dr. F(ritz) Otto, Villanova, Pa. *Organic chemistry.* Philadelphia, Pa, March 9, 15. A.B, Amherst Col, 36; Ph.D, Princeton, 39. Research assoc. org. chem, Princeton, 39–40; research chemist, Rohm and Haas Co, 40–42; *purchasing officer, U. S. Navy, 42–* Chem. Soc. Organic sulfur compounds.

Haas, Dr. H(erbert) F(rank), Scripps Institution of Oceanography, La Jolla, Calif. *Bacteriology.* Kansas City, Kans, April 4, 14. B.S, Kans. State Col, 38, M.S, 40, Ph.D, 42; Wisconsin, 38–39. Asst. chemist, Sinclair Refinery Co, 34–35; teaching asst, Wisconsin, 38–39; Kans. State Col, 39–42; *research assoc, Am. Petrol. Inst, California, 42–* Soc. Bact. Bacterial metabolism; bacterial utilization of hydrocarbons and petroleum products; bacterial carotenoid pigments; marine bacteriology; bacterial transformation of organic matter into petroleum-like residues.

Haas, Louis W(illiam), 4915 N. Wolcott Ave, Chicago, Ill. *Chemistry.* Russheim, Baden, Germany, Aug. 23, 83. Freiburg, 05–07; Berlin, 07–08; staatsexamen, Heidelberg, 10. Chemist, Wahl-Henius Inst. Fermentol, *Chicago,* 11–15, *chief chemist,* 15–19; *W. E. Long Co, 19–* A.A; Chem. Soc. Flour; bread; production of bread.

Haas, Dean M(atthias) E(dward), University of Dayton, Dayton, Ohio. *Physical chemistry.* Chicago, Ill, Dec. 25, 88. B.S, Dayton, 12; M.S, Pittsburgh, 28, Ph.D, 32. Instr. chem, *Dayton,* 12–16, *prof, 16–,* physical chem, 19–40, *dean eng, 38–* Chem. Soc. (chairman, Dayton sect, 40, councilor, 42); Eng. Educ. Electrometric control in industrial processes; heat capacity and free energy determinations.

Haas, Dr. Otto (Maria) H(einrich), American Museum of Natural History, New York, N. Y. *Paleontology, Geology.* Brünn, Moravia, March 26, 87. LL.D, Vienna, 10, Ph.D, 14. Lawyer, Vienna, 19–39; guest worker, nat. hist, British Museum, 39; museum comp. zool, Harvard, 40; Field Museum Nat. Hist, 40; *research assoc. paleont, Am. Museum Nat. Hist, 40–* A. Cressy Morrison prize, N. Y. Acad. Science, 41. Paleont. Soc; fel. N. Y. Acad. Mesozoic invertebrates and stratigraphy; paleoecology; evolution.

Haas, Dr. Sylvan Lewis, 450 Sutter St, San Francisco, Calif. *Orthopedic surgery.* Grass Valley, Calif, Feb. 12, 83. B.S, California, 04; M.D, Hopkins, 08. Asst. clin. prof. *surg, sch. med, Stanford,* 23–33, *assoc. clin. prof, 33–; assoc. clin. orthop. surg, med. sch, California, 32–* Asst. chief surgeon, Shriners' Hosp. for Crippled Children, 23–30, acting chief surgeon, 30–31, chief surgeon, 31– Capt, M.C, 17–20. Am. Med. Asn; Acad. Orthop. Surg; West. Orthop. Asn. (pres, 38; San Francisco chap, 39); Calif. Acad. Med. Bone growth, regeneration and transplantation; tumors and diseases of the bone; congenital dislocation of the hip joint; longitudinal osteotomy.

Haas, Dr. W(alter) O(skar), Jr, 621 Park Ave, Wilmette, Ill. *Inorganic chemistry.* Chicago, Ill, Nov. 16, 14. A.B, Kalamazoo Col, 37; Ph.D, Chicago, 41. *Chem. engineer, West. Elec. Co, 41–* A.A; Chem. Soc. Salts of phosphorus hydrides; rare earths; dielectrics and insulation.

Haas, Prof. W(illiam) H(erman), Northwestern University, Evanston, Ill. *Geology, Geography.* Bellevue, Ohio, June 20, 72. A.B, Chicago, 03, Ph.D, 21. *Prof. geol. and geog, Northwestern,* 14–39, *emer. prof, 39–* V. pres, Samuel Mahon Co, Ottumwa, Iowa. Asn. Geog; Geophys. Union; Chicago Acad. (past v. pres). Geology and geography of Mesa Verde; influence of glaciation in Ohio; geography of Brazil; the American and the South American Indian; the cliff dweller and his habitat; formation of clay balls.

Haase, H(arold) F(redrick), 2919 W. Juneau Ave, Milwaukee, Wis. *Chemical engineering.* Milwaukee, Wis, Aug. 13, 03. B.S, Wisconsin, 25; M.S, Mass. Inst. Tech, 27. Asst, Mass. Inst. Tech, 26–27; research chem. engineer, A. O. Smith Corp, Milwaukee, 27–32; consulting engineer, 32–39; *research engineer, Battelle Mem. Inst, 43–* With Am. Can Co, 36–37. Chem. Soc; Foundrymen's Asn; Soc. Metals. Metallurgy; corrosion of metals; organic coatings and plastics; statistical and economic analysis.

Haasis, Dr. Ferdinand W(ead), P. O. Box 38, Salinas, Calif. *Plant pathology.* Brooklyn, N. Y, Jan. 25, 89. B.S, Rutgers, 11; M.F, Yale, 13; Ph.D, Hopkins, 28. Tech. asst, forestry dept, Consolidation Coal Co, Ky, 15–17; forest asst. and examiner, Fort Valley Exp. Sta, Ariz, 19–21; forest examiner and asst. silviculturist, Appalachian Forest Exp. Sta, U. S. Forest Service, 21–26; asst. plant physiol, Hopkins, 26–28; assoc. prof. forestry, Idaho, 28–30; research assoc, Carnegie Institution, Calif, 30–33; technician, bur. plant indust, U. S. Dept. Agr, 34; teacher, evening high schs, Calif, 34–35; project supervisor, State Emergency Relief Admin, 35; dist. supervisor fed. writers project, Works Progress Admin, 36; asst. plant pathologist, State Dept. Agr, Calif, 37–40; plant pathologist, Weyl-Zuckerman, Calif. and Minn, 40; time-checker, *Quartermaster Corps, U. S. Army,* 41, *storekeeper, 41–* Foreman nursery, Northeast. Forestry Co, Conn, 14, 15; field asst, Portland State Forest, Conn, 15. Summers, asst, N. J. Exp. Sta, 10; forestry branch, N. Y. Conservation Cmn, 12; forest asst, U. S. Forest Service, Idaho, 14, asst. silviculturist, Appalachian Forest Exp. Sta, 27, 28. Med. dept, U.S.A, 17, Inf, 17–19. A.A; Soc. Plant Physiol; Soc. Foresters (sec'y, S. Appalachian sect, 26); Ecol. Soc. Silviculture; plant ecology; tree growth and shrinkage; seed germination; root development; influence of temperature, drought, frost heaving and ants; nursery practise; plantations; thinning; natural reproduction; atmometry; phytopathological laboratory methods; forest photography; soil erosion control; plant virus disease distribution; distribution of bacteria in potato plants.

Haasis, Dr. Frank A(rling), Cornell University, Ithaca, N. Y. *Plant pathology.* Ontario, Calif, March 21, 08. B.S, California, 29; Ph.D, Cornell, 35. Asst. *plant path, Cornell,* 30–37, *asst. prof, 37–; agent, bur. plant indust, U. S. Dept. Agr, 30–* Phytopath. Soc. Diseases of ornamental plants, especially Narcissi and other bulbous florist crops.

Haber, Prof. E(rnest) S(traign), Iowa State College, Ames, Iowa. *Agriculture.* Olmstead Falls, Ohio, Feb. 7, 96. B.S, Ohio State, 18; M.S, Iowa State Col, 22, Ph.D, 28. Asst. prof. hort, *Iowa State Col,* 20–23, asst. prof. *veg. crops, Exp. Sta,* 23–36, research assoc. prof, 36–40, *research prof, 40–* Soc. Hort. Sci; Iowa Acad. Breeding and physiology of vegetable crops.

Haber, Prof. J(ulia) M(oesel), 355 W. Ridge Ave, State College, Pa. *Botany.* Buffalo, N. Y, May 6, 88. A.B, Cornell, 16, A.M, 18, Ph.D, 24. Teacher, pub. sch, N. Y, 07–13; instr. zool, Cornell, 14–17; assoc. prof. biol, Elmira Col, 17–20; prof, Meredith Col, 20–22; instr. bot, Cornell, 22–24; asst. prof. zool, Pa. State Col, 24–36; *private research, 36–* Summer, instr, Cornell, 17. A.A; Bot. Soc. Morphology; anatomy of plants, chiefly Geraniales.

Haber, Prof. Vernon R(aymond), 355 W. Ridge Ave, State College, Pa. *Entomology.* Rossburg, Ohio, Dec. 10, 87. B.S, Ohio State, 14, A.M, 16; Ph.D, Cornell, 24. Asst. zool. and entom, Ohio State, 10–16; biol, Cornell, 16–18; entom. and animal biol, Minnesota, 18–20; asst. state entomologist, N. C, 20–22; instr. exten. entom, Cornell, 23–24; asst. prof. *zool. and entom, Pa. State Col,* 24–26, *assoc. prof,* 26– Deputy state nursery inspector, Minn, 18–20. Summers, asst, lake lab, Ohio State, 15; instr, Cornell, 23. A.A; Entom. Soc. Amer; Asn. Econ. Entom. Blood of insects; biology of cockroaches; food of the Carolina tree-frog; Hyla cinerea.

Haberman, Dr. J(ules) Victor, 156 W. 86th St, New York, N. Y. *Neurology, Psychopathology.* New York, N. Y, April 11, 83. A.B, Columbia, 02, M.D, 05; M.S.D, Berlin, 08. Asst. physician, Königlich. Charité, Berlin, 06–08; instr. neur, Columbia, 08–14, psychotherapy, 13–18; physician, U. S. Employees' Compensation Cmn, 20–34; *attending neurologist and chief neuro-psychopath. clinic, Sydenham Hosp, New York, 27–* Asst, Vanderbilt Clinic, 08–14, visiting physician, 12–18. Capt, M.C, 18–19. Psychol. Asn; Psychiat. Asn; Am. Med. Asn; N. Y. Acad. Med. Psychotherapy; examination of the mind; nervous and mental diseases.

Haberman, Dr. Sol, Baylor University College of Medicine, Dallas, Texas. *Bacteriology.* Chicago, Ill, Jan. 15, 14. A.B, Texas, 36, A.M, 37; Ph.D, Ohio State, 41. *Bacteriologist, clin. lab, univ. hosp, Baylor, 39–, Wm. Buchanan blood bank, plasma and serum center, 40–, instr. clin. path, col. med, 42–* A.A; Soc. Bact. Bacterial dissociation; staphylococcus toxins; dysentery bacilli; pathogenic yeasts and fungi.

Hable, George J(ohn), 916 E. Colonial Drive, Racine, Wis. *Chemistry.* Bloomer, Wis, Aug. 10, 13. B.S, Marquette, 26. *Production chemist, S. C. Johnson and Son, 26–* Chem. Soc. Paint, varnish and wax protective coatings.

Hablutzel, Dr. C(harles) E(dward), Jr, University of New Mexico, Albuquerque, N. Mex. *Physical chemistry.* San Jose, Calif, Jan. 26, 05. A.B, Stanford, 25, A.M, 26; Ph.D, Calif. Inst. Tech, 33. Teacher science and math, high sch, Calif, 26–29; teaching asst. physics, Calif. Inst. Tech, 30–33; *prof. science and head dept, Ariz. State Teachers Col, Flagstaff, 33–; research physicist, New Mexico, 42–,* lecturer physics, 42–43. A.A; Physical Soc; Asn. Physics Teachers. Heat of formation of zinc oxide; effect of lead oxides on the oxidation of hexane.

Hac, Dr. Lucile (R), University of Chicago, Chicago, Ill. *Chemistry, Bacteriology.* Lincoln, Nebr, May 18, 09. A.B, Nebraska, 30, M.S, 31; Ph.D, Minnesota, 35. Assoc. bacteriologist, State Dept. Health, Md, 35–36; asst. and later *research instr. obstet. and gynec, Kuppenheimer Fund, Chicago, 36–* Chem. Soc; Soc. Bact; Soc. Exp. Biol; Neisserian Med. Soc. Ortho-quinones; Eberthella typhi agglutinins; gonococci; chemotherapy; gas gangrene.

Hachey, H(enry) B(enedict), Atlantic Biological Station, St. Andrews, N. B, Can. *Physics.* West Bathurst, N. B, June 7, 01. B.Sc, St. Francis Xavier (Can), 22; Nat. Research Council Can. bursar, McGill, 23–24, student, 24–25, M.Sc, 25. Lecturer, St. Francis Xavier (Can), 22–23; demonstrator physics, McGill, 25–26; prof, New Brunswick, 26–28; *hydrographer, Biol. Board Can, 28–; major, Gen. Staff, Can. Army.* Mem. hydrol. cmn, N. Amer. Council for Fisheries Investigations, 32– Officer in charge, Hudson Bay Fisheries exped, 30. A.A; N. S. Inst. Hydrography and hydro-dynamics of Canadian-Atlantic waters.

Hack, Dr. John T(ilton), U. S. Geological Survey, Washington, D. C. *Geology.* Chicago, Ill, Dec. 3, 13. A.B, Harvard, 35, A.M, 38, Ph.D, 40. Geologist, Awatovi exped, Peabody Museum, Harvard, 37–39; instr. geol, Hofstra Col, 40–42; *assoc. geologist, U. S. Geol. Surv, 42–* Walker award, Boston Soc. Nat. Hist, 40. Am. Geog. Soc. Geomorphology and physical geography; recent climatic change in the Southwest; dunes; rock streams; ancient erosion surfaces; Hopi agriculture; ancient Hopi coal mining; early man in America; volcanism in Navajo country.

Hacker, Prof. Sidney G(uy), State College of Washington, Pullman, Wash. *Astrophysics.* Denver, Colo, Dec. 19, 08. A.B, Colorado, 29, A.M, 30; Thaw fellow, Princeton, 33–34, Ph.D, 34. Asst. math, Colorado, 28–30, instr. physics, 30–31; asst. astron, Princeton, 31–33; instr. *math,* Indiana, 34–37; *asst. prof, State Col. Wash, 37–* Astron. Soc; Math. Soc; Math. Asn; Astron. Soc. Pacific. Mathematics and astronomy.

Hackerman, Prof. Norman, Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Baltimore, Md, March 2, 12. A.B, Hopkins, 32, Ph.D, 35. Prof. physical chem, Loyola Col. (Md), 35–39; asst. *chem,* U. S. Coast Guard, 40–41; *asst. prof, Va. Polytech, 41–* Instr, night sch. tech. workers, Hopkins, 36–37; research chemist, Colloid Corp, 36–40. Corrosion; emulsions; electrokinetic potentials; the oxygen electrode theory.

Hackett, Dr. L(ewis) W(endell), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Medicine.* Benicia, Calif, Dec. 14, 84. A.B, Harvard, 05, M.D, 12, Dr.P.H, 13. Instr, Harvard Med. Sch, 13–14; field director *int. health div, Rockefeller Foundation,* Panama, 14–15, Brazil, 16–23, Italy, 24–40, *Rio de la Plata and Andean region, 40–,* assoc. regional director, 24–27, asst. director, 27–39, *regional director, 40–* Heath Clark lecturer, London, 34; Lowell lecturer, 37. Sanit. surv, British Honduras, 15; Paraguay, 21; v. pres. malaria cmn, League of Nations; hon. mem, Nat. Malaria Cmt. Commendatore della Corona d'Italia. A.A; Am. Med. Asn; Soc. Trop. Med. (v. pres, 35); Acad. Trop. Med. (v. pres, 42, pres, 43); fel. Pub. Health Asn; Soc. Parasitol; fel. London Soc. Trop. Med. and Hygiene; Soc. de Path. exot; Soc. per gli Studi della Malaria, Italy; Nat. Acad. Med. Brazil. Public health; malaria.

Hackett, Dr. Martha, 4937 Pasadena Ave, Terrace, Los Angeles, Calif. *Education.* Bluffton, Ind, March 9, 84. A.B, Western Col, 07; M.D, Rush, Chicago, 13. Pres, Hackett Med. Col, Canton, China, 14–23; res. physician and lecturer hygiene, Ginling Col, Nanking, China, 25–28; lecturer med. zool, Mt. Holyoke Col, 30, anthrop, 32. Archeol. research, Peru, 34–35. Am. Sch. Prehist. Research expeds, Athlit, Palestine, 29, 30. A.A; Anthrop. Asn. Education of women in China; archeology.

Hackleman, Prof. J(ay) C(ourtland), 1205 S. Orchard St, Urbana, Ill. *Agronomy.* Carthage, Ind, June 24, 88. B.S, Purdue, 10; A.M, Missouri, 12. Asst. agron, Missouri, 10–12, instr, 12–14, asst. prof, 14–17, assoc. prof. crops exten, 17–19; *Illinois,* 19–26, *prof. farm crops, exten, 26–* Soy-beans; alfalfa.

Hackman, Dr. Ray C(arter), University of Maryland, College Park, Md. *Psychology.* Kansas City, Mo, July 15, 13. A.B, Nebraska, 35, A.M, 36; Ph.D, Minnesota, 40. Personnel asst, Nebraska, 33–37; teaching asst. *psychol,* Minnesota, 37–40; *instr, Maryland, 40–* Director research, City Dept. Adult Educ, Minneapolis, 38–40. Assoc. Psychol. Asn. Applied psychology with special reference to the application of statistical methods.

Hackney, Prof. J(ames) Carlyle, McKendree College, Lebanon, Ill. *Chemistry.* Liberty, N. C, May 23, 12. B.S, Guilford Col, 32; M.S, N. C. State Col, 38; Maryland, 38–39; North Carolina, 40. Instr. chem, Mississippi, 39–41; *prof. chem. and head dept. chem. and physics, McKendree Col, 41–* Chem. Soc; Inst. Chem. Analytical and agricultural chemistry.

Hadamard, Dr. Jacques, 523 W. 112th St, New York, N. Y. *[7]*Theoretical mathematics.* Versailles, France, Dec. 8, 65. Dr.Math, Ecole Nor. Superieure, Paris, 92; LL.D, Yale, 01; hon. Dr, Liége. Prof, *Col. de France and Ecole Polytechnique, Paris,* 09–37, *emer. prof, 37–; visiting prof. math, Columbia, 42–* Lecturer, Columbia, 01; Silliman lecturer, Yale, 20; prof, Tsing Hua Univ, Peiping, 36. Wash. Acad; fel. Royal Soc. London; Acad. Sci, Paris; Acad. of Sciences of Russia; Acad. Sciences, Argentine Republic; Acad. Sciences, Brazil. Mathematical analysis; geometry; mechanics.

Hadden, D(avid) E(dward), Alta, Iowa. *Astronomy.* Ireland, Oct. 22, 66. Wesley Col, Ireland, 86–87; B.S, Morningside Col, 04; registered pharmacist, Iowa. Solar eclipse exped, Wadesboro, N. C, 00; Colo, 18. Astron. Soc; fel. Iowa Acad; Royal Astron. Soc. Can. Meteorology; the sun.

Haddock, Dr. Philip G(eorge), 1204 Milvia St, Berkeley, Calif. *Forestry.* San Diego, Calif, March 19, 13. B.S, California, 34, Baker fellow, 39–40, Bidwell fellow, 42, Ph.D, 42. Junior forester, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 34–36; mem. staff, dept. forestry, California, 36–39; *Air Forces, U. S. Army, 42–* Summers, mem. staff, California, 36, 38; Calif. Forest and Range Exp. Sta, U. S. Forest Service, 37, 39, 41, 42. Plant physiology; ecology; forest tree physiology; silviculture; plant rest period in seeds and buds of Pinus Lambertiana and Pinus Jeffreyi.

Haddow, Dr. W. R, Department of Lands and Forests, Parliament Bldgs, Toronto, Ont, Can. *Forest biology.* Milton, Ont, March 5, 97. B.S.F, Toronto, 23; M.F, Harvard, 29, Ph.D, 31. Fire inspector, Ont. Forestry Branch, Oba, 26–27; dist. forester, Kapuskasing, 28–29; *forest pathologist, Ont. Dept. Lands and Forests, 31–* Special lecturer, Toronto, 31–40. Can. Soc. Forest Eng; Can. Soc. Biol. Forest pathology; protection; silvics.

Haden, Dr. Russell L(andram), 2020 E. 93rd St, Cleveland, Ohio. *Medicine.* Palmyra, Va, May 22, 88. A.B, Virginia, 10, A.M, 11; M.D, Hopkins, 15. Res. house officer, Hopkins Hosp, 15–16; director lab, Henry Ford Hosp, 16–18, 19–21; assoc. prof. med, Kansas, 21–23, prof. exp. med, 23–30; *head dept. med, Cleveland Clinic, 30–* Bronze medal, Am. Med. Asn; gold medal, Radiol. Soc. N. Amer. Asst. chief med. service, Base Hosp, Camp Lee, 18–19. A.A; Am. Med. Asn; Soc. Clin. Invest; Asn. Path. and Bact; Soc. Exp. Biol; Clin. and Climat. Asn; Am. Physicians; fel. Col. Physicians; Cent. Soc. Clin. Research. Intestinal obstruction; diseases of the blood; focal infection.

Haden, Dr. W(alter) Linwood, Jr, 532 Lloyd St, Barberton, Ohio. *Physical chemistry.* Richmond, Va, May 26, 15.

B.S, Richmond, 36; Eastman fellow, North Carolina, 39–40, Ph.D, 41. Asst, North Carolina, 36–39; *research chemist, Columbia chem. div, Pittsburgh Plate Glass Co, 41–* Chem. Soc. Chain photolysis of acetaldehyde in intermittent light.

Hadidian, Dr. Zarech, Lederle Laboratories, Pearl River, N. Y. *Physiology.* Turkey, Feb. 9, 11. B.S, Rensselaer Polytech, 34, M.S, 35; Ph.D, Clark, 39. Research assoc. physiol, Clark, 39–40, instr, 40–41; *asst. pharmacologist, Lederle Labs, 41–* A.A; Soc. Zool. Enzyme kinetics.

Hadley, Prof. Charles E(lmer), State Teachers College, Upper Montclair, N. J. *Biology.* Madras, India. A.B, Bates Col, 14; A.M, Trinity Col. (Conn), 26; A.M, Harvard, 26, Ph.D, 28. Instr. chem, physics and zool, Va. Union, 15–17; teacher, high sch, Vt, 17–18; Conn, 19–24; Austin teaching fellow zool, Harvard, 24–28; asst. prof. *biol,* Union (N. Y), 28–29; asst. prof. and *assoc. prof, N. J. State Teachers Col, Upper Montclair, 29–* Instr, Trinity Col. (Conn), 21–24. Summer, instr, Marine Biol. Lab, Woods Hole, 31. Fel. N. Y. Acad. Growth and movement of epithelial cells; color changes in reptiles.

Hadley, C(harles) H(arvey), U. S. Department of Agriculture, Moorestown, N. J. *Entomology.* Block Island, R. I, Aug. 5, 89. B.S, New Hampshire, 12. Asst. entomologist, New Hampshire and Exp. Sta, 12–15; investigator entom, Exp. Sta, Cornell, 15–16; exten. entomologist, Pa. State Col, 16–18, asst. prof. econ. entom, 18–19; plant quarantine inspector, fed. hort. board, U. S. Dept. Agr, 19, entomologist, bur. entom, 19–23; director bur. plant indust, State Dept. Agr, Pa, 23–27; *in charge* prevention of spread of Japanese beetle, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 28–30, *Japanese and Asiatic beetle investigations, 30–* A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash; Pa. Acad. Economic entomology.

Hadley, C(harles) W(endell), University of Michigan, Ann Arbor, Mich. *Spectrochemistry.* Winfield, Kans, Sept. 1, 15. A.B, Southwestern Col, 38; M.S, Kans. State Col, 40. Instr. math, Kans. State Col, 38–40; *assoc. research physicist, dept. eng. research, Michigan, 40–* Development of methods and instruments for rapid spectrochemical analysis.

Hadley, Dr. Elbert H(amilton), 160 Kinsey Ave, Kenmore, N. Y. *Chemistry.* Springville, N .Y, July 10, 13. B.S, Michigan, 36, M.S, 37; Ph.D, Duke, 40. Teaching asst, Duke, 38–40; *research chemist, electrochem. dept, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Catalytic vapor phase fluorination of methane; electroplating; cyanides; physical organic chemistry.

Hadley, Dr. Ernest E(lvin), 1835 Eye St, N.W, Washington, D. C. *Psychiatry.* Alton, Kans, Aug. 2, 94. B.S, Kansas, 18, M.D, 20. Intern, Walter Reed Gen. Hosp, 20–21; mem. psychiat. staff, St. Elizabeths Hosp, Washington, D. C, 21–29; *psychiat. and psychoanal. consultant, 29–* Substitute prof, sch. med, Georgetown, 35–36; director and sec'y, Wash. Sch. Psychiatry, 36– Co-editor, 'Psychiatry,' 38– Trustee and sec'y, William Alanson White Psychiat. Foundation, Inc, 33–, chairman publications cmt, 38– Chairman, Cent. Examining Board Neur. and Psychiat, 41; psychiatrist, Med. Advisory Board, Selective Service System, 41–; Army Induction Board, 42– A.A; fel. Am. Med. Asn; fel. Col. Physicians; fel. Psychiat. Asn; Psychoanal. Asn. (sec'y, 30–36); Asn. Adv. Psychoanal; Hist. Sci. Soc; Eugenics Soc; South. Psychiat. Asn; Tri-State Med. Soc; N. Y. Acad; Wash. Soc. Nervous and Mental Disease (sec'y, 26–28, pres, 30); Wash. Psychopath. Soc. (pres, 27); Wash-Baltimore Psychoanal. Soc. (pres, 32, 41); Int. Psychoanal. Asn. Career lines; special psychiatric problems in business organization; ramifications of psychiatry in world crises.

Hadley, Mrs. Faith P(almerlee), Western Pennsylvania Hospital, Pittsburgh, Pa. *Bacteriology.* Lapeer, Mich, June 21, 98. A.B, Michigan, 20, M.S, 22, Dr.P.H, 35. Asst, sch. dentistry, Michigan, 22–30, research assoc, 30–35; *research bacteriologist, inst. path, West. Pa. Hosp, 35–* Pub. Health Asn; Soc. Bact; Int. Asn. Dental Research. Bacteriology of the mouth; root canal infections; dental caries; microbic dissociation of Streptococcus.

Hadley, Dr. F(rederick) B(rown), University of Wisconsin, Madison, Wis. *Veterinary science.* Burlington, Vt, Jan. 31, 80. D.V.M, Ohio State, 07; Chicago, 10. Instr. anat, State Col. Wash, 07–08, asst. prof. anat. and surg, 08–09; vet. anat, Ohio State, 09–10; *vet. science, Wisconsin,* 10–11, assoc. prof, 11–17, *prof, 17–* Vet. Med. Asn; Soc. Bact; Soc. Parasitol. Veterinary pathology and therapeutics.

Hadley, Dr. Jarvis B(ardwell), U. S. Geological Survey, Washington, D. C. *Geology.* Kingston, R. I, July 13, 09. A.B, Antioch Col, 32; A.M, Harvard, 33, Ph.D, 38. Asst. geol, Harvard, 34–36; instr, Tufts Col, 36–40; junior geologist, *U. S. Geol. Surv,* 40–42, *asst. geologist, 42–* Director, N. H. Nature Camp, 38–40. A.A. Structural and stratigraphic geology; petrology; metalliferous deposits.

Hadley, Prof. John M(illard), Utah State Agricultural College, Logan, Utah. *Speech pathology.* Alton, Kans, April 5, 15. A.B, Ft. Hays Kans. State Col, 37, M.S, 38; Ph.D, Iowa, 39. *Asst. prof. psychol. and speech, Utah State Agr. Col, 39–* Psychol. Asn; Asn. Applied Psychol. Neuropsychology; relationships between electrical signs of central and peripheral activity; correction and prevention of speech defects.

Hadley, Prof. Laurence, Purdue University, Lafayette, Ind. *Mathematics.* Danville, Ind, March 19, 76. B.S, Earlham Col, 02; A.M, Michigan, 07, Ph.D, 15. Instr. *math,* Earlham Col, 02–12, asst. prof, 12–15, prof, 15–18; assoc. prof, *Purdue,* 18–24, *prof, 24–* Pres. board trustees, Earlham Col. Math. Soc; Math. Asn.

Hadley, Dr. Philip B(ardwell), Western Pennsylvania Hospital, Pittsburgh, Pa. *Bacteriology.* Shelburne Falls, Mass, Jan. 10, 81. Ph.B, Brown, 03, Ph.D, 08. Prof. bacter, R. I. State Col, and chief div. biol, Exp. Sta, 08–20; asst. prof. bacter, Michigan, 20–26, assoc. prof, 27–33; *chief bacter. service and research bacteriologist, inst. path, West. Pa. Hosp, 34–* Biologist, R. I. Fish Cmn; bacteriologist, Providence. A.A; Soc. Nat; Soc. Bact; Soc. Exp. Biol; Soc. Exp. Path; N. Y. Acad. Protozoology; animal behavior; biology of Eimeria avium; paratyphoid infections in birds; avian coccidiosis and trichomoniasis; immunization in avian diseases; bacteriophage; microbic dissociation; bacterial variability; sulfonamide drugs; dissociative variation; bacterial characterization and classification; rabic infection in dogs.

Hadlock, Dr. Canfield, 102 Silverside Road, Wilmington, Del. *Chemical engineering.* New York, N. Y, Nov. 1, 04. A.B, Dartmouth Col, 26, A.M, 28; Ph.D, Mass. Inst. Tech, 33. Instr. chem, Dartmouth Col, 26–28; asst. applied chem, Mass. Inst. Tech, 28–30; *chem. engineer, E. I. du Pont de Nemours and Co, 34–* Chem. Eng; Chem. Soc. Compressibilities of gases; distillation; drying.

Hadsall, Prof. Leo F(ranklin), Route 1, Box 368, Fresno, Calif. *Biology.* South Eaton, Wyoming Co, Pa, June 18, 03. A.B, Bucknell, 28, A.M, 29; fellow, Cornell, 30–32, Ph.D, 34. Teacher, pub. schs, Pa, 21–24; high sch, N. J, 28–30; assoc. prof. and later *prof. biol, Fresno State Col, 32–* Mem, State Conservation Council, Calif. Soc. Mammal; Nature Study Soc; Cooper Ornith. Club; Nat. Asn. Research Sci. Teaching; Biol. Photog. Asn; Council Supervisors Elem. Sci. Vertebrate zoology; nature study; science teaching; ecology of Bassaricus astutus raptor; growth and reproductive cycle of Testudo Agassizi.

Hadwen, Dr. (Isaac) Seymour (André), Ontario Research Foundation, 47 Queen's Park, Toronto, Ont, Can. *Animal pathology, Parasitology.* Lees, Lancashire, Eng, 77. D.V.Sc, McGill, 02. Vet. capt, S. Africa, 02; Dom. vet. inspector, 04, asst. pathologist, 05–17; chief animal pathologist, Can, 17–20; chief veterinarian and parasitologist, bur. biol. surv, U. S. Dept. Agr, 20–23; research prof. animal diseases, Saskatchewan, 23–29; director path. and bacter, Ont. Research Foundation, 29–42; *retired.* Expeds. to Alaska, Labrador and Lapland; East. Arctic Patrol, Ellsmere Islands, 34. Cor. mem. Helminth. Soc. Wash; fel. Royal Soc. Can; fel. Entom. Soc. London; cor. mem. Soc. de Path. comp. de Paris. Trypanblau; Dermacentor venustus as the vector of tick paralysis; Oestridae; anaphylactic reactions in infections; pigmentation of animals; melanomata; microscopy of cow's milk in health and disease; reindeer and arctic dogs; early fertility of reindeer; tuberculosis in buffalo.

Haeff, Dr. Andrew V(asily), Naval Research Laboratory, Washington, D. C. *Engineering.* Moscow, Russia, Dec. 30, 04. E.E. and M.E, Russian Polytech. Inst. (China), 28; M.S, Calif. Inst. Tech, 29, Ph.D, 32. Teaching fellow elec. eng, Calif. Inst. Tech, 29–32, special research fellow, 32–33; research engineer, RCA Mfg. Co, 34–41; *consultant, radio div, Naval Research Lab, 41–* Radio Eng. Radio.

Haefner, Prof. S(ylvester) J, Union University, Schenectady, N. Y. *Electrical engineering.* Brooklyn, N. Y, Aug. 1, 03. B.S, Union (N. Y), 25, M.S, 26, Ph.D, 32. Asst. *elec. eng, Union (N. Y),* 25–32, instr, 32–41, *asst. prof, 41–; mem.*

div. war research, Columbia, 42– Student engineer, Gen. Elec. Co, 25–28. Assoc. Elec. Eng. Heaviside's operational calculus; high frequency resistance of conductors; communication engineering.

Haendler, Dr. H(elmut) M(ax), University of Washington, Seattle, Wash. *Chemistry.* Boston, Mass, June 19, 13. B.S, Northeastern, 35; univ. fellow, Washington (Seattle), 35–39, Ph.D, 40. Assoc. *chem, Washington (Seattle),* 39–40, *instr, 40–* Chem. Soc. Coordination chemistry; organic and inorganic chemistry; inner complexes; addition compounds; complex compounds; organic reagents.

Haenisch, Prof. Edward L(auth), Villanova College, Villanova, Pa. *Chemistry.* Chicago, Ill, Aug. 9, 11. B.S, Chicago, 30, Ph.D, 35. Instr. *chem,* Chicago, 32–34; Mont. State Col, 34–36; asst. prof, *Villanova Col,* 36–38, *assoc. prof, 38–* Chem. Soc; Inst. Chem. Physical and analytical chemistry.

Haenni, Dr. Edward O(tto), U. S. Food and Drug Administration, Washington, D. C. *Chemistry.* St. Louis, Mo, May 25, 07. A.B, Washington (St. Louis), 29, M.S, 31; Ph.D, Maryland, 40. Asst. instr. chem, Washington (St. Louis), 29–31; *chemist, food and drug admin, Fed. Security Agency, 31–* Chem. Soc; Asn. Official Agr. Chem. Organic chemistry; local anesthetics; food chemistry, particularly egg products, sterols and oils.

Haenseler, Prof. C(onrad) M(artin), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Plant pathology.* Chattanooga, Tenn, Dec. 26, 88. B.S.A, Tennessee, 14, M.S.A, 16; Ph.D, Rutgers, 21. Instr. bot, *Rutgers,* 21–22, 24–26, asst. prof. *plant path. and mycol,* 26–30, *assoc. prof, 30–,* asst. plant pathologist, *N. J. Exp. Sta,* 22–31, *assoc. plant pathologist, 31–* A.A; Phytopath. Soc; Mycol. Soc. Diseases of vegetables and small fruits.

Haertl, Dr. E(dwin) J(acob), State Teachers College, Framingham, Mass. *Botany, Cytology.* Boston, Mass, Nov. 2, 06. B.S, Mass. Agr. Col, 27; A.M, Williams Col, 29; Ph.D, Harvard, 33. Asst. and instr. biol, Williams Col, 27–31; teaching fellow, Radcliffe Col, 32; junior master, schs, Boston, Mass, 34–41; *master and head dept. biol, Mass. State Teachers Col, 41–* Summers, instr, Mass. State Teachers Col, Hyannis, 35–42. Lecturer, Boston branch, Nat. Gardeners Asn, 35–37. Cytology of the genus Equisetum; structure and behavior of chromosomes.

Haertlein, Prof. Albert, Harvard University, Cambridge, Mass. *Civil engineering.* Alton, Ill, Aug. 9, 95. A.B, Harvard, 16, B.S, 18; B.S, Mass. Inst. Tech, 18. Instr. civil eng, Harvard, 19–23; struct. engineer, Dwight P. Robinson and Co, New York, 23–25; supt, Duquesne Light Co, Pittsburgh, 25–28; lecturer *civil eng, Harvard,* 28–29, assoc. prof, 29–40, *Gordon McKay prof, 40–* Desmond Fitz Gerald medal, Boston Soc. Civil Eng, 37. Lieut, C.Eng, 18–19. Civil Eng; Soc. Test. Mat; Eng. Educ; Ry. Eng; Road Builders Asn; Concrete Inst; Am. Acad; Boston Soc. Civil Eng. (pres, 40). Design of statically indeterminate trusses.

Haeseler, Dr. Kurt W(illiam), 72-34 Austin St, Forest Hills, L. I, N. Y. *Chemistry.* Wiesbaden, Germany, Oct. 3, 01. B.S, Columbia, 24, Ph.D, 29. Asst. and instr. chem, Columbia, 18–29; director lecture experiments and instr. chem, N. Y. Univ, 25–29; chief chemist, Weisberg and Greenwald, 29–30; with Foster D. Snell, Inc, 30–42; *mem. staff, Pratt Inst, 42–* Consulting chemist, 29– Chem. Soc. Physical and industrial chemistry; solutions; lecture experiments; consumer products; public education by radio.

Haeseler, P(aul) C(arl), Metal and Thermit Corp, South San Francisco, Calif. *Chemistry.* Hamburg, Germany, Dec. 8, 85. Chicago, 06–11; Wisconsin, 09; Columbia, 11–19. Instr. inorg. and qualitative anal, Columbia, 11–19; *chief chemist, South San Francisco plant, Metal and Thermit Corp, 19–* A.A; Chem. Soc; Electrochem. Soc. (sec'y, Calif. sect, 29–); N. Y. Acad; Calif. Acad. Inorganic electrochemistry; metallurgy of non-ferrous metals.

Haeussler, G(ilbert) J(ullus), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Chicopee, Mass, March 19, 04. B.S, Mass. Col, 25. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 25–28, asst. entomologist, 28–36, assoc. entomologist, 36–40, entomologist, 40–41, *senior entomologist, 41–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. The oriental fruit moth; parasites of the oriental fruit moth in the United States, Europe and the Orient; biology and control of the Comstock mealybug on apple; fruit insects.

Hafenrichter, Dr. A(ltee) L(awrence), 2225 N. E. Klickitat Ave, Portland, Oregon. *Agronomy.* Plainfield, Ill, Oct. 12, 97. A.B, Northwestern Col, 22; fellow, Illinois, 25, 26, Ph.D, 26. Asst. bot, Illinois, 22–25; prof. bot. and bacter, Baker, 26–29; asst. prof. farm crops, State Col. Wash, and asst, Exp. Sta, 29–33; *senior agronomist, soil conservation service, U. S. Dept. Agr, 33–* Research staff, div. ecol, Carnegie Institution, 26–29. Summers, agent, bur. plant indust, U. S. Dept. Agr, 23–26. Soc. Agron; Northwest Sci. Asn. Crop ecology; soil and water conservation; forage crops.

Haff, Prof. John C(oles), Colorado School of Mines, Golden, Colo. *Petrology.* Brooklyn, N. Y, March 19, 07. B.S, Columbia, 31, A.M, 32, Ph.D, 39, William Bayard Cutting traveling fellow, Innsbruck, Austria and Zurich, 36–37. Instr, Wichita, 38–39; *asst. prof. geol, Colo. Sch. Mines, 39–* Summers, asst. geologist, U. S. Bur. Reclamation, 38, 39, assoc. geologist, 41. Miner. Soc. Petrology of igneous and metamorphic rocks; petrolabric analysis; dike rocks of southwestern Maine; universal stage techniques; Tertiary basaltic lavas of the Middle Park area, Colorado.

Haff, Dr. Richard M(onroe), 443 N. Aurora St, Ithaca, N. Y. *Experimental zoology.* New York, N. Y, April 10, 92. A.B, Col. City of N. Y, 26; A.M, Columbia, 28; Ph.D, Cornell, 34. Tutor biol, Col. City of N. Y, 26–30; instr. zool, Cornell, 31–35; biol, Hobart Col, 35–37; *asst. zool, Cornell, 37–; mil. intel. div, U. S. War Dept, 42–* Hematology of Urodeles; cancer therapy; genetics of Drosophila.

Hafkesbring, Prof. Hazel Roberta, Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Physiology.* New Orleans, La, March 12, 97. A.B, Tulane, 18, M.S, 24, Ph.D, 28. Asst. *physiol,* Tulane, 24–25, instr, 25–30; assoc, *Woman's Med. Col. of Pa,* 30–33, asst. prof, 33–34, *assoc. prof, 34–* A.A; Physiol. Soc; Soc. Exp. Biol; Physiol. Soc. Phila. Metabolism; cardiac physiology.

Hafstad, Dr. L(awrence) R(andolph), 5241 Broad Branch Road, Washington, D. C. ***Physics.* Minneapolis, Minn, June 18, 04. B.S, Minnesota, 26, 26–28; Ph.D, Hopkins, 33. Engineer, Northwest Bell Tel. Co, 20–28; assoc. physicist, *Carnegie Institution,* 28–33, *physicist, 33–* Nat. Defense Research Board rep, London, England, 41. Shared A.A.A.S. prize, 31. Physical Soc; Radio Eng; Philos. Soc. Wash. Propagation of radio waves; measurement of height radio reflecting layer and its relation to magnetic storm; high voltage vacuum tubes; atomic disintegrations and artificial radioactivity; proton-proton forces; uranium 236.

Hagan, Prof. Harold R(aymond), College of the City of New York, New York, N. Y. *Zoology.* Chicago, Ill, May 20, 86. B.S, Utah Col, 14; M.S, Harvard, 17; Ph.D, Stanford, 29. Instr. zool. and entom, Utah Col. 14–17, asst. prof. and assoc. entomologist, Exp. Sta, 17–20; assoc. prof. zool. and head dept, Utah, 21–28; assoc. nematologist, Exp. Sta, Asg. Hawaiian Pineapple Canners, 29–32; fellow zool, Harvard, 32–33; instr. *biol, Col. City of N. Y,* 33–37, *asst. prof, 37–* In charge, State Crops and Pest Cmn, Utah, 19–21; consulting entomologist, Nat. Biscuit Co, 28–29. Acting sec'y, West. Plant Quarantine Board, 20–21. A.A; Entom. Soc; N. Y. Entom. Soc; Cambridge Entom. Club. Economic nematology and entomology; insect embryology and histology.

Hagan, Dean William A(rthur), 320 The Parkway, Ithaca, N. Y. *Animal pathology, Bacteriology.* Ft. Scott, Kans, Oct. 14, 93. D.V.M, Kans. State Col, 15, hon. Sc.D, 37; M.S, Cornell, 17. Instr. path, Kans. State Col, 15–16; vet. obstet, *N. Y. State Vet. Col, Cornell,* 16–17, *bacter,* 17–18, asst. prof. and *prof, 18–, dean col, 32–* Asst, animal path. div, Rockefeller Inst, 21–22; Int. Educ. Board fellow, Europe, 25–26. Ed. board, 'Jour. Bacter'; 'Cornell Veterinarian.' A.A; Asn. Path. and Bact; Vet. Med. Asn; Soc. Bact; Soc. Exp. Biol; Pub. Health Asn; Tuber. Asn. Animal diseases.

Hagar, Stansbury, 862 Union St, Brooklyn, N. Y. *Anthropology.* San Francisco, Calif, Dec. 9, 69. A.B, Yale, 92; LL.B, N. Y. Law Sch, 97. Sec'y *dept. ethnol, Brooklyn Inst,* 94–17, *pres, 17–, sec'y council, dept. educ, 24–* Int. Cong. Americanists, 02, 08–10, 28. A.A. (councilor); Anthrop. Asn. (councilor); fel. Ethnol. Soc. (past treas); Folk-Lore Soc. (v. pres, 00, 09); Inst. Social Sci; N. Y. Explorers Club (acting sec'y, 18); N. Y. Amateur Astron. Asn. (v. pres, 28–30). The zodiac in pre-Columbian America; astronomical myths and symbols, especially in aboriginal America.

Hagborg, Dr. W(alter) A(rnold) F(erdinand), Dominion Laboratory of Plant Pathology, Winnipeg, Man, Can.

Plant pathology. Winnipeg, Man, June 15, 08. B.S.A, Manitoba, 29; fellow, Toronto, 29–31, Nat. Research Council Can. bursar, 31–32, Ph.D, 35. Asst, Toronto, 32, demonstrator, 32–33; plant disease investigator, Dom. rust research lab, *Can. Dept. Agr, 33–37, junior agr. scientist, Dom. lab. plant path, 37–* Can. Phytopath. Soc. Bacterial diseases of cereals.

Hagelstein, Robert, 165 Cleveland Ave, Mineola, N. Y. *Botany.* New York, N. Y, May 16, 70. *Hon. curator Myxomycetes, N. Y. Bot. Garden, 30–* N. Y. Bot. Garden collecting party, P. R, 26. Torrey Bot. Club; Micros. Soc; fel. N. Y. Micros. Soc. (v. pres, 21, pres, 23); N. Y. Acad. (del. to the council, 30); fel. Royal Micros. Soc; Quekett Micros. Club London. Diatomaceae; Myxomycetes.

Hageman, Dr. Aaron Martin, 6 Fellswood Drive, Verona, N. J. *Chemistry.* Bound Brook, N. J, Aug. 17, 90. B.S, Rutgers, 12, M.S, 13; fellow, Wisconsin, 16–18, Ph.D, 18. Asst. chem, Rutgers, 13–16; chief chemist in charge anal. chem, chem. research, glass and metal, *Westinghouse Lamp Co,* 18–26, manager eng. dept, 26–42, *gen. engineering manager in charge vapor and filament lamp and electronic tube developments, 42–* Chem. Soc; Electrochem. Soc. Inorganic chemistry; metallurgy; chemistry and metallurgy of molybdenum and tungsten.

Hagemann, George E(dward), 143 N. Oraton Parkway, East Orange, N. J. *Mechanical engineering.* Newark, N. J, June 9, 87. B.S, Rutgers, 12. Management engineer, Gilbreth, Inc, 12–13; testing engineer, Worthington Pump and Machinery Corp, 13; instr. mech. eng, Pennsylvania, 13–18; lecturer and instr. math, evening courses in eng, Drexel Inst, 15–18; mech. engineer, Warren Foundry and Pipe Co, 18–22; assoc. ed, 'Management and Admin,' 22–28; managing ed, 'Mfg. Industries,' 28–29; assoc. ed, 'Am. Machinist,' 29; ed, Alexander Hamilton Inst, 29–42; *instr. management, col. eng. and sch. commerce, N. Y. Univ, 35–; eng. ed, Ronald Press Co, 42–; engineer, New Eng. Production Consultants, 42–* Consulting tech. ed, 'Indust. Plant Bul,' 41– A.A; Mech. Eng. (sec'y, management div, 24–28, chairman, materials handling div, 28–30, 40, v. chairman, 36, sec'y, cmt. standards for graphic presentation, 29–, chairman, econ. cmt, 31–35); Management Asn. Organization, management and production control; material handling.

Hagen, Dr. Beatrice L(iberty), Pennsylvania State College, State College, Pa. *Mathematics.* Ellinwood, Kans, July 4, 99. A.B, Kansas, 20; A.M, Chicago, 26, Ph.D, 30. Prof. *math,* Ozark Wesleyan Col, 26–27; Nebr. State Nor. Sch, Chadron, 28–29; Ft. Hays Kans. State Col, 30–31; *instr, Pa. State Col, 31–* Math. Soc; Math. Asn. Projective differential geometry.

Hagenow, Prof. Charles F(rederick), Washington University, St. Louis, Mo. *Physics.* Altona, Germany, Feb. 3, 74. B.S, Nebraska, 00, A.M, 06; Ph.D, Chicago, 19. Instr. math, Nebraska, 04–06; Armour Inst. Tech, 06–09, *physics,* 09–13; Chicago, 18–19; asst. prof, *Washington (St. Louis),* 19–24, *assoc. prof, 24–* A.A; Physical Soc. Electro-optics; double electric refraction; thermionic and photoelectric phenomena at lowest attainable pressures; ionization and spectroscopy.

Hager, Dr. F(loyd) D(avid), Massachusetts Antitoxin and Vaccine Laboratory, 375 South St, Jamaica Plain, Mass. *Chemistry.* Bardolph, Ill, June 10, 99. B.S, Illinois, 22, Ph.D, 26. Research chemist, E. I. du Pont de Nemours and Co, 26–27; Am. Tar Products Co, 27–30; *senior chemist, Mass. Antitoxin and Vaccine Lab, 31–* Chem. Soc. Immuno-chemistry; chemistry of diphtheria antitoxin and of antipneumococcus serum.

Hager, Dr. O(nslow) B(onner), Rohm and Haas Co. 222 W. Washington Sq, Philadelphia, Pa. *Chemistry.* Richmond, Va, March 11, 05. B.S, North Carolina, 27, M.S, 28; Ph.D, Michigan, 35. Research chemist, Riverside and Dan River Cotton Mills, 28–30; research assoc, Princeton, 30–31; teaching fellow, Michigan, 31–35; *with Rohm and Haas Co, 35–* Chem. Soc. Electromotive force; Weston cell; application of thermionic devices to potentiometric measurements and electroanalysis; electrolytic separations.

Haggard, Prof. Howard W(ilcox), 4 Hillhouse Ave, New Haven, Conn. *Physiology.* LaPorte, Ind, July 19, 91. Ph.B, Yale, 14, M.D, 17. Physiologist, U. S. Bur. Mines, 17; instr. physiol, *Sheffield Sci. Sch, Yale,* 18–23, asst. prof. *applied physiol,* 23–26, assoc. prof, 26–38, *prof, 38–, director lab. applied physiol, 38–* Consulting physiologist, U. S. Bur. Mines, 18–23. Ed. staff, 'Personnel Jour'; ed, 'Quart. Jour. Studies Alcohol.' 3rd Resuscitation Cmt, 22. Capt, C.W.S, 17–19. Physiol. Soc; Soc. Biol. Chem; Anesthesia Research Asn. Industrial hygiene; hemato-respiratory physiology; toxicology of noxious gases; physiology of anesthetics; the rate of circulation; resuscitation from carbon monoxide poisoning; mechanics of muscular action; science of health and disease.

Haggenmacher, Dr. John E, Commonwealth Color and Chemical Co, Brooklyn, N. Y. *Chemical engineering.* Winterthur, Switzerland, Sept. 21, 93. D.Sc, Geneva, 16. Instr. physical chem, Polytech. Inst, Zurich, Switzerland, 18–19; research, Grasselli Chem. Co, Cleveland, Ohio, 21–25; works chemist, Glenlyon Print Works, Phillipsdale, R. I, 25–29; supt, Crompton Shenandoah Co, Waynesboro, Va, 29, 30; v. pres, Warwick Chem. Co, 30–40; *mem. staff, Commonwealth Color and Chem. Co, 40–* A.A; Chem. Soc. Physical chemistry; textile chemistry; manufacture of textile chemicals.

Haggerty, Prof. Cecil J(erome), 108 DeGraw Ave, Teaneck, N. J. *Physical chemistry.* Holyoke, Mass, Nov. 15, 01. A.B, Williams Col, 23; Horace Clark scholar, Hopkins, Ph.D, 26. *Prof. chem,* Col. of Holy Cross, 26–37, *Manhattanville Col, 37–* Capt, C.W.S. A.A; Chem. Soc; Electrochem. Soc; Worcester Chemists Club (pres, 35). Vapor pressure; electro-organic chemistry; electromotive force measurement; binary mixtures; reaction kinetics.

Hagle, Dr. C(larence) E(dwin), Colorado Department of Game and Fish, 1530 Sherman St, Denver, Colo. *Wildlife.* Iowa, Nov. 30, 86. Ph.B, Iowa Wesleyan Col, 13; A.M, Washington (Seattle), 24; LL.B, LaSalle Exten. Univ, 27; J. Gould scholar, N. Y. Univ, 31–32, Ph.D, 32. Head div. social sciences, Adams State Teachers Col, Colo, 26–30; head dept. hist, West. State Col, Colo, 30–34; supt. schs, Minn, 34–41; *educational manager, State Dept. Game and Fish, Colo, 41–* Assoc. mem, Am. Museum Nat. Hist, 39–41. Hon. assoc. Colo. Archeol. Soc. Rocky Mountain wild life; wildlife photography; archeology in the sand dunes region of Colorado.

Hagner, Dr. Arthur F(eodor), University of Wyoming, Laramie, Wyo. *Geology, Mineralogy.* Union City, N. J, May 26, 11. A.B, N. Y. Univ, 34; univ. fellow, Columbia, 37–38, nat. research fellow, 38–39, Ph.D, 39. Instr. miner, exten, Columbia, 35–37, asst. geol, univ, 35–37; instr. and later *asst. prof. geol. and miner, Wyoming, 39–; asst. state geologist, Wyo, 42–* Miner. Soc; Min. and Metal. Eng. Metallic and nonmetallic minerals.

Hagquist, Dr. Carl W(aldemar), Carolina Biological Supply Co, Elon College, N. C. *Zoology.* China, Feb. 15, 07. Ph.B, Brown, 34, Ph.D, 38; Yale, 37–38. Acting asst. prof. biol, Richmond, 38–39; prof, Albany Col, 39–42; *head micro-slide dept, Carolina Biol. Supply Co, 42–* A.A; Soc. Zool. Physiology of mammalian reproduction; cytology of the hypophysis.

Hague, Prof. Florence S(ander), Sweet Briar College, Sweet Briar, Va. *Zoology.* Lee's Summit, Mo, June, 89. A.B, Kansas, 11, A.M, 14; Ph.D, Illinois, 21. Asst. zool, Kans. State Col, 14–16; instr, Wellesley Col, 16–17; asst, Illinois, 17–21; instr. zool. and physiol, Oregon State Col, 21–24, asst. prof, 24–26; *biol, Sweet Briar Col,* 26–36, *assoc. prof, 36–* A.A; Soc. Zool; Micros. Soc; Ornith. Union; Cooper Ornith. Club; Va. Soc. Ornith. (sec'y, 31–); Va. Acad. Oligochaeta.

Hague, Dr. Stella M(ary), 607 S. Van Buren St, Auburn, Ind. *Botany.* A.B, Indiana, 93; Ph.D, Chicago, 12. Instr. biol, Rockford Col, 03–06; *bot, Illinois,* 15–38, assoc, 38–40, *emer. assoc, 40–* A.A; Bot. Soc; Micros. Soc; Sullivant Moss Soc; Ill. Acad. Morphology; bryology.

Hahn, Clarence (Wilson), 33–14 Murray Lane, Flushing, N. Y. *Biology.* Plainville, Ohio, Aug. 19, 77. B.S, Cincinnati, 99; M.S, Trinity Col. (Conn), 01; A.M, Harvard, 03. Instr. biol, Cincinnati, 99–00; nat. hist, Trinity Col. (Conn), 00–01; teacher, high sch, N. Y, 03–04; biol, High Sch. of Commerce, New York, 04–40, chairman dept, 22–40; *retired.* A.A; Soc. Nat. Regeneration; reptilian embryology; Haemogregarina stepanovi of the turtle; Myxosporidia of fish.

Hahn, Prof. Dorothy A(nna), Mt. Holyoke College, South Hadley, Mass. *Chemistry.* Philadelphia, Pa, April 9, 76. A.B, Bryn Mawr Col, 99, fellow, 07–08; Leipzig, 06–07; fellow, Yale, 15–16, Ph.D, 16. Prof. *chem,* Pa. Col. for Women, 99–00; instr, *Mt. Holyoke Col,* 08–14, assoc. prof, 14–16, prof, 16–41, *emer. prof, 41–* Chem. Soc; Deuts. Chem. Gesell. Grignard addition to unsaturated ketones; isomerism of derivatives of cyclopropane; hydantoins; iso-sulfo-cyanids; chemical solubilities; isomerization in the hydantoin series; catalytic oxidation of organic compounds in the vapor phase; amino-dibasic acids.

Hahn, Dr. Frederick Charles, E. I. du Pont de Nemours and Co, Arlington, N. J. *Chemistry.* Springfield, Ill, Oct. 27, 93. B.S, Illinois, 16; M.S, Michigan, 17; Ph.D, Hopkins, 23. Research, Nat. Aniline and Chem. Co, 18–21; research group leader, exp. sta, *E. I. du Pont de Nemours and Co,* 23–37, *asst. director plastics dept, Arlington research lab,* 37– C.W.S, 17–18. Chem. Soc. Organic and cellulose chemistry; plastics.

Hahn, Dr. Glenn Gardner, Yale University, New Haven, Conn. *Pathology.* Brodhead, Wis, May 24, 89. B.S, California, 15, M.S, 16; Ph.D, Edinburgh, 28. Sci. asst, *div. forest path, bur. plant indust, U. S. Dept. Agr,* 16–17, assoc. pathologist and *pathologist, 19–* Research assoc, Osborn bot. lab, Yale, 29– U.S.N.R, 18–19. Phytopath. Soc; Soc. Foresters; Mycol. Soc. Forest pathology; mycology; fungi parasitic on conifers, especially ornamentals and the Douglas fir; European larch canker in the United States; white pine blister rust-immune Ribes.

Hahn, Dr. Leo J(oseph), 145 W. 86th St, New York, N. Y. *Physiology, Surgery.* New Haven, Conn, Nov. 10, 93. Ph.B, Yale, 14, M.D, 18. Asst. biol, Yale, 14–17; instr. physiol, col. physicians and surg, Columbia, 22–40; *assoc. surgeon, Beth David Hosp, 40–; major, Med. Corps, U. S. Army.* Adj. surgeon, Mt. Sinai Hosp, 23–30. Fel. Col. Surg; fel. N. Y. Acad. Med. Urology; central control of body temperatures; ureteral calculi; mesenteric lymphadenitis; carcinoma of rectosigmoid; Miller-Abbott tube.

Hahn, Dr. Paul F(rancis), University of Rochester, Rochester, N. Y. *Biochemistry, Experimental pathology.* Rochester, N. Y, June 7, 08. B.S, Mass. Inst. Tech, 30; univ. fellow, Rochester, 32–36, Ph.D, 36. Asst. path, *Rochester,* 36–37, instr. *biochem. and exp. path,* 39–40, *assoc, 40–* Chem. Soc; Soc. Exp. Path. Experimental anemia; metabolism of iron; blood volume; radioactive isotopes.

Hahn, Prof. (Thomas) Marshall, University of Kentucky, Lexington, Ky. *Physics.* Lawrenceburg, Ky, Oct. 27, 01. B.S, Kentucky, 24, M.S, 25; Ph.D, Chicago, 34. Instr. *physics, Kentucky,* 25–28, asst. prof, 28–35, *assoc. prof, 35–* Summer, director research lab, Kelley-Koett Mfg. Co, 29. Physical Soc; Ky. Asn. Physics Teachers. X-rays.

Hahnert, Prof. William F(ranklin), Ohio Wesleyan University, Delaware, Ohio. *Physiological zoology.* Logansport, Ind, Oct. 6, 01. A.B, DePauw, 27; Adam T. Bruce fellow, Hopkins, 30–31, Ph.D, 31. Nat. research fellow biol, Hopkins, 31–32; Pennsylvania, 32–33; asst. prof, North Carolina, 33; chairman dept. biol, Fed. Emergency Relief Admin. Col, Baltimore, 34; asst. prof. *zool, Ohio Wesleyan,* 34–38, *assoc. prof, 38–* Summers, junior instr, Marine Biol. Lab, Woods Hole, 38; assoc. prof, Franz Theodore Stone Lab, Ohio State, 39–41. A.A; Soc. Zool; Ohio Acad. General physiology; growth and response of Protozoa.

Haig, Dr. Charles, New York Medical College, New York, N. Y. *Physiology, Zoology.* New York, N. Y, Nov. 18, 98. B.S, Columbia, 27, A.M, 28, Ph.D, 35. Asst. bacter, St. Luke's Hosp, New York, 23–24; zool, Columbia, 26–27; fellow biol, Col. City of N. Y, 27–28, tutor, 28–31; biophys, *Columbia,* 35–37, *research fellow, first div, Welfare Hosp, 37–; asst. prof. physiol, N. Y. Med. Col, Flower and Fifth Ave. Hosps, 42–* Investigator, Office Sci. Research and Develop, lab. biophys, Columbia, 42. A.A; Soc. Zool; Soc. Exp. Biol; Physiol. Soc; N. Y. Acad. Phototropism; physiology and chemistry of vision; metabolism of vitamin A.

Haig, Dr. I(rvine) T(heodore), U. S. Forest Service, Washington, D. C. *Forestry.* Philadelphia, Pa, Oct. 27, 01. B.S, Pa. State Col, 23; Forest Production fellow, Yale, 27–28, M.F, 28, Charles Boughton Wood fellow, 32–33, Ph.D, 35. Forest asst, *U. S. Forest Service,* 23–27, asst. silviculturist, 27–29, assoc. silviculturist, North. Rocky Mt. Forest and Range Exp. Sta, 29–34, senior silviculturist, 34–35, asst. chief *div. forest management and research,* 35–38, *chief, 38–* A.A; Soc. Foresters; assoc. Ecol. Soc. Forest ecology; natural regeneration of western white pine; research administration.

Haigh, Berte R(olph), P. O. Box 1663, Midland, Texas. *Exploratory geology.* Los Angeles, Calif, Jan. 15, 90. B.S, Texas Col. Mines, 25. Consultant metal. research, 25; asst. engineer, Virginia Mine, N. Mex, 25–26; field geologist, Dixie Oil Co, Inc, 26–28; asst. prof. geol. and eng, Texas Col. Mines, 28–34; geologist, *geol. div, univ. lands, Texas,* 34–37, *asst. geologist in charge, 37–* Asn. Petrol. Geol; Texas Acad. (regional v. pres, west Texas region, 35); West Texas Geol. Soc. (pres, 39).

Haigh, Prof. Frank L(oyal), 833 Washington St, Walla Walla, Wash. *Chemistry.* Green Lake, Wis, Nov. 25, 85. A.B, Ripon Col, 08; Loomis fellow, Yale, 11–12, Ph.D, 12. Instr. *chem,* Sheffield Sci. Sch, Yale, 12–15; *prof. and head dept, Whitman Col, 16–* Chem. Soc. Physical and inorganic chemistry.

Haigh, Prof. L(eonard) D(ixon), 1617 Cauthorn Ave, Columbia, Mo. *Chemistry.* Yorkville, Ill, Nov. 24, 75. B.S, Michigan, 00, M.S, 03; Ph.D, Missouri, 11. Commercial chemist, 03–07; asst. prof. and *assoc. prof. agr. chem, Missouri, 07–* Chem. Soc. Chemistry of beef animals.

Haight, Dr. Cameron, University Hospital, Ann Arbor, Mich. *Thoracic surgery.* San Francisco, Calif, Sept. 2, 01. A.B, California, 23; M.D, Harvard, 26. Surg. intern, Peter Bent Brigham Hosp, Boston, 26–28; asst. *surg,* med. sch, Yale, 28–31; instr, *med. sch, Michigan,* 31–34, asst. prof, 34–38, *assoc. prof, 38–* Asn. Thoracic Surg; Am. Med. Asn; Surg. Asn; Cent. Surg. Asn; Mich. Tuber. Asn; Mich. Trudeau Soc. Thoracic surgery.

Haight, F(rank) J(oshua), 3930 Harrisson St, N. W, Washington, D. C. *Oceanography.* Barker, N. Y, May 20, 93. B.E, N. C. State Col, 17. *Tidal mathematician, U. S. Coast and Geod. Surv, 21–, chief sect. currents, div. tides and currents, 37–* Lieut. and capt, Marine C, 17–19. Civil Eng. Tides; currents.

Haines, Prof. A(rthur) L(ee), 224 Cherry St, Vermillion, S. Dak. *Chemistry.* Wyoming, Iowa, June 25, 74. B.S, Upper Iowa, 96, Sc.D, 24; A.M, South Dakota, 05; Wisconsin. Asst. chem, *South Dakota,* 04–05, chem. and physics, 05–06, instr. *chem,* 06–13, asst. prof, 13–19, assoc. prof, 19–27, *prof, 27–,* in charge dept, 18–19. Chem. Soc; S. Dak. Acad. (sec'y-treas). Dehydration of alcohol by calcium carbide; sanitary water analysis; sulfonic acid derivatives of phenyl ether.

Haines, Dr. Edward C(admus), 501 E. Main St, Moorestown, N. J. *Organic chemistry.* Centerton, N. J, May 25, 00. B.S, A.M, Haverford Col, 21; Ph.D, Mass. Inst. Tech, 24. Asst, Mass. Inst. Tech, 24; research chemist, E. I. du Pont de Nemours and Co, 24–27; *chemist, Geo. D. Wetherill and Co, 27–* A.A; Chem. Soc. The influence of the solvent on the rate of reaction between benzoyl chloride and ethyl alcohol.

Haines, Dr. George, U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Millbrook, N. Y, Aug. 1, 97. B.S, Cornell, 17, M.S, 18; Ph.D, Maryland, 29. Asst. and instr. animal husbandry, Cornell, 17–22; from assoc. animal husbandman to *senior animal husbandman and asst. exp. sta. admin, office exp. stations, U. S. Dept. Agr, 22–* A.A; Soc. Animal Production; Poultry Sci. Asn; Genetic Asn. Animal genetics.

Haines, Dr. Samuel F(aitoute), 620 Ninth Ave, S. W, Rochester, Minn. *Internal medicine.* Mantorville, Minn, Nov. 30, 92. B.S, Harvard, 15, M.D, 19; M.S, Minnesota, 29. Instr. *med, Mayo Foundation, Minnesota,* 24–30, asst. prof, 30–40, *assoc. prof, 40–* A.A; Am. Med. Asn; fel. Col. Physicians; Asn. Study Int. Secretions; Asn. Study Goiter; Cent. Soc. Clin. Research. Thyroid diseases.

Haines, Dr. Thomas H(arvey), 58 Tuxedo Road, Montclair, N. J. *Psychology, Psychiatry.* Moorestown, N. J, Nov. 4, 71. A.B, Haverford Col, 96; Ph.D, Harvard, 01; M.D, Ohio State, 12. Prof. psychol, Ohio State, 01–15, mental and nervous diseases, 15–21; field consultant, Nat. Cmt. Mental Hygiene, 18–22, director div. mental deficiency, 22–26; psychiatrist to outpatients, Cornell Clinic, 26–32; New York Hosp, 32–41; *private practice, New York, 41–* Asst. and clerk, Burgholzli, Zurich; Nat. Hosp. Paralyzed and Epileptic, London, 13; 1st asst. physician, Boston Psychopathic Hosp, 13–14; prof, Smith Col, 14; clin. director, Ohio Bur. Juvenile Research, 14–17. Psychol. examiner, U.S.A, 17–18. A.A; Psychol. Asn; fel. Psychiat. Asn; fel. Am. Med. Asn; N. Y. Soc. Clin. Psychiat. Mental measurements; alertness tests; special tests for the blind; esthetic reactions; tactual space perception; crime and mental deficiency; defects in personality formation.

Haines, William C(assius), U. S. Weather Bureau Office, St. Louis, Mo. *Meteorology.* Reinersville, Ohio, Feb. 1, 87. George Washington. Teacher, schs, Ohio, 06–12; *meteorologist, U. S. Weather Bur, 12–* Meteorologist, Byrd Arctic exped, 26; chief meteorologist, Byrd Antarctic exped, 28–30,

33–35. Congressional gold medal. Sergt, Sig.C, 18–19. Meteorol. Soc; Philos. Soc. Wash. Ascensional rate of pilot balloons for investigations of upper air; meteorological observation of the Byrd Antarctic expedition.

Hainsworth, Dr. W(illiam) R(ichard), Servel, Inc, 51 E. 42nd St, New York, N. Y. *Physical chemistry.* Seattle, Wash, Feb. 22, 96. B.S, Washington (Seattle); M.S, Calif. Inst. Tech; du Pont fellow, Ph.D, Mass. Inst. Tech. In charge research, Nat. Automatic Refrigerator Co, 22–24; supt, Puget Sound Gas Co, 24–25; refrig. engineer in charge research, Nat. Refrigerator Co, 25–29; director, Electrolux-Servel Corp. Lab, 29–35, *v. pres. in charge eng, Servel, Inc, 35–* Chief chemist, U. S. Civil Service Cmn, Ala, 18. Charles A. Monroe award, 33. Chem. Soc; Soc. Refrig. Eng. (past pres). High pressure; photoelectric effects; absorption refrigeration; phototelegraphy process.

Hair, Prof. C(lifton) L(eCroy), The Citadel, Charleston, S. C. *Mathematics.* Orangeburg, S. C, May 5, 89. B.S, The Citadel, 09; A.M, Duke, 38. Instr. *math, The Citadel,* 09–10, asst. prof, 10–21, assoc. prof, 21–29, *prof, 29–, head dept, 33–*

Hait, Prof. Kenneth B(laisdell), 337 E. College Ave, Lafayette, La. *Psychology.* Patchogue, L. I, N. Y, April 18, 00. A.B, Florida, 24; Ph.D, Peabody Col, 36. Psychologist, lab. sch, Florida, 37–38; *prof. psychol. and head dept, Southwest. La. Inst, 38–* Assoc. Psychol. Asn. Applied psychology; generalizing ability; learning.

Hakansson, Dr. E(rik) G(osta), Navy Department, Washington, D. C. *Medical protozoology.* Sweden, Sept. 5, 86. M.D, Illinois, 15. *Med. officer, U. S. Navy.* Assoc. mem, Gorgas Mem. Inst, Panama, 34–36. Soc. Trop. Med. Amoebiasis.

Hake, Prof. H(arry) G(ray), Washington University, St. Louis, Mo. *Electrical engineering.* Barry, Ill, Feb. 1, 83. B.S, Illinois, 07, M.S, 10, E.E, 13. Instr. *elec. eng,* Illinois, 07–13; asst. prof, *Washington (St. Louis),* 13–18, assoc. prof, 18–26, *prof, 26–* Elec. Eng. Illumination.

Hake, Prof. J(oseph) W(illiam), Northwest Missouri State Teachers College, Maryville, Mo. *Physics.* Hoyleton, Ill, Oct. 7, 82. B.S, Cent. Wesleyan Col, 07; A.B, Illinois, 09; A.M, Northwestern, 13; Ph.D, Kansas, 29. Acting prof. *physics,* Wheaton Col. (Ill), 09–10; asst, Northwestern, 10–13; instr, West Virginia, 13; asst. prof, Carleton Col; *prof, Northwest Mo. State Teachers Col, 24–* Physical Soc. Astrophysics.

Halasey, Sister M(ary) Eva, Mt. St. Scholastica College, Atchison, Kans. *Physical chemistry.* Maryville, Mo, Feb. 6, 96. B.S, Creighton, 26; M.S, St. Louis, 28, Ph.D, 35. Instr. *chem, Mt. St. Scholastica Col,* 30–32, *prof. and director dept, 35–* A.A; Chem. Soc. Partial molal volumes.

Halbouty, Michel Thomas, 5 West Lane, Houston, Texas. *Petroleum geology, Petroleum engineering.* Beaumont, Texas, June 21, 09. B.S, Agr. and Mech. Col. Texas, 30, fellow, 30–31, M.S, 31. Geologist and petrol. engineer, Yount-Lee Oil Co, 31–33, chief geologist and petrol. engineer, 33–35; gen. manager, chief geologist and petrol. engineer, Glen H. McCarthy, Inc, 35–37; *consulting petrol. geologist and petrol. engineer, 37–; major, Quartermaster Corps, U. S. Army.* A.A; Asn. Petrol. Geol; Min. and Metal. Eng. (chairman Gulf Coast sect, petrol. div, 39; assoc. chairman production cmt, 39–41); Petrol. Inst; Miner. Soc; Soc. Econ. Geol; Paleont. Soc; Soc. Mil. Eng; Oil Scouts and Landmen's Asn; Texas Acad; N. Y. Acad. Petrographic characteristics of oil sands; geology of Gulf Coast oil and gas fields; geology of salt domes in Texas and Louisiana; chemical treatment of oil and gas well drilling fluids; petroleum engineering technique employed in drilling of deep wells in the Gulf Coast of Texas and Louisiana.

Haldane, Dr. W(illiam) G(eorge), Room 1426, Union Carbide and Carbon Bldg, 30 E. 42nd St, New York, N. Y. *Engineering.* Cleveland, Ohio, Nov. 5, 79. B.S, Case, 00; Columbia, 08; hon. Sc.D, Denver, 14. Asst. prof. metal, Colo. Sch. Mines, 08–12, acting pres, 13–14, assoc. prof. metal. and ore dressing, 15–17; chief engineer, West. Potash Co, Nebr, 18–20; *consulting engineer, 20–; asst. gen. manager, U. S. Vanadium Corp, 35–* Colo. Metal. and Min. Asn. Radium; uranium; vanadium; metallurgy; ore dressing; rare metals of southern Colorado.

Haldeman, Dr. Keene O, 350 Post St, San Francisco, Calif. *Surgery.* Ord, Nebr, Jan. 27, 99. A.B, California, 20, A.M, 24, M.D, 25; Mayo Foundation fellow, Minnesota, 26–29, Ph.D, 29. Instr. *orthop. surg, med. sch, California,* 29–34, asst. clin. prof, 34–41, *assoc. clin. prof, 41–* Am. Med. Asn; fel. Col. Surg; Acad. Orthop. Surg; San Francisco Path. Soc. Bone and joint surgery; healing of fractures; bone grafts; injuries to muscles and tendons; infections of bone; fractures of wrist and spine.

Haldeman, Prof. W(illiam) S(truhhar), Monmouth College, Monmouth, Ill. *Chemistry.* Pine Grove, Pa, April 25, 81. B.S, Pennsylvania, 14; A.M, Harvard, 20; Illinois, 20, 21, 22, 25; California, 32. Teacher, high sch, Pa, 04–09; Pa. State Teachers Col, 09–13, 14–15; instr. *chem,* Friends, 16–18; *prof, Monmouth Col, 18–* Summers, asst. prof, Okla. State Teachers Col, Weatherford, 18; research, U. S. Indust. Chem. Co, Baltimore, 27–30. A.A; Chem. Soc; Ill. Acad. Catalytic oxidation of ethyl alcohol to acetic acid.

Haldi, Prof. John, 957 Springdale Road, Atlanta, Ga. *Physiology.* Frankfort, Ky, March 30, 96. A.B, Mt. St. Mary's Col, 17; A.M, Catholic Univ, 21; Ph.D, Cincinnati, 23. Instr. physiol. psychol, Catholic Univ, 24–29; prof. *physiol,* Trinity Col. (D. C), 26–29; instr, Michigan, 30–33, asst. prof, 33; *Emory,* 33–35, *assoc. prof, 35–* Physiol. Soc. Brain hydration; lactic acid metabolism; carbohydrate metabolism; calcium-phosphorus metabolism; water balance.

Hale, Dr. A(rthur) H(ays), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Philadelphia, Pa, April 5, 08. A.B, Arkansas, 29; M.S, Emory, 30; A.M, Harvard, 32, Ph.D, 36. Asst. chem, Harvard, 35–36; *asst. director anal. div, Exp. Sta, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Atomic weights of carbon, iodine and sodium; nylon; plastics; colloids; electrochemistry; inorganic and analytical chemistry.

Hale, Prof. C(larence) F(rederick), Wesleyan University, Middletown, Conn. *Physics, Chemistry.* South Manchester, Conn, 77. B.S, Wesleyan, 03, M.S, 07; Ph.D, Cornell, 09. Asst, Wesleyan, 05–07, instr, 07–08; research assoc, Gen. Elec. Co, 09–11; prof. physics, N. Y. State Col. Teachers, Albany, 11–42; *retired; visiting prof. physics, Wesleyan, 42–* Physical Soc. Liquefaction of gases; hydrazin; small gas pressure; spectrum of hydrazin and ammonia.

Hale, Dr. Danforth R(awson), RCA Manufacturing Co, Inc, 415 S. Fifth St, Harrison, N. J. *Physical chemistry.* Boston, Mass, May 30, 01. A.B, Colo. Col, 24; Ph.D, Cornell, 28. Asst. anal. chem, Cornell, 24–27; research chemist, Nat. Carbon Co, Cleveland, 28–30; A. D. Weil fellow, Univ. Strasbourg, 30–31; prof. chem, Defiance Col, 31–32; Doane Col, 32–33; acting head dept. physics, Iowa Wesleyan, 33–34; *research chemist, RCA Mfg. Co, 34–* Chem. Soc; fel. Inst. Chem. Induced reactions and the higher oxides of iron; dynamic study of interfacial tension; electronics; fluorescence and phosphorescence of inorganic substances.

Hale, Lieut. Col. Donald H(erbert), Chemical Warfare School, Edgewood Arsenal, Md. *Physics.* Rumford, S. Dak, July 7, 04. B.S, York Col, 25; M.S, Nebraska, 29; Ph.D, California, 39. Instr. eng. physics, Nebraska, 29–33; asst. elec. eng, California, 38–39; director research and develop, Gen. Geophys. Co, Houston, Texas, 39–40; *Chem. Warfare Service, 40–, lieut. col.* Physical Soc. Electric discharge in gases; influence of the cathode material on the Townsend ionization coefficients.

Hale, Mrs. Evelyn W(ickham) (Mrs. Edward K. Hale), 63½ Columbia Heights, Brooklyn, N. Y. *Engineering.* Rensselaer, N. Y, June 7, 95. A.B, Vassar Col, 16; M.S, Chicago, 17. Computer, Yerkes Observatory, Chicago, 16–19, observer, 17–19; eng. asst, Am. Tel. and Tel. Co, 19–24, engineer, 24–26; *sci. translating, 26–* Univ. Chicago total solar eclipse exped, Green River, Wyo, 18. Astrophysics; radial velocity; telephone transmission.

Hale, Dr. Frank E(ugene), Mt. Prospect Laboratory, 355 Park Place, Brooklyn, N. Y. *Chemistry, Bacteriology, Microscopy.* Brooklyn, N. Y, Oct. 19, 75. A.B, Yale, 00, Silliman fellow, 00–02, Ph.D, 02. Asst. chem, Yale, 00–02; anal. chem, Columbia, 02–03; chemist, *Dept. Water, Gas and Elec, New York,* 03–06, in charge Mt. Prospect lab, 06–13, *director labs, 13–* Prize, Munic. Engineers, New York, 19; Dexter Brackett medal, New Eng. Water Works Asn, 30; Goodell prize, Am. Water Works Asn, 35. Chem. Soc; fel. Inst. Chem; Water Works Asn. (chairman, water purification div, 30); Munic. Eng; fel. Pub. Health Asn; New Eng. Water Works Asn; Chemists' Club; Asn. Munic. Chem. N. Y. (pres, 30, 31). Use of tartar emetic as a standard; starch in iodo-

metric analysis; hydrolysis of starch; structure of the starch molecule and iodids; analysis of coal, water and sewage; sewage disposal; water purification; water-borne diseases; limnology; pipe corrosion.

Hale, Fred, Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Kaufman, Texas, May 26, 00. B.S, Agr. and Mech. Col. Texas, 22, M.S, 25. Instr. animal husbandry, Agr. and Mech. Col. Texas, 23; asst. gen. agr. agent, Santa Fe R. R, 23–25; *chief div. swine husbandry, Exp. Sta, Agr. and Mech. Col. Texas, 25–* Int. Live Stock Judging Team, Agr. and Mech. Col. Texas, 21. Soc. Animal Production. Animal nutrition; relation of maternal vitamin A deficiency to embryonic development in pigs.

Hale, G(eorge) A(lbert), Burdette, Ark. *Agronomy.* Prescott, Ark, Oct. 9, 99. B.S.A, Iowa State Col, 23; A.M, Missouri, 27. Plant breeder, Burdette Plantation, Inc, 23–26; asst. agronomist, Exp. Sta, Georgia, 27–36; *assoc. agronomist, soil conservation service, U. S. Dept. Agr, 36–* Soc. Agron. Agronomic studies with field crops and soils.

Hale, Dr. George C(lyde), 31 Elk Ave, Dover, N. J. *Chemistry, Chemical engineering.* Sullivan Co, Ind, Sept. 29, 91. A.B, A.M, Indiana, 15, Ph.D, 25. Instr. chem, Indiana, 15–17; research chemist, Picatinny Arsenal, 17–19; chief tech. div, Ordnance Dept, Germany, 20–21; chief chemist, *Picatinny Arsenal, 21–29, chief chem. dept, 29–* Chem. Soc; Chem. Eng; Army Ordnance Asn; Chemists' Club. Organic and physical chemistry; explosives.

Hale, Prof. Harrison, University of Arkansas, Fayetteville, Ark. *Chemistry.* Columbus, Miss, Dec. 27, 79. A.B, Emory, 99; M.S, Chicago, 02; Harrison fellow, Pennsylvania, 06–08, Ph.D, 08; LL.D, Drury Col, 28. Asst. prin, pub. schs, Ga, 99–01; instr. *chem,* Drury Col, 02–03, asst. prof, 03–05, prof, 05–18; *prof. and head dept, Arkansas, 18–* City chemist, Springfield, Mo, 11–14; consulting chemist, Springfield City Water Co, 11–18; Ft. Smith Water Dept, Ark, 23–27; Fayetteville Water Dept, 27– A.A; Chem. Soc. (councilor, Ark. sect, chairman, chem. educ. div, 36, hist. chem. div, 42). Boiler waters in Oklahoma; electrolytic method for the analysis of zinc ores; reduction of zinc ores; active chlorin as a milk preservative; chlorin as a preventative of influenza; city water supplies of Arkansas; chemical history.

Hale, Capt. John M(ilton), Laboratory, Station Hospital, Camp Davis, N. C. *Bacteriology.* Kalamazoo, Mich, Sept. 26, 07. B.S, Utah State Col, 35; M.S, Idaho, 38; Ph.D, Yale, 41. Instr. bacter. and biochem, Utah State Col, 36; bacter, Idaho, 36–39; student instr. immunol, Yale, 39–41, instr, 41–42; *Sanit. Corps, U. S. Army, and lab. officer, sta. hosp, 42–, capt.* Hydrogen ion concentration stability of vaccinia virus; influence of chemical agents in general upon vaccinia virus.

Hale, Dr. W(alter) S(amuel), Presidential Gardens, Alexandria, Va. *Organic chemistry.* Camden, Ark, March 15, 02. B.S, Arkansas, 25; M.S, Colorado, 27, Ph.D, 35. Asst. instr. chem, Colorado, 25–29; asst. chemist, bur. chem. and soils, *U. S. Dept. Agr,* 29–36, assoc. chemist, 36–39, chemist, 39–41, *senior chemist, bur. agr. chem. and eng, 41–* Lecturer, American Univ, 35. Biochemistry; enzyme chemistry; proteolytic enzymes in wheat; cereal chemistry.

Hale, Dr. William J(ay), Dow Chemical Co, Midland, Mich. ***Chemistry.* Ada, Ohio, Jan. 5, 76. A.B, A.M, Miami (Ohio), 97; A.B, Harvard, 98, A.M, 99, Ph.D, 02, fellow, Berlin and Göttingen, 02–03; LL.D, Miami (Ohio), 37. Instr. chem, Michigan, 04–08, asst. prof, 08–15, assoc. prof, 15–19; director org. chem. research, *Dow Chem. Co,* 19–34, *research consultant, 34–; pres, Nat. Agrol Co, 39–* Visiting prof, Conn. Col, 36–39. Chairman div. chem. and chem. technol, Nat. Research Council, 25–27. A.A; Chem. Soc; fel. London Chem. Soc; Deuts. Chem. Gesell; Soc. chim. de France; Soc. suisse de Chim. General and organic chemistry; dehydromucic acid; biphenyl derivatives; beta dioxims; isoxazoles; furfural derivatives; pyrimidins; cyclopentadienes; condensations among aldehydes and ketones; dehydroacetic acid; four-membered cyclic ureas or uretidones; nitropyrrole derivatives; synthetic processes for phenol aniline and acetic acid; dehydration of polyhydric alcohols.

Hale, Dr. William M(ason), Medical Laboratories Bldg, Iowa City, Iowa. *Medicine.* Nashville, Ark, Dec. 8, 98. B.S, New Mexico, 24; M.D, Yale, 29. Bacteriologist, State Dept. Pub. Health, N. Mex, 24–25; instr. immunol, sch. med, Yale, 29–32, asst. prof, 32–38; *prof. bacter. and head dept, Iowa, 38–* Med. officer, food and drug admin, U. S. Dept. Agr, 37–38. A.A; Asn. Immunol; Soc. Bact; Am. Med. Asn; Soc. Exp. Biol; Soc. Exp. Path; Pub. Health Asn. Bacteriology; immunology.

Hale, Prof. (William) Worth, Harvard Medical School, Boston, Mass. *Pharmacology.* Inavale, Nebr, Sept. 9, 76. M.D, Michigan, 04, A.B, 08. Asst. surgeon, Granite Mining Hosp, Mont, 04–05; asst. pharmacol, Michigan, 05–08; asst. pharmacologist, U. S. Pub. Health Service, 08–13; asst. prof. *pharmacol, Harvard Med. Sch,* 13–18, assoc. prof, 18–43, *emer. prof, 43–,* asst. dean, 18–43. Soc. Pharmacol; Physiol. Soc.

Halenz, Prof. H(erwarth) F(riedrich), Emmanuel Missionary College, Berrien Springs, Mich. *Biochemistry.* Düsseldorf, Germany, Jan. 1, 97. A.B, Broadview Col, 22; A.M, Northwestern, 28; Ph.D, Colorado, 35. Instr. science and math, Maplewood Acad, 24–27; prof. chem. and biol, Broadview Col, 28–34; chem, Atlantic Union Col, 35–37; *head physical science dept, Emmanuel Missionary Col, 37–* Nutritional anemia; distribution of metallic elements in animal tissues.

Hales, Prof. Wayne B(rockbank), 625 N. University Ave, Provo, Utah. *Physics.* Spanish Fork, Utah, Dec. 20, 93. A.B, Brigham Young, 16; A.M, Utah, 22; Ph.D, Calif. Inst. Tech, 26. Prof. physics, Ricks Col, 16–21; pres, Snow Col, 21–24; *prof. physics,* Weber Col, 26–30; *Brigham Young, 30–; U. S. Army, 42–* A.A; Physical Soc; Acoustical Soc; Meteorol. Soc; Utah Acad. (pres, 31). Critical photoelectric potential of mercury; acoustics of Salt Lake Tabernacle; characteristics of cold waves over Utah; canyon winds of the Wasatch Mountains.

Haley, Prof. D(ennis) E(dward), 600 Allen St, State College, Pa. *Chemistry.* Wilmington, Ohio, July 22, 85. B.S, Ohio State, 13, Ph.D, 22; M.S, Pa. State Col, 16. From asst. to *prof. agr. chem, Pa. State Col, 14–* Agricultural chemistry; biochemistry; tobacco; soil potassium; castor-bean lipase.

Haley, Dr. George, University of San Francisco, P. O. Box 265, Berkeley, Calif. *Botany.* Brownfield, Maine, Nov. 28, 70. B.S, Maine, 11; Ph.D, San Francisco, 28. Prof, Japan Naval Acad; *head biol. sciences, pre-med. dept, San Francisco, 21–* U. S. Bur. Fisheries, Pribilof Islands, Alaska. Univ. Calif. exped, Alaska, 25; Calif. Acad. Sciences exped, Alaska, 26, 27, to Mt. Washington, N. H, 28, Iceland and Norway, 32, Spitsbergen, 34, Labrador, 35; Hearst newspaper exped. to study Ainu, north. Japan, 31. A.A; Math. Soc; Nat. Asn. Audubon Societies; Cooper Ornith. Club; Calif. Acad. Circumpolar flora; carnivorous habits of butterfly larvae.

Halford, Prof. J(oseph) O(liney), 1718 Harding Road, Ann Arbor, Mich. *Chemistry.* Oakland, Calif, Aug. 12, 03. B.S, California, 24, Ph.D, 26. Instr. *org. chem, Michigan,* 26–30, asst. prof, 31–38, *assoc. prof, 38–* Alfred H. Lloyd fellow, Harvard, 30–31. A.A; Chem. Soc. Application of thermodynamics to organic reactions; deuterium compounds.

Halford, Dr. Ralph S(tanley), Harvard University, Cambridge, Mass. *Physical chemistry.* Vallejo, Calif, April 21, 14. B.S, California, 35, Ph.D, 38. Instr. chem, California, 38–40; nat. research fellow, 40–41; *instr. chem, Harvard, 41–* Chem. Soc. Chemical kinetics; artificial radioactivity and its application to chemical problems; structure of liquids.

Hall, Prof. Ada R(oberta), Wellesley College, Wellesley, Mass. *Physiology.* Georgianna, Fla, Nov, 90. A.B, Oregon, 17, A.M, 19; fellow, Illinois, 19–21, Ph.D, 21. Asst. zool, Oregon, 16–19; instr. biol, Whitman Col, 21–24; prof, Shorter Col, 24–27; Lindenwood Col, 27–28; Col. of St. Catherine, 28–30; *asst. prof. physiol, Wellesley Col, 30–* Asst, Puget Sound Biol. Sta, 22. A.A. Experimental zoology and physiology.

Hall, Ansel F(ranklin), Mesa Verde National Park, Colo. *Forestry.* Oakland, Calif, May 6, 94. B.S, California, 17. Park naturalist, Yosemite Nat. Park, 20–23; chief naturalist, Nat. Park Service, 23–30, senior naturalist and chief forester, 30–33, chief field div. educ, 33–37; *pres. and gen. manager, Mesa Verde Co, 37–* Exec. agent, Asn. Mus; exec. sec'y, Scenic South. Hy. Asn, 38–; research director, Navajo Trail Asn, Colo. and Utah, 39– Chairman board trustees, Yosemite Nat. Hist. Asn, 24–35. Gen. director, Rainbow Bridge-Monument Valley exped, 33–37. Instr, A.E.F. Univ. Beaune, 18. Explor. Soc. (pres, 36–). National parks; education; archeology; general science.

Hall, Prof. Arthur A, 316 Forest Ave, Morgantown, W. Va. *Electrical engineering.* Grafton, W. Va, Dec. 16, 80. B.S West Virginia, 06. Gen. Elec. Co, 06–07; supt, Elkins Power

Co, 07–09; elec. inspector, W. Va-Ohio Inspection Bur, 09; elec. supt. and chief engineer, W. Va. Traction and Elec. Co, 09–16; asst. prof. *elec. eng, West Virginia*, 16–18, assoc. prof, 18–22, *prof, 23–* A.A; Elec. Eng. Simplification of electric rates.

Hall, Prof. B(enjamin) Vincent, University of Illinois, Urbana, Ill. *Zoology.* Boundary Falls, B. C, Can, Dec. 9, 07. A.B, Linfield Col, 30; fellow, Yale, 33-34, Ph.D, 34. Asst. biol, Yale, 30–33; instr. zool. and comp. anat, *Illinois*, 34–37, assoc. *zool*, 37–39, *asst. prof, 39–* Asn. Anat; Soc. Zool. Experimental zoology; physiology of reproduction; endocrinology.

Hall, Dr. B(yron) E(llsworth), Mayo Clinic, Rochester, Minn. *Medicine.* Little Falls, Minn, Sept. 3, 06. A.B, Minnesota, 28, A.M, 29, Ph.D, 32; M.D, Pennsylvania, 33. Fellow zool, Minnesota, 28–29, fellow anat, 29–31; intern, univ. hosp, Pennsylvania, 33–35; fellow *med, Mayo Clinic*, 35–37, *consulting physician, 37–; asst. prof. med, Mayo Foundation, Minnesota, 39–* A.A; Asn. Anat; fel. Am. Med. Asn; fel. Col. Physicians; Federation Clin. Research; Cent. Soc. Clin. Research. Hematology; pathologic physiology of the anemias; leukemias; influence of sulfonamide and sulfone derivatives on the blood; diseases of the bone marrow; polycythemia vera.

Hall, Prof. Calvin S(pringer), Jr, Western Reserve University, Cleveland, Ohio. *Psychology.* Seattle, Wash, Jan. 18, 09. A.B, California, 30, fellow, 30–33, Ph.D, 33. Instr. *psychol*, California, 33–34, research assoc, 34; asst. prof, Oregon, 34–37; assoc. prof, *Western Reserve*, 37–40, *prof, 40–* A.A; Psychol. Asn. Learning; individual differences; emotional behavior; motivation.

Hall, Dr. D(arl) M(erideth), University of Illinois, Urbana, Ill. *Agronomy.* Creston, Iowa, May 10, 95. B.S, Iowa State Col, 22; M.S, Minnesota, 32, Ph.D, 34. Supervisor agr. educ, high sch, Iowa, 23–31; asst. agron. and plant genetics, Minnesota, 31–34; assoc. agronomist, soil conservation service, U. S. Dept. Agr, 35, personnel officer, 36–37; project supervisor, *Illinois*, 37–41, *asst. to dean and director, 41–* Agronomic plant breeding; educational psychology.

Hall, David G, U. S. National Museum, Washington, D. C. *Entomology.* Port Jefferson, Ohio, Aug. 7, 03. B.S, Ohio State, 26; Calif. Spray Chem. Co. fellow, Kans. State Col, 28, M.S, 28. Asst. entomologist, Arkansas, 26–28; *bur. entom. and plant quarantine, U. S. Dept. Agr*, 28–35, *assoc. entomologist, 35–* Entom. Soc. Amer; N. Y. Acad; Entom. Soc. Wash. Flies affecting man and animals; Oestromuscoidea.

Hall, Dr. Dick Wick, Brown University, Providence, R. I. *Mathematics.* Los Angeles, Calif, June 7, 12. Ph.D, Virginia, 38. Lecturer math, California at Los Angeles, 38; nat. research fellow, Pennsylvania, 38–39; *instr. math, Brown, 39–* Math. Soc; Math. Asn. Topology.

Hall, Prof. E. Raymond, University of California, Berkeley, Calif. *Vertebrate zoology.* Imes, Kans, May 11, 02. A.B, Kansas, 24; A.M, California, 25, Ph.D, 28. Asst. birds and mammals, museum nat. hist, Kansas, 21–23; teaching fellow zool, *California*, 24–25, research asst, *museum vert. zool*, 26–27, *curator mammals, 27–*, asst. prof. *vert. zool, univ*, 30–37, *assoc. prof, 37–* Summers, paleont. and zool. field parties, Univ. Kans, 21, 22; asst, bur. biol. surv, U. S. Dept. Agr, 23–25; Calif. Fish and Game Cmn, 26; Guggenheim Mem. Foundation fellow, 43. A.A; Soc. Mammal. (ed. cmt; v. pres, 40–); West. Asn. Mus. (v. pres, 41); Cooper Ornith. Club; Gesell. für Säugetierkunde. Recent and fossil vertebrates.

Hall, Prof. E(arl) H(enry), 101 Westover Terrace, Greensboro, N. C. *Botany.* Ft. Recovery, Ohio. A.B, Chicago, 17, M.S, 20. *Prof. bot*, East. Ill. State Teachers Col, Charleston, 20–22; N. C. Col. for Women, 22–32, *Woman's Col, North Carolina, 32–* Pteridophyta.

Hall, Prof. E(dmund) K(ennard), University of Louisville School of Medicine, Louisville, Ky. *Embryology.* New York, N. Y, April 2, 02. B.S, Princeton, 26; Ph.D, Yale, 30; D.Sc, Brussels, 31. Asst. zool, Yale, 26–28; Belgian Am. Educ. Foundation fellow, Brussels and Freiburg i. Br, 29–32; instr. *anat, sch. med, Louisville*, 32–39, *asst. prof, 39–* Soc. Zool; Asn. Anat. Experimental embryology.

Hall, Dr. E(lliot) Snell, 73 Forest Ave, Jamestown, N. Y. *Chemistry.* Kiantone, N. Y, Oct. 21, 73. A.B, Amherst Col, 96; fellow, Hopkins, 03–04, Ph.D, 04. Asst. chem, Cornell, 00–01; Chicago, 04–06; acting asst. prof. chem, Washington (Seattle), 06–07; assoc. prof, Amherst Col, 07–12. Inorganic chemistry.

Hall, E(lmer) L(eroy), 212 Spring St, Chevy Chase, Md. *Radio engineering.* Mansfield, Ohio, April 20, 93. B.E.E, Ohio State, 18, E.E, 29. *Radio sect, Bur. Standards, 19–* Radio Eng. Radio measurements and standards.

Hall, Dr. Ernest M(osiah), University of Southern California School of Medicine, Los Angeles, Calif. *Pathology.* Ogden, Utah, April 8, 85. A.B, Brigham Young, 05; Chicago, 05, 07, 09–10; M.S, State Col. Wash, 16; M.D, Stanford, 25. Asst. *path*, sch. med, Stanford, 24–25, instr, 25–26, asst. prof, 26–28; *prof, sch. med, Southern California, 29–* Pathologist, St. Vincent's Hosp, Los Angeles, 28–32; Santa Fe Hosp, 33–37. A.A; Asn. Path. and Bact; Soc. Exp. Biol; fel. Am. Med. Asn; fel. Col. Physicians; Int. Asn. Med. Mus. (councilor, 37–42). Alcoholic cirrhosis; pigment cirrhosis due to copper; mitochondria of liver cells in relation to glucose-glycogen; malignancies of parathyroids; rheumatic heart disease.

Hall, Dr. F(lemmon) P(orter), R.F.D. 2, Syracuse, N. Y. *Physical chemistry.* Nashville, Tenn, Aug. 22, 97. B.E, Vanderbilt, 18; M.S, Mass. Inst. Tech, 21, Dalton fellow, 24–25, Ph.D, 25. Asst. chemist, Bur. Standards, 19–20, assoc. chemist, 21–23; instr, Mass. Inst. Tech, 24–25; assoc. chemist, Bur. Standards, 26–29; *chemist*, Onondaga Pottery Co, 29–30; *Pass and Seymour, Inc, 30–* A.A; Ceramic Soc; Miner. Soc. Physical properties of clays; equilibrium in palladium-hydrogen system; electrical porcelain; china; plastics; silicate systems; petrography.

Hall, Prof. F(rank) Gregory, Duke University, Durham, N. C. *Zoology.* Milton, Wis, Feb. 12, 96. A.B, Milton Col, 17; A.M, Wisconsin, 21, Ph.D, 23. *Prof*, biol, Milton Col, 22–24; *zool, Duke, 26–; major, Air Corps, U. S. Army, and chief physiol. branch, aero med. lab, Wright Field.* Nat. research grant, 35. Special investigator, Bur. Fisheries. Carnegie Institution and Duke Univ. biol. exped, Yucatan, 32; Int. High Altitude exped, Chile, 35. A.A; Soc. Zool; Physiol. Soc; Soc. Mammal. Physiology of the cold-blooded vertebrates; respiration; hemoglobin; aviation medicine.

Hall, Frank W(inston), Office of Petroleum Coordinator for War, Mellie Esperson Bldg, Houston, Texas. *Chemistry.* Leander, Texas, July 17, 88. B.S, Southwestern (Texas), 11, Mass. Inst. Tech, 15. Asst, Mass. Inst. Tech, 15–17; operating foreman, Procter and Gamble Co, Cincinnati, 17; research chemist, Texas Co, Port Arthur, Texas, 17–20, asst. chief chemist, 20–23, chief chemist, 23–33, director research, New York, 33–39; consultant, Georgetown, Texas, 39–42; *special ref. consultant, Office Petrol. Coordinator for War, U. S. Dept. Interior, 42–* Chem. Soc. (chairman, petrol. div, 33–35); Petrol. Inst. Petroleum refining; utilization of by-products.

Hall, Dr. G(eorge) Edward, University of Toronto, Toronto, Ont, Can. *Medicine.* Lindsay, Ont, Oct. 10, 07. B.Sc.A, Ont. Agr. Col, 29; Ont. Gov. scholar, 29–30; M.S.A, Toronto, 31, scholar, 31–32, fellow, 33–34, M.D, 35, Ph.D, 36. Research assoc. *med. research, Banting Inst, Toronto*, 35–36, asst. prof, 36–37, assoc. prof, 37–39, *prof, 39–* Physiol. Soc; Aero Med. Asn; Can. Physiol. Soc; Acad. Med. Toronto; Physiol. Soc. Gt. Britain. Neurophysiology; cardiac physiology; neurochemistry; aviation medicine.

Hall, Prof. G(oldan) O(rlando), 513 Dryden Road, Ithaca, N. Y. *Poultry husbandry.* Parkersburg, W. Va, June 11, 97. B.S. (Agr), West Virginia, 21; M.S, Cornell, 23, Ph.D, 26. Instr, West Virginia, 21–22; *poultry husbandry, N. Y. State Col. Agr, Cornell*, 23–26, asst. prof, 26–39, *assoc. prof, 39–* Asst. county agr. agent, county agent and director camps. Breeding and judging of poultry; egg production.

Hall, Harlow H(omer), U. S. Department of Agriculture, Washington, D. C. *Bacteriology.* East Leroy, Mich, Oct. 2, 04. B.S, Mich. State Col, 27, M.S, 36. Dairy chemist, State Dept. Agr, Mich, 27–28, dairy and food bacteriologist, 28–30; from asst. bacteriologist to *bacteriologist, agr. chem. research div, bur. agr. chem. and eng, U. S. Dept. Agr, 30–* Soc. Bact; Pub. Health Asn; Inst. Food Technol. Bacteriology of sugars, sirups, starch, eggs and silage.

Hall, Dr. Harriet Parsons (Mrs. Henry Twitchell Hall), 316 Glenside Road, South Orange, N. J. *Astronomy.* Troy, Pa, Dec. 17, 92. A.B, Vassar Col, 15; Vassar Col. fellow, Chicago, 15–16, 19–21, M.S, 16, Ph.D, 21. Asst. *astron*, Vassar Col, 16–18, instr, 18–19; Smith Col, 21–22, asst. prof,

22–23; *substitute instr, Hunter Col, 42–* Astron. Soc. Photographic photometry; proper motions of stars.

Hall, Dr. Harry H(epburn), 1523 28th St, S.E, Washington, D. C. *Physics.* Beirut, Syria, Dec. 23, 03. B.S, Union (N. Y), 26; Ph.D, Harvard, 34. Instr. physics, American Univ. Beirut, 26–29; instr. and tutor, Harvard, 34–37; engineer, West. Elec. Co, 37–40; *asst. prof. physics, New Hampshire, 40–; physicist, Naval Ordnance Lab, 41–, lieut, U. S. Naval Res, 42–* Physical Soc; Acoustical Soc; Radio Eng. Electric communications; acoustics.

Hall, Prof. Harry H(ilbert), 1801 S. Joplin St, Pittsburg, Kans. *Biology.* Berger, Mo, Aug. 6, 85. B.S, Kans. State Teachers Col, 21; A.M, Colorado, 29, Ph.D, 32. Sch. supt, Mo, 07–14; Kans, 14–16, head dept. science, high sch, 16–19; instr. agr, *Kans. State Teachers Col, Pittsburg,* 20–23, asst. prof. *biol,* 23–26, assoc. prof, 26–32, *prof, 32–* Kans. Acad. (2nd v. pres, 35). Bioecology; herpetology; ornithology; ichthyology; plant ecology; the fishes of Mineral Lake, Kansas; the birds and snakes of southeastern Kansas; plant succession in the strip pits of southeastern Kansas.

Hall, Dr. Harvey, College of the City of New York, New York, N. Y. *Physics.* Butte, Mont, Aug. 18, 04. A.B, Occidental Col, 27; A.M, California, 29, Ph.D, 31. Teaching fellow, California, 28–31; *instr. physics,* Columbia, 31–34; N. Y. Univ, 34–36; *Col. City of N. Y, 36–* Atomic physics; photoelectric effect.

Hall, Dr. Homer J(ames), 116 Eastman St, Cranford, N. J. *Organic chemistry.* Uniontown, Pa, Dec. 12, 11. A.B, Marietta Col, 31; M.S, Ohio State, 32, Ph.D, 35. Asst. chem, Ohio State, 31–35; *with Esso Labs, Standard Oil Develop. Co, 35–,* patent technologist, 37–40. Chem. Soc. Higher acetylenes; distillation; petroleum chemistry.

Hall, H(ubert) H(arry), 225 Bush St, San Francisco, Calif. *Engineering.* Chicago, Ill, July 4, 83. A.B, Stanford, 04. Instr, Stanford, 05–07; prin. asst. engineer, Yukon Gold Co, 07–10; engineer, pipe line dept, *Standard Oil Co. of Calif,* 10–21, *chief engineer, 21–* Civil Eng; Petrol. Inst. Oil engineering.

Hall, Dr. Irene Sanborn (Mrs. Calvin S(pringer) Hall, Jr), Wilson Mills Road, South Euclid, Ohio. *Chemistry.* North Monmouth, Maine, Aug. 18, 02. B.S, Simmons Col, 24; A.M, Vassar Col, 27; Heckscher fellow, Cornell, 29, 30, Ph.D, 32. Asst. chem, Vassar Col, 24–26, instr, 26–28; foods and nutrition, col. home econ, Cornell, 28–31; lecturer household science, California, 31–32, instr, 32–36; asst. prof. foods and nutrition, Oregon State Col, 36–38; lecturer foods and nutrition, Western Reserve, 39–40. Scholar, Marine Biol. Lab, Woods Hole. A.A; Chem. Soc; Home Econ. Asn. Physico-organic chemistry; emulsions; food chemistry and preparation.

Hall, Prof. I(saac) F(ults), 4022 Mandan Crescent, Madison, Wis. *Agricultural economics.* Cortland, N. Y, Aug. 3, 89. B.S, Cornell, 15, Ph.D, 26. Instr, N. Y. State Sch, Delhi, 15–18; exten, Cornell, 18–26, asst. prof, 26–28; *agr. econ, Wisconsin,* 28–35, assoc. prof, 35–41, *prof, 41–* Study of delinquent borrowers, Fed. Land Bank, St. Paul, 37. Farm management; economics of farm building; barn rearrangement.

Hall, Dr. Ivan C(lifford), 630 W. 168th St, New York, N. Y. *Bacteriology, Public health.* Bellaire, Mich, Aug. 7, 85. Pd.B, Colo. State Nor. Sch, Greeley, 06; A.B, Colo. Col, 08; M.S, California, 11; Logan fellow, Chicago, 19–20, Ph.D, 21. Bacteriologist, Cutter Labs, Calif, 11–15; asst. *bacter,* California, 11–13, asst. prof, 15–18, assoc prof, 18–24: prof, Cornell, 24–25; prof. and head dept, *sch. med. Colorado,* 25–42; *director cent. lab, contaminated wound project, subcmt. surg. infections, Nat. Research Council, 42–* Mem, int. cmt. bact. nomenclature, Int. Cong. Microbiol, London, 36, New York, 39. Ricketts prize, Chicago, 20. Bacteriologist, Red Cross Lab. Car, 18. A.A; Soc. Bact. (director, local branches, 22–26, councilor, 23–25, 32–34); Soc. Exp. Biol; Pub. Health Asn; Colo-Wyo. Acad; Colo. Pub. Health Asn; Colo. Soc. Bact. (pres, 39); Denver Pub. Health Council (exec. board, 39–41). Anaerobic bacteria; bacteriostasis; ulcerative lymphangitis; wound infections; tetanus; botulism; pyorrhea; dental calculus; gastro-intestinal bacteria; food; water; milk; bacterial classification and nomenclature; infection and immunity; poisoned arrows; post-mortem bacteriology; tuberculous arthritis; metabolic mutation; Schick test and diphtheria carriers; bacterial nomenclature.

Hall, Dr. James L(eighton), 389 E. 14th St, Chicago Heights, Ill. *Ceramics.* Denver, Colo, June 18, 15. B.S, Denver, 37; Sc.D, Mass. Inst. Tech, 41. Asst. ceramics, Mass. Inst. Tech, 37–40; *asst. to gen. foundry metallurgist, Am. Brake Shoe and Foundry Co, 40–* Secondary expansion of high-alumina refractories.

Hall, Dr. J(ames) Roger, 223 Brighton Road, N. E, Atlanta, Ga. *Chemistry.* Kansas City, Mo, Oct. 1, 04. A.B, William Jewell Col, 27; indust. research fellow, Iowa State Col, 27–30, Ph.D, 30. Warner-Jenkinson Co, St. Louis, Mo, 35; B. S. Pearsall Butter Co, Elgin, Ill, 36; research develop. chemist, Monarch Mfg. Co. and Norris, Inc, Atlanta, Ga, 30–35, 37–39; *chief chemist, Red Rock Co, 39–* Chemist, Southwest. Labs, Kansas City, Mo, 24; Kans. Flour Mills, 24–25, 27; Corn Products Ref. Co, 26. Tech. ed, 'Nat. Carbonator and Bottler,' 31–36. Chem. Soc. Food and sanitary chemistry; bacteriology; sterilization with alkalies; flavoring materials; foods.

Hall, John H(owe), 611 Strath Haven Ave, Swarthmore, Pa. *Metallurgy.* South Portsmouth, R. I, June 20, 81. A.B, Harvard, 03, A.M, 04. Asst. supt. crucible steel dept, Bethlehem Steel Co, 04–06; metallurgist, Taylor-Wharton Iron and Steel Co, 06–13; consulting practise, 14–15; *metallurgist, Taylor-Wharton Iron and Steel Co, 15–,* tech. asst. to pres, 30–38; *metallurgist, Gen. Steel Castings Corp, 42–* Private consultant, 38–42. J. H. Whiting gold medal, Foundrymen's Asn, 24. Soc. Test. Mat; Min. and Metal. Eng; Foundrymen's Asn; Electrochem. Soc; Soc. Metals; Iron and Steel Inst. Gt. Britain. Metallurgical engineering; steel metallurgy; metallography; welding; steel foundry practise.

Hall, Dr. John S(coville), Amherst College Observatory, Amherst, Mass. *Astronomy.* Old Lyme, Conn, June 20, 08. A.B, Amherst Col, 30; Ph.D, Yale, 33. Asst. *astron,* Columbia, 33–34; instr, Sproul Observatory, Swarthmore Col, 34–38; *observatory, Amherst Col,* 38–40, *asst. prof, 41–; mem. staff radiation lab, Mass. Inst. Tech, 42–* Boyden premium, Franklin Inst, 39. Astron. Soc; Int. Asn. Astron. Union. Stellar spectrophotometry with a photoelectric cell.

Hall, Dr. J(oseph) Alfred, U. S. Forest Service, Washington, D. C. *Chemistry.* Orange Co, Ind, Aug. 16, 96. A.B, 21; M.S, Wisconsin, 22, Ph.D, 34. Research chemist, Calif. Fruit Growers Exchange, 23–27; Liggett and Myers Tobacco Co, 28–30; biochemist, Forest Products Lab, *U. S. Forest Service,* 30–37, assoc. director, Calif. Forest and Range Exp. Sta, 37–39, director, Cent. States Forest Exp. Sta, 39–42, *prin. biochemist, 42–* Chem. Soc. Plant chemistry; volatile oils; plant biochemistry.

Hall, Prof. J(oseph) Lowe, Kansas State College, Manhattan, Kans. *Chemistry.* Sullivan, Ill, Jan. 3, 93. B.S, Illinois, 19, M.S, 21, Ph.D, 22. *Asst. prof. physical chem, Kans. State Col, 22–* Chem. Soc; Kans. Acad. Surface effects of neuropotent substances; colloid antagonism in relation to permeability of living tissue; spectrophotometric differentiation between blood and muscle hemoglobins; quality of meat; abnormal carbohydrate conversion in dark-cutting beef.

Hall, Dr. Laura T(homas), 1834 Park Drive, Charlotte, N. C. *Chemistry.* Winston-Salem, N. C, Aug. 23, 05. B.S, Salem Col. (N. C), 27; North Carolina, 32, Ph.D, 36. Teacher, high sch, N. C, 27–30; critic teacher, E. Carolina Teachers Col, N. C, 30–32; asst. chem, North Carolina, 33–36; med. technician, Ala, 38–41; Tenn. Valley Authority, 41–42; tech. chemist, U. S. Rubber Co, 42; *research chemist, Kendall Mills, 42–* Chem. Soc; Elisha Mitchell Sci. Soc. Analytical chemistry; volumetric methods for the determination of sulfate; double sulfates of sodium and aluminum; soda alum; non-cellulosic constituents of cotton.

Hall, Dr. Lawrence P(ercival), 30 W. Maple Ave, Moorestown, N. J. *Chemistry.* Montclair, N. J, July 10, 97. A.B, Harvard, 19, A.M, 21, du Pont fellow, 23–24, Ph.D, 25. Instr. chem, Middlebury Col, 19–20; asst, Harvard, 21–22, instr, 22–23, 24–25, asst. to director, Wolcott Gibbs Mem. Lab, 25–28; research chemist, Mallinckrodt Chem. Works, 28–35; *chemist, Rohm and Haas Co, 35–* A.A; Chem. Soc. Electrochemistry; atomic weights; thermochemistry; anesthetic ether; detergents.

Hall, L(loyd) A(ugustus), 1415 W. 37th St, Chicago, Ill. *Chemistry.* Elgin, Ill, June 20, 94. Ph.C, Northwestern, 14, B.S, 15. Junior and senior sanit. chemist, Dept. Health Labs, Chicago, 15–19; chief chemist, John Morrell and Co, Ottumwa, Iowa, 19–21; pres, Chem. Products Corp, Chicago, 21–24; consultant, *Griffith Labs,* 25–29, *chief chemist and director re-*

search, 29– Asst. chief inspector high explosives, Ordnance Dept, 17–19. A.A; Chem. Soc; Asn. Cereal Chemists; Soc. Chem. Indust; Inst. Food Technol; Inst. Chem; Ill. Acad. Meat products; proteins; colloids and emulsions; fats and oils; yeast foods; bakery materials; protein hydrolysates; flavoring and seasoning of foods and beverages; sterilization of foods, colloids and enzymes; chemotherapeutic products; food and biological chemistry.

Hall, Dr. Margaret E(lizabeth), Bureau of Child Study, Chicago Board of Education, 228 N. La Salle St, Chicago, Ill. *Clinical psychology.* Que, Can, March 22, 05. A.B, Wisconsin, 27; M.S, Chicago, 31; Ph.D, Iowa, 38. Psychologist, Inst. Juvenile Research, 28–30; Inst. Juvenile Research, State Reformatory for Women and Ill. Soldiers' and Sailors' Children's Sch, 31–35; asst, speech clinic, and asst. research and teaching, Iowa, 35–38; *psychologist and speech pathologist, bur. child study, Chicago Board Educ, 38–* Psychol. Asn; Asn. Applied Psychol; Speech Correction Asn; Asn. Teachers Speech; Midwest Psychol. Asn; Cent. States Speech Asn; Ill. Asn. Applied Psychol; Chicago Speech Correction Soc; Int. Council Exceptional Children. Speech pathology.

Hall, Prof. Marshall, Yale University, New Haven, Conn. *Mathematics.* St. Louis, Mo, Sept. 17, 10. A.B, Yale, 32, Ph.D, 36; Henry fellow, Cambridge, 32–33; Inst. Advanced Study, 36–37. Instr. *math, Yale,* 37–41, *asst. prof, 41–* Math. Soc. Arithmetic properties of recurring sequences; group theory; algebra; theory of numbers; geometry.

Hall, Mrs. Mary B(owers), 37 E. Church St, Bethlehem, Pa. *Zoology.* Saco, Maine, Oct. 2, 71. B.L, Smith Col, 95; A.M, Radcliffe Col, 98; Bennett fellow, Pennsylvania, 06–07, Ph.D, 09. Demonstrator zool. and bot, Smith Col, 98–99; instr. zool, Wellesley Col, 99–08. A.A; Eugenics Soc; Mass. Audubon Soc. The cranial nerves of Spelerpes bilineatus; histogenesis and histolysis of the intestinal epithelium of Bufo lentigenosus.

Hall, Dr. Maurice B(arker), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Payson, Utah, Nov. 25, 14. B.S, Brigham Young, 37, M.S, 39; Ph.D, Duke, 42. Junior physicist, Wash. biophys. inst, nat. inst. health, U. S. Pub. Health Service, 41–42, asst. physicist, 42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Molecular spectroscopy; spectra and structure of molecules, particularly polyatomic molecules with their application in industrial hygiene.

Hall, Dr. Milton, 8506 Rosewood Drive, Bethesda, Md. *Psychology.* New York, N. Y, Nov. 5, 05. A.B, Rochester, 28; A.M, Columbia, 29, Ph.D, 34. Instr. psychol, Stevens Inst. Tech, 30–37; mem. staff, Personnel Research Federation, 29–35; personnel director, State Employment Service, N. Y, 35–36; chief research and training sect, Farm Credit Admin, 36–41; chairman board rev, U. S. Civil Service Cmn, 41–42; *chief training div, Social Security Board, 42–* Assoc. Psychol. Asn. Personnel research; employee training.

Hall, Dr. Newman A(rnold), Chance Vought Aircraft, Stratford, Conn. *Mathematics.* Uniontown, Pa, June 14, 13. A.B, Marietta Col, 34; Ph.D, Calif. Inst. Tech, 38. Teaching fellow *math,* Calif. Inst. Tech, 34–38; instr, Queen's Col. (N. Y), 38–41; *structural engineer, Chance Vought Aircraft div, United Aircraft Corp, 41–, supervisor eng. training, 42–* Math. Soc; Math. Asn; Am. Geog. Soc. Number theory; formal theory of functions described by infinite series; vibrations in aircraft structures; compressibility in aerodynamic theory.

Hall, Prof. Norris F(olger), University of Wisconsin, Madison, Wis. *Chemistry.* Philadelphia, Pa, July 7, 91. A.B, A.M, Haverford Col, 13; A.M, Harvard, 15, Ph.D, 17. Teaching fellow chem, Harvard, 14–15; asst, bur. chem, U. S. Dept. Agr, 17; junior chem. engineer, U. S. Bur. Mines, 17; instr. *chem,* Harvard, 19–29; asst. prof, *Wisconsin,* 29–30, assoc. prof, 30–34, *prof, 34–* C.W.S, 18–19, capt. A.A; Chem. Soc. Isotopes; dissociation constants of bases; strength of acids in non-aqueous solvents.

Hall, Dr. Ralph C(orbin), 341 Giannini Hall, University of California, Berkeley, Calif. *Entomology.* Ellenville, N. Y, May 7, 99. B.S, Syracuse, 25; M.F, Harvard, 27; Ph.D, Michigan, 31; Minnesota. Field asst, U. S. Forest Service, 25–26; junior instr, sch. forestry and conservation, Michigan, 27–29, 30–31; asst. entom, Minnesota, 29–30; asst. entomologist, *div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–41, assoc. entomologist, 41–42, *entomologist, 42–* Summers, asst, N. Y. State Col. Forestry, Syracuse, 25; field asst, U. S. Dept. Agr, 26, 27, 29, 30; Michigan, 28. A.A; Asn. Econ. Entom; Soc. Foresters; Forestry Asn. Ecology of the bronze birch borer and the locust borer; control of a scale insect by introduction of a predator; effect of climatic and other ecological factors on timber losses caused by western pine beetle.

Hall, Dr. R(alph) E(mmons), Hall Laboratories, Inc, Pittsburgh, Pa. *Physical chemistry.* Charlestown, Ohio, 85. A.B, Ohio Wesleyan, 07, Sc.D, 36; A.M, Ohio State, 11; fellow, Chicago, 14–16, Ph.D, 16. Instr. chem, Ohio State, 09–11; assoc, Chicago, 14–16; asst. prof, Iowa State Col, 16–17; physical chemist, geophys. lab, Carnegie Institution, 17–20; Koppers Co, 20–22; U. S. Bur. Mines, 22–26; *director, Hall Labs, 26–* Capt, C.W.S, 18. Pittsburgh award, Am. Chem. Soc, 33; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc; Mech. Eng; Soc. Test. Mat. Cryohydric measurements of dilute solutions; solubility relations under pressure; activated carbon; boiler water conditioning.

Hall, Dr. Richard C(oumains), 700 E. Courtland Place, Milwaukee, Wis. *Organic chemistry.* Urbana, Ill, Nov. 19, 14. B.S, Illinois, 36; Ph.D, Ohio State, 40. Asst. chem, Ohio State, 36–40; *chemist, Pittsburgh Plate Glass Co, 40–* Chem. Soc. Studies of oils and varnish vehicles.

Hall, Prof. R(ichard) P, New York University, University Heights, New York, N. Y. *Biology.* Arkansas, Feb. 21, 00. A.B, Henderson-Brown Col, 19; A.M, California, 22, Ph.D, 24. Instr. biol, Emory, 20–21; teaching fellow zool, California, 21–24; instr. *biol,* Rice Inst, 24–26; asst. prof, *N. Y. Univ,* 26–29, assoc. prof, 29–38, *prof, 38–* Sec'y sect. V, Int. Cong. Microbiol, 39. A.A; Soc. Zool; Micros. Soc. (second v. pres, 42); Soc. Parasitol. (ed. board, 41–); Soc. Trop. Med; Soc. Exp. Biol; Soc. Nat; fel. N. Y. Acad. (assoc. ed, 37–). Protozoology; cytology of flagellates; cytoplasmic inclusions of Protozoa; food and vitamin requirements of Protozoa; factors influencing growth of Protozoa in pure cultures.

Hall, Dr. Robert A(nderson), 225 74th St, Brooklyn, N. Y. *Chemistry.* Rowan Co, N. C, March 2, 86. A.B, Chicago, 06, Ph.D, 07. Assoc. prof. chem, North Carolina, 10–12; biochem. and pharmacol, Minnesota, 13–17; *chemist,* Standard Aniline Products Co, 16–19; *Colgate and Co, 19–* Lieut, Inf, 17–19. Chem. Soc; Soc. Biol. Chem; Chemists' Club; N. Y. Acad. Biochemistry; pharmacology; citrates; methylene disalicylic acid and derivatives; glycerine esters and ethers of salicylic acid.

Hall, Prof. Robert Burnett, Barton Hills, Ann Arbor, Mich. *Geography.* Espanola, N. Mex, July 18, 96. A.B, Michigan, 23, A.M, 24, Ph.D, 27. Instr. *geog, Michigan,* 24–26, asst. prof, 26–35, assoc. prof, 35–38, *prof, 38–; lieut. col, U. S. Army.* Social Science Research Council fellow, Japanese Empire, 29, grant-in-aid, Japan, 31–; grant for research in Latin Amer, Rockefeller Foundation, 41–42. Summers, director, Inst. Far East. Studies, 37– Univ. Mich. expeds, Haiti, 24–25. Director, Social Science Research Council, 39–; mem, Nat. Ethnogeog. Board. Asn. Geog. (councilor, 41–); Pacific Geog. Soc; Mich. Acad. (treas, 27, ed, 39); Asiatic Soc. Japan; China Inst. Regional geography of the Far East; economic and political geography.

Hall, Dr. R(obert) T(urner), 1412 Delaware Ave, Wilmington, Del. *Chemistry.* Front Royal, Va, Dec. 25, 11. B.S, Va. Mil. Inst, 31; M.S, Virginia, 33, Ph.D, 35. Chief chemist, Swann and Co. Chem. Mfrs, 36–39; *research chemist, Hercules Powder Co, 39–* Chem. Soc. Analytical chemistry; colorimetry.

Hall, Prof. Robert W(illiam), Lehigh University, Bethlehem, Pa. *Zoology.* Cincinnati, Ohio, Aug. 17, 72. Ph.B, Yale, 95; A.B, Harvard, 97, A.M, 98, Ph.D, 01. Asst. zool, Harvard, 96–99; Yale, 99–01, instr, 01–02; *biol, Lehigh,* 02–04, asst. prof, 04–09, prof, 09–40, *emer. prof, 40–,* head dept, 09–37. Instr, Marine Biol. Lab, Woods Hole, 99–03. A.A; Pa. Forestry Asn. Vertebrate embryology.

Hall, Dr. Roscoe W(illis), St. Elizabeths Hospital, Washington, D. C. *Psychiatry.* Millerstown, Pa, Feb. 22, 88. Ph.B, Dickinson Col, 08; M.D, Hopkins, 12. Asst. and instr. psychiat, Hopkins, and res. psychiatrist, Hopkins Hosp, 15–17; senior asst. physician, *St. Elizabeths Hosp,* 19–29, *clin. director, 29–; clin. prof. psychiat, George Washington.* Major, M.R.C, 17–19. A.A; Psychiat. Asn; Psychopath. Asn. (pres, 40–42); Asn. Research Nervous and Mental Disease. Psychopathology.

Hall, Dr. R(oy) D(ykes), Box 53, Millington, N. J. *Chemistry.* Burnett, Wis, Sept. 18, 79. B.S, Wisconsin, 00, M.S, 02; Ph.D, Pennsylvania, 04. Harrison fellow, Pennsylvania, 04–05; instr. chem, Wisconsin, 05–09; *engineer, Westinghouse Lamp Co, 09–* Gaseous discharge lamps; powder metallurgy.

Hall, R(ufus) Clifford, 316 Mansion Drive, Alexandria, Va. *Forestry.* Chicago, Ill, 85. B.S, Northwestern, 06; M.F, Yale, 08. Forest asst. and examiner, U. S. Forest Service, 08–17; valuation engineer, timber, U. S. Treasury Dept, 19–26; prin. forester, forest taxation inquiry, U. S. Forest Service, 26–36, director, 36–43; *prin. tax economist, U. S. Bur. Int. Revenue, 43–* Chevalier du Mérite agricole, 21. Capt, Eng. R. C, 17–19. A.A; Soc. Foresters. Forest taxation and economics.

Hall, Prof. Russell A(lger), Lindbergh Field, San Diego, Calif. *Civil engineering.* Blissfield, Mich, Aug. 30, 93. B.C.E, Michigan, 16; M.S, Illinois, 24, C.E, 32. Asst. eng. corps, Pa. R. R, 16–17; engineer, sewerage cmn, Milwaukee, Wis, 17; city engineer's office, Toledo, Ohio, 17; Flint, Mich, 19–20; instr. and asst. prof, Illinois, 20–30; from asst. prof. to prof. civil eng. and co-chairman div. eng, Union Col. (N. Y), 30–43; *engineer, Ryan Aeronaut. Co, 43–* Engineer, James Stewart and Co, Inc, 42–43, U. S. A, 17–19. Civil Eng; Eng. Ed; Concrete Inst. Plain and reinforced concrete.

Hall, Dr. Sam R(utherford), Bureau of Dairy Industry, U. S. Department of Agriculture, Beltsville, Md. *Endocrinology.* Tazewell, Va, Jan. 11, 05. A.B, Washington and Lee, 27; Blandy fellow, Virginia, 27–29, A.M, 28, Ph.D, 31. Fellow, Harvard Med. Sch, 30–33; instr. zool, Syracuse, 33–35; asst. histologist, *bur. dairy indust, U. S. Dept. Agr,* 36–39, *assoc. histologist, 39–* Nat. research fellow, 31–32. Assoc. Soc. Zool. Cytology; physiology of lactation and reproduction.

Hall, Selden H(amlyn), De Laval Separator Co, Poughkeepsie, N. Y. *Mechanical engineering.* Elmira, N. Y, Feb. 14, 75. M.E, Cornell, 03. Engineer of works, Carborundum Co, Niagara Falls, 03–09; H. M. Byllesby and Co, Chicago, 09–10; *exp. engineer, De Laval Separator Co, 10–* N. Y. Soc. Professional Eng. (treas, Dutchess Co. chap). Separators, purifiers and allied apparatus.

Hall, Prof. Stanley W(illiam), University of Illinois, Urbana, Ill. *Floriculture.* Saxonville, Mass, Aug. 3, 91. B.S, Mass. State Col, 16. Asst. *floricult, Illinois,* 17, assoc, 20–23, asst. prof, 23–29, assoc. prof, 29–39, *prof, 39–* 2nd lieut, Inf, 18–19. Floriculture; greenhouse crops.

Hall, T(homas) F(rancis), Tennessee Valley Authority, Wilson Dam, Ala. *Plant ecology.* New Orleans, La, Jan. 21, 13. B.S, Tulane, 35, M.S, 38. Teacher science, high sch, La, 37–40; instr. bot, Tulane, 40–41; junior botanist, *Tenn. Valley Authority,* 41–42, *asst. botanist, 42–* Summers, junior biol. aide, Tenn. Valley Authority, 38, asst. biol. aide, 39, 40. Relation of plants to malaria control on impounded water.

Hall, Prof. Thomas S(teele), 5295 Waterman Ave, St. Louis, Mo. *Experimental embryology, Bacteriology.* St. Louis, Mo, May 4, 09. A.B, Yale, 30, Ph.D, 40; Princeton, 37–38. Master biol. and nat. sciences, Lawrenceville Sch, 35–42; *asst. prof. biol. science, Chicago, 42–* Effect of chemical agents on amphibian embryos.

Hall, Prof. Victor E(rnest), 735 Middlefield Road, Palo Alto, Calif. *Physiology.* Victoria, B. C, Can, Feb. 11, 01. A.B, Stanford, 22, A.M, 25, M.D, 28. Instr. *physiol, Stanford,* 25–29, asst. prof, 29–35, assoc. prof, 35–42, *prof, 42–* Examiner, Nat. Board Med. Examiners, 32– A.A; Physiol. Soc; Soc. Exp. Biol; West. Soc. Nat; Calif. Acad. Med. Mammalian physiology; chemical changes in muscle contraction; dinitrophenol metabolism; temperature regulation.

Hall, Prof. V(oris) B(laine), 184 S. River St, Wilkes-Barre, Pa. *Physics.* Montgomery, Pa, March 8, 95. B.S, Bucknell, 19, M.S, 20; A.M, Columbia, 25. Instr. *physics, Bucknell,* 19–25, asst. prof, 25–34, *univ. junior col,* 34–40, *assoc. prof, 40–* Instr, exten. div, Columbia, 25. Physical Soc; Eng. Educ; Asn. Physics Teachers; Rifle Asn. Electrical measurements; physics instruction; engineering drafting.

Hall, Wallace L(eRoy), U. S. Food and Drug Administration, Washington, D. C. *Chemistry.* Washington, D. C, Nov. 4, 97. Carnegie Inst. Tech, 19–20; A.B, George Washington, 25, M.S, 31. Nat. inst. health, U. S. Pub. Health Service, 20–28; Bur. Standards, 28–30; in charge chem. lab, hay, feed and seed div, bur. agr. econ, U. S. Dept. Agr, 30–38, *chemist, food and drug admin,* 38–39; *Fed. Security Agency, 39–* Radio electrician, U. S. N, 17–19, A.A; Chem. Soc; Soc. Exp. Biol; Biol. Soc. Wash. Oxidation-reduction indicators and potentials; agricultural wastes; lead poisoning; standardization of agricultural products; vitamins.

Hall, Walter A(twood), 40 Broad St, Boston, Mass. *Engineering.* Wallingford, Conn, Jan. 7, 74. A.B, Harvard, 96; B.S, Mass. Inst. Tech. Draftsman, Duryea Motor Wagon Co, 96; electrician and machine designer, Russell and Erwin Mfg. Co, 96–98; from draftsman to engineer in charge transformer dept, Gen. Elec. Co, Lynn, 98–07, asst. chief engineer, transformer work, Pittsfield, 07–10, asst. to manager, Lynn, 10–20; supervisor group of industries, Indust. Co, Boston, 20–22; with H. M. Haven and A. T. Hopkins, Inc, 22–27; consulting engineer, 27–38; *engineer, Reconstruction Finance Corp, Defense Plant Corp, Defense Supplies Corp, Disaster Loan Corp. and Mortgage Loan Corp, 38–* Mech. Eng; Elec. Eng. (past mem, board managers, past v. pres). Improvements for manufacturing plants; power, heat and light in factories.

Hall, Dr. W(alter) Knowlton, University of Georgia School of Medicine, Augusta, Ga. *Biochemistry.* Clatskanie, Oregon, Dec. 19, 10. B.S, Oregon State Col, 31, research fellow, 31–33, M.S, 33; Ph.D, Iowa, 36. Asst. analyst path. chem, univ. hosp, Iowa, 34–36; asst. chemist, Exp. Sta, Kentucky, 36–37; instr. *biochem, sch. med,* Louisiana, 37–42; *asst. prof, Georgia, 42–* A.A; Chem. Soc. Mineral metabolism; pathological chemistry; metabolism of amino acids.

Hall, Dr. Wayne C(urtis), Naval Research Laboratory, Anacostia Station, Washington, D. C. *Physics.* Reading, Kans, July 29, 09. B.S, Kansas, 31, M.S, 33, Ph.D, 36. Instr. physics, Kansas, 31–35; scientist, *U. S. Naval Research Lab,* 35–39, assoc. physicist, 39–41, *physicist, 41–* Physical Soc. Thermal conductivity; fuel cells; electronic strain gauges; electricity and magnetism.

Hall, Prof. Wesley B(enjamin), Rhode Island State College, Kingston, R. I. *Electrical engineering.* Shelton, Conn, Dec. 22, 95. Ph.B, Yale, 16, E.E, 21. Eng. dept, N. Y. Tel. Co, 17, 19; instr. *elec. eng,* Yale, 19–23, asst. prof, 23–36; *prof, R. I. State Col, 36–; lieut. commander, U. S. Naval Res, 42–* Consulting engineer, U.S.N, 17–19. Elec. Eng. (sec'y, Conn. sect, 30–36; chairman, Providence sect, 39); Eng. Educ. Electric furnaces; magnetic devices; electric clocks; dielectrics; electrolytic condensers.

Hall, Dr. William B(onnell), 716 Pettus St, Selma, Ala. *Physiology.* Lowndes Co, Ala, Jan. 3, 66. C.E, A.M, Univ. of the South, 85; M.D, Virginia, 90. Asst. teacher, private sch, Tenn, 86–89; asst. physician, Ala. Insane Hosp, Tuscaloosa, 91–93; prof. mat. med. and physiol, Univ. of the South, 93–07, v. chancellor, 09–14; *physician and planter, 14–* Biology.

Hall, Prof. W(illiam) Heinlen, Bowling Green State University, Bowling Green, Ohio. *Chemistry.* Cairo, W. Va, June 19, 10. A.B, Muskingum Col, 32; Ph.D, Ohio State, 39. Instr. *chem. and physics, Bowling Green State,* 36–39, *asst. prof, 39–* A.A; Chem. Soc. Physical chemistry; separation of hydrogen isotopes; concentration of oxygen isotopes from various sources.

Hall, Prof. W(illia)m M(ott), 1357 Massachusetts Ave, Lexington, Mass. *Electrical engineering.* Burlington, Vt, July 10, 06. B.S, Mass. Inst. Tech, 28, M.S, 32, Sc.D, 35. Sound recording, Metro-Goldwyn-Mayer, 28; Warner Brothers, 29; instr. *elec. eng, Mass. Inst. Tech,* 30–37, *asst. prof, 37–* Acoustical Soc; Radio Eng. Acoustics.

Hall, Prof. W(illia)m S(haffer), 2111 18th St, S. E, Washington, D. C. *Mathematics.* Chester, Pa, June 24, 61. C.E, Lafayette Col, 84, E.M, 86, M.S, 87, Sc.D, 21, LL.D, 35. Instr. mining eng, *Lafayette Col,* 84–92, asst. prof, 92–96, prof. and head dept, 96–15, *math,* 15–43, *emer. prof, 43–,* clerk faculty, 09–43; *housing management adviser, U. S. Housing Authority, 43–* Mech. Eng. Mensuration; differential and integral calculus; descriptive geometry; mine surveying.

Hall, Prof. William T(homas), Massachusetts Institute of Technology, Cambridge, Mass. *[*3]Chemistry.* New Bedford, Mass, Aug. 4, 74. B.S, Mass. Inst. Tech, 95. Asst. *anal. chem, Mass. Inst. Tech,* 98–00, instr, 00–11, asst. prof, 11–18, assoc. prof, 19–40, *emer. prof, 40–* Head dept. science, Thayer Acad, 42–43. Asst. ed, 'Chem. Abstracts.' Chem. Soc. Analytical chemistry.

Hallam, Prof. W(illia)m A(lton), 40 College Ave, Buckhannon, W. Va. *Mathematics.* Washington, Pa, Oct. 4, 03.

B.S, Washington and Jefferson Col, 24; A.M, Hopkins, 27. Teacher, high sch, Pa, 24–25; asst, Hopkins, 25–28; *prof. math, W. Va. Wesleyan Col, 28–*

Hallauer, Frank J(oseph), 3819 Jenifer St, N. W, Washington, D. C. *Engineering.* Wauseon, Ohio, March 20, 85. B.S, Purdue, 10, C.E, 14. Engineer, forest products, U. S. Forest Service, 15–18; sec'y, Foster Creek Lumber and Mfg. Co, Wis-Ala. Lumber Co. and Bernard Timber and Logging Co, 19–28; *prin. engineer, forest surv, U. S. Forest Service, 29–* A.A. Utilization of waste wood; timber requirements of the United States.

Haller, Lieut. Col. George L(ouis), Signal Corps Aircraft Signal Service, Aircraft Radio Laboratory, Wright Field, Dayton, Ohio. *Engineering.* Pittsburgh, Pa, May 8, 07. B.S, Pa. State Col, 27, E.E, 34, M.S, 35, Ph.D, 42. Radio engineer, KDKA, radio sta, Pittsburgh, Pa, 27–29; engineer, E. A. Myers and Sons, 29–33; asst, Pa. State Col, 33–35; *mem. staff, aircraft radio lab, Wright Field, U. S. War Dept, 35–,* major, *Sig. Corps,* 42–43, *lieut. col, 43–* Radio Eng. Aircraft antenna; aircraft radio propagation measurements.

Haller, Dr. H(erbert) L(udwig Jacob), 4407 38th St, N. W, Washington, D. C. *Organic chemistry.* Cincinnati, Ohio, Aug. 15, 94. Chem.E, Cincinnati, 18; Ph.D, Columbia, 26. Junior chemist, U. S. Dept. Agr, 19–21, assoc. chemist, 21–23; assoc. chem, Rockefeller Inst, 23–29; senior chemist, *insecticide div,* bur. chem. and *bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–40, *prin. chemist, 40–* Hillebrand prize, Chem. Soc. Wash, 33. A.A; Chem. Soc; Asn. Econ. Entom; Chem. Soc. Wash. (treas, 35, pres, 41); Entom. Soc. Wash; Wash. Acad; Insecticide Soc. Wash. (pres, 41). Biochemistry; stereochemistry; photosensitizing; dyes; chemical constitution and optical activity; chemical structure and insecticidal action.

Haller, Prof. J(ohn) Fessler, 1105 Tenth St, Lake Charles, La. *Inorganic and physical chemistry.* Frederick, Md, Jan. 2, 99. Pennsylvania, 16–20; Ch.B, Cornell, 22, Ph.D, 42. Asst. chem, Cornell, 22–25; instr, Middlebury Col, 25–26, asst. prof, 26–37, assoc. prof, 37–42; *research chemist, magnesium plant, Mathieson Alkali Works, 42–* A.A; Chem. Soc. Photolysis; azine fluoride; difluorodiazene; x-ray diffraction; microscopy.

Haller, Dr. M(ark) H(ughlin), Bureau of Plant Industry Station, Beltsville, Md. *Horticulture.* Chehalis, Wash, Sept. 22, 97. B.S, State Col. Wash, 23; M.S, Maryland, 26, Ph.D, 31. From junior pomologist to *assoc. pomologist, bur. plant industry, U. S. Dept. Agr, 23–* A.A; Soc. Hort. Sci. Physiology of the development, ripening and storage of fruit; spray residue removal from apples; storage of strawberry plants; respiration of fruit.

Haller, Prof. Mary E(lizabeth), University of Washington, Seattle, Wash. *Mathematics.* Cumberland, Md, June 15, 01. A.B, Washington (Seattle), 24, M.S, 31, Loretta Denny fellow, 33–34, Ph.D, 34. Teaching fellow *math,* Washington (Seattle), 29–31, assoc, 31–34; prof, Gooding Col, 34–35; instr, *Washington (Seattle),* 35–41, *asst. prof, 41–* Self-projective rational octavics.

Hallett, Prof. George H(ervey), University of Pennsylvania, Philadelphia, Pa. or Arden, Del. *Mathematics.* Manchester, Maine, Dec. 30, 70. A.B, Pennsylvania, 93, A.M, 94, Ph.D, 96. Instr. *math, Pennsylvania,* 94–04, asst. prof, 04–09, *prof, 09–, Thomas A. Scott prof.* Lecturer, Immaculata Col, 25– Algebra; group theory.

Hallett, Dr. L(awrence) T(renery), Orchard Park Blvd, Rochester, N. Y. *Analytical chemistry.* Oakland, Calif, Nov. 7, 00. B.A, British Columbia, 23; Ph.D, Wisconsin, 28. Instr. gen. and anal. chem, Oregon State Col, 26–28; *chief* research chemist, Process Holding Co, Portland, Oregon, 29–32; *in charge quantitative microanalysis, Eastman Kodak Co, 33–* A.A; Chem. Soc. (sec'y div. microchem, 37, chairman, 38). Solubilities of caesium and rubidium chloroplatinates; diatomaceous earth as a thermal insulator; automatic combustion and improved apparatus design in microelementary analysis; microvolumetric determination of sulfur in organic compounds; application of microchemical methods to industrial problems; detection and estimation of traces.

Hallett, Dr. Winslow N(ichols), 202 Herman Ave, Lemoyne, Pa. *Psychology, Mathematics.* Lansdowne, Pa, Dec. 5, 07. A.B, Pennsylvania, 28, A.M, 30, Ph.D, 32; Muhlenberg Col, 38–39; N. Y. State Col. Teachers, 40–41. Asst. instr. psychol, Pennsylvania, 28–31, instr, 31–32; prof. psychol. and math. and head dept. math, Cedar Crest Col, 32–35; teacher adult educ, Lehigh County Adult Educ. Program, Pa, 36–39; intern, psychol. clinic, schs, Allentown, 39; mem. staff, Citizens Bur. Govt. Research, Inc, N. Y, 39–40; govt. research consultant, 41; *instr. elem. educ. and math, Md. State Teachers Col, 41–; lieut, Adj. Gen. Dept, U. S. Army, 42–* Supervisor exam, Col. Ent. Exam. Board Center, Moorestown, N. J, 31–41. Assoc. Psychol. Asn; Math. Soc; Math. Asn; Asn. Adult Educ; Govt. Research Asn; East. Psychol. Asn. Psychology and governmental research; psychophysical study of visual Gestalten; cost of living comparisons; alternate forms of county government in New York State.

Halley, Dr. Charles R(obert) L(ee), 1801 Eye St, N. W, Washington, D. C. *Internal medicine.* Mexico, Mo, May 8, 96. A.B, Missouri, 18; fellow, Trudeau Summer Sch. Tuber, 21; M.D, Hopkins, 22. Loeb fellow and instr. *med,* Hopkins, 25–27, instr, 28–29, assoc. prof, 29–31; *clin. prof, George Washington, 31–* Am. Med. Asn; assoc. Col. Physicians; Asn. Hist. Med. Clinical and experimental aspects of syphilis.

Halliday, Dr. C(harles) H, 2411 N. Charles St, Baltimore, Md. *Medicine, Epidemiology.* Metropolis, Ill, Sept. 26, 80. M.D, Col. Physicians and Surg. Baltimore, 04. Lieut, med. dept, U. S. Army, 07–14, capt. and major, 17–19, *col, Med. Res. Corps;* epidemiologist, State Dept. Health, Minn, 21–22; State Dept. Health, Calif, 23–29; *asst. director, State Dept. Health, Baltimore, 29–* Med. inspector and deputy commissioner, Am. Red Cross Cmn, Poland, and asst. med. director, Europe, 19–21. Morro Educ. Foundation. Medals, Philippine Insurrection; Liberty; Gen. Service, British Empire; Polish Army in France; Médaille de la Grande Guerre, France; gold and silver medals, Polish Red Cross; Russian Red Cross Insignia; bronze medal, Am. Med. Asn, 29. Gold Palmes Universitaires; Order Denelio, Grade III and IV, Montenegro; Polish War Cross; Order Polonia Restituta, Poland. Fel. Am. Med. Asn; Soc. Parasitol; Micros. Soc; Asn. Mil. Surg; Am. Geog. Soc; South. Med. Asn; Med. and Chirurg. Faculty Md. Los Angeles pneumonia plague epidemic; Santa Ana typhoid epidemic; poliomyelitis and typhus; pathology of plague; Rocky Mountain spotted fever; tularemia; psittacosis.

Halliday, Prof. Evelyn G(ertrude), 1415 E. 57th St, Chicago, Ill. *Food chemistry.* Can. B.S, Chicago, 15, M.S, 22, Ph.D, 29. Instr, Colo. Agr. Col, 15–17, research worker, 17–19; *mem. faculty, Chicago, 19–, assoc. prof. home econ, 29–* Chem. Soc. Chemistry of vegetables, pectin and other foods.

Halliday, Dr. Nellie, Research Laboratories, Mt. Zion Hospital, San Francisco, Calif. *Chemistry.* Cincinnati, Ohio, July 18, 89. Drexel Inst, 10–12; B.S, Columbia, 25, A.M, 26, Ph.D, 30. Dietitian, Cook County Hosp, Chicago, 12–16; L.D.S. Hosp, Salt Lake City, 16–17; Am. Red Cross, Albania and Turkey, 19–21; U. S. Pub. Health Service, N. C, 31–22; asst. biochem, Columbia, 24–28; home econ, Mich. State Col, 29–34; research assoc, inst. exp. biol, California, 34–37; with New Eng. Deaconess Hosp, 37–38; Southern California, 38–41; *mem. staff, Mt. Zion Hosp, 41–* M.C, U.S.A, 17–19. A.A; Chem. Soc; Inst. Nutrition; Soc. Exp. Biol. Vitamins in canned goods; comparative adsorption of vitamins B and G; stability of the B vitamins; new vitamin B growth factor for rats; lipid and carbohydrate metabolism.

Hallock, Dr. Harold C(oleman), U. S. Department of Agriculture, Twin Falls, Idaho. *Entomology.* Northville, S. Dak, Aug. 1, 91. LL.B, Cornell, 16, M.S, 22, Ph.D, 37. Teacher, high sch, Pa, 22–23; junior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 23–25, asst. entomologist, 25–27, assoc. entomologist, 27–35; asst, Cornell, 35–38; asst. prof, Pa. State Col, 38–39; *asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 39–* Asn. Econ. Entom; N. Y. Entom. Soc. Biology of Scarabaeidae; ecological, parasitic and chemical control of Scarabaeidae; biology and systematic study of Sarcophagidae; biology and control of beet leafhopper.

Hallock, Dr. Phillip, University of Minnesota Hospital, Minneapolis, Minn. *Cardiology.* Superior, Wis, Feb. 28, 03. B.S, Minnesota, 26, B.M, 28, M.D, 29, M.S, 33. Intern, Minneapolis Gen. Hosp, 28–29; teaching fellow med, Med. Sch, Minnesota, 29–33; fellow, Amsterdam and London Hosp, 35–36; instr. *med, med. sch, Minnesota,* 36–40, *asst. prof, 40–; major, Med. Corps, 26th Gen. Hosp, U. S. Army, 41–* A.A; Col. Physicians; Heart Asn; Cent. Soc. Clin. Research; Minn. Path. Soc; Minn. Soc. Int. Med. Cardiovascular disease.

Hallonquist, Dr. Earl G(rand), Wilcox Apts, Shelton, Wash. *Chemistry.* Moose Jaw, Sask, Can, Sept. 18, 07. B.A, British Columbia, 28, M.A, 30; Nat. Research Council Can. bursar, McGill, 30–31, student, 31–32, fellow, 32–33, Ph.D, 33. Asst. chem, British Columbia, 28–30; *cellulose chemist,* Dow Chem. Co, 34–37; *Rayonier Inc, 37–* A.A; Tech. Asn. Pulp and Paper Indust; Chem. Soc. Organic chemistry; cellulose ethers and esters; rayon and paper pulps.

Hallowell, Prof. A(lfred) Irving, University of Pennsylvania, Philadelphia, Pa. **7Anthropology.* Philadelphia, Pa, 92. B.S, Pennsylvania, 14, A.M, 20, Harrison fellow, 22–23, Ph.D, 24. Instr. and asst. prof. *anthrop, Pennsylvania,* 23–37, assoc. prof, 37–39, *prof, 39–, chairman dept,* hist. of religion, 39–40, *anthrop, 41–* Field research, Museum of Am. Indian, Labrador Peninsula, 23–25; lecturer, Swarthmore Col, 26–27; Guggenheim Mem. Foundation fellow, 40–41. Summers, lecturer, California, 29; Social Sci. Research Council grant-in-aid, Lake Winnipeg, Man, Can, 30, 31. Co-editor, 'Sapir Mem. Vol,' 39–40. Mem. cmt. personality and culture, Nat. Research Council, 34–39; cmt. social science personnel, Social Science Research Council, 37. Ethnol. Soc. (ed, 'Monographs,' 39–); Anthrop. Asn. (sec'y, 27–30, exec. cmt, 32); Folk-Lore Soc. (v. pres, 37, pres, 40); Phila. Anthrop. Soc; Soc. des Americanistes de Paris. American Indian ethnology and social psychology.

Hallowell, Dr. Dorothy Kern, 319 Winona Ave, Philadelphia, Pa. *Psychology.* Philadelphia, Pa, Dec. 25, 92. A.B, Pennsylvania, 22, A.M, 24, Ph.D, 28. Psychologist, Phila. Gen. Hosp, 21–23; Pa. Children's Aid Soc, 23–31; Phila. Children's Bur, 23–38; supervisor psychol, Junior Employment Service, *Phila,* 38–42, *mem. Board of Educ, 42–* Lecturer, Pa. Sch. Social Workers, 25–27; Harcum Jr. Col, 37–38; clin. psychologist, Inst. Pa. Hosp, 33–35; consulting psychologist, Sleighton Farm Sch. for Girls, 36– Psychol. Asn; Asn. Applied Psychol. Clinical psychology; preschool tests; vocational guidance.

Hallsted, A(lanson) L(ola), Ft. Hays Experiment Station, Hays, Kans. *Agriculture.* Eagletown, Ind, Jan. 13, 79. B.S. (Agr), Kans. State Col, 03. *In charge dry land agr. investigations, div. dry land agr, U. S. Dept. Agr, Ft. Hays Exp. Sta, Kans. State Col, 09–,* asst, 10–22, asst. agronomist, 22–24, *assoc. agronomist, 24–* A.A; Soc. Agron; Kans. Acad. Crop production; relation between crop yields, precipitation and soil moisture; storage; winter wheat and abandonment; relation between barley yields and evaporation; wheat farming risk in western Kansas.

Halma, Prof. Frederick F(erdinand), University of California at Los Angeles, Los Angeles, Calif. *Horticulture.* Vienna, Austria, Jan. 31, 87. B.S, Florida, 15; Ph.D, California, 25. Asst. state nursery inspector, State Plant Board, Fla, 15; asst. horticulturist, Exp. Sta, Florida, 15–17; asst. plant physiol, Citrus Exp. Sta, California, 18–21, research assoc, 21–25, junior plant physiologist, 25–27, asst. plant physiologist, 27–30, asst. horticulturist, 30–35, asst. prof. *subtrop. hort, California at Los Angeles, 35–39, assoc. prof, 39–,* asst. subtrop. horticulturist, *Exp. Sta,* 35–39, *assoc. subtrop. horticulturist, 39–* Soc. Hort. Sci. Subtropical horticulture; scion-rootstock relationship in citrus; subtropical fruits.

Halmos, Dr. Paul R(ichard), University of Illinois, Urbana, Ill. *Mathematics.* Budapest, Hungary, March 3, 16. B.S, Illinois, 34, M.S, 35, Ph.D, 38. Teaching asst. math, Illinois, 35–36, instr, 38–39; fellow, Inst. Advanced Study, 39–40, asst, 40–42; *assoc, Illinois, 42–* Math. Soc. Measure theory; ergodic theory; probability.

Halperin, Herman, Commonwealth Edison Co, 72 W. Adams St, Chicago, Ill. *Electrical engineering.* Toledo, Ohio, June 21, 98. M.E, Cornell, 20. Instr, Cornell, 19–20; engineer, Union Gas and Elec. Co, 20–21; *with Commonwealth Edison Co, 21–,* cable research engineer, 33–37, *asst. equipment and research engineer, 37–* Mem. cmt. elec. insulation, Nat. Research Council. Elec. Eng; West. Soc. Eng. Insulation, lead sheaths, accessories, installation and economics of underground power cables; lightning characteristics and protection of power systems; dielectrics; electric power equipment.

Halperin, Prof. H(illel), Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics.* Russia. E.E, Liége, 08; A.M, Columbia, 15; Chicago. Instr. math. and physics, Vanderbilt, 15–17; asst. prof. *math,* Arkansas, 17–20; assoc. prof, *Agr. and Mech. Col. Texas,* 20–25, *prof,* 25– Advanced mathematics; astronomy.

Halperin, Morris, Squawpaw Herb Co, 420 Market St, San Francisco, Calif. *Agronomy.* Priluk, Poltava, Russia, Aug. 24, 03. B.S. (Agr), Kans. State Col, 28; alternate James Rosenberg Mem. scholar, California, 29–30, M.S, 31. Asst, Ft. Hays Exp. Sta, Kans. State Col, 28; asst. agron, col. agr, California, 28–32, bot, 32–33; asst. taxonomic botanist, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 34–35; distributor legal publications, 36–37; manager book dept, Parker and Baird Co, Los Angeles, 38–39; private research bot, 40; *proprietor, Squawpaw Herb Co, 41–; commercial herbalist, 41–* A.A; Soc. Agron; Agr. Hist. Soc; Calif. Bot. Soc; Calif. Acad. Agricultural botany; vegetation and civilization; flora of California; drug plants; medicinal botany.

Halpern, Dr. Otto, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Vienna, Austria, April 25, 99. Ph.D, Vienna, 22. Asst. theoret. physics, Vienna, 20–30; assoc. prof. physics, N. Y. Univ, 31–41; *research assoc, Mass. Inst. Tech, 41–* Int. Research Council fellow, Leipzig, 28–30. Fel. Physical Soc. Theoretical physics; atomic and nuclear physics; application to physical chemistry.

Halpern, Dr. Salmon Reclus, Children's Medical Center, Dallas, Texas. *Anatomy.* Brooklyn, N. Y, June 24, 07. A.B, Michigan, 30; M.S, N. Y. Univ, 32; fellow, Colorado, 31–35, Ph.D, 34, M.D, 37. Research fellow, child research council, sch. med, Colorado, 35–37; intern, Montefiore Hosp, New York, 37–38; intern and asst. res. pediatrics, N. Y. Hosp, 38–40; chief res, *Children's Med. Center,* 40–41, *asst. med. director, 41–; instr. pediat, med. sch, Baylor, 41–; capt, Med. Corps, U. S. Army, 42–* Mem. Am. Board Pediat. Diabetic Asn; Aero Asn; Asn. Anat. Dysentery; tuberculosis.

Halpert, Dr. Béla, University of Oklahoma, Oklahoma City, Okla. *Pathology.* Hungary, Aug. 31, 96. M.D, German Univ. Prague, 21. Demonstrator anat, Budapest, 17–18; vol. asst, German Univ, Prague, 19–22, path, 22–23; surg, Frankfurt, 23–24; instr. anat, Hopkins, 24–27; asst. prof. path, Chicago, 27–30; Cushing fellow surg, sch. med, Yale, 30–32, instr. surg. path, 32–34, asst. prof. path. and surg, 34–35; assoc. director labs. and head div. path, Jewish Hosp, Brooklyn, 35–37; asst. prof. path. and bacter, Louisiana, 37–42; *prof. clin. path. and director labs, hosp, Oklahoma, 42–* A.A; Asn. Anat; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; fel. Am. Med. Asn; Soc. Clin. Path; Asn. Cancer Research; Gastro-Enterol. Asn. Gallbladder; anomalies; neoplasms; necropsy technic.

Halpin, Prof. James G(arfield), 2237 Eton Ridge, Madison, Wis. *Poultry husbandry.* N. Y, Oct. 18, 83. B.S.A, Cornell, 05. Instr, R. I. State Col, 05–06; asst. prof, Mich. State Col, 06–09; *prof. poultry husbandry, Wisconsin, 09–* A.A; fel. Poultry Sci. Asn. (pres, 31). Nutritive requirements of poultry; vitamin and mineral requirements of chicks and hens.

Halsey, Dr. H(arvey) Randolph, Columbia University, New York, N. Y. *Zoology.* East Orange, N. J, Nov. 29, 01. A.B, Columbia, 24, A.M, 25, Ph.D, 36. Asst. instr. zool, Columbia, 23–25, 27–29; tutor biol, Col. City of N. Y, 24–27; instr, Long Island, 29–33; asst. instr. *zool, Columbia,* 33–34, *lecturer, col. pharmacy, 35–* A.A; Genetic Asn; N. Y. Acad. Protozoology; vertebrate histology; pathology; life history and taxonomy of Amoeba; parasitology.

Halsey, Dr. J(ohn) T(aylor), Waveland, Miss. *Pharmacology, Therapeutics.* Elizabeth, N. J, Nov. 8, 70. Princeton, 87–88; M.D, Columbia, 93; St. Luke's Hosp, 93–95; Freiburg, 95–96; Strassburg, 96–98; Marburg, 98–00. Asst, pharmacol. lab, Marburg, 98–99; demonstrator pharmacol, med. faculty, McGill, 00–01, lecturer, 01–03, asst. prof. pharmacol. and therapeut, 03–04; prof. mat. med. and therapeut, Tulane, 04–12, pharmacol. and therapeut, 12–27, pharmacol, 27–37, head dept, 37; *retired.* Soc. Pharmacol; Soc. Exp. Biol. (councilor, 30); Am. Med. Asn; South. Med. Asn. Metabolism; renal physiology; chemistry of toxins, agglutinins; clinical and laboratory actions of drugs; electrocardiography; anesthetics; heart output.

Halsey, Dr. Robert H(urtin), 121 E. 60th St, New York, N. Y. *Medicine.* Astoria, L. I, N. Y, June 15, 73. A.B, Columbia, 96, A.M, M.D, 00. Adj. prof. *med, N. Y. Post-Grad. Med. Sch, Columbia,* 06–17, *prof, 17–, clin. med, Columbia, 34–* M.C, 17–19, lieut. col; col, M.R.C, 34. A.A; Am. Med. Asn; Soc. Exp. Biol; Am. Heart Asn. (pres, 31, 32); Harvey Soc; N. Y. Acad. Med; N. Y. Tuber. Asn; N. Y. Acad. Cardiovascular diseases; heart disease in children.

Halstead, Prof. Ward C(ampbell), University of Chicago, Chicago, Ill. *Neuropsychology.* Sciotoville, Ohio, Dec. 31, 08. A.B, Ohio (Athens), 31; A.M, Ohio State, 32; Ph.D, Northwestern, 35. Nat. research fellow, *Chicago,* 35–36, instr. exp. psychol, *Sprague Mem. Inst,* 36–39, *assoc. mem, 39–, asst. prof. exp. psychol, dept. med, univ, 39–* Psychol. Asn; Physiol. Soc; Neur. Asn; Midwest. Psychol. Asn. Neural mechanisms in learning; projection of the visual system in man; effects of cortical lesions in man; frontal lobe functions in man.

Halsted, Dr. T(homas) H(enry), 475 Fifth Ave, New York, N. Y. *Otolaryngology.* Listowel, Ont, Can, July 8, 65. M.D, Toronto, 87. Lecturer *otolaryngol, col. med, Syracuse,* 95–99, prof, 99–29, *emer. prof, 29–* Mem, Am. Board Otolaryngol, 25–28. Laryngol. Asn. (pres, 18); Laryngol, Rhinol. and Otol. Soc; Otol. Soc; fel. Am. Med. Asn; Col. Surg; Bronchoscopic Soc; N. Y. Med. Soc. (pres, 18); Syracuse Acad. Med. (pres, 05). Diseases of the ear, nose and throat; the fitting of hearing aids.

Halter, Dr. C(larence) R(obert), Memorial Hospital, 444 E. 68th St, New York, N. Y. *Biology.* Jan. 16, 92. B.S, Columbia, 17, A.M, 27; Ph.D, N. Y. Univ, 31. Dept. anat, physiol. and herp, Am. Museum Nat. Hist, 14–17; instr. *biol,* N. Y. Univ, 20–22; prof, Southern Col. (Fla), 23–25; *instr,* Wash. Sq. Col, *N. Y. Univ,* 25–27, *sch. educ, 27–; asst. biologist, Mem. Hosp, 27–* Am. Museum Nat. Hist. exped, Santo Domingo, 15, Nicaragua and Costa Rica, 16–17. Sanit. C, U.S.A, 17–19. Fel. N. Y. Acad. Comparative neurology and biological effects of x-ray and radium irradiations; arrested development of the brain; cancer; vitamins; photography of fluorescent tissues under ultra-violet light.

Halversen, Prof. William V(ernall), University of Idaho, Moscow, Idaho. *Bacteriology.* Spanish Fork, Utah, Aug. 28, 93. B.S, Utah Col, 16; M.S, Iowa State Col, 17, Ph.D, 24. Asst. bacteriologist, Exp. Sta, Idaho, 19; instr. *bacter,* Oregon State Col, 19–20, asst. prof. and assoc. prof, 20–29; *prof. and head dept, Idaho, and bacteriologist, Exp. Sta, 29–* Soc. Bact; Soc. Agron. Agricultural bacteriology; soil microbiology; microbiology of foods.

Halverson, Prof. H(enry) M(arc), 604 W. Beecher Ave, Jacksonville, Ill. *Psychology.* Stevens Point, Wis, Aug. 4, 85. Ph.B, Wisconsin, 15; A.M, Iowa, 18; Ph.D, Clark, 22. Asst. psychol, Iowa, 17–20; Clark, 20–22; prof, Maine, 22–26; asst. prof, Yale, 26–27, assoc. prof, 27–42; *director grad. work handicapped children, MacMurray Col. (Ill), 42–* Psychol. Asn. Localization of sound; tonal volume intensity and limits; prehension in infants; reflex grasping; the acquisition of skill in infancy; twinning as seen in ulnar duplication; the study of infant development by cinema records; variations in pulse and respiration; sucking and its relation to breathing.

Halverson, Dr. J(ohn) O(liver), North Carolina State College, Raleigh, N. C. *Animal nutrition.* Linden, Minn, Jan. 17, 80. A.B, Minnesota, 06, B.S, 07; A.M, Missouri, 13; Ph.D, Jefferson Med. Col, 16; Chicago; Yale. Asst. chemist, dairy investigations, Missouri, 08–09; deputy commissioner and chemist, dairy, food and drug inspection, Mo, 09–12; assoc. nutrition, Ohio Exp. Sta, 17–19; *in charge nutrition investigations, Exp. Sta, N. C. State Col, 20–* A.A; Chem. Soc; Soc. Animal Production. Calcium in the blood; calcium in metabolism of cattle and swine; soft pork; cottonseed-meal for cattle; methods for gossypol in cottonseed products.

Halverstadt, Dr. I(saac) F(rederick), American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Pharmaceutical chemistry.* Alhambra, Calif, Dec. 15, 16. A.A, Bakersfield Junior Col, 36; B.S, California, 38, James M. Goewey fellow, 40–41, M.S, 41, Abraham Rosenberg fellow, 41–42, Ph.D, 42. Teaching asst. chem, California, 38–40; *research chemist, Am. Cyanamid Co, 42–* A.A. Dipole moments; sulfanilamide derivatives; bile acids.

Halvorsen, A(rthur) L(udwick), N. Salem Road, Purdy Station, N. Y. *Chemistry.* Sandeherred, Norway, Oct. 6, 88. Grad. Kristiania Tech. Sch, 09. Asst. works manager and later research chemist, Roessler and Hasslacher Chem. Co, 11–21; *research and consulting chemist, 21–* Research chemist, Norwegian Legation, Havana, Cuba, 10; Tonopah Exten. Mining Co, Nev, 22–23; Cladite, Inc, New York, 35–41. A.A; Chem. Soc. Cyanid hydrometallurgy; hydrogen peroxide; bituminous and other dispersions in water; copper, silver and gold precipitation by sodium; electrically conductive paint coatings.

Halvorson, Prof. H(alvor) O(rin), University of Minnesota, Minneapolis, Minn. *Chemistry, Bacteriology.* River Falls, Wis, March 26, 97. B.S, Minnesota, 21, fellow, 21–22, Ch.E, 22, Ph.D, 28. Teaching fellow *bacter, Minnesota,* 22–23, instr, 23–28, asst. prof, 28–30, assoc. prof, 30–40, *prof, 40–* Chem. Soc; Soc. Bact; Chem. Eng; Pub. Health Asn. Industrial bacteriology; biometrics; sanitary engineering; physical chemistry and biology.

Halvorson, H(enry) A(lbert), 3400 Hennepin Ave, Minneapolis, Minn. *Chemistry.* Minneapolis, Minn, Jan. 17, 85. B.S, Minnesota, 11. Asst. chem, Minnesota, 08–11; asst. chemist, State Dairy and Food Dept, Minn, 11–17; food and drug analyst, Mont. State Board Health, 17–18; asst. chemist, U. S. Dept. Agr, 18–19; *chemist in charge feed and fertilizer control, State Dept. Agr, Minn, 19–* Asst. chemist, Gt. Northern Ry, 11; director sci. tests, State Exp. Flour Mill, Minn, 29–31. A.A; Chem. Soc; Asn. Cereal Chemists; Agr. Chem; Asn. Feed Control Officials (pres, 24); Animal Vitamin Research Council; N. Cent. States Asn. Dairy Food and Drug Officials (pres, 26). Foods; experimental milling of cereals; methods for the determination of iodine and calcium in mineral feed mixtures; estimation of vitamin D in oils and feedstuffs; analyses of feeds and fertilizers.

Ham, Prof. A(rthur) W(orth), University of Toronto, Toronto, Ont, Can. *Histology.* Brantford, Ont, Feb. 20, 02. M.B, Toronto, 26, fellow, 27–29. Asst. cytol, Washington (St. Louis), 29–31; instr. path, St. Louis, 31; *assoc. prof. anat. in charge histol, faculty med, Toronto, 32–, hon. sec'y, Banting Research Foundation, 38–* Starr gold medal, Toronto, 34. Asn. Anat; Asn. Path. and Bact; Soc. Exp. Path; Can. Physiol. Soc. Histology of bone and bone repair; action of vitamin D; experimental arteriosclerosis; experimental scurvy; pituitary diabetes; structure and development of lung.

Ham, Prof. C(larence) W(alter), University of Illinois, Urbana, Ill. *Mechanical engineering.* Carlisle, Ky, April 12, 81. B.M.E, Kentucky, 05; M.E, Cornell, 08. Instr. mech. eng, Kentucky, 05–07; instr. and asst. prof. machine design, Cornell, 08–16; engineer, Gleason Works, Rochester, 17–21; assoc. prof. *machine design, Illinois,* 21–26, *prof, 26–* Mech. Eng; Eng. Educ. Efficiency and durability of spur gears; mechanics of machinery; friction of power screws.

Ham, Prof. L(loyd) B(linn), University of Arkansas, Fayetteville, Ark. *Physics.* Cedar Grove, Maine, Oct. 2, 91. A.B, Bates Col, 14; A.M, Illinois, 20, Ph.D, 24. Head dept. science, high sch, Maine, 14–18; asst. *physics,* Illinois, 20–24; instr, N. Y. Univ, 24–26, asst. prof, 26–32; *Arkansas,* 32–35, assoc. prof, 35–39, *prof, 39–, head dept, 40–* C.W.S, U.S.A, 18. A.A; Physical Soc; fel. Acoustical Soc; Asn. Physics Teachers; Physical Club N. Y. (pres, 27). Protective qualities and characteristics of electro-deposited metals; applications of the Rayleigh double resonator; atomic structure; deafness; measurements of sound energy; loudness and intensity relations; experimental physics for colleges.

Ham, Dr. Thomas Hale, Thorndike Memorial Laboratory, Boston City Hospital, 818 Harrison Ave, Boston, Mass. *Hematology.* Oklahoma City, Okla, July 19, 05. B.S, Dartmouth Col, 27; M.D, Cornell, 31. Intern med, New York Hosp, 31–32; instr, med. col, Cornell, 32–34; research fellow, *Harvard Med. Sch,* 34–36, asst. *med,* 36–39, instr, 39–40, assoc. 40–43, *asst. prof, 43–;* asst. res. physician, *Thorndike Mem. Lab, Boston City Hosp,* 34–36, asst. med, 34–39, res. physician out patient dept, 38–39, junior visiting physician, 39, asst. physician, 39–42, *assoc. physician, 42–, assoc. director second and fourth med. services, 40–* Asst. res. physician, New York Hosp, 32–34. Col. Physicians; Soc. Clin. Invest. Plasma fibrinogen; sedimentation of erythrocytes; mechanism of destruction of red blood cells in paroxysmal nocturnal hemoglobinuria, in diseases with increased intravascular stasis and increased osmotic fragility of the erythrocytes; effect of organic oxidants; the mechanism of hemolytic anemia.

Ham, Prof. William R(oss), Pennsylvania State College, State College, Pa. *Physics.* Lewiston, Maine, Feb. 10, 79. A.B, Bates Col, 01; Ph.D, Chicago, 09. *Prof. physics and head dept, Pa. State Col, 09–* Capt, Ordnance Dept, 17–19, major, O.R.C, 25, lieut. col, 39. Fel. Physical Soc. Spectroscopy; thermionics; gases in metals; milling optical glass; Roentgen rays; scattering of cathode rays in metals; absorption in ultra-violet; vapor tension and temperature; stereobinoculars; thermionic emission; gas diffusion; transitions in iron.

Ham, Dr. W(illiam) T(aylor), Jr, University of Virginia, Charlottesville, Va. *Physics.* Norfolk, Va, Sept. 20, 08. B.S, Virginia, 31, M.S, 33, Ph.D, 35. Instr. physics, Virginia, 34–

36; Columbia, 37; research physicist, Kendall Mills, 37–38; *pres, W. T. Ham, Inc, 38–*; research physicist, Research Corp, 40–41; assoc, Virginia, 41–42; *lieut, U. S. Marine Corps Res, 42–* A.A; fel. Physical Soc. Acceleration of protons to high velocities; nuclear physics; disintegration phenomena; ultracentrifuge; time separation in high voltage impulse circuits.

Hamaker, Prof. J(ohn) I(rvin), Randolph-Macon Woman's College, Lynchburg, Va. *Zoology.* Elizabethtown, Pa, Nov. 29, 69. A.B, Kansas, 93, Harvard, 94, A.M, 95, Ph.D, 97. Asst. zool, Radcliffe Col, 94–95; Harvard, 95–97; *prof. biol,* Trinity Col. (N. C), 97–04; *Randolph-Macon Woman's Col, 04–* A.A; Soc. Zool. The nervous system; actinians of Beaufort, North Carolina; education; beach sand.

Haman, Dr. Robert W(alter), Wander Co, Elmhurst, Ill. *Biochemistry, Nutrition.* Monroe, Wis, Aug. 13, 08. B.S, Wisconsin, 29, M.S, 31, Ph.D, 34. Asst. biochem, Wisconsin, 29–35, research assoc, 35–36, Wisconsin Alumni Research Foundation, 36–37; *chief chemist, Wander Co, 37–* Chem. Soc; Soc. Brewing Chem; Asn. Cereal Chem; Dairy Sci. Asn; Inst. Food Technol. Vitamin D; photochemical synthesis of, evaluation and comparison of units, antirachitic effectiveness of various sources; vitamin D milks; antirachitic effectiveness, irradiation of milk; spectroscopic studies of vitamin D synthesis; vitamin and mineral fortification of food products.

Hamblen, Dr. E(dwin) C(rowell), Duke University School of Medicine, Durham, N. C. *Gynecology, Endocrinology.* Greenville, Miss, Aug. 23, 00. B.S, Virginia, 21, M.D, 28. Asst. and instr. biochem. and pharmacol, col. med, Baylor, 22–24, 25–26; clin. asst. *obstet. and gynec,* dept. med, Virginia, 30–31; *assoc. prof, sch. med, Duke, 31–, endocrinologist and chief endocrine div, hosp, 36–* Instr, sch. pharmacy, Baylor, 25–26. Mem. ed. cmt, 'Jour. Clin. Endocrinol,' 40– A.A; Am. Med. Asn; fel. Col. Surg; Asn. Study Int. Secretions (v. pres, 36, councilor, 37–39, mem. publication board, 40–); Therapeut. Soc. (v. pres, 40); Asn. Anat; Soc. Clin. Invest; South. Med. Asn. (chairman, sect. gynec, 41); South Atlantic Asn. Obstet. and Gynec; N. C. Med. Soc. (chairman, sect. obstet. and gynec, 34); N. C. Obstet. and Gynec. Soc. (pres, 36). Female clinical endocrinology; histopathology of abnormalities of uterine bleeding; ovarian responses to gonadotropic principles; endometrial responses to ovarian principles; metabolism and excretion of sex steroids; endocrine sterility of male and female; endocrine gynecology.

Hamblet, Dr. Clement H(utton), 514 Lore Ave, Gordon Heights, Del. *Inorganic chemistry.* Lowell, Mass, Dec. 22, 08. B.S, Mass. Inst. Tech, 31, M.S, 32, Ph.D, 34. Moore traveling fellow from Mass. Inst. Tech, Col. de France, 34–35; *research chemist, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Solubility relationships; formate and oxalate salts; compounds of tantalum.

Hambleton, Dr. B(enjamin) F(ranklin), 3917 Euclid Ave, Dallas, Texas. *Physiology, Pharmacology.* Beloit, Ohio, Nov. 7, 72. B.S, Damascus Acad, 94; M.D, Ohio Wesleyan, 00. Intern, Cleveland Gen. Hosp, 00–01; lecturer physiol, Ohio Wesleyan, 01–03, assoc. prof, 03–04, prof, 04–10, registrar, 08–10; prof. physiol. and pharmacol, Vanderbilt, 10–19, acting dean and sec'y, 17–19; *prof.* pharmacol. and biochem, *Baylor,* 20–30, *physiol. and pharmacol, 30–* Lecturer, St. Ignatius Col. (Ohio), 04–08. Movements of the intestinal villi; explosive gases formed during electrodestruction of tissue; effect of caffeine and ephedrine on pulmonary circulation; effect of gall-bladder and appendix lesions on gastric secretions.

Hambleton, J(ames) I(saac), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Chile, S. Amer, Jan. 1, 95. B.S, Ohio State, 17; Wisconsin, 19. Instr. entom, Wisconsin, 17–21; asst. beekeeping and later *prin. apiculturist, bur. entom. and plant quarantine, U. S. Dept. Agr, 21–* A.A; Asn. Econ. Entom. (chairman, apicult. sect, 26); Entom. Soc. Wash. Apiculture.

Hambleton, Dr. Philip N(ewton), Hercules Powder Co, Kenvil, N. J. *Physics.* Leroy, Kans, April 24, 10. B.S, Washburn Col, 31; univ. fellow, Kansas, 31–32, A.M, 33; Ph.D, Hopkins, 41. Junior instr. physics, Hopkins, 34–38; *research physicist, exp. smokeless dept, Hercules Powder Co, 41–* Asn. Physics Teachers. Calibration and use of piezoelectric ultramicrometer.

Hamblin, Stephen F(rancis), 45 Parker St, Lexington, Mass. *Horticulture.* Barnstable, Mass, Sept. 10, 84. B.S, Mass. Col, 12. Asst. prof. hort, Harvard, and director bot. garden, 22–29; *director, Lexington Bot. Garden, 29–* Herbaceous plants; perennial and annual plants in garden cultivation.

Hambly, Dr. Wilfrid Dyson, 5338 Harper Ave, Chicago, Ill. *Anthropology.* Clayton, Yorkshire, Eng. Hartley Univ. Col, 07–09; Licencié, Col. Preceptors, London, 09; diploma, Oxford, 13, B.Sc, 17, D.Sc, 37. Investigator, Govt. Board of Indust. Research, England, 19–23; lecturer biol, Essex Museum Nat. Hist, London, 23–26; *curator African ethnol, Field Museum Nat. Hist, 26–* Archeol. asst, Wellcome exped, Sudan, 14; leader, Frederick H. Rawson-Field Museum ethnol. exped, W. Africa, 29–30. Anthrop. Asn. History of tattooing; origins of education; tribal dancing; serpent worship in Africa; ethnology and anthropometry of the Ovimbundu of Angola; culture areas of Nigeria; African anthropology; craniometry of New Guinea.

Hambourger, Dr. W(alter) E, G. D. Searle and Co, P. O. Box 5110, Chicago, Ill. *Pharmacology.* Cleveland, Ohio, Aug. 13, 06. B.S, Case, 28; Ph.D, Western Reserve, 31; M.D, Chicago, 39. Fellow pharmacol, Western Reserve, 29–32; instr, Yale, 32–36; asst. prof, Western Reserve, 36–42; *chief pharmacologist, G. D. Searle and Co, 42–* Soc. Pharmacol; Soc. Exp. Biol. (sec'y, 39–42); Acad. Med. Cleveland (sec'y exp. med. sect, 39–42). Relation of chemical structure to pharmacologic action; mechanism of excitant action of morphine; action of drugs on central nervous system; misuse of barbiturates.

Hamburger, Prof. Ferdinand, Jr, Johns Hopkins University, Baltimore, Md. *Electrical engineering.* Baltimore, Md, July 5, 04. B.E, Hopkins, 24, Charles A. Coffin fellow, 30–31, D.E, 31. Asst, *Hopkins,* 27–28, research assoc, 28–29, *instr, night sch. tech. workers, 29–, elec. eng, univ,* 31–39, assoc, 39–41, *assoc. prof, 41–* Nat. Elec. Light Asn. research worker, Hopkins, 25–29. Elec. Eng; Radio Eng. Impregnated paper insulation; radio.

Hamburger, Dr. Louis P(hilip), 1207 Eutaw Place, Baltimore, Md. *Medicine.* Baltimore, Md, Sept. 18, 73. A.B, Hopkins, 93, M.D, 97; Berlin, 98–99. *Assoc. clin. med, Hopkins, 05–* Asst. visiting physician, Hopkins Hosp, attending physician; Union Mem. Hosp; Hosp. for the Women of Md; Sinai Hosp; Church Home and Infirmary; Bon Secours Hosp; consultant, West Baltimore Gen. Hosp; City Health Dept, Baltimore, 37– Revision cmt, U. S. Pharmacopoeia, 26; mem, Med. Milk Cmn. A.A; Am. Med. Asn; fel. Col. Physicians; Asn. Prevention Tuber; Med. Library Asn; South. Med. Asn; Med. and Chirurg. Faculty Md; Baltimore Med. Soc. (pres, 31). Internal medicine.

Hamburger, Prof. V(iktor), Washington University, St. Louis, Mo. *[7]*Zoology.* Landeshut, Germany, July 9, 00. Ph.D, Freiburg, 24. Asst, Kaiser Wilhelm Inst, Berlin, 26-27; instr. *zool.* and privat-docent, Freiburg, 27–32; Rockefeller research fellow, Chicago, 32–33, instr, 33–35; asst. prof, *Washington (St. Louis),* 35–39, assoc. prof, 39–41, *prof, 41–* Soc. Zool; Genetics Soc; Soc. Nat. Experimental embryology.

Hamer, Dr. Richard, 117 Oxford St, Halifax, N. S, Can. *Physics.* Manchester, Eng, July 11, 95. B.A, Saskatchewan, 13, M.A, 16; Toronto, 17; A.M, Chicago, 19; Whiting fellow, California, 20–22, Ph.D, 22. Prin, Univ. Prep. Col, Sask, 13–16; asst. and demonstrator physics, Toronto, 16–17; research chemist, Gutta-Percha and Rubber Co, Toronto, 18; asst. prof. physics and head dept, Margaret Morrison Col, Carnegie Inst. Tech, 18–20; research engineer, research dept, Westinghouse Elec. and Mfg. Co, 20; instr. physics, Wisconsin, 22–24; asst. prof, Pittsburgh, 24–28; assoc. prof, Acadia, 28–29, prof, 29–40. Asst. astronomer, Dom. Observatory, 29; prof, Mt. Allison, 30. Manager, Teachers' Bur, Sask, 12–16. Ed, science sect, 'New Century Book of Facts,' 25–26. Pa. Acad. (chairman, physical science sect, 25, exec. cmt, 26–28); Pittsburgh Physical Soc. Low voltage arcs; magnetism; x-rays; photoelectric effect; critical potentials; thermionic emission; gravitational constant; colloids; earth currents; orbit theory; extreme ultra-violet radiations; cosmic radiation; origin of volcanoes; transmutation of elements; radioactivity; geophysics; meteorology; radio; mathematics; astronomy.

Hamer, Dr. Walter J(ay), 2959 Upton St, N. W, Washington, D. C. *Physical chemistry.* Altoona, Pa, Nov. 5, 07. B.S, Juniata Col, 29; Ph.D, Yale, 32. Asst. instr, Juniata Col, 27-29; asst, Yale, 29–30, 31–32, U. S. Navy fellow, 32–34; assoc. chem, Mass. Inst. Tech, 34–35; asst. chemist, *Bur. Standards,*

35–37, *assoc. chemist, 37–; lecturer physical chem, grad. sch, U. S. Dept. Agr, 40–* Research chemist, Nat. Defense Research Cmt, 42–43; A.A; Chem. Soc; Electrochem. Soc; Faraday Soc; N. Y. Acad; Wash. Acad. Water dissociation in pure water and salt solutions; ionization, thermodynamics and transference numbers of sulfuric acid; lead accumulator; partially miscible liquids; solid and liquid solutions; ionization of carboxylic acids; isotonic solutions; hydrogen ion concentration standards.

Hamerstrom, Dr. F(rederick) N(athan), Jr, Edwin S. George Reserve, University of Michigan, Pinckney, Mich. *Wildlife.* Trenton, N. J, July 8, 09. A.B, Harvard, 31; M.S, Iowa State Col, 35; Ph.D, Wisconsin, 41. Project game manager, U. S. Resettlement Admin, 35–37; *curator, Edwin S. George Reserve, Michigan, 41–* Award, Wildlife Soc, 41. Ornith. Union; Wildlife Soc; Wilson Ornith. Club (chairman conservation cmt, 41–; assoc. ed, 42–). Life history and ecology of birds and mammals, particularly pinnated grouse, bob-white quail, hawks, owls, red fox and white-tailed deer.

Hamill, Dr. Samuel McC(lintock), 1822 Spruce St, Philadelphia, Pa. *Pediatrics.* Oak Hall, Pa, Nov. 3, 64. M.D, Pennsylvania, 88, hon. Sc.D, 40. Demonstrator physical diagnosis, Pennsylvania, 92–94, instr. med, 94–01; prof. diseases of children, Phila. Polyclinic Hosp, 01–19; grad. sch. med, Pennsylvania, 19–20; visiting pediatrician, *Presb. Hosp,* 07–29, *consulting pediatrician, 29–* Past visiting pediatrician, Howard, St. Christopher's and Phila. Polyclinic Hosps. and Post-Grad. Hosp, Univ. Pennsylvania; board managers, Babies' Hosp. Trustee, Lawrenceville Sch, 20–27. Chairman sect. 1, White House Conf. Child Health and Protection, 29–31; State Emergency Child Health Cmt, Pa, 33–39. Del. med. conf, Red Cross Societies, France, 19. Gen. med. board and chairman nat. child welfare cmt, Council Nat. Defense; director child welfare, Pa, 17–19. Award, Phila. Pediat. Soc, 33; Med. Soc. Pa, 36; Strittmatter award, Phila. County Med. Soc, 38. Pediat. Soc. (pres, 13); Acad. Pediat. (pres, 32); Am. Med. Asn. (chairman, sect. diseases of children, 11); Child Health Asn. (pres, 31–35); Asn. Study and Prevention Infant Mortality (pres, 15); Med. Soc. Pa. (chairman, sect. pediat); Phila. Pediat. Soc. (pres, 01–03); Phila. Child Health Soc. (pres, 24–42); Col. Physicians Phila; Path. Soc. Phila; Phila. Neur. Soc. Protection of the health of children in the indigent groups in Pennsylvania.

Hamill, Prof. William H(enry), University of Notre Dame, Notre Dame, Ind. *Chemistry.* Oswego, N. Y, June 13, 08. B.S, Notre Dame, 30, M.S, 31; Ph.D, Columbia, 36. Instr. *physical chem,* Fordham, 31–34, asst. prof, 34–38; *Notre Dame,* 38–41, *assoc. prof, 41–* Chem. Soc. Reaction rates; isotopic equilibria.

Hamilton, Dr. Alice, Hadlyme Ferry, Hadlyme, Conn. *Industrial toxicology.* New York, N. Y, Feb. 27, 69. M.D, Michigan, 93, A.M, 10; Leipzig, 95; Munich and Frankfurt, 96; Hopkins, 97; Chicago, 99–01; Pasteur Inst, Paris, 02; Sc.D, Tulane, 36. Prof. path, Woman's Med. Col, Chicago, 97–01; asst. pathologist, McCormick Inst, 02–09; special investigator occupational poisons, U. S. Bur. Labor Statist, 11–21; asst. prof. *indust. med, Harvard Med. Sch,* 19–35, *emer. prof, 35–; med. consultant, U. S. Dept. Labor.* Cmn. to Investigate Diseases of Occupation, Ill, 08–09, director, 09–10; mem, Governor's Cmn. on Health Insurance, Ill; League of Nations Health Cmt, 24–30; consultant, Cmt. Int. Labour Office, Geneva, 24–; Research Cmt. Recent Social Trends, U. S. Govt, 29–33. A.A; Am. Med. Asn; Pub. Health Asn; Chicago Path. Soc. (pres, 11). Bacteriology; immunology; industrial poisons in the United States.

Hamilton, Dr. Angle S(tiles), Temple University Medical School, Philadelphia, Pa. *Physiology.* Hamilton, Texas, Nov. 25, 01. A.B, Texas, 24, A.M, 25, Brackenridge scholar, 28–29, M.D, 29. Asst. chem, Texas, 23–24, tutor, 24–25; res. physician, obstet. and gynec, Maternity Hosp, Minneapolis, Minn, 30–31; asst. prof. health and physical educ. for women, head dept. and physician, health service, Carleton Col, 31–34; *assoc. research physiol, med. sch, Temple, 42–* Fel. Am. Med. Asn; Physiol. Soc. Phila. Renal humoral mechanism.

Hamilton, Prof. Bengt (Leopold Knutsson), University of Illinois, Chicago, Ill. *Pediatrics.* Upsala, Sweden, March 21, 92. M.D, Upsala, 17; Med. Dr, Karolinska Inst, Stockholm, 22. Asst. *pediat,* Karolinska Inst, Stockholm, 19; asst. and instr, Harvard Med. Sch, 23–27; assoc. prof, sch. med, Hopkins, 27–30; prof, Chicago, 30–39; *assoc. prof, Illinois, 39–; passed asst. surgeon, U. S. Pub. Health Service, 42–* Pediat. Soc; Soc. Pediat. Research; assoc. Am. Physicians; Soc. Biol. Chem; Soc. Clin. Invest. Mineral and acid-base metabolism; experimental rickets.

Hamilton, Prof. Cliff S(truthers), 3425 N St, Lincoln, Nebr. *Chemistry.* Blair, Nebr, Nov. 23, 89. B.S, Monmouth Col; Ph.D, Northwestern, 22; Minnesota; Illinois. Instr. and asst. prof. chem, Ohio Wesleyan, 17–19; research chemist pharmacol, Wisconsin, 22–23; assoc. prof. *chem,* Nebraska, 23–27; Northwestern, 27–29; *prof, Nebraska, 29–, chairman dept, 39–* Mem. board editors, 'Org. Syntheses.' A.A; Chem. Soc. (chairman org. div, 39; officers group, 39–41). Organic chemistry; organic compounds containing arsenic and antimony; drugs.

Hamilton, Prof. Clyde C(arney), Rutgers University, New Brunswick, N. J. *Entomology.* Salina, Kans, June 24, 90. B.S, Kans. State Col, 13; M.S, Illinois, 16; Ph.D, Cornell, 30. Asst. entom, Illinois, 15–16; Cornell, 16–18; bur. entom, U. S. Dept. Agr, 18–19; exten. entomologist, Missouri, 19–20; *assoc. entomologist,* Maryland, 20–25; *N. J. Exp. Sta. and Exp. Sta, Rutgers, 25–, assoc. prof. entom, univ, 25–* Ed, 'Entoma.' Pres, Nat. Shade Tree Conf, 37. Entom. Soc. Amer; Asn. Econ. Entom. Economic entomology; insects attacking ornamental plants.

Hamilton, Dr. Donald R(oss), 25 Rogers Place, Floral Park, N. Y. *Physics.* Hartford, Vt, Sept. 5, 14. A.B, Princeton, 35; Ph.D, Columbia, 39. *Staff mem. radiation lab, Mass. Inst. Tech, 40–; research engineer, Sperry Gyroscope Co, 41–* Physical Soc. Molecular beams; theoretical physics; electronics.

Hamilton, Dr. E(dna) Louise, 1828 W. Tioga St, Philadelphia, Pa. *Psychology.* Kearny, N. J, Sept. 22, 04. B.S, Conn. Col. for Women, 25; A.M, Columbia, 26, Ph.D, 29. Asst. psychol, Columbia, 26–27; clin. psychologist, N. Y. Post-Grad. Hosp, 27–28; asst. director educ. clinic, Bryn Mawr Col, 28–34, instr. educ, 31–34; asst. prof. psychol, Pa. State Col. Optometry, 33–34; *psychologist,* junior employment service, Board Pub. Educ, Phila, 34–35; *Norristown State Hosp, 35–* Instr, Temple, 29–30; psychologist, Baldwin Sch, Bryn Mawr, 29–33. Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Asn. Mental Deficiency; Orthopsychiat. Asn; fel. Rorschach Inst. (pres, Pa. div, 40–); assoc. East. Psychol. Asn; Pa. Asn. Clin. Psychol. (exec. cmt, 35–40, sec'y, 37). Animal psychology; psychopathology; motivation; learning.

Hamilton, Prof. Erwin H(ugh), New York University, New York, N. Y. *Mechanical engineering.* New York, N. Y, March 26, 95. B.S, N. Y. Univ, 19, M.E, 20. Instr. mech. eng, *N. Y. Univ,* 19–25, asst. prof. *automotive eng,* 25–33, *assoc. prof, 33–, lecturer aircraft engines, 28–* Soc. Automotive Eng. (treas, Metropolitan sect, 30, 31, chairman, 31); Eng. Educ; fel. Am. Geog. Soc. Internal combustion engines.

Hamilton, Dr. F(rancis) M(arion), 455 Park Ave, Leonia, N. J. *Psychology.* Markle, Ind, Jan. 21, 67. A.B, Indiana, 97, A.M, 01; fellow, Chicago, 04–05; Ph.D, Columbia, 07. Teacher, prin. and sch. supt, Ind, 88–95; instr. Latin and math, North Manchester Col, 90–91; asst. psychol, Indiana, 97–98; asst. educ. director, Cent. Y. M. C. A. Col, Chicago, 98–99; instr. psychol. and pedag. and director psychol. lab, Ohio State, 99–01; prof. psychol. and pedag, Wis. State Nor. Sch, Platteville, 01–03; asst. psychol, Columbia, 05–06; prof, N. Y. Teacher Training Col, New York, 06–32, head dept, 11–32; *retired.* A.A; Psychol. Asn. Perceptual factors in reading; educational tests.

Hamilton, Prof. Frank E(rrett), 2395 E. Broad St, Columbus, Ohio. *Surgery.* Washington Court House, Ohio, Sept. 25, 04. A.B, Ohio State, 27, M.S, 39; M.D, Pennsylvania, 30. Instr. path, *Ohio State,* 38, *research surg,* 38–40, *asst. prof, 40–; major, first auxiliary surg. group, Med. Corps, U. S. Army, 42–* A.A; Asn. Study Int. Secretions; fel. Am. Med. Asn; sr. fel. Col. Surg; assoc. fel. Gastro-Enterol. Asn; Asn. Mil. Surg; Cent. Surg. Asn; fel. Ohio Acad; Int. Soc. Geog. Path. Human clinical physiology; human gastro-intestinal motility; biologic assay of thyroid activity; collapse therapy in pulmonary tuberculosis.

Hamilton, Dr. G(ilbert) V(an Tassel), 108 W. Sola St, Santa Barbara, Calif. *Psychiatry.* Frazeysburg, Ohio, Jan. 15, 77. A.B, Ohio Wesleyan, 98; M.D, Jefferson Med. Col, 01; Harvard, 05–08. Res. physician, Jewish Hosp, Phila, 01; Pa. State Hosp, Warren, 02–05; McLean Hosp, Belmont, Mass, 05–07; research, Stanley McCormick grant, 08–17; lecturer psychol, Calif. State Nor. Sch, Santa Barbara, 15–17, 23; psy-

chopathologist, Santa Barbara Clinic, 22–24; director div. psychobiol. research, Bur. Social Hygiene, Inc, 24–28; *clin. psychiatrist, Santa Barbara, 28–* Visiting psychopathologist, Miradero Sanitarium, 10–17. Capt, A.S, 17–18. Psychiat. Asn; Psychopath. Asn; Psychol. Asn; Am. Med. Asn. Comparative psychology; marriage; clinical psychiatry.

Hamilton, Prof. H(arold) C(hapman), Norwich University, Northfield, Vt. *Chemistry.* Rockland, Maine, Dec. 9, 96. B.S, Norwich, 21; A.M, Columbia, 26. From instr. to *prof. chem, Norwich, 22–* Second lieut, Inf, 18–19. Chem. Soc. (chairman west. Vt. sect, 40, councilor, 41). Inorganic and analytical chemistry.

Hamilton, Dr. Howard L(averne), Army Medical School, Army Medical Center, Washington, D. C. *Zoology, Embryology.* Lone Tree, Iowa, July 20, 16. A.B, Iowa, 37, M.S, 38; Rochester, 38–40; Ph.D, Hopkins, 41. *Capt, Sanit. Corps, U. S. Army, 41–* Soc. Growth and Develop. Mode of action of hormones on cells; culture of viruses and rickettsiae.

Hamilton, Prof. Hugh J(ames), Pomona College, Claremont, Calif. *Mathematics.* Los Angeles, Calif, Jan. 17, 10. A.B, California at Los Angeles, 31; A.M, Brown, 33, fellow, 34–35, Ph.D, 36. Asst. *math,* California at Los Angeles, 31–32; instr, Brown, 32–36; *Pomona Col,* 36–41, *asst. prof, 41–* Math. Soc. Transformations of multiple sequences; curvature; difference equations.

Hamilton, Prof. Hughbert C(layton), Temple University, Philadelphia, Pa. *Psychology.* Cedar Rapids, Iowa, March 6, 03. A.B, Cornell Col. (Iowa), 25; Lydia Roberts fellow, Columbia, 25–27, A.M, 26, Ph.D, 28. Instr. *psychol, Temple,* 28–32, asst. prof, 32–38, *assoc. prof, 38–* Assoc. Psychol. Asn. Psychophysics; comparative psychology; motivation; learning.

Hamilton, Dr. James Alexander, Stanford University School of Medicine, San Francisco, Calif. *Psychophysiology.* Pecatonica, Ill, June 9, 07. A.B, California, 29, fellow, 35, Ph.D, 35; Marburg, 30; Frankfurt, 31; M.D, Stanford, 41. Instr. psychol, exten. div, California, 35–37; *sch. med, Stanford,* 37–41, *asst. med, 41–; asst. prof. psychol, asst. dean undergrads. and consultant student health service, California, 41–* Hypertension; cardiovascular physiology; reading; acid-base equilibrium and personality.

Hamilton, Dr. J(ames) B(ruce), University of Missouri, Columbia, Mo. *Anatomy, Physiology.* Tarentum, Pa, April 2, 10. A.B, Allegheny Col, 31; Ph.D, Yale, 35. Instr. anat. and physiol, Albany Med. Col, 35–37; asst. prof. *anat,* sch. med, Yale, 37–43; *assoc. prof, Missouri, 43–* A.A; Asn. Anat; Physiol. Soc; Soc. Study Int. Secretions; Soc. Cancer Research. Male hormones and endocrine physiology.

Hamilton, Dr. (James) Hugh, Western Precipitation Corp, 1016 W. Ninth St, Los Angeles, Calif. *Electrical engineering.* Los Angeles, Calif, Feb. 7, 04. B.S, Calif. Inst. Tech, 25, M.S, 27, Ph.D, 28. Teaching fellow elec. eng, Calif. Inst. Tech, 25–28; asst. prof, Utah, 28–32, assoc. prof, 32–37; *research engineer, West. Precipitation Corp, 37–* Elec. Eng. (chairman, Utah sect, 36, counselor chairman, 9th dist, 32). Physics; electrical engineering; lightning protection; high voltage switching and rectification; Cottrell precipitation; dust, smoke and fume collection.

Hamilton, Dr. J(ames) M(orton), New York Agricultural Experiment Station, Geneva, N. Y. *Plant pathology.* Toronto, Ont, Can, June 26, 01. B.S.A, Toronto, 24; Ph.D, Wisconsin, 29. From assoc. to *chief research, N. Y. Exp. Sta, Geneva, 30–* A.A. Apple scab and its control by spray fungicides; diseases of orchard fruits and fungicides.

Hamilton, Prof. John B(ascom), 1645 Laurel Ave, Knoxville, Tenn. *Mathematics.* Edmonton, Ky, March 24, 71. A.B, Texas, 02; A.M, Chicago, 04. Prof. *math, Tennessee,* 12–42, *emer. prof, 42–,* head dept, 21–42.

Hamilton, Dr. Joseph G, Radiation Laboratory, University of California, Berkeley, Calif. *Physics.* Waverly, Mass, Nov. 11, 07. B.S, California, 29, M.D, 36. Research fellow, *radiation lab, California,* 37–39, *research assoc, 39–,* clin. instr.-neur, *med. sch,* 39–42, *asst. prof. med. and radiol, 42–* Biological and medical applications of nuclear physics.

Hamilton, Prof. L(elcester) F(orsyth), 39 Lockeland Ave, Arlington, Mass. *Analytical chemistry.* Medford, Mass, Feb. 23, 93. B.S, Mass. Inst. Tech, 14. Instr. *anal. chem, Mass. Inst. Tech,* 15–19, asst. prof, 19–25, assoc. prof, 25–35, *prof, 35–, in charge undergrad. instruction, 35–, chairman dormitory board, 25–, acting head dept. chem, 42–* Chem. Soc. (sec'y, northeast. sect, 20–22). Calculations in analytical chemistry; application of precision of measurement to quantitative analysis; quantitative chemical analysis.

Hamilton, Prof. L(ionel) H(ibbert), Macdonald College, Que, Can. *Animal husbandry.* Arthur, Ont, March 26, 95. B.S.A, Ont. Agr. Col, 20; M.S, Wisconsin, 23. Exten. animal husbandman, *Macdonald Col, McGill,* 20–23, lecturer *animal husbandry,* 23–32, *asst. prof, 32–, field rep, 26–, director dipl. courses, 32–* Colonization special agent, Can. Pacific Ry. Co, 26– East. Soc. Animal Production; Can. Soc. Tech. Agr. Sheep feeding, breeding and management.

Hamilton, Dr. L(yle) A(rmstrong), 138 Brentwood Ave, Pitman, N. J. *Chemistry.* Sidney, Man, Can, March 13, 10. B.Sc, Saskatchewan, 30, M.Sc, 32; Ph.D, Iowa, 36. Asst. biochem, Iowa, 33–36; *research chemist,* Socony-Vacuum Oil Co, Paulsboro, N. J, 36–40; *E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Autoxidation of fats and oils; antioxidants; additives for petroleum oils.

Hamilton, Prof. O(lan) H(arvey), 503 Pine St, Stillwater, Okla. *Mathematics.* McLennan Co, Texas, Aug. 3, 99. B.S, Agr. and Mech. Col. Texas, 23; M.S, Purdue, 28; Ph.D, Texas, 37. Instr. mech. drawing, Purdue, 26–28; eng. math, Tennessee, 28–30; pure math, Texas, 30, 35–37; *math,* San Antonio Jr. Col, Texas, 31–35; asst. prof, *Okla. Agr. and Mech. Col,* 37–39, *assoc. prof, 39–; lieut, U. S. Naval Res.* Math. Soc. Non-unique solutions of differential equations; continua which do not cross; pure mathematics.

Hamilton, Dr. Paul (Barnard), Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Biochemistry.* Toronto, Ont, Can, Nov. 9, 09. B.A, Toronto, 32, M.D, 35, fellow, 36–40, Ph.D, 40. Intern, Toronto Gen. Hosp, 35–36; fellow *chem, hosp, Rockefeller Inst,* 40–41, *asst, 41–* Determination of amino acids in body fluids.

Hamilton, Dr. R(obert) G(ilbert), 910 Philtower Bldg, Tulsa, Okla. *Geology, Geophysics.* Shirley, Ind, Aug. 2, 05. A.B, DePauw, 31; M.S, Iowa, 33, Ph.D, 35; Illinois. Asst. chemist, Cornstalks Production Co, 27–30; instr. geol. and miner, Iowa, 31–35; *engineer and geophysicist, Schlumberger Well Surveying Corp, 35–* Miner. Soc. Precambrian geology of the Keystone district, Black Hills, South Dakota; metamorphosed concretions; electrical logging in drill holes, including resistivity, permeability and thermometric measurements.

Hamilton, Prof. R(obert) H(ouston), Jr, Temple University School of Medicine, Philadelphia, Pa. *Physiological chemistry.* Corsicana, Texas, Sept. 12, 06. A.B, Texas, 26, A.M, 27; Ph.D, Minnesota, 33, M.D, 35. Asst. and tutor zool, Texas, 25–27; asst. physiol. chem, Minnesota, 27–28, teaching fellow, 28–31, instr, 31–34; nat. research fellow, Utrecht, Bern and London, 34–35; instr. physiol, Minnesota, 35–36; asst. prof. *physiol. chem, sch. med, Temple,* 36–41, *assoc. prof, 41–* A.A; Asn. Study Int. Secretions; Chem. Soc. Analytical methods for determining iodine in biological materials; metabolism of iodine; clinical laboratory methods.

Hamilton, Prof. Tom S(herman), University of Illinois, Urbana, Ill. *Biochemistry, Nutrition.* Paris, Ill, April 21, 94. B.S, Illinois, 17, M.S, 22, Ph.D, 37. Asst. *animal nutrition, Illinois,* 19–20, 1st asst, 20–24, assoc, 24–37, asst. prof, 37–39, assoc. prof, 39–41, *prof, 41–* Capt, A.S, 17–18. Inst. Nutrition; Soc. Biol. Chem; Soc. Animal Production. Biochemistry of amino acids; animal nutrition; protein requirements; mineral metabolism; nutritional anemia; nutritive value of proteins; thermogenic effect of food.

Hamilton, Prof. W(illiam) Brooks, University of Kentucky, Lexington, Ky. *Bacteriology.* Osnabruck Centre, Ont, Can, Sept. 2, 02. B.S.A, McGill, 26, M.Sc, 28; Ph.D, Mass. State Col, 35. Asst. bacteriologist, dept. pub. service labs, *Kentucky,* 28–31, *bacteriologist, dept. hygiene and pub. health, 31–,* instr. hygiene, 33, asst. prof. *hygiene and pub. health,* 35–38, *assoc. prof, 38–* Soc. Bact. Bacterial carbohydrates; fractional vaccines.

Hamilton, Prof. W(illiam) F(erguson), University of Georgia School of Medicine, Augusta, Ga. **Physiology.* Tombstone, Ariz, March 8, 93. A.B, Pomona Col, 17; Ph.D, California, 21. Assoc. zool, California, 19–20; instr, Texas, 20–21; physiol, Yale, 21–23; asst. prof, Louisville, 23–26, assoc. prof, 26–31, prof, 31–32; asst. prof, George Washington, 32–34; *prof. physiol. and pharmacol, sch. med, Georgia,*

34– Assoc. ed, 'Am. Jour. Physiol.' A.A; Physiol. Soc. (councilor, 42). Animal behavior; physiological optics; physiology of circulation.

Hamilton, Dr. W(illiam) G(ordon), Box 186, Laclede, Mo. *Zoology.* Laclede, Mo, Jan. 14, 10. A.B, American Univ, 30; A.M, Harvard, 31, Ph.D, 35. Special field investigator, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–33; American Univ, 30; anat, Harvard, 32; Radcliffe Col, 34, biol. and zool, 35; Harvard, 35; in charge biol, Kemper Mil. Sch, 35–39; *instr. science, N. Y. State Nor. Sch, Geneseo, 39–; lieut, med. dept, Officers Reserve Corps.* Experimental morphology and embryology.

Hamilton, Prof. W(illiam) J(ohn), Jr, Cornell University, Ithaca, N. Y. *Zoology.* Corona, N. Y, Dec. 11, 02. B.S, Cornell, 26, A.M, 28, Ph.D, 30. Instr. biol, *Cornell,* 26–30, *zool,* 30–36, asst. prof, 36–41, *assoc. prof, 41–* Chairman sci. advisory cmt, Edward Niles Huyck Biol. Sta, 39–42. A.A; Soc. Mammal. (director, 35–); Soc. Ichthyol. and Herp. (governor, 41–); Soc. Zool; Soc. Foresters; Limnol. Soc; Wildlife Soc; Ecol. Soc. (sec'y, 39–41); assoc. Ornith. Union; Wilson Ornith. Club; Biol. Soc. Wash. Vertebrate ecology; mammalian life histories and morphology; ornithology; ichthyology; herpetology; food habits of American vertebrates.

Hamister, V(ictor) C(arl), National Carbon Co, 1280 W. 73rd St, Cleveland, Ohio. *Chemical engineering.* Cleveland, Ohio, Feb. 13, 90. B.S, Wisconsin, 16. *Chem. engineer, research labs, Nat. Carbon Co, 16–* Electrochem. Soc; Elec. Eng. Activated carbon; carbon products; primary batteries.

Hamlett, Dr. G(eorge) W(hitfield) D(eluz), Carnegie Laboratory of Embryology, Baltimore. Md. *Zoology.* Italy, Texas, July 7, 00. A.B, Texas, 22, A.M, 23, Ph.D, 27. Instr. zool, Texas, 23–27; asst. prof, Indiana, 27–33; nat. research fellow, Harvard Med. Sch, 33–34, research assoc, 33–35; *agent, div. wildlife research, bur. biol. surv, U. S. Dept. Agr. in cooperation with Carnegie Institution, Hopkins, 35–* Guggenheim Mem. Foundation fellow, 36–38. Asn. Anat. Embryology; twinning reproductive cycle.

Hamlin, Prof. Edwin W(oodworth), University of Texas, Austin, Texas. *Electrical engineering.* New York, N. Y, July 21, 05. B.S, Union (N. Y), 26, M.S, 28, Ph.D, 32. Instr. elec. eng, Union (N. Y), 26–32, math, 32–33, *elec. eng,* 33–35; asst. prof, Kansas, 35–37, assoc. prof, 37–39; *prof, Texas, 39–* Summers, mem. staff, Bell Tel. Labs, 38; Gen. Elec. Co, 41. Elec. Eng; assoc. Radio Eng. Operational calculus; repeated transients; medium and high frequency measurements.

Hamlin, H(oward) E(lroy), Race Betterment Foundation, Battle Creek Sanitarium, Battle Creek, Mich. *Physiology, Physical education.* North Baltimore, Ohio, July 9, 88. B.S, Ohio Wesleyan, 13; A.M, Harvard, 15, Harvard Med. Sch, 26–27. Instr. physiol, Simmons Col, 15–17, asst. prof, 18–26; asst. prof. biol. and chairman dept, Middlebury Col, 17–18; instr. physiol, Sargent Nor. Sch. Physical Educ, 19–26; Ohio State, 27–29, asst. prof, 30–36; lecturer health and narcotics, Ohio, Indiana, Illinois and Michigan, 36–38; supervisor health and narcotics, State Dept. Educ, Ohio, 38–43; *lecturer biol. living, Race Betterment Foundation, 43–* Summers, instr, Harvard, 21–32. A.A; Physical Educ. Asn. Mechanism for effecting the gaseous or liquid intake and output of the Jacobson's organs; blood pressure of the woodchuck and opossum; pulse recorder; energy cost of exercise; vascular peculiarity of the frog lung; narcotic education; health education.

Hamlin, Dr. J(ohn) C(alhoun), 615 College Drive, Starkville, Miss. *Entomology.* Anderson, S. C, Sept. 25, 96. B.S, Clemson Col, 16; M.S, Ohio State, 18, Ph.D, 28. Asst. zool. and entom, Ohio State, 17; plant quarantine inspector, fed. hort. board, U. S. Dept. Agr, 18–19; entomologist and biologist, Australian Commonwealth Prickly Pear Board, U. S, 20–23, officer in charge prickly pear investigations, Australia, Mex. and U. S, 23–24; assoc. entomologist in charge dried fruit insect lab, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 24–27, alfalfa weevil investigations, 28–31, entomologist, 31–35, *senior entomologist in charge,* 36–40, Mormon cricket ecol. research, 41–42, *entom. phase of hybrid corn develop. for south. states, 43–* Summer, citrus canker inspector, bur. plant indust, U. S. Dept. Agr, 16. A.A; Entom. Soc; Asn. Econ. Entom. Biological control of introduced prickly pears in Australia by American cactophagous insects; Heteroptera; control of dried-fruit insects; insect revival after fumigation; ecology, control and quarantine aspects of the alfalfa weevil; quantitative ecological methods in economic entomology; ecology of the Mormon cricket; survey methods. (*Died June, 1943*)

Hamlin, Dr. Kenneth E(ldred), Jr, University of Maryland, College Park, Md. *Chemistry.* Baltimore, Md, March 27, 17. B.S, Maryland, 38, Wm. R. Warner fellow, 39–41, Ph.D, 41. Special asst. chem, Illinois, 41–42; *instr. org. chem, Maryland, 42–* Chem. Soc. Synthesis of amino acids; monocrotaline and related alkaloids.

Hamlin, Dr. M(arston) L(ovell), 251 Rocklyn Ave, Lynbrook, N. Y. *Chemistry.* New York, N. Y, Feb. 8, 87. A.B, Amherst Col, 08; A.M, Columbia, 09, fellow, 11–12, Ph.D, 12; Strassburg, 09–10. Research chemist, Harriman lab, Roosevelt Hosp, 12–13; research and operating chemist, Gen. Bakelite Co, 13–15; chief chemist, plant D, Butterworth-Judson Corp, 15–18, research chemist, Nat. Aniline and Chem. Co, 19–21; chief chemist, Sugola Co, N. J, 21; research fellow, Trinity Col. (N. C), 21–24, asst. prof. chem, 22–24; research chemist, Beechnut Packing Co, 24–28; *supervisor patent and library sect, Barrett div, Allied Chem. and Dye Corp, New York, 28–* A.A; fel. Inst. Chem. (chairman, N. Y. chap, 43). Industrial chemistry; lipolytic enzymes; hydrolysis of esters; explosives and dye intermediates; tobacco; foods; tropical gums and resins; fuels; coal tar products.

Hamly, Dr. D(ouglas) H(owell), 89 Roxborough St, W, Toronto, Can. *Botany.* Denver, Colo, Jan. 7, 97. B.A, Toronto, 28, M.A, 29, Ph.D, 32. *Research and class asst. bot, Toronto, 28–, demonstrator photog. applied to research, 34–, research asst. photog, 34–* Elizabeth Ann Wintercorbyn award, 30. Biol. Photog. Asn. Seed germination; photomicrography.

Hamm, Dr. Homer A(lexander), Talon, Inc, Meadville, Pa. *Chemistry.* St. Paul, Minn, Jan. 18, 03. B.S, Minnesota, 25; M.S, George Washington, 28; Ph.D, Hopkins, 36. Chemist, Am. Linseed Co, 25–26; junior and asst. chemist, Bur. Standards, 26–33; asst. chemist, Naval Gun Factory, Washington, D. C, 33–37; *chief chem. research, Talon, Inc, 37–* Asst, George Washington, 28–29. Philos. Soc. Wash. Adsorption phenomena of cellulose; stress-strain curves of textiles; mercerization of cotton; corrosion of metals; electroplating; metal finishing; solvents; plastics; analytical methods; purification of water.

Hamm, Dr. Randall E(arl), University of Utah, Salt Lake City, Utah. *Physical chemistry.* Auburn, Wash, May 9, 13. B.S, Washington (Seattle), 35, M.S, 37, Ph.D, 40. Research assoc. oceanog, Washington (Seattle), 40–41; asst. chemist, Puget Sound Navy Yard, U. S. Navy Dept, 40–42; *instr.* physical science, West. Wash. Col. Educ, 42; *anal. chem, Utah, 42–* Summer, instr, Cent. Wash. Col. Educ, 42. A.A; Chem. Soc. Determination of dissolved gaseous nitrogen; electrical conductances and specific gravities of mixed electrolyte solutions.

Hamm, Prof. W(illiam) J(oseph), St. Mary's University, San Antonio, Texas. *Physics.* Belleville, Ill, July 26, 10. B.Sc, Dayton, 31; M.S, Catholic Univ, 35; Ph.D, Washington (St. Louis), 42. Instr. physics, St. Mary's (Texas), 35–37; Maryhurst Nor. Col, 37–40; *prof. physics, St. Mary's (Texas), 42–* Asn. Physics Teachers. Collision processes in gases, particularly energy loss through retardation of positive ions shot through gases.

Hammack, Dr. Roy W(allace), 657 S. Westlake Ave, Los Angeles, Calif. *Pathology.* Oregon, May 19, 86. A.B, Oregon, 07; M.D, Hopkins, 11. Instr. and asst. prof. path. and bacter, Philippines, 11–14; pathologist, Los Angeles County Hosp, 17–21; asst. prof. and *assoc. prof. path, Col. Med. Evangelists, 20–* City bacteriologist, Los Angeles, 16; pathologist, Hosp. of the Good Samaritan, 21– M.C, 17–19, capt. Soc. Clin. Path; Am. Med. Asn. Diseases due to fungi; neoplasms.

Hammaker, Dr. Ellwood M(acham), 509 Meadow Lane, Oreland, Pa. *Chemistry.* Lansdowne, Pa, March 24, 12. B.S, Haverford Col, 34; Ph.D, Rutgers, 40. Instr. chem, Rutgers, 38–41; *asst. research chemist, oil and fat div, East. Regional Research Lab, U. S. Dept. Agr, 41–* Chem. Soc. Coprecipitation; oils and fats.

Hamman, Dr. Louis, 9 E. Chase St, Baltimore, Md. *Medicine.* Baltimore, Md, Dec. 21, 77. A.B, Rock Hill, 96; M.D, Hopkins, 01. From asst. med. to *assoc. prof.* clin. med, *Hopkins,* 03–32, *med, 32–,* acting head dept, 18–19. Physician in charge, Phipps Dispensary, 05–15; asst. visiting physician and visiting physician, Hopkins Hosp. A.A; Am. Med. Asn; Am. Physicians; Soc. Clin. Invest. Internal medicine.

Hammar, Prof. G(ustaf) W(ilhelm), University of Idaho, Moscow, Idaho. *Physics.* Sweden, June 22, 93. B.S, Idaho, 22, M.S, 24; Ph.D, Calif. Inst. Tech, 27. Asst. prof. *physics, Idaho,* 26–30, assoc. prof, 30–31, *prof, 31–,* acting head dept, 30–34, *head dept, 34–* Physical Soc. Molecular and atomic magnetism; thermodynamic efficiency and the mechanism of ore crushing; ether drift; contact forces between solids.

Hammar, Dr. H(arald) E(dwin), 1303 Dawson Road, Albany, Ga. *Chemistry.* Worcester, Mass, Sept. 3, 02. B.S.A, B.S.A.E, Florida, 25, M.S, 27; Am. Petrol. Inst. fellow, Rutgers, 29–31, Ph.D, 31. Field asst, Everglades Exp. Sta, Florida, 27–28; research chemist, Am. Petrol. Inst, Wash, D. C, 31–36; *asst. chemist, soil fertility investigations, pecan lab, bur. plant indust, U. S. Dept. Agr, 36–* Research assoc, Bur. Standards. Soc. Agron; Soil Sci. Soc; Chem. Soc. Soil organic matter and marine sediments; effects of chemical treatment of Florida everglades soils; bacterial genesis of hydrocarbons; origin and environment of source sediments of petroleum; effect of soil fertility on growth and chemical composition of the pecan; production investigations on oil and yields of peanuts and pecans.

Hammer, Prof. Bernard W(ernick), Iowa State College, Ames, Iowa. *Bacteriology.* Hillsboro, Wis, Oct. 7, 86. B.S.A, Wisconsin, 08; Ph.D, Chicago, 20. Asst. agr. bacter, Wisconsin, 08–09, bacteriologist, hygiene lab, 09–11; *prof. dairy bacter, Iowa State Col, and chief dairy bacter, Exp. Sta, 11–* Soc. Bact; Pub. Health Asn; Soc. Exp. Biol; Dairy Sci. Asn. Chemistry; dairy bacteriology; classification of organisms found in dairy products.

Hammer, Dr. O(scar) H(ugo), Dow Chemical Co, Midland, Mich. *Entomology.* Colorado Springs, Colo, May 28, 07. A.B, Colo. Col, 30; Ph.D, Cornell, 35. Asst, N. Y. Exp. Sta, Geneva, and instr. entom, Cornell, 30–42; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 36–42; *research entomologist, Dow Chem. Co, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom.. Insects affecting apples, pears and small fruits; apicultural crop.

Hammer, Dr. Preston C(larence), Route 1, Corvallis, Oregon. *Statistics, Mathematics.* Rockford, Mich. A.B, Kalamazoo Col, 34; Mich. State Col. fellow, Michigan, 34–35, A.M, 35; Ph.D, Ohio State, 38. Instr. *math,* Michigan, 38–40; *Oregon State Col,* 40–42, *asst. prof, 42–* Math. Soc; Math. Asn; Inst. Math. Statist. Probability; semantics in mathematics; theoretical statistics.

Hammer, Dr. Sigmund (Immanuel), Box 2038, Pittsburgh, Pa. *Physics.* Webster, S. Dak, Aug. 13, 01. A.B, St. Olaf Col, 24; Ph.D, Minnesota, 29. Teaching fellow physics, Minnesota, 24–29; *physicist, Gulf Research and Develop. Co, 29–* Physical Soc; Soc. Explor. Geophys; Geophys. Union; N. Y. Acad; Physical Soc. Pittsburgh (sec'y-treas, 41, v. pres, 42). Collision of mercury ions with mercury atoms; academic and applied geophysics, particularly investigation and interpretation of the earth's gravitational field.

Hammett, Dr. F(rederick) S(lmonds), Lankenau Hospital, Philadelphia, Pa. or 493 Commercial St, Provincetown, Mass. *Physiological chemistry.* Boston, Mass, Nov. 18, 85. A.B, Tufts Col, 08; M.S, R. I. State Col, 11; A.M, Harvard, 14, Ph.D, 15. Asst. chemist, Exp. Sta, R. I. State Col, 09–12; teaching fellow biochem, Harvard Med. Sch, 13–15, asst. anat, 14–15; prof. physiol. and biochem, Southern California, 15–17; instr. anat, Harvard Med. Sch, 17–18; fellow biochem, Wistar Inst, 19–22, asst. prof, 22–27; *sci. director research inst, Lankenau Hosp, 27–* Ed. board, 'Growth.' Trustee and director, Marine Exp. Sta, Lankenau Hosp, North Truro, Mass; advisory councilor, Yenching Univ, Peiping, China. A.A; Soc. Biol. Chem; Physiol. Soc; Soc. Zool; Genetic Asn; N. Y. Acad; hon. mem. Phila. County Med. Soc. Chemistry of growth.

Hammett, Prof. L(ouis) P(lack), Columbia University, New York, N. Y. ****Chemistry.* Wilmington, Del, April 7, 94. A.B, Harvard, 16; Polytech. Sch, Zurich, 16–17; Ph.D, Columbia, 23. Instr. *chem, Columbia,* 20–24, asst. prof, 24–29, assoc. prof, 29–35, *prof, 35–* Chemist, A.S. 17–19. Nat. Acad; Chem. Soc; London Chem. Soc; Faraday Soc. Physical chemistry; reaction rates and mechanisms, especially in organic chemistry.

Hammon, Prof. William McD(owell), Hooper Foundation, University of California, San Francisco, Calif. *Epidemiology.* Columbus, Ohio, July 20, 04. A.B, Allegheny Col, 32; M.D, Harvard, 36, M.P.H, 38, D.P.H, 39. Instr. *epidemiol,* sch. pub. health, Harvard, 39–40; lecturer, *Hooper Foundation, California,* 40–41, *asst. prof, 41–, lecturer nursing, 40–, trop. med, med. sch, 42–* Consultant to Sec'y of War on epidemic diseases, Neurotropic Virus Diseases Cmn, 41– Pub. Health Asn. Infectious diseases, particularly those produced by filterable viruses; encephalitis; poliomyelitis.

Hammond, Dr. A(lonzo) J(ohn), 120 S. La Salle St, Chicago, Ill. *Engineering.* Thorntown, Ind, April 23, 69. B.S, Rose Polytech, 89, M.S, C.E, D.E, 33; Mass. Inst. Tech. Asst. engineer, Vandalia Ry, 98–01; city engineer, Ind, 01–10; consulting engineer, Ill, 10; chief engineer, Bur. Pub. Efficiency, Chicago, 11; engineer, bridges and harbors, 12–13; asst. chief engineer, Union Sta. Co, 14–22; chief engineer, James O. Heyworth, Inc, 23–26; Mellon-Stuart Co, 26–28; *consulting engineer, 28–* Board managers, Rose Polytech. Civil Eng. (director, 26–28, 34, v. pres, 29, pres, 33, pres, Ill. sect); Eng. Council (pres, 40); West. Soc. Eng. (director); Ind. Eng. Soc. (pres). Water supply; power; pavements; railway terminals.

Hammond, Dr. Bayard L(ouis), U. S. Department of Agriculture, Route 4, Savannah, Ga. *Genetics, Botany.* Elkland, Pa, 00. A.B, Lebanon Valley Col, 29; Ph.D, Hopkins, 35. Prin, high sch, Pa, 20–21; teacher, pub. schs, P. R, 21–25; acting head dept. Spanish, Lebanon Valley Col, 25–29, asst. bot, 27–29; Hopkins, 29–33; research, Goucher Col, 34–37; Indiana, 38–41; asst. geneticist, *div. rubber plant investigations, bur. plant indust, U. S. Dept. Agr,* 41–42, *assoc. geneticist, 42–* Bot. Soc; Genetics Soc; Ind. Acad. Cytogenetics of Oenothera; morphology of angiosperms; development and regeneration of the Podostemonaceae; rubber-producing plants.

Hammond, Dr. Datus M(iller), Bureau of Animal Industry, U. S. Department of Agriculture, Auburn, Ala. *Protozoology.* Providence, Utah, May 20, 11. B.S, Utah State Col, 32; A.M, California, 34, Willard Dawson Thompson mem. scholar, 34–36, Ph.D, 36. Asst. zool, California, 32–34, research assoc, 36; instr, Utah State Col, 36–39, asst. prof, 39–41; asst. protozoologist, *zool. div, bur. animal indust, U. S. Dept. Agr,* 41–42, *assoc. protozoologist, 42–* A.A; Soc. Zool. Neuromotor system of ciliate Protozoa; cytoplasmic reorganization in ciliate Protozoa during binary fission and conjugation; genital trichomoniasis of cattle; coccidiosis of cattle.

Hammond, Dr. Dorothy, Hunter College, New York, N. Y. *Botany, Genetics.* Brockton, Mass, April 3, 04. A.B, Wellesley Col, 26; A.M, Columbia, 29, Ph.D, 41. Instr. chem, Mary Baldwin Sem. and Col, 26–27; asst. bot, Barnard Col, Columbia, 27–29; *instr. biol. sciences, Hunter Col, 29–* A.A; Bot. Soc; Genetics Soc; Genetic Asn; Torrey Bot. Club. Development of leaf shape.

Hammond, Prof. Edith S, 1616 S. 17th St, Chickasha, Okla. *Chemistry, Physics.* A.B, Oklahoma, 15; M.S, Chicago, 21, Ph.D, 32. Instr. *chem, Okla. Col. for Women,* 17–19, assoc. prof, 19–22, *prof, 22–* Chem. Soc. (v. pres, Okla. sect, 30); fel. Okla. Acad. (v. pres, physical sci. sect, 35). Inorganic chemistry; metal amines; amines of chromous chloride.

Hammond, Prof. Edward S, 9 Thompson St, Brunswick, Maine. *Mathematics.* New Britain, Conn, April 21, 93. A.B, Yale, 13, A.M, 15; Ph.D, Princeton, 20. Instr. *math,* Princeton, 18–21; asst. prof, *Bowdoin Col,* 21–25, *prof,* 25–A.A; Math. Soc; Math. Asn. Differential geometry; periodic conjugate nets of curves.

Hammond, Dean Elmer L(lonel), University of Mississippi, University, Miss. *Pharmacy.* Chicago, Ill, Nov. 28, 95. Ph.C. and B.S, Michigan, 21, M.S, 23; Ph.D, Wisconsin, 41. Asst. *pharmacy,* Michigan, 19–21; instr, West Virginia, 21–25, asst. prof, 25–28; *prof, Mississippi, 28–,* acting dean *sch. pharmacy,* 28–29, *dean, 29–* A.A; Pharmaceut. Asn; Miss. Pharmaceut. Asn. Determination of tannins in tinctures and fluid extracts; a chemico-pharmaceutical study of Hydrastis canadensis L.

Hammond, Dr. G(eorge), University Hospital, Ann Arbor, Mich. *Orthopedic surgery.* Lansing, Mich, Feb. 22, 07. A.B, Michigan, 28, M.D, 32, M.S, 36. Instr. *surg, med. sch, Michigan,* 34–40, *asst. prof, 40–,* intern, 32–33, asst. res, 33–34; *major, Med. Corps, U. S. Army.* Am. Med. Asn; fel. Col. Surg; Acad. Orthop. Surg; Cent. Surg. Asn. Anatomy of urachus and associated fasciae; unusual fractures of humerus; tuberculosis of hip; elevation of first metatarsal with hallux equinos; cerebriform naevi.

Hammond, Prof. Harry E(mmons), University of Missouri, Columbia, Mo. *Physics.* Tecumseh, Mich, Oct. 18,

84. A.B, Michigan, 05, M.S, 19; Ph.D, Missouri, 29. Head dept. *physics*, high sch, Mich, 10–18; instr, Michigan, 18–19; prof, Southeast Mo. State Teachers Col, Cape Girardeau, 19–20; *asst. prof, Missouri, 20–* Physical Soc. Magnetism; photovoltaic cell phenomena.

Hammond, Dean H(arry) P(arker), Pennsylvania State College, State College, Pa. *Civil engineering.* Asbury Park, N. J, Dec. 21, 84. B.S, Pennsylvania, 09, C.E, 25; D.E, Case, 31; LL.D, Vermont, 43. Instr. civil eng, Pennsylvania, 09–11; Lehigh, 11–12; asst. prof. sanit. and hydraul. eng, Polytech. Inst. Brooklyn, 12–17, prof, 17–37; *dean sch. eng, Pa. State Col, 37–* Director summer sch. for eng. teachers, Soc. Promotion of Eng. Educ, 27–35. Mem, Nat. Advisory Cmt. Eng. Defense Training; advisory board to training div, Army Ordnance Dept. A.A; Civil Eng; Mech. Eng; Eng. Educ. (assoc. director investigation eng. educ, 24–29, v. pres, 35, pres, 37). Engineering education.

Hammond, Dr. John Clarke, U. S. Department of Agriculture, Beltsville, Md. *Nutrition.* Jamestown, R. I, 08. B.S, R. I. State Col, 31; A.M, George Washington, 35; Ph.D, Maryland, 41. Junior biologist, animal husbandry div, *bur. animal indust, U. S. Dept. Agr*, 31–37, asst. biologist, 37–39, *assoc. biologist, animal nutrition div, 39–* Poultry Sci. Asn. Poultry nutrition; nutrition of growing chicks and turkeys; method of analyzing chick nutrition experiments.

Hammond, Dr. John C(lifton), Holtville, Calif. *Biology.* Millwood, Ohio, Dec. 31, 05. A.B, Ohio State, 26, Ph.D, 36; A.M, California, 33; Ala. Polytech, 35–36. Teaching fellow biol, cytol. and protozool, California, 30–32; director, Civil Works Admin. and County Relief Office, Knox Co, Ohio, 34; instr. zool, Ala. Polytech, 35–36; asst. county supervisor, *farm security admin, U. S. Dept. Agr*, 41, assoc. county supervisor, 41, *county supervisor, 41–, mem. Imperial County War Board.* Experimental zoology; stroboscopic and microdissection studies in protozoa.

Hammond, Dr. John Hays, Jr, Hammond Research Corp, Hesperus Ave, Gloucester, Mass. *Physics.* San Francisco, Calif, April 13, 88. B.S, Yale, 10; Sc.D, George Washington. *Inventor; pres. and treas, Hammond Research Corp; Radio Eng. Co. of N. Y;* pres, treas. and curator, *Hammond Museum, Inc.* Director and consulting engineer, Radio Corp. Amer; consulting engineer, Gen. Elec. Co. and Westinghouse Elec. and Mfg. Co; Aeolian Co. of N. Y. Del, Int. Radio Conf, Wash, D. C, 27; past mem. advisory board, U. S. Naval Board Inventors; mem. advisory cmt, Langley aerodynamics lab, Smithsonian Institution. Grand officer of the Crown, Italy. Soc. Aeronaut. Eng. (v. pres); Radio Eng. (past treas); Elec. Eng; assoc. Mech. Eng; hon. mem. Inst. Inventors; Royal Soc. Arts London. Torpedo for coast defense; automobile torpedo firing; aluminothermic incendiary projectiles; coastal patrol by aeroplane; selective radio telegraphy; intermediate frequencies and double detection; pipe organ mechanism; reflecting modulator for pianos.

Hammond, Dr. L(ester) D(avisson), National Bureau of Standards, Washington, D. C. *Chemistry.* Petersburg, Ind, June 23, 83. A.B, Indiana, 07; A.M, Wisconsin, 10, Ph.D, 16. Acting asst. prof. chem, Mo. Sch. Mines, 16–17; instr. org. chem, Kans. State Col, 17–18; asst. prof. chem, Armour Inst. Tech, 18–19; *assoc. chemist, Bur. Standards, 19–* Int. Sugar Cmn. Chem. Soc. Sugar chemistry.

Hammond, Prof. Philo F(ay), 619 Clark St, Laramie, Wyo. *Physics.* Cresco, Iowa, Jan. 7, 76. M.Di, Iowa State Teachers Col, 02; Michigan; A.B, Washington (Seattle), 07; Chicago; Ph.D, Stanford, 16. Asst. physics, Washington (Seattle), 07–09; teacher, high sch, Wash, 09–13; asst. *physics*, Stanford, 13–16; acting head dept, Alberta, 16–19; prof, N. Dak. Col, 19–20; assoc. prof, *Wyoming*, 20–21, *prof, 21–* A.A; Physical Soc; Colo-Wyo. Acad. The effect of ions upon electrode potential in an electrolytic solution; Volta effect.

Hammond, Dr. Warner S(mith), Cornell University Medical College, 69th St. and York Ave, New York, N. Y. *Anatomy.* Washington, D. C, Aug. 14, 11. A.B, Dartmouth Col, 32; Georgetown, 33–35; Ph.D, Cornell, 37. Teaching fellow histol. and embryol, med. sch, Georgetown, 33–35; asst, Cornell, 35–37; *instr. anat*, North Carolina, 37–38; *med. col, Cornell, 38–* Asn. Anat; Harvey Soc. Aortic arches in calf; liver sinusoids; aortic arch bodies in cat.

Hammond, W(esley) H(askins), 3040 Puhala Rise, Honolulu, Hawaii. *Metallurgy.* A.B, Willamette, 18; California, 21; M.S, Hawaii, 32. Chemist, *indust. dept, U. S. Navy*, 30–40, *head chem. metal. and testing lab, 40–* A.A; Chem. Soc; Soc. Metals; Electrochem. Soc; Hawaiian Acad. Chemical and physical analysis of general materials and metals; spectrographic analysis of metals; electrometric analysis of alloys by graded potential; iodine research on foods and waters; iron plating and electrorecovery of tin; speeding up metals analysis for war conditions.

Hammond, Dr. W(illiam) A(rchie), Xenia, Ohio. *Chemistry.* Winchester, Ky, Jan. 22, 89. A.B, Miami (Ohio), 14; A.M, Ohio State, 17, Ph.D, 29. Instr, high sch, 19; U. S. Gypsum Co, 20–25; consultant, 26–29; assoc. prof. chem, Antioch Col, 30–41; *pres. and consultant indust. drying, W. A. Hammond Drierite Co, 34–* Research chemist, C.W.S, 17–18. A.A; Chem. Soc. Chemistry and technology of gypsum and gypsum products; soluble anhydrite as a desiccating agent; drying of solids, liquids and gases; chemical education and industrial contact.

Hammond, Wray E(llsworth), Iowa State College, Ames, Iowa. *Animal husbandry.* Richfield, Minn, Nov. 10, 95. B.S, Minnesota, 20; M.S, Iowa State Col, 21. *Supt. experiments in animal production, subsect, Exp. Sta. Iowa State Col, 21–* Soc. Animal Production. Animal production and nutrition.

Hamner, Dr. C(harles) L(eonard), 4718 Muskogee, Berwyn, Md. *Plant physiology.* Laramie, Wyo, Oct. 7, 13. A.B, California at Los Angeles, 36; Ph.D, Chicago, 40. Agent, *bur. plant indust, U. S. Dept. Agr*, 38–42, *asst. plant physiologist, 42–* Plant nutrition; plant hormones; plant photoperiodism.

Hamner, Dr. K(arl) C(lemens), Agricultural Research Administration, U. S. Department of Agriculture, Ithaca, N. Y. *Botany.* Salina, Kans, Oct. 15, 08. B.S, California, 31; M.S, Chicago, 34, Ph.D, 35. Research fellow, Chicago, 34–36; assoc. physiologist, hort. field sta, bur. plant indust, U. S. Dept. Agr, 36–37; instr. bot, Chicago, 37–40; *agent, regional plant, soil and nutrition lab, agr. research admin, U. S. Dept. Agr, 40–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Bot. Soc. Plant physiology; measurements of photosynthesis and respiration of plants under controlled environment; plant hormones; photoperiodism; factors affecting nutritive value of crops; factors influencing flowering in plants.

Hamor, Dr. W(illiam) A(llen), Mellon Institute, Pittsburgh, Pa. *Industrial chemistry.* DuBois, Pa, March 27, 87. Pittsburgh, 04–07, A.M, 13, hon. Sc.D, 35; hon. Sc.D, Grove City Col, 32. Research chemist, Col. City of N. Y, 07–14; asst. to director, *Mellon Inst*, 14–16, *asst. director, 16–* Prof, Pittsburgh, 15–18, lecturer, 42– Shale-oil specialist, Can. Dept. Mines, 08. Ed. staff, 'Science-Hist. of Universe,' 09–10; 'Jour. Indust. Eng. Chem,' 12–14. V. chairman div. research exten, Nat. Research Council, 21–24; mem. exec. cmt. and chairman tech. advisory cmt, Greater Pa. Council, 32–34. Org. cmt, Int. Cong. Applied Chem, 12; World Power Conf. Major, C.W.S, 17–18, asst. chief tech. div, 18. A.A; Chem. Soc; Electrochem. Soc; fel. Inst. Chem; Soc. Test. Mat; Hist. Sci. Soc; Management Asn; Pharmaceut. Asn; Inst. Food Technol; Inst. Metals; Pa. Chem. Soc; Chemists' Club; fel. London Chem. Soc. Chemical economics; economic utilization of fuels; shale oil and petroleum; bibliography and history of technology; industrial research methodology and management.

Hampel, Prof. C(hester) W(illiam), 165 Simmons Ave, Cohoes, N. Y. *Physiology.* Cohoes, N. Y, May 28, 06. A.B, Wesleyan, 27, A.M, 29; Ph.D, Harvard, 34. Asst. biol, Wesleyan, 27–29; teaching fellow *physiol*, Harvard Med. Sch, 29–34, Austin fellow, 34–35; adj. prof, *American Univ. Beirut*, 35–38, *assoc. prof, 38–; visiting lecturer, N. Y. Univ, 42–* A.A; Physiol. Soc; Soc. Exp. Biol. Smooth muscle; internal secretion; heart.

Hampton, Dr. Burt L(aurent), Glidden Co, Box 389, Jacksonville, Fla. *Organic chemistry.* Fayetteville, Tenn, Oct. 24, 09. B.S, Florida, 34, Ph.D, 37. *Research chemist*, G and A Labs, 37–40; *Glidden Co, 40–* Chem. Soc. Alpha-amino ketones and alcohols; resin acids; terpenes.

Hampton, Prof. H. E, Agricultural and Mechanical College of Texas, College Station, Texas. *Soil chemistry.* Andrews, Ind, April 7, 04. B.S, Agr. and Mech. Col. Texas, 37; Missouri, 40–42. Instr. *agron, Agr. and Mech. Col. Texas*, 38–42, *assoc. prof, 42–* Soc. Agron; Texas Acad. Potassium-calcium ratios in relation to growth, nodulation and composition of soybeans.

Hampton, H(arold) C(lark), Hawkesbury, Ont, Can. *Chemistry.* Richmond, Ind, Nov. 9, 89. Whittier Col, 15–18; California, 19; A.B, A.M, Stanford, 20. Asst, Stanford, 19–20; prof. physiol. chem, N. Dak. Col, 20–21; instr. bot, Wisconsin, 21–27; *research chemist, Can. Int. Paper Co, 27–* Chemist, C.W.S, 18. A.A. Microchemistry; microscopy; plant physiology; wood technology; manufacture of rayon; pulp; plastics.

Hampton, Dr. W(illiam) Forsey, Fisheries Research Laboratory, St. John's, Newfoundland, Can. *Chemistry.* St. John's, Newfoundland, July 15, 08. B.Sc, Dalhousie, 30; Nat. Research Council Can. scholar, McGill, 30–31, M.Sc, Ph.D, 33. Demonstrator chem, McGill, 31–34, research fellow, 34–35; *chemist and acting director, Fisheries Research Lab, 35–* Physical and colloidal chemistry; frozen gels; fisheries investigations; processing of fish and fish products.

Hamre, Prof. C(hristopher) J(ohn), University of Hawaii, Honolulu, Hawaii. *Zoology.* Madelia, Minn, Jan. 7, 02. A.B, St. Olaf Col, 23; M.S, Wisconsin, 27, Ph.D, 30. Instr. *zool,* St. Olaf Col, 23–26; asst, Wisconsin, 26–28, instr, 28–30; asst. prof, *Hawaii,* 30–35, assoc. prof, 35–40, *prof. and chairman dept, 40–,* histologist, Exp. Sta, 35–40. A.A; Soc. Zool; Hawaiian Acad. Comparative histology; hematology.

Hamre, Dr. Dorothy M(yrtle), Squibb Institute for Medical Research, New Brunswick, N. J. *Bacteriology.* Seattle, Wash, April 26, 15. B.S, Washington (Seattle), 37, M.S, 38; Ph.D, Colorado, 40. *Asst. microbiol, Squibb Inst. Med. Research.* Soc. Bact. Anaphylaxis; botulinus toxin.

Hanan, Dr. Ernest B(yron), 1406 Pennsylvania Ave, Springfield, Mo. *Physiology.* Granger, Mo, Feb. 4, 94. A.B, Missouri, 23; A.M, Buffalo, 25, M.D, 28. Asst. physiol, Missouri, 22–23; assoc. anat, Buffalo, 23–31, asst. prof, 31–33, assoc. prof. hygiene, 33–37; *practising physician, 37–* Director labs, Buffalo City Hosp, 28–37; pathologist, Burge Hosp, Springfield, Mo, 40. Mem, Am. Board Path. A.A; Asn. Anat; fel. Am. Med. Asn; fel. Soc. Clin. Path; Pub. Health Asn; Soc. Bact. Medical and clinical physiology; fetal physiology; clinical bacteriology; diagnostic tests for tuberculosis; allergy and silicotuberculosis; fungus diseases.

Hanawalt, Prof. E(lla) M(ay), 2512 E. Hartford Ave, Milwaukee, Wis. *Psychology.* Knox Co, Ill, April 7, 89. Knox Col, 09–12; A.B, Michigan, 15, A.M, 27, fellow, 28–29, Ph.D, 29. Teacher, schs, Ill, 06–09, high sch, 12–14; Ky. State Teachers Col, Richmond, 15–20; Ginling Col, Nanking, China, 21–26; asst. psychol, Michigan, 27–28; *prof. psychol. and educ. and head dept, Milwaukee-Downer Col, 29–* Assoc. Psychol. Asn. Whole and part methods in trial and error learning with animals and man.

Hanawalt, Prof. Fred A, 65 W. Broadway, Westerville, Ohio. *Zoology.* Harlem, Ohio, Oct. 23, 85. B.S, Otterbein Col, 13; M.S, Ohio State, 21. Teacher, high sch, 13–20; asst. prof. and later *prof. biol, Otterbein Col, 20–* A.A; Audubon Soc; Ohio Acad. Habits of the common mole.

Hanawalt, Dr. J(oseph) Donald, Dow Chemical Co, Midland, Mich. *Physics.* Royersford, Pa, July 6, 02. A.B, Oberlin Col, 24; A.M, Wisconsin, 26, Ph.D, 29. Instr. physics, Wisconsin, 28–29; nat. research fellow, Michigan, 29–31; Groningen, 31; physicist, *Dow Chem. Co,* 31–34, *director* x-ray and spectroscopy lab, 34–40, *metal. research, 40–* A.A; fel. Physical Soc; Chem. Soc; Soc. Test. Mat; Min. and Metal. Eng; Soc. Metals; Electrochem. Soc. X-ray spectra and analysis; corrosion; metallurgy.

Hanawalt, Prof. Nelson G(ilbert), N. J. College for Women, Rutgers University, New Brunswick, N. J. *Experimental psychology.* Lewistown, Pa, May 9, 06. A.B, Juniata Col, 27; A.M, Columbia, 31, Ph.D, 37. Instr, high sch, Pa, 27–29; asst. *psychol,* Columbia, 34–36; instr, *N. J. Col. Women, Rutgers,* 36–40, *asst. prof, 40–* Assoc. Psychol. Asn; East. Psychol. Asn. Memory trace; personality; facial expressions; perception.

Hance, Dr. Francis E(vaul), Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Inorganic and physical chemistry.* Philadelphia, Pa, Oct. 4, 93. Ch.B, Cornell, 21, Heckscher Foundation fellow, 20–24, Ph.D, 24. Research soil technol, N. Y. State Col. Agr, Cornell, 24–26; assoc. chemist and later *head dept. chem, Exp. Sta, Hawaiian Sugar Planters' Asn, 26–* Faculty, trop. sch. agr, Hawaii, 31– A.A; Chem. Soc; Asn. Hawaiian Sugar Technol; Hawaiian Acad; Int. Soc. Soil Sci; Int. Soc. Sugar Cane Technol. Soil and plant chemistry; general agricultural and inorganic chemistry.

Hance, Dr. J(ames) H(arold), 1666 Harvard Ave, Salt Lake City, Utah. *Geology.* Chicago, Ill, Aug. 14, 80. B.S, Northwestern, 01; Washington (Seattle), 08, E.M, 10; Ph.D, Chicago, 18. Junior asst. and assoc. geologist, U. S. Geol. Surv, 10–15; asst. geol, Chicago, 14–15; asst. prof, Iowa, 15–18; geologist, Roxana Petrol. Co, 18–19; valuation engineer, oil sect, internal revenue bur, U. S. Treasury Dept, 19; acting prof. in charge dept. geol, Denison, 19–20; asst. chief, Ill. Geol. Surv, 20–25; head dept. geol, Agr. and Mech. Col. Texas, 25–28; dean sch. mines, Oregon State Col, 28–32; consulting mining engineer and geologist, 32–34; supervising engineer, Deer Creek-Utah Lake Reclamation Project Surveys, 34–35; dean sch. mines, Alaska, 35–37; *consulting geologist and mining engineer, 37–* Mineral examiner, U. S. Gen. Land Office, 17; reviewer oil, gas and mining cases, State Securities Dept, Ill, 20–28. Geol. Soc. Valuation of mineral properties; mining.

Hance, Dr. Robert T(heodore), 1 Broadmoor Ave, Pittsburgh 16, Pa. *Zoology.* Cincinnati, Ohio, Jan. 10, 92. A.B, Cincinnati, 13, A.M, 14; Harrison fellow, Pennsylvania, 14–16, Ph.D, 17. Asst. zool, Cincinnati, 13–14; Pennsylvania, 16–18, instr, 20–21; prof, N. Dak. Col, 21–23; nat. research fellow, 23–25; assoc, Rockefeller Inst, 25–27; prof. zool. and head dept, Pittsburgh, 27–36, biol, 36–39; *prof. biol. and director biol. research, Duquesne, 39–; v. pres, in charge research, Rosco Labs, Inc, 41–* Chairman zool, A.E.F. Univ. Beaune, and lieut, Sanit. C, 19. A.A; Soc. Zool; Micros. Soc; Pa. Acad. (pres, 29, ed, 39–). Mammalian, plant and avian cytology; somatic chromosomes; Paramecium; x-ray effects; micro-technique.

Hancock, Dr. Evelyn M(argaret), Columbia University, New York, N. Y. *Organic chemistry.* Wilmington, N. C, Oct. 12, 09. A.B, Duke, 30; A.M, Illinois, 33, fellow, 33–34, 35–36, Ph.D, 36. Asst. biochem, med. sch, Duke, 30–32; Illinois, 34–35; asst. *org. chem,* Bryn Mawr Col, 36–41; *research assoc, Columbia, 41–* Chem. Soc. Biochemistry of essential amino acids; synthesis of physiologically active compounds; barbituric acids; amino esters.

Hancock, Prof. Harris, 1627 Oxford Road, Charlottesville, Va. *[1]*Mathematics.* Ellerslie, Va, May 14, 67. Virginia, 86; A.B, Hopkins, 88; Cambridge, 91; Ph.D, Berlin, 94; D.Sc, Paris, 01. Asst. *math,* Chicago, 92–93, 94–95, assoc, 95–97, instr, 97–00; prof, *Cincinnati,* 00–37, *emer. prof, 37–* A.A. (v. pres, chairman, A, 23); Math. Soc; Math. Asn; fel. Asn. Univ. Prof. (treas, 18–22); London Math. Soc; Deuts. Math. Verein; Soc. math. de France; Circolo Mat. di Palermo. Kronecker's modular systems; Abelian integrals; elliptic functions and integrals; calculus of variations; maxima and minima; minimal surfaces; foundations of the theory of algebraic numbers; geometry of numbers.

Hancox, Dr. R(obert) R(ex), Armour Research Foundation, Chicago, Ill. *Physics.* Milton, Iowa, 04. A.B, Iowa Wesleyan Col, 27; M.S, Iowa, 28, Ph.D, 32. Asst. physics, Iowa, 27–28; asst. prof. physics and math, Mo. Valley Col, 29–30; Olivet Col. (Mich), 28–29, 30–31, prof, 32–40; mem. faculty, Wilson Junior Col, 40–43; *mem. staff, Armour Research Foundation, 43–* A.A; Physical Soc. Reflection of metallic atoms from alkali halide crystals.

Hand, Dr. D(avid) B(irney), Sheffield Farms Co, Inc, 524 W. 57th St, New York, N. Y. *Chemistry.* Berkeley, Calif, Nov. 24, 05. A.B, Pomona Col, 26; Ph.D, Cornell, 30. Asst. chem, *Cornell,* 26–27, instr. *biochem,* 27–36, asst. prof, 36–41, *assoc. prof, 41–; mem. staff, Sheffield Farms Co, Inc, 42–* Nat. research fellow, Heidelberg, 30–32. Biochemistry; biological oxidations; proteins; phase equilibria; enzymes; pigments; vitamins; milk products.

Hand, Irving F(orrest), Blue Hill Meteorological Observatory, Milton, Mass. *Meteorology.* Binghamton, N. Y, March 24, 88. Union (N. Y), 12; George Washington. *U. S. Weather Bur, 12–, meteorologist.* Meteorol. Soc; Geophys. Union; Philos. Soc. Wash. Solar radiation; atmospheric dust and smoke clouds; reflecting measurements from airplanes; illumination.

Hand, Prof. W(illiam) F(lowers), Mississippi State College, State College, Miss. *Chemistry.* Shubuta, Miss, Dec. 1, 73. B.S, Miss. Agr. and Mech. Col, 93, M.S, 95; Ph.D, Columbia, 03. Asst. chemist, Miss. Agr. and Mech. Col, 93–99, *prof. chem,* 99–32, *Miss. State Col, 32–; state chemist, Miss,*

99– Chem. Soc; Agr. Chem. (v. pres, 20, pres, 21). Organic chemistry; synthesis in the quinazolin group, including ketodihydroquinazolins.

Handford, Dr. R(ichard) H(enry), Box 250, Brandon, Man, Can. *Entomology.* N. Dak, May 29, 05. B.S.Agr, Manitoba, 30; M.Sc, Saskatchewan, 32; Ph.D, Minnesota, 39. Teacher, schs, Sask, Can, 23–25; insect pest investigator, *Dom. of Can. Dept. Agr,* 28–30, junior entomologist, 30–38, *asst. entomologist, 38–* Entom. Soc. Amer; Can. Soc. Tech. Agr. (pres, west. Man. branch, 40–42); Entom. Soc. Ont. Economic entomology; forecasting outbreaks by means of autumn surveys and cultural and chemical control of grasshoppers.

Handford, Prof. S(tanley) Wing, 115 W. 15th St, New York, N. Y. *Physiology.* Batesville, Ark, June 28, 06. A.B, Illinois, 28; Ph.D, Yale, 32. Asst. zool, Yale, 29, 30, 31; instr. *physiol, N. Y. Univ,* 32–38, *dental col, asst. prof, 38–; lieut, H–V(S), U. S. Naval Res.* Effect of age and temperature on the relative growth of the eye of Amblystoma; circulatory efficiency.

Handler, Dr. Philip, Duke University Medical School, Durham, N. C. *Physiological chemistry.* New York, N. Y, Aug. 13, 17. B.S, Col. City of N. Y, 36; M.S, Illinois, 37, Ph.D, 39. Junior chemist, regional soy-bean lab, U. S. Dept. Agr, 37–39; asst. *physiol. and nutrition, med. sch, Duke,* 39–40, instr, 40–41, *assoc, 41–* Chem. Soc. Intermediary metabolism of nitrogen compounds; biological significance of nicotinic acid.

Handley, Prof. Carroll A, University of South Dakota, Vermillion, S. Dak. *Pharmacology.* Aug. 30, 13. A.B, California, 34, Ph.D, 40. Asst. prof. pharmacol. and physiol, South Dakota, 40–42; assoc. pharmacologist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–43; *prof. physiol. and pharmacol. and head dept, South Dakota, 43–* Central nervous system stimulants and depressants.

Handley, C(harles) O(verton), Blacksburg, Va. *Ornithology.* Lewisburg, W. Va, Nov. 2, 97. B.S, Washington and Lee, 22. Instr. in charge biol. lab, Washington and Lee, 22–24; asst, food habits research div, bur. biol. surv, U. S. Dept. Agr, 24–29; supt. game propagation, Cmt. Game and Inland Fisheries, Va, 29–35; assoc. conservationist, *wildlife research div, fish and wildlife service, U. S. Dept. Interior,* 35–36, *assoc. biologist, 37–* Leader, Va. Cooperative Wildlife Research Unit, 35– Summers, asst, food habits research div, bur. biol. surv, U. S. Dept. Agr, 22, 23. Assoc. Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Audubon Soc; Va. Acad; Va. Soc. Ornith. (pres, 35–37). Food habits, survival, artificial propagation and management of wildlife.

Handorf, Prof. B(enjamin) H(enry), Park College, Parkville, Mo. *Physical chemistry.* Marshall Co, Iowa, May 10, 04. B.S, West. Union Col, 30; M.S, Nebraska, 32, Ph.D, 34; Heidelberg, 31. Teaching asst. *chem,* Nebraska, 30–35; instr, *Park Col,* 35–38, asst. prof, 38–40, *prof. and chairman dept, 40–* Chem. Soc. Change in the surface tension of a solution of methyl acetate due to hydrolysis; vapor pressure of binary solutions of ethyl alcohol and cyclohexane at 25 and 35 degrees centigrade.

Handy, Dr. E(dward) S(mith) C(raighill), P. O. Box 217, Fairfax, Va. *Anthropology.* Roanoke, Va, Sept. 22, 92. A.B, Harvard, 15, A.M, 16, Ph.D, 20. Austin teaching fellow anthrop, Harvard, 19–20; ethnologist, Bishop Museum, Honolulu, 20–35, Bishop Museum visiting prof, Yale, 35–37; *mem. cmt. Pacific investigations, Nat. Research Council, 37–* Lecturer, Hawaii, 22, 25, 32–33. Assoc. ed, 'Pacific Affairs,' 32–33. Leader, Marquesan party, Dominick exped, Bishop Museum, Honolulu, 20–21; ethnol. exped, Society Islands, 23. Del, Pan-Pacific Sci. Cong, Tokyo, 26; Indian Sci. Cong, Calcutta, 27; Inst. Pacific Relations Conf, Hang-Chow, China, 31; chairman anthrop. sect, Pacific Science Cong, Berkeley, Calif, 39. A.A; Anthrop. Asn; Oriental Soc; fel. Am. Geog. Soc; Kern Inst, Leiden (patron); Polynesian Soc; Hawaiian Acad. (pres, 30). Polynesian, Hindu and Buddhistic ethnology; human genetics in Virginia.

Handy, James Otis, 605 W. 29th St, Orlando, Fla. *Chemistry, Metallurgy.* Barnstable, Mass, Jan. 2, 69. Mass. Inst. Tech, 84–86. Asst. chemist, Union Pacific Ry, 86–87; Baltimore and Ohio Ry, 88; chief chemist, Pittsburgh Testing Lab, 89–20, director chem. and metal. investigations, 20–32; consultant, N. Y, 32–35; chem. director, Mutual Fruit Distributors, Inc, 35–36; *director research fruit treating, Duzzel Corp, 36–* Filtration of water supplies of Pittsburgh and Allegheny, 95. Chem. Soc. (councilor, chairman, Pittsburgh sect, 22); Eng. Soc. West. Pa. (pres, 12). Analysis of aluminum, iron, steel, ores and minerals; methods for extracting metals and making pigments, enamel and glass; cleaning and keeping fruits fresh.

Haner, Carl, Indian Lane, R.F.D. 2, Media, Pa. *Chemical engineering.* New York, N. Y, March 9, 85. A.B, Columbia, 06, Chem.E, 11. Welsbach Co, 11; Am. Brake Shoe fellow, 11–16; U. S. Indust. Chem. Co, 16–24, consultant, 24–26; v. pres, Publicker Commercial Alcohol Co, Phila, 26–38; consultant, 38–40; *v. pres,* Welland Chem. Works, Ltd, 40–42; *Chem. Construction Corp, 42–* Chem. Soc; Chem. Eng. Products from the waste molasses residue resulting from alcohol fermentation; processes utilizing alcohol and its by-products; manufacture of esters and liquors; manufacture of dry ice from waste carbon dioxide; synthetic ammonia; nitric acid; contact sulphuric, nitrates and explosives.

Hanes, Dr. F(rederic) M(oir), Duke University School of Medicine, Durham, N. C. *Medicine.* Winston-Salem, N. C, Sept. 18, 83. A.B, North Carolina, 03; A.M, Harvard, 04; M.D, Hopkins, 08; Freiburg and Leipzig, 05; Munich, 11; London, 14. Intern, Hopkins Hosp, 08–09; assoc. prof. path, Columbia, and pathologist, Presb. Hosp, New York, 09–12; assoc, Rockefeller Inst, 12–13; assoc. prof. med, sch. med, Washington (St. Louis), 13–14; prof. therapeut, Med. Col. of Va, 14–16; internist, Winston-Salem, 15–33; *physician, Duke Hosp, 31–, prof. med, sch. med, Duke, 33–* Asst, Queen Sq. Hosp, London, 14. Lieut. col, M.C, 17. Clin. and Climat. Asn; Am. Physicians; Col. Physicians; Am. Med. Asn; South. Med. Soc. Sprue.

Haney, Dr. Hance F(rancis), 3181 S. W. Marquam Hill Road, Portland, Oregon. *Physiology.* Westfield, Wis, Oct. 30, 03. A.B, Wisconsin, 26, A.M, 28, Ph.D, 34; M.D, Chicago, 34. Instr. physiol, Wisconsin, 27–35; intern, Henry Ford Hosp, 35–36; asst. prof. *physiol, med. sch, Oregon,* 36–39, assoc. prof, 39–41, *prof. and head dept, 41–* Physiol. Soc; Soc. Exp. Biol; A.A; fel. Am. Med. Asn. Energy metabolism in pregnancy and following stimulation of cervical sympathetic nerves; electrocardiographic studies following experimental myocardial injury; experimental cardiospasm; influence of bile and bile salts on intestinal motility and secretion; reflex activation of individual cardiac nerves in response to changes in blood pressure.

Haney, Prof. J(iles) W(illiam), University of Nebraska, Lincoln, Nebr. *Mechanical engineering.* Guin, Ala, Nov. 17, 86. B.S, Missouri, 13, M.S, 14, A.M, 15. Chief engineer, Commerce Bldg. and Power Co, Kansas City, Mo, 15; instr. *mech. eng,* Pa. State Col, 16–18; from asst. prof. to *prof. and chairman dept, Nebraska, 18–; major, O.M. Replacement Training Center, Ft. Warren, Wyo, and asst. director, Motor Maintenance Sch, 42–* Civil instr, auto-mechanics and truck driving sch, U.S.A, Pa. State Col, 17–18; major, Q.M.C. Eng. Educ. (pres, Nebr-Kans. sect, 31); Mech. Eng. (manager, 34–37). Heat transfer; thermodynamics and internal combustion engines.

Hanfmann, Prof. Eugenia, Mt. Holyoke College, South Hadley, Mass. *Psychology.* St. Petersburg, Russia, March 3, 05. Dr.Phil.Nat, Jena, 27. Asst, psychol. inst, Jena, 28–30; asst. prof, research lab, Smith Col, 30–32; research assoc, Worcester State Hosp, 32–35; research in dementia praecox, North. Masonic Jurisdiction of Scottish Rite, 35–37; Michael Reese Hosp, 37–39; *asst. prof. psychol, Mt. Holyoke Col, 39–* Assoc. Psychol. Asn. Development and pathology of thinking; visual perception and memory; perception of space and its development; social attitudes of children and adults; constructive play of children.

Hanford, Dr. W(illiam) E(dward), Chipman Road, R.D. 3, Easton, Pa. *Chemistry.* Bristol, Pa, Dec. 9, 08. B.S, Phila. Col. Pharmacy, 30; M.S, Illinois, 32, Ph.D, 35. Rohm and Haas, Bristol, Pa, 30–31; asst. chem, Illinois, 32–35; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 35–42; *research chemist and asst. director research, Gen. Aniline and Film Corp, 42–* Chem. Soc. Stereoisomerism of diphenyl; constitution of alkaloids; synthetic organic investigations; polymerization.

Hanger, Dr. Franklin M(cCue), Presbyterian Hospital, New York, N. Y. *Medicine.* Staunton, Va, 94. B.S, Virginia, 16; M.D, Hopkins, 20. Res. *med,* Presb. Hosp, 24–26; *assoc. prof, Columbia, 31–* A.A; Soc. Exp. Biol; Soc. Clin. Invest; Am. Physicians; Asn. Immunol; Harvey Soc; N. Y. Acad. Med. Clinical medicine; bacteriology; immunology.

Hanke, Dr. Albert R(obert), 370 Central Ave, Orange, N. J. *Analytical chemistry.* Chicago, Ill, Dec. 1, 11. B.S, Illinois, 33, M.S, 36, Ph.D, 39. Teaching asst. anal. chem, Illinois, 36–39; instr. gen. inorg. chem, Kans. State Col, 39–40, chemist, Exp. Sta, 40–41; *research chemist, pigments dept, E. I. du Pont de Nemours and Co, 41–* Soc. Test. Mat. (cmt. D–1 subcmt. VIII); Chem. Soc. Raman spectra; analysis of carotene and riboflavin; analysis of paint pigments.

Hanke, Prof. Martin (Charles) E(dward), 8424 Rhodes Ave, Chicago, Ill. *Biochemistry.* Chicago, Ill, June 25, 98. B.S, Chicago, 18, Ph.D, 21. Nat. research fellow org. chem, 21–22; instr. *biochem, Chicago,* 22–25, asst. prof, 25–32, *assoc. prof, 32–* Asst, Rockefeller Inst, 30–31. A.A; Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Inst. Med. Chicago. Organic arsenic and mercury compounds; chemistry of the gastric hydrochloric acid mechanism; oxidation-reduction potentials in biological systems; acid-base metabolism of individual organs; manometric analytical methods; sero-diagnosis of cancer.

Hanke, Dr. Milton Theo(dore), 7550 S. Green St, Chicago, Ill. *Biochemistry, Nutrition.* Chicago, Ill, April 23, 93. B.S, Chicago, 14, Ph.D, 17. Asst. prof. physiol. chem, N. Dak. Col, 16–17; assoc. prof. biochem, dept. path, and mem, Sprague Mem. Inst, Chicago, 18–33; *research consultant biochem. and nutrition and chief chemist, Multi Products Co, 33–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Research Child Develop; Dental Forum; Ill. Acad. Chemistry; bacterial metabolism; oxidation of sugars; proteinogenous amines; electrical constitution of organic compounds; relation of diet and vitamins to general health and to diseases of the oral cavity; imidozoles and phenols; triamines.

Hankins, O(rville) G(erber), 2704 Brentwood Road, N. E, Washington, D. C. *Animal husbandry.* Decatur, Ill, May 9, 92. B.S, Illinois, 14. Instr, high sch, La, 14–15; agr, La. Polytech, 15, head dept, 15–18; specialist animal husbandry, Ky, 18–20; assoc. animal husbandman, swine and pork investigations, *animal husbandry div, bur. animal indust, U. S. Dept. Agr,* 20–25, assoc. animal husbandman, cooperative meat investigation, 25–27, animal husbandman, 27–28, *senior animal husbandman,* 28–31, *in charge meat investigations, 31–* A.A; Soc. Animal Production; Soc. Agr. Sci; Soc. Refrig. Eng; La. Jersey Breeders Asn. (sec'y, 17); Ky. Swine Breeders Asn. (sec'y, 20, chairman, review cmt. conf. cooperative meat investigations, 35–37, chairman, joint cmt. frozen food locker plants, 41–). Meats; beef cattle; swine; sheep.

Hankinson, Dr. C(loyce) L(eRoy), 2344 N. Oakland Ave, Milwaukee, Wis. *Dairy chemistry.* Morrice, Mich, Sept. 1, 13. B.S, Mich. State Col, 34; M.S, Conn. State Col, 35; California, 35–36; Ph.D, Minnesota, 39. Asst. dairy mfg, Conn. State Col, 34–35; dairy technician, col. agr, California, 35–36; asst. agr. biochem, Minnesota, 36–38, instr, 38–40; *research chemist, Carnation Co, 40–* Dairy Sci. Asn; Chem. Soc. Curd tension of cows' milk; amylase in cows' milk; the electroviscous effect in caseinate sols; purification and crystallization of rennin from rennet extract; evaporated milk.

Hanks, Dr. John H(arold), American Leprosy Foundation, Culion, P. I. *Bacteriology, Immunology.* Fowlerton, Ind, Sept. 16, 06. B.S, Allegheny Col, 28; Ph.D, Yale, 31. Asst. biol, Allegheny Col, 27–28; bacter, Yale, 30–31; fellow, Harvard, and nat. research fellow, 31–32; asst. prof. bacter, med. sch, George Washington, 32–39, assoc. prof, 39; *bacteriologist, Am. Leprosy Foundation, 39–* Soc. Bact. The toxins of Sal pullorum; mechanisms of tuberculin type of allergy; precipitin tests with small amounts of immune serum; silicic acid gels for solid culture media; ionic exchange in silicic acid gels; concentration methods and problems in the physiology of the tubercle bacillus; leprosy.

Hanks, Dr. Lucian M(ason), Jr, North Bennington, Vt. *Psychology.* Madison, Wis, March 25, 10. A.B, Wisconsin, 31; Ph.D, Columbia, 36. Jr. psychologist, State Board Control, Wis, 36–37; *instr.* psychol, Illinois, 37–42; *psychol. and anthrop, Bennington Col, 42–* Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; Midwest. Psychol. Asn. Social psychology; ethnology.

Hanley, Prof. Herbert R(ussell), Missouri School of Mines, Rolla, Mo. *Metallurgy.* Paxton, Ill, Sept. 18, 74. B.S, Mo. Sch. Mines, 01, Met.E, 18. Chemist, Bully Hill Copper Mining and Smelting Co, Calif, 01–03, mine supt, 03–06, smelter, 06–08, plant manager, 08–18; supt. electrozinc plant, U. S. Smelting, Ref. and Mining Co, Calif, 16–19; assoc. prof. *metal, Mo. Sch. Mines,* 23–28, *prof, 28–* Consulting engineer, San Francisco, 19–23. Developed electrolytic zinc processes, 12–16. Min. and Metal. Soc; Min. and Metal. Eng. (chairman, cmt. reduction and refining of lead and zinc, 39–41); Electrochem. Soc; Electroplaters Soc. Non-ferrous metallurgy; production of electrolytic zinc and cadmium; removal of arsenic from zinc sulfate solutions; formation of insoluble zinc compounds in roasting; development of insoluble alloy anodes for electrolytic zinc and of physical and chemical characteristics of sintering zinc concentrates.

Hanley, Dr. William Andrew, R. R. 17, Box 158, Indianapolis, Ind. *Engineering.* Greencastle, Ind, Dec. 13, 86. B.S, Purdue, 11, hon. D.Eng, 37. Republic Iron and Steel Co. and Broderick Boiler Co, Muncie; *director in charge eng, Eli Lilly and Co, 11–* Director, Indianapolis Water Co. Governing board, Am. Eng. Council, 25; trustee, Purdue, 40. A.A; Mech. Eng. (manager, 28–31, v. pres, 31–33, pres, 41); Elec. Eng; Ind. Eng. Soc. (director, 27–30, pres, 35). Power interchange between utilities and manufacturers; power and electricity in chemical industry; air conditioning in gelatin capsule manufacturing; development of straight line production; human engineering progress; national defense.

Hanmer, H(iram) R(upert), American Tobacco Co, 400 Petersburg Turnpike, Richmond, Va. *Chemistry.* Lincoln, Vt, 96. B.S, Vermont, 18. Control and research chemist, E. I. du Pont de Nemours and Co, 18–21; research chemist, *Am. Tobacco Co,* 21–32, *director research, 32–* A.A; fel. Inst. Chem; Tech. Asn. Pulp and Paper Indust; Chem. Soc; Soc. Chem. Indust; Va. Acad. Tobacco and tobacco smoke; biology of cigarete smoking; technology in cigarette and tobacco manufacture.

Hann, Prof. Harry W(ilbur), University of Michigan, Ann Arbor, Mich. *Zoology.* Onward, Ind, Nov. 19, 85. A.B, Indiana, 17; A.M, Michigan, 21, fellow, 24–25, Ph.D, 26. Asst. zool, Michigan, 21–24; asst. prof. biol, Kans. State Teachers Col, 25–26; instr. *zool,* Illinois, 26–28; *Michigan,* 28–29, *asst. prof, 29–* A.A; Ornith. Union; Wilson Ornith. Club. Embryology; cytology; germ cells of teleosts; microtechnique; ornithology.

Hann, Dr. Raymond M(cGeary), 5312 32nd St, N. W, Washington, D. C. *Chemistry.* Washington, D. C, Jan. 28, 00. B.S, George Washington, 25, M.S, 26; Ph.D, Hopkins, 28. Bur. chem, U. S. Dept. Agr, 18–26; Mellon Inst, 27–29; *with nat. inst. health, U. S. Pub. Health Service, 29–* Chem. Soc. (treas, Wash. sect, 36–38, sec'y, 38, pres, 39); Wash. Acad. (v. pres, 40). Rhodanic acids; thiazoles; thiazolines; heterocycles; amino and fluorine compounds; hydrofluorides; carbohydrates; vanillin derivatives.

Hanna, C(linton) R(ichards), Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa. *Electrical engineering.* Indianapolis, Ind, Dec. 17, 99. B.S, Purdue, 22, E.E, 26. Student, *Westinghouse Elec. and Mfg. Co,* 22, engineer, *research dept,* 23–30, *manager* develop. div, 30–36, *electro-mech. dept, 36–* Elec. Eng; Radio Eng; fel. Motion Picture Eng; fel. Acoustical Soc. Development of electric circuits and electromechanical devices; loud speakers; amplifiers; sound motion pictures; oscillographic equipment; noise measurement; control and regulator apparatus; damping of oscillations and vibrations; controls for ordnance and radio equipment.

Hanna, Dr. G. Dallas, California Academy of Sciences, San Francisco, Calif. *Paleontology, Zoology.* Carlisle, Ark, April 24, 87. A.B, Kansas, 11, A.M, 13; Ph.D, George Washington, 18. Asst, Bur. Fisheries, 11–19; *curator paleont, Calif. Acad. Sciences, 19–, admin. asst. to director, 42–* Paleontologist, Tidewater Associated Oil Co, 23– Field worker, Alaska, 11–19; exped, Guadalupe Island, 22, Revillagigedo and Tres Marias Islands, 25, geol. explor. in Alaska, 37, 38. A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Ornith. Union; West. Soc. Nat; Le Conte Geol. Soc; Calif. Acad; Royal Micros. Soc. Geology; microscopy; conchology; recent and fossil mollusks and micro-organisms; scientific instruments.

Hanna, Prof. J(oseph) V(orhees), 55 Bryant Ave, White Plains, N. Y. *Psychology.* Richwood, W. Va, Nov. 22, 90. Ph.B, Chicago, 19, A.M, 20; Ph.D, N. Y. Univ, 29. Asst. prof. psychol. and educ, Bradley Polytech, 20–23; personnel director, high sch. and junior col, Ill, 23–26; instr. *psychol, Wash. Sq. Col, N. Y. Univ,* 26–30, *asst. prof, 30–* Special

agent, junior sect, U. S. Employment Service, 20–23. Summer, lecturer, Cornell, 39. Assoc. Psychol. Asn; fel. Asn. Applied Psychol; N. Y. State Asn. Applied Psychol. (v. pres, 39), Metrop. New York Asn. for Applied Psychol. (v. pres, 40). Applied and clinical psychology; personnel; counseling.

Hanna, Dr. Marcus A(lbert), P. O. Drawer 2100, Houston, Texas. *Geology, Paleontology.* Neosho Co, Kans, Feb. 24, 98. A.B, Kansas, 20; Ph.D, California, 26. Teaching fellow, California, 20–22; instr. geol. and paleont, Washington (Seattle), 22–24; *geologist and paleontologist, Gulf Oil Corp, Texas, 24–* Field asst, U. S. Biol. Surv, Mont, 16–19; Calif. Acad. Sciences, 20. A.A; fel. Geol. Soc; Asn. Petrol. Geol. (sec'y and treas, paleont. div, 26, assoc. ed, 37–); fel. Paleont. Soc. (v. pres, 33); Soc. Econ. Paleont. and Miner. (sec'y and treas, 27–29, pres, 30, assoc. ed, 31–); Pacific Bird and Mammal Soc; Houston Geol. Soc. (sec'y-treas, 28, pres, 34). Geology and paleontology of southern California; geology, macro- and micro-paleontology of the Gulf Coast; geology of salt domes.

Hanna, Dr. W(illiam) F(ielding), Dominion Rust Research Laboratory, Winnipeg, Man, Can. *Plant pathology.* Halifax, N. S, Nov. 12, 92. B.A, Dalhousie, 14; B.Sc, Alberta, 22, M.Sc, 23; Caleb Dorr fellow, Minnesota, 24; Ph.D, Manitoba, 28. Research pathologist, Alberta, 25–27; *senior plant pathologist, Dom. Rust Research Lab, 28–; group capt, Royal Can. Air Force.* Sterling fellow, Yale, 31. Phytopath. Soc; Bot. Soc; Can. Phytopath. Soc; British Mycol. Soc. Mycology; physiology and sexuality of the fungi, especially rusts, smuts and agarics; control of cereal smuts.

Hannegan, Dr. J(ohn) M(ichael), 429 Nancy Place, Ferguson, Mo. *Chemistry.* St. Louis, Mo, Dec. 1, 03. B.S, Missouri, 26, Ph.D, 35; fellow, Oklahoma, 27–28, M.S, 28. Instr. chem, Missouri, 26–27, 28–35; prof. and head dept, Kemper Mil. Sch, 35–41; *assoc. chemist and tech. adviser, production dept, smokeless powder mfr, West. Cartridge Co, 41–* Chem. Soc. Soap dispersions in mineral oils; coating of smokeless powder.

Hannon, Dr. R(obert) R(oger), Albany Medical College, Albany, N. Y. *Medicine.* Amsterdam, N. Y, June 3, 90. Ph.C, B.S, Washington (Seattle), 15; M.D, Hopkins, 19. Instr. med, Hopkins, 20–24; med. col, Cornell, 24–27; assoc. prof, Rochester, 27–28; assoc, Rockefeller Hosp, 28–30; Peiping Union Med. Col, 30–34; med. supt, New York Hosp, 36–38; *sec'y, State Board Med. Examiners, N. Y, 39–; asst. prof. med, Albany Med. Col, 40–* Soc. Exp. Biol; Harvey Soc. Endocrinology; metabolism.

Hannum, Prof. C(lair) A(rthaud), 1014 W. Blaine St, Seattle, Wash. *Parasitology.* Gibson, Iowa, Oct. 19, 00. B.S, Washington (Seattle), 23, fellow, 23–25, M.S, 24, Ph.D, 42. Assoc, Washington (Seattle), 25–26; instr, Hawaii. 26–28; asst. prof. *zool,* Arizona, 28–40; lecturer, Washington (Seattle), 41; *acting prof, Seattle Col, 41–* Mem. State Board Examiners Basic Sciences, Ariz. Soc. Parasitol; Micros. Soc. Platyhelminths; nemathelminths.

Hanrahan, Dr. Edward M(itchell), 1201 N. Calvert St, Baltimore, Md. *Surgery.* Binghamton, N. Y, Oct. 16, 92. A.B, Cornell, 15; M.D, Hopkins, 19. Asst. path, *sch. med, Hopkins,* 20–21, instr. anat, 22–26, *surg,* 23–37, *assoc, 37–; clin. surg, sch. med, Maryland, 29–* Asst. visiting surgeon, Hopkins Hosp; visiting surgeon, Baltimore City Hosp. Mem. Am. Board Surg; Am. Med. Asn; Col. Surg; South. Med. Asn; Halsted Surg. Soc. The spleen; regional anesthesia; plastic surgery.

Hansberry, Prof. (Theodore) Roy, Cornell University, Ithaca, N. Y. *Entomology.* Kennydale, Wash, Feb. 10, 10. B.S, State Col. Wash, 31, M.S, 32; Ph.D, Iowa State Col, 36. Asst, Iowa State Col, 34–36; research entomologist, Shell Petrol. Corp, 37; asst. prof. *insect toxicol, Cornell,* 37–41, *assoc. prof, 41–* Asn. Econ. Entom. Insect toxicology; plant insecticides.

Hansborough, Prof. Louis A(rmstead), Howard University, Washington, D. C. *Embryology.* Washington, D. C, Jan. 23, 08. B.S, Howard, 28; M.S, Chicago, 31; Ph.D, Harvard, 38. Instr. *zool, Howard,* 28–36, *asst. prof, 38–* A.A; Soc. Zool. Influence of vitamins on the development of the chick.

Hansbrough, Dr. J(ohn) R(aymond), 360 Prospect St, New Haven, Conn. *Forestry.* Palmyra, Mo, Oct. 12, 03. A.A, LaGrange Col, 23; Marston and James Manning scholars, Brown, 23–25, Ph.B, 25, G.A.R. fellow, 25–26, A.M, 26; Ph.D, Yale, 36. Asst. pathologist, *div. forest path, bur. plant indust, U. S. Dept. Agr,* 26–41, *assoc. pathologist, 41–* Summers, field asst, bur. plant indust, U. S. Dept. Agr, 24, 25. Mycol. Soc; Soc. Foresters. Larch canker; white pine blister rust; diseases of coniferous plantations; mycology; heart wood decay of living trees.

Hansche, Dr. George E, Rose Polytechnic Institute, Terre Haute, Ind. *Physics.* Racine, Wis, Nov. 29, 13. A.B, Ripon Col, 35; M.S, Ohio State, 36, Ph.D, 40. *Instr. physics,* Bluffton Col, 39–40; *Rose Polytech, 40–* Physical Soc. Spectroscopy; excitation functions in carbon monoxide.

Hansel, Dr. French (Keller), 634 N. Grand Ave, St. Louis, Mo. *Otolaryngology.* Fidelity, Ill, Jan. 25, 93. M.D, St. Louis, 18; Mayo Foundation fellow, Minnesota, 19–23, M.S, 23. Intern, St. Louis City Hosp, Mo, 18; mem. faculty, *Washington (St. Louis), 23–, assoc. prof. otolaryngol.* Fel. Am. Med. Asn; fel. Acad. Ophthal. and Otolaryngol; fel. Laryngol, Rhinol. and Otol. Soc; fel. Laryngol. Asn; fel. Asn. Study Allergy; fel. Soc. Study Asthma and Allied Conditions. Allergy.

Hansell, Dr. J(ames) M(yron), Sun Oil Co, Corpus Christi, Texas. *Geology.* Leon, Iowa, Dec. 9, 02. A.B, Simpson Col, 25; M.S, Wisconsin, 26, Ph.D, 30. Geologist, Wis. Geol. and Nat. Hist. Surv, 24–32; asst. to state geologist, Ark. Geol. Surv, 32–33; senior geologist, Wis. Geol. and Nat. Hist. Surv, 33–34; junior geologist, U. S. Geol. Surv, 34–35; *with Sun Oil Co, 35–* A.A; Min. and Metal. Eng; Asn. Petrol. Geol. Pleistocene geology of northwestern Wisconsin; Keewanawan lavas and sediments; Huronian iron formations; road materials; Arkansas quicksilver deposits; structural and stratigraphic oil traps.

Hansen, Dr. Arild E(dsten), University of Minnesota, Minneapolis, Minn. *Pediatrics.* Minneapolis, Minn, June 2, 99. B.S, Minnesota, 23, M.B, 24, M.D, 25, Ph.D, 34; Heidelberg and Vienna, 29–30. Asst. *pediat,* Minnesota, 26–30, instr, 30–34; Alexander Brown Coxe fellow, Yale, 34–35; asst. prof, *Minnesota,* 35–37, assoc. prof, 37–42, *prof, 42–,* acting head dept, 39–40. A.A; Soc. Pediat. Research (v. pres, 40); Pediat. Soc; Acad. Pediat; Soc. Clin. Invest; Soc. Exp. Path; Am. Med. Asn. (assoc. mem. council foods and nutrition, 39); Soc. Exp. Biol; Inst. Nutrition; Northwest. Pediat. Soc. (pres, 43). Lipid metabolism; unsaturated fatty acids in human nutrition, especially eczema; osteogenesis imperfecta; mineral metabolism and phosphatase activity; diagnosis and prevention of rheumatic fever in children.

Hansen, Dr. (Clarence) Frederick, 11 E. 68th St, New York, N. Y. *Psychology.* Neenah, Wis, March 18, 91. A.B, Cent. Col, 14; A.M, Iowa, 16, Ph.D, 20. Asst. prof. personnel research, Carnegie Inst. Tech, 20–22; asst. manager, Life Ins. Sales Research Bur, 22–23; *director research and planning, W. T. Grant Co, 23–* V. pres, W. T. Grant Realty Corp; Grant Foundation, Inc. A.A; Psychol. Asn; Asn. Applied Psychol. Industrial psychology; commercial research; marketing and merchandising; serial action as a basic measure of motor capacity; setting the sales quota.

Hansen, Prof. Geo(rge) H(enry), Brigham Young University, Provo, Utah. *Geology.* Richfield, Utah, June 28, 96. B.S, Utah Col, 18; M.S, George Washington, 25, Ph.D, 27. Geologist, Texas Oil Co, 28; asst. prof. *geol, Brigham Young,* 28–29, *prof. and head dept, 29–* Summers, asst. field geologist, U. S. Geol. Surv, 23, 26. A.A; Utah Acad. Structural geology; paleontology.

Hansen, Prof. H(ans) N(icholas), University of California, Berkeley, Calif. *Plant pathology.* Varde, Denmark, 91. B.S, California, 24, M.S, 25, Ph.D, 28. Field asst. forest path, bur. plant indust, U. S. Dept. Agr, 24–25; asst, *California,* 25–27, junior plant pathologist, 27–28, asst. plant pathologist, 28–39, *assoc. plant pathologist, 39–,* asst. prof. *plant path,* 31–39, *assoc. prof, 39–* A.A; Genetic Asn; Phytopath. Soc; Mycol. Soc; Calif. Acad. Fig diseases; variation phenomena in fungi; pathology of forest trees, shade trees and ornamentals.

Hansen, Dr. Harold L(ouis), 33 Riverside Ave, Rensselaer, N. Y. *Chemistry.* North Loup, Nebr, May 4, 06. A.B, Nebr. Wesleyan, 28; M.S, Northwestern, 29, Ph.D, 32. Instr. chem, dental sch, Northwestern, 29–34, asst. prof, 34–38; sec'y council dental therapeut. and director bur. chem, Am. Dental Asn, 38–42; *admin. asst. to pres, Winthrop Chem. Co, 42–* A.A; Chem. Soc; Int. Asn. Dental Research. Organic chemistry; pharmacology; dental chemistry.

Hansen, Prof. Henry Christian, 815 E. Sixth St, Moscow, Idaho. *Dairy husbandry.* Copenhagen, Denmark, March 8, 92. B.S, Idaho, 25, M.S, 27; Ph.D, Iowa State Col, 36. Asst. dairy husbandry, Idaho, 25–27, instr, 27–34; asst. dairy indust, Iowa State Col, 34–35; instr. *dairy husbandry, Idaho,* 35–36, *asst. prof, 36–* Mastitis; cheddar cheese; soft curd milk.

Hansen, Dr. Henry P(aul), Oregon State College, Corvallis, Oregon. *Botany.* La Crosse, Wis, April 28, 07. Ph.B, Wisconsin, 30, M.S, 31; Ph.D, Washington (Seattle), 37. Instr. biol, East. Oregon Col. Educ, 32–33; Cent. State Teachers Col, Wis, 33–34; *bot,* Capital, 34–35; Wyoming, 37–38; *Oregon State Col,* 39–42, *asst. prof, 42–* Guggenheim Mem. Foundation fellow, 43–44. Paleoecology; peat bogs; ecology; Post-Pleistocene forest succession and climate in the Pacific Northwest; pollen studies of Pleistocene peats; ring growth; statistical studies of vegetation.

Hansen, Prof. Ira B(owers), George Washington University, Washington, D. C. *Zoology.* Floral Park, N. Y, May 13, 07. B.S, Wesleyan, 28, A.M, 29; Ph.D, Chicago, 32. Instr. biol, Wesleyan, 29–30; Brooklyn Col, Col. City of N. Y, 32–33; Union (N. Y), 33–35; asst. prof. *zool, George Washington,* 35–38, *assoc. prof, 38–, exec. officer dept, 39–* Summer, instr, marine lab, Maine, 33. Mem, Mt. Desert Island Biol. Lab. Corp. A.A; Soc. Zool; Soc. Develop. and Growth; Soc. Exp. Biol; Wash. Acad; Genetics Soc. Wash; Biol. Soc. Wash. Endocrinology; embryology.

Hansen, Dr. L(ester) A(rnold), Averill Park, N. Y. *Chemistry.* Denmark, Wis, May 19, 03. B.S, Wisconsin, 28, M.S, 30, Ph.D, 34. Instr. chem, Milwaukee center, Wisconsin, 28–30, asst, univ, 30–34; asst. forestry technologist, Forest Products Lab, U. S. Forest Service, 34–36; *asst. prof. colloid chem, Rensselaer Polytech, 36–; research chemist, Behr-Manning Corp, 43–* Chem. Soc. Physical and colloidal chemistry of wood, lignin, resins, glues and abrasives.

Hansen, Prof. Lorenz (Peter), Jefferson Medical College, Philadelphia, Pa. *Organic chemistry.* Suderende, Germany, Nov. 29, 93. B.S, Whitman Col, 21; Ph.D, Yale, 25. Instr, high sch, Wash, 21–22; chem, Williams Col, 25–27; asst. research chemist, West Virginia and Exp. Sta, 27–31; asst. prof. *physiol. chem, Jefferson Med. Col,* 31–40, *assoc. prof, 40–* A.A; Chem. Soc. Acenaphthene derivatives; aldehyde and ketone reactions; reduction of Fehling's solution; hormones; sulfanilamide and derivatives.

Hansen, Prof. Niels E(bbesen), South Dakota State College, Brookings, S. Dak. *Horticulture.* Ribe, Denmark, Jan. 4, 66. B.S, Iowa State Col, 87, M.S, 95; Sc.D, South Dakota, 17. Practical hort, Iowa, 87–91; asst. prof. *hort,* Iowa State Col, 91–95; prof, *S. Dak. State Col,* 95–37, *emer. prof, 37–* Hort. and agr. research program for Siberia, Soviet Govt, 35. U. S. Dept. Agr. explorer, Asia, east. Europe and north. Africa, 97–98, 06, 08–09; explorer, S. Dak. and Siberia, 13, N. China, 24, Europe, 30; Soviet Govt. explorer, E. Siberia, 34. Int. jury hort, La. Purchase Expos, 04. George Robert White gold medal, Mass. Hort. Soc, 17; Marshall P. Wilder silver medal, Am. Pomol. Soc, 29; gold medal, Cosmopolitan Club, Sioux Falls, 33; Stevenson gold medal, Man. Hort. Soc, 35. U. S. del, Int. Conf. Genetics, London, 06; del, Int. Cong. Hort, London, 30. Soc. Hort. Sci; S. Dak. Hort. Soc. (past sec'y, emer. pres); Royal Hort. Soc. Genetics; hardy fruits and thornless roses; importing and breeding hardy alfalfa; agricultural exploration in Russia, Transcaucasia, Siberia, China and Turkestan; imported Siberian fat-rumped tailless sheep.

Hansen, Norman Albert, Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* Chicago, Ill, June 30, 97. B.S, Illinois, 22. Plant chemist, *Abbott Labs,* 22–26, research chemist, 26–30, *director develop. lab, 30–* Chem. Soc; Chem. Eng. Organic technology.

Hansen, Paul, 6 N. Michigan Ave, Chicago, Ill. *Civil engineering.* Arlington, Va, Aug. 9, 79. B.S, Mass. Inst. Tech, 03. Asst. engineer, State Board Health, Mass, 03–04; engineer, City of Columbus, 04–05; State Board Health, Ohio, 05–10; State Water Surv, Ill, 10–15; State Dept. Health, Ill, 15–20; *mem. firm, Greeley and Hansen, 20–* C.Eng, U.S.A, 17–19. Civil Eng; fel. Pub. Health Asn; Water Works Asn. Sanitary engineering; public health; stream sanitation; sewage treatment; water resources, supply and purification.

Hansen, Prof. Poul Arne, University of Maryland, College Park, Md. *Bacteriology.* Copenhagen, Denmark, Aug. 19, 02. Ph.D, Cornell, 34. Special asst. to Orla-Jensen, Copenhagen, 26–27; bacteriologist, Dept. Agr, Dublin, Ireland, 27–28; asst, N. Y. Exp. Sta, Geneva, 28–34; asst. prof, Copenhagen, 34–40; *assoc. prof. bacter, Maryland, 41–* Asst. curator, Am. Type Culture Collection, 41. A.A; Soc. Bact; Chem. Soc; Dairy Sci. Asn. Thermophilic and lactic acid bacteria; mastitis; physiology of bacteria; respiration; cheese ripening; bacterial fermentation.

Hansen, Prof. Thorvald S(chantz), Forest Experiment Station, Cloquet, Minn. *Forestry.* Cedar Falls, Iowa, Dec. 2, 91. B.S, Minnesota, 15; M.F, Yale, 17, Ph.D, 35. Field asst, U. S. Forest Service, 15–16, forest asst, 17; instr. *forestry, Minnesota,* 19–23, asst. prof, 23–35, *assoc. prof, 35–, in charge forest exp. sta, 23–* Director, Lake Itasca Forestry and Biol. Sta, 40. Soc. Foresters. Control of damping-off; survey of cut-over lands; planting; management plan for Cloquet forest; thinning; seed studies of the jack pine.

Hansen, Dr. Waldemar C(onrad), Portland Cement Association, 33 W. Grand Ave, Chicago, Ill. *Chemistry.* Whitewood, S. Dak, Feb. 9, 96. B.S, Mont. State Col, 17; Ph.D, Columbia, 22. Asst. chem, Iowa, 19–20; Columbia, 20–22; research chemist, Midwest Ref. Co, Wyo, 23–24; Portland Cement Asn, 24–29; Am. Cyanamid Co, Linden, N. J, 29–34, plant manager, Am. Cyanamid and Chem. Corp, 34–38; *research chemist, Portland Cement Asn, 38–* C.W.S, U.S.A, 17–19. A.A; Chem. Soc. Hydration of sodium pyrophosphate; constitution and phase equilibria of Portland cement; hydration and setting of calcined gypsum.

Hansen, Dr. W(illia)m W(ebster), Sperry Gyroscope Co, Garden City, N. Y. **Physics.* Fresno, Calif, May 27, 09. A.B, Stanford, 29, Ph.D, 32. Instr. *physics,* Stanford, 29–32; nat. research fellow, Mass. Inst. Tech, 33–35; asst. prof. and *assoc. prof, Stanford, 35–; mem. staff, Sperry Gyroscope Co.* Physical Soc; Radio Eng. X-rays; electromagnetic theory; micro-waves; klystrons.

Hansen-Prüss, Prof. Oscar C(arl) E(dvard), Duke University Hospital, Durham, N. C. *Medicine.* Lima, Peru, Nov. 16, 00. A.B, Univ. San Marcos, Peru, 19; fellow, Friedrich Wilhelm Univ, Berlin, 20–21; M.D, Hopkins, 24. Med. house officer, Hopkins Hosp, 24–27, instr. *med,* sch. med, Hopkins, 26–28, assoc, 28–30; asst. prof, *sch. med, Duke,* 30–37, *assoc. prof, 37–, head div. clin. microscopy, chief allergy clinic, hosp. dispensary.* Interpreter for Turkish Cmn, visiting pub. health centers in U. S. and Can, 29. Infectious diseases; hematology; comparative anatomy; neuro-anatomy; nephritis; syphilis; allergy.

Hansing, Dr. E(arl) D(ahl), Kansas State College, Manhattan, Kans. *Plant pathology.* Thompson, Iowa, Oct. 14, 08. B.S, Minnesota, 33; M.S, Kans. State Col, 37; Ph.D, Cornell, 41. Barberry eradication, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–35; asst, Exp. Sta, Kans. State Col, 35–37; research instr, Cornell, 37–40; *instr. bot, Kans. State Col, and asst. plant pathologist, Exp. Sta, 40–* Collaborator, bur. plant indust, U. S. Dept. Agr, 40– Phytopath. Soc; Potato Asn; Kans. Acad. Potato yellow dwarf; cereal and forage diseases.

Hansman, Dr. Margaret (Mary), 2038 Armstrong Ave, Colorado Springs, Colo. *Mathematics.* Colorado Springs, Colo, Oct. 16, 11. A.B, Colo. Col, 31, A.M, 36; Ph.D, Illinois, 41. Asst. *math,* Colo. Col, 34–36; Illinois, 36–41; *instr, Colo. Col, 41–* Group theory.

Hansmann, Dr. G(eorge) H(enry), 3321 N. Maryland Ave, Milwaukee, Wis. *Pathology.* Manson, Iowa, March 6, 90. Des Moines Col; Chicago; M.D, Iowa, 18. Asst, dept. internal med, Iowa, 18–21; instr, Harvard Med. Sch, and res. pathologist, Peter Bent Brigham Hosp, 21–23; hosp. pathologist, Univ. Hosp, Iowa, 24–33, asst. prof. path, 26–33; assoc. prof, Georgetown, 33–35; *director labs, Columbia and Milwaukee Children's Hosps, 35–* Mem. Am. Board Path. A.A; Asn. Path. and Bact; Soc. Exp. Biol; fel. Am. Med. Asn; Asn. Clin. Path. Morbid anatomy of congenital remnants, lymphadenitis, torulosis, tularemia, mercury poisoning and Malta fever; chemistry of nephritis, pernicious anemia, the human skeleton, citric acid metabolism, vitamin C and lipuria; microbiology of Hemophilus group, myco-tuberculosis, Brucella group, Bacterium tularense and Sporotrichum; Sepedonium; Pasteurella.

Hanson, Dr. Adolph M(elanchton), 16 Second Ave, N. W, Faribault, Minn. *Surgery.* St. Paul, Minn, Sept. 11, 88. Hamline; Minnesota; M.D, Northwestern, 11; A.B, St. Olaf Col, 22, A.M, 23, hon. Sc.D, 43. 1st house surgeon, City Hosp,

Seattle, 12; *practising surgeon, 12–* 1st prize, Minn. Soc. Internal Med, 27; gold plaque, Minn. Med. Asn, 33; medal, South. Minn. Med. Asn, 35. U.S.A, 18–19. A.A; Asn. Mil. Surg; Am. Med. Asn; Asn. Study Int. Secretions; Am. Med. Editors' Asn; Chem. Soc. Chemistry of the hormones of the parathyroid, thymus and pineal glands; surgery of the head and spine.

Hanson, Dr. Allen L(ouis), Parlin, N. J. *Physical chemistry.* Crookston, Minn, Aug. 7, 15. A.B, Concordia Col, 35; M.S, Iowa, 40, Ph.D, 42. Instr, high schs, N. Dak, 35–37; Minn, 37–39; *research chemist, photoproducts dept, E. I. du Pont de Nemours and Co, Inc, 42–* Chem. Soc. Hydration of gelatin; vapor pressures of solutions in sulfur dioxide.

Hanson, Dr. Alvin W(alter), The Citadel, Charleston, S. C. *Physics.* Alta, Iowa, Dec. 14, 04. A.B, Buena Vista Col, 27; Chicago, 27–28; M.S, Iowa, 32, Ph.D, 34. Prin, Shanghai Am. Sch, China, 28–31; *asst. prof. physics,* Miss. Col, 34–37; *The Citadel, 37–* A.A; Physical Soc. Physical properties of zinc single crystals.

Hanson, Dr. A(rthur) C(arl), 1716 Elm St, Davenport, Iowa. *Physical chemistry.* Alta, Iowa, Dec. 6, 02. B.S, Buena Vista Col; M.S, Iowa, Ph.D, 34. Chemist, Des Moines Water Works, 26–27; junior chemist, Rock Island Arsenal, Ill, 27–30; teaching fellow chem, Iowa, 30–34; asst. chemist, Rock Island Arsenal, Rock Island, Ill, 34–39, assoc. chem. civilian in charge research, 35–42; *capt, ordnance dept, U. S. Army, 42–* A.A; Chem. Soc. (chairman, local sect, 38); Soc. Automotive Eng; Electrochem. Soc; Soc. Metals. Petroleum products; rubber.

Hanson, Earl Parker, 3904 49th St, Long Island City, N. Y. *Geography.* Berlin, Germany, March 16, 99. B.S, Wisconsin, 22; Chicago, 33. Engineer, Chile, 22–25; independent investigations, Iceland, 27, sub-arctic Can, 29; director magnetic surv. exped, Amazon Basin and north. S. Amer, Carnegie Institution, 31–33; research technician, Nat. Resources Cmn, 34–35; planning consultant, Puerto Rico Reconstructive Admin, 35–36; ed, 'Guides to Latin Amer,' C.I.A.A, 41; *expert consultant jungle equipment, Quartermasters Corps, U. S. Army, 42–; ed, 'Index-Gazetteer to Latin Amer,' Coordinator of Inter-Am. Affairs, 43–* Asn. Geog; Am Geog. Soc; N. Y. Acad; Explorers Club. Geography of Latin America and Amazon basin; climatic adaptation of white men to the tropics.

Hanson, Dr. Elmo E(rnest), 467 Beechwood Drive, Akron, Ohio. *Physics.* Sunburg, Minn, April 8, 06. A.B, St. Olaf Col, 29; Ph.D, Minnesota, 36. Teaching asst, Minnesota, 29–35, *research physicist,* mines sta, 35–38; *Firestone Tire and Rubber Co, 38–* Physical Soc; Soc. Rheol; assoc. Chem. Soc. Kinetic energies of atomic ions formed by electron impact in hydrogen chloride and nitric oxide; mass spectrographic analysis of ions in hydrogen chloride under electron impact; utilization of iron for pavement surfaces; static electricity from rubber tires.

Hanson, Dr. Ernest R(oy), 230 Grove St, Bloomfield, N. J. *Chemistry.* Moorhead, Minn, Oct. 30, 00. B.S, Fargo, 21; M.S, Northwestern, 23, Pub. Health Inst. fellow, 22–24, Bakelite fellow, 24–25, Ph.D, 25. Asst, Northwestern, 21–22; research engineer, Halowax Corp, 25–41; *research chemist, Bakelite Corp, 41–* Organic mercury compounds of phenols and anilines and their reactions.

Hanson, Prof. E(ugene) H(arold), 619 W. Oak St, Denton, Texas. *Mathematics.* Stockport, Ohio, Jan. 13, 03. B.S, Denison, 25; A.M, Ohio State, 33, Ph.D, 35. Teacher, high schs, Ohio, 22–23, 25–29; asst. math, Ohio State, 29–31, univ. scholar, 31–32; educational adviser, Civilian Conservation Corps, 33–35; *prof. and director math, N. Texas Teachers Col, 35–* A.A; Math. Soc; Math. Asn; Texas Acad. Point sets; theory of functions of a real variable.

Hanson, Dr. Frank Blair, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. ***Zoology.* Bloomington, Ill, July 15, 86. A.B, George Washington, 13; fellow, Illinois, 14–15, A.M, 15; traveling fellow, American Univ, 15–16, Ph.D, 19. Instr. zool, Washington (St. Louis), 16–18, asst. prof, 18–20, assoc. prof, 20–24, prof, 24–33; asst. director and later *assoc. director, Rockefeller Foundation, 33–* Fellowship administrator, Rockefeller Foundation, Europe, 30–32. A.A; Soc. Nat; Soc. Zool; Asn. Anat. Vertebrate morphology; genetics; origin of development of the shoulder girdle and sternum; inbreeding; effects of alcohol fumes on the albino rat; sex ratio; effects of x-rays and radium in producing mutations in Drosophila.

Hanson, Dr. Fred S(umner III), 232 S. Main St, Kimberly, Wis. *Paper technology.* Somerville, Mass, Dec. 19, 13. B.S, Pa. State Col, 35; M.S, Lawrence Col, 37, Ph.D, 39. *Research chemist, Kimberly-Clark Corp, 39–* Tech. Asn. Pulp and Paper Indust. Pulp and paper technology; resistance of paper to natural aging; theoretical basis for action of sulfide in kraft pulping process; ethyl alcohol from sulfite waste liquor.

Hanson, Dr. George, 96 Broadway Ave, Ottawa, Ont, Can. *Geology.* St. Thomas, N. Dak, Nov. 26, 91. B.A, Manitoba, 14, M.A, 15; A.M, Harvard, 16; Ph.D, Mass. Inst. Tech, 20. Asst. geologist, *Geol. Surv. Can,* 20–23, assoc. geologist, 23–29, geologist, 29–36, *asst. chief geologist, 36–* Soc. Econ. Geol; fel. Royal Soc. Can; Can. Inst. Min. and Metal. Economic and structural geology.

Hanson, Harry Albert, 1700 Luning St, Red Bluff, Calif. *Fisheries biology.* Duluth, Minn, Feb. 25, 91. B.S, Washington (Seattle), 26; A.M, Minnesota, 32. Aquatic biologist, Int. Fisheries Cmn, 27; State Conservation Dept, Minn, 27; sci. asst, U. S. Bur. Fisheries, 28–31; biologist, U. S. Forest Service, 34–38; *aquatic biologist, bur. reclamation, fish and wildlife service, U. S. Dept. Interior, 38–* Fisheries Soc; Wildlife Soc. Fisheries investigation.

Hanson, Dr. Henry, State Board of Health, Jacksonville, Fla. *Medicine.* Clay Co, S. Dak, July 4, 77. A.B, South Dakota, 02, A.M, 11; M.D, Hopkins, 08. Asst. chem, South Dakota, 01–04; assoc. path, sch. med, Marquette, 08–09; director bacter. labs, State Board Health, Fla, 10–16; private lab, 16–17; investigation sanit. conditions, Peru, 19, investigation and control bubonic plague epidemic, 20, director yellow fever control, 20–22, Nat. Health Dept, 22; special field staff, Rockefeller Foundation, 23–27; state health officer, Fla, 29–36; mem. malaria surv. countries of Pan Am. Union, Pan. Am. Sanit. Bur; *mem. State Board Health, Fla.* Asst. supt. and pathologist, Milwaukee County Hosp, 08–09; traveling rep, Pan Am. Sanit. Bur, 36–; acting asst. surgeon, U. S. Pub. Health Service, 36–; tech. adviser, health depts, Peru and Ecuador, 36– Nat. Malaria Cmt. Capt, M.C, 17–18, major, M.O.R.C, 18– Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; Soc. Parasitol; Acad. Trop. Med; South. Med. Asn; Isthmian Canal Zone Med. Asn. (pres, 19). Rabies; malaria; yellow fever; public health.

Hanson, Dr. Herbert C(hristian), Palmer, Alaska. *Botany.* Faribault, Minn, April 19, 90. A.B, Minnesota, 14; A.M, Nebraska, 16, Ph.D, 25. Instr. biol, Colorado, 19–21; asst. prof. *bot,* Arizona, 21–23; instr, Nebraska, 23–26; assoc. prof, Colo. Agr. Col, 26–30; prof. and head dept, N. Dak. Col, 30–37, botanist, Exp. Sta, 30–37, acting director, 37–40; *gen. manager, Alaska Rural Rehabilitation Corp, 40–* Investigator, Carnegie Institution, 23–26. A.A; Bot. Soc; Ecol. Soc; Soc. Agron; British Ecol. Soc. Ecology; range and pasture ecology; weeds; root systems of crop grasses and garden plants; plant competition.

Hanson, H(erman) H(erbert), Dover, Del. *Chemistry.* Strafford, N. H, April 6, 76. B.S, Pa. State Col, 02; M.S, Maine, 06. Asst. chemist, Exp. Sta, Maine, 02–07, assoc. chemist, 07–16, chemist, 16–19; asst. chemist, Exp. Sta, West Virginia, 19–20; *state chemist, Del, 20–* Food Admin, 17–18. Capt, Sanit. C, 18–19. A.A; Chem. Soc; Agr. Chem. (pres, 36); Asn. Feed Control Officials (pres, 23). Analysis and microscopy of foods, drugs and agricultural products.

Hanson, Dr. L(ester) E(ugene), University of Nebraska, Lincoln, Nebr. *Animal husbandry.* Willmar, Minn, March 31, 12. B.S, Minnesota, 36; M.S.A, Cornell, 37, Ph.D, 40; Am-Scandinavian Foundation fellow, Denmark, 37–38. Asst. *animal husbandry,* Cornell, 36–37, 38–40; instr, *Nebraska,* 40–41, *asst. prof, 41–* Swine nutrition; sudan grass meal as a source of vitamin A.

Hanson, Dr. R(obert) L(ewis), 28 Glen Oaks Ave, Summit, N. J. *Physics.* Sanbornton, N. H, May 7, 00. A.B, Oberlin Col, 22; Ph.D, Cornell, 27. Instr. physics, Cornell, 22–27; asst. prof, Lehigh, 27–29; *mem. tech. staff, Bell Tel. Labs, 29–* Acoustical Soc. Acoustics.

Hanson, Prof. Robert S(tewart), Drexel Institute, Philadelphia, Pa. *Organic chemistry.* Stow, Ohio, May 31, 99. A.B, Ohio State, 21, M.S, 22, Ph.D, 24. Asst, Ohio State, 21–24; instr. *chem, Drexel Inst,* 24–28, asst. prof. and assoc. prof, 28–43, *prof, 43–* Metallic halides in organic catalysis.

Hanson, Dr. W(esley) T(urnell), 364 Antlers Drive, Rochester, N. Y. *Physical chemistry.* Carrollton, Ga, May 28, 12. B.S, Georgia, 30, M.S, 32; Ph.D, California, 34. *Research chemist, Eastman Kodak Co, 34–* A.A; Chem. Soc; Soc. Motion Picture Eng. Electromotive force measurements; vapor pressure of deuterium; particle size determination; color photography; analytical procedures.

Hanson, Dr. William E(lum), 171A R. D. 1, Gibsonia, Pa. *Petroleum chemistry.* New London, Conn, Jan. 29, 11. B.S, Worcester Polytech, 32, M.S, 34, Ph.D, N. Y. Univ, 37. *Indust. fellow, Mellon Inst, 37–* Chem. Soc. Constitution of natural bitumens; thermodynamics of hydrocarbon systems; reaction kinetics.

Hanzal, Prof. R(amon) F(rancis), Robb House, University Hospitals, Cleveland, Ohio. *Physiological chemistry.* Crete, Nebr, Oct. 16, 95. A.B, Nebr. State Teachers Col, 26; fellow, Western Reserve, 28–30, A.M, 29, Ph.D, 30. Teaching fellow, *Western Reserve,* 27–28, instr. *path. chem,* 30–34, *asst. prof, 34–* Blood chemistry in health and disease.

Hanze, Dr. Arthur R(aymond), Ohio State University, Columbus, Ohio. *Organic chemistry.* Canton, Ohio, Aug. 27, 15. B.S, Washington and Jefferson Col, 38; Ph.D, Ohio State, 42. Asst. chem, *Ohio State,* 38–42; *research assoc, Univ. Research Foundation, 42–* Sugar derivatives; synthetic vitamins.

Hanzlik, E(dward) J(ohn), Box 187, Olympia, Wash. *Forestry.* Chicago, Ill, Feb. 27, 86. B.S, Washington (Seattle), 12; Am-Scandinavian Foundation fellow, Stockholm, 22–23. *Assoc. forester, U. S. Forest Service, 11–* Director forestry course for invalid soldiers, British Columbia, 18–19. Soc. Foresters. Silviculture; forest management; dendrology.

Hanzlik, Prof. P(aul) J(ohn), Stanford University School of Medicine, San Francisco, Calif. **†Physiology, Pharmacology.* Shueyville, Iowa, July 24, 85. Ph.G, Iowa, 02, Ph.C, 08; A.B, Illinois, 08, A.M, 11; M.D, Western Reserve, 12; Vienna, 14. Demonstrator *pharmacol,* Western Reserve, 12–13, instr, 13–15, assoc, 15–17, asst. prof, 17–20, assoc. prof, 20–21; *prof, sch. med, Stanford, 21–* Pharmacologist, U. S. Bur. Mines, 18; consulting pharmacologist, Dept. Health, San Francisco, and U. S. Dept. Agr. Cmt. on Research in Syphilis, Inc. A.A; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; Dental Asn. (v. chairman, council on dental therapeut); Am. Med. Asn. (chairman, sect. pharmacol. and therapeut, 23); Calif. Acad. Med. Absorption of drugs; actions of chelidonine, methenamine, salicylates, cinchophen and glycols; hemostatics; allergic phenomena; plumbism and alcoholism; intravenous medication; digitalis assay; bismuth in syphilis; colloidal dyes; cyanide antidotes; iodobismitol; sobisminol.

Hao, Dr. Lü Cheng, Joseph E. Seagram and Sons, Inc, Louisville, Ky. *Biophysical chemistry.* Chengchow, China, May 3, 13. B.S, Catholic Univ, Peiping, 34; Ph.D, Iowa State Col, 42. Instr. chem, Catholic Univ, Peiping, 34–36; *research chemist,* Frederick Stearns and Co, 42; *Joseph E. Seagram and Sons, Inc, 43–* Chem. Soc. Industrial microbiological chemistry.

Happ, Prof. George B(ippus), Principia College, Elsah, Ill. *Systematic botany.* Port Jervis, N. Y, Nov. 7, 93. B.S, Cornell, 33, M.S, 35; Harvard, summers, 26–29; Ph.D, Washington (St. Louis), 37. Instr. ordnance, mil. sci. and tactics, Principia Upper Sch, 21–32, bot, 35–36; *biol, Principia Col,* 35–37, asst. prof, 37–38, *prof, 38–* A.A; Bot. Soc; Ornith. Union. Ornithology.

Happ, Dr. Stafford C(oleman), Soil Conservation Service, U. S. Department of Agriculture, Washington, D. C. *Geology.* Sparrow Bush, N. Y, Sept. 16, 05. A.B, Marietta Col, 31; univ. fellow, Columbia, 34–35, Ph.D, 39. Asst. geol, Am. Museum Nat. Hist, 31–33; Columbia, 33–34; junior engineer, *div. sedimentation, soil conservation service, U. S. Dept. Agr,* 35–36, asst. geologist, 36–37, assoc. geologist, 37–40, *geologist and head stream and valley sect, 40–* Geophys. Union; Am. Geog. Soc; Soc. Agr. Sci; Geol. Soc. Wash. Geomorphology; erosion and sedimentation.

Harber, Dr. W(illiam) I(rving), 6200 W. 51st St, Chicago, Ill. *Organic chemistry.* Ludlow, Mass, Aug. 20, 15. A.B, Brooklyn Col, 36; Ph.D, Iowa State Col, 40. *Research chemist,* Swift and Co, 40–41; *Wishnick-Tumpeer Inc, 41–* Chem. Soc. Fats and oils; synthetic rubber.

Harbin, Dr. M(axwell), 2065 Adelbert Road, Cleveland, Ohio. *Surgery.* Calhoun, Ga, Dec. 7, 93. B.S, Georgia, 16; M.D, Harvard, 20. Surg. house officer, Peter Bent Brigham Hosp, 20–22; Children's Hosp, 22–23; surgeon, Harbin Hosp, 23–25; instr. *orthop, sch. med, Western Reserve,* 25–26, asst. prof. and *assoc. prof, 26–* Orthop. lecturer, sch. med, Western Reserve. Assoc. in orthop. surg, Lakeside Hosp, 25; surgeon in charge, Rainbow Hosp, 25. Fel. Col. Surg; Am. Med. Asn; East. Surg. Soc. (sec'y, 30); Cleveland Acad. Med. Orthopedic surgery; surgery of the knee joint and the hip joint; artificial light therapy; osteochondritis of the growth centers; calcification of the supra-spinatus tendon.

Harbourt, Prof. S(tephen) A(mbrose), 223 Lincoln Ave, Kent, Ohio. *Pathology.* Steubenville, Ohio. B.S, Lebanon, 93; State Nor. Sch, Kans, 96; A.B, Richmond Col, 04, A.M, 05; Ohio (Athens), 08. Teacher, prin. and supt. schs, Ohio, 97–11; mem. faculty, Col. of Wooster, 06–11, instr, 15–16; supervisor, State Dept. Educ, Ohio, 11–15, county supt. schs, 16–22; *prof. biol, Kent State, 22–* Summers, instr, Kent State, 19–22. A.A. Trees and shrubs of Ohio.

Harcourt, Dr. G(eorge) Alan, Copper Cliff, Ont, Can. *Geology, Mineralogy.* Regina, Sask, July 31, 05. B.Sc, Alberta, 30; Nat. Research Council Can. bursar, Queen's (Can), 31–32, student, 32–33, M.Sc, 32; Royal Soc. Can. fellow, 33–34; scholar, Harvard, 34–35, Ph.D, 36. Geol. field work, Cyril Knight Prospecting Co, 29; Ont. Dept. Mines, Can, 30–36; research engineer, *Int. Nickel Co,* 37–42, *acting supt. research, 42–* Asst, Queen's (Can), 30–31, demonstrator, 31–32; instr, Harvard, 35. Fel. Miner. Soc. Flotation.

Hard, Prof. W(alter) L(eon), University of Maryland, Baltimore, Md. *Zoology.* East Lansing, Mich, Feb. 8, 12. A.B, Albion Col, 34; Ph.D, Duke, 37. Asst, Duke, 34–35, teaching fellow, 35–37; instr. zool, *Maryland,* 37–40, *asst. prof,* 40–41, *histol, sch. med, 41–* A.A; Micros. Soc; Soc. Growth and Develop; Asn. Anat. Histology; embryology; cytology; chromosomes; spermatogenesis; histogenesis of the pancreas; ovarian growth and ovulation in crab.

Hardcastle, Dr. A(aron) Bascom, U. S. Department of Agriculture, Beltsville, Md. *Parasitology.* Village, Va, May 27, 12. A.B, Richmond, 34, A.M, 36; fellow, Duke, 40–42, Ph.D, 42. *Junior zoologist, bur. animal indust, U. S. Dept. Agr, 42–* Soc. Parasitol; Asn. Southeast. Biol; N. C. Acad; Helminth. Soc. Wash. Treatment of parasitic diseases of poultry and sheep, chiefly coccidiosis.

Hardenbergh, Dr. J(ohn) G(erard), 600 S. Michigan Ave, Chicago, Ill. *Veterinary science.* Berkshire, N. Y, April 15, 92. D.V.M, Pennsylvania, 16. Assoc, div. exp. surg. and path, inst. exp. med, and instr. vet. science, Mayo Foundation, Minnesota, 21–27; director labs, Walker-Gordon Lab. Co, Inc, 27–40; *exec. sec'y, Am. Vet. Med. Asn, 41–* Animal disease control; milk control.

Hardenbergh, Col. W(illiam) A(ndrew), Office of Surgeon General, U. S. Army, Washington, D. C. *Sanitary engineering.* Galena, Ill, Aug. 6, 88. B.E, Union Col, 12. Asst. sanit. engineer, U. S. Pub. Health Service, 18–20; sanit. engineer, Jefferson County Board Health, Ala, 21–27; v. pres, 'Pub. Works Mag,' 27–40; *col, Sanit. Corps, and chief div. sanit. eng, U. S. Army, 40–* Consulting sanit. engineer, N. Y, 30–40. Civil Eng. Sewage disposal, especially the effect of alkalinity on chemical coagulation.

Hardenburg, Prof. E(arle) V(olcart), Cornell University, Ithaca, N. Y. *Agronomy, Horticulture.* Brocton, N. Y, Nov. 30, 89. B.S, Cornell, 12, M.S.A, 15, Ph.D, 19. Instr. farm crops, *N. Y. State Col. Agr, Cornell,* 12–18, asst. prof, 19–21, veg. gardening, 21–26, *prof. veg. crops, 26–* Asst. horticulturist, U. S. Dept. Agr, 26–27. A.A; Soc. Hort. Sci; Potato Asn. (pres, 20, treas, 26); N. Y. State Potato Asn. (sec'y, 15–20); Empire State Potato Club (sec'y-treas, 27–30). Potato and field bean production; truck crops; canning crops.

Harder, Dr. E(dmund) C(ecil), 1800 Sun Life Bldg, Montreal, Que, Can. *Geology.* New Holstein, Wis, Sept. 22, 82. A.B, Wisconsin, 05, A.M, 07, Ph.D, 15. Field asst, U. S. Geol. Surv, 05–07, junior geologist, 08–09, asst. geologist, 09–14, geologist, 14–20; Aluminum Co. of Amer, 20–29; *director, Demerara Bauxite Co, Ltd, 29–; v. pres, Aluminium Labs. Ltd, 36–; director, Newfoundland Fluorspar Ltd, 40–* Manager, Brazilian Iron and Steel Co, 10–13. A.A; Geol. Soc; Soc. Econ. Geol. (councilor, 30–33); Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad. Economic geology; iron, manganese, aluminium, magnesium and chrome ores; ore deposition; rock decay; soil bacteriology.

Harder, Dr. Oscar E(dward), Battelle Memorial Institute, Columbus, Ohio. *Chemistry, Metallography.* Franklin Co,

Ark, Feb. 3, 83. A.B, Oklahoma, 10, A.M, 11; Ph.D, Illinois, 15. Instr. chem, Oklahoma, 10–11; food analyst, State Board Health, Kans, 11–13; research chemist, cmt, C 9, Am. Soc. Test. Mat. and Portland Cement Asn, 15–18; N. K. Fairbanks Co, 18; fellow, Mellon Inst, 18–19; assoc. prof. metallog, Minnesota, 19–23, prof, 23–30; *asst. director, Battelle Mem. Inst, 30–* A.A; Chem. Soc. (pres, Minn. sect, 24); Min. and Metal. Eng; Soc. Test. Mat; Soc. Metals (pres, northwest chap, 21, nat. director, 30, v. pres, 39, pres, 40); Eng. Educ. Alloys of chromium, copper and nickel; organic impurities in sand used for concrete; uranium; dental alloys; metallography of iron and steel; heat resisting alloys; free machining steels and weldability of steels.

Hardesty, Prof. Irving, Tulane University, New Orleans, La. *[1]Neurology.* Beaufort, N. C, Oct. 8, 66. A.B, Wake Forest Col, 92, Sc.D, 18; Ph.D, Chicago, 99. Prin, Wakefield Acad, N. C, 92–93; asst. biol, Missouri, 95–96; neur, Chicago, 98–00; instr. *anat,* California, 00–03, asst. prof, 03–07, assoc. prof, 07–09; prof, *Tulane,* 09–33, *emer. prof, 33–* Mem. board, 'Anat. Record.' Mem, Nat. Research Council. A.A; Asn. Anat; Soc. Endocrinol; New Orleans Acad. (pres, 23–30). Development and architecture of the nervous system and organs of the special senses, human and comparative.

Hardesty, John O(liver), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Westfield, Ill, Oct. 11, 99. A.B, DePauw, 24; M.S, Mich. State Col, 28. Instr. gen. chem, Mich. State Col, 24–28, electro and colloid chem, 28–30; *asst. chemist,* bur. chem. and soils, *U. S. Dept. Agr,* 30–38, *assoc. chemist, bur. plant indust, 39–* Summers, research indust. waste disposal, bur. eng, State Dept. Health, Mich, 26–29. C.W.S, U.S.A, 18, 1st lieut, C.W.S.R, 25–35. Chem. Soc. (sec'y, Mich. State Col. sect, 30). Electrochemistry; physical chemistry; efficiency of chromium plating baths; preparation and properties of concentrated fertilizers; ammoniation of superphosphates; granulation of fertilizers; plant nutrition.

Hardesty, Dr. Mary (Mrs. William Larkin Duren, Jr), 3323 Joseph St, New Orleans, La. *Zoology.* San Francisco, Calif, Oct. 4, 05. A.B, Tulane, 26; M.S, Chicago, 29, Ph.D, 30. Teaching fellow *zool,* Newcomb Col, Tulane, 26–27, asst, 31–32; Chicago, 27–30; *independent investigator, Tulane.* Soc. Zool. Sex in the fowl; anatomy, embryology and endocrine relations of the fowl's comb; feather patterns.

Hardin, Dr. Garrett (James), Carnegie Laboratory, Stanford University, Calif. *Microbiology.* Dallas, Texas, April 21, 15. B.S, Chicago, 36; Ph.D, Stanford, 41. *Research assoc, div. plant biol, Carnegie Institution, 42–* Genetic Asn; Ecol. Soc; Torrey Bot. Club. Growth requirements of micro-organisms; sociological aspects of micro-organisms.

Hardin, Dr. Willett L(epley), 4171 Central Terrace, Los Angeles, Calif. *[2]Chemistry, Physics, Mineralogy.* Lima, Ohio, Dec. 8, 68. B.S, Buchtel Col, 93; Ph.D, Pennsylvania, 96, fellow, 96–99. Instr. chem. and physics, Buchtel Col, 93–94; lecturer physical chem, Pennsylvania, 96–00, instr. physical and tech. chem, 99–00; gen. manager, Symmes Valley Coal Co, 03–07; asst. sec'y and treas, Mex. Nat. Gas Co, 08–11; consulting chemist, 11–30; *ed,* 'Quarterly Jour. Science, Religion and Philos,' 30–32; *'World Affairs Interpreter,' 32–* Chairman jury awards, sect. chem. apparatus, Nat. Export Expos, 99. A.A; Chem. Soc. (pres, S. Calif. sect, 21–23); Calif. Avocado Asn. (pres, 21). Liquefaction of gases; atomic masses of silver, mercury, cadmium, tungsten and palladium; derivatives of palladium with organic bases; problems and strength of democracy.

Harding, Pres. A(rthur) M(cCracken), University of Arkansas, Fayetteville, Ark. *Mathematics.* Pine Bluff, Ark, Sept. 3, 84. A.B, Arkansas, 04; A.M, Chicago, 13, Ph.D, 16. Adj. prof. math, *Arkansas,* 05–09, assoc. prof, 09–16, *prof. math. and astron, 16–,* univ. examiner, 16–19, director gen. exten, 19–41, *pres, 41–* Math. Soc; Math. Asn; Astron. Soc. Projective differential geometry; astronomy.

Harding, Dr. H(arry) A(lexis), 1221 Beaufait Ave. Detroit, Mich. *Bacteriology.* Oconomowoc, Wis, Nov. 28, 71. B.S, Wisconsin, 96, fellow, 97–08, M.S, 98; Germany, 98; Ph.D, Cornell, 10. Bacteriologist, N. Y. Exp. Sta, Geneva, 99–13; prof. dairy bacter, Illinois, 13–22; *chief dairy research bur, Mathews Co, 22–* A.A; Soc. Bact; Dairy Sci. Asn; fel. Pub. Health Asn; Royal Inst. Pub. Health. Dairy bacteriology; bacterial plant diseases; causes of cheese ripening; soft rot in plants; fixation of nitrogen; city milk supplies.

Harding, Maynard W(illiam), 1255 E. Green St, Pasadena, Calif. *Oceanography, Seismology.* Ault, Colo, March 19, 10. A.B, San Diego State Teachers Col, 30; M.S, California, 32. Research asst, Scripps Institution, California, 30–33; junior magnetic and seismological observer, U. S. Coast and Geod. Surv, 34–37; *computer, United Geophys. Co, Pasadena, 37–* In charge seismol. sta. maintenance, California, 33–34. A.A; Geophys. Union; Seismol. Soc; Soc. Explor. Geophys. Chemical oceanography; boron in sea water; the recording of strong earth motion; investigation of earth tilt and the natural periods of vibration of structures and the ground.

Harding, Dr. P(aul) L, U. S. Department of Agriculture, Box 1058, Orlando, Fla. *Horticulture.* Provo, Utah, May 7, 98. B.S, Brigham Young, 24; Ph.D, Iowa State Col, 30. Asst, Exp. Sta, Iowa State Col, 27–30; asst. horticulturist, *div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr.* 30–34, assoc. horticulturist, 34–41, *horticulturist, 41–* Soc. Hort. Sci; Bot. Soc. Wash. Handling, transportation and storage of fruits and vegetables; physiology of fruit in storage; respiration; catalase; oxidase; activity in fruit.

Harding, T. Swann, Granite Gables, 400 Linden Lane, Falls Church, Va. *Chemistry.* Wyoming, Del, May 14, 90. B.S, Md. Agr. Col, 10. Asst. chemist, bur. chem, U. S. Dept. Agr, 10–18; special research worker rare carbohydrates, Digestive Ferments Co, Detroit, Mich, 18–22; chem. research nutrition of dairy animals, bur. animal indust. and bur. dairy indust, *U. S. Dept. Agr,* 22–28, ed, sci. publications, 28–42, *senior information specialist, special writer and ed, 41–* A.A. Organic chemistry; biochemistry; preparation of rare sugars; amino acids and dipeptide glutathione of blood as precursors of milk protein.

Harding, Dr. William Duffield, Port Credit, Ont, Can. *Geology.* Kemptville, Ont, May 20, 89. B.Sc, Queen's (Can), 12, M.Sc, 29; Ph.D, Wisconsin, 33. *Geologist and lecturer, Dept. Mines, Ont, 36–* Origin of Grenville gneisses; Cat River, Kawinogans Lake area; Birch and Springpole Lakes area; Horwood Lake area; Flack Lake area; geology of Thornloe, Price, Adams and Eldorado townships, Ontario.

Harding, W(illiam) H(arry), 25 Chester St, Stamford, Conn. *Chemistry.* Brooklyn, N. Y, June 12, 03. B.S, Mass. Inst. Tech, 23. Chem. engineer, Parker Young Co, Lincoln, N. H, 23–24; Kalbfleisch Corp. and Am. Cyanamid and Chem. Corp, 24–36; head paper and heavy chem. sect, *tech. service div, Am. Cyanamid Co,* 36–38, asst. director, 39–42, *director, 42–* Chem. Soc; Chem. Eng; Tech. Asn. Pulp and Paper Indust; fel. Inst. Chem. Paper and paper coating chemicals; pulp by-product utilization; paper sizes.

Hardman, Albert F(oster), Goodyear Tire and Rubber Co, Akron, Ohio. *Chemistry.* Janelew, W. Va, 93. A.B, West Virginia, 17; M.S, Chicago, 19. Instr, Kentucky, 17–18, fellow chem, 19–20; *research chemist,* Kelly Springfield Tire Co, Cumberland, Md, 20–35; *Goodyear Tire and Rubber Co, 35–* C.W.S, U.S.A, 18. Chem. Soc. Rubber chemistry.

Hardt, Prof. Henry B(enjamin), Westminster College, Fulton, Mo. *Chemistry.* Yancey, Texas, June 6, 97. A.B. and A.M, Southwestern (Texas), 22; Colorado, 26, 27; Ph.D, Columbia, 32. Prof. physical science and head dept, Texas Woman's Col, 24–28; instr. chem, Columbia, 32–37; assoc. in charge physical science, New Col, Columbia, 37–39; *asst. prof. chem, Westminster Col. (Mo), 37–* Mo. Acad; Mo. Chemurgic Asn. Inorganic and analytical chemistry; ignition and dissociation of magnesium ammonium phosphate; columbium and tantalum; the glass electrode.

Hardy, Dr. A(lbert) V(ictor), Columbia University, New York, N. Y. *Public health, Medicine.* Ont, Can, March 27, 97. M.D, Toronto, 24; Dr.P.H, Hopkins, 36. House staff, Peking Union Med. Col. Hosp, 24–26; instr. hygiene and prev. med, col. med, Iowa, 26–28, assoc. prof, 28–35; *asst. prof. epidemiol, DeLamar inst, Columbia, 35–; surgeon, U. S. Pub. Health Service, 41–* Asst. epidemiologist, State Dept. Health, Iowa, 26–27, epidemiologist, 27–29, director labs, 28–30; acting asst. surgeon, U. S. Pub. Health Service, 28–30, consultant, 34–41. Ludvig Hektoen lecturer, Chicago Acad. Med, 30. Pub. Health Asn; Am. Med. Asn. Undulant fever; amebic and bacillary dysentery.

Hardy, Prof. Arthur C(obb), Massachusetts Institute of Technology, Cambridge, Mass. *[3]Physics.* Worcester, Mass, Dec. 2, 95. A.B, California, 17, A.M, 19; hon. Sc.D, St. Lawrence, 38. Asst. physics, Mass. Inst. Tech, 17–18, instr, 19–20; physicist, Eastman Kodak Co, 20–22; asst. prof. *physics,*

Mass. Inst. Tech, 22–28, assoc. prof, 28–34, *prof, 34–* U.S.A, 18. Asn. Physics Teachers; Physical Soc; Optical Soc. (pres, 35–37); Motion Picture Eng; Am. Acad; Royal Photog. Soc. Optics; photography.

Hardy, Lieut. D. Elmo, University of Kansas, Lawrence, Kans. *Medical entomology.* Lehi, Utah, Sept. 3, 14. A.B, Brigham Young, 37; Utah State Col, 37–38; Ph.D, Kansas, 41. Field entomologist, Exp. Sta, Utah State Col, 37–38; asst. instr. entom, Kansas, 38–41, research fellow Diptera taxon, 41–42; *lieut, Sanit. Corps, U. S. Army, 42–* Pear psylla field inspector, U. S. Dept. Agr, 41; deputy state entomologist, Kans. Entom. Cmn, 42. Summer, chinch bug control supervision, U. S. Dept. Agr, 41. Entom. Soc. Amer; Kans. Entom. Soc; Utah Acad. Diptera taxonomy; New World Bibionidae; Nearctic Dorilaidae, Omphralidae and other dipterous families.

Hardy, Dr. Elizabeth M(ac Gregor), American Cyanamid Co, Bound Brook, N. J. *Organic chemistry.* Ottawa, Ont, Can, July 31, 15. B.Sc, McGill, 38; scholar, Bryn Mawr Col, 38–39, A.M, 39, scholar, 41–42, Ph.D, 42. Asst. org. chem, Bryn Mawr Col, 39–40; *research chemist, Calco chem. div, Am. Cyanamid Co, 42–* Chem. Soc; assoc. Can. Inst. Chem. Molecular rearrangements; preparation of unsaturated esters and ketones; vat dyestuffs.

Hardy, Dr. J(ames) D(aniel), Russell Sage Institute of Pathology, 525 E. 68th St, New York, N. Y. *Physiology.* Georgetown, Texas, 04. A.B, Mississippi, 24, A.M, 25; Ph.D, Hopkins, 30. Asst. prof. physics, Mississippi, 25–27; asst. physicist, U. S. Dept. Agr, 29–30; nat. research fellow, Michigan, 30–32; *research assoc, Russell Sage Inst. Path, 32–; asst. prof. physiol, med. col, Cornell, 41–;* lieut, *U. S. Naval Res*, 41–42, *lieut. commander, 42–* Physiol. Soc; Soc. Exp. Biol; fel. Physics Soc; Harvey Soc; N. Y. Acad. Physics; infrared spectroscopy; development of technique and application to emission and absorption spectra of gases; radiation from the human body; energy metabolism; infra-red spectra of biological materials; experimental psychology; pain sense, temperature sense and effect of analgesics.

Hardy, Prof. James G(raham), Williams College, Williamstown, Mass. *Mathematics.* Easton, Pa, March 13, 74. A.B, Lafayette Col, 94, A.M, 97; fellow, Hopkins, 97–98, Ph.D, 98. Instr. and assoc. prof. *math, Williams Col, 98–13, prof, 13–* Visiting prof, Reed Col, 42– Math. Soc; Math. Asn. Darboux lines on surfaces; curves of triple curvature; curves in a space of n-dimensions; applications of the theory of limits; trigonometry.

Hardy, Dr. J(ohn) I(ra), U. S. Department of Agriculture, Washington, D. C. *Animal industry.* Groveland. Mass, May 16, 88. B.S, R. I. State Col, 10; M.S, Tennessee, 14; Ph.D, Missouri, 17. Asst. chem, Exp. Sta, Tennessee, 11–15; assoc. wool specialist, Wyoming, 17–19; specialist in wool investigations, 19–20; chemist, Albany Felt Co, N. Y, 20–23; wool specialist, *bur. animal indust, U. S. Dept. Agr*, 23–28, *senior animal fiber technologist, animal husbandry div, 28–* Nat. research fellow, England and Germany, 30–31. A.A; Soc. Animal Production; Genetic Asn. Animal fiber technology; biology of wool and other animal fibers.

Hardy, Dr. Mary, 610 E. 83rd St, New York, N. Y. *Physiology, Otology.* Baltimore, Md, Dec. 11, 97. A.B, Bryn Mawr Col, 20; Sc.D, Hopkins, 27; Cambridge, 22–23. Asst. physiol, sch. hygiene and pub. health, Hopkins, 28–30, instr. research otol, sch. med, 30–35, assoc, 35–36; *teacher science, Brearley Sch, New York, 36–, head dept, 38–* Physiol. Soc. Physiological effects of ultra-violet radiation.

Hardy, Max B(rown), P. O. Box 60, Albany, Ga. *Pomology.* Pendleton, Ind, Jan: 18, 02. B.S.A, Purdue, 26; M.S, Iowa State Col, 28. Teaching fellow, Iowa State Col, 27–28; asst, State Col. Wash, 28–31; asst. pomologist and later *assoc. pomologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–* Breeding, culture and physiology of pecans.

Hardy, Dr. P(aul) E(rling), 416 Chilton St, Elizabeth, N. J. *Physical chemistry.* Mahnomen, Minn, Nov. 13, 16. A.B. St. Olaf Col, 37; M.S, Purdue, 39, Ph.D, 41. *Research chemist,* Grasselli chem. dept, E. I. du Pont de Nemours and Co, 41–42; *chem. div, Standard Oil Develop. Co, 42–* Chem. Soc. Synthetic rubber.

Hardy, Dr. Thora M. P(litt), R. F. D. 2, Box 199, Bowie Road, Laurel, Md. *Botany.* Switzerland, July 31, 02. A.B. Columbia, 25; M.S, Chicago, 30, Ph.D, 32. Teacher, high sch, N. Y, 25–27; N. J, 27–29; instr. bot, Hunter Col, 32–33; bot. and plant physiol, Vassar Col, 33–35; junior microanalyst, Bur. Standards, 35–38; *asst. microanalyst, fish and wildlife service, U. S. Dept. Interior, 38–* Soc. Plant Physiol. Furs; plant physiology; plant microchemistry; microscopy of furs.

Hardy, Dr. V(ernal) R(ichard), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Lenzburg, Ill, April 16, 06. B.S, McKendree Col, 28; M.S, Illinois, 30, Ph.D, 32. Instr, Ill. State Teachers Col, 32; asst, Illinois, 32–33; *research chemist,* exp. sta, *E. I. du Pont de Nemours and Co,* 33–39, *rayon tech. div, 39–* Chem. Soc. Reactions in solid state; levulose syrup from artichokes; cellulose; synthetic resins; nylon.

Hardy, Dr. W(illiam) B(aptist), 216 E. High St, Bound Brook, N. J. *Organic chemistry.* Bloomfield, Iowa, Sept. 24, 16. B.S, Chicago, 38, Ph.D, 40. *Research chemist, Calco chem. div, Am. Cyanamid Co, 40–* Dyestuffs; intermediates; pharmaceuticals.

Hare, D(onald) G(eorge) C(orkhill), Searingtown Road, Roslyn, L. I, N. Y. *Physics.* Fresno, Calif, May 31, 07. A.B, Stanford, 31. Teaching asst. physics, Stanford, 31–36, acting instr, 36; research director geophys, Rieber Lab, 36–37; geophys. lab, Texas Co, 37–41; *director airborne instruments lab, div. war research, Columbia, 41–* Consultant, div. 6, Nat. Defense Research Cmt, 41– Barkhousen-Kurz oscillations; x-ray polarization and scattering; high efficiency photon counters; industrial application of gamma rays and neutrons; industrial electronics.

Hare, Dr. Ronald, University of Toronto, Toronto, Ont, Can. *Bacteriology.* Durham, Eng, Aug. 30, 99. M.B. and B.S, London, 24, M.D, 35. Research scholar, inst. path. and research, St. Mary's Hosp, London, England, 25, asst, inoculation dept, 26–31; first asst, Bernhard Baron research labs, Queen Charlotte's Hosp, 31–36; *demonstrator hygiene and prev. med, Toronto, and research assoc, Connaught labs, 36–* Cheadle gold medal, St. Mary's Hosp; Catherine Bishop Harman prize, British Med. Asn, 28; Nicholls prize, Royal Soc. Med, 34. Can. Pub. Health Asn. (sec'y lab. sect, 36–; exec. councilor, 42); British Med. Asn; Path. Soc. Gt. Britain and Ireland. Classification of haemolytic streptococci and immunity to these organisms; infections of childbirth and of wounds; influenza and other respiratory infections.

Hare, Dr. Weston A(ndrew), 123 Palmer Ave, Kenmore, N. Y. *Chemistry.* Staten Island, N. Y, Oct. 12, 08. B.S, Akron, 29; E. I. du Pont de Nemours and Co. fellow, Ohio State, 31–32, Ph.D, 32. Research engineer, steel and tube div, Timken Roller Bearing Co, Canton, 32–38; *research chemist, E. I. du Pont de Nemours and Co, 38–* Chem. Soc. Metallurgy of alloy steel; viscose rayon manufacture.

Hare, Dr. (William) Kendrick, State University of Iowa College of Medicine, Iowa City, Iowa. *Anatomy.* Browns, Ala, Jan. 6, 08. A.B, Alabama, 32, M.S, 34; Ph.D, Northwestern, 36. Instr. physiol, med. col, Cornell, 36–38, asst. prof, 38–40, *anat,* 40–41; *col. med, Iowa,* 41–43, *assoc. prof, 43–* Physiol. Soc; Asn. Anat; Harvey Soc. Neurophysiology; central and peripheral connections of the sympathetic nervous system; nervous regulation of the pituitary.

Hares, C(harles) J(oseph), The Ohio Oil Co, Casper, Wyo. *Geology.* Marcellus, N. Y, May 6, 81. B.S, Syracuse, 07, M.S, 08; fellow, Chicago, 08–10. Junior geologist, U. S. Geol. Surv, 10–13, assoc. geologist, 13–16, paleontologist, 16–17; *senior geologist, Ohio Oil Co, 17–* Director and chief geologist, Ohio-Mex. Oil Corp, Mex, 26–27. Del. Int. Cong. Engineers, Tokyo, 29. Geol. Soc; Asn. Petrol. Geol. (mem, cmt. on stratig. nomenclature); Am. Geog. Soc; Petrol. Inst; Geol. Soc. Wash; Colo-Wyo. Acad. Stratigraphy; middle Tertiary glaciation; coal; oil; Heart Mountain overthrust; Precambrian peneplain in the Rocky Mountains; Medicine Bow Mountains; late Tertiary revolution in the Great Plains and the Rocky Mountains; current development from oil prospecting in Illinois basin.

Harford, Dr. Carl G(ayler), 5147 Waterman Ave, St. Louis, Mo. *Bacteriology, Immunology, Medicine.* St. Louis, Mo, June 27, 06. A.B, Amherst Col, 28; M.D, Washington (St. Louis), 33. Asst. med, bact. and immunol, sch. med, Washington (St. Louis), 35–36; fellow, Rockefeller Inst, 36–38; *instr. bacter. and immunol. and asst. med, Washington (St. Louis), 38–* Soc. Bact; Am. Med. Asn; Cent. Soc. Clin. Research. Epidemiological and immunological aspects of neurotropic virus diseases.

Harger, Prof. Rolla N(ell), Indiana University School of Medicine, Indianapolis, Ind. *Chemistry.* Decatur Co, Kans, Jan. 14, 90. A.B, Washburn Col, 15; A.M, Kansas, 17; Ph.D, Yale, 22. Lab. instr. chem, Washburn Col, 13–15; instr, Kansas, 15–17; asst. biochemist, soil fertility, bur. plant indust, U. S. Dept. Agr, 17–20; nat. research fellow, Yale, 20–22; asst. prof. *biochem. and toxicol, sch. med, Indiana,* 22–29, assoc. prof, 29–33, *prof, 33–, chairman dept, 34–* A.A; Chem. Soc; Ind. Acad. Metol; cyanamide; organic oxidations; amino quinones; normal body alcohol; chemical tests for intoxication; determination of mercury; anesthetic concentration of ether in blood and breath.

Hargis, A(ndrew) B(roadus), P. O. Box 26, University, Miss. *Engineering.* Oxford, Miss, Aug. 1, 89. B.E, Mississippi, 10, C.E, 19. Res. construction engineer, 10–12; asst. city engineer, Birmingham, Ala, 12–15, designing bridge engineer, 15–17; chief construction engineer, Camp McClellan, Ala, 17–19; senior asst. engineer, Morris-Knowles, Inc, 19–21; consulting engineer, 21–32; dean *sch. eng, Mississippi,* 32–37, *prof. civil eng. and supervising engineer bldgs, grounds and utilities, 37–* Eng. Educ; Miss. Soc. Professional Eng. Testing methods of construction materials; sanitary engineering; concrete; construction.

Hargitt, Prof. George T(homas), Duke University, Durham, N. C. ***Zoology.* Fairfield, Ind, Feb. 13, 81. Ph.B, Syracuse, 02, hon. Sc.D, 39; fellow, Nebraska, 02–03, A.M, 03; Ph.D, Harvard, 09. Asst. zool, Syracuse, 03; teacher, high schs, N. Y, 04–07; asst. and Austin teaching fellow *zool,* Harvard, 07–09; Adam T. Bruce fellow, Hopkins, 09–10; instr, Northwestern, 10–13; assoc. prof, Syracuse, 13–20, *prof,* 20–30; *Duke, 30–* Prof, Wistar Inst, 23–25. A.A. (sec'y, F, 24–32, councilor, 33–36); Soc. Nat; Soc. Zool; Asn. Anat; N. C. Acad; Ind. Acad. Embryology; cytology; germ cells of coelenterates, amphibians and mammals.

Hargitt, Prof. T(homas) F(rederick), 7 Norbloom Ave, Bloomington, Ill. *Physics.* Shelby Co, Ind, Sept. 30, 81. Grad, Ind. State Nor. Sch, 15; A.B, Indiana, 20, A.M, 21, Ph.D, 24. Prof. *physics,* Kans. Wesleyan, 21–22; acting instr, Indiana, 23–24; *prof, Ill. Wesleyan, 24–* A.A; Physical Soc; Acoustical Soc; Asn. Physics Teachers; Optical Soc; Ill. Asn. Physics Teachers; Ill. Acad; Ind. Acad. Condensing action of conical horns when used as sound receivers; the Hall effect in bismuth sputtered films.

Hargrave, Lyndon L(ane), Benson, Ariz. *Archeology, Ornithology.* Franklin, Ga, May 30, 96. A.B, Arizona, 28, fellow, 29. Asst. director, Museum North. Ariz, 29–32, field director, 32–39; leader, P. R. project, *Ariz,* 39–40; *quarantine inspector, State Cmn. Agr. and Hort, 42–* Prof, Ariz. State Teachers Col, Flagstaff, 29–30. Univ. Ariz. archeol. expeds, 26–27; field archeologist and asst. to Dr. A. E. Douglass, 2nd Nat. Geog. Soc. beam exped, 28, field archeologist, 3rd exped, 29; leader, Museum North. Ariz. archeol. expeds, 30–38; in charge archeol. research, Rainbow Bridge-Monument Valley expeds, 33, 34; asst. director, Civil Works Admin. projects, Nalakihu, Wupatki, Kiet Siel pueblos, 34. Assoc. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Soc. Mammal; West. Bird Banding Asn; North. Ariz. Soc. Sci. and Art. Southwestern archeology and ornithology.

Hargreaves, Prof. George W(alter), Alabama Polytechnic Institute, Auburn, Ala. *Pharmaceutical chemistry.* Lincoln, Nebr, May 24, 03. B.S, Nebraska, 25, M.S, 26; Michigan, 29–30. Res. pharmacist, Nebraska, 25–26; asst. prof, *sch. pharmacy, Ala. Polytech,* 26–35, *assoc. prof, 35–* Summers, asst, Michigan, 29, 30. Chem. Soc; Pharmaceut. Asn; Ala. Acad. Thalleioquin reaction; organic compounds of arsenic; action of potassium iodide on strychnine sulfate; incompatibility of alcohol and chloral hydrate; identification of barbiturates; hydroxyquinoline.

Haring, Dr. Alexander, 2489 Sedgwick Ave, New York, N. Y. *Engineering.* Troy, N. Y, Aug. 19, 71. C.E, Rensselaer Polytech, 95, LL.B, N. Y. Univ, 09, LL.M, 10, J.D, 11. Prof. bridge and ry. eng, N. Y. Univ, 05–38; *attorney, 09–* Consulting engineer; sec'y, Dept. Pub. Works, New York, 39. Civil Eng; N. Y. Soc. Professional Eng. (pres, Bronx County chap, 31–33). Contracts; specifications.

Haring, Dr. C(larence) M(elvin), University of California, Berkeley, Calif. *Veterinary science.* Freeville, N. Y, June 1, 78. D.V.M, Cornell, 04. Asst. vet. anat, Cornell, 03–04; instr. vet. science and bacter, *California,* 04–06, asst. prof. *vet. science,* 06–12, *prof, 13–,* director, Exp. Sta, 20–24; *consultant, War Manpower Cmn, 42–* Lecturer, San Francisco Vet. Col, 07–08. Capt, V.C, 18–19. A.A; Vet. Med. Asn. (sec'y, 15); Soc. Bact. Animal diseases.

Haring, H(orace) E(gbert), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrochemistry.* Delanco, N. J, Aug. 30, 95. B.S, Franklin and Marshall Col, 16; A.M, Princeton, 17. Bur. Standards, 19–20, assoc. chemist, 20–28; *research electrochemist,* Victor Talking Machine Co, 28–29; *Bell Tel. Labs, 29–* Asst. chemist, Ordnance Dept, U.S.A, 17–19. Electrochem. Soc; Chem. Soc. Electrodeposition; storage batteries; corrosion; electrode potentials; chromium plating.

Haring, Prof. Malcolm M(orrison), University of Maryland, College Park, Md. *Chemistry.* Delanco, N. J, May 4, 94. A.B, Franklin and Marshall Col, 15; A.M, Princeton, 16; Ph.D, Columbia, 24. Asst. instr, Princeton, 16–17; prof. chem. and head dept, Lebanon Valley Col, 19–21; asst, Columbia, 21–23; asst. prof. *physical chem, Maryland,* 23–25, assoc. prof, 25–30, *prof, 30–* Lecturer, grad. sch, U. S. Dept. Agr, 29– Assoc. ed, 'Jour. Chem. Educ.' Cooperating expert, Int. Critical Tables. Asst. chemist, Ordnance Dept, U.S.A, 17–19. Chem. Soc; Electrochem. Soc; Wash. Acad. Physical and inorganic chemistry; separation of the isotopes of mercury by electrolysis; electrode potentials; catalysis; hydrogen ion concentration; precipitation limits; vapor pressures; solubility.

Haring, Dr. Robert C(linton), Hampton Brook Drive, R. F. D. 2, Hamburg, N. Y. *Chemistry.* Seattle, Wash, Aug. 30, 06. B.S, Washington (Seattle), 29; Ph.D, Wisconsin, 33. Chemist, E. I. du Pont de Nemours and Co, 29–30; *research chemist, Nat. Aniline and Chem. Co, Buffalo, 33–* Paper manufacture; oxidation of stannous chloride by oxygen.

Harkema, Dr. Reinard, North Carolina State College, Raleigh, N. C. *Zoology.* Grand Rapids, Mich, Nov. 23, 10. A.B, Calvin Col, 32; biol. sta, Michigan, 31; univ. fellow, Duke, 34–35, Ph.D, 35. Asst. zool. and instr. bot, Calvin Col, 31–32; asst. zool, Duke, 32–34; prof. biol, Elon Col, 35–36; instr. *zool, N. C. State Col,* 36–39, asst. prof, 39–41, *assoc. prof, 41–, parasitologist, Exp. Sta, 37–* Soc. Parasitol; N. C. Acad. Parasitology; parasites of rodents; trematodes; poultry cestodes; parasites of game animals.

Harker, Dr. David, General Electric Co, Schenectady, N. Y. *Chemistry.* San Francisco, Calif, Oct. 19, 06. B.S, California, 28; Ph.D, Calif. Inst. Tech, 36. Instr. chem, Hopkins, 36–38, assoc, 38–41; assoc. ed, 'Jour. Chem. Physics,' 41; *mem. research lab, Gen. Elec. Co, 41–* Soc. Metals. Crystal structure; electron microscopy.

Harkin, Dr. Duncan C(laire), 3000 Crest Ave, Cheverly, Md. *Mathematics.* Cameron, W. Va, Sept. 20, 99. A.B, West Virginia, 21, A.M, 23; Ph.D, Chicago, 27. Instr. *math,* West Virginia, 23–25; Florida, 25–26; lecturer, Manitoba, 26–27; assoc. prof, Ala. Polytech, 27–37, prof, 37–38; *instr, Brooklyn Col, 38–; mathematician, U. S. Navy Dept, 41–* A.A; Math. Soc; Math. Asn. Theory of numbers.

Harkins, Dr. Henry N(elson), Johns Hopkins University Hospital, Baltimore, Md. *Surgery, Physiology.* Missoula, Mont, July 13, 05. B.S, Chicago, 25, scholar, 25–26, M.S, 26, Douglas Smith fellow, 26–28, Ph.D, 28, M.D, Rush, 31. Intern, Presb. Hosp, Chicago, Ill, 30–31; asst. res. surgeon, clinics, Chicago, 31–36, chief res. surgeon, 36–38, res. neurosurg, 32–33; Guggenheim Mem. Foundation fellow, Edinburgh, Ghent, Frankfurt and Uppsala, 38–39; assoc. surgeon, Henry Ford Hosp, 39–43; *assoc. prof. surg, sch. med, Hopkins, 43–* Nat. Hosp, London and Univ. Edinburgh, 33; Douglas Smith fellow, Chicago, 34. Mem. Am. Board Surg. Fel. Am. Med. Asn; Soc. Exp. Biol; fel. Col. Surg; Human Serum Asn; Soc. Univ. Surg; Federation Clin. Research; Physiol. Soc; Cent. Surg. Asn; Cent. Soc. Clin. Research; Mich. Acad. Surface tension of blood serum; acid-base and bromide-chloride equilibrium; circulation time; granulocytopenia; intussusception; embolectomy; burns; freezing; surgical shock; bile peritonitis; poliomyelitis; treatment of burns; rupture of spleen; hernia; varicose veins; plastic surgery; physiology of liver.

Harkins, Prof. W(illiam) D(raper), University of Chicago, Chicago, Ill. ****Chemistry.* Titusville, Pa, Dec. 28, 73. A.B, Stanford, 00, Ph.D, 08; Chicago, 00, 04; Karlsruhe, 09–10. Asst. *chem,* Stanford, 98–00, instr, 00; prof, Montana, 00–12; instr, *Chicago,* 12–14, assoc. prof, 14–17, prof, 17–35, *Andrew MacLeish distinguished service prof, 35–* Research assoc, Mass. Inst. Tech, 10; lecturer, Mellon Inst, 15–17, Illi-

nois, 18–19, George Fisher Baker non-res. lecturer, Cornell, 36. Special agent, smelter smoke investigations, U. S. Dept. Justice, 10–12; consulting chemist, U. S. Bur. Mines, 20–21; consulting engineer, A.S, 24–27; consultant, C.W.S, 25– Pres, Missoula Board Health, Mont, 07–12; Chicago Cmn. on Ventilation, 15– Willard Gibbs medal, Am. Chem. Soc, 28. Nat. Acad; Chem. Soc. Chronic poisoning of herbivorous animals by arsenic; excess-potential and the Marsh test; tri-ionic salts; structure, evolution and stability of atoms; surface energy and entropy; over-voltage; solubility; spectrum of the isotopes of lead; separation of chlorine, mercury and zinc into isotopes; poly-molecular and mono-molecular films; radio-activity of potassium and rubidium; atomic weight of chlorine in the meteorites and in rocks; emulsions; photography of the building and disintegration of atoms; orientation of molecules at liquid and solid surfaces; spectroscopy of chemical effects of electrical discharges; molecular rays; Raman spectra; neutrons; artificial radioactivity; energy of gamma rays.

Harkness, Prof. Harold W(ilson), Queen's University, Kingston, Ont, Can. *Physics.* Cornwall, Ont, Feb. 14, 91. B.Sc, Queen's (Can), 13, B.A, 15; M.Sc, McGill, 29, Ph.D, 30. Douglas tutor math, Queen's (Can), 11–13; asst. munic. engineer, Cornwall, Ont, 13–15; instr. *physics,* Cheeloo Univ, Shantung, China, 15–21, prof, 22–27; demonstrator and asst, McGill, 27–30; assoc. prof, Acadia, 30–36; prof, Memorial Col, 36–37; New Brunswick, 37–38; *asst. prof, Queen's (Can), 38–* Lecturer, Royal Can. Air Force, 40–42. Summers, research engineer, Que. Forest Industrial Asn, and Price Brothers and Co, Ltd, Que, 29–32. Mem, Fisheries Research Board, Newfoundland, 37. Physical Soc; Eng. Inst. Can. Properties of hygroscopic materials; forest fire hazard; absorption of moisture in leaf mould and its relation to forest fire hazard; Stark effect in xenon.

Harkness, Dr. Roy W(endell), 139 Rutgers Ave, Swarthmore, Pa. *Chemistry.* Yorkville, Ill, Dec. 12, 00. B.S, Illinois, 24; Ph.D, California, 28. Chemist, Solvay Process Co, 24–25; physical chemist, bur. chem. and soils, U. S. Dept. Agr, 28–35, *chemist,* Sun Oil Co, 35–37; *Catalytic Develop. Co, 37–* Chem. Soc. Ionization in gases; reaction kinetics and catalysis; petroleum.

Harkness, Prof. William J(ohn) K(nox), University of Toronto, Toronto, Ont, Can. *Biology, Limnology.* Iroquois, Ont, April 28, 96. B.A, Toronto, 22, M.A, 23. Asst, Edmonton, 22–23, lecturer, 23–24; *Toronto,* 24–29, asst. prof. biol, 29–38, *assoc. prof. limnol, 39–* Director, Fisheries Research Lab, Ont, 24–; exchange prof, Florida, 40–41. Summer, prof, Franz Theodore Stone lab, Ohio State, 41; fisheries research, 42–43. A.A; Limnol. Soc. (pres, 40); Soc. Ichthyol. and Herp. (v. pres, 40–42); Fisheries Soc; Fla. Acad; Royal Can. Inst. Fisheries; limnology.

Harlan, Dr. Harry V(aughn), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* London Mills, Ill, Feb. 19, 82. B.S, Kans. State Col, 04, M.S, 09; Sc.D, Minnesota, 14. Instr. agr, Philippine Islands, 05–08; *barley investigations, bur. plant indust, U. S. Dept. Agr, 09–, prin. agronomist.* Agr. reconnaissance, Titicaca Plateau, 13–14; crop surv, Cent. Europe and Balkans, 19; cereal collector, Africa, India and Spain, 23–24. A.A; Soc. Agron; Wash. Acad. Breeding, classification and growth of barley.

Harlan, O(rlan) K(ent), State College, Pa. *Mechanical engineering.* Ohio, 77. B.S, Purdue, 05, M.E, 06, E.E, 08. Machinist, Pa. R. R. Co, 02–02; designer, motive power and machine dept, Del, Lackawanna and West. Ry, 02–08; eng. staff, U. S. Govt, Panama Canal, 09–15; eng. design, U. S. Steel Corp, 15–19; asst. prof. mech. eng, Pa. State Col; *consulting mech. engineer.* Roosevelt Service medal, Panama Canal. Eng. Educ; Ry. Asn; Centre County Eng. Soc. Temperature entropy chart for ammonia with zero of entropy at minus 40 degrees Fahrenheit; heat treating for machinists.

Harlan, Dr. William R(obert), The American Tobacco Co, 400 Petersburg Pike, Richmond, Va. *Chemistry.* McCoysville, Pa, Aug. 16, 04. B.S, N. Mex. Col, 25; Tobacco By-Products and Chem. Corp. fellow, Iowa State Col, 27–28, Ph.D, 28. Asst, Iowa State Col, 26; research chemist, Stein Hall and Co, 29; *Am. Tobacco Co,* 30–35, *asst. director research, 36–* A.A; Chem. Soc; Inst. Chem. Nicotine; tobacco; tobacco smoke; adhesives.

Harland, Prof. J(ames) Penrose, 1 Brierbridge Lane, Chapel Hill, N. C. *Archeology.* Wenonah, N. J, Feb. 5, 91. A.B, Princeton, 13, A.M, 15, Ph.D, 20; Bonn, 13–14. Archaeol. Inst. Amer. fellow, Am. Sch, Athens, 20–21; instr. Greek and archeol, Michigan, 21–22; asst. prof. classics and archeol, North Carolina, 22–23; Greek and archeol, Cincinnati, 23–26; Guggenheim Mem. Foundation fellow, Athens, 26–27; assoc. prof. *archeol, North Carolina,* 27–29, *prof, 29–* Lecturer, Archaeol. Inst. Amer. Soc. Oriental Res; Archaeol. Inst. Amer; Archaeol. Club; Philol. Asn. The Bronze Age civilization of the Aegean; Helladic civilization.

Harley, C(layton) P(rice), P. O. Box 99, Wenatchee, Wash. *Physiology.* Royersford, Pa, March 20, 96. B.S, Maryland, 23, M.S, 24, fellow, 25–26. Field asst, office fruit diseases, *U. S. Dept. Agr, Wenatchee,* 25–26, asst. physiologist, 26–28, assoc. physiologist, *div. fruit and veg. crops and diseases,* 28–37, *physiologist, 37–, in charge field sta. physiol. production and disease investigations, 30–* Soc. Hort. Sci; Soc. Plant Physiol. Growth and chemical composition of fruits and fruit trees; acetaldehyde in Bartlett pears; water-core in apples; soft scald; starch splitting enzyme in apple fruits; fruit-bud differentiation; fruit thinning and biennial bearing.

Harley, Dr. G(eorge) W(ay), Ganta Methodist Mission, via Monrovia, Liberia, W. Africa. *Anthropology.* Asheville, N. C, Aug. 8, 94. A.B, Duke, 16; M.D, Yale, 23; D.T.M. and H, London Sch. Trop. Med, 25; Ph.D, Hartford Sem. Foundation, 38. *Med. supt,* Harrington Hosp, Grenfell Mission, Labrador, 24; *Ganta Methodist Mission, Liberia, W. Africa,* 26–30, *32–*; fellow anthrop, Harvard, 30–31. Research assoc, Peabody Museum, Harvard, 31–42. Am. Med. Asn; Royal Anthrop. Inst. Gt. Britain and Ireland; Royal Soc. Trop. Med. and Hygiene; Royal Geog. Soc; Royal African Soc. Physical anthropology; ethnology; native African medicine; African secret societies; symptomatology of yaws.

Harley, Prof. Harrison L(eRoy), 64 Sewall Ave, Brookline, Mass. *Psychology.* Kenilworth, Pa, Jan. 25, 87. B.S, Pennsylvania, 11; Ph.D, Harvard, 21. Asst. psychol, Pennsylvania, 11–14; instr, Pa. State Col, 14–15; state psychologist, Lincoln State Sch. and Colony, Ill, 15–17, div. criminol, 17–20; assoc. prof. and *prof. psychol, Simmons Col. (Mass), 20–* A.A; assoc. Psychol. Asn; Inst. Criminal Law and Criminol. Applied psychology.

Harlow, Prof. H(arry) F(rederick), University of Wisconsin, Madison, Wis. *Psychology.* Fairfield, Iowa, Oct. 31, 05. A.B, Stanford, 27, Ph.D, 30. Asst. prof. *psychol, Wisconsin,* 30–39, *assoc. prof, 39–* A.A. Comparative and physiological psychology.

Harlow, Ivan F(rederick), The Dow Chemical Co, Midland, Mich. *Chemistry.* Springport, Mich, March 16, 85. A.B, Michigan, 08. Chemist, *anal. lab, Dow Chem. Co,* 09–11, *in charge, 11–, supt. bromide div, 18–* A.A; Chem. Soc.

Harlow, Prof. William M(orehouse), New York State College of Forestry, Syracuse, N. Y. *Chemistry.* Somers, Conn, Dec. 18, 00. B.S, Syracuse, 25, M.S, 26, Ph.D, 28. Instr. and *asst. prof. wood technol, N. Y. State Col. Forestry, Syracuse, 28–* Summers, Nat. Park Service, Yosemite, 24; Soc. Protection N. H. Forests, 27; Cleveland Sch. Educ, 28; Sargent Col. Physical Educ, Boston, 36–40. Soc. Foresters. Wood technology; forest chemistry; microchemistry of the plant cell wall; chemistry of wood; histology of pine needles; wood technology; dendrology; nature education; camping technique; cell wall chemistry.

Harman, John H(erbert), P. O. Box 1, Trenton, N. J. *Entomology.* Brooklyn, N. Y, April 9, 92. B.S, Mich. State Col, 18. Sci. asst, bur. entom, U. S. Dept. Agr, 19–22; exten. entomologist, Mich. State Col, 22–25; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 25–28, *assoc. entomologist, 28–*

Harman, Prof. Mary T(heresa), Kansas State College, Manhattan, Kans. *Zoology.* Odon, Ind, Aug. 21, 78. A.B, Indiana, 07, A.M, 09, Ph.D, 12. Instr. *zool,* Pa. State Col, 07–10; teaching fellow, Indiana, 10–12; instr, *Kans. State Col,* 12–14, asst. prof, 14–17, assoc. prof, 17–21, *prof, 21–* Summers, teaching fellow, biol. sta, Indiana, 05, instr, 06–09, 11–13; in charge invert. embryol, Puget Sound Biol. Lab, 25–27; Am. Asn. Univ. Women fellow, Naples, 29. A.A; Soc. Nat; Soc. Zool; Micros. Soc; Genetic Asn; Kans. Acad. (pres, 26). Regeneration and cytology; embryology; teratology.

Harman, Dr. Pinckney J(ones), Georgetown University School of Medicine, Washington, D. C. *Anatomy.* Washington, D. C, Feb. 20, 13. B.S, Georgetown, 34, M.S, 35;

George H. Knight Mem. fellow, Yale, 39–40, Ph.D, 41. Asst. biol, *Georgetown*, 34–35, *instr*, 35–37, *anat, sch. med*, *40–* A.A; Asn. Anat. Anesthesia and the electromotive force of the rodent nervous system; stable voltage patterns in the amphibian neuraxis; neuro-anatomy.

Harman, S(amuel) W(illard), New York Agricultural Experiment Station, Geneva, N. Y. *Entomology*. Geneva, N. Y, Feb. 24, 94. B.S, Mich. State Col, 17; M.S, Cornell, 26. Asst. *entom, N. Y. Exp. Sta, Geneva*, 22–29, *assoc, 29–* Asn. Econ. Entom. Biology and control of apple insect pests, especially the codling moth; spray residue.

Harmer, Dr. Paul M, Michigan State College, East Lansing, Mich. *Soils*. Dodge Center, Minn, March 6, 88. B.S, Carleton Col, 11; M.S, Minnesota, 15, Ph.D, 20. Instr, high sch, Minn, 11–13; soils, sch. agr, Minnesota, 14–15; prof. chem, Nebr. Wesleyan, 17–18; asst. prof. *soils*, Wisconsin, 19–21; research assoc, *Mich. State Col*, 21–42, *prof. and research prof, 42–* Agricultural reclamation and management of muck land.

Harmison, Dr. Charles R(ice), Armour Laboratories, Union Stock Yards, Chicago, Ill. *Physical chemistry*. Lewistown, Mont, Feb. 28, 16. A.B, Montana, 37; Ph.D, Illinois, 41. Asst. inorg. chem, Illinois, 37–40; research fellow physical chem, Harvard Med. Sch, 40–42; *research chemist*, Prolamine Products, Inc, 42–43; *chem. research dept, Armour Labs, 43–* Chem. Soc. Physical chemistry of proteins.

Harmon, Prof. Daniel L(ewis), University of Detroit, Detroit, Mich. *Physics*. Milltown, Pa, Aug. 6, 95. B.S, Pa. State Col, 21, M.S, 23; Ph.D, Indiana, 33. Instr. *physics*, Pa. State Col, 21–23; prof, St. Mary-of-the-Woods Col, 23–43; *head dept, Detroit, 43–* Summers, instr, Pa. State Col, 21–24; Ind. State Teachers Col, Terre Haute, 28, 29. Asn. Col. Physics Teachers Ind; Ind. Acad. Architectural acoustics.

Harmon, Dr. F. Carlyle, Marathon Paper Mills Co, Rothschild, Wis. *Chemistry*. Sugar City, Idaho, Jan. 17, 05. A.B, Stanford, 27, Ch.E, 28, Ph.D, 30. Instr, Calif. State Teachers Col, San Jose, 28–29; *research chemist, Marathon Paper Mills Co, 30–* Chem. Soc. Cellulose and lignin chemistry; utilization of redwood waste and waste sulfite liquor.

Harmon, Prof. F(rancis) L(elande), 327 N. Taylor Ave, St. Louis, Mo. *Psychology*. Charlottesville, Va, Nov. 23, 07. A.B, Hampden-Sydney Col, 28; A.M, Columbia, 29, Ph.D, 33; Louvain, 38–39. Reader psychol, Columbia, 30–31; instr. and psychologist, Anderson Sch, N. Y, 31–33; master, Kirmayer Sch, New York, 33–34; instr. *psychol, St. Louis*, 34–38, asst. prof, 38–42, *assoc. prof, 42–* Instr, Am. Inst. Banking, 33–34. Midwest. Psychol. Asn. General experimental psychology; physiological psychology; personality.

Harmon, Dr. G(alus) E(lijah), Detroit Department of Health, Herman Kiefer Hospital, Detroit, Mich. *Public health*. Wilmington, Mass, June 13, 87. M.B, Boston, 08, M.D, 09; C.P.H, Harvard, 14; Mass. Inst. Tech, 12–13; Univ. Col, London, 25–26. Instr. hygiene and bacter, sch. med, Western Reserve, 14–16, senior instr, 16–18, asst. prof, 18–24, assoc. prof, 24–34, acting head dept, 17–19, 22–23; professorial lecturer epidemiol. and vital statist, Chicago, 34–37; *med. statistician, Dept. Health, Detroit, 37–; assoc. prof. prev. med. and pub. health, col. med, Wayne, 39–* Registrar vital statist, Dept. Health, Cleveland, 16–18; epidemiologist, Board Health, Chicago, 34–37. A.A; fel. Pub. Health Asn. (chairman, vital statist. sect, 33–36); Am. Med. Asn; Statist. Asn.. Epidemiology; medical statistics.

Harmon, Prof. H(erbert) W(illiam), 418 Poplar St, Grove City, Pa. *Physics*. Near Geneva, N. Y, Dec. 15, 71. B.L, Hobart Col, 93, M.L, 97; B.S, Cornell, 95; Sc.D, Grove City Col, 31. Dept. science, St. John's Mil. Acad, Wis, 95–98; Southwest. State Nor. Sch, Pa, 98–06; *prof. physics and head dept, Grove City Col, 06–* Radio div, Bur. Standards, 18. A.A; Cent. Asn. Sci. and Math. Teachers. Radio telephone.

Harmon, Dr. Irvin W, 123 N. Everett Ave, Glendale, Calif. *Comparative physiology*. Laic, Hawaii, June 18, 93. B.S, Utah Col, 16; M.S, California, 31, Ph.D, 34. Instr, high sch, Wyo, 21–29; asst, California, 31–34; *director research, Taylor Milling Corp, 34–* Hemoglobin regulation in chickens; pathological effects of dietary excesses in poultry.

Harmon, Dr. J(esse), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Lexington, Ind, Sept. 30, 06. A.B, Hanover Col, 28; A.M, Illinois, 30, Ph.D, 33. Asst, sch. med, George Washington, 33; *research chemist, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Organic chemistry.

Harmon, Dr. Paul H(ardin), 505 Ballantine Road, Bloomington, Ind. *Bacteriology, Surgery*. Gallatin, Mo, July 6, 06. B.S, Chicago, 25, Ph.D, 29, M.D, Rush, 30. Special investigator, Int. Cmt. Study Infantile Paralysis, 28–30; house officer *surg*, Hopkins Hosp, 30–31; res. surg. and orthop. surg, Billings Hosp, Chicago, 31–35; *instr. orthop. surg, Chicago, 35–* Ill. State Infantile Paralysis Cmt; director, State Div. Handicapped Children, Ill; mem, Am. Board Orthop. Surgeons. Am. Med. Asn; Acad. Orthop. Surg; Chicago Orthop. Club. Paratyphoid group of bacteria; food poisoning; etiology, laboratory study and immunology of poliomyelitis; bone tumors; peritonitis and experiments on bone; shock.

Harmon, Prof. Paul M(ontgomery), Indiana University, Bloomington, Ind. *Physiology*. Elwood, Ind, July 20, 92. A.B, Indiana, 14, A.M, 15, Ph.D, 20. Instr. *physiol, Indiana*, 18–21, asst. prof, 21–23, assoc. prof, 23–38, *prof, 38–, chairman dept, 41–* A.A; Physiol. Soc. Effect of certain drugs upon secretion of adrenin; physiology of muscular activity.

Harnden, Dr. E(dward) E(ugene), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Veterinary bacteriology*. Natoma, Kans, April 2, 89. B.S, Okla. Agr. and Mech. Col, 12, D.V.M, 23; summers, Chicago, 19, Colorado, 29, Kans. State Col, 39. Instr. chem. and bacter, *Okla. Agr. and Mech. Col*, 13–20, asst. prof. *bacter. and vet. med*, 23–27, *assoc. prof*, 27– Vet. Med. Asn; Okla. Vet. Med. Asn. Blackhead in turkeys; blue-bag in the ewe; spore bearing anaerobes.

Harne, Prof. O(liver) G(lenn), University of Maryland, Baltimore, Md. *Histology, Physiology*. Frederick, Md, May 5, 95. George Washington, 15–17; Army Med. Sch, 17; Hopkins, 21, 28, 29. *Assoc. prof*. pharmacol, George Washington, 19–20; *Maryland*, 20–28, physiol, 28–34, *histol, 34–* U.S.A, 17–19. A.A; Physiol. Soc; Md. Biol. Soc. Physiology of smooth muscle; blood; apparatus development; life duration of red blood cell.

Harned, Prof. Ben K(ing), Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Pharmacology, Toxicology*. Hopkinsville, Ky, Nov. 16, 00. B.S, Emory, 22; M.S, Tennessee, 25; Ph.D, Washington (St. Louis), 29. Instr. chem, col. med, Tennessee, 22–26; asst. biochem, sch. med, Washington (St. Louis), 26–29; asst. prof. physiol. chem, col. med, Tennessee, 29–30, assoc. prof, 30–33, *pharmacol*, 33–34, *prof*, 34–35; *Woman's Med. Col. of Pa, 35–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Pharmacol; Soc. Exp. Biol; Physiol. Soc. Phila. Blood sugar; oxidation of sugars; peroxidation of sugars and methylene blue; induced oxidations; activation of biological systems by cyanide; oral administration of insulin; effect of morphine and dilaudid on intestinal activity; carbohydrate metabolism; oxytocic action of strontium and calcium; factors influencing conjugation of sulfonamides.

Harned, Prof. Herbert Spencer, Yale University, New Haven, Conn. ***Physical chemistry*. Camden, N. J, Dec. 2, 88. A.B, Pennsylvania, 09, B.S, 10, fellow, 12–13, Ph.D, 13. Instr. *physical chem*, Pennsylvania, 13–17, asst. prof, 17–26, *prof*, 26–28; *Yale, 28–* Cooperating expert, Int. Critical Tables. Capt, C.W.S, 18–19. A.A; Chem. Soc; Faraday Soc. Chlorids of columbium; conductance titrations; electrometric analysis; adsorption of gases on charcoal; homogeneous reaction velocities and catalysis; thermodynamics of electrolytic solutions; neutral salt effects in concentrated aqueous solutions; dissociation of water in salt solutions; dissociation of weak electrolytes and ampholytes in water and in aqueous salt solutions.

Harned, Prof. H(orace) H(ammerton), Mississippi State College, State College, Miss. *Bacteriology*. Hughesville, Md. B.S, Miss. Agr. and Mech. Col, 13, M.S, 15; Wisconsin, 21; Ph.D, Iowa State Col, 39. Assoc. prof. *bacter*, Miss. Agr. and Mech. Col, 13–32, *Miss. State Col*, 32–37, *prof, 37–* Soc. Bact. Bacteriology of green manures; classification of the proteolytic micrococci isolated from dairy products.

Harned, J(oseph) E(dward), 56 Second St, Oakland, Md. *Systematic botany*. Oakland, Md, Dec. 1, 70. Phila. Col. Pharmacy, 90–92. *Pharmacist, Oakland, 92–* Lecturer, teachers insts. and high schs. A.A; Bot. Soc; Wild Flower Preservation Soc. Vegetable physiology; systematic, medical and descriptive botany; wild flowers of the Alleghenies.

Harned, R(obey) W(entworth), 4417 Garfield St, N.W, Washington, D. C. *Entomology*. Charles Co, Md, July 16,

84. Franklin Col. (Ohio), 01–02; B.S.A, Ohio State, 06; Cornell, 08, 14; Chicago, 26. Asst. biologist, Miss. Agr. and Mech. Col. and Exp. Sta, 06–08, prof. zool. and entom. and entomologist, 08–31; *leader, div. cotton insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–* Entomologist, sec'y and exec. officer, State Plant Board, Miss, 18–31. Chairman, South. Plant Board, 26–28; mem. Nat. Plant Board, 28–31. A.A; Entom. Soc; Asn. Econ. Entom. (3rd v. pres, 22, 4th v. pres, 24, pres, 27); Ecol. Soc; Soc. Parasitol; Texas Entom. Soc; Biol. Soc. Wash; Entom. Soc. Wash. Cotton insects.

Harner, Harold R(ussell), 612 W. A St, Joplin, Mo. *Physical chemistry.* Fulton, Mo, Feb. 7, 01. A.B, Westminster Col, 24. Control chemist, Swift and Co, East St. Louis, Ill, 23; chief chemist, Calbeck Labs, Joplin, Mo, 27–30; research chemist, *Eagle-Picher Lead Co,* 24–27, chief storage battery research chemist, 30–36, *chief chemist, 36–* A.A; Chem. Soc; Electrochem. Soc. Storage battery technology.

Harnes, Dr. Alvin Russell, 55 E. 65th St, New York, N. Y. *Medicine.* Cape Girardeau, Mo, March 8, 94. A.B, Southeast Mo. State Teachers Col, 15; fellow, St. Louis, 27, M.D, 27; Chicago. Instr. chem, St. Louis, 22–26; mem, Rockefeller Inst, 27–29; pathologist, children's div, Bellevue Hosp, Columbia, 29–30; chief congenital luetic clinic, med. col, Cornell, 32–35; *assoc. univ. physician, Columbia, 35–* Capt, Sanit. C, 18–19, lieut. col, M.R.C. A.A; Am. Med. Soc; Harvey Soc. Blood chemistry; syphilis; tumor.

Harness, Prof. George T(homas), Jr, 318 Oakdene Ave, Palisades Park, N. J. *Electrical engineering.* Galveston, Ind, March 14, 06. B.S, Calif. Inst. Tech, 28, Ph.D, 33. Asst. prof. eng, Col. of Pacific, 29–31, assoc. prof, 33–34; instr. *elec. eng, Columbia,* 34–39, *asst. prof, 39–* Elec. Eng; Eng. Educ. Arc phenomena.

Harnly, Prof. H(enry) J(acob), 1322 E. Euclid St, McPherson, Kans. *Biology, Geology.* Manheim, Pa, Feb. 23, 62. B.S, Ill. Wesleyan, 91, A.M, 92, Ph.D, 00; A.B, Harvard, 92; Stanford, 10–11. Prof. nat. sciences, *McPherson Col,* 92–11, *biol,* 11–34, *emer. prof, 34–,* acting pres, 13–14, dean, 14–25, v. pres, 25–32, *curator museum.* Trustee and sec'y, McPherson Col, 93– A.A; Kans. Acad. (past pres). Genetics; longevity.

Harnly, Prof. Morris H(enry), New York University, Washington Square, New York, N. Y. *Biology.* Mason City, Ill, April 19, 95. B.S, McPherson Col, 20; A.M, Columbia, 25, Ph.D, 29. Asst. zool, Columbia, 24–25; *biol, N. Y. Univ,* 25–27, instr, 27–29, asst. prof, 29–39, *assoc. prof, 39–* Investigator, Paris, 36–37. Soc. Develop. and Growth; Soc. Nat; Genetics Soc; Harvey Soc; N. Y. Acad. Developmental genetics; experimental embryology; population and selection.

Harnwell, Prof. Gaylord P(robasco), University of Pennsylvania, Philadelphia, Pa. *[17]Physics.* Evanston, Ill, Sept. 29, 03. B.S, Haverford Col, 24; A.M, Princeton, 26, Ph.D, 27. Nat. research fellow, 27–29; asst. prof. physics, Princeton, 29–37, assoc. prof, 37–38; *prof. physics, chairman dept. and director Randal Morgan lab. of physics, Pennsylvania, 38–* Ed, 'Rev. of Sci. Instruments.' A.A; fel. Physical Soc. Collisions of the second kind; electron scattering in gases; nuclear physics.

Harp, Prof. Hugh G(rant), 368 Stanton Ave, Springfield, Ohio. *Astronomy.* Boonsboro, Md, Jan. 17, 85. B.S, Chicago, 18, M.S, 24. *Asst. prof.* math, *Wittenberg Col,* 19–29, *math. and astron. and director, Elgar Weaver Observatory, 29–* A.A; Astron. Soc; Soc. Research Meteorites; Astron. Soc. Pacific. Comets; meteors.

Harper, Claude, 523 Hayes St, West Lafayette, Ind. *Animal husbandry.* Ligonier, Ind, Sept. 29, 91. B.S, Purdue, 14; M.S, Illinois, 18. Asst. *animal husbandry,* Illinois, 14–18; *Exp. Sta, Purdue,* 18–23, assoc, 23–28, *asst. chief, 28–* Soc. Animal Production; Ind. Sheep Breeders' Asn. (sec'y, 19–39); Ind. Rambouillet Sheep Breeders' Asn. (sec'y, 31–); Ind. Livestock Breeders' Asn. (sec'y, 35–). Production of sheep and other live stock.

Harper, Dr. Floyd H(enry), 117 Summers Drive, Mt. Vernon Park, Alexandria, Va. *Economics, Statistics.* Raleigh, N. C, April 1, 01. B.S, Maryland, 24; M.S, North Carolina, 25, M.Agr, 27, Ph.D, 28; Maryland, 28; LL.D, Webster, 38. Research bur. social and econ. research, N. C. State Col, 24–26; asst. instr. econ. and statist, 25–26; cotton production and marketing investigations, N. C, 26; Tariff Cmn. rep, Mex, Cuba, Isle of Pines, 27–28; tariff writing, Latin Am. trade and inter-Am. relations, U. S. Congress, 28–30; economist, U. S. Dept. Agr, 30–41; *econ. adviser, Office Production Management, 41–; capt, U. S. Army Reserves.* Director land-value surv, N. C, 25. Marketing; correlation; farm organization and marketing; foreign production and competition; foreign demand; variance analyses; forecasting and analysis of demand for and price of commodities; textile and leather machinery; textiles and other fibers.

Harper, Dr. Francis, 224 S. Chester Road, Swarthmore, Pa. *Vertebrate zoology.* Southbridge, Mass, Nov. 17, 86. A.B, Cornell, 14, Ph.D, 25. Sci. asst, U. S. Fisheries Lab, Beaufort, N. C, 13; asst. zool, Cornell, 13–14; nat. science, Brooklyn Museum, 15; special agent fisheries investigations, State Conservation Cmn, N. Y, 16; asst. biologist, U. S. Biol. Surv, 16–17, 19–21; curator, Cornell, 21–22, instr. zool, 22–25; sec'y, ed. and curator mammals and fishes, Boston Soc. Nat. Hist, 25–29; staff, 'Biol. Abstracts,' 29–35; *research assoc,* Am. Cmt. Int. Wildlife Protection, 36–39; *John Bartram Asn, 39–* Summers, instr, biol. sta, Michigan, 23, 24; field zoologist, N. Y. State Museum, 25, 26; Acad. Nat. Sciences Phila, 29. Zoologist, Geol. Surv. Can. exped, Great Slave Lake, 14. Lieut, Sanit. C, 18–19. Soc. Mammal. (cor. sec'y, 31); Soc. Ichthyol. and Herp. (v. pres, 34); Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Del. Valley Ornith. Club; Biol. Soc. Wash. Charadriiformes; Pelecanoididae; folk-lore of animals; vertebrate fauna of North America, especially Okefinokee Swamp and Athabaska regions; extinct and vanishing mammals; early American naturalists.

Harper, Dr. Harold A(nthony), University of San Francisco, San Francisco, Calif. *Physiological chemistry.* San Francisco, Calif, Sept. 22, 11. B.S, San Francisco, 33; Ph.D, Southern California, 41. Instr. biol. sciences, Loyola (Calif), 33–36, asst. prof, 36–41; *prof. biol, San Francisco, 41–; lieut, Sanit. Corps, U. S. Army, 42–* A.A; Chem. Soc; Inst. Food Technol; Wasmann Biol. Soc. (pres, 41). Nutritional physiology; vitamin physiology; intermediary metabolism.

Harper, Dean Henry Winston, 2216 Rio Grande St, Austin, Texas. *[17]Chemistry.* Boonville, Mo, Sept. 20, 59. Mound City Col, Boonville, 72–74; Ph.G, Phila. Col. Pharmacy, 81; M.D, Virginia, 92, 94; Europe, 97; LL.D, Baylor, 14. Mfg. chemist and perfumer, Ft. Worth, Texas, 81–84; chemist and metallurgist, Colo. and Refugio Mining and Smelting Co, 84–85; Compañía La Imogeña, 86; chemist and pathologist to Drs. Beall and Adams, Ft. Worth, Texas, 87–90; asst. res. physician, Rockbridge Alum Springs, Va, 92; adj. prof. chem, *Texas,* 94–97, assoc. prof. in charge sch. chem. and director chem. lab, 97–03, *prof. chem, 03–,* dean *grad. sch,* 13–36, *emer. dean, 36–* Chemist, Miner. Surv, Texas, 01–06. 5th, 7th and 8th Int. Congs. Applied Chem. Naval consulting board, south. div, S.A.T.C, 17–18. A.A; Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Electrochem. Soc; fel. Inst. Chem; Am. Med. Asn; South. Med. Asn; fel. Texas Acad. (pres, 00, v. pres, 01); fel. London Chem. Soc; Soc. Chem. Indust. London. Pharmacology; geology; pathology; chemistry of fatigue; chemistry of asphalt; amethystine blue; water analysis; analysis of several artesian waters; municipal water supply of El Paso, Texas; the waxes in the candalilla plant; bituminous coal distillation; hydrolysis of sawdust; bromids and iodids from deep wells of Texas; chemistry of the pollen of the mountain cedar.

Harper, Prof. Horace J(ames), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Soils.* Vinton, Iowa, Feb. 14, 96. B.S, Iowa State Col, 18, M.S, 20; Ph.D, Wisconsin, 23. Assoc. prof. *soils,* Iowa State Col, 23–25; *prof, Okla. Agr. and Mech. Col, 25–* A.A; Soc. Agron; Chem. Soc; Soil Sci. Soc. (pres, 42); Okla. Acad. (pres, 36); Int. Soc. Soil Sci. Soil chemistry; morphology.

Harper, Dr. John, U. S. Naval Medical Center, Washington, D. C. *Medicine.* Philadelphia, Pa, Aug. 15, 90. M.D, Medico-Chirurg. Col. of Phila, 13; U. S. Naval Med. Sch, 16. Director labs, Naval Med. Sch, 19–23, 25–29; chief munic. physician, St. Thomas, V. I, 23–25; prof. prev. med. and instr. med. zool, George Washington, 26–29; ed, 'U. S. Naval Med. Bul,' 31–33; *mem. staff, Naval Med. Center, 37–, commanding officer, U. S. Naval Hosp.* Fel. Col. Physicians; fel. Am. Med. Asn; Heart Soc. Wash. Preventive medicine.

Harper, Prof. R(obert) A(lmer), Route 5, Bedford, Va. *[17]Botany.* Leclaire, Iowa, Jan. 21, 62. A.B, Oberlin Col, 86, A.M, 91; Hopkins, 88–89; Ph.D, Bonn, 96. Prof. Greek and Latin, Gates, 86–88; instr. science, Lake Forest Acad, 89–91; prof. bot. and geol, Lake Forest Col, 91–98; *bot,*

Wisconsin, 98–11; Torrey prof, *Columbia*, 11–30, *emer. prof, 30–* Nat. Acad; A.A. (v. pres, 10); Soc. Nat. (pres, cent. branch, 07–09); Bot. Soc. (pres, 16); Phytopath. Soc; Ecol. Soc; Philos. Soc; Am. Acad; cor. mem. Deuts. Bot. Gesell. Physiology of lower plants; cytology of the fungi; fertilization of mildews; cell and nuclear division in slime molds; morphogenesis in the algae.

Harper, R(obert) B(rinton), 5000 East End Ave, Chicago, Ill. *Chemical engineering.* Evansville, Ind, Feb. 28, 82. B.S, Armour Inst. Tech, 05, Ch.E, 09. Asst. chemist, *Peoples Gas Light and Coke Co*, 05–06, chemist and lab. supt, 06–24, chief chemist, 17–24, chief testing engineer, 24–30, *v. pres. in charge research and testing, 30–*, v. pres, Peoples Gas Subsidiary Corp, 30–40; director and v. pres, Utilities Research Cmn, Inc, 30–36; *director, Chicago By-Product Corp, 34–; Five Thousand East End Ave. Bldg. Corp, 35–; director, pres. and treas, White Cliff Mining Co, 34–; director and pres, Golden Age Mines, Inc.* Trustee, Armour Inst. Tech, 28–40, director and treas, research foundation, 36–; trustee, Illinois. Beal gold medal, 31. V. pres, Int. Gas Cong, San Francisco, 15– A.A; Chem. Eng; Chem. Soc; Soc. Test. Mat. (v. chairman, cmt. on gaseous fuels); Gas Asn. (sect. v. pres, 20); Standards Asn. (chairman, sect. cmt, Z21); West. Soc. Eng. (chairman, gas eng. sect, 21); Ill. Gas Asn. (pres, 15). Chemistry and engineering of gases; education; economics.

Harper, Dr. Roland M(cMillan), University, Ala. *Geography, Ecology, Demography.* Farmington, Maine, Aug. 11, 78. B.E. Georgia, 97; Ph.D, Columbia, 05. Forestry collector, Ga. Geol. Surv, 03–04; *botanist and geographer, Ala. Geol. Surv, intermittently, 05–* Fla. Geol. Surv, intermittently, 08–31. In charge state census, Fla, 25; asst, office farm management, U. S. Dept. Agr, 17–18; research prof, Georgia, 28–29. A.A; Asn. Geog; Ecol. Soc; Eugenics Research Asn; Genetic Asn; Torrey Bot. Club; South. Hist. Asn; New Eng. Bot. Club; Asn. Southeast. Biol; Ala. Acad; Fla. Acad; Ga. Hist. Soc. Taxonomy; native weeds; vegetation; distribution and ecology of plants of the southern and eastern states; demographic problems.

Harper, Dr. V(erne) L(ester), U. S. Forest Service, Washington, D. C. *Forestry.* Monroe, S. Dak, Aug. 13, 02. B.S, California, 26, M.S, 27; Ph.D, Duke, 43. Asst, California, 26–27; research, South. Forest Exp. Sta, *U. S. Forest Service*, 27–37, chief silviculture div, 35–37, asst. chief div. forest management research, 37–43, *prin. forester, div. forest products, 43–* Naval stores cmt, Int. Union Forest Exp. Stations, 34– Soc. Foresters.

Harpster, Dr. Hilda T, State Normal College, Ypsilanti, Mich. *Entomology.* Toledo, Ohio, Oct. 9, 05. A.B, Sweet Briar Col, 27; A.M, Michigan, 29, Am. Asn. Univ. Women fellow, 37–39, Ph.D, 39. Instr. zool, Sweet Briar Col, 29–36; *asst. prof. biol. Mich. State Nor. Col, 39–* A.A; Micros. Soc; Limnol. Soc; Mich. Acad. Gaseous plastron as a respiratory mechanism in certain adult aquatic Coleoptera.

Harradon, H(arry) D(urward), 1234 Hamilton St, N. W, Washington, D. C. *Geophysics.* Auburn, Maine, Sept. 22, 83. A.B, Bates Col, 06; American Univ, 22–23; Paris, 23–24. Instr, New Hampton Lit. Inst, 06–07; head dept. Latin, Oakland City Col, 07–09; submaster, Weston High Sch, 09–10; head dept. German, Westbrook Sem, 11–12; sec'y and translator, *dept. terrestrial magnetism, Carnegie Institution*, 12–17, *librarian and translator, 18–* Co-editor, 'Jour. Terrestrial Magnetism and Atmospheric Electricity,' 28– Asst. sec'y sect. terrestrial magnetism and elec, gen. assembly, Int. Union Geod. and Geophys, Madrid, 24, U. S. del, Stockholm, 30, Lisbon, 33, Edinburgh, 36, Washington, 39. A.A; Geophys. Union (sec'y, sect. meteorol, 35–); Meteorol. Soc; Aeroarctic (Am. rep, Berlin, 30); Philos. Soc. Wash. Terrestrial magnetism and electricity; aurora.

Harrah, Prof. E(zra) C(larence), Colorado State College of Education, Greeley, Colo. *Zoology.* Douglass, Kans, March 9, 89. A.B, Southwestern Col. (Kans), 13; A.M, Illinois, 19, fellow, 20–21, Ph.D, 21. Instr, high sch, 13–17; asst. zool, Illinois, 17–20, instr, 21–22; assoc. prof. and asst. parasitologist, Wyoming, 22–26; assoc. prof. *zool*, Colo. State Teachers Col, Greeley, 26–32, *prof*, 32–35, *Colo. State Col. Educ, 35–* Summer, asst. instr, Illinois, 21. Parasitology; North American monostomes; parasites of migratory birds; circulation in the earthworm; science for colleges; Colorado Crustacea.

Harrar, Prof. Ellwood S(cott), Duke University, Durham, N. C. *Forestry.* Pittsburgh, Pa, Jan. 18, 05. B.S, Syracuse, 27, M.S, 28, Ph.D, 36. Instr. forest products, Washington (Seattle), 28–33, asst. prof, 33–36; *assoc. prof. forestry, Duke, 36–* Soc. Foresters; Int. Asn. Wood Anatomists (sec'y-treas, 38–). Wood technology; dendrology; timber mechanics; tropical woods.

Harrar, Dr. J(acob) George, Rockefeller Foundation, Mexico D.F, Mex. *Plant pathology.* Painesville, Ohio, Dec. 2, 06. A.B, Oberlin Col, 28; M.S, Iowa State Col, 29; Firestone fellow, Minnesota, 35, Ph.D, 35. Teaching fellow, Iowa State Col, 28–29; asst. prof. in charge dept. bot. and plant path, col. agr, Puerto Rico, 29–33; instr. phytopath, Minnesota, 35; asst. prof. biol, Va. Polytech, 35–37, assoc. prof, 37–41, prof, 41; prof. plant path. and head dept, State Col. Wash, and head div, Exp. Sta, 41–42; *director agr. in Mex, Rockefeller Foundation, 42–* Pathology; mycology.

Harrel, C. G, Pillsbury Flour Mills Co, 208 Third Ave, Minneapolis, Minn. *Cereal chemistry.* Plattsburg, Mo, March 13, 94. B.Ed, Mo. State Nor. Sch, 13; A.B, William Jewell Col, 16; M.S, Kansas, 20; Chicago; Minnesota. Head science dept, high sch, Kans, 16–18; chemist, Kans. Flour Mills Co, 20–21; Continental Baking Co, 21–28; *director* products control dept, Commander-Larabee Corp, 28–32; *Pillsbury Flour Mills Co*, 32–41, *research, research labs, 41–* Asn. Cereal Chem. (past pres; mem. defense cmt; chairman interrelations cmt); Soc. Bakery Eng. (director dept. visual educ); Chem. Soc; Oil Chemists Soc; Inst. Food Technol; Agr. Chem; Indust. Research Inst; Nutritional Foundation, Inc; Minn. Indust. Chem. Forum. Food research; development of new foods of improved keeping quality and better nutritional value for humans and animals.

Harrell, Dr. E(dgar) G(raham), 110 N. Chestnut, Platteville, Wis. *Mathematics.* Jefferson Co, Ind, Sept. 4, 06. A.B, Hanover Col, 30; A.M, Iowa, 31, Ph.D, 35. Instr. *math*, Iowa, 30–35; prof. and head dept, Ouachita Col; *mem. faculty, Wis. State Teachers Col.* Math. Soc; Math. Asn. Analysis situs or abstract point sets.

Harrell, Dr. M(arshall) A(llen), 228 Blue Bonnet Blvd, San Antonio, Texas. *Geology.* Smithville, Ind, Feb. 21, 00. A.B, Indiana, 21, Ph.D, 33. Asst, Iowa, 23–25; instr, Nevada, 25–26; geologist, Sun Oil Co, 26–31; asst. geologist, U. S. Geol. Surv, 33–35; geologist, Stanolind Oil and Gas Co, 36–40; *consulting geologist, 40–* Asn. Petrol. Geol. Ground water; stratigraphy.

Harrell, Dr. Thomas W(illard), Headquarters, Army Air Forces, U. S. War Department, Washington, D. C. *Psychology.* Troup Co, Ga, Sept. 8, 11. A.B, Georgia, 32, M.S, 33; Ph.D, Hopkins, 36. Asst. *psychol*, Georgia, 31–33; Hopkins, 33–36; instr, *Illinois*, 36–39, *asst. prof, 39–*; personnel technician, Adj. Gen. Office, 40–41, chief research and anal. group, personnel procedures sect, 41–42, *major, Headquarters, Air Forces, U. S. Army, 42–* Research assoc, Psychol. Corp, 36–40. Summers, fellow, eng. exp. sta, Ga. State Col, 37; research consultant, Roche, Williams and Cunnyngham, 39–40. A.A; Psychol. Asn; fel. Asn. Applied Psychol; Psychometric Soc; fel. Midwest. Psychol. Asn. Classification of military personnel; advertising appeals; selection tests for cotton mill workers.

Harries, Dr. F(ord) H(owell), 151 W. 11th Ave, Columbus, Ohio. *Entomology.* Salt Lake City, Utah, Aug. 2, 03. A.B, Utah, 27, A.M, 28; Ph.D, Ohio State, 33. Field asst, *bur. entom. and plant quarantine, U. S. Dept. Agr*, 27, junior entomologist, 28–30, 31–38, *asst. entomologist, 38–* Entom. Soc. Amer. Insect physiology and toxicology.

Harriman, Dr. Benjamin R(amage), 67 Helen St, Binghamton, N. Y. *Organic chemistry.* Monroe Bridge, Mass, Aug. 9, 13. A.B, Dartmouth Col, 35; M.S, Pa. State Col, 36, Mallinckrodt fellow, 37–38, Ph.D, 39. Asst, Pa. State Col, 36–37; *research chemist*, Wm. S. Merrell Co, 38–41; *Agfa Ansco Corp, 41–* A.A; Chem. Soc. Molecular rearrangements; synthetic chemotherapeutics; chemistry of three-color photography.

Harriman, N(orman) F(ollett), U. S. Treasury Department, Washington, D. C. *Chemical engineering.* Cameron, Mo, Jan. 12, 78. Chief chemist and engineer of tests, Union Pacific Ry. Co, 02–21; senior engineer-physicist, Bur. Standards, 21–34; *tech. asst. to director, U. S. Treasury Dept, 34–* V. chairman, Fed. Specifications Exec. Cmt. Soc. Test. Mat; Mech. Eng. Testing materials; specifications; purchasing; purchase standards.

Harriman, Prof. Philip Lawrence, Bucknell University, Lewistown, Pa. *Psychology.* Marlboro, Mass, March 10, 94. A.B, Colgate, 17, A.M, 21; M.Ed, Harvard, 30; Ph.D, N. Y. Univ, 31. Head dept. Eng, Staunton Mil. Acad, 19–23; assoc. prof, Woman's Col, North Carolina, 23–29; *prof. psychol, Bucknell, 30–* Mem. Rorschach Inst, 42– Psychol. Asn. Hypnosis; multiple personality; automatic writing; Rorschach.

Harrington, Arthur W(illiam), 528 Federal Bldg, Albany, N. Y. *Hydraulic engineering.* Watertown, N. Y, June 7, 88. C.E, Cornell, 09. Gen. eng. and constructing, 09–14; junior engineer, U. S. Geol. Surv, Idaho and Nev, 14–17; sec'y, B. B. Culture Lab, Inc, Yonkers, N. Y, 17–18; office engineer, *U. S. Geol. Surv, Albany,* 20–22, *dist. engineer in charge hydraul. investigations, N. Y, 22–, senior hydraul. engineer.* Lieut, Sanit.C, 18–20. Civil Eng. (director, 38–40); Soc. Professional Eng; Albany Soc. Eng. (pres, 41); Eng. Inst. Can. Bacteriology; hydrology and river hydraulics; flow; stream flow.

Harrington, Prof. Carlos E(lmer), University of Buffalo, Buffalo, N. Y. *Mathematics, Engineering.* Buffalo, N. Y, Feb. 9, 92. M.E, Cornell, 18; M.S, Buffalo, 25. Asst. instr. machine design, Sibley Col, Cornell, 16–17, instr, 17–18; asst. foreman, metal pattern shop, Am. Radiator Co, 18–20; instr. *math, Buffalo,* 20–27, *asst. prof, 27–* Consulting engineer, Nat. Colloids Corp, Buffalo, 28–29; Niagara Eng. Research Corp, Buffalo, 28–29; assoc, Uebelhoer Bros, Buffalo, 29–31; Pioneer Colloids Corp, 32–34. Math. Asn; Mech. Eng. (chairman, Buffalo sect, 29–31, process industries div, 29–34). Stroboscopes.

Harrington, Daniel, 3153 19th St, N. W, Washington, D. C. *Mining engineering.* Denver, Colo, April 26, 78. E.M, Colo. Sch. Mines, 00. Mine engineer and chief engineer, Utah Fuel Co, 00–07; gen. supt, Big Horn Collieries Co, Wyo, 09–14; mining engineer, U. S. Bur. Mines, 14–24; consulting engineer, Salt Lake City, 24–26; chief engineer safety div, *U. S. Bur. Mines,* 26–33, *chief health and safety branch, 33–* Min. and Metal. Eng; Coal Min. Inst; Mine Inspectors Inst; Nat. Safety Council; Min. Cong; Rocky Mt. Coal Min. Inst. Mine safety and health, including ventilation, silicosis, fires and explosions; accident prevention.

Harrington, Dr. Elmer A(dna), 6409 Beachwood Drive, Chevy Chase, Md. *Physics.* Winchendon, Mass, Oct. 7, 84. A.B, Clark, 05, A.M, 06, Ph.D, 15. Asst. physics, Clark, 05–07; instr, Williams Col, 09–12; Smith Col, 12–14; acting prof, North Carolina, 15–16; instr, Michigan, 16–17; asst. prof, Clark, 19–20; prof, Mass. Col, 20–24; research, Harvard, 24–25; assoc. physicist, Bur. Standards, 25–33, research assoc, 35–36; *physicist, bur. ordnance, Navy Dept, 37–* Lieut, U.S.N, 17–19. Optical Soc; Deuts. Physik. Gesell. Sound vibrations of a tuning-fork; di-electric constants of water solutions; exterior and interior ballistics; damping coefficient of quartz; x-ray analysis of cement; thermal properties of oils; speech transmission in submarine telephone cables; adhesives for floors.

Harrington, Prof. E(rtle) L(eslie), University of Saskatchewan, Saskatoon, Sask, Can. *Physics.* Bucklin, Mo, March 7, 87. B.S, Missouri, 10, A.B, 11; A.M, Harvard, 15; Ph.D, Chicago, 16. Sch. supt, 10–11; head dept. physics, Mo. State Teachers Col, 11–17; instr. physics, Chicago, 18; research physicist, Westinghouse Lamp Co, 18–20; *prof. physics, Saskatchewan, 20–* A.A; fel. Physical Soc; Optical Soc; Mo. Sci. and Math. Soc. (pres, 14); fel. Royal Soc. Can. Coefficient of viscosity of the air; coefficient of slip; diffusion pumps and aspirators; the motion of curling stones; aggregates of radioactive atoms; new-type vacuum pump; mobilities of aggregates; x-ray absorption; neutrons.

Harrington, Prof. F(rank) M, 1107 S. Third Ave, Bozeman, Mont. *Horticulture.* Hutchinson, Minn, April 29, 88. Minnesota, 09–10; B.S, Oregon State Col, 13; M.S, Iowa State Col, 22. Instr. *hort,* Iowa State Col, 13–21; *prof. and head dept, Mont. State Col, and horticulturist, Exp. Sta, 21–* Soc. Hort. Sci; Potato Asn. (pres, 28, 29). Shelter belts; apple pollination; apple fertilizers; potatoes.

Harrington, Dr. G(eorge) A(ldon), Mellon Institute for Industrial Research, Pittsburgh, Pa. Stockton, Calif, April 21, 13. *Organic chemistry.* B.S, Nebraska, 34, M.S, 35; Ph.D, Northwestern, 37. *Research chemist,* Solvay Process Co, 37–41; *Mellon Inst, 41–* Preparation and bacterial activity of 3, 5-dihydroxphenyl alkyl sulfides; chemotherapy.

Harrington, Geo(rge) T(raver), 32-20 150th Place, Flushing, N. Y. *Botany.* Randolph Center, Vt, Oct. 18, 85. B.S, Vermont, 09, George Washington, 12; Wisconsin; Chicago. Sci. asst, seed lab, U. S. Dept. Agr, 09–20, manager estate and grounds, 20–22; *teacher, high schs, New York, 22–* Teacher, George Washington, 12–19; Boyce Thompson Inst, 24, 25, 31, 32. A.A; N. Y. Asn. Biol. Teachers. Physiology and germination of seeds.

Harrington, Prof. H(arold) D(avid), Chicago Teachers College, Chicago, Ill. *Botany.* De Motte, Ind, March 14, 03. A.B, Iowa State Teachers Col, 27; Ph.D, Iowa, 34. Asst. prof. *bot,* Colo. State Col, 36–39; *prof, Chicago Teachers Col, 39–* Soc. Plant Taxon; Iowa Acad; Colo-Wyo. Acad. Taxonomy of woody plants; flora of Colorado, Iowa and Illinois; woody plants in winter.

Harrington, Prof. J(ames) B(ishop), University of Saskatchewan, Saskatoon, Sask, Can. *Plant breeding.* Chicago, Ill, Jan. 22, 94. B.S.A, Saskatchewan, 20; M.S, Minnesota, 22, Shevlin fellow, 23–24, Ph.D, 24. Instr. and lecturer, *Saskatchewan,* 20–22, asst. plant breeding, 22–23, asst. prof. *field husbandry,* 24–28, *prof, 29–* A.A; Soc. Agron; Can. Soc. Tech. Agr. (pres, N. Sask. sect, 30); West. Can. Soc. Agron. (pres, 30). Breeding of cereal crops; environmental effects.

Harrington, Dr. Joseph, Jr, Cherry St, Wenham, Mass. *Mechanical engineering.* Riverside, Ill, Sept. 21, 08. B.S, Mass. Inst. Tech, 30, Sc.D, 32. *Research and automatic machine design, research div, United Shoe Machinery Corp, 32–* Force analysis in dynamic mechanisms; bearing design and hydrodynamic theory of lubrication; photoelasticity.

Harrington, Dean L(ouis) C(lair), University of North Dakota, Grand Forks, N. Dak. *Mining.* Ludington, Mich, Oct. 28, 79. B.S, Michigan, 08, M.E, 09. In charge physics and eng, Western Maryland Col, 09–12; instr. metal, *North Dakota,* 12–13, asst. prof, 13–20, assoc. prof. mining and metal, 20–21, prof, 21–31, acting director *div. mines and mining experiments,* 31–32, *director, 32–,* acting dean *col. eng,* 32–33, *dean, 33–* A.A; Min. and Metal. Eng; Soc. Test. Mat; Chem. Soc; N. Dak. Acad. Chemistry and processing of lignite.

Harrington, Prof. M(arion) T(homas), Agricultural and Mechanical College of Texas, College Station, Texas. *Inorganic chemistry.* Plano, Texas, Sept. 8, 01. B.S, Agr. and Mech. Col. Texas, 22, M.S, 27; summers, Mass. Inst. Tech, 25, Michigan, 35; Ph.D, Iowa State Col, 41. Chemist, The Texas Co, 22–24; Lone Star Gas Co, 24; teacher *chem, Agr. and Mech. Col. Texas,* 24–39, assoc. prof, 39–42, *prof, 42–* Chem. Soc. Iron pentacarbonyl as a solvent and reaction medium; chemistry of varieties of onion seed.

Harrington, M(ark) R(aymond), Southwest Museum, Highland Park, Los Angeles, Calif. *Anthropology.* Ann Arbor, Mich, July 6, 82. Michigan; B.S, Columbia, 07, A.M, 08. Asst. anthrop, Am. Museum Nat. Hist, 99–02; field ethnologist, Heye Museum, 08–10; asst. curator in charge Am. sect, Pa. Museum, 11–14; archeologist and ethnologist, Museum of the Am. Indian, Heye Foundation, 15–17, 19–28; director research, *Southwest Museum,* 28–30, *curator, 30–; research assoc, Carnegie Institution, 31–; consultant, Nat. Park Service, 36–* Summers, field archeologist, Peabody Museum, Harvard, 03–06; in charge expeds, U. S, Can, Mex. and W. I. Mem, advisory cmt, Heye Foundation, 25–28. A.A; Anthrop. Asn; fel. Soc. Archeol. (v. pres, 35); Southwest. Archeol. Federation (pres, 42); Westchester County Hist. Soc. Ethnography of Sauk-and-Fox, Iroquois and Lenape Indians; archeology of Cuba, New York State, Tennessee, Arkansas, the Ozark region, California and Nevada.

Harrington, Prof. Marshall C(athcart), Drew University, Madison, N. J. *Physics.* Rockford, Ohio, Aug. 28, 04. A.B, Princeton, 26, Queen fellow, 26–27, A.M, 27, Ph.D, 32. Instr. *physics,* Princeton, 27–29, asst, 30–31; asst. prof, *Drew,* 31–37, assoc. prof, 37–41, *prof, 41–* Summer, lecturer, Princeton, 42. A.A; Physical Soc; Asn. Physics Teachers; Hist. Sci. Soc; Astron. Soc; Astron. Soc. Pacific; N. Y. Acad; Royal Astron. Soc. Can. Gas discharges.

Harrington, Dr. R(ichards) H(arry), General Electric Co, Schenectady, N. Y. *Metallurgy.* Grand Rapids, Mich, April 23, 04. B.S, Michigan, 25, M.S, 26, Sc.D, 29. Asst. metal, Michigan, 26–29; *research metallurgist, research labs, Gen. Elec. Co, 29–* A.A; Soc. Metals (exec. cmt, Schenectady chap, 31–33); N. Y. Acad; British Inst. Metals. Allotropic changes and critical ranges in the iron-carbon system; tool

steels; precipitation-hardening reactions in copper-, aluminum-, zinc- and magnesium-base alloys; cold-worked solid solution alloys; alloys containing beryllium.

Harrington, Dr. R(oger) E(rtle), University of Rochester, Rochester, N. Y. *Physics.* Maryville, Mo, Oct. 25, 16. B.Sc, Saskatchewan, 36; Ph.D, California, 41. Instr. physics, Utah State Col, 40–41; *research asst, inst. optics, Rochester, 41–* Spectroscopy.

Harrington, Prof. R(ussell) Paul, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Aeronautical engineering.* Akron, Ohio, Oct. 22, 05. Akron, 22–24; B.S.E, Michigan, 30, Frank Sheehan scholar, 30–31, fellow, 30–32, M.S.E, 31, Sc.D, 36; fellow, Daniel Guggenheim Airship Inst, 32–34. Metallurgist, Whitman-Barnes, Inc, Detroit, Mich, 25–28; instr. mech. eng. in charge aeronautics, *Polytech. Inst. Brooklyn,* 34–36, asst. prof. *aeronaut eng,* 36–39, assoc. prof, 39–41, *prof. and head dept, 41–* Ed. cmt, 'Jour. Aeronaut. Sciences.' Mech. Eng; Inst. Aeronaut. Sci. Aerodynamics; fluid mechanics; aerodynamics of airships; wind-tunnel design; structural mechanics; applied elasticity.

Harrington, Dr. Valentine F(abian), 10 Brookside Park, Milton, Mass. *Organic chemistry.* Dorchester, Mass, Oct. 13, 01. B.S, Mass. Inst. Tech, 26, Ph.D, 31. Plant chemist and inspector, Tasty Baking Co, Phila, 26–27; instr. chem, Drexel Inst, 27–28; Mass. Inst. Tech, 28–29; research, Comstock and Westcott, Inc, Boston, 30–33; *exec. chemist, Boston Blacking and Chem. Co, Cambridge, 33–* Optical crystallography; halogenated phenols; color photography; adhesives; shoe manufacturing methods, equipment and products; electronics.

Harrington, Dr. Walter J(oel), Pennsylvania State College, State College, Pa. *Mathematics.* Salamanca, N. Y, Nov. 9, 16. A.B, Cornell, 37, A.M, 38, Ph.D, 41. *Instr. math,* Cornell, 37–41; *Pa. State Col, 41–* Improvements of Brun's method in analytic number theory.

Harriott, Dr. J(ohn) F(rederick), Federal Farm Mortgage Corp, Springfield, Mass. *Agricultural economics.* Mamaroneck, N. Y, July 21, 97. B.S, Cornell, 22, Ph.D, 26; Farm Bur. fellow, Iowa State Col, 22–23, M.S, 23. Instr. farm management, Cornell, 23–26, asst. prof, 26–34; *v. pres,* Production Credit Corp, 34–36; *Fed. Farm Mortgage Corp, 36–* Farm management, records and accounts; farm tenure.

Harris, Dr. Albert J(osiah), 435 E. Fifth St, Mt. Vernon, N. Y. *Psychology.* Boston, Mass, Aug. 13, 08. A.B, Harvard, 28, fellow, 29–30, A.M, Ph.D, 30. Instr. psychol, Purdue, 30–31; Simmons Col, 31–34; psychologist, Worcester State Hosp, 34–35; *instr. psychol, sch. educ, Col. City of N. Y, 35–* Summer, instr, Purdue, 31, 40, 41. A.A; assoc. Psychol. Asn. Clinical and educational psychology; remedial reading.

Harris, Prof. A(lbert) Sidney, 2109 Adelbert Road, Cleveland, Ohio. *Physiology.* Banks, Ala, Feb. 23, 03. Fellow, Alabama, 29–30, B.S, 30; fellow, Washington (St. Louis), 33–34, Ph.D, 34. Teacher and prin, pub. schs, Ala, 22–29; Ala. Inst. Deaf and Blind, 30–31; lecturer, Cent. Inst. Deaf, St. Louis, Mo, 31–33; instr. physiol. and pharmacol, Alabama, 34–35, asst. prof, 35–37; research assoc. physiol. in otolaryngol, Washington (St. Louis), 37–39; senior instr. *physiol, Western Reserve,* 39–41, *asst. prof, 41–* A.A; Physiol. Soc; Soc. Exp. Biol. Reflexes as related to specific afferent fibers; physiology of hearing; heart and circulation; anoxic dyspnoea.

Harris, Dean B(enjamin) B(ee), North Texas State Teachers College, Denton, Texas. *Biology.* Pendleton, S. C, Dec. 23, 86. B.S, Agr. and Mech. Col, S. C, 11; M.S, Ohio State, 23; Ph.D, Texas, 29. Teacher, high sch, Texas, 11–16; biol, N. Texas State Teachers Col, Denton, 16–27; instr. zool, Texas, 27–29; *prof. biol. and director dept, N. Texas State Teachers Col, Denton, 29–, dean, 34–* A.A; N. Texas Biol. Club (pres, 26); Texas Acad. Zoology; natural history.

Harris, Dr. B(enjamin) L(ouis), 2623-C Yorkway, Dundalk, Md. *Chemical engineering.* Savannah, Ga, Aug. 1, 17. B.E, Hopkins, 38, Ph.D, 41. Asst. to Dr. Frankenburg, Hopkins, 41; 2nd lieut, *U. S. Army,* 41–42, lieut, 42, *capt, 42–, physical sect, chem. research div, research and develop. dept, Chem. Warfare Service, Edgewood Arsenal.* Chem. Soc; Chem. Eng. Adsorption of vapors by solids.

Harris, Benjamin R(aczkowski), 885 Elm Place, Glencoe, Ill. *Chemistry.* Lodz, Poland, Feb. 19, 96. B.S, Col. City of N. Y, 17; M.S, Illinois, 21. Asst, Bur. Fisheries, Woods Hole, 17–18; eng. exp. sta, Illinois, 19–21; *chemist, West. Metal Products Corp, 22–; consulting chemist, Epstein, Reynolds and Harris, 23–* V. pres, Emulsol Corp; gen. manager, Kress Products Corp. C.W.S, U.S.A, 18–19. Chem. Soc; Oil Chemists Soc; Inst. Chem; Asn. Sci. Workers; Inst. Food Technol. Foods; nutrition; synthetic organic chemistry; interface modifiers.

Harris, Dr. C(hapin) A, Plymouth Cordage Co, North Plymouth, Mass. *Chemistry.* Norwich, N. Y, July 20, 13. B.S, Michigan, 36; Ph.D, Mass. Inst. Tech, 39. *In charge lab, Plymouth Cordage Co.* Chem. Soc. Method for estimating the internal surface of cellulose by means of thallous ethylate.

Harris, Prof. C(harles) W(illiam), 3635 42nd Ave, N. E, Seattle, Wash. *Hydraulic engineering.* Seattle, Wash, Nov. 17, 80. B.S, Washington (Seattle), 03; C.E, Cornell, 05. Various eng. positions, 03–06; *Washington (Seattle), 06–,* acting head dept. civil eng, 17–20, *prof. hydraul. eng. and mem. eng. exp. sta.* Civil Eng. Technical hydraulics; practical hydrodynamics; engineering economics.

Harris, Prof. Chauncy D(ennison), University of Chicago, Chicago, Ill. *Geography.* Logan, Utah, Jan. 31, 14. A.B, Brigham Young, 33; Rhodes scholar, Oxford, 34–36, B.A, 36; London, 36–37; univ. fellow, Chicago, 37–39, Ph.D, 40. Instr. geog, Indiana, 39–41; asst. prof, Nebraska, 41–43; divisional asst, office of the geographer, U. S. Dept. State, 42–43; *asst. prof. geog, Chicago, 43–* Summer, instr, Kent State Univ, 37. Asn. Am. Geog; Council Geog. Teachers; Ind. Acad. Regional geography of Europe and the Western United States; urban geography; economic geography; manufacturing.

Harris, Dr. Clarence P(eavy), 320 E. 42nd St, New York, N. Y. *Chemistry.* Danbury, Conn, Sept. 18, 91. Chemist, Columbia, 14, A.M, 15, Ph.D, 17. Research chemist, E. I. du Pont de Nemours and Co, 18–19; chief chemist, Tower Mfg. Co, 19–22; *consulting chemist; tech. director, Universal Trade Press Syndicate.* Tech. ed, 'Cocoa and Chocolate,' 35– Chem. Soc; Oil Chemists Soc; Asn. Consulting Chem. and Chem. Eng; Army Ordnance Asn. Synthetic organic chemistry; textiles; oils; foods; lacquers; cacao products.

Harris, Prof. C(linton) L(ee), 129 W. Prospect Ave, State College, Pa. *Engineering.* Fair Play, S. C, Jan. 28, 86. B.S, The Citadel, 09; C.E, Pa. State Col, 16. Instr. eng. drawing, *Pa. State Col,* 13–16, asst. prof, 16–18, assoc. prof, 18–26, *prof. archit. eng, 26–,* head dept. archit, 30–34. Research assoc, Bur. Standards, 32–33. A.A; Civil Eng; Eng. Educ; hon. assoc. Inst. Archit. Wind pressure on tall buildings and the effect of neighboring structures on its distribution.

Harris, Prof. Coleman J, 3810 Staunton Ave, Charleston, W. Va. *Morphology.* La Plume, Pa, Dec. 22, 89. A.B, Bucknell, 12, A.M, 14, M.S, 18, 23–25; Harvard, 14–16; Cornell, 23–25; Ph.D, Pittsburgh, 35. Prof. biol, Pa. State Forestry Sch, 16–23, 25–29; Morris Harvey Col, 29–31; assoc. prof, Southwestern Col. (Tenn), 31–33; *prof. biol, Morris Harvey Col, 36–* A.A; Bot. Soc. Spermatophyta; angiosperms; development of the flower and seed in Galinsoga ciliata.

Harris, Dr. Daniel H(enry), 574 West End Ave, New York, N. Y. *Psychology.* New York, N. Y, June 16, 07. A.B, Columbia, 27, A.M, 28, Ph.D, 31. Psychiatric social worker, Hebrew Sheltering Guardian Soc, 28–29; instr. psychol, Lehigh, 30–35; educ. adviser, Civilian Conservation Corps, 35–36; asst. psychologist, U. S. Pub. Health Service, 36–37; consulting psychologist, 37–42; *lieut, H-V(S), U. S. Naval Res, 42–* Vocational adviser, Nat. Refugee Service, 38–39; psychologist, clinic, col. med, N. Y. Univ, 38–40. Summers, instr, Col. City of N. Y, 36, 37. Psychol. Asn; Soc. Psychol. Study Social Issues; Asn. Applied Psychol. Free association; intelligence; college grades; attitudes; motives; social factors in behavior; vocational guidance.

Harris, Dr. Daniel L(ambert), Department of Biochemistry, University of California, Berkeley, Calif. *Zoology.* Cold Spring Harbor, N. Y, April 10, 15. A.B, Minnesota, 36; Ph.D, Pennsylvania, 42. Instr. zool, Pennsylvania, 36–42; *nat. research fellow, California, 42–* General physiology; cell physiology; physical and chemical properties of cytoplasmic inclusions.

Harris, Dr. D(owney) L(amar), Metropolitan Bldg, St. Louis, Mo. *Pathology.* Franklin, Ky, April 26, 75. M.D, Michigan, 99. Pathologist, St. Louis City Hosp, and city bacteriologist, St. Louis, 06–13; prof. hygiene and prev. med, St.

Louis, 13–16; *pathologist, Frisco Hosp.* Consulting pathologist, U. S. Vet. Hosp. No. 92; Jewish Hosp, St. Louis; U. S. Marine Hosp. Major, M.C, 18–19. A.A; Asn. Path. and Bact; fel. Pub. Health Asn. Rabies.

Harris, Dr. Elwin E(lmer), U. S. Forest Service, Madison, Wis. *Chemistry.* Wauzeka, Wis, Nov. 11, 97. B.S, Hamline, 21; M.S, Minnesota, 22, Ph.D, 25. Instr, Hamline, 21–23; chem, North Dakota, and acting head div. org. and physiol. chem, 23–30, asst. prof, 25–29, assoc. prof, 29–30; research chemist, Dakolite Products Co, 30; assoc. chemist, *derived products sect, Forest Products Lab, U. S. Forest Service,* 30–36, chemist, 36–42, *senior chemist, 42–* U.S.A, 17–18. Chem. Soc. (chairman cellulose div, 41). Structure, chemistry, methylation, chlorination, nitration, acetylation and oxidation of lignin; groups in lignin; action of heat on cellulose; chemistry of wood, aldehyde condensation products, azo dyes, rearrangements in tolane and stilbine derivatives, and lignite coal; hydrogenation of lignin, wood and cellulose; saccharification of wood; wood plastics.

Harris, Prof. Everett W(hite), 661 Ralston St, Reno, Nev. *Mechanical engineering.* Carson City, Nev, Dec. 5, 03. B.S, Nevada, 26; M.S, Mass. Inst. Tech, 32; Ph.D, California, 41. Elec. engineer, Gen. Elec. Co, 26–28; Stone and Webster, Inc, Boston, Mass, and Gulf States Utilities Co, Texas, 28–31; office engineer, State Dept. Highways, Nev, 33–38; *asst. prof. mech. eng, Nevada, 38–* Mechanical vibrations; effects of foundation elasticity, mass and damping upon the fundamental resonant speeds of an unbalanced rotor.

Harris, Dr. Forest K(laire), National Bureau of Standards, Washington, D. C. *Physics.* Ind, 02. A.B, Oklahoma, 21, M.S, 23; Ph.D, Hopkins, 31. Asst, Munsell Color Co, 23–24; junior physicist, *Bur. Standards,* 25–28, asst. physicist, 29–39, *assoc. physicist, 40–; professorial lecturer elec. eng, George Washington, 31–* Colorimetry; spectrophotometry; electrical instruments and measurements.

Harris, Pres. F(ranklin) S(tewart), Brigham Young University, Provo, Utah. *Agronomy.* Benjamin, Utah, Aug. 29, 84. B.S, Brigham Young, 07; Ph.D, Cornell, 11. Instr. science, Juarez Acad, Mex, 04–05; asst. agr. chem, Brigham Young, 06–07; asst. chemist, Exp. Sta, Utah Col, 07–08; asst. soils, Cornell, 09–10, instr, 10–11; prof. agron, Utah Col, and agronomist, Exp. Sta, 11–21, director, 16–21; *pres, Brigham Young, 21–* Director sch. agr. eng, Utah Col, 12–16; agr. adviser to Govt. Iran, 39–40. Chairman cmt. study colonization in Russia, 29. Chairman sect. agr. eng, Int. Dry Farming Cong, 12–14. A.A; Soc. Agron. (pres, Cornell sect, 10–11, v. pres, 19, pres, 20); Agr. Eng. (councilor, 15); Farm Econ. Asn; Am. Asiatic Soc; Oriental Soc; Acad. Polit. and Social Sci; Acad. Polit. Sci; fel. Utah Acad. (pres, 16); Philos. Soc. Gt. Britain. Irrigation; dry farming; sugar beets; soils; geography.

Harris, Dr. Franklin S(tewart), Jr, University of British Columbia, Vancouver, B. C, Can. *Physics.* Logan, Utah, May 24, 12. A.B, Brigham Young, 31, A.M, 36; Ph.D, Calif. Inst. Tech, 41. Asst, Brigham Young, 35–36; Calif. Inst. Tech, 37–41; *lecturer physics, British Columbia, 41–* Summer, research, Douglas Aircraft, 41. A.A; Asn. Physics Teachers; Utah Acad. Oligodynamic effect of silver; mass spectrograph.

Harris, Dr. G(eorge) C(hriste), Hercules Powder Co, Wilmington, Del. *Organic chemistry.* Thessaly, Greece, April 2, 16. A.B, Harvard, 38, A.M, 40, Ph.D, 42. Mem. Nat. Defense Research Council, Harvard, 41–42; *org. research, Exp. Sta, Hercules Powder Co, 42–* Mannich reaction; analgesic action; oxidation of $\Delta^{9,10}$ octalin.

Harris, Prof. G(eorge) Howell, University of British Columbia, Vancouver, B. C, Can. *Horticulture.* Dent, Yorkshire, Eng, Feb. 6, 98. B.Sc, British Columbia, 22; M.S, Oregon State Col, 23; Ph.D, California, 28. Asst. *hort,* Oregon State Col, 24–25; *British Columbia,* 25–26, asst. prof, 28–37, *assoc. prof. in charge plant nutrition labs, 37–* Summers, plant disease investigator, Can. Dept. Agr, 22, 23; visiting prof, Oregon, 31, 37–40. Can. Army, 16–19. Soc. Hort. Sci; Soc. Plant Physiol; Can. Soc. Tech. Agr. (chairman, hort. research cmt, 29–31); B. C. Acad. (pres, 32–34). Plant nutrition; tree root activities; tomato and strawberry nutrition; respiration and growth.

Harris, Prof. G(ilbert) D(ennison), 126 Kelvin Place, Ithaca, N. Y. *[1]*Paleontology, Stratigraphy.* Near Jamestown, N. Y, Oct. 2, 64. Ph.B, Cornell, 86, 86–87. Asst, Ark. Geol. Surv, 87–88; U. S. Geol. Surv, 88–92; Texas Geol. Surv, 92–93; asst. prof. paleont, *Cornell,* 94–97, *paleont. and stratig,* 97–09, prof, 09–35, *emer. prof, 35–* State geologist, La, 98–09. Ed. and publisher, 'Bulletins Am. Paleont'; 'Paleont. Americana.' Founder, trustee and treas, Paleont. Research Institution, 32– A.A; Paleont. Soc. (pres, 36); Geol. Soc. (v. pres, 37); Soc. géol. de France. Paleontology and stratigraphy of the Gulf and Caribbean Neozoics.

Harris, Prof. Gorham W(aller), 185 Highland Ave, Newtonville, Mass. *Chemistry.* Providence, R. I, Jan. 7, 85. A.B, Harvard, 07, A.M, 09, Ph.D, 15. Asst. and teaching fellow *chem,* Harvard, 08–10; instr, *Simmons Col. (Mass),* 10–13, asst. prof, 14–24, *assoc. prof, 24–* Visiting lecturer, Radcliffe Col, 24–26. Summers, Harvard, 19, 25, 26, 30–33. A.A; Chem. Soc. Floating equilibrium.

Harris, Prof. Halbert M(arion), Iowa State College, Ames, Iowa. *Entomology, Zoology.* Cascilla, Miss, July 18, 00. B.S, Miss. Agr. and Mech. Col, 23; M.S, Iowa State Col, 25, Ph.D, 28. Asst. *entom, Iowa State Col,* 23, instr, 24, asst. prof, 25–35, assoc. prof, 35–42, *prof, 42–,* counselor, junior col, 34–32. Summers, asst. entomologist, Exp. Sta, Iowa State Col, 25–35; inspector, State Plant Board, Miss, 24; entomologist, Exp. Sta, Idaho, 38; asst. state entomologist, Iowa, 42. A.A; Asn. Econ. Entom; fel. Entom. Soc. Amer; fel. Iowa Acad; Kans. Entom. Soc; Wash. Acad. Systematic and economic entomology; garden and field crop pests; Nabidae of North America; Gerridae of western hemisphere; bionomics, distribution and taxonomy of heteropterous Hemiptera.

Harris, Harry, 5234 Hermosa Ave, Eagle Rock, Calif. *Ornithology.* Moberly, Mo, April 17, 78. Michigan; Washington (St. Louis). Commercial artists, 99–02; cashier, Kansas City Post Office, 02–21; sec'y, Museum Patrons Asn, and ed. and manager, 'Museum Graphic,' Los Angeles Museum Hist, Science and Art, 27–28; *curator, library vert. zool, Calif. Inst. Tech.* Ornith. Union; Cooper Ornith. Club (pres, south. div, 30); Wilson Ornith. Club; St. Louis Acad. Birds of the Kansas City region; the California condor; bibliography of the ornithology of Sinaloa, Mexico, and adjoining regions.

Harris, Prof. Henry C(layton), University of Florida, Gainesville, Fla. *Soils.* Pike Road, N. C, Dec. 12, 98. A.B, North Carolina, 22; Ph.D, Cornell, 27. Asst. *agron,* Cornell, 24–26, instr, 26–27; prof, Sam Houston State Teachers Col, Texas, 27–28; asst. prof, Delaware, 28–43, assoc. prof, 43, asst. agronomist, *Exp. Sta,* 28–43; *assoc. agronomist, Florida, 43–* A.A; Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Effect of lime on the availability of phosphorus in superphosphate and on availability of potash; hydrogen on concentration and buffer studies; effect of the minor elements on crops

Harris, Prof. Hubert A(ndrew), South Dakota State College, Brookings, S. Dak. *Phytopathology.* Durant, Okla, July 18, 09. A.B, Southeast. State Col, Okla, 30; M.S, Illinois, 32, fellow, 37–38, Ph.D, 38. Asst. biol, Southeast. State Col, Okla, 28–30; asst. botanist, Ill. State Nat. Hist. Surv, 30–33; asst. bot, Illinois, 35–37; assoc. prof. biol, Southeast. State Col, Okla, 38–42; *asst. prof. bot, S. Dak. State Col, 42–* Phytopath. Soc; Mycol. Soc; Bot. Soc; Ill. Acad; S. Dak. Acad. Mycology; botany.

Harris, Dr. Isaac F(aust), Tuckahoe, N. Y. *Chemistry.* Chapel Hill, N. C, 79. B.S, North Carolina, 00, M.S, 02; Ph.D, Yale, 15. Chemist, Conn. Exp. Sta, and Carnegie research student, 01–07; director, Lederle Antitoxin Lab, 07–12; Arlington Research Labs, 12–15; dept. biochem, E. R. Squibb and Sons, 16–19; *pres, Harris Labs, 20–* Advisory trustee, N. J. Col. Pharmacy. Chem. Soc; Soc. Exp. Biol; Pub. Health Asn; N. Y. Acad. Med. Physiological chemistry; vegetable proteids and their decomposition products; chloramines; thromboplastin; blood serum immunity; vitamins.

Harris, Prof. Isabel, University of Richmond, Richmond, Va. *Mathematics.* Lynchburg, Va, Dec. 10, 77. A.B, Richmond Col, 06; A.M, Columbia, 21; Chicago. Woman's Col. (Va), 13–15; Collegiate Sch. for Girls, Richmond, Va, 15–20; Greenville Woman's Col, 21–22; *assoc. prof. math, Westhampton Col, Richmond, 22–* A.A; Math. Asn; Va. Acad.

Harris, Dr. J(ames) E(lmer), 205 Paddington Road, Homeland, Baltimore, Md. *Chemistry.* Larned, Kans, Nov. 5, 82. A.B, Michigan, 08, M.S, 09, Ph.D, 11. Instr, high sch, Mich, 04–07; asst. physics, Michigan, 08–11, instr. chem, 11–17; research chemist, West. Elec. Co, 17–25; *Bell Tel. Labs,* 25–28, *research metallurgist, 28–* Summers, re-

search chemist, Exp. Sta, Mich. Agr. Col, 10–14. Chem. Soc; Min. and Metal. Eng; Soc. Metals; British Inst. Metals. Physical and soil chemistry; metallurgy; elastic properties of bismuth wires; lime-sulfur compounds; adsorption in soils and kaolin; soil acidity; selective adsorption in suspension colloids; thermionics; rare earth metals; cable sheath alloys; magnetic alloys; contact metals.

Harris, Dr. J(erome) S(ylvan), Duke University School of Medicine, Durham, N. C. *Pediatrics.* New York, N. Y, Feb. 27, 09. A.B, Dartmouth Col, 29; M.D, Harvard, 33. *Assoc. pediat. and biochem, sch. med, Duke, 37–* Soc. Pediat. Research; Am. Acad. Pediat. Biochemistry; chemotherapy.

Harris, Lieut. John E(dward), 230 Dartmouth Drive, Toledo, Ohio. *Biochemistry.* Toledo, Ohio, Dec. 27, 13. B.S, Toledo, 35; M.S, Iowa, 38, Ph.D, 40. Research assoc, Iowa, 40–41; nat. research fellow, Pennsylvania, 41–42; *2nd lieut. and aviation physiologist, Air Corps, U. S. Army, 42–* Permeability of living membranes to cations.

Harris, Dr. John McArthur, Jr, Barrett Division, Allied Chemical and Dye Corp, Frankford, Philadelphia, Pa. *Chemical engineering.* Philadelphia, Pa, June 16, 01. B.S, Pennsylvania, 22, M.S, 25, Ph.D, 28; Franco-Am. exchange fellow, Lyons, 26–27. Instr. chem, Pennsylvania, 22–26, 27–28; Sun Oil Co, 28–29; chem. engineer, du Pont Ammonia Corp, 29–30; Standard Oil Co. of N. J, 30–36; *instr. physical chem, evening sch, Drexel, 36–; chem. engineer, Barrett div, Allied Chem. and Dye Corp, 37–* Chem. Soc. Physical and organic chemistry; hydrogenation of oils; synthetic phenol.

Harris, Prof. J(oseph) Allen, University of British Columbia, Vancouver, B. C, Can. *Chemistry.* Long Preston, Yorkshire, Eng, July 6, 00. B.A, British Columbia, 22, M.A, 23; Ph.D, Illinois, 26. Teaching fellow, Illinois, 23–24, asst, 24–26; nat. research fellow, 26; asst. prof. chem, British Columbia, 26–27, 28–32; provincial legislator, B. C, 32–36; asst. prof. research, *British Columbia,* 36–38, *assoc. prof. chem, 38–* Int. Educ. Board fellow, Paris, 27–28; research director, West. Drug and Wholesale Co, 36– Chem. Soc; Can. Chem. Soc. Analytical chemistry; rare earths; concentration and isolation of illinium; college chemistry; rare earth bromates, residues and elements; absorption spectra of rare earth double nitrate; rare earths from gadolinite.

Harris, Dr. Joseph P(ollard), Jr, University of Oklahoma, Norman, Okla. *Limnology.* Vickery, Texas, Oct. 1, 14. A.B, Southern Methodist, 34; M.S, Michigan, 37, Ph.D, 42. Asst. biol, Southern Methodist, 34–35; zool, Michigan, 35–39, teaching fellow, 39–42; *instr. zool, Oklahoma, 41–; limnologist, Okla. Biol. Surv, 41–* Limnology of Oklahoma; freshwater organisms of Oklahoma.

Harris, Prof. Louis, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* New London, Conn, July 6, 97. B.S, Mass. Inst. Tech, 20, M.S, 21, Ph.D, 25. Asst. chem, Mass. Inst. Tech, 22–23, research assoc. physical chem, 24–25; nat. research fellow, Zurich and Berlin, 25–27; research assoc, *Mass. Inst. Tech,* 28–29, asst. prof. *chem,* 29–36, *assoc. prof, 36–* Chem. Soc; fel. Am. Acad. Absorption spectra; photochemistry.

Harris, Prof. Loyd E(rvin), University of Oklahoma, Norman, Okla. *Pharmaceutical chemistry.* Ryan, Okla, Sept. 21, 00. B.S, Oklahoma, 22, M.S, 24; Marschall fellow, Wisconsin, 25–26, Ph.D, 26. Asst. pharmacy, *Oklahoma,* 19–23, asst. prof, 23–25, *prof,* 26–38, *chem, 38–* Pharmaceut. Asn. Chemical investigation of plants.

Harris, Dr. M(arion) R(einoehl), State Department of Agriculture, Sacramento, Calif. *Plant pathology.* Massillon, Ohio, March 12, 98. B.S, California, 23, M.S, 27; Ph.D, Wisconsin, 32. Forest ranger, U. S. Forest Service, 23–24, junior range examiner, 24–26; asst, Wisconsin, 27–31; *assoc. plant pathologist, State Dept. Agr, Calif, 32–* A.A. Corn, cereal and floral plant diseases.

Harris, Dr. Marvin M(ayer), State Department of Health, Waycross, Ga. *Bacteriology.* Detroit, Mich, Aug. 17, 06. Wayne, 24–26; Ph.D, Hopkins, 30. Instr. bacter, sch. hygiene and pub. health, Hopkins, 30–35, dept. bot, 35–36; bacteriologist, *State Dept. Health, Ga,* 36–37, *director branch lab, 37–* Mem. sci. exped, S. Amer, 33. Soc. Bact; Pub. Health Asn. Food bacteriology; dental caries; preservation of bacteria; medical and public health bacteriology; pathogenic fungi; public health laboratory methodology.

Harris, Dr. Meyer M(atthews), New York State Psychiatric Institute, New York, N. Y. *Medicine.* New York, N. Y, May 24, 93. B.S, Col. City of N. Y, 14; M.D, Cornell, 20. Asst. bacter, Montefiore Hosp, 14–16, adj. internal med, 24–29, assoc. attendant, 29–30; research assoc, N. Y. State Psychiat. Inst, 30, *prin. research internist, N. Y. State Psychiat. Inst. and Hosp, 30–* Mem, Nat. Cmt. Mental Hygiene. A.A; fel. Am. Med. Asn; Soc. Exp. Biol; Soc. Study Int. Secretions; Soc. Research Psychosomatic Problems; N. Y. Acad. Med. Metabolism; endocrinology.

Harris, Dr. Milton, 4815 Middlesex Lane, Bethesda, Md. *Chemistry.* Los Angeles, Calif, March 21, 06. B.S, Oregon State Col, 26; Cheney fellow, Yale, 28–29, Ph.D, 29. Research chemist, Cheney Brothers, Conn, 29–31; research assoc, Bur. Standards, 31–38; *director research, Textile Foundation, 38–; mem. research council, Textile Research Inst, 38–* A.A; Chem. Soc; Soc. Biol. Chem; Asn. Textile Chem. and Colorists; Inst. Textile Research; N. Y. Acad; Wash. Acad. Fundamental physics and chemical properties of natural and synthetic textile fibers; chemistry of proteins and carbohydrates; plastics.

Harris, Dr. Morgan, 715 Columbia St, Palo Alto, Calif. *Zoology.* St. Anthony, Idaho, May 25, 16. A.B, California, 38, Ph.D, 41. Harrison research fellow, Pennsylvania, 41–42; *research asst. zool, Stanford, 42–* Experimental embryology.

Harris, Dr. Norman MacL(eod), 53 MacLaren St, Ottawa, Ont, Can. *Bacteriology.* Montreal, Que, Feb. 3, 70. M.B, Toronto, 94. Demonstrator bacter, Toronto, 96–97; asst. path, Hopkins, 97–98, bacter, 98–99, instr, 99–00, assoc, 00–03; instr, Chicago, 03–07, asst. prof, 07–19; chief lab. hygiene, Dept. Pensions and Nat. Health Can, 21–38. Mem. assoc. cmt. on tuber. and animal diseases, Nat. Research Council Can. Div. sanit. officer, C.E.F, 16–19. A.A; Soc. Bact. (sec'y and treas, 08, pres, 25, councilor, 31); Asn. Path. and Bact; fel. Pub. Health Asn. (2nd v. pres, 28); Can. Pub. Health Asn. (pres, 29). Typhoid fever; gonorrheal infections; Bacillus mortiferus; milk sickness; danger of unpasteurized milk with special reference to Malta fever; public health factors in the practise of comparative medicine.

Harris, Dr. Philip L(eslie), Distillation Products, Inc, Rochester, N. Y. *Biochemistry.* Detroit, Mich, May 7, 10. B.S, Alma Col, 31; M.S, Pa. State Col, 32, Ph.D, 35. Research biochemist, United Fruit Co, 35–38; instr. physiol. chem. and asst. director food research lab, Med. Col. State of S. C, 38–41; *head biol. dept, Distillation Products, Inc, 41–* A.A; Chem. Soc; Soc. Exp. Biol. Vitamins; nutrition.

Harris, Prof. P(reston) M(ayne), 2049 Cardigan Ave, Columbus, Ohio. *Physical chemistry.* Springfield, Ohio, March 28, 02. A.B, Wittenberg Col, 24; A.M, Ohio State, 25, Ph.D, 28. Instr. chem, Kans. State Col, 25–26; prof, Ohio Northern, 27–28; nat. research fellow physics, Chicago, 28–29, instr. chem, 29–30; research assoc, Princeton, 30–31; Loomis fellow, Loomis Inst. and *Ohio State,* 31–32, Timken Steel and Tube Co. research assoc, 32–34, instr. *chem,* 34–38, asst. prof, 38–42, *assoc. prof, 42–* X-ray analysis of crystal structure; high temperature reactions in silicates; molecular structure in gases.

Harris, Dr. R(ae) H(udson), North Dakota Agricultural College, Fargo, N. Dak. *Chemistry.* Sheffield Mills, N. S, Can, Feb. 3, 96. B.Sc, Saskatchewan, 21, Nat. Research Council Can. bursar, 21–22, M.Sc, 23; Pfizer fellow, Minnesota, 27–28, Ph.D, 36. Asst, Saskatchewan, 19–22; chemist in charge lab, Quaker Oats Co, Saskatoon, 23–27, chief chemist, 27–34; assoc. agr. chemist, *Exp. Sta, N. Dak. Col,* 36–39, *cereal technologist, 39–* Asn. Cereal Chemists; fel. Can. Inst. Chem. (councilor, 34). Action of alkaline sulfate solutions on cement; baking strength of wheat flours in relation to thermal fractions and various physicochemical properties of wheat gluten; maturity and nutrition studies on wheat quality; durum wheat; wheat starch; enzymes.

Harris, Prof. R(eginald) W(ilson), University of Oklahoma, Norman, Okla. *Paleontology.* Alexandria, La, Aug. 7, 01. B.S, M.S, Louisiana; M.S, Harvard, Ph.D, 38. *Prof. micropaleont, Oklahoma, 28–* Soc. Econ. Paleont. and Miner; Am. Acad; fel. Okla. Acad. Micropaleontology.

Harris, Capt. Rhett G, 129 W. Prospect Ave, State College, Pa. *Bacteriology.* State College, Pa, July 17, 14. B.S, Pa. State Col, 36, Ph.D, 40; A.M, South Dakota, 37. Instr. bacter, South Dakota, 36–37; asst, Pa. State Col, 37–39; instr. bacter, Med. Col. State of S. C, 39–42; lieut, *Sanit. Corps, U. S. Army,* 42, *capt. in charge investigation and control*

enteric diseases, S. Pacific area, 42– A.A; Soc. Bact. Culture media for enteric organisms; serology of the monotrichic Pseudomenades.

Harris, Dr. Robert L(aurence), 2127 Cornell Road, Cleveland, Ohio. *Physical chemistry.* Massena, N. Y, Aug. 26, 16. B.S, Syracuse, 39; Russell Sage fellow, Rensselaer Polytech, 39–42, M.S, 40, Ph.D, 42. *Research chemist, Standard Oil Co. of Ohio, 42–* Chem. Soc. Adsorption of gases by solids; thermodynamics; corrosion.

Harris, Prof. Robert S(amuel), Massachusetts Institute of Technology, Cambridge, Mass. *Biochemistry.* Brookline, Mass, May 10, 05. B.S, Mass. Inst. Tech, 28, Ph.D, 35. Asst. biol. and pub. health, *Mass. Inst. Tech,* 28–31, research assoc, 31–37, asst. prof. *nutritional biochem,* 37–41, *assoc. prof, 41–* Collaborator, U. S. Dept. Agr; Pan Am. Sanit. Bur. Mem. cmt. nutrition and indust. and cmt. food composition, Nat. Research Council. A.A; Chem. Soc; Soc. Bact; Pub. Health Asn; Inst. Nutrition; fel. Am. Acad. Physical Med; N. Y. Acad. Vitamin D; ergosterol activation; measurement of rickets-curative energies; chemistry and metabolism of fats and of amino acids; emergency rations; feeding of large population groups; human requirements of thiamin, riboflavin and vitamin D; availability of iron in food; phytin in food; toxicity of radium and of vitamin D; vitamins in stored and cooked foods.

Harris, Prof. Roscoe E(verett), Lake Forest College, Lake Forest, Ill. *Physics.* Oakridge, Mo, Feb. 8, 96. B.S, Southeast Mo. State Teachers Col, 19; M.S, Chicago, 21, Ph.D, 23. Asst. prof, Vermont, 23–25; *prof. physics, Lake Forest Col, 25–; Coast Artil, U. S. Army.* Summers, prof, Col. of William and Mary, 24; indust. research and consulting. A.A; Physical Soc; Asn. Physics Teachers (exec. cmt, 40); Ill. Acad; Chicago Physics Club (director, 41). Electronics.

Harris, Dr. Sidon, Stanolind Oil and Gas Co, Fair Bldg, Ft. Worth, Texas. *Physics, Seismology.* Austin, Texas, Aug. 28, 08. A.B, Texas, 29, A.M, 29, Ph.D, 34; fellow, Rice Inst, 30–32. Geophysicist, Humble Oil and Ref. Co, Texas, 29–30; tutor physics, Texas, 32–34; assoc. prof. math, Okla. Agr. and Mech. Col, 34–35; supervisor, West. Geophys. Co, 34–38; *seismograph supervisor north Texas, N. Mex. div, Stanolind Oil and Gas Co, 38–* Asn. Petrol. Geol; Physical Soc; Soc. Explor. Geophys; Texas Acad. Piezo-electricity; high frequency currents; conductivity of electricity in gases; x-rays; crystal structure; photometry; permeability of oil sands; applied prospecting for oil with the refraction and reflection seismograph.

Harris, Dr. Stanton A(very), Merck and Co, Inc, Rahway, N. J. *Organic chemistry.* Middlebury, Vt, Oct. 7, 02. B.S, Middlebury Col, 24, fellow, 24–26, M.S, 26; Ph.D, Iowa State Col, 31. Asst. and instr, Iowa State Col, 26–31; asst. chem, Rockefeller Inst, 31–35; assoc. cotton technologist, bur. agr. econ, U. S. Dept. Agr, 35–36; chemist, cellulose lab, Boyce Thompson Inst, 36–37; *senior chemist, research and develop. labs, Merck and Co, Inc, 37–* Chem. Soc. The Grignard reagent from cinnamyl chloride; the non-addition of the Grignard reagent to the ethylenic linkage; Grignard reagents containing tertiary amino group; ribose phosphoric acid from yeast nucleic acid; Walden inversion; pectic acid from the cotton fiber; structure, synthesis and chemistry of vitamin B_6; synthesis of pantothenic and derivatives.

Harris, Prof. S(tuart) K(imball), 33 Lebanon St, Winchester, Mass. *Botany.* Haverhill, Mass, Jan. 30, 06. B.B.A, Boston, 27, B.S, 30, A.M, 32; A.M, Harvard, 34, Ph.D, 36. Instr. *biol, Boston,* 33–41, *asst. prof, 41–* Ropes mem. lecturer, Salem, 36. Ornith. Union; Torrey Bot. Club; Essex County Ornith. Club; Mass. Hort. Soc; New Eng. Bot. Club (recording sec'y, 35–, curator cryptogams, 36–, assoc. ed, 'Rhodora,' 36–); Boston Soc. Nat. Hist. (hon. curator bot, 39–). Systematic work in the Compositae and the Orchidaceae; ethnobotany of the Navaho Indians; North American lichens.

Harris, Dr. T(zvee) N, 2222 N. 53rd St, Philadelphia, Pa. *Immunology.* Russia, Aug. 31, 12. A.B, Pennsylvania, 33, M.D, 36. *Instr.* bact, *Pennsylvania,* 38–41, *pediat, 41–* Physiol. Soc. Phila. Immunology and immunochemistry of streptococcal disease.

Harris, Prof. W(illiam) H(erbert), P. O. Station 20, New Orleans, La. *Pathology.* Chillicothe, Ohio, Oct. 6, 85. A.B, Loyola Col, 02; M.D, Tulane, 07. *Asst. prof. path, sch. med, Tulane, 15–, prof, post-grad. med. dept, 17–* Acting asst. surgeon, U. S. Pub. Health Service, 09. Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol. (councilor, 32–); Am. Med. Asn. Pellagra; leprosy; experimental emphysema; influenza; experimental periarteritis nodosa in the rabbit; etiology of dengue fever; cancer; experimental typhoid fever; effects of thorium; agranulocytic angina; local immunity.

Harrison, Dr. Anna Jane, Tulane University, New Orleans, La. *Physical chemistry.* Benton City, Mo, Dec. 23, 12. A.B, Missouri, 33; Ph.D, 40. Instr. *chem, Newcomb Col, Tulane, 40–42, asst. prof, 42–* Chem. Soc. Association of free radicals by optical means.

Harrison, Dr. A(rthur) L(eslie), University of Florida Agricultural Experiment Station, Bradenton, Fla. *Plant pathology.* Maugerville, N. B, Can, Oct. 27, 05. B.S.A, Ont. Agr. Col, 29; fellow, Cornell, 30–32, Ph.D, 35. Research fellow, N. Y. Exp. Sta, Geneva, 32–36; *plant pathologist,* Rogers Brothers Seed Co, Idaho, 36–37; tomato disease lab, Exp. Sta, Agr. and Mech. Col. Texas, 37–42; *veg. crops lab, Exp. Sta, Florida, 42–* Summers, plant disease investigator, N. B, Can, 27–29. Mycol. Soc; Phytopath. Soc; Can. Soc. Tech. Agr. Control of plant diseases; virus diseases of legumes; tomato diseases.

Harrison, Prof. Bertrand F(ereday), Brigham Young University, Provo, Utah. *Plant physiology.* Springville, Utah, Feb. 20, 08. B.S, Brigham Young, 30, M.S, 31; Ph.D, Chicago, 37. Instr. *bot, Brigham Young,* 31–35, asst. prof, 35–37, assoc. prof, 37–38, *prof, 38–, chairman dept, 35–* Asn. Plant Physiol; fel. Utah Acad. Physiology of grasses.

Harrison, Prof. B(ruce) M(agill), University of Southern California, Los Angeles, Calif. *Zoology, Embryology.* Ottawa, Kans, March 29, 81. B.S, Ottawa (Kans), 05; M.S, Illinois, 08; Chicago; Marine Biol. Lab, Woods Hole; Ph.D, Iowa, 24. Asst. *zool,* Illinois, 08; instr, Iowa State Col, 10–12, asst. prof, 12–24; assoc. prof. and *prof, Southern California, 25–* Summers, asst. state entomologist, Iowa, 17–19, exten. entomologist, 22, 24; exchange prof, Oregon, 28; Baylor, 38. A.A; Ecol. Soc; West. Soc. Nat; Calif. Acad; Iowa Acad; South. Calif. Acad. Apparatus for an analysis of muscle contraction; embryonic reconstruction; pharyngeal derivatives; development of selachian chondrocranium.

Harrison, Dr. C(arter) M(onroe), Michigan State College, East Lansing, Mich. *Plant physiology.* Wilton, Wis, Oct. 7, 01. B.S, Wisconsin, 26, M.S, 27; Ph.D, Chicago, 30. Plant physiologist, green sect, U. S. Golf Asn, 28–32; nat. research fellow, California, 33–34; Welsh Plant Breeding Sta, Wales, 34; Arizona, 34–35; *research assoc. farm crops, Mich. State Col, 35–* Soc. Plant Physiol; Soc. Agron. Grass physiology; effect of cutting and fertilizing on grass development; pasture investigations; physiological anatomy.

Harrison, Prof. Edwin Shepherd, Cornell University, Ithaca, N. Y. *Animal husbandry.* Herndon, Va, Sept. 10, 99. B.S, Va. Polytech; Ph.D, Cornell, 31. *Prof. animal husbandry, Cornell, 31–* Influence of different levels of protein intake upon milk secretion; influence of special ingredients upon the butter-fat percentage in milk.

Harrison, Prof. F(rancis) C(harles), c/o Bank of Montreal, Waterloo Place, London, Eng. *Bacteriology.* London, 89; B.S.A, Toronto, 92; Cornell, 92; Wisconsin, 93; Bern, 99–00; Copenhagen, 00; D.Sc, McGill, 07. Prof. bacter, Ont. Agr. Col, 96–05; Macdonald Col, McGill, 05–26, prin, 08–26, prof. *bacter, McGill,* 26–30, *emer. prof, 30–,* dean *faculty grad. studies,* 26–30, *emer. dean, 30–* Fel. Royal Soc. Can. (pres, sect. V, 19, 23). Agricultural, dairy and food bacteriology.

Harrison, Prof. Frank, University of Tennessee, Memphis, Tenn. *Anatomy.* Dallas, Texas, Nov. 21, 13. B.S, Southern Methodist, 35; Texas, 33–35; fellow, Northwestern, 35–38, M.S, 36, Ph.D, 38. Instr. *anat, Tennessee,* 38–41, *asst. prof, 41–* Asn. Anat; Physiol. Soc. Sensory components of cranial nerve; hypothalamic activity; temperature control; autonomic centers in the brain stem.

Harrison, Geo(rge) J(ohn), U. S. Department of Agriculture, Shafter, Calif. *Plant breeding.* Jacksboro, Texas, Aug. 19, 94. Grad, E. Texas Nor. Sch, 16. *In charge* field operations, div. Egyptian cotton breeding, Sacaton, Ariz, and *Cotton Field Sta, bur. plant indust. U. S. Dept. Agr, Shafter, 21–* A.A; Genetic Asn. Selective fertilization, inheritance, pollen antagonism and metaxenia of cotton; storage of cotton pollen.

Harrison, Prof. G(eorge) R(ussell), Massachusetts Institute of Technology, Cambridge, Mass. **[5]Physics.* San

Diego, Calif, July 14, 98. A.B, Stanford, 19, A.M, 20, Ph.D, 22; hon. Sc.D, Northeastern, 43. Instr. *physics*, Stanford, 19–23; nat. research fellow, Harvard, 23–25; asst. prof, Stanford, 25–27, assoc. prof, 27–30; *prof, Mass. Inst. Tech, 30–*, director research lab, 30–42, *dean of science, 42–* Research assoc, Harvard, 30–31. Summer, assoc. physicist, Bur. Standards, 21; acting prof, Stanford, 32. A.A; Physical Soc; Optical Soc. (ed, 'Jour,' 40–); Am. Acad. Photographic photometry; spectroscopy; atomic structure; applied physics.

Harrison, Dr. Harold C, 702 Woodlark Bldg, Portland, Oregon. *Chemistry, Spectroscopy.* Rutland, Vt, Feb. 10, 07. B.S, Washington and Lee, 31; Ph.D, Cornell, 38. Asst. prof. chem, N. Y. State Col. Ceramics, Alfred, 36–41; *chief chemist and spectroscopist, State Dept. Geol. and Mineral Industries, Oregon, 41–* Analytical chemistry; application of spectroscopy to ceramics, geology, mining, toxicology and plant and animal nutrition.

Harrison, Prof. James A(lexander), Temple University, Philadelphia, Pa. *Bacteriology.* Nash, Texas, Jan. 26, 03. A.B, Trinity (Texas), 26; Ph.D, Chicago, 35. Assoc. prof. bacter. and prev. med, sch. med, Texas, 31; instr. hygiene and bacter, Chicago, 33–35; asst. prof. *bacter, Temple*, 35–43, *prof, 43–* Soc. Bact; Soc. Exp. Biol. Poliomyelitis; immunology; antigenic structure; protozoa.

Harrison, Prof. J(amison) R(ichard), 8 Page Road, Bedford, Mass. *Physics.* Boston, Mass, Sept. 26, 03. B.S, Tufts Col, 25; A.M, Wesleyan, 27, Charles A. Coffin fellow, 27–29. Asst. physics, Wesleyan, 25–27; instr, Pittsburgh, 29–30; physicist, Wired Radio, Inc, 30–31; asst. prof. physics, *Tufts Col*, 31–36, asst. dean eng, 33–36, *prof. physics and radio communication and head dept, 36–* A.A; Asn. Physics Teachers; Physical Soc; Optical Soc; Radio Eng. Piezoelectric phenomena in high frequency circuits.

Harrison, Prof. Julia Peachy, Wilson College, Chambersburg, Pa. *Chemistry.* Richmond, Va, April 30, 86. A.B, Richmond, 07, B.S, 08, A.M, 09; Ph.D, Hopkins, 12. Carnegie fellow, Hopkins, 12–13; fellow, Bryn Mawr Col, 13–14, reader *chem*, 14–15; head dept, Sweet Briar Col, 15–16; Agnes Scott Col, 16–18; asst. prof, Carnegie Inst. Tech, 18–20; *prof. and head dept*, Skidmore Col, 20–23; *Wilson Col, 23–* A.A; Chem. Soc. Physical and organic chemistry.

Harrison, Dr. M(arion) M(yrl), Harrison and Morton Laboratories, Cuyahoga Falls, Ohio. *Chemistry.* Owensboro, Ky, March 27, 90. B.S, Kentucky, 12; A.M, Clark, 13, Ph.D, 14. Director research, Miller Rubber Co, 15–18, chief chemist, 18–37, tech. supt, 37–40; *pres, Harrison and Morton Labs, 40–* Capt, C.W.S, 18. Chem. Soc; Soc. Test. Mat. Physico-organic chemistry; chemical dynamics; rubber.

Harrison, Dr. Preston E(rshell), Baylor University College of Medicine, Dallas, Texas. *Bacteriology, Immunology.* Bryans Mill, Texas, Aug. 26, 11. B.S, E. Texas State Teachers Col, 32; A.M, Texas, 36; M.D, Baylor, 41. Tutor *bacter*, Texas, 35–36; asst, *col. med, Baylor*, 36–41, *instr, 41–* A.A; Soc. Bact; Am. Med. Asn. Growth requirements and selective media for the primary isolation of the gonococcus from cases of chronic gonorrhea.

Harrison, Roger W(ebster), 714 Hamlin St, Seattle, Wash. *Chemical engineering, Fisheries.* Spokane, Wash, Nov. 9, 04. B.S, State Col. Wash, 25; M.S, George Washington, 28. Production work, Calif. and Hawaiian Sugar Ref. Corp, 25–26; junior chem. engineer, bur. chem. and soils, U. S. Dept. Agr, 26–28; asst. technologist, *Bur. Fisheries*, 28–30, assoc. technologist in charge by-products investigations, *technol. lab*, Gloucester, Mass, 30–33, assoc. technologist in charge, *Seattle*, 33–38, *technologist in charge, 38–* Lecturer, Washington (Seattle), 33– Chem. Soc; Inst. Food Technol. Fisheries technology; dust explosions; preparation of vitamin active fish and fish liver oils; effect of manufacture on nutritive value of fish meals and chemistry of fish proteins; preservation of fish by freezing and canning.

Harrison, Prof. R(oland) Wendell, 5541 Dorchester Ave, Chicago, Ill. *Bacteriology, Immunology.* Ellis Co, Texas, Sept. 10, 97. A.B, South. Methodist, 21; M.S, Chicago, 25, Ph.D, 30. Instr. biol, South. Methodist, 21–24, asst. prof, 25–27; instr. applied bacter. and immunol, sch. med, Washington (St. Louis), 30–37; asst. prof. *bacter, Chicago*, 37–41, *assoc. prof, 41–, assoc. dean div. biol. sciences, 41–* Ed. Board, 'Jour. Infectious Diseases.' A.A; Soc. Bact; Soc. Exp. Biol; Asn. Immunol; Pub. Health Asn; Int. Asn. Dental Research. Bacteriology and immunology in infectious diseases; biochemical and immunological relationships of lactobacilli; oral bacteriology; dental caries.

Harrison, Dr. Ross, Beaux Arts Apts, 310 E. 44th St, New York, N. Y. *Psychology.* March 7, 12. A.B, Hopkins, 35, Ph.D, 38. Asst. psychol, Worcester State Hosp, 38–39; instr. psychobiol, labs. primate biol, med. sch, Yale, 39–40; occupational anal. sect, U. S. Employment Service, 40–41; *instr. psychol, Hunter Col, 41–; U. S. Army, 42–* Psychol. Asn. General experimental psychology; personality; abnormal and clinical psychology; history of psychology; primate psychology.

Harrison, Dr. R(oss) A(rthur), Peddie School, Hightstown, N. J. *Mathematics.* Utica, N. Y, July 7, 11. A.B, Hartwick Col, 33; A.M, Cornell, 34, Ph.D, 36. Instr. *math, Peddie Sch*, 36–42, *head dept, 42–* Trustee, Hartwick Col, 34– Math. Asn; Nat. Council Teachers Math. Algebraic geometry; Cremona webs in three-way space without base curves.

Harrison, Prof. R(oss) G(ranville), Osborn Zoological Laboratory, New Haven, Conn. *[1]*Zoology, Anatomy.* Germantown, Pa, Jan. 13, 70. A.B, Hopkins, 89, Ph.D, 94, LL.D, 42; M.D, Bonn, 99; hon. A.M, Yale, 07, hon. Sc.D, 39; hon. Sc.D, Cincinnati, 20, Michigan, 29, Dublin, 32, Harvard, 36, Columbia, 40; hon. Ph.D, Freiburg, 28; hon. M.D, Budapest, 35. Lecturer morphol, Bryn Mawr Col, 94–95; instr. anat, Hopkins, 96–97, assoc, 97–99, assoc. prof, 99–07; prof. comp. anat, *Yale*, 07–27, Sterling prof. *biol*, 27–38, *emer. prof, 38–* Harvey Soc. lecturer, 08, 33; Dunham lecturer, Harvard, 26; Croonian lecturer, Royal Soc, 33; Linacre lecturer, St. John's Col, Cambridge, 39. Managing ed, 'Jour. Exp. Zool,' 04–; co-editor, 'Jour. Morphol,' 07–10; advisory board, 'Quarterly Rev. Biol,' 26– Trustee, Marine Biol. Lab, Woods Hole, 08–40, emer. trustee, 40–; mem. advisory board, Wistar Inst, 24–; trustee, Bermuda Biol. Sta, 25–, treas, 30–; director, L. I. Biol. Sta, 27–; trustee, Oceanog. Inst, Woods Hole, 30–; advisory trustee, Int. Cancer Research Foundation, 34–; mem. board sci. advisers, Jane Coffin Childs Mem. Fund Med. Research, 37–; chairman, Nat. Research Council, 38–; trustee, Science Service, 38–; mem. science cmt, Nat. Resources Planning Board, 38–; sci. director, Rockefeller Inst, 39–, v. pres. board, 41– Archduke Rainer medal, Austrian Zool. and Bot. Soc, 14; John Scott medal and premium, Phila, 25. Pres, Pacific Sci. Cong, 39– Nat. Acad. (ed. board, 'Proc,' 15–16, 21–; councilor and mem. exec. cmt, 32–); A.A. (v. pres, F, 36); Soc. Nat. (sec'y, 02–04, pres, 13); Soc. Zool. (exec. cmt, 02, 10–13, 25–29, pres, 24); Asn. Anat. (pres, 12–14); Soc. Exp. Biol; Physiol. Soc; Soc. Study Develop. and Growth; assoc. Am. Med. Asn; assoc. Neur. Asn; Philos. Soc; hon. mem. Harvey Soc; hon. mem. N. Y. Acad; Am. Acad; cor. mem. Acad. Nat. Sci. Phila; for. mem. Royal Soc. London; for. mem. Zool. Soc. London; Anat. Gesell. (councilor, 34–38, pres, 34); cor. mem. Bavarian Acad; cor. mem. Prussian Acad; cor. mem. Göttingen Gesell. Wiss; assoc. Soc. biol. de Paris; hon. mem. Reale Accad. di Med. di Torino; for. mem. Reale Accad. dei Lincei; for. mem. Royal Physiog. Soc. Lund; for. hon. mem. Acad. royale de Méd. de Belg; for. mem. Uppsala Royal Soc. Sci; for. mem. Swedish Acad; for. mem. Norwegian Acad; cor. mem. Bavarian Acad; Int. Inst. Embryol. Development of fins of fishes; histogenesis of the peripheral nervous system; transplantation in amphibian larvae; development and regeneration of peripheral nerves; cultivation of tissues outside the organism; organic symmetry; heteroplastic transplantation and growth; development of the internal ear.

Harrison, Prof. T(homas) J(ames), 206 Grain Exchange, Winnipeg, Man, Can. *Agronomy.* Carman, Man, April 15, 85. B.S.A, Manitoba, 11; Minnesota, 24–25. Asst. prof. field husbandry, Manitoba, 11–13; supt, Dom. Exp. Farm, Indian Head, Sask, 13–15; prof. *agron, Manitoba*, 15–30, *emer. prof, 30–; asst. grain commissioner for Man, Board Grain Commissioners, Can, 30–* Can. Soc. Tech. Agr; Can. Seed Growers Asn. (pres, 29–33); West. Can. Soc. Agron. (pres, 18). Grain handling, marketing and processing.

Harrison, Dr. Tinsley R(andolph), Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C. *Medicine.* Talladega, Ala, March 18, 00. A.B, Michigan, 19, hon. M.S, 40; M.D, Hopkins, 22. Med. house officer, Peter Bent Brigham Hosp, Boston, Mass, 22–23; asst. *med*, Hopkins, 24; instr, sch. med, Vanderbilt, 25–27, asst. prof, 27–31, assoc. prof, 31–41; *prof, Bowman Gray sch. med, Wake Forest Col, 41–* Am. Physicians; Am. Med. Asn; Am. Heart Asn; Soc. Clin. Invest. (pres, 39); Col. Physicians. Clinical medicine; physiology of diseases; hypertension; heart disease.

Harrison, Dr. Walter Trousdale, National Institute of Health, U. S. Public Health Service, Washington, D. C. *Public health.* Johnson Co, Kans, Feb. 1, 86. M.D, Kansas, 11. Res. physician, St. Mary's Hosp, Kansas City, 11–12; instr. path, Univ. and Bellevue Hosp. Med. Col, 12–13; pathologist, Napa State Hosp, Calif, 14–16; *chief div. biol. control, nat. inst. health, U. S. Pub. Health Service, 16–,* director dist. number five, San Francisco, 42. Liaison officer, Ninth Corps Area Headquarters, Presidio of San Francisco, 40– Am. Med. Asn; Pub. Health Asn. Allergy; diphtheria; poliomyelitis.

Harrison, Ward, General Electric Co, Cleveland, Ohio. *Engineering.* East Orange, N. J, May 16, 88. M.E, Stevens Inst. Tech, 09; D.Illum.Eng, Case, 40. Eng. dept, Nat. Elec. Lamp Asn, Cleveland, 09–14, illum. engineer, Nat. Lamp Works, *Gen. Elec. Co,* 14–30, *director eng, Nela Park eng. dept, 30–* Supervising engineer, U. S. Fuel Admin, northeast. Ohio, 17–19. Illum. Eng. Soc. (pres, 22, v. pres, 13–15, chairman, lighting legislation and street lighting cmt); fel. Elec. Eng; Ohio Good Roads Fed. (v. pres, 27–31, 35–37); Cleveland Eng. Soc. (v. pres, 37). Illuminating engineering; electric illuminants and their applications; principles and calculation of lighting; design of indoor and outdoor lighting; physical and physiological aspects of illumination.

Harrison, Dr. W(ard) D(uncan), Park View Drive, Brevard, N. C. *Chemical engineering.* Blue Earth, Minn, Sept. 15, 09. B.S, Iowa State Col, 32; Inst. Paper Chem. fellow, Lawrence Col, 32–36, Ph.D, 36. Mem. staff, Riegel Paper Corp, 36–41; *asst. gen. supt, Ecusta Paper Corp, 41–* Summers, mem. staff, Crown Willamette Paper Co, 34; Northwest Paper Co, 35. Tech. Asn. Pulp and Paper Indust. (chairman stuff preparation cmt, 37–); Chem. Eng. Retention of dyestuffs on paper-making fibers.

Harrison, William N(ance), 3734 Windom Place, N. W, Washington, D. C. *Ceramics.* Tunstall, Va, Nov. 27, 00. B.S, Va. Polytech, 20; M.S, Chicago, 21. *Bur. Standards,* 22–26, *chief enameled metals sect, 26–* Fel. Ceramic Soc. (sec'y, enamel div, 28, 30–34, chairman, 35, councilor, 36, v. chairman, Baltimore-Wash. sect, 29, chairman 30); Porcelain Enamel Inst. (chairman, cmt. standardization of tests, 35–). Composition and properties of vitreous enamel; blistering and warpage of iron in enameling; ceramic coloring agents for enamels; strength and elasticity of enamel glasses; specification of light-scattering materials; development of standard tests; weather resistance of structural units.

Harrison, W(oodford) F(rancis), Adhesive Products Co, San Francisco, Calif. *Chemical engineering.* Hastings, Nebr, Feb. 15, 00. B.S, California, 22. Instr. chem, St. Mary's Col. (Calif), 23; Calif. Ink Co, 23–34, chem. director, 27–34; *v. pres, Adhesive Products Co, 34–* Chem. Soc; Chem. Eng. Printing inks; pigments; paints and varnishes; adhesives.

Harriss, T(rewhitt) F(airman), 225 Bush St, San Francisco, Calif. *Geology.* Hanford, Calif, March 5, 03. A.B, Pomona Col, 24; fellow, California, 25–27. Asst. geol, Pomona Col, 24–25, instr, 33–35; teaching fellow, California, 27; *geologist,* Shell Oil Co, 27–31; U. S. Geol. Surv, 31–32; *Standard Oil Co. of Calif, 35–* Asn. Petrol. Geol. Structural and economic geology.

Harrisson, Dr. Jos. W. E, 214 S. 12th St, Philadelphia, Pa. *Pharmaceutical chemistry.* Binghamton, N. Y, Aug. 10, 96. P.D, Phila. Col. Pharmacy, 17, Pharm.M, 23. *Director, LaWall and Harrisson, 18–; asst. prof. pharmacol, Phila. Col. Pharmacy, 33–* Mem, board consulting chemists, State Dept. Agr, Pa, 20–37, chairman, 37– A.A; Chem. Soc. (councilor, 39–); Pub. Health Asn; Pharmaceut. Asn; Inst. Food Technol; Soc. Test. Mat; Inst. Chem. (v. pres, 39); Pa. Chem. Soc. (pres, 39–42); Soc. Pub. Analysts Gt. Britain. Digitalis; water; subjects related to pharmacy and food.

Harrold, Dr. Gordon C(oleson), 17317 Warrington Drive, Detroit, Mich. *Chemistry.* Mt. Jewett, Pa, 06. B.S, Antioch Col, 30; A.M, Cincinnati, 31, Ph.D, 34. Asst. chem, Cincinnati, 30–34; indust. hygienist, Indust. Health Conservancy Lab, Cincinnati, Ohio, 35; *chief chemist, indust. hygiene dept, Chrysler Corp, 35–* Gen. chairman, Midwest Conf. Occupational Disease, 37. Chem. Soc; Indust. Hygiene Asn. (gen. chairman, 39; sec'y-treas, 39; sec'y, 40–42); Pub. Health Asn; Eng. Soc. Detroit. Industrial sanitation, toxicology, hygiene and chemistry; structure of aliphatic diazo compounds; toxicity of nitrous fumes; products of welding; lead; industrial hygiene, toxicology and chemistry.

Harrold, Dr. O(rville) G(oodwin), Jr, Pomona College, Claremont, Calif. *Mathematics.* Chicago, Ill, Sept. 2, 09. A.B, Stanford, 31, A.M, 32, Ph.D, 36. Teaching asst. math, Stanford, 31–33, acting instr, 33–35, instr, 35–37; Oregon State Col, 37–39; nat. research fellow, Virginia and Michigan, 39–40; instr. *math,* Northwestern, 40–42; *asst. prof,* Louisiana, 42–43; *Pomona Col, 43–* Lecturer, Mich. Topol. Conf, 40. Math. Soc. Topology; theory of curves; continuous transformations; analysis; quadrature formulas.

Harrold, Prof. Thomas J(ewell), 178 Milledge Terrace, Athens, Ga. *Horticulture.* Chicago, Ill, Nov. 10, 06. B.S.A, Georgia, 28, M.S.A, 31; Ph.D, Chicago, 33. Asst. prof. and *assoc. prof. hort, Georgia, 28–* Morphology and physiology of the peach.

Harrop, Dr. Geo(rge) A(rgale), E. R. Squibb and Sons, New Brunswick, N. J. *Internal medicine.* Peru, Ill, Nov. 5, 90. A.B, Harvard, 12; M.D, Hopkins, 16. Asst. and instr. med, Hopkins, 16–19; asst. physiol, Copenhagen, 19–20; instr. and assoc. med, Columbia, 21–23; assoc. prof, Peking Union Med. Col, 23–24; Hopkins, 24–37; *director, Squibb Inst. Med. Research, New Brunswick, N. J, 37–; lecturer biol, Princeton, 38–* Clin. and Climat. Asn-Royal Soc. exped, Peruvian Andes, 21. Soc. Exp. Biol; Soc. Clin. Invest. (treas, 26–30); Soc. Biol. Chem; Am. Physicians. Physiology; diseases of metabolism and of the internal secretions.

Harrop, Dr. (Harriet) Louise, General Electric Co, Pittsfield, Mass. *Chemistry.* Milwaukee, Wis, Nov. 21, 02. A.B, N. J. Col. for Women, 31; fellow, Rutgers, 35–39, M.S, 36, Ph.D, 40. Asst. ceramics, Rutgers, 34–35, 39–40; *ceramist-chemist, Gen. Elec. Co, 40–* Analytical and physical chemistry; ceramics; beneficiation of clays; electrical insulations.

Harrow, Prof. B(enjamin), College of the City of New York, New York, N. Y. *Biochemistry.* London, Eng, Aug. 25, 88. B.S, Columbia, 11, A.M, 12, Ph.D, 13. Asst. org. chem, Clark, 11; biochem, Columbia, 12–13; asst. prof, Fordham, 13–14; assoc, Columbia, 14–28; asst. prof. *chem, Col. City of N. Y,* 28–33, assoc. prof, 33–39, *prof, 39–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Harvey Soc; assoc. N. Y. Acad. Med; Biochem. Soc. Gt. Britain. Vitamins; intermediate metabolism; hormones; detoxication.

Harry, Prof. Charles H(enry), 9 Edgewater Terrace, Essex, Md. *Mathematics.* Baltimore, Md, Oct. 11, 09. A.M, Hopkins, 31, Ph.D, 32. Instr. *math,* Hopkins, 32–34; *prof, Loyola Col. (Md),* 32–40; *stress analyst, Glenn L. Martin, 40–* Math. Soc; Math. Asn. Foundations of geometry; analysis situs.

Harsh, Prof. Charles M(axfield), University of Nebraska, Lincoln, Nebr. *Psychology.* Des Moines, Iowa, Nov. 29, 11. B.S, Calif. Inst. Tech, 32; A.M, California, 35, Ph.D, 36. Instr. and head tutor *psychol,* Harvard, 36–39; adj. prof, Randolph-Macon Womans Col, 39–40; *asst. prof, Nebraska, 40–* A.A; Psychol. Asn. Experimental psychometrics; test construction; personality.

Harshaw, Dr. H(arold) M(cCloskey), Hyattsville, Md. *Biochemistry.* New York, N. Y, Nov. 14, 96. B.S, Minnesota, 21, fellow, 21–22, M.S, 23; Ph.D, Missouri, 26. Asst, Minnesota, 22–23; instr, Missouri, 23–26, asst. prof, 27; instr, Nebraska, 28–29; asst. biochemist, *bur. animal indust, U. S. Dept. Agr,* 30–43, *assoc. biochemist, 43–* Chem. Soc; Poultry Sci. Asn; Int. Poultry Sci. Asn. Animal and poultry nutrition; factors affecting the quality of market poultry.

Harshbarger, Dr. Frances, Kent State University, Kent, Ohio. *Mathematics.* Quimby, Iowa, Aug. 16, 02. A.B, Grinnell Col, 23; A.M, West Virginia, 25; Ph.D, Illinois. Prof, Am. Col. for Girls, Istanbul, Turkey, 30–34; teacher, high sch, Univ. Chicago, 35; *instr. math, Kent State Univ, 35–* Math. Soc; Math. Asn.

Harshfield, Dr. G(erald) S(mith), Colorado State College, Ft. Collins, Colo. *Veterinary pathology.* East Liberty, Ohio, Aug. 21, 03. D.V.M, Ohio State, 26, M.S, 30. Asst. prof. vet. science, N. Dak. Agr. Col, 30–37; vet. path, *Colo. State Col,* 37–40, *asst. pathologist, Exp. Sta, 40–* Vet. Med. Asn; Colo. Vet. Med. Asn. Animal diseases; avian tuberculosis; pregnancy disease of sheep; enterotoxemia of lambs; coccidiosis and other parasitic diseases of sheep; poisonous plants.

Hart, Dr. (Clinton) Sheldon, 809 E. Kingsley, Ann Arbor, Mich. *Chemistry.* Syracuse, N. Y, June 8, 00. B.S, Syracuse, 24, M.S, 27; Ph.D, Michigan, 33. Instr, Syracuse, 26–27; teaching asst, Michigan, 28–32; research chemist, Am. Brakeblok Corp, 33–41; *special instr. chem, Wayne, 40–; consultant, 41–* Chem. Soc; Oil and Color Chemists Asn. Complex compounds; organic reagents; synthetic resins; high polymers.

Hart, Dr. David, 137 Lincoln Ave, Dover, N. J. *Chemistry.* Brooklyn, N. Y, June 21, 99. B.S, Col. City of N. Y, 18; A.M, Columbia, 22, Ph.D, 26. Instr. chem, Col. City of N. Y, 18–30; in charge anal. chem, Brooklyn Col, 30–32, asst. prof. chem, 32–42, chairman dept, 38–41; *research chemist, Picatinny Arsenal, 42–* A.A; fel. Inst. Chem; Chem. Soc; N. Y. Acad. Analytical, biological and inorganic chemistry.

Hart, Dr. E(arl) Ross, Jefferson Medical College, Philadelphia, Pa. *Pharmacology.* Berkeley, Calif, Dec. 18, 14. A.B, California, 37, M.S, 38, Ph.D, 40. Instr. pharmacol, sch. med, West Virginia, 40, W. E. Weiss fellow and instr. *pharmacol, Jefferson Med. Col,* 40–41, assoc, 41–42, *asst. prof, 42–* A.A; Physiol. Soc. Phila. Toxicity of vapors; pharmacology of morphine derivatives.

Hart, Prof. Edwin Bret, University of Wisconsin, Madison, Wis. ***Chemistry.* Sandusky, Ohio, Dec. 25, 74. B.S, Michigan, 97; Marburg and Heidelberg, 00–01. Asst. chemist, N. Y. Exp. Sta, Geneva, 97–02, assoc. chemist, 02–06; *prof. agr. chem, Wisconsin, and chemist, Exp. Sta, 06–* Adviser, protein and nutrition div, bur. chem. and soils, U. S. Dept. Agr. A.A; Chem. Soc; Soc. Biol. Chem. Animal nutrition; protein decomposition products; dairy chemistry; plant and animal chemistry; chemistry of cheese ripening; organic nutrients from various plant sources; organic phosphorus compounds of plants.

Hart, Dr. Edwin J(ames), U. S. Rubber Co, Market and South Sts, Passaic, N. J. *Chemistry.* Port Angeles, Wash, Feb. 7, 10. B.S, M.S, State Col. Wash, 31; Ph.D, Brown, 34. *Research chemist,* biol. lab, Cold Spring Harbor, 34–36; *U. S. Rubber Co, 36–* Chem. Soc. Electro-organic chemistry; photochemistry; chemical effects of x-rays and ultra-violet light; rubber chemistry.

Hart, Prof. Fanchon, Hickory Drive, Yorktown Heights, New York, N. Y. *Botany, Bacteriology.* New York, N. Y, Dec. 22, 92. Ph.G, Columbia, 10, F.D.A, 11; B.S, N. Y. Univ, 30, A.M, 31. Instr. mat. med, *col. pharmacy, Columbia,* 14–20, asst. prof, 20–26, assoc. prof, 26–38, *prof. bacter, 38–* Chairman, cmt. research pharmaceut. educ, Columbia; chairman referees, cmt. pharmacog. and pharmaceut. bot, Nat. Research Council. A.A; Pharmaceut. Asn. (collaborator, year book); Micros. Soc; Inst. Food Technol; fel. Pub. Health Asn; Torrey Bot. Club; N. Y. Micros. Soc. Microscopy; pathology and histology of medicinal plants; histology of Vilca bark; microscopical comparison of herbs and their substitutes; quantitative determination of vegetable adulterants; histology of manna yielding barks; fungal infestation of powdered drugs; objectives of and basic materials for a course in public health; microbiology of foods and drugs.

Hart, F(rank) Leslie, 8478 Fountain Ave, Los Angeles, Calif. *Chemistry.* Pottstown, Pa, Nov. 13, 93. A.B, Dickinson Col, 16, M.S, 17. Instr. physics, Lehigh, 17–18; chemist, Bur. Standards, 18–20; fed. insecticide board, U. S. Dept. Agr, 20–27, in charge cent. dist. insecticide lab, *food and drug admin,* Chicago and St. Louis, 27–31, assoc. chemist, food chem, Wash, D. C, 31–34, *chief chemist,* Buffalo sta, 34–37, *Los Angeles sta,* 39; *Fed. Security Admin, 39–* Agr. Chem. Analytical chemistry; foods; drugs.

Hart, Dr. George H, College of Agriculture, University of California, Davis, Calif. *Veterinary science, Animal husbandry.* Philadelphia, Pa, Oct. 10, 83. D.V.M, Pennsylvania, 03; M.D, George Washington, 08. Asst. bacter. and path, bur. animal indust, U. S. Dept. Agr, 03–08, field worker, 08–10; city veterinarian, Los Angeles, Calif, 10–17; assoc. prof. vet. science, *col. agr, California,* 17–24, prof, 24–26, *prof. animal husbandry and head div, 26–* Del. Int. Vet. Cong, London, 30. A.A; Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Soc. Animal Production (pres, 39); Soc. Exp. Biol. Animal nutrition; physiology of reproduction.

Hart, Prof. H(arry) B(ryant), Jamestown College, Jamestown, N. Dak. *Electrochemistry.* Winfield, Kans, Sept. 7, 88. B.S, Kans. State Teachers Col, 16; M.S, Iowa, 19, fellow, 20–21, Ph.D, 21. Prin, high sch, Kans, 16–18; asst. chem, Iowa, 18–20; research chemist, Eagle-Picher Lead Co, 21–23; Victor Chem. Co, Chicago, 23–24; *prof. chem. and head dept,* Albany Col. (Oregon), 24–29; *Jamestown Col, 29–* Chem. Soc; fel. Inst. Chem. Measurements of electromotive force of concentration cells; effects of the presence of metallic ions on the efficiency of the lead accumulator; free energies of dilution and ionic activities.

Hart, Dr. H(elen), University Farm, St. Paul, Minn. *Plant pathology.* Janesville, Wis, Sept. 2, 00. Lawrence Col, 18–20; A.B, Minnesota, 22, Albert Howard scholar, 22–23, A.M, 24, Ph.D, 29. Agent, div. cereal crops and diseases, U. S. Dept. Agr, 23–33; instr. plant path, Minnesota, 24–37; exchange asst, Halle-Saale, 37–38; assoc. ed, 'Phytopath,' 38–40; *asst. prof. plant path, Minnesota, 40–* A.A; Soc. Plant Physiol; Phytopath. Soc. Stem rust resistance in cereals.

Hart, Prof. J(ames) N(orris), University of Maine, Orono, Maine. *Mathematics, Astronomy.* Willimantic, Maine, May 22, 61. B.C.E, Maine, 85, C.E, 90, hon. Sc.D, 08; M.S, Chicago, 97. Instr. math. and drawing, *Maine,* 87–90, prof. *math. and astron,* 91–37, *emer. prof, 37–,* dean, 03–37, *emer. dean, 37–*

Hart, Dr. John F(rancis), Rainier, Oregon. *Zoology.* Indianapolis, Ind, April 1, 10. A.B, Arizona, 31; M.S, Washington (Seattle), 32, Ph.D, 35. Bur. Fisheries, Seattle, Wash, 35; *chemist, Longview Fibre Co, Longview, Wash, 35–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Parasitology.

Hart, Dr. J(ohn) L(awson), Pacific Biological Station, Nanaimo, B. C, Can. *Fisheries.* Toronto, Ont, 04. B.A, Toronto, 25, M.A, 26, Ph.D, 30. Lecturer, Alberta, 28–29; *fisheries investigator, Pacific biol. sta, Fisheries Research Board Can, 29–* A.A; Soc. Ichthyol. and Herp; fel. Royal Soc. Can. Faunology of fishes; life history of whitefish; factors governing abundance of pilchards, herrings, lingcod.

Hart, Dr. (Julian) Deryl, Duke Hospital, Durham, N. C. *Surgery.* Buena Vista, Ga, Aug. 27, 94. A.B, Emory, 16, A.M, 17; M.D, Hopkins, 21. Asst. path, sch. med, Hopkins, 22–23, instr. *surg,* 23–29, assoc, 29–30; *prof, Duke, 30–* Intern, Hopkins Hosp, 21–22, asst. res. pathologist, 22–23, asst. res. surgeon, 23–27, res. surgeon, 27–29, assoc. surgeon, 29–30. Asn. Thoracic Surg; Am. Med. Asn; Surg. Asn; Col. Surg; South. Surg. Asn; South. Soc. Clin. Surg. Intracystic papillomatous tumors of the breast; formation of cerebrospinal fluid; treatment of empyema by tidal irrigation; surgery of the hand, neck and lymphatics; operating room technique with particular reference to the importance of air borne pathogenic bacteria.

Hart, Dr. Merrill C(urtis), The Upjohn Co, Kalamazoo, Mich. *Pharmaceutical chemistry.* Kendallville, Ind, June 6, 91. B.S, Kalamazoo Col, 13, hon. Sc.D, 21; M.S, Chicago, 15. Research chemist, The Upjohn Co, Mich, 14–17; chemist, Puget Sound Navy Yard, 17–19; *research chemist* pharmacol, Minnesota, 19–21; *The Upjohn Co, 21–* Chem. Soc; Pharmaceut. Asn. Chemical constituents of drugs; organic mercury and organic arsenic compounds; chemistry of corpus luteum and ovarian residue; chemistry of spinach and ergot; calcium metabolism.

Hart, Prof. N(elson) C(ollins), University of Western Ontario, London, Ont, Can. *Botany.* Victoria Co, Ont, June 11, 88. B.A, Toronto, 15, fellow, 15–16, M.A, 16. Instr. bot, Toronto, 16–17; bacteriologist, British Acetones, Ltd, 17–18; instr. *bot, Western Ontario,* 20–21, asst. prof, 22–23, *prof, 24–* A.A; Bot. Soc; Ecol. Soc; fel. Am. Geog. Soc; Federation Ont. Nat. Morphology and anatomy of plants; plant ecology.

Hart, Dr. O(liver) P(hilip), 1847 Crystal Terrace, Miami, Fla. *Physics.* Mooresville, N. C, Dec. 18, 98. A.B, Davidson Col, 19, fellow, 19–20, A.M, 21; Ph.D, North Carolina, 30. Asst. prof. physics, Miss. Agr. and Mech. Col, 21–24; Clemson Col, 24–25; Miami (Fla), 26–32, assoc. prof. and acting head dept, 32–33; *sci. and eng. research for city of Miami, Fla, 33–* Physical Soc. Relationships between intensity of spectral lines and pressure of foreign gases, potential, and other factors.

Hart, Prof. Philip J(ames), 383 E. First South, Logan, Utah. *Physics.* Bloomington, Idaho, Sept. 7, 12. B.S, Utah State Col, 35; Ph.D, Iowa State Col, 39. Instr. physics, Iowa State Col, 39–40; Carbon Col, 40–41; develop. engineer, Westinghouse Elec. and Mfg. Co, 41–42; *asst. prof. physics, Utah State Col, 42–* A.A; Physical Soc. Determination of elastic constants by piezo-electric methods; dynamical determination of the elastic constants and their temperature coefficients for quartz.

Hart, Prof. S(imeon) T(hompson), 168 Westminster Ave, Syracuse, N. Y. *Industrial engineering.* Farmington, Conn, Feb. 3, 78. B.S, Purdue, 08, M.E, 11. Instr. apprentices, Yale and Towne Mfg. Co, 08–10; asst. supt, Morgan Machine Co, Rochester, N. Y, 10–12; supt, Hartford Special Machine Co, 12–15; asst. prof. machine construction, West

Virginia, 15–20; *prof. indust. eng, Syracuse, 20–* Mech. Eng. (pres, N. Y. sect, 28); Eng. Educ. Development of processes and special machines for traction and coal companies.

Hart, Dr. T(heodore) Stuart, 410 Park Ave, New York, N. Y. *Medicine.* Farmington, Conn, Feb. 25, 69. A.B, Yale, 91, A.M, 93; M.D, Columbia, 95. Instr. clin. med, Columbia, 03–09, assoc, 09–13, asst. prof, 13–23; *consulting physician, Manhattan Eye, Ear and Throat Hosp, 22–; Presb. Hosp, 23–; Doctor's Hosp, 30–; Neur. Inst, 36–* Visiting physician, Seton Hosp, New York, 01–11; Presb. Hosp, 11–23. Briddon medal, 04. Cardiovascular consultant, U. S. Aviation Exam. Board, 17–18. Am. Med. Asn; Soc. Clin. Invest; Am. Heart Asn; Am. Physicians; Harvey Soc; N. Y. Tuber. and Health Asn; N. Y. Acad. Med. Disorders of the circulation and cardiovascular system; abnormalities of metabolism and myocardial function.

Hart, Prof. V(an) B(reed), 207 Bryant Ave, Ithaca, N. Y. *Agricultural economics.* McLean, N. Y, Oct. 5, 94. B.S, Cornell, 16, Ph.D, 23. Instr. *agr. econ. and farm management, N. Y. State Col. Agr, Cornell,* 16–22, asst. prof, 23–26, *prof,* 27– Econ. Asn; Farm Econ. Asn. Farm management.

Hart, Dr. Vernon L(ewis), Medical Arts Bldg, Minneapolis, Minn. *Orthopedic surgery.* Huron, Ohio, 98. M.D, Michigan, 24. Asst. prof. *surg,* Michigan, 29–32; *instr, Minnesota, 33–* Fel. Col. Surg; Clin. Orthop. Soc; Acad. Orthop. Surg; Minn. Orthop. Soc. Diseases and injuries of bones and joints; physiological rest and the preservation of locomotion; the mechanistic conception of sciatica.

Hart, Prof. William F(orris), 732 Burke St, Easton, Pa. *Chemistry.* Hopewell, N. J, Jan. 8, 06. A.B, Lafayette Col, 27; A.M, Princeton, 28; Ph.D, N. Y. Univ, 36. Asst. instr. chem, Princeton, 27–28; instr, Lafayette Col, 28–29; research chemist, Reed and Carnrick, Jersey City, 29–35; Endo Products, Inc, New York, 35–37; instr. *chem, Lafayette Col,* 37–39, *asst. prof, 39–* Chem. Soc. Sex hormones; alkylated heterocyclic phenols; local anesthetics.

Hart, Dr. William J(ames), 0–43 Midland Ave, Warren Point, N. J. *Physical chemistry.* Washington, D. C, March 8, 08. A.B, George Washington, 32, A.M, 33; Ph.D, Maryland, 38. Lab. instr, George Washington; *research chemist, U. S. Rubber Co, 37–* Research fellow from Maryland, exp. sta, U. S. Bur. Fisheries. Chem. Soc. Rubber chemistry; chemistry of colloids, especially latex chemistry.

Hart, Col. W(illiam) Lee, Medical Branch, Headquarters, Eighth Service Command, Dallas, Texas. *Public health.* York, S. C, Jan. 27, 81. M.D, Maryland, 06; Army Med. Sch, 08; Army Indust. Col, 27; Army War Col, 31. Chief overseas div, *Office Surgeon Gen, U. S. Army,* 18, med. inspector, 6th corps area, 27–30, 7th corps area, 31–34, *surgeon, 40–* Pres, 7th Corps Area Med. Research Board, 32–34. A.A; fel. Am. Med. Asn; Col. Physicians; Col. Surg; Pub. Health Asn; Asn. Mil. Surg. Cholera; helminthology; effects of tropical light on white people in the Philippines; typhoid fever; smallpox; venereal disease in the United States.

Hart, Prof. William L(eroy), University of Minnesota, Minneapolis, Minn. *Mathematics.* Chicago, Ill, Oct. 12, 92. A.B, Chicago, 13, Ph.D, 16. Instr. *math,* Harvard, 16–17; asst. prof, *Minnesota,* 19–20, assoc. prof, 20–25, *prof, 25–* U.S.A, 17–19. A.A; Math. Soc; Math. Asn; Inst. Math. Statist. Theory of functions of infinitely many variables.

Hart, Dr. W(illiam) M(ilton), Jefferson Medical College, Philadelphia, Pa. *Physiology.* St. Clair Co, Mo, June 28, 13. A.B, Southeast Mo. State Teachers Col, 36; M.S, Iowa, 39; Mayo Foundation, Minnesota, fellow, Mayo Clinic, 39–41; Ph.D, Minnesota, 41. Research assoc. ophthal, Iowa, 41–42; *assoc. physiol, Jefferson Med. Col, 42–* Federation Clin. Research. Kidney physiology; physiology and pharmacology of the eye.

Harte, Charles Rufus, 28 W. Elm St, New Haven, Conn. *Engineering.* Marietta, Ohio, Nov. 8, 70. C.E, Columbia, 93. Engineer, N. Y, New Haven and Hartford R. R. 93–01, 04–06; location and construction of elec. ry, Stone and Webster, Boston, 01–04; *engineer in charge design, location and construction of elec. ry. lines,* N. Y, New Haven and Hartford R. R, 06–10, *Conn. Co, 10–* Past v. pres. and Inst. Eng. rep, U. S. nat. cmt. Int. Elec. Cmn. Elec. Eng; Civil Eng; Transit Eng. Asn. (pres, 26); Standards Asn. (past v. chairman, chairman, elec. standards cmt); Newcomen Soc; New Eng. Transit Club; Conn. Hist. Soc; Conn. Soc. Civil Eng. (pres, 39); New York Hist. Soc; New London County Hist. Soc; New Haven Colony Hist. Soc. Electric railways; electrification; valuation; engineering history.

Hartel, Prof. Lawrence W(illiam), Whitman College, Walla Walla, Wash. *Physics.* Cape Girardeau, Mo, Feb. 19, 88. A.B, Cent. Wesleyan Col, 11, B.S, 12; B.S, Missouri, 15; M.S, Kans. State Col, 24. Prin, high sch, Mo, 15–17; teacher physics, Vanderbilt, 17–18; *asst. prof,* Kans. State Col, 20–42; *physics and math. Whitman Col, 42–* C.Eng, U.S.A, 18. A.A; Asn. Physics Teachers; Kans. Acad. Demonstrations in physics; heat conduction; mechanics; astrophysics.

Hartenberg, Dr. R(ichard) S(heunemann), Northwestern University, Evanston, Ill. *Mechanics, Aerodynamics.* Chicago, Ill, Feb. 27, 07. B.S, Wisconsin, 28, M.S, 33, Ph.D, 41; Göttingen, 28–29; Inst. Tech. Aix-La-Chapelle, 29–30. Instr. *mech,* Wisconsin, 30–41, *asst. prof, Northwestern, 41–; senior engineer, Forest Products Lab, U. S. Forest Service, 42–* Mech. Eng; Eng. Educ; Inst. Aeronaut. Sci; Aeronaut. Asn. Strength and stiffness of thin cylindrical shells; plaster models and similarity.

Harter, Prof. E(dward) L(inn), Agricultural and Mechanical College of Texas, College Station, Texas. *Chemistry.* Linneus, Mo, Feb. 28, 94. A.B, Mo. Wesleyan Col, 19; A.M, Kansas, 37. Prof. *chem,* Palmer Col, 20–21; asst. prof. and later *assoc. prof, Agr. and Mech. Col. Texas, 22–* Organic chemistry; preparation of thiazolines.

Harter, Dr. L(eonard) L(ee), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Moulton, Iowa, Feb. 2, 75. A.B, Nebraska, 03, A.M, 05; Ph.D, George Washington, 17. Sci. asst, *bur. plant indust, U. S. Dept. Agr,* 04–06, asst. physiologist, 06–08, asst. pathologist, 08–12, pathologist and *senior pathologist, 12–* A.A; Soc. Plant Physiol; Phytopath. Soc. (ed, 22); Bot. Soc; Bot. Soc. Wash; Wash. Acad. Life history, storage rot, physiology and enzymes of fungi; diseases of vegetable crops.

Harter, Prof. Richard Stephen, Temple University, Philadelphia, Pa. *Psychology.* Mattoon, Ill, Feb. 13, 99. A.B, Ind. Cent. Col, 26; A.M, Indiana, 27, Ph.D, 29. Instr. and *asst. prof. psychol, Temple, 28–* Psychol. Asn. Physiological psychology; errors made in spelling; structure of, and individual differences involved in associative capacity.

Hartig, Prof. Henry E, 3940 Lake Curve Ave, Robbinsdale, Minn. *Physics, Electrical engineering.* Minneapolis, Minn, Jan. 28, 92. B.S, Minnesota, 18, Ph.D, 24. Develop. and research, Am. Tel. and Tel. Co, 18–19; from instr. to *prof. communication eng, Minnesota, 19–; mem. staff, Nat. Defense Research Cmt. project, U. S. Radio and Sound Lab, 41–* Sig.C, U.S.A, 18. Physical Soc; Elec. Eng; Eng. Educ; Radio Eng. Electro-acoustics.

Hartigan, Dr. Raymond H(arvey), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Organic chemistry.* Rensselaer, N. Y, Sept. 2, 15. B.S, Rensselaer Polytech, 37, M.S, 39, Ph.D, 41. Asst. instr. chem, Rensselaer Polytech, 37–41; *indust. fellow, Mellon Inst, 41–; instr. org. chem, eng, science and management war training, Pa. State Col, 42–* Chem. Soc; Inst. Chem. Organic chemistry of nitrogen and sulfur compounds, especially cyanogen and thiocyanogen derivatives; effect of ultra-violet light on methylcellulose in solution.

Hartkemeier, Prof. Leonard W(illiam), 330 Marion St, Denver, Colo. *Analytical chemistry.* Louisville, Ky, April 17, 00. B.S, Louisville, 21; Shevlin fellow, Minnesota, 24, M.S, 24. Asst. chemist, Highway Dept, Minn, 25; North. Pacific R. R, 25–26; instr. *anal. chem, Colo. Sch. Mines,* 26–27, asst. prof, 27–35, *assoc. prof, 35–* Chem. Soc. (sec'y, Colo. sect, 28–36). Chemical engineering; analytical chemistry and quantitative analysis as applied to ore analysis.

Hartley, Dr. Carl, U. S. Department of Agriculture, Washington, D. C. *Botany.* Lincoln, Nebr, April 7, 87. A.B, Nebraska, 07, A.M, 09; Ph.D, California, 20. Asst. plant path, Exp. Sta, West Virginia, 07; plant ecol, Minn. Geol. and Nat. Hist. Surv, 08; sci. asst, bur. plant indust, U. S. Dept. Agr, 09–10, asst. pathologist, 11–14, pathologist, 14–19; Inst. voor Plantenziekten, Java, 19–22; *bur. plant indust, U. S. Dept. Agr, 23–, prin. pathologist.* Phytopath. Soc; Soc. Foresters; Bot. Soc. Wash. Diseases of forest trees and products; quantitative methods in plant pathology.

Hartley, C(harles) P(inckney), 3420 Center St, Washington, D. C. *Agriculture.* Osgood, Ind, July 7, 70. B.S, Kans. State Col, 92, M.S, 99. Asst. hort, Kans. State Col, 97–99; asst. physiologist, U. S. Dept. Agr, 99–06, physiologist in charge corn investigations, 06–30, agronomist in agr. eng, 30–33; *retired.* A.A; Soc. Agron; Bot. Soc. Wash. Plant breeding and physiology; premature pollination; crop rotation; methods of corn improvement, of corn breeding and of increasing the acre yield; prevention of soil erosion and packing, water run-off, floods and resulting droughts.

Hartley, Dr. David D(ouglass), Mid-Continent Petroleum Corp, Tulsa, Okla. *Chemistry.* Marshfield, Mo, Aug. 25, 05. B.S, Drury Col, 27, A.M, 30; fellow, Indiana, 30–32, Ph.D, 32. Asst, Rubber Service Labs, 28–29; *research chemist, Mid-Continent Petrol. Corp, 32–* Chem. Soc. Organic chemistry; petroleum technology.

Hartley, Dr. Miles C, 1203 W. Illinois St, Urbana, Ill. *Mathematics.* Toulon, Ill, Sept. 6, 01. A.B, Illinois, 23, A.M, 24, B.S, 26, Ph.D, 32, B.Mus, 39. *Instr. math,* LaSalle-Peru-Oglesby Junior Col, 24–30; *Illinois, 32–* Math. Soc; Math. Asn. Algebraic geometry; teaching of mathematics.

Hartley, R(alph) V(inton) L(yon), Bell Telephone Laboratories, Murray Hill, N. J. *Electrical engineering.* Spruce, Nev, Nov. 30, 88. A.B, Utah, 09; B.A, Oxford, 12, B.Sc, 13. Instr. physics, Nevada, 09–10; research engineer, West. Elec. Co, 13–25; *research consultant, Bell Tel. Labs, 25–* A.A; Elec. Eng; Radio Eng; Physical Soc; Acoustical Soc. Telephone and telegraph transmission; electrical communication; binaural sound location.

Hartley, Prof. R(obert) W(illiam), Southwestern, Memphis, Tenn. *Mathematics.* Spruce, Nev, March 10, 85. A.B, Utah, 07; Rhodes scholar, Oxford, 07–10, B.A, 10; Ph.D, Pennsylvania, 25. Instr. *math,* Pennsylvania, 20–25; *prof, Southwestern (Tenn), 25–,* dean. Theory of groups.

Hartline, Dr. H(aldan) K(effer), Hospital of the University of Pennsylvania, Philadelphia, Pa. *Physiology.* Bloomsburg, Pa, Dec. 22, 03. B.S, Lafayette Col, 23; M.D, Hopkins, 27. Nat. research fellow med. sciences, 27–29; Eldridge Johnson traveling research scholar, Pennsylvania, 29–30, fellow med. physics, Johnson foundation, 30–36, asst. prof. biophys, 36–40; assoc. prof. physiol, Cornell, 40–41; asst. prof. *biophys, Pennsylvania,* 41–42, *assoc. prof, 42–* Physiol Soc. Physiology of photoreception; electric responses of vertebrate and arthropod eyes; neurophysiology of vision.

Hartline, Dr. Opal C(ameron), Illinois State Normal University, Normal, Ill. *Plant physiology, Botany.* Ashley, Ill, May 6, 99. B.S, McKendree Col, 25; M.S, Illinois, 32, Ph.D, 35. *Asst. prof. biol, Ill. State Nor. Univ, 36–* A.A; Bot. Soc; Genetic Asn; Eugenics Soc; Asn. Biol. Teachers; Sullivant Moss Soc; Ill. Acad. Mosses and lichens; hydrogen-ion concentration of corn.

Hartman, Prof. Carl G, University of Illinois, Urbana, Ill. *[4]*Embryology, Physiology.* June 3, 79. A.B, A.M, Texas, 04, Ph.D, 15. County supt. pub. instruction, Austin, Texas, 04–09; prof. biol, Sam Houston State Teachers Col, 09–12; instr. and prof. zool, Texas, 12–25; research assoc. embryol, Carnegie Institution, Hopkins, 25–41; *prof. zool. and head depts. zool. and physiol, Illinois, 41–* Fellow, Wistar Inst, 17–18. Nat. Acad; A.A; Physiol. Soc; Asn. Anat; Soc. Zool; Soc. Nat; hon. mem. Cent. States Asn. Obstet. and Gynec; hon. mem. Chicago Gynec. Soc; hon. mem. Baltimore Gynec. Soc; hon. mem. Verein deuts. Ärzte v. N. Y; Int. Inst. Embryol. Utrecht. Habits of solitary wasps; embryology of the opossum; physiology of reproduction; menstruation.

Hartman, Prof. Ernest, Care of G. Luben, Coopersville, Mich. *Biology.* Raymond, Kans, April 25, 96. B.S, Kans. State Col, 22, M.S, 24; Sc.D, Hopkins, 26. Asst, Kans. State Col, 22–24; special asst, int. health board, Rockefeller Foundation, 24–26; instr. zool, Illinois, 26–28; assoc. prof. biol, Lingnan Univ, 28–31, sericulture, 31–35; fellow by courtesy, Hopkins, 35–36; asst. prof. bacter. and clin. path, col. med, Vermont, 36–42. Soc. Parasitol; Micros. Soc. Protozoology; helminthology; bacteriology; diseases of silkworms.

Hartman, Prof. Frank A(lexander), Ohio State University, Columbus, Ohio. *[5]*Physiology.* Gibbon, Nebr, Dec. 4, 83. A.B, Kansas, 05, A.M, 09; Ph.D, Washington (Seattle), 14. Instr, high schs, Ill, Kans. and Wash, 06–14; Austin teaching fellow *physiol,* Harvard Med. Sch, 14–15; lecturer, Toronto, 15–18, asst. prof, 18–19; prof, Buffalo. 19–34; *prof. and head dept, Ohio State 34–* Chancellor's medal, Univ. Buffalo, 32; gold medal, Am. Med. Asn, 32; Schoellkopf medal, West. N. Y. sect, Chem. Soc, 33. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Chem. Soc; Asn. Study Int. Secretions (pres, 35); Am. Med. Asn; Ohio Acad. Volatile substances of urine; adrenalin and the circulation; denervated muscle; conditions determining medulli-adrenal secretion; control of capillaries; cortin and adrenal cortex functions.

Hartman, Dr. Frank W(ilbur), Henry Ford Hospital, Detroit, Mich. *Pathology.* Eliot, Iowa, Sept. 5, 90. A.B, Knox Col, 13; M.D, Hopkins, 17. Pathologist and instr. path, Naval Med. Sch. and Naval Hosp, Wash, D. C, 17–19; *pathologist,* Scott and White Clinic and Santa Fe Hosp, Texas, 19–22; *director labs, Henry Ford Hosp, 22–* Alumni trustee, Knox Col, 26–29; sec'y-treas, Am. Board Path; mem. cmn. on post-grad. educ. in med, Advisory Board for Medical Specialties. Chairman cmt. physiol, path. and methods of production of fever, Int. Conf. Fever Therapy, New York, 37. Soc. Clin. Path. (pres, 29, exec. cmt, 30–); Soc. Exp. Path; Soc. Bact; Asn. Path. and Bact; Am. Med. Asn. Deep x-ray therapy; experimental nephritis, heart lesions and immediate metabolic effects produced by x-ray; treatment with artificial fever; carbocyclic antiseptics; pathology of anoxia; pectin solutions as blood substitute; liver damage in burns.

Hartman, Prof. Glen, University of Wyoming, Laramie, Wyo. *Agronomy.* B.S, M.S, Wyoming. *Assoc. prof. agron, Wyoming, 23–* Wyo. rep, bur. agr. econ, U. S. Dept. Agr, 39–Agriculture; grains; grasses; potatoes.

Hartman, Henry, Oregon State Agricultural College, Corvallis, Oregon. *Horticulture.* Marion, Kans, 89. B.S, State Col. Wash, 17; M.S, Iowa State Col, 22. Asst. prof. exten. pomol, Iowa State Col, 17–18; instr. hort, Oregon State Col, 19–20, asst. prof. pomol, 20–22, assoc. prof, 22–27, prof, 27–31; *horticulturist,* div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–32; *Exp. Sta, Oregon State Col, 32–* Soc. Hort. Sci. Harvesting, storage and processing of fruits.

Hartman, Dr. John D(aniel), Purdue University, Lafayette, Ind. *Horticulture.* Orwigsburg, Pa, Aug. 21, 09. B.S, Pa. State Col, 30; M.S, Cornell, 31, Ph.D, 33. Asst. veg. crops, Cornell, 30–33; Crop Protection Inst. fellow, Delaware, 34; research instr, Cornell, 34–37; *research assoc. hort, Purdue, 37–* Soc. Hort. Sci; Soc. Agron; Soc. Plant Physiol; Potato Asn; Soil Sci. Soc; Phytopath. Soc; Ind. Acad. Production, marketing and processing of vegetable crops.

Hartman, Prof. M(ary) Elizabeth, Women's Christian College, Madras, India. *Botany.* Harrisburg, Pa, May 28, 02. A.B, Mt. Holyoke Col, 25; Mt. Holyoke Col. fellow, Nebraska, 27–28, Ph.D, 28. Asst. bot, Nebraska, 25–27; instr. biol, Wilson Col, 28–30; *prof. bot, Women's Christian Col, India, 33–* Bot. Soc; Indian Bot. Soc. Morphology and microchemistry; antheridial dehiscence in the Polypodiaceae.

Hartman, Dr. O(lga), University of Southern California, Los Angeles, Calif. *Zoology.* Waterloo, Ill, May 17, 00. A.B, Illinois, 26; A.M, California, 33, Ph.D, 36. Asst. zool, California, 33–36, research zoologist, 37, Scripps Institution, 38; Allan Hancock Foundation, Southern California, 38–39; for. research fellow, Swedish and British institutions, 39–40; *research zoologist, Allan Hancock Foundation, Southern California, 40–* Instr, exten. div, California, 34; research, Bass Biol. Lab, 38; research, museum comp. zool, Harvard, 39; Peabody Museum, Yale, 40. A.A. Taxonomy; ecology; distribution and phylogeny of polychaetous annelids; life cycles of marine worms; marine invertebrates of the northeast Pacific.

Hartman, Dr. Philip, Queens College, Flushing, N. Y. *Mathematics.* Baltimore, Md, May 15, 15. A.B, Hopkins, 34, Ph.D, 38. Jr. instr. *math,* Hopkins, 35–38; *instr, Queens Col. (N. Y), 38–; lieut, Field Artil, U. S. Army.* Math. Soc. Fourier series; measure theory; probability; almost periodic functions.

Hartman, Dr. Robert J(ames), Dow Chemical Co, Midland, Mich. *Chemistry.* Ft. Wayne, Ind, Oct. 18, 06. A.B, Indiana, 28, A.M, 29, Ph.D, 30; Cornell; Wisconsin. Asst. chem, Indiana, 28–30, instr, 30–34, asst. prof, 34–41, assoc. prof, 41–42; *mem. physical research labs, Dow Chem. Co, 42–* A.A; Chem. Soc; Oil Chemists Soc; Ind. Acad. Physical chemistry; chemical kinetics; colloid chemistry.

Hartman, William W(eaver), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Chicago, Ill, Feb. 22, 97. B.S, North-

western, 18; Chicago. *Asst. supt. in charge synthetic dept. org. chem, Eastman Kodak Co.* Ed, 'Org. Synthesis.' Chem. Soc. Methods of preparing organic chemicals.

Hartmann, Dr. Alexis F(rank), 500 Kingshighway, St. Louis, Mo. *Pediatrics.* St. Louis, Mo, Oct. 30, 98. B.S, Washington (St. Louis), 19, M.S, M.D, 21. Instr. *pediat, sch. med, Washington (St. Louis),* 23–25, asst. prof, 25–27, assoc. prof, 27–36, *prof, 36–* Lecturer, North Carolina, 24, 25, 27; Wisconsin, 29. Gill prize, Washington (St. Louis), 21. Pediat. Soc; Am. Med. Asn; Cent. Soc. Clin. Research (v. pres, 29); Acad. Pediat; Soc. Biol. Chem; South. Med. Asn; St. Louis Pediat. Soc. Changes in body chemistry in diseases such as diabetes, nephritis, acidosis, alkalosis and edema.

Hartmann, Dr. B(ernhard) G(eorge), 2801 Brandywine St, N. W, Washington, D. C. *Chemistry.* Belleville, Ill, Jan. 19, 73. Ph.D, Heidelberg, 96. With U. S. Dept. Agr, 08–43, senior chemist, food div, food and drug admin; *retired.* Food chemistry.

Hartmann, E(rnest) C(hristian), 1025 Manor Road, New Kensington, Pa. *Structural engineering.* Decatur, Ill, June 22, 03. B.S, Illinois, 24, M.S, 27. Draftsman and detailer, Miss. Valley Struct. Steel Co, 24; draftsman and computer, Ill. Cent. R.R, 24–25; draftsman and designer, 26; Waddell and Hardesty, 27–28; *research engineer, Aluminum Research Labs, Aluminum Co. of Amer, 29–* Summer, draftsman and designer, Ill. Cent. R.R, 26. J. James R. Croes medal, Am. Soc. Civil Engineers, 38. Civil Eng; Inst. Aeronaut. Sci. Structural uses of aluminum alloys; improvement of structural design practices; elimination of useless weight in structures; determination of strengths and related properties of aluminum alloys.

Hartmann, Prof. George W(ilfred), Columbia University, New York, N. Y. *Psychology.* Union Hill, N. J, March 29, 04. A.B, Columbia, 24, A.M, 25, fellow, 28, Ph.D, 28. Instr. psychol, Dartmouth Col, 25–27; exten, Columbia, 27–28; asst. prof, Pa. State Col, 28–31, assoc. prof, 31–33, prof, 33–36; assoc. prof. *educ. psychol, Teachers Col, Columbia,* 36–40, *prof, 40–* Social Science Research Council fellow, Berlin, 30–31; fellow, Teachers Col, Columbia, 35–36. Psychol. Asn; Soc. Psychol. Study Social Issues (pres, 39); Educ. Research Asn. Experimental, educational, social and political psychology.

Hartmann, Dr. Gregory K(emenyi), 3301 13th St, N, Arlington, Va. *Physics.* Buffalo, N. Y, May 25, 11. B.S, Calif. Inst. Tech, 33; Rhodes scholar, Oxford, 33–36, B.A, 36; Ph.D, Brown, 39. Asst. physics, Brown, 36–38; asst. prof, New Hampshire, 39–41; *contract employee, bur. ordnance, U. S. Navy Dept, 41–* Physical Soc. Supersonics; absorption in liquids.

Hartmann, Dr. Irving, 5560 Wilkins Ave, Pittsburgh, Pa. *Engineering, Physics.* Czechoslovakia, Nov. 9, 05. B.S, Cooper Union, 29, M.E, 33; A.M, George Washington, 32; Ph.D, Catholic Univ, 35. Junior mech. engineer and physicist, Naval Aircraft Factory, Bur. Standards, Army Air Corps, 29–35; asst. physicist, *U. S. Bur. Mines,* 36–38, assoc. physicist, 38–40, *physicist, 40–* Pittsburgh Physical Soc; Pittsburgh Coal Min. Inst. Airflow around heated sphere; torsion of airship girders; de-icing methods for airplanes; coal mining in Europe; strength and compressibility of coal mine pillars; physical properties of rocks; effect of temperature and humidity variations on mine roof rocks; extinguishing of magnesium fires; characteristics and explosibility of pulverized fuel pitch; explosibility of metal powders, coal dust and other mineral dusts; mine safety research.

Hartmann, Dr. M(iner) L(ouis), Room 635, Chamber of Commerce Bldg, Los Angeles, Calif. *Physical chemistry.* Hutchinson, Kans, July 14, 89. B.S, Arizona, 11; Ph.D, Harvard, 15. Asst. instr. chem, Illinois, 11–12; Austin teaching fellow, Harvard, 12–14; instr. physical chem, Missouri, 14–15; prof. chem, S. Dak. Sch. Mines, 15–18; director research, Carborundum Co, 18–26; tech. director, Celite Co, 26–29; v. pres, Dicalite Co, Los Angeles, 29–30; *consulting engineer and patent attorney, 30–* Pres, Calirare Chem. Corp, 35–37. Chem. Soc; Chem. Eng; Soc. Test. Mat. Theoretical electrochemistry; chemistry and metallurgy of tungsten; atomic weights; electric furnaces; refractories; abrasives; heat insulation; filter aids; diatomaceous earth products; nonmetallic minerals.

Hartnagel, C(hris) A(ndrew), New York State Museum, Albany, N. Y. *Geology.* Newark, N. Y, Sept. 5, 74. B.S, Union (N. Y), 98, hon. M.S, 33; Pd.B, N. Y. State Nor. Col, 00; fellow, Columbia, 04–05, A.M, 05. N. Y. Geol. Surv, 01–02; teacher, high schs, N. Y, 02–04; asst. econ. geol, *N. Y. Geol. Surv,* 05–08, geol, 08–20, asst. state geologist, 20–40, *state geologist, 40–* Curator, N. Y. State Museum. Geol. Soc; Paleont. Soc. Economic geology; stratigraphy; the Silurian; Clinton iron ores; geology of western New York; Pleistocene mammals; oil and gas fields of New York; mining and quarry industries of New York.

Hartnell, Geo(rge), Wyoming, N. Y. *Terrestrial magnetism.* Bergen, N. Y, March 20, 71. Director, Vieques Magnetic Observatory, P. R, U. S. Coast and Geod. Surv, 08–11, director and observer in charge, Cheltenham Magnetic Observatory, Md, 11–35; *retired.* A.A; Math. Soc; Math. Asn; Seismol. Soc; Geophys. Union. Magnetic instruments.

Harts, Brig. Gen. W(illia)m W(right), Madison, Conn. *Civil and military engineering.* Springfield, Ill, Aug. 29, 66. Grad, U. S. Mil. Acad, 89; Eng. Sch. of Application, 92; Army War Col, 12, 22; hon. A.M, Princeton, 13; Naval War Col, 13; Field Artil. Sch, 24. *Brig. gen, U. S. Army, 24–* Rowland prize, Am. Soc. Civil Eng; Telford medal, London Inst. Civil Eng. Commandeur, Légion d'honneur; Ordre de Léopold; knight commander, Order St. Michael and St. George, England; commandeur, Ordre de Denilo II, Montenegro; Ordre de la Couronne, Rumania. A.A; hon. mem. Am. Inst. Archit; Civil Eng. Waterway engineering; building and park construction; coast defense.

Hartsell, Dr. S(tanley) E(ugene), Purdue University, Lafayette, Ind. *Biology.* Benton Harbor, Mich, April 20, 05. B.S, Mich. State Col, 27; M.S, Yale, 29, Ph.D, 33. Instr. biol, Battle Creek Col, 29–30, asst. prof, 30–31; instr. animal diseases, Storrs Exp. Sta, Conn. State Col, 34–36; *bacter, Purdue,* 36–43, *assoc. prof, 43–* Inst. Food Technol; Soc. Bact; Pub. Health Asn; Ind. Acad. General bacteriology; serology; food bacteriology.

Hartshorn, Prof. Elden B(ennett), 11 Balch St, Hanover, N. H. *Organic chemistry.* Emmetsburg, Iowa, July 30, 89. B.S, Dartmouth Col, 12; Shevlin fellow, Minnesota, 19–20. Ph.D, 22. Instr. *chem, Dartmouth Col,* 13–23, asst. prof, 23–29, *prof, 29–* Lieut, C.W.S, 18– Chem. Soc. Amine oxides.

Hartshorne, Prof. Richard, University of Wisconsin, Madison, Wis. *Geography.* Kittanning, Pa, Dec. 12, 99. B.S, Princeton, 20; Ph.D, Chicago, 24. Investigator, Chicago River Bridge Surv, 23–24; instr. *geog,* Minnesota, 24–27, asst. prof, 27–37, assoc. prof, 37–40; *Wisconsin,* 40–41, *prof, 41–; chief geog. div, Coordinator of Information, 41–* Social Science Research Council fellow, 31–32. Summers, instr, Iowa State Teachers Col, 23; Pa. State Col, 26. V. chairman geog, div. geol. and geog, Nat. Research Council, 41– Asn. Geog. (councilor, 37–39). Political geography of Europe; boundary problems in Europe.

Hartson, Prof. L(ouis) D(unton), Oberlin College, Oberlin, Ohio. *Psychology.* Anamosa, Iowa, Nov. 24, 85. Ph.B, Grinnell Col, 08; Pd.M, N. Y. Univ, 09; Columbia, 09–10, 13, 18; Ph.D, Clark, 11; Lyons, 19; Vienna, 33–34. Instr. psychol. and educ, Grinnell Col, 11–13, asst. prof, 13–17, assoc. prof, 17–23; asst. prof. *psychol, Oberlin Col,* 23–25, assoc. prof, 25–27, *prof, 27–, head dept, 39–* Summers, assoc. prof, Montana, 22, 23; Ohio State, 32. Psychol. Asn; fel. Ohio Acad. (v. pres, 32, 42). Social and personnel psychology.

Hartsook, Prof. A(rthur) J, Rice Institute, Houston, Texas. *Chemical engineering.* Greenwood, Nebr, Nov. 17, 91. A.B, Nebr. Wesleyan. 11; B.S. Mass. Inst. Tech, 20, Monsanto fellow, 20–21, M.S, 21. Instr. and sch. supt, Nebr, 12–18; instr. indust. chem, *Rice Inst,* 21–28, asst. prof. *chem. eng,* 28–40, *prof, 40–, in charge dept, 28–* A.A; Eng. Educ; Inst Chem; Chem. Soc. (treas, southeast Texas sect, 26–40, sec'y. 30–40). Industrial chemistry; decomposition and products of natural gas; catalytic cracking of petroleum.

Hartsuch, Prof. Bruce E(dwin), 422 W. Michigan Ave, East Lansing, Mich. *Chemistry.* Kendallville, Ind, 88. A.B, Wabash Col, 10. From instr. to *assoc. prof. chem, Mich. State Col, 11–* Textile Inst. England. Textile chemistry; qualitative analysis.

Hartsuch, Prof. Paul J(ackson), 334 S. Kensington Ave, LaGrange, Ill. *Chemistry.* Kendallville, Ind, Sept. 17, 02. B.S, Mich. State Col, 24, Chem.E, 34; M.S, Chicago, 28, Ph.D, 35. Teacher, Mich, 24–27; instr. chem. eng, Case, 27–33;

Seymour Coman fellow *chem*, St. Luke's Hosp, Chicago, 34–38; *assoc. prof, Cent. Y.M.C.A. Col, 38–* Chem. Soc. Conductance of electrolytes; hydrogen ion concentration of blood with glass electrode; reactions at oil-water interfaces.

Hartt, Dr. Constance E(ndicott), Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Botany.* Passaic, N. J, Nov. 2, 00. A.B, Mt. Holyoke Col, 22; M.S, Chicago, 24, Ph.D, 28. Instr. hygiene, N. C. Col. for Women, 22–23; biol, St. Lawrence, 25–30; asst. prof. bot. and co-chairman dept, Conn. Col. for Women, 30–31; Sarah Berliner fellow, *Exp. Sta, Hawaiian Sugar Planters' Asn, Honolulu,* 31–32, fellow, 32–35, *enzymologist, 36–* Asst, Chicago, 27–28; asst. prof, Hawaii, 33–34. Botanist, Hawaiian Acad. exped, Mauna Kea, 35. A.A; Bot. Soc; Soc. Plant Physiol; Ecol. Soc; Hawaiian Bot. Soc. (sec'y, 34–39, v. pres, 40, pres, 41); Hawaiian Acad. Plant physiology; potassium deficiency, photosynthesis, sucrose synthesis, translocation and enzyme activity in sugar cane; germination of fern spores.

Hartung, Lieut. E(rnest) W(illiam), Jr, 191–07 104th Ave, Hollis, N. Y. *Genetics.* New York, N. Y, Jan. 20, 17. A.B, Dartmouth Col, 38, Cramer fellow, 38–39; A.M, Harvard, 40, Ph.D, 42. Teaching fellow, Harvard and Radcliffe Col, 40–42; *2nd lieut. and aviation physiologist, Air Forces, U. S. Army, 42–* Developmental genetics; influence of roentgen rays on tumor incidence in Drosophila melanogaster; development of asymmetry in the gastropod molluscs.

Hartung, John A. W, Dubois at the River, Detroit, Mich. *Chemistry.* Neustadt, Germany, Sept. 20, 95. Col. City of N. Y, 16; Columbia, 17–19; Pratt Inst, 18. Chief chemist, Jacob Ruppert Brewery, 17–36; *brewmaster and tech. director, Koppitz-Melchers Brewery, 36–* Lecturer, Am. Inst. of New York, 35. Chairman, Malt Analysis Standardization Cmt, 35. Chem. Soc; Master Brewers Asn. (chairman, tech. cmt, 34–37). Fermentation; malt analysis methods; carbon dioxide determination method for beer during its manufacture; brewing technology.

Hartung, Prof. M(aurice) L(eslie), University of Chicago, Chicago, Ill. *Mathematics.* Mount Vernon, Iowa, July 2, 02. A.B, Cornell Col. (Iowa), 24; A.M, Wisconsin, 26, Ph.D, 31. Instr. math, Wisconsin, 24–29, educ, 29–35, asst. prof, 35–36; research assoc, bur. educ. research, Ohio State, 36–38; *asst. prof. teaching of math, Chicago, 38–* Integral equations with discontinuous kernels; educational methods in mathematics.

Hartung, Dr. Walter H(enry), 5503 Stuart Ave, Baltimore, Md. *Chemistry.* Welcome, Minn, Jan. 4, 95. A.B, Minnesota, 18; Ph.D, Wisconsin, 26. Research chemist, Sharp and Dohme, Inc, 26–36; *prof. pharmaceut. chem, Maryland, 36–* Special lecturer, sch. pharmacy, Temple, 33–36. A.A; fel. Chem. Soc. (v. chairman, med. div, 34, sec'y, 36, 37, chairman, 38); Pharmaceut. Asn. (chairman, sci. sect, 41); Franklin Inst. Relations between physiological action and structure of pressor substances; effect of structure of phenol on bactericidal activity; hypnotic activity as influenced by chemical structure; synthesis of amino acids; synthesis of heterocyclic medicinal agents.

Hartung, W(illiam) J(ohn), 3039 Holei St, Honolulu, Hawaii. *Agriculture.* Milwaukee, Wis, Jan. 6, 82. Wisconsin; B.S, Hawaii, 12. Chief chemist, Great West. Sugar Co, Longmont, Colo, 07–09; asst. chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, 09–11; agr. chemist, Spreckels Sugar Co, Calif, 11–16, agriculturist, 16–20, director, Exp. Sta, Calif, 20–23; chief agriculturist, Pacific Guano and Fertilizer Co, Honolulu, 23–36, sales manager, 33–36; *exec. sec'y, diversified agr. cmt, Hawaiian Sugar Planters' Asn, 36–* A.A; Soc. Plant Physiol; Hawaiian Sugar Technol. Sugar beet leaf-hopper; functions of mulching paper in pineapple culture; soil analysis by vegetative means.

Hartweg, Dr. Norman (Edouard), University of Michigan, Ann Arbor, Mich. *Herpetology.* Warren, Pa, Aug. 20, 04. A.B, Michigan, 30, M.S, 31, Ph.D, 34. Asst, *div. herp, museum zool, Michigan,* 27–34, *asst. curator, 34–, instr. zool, 39–* A.A; Soc. Ichthyol. and Herp; Mich. Acad; Biol. Soc. Wash; Detroit Acad. Ecology, taxonomy and geographical distribution of the Testudines.

Hartwell, Dr. Jonathan L(utton), 5615 Southwick St, Bethesda, Md. *Chemistry.* Boston, Mass, Feb. 21, 06. A.B, Harvard, 28, A.M, 33, Ph.D, 35. Asst. chem, Harvard, 28–29, 32–34; research chemist, E. I. du Pont de Nemours and Co, 29–32; Int. Printing Ink Corp, 35–38; *research fellow, nat. cancer inst, U. S. Pub. Health Service, 38–, chemist, 42–* Chem. Soc. Organic chemistry; reactions of quinones; dyestuffs; pigments; cancer.

Hartwell, O(liver) W(hitcomb), 228 Federal Bldg, Trenton, N. J. *Hydraulics.* Somerville, Mass, July 5, 86. A.B, Harvard, 08. *Dist. engineer, U. S. Geol. Surv,* Harrisburg, Pa, 19–21, *Trenton, N. J, 21–* Civil Eng. Stream flow measurement.

Hartwell, Dr. Shattuck W(ellman), 706 Hackley-Union National Bank Bldg, Muskegon, Mich. *Surgery, Pathology.* Kalamazoo, Mich, July 5, 00. B.S, Minnesota, 23, M.B, 25, M.D, 26, Mayo Foundation fellow, 26–30, M.S, 29, Ph.D, 30. Intern, Highland Gen. Hosp, N. Y, 25–26; *practising surgeon, 30–; consulting surgeon, Mercy Hosp, 30–; Hackley Hosp, 31–; capt, Med. Corps, U. S. Army.* Fel. Am. Med. Asn; fel. Col. Surg. The healing process in human surgical wounds; histology of epithelial and fibrous healing; diagnosis.

Hartwig, Prof. Herbert B(ertsch), 109 Worth St, Ithaca, N. Y. *Agronomy.* Wayne Co, Mich, July 8, 98. B.S, Mich. State Col, 21; M.S, Iowa State Col, 22; Ph.D, Pa. State Col, 37. Teaching fellow, Iowa State Col, 21–22; instr. *agron,* Syracuse, 22–23, asst. prof, 23–25, assoc. prof, 25–27; asst. exten. prof, *Cornell,* 27–34, asst. prof, 34–37, *prof, 37–* State potato inspector, N. Y, 24–26; fed. hay inspector, N. Y, 23, 33. Int. Grasslands Cong, England, 37. Field crops; the common clovers; various silage crops; soils under grass species as influencing their distribution; emergency hay crops; hay crop fertilization; stage of cutting as affecting longevity of hay plants.

Harty, Prof. John (Henry), 607 Sunset Court, Cape Girardeau, Mo. *Physics.* Puxico, Mo, Oct. 7, 93. B.S, Southeast Mo. State Teachers Col, 19; A.M, Missouri, 28, Ph.D, 32. *Prof. physics,* Northeast Mo. State Teachers Col, 27–36; *Southeast Mo. State Teachers Col, 36–* A.A; Physical Soc; Asn. Physics Teachers; Mo. Acad. (chairman, physics sect, 34–36). Photovoltaic effects in Grignard solutions.

Hartzell, Dr. Albert, Boyce Thompson Institute for Plant Research, 1086 N. Broadway, Yonkers, N. Y. *Entomology.* Easton, Pa, Sept. 2, 91. B.S, Cornell, 16, M.S, 17; fellow, Iowa State Col, 17; fellow, Ohio State, 22–23, Ph.D, 23. Asst. entom, Iowa State Col, 17, instr, 18–22; fellow, Crop Protection Inst, 23–24; *entomologist, Boyce Thompson Inst, 24–* Del, Int. Cong. Entom, Paris, 32; Am. Sci. Cong, Washington, 40. A.A; Entom. Soc; Asn. Econ. Entom; Bot. Soc; Phytopath. Soc; N. Y. Acad; fel. Iowa Acad; N. Y. Entom. Soc. Life history and control of the potato leafhopper; Empoasca in North America; insect transmission of virus diseases of plants; contact insecticides.

Hartzell, Prof. Allen R(eiff), 25½ State St, Canton, N. Y. *Chemistry.* Perkasie, Pa, 94. B.S, Franklin and Marshall Col, 17; M.S, Pa. State Col, 21. Instr. *chem,* Lehigh, 17; Pa. State Col, 19–21; asst. prof, *St. Lawrence,* 21–29, *assoc. prof, 29–* C.W.S, U.S.A, 17–19.

Hartzell, Prof. F(rederick) Z(eller), New York Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Easton, Pa, Dec. 11, 79. A.B, Lafayette Col, 05; A.M, Cornell, 09. Field asst, div. zool, Dept. Agr, Pa, 06–08; asst. entomologist, *N. Y. Exp. Sta, Geneva,* 09–12, assoc. entomologist, 12–24, assoc. in research, 24–38, *chief in research, 38–*; assoc. prof, *Cornell,* 24–38, *prof, 38–* A.A; Entom. Soc; Asn. Econ. Entom; Chem. Soc; Statist. Asn. Economic entomology; insect control; grape, pear and apple insects; variation and growth in insects; ecology as related to insects; biometrical methods and entomology; plat technique.

Hartzler, Prof. H(arrod) Harold, Goshen College, Goshen, Ind. *Physics.* Ft. Wayne, Ind, April 7, 08. A.B, Juniata Col, 30; Ph.D, Rutgers, 34. Prof. math. and physics, Elizabethtown Col, 35–37; asst. prof. math. and astron, *Goshen Col,* 37–38, assoc. prof. *math,* 38–43, *prof, 43–* Summer, instr, Juniata Col, 32. Physical Soc; Asn. Physics Teachers; Math. Asn; Math. Soc. Optical properties of metallic films; transmission by thin films; spectroscopy.

Harvalik, Prof. Z(aboj) V(incent), St. Ambrose College, Davenport, Iowa. *Physical chemistry.* Sinj, Yugoslavia, Feb. 4, 07. M.S, Prague, 30, M.A, 34, D.Sc, 33, 34–37. Instr. physics, State Teachers Col, Prague, 30–33; officer, Chem. Warfare, Czecho-Slovakian Army, 34–36; asst. prof. physics and chem, State Tech. Col, Prague, 36–37, assoc. prof, 37–38, prof. in charge, 38–39; research chemist, dept. dermatol, Columbia, 39–40; *prof. physics and head dept, St. Ambrose Col,*

40–, in charge eng, science and management defense training, 42– Lecturer, Urania Peoples Univ, 37–38; research chemist, Royal Yugoslavian Factory, Obilićevo, 39. Chem. Soc; Meteorol. Soc; Radio Service Men Amer. Adsorption; ion concentration; electronics; x-ray fine structure determination; aero sols; atmospheric electricity.

Harvey, Dr. Adelbert W(illiam), 445 Arden Road, Mt. Lebanon, Pa. *Chemistry.* Central Square, N. Y, March 8, 94. B.S, Syracuse, 17; M.S, Pittsburgh, 19, Ph.D, 22. Instr. *chem,* Pittsburgh, 17–22; *indust. fellow, Mellon Inst, 22–* Chem. Soc. Phthalein and fluorescein dyes; sulfonation of aromatic hydrocarbons; hydrogenation and refining of oils; antiseptics; anesthetics; fats and food products; felts; textile fibers.

Harvey, Prof. A(lfred) L(eigh), University Farm, St. Paul, Minn. *Animal husbandry.* Mondovi, Wis, March 4, 97. B.S, Minnesota, 20, M.S, 23; Ph.D, Iowa State Col, 41. *Asst. prof. animal husbandry, univ. farm, Minnesota, 20–; sec'y, State Stallion Registration Board, Minn, 23–* Soc. Animal Production. Horse nutrition; calcium and phosphorus requirements of growing colts; effect of work upon nitrogen, calcium and phosphorus balances of draft horses.

Harvey, Prof. Basil C(oleman) H(yatt), University of Chicago, Chicago, Ill. *Anatomy.* Watford, Ont, Can, Jan. 16, 75. B.A, Toronto, 94, M.B, 98; licentiate, N. S. Nor. Col, 95. Asst. *anat,* Toronto, 95–97; *Chicago,* 01–02, assoc, 02–04, instr, 04–08, asst. prof, 08–11, assoc. prof, 11–17, prof, 17–40, emer. prof, 40–43, *prof, 43–,* dean col. science, 21–24, med. students, 23–40, students, div. biol. sciences, 31–40, *acting dean, 43–* Officer, M.C, 17–19. A.A; Am. Med. Asn; Asn. Anat; Inst. Med. Chicago; Chicago Soc. Int. Med. Gastric mucosa; hypophysis; medical education.

Harvey, Prof. B(urwell) T(owns), Jr, Morehouse College, Atlanta, Ga. *Chemistry.* Griffin, Ga, July 18, 92. B.S, Colgate, 16; A.M, Columbia, 27. *Prof. chem, Morehouse Col, 16–* Ed, 'Morehouse Jour. Science,' 29– Chem. Soc; Electrochem. Soc; N. Y. Acad. Chemical education in Negro schools.

Harvey, Dr. Cecil C(laude), 4157 Clarendon Ave, Chicago, Ill. *Biochemistry.* Jeffersonville, Ind, Feb. 22, 06. B.S, Louisville, 29; M.S, Chicago, 31; Ph.D, Illinois, 38. Asst. *physiol. chem, col. med, Illinois,* 30–39, *instr, 39–* A.A; Chem. Soc. Protein chemistry; excretion of foreign proteins and blood proteins; proteinuria.

Harvey, Prof. E(dmund) Newton, Princeton University, Princeton, N. J. **Zoology, Physiology.* Germantown, Pa, Nov. 25, 87. B.S, Pennsylvania, 09; Ph.D, Columbia, 11. Instr. *physiol, Princeton,* 11–16, asst. prof, 16–20, prof, 20–33, *Henry Fairfield Osborn prof, 33–* Visiting prof, Mass. Inst. Tech, 40–41. Assoc. ed, 'Biol. Abstracts'; 'Biol. Bul'; 'Jour. Cellular and Comp. Physiol'; 'Rev. of Science and Indust.' Cmt. on luminescence and deuterium research, Nat. Research Council. Trustee and v. pres, Marine Biol. Lab, Woods Hole; trustee, Bermuda Biol. Sta. Carnegie Institution exped, Great Barrier Reef, 13–14. John Price Wetherill medal, Franklin Inst. Nat. Acad; A.A; Soc. Nat; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Zool; Bot. Soc; Philos. Soc; Soc. Bact. Light production by animals; permeability of cells; oxidation; rate of nerve impulse; supersonic waves; centrifugal force; brain potentials.

Harvey, Dr. Edmund N(ewton), Jr, 432 W. 45th St, New York, N. Y. *Physical chemistry.* Baltimore, Md, Dec. 16, 16. A.B, Princeton, 38, Ph.D, 41. *Research chemist, research labs, Interchem. Corp, 41–* Chem. Soc; Soc. Rheol. Surface chemistry.

Harvey, Dr. E(dward) Maris, U. S. Department of Agriculture, Pomona, Calif. *Plant physiology.* Galena, Kans, March 20, 88. A.B, Friends, 10; Ph.D, Chicago, 14. Acting prof. biol, Col. of William and Mary, 11–12; sci. asst, bur. plant indust, U. S. Dept. Agr, 14–18; prof. hort. research, Oregon State Col, 19–31; *physiologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–* Summer, asst, desert lab, Carnegie Institution, 12. A.A; Bot. Soc; Chem. Soc. Horticulture; physiological chemistry; metabolism; physiology of citrus fruit in storage and transit.

Harvey, Dr. E(dward) W(inslow), Food Industries Laboratory, Astoria, Oregon. *Food technology.* Amherst, Mass, March 21, 11. B.S, Mass. State Col, 34, M.S, 37, Ph.D, 40; Oregon State Col, 37–40. Asst. instr. bacter, Mass. State Col, 35–37; instr. *food technol, Oregon State Col,* 39–41, *asst. prof, 41–, asst. technologist, Exp. Sta, 41–* Pub. Health Asn; Inst. Food Technol. Marine food products and by-products.

Harvey, Dr. Ellery H(ale), Anheuser-Busch, Inc, St. Louis, Mo. *Chemistry.* Lewisburg, Pa, Jan. 13, 95. Ph.C, Medico-Chirurg. Col, 16; Ph.M, Phila. Col. Pharmacy, 21; A.B, Bucknell, 23, A.M, 24, Chem.E, 29; Ph.D, Wisconsin, 26; LL.B, John Marshall Law Sch, 32. Chemist, Cooper's Creek Chem. Co, 16–17; research chemist, Van Camp Packing Co, 17–18; chief chemist, Perkins Glue Co, 18–23; research chemist, Swift and Co, 26–27; director bur. standards, Montgomery Ward and Co, 27–36; chief chemist and asst. director research, Wilson and Co, Chicago, 36–40; *director research, Anheuser-Busch, Inc, 40–* Professorial lecturer, Ill. Inst. Tech, 39. A.A; Chem. Soc. (chairman, employment cmt, director, Chicago sect, managing ed, 'Bul,' 35; chairman, agr. and food div, 42, 43); Oil Chemists Soc. (ed. board); Chem. Eng; Asn. Textile Chem. and Colorists; Inst. Food Technol. (chairman, Chicago sect, 40; ed. cmt, 41; v. pres, 42). Starch; adhesives; foods; sulfur chlorides; ultraviolet; nutrition; laboratory administration.

Harvey, Dr. Ethel Browne (Mrs. E. Newton Harvey), 48 Cleveland Lane, Princeton, N. J. **Zoology.* Baltimore, Md, Dec. 14, 85. A.B, Goucher Col, 06; Goucher fellow, Columbia, 06–07, A.M, 07, Soc. Promotion Univ. Educ. of Women fellow, 11–12, Ph.D, 13. Instr. science, Bennett Sch, N. Y, 08–11; asst. biol, Princeton, 12–13; instr, Dana Hall, Mass, 13–14; Sarah Berliner fellow and fellow by courtesy, California, 14–15; asst. histol, med. col, Cornell, 15–16; biol, Wash. Sq. Col, N. Y. Univ, 28–31; *investigator, biol. dept, Princeton, 31–* Investigator, Marine Biol. Lab, Woods Hole, and Naples Zool. Sta. A.A; Soc. Nat; Soc. Zool; Genetic Asn. Regeneration; chromosomes; experimental embryology; echinoderm hybrids and twins; intravitam stains; centrifuging eggs; development without nuclei; cellular physiology.

Harvey, Dr. Frederic A(ddison), Harbison-Walker Refractories Co, Pittsburgh, Pa. *Physics, Ceramics.* Kellogg, Iowa, June 3, 82. B.S, Grinnell Col, 04; M.S, California, 06, Whiting fellow, 08–09, Ph.D, 09. Instr. physics, Grinnell Col, 09–10; Syracuse, 10–11, asst. prof, 11–14, assoc. prof, 14–16; physicist, Solvay Co, 12–20; U. S. Refractories Corp, 21–25; *Harbison-Walker Refractories Co, 26–, director research, 32–* A.A; fel. Ceramic Soc. (chairman, refractories div, 23, v. pres, 29); Chem. Soc; Soc. Test. Mat. (advisory council cmt, C8); Refractories Inst. (chairman, tech. advisory cmt); Can. Ceramic Soc; British Ceramic Soc; Deuts. Keramische Gesell. Atmospheric radioactivity; electrical conductivity of solutions; pyrometry; refractories.

Harvey, Prof. G(eorge) G(raham), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* St. Louis, Mo, Jan. 25, 08. A.B, Washington (St. Louis), 28, M.S, 30, fellow, 30–32, Ph.D, 32. Asst. *physics,* Washington (St. Louis), 28–30; nat. research fellow, Chicago, 32–34; instr, Mass. Inst. Tech, 34–37; Col. City of N. Y, 37–38; *asst. prof, Mass. Inst. Tech,* 38–43, *assoc. prof, 43–* A.A; fel. Physical Soc; Optical Soc; Math. Soc; Math. Asn; Asn. Physics Teachers; fel. Physical Soc. London; London Math. Soc; Edinburgh Math. Soc. Electron microscopy; x-rays and atomic structure; theoretical physics.

Harvey, Prof. J(ames) V(ernon), San Bernardino Junior College, San Bernardino, Calif. *Botany, Bacteriology.* Hazelhurst, Miss, Feb. 6, 01. A.B, Miss. Col, 23; A.M, North Carolina, 25; Ph.D, Wisconsin, 29. Asst. prof. bot, Okla. Baptist Univ, 25–27; *prof. biol,* East. Ky. State Teachers Col, 27–28; *San Bernardino Valley Junior Col, 28–* A.A; Bot. Soc; Mycol. Soc. Biology; mycology; Saprolegniaceae; soil water molds and Pythiums; ecology.

Harvey, Prof. M(ary) Gertrude, Bradley Polytechnic Institute, Peoria, Ill. *Chemistry.* Chicago, Ill, March 11, 90. B.S, Northwestern, 12; M.S, Chicago, 28, summers, 36, 37; Illinois, 31. Teacher, high sch, 12–16; from asst. to *asst. prof. chem, Bradley Polytech, 17–* Chem. Soc. (treas, Peoria sect, 41–43); Ill. Asn. Chem. Teachers; Ill. Acad; Peoria Acad. Chemical changes during vegetable cookery.

Harvey, Dr. Paul A(twood), 1505 Oxford St, Berkeley, Calif. *Entomology, Parasitology.* Mt. Vernon, Iowa, March 17, 92. B.S, Oregon State Col, 16; Wisconsin, 16–17; M.S, Minnesota, 18; Harvard, 21–23; Ph.D, California, 35. Austin teaching fellow, Harvard, 22–23; asst. prof. bot, Pomona Col, 24–25; prof. biol, Whitworth Col, 26–27; field biologist, Termite Investigations Cmn, San Francisco, 28–31; instr. biol, San Diego State Col, 31–32; asst. entom. and parasitol, Cali-

fornia, 32–39, bacter, 38–39; *instr. biol, San Francisco State Col, 39–* A.A; Cooper Ornith. Club; West. Soc. Nat; Pacific Entom. Club. General biology and ecology; bacteriology; medical entomology; insect life histories.

Harvey, Dr. Paul H(enry), North Carolina State College, Raleigh, N. C. *Plant breeding.* St. Paul, Nebr, Aug. 2, 11. B.S, Nebraska, 34; Ph.D, Iowa State Col, 38. Asst. genetics, Iowa State Col, 34–38; asst. prof. plant breeding, N. C. State Col, 38–40, assoc. prof, 40–42, *assoc. agronomist in charge corn breeding for N. C, bur. plant indust, U. S. Dept. Agr, 42–* A.A; Soc. Agron; Genetics Soc. Genetical-physiological relationships in plant nutrition; methods and techniques of plant breeding.

Harvey, Dr. R(odney) B(eecher), University Farm, St. Paul, Minn. ***⁵***Plant physiology.* Monroeville, Ind, May 26, 90. Ph.C, Purdue, 12, Sc.D, 39; B.S, Michigan, 15; Ph.D, Chicago, 18. Asst. botanist, Eli Lilly and Co, 12–13; asst. bot, Michigan, 15; microanalyst, bur. plant indust, U. S. Dept. Agr, 15–19, physiologist, 19–20; asst. prof. plant physiol, *Minnesota* and Exp. Sta, 20–23, assoc. prof. and head dept, univ, 23–29, assoc. prof. *plant physiol, bot. and hort,* and head sect, *Exp. Sta,* 29–30, *prof. and head sect. plant physiol, 31–* Guggenheim Mem. Foundation fellow, 27–28; director citrus lab, Dunedin, Fla, 36–37; director div. indust. microbiol, Gen. Mills, 42–43. A.A; Soc. Plant Physiol. (sec'y, 23–25, v. pres, 31, pres, 36, exec. cmt, 37–); Phytopath. Soc; Bot. Soc; Ecol. Soc; Chem. Soc. Absorption of electrolytes; enzymes of respiration; reactions of protoplasm to low temperature; ethylene ripening; toxic action.

Harvey, Dr. R(oss) B(uschlen), Pasqua, Sask, Can. *Physical chemistry.* Regina, Sask, March 27, 17. B.Sc, Saskatchewan, 35, M.Sc, 38; Nat. Research Council Can. scholar, McGill, 40, Ph.D, 40. Research chemist, Nat. Research Council Can, 40–41; *Royal Can. Army, 41–* Action of water on tricalcium silicate and beta-dicalcium silicate; heat capacity of ethylene and carbon dioxide in the critical temperature region.

Harvey, Dr. Samuel Clark, Yale University, New Haven, Conn. *Surgery.* Washington, Conn, Feb. 12, 86. Ph.B, Yale, 07, M.D, 11; Alonzo Clark fellow, Columbia, 12–13; Sc.D, Western Reserve, 31. Instr. path, Columbia, 12–13; asst. physician, Loomis Sanatorium, 13–14; house officer, Peter Bent Brigham Hosp, 14–15; Arthur Tracy Cabot fellow in charge lab. surg. research, Harvard, 15–16; asst. res. surgeon, Peter Bent Brigham Hosp, 16–17; instr. *surg, Yale,* 19–20, asst. prof, 20–21, assoc. prof, 21–24, *prof, 24–* Surgeon, New Haven Hosp, 19–24, surgeon in chief, hosp. and dispensary, 24– M.C, 17–19, major. A.A. Experimental surgery.

Harvey, William G(oold), 2210 Harvard Ave, Cleveland, Ohio. *Electrochemistry.* Detroit, Mich, April 21, 85. B.S, Michigan, 08. *Mem. staff,* Pa. Salt Mfg. Co, 08–14; Aviation Materials Corp, 14–16; *Am. Magnesium Corp, 16–; Aluminum Co. of Amer, 20–* Electrochem. Soc. (pres). Electrolytic production of magnesium, cerium, beryllium, calcium, barium and strontium.

Harvill, Edward K, Boyce Thompson Institute for Plant Research, 1086 N. Broadway, Yonkers, N. Y. *Organic chemistry.* Yonkers, N. Y, Feb. 20, 14. B.S, N. Y. Univ, 35, M.S, 38, Ph.D, 44. *Org. chemist, Boyce Thompson Inst, 35–* Chem. Soc; Asn. Econ. Entom. Synthetic organic insecticides; effect of light and temperature on plants.

Harwell, C(harles) A(lbert), 2630 Hilgard Ave, Berkeley, Calif. *Natural history.* Calif, Jan. 20, 87. B.S, California, 14, A.M, 25. Prin, sch, Calif, 18–28; park naturalist, Yosemite Nat. Park, 29–40; *Calif. rep, Nat. Audubon Soc, 40–* Ornith. Union; Pacific Audubon Asn. (pres, 28); Cooper Ornith. Club Calif; San Francisco Acad.

Harwell, Dr. J(oseph) G(eorge), 22 Metropolitan Oval, Parkchester, New York, N. Y. *Chemistry.* New York, N. Y, June 6, 10. B.S, Col. City of N. Y, 28; Loewenthal fellow, Chicago, 30–31, Ph.D, 32. Asst, Chicago, 29–30; consultant chemist, Marble Hill Cast Stone, 32–35; anal. and research chemist, Hoffmann-La Roche, 33–34; *teacher, high sch, New York, 35–* A.A; Chem. Soc. Spectroscopy; physical chemistry of pharmaceuticals.

Harwood, Prof. Arthur A(lbert), 1432 Euclid Ave, Indianapolis, Ind. *Chemistry.* Grant Co, Wis. B.S, Wisconsin, 23, M.S, 26, Ph.D, 29. Asst, Wisconsin, 26, instr. pharmacy, 27–29; asst. prof. pharmacog, *Valparaiso,* 29–33, *pharmaceut. chem,* 33–34, *assoc. prof, 34–* Plant chemistry; mints; thymoquinone and thymoquinhydrons and their connection with plant pigmentation.

Harwood, E(rnest) Monroe, Jr, Fairfield, Conn. *Geography.* New London, Conn, July 30, 08. A.B, Clark, 32; A.M, Syracuse, 37. Asst, Blue Hill Meteorol. Observatory, Harvard, 32–33, chief observer, 34–35; asst. geog, Syracuse, 35–37; teacher geog. and science, high sch, Conn, 37–42; *assoc. geographer, Mil. Intel. Service, 43–* Summers, Oceanog. Inst, Woods Hole, 32–33. Sea-surface temperatures in the western North Atlantic; use of cloud observations in short-term forecasting of snow storms.

Harwood, Dr. H. James, Armour and Co, Chicago, Ill. *Chemistry.* Salt Lake City, Utah, Nov. 14, 05. B.S, Utah, 27, M.S, 28; Parke Davis and Co. fellow, Iowa State Col, 28–31, Ph.D, 31. E. R. Squibb and Sons research fellow, Yale, 31–33; *research chemist, Armour and Co, 33–* Chem. Soc. Guanidine derivatives; polypeptides; isoquinoline derivatives; fatty acids and derivatives.

Harwood, Margaret, Maria Mitchell Observatory, Nantucket, Mass. *Astronomy.* Littleton, Mass, March 19, 85. A.B, Radcliffe Col, 07; A.M, California, 16. Computer, Harvard Observatory, 07–12; research fellow, *Nantucket Maria Mitchell Asn,* 12–16, *director observatory, 16–* Asst, Mt. Wilson Observatory, Carnegie Institution, 23–24. Cmns. 16 and 27, Int. Astron. Union. Astron. Soc; Asn. Variable Star Observers; fel. Royal Astron. Soc. Faint equatorial stars; variable stars; variability of asteroids, especially Eros; navigation.

Harwood, Dr. Paul D(uane), 203 Ferrell Ave, Ashland, Ohio. *Parasitology.* Newfane, N. Y, April 7, 06. B.S, Cornell, 28; A.M, Rice Inst, 30, Ph.D, 31. Fellow biol, Rice Inst, 28–32; asst. pharmacol, Vanderbilt, 32–34; junior parasitologist, vet. sect, drug div, food and drug admin, U. S. Dept. Agr, 34–36, parasitologist, zool. div, bur. animal indust, 36–40; *director chemotherapeut. research, Dr. Hess and Clark, Inc, 40–* A.A; Soc. Parasitol; Micros. Soc; Tenn. Acad. Anthelmintics.

Harwood, Prof. Robert D(aniel), 4541 Alice St, San Diego, Calif. *Invertebrate zoology.* East Dorset, Vt, Aug. 12, 99. A.B, Pomona Col, 20; Ph.D, Cornell, 28. Asst. biol, Cornell, 20–21; field entomologist, State Nat. Hist. Surv, Ill, 21–22; teacher, high sch, Calif, 22–25; asst. entom, Cornell, 25–28; asst. prof. *zool, San Diego State Col,* 28–31, assoc. prof, 31–35, *prof, 35–* Summers, nature guide and instr, Yosemite Nat. Park, 25, 26; staff, stream surv, Dept. Conservation, N. Y, 27; teacher, Pomona Col, 30. A.A; Limnol. Soc; San Diego Soc. Zool; fel. San Diego Soc. Nat. Hist. Insect ecology; medical entomology; marine invertebrates.

Hasche, Dr. R(udolph) Leonard, Roan Heights, Johnson City, Tenn. *Chemistry.* Doon, Iowa, June 20, 96. B.S, Tarkio Col, 18; M.S, Washington and Jefferson Col, 19; Chicago, 21; Ph.D, Hopkins, 24. Instr. chem, Carnegie Inst. Tech, 19–23; nat. research fellow, California, 24–25; Int. Educ. Board fellow, Berlin and Vienna, 25–26; research chemist, Am. Smelting and Ref. Co, 26–30, supt, 30–31; director chem. research, A. O. Smith Corp, 31–34; *pres, Carbonic Develop. Corp, 31–; director research and develop, Tenn. Eastman Corp, 34–* Consultant, referee board, Office Production Research and Develop, 42; War Production Board, 43– Summers, chemist, Pittsburgh Testing Labs, 22, 23. C.W.S, U.S.A, 18. A.A; Chem. Soc; Chem. Eng; Min. and Metal. Eng; Soc. Refrig. Eng; N. Y. Acad. Saponification; radium; liquefaction; catalyses; velocities of gas reactions; recovery of carbon dioxide and sulfur dioxide; plastics; organic synthesis.

Hasel, A(ustin) A(lexander), U. S. Forest Service, 331 Giannini Hall, University of California, Berkeley, Calif. *Biometry, Silviculture.* Valley City, Ohio, Nov. 21, 03. B.S, Michigan, 26. Ranger, *Calif. Forest and Range Exp. Sta, U. S. Forest Service,* 26–28, senior ranger, 28–29, asst. silviculturist, 29–35, assoc. silviculturist, 35–42, *silviculturist, 42–* A.A; Soc. Foresters; Inst. Math. Statist. Sampling methods; design of experiments; forest management.

Haseman, Prof. L(eonard), University of Missouri, Columbia, Mo. *Entomology.* Linton, Ind, March 26, 84. A.B, Indiana, 05, A.M, 07; Ph.D, Cornell, 10. Asst. entom. and zool, Florida, 05–06; entom, Missouri, 06–08; insect morphol, Cornell, 08–10; instr. *entom, Missouri,* 10–12, asst. prof, 12–16, assoc. prof, 16–18, *prof, 18–* State entomologist, Mo, 25–29.

A.A; Entom. Soc; Asn. Econ. Entom. Insect physiology; economic and systematic entomology.

Haskell, Prof. M(ellen) W(oodman), 2019 Durant Ave, Berkeley, Calif. *[1]*Mathematics.* Salem, Mass, March 17, 63. A.B, Harvard, 83, A.M, 85; Ph.D, Göttingen, 89. Instr. *math,* Michigan, 89–90; asst. prof, *California,* 90–94, assoc. prof, 94–06, prof, 06–33, *emer. prof, 33–* Exchange prof, Columbia, 16. British Asn; Deuts. Math. Verein; Circolo Mat. di Palermo. Modern analytic geometry; singularities of plane curves; groups of collineations; applications of group theory to geometry.

Haskell, Dr. N(orman) A(braham), care of John F. Golden, 218 Vine St, Everett, Mass. *Geophysics.* Alton, Ill, June 30, 05. B.S, Harvard, 27, M.S, 35, Ph.D, 36. Research seismologist, West. Geophys. Co, 39–41; *physicist,* div. war research, Columbia, 41–42; *Nat. Defense Research Cmt. contract, Calif. Inst. Tech, 42–* Physical Soc; Soc. Explor. Geophys; Asn. Petrol. Geol; Seismol. Soc; Am. Geog. Soc. Deformations of earth's crust; interpretation problems in seismic exploration.

Haskell, Prof. R(ay) N(elson), University of Texas, Austin, Texas. *Mathematics.* Vevay, Ind, March 15, 99. B.S, Chicago, 22; Ph.D, Rice Inst, 30. Instr. math, Tennessee, 21–22; Mich. State Col, 22–25; Rice Inst, 25–30; Pa. State Col, 30–31; adj. prof. and *asst. prof. applied math, Texas, 31–*

Haskell, Dr. Raymond, 49 Overlook Road, Summit, N. Y. *Engineering.* Baltimore, Md, July 19, 78. B.S, Mass. Inst. Tech, 03, M.S, 04, Ph.D, 07; Chem.E, Clarkson Tech, 29. Instr. physics, Mass. Inst. Tech, 07–08; sci. asst, asst. supt. and supt, U. S. Light House Service, 08–18; *indust. consulting engineer, Texas Co, 19–* Advisory cmt. fuels and lubricants, U. S. Army, 40– Civilian scientist, U. S. Navy, 18–19. Chem. Soc; Mech. Eng; Soc. Automotive Eng; fel. Inst. Aeronaut. Sci. (councilor); Petrol. Inst. (chairman cmt). Petroleum and petroleum products.

Haskell, Dr. R(oyal) J(oyslin), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Rochester, Mass, Jan. 27, 90. B.S, Dartmouth Col, 12; Ph.D, Cornell, 17. Asst. plant path, Cornell, 12–13, instr, 13–17; path. inspector, bur. plant indust, *U. S. Dept. Agr,* 17–18, asst. plant pathologist, 18–24, assoc. plant pathologist and plant pathologist, 24–30, *senior exten. plant pathologist, exten. service, 30–* A.A; Phytopath. Soc. (sec'y-treas, 23, pres, 29); Bot. Soc. Wash. Potato tuber rots in New York; seed treatment of oats; United States plant disease survey; plant disease control.

Haskell, Sidney B(urritt), 12 Orsini Drive, Larchmont, N. Y. *Agronomy.* Fargo, N. Dak, May 24, 81. B.S, Mass. Col, 04; Leipzig, 07–08. Asst. agriculturist, Exp. Sta, Mass. Col, 04–06, prof. agron. and head dept, 09–16; asst. agronomist, business manager and gen. director soil improv. cmt, Nat. Fertilizer Asn, 16–20; *director,* Exp. Sta, Mass. Col, 20–27; *agr. dept, Synthetic Nitrogen Products Corp, 27–,* business manager, 29–30, v. pres, 30–31, pres, 31–37, director, 29–37; v. pres, Barrett Co, 37–40, *manager Barrett div, Allied Chem. and Dye Corp, 40–* A.A; Soc. Agron. (pres, 23); Chem. Soc. Soil fertility; conditions influencing fertilizer use.

Haskew, Dean C(aleb) A(rchibald), 225 Grace St, Greenwood, S. C. *Chemistry.* Whatley, Ala, Feb. 12, 92. A.B, Birmingham-Southern Col, 14; A.M, Missouri, 24; Chicago. Teacher, schs, 14–20; head dept. science, Southern Col. (Fla), 20–24; *prof. chem. and physics, Lander Col, 24–, dean, 33–* A.A; Chem. Soc; fel. S. C. Acad. Zeolite methods of water softening.

Haskin, Capt. Harold H, 212 S. Maple Ave, Woodbury, N. J. *Physiology.* Niagara Falls, N. Y, Jan. 3, 15. B.S, Rutgers, 36; A.M, Harvard, 38, Ph.D, 41. Teaching fellow physiol. and elementary biol, Harvard and Radcliffe Col, 36–40; *Inf, U. S. Army, 40–, capt.* The chloroplast pigments of Chlorella; acetylcholine in the invertebrates; oyster culture.

Haskins, Dr. C(aryl) P(arker), Haskins Laboratories, 305 E. 43rd St, New York, N. Y. *Chemistry, Biophysics.* Schenectady, N. Y, Aug. 12, 08. Ph.B, Yale, 30; Ph.D, Harvard, 35. Research chemist, research lab, Gen. Elec. Co, 31–35; *director, Haskins Labs, 35–; research assoc, Mass. Inst. Tech, 36–; research prof. biophys, Union Col. (N. Y), 37–; pres, Nat. Photocolor Corp, 37–;* asst. liaison officer, *Nat. Defense Research Cmt,* 40–42, senior liaison officer, 42–43, *exec. asst. to chairman, 43–;* asst. liaison officer, Office Sci. Research and Develop, 40–42. Mem. exec. cmt, Indust. Research Inst, 40–42. A.A; Chem. Soc; Entom. Soc; Elec. Eng; Genetics Soc; fel. Forestry Asn; Am. Geog. Soc; Soc. Zool; Soc. Bact; fel. Physical Soc; Faraday Soc; fel. N. Y. Acad. (councilor, 40); N. Y. Entom. Soc. Mechanisms of bacterial metabolism, mechanisms of genetic action; biological action of various radiations.

Haskins, Geo(rge) W(illiam), Office of Chief of Air Corps, U. S. Army, Washington, D. C. *Engineering.* Waterville, Ohio, March 11, 92. B.S, Purdue, 16; Mass. Inst. Tech, 18–19. Asst. to chief engineer, McCook Field, Dayton, 22; eng. consulting and selling, 22–25; Can. rep, Drying Systems, Inc, Chicago, 26–28; prof. aeronaut. eng, Purdue, 28–37; powerplant specialist, Glenn L. Martin, Baltimore; air safety specialist and powerplant engineer, Civil Aeronautics Board, 37–41; *asst. chief tech. sect, Office Civilian Air Corps, and major, Air Corps, 41–* Cmt. mem, Am. Eng. Council. Mech. Eng; Aeronaut. Asn; Aeronaut. Chamber of Commerce. Airflow over airplane tail surfaces; ventilating the paper machine; development of airplane tires; shock absorption of oilgears at different temperatures; airflow around buildings; supercharger research; comparative engine performance; accident and safety statistics; educational methods.

Haskins, Dr. Willard T(heodore), 4304 Tuckerman St, University Park, Md. *Organic chemistry.* Binghamton, N. Y, March 18, 07. Ch.B, Cornell, 30; M.S, Maryland, 33, Ph.D, 36. Research chemist, Armstrong Cork Co, 30–31; asst, Maryland, 32–36; asst. chemist, *nat. inst. health, U. S. Pub. Health Service,* 36–40, *assoc. chemist, 40–* Chem. Soc. Microanalysis; triterpenes; sugars; carbohydrates.

Haslam, George S(tevenson), New Jersey Zinc Co. of Pennsylvania, Palmerton, Pa. *Physical chemistry.* Williamsport, Pa, Dec. 12, 98. B.S, R. I. State Col, 24. Investigator, pigment physics sect, *N. J. Zinc Co. of Pa,* 24–28, *chief,* 28–31, rubber sect, 31–32, *rubber pigment sect, 32–* Chem. Soc. Microscopy; pigment and rubber technology.

Haslam, R(obert) T(homas), Standard Oil Co. of N. J, 26 Broadway, New York, N. Y. *[2]*Chemical engineering.* North Adams, Mass, April 3, 88. B.S, Mass. Inst. Tech, 11. Asst. anal. chem, Mass. Inst. Tech, 11–12; Nat. Carbon Co, Ohio, 12–18, asst. supt, 18–20; assoc. prof. and chem. eng, *Mass. Inst. Tech,* and director sch. chem. eng. practise, 20–27, director research lab. applied chem, 23–27, *non-res. prof. chem. eng, 27–;* v. pres. and gen. manager, Standard Oil Develop. Co, 27–35, senior v. pres, 35–37, *gen. sales manager, domestic marketing affiliates, Standard Oil Co. of N. J, 35–; pres, Hydro Eng. and Chem. Co.* Chem. Eng. (v. pres, 31–33); Soc. Automotive Eng; Chem. Soc. (chairman, gas and fuel sect, 24); Petrol. Inst; Chemists' Club; Inst. Fuel Technol. Gt. Britain. Gas and fuel engineering; combustion of fuel.

Hasler, Prof. Arthur D(avis), University of Wisconsin, Madison, Wis. *Zoology, Physiology.* Lehi, Utah, Jan. 5, 08. A.B, Brigham Young, 32; Ph.D, Wisconsin, 37. Asst. limnol, Wisconsin, 32–34, zool, 34–35; asst. biologist, Bur. Fisheries, 35–37; instr. *zool, Wisconsin,* 37–41, *asst. prof, 41–* Summer, instr, Wisconsin, 35; director, Lake Geneva Inst. Nat. Science, 40– Soc. Zool; Fisheries Soc; Limnol. Soc; Wis. Acad. Limnology; physiology and ecology of aquatic animals.

Hasler, Dr. Maurice F(red), 3205 Cornwall Drive, Glendale, Calif. *Physics.* New York, N. Y, May 19, 07. B.S, Calif. Inst. Tech, 29, M.S, 30, Ph.D, 33. Fellow, Calif. Inst. Tech, 33–34; physicist, *Applied Research Labs,* Los Angeles, *Calif,* 34–41, *director research, Glendale, 41–* A.A; Optical Soc; Chem. Soc; Physical Soc. Metal crystals; analytical spectrography; analytical spectrography and related instrumentation.

Haslerud, Prof. George M(artin), University of Tennessee, Knoxville, Tenn. *Psychology.* Fargo, N. Dak, Sept. 14, 06. A.B, Minnesota, 30, Ph.D, 34. Asst. comp. psychobiol, Yale, 34–35; instr. *psychol, Tennessee,* 35–39, *asst. prof, 39–* Assoc. Psychol. Asn; South. Soc. Philos. and Psychol. Avoidance reaction and frustration in the chimpanzee; relation of brain lesions and delayed reaction in monkeys; organization of learning in rats.

Hass, Dr. George M(arvin), 1300 York Ave, New York, N. Y. *Pathology.* Tingley, Iowa, April 29, 07. Iowa State Col, 23–27; M.D, Harvard, 29, 34–37. Instr. *path,* Harvard Med. Sch, 30–39, assoc, 39; *asst. prof, med. col, Cornell, 39–; capt, Med. Corps, U. S. Army.* Asn. Path; Soc. Exp. Path. Chemistry of tissue structure.

Hass, Prof. Henry B(ohn), Purdue University, Lafayette, Ind. **7Organic chemistry.* Huntington, Ohio, 02. A.B, Ohio Wesleyan, 21, Sc.D, 42; A.M, Ohio State, 23, Ph.D, 25. Asst. chem, Ohio State, 21-25; research director, Gasoline Recovery Corp, 25-28; asst. prof. *org. chem, Purdue,* 28-33, assoc. prof, 33-35, *prof, 35–,* head dept. chem, 37-41; *lieut. commander, E.V.S, U. S. Naval Res.* Mem, Nat. Defense Research Cmt. Mod. Pioneer award, Nat. Asn. Mfrs. Chem. Soc. (cmt. accrediting cols. for training chemists; councilor-at-large); Ind. Chem. Soc. (pres, 42); fel. Int. Cong. Anesthetists. Chlorination and nitration of natural gas hydrocarbons and chemistry of these derivatives; activated charcoal.

Hasselstrom, Dr. (K) Torsten (H. A), 125 E. 49th St, Savannah, Ga. *Organic chemistry.* Helsingfors, Finland, March 2, 95. M.A, Tech. Inst, Helsingfors, Finland, 20, D.Sc, 25. From asst. to prof, Tech. Inst, Helsingfors, Finland, 20-29; research fellow, Columbia, 29-36; *director research, G and A Labs, 36–* Rockefeller Inst. fellow, 29-30. Mem. Scandinavian geol. exped. to north. Mongolia and south. Siberia, 17. Chem. Soc; Tech. Asn. Pulp and Paper Indust; N. Y. Acad; Chemists' Club; Finland Chem. Soc. Inorganic chemistry; terpenes; resin acids; ore flotation; by-products of the sulfate paper industry; phenanthrene derivatives.

Hassett, Dr. Charles C(lifford), Still Memorial Research Laboratory, Kirksville, Mo. *Physiology.* New Haven, Conn, July 20, 05. A.B, Buffalo, 38; Ph.D, Hopkins, 41. Asst. zool, Hopkins, 39-41; *research assoc, Still Mem. Research Lab, 41–* A.A. Electrical activity in muscle.

Hassid, Prof. W(illiam) Z(ev), 20 Northgate Ave, Berkeley, Calif. *Chemistry, Plant physiology.* Jaffa, Palestine, Oct. 1, 97. A.B, California, 25, M.S, 30, Ph.D, 34. Asst. *plant nutrition, California,* 27-35, instr, 39-41, *asst. prof. plant nutrition, 41–,* junior chemist, *Exp. Sta,* 35-41, *asst. chem, 41–* Soc. Plant Physiol; Chem. Soc. Carbohydrate chemistry; carbohydrate metabolism of plants.

Hassin, Dr. George B(oris), 30 N. Michigan Blvd, Chicago, Ill. *Neuropathology.* Elisabethgrad, Russia, Aug. 19, 73. M.D, Univ. Kazan, Russia, 97. Assoc. prof. *neur, col. med, Illinois,* 20-26, prof, 26-41, *emer. prof, 41–* Attending neurologist, Cook County Hosp, 13-41; histologist, Ill. State Psychopathic Inst, 20-31; consulting neurologist, Edward Hines, Jr, Hosp, U. S. Veterans Admin, 23-33. Asn. Neuropath. (pres, 34); Neur. Asn. (v. pres, 29); Am. Med. Asn; Asn. Research Nervous and Mental Disease; Cent. Neuropsychiat. Asn; Chicago Neur. Soc. (v. pres, 21, pres, 22). Nervous and mental diseases.

Hassler, Dr. Gerald L, Shell Development Co, Emeryville, Calif. *Physics.* St. Louis, Mo, Oct. 24, 05. A.B, Washington (St. Louis), 26, M.S, 28; fellow, Mellon Inst, 28; Ph.D, Calif. Inst. Tech, 33. Teaching fellow, Washington (St. Louis), 26, asst, 27; asst. physicist, Goodrich Physical Lab, 28; research geophysicist, research lab, Gulf Research and Develop. Co, Pittsburgh, 29-34; asst. prof. petrol. and nat. gas, Pa. State Col, and director petrol. production research, mineral indust. exp. sta, 34-36; *production physicist, Shell Develop. Co, Emeryville, Calif, 37–* Geophysics and colloid physics; cataphoresis; torsion balance interpretation; mechanics of porous flow; secondary oil recovery; diffusion of gases in metals; soil gas exploration for oil.

Hassler, Prof. J(asper) O(le), 425 Lahoma Ave, Norman, Okla. *Mathematics, Astronomy.* Harviell, Mo, May 14, 84. A.B, William Jewell Col, 07; M.S, Chicago, 13; Ph.D, 15. Instr. *math,* high sch, Ariz, 07-11; Kansas, 11-12; high sch, Ill, 12-17; Crane Junior Col, 17-20; assoc. prof, *Oklahoma,* 20-23, *prof, 23–* A.A; Math. Soc; Math. Asn. (trustee, 35); Nat. Council Teachers Math. (pres, 34; director, 41–). Projective differential geometry; the teaching of mathematics; variable stars.

Hassler, Dean Roy D(iehm), 1465 Main St, Bethlehem, Pa. *Chemistry.* Lititz, Pa, Nov. 3, 94. B.S, Moravian Col. and Theol. Sem, 15; A.M, Lehigh, 25; Columbia, 29-32. Asst. chem. and math, *Moravian Col,* 15-17, instr. *chem,* 17-20, asst. prof, 20-23, *prof, 23–, dean, 40–* A.A; Chem. Soc. (sec'y, Lehigh Valley sect, 28). Chemistry of cement.

Hastings, Dr. A(lbert) Baird, Harvard Medical School, Boston, Mass. **6Physiology, Chemistry.* Dayton, Ky, Nov. 20, 95. B.S, Michigan, 17, Sc.D, 41; Ph.D, Columbia, 21; A.M, Harvard, 42. Chemist, U. S. Pub. Health Service, 17-21; asst, Rockefeller Inst, 21-22, assoc, 22-26; prof. physiol. chem, Chicago, 26-28, *biochem,* 28-35; *Hamilton Kuhn prof, Harvard, 35–* Lecturer, Southern California, 24; visiting prof, Peiping Union Med. Col, 31; nat. advisory cancer cmn, U. S. Pub. Health Service; cmt. med. research, Office Sci. Research and Develop; syndic, Harvard Univ. Press. Med. fellowship board, Nat. Research Council, 37– Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem. (treas, 36-41); Soc. Exp. Biol; Physical Soc; Physiol. Soc; Philos. Soc; Inst. Nutrition; Am. Physicians; Am. Acad; Harvey Soc. Physiology of fatigue; acid-base equilibria; proteins; edema; salt and water exchange in tissues; biological oxidations; micro histochemistry; intermediary carbohydrate metabolism.

Hastings, Dr. Allen E(lbert), 3211 Wheeler Road, S.E, Washington, D. C. *Physics.* Athol, Mass, April 11, 09. B.S, Brown, 34, Ph.D, 38. Asst. physics, Brown, 34-37; *physicist, U. S. Naval Research Lab, 38–* Radio.

Hastings, Dr. E(dwin) G(eorge), 2111 Van Hise Ave, Madison, Wis. *Agricultural bacteriology.* Austinburg, Ohio, Aug. 11, 72. B.S, Ohio State, 98, Sc.D, 42; M.S, Wisconsin, 99. Instr. bacter, Wisconsin, 02-05, asst. prof, 05-09, assoc. prof, 09-13, prof. agr. bacter. and bacteriologist, Exp. Sta, 13-41. Wis. Live Stock Sanit. Board. A.A; Soc. Bact. (pres, 23); Dairy Sci. Asn; Pub. Health Asn; Int. Live Stock Sanit. Asn. Dairy bacteriology.

Hastings, George T(racy), 842 19th St, Santa Monica, Calif. *Botany.* Bath, N. Y, Oct. 10, 75. B.S, Cornell, 98; A.M, Columbia, 21. Ed, 'Torreya,' 21-40. A.A; Nature Study Soc; Torrey Bot. Club. Nature study; angiosperms; pteridophytes.

Hastings, Prof. Hudson B(ridge), Yale University, New Haven, Conn. *Economics.* Walpole, N. H, Oct. 4, 85. B.S, Mass. Inst. Tech, 07; Harvard, 14-15; hon. A.M, Yale, 23. Instr, Bowdoin Col, 07-10; struct. engineer, Joseph T. Ryerson and Son, Chicago, 10-11; prof, Reed Col, 11-20; research economist, Pollak Foundation Econ. Research, 20-23; *prof. econ, Yale, 23–* Econ. Asn; Statist. Asn; Soc. Adv. Management. Costs and profits.

Hastings, Dr. Jane, 26 Willis St, Pittsfield, Mass. *Analytical chemistry.* Cheshire, Mass, May 21, 98. A.B, Smith Col, 20; Ph.D, Mass. Inst. Tech, 40. Anal. chemist, Calco Chem. Co, 20-22; Lehn and Fink, 22-23; Gillette Safety Razor Co, 25-29; Skinner and Sherman, 29-35; *anal. chemist in charge defense lab, Gen. Elec. Co, 41–* Chem. Soc. Determination of protactinium by measurement of its radioactivity.

Hastings, Prof. R(ussell) B(yron), 1744 Palace Ave, St. Paul, Minn. *Physics.* Mass, June 9, 02. A.B, Clark, 24, scholar, 24-25, A.M, 25. Teaching fellow, N. Y. Univ, 25-26; instr. *physics,* Pittsburgh, 26-29; asst. prof, *Macalester Col,* 29-32, assoc. prof, 32-37, *prof, 37–, head dept, 29–* A.A. Emission of electricity from substances on incandescent carbon; laboratory physics; dust figures in a Kundt's tube; measurement of ratio of charge to mass for thermoelectrons; radio; period of oscillation of a thyratron circuit.

Hastings, S(tephen) H(arold), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Waterford, Vt, Feb. 20, 79. Agent, U. S. Dept. Agr, 07, farm supt, 08-20; agr. adviser, Goodyear Tire and Rubber Co, 20-21; ranch manager, Southwest Cotton Co, Phoenix, 22-28; senior agronomist, *bur. plant indust, U. S. Dept. Agr,* 28-30, *prin. agronomist, div. west. irrig. agr, 30–* A.A; Soc. Agron; Genetic Asn. Corn production in the semi-arid West; general agronomic irrigation; cotton production in the Southwest.

Hastings, Dr. T(homas) W(ood), Kinderhook, N. Y. *Internal medicine.* St. Louis, Mo, Sept. 29, 73. A.B, Hopkins, 94, M.D, 98. House officer, Hopkins Hosp, 98-99; surgeon, hosp. ship, 'Maine,' 99-01; instr. clin. path, Cornell, 01-06, prof, 06-18; *retired.* Substitute clin. pathologist, Presb. Hosp, 02-04; asst. visiting physician, Cornell Med. Col. Dispensary, 01-07; Bellevue Hosp, 08-21; consulting staff, Nassau County and St. Bartholomew's Hosps, 19-21. Lieut, M.R.C, 10-17, major, 17-18, retired, 28. Clinical laboratory methods; non-parasitic elephantiasis; albuminuria; syphilis; the cerebrospinal fluid; tuberculin therapy in orthopedic surgery; malignant endocarditis; hemoglobinometers; the opsonic index; infections of the respiratory tract; complement fixation for Streptococcus and Gonococcus in arthritis; Bacillus coli communis; the acne bacillus.

Hastings, Dr. W(aldon) H(ouston), 5625 S. Blackstone Ave, Chicago, Ill. *Biochemistry.* Jan. 5, 12. B.S, Maine, 34; M.S, Minnesota, 38; Ph.D, Mass. State Col, 40. Chemist, Tileston and Hollingsworth Paper Co, 34-35; Mass. State Col,

38–40; Maine Fish Meal Co, 40–42; *2nd lieut, subsistence research lab, U. S. Army, 42–* Chem. Soc. Availability of iron in fresh, frozen and canned foods; vitamins in fishery products and canned foods.

Haswell, Prof. John R(obert), 524 S. Atherton St, State College, Pa. *Agricultural engineering.* Baltimore, Md, Aug. 6, 86. C.E, Cornell, 09. Asst. drainage engineer, U. S. Dept. Agr, 10–20, senior drainage engineer, 16; asst. prof. *agr. eng, exten, Pa. State Col,* 20–34, *prof, 34–* Junior topographer, U. S. Geol. Surv, 09. Advisory council board of surveys and maps, Fed. Govt. Capt, O.R.C, 17–19. Fel. Agr. Eng. (chairman, N. Atlantic sect, 33); Civil Eng. Drainage properties of soils; flow through farm septic tanks; farm fires.

Hatch, Dr. Alden B(ruce), U. S. Fish and Wildlife Service, 625 American Bank Bldg, Corvallis, Oregon. *Forestry.* Redlands, Calif, Nov. 21, 02. B.S, Idaho, 28; M.F, Yale, 29; Am-Scandinavian Foundation fellow, Royal Acad. Forestry, Stockholm, 29–31; Ph.D, Harvard, 36. Asst. silviculturist, research branch, U. S. Forest Service, 31–32; research asst, Arnold Arboretum, Harvard, 32–35; instr. bot, Oregon State Col, 35–36; asst. prof. forestry and game management, Idaho, 36–39; director, State Fish and Game Dept, 39; *regional inspector west. region, fish and wildlife service, U. S. Dept. Interior, 39–; capt, U. S. Army, 43–* Bot. Soc; Soc. Foresters; Wildlife Soc; Svensk Bot. Fören. Forest biology; soil microbiology; Mycorrhizae; fish and game.

Hatch, Dr. George Bates, Fishkill, N. Y. *Organic chemistry.* Colorado Springs, Colo. B.S, Yale, 32; Ph.D, Wisconsin, 37. *Research chemist, Texas Co, 37–* Chem. Soc. Extent of the reaction of alcoholysis; alkylation of isoparaffins.

Hatch, Prof. Lewis F(rederic), C. B. 240, University Station, Austin, Texas. *Organic chemistry.* Puyallup, Wash, Aug. 21, 12. B.S, State Col. Wash, 33; M.S, Purdue, 34, Ph.D, 37. Research chemist, Shell Develop. Co, 37–40; instr. *chem, Texas,* 40–42, *asst. prof, 42–* Chem. Soc. Preparation and utilization of aliphatic hydrocarbon derivatives.

Hatch, Prof. Melville H(arrison), University of Washington, Seattle, Wash. *Zoology, Entomology.* Detroit, Mich, Nov. 25, 98. A.B, Michigan, 19, A.M, 21, Ph.D, 25. Asst, Michigan, 17–18, 19–22, 23–24; instr. zool, Syracuse, 22–23; assoc. prof. biol, James Millikin, 24–25; instr. zool, Michigan, 25–26; animal biol, Minnesota, 26–27; asst. prof. *zool, Washington (Seattle),* 27–34, assoc. prof, 34–41, *prof, 41–* Coleoptera surv, Beaver Island, State Dept. Conservation, Mich. A.A; Soc. Zool; fel. Entom. Soc; Hist. Sci. Soc; Entom. Soc. Wash; Soc. entom. de France. Phylogeny, comparative morphology and classification of Coleoptera; Gyrinidae; Silphidae; Catopidae; Coleoptera of Washington; Isopoda; fauna of Washington.

Hatch, Dr. Ray D(avenport), Virginia Polytechnic Institute, Blacksburg, Va. *Veterinary medicine.* Dundee, Oregon, March 7, 10. D.V.M, Iowa State Col, 37, M.S, 40. Instr. vet. anat, Iowa State Col, 37–41; *asst. prof. biol, Va. Polytech, 41–* Vet. Med. Asn; Va. Acad; Va. Vet. Med. Soc. Anatomy of bovine uterus; anatomy of equine eye; bacteriology of poultry diseases.

Hatch, Theodore (Frederick), University of Pennsylvania, Philadelphia, Pa. *Industrial hygiene.* Isleboro, Maine, March 23, 01. B.S, Maine, 24; M.S, Harvard, 25. Asst. sanit. engineer, State Dept. Pub. Health, Tenn, 25–26; instr. indust. sanit, Harvard, 26–36; assoc. dust control engineer, div. indust. hygiene, State Dept. Labor, N. Y, 36–41; *assoc. prof. indust. hygiene, Pennsylvania, 41–* Mech. Eng. Sanitation; industrial dust control; dust microscopy; sanitary air analysis.

Hatch, Prof. W(inslow) R(oper), State College of Washington, Pullman, Wash. *Botany.* Lexington, Mass, March 1, 08. A.B, Dartmouth Col, 30; Ph.D, Hopkins, 34. Instr, sch. for teachers, Hopkins, 34–35; nat. research fellow, Harvard, 35–36; instr. biol, Dartmouth Col, 36–39; *assoc. prof. bot. and head dept, State Col. Wash, 39–* Summers, instr, Hopkins, 34, 35. Mem. Hopkins exped, Am. tropics, 32. A.A; Mycol. Soc. Sexuality in the lower fungi.

Hatcher, Dr. C(ly) Howard, 950 E. 59th St, Chicago, Ill. *Surgery.* Porterville, Calif, Jan. 13, 00. A.B, California, 24, M.D, 29. *Assoc. prof. surg, Chicago, 30–* Orthop. Asn. Orthopedic surgery; bone pathology.

Hatcher, Dr. Rob(er)t A(nthony), 32-24 154th St, Flushing, N. Y. *Pharmacology.* New Madrid, Mo, Feb. 6, 68. Ph.G, Phila. Col. Pharmacy, 89, Ph.M, 29; M.D, Tulane, 98; Sc.D, Columbia, 29. Prof. mat. med, Cleveland Sch. Pharmacy, 99–04; demonstrator pharmacol, sch. med, Western Reserve, 01–04; instr, *med. col, Cornell,* 04–06, asst. prof, 06–08, prof. *pharmacol. and mat. med,* 08–35, *emer. prof, 35–* A.A; Soc. Pharmacol; Pharmaceut. Asn; Physiol. Soc; Am. Med. Asn; Soc. Biol. Chem; Harvey Soc. Strychnine; quinine; emetics; digitalis; local anesthetics; morphine.

Hatcher, Prof. T(homas) W(atkins), Virginia Polytechnic Institute, Blacksburg, Va. *Mathematics.* Max Meadows, Va, May 10, 00. B.S, Va. Polytech, 22, M.E, 23; M.S, Iowa State Col, 24; Ph.D, Cornell, 31. Instr. *math, Va. Polytech,* 24–26, asst. prof, 26–30, assoc. prof, 30–37, *prof, 37–* Math. Soc; Math. Asn; Eng. Educ; Va. Acad. Elasticity; applied mathematics.

Hatcher, Prof. William H(ooker), McGill University, Montreal, Que, Can. *Chemistry.* Western Bay, Newfoundland, April 23, 93. B.A, McGill, 16, M.Sc, 17, Hon. Advisory Council of Can. fellow, 17–19, Ph.D, 21. Asst. prof. *chem, McGill,* 21–29, assoc. prof, 29–36, *prof, 36–, chairman physical sciences group.* Lecturer, Alberta. Chem. Soc; fel. Royal Soc. Can; fel. Can. Inst. Chem. (chairman, 41). Compounds of phenol and pyridine; hydrogen peroxide; comparative oxidation; organic peracids; polymerization; high temperature oxidation; dielectric properties of organic compounds.

Haterius, Prof. Hans O(liver), Wayne University College of Medicine, Detroit, Mich. *Physiology.* San Francisco, Calif, Feb. 8, 02. A.B, Augustana Col, 23; M.S, Iowa, 26, Ph.D, 28. Asst. zool, Iowa, 26–28, instr. biol, 28–29; N. Y. Univ, 28, 29–30, asst. prof, 30–35; *physiol,* Ohio State, 35–38; assoc. prof, *col. med, Wayne,* 38–41, *prof, 41–* Summers, mem. staff, biol. lab, Cold Spring Harbor, 37–41. Abstract ed, 'Jour. Clin. Endocrinol'; ed. sect. endocrinol, 'Biol. Abstracts.' A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions; Physiol. Soc; Harvey Soc. Physiology of reproduction; anterior and posterior pituitary; pituitary transplantation; water diuresis; circulatory shock.

Hatfield, Dr. Charles J(ames), Henry Phipps Institute, Seventh and Lombard Sts, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Jan. 23, 67. A.B, Princeton, 88, A.M, 91, Sc.D, 38; M.D, Pennsylvania, 00. Instr. med, sch. med, *Pennsylvania,* 02–04, *exec. director, Henry Phipps Inst, 13–* Trustee, Pennsylvania. Chairman chap, Am. Red Cross, 20–27; pres, Phila. Tuber. and Health Asn; pres, Potts Mem. Hosp, N. Y; Keene Valley Neighborhood Hosp. Trudeau medal, Nat. Tuber. Asn, 37. Int. Union against Tuber, 37. Am. Med. Asn; Tuber. Asn. (managing director, 14–22, pres, 23, sec'y, 25–, trustee); fel. Col. Physicians Phila. Administration; tuberculosis.

Hatfield, Dr. Donald M(arshall), Chicago Academy of Sciences, Lincoln Park, Chicago, Ill. *Mammalogy.* Waterville, Minn, Feb. 10, 12. A.B, California, 32, A.M, 34; Ph.D, Minnesota, 39. Instr. zool, Minnesota, 35–40; *curator mammals, Chicago Acad. Sciences, 40–* Soc. Mammal; Cooper Ornith. Club; Northwest Bird and Mammal Soc. Taxonomy of mammals; ecological relationships among birds and mammals.

Hatfield, Ira, Monsanto Chemical Co, St. Louis, Mo. *Plant pathology.* Armour, S. Dak, Sept. 15, 02. A.B, Simpson Col, 27; M.S, Colo. Agr. Col, 28. Asst. bot, Nebr. Wesleyan, 28; agent, div. forest path, bur. plant indust, U. S. Dept. Agr, Madison, Wis, 29–34, asst. pathologist, U. S. Dept. Agr, 34–36; *pathologist, Monsanto Chem. Co, 36–* Chem. Soc; Colo-Wyo. Acad; Bot. Soc. New Orleans; New Orleans Acad. Plant physiology; pathology and physiology of wood-inhabiting fungi; toxicity of preservatives to fungi; wood stain and decay prevention.

Hatfield, Dr. J(ames) E(lisha), Willard Storage Battery Co, Cleveland, Ohio. *Chemistry.* Washington, Ind, Sept. 22, 08. A.B, Indiana, 32, Ph.D, 36; M.S, Lafayette Col, 33. Research chemist, Pile Oil Co, 33; chem. engineer, Eagle-Picher Lead Co, 34–37; develop. engineer, Willard Storage Battery Co, Cleveland, Ohio, 37–39; chief engineer, Grant Storage Battery Co, 39–42; *factory staff man, Willard Storage Battery Co, 42–* Electrochem. Soc; Chem. Soc. Lead acid storage batteries; rheology; electro-inorganic chemical preparations.

Hatfield, Dr. M(arcus) R(anklin), National Carbon Co, Cleveland, Ohio. *Physical chemistry.* Chicago, Ill, Dec. 21, 09. B.S, Maryland, 31, M.S, 32, Ph.D, 35. Asst, State Feed and Fertilizer Control Lab, Md, 30; asst, Maryland, 31–35; *research chemist, research lab, Nat. Carbon Co, 35–* A.A;

Chem. Soc; Chem. Eng; Soc. Metals. Electrode potentials; development and uses of carbon; flow of fluids and heat; absorption; resins and plastics; powder metallurgy.

Hatfield, Dr. William D(urrell), 249 Linden Place, Decatur, Ill. *Chemistry.* Jacksonville, Ill, July 7, 92. B.S, Ill. Col, 14; M.S, Illinois, 16, Ph.D, 18. Asst. chemist and bacteriologist, State Water Surv, Ill, 15–18; asst. prof. org. and physical chem, Mont. State Col, 19–20; supt. filtration, Highland Park, Mich, 20–24; *supt. chemist, sewage disposal plant, Decatur, 24–* 2nd lieut, U.S.A, 18–19. Chem. Soc; Civil Eng; Water Works Asn; Federation Sewage Works Asn; Ill. Soc. Eng. Chemistry and bacteriology; water; sewage; activated sludge; hydrogen ion concentration and operation; soluble aluminum; starch wastes; operation of plants; sprinkling filters and preaeration; sludge viscosity; photometer for sanitary laboratories; nomograph for dissolved oxygen; standard methods of water and sewage analysis.

Hathaway, Prof. A(rthur) S(tafford), Jr, 1930 Sherman Ave, Evanston, Ill. *Civil engineering.* Baltimore, Md, June 26, 86. B.S, Rose Polytech, 08; Chicago, 09; Northwestern, 33; Michigan, 34. Civil engineer, South. Power Co, N. C, 08; Medina Irrig. Project, Texas, 09–11; consulting engineer, Ind, 11–13; junior highway engineer, Office Pub. Roads and Rural Eng, 13–16; in charge cement testing lab, Bur. Standards, 16–19; teacher, State Sch. Mines, S. Dak, 19–20; Cincinnati, 20–22; Hibbing Junior Col, 22–23; Friends, 23–25; Pa. State Col, 25–26; *asst. prof. surv. and drawing, dept. civil eng, tech. inst. and col. eng, Northwestern, 26–* Summer, in charge dept. physics, Butler, 29; in charge water resources group, State Planning Cmn, Ill, 36. Chief surv. party on right of way for oil pipe line, Miss, 41. Assoc. Civil Eng; Eng. Educ; Cent. States Sewage Works Asn; Pub. Works Asn. Railway and highway engineering; municipal and industrial sanitation; machine sketching; descriptive geometry.

Hathaway, Prof. Edward S(turtevant), Tulane University, New Orleans, La. *Zoology.* Maryville, Tenn, Oct. 17, 86. A.B, Cincinnati, 09; A.M, Wisconsin, 21, fellow, 22–23, Ph.D, 25. Prof. biol, Tusculum, 11–22; instr. *zool,* Wisconsin, 23–25; assoc. prof, *Tulane,* 25–27, *prof,* 27– A.A; Ecol. Soc; Soc. Exp. Biol; Soc. Ichthyol. and Herp; Entom. Soc. Amer; Limnol. Soc; Malaria Soc. Temperature acclimatization of fishes and amphibians; taxonomy and ecology of fishes; ecology of Louisiana marshlands. .

Hathaway, Gail A, 4316 Van Buren St, University Park, Hyattsville, Md. *Hydraulic engineering.* Menomonie, Wis, Oct. 11, 95. Asst. to state engineer and in charge hydrological and hydrographic studies and water distribution, Oregon, 23–28; hydraul. engineer, *U. S. Engineers,* Kansas City, 28–33, senior hydraul. engineer, Mo. River div, and in charge hydrological studies and hydraul. design, Ft. Peck Dam, 33–36, prin. hydraul. engineer, Mo. River div, 36–37, *head hydrological engineer, office of chief, U. S. War Dept, 37–* Consultant, Conchas, Bluestone, Possum Kingdom, Sardis and Keystone Dams. U. S. Army, 17–19. Meteorol. Soc. (pres, D. C. branch, 40); Civil Eng. (mem. hydrology cmt; pres, D. C. sect, 41); Geophys. Union (cmts. runoff, infiltration and snow). Snow surveys; model tests for Fort Peck Dam; synoptic analysis of excessive rainfalls in the Mississippi basin estimating maximum flood flow for the design of protective works; application of hydrology to flood control.

Hathaway, Dr. M(ilicent) L(ouise), 522 Dryden Road, Ithaca, N. Y. *Physiological chemistry, Nutrition.* North Tonawanda, N. Y, Sept. 12, 98. A.B, Wells Col, 20; A.M, Buffalo, 25; fellow, Chicago, 29–31, Ph.D, 32. Asst. chem, Buffalo, 24–25, instr. science surv, 25–29; asst, Chicago, 31–33; asst. physiol, col. med, Illinois, 33–35, assoc. home econ, 35–37; prof. physiol. and nutrition, Battle Creek Col, 37–38; instr. *home econ, Cornell,* 38–41, *asst. prof, 41–* Instr, Wellesley, 35. A.A; Chem. Soc. Sterols; vitamin and mineral metabolism; child nutrition.

Hathaway, Prof. S(tarke) R, University of Minnesota, Minneapolis, Minn. *Psychology.* Grand Rapids, Mich, Aug. 22, 03. A.B, Ohio (Athens), 27; A.M, Ohio State; Ph.D, Minnesota, 32. Asst. instr, Ohio (Athens), 26–27, instr, 27–28, asst. prof, 28–30; lecturer *psychol, Minnesota,* 31–37, asst. prof, 37–40, *assoc. prof, 40–* Summer, indust. fellow, Mellon Inst, 29. Psychol. Asn; Asn. Applied Psychol. Coordination of movements; physiological psychology; rehabilitation in neuro-psychiatry.

Hatlelid, Dr. E(lbert) L(ewis), 1017 Hi Pointe Place, St. Louis, Mo. *Organic chemistry.* Lignite, N. Dak, May 6, 15. A.B, Concordia Col, 36; A.M, Nebraska, 39, Parke, Davis and Co. fellow, 39–40, 41–42, Ph.D, 42. Instr. chem, Concordia Col, 36–37; asst, Nebraska, 37–39, Nat. Defense Research Council chemist, 40–41; *research chemist, Monsanto Chem. Co, 42–* Chem. Soc. Organic arsenicals.

Hatley, Prof. C(harles) C(leveland), Mt. Pleasant, N. C. *Physics.* Mt. Pleasant, N. C, Feb. 22, 85. A.B, Duke, 13; A.M, Columbia, 20, Ph.D, 24. Prof. *physics,* Southern Col. (Fla), 14–18; instr, Columbia, 21–23; *Duke,* 19–20, *prof,* 23– Physical Soc. X-ray diffraction; Raman spectra.

Hatt, Dr. Robert T(orrens), Cranbrook Institute of Science, Bloomfield Hills, Mich. *Mammalogy.* Lafayette, Ind, July 17, 02. B.S, Michigan, 23; A.M, Columbia, 25, Ph.D, 32. Instr. biol, N. Y. Univ, 23–28; asst. curator mammal, Am. Museum Nat. Hist, 28–35; *director, Cranbrook Inst. Sci, 35–* Field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 25–30; collaborator, museum zool, Michigan, 37– N. Y. Conservation Research Council, 31–32. Expeds, Pacific Coast southwest. states and Yucatan. V. pres, Midwest Museum Conf, 40. A.A; Soc. Mammal. (cor. sec'y, 32–35); Soc. Zool; Asn. Anat; Asn. Mus. (councilor, 40–; chairman, sci. mus. sect, 40); Mich. Acad; fel. N. Y. Zool. Soc; N. Y. Acad. (sect. sec'y, 33); Detroit Acad. Nat. Sci. (pres, 40). Ecology and anatomy of vertebrates; life histories of mammals.

Hatt, Prof. W(illiam) K(endrick), Observatory Lodge, Ann Arbor, Mich. *Civil engineering.* Fredericton, N. B, Can, Oct. 10, 68. B.A, New Brunswick, 87, M.A, 98, Ph.D, 01, D.Sc, 37; C.E, Cornell, 91. Prof. civil eng, New Brunswick, 91–92; instr, Cornell, 92–93; assoc. prof, *Purdue,* 93–95, applied mech, 96–01, prof, 01–06, *civil eng,* 06–38, *emer. prof, 38–* Road material lab, U. S. Dept. Agr, 02–03, engineer in charge timber tests, U. S. Forest Service, 03–06; chief engineer, Flood Cmn, Ind, 14–15; state engineer, Dept. Conservation, Ind, 22–38; cmt. on building codes, Dept. Commerce, 22–32; consulting engineer, Ind. World War Mem, 25. Director advisory board highway research, Nat. Research Council, 23–24; director, Joint Highway Research Project, Purdue, 37–38. Fuertes gold medal, Cornell, 03; Turner gold medal, Am. Concrete Inst, 29. Civil Eng; Ry. Eng; Soc. Test. Mat; Concrete Inst. (pres, 17–19); Ind. Eng. Soc. (pres, 07); Int. Asn. Test. Mat. Engineering; structural materials.

Hatton, Dr. Edward H(oward), 311 E. Chicago Ave, Chicago, Ill. *Pathology, Bacteriology.* LaRose, Ill, April 2, 76. Illinois, 95–97; Wisconsin, 97–99; B.L, Chicago; M.D, Rush, Chicago, 12. Teacher, pub. and private schools, Minn, 99–09; asst. director, Dept. Health, La Salle-Peru-Oglesby, Ill, 14–16; research oral path, *dental sch, Northwestern,* 16–22, *prof. path. and bacter,* 22– Instr. path, Rush Med. Col, Chicago, 17–22. Assoc. ed, 'Jour. Dental Research,' 35. Callahan gold medal, 41. Asn. Path. and Bact; hon. mem. Am. Dental Asn. (chairman, research sect, 32); Inst. Med. Chicago; Chicago Path. Soc. (pres, 33); Int. Asn. Dental Research (pres, 33; sec'y-treas, 38–). Oral pathology; oral focal infection; pulpless teeth and dental caries.

Hatton, S(ward) Ross, 245 San Mateo Drive, Menlo Park, Calif. *Fisheries.* Provo, Utah, May 23, 06. A.B, Brigham Young, 31, A.M, 32; Stanford, 35–36. *Senior fisheries researcher, State Div. Fish and Game, Calif, 37–* Fisheries Soc; Soc. Limnol; Oceanog. Soc. Marine fisheries; commercially important marine fishes in California, particularly bottom fish and salmon.

Haubein, Dr. Albert H(oward), Hercules Powder Co, Wilmington, Del. *Organic chemistry.* Joplin, Mo, May 1, 14. A.B, Cent. Col. (Mo), 37; Ph.D, Iowa State Col, 42. Asst. chem, Iowa State Col, 37–42; *research chemist, exp. sta, Hercules Powder Co, 42–* Organometallic chemistry; terpenes; resin acids; bacteriology.

Hauber, Prof. U(lrich) A(lbert), St. Ambrose College, Davenport, Iowa. *Biology.* Wilburgstetten, Germany, June 28, 85. A.B, St. Ambrose Col, 05; A.M, Catholic Univ, 18; Ph.D, Iowa, 24. Instr, high sch, *St. Ambrose Col,* 08–14, prof. biol, 14–26, pres, 26–30, *prof. biol, 30–* A.A; Genetic Asn; fel. Iowa Acad. (chairman, zool. sect, 35). Zoology; inheritance of variable characters in wasps; biology of Chironomidae.

Hauck, Prof. Hazel M(arie), 508 Edgewood Place, Ithaca, N. Y. *Nutrition.* Seattle, Wash, July 15, 00. B.S, Washington (Seattle), 21, Bon Marche fellow, 23–24, A.M, 24; fellow, Wisconsin, 30–31, Ph.D, 32. Instr. home econ, Oregon, 21–23; asst, Washington (Seattle), 23–24; instr, North Dakota,

24–27, asst. prof. foods and nutrition, 27–29; asst. agr. chem, Wisconsin, 31–32; asst. prof. *home econ, N. Y. State Col. Home Econ, Cornell*, 32–36, *prof, 36–* Summers, instr, Washington (Seattle), 25–27, Tennessee, 31; student dietitian, Presb. Hosp, New York, 28. A.A; Inst. Nutrition; Home Econ. Asn; Dietetic Asn. Effect of fluorine on nutrition; vitamin C metabolism.

Hauge, Prof. Ingvald B(ertin), Augustana College, Sioux Falls, S. Dak. *Psychology.* Sedan, Minn, Nov. 23, 02. A.B, St. Olaf Col, 24; A.M, Iowa, 27, Ph.D, 29. Sch. supt, S. Dak, 24–26; asst. psychol, Iowa, 28–29; assoc. prof. educ, *Augustana Col*, 29–30, *prof. psychol. and head dept, 30–*, acting head dept. sociol, 30–31, *registrar, 41–* Summer, asst, Iowa, 28. Assoc. Psychol. Asn; Iowa Acad. Auditory experience; beating complex phenomena.

Hauge, Dr. Sigfred M(elanchton), Purdue University, Lafayette, Ind. *Biochemistry.* Estherville, Iowa, May 3, 95. A.B, St. Olaf Col, 18; M.S, Minnesota, 21, Ph.D, 26. Asst. agr. biochem, Minnesota, 21–22, instr, 22–23; asst. animal nutrition, *Exp. Sta, Purdue*, 23–25, research assoc. *biochem*, 25–40, *assoc, 40–* A.A; Chem. Soc; Inst. Nutrition. Animal nutrition; vitamins; proteins.

Haugen, Dr. Arnold O(tto), Department of Conservation, Lansing, Mich. *Wildlife management.* Decorah, Iowa, May 11, 10. B.S, State Col. Wash, 35; State Department of Conservation fellow, Michigan, 37–40, M.S, 39, Ph.D, 41. Teaching fellow zool, State Col. Wash, 36; asst, Michigan, 36–37; asst. to technician, west. range surv, U. S. Forest Service, 37; game area manager, *State Dept. Conservation, Mich*, 40–42, *biologist in charge Swan Creek wildlife exp. sta, 42–* Life history and management of the cottontail rabbit in southwestern Michigan.

Haught, Prof. B(enjamin) F(ranklin), 1124 W. Central Ave, Albuquerque, N. Mex. *Psychology.* Atwood, W. Va, Jan. 22, 81. A.B, West Virginia, 11; A.M, Columbia, 14; Ph.D, George Peabody Col, 21. Teacher, prin. and supt, pub. schs, W. Va; *prof.* psychol. and educ, W. Va. Wesleyan Col, 15–18; Trinity, 19–20; La. State Nor. Col, 20–21; *psychol, New Mexico, 21–* Summers, instr, Louisiana, 20; George Peabody Col, 25, 27. A.A; Psychol. Asn. Experimental and intelligence tests; higher learning processes; statistics; racial differences.

Haught, Dr. John W(illiam), 200 Franklin St, Bloomfield, N. J. *Chemistry.* Keyser, W. Va, Jan. 13, 07. B.S, W. Va. Wesleyan Col, 27; M.S, West Virginia, 30; Ph.D, Yale, 33. Instr, high sch, W. Va, 27–29; *research chemist, plastics div, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Cellulose derivatives; synthetic resins.

Haughwout, Frank G(oddard), Pantological Society, Manila, P. I. *Protozoology.* New York, N. Y, Oct. 22, 77. Columbia, 08–13. Assoc. prof. med. zool, Philippines, 14–15, prof. and chief dept, 15–17, prof. protozool. and parasitol. and chief dept. parasitol, 17–20; protozoologist and head sect. parasitol, Bur. Science, P. I, 19–27; *retired.* Consulting protozoologist and head dept. parasitol, Philippine Gen. Hosp, 15–20; leprosy cmt, Philippine Health Service, 20–21; entomologist, U.S.A. Med. Museum, 25. Co-editor, 'Philippine Jour. Sci,' 18–27. Soc. Parasitol; Soc. Trop. Med; N. Y. Acad; Manila Med. Soc. (ed, 'Proc,' 17–18); Far East Asn. Trop. Med; Royal Asiatic Soc. of Shanghai; Naturalists' Soc. of Shanghai. Dysentery; cellular pathology of intestinal diseases; animal parasites of the alimentary tract; sprue; the primary anemias; history of typhoons and meteorology in the Far East.

Haun, Prof. R(obert) R(ay), University of Minnesota, Minneapolis, Minn. *Physical chemistry.* Woodstock, Va, July 13, 98. A.B, Virginia, 18; A.M, Vanderbilt, 20; fellow, Chicago, 30–31, Ph.D, 32. Prof. physics and dean, Ashland Col, 19–42; *prof. physics, Minnesota, 42–* A.A. Raman spectra; atomic constitution.

Haupt, Prof. Arthur W(ing), University of California at Los Angeles, Los Angeles, Calif. *Botany.* Milwaukee, Wis, Aug. 9, 94. B.S, Chicago, 16, fellow, 18–19, Ph.D, 19. Instr, high schs, Ill, 16–18; sci. asst, U. S. Dept. Agr, 18; prof. biol, Carthage Col, 19–20; St. Lawrence, 20–23; instr. *bot, California at Los Angeles*, 24–27, asst. prof, 27–36, *assoc. prof, 36–* Summers, instr, California at Los Angeles, 25–30, 35, 42; British Columbia, 36. Bot. exploration, Costa Rica, 40. Ed. board, 'Madroño,' 35–40. A.A; Bot. Soc. (pres, Pacific sect, 38); Sullivant Moss Soc. Cytology of Cyanophyceae; structure and development of Hepaticae; life history of Zonaria; embryo-sac of Plumbago; fertilization in conifers.

Haupt, Prof. Curtis R(aymond), Pomona College, Claremont, Calif. *Physics.* Williamsport, Ind, Oct. 6, 03. A.B, Colo. Col, 26; A.M, California, 28, Ph.D, 30. Teaching fellow *physics*, California, 26–30; instr, *Pomona Col*, 30–33, *asst. prof, 33–* Summers, Carnegie Institution, 25–29. Physical Soc. Ionization probability laws; depth in motion pictures.

Haupt, Mrs. Geraldine Walker, National Bureau of Standards, Washington, D. C. *Physics.* A.B, Goucher Col, 22; A.M, Hopkins, 26. Instr. physics, Goucher Col, 21–25; Munsell Research Lab, 25–27; research assoc, Am. Oil Chemists Soc, 27–28; asst. physicist, *Bur. Standards*, 28–41, *assoc. physicist, 41–* Optical Soc. Spectrophotometry; absorption; colorimetry; photometry; color specification.

Haupt, Dr. Istar A(lida), New York State Civil Service Commission, Albany, N. Y. *Psychology.* Baltimore, Md, July 8, 96. A.B, Bryn Mawr Col, 17, A.M, 18; Ph.D, Hopkins, 22. Interviewer, Gas and Elec. Co, Baltimore, 24–26; educ. director, Stewart and Co, Baltimore, 26; research assoc, Bur. Pub. Personnel Admin, Chicago, 27–32; *assoc. examiner, State Civil Service Cmn, N. Y, 32–* Experimental and applied psychology; personnel; public administration.

Haupt, Prof. L(ewis) M(cDowell), Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Electrical engineering.* Kyle, Texas, May 27, 06. B.S, Agr. and Mech. Col. Texas, 27, M.S, 35. Instr. and asst. prof. *elec. eng, Agr. and Mech. Col. Texas*, 30–39, *assoc. prof, 39–, research assoc, Eng. Exp. Sta, 40–* Elec. Eng; Eng. Educ; Southwest Metermen's Asn. (sec'y, 39–). Rural electrification.

Haupt, Ralph F(reeman), 4707 Warren St, N.W, Washington, D. C. *Astronomy.* Peabody, Kans, March 4, 06. B.S, George Washington, 33, A.M, 38. Lab. apprentice physics, Bur. Standards, 27–28; junior sci. aide astron, *U. S. Naval Observatory*, 28, sci. aide, 28–35, junior astronomer, 35–39, asst. astronomer, 39–40, *assoc. astronomer, 40–* Astron. Soc; Philos. Soc. Wash. Statistical mechanics; fundamental astronomy; production of ephemerides for aerial navigation.

Haurwitz, Prof. B(ernhard), Massachusetts Institute of Technology, Cambridge, Mass. *Meteorology.* Glogau, Germany, Aug. 14, 05. Ph.D, Leipzig, 27. Privat-docent, Leipzig, 31–32; research assoc, Blue Hill Meteorol. Observatory, Harvard, 32–35; Carnegie fellow, Toronto, 35–37, special lecturer, 37–41; *assoc. prof. meteorol, Mass. Inst. Tech, 41–* Meteorologist, Meteorol. Service, Can, 37–41. Meteorol. Soc; Geophys. Union; Royal Meteorol. Soc. Interaction between troposphere and stratosphere; atmospheric wave problems; theory of tropical and extratropical cyclones; radiation; friction and turbulence.

Haury, Prof. Emil W(alter), University of Arizona, Tucson, Ariz. *Archeology.* Newton, Kans, May 2, 04. A.B, Arizona, 27, A.M, 28; Ph.D, Harvard, 34. Instr, Arizona, 28–29; asst. director, Gila Pueblo, 30–37; assoc. prof. and later *prof. anthrop. and head dept, Arizona, 37–, mem. board tree-ring research lab, 38–* Director, Ariz. State Museum, 38– Nat. Geog. Soc. beam exped, 29. A.A. Southwestern archeology; Pueblo IV and Hohokam remains; tree-rings; early man in America.

Hauschildt, Dr. James D(eFrees), Research Laboratories, Upjohn Co, Kalamazoo, Mich. *Biochemistry.* Piqua, Ohio, Dec. 6, 14. B.S, Washington (Seattle), 36, M.S, 38, Ph.D, 40. Chemist and bacteriologist, State Stream Pollution Investigation, Wash, 41; *research fellow, Upjohn Co, 41–* Water analysis; vitamin B complex; gonadotropic hormones.

Hause, Prof. C(larence) D(uane), Michigan State College, East Lansing, Mich. *Physics.* Ainsworth, Iowa, April 30, 04. A.B, Cornell Col. (Iowa), 27; A.M, Illinois, 29, Ph.D, 32. Asst. *physics*, Illinois, 27–32; instr, *Mich. State Col*, 32–36, asst. prof, 36–41, *assoc. prof, 41–* Physical Soc. Physical optics; spectroscopy.

Hauser, Prof. C(harles) R(oy), Duke University, Durham, N. C. *Chemistry.* San Jose, Calif, March 8, 00. B.S, Florida, 23, M.S, 25; Ph.D, Iowa, 28. Asst. *chem*, Florida, 23–24; Iowa, 24–28; instr, Lehigh, 28–29; *Duke*, 29–35, asst. prof, 35–41, *assoc. prof, 41–* A.A; Chem. Soc. Carbon-carbon condensations of active hydrogen compounds; elimination reactions; rearrangements; dimerizations; configurations and isomerizations of aldoxime derivatives.

Hauser, Prof. Ernst A(lfred), 16 Fayerweather St, Cambridge, Mass. **Chemistry, Chemical engineering.* Vienna, Austria, July 20, 96. Acad. Col, Vienna, 07–14; Ph.D, Vienna, 22. Chief chemist, Colloid Chem. Lab. Metallgesell, Frankfurt, 22–32; Semperit, Austro-Am. Rubber Works, Vienna, 33–35; *assoc. prof. chem. eng, Mass. Inst. Tech, 35–* Non-res. assoc. prof, Mass. Inst. Tech, 28; Gow lecturer, London, 28–29. Silver medal, Malayan Agr. Soc, 24; medal, German Soc. Rubber Chem, 31; Harries medal, 33. A.A; Chem. Soc. (chairman, colloid div, 40); Chem. Eng; Ceramic Soc; Colo-Wyo. Acad; N. Y. Acad; Soc. Chem. Indust. Gt. Britain; fel. Inst. Rubber Indust. London; Kolloid Gesell. Rubber chemistry; colloid chemistry.

Hausman, Prof. L(eon) A(ugustus), Rutgers University, New Brunswick, N. J. *Zoology, Ornithology.* New Haven, Conn, Nov. 9, 88. A.B, Cornell, 14, A.M, 16, Ph.D, 18. Asst. instr. geol, Cornell, 14–16, biol, 16; *prof. zool. and head dept, N. J. Col. for Women, Rutgers, 25–, consulting ornithologist, Exp. Sta, 30–; lecturer ornith, N. J. State Col. Agr, 42–* Contributing ed, 'Sci. American,' 20–; 'Compton's Encyclopaedia.' Soc. Zool; Nat. Audubon Soc. Structure of mammalian hairs.

Hausman, Prof. Louis, 140 E. 54th St, New York, N. Y. *Anatomy, Neurology.* New York, N. Y, April 30, 91. A.B, Col. City of N. Y, 12; M.D, Cornell, 16. Asst. psychiat, Hopkins Hosp, 20–22; assoc. neuro-anat, *med. col, Cornell,* 22–39, asst. prof. *clin. neur,* 34–37, *assoc. prof, 37–* Assoc. visiting physician neur. service, Bellevue Hosp, 33– Asn. Anat; Neur. Asn; Asn. Research Nervous and Mental Disease; Am. Acad. Med; N. Y. Neur. Asn. Psychiatry; neuroanatomy.

Hausmann, Prof. B(ernard) A(ndrew), S.J, University of Detroit, Detroit, Mich. *Mathematics.* Cleveland, Ohio, Jan. 24, 99. A.B, Gonzaga, 23, A.M, 25; Ph.D, Yale, 37. Instr. *math,* Detroit, 25–26; John Carroll, 26–28, 33–34; *prof. and director dept, Detroit, 37–* Math. Soc. Algebra; group theory.

Hausmann, Dean Erich, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Physics, Electrical engineering.* Solingen, Germany, Feb. 27, 86. E.E, Polytech. Inst. Brooklyn, 08; M.S, N. Y. Univ, 10, Sc.D, 11. Instr. physics and elec. eng, *Polytech. Inst. Brooklyn,* 08–12, asst. prof, 12–15, assoc. prof, 15–18, *prof. physics and elec. communication, 18–,* sec'y faculty, 17–23, *dean grad. study, 30–* State Board Examiners of Professional Engineers, N. Y. A.A; fel. Physical Soc; fel. Elec. Eng; Eng. Educ; N. Y. Elec. Soc. (pres, 24); Brooklyn Inst. (pres, dept. elec, 21–29). General physics; electrical communication, machinery, transmission and traction.

Hausmann, Dean Theo(dore) W(illiam), 6 Concordia Place, Bronxville, N. Y. *Microbiology.* New Britain, Conn, July 22, 94. Diploma, Concordia Theol. Sem, 17; A.M, Columbia, 24. Instr. *science,* Concordia Col, 17–19; *prof. and head dept, Concordia Collegiate Inst, 19–, dean.* Asst, Teachers Col, Columbia; Marine Biol. Lab, Woods Hole, 21. Cultural characteristics of budding yeasts; germicidal value of sunlight; sterilization by suction filters.

Haussmann, Prof. A(lfred) C(arl), 346 Pulteney St, Geneva, N. Y. *Physics.* Philadelphia, Pa, Oct. 11, 97. A.B, Lehigh, 19; A.M, Rochester, 22; fellow, Chicago, 26–27, Ph.D, 27. Instr. German, Lehigh, 19–20; asst. prof. *physics, Hobart Col,* 20–22, *Prendergast prof,* 22– Summer, consultant, Naval Research Lab, 41. A.A; Physical Soc; Optical Soc. Spectroscopy; vapor pressure; Raman effect; Zeeman effect; high frequency.

Haut, Prof. I(rvin) C(harles), 1002 Houston Ave, Takoma Park, Md. *Horticulture.* Mitchell, S. Dak, June 7, 06. B.S, Idaho, 28; M.S, State Col. Wash, 30; Ph.D, Maryland, 33. Asst. *hort,* Maryland, 30–33; asst. prof, Okla. Agr. and Mech. Col, 33–36; *assoc. prof, Maryland, 36–, assoc. pomol, Exp. Sta, 36–* Soc. Plant Physiol; Soc. Hort. Sci. Photoperiodism; after-ripening in fruit tree seeds; rest period in plants; nutrition of fruit plants; cold storage of fruit.

Havemeyer, Prof. Loomis, Yale University, New Haven, Conn. *Anthropology.* Rye, N. Y, June 7, 86. Ph.B, Yale, 10, A.M, 12, Ph.D, 15. Instr. and asst. prof. anthrop, *Yale,* 12–41, *lecturer social evolution, 41–,* registrar, *Sheffield Sci. Sch,* 20–29, asst. dean, 29–41, *assoc. dean, 41–, registrar, sch. eng, 32–* A.A; Anthrop. Asn; Social Hygiene Asn. Drama of savage peoples; ethnography; conservation of the natural resources.

Haven, Dr. Frances L(elia), 16 Riverside St, Rochester, N. Y. *Biochemistry.* Patchogue, N. Y, Aug. 7, 03. A.B, Mt. Holyoke Col, 25; A.M, Rochester, 32, fellow, 34–35, Ph.D, 35. Asst, path, sch. med, Washington (St. Louis), 25–27; instr. chem, Sweet Briar Col, 27–29; Wellesley Col, 30–32; biochem, *sch. med. and dentistry, Rochester,* 35–39, Nat. Cancer Inst. fellow, 39–40, *assoc. biochem, 40–* A.A; Soc. Biol. Chem; Asn. Cancer Research. Growth of the epidermis; effect of dietary fats on tumor growth; phospholipid metabolism of tumors; use of radioactive isotopes; tumor lipids.

Haven, Dr. S(eth) Edson, Wayne University, Detroit, Mich. *Psychology.* Austinville, Pa, March 5, 05. Diploma, Pa. State Teachers Col, 26; B.S, Ohio (Athens), 27; scholar, Columbia, 29; A.M, Ohio State, 28, Ph.D, 33. Asst. *psychol,* Ohio (Athens), 27–28; instr, Kentucky, 28–29; asst, Ohio State, 29–30, instr, 30–33, asst. prof, 35–36; asst. prof, Denison, 33–34; Ohio Wesleyan, 34–35; instr, *Wayne,* 36–38, asst. prof, 38–43, *assoc. prof, 43–* A.A; Psychol. Asn; Statist. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn; South. Soc. Philos. and Psychol; Ohio Acad; Mich. Acad; Mich. Psychol. Asn. General psychology; applied psychology; personnel.

Havenhill, Prof. L. D, 1539 Vermont St, Lawrence, Kans. *Pharmaceutical chemistry.* Newark, Ill, April 5, 70. Ph.C, Michigan, 93, Ph.M, 94; B.S, Kansas, 03. Asst. prof. *pharmacy, Kansas,* 99–08, *prof, 08–,* acting dean sch. pharmacy, 25–26, dean, 26–40. Revision cmt, U. S. Pharmacopoeia, 20–30. Chem. Soc. (v. pres, Kansas City sect, 11–13, pres, 14); Pharmaceut. Asn. (v. pres, 13, 14); Asn. Cols. Pharm. (pres, 33); hon. mem. Kans. Pharmaceut. Asn; Kans. Acad. (v. pres, 16–17, pres, 18, treas, 20–). Pharmacy; standardization for official drugs.

Havenhill, R(obert) S(amuel), 1286 Corporation St, Beaver, Pa. *Chemistry.* Lawrence, Kans, March 9, 03. B.S, Kansas, 25. Anal. chemist, B. F. Goodrich Co, 25–26; rubber research chemist, 26–28, raw materials develop. research, 28–30; *rubber technologist and develop. metallurgist, St. Joseph Lead Co, 30–* Chem. Soc. Thermoplastic rubber adhesives; zinc oxide pigments; heat generation; hysteresis in rubber compounds; electronics; synthetic rubber.

Havens, Dr. G(lenn) G(eorge), 4691 E. Talmadge, San Diego, Calif. *Physics.* Norton, Kans, 06. B.S, Idaho, 27, M.S, 28; Ph.D, Wisconsin, 32. Asst, Idaho, 27–28; Wisconsin, 28–32, fellow, 32–33; *research physicist, U. S. Rubber Products, 33–* Physical Soc. The magnetic susceptibility of gases and of nitrogen dioxide; the relation of tires to riding comfort.

Havighurst, Dr. R(obert) J(ames), University of Chicago, Chicago, Ill. *Physics.* De Pere, Wis, June 5, 00. A.B, Ohio Wesleyan, 21; A.M, Ohio State, 22, fellow, 23–24, Ph.D, 24. Nat. research fellow physics, Harvard, 24–26; asst. prof. chem, Miami (Ohio), 27–28; physics, Wisconsin, 28–32; assoc. prof. educ, Ohio State, 32–34; asst. director, Gen. Educ. Board, 34–37, director, 37–41; *prof. educ. and sec'y cmt. human develop, Chicago, 41–* Asn. Research Sci. Teaching; Educ. Research Asn; Asn. Physics Teachers. X-ray analysis of crystal and atomic structure; influence of social environment on children and youth; human development.

Havliand, Prof. E(dward) K(enneth), Port Deposit, Md. *Physical chemistry, Mathematics.* Philadelphia, Pa, Feb. 20, 02. A.B, Haverford Col, 23; A.M, Harvard, 25, Ph.D, 30; Ph.D, Hopkins, 34. Asst. prof. chem. and math, Lincoln, 29–31; instr. math, Hopkins, 34–37; *prof. chem, Lincoln (Pa), 37–* A.A; Chem. Soc; Math. Soc; Math. Asn; London Math. Soc. Atomic weight; determinations; theory of functions; analytic theory of probability.

Havis, Dr. A. Leon, Ohio Agricultural Experiment Station, Wooster, Ohio. *Horticulture.* Roaring Springs, Texas, Sept. 24, 08. B.S, Texas Tech. Col, 31; Ohio Exp. Sta. fellow, Ohio State, 31–32, M.S, 32, Ph.D, 35. *Asst. horticulturist, Ohio Exp. Sta,* 32–38, *assoc. horticulturist, 38–* Soc. Hort. Sci; Bot. Soc; Ohio State Hort. Soc. Small and stone fruits; plant anatomy and morphology; orchard soils.

Hawes, Austin F, Box 1558, Hartford, Conn. *Forestry.* Danvers, Mass, March 17, 79. A.B, Tufts Col, 01, M.S, 36; M.F, Yale, 03. Asst, U. S. Forest Service, 03–04, exten. specialist forestry, 17–20; state forester, Conn, 04–09; prof. forestry, Vermont, and state forester, 09–17; forester, Nat. Asn. Wood Turners, 20–21; *state forester, Conn, 21–* Asst, U. S. Fuel Admin, 18. Fel. Soc. Foresters (treas, 18–20). Silviculture; forest mensuration; forestry in New England.

Hawes, Dr. M(arian) Alberta (Mrs. William Henry), 547 E. Fourth St, Brooklyn, N. Y. *Astronomy.* Cambridge, Mass, Sept. 8, 93. A.B, Radcliffe Col, 14; A.M, Vassar Col, 22; fellow, Detroit Observatory, 28–29; Ph.D, Michigan, 29. Research asst, observatory, Harvard, 14–18; McCormick Observatory, Virginia, 18–19; instr, sch, R. I, 19–20; asst. astron. and math, Vassar Col, 20–21, instr. astron, 21–27, asst. prof, 27–32; fellow, Detroit Observatory, 32–33; prof. astron. and math, Rollins Col, 33–35; *private research, 35–* Astron. Soc; Asn. Variable Star Observers. Stellar parallax; astrophysics.

Hawes, Norman E(mery), U. S. Forest Service, Mena, Ark. *Forestry.* Boston, Mass, Feb. 23, 06. A.B, Washington and Lee, 29; M.F, Yale, 32. Asst. forester, forest influences research, South. Forest Exp. Sta, *U. S. Forest Service,* 34–36, forest management research, Appalachian Forest Exp. Sta, 37–39, *assoc. forester, forest influences research, South. Forest Exp. Sta, 39–* A.A; Soc. Foresters; Am. Geog. Soc. Forest influences.

Hawes, Dr. William W(isner), Union Carbide and Carbon Research Laboratories, Inc, Niagara Falls, N. Y. *Chemistry.* Columbus, Ind, April 12, 02. B.S, Purdue, 24; M.S, Brown, 27, Ph.D, 30. Nat. research fellow chem, Mass. Inst. Tech, 29–31; Brown, 31–34; *research chemist, Union Carbide and Carbon Research Labs, Inc, 35–* Conductivity of solutions in anhydrous ammonia.

Hawk, Prof. Grover C, Kletzing College, University Park, Iowa. *Zoology.* Martinsburg, Iowa, Nov. 24, 85. B.S, Penn. Col. (Iowa), 09; M.S, Chicago, 19. Prin, Vermilion Acad, Ill, 09–10; instr, Penn Acad, Iowa, 10–11; prof. biol, Friends, 11–13; Penn Col. (Iowa), 13–18; instr. animal biol, Iowa, 19–20; prof. zool, William Penn Col, 20–35, head dept. biol, 27–35, chairman div. life sciences, 32–35; prof. biol, John Fletcher Col, 35–37; assoc. prof, Parsons Col; *mem. faculty, Kletzing Col.* Soc. Mammal; Iowa Acad. Animal ecology; respiration of dragon fly larvae.

Hawk, Dr. P(hilip) B(ovier), Food Research Laboratories, Inc, 4814 33rd St, Long Island City, N. Y. **3Physiological chemistry.* East Branch, N. Y, July 18, 74. B.S, Wesleyan, 98; M.S, Yale, 01; Ph.D, Columbia, 03. Asst. physiol. chem, Columbia, 01–03; demonstrator, sch. med, Pennsylvania, 03–07; prof, Illinois, 07–12; physiol. chem. and toxicol, Jefferson Med. Col, 12–22; director, *Food Research Labs, Inc, 22–26, pres, 26–* Summer, prof, California, 24. Asst. ed, 'Chem. Abstracts'; 'Diagnostica e Tecnica De Laboratorio.' Am. cmt, Int. Cong. Alimentary Hygiene, Brussels, 10; cmt. physiol. chem, Int. Cong. Applied Chem, New York, 12; del, U. S. Pharmacopoeial Convention, 30. A.A; Chem. Soc. (chairman, Ill. sect, 12); Physiol. Soc; Soc. Biol. Chem; Inst. Chem; Asn. Consulting Chem. and Chem. Eng; Am. Med. Asn; Soc. Exp. Biol; Philos. Soc; Inst. Food Technol. Metabolism; vitamins; food and nutrition; yeast; gelatin; baking powder; milk; margarin; cereals; honey; fats; cod-liver oil.

Hawkes, Dr. H(erbert) E(dwin), U. S. Geological Survey, Washington, D. C. *Economic geology.* New York, N. Y, Dec. 11, 12. A.B, Dartmouth Col, 34; Ph.D, Mass. Inst. Tech, 40. Junior geologist, *U. S. Geol. Surv,* 41–42, *asst. geologist, 42–.* Geophysical exploration for chromite.

Hawkes, Prof. John B(allard), Stevens Institute of Technology, Hoboken, N. J. *Physics.* New Haven, Conn, March 17, 98. A.B, Columbia, 20, M.E, 23, Ph.D, 38; A.M, Harvard, 33. Mem. eng. dept, N. Y. Tel. Co, 23–26; instr. machine design, Kans. State Agr. Col, 26–27; mem. ed. dept, Ginn and Co, 27–32; *asst. prof. physics, Stevens Inst. Tech, 32–* Physical Soc; Optical Soc; Eng. Educ. Physical optics; magnetic double refraction in liquids; refractive index of liquids near freezing temperature.

Hawkes, Dr. Julia M(ay), Waseca, Minn. *Astronomy.* Waseca, Minn, July 3, 78. A.B, Carleton Col, 01; A.M, Columbia, 10; Ph.D, Michigan, 20. Instr. math, Beaver Col, 10–13; Carleton Col, 13–18; prof. math. and astron, Doane Col, 19–41; *retired.* Photographic determination of positions of twelve hundred stars in and about the great nebula in Andromeda.

Hawkins, Dr. A(lfred) C(ary), P. O. Box 645, Winchester, Va. *Geology.* Sewaren, N. J, June 15, 87. B.S, Columbia, 09; A.M, Princeton, 12; Ph.D, Brown, 16. Asst. geol, Princeton, 10–12; instr, Brown, 12–16; oil geologist, 16–18; crystallographer, E. I. du Pont de Nemours and Co, 18–21; with Ward's Nat. Science Estab, 21–23; instr. geol, Rochester, 23–26; acting assoc. prof, Rutgers, 27–28, assoc. prof, 28–33; consulting geologist, 33–35; *asst. soil scientist, soil conservation service, U. S. Dept. Agr,* 35–36, *asst. soil technologist, 36–* A.A; Miner. Soc; Meteorol. Soc; N. Y. Miner. Soc; N. Y. Acad. Mineralogy; crystallography.

Hawkins, Prof. George A(ndrew), 701 Crestview Place, West Lafayette, Ind. *Mechanical engineering.* Denver, Colo, Dec. 11, 07. B.S, Purdue, 30, M.S, 32, Ph.D, 35. Asst. applied mech, *Purdue,* 30–32, instr, 32–36, asst. prof. *mech. eng,* 36–38, assoc. prof, 38–42, *prof, 42–,* asst, *eng. exp. sta,* 34–36, *research assoc, 36–* Mech. Eng; Physical Soc; Eng. Educ. High pressure steam generators; heat transmission; temperature steam corrosion.

Hawkins, Dr. James Wesley, National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Medicine.* Los Angeles, Calif, March 10, 09. B.S, Idaho, 30, M.S, 31; M.D, Harvard, 35, M.P.H, 40, Dr.P.H, 41. State director pub. health, Idaho, 37–38; *asst. prev. med. and epidemiol, Harvard Med. Sch. and sch. pub. health, Harvard, 39–; asst. surgeon, U. S. Pub. Health Service, 40–* Epidemiology of childhood cancer.

Hawkins, Prof. J(ohn) Erskine, University of Florida, Gainesville, Fla. *Chemistry, Chemical engineering.* Media, Pa, May 17, 99. A.B, Pennsylvania, 19, B.S, 22, M.S, 25, Ph.D, 27. Asst. chem, Pennsylvania, 21–22, instr, 22–32; chief chemist and plant manager, P. J. Ritter Co, Bridgeton, N. J, 32–33; head dept. chem, Tampa, 33–35; *assoc. prof.* chem. eng, *Florida,* 35–36, *chem, 36–,* acting head dept. chem. eng, 35–36, *assoc. director naval stores lab, 36–* A.A; Chem. Soc. (sec'y-treas, Fla. sect, 39–41, chairman, 43); Inst. Chem; Fla. Acad. Properties of solutions; reaction rates; electromotive force measurements; physical chemistry; naval stores.

Hawkins, Dr. John H(enry), University of Maine, Orono, Maine. *Entomology.* Sullivan, Ill, Aug. 10, 91. B.S, Illinois, 26; Maine, 27; Ph.D, Cornell, 35. Asst. entomologist, *Exp. Sta, Maine,* 26–35, *assoc. entomologist, 35–* Entom. Soc. Amer; Asn. Econ. Entom. Biology and control of Elateridae; morphology and taxonomy of Noctuid larvae.

Hawkins, Dr. J(oseph) E(lmer), Jr, Harvard Medical School, Boston, Mass. *Physiology.* Waco, Texas, March 4, 14. A.B, Baylor, 33; Brown, 33–34; Rhodes scholar, Oxford, 34–37, B.A, 37; Ph.D, Harvard, 41. Teaching fellow *physiol, Harvard Med. Sch,* 37–41, *instr, 41–, asst. investigator, Nat. Defense Research Cmt. project, univ, 41–* Asn. Sci. Workers. Electrophysiology of cochlea and cerebral cortex.

Hawkins, L(aurence) A(shley), General Electric Co, Schenectady, N. Y. *Engineering.* Pittsfield, Mass, March 22, 77. A.B, Williams Col, 97; B.S, Mass. Inst. Tech, 99. Eng. dept, Stanley Elec. Mfg. Co, 99–03; patent dept, *Gen. Elec. Co,* 03–12, *exec. engineer, research lab, 12–* A.A; Elec. Eng; Illum. Eng. Soc. Industrial research.

Hawkins, Dr. Lon A(drian), U. S. Department of Agriculture, Washington, D. C. *Botany.* La Mott, Iowa, May 30, 80. B.S, Morningside Col, 06; fellow, Ohio State, 06–07; Ph.D, Hopkins, 13. Sci. asst, bur. plant indust, *U. S. Dept. Agr,* 07–14, plant physiologist, 14–22, physiologist, 22–28, *prin. physiologist,* 28–30, *bur. entom. and plant quarantine, 30–* A.A; Soc. Refrig. Eng; Wash. Acad. Plant quarantine, pathology and physiology; physiology of insects.

Hawkins, Dr. L(ouis) E(dward), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agriculture.* Sherman, Texas, Sept. 4, 02. B.S, Okla. Agr. and Mech. Col, 26; M.S, Wisconsin, 28, Ph.D, 30. County agr. agent, 26–27; asst. genetics, Wisconsin, 27–29; asst. prof. animal husbandry, Okla. Agr. and Mech. Col, 29–35; agr. commissioner, Chamber of Commerce, Kansas City, Mo, 35–42, *v. director, Exp. Sta, Okla. Agr. and Mech. Col, 42–*

Hawkins, Prof. R(alph) S(ams), University of Arizona, Tucson, Ariz. *Agronomy.* Marysville, Kans, April 16, 88. B S, Kans. State Col, 14; M.S, Arizona, 22; Ph.D, Wisconsin, 32. Farmer, Kans, 14–17; agr. agent, Nemaha County, Kans, 18; asst. prof. *agron, Arizona,* 19–23, assoc. prof, 23–26, *prof, 26–,* acting dean *col. agr,* 37–39, *v. dean, 39–,* asst. agronomist, *Exp. Sta,* 19–23, *agronomist, 23–,* acting director, 37–39, *v. director, 39–* A.A; Soc. Agron; Soc. Plant Physiol. Inoculation of legumes; effect of hydrocyanic acid on plant growth; immaturity in cotton fibers; factors influencing development of cotton fibers; irrigation requirements of cotton.

Hawkins, Prof. Rob(er)t D(awson), University of Kentucky, Lexington, Ky. *Engineering mechanics.* Lexington, Ky, April 11, 92. B.M.E, Kentucky, 15, M.E, 21; M.E, Pennsylvania, 38; M.S, Michigan, 39. Remington Arms Co, 15–16; instr, Pennsylvania, 16–18; asst. prof. mech. eng, *Kentucky*, 18–24, assoc. prof, 24–25, *prof.* hydraul. eng, 25–37, *theoret. and applied mech, 37–* Mem, city planning and zoning cmt, Lexington, 28– Mech. Eng; Eng. Educ; Ky. Soc. Professional Engineers. Hydrodynamics; mechanics.

Hawkins, Dr. W(alter) Lincoln, Columbia University, New York, N. Y. *Organic chemistry.* Washington, D. C, March 21, 11. Ch.E, Rensselaer Polytech, 32; M.S, Howard, 34; Ph.D, McGill, 38. Research assoc. org. chem, Howard, 34–35; sessional lecturer cellulose and lignin chem, McGill, 38–41; *nat. research fellow alkaloid chem, Columbia, 41–* Fellow, Nat. Res. Council Can, 39–40. Chem. Soc. Organic chemistry of plant products.

Hawkins, Dr. William B(ruce), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Pathology.* Springfield, Mass, July 5, 00. A.B, Amherst Col, 22; M.D, Hopkins, 27. Pathologist, Baltimore City Hosp, 27–29; instr. *path, sch. med. and dentistry, Rochester,* 29–31, asst. prof, 31–34, *assoc. prof, 34–* A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Prevention Cancer. Bile pigments and salts; plasma proteins and blood and bile cholesterol.

Hawks, Prof. Jean E(lizabeth) (Mrs. F. N. Hewetson), 428 Butterfield Drive, East Lansing, Mich. *Nutrition.* Elmwood, Ill, Sept. 27, 01. A.B, Illinois, 23; M.S, Iowa, 24; Ph.D, Chicago, 31. Dietitian, Burnham City Hosp, Champaign, Ill, 25–26; asst, Michael Reese Hosp, Chicago, 27–29; Bobs Roberts Hosp, Chicago, 30; asst. prof. *nutrition, Mich. State Col,* 31–39, *assoc. prof, 39–* Dietetic Asn; Home Econ. Asn; Chem. Soc; Mich. Dietetic Asn. (pres, 41–43). Basal metabolism; balance studies; mineral metabolism; undernourished children; urinary nitrogenous constituents; diets of Chinese children; composition of Chinese foods.

Hawley, Dr. Estelle E(lizabeth), Pittsford, N. Y. *Nutrition.* Pittsford, N. Y, June 24, 94. B.S, Simmons Col, 16; M.S, Rochester, 24, Ph.D, 31. Teacher, high sch, N. Y, 16–18; asst. physiol, *sch. med, Rochester,* 25–29, instr. nutrition, 29–34, *research fellow pediat, 34–* Nutrition counselor, Dept. Pub. Welfare, Rochester, N. Y, 32–34. A.A; Inst. Nutrition; Dietetic Asn; Soc. Exp. Biol. Altered metabolism of normal animals under insulin treatment; absorption of insulin from alimentary tract; vitamin C; gluconeogenesis of fat.

Hawley, Prof. Florence M(ay), University of New Mexico, Albuquerque, N. Mex. *Anthropology.* La Cananea, Mex, 06. A.B, Arizona, 27, A.M, 28; Ph.D, Chicago, 34. Instr. and research assoc. archeol, Arizona, 28–33; dendrochronologist, Chicago, 34; *asst. prof. archeol. and anthrop, New Mexico, 34–; assoc. prof. anthrop, Chicago, 37–* Social Science Research Council fellow; assoc. dendrologist, Tenn. Valley Authority, 34–35. Anthrop. Asn; Soc. Archeol; Tree Ring Soc. Dendrochronology; prehistoric Southwestern pottery paints; dating of pottery and architectural sequences of Chaco pueblos; dating Middle Western mound builders; determination of ancient weather conditions; pueblo ethnology.

Hawley, Dr. I(ra) M(yron), Japanese Beetle Laboratory, Moorestown, N. J. *Entomology.* Canandaigua, N. Y, June 7, 84. A.B, Michigan, 09; Ph.D, Cornell, 16. Instr. biol, Bradley Polytech, 11–12; asst, Cornell, 12–16, investigator entom, 16–21; head dept. zool. and entom, Utah Col, and *entomologist,* Exp. Sta, 21–26; alfalfa weevil lab, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 26–31, *Japanese beetle lab, 31–* Acting dean, Utah Col, 23–24. Asn. Econ. Entom. Economic entomology; insects injurious to hops, beans, sugar beets and fruits; cereal and forage insects; alfalfa weevil; Japanese beetle.

Hawley, Prof. J(ames) E(dwin), Queen's University, Kingston, Ont, Can. *Geology, Mineralogy.* Kingston, Ont, Sept. 27, 97. B.A, Queen's (Can), 18, M.A, 20; Ph.D, Wisconsin, 26. Field geologist, Whitehall Petrol. Corp, 20–23; asst. prof. geol, Wisconsin, 27–28; *prof. miner, Queen's (Can), 29–* Am. Petrol. Inst. fellow, California, 26–27; Wisconsin, 28. Summers, field geologist, Bur. Mines, Ont, 17, 25, 26, 28; Bur. Mines, Que, 30, 31, 33; consulting geologist, 35– Fel. Geol. Soc; fel. Miner. Soc; fel. Royal Soc. Can. Evidence of life in the Archean; geology and economic possibilities of various Precambrian areas in northern Ontario and Quebec; Coutchiching problem; generation of oil from rocks like oil-shale by shearing pressures; mineralogy and genesis of iron ores of Mayville, Wisconsin; mineral deficiencies in Canada; synthesis of mineral sulphides.

Hawley, Dr. L(ee) F(red), U. S. Forest Service, Madison, Wis. *Chemistry.* Steamburg, N. Y, Feb. 12, 82. A.B, Cornell, 03, A.M, 05, Ph.D, 07. Asst. chem, Cornell, 02–04, instr, 04–07; chemist, U. S. Forest Service, 07–13; forest products dept, Arthur D. Little, Inc, 13–15; Forest Products Lab, U. S. Forest Service, 16–42, prin. chemist; *retired.* Chem. Soc. (sec'y, cellulose div, 22–25); Soc. Foresters. Thallium; white lead; wood distillation and extraction; wood chemistry and physics.

Hawley, Prof. R(alph) C(hipman), 205 Prospect St, New Haven, Conn. *Forestry.* Atlanta, Ga, March 5, 80. A.B, Amherst Col, 01; M.F, Yale, 04. Forest asst, U. S. Forest Service, 04–05; asst. state forester, Mass, 05–06; from instr. to prof. forestry, *Yale,* 06–32, *Morris K. Jesup prof. silviculture, 32–* Forester, New Haven Water Co, 07– A.A; Soc. Foresters. Silviculture.

Hawley, Prof. Ransom Smith, University of Michigan, Ann Arbor, Mich. *Mechanical engineering.* Ludington, Mich, April 23, 81. B.S, Michigan, 07, M.E, 15. Grinnell Col, 07–10; Colo. Sch. Mines, 10–17; assoc. prof. *mech. eng, Michigan,* 17–20, *prof, 20–, chairman dept, 40–* Mech. Eng. Power, heating, ventilation and drying in industrial plants.

Hawley, Dr. Thomas G(ardner), Jr, 19 Grove St, Naugatuck, Conn. *Organic chemistry.* Chicago, Ill, June 10, 04. B.S, Oregon State Col, 25; Ph.D, Yale, 28. *Research chemist,* Cheney Brothers, 28–31; Wallerstein Co, 31–34; *U. S. Rubber Products, Inc.* Chem. Soc; Asn. Textile Chem. and Colorists. Isoelectric points of silk fibroin and its application in the textile industry; application of enzymes in the textile industry; elastic fabrics.

Haworth, Dr. Ellis, James Ormond Wilson Teachers College, Washington, D. C. *Physical chemistry.* Washington, D. C, Nov. 11, 01. A.B, George Washington, 22, A.M, 27; Ph.D, Hopkins, 28. Instr, high sch, *Wash, D. C,* 22–31, head dept. science, pub. schs, 31–36; *prof. nat. sciences, James Ormond Wilson Teachers Col, 36–* A.A; Chem. Soc; Asn. Physics Teachers; Philos. Soc. Wash. Thermodynamics; specific heats of organic compounds; photochemistry; x-rays.

Haworth, F(rancis) E(llwood), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Lawrence, Kans, Sept. 12, 01. A.B, Oregon, 24; A.M, Columbia, 29. Asst. physics, Columbia, 24–25; *research physicist, Bell Tel. Labs, 25–* Fel. Physical Soc. Crystal structure; x-rays.

Haworth, Dr. Leland J(ohn), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Flint, Mich, July 11, 04. A.B, Indiana, 25, A.M, 26; fellow, Wisconsin, 29–30, Ph.D, 31. Teacher, high sch, Ind, 26–28; instr. physics, Wisconsin, 30–37; *fellow physical chem, Mass. Inst. Tech, 37–* Physical Soc. Energy distribution of secondary electrons; nuclear physics; extremely low temperatures.

Hawthorn, Prof. G(eorge) E(dward), 4205 Francis Ave, Seattle, Wash. *Civil engineering.* New Rockford, N. Dak, Nov. 21, 89. B.S, Washington (Seattle), 15, C.E, 26. Instr, high sch, 15–17; res. engineer and chief draftsman, State Highway Dept, Wash, 17–24; instr. *civil eng, Washington (Seattle),* 24–28, asst. prof, 28–37, *assoc. prof, 37–* Civil Eng. Design of concrete pavements and non-rigid surfaces.

Hawthorn, Dr. H(arry) B(ertram), Sarah Lawrence College, Bronxville, N. Y. *Anthropology.* Wellington, N. Z, Oct. 15, 10. B.Sc, New Zealand, 32, M.Sc, 34, B.A, 37; Hawaii; Ph.D, Yale, 41. Instr, schs, N. Z; headmaster, Rangiawhia Native Sch; asst, inst. human relations, Yale; research in Latin Amer. under auspices Office of Coordinator of Inter-Am. Affairs and inst. human relations, Yale; *mem. dept. anthrop, Sarah Lawrence Col, 42–* Culture change in the Pacific; the Latin-American community.

Hawthorn, Leslie R, Winter Haven, Texas. *Horticulture.* London, Eng, March 27, 02. London, 19; B.S, Cornell, 24, M.S, 28. Asst, dept. bot, Cornell, 24–25; research asst. veg. crops, N. Y. Exp. Sta, Geneva, 25–30; *horticulturist, Exp. Sta, Agr. and Mech. Col. Texas, 30–* A.A; Soc. Hort. Sci. Olericulture; vegetable varieties and breeding, especially the tomato and onion.

Hawxhurst, Robert, Jr, Crocker First National Bank Bldg, San Francisco, Calif. *Geology.* San Francisco, Calif, June 19, 75. California, 90–91; Stanford, 91–93. Mining engineer and geologist, Cent. and S. Amer, Mex, Hawaii, P. I, China, Malay States and Europe, 94–19; *consulting engineer and geologist, 19–* A.A; Seismol. Soc; Civil Eng; Min. and Metal. Eng; Calif. Acad; Soc. géol. de France. Ore deposits; origin of Chilean nitrate and of the Bolivian salares.

Haxby, Dr. Robert O(zias), Sperry Gyroscope Co, Garden City, N. Y. *Physics.* Minneapolis, Minn, May 14, 12. B.E.E, Minnesota, 33, M.S, 34, Ph.D, 38. Teaching asst. physics, Minnesota, 34–37, asst, 37–38; research fellow, Westinghouse Research Labs, 38–40; *project engineer, Sperry Gyroscope Co, 40–* Nuclear physics; radio engineering.

Hay, Prof. Earl D(owning), 1653 Indiana St, Lawrence, Kans. *Mechanical engineering.* New Goshen, Ind, Sept. 19, 86. Indiana, 05–06; B.S, Rose Polytech, 10, M.S, 15, M.E, 21; Wisconsin, 11–12. Instr. eng, Wisconsin, 10–12; head dept. mech. drawing, Wis. State Teachers Col, Oshkosh, 12–17; asst. prof. eng, Illinois, 17–19; dean eng, Iowa, 19–23; Wyoming, 23–28; *prof. mech. and indust. eng. and head dept. mech. eng, Kansas, 28–* Del, World Power Conf, Wash, D. C, 36. Mech. Eng; Eng. Educ. Engineering design; engineering education; aeronautical engineering.

Hay, Dr. Kenneth D(ana), Main St, Spotswood, N. J. *Chemistry.* Beverly, Mass, Nov. 23, 10. B.S, Tufts Col, 37; M.S, Lawrence Col, 39, Ph.D, 41. *Chief chemist, Peter J. Schweitzer Inc, 41–* Chem. Soc. Pulp technology; effect of ultra-violet light on lignin.

Hay, W(illiam) P(erry), Route 1, Bradenton, Fla. *Zoology.* Eureka, Ill, Dec. 8, 71. B.S, Butler, 91, M.S, 92. Instr. and head dept. biol, high schs, Washington, D. C, 92–00, head dept. biol. and chem, 08–31; prof. nat. hist, Howard, 00–08; instr. biol, McKinley High Sch, 31–34. Asst, George Washington; lecturer, Georgetown. A.A; Soc. Ichthyol. and Herp; Wash. Acad. (v. pres, 16); Biol. Soc. Wash. (v. pres, 07, pres, 16); Wash. Biol. Field Club (pres, 01–04, 15). Life histories and relations of North American Crustacea.

Haydak, Dr. M(ykola) H(ryhor), University Farm, St. Paul, Minn. *Entomology, Apiculture.* Maly Yanisol, Ukraine, May 12, 98. Univ. Kiev, 17–18; Ukrainian Agr. Inst, 22; Ing. Agr, Polytech. Inst, Prague, 27; Ph.D, Wisconsin, 33. Asst. *entom, Exp. Sta, Minnesota, 33–34, instr, 34–* A.A; Asn. Econ. Entom; Entom. Soc. Amer; Minn. Acad. Pollen substitutes; nutrition of the honey-bee; bee behavior; insect physiology; food value of honey; history of Ukrainian beekeeping.

Hayden, Dr. Ada, Iowa State College, Ames, Iowa. *Botany.* Ames, Iowa, Aug. 14, 84. B.S, Iowa State Col, 08, Ph.D, 18; fellow, Washington (St. Louis), 09–10, M.S, 10; Colorado, 13; Chicago, 16. Asst. *bot, Iowa State Col,* 07–08, instr, 10–18, asst. prof, 18–34, *research asst. prof, 34–* Summer, in charge bot, Colo. Agr. Col, 21. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Taxon; Sullivant Moss Soc; Iowa Acad. Ecology; taxonomy; algae; vascular plants.

Hayden, Dr. Alice H(azel), One Hill St, North Reading, Boston, Mass. *Pharmaceutical chemistry.* Seattle, Wash, Jan. 17, 09. Ph.C, Oregon State Col, 28, B.S, M.S, 29; Ph.D, Purdue, 32. Teaching fellow, Washington (Seattle), 29–30; Purdue foundation fellow, Purdue, 30–34; control and reagent lab, Ohio State, 34–37; with Rowland Marine Products Corp, 37–39; *pres, Am. Vitamin Oil Co, 39–* U. S. Pharmacopoeial Revision Cmt. fellow, Purdue, 36. Drug assays.

Hayden, Arthur G(underson), 9 Florida Ave, Bronxville, N. Y. *Civil engineering.* Akron, Ohio, Oct. 10, 76. A.B, Ripon Col, 98; B.S, Mass. Inst. Tech, 01. Instrument man, Chicago and Alton Ry, 00; struct. detailer, Am. Bridge Co. and McClintic-Marshall Construction Co, Pittsburgh, 01–04; struct. designer and asst. engineer, N. Y. State Barge Canal, 04–20; chief designing engineer, Bronx Parkway Cmn, Bronxville. 20–26; Westchester County Park Cmn, 25–37; *consulting engineer and lecturer.* Medal, Soc. Arts and Sciences, 29; prize, Am. Inst. Steel Construction, 29. Civil Eng. (sec'y, struct. div, 28, mem. exec. cmt, 28–31, director, metropolitan sect, 33–35); Nat. Soc. Professional Eng; Eng. Council Professional Develop; N. Y. Soc. Professional Eng. (director, Westchester County chap, 29–32). Bridge engineering; rigid frame bridges for short and medium spans; parkways; concrete and reinforced concrete; highway and railroad grade separation; design and construction of the rigid frame bridge.

Hayden, C(assius) C(lay), Ohio Agricultural Experiment Station, Wooster, Ohio. *Dairying.* Hemlock, Ohio, Dec. 1, 71. B.S, Ohio State, 01; M.S, Illinois, 09. Instr. and asst. prof. dairy husbandry, Illinois, and asst. and asst. chief, Exp. Sta, 03–12; chief *dairy indust, Ohio Exp. Sta,* 12–41, *assoc, 41–* A.A; Soc. Animal Production; Dairy Sci. Asn. Feeding and breeding dairy cattle; factors affecting the nutritive value of milk; silage.

Hayden, Prof. C(harles) E(rnest), 110 Irving Place, Ithaca, N. Y. *Physiology.* Syracuse, Ohio, April 9, 81. A.B, Ohio, 10; D.V.M, Cornell, 14. Asst. biol, Ohio, 08–09; *vet. physiol, Cornell,* 09–10, instr, 10–14, asst. prof, 14–29, *prof, 29–* A.A; Vet. Med. Asn; Soc. Exp. Biol. Comparative physiology; salivary digestion in the dog, cat and horse; urine of the dairy cow; normal blood of domesticated animals; blood, urine and tissue juice in azoturia; milk fever; acetonemia in the cow and ewe; kidney disorders and uremia in the dog; physiology of the cow at parturition.

Hayden, Prof. Charles K(avanagh), S.J, Creighton University, Omaha, Nebr. *Optics.* Denver, Colo, Jan. 28, 94. A.B, Gonzaga, 20, A.M, 21; Ph.D, St. Louis, 33. Instr. physics, St. Louis, 21–24, teaching fellow, 29–31, 32–33; assoc. prof, Marquette, 31–32; prof. and head div. sciences and math, Rockhurst Col, 33–37; *asst. prof. physics, Creighton, 38–* A.A; Physical Soc; Optical Soc; Mo. Acad; Nebr. Acad. Effect of high pressure on the index of refraction and dispersive power of glycerine.

Hayden, Dr. Henrietta S(now), Harper Hospital, Detroit, Mich. *Chemistry.* Syracuse, N. Y, Nov, 98. B.S, Syracuse, 21, M.S, 25; Ph.D, Illinois, 34. Teacher, high sch, N. Y, 21–23; chem, Syracuse, 23–28; prof, Greenville Woman's Col, 28–30; asst, Illinois, 30–34, research chemist home econ, 34–35; *chemist, Harper Hosp, 35–* Radiol. Soc. N. Amer. Microscopic investigation of swelling of starch; fluoridism in teeth; x-ray diffraction of tissues; effect of x-ray on nerve tissue.

Hayden, Dr. James G(rant), 9A Rutledge Blvd, Charleston, S. C. *Chemical engineering.* Westernport, Md, July 11, 12. B.Ch.E, Hopkins, 35, M.Ch.E, 37; fellow, Maryland, 40–41, Ph.D, 41. Research chem. engineer, W. Va. Pulp and Paper Co, 37–40; chem. engineer, U. S. Bur. Mines, 41–42; *research chem. engineer, W. Va. Pulp and Paper Co, 42–* Chem. Soc. Isolation and production of by-products from waste liquor of pulp manufacture.

Hayden, Prof. Margaret A(lger), Wellesley College, Wellesley, Mass. *Zoology.* Ausable Chasm, N. Y, Sept. 2, 84. A.B, Goucher Col, 07; A.M, Columbia, 17, Ph.D, 24. Instr. science and math, Littleton Col, 07–08; biol, high sch, Md, 08–12; Carnegie Inst. Tech, 12–16; *zool, Wellesley Col,* 18–21, 22–25, asst. prof, 25–31, assoc. prof, 31–43, *prof, 43–* A.A; Soc. Zool; Genetic Asn. Cytology; genetics.

Haydu, Dr. George G, 53 W. 83rd St, New York, N. Y. *Experimental medicine.* Oroshàza, Hungary, Feb. 18, 11. M.D, Szeged, 33. Asst, Pharmaco-Dynamic Inst, Szeged, 34; *assoc. arthritis, Metropolitan Hosp, New York, 35–; clin. asst, N. Y. Med. Col, 36–; consultant, Fifth Ave. Hosp, 36–; assoc. arthritis, Welfare Hosp, 41–* Soc. Bact. Arthritis; allergy; thyroxin.

Hayes, Prof. Albert O(rion), Rutgers University, New Brunswick, N. J. *Geology.* Granby, Que, Can, March 16, 82. B.Sc, McGill, 08, M.Sc, 10; Ph.D, Princeton, 14. In charge Princeton geol. investigation, Wabana iron ore deposits, Newfoundland, 11–12; junior geologist, Geol. Surv. Can, 13–17, assoc. geologist, 17–20, geologist, 25–26; Whitehall Petrol. Corp, 20–22; Standard Oil Co. of N. J, 22–25; visiting prof. *geol, Rutgers,* 26–28, *prof. and head dept, 28–* Visiting prof, Lafayette Col, 26. Summer, field work, Newfoundland Govt, 36. Fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Econ. Geol; Can. Inst. Min. and Metal. Iron ore, manganese, salt, coal and petroleum deposits.

Hayes, Dr. Anson, The American Rolling Mill Co, Middletown, Ohio. *Physical chemistry.* Sigourney, Iowa, Jan. 31, 82. B.S, Drake, 08; M.S, Iowa State Col, 17; Ph.D, Chicago, 21. Instr, high schs, Iowa, S. Dak. and Ill, 09–15; asst. chem, Iowa State Col, 15–17, instr, 18, asst. prof, 18–19, assoc. prof, 19–23, prof. physical chem, 23–28; chief chemist, *Am. Rolling Mill Co,* 28–29, *director research labs, 29–* Mem, Nat. Farm Chemurg. Council; State Chemurg. Cmn, Ohio. A.A; Chem. Soc; Electrochem. Soc; Min. and Metal. Eng; Soc. Test. Mat; Foundrymen's Asn; Welding Soc; Chemists' Club; Dayton Eng. Club; British Inst. Metals; West of Scotland Iron and

Steel Inst; Bunsen Gesell. Stability of iron carbide in ferrous alloys; graphitizing properties of iron carbon alloys; isotopes; uranium metal; corrosion of iron and steel; strain-aging in mild steel and iron; armor plate; airplane propeller steel; transformer steel; aluminum-coated steel products; rolling and processing steel.

Hayes, Doris W(anda), U. S. Forest Service, Washington, D. C. *Ecology.* Lincoln, Nebr, Sept. 17, 98. A.B, Nebraska, 21, A.M, 22. Junior plant ecologist, *U. S. Forest Service,* 27–30, asst. forest ecologist, 30–37, *assoc. forest ecologist, 37–* Apogamy in ferns; root relations; range plants.

Hayes, Prof. F(rederick) Ronald, Dalhousie University, Halifax, N. S, Can. *Zoology.* Parrsboro, N. S, April 29, 04. M.Sc, Dalhousie, 27; Int. Educ. Board fellow, Liverpool, 28–29, Ph.D, 29. *Assoc. prof. zool, Dalhousie, 30–* Fel. Royal Micros. Soc. Molluscan tropisms; protozoan physiology; chemical embryology, especially of fish.

Hayes, G(eorge) Lloyd, U. S. Forest Service, Asheville, N. C. *Forestry.* Pleasant Grove, Utah, May 14, 09. B.S, Idaho, 34; M.F, Yale, 40. Asst. forester, *forest fire research,* North. Rocky Mountain Forest and Range Exp. Sta, *U. S. Forest Service,* 34–42, *assoc. forester, Appalachian Forest and Range Exp. Sta, 42–* Soc. Foresters; Geophys. Union. Topographic distribution of factors affecting forest fire behavior and forest fire danger.

Hayes, Dr. Hammond Vinton, 253 Summer St, Boston, Mass. *Physics.* Madison, Wis, Aug. 28, 60. A.B, Harvard, 83, A.M, Ph.D, 85; Mass. Inst. Tech, 84–85. Elec. engineer, Am. Bell Tel. Co, 85–02; chief engineer, Am. Tel. and Tel. Co, 04–07, consulting engineer, 07–24; pres, Submarine Signal Corp, 25–30. A.A; Elec. Eng; Am. Acad. Development of methods and apparatus for electrical communication; communication by means of radiant energy.

Hayes, Dr. H(arvey) C(ornelius), Naval Research Laboratory, Washington, D. C. *Physics.* North Fenton, N. Y, Nov. 2, 78. A.B, Harvard, 07, A.M, 08, Ph.D, 11. Asst. physics, Harvard, 08–11, instr, 11–13; prof, Swarthmore Col, 13–18; research, anti-submarine devices, Exp. Sta, *U. S. Navy,* New London, Conn, 18–19, physicist, 19–20, sound aide, 21–23, *physicist, 23–* Summers, instr, Harvard, 08–13. Levy gold medal, Franklin Inst; John Scott medal, Phila; Cullum medal, Am. Geog. Soc. Physical Soc; Geophys. Union; Acoustical Soc; Philos. Soc. Wash; Wash. Acad. Cooling curves; the magnetic susceptibility of water; rateflow meter; sap flow and sap pressure; detection of submarines; the hydrophone and navigation; the sonic depth-finder; laminations in steel plates.

Hayes, Prof. H(erbert) K(endall), University Farm, St. Paul, Minn. *[6]Botany, Genetics, Agronomy.* North Granby, Conn, March 11, 84. B.S, Mass. Col, 08; M.S, Harvard, 11, Sc.D, 21. Special agent tobacco investigation, U. S. Dept. Agr, 08–09; asst. agronomist, Conn. Exp. Sta, 09–11, plant breeder, 11–14; assoc. prof. plant breeding, *Minnesota,* 15–18, *prof,* 19–27, *agron. and plant genetics and chief div, 28–* Collaborator, div. cereal investigations, bur. plant indust, U. S. Dept. Agr, 16–31; acting prof, Cornell, 32–33; asst, Chinese govt, 36–Adviser, Nat. Agr. Research Bur; adviser to govt. plant breeders in Chile, Cmt. to Develop. Inter-Am. Artistic and Intellectual Relations with S. Am. Republics, 41. A.A. (v. pres. and chairman, O, 34); Soc. Nat; Genetics Soc; Soc. Agron. (pres, 34); Bot. Soc; hon. mem. Soc. Agron. Argentine; hon. mem. Soc. Agron. Chile; Halle Akad. der Naturforscher. Plant genetics; disease resistance; crop improvement.

Hayes, Prof. John B(arry), 2433 Foy Ave, Madison, Wis. *Poultry husbandry.* Madison, Wis, July 21, 91. B.S.A, Wisconsin, 14; Cornell. *Prof. poultry husbandry, Wisconsin, 14–* Poultry Sci. Asn. Approved methods in poultry husbandry.

Hayes, Prof. L(eslie) D(avid), 804 College Ave, Morgantown, W. Va. *Mechanical engineering.* South Strafford, Vt, March 27, 76. B.S, New Hampshire, 97; M.E, Cornell, 08. Instr, pub. schs, 98–07; machine design, Cornell, 07–10, asst. prof, 10–18; mech. engineer, gage sect, Bur. Standards, 17–18; *prof. machine design and construction, West Virginia, 18–, head dept,* 18–37, *mech. eng, 37–* Mech. Eng; Eng. Educ. (v. chairman, Allegheny sect, 40, chairman, 41). Machine drawing of window glass cylinders; empirical design; descriptive geometry; mechanism; design of columns.

Hayes, Dr. Mary H(olmes) S(tevens), Vocational Service for Juniors, 95 Madison Ave, New York, N. Y. *Psychology.* Rochester, N. Y, Feb. 11, 82. A.B, Wisconsin, 04; Ph.D, Chicago, 10. Psychologist, Juvenile Psychopathic Inst, Chicago, 10–11; assoc. psychologist, Lab. of Social Hygiene, 15–18; Army Med. Sch. and Surgeon-Gen. Office, 19–20; indust. consultant, Scott Co, 20–22; U. S. Children's Bur, 22–23; *director, Vocational Service for Juniors, 24–* Director div. youth personnel, Nat. Youth Admin, 35–; lecturer, Northwestern; Columbia. A.A; Psychol. Asn; Personnel Research Federation; Statist. Asn; Vocational Guidance Asn. (pres, 28). Neurology; cutaneous after-sensation; corpus striatum of embryonic rats; mental tests applied to criminal women; industrial personnel; vocational information.

Hayes, Prof. Merlin L(ewis), 623 W. State St, Milwaukee, Wis. *Zoology.* Harmonsburg, Pa, June 24, 08. Ed.B, Akron, 29, A.B, 30; Ph.D, Wisconsin, 36. Asst. biol, Akron, 29–31; zool, *Wisconsin,* 31–35, instr. *zool. and bot, exten. div,* 35–39, *asst. prof, 39–* A.A; Micros. Soc. Protozoology.

Hayes, Dr. N(orman) V(incent), 187 Bay State Road, Boston, Mass. *Physical organic chemistry.* San Francisco, Calif, Oct. 26, 17. B.S, California, 39, Ph.D, 42. Teaching fellow, California, 39–42; *research chemist, Nat. Research Corp, 42–* Chem. Soc. Electronic theory of organic reactions.

Hayes, Prof. Ralph W, Louisiana State University, Baton Rouge, La. *Forestry.* Albert Lea, Minn, Aug. 4, 90. B.S, Iowa State Col, 14, M.F, 24. U. S. Dept. Interior, 15–24; asst. prof. *forestry,* Colo. Agr. Col, 24–26; Louisiana, 26–29; prof, N. C. State Col, 29–34; *prof. and head dept, Louisiana, 34–* Soc. Foresters (sec'y-treas, Gulf States sect, 35, pres, 36). Forest utilization.

Hayes, Prof. S(amuel) P(erkins), Perkins Institution, Watertown, Mass. *Psychology.* Baldwinsville, N. Y, Dec. 17, 74. A.B, Amherst Col, 96; B.D, Union Theol. Sem, 02; A.M, Columbia, 02; fellow, Clark, 02–03; Ph.D, Cornell, 06. Assoc. prof. *psychol, Mt. Holyoke Col,* 06–09, prof, 09–40, *emer. prof, 40–* Director psychol. research, Pa. Inst. Instruction of Blind, 16–; Perkins Institution, 19–, personnel dept, 40–; consultant, Am. Foundation for Blind, 30– Psychol. Asn; Asn. Instructors of Blind. Edwardian revivals; affective qualities; color-blindness; psychology and pedagogy of the blind.

Hayes, Prof. W(illia)m P(atrick), University of Illinois, Urbana, Ill. *Entomology.* Leadville, Colo, June 26, 87. B.S, Kans. State Col, 13, M.S, 18; Ph.D, Cornell, 23. Asst, Exp. Sta, Kans. State Col, 14–18, asst. prof. *entom,* col. and Exp. Sta, 18–24; assoc. prof, *Illinois,* 24–39, *prof, 39–* Instr, Cornell, 22–23. Entom. Soc; Asn. Econ. Entom; Ill. Acad. (v. pres, 30); Kans. Acad. (v. pres, 21). Life histories of insects injurious to staple crops; insect morphology; taxonomy of immature insects.

Hayford, A(rthur) W(ellesley), 163 Chatham Road, Syracuse, N. Y. *Petroleum technology.* Chicago, Ill, May 13, 95. A.B, Chicago, 16; B.S, Illinois, 20. Mem. staff, Procter and Gamble, 20–22; chem. engineer, Darling Co, 22–24; process chemist, Atlantic Ref. Co, 24–27; asst. res. chemist, Shell Petrol. Corp, 27–31; chief chemist, Alco Products Inc, 31–40; *research chemist, Solvay Process Co, 40–* Chem. Soc; Chem. Eng. Petroleum conversion; hydrocarbon derivatives.

Hayhurst, Dr. Emery R(oe), 1925 Concord Road, Columbus, Ohio. *Industrial hygiene.* St. Louis, Mo, June 28, 80. A.B, Illinois, 03, A.M, 05, M.D, 08; Ph.D, Chicago, 16. Instr. physiol, Illinois, 03–08; intern, Cook County Hosp, 08–10; asst. prof. clin. diagnosis and chair of nervous anat, Illinois, 10–13; director occupational disease clinic, Rush Med. Col, Chicago, and fellow, Sprague Mem. Inst, 11–13; asst. prof. hygiene and director dispensaries, Ohio State, 16–20, prof. hygiene and chairman pub. health, 20–31; director and later consultant indust. hygiene, State Dept. Health, Ohio, 13–37; *consultant indust. hygiene and occupational diseases, 37–* Occupational disease surv, Ill, 10; pathologist, univ. hosp, Chicago, 10–13; chief occupational disease surv, Ohio, 13–15; consulting hygienist, U. S. Pub. Health Service, 19–37. Summers, asst. prof. and univ. health officer, Chicago, 16, 17, prof, 29; coal mine surveys, Ill. and Ohio, 18. Assoc. ed, 'Am. Jour. Pub. Health,' 18–34; 'Jour. Indust. Hygiene,' 19–; consulting ed, 'Social Science Abstracts,' 28–; mem. ed. staff, 'Indust. Med.' Cmt. nutrition in industry, Nat. Research Council, 41– Pres, Am. cmt, Int. Cong. on Occupational Diseases, 28–38. A.A; Pub. Health Asn; Am. Med. Asn; Chem. Soc; Asn. Indust. Physicians and Surg; Ohio Acad; Royal Inst. Pub. Health. Occupational diseases and pathology; industrial health surveys; brass, zinc, painting, lead and coal

mining industries; altitude; respiration; fatigue; hematology; osteitis deformans; asphyxial gases; geochemistry of goiter; silicosis; refrigerants; personal health; diet; air conditioning; volatile solvents.

Haymaker, Dr. C(lifford) R(obert), 2536 N. Grant Blvd, Milwaukee, Wis. *Chemistry.* Milwaukee, Wis, Nov. 8, 07. B.S, Marquette, 29, fellow, 29–38, M.S, 32, Ph.D, 38. *Instr. chem, Marquette, 38–* A.A; Chem. Soc. Atomic nuclei; natural and artificial nuclear disintegrations.

Haymaker, Prof. H(erbert) H(enley), 315 N. 16th St, Manhattan, Kans. *Botany.* Wichita, Kans, Nov. 28, 92. B.S, Kans. State Col, 15; M.S, Wisconsin, 16, Ph.D, 27. From instr. to *prof. plant path, Kans. State Col, 17–* Summer, field asst, U. S. Dept. Agr, 17. Plant pathology.

Haymaker, Dr. Webb, University of California Hospital, San Francisco, Calif. *Neuroanatomy.* Washington, D. C, June 5, 02. M.D, Med. Col. State of S. C, 28; fellow, Montreal Neur. Inst, McGill, 34–35, M.Sc, 35. Clerk neur, Nat. Hosp, London, 35–36; *asst. clin. prof. neur. and lecturer neuroanat, California, 36–; capt, Med. Corps, U. S. Army, 42–* Am. Med. Asn. Tissue culture of brain; anatomy of hypothalamus; adrenal and Cushing's disease.

Hayman, Prof. J(oseph) Lester, 325 Ash St, Morgantown, W. Va. *Pharmacy.* Whitesville, Del, June 3, 96. Ph.C, Michigan, 19, B.S, 19, M.S, 25. Instr. *pharmacy, West Virginia,* 19–21, asst. prof, 21–29, assoc. prof, 29–35, *prof, 35–,* director, 36, dean, 38. Pres, Conf. Pharmaceut. Asn. Sec'ys, 33, sec'y, 37. Pharmaceut. Asn. (2nd v. pres, 35); W. Va. Pharmaceut. Asn. (sec'y-treas, 25–). Chemistry.

Hayman, Prof. J(oseph) M(archant), Jr, Lakeside Hospital, Cleveland, Ohio. *Medicine.* Philadelphia, Pa, June 25, 96. A.B, Haverford Col, 18; M.D, Pennsylvania, 21. Instr. pharmacol, Pennsylvania, 23–28, asst. prof. pharmacol. and assoc. med, 28–29; assoc. prof. med, *Western Reserve,* 29–39, *prof. clin. med. and therapeut, 39–* Am. Med. Asn; Am. Physicians; Soc. Pharmacol; Physiol. Soc; Soc. Clin. Invest. (sec'y, 36–38, v. pres, 42). Physiology and disease of the kidney; chronic nephritis.

Hayner, Dr. Lucy J(ulia) (Mrs. Bernhard Kurrelmeyer), Columbia University, New York, N. Y. *Physics.* Haynersville, N. Y, Jan. 15, 98. A.B, Columbia, 19, A.M, 20, Barnard fellow, 24–25, Ph.D, 25. Research physicist, Gen. Elec. Co, 25–28; asst. *physics, Columbia,* 20–25, 29–31, instr, 31–40, *assoc, 40–* Physical Soc. Resonance radiation in mercury vapor; recombination spectrum in mercury; shot effect of secondary electrons; dielectric constants of gases; persistence of radiation in mercury vapor arc.

Haynes, C(aroline) C(oventry), Portland Road, Highlands, N. J. *Botany.* New York, N. Y, April 13, 58. Student, N. Y. Bot. Garden, 02–07, 09–10. Taxonomy of some of the Hepaticae; Hepaticae of the United States, Canada and Arctic America; check lists.

Haynes, Dr. E(dith), 2035 N. Meridian St, Indianapolis, Ind. *Bacteriology.* Norwich, Kans. Nov. 18, 92. A.B, Col. of Emporia, 15; A.M, Wisconsin, 21, Ph.D, 27. Asst. agr. bacter, Wisconsin, 21–24, instr, 24–27; *bacteriologist, med. center, Indiana, 27–* A.A; Soc. Bact. Anaerobes; hemolytic streptococci in milk; suipestifer bacillus infections in humans; dysentery; therapeutic use of pectin; concentration of sputum.

Haynes, Prof. E(li) S(tuart), University of Missouri, Columbia, Mo. *Astronomy.* Trenton, Mo, July 12, 80. A.B, Missouri, 05, A.M, 07; fellow, California, 11–12, Ph.D, 13, Asst. math, Missouri, 05–06, Gould asst, Laws Observatory, 06–07, asst. astron, 07–08, instr, 08–11, in charge, 09–11; instr. *astron,* California, 12–13, Kellogg fellow, Lick Observatory, 13–14; assoc. prof, Beloit Col, 14–15, *prof,* 15–23; *Missouri, 23–* Trustee, Christian Col, 37– A.A; Astron. Soc. Stellar photometry and spectroscopy; orbits of comets and asteroids.

Haynes, Dr. Florence W(allace), 306 Riverway, Boston, Mass. *Medicine.* Townsend, Mass, Aug. 1, 06. A.B, Mt. Holyoke Col, 29; A.M, Radcliffe Col, 31, Ph.D, 33. Asst. research in physiol, sch. med, Yale, 29–30; Thorndike Mem. Lab, Boston City Hosp, 32–39; *research fellow, Harvard Med. Sch, 39–* Physiol. Soc; New Eng. Heart Asn. Normal and pathological physiology of the circulation including hemodynamics and hypertension and also on vitamin B_1 and the endocrines.

Haynes, Prof. F(red) B(rown), Virginia Polytechnic Institute, Blacksburg, Va. *Physics.* Greeneville, Tenn, Sept. 5, 01. A.B, Tusculum Col, 21; M.S, Chicago, 22; Ph.D, Virginia, 37. Asst. prof. *physics, Va. Polytech,* 22–29, assoc. prof, 29–37, *prof, 37–* Radio; thermionics; isotopes.

Haynes, Dr. Irving S(amuel), Plattsburg, N. Y. *Surgery.* Saranac, N. Y, Aug. 29, 61. Ph.B, Wesleyan, 85; M.D, N. Y. Univ, 87. Intern, Bellevue Hosp, 87–88; demonstrator anat, N. Y. Univ, 89–94, adj. prof, 94–98; visiting surgeon, Harlem and Red Cross Hosps, 95–28; prof. *applied anat, med. col, Cornell,* 98–26, *emer. prof, 26–; supt, Physicians Hosp, Plattsburg, 31–* Asst. attending surgeon, Chambers St. Hosp, 88–90; N. Y. Orthop. Hosp, 91–99. Am. Med. Asn; N. Y. Surg. Soc; N. Y. Acad. Med. Anatomy.

Haynes, Dr. Nola Anderson (Mrs. Eli Stuart Haynes), University of Missouri, Columbia, Mo. *Mathematics.* Bucklin, Mo, Jan. 9, 97. B.S, Missouri, 22, A.M, 26, Ph.D, 29. Teacher, high sch. and junior col, Mo, 22–25; instr. *math,* Missouri, 28–30; assoc. prof, Newcomb Col, Tulane, 30–36, prof, 36–38; *special instr, Missouri, 43–* Math. Soc; Math. Asn. Differential geometry.

Haynes, Prof. Sherwood K(imball), Brown University, Providence, R. I. *Physics.* Dorchester, Mass, April 7, 10. A.B, Williams Col, 32; Ph.D, Calif. Inst. Tech, 36. Teaching fellow, Calif. Inst. Tech, 33–36; instr. physics, Williams Col, 36–39; French science fellow, Inst. Int. Educ, 39–40; *asst. prof. physics, Brown, 40–* Asn. Physics Teachers; Physical Soc. Cosmic ray intensities in the stratosphere; low leakage condensers and resistivities of insulators; nuclear physics.

Haynes, Dean Walter, 1540 S.E. 32nd Ave, Portland, Oregon. *Engineering.* Ind, May 11, 80. B.S, Stanford, 07, E.E, 08; M.S, Mass. Inst. Tech, 15, Harvard, 16. Instr, Portland Manual Training Sch, 00–01; Portland Y.M.C.A, 01–03, prin. elec. and radio schs, 11–14, 16–18; construction foreman, Portland Ry. Light and Power Co, 08–11; *dean eng, Oregon Inst. Tech, 19–* Capt, C.Eng, 18–19. Elec. Eng; Soc. Mil. Eng; Nat. Asn. Power Eng; Professional Eng. Oregon (past v. pres, pres, 30). Oscillatory circuits; radio antennas; electrical testing; electrical transmission of power.

Haynes, Dr. Winthrop P(errin), 30 Rockefeller Plaza, New York, N. Y. *Geology.* Hyde Park, Mass, Sept. 6, 87. A.B, Harvard, 10, A.M, 12, Ph.D, 14. Asst. geol, Harvard, 08–16; instr, Radcliffe Col, 11–14; Wellesley Col, 14–16; asst. prof, Kansas, 16–18, assoc. prof, 19–20; geologist and chief of party, *Standard Oil Co. of N. J,* Mex, 20–21, chief geologist, Europe, 22–36, *geologist, for. producing dept, New York, 36–* Shaler mem. exped. to S. Amer, 08; instr. in charge, Harvard Summer Sch. geol, expeds, Mont, 13, N.B. and Que, 14, Colo, 16. 2nd lieut, A.S, 18–19. A.A; fel. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Paleont. Soc; fel. Am. Geog. Soc; Min. and Metal. Eng. Structural, stratigraphic and economic geology.

Hays, Dr. E(dwin) E(verett), 1402 S. Grand Blvd, St. Louis, Mo. *Biochemistry.* Denver, Colo, Oct. 28, 15. B.S, Denver, 37; M.S, Colorado, 39; Ph.D, Chicago, 42. Asst. *biochem,* Colorado, 37–39; Chicago, 39–42; *instr, sch. med, St. Louis, 42–* A.A. Anti-pernicious anemia principle; thyrotropic and gonadotropic hormones of the pituitary; iodine metabolism.

Hays, Prof. Frank A(lfred), Oneacre, Amherst, Mass. *Poultry husbandry.* Beaver, Okla, Jan. 29, 88. B.S, Okla. Agr. and Mech. Col, 08; A.M, Nebraska, 12; Ph.D, Iowa State Col, 17. Prof. biol, Lenox Col, 12–15; animal husbandry, Delaware, 17–19; Wyoming, 19–22; *research prof. poultry investigations,* Mass. Col, 22–31, *Mass. State Col, 31–* Research prize, Am. Poultry Science Asn, 30. A.A; Poultry Sci. Asn; Soc. Animal Production; Poultry Sci. Asn; Soc. Zool; Genetic Asn. Animal nutrition; genetics and breeding; genetics of fecundity in domestic fowl.

Hays, Dr. John T(homas), Hercules Powder Co, Wilmington, Del. *Organic chemistry.* Ozark, Mo, Nov. 25, 14. B.S, Mont. State Col, 35; Rhodes scholar, Oxford, 35–38, B.A. and B.Sc, 38; Ph.D, Calif. Inst. Tech, 42. Teaching fellow chem, Calif. Inst. Tech, 38–42; *research chemist, exp. sta, Hercules Powder Co, 42–* Chem. Soc. Carbohydrates; amino acids; pyridine compounds; ethylene sulfide; polymers; synthetic rubber; nerve muscle relations.

Hays, Margaret B(lanche), U. S. Department of Agriculture, Beltsville, Md. *Physics.* Swissvale, Pa, May 27, 02.

A.B, Oberlin Col, 24; M.S, Pittsburgh, 25; fellow, Bryn Mawr Col, 27–29. Instr. physics and math, Hollins Col, 26–27; asst. textile physicist, *bur. home econ, U. S. Dept. Agr*, 29–35, assoc. textile physicist, 35–39, *textile physicist, 39–* Home Econ. Asn; Soc. Test. Mat. (cmt. textile mat); Physical Soc. Textile physics; physical properties of textile fabrics.

Haythorn, Dr. Samuel R(eese), Singer Research Laboratories, Pittsburgh, Pa. *Pathology.* Danville, Ill, Sept. 10, 80. M.D, Michigan, 04. Asst. path. and gynec, Michigan, 04–06; pathologist, Mass. State Hosp, 06–08; intern and asst, Boston City Hosp, 08–09; asst. path, Harvard Med. Sch, 09–10; instr, Pittsburgh, 10–11, asst. prof, 11–13; pathologist, Allegheny Gen. Hosp, 13–15; *director, Singer Research Labs*, 15–21, *23–* Fellow, Pittsburgh, 12–13, prof, sch. med, 21–33, director hygiene, 21–26, prof, 26–33. Mem. advisory board, State Dept. Health, Pa, 23–31. A.A; Asn. Path. and Bact. (councilor, 37–; pres, 41); Soc. Exp. Path. (councilor, 28–32, pres, 32); Soc. Exp. Biol; Am. Med. Asn; Col. Physicians; Allegheny County Med. Soc. (chairman board directors, 34–38; pres, 42–); Pittsburgh Acad. Med. (pres, 27); Int. Asn. Med. Mus. (councilor, 36–; pres, 42). Histological effects of smoke; tuberculosis; trinitrotoluene poisoning; preventive medicine; neoplastic diseases; myotic and foreign body granulomas; silicosis.

Hayward, Prof. Carle R(eed), Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy.* Yankton, S. Dak, Oct. 27, 80. B.S, Mass. Inst. Tech, 04. Instr. science, Bellows Acad, Fairfax, Vt, 04–06; mining eng. and metal, *Mass. Inst. Tech*, 06–10, asst. prof, 10–20, assoc. prof. metal, 20–38, *prof. process metal, 38–* Min. and Metal. Eng. (chairman, Boston sect, 25); British Inst. Metals. Non-ferrous metallurgy.

Hayward, Prof. C(harles) Lynn, Brigham Young University, Provo, Utah. *Animal ecology.* Paris, Idaho, July 16, 03. B.S, Brigham Young, 27, M.S, 31; California, 35; Ph.D, Illinois, 42. Instr. *zool, Brigham Young*, 31–39, *asst. prof, 39–* Asst, Illinois, 38–39. Ecol. Soc; Ornith. Union; Soc. Mammal. Biotic communities of Mt. Timpanogos and the Uinta Mountains, Utah.

Hayward, Dr. H(erman) E(liot), Regional Salinity Laboratory, U. S. Department of Agriculture, Riverside, Calif. *Morphology, Plant anatomy.* Somerville, Mass, April 23, 92. A.B, Minnesota, 16; M.S, Chicago, 25, Ph.D, 28. Instr. biol, Wis. State Teachers Col, River Falls, 17–26; bot, Chicago, 26–27, asst. prof, 27–28, assoc. prof, 28–30, prof, 30–38; agent, *U. S. Dept. Agr*, 39–40, *senior plant anatomist, regional salinity lab, bur. plant indust, 40–* A.A; Bot. Soc; Soc. Hort. Sci; Soc. Plant Physiol; Colo-Wyo. Acad. Plant ecology; anatomy of economic plants; physiological anatomy; salinity in relation to plant behavior.

Hayward, Dr. J(ames) W(illiam), 5205 Second Ave, S, Minneapolis, Minn. *Agriculture.* Angola, Ind, July 20, 98. B.S.A, Purdue, 21; M.S, Notre Dame. 28; Ph.D, Wisconsin, 35. Assoc. prof. agr, Notre Dame, 21–25, prof. and head dept, 25–32; *director nutritional research, Archer-Daniels-Midland Co, 35–* Poultry genetics and nutrition; animal nutrition.

Haywood, Prof. Charlotte, Mt. Holyoke College, South Hadley, Mass. *Physiology.* Lynn, Mass, Jan. 14, 97. A.B, Mt. Holyoke Col, 19; A.M, Brown, 22; Ph.D, Pennsylvania, 27. Asst. biol, Brown, 19–21; instr. *physiol*, Mt. Holyoke Col, 21–24; asst. prof, Vassar Col, 27–30; assoc. prof, *Mt. Holyoke Col*, 30–41, *prof, 41–* Research, Pennsylvania, 34–35. Summers, Marine Biol. Lab, Woods Hole, 25, 26, 31, 33–35, 37, 39–42; Bergens Museum, Biol. Sta, Herdla, Norway, 36. A.A; Physiol. Soc. Cell physiology; effects of carbon dioxide and of low oxygen tensions on cells; permeability of liver; physiology of fishes.

Hazard, Prof. C(lifton) T(errell), Purdue University, Lafayette, Ind. *Mathemutics.* Wilmington, Ohio, Jan. 9, 85. B.S, Wilmington Col, 06; A.M, Indiana, 13; Chicago, summers, 16, 17. Instr. *math*, Wilmington Col, 06–11; Pennsylvania, 12–13; *Purdue*, 13–20, asst. prof, 20–27, assoc. prof, 27–42, *prof, 42–* Math. Soc; Math. Asn.

Hazard, Daniel L(yman), Narragansett, R. I. *Terrestrial magnetism.* Narragansett Pier, R. I, Aug. 26, 65. A.B, Harvard, 85. Computer, Mass. Topog. Surv. Cmn, 89–92; U. S. Coast and Geod. Surv, 92–36, asst. chief, div. terrestrial magnetism and seismol, 18–31, chief magnetician, 31–36; *retired.* A.A; Seismol. Soc; Geophys. Union (past chairman, sect. terrestrial magnetism); Wash. Soc. Eng; Philos. Soc. Wash. (pres, 24); Wash. Acad. (v. pres, 24). The earth's magnetism; directions for magnetic measurements; United States and Alaska magnetic tables and charts.

Hazard, Prof. Frank O(rlando), Wilmington College, Wilmington, Ohio. *Protozoology.* Wilmington, Ohio, Aug. 3, 05. A.B, Wilmington Col, 27; M.S, Ohio State, 29, Ph.D, 37. *Prof. biol, Wilmington Col, 29–, head dept, 37–* Summers, prof, Whittier Col, 36, 38. A.A; Asn. Biol. Teachers; Soc. Parasitol; fel. Ohio Acad. Ecology of the Opalinid protozoa.

Hazard, Dr. Katharine E(lizabeth), Wellesley College, Wellesley, Mass. *Mathematics.* Lafayette, Ind, July 15, 15. B.S, Purdue, 36, M.S, 37; Ph.D, Chicago, 40. *Instr. math*, Winthrop Col, 40–41; *Wellesley Col, 41–* Math. Soc. Calculus of variations.

Hazard, William J, 1001 Tenth St, Boulder, Colo. *Electrochemistry.* Fond du Lac, Wis, Nov. 6, 72. E.E, 97. Instr. mech. drawing, Colo. Sch. Mines, 97–04, asst. prof. elec. eng, 04–10, prof, 10–18; research engineer, Herold China and Pottery Co, 18–20; asst. prof. math, Colorado, 30–41; *retired.* Elec. Eng; Math. Soc. Porous diaphragms.

Hazel, Dr. Herbert (Carroll), 102 White St, Shrewsbury, N. J. *Physics.* Harrodsburg, Ind, Sept. 26, 99. A.B, Indiana, 22, A.M, 26, Ph.D, 33. Critic teacher physics, Indiana, 26–37, asst. prof, 37–38; dean, Ashland Junior Col, 38–41; radio engineer, Sig. Corps at Large, U. S. War Dept, 41–43; *major, U. S. Marine Corps, 43–* Teacher, high sch, Ind, 26–37. Measurement of radio frequency current; combinational tones and sidebands; high school physics.

Hazel, Prof. J(ames) F(rederic), University of Pennsylvania, Philadelphia, Pa. *Chemistry.* Carrollton, Mo, Oct. 2, 05. A.B, Kansas, 28; Ph.D, Wisconsin, 31. Asst. *chem*, Wisconsin, 28–31, instr, 31–37; *asst. prof, Pennsylvania, 37–* Chem. Soc. Electrokinetics; the stability of colloidal systems.

Hazel, Dr. L(anoy) N(elson), U. S. Department of Agriculture, Dubois, Idaho. *Genetics, Animal husbandry.* Shannon, Texas, April 23, 11. B.S, Texas Tech. Col, 33; M.S, Agr. and Mech. Col. Texas, 38; Ph.D, Iowa State Col, 41. Instr. genetics, Agr. and Mech. Col. Texas, 38–39; agent, *U. S. Dept. Agr*, Nebr, 41–42, *asst. animal husbandman, sheep exp. sta, 42–* Genetic improvement of domestic animals.

Hazeltine, Prof. Burt A(lden), Middlebury College, Middlebury, Vt. *Mathematics.* Somerville, Mass, Dec. 17, 90. B.S, Tufts Col, 13; Boston, 23–24; A.M, Columbia, 31; Harvard, 38–39. Instr. *math*, Mass. State Col, 13–17; prof, Rollins Col, 19–20; Walker instr, Tufts Col, 20–21; head dept, high sch, Mass, 21–24; from instr. to *prof, Middlebury Col, 24–*, dean men's col, 25–38. Exchange prof, Robert Col. (Istanbul), 35–36. Ensign, U. S. Navy, 17–19. Math. Asn. Fourier's series.

Hazeltine, Prof. (Louis) Alan, Stevens Institute of Technology, Hoboken, N. J. *Mathematics, Physics.* Morristown, N. J, Aug. 7, 86. M.E, Stevens Inst. Tech, 06, hon. Sc.D, 33; A.M, Columbia, 38. Tester, Gen. Elec. Co, 06–07; asst. elec. eng, *Stevens Inst. Tech*, 07–08, instr, 08–13, asst. prof, 13–17, *prof*, 17–25, math, 32–38, *physics, 38–* Armstrong medal, Radio Club, 37. Consulting engineer, Navy Yard, 18–19. A.A; Math. Soc; Math. Asn; Elec. Eng; Radio Eng. (pres, 36); Physical Soc; Eng. Educ; Optical Soc; Asn. Physics Teachers. Electron tubes and circuit; neutrodyne radio receiver; operational calculus; new methods of presenting basic physics and mathematics.

Hazen, Prof. H(arold) L(ocke), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Philo, Ill, Aug. 1, 01. B.S, Mass. Inst. Tech, 24, M.S, 29, Sc.D, 31. Gen. Elec. Co, 24–25; asst. *Mass. Inst. Tech*, 25–26, instr, 26–31, asst. prof. *elec. eng*, 31–36, assoc. prof, 36–38, *prof. and head dept, 38–; lieut. commander, U. S. Naval Res.* Exchange prof, Ohio State, 34–35. Levy medal, Franklin Inst, 35. Elec. Eng; Eng. Educ; Am. Acad. Instrumental calculation; automatic control devices.

Hazen, Prof. Leslie Eugene, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agricultural engineering.* Centralia, Kans, Nov. 8, 84. B.S. (Agr), Kans. State Col, 06; M.E, Cornell, 16. Field agent, dry land agr, 06–08; instr. agr. and science, South. Kans. Acad, Eureka, 09–10; with U. S. Dept. Agr, 11–13; instr. and asst. prof. farm mech, Cornell, 13–17; *prof. agr. eng*, Rutgers, 18; *Okla. Agr. and Mech. Col, 19–* Fireproof materials for farm use; farmstead design, planning and development.

Hazlehurst, Dr. J(ack) H(arris), 111 W. Jackson Blvd, Chicago, Ill. *Psychology.* Dallas, Texas, Jan. 5, 04. B.S, Illinois, 26; M.B.A, Northwestern, 32, Ph.D, 40. *Pres, Pub. Utilities Service Corp, 28–; training consultant, Office Chief of Ordnance, 42–; War Manpower Cmn, 42–* Director research, Personnel Inst, 35–; special lecturer, Northwestern, 36–39; director research, Investment Eng. Corp, 41–; director and research consultant, Chain Store Products Co, 40– Mem. war training cmt, Ill. Inst. Tech, 41– Assoc. Psychol. Asn; fel. Asn. Applied Psychol. Aptitude testing; industrial training; marketing.

Hazlehurst, Prof. T(homas) H(uger), Jr, Lehigh University, Bethlehem, Pa. *Physical chemistry.* Corinth, Miss, March 11, 06. A.B, Col. of Charleston, 23; Ph.D, Hopkins, 27. Asst. chem, Col. of Charleston, 21–22, physics, chem. and English, 22–23; *chem,* Hopkins, 26–27; instr, *Lehigh,* 27–30, asst. prof, 30–39, *assoc. prof, 39–* Chem. Soc. Thermodynamics; second law of thermodynamics.

Hazlet, Prof. Stewart E(merson), State College of Washington, Pullman, Wash. *Organic chemistry.* Freeport, Ill, Feb. 4, 10. A.B, Dubuque, 31; M.S, Iowa, 33, Ph.D, 35. Asst, Iowa, 31–35; instr. *chem,* George Washington, 35–36; *State Col. Wash,* 36–41, *asst. prof, 41–* Summers, instr, Dubuque, 31; Illinois, 36. Chem. Soc. (chairman Wash-Idaho border sect, 39, councilor, 40); Northwest Sci. Asn. (chairman math-physics-chem. sect, 41); Iowa Acad. Amides of benzenesulfinic and benzenesulfonic acids; sulfonic acid esters; substitution in esters containing diphenyl groups; crossed Cannizzaro reactions; derivatives of phenothiazine.

Hazleton, Prof. Lloyd W(alter), George Washington University, Washington, D. C. *Pharmacology.* Chelan Falls, Wash, Feb. 4, 11. B.S, Washington (Seattle), 33, M.S, 37, Ph.D, 39. Instr. *pharmacol,* med. sch, Georgetown, 39–40; *asst. prof, sch. pharmacy, George Washington, 40–* Pharmaceut. Asn; assoc. Soc. Exp. Biol. Cathartic drugs; central nervous system stimulants and depressants.

Hazlett, Prof. Olive C(lio), University of Illinois, Urbana, Ill. ***Mathematics.* Cincinnati, Ohio, Oct. 27, 90. A.B, Radcliffe Col, 12; M.S, Chicago, 13, Ph.D, 15. Assoc. *math,* Bryn Mawr Col, 16–18; asst. prof, Mt. Holyoke Col, 18–24, assoc. prof, 24–25; asst. prof, *Illinois,* 25–29, *assoc. prof, 29–* A.A; Math. Soc. (assoc. ed, 'Trans,' 22–35, councilor, 26–29); Math. Asn; London Math. Soc; Deuts. Math. Verein; Circolo Mat. di Palermo. Linear algebras; modular invariants.

Hazlewood, Prof. Emmett (Allen), Box 129, Route 5, Orlando, Fla. *Applied mathematics.* Coke Co, Texas, Sept. 13, 03. B.S, W. Texas State Teachers Col, 28; A.M, Cornell, 31, Ph.D, 36. Instr. math. and physics, W. Texas State Teachers Col, 28–29; asst. physics, Cornell, 29–34; asst. prof. *math,* N. Mex. Col, 36–38; instr, Pa. State Teachers Col, Mansfield, 38–39; asst. prof, *Texas Tech. Col,* 39–41, *assoc. prof, 41–* Summers, instr, N. Texas State Teachers Col, W. Texas State Teachers Col, San Antonio, Sul Ross State Teachers Col, Texas. Math. Asn; Asn. Physics Teachers. Crystallography.

Hazzard, Dr. A(lbert) S(idney), Institute for Fisheries Research, University of Michigan, Ann Arbor, Mich. *Zoology.* Buchanan, N. Y, July 30, 01. A.B, Cornell, 24, Ph.D, 31. Instr. zool, Cornell, 24–31; assoc. aquatic biologist, Bur. Fisheries, 31–35; *director, Inst. for Fisheries Research, State Dept. Conservation, Mich, 35–* Investigator, N. Y. Biol. Surv, 26–30. A.A; Fisheries Soc; Ecol. Soc; Limnol. Soc; Mich. Acad. Fresh-water fisheries; fish ecology.

Hazzard, Prof. James W(illiam), Jr, Southern University and Agricultural and Mechanical College, Scotlandville, La. *Morphological zoology.* Gainesville, Fla, Sept. 18, 05. B.S, Clark, 29; M.S, Iowa, 36; Ph.D, Cornell, 40. Instr. *biol,* New Orleans, 29–32; *prof. and head dept,* Ark. State Col, 32–40; *South. Univ. and Agr. and Mech. Col, 40–* A.A; Am. Geog. Soc. The evolution of the morphology of limbs; plant genetics.

Hazzard, Dr. John C(harles), 4142 Davana Road, Sherman Oaks, Calif. *Petroleum geology.* Whittier, Calif, Oct. 22, 03. A.B, California, 28, A.M, 31; Ph.D, Southern California, 37. Teaching asst. geol, California, 28–32; temporary field geologist, State Div. Mines, Calif, 30–37; instr. geol. and geog, Ventura Junior Col, 35–37; *geologist, Union Oil Co. of Calif,* 37– Summers, asst. field geologist to Dr. Robert Thomas Hill, 27; City Dept. Water and Power, Los Angeles, 28; West. Gulf Oil Co, 29. Asn. Petrol. Geol; Paleont. Soc. Paleozoic stratigraphy; Cambrian stratigraphy in southeastern California and southern Nevada; geology of portions of San Bernardino County, California.

H'Doubler, Dr. F(rancis) T(odd), Medical Arts Bldg, Springfield, Mo. *Surgery.* Beloit, Kans, April 22, 87. Beloit Col, 03–05; A.B, Wisconsin, 07, scholar, 07–08, A.M, 08, fellow, 08–10, Ph.D, 10; M.D, Harvard, 15. Assoc. prof. math, Miami (Ohio), 10–11; intern, Augustana Hosp, Chicago, 15, 17; Peter Bent Brigham Hosp, Boston, 16–17; Moseley traveling fellow from Harvard Med. Sch, Switzerland and Sweden, 20; res, Lakeside Hosp, Cleveland, 21; surg. res, Augustana Hosp, Chicago, 21, junior attending surgeon, 22. 23; instr. path. and asst. surg, col. med, Illinois, 21–23; *practising surgeon, 23–* Mem. Am. Board Surg. Capt, M.C, 18. A.A; Col. Surg; Am. Med. Asn; Asn. Study Goiter; Asn. Study Int. Secretions; Math. Soc; Math. Asn; South. Med. Soc; Mo. Acad. (v. pres). Thyroid and spleen.

Head, Dr. Geo(rge) Douglas, Medical Arts Bldg, Minneapolis, Minn. *Medicine.* Elgin, Minn, Sept. 10, 70. B.S, Minnesota, 92, M.D, 96; Hopkins, 98–00; Vienna, 03; Edinburgh, 09. Asst. med, *Minnesota,* 97, instr. clin. med. and micros, 98–02, prof, 02–09, *assoc. prof. med, 09–* A.A; Am. Med. Asn; Minn. Acad. Med. (pres, 16). Diagnostic value of tuberculin; relation of experimental eosinophilia to protein sensitization.

Head, R(oyden) E(dward), 2697 S. 15th East St, Salt Lake City, Utah. *Metallurgy.* Denver, Colo, Aug. 22, 79. Metal. asst, mineralogist and later *microscopist, U. S. Bur. Mines, 14–* Min. and Metal. Eng; Utah Acad. Microscopic methods and technique of ore dressing microscopy; microscopy of ores, minerals and mill products.

Headlee, Dr. A(lvah) J(ohn) W(ashington), R. D. 4, Morgantown, W. Va. *Chemistry.* Spraggs, Pa, April 16, 02. B.S, Waynesburg Col, 24; M.S, West Virginia, 30, Ph.D, 32. Prin, high sch, Pa, 24–28; asst, West Virginia, 29–34; coal chemist, 34–35; *gas chemist, Pub. Service Cmn. and W. Va. Geol. Surv, 35–* Chem. Soc. General chemistry; ethylene oxide; natural gases of West Virginia; characteristics of West Virginia coals; roof rock classification; gas conditioning.

Headlee, Dr. T(homas) J, New Jersey Experiment Station, New Brunswick, N. J. *Entomology.* Headlee, Ind, Feb. 13, 77. A.B, Indiana, 03, A.M, 04; Ph.D, Cornell, 06. Teacher, grade and high schs, 95–02; asst. entomologist, Exp. Sta, New Hampshire, 06–07, assoc. entomologist, 07; prof. entom. and zool, Kans. State Col, and entomologist, Exp. Sta, 07–12; *prof. entom, Rutgers, and entomologist, Exp. Sta, 12–; state entomologist, N. J. Exp. Sta, 12–* Pres, East. Plant Board, 25–36. Bronze medal, Rutgers, 35. A.A. (councilor, 20–24); Entom. Soc; Asn. Econ. Entom. (rep, Nat. Research Council, 24–26, pres, 29); hon. mem. N. J. Hort. Soc. Insect control; insecticides; insect physiology, especially the effect of electromagnetic vibration.

Headlee, Prof. William Hugh, Indiana University School of Medicine, Indianapolis, Ind. *Parasitology.* Morristown, Ind, June 15, 07. A.B, Earlham Col, 29; Rockefeller Foundation scholar, Illinois, 32–33, M.S, 33; Rockefeller Foundation fellow, Tulane, 33–34, Ph.D, 35; Army Med. Sch, 43. Instr. biol, American Univ, Cairo, Egypt, 29–31; asst, int. health div, Rockefeller Foundation, Cairo, 30–32; asst. prin. and instr. algebra, hist. and physical geog, Friendsville Acad, Tenn, 33–34; instr. biol, Purdue, 35–42, *asst. prof.* zool, 42–43; *parasitol, sch. med, Indiana, 43–* Biologist and parasitologist, Nat. Ministry Educ, Venezuelan Govt, 37–38; head dept. biol, Nat. Pedagogic Inst, Caracas, 37–38. Summer, ranger naturalist, Yellowstone Nat. Park, 39. A.A; Soc. Parasitol; Soc. Trop. Med; Pub. Health Asn; Ind. Student Health Asn; Ind. Audubon Soc; Ind. Acad. Epidemiology of human ascariasis and other human parasitic infections.

Headley, F(rank) B(urdette), 432 Court St, Reno, Nev. *Agriculture.* Hector, Minn, July 17, 78. Route statistician, Minnesota, 04–05; supt, San Antonio exp. farm, U. S. Dept. Agr, 06–07, sci. asst, 08–09; supt, Newlands Exp. Farm, Nev, 09–25; *chief dept. farm develop, Nevada, 25–* A.A; Dairy Sci. Asn; Farm Econ. Asn; West. Farm Econ. Asn. (pres, 28); Astron. Soc. Nev. Effect on plant growth of sodium salts in soil; quality of irrigation water in relation to land reclamation; cost of production of crops and live stock in Nevada; feeding experiments with livestock; farm organization and management.

Headrick, Dr. Lewis B(arnard), RCA Manufacturing Co, Harrison, N. J. *Physics.* Chattanooga, Tenn, June 6, 04.

B.S, Chattanooga, 26; M.S, Michigan, 28, Ph.D, 30. Asst. physics, Chattanooga, 23–26; Michigan, 26–27, eng. research, 27–30; research physicist, West. Elec. Co, 30–31; RCA Radiotron Co, *Harrison, N. J*, 31–35, radiotron div, *RCA Mfg. Co*, 35–42, *manager cathode ray tube eng. div, RCA Victor div*, 42– A.A; Physical Soc. Collision phenomena in electrical discharges in gas mixtures; band spectrum of carbon-monoxide in the vacuum region; electron optics of cathode ray tubes; secondary emission characteristics of luminescent materials.

Heal, Dr. Ralph E(dward), 3 Bartlett St, New Brunswick, N. J. *Economic entomology.* Corunna, Ont, Can, Oct. 15, 07. B.S.A, Ont. Agr. Col, 34; M.Sc, Rutgers, 35, fellow, 35–42, Ph.D, 42. *Senior entomologist, Merck and Co, Inc*, 42– Asn. Econ. Entom. Development of insecticides.

Heald, Dr. A(lfred) M(attson), 1911 Roosevelt St, Wausau, Wis. *Chemistry.* Peoria, Ill, June 1, 12. A.B, Grinnell Col, 33; M.S, Lawrence Col, 37, Ph.D, 39. *Research and develop. chemist, tech. dept, Marathon Paper Mills Co, 39–* Colloidal behavior of soap-starch systems; development of moisture-proof and greaseproof packages for food products; pulp and paper technology.

Heald, Prof. F(rederick) D(eForest), State College of Washington, Pullman, Wash. **²Botany.* Midland City, Mich, July 23, 72. B.S, Wisconsin, 94, fellow, 94–96, M.S, 96; Ph.D, Leipzig, 97. Prof. biol, Parsons Col, 97–03; adj. prof. plant physiol, Nebraska, 03–05, assoc. prof. bot, sch. agr, 05–06, prof. agr. bot, 06–08; bot, Texas, 08–12; pathologist, Chestnut Tree Blight Cmn, Pa, and agent forest path, U. S. Dept. Agr, 12–14; prof. *plant path, State Col. Wash*, 15–41, *emer. prof, 41–*, head dept, 18–41, pathologist, *Exp. Sta*, 15–41, *emer. pathologist, 41–* Collaborator, bur. plant indust, U. S. Dept. Agr, 05–08, expert, 09, collaborator, 15–; state botanist and assoc. chief, State Insect Pest and Plant Disease Bur, Nebr, 07–08. Summer, instr, Wisconsin, 94. Assoc. ed, 'Phytopath,' 11–17, 19–21, 30–33. A.A; Soc. Nat; Bot. Soc; Forestry Asn; Phytopath. Soc. (pres, 32); Micros. Soc. (pres, 12); Torrey Bot. Club; Northwest Sci. Asn. (sec'y, 23, sec'y-treas, 25); Wash. State Hort. Soc. Plant pathology; diseases of apples and pears; bunt and other cereal troubles; tomato, potato and asparagus diseases; bud-rot of carnations and stunt of Delphinium; chestnut tree blight and other tree diseases; disease survey of Austin-San Antonio area; non-pathogenic fungi.

Heald, Pres. H(enry) T(ownley), 3300 Federal St, Chicago, Ill. *Civil engineering.* Lincoln, Nebr, Nov. 8, 04. B.S, State Col. Wash, 23; M.S, Illinois, 25. Asst. engineer, U. S. Bur. Reclamation, Oregon, 23–24; struct. designer, bridge dept, Ill. Cent. R. R, Chicago, 25–26; struct. engineer, Board Local Improvements, Chicago, 26–27; asst. prof. and assoc. prof. civil eng. and asst. dean, Armour Inst, 27–34, prof. civil eng. and dean, 34–38, *pres*, 38–40, *Ill. Inst. Tech, 40–* A.A; Munic. Eng; Eng. Educ. (councilor, 38–41; v. pres, 41); Civil Eng; Mech. Eng; West. Soc. Eng. (trustee, 38–41). Structural engineering; engineering education.

Heald, Dr. K(enneth) C(onrad), 100 Gladstone Road, Pittsburgh, Pa. ***Geology.* Bennington, N. H, March 14, 88. B.S, Colo. Col, 12; Yale, 13–15; Sc.D, Pittsburgh, 29. U. S. Geol. Surv, 09–21, chief oil and gas sect, 21–24; assoc. prof. geol, Yale, 24–25; *staff geologist, Gulf Companies, Pittsburgh, 25–* Lecturer, Chicago, 22; Hopkins, 23; Pittsburgh. Yale Peruvian exped, 12. Exec. cmt, div. geol. and geog, Nat. Research Council, 24–31. Capt, C.Eng, 19. A.A; Geol. Soc; Asn. Petrol. Geol. (rep, Nat. Research Council, 22–25); Soc. Econ. Geol; Min. and Metal. Eng; Geol. Soc. Wash; fel. Royal Geog. Soc. Petroleum geology.

Heald, Dr. Robert F(ranklin), 27 Hampton Place, Nutley, N. J. *Chemical engineering.* Lincoln, Nebr, Oct. 15, 98. B.Ch.E, Ohio State, 22, Ph.D, 27; fellow, M.S, Illinois, 25. Research chemist, Swift and Co, 22–23; du Pont Rayon Co, 27–28; Barrett Co, 28–29; Swann Research, Inc, 29–31; *with Colgate-Palmolive-Peet Co, 32–* Chem. Soc; Chem. Eng. Organic chemistry; soap manufacture.

Healea, Prof. Monica, Vassar College, Poughkeepsie, N. Y. *Physics.* Uhrichsville, Ohio, June 16, 99. A.B, Bryn Mawr Col, 20, A.M, 22; Ph.D, Radcliffe Col, 36. Teacher, secondary schs, 20–21, 22–28; instr. *physics, Vassar Col*, 33–38, *asst. prof, 38–* Physical Soc. Discharges in gases; secondary electron emission due to positive ions.

Healy, Dr. William, 38½ Beacon St, Boston, Mass. *Medicine, Psychology.* Buckinghamshire, Eng, Jan. 20, 69. A.B, Harvard, 99; M.D, Rush, Chicago, 00; Vienna, Berlin, London, 06–07. Physician, Wis. State Hosp, 00–01; instr. gynec, Northwestern, 01–03; instr. and assoc. prof. nervous and mental diseases, Chicago Polyclinic, 03–16; *director, Judge Baker Foundation, 17–*; prof. and research assoc, Inst. Human Relations, Yale, 29–34. Director, Juvenile Psychopathic Inst, Chicago, 09–17; lecturer, Boston, 23– Summers, instr, Harvard, 12–14. Chicago Vice Cmn; chairman trustees, Boston Psychopathic Hosp. Am. Med. Asn; Psychol. Asn; Neur. Asn; Psychiat. Asn; Psychopath. Asn. (pres, 30); Orthopsychiat. Asn. (pres, 24–26); Law Inst. (cmt. criminal justice); Am. Acad; Boston Soc. Psychiat. and Neur. (pres, 25). Mental tests; social offenders; causation of delinquency; psychology of testimony; educational and personality problems.

Heaps, Prof. C(laude) W(illiam), Rice Institute, Houston, Texas. *Physics.* Kewanee, Ill, Oct. 4, 87. B.S, Northwestern, 09; Ph.D, Princeton, 12. Instr. *physics,* Missouri, 12–14; *Rice Inst*, 14–17, asst. prof, 17–28, *prof, 28–* A.A; Physical Soc. Resistance of metals and crystals in magnetic fields; magnetostriction; conductivity of flames; discontinuities of magnetization.

Heard, Dr. James D(elavan), 121 University Place, Pittsburgh, Pa. *Clinical medicine.* Pittsburgh, Pa, Jan. 9, 70. M.D, Pennsylvania, 91; Sc.D, Pittsburgh, 38. *Prof. med, Pittsburgh, 09–* Lieut. col. in charge div. int. med, Base Hosp. No. 27, M.C, 18–19, col, M.R.C. Asn. Physicians; Heart Asn; Am. Med. Asn; Soc. Med. Hist; Heart Asn. Pa. (past pres); Allegheny Co. (Pa) Med. Soc. (past pres). Cardiovascular disease; disturbance in cardiac mechanism.

Heard, Dr. J(ohn) F(rederick), David Dunlap Observatory, Richmond Hill, Ont, Can. *Astrophysics.* St. Thomas, Ont, June 18. 07. B.A, Western Ontario, 29; M.A, McGill, 30, Ph.D, 32; 1851 Exhib. scholar, London, 32–34, Ph.D, 34. *Instr. astron, Toronto, 35–; officer, navigation branch, Royal Can. Air Force, 41–* Stark effect; breadth of spectral lines; hyperfine structure; stellar spectra.

Heard, Dr. J(oseph) R(uffin), Jr, 22 E. 38th St, New York, N. Y. *Chemistry.* Winnfield, La, Dec. 28, 08. B.S, Louisiana, 28, M.S, 29; S. W. Bridgham fellow, Columbia, 30–32, Ph.D, 33. Chemist, Kettle Creek Oil Co, 28; Int. Paper Co, 29; instr. chem, Louisiana, 29–30; develop. chemist, Reynolds Research Corp, 32–33; *chem. engineer in charge lab. and pilot plant, Barbieri Pilot Plant, 33–* Chem. Soc; Chem. Eng; Electrochem. Soc. Electro-organic oxidation; process development; aliphatic organic chemicals from olefins, chlorine and ammonia; aliphatic glycols, amines and chlorinated hydrocarbons; thermal cracking hydrocarbons; catalysis in organic processes.

Heard, Dr. Llewellyn, 6547 Monroe Ave, Hammond, Ind. *Inorganic chemistry.* Macon, Ga, Dec. 30, 01. B.S, Emory, 28; M.S, Georgia, 32; Ph.D, Hopkins, 37. Instr. chem, Georgia, 29–32; prof, S. Ga. State Col, 32–34; *research chemist, Standard Oil Co. of Ind, 36–* Chem. Soc. Adsorption of oxygen by several metal chromites.

Heard, Prof. R(obert) Donald H(oskin), McGill University, Montreal, Que. Can. *Physiological chemistry.* St. Thomas, Ont, Can, Feb. 13, 08. B.A, Toronto, 29, fellow, 29–30, M.A, 30; 1851 Exhib. scholar, Manchester and Oxford, 30–33; Ph.D, Manchester, 32. Banting Research Foundation grantee, Toronto, 33–35, research asst, Connaught labs, 35–37; asst. prof. *biochem*, Dalhousie, 37–41, assoc. prof, 41–42; *asst. prof, McGill, 42–* Soc. Biol. Chem; Can. Physiol. Soc; Biochem. Soc. Gt. Britain. Biochemistry of adrenaline; gonadotropic hormones; chemistry and metabolism of the steroidal hormones.

Hearn, W(illiamson) Edward, U. S. Department of Agriculture, Washington, D. C. *Soils.* Pittsboro, N. C, Aug. 22, 77. B.S, North Carolina, 00. *Senior soil scientist, inspection dist. 2, soil surv. div, bur. plant indust, U. S. Dept. Agr.* Soil Sci. Soc; Soc. Agron; Int. Soc. Soil Sci.

Hearon, Dr. W(illiam) M(ontgomery), 20 Seneca Parkway, Rochester, N. Y. *Organic chemistry.* Kankakee, Ill, Feb. 20, 14. B.S, Denver, 35, M.S, 37; Arthur D. Little fellow, Mass. Inst. Tech, 39–40, Ph.D, 40. Asst. chem, Denver, 35–37; teaching fellow, Mass. Inst. Tech, 37–39; *chemist, Eastman Kodak Co, 40–* Chem. Soc. Analytical properties of the nitro group; chemiluminescence of cyclic hydrazides; carbonilates of cellulose and cellulose acetate; cellulose trityl ether.

Heaslet, Dr. M(axwell) A(lfred), National Advisory Committee for Aeronautics, Moffett Field, Calif. *Mathematics.*

Bentonville, Ark, Feb. 17, 07. A.B, Oklahoma, 27, A.M, 29; Ph.D, Stanford, 34. Asst. math, Oklahoma, 27–29; Stanford, 29–30, instr, 30–33, 34–35; San Jose State Col, 35–36, asst. prof, 36–40, assoc. prof, 40–42; *mem, Nat. Advisory Cmt. Aeronautics, 42–* Math. Soc; Math. Asn. Analysis; theory of numbers.

Heath, Dr. C(lark) W(right), Boston City Hospital, Boston, Mass. *Medicine.* Buffalo, N. Y, May 30, 00. A.B, Harvard, 22, M.D, 26. House officer, Mass. Gen. Hosp, 26–28; asst. *med, Harvard Med. Sch,* 28–34, instr, 34–37, *assoc, 37–* Asst. res, Thorndike Mem. Lab, Boston City Hosp, 28–30, res, 30–31, asst. physician, 31–; physician to Grant Study, 38–; research assoc, fatigue lab, Harvard, 40– Fel. Am. Med. Asn; Soc. Clin. Invest; Am. Physicians. Hematology; iron deficiency; pernicious anemia; normal personality and behavior.

Heath, Eugene Schofield, 934 Waverly Way, N. E, Atlanta, Ga. *Botany.* Richmond Dale, Ohio, Feb. 8, 80. A.B, Ohio Wesleyan, 06; fellow, Nebraska, 10, 11–12, A.M, 12; California; Northwestern; Chicago. Asst. prof. bot, Nebr. State Nor. Sch, Peru, 10–11; assoc. prof, Pomona Col, 12–14; head dept. biol, high sch. and junior col, Fresno, Calif, 14–16; asst. bot, California, 16–18; asst. prof. biol, Oglethorpe, 19–22; instr. bot, Northwestern, 22–24; acting assoc. prof, Agnes Scott Col, 25; adj. prof, Georgia, 27–28; asst. prof. biol, Brenau Col, 30–32. Lecturer, Col. Holy Names, 17. Summers, asst. prof, Georgia, 18, 28. A.A; Ga. Bot. Soc. (pres, 26–). Paleobotany; plant physiology; economic botany; horticulture; flora of Stone Mountain; botanic garden for Georgia.

Heath, Prof. Fred H(arvey), University of Florida, Gainesville, Fla. *Chemistry.* Warner, N. H, Feb. 25, 83. B.S, New Hampshire, 05; Ph.D, Yale, 09. Asst. chem, Yale, 06–09; instr. theoret. chem, Mass. Inst. Tech, 09–10; gen. and anal. chem, Case Sch, 10–11; anal. and physical chem, Wesleyan, 11–12; gen. and anal. chem, North Dakota, 12–14, asst. prof, 14–16; *chem,* Washington (Seattle), 16–23; *Florida, 23–25, prof, 25–, in charge gen. chem, 26–; major, Chem. Warfare Service Reserves, U. S. Army.* Summers, chemist, N. Dak. Biol. Sta, 14–16. Chem. warfare gas consultant, State Defense Council, Fla. Chem. Soc. (pres, Puget Sound sect, 19, sec'y, Fla. sect, 24–26, pres, 40); Inst. Chem. Secret and spy inks; selenium mustard gas; phosphorescent materials; determination of hydrogen sulfide in waters; chemistry of sponges; analyses of platinum metals; new analytical uses of salts of vanadium, chromium and molybdenum.

Heath, Prof. Harold, Pacific Grove, Calif. *[1]*Zoology.* Vevay, Ind, June 5, 68. A.B, Ohio Wesleyan, 93; Harrison fellow, Pennsylvania, 96–98, A.M, Ph.D, 98; Sc.D, Ohio Wesleyan, 19. Instr, Ohio Wesleyan, 90–93; prof. biol, Pacific, 93–94; instr. *invert. zool, Stanford,* 94–96, asst. prof, 98–01, assoc. prof, 01–09, prof, 09–35, *emer. prof, 35–* Teacher, Hopkins Seaside Lab, 95–00. Summers, Pribilof Islands, 10–17; zoologist, Stanford exped, Brazil, 11; Forrester Island, 13. Acting naturalist, 'Albatross,' U. S. Fish Cmn, Alaska salmon investigations, 03, Calif. coast, 04, Japan, 06. A.A; Soc. Zool; Calif. Acad. Anatomy and embryology of mollusks; anatomy, embryology and later development of the chitons of the west coast of North America; anatomy of some Pacific pteropods; Solenogasters; biology of termite castes.

Heath, Prof. Harry C(olson), 21 Agnew St, Montgomery, Ala. *Plant physiology.* Clear Lake, Iowa, Dec. 11, 77. B.S, Cornell Col. (Iowa), 03; M.S, Chicago, 22, Ph.D, 28. Instr. *biol,* high sch, Texas, 07–20; *prof,* Westminster Col. (Mo), 20–28; Woman's Col. of Ala, 28–35, *Huntingdon Col, 35–* A.A; Ala. Acad. (2nd v. pres, 31–33). Potash shale as a soil builder.

Heath, Dr. James P(rocter), National Naval Medical Center, Bethesda, Md. *Invertebrate zoology.* San Jose, Calif, June 14, 14. A.B, Stanford, 37, Ph.D, 40. *Instr. biol, Kent State Univ, 40–; U. S. Navy.* A.A. Anatomy of the nervous system of the Decapod Crustacea.

Heath, Prof. L(ouise) R(obinson), Hood College, Frederick, Md. *Psychology, Philosophy.* Keokuk, Iowa, 99. A.B, Mt. Holyoke Col, 21, A.M, 23; Ph.D, Radcliffe Col, 27. Acting instr, Mt. Holyoke Col, 23; instr, Mills Col, 23–24; assoc. prof. *psychol. and philos, Hood Col,* 26–27, *prof, 27–* Acting assoc. prof, Mt. Holyoke Col, 30–31. A.A; Philos. Asn; South. Soc. Philos. and Psychol; N. Y. Acad. History of concept of time.

Heath, Dr. Roy E(lmer), Wyandotte Chemicals Corp, Wyandotte, Mich. *Inorganic chemistry.* Hastings, Mich, Feb. 6, 15. A.B, Albion Col, 36; Nat. Carbon res. fellow, Western Reserve, 37–39, Ph.D, 40. Lecturer chem, Western Reserve, 39–40; instr, Wisconsin, 40–42; *manager market research dept, Wyandotte Chem. Corp, 42–* Summers, lecturer, Western Reserve, 39, 40. Chem. Soc. Reactions of anodic fluorine in anhydrous hydrogen fluoride.

Heath, Walter H(enry), 60 Amherst Road, Waban, Mass. *Chemistry.* Litchfield, Ill, Feb. 3, 95. B.S, Ill. Col, 16. Chemist, John T. Milliken Co, St. Louis, 16–17; junior chemist, drug div, bur. chem, U. S. Dept. Agr, 17–20, N. Y. sta, 20–21, chemist in charge lab, Buffalo sta, *food and drug admin,* 21–34, *chief chemist, Boston sta,* 34–39; *Fed. Security Admin, 39–* Enforcement of the federal food and drugs act.

Heatley, Dr. A(lbert) H(arold), 4 Summit Ave, Shawinigan Falls, Que, Can. *Chemistry.* Brampton, Ont, Aug. 29, 97. B.A.Sc, Toronto, 22, M.A, 23, Ph.D, 37. Chemist, Roessler and Hasslacher Chem. Co, 23–26; John Walter and Sons Ltd, 27–33; demonstrator, Toronto, 33–37; *research chemist, Shawinigan Chem. Ltd, 37–* Electrochem. Soc; Eng. Inst. Can. (branch chairman, 41); Can. Inst. Chem. Synthetic resin chemistry; throw in electro-plating baths; high current carbon arcs; collection theory for ions in electric discharges; Bessel function integrals; velocity distribution of gaseous molecules; rate of oxidation of liquid acetaldehyde; numerical values of the Toronto function.

Hebard, Morgan, Chestnut Hill, Philadelphia, Pa. *Entomology.* Cleveland, Ohio, Feb. 23, 87. A.B, Yale, 10. Independent research worker, *Acad. Nat. Sciences, Phila,* 02–26, curator entom, 26–33, research assoc, 33–38, *research fellow, 38–* A.A; fel. Entom. Soc. (cor. sec'y, 16–24, treas, 24); hon. mem. Soc. entom. de France; Soc. Nat. Sci. Colombia. Orthoptera.

Hebb, Prof. D(onald) O(lding), Queens University, Kingston, Ont, Can. *Psychology.* Chester, N. S, July 22, 04. B.A, Dalhousie, 25; M.A, McGill, 32; Ph.D, Harvard, 36. Instr, high schs, N. S. and Que, Can, 25–28, prin, elementary sch, Verdun, Que, 28–34; instr. and res. asst. psychol, Harvard, 36–37; research fellow, Montreal Neur. Inst, McGill, 37–39, lecturer psychol, 38–39; *exp. psychol, Queen's (Can),* 39–41, *asst. prof, 41–* Psychol. Asn; Can. Psychol. Asn. (ed, 'Bul,' 40–); Can. Physiol. Soc. Visual perception; neural basis of behavior; measurement of intelligence.

Hebb, Dr. M(alcolm) H(ayden), Duke University, Durham, N. C. *Physics.* Marquette, Mich, July 21, 10. B.A, British Columbia, 31; Ph.D, Harvard, 36. Asst. physics, Wisconsin, 31–34; Harvard, 34–35, 36–37, instr, 35–37, Sheldon traveling fellow, Utrecht, 37–38; *instr. physics, Duke, 38–* Physical Soc. Paramagnetic susceptibility and Faraday effect in rare earth salts; doubling in band spectra; theoretical aspects of magneto-caloric effects.

Hebbard, Dr. G(eorge) Miller, 1111 Eastman Road, Midland, Mich. *Chemical engineering.* Washington, D. C, Dec. 14, 06. Ch.E, Lehigh, 29; fellow, Michigan, 30, M.S, 30, Sc.D, 33. Research metallurgist, Bell Tel. Labs, New York, 29; sales engineer, Rohm and Haas Co, Phila, 30–31; *chem. engineer, Dow Chem. Co, 33–, asst. to pres, 41–, eng. manager styrene div, 42–* Chem. Eng; Chem. Soc. Heat transfer; high-temperature catalysis; thermodynamics; temperature measurement; semi-plant and chemical plant design; magnesium and styrene plants; oil cracking; gas purification; butadiene recovery.

Hebbert, Dr. C(larence) M(ark), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Engineering.* Kenoma, Mo, Nov. 6, 90. B.S, Otterbein Col, 11; M.S, Illinois, 14, Ph.D, 17. Instr. aeronaut, sch. mil. aeronaut, Illinois, 17–18, math, 19–20; *engineer,* Am. Tel. and Tel. Co, 20–29; *Bell Tel. Labs, 29–* Math. Soc. Higher plane curves; general network and telephone transmission theory.

Hechenbleikner, Dr. I(ngenuin Albin), 70 Strawberry Hill, Stamford, Conn. *Organic chemistry.* Innsbruck, Austria, Jan. 5, 11. A.B, Davidson Col, 32; Ph.D, Mass. Inst. Tech, 38. *Research chemist, Am. Cyanamid Co.* Chem. Soc. Organometallic intermediates.

Hechler, Prof. F(red) G(eorge), Pennsylvania State College, State College, Pa. *Mechanical engineering.* Dalton, Mo, 84. B.S, Missouri, 08, M.E, 10. Asst. prof. mech. eng, Rensselaer Polytech, 08–16; mech. engineer, U. S. Naval Eng. Exp. Sta, Annapolis, 16–19; gen. manager, Vibration Specialty Co, Phila, 19–22; *prof. eng. research, Pa. State Col, 22–,* asst.

director *eng. sta, 22–36, director, 36–* Mem. cmt. on heat transmission, Nat. Research Council, 24– A.A; Mech. Eng. (mem. research cmt, 22–27; chairman oil and gas power div, 39). Methods for measuring heat transmission of building and insulation materials; static and dynamic balancing machines; steam traps.

Hecht, Dr. Adolph, 8824 Michigan Ave, Chicago, Ill. *Plant genetics.* Chicago, Ill, July 25, 14. B.S, Chicago, 36, M.S, 37; Ph.D, Indiana, 42. Asst. bot, Chicago, 37; teaching and research asst, Indiana, 38–42; *Air Force, U. S. Army, 42–* A.A; Bot. Soc; Ind. Acad. Cytogenetics of Oenothera.

Hecht, Prof. Selig, Columbia University, New York, N. Y. *[5]Zoology, Physiology.* Austria, Feb. 8, 92. B.S, Col. City of N. Y, 13; Ph.D, Harvard, 17. Pharmacologist, bur. chem, U. S. Dept. Agr, 13–14; asst. prof. physiol, col. med, Creighton, 17–21; nat. research fellow physical chem, 21–26; assoc. prof. *biophys, Columbia, 26–28, prof, 28–* Summers, sci. asst, Bur. Fisheries, 12–14. Ed. board, 'Biol. Bul.' Frederic Ives medal, Optical Soc, 41. A.A; Soc. Nat; Soc. Zool; Physiol. Soc; Optical Soc; Harvey Soc. Form and growth; the photosensory process; vision.

Heck, Prof. Charles McGee, North Carolina State College, Raleigh, N. C. *Physics.* Raleigh, N. C, May 28, 81. A.B, Wake Forest Col, 00; A.M, Columbia, 01. Asst. prof. physics, Nebraska, 04–11; lecturer, popular science program, Int. Y.M.C.A, China, 11–12; assoc. prof. *physics,* Colo. Col, 12–13; *prof. and head dept, N. C. State Col, 13–* Physical Soc; N. C. Acad. (pres, 24). Physical properties of mineral oil on water; peculiar spiral structure of paraffin crystals; air cells in snow and ice; radiation interchanges between earth and sky; multiple radiator for meteorological research.

Heck, G(eorge) E(mil), 1919 Commonwealth Ave, Madison, Wis. *Civil engineering.* Parker, S. Dak, April 19, 88. B.S, S. Dak. State Col, 14, C.E, 23; fellow, Purdue, 14–15; M.S, Wisconsin, 25. Asst. testing engineer, State Highway Dept, Ill, 15–16; instr. exp. eng, Oregon State Col, 16–17; *engineer, Forest Products Lab, U. S. Forest Service, 18–* Wis. Eng. Soc. Mechanical properties of wood and wood products; wood uses.

Heck, Dr. J(oseph) E(mery), P. O. Box 355, Monroe, Ohio. *Chemistry.* Connersville, Ind, June 26, 04. A.B, De-Pauw, 26; M.S, Purdue, 29, Ph.D, 33. Asst. instr. chem, Purdue, 26–33; research chemist, *Am. Rolling Mill Co,* 33–37, *research engineer, 37–* Chem. Soc; Soc. Metals; Ind. Acad. Organic precipitants for use in analytical chemistry; analytical methods for use in steel industry; development of highly directional oriented transformer steel.

Heck, Dr. N(icholas) H(unter), U. S. Coast and Geodetic Survey, Washington, D. C. *Geomagnetism, Seismology.* Heckton Mills, Pa, Sept. 1, 82. A.B, Lehigh, 03, C.E, 04, hon. Sc.D, 30; hon. Sc.D, Fordham, 41. Junior officer, *U. S. Coast and Geod. Surv,* 04–06, in charge wire drag parties, 06–17, chief div. geomagnetism and seismol, 22–42, *asst. to director, 42–* Lecturer, Lehigh, 37– William Bowie medal, Am. Geophys. Union, 42. U.S.N, 17–19. A.A; Seismol. Soc. (pres, 37–39); Astron. Soc; Geophys. Union (chairman, 35–38); Civil Eng; Soc. Mil. Eng; Asn. Seismol; Am. Geog. Soc; Geol. Soc. Wash; Philos. Soc. Wash. (pres, 38); Wash. Acad; Int. Geod. and Geophys. Union (pres, seismol, 36–). Oceanography; hydrography; acoustics; development of wire drag for location of pinnacle rocks; velocity of sound in sea waters; radio acoustic method of vessel location; magnetic compass compensation; earthquakes; earthquake history of the United States; strong earth motions; seismic sea waves.

Heck, Prof. Robert C(ulbertson) H(ays), Rutgers University, New Brunswick, N. J. *Mechanical engineering.* Heckton Mills, Pa, Oct. 30, 70. M.E, Lehigh, 93, D.E, 27. Instr. mech. eng, Lehigh, 93–03, asst. prof, 03–07, prof. exp. eng, 07–08; *mech. eng, Rutgers,* 08–35, research prof, 35–41, *emer. research prof, 41–* A.A; Mech. Eng; Eng. Educ. Applied thermodynamics; mechanics of machinery; the properties of steam; the steam engine and other steam motors; heat engineering.

Hecker, Prof. Charles (Henry), 25 Garden St, Potsdam, N. Y. *Chemical engineering.* Cincinnati, Ohio, May 15, 86. Chem.E, Cincinnati, 09, A.M, 11, Ph.D, 13; P.E, Univ. State of N. Y, 33. Asst. chem, Cincinnati, 08–13; instr, Illinois, 13–16; asst. prof. chem. eng, Wisconsin, 16–17; prof, Florida, 17–18; research engineer, Westinghouse Elec. and Mfg. Co, 18–25; sec'y and works manager, The Phenolite Co, 25–26; manager orthochrom. div, Rohm and Haas Co, 26–30; *prof.* chem. eng, *Clarkson Tech,* 30–33, *chem. and chem. eng, 33–* Chem. Soc; Chem. Eng. Chemical engineering; electrical insulation materials; synthetic resins; lacquers.

Hecker, Dr. John C(halmers), Eastman Kodak Co, Rochester, N. Y. *Physical chemistry.* New Brighton, Pa, April 27, 08. B.S, Geneva Col, 30; Ph.D, Yale, 33. Asst. instr. chem. and physics, Geneva Col, 28–30; Yale, 30–32; *research chemist, Eastman Kodak Co, 33–* Chem. Soc. Thermodynamics of aqueous solutions of electrolytes; high vacuum.

Heckert, Dr. Winfield W(alter), Ardentown, Del. *Physical chemistry.* Kasson, Minn, Dec. 19, 02. B.S, Miami (Ohio), 23; A.M, Ohio State, 26, du Pont fellow, 27–28, Ph.D, 28. Instr, high sch, Ohio, 23–25; research chemist, exp. sta, *E. I. du Pont de Nemours and Co,* 28–38, research supervisor, *rayon tech. div,* 38–40, research manager, 40–42, *asst. director nylon research, 42–* Chem. Soc. Chemical kinetics; extended titanium pigments; organic delusterants; crush-resistant velvet; nylon.

Heckman, Prof. Samuel B, Wayne, Maine. *Education.* Union, Ohio, May 27, 70. Ph.B, Earlham Col, 93; A.B, Harvard, 94; A.M, Pennsylvania, 05, Ph.D, 06. Prof. English lit. and modern languages, Juniata Col, 95–97; instr. modern languages, Cheltenham Mil. Acad, Pa, 98–00; asst. commissioner educ, P. R, 00–02; prof. psychol, Temple, 04–06; from instr. educ. to prof. educational psychol. and head dept. educ, *Col. City of N. Y,* 08–39, director educ. clinic, 13–39, acting dean sch. educ, 37–39, *emer. prof. educational psychol, 39–* A.A; Soc. Study Educ; Psychol. Asn; Asn. Clin. Psychol; Eugenics Research Asn; N. Y. Soc. Exp. Study Educ; N. Y. Asn. Consulting Psychol. Mental and educational measurements; educational and vocational guidance.

Hector, Dr. L(uther) Grant, National Union Radio Corp, Newark, N. J. *Physics.* Clarendon, Pa, Dec. 15, 94. A.B, Oberlin Col, 20; A.M, Columbia, 22, Tyndall fellow, 23–24, Ph.D, 24. Asst, Columbia, 20–22; instr. physics, Oberlin Col, 22–23; asst. prof, Buffalo, 24–27, prof, 27–43; *physicist, Nat. Defense Research Cmt, dept. terrestrial magnetism, Carnegie Institution, 41–; director tube research and eng. activities, Nat. Union Radio Corp, N. J. and Pa, 43–* A.A; fel. Physical Soc; Acoustical Soc; assoc. Radio Eng. Magnetic measurements of gases and other feebly magnetic substances; sound intensity measuring devices; dielectric properties of gases, especially at radio frequencies; Barkhausen discontinuities in single crystals.

Hedberg, Prof. Ernest, U. S. Navy Preflight School, Athens, Ga. *Mathematics.* Huntingdon, Mo, April 2, 03. B.S, Northeast Mo. State Teachers Col, 28; A.M, Missouri, 30, Ph.D, 35. Teaching fellow *math,* Missouri, 29–30; at Wentworth Mil. Acad. (Mo), 30–32; prof, Ala. State Teachers Col, Livingston, 35–36; Lander Col, 36–37; prof. and head dept, South Dakota, 37–38; *assoc. prof, Baylor, 38–; instr, preflight sch, U. S. Navy.* Summers, instr, Missouri, 30–32, 33–35; lecturer, West Texas State Teachers Col, 40. Math. Soc. Modular systems and rings.

Hedberg, Dr. Hollis D(ow), Apartado 45, Barcelona, Venezuela, S. Amer. *Geology.* Falun, Kans, May 29, 03. A.B, Kansas, 25; Long scholar, Cornell, 25–26, M.S, 26; Ph.D, Stanford, 37. Petrographer, Lago Petrol. Corp, Maracaibo, 26–28; director geol. lab, *Mene Grande Oil Co,* 28–39, *asst. chief geologist, 39–* Summers, field asst, Kans. Geol. Surv, 24–25. Director geol. lab, Venezuela Gulf Oil Co, 28–39. Medalla, Inst. Pub. Venezuela, 41. Paleont. Soc; Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Am. Geog. Soc; Min. and Metal. Eng; Schweiz. Geol. Gesell. Gravitational compaction of sediments; sedimentary petrography; micropaleontology; petroleum; geology of the Caribbean region.

Hedenburg, Dr. Oscar F(red), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Webster, Mass, May 6, 83. A.B, Wesleyan, 09, A.M, 11; Ph.D, Chicago, 15. Instr. chem, Chicago, 13–16; *indust. fellow, Mellon Inst, 16–* Lecturer, Pittsburgh. A.A; Chem. Soc. Organic chemistry; monobasic acids of sugar; insecticides; fungicides.

Hedge, Prof. L(afayette) B(oyd), 581 N. Beachwood Drive, Los Angeles, Calif. *Mathematics.* Citronelle, Ala, Dec. 15, 09. A.B, California at Los Angeles, 33, A.M, 36; Ph.D, Brown, 42. Projectionist, Paramount Pictures, Inc, 33–36; instr. *math,* Brown, 36–38, 39–40; Middlebury Col, 38–39; *asst. prof, The Citadel, 40–;* lieut, *Ordnance Dept, U. S. Army,* 41–42, *capt, 42–* Math. Soc; Army Ordnance Asn; Acoustical Soc. The problem of moments; Fourier series.

Hedgecock, Dr. Geo(rge) G(rant), U. S. Department of Agriculture, Washington, D. C. *Phytopathology.* Augusta, Ill, Oct. 5, 63. B.S, Nebraska, 99, fellow, A.M, 01; Ph.D, Washington (St. Louis), 06. Prin, pub. schs, Nebr, 91–95; asst. bot, Nebraska, 99; sci. aid, bur. plant indust, U. S. Dept. Agr, 01, asst. path, 02–08, pathologist, 08–28, senior pathologist, 28–37; *retired.* Phytopath. Soc; Bot. Soc; Soc. Foresters; Bot. Soc. Wash. Physiological water in the soil and in plants; Thorea; apparatus for phytopathological work; Phoma and Phyllosticha on the sugar beet; Colletotrichum on agaves; Sclerotinia on cauliflower; crown gall; stem tumors on apple and quince; wood-staining fungi; mistletoe and fungus diseases of forest trees and shrubs; smelter fumes injury to forest trees and shrubs; rusts on conifers.

Hedges, Dr. C(harles) C(leveland), Agricultural and Mechanical College of Texas, College Station, Texas. *Chemistry, Chemical engineering.* Walton, Ky, Sept. 22, 84. B.S, Kentucky, 06; A.B, Cornell, 08, Ph.D, 12. Asst. instr. *chem,* Cornell, 06–08, instr, 08–12; assoc. prof, *Agr. and Mech. Col. Texas,* 12–13, *head dept, 13–, v. dean sch. eng, 26–* Civilian instr, research div, cooperating with Sig.C, Art and Meteorol. sect, U. S. War Dept, 17–19; head dept. chem. and acting director, Firemen's Training Sch, Civilian Nat. Defense. Eng. Educ; Inst. Chem; Cotton Seed Oil Mill Asn; Chem. Soc. Agricultural and inorganic chemistry; qualitative analysis.

Hedges, Florence, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Lansing, Mich, Aug. 24, 78. A.B, Michigan, 01. Asst. bot, Michigan, 01–02; asst. expert, *lab. plant path, bur. plant indust, U. S. Dept. Agr,* 02, sci. asst, 03–09, asst. pathologist, 09–27, *assoc. pathologist, 27–* A.A; Phytopath. Soc; Bot. Soc. Wash. (treas, 25). Bacteriology; bacterial diseases of plants; diseases of citrus trees; bacterial diseases of leguminous plants.

Hedges, J(oseph) H(arold), U. S. Bureau of Mines, Tucson, Ariz. *Mining engineering.* Lansing, Mich, June 9, 82. B.S, Mich. State Col, 03; E.M, Mich. Col. Mines, 05. Eng. and operating, Copper Range Consol. Mining Co, 05; Mex. Consol. Mining and Smelting Co, 06–11; Guanajuato Develop. Co, 12; Moctezuma Copper Co, 13–16; Utah Minerals Concentrating Co, 17; United Verde Exten. Mining Co, 18; Prince Consol. Mining and Smelting Co, 18–22; Mining Corp. Can, 23–25; *mem. staff, U. S. Bur. Mines, 26–* Mem, cmt. on sci. results of drilling, Nat. Research Council. Min. and Metal. Eng. (chairman, D. C. sect, 35). Mineral economics.

Hedgpeth, Joel W(alker), Walnut Creek, Calif. *Biology.* Oakland, Calif, Sept. 29, 11. A.B, California, 33, A.M, 40. Debris dams and Shasta Dam salmon investigations, 38–40; *writer, 40–* Oceanog. Soc. Pacific. Taxonomy and zoogeography of the Pycnogonida; history of science; popularization of biology.

Hedley, Dr. M(athew) S(herwood), Department of Mines, Victoria. B. C, Can. *Mining engineering.* Nelson, B. C, May 2. 05. B.A.Sc, British Columbia, 30; M.S, Wisconsin, Ph.D, 34. Geologist, Bralorne Mines, 34–35; Geol. Surv. Can, 35–36; *mining engineer, Dept. Mines, B. C, 36–* Structural and economic geology.

Hedlund, Prof. Gustav A(rnold), 1834 Fendall Ave, Charlottesville, Va. **Mathematics.* Somerville, Mass, May 7, 04. A.B, Harvard, 25, Ph.D, 30; A.M, Columbia, 27. Instr, Hunter Col. 25–27; assoc. *math,* Bryn Mawr Col, 30–34, assoc. prof, 34–39; *prof, Virginia, 39–* Math. Soc. Dynamics.

Hedman, Dr. Fritz A(lgot), American Viscose Corp, Meadville, Pa. *Physical chemistry.* Örnsköldsvik, Sweden, Sept. 10, 06. B.S, State Col. Wash, 31, A.B, 33, Ph.D, 34. Chemist, State Col. Wash, 34–36; food and drug admin, U. S. Dept. Agr, 36–37; refrig. engineer, Servel, Inc, 37–40; *research chemist, Am. Viscose Corp, 40–* A.A; Chem. Soc. Surface energy; absorption refrigeration; artificial yarn.

Hedreen, Carl A(dair), Pacific Research and Development Laboratories, South San Francisco, Calif. *Chemistry.* Seattle, Wash, March 24, 06. B.S, Washington (Seattle), 27, fellow, 33–36. Research chemist and later manager research and develop, Can. Fishing Co, Ltd, 27–43; *manager, Pacific Research and Develop. Labs, 43–* Chem. Soc. Fishery technology; freezing, canning, smoking and salting of fish; fish meal and oil; vitamin A and D oils; fish oil refining; food technology.

Hedrich, Dr. A(rthur) W(illiam), 2411 N. Charles St, Baltimore, Md. *Biostatistics.* Chicago, Ill, July 7, 88. B.S, Northwestern, 14; C.P.H, Harvard, 19; Sc.D, Hopkins, 28. City chemist and health inspector, E. Chicago, 14–16; asst. ed. and ed, 'Am. Jour. Pub. Health,' and sec'y, Am. Pub. Health Asn, 17–23; director surveys, Dept. Health, Chicago, Ill, 23–26: asst. biostatist, *sch. hygiene and pub. health, Hopkins,* 26–27, instr, 27–29, assoc, 29–37, *lecturer vital statist. and epidemiol, 37–* Consultant, U. S. Pub. Health Service, 28–35; chief bur. vital statist, State Dept. Health, Md, 36–; consultant, Social Security Board, 38–43. Statist. Asn; fel. Pub. Health Asn; assoc. fel. Am. Med. Asn. Vital statistics and epidemiology; early detection of epidemic trends; accuracy and completeness of vital statistics and of census enumerations; intra-national migration.

Hedrick, Dr. Glen W, 61 N. Lincoln Ave, Orchard Park, N. Y. *Organic chemistry.* Fisher, Ill, Jan. 28, 06. A.B, Eureka Col, 30; M.S, Illinois, 35; Ph.D, Mich. State Col, 37. *Research chemist, Nat. Aniline div, Allied Chem. Co, 37–* Chem. Soc. Preparation of some anthracene derivatives; condensation of the tertiary heptyl alcohols with phenol in the presence of aluminum chloride.

Hedrick, Dr. J. E(ldred), Kansas State College, Manhattan, Kans. *Chemistry.* Meredosia, Ill, July 17, 09. A.B, Ill. Col, 31; M.S, Iowa, 32, Ph.D, 34. Asst. chemist, State Labs, Iowa, 34–36; *instr. chem. eng, Kans. State Col, 36–* Chem. Soc; Chem. Eng. Water and petroleum chemistry.

Hedrick, Dr. Leslie R(ay), Illinois Institute of Technology, Chicago, Ill. *Zoology, Parasitology.* Fisher, Ill, Nov. 28, 03. A.B, Illinois, 26; fellow, Michigan, 31–32, Ph.D, 32. Asst. chem. and zool, Eureka Col, 26–29; zool, Michigan, 29–31; head dept. *biol,* Whitworth Col, (Wash), 32–39; *assoc. prof. and chairman dept, Ill. Inst. Tech, 39–* Summers, asst, Michigan, 30–33. A.A; Soc. Parasitol; Micros. Soc. Nematodes; life history, taxonomy and immunity relations of Spiroxys; trematode life histories; general parasitology and microtechnique.

Hedrick, Dr. Theodore I(saac), 111 N. Campus, Ames, Iowa. *Bacteriology.* Polson, Mont, Sept. 11, 12. B.S, Mont. State Col, 35, M.S, 37; fellow, Iowa State Col, 39–40, Ph.D, 41. *Instr. dairy indust,* Mont. State Col, 37–39; *Iowa State Col, 42–* Dairy Sci. Asn. Dairy bacteriology.

Hedrick, Dr. U(lysses) P(rentiss), New York State Agricultural Experiment Station, Geneva, N. Y. *Horticulture.* Cedar Rapids, Iowa, Jan. 15, 70. B.S, Mich. State Col, 93, M.S, 95; Sc.D, Hobart Col, 13. Asst. hort, Mich. State Col, 93–95; horticulturist and botanist, Oregon State Col, 95–97; Utah Col, 97–99; horticulturist, Mich. State Col, 99–05; N. Y. Exp. Sta, Geneva, 05–28, director, 28–38; *retired.* White medal, 26; Wilder medal, 30. A.A; Soc. Hort. Sci. (past pres); Pomol. Soc; N. Y. Agr. Soc. (pres, 36). Pomology; tree and small fruit breeding.

Heebner, Dean Cha(rle)s F(rederick), 56 Oriole Road, Toronto, Ont, Can. *Pharmacy.* Lee, Mass, June 23, 59. Ph.G, N. Y. Col. Pharmacy, 81; Pharm.B, Toronto, 92, Ph.C, 92. Adj. prof, col. pharmacy, Columbia, 83–90; prof. mat. med. and therapeut, med. faculty, *Toronto,* 93–05, *mem. senate, 92–,* dean and prof. pharmacy, prescriptions and dispensing, *Ont. Col. Pharmacy,* 91–37, *emer. dean, 37–* Mem. advisory board, Dom. Dept. Pensions and Nat. Health, 13–Pharmaceut. Asn. (chairman, membership cmt, hon. pres, 32); fel. Can. Inst. Chem. Prescriptions; pharmaceutical chemistry.

Heeren, Dr. Martin H(enry), Illinois Institute of Technology, Chicago, Ill. *Chemical engineering.* Essen, Germany, May 3, 08. A.B, Carthage Col, 34; Ph.D, Iowa, 38. Asst. director fuel lab, Iowa, 38–39; supervisor *chem. eng. research, Armour Research Foundation, Ill. Inst. Tech,* 39–41, *chairman, 41–* Chem. Soc. General industrial chemical engineering.

Heeren, Prof. Ralph H(elnrich), Tulane University School of Medicine, New Orleans, La. *Epidemiology, Public health.* Creston, Iowa, May 27, 03. B.S, Iowa State Col, 24; A.M, Western Reserve, 29, Ph.D, 31; M.D, Iowa, 34; M.P.H, Harvard, 40. Instr. hygiene, Iowa, and bacteriologist, Iowa State Hygienic Lab, 24–26; senior instr. bacter, sch. med, Western Reserve, 26–31; intern, Albany Hosp, N. Y, 34–35; asst. prof. hygiene and prev. med, col. med, Iowa, 35–41; *assoc. prof. prev. med, sch. med, Tulane, and clin. director, Hutchinson Mem. Clinic, 41–* Lecturer, Mt. Sinai Hosp, Cleveland, 28–31; St. Luke's Hosp, Cleveland, 31; asst, sch. pub. health, Harvard, 39–40. A.A; Am. Med. Asn; Pub. Health Asn. Diphtheria immunity; mumps; hospital epidemiology; typhoid fever; carriers of disease; lead poisoning.

Hefferan, Dr. Mary, 442 Fountain St, Grand Rapids, Mich. *Bacteriology.* Eastmanville, Mich, June 24, 73. A.B, Wellesley Col, 96, A.M, 98; fellow, Chicago, 99-02, Ph.D, 03. Curator bacter. museum, Chicago, 03-04, asst. and curator, 04-10. Variation; zoological grafting; red chromogenic organisms; agglutinative relations in a group of non-pathogenic organisms; Bacillus bulgaricus; an unusual bacterial grouping; Anopheles in Michigan.

Heffron, Dr. R(oderick), 41 E. 57th St, New York, N. Y. *Medicine.* Chicago, Ill, Sept. 28, 01. Illinois, 20-24; M.D, Harvard, 28. Intern, Mass. Gen. Hosp, 29-31; field director, Mass. Pneumonia Study, 31-35; consultant pneumonia, State Dept. Pub. Health, Mass, 35-37; *med. assoc, Commonwealth Fund, 37–* Fel. Am. Med. Asn; Pub. Health Asn. Medical education; epidemiology; public health.

Hefley, Dr. Harold M(artin), Texas Technological College, Lubbock, Texas. *Zoology.* Norman, Okla, Jan. 20, 04. B.S, Oklahoma, 25, M.S, 26, Ph.D, 35. Instr. zool, Baylor, 29-32; research fellow, sch. med, Oklahoma, 36-37; *instr. zool, Texas Tech. Col, 39–* A.A; Ecol. Soc; assoc. Soc. Zool; Wilson Ornith. Club; Texas Acad. Bioecology; parasitology; amebiasis.

Hefner, Prof. Ralph A(ubrie), Georgia School of Technology, Atlanta, Ga. *Mathematics.* Bluefield, W. Va, 02. B.S, Roanoke Col, 25; M.S, Chicago, 27, Ph.D, 31. From assoc. prof. to *prof. math, Ga. Tech, 29–* Math. Soc; Math. Asn. Calculus of variations.

Hefner, Prof. R(obert) A(rthur), Miami University, Oxford, Ohio. *Zoology.* Lafayette, Ohio, April 24, 92. B.S, Ohio Northern, 23; M.S, Ohio State, 24, fellow, 28-29, Ph.D, 29. Instr. biol, Heidelberg Col. (Ohio), 24-25; asst. prof. *zool, Miami (Ohio),* 25-29, assoc. prof, 29-40, *prof, 40–* Lieut, U.S.A, 18. A.A; Micros. Soc; Eugenics Soc; Genetic Asn; Ohio Acad. Hereditary defects in human hands; millipedes and centipedes.

Hegarty, Dr. C(harles) P(aul), Georgetown University School of Medicine, Washington, D. C. *Bacteriology.* Little Rock, Ark, Aug. 17, 11. B.S, Cornell, 34, Ph.D, 38; Wisconsin, 34-35. Asst. bacter, Wisconsin, 34-35; Cornell, 35-38; instr, Oregon State Col, 38-40; bacteriologist, Nat. Canners Asn, 40; *instr. bacter, sch. med, Georgetown, 40–* A.A; Soc. Bact. Physiology and taxonomy of bacteria; factors influencing the growth of a bacterial culture.

Hegge, Dr. Thorleif G(rüner), Wayne County Training School, Northville, Mich. *Psychology, Education.* Oslo, Norway, April 15, 89. Ph.D, Royal Norwegian, 18; Royal Univ, Denmark; Göttingen; Marburg; Michigan. Assoc. prof. psychol, Royal Norwegian, 18-29; *director research and educ, Wayne County Training Sch, 29–* Several fellowships from Nansen and Jubilee Foundations of Royal Norwegian, 12-29; Royal Norwegian traveling fellow, 17, 19; Am-Scandinavian Foundation fellow, 20; Foundation Norwegian War Risk Ins. Co. fellow, 26-27; Rockefeller Foundation fellow, 27-29; lecturer, Norwegian Col. Agr, 26; Michigan, 29–; Wayne, 35– Assoc. ed, 'The Contemporary Rev,' 24-27; 'Psychol. Register,' 27-29; ed. board, 'Am. Jour. Mental Deficiency,' 40– A.A; Psychol. Asn; fel. Asn. Applied Psychol; Educational Research Asn; Asn. Mental Deficiency (chairman, cmt. research, 37, 43); fel. Orthopsychiat. Asn. (sect. chairman, 37); Midwest. Psychol. Asn; Mich. Acad; Int. Council Exceptional Children (co-chairman mental deficiency, 42). Psychology of testimony and report; memory and learning; dreams; reading disabilities and remedial reading with the mentally deficient; perceptual and intellectual abilities; learning and adjustment difficulties in the mentally deficient.

Heggie, Dr. Robert, American Chick Co, 30-30 Thomson Ave, New York, N. Y. *Organic chemistry.* Glasgow, Scotland, Jan. 19, 09. B.S, Mass. Inst. Tech. 33, Ph.D, 36. Research assoc. chem, Mass. Inst. Tech, 36-39; *head develop, Am. Chick Co, 39–* A.A; Chem. Soc. Asymmetric synthesis; reaction rates; vitamins; chewing gum manufacture.

Hegman, Lieut. R(obert) L(eonard), 171 Forest Hills St, Jamaica Plain, Boston, Mass. *Chemical engineering.* Dayton, Ohio, Nov. 6, 12. Ch.E, Cincinnati, 36, Emery fellow, 36-40, M.E.S, 38, P. R. Mitchell fellow, 38-40, Ph.D, 40. Director research, P. R. Mitchell Co, 40-41; chem. engineer, Imp. Paper and Color Corp, 41-42; *lieut, Chem. Warfare Service, U. S. Army, Mass. Inst. Tech, 42–* Empirical formulae; petroleum sulfonic acids; the keratin-formaldehyde reaction.

Hegnauer, Dr. A(lbert) H(enry), Syracuse University, Syracuse, N. Y. *Physiology.* Rochester, N. Y, March 9, 00. A.B, Rochester, 25, Ph.D, 33. Instr. pharmacol, sch. med, Washington (St. Louis), 33-35; asst. *physiol,* Ohio State, 35-36; *asst. prof, Syracuse, 36–* Physiol. Soc; Soc. Exp. Biol. Chemistry of muscle contraction; water and electrolyte distribution.

Hegre, Dr. Erling S(tanford), 3203 Russell Blvd, St. Louis, Mo. *Experimental embryology.* Madison, Minn, Jan. 10, 09. A.B, Luther Col, 31; Montana, 36-38; M.S, Minnesota, 41, Ph.D, 42. Teaching fellow gross anat, Minnesota, 39-42; *instr. micro-anat, St. Louis, 42–* A.A. Pigmentary changes.

Hegsted, Dr. D(avid) Mark, Harvard Medical School, Boston, Mass. *Nutrition, Biochemistry.* Rexburg, Idaho, March 25, 14. B.S, Idaho, 36; M.S, Wisconsin, 38, Ph.D, 40. Asst. biochem, Wisconsin, 36-41; research chemist, Abbott Labs, 41-42; *instr. nutrition, Harvard Med. Sch, 42–* Vitamin B complex; chick nutrition.

Hehre, Dr. Edward J(ames), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Bacteriology, Immunology.* New York, N. Y, Dec. 14, 12. A.B, Cornell, 34, M.D, 37. Intern path, New York Hosp, 37-38; asst. *bacter. and immunol, med. col, Cornell,* 38-39, *instr, 39–* Soc. Exp. Biol; Harvey Soc. Tuberculosis in resistant species; serologically active impurities in sugar; mechanism of specific polysaccharide formation by certain bacteria.

Heiberg, Prof. S(vend) O(luf), 900 Maryland Ave, Syracuse, N. Y. *Forestry.* Copenhagen, Denmark, July 22, 00. Forstkandidat, Copenhagen, 24; M.F, Yale, 27. Instr. *silviculture, N. Y. State Col. Forestry, Syracuse,* 27-28, asst. prof, 28-31, *assoc. prof, 31–* A.A; Soc. Foresters; Int. Soc. Soil Sci; Danske Forstkandidaters Forening. Silviculture and forest soils.

Heiberger, Dr. C(harles) A(dam), 75 Queen Anne Road, Bogota, N. J. *Organic chemistry.* Bethlehem, Pa, Feb. 1, 15. B.S, Lehigh, 35, M.S, 37, Ph.D, 39. Asst. chem, Lehigh, 35-39; *develop. and research chemist, U. S. Rubber Co, 39–* Chem. Soc; Soc. Rheol; Soc. Mil. Eng. Chemical engineering; oxidation of fatty oils, including high pressure catalytic oxidation.

Heid, J(ohn) L(aurence), U. S. Citrus Products Station, Winterhaven, Fla. *Chemistry.* South. Ill, June 29, 00. B.S, George Washington, 23. Bur. Standards, 21; chemist, U. S. Dept. Agr, 21-26; tech. director, Skinner Mfg. Co, Omaha, 27-29; chemist, bur. chem. and soils, U. S. Dept. Agr, Los Angeles, 30-31, in charge fruit and veg. products lab, Texas, 31-41; chief chemist, Calif. Citrus Juice Exchange, 41-42; *senior chemist in charge, U. S. Citrus Products Sta, 41–* A.A; Chem. Soc; Soc. Refrig. Eng; Inst. Food Technol; Pub. Health Asn; Fla. Hort. Soc. Ethylene treatment, composition, product manufacture, waste disposal, product storage and preservation by canning, freezing and dehydration of fruits and vegetables; alimentary pastes; adulteration of canned corn; naphthalene sulfonic acids.

Heidbreder, Prof. Edna (Frances), Wellesley College, Wellesley, Mass. *Psychology.* Quincy, Ill, May 1, 90. A.B, Knox Col, 11; A.M, Wisconsin, 18; Ph.D, Columbia, 24. Instr. *psychol,* Minnesota, 23-26, asst. prof, 26-28, assoc. prof, 28-34; *prof, Wellesley Col, 34–* Assoc. ed, 'Jour. Abnor. and Social Psychol.' A.A. (cmt. I, 40–); Psychol. Asn. (director, 41–); East. Psychol. Asn. (pres, 43). Theoretical psychology; thinking; personality; morphologic index; mechanical ability.

Heidelberger, Prof. Michael, Presbyterian Hospital, New York, N. Y. **Chemistry.* New York, N. Y, April 29, 88. B.S, Columbia, 08, A.M, 09, Ph.D, 11; Eidgenössische Tech. Hochschule, Zurich, 11-12. Fellow, Rockefeller Inst, 12-13, asst. chem, 13-17, assoc, 17-23, assoc. mem, 23-27; *chemist,* Mt. Sinai Hosp, 27-28; *med. service, Presb. Hosp, 28–; assoc. prof.* med, *Columbia,* 28-29, *biochem, 29–* Asst, Stevens Inst. Tech, 09. Summers, Columbia, 09, 11. Ehrlich silver medal, 33. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Immunol; Soc. Bact; Harvey Soc. Organic chemistry; sodium-uranium compounds; volumetric determination of cerium; phthalones; cyclo-octatetraene; chemotherapy; alkaloids; oxyhemoglobin; specific substances of bacterial origin; thyroglobulin; chemistry of immune reactions.

Heider, Dr. R(udolph) L(ouis), 1706 Grand Ave, Dayton, Ohio. *Organic chemistry.* Methuen, Mass, April 29, 13. B.S, Northeastern, 36; M.S, Purdue, 38, Ph.D, 41. Asst. chem,

Purdue, 36–38; research fellow, Commercial Solvents Corp, 38–40; *org. chemist, cent. research labs, Monsanto Chem. Co, 40–* Chem. Soc. Inhibition and polymerization; distillation and utilization of organic tarry substances; preparation and derivatives of nitroolefins; aliphatic diazoparaffins; plastic materials.

Heidt, Prof. Lawrence J(oseph), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Portage, Wis, April 5, 04. A.B, Wisconsin, 27, M.S, 28, du Pont fellow, 29–30, Ph.D, 30. Teaching fellow, Wisconsin, 27–29; research assoc, Harvard, 30–35; instr. *chem, Mass. Inst. Tech,* 35–40, *asst. prof, 40–* Summer, research assoc, Wisconsin, 30. A.A; Chem. Soc. Photochemistry; chemical kinetics.

Heiks, Dr. Ray E(merson), Marshall College, Huntington, W. Va. *Physical chemistry.* Smithville, Ohio, June 28, 15. A.B, Bluffton Col, 37; M.S, Ohio State, 38, univ. fellow, 39–40, Ph.D, 40. Asst. *chem,* Ohio State, 37–39; *instr, Marshall Col, 40–* Am. Asn. Adv. Science award from W. Va. Acad. Sciences, 40–41. Equilibria in the stannous oxide-sodium hydroxide and in the stannous oxide-hydrochloric acid systems at 25°; analysis of dilute solutions of stannous tin.

Heil, Prof. L(ouis) M(ace), Cooper Union, New York, N. Y. *Physics.* Columbus, Ohio, June 1, 03. B.E, Ohio State, 25, M.S, 27, Ph.D, 31. Asst. *physics,* Ohio State, 25–27; instr, Ohio (Athens), 27–29, asst. prof, 29–35, assoc. prof, 35–37; Ohio State, 37–38; educ, Chicago, 38–42; *prof. physics and head dept, Cooper Union, 42–* Gen. Educ. Board fellow, 36. Physical Soc. Dielectric constants; properties of x-rays; science in general education; examining in physical science.

Heiland, Prof. C(arl) A(ugust), 350 Birch St, Denver 7, Colo. *Geographics.* Hamburg, Germany, July 16, 99. Hamburg, 18–22; Heidelberg, 22–23; Dr. Nat. Sci, Hamburg, 23. Geophysicist, State of Hamburg, 21–22; A. Raky Co, 22–23; in charge dept. geophys. and geod, Askania Werke, 24–25, Am. rep, Houston, Texas, 25–26; *prof. geophys. and head dept, Colo. Sch. Mines, 26–* Lecturer, Columbia, 29; collaborator, U. S. Coast and Geod. Surv. Summer, geophys. work, U. S. Bur. Mines, Colo, 27. Nat. Research Council. Geophys. Union; Soc. Explor. Geophys; Seismol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Rocky Mt. Asn. Petrol. Geol. Geophysical prospecting; torsion balance; magnetometers; seismology; geophysical exploration.

Heilbrunn, Prof. L(ewis) V(ictor), University of Pennsylvania, Philadelphia, Pa. ***Zoology, Physiology.* Brooklyn, N. Y, Jan. 24, 92. A.B, Cornell, 11, fellow, 12–13; Ph.D, Chicago, 14. Asst. zool, Chicago, 13–14, assoc, 14–16, instr. histol, col. med, Illinois, 16–17; *zool,* Michigan, 19–21, asst. prof, 21–29; assoc. prof, *Pennsylvania,* 29–43, *prof, 43–* Guggenheim Mem. Foundation fellow, 27–28. Ed. board, 'Jour. Morphol. and Physiol,' 31–33; 'Physiol. Zool'; joint ed, 'Protoplasma Monographien,' 28–35. Mem, div. biol. and agr, Nat. Research Council, 35–38. Trustee, Marine Biol.' Lab, Woods Hole, exec. cmt, 34–36, 39–41. A.A; Soc. Nat; Soc. Zool. (v. pres, 32); Physiol. Soc; Soc. Exp. Biol. Artificial parthenogenesis; mitosis; anesthesia; protoplasmic viscosity; colloid chemistry of protoplasm.

Heilemann, Prof. John J(acob), Ursinus College, Collegeville, Pa. *Physics.* Philadelphia, Pa, June 20, 07. A.B, Pennsylvania, 32, Tyndale fellow, 35–38, A.M, 37, Ph.D, 38. Asst. physics, Pennsylvania, 24–35, instr, 38–39; microphotog. research and ed. asst, Am. Philos. Soc, 39–41; *assoc. prof. physics, Ursinus Col, 41–* Asn. Physics Teachers. Low voltage gaseous discharge; microphotographic standards and procedure.

Heilig, Prof. L(ouis) S(hepherd), 5050 Nicollet Ave, Minneapolis, Minn. *Mining engineering.* Pipestone Co, Minn, Aug. 20, 91. E.M, Minnesota, 15. Asst. engineer, Pickands, Mathert Co, Minn, 15–16; engineer, Forminière, Belgian Congo, Africa, 16–18; instr. mining, Minnesota, 21–23; engineer, State Tax Cmn, Minn, 23–27; asst. prof. *mine plant and mech, Minnesota,* 27–28, *assoc. prof, 28–*

Heilman, Dr. Dorothy H(enderson), Mayo Clinic, Rochester, Minn. *Bacteriology.* Pendleton, Oregon, Aug. 15, 05. B.S, Northwestern, 27, M.D, 32; M.S, Minnesota, 39. Med. supervisor, Van Hornesville Cent. Sch, N. Y, 32–34; med. adviser of women and director physical educ. for women, Stanford, 34–36; *instr. bacter, Mayo Foundation, Minnesota, 36–;* fellow, *Mayo Clinic,* 36–43, *mem. div. clin. labs, 43–* A.A; Am. Med. Asn; Soc. Bact. Immunology; tissue culture.

Heilman, Dr. Fordyce R(ussell), Mayo Clinic, Rochester, Minn. *Bacteriology.* Austin, Minn, June 16, 05. B.S, Northwestern, 30, M.D, 31; Mayo Foundation fellow, Minnesota, 32–35, M.S, 38, Ph.D, 40. *Mem. sect. clin. bacter, Mayo Clinic, 39–;* instr. bacter, *Mayo Foundation, Minnesota,* 39–41, *asst. prof. exp. bacter, 41–* A.A; Am. Med. Asn; Soc. Bact. Medical bacteriology.

Heilman, Prof. J(acob) D(aniel), Colorado State College of Education, Greeley, Colo. *Psychology.* Lehigh Co, Pa, Sept. 6, 75. A.B, Muhlenberg Col, 03; fellow, Pennsylvania, 06, Ph.D, 08. Asst, psychol. clinic, and lecturer child study, Pennsylvania, 07; asst. prof. *educ. psychol,* Colo. State Teachers Col, *Greeley,* 08–10, *prof,* 10–35, *Colo. State Col,* 35–40, *emer. prof, 40–, director personnel dept, 35–* Psychol. Asn; Educ. Research Asn; fel. Colo-Wyo. Acad. (past v. pres). Educational psychology; personnel; native capacity.

Heilman, R(ussell) H(oward), Mellon Institute, Pittsburgh, Pa. *Engineering.* Ford City, Pa, Nov. 30, 93. B.S, Pittsburgh, 20, E.E, 23, M.E, 27. *Senior indust. fellow, Mellon Inst, 19–* Junior award, Soc. Mech. Eng, 22, 24. Mech. Eng; Heat. and Vent. Eng; Soc. Test. Mat; Chem. Soc. Heat insulation.

Heilprin, Dr. L(aurence) B(edford), National Bureau of Standards, Washington, D. C. *Physics.* New York, N. Y, May 26, 06. B.S, Pennsylvania, 28, A.M, 31; Ph.D, Harvard, 41. Instr. physics and math, sch. eng. and sch. lib. arts, Northeastern, 35–40; asst. thermodyn, Harvard, 40–41; instr. physics, Col. City of N. Y, 41; asst. physicist, *Bur. Standards,* 41–42, *assoc. physicist, 42–; lecturer operational circuit analysis, war eng. and tech. courses, George Washington, 43–* Physical Soc; Asn. Physics Teachers; Geophys. Union. Physics of high pressures; physics of the ionosphere.

Heim, Dr. J(ohn) William, Aero Medical Laboratory, Army Air Forces, Wright Field, Dayton, Ohio. *Physiology.* Loysville, Pa, 02. B.S, Pa. State Col, 24, Elliot fellow, 24–26, M.S, 26; fellow, Harvard, 29–34, Ph.D, 34. Instr, *Harvard,* 26–29, research fellow, *sch. pub. health,* 34–36, *lecturer physiol, 36–; research physiologist, aero med. lab, Army Air Forces, 36–* Physiol. Soc. Physiological changes under compressed air; chemical composition of lymph; physiology of the lymphatic system; aviation medicine.

Heiman, Dr. Victor, Kasco Mills, Inc, Waverly, N. Y. *Poultry husbandry.* Lake Bay, Wash, July 26, 10. B.S, State Col. Wash, 31; Ph.D, Cornell, 34. Instr. poultry husbandry, State Col. Wash, 34–37; *director research, Kasco Mills, 37–; lieut, Sanit. Corps, U. S. Army.* Poultry science award, 35. The vitamin G and protein requirements of poultry; marketing of poultry products; dog nutrition.

Heimburger, Dr. L(eRoy) F(rancis), Medical Arts Bldg, Springfield, Mo. *Medicine.* St. Louis, Mo, June 25, 89. M.D, St. Louis, 12. Prof. dermat. and syphilol, sch. med, Cheeloo Univ, Tsinan, Shantung, China, 21–34; med. director, Tsinan Leper Hosp, China, 26–34; research assoc. anat, sch. med, Washington (St. Louis), 34–36; *practising physician, 36–* Rockefeller Foundation fellow, 21–22, 28–29. Clin. asst. Barnard Free Skin and Cancer Hosp, St. Louis, Mo, and Washington (St. Louis), 21–22; chief dermatologist, St. John's, Burge and Springfield Baptist Hosps. Fel. Am. Med. Asn; fel. Acad. Dermat. and Syphilol; South. Med. Soc; Miss. Valley Dermat. Soc. Dermatology; syphilology; leprology.

Heimpel, Prof. Louis G, Macdonald College, Que, Can. *Agricultural engineering.* Kitchener, Ont, Dec. 4, 90. B.S.A, Ont. Agr. Col, 18; M.S, Cornell, 31. Mem. staff land drainage exten, Ont. Agr. Col, 18–19, farm manager, 19–20; head *agr. eng,* Kemptville Agr. Sch, 20–21; *assoc. prof. and head dept, Macdonald Col, McGill, 21–* Soc. Agr. Eng; Can. Soc. Tech. Agr. Dairy barn ventilation; farm mechanization.

Heimsch, Dr. Charles, Swarthmore College, Swarthmore, Pa. *Plant anatomy and morphology.* Dayton, Ohio, May 4, 14. A.B, Miami (Ohio), 36; A.M, Harvard, 39, Ph.D, 41. Teaching asst. biol, Harvard, 36–37, 39–40, tech. asst, wood collection, 38–39, Austin teaching fellow biol, 40–41, Sheldon traveling fellow, 41–42; teaching asst. biol, Radcliffe Col, 37–38; *instr. bot, Swarthmore Col, 42–* Bot. Soc; New Eng. Bot. Club; Int. Asn. Wood. Anat. Wood anatomy and taxonomy in the Gruinales and Terebinthales; vascular differentiation in barley roots.

Hein, Dr. G(ordon) E(gan), University of California Medical School, San Francisco, Calif. *Internal medicine.* Mil-

waukee, Wis, Sept. 13, 91. A.B, Northwestern, 13, M.D, 16. Intern, Cook County Hosp, Chicago, 16; instr. and asst. prof. *internal med, med. sch, California*, 16–21, *assoc. prof, 21–* R. B. Mellon fellow, Pittsburgh, 20–21. Consultant cardiologist, U. S. Veterans' Hosp; med, Mt. Zion Hosp. Fel. Am. Med. Asn; Pacific Interurban Clin. Club; Calif. Acad. Med. Cardiology.

Hein, Dr. Illo, Woodcliff Lake, N. J. *Botany.* New York, N. Y, June 30, 93. B.S, Rutgers, 22; A.M, Columbia, 23, Ph.D, 27. Prof. biol, Pa. State Forestry Col, 23–26; Wash. Sq. Col, N. Y. Univ, 26–27; asst. prof. bot, Pa. State Col, 27–30; *asst. director, New York Col. Music, 31–* Summers, Columbia, 26, 27; Col. City of N. Y, 27; Carnegie Institution, 30. Bot. Soc; Torrey Bot. Club; Pa. Bot. Soc; N. Y. Acad; Pa. Acad. Cytology; mycology; morphogenesis; mildews; coprophilous fungi; variegated plants.

Heinbecker, Dr. Peter, Washington University School of Medicine, St. Louis, Mo. *Surgery, Physiology.* Sept. 13, 95. B.A, McGill, 18, M.D, 31. Asst. prof. and later *assoc. prof. surg, sch. med, Washington (St. Louis), and asst. surgeon, Barnes Hosp, 28–* Grant, cmt. sci. research, Am. Med. Asn, 37. Physiol. Soc; Asn. Anat; Surg. Asn; Soc. Exp. Biol; Asn. Thoracic Surg. Nerve and endocrine physiology; medical studies among Eskimos.

Heindel, R(oy) Lyman, Jr, 1415 St. Andrews Drive, Midland, Mich. *Organic chemistry.* Blanchardville, Wis, Oct. 25, 07. B.S, Tulane, 27, M.S, 29. Instr. org. chem, Tulane, 27–29; org. research chemist, *Dow Chem. Co, Midland,* 29–32, sales dept. special products, 32–34, research chemist, 34–36, *patent dept, 36–* Research chemist, Dowell, Inc, Tulsa, Okla, 34. Commercial phases of organic chemistry; cellulose ethers; polymer plastics.

Heindl, R(aymond) A(lbert), 4917 43rd St, N. W, Washington, D. C. *Ceramics.* Marinette, Wis, July 21, 92. B.S, George Washington, 17. Research engineer, Carborundum Co, Niagara Falls, 17–18; asst. chief chemist, Aluminum Co. of Amer, N. C. and N. Y, 18–21; chief chemist and asst. supt, Nat. Abrasive Co, Niagara Falls, Ont, Can, 21–23; *Bur. Standards, 23–, chief refractories sect, 27–* Inf, U.S.A, 18. Ceramic Soc. (ed. cmt, 29–34, research cmt, refractories div, 30–, chairman, 33); Soc. Test. Mat. (chairman, cmt. C-8, 34–36, chairman, subcmt. precision and tolerances); Mech. Eng. (cmt. on boiler furnace refractories, 27–, cmt. Am. marine standards, 27–, joint cmt. on foundry refractories, 27–40); assoc. Refractories Inst. Fire-clay and special refractories; abrasives; refractory and sagger clays.

Heineman, Dr. P(aul) G(ustav), 24 Belvidere Ave, Albany, N. Y. *Bacteriology.* Manchester, Eng. B.S, Chicago, 04, Ph.D, 07. Asst. bacter, Chicago, 06–07, 08–09; asst. and business manager, serum div, McCormick Inst, Chicago, 07–17; *director lab,* U. S. Standard Products Co, 17-22; *Cook Labs, Inc, Rensselaer, N. Y, 22–; chief bacteriologist, Bayer Co, Inc, Albany, 31–* A.A; Soc. Bact; Pub. Health Asn. Milk; substitute for potato as a culture medium; Bacillus bulgaricus; concentration of antitoxins; Rocky Mountain spotted fever; Oppler bacillus.

Heineman, Robert E(mil), 20 Calle Conquista, Tucson, Ariz. *Geology.* Detroit, Mich, Nov. 21, 01. B.S, Arizona, 26, M.S, 27. Teaching fellow geol, Arizona, 27–28; asst. geologist, *Ariz. Bur. Mines,* 28–34, *mineralogist, 34–* A.A; Am. Geog. Soc; Min. and Metal. Eng. Mineralogy; meteorites; Arizona minerals; fluorescence of minerals.

Heinemann, Dr. Bernard, 3578 DeKalb Ave, New York, N. Y. *Bacteriology, Parasitology.* New York, N. Y, Aug. 31, 15. B.S, Col. City of N. Y, 36; M.S, Maryland, 37; scholar, Rutgers, 37–39, Ph.D, 39. Asst. sanit. bacter, dept. water and sewage research, N. J. Exp. Sta, 38; bacteriologist, Richmond Mem. Hosp, 39; bacter. lab. asst, bur. labs, City Health Dept, New York, 39–41, senior bacter. technician, cardiac service, 41; prof. bacter, serol. and parasitol, Franklin Sch. Science and Arts, 42; *research bacteriologist, Schieffelin and Co, 42–* Soc. Bact. Chemotherapy; antiseptics and bacterial physiology.

Heinemann, Dr. Heinz, 31 Glendale Road, Upper Darby, Pa. *Petroleum chemistry.* Berlin, Germany, Aug. 21, 13. B.S. and M.S, Berlin, 35; Ph.D, Basel, 37. Asst, Frank's Labs, 37; chief research chemist, Rodessa Oil and Ref. Corp, La, 38–40; research chemist, Danciger Oil and Refineries, Texas, 40–41; research fellow, Carnegie Inst. Tech, 41; *research chemist, Attapulgus Clay Co, 41–* Chem. Soc; Petrol. Inst. (hydrocarbon research cmt, 38). Absorbents and catalysts; the ignition tendency of Diesel fuels; P_2O_5 as a refining agent; refining of hydrocarbons; catalytic compositions; isomerization of hydrocarbons.

Heinen, Dr. J(ohn) Henry, Jr, 817 Diversey Parkway, Chicago, Ill. *Physiology.* Chicago, Ill, March 21, 15. B.S, Chicago, 36, Ph.D, 40, M.D, 41. Teaching asst. physiol, Chicago, 37–40, *lieut, med. corps, U. S. Naval Res, 42–* Bone and cartilage formation in tissue culture and in anterior chamber transplants; chemical composition of human semen and of secretions of prostatic and seminal vesicles.

Heinicke, Prof. Arthur J(ohn), 597 W. North St, Geneva, N. Y. *Pomology.* St. Louis, Mo, Oct. 23, 92. B.S.A, Missouri, 13, fellow, 13–14, A.M, 14; Ph.D, Cornell, 16. Instr. *pomol, Cornell,* 14–17, asst. prof, 17–20, *prof, 20–, head dept, 21–; director, N. Y. Exp. Sta, Geneva, 42–* A.A; Soc. Hort. Sci. (v. pres, 25, 35, 36, pres, 37); Bot. Soc. (chairman, physiol. sect, 35); Soc. Plant Physiol; N. Y. State Cooperative Fruit Testing Asn. (director, 35–). Rest period; sap and freezing of tissue in plants; abscission of flowers and young fruits in the apple; nutrition and influence of pruning, of sod and of soil nitrates on fruit trees; pollination requirements of fruits; transpiration and water relations of fruit trees; photosynthetic activity of apple leaves.

Heinlein, Prof. Christian Paul, Florida State College for Women, Tallahassee, Fla. *Psychology.* Baltimore, Md, April 6, 99. A.B, Hopkins, 23, Ph.D, 27; Peabody Conservatory of Music, 22, 25. Prof. math. and languages, Mt. Vernon Col, 24–25; asst. psychol, Hopkins, 25–27, nat. research fellow, 27–28; instr. *exp. psychol,* Lehigh, 28–29; assoc. prof, *Fla. State Col. for Women,* 29–32, *prof, 32–* Research assoc, California, 41–42; prof, exten, Florida. 9th Int. Cong. Psychol; 1st Int. Cong. Mental Hygiene. A.A; Psychol. Asn; S. Soc. Philos. and Psychol. (councilor; past sec'y-treas, pres, 42–); Fla. Acad. (councilor and past v. pres). Experimental and child psychology; music and experimental esthetics; psychophysiology; mental measurements; educational tests; statistical methods; laboratory apparatus; perception; emotion; history of psychology; philosophy of mathematics; semantics.

Heinlein, Dr. J(ulia) H(ell), Florida State College for Women, Tallahassee, Fla. *Psychology.* Baltimore, Md, Oct. 8, 95. B.S, Hopkins, 25, Laura Spelman Rockefeller Foundation fellow, 27–28, A.M, 28, Ph.D, 29. Asst. psychol, Hopkins, 26–27; asst. prof. child psychol. *Fla. State Col. for Women,* 30–35, *director teacher training, nursery sch,* 35–36, *43–, coordinator emergency courses, pre-sch. educ, 43–* Consultant, State Defense Council, Fla. Assoc. Psychol. Asn; Soc. Research Child Develop; S. Soc. Philos. and Psychol; Fla. Acad. Child and experimental psychology; nursery education; preferential manipulation and dextrality in children; tests; statistical methods; esthetics.

Heinrich, Carl, U. S. National Museum, Washington, D. C. *Entomology.* Newark, N. Y, April 7, 80. Chicago, 99–01. Entomologist and later *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 13–* A.A; Entom. Soc. Wash; Biol. Soc. Wash. Lepidoptera.

Heins, Dr. Albert E(dward), Purdue University, West Lafayette, Ind. *Mathematics.* Boston, Mass, Sept. 7, 12. B.S, Mass. Inst. Tech, 34, M.S, 35, Ph.D, 37. Instr. *math, Purdue,* 35–40, *asst. prof, 40–* Summers, guest, Mass. Inst. Tech, 37; Purdue Research Foundation special fellow, Brown, 41. Math. Soc. Harmonic analysis; Laplace and Fourier transforms, with special emphasis on their applications in the solution of ordinary and partial differential and difference equations; operational calculus; mechanics of continuous media and applied mathematics.

Heins, Prof. Maurice H(askell), Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Boston, Mass, Nov. 19, 15. A.B, Harvard, 37, A.M, 39, Ph.D, 40. Instr. and tutor math, Harvard, 39–40; asst, Inst. Advanced Study, 40–42; *asst. prof. math, Ill. Inst. Tech, 42–* Math. Soc. Functions of a complex variable; Riemann surfaces; conformal mapping.

Heinze, Dr. Peter H(erman), Box 844, Charleston, S. C. *Plant physiology, Biochemistry.* Kahoka, Mo, Jan. 23, 10. B.S, Northeast Mo. State Teachers Col, 35; A.M, Missouri, 38; Ph.D, Maryland, 40. Asst. hort, Missouri, 36–38; plant physiol, Maryland, 38–40; junior plant physiologist, *bur. plant indust, U. S. Dept. Agr,* 40–42, *asst. plant physiologist, regional veg. breeding lab, 42–* Soc. Plant Physiol. Determination of carbohydrates in plant materials; photoperiodism; vitamin determinations in vegetables.

Heinzelmann, Dr. Richard V(oorhees), 817 Radnor Ave, Baltimore, Md. *Organic chemistry.* Winnipeg, Man, Can, May 2, 16. B.Sc, Manitoba, 37; scholar, Hopkins, 40, Ph.D, 42. Junior instr, Hopkins, 37–41; *research chemist, Hynson, Westcott and Dunning, 41–* Summer, asst, Hopkins, 38. Synthetic studies in the field of purine and pyrimidine glycosides; synthetic pharmaceuticals.

Heinzmann, Prof. Walter P(hilip), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Mathematics.* Noblesville, Ind, May 12, 02. A.B, DePauw, 25; M.S, N. Mex. Col, 29; A.M, Illinois, 31. Asst. prof. *math, N. Mex. Col, 25–39, assoc. prof, 39–* Math. Asn; Council Teachers Math. Statistics; actuarial theory.

Heiple, Dr. Harold R(hine), 6152 Sherry Ave, St. Louis, Mo. *Physical chemistry.* Johnstown, Pa, July 25, 12. B.S, Pittsburgh, 34, U. S. Bur. Mines fellow, 38–40, Ph.D, 41. Instr. chem, Erie Center, Pittsburgh, 40–41; *senior research chemist, Wood River research labs, Shell Oil Co, Inc, 41–* Chem. Soc. Reaction between hydrogen and oxygen; the third explosion limit.

Heise, George W(illiam), National Carbon Co, Cleveland, Ohio. *Physical chemistry.* Milwaukee, Wis, June 27, 88. B.S, Wisconsin, 09, M.S, 12, fellow, 12–13. Asst. and instr. chem, Grinnell Col, 09–10; De Paul, 10–11; Wisconsin, 11–13; physical chemist and chief sect, Bur. Science, P. I, 13–17; *research chemist, Nat. Carbon Co, 19–* Capt, Q.M.C. and C.W.S, 17–19. A.A; Chem. Soc; Soc. Chem. Indust; Electrochem. Soc. (v. pres, 33–35). Electrochemistry; primary batteries; air depolarized cells; porous electrodes; water supply.

Heise, Dr. Margaret D(ora), Ohio State University, Columbus, Ohio. *Bacteriology.* Manila, P. I, Sept. 18, 16. A.B, Arizona, 37; Ph.D, Ohio State, 41. Asst. and research fellow, Ohio State, 37–41; *instr. bacter,* Simmons Col, 41–42; Woman's Med. Col. Pa, 42–43; *Ohio State, 43–* A.A; Soc. Bact. Staphylococci.

Heiser, Prof. Florien, Box 508, Norwich, Conn. *Psychology.* Hamilton, Ohio, June 30, 04. A.B, Oberlin Col, 26, A.M, 27; Ph.D, Columbia, 32. Master, Hawken Sch, Cleveland, 27–28; instr. *psychol,* Yale, 29–34; asst. prof, *Connecticut,* 34–41, *assoc. prof, 41–* Visiting lecturer, Wesleyan, 41–; director psychol. labs, Norwich State Hosp. Psychol. Asn. Skin sensation; thermal sensitivity; clinical psychology.

Heiser, Dr. Victor G(eorge), Bantam, Conn. *Public health.* Johnstown, Pa, Feb. 5, 73. A.B, Univ. State of N. Y, 94; M.D, Jefferson Med. Col, 97, Sc.D, 11; Sc.D, Rutgers, 17; LL.D, Temple, 39; Sc.D, Thiel Col, 39. U. S. Pub. Health Service, 98–15; chief quarantine officer, P. I, 03–13, director health, 05–15; director for the East, int. health board, Rockefeller Foundation, 14–27, assoc. director, int. health div, 27–34; *retired.* Formerly prof, col. med, Philippines; int. consultant in pub. health admin; special investigator plague, Egypt, 99; emigration, Europe, 99, Can, 01. Director, Am. Museum Health, 40– D. S. medal, Pa. Soc. of New York, 37; award, Holland Soc. New York, 39. Chairman, Nat. Malaria Cmt, 27; chairman med. advisory cmt, New York World's Fair, 39. U. S. del. and pres, Int. Leprosy Conf, Cairo, 38. Govt. rep, various int. med. congs. Am. Red Cross Cmn, Italy, 17; cmt. health and med. relief, U. S. Ry. Admin, 18–20. A.A; Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; Philos. Soc; Nat. Asn. Mfrs. (consultant, cmt. healthful working conditions, 38–); Inst. Med. Research Phila. (advisory board); Pa. Soc; Holland Soc. New York; Far East Asn. Trop. Med; P. I. Med. Asn. (pres, 05); Int. Leprosy Asn. (pres, 31–38). Cholera; leprosy; beri-beri; medicine in the tropics.

Heisig, Prof. G(ladstone) B(ering), 2400 35th Ave, S, Minneapolis, Minn. *Inorganic chemistry.* Houston, Texas, Oct. 6, 93. A.B, Rice Inst, 17, M.S, 18; A.M, Princeton, 21, Ph.D, 31. Asst, Rice Inst, 17–18; instr. *inorg. chem, Minnesota,* 19–32, asst. prof, 32–39, *assoc. prof, 39–* Summer, Illinois, 35. Junior chemist, gas warfare, U. S. Bur. Mines, 18–19. A.A; Chem. Soc. Organic and physical chemistry; qualitative analysis; Beckman rearrangement of heterocyclic hydroxamic acid-derivatives; melting points of halogenated benzene derivatives; action of radon on unsaturated and cyclic hydrocarbons; transition of mercuric sulfides in anhydrous solvents.

Heisig, T(heodore) C(harles), Texas Co, 135 E. 42nd St, New York, N. Y. *Chemistry.* Freehold, N. J, June 6, 97. A.B, Rice Inst, 19. Research chemist, Galena-Signal Oil Co, Houston, Texas, 19–20, chief chemist, 20–28; *Texas Co,* Houston, 28–31, Bayonne, N. J, 31–34, asst. to director research, New York, 34–36, asst. supt, Beacon, N. Y, 36–38, asst. chief chemist, Port Arthur, Texas, 38, *asst. director research, New York, 38–* Chem. Soc. Petroleum refining; improved lubricating oils; catalytic refining processes.

Heising, Raymond A, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics, Engineering.* Albert Lea, Minn, Aug. 10, 88. E.E, North Dakota, 12; M.S, Wisconsin, 14. *Radio research engineer,* West. Elec. Co, 14–25; *Bell Tel. Labs, 25–* Morris Liebmann mem. prize, Inst. Radio Eng, 21. A.A; Physical Soc; Elec. Eng; Radio Eng. (pres, 39). Radio communication; modulation; oscillators.

Heizer, Prof. E(dwin) E(lbert), University of Wisconsin, Madison, Wis. *Dairy husbandry.* South Charleston, Ohio, July 7, 04. B.S, Ohio State, 26, M.S, 27, Ph.D, 33. Asst. animal husbandry, Ohio State, 27–29, instr, 29–36, asst. prof, 36–38; assoc. prof. *dairy husbandry, Wisconsin,* 38–42, *prof, 42–, chairman dept, 38–* Breeding specialist, Holstein-Friesian Asn, 34–38. Soc. Animal Production; Dairy Sci. Asn; Genetic Asn; Ohio Acad. Lethal and abnormal genes in farm animals; inheritance of milk production; evaluation of dairy herd sires; artificial breeding of cattle.

Heizer, Dr. R(obert) F(leming), 1033 Keeler Ave, Berkeley, Calif. *Archeology.* Denver, Colo, July 13, 15. A.B, California, 36, Ph.D, 41. Instr. anthrop, Oregon, 40–41; research fellow, California, 41–42. Ethnol. Soc. (councilor, 40); Soc. Am. Archeol. Asiatic-American culture contacts; California archeology.

Hektoen, Dr. L(udvig), 21 W. Elm St, Chicago, Ill. *[1]*Pathology.* Westby, Wis, July 2, 63. A.B, Luther Col, 83, A.M, 96; M.D, Chicago, 87, Sc.D, 40; Rush, 96; Berlin, Prague and Upsala, 94–96; hon. M.D, Christiania, Norway, 11; Sc.D, Michigan, 13, Wisconsin, 16; LL.D, Cincinnati, 20, Western Reserve, 29, Luther Col, 36. Prof. *path, Rush Med. Col, Chicago,* 98–35, *emer. prof, 35–,* head dept, univ, 01–35, director, McCormick Inst, 01–40. Pathologist, Cook County Hosp, 89–03; coroner's physician, Cook County, Ill, 90–94. Pres, Chicago Tumor Inst, 37– Ed, 'Jour. of Infectious Diseases,' 04–40; 'Archives of Path,' 25. Ill. Cmn. to Investigate Diseases of Occupation, 08–10. Chairman, Nat. Research Council, 36–37, med. div, 24, 26, 29; mem. Nat. Advisory Health Council; exec. director, Nat. Advisory Cancer Council, 37– Trustee, Sprague Mem. Inst, Chicago, 23–; Inst. Psychoanal; Elizabeth McCormick Fund. Order of St. Olaf, 29; centennial award, State Med. Soc. Wis, 41; D. S. medal, Am. Med. Asn, 42. Nat. Acad; A.A. (v. pres, K, 07, N, 29); Asn. Path. and Bact. (pres, 02); emer. mem. Am. Physicians; Am. Med. Asn. (chairman, research cmt, 37–); hon. mem. Soc. Bact. (pres, 29); Asn. Immunol. (v. pres, 27); hon. mem. Soc. Clin. Path; hon. mem. Acad. Med. Wash; Chicago Med. Soc. (pres, 20); Chicago Path. Soc. (pres, 98–02); Inst. Med. Chicago (pres, 28); hon. mem. Path. Soc. Phila; hon. mem. Mikrobiol. Gesell. Wien; hon. mem. Norwegian Med. Soc; Norwegian Path. Soc; Norwegian Acad; for. mem. Swedish Med. Soc. Pathological anatomy and bacteriology; immunology.

Helander, Prof. Linn, 1006 N. Manhattan Ave, Manhattan, Kans. *Mechanical engineering.* Chicago, Ill, Aug. 28, 91. B.S, Illinois, 15. Steam engineer, Pittsburgh Crucible Steel Co, Midland, Pa, 15–17; ed. staff, 'The Iron Age,' 17–18; gen. engineer, Westinghouse Elec. and Mfg. Co, 19–25; senior engineer, United Gas Improv. Contracting Co, 25–29; consulting engineer, 29–31; asst. prof, Pittsburgh, 31–33; consulting and research engineer, 33–35; *prof. mech. eng. and head dept, Kans. State Col, 35–* Ordnance Dept, U. S. A, 18–19. A.A; Mech. Eng. (manager, 39–42); Eng. Educ; Am. Acad; Franklin Inst; Kans. Eng. Soc. Economic and thermodynamic factors in industrial and central station power generation and in the design, selection and replacement of equipment.

Held, Dr. Isidore William, 2 E. 95th St, New York, N. Y. *Medicine.* Boryslav, Austria, May 15, 76. M.D, Jefferson Med. Col, 02. *Consultant, 16–* Consultant, Nathan and Miriam Barnett Mem. Hosp, Paterson, N. J, 16–; Israel Zion and Beth Moses Hosps, Brooklyn, 17–; Jewish Mem. Hosp, 25–; Beth El Hosp, 32–; Rockaway Beach Hosp, 30–; attending physician, Beth Israel Hosp, 29–; clin. prof, col. med, N. Y. Univ, 35–42. A.A; fel. Col. Physicians; fel. Am. Med. Asn; Heart Asn; Gastro-Enterol. Asn; Asn. Hist. Med; Asn. Mil. Surg; East. Med. Soc; N. Y. Alliance; fel. N. Y. Acad. Med. Internal medicine; differential diagnosis of internal

medicine; therapeutics of the gastro-intestinal tract; hematology; roentgenology; cardiology; medical biography.

Held, Dr. Omar C(onrad), University of Pittsburgh, Pittsburgh, Pa. *Psychology.* Santa Claus, Ind, Aug. 14, 96. A.B, Indiana, 23, A.M, 24; Ph.D, Pittsburgh, 31. Instr. *psychol, Pittsburgh,* 26–31, asst. prof, 31–34, *assoc. prof, 34–, personnel asst. to dean col. liberal arts, 28–; mem. neuropsychiat. board, U. S. Navy, Norfolk, Va, 41–* A.A; Psychol. Asn; Asn. Applied Psychol; Pa. Asn. Clin. Psychol. Personnel; educational psychology.

Heldman, Dr. Julius D(avid), 475 Vermont Ave, Berkeley, Calif. *Physical chemistry.* Cleveland, Ohio, May 9, 19. A.B, California at Los Angeles, 39, A.M, 40; Rosenberg fellow, Stanford, 41–42, Ph.D, 42. Teaching asst. *chem,* California at Los Angeles, 39–40; Stanford, 40–41; *nat. research fellow, California, 42–* Chem. Soc. Kinetic and equilibrium studies of the homogeneous catalytic isomerization of paraffin hydrocarbons; photolysis of aldehydes.

Heldt, Dr. Tho(ma)s J(ohannes), Henry Ford Hospital, Detroit, Mich. *Neurology, Psychiatry.* Buckeye, Iowa, Aug. 8, 83. A.B, Missouri, 10, A.M, 12; M.D, Hopkins, 16. Asst. anat, Missouri, 10–13, instr, 13–14; asst, Psychiat. Inst, New York, 16–17; clin. director hosp, U. S. Pub. Health Service, 19–22, psychiatrist in charge clinic, Nat. Cmt. Mental Hygiene, 22–23; *physician in charge div. neuropsychiat, Henry Ford Hosp, 23–* Green's west. salmon exped, Bur. Fisheries, 11. Major, M.C, 17–19. A.A; Psychiat. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Nat. Cmt. Mental Hygiene; Asn. Anat; Asn. Study Int. Secretions; Orthopsychiat. Asn; Neur. Asn; Cent. Psychiat. Asn; Mich. Soc. Neur. and Psychol. (pres, 25); Int. Hosp. Asn. Möllgaard's reticulum; psychoneuroses; personality reactions of mental defectives; neuropsychiatry in general hospital; negative pressure in epidural space; lumbar puncture headache; treatment of nervous and mental patients; dementia praecox; medical perspectives; mental hygiene viewpoints in general hospital; neurology in dementia praecox; relationships of diagnosis and therapeutic results; neuropsychiatry in Michigan.

Helff, Prof. O(tto) M(aximilian), New York University, University Heights, New York, N. Y. *Zoology.* West Hoboken, N. J, Dec. 4, 97. B.S, New Hampshire, 21; M.S, Chicago, 21; Ph.D, Yale, 25. Asst. prof. bacter, Agr. and Mech. Col. Texas, 21–22; asst. *zool,* Yale, 22–25; instr, Cincinnati, 25–26; assoc, Iowa, 26–27, asst. prof, 27–29; *assoc. prof, N. Y. Univ, 29–* Research assoc, Am. Museum Nat. Hist, 29–42; Rockefeller Foundation fellow, 35–36. A.A; Soc. Zool; Soc. Bact; Soc. Exp. Biol; Physiol. Soc; Asn. Anat; Asn. Study Int. Secretions. Experimental embryology, endocrinology and histogenesis of amphibian metamorphosis.

Helgeson, Prof. E(arl) A(drian), North Dakota Agricultural College, Fargo, N. Dak. *Plant physiology.* Northwood, Iowa, Nov. 23, 97. B.S, Oregon State Col, 27; Ph.D, Wisconsin, 30. Instr. bot. and plant physiol, Wisconsin, 30–34; plant physiologist, Yoder Brothers, Ohio, 34–35; asst. prof. *bot, N. Dak. Col,* 35–36, *assoc. prof, 36–,* acting head dept, 37–38, *head dept, 38–, botanist, Exp. Sta, 38–* Summers, agent, U. S. Dept. Agr, 28, 30, 39. A.A. Physiology of crop plants and weeds; physiology of plant diseases.

Hellbaum, Prof. Arthur A(lfred), University of Oklahoma School of Medicine, Oklahoma City, Okla. *Physiology, Zoology.* Latah, Wash, June 22, 04. A.B, St. Olaf Col, 30; A.M, Wisconsin, 32, Ph.D, 34; M.D, Chicago, 43. Asst. zool, Wisconsin, 30–35, instr, 35–36; asst. prof. *physiol, sch. med, Oklahoma,* 36–39, *assoc. prof, 39–* A.A; Soc. Zool; Physiol. Soc; Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions. Endocrinology; vertebrate embryology; physiology of reproduction.

Hellebrandt, Dr. Frances A(nna), 1715 Jefferson St, Madison, Wis. *Physiology.* Chicago, Ill, Aug. 26, 01. B.S, Wisconsin, 28, M.D, 29. Asst. anat, *Wisconsin,* 24–27, instr. physiol, 28–29, intern, State Gen. Hosp, 29–30, asst. prof. *physiol,* 30–37, *assoc. prof, 37–* A.A; Physiol. Soc. Physiology of exercise; posture.

Heller, Dr. A(mos) A(rthur), Box 300, Route 2, Chico, Calif. *Botany.* Danville, Pa, March 21, 67. A.B, Franklin and Marshall Col, 92, A.M, 97, Sc.D, 11. Field agent, U. S. Dept. Agr, 92; instr. bot, Minnesota, 96–98; in charge Vanderbilt exped. of N. Y. Bot. Garden, Puerto Rico, 98–99; asst. botanist, Exp. Sta, and instr. bot, Nevada, 08–10, asst. prof, 10–13; teacher, Chico High Sch, 17–38. Systematic botany, especially the genus Lupinus.

Heller, Dr. Carl G(eorge), Wayne University College of Medicine, Detroit, Mich. *Endocrinology, Physiology.* Syracuse, N. Y, Jan. 20, 13. Ph.B, Wisconsin, 35, Ph.D. and M.D, 40. Asst. *med,* Wisconsin, 36–40; fellow, *col. med, Wayne,* 41–42, *instr, 42–* Mem. staff, Receiving Hosp, 41–; Eloise Hosp, 42–; research fellow, Am. Col. Physicians, 42–43. Asn. Study Int. Secretions; Am. Med. Asn. Gonadal and pituitary relationships with special reference to clinical hypogonadism.

Heller, Dr. G(eorge), University of Colorado School of Medicine, Denver, Colo. *Bacteriology.* New York, N. Y, May 5, 06. B.S, N. Y. Univ, 32; A.M, Columbia, 32, Ph.D, 40. Asst. *bacter,* Columbia, 38–40, assoc, Columbia Sch. Trop. Med, Puerto Rico, 41; *instr, sch. med, Colorado, 41–; capt, Sanit. Corps, U. S. Army.* Soc. Bact; assoc. Soc. Exp. Biol; Colo-Wyo. Acad. Physiology of desiccated bacteria.

Heller, Dr. Hugh A(ndrews), 536 W. James St, Lancaster, Pa. *Chemistry.* Riegelsville, Pa, Oct. 13, 08. B.S, Rutgers, 30, M.S, 32; Ph.D, Maryland, 38. Asst. chem, Rutgers, 31–32; research chemist, Sloane Blabon Corp, 33–35; Armstrong Cork Co, 35; asst. chem, Maryland, 35–38; *instr.* math, Franklin and Marshall Acad, 38–42; *chem, Franklin and Marshall Col, 42–* A.A; Chem. Soc; Pa. Acad. Physical and organic chemistry.

Heller, Prof. V(ictor) G, 230 West St, Stillwater, Okla. *Biochemistry.* El Paso, Ill, Nov. 26, 86. B.S, Lake Forest Col, 09; Chicago; fellow, Iowa State Col, 18–24, Ph.D, 24. Prin, high schs, 09–19; *prof.* physiol. chem, *Okla. Agr. and Mech. Col,* 24–25, *agr. chem. and head dept. agr. chem. research, 25–* Soc. Biol. Chem; Chem. Soc; Inst. Nutrition; Okla. Acad. Physiological effects of saline and alkaline waters; salt pollution of waters; chemistry of the blood composition of domestic animals; vitamins; animal nutrition.

Heller, Dr. Wilfried, University of Minnesota, Minneapolis, Minn. *Physical chemistry, Physics.* Bad-Duerkheim, Germany, Dec. 13, 03. Ph.D, Berlin, 31. Research assoc. physical chem, Kaiser Wilhelm Inst. für physikalische Chemie und Elektrochem, 31–33; boursier and instr. colloid physics, Lab. des recherches physiques, Sorbonne, Paris, 33–38; *assoc. chemist colloid science, sch. chem, Minnesota, 38–; research assoc. and head colloid chem. div, rubber project No. 1, War Production Board, Chicago, 43–* Fel. Physical Soc; Chem. Soc. Chemistry and physics of colloids; physical optics.

Hellerman, Dr. Leslie, Johns Hopkins University School of Medicine, Baltimore, Md. *Biochemistry, Organic chemistry.* Hammond, Ind, Feb. 5, 96. B.S, Chicago, 17, Ph.D, 23. Research instr. org. chem, Chicago, 23–27; *assoc. physiol. chem, sch. med, Hopkins, 27–* Consulting chemist, bur. chem. and soils, U. S. Dept. Agr, 28–37. Summer, Chicago, 30. Mem. cmt. catalysis, Nat. Research Council, 40– C.W.S, U.S.A, 18. A.A; Chem. Soc; Soc. Biol. Chem. Oxidation of amines and amino acids; aliphatic diazo compounds and intramolecular rearrangements; metallo-organic derivatives; activation of enzymes; arginase; sulfhydryl enzymes; oxidative catalysis; control of biological catalytic processes.

Hellinger, Dr. Ernst D(avid), 2215 Maple Ave, Evanston, Ill. *Mathematics.* Striegan, Silesia, Sept. 30, 83. Ph.D, Göttingen, 07. Privat-docent *math,* Marburg, 09–14; prof, Frankfurt, 14–35; *lecturer, Northwestern, 39–* Math. Soc; Math. Asn. Integral equations; infinite systems of equations; real functions; continued fractions.

Hellman, Prof. Milo, 49 Merrall Road, Far Rockaway, N. Y. *Anthropology, Vertebrate paleontology, Orthodontia.* Jassy, Roumania, March 26, 72. D.D.S, Pennsylvania, 05, Sc.D, 33; Angle Sch. Orthodontia, 08; Sc.D, Witwatersrand, 38. Lecturer orthodontia, Pennsylvania, 25–27; prof. comp. dental anat, N. Y. Univ, 27–28, orthodontia, 28–29; *research assoc. physical anthrop, Am. Museum Nat. Hist, 12–; prof. dentistry, Columbia, 32–* Lecturer, Harvard, 27, 28. Ed. board, 'Archives Clin. and Oral Path.' Mem. S. African exped, Am. Museum Nat. Hist, 38. Albert H. Ketcham Mem. award, 39. Hon. pres, Int. Orthodontic Cong, New York, 26, London, 31; mem. cmt. growth and develop, White House Conf. Child Health and Protection, 30; exec. group cmn. for standardization of anthrop. techniques, Int. Cong. Anthrop. and Ethnol, 37. A.A; Asn. Physical Anthrop; Col. Dentists; Dental Asn; Asn. Mammal; Asn. Orthodontists (exec. and research cmts; v. pres, 41); Asn. Dental Editors; Ethnol. Soc; hon. mem. South. Soc. Orthodontists; fel. N. Y. Acad. (v. pres, 32, 33);

N. Y. Acad. Dentistry; assoc. fel. N. Y. Acad. Med; N. Y. Soc. Orthodontists; N. Y. State Dental Soc; Odontological Soc. Union S. Africa; Int. Asn. Dental Research (pres, N. Y. sect, 33). Physical anthropology; comparative dental anatomy; evolution.

Hellund, Prof. E(mil) J(ohn), University of North Carolina, Chapel Hill, N. C. *Theoretical physics.* Vancouver, B. C, Can, Dec. 30, 11. Ph.D, Washington (Seattle), 39. Research engineer, Battelle Mem. Inst, 40–41; *prof.* physics and math, Ga. State Woman's Col, 41–42; *physics, North Carolina, 42–* Dynamical theory of gases.

Hellwig, Dr. A(rthur) P(aul), American Maize-Products Co, 100 E. 42nd St, New York, N. Y. *Chemistry.* Belle Plaine, Iowa, April 5, 07. B.S, Coe Col, 29; fellow, Iowa State Col, 29–33, Ph.D, 33. Director flavor research, van Ameringen-Haebler, 33–34; *manager tech. service div. and asst. bulk sales manager, Am. Maize Products Co, 35–* Pres, C. M. Armstrong, Inc. Inst. Food Technol; Chem. Soc. Applied research in manufacture of foods; sales development of organic chemicals; development of organic acids and prolamines.

Hellwig, Dr. C(hristian) Alexander, 5651 Van View Place, Wichita, Kans. *Pathology.* Meissen, Germany, Aug. 23, 89. A.B, Leipzig, 12; M.D, Bonn, 16. Asst. path, med. sch, Freiburg, 18–20; asst. surg. path, med. sch, Frankfurt-am-Main, 20–24; *pathologist, St. Francis Hosp, Wichita, Kans, 24–* Pathologist, Sedgwick County Tumor Clinic, 36– A.A; Soc. Clin. Path; Asn. Path. and Bact; Asn. Cancer Research. Pathology and etiology of goiter; experimental goiter; scientific basis of biopsy in tumors; arteriosclerosis; pathology of thymus.

Helly, Dr. Edward, 811 N. Leclaire Ave, Chicago, Ill. *Mathematics.* Vienna, Austria, June 1, 84. Ph.D, Vienna, 07. Docent *math,* Vienna, 21–38; *prof,* Col. of Paterson, 40–42; Monmouth Junior Col, 42–43; *Ill. Inst. Tech, 43–* Math. Soc; Inst. Math. Statist. Linear functional operations; series of orthogonal functions; linear equations with infinite many unknowns; closed point sets with common points.

Helm, Prof. C(harles) A(lton), 1517 Rosemary Lane, Columbia, Mo. *Agronomy.* Sheldon, Mo, Feb. 4, 89. B.S, Missouri, 13; A.M, Nebraska, 16. Asst. exp. agron, Nebraska, 13–16; *assoc. prof. field crops, Missouri, 16–* Seed size and sprout value; grasses of the Ozark uplands of Missouri.

Helm, Dr. Emerson B(ennette), 843 East Blvd, Cleveland, Ohio. *Chemistry.* Cleveland, Ohio, Sept. 29, 93. B.S, Florida, 15; Ph.D, Hopkins, 18. Chemist, Gabauer Chem. Co, 18–24; mfg. chemist, Emerson B. Helm Chem. Co, 24–27; head research dept, *Indust. Rayon Corp,* 27–36, *special investigator, 37–* Chem. Soc. Physical and organic chemistry.

Helmer, Dr. Olaf, College of the City of New York, New York, N. Y. *Mathematics.* Berlin, Germany, June 4, 10. Ph.D, Berlin, 34, London, 36. Asst. logic, Chicago, 37–38; instr. *math,* Illinois, 38–40, assoc, 40–41; *instr, Col. City of N. Y, 41–* Summers, instr, Col. City of N. Y, 40, 41. Math. Soc. Theory of functions; algebra.

Helmer, Dr. Oscar M(arvin), Indianapolis City Hospital, Indianapolis, Ind. *Chemistry.* Portland, Oregon, March 13, 00. B.S, Oregon State Col, 22; M.S, Illinois, 24; Ph.D, Chicago, 27. Asst. physiol. chem, Chicago, 25–27; asst, Rockefeller Inst, 27–31; *head dept. biochem, Lilly labs, Indianapolis City Hosp, 31–* A.A; Chem. Soc; Soc. Biol. Chem; Asn. Cancer Research; Soc. Exp. Biol; adj. mem. Cent. Soc. Clin. Research. Chemistry of tumors; etiology of pernicious anemia; gastric secretion; liver function; vitamins; chemistry of hypertension.

Helmholz, Dr. A(ugust) C(arl), Department of Physics, University of California, Berkeley, Calif. *Physics.* Evanston, Ill, May 24, 15. A.B, Harvard, 36; Cambridge, 36–37; Ph.D, California, 40. *Instr. physics, California, 40–,* asst, radiation lab, 40–42. A.A; Physical Soc. Energy and multipole order of nuclear gamma-rays.

Helmholz, Dr. H(enry) F(rederic), Mayo Clinic, Rochester, Minn. *Pediatrics.* Chicago, Ill, Aug. 24, 82. B.S, Wisconsin, 02; M.D, Hopkins, 06. Fellow, Hopkins, 06–07; asst. prof. med, Rush Med. Col, Chicago, 11–19, mem, Sprague Mem. Inst, 14–20; *prof. pediat, Minnesota, 20–* Ed, 'Am. Jour. Diseases of Children,' 19–24. Pres, Fifth Int. Cong. Pediat. Pediat. Soc; Acad. Pediat; Physiol. Soc; Soc. Pharmacol. Duodenal ulcer; pyelitis; use of ketogenic diet in epilepsy and in urinary infection; the genito-urinary system.

Helmholz, Prof. Lindsay, Dartmouth College, Hanover, N. H. *Chemistry.* Chicago, Ill, Nov. 11, 09. Ph.D, Hopkins, 33. Nat. research fellow, 34–36; instr. *chem,* Calif. Inst. Tech, 36–40; *asst. prof, Dartmouth Col, 40–* Chem. Soc; Soc. X-Ray and Electron Diffraction. Molecular structure; crystal structures; lattice energies.

Helmick, Prof. Homer H(enry), 224 Alexander Blvd, Elmhurst, Ill. *Physical chemistry.* Defiance, Ohio, April 4, 90. A.B, Defiance Col, 09, A.M, 10; Ph.D, Chicago, 18. Assoc. prof. chem, Wheaton Col, 11–12, prof, 12–15; asst, Chicago, 15–18; research chemist, Radium Co, Colo, 20–23; *prof. chem, Elmhurst Col, 23–* 2nd lieut, Sanit. C, 18–19. A.A; Chem. Soc. Radioactivity; determination of thorium; radioactive constants of actinium.

Helmick, Prof. P(aul) S(treeper), Drake University, Des Moines, Iowa. *Physics.* Davenport, Iowa, Dec. 11, 93. A.B, Iowa, 15, M.S, 16, Ph.D, 20. Instr. *physics,* Iowa, 19–21; nat. research fellow, Princeton, 21–23; *prof. and head dept, Drake, 23–* Physical Soc; Iowa Acad. (sec'y, 24–29). Physics of the photographic plate; minimum energy for photo image.

Helmkamp, Prof. R(alph) W(illiam), University of Rochester, Rochester, N. Y. *Organic chemistry.* Sharpsburg, Pa, April 8, 91. A.B, Rochester, 11; A.M, Harvard, 21, Ph.D, 25. Instr. *chem, Rochester,* 22–25, asst. prof, 25–32, *prof, 32–* Chem. Soc. Michael condensation; alkylation of nitro compounds; Walden inversion; enamines.

Helser, Dean M(aurice) D(avid), Iowa State College, Ames, Iowa. *Animal husbandry.* Thornville, Ohio, March 29, 90. B.S.A, Ohio State, 14; M.S, Iowa State Col, 16; Chicago, 30; Harvard, 34. Instr. animal husbandry, State Agr. Sch, Ark, 14–15; teaching scholar, *Iowa State Col,* 15–16, instr, 16–19, asst. prof, 19–20, assoc. prof, 20–21, *prof. and chief meat investigation, Exp. Sta, 21–, personnel director, 31–, dean junior col, 33–* Judging team. Int. Live Stock Expos, 13. A.A; Col. Personnel Asn; Iowa Acad. Farm meats; selection of meats; market classes and grades of live stock.

Helson, Prof. Harry, Bryn Mawr College, Bryn Mawr, Pa. *Psychology.* Chelsea, Mass, Nov. 9, 98. A.B, Bowdoin Col, 21; A.M, Harvard, 22, Ph.D, 24. Instr. psychol, Cornell, 24–25; Illinois, 25–26; asst. prof, Kansas, 26–28; assoc. prof. *exp. psychol.* and director lab, *Bryn Mawr Col,* 28–33, *prof, 33–; mem. staff, Nat. Defense Research Council contract, Foxboro, Co, Mass.* Summers, Cornell, 28; Southern California, 33. Co-operating ed, 'Am. Jour. Psychol,' 40– A.A; Psychol. Asn; Optical Soc; Soc. Exp. Psychol; Inst. Psychol; East. Psychol. Asn. (sec'y-treas, 39–41, sec'y, 41). Experimental and theoretical psychology; vision; cutaneous sensitivity; psychophysics.

Helwig, Prof. Edwin R(oyer), University of Pennsylvania, Philadelphia, Pa. *Zoology.* Westminster, Md, Nov. 6, 00. Ph.D, Pennsylvania, 28. Instr. *zool, Pennsylvania,* 23–37, *asst. prof, 37–; lieut, Sanit. Corps, U. S. Army, 43–* A.A. Cytology; chromosomes of Orthoptera.

Helwig, Dr. Ferdinand C, St. Luke's Hospital, Kansas City, Mo. *Pathology.* Nowata, Okla, 98. A.B, Kansas, 19, M.D, 22. Instr. *path, sch. med, Kansas,* 23–25, asst. prof, 25–27, *assoc. prof, 27–* Pathologist, Christian Church Hosp, 25–26; Children's Mercy Hosp, 26–; St. Luke's Hosp, 28–; chief of service, dept. path, Kansas City Gen. Hosp. Mem. Am. Board Path. Asn. Path. and Bact; fel. Col. Physicians; Soc. Clin. Path; Kansas City Path. Soc. (director, 29–35); Kansas City Acad. Med. (pres, 30). Actinomycosis; arachnid infections; nephrosis; liver and kidney diseases; heart disease; mastoiditis in infants; water intoxication; alcohol.

Helyar, Prof. F(rank) G(eorge), Rutgers University, New Brunswick, N. J. *Animal husbandry.* Boston, Mass, Feb. 6, 83. B.S, Vermont, 05. Dept. feeds and feeding, Exp. Sta, Mass. Col, 05–06; director dept. agr, Mt. Hermon Boys Sch, 06–10; director, N. Y. State Sch. Agr, Morrisville, 10–17; *director* short courses, *col. agr, Rutgers,* 17–29, *res. teaching, 29–, prof. animal husbandry, 19–,* acting dean, 34–35. Swine nutrition; agricultural instruction.

Helyar, J(ohn) P(utnam), 17 Spruce St, Brattleboro, Vt. *Botany.* Claremont, N. H, May 3, 86. B.S, Vermont, 09, M.S, 12. Instr. bot, Vermont, 09–12; Rutgers, 12–15, asst. prof, 15–18, assoc. prof, 18–20, state seed analyst, N. J. Exp.

Sta, 12–20, consulting state seed analyst, 20–21; commercial work, 20–23; county agr. agent, Vt, 23–25; exten. prof. agron, Mass. Col, 25–28; *sales dept*, Am. Agr. Chem. Co, 28– Summers, instr, Vermont, 09–12; sch. gardening, Rutgers, 13–16. Crop nutrition; minor elements.

Helz, Dr. Armin W(erner), 1602 Carey Lane, Silver Spring, Md. *Physics, Physical chemistry.* Milwaukee, Wis, Aug. 14, 07. B.S, Wisconsin, 30; M.S, Mich. Col. Min. and Tech, 31; A.M, Michigan, 34; Ph.D, Rutgers, 38. Research engineer, Ed. Orton Junior Ceramic Foundation, 39–40; asst. prof. ceramics, Rutgers, 40–41; *research assoc, Bur. Standards, 41–* Physical Soc; Ceramic Soc. Ceramics; calorimetry; spectroscopy.

Helz, Dr. George E(rnst), Mellon Institute, Pittsburgh, Pa. *Bacteriology, Biochemistry.* Milwaukee, Wis, May 8, 02. B.S, Wisconsin, 25, M.S, 26; Ph.D, Ohio State, 36. Asst. bacter, Wisconsin, 25–27; instr, Ohio State, 27–30; director research, Franklin Labs, 30–33; asst. physiol. chem, Ohio State, 35–36; indust. fellow, Mellon Inst, 36–40; research biochemist, H. J. Heinz Co, 40–42; *indust. fellow, Mellon Inst, 42–* Inst. Food Technol; Soc. Bact; Chem. Soc. Technical bacteriology; chemistry of high molecular weight fatty acids; food technology.

Hemenway, Dr. Ansel F(rancis), P. O. Box 22, Cortaro, Ariz. *Botany.* Eugene, Oregon, Oct. 13, 78. A.B, Oregon, 02, A.M, 04; A.M, Harvard, 09; Ph.D, Chicago, 12. Prin, schs, Wash, 05–08; Austin teaching fellow, Harvard, 09–11; prof. biol, Transylvania Col, 12–23; assoc. prof. biol, Arizona, 23–27, prof. bot, 27–35; plant specialist, State Land Classification, Ariz, 35–37; science ed, 'Thorndyke Century Senior Dictionary,' 38–40. Summers, instr, Oregon, 10–12, 30; asst. pathologist, U. S. Dept. Agr, 17–20; prof, Arizona, 41. A.A; Bot. Soc; Phytopath. Soc. Morphology; phloem of dicotyledons; xylem response to frost injury in fruit trees; anatomy of desert plants.

Hemenway, Prof. Leland D(avid), 300 The Fenway, Boston, Mass. *Physics.* South Hope, Maine, May 14, 95. A.B, Colby Col, 17; A.M, Harvard, 23. Prin, high sch, Maine, 17–18; instr. physics, *Simmons Col*, 19–23, asst. prof, 23–31, *math. and physics*, 31–32, *assoc. prof, 32–* 2nd lieut, Ordnance Dept, 18–19. A.A; Math. Asn; Asn. Physics Teachers. Mathematics.

Heming, Prof. W(alter) E(dward), Whittier College, Whittier, Calif. *Invertebrate zoology.* Owen Sound, Ont, Can, Dec. 14, 04. B.S.A, Toronto, 29; Ph.D, Cornell, 39. Junior entomologist, entom. branch, Dom. Dept. Agr, Can, 29; lecturer, Ont. Col. Agr, Toronto, 29–34; asst, Cornell, 34–38, instr, 38–40; *asst. prof. biol, Whittier Col, 40–* A.A; Asn. Econ. Entom; Ont. Entom. Soc. Economic entomology; invertebrate physiology.

Hemingway, Prof. A(llan), 241 Cecil St, S. E, Minneapolis, Minn. *Physiological chemistry.* Leeds, Eng, Jan. 26, 02. B.A, British Columbia, 25; Ph.D, Minnesota, 29. Asst. physics, *Minnesota*, 25–29, instr. *physiol. chem*, 29–30, *asst. prof, 30–; Air Corps, U. S. Army, 42–* Sterling fellow, Yale, 36–37. A.A; Chem. Soc; Physiol. Soc; Physical Soc. Biophysical chemistry; biophysics; diathermy and electrical conductivity of biological materials; physiological temperature regulation; use of mass isotopes in metabolism.

Heminway, Prof. Caroline E(lla), Smith College, Northampton, Mass. *Geology.* Corning, N. Y, July 12, 04. A.B, Mt. Holyoke Col, 25; Goldwin Smith scholar, Cornell, 26–27, Goldwin Smith fellow, 27–28, A.M, 28; Ph.D, Indiana, 41. Instr. *geol. and geog, Smith Col*, 28–32, asst. prof, 32–40, *assoc. prof, 40–* A.A; Paleont. Soc; N. Y. Acad. Paleontology; stratigraphy; Tertiary Foraminifera; glacial geology.

Hemke, Prof. P(aul) E(mil), Rensselaer Polytechnic Institute, Troy, N. Y. *Mechanics.* Petersburg, Ill, May 22, 90. A.B, Cent. Wesleyan Col, 09; A.M, Chicago, 17; Northwestern, 18–19; Ph.D, Hopkins, 24. Instr. math. and physics, Cent. Wesleyan Col, 12–14; math, Ga. Tech, 14–18; U. S. Naval Acad, 19–24, 27–31; Langley Mem. Aeronaut. Lab, Langley Field, Va, 24–27; assoc. prof. fluid mechanics, Case, 31–35; *prof. aeronaut. eng. and head dept, Rensselaer Polytech, 35–* Guggenheim fellow aeronautics, Cambridge, 29–30. A.A; Math. Asn; Soc. Automotive Eng. (sec'y, Cleveland chap, 34); Inst. Aeronaut. Sci. Mechanics of fluids; design of experimental apparatus; applied mathematics in astronomy and physics; aerodynamics.

Hemmendinger, Dr. Arthur, 1700 29th St, S.E, Washington, D. C. *Nuclear physics.* Bernardsville, N. J, July 11, 12. A.B, Cornell, 33; Ph.D, Calif. Inst. Tech, 37. Instr. physics, Oklahoma, 37–39, asst. prof, 39–41; *contract employee, Naval Ordnance Lab, 41–* Physical Soc; Acoustical Soc; Asn. Physics Teachers. Separation of the isotopes of potassium and rubidium and determination of naturally radioactive isotope; artificial radioactivity of manganese.

Hemmendinger, Dr. Henry, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Bernardsville, N. J, April 1, 15. A.B, Harvard, 35, A.M, 37; Thaw fellow, Princeton, 37–39, Ph.D, 39. Mem, Harvard-Mass. Inst. Tech. eclipse exped, U.S.S.R, 36; *Bausch and Lomb research fellow, Mass. Inst. Tech, 39–* Astron. Soc; Optical Soc. Spectroscopy; excitation conditions in sources for spectrochemical analysis; astrophysics; excitation of solar surface.

Hempelmann, Dr. Theodore C(arl), 6363 Waterman Ave, University City, Mo. *Pediatrics.* St. Louis, Mo, 85. M.D, Washington (St. Louis), 08. Asst. prof. and *assoc. prof. clin. pediat, Washington (St. Louis).* Staff, St. Louis Children's, St. Luke's, Maternity and City Hosps, Shriners Hosp. for Crippled Children and Hosp. for Infectious Diseases. Director, St. Louis Pure Milk Cmn; Munic. Nurses Board. Acad. Pediat; Am. Med. Asn; South. Med. Asn; Tuber. and Health Soc. St. Louis (director); hon. mem. St. Louis Med. Soc; St. Louis Pediat. Soc. (hon. pres). Diseases of children; encephalitis; infectious diseases.

Hemphill, Dr. R(aymond) J(ohn), 204 Pleasant St, Holyoke, Mass. *Chemistry.* Titusville, Pa, Jan. 1, 96. Ch.B, Cornell, 19, Grasselli fellow, 27–28, Heckscher fellow, 28, Ph.D, 28; M.S, Colgate, 25. Asst. instr. inorg. chem, Cornell, 19–20; instr. and asst. prof. org. chem, Colgate, 20–29; chem. research, Gen. Elec. Co, 29–42; *tech. director, Am. Writing Paper Corp, 42–* Derivatives of hydronitric acid; lightning arresters; inorganic insulation; paper.

Hemple, H(enry) W(illiam), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy.* Grand Rapids, Mich, Oct. 11, 92. B.S, Armour Inst. Tech, 16. *Hydrographic and geodetic engineer, U. S. Coast and Geod. Surv, 17–, asst. chief div. geod, 38–* Geophys. Union. Triangulation and control surveys.

Hemsworth, Mrs. Edna Irene, 606 N. Kootenay St, Vancouver, B. C, Can. *Biochemistry.* Bristol, Eng, Aug. 24, 09. B.A, British Columbia, 32, M.A, 33. *Biochemist, West. Chem. Industries, Ltd, 35–* A.A; B. C. Acad. Hematology; total erythrocyte and leucocyte counts of fowls; vitamin A.

Henbest, Lloyd G(eorge), U. S. Geological Survey, Washington, D. C. *Geology, Paleontology.* Cassville, Mo, Jan. 9, 00. A.B, Arkansas, 24; A.M, Kansas, 27; Dana fellow, Yale, 29–30. *Asst. geologist,* Ill. Geol. Surv, 26–30; *U. S. Geol. Surv, 30–* Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner; Geol. Soc; Biol. Photog. Asn; Wash. Acad. Micropaleontology; stratigraphy; photomicrography.

Hench, Dr. Philip Showalter, Mayo Clinic, Rochester, Minn. *Medicine.* Pittsburgh, Pa, Feb. 28, 96. A.B, Lafayette Col, 16, hon. Sc.D, 40; M.D, Pittsburgh, 20; fellow, Minnesota, 21–24, M.S, 31; Freiburg and von Mueller's Clinic, Munich, 28–29; hon. Sc.D, Washington and Jefferson Col, 40. First asst. *med, Mayo Clinic*, 23–25, assoc, 25–26, *head sect, div. med, 26–*, instr, *Mayo Foundation and grad. sch. med, Minnesota*, 28–32, asst. prof, 32–35, *assoc. prof, 35–* Consulting physician, Mayo Clinic and St. Mary's Hosp. Mem, Am. Cmt. for Control Rheumatism, 29–, sec'y, 31–38. Fel. Am. Med. Asn; Soc. Clin. Invest; fel. Col. Physicians; Rheumatism Asn. (exec. councilor, 33–41; pres, 39); Cent. Soc. Clin. Research; Minn. Soc. Int. Med; Royal Soc. Med, London; Liga Argentina contra el Reumatismo, Buenos Aires. Renal function; rheumatic diseases; gout; nephritis.

Hencken, Dr. H(ugh) O('Neill), Peabody Museum, Harvard University, Cambridge, Mass. *Archeology.* New York, N. Y, Jan. 8, 02. A.B, Princeton, 24; B.A, Cambridge, 26, Ph.D, 29, M.A, 31; hon. Litt.D, Nat. Univ. Ireland, 37. Assoc. *European archeol, Harvard*, 30–31, asst. curator, *Peabody Museum*, 31–32, *curator, 32–* Director, Harvard archeol. exped, Ireland, 32–36. Asst. director, Am. Sch. Prehist. Research, 40– Fel. Archeol. Inst. Amer; fel. Am. Acad; Royal Archeol. Inst. Gt. Britain; fel. Soc. Antiquaries London; fel. Royal Soc. Antiquaries Ireland; Royal Irish Acad; fel. Soc. Antiquaries Scotland. European archeology; archeology of the British Isles.

Hendee, Prof. Esther C(rissey) (Mrs. Kottke), Russell Sage College, Troy, N. Y. *Biology.* Stockton, N. Y, March 25, 03. A.B, Oberlin Col, 25; Bryn Mawr Col, 25–27; Arizona, 28–29; Oberlin Col. fellow, California, 32–33, Ph.D, 34. Demonstrator biol, Bryn Mawr Col, 25–27; asst, Arizona, 28–29; research assoc. zool, California, 34–35, prof. *biol,* Limestone Col, 35–36; instr, *Russell Sage Col,* 36–37, asst. prof, 37–40, *assoc. prof, 40–* A.A; Entom. Soc. Amer; Soc. Bact; Soc. Zool. Nutrition and ecology of insects; relationship between termites and microorganisms.

Hendel, Prof. James M, Hunter College, 68th St. and Park Ave, New York, N. Y. *Physical chemistry.* Reading, Pa. Jan. 24, 93. Litt.B. Princeton, 14; Ph.D, Columbia, 22. Instr. *chem, Hunter Col,* 21–24, asst. prof, 24–27. *assoc. prof, 27–* A.A; Chem. Soc. Inorganic analytical chemistry.

Hendershot, Prof. Otis P(ierce), West Virginia Wesleyan College, Buckhannon, W. Va. *Physics.* Newfield, N. Y, July 7, 93. B.S, Syracuse, 23, M.S, 24; Ph.D, Cornell, 36. Instr. physics, Syracuse, 24–34; physics and math, DuBois undergrad. cent, Pa. State Col, 37–39; *assoc. prof.* math, Phillips, 39–41; *physics, W. Va. Wesleyan Col, 41–* X-rays; the crystal structure of potassium uranyl sulphate and other uranyl sulphates.

Henderson, Prof. Archibald, 721 E. Franklin St, Chapel Hill, N. C. *Mathematics.* Salisbury, N. C, June 17, 77. A.B, North Carolina, 98, A.M, 99, Ph.D, 01; Chicago, 01, fellow, 02–03, Ph.D, 15; Paris, 11; hon. D.C.L, Univ. of the South, 17; LL.D, Tulane, 20; Cambridge and Berlin, 10–11, 23–24. Instr. math, *North Carolina,* 98–02, assoc. prof, 02–08, prof. pure math, 08–20, *Kenan prof. math. and head dept, 20–* Holt math. medal. A.A; Math. Soc; Math. Asn; Elisha Mitchell Sci. Soc. (pres, 08); N. C. Acad. (pres, 23); Circolo Mat. di Palermo. The cubic surface; modern geometry; the theory of relativity.

Henderson, Prof. Charles, Box 1087, University, Va. *Experimental engineering.* Kansas City, Mo, Aug. 19, 90. E.E, Virginia, 20. Lab. engineer, West. Elec. Co, New York, 20–22; teacher, high sch, Va, 23; asst. prof. *exp. eng, Virginia,* 23–29, assoc. prof, 29–40, *prof, 40–* Hydraulics; power development.

Henderson, Charles F(ranklin), 641 Ramona Drive, Whittier, Calif. *Entomology.* Los Gatos, Calif, Aug. 8, 01. B.S, California, 24, M.S, 28. Lab. asst, dept. entom. and parasitol, California, 25; agent, nat. enemies of beet leafhopper, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 26–28, asst. entomologist, 28–38, assoc. entomologist, 38–40, *entomologist, 40–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Biological control of insect pests; insect vectors of plant diseases; ecology of parasites.

Henderson, Dr. Cha(rle)s W(illiam), 515 Custom House Bldg, Denver, Colo. *Mining engineering.* Valley City, N. Dak, Sept. 10, 85. A.B, Stanford, 10; hon. Sc.D, Colo. Sch. Mines, 30. Asst. statistician, U. S. Geol. Surv, San Francisco, 07–08, statistician in charge, Denver office mineral resources, 08–21, mineral geographer in charge, 21–25; *supervising engineer,* Denver office, *U. S. Bur. Mines,* 25–35, *field offices, mineral resources and econ. div, 35–* Adviser, copper, lead and zinc codes, Nat. Recovery Admin, 34. V. pres, Colo. Eng. Council, 33. A.A; Min. and Metal. Eng; Min. and Metal. Soc; Asn. Petrol. Geol; Colo. Sci. Soc. (treas, 20–25, sec'y, 25–30, pres, 31–37). Mining in Colorado; gold, silver, copper, lead and zinc resources in South Dakota, Colorado, New Mexico, Texas, Wyoming and Alaska; gold and silver in the United States.

Henderson, Prof. Charles Wood, 105 York Road, Dewitt, N. Y. *Electrical engineering.* Fullerton, Pa, 84. B.S, Denison, 14, M.S, 16. Instr. physics, Denison, 14–17; *elec. eng, Syracuse,* 18, asst. prof, 19–23, assoc. prof, 23–25, *prof, 25–* A.A; Elec. Eng.

Henderson, Dr. Earl W(ilton), Michigan State College, East Lansing, Mich. *Poultry husbandry.* Carlyle, Ill, May 29, 94. B.S. (Agr), Missouri, 21, A.M, 24; Ph.D, Illinois, 30. Asst. prof. *poultry husbandry,* Missouri, 21–30; prof, Iowa State Col, 30–39; *asst. prof, Mich. State Col, 39–* Teaching fellow, Illinois, 27–28. Lieut, F.A, 17–19, capt, 24–25. A.A; Poultry Sci. Asn; Genetic Asn. Avian physiology; embryology; genetics; statistics; ornithology.

Henderson, Prof. E(verette) L(ee), University of Detroit, McNichols Road at Livernois, Detroit, Mich. *Physical chemistry, Metallography.* Rogers, Ark, Jan. 20, 96. B.S, Arkansas, 19; M.S, Iowa State Col, 23, Ph.D, 31. Instr. anal. chem, Iowa State Col, 20–21; asst. prof. inorg. and anal. chem, Tennessee, 21–29; instr. inorg. chem, Iowa State Col, 29–32; asst. prof. physical chem, *Detroit,* 32–33, assoc. prof, 33–39, *prof, 39–, in charge* physical chem. and thermodyn, 32–41, *thermodyn. and inorg. chem, 41–, director, cooperative speakers' bur, 34–* Assoc. consulting chemist, Memphis Gen. Hosp, 21–29. Consultant boiler water treatment, Walston Co, Detroit, Mich. Chem. Soc. (exec. board, Detroit sect, 41); Arbitration Asn. (panel mem, Mich). Rates of metallic corrosion; corrosion in steam heating systems; graphitization of white cast iron; short annealing cycle for the malleableization process; effect of molybdenum on graphitization of white cast iron; development of an alloy for holding a diamond in diamond dressing tools.

Henderson, Prof. G(eorge) H(ugh), Dalhousie University, Halifax, N. S, Can. *Physics.* St. Augustine, Fla, Dec. 8, 92. B.A, B.S, Dalhousie, 14, M.A, 16; Can. Advisory Council Sci. and Indust. Research fellow; 1851 Exhib. scholar, 19–22; Ph.D, Cambridge, 22. Asst. prof. physics, Saskatchewan, 22–24; *prof. math. physics, King's Col, Dalhousie, 24–* Fel. Royal Soc. Can; fel. Royal Soc. London. Radioactivity; thermal conductivity.

Henderson, Prof. H(arry) O(ram), West Virginia University, Morgantown, W. Va. *Dairy husbandry.* Indiana Co, Pa, Nov. 5, 89. B.S, Pa. State Col, 15, M.S, 16; Ph.D, Minnesota, 28. County agr. agent, Pa, 16–19, dairy exten. specialist, *West Virginia,* 19–20, asst. prof. *dairy husbandry,* 20–24, assoc. prof, 24–28, *prof. and head dairy dept, 28–* A.A; Dairy Sci. Asn. (sec'y, advanced registry div, 28, chairman, production sect, 34); W. Va. Acad; Int. Asn. Milk Sanitarians. Dairy cattle feeding and management; mineral requirements of dairy cattle; growth of dairy heifers; pasture improvement; breeding of dairy cattle; mastitis; simplified rations for dairy cattle.

Henderson, Prof. H(iram) L(eroy), N. Y. State College of Forestry, Syracuse, N. Y. *Forestry.* Geneva, N. Y, Aug. 22, 89. Hobart Col; B.S, Michigan, 15. Field asst, U. S. Forest Service, 13; logging engineer, Hammand Lumber Co, Calif, 14–17; instr. *forest utilization, N. Y. State Col. Forestry, Syracuse,* 17, asst. prof, 18–31, acting prof, 28–31, *assoc. prof, 31–* Consulting engineer, 18– Soc. Foresters; Forestry Asn; N. Y. Forestry Asn. Forest utilization; volume tables; waste in logging; mill waste; kiln drying of woods and wood products; dry-kiln practise; air seasoning of wood.

Henderson, Dr. J(ames) F(enwick), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Kingston, Ont, Oct. 15, 05. M.Sc, Queen's (Can), 30; Ph.D, Wisconsin, 33. *Asst. geologist, Geol. Surv. Can.* Geological mapping and investigation of mineral resources.

Henderson, Dr. J(ames) Lloyd, 52 College Park, Davis, Calif. *Dairy industry.* Los Gatos, Calif, Nov. 11, 99. B.S, California, 28, M.S, 32, Ph.D, 40. Assoc, Exp. Sta, *California,* 28–40, instr. dairy industry, *col. agr,* 40–42, *asst. dairy technologist, 42–* Dairy Sci. Asn; Inst. Food Technol. Cause of milk flavors and their control; corrosion of metals by milk and relation to oxidized flavor; fat oxidation; oxidation of fatty acids; the market-milk industry.

Henderson, Prof. Jos(eph) E(dmonds), University of Washington, Seattle, Wash. *Physics.* New Cumberland, W. Va, Oct. 16, 01. B.S, Col. of Wooster, 22; Ph.D, Yale, 28. Asst. *physics,* Yale, 22–26, instr, 27–29; asst. prof, *Washington (Seattle),* 29–36, assoc. prof, 36–42, *prof, 42–* Sterling fellow, Yale, 26–27, 29–30; consultant, Nat. Defense Research Cmt, dept. terrestrial magnetism, Carnegie Institution, 41; prin. physicist, Bur. Standards, 41–43. Physical Soc. Reflection of soft and hard x-rays; extraction of electrons from metals by intense electric fields; law of cathodic sputtering; x-ray tube design; use of sphere gap at super voltages; diffusion pump design; electrical discharges in gas; Cerenkov radiation; nuclear physics.

Henderson, J(oseph) R(ussell), University of Florida, Gainesville, Fla. *Soils.* Madison, Fla, Oct. 22, 09. B.S.A, Florida, 31, M.S.A, 34. Asst. land use planning specialist, U. S. Resettlement Admin, 35–37; asst. chemist, *Exp. Sta, Florida,* 37–40, assoc. chemist, 40–42, *soils technologist, 42–,* asst. prof. soils, col. agr, 39–42. Soil Sci. Soc: Soil Sci. Soc. Fla. Soil genesis and morphology; soil surveying; land use as related to soil characteristics.

Henderson, J(udson) P(ulford), Dominion Observatory, Ottawa, Ont, Can. *Astrophysics.* Toronto, Ont, March 2, 91. B.A, Toronto, 14, M.A, 15, fellow, 16–19. Asst. astron, Toronto, 14–15; asst. astronomer and *astronomer, Dom. Observatory, 19–* Asst. tech. instr, Toronto. A.A; Astron. Soc; Radio Eng; Royal Astron. Soc. Can; Can. Inst. Astron. Radiotelegraphy; time and longitude by radio; short wave telegraphy.

Henderson, Dr. L(awrence) M(elvin), Pure Oil Co, Chicago, Ill. *Chemistry.* Northwood, Iowa, July 24, 89. A.B, St. Olaf Col, 10, A.M, 11; Ph.D, Chicago, 16. Instr, Minnesota, 16–17, asst. prof, 19–24; supervising research chemist, Atlantic Ref. Co, Phila, Pa, 25–33; *supervisor of research, Pure Oil Co, 33–* Lieut. and chief div. gas officer, U.S.A, 17–18. A.A; Chem. Soc. (chairman, Phila. sect, 30, Chicago sect, 43, sec'y petrol. div); Petrol. Inst; Franklin Inst. Radioactivity; ratio of mesothorium one to thorium in thorium minerals; fractional precipitation of barium and radium as chromates; petroleum; waxes; gasoline; solvent extraction.

Henderson, Prof. Lee W(arren), Jr, Waynesburg College, Waynesburg, Pa. *Entomology.* New Florence, Pa, Feb. 13, 07. B.S, Pittsburgh, 31, Ph.D, 40. Asst. *biol,* Pittsburgh, 34–39; asst. prof, *Waynesburg Col,* 39–42, *prof, 42–* Taxonomic and ecological Coleoptera.

Henderson, Prof. Lena B(ondurant), Randolph-Macon Woman's College, Lynchburg, Va. *Botany.* New Orleans, La, Dec. 28, 80. B.S, Tennessee, 08; Polytech. Inst. Brooklyn fellow, Cold Spring Harbor, 15; M.S, Cornell, 23; Chicago, 26, 28; Colorado, 29. Teacher, high sch, Tenn, 08–12; instr. bot, Tennessee, 12–20, acting head dept, 20, asst. prof, 20–22; adj. prof. biol, Randolph-Macon Woman's Col, 23–25; asst. prof. bot, Rockford Col, 25–29, acting head dept, 27; adj. prof. *biol, Randolph-Macon Woman's Col,* 29–31, *assoc. prof, 31–,* acting head dept, 31. Summers, instr, Summer Sch. of South; Va. State Teachers Col, Fredericksburg. Collaborator, 'Biol. Abstracts,' 25– A.A; Bot. Soc; Ecol. Soc; South. Appalachian Bot. Club; Va. Acad. Plant taxonomy and ecology; floral anatomy of several species of Plantago; effect of tides on pollination and rate of growth in Plantago; plants of Castle Rock; plant ecology of a bog in the Virginia Piedmont.

Henderson, Prof. Mack T, Grinnell College, Grinnell, Iowa. *Experimental psychology.* Indiana, Pa, Feb. 11, 08. A.B, Ohio Wesleyan, 29; A.M, Iowa, 31, Ph.D, 33. Instr. psychol, Ripon Col, 33–35, asst. to dean, 35–36; asst. prof. psychol. and director admissions, Knox Col, 36–38; asst. prof. and later *assoc. prof. psychol, Grinnell Col, 38–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn; Iowa Acad. Psychology of music; personnel psychology.

Henderson, Prof. Malcolm C(olby), Dartmouth College, Hanover, N. H. *Physics.* New Haven, Conn, March 13, 04. Ph.B, Yale, 25; Ph.D, Cambridge, 28. Sterling fellow, *Yale,* 28–30, hon. research fellow, 30–32; research fellow, California, 32–35; instr. *physics,* Princeton, 35–40; *asst. prof, Dartmouth Col, 40–; mem. staff, U. S. Naval Radio and Sound Lab, div. nat. defense research, California, 42–* Fel. Physical Soc. Radioactivity; nuclear structure; electronics; sound.

Henderson, Dr. Margaret Wasson, 1931 69th Ave, N, Philadelphia, Pa. *Botany.* Philadelphia, Pa, Sept. 29, 91. B.S, Pennsylvania, 12, A.M, 13, Ph.D, 19. Asst, Carnegie Institution, 13–15; curator herbarium, dept. bot, Pennsylvania, 16–22; *teacher,* high sch, *Phila,* 22–32, *science, Kensington High Sch, 32–* Bot. Soc. Morphology; relationship of ericaceous saprophytes to typical Ericaceae.

Henderson, R(obert) G(ordon), Virginia Polytechnic Institute, Blacksburg, Va. *Plant pathology.* Madisonville, Tenn, Oct. 28, 03. B.S, Tennessee, 27; M.S, N. C. State Col, 28. Asst. plant pathologist, State Board Entom, Ga, 28; *Exp. Sta, Va. Polytech,* 29–39, *assoc. plant pathologist, 39–* Inspector, State Plant Board, Miss, 29. Phytopath. Soc. Diseases of tobacco; soil sterilization; diseases of tomatoes.

Henderson, Prof. Velyien E(wart), University of Toronto, Toronto, Ont, Can. *Pharmacology, Physiology.* Coburg, Can, 77. B.A, Toronto, 99, M.B, M.A, 02. Demonstrator physiol, Pennsylvania, 02–03; *Toronto,* 04–07, lecturer *pharmacy and pharmacol,* 07–12, *prof, 12–* Chairman, Can. Cmt. Pharm. Standards, 27–; Federation Am. Socs. Exp. Biol, 35. Major, C.E.F, 16–19. Soc. Pharmacol. (sec'y, 33, pres, 35); Physiol. Soc; fel. Royal Soc. Can; Can. Physiol. Soc. (pres, 41); fel. Royal Col. Physicians Can; London Physiol. Soc; British Pharmacol. Soc. Pathology of tabes; physiology of the kidney; anesthesia.

Henderson, W(alter) C(leaveland), St. Petersburg, Fla. *Biology.* Chelsea, Mass, July 6, 76. LL.B, Boston, 03; A.B, George Washington, 26. Asst. chief bur. biol. surv, U. S. Dept. Agr, 16–26, assoc. chief, 27–39; U. S. Dept. Interior, 39–40, asst. director, fish and wildlife service, 40–42; *retired.* A.A; Soc. Mammal; Ornith. Union; Cooper Ornith. Club; Biol. Soc. Wash.

Henderson, Dr. William D, University of Michigan, Ann Arbor, Mich. *Physics.* Ingersoll, Can, Nov. 27, 66. A.B, Michigan, 03, A.M, 04, Ph.D, 06. Instr. physics, *Michigan,* 03–05, asst. prof, 06–09, assoc. prof, 09–19, *director exten, 11–* Assoc. Physical Soc. Electrochemistry; concentration cells; thermoelectromotive force of silver and of cadmium amalgams; heat of dilution of zinc amalgams; engineering physics; physics in every-day life.

Henderson, Prof. W(illiam) E(dwards), Ohio State University, Columbus, Ohio. *Chemistry.* Wilkinsburg, Pa, Jan. 29, 70. A.B, Col. of Wooster, 91, A.M, 94, Sc.D, 25; fellow, Hopkins, 96–97, Ph.D, 97. Prof. nat. science, Col. of Emporia, 91–93; chem, Ohio, 97–99; asst. prof, *Ohio State,* 99–01, assoc. prof, 01–08, prof. inorg. and physical chem, 08–12, *inorg. chem,* 12–40, *emer. prof, 40–,* dean col. arts and sciences, 21–27. A.A. (sec'y, council, 15, gen. sec'y, 16); Chem. Soc. (sec'y, inorg. and physical chem. sect, 17, chairman, 18). Chlorids of p-nitroorthosulfobenzoic acid; decomposition of diazo-compounds with sulfur dioxide; action of anhydrous aluminum chlorid on unsaturated compounds; hydrolysis of ethyl acetate by neutral salt solutions; action of sulfurous acid on sulfids of iron, zinc and manganese; a lead standard cell; thionic acids and their salts.

Henderson, Dr. William F(ranklin), Visking Corp, Chicago, Ill. *Chemistry.* Decatur, Ill, July 10, 92. A.B, James Millikin, 14; M.S, Pittsburgh, 21, Ph.D, 22. Instr. chem, James Millikin, 14–20; indust. fellow, Mellon Inst, 20–26; *chief chemist, Visking Corp, 26–* Summer, instr, Illinois, 15. Chem. Soc; Micros. Soc. (treas, 19–25). Alkyl cyanoacetic acid; chemistry of cotton linters; cellulose; viscose.

Henderson, Prof. W(illiam) J(ames), Purdue University, Lafayette, Ind. *Physics.* Wingham, Ont, Can. Aug. 15, 10. B.A, Queen's (Can), 31, M.A, 32; Ph.D, Cambridge, 35. Lab. demonstrator, Cambridge, 32–35; research assoc, Queen's (Can), 35–36; instr. *physics,* Princeton, 36–37; *asst. prof, Purdue, 37–* Mem, Inst. Advanced Study, Princeton, 36. Radioactivity and nuclear structure.

Henderson, Dr. William N(oland), Allied Chemical and Dye Corp, 61 Broadway, New York, N. Y. *Industrial engineering.* Blairs, S. C, Dec. 18, 91. B.S, Clemson Col, 11; Chicago, 12; Berlin, 13–14; Ph.D, Princeton, 16. Chem. engineer, Solvay Process Co, Syracuse, 20–23, asst. chief chemist, 23–28; *indust. engineer,* W. R. Grace and Co, 28–37; *Allied Chem. and Dye Corp, 37–* Chem. Soc. Chemistry; alkali manufacture; carbonization of coals; manufacture and refining of cane sugar; manufacture of synthetic nitrates; mining and recovery of natural nitrate of soda.

Henderson, Prof. W(illiam) W(illiams), Utah State Agricultural College, Logan, Utah. *Zoology.* Clarkston, Utah, May 23, 79. A.B, Brigham Young, 03; A.M, Cornell, 05; Ph.D, California, 24. Prof. zool, Brigham Young, 05–10; pres, Weber Col, 10–14; prof. zool. and entom, Utah Col, 17–20; pres, Brigham Young, 20–26; *prof. zool. and entom. and head dept, Utah State Col, 26–, research prof. entom, Exp. Sta.* Utah Crops and Pests Cmn, 17–21. Taxonomy of western Orthoptera.

Henderson, Dr. Yandell, 440 Prospect St, New Haven, Conn. **²Physiology.* Louisville, Ky, April 23, 73. A.B, Yale, 95, Ph.D, 98; Marburg and Munich, 99–00. Asst. physiol. chem, *Yale,* 98–99, instr. physiol, 00–02, asst. prof, 03–11, prof, 11–21, *applied physiol,* 21–38, *emer. prof, 38–* Consulting physiologist, U. S. Bur. Mines, 13–25; Chem. Warfare Service, 25– In charge physiol. div, U. S. war gas investigations, 17–19; chairman med. research board, A.S. Nat. Acad; A.A; Physiol. Soc; Soc. Biol. Chem; Soc. Pharmacol; Am. Med. Asn. (sec'y, sect. path. and physiol, 10, chairman, 11); Soc. Anesthetists; Philos. Soc; hon. mem. Coal Mining Asn; British Physiol. Soc; hon. mem. Vienna Asn. Physicians. Physiology of the circulation; biochemistry of respiration; pharmacology of gases; physiological and social aspects of the liquor problem.

Hendren, Dean L(inville) L(aurentine), University of Georgia, Athens, Ga. *Physics.* Carey, N. C, March 3, 80. A.B, Trinity Col. (N. C), 00, A.M, 01; Ph.D, Columbia, 05. Asst. physics, Columbia, 02–05; adj. prof. applied math, Trinity Col. (N. C), 05–08; *prof. physics, Georgia, 08–, dean,* 32–40, *faculties, 40–* A.A; Physical Soc; Ga. Acad. (pres, 25). Atomic structure.

Hendrey, Dr. W(aldersee) B(razier), Edwal Laboratories, Inc, Chicago, Ill. *Chemistry.* Oklahoma City, Okla, Aug. 28, 00. A.B, Arkansas, 22; Ph.D, Yale, 28. Instr, Agr. and Mech. Col. Texas, 22–23; prof. science, Scarritt-Morrisville Col, 23–24; asst, Yale, 24–25, 26–28; research chemist, Texas Co, 28–34, research supervisor, 34–37; asst. director research, Spencer Kellogg Co, 37–40; *chief chemist, Edwal Labs, Inc, 40–* Org. chem. mfg. consultant. Chem. Soc. Electrolysis of amino acids; naphthenic acids; lubricating grease and oils; gasoline; drying oils.

Hendricks, Barnard A(ndrew), U. S. Forest Service, Tucson, Ariz. *Forestry.* Cedar Hill, Texas, June 28, 95. B.S, Colo. Agr. Col, 25; M.S, Arizona, 34. Forest ranger, *U. S. Forest Service,* 18–21, junior range examiner, 25–26, asst. forest supervisor, 27–29, assoc. range examiner, *research branch, Southwest. Forest and Range Exp. Sta,* 29–37, *forest ecologist, 38–* Soc. Foresters; Ecol. Soc. Forest and range influences.

Hendricks, Prof. B(ernard) Clifford, 3415 T St, Lincoln, Nebr. *Physical chemistry.* Jasper, Mo, Jan. 26, 83. B.E, Peru Teachers Col, Nebr, 10; B.S, Nebraska, 11, Ph.D, 23; M.S, Chicago, 14. Teacher, prin. and supt, pub. schs, 01–08; Peru Teachers Col, Nebr, 08–18; assoc. prof. *chem, Nebraska,* 18–41, *prof, 41–* Summer, instr, Govt. Radio Sch, 18; mem. staff, workshop for col. faculty mems, Chicago, 39. A.A; Chem. Soc. (pres, Nebr. chap, 23). Diffusion of hydrogen through hot metals; aldiabatic calorimetry of heats of slow reactions; thermochemistry of carbohydrate reactions.

Hendricks, Dr. (Charles) Leo, University of Texas, Austin, Texas. *Stratigraphic geology.* Richland Springs, Texas, Nov. 14, 07. B.S, Texas Christian, 29, M.S, 30; Ph.D, Texas, 42. *Geologist, bur. econ. geol, Texas, 37–* Asn. Petrol. Geol. Stratigraphy of the Lower Paleozoic formations of Texas.

Hendricks, Dr. James O(wen), 222 Sixth St, White Bear Lake, Minn. *Physical chemistry.* Waynetown, Ind, Sept. 3, 09. A.B, Wabash Col, 31; Ph.D, Illinois, 36. Teaching fellow, California, 31–32; chemist, Kendall Ref. Co, Bradford, Pa, 33–34; grad. asst. and fellow, Illinois, 34–36; *research chemist, Minn. Mining and Mfg. Co, 36–* Campbell fellowship award, Wabash. Chem. Soc. Surface phenomena on tungsten; adhesives.

Hendricks, Prof. Jesse C(ody), Box 82, Clemson, S. C. *Physics.* Franklin, Ind, Feb. 10, 97. B.S, Franklin Col, 25; A.M, Indiana, 28, Ph.D, 30. Asst. prof. *physics, Clemson Col,* 30–31, *assoc. prof, 31–* Am. Chem. Soc. prize, 25. Physical Soc; Ind. Acad. Variations in dielectric constants of liquids; emission spectrum of ozone.

Hendricks, Dr. Russel H(yer), 2626 Beverly St, Salt Lake City, Utah. *Organic chemistry.* Richmond, Utah. B.S, Utah State Col, 30; M.S, St. Louis, 32, Ph.D, 35. Asst. chem, St. Louis, 30–32, teaching fellow, 32–35; *asst. chemist, dept. agr. research, Am. Smelting and Ref. Co, 35–* Chem. Soc. Plant chemistry; ozonization of organic compounds; effect of sulfur dioxide on plants.

Hendricks, Dr. Sterling B(rown), 3045 Albemarle St. N.W, Washington, D. C. **[6]Physical chemistry.* Elysian Fields, Texas, April 13, 02. B.Ch.E, Arkansas, 22; M.S, Kans. State Col, 24; Ph.D, Calif. Inst. Tech, 26. Instr, Kans. State Col, 23–24; research assoc, geophys. lab, Carnegie Institution, 26; Rockefeller Inst, 27–28; *chemist,* bur. chem. and soils, *U. S. Dept. Agr,* 28–40, *bur. plant indust, 40–* Asst, south. field crops investigations, U. S. Dept. Agr, 22–25. Hillebrand prize, Chem. Soc. Wash, 37; award, Wash. Acad. Science, 42. Chem. Soc; Physical Soc; Soc. Agron; Miner. Soc. Structural aspects of organic and inorganic chemistry; chemistry and physics of crystal structure; phase rule; x-ray diffraction from solids; electron diffraction; soil chemistry; base exchange.

Hendricks, Thomas A(ndrews), U. S. Geological Survey, Washington, D. C. *Geology.* Hereford, Texas, Jan. 27, 07. B.S, Northwestern, 28; M.S, Colorado, 31. Asst. geol, Northwestern, 26–28; instr, Colorado, 28–29; junior geologist, *U. S. Geol. Surv,* 29–31, asst. geologist, 31–35, assoc. geologist, 35–39, *geologist, 39–* Asst, Ill. Geol. Surv, 26–27, asst. geologist, 28. Asn. Petrol. Geol; Geol. Soc; Geol. Soc. Wash. Geology of the coal fields of southeastern Oklahoma; Arkansas coal field; coal classification; carbon ratios; origin of coal; manganese deposits.

Hendricks, Dean T(homas) A(rmstrong), Berea College, Berea, Ky. *Psychology.* Ansel, Ky, March 20, 71. B.S, Centre Col, 97, A.M, 05, LL.D, 35; A.M, Columbia, 22. Sch. supt, Ky, 99–18; pres, Hamilton Col. (Ky), 18–19; county sch. supervisor, Ky, 19–21, sch. supt, 21–23; *prof. psychol. and dean col, Berea Col, 23–* A.A; assoc. Psychol. Asn; Ky. Acad. Education.

Hendricks, Walter Anton, U. S. Department of Agriculture, Raleigh, N. C. Fountain City, Wis, 04. A.B, George Washington, 29, A.M, 37. Asst. sci. aid, bur. animal indust, *U. S. Dept. Agr,* 26–29, junior biologist, 29–35, asst. poultry husbandman, 35–38, assoc. agr. statistician, *agr. marketing service,* 38–41, *agr. statistician, 41–* Inst. Math. Statist. Statistical methods applied to crop and livestock estimating.

Hendrickson, Dr. Adolph A(lexander), Albert Dickinson Co, 35th St. at California Ave, Chicago, Ill. *Bacteriology.* Holmen, Wis, April 11, 07. B.S, Wisconsin, 29, M.S, 30, Ph.D, 32. Wisconsin research fund, 30–33; Albert Dickinson Co. fellow, Ohio State and Ohio Exp. Sta, 33; *bacteriologist in charge manufacture commercial legume bacteria cultures, Albert Dickinson Co, 33–* Bur. plant indust, U. S. Dept. Agr, 26–28, 29–33, summers, 26–32. A.A; Soc. Bact; Soc. Agron. Plant and soil bacteriology; physiology of Phytomonas rhizogenes, Phytomonas tumefaciens, Bacillus radiobacter and Rhizobium species.

Hendrickson, Dr. A(rthur) H(oward), College of Agriculture, University of California, Davis, Calif. *Horticulture.* Grand Rapids, Mich, Feb. 2, 90. B.S, Mich. State Col, 13; M.S, Cornell, 19; Ph.D, Stanford, 26. Asst. pomol, *California,* 13–15, instr, 15–17, asst. prof, 17–24, assoc. pomologist, 24–31, *pomologist, 31–* Exchange prof, Cornell, 18–19. Soc. Hort. Sci; Soc. Plant Physiol. Pomology; pollination; pruning; irrigation.

Hendrickson, B(ertram) H(igbie), Soil Conservation Service, Watkinsville, Ga. *Soils.* New York, N. Y, July 16, 92. B.S, Cornell, 15. Soil surveyor, bur. soils, *U. S. Dept. Agr,* 16–30, supt. and scientist in soil erosion, bur. chem. and soils, field sta, Tyler, Texas, 30–35, *soil conservation service,* 35–36, *senior soil conservationist, exp. sta, south. Piedmont field sta, 36–* Soil Sci. Soc; Soc. Agron. Soil and water conservation.

Hendrickson, Prof. George O(scar), Iowa State College, Ames, Iowa. *Ecology.* Earlville, Iowa, May 25, 90. A.B, Iowa State Teachers Col, 21; M.S, Iowa State Col, 26, Ph.D, 29. Teacher and supt, pub. schs, Iowa, 11–12, 13–14, 21–22; instr, high sch, Utah, 17–20; nature study, Cornell, 22–23; nat. science, Iowa State Teachers Col, 14–16, 20–21, 23–24, asst. prof, 24–25; instr. *biol. and zool, Iowa State Col,* 25–30, *asst. prof, 30–* A.A; Ornith. Union; Soc. Mammal; Ecol. Soc; Wilson Ornith. Club; Wildlife Soc; Iowa Ornith. Union (pres, 32–35); Iowa Acad. Animal ecology; wildlife management.

Hendrix, Prof. B(yron) M(urray), University of Texas School of Medicine, Galveston, Texas. *Physiological chemistry.* Preble Co, Ohio, May 16, 86. B.S, Ohio State, 09; Ph.D, Yale, 15. Asst. agr. chem, Ohio State, 09–10; asst. chemist, bur. chem, U. S. Dept. Agr, 10–13; instr. physiol. chem, Pennsylvania, 15–19, asst. prof, 19–22; *prof. biochem, sch. med, Texas, 22–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Influence of urine formation upon the acid-base balance in the animal body; protein coagulation.

Hendry, Prof. Geo(rge) W(hiting), University of California, Berkeley, Calif. *Agriculture.* Indianapolis, Ind, Jan. 22, 85. B.S, Cornell, 13. Instr. and *asst. prof. agron, California, 13–* A.A; Soc. Agron; Agr. Hist. Soc; Calif. Bot. Soc. Agronomy; agricultural history; botany.

Henika, Dr. Franklin (Sinclair), State College of Washington, Pullman, Wash. *Genetics.* Readstown, Wis, 02. B.S. (Agr), California, 25; M.S, Wisconsin, 28, Ph.D, 30. Research chemist, Calif. Walnut Growers Asn, 25–26; chem. analyst, div. truck crops, California, 26–27; research asst. hort, Wisconsin, 28–33; game manager, State Conservation Dept, Wis, 33–34; land policy sect, agr. adjust. admin, U. S. Dept. Agr, 34–35; regional game manager, Resettlement Admin, 35–37; *instr. zool, State Col. Wash, 37; lieut, Chem.*

Warfare Service, U. S. Army, 42– Regional game manager, State Game, Fish and Oyster Cmn, Texas, 39–42. Summer, field asst, California, 26. Breeding and genetics of tobacco; game management.

Hening, Prof. J(ames) C(ourtenay), New York Agricultural Experiment Station, Geneva, N. Y. *Dairying.* Stillwater, Minn, May 11, 91. B.S, Minnesota, 17, M.S, 23. Asst, Minnesota, 22–23; *N. Y. Exp. Sta, Geneva,* 23–29, *asst. prof. dairying and assoc. research, 29–* Dairy Sci. Asn. Dairy manufacturing; ice cream; market milk; cream.

Henke, Dr. C(lyde) O(verbeck), E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* Stendal, Ind, Aug. 30, 98. A.B, Indiana, 19, A.M, 20, Ph.D, 22. Chemist, E. I. du Pont de Nemours and Co, 18; asst. prof. chem, Indiana, 23–25; chemist, Newport Co, 25–31; *E. I. du Pont de Nemours and Co,* 31–35, *head miscellaneous products div, Jackson lab, 35–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. (treas, Milwaukee sect, 30–); Electrochem. Soc. Catalysis and electrochemistry; naval stores; camphor; detergents.

Henke, Prof. L(ouis) A(lbert), University of Hawaii, Honolulu, Hawaii. *Animal husbandry.* Lowell, Wis, May 13, 89. B.S, Wisconsin, 12, M.S, 23, 29–30. Director *agr,* high sch, Minn, 12–16; *prof, Hawaii, 16–, animal husbandman, Exp. Sta, 29–, asst. director, 37–* Exchange prof, Wisconsin, 30. Mem, Board Commissioners Agr. of Forestry, Hawaii. A.A; Soc. Animal Production; Dairy Sci. Asn; Hawaiian Acad. Animal nutrition, especially the feeding of animals in the tropics and the utilization of tropical plants and by-products.

Henley, R(obert) R(oy), 410 Aspen St, N. W, Washington, D. C. *Biochemistry.* Norfolk, Va, March 6, 86. B.S, Va. Polytech, 06, M.S, 20. Instr, Va. Polytech, 06–07; *chemist, biochem. div, bur. animal indust, U. S. Dept. Agr, 08–* Wash. Acad. Chemistry of toxins, antitoxins and similar biological products; fats; analysis and composition of blood; hog cholera serum.

Henline, H(enry) H(arrison), 33 W. 39th St, New York, N. Y. *Electrical engineering.* Colfax, Ill, March 12, 89. B.S, Illinois, 14; grad, Chicago Cent. Sta. Inst, 16. Instr, high sch, Okla, 14–15; Ill. Maintenance Co, Chicago, 16–17; instr. elec. eng, Stanford, 17–20, asst. prof, 20–24, assoc. prof, 24–26; asst. nat. sec'y, *Am. Inst. Elec. Eng,* 27–32, acting nat. sec'y, 32, *nat. sec'y, 33–* A.A; Elec. Eng; Eng. Educ. High voltage power transmission; radio; engineering education.

Henmon, Prof. V(ivian) A(llen) C(harles), University of Wisconsin, Madison, Wis. *Psychology, Education.* Centralia, Wis, Nov. 27, 77. A.B, Bethany Col. (Kans), 95, A.M, 99; fellow, Columbia, 04–05, Ph.D, 05. Prin, schs, Mo, 95–97; asst, Bethany Col. (Kans), 98, instr. pedag, 98–00, prof. pedag. and psychol, 00–05; lecturer psychol, Columbia, 05–07; prof. psychol. and educ, Colorado, 07–10; assoc. prof. educ, Wisconsin, 10–12, prof, 12–25, director sch. educ, 16–26; *prof.* educ. psychol, Yale, 26–27; *psychol. and director educ. guidance, Wisconsin, 27–* Acting dean col. lib. arts, Colorado, 09–10; adviser educ. psychol, Modern Lang. Study, 25–29; mem, Modern For. Lang. Cmt; supervisor psychol. research, Civil Aeronaut. Authority, 39–40. Capt, A.S, Sig.R.C, 17–19, major, 19–30. A.A. (v. pres, L, 19); Psychol. Asn; Educ. Research Asn; Soc. Col. Teachers Educ. (pres, 26). Psychology of learning; reaction time; the time of perception as a measure of differences in sensation; sex differences in color-perception; relation of the time of judgment to its accuracy; learning and retention; standard tests in foreign languages; tests of aptitude for aviation; prognosis tests in foreign languages; scholastic achievement in college.

Henn, Dr. Arthur W(ilbur), Carnegie Museum, Pittsburgh, Pa. *Ichthyology, Zoology.* Evansville, Ind, March 8, 90. A.B, Indiana, 14, A.M, 15; Columbia, 15–17; Sc.D, Westminster Col, 37. Asst. zool, Field Museum Nat. Hist, 09–11; assoc. *ichthyol,* Am. Museum Nat. Hist, 19–22; *curator, Carnegie Museum, 22–, ed, publications, 36–* Assoc. ed, 'Bibliog. Fishes,' Am. Museum Nat. Hist, 19–22. Leader, Landon exped. of Indiana Univ. to Andes of Colombia and Ecuador, 12–14. A.A; Soc. Ichthyol. and Herp. (treas, 31–); Soc. Mammal; Pa. Acad; N. Y. Acad; Pittsburgh Zool. Soc. (sec'y, 35–). Range of size in vertebrates; South American fresh-water fishes; conservation of wild-life resources.

Henne, Prof. Albert (Leon), Ohio State University, Columbus, Ohio. *Chemistry.* Brussels, Belgium, March 24, 01. Ph.D, Brussels. Asst, Thomas and Hochwalt Labs, 27–28; asst. to Thos. Midgley, Jr, 28–31; special lecturer and director research, Midgley foundation, *Ohio State,* 31–38; assoc. prof. *chem,* 38–42, *prof, 42–* Research assoc, Cincinnati, 33–37. Chem. Soc. Organic chemistry; natural and synthetic rubber; organic fluorides.

Henneman, Prof. Richard H(ubard), Williamsburg, Va. *Experimental psychology.* Richmond, Va, Feb. 10, 08. A.B, Hampden-Sydney Col, 29; A.M, Virginia, 31; fellow, Columbia, 32–33, Ph.D, 35. Asst, grad. exp. lab. psychol, Columbia, 34–35, instr. *psychol,* univ. exten, 35; *asst. prof, Col. of William and Mary, 35–; lieut, Air Forces, U. S. Army.* A.A; Psychol. Asn; Va. Acad. (chairman, psychol. sect, 38–40). Visual perception; learning; conditioned response in human subjects.

Hennen, Ray V, Box 675, Morgantown, W. Va. *Geology.* St. Cloud, W. Va, June 18, 75. A.B, West Virginia, 00, B.S, C.E, 01. Engineer, Carter Oil Co, 01–02; engineer and chief clerk, W. Va. Geol. Surv, 02–07, asst. geologist, 07–18; consulting geologist, 18–19; chief geologist, Transcontinental Oil Co, 19–29; *consulting geologist, 30–* Chief geologist, Carter Oil Co. petrol. exped, S. Amer, 13. A.A; Geol. Soc; Asn. Petrol. Geol; Petrol. Inst; Min. and Metal. Eng; W. Va. Coal Min. Inst. Oil and gas geology; geology of West Virginia.

Hennessy, Prof. D(ouglas) J(ohn), 2695 Heath Ave, New York, N. Y. *Chemistry.* Paterson, N. J, Dec. 23, 08. B.S, Fordham, 29–32; instr, Col. of Mt. Vincent, 33–34; prof. inorg. chem, *Fordham, 34–40, asst. prof. org. chem, 40–* Chem. Soc. Organic chemistry; biochemistry; fluorometric assay of vitamins B_1 and B_2.

Henney, Dean H(omer) J(ay), Colorado State College, Ft. Collins, Colo. *Agriculture.* Willis, Kans, Oct. 23, 95. B.S, Kans. State Col, 21; Chicago, 29; Social Science Research Council scholar, Minnesota, 33. Farm management asst, U. S. Dept. Agr, 21–24, chief research and planning div, fed. crop ins. corp, 38–41; manager, Corporate Ranch, 24–26; research and mem. faculty, Kans. State Col, 26–38; *dean agr. and director, Exp. Sta, Colo. State Col, 41–* Mem, President's Advisory Cmt. Inter-Am. Cooperation in Agr. Educ, 41– Farm Econ. Asn. Prices and price analyses; factors affecting variations in wheat and corn yields in the United States.

Henning, Prof. William L(ewis), 203 Agriculture Bldg, State College, Pa. *Animal husbandry.* Defiance Co, Ohio, Jan. 4, 00. B.S, Ohio State, 21; M.S, Pa. State Col, 23; Ph.D, Wisconsin, 37. Asst, Ohio State, 21–22; instr. *animal husbandry, Pa. State Col,* 22–25, asst. prof, 25–30, assoc. prof, 30–37, *prof, 37–* A.A; Soc. Animal Production; Genetic Asn; Southdown Breeders' Asn. (sec'y-treas, 24–). Animal genetics; animal breeding and production.

Hennings, Prof. A(lbert) E(dward), University of British Columbia, Vancouver, B. C, Can. *Physics.* Barrington, Ill, Oct. 31, 79. A.B, A.M, Lake Forest Col, 04; Ph.D, Chicago, 14. Instr, high sch, Mich, 04–05; math, Whitman Col, 05–06; high sch, Ill, 07–12; asst. prof. *physics,* Saskatchewan, 13–17, prof, 17–18; *asst. prof,* Chicago, 18–19; *British Columbia, 19–* Physical Soc. Contact electromotive force and photoelectric properties of metallic surfaces; determination of 'H' for ordinary metals; temperature coefficient of contact electromotive force; x-ray spectra and crystal structure.

Hennion, Prof. George F(elix), University of Notre Dame, Notre Dame, Ind. *Organic chemistry.* South Bend, Ind, Aug. 23, 10. B.S, Notre Dame, 32, M.S, 33, Ph.D, 35. Asst. *chem, Notre Dame,* 32–35, instr, 35–38, asst. prof, 38–41, *assoc. prof, 41–, director org. research, 41–* A.A; Chem. Soc. (chairman, St. Joseph Valley sect); Eng. Educ; Ind. Chem. Soc. (director, 39); fel. Ind. Acad. Chemistry of substituted acetylenes; organic reactions with boron fluoride; alkylbenzenes and their derivatives.

Henny, Dr. George C(hristian), 3400 N. Broad St, Philadelphia, Pa. *Physics.* Calif, Feb. 22, 99. A.B, Reed Col, 20; M.S, Calif. Inst. Tech, 22; Harvard, 22–23; M.D, Oregon, 30. Transmission engineer, Bell Tel. Labs, 23–25; fellow radiol, univ. hosp, *Temple,* 31–33, med. research physicist, *med. sch,* 33–38, *director dept. physics, 38–* A.A; Roentgen Ray Soc; Radiol. Soc. X-rays as applied to medicine; cancer.

Henny, Dr. Gerard, Army-Navy Y.M.C.A, San Pedro, Calif. *Geology.* Batavia, D. E. I. C.E, Zurich, 12; Ph.D, Lausanne, 17. Oil geologist, Italy, 17–19; asst. prof, Univ. Delft, Hol-

land, 19–20; exped, Buru, D. E. I, 20–22; geologist, Shell Companies, U. S, 22–30; consulting geologist, 30–42; *guard, U. S. Customs, 43–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. géol. de France; Soc. Geol. Italiana; Dutch Geol. Soc; Schweiz. Geol. Gesell. Chemistry; geology of the Alps, Buru and California.

Henrich, Dr. Reuben G(ustav), Surpass Leather Co, Ninth and Westmoreland Sts, Philadelphia, Pa. *Chemistry.* Germantown, Wis, Dec. 29, 04. B.S, Carroll Col, 26; M.S, Wisconsin, 27, Ph.D, 29. Asst, Wisconsin, 27–29; director anal. lab, A. F. Gallun and Sons Co, Milwaukee, 29–31; John Arthur Wilson, Inc, 31–35; research chemist, Universal Atlas Cement Co, 35–36; chief chemist, *Surpass Leather Co,* Gloversville, N. Y, 36–38, *junior chemist, Philadelphia, 39–* Chem. Soc; Leather Chemists Asn; Asn. Colorists and Chemists. Analytical, organic, physical and leather chemistry.

Henricksen, H(enry) C(hristian), P. O. Box 1045, Eustis, Fla. *Biochemistry.* Denmark, April 28, 69. B.Agr, Copenhagen. U. S. Dept. Agr, Fla. and P. R, 00–06; director agr. offices, German Potash Syndicate, W. I, 06–13; senior agriculturist, fruit investigation, Exp. Sta, Puerto Rico, U. S. Dept. Agr, 16–32; director, Fruit Growers Research Lab, San Juan, 32–33; Borinquen Research Lab. A.A; Chem. Soc. Horticulture and biochemistry of citrus and pineapples.

Henriques, Dr. F(rederick) C(ohane), Jr, Harvard University, Cambridge, Mass. *Physical chemistry.* San Francisco, Calif, Feb. 2, 17. B.S, California, 37; Brown, 37–38; fellow, Rochester, 38–40, Ph.D, 40. Teaching asst. physical chem, Brown, 37–38; asst, *Harvard,* 40–41, *research assoc. radio chem, 41–* Consultant, Nat. Defense Research Cmt, 41–42. Chem. Soc. Photochemistry; radiochemical applications to biochemical problems.

Henry, A(rthur) M(alcolm), U. S. Food and Drug Administration, 416 New Post Office, Atlanta, Ga. *Chemistry, Botany, Forestry.* Columbia Co, Fla, Feb. 17, 88. B.S, Florida, 06; State Col. Wash, 14; B.F, Biltmore Forest Sch, 18. Asst. state chemist, Fla, 07–13, 16–23; worker, citrus canker eradication, State Plant Board, Fla, 14–16, dist. inspector, 16; asst. chemist, bur. chem, U. S. Dept. Agr, Phila, 23–28, assoc. chemist, *food and drug admin,* 28, chemist, 28–34, *chief chemist, Atlanta sta,* 34–39; *Fed. Security Agency, 39–* A.A; Chem. Soc; Pharmaceut. Asn; Pa. Acad; Fla. Hort. Soc; Phila. Bot. Club. Plant pathology; ripening of oranges; analysis of vinegars; analytical chemistry.

Henry, Prof. A(rthur) W(ellesley), University of Alberta, Edmonton, Alta, Can. *Plant pathology.* Fredericton, N. B. B.S.A, Saskatchewan, 17, M.S.A, 20, traveling scholar, 20–22; Ph.D, Minnesota, 23. Instr. agron, Saskatchewan, 17–20; plant path, Minnesota, 23–24, asst. prof, 24–26, asst. plant pathologist, Exp. Sta, 23–26; Int. Educ. Board fellow, Europe, 26–27; *assoc. prof. plant path, Alberta, 28–* Field asst, U. S. Dept. Agr, 21, agent, 23–26. A.A; Phytopath. Soc; Can. Phytopath. Soc; Can. Soc. Tech. Agr. Diseases of grasses and flax, especially those affecting roots and seeds.

Henry, Dr. Berch W(aldo), University of Wisconsin, Madison, Wis. *Forest pathology.* Morgantown, W. Va, Aug. 31, 15. A.B, West Virginia, 36, M.S, 38; Ph.D, Wisconsin, 41. *Instr. plant path, Wisconsin, 41–* Cause, spread and control of the oak wilt; control through host resistance of the white pine blister rust.

Henry, Prof. B(ernard) S(tauffer), University of Washington, Seattle, Wash. *Bacteriology.* Sacramento, Calif, Sept. 13, 98. B.S, California, 25, A.M, 26, Ph.D, 31. Asst. vet. science, California, 26–29, assoc, 29–31; instr. *bacter, Washington (Seattle),* 31–36, asst. prof, 36–37, assoc. prof, 37–41, *prof, 41–,* acting head dept, 35–37, *head dept, 37–; capt, Sanit. Corps, U. S. Army, 42–* Bacteriology of Brucella infections; bacterial dissociation; physiology of bacteria.

Henry, Dr. Dora Priaulx, University of Washington, Seattle, Wash. *Zoology.* Maquoketa, Iowa, May 24, 04. A.B, California, 25, A.M, 26, Ph.D, 31. Asst. zool, California, 25–26, teaching fellow, 27–31; *research assoc. oceanog. and zool, Washington (Seattle), 32–;* asst. oceanographer, Headquarters, Air Forces, U. S. Army, 42–43; *assoc. oceanographer, hydrographic office, U. S. Navy, 43–* Coccidiosis in fowls and domestic animals; parasites of birds and mammals; gregarines; marine biology; barnacles of the Pacific coast of North America; military oceanography.

Henry, Dr. E(dward) C(arleton), Pennsylvania State College, State College, Pa. *Ceramics.* Philadelphia, Pa, May 30, 05. B.S, Rutgers, 26; fellow, 32–35; M.S, Nevada, 29; Ph.D, Pa. State Col, 36, Cer.E, 41. Instr. and asst. ceramics, Rutgers, 26–28; mining geologist, Nev, 28–31; instr. and research fellow ceramics, Rutgers, 32–35; asst, *Pa. State Col,* 36–38, asst. prof. *ceramic eng,* 38–41, *assoc. prof, 41–* Ceramic Soc; Min. and Metal. Eng; Ceramic Eng; Pa. Acad. Beneficiation, utilization and colloidal properties of clays; process control in moulding operations; rheology of plastic bodies.

Henry, Prof. E(dwin) R(uthvan), New York University, University Heights, New York, N. Y. *Psychology.* Hutchinson, Kans, March 17, 05. B.S, Kans. State Teachers Col, 28; scholar, Ohio State, 28–29, A.M, 29, Ph.D, 31. Asst. *psychol,* Ohio State, 29–31; instr, *N. Y. Univ,* 31–35, *asst. prof, 35–, admin. chairman dept, 40–; mem. personnel research sect, classification and replacement branch, Adj. Gen. Dept, War Dept.* Statistician, Ohio Educ. Asn, 32; exchange prof, New Mexico, 39; visiting prof, Col. City of N. Y, 41. A.A; Psychol. Asn; Statist. Asn; Asn. Applied Psychol; Psychometric Soc; Kans. Acad. Educational psychology; statistics; tests and measurements; genetic psychology; college personnel work.

Henry, Prof. G(eorge) F(rederick), 1011 11th St, N. W, Puyallup, Wash. *Physical chemistry.* Ainsworth, Iowa, Nov. 20, 70. B.S, State Col. Wash, 03; M.S, Northwestern, 15; Chicago, 15–16. Teacher, high sch, Idaho, 03–06; prof. chem. and head dept. science, Lucknow Christian Col, India, 06–14, v. pres, 12–14; prof. physics and chem, Mt. Union Col, 15–16; Fargo, 16–21, asst. dean, 19–21; prof. *chem.* and head dept, *Col. Puget Sound,* 21–38, *emer. prof, 38–,* dean, 22–26. A.A; Chem. Soc; fel. Inst. Chem. Electrical conductivity in non-aqueous solutions.

Henry, Dr. George W(illiam), New York Hospital, New York, N. Y. *Psychiatry.* Oswego, N. Y, June 13, 89. A.B, Wesleyan, 12; M.D, Hopkins, 16. Asst. psychiat, sch. med, Hopkins, 17; intern, *Bloomingdale Hosp,* 17, asst. physician, 17–18, senior physician, 18–23, *director labs, 22–;* instr. *psychiat, med. col, Cornell,* 27–29, asst. prof, 29–32, *assoc. prof, 32–* Director psychiat. clinic, N. Y. Hosp, 23–32. Fel. Psychiat. Asn; fel. Am. Med. Asn; Asn. Research Nervous and Mental Disease; Harvey Soc; N. Y. Psychiat. Soc; N. Y. Soc. Clin. Psychiat; Int. Asn. Physicians. History, biochemistry and physiology of mental illness; x-ray studies of gastro-intestinal motor functions in mental illness; mental illness in animals by means of toxic substances; general hospital psychiatry; psychic aspect of thyroid disorder; causes of homosexuality.

Henry, Dr. Hugh F(ort), University of Georgia, Athens, Ga. *Physics.* Emory, Va, April 25, 16. A.B, Emory and Henry Col, 36; M.S, Virginia, 38, Ph.D, 40. Prof. physics and math, Col. of Ozarks, 40–41; *instr. physics, Georgia, 41–* Physical Soc. Impulsive electrical discharge in conducting liquids; electrical discharge phenomena at liquid-gas interfaces.

Henry, Dr. L(eRoy) K(ershaw), Carnegie Museum, Pittsburgh, Pa. *Botany.* Pittsburgh, Pa, Jan. 24, 05. B.S, Pittsburgh, 28, M.S, 30, Ph.D, 32. Asst, Pittsburgh, 29–32; *bot, Carnegie Museum,* 28–29, 32–37, *asst. curator, 37–* Mycol. Soc; Pa. Acad; Bot. Soc. West Pa. Taxonomy of fungi; Mycorrhizae of trees and shrubs; systematic botany and plant ecology.

Henry, Dr. Lyle K(enneth), Iowa State College, Ames, Iowa. *Psychology.* Wapello Co, Iowa, May 27, 04. B.S, Des Moines, 26; A.M, Iowa, 31, Ph.D, 33. Prin, pub. schs, Iowa, 26–28, supt, 28–30; asst. psychol, Iowa State Col, 31–32; educ. psychol, Iowa, 32–33; educ. adviser, Civilian Conservation Corps, 34–36; *instr. psychol, Iowa State Col, 36–; capt, Adj. Gen. Dept, War Dept, 42–* Assoc. Psychol. Asn; Iowa Acad. (chairman, psychol. sect, 39). Learning; teaching; testing; reading; geometry; guidance.

Henry, Prof. Otto H, 99 Livingston St, Brooklyn, N. Y. *Metallography.* Morgantown, W. Va, July 20, 93. B.S, West Virginia, 19, M.E, 36; M.M.E, Polytech. Inst. Brooklyn, 35. Instr. sheet metal layout, vocational training sect, 18, asst. steam and exp. eng, 18–19; instr. *mech. eng, Polytech. Inst. Brooklyn,* 19–25, asst. prof, 25–39, *assoc. prof, 39–* Mech. eng. consultant; lecturer, N. Y. sect, Am. Welding Soc, 39–41. Mech. Eng; Soc. Metals; Welding Soc. (welding handbook cmt, 41). Metallurgy; welding metallurgy; properties of metals and welds at other than normal temperatures; materials testing.

Henry, Dr. Robert E(dwin), Continental Can Co, Inc, 4633 W. Grand Ave, Chicago, Ill. *Chemistry.* Princeville,

Ill, Jan. 11, 11. B.S, Monmouth Col, 32; M.S, Illinois, 34, Ph.D, 38. Junior fellow and Can fellow, Mellon Inst, 38–41; *research chemist, Continental Can Co, Inc, 41–* Chem. Soc; Inst. Food Technol.; Food chemistry.

Henry, Prof. T(heodore) S(pafford), Western Michigan College, Kalamazoo, Mich. *Psychology.* West Jersey, Ill, May 9, 78. A.B, Ill. Wesleyan, 03; A.M, Illinois, 16, Ph.D, 17. Supt. schs, Ill, 03–15; *prof. psychol. West. Mich. Col, 17–, head dept, 37–* A.A; Psychol. Asn; Soc. Study Educ; Mich. Acad. Psychology of gifted children.

Henry, Thomas Robert, 3816 Albemarle St, N. W, Washington, D. C. *General science.* Boston, Mass, March 19, 93. A.B, Clark, 14; A.M, George Washington, 30. *Science ed, 'Washington Evening Star.'* Wash. Acad; Nat. Asn. Sci. Writers. Science writing.

Henry, Dr. Warren E(lliott), Box 477, Tuskegee Institute, Ala. *Physical chemistry.* Evergreen, Ala, Feb. 18, 09. B.S, Tuskegee Inst, 31; M.S, Atlanta, 37; Ph.D, Chicago, 41. Prin, sch, Ala, 31–34; instr. physics, Spelman Col, 34–36; Morehouse Col, 35–36; instr. *chem,* Tuskegee Inst, 36–38; lecture asst, Chicago, 39–41; *instr, Tuskegee Inst, 41–* A.A; Chem. Soc; Ala. Asn. Sci. Teachers. Preparation and bromination of 1-metabromphenyl-4-phenylbutadiene; resistance thermometry; the possibility of using alternating current technique in the measurement of small temperature differences; elementary qualitative chemical analysis.

Henry, Dr. William F(oley), Soil Conservation Service, Storrs, Conn. *Physical chemistry.* Paris, Ill, Aug. 23, 08. B.S, Illinois, 29, M.S, 30, Ph.D, 32. Asst. instr, Illinois, 30–32; Ill. Geol. Surv, 34; research director, Ill. Cereal Mills, Inc, 34–37; research chemist, Corn Products Ref. Co; *cooperative agent div. econ. research, soil conservation service, U. S. Dept. Agr.* Vapor pressure of sodium; low pressure measurements; physical properties of salt vapors; molecular rays; free energies and entropies of organic fluorine compounds; steeping and processing of corn; corn oil.

Henschel, Dr. Austin F(erdinand), University of Minnesota, Minneapolis, Minn. *Physiology.* Princeton, Minn, March 13, 06. B.S, Minnesota, 29, A.M, 32, Ph.D, 38. Teaching asst. zool, Minnesota, 30–33, asst. *physiol,* 34–37, teaching asst, 37–38, instr, 38–41; *assoc, Quartermasters Corps, U. S. War Dept, 41–* A.A. Human dietary and vitamin requirements; diet and fatigue; mode of action of sulfonamide compounds.

Hensel, Dr. F(ranz) R(obert), 4000 Cooper Road, Indianapolis, Ind. *Physical metallurgy.* Riesa-Saxony, June 9, 04. Dipl.Ing, Mining Acad, Freiberg, 27; Sheffield, 27–28; Dr.Ing, Tech. Hochschule, Charlottenburg, 29. Research engineer in charge gen. metal. sect, Westinghouse Research Lab, 29–34; *Chief metallurgist and consulting engineer, P. R. Mallory and Co, Inc, 34–* A.A; Min. and Metal. Eng; Soc. Metals; Soc. Automotive Eng; Foundrymen's Asn; Soc. Test. Mat; Welding Soc; British Inst. Metals. Metals; alloys; metallurgical processes; diffusion and welding processes; copper alloys; precious metal alloys; refractory metals and compounds; metals for electrical and radio applications.

Hensel, Prof. F(rederick) W(illiam), Agricultural and Mechanical College of Texas, College Station, Texas. *Horticulture.* San Antonio, Texas, July 10, 84. B.S, Agr. and Mech. Col. Texas, 07; Iowa State Col, 12; M.S, Cornell, 15. *Prof. hort, Agr. and Mech. Col. Texas, 14–, head dept. landscape art, 27–* Ornamental plants native to Texas; broad leaf evergreens.

Hensel, R(udolph) L(ouis), Agricultural and Mechanical College of Texas, College Station, Texas. *Forestry.* San Antonio, Texas, Oct. 27, 90. B.S.F, Iowa State Col, 13, M.F, 22. Grazing examiner, U. S. Forest Service, 13–17; prof. pasture management, Kans. State Col, 19–35; grazing examiner, soil conservation service, U. S. Dept. Agr, 35–36; *agronomist in charge pasture investigations, Exp. Sta, Agr. and Mech. Col. Texas, 36–* Effect of burning on pasture vegetation; range and pasture management.

Henshaw, Dr. Charles N(orton), 253 Cornelia St, Plattsburg, N. Y. *Mechanical engineering.* New York, N. Y, March 31, 96. B.S, Vermont, 20; M.S, Mass. Inst. Tech, 29, Sc.D, 36. Instr. elec. eng, Vermont, 20–21; mem. service tech. dept, Nordyke and Marmon Co, Ind, 21–22; instr. physics, Vermont, 22–24; mech. eng, day sch. and evening sch, Drexel Inst, 24–28; asst. prof, Rensselaer Polytech, 29–33; eng. draftsman, Office of the Quartermaster, Plattsburg Barracks, 38–39; machine designer, Sheridan Iron Works, N. Y, 40–41; prof. eng, North. Mont. Col, 41–42; *chief engineer, Pal Blade Co, 42–* Mech. Eng; Eng. Educ. Application of nitrided materials to the manufacture of automobile valve tappets; design, construction and application of a differential analyzer.

Henshaw, Dr. Clement L(ong), Colgate University, Hamilton, N. Y. *Physics.* Pittsfield, Mass, Dec. 18, 06. B.S, Union Col. (N. Y), 28; A.M, Michigan, 29; univ. fellow, Yale, 33–34, Ph.D, 36. Instr. *physics,* Lehigh, 29–31; Yale, 31–33, 35–36; *Colgate,* 36–41, *asst. prof, 41–* Asn. Physics Teachers; Physical Soc. Photoelectric phenomena in thin films.

Henshaw, Dr. Paul C(arrington), Cerro de Pasco Copper Corp, Morococha, Peru, S. Amer. *Geology.* Rye, N. Y, Nov. 15, 13. A.B, Harvard, 36; M.S, Calif. Inst. Tech, 38, Ph.D, 40. *Geologist, Morococha div, Cerro de Pasco Copper Corp, 40–* Economic geology; vertebrate paleontology.

Henshaw, Dr. P(aul) S(tewart), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Radiobiology.* Salt Fork, Okla, Aug. 23, 02. A.B, Southwestern Col. (Kans), 25; M.S, Wisconsin, 27, Ph.D, 30. Asst. instr. zool, Wisconsin, 25–29; biophysicist, Mem. Hosp, 29–38; research fellow, *nat. cancer inst, U. S. Pub. Health Service,* 38–41, *senior radiobiologist, 41–* A.A; Asn. Cancer Research; Soc. Exp. Biol; Soc. Zool. Biological action and measurement of x-rays and gamma rays; alpha particles; biological changes affecting radiosensitivity; recovery from irradiation effects; the time factor in irradiation; wavelength dependence in radiobiological reactions; irradiation germ cell injury; tumor induction with high energy relations; radiation and wood growth; irradiation changes in hemopoietic tissues including malignant modification.

Hensill, Dr. G(eorge) S(imonds), California Spray Chemical Corp, Richmond, Calif. *Entomology.* San Jose, Calif, Feb. 5, 06. B.S, California, 30, Ph.D, 34. Sci. aid, div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 34–36; asst. chemist and later *senior chemist, Calif. Spray Chem. Corp, 36–; lieut, H-V(S), U. S. Naval Res, 42–* Deposit of various insecticidal materials on artificial and natural surfaces; the effects on deposit produced by different emulsifying and wetting agents; general insecticide chemistry.

Hensley, Prof. W(illiam) A(llen), 214 Military St, Georgetown, Ky. *Organic chemistry.* Spring Garden, Mo, Jan. 6, 05. A.B, Missouri, 29, Ph.D, 34. *Prof. chem, Georgetown Col, 37–* Chem. Soc. Lubricating hydrocarbons.

Henson, Dr. Edwin R(ay), 416 W. 19th St, Little Rock, Ark. *Agronomy.* Tongonoxie, Kans, March 9, 96. B.S, Okla. Agr. and Mech. Col, 20; M.S, Iowa State Col, 22, Ph.D, 31. County agr. agent, Pottawatomie County, Okla, 19–21; instr. farm crops, Iowa State Col, 22–24, asst. prof, 24–31, assoc. prof, 31–35; agr. economist, land utilization div, Resettlement Admin, 35–36, chief farm and home management sect, 36–37; asst. director tenant purchase div, Farm Security Admin, 37–39, coordinator, south. Great Plains, 39–42; *regional agr. analyst, bur. agr. econ, U. S. Dept. Agr, 42–* 2nd lieut, Inf, 17–18. Soc. Agron; Soc. Plant Physiol. Farm crops; crop production; plant physiology; curing and storage of hay.

Henson, Dr. Margaret, 204 E. Underwood, Chevy Chase, Md. *Biology.* Pueblo, Colo, Jan. 27, 15. A.B, Smith Col, 37; A.M, Wellesley Col, 39; Ph.D, N. Y. Univ, 42. Asst. physiol, Wellesley Col, 37–39; teaching fellow biol, Wash. Sq. Col, N. Y. Univ, 39–42; *ensign, Waves, U. S. Naval Res, 43–* Summers, Marine Biol. Lab, Woods Hole, 35, 36, 38, 40, 41. A.A. Experimental embryology.

Henton, Hugh M(organ), U. S. Smelting, Refining and Mining Co, Silver City, N. Mex. *Metallurgy.* Hot Springs, S. Dak, Feb. 20, 84. B.S, S. Dak. Sch. Mines, 13, Met.E, 22. Sampler and assayer, St. Paul Mont. Mining Co, 13–14; instr. metal. and metallog, Case, 15–21; asst. prof. metal. and mining, State Col. Wash, 22–28; assoc. prof. metal, Alaska, 28–38; *engineer, U. S. Smelting, Ref. and Mining Co, 39–* Min. and Metal. Eng; Chem. Soc; Northwest Sci. Asn. Microscopy of metals, alloys and minerals; titanium; chemistry; heat treatment of steel and other alloys; magnesite and dolomite; cyanidation.

Henyey, Dr. L(ouis) G(eorge), Williams Bay, Wis. *Astronomy.* McKees Rocks, Pa, Feb. 3, 10. B.S, Case, 32, fellow, 32–33, M.S, 33; Ph.D, Chicago, 37. Asst. *astrophys, Yerkes Observatory, Chicago,* 34–37, instr, 37–42, *asst. prof, 42–* Guggenheim Mem. Foundation fellow, 40–41. Astron. Soc. Galactic nebulae; astronomical spectroscopy; nuclear physics; optical design.

Henze, Prof. Henry R(udolf), 309 Moore Blvd, Austin, Texas. *Chemistry.* New Haven, Conn, Jan. 11, 96. Ph.B, Yale, 18, Nat. Aniline and Chem. Co. fellow, 20–21, Ph.D, 21. Adj. prof. chem, col. pharmacy, *Texas,* 21–22, assoc. prof, 22–24, prof, 24–27, head dept, 21–27, *prof. pharmaceut. chem,* 27–, chairman dept. chem, 29–39. Junior chemist, U. S. Bur. Mines and C.W.S, 18, major, C.W.Res. A.A; Chem. Soc. (pres, cent. Texas sect, 31, 32, 37, councilor, 32, 33, 38–42); Chem. Eng; fel. Inst. Chem; fel. Texas Acad. Pharmaceutical chemistry; hydantoins; calculation of isomeric and stereoisomeric aliphatic compounds; heterocyclic nitrogen compounds; synthetic drugs; plastics and plasticizers.

Hepburn, Dr. Ann B(raid), Care of Hilberry, Ryerson Physical Laboratory, University of Chicago, Chicago, Ill. *Physics.* Chicago, Ill, Sept. 11, 97. B.S, Chicago, 19, M.S, 21, Ph.D, 26. Physicist, Radium Inst, Chicago, Ill, 20–21; instr. physics, Vassar Col, 21–24; asst, Chicago, 25–26; instr, Wash. Sq. Col, N. Y. Univ, 27–28, lecturer, grad. sch, 28–29, research assoc, 29–35; *mem. staff Ryerson physical lab, Chicago.* A.A; Physical Soc. Excitation potentials; radiation phenomena.

Hepburn, Dr. Joseph Samuel, Hahnemann Medical College and Hospital, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Aug. 25, 85. A.B, Cent. High Sch. Phila, 03, A.M, 08; B.S, M.S, Pennsylvania, 07, 14–20; Temple, 09–12; fellow, Columbia, 12–13, Ph.D, 13; Medico-Chirurg. Col. Phila, 11–12; hon. M.D, Hahnemann Med. Col. (Pa), 34. Sci. asst, U. S. Dept. Agr, 07–08, asst. chemist, 09–12, 13–20; instr. *chem, Hahnemann Med. Col. and Hosp,* 20–22, lecturer, 22–25, assoc. prof, 25–39, *prof, 39–, research assoc. gastro-enterol, 37–* Ed. cmt, 'Biochem. Bul,' 12–; abstractor, 'Chem. Abstracts,' 15–Manager, sec'y-treas, Hahnemann Research Foundation, 39–Longstreth medal, Franklin Inst, 11, certificate of merit, 21. 3rd Int. Cong. Refrig; Conf. Biol. Chem. Chem. Soc. (councilor, 25); Agr. Chem; Franklin Inst. (sec'y, sect. physics and chem, 09–23; cmt. on science and the arts, 19–); Soc. Biol. Chem; hon. assoc. Inst. Homeop; Nat. Gastroenterol. Asn; Pa. Chem. Soc. (governor, 38); Acad. Nat. Sci. Phila; Physiol. Soc. Phila; Columbia Biochem. Asn. (hon. v. pres, 17). Biochemistry; plant physiology; determination of nitrogen; fats and oils; dental caries; enzymes; cold storage; nutrition; drug proving; insectivorous plants; gastro-enterology; visceral temperatures; history of chemistry.

Hepler, Prof. J(esse) Raymond, University of New Hampshire, Durham, N. H. *Horticulture.* Pitman, Pa, Aug. 25, 86. B.S, Pa. State Col, 11; M.S, Wisconsin, 22. Wisconsin, 11–17; asst. prof. *hort, New Hampshire,* 17–30, *assoc. prof, 30–* Soc. Hort. Sci. Olericulture; vegetable crop fertilizers; phosphorus on tomatoes and other vegetables; adaptation of type and strains of vegetables to New Hampshire conditions; breeding corn, eggplant, peppers and beans; wintering bees.

Hepler, Dr. Opal E(lsie), 303 E. Chicago Ave, Chicago, Ill. *Pathology.* Streator, Ill, Oct. 26, 99. B.S, Northwestern, 21, M.S, 29, Ph.D, 34, M.D, 41. Asst. *path, med. sch, Northwestern,* 24–29, instr, 29–41, *asst. prof, 41–* Director clin. labs, Passavant Mem. Hosp, 39– A.A; Soc. Exp. Biol; Soc. Exp. Path; Soc. Ill. Bact; Inst. Med. Chicago; Chicago Path. Soc. Biology and medicine; allergic inflammation; guanidine in blood; fat metabolism in hyperthyroidism; spontaneous nephritis in rabbits; blood volume during mechanical constriction of hepatic veins; phosphatase; experimental nephropathies.

Hepner, Prof. Frank E(dgar), 419 11th St, Laramie, Wyo. *Chemistry.* Goodhue Co, Minn, June 4, 76. Ph.G, S. Dak. Col, 99, B.S, 02, M.S, 05; Wyoming, 04–05; Wisconsin, 14–15. Asst. chem, S. Dak. Col, 99–02, instr. and asst. chemist, Exp. Sta, 02–04; asst. chemist, *Exp. Sta, Wyoming,* 04–10, research chemist, 11–22, *in charge weather observations, 16–,* asst. prof. agr. chem, *univ,* 19–21, assoc. prof, 21–28, *prof. chem, 28–* Chem. Soc; Meteorol. Soc; Colo-Wyo. Acad. Chemical characteristics of macaroni wheat; chemical composition of forage and poisonous plants of Wyoming; digestion experiments with sheep; climatology.

Hepner, Prof. Harry W(alker), Box 5, University Station, Syracuse, N. Y. *Psychology.* Freeburg, Pa, Feb. 1, 93. A.B, Muhlenberg Col, 16; A.M, Syracuse, 24. In charge personnel research, Kaufmann's Dept. Store, Pittsburgh, 18–19; Phila. Co. and affiliated corporations, 19–20; Goodyear Tire and Rubber Co, Akron, 20–21; from instr. to *prof. psychol, Syracuse, 21–, head dept. business psychol, col. business admin, 24–* Psychol. Asn; Asn. Applied Psychol; Marketing Asn. Business and vocational psychology.

Heppel, Dr. Leon A(lmâ), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Toxicology.* Granger, Utah, Oct. 20, 12. B.S, California, 33, Ph.D, 37; M.D, Rochester, 41. *Asst. surgeon, nat. inst. health, U. S. Pub. Health Service, 42–* Metabolism of potassium; electrolyte equilibria in serum and muscle; toxicology of solvents.

Hepting, Dr. George H(enry), 223 Federal Bldg, Asheville, N. C. *Forest pathology.* Brooklyn, N. Y, Sept. 1, 07. B.S, Cornell, 29, Ph.D, 33. Field asst. path, State Conservation Dept, N. Y, 27; asst. path, Cornell, 29–30; field asst, *div. forest path, bur. plant indust, U. S. Dept. Agr,* Amherst, Mass, 31–32, New Orleans, La, 32–33, asst. pathologist, 33–37, assoc. pathologist, 37–40, *pathologist, 40–* Phytopath. Soc; Soc. Foresters; N. C. Forestry Asn. Decay in hardwood timber; systemic diseases of pine; canker diseases of trees.

Herald, Earl Stannard, Natural History Museum, Stanford University, Calif. *Ichthyology.* Phoenix, Ariz, April 10, 14. A.A, Los Angeles City Col, 35; A.B, California at Los Angeles, 37; A.M, California, 39; Ph.D, Stanford, 43. Asst. research and instruction, Nat. Hist. Museum, Stanford, 39–41; *dist. aquatic biologist, State Div. Fish and Game, Calif, 41–; sanit. inspector in charge mobile field unit, plague suppressive measures lab, U. S. Pub. Health Service, 42–; U. S. Army, 43–* Summers, ranger naturalist, Sequoia Nat. Park, Calif, 39, 40. Soc. Ichthyol. and Herp. Classification and phylogeny of pipefishes and seahorses; systematic ichthyology; herpetology; fisheries biology.

Herald, Frank A(lfred), Ebasco Services Inc, 2 Rector St, New York, N. Y. *Geology, Petroleum engineering.* Kingman, Kans, Feb. 22, 87. A.B, Oklahoma, 10; Hopkins, 10; M.S, Chicago, 13, 13–14. Asst. geologist, U. S. Geol. Surv, 10–13; geologist, Standard Oil Co. N. Y, 14–15, chief geologist, China, 15–16; geologist, Cosden Oil and Gas Co, 16–17; gen. manager, Carl K. Dresser, Oil Producer, Ky, 17–18; valuation engineer, U. S. Bur. Int. Revenue, 18–19, chief oil and gas sect, 19; valuation engineer, Atlantic Gulf Oil Corp, Europe and U. S, 19–20; chief geologist, head land dept, asst. gen. manager, Cia Petrolera del Agwi, Mex, 20–23; partner, Herald Bros, Okla, 23–27; pres, Phoenix Oil and Transport Co, 27–28; consulting petrol. geologist and engineer, 28–29; gen. manager and pres, Westbrook-Thompson Holding Corp, Texas, 29–32; consulting petrol. geologist and engineer, 32–36; senior petrol. engineer, U. S. Securities and Exchange Cmn, 36–39; chief engineer, Independent Oil Producers Equity Asn, Texas, 39–40; *operating consultant, Ebasco Services Inc, 40–* Min. and Metal. Eng. (v. chairman, petrol. div, 33–34); Asn. Petrol. Geol. Economics of oil and gas production.

Herb, Prof. R(aymond) G(eorge), University of Wisconsin, Madison, Wis. *[17]*Physics.* Jan. 22, 08. A.B, Wisconsin, 31, Ph.D, 35. Research assoc. *physics, Wisconsin,* 35–39, research assoc. and asst. prof, 39–40, *assoc. prof, 40–* Fel. Physical Soc. Development of high voltage generators for atomic disintegration; the disintegration of elements by high energy protons.

Herber, E(lmer) C(harles), Dickinson College, Carlisle, Pa. *Zoology.* New Tripoli, Pa, Jan. 26, 00. A.B, Ursinus Col, 25; A.M, Pennsylvania, 29; Sc.D, Hopkins, 41. Instr. zool, Pennsylvania, 26–28; *biol, Dickinson Col,* 29–42, *assoc. prof, 42–* Summers, truck crop insect investigation, bur. entom, U. S. Dept. Agr, 27, 29, 41, 42. Parasitologist, State Stream Control Cmn, Mich. A.A; Soc. Parasitol; Pa. Acad. Insect and parasite physiology; genetics; hydrogen ion concentration of alimentary canal of rats; life cycles of parasites.

Herbert, Prof. P(aul) A(nthony), Michigan State College, East Lansing, Mich. *Forestry.* Brooklyn, N. Y, Aug. 21, 99. B.S, Cornell, 21, M.F, 22; Ph.D, Michigan, 41. Asst. instr, Cornell, 21–22; asst. prof. forestry, Mich. State Col, 22–26; senior forester, forest taxation inquiry, U. S. Forest Service, 26–31; *prof. forestry, Mich. State Col, 31–* Lecturer, sch. forestry, Yale, 30–31. Assoc. ed, 'Jour. Forestry,' 30–36. Mem. State Planning Cmn, Mich, 35–; state rep, Nat. Wildlife Federation, Mich, 37– Soc. Foresters; Mich. Forestry Asn. (exec. sec'y, 34–); Soc. Planning Officials; Mich. Acad. Forest economics and insurance; taxation; rural land planning; rural governmental organization; forest management.

Herbert, Dr. W(illiam) S(tanley), 645 Sheldon St, Madison, Wis. *Physical chemistry.* Birch Hills, Sask, Can, July 28, 13. B.Sc, Saskatchewan, 34, M.Sc, 36; univ. scholar, Ohio State, 36–37, univ. fellow, 37–38, Ph.D, 38. Investigator, N. J. Zinc Co, 39–41; electrochemist, Armour Research Foundation, 42–43; *mem. research and develop. sect, Ray-O-Vac*

Co, 43– Chem. Soc; Electrochem. Soc. Active nitrogen; rare earth spectra; electroplating; cells; corrosion.

Herbolsheimer, Dr. Glenn, 118½ S. Chickasaw Ave, Bartlesville, Okla. *Chemical engineering.* East Moline, Ill, Feb. 13, 12. B.S, Illinois, 37; fellow, Pa. State Col, 37–43, M.S, 39, Ph.D, 42. Asst, Pa. State Col, 37–43; *process engineer, Phillips Petrol. Co, 43–* Chem. Eng; Chem. Soc. Vapor phase oxidation of hydrocarbons; liquid-liquid solvent extraction.

Herbst, Prof. Robert M(ax), E. Bilhuber, Inc, Orange, N. J. *Biochemistry.* Mt. Vernon, N. Y, Sept. 29, 04. Ch.B, Cornell, 26; Munich, Edinburgh and London, 29–31; Ph.D, Yale, 30. Instr. biochem, col. physicians and surg, Columbia, 31–39; asst. prof. org. chem, N. Y. Univ, 39–43; *director research, E. Bilhuber, Inc, 43–* A.A; Chem. Soc; Soc. Biol. Chem; N. Y. Acad; Harvey Soc. Chemistry of amino-acids, peptides and related substances; amino sugars; synthetic medicinals.

Herbst, Dr. Walter A(lexander), 1243 Magnolia Place, Union, N. J. *Chemical engineering.* West Hazleton, Pa, July 14, 10. B.S, Pa. State Col, 31, M.S, 32, Ph.D, 35. Plant chemist, Ind. Farm Bur. Oil Co, 35–36; *research chemist, Standard Oil Develop. Co, 36–* Chem. Soc. Effect of chemical constitution on temperature coefficient of viscosity of organic liquids; efficiency studies in packed fractionating columns.

Hered, Dr. William, Indiana University Extension Division, East Chicago, Ind. *Organic chemistry.* Bethlehem, Pa, May 29, 10. B.S, Chicago, 36, Ph.D, 39. *Instr. chem,* Gary Col, 37–41; *exten div, Indiana, 41–; tech. consultant, examinations staff, U. S. Armed Forces Inst, 42–* Chem. Soc. Bromination of cyclohexane, methylcyclohexane and isobutane; a fusion of inorganic and organic chemistry in the general course; improvement of undergraduate teaching in chemistry.

Hergenrother, Dr. Rudolf C(lemens), Hazeltine Service Corp, Bayside, L. I, N. Y. *Physics.* Chemnitz, Germany, Sept. 5, 03. A.B, Cornell, 25; M.S, Pa. State Col, 28; Ph.D, Calif. Inst. Tech, 31. Asst. physics, Cornell, 21–25; engineer vacuum tube develop, Westinghouse Lamp Co, N. J, 25–27; asst. physics, Pa. State Col, 27–29; tech. consultant physics, 29–31; fellow, Calif. Inst. Tech, 31–32; science research fellow, Washington (St. Louis), 32–34; *physicist, television and electronics develop,* Farnsworth Television Corp, Phila, Pa, 34–35; *Hazeltine Service Corp, 35–* Summers, research lab, Gen. Elec. Co, Schenectady, 21–25, 27. Physical Soc; Radio Eng. X-ray crystal structure analysis; pseudo-allotropic transformations of the crystal lattice; television; photoelectricity; collision of electrons with gases.

Herget, Dr. Carl M(aag), Harvard University, Cambridge, Mass. *Physics.* Baltimore, Md, Jan. 24, 13. B.S, Hopkins, 35, Ph.D, 40. *Fellow, Russell Sage Inst. Path, 39–; asst. physiol, med. col, Cornell, 41–; special research assoc, underwater sound lab, Harvard, 41–* A.A; Physical Soc; Harvey Soc; N. Y. Acad. Sound; ultrasonics; infra-red spectroscopy; basal metabolism; temperature sensation.

Herget, Prof. Paul, University of Cincinnati, Cincinnati, Ohio. *Astronomy.* Cincinnati, Ohio, Jan. 30, 08. A.B, Cincinnati, 31, A.M, 33, Ph.D, 35. Instr. astron. and asst, observatory, Cincinnati, 31–40, *asst. prof. astron, 40–; mem. staff, nautical almanac office, U. S. Naval Observatory, 42–* Morrison fellow, Lick Observatory, California, 35–36. Astron. Soc. Calculations of orbits of comets and minor planets; developments of the general perturbations of minor planets and improvement of their orbits.

Hering, Prof. Paul E(dmund), 2957 Hardman Court, Atlanta, Ga. *Biology.* Brooklyn, N. Y, July 26, 98. A.B, Columbia, 25; M.S, Cornell, 27, Ph.D, 32. Instr, Rensselaer Polytech, 29–30; *prof.* biol, Oglethorpe, 36–40; *physiol. and bacter, South. Col. Pharmacy, 40–* A.A; Ornith. Union; Ecol. Soc. Insect biology; vertebrate anatomy; embryology of the head in the chick.

Herman, Dr. Carlton M(artin), State Division of Fish and Game, Ferry Bldg, San Francisco, Calif. *Parasitology.* New York, N. Y, Jan. 22, 09. B.S, Michigan, 32; Vienna, 32–33; M.S, Syracuse, 35; Sc.D, Hopkins, 38. Research assoc. *parasitol,* N. Y. Zool. Soc, 38–39; San Diego Zool. Soc, 40; *instr, exten. div, California, 40–; parasitologist, State Div. Fish and Game, Calif, 42–* Visiting investigator, vet. research labs, Kabeta, Kenya Colony, Africa, 39; in charge shipment live animals from E. Africa to New York, 39; tech. adviser, Los Angeles Wildlife Disease Research Sta, 41–42; agent, fish and wildlife service, U. S. Dept. Interior, 42. Summers, visiting investigator, O. L. Austin Ornith. Research Sta, Cape Cod, 36, 37. Micros. Soc; Soc. Parasitol; East. Bird Banding Asn. (pres, 37–39). Parasites of birds and mammals; bird malaria; epidemiology of parasitic diseases in wildlife.

Herman, Dr. C(larence) Richard, Drew University, Madison, N. J. *Physical chemistry.* Yonkers, N. Y, June 24, 09. B.S, N. Y. Univ, 30, Ph.D, 33. Chairman dept. science and eng, Morris Junior Col, 36–41; instr. *chem, Drew Univ,* 37–43, *asst. prof, 43–* Chem. Soc. Thermal decomposition of diethylamine.

Herman, Prof. Fred L(ouis), 1214 16th St, Greeley, Colo. *Chemistry.* St. Joseph, Mo, Oct. 1, 94. B.S, Nebraska, 21; A.M, Stanford, 29. Instr. chem, Nebraska, 20–21; high sch, Nebr, 21–22; asst. prof, Colo. State Teachers Col, *Greeley,* 22–26, assoc. prof. and later *prof. physics,* 26–35, *Colo. State Col. Educ, 35–* A.A. X-rays and crystal structure; science orientation; nature of the physical and biological worlds of man.

Herman, Prof. H(arry) A(ugust), University of Missouri, Columbia, Mo. *Dairy husbandry.* Providence, R. I, Feb. 7, 05. B.S, Missouri, 29, A.M, 31, Ph.D, 36. Asst. instr. *dairying, Missouri,* 29–30, instr, 30–36, *asst. prof, 36–* Dairy Sci. Asn. (sec'y breeds relations cmt, 38–; chairman production sect, 41); Soc. Animal Production. Nutrition; growth; milk secretion; general physiology and animal breeding.

Herman, Dr. N(athan) B(ernard), 1041 St. Paul St, Baltimore, Md. *Medicine.* Wichita, Kans, Feb. 8, 93. A.B, Hopkins, 14, M.D, 18. *Instr. med, sch. med, Hopkins, 25–* Asst. visiting physician, Hopkins Hosp, 26– Mem. occupational disease board, State Indust. Accident Cmn, Md, 39– Col. Physicians; Soc. Study Asthma. Medicine; allergy.

Herman, Dr. Robert C, 8621 Georgia Ave, Silver Spring, Md. *Physics.* New York, N. Y, Aug. 29, 14. B.S, Col. City of N. Y, 35, fellow, 35–36; fellow, Princeton, 38–40, A.M. and Ph.D, 40. Research assoc. and differential analyzer, Moore sch. elec. eng, Pennsylvania, 40–41; instr. physics, Col. City of N. Y, 41–42; *physicist, applied physics lab, Hopkins, 42–* Physical Soc. Vibration spectra and molecular structure; infra-red spectroscopy; photoconductivity and fluorescence.

Hermance, Harold (Walters), 13 Garden St, Montclair, N. J. *Microanalysis.* Brooklyn, N. Y, Feb. 3, 01. Newark Tech. Sch, Columbia; N. Y. Univ. Chemist, Edel Labs, Newark, N. J, 17–19; Crucible Steel Co, Harrison, 19–21; asst. chief chemist, Procter and Gamble Co, S. I, N. Y, 21–25; chemist, West. Elec. Co, 25–27; *supervisor in charge microchem. lab, Bell Tel. Labs, 27–* Chem. Soc. (councilor, N. Y. sect, 42). Chemical diagnosis of industrial problems; microanalysis and their application to industrial problems; electrical contact performance; use of paper as a manipulative medium in microanalysis.

Hermann, Dr. Frederick J(oseph), Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. *Botany.* Laurium, Mich, April 14, 06. A.B, Michigan, 28, A.M, 31, Ph.D, 38. Asst. gen. and syst. bot, Michigan, 25–28, research assoc, bot. gardens, 28–31; instr. bot, Temple, 31–33; taxonomic asst, bot. gardens, Michigan, 33–37, asst. curator, 37–38, teaching fellow bot, univ, 33–37, instr, 37–38; *assoc. botanist, bur. plant indust, U. S. Dept. Agr, 38–* Collaborator, N. Y. Bot. Garden. Soc. Plant Taxon; Sullivant Moss Soc; Fern Soc; Torrey Bot. Club; Calif. Bot. Soc; Mich. Acad; Phila. Bot. Club. Taxonomy and phytogeography of North American phanerogams, particularly Juncus, Carex and Astragalus.

Herms, Prof. W(illiam) B(rodbeck), University of California, Berkeley, Calif. *Entomology, Parasitology.* Portsmouth, Ohio, Sept. 22, 76. B.S, Baldwin-Wallace Col, 02, hon. Sc.D, 35; Western Reserve, 05; A.M, Ohio State, 06; Austin fellow, Harvard, 07–08. Prof. commerce and prin. sch. commerce, Baldwin-Wallace Col, 02–05, instr. biol, 04–05; teaching fellow, Ohio State, 05–06; acting head dept. zool, Ohio Wesleyan, 06–07; asst. prof. entom, *California,* 08–12, *parasitol,* 12–15, assoc. prof, 15–20, *prof. and head div. entom. and parasitol, 20–; lieut. col, Sanit. Corps, U. S. Army, and instr. trop. med, med. field service sch, Carlisle, Pa, 43–* Consulting entomologist, State Board Health, Calif. Summer, visiting prof, Ohio State, 30. Nat. Malaria Cmn. Chevalier du Merite agricole, 35; Benjamin Ide Wheeler medal, Berkeley, Calif, 37. Ohio Wesleyan del, Int. Zool.

Cong, Boston, 07; Int. Hygiene Exhibit, Dresden, 11; Pan-Pacific Food Conservation Conf, Honolulu, 24; Int. Cong. Entom, Ithaca, 28. Coconut pest surv, Fanning and Washington Islands, 24. Sanit.C, 18, major, lieut-col, Sanit. R.C, 24– A.A; Soc. Nat; fel. Entom. Soc. (pres, 41); Asn. Econ. Entom. (pres, 28); Soc. Parasitol; Soc. Trop. Med; Calif. Acad. Parasitology; ecology; medical entomology; malaria-mosquito survey of California; mosquito and fly control; spinose ear tick; photic reactions of insects; coconut pests; relapsing fever tick.

Herndon, Dr. C(laude) Nash, Bowman Gray School of Medicine, Winston-Salem, N. C. *Medical genetics.* Greensboro, N. C, Feb. 23, 16. A.B, Duke, 35; M.D, Jefferson Med. Col, 39. Intern, Charity Hosp. of La, New Orleans, 39–40; res, N. C. Baptist Hosp, Winston-Salem, 40; Carnegie fellow human genetics, Wake Forest Col, 40–41; research assoc. human heredity, Michigan, 41–42; instr. *med. genetics, Bowman Gray sch. med, Wake Forest Col,* 42–43, *asst. prof, 43–* Am. Med. Asn; Genetic Asn; Genetics Soc. Hereditary diseases, especially crippling diseases of childhood and hereditary blindness.

Herndon, Dr. J(ohn) M(ullen), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Feb. 3, 07. B.S, Mt. St. Mary's Col, 29; fellow, Pa. State Col, 31–33, M.S, 32, Ph.D, 34. Asst, Pa. State Col, 29–31; *chemist, E. I. du Pont de Nemours and Co, 33–* Intramolecular rearrangements; aliphatic alcohols; olefins.

Herndon, Prof. L(yle) Kermit, Ohio State University, Columbus, Ohio. *Chemical engineering.* Buckhannon, W. Va, June 25, 05. B.Ch.E, Ohio State, 29, M.S, 31, Ph.D, 38; Ch.E, West Virginia, 34. City chemist, Charleston, W. Va, 25–29; chem. engineer, State Water Cmn, 29–33; process sect, Belle Works, E. I. du Pont de Nemours and Co, 33–36; instr. *chem. eng, Ohio State,* 36–38, *asst. prof, 38–* A.A; Chem. Soc; Eng. Educ; assoc. Chem. Eng; Soc. Test. Mat; Ohio Acad. Industrial waste disposal; stream pollution.

Herndon, Prof. Thomas C(orwin), Eastern Kentucky State Teachers College, Richmond, Ky. *Chemistry.* Ferguson, Ky, Oct. 27, 98. B.S, Kentucky, 23; A.M, George Peabody Col, 26, Ph.D, 30; Chicago, 28. Teacher, high sch, Ky, 23–24; *prof. chem,* Bethel Col. (Ky), 24–26; high sch, Tenn, 26–27; *East. Ky. State Teachers Col, 28–* Summers, instr, George Peabody Col, 28–31. A.A; Chem. Soc; Ky. Asn. Chem. Teachers; Ky. Acad. Determination of hydrogen ion concentration; effects of catalysts on the reaction between zinc and sulfuric acid.

Hernon, Prof. Robert M(ann), University of Arizona, Tucson, Ariz. *Geology.* Lansford, N. Dak, May 6, 07. B.S, S. Dak. Sch. Mines, 30; M.S, Arizona, 32, Ph.D, 34. Asst. prof. geol, S. Dak. Sch. Mines, 34–36; geologist, Eagle-Picher Mining and Smelting Co, 36–38; *asst. prof. geol, Arizona, 38–* Summers, geologist on dam sites, U. S. Bur. Reclamation, 36, geologist, G. M. Fowler, consulting geologist, 39, 40, 41. Min. and Metal. Eng. Ore deposits; structural geology; stratigraphy.

Herod, Prof. N(ewton) S(amuel), 790 Myrtle St, N. E, Atlanta, Ga. *Physics.* Texas, 88. A.B, 20; A.M, Texas, 22; Ph.D, California, 27. Instr. *physics,* Texas, 20–23; teaching fellow, California, 25–27; *prof,* Va. State Teachers Col, Harrisonburg, 27–28; *Ga. Tech, 28–* Ga. Acad.

Herold, E(dward) W(illiam), RCA Laboratories, Princeton, N. J. *Electronics.* New York, N. Y, Oct. 15, 07. B.S, Virginia, 30; M.S, Polytech. Inst. Brooklyn, 42. Tech. asst. communications eng, Bell Tel. Labs, New York, 24–26; radio engineer, E. T. Cunningham, Inc, 27–29; *research engineer,* RCA Mfg. Co, 30–42; *RCA Labs, 42–* A.A; Radio Eng. Vacuum tubes for radio and television reception; ultra-high-frequency reception; signal-to-noise ratio.

Herold, Prof. Paul G(eorge), Missouri School of Mines and Metallurgy, Rolla, Mo. *Ceramic engineering.* Mansfield, Ohio, May 13, 09. B.Cer.E, Ohio State, 31, M.S, 32, Ph.D, 34. Ceramic engineer, A. C. Spark Plug Co, 34–36; instr. *ceramic eng, Mo. Sch. Mines,* 36–37, asst. prof, 37–39, *assoc. prof. and head dept, 39–* Ceramic Soc; Soc. Test. Mat. Refractories.

Herold, Dr. Stanley C(arrollton), 1330 Ethel St, Glendale, Calif. *Geology.* San Jose, Calif, Oct. 5, 83. A.B, Stanford, 09, Ph.D, 26. Field geologist, oil and gas companies, 12–23; private research, 23–29; *consulting geologist and engineer, 29–* Asn. Petrol. Geol. Analytical principles of the production of oil, gas and water from wells; oil well drainage.

Heron, Prof. W(illiam) T(homas), University of Minnesota, Minneapolis, Minn. *Psychology.* Chicago, Ill, Jan. 3, 97. A.B, Kansas, 20, A.M, 21; Ph.D, Chicago, 24. Asst. psychol, Chicago, 22–23; asst. prof. philos. and psychol, Kansas, 23–26; *psychol, Minnesota,* 26–37, *assoc. prof, 37–* Summer, instr, Texas, 23; Oregon, 40. Psychol. Asn. Human and animal learning.

Heroy, W(illiam) B(ayard), 311 Newport Ave, Friendship Station, Washington, D. C. *Geology.* New York, N. Y, Oct. 9, 83. Ph.B, Syracuse, 09. U. S. Geol. Surv, 08–10, asst. geologist, 10–12, geologist and chief sect, Land Classification Board, 12–18, chief div. power resources, 18–19; assoc. ed, 'Elec. World,' 19; geologist, Sinclair Consolidated Oil Corp, 19–23, exec. geologist, 23–29, chief geologist, 29–33; Consolidated Oil Corp, 33–38; v. pres, Venezuelan Petrol. Co, 33–38; v. pres. and pres, Pilgrim Explor. Co, 38–42; consultant, Board Econ. Warfare, 42; *director reserves, Office Petrol. Coordinator for War, 42–* Advisory engineer, bur. conservation, U. S. Fuel Admin, 18–19. Fel. Geol. Soc; Asn. Petrol. Geol. (treas, 32, pres, 34); Soc. Econ. Geol. (treas, 35–38, pres-elect, 42); Min. and Metal. Eng. (director, 34–38, 42–, v. pres, 39–41); Soc. Explor. Geophys; N. Y. Acad; Geol. Soc. Wash. Classification of public lands with reference to use of water resources; conservation and use of fuels for energy supply; geology and development of petroleum.

Herr, Dr. Donald S(heaffer), 5218 Sylvester St, Philadelphia Pa. *Physical chemistry, Photochemistry.* Lancaster, Pa, June 14, 15. B.S, Franklin and Marshall Col, 37; Brown, 37–38; Ph.D, Rochester, 41. *Research chemist, Röhm and Haas Co, 41–* Development and application of synthetic resins for the purification of water and recovery of metals.

Herr, Prof. Gertrude A(nne), Iowa State College, Ames, Iowa. *Mathematics.* Abilene, Kans, Feb. 23, 84. B.S, Iowa State Col, 07, M.S, 17. Teacher, high sch, Iowa, 07–13; instr. *math, Iowa State Col,* 13–19, asst. prof, 19–24, *assoc. prof, 24–* A.A; Math. Soc; Math. Asn; Iowa Acad.

Herre, Dr. Albert W(illiam Christian Theodore), Stanford University, Calif. *Biology.* Toledo, Ohio, Sept. 16, 68. A.B, Stanford, 04, A.M, 05, Ph.D, 09. Asst. sch. supt, Ill, 90–00; asst, Bur. Fisheries, 03–04; instr, high sch, Calif, 04–10; prof, Nevada, 10; v. prin, high sch, Calif, 10–12; prof. geog, Wash. State Nor. Sch, Bellingham, 15–17, biol, 17–19, director sch. hygiene, 19–20; chief dept. fisheries, Bur. Science, P. I, 20–28; *curator museum zool, Stanford, 28–* Oriental field agent, U. S. Bur. Fisheries, 40–41. Crane Pacific exped, 28–29; Philippine exped, 31; exped, Pelews, Philippines, China and Malay Peninsula, 33–34; expeds, China, Borneo, Malaya and India, 36–37; expeds. to Philippines, Malaya and India, 40–41. Del, Pan-Pacific Science Cong, 26. A.A; Soc. Ichthyol. and Herp; Sullivant Moss Soc; West. Soc. Nat; Calif. Bot. Soc; Calif. Acad; Ind. Acad; Biol. Soc. Wash. Ichthyology; lichens; fisheries of western Pacific; Philippine anthropology; Philippine economic problems.

Herreid, Prof. Ernest O(liver), University of Vermont, Burlington, Vt. *Dairy husbandry.* Summit, S. Dak, March 8, 00. B.S, S. Dak. State Col, 27; M.S, Minnesota, 28, Ph.D, 33. Asst. dairy husbandry, Minnesota, 28–29, instr, 29–35; asst. prof. *dairy mfrs, Vermont,* 36–37, assoc. prof, 37–40, *prof, 40–* Physical chemistry; microbiology of butter and cheese; milk products; dairy plant efficiency.

Herrey, Dr. Erna M(iranda) J(ulia), 148–118 29th Ave, Flushing, New York. *Physics.* Berlin, Germany, Jan. 18, 04. M.A. and Ph.D, Berlin, 28. Assessor physics, math. and chem, Junior Col. Juist, 30–31; Junior Col. Athens, Greece, 32–34; prin, Boarding Sch. for Girls, Athens, 34–37; *instr. physics, Queens Col. (N. Y), 42–* Asn. Physics Teachers. X-ray studies on crystal structure of strontium, calcium, zinc, cadmium, stretched and unstretched synthetic rubber and alkali metals.

Herrick, Prof. Carl A(lbert), 4120 Sheridan Ave, S, Minneapolis, Minn. *Mathematics, Mechanics.* Minneapolis, Minn, Aug. 18, 79. M.E, Minnesota, 02. Instr. math, Minnesota, 02–03; draftsman, Kilgore Machine Co, Minneapolis, 03–05; mech. engineer, Mayer Brothers, Minn, 05–07; Bucyrus Co, S. Milwaukee, 07; designing office and consulting engineer, Minneapolis, 07–10; designer and testing engineer, Am. Hoist and Derrick Co, St. Paul, 10–18; from asst. to *assoc. prof. math. and mech, col. eng. and archit, Minnesota, 18–* Mech. engineer, creosote plant, Kettle River Companies, Ill, 08; instr. Minnesota, 08–10. A.A; Mech. Eng. (chairman, Min-

neapolis sect, 28); Eng. Educ; Interprofessional Inst. (director, 42); Minn. Federation Archit. and Eng. Socs. (director, 30–).

Herrick, Prof. C(harles) Judson, 236 Morningside Drive, S.E, Grand Rapids 6, Mich. *[1]*Comparative neurology.* Minneapolis, Minn, Oct. 6, 68. Denison, 86–89, M.S, 95, Sc.D, 30; B.S, Cincinnati, 91, Sc.D, 26; Ph.D, Columbia, 00, Sc.D, 31. Instr. nat. science, Granville Acad, 91–92; prof, Ottawa (Kans), 92–93; zool, Denison, 98–07; *neur, Chicago,* 07–34, *emer. prof, 34–* Managing ed, 'Jour. Comp. Neur,' 94–27. Assoc. comp. neur, Path. Inst, State Lunacy Cmn, N. Y, 97–01; brain cmn, Int. Asn. Academies. Major and in charge path, Army Med. Museum, Sanit.C, 18–19. Nat. Acad; A.A. (sec'y, F, 03–07, v. pres, 08); Soc. Nat; hon. mem. Neur. Asn; Asn. Anat; Soc. Zool. (sec'y-treas, 07); Physiol. Soc; for. cor. Acad. royale de Med. de Belg; Royal Acad. Science, Amsterdam; Norwegian Acad; hon. mem. Soc. Cient. Ant. Alz. de Mex. Nerve components of vertebrates; anatomy of the brain of fishes and amphibians; evolution of the cerebral cortex.

Herrick, Prof. C(hester) A(lbern), 314 Virginia Terrace, Madison, Wis. *Zoology.* Kirwin, Kans, April 12, 93. B.S, Kans. State Col, 21, M.S, 23; Sc.D, Hopkins, 25. Research assoc. helminthol, Hopkins, 25, instr, 26; asst. prof. zool, *Wisconsin,* 27–31, *zool. and vet. science,* 31–36, *assoc. prof, 36–* A.A. Parasitology.

Herrick, Prof. Earl H(oward), Kansas State College, Manhattan, Kans. *Zoology.* Colony, Kans, 03. B.S, Kans. State Col, 26, M.S, 27; Ph.D, Harvard, 29. Asst, Kans. State Col, 26–27; Austin teaching fellow, Harvard, 27–29; prof. biol. and head dept, La. State Nor. Col, Natchitoches, 29–35; assoc. prof. *zool, Kans. State Col,* 35–41, *prof, 41–, mammalogist, Exp. Sta, 35–* A.A; Soc. Zool; Kans. Acad. Physiology of reproduction; mammals; endocrinology.

Herrick, Prof. Glenn W(ashington), 219 Kelvin Place, Ithaca, N. Y. *Entomology.* Otto, N. Y, Jan. 5, 70. B.S.A, Cornell, 96; Harvard, 97. Teacher, pub. schs, 88–90; instr, Nat. Science Camp, Canandaigua, N. Y, 95–96; prof. biol, Miss. Agr. and Mech. Col, 97–08; entom, Agr. and Mech. Col. Texas, 08–09; asst. prof. *econ. entom, Cornell,* 09–12, prof, 12–35, *emer. prof, 35–,* entomologist, Exp. Sta, 09–35. A.A; fel. Entom. Soc. Amer; Asn. Econ. Entom; Genetic Asn; N. Y. Acad; Biol. Soc. Wash. Economic entomology; life histories of the mosquitoes of Mississippi; malaria; external parasites of domestic fowls; larch case-bearer; insect pests of pecans; fruit tree leaf roller; red clover and apple pests; Thysanoptera; Coccidae; injurious insects.

Herrick, Dr. Guy S(cott), 357 Union Ave, Bound Brook, N. J. *Organic chemistry.* Lewiston, Maine, July 22, 08. B.S, Bates Col, 31; A.M, Clark, 32, Ph.D, 34. *Research chemist, Calco Chem. Co, 34–* Brominated trinitro-toluols.

Herrick, H(orace) T(erhune), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Brooklyn, N. Y, April 22, 87. A.B, Princeton, 07; Chem.E, Columbia, 10. Chemist, U. S. Appraiser's Stores, 11; Brooklyn Union Gas Co, 11–12; N. J. Zinc Co, New York, 12–15; Sidney Blumenthal and Co, 15–16; Zinsser and Co, 16–20; Nat. Aniline and Chem. Co, Buffalo, 20–21; Am. Aniline Products, 21–22; By-Products Steel Corp, 22–25; Grasselli Chem. Co, Cleveland, 25; chief color and farm waste div, bur. chem. and soils, *U. S. Dept. Agr,* 26–35, indust. farm products research div, 35–38, color certification sect, food and drug admin, 26–38, in charge four regional research labs. and asst. chief bur. agr. chem. and eng, 38–42, *director, north. regional research lab, bur. agr. and indust. chem, 42–* Chem.Soc; Soc. Agr. Eng; Chem. Eng; Wash. Acad. Fermentation, especially the chemical activities of molds.

Herrick, Prof. J(ames) Arthur, Kent State University, Kent, Ohio. *Mycology.* Twinsburg, Ohio, July 5, 08. B.S, Ohio State, 32, M.S, 33, Ph.D, 38. Agent Dutch elm disease, bur. plant indust, U. S. Dept. Agr, 33–34; asst. zool. and entom, Ohio State, 34–35, bot, 35–38; instr. *biol, Kent State,* 38–40, *asst. prof, 40–* Agent, div. forest path, bur. plant indust, U. S. Dept. Agr, 37. Summers, agent Dutch elm disease, bur. entom, U. S Dept. Agr, 35–37, 39. Phytopath. Soc; Micros. Soc. Plant pathology; myxosporidia; physiology of fungi.

Herrick, Dr. James B(ryan), Dorset, Vt. *Medicine.* Oak Park, Ill, Aug. 11, 61. A.B, Michigan, 82, hon. A.M, 07, LL.D, 32; M.D, Rush Med. Col, 88; hon. Sc.D, Chicago, 38, Northwestern, 40. Intern, Cook County Hosp, 88–89; instr. *med, Rush Med. Col, Chicago,* 90–94, adj. prof, 94–00, prof, 00–26, *emer. prof, 26–* Harvey Soc. lecturer, N. Y. Acad. Med, 31. Attending physician, Presb. Hosp, Chicago, 98– Pres, McCormick Inst; sec'y board trustees, Lewis Inst. (Ill). Distinguished service medal, Am. Med. Asn, 39. A.A; Am. Med. Asn; Am. Physicians (v. pres, 38); Am. Heart Asn. (pres, 27); Chicago Soc. Int. Med. (1st pres, 15); Inst. Med. Chicago (pres, 25); hon. fel. N. Y. Acad. Med. Internal medicine; diseases of the heart and blood vessels.

Herrick, Dr. Joseph C(awdell), 527 E. 17th St, New York, N. Y. *Physiology.* Shelbyville, Ill, May 6, 74. A.B, Virginia, 96; fellow, Hopkins, 99–00, Ph.D, 00. Asst. biol, Virginia, 96–97; prof. biol. and exp. psychol, St. Joseph's Sem, Yonkers, 00–18; ethics, Col. Mt. St. Vincent, 25–30; sociol, Maryknoll Sem, 30–40; *pastor, New York, 40–* A.A. Nervous conductivity; mechanism of the odontophoral apparatus in Sycotypus canaliculatus.

Herrick, Dr. J(ulia) F(rances), Mayo Foundation, Rochester, Minn. *Medicine.* North St. Paul, Minn, Sept. 14, 93. A.B, Minnesota, 15, A.M, 19, fellow, 27–34, Ph.D, 31. Asst. prof. physics, Rockford Col, 22–27; *mem. staff, Mayo Clinic, and* instr. and later *asst. prof. exp. med, Mayo Foundation, Minnesota, 34–* Physical Soc; Physiol. Soc. Experimental medicine; circulation.

Herrick, R(obert) S(eymour), Iowa State Horticultural Society, State House, Des Moines, Iowa. *Horticulture.* Littleton, Colo, Jan. 22, 82. B.S, Colo. Agr. Col, 08; hon. A.M, Iowa State Col, 21. Field horticulturist, Exp. Sta, Colo. State Col, 09–11; exten. horticulturist, Iowa State Col, 12–19; *sec'y, Iowa State Hort. Soc, 20–* Supervisor fruits, flowers and vegetables, Iowa State Fair. Ed, 'Iowa State Hort. Soc. Annual Report.' Soc. Hort. Sci. Fruit growing.

Herrick, Dr. Samuel, Jr, University of California at Los Angeles, Los Angeles, Calif. *Astronomy.* Madison Co, Va, May 29, 11. A.B, Williams Col, 32; fellow, California, 33–34, Lick Observatory fellow, 35–36, Ph.D, 36. Teaching asst, California, 34–35, A. F. Morrison fellow, 36–37; acting asst. prof. *astron,* Washington (Seattle), 37; instr, *California at Los Angeles,* 37–42, *asst. prof, 42–* Astron. Soc; Hist. Sci. Soc; Astron. Soc. Pacific. Theoretical astronomy; determination of orbits; perturbations; astronomical tables; celestial navigation.

Herrick, Dr. W(illiam) W(orthington), 16 E. 90th St, New York, N. Y. *Medicine.* Sherman, Conn, Feb. 19, 79. A.B, Yale, 02, M.D, 05. *Prof. clin. med, col. physicians and surg, Columbia, 27–; practising physician.* Attending physician, Presb. and Sloane Hosps; consulting physician, Beekman St, Babies', and Woman's Hosps. and New York Infirmary for Women and Children, New York; Nassau Hosp, Mineola, L. I; White Plains and St. Agnes Hosp, White Plains; Vassar Bros. Hosp, Poughkeepsie; McClellan Mem. Hosp, Cambridge; Goshen Hosp, Mt. Vernon; hosps, Stamford, Conn; Greenwich; Sharon. Trustee, Trudeau Sanitarium. Am. Physicians; Am. Med. Asn; fel. Col. Physicians; fel. N. Y. Acad. Med. Internal medicine.

Herrin, Dr. R(aymond) C(lyde), Morrisonville, Wis. *Physiology.* Castleton, Ind, July 9, 00. B.S, Purdue, 22; M.S, Wisconsin, 25, Ph.D, 28; M.D, Chicago. Instr. *physiol, Wisconsin,* 28–33, asst. prof, 33–37, *assoc. prof, 37–* Iron in secondary anemia; influence of diet on renal excretion; intestinal obstruction; secretion of ammonia by intestine; vagus and motor activity of stomach.

Herring, Dr. (William) Conyers, 110 Vanderbilt Ave, Stapleton, S. I, N. Y. *Physics.* Scotia, N. Y, Nov. 15, 14. A.B, Kansas, 33; Ph.D, Princeton, 37. Nat. research fellow physics, Mass. Inst. Tech, 37–39; instr. math. and research assoc. math. physics, Princeton, 39–40; instr. *physics, Missouri,* 40–41, *asst. prof, 41–; mem. sci. staff, div. war research, Columbia, 41–* Physical Soc; Mo. Acad. Quantum theory of solids.

Herrington, Prof. B(arbour) L(awson), Cornell University, Ithaca, N. Y. *Chemistry.* Akron, Ohio, June 12, 04. B.S, Montana State Col, 25; Ph.D, Cornell, 33. Asst. chemist, Exp. Sta, Montana, 25–28; instr. *dairy chem, Cornell,* 28–33, asst. prof, 33–36, *prof, 36–* Chem. Soc; Dairy Sci. Asn; Inst. Food Technol. Chemistry of milk and milk products.

Herrington, Prof. L(ovic) P(ierce), Yale University School of Medicine, New Haven, Conn. *Physiology, Psychology.* Waynesboro, Ga, July 22, 07. A.B, Stanford, 27, A.M,

28, Ph.D, 30. Asst. psychol, Stanford, 28–29; social science research fellow, Charité Hosp. and Berlin, 30–31; instr. psychol, Illinois, 31–32; lecturer *pub. health, sch. med, Yale*, 32–33, research asst. prof, 33–40, *research assoc. prof, 40–*; consulting psychologist, *Pierce Foundation Lab*, 32–33, *assoc. director, 33–* Psychol. Asn; Statist. Asn; Pub. Health Asn; Physiol. Soc. Psychometrics; sensory physiology and psychology; climatic adaptation; differential calorimetry; educational psychology and mental hygiene in the public health program.

Herrington, W(illiam) C(harles), U. S. Department of the Interior, Harvard University, Cambridge, Mass. *Zoology.* Harvard, Ill, Jan. 24, 03. B.S, Stanford, 27; Harvard, 30–31. Sci. asst, Calif. State Fisheries Lab, 25–27; asst. in charge of halibut tagging investigations, Int. Fisheries Cmn, 27–30; *in charge* haddock investigations, Bur. Fisheries, 30–37; *N. Atlantic fishery investigations, fish and wildlife service, U. S. Dept. Interior, 37–* Mem, Cent. New Eng. Drainage Basin Cmt, 38–41. Chairman research cmt. and sec'y, N. Atlantic Lobster Conf, 39–41. A.A; Fisheries Soc. (v. pres. div. aquatic biol. and physics, 40; chairman cmt. for. relations, 41); Atlantic Coast Fishery Biol. (exec. cmt, 40). Life history and depletion of the Pismo clam of California; migrations of the Pacific halibut; life history and conservation of the haddock in the western North Atlantic; fluctuations in fish populations; optimum yield; fisheries management.

Herriot, Dr. John G(eorge), 1460 College Ave, Palo Alto, Calif. *Mathematics.* March 7, 16. B.Sc, Manitoba, 37; fellow, Brown, 37–38, M.S, 38, fellow, 38–39, Ph.D, 41. *Instr. math*, Brown, 39–41; instr, Yale, 41–42; *Stanford, 42–* Math. Soc. Double Fourier series; Cesàro summability of ordinary double Dirichlet series; Nörlund summability of double Fourier series.

Herriott, Dr. R(oger) M(oss), Rockefeller Institute, Princeton, N. J. *Physiology.* Des Moines, Iowa, March 13, 08. A.B, Drake, 28; A.M, Columbia, 29, Ph.D, 32. Asst. *gen. physiol, Rockefeller Inst*, 32–37, *assoc, 37–* General physiology; chemical nature of the proteolytic enzyme pepsin; chemistry of proteins; solubility as a criterion of purity of proteins.

Herrmann, Dr. George R, University of Texas School of Medicine, Galveston, Texas. *Internal medicine.* Ft. Wayne, Ind, Nov. 20, 94. B.S, Michigan, 16, M.S, M.D, 18, Ph.D, 22. House officer, Peter Bent Brigham Hosp, 18–19; asst. res. and chief res. physician, Robert Abbott Barnes Hosp, and asst. med, Washington (St. Louis), 19–21; instr. and asst. prof, Michigan, 21–25; asst. prof. and assoc. prof, Tulane, 25–31; *prof.* clin. med, *sch. med, Texas*, 31–39, *med, 39–* Assoc. ed, 'Jour. Lab. and Clin. Med'; ed, 'Am. Jour. Syphilis,' 28–35; ed. board, 'Am. Heart Jour'; 'Jour. Clin. Invest.' Mem. subcmt. essential drugs, Nat. Research Council. A.A; Am. Physicians; Am. Med. Asn; Col. Physicians; Am. Heart Asn; Soc. Clin. Invest; Soc. Exp. Path; Soc. Exp. Biol; Clin. and Climat. Asn; Am. Physicians. Electrocardiography; clinical and experimental cardiac pathology and physiology; cardiac hypertrophy; valve lesions; rhythm disturbances; chemical conditions and changes; functional states and treatment; heart muscle chemistry in heart failure; mechanisms of diuresis.

Herrmann, Dr. Louis G(eorge), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Surgery.* Ft. Wayne, Ind, June 25, 00. A.B, Michigan, 21; M.D, Washington (St. Louis), 24. Crile fellow surg, sch. med, Western Reserve, 28, director lab. surg. research, 28–29, instr. *surg*, 29–30; exchange instr, Strasbourg, 30–31; exchange fellow, Zurich, 31–32; asst. prof, *col. med, Cincinnati*, 32–40, *assoc. prof, 41–* A.A; Soc. Exp. Path; Am. Heart Asn; fel. Am. Med. Asn; Asn. Surg. of Trauma; Surg. Asn; Cent. Surg. Asn; West. Surg. Asn; Cincinnati Acad. Med; cor. mem. Soc. Med. du Bas Rhin, France. Peripheral vascular diseases; diagnosis and treatment of disturbances of arterial circulation in human extremities; fat embolism.

Herrmann, Dr. Omer W(esley), Farm Credit Administration, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Boelus, Nebr, July 28, 97. B.S, (Agr), Nebraska, 22, Legislative scholar, 25–26, fellow, 26–27; hon. fellow, Wisconsin, 27–28, Ph.D, 38. Teacher, high sch, Nebr, 22–25; in charge marketing, dept. agr. econ, Okla. Agr. and Mech. Col, 28–31; marketing economist, Fed. Farm Board, 31–33; prin. agr. economist in charge cotton, *cooperative research and service div, Farm Credit Admin, U. S. Dept. Agr*, 33–41, *acting chief, 42–*; *lieut. col, U. S. Army, 42–* U.S.A, 18. Agricultural marketing; cooperative cotton marketing, ginning and oil milling; cotton marketing and production practices in South America; oil seed crushing practices and capacity.

Herrmann, R(aymond) R, 1357 Raymond Ave, St. Paul, Minn. *Electrical engineering.* Henderson, Minn, Sept. 13, 89. B.S, Minnesota, 12, E.E, 13. Eng. asst, Munic. Testing Labs, St. Paul, 16; research engineer, West. Elec. Co, New York, 16–19; asst. prof. math, Minnesota, 19–29; *manager rate dept, North. States Power Co, 29–* Elec. Eng. (past chairman, Minn. sect). Electric rates and their application; utility rate determination.

Herrmann, Dr. S(iegfried) F(rederick), 55 Summit St, Tacoma, Wash. *Surgery.* Clarence, Iowa, May 9, 94. B.S, Hamline, 15; A.M, M.B, Minnesota, 19, M.D, 20, fellow, 26–29, Ph.D, 29. Asst. bacter, Minnesota, 17–19; *instr. anat, physiol. and bacter, Col. Puget Sound, 30–* A.A; fel. Am. Med. Asn; Tacoma Surg. Club (sec'y, 31). Experimental surgery; bacteriology.

Herron, James H(ervey), 2862 Fairmount Blvd, Cleveland Heights, Ohio. *Engineering.* Girard, Pa, Jan. 4, 75. B.S, Michigan, 09. Chief engineer, Erie City Iron Works, Pa, 95–97; asst. engineer, Cambria Steel Co, Johnstown, 99–02; v. pres. and chief engineer, Bury Compressor Co, Erie, 02–05; gen. manager, Motch and Merryweather Machinery Co, Detroit, Mich, 05–07; works manager and chief engineer, Detroit Steel Products Co, 07–09; *pres, James H. Herron Co, Cleveland, 11–* Mem. investigation cmn, Cleveland Water Works, 13–15, sewer cmt, Cleveland Civic League, 15–17, cmn. studying needs, Cleveland Water Dept, 20–21, 30–31, director, Munic. Research Bur, 22–25, consulting engineer, Dept. Pub. Utilities, 31– A.A; Mech. Eng. (manager, 22–25, v. pres, 34–36, pres, 36); Civil Eng. (pres, Cleveland sect, 35); Min. and Metal. Eng; Elec. Eng; Chem. Soc; Soc. Automotive Eng; Soc. Test. Mat; Concrete Inst; British Iron and Steel Inst. Mechanical, civil and metallurgical engineering; iron, steel and alloy metallurgy; concrete.

Herron, W(alter) M(alloch), Sir Adam Beck Collegiate, London, Ont, Can. *Bacteriology.* Lanark, Ont, July 23, 06. B.A, Queen's (Can), 29, M.A, 30, Nat. Research Council Can. bursar, 30–31; Toronto, 32. Demonstrator biochem, Queen's (Can), 29–30; *teacher, Sir Adam Beck Collegiate, 32–* Instr, Lake Bernard Summer Sch, Sundridge, Ont, 35–39. Assoc. Can. Inst. Chem. Rancidity in Canadian Cheddar cheese.

Hersam, Prof. E(rnest) A, 47 Arden Road, Berkeley, Calif. *Chemistry, Metallurgy.* Stoneham, Mass, March 9, 68. B.S, Mass. Inst. Tech, 91. Asst. chem, Mass. Inst. Tech, 91–92; metal, California, 92–94, instr, 94–96, asst. prof, 96–02, assoc. prof, 02–22; sec'y cmt. on status of research in ore dressing, Mass. Inst. Tech, U. S. Bur. Mines, Am. Inst. Min. and Metal. Eng, California, 22–23; prof. *metal, California*, 23–38, *emer. prof, 38–* A.A; Min. and Metal. Eng; Soc. Chem. Indust; Min. and Metal. Soc; Franklin Inst.

Hersberger, Dr. Arthur B(ucher), 3144 Passyunk Ave, Philadelphia, Pa. *Chemistry.* Milden, Sask, Can, Jan. 13, 12. B.S, Maryland, 32, M.S, 33, fellow, 33–36, Ph.D, 36. Research chemist, *Atlantic Ref. Co*, 36–41, *senior chemist, 41–* Chem. Soc; Asn. Asphalt Paving Tech. Adsorption; oxidation; composition and properties of asphalts; stability and combustion characteristics of burning oils; composition of petroleum fractions; color formation in naphthas; plastics.

Herschel, Winslow H(obart), 6305 Florida St, Chevy Chase, Md. *Physics.* Boston, Mass, Aug. 28, 73. A.B, Harvard, 96. Hydraul. engineer, 96–05; mech. engineer, 05–10; asst. prof. mech. eng, Maine, 11–12, assoc. prof, 12–13; asst. physicist, *Bur. Standards*, 13–18, assoc. physicist, 18–36, *assoc. materials engineer, 36–* Chem. Soc; Soc. Test. Mat; Ceramic Soc; Mech. Eng; Soc. Rheol. (v. pres, 29–31). Rheology; brick.

Hersey, F(rank) Seymour, Old Bay Road, Easton, Mass. *Ornithology.* Taunton, Mass, May 26, 84. Ornith. Union; Cooper Ornith. Club; Nuttall Ornith. Club.

Hersey, J(ohn) B(rackett), 1517 R St, N.W, Washington, D. C. *Geophysics.* Wolfeboro, N. H. A.B, Princeton, 34, A.M, 35; Lehigh, 39–41. Instr, Lehigh, 41; *physicist, Naval Ordnance Lab, 41–* Physical Soc; Geophys. Union; Soc. Explor. Geophys. Gravity and magnetic studies along the Paleozoic-Triassic contact in eastern Pennsylvania; measuring the thermal conductivity of rock cores.

Hersey, Mayo D(yer), Monument Beach, Mass. *Physics, Mechanical engineering.* Pawtuxet, R. I, Aug. 30, 86. A.B, Colo. Col, 07; B.S, Mass. Inst. Tech, 10; A.M, Olivet Col. (Mich), 10; Whiting fellow, Harvard, 15–16. Asst. physics, Mass. Inst. Tech, 09–10; asst. physicist, Bur. Standards, 10–16, assoc. physicist, 17–18, chief aeronaut. instruments sect, 17–20, physicist, 18–20; assoc. prof. physics, Mass. Inst. Tech, 20–22; physicist in charge physical lab, U. S. Bur. Mines, Pittsburgh, 22–26; physicist, Bur. Standards, 26–28, senior physicist, 28–31, chief friction and lubrication sect, 27–31; mech. engineer and head gen. lubrication div, research and develop. dept, Vacuum Oil Co, Paulsboro, N. J, 31–33; lecturer eng, Brown, 34, research assoc, 34–40; engineer, Kingsbury Machine Works, 36–39; research director, Morgan Construction Co, 39–41; consultant, Nat. Research Council, 41; *eng. consultant, 42–; research assoc. mech. eng, Mass. Inst. Tech, 42–* Lecturer, Mass. Inst. Tech, 35; Harvard, 36–40, 42– Rep, Bur. Standards, Europe, 13, 18. Levy medal, Franklin Inst, 36. A.A; fel. Physical Soc; fel. Mech. Eng. (chairman, research cmt. on lubrication, 27–29, cmt. on research, 42); Naval Eng; Soc. Rheol. (v. pres, 35–37); Eng. Educ; Franklin Inst; Wash. Acad. Aeronautic instruments; accuracy of measurements; viscosity; elasticity; mining physics; friction and lubrication.

Hersh, Dr. A(mos) H(enry), 10940 Euclid Ave, Cleveland, Ohio. *Zoology.* Lancaster, Pa, Nov. 2, 91. A.B, Franklin and Marshall Col, 14, A.M, 15; fellow, Illinois, 19–22, Ph.D, 22. Asst. biol, Princeton, 15–16; instr. zool, Kans. State Col, 16–18; biol, Marquette, 18–19; zool, Michigan, 22–23; *biol, Western Reserve,* 23–25, asst. prof, 25–36, *assoc. prof, 36–* A.A; Soc. Zool; Soc. Nat; Genetics Soc. Mendelian dominance; the manner of action of the heredity factors; temperature and development; relative growth.

Hersh, Dr. J(ack) M(arcus), Magnolia Petroleum Co, Dallas, Texas. *Chemistry.* South Bend, Ind, Aug. 14, 07. B.S, Purdue, 30, Ph.D, 35; M.S, Cincinnati, 32. Asst. chem. eng, Cincinnati, 30–31; chem, Purdue, 31–36; research chemist, Shell Petrol. Corp, 36–37; with Lubrite Co, 37–38; *field research dept, Magnolia Petrol. Co, 38–* Chem. Soc. (sect. sec'y-treas, 42–). Halogenated hydrocarbons and derivatives; petroleum hydrocarbon; gasoline stability; inhibitor and lead susceptibility; utilization of natural gas and gasoline; high octane fuels by fractionation, isomerization and alkylation.

Hershberg, Dr. E(manuel) B(enjamin), 203 N. Shore Road, Revere, Mass. *Organic chemistry.* Lynn, Mass, July 28, 08. B.S, Mass. Inst. Tech, 29, Ph.D, 33. Moore fellow chem, Mass. Inst. Tech, 33–34; private asst. to Prof. L. F. Fieser, *Harvard,* 34–36, *Lilly fellow, 36–* Chem. Soc; Deuts. Chem. Gesell. Cancer research.

Hershberger, Dr. A(lbert), 313 Villa Ave, Buffalo, N. Y. *Chemistry.* Wellman, Iowa, Sept. 23, 01. A.B, Goshen Col, 26; M.S, Iowa, 28; Ph.D, Michigan, 31. Teacher, high sch, Colo; *research chemist, du Pont Rayon Co, E. I. du Pont de Nemours and Co, Buffalo, N. Y, 31–* Chem. Soc. Air oxidation of ferrous salts in solution; plasticity of solid-liquid systems.

Hershberger, Prof. Arlan R(ussell), Le Mars, Iowa. *Chemistry.* East Canton, Ohio, Jan. 8, 99. A.B, West. Union Col, 23; M.S, Ohio State, 25, Ph.D, 39. Instr, high sch, Ill, 23–24; anal. chemist, Grasselli Chem. Co, Cleveland, 25–27; *prof. chem. and head dept, West. Union Col, 27–* Chem. Soc. (chairman, Sioux Valley sect, 40). Direct sugar; electroanalysis.

Hershberger, Dr. W(illiam) D(elmar), RCA Manufacturing Co, Camden, N. J. *Physics.* Wellman, Iowa, May 10, 03. A.B, Goshen Col, 27; A.M, George Washington, 30; Ph.D, Pennsylvania, 37. Junior physicist, Naval Research Lab, 27–31; assoc. physicist, Signal Corps Labs, 31–36; *engineer, RCA Mfg. Co, 37–* Inst. Radio Eng; Physical Soc. Applied physics; supersonics; absorption at supersonic frequencies; quasioptical radio waves; Barkhausen-Kurz oscillators.

Hershelman, Dr. William L(ee), 10 Carroll Ave, Oil City, Pa. *Geology.* Erie, Pa, March 26, 12. B.S, Allegheny Col, 36; M.S, Syracuse, 38; Ph.D, Iowa, 40. Asst. geol, Syracuse, 37–38; Iowa, 38–40; *geologist, Ohio Oil Co, 40–; U. S. Army.* A.A. Permeability, porosity, size and shape in and of sand grains in aggregate.

Hershey, Prof. A(lfred) D(ay), Washington University School of Medicine, St. Louis, Mo. *Bacteriology.* Lansing, Mich, Dec. 4, 08. A.B, Mich. State Col, 30, fellow, 30–34, Ph.D, 34. Asst. *bacter, sch. med, Washington (St. Louis),* 34–36, instr, 36–38, *asst. prof, 38–* Bacterial biochemistry; immunology.

Hershey, Dr. Allen V(incent), Naval Proving Ground, Dahlgren, Va. *Physics.* Kellogg, Idaho, Aug. 15, 10. B.S, California, 32, Ph.D, 38. Research engineer, Gen. Elec. Co, 38–39; *physicist, Naval Proving Ground, 39–* Physical Soc. Chemical kinetics; electronics; mobility of alkali ions in gases; ballistics.

Hershey, Prof. Arthur L(eroy), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Botany.* Seiling, Okla, July 9, 04. A.A, Graceland Col, 25; B.S, Kansas, 27; M.S, Iowa State Col, 30, Ph.D, 34. Asst, Iowa State Col, 28–34; *asst. prof. biol, N. Mex. Col, 34–* Plant morphology; study of Zea mays; poison plants in New Mexico.

Hershey, Dr. H(oward) Garland, Iowa Geological Survey, Iowa City, Iowa. *Geology.* Quarryville, Pa, Oct. 1, 05. A.B, Hopkins, 29, Ph.D, 36. Asst, Md. Geol. Surv, 31–36; geologist, *Iowa Geol. Surv,* 36–39, *asst. state geologist, 39–* Lecturer, Iowa, 38–40. A.A; Iowa Acad. Stratigraphy; sedimentation; ground water; structure of Piedmont intrusives in Maryland; Pennsylvanian of Maryland; economic geology.

Hershey, Dr. J(ames) M(elford), 577 Dovercourt Road, Toronto, Ont, Can. *Physiology.* Owen Sound, Ont, April 7, 00. B.Sc, Toronto, 27, M.A, 28, M.D, 34, Dr.P.H, 35. Tech. asst, *insulin cmt. lab, Toronto,* 25–27, asst. chemist, 27–28, chief chemist, 28–31, *senior chemist, 31–* Biological assay of insulin; metabolism of fat in the diabetic animal.

Hershey, Dr. Jane Burns, 4536 Laclede, St. Louis, Mo. *Bacteriology.* Seattle, Wash, July 8, 13. B.S, Washington, 33, M.S, 37; Ph.D, Washington (St. Louis), 39. *Chemist, City Health Div. Labs, St. Louis, 39–* Soc. Bact; Pub. Health Asn. Tuberculin milk bacteriology.

Hershey, Prof. J(ohn) Willard, 315 Carrie St, McPherson, Kans. *Chemistry.* Gettysburg, Pa, Feb. 6, 76. B.S, Gettysburg Col, 07, M.S, 10; Harvard, 07–08; Hopkins, 10–11; Ph.D, Chicago, 24. *Prof. chem,* Bridgewater Col, 08–10; Defiance Col, 11–18; *McPherson Col, 18–* A.A; Chem. Soc. (pres, Wichita sect, 37–39); Inst. Chem; Physical Sci. Teachers Soc. (pres, 33–37); Kans. Acad. (pres, 33); fel. Int. Col. Anesthetists. Synthetic diamonds; components of the atmosphere and synthetic gases in relation to animal life; qualitative analysis. *(Died Sept, 1943)*

Hershey, Dr. Robert L(andis), Kennett Square, Pa. *Chemical engineering.* Anderson, Ind, Dec. 11, 01. B.S, Mass. Inst. Tech, 23, M.S, 24, Sc.D, 35. Dept. chem. eng, Mass Inst. Tech, 24–36, asst. prof, 35–36, director, Buffalo field sta, sch. chem. eng. practice, 35–36; *chem. div, ammonia dept, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Absorption; filtration; fluid flow; technical thermodynamics; high pressure synthesis.

Hershman, Dr. J(oseph) B(ernard), 703 Monroe St, Valparaiso, Ind. *Physics.* Rensselaer, Ind, June 9, 00. B.S, Valparaiso, 22; A.M, Indiana, 28, Ph.D, 32. Instr. physics and head dept, Valparaiso, 22–27; instr, Indiana, 28; asst. prof. and acting head dept, Ind. State Teachers Col, 29–31; asst, Indiana, 31–33; director radio, *Dodge's Telegraph and Radio Inst,* 34–40, *pres, 41–* Assoc. Radio Eng; Ind. Acad. Vacuum tube voltmeters; impedance measurements at audio frequencies; characteristics of magnetic pick-ups and dynamic loud speakers.

Herskovits, Prof. Melville J(ean), Northwestern University, Evanston, Ill. **[6]*Anthropology.* Bellefontaine, Ohio, Sept. 10, 95. Ph.B, Chicago, 20; A.M, Columbia, 21, Ph.D, 23. Nat. research fellow biol, Columbia, 23–26, lecturer *anthrop,* 24–27; asst. prof, *Northwestern,* 27–30, assoc. prof, 31–35, *prof, 35–, chairman dept, 38–* Lecturer, Howard, 25; Guggenheim Mem. Foundation fellow, 37–38. Assoc. ed, 'Am. Anthropologist,' 35–41. Exped, Dutch Guiana, 28, 29; W. Africa, 31; Haiti, 34; Trinidad, 39; Brazil, 41–42. Mem. permanent council, Int. Anthrop. Cong. A.A. (v. pres, H, 34); Anthrop. Asn. (councilor, pres, cent. sect, 31); Asn. Physical Anthrop; Ethnol. Soc; Folk-Lore Soc. (treas, 29–31, councilor, v. pres, 40–42); Soc. Research Child Develop; fel. Royal Anthrop. Inst; Int. Inst. Study African Languages and Cultures (governor). The Negro in Africa and America; acculturation; relation between race and culture; folk-lore; primitive economics.

Hertel, Dr. Elmer W(illiam), Ninth St, N.W, Waverly, Iowa. *Zoology.* Clay Center, Nebr, Oct. 8, 09. A.B, Nebr. State Teachers Col, 31; A.M, Denver, 34; Wisconsin, 35, 37, 42; Ph.D, Nebraska, 41. Instr. science, Hebron Junior Col, 31–33; high sch, 33–34; *prof. biol, Wartburg Col, 34–* A.A; Genetic Asn; Genetics Soc. Root habits of certain plants of the foothill and alpine belts of the Rocky Mountain National Park; vigor in the rotifer, Hydatina senta.

Hertel, Prof. K(enneth) L(aDoyt), R. D. 3, Knoxville, Tenn. *Physics.* Van Wert, Ohio, July 26, 98. B.E, Ohio State, 20; Ph.D, Chicago, 26. Asst. prof. *physics, Tennessee,* 26–29, assoc. prof, 29–35, *prof. and head dept, 35–* A.A; Physical Soc. Hydrogen canal rays; cotton fiber properties.

Hertig, Dr. Arthur T(remain), 221 Longwood Ave, Boston, Mass. *Pathology, Embryology.* Minneapolis, Minn, May 12, 04. B.S, Minnesota, 28; M.D, Harvard, 30. Entom. asst, kala-azar field studies, Peking Union Med. Col, 25–27; house officer path, Peter Bent Brigham Hosp, 30–31; res. pathologist, *Boston Lying-in Hosp,* 31–32, asst. pathologist, 34–39, res. physician, 37–38, *pathologist, 39–;* res. pathologist, Children's Hosp, Boston, Mass, 32–33; nat. research fellow, Carnegie Institution, 33–34; assoc. path, *Harvard Med. Sch,* 38–41, *assoc. obstet, 40–, asst. prof. path, 41–* Pathologist, Free Hosp. for Women, Brookline, Mass, 38– A.A; Asn. Anat; Asn. Path. and Bact; Boston Obstet. Soc. Pathology of obstetrics and gynecology; embryological pathology with reference to spontaneous abortion; early embryology of human chorion and evolution of implantation site.

Hertig, Dr. Marshall, 3223 Vista St, N.E, Washington, D. C. *Entomology.* Minneapolis, Minn, June 10, 93. B.S, Minnesota, 16, Ph.D, 21. Exten. entomologist, U. S. Dept. Agr. and Minnesota, 18–20; instr. animal biol, Minnesota, 21–27; asst. prof. comp. path, Harvard Med. Sch, 27–39; head dept. med. entom, Nat. Inst. Hygiene and Pub. Health, Lima, Peru, 37–42; *major, Sanit. Corps, U. S. Army, 42–* Entomologist, China Med. Board, Peking Union Med. Col, 24–27. Medical entomology; intracellular symbionts of insects; insect histopathology; leishmaniasis transmission; rickettsiae of insects.

Hertlein, Dr. L(eo) G(eorge), California Academy of Sciences, Golden Gate Park, San Francisco, Calif. *Geology.* Pratt, Kans, Feb. 9, 98. A.B, Oregon, 22; A.M, Stanford, 23, Ph.D, 29. *Paleontologist,* Associated and Pacific Oil Companies, Calif, 25; *Calif. Acad. Sciences, 25–* Geologist, Henry L. Doherty and Co, Mex. Govt. Concessions, 26; Hudson's Bay Marland Oil Co, 29; Hudson's Bay Oil and Gas Co, 30. Geol. and Min. Soc; Calif. Acad; S. Calif. Acad. Paleontology.

Herty, Dr. C(harles) H(olmes), Jr, Bethlehem Steel Co, Bethlehem, Pa. *Metallurgy.* Athens, Ga, Oct. 6, 96. B.S, North Carolina, 18; M.S, Mass. Inst. Tech, 21, Sc.D, 24. Research assoc, Mass. Inst. Tech, 21–26; physical chemist, U. S. Bur. Mines, Pittsburgh, 26–32; director research for metal. advisory board, Carnegie Inst. Tech, 32–34; *research engineer, Bethlehem Steel Co, 34–, asst. to v. pres, 42–* Hunt prize, 28; Francis J. Clamer medal, Tech. Soc. Phila, 35. Min. and Metal. Eng; Chem. Soc; Soc. Metals. Open hearth steel processing.

Hertz, Dr. M(arguerite) R. (Mrs. David Ralph Hertz), 2835 Drummond Road, Shaker Heights, Ohio. *Psychology.* New York, N. Y, Aug. 31, 99. A.B, Hunter Col, 18; A.M, Western Reserve, 27, Ph.D, 31. *Research assoc. psychol, Brush Inquiry, Inc, sch. med, Western Reserve, 32–, asst. prof. psychol, grad. sch.* Assoc. Psychol. Asn. Child psychology; abnormal child psychology; personality diagnosis; test and measurements; Rorschach ink-blot method.

Hertz, Dr. Roy, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physiology.* Cleveland, Ohio, June 19, 09. A.B, Wisconsin, 30, Ph.D, 33, M.D, 39; fellow, Hopkins, 40–41, M.P.H, 41. Asst. zool, Wisconsin, 30–34; instr. pharmacol, med. sch, Howard, 34–35; research fellow biol, Brown, 35–36; endocrinol, Wisconsin, 36–39; intern, Wis. Gen. Hosp, 39–40; grad. fellow, Hopkins, 40–41; *passed asst. surgeon, U. S. Pub. Health Service, 41–* Physiology of reproduction; preventive medicine and public health.

Hertzberg, Prof. Oscar E(dward), State Teachers College, Buffalo, N. Y. *Educational psychology.* May 24, 93. A.B, B.S, Wisconsin, 21, fellow, 24; A.M, Columbia, 22, fellow, 25–26, Ph.D, 26. Prin. and sch. supt, Wis, 14–20; *prof,* educ. and psychol, Iowa State Teachers Col, Cedar Falls, 22–24; educ. psychol, Colo. State Teachers Col, Greeley, 26–30; *psychol, head dept. and director research, N. Y. State Teachers Col, Buffalo, 30–* Assoc. Psychol. Asn; N. Y. Research Asn. Teaching beginners to write; methods of teaching psychology; motor ability and intelligence of kindergarten children; personality and selection of students entering teachers colleges.

Hertzler, Dr. Arthur E(manuel), Halstead, Kans. *Pathology.* West Point, Iowa, July 26, 70. B.S, Southwestern Col. (Kans), 90, LL.D, 39; M.D, Northwestern, 94; Berlin, 99–02; Ph.D, Iowa Wesleyan Col, 02; LL.D, Washburn Col, 25; Sc.D, Boston, 39; D.Litt, Bethel Col. (Kans), 40. Prof. gen. and surg. path, Univ. Med. Col, Kansas City, 02–09; assoc. prof. *surg, Kansas,* 09–19, *prof, 19–* Asn. Anat; Micros. Soc; Am. Med. Asn; Asn. Obstet, Gynec. and Abdom. Surg; Am. Acad. Med; Soc. Anat; Asn. Study Goiter; West. Surg. Asn; Int. Anesthesia Research Soc. Surgical pathology; anatomy and pathology of the peritoneum; etiology of epithelioma; surgery and pathology of the thyroid gland; local anesthesia; surgical pathology of bones, skin, fascia and muscle, mammary gland, genito-urinary organs, gastro-intestinal tract, neck, mouth and jaws.

Hertzler, Prof. Silas, 1625 S. Main St, Goshen, Ind. *Psychology.* Baltimore, Md, July 27, 88. A.B, Goshen Col, 13; B.D, Yale, 17, Ph.D, 27; A.M, Columbia, 18. Instr, Mennonite Collegiate Inst, Can, 13–15; Near East Relief, Palestine and Syria, 19–20; asst. prof. philos. and psychol, Goshen Col, 20–23; *prof.* philos. and educ, Hesston Col, 23–24; *educ. and psychol, Goshen Col, 24–, head dept, 27–,* registrar, 28–36, *director summer session, 29–, chairman teacher training div, 38–* Summer, visiting prof, Phillips, 28. Soc. Study Educ; Educ. Research Asn; Soc. Col. Teachers Educ; Psychol. Asn; Ind. Acad. History of education and secondary education; the public high school.

Hertzman, Prof. A(lrick) B(rynhjolf), St. Louis University School of Medicine, St. Louis, Mo. *Physiology.* Baltimore, Md, June 22, 98. A.B, Gustavus Adolphus Col, 19; Ph.D, Wisconsin, 24. Asst, Wisconsin, 20–21; instr. *physiol,* Michigan, 24–26, asst. prof, 27; *sch. med, St. Louis,* 27–32, assoc. prof, 32–40, *prof, 40–* Am. Heart Asn; Physiol. Soc; Soc. Exp. Biol. Autolysis; respiration; reaction of body fluids; cerebral circulation; peripheral circulation.

Hertzman, Dr. M(ax), 439 W. 123rd St, New York, N. Y. *Psychology.* New York, N. Y, Oct. 16, 11. B.S, Col. City of N. Y, 32; A.M, Columbia, 34, Ph.D, 36. *Instr. psychol, Col. City of N. Y, 33–* Psychol. Asn. Attitudes; mental organization; personality; statistics; Rorschach.

Hertzog, Ellis S(amuel), 505 18th St, Tuscaloosa, Ala. *Chemistry.* Pawhuska, Okla, April 17, 97. A.B, Miami (Ohio), 18. Mem. staff, *U. S. Bur. Mines,* 23–27, asst. chemist, 27–41, *assoc. chemist, 41–* Chem. Soc; Ala. Acad. Coal; activated carbon; clay; iron ore; barite.

Hervey, Dr. G(eorge) E(dward) R(omaine), New York Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Round Hill, N. S, Can, Nov. 18, 94. B.S.A, Ont. Agr. Col, 23; Ph.D, Cornell, 30. Asst, Nova Scotia Agr. Col, 23–24; exten. dept, Cornell, 24–27; *assoc. research, N. Y. Exp. Sta, Geneva, 28–* A.A; Asn. Econ. Entom. Biology and control of the European corn borer; control of vegetable crop insects.

Hervey, John P(ray), Johnson Foundation, 36th and Spruce Sts, Philadelphia, Pa. *Physics.* Montclair, N. J, Jan. 17, 05. A.B, Harvard, 27, M.S, 29. Fellow med. physics, Johnson foundation, Pennsylvania, 35–40; asst. prof. *biophys,* med. Col, Cornell, 40–41; *assoc, Johnson foundation, Pennsylvania, 41–* Physical Soc; assoc. Radio Eng. Thermionic vacuum tube and associated circuits as applied to medicine and physiology.

Hervey, Prof. Marshall C(ole), University of Tennessee, Knoxville, Tenn. *Animal genetics.* Jefferson, Ohio, May 30, 13. B.S, Ohio State, 35, M.S, 36, Ph.D, 38. *Asst. prof. animal husbandry, Tennessee, 37–* Genetic Asn; Dairy Sci. Asn; Soc. Animal Production.

Herwick, Dr. Robert P(ort), 4801 Connecticut Ave, N. W, Washington, D. C. *Pharmacology.* Connellsville, Pa, Oct. 6, 05. B.S, Pa. State Col, 27; M.S, Wisconsin, 28, Ph.D, 30; M.D, Chicago, 36; LL.B, Georgetown, 39. Asst. state toxicologist, Wis, 28–30, state toxicologist, 30–33; asst. prof. pharmacol, Wisconsin, 31–33; *Georgetown,* 36–42, *assoc. prof, 42–; adj. clin. prof. med, George Washington, 40–;* assoc. med. officer, *food and drug admin, U. S. Dept. Agr,* 38, senior pharmacologist and asst. chief *drug div,* 39–40, *chief, 41–* Soc. Exp. Biol; Soc. Pharmacol; Am. Med. Asn. (council pharmacy and chem). Toxicology; barbiturates.

Herz, Dr. L(udwig) Ernest, 219 21st St, San Francisco, Calif. *Zoology.* San Francisco, Calif, Dec. 13, 00. A.B, Stanford, 26, A.M, 27, Ph.D, 32. Teacher, rural schs, Wash, 20–22; fisheries biologist, State Fisheries Lab, Terminal Island, Calif, 27–28; *instr. biol,* high sch, Calif, 30–35; *San Francisco State Col, 35–; Air Corps, U. S. Army, 41–* Asst. instr, Stanford, 27. Life history of Balanus crenatus; fecundity of the flounders of California.

Herzberg, Prof. G(erhard), 814 Temperance St, Saskatoon, Sask, Can. *Physics.* Hamburg, Germany, Dec. 25, 04. Dipl. Ing, Darmstadt, 27, D.Ing, 28; studentship, Bristol, 29–30. Asst. *physics,* Darmstadt, 26–28, privat-docent, 30–35; *research prof, Saskatchewan, 35–* Summers, lecturer, Michigan, 39; Purdue, 40. Fel. Physical Soc; fel. Royal Soc. Can. Atomic and molecular spectra; structure of atoms and molecules; applications to astrophysics.

Herzberger, Dr. M(ax), 223 Stone Road, Rochester, N. Y. *Optics.* Charlottenburg, Germany, March 7, 99. Ph.D, Berlin, 22. Busch and Rathenow, 23–25, Wetzlar, 25–27; C. Zeiss, Jena, 27–34; *with research labs, Eastman Kodak Co, 35–* Optical Soc; Math. Soc. Geometrical optics; theory of microscopic vision; design of optical instruments; glass dispersion.

Herzfeld, Prof. Karl F(erdinand), Catholic University, Washington, D. C. **5*Physics.* Vienna, Austria, Feb. 24, 92. Ph.D, Vienna, 14; Zurich; Göttingen; hon. Sc.D, Loyola Col. (Md), 32, Marquette, 33. Privat-docent, Munich, 20–23, asst. prof, 23–26; prof. physics, Hopkins, 26–36; *prof. and head dept. physics, Catholic Univ, 36–* Speyer guest prof, Hopkins, 26; lecturer, Cooper Union and Fordham, 30–31. Assoc. ed, 'Jour. Chem. Physics,' 33–35. Mendel medal, 31. A.A; fel. Physical Soc; Wash. Acad; Philos. Soc. Wash; Deuts. Physik. Gesell. Thermodynamics; kinetical theory of heat; physical chemistry; properties of crystals; electrons in metals; absorption and dispersion of light; ultrasonics; photosynthesis.

Herzig, A(lvin) J(ohn), 1656 Strathcona Drive, Detroit, Mich. *Metallurgy.* Toledo, Ohio, Oct. 5, 04. B.S.E, Michigan, 26, M.S.E, 31. Metal. research, Nat. Supply Co, 26–28; asst. eng, Michigan, 28–29, research assoc, 29–31; *chief metal. engineer, Climax Molybdenum Co, 31–* Soc. Metals; Soc. Automotive Eng; Foundrymen's Asn; Min. and Metal. Eng; Soc. Test. Mat; British Inst. Metals. Alloy steel and cast iron.

Herzog, Prof. G(eorge), Columbia University, New York, N. Y. *Anthropology.* Budapest, Hungary, Dec. 11, 01. Royal Acad. Music, Budapest, 17–19; Hochschule für Musik, Berlin, 20–22; Kaiser Friedrich Wilhelms Univ, 22–24; Ph.D, Columbia, 31. Research assoc. *anthrop,* Chicago, 30–32; Yale, 32–35; Guggenheim Mem. Foundation fellow, 35–36; visiting lecturer, *Columbia,* 36–37, *asst. prof, 37–* Univ. Chicago anthrop. exped, Liberia, 30. Anthrop. Asn; Folk-Lore Soc. Musicology; linguistics; comparative science of music.

Hesler, Dean L(exemuel) R(ay), University of Tennessee, Knoxville, Tenn. *Plant pathology.* Veedersburg, Ind, Feb. 20, 88. A.B, Wabash Col, 11; fellow, Cornell, 11–12, Ph.D, 14. Asst. bot, Wabash Col, 09–10; instr. plant path, Cornell, 12–14, asst. prof, 14–19; *prof. bot, Tennessee, 19–, dean col. lib. arts, 34–* A.A; Bot. Soc; Phytopath. Soc; Tenn. Acad. Mycology; fruit diseases; fungi.

Hess, Dr. A(rchie) D(avilla), Tennessee Valley Authority, Wilson Dam, Ala. *Limnology, Economic entomology.* Oklahoma City, Okla, Jan. 11, 11. A.B, Colo. Col, 32, A.M, 33; Ph.D, Cornell, 39. Lab. instr. biol, Colo. Col, 29–33; instr, South. Colo. Junior Col, 34–35; instr. entom. and asst. research, N. Y. Agr. Exp. Sta, Geneva, 36–37; instr. limnol, Cornell, 38–39; *aquatic biologist in charge biol. investigations sect, Tenn. Valley Authority, 39–* Limnol. Soc; Ecol. Soc; Asn. Econ. Entom; Fisheries Soc; Soc. Ichthyol. and Herp; Malaria Soc. Biology and control of Saperda candida; biology and control of anopheline mosquitoes; feeding habits of fresh-water fishes; ecology of Odonata; anopheline ecology.

Hess, Dr. C(harles) L(eonard), Davidson Bldg, Bay City, Mich. *Physiology, Pharmacology.* St. Peter, Minn, April 11, 87. B.S, Chicago, 10, M.S, 11; M.D, Northwestern, 14. Asst. pharmacol, Northwestern, 11–12, instr, 12–14, anat, 14–15; house physician, Cook County Hosp, 15–16; asst. bacter, Mayo Foundation, Minnesota, 16–17, fellow surg, 17–18; *int. med, Mercy Hosp.* Chairman med. advisory board no. 14, selective service, Mich. Fel. Soc. Clin. Path; fel. Col. Physicians; Physiol. Soc; Am. Med. Asn; Aeromedical Asn; Mich. Indust. Surg. Asn; Bay Co. (Mich) Med. Soc. (pres, 38). Blood lipase and diastase; blood sugar; glycolysis in blood and other tissues; isocalycanthin; hexamethylenamin; electrical wiring for laboratories; pain conduction in the spinal cord; war gas; insulin.

Hess, Prof. Ernest, P. O. Box 429, Halifax, N. S, Can. *Bacteriology.* Zurich, Switzerland, Dec. 22, 97. Ing. Agron, Eidg. Tech. Hochschule, Zurich, 21; M.A, Queen's (Can), 25; Ph.D, McGill, 33. *Bacteriologist, fisheries exp. sta, Fisheries Research Board Can, Halifax, 25–;* asst. prof. *bacter, Dalhousie,* 30–37, *assoc. prof, 38–* Soc. Bact; N. S. Inst. Sci. (pres, 42–). Bacteriology of sea fish and fish preservation; fish canning.

Hess, Frank L, 1221 Newton St, Brookland, Washington, D. C. *5*Geology.* Streator, Ill, Sept. 4, 71. A.B, Stanford, 03. Asst. assaying, Stanford, 01–03; U. S. Geol. Surv, 01–25; *U. S. Bur. Mines, 25–, prin. mineralogist; custodian rare metals and rare earths, U. S. Nat. Museum, 18–* Lecturer, Maryland, 37. Professional work, Alaska, Bolivia, Burma, Ceylon, Can, China, Federated Malay States, India, Italy and Mex. Cmt. on determination geol. age, Nat. Research Council. A.A; Geol. Soc; Soc. Econ. Geol; Miner. Soc; Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad. Gold and rare metal deposits; tin; antimony; magnesite; gypsum; graphite; pegmatites,

Hess, Dr. Frederick G(rant), 311 Plymouth Place, Merchantville, N. J. *Organic chemistry.* Washington, Pa, Sept. 24, 00. B.S, Washington and Jefferson Col, 23, M.S, 25; A.M, Columbia, 26, Ph.D, 34. *Research chemist,* Atlantic Ref. Co, Phila, Pa, 27–34; *Doherty Research Co, Pettys Island, N. J, 35–* Chem. Soc. Drugs; petroleum.

Hess, Prof. Geo(rge) W(ellman), 8009 Berney Ave, Birmingham, Ala. *Mathematics, Astronomy.* Waterford, Mich, Sept. 16, 78. A.B, Kalamazoo Col, 06; Illinois, 09–10; A.M, Kansas, 11; Ph.D, Michigan, 16. Prof. *math,* Shurtleff Col, 13–19; Bethany Col. (W. Va), 19–20; instr, Carnegie Inst. Tech, 20–22; prof, Whitworth Col, 22–23; Union (Tenn), 24–26; *assoc. prof, Howard Col. (Ala), 26–* A.A; Math. Asn. Computation of orbits.

Hess, Prof. H(arry) H(ammond), Princeton University, Princeton, N. J. *Geology.* New York, N. Y, May 24, 06. B.S, Yale, 27; A.M, Princeton, 31, Ph.D, 32. Geologist, Loangwa Concessions, Ltd, North. Rhodesia, 28–29; asst. instr. *geol,* Rutgers, 33–34; instr, *Princeton,* 34–37, *asst. prof, 37–* Geologist, Princeton-U. S. Navy exped, West Indies, 32; U. S. Submarine Barracuda, 36–37. Geol. Soc; Geophys. Union; Miner. Soc; Phila. Geol. Soc. (pres, 39). Ultrabasic igneous rocks; rock-forming minerals; gravity at sea.

Hess, Dr. Julius H(ays), Hotel Windermere East, Chicago, Ill. *Pediatrics.* Ottawa, Ill, Jan. 26, 76. M.D, Northwestern, 99. Instr. *pediat,* Northwestern, 08–13; assoc. prof, *col. med, Illinois,* 13–14, *prof. and head dept, 14–* Attending pediatrician, Ill. Research and Educ, Cook County, Michael Reese and Englewood Hosps; advisory board, Munic. Contagious Disease Hosp, Chicago; children's bur, U. S. Dept. Labor. Mem, State Board Welfare Cmn, Ill, 37– Pediat. Soc; Am. Med. Asn. (chairman pediat. sect, 41); Acad. Pediat; Chicago Pediat. Soc. (pres, 21); Chicago Med. Soc. (pres, 35); Inst. Med. Chicago (board governors, 24–29). Premature and congenitally diseased infants; feeding and nutritional disorders of infancy and childhood; infant feeding; physical and mental development of prematurely born infants; viosterol.

Hess, Dr. Leo, 15 Kenwood St, Brookline, Mass. *Internal medicine.* Vienna, Austria, March 6, 79. M.D, Vienna, 03, Ph.D, 05. *Prof. med, Vienna, 25–; sch. med, Middlesex, 39–* Am. Med. Asn. Medicine; neurology.

Hess, Dr. Lewis, 1600 W. Eight Mile Road, Detroit, Mich. *Chemistry.* New York, N. Y, July 19, 07. B.S, Mass. Inst. Tech, 29, Ph.D, 34. Chemist, Titanium Pigment Co, N. Y, 29–30; guest, dept. chem, New Hampshire, 35–36; Mass. Inst. Tech, 36–37; *mem. staff, Ethyl Gasoline Corp, 37–* A.A; Chem. Soc. Inorganic chemistry; separation of rare earths; anti-knock compounds; the redistribution reaction.

Hess, Prof. Margaret, Winthrop College, Rock Hill, S. C. *Biology.* Chesterfield Co, Va, Nov. 15, 99. B.S, Virginia, 29, M.S, 30, Ph.D, 34. Teacher, high schs, Va, 20–27; assoc. prof. biol. and head dept, Judson Col, 34–36, prof, 36–39, chairman div. science, 38–39; *prof. biol. and head dept, Winthrop Col, 39–* A.A; Va. Acad; S. C. Acad. Morphology and physiology of Rhabdocoelida.

Hess, Dr. R(aymond) W, National Aniline and Chemical Co, Buffalo, N. Y. *Chemistry.* Iowa, Sept. 21, 89. A.B,

Morningside Col, 12; A.M. Illinois, 14, Ph.D, 16. Asst. chem, Illinois, 12–16; research chemist, Sherwin-Williams Co, 16–18; *group leader and research and develop. supervisor of production and operating improvements, Nat. Aniline and Chem. Co, 18–* Summers, manufacturer org. chemicals, Illinois, 14, 15. A.A; Chem. Soc. (sec'y, v. chairman, chairman and councilor, west. N. Y. sect, 22–29). Organic chemistry; substitution in paraffin monobasic acids; correlation of ionization with structure; dyestuffs; intermediates; ore flotation; abatement of stream pollution by chemical wastes.

Hess, Robert W(illiam), 61 Ayer Road, Williamsville, N. Y. *Wood technology.* Cresco, Iowa, Nov. 11, 10. B.S, Iowa State Col, 34; William Henry Sage scholar, Yale, 35, M.F, 36, Am. Creosoting Co. fellow, 36. Instr. forestry, Arkansas, 38; Maine, 38–39; *asst. prof. forest products, Yale, 39–; chief wood and plastics research, airplane div, Curtiss-Wright Corp, 42–* A.A; Soc. Foresters; Int. Asn. Wood Anat. Anatomy and identification of tropical woods; mechanical and physical properties of woods; use of wood in aircraft.

Hess, Prof. Victor F(rancis), Fordham University, New York, N. Y. *Physics.* Waldstein, Austria, June 24, 83. Ph.D, Graz, 06; M.D, Vienna, 37. Asst. prof, Vienna, 10–20; assoc. prof. exp. physics, Graz, 20–21, 23–25, prof, 25–31, dean philos. faculty, 29–30, prof. physics, head dept. and director physical inst, 37–38; chief physicist and director research lab, U. S. Radium Corp, New York, 21–23; *prof,* Innsbruck, 31–37; *physics, Fordham, 38–* Lecturer, Vienna Vet. Acad, 08–20; asst, Vienna Inst. Radium Res, 10–20; consultant, U. S. Bur. Mines. Ablei medal, Jena, 32; Nobel prize physics, 36. Fel. Physical Soc; Geophys. Union; Physical Soc. London; Vienna Acad. Cosmic rays; atmospheric electricity; radioactivity.

Hess, Prof. Walter C(ohen), Georgetown University, Washington, D. C. *Biochemistry.* Philadelphia, Pa, July 19, 99. B.S, Pennsylvania, 20; Ph.D, George Washington, 30. Chemist, E. I. du Pont de Nemours and Co, 25–27; junior chemist, U. S. Pub. Health Service, 27–29, asst. chemist, 29–31; *assoc. research prof. chem, chemo-med. research inst, Georgetown, 31–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. (sec'y, D. C. sect, 35–37); Wash. Acad. Biochemistry of sulfur; glutathione; amino acids.

Hess, Prof. Walter N(orton), Hamilton College, Clinton, N. Y. *Zoology.* Great Valley, N. Y, May 1, 90. A.B, Oberlin Col, 13; A.M, Cornell, 16, Ph.D, 19. Instr. zool, Pa. State Col, 13–15; asst. entom, Cornell, 15–17; prof. *biol,* DePauw, 17–28; *prof. and head dept, Hamilton Col, 28–* Johnston scholar, Hopkins, 23–24. Assoc. ed, 'Jour. Morphol,' 40–43. Bacteriologist, U.S.A, 18. A.A; Soc. Zool. (treas, 36–); Soc. Nat; Soc. Exp. Biol. Chardotonal organs of Ceram-bycidae; kidney of the male stickleback; Lampyridae; light reactions, nervous system and photoreceptors of the earthworm and Enteropneusta; control of external fluke parasites on fish; islands of Langerhans of fish and rats; moulting of Crustacea.

Hess, Prof. Wendell F(rederick), 25 Hawthorne Ave, Troy, N. Y. *Metallurgy.* Troy, N. Y, Jan. 1, 03. E.E, Rensselaer Polytech, 25, Russell Sage fellow, D.E, 28. Instr. elec. eng. and physics, *Rensselaer Polytech,* 29–30, asst. prof, 30–37, *metal. eng,* 37–38, *assoc. prof, 38–, head welding lab, 38–* Elec. Eng; Welding Soc; Eng. Educ. Color sensitiveness of photoelectric cells; aluminum and aluminum alloy welding; filters for photoelectric cell as physical photometer; magnetic properties of welded materials; arc; gas; resistance welding.

Hesse, Dr. Claron O(wens), University of California, Davis, Calif. *Genetics.* Spokane, Wash, June 23, 12. B.S, California, 32; Ph.D, Maryland, 38. Junior geneticist, *bur. plant indust, U. S. Dept. Agr,* 37–41, *asst. geneticist, div. fruit and veg. crops and diseases, 41–* Breeding of tree fruits, especially stone fruits.

Hesse, Curtis J(ulian), Agricultural and Mechanical College of Texas, College Station, Texas. *Vertebrate paleontology.* Wamego, Kans, Sept. 28, 05. A.B, Kansas, 27; A.M, California, 33. Asst, museum paleont, Kansas, 19–29; teaching fellow paleont, California, 29–31, cataloguing, curatorial and field work, museum paleont, 31–38; asst. curator *museum, Agr. and Mech. Col. Texas,* 38–43, *curator, 43–* Univ. Kansas field exped, 20, 21, 23–26, 28, 29, Univ. California field exped, 31, 32, 34, 37. A.A; Soc. Econ. Paleont; Paleont. Soc; Soc. Mammal; Texas Acad. Pliocene mammals; stratigraphy of high plains; fossil fishes; fossil vertebrates of the Gulf Coast.

Hessel, Dr. Frederick A(dam), 23 Glenwood Road, Upper Montclair, N. J. *Organic chemistry.* Antwerp, Belgium, May 13, 98. Licencie es Sci. Chim, Meurice Inst. Chem, Brussels, 22; D.Sc, Strasbourg, 24. Research chemist, Vacuum Oil Co, 25–28; investment banking, 29–39; *research chemist and patent negotiator, Ellis Foster Co, Montclair Research Corp. and Arocast Mfg. Corp, 39–* A.A; Chem. Soc; Inst. Chem; British Petrol. Inst. Industrial chemistry.

Hesselberg, Dr. Cora, 228 N. Sergeant St, Joplin, Mo. *Bacteriology.* Orel, Russia, March 9, 84. M.D, Bern. Asst. city pathologist, St. Louis, 12–15; state bacteriologist for Dubuque, Iowa, 19–22; *pathologist, St. John's Hosp, Joplin, 22–* Asn. Path. and Bact. The thyroid gland; transplantation of tissue.

Hesseltine, Dr. H(enry) Close, 5848 Drexel Ave, Chicago, Ill. *Obstetrics, Gynecology.* Promise City, Iowa, May 10, 01. B.S, Iowa, 23, M.D, 25, M.S, 28. Intern, Univ. Hosp, Iowa City, 25–26; clin. asst. *obstet. and gynec,* Iowa, 26–27, instr, 27–30, assoc, 30–31; instr, *Chicago,* 31–34, asst. prof, 34–42, *assoc. prof, 42–* Attending obstetrician and gynecologist, Chicago Lying-in Hosp. Diplomat. Am. Board Obstet. and Gynec. Cent. Asn. Obstet. and Gynec. prize, 32, 33. A.A; fel. Col. Surg; Soc. Bact; Neisserian Med. Soc; fel. Am. Med. Asn. (exhib. rep, obstet. and gynec. sect, 35–41); Cent. Asn. Obstet. and Gynec; Chicago Gynec. Soc. Fungi, Protozoa and bacteria of female genital tract; histopathology and physiology of lower genital tract; vitamins and chemotherapy in obstetrics and gynecology; obstetric and gynecologic problems of women in industry; medical education.

Hessler, Pres. John C(harles), James Millikin University, Decatur, Ill. *Chemistry.* Syracuse, N. Y, Nov. 27, 69. A.B, Chicago, 96, Ph.D, 99. Instr, high schs, Ill, 90–99; chem, Chicago, 99–07; prof, James Millikin, 07–20, dean, 17–20; asst. director, Mellon Inst, 20–21; prof. chem, Knox Col, 21–34; *pres, James Millikin, 34–* A.A; Chem. Soc; Ill. Acad. (treas, 07–14, pres, 17). Alkyl and phenyl malonic nitriles; alkylation of cyanacetic esters; phenyl acetylene; Conrad-Limpach reaction.

Hessler, Dr. Lyle E(dward), U. S. Department of Agriculture, Austin, Texas. *Soils.* Austin, Minn, Aug. 11, 03. Ch.B, Minnesota, 30, M.S, 31, Ph.D, 36. Research and anal. work, Minnesota, 32–36; *asst. chemist, soil fertility sta, bur. plant indust, U. S. Dept. Agr, 36–* Colorimetric method for arginine; fat deficiency in rats and humans; fat and lipid studies on infants; carbon metabolism of Gibberella saubinetii on glucose; fertilizers and the composition of the cotton plant.

Hessler, Prof. Victor P(eter), University of Kansas, Lawrence, Kans. *Electrical engineering.* Durant, Iowa, Sept. 6, 03. B.S, Oregon State Col, 26; M.S, Iowa State Col, 27, Ph.D, 34. Instr. *elec. eng,* Iowa State Col, 27–36, asst. prof, 36–38; *prof. and head dept, Kansas, 38–* Summers, research engineer, Gen. Elec. Co, 36–41. Elec. Eng; Eng. Educ; Kans. Eng. Soc. (director, 41). Contact drop, friction and wear of sliding electrical contacts; objectives in electrical engineering education.

Hestenes, Dr. Arnold D, Carnegie Institute of Technology, Pittsburgh, Pa. *Mathematics.* Bricelyn, Minn, April 11, 12. A.B, St. Olaf Col, 34; A.M, Wisconsin, 36; Ph.D, Harvard, 40. Teaching asst, Wisconsin, 34–37; instr. and tutor *math,* Harvard, 37–40; *instr, Carnegie Inst. Tech, 40–* Math. Soc. Phi-difference equations.

Hestenes, Prof. M(agnus) R(udolph), University of Chicago, Chicago, Ill. *Mathematics.* Bricelyn, Minn, Feb. 13, 06. A.B, St. Olaf Col, 27; A.M, Wisconsin, 28; Ph.D, Chicago, 32. Instr. *math,* Nebraska, 28–30; nat. research fellow, 33–34; Benjamin Peirce instr, Harvard, 34–36; instr, California at Los Angeles, 36–37; asst. prof, *Chicago,* 37–42, *assoc. prof, 42–* Math. Soc; Math. Asn. Calculus of variations.

Hester, Dr. Jackson B(oling), Riverton, N. J. *Soil chemistry.* Easley, S. C, Jan. 15, 04. B.S, Clemson Col, 26; M.S, Florida, 30; Ph.D, Rutgers, 32. Asst. chemist, Texas, 26–27; Florida, 27–30; Rutgers, 30–32; soil technologist, Va. Truck Exp. Sta, 32–37; *mem. staff, Campbell Soup Co, 37–; capt, Air Corps, U. S. Army, 42–* A.A; Soc. Agron; Soil Sci. Soc; Chem. Soc; Soc. Hort. Sci; Va. Acad. Soil colloidal chemistry; plant nutrition.

Hester, Dr. William F(rederic), 924 Lindale Ave, Drexel Hill, Pa. *Organic chemistry.* Indianapolis, Ind, May 3, 04. A.B, DePauw, 25; A.M, Harvard, 27, Emerson scholar, 27–28, du Pont fellow, 28–29, Ph.D, 29. Austin teaching

fellow, Harvard, 25–27; *research staff, Rohm and Haas Co, Phila, 29–* Summers, research staff, Eli Lilly and Co, Indianapolis, 26, 27. Chem. Soc. Action of organic magnesium compounds on alpha-oxido ketones and esters; synthetic tanning materials; wetting agents; insecticides.

Hesthal, Prof. Cedric E, 4356 Olentangy Blvd, Columbus, Ohio. *Physics.* San Francisco, Calif, Dec. 13, 03. A.B, Stanford, 24, A.M, 27, Ph.D, 29. Instr. *physics,* Stanford, 28–29; *Ohio State, 29–34, asst. prof, 34–, research assoc, Perkins Observatory, 36–* Physical Soc; Optical Soc. Intensity measurements in chromium; heterochromatic photographic photometry in the optical region from 10,000 A to 2,000 A; spectroscopic astrophysics.

Heston, Dr. Bernard O(berdon), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Chemistry.* Kings Mills, Ohio, Feb. 10, 06. B.S, Denison, 28; M.S, Okla. Agr. and Mech. Col, 30; Ph.D, Wisconsin, 33. *Instr. chem, Okla. Agr. and Mech. Col, 34–* Chem. Soc; Okla. Acad. Activities in non-aqueous solutions: quantitative methods.

Heston, Dr. Joseph C(arter), DePauw University, Greencastle, Ind. *Clinical psychology.* Pataskala, Ohio, Jan. 17, 09. A.B, Muskingum Col, 31; A.M, Ohio State, 38, Ph.D, 41. Instr. sciences, high sch, Ohio, 32–38; asst. *psychol,* Ohio State, 39–41; *instr, DePauw, 41–* Research consultant, U. S. Farm Security Admin, 41–42. Assoc. Psychol. Asn; Midwest Psychol. Asn; Ind. Acad. Clinical test of adult mental ability; factorial analyses of non-verbal tests; personality factors in student guidance; remedial training in reading and study habits at secondary level.

Heston, Dr. W(alter) E(noch), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Genetics.* Lucas, Iowa, Aug. 23, 09. B.S, Iowa State Col, 32; M.S, Mich. State Col, 34, Ph.D, 36. Asst. zool, Mich. State Col, 32–36; prof. biol. and head dept, McMurry Col, 36–38; Nat. Cancer Inst. research fellow, *Roscoe B. Jackson Mem. Lab,* 38–40, *mem, 38–;* research fellow, *nat. cancer inst, U. S. Pub. Health Service,* 40–42, *geneticist cancer research, 42–* A.A; Asn. Cancer Research; Genetic Asn; Texas Acad; Wilson Ornith. Club. Mammalian genetics; inheritance of cancer; radiation genetics.

HeténYi, Dr. M(iklós), Westinghouse Research Laboratories, East Pittsburgh, Pa. *Engineering mechanics.* Debrecen, Hungary, Nov. 5, 06. Eng. Dipl, Royal Tech. Univ, Budapest, 31; Jeremiah Smith fellow, 34–35; Ph.D, Michigan, 36. Mem. staff, Office Danube Bridge Design, Budapest, 30, 32–34; Hungarian Royal State Railways, 34; Horace H. Rackham fellow, Michigan, 36–37; *mem. staff, Westinghouse Research Labs, 37–* Summer, lecturer, Michigan, 36. Hollán prize, Hungarian Soc. Engineers and Architects, 35. A.A; Int. Asn. Bridge and Struct. Eng. Stress analysis of structural members and machine parts; theory of elasticity and strength of materials; photoelasticity.

Hetherington, Dr. A(lbert) W(alter), 303 E. Chicago Ave, Chicago, Ill. *Neuroanatomy, Neurophysiology.* Fellsmere, Fla, May 17, 15. B.S, Arizona, 36; Elizabeth J. Ward fellow, Northwestern, 36–39, M.S, 37, Ph.D, 39. *Instr. neur, inst. neur, med. sch, Northwestern, 39–* A.A; Asn. Anat; Asn. Study Int. Secretions; assoc. Soc. Exp. Biol. Hypothalamic and hypophysial relationships in diabetes insipidus; obesity; gonadal dystrophy.

Hetherington, Dr. D(uncan) C(harteris), Duke University School of Medicine, Durham, N. C. *Medicine.* Denver, Colo, Aug. 8, 95. A.B, Colo. Col, 19; A.M, Illinois, 20, Ph.D, 22; M.D, Hopkins, 26. Instr. histol. and neuroanat, sch. med, Vanderbilt, 26–30; *assoc. prof. anat, sch. med, Duke, 30–* A.A; Asn. Anat; Soc. Parasitol. Parasitology; tissue culture.

Hetherington, Dr. H(ubert) W(illows), Henry Phipps Institute, Seventh and Lombard Sts, Philadelphia, Pa. *Epidemiology.* St. Catharines, Ont, Can, March 30, 01. M.D, Toronto, 22. Clin. asst, *Henry Phipps Inst, Pennsylvania,* 26–30, *chief clinic, 31–* Royal Col. Physicians London. Prevention and treatment of tuberculosis; incidence of tuberculosis in public-school, high-school and college students.

Hetherington, Prof. (William) Alford, Chico State College, Chico, Calif. *Biology, Physiology.* Stanford University, Calif, July 26, 06. A.B, Columbia, 26, A.M, 27; Ph.D, Stanford, 32. Asst. biol, N. Y. Univ, 25–26; instr, Col. City of N. Y, 26–27; asst. zool, Columbia, 27–28; biol, Calif. Inst. Tech, 28–30; comp. and develop. anat, Chicago, 30–31; Bruce fellow, Hopkins, 32–34; research assoc. biol, Stanford, 34–35, asst. bacter. and exp. path, 35–36; instr. physiol, Oklahoma, 36–39; instr. biol, *Chico State Col, Calif, 40–41, asst. prof, 41–* Assoc. Soc. Zool. Protozoology; culture of ciliates; regeneration in Protozoa.

Hetle, Prof. E(rik), St. Olaf College, Northfield, Minn. *Physics.* Norway, Aug. 17, 73. A.B, St. Olaf Col, 03, A.M, 05; Chicago, 08–09. Teacher math, *St. Olaf Col,* 03–06, *prof. physics, 06–* Physical Soc; Optical Soc; Minn. Acad. Teaching of physics.

Hetler, Prof. D(onald) M(cKinley), Montana State University, Missoula, Mont. *Bacteriology, Chemistry.* Osage City, Kans, Feb. 19, 96. A.B, Kansas, 18, A.M, 23; fellow, Yale, 24–26, Ph.D, 26. Anal. chemist, Hercules Powder Co, 18–21; asst. chem, Kansas, 21–24; Rockefeller Inst, 26–28; instr. bacter. and immunol, sch. med, Washington (St. Louis), 28–31, asst. prof, 31–37; assoc. prof. *bacter. and pub. health, Montana,* 37–38, *prof, 38–, chairman dept. bacter, 37–* A.A; Chem. Soc. Chemistry of bacteria; nature of bacteriophage; therapeutic serum.

Hetzer, Dr. H(erbert) O(ttmar), U. S. Department of Agriculture, Beltsville, Md. *Animal genetics.* Hamburg, Germany, Dec. 12, 05. Dipl, Agr. Col, Hohenheim, 27; M.S, Iowa State Col, 31, Ph.D, 35. Instr. genetics, Iowa State Col, 36; *assoc. animal husbandman, div. animal husbandry, bur. animal indust, U. S. Dept. Agr, 37–* A.A; Soc. Animal Production; Genetics Soc; Genetic Asn. Statistical genetics; swine breeding and genetics.

Hetzler, Dr. Charles (William), 1326 Chicago Ave, Evanston, Ill. *Astronomy.* Rochester, N. Y, Nov. 27, 07. A.B, Cornell, 29; Ph.D, Pittsburgh, 35. Asst, Allegheny Observatory, Pittsburgh, 31–35, observatory pub. lecturer, 33–35; asst. astrophys, Yerkes Observatory, Chicago, 35–39; Dearborn Observatory, 39–40. Astron. Soc; Asn. Variable Star Observers. Stellar parallax and photometry; zinc vacuum wave-lengths; heterochromatic stellar photometry; white dwarfs, especially Sirius B; infra-red photometry of long period variable stars; infra-red stellar surveys; a black body-observational diagram.

Heuberger, Dr. John W(illiam), Rohm and Haas Co, New Haven, Conn. *Plant pathology.* Warren, R. I, July 24, 06. B.S, R. I. State Col, 29; fellow, Maryland, 29–31, M.S, 31, Ph.D, 34. Asst. plant path, Exp. Sta, Maryland, 29–34, asst. plant pathologist and asst. exten. plant pathologist, exten. service and Exp. Sta, 31–35; assoc. forester, State Dept. Agr. and Conservation, R. I, 35–36; plant pathologist, crop protection inst, Exp. Sta, Delaware, 36–38; N. Y. Exp. Sta, Geneva, 38–40; Conn. Exp. Sta, 40–42; *research staff, Rohm and Haas Co, 42–* Virus diseases of tomatoes and potatoes; orchard and vegetable diseases; development of spray and dust materials.

Heuer, Prof. George J(ulius), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Surgery.* Madison, Wis, Feb. 6, 82. B.S, Wisconsin, 03; M.D, Hopkins, 07; LL.D, Cincinnati, 32. House officer, Hopkins Hosp, 07–08, asst. res. surgeon, 08–11, res. surgeon, 11–14, assoc. prof. *surg,* 14–22; *prof,* col. med, Cincinnati, 22–32; *med. col, Cornell, 32–; surgeon in chief, N. Y. Hosp, 32–* Surgeon in chief, Cincinnati Gen. Hosp, 22–32. Mem. Am. Board Surg; advisory board, Am. Hosp, Britain; Am. Hosp, Paris. Major, M.C, 17–19. A.A; Surg. Asn; fel. Col. Surg; Soc. Clin. Surg; Asn. Thoracic Surg; Neur. Surg. Soc; Am. Med. Asn; S. Surg. Asn; N. Y. Surg. Soc; hon. mem. Chicago Surg. Soc; hon. mem. Argentine Soc. Surg. Surgery of the brain and the thorax; general surgery.

Heuer, Dr. R(ussell) P(earce), General Refractories Co, 1600 Real Estate Trust Bldg, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, June 13, 96. B.S, Pennsylvania, 17, Chem.E, Ph.D, 27. Chem. engineer, U. S. Bur. Mines, 18–19; metallurgist, Chase Metal Works, Conn, 19–22; instr. chem, Pennsylvania, 22–27; *v. pres, director and director research, Gen. Refractories Co, 27–* Chem. Soc; Electrochem. Soc; Ceramic Soc; Chem. Eng; Min. and Metal. Eng; Soc. Test. Mat; British Ceramic Soc. Commercial preparation and properties of oxygen-free copper; desulfurization of pig iron; commercial preparation of magnesite, chrome, silica, alumina and fireclay refractories.

Heukelekian, Prof. H(ovhaness), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Bacteriology, Sanitation.* Constantinople, Turkey, Oct. 12, 99. B.S, Robert Col, Istanbul, 19, Iowa State Col, 22; M.S, Rutgers, 24, Ph.D, 25. Asst. soil bacter, *N. J. Exp. Sta,* 22–25, research

bacteriologist, sewage substa, assoc. water and sewage research and *assoc. prof, dept. water supplies and sewage disposal, Rutgers, 25–* Soc. Bact. Cellulose decomposition in soil; the rôle of bacteria in sewage disposal.

Heuse, Prof. E(dward) O(tto), 3421 University Blvd, Dallas, Texas. *Chemistry.* Madison, Ind, March, 79. B.S, Hanover Col, 00, hon. A.M, 06; M.S, Illinois, 07, fellow, 12–14, Ph.D, 14. Asst. *chem,* Illinois, 03–07; prof, Upper Iowa, 08–12; instr, Illinois, 14–15; prof, Monmouth Col, 15–18; *prof. and head dept, South. Methodist, 18–* Summer, Lewis Inst. (Ill), 07. A.A; Chem. Soc; fel. Inst. Chem; Texas Acad. Physical and inorganic chemistry.

Heuser, Dr. Chester H(enry), Carnegie Institution of Washington, Baltimore, Md. **[7]Anatomy, Embryology.* Ft. Scott, Kans, Aug. 20, 85. A.B, Kansas, 08, A.M, 10; Ph.D, Harvard, 13. Teaching fellow zool, Kansas, 08–09, instr, 09–10; Austin teaching fellow histol. and embryol, Harvard Med. Sch, 10–13; fellow anat, Wistar Inst, 13–19; assoc, Hopkins, 19–21; *research assoc, dept. embryol, Carnegie Institution, 21–* Asst. prof, Kansas, 12. A.A; Soc. Nat; Asn. Anat. Cerebral ventricles; mammalian embryonic stomach; digestive system of opossum embryos; bronchial vessels of the pig; implantation and early development of the pig; anatomy of human embryos; monkey and sloth embryos.

Heuser, Dr. Emil, 304 River Drive, Appleton, Wis. *Organic chemistry.* Stralsund, Germany, Sept. 15, 82. Dipl.Ing, Tech. Univ. Karlsruhe, 07, Dr.Ing, 09. Prof. cellulose chem, Tech. Univ. Darmstadt, 12–23; director research, Vereinigte Glanzstoffabriken A.G, Berlin, 23–26; hon. prof. cellulose chem, Tech. Univ. Berlin, 26–29; director research, Can. Int. Paper Co, 26–38; *research assoc, inst. paper chem, Lawrence Col, 38–* Chem. Soc. (chairman cellulose div, 37); Tech. Asn. Pulp and Paper Chem; Wis. Acad; hon. mem. German Asn. Pulp and Paper Chem. and Eng. (sec'y, 23–26). Cellulose and related substances; carbohydrates; lignin and related substances; technology of wood, pulp, paper and rayon.

Heuser, Prof. Gustave Frederick, Cornell University, Ithaca, N. Y. *Animal husbandry.* Buffalo, N. Y, July 6, 93. B.S, Cornell, 15, M.S.A, 16, Ph.D, 18. Instr. *poultry husbandry, Cornell,* 16–18, asst. prof, 18–22, *prof, 22–* Ed, 'Poultry Science,' 36–41. A.A; Poultry Sci. Asn; World's Poultry Sci. Asn. (sec'y-treas, 23–). Poultry husbandry and nutrition.

Hevner, Dean Kate McNaughton (Mrs. John H. Mueller), 1357 E. Tenth St, Bloomington, Ind. *Psychology.* Westmoreland, Pa, Nov. 1, 98. A.B, Wilson Col, 20; A.M, Columbia, 23; fellow, Chicago, 26–28, Ph.D, 28. Instr. psychol, Wilson Col, 23–26; asst. prof, Minnesota, 28–36; lecturer, exten. div, *Indiana,* 36–38, *dean women, 38–* Summers, research assoc, Oregon, 31, 32. Psychol. Asn; Col. Personnel Asn; Asn. Deans Women. Esthetics; psychology of music; psychometrics.

Hewatt, Prof. Willis G(illiland), Texas Christian University, Ft. Worth, Texas. *Ecology.* Gainesville, Texas, July 10, 04. B.S, Texas Christian, 27, fellow, 27–29, M.S, 29; Ph.D, Stanford, 34. Instr, Tyler Junior Col, Texas, 29–31; asst. prof. and assoc. prof. *biol, Texas Christian,* 33–41, *prof, 41–* Summers, instr, N. Texas State Teachers Col, Denton, 29–33; Hopkins Marine Sta, Stanford, 34. A.A; Ecol. Soc; Limnol. Soc; fel. Texas Acad; N. Texas Biol. Soc. (pres, 39). Zoology; marine and semi-desert ecology; limnology.

Hewes, Charles K, 4123 Seaview Ave, Los Angeles, Calif. *Chemistry.* Quincy, Ill, June 3, 89. B.S, Illinois, 12, M.S, 14. Research chemist, Mex. Petrol. Corp, 14–16; *chief chemist,* Gen. Petrol. Corp, 16–29; *Richfield Oil Corp, 29–* Chem. Soc; Soc. Test. Mat. Organic chemistry; petroleum technology.

Hewes, Dr. L(aurence) I(sley), U. S. Public Roads Administration, 855 Phelan Bldg, San Francisco, Calif. *Mathematics, Civil engineering.* Dover, N. H, Sept. 28, 76. B.S, Dartmouth Col, 98; Ph.D, Yale, 01. State Highway Cmn, Mass, 97–99; asst. engineer, Elec. Ry. Essex County, Mass, 99; inspector macadam road construction, Brookline, Mass, 99; prof. math, R. I. State Col, 01–05; instr, Yale, 05–09; prof, Whitman Col, 10–11; *pub. roads admin, U. S. Fed. Works Agency, 11–, chief west. region.* Civil Eng. Nomography; highways; diurnal Lepidoptera.

Hewes, Dr. Leslie, University of Oklahoma, Norman, Okla. *Geography.* Guthrie, Okla, Feb. 25, 06. A.B, Oklahoma, 28; Ph.D, California, 40. Teacher *geog,* West. Ky. State Teachers Col, 29; teaching fellow, California, 29–32; instr, *Oklahoma,* 32–39, asst. prof, 39–43, *assoc. prof, 43–* Field asst, California in Mex, 31; consultant, Latin Am. sect, special information div, Office Strategic Services, 42. Summers, teacher, West. Ky. State Teachers Col, 28–31; N. Texas Teachers Col, 34; Missouri, 39; Cent. Mich. Col. Educ, 41. Southwest. Social Sci. Asn; Inter-Am. Soc. Anthrop. and Geog; Okla. Acad. Latin American geography, especially Mexico; cultural geography of Indian country of Oklahoma.

Hewett, Dr. Donnel Foster, U. S. Geological Survey, Washington, D. C. **Geology.* Irwin, Pa, June 24, 81. Met.E, Lehigh, 02, hon. Sc.D, 42; Ph.D, Yale, 24. Instr. metal. and miner, Lehigh, 02–03; mining engineer, Pittsburgh, 03–09; junior geologist, *U. S. Geol. Surv,* 11–13, assoc. geologist, 13–18, geologist, 18–31, prin. geologist, 31–43, *special scientist, 43–, in charge sect. metalliferous deposits, 35–* Advisory council, Peabody Museum, Yale. Nat. Acad; A.A; Geol. Soc. (councilor, 31–33, v. pres, 35); Soc. Econ. Geol. (v. pres, 31, pres, 36); Min. and Metal. Eng; Miner. Soc; Chem. Soc; Wash. Acad. Economic geology; metalliferous deposits; structural geology.

Hewett, Dr. Edgar L(ee), School of American Research, Santa Fe, N. Mex. *Archeology, Anthropology.* Warren Co, Ill, Nov. 23, 65. Tarkio Col; Colo. State Nor. Sch; D.Sociol, Geneva, 08; LL.D, Arizona; L.H.D, New Mexico; Sc.D, Knox Col. Teacher and sch. supt, Mo. and Colo; prof. hist. and lit, Tarkio Col; supt. training dept, Colo. State Nor. Sch, 94–98; pres, N. Mex. Nor. Univ, 98–03; *director Am. archeol, Archeol. Inst, 06–; Sch. Am. Research, 07–, pres, 33–; prof.* anthrop, Calif. State Teachers Col, San Diego, 21–27; *anthrop. and archeol, New Mexico, 27–; Southern California, 32–* Director, N. Mex. Museum, 09–; San Diego Museum, 16–27. Assoc. ed, 'Art and Archeol,' 17–30; 'Am. Jour. Archeol,' 23–30. Director exhibits arts and sciences, Pan-Calif. Expos, 12–16; chairman, Board Hist. Service, N. Mex, 17–20; director, State Child Welfare Service, N. Mex, 17–20. A.A. (pres, southwest. div, 20); Archeol. Inst. (pres, San Diego Soc, 16, sec'y, west. societies, 19–30, v. pres, 30–); Am. Federation Art (v. pres, 19–); Int. Cong. Americanists. American archeology and ethnology.

Hewitt, Dr. Dorothy Carleton (Mrs. R. C. Hutchinson), Fallsington, Pa. *Experimental morphology.* Middletown, Conn, 05. A.B, Mt. Holyoke Col, 27; Ph.D, Yale, 32. Asst, Princeton, 28; instr. comp. anat, Albertus Magnus Col, 32; *ed, 'Index Wistar Inst. Advance Abstract Card Service.'* Embryology of xenoplastically transplanted amphibian organs.

Hewitt, Prof. E(arl) A(lbon), Iowa State College, Ames, Iowa. *Veterinary medicine.* Bronson, Mich, Sept. 29, 91. A.B, Des Moines, 14; B.S, Iowa State Col, 15, fellow, 15–18, D.V.M, 18; M.S, Minnesota, 29, Ph.D, 31. Instr. anat. and histol, Iowa State Col, 18–19; vet. med, Minnesota, 19–23, asst. prof, 23–29; assoc. prof. *vet. physiol, Iowa State Col,* 29–43, *prof, 43–* A.A; Vet. Med. Asn; Physiol. Soc; Soc. Exp. Biol; Iowa Vet. Med. Asn; Iowa Acad. Comparative physiology; normal variations in temperature of cattle; hippuric acid elimination in cattle; artificial hypocalcemia in cattle and milk fever; blood sugar level of the bovine; morphology and chemistry of the blood of domestic animals; physiology of poultry.

Hewitt, Dr. Edwin, Harvard University, Cambridge, Mass. *Mathematics.* Everett, Wash, Jan. 20, 20. A.B, Harvard, 40, A.M, 41, Ph.D, 42. Teaching fellow *math, Harvard,* 41–42, *instr, 42–* A.A; Math. Soc. Theoretical mathematics; abstract spaces; topology; measure theory.

Hewitt, Dr. Eric J(ohn), 106 Morningside Drive, New York, N. Y. *Chemistry.* Yoxford, Eng, Dec. 4, 06. A.B, Amherst Col, 27; A.M, Columbia, 28, Ph.D, 31. Asst. chem, Columbia, 27–31; *research chemist,* col. physicians and surg, 31–37; *Nat. Oil Products Co, 38–* Chem. Soc; Inst. Chem. Enzymes; vitamins; oils and fats.

Hewitt, Prof. Harold G, 3503 Main St, Buffalo, N. Y. *Chemistry.* Milwaukee, Wis, Oct. 14, 01. B.S, Wisconsin, 23, M.S, 25, Ph.D, 26. Instr. *chem, Buffalo,* 26–27, asst. prof, 27–40, *assoc. prof, 40–* A.A; Chem. Soc; Pharmaceut. Asn. Volatile oils; chemistry of drugs; pseudo bases.

Hewitt, L(owell) C(leland), 1711 Ambassador Bldg, St. Louis, Mo. *Ceramics.* New Hampton, Iowa, Aug. 13, 94. B.S, Iowa State Col. Iowa Geol. Surv, 17; burning despatcher, *Laclede-Christy Clay Products Co, St. Louis,* 17–19, indust. engineer, 19–23, *director research, 23–* Lecturer, Y. M. C. A.

Night Sch, 28; indust. fellow, Mellon Inst. Ceramic Soc. (sec'y, refractories div, 26, v. chairman, 27, chairman, 28); Electrochem. Soc; Soc. Test. Mat. (chairman, subcmt, indust. surv, 31–); Refractories Inst; Foundrymen's Asn. (gen. chairman, joint cmt, foundry refractories, 25–). Tests, manufacture and use of refractories and vitrified ware.

Hewitt, Dr. W(illiam) B(oright), College of Agriculture, University of California, Davis, Calif. *Plant pathology.* Fayetteville, Ark, July 17, 08. B.S, California, 33, M.S, 34, Ph.D, 36. *Asst. plant pathologist, Exp. Sta, California, 37–, instr. plant path.* Phytopath. Soc. Diseases of grapes and fruit trees.

Hewitt, Prof. William F(rancis), Jr, Municipal University of Wichita, Wichita, Kans. *Physiology.* Chicago, Ill, May 25, 14. A.B, Princeton, 35; M.S, Chicago, 37, Ph.D, 42. Instr. physiol. and pharmacol, Mich. State Col, 38–39; physiol, sch. med, West Virginia, 39–40; asst, Chicago, 41–42; *asst. prof. zool, Munic. Univ. Wichita, 42–* A.A; Asn. Sci. Workers; Kans. Acad. Endocrinology, especially adrenal-gonad relation; essential nature of the adrenal cortex in hypertrophy of the ovotestis following ovariectomy in the fowl.

Hewlett, Dr. C(larence) W(ilson), General Electric Co, Cranford, N. J. *Organic chemistry.* Meadville, Miss, Sept. 12, 00. B.S, Miss. Col, 20, A.M, 21; fellow, Iowa State Col, 27–30, Ph.D, 30. Asst. prof. chem, Ga. Tech, 22–27; chemist and later *lab. director Esso labs,* process div, *Standard Oil Develop. Co, 30–* Chem. Soc. Chemistry of furan compounds.

Hewlett, Dr. C(larence) W(ilson), General Electric Co, Lynn, Mass. ***Physics.* Louisburg, N. C, July 29, 86. B.E, N. C. State Col, 06; A.M, Hopkins, 11, Ph.D, 12. Magnetic observer, dept. terrestrial magnetism, Carnegie Institution, 12–13, asst. physicist, 13–14; instr. physics, Hopkins, 14–15, Johnston scholar, 15–16; prof, N. C. Col. for Women, 16–19; asst. prof, Iowa, 19–22; physicist, research labs, *Gen. Elec. Co,* 22–43, *consulting physicist, Lynn plants, 43–* Asst. physicist, yacht 'Carnegie,' 12–14. Carnegie Institution solar eclipse exped, Ala, 18. Physical Soc; Acoustical Soc. (v. pres, 31, past exec. councilor). Complex sound waves; atmospheric electricity; radioactivity; high frequency sound waves; x-rays; loud speakers; sound recording and development of the film phonograph; method for eliminating extraneous noises in sound recording; high voltage circuit breakers; selenium blocking layer photoelectric cell.

Hewson, Dr. E(dgar) Wendell, 315 Bloor St, W, Toronto, Ont, Can. *Meteorology.* Amherst, N. S, July 12, 10. B.A, Mt. Allison, 32; M.A, Dalhousie, 33; Toronto, 35; Beit sci. research fellow, London, 35–37, Ph.D, 37. Royal Soc. Can. fellow, Imperial Col. London, 37–38; *research meteorologist, Meteorol. Service Can, 38–; hon. special lecturer meteorol, Toronto, 38–* Consulting meteorologist, Trail Smelter Arbitral Tribunal, 39–40; U. S. Bur. Mines, 39–40. Buchan prize, Royal Meteorol. Soc, 39. Meteorol. Soc; fel. Royal Meteorol. Soc. Application of wet bulb potential temperature to air mass analysis; meteorological aspects of atmospheric pollutions; effect of radiation on cloud formation and dissipation; airways forecasting.

Hewson, Dr. William B(ell), 223 N. Vidal St, Sarnia, Ont, Can. *Organic chemistry.* Amherst, N. S, April 27, 16. B.A, Mt. Allison, 37; Nat. Research Council Can. bursar, McGill, 38, Ph.D, 42. Instr. *chem,* Mt. Allison, 38; *demonstrator, McGill, 40–* Chem. Soc. Mechanism of wood ethanolysis and the structure of lignin.

Heyd, Dr. Josef W(illiam), 634 Oxford Ave, Dayton, Ohio. *Chemistry.* Kirksville, Mo, Nov. 13, 09. B.S, Washington (St. Louis), 31, scholar, 31–32, M.S, 32; St. Louis, 33; scholar, Pa. State Col, 32–33, 34–35, Ph.D, 37. Asst, Pa. State Col, 35–37; *research chemist, cent. research dept, Monsanto Chem. Co, 37–* A.A; Chem. Soc. Organic chemistry.

Heyda, Dr. J(ames) F(rancis), Michigan State College, East Lansing, Mich. *Mathematics.* Sept. 2, 13. B.S, Chicago, 35; A.M, Mich. State Col, 37; Ph.D, Illinois, 40. Teaching fellow, Illinois, 37–40; *instr. math, Mich. State Col, 40–* Math. Soc; Math. Asn. Topics in complex variable theory.

Heydenburg, Dr. Norman P(aulson), 5241 Broad Branch Road, Washington, D. C. *Physics.* Big Rapids, Mich, June 8, 08. A.B, Olivet Col, 30; M.S, Iowa, 31, Ph.D, 33. Nat. research fellow, N. Y. Univ, 33–34; Wisconsin, 34–35; asst. physicist and *assoc. physicist, high voltage lab, dept. terrestrial magnetism, Carnegie Institution, 35–* Physical Soc. Polarization of resonance radiation and nuclear magnetic moments; disintegration of nuclei.

Heye, Dr. George G(ustav), Broadway and 155th St, New York, N. Y. *Anthropology.* New York, N. Y, Sept. 16, 74. E.E, Columbia, 96; hon. Ph.D, Hamburg, 29. *Pres. and director, Museum Am. Indian, Heye Foundation, 15–* A.A; hon. mem. Soc. Indian Wars; hon. fel. Royal Anthrop. Inst. A Munsee cemetery, New Jersey; Nacoochee mound in Georgia; North Carolina mounds; a Mohican wooden cup; southern California aboriginal pottery; California aboriginal artifacts; charms of the Montagnais and the Mistassini; a rare Salish blanket.

Heyl, Dr. Dorothea (Reinwald), Merck and Co, Rahway, N. J. *Organic chemistry.* Easton, Pa, May 30, 19. A.B, Bryn Mawr Col, 39, A.M, 40, Ph.D, 42. *Research chemist, research lab, Merck and Co, 42–* Chem. Soc. Substituted malonic esters and barbituric acids; vitamins.

Heyl, Dr. F(rederick) W(illiam), Upjohn Co, Kalamazoo, Mich. *Phytochemistry.* New Haven, Conn, Jan. 20, 85. Ph.B, Yale, 04, Ph.D, 08; Sc.D, Kalamazoo Col, 37. Research org. chemist, protein lab, Conn. Exp. Sta, 09; prof. chem, Wyoming, 11–13; *chief chemist, Upjohn Co, 13–* Lecturer and research director, Upjohn scholars, Kalamazoo Col, 23– Chem. Soc; Pharmaceut. Asn. Plants of therapeutic interest, especially digitalis, pollen, ergot and spinach; lipoids; ergot fat; ovarian fat; cod-liver oil; ergosterol.

Heyl, Dr. George R(ichard), U. S. Geological Survey, Washington, D. C. *Economic geology, Petrography.* Allentown, Pa, May 30, 09. B.S, Pa. State Col, 32, John W. White fellow, 32–33; fellow, Princeton, 33–34, A.M, 34, C. E. Procter fellow, 34–35, Ph.D, 35. Instr. geol, Rutgers, 35–37; geologist, Standard Oil Co, Calif, 37–40; asst. state geologist, Ark, 40–41; consulting geologist, 41–42; *assoc. geologist, U. S. Geol. Surv, 42–* Geologist, Newfoundland Govt, 36, 37. Mem, Princeton expeds, Newfoundland, 33, 34. A.A; Miner. Soc; Inst. Min. Eng; Asn. Petrol. Geol. Paleozoic stratigraphy of Newfoundland; ore deposits of northern Newfoundland; lamprophyres; stratigraphy and structure of the Magdalena Valley, Colombia, South America; Arkansas mineral deposits; copper and copper-zinc deposits of the Sierra Nevada foothills, California.

Heyl, Dr. Paul R(enno), 2800 Ontario Road, N.W, Washington, D. C. ***Physics.* Philadelphia, Pa, June 30, 72. B.S, Pennsylvania, 94, Tyndale fellow, 94–96, Harrison fellow, 97–98, Ph.D, 99. Instr, Clinton Lib. Inst, Ft. Plain, N. Y, 96–97; high schs, Pa, 98–10; physicist, Commercial Research Co, 10–20; Bur. Standards, 20–42; *retired.* Boyden premium, Franklin Inst, 07, Potts medal, 43; Magellan medal, Am. Philos. Soc, 22. A.A; Physical Soc. Gravitational anisotropy in crystals; redetermination of the constant of gravitation; absolute determination of gravity at Washington.

Heyne, Elmer G(eorge), Kansas State College, Manhattan, Kans. *Plant breeding.* Wisner, Nebr, April 4, 12. B.S, Nebraska, 35; M.S, Kans. State Col, 38. Junior agronomist, grass nurseries, soil conservation service, *U. S. Dept. Agr,* 35–36, *asst. agronomist, bur. plant indust, 38–; plant breeder, Exp. Sta, Kans. State Col, 38–* Soc. Agron; Genetic Asn. Plant breeding in oats, sorghum and wheat; disease and insect resistance; quality and yield; genetics.

Heyroth, Dr. F(rancis) F(arnham), 4 Interwood Place, Cincinnati, Ohio. *Biochemistry.* Cincinnati, Ohio, Oct. 19, 94. B.S, Ohio Mech. Inst, 15; B.S, Cincinnati, 23, M.D, 25, fellow, 25–26, 28–29, Ph.D, 29; fellow, Harvard, 26–27; Univ. Upsala, 27–28. Instr. chem; Ohio Mech. Inst, 19–22; nat. research fellow biochem, 26–28; *research assoc,* basic science research lab, Cincinnati, 29–40; *Kettering Lab. Applied Physiol, 40–* A.A; Soc. Biol. Chem; Chem. Soc. Molecular weights of proteins; ultra-violet absorption spectra of pyrimidines, nucleic acids and vitamin B concentrates; concentration of vitamin B; electrolytic dissociation theory; chemical action of ultra-violet rays; toxicology.

Heys, Dr. F(lorence) M(ary), Washington University School of Medicine, St. Louis, Mo. *Pediatrics.* Farmington, Mo, July 8, 06. A.B, Washington (St. Louis), 24, M.S, 26, Ph.D, 30. Asst, Washington (St. Louis), 24–27, instr, 27–29; Nat. Research Council grant, 29–30; inst. of radium, Paris, 30–33; asst. zool, *Washington (St. Louis),* 33–34, *instr,* 34–41, *research assoc. pediat, sch. med, 41–* A.A; Soc. Zool. Virus diseases in children.

Heywang, Burt W(alter), Southwest Poultry Experiment Station, Glendale, Ariz. *Poultry husbandry.* Elgin, Pa, Oct.

14, 98. B.S, Pa. State Col, 26, M.S, 38. *Assoc. poultry husbandman in charge poultry investigations, animal husbandry div, bur. animal indust, U. S. Dept. Agr, 27–* A.A; Poultry Sci. Asn. Nutrition.

Heyworth, Prof. D(orothy), Wellesley College, Wellesley, Mass. *Physics.* Bacup, Lancashire, Eng, July 21, 01. B.Sc, Manchester (England), 24, M.Sc, 27; fellow, Chicago, 29–31, Ph.D, 32. Instr, Mt. Holyoke Col, 25–29; *Wellesley Col,* 31–33, asst. prof. *physics,* 33–42, *assoc. prof, 42–* Physical Soc. X-rays; crystal structure; cosmic rays.

Hiatt, Prof. Edwin P(eelle), New York University School of Dentistry, New York, N. Y. *Physiology.* Rosemont, Pa, Dec. 9, 11. A.B, Wilmington Col, 33; A.M, Haverford Col, 34; Duke, 34–36; Ph.D, Maryland, 40. Instr. biol, Wilmington Col, 36–37; *physiol,* Maryland, 37–39; N. Y. Univ, 39–41; Vanderbilt, 42–43; *asst. prof, sch. dentistry, N. Y. Univ, 43–* Physiol. Soc. Physiology of electrolytes; physiology of the kidney.

Hiatt, Dr. Gordon D(ale), 202 Flower City Park, Rochester, N. Y. *Chemistry.* Danville, Ill, Feb. 17, 11. A.B, DePauw, 33; A.M, Illinois, 34, Carr fellow, 35–36, Ph.D, 36. Asst. chem, Illinois, 34–35; *chemist, Eastman Kodak Co, Rochester, 36–* Chem. Soc. Metabolism of amino acids.

Hiatt, Dr. R(obert) W(orth), Montana State College, Bozeman, Mont. *Zoology.* San Jose, Calif, Dec. 23, 13. A.B, San Jose State Col, Calif, 36; Ph.D, California, 41. Teaching asst. *zool,* California, 39–40; instr. and later *asst. prof, Mont. State Col, 41–* Wildlife Soc; Grinnell Naturalist Soc. Life history and ecology of Pacific Coast crabs and of Upland game birds.

Hibbard, Dr. Aubrey D, University of Missouri, Columbia, Mo. *Horticulture.* Kirksville, Mo, July 10, 08. B.S, Northeast Mo. State Teachers Col, 31; M.S, Missouri, 34, Ph.D, 37. *Instr. hort, Missouri, 37–* Nutrition of the peach; physiology of reproduction.

Hibbard, Prof. Benjamin H(orace), University of Wisconsin, Madison, Wis. *Agricultural economics.* Bremer Co, Iowa, Jan. 9, 70. B.S, Iowa State Col, 98; Ph.D, Wisconsin, 02. Instr. econ. and in charge dept, Iowa State Col, 02–04, prof, 04–13; *agr. econ, Wisconsin,* 13–40, *emer. prof, 40–,* chairman dept, 19–32. Agent, Census Bur, 11; guest prof, Okla. State Col, 40–41; Miss. State Col, 40–41; Mont. State Col, 41–42. Farm Econ. Asn. (pres, 21); Econ. Asn; Polit. Sci. Asn; Acad. Polit. and Social Sci. Marketing farm products; history of public land policies; taxation and agriculture; the tariff and agriculture.

Hibbard, Dr. Claude W(illiam), University of Kansas, Lawrence, Kans. *Vertebrate paleontology, Mammalogy.* Toronto, Kans, March 21, 05. A.B, Kansas, 33, A.M, 34; Ph.D, Michigan, 41. Asst, museum vert. paleont, Kansas, 28–33, asst. curator, 35–37; asst. wildlife technician, Nat. Park Service, 34–35; asst, div. mammals, museum zool, Michigan, 37–38; asst. curator *vertebrate paleont, Kansas,* 38–41, *curator, 41–* Soc. Mammal; Paleont. Soc; Soc. Vertebrate Paleont; Ornith. Union; Soc. Ichthyol. and Herp; N. Y. Acad; Kans. Acad. Pliocene and Pleistocene vertebrates and stratigraphy of the High Plains; microfaunas; recent mammals.

Hibbard, Prof. Hope, Oberlin College, Oberlin, Ohio. *[7]*Zoology.* Altoona, Pa, Dec. 18, 93. A.B, Missouri, 16, A.M, 18; Ph.D, Bryn Mawr Col, 21, Sarah Berliner fellow, Asn. Univ. Women, 25–26; D.Sc, Paris, 28. Demonstrator biol, Bryn Mawr Col, 19–20; assoc. prof, Elmira Col, 21–25; preparateur comp. anat, tech. lab, Paris, 26–27, Int. Educ. Board fellow, 27–28; asst. prof. *zool, Oberlin Col,* 28–30, assoc. prof, 30–33, *prof, 33–* A.A; Asn. Anat. of Europe. Cytology.

Hibbard, P(aul) L(lewellyn), University of California, Berkeley, Calif. *Chemistry.* Port Huron, Mich, July 20, 66. B.S, Nebraska, 92. Sugar, starch and glucose factories and anal. labs, 92–07; asst. prof. plant nutrition, *California,* 08–25, assoc. chemist, 25–35, chemist, 35–36, *emer. chemist, 36–* A.A; Chem. Soc; Soil Sci. Soc; Int. Soc. Soil Sci. Agricultural chemistry; soil fertility; alkali soils; copper and zinc in soils.

Hibbard, Raymond R, 219 Bissell Ave, Buffalo, N. Y. *Geology, Paleontology.* Buffalo, N. Y, June 22, 95. Self-educated. Collector paleont. material for E. M. Kindle, Geol. Surv. Can; paleont. work for Dr. R. S. Bassler, U. S. Nat. Museum; research assoc. invert. paleont, Buffalo Soc. Nat. Sciences. Paleont. Soc; assoc. mem. Soc. Econ. Paleont. and Miner. A new conodont fauna from the Rhinestreet shales of western New York; bryozoan faunas; conodonts from formations of the Portage group of western New York.

Hibbard, Dr. R(ufus) P(ercival), 512 Hillcrest Ave, East Lansing, Mich. *Plant physiology.* New Haven, Conn, April 2, 75. A.B, Williams Col, 99; Harvard, 01; Chicago, 02; Marine Biol. Lab, Woods Hole, 03, 04, 06; fellow, Michigan, 04–06, Ph.D, 06. Teacher, Kiskiminetas Springs Acad, Saltsburg, Pa, 00–01; Blair Acad, Blairstown, N. J, 02–04; asst, bur. plant indust, U. S. Dept. Agr, 06–08; bacteriology and plant pathologist, Exp. Sta, Miss. Agr. and Mech. Col, 08–11; asst. plant physiol, Mich. State Col, 11–13, research assoc. and assoc. prof. bot, 13–40; *retired.* Asst, Marine Biol. Lab, Woods Hole, 03, 04. A.A; Soc. Plant Physiol. (v. pres, 24, pres, 25); Bot. Soc; Genetic Asn; Mich. Acad. Phytochemistry; plant nutrition; physiological balance in soil solution; concentration of electrolytes; toxicity of distilled water; influence of tension on the formation of mechanical tissue in plants; cotton diseases; toxic principle in cottonseed meal; separation of plastid pigments.

Hibben, Dr. Frank C(ummings), 3000 Campus Blvd, Albuquerque, N. Mex. *Archeology, Zoology.* Ohio, Dec. 5, 10. A.B, Princeton, 33; M.S, New Mexico, 36; Ph.D, Harvard, 40. Asst. archeol, Ohio State Museum, 28–29; Cleveland Museum Nat. Hist, 30–33; field naturalist, Am. Nature Asn, 34; instr. and later *asst. prof. anthrop. and curator museum, New Mexico, 39–* Manager, Princeton Tutoring Asn, 31–33. A.A; Anthrop. Soc; Ecol. Soc; Ethnol. Soc; Soc. Archeol; Texas Archeol. and Paleont. Soc. Physical anthropology.

Hibben, Dr. J(ames) H, 14 W. Leland St, Chevy Chase, Md. *Physical chemistry.* Indianapolis, Ind, May 14, 97. B.S, Illinois, 20, M.S, 22; fellow, Paris, 22–23, Int. Educ. Board fellow, 24, Sc.D, 24. Asst. chem, Illinois, 21–22; research staff, exp. sta, E. I. du Pont de Nemours and Co, 25; nat. research fellow, Princeton, 25–27; scientist, Bur. Standards, 27–28; physical chemist, geophys. lab, Carnegie Institution, 27–39; *chief chem. div, U. S. Tariff Cmn, 39–* Consultant, Bur. Standards, 28–39; Atlantic Ref. Co, 28–36. Hillebrand prize, Chem. Soc. Wash, 28. Chem. Soc; Physical Soc; Chem. Soc. Wash. (sec'y, treas. and pres); Wash. Acad. (v. pres). Electrometric derivatives of hydroxylamine; photochemical oxidation of organic compounds with iodine; radiation and photochemistry; chemical kinetics; kinetics of low pressure gas reactions; Raman spectra of viscous liquids; application of Raman spectra to chemistry and physics; production and sales of synthetic organic chemicals; international trade and economic relations.

Hibbert, Prof. Harold, McGill University, Montreal, Que, Can. *[4]*Chemistry.* Manchester, Eng, Aug. 27, 77. B.S, Victoria (England), 97, M.S, 00, D.Sc, 11; fellow, Inst. Chem, London, 04; Ph.D, Leipzig, 06; hon. LL.D, British Columbia, 36. Instr. chem, Wales, 99–04; Tufts Col, 06–08; Imp. Col. Science, London, 08–09; research chemist, E. I. du Pont de Nemours and Co, 10–14; fellow, Mellon Inst, 14–16; consulting and research chemist, 16–19; asst. prof. chem, Yale, 19–21, assoc. prof, 21–25; *prof. indust. and cellulose chem, McGill, 25–* Advisory chemist, British War Mission, Washington, D. C, 18. A.A; Chem. Soc. (chairman, New Haven sect, 20, cellulose, 20–22); Tech. Asn. Pulp and Paper Indust; Can. Pulp and Paper Asn; Can. Chem. Asn; Textile Inst. England; hon. mem. London Soc. Chem. Indust. (chairman, Montreal sect, 30); Deuts. Chem. Gesell. Tautomerism; explosives; acetylene derivatives; pharmaceutical products; cellulose; artificial silk; aliphatic chemistry; pulp and paper; lignin.

Hibler, Prof. Francis W(arren), Illinois State Normal University, Normal, Ill. *Psychology.* Johnstown, Pa, April 11, 06. A.B, Bethany Col, 26; A.M, Ohio State, 30, Ph.D, 35. Teacher, pub. schs, Ohio, 26–29; asst. *psychol,* Ohio State, 31–32, instr, 32–35; assoc. prof, *Ill. State Nor. Univ,* 35–43, *prof. and head dept, 43–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Educational, abnormal and clinical psychology; child development; social and emotional adjustment at the college level; teaching techniques at the college level; hallucinations.

Hick, Dr. Ford K(immel), 1115 N. Grove Ave, Oak Park, Ill. *Medicine.* Junction, Ill, Dec. 15, 07. M.D, Illinois, 31, M.S, 32, Ph.D, 36. *Asst. prof. int. med, sch. med, Illinois; lieut. col, Med. Corps, U. S. Army.* Cent. Soc. Clin. Research. Effects of air conditioning on circulation.

Hickernell, Dr. Louis M(ax), 615 Allen St, Syracuse, N. Y. *Medicine, Hygiene.* Saegerstown, Pa, March 5, 87. A.B, Allegheny Col, 10; A.M, Princeton, 14, Ph.D, 17; M.D,

Syracuse, 26. Instr. zool, *Syracuse*, 14–17, asst. prof, 17–20, assoc. prof, 20–21, histol. and embryol, col. med, 21–26, *prof. hygiene, 27–, univ. health officer, 27–* Fel. Am. Med. Asn; assoc. Col. Physicians; Student Health Asn. Desiccation among rotifers; digestive system of Hemiptera; cytology.

Hickerson, Prof. T(homas) F(elix), University of North Carolina, Chapel Hill, N. C. *Civil engineering.* Ronda, N. C, April 30, 82. A.B, North Carolina, 04, A.M, 07; B.S, Mass, Inst. Tech, 09; Columbia, 11. Teacher, Bingham Mil. Sch, N. C, 04–05; instr. math, *North Carolina*, 05–08, assoc. prof. *civil eng*, 10–20, *prof, 20–* Acting head dept, North Carolina, 20–21. Summers, highway engineer, Crest-of-the-Blue-Ridge Highway, 11, 12; N. C. Geol. Surv, 12–14; State Highway Cmn, N. C, 15–19, 21; city engineer, Chapel Hill, 19–22. U.S.A, 18. Civil Eng; Eng. Educ; Concrete Inst. Investment calculations; culverts and bridges; domestic water supplies and waterwheel pump; highway curves and earthwork; column formula; strength of materials; structural frameworks; highway surveying and planning; statically indeterminate frameworks; general engineering handbook.

Hickey, Dr. Joseph W(illiam), B. F. Goodrich Co, Akron, Ohio. *Physical chemistry.* Rochester, N. H, May 8, 16. B.S, New Hampshire, 37, M.S, 39; fellow, Rochester, 40–42, Ph.D, 42. Asst, New Hampshire, 37–38, instr, 38–39; asst, Rochester, 39–40; research chemist, Nat. Defense Research Cmt, tech. inst, Northwestern, 41–42; *research chemist, B. F. Goodrich Co, 42–* Chem. Soc. Magneto-optics and photochemistry; rubber.

Hickey, Dr. Richard J(ames), Commercial Solvents Corp, Terre Haute, Ind. *Bacteriological chemistry.* Rock Island, Ill, Sept. 18, 13. B.S, Illinois, 35; Buffalo, 35–36; Ph.D, Iowa State Col, 41. *Research staff, bacter. div, Commercial Solvents Corp, 41–* Chem. Soc. Biochemical production of glycerol, vitamins and other organic compounds by bacteriological chemical means.

Hickman, Dr. Clarence N, 3536 79th St, Jackson Heights, L. I, N. Y. *Physics.* Lizton, Ind. A.B, Winona Col, 14; A.M. Clark, 18, Ph.D, 22. Instr, high sch, Ind, 14–17; physicist, Bur. Standards, 17–19, 20–22; asst. to Dr. Webster, Clark, 19–20; *research physicist,* Navy Dept, 23–24; Am. Piano Co, 24–30; *Bell Tel. Labs, 30–* Summers, instr, Winona Col, 14, 15–16. Physical Soc; Acoustical Soc; Radio Eng; Motion Picture Eng. Inductance and capacitance; ballistics; sound; mechanics.

Hickman, Prof. Cleveland (Pendleton), DePauw University, Greencastle, Ind. *Zoology, Cytology.* Bristol, W. Va. A.B, Salem Col, 17; A.M, Michigan, 20; fellow, Princeton, 23–24, Ph.D, 28. Instr. West Virginia, 21–22; Princeton, 22–23; *zool, DePauw*, 24–25, asst. prof, 25–28, assoc. prof, 28–30, *prof, 30–, head dept, 40–* Marine Biol. Lab, Woods Hole, 20. A.A. Intranuclear rod in and spermatogenesis of snails; pigmentation of animals.

Hickman, Prof. C(uthbert) W(right), University of Idaho, Moscow, Idaho. *Animal husbandry.* Slater, Mo, Jan. 22, 88. B.S. (Agr), Missouri, 13; M.S, Idaho, 28. Asst. *animal husbandry*, Pa. State Col, 13–14; asst. prof, *Idaho*, 14–18, *prof, 18–* Soc. Animal Production. Beef cattle and sheep; production.

Hickman, Prof. J(ennings) R(ush), Michigan State Normal College, Ypsilanti, Mich. *Entomology.* Bristol, W. Va, Sept. 19, 97. A.B, Salem Col. (W. Va), 18; A.M, Michigan, 20, fellow, 27–28, Ph.D, 28. Instr. biol, Kans. State Teachers Col, 25–26; from asst. prof. to *prof. zool, Mich. State Nor. Col, Ypsilanti, 28–* Asst, Michigan; Wis. Nat. Hist. Surv. Life history and physiology.

Hickman, Dr. Joseph W(eston), 1213 E. 35th St, Baltimore, Md. *Physical chemistry.* Philadelphia, Pa, May 5, 08. A.B, Bethany Col. (W. Va), 34; Ph.D, Hopkins, 40. *Instr. chem, Hopkins, 40–* Structure of crystals by x-ray diffraction.

Hickman, Dr. K(enneth) C(laude) D(evereux), Distillation Products, Inc, Rochester, N. Y. **7Chemistry.* Wanstead, Eng, Feb. 4, 96. B.Sc, Royal Col. Science, 19, D.I.C, 21, Ph.D, 25. Photog. and indust. research, London, 19–21; lecturer, Royal Col. Science, 21–25; research chemist, Eastman Kodak Co, 25–38; *v. pres. and research director, Distillation Products, Inc, 38–* Williamson award, 23; 'Jour. Optical Soc. and Rev. Sci. Instruments' prize, 29, 30; Mod. Pioneer award, Nat. Asn. Mfrs, 39. Chem. Warfare Dept, England, 17–19. Chem. Soc; Optical Soc; fel. Royal Photog. Soc; fel. Royal Col. Sci; fel. London Chem. Soc. Photographic chemistry and invention; washing photographic materials; high-vacuum technology.

Hickman, Dr. Roger W(ayne), Harvard University, Cambridge, Mass. *Physics.* Wooster, Ohio, July 5, 00. A.B, Whittier Col, 22; A.M, California, 25; A.M, Harvard, 26, Ph.D, 32. Acting prof. physics, Earlham Col, 28–29; instr, *Cruft lab, Harvard*, 29–31, instr. and tutor, 31–38, *lecturer and asst. director physical labs, 38–* Physical Soc; assoc. Radio Eng. Thermionic emission; conduction of electricity through gases; electronics; thermionic vacuum tubes and circuits.

Hickman, Prof. W(illiam) W(eldon), Assiut College, Assiut, Egypt: *Chemistry.* Indianola, Iowa, Nov. 16, 75. A.B, Monmouth Col, 06; Ph.D, Chicago, 09. Instr, high sch, Univ. Chicago, 07–08; *prof. chem. and head dept, Assiut Col, 09–, registrar, 13–* Chem. Soc. Physics; chemistry and physics laboratory manuals in the Arabic language.

Hickox, Dr. G(eorge) H(arold), Tennessee Valley Authority, Knoxville, Tenn. *Hydraulic engineering, Mechanical engineering.* Spokane, Wash, March 1, 03. B.E, Iowa, 25, M.S, 26; Ph.D, California, 39. Instr. applied math, Albion Col, 26–27; hydraul. engineer, West Penn Power Co, Pa, 27–28; Morgan Eng. Co, Tenn. and Texas, 28–30; U. S. Engineers Office, Ill, 31–32; instr. mech. eng, California, 32–35; *senior hydraul. engineer, Tenn. Valley Authority, 35–* Collingwood prize, Am. Soc. Civil Eng, 34. Civil Eng. (subcmt. cavitation in hydraul. structures, 42–); Geophys. Union. Hydraulic flow phenomena as they affect design of structures; evaporation from free water surfaces.

Hicks, Dr. Bruce L(athan), Aircraft Engine Research Laboratory, Cleveland Airport, Cleveland, Ohio. *Physics.* Berkeley, Calif, Oct. 17, 15. B.S, Calif. Inst. Tech, 36, M.S, 37, Ph.D, 39. Instr. physics, Wyoming, 39–40; junior physicist, *Nat. Advisory Cmt. Aeronautics*, Langley Mem. Aeronaut. Lab, 40–41, asst. physicist, 14–42; assoc. physicist, *aircraft engine research lab*, 42–43, *physicist, 43–* Physical Soc. Shape of the Compton line; bond formation in first row elements; physical properties of hydrocarbons; aircraft engines and fuels.

Hicks, Edwin F(rancis), Hahnemann Medical College, Philadelphia, Pa. *Chemistry.* New York, N. Y, Jan. 19, 72. Columbia, 89–92; B.S, Mass. Inst. Tech, 94. Anal. and consulting chemist, 95–00; chemist, United Coke and Gas Co, 00–02; Asbestolith Co, 02–04; chem. engineer, 04–07; chief chemist, Victor Talking Machine Co, 07–21; *consulting chemist, 21–; instr. chem, Hahnemann Med. Col, 28–* Chem. Soc. (councilor, 14–26); Soc. Test. Mat; Soc. Chem. Indust. Physiological chemistry; resins; varnish; oils; waxes.

Hicks, Harold W, Federal Bldg, Waycross, Ga. *Forestry.* Kensington, Md, Feb. 19, 98. B.S, Montana, 25. Junior forester, bur. biol. surv, U. S. Dept. Agr, 26–30; asst. land valuation engineer, div. land acquisition, 30–37; *asst. forester, fish and wildlife service, U. S. Dept. Interior, 37–* Soc. Foresters.

Hicks, Prof. Hervey C(randall), 844 Country Club Drive 16, Pittsburgh, Pa. *Mathematics.* Chicago, Ill, Nov. 18, 01. B.S, Chicago, 21, M.S, 22; Ph.D, Calif. Inst. Tech, 28. Instr. math, Brown, 22–24; teaching fellow, Calif. Inst. Tech, 24–28; asst. prof. *math*, Oregon, 28–29; prof, Texas Tech. Col, 29–30; *asst. prof, Carnegie Inst. Tech, 30–* A.A; Math. Soc; Math. Asn. Numerical integration; applied mathematics; differential equations.

Hicks, Dr. J(ohn) F(rederick) G(ross), Jr, 150 High Road, Corning, N. Y. *Physical chemistry.* Philadelphia, Pa, March 28, 08. B.S, Washington (Seattle), 29, M.S, 31; Ph.D, California, 33. Nat. research fellow chem, Mass. Inst. Tech, 33–35, research assoc. physical chem, 35–38; *research chemist, Corning Glass Works, 38–* Chem. Soc. Cryogenics; development of optical glasses.

Hicks, Dr. J(oseph) S(kean), P. O. Box 128, Bel Air, Md. *Chemistry.* Ben Franklin, Texas, May 21, 02. B.S, N. Texas State Teachers Col, 23; M.S, Chicago, 25, Ph.D, 27; LL.B, Wayne, 39. Research chemist, Hecker-H-O Co, Buffalo, 27–29; Nat. Aniline and Chem. Co, Buffalo, 29–31; varnish research dept, Sherwin-Williams Co, Cleveland, 31–33; Acme White Lead and Color Works, Detroit, 33–34; consulting chemist, Briggs Mfg. Co, 34–40; lab. control engineer, Indust. Tape Corp, 40–41; *major, U. S. Army, and chief protective clothing dept, Edgewood Arsenal, 41–* Chem. Soc; Detroit Eng. Soc. Biuret reaction; varnish; determination of water in methyl alcohol and of acidity of flour.

Hicks, Dr. Laurence C(lark), Allegheny Steel Co, Brackenridge, Pa. *Metallurgy.* Denver, Colo, July 29, 08. A.B, Williams Col, 28; M.S, Mass. Inst. Tech, 31, fellow, 32, Sc.D, 33. *Research metallurgist, Allegheny Steel Co, 33–* Min. and Metal. Eng; Soc. Metals; British Inst. Metals. Diffusion in metals; alloy steels.

Hicks, Prof. Lawrence E(merson), Ohio State University, Columbus, Ohio. *Ecology, Botany, Ornithology.* Fredericktown, Ohio, Oct. 22, 05. B.S, Otterbein Col, 28; M.S, Ohio State, 29, Ph.D, 33. Asst. bot, Ohio State, 28–30, instr, 30–34; forester and game conservationist, soil conservation service, *U. S. Dept. Agr, 34–36, biologist, bur. biol. surv, 36–; asst. prof. zool. and entom, Ohio State, and director wildlife research sta, 36–* Game ecologist, Ohio Div. Conservation, 30–31. Summers, field agent, bur. plant indust, U. S. Dept. Agr, 28, 29; instr. and field ecologist, N. Y. State Museum, 31; prof, Ohio Conservation Lab, 39, 40, 41, 42, 43. U. S. del, Int. Ornith. Cong, France, 38. A.A; Bot. Soc; Ecol. Soc; Limnol. Soc; fel. Ornith. Union (sec'y, 37–); Soc. Plant Taxon; Wildlife Soc; Cooper Ornith. Club; Wilson Ornith. Club (sec'y, 32–36, v. pres, 37–39, pres, 40); Soc. Mammal; Inland Bird Banding Asn. (v. pres, 34–39); fel. Ohio Acad; Biol. Soc. Wash. Distribution, sex ratios, food habits and individual variations of birds; bird-banding; bird census; wild-life management and conservation; plant distribution and growth; forest ecology and original vegetation surveys; taxonomy, ecology and physiology of aquatic plants; pheasants.

Hicks, Dr. R(ussell) Lowell, 7805 S. Essex Ave, Chicago, Ill. *Organic chemistry.* Goreville, Ill, July 27, 13. B.Ed, South. Ill. Nor. Univ, 34; M.S, Illinois, 36, Ph.D, 39. Research chemist, Union Oil Co, Calif, 38; research and develop. chemist, Nat. Aniline and Chem. Co, 39–41; research assoc. org. chem, Inst. Gas Tech, 42–43; *research chemist, Bell Co, Inc, 43–* Chem. Soc. Aryl sulfonyl derivatives of proline.

Hicks, Lieut. Commander Victor, 1360 Peabody St, N.W, Washington, D. C. *Physics.* Falls City, Oregon, Aug. 6, 04. A.B, Willamette, 25; M.S, Washington (Seattle), 27; Ph.D, California, 30. Physicist, Westinghouse Elec. and Mfg. Co, E. Pittsburgh, 30–32; lecturer physics, Pittsburgh, and physicist, cooperative x-ray lab, 32–37; indust. x-ray engineer, Westinghouse X-ray Co, Long Island City, 37–39, physicist in charge research 39–41; lieut, *U. S. Naval Reserve, research and develop. div, bur. ordnance, U. S. Navy Dept,* 41, *lieut. commander, 42–* A.A; Physical Soc; Soc. X-ray and Electron Diffraction; Indust. Radium and X-ray Soc; Radiol. Soc. N. Amer. (advisory cmt. x-ray protection); N. Y. Acad; Wash. Philos. Soc. X-ray spectroscopy and diffraction analysis; photofluorography; industrial application of x-rays; ordnance.

Hicks, Dr. W(illiam) B(rooks), Solvay Process Co, Syracuse, N. Y. *Chemistry.* Pittsburg, Texas, Sept. 12, 82. A.B, Texas, 06, fellow, 06–07, A.M, 08; fellow, Pennsylvania, 09–11, Ph.D, 11. Tutor chem, Texas, 07–08; head dept. science, high sch, Texas, 08–09; asst. chemist, bur. chem, U. S. Dept. Agr, 11–12; U. S. Geol. Surv, 12–17, assoc. chemist, 17–20; *research chemist, Solvay Process Co, 20–* Chem. Soc. Mineralogy; potassium; muds; action of salt solution on clay filters; alkali metals; soil stabilization.

Hicks-Bruun, Dr. Mildred M, 54 Lenox Road, Summit, N. J. *Chemistry.* Evington, Va, Jan. 30, 00. A.B, Randolph-Macon Woman's Col, 21; M.S, Iowa, 25, Ph.D, 30. Head dept. chem, Columbia Col. (S. C), 21–23; science, high sch, Minn, 23–24; asst. chem, Iowa, 24–25; head anal. dept. and asst. to tech. director, Am. Aniline Products, Inc, Pa, 25–26; *research chemist,* Bur. Standards, 26–32; Sun Oil Co, Phila, Pa, 32–42; *Mem. Hosp, New York, 43–* Consulting chemist, Bur. Standards, 32–38. Chem. Soc. (chairman women chemists, 41; mem. nat. women tech. service cmt, 43–); Petrol. Inst. Petroleum; physical chemistry; electrically heated apparatus for the determination of the elevation of the boiling point; separation, isolation and identification of the chemical constituents of petroleum; determining molecular weights; oxidation of hydrocarbons.

Hickson, Prof. A(rthur) O(wen), Duke University, Durham, N. C. *Mathematics.* Campobello, N. B, Can, Jan. 22, 96. B.A, Acadia, 21; A.M, Brown, 25; Ph.D, Chicago, 28. Instr. *math,* Brown, 22–25, 27–29; *asst. prof, Duke, 29–* A.A; Math. Soc; Math. Asn. Application of the calculus of variations to boundary value problems.

Hickson, Eugene F(rancis), 4709 46th St, N. W, Washington, D. C. *Chemistry.* Bangor, Maine, Feb. 6, 92. B.S, Maine, 18, Ch.E, 21. *Chemist, Bur. Standards, 18–, chief sect. paint, varnish and bituminous materials, 36–* Chem. Soc; Soc. Test. Mat. Paint.

Hide, Dr. J(ohn) C(lifford), Kansas State College, Manhattan, Kans. *Soils.* Pickford, Mich, July 26, 05. B.Sc, Alberta, 30; M.S, Minnesota, 32, Ph.D, 35. Asst, Minnesota, 31–34; instr. *soils, Kans. State Col,* 35–37, asst. prof, 37–42, *assoc. prof, 42–* Cooperative agent, soil conservation service, U. S. Dept. Agr, 39– Soc. Agron; Can. Soc. Tech. Agr. The cause of unproductive spots in the Red River Valley section of Minnesota; soil aggregation and soil moisture.

Hidnert, Dr. Peter, National Bureau of Standards, Washington, D. C. *Physics.* New York, N. Y, June 16, 91. Col. City of N. Y, 10; A.B, George Washington, 18, M.S, 19, 26; Columbia, 23; Bur. Standards, 20, 23–28; Ph.D, American Univ, 31. Lab. asst, *Bur. Standards,* 16–18, asst. physicist, 18–21, assoc. physicist, 21–36, *physicist, 36–* A.A; Philos. Soc. Wash; Int. Asn. Dental Research. Linear thermal expansion of solids; instruments and methods used in expansion measurements; physical properties of dental materials.

Hiebert, Prof. P(aul) G(erhardt), University of Manitoba, Man, Can. *Chemistry.* Pilot Mound, Man, 92. B.A, Manitoba, 16; M.A, Toronto, 17; M.Sc, McGill, 22, Nat. Research Council Can. fellow, 23–24, Ph.D, 24. Instr. *chem,* McGill, 21–22; lecturer, *Manitoba,* 24–30, *asst. prof, 30–* Governor General's medal, 24. Fel. Can. Inst. Chem; Man. Hist. and Sci. Soc. Pure hydrogen peroxide; chemical and biological survey of prairie lakes.

Hiers, George O(ctavus), 21 Coventry Road, Baldwin, N. Y. *Chemistry, Metallurgy.* Brooklyn, N. Y, May 24, 91. Polytech. Inst. Brooklyn, 11–15. *Chemist and metallurgist, research labs, Nat. Lead Co, 11–* A.A; Chem. Soc; Min. and Metal. Eng; Mech. Eng; Soc. Test. Mat; Soc. Metals. Use and properties of lead, tin and their alloys.

Hiers, Dr. G(len) S(efton), 130 Cynwyd Road, Bala-Cynwyd, Pa. *Chemistry.* Connersville, Ind, Aug. 17, 96. B.S, Miami (Ohio), 19; A.M, Northwestern, 21; M.S, Illinois, 24, Ph.D, 26. Research chemist, E. I. du Pont de Nemours and Co, 26–28; indust. fellow, Mellon Inst, 28–34; *chief chemist, Collins and Aikman Corp, 34–, develop. dept, 40–* Chem. Soc; Asn. Textile Chem. and Colorists. Synthetic organic chemistry; catalytic hydrogenation; chemical technology of textile fibers; latex technology; application of dyestuffs.

Hiesey, W(illia)m M(c Kinley), Carnegie Institution, Stanford University, Calif. *Taxonomy, Plant physiology.* Denver, Colo, Aug. 21, 03. B.S, California, 29, Ph.D, 40. *Investigator exp. taxon, Carnegie Institution, 29–* A.A. Transplant experiments; cytology; comparative physiology of closely related climatic races.

Hiestand, Prof. W(illiam) A(ndrew), Purdue University, West Lafayette, Ind. *Physiology.* Madison, Wis, Dec. 3, 03. A.B, Wisconsin, 25, A.M, 28, fellow, 29–30, Ph.D, 30. Instr. zool, Hamline, 25–27; asst, Wisconsin, 27–29; asst. prof. *physiol, Purdue,* 30–36, *assoc. prof, 36–* A.A; Entom. Soc; Soc. Zool; Soc. Exp. Biol; Audubon Soc; Ind. Acad; Wis. Acad. Zoology; invertebrate physiology; respiration; temperature regulation in birds and mammals; pharmacology.

Higbee, Dr. E(dna), University of Pittsburgh, Pittsburgh, Pa. *Experimental morphology.* Castle Shannon, Pa. B.S, Pittsburgh, 21, M.S, 27, Ph.D, 36. *Lecturer biol, Pittsburgh, 38–* A.A; Genetics Soc; Pa. Acad. Effects of colchicine on the secondary characters of salamanders and the chick.

Higbee, Prof. F(rederic) G(oodson), State University of Iowa, Iowa City, Iowa. *Engineering.* Fremont, Ohio, Nov. 29, 81. B.S, Case, 03, M.E, 08. Instr, Case, 04–05; asst. prof. *eng. drawing, col. eng, Iowa,* 05–08, *prof, 08–, director convocations, 30–* Lecturer, Ohio State, 22. Chairman, City Zoning Cmn, Iowa City, 24–25; City Board of Adjustment, Iowa City, 31– Eng. Educ. (councilor, 22–25, v. pres, 29, ed, T-square page, 'Jour'); fel. Iowa Acad. Descriptive geometry; engineering drawing; engineering education.

Higbie, Prof. H(enry) H(arold), University of Michigan, Ann Arbor, Mich. *Electrical engineering.* New York, N. Y, 82. E.E, Columbia, 04. Asst. mech. eng, Columbia, 04–05; instr. mech. and elec. eng, Michigan, 05–07, elec. eng, 07–09, asst. prof, 09–11; head elec. dept, Wentworth Inst, Boston, 11–13; *prof. elec. eng, Michigan, 13–* Del, Int. Cmn. and Cong. on Illumination, 26–31. A.A; Elec. Eng. (past

chairman, Detroit-Ann Arbor sect); Eng. Educ. (councilor and cmt. on eng. research, 29–32); Illum. Eng. Soc. (chairman, cmt. on nat. lighting, 24–31, Mich. sect, 25, pres, 26); Optical Soc. Illumination engineering; engineering education; natural and artificial lighting from extended sources; control of natural lighting.

Higdon, Prof. R. Archie, Iowa State College, Ames, Iowa. *Applied mathematics.* Saline, Mo, Oct. 22, 05. B.S, S. Dak. State Col, 28; M.S, Iowa State Col, 30, Ph.D, 36. Asst. math, Iowa State Col, 28–30; instr, N. Dak. State Col, 30–34; *Iowa State Col, 34–36, theoretical and applied mech, 36–38, asst. prof, 38–; major, Air Corps, U. S. Army, 42–* Stresses in moderately thick rectangular plates.

Higgins, Dr. B(ascombe) B(ritt), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Botany.* Higgins, N. C, Feb. 7, 87. B.S, N. C. State Col, 09, M.S, 10; Ph.D, Cornell, 13. Asst. bot, N. C. State Col, 09–10; Cornell, 10–13; *botanist, Exp. Sta, Georgia, 13–* Assoc. ed, 'Phytopathology,' 25–27. 2nd lieut, U.S.A, 17–19. A.A; Bot. Soc; Phytopath. Soc. Morphology of Ascomycetes; plant diseases; sexuality in Fungi; breeding plants for disease resistance.

Higgins, Elmer, U. S. Department of the Interior, Washington, D. C. *Zoology.* Cedar Rapids, Iowa, Aug. 27, 92. A.B, Southern California, 16, A.M, 23. Instr. zool, Southern California, 16–17; teacher, high sch, Calif, 17–18; asst, Calif. Fish and Game Cmn, State Fisheries Lab, 18–23; asst, Bur. Fisheries, 24; director, Key West Biol. Sta, 25; *chief* div. sci. inquiry, Bur. Fisheries, 26–40, *div. fishery biol, fish and wildlife service, U. S. Dept. Interior, 40–* Lecturer, marine biol. sta, Southern California, 22–23. Mem, N. Am. Council on Fishery Investigations, 26– Fisheries Soc; Biol. Soc. Wash; Wash. Acad. Life histories of the mullet and California sardine; fluctuations in sardine fisheries; biology of marine fish; fishery administration.

Higgins, Dr. F(loyd) L(inville), New York Agricultural Experiment Station, Geneva, N. Y. *Agronomy.* Lockwood, Mo, July 23, 00. B.S, Missouri, 22; M.S, Minnesota, 24, Ph.D, 31. Instr, sch. agr, Minnesota, 22–24, 25–28; teacher agr, N. Dak. State Teachers Col, Valley City, 24–25; senior agronomist in charge, Fairbanks Exp. Sta, 28–31; Matanuska Exp. Sta, U. S. Dept. Agr, 31–32, agr. adjust. admin, 33–35, *erosion specialist, soil conservation service and later rubber plant substa, N. Y. Exp. Sta, Geneva, 35–* Soc. Agron. Hay drying; forage and cereal crops; soil erosion control.

Higgins, Dr. George C(linton), 1707 Rainbow, Laramie, Wyo. *Physics.* Boone, Iowa, April 3, 12. B.S, Iowa State Col, 34, Ph.D, 38. Asst, Iowa State Col, 34–38; chairman dept. math. and physics, Billings Polytech, 38–41; *instr. physics and in charge photography, Wyoming, 41–* Summer, research physicist, Eastman Kodak Co, 42. Optical Soc; Physical Soc. Fine grained photographic development.

Higgins, Prof. George J(udson), University of Detroit, Detroit, Mich. *Aerodynamics.* Ann Arbor, Mich, July 19, 97. B.S, Michigan, 23, Aeronaut. Eng, 34. Junior aeronaut. engineer, Nat. Advisory Cmt. Aeronaut, 23–25, asst. aeronaut. engineer, 25–26, assoc. aeronaut. engineer, 26–28; assoc. prof. *aeronaut. eng, Detroit, 28–41, prof. and director dept, 41–; consultant aerodynamics, 28–* Lieut. commander, U.S.N.R, 37– Inst. Aeronaut. Sci; Soc. Automotive Eng; Eng. Educ. Wind tunnel testing; airfoils; stability.

Higgins, Dr. George K(endall), Oak Terrace, Minn. *Human pathology.* Minneapolis, Minn, May 11, 04. B.S, Minnesota, 25, B.M, 27, M.D, 28, M.S, 35, Ph.D, 43. Instr. *path, Minnesota, 35–41, asst. prof, 41–; director labs, Glen Lake Sanatorium, 35–* Minn. Trudeau Med. Soc. (sec'y-treas, 40–). Tuberculosis; right heart failure.

Higgins, Dr. G(eorge) M(arsh), Mayo Clinic, Rochester, Minn. *Biology.* Elk Grove, Ill, Dec. 19, 90. B.S, Knox Col, 14; A.M, Illinois, 16, fellow, 18–19, Ph.D, 19. Instr. zool, Illinois, 19–21; asst. prof, Knox Col, 21–24; 1st asst. and *assoc. exp. surg. and path, Mayo Foundation, Minnesota, 24–, assoc. prof. exp. biol, univ, 32–* Lieut, U.S.A, 18–19. A.A; Soc. Exp. Biol; Soc. Zool; Asn. Anat. Experimental biology; liver cytology following removal; silicosis and hepatic cirrhosis; macrocytosis; carbon tetrachloride on endocrines; transplantation and regeneration of adrenal; bioassay antianemic substances; bioassay thyrotropic hormones; vitamin B complex and blood regeneration; selective feeding of vitamin B fractions.

Higgins, Dr. Harold L(eonard), 322 Franklin St, Newton, Mass. *Physiology.* Gloucester, Mass, March 26, 87. A.B, Harvard, 07; M.D, Hopkins, 19. Instr. chem, Swarthmore Col, 07–08; physiologist, nutrition lab, Carnegie Institution, 08–15; asst. *pediat,* Hopkins, 15–20; asst. prof, Cincinnati, 20–23, assoc. prof, 23–27; *asst. prof, Harvard, 27–* A.A; Physiol. Soc; Pediat. Soc; Am. Med. Asn; Chem. Soc. Nutrition; effects of drugs and high percentages of oxygen on respiration and gaseous metabolism; determination of carbon dioxide in air; acidosis; high fat diets; measles; conditioned reflexes.

Higgins, Capt. M(ontgomery) E(arle), Potomac River Naval Command, Washington, D. C. *Tropical medicine.* Sir Johns Run, W. Va, Oct. 29, 79. M.D, George Washington, 04; U. S. Naval Med. Sch, 08. Prof. trop. med, George Washington, 30–31; fleet surgeon, U. S. Asiatic Fleet, 31–34; exec. officer, Naval Hosp, New York, 34–36; commander, Naval Hosp, Portsmouth, N. H, 36–39; *Potomac River Naval Command, 39–* A.A; fel. Col. Surg; Am. Med. Asn; Acad. Trop. Med. Naval medicine.

Higginson, Prof. G(lenn) D(e Vere), University of Illinois, Urbana, Ill. *Psychology.* Keensburg, Ill, Oct. 30, 92. B.E, Ill. State Nor. Univ, 17; B.S, Illinois, 21, M.S, 22, Ph.D, 26. Asst. *psychol, Illinois,* 21–25, instr, 25–26, assoc, 26–27, asst. prof, 27–35, *assoc. prof, 35–* Psychol. Asn. Experimental psychology of vision; animal psychology.

High, Prof. M(arathon) E(by), State Teachers College, Bemidji, Minn. *Physics.* Chicago, Ill, Oct. 13, 04. A.B, McPherson Col, 25; summers, Chicago, 26, 27; A.M, Ohio State, 28, Ph.D, 31. Asst. *physics,* Ohio State, 27–31; instr, N. Dak. Col, 31–36, asst. prof, 36–38; *prof, Minn. State Teachers Col, 38–* Asn. Physics Teachers; Minn. Acad. Raman effect.

Highberg, Prof. I(var) E(dmund), Whitman College, Walla Walla, Wash. *Mathematics.* Spokane, Wash, July 18, 11. A.B, Whitman Col, 32; Ph.D, Calif. Inst. Tech, 36. Instr. math, Whitman Col, 32–33; teaching fellow, Calif. Inst. Tech, 34–36; instr. *math. and physics, Whitman Col,* 36–41, *asst. prof, 41–* Math. Soc. Functional analysis.

Highberger, Prof. John H(enry), University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Cresson, Pa, May 10, 01. Ch.B, Pittsburgh, 23; M.S, Cincinnati, 24, Ph.D, 26. Asst, *Cincinnati,* 23–26, assoc. leather research, 26–41, *assoc. prof. applied science in tanning research, 41–* A.A; Chem. Soc; Leather Chemists Asn. (pres, 42–); N. Y. Acad. Chemistry and bacteriology of tanning processes; chemistry of skin proteins; fibre structure.

Highby, Dr. Paul Richard, 2082 W. Como Ave, St. Paul, Minn. *Biology.* Albert Lea, Minn, Jan. 17, 04. A.B, Luther Col, 29; A.M, Minnesota, 30, Ph.D, 42. Instr. biol, Pacific Lutheran Col, 30–35; asst, Minnesota, 35–39; head dept. biol, Luther Col, 39–40; mammalogist, *bur. research, div. game and fish, State Dept. Conservation, Minn,* 40–41, *biol. research supervisor, 41–; lieut, Sanit. Corps, U. S. Army, 43–* Life cycles of filarioid nematodes of the porcupine and snowshoe hare in Minnesota.

Highlands, Prof. Matthew E(dward), University of Maine, Orono, Maine. *Bacteriology.* Huntington, Ind, June 19, 05. A.B, Maine, 28; M.S, Mass. Inst. Tech, 34. Assoc. bacteriologist, Frigidaire Corp, Dayton, 29–32; asst, Mass. Inst. Tech, 32–34, research assoc, 35; bacteriologist and food technologist, Palo Products Co, P. R, 34–35; instr. *bacter, Maine,* 35–36, *asst. prof, 36–* Fel. Pub. Health Asn; Soc. Bact; Inst. Food Technol. Microbiology of refrigeration; food technology; applied microbiology; bacteriology and chemistry of sardines.

Highsmith, Prof. J(ames) A(lbert), Woman's College, University of North Carolina, Greensboro, N. C. *Psychology.* Sampson Co, N. C. A.B, North Carolina, 10, A.M, 15; Ph.D, George Peabody Col, 23. Prin, high sch, N. C, 11–15; assoc. educ, N. C. Col. for Women, 16–22, *prof. psychol,* 23–32, *Woman's Col, North Carolina, 32–* A.A; Psychol. Asn; S. Soc. Philos. and Psychol. Measurement of intelligence; prognostic value of general ability tests among college students; coefficients of correlation as affected by homogeneity of data.

Hightower, Dean Pleasant R(oscoe), 501 Buckingham Drive, Indianapolis, Ind. *Psychology.* Glezen, Ind, Nov. 8, 86. A.B, Ind. Cent. Col, 14; A.M, Indiana, 17; Ph.D, Iowa, 29. Teacher, rural schs, Ind, 09–12; prin, Ill, 14–15; pub. schs, P. I, 19–22; asst. prof. educ. and psychol, Butler, 22–29,

assoc. prof. psychol, 29–33; organizer and director, Emergency Educ, Ind, 33–34; *prof. psychol. and head dept. educ. and psychol, Ind. Cent. Nor. Col, Danville, 33–, dean, 40–* A.A; Psychol. Asn; Asn. Applied Psychol; Iowa Acad; Ind. Acad. Character.

Hightower, Prof. Ruby U(sher), Shorter College, Rome, Ga. *Mathematics.* Near Covington, Ga, 80. A.B, Shorter Col; Chicago; London; A.M, Georgia, 19; fellow, Missouri, 24–25, Ph.D, 27. *Prof. math,* Ala. Nor. Col; Hardin Col; *Shorter Col, 19–* A.A; Math. Asn. Theory of numbers.

Higley, Dr. George O(swin), 244 N. Washington St, Delaware, Ohio. *Chemistry.* Near Columbus, Ohio, Aug. 19, 58. B.S, Michigan, 91, M.S, 93, Ph.D, 05. Instr. gen. chem, Michigan, 91–05; prof. chem, Ohio Wesleyan, 05–29; *retired.* Chem. Soc. The action of metals on nitric acid; the halides of chromium; a new chemograph; the excretion of carbon dioxid; bread, beer and milk as foods; action of sodium acetone on ethyl chlorcarbonate; well water; urine analysis; an adjustable atomic model; carbon dioxid in the working atmosphere.

Higley, Dean L(ouis) Allen, King's College, Delaware City, Del. *Chemistry.* Wilmot, Ohio, Sept. 28, 71. A.B, Ohio Northern, 96, A.M, 99, Sc.D, 27; Ph.D, Chicago, 07. Tech. chemist, Chicago, 07–11; prof. chem, Westminster Col. (Mo), 11–15; N. Mex. Col, 15–21; state chemist, N. Mex, 15–21; consulting geologist, N. Mex. Col. and Chicago, Ill, 21–24; prof. chem, Wheaton Col. (Ill), 24–32, prof. chem. and geol. and chairman dept, 32–39, dean men, 25–32; *dean, King's Col, 39–* A.A; fel. Am. Geog. Soc; Inst. Chem; World Narcotic Educ. Asn; N. Mex. Asn. Sci. (pres, 20); Ill. Acad; Soc. Indust. Chem. Gt. Britain; Victoria Inst, England. Geology; action of sodium and of sodium alcoholates on various esters of acetic acid; science and truth.

Hilaire, Sister M(ary), Rosary College, River Forest, Ill. *Plant pathology.* Appleton, Wis, June 19, 99. A.B, Rosary Col, 21; A.M, Illinois, 23, Ph.D, 25; Wisconsin, 25. Asst, Illinois, 21–24; *prof. bot,* Col. of New Rochelle, 26–28; *Rosary Col, 28–* Superficial parasites; Microthyriaceae of Puerto Rico, Hawaii and India.

Hilberry, Prof. (Horace van) Norman, Public Library, Irvington-on-Hudson, N. Y. *Physics.* Cleveland, Ohio, March 11, 99. A.B, Oberlin Col, 21; Ph.D, Chicago, 41. Asst. *physics,* Chicago, 22–25; instr, *N. Y. Univ,* 25–30, *asst. prof, 30–* A.A; fel. Physical Soc; Eng. Educ; Asn. Physics Teachers; fel. N. Y. Acad. Spectroscopy; discharge of electricity through gases; physical optics; cosmic ray showers; constitution of primary cosmic rays and their secondary radiations.

Hilbert, Dr. Guido E(dward), 220 Moss Ave, Peoria, Ill. *Chemistry.* Holyoke, Mass, Nov. 20, 01. Chem.E, Rensselaer Polytech, 24; fellow, Lafayette Col, 24–25, M.S, 25; Ph.D, Yale, 28. Asst. instr. chem, Yale, 25–26, asst, 26–28, Sterling fellow, 28–30; from assoc. chemist, bur. chem. and soils to *prin. chemist in charge div. starch and dextrose research, north. regional research lab, bur. agr. chem. and agr, U. S. Dept. Agr, 30–* A.A; Chem. Soc. Organic chemistry; biochemistry; pyrimidines; carbohydrates.

Hilbert, Dr. K(enneth) F(ranklin), New York State Institute of Applied Agriculture, Farmingdale, L. I, N. Y. *Poultry pathology.* Candor, N. Y, June 20, 06. D.V.M, Cornell, 28. Instr. poultry disease investigation, *N. Y. State Vet. Col, Cornell,* 28–34, *asst. prof. poultry path. and in charge branch poultry path. labs, 34–* Second lieut, Vet.Res, 28–38. Vet. Med. Asn; U. S. Livestock Sanit. Asn; N. Y. State Vet. Med. Soc; L. I. Vet. Med. Soc. (sec'y-treas, 28, pres, 40). Prevention and cure of diseases of ducks; septicemic disease of young ducks caused by Pfiefferella anatipestifer, N. S.

Hilborn, Dr. M(erle) T(yson), University of Maine, Orono, Maine. *Plant pathology.* Philadelphia, Pa, July 24, 07. B.S, Maine, 32, M.S, 34; Ph.D, Yale, 40. Res. asst. bot, *Maine,* 34–35, asst. biologist, *Exp. Sta,* 36, *asst. plant pathologist, 36–* A.A; Phytopath. Soc; Mycol. Soc. Low temperature injury to trees; wood decay; diseases of hardwoods.

Hildebrand, Dr. A(lexander) A(nderson), Harrow, Ont, Can. *Plant pathology.* Stratford, Ont, June 14, 96. B.A, McMaster, 28, M.A, 29; Ph.D, Toronto, 33. Asst, Toronto, 29–33; plant disease investigator, *Dom. Lab. Plant Path,* 33–36, *asst. plant pathologist, 36–* A.A; Can. Phytopath. Soc. Diseases of ginseng, strawberry, sugar beet, hybrid corn and soybean.

Hildebrand, Prof. E(arl) M(artin), Cornell University, Ithaca, N. Y. *Plant pathology.* Wolf River, Wis, Feb. 22, 02. B.S, 28, M.S, 29; Ph.D, Wisconsin, 31. Teacher, high sch, Wis, 23–26; agent, Bur. Fisheries, 28; bur. plant indust, U. S. Dept. Agr, Wisconsin, 28–32; *research asst. prof. plant path, Cornell, 32–* Guggenheim Mem. Foundation fellow, Rockefeller Inst, 39–40. A.A; Phytopath. Soc; Bot. Soc; Soc. Hort. Sci. Bacterial diseases of plants; fruit diseases; hairy root, crown gall and other overgrowth diseases of plants; fire blight; virus diseases of woody plants; micrurgy.

Hildebrand, Dr. Francis B(egnaud), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Washington, Pa, Sept. 1, 15. B.S, Washington and Jefferson Col, 36, A.M, 38; Ph.D, Mass. Inst. Tech, 40. Instr. *math, Mass. Inst. Tech,* 40–43, *asst. prof, 43–* Math. Soc. Elasticity; integral equations; interpolation.

Hildebrand, Dr. Frank C(hilds), 200 Chamber of Commerce, Minneapolis, Minn. *Biochemistry.* Hinsdale, Ill, Oct. 6, 09. B.S, Beloit Col, 31; M.S, Wisconsin, 33; Ph.D, Columbia, 35. *Chemist,* Nat. Biscuit Co, 33; *Gen. Mills, Inc, 35–* A.A; Chem. Soc; Asn. Cereal Chem. Enzyme phenomena; starch; chemistry of dough fermentation.

Hildebrand, Prof. Joel H(enry), University of California, Berkeley, Calif. *[3]*Chemistry.* Camden, N. J, Nov. 16, 81. B.S, Pennsylvania, 03, Ph.D, 06, Sc.D, 39; Berlin, 06–07. Asst. *chem,* Pennsylvania, 04–05, instr, 07–13; asst. prof, *California,* 13–17, assoc. prof, 17–18, *prof, 18–,* research lecturer, 36, *chairman dept, 41–, dean col. letters and science, 39–* Consulting chemist, U. S. Bur. Mines, 24–26. Capt, Ordnance R.C, 17, major and lieut-col, C.W.S, 18, director lab, A.E.F, commandant, Exp. Field and A.E.F. Gas Sch. D.S. medal; Nichols medal, 39. Nat. Acad; A.A. (v. pres, Pacific div, 24–27, pres, 33, exec. cmt, 29–36); Chem. Soc. (chairman, Calif. sect, 15–17, councilor at large, 26–30, 31–33, 40–42, assoc. ed, 'Jour,' 32–39); fel. Physical Soc; cor. mem. Physik. Med. Soc. Erlangen; hon. mem. Chem. Soc. Edinburgh. Physical chemistry; electroanalysis; spectra; hydrogen electrode; vapor pressures of metals and amalgams; revision of Trouton's rule; sea-water bittern; dissociation of alcohol; fluorin; hydrogen fluoride; theory of solubility; helium for prevention of caisson disease; emulsions; molten salt solutions; intermolecular forces.

Hildebrand, Dr. John G(rant), Jr, 81 Fairmont St, Belmont, Mass. *Chemistry.* Waterloo, Iowa, Jan. 13, 06. B.S, Iowa, 28; A.M, Columbia, 29, Lydia C. Roberts fellow, 29–30, 31–32, Ph.D, 33. Consultant, New York, 33–35; *lab. director, Gustavus J. Esselen, Inc, 35–* Chem. Soc; assoc. Radio Eng; Motion Picture Eng. Organic chemistry; applied physics.

Hildebrand, Dr. Samuel F(rederick), 1528 Otis St, N. E, Washington, D. C. *Zoology.* Stendal, Ind, Aug. 15, 83. A.B, Ind. State Teachers Col, 10; Indiana, 15–16; Dr.P.H, Georgia, 25. Asst. zool, Field Museum Nat. Hist, 08–10; sci. asst, Bur. Fisheries, 10–14, director, U. S. Fisheries Lab, Beaufort, N. C, 14–18; U. S. Biol. Sta, Key West, Fla, 18–19, asst. in commissioner's office, Bur. Fisheries, 19–24, director, U. S. Fisheries Lab, Beaufort, N. C, 24–31, *ichthyologist,* 31–39, *fish and wildlife service, U. S. Dept. Interior, 39–* Smithsonian biol. surv. of C. Z, 10–12; ichthyol. investigations, El Salvador, Cent. Amer, 24; Puerto Rico, 34; Panama, 35, 37. A.A; Fisheries Soc; Soc. Ichthyol. and Herp; Malaria Soc; Wash. Acad; Biol. Soc. Wash. Systematic ichthyology; life histories, habits, embryology and development of fishes; fishes in relation to mosquito and malaria control.

Hildebrandt, Prof. E(manuel) H(enry) C(arl), 43 Norman Road, Upper Montclair, N. J. *Mathematics.* La Salle, Ill, Sept. 21, 02. B.S, Chicago, 22; A.M, Michigan, 30, Ph.D, 32. Prin, high sch, Wis, 22–28; instr. *math,* Michigan, 29–31; asst. prof, DePauw, 31–33; instr, Brooklyn Col, 33–34; asst. prof, *N. J. State Teachers Col, Upper Montclair, 34–* Math. Soc; Math. Asn. (assoc. ed, 'Monthly,' 38–); Nat. Council Teachers Math. (chairman multi-sensory aids cmt, 40–, ed, 'Yearbook'); Inst. Math. Statist. Mathematical statistics; mathematics of finance and insurance; Pearson frequency curves and polynomials.

Hildebrandt, Dr. F(rank) M(errill), 198 Oakdale Road, Baltimore, Md. *Plant physiology, Biochemistry.* Baltimore, Md, Dec. 26, 88. A.B, Hopkins, 13, Ph.D, 17. Asst, Utah Forest Service Exp. Sta, 16–17; chemist, bur. plant indust, U. S. Dept. Agr, 17; fellow, Mellon Inst, 19–22; *research chemist,* Ward Baking Co, 22–25; *U. S. Indust. Alcohol Co, 25–* Sanit.

C, 17–19, capt. A.A; Chem. Soc. Plant growth and climatic conditions; nutrition of yeast; fermentation.

Hildebrandt, Prof. T(heophil) H(enry), 1930 Cambridge Road, Ann Arbor, Mich. *[2]Mathematics.* Canal Dover, Ohio, July 24, 88. A.B, Illinois, 05; M.S, Chicago, 06, Ph.D, 10. Asst. *math,* Chicago, 08–09; instr, *Michigan,* 09–14, asst. prof, 14–20, assoc. prof, 20–23, *prof, 23–, chairman dept, 35–* A.A. (v. pres, A, 35); Math. Soc. (v. pres, 24–26); Math. Asn. (v. pres, 36). Functional calculus; integration; integral and functional equations.

Hilding, Dr. Anderson (C), 626 Medical Arts Bldg, Duluth, Minn. *Medicine.* Tacoma, Wash, June 29, 92. Washington (Seattle), 10–13; B.S, Minnesota, 15, M.B, 18, M.D, 19, A.M, 22, Ph.D, 29; Vienna, Zurich, Berne, Berlin, Stockholm, 25–26. Instr. path, Minnesota, 20–21; *practising ophthalmologist and otolaryngologist, Duluth, 21–* Asst. med, Mayo Clinic, 30–31, ophthal, 31–32. Chief eye, ear, nose and throat sect, St. Luke's Hosp, Duluth, 28–30. Eye surgery, Dr. Holland's Clinic, Skikarpur, India, 34. Prize, Minn. Soc. Internal Med, 29; Casselberry award, Am. Laryngol. Asn, 34. A.A; Am. Med. Asn; Acad. Ophthal. and Otolaryngol; Minn. Acad. Ophthal. and Otolaryngol. Renal insufficiency; use of lipiodol in paranasal sinus disease for diagnostic purposes; common cold; pathology and physiology of the nasal mucosa; physiology of the drainage of nasal mucus; physiology of the drainage of the lower respiratory tract.

Hilditch, Dr. Warren W(itherell), Hilditch Laboratory, 637 W. Eighth St, Erie, Pa. *Biochemistry.* Thompsonville, Conn, Oct. 5, 83. Ph.B, Yale, 05, Ph.D, 09; med. sch, Hopkins, 05–07. Assoc. prof. physiol. chem, col. med, Syracuse, 09–11; in charge clin. labs, New York and Newark, 11–15; pathologist, Mem. Hosp, Orange, N. J, and director, Graves Lab, 15–20; pathologist, Hamot Hosp, Erie, 20–27; *director, purchasing agent, chief chemist and consultant, Hilditch Lab, 27–* A.A; Chem. Soc. (past chairman, Erie sect); Pub. Health Asn. Glycosuria; carbohydrate metabolism in relation to complete removal of thyroids and partial parathyroidectomy; influence of alcohol upon metabolism; acidosis; toxicity of organic acids; effects of products of combustion of fuels.

Hildner, Prof. R(ichard) C(harles), College of Wooster, Wooster, Ohio. *Mathematics.* Pittsburgh, Pa, Sept. 23, 07. B.S, Col. of Wooster, 28; A.M, Ohio State, 30, Ph.D, 33. Teaching fellow, Ohio State, 28–33; substitute prof. *math,* Mt. Union Col, 34–36, assoc. prof, 36–43; *asst. prof, Col. Wooster, 43–* Math. Soc; Math. Asn. Inverse problem of the calculus of variations associated with the Hamilton-Carathéodory function.

Hildreth, Dr. A(ubrey) C(lare), 320 Capitol St, Salinas, Calif. *Horticulture.* Mannington, W. Va, Dec. 20, 93. B.S, West Virginia, 17; Ph.D, Minnesota, 26. Asst. hort, Minnesota, 19–21, 23–25, instr, 25–27; State Col. Wash, 21–23; assoc. biologist, Exp. Sta, Maine, 27–30; *prin. horticulturist, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Cold resistance in plants.

Hildreth, Dr. Gertrude H(owell), 425 W. 123rd St, New York, N. Y. *Psychology.* Terre Haute, Ind, Oct. 11, 98. A.B, Northwestern Col, 20; A.M, Illinois, 21; Ph.D, Columbia, 25, Psychologist, pub. schs, Okla, 21–23; asst. educ. psychol, *Columbia, 24, psychologist, Lincoln sch, Teachers Col, 25–* A.A; Psychol. Asn; Educ. Research Asn; Asn. Applied Psychol. (v. pres, 35, pres, 36). Educational psychology; psychological measurement.

Hildreth, Prof. Harold M(owbray), Syracuse University, Syracuse, N. Y. *Psychology.* Franklin, Nebr, Aug. 17, 06. A.B, Nebraska, 27; Ph.D, Syracuse, 35. Psychologist, Syracuse Psychopathic Hosp, 32–37; instr. *psychol, Syracuse,* 36–37, asst. prof, 37–40, *assoc. prof, 40–* A.A; Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn; East. Psychol. Asn; N. Y. Acad. Clinical psychology; mental hygiene; social psychology; psychology of language.

Hile, Dr. Ralph, 1027 University Museums, Ann Arbor, Mich. *Zoology.* Plainville, Ind, March 18, 04. A.B, Ind. Cent. Col, 24; fellow, Indiana, 28–29, Ph.D, 30. Instr, high sch, Ind, 24–26; asst. zool, Indiana, 26–28, 29–30; asst, Bur. Fisheries, 30–31, asst. aquatic biologist, 31–37; *assoc. aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 37–* A.A; Soc. Zool; Fisheries Soc; Limnol. Soc; Wis. Acad; Mich. Acad; Ind. Acad. Life histories of inland lake fishes; bathymetric distribution of fish; bottom fauna of lakes; variation and evolution in coregonids; fluctuations in abundance of Great Lakes fishes; growth of fish in the Great Lakes.

Hileman, J(oseph) L(eland), 810 Burnet Ave, Syracuse, N. Y. *Dairy science.* Pittston, Pa, Sept. 7, 98. B.S, Pa. State Col, 19; M.S, Cornell, 23. Chemist, Nestlé's Food Co, 19–22; *director labs, Dairymen's League Coop. Asn, Inc, 24–* Chem. Soc; Soc. Bact; Dairy Sci. Asn; Asn. Cereal Chemists. Lipase in dairy products; metal corrosion in dairy plants; flavors of dairy products.

Hilgard, Prof. Ernest R(opiequet), Stanford University, Calif. *[7]Psychology.* Belleville, Ill, July 25, 04. B.S, Illinois, 24; Ph.D, Yale, 30. Instr. *psychol,* Yale, 28–33; asst. prof, *Stanford,* 33–35, assoc. prof, 35–38, *prof, 38–* Summers, mem. faculty, Mills, 37; Oregon, 38, 41; Southern California, 40. Collaborator div. child develop, Am. Council Educ, 40–41; Office War Information, 42– A.A; Psychol. Asn. (director, 41–); Soc. Exp. Psychol; Soc. Psychol. Study Social Issues (councilor, 40–42). Experimental and physiological psychology; conditioned reactions; student counseling; public opinion.

Hilgard, Dr. Josephine Rohrs (Mrs. E. R. Hilgard), 907 S. Wolcott Ave, Chicago, Ill. *Psychology.* Napoleon, Ohio, 06. A.B, Smith Col, 28; A.M, Yale, 30, Ph.D, 33; M.D, Stanford, 40. Fellow psychol, Merrill-Palmer Sch, Detroit, 29–30; clin. psychologist, child guidance clinic, Buffalo Foundation, 30–31; asst, clinic child develop, Yale, 32–33; research assoc. psychol, Stanford, 35–36; instr. psychol. and counselor mental hygiene, sch. nursing, St. Luke's Hosp, San Francisco, 36–40; *fellow psychiat, Inst. Juvenile Research, 40–; Rockefeller fellow training in psychoanal, Inst. Psychoanal, 41–; collaborator child develop, Am. Council Educ, Chicago, 41–* Summer, instr, Mills Col, 36. Assoc. Psychol. Asn. Child development; maturation and learning in preschool children; vocational guidance and testing; effect of intensive psychotherapy on intelligence quotient of children with behavior problems.

Hill, Dr. Albert F(rederick), Harvard University, Cambridge, Mass. *Botany.* Dresden, Germany, Sept. 4, 89. A.B, Dartmouth Col, 10; A.M, Harvard, 11; Ph.D, Yale, 21. Asst. bot, Harvard, 11–13; asst. curator bot. collections, Yale, 14–35, instr. *bot,* 18–27, asst. prof, 27–34; asst, *Harvard,* 35–39, *research assoc, 39–* A.A; Bot. Soc; Ecol. Soc; New Eng. Bot. Club. Systematic, geographic and economic botany; ecology.

Hill, Dr. A(lbert) G(ordon), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* St. Louis, Mo, Jan. 11, 10. B.S, Washington (St. Louis), 30, M.S, 34; fellow, Rochester, 34–37, Ph.D, 37. Engineer, Bell Tel. Labs, 30–32; instr. physics, Mass. Inst. Tech, 37–41; physicist, Research Corp, 41; *research assoc, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Photoelectricity; theory of solids; electrical precipitation.

Hill, Dr. A(lfred) Garrett, Mount Horeb Road, Martinsville, N. J. *Chemistry.* West Point, Miss, June 21, 06. A.B, Baylor, 26, A.M, 26; Ph.D, Yale, 32. Head dept. science, Burleson Col, 26–28; instr. chem, Baylor, 28–29; *research chemist, Calco Chem. div, Am. Cyanamid Co, Bound Brook, 32–* Chem. Soc; Inst. Chem. Vapor phase catalytic chemical reactions; intermediates for dyestuffs; rubber chemicals.

Hill, Dr. Allan C(haloner), 45 Ploermel Ave, Quebec, Que, Can. *Chemistry.* St. John, N. B, 05. B.Sc, Dalhousie, 25; M.Sc, McGill, 27, Nat. Research Council Can. bursar, 27–28, student, 28–29, Ph.D, 29. *Research chemist,* Forest Products Labs. Can, Montreal, Que, 25–27; *research dept,* Can. Power and Paper Corp, Grand'Mère, 29–31; Can. Int. Paper Co, 31–37; Anglo-Can. Pulp and Paper Mills, Ltd, 37–42; *Northeast. Paper Products, Ltd, 42–* Chem. Soc; Can. Inst. Chem. Cellulose chemistry; chemistry of wood; lignin chemistry; hydrogen peroxide oxidation; cellulose esters; industrial research in pulp and paper.

Hill, Prof. Arthur J(oseph), Yale University, New Haven, Conn. *[8]Organic chemistry.* Meriden, Conn, April 21, 88. Ph.B, Yale, 10, Ph.D, 13. Asst. instr. *org. chem, Sheffield Sci. Sch, Yale,* 10–13, instr, 13–17, asst. prof, 17–22, assoc. prof, 22–25, *prof, 25–, chairman dept. chem, 27–* Cmt. on hypnotics and chairman subcmt. local anesthetics, Nat. Research Council. Assoc. ed, 'Jour. Org. Chem'; trustee, 'Am. Jour. Science.' C.W.S, U.S.A, 18. A.A; Chem. Soc. (chairman, New Haven sect, 25, div. med. chem, 29, sec'y, org. chem. div, 29–, chairman, 34, director, 35–); Inst. Chem. (v. pres, 34); Electrochem. Soc; N. Y. Acad. Synthetic organic

chemistry; biochemistry and medicinal products; dye intermediates.

Hill, Prof. A(rthur) M(iddleton), Tulane University, New Orleans, La. *Engineering.* Hammond, La, June 28, 03. B.E, Tulane, 24; M.S, Mass. Inst. Tech, 27. Sales engineer, Gen. Elec. Co, 27–29; asst. prof. mech. eng, *col. eng, Tulane,* 29–39, *assoc. prof. heat eng, 39–* Mech. Eng; Eng. Educ; Asn. Practical Refrig. Eng; La. Eng. Soc. (sec'y-treas, 35–41). Heat power and refrigeration; improved dynamometer for low velocities.

Hill, Prof. A(rthur) S(t. John), 9 Kell St, Orono, Maine. *Electrical engineering.* Redding, Conn, Nov. 4, 76. E.E, Polytech. Inst. Brooklyn, 11; M.S.E, Michigan, 32, E.E, 37. Computer, Hubbell, Hall and Randall Co, 96–99; student engineer, Norwalk Tramway Co, 99–00; salesman, Hubbell, Hall and Randall Co, 00–07; practising engineer, 11–13; asst. *elec. eng,* Columbia, 13–15; instr, N. Y. Univ, 15–18; assoc. prof, *Maine,* 18–27, *prof, 27–* A.A; Elec. Eng. Ventilation of fully enclosed fan-cooled electric motors; fan performance in the cooling of electrical machinery; Diesel-electric motive power on railroads.

Hill, Prof. Ben(jamin) H(arvey), High Point College, High Point, N. C. *Biology.* Lorena, Texas, Jan. 17, 96. A.B, Texas Christian, 21, M.S, 25; Ph.D, Illinois, 32. Instr, Texas Christian, 23–25; field asst, Bur. Fisheries, 28–29; prof. biol, High Point Col, 29–32; instr. microanat, col. dentistry, N. Y. Univ, 32–36; *prof. biol,* Cumberland, 36–37; *High Point Col, 37–* A.A; Soc. Ichthyol. and Herp; Micros. Soc. Embryology; ichthyology.

Hill, Dr. Borroughs R(eid), 1047 Concord Ave, Belmont, Mass. *Biochemistry.* Portsmouth, Va, Sept. 30, 07. B.S, Washington and Lee, 31; M.S, Tulane, 33; fellow, Colorado, 38–42, Ph.D, 42. Asst. inorg. and qualitative analysis, Tulane, 31–33; science master, Florentine Sch. for Boys, Italy, 34–36; asst. qualitative and quantitative analysis, Colorado, 36–38; *Finney-Howell Cancer Research fellow, Harvard, 42–, special research assoc, 42–* Urinary steroids from patients with cancer of the breast; steroid excretion from normal and pathologic men and women.

Hill, Dr. Carl M(cClellan), Agricultural and Technical College, Greensboro, N. C. *Organic chemistry.* Norfolk, Va, July 27, 08. B.S, Hampton Inst, 31; M.S, Cornell, 35, Ph.D, 41; Pennsylvania, 38, 39, 40. Asst. prof. chem, Hampton Inst, 31–40, director lab. sch, 40–41; *assoc. prof. chem, Agr. and Tech. Col. N. C, 41–* Chem. Soc. Reaction of Grignard reagents with alpha, beta-unsaturated ethers; ketenes and their derivatives; relation of ketenes to synthetic rubber.

Hill, Cha(rle)s C(hase), Beltsville Research Center, Beltsville, Md. *Entomology.* Melrose, Mass, July 13, 90. Harvard; B.S, Mass. Col, 14. Asst. entomologist, Cereal and Forage Crop Lab, Nashville, 14–17; assoc. entomologist in charge cereal and forage crop lab, *U. S. Dept. Agr,* Carlisle, Pa, 24–42, *entomologist, Beltsville research center, bur. entom. and plant quarantine, 42–* Asn. Econ. Entom; Pa. Acad; Wash. Entom. Soc. Biology of cereal and forage insects; the Hessian fly and its parasites.

Hill, Dr. Charles F(ranklin), 440 Maple Ave, Edgewood, Pittsburgh, Pa. *Physics.* Toledo, Ill, Aug. 12, 87. A.B, Illinois, 14, Ph.D, 21. Instr. physics, Illinois, 14–21; asst. prof, Arkansas, 21–23; *research physicist, Westinghouse Elec. and Mfg. Co, 23–* Cmn. on insulation, Nat. Research Council. Physical Soc; Elec. Eng. Vapor pressure of mercury 0° to 35°C; improvements in insulation for high voltage alternating current generators; effect of magnetic particle on insulation in stators of high voltage machines; breakdown of insulation; polar characteristics of solid dielectrics; portable Schering bridge; life of cellulose insulation at elevated temperatures; corona elimination in high voltage generators.

Hill, Dr. Charles W(arren), 355 E. Broadway, Fulton, N. Y. *Chemistry.* Clarion, Iowa, April 6, 84. A.B, Minnesota, 05; A.M, Wisconsin, 07, Ph.D, 10. Asst. chem, Wisconsin, 06–08, instr, 08–10; asst. director research lab, Nat. Carbon Co, 10–13; Cleveland Research Lab, 13–15; asst. prof. chem, Syracuse, 15–16; research chemist, Westinghouse Elec. and Mfg. Co, 16–20; gen. works manager, Atlantic Terra Cotta Co, 20–26; *v. pres. and manager, Peter Cailler Kohler Swiss Chocolate Co, 26–* Chem. Soc. Non-ferrous foundry chemistry and metallurgy; rare earths; carbon manufacture; industrial laboratory organization; factory control; terra cotta.

Hill, Dr. David Spence, 1424 St. James Court, Louisville, Ky. *Psychology, Education.* Nashville, Tenn, Dec. 14, 73. A.B, Randolph-Macon Col, 97; Harvard, 97; Washington (St. Louis), 01; fellow, Clark, 05–07, Ph.D, 07; LL.D, Kentucky, 16, Arizona, 20. Instr, Smith Acad, 97–04; night schs, St. Louis, 04; prof. hist. and philos. of educ, George Peabody Col, 07, psychol. and educ, 07–11; Tulane, 11–13; director, Bur. Educ. Research, New Orleans, 13–16; acting prof. educ, Wisconsin, 16–17; Illinois, 17–19; pres, New Mexico, 19–27; research prof. educ, Alabama, 27–29; research assoc, Nat. Advisory Cmt. on Educ, 30, acting director research, 31; staff assoc, Carnegie Foundation, 31–34, Carnegie Corp. grant, Am. Council on Educ, 34–35; Gen. Educ. Board grant, State Regents' Inquiry, N. Y, 36–37; Brookings Institution, 39–41; Am. Machine and El. Co, 42; *Jeffersonville Quartermaster Depot, U. S. War Dept, 42–* Lecturer, U. S, 30–41. Summers, prof, Montana, 13; Cornell, 14; California, 16; Wisconsin, 17; Illinois, 18, 19; Minnesota, 28; Wyoming, 29; Indiana, Purdue and Buffalo, 32. Elector, Hall of Fame, N. Y. Univ. Psychol. Corp. South. Soc. Philos. and Psychol. (pres, 18). Measurements in elementary education; individual differences; retinal stimuli; delinquency; ideals of children; industry and education; vocational education; university problems; federal relations to education; tax-supported higher education; libraries of Washington; higher education in New York.

Hill, Prof. D(avid) U(pton), Acadia University, Wolfville, N. S, Can. *Chemistry.* St. Stephen, N. B, Feb. 24, 87. B.A, New Brunswick, 08; A.M, Yale, 11, Ph.D, 14. Asst. *chem,* Yale, 11–13, instr, 13–17; *prof, Acadia, 17–* Chem. Soc; Can. Inst. Chem. Diffusion theory of reaction velocity.

Hill, Prof. D(onald) D(avid), Oregon State College, Corvallis, Oregon. *Farm crops.* Fountain City, Wis, June 9, 94. B.S, Oregon State Col, 25; M.S, Kans. State Col, 27; Ph.D, Cornell, 36. Instr. *farm crops, Oregon State Col,* 27–29, asst. prof, 29–30, assoc. prof, 30–37, *prof, 37–, agronomist, Exp. Sta, 39–* Instr, Cornell, 33–34, 35–36. Soc. Agron. Cereal production and breeding; malting barley; hop grades.

Hill, Dr. Donald M(cHenry), 381 Lombardy Road, Drexel Hill, Pa. *Physics.* Chambersburg, Pa, July 6, 07. B.S, Juniata Col, 29; Ph.D, Rutgers, 35. Asst. physics, Rutgers, 30–35; asst. prof. math. and physics, Keystone Junior Col, 35–37; prof, Elizabethtown Col, 37–41; *asst. prof. math. and asst. physics, Phila. Col. Pharmacy, 41–* Physical Soc; Asn. Physics Teachers. The principal expansion coefficients of single crystals of mercury.

Hill, Prof. Douglas G(reenwood), Duke University, Durham, N. C. *Chemistry.* New York, N. Y, Oct. 4, 05. A.B, Yale, 26; A.M, Princeton, 27, Ph.D, 29. Research assoc, Virginia, 29–31; instr. chem, Duke, 31–40, *asst. prof, 40–* Summer, mem. faculty, Brooklyn Col, 39. A.A; Chem. Soc; fel. Inst. Chem; N. Y. Acad; N. C. Acad. Photochemistry; reaction rates.

Hill, Dr. Earl S, 730 Pomona Ave, Albany, Calif. *Petroleum engineering.* Polk Co, Oregon, July 11, 07. B.S, Oregon State Col, 30; M.S, Calif. Inst. Tech, 31, Ph.D, 34. Am. Petrol. Inst. research project, Calif. Inst. Tech, 30–34, asst. instr, 32–34; research asst. petrol. and nat. gas, mineral industries exp. sta, Pa. State Col, 34–36; *research engineer,* Stanolind Oil and Gas Co, 36–39; *chem. engineer, Shell Develop. Co, 39–* Motor testing of lubricating oil, Union Oil Co, Calif, 33. The retention of oil and gas by oil formations; the determination of the oil content of samples of sandstone from oil bearing formations; flow of oil and gas mixtures from sandstones.

Hill, Dr. Edgar S(mith), Washington University School of Dentistry, St. Louis, Mo. *Physiological chemistry, Physiology.* Paris, Ky, Feb. 4, 07. B.S, Kentucky, 27; M.S, Cincinnati, 29, Ph.D, 31. Research chemist, Exp. Sta, Kentucky, 27–28; asst. physical chem, Rockefeller Inst, 31–34; asst. biochem, sch. med, Washington (St. Louis), 34–39, instr, *sch. dentistry,* 36–39, *asst. prof. biochem. and physiol, 39–* A.A; Soc. Biol. Chem; N. Y. Acad. Biochemistry; physical chemistry; cellular oxidations; catalysis; oxidation-reduction potentials; semiquinones; salivary and dental chemistry; oral physiology.

Hill, Prof. Edward L(ee), University of Minnesota, Minneapolis, Minn. *Physics.* Hartford, Ark, Nov. 3, 04. B.S, Minnesota, 25, Ph.D, 28. Nat. research fellow physics, Harvard, 28–30; asst. prof. *theoret. physics, Minnesota,* 30–37, *assoc. prof, 37–* A.A; Physical Soc. Theoretical physics; quantum mechanics of crystals and of molecular structure; nuclear physics.

Hill, Prof. Edward L(lewellyn), 131 Wabash Ave, Carthage, Ill. *Chemistry.* Carthage, Ill, Jan. 19, 00. A.B, Carthage Col, 22; M.S, Illinois, 25; Ph.D, Iowa, 30. Instr. *chem, Carthage Col,* 25–27, asst. prof, 28–29, assoc. prof, 30–33, *prof, 33–* A.A; Chem. Soc. Identification of alkyl and aryl halides; influence of constitution on the rearrangement of hydrazones to pyrazolines.

Hill, Erle G(ladestone), Carnegie Illinois Steel Co, Gary, Ind. *Metallurgy.* Santa Ana, Calif, April 21, 90. B.S, California, 13. Mining engineer, Calif, Ariz, Nev. and Mex, 13–18; instr. mining eng, Carnegie Inst. Tech, 18–20; asst. prof. metal, Pittsburgh, 20–26, assoc. prof, 26–30; indust. fellow, Mellon Inst, 30–33; v. pres, Carnegie Metals Co, 33–34; director research, Lukens Steel Co, 34–38; asst. to gen. supt, *Gary works, Carnegie Ill. Steel Co,* 38–41, *asst. gen. supt, 41–* Consulting engineer, 22–30. Min. and Metal. Eng; Soc. Metals; Franklin Inst. Reactions in open hearth steel making; action of freezing of metal in ingot mold.

Hill, Dr. Frederick B(urns), Jr, 1305 Lore Ave, Gordon Heights, Wilmington, Del. *Organic chemistry.* Portsmouth, Va, Aug. 2, 13. B.S, Col. William and Mary, 34; Ph.D, Virginia, 40. Chemist, Corn Products Ref. Co, Argo, Ill, 34–36; *research chemist, E. I. du Pont de Nemours and Co, Deepwater, N. J, 40–* Chem. Soc. Amides of beta-methyl acrylic acids; synthetic rubber; products obtained in acid hydrolysis of starch.

Hill, Dr. Frederick C(harles), 107 S. 17th St, Omaha, Nebr. *Surgery.* Cando, N. Dak, Jan. 22, 01. A.B, North Dakota, 21; M.D, Columbia, 25; Mayo Foundation fellow, Minnesota, 27–30, M.S, 30. Instr. physiol, North Dakota, 22–23; surg. and anat, *sch. med, Creighton,* 32–34, instr. surg. and asst. path, 34–38, *asst. prof. surg, 38–, director dept. exp. surg, 38–, dispensary, 40–* Attending surgeon, St. Joseph's, St. Catherine's, Lutheran and Doctors Hosps, 30– Am. Med. Asn; fel. Col. Surg; Soc. Exp. Biol; Omaha-Midwest Clin. Soc. Peptic ulcer; intestinal obstruction.

Hill, Prof. G(eorge) Albert, 4 Gordon Place, Middletown, Conn. *Chemistry.* Worcester, Mass, March 22, 92. B.S, Worcester Polytech, 13; A.M, Harvard, 14, Ph.D, 17. Asst. *chem,* Worcester Polytech, 14–16; instr, Harvard, 17–19; assoc. prof, *Wesleyan,* 19–24, *prof, 24–* Capt, C.W.Res, 26– Chem. Soc. (chairman, Conn. Valley sect, 22–24). Organic chemistry; ketones; natural coloring matters; chemical education.

Hill, Dr. Geo(rge) R(ichard), 1430 Yale Ave, Salt Lake City, Utah. *Plant physiology.* Ogden, Utah, April 10, 84. B.S, Brigham Young, 07, Utah Col, 08; Ph.D, Cornell, 12. Asst. plant physiol, Cornell, 10–11, instr, 11–12; asst, Mo. Bot. Garden, 12–13; botanist and plant pathologist, Utah Col. and Exp. Sta, 13–25, dean sch. agr, 16–25; *director dept. agr. research, Am. Smelting and Ref. Co, 25–* A.A; Soc. Plant Physiol; Bot. Soc. Relations of plants to sulfur dioxide; smelter by-products.

Hill, Dr. Harold P(hillips), 3625 Jackson St, San Francisco, Calif. *Medicine.* Waterbury, Vt, Aug. 5, 77. A.B, Stanford, 98; M.D, California, 01. Instr. physiol, med. sch, California, 01–04; *clin. prof. med, sch. med, Stanford, 12–* Consultant and chief, Stanford med. wards, San Francisco Hosp, 12–; chief med. staff, St. Luke's Hosp, 21– Fel. Col. Physicians; San Francisco Acad. Med.

Hill, Prof. Harry, Washington and Jefferson College, Washington, Pa. *Physics.* Clayton, W. Va, Aug. 21, 95. A.B, West Virginia, 22, M.S, 24; Ph.D, Chicago, 35. Asst. *physics,* West Virginia, 21–25, instr, 25–26; adj. prof, Texas Tech. Col, 26–29, assoc. prof, 29–32, 34–42; *asst. prof, Washington and Jefferson Col, 42–* A.A; Physical Soc; Optical Soc. Spectroscopy; hyperfine structure in silver.

Hill, Dr. Henry A(aron), 266 Columbia St, Cambridge, Mass. *Organic chemistry.* St. Joseph, Mo, May 30, 15. B.S, Johnson C. Smith, 36; Chicago, 38–39; Julius Rosenwald fellow, Mass. Inst. Tech, 40–42, Ph.D, 42. *Research chemist in charge org. research, Atlantic Research Associates, 42–* Chem. Soc. Optical properties of the sugars; synthetic rubber; synthetic fibers and high polymeric substances; pyrolyses of organic compounds.

Hill, Dr. Henry E(dwin), East Killingly, Conn. *Cytogenetics.* East Killingly, Conn, March 17, 07. B.S, Conn. Agr. Col, 28; M.S, Cornell, 30, Ph.D, 33; Brown, 33–34. Asst, Cornell, 28–33; *instr. bot, Connecticut, 35–* Cytogenetics of maize.

Hill, H(enry) H(arris), Box 117, Blacksburg, Va. *Chemistry.* Scottsville, Va, May 31, 80. B.S, Va. Polytech, 04, M.S, 09. Asst. chemist, Miss. Agr. and Mech. Col, 05–06; *Exp. Sta, Va. Polytech,* 07–13, assoc. chemist, 13–43, *chemist, 43–* A.A; Agr. Chem; Chem. Soc; Agr. Chem; Soc. Agron; Soc. Plant Physiol; Va. Acad; Int. Soc. Soil Sci. Soils; fixation phosphoric acid; nitrification; green manures; fermentation; clarification plant juices; lysimeter studies; pasture studies.

Hill, H(enry) O(sborne), Box 414, Blackland Exp. Sta, Temple, Texas. *Agriculture.* Wadesboro, N. C, Jan. 22, 09. B.S, North Carolina, 30. Engineer and rodman, South. Ry, 28–30; junior civil engineer, bur. agr. eng, *U. S. Dept. Agr,* 30–33, chief agr. eng, *soil conservation service,* 33–35, asst. to field research rep, south. Great Plains region, 35–36, west. Gulf region, 36–37, project supervisor in charge eng. and agr. research, soil and water conservation, 37–40, *senior soil conservationist and supt. agr. exp. sta, Temple, Texas, 40–* A.A; Civil Eng; Agr. Eng; Geophys. Union. Soil and water conservation and agricultural crops.

Hill, Dr. H(ibbert) W(inslow), Longville, Minn. *Epidemiology, Bacteriology, Public health.* St. John, N. B, Can, Sept. 16, 71. M.B, Toronto, 93, M.D, 99, D.P.H, 11, L.M.C.C, 15; LL.D, Western Ontario, 30. Demonstrator bacter. and path, Toronto, 95; bacteriologist, Louisville, Brooklyn and Boston, 96–05; instr. bacter, Harvard, 03–05; asst. prof, Minnesota, and asst. director and epidemiologist, State Board Health, Minn, 05–12; director, Inst. Pub. Health, and chief div. epidemiol, London, Ont, 12–25; prof. pub. health, Western Ontario, 12–18, dean, 16–18, 20–25; prof. bacter, nursing and health, British Columbia, 25–35; director labs, Provincial Board Health, 25–35; *retired.* Director lab, Brooklyn Board Health, 96–98. Managing and assoc. ed, 'Am. Jour. Pub. Hygiene,' 00–04; ed, 'Minn. Health Jour,' 16–20. Examiner, Med. Council, Can, 16, mem, 20–25; cmt. on tuber, Nat. Research Council Can, 25–35. Capt, C.E.F, 16–18. Soc. Nat; Asn. Path. and Bact; Soc. Bact; Pub. Health Asn. (chairman, lab. sect, 07); Tuber. Asn; Am. Med. Asn; Boston Soc. Med. Sci; Minn. Pub. Health Asn. (exec. sec'y, 14–15, 18–20); Ont. Med. Asn. (chairman, cmt. on pub. relations, 25); Toronto Path. Soc. (sec'y, 93). Morphology; technique; epidemiology of tuberculosis, typhoid and poliomyelitis; porous petri dishes; pressure filter for sera; hanging block.

Hill, Dr. Howard R(ice), Los Angeles Museum, Exposition Park, Los Angeles, Calif. *Biology.* Chicago, Ill, July 19, 89. A.B, Carroll Col, 13; M.S, Illinois, 16; Ph.D, Southern California, 37. Asst, fish investigations, U. S. Dept. Agr, 17–21; field man, *Los Angeles Museum,* 22–30, *zoologist, 31–* Various Los Angeles Museum expeds. to Southwest. Soc. Ichthyol. and Herp; Conchol. Soc. South. Calif. (pres, 24); S. Calif. Acad. (sec'y, 33–35, pres, 37–39). Marine biology; West Coast fishes; Linguatulidae.

Hill, Prof. Hubert, 312 First St, Morgantown, W. Va. *Chemistry.* Raleigh, N. C, Oct. 29, 83. B.S, North Carolina, 07, M.S, 08; Hopkins, 15–16. Instr. chem, N. C. State Col, 08–10; asst. feed chemist, State Dept. Agr, N. C, 10–11; instr. *chem, West Virginia,* 11–15, asst. prof, 16–19, assoc. prof, 19–28, *prof, 28–* Chem. Soc.

Hill, Dr. Jerald E(verett), 101 Sumner Ave, Wilkinsburg, Pa. *Physics.* Kalamazoo, Mich, Nov. 12, 07. B.S, West. Mich. State Teachers Col, 29; A.M, Michigan, 30; Ph.D, Rochester, 40. Instr. math. and physics, Kalamazoo Col, 30–37; research fellow nuclear physics, *Westinghouse Mfg. Co,* 40–41, *research engineer, 41–* Proton-neutron reactions in lithium and beryllium and the application of the lithium neutrons to the measurement of neutron-proton thresholds.

Hill, Dean J(ohn) A(rthur), 264 N. Ninth St, Laramie, Wyo. *Animal husbandry.* Carrollton, Ohio, June 10, 80. B.S, Wyoming, 07. *Wool specialist, Exp. Sta, Wyoming, 07–, director, 22–, prof. textile indust, 10–, dean col. agr, 22–* State Board Agr, Wyo, 23– Cmt. exp. sta. organization and policy, Asn. Land Grant Cols. and Univs. Capt, U.S.A, 17–18, lieut-col, O.R.C. A.A; Soc. Animal Production (v. pres, west. sect, 29–31, pres, 32; ed. board, 'Jour'); Colo-Wyo. Acad. Wool fibers; effect of atmospheric moisture upon the weight of wool; effect of alkali, weathering and cross breeding upon wool; mass selection for improving wool production.

Hill, Prof. J(ohn) Ben(jamin), Pennsylvania State College, State College, Pa. *Botany, Genetics.* Lebanon, Ill, Dec. 12, 79. B.S.A, Missouri, 08; A.B, Cornell, 09; Ph.D, Chicago, 13.

Asst. *bot*, Cornell, 07–09; instr, *Pa. State Col*, 09–11, asst. prof, 13–15, assoc. prof, 15–20, *prof, 20–* 2nd lieut, Inf, 18. Bot. Soc. Morphology and genetics; plant anatomy; migration of bacteria in plant tissues; species hybrids.

Hill, Prof. J(ohn) D(illard), Michigan State College, East Lansing, Mich. *Mathematics.* Hopkinsville, Ky, Aug. 22, 07. A.B, California at Los Angeles, 30; M.S, Brown, 34, fellow, 35–36, Ph.D, 36. Teaching asst. *math*, California at Los Angeles, 30–31; instr, Brown, 32–35; instr. and later *asst. prof, Mich. State Col, 36–* Math. Soc; Math. Asn. Summability of sequences.

Hill, Dr. John Eric (Douglas), American Museum of Natural History, New York, N. Y. *Zoology.* Devon, N. B, Can, July 27, 07. A.B, Kansas, 31; Ph.D, California, 34. Teaching asst. zool, California, 31–34, research assoc, museum vert. zool, 34–35; *asst. curator mammal, Am. Museum Nat. Hist, 35–* Soc. Mammal. (director, 41–); Asn. Anat; Soc. Vertebrate Paleont; N. Y. Acad. Mammalian anatomy and systematics.

Hill, Dr. J(oseph) Bennett, Wynnewood, Pa. *Chemistry.* Philadelphia, Pa, Oct. 3, 91. B.S, Pennsylvania, 13, Ph.D, 16, Ch.E, 37. Lab. manager chem. dept, Barrett Co, 16–24; chief research chemist, Atlantic Ref. Co, 24–26, chief chemist, 26–34; *manager develop. div, Sun Oil Co, Phila, 34–* Chemist, Nat. Asn. Dyers and Cleaners, 22–23. Chem. Soc. (chairman Phila. sect, 26, petrol. div, 27–30); Chem. Eng. (chairman, Phila-Wilmington sect, 37); Soc. Automotive Eng; Franklin Inst. Petroleum; coal tar compounds.

Hill, Dr. Joseph M(acGlashan), Baylor University, Dallas, Texas. *Clinical pathology.* Buffalo, N. Y, March 26, 05. B.S. and M.D, Buffalo, 28. Assoc. pathologist, Buffalo City Hosp, 31–32; *assoc. prof. path*, Oklahoma, 32–33; *col. med, Baylor, 34–, director labs, univ. hosp. and William Buchanan blood, plasma and serum center, 34–* Am. Med. Asn; Human Serum Asn. Hematology; preparation of desiccated human plasma by mass production methods.

Hill, Dr. Julian W(erner), 1106 Greenhill Ave, Wilmington, Del. *Chemistry.* St. Louis, Mo, Sept. 4, 04. B.S, Washington (St. Louis), 24; Swett fellow, Mass. Inst. Tech, 27–28, Ph.D, 28. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Organic chemistry; polymerization; macrocyclic compounds.

Hill, Dr. J(ustina) H(amilton), Johns Hopkins Hospital, Baltimore, Md. *Bacteriology.* Washington, D. C, Oct. 1, 93. A.B, Smith Col, 16; M.S, Michigan, 17; hon. Sc.D, Smith Col, 41. Near-East Relief, 19–20; assoc. bacter. and later *bacteriologist, James Buchanan Brady urol. inst, Hopkins Hosp, 20–*, instr. *urol, sch. med, Hopkins*, 22–37, *assoc, 37–* Bacteriologist, Am. Red Cross, 17–18. Soc. Bact. Bacteriology of urological infections.

Hill, Prof. Lyle O(rlando), 14112 Edbrooke Ave, Riverdale, Ill. *Chemistry.* Appleton, Ark, Feb. 7, 09. B.S, Arkansas, 31; M.S, Chicago, 33, Ph.D, 38. Lab. asst, *Cent. Y.M.C.A. Col*, 32–33, instr, 33–35, asst. prof, 35–37, acting chairman dept. *chem*, 37–39, assoc. prof. and later *prof, 39–, chairman dept, 39–* Chem. Soc. Inorganic and analytical chemistry; hydrides; non-aquo solutions.

Hill, Sister M(ary) Laetitia, Our Lady of the Lake College, San Antonio, Texas. *Mathematics.* Texas, Dec. 22, 98. A.B, Our Lady of the Lake Col, 22; A.M, Catholic Univ, 26, Ph.D, 35. Instr. *math, Our Lady of the Lake Col*, 26–32, *prof, 35–* Math. Soc; Physical Soc; Asn. Physics Teachers; Texas Acad. Projective geometry; number and reality of quadrilaterals in and circumscribed to a rational unicuspidal quartic with real tangents from the cusp.

Hill, Dr. Mason L(owell), 2011 Terrace Way, Bakersfield, Calif. *Geology.* Pomona, Calif, Jan. 17, 04. Fellow, Pomona Col, 24–26, 28–29, A.B, 26; A.M, Claremont Col, 29; fellow, Wisconsin, 31–32, Ph.D, 32. Geologist, Shell Oil Co, 27–28, 29–30; instr. geol, Coalinga Junior Col, Calif, 33–35; *geologist*, Shell Oil Co, 35–37; *Richfield Oil Co, 37–* Structural geology.

Hill, Prof. M(ichael) A(rendell), Jr, Chapel Hill, N. C. *Mathematics.* Beaufort, N. C, April 17, 98. A.B, North Carolina, 20, fellow, 21–22, A.M, 22; Chicago; Michigan, 31. Instr, *North Carolina*, 20–25, asst. prof. *math*, 25–34, assoc. prof, 34–41, *prof, 41–, adviser, gen. col, 35–; capt, U. S. Army, 42–* Math. Asn; Elisha Mitchell Sci. Soc; N. C. Acad. Statistics.

Hill, Dr. Otto J(ulius), State College of Washington, Pullman, Wash. *Dairying.* Boistfort, Wash. B.S, State Col. Wash, 23; M.S, Pa. State Col, 30; fellow, Minnesota, 30–32, Ph.D, 33. Asst. county agent, Wash, 23–28; asst. instr, Pa. State Col, 28–30; *exten. dairyman, State Col. Wash, 33–* Dairy Sci. Asn. Cattle breeding; nutrition; dairy chemistry.

Hill, Dr. Philip, P. O. Box 815, La Marque, Texas. *Organic chemistry.* East St. Louis, Ill, March 13, 17. A.B, Illinois, 37; Ph.D, Ohio State, 41. Asst. instr. chem, Ohio State, 37–41; *research chemist, Pan Am. Ref. Corp, 41–* Chem. Soc. Ozonization, polymerization, isomerization and disproportionation of paraffinic and aromatic hydrocarbons.

Hill, Dr. Ralph M(adison), 24 Bayberry Lane, Mountainside, N. J. *Chemistry.* Richmond, Ind, Nov. 25, 10. A.B, Battle Creek Col, 30; M.S, Ga. Tech, 32; Ph.D, Wisconsin, 37. Asst. chem, Ga. Tech, 30–32; prof, Mt. Berry Col, 32–34; asst. physical chem, Wisconsin, 34–37; *research chemist, Standard Oil Develop. Co, 37–* Chem. Soc. Organic and physical chemistry; synthesis of substituted pyrrolidines, piperidines and hexahydroazepines.

Hill, Prof. R(euben) L(orenzo), 645 N. Eighth East St, Logan, Utah. *Chemistry.* Ogden, Utah, March 24, 88. B.S, Utah Col, 12; Ph.D, Cornell, 15. Instr. biochem, Cornell, 15–16; biochemist, bur. chem, U. S. Dept. Agr, 16; Exp. Sta, Md. State Col, 16–18; *prof. chem, Utah State Col, and in charge nutrition investigations, Exp. Sta, 19–; major, food and nutrition div, U. S. Army, 41–* Nutrition officer, U.S.A, 18–19. Mammary development; milk secretion; metabolism; human nutrition; soft curd milk.

Hill, Prof. Robert M(cClaughry), 4200 E. Ninth Ave, Denver, Colo. *Biochemistry.* Carthage, Ill, Oct. 27, 94. B.S, Carthage Col, 15; M.S, Illinois, 21, Ph.D, 23. Asst. prof. *biochem, sch. med*, Loyola (Ill), 23–25; *Colorado*, 25–30, *assoc. prof, 30–* Chem. Soc. (treas, Colo. sect, 27); Soc. Biol. Chem; Soc. Exp. Biol. Colloids of blood plasma.

Hill, Prof. R(obert) T(owner), Indiana University School of Medicine, Bloomington, Ind. *Anatomy.* Brookings, S. Dak, June 6, 05. B.S, S. Dak. State Col, 28; M.S, Kans. State Col, 29; Ph.D, Iowa, 32. Nat. research fellow, Wisconsin, 32–33; London, Eng, 33–34; instr. *anat, sch. med*, Yale, 34–37; asst. prof, *Indiana*, 37–40, *assoc. prof, 40–* Asn. Anat; Soc. Endocrinol. Physiology and anatomy of reproduction.

Hill, Dr. Rolla B(ennett), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Parasitology.* Franklin, Ill, Oct. 2, 91. B.S, Whitman Col, 12; M.D, Pennsylvania, 17; Dr.P.H, Hopkins, 30. *Field director, int. health div, Rockefeller Foundation, 17–* Soc. Parasitol; Soc. Trop. Med; Royal Soc. Trop. Med. Hookworm; malaria.

Hill, Roy L(inden), 708 W. 23rd St, Wilmington, Del. *Chemistry.* Markham, Pa, Feb. 12, 88. A.B, Swarthmore Col, 08, A.M, 09. Chemist, Int. Creosoting and Construction Co, 07; research chemist, E. I. du Pont de Nemours and Co, 09–16; asst. director, *Reynolds exp. labs, Atlas Powder Co*, 17–19, director, 19–26, *in charge chem. service sect, explosives dept, 26–* Chem. Soc; Chem. Eng; Franklin Inst; Army Ordnance Asn. Explosives.

Hill, Prof. Samuel E(stes), Russell Sage College, Troy, N. Y. *Physiology.* Waco, Texas, March 6, 98. B.S, Texas Christian, 25; Maule fellow, Princeton, 26–28, A.M, Ph.D, 28. Nat. research fellow zool, 28–29; asst. gen. physiol, Rockefeller Inst, 29–38; lecturer *biol*, Princeton, 38–39; *prof, Russell Sage Col, 39–* A.A; Physiol. Soc; Soc. Zool; N. Y. Acad; Harvey Soc. Permeability of luminous bacteria; action potentials in Nitella.

Hill, Dr. Samuel S(mith), P. O. Box 38, Wernersville, Pa. *Neurology.* Mercer Co, Pa, May 9, 68. M.D, Pittsburgh, 94. First asst. physician, State Asylum for Insane, Wernersville, 94–97, physician in chief and supt, 97–28. Psychiat. Asn; Am. Med. Asn. Mental and nervous diseases.

Hill, Dr. Terrell L(esile), Western Reserve University, Cleveland, Ohio. *Mathematical chemistry.* Oakland, Calif, Dec. 19, 17. A.B, California, 38, Ph.D, 42; Harvard, 40–41. Teaching fellow *chem*, California, 41–42; *instr, Western Reserve, 42–* A.A; Chem. Soc. Applications of mathematics to chemistry; algebra of isomerism; theory of the isoelectric point; differential equations and reaction rates.

Hill, Dr. Thomas J(oseph), Western Reserve University, Cleveland, Ohio. *Dentistry.* Ebensburg, Pa, March 10, 86. D.D.S, Western Reserve, 08. Demonstrator prosthetic technics, *sch. dentistry, Western Reserve*, 09–11, instr. mat. med. and

therapeut, 18–19, therapeut, 19–21, asst. prof, 21–27, assoc. prof. *clin. oral path. and therapeut, 27–28, proj, 28–*, senior instr. *path, sch. med, 28–33, asst. prof, 33–* Research consultant, U. S. Pub. Health Service. Mem, Callahan Mem. Award Cmn. A.A. (exec. cmt. and sec'y, sub-sect. dentistry, 34–38); fel. Col. Dentists (special cmt. on relationship with A.A.A.S); Dental Asn. (council dental therapeut, 29–); Int. Asn. Dental Research (pres, 39). Dental caries; mouth pathology.

Hill, Prof. W(illard) W(illiams), University of New Mexico, Albuquerque, N. Mex. *Anthropology.* San Francisco, Calif, April 6, 02. A.B, California, 29; fellow, Yale, 33–34, Ph.D, 34. Nat. research fellow, California, 34–35, asst. soil conservationist, 35–37; asst. prof. and later *assoc. prof. anthrop, New Mexico, 37–* A.A; Anthrop. Asn; Ethnol. Soc. Ethnology; primitive economics.

Hill, W(illiam) L(ee), 321 Ingraham St, N.W, Washington, D. C. *Chemistry.* Chilhowie, Va, Jan. 15, 99. B.S, Milligan Col, 21; Tennessee, 24; M.S, Virginia, 27. Teacher, high sch, Tenn, 21–22, prin, 22–23; prin, prep. dept, Milligan Col, 23–24, prof. physics and chem, 24–26, acting treas, 27; asst. chemist, *bur. chem. and soils, U. S. Dept. Agr,* 28–36, assoc. chemist, 36–39, *chemist, 39–* Chem. Soc; Inst. Chem. Inorganic chemical analysis; colorimetric chemical analysis; composition and properties of, and available fertilizers manufactured from natural phosphates.

Hill, Prof. W(illiam) W(elch), 271 S. Gay St, Auburn, Ala. *Electrical engineering.* Sylacauga, Ala, Sept. 12, 77. B.S, Ala. Polytech, 97, E.E, 98, M.E, 05; M.E.E, Hopkins, 25. Underground construction engineer, South. Bell Tel. Co, 98–99; instr. math. and shops, *Ala. Polytech,* 00–08, asst. prof. *elec. eng,* 09–12, *prof, 12–* Supt. light, power and water, Auburn, 09–20; instr, night sch, Hopkins, 24–25; engineer, Ala. Power Co, 22, 23, 27. Elec. Eng. (chairman, Ala. sect. 39).

Hillary, Dr. B(ertrand) B(ristow), University of Toronto, Toronto, Ont, Can. *Cytology, Genetics.* Vancouver, B. C, Oct. 15, 11. B.A, British Columbia, 34, M.A, 36; Ph.D, Toronto, 39. *Teaching asst. and research asst. bot, Toronto, 36–* The Feulgen reaction; chromosome structure.

Hille, Prof. (Carl) Einar, 125 Armory St, Hamden, Conn. ***Mathematics.* New York, N. Y, June 28, 94. M.Ph, Stockholm, 14; Licentiate Ph, 16, Ph.D, 18; Harvard, 20–21; A.M, Yale, 33. Docent, Stockholm, 19; Benjamin Peirce instr. *math,* Harvard, 21–22; Princeton, 22–23, asst. prof, 23–30, assoc. prof, 30–33; *prof, Yale, 33–* Summers, Stanford, 28, 41, Chicago, 31. Ed. board, 'Comp. Math,' 33–; 'Annals of Math,' 25–, ed, 29–33. Mittag-Leffler prize, 19. Math. Soc. (assoc. ed, 'Trans,' 23–37, ed, 37–); Math. Asn; Am. Acad; Conn. Acad; London Math. Soc; Royal Physiog. Soc. Lund. Functions defined by linear differential equations of the second order; integral equations; Dirichlet and Fourier series; Fourier and Laplace transforms; analytical semi-groups.

Hille, Dr. (Ernst Carl) Hermann, Wilmot Road, Deerfield, Ill. *Chemistry.* Moelln, Germany, June 7, 71. Ph.G, Wurzburg, 96; Ph.D, Heidelberg, 00. Asst. to Prof. Roentgen, lab, Wurzburg, 94–95; *pres. and treas, Hille Labs, Inc, Chicago, Ill.* A.A; Chem. Soc; Pharmaceut. Asn; hon. mem. Southwest. Mo. Med. Soc. Colloid and medical chemistry.

Hillegas, Dr. Arthur B(urdette), Dartmouth College, Hanover, N. H. *Botany.* Chatham, N. Y, Dec. 25, 07. A.B, Wyoming, 32; A.M, Columbia, 34, Ph.D, 40. Asst. *bot,* Columbia, 39–42; *instr, Dartmouth Col, 42–* Summer, asst, Columbia, 41. A.A; Bot. Soc; Mycol. Soc; Torrey Bot. Club. Cytology and physiology of Chytridiales; effects of vitamins on species of Myriangiales.

Hiller, Dr. Alma (Elizabeth), Rockefeller Institute Hospital, New York, N. Y. *Biochemistry.* Pittsburgh, Pa, March 14, 92. B.S, Carnegie Inst. Tech, 14; Ph.D, Columbia, 26. *Chemist,* Hopkins Hosp. and med. sch, Hopkins, 15–18; *Rockefeller Inst. Hosp, 18–* A.A; Soc. Biol. Chem; Harvey Soc. Blood and protein chemistry; sugars; nephritis; kidney physiology; reducing substances of blood and urine.

Hillers, C(arl) E(dward), Flintkote Co, Rutherford, N. J. *Chemistry.* Danbury, Conn, July 25, 97. B.S, Norwich, 20, M.S, 23; A.M, Columbia, 25. Asst. prof. chem, Norwich, 20–23; asst. org. chem, Columbia, 23–24; prof, Union Col. (Ky), 24–25; research chemist, Certain-teed Products Corp, 26–31; chief chemist, Sloane-Blabon Corp, Phila, 31–32; professional relations dept, H. J. Heinz Co, 32–33; chief chemist, Blue Ridge Slate Corp, 33–37; *with research and develop. div, Flintkote Co, 37–* Chem. Soc. Hard surface floor coverings; colored granules; asbestos-cement products.

Hilliard, Prof. C(urtis) M(orrison), Simmons College, Boston, Mass. *Bacteriology, Public health.* Dorchester, Mass, Aug. 5, 87. A.B, Dartmouth Col, 09; Mass. Inst. Tech, 10. Instr. biol, Col. City of N. Y, 10–12; asst. prof. sanit. sci, Purdue, 12–14; *prof. biol, Simmons Col, 14–* Supervisor health, Wellesley and Weston, Mass, 30– Mem. State Special Cmt. to Study and Investigate Pub. Health Laws and Policies, Mass, 37; director cmt. health, State Cmt. Pub. Safety, 41; State Mothers Health Council, 43– A.A; fel. Pub. Health Asn; Mass. Pub. Health Asn. (pres, 39, 40); Mass. Cent. Health Council (pres, 35–37). Streptococci; water supply and purification; bacteriology and its applications; prevention of communicable diseases.

Hillier, Dr. James, RCA Laboratories, Princeton, N. J. *Physics.* Brantford, Ont, Can, Aug. 22, 15. B.A, Toronto, 37, M.A, 38, Ph.D, 41. Demonstrator physics, Toronto, 37–39, asst, Banting Inst, 40; *research engineer, RCA Labs, 40–* Electron optics; development of the instruments, applications and technique of electron microscopy; electron stereo-micrography; scanning electron microscope; electron diffraction and electron micro-analysis.

Hillig, Fred, 4910 43rd St, N. W, Washington, D. C. *Food chemistry.* Carrollton, Ill, Dec. 7, 94. B.S, 22. Research chemist, Swift and Co, Chicago, 23–25; *chemist, food div, food and drug admin, Fed. Security Agency, 25–* Instr, George Washington. Asn. Official Agr. Chem. Malted milk; organic acid methods for food analysis; decomposition in foods.

Hillkowitz, Prof. Philip, 234 Metropolitan Bldg, Denver, Colo. *Chemistry.* Salanti, Lithuania, Aug. 30, 73. B.S, Cincinnati, 94, M.D, 97. Prof. bacter, Gross Med. Col. (Colo), 98, path, 98–00, Denver and Gross Med. Col. (Colo), 00–06; *assoc. prof. chem, Denver, 35–* A.A; Am. Med. Asn; Soc. Clin. Path. Clinical pathology.

Hillman, V(ictor) E, Crompton and Knowles Loom Works, 93 Grand St, Worcester, Mass. *Chemistry, Metallurgy.* Oak Park, Ill, March 21, 93. Notre Dame. U. S. Steel Corp, Ind, 11–13; Savage Arms Corp, N. Y, 13–17; *with Crompton and Knowles Loom Works, 17–; lieut. commander, U. S. Naval Res.* Lecturer, Col. Holy Cross. Chem. Soc; Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn. Steel; heat treatment; cast iron; ferrous metallurgy; foundry research; x-ray analysis; stress coat analysis; wood technology; naval ordnance.

Hills, Dr. Claude H(ibbard), Eastern Regional Research Laboratory, U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Biochemistry.* Kirksville, Mo, June 21, 12. B.S, Northeast Mo. State Teachers Col, 33; A.M, Missouri, 35; Ph.D, Minnesota, 37. Asst. hort, Missouri, 34–35; asst. biochem, Minnesota, 36–37; research chemist, Borden Co, Syracuse, N. Y, 37–38; Hormel research fellow, Minnesota, 38–40; *assoc. chemist,* protein div, *bur. agr. chem. and eng, U. S. Dept. Agr,* 41–42, *biochem. div, east. regional research lab, 42–* Chem. Soc; Inst. Food Technol. Tobacco mosaic virus; amlyases; chemistry of meat processing; pectin.

Hills, Dr. John M, P. O. Box 418, Midland, Texas. *Geology.* Oak Park, Ill, March 15, 10. B.S, Lafayette Col, 31; Ph.D, Chicago, 34. Asst. geologist, Amerada Petrol. Corp, 34–41; *consulting geologist, 41–* Summer, asst. geologist, Pa. Geol. Surv, 30. Asn. Petrol. Geol. Insoluble residues from Cambro-Ordovician limestones; geology of the West Texas and New Mexico Permian basin.

Hills, Dean J(oseph) L(awrence), University of Vermont, Burlington, Vt. *Agricultural chemistry, Agronomy.* Boston, Mass, March 2, 61. B.S, Mass. Col, 81, hon. Sc.D, 31; B.S, Boston, 81; hon. Sc.D, Rutgers, 03, R. I. State Col, 42, Vermont, 43. Asst. chem, Exp. Sta, Mass. Col, 81–84; N. J. Exp. Sta, 84–85; chemist, Phosphate Mining Co, S. C, 85–88; *Exp. Sta, Vermont,* 88–98, director, 93–42, *emer. director, 42–,* prof. agr. chem, univ, 93–07, agron, 07–32, dean *col. agr,* 98–42, *emer. dean, 42–* State Board Agr. and Cattle Cmn, Vt, 92–00; sec'y, State Board Agr. and Forestry, 09–17. A.A; Asn. Land-Grant Cols. and Univs. (sec'y-treas, 04–26, pres, 27). Agricultural chemistry; dairying.

Hills, Prof. T(homas) M(cDougall), Vassar College, Poughkeepsie, N. Y. *Geology.* Allegheny, Pa, Feb. 19, 81. Ph.B, Col. of Wooster, 02. Prof. *geol,* Toledo, 09–10; asst.

prof, Ohio State, 10–20; *prof, Vassar Col, 20–* Summer, asst, Chicago, 06. In charge dept. observation, sch. mil. aeronaut, Ohio State, 17–18. A.A; Geol. Soc; Am. Geog. Soc; Ohio Acad. (v. pres, 16). Glacial geology.

Hillyer, Dr. H(omer) W(inthrop), Farmington, Conn. **'Chemistry.* Waupun, Wis, Jan. 26, 59. Ripon Col, 78–79; B.S, Wisconsin, 82; Ph.D, Hopkins, 85. Asst. and instr. chem. and asst. prof. org. chem, Wisconsin; research dept, Gen. Chem. Co, 07–17; with Nat. Aniline and Chem. Co, 17–25. Chem. Soc. Derivatives of phenyl ether; phenoxozone compounds; aluminum alcoholates; theory of the action of soap; electrolytic iodoform; dye-stuff intermediates; azochrom dyes.

Hillyer, Dr. John C(arpenter), Phillips Petroleum Co, Bartlesville, Okla. *Organic chemistry.* Winona, Minn, Sept. 8, 08. A.B, Carleton Col, 29; Ph.D, Yale, 32. Instr. chem, Carleton Col, 32–37; *chemist, Phillips Petrol. Co, 37–* Asst, Mayo Foundation, 29, 30, 35, 36. Chem. Soc. Phenanthrene compounds; oxindene acids; Liesegang's rings; Grignard reaction; catalytic treatment of hydrocarbons.

Hilman, Prof. G(eorge) Carroll, Louisiana Polytechnic Institute, Ruston, La. *Organic chemistry.* Doyline, La, June 18, 88. Fellow, Louisiana, 20–21, B.S, 21; fellow, Iowa, 21–22, M.S, 22, fellow, 24–25, Ph.D, 25; fellow, Colo. Sch. Mines, 23–24. Instr. chem, State Col. Wash, 22–23; chemist, research dept, Gulf Ref. Co, 25–26; *prof. chem. and head dept. sciences, La. Polytech, 26–* Chem. Soc; La. Acad. New derivatives of vanillin and some of their reactions.

Hilston, Prof. N(eal) W(illiam), New Mexico State College, State College, N. Mex. *Nutrition.* Warren, Ohio, April 25, 13. B.S, West Virginia, 34; M.S, Pa. State Col, 35, Ph.D, 37. Instr. animal production, Wyoming, 37–38; animal industry, Arkansas, 38–41; *asst. prof. dairy husbandry, N. Mex. State Col, 41–* Soc. Animal Production; Dairy Sci. Asn. Blindness and edema in dairy animals; pasture studies with irrigated pastures.

Hiltner, Dr. W(illiam) Albert, University of Michigan, Ann Arbor, Mich. *Astrophysics.* Continental, Ohio, Aug. 27, 14. B.S, Toledo, 37; M.S, Michigan, 38, Ph.D, 42. *Nat. research fellow, Chicago and Michigan, 42–* Astron. Soc. Spectrophotometry.

Hilton, Prof. William A(twood), Pomona College, Claremont, Calif. *Zoology.* Vanetten, N. Y, June 27, 78. B.S, Cornell, 99, fellow, 00–01, Ph.D, 02. Asst. zool, Cornell, 02; instr, Pomona Col, 05–06, asst. prof, 06–07, assoc. prof, 07–08; instr. histol, Cornell, 08–11; histol. and embryol, Minnesota, 11–12; *prof. zool, Pomona Col, 12–* Exchange prof, Cornell, 22–23. A.A; Soc. Zool; Asn. Anat; Micros. Soc; Entom. Soc. The central nervous system; the human face; animal distribution.

Himmelsbach, Dr. C(lifton) K(eck), U. S. Public Health Service Hospital, Lexington, Ky. *Pharmacology.* Philadelphia, Pa, March 17, 07. M.D, Virginia, 31. Asst. surgeon, *U. S. Pub. Health Service,* 32–35, passed asst. surgeon, 35–43, *surgeon, 43–, director research.* Soc. Pharmacol. and Exp. Therapeut; fel. Col. Physicians; Am. Med. Asn. Drug addiction; morphine and its derivatives; relation of chemical structure to the addiction; treatment of withdrawal.

Himwich, Dr. Harold E(dwin), Albany Medical College, Albany, N. Y. *Physiology, Pharmacology.* New York, N. Y, June 5, 94. B.S, Col. City of N. Y, 15; M.D, Cornell, 19. Intern, Bellevue Hosp, 20–22, res, 22–23; research fellow, Russell Sage Inst, 23; traveling fellow med, Cornell, 23–24; asst. physiol, sch. pub. health, Harvard, 24–25; instr, sch. med, Yale, 25–26, asst. prof, 26–29, assoc. prof, 29–35; *physiol. and pharmacol, Albany Med. Col, Union (N. Y),* 35–36, *prof, 36–* A.A; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; Col. Physicians; Am. Med. Asn; Inst. Nutrition; Diabetes Asn; Neur. Asn; Psychiat. Asn; Asn. Mental Deficiency; Research Council Problems of Alcohol. Human physiology; chemistry in physiology; metabolism; respiration; endocrine; central nervous system.

Hinchey, Prof. Norman (Shreve), Washington University, St. Louis, Mo. *Geology, Paleontology.* St. Louis, Mo, Jan. 28, 03. B.S, Washington (St. Louis), 24, M.S, 28; A.M, Harvard, 30, Ph.D, 34. Asst, Harvard, 28–30; Mo. Geol. Surv, 33–35; nat. research fellow, 30–32; instr. geol, Mo. Sch. Mines, 35–36; geologist, Mo. Geol. Surv, 36–41; Shell Oil Co, Inc, 41–43; *asst. prof. geol, Washington (St. Louis), 43–* Paleont. Soc; Min. and Metal. Eng; Mo. Acad. (chairman, geol. sect, 40). Stratigraphy and invertebrate paleontology; ground-water.

Hinck, Prof. C(laus) F(rederick), Jr, 209 E. 23rd St, New York, N. Y. *Chemistry.* New York, N. Y, Dec. 7, 86 Columbia Col, 05–08; A.M. and Ph.D, Heidelberg, 13. Instr chem, col. med, N. Y. Univ, 14–17; chief chemist, Lodi works E. I. du Pont de Nemours and Co, 17–19; Lehn and Fink, Inc, 19–23; asst. prof. *chem, N. Y. Univ,* 23–25, *prof. and head dept, col. dentistry, 25–* A.A; fel. N. Y. Acad; Heidelberger Chem. Gesell. Salivary constituents; enamel of the teeth.

Hincke, Dr. William B(errard), Tennessee Eastman Corp, Kingsport, Tenn. *Physical chemistry, Chemical engineering.* Pinckneyville, Ill, March 31, 01. B.S, Illinois, 23; Ph.D Calif. Inst. Tech, 29. Chemist and patent engineer, Union Oil Co. of Calif, 24–26; asst. physical chemist, U. S. Bur Mines, 29–30; physical chemist and metallurgist, A. O. Smith Corp, Milwaukee, Wis, 30–34; *research chemist and chem. engineer, Tenn. Eastman Corp, 34–, supt. acetate and plastics div, 39–* Chemist, R. G. Wulff Process Co, 29. Chem. Soc. High temperature equilibria and vapor pressures of metallurgically important materials; gaseous metallurgical fuels; flame temperatures, pyrolysis and reforming of hydrocarbon gases; plant and process development; cellulose chemistry and plastics.

Hinckley, Prof. Elmer D(umond), University of Florida. Gainesville, Fla. *Psychology.* Margaretteville, N. Y, Jan 11, 03. A.B, Florida, 24; fellow, Chicago, 28, Ph.D, 29 Statistician, Merrill-Palmer Sch, 25–26; asst. prof. *psychol, Florida,* 26–27, assoc. prof, 27–37, *prof, 37–, head dept, 30–, director bur. vocational guidance and mental hygiene, 31-* Merit system director, State Welfare Board, Fla, 40– A.A; Psychol. Asn; fel. Asn. Applied Psychol. Child psychology; intelligence tests; measurement of attitude; vocational guidance; mental hygiene; prediction of scholarship; influence of thymectomy upon learning.

Hinckley, Dr. J(ohn) A(rthur), Jr, 1426 Wightman St, Pittsburgh, Pa. *Physical organic chemistry.* Winona, Minn May 29, 11. B.S, Chicago, 33, Ph.D, 41. Research chemist Standard Oil Co, La, 36–41; *fellow, Mellon Inst, 41–* Chem Soc. Hydrocarbon chemistry; distillation; instrumentation.

Hincks, Dr. Elizabeth M(ary), 161 S. Huntington Ave Boston, Mass. *Psychology.* Andover, Mass, Sept. 10, 94 A.B, Vassar Col, 17; A.M, Radcliffe Col, 18, Ph.D, 24 Psychologist, vocation bur, pub. schs, Cincinnati, 18–20; acting psychologist, New Eng. Home for Little Wanderers, 23; European fellow from Radcliffe Col, Zurich, 25–26; director. Wayne County clinic for child study, Juvenile Court, Detroit, Mich, 26–33; parent educ, New Eng. Hosp. for Women and Children, Boston, Mass, 33–34; *psychologist,* Perkins Institution for the Blind, 34–38; *Mass. Gen. Hosp, Boston, 36–; New Eng. Home for Little Wanderers, 39–; asst, Harvard, 39-* Lecturer, Michigan, 27–30. Psychol. Asn; Orthopsychiat. Asn Asn. Applied Psychol. Consulting psychology; psychometrics, psychopathology.

Hinds, E(lla) Annette, 108 Montford Ave, Asheville, N. C *Biology.* Townsend, Mass, Jan. 26, 83. B.S, Columbia, 15, A.M, 16. Teacher, Conn. State Nor. Sch, Willimantic, 04–13; Woman's Col, Delaware, 16–17; prof. biol. and bacter. Russell Sage Col, 17–39. Teacher, Charlton Sch, New York; Emma Willard Sch, Troy, 17–20. General biology; physiology; microbiology; histology.

Hinds, Henry, Greenwich Towers, Greenwich, Conn. *Geology* Helena, Mont, Oct. 12, 83. A.B, North Dakota, 06; Rhodes scholar, Oxford, 04–07, B.A, 06; fellow, Chicago, 07–09. Asst, N. Dak. Geol. Surv, 03; demonstrator, Oxford, 06–07; asst. geologist, Iowa Geol. Surv, 07; junior geologist, U. S. Geol. Surv, 07–10, assoc. geologist, 10–12, paleontologist, 12–13, geologist, 14–18; Sinclair Oil and Ref. Co, 17–20; Pantepec Oil Co, 21–33, mem. board directors, Pantepec Oil Co. of Venezuela and Pantepec Consol. of Venezuela, Inc, 30–36; *consulting geologist.* In charge cooperative geol. work, petrol. sect, U. S. Fuel Admin. and Capital Issues Cmt, 18. Asn. Petrol. Geol. Coal deposits of North Dakota, Montana, Iowa, Missouri and Virginia; geology of areas in Kansas, Missouri, Illinois and Virginia; petroleum geology of mid-continent fields and of Central America, Colombia, Venezuela and other countries.

Hinds, Julian, Metropolitan Water District of Southern California, 306 W. Third St, Los Angeles, Calif. *Engineering.* Warrenton, Ala, Dec. 22, 81. C.E, Texas, 08. Rodman and

block signal repairman, South. Pacific Ry, Texas, 06; asst. instr. drawing, Texas, 06–08, instr. civil eng, drawing and in charge first year drawing and surv, 08–09; transitman, Gulf, Texas and West. Ry, Texas, 09; designer bridges, Chicago, Milwaukee and St. Paul Ry, 09–10; surveyman and junior engineer, U. S. Reclamation Service, 10–12, asst. engineer, Elephant Butte Dam, N. Mex, 12–15, junior engineer, Denver, 15–26, engineer, chief draftsman and asst. to designing engineer, 26–27; res. engineer, J. G. White Eng. Corp, Mex, 27–29; hydraul. engineer, Dept. Water and Powér, Los Angeles, 29–30; designing engineer, *Metropolitan Water Dist. of South. Calif*, 30–33, asst. chief engineer, 33–41, *gen. manager and chief engineer, 41–* Norman medal, 26. Civil Eng. (cmt. on irrig. hydraul). Hydraulics.

Hinds, Prof. Norman E. A, Durant Hotel, Berkeley, Calif. *Geology.* Denver, Colo, July 5, 94. A.M, Harvard, 20, Ph.D, 24; Sheldon traveling fellow from Harvard, Hawaii, 21–22, Bishop Museum fellow from Yale, 22–23. Asst. *geol*, Harvard, 19–20, instr, 20–23; asst. prof, *California*, 23–30, *assoc. prof, 30–* Colo. Geol. Surv, 14–16; research assoc, Bishop Museum, Honolulu, 21–23; Carnegie Institution, 31– Fel. Geol. Soc. Historical geology and physiography.

Hinegardner, Dr. W(llbie) S(cott), 8449 W. Rivershore Drive, Niagara Falls, N. Y. *Chemistry.* Midland, Va, Dec. 29, 97. A.B, Bridgewater Col, 22; A.M, Virginia, 23; Ph.D, Yale, 27. Acting prof. chem, Atlantic Christian Col, 24–25; instr, Mass. Col, 27–28; Metz fellow, Yale, 28–29; *research chemist*, Roessler and Hasslacher Chem. Co, 29–33, *Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 33–* A.A; Chem. Soc. Creatine and creatinine; chaulmoogric acid; thiazole substituted amines; bacteriology; formaldehyde; peroxygen compounds; cyanides.

Hineline, Dr. Gertrude W(hite), 425 Rich Ave, Mt. Vernon, N. Y. *Biology.* Menomonie, Wis. A.B, Milwaukee-Downer Col, 13; A.M, Wisconsin, 14, Ph.D, 18. Asst, Wisconsin, 14–18; instr. biol, Carnegie Inst. Tech, 18–25; N. Y. Univ, 25–26. A.A; Soc. Zool. Animal behavior; association and color discrimination in mud minnows and sticklebacks; color reactions of shrimp and squib larvae.

Hiner, Prof. L(ovell) David, Ohio State University, Columbus, Ohio. *Pharmacology, Pharmacognosy.* Platte, S. Dak, May 6, 05. Ph.C. and B.S, S. Dak. State Col, 29; M.S, Florida, 31, Ph.D, 38. Asst. *pharmacog*, Florida, 29–31, instr, 31–33, asst, 37–38; instr, S. Dak. State Col, 33–35, asst. prof, 35–37, prof. and head dept, 38–40; *prof, Ohio State, 40–* Mem. subcmts. bot. and pharmacy, U. S. Pharmacopoeia and Nat. Formulary. Pharm. Asn. Cultivation of medicinal plants; crude drugs; pharmacology of new drugs.

Hines, Prof. H(arry) M(atlock), 823 Clark St, Iowa City, Iowa. *Physiology.* Spencer, Iowa, Feb. 16, 93. A.B, Iowa, 16, M.S, 17, Ph.D, 22. Instr. *physiol, Iowa*, 19–22, asst. prof, 22–26, assoc. prof, 26–36, *prof, 36–* Physiol. Soc; Soc. Exp. Biol; Harvey Soc; Iowa Acad. Muscle extractives; carbohydrate metabolism; bacterial toxins; muscular atrophy and dystrophy.

Hines, Prof. Marion, Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy, Neurology.* Carthage, Mo, June 11, 89. A.B, Smith Col, 13, Sc.D, 43; Ph.D, Chicago, 17; London, 20; Cambridge, 23–24. Asst. *anat*, Chicago, 15–17, assoc, 17–18, instr, 18–24, asst. prof, 24–25; assoc, *sch. med, Hopkins*, 25–30, *assoc. prof, 30–* Asn. Anat; Physiol. Soc; Neur. Asn. Growth of the telencephalon in man; innervation of skeletal muscle; spasticity; cortical control of movements.

Hines, Prof. Murray Arnold, 300 Knowles Ave, Winter Park, Fla. *Chemistry.* North Adams, Mass, Aug. 5, 76. A.B, St. Lawrence, 99, A.M, 01; A.B, Harvard, 01, A.M, 03, Ph.D, 06. Asst. chem. and Austin teaching fellow, Harvard, 02–06; chemist, Mallinckrodt Chem. Works, St. Louis, 06–07; asst. prof. *chem*, Northwestern, 07–16, assoc. prof, 16–19, prof, 19–42, acting chairman, 29–34, chairman, 34–42, *emer. prof, 42–* A.A; Chem. Soc. Specific gravities of cadmium chlorid and cadmium bromid; atomic weights of cadmium, manganese and chromium.

Hines, Dr. W(illiam) G(rant), 195 O'Connor Drive, Toronto, Ont, Can. *Physical chemistry.* Hamilton, Ont, June 22, 16. B.A, Toronto, 37, M.A, 38, Ph.D, 42. Senior research asst, Nat. Research Council Can, 38–40; *chemist, Research Enterprises Ltd, 42–* Asn. Tech. Employees. Binary liquid; vapor equilibrium in the system; ethanol; acetone.

Hinkle, S(amuel) F(orry), Hershey Chocolate Corp, Hershey, Pa. *Chemical engineering.* Columbia, Pa, June 9, 00. B.S, Pa. State Col, 22. Chemist in charge lab, Norton Co, Chippawa, Ont, Can, 22–23; chief chemist, Nat. Abrasive Co, Niagara Falls, Ont, 23–24; *chief chemist and director research, Hershey Chocolate Corp, 24–* A.A; Chem. Soc; Inst. Chem; Inst. Food Technol. Process in manufacture of chocolate products; sanitation in food manufacture; protective preparation of perishable foods; metals in foods; army rations.

Hinman, Dr. E. Harold, Institute of Inter-American Affairs, San Salvador, El Salvador, Cent. Amer. *Medical entomology, Malariology, Parasitology.* Wicklow, Ont, Can, March 20, 04. B.A, Queen's (Can), 27; M.S, Cornell, 28, Ph.D, 30; M.B, Louisiana, 37, M.D, 38; M.P.H, Hopkins. Asst. master, pub. sch, Toronto, 23–26; asst. biol, Cornell, 27–30; nat. research fellow, dept. trop. med, sch. med, Tulane, 30–32; asst. prof. parasitol. and med. entom, med. center, Louisiana, 32–37; senior biologist, health and safety dept, Tenn. Valley Authority, 37–43; *head pub. health officer, Inst. Inter-Amer. Affairs, 43–* Summers, Heckscher asst, Cornell, 27–30. Nat. Malaria Cmt. A.A; Entom. Soc. Amer; Soc. Parasitol; Soc. Exp. Biol; Soc. Trop. Med. (sec'y-treas, 38–42); Acad. Trop. Med; Southeast. Biol; Ala. Acad; fel. Royal Trop. Med. Tropical medicine; ecology of culicid larvae; aquatic plants in relation to mosquito control; food of mosquito larvae; filarial periodicity; human parasites; malaria control; public health.

Hinman, Dr. Frank, 384 Post St, San Francisco, Calif. *Medicine.* Forest Grove, Oregon, April 1, 80. A.B, Stanford, 02; M.D, Hopkins, 06, 12–15. *Clin. prof. urol, med. sch, California, 15–* Gold medals, sci. exhib, Am. Med. Asn. A.A; Am. Med. Asn; fel. Col. Surg; Urol. Asn; Asn. Genito-Urinary Surg; Clin. Soc. Genito-Urinary Surg; Int. Asn. Genito-Urinary Surg. Urology.

Hinman, Prof. Jack J(ones), Jr, State University of Iowa, Iowa City, Iowa. *Chemistry, Engineering.* Indianapolis, Ind, Oct. 14, 88. Purdue, 07–09; A.B, Butler, 11, M.S, 15; Rennes, 19; Chem. Warfare Sch, U. S. Army, 36; B.S, Iowa, 37, C.E, 38. Asst. chemist, State Board Health, Ind, 06–11; chemist, Wabash Baking Powder Co, 11; city chemist, Indianapolis, 11–14; senior water bacteriologist and chemist, State Board Health, *Iowa*, 14–18, *chief water lab. div, State Hygienic Labs, 21–*; instr. water and sewage examinations, *Iowa*, 14–18, asst. prof. epidemiol, 18–21, *assoc. prof. sanit, 21–; lieut. col, Chem. Warfare Service, U. S. Army, 40–*, chief water supply sect, engineer board, Ft. Belvoir, Va, 40–42, commanding officer, 34th div, 41, *mem. staff and faculty, Chem. Warfare Sch, Edgewood Arsenal, 42–* Special water expert, Empresas Publicas Municipales, Barranquilla, Colombia, 29. Advisory cmt. water standards, U. S. Pub. Health Service, 22. Sanit.C, 18–19, capt; lieut-col, C.W.S, Iowa Nat. Guard. Chem. Soc; Chem. Eng; Water Works Asn. (trustee, 18–21, sec'y, Iowa sect, 15–28, chairman, cmt. standard methods of water anal, 17–32, chairman, sect. chem. and bact, 20, sec'y, 21–22, 24, nat. v. pres, 28, nat. pres, 29); Soc. Mil. Eng; Civil Eng; Inf. Asn; Field Artil. Asn; fel. Pub. Health Asn; Iowa Eng. Soc. (pres, 25); Iowa Wastes Disposal Asn. (pres, 29–31); Iowa Acad; Ind. Acad. Sanitation; sanitary biology; formaldehyde; milk; water purification and examination; waste disposal; swimming pools; protection against chemical warfare; water supply for troops.

Hinrichs, Prof. F(rederic) W(illiam), Jr, 1071 N. Garfield Ave, Pasadena, Calif. *Mechanics.* Brooklyn, N. Y, Nov. 3, 78. A.B, Columbia, 02; grad, U. S. Mil. Acad, 02. Lieut. and capt, Ordnance Dept, 02–10; asst. prof. applied mech, Rochester, 10–14, prof, 14–19; asst. prof. *mech, Calif. Inst. Tech*, 20–21, assoc. prof, 21–23, *prof. and dean upper classmen, 23–* Summer, California, 23. Ordnance Dept, 17–19, lieut. col. A.A; Eng. Educ; Army Ordnance Asn. Strength of materials; testing materials.

Hinrichs, Prof. Marie A, 806 Elizabeth St, Carbondale, Ill. *Physiology.* Chicago, Ill, Sept. 22, 92. A.B, Lake Forest Col, 17; Ph.D, Chicago, 23, M.D, Rush, 34. Instr. zool, Vassar Col, 20–21; asst, Nela Research Lab, 22–24; nat. research fellow, Chicago, 24–26, research assoc. physiol, 26–34; assoc. prof. and head dept, *South. Ill. State Nor. Univ, Carbondale*, 35–38, *prof. physiol. and hygiene and head dept, 38–*, head student health service, 35. Marine Biol. Lab, Woods Hole. Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Ill. Acad. General physiology; modification of embryonic development; physiological action of alkaloids and light of different wavelengths; twinning in fishes; heart rhythms as influenced by

ultra-violet radiation; applied physiology; problems in student health.

Hinrichsen, Prof. J(ohn) J(ames) L(uett), 321 Pearson Ave, Ames, Iowa. *Mathematics.* Davenport, Iowa, July 21, 03. B.S, Iowa State Col, 25; A.M, Harvard, 27, Ph.D, 29. Instr. *math, Iowa State Col,* 29–30, asst. prof, 30–40, *assoc. prof, 40–,* asst. to dean grad. col, 35–38. Math. Soc; Iowa Acad. Problems of n-bodies; dynamics; analysis.

Hinsdale, Dr. Guy, College of Physicians, 22nd and Chestnut Sts, Philadelphia, Pa. *Medicine, Climatology.* Brooklyn, N. Y, Oct. 26, 58. A.B, Amherst Col, 78, A.M, 81; M.D, Pennsylvania, 81. Lecturer climat, Pennsylvania, 96–00; Medico-Chirurg. Col. Phila, 05–16; med. director, White Sulphur Springs; *mem. staff, Col. Physicians, Phila, 43–* Mem, Cong. Int. du Tourism, du Climatism et du Thermalism, Paris, 37. Alvarenga prize, Col. Physicians Phila, 95; Boylston prize, Harvard, 98; Hodgkins prize, Smithsonian Institution, 14. Clin. and Climat. Asn. (pres, 19); Neur. Asn; Meteorol. Soc; Col. Physicians Phila. (curator, 84–01); fel. Royal Soc. Med; Int. Soc. Med. Hydrol. (Am. rep). Neurology; hydrotherapy; balneology; heliotherapy.

Hinsdale, Dr. W(ilbert) B, University of Michigan, Ann Arbor, Mich. *Archeology.* Wadsworth, Ohio, May 25, 51. B.S, Hiram Col, 75, M.S, 78, A.M, 98; M.D, Cleveland, 87; hon. A.M, Michigan, 34. Prof. med. and dean homeop, med. sch, *Michigan, 96–23, emer. prof. internal med. and custodian archeol. museum, 23–* Pres, Mich. State Board in charge State Tuber. Sanatorium. Archeol. Asn; Anthrop. Asn; Inst. Homeop. (pres, 13); Mich. Acad. (pres, 31). Archeology of the Great Lakes region; medicine; sanitation; anthropology.

Hinsey, Prof. Joseph C(larence), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *[7]Anatomy, Physiology.* Ottumwa, Iowa, April 29, 01. B.S, Northwestern, 22, fellow, 22–23, M.S, 23; Ph.D, Washington (St. Louis), 27. Asst. zool, Northwestern, 21–22; instr. biol, Western Reserve, 23–24; asst. neuroanat. and histol, Washington (St. Louis), 24–27, asst. prof, 27–28; neuroanat, inst. neur, Northwestern, 28–29, assoc. prof, 29–30; prof. anat, Stanford, 30–36; *prof. and head dept.* physiol, *med. col, Cornell,* 36–39, *anat, 39–, dean, 42–* A.A; Asn. Anat. (exec. cmt, 40–); Physiol. Soc; Soc. Exp. Biol. (councilor, 40–42); Neur. Asn; Harvey Soc. (sec'y, 41–); N. Y. Acad. Med. Anatomy and physiology of the nervous system; innervation of skeletal muscle and its blood vessels; reflexes in walking and standing; innervation and growth of female reproductive tract; visceral nervous system.

Hinshaw, Dr. H(orton) Corwin, Mayo Clinic, Rochester, Minn. *Internal medicine.* Iowa Falls, Iowa, Aug. 1, 02. A.B, Col. of Idaho, 23; A.M, California, 26, Ph.D, 27; M.D, Pennsylvania, 33. Asst. zool, Pittsburgh, 23–24, bot, 24; teaching fellow zool, California, 24–25, asst, 25–27, instr, 27–28; adj. prof. parasitol, sch. med, Am. Univ. Beirut, 28–32, assoc. prof, 32–33; fellow med, *Mayo Foundation, Minnesota,* 33–35, *asst. prof. med, 35–; consulting physician, Mayo Clinic, 35–* Asst, Calif. Stomatol. Research Group, 25–28; instr, sch. med, Pennsylvania, 31–33. Del, Int. Cong. Trop. Med, Cairo, 28; Int. Cong. Microbiol, Paris, 30. Soc. Exp. Biol; Am. Med. Asn; Cent. Soc. Clin. Research. Parasitology in medicine; bacteriology; protozoa of the human mouth; causes of dysentery; gastro-enterology; pulmonary diseases; chemotherapy; treatment of experimental tuberculosis; aviation medicine.

Hinshaw, Dr. W(illiam) R(ussell), College of Agriculture, University of California, Davis, Calif. *Veterinary science.* Traverse City, Mich, Dec. 20, 96. D.V.M, Mich. State Col, 23; M.S, Kans. State Col, 26; hon. fellow, Yale, 35–36, Ph.D, 39. Instr. bacter, Kans. State Col, 23–27; chief disease control lab, Mass. Col, 27–29; assoc. veterinarian, *col. agr, California,* 29–39, *veterinarian, 39–,* assoc. prof. veterinary science, *40–* Summer, asst. prof, Kans. State Col, 27. Chairman, Northeast. Conf. Lab. Workers in Pullorum Disease Control, 28–29; sect. path, World's Poultry Cong, 39. A.A; Vet. Med. Asn. (chairman, poultry disease cmt, 29–32, poultry sect, 30); Soc. Bact; Poultry Sci. Asn. (chairman, sect. diseases, 34, director, 34–36; mem, Borden research award cmt, 38, 39, chairman, 39; assoc. ed, 42–); U. S. Live Stock Sanit. Asn. (chairman, poultry diseases sect, 26, 28). Diseases of turkeys; avian Salmonelloses.

Hinsie, Dr. Leland E(arl), 722 W. 168th St, New York, N. Y. *Psychiatry.* Schenectady, N. Y, Oct. 20, 93. M.D, Albany Med. Col, 20. Asst. physician, *N. Y. Psychiat. Inst,* 24–24, senior physician, 24–29, research assoc. psychiat, 29–34, *asst director, 34–;* instr. psychiat, med. col, Cornell, 25–29; *prof.* clin. psychiat, *col. physicians and surg, Columbia,* 29–37, *psychiat, 37–* Sec'y cmt. syphilis, Int. Conf. Fever Therapy, New York, 37. Psychiat. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Psychoanal. Asn; N. Y. Soc. Clin. Research; N. Y. Neur. Soc; N. Y. Acad. Med. Treatment of schizophrenia; general paralysis; psychiatric dictionary.

Hinton, Prof. H(enry) D(avid), 412 Tonti Ave, South Bend, Ind. *Organic chemistry.* Mulberry Grove, Ill, Feb. 27, 95. B.S, Ill. Col, 19; M.S, Chicago, 26; Ph.D, Notre Dame, 30. Instr. *chem,* Mich. State Col, 25–28; asst. prof, *Notre Dame,* 30–34, assoc. prof, 34–40, *prof, 40–* Chem. Soc; Ind. Acad. Synthesis of organic compounds from acetylene; boron trifluoride as a catalyst in organic reactions; use of pyridine in esterification.

Hinton, Dean Rob(er)t T(aylor), Georgetown College, Georgetown, Ky. *Biology.* Paris, Ky, July 11, 78. A.M, Georgetown Col, 99, LL.D, 42; A.B, Yale, 00, A.M, 05, M.S, 06. *Prof. biol, Georgetown Col,* 06–18, *19–,* director athletics, 06–18, chairman board deans, 19–30, *dean, 34–,* summer, acting pres, 34, acting pres, 42. Director athletics, Y.M.C.A, U. S. Army, 18–19. A.A; Ky. Acad. (pres, trustee, 38–42). Mendel's law of heredity.

Hinton, Prof. William Arthur, Duke University, Durham, N. C. *Mechanical engineering.* Gwinnett Co, Ga, Aug. 31, 08. B.S, Ga. Tech, 30; M.S, Yale, 31. Prin, high sch, Ga, 31–35; instr. *mech. eng,* Ga. Tech, 35–36, *asst. prof,* 36–42; *Duke, 42–* Mech. Eng; Eng. Educ. Effect of attic fan operation on the cooling of a structure.

Hinton, Dr. William A(ugustus), 240 Longwood Ave, Boston, Mass. *Pathology, Bacteriology.* Chicago, Ill, Dec. 15, 83. B.S, Harvard, 05, M.D, 12. *Instr. prev. med, hygiene, immunol. and bacter, Harvard Med. Sch.* Pathologist and director research, Boston Dispensary. Chief Wassermann lab, State Dept. Health, Mass. A.A; Soc. Clin. Path; Soc. Bact; Am. Med. Asn. Serology of syphilis and gonococcus infections in relation to public health; treatment of syphilis.

Hintze, Prof. F(erdinand) F(rlis), University of Utah, Salt Lake City, Utah. *Geology, Paleontology.* Big Cottonwood, Utah, Dec. 8, 81. A.B, Utah, 08, A.M, 11; Ph.D, Columbia, 13. Asst. chem, Utah, 06–08; prof. physical sciences, Weber Acad, Ogden, 08–09; asst. geol, Utah, 09–10, instr. miner. and geol, 10–11; paleont, Columbia, 11–13; asst. prof. geol, Lehigh, 13–18; chief geologist, Producers and Refiners Corp, 18–23; consulting geologist, Denver, 23–29; assoc. prof. *geol, Utah,* 29–38, *prof, 38–* Summers, geologist, Wyo. Geol. Surv, 14; U. S. Geol. Surv, 15. A.A; Geol. Soc; Min. and Metal. Eng. Historical and oil geology.

Hipple, Dr. John A(lfred), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Physics.* Lancaster, Pa, June 22, 11. B.S, Franklin and Marshall Col, 33; M.S, Princeton, 35, Ph.D, 37. Research fellow, *Westinghouse Elec. and Mfg. Co,* 38–40, *research engineer, electro-physics dept, 40–* Physical Soc. Electronics.

Hipple, J(ohn) M(erton), Westinghouse Electric and Mfg. Co, Springfield, Mass. *Electrical engineering.* Jefferson, Ohio, Oct. 22, 76. M.E, E.E, Ohio State, 98. Designing engineer, *Westinghouse Elec. and Mfg. Co,* 98–11, div. engineer, 11–20, manager motor eng. dept, 20–27, works manager, E. Pittsburgh Works, 27–31, gen. works manager, 31–34, eng. manager, *Springfield Works,* 34–36, *asst. to v. pres,* 36–42, *works manager, 43–* Motor engineering.

Hire, Dr. Cha(rle)s, Kentucky State Teachers College, Murray, Ky. *Physics.* Columbia City, Ind, Dec. 1, 87. A.B, Indiana, 15, A.M, 17, Ph.D, 27. Teacher, dist. sch, 07–09; prin, high sch, 12–14; asst. physics, Indiana, 15–17, instr, 19–23, asst. prof, 23–25; *head dept. physical science, Ky. State Teachers Col, Murray, 25–* U.S.A, 17–19, capt. Physical Soc; Ky. Acad. (v. pres, 31). Brownian movement; interfacial surface tension; maximum capillary elevations; adsorption of air on glass; sun-spots.

Hires, Clara S(heppard), Mistaire Laboratories, 152 Glen Ave, Milburn, N. J. *Botany, Plant physiology.* Merion, Pa, April 8, 97. A.B, Cornell, 28. Teacher science, Edgewood Sch, Conn, 20–25; *owner, Mistaire Labs, 29–* Bot. Soc; Soc. Plant Physiol; Fern Soc; Orchid Soc; Torrey Bot. Club.

Mechanical control of environmental factors for greenhouses; pure culture germination of seeds and spores; influence of light and other factors on germination, growth and reproduction, especially in ferns.

Hirn, W(illiam) C(ullen), 532 Michigan Bldg, Detroit, Mich. *Sanitary engineering.* Spencerville, Ohio, Aug. 22, 82. B.S, Tri-State Col; Michigan, 15–17. Asst. and consulting engineer, 07–10; asst. city engineer, Ga, 11–12; city engineer, Pa, 13–15; county supt. highways, State Highway Dept, Pa, 17–18; asst. engineer, State Dept. Health, Mich, 18–27; *consulting engineer, Pate and Hirn, 27–* Civil Eng; Mich. Eng. Soc; Eng. Soc. Detroit. Water purification; sewage treatment.

Hirose, Dr. R(uby) S(ato), Wm. S. Merrell Co, Cincinnati, Ohio. *Biochemistry, Bacteriology.* Seattle, Wash, Aug. 30, 04. B.S, Washington (Seattle), 28, M.S, 29; Herman M. Moos fellow, Cincinnati, 29–32, Ph.D, 32. *Biochemist and bacteriologist, biol. labs, Wm. S. Merrell Co, 32–* Pharmaceutical study of Hydrastis canadensis; blood coagulation; alum precipitated pollen extract; germicides; bacterial antigens.

Hirsch, Dr. Alfred, 318 Mentor Ave, Painesville, Ohio. *Chemistry.* Mannheim, Germany, Jan. 30, 01. Heidelberg, 19–20; Munich, 20–22; M.A, Berlin, 23, Ph.D, 25. *Research chemist, Diamond Alkali Co, Painesville.* Alkalies; inorganic chemistry.

Hirsch, Dr. E(dwin) F(rederick), 9728 Vanderpoel Ave, Chicago, Ill. *Pathology.* Milwaukee, Wis, Aug. 18, 86. A.B, Northwestern, 10; A.M, Illinois, 11; Ph.D, Chicago, 14, M.D, Rush, 16. Instr. path, Chicago, 14–17; *director Favill lab, St. Luke's Hosp, 19–;* asst. prof. and assoc. prof. *path,* Rush Med. Col, *Chicago,* 21–41, *research assoc. and assoc. prof, univ, 40–* M.C, U.S.A, 17–19. A.A; Asn. Path. and Bact; Soc. Clin. Invest. Bacteriology.

Hirsch, Dr. Nathaniel D. Mttron, 2216 Glenco Terrace, Ft. Worth, Texas. *Psychology.* Nashville, Tenn, Oct. 13, 97. A.B, Harvard, 17, Ph.D, 24; A.M, Columbia, 20. Asst. psychol, Harvard, 24, nat. research fellow, 24–26; Nat. Council Religion and Higher Educ. fellow, 27; instr. and research assoc, Duke, 27–29; chief psychologist and director research, Wayne County Clinic for Child Study, Detroit, 29–35; state director, U. S. Pub. Health Service, N. J, 35–36; senior social science analyst, Social Security Board, 37–40; *psychotherapist, Narcotic Hosp, U. S. Pub. Health Service, 40–* Lecturer, Michigan, 31. Life fellow, Nat. Council Religion and Higher Educ. 3rd Int. Conf. Eugenics. Psychol. Asn; Eugenics Soc. Natio-racial mental differences; experimental study of East Kentucky mountaineers; cephalic index of American-born children of three foreign groups; twins, heredity and environment; genius and creative intelligence; dynamic causes of juvenile crime; mental deviants in the population of the United States.

Hirschberg, Dr. Nell, Box 711, State Laboratory of Hygiene, Raleigh, N. C. *Bacteriology.* Cincinnati, Ohio, Sept. 30, 07. A.B, Smith Col, 28; A.M, Colorado, 33; Ph.D, Illinois, 37. Asst. bacter. and serol, Michael Reese Hosp, Chicago, Ill, 28–37; bacteriologist, Cook County Hosp, 37–39, assoc. bacter. and pub. health, col. med, Illinois, 39–42; *assoc. bacteriologist, U. S. Pub. Health Service, 42–* A.A; Pub. Health Asn; Soc. Bact; Soc. Ill. Bact; Ill. Pub. Health Asn. Public health; general and medical bacteriology.

Hirsche, Herbert F(riedrich), 5549 30th Place, N.W, Washington, D. C. *Public health.* Kimberley, Cape Colony, S. Africa, June 5, 98. Ph.B, Yale, 21, C.P.H, 31. Exec. sec'y, New Haven Cancer Control Cmt, 31–35; research statistician, div. cancer research, State Dept. Health, Conn, 35–40; med. records librarian, Hartford Hosp, Conn, 40–41; *research and records analyst, div. venereal diseases, U. S. Pub. Health Service, 41–* A.A; Pub. Health Asn. Cancer.

Hirschfelder, Prof. Joseph O(akland), University of Wisconsin, Madison, Wis. *Chemistry, Physics.* Baltimore, Md, May 27, 11. Minnesota, 27–29; B.S, Yale, 31; Ph.D, Princeton, 36. Mem, Inst. Advanced Study, 36; asst, Princeton, 36–37; research assoc, *Wisconsin,* 37–39, instr. physics and chem, 40, *asst. prof. chem, 41–* A.A; Chem. Soc. (sec'y-treas Wis. sect, 41); Physical Soc. Applications of quantum and statistical mechanics to chemical properties; structure of molecules; rate of chemical reactions; physical properties of matter.

Hirschkind, Dr. Wilhelm, Great Western Division, Dow Chemical Co, San Francisco, Calif. *Chemistry.* Baiersdorf, Bavaria, Germany, Aug. 14, 86. Royal Inst. Tech. Munich, 04–06; Royal Inst. Tech, Berlin, 06–07; D.Ing, Inst. Tech, Karlsruhe, 09. Chemist and asst. supt, Chromate and Alizarin Factory, Germany, 09–12; instr. chem, Illinois, 12–13; chemist, J. M. Waterman Chem. Co, 13–16; Nat. Soda Products Co, 16–17; research chemist, Great West. Electro-Chem. Co, 17–18; chief chemist, Calif. Alkali Co, 18–22; research chemist and chief chemist, *Great West. div, Dow Chem. Co,* 22–30, v. pres, 30–39, *director research, 39–* Int. Cong. Applied Chem, 12. A.A; Chem. Soc; Civil Eng; Electrochem. Soc. Physical and industrial chemistry; gas equilibria; salt solutions; natural salt brines; alkali manufacture; chlorine and its compounds; synthetic ammonia and ammonia compounds; organic sulfur compounds; flotation agents; liquid sulfur dioxide; sulfur dioxide compounds; organic chlorination.

Hirschler, Dr. Alfred E(rnest), 100 Morton Ave, Ridley Park, Pa. *Physical chemistry.* Bluffton, Ohio, Aug. 30, 11. A.B, Bluffton Col, 33; A.M, Ohio State, 36, Ph.D, 37. Asst. chem, Ohio State, 34–37; *research chemist, Sun Oil Co, 37–* Chem. Soc. Solubilities of red and yellow oxides of mercury in water and alkali; the dissociation constants of mercuric hydroxide.

Hirschmann, Dr. H(ans), University of Pennsylvania, Philadelphia, Pa. *Biological chemistry.* Fuerth, Germany, July 1, 09. Munich; Berlin; M.D, Basel, 34; fellow, Columbia, 37–38, Ph.D, 38. *Research fellow, Pennsylvania, 38–* Chem. Soc. Chemical nature and origin of urinary steroids.

Hirsh, Dr. F(rederick) R(udolph), Jr, 1491 N. Holliston Ave, Pasadena, Calif. *Physics.* Mt. Vernon, N. Y, July 27, 05. A.B, Cornell, 26, A.M, 28, Ph.D, 31. Asst. physics, Cornell, 27–31, res. doctor, dept. physics, 31–37; research fellow physics, Calif. Inst. Tech, 37–41; *independent research, 41–; lecturer physics, Southern California, 42–* A.A; fel. Physical Soc; Optical Soc; Asn. Physics Teachers; N. Y. Acad. Spectroscopy of x-ray satellites; fluorescent x-rays; photometry of soft x-rays; Auger effect in x-ray satellites; occurrence of element 87.

Hirst, Prof. C(harles) T(arry), Utah State Agricultural College, Logan, Utah. *Chemistry.* Paradise, Utah, Sept. 25, 74. B.S, Utah Col, 10, M.S, 14; California, 18–19. Instr, Utah Col, 10–15, asst. prof. *chem,* 15–24, *assoc. prof,* 24–29, *Utah State Col, 29–* Soil and plant chemistry.

Hirst, K(atharine) R(ebecca), Cedar Crest College, Allentown, Pa. *Biology.* Camden, N. J, March 22, 96. B.S, Columbia, 18, A.M, 22; Pennsylvania, 23–24. Teacher, high sch, N. J, 18–21; *head dept. biol, Cedar Crest Col, 24–* A.A; Pub. Health Asn; Pa. Acad. Bacteriology.

Hirst, Dr. L(ester) L, 4800 Forbes St, Pittsburgh, Pa. *Physical chemistry.* Paradise, Utah, Nov. 30, 03. B.S, Utah Col, 25; Ph.D, California, 29. Asst. and assoc. physical chemist, U. S. Bur. Mines, Pittsburgh, 29–30; research chemist, A. O. Smith Corp, Milwaukee, 30–32; dept. develop, Standard Oil Co. of Calif, 32–35; from assoc. to *senior physical chemist, U. S. Bur. Mines, 35–* Chem. Soc. Activity of mercury in amalgams; methanol equilibrium; removal of carbon dioxide from gaseous mixtures; hydrogenation of American coals and tars.

Hirt, Prof. Ray R(oland), New York State College of Forestry, Syracuse, N. Y. *Forestry.* Worthington, Minn, Dec. 24, 93. B.S, Hamline, 17; M.S, Syracuse, 24, Ph.D, 28. Prin, high sch, Minn, 17, 19–21; instr. *forest bot, N. Y. State Col. Forestry, Syracuse,* 21–27, asst. prof, 27–37, *assoc. prof, 37–* Summers, field agent, div. blister rust control, U. S. Dept. Agr, 27–35, div. forest path, 35– U.S.A, 17–19. Soc. Foresters; Forestry Asn; Phytopath. Soc. Forest pathology; fungi in relation to wood decay; relation of white pine infection by Cronartium ribicola to meteorological conditions.

Hisaw, Prof. Frederick L(ee), Harvard University, Cambridge, Mass. ***Zoology.* Newtonia, Mo, Aug. 23, 91. A.B, Missouri, 14, B.S, 15, A.M, 16, LL.D, 38; Ph.D, Wisconsin, 24. Assoc. prof. *zool,* Mississippi, 16–17; asst. prof, Kans. State Col, 19–24; Wisconsin, 24–27, assoc. prof, 27–29, *prof,* 29–35; *Harvard, 35–* Lieut, Inf, 17–19. A.A; Soc. Zool. (pres, 37); Philos. Soc; Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Am. Acad; Asn. Study Int. Secretions. Vertebrate embryology; physiology of reproduction; endocrinology.

Hiscock, Prof. I(ra) V(aughan), 310 Cedar St, New Haven, Conn. *Public health.* May 7, 92. A.B, Wesleyan,

14, A.M, 16, hon. Sc.D, 39; C.P.H, Yale, 21, hon. A.M, 31. Bacteriologist, State Dept. Health, Conn, 14–17; director, City Pub. Health Lab, Columbia, S. C, 19–20; instr. *pub. health, sch. med, Yale*, 20–22, asst. prof, 22–28, assoc. prof, 28–31, *prof, 31–; col, U. S. Army, 42–* Commissioner, Board Health, New Haven, 28–, pres, 41–42. Summer, lecturer, Columbia, 24–26; Teachers Col, Columbia, 29; Southern California, 28, 36, 38; California, 36, 38, 40, 41; consultant, State Cmn. Reorganization of State Dept, Conn, 35; pres, Nat. Health Council, 38, 39; mem. State Cmn. Study of Care and Prevention of Illness, Conn, 40; mem. cmt. information and ed. board, war med, Nat. Research Council, 40– Assoc. ed, 'Am. Jour. Pub. Health,' 30–34, mem. ed. board, 39– Chairman health div, Nat. Conf. Social Work, 30; educ. cmt, Nat. Organization Pub. Health Nursing, health and safety cmt, Boy Scouts Amer; advisory cmt. on pub. health, Commonwealth Fund; pres, New Haven Council Social Agencies, 34, 35; State Conf. Social Work, Conn, 36–37. Bacteriologist, Am. Red Cross, 17–18; Sanit. R.C, U.S.A, 18–19, lieut. col. Fel. Pub. Health Asn. (asst. cmt. munic. health dept. practise, 21–23, 25, chairman, health educ. sect, 28, councilor, 29–, assoc. field director, cmt. admin. practise, 30; cmt. research and standards, 40–; cmt. professional educ, 40–); Soc. Bact. (pres, Conn. Valley branch, 29); Epidemiol. Soc; Tuber. Asn. (chairman, sociol. sect, 35; director, 39–); Soc. Prev. Blindness (director, 39–); Social Hygiene Asn; Conn. Pub. Health Asn. (sec'y-treas, 34–, pres, 38); Conn. Soc. Mental Hygiene (pres, 39–41); Conn. Tuber. Asn. (pres, 40, 41); Int. Asn. Dairy Milk Inspectors (pres. and chairman. cmt. food value milk and milk products, 23–31). Epidemiology; vital statistics; public health administration.

Hisey, Dr. Alan, 1335 H St, N.W, Washington, D. C. *Biochemistry.* Morristown, Tenn, March 19, 05. B.S, Tennessee, 26, M.S, 27, Ph.D, 37. Teaching fellow, Tennessee, 26–27, instr. chem, 27–29, teaching fellow, col. med, 29–31, instr. chem, univ, 31–38; *biochem, George Washington*, 38–42, *asst. prof, 42–* Chem. Soc. Molecular organic compounds; carbon monoxide capacity; iron and total nitrogen of dog hemoglobin; dry active hemoglobin; the oxygen uptake of dry hemoglobin; use of preserved hemoglobin in shock therapy.

Hisey, Prof. W(illis) O(ury), New York State College of Forestry, Syracuse University, Syracuse, N. Y. *Chemistry.* Bloomington, Nebr, Jan. 23, 03. A.B, Willamette, 24; Syracuse, 24; Columbia, 25, 27; Northwestern, 30–32. Research chemist, Oxford Paper Co, 25–29; research chem. engineer, Celotex Co, 29–32; chemist and pulp mill supt, P. H. Glatfelter Paper Co, 33–34; asst. prof. and later *assoc. prof. pulp and paper mfg, N. Y. State Col. Forestry, Syracuse, 34–* A.A; Tech. Asn. Pulp and Paper Indust. Pulp and paper technology and manufacture.

Hitch, Dr. E(mmet) F(rancis), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Vienna, Md, Sept. 3, 82. A.B, Washington Col. (Md), 04; A.M, 07; Ph.D, Cornell, 12. Instr. chem, Washington Col. (Md), 04–06; chem. and math, sch, N. Y, 06–08; org. chem, Cornell, 08–13; asst. prof. org. and sanit. chem, Pittsburgh, 13–14; *chief chemist*, West. Cartridge Co, 14–18; *E. I. du Pont de Nemours and Co, 18–* Chem. Soc; Chem. Eng; Asn. Textile Chem. and Colorists. Explosives; dyestuffs; color and chemical composition; tetrachlorofluorescein; preparation of acetamid; identification of dyes.

Hitchcock, Dr. A(lbert) E(dwin), Boyce Thompson Institute for Plant Research, 1086 Broadway, Yonkers, N. Y. *Plant physiology.* Manhattan, Kans, Jan. 10, 98. A.B, Maryland, 24, fellow, 25, B.S, 25; Ph.D, Columbia, 28. *Plant physiologist, Boyce Thompson Inst, 25–* Summers, field asst, U. S. Dept. Agr, 22–25. Collaborator, U. S. Dept. Agr, bot. collections, West Indies, 12, west. states, 13, Hawaiian Islands, 16. Am. Asn. Adv. Science prize, 35. A.A; Bot. Soc; Soc. Hort. Sci; Torrey Bot. Club. Vegetative propagation; effect of gases on plants; plant hormones and growth substances; growth regulation.

Hitchcock, Dr. Charles H(anchett), 416 Douglas St, Syracuse, N. Y. *Internal medicine.* Chittenango, N. Y, Feb. 29, 96. B.S, Amherst Col, 17; M.D, Hopkins, 21. Asst. med, sch. med, Washington (St. Louis), 23–24; asst. prof, sch. med, St. Louis, 24–25; asst. res. physician, Rockefeller Hosp, 25–28, assoc, Rockefeller Inst, 28–30; bacter, sch. med, Pennsylvania, 31–32, asst. prof, 32–33; *practising physician.* A.A; Am. Physicians; Harvey Soc; N. Y. Acad. Med. Immunology of streptococci; rheumatic fever.

Hitchcock, Prof. C(harles) Leo, University of Washington, Seattle, Wash. *Botany.* Newhall, Calif, April 23, 02. A.B, Pomona Col, 27; A.M, Claremont Cols, 29; Lackland fellow, Mo. Bot. Garden, 29–31; Ph.D, Washington (St. Louis), 31. Teaching fellow, Pomona Col, 27–29, instr. *bot,* 31–32; asst. prof, Montana, 32–34, assoc. prof, 34–37; asst. prof, *Washington (Seattle)*, 37–41, *assoc. prof, 41–, exec. officer, 42–* Parish Bot. Soc. Revision of genus Godetia; new world species of genus Lycium; Nama; Lepidium; Draba; Silene.

Hitchcock, Dr. Curtiss S(ummers), Lawrenceville, N. J. *Physical chemistry.* Woodbury, Conn, Aug. 18, 07. B.S, Princeton, 29, A.M, 30, Ph.D, 33. Asst. chem, Princeton, 29–32; *instr. physics and chem, Lawrenceville Sch, 33–* A.A; Chem. Soc. Molecular rotation in crystalline solids.

Hitchcock, Dr. David I(ngersoll), Yale University School of Medicine, New Haven, Conn. *Biochemistry.* Detroit, Mich, 93. A.B, Dartmouth Col, 15; A.M, Columbia, 19, Ph.D, 22. Instr. chem, Dartmouth Col, 15–17; asst, Columbia, 19–21; from fellow to assoc. gen. physiol, Rockefeller Inst, 21–26; assoc. prof. physiol. and biochem, Bryn Mawr Col, 26–27; asst. prof. *physiol, sch. med, Yale*, 27–30, *assoc. prof, 30–* A.A; Soc. Biol. Chem; Chem. Soc. Enzyme action; physical chemistry of proteins; colloidal behavior; hydrogen ion determination.

Hitchcock, Dean E(mbury) A(sbury), 348 W. Eighth Ave, Columbus, Ohio. *Mechanical engineering.* Henrietta, N. Y, June 26, 66. M.E, Cornell, 90. Designer, Corliss Steam Engine Co, Providence, R. I, 90–93; asst. exp. eng, Ohio State, 93–95, asst. prof, 96–97, assoc. prof, 97–01, prof, 01–13; engineer, E. W. Clark and Co. Management Corp, 13–19; v. pres, Bailey Meter Co, 19–20; dean *col. eng.* and director eng. exp. sta, *Ohio State*, 20–36, *emer. dean, 36–* Del, World Power Conf, London, 24. Soc. Professional Eng; Soc. Mil. Eng; Mech. Eng; Eng. Educ. (v. pres, 29–30). Hydro-electric engineering; boiler and locomotive tests; the economical use of fuels.

Hitchcock, Prof. Frank A(rtemas), Box 86, Route 1, Clifton Station, Va. *Civil engineering.* Elgin, Ill, Jan. 6, 86. B.S, Wisconsin, 10; Cornell, 12–14; M.S, Christian Brothers Col, 24; C.E, Wisconsin, 24. Teacher, high sch, Minn, 10–11; instr. civil and bridge eng, Cornell, 11–14; civil engineer, Robert Col. (Istanbul), 14–15; mem. faculty, Christian Brothers Col, 15–16; prof. civil eng, N. Mex. Col, 16–18; asst, assoc. and engineer-physicist, U. S. Bur. Standards, 18–26, chief cement, concrete and building stone sect, 24–26; *prof. civil eng. and exec. officer dept, George Washington, 26–, director nat. eng. defense training courses, 40–* Prin. asst. engineer in charge sewer and pavement installations construction, Quarter Master's office, Camp Cody, N. Mex, 18. Soc. Test. Mat; Wash. Soc. Eng. Continuously separating granular and pulverulent materials; practice for Portland cement stucco; penetration test of powdered admixtures and the workability of concrete; economic value of admixtures; concrete building units.

Hitchcock, Prof. Frank L(auren), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* New York, N. Y, March 6, 75. A.B, Harvard, 96, Ph.D, 10; Paris, 97–03; Cincinnati, 06–07. Prof. chem, Fargo, 03–06; asst. prof, Kenyon Col, 07–09; instr. *math, Mass. Inst. Tech,* 10–17, asst. prof, 17–23, assoc. prof, 23–29, *prof, 29–* Am. Acad. Mathematical chemistry; quaternions and vector analysis.

Hitchcock, Prof. Fred A(ndrews), 133 Amazon Place, Columbus, Ohio. *Physiology.* Akron, Ohio, Oct. 30, 89. Ph.B, Akron, 12; Chicago, 16; Cambridge, 19; M.S, Ohio State, 23, Ph.D, 26. Instr, high sch, Ohio, 15–16, 19–23; West. Mil. Acad, Ill, 16–17; *physiol, Ohio State*, 23–28, 35–38, *assoc. prof, 35–* 2nd lieut, U.S.A, 17–19. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Inst. Nutrition; Ohio Acad. Growth, vigor and nitrogen metabolism of the white rat; respiratory exchanges in man and animals; metabolism of pupation; physiological effects of decreased barometric pressure.

Hitchcock, Dr. Harold B(radford), Middlebury College, Middlebury, Vt. *Zoology.* Hartford, Conn, June 23, 03. A.B, Williams Col, 26; A.M, Harvard, 32, Ph.D, 38. Asst. biol, Williams Col, 32–34; Harvard, 34–38; instr. zool, Western Ontario, 38–41, *asst. prof,* 41–43; *biol, Middlebury Col, 43–* Soc. Mammal; Can. Conserv. Asn. (sec'y, 39–41, sec'y-treas, 41–43). Behavior of epithelium; natural history and homing of bats.

Hitchcock, Dr. L(aurel) B(lakely), Hooker Electrochemical Co, Niagara Falls, N. Y. *Chemical engineering.* Paris, France, March 18, 00. B.S, Mass. Inst. Tech, 20, M.S, 26, Sc.D, 33. Chemist, H. P. Hood and Sons, Mass, 20; 2nd lieut. and 1st lieut, U.S.A, 21–28; assoc. prof. chem. eng, Virginia, 28–36; *consulting chem. engineer, Hooker Electrochem. Co, 36–* Chairman engineers, advisory cmt, Niagara Falls Defense Council, 42– Capt, Ordnance R.C, 29–35. Chem. Soc. (chairman, Va. sect, 32, councilor, 33); Chem. Eng. (sec'y, cmt. on student chaps, 33–35; chairman west. N. Y. sect, 42); Oil Chemists Soc; Electrochem. Soc. (chairman, alkali-chlorine cmt, 38–42; Niagara Falls sect, 41, manager, 42–); Soc. Test. Mat. (advisory board cmt. soaps and other detergents, 38–40). Vapor pressure of hydrocarbon mixtures; chemical resources and industries of the South; absorption of gases by liquids; viscosity of aqueous solutions; detergents; electrometallurgy of tin; production and utilization of chlorine, sodium hydroxide and hydrogen chloride; chlorination of hydrocarbons.

Hitchcock, Prof. L(eon) W(hitney), University of New Hampshire, Durham, N. H. *Electrical engineering.* West Medway, Mass, June 21, 86. B.S, Worcester Polytech, 08. Design and elec. testing, D. and W. Fuse Co, 08–09; inspector lines and bonding, Boston and North. St. Ry. Co, 09–10; from instr. to *prof. elec. eng, New Hampshire, 10–, acting dean col. tech, 40–, institutional rep, eng, science and management war training, 40–* Dept. univ. exten, State House, Boston, Mass, 16–17. Head instr, electricians div, U.S.A. Training Detachment, New Hampshire, 18. Elec. Eng; Eng. Educ; N. H. Acad.

Hitchcock, Dr. Philip, Cornell University Medical College, New York, N. Y. *Pharmacology.* Petosky, Mich, April 20, 16. A.B, Cent. Okla. Col, 35; M.S, Oklahoma, 38; Ph.D, Tulane, 42. Asst. physiol, Oklahoma, 36–38; *pharmacol,* Tulane, 38–42; *instr, med. col, Cornell, 42–* Metabolism of drugs; pharmacology of phenanthrenes.

Hitchcock, Prof. W(arren) W(ayland), Michigan State College, East Lansing, Mich. *Civil engineering.* Hart, Mich, Feb. 29, 80. B.S, Mich. State Col, 07, C.E, 16; M.S, Iowa State Col, 27. Chicago City Ry. Co, 07–10; Ill. Cent. R. R. Co, 10–11; Holibird-Roche Co, 11–12; Mineral Point Zinc Co, 12–13; asst. prof. civil eng, Mich. State Col, 13–42; *retired.* Mem. highway research board, Nat. Research Council. Mich. Eng. Soc. Highway economics.

Hitchens, Dr. A(rthur) Parker, University of Pennsylvania, Philadelphia, Pa. *Bacteriology, Public health.* Delmar, Del, Sept. 14, 77. Temple Col; M.D, Medico-Chirurg. Col. Phila, 98; Army Med. Sch, 22–24. Instr. path. and bacter, Medico-Chirurg. Col. Phila, 00–01; bacteriologist, Antitoxin Lab, Glenolden, 01–18, director, 06–18; research in tuber, hygienic lab, U. S. Pub. Health Service, 20; asst. prof. bacter, Army Med. Sch, 20–24; tech. adviser pub. health to Governor Gen, P. I, 25–29; in charge 6th corps area lab, U.S.A, 29–34; hematologist, Walter Reed Gen. Hosp, 34–35; instr. bacter. and chief div, Army Med. Sch, 35–39; *asst. prof. mil. science and tactics, Reserve Officers Training Corps, Pennsylvania, 38–, prof. pub. health and prev. med, univ, 39–* U.S.A. Med. Dept, Research Board, Manila, 24–25. Ed, 'Abstracts Bacter,' 16–25. Chairman, Philippine Leprosy Research Board; Advisory Cmt. for Malarial Control, P. I; mem, Governor Gen. Housing Cmn. for City of Manila, 27–29. Mem. Board of Health, Phila, 40–; chief emergency med. service, Phila. Council Defense, 41–42. Trustee, 'Biol. Abstracts,' 26– Major, M.C, 18–19, lieut-col, M.R.C, 19–20, major, M.C, 20–37, lieut-col, 37– Fel. Pub. Health Asn. (chairman, lab. sect, 24, coordinating cmt. on standard methods, 33–); Soc. Bact. (sec'y-treas, 13–22, v. pres, 23, pres, 24); Asn. Immunol; fel. Col. Physicians Phila; Phila. Clin. Soc. (pres, 05). Clinical pathology; bacterial toxins and antisera; immunology; malaria; dengue; tuberculosis.

Hitchings, Dr. George H(erbert), 17 Priscilla Ave, Tuckahoe, N. Y. *Biochemistry.* Hoquiam, Wash, April 18, 05. B.S, Washington (Seattle), 27, M.S, 28; Ph.D, Harvard, 33. Teaching fellow, Washington (Seattle), 26–28; Harvard, 28–34, instr. and tutor biochem. science, 32–36, research fellow, 34–36, assoc, 36–39; senior instr. biochem, Western Reserve, 39–42; *biochemist, Burroughs Wellcome and Co, 42–* A.A; Chem. Soc. Purines; enzymes; nutrition; electrolytes.

Hitchner, Prof. E(lmer) R(eeve), 51 Bennoch Road, Orono, Maine. *Bacteriology.* Woodstown, N. J, March 4, 91. B.S, Pa. State Col, 15, M.S, 16; Ph.D, Wisconsin, 31. Instr. bacter, Pa. State Col, 16–17; N. Y. State Sch. Agr, 17–18; chemist, E. I. du Pont de Nemours and Co, 18–21; instr. bacter, Delaware, 21–22; asst. prof. and assoc. prof, *Maine,* 22–32, *prof. bacter. and biochem. and head dept, 32–* Soc. Bact; Inst. Food Technol. Propionic acid bacteria; pullorum disease control; physiology of slow lactose fermenting bacteria; physiology of Myxobacteria.

Hitzrot, Dr. Ja(me)s Morley, 126 E. 37th St, New York, N. Y. *Surgery.* McKeesport, Pa, Feb. 22, 75. A.B, Princeton, 97; M.D, Hopkins, 01. Consulting surgeon, New York Hosp; North Shore Community Hosp, Glen Cove; Nassau Hosp, Mineola. Surg. Asn; fel. Col. Surg; Am. Med. Asn; N. Y. Surg. Soc; N. Y. Acad. Med; Int. Surg. Soc. Surgery of the spleen; gastro-intestinal and traumatic surgery.

Hixon, Prof. Charles R(obert), Alabama Polytechnic Institute, Auburn, Ala. *Mechanical engineering.* Perote, Ala, Dec. 7, 84. B.S, Ala. Polytech, 07, M.E, 08. Instr. mech. eng. and shops, *Ala. Polytech,* 08–10, assoc. prof. *mech. eng.* and director shops, 10–23, *prof, 23–,* head dept, 37, asst. dean, 33–37. A.A; Mech. Eng; Eng. Educ. (sec'y south. sect, 37–39); Ala. Acad; Royal Soc. Arts. Pitting of water wheels; reclaiming lubricating oil.

Hixon, Prof. R(alph) M(alcolm), Iowa State College, Ames, Iowa. *Phytochemistry.* Crown Point, Ind, May 7, 95. B.S, Iowa State Col, 17; Am-Scandinavian Foundation fellow, Sweden, 19–21; Ph.D, Wisconsin, 21; Germany, 22. Instr. chem, Maine, 18–19; asst. prof, *Iowa State Col,* 23–34, *research prof. chem. and head plant chem. subsect, Exp. Sta, 34–* Sergt, C.W.S, 17–18. Chem. Soc. Organic chemistry of compounds found in plant tissue.

Hixson, Prof. (Arthur) Norman, University of Pennsylvania, Philadelphia, Pa. *Chemical engineering.* Iowa City, Iowa, July 30, 09. A.B, Columbia, 31, B.S, 32, Ch.E, 33, Ph.D, 41. Chem. engineer, Intermetals Corp, 33–35; E. I. du Pont de Nemours and Co, 35–38; instr. *chem. eng, Pennsylvania,* 38–41, *asst. prof, 41–* Chem. Soc; Chem. Eng. Solvent properties of liquid propane; p-v-t properties of organic compounds; liquid-liquid extraction.

Hixson, Prof. Arthur W(arren), Columbia University, New York, N. Y. *Chemical engineering.* Mifflinburg, Pa, July 7, 80. A.B, Kansas, 07, M.S, 15; Ph.D, Columbia, 18. Chemist and metallurgist, Detroit Copper Mining Co, 06–07; chemist, Exp. Sta, Illinois, 08; assoc. prof. indust. chem. and metal, Iowa, 09–17; *chem. eng, Columbia,* 19–27, *prof, 27–, exec. officer dept, 40–* Chairman, Am. Chem. Industries Tercentenary Cmt, 34–35; Town Planning Board, Leonia, N. J. Chairman, Chandler Medal Cmt, 33–; Nichols Medal Jury, 35. Chem. engineer, Ordnance Dept, 18–19. A.A; Chem. Soc. (chairman, N. Y. sect); Chem. Eng; Electrochem. Soc; Chemists' Club; Soc. Chem. Indust. Gt. Britain. Coal; aluminum; asphalt oil; carvacrol; chlorine; dyes; dye intermediates; titanium pigments; chemical plant design and operation; chemical process development; chemical products by fermentation; yeast; chemical patents; chemical engineering economics.

Hixson, Prof. Ephriam, 1718 W. Fourth St, Stillwater, Okla. *Entomology.* Vernon, Texas, Jan. 21, 02. B.S, Okla. Agr. and Mech. Col, 29, M.S, 30; Ph.D, Iowa State Col, 40. Instr. *entom, Okla. Agr. and Mech. Col,* 29–31, asst. prof, 32–41, *assoc. prof, 41–* Asn. Econ. Entom. Boll weevil control; freezing temperatures of chinch bugs; resistance of sweet corn to corn earworm attack; walnut datama; freezing temperature of boll weevil.

Hixson, Prof. Homer, University of Florida, Gainesville, Fla. *Entomology.* Headrick, Okla, April 1, 08. B.S, Okla. Agr. and Mech. Col, 30; M.S, Iowa State Col, 32, Ph.D, 37. Asst. entomologist, U. S. Dept. Agr, 33–34, jr. entomologist, div. insects affecting man and animals, bur. entom. and plant quarantine, 35–37; instr. *entom, col. agr, Florida,* 37–39, *asst. prof, 39–* A.A; Asn. Econ. Entom; Fla. Entom. Soc. (v. pres, 39, pres, 40). Medical and veterinary entomology; ecology of anopheline mosquitoes; natural dissemination of fowl pox.

Hjort, Dr. Axel M(agnus), 14 Fern Way, Scarsdale, N. Y. *Internal medicine.* Chicago, Ill, Nov. 28, 89. A.B, Illinois, 14, M.S, 15; Ph.D, Yale, 18, M.D, 21. Asst. chem, Illinois, 14–15; instr. pharmacol, Yale, 17–21; house officer, Peter Bent Brigham Hosp, 21–22; research biochemist, Parke, Davis and Co, Detroit, 23–26; prof. pharmacol, Dartmouth Med. Sch, 26–29; prin. toxicologist and civilian director med. research div, Chem. Warfare Service, Edgewood Arsenal, 29–32; pharmacologist and physiologist in chief, exp. research labs,

Burroughs Wellcome and Co, 32–41; *private clin. research practice, 41–; clin. research, Grasslands Hosp, Valhalla, N. Y.* Soc. Biol. Chem; Am. Med. Asn; fel. Int. Col. Anesthetists. Clinical pharmacology; biochemistry.

Hjort, Prof. E(lmer) V(ictor), R. F. D. 2, Coconut Grove, Fla. *Chemistry.* Mahaska Co, Iowa, Nov. 30, 90. B.S, Penn Col. (Iowa), 12; Ph.D, Pittsburgh, 24. Teacher, high sch, 12–18; asst. city chemist, Akron, Ohio, 19–20; from asst. to assoc. prof. *chem,* Pittsburgh, 20–36; *prof, Miami (Fla), 36–* U.S.A, 18. Chem. Soc. Microchemistry; chemical microscopy.

Hlynka, Dr. I(sydore), Science Service, Experiment Farm, Ottawa, Ont, Can. *Biochemistry.* Tarnopol, Western Ukraine, Feb. 17, 09. B.Sc, Alberta, 35, M.Sc, 37; Ph.D, Calif. Inst. Tech, 40. Asst. glyoxalines, Alberta, 35–37; teaching fellow purines, Calif. Inst. Tech, 37–39; *research asst. milk lipase, Can. Agr. Dept, 39–* Assoc. Can. Inst. Chem. Chemical aspects of flavors and off flavors of milk and its products, especially cheddar cheese; relation of milk lipase to development of a rancid flavor in cheddar cheese.

Hnizda, Dr. Vincent F(rank), Ethyl Corp, Detroit, Mich. *Chemistry.* Humboldt, Nebr, Jan. 28, 05. B.S, Nebraska, 28, A.M, 30; Ph.D, Brown, 35. Standard Oil Co. of N. J. research chemist, Brown, 36–37; *research chemist, Ethyl Corp, 37–* Chem. Soc. Use of an electrode to study irreversible reactions; phase equilibrium of alcohol, water and benzene; conductance measurements in liquid ammonia; preparation of metallo-organic compounds.

Hoad, W(illiam) C(hristian), 2108 Melrose Ave, Ann Arbor, Mich. *Civil engineering.* Lecompton, Kans, Jan. 11, 74. Lane Col, 90–94; B.S, Kansas, 98. From asst. prof. to prof. civil eng, Kansas, 00–12; munic. and sanit. eng, Michigan, 12–37; *civil engineer, 37–* Engineer, State Board Health, Kans, 07–12; consultant, Shoecraft, Drury and McNamee. A.A; Civil Eng; fel. Pub. Health Asn; Water Works Asn; New Eng. Water Works Asn. Stream pollution; administration of streams; sewage disposal; city water supply; water purification.

Hoadley, Dr. Alfred D(amon), University of Maryland, College Park, Md. *Plant breeding, Agronomy.* Swarthmore, Pa, July 24, 13. B.S, Delaware, 37; M.S, Maryland, 38, Ph.D, 42. *Asst. agronomist and plant breeder, Maryland, 38–* Hybrid field corn breeding.

Hoadley, Prof. George B(urnham), 85 Livingston St, Brooklyn, N. Y. *Electrical engineering.* Swarthmore, Pa, June 24, 09. B.S, Swarthmore Col, 30; M.S, Mass. Inst. Tech, 32, Sc.D, 37. Asst. *elec. eng,* Mass. Inst. Tech, 30–31, instr, 31–40; *asst. prof, Polytech. Inst. Brooklyn, 40–* Elec. Eng; Radio Eng; Physical Soc; Eng. Educ. Electrical measurements.

Hoadley, Prof. Leigh, 25 De Wolfe St, Cambridge, Mass. *[5]Zoology.* Northampton, Mass, Aug. 14, 95. A.B, Michigan, 21; Ph.D, Chicago, 23; A.M, Harvard, 42. Asst. *zool,* Michigan, 16–17, 19–21; Chicago, 21–23; nat. research fellow, 23–25; Int. Educ. Board fellow, Brussels, Berlin, Freiburg, 25–26; asst. prof, Brown, 26–27; *Harvard,* 27–29, assoc. prof, 29–30, *prof, 30–,* chairman dept, 29–34, *master, Leverett House, 41–* Exchange prof, Sorbonne, Paris, 39. Summers, instr, St. Xavier Col, 23; Marine Biol. Lab, Woods Hole, 29, 31–36. Fellowship board biol. sciences, Nat. Research Council, 31–32. Trustee, Radcliffe Col, 37–41. Asst, path. lab, Evacuation Hosp. No. 1, U.S.A, 18. A.A; Soc. Nat; Soc. Zool. (ed, 'Jour. Morphol,' 37–40); Asn. Anat; Soc. Study Develop. and Growth (councilor, 37–41); Am. Acad. (cor. sec'y, 37–40); Boston Biol. Soc; Soc. Zool. de la France. Cytology of ovum; fertilization; physiology of development.

Hoag, Lieut. Commander J. Barton, U. S. Coast Guard Academy, New London, Conn. *Physics.* Colorado Springs, Colo, Sept. 22, 98. A.B, Colo. Col, 20; scholar, Chicago, 21–22, Ph.D, 27. Instr. physics, Colo. Col, 20–21; asst, Chicago, 22–27, instr, 27–30, asst. prof, 30–40; *prof. science and head dept, U. S. Coast Guard Acad, 40–* Radio sch, U.S.A, 18. A.A; Physical Soc; Radio Eng. (sec'y-treas, Chicago sect, 30, pres, 31, convention manager, 33). Extreme ultra-violet spectroscopy; electron physics; ultra-short radio.

Hoag, Dr. L(ehman) E(dward), 647 Albert St, Elmhurst, Ill. *Chemistry.* Waverly, N. Y, Nov. 15, 04. Ch.B, Cornell, 27, Ph.D, 30. *Research chemist, Am. Can Co, Maywood, Ill, 30–* Chem. Soc. Chemical spectroscopy; uranium as an activator; spectrographic detection of fluorine; separation of gallium from iron; quantitative determination of germanium in silicate minerals; protective coatings for food containers.

Hoagland, Dr. Charles L(ee), Rockefeller Institute for Medical Research, New York, N. Y. *Biochemistry.* Benkleman, Nebr, June 6, 07. B.S, Washington (St. Louis), 35, M.D, 35. Asst. res. physician, Rockefeller Inst, 37–38; instr. med, Washington (St. Louis), 38–39; assoc. med. and res. physician, hosp, *Rockefeller Inst,* 39–41, assoc. med, 41–42, *assoc. mem, 42–* Soc. Bact; Asn. Immunol; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc; N. Y. Acad. Diseases of metabolism; nutrition.

Hoagland, Prof. Dennis Rob(er)t, University of California, Berkeley, Calif. *[6]Botany, Chemistry.* Golden, Colo, April 2, 84. A.B, Stanford, 07; A.M, Wisconsin, 13. Instr. agr. chem, California, 07–10; chemist, U. S. Dept. Agr, 10–13; asst. prof. agr. chem, *California,* 13–20, assoc. prof. *plant nutrition,* 20–27, *prof, 27–, head div, 21–, chemist, Exp. Sta, 25–,* chairman dept. bot, 34–36. Nat. Acad; A.A. (pres, Pacific div, 41); Soc. Nat; Chem. Soc; Soc. Plant Physiol. (pres, 32–); Bot. Soc; West. Soc. Soil Sci. (pres, 24); West. Soc. Nat. (pres, 31); Int. Soc. Soil Sci. Agriculture and soil chemistry; plant nutrition.

Hoagland, Prof. H(udson), Clark University, Worcester, Mass. *Physiology.* Rockaway, N. J, Dec. 5, 99. A.B, Columbia, 21; M.S, Mass. Inst. Tech, 24; Ph.D, Harvard, 27. Nat. research fellow physiol, Harvard, 27–28, instr. physiol. and tutor biol, 28–30; Parker traveling fellow from Harvard and lecturer, Cambridge, 30–31; *prof. physiol. and director physiol. labs, Clark, 31–* Consultant, Worcester State Hosp; tutor, Harvard, and research assoc, Harvard Med. Sch, 40–41. Co-editor, 'Exp. Biol. Monographs.' A.A; Physiol. Soc; Psychol. Asn; Soc. Zool; fel. Am. Acad. (recording sec'y). Neurophysiology; chemical pacemakers and temperature characteristics; brain waves in relation to cellular respiration; biological time.

Hoagland, Ralph, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Long Lake, Minn, Sept. 22, 80. B.Agr, Minnesota, 04. Asst. chemist, Minn. Dairy and Food Dept, 04–06; chemist in charge meat inspection lab, U. S. Dept. Agr, Chicago, 06–09; prof. agr. chem. and soils, Minnesota, and chemist, Exp. Sta, 09–13; *chemist, bur. animal indust, U. S. Dept. Agr, 13–* Biochemistry of meats and meat products; vitamins.

Hoaglin, Dr. Raymond I(saac), 1536A Quarrier St, Charleston, W. Va. *Organic chemistry.* Crawfordsville, Ind, Feb. 8, 13. A.B, Wabash Col, 35; M.S, Purdue, 38, Ph.D, 42. Asst. chem, Wabash Col, 35–36; Purdue, 36–41; *research chemist, Carbide and Carbon Chem. Corp, 41–* Synthesis of cis and trans substituted diphenyl butadiene isomers.

Hoar, Prof. C(arl) S(herman), Williams College, Williamstown, Mass. *Botany.* West Acton, Mass, Feb. 7, 89. B.S, Dartmouth Col, 11; A.M, Harvard, 13, Ph.D, 17. Austin teaching fellow bot, Harvard, 13–15; instr, Kans. State Col, 15–16; bot. and biol, *Williams Col,* 16–20, asst. prof. *biol,* 20–32, *assoc. prof, 32–* Summer, instr, Marine Biol. Lab, Woods Hole, 17. U.S.A, 17–18, 2nd lieut, Sanit. C, 18–19. A.A; Bot. Soc. Evolutionary plant morphology and cytology.

Hoar, Roger Sherman, 1265 Fairview Ave, South Milwaukee, Wis. *Military engineering.* Waltham, Mass, April 8, 87. A.B, Harvard, 09, LL.B, 11, A.M, 21. State senator, Mass, 11; asst. attorney-gen, 14–15; senior instr. advanced orientation, Coast Artil. Sch, 18–19; math. and ballistics, Ordnance Sch. Application, 19–20; *with Bucyrus-Erie Co, 21–* Lecturer, Marquette, 26–28. Math. Soc; Math. Asn. Ballistics; the three point problem; north determination; coordinate systems; calculus of tabular functions.

Hoar, Prof. William S(tewart), University of New Brunswick, Fredericton, N. B, Can. *Zoology.* Moncton, N. B, Aug. 31, 13. B.A, New Brunswick, 34; M.A, Western Ontario, 36; Ph.D, Boston, 39. Demonstrator zool, Western Ontario, 34–36; asst. histol. and embryol, med. sch, Boston, 36–39; asst. prof. biol, *New Brunswick,* 39–42, *prof. zool, 42–* Summers, asst, Fisheries Research Board, Can, 35–41; Toronto, 42. Physiology; aspects of histology, embryology and physiology of Atlantic salmon; secondary or wound shock; crush syndrome.

Hoard, Prof. J(ames) L(ynn), Cornell University, Ithaca, N. Y. *Physical chemistry.* Elk City, Okla, Dec. 28, 05. B.S, Washington (Seattle), 27, M.S, 29; Ph.D, Calif. Inst. Tech,

32. Instr. *chem*, Stanford, 32–35; Ohio State, 35–36; *Cornell*, 36–38, asst. prof, 38–42, *assoc. prof, 42–* A.A; Chem. Soc; Physical Soc. Crystal and molecular structure.

Hoare, Prof. Arthur J(oseph), Municipal University of Wichita, Wichita, Kans. *Mathematics.* Essex Co, Eng, 77. A.B, Michigan, 00, A.M, 02; hon. Sc.D, Fairmount Col, 20. Prin, high sch, Iowa, 00–01; prof. math. and Greek, Ind. Nor. Col, Rochester, 03–06; *math*, Fairmount Col, 06–26; *prof. and head dept, Wichita, 26–* Math. Asn. (chairman, Kans. sect, 15–17).

Hobart, Floyd B, 2266 Tremont Road, Columbus, Ohio. *Chemical engineering.* West Lebanon, Ind, Jan. 25, 97. B.S, Illinois, 20, M.S, 21. Instr. gas and fuel anal, Illinois, 20–21, asst. chem. eng, 21–26, assoc, 26–27; chief operator in charge exp. plant, Urbana Coke Corp, Urbana, Ill, 27–29; *chem. engineer*, plant exp. group, Atlantic Ref. Co, Phila, Pa, 29–30; *Battelle Mem. Inst, 30–* Chem. Soc; Soc. Chem. Indust. Detection and estimation of cobalt; coal and oxygen; continuous carbonization of finely crushed coal by radiant heat.

Hobart, Henry M(etcalf), 10 Ballston Road, Schenectady, N. Y. *Electrical engineering.* Boston, Mass, Nov. 29, 68. B.S, Mass. Inst. Tech, 89. Gen. Elec. Co, 89–94; Thomson-Houston Co, London, 94–99; Union Elec. Co, Berlin, 00–03; *consulting engineer*, London, 03–11; *Gen. Elec. Co, 11–* Lecturer, Univ. Col, London; Faraday House; Northampton Inst; James Forrest lecturer, British Inst. Civil Eng, 15. Chairman fundamental research cmt, div. welding, Eng. Foundation. Samuel Wylie Miller mem. medal, Am. Welding Soc, 36. A.A; fel. Elec. Eng; Mech. Eng; Welding Soc; Inst. Elec. Eng. Gt. Britain; Inst. Mech. Eng. Gt. Britain; British Inst. Civil Eng. Electric trains; motors; continuous current dynamos; generators; static transformers; electric propulsion of ships.

Hobbie, Prof. John R(emington), Skidmore College, Saratoga Springs, N. Y. *Physics.* New York, N. Y, Sept. 12, 85. B.S, Harvard, 12, A.M, 14; Ph.D, Columbia, 22. Instr. physics, N. Y. Univ, 14–18, asst. prof, 18–22; *prof. physics and math, Skidmore Col, 22–* Physical Soc; Asn. Physics Teachers. General physics; magnetostriction.

Hobbs, Dean A(llan) W(ilson), University of North Carolina, Chapel Hill, N. C. *Mathematics.* Guilford College, N. C, 85. A.B, Guilford Col, 07; Ph.D, Hopkins, 17. Instr. math, Guilford Col, 09–11, 13–15; *North Carolina*, 17–19, asst. prof, 19–20, assoc. prof, 20–21, *applied math*, 21–24, *prof, 24–, dean col. lib. arts, 30–* Math. Soc; Elisha Mitchell Sci. Soc. Applied mathematics; dynamics.

Hobbs, Prof. Charles S(eright), Cornell University, Ithaca, N. Y. *Animal husbandry, Nutrition.* Inman, Kans, Feb. 2, 09. B.S, Okla. Agr. and Mech. Col, 38; M.S, Cornell, 39, Ph.D, 41. Asst, Exp. Sta, N. Y. State Col. Agr, Cornell, 38–41; asst. prof. *animal husbandry*, Okla. Agr. and Mech. Col, 41–43; *assoc. prof, Cornell, 43–* Soc. Animal Production. Nutrition research with beef cattle and swine.

Hobbs, Prof. George William, 753 Snider Road, East Lansing, Mich. *Mechanical engineering.* Minden City, Mich, Aug. 8, 86. B.S, Mich. State Col, 10, M.E, 21. Mech. engineer, Gen. Motors Corp, 11–13; asst. prof, Wisconsin, 13–17; automotive specialist, U.S.A, 20–21; assoc. prof. *mech. eng, Mich. State Col*, 21–42, *prof, 42–* Lieut, U.S.A, 17–19. Soc. Automotive Eng. Automotive engineering; gasoline automobiles; water as an antidetonant; effect of high compression on engine performance.

Hobbs, Dr. G(lenn) M(oody), 2327 E. 70th St, Chicago, Ill. *Physics.* Yorkville, Ill, Aug. 17, 70. B.L, Illinois, 92; Ph.D, Chicago, 05. Asst. lab, Illinois, 92; Chicago, 92–94, tutor physics, 94–96, asst, 97–98, assoc, 98–01, instr, 01–09; sec'y and educ. director, Am. Correspondence Sch, 09–20; manager tech. labs, Sears, Roebuck and Co, 20–23; head sci. dept, W. M. Welch Mfg. Co, Chicago, 23–35; exec. director, Univ. Illinois Foundation, 35–37; *tech. dept, W. M. Welch Mfg. Co, 37–* A.A. Standards of length and mass.

Hobbs, Prof. Horton H(olcombe), Jr, University of Florida, Gainesville, Fla. *Zoology.* Alachua, Fla, March 29, 14. B.S, Florida, 35, M.S, 36, Ph.D, 40; Virginia, 35. Instr. *biol, Florida*, 39–41, *asst. prof, 41–* Taxonomy, ecology and geographic distribution of freshwater decapod crustaceans of North America, with special reference to the crayfishes of the subfamily Cambarinae.

Hobbs, Dr. Joseph R(aymond), Main Street, Williamsburg, Mass. *Comparative pathology.* Belmont, Mass, Feb. 16, 04. B.S, Mass. Inst. Tech, 25; Sc.D, Hopkins, 28; M.D, Harvard, 32. Asst. filterable viruses, sch. hygiene and pub. health, Hopkins, 26–28; Austin teaching fellow comp. path, Harvard Med. Sch, 28–30; intern, Newton Hosp, 32–33; *practising physician, 33–* Visiting physician, Cooley Dickinson Hosp, Northampton, Mass, 34– Summers, field asst, bur. entom, U. S. Dept. Agr, 29, 30. A.A; Hampshire Dist. Med. Soc. (sec'y-treas, 41–). Filterable viruses and bacteriology.

Hobbs, Dr. Lindsey M(aurice), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Apex, N. C, Nov. 22, 09. B.S, The Citadel, 31; M.S, Alabama, 32; fellow, Chicago, 37–39, Ph.D, 38. Instr. physical chem, Alabama, 39–41; indust. fellow, *Mellon Inst*, 41–42, *senior indust. fellow, 42–* Chem. Soc. Catalysis; polymerization and plastics.

Hobbs, Dr. M(arcus) E(dwin), Duke University, Durham, N. C. *Chemistry.* Chadbourn, N. C, Aug. 11, 09. A.B, Duke, 32, A.M, 34, Ph.D, 36. *Instr. chem, Duke, 35–* Viscosity of gases; dielectric constants and dipole moments.

Hobbs, Prof. W(illiam) H(erbert), University of Michigan, Ann Arbor, Mich. *[1]*Geology, Geography.* Worcester, Mass, July 2, 64. B.S, Worcester Polytech, 83, D.E, 29; fellow, Hopkins, 87–88, A.M, Ph.D, 88; Heidelberg, 89; LL.D, Michigan, 39. Instr. miner. and petrog, Wisconsin, 89–91; asst. prof, 91–00, prof. miner. and petrol, 00–06; *geol, Michigan*, 06–34, *emer. prof, 34–* Exchange prof, Delft, 22; Henry Russel lecturer, Michigan, 31. Asst. geologist, U. S. Geol. Surv, 96–06. Assoc. ed, 'Jour. Geol,' 09– Director, Univ. Mich. exped, Greenland, 26–29, 30. V. pres, Int. Glacier Cmn, 30–36. Chevalier, Légion d'honneur. A.A.. (sec'y, E, 93, v. pres, 32); Geol. Soc. (v. pres, 22); Asn. Geog. (v. pres, 17, pres, 35); Philos. Soc. (councilor, 29–31); Mich. Acad. (v. pres, 08, pres, 17); Wis. Acad. (sec'y, 92–94). Structural and dynamical geology; glaciology; seismology; meteorology; mountain arcs; the earth's fracture systems; polar regions.

Hobby, Dr. G(ladys) L(ounsbury), 630 W. 168th St, New York, N. Y. *Bacteriology, Immunology.* New York, N. Y, Nov. 19, 10. A.B, Vassar Col, 31; A.M, Columbia, 32, Ph.D, 35. *Research asst, Presb. Hosp, 34–* A.A; Soc. Exp. Biol; Soc. Bact. Bacteriophage; bacterial variation; streptococci; rat-bite fever; bacterial enzymes; chemotherapy; penicillin and other antibiotic agents.

Hoberman, Dr. Henry D(on), Harvard Medical School, Boston, Mass. *Biochemistry.* Bridgeport, Conn, April 23, 14. A.B, Columbia, 36, univ. fellow, 41–42, Ph.D, 42. Instr, Finch Junior Col, 40–41; nat. research fellow, Columbia, 42–43; *special research asst. and tutor biochem. sciences, Harvard Med. Sch, 43–* Non-radioactive isotopes; bacterial metabolism.

Hobmaier, Prof. Michael, 1505 Masonic Ave, San Francisco, Calif. *Pathology.* Freising, Bavaria, Germany, Sept. 28, 86. D.V.M, Munich, 18. Asst, vet. faculty, path. inst, Munich; inst. f. infektionskrankheiten, Robert Koch, Berlin, 19–21; head asst, Tieraerztliche Hochschule, Berlin, 21–23; prof. path. anat. and director, Estnische Univ, Dorpat, Estonia, 23–30; *assoc. prof. comp. path, California, 30–* Privat-docent, Berlin, 22–23; pathologist, State Fish and Game Cmn, Calif, 30–33. Soc. Zool; Soc. Exp. Biol; Soc. Trop. Med. Parasitic, lung-worm and wildlife diseases.

Hobrock, Dr. Raymond H(enry), Beach Road, Birmingham, Mich. *Physics.* Ft. Wayne, Ind, Sept. 24, 00. B.S, Purdue, 24, M.S, 27; Am. fellow, Royal Tech. Inst. at Aix-la-Chapelle, 29–30, D.Ing, 30. Asst. and instr. physics, Purdue, 24–26, research, eng. exp. sta, 26–28; research engineer, West. Elec. Co, 28–29, 31–32; fellow, Inst. für Metallphysik des Naumann Inst, 30–31; research engineer and head dept. metal. and mech, Daniel Guggenheim Airship Research Inst, Akron, Ohio, 32–35; director labs. and chief patent div, *Bundy Tubing Co, 35–40, v. pres. in charge research and production, 40–* Ed. board, 'Metal Progress.' Min. and Metal. Eng; Soc. Metals (chairman Detroit sect, 41); Soc. Test. Mat; Soc. Automotive Eng; British Inst. Metals; Deuts. Physik Gesell. Metallurgy; electricity; electronics; engineering; cast iron; steel; welding; aluminum alloys; recrystallization of polycrystalline metals; materials used in joining strong light structures.

Hobson, Dr. Jesse E(dward), Illinois Institute of Technology, Chicago, Ill. *Electrical engineering.* Marshall, Ind, May 2, 11. B.S, Purdue, 32, Tau Beta Pi fellow, 32–33, M.S, 33;

Charles A. Coffin Foundation fellow, Calif. Inst. Tech, 33–34, Ph.D, 35. Asst, Calif. Inst. Tech, 33–35; asst. prof. math, Earlham Col, 35–36; instr. elec. eng, Armour Inst. Tech, 36–37; cent. sta. engineer, Westinghouse Elec. and Mfg. Co, 37–41; *director dept. elec. eng, Ill. Inst. Tech, 41–* Lecturer, Pittsburgh, 37–41, teacher, grad. sch, 37–41. Eta Kappa Nu award, 40. Elec. Eng; West. Soc. Eng. Precision measurements of extra-high voltages; surge voltages; high voltage insulations and power transmission; symmetrical components.

Hoch, Prof. J(ohn) Hampton, Medical College of the State of South Carolina, Charleston, S. C. *Botany, Pharmacognosy.* Philadelphia, Pa, Sept. 20, 04. B.S, Phila. Col. Pharmacy, 25, M.S, 30, Sc.D, 36. Lecturer *bot. and pharmacog, Med. Col. State of S. C,* 29–31, asst. prof, 31–37, *prof, 37–* Auxiliary mem. rev. cmt, U. S. Pharmacopoeia, 33– Pres, Plant Science Seminar, 39. A.A; Pharmaceut. Asn. (chairman sect. hist. of pharmacy, 39); S. C. Pharmaceut. Asn; S. C. Acad. (ed, 'Bul,' 37, 41–). Pharmaceutical botany; pharmacognosy; history of pharmacy and medicine; microchemistry of drugs.

Hochbaum, H(ans) W(eller), 7329 Blair Road, N. W, Washington, D. C. *Agriculture.* Chicago, Ill, July 20, 81. B.S, Cornell, 05. Landscape constructive work, West Chicago parks, 05–06; prof. agr, Colo. State Teachers Col, Greeley, 06–12; Calif. State Nor. Sch, Los Angeles, 12–13; county agr. agent, Ada County, Idaho, 13–14; asst. director exten. and state leader county agr. agents, Univ. Idaho, 14–18; senior agriculturist, *exten. service, U. S. Dept. Agr,* 18–34, prin. agriculturist in charge exten. work in east. states, 34–39, in charge subject matter specialists, 38–39, *chief div. field coordination, 39–* Summers, instr, Cornell; Utah Col; Vermont; Colo. State Col. Method in extension teaching; organization and administration of extension work.

Hochberg, Dr. Seymore, 105–25 65th Road, Forest Hills, L. I, N. Y. *Physical chemistry.* New York, N. Y, July 15, 16. B.S, Col. City of N. Y, 35; A.M, Columbia, 36, Ph.D, 42. Lab. asst. physics, high sch, New York, 38–41; *research chemist, sci. staff, Columbia, 41–* Chem. Soc; N. Y. Acad. Kinetics of dye reactions; acid-base catalysis in deuterium oxide solutions; colloids.

Hochstadter, Irving, 250 E. 43rd St, New York, N. Y. *Chemistry.* New York, N. Y, Oct. 8, 87. B.S, Columbia, 09. *Pres, Hochstadter Labs, 09–; Stillman and Van Siclen, 14–* Research administrator, Gallowhur and Co, 43– Chem. Soc; Soc. Chem. Indust; Chem. Eng; Inst. Chem; Pub. Health Asn; Pub. Works Asn; Asn. Highway Officials N. Atlantic States; Soc. Test. Mat; Nat. Soc. Professional Eng; Soc. Professional Eng. N. Y; Soc. Professional Eng. N. J; Int. Soc. Test. Mat.

Hochwalt, Dr. Carroll A(lonzo), Central Research Department, Monsanto Chemical Co, Dayton, Ohio. *Chemistry.* Dayton, Ohio, April 29, 99. B.Ch.E, Dayton, 20, Sc.D, 35. Research chemist, Gen. Motors Research Corp, 20–23; research chemist and production manager, Ethyl Gasoline Corp, 23–25; research chemist, Thomas and Hochwalt Labs, 26–28, v. pres, 28–36, *assoc. cent. research director, cent. research dept, Monsanto Chem. Co, 36–* Special investigator and consultant, Nat. Defense Research Cmt. Trustee, Univ. Dayton Foundation; pres. board trustees, Dayton; director board, St. Elizabeth's Hosp, 42– A.A; Chem. Soc. (chairman, Dayton sect, 32; councilor, 36, 41); Chem. Eng; Soc. Chem. Indust; Inst. Chem; Chemists' Club; Eng. Club, Dayton (sec'y, 40). Organic compounds of lead as anti-knocks; inorganic and organic phosphorus compounds; composition of lignin and its application to the plastic industry; synthetic resins; protective coatings; polymerization of dienes and rubber; polymers and copolymers; wetting and detergent agents.

Hock, Dr. Charles W(illiam), Textile Foundation, National Bureau of Standards, Washington, D. C. *Biology.* Cressona, Pa, Dec. 12, 12. B.S, Franklin and Marshall Col, 34; Ph.D, Pennsylvania, 38. Instr. bot, Conn. Col, 38–39; *research assoc, textile foundation, Bur. Standards, 39–* Summers, investigator, Oceanog. Inst, Woods Hole, 39, 40. A.A; Bot. Soc; Soc. Plant Physiol. Plant physiology; cytology; bacteriology.

Hockema, Prof. F(rank) C, 832 Main St, West Lafayette, Ind. *Engineering.* Shadeland, Ind, March 25, 92. B.S, Purdue, 18, M.S, 23. Asst. prof. *indust. eng, Purdue,* 20–25, assoc. prof, 25–32, *prof, 32–,* acting director personnel, 33–34, *asst. to pres. and director summer session, 34–* Summers, indust. eng. surveys, 14–18. Sec'y board of trustees, Purdue, 35– Lieut, C.A.C, 18–19. Indust. Eng; Mech. Eng. (exec. cmt, Indianapolis, div, 33–, pres, cent. Ind. sect, 36–); Eng. Educ. (col. relations cmt); Soc. Automotive Eng. Industrial engineering; technique of a national technological unemployment survey of the United States; occupational, personnel and management problems; occupational opportunities and economic status of recent graduates of Purdue University; current problems of professional colleges in the United States.

Hockensmith, Roy D(ouglas), 2832 McKinley Place, N.W, Washington, D. C. *Agronomy.* Gallatin, Mo, Feb. 27, 05. B.S. (Agr), Missouri, 27, A.M, 28. Asst. soils, Missouri, 27–29; asst. prof. agron, Colo. Agr. Col, 29–30, assoc. prof. and in charge soils, 30–34; soils appraiser, Fed. Land Bank, Wichita, Kans, 34–37; regional soil scientist, *soil conservation service, U. S. Dept. Agr,* 37–39, *senior soil scientist and asst. chief physical surys. div, 39–* Soil Sci. Soc; Soc. Agron; Int. Soc. Soil Sci. Electrodialysis of soil; phosphorus in calcareous soils; climate and vegetation and the nitrogen content and hydrogen ion concentration values of the soil; soil morphology; soil mapping; fertilization requirements of soils; flood control; soil conservation.

Hocker, Dr. Carl De Witt, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Chemistry.* Rockville, Ind, Oct. 4, 92. A.B, Wabash Col, 12; Ph.D, Michigan, 15. Research chemist, West. Elec. Co, 15–25, *Bell Tel. Labs, 25–, plant products engineer.* Chem. Soc; Soc. Test. Mat. Organic and physical chemistry; telephone engineering; corrosion; metal finishes; insulation; timber preservation.

Hockett, Elmer, 448 Clinton Heights Ave, Columbus, Ohio. *Chemistry.* Wabash, Ind, April 7, 87. A.B, Wabash Col, 10; A.M, Ohio State, 12. Asst. chem, Ohio State, 12–15; *assoc. ed, 'Chem. Abstracts,' 15–* A.A; Chem. Soc.

Hockett, Prof. Robert C(asad), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Fayette, Mo, July 1, 06. A.B, Ohio State, 25, scholar, 27–28, A.M, 28, du Pont fellow, 28–29, Ph.D, 29. Asst, Ohio State, 25–27; nat. research fellow, 29–31; assoc. technologist, nat. inst. health, U. S. Pub. Health Service, 31–35; asst. prof. *chem, Mass. Inst. Tech,* 35–41, *assoc. prof. org. chem, 41–* Chem. Soc; Am. Acad. Action of alkalis on disaccharides; preparation of rare sugars; degradation of sugars; tetrose sugars; lead tetraacetate oxidations in the sugar group; relative reactivities of the hydroxyl groups in sugars.

Hockett, Prof. S(ebern) W(aldo), Iowa Wesleyan College, Mt. Pleasant, Iowa. *Geological chemistry.* Earlham, Iowa, Aug. 4, 83. B.S, Iowa, 04, M.S, 05; Harvard; Chicago; Michigan; Montana. Head dept. science and math, Minn. State Teachers Col, Moorhead, 10–12; chem. and geol, Winthrop Col. for Women, 12–14; asst. instr, Mich. State Col, Michigan, 14–15; asst. chemist, U. S. Navy Yard, Mare Island, 16–20; prof. math. and head dept, Eureka Col, 20–21; prof. applied science and math. and head dept, Penn Col, 21–31; *prof. chem,* Billings Polytech. Inst, 41–42; *Iowa Wesleyan, 42–* Chem. Soc; Mich. Acad; Mont. Acad; Iowa Acad. Ceramic chemistry; available phosphates of soils; clays and their industrial applications.

Hockey, J(ohn) Fred(erick), Kentville, N. S, Can. *Plant pathology.* Millgrove, Ont, Nov. 18, 95. B.S.A, McGill, 21. Junior and asst. plant pathologist, *lab. plant path, Dom. Dept. Agr,* 21–23, *plant pathologist in charge, 23–* A.A; Phytopath. Soc; Can. Phytopath. Soc. (pres, 40); Can. Soc. Tech. Agr; British Soc. Econ. Biol. Snapdragon rust; mosaic, leaf curl and blue stem of raspberry; apple scab; physiological disorders of apples; orchard fungicide; apple virus diseases.

Hocutt, Lieut. John E(vans), College Apts, Williamsburg, Va. *Organic chemistry.* Wilson, N. C, May 23, 14. B.S, Col. of William and Mary, 35; M.S, Ohio State, 38. Instr. chem, Col. of William and Mary, 35–37; asst, Ohio State, 37–38; instr. chem. and asst. dean men, Col. of William and Mary, 38–41, asst. prof. chem, asst. dean men and asst. to pres, 41–42; *lieut, U. S. Naval Res, 42–* Chem. Soc.

Hodapp, Prof. Eugene L(orenz), Loyola University, Los Angeles, Calif. *Biology.* Mankato, Minn, Nov. 12, 11. B.S, Hamline, 34; fellow, St. Louis, 34–41, M.S, 38. Instr. biol, Fontbonne Col, 40–41; *asst. prof. biol. sciences, Loyola (Calif), 41–* Asst. to Prof. B. J. Luyet, Marine Biol. Lab, Woods Hole, 37. Resistance of protoplasm to low temperatures and to desiccation.

Hodes, Dr. Horace L(ewis), Sydenham Hospital, Baltimore, Md. *Bacteriology, Pediatrics.* Philadelphia, Pa, Dec. 21, 07. A.B, Pennsylvania, 28, M.D, 31. Asst. path. and bacter, Rockefeller Inst, 36–38; *assoc. pediat, med. sch, Hopkins, 38–, lecturer epidemiol, sch. hygiene; med. director, Sydenham Hosp, 38–* Pub. Health Asn; Pediat. Research Soc; Pediat. Soc; Harvey Soc. Tetany; rabies and other neurotropic viruses; immunity in pneumococcus infections in infancy.

Hodgdon, Prof. A(lbion) R(eed), University of New Hampshire, Durham, N. H. *Botany.* Nov. 1, 09. B.S, New Hampshire, 30, M.S, 32; Ph.D, Harvard, 36. Asst, Harvard, 32–36; instr. *bot, New Hampshire,* 36–41, *assoc. prof, 41–, plant taxonomist, Exp. Sta, 41–* Bot. Soc; New Eng. Bot. Club. Systematic botany; plant ecology; flora of New Hampshire; Lechea.

Hodgdon, Dr. Frank B(ayley), 119 N. Ellsworth, Naperville, Ill. *Physical chemistry.* Springfield, Ill, Sept. 11, 07. B.S, Iowa State Col, 30, Ph.D, 37; M.S, Mass. Inst. Tech, 32. Junior engineer, eng. exp. sta, Iowa State Col, 34–37; *chem. engineer, West. Elec. Co, 37–* Instr, Ill. Inst. Tech. Chem. Soc. Heat transfer; plastics.

Hodge, Dr. Alfred H(ume), Aberdeen Proving Ground, Aberdeen, Md. *Physics.* Oxford, Miss, Nov. 20, 02. A.B, Mississippi, 26, A.M, 28; Quincy scholar, Hopkins, 30–32, univ. scholar, 32–33, Ph.D, 34. Instr. physics, Mississippi, 27, asst. prof. physics and astron, 27–29; junior physicist radio, Bur. Standards, 29–30; instr. physics, Hopkins, 30–31; asst. physicist, Bur. Standards, 31–33; *U. S. Army, 34–,* assoc. physicist, research div, ordnance dept. and later *senior physicist, ballistic research lab, Aberdeen Proving Ground.* Radio Eng; Philos. Soc. Wash. Velocity of sound in gases; interior ballistics; instrument design.

Hodge, Prof. Charles, IV, Temple University, Philadelphia, Pa. *Entomology.* Louisville, Ky, Feb. 5, 00. A.B, Pennsylvania, 22, Ph.D, 32. Instr. *biol,* Pennsylvania, 26–31; *Temple,* 31–37, *asst. prof, 37–* Summers, instr, Iowa, 30; biol. lab, Cold Spring Harbor, 33; substitute, Mountain Lake Biol. Sta, Va, 33. Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Entom. Soc; Soc. Zool. Anatomy, histology and nutrition of grasshoppers.

Hodge, Dr. C(lifton Fremont), Sebring, Fla. *[1]*Biology, Neurology.* Janesville, Wis, Oct. 16, 59. A.B, Ripon Col, 82; fellow, Hopkins, 88–89, Ph.D, 89. Fellow and asst. neur, Clark, 89–91; instr. biol, Wisconsin, 91–92; asst. prof. physiol. and neur, Clark, 92–06, prof, 06–13, biol, 02–13; civic biol, Oregon, 13–19; exten. prof. biol, Florida, 19–20; *retired.* Asn. Anat; Physiol. Soc; Forestry Asn; Nature Study Soc. (v. pres, 08, pres, 09); Mass. Forestry Asn; Mass. Audubon Soc. Nature study and life; civic biology; physiology of nerve cells; fatigue; changes due to old age; physiological action of alcohol; daily life and rhythms of rest and activity in animals; dynamics of a series of animal species; domestication of ruffed grouse and bob-white; investigations to save the passenger pigeon from extermination; extermination of the typhoid fly; rat extermination.

Hodge, Dr. E(dward) B(utler), Commercial Solvents Corp, Terre Haute, Ind. *Chemistry.* Fairfield, Iowa, May 9, 10. B.S, Purdue, 31, M.S, 34, fellow, 33–35, Ph.D, 36. Asst. chem, Purdue, 31–33; *research chemist, Commercial Solvents Corp, 35–* Chem. Soc. Nitration of aliphatic hydrocarbons.

Hodge, Dr. Edwin S(tafford), 12695 Littlefield, Detroit, Mich. *Analytical chemistry.* Charlotte, N. C, April 8, 11. B.S, Davidson Col, 35; M.S, Syracuse, 37; Ph.D, Ohio State, 40. Asst. chem, Syracuse, 35–37; Ohio State, 37–40; *spectroscopist,* dept. chem, Exp. Sta, Kentucky, 40–42; *Harry W. Dietert Co, 42–* Chem. Soc; Optical Soc. Spectrographic analysis; effect of anions on line intensity ratio used in spectrographic analysis.

Hodge, Prof. Edwin T(homas), Oregon State Agricultural College, Corvallis, Oregon. *Geology.* Atlanta, Ill, July 12, 89. N. Am. Nor. Col, 07; A.B, Minnesota, 13, A.M, 14; Ph.D, Columbia, 16. Geol. aid, U. S. Geol. Surv, Mont, 12; geologist, Wis. Geol. Surv, and asst, Minnesota, 13; 1st asst. geologist, Pa. Geol. Surv, 14–15; geologist, Govt. P. R, 15–16; traveling fellow, Columbia, 16–17; in charge dept. geol, British Columbia, 17–20; *prof. econ. geol,* Oregon, 20–32, *Oregon State Col, 32–* Consulting geologist, P. R, Can. and U. S, 16–; geologist, Board Appraisal and Apportionment, New York, 16–17; consultant, Bonneville, Mud Mountain and other northwest. dams, 32–; U. S. Engineers. Director northwest mineral surv, U. S. War Dept. Organizer, Int. Mining Convention, 18; pres, B. C. Chamber Mines, 19. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol; Min. and Metal. Eng; fel. Seismol. Soc; fel. Am. Geog. Soc; Miner. Soc; Northwest Sci. Asn; N. Y. Acad; Can. Inst. Min. Eng. (exec. sec'y, west. gen. meeting, 16). Economic geology; minerals of British Columbia; mine waters; classification of igneous and sedimentary rocks; geology and topography of several parts of Oregon; geological work in various countries; engineering geology and ore deposits.

Hodge, Frederick H(umbert), 820 N. Main St, West Lafayette, Ind. *Mathematics.* O'Fallon, Ill, Dec. 10, 70. A.B, Boston, 94; Chicago, 96–97, fellow, 07–08; Clark, 97–98, fellow, 98–99, 01–03, hon. fellow, 03–04; A.M, Boston, 99. Prof. math, J. B. Stetson, 95–96; Bethel Col, 99–01; instr, Clark, 02–05, asst. prof, 05–07; prof, Parsons Col, 08–10; Franklin Col, 10–19; instr, Purdue, 19–21, asst. prof, 21–40; *retired.* A.A; Math. Soc; Math. Asn. (chairman, Ind. sect, 24–26). Constructions leading to conics; generalization of the witch, cissoid and strophoid.

Hodge, Prof. F(rederick) W(ebb), Southwest Museum, Los Angeles, Calif. *[1]*Anthropology.* Plymouth, Eng, Oct. 28, 64. George Washington, 85–86; hon. Sc.D, Pomona Col, 33; LL.D, New Mexico, 34; Litt.D, Southern California, 43. Law and publishing office, 79–84; stenographer, U. S. Geol. Surv, 84–86; field sec'y, Hemenway archeol. exped, 86–89; ethnologist, ed. and librarian, Bur. Am. Ethnol, 89–91; asst. in charge office and acting curator, Int. Exchanges, Smithsonian Inst, 01–05; ethnologist, Bur. Am. Ethnol, 05–10, in charge, 10–18; museum Am. Indian, Heye Foundation, 18–31; *director, Southwest Museum, 32–;* hon. prof. anthrop, Southern California. Conductor archeol. excavations, N. Mex, 17–21, 23. Ed, 'Am. Anthropologist,' 98–17; Curtis' 'The North American Indian.' Nat. Research Council, 21–22, 27–29. Trustee, Lab. Anthrop. and Sch. Am. Research. Anthrop. Asn. (ed, 99–14, pres, 16); Ethnol. Soc; Soc. Am. Archeol; Folk-Lore Soc; Antiq. Soc; N. Y. Acad. (v. pres, 30); Anthrop. Inst. Gt. Britain and Ireland; mem. titulaire Soc. des Américanistes de Paris. Ethnology and archeology of the Pueblo tribes of New Mexico; ethnological and historical annotations of early Spanish accounts of southwestern tribes; handbook of American Indians; bibliography of the Pueblo Indians; annotater of Fray Alonso Benavides' 'Memorial on New Mexico, 1630'; excavations at Nacoochee, Georgia, southern Arizona, Rito de los Frijoles, Puye and Hawikuh, New Mexico.

Hodge, Prof. Harold C(arpenter), 45 Nunda Blvd, Rochester, N. Y. *Biochemistry.* Chicago, Ill, Dec. 19, 04. B.S, Ill. Wesleyan, 25; M.S, Iowa, 27, Ph.D, 30. Asst. prof. chem, Col. of Pacific, 29–30; prof, Ottawa (Kans), 30–31; Rockefeller Foundation fellow dentistry, *Rochester,* 31–33, Rockefeller Foundation senior fellow, 33–36, asst. prof, 36–37, *biochem. and pharmacol,* 37–40, *assoc. prof, 40–* Chaim prize, 34, 37. Chem. Soc. (v. chairman, Rochester sect, 40, chairman, 41); Soc. Biol. Chem; Soc. Exp. Biol. (sec'y west. N. Y. sect, 39–42); Kans. Acad; Int. Asn. Dental Research (publication cmt, 36). Physical and chemical properties of enamel, dentine, cementum and bone; fluorine in caries; molecular constitution of calcium phosphates; lipids in fasting.

Hodge, Dr. Hugh B(ayard), Jr, 757 Chestnut Hill Road, East Aurora, N. Y. *Industrial chemistry.* Philadelphia, Pa, June 17, 02. B.Ch, Cornell, 25, Ph.D, 28. Asst. instr, Cornell, 24–28; plant service chemist, E. I. du Pont de Nemours and Co. and Chicago Varnish Works, 28–32; *research chemist, Lucidol Corp, Buffalo, 33–* Consultant, Consumers' Research, Inc, 32; Manson Glover, Stoughton, Mass, 34. Chem. Soc. Viscosity relationships in the system; sulfuric acid, nitric acid and water; tung-oil paints and printing inks.

Hodge, Prof. Mary W(ilma), Box 595, University, Miss. *Physics.* Pine Valley, Miss, Oct. 20, 09. A.B, Mississippi, 30, A.M, 31; Ph.D, North Carolina, 38. Instr. *physics, Mississippi,* 31–41, *asst. prof, 41–* Physical Soc. Statistical behavior of Geiger Muller tube counters.

Hodge, Prof. Percy, Stevens Institute of Technology, Hoboken, N. J. *Metallography.* Hudson, Ohio, Sept. 30, 70. A.B, 92, B.S, 94; Ph.D, Cornell, 08. Instr. *physics,* Cornell, 05–10; asst. prof, Columbia, 10–11; prof. and head dept, *Stevens Inst. Tech,* 11–38, *emer. prof, 38–* A.A; Physical Soc; Optical Soc. Photoelectric effect; physical metallography.

Hodge, Dr. W(alter) H(enricks), Massachusetts State College, Amherst, Mass. *Botany.* Worcester, Mass, Oct. 14, 12.

A.B, Clark, 34; M.S, Mass. State Col, 36; A.M, Harvard, 40, Parker fellow, 40, Ph.D, 41. Asst, Mass. State Col, 34–36, instr. *bot*, 36–38; asst, Harvard, 38–41; *instr, Mass. State Col, 41–* Summer, prof, Clark, 37. Soc. Plant Taxon; New Eng. Bot. Club. Vascular flora of Dominica and Lesser Antilles; ethnobotany of the island Caribs; economic and taxonomic botany.

Hodge, Prof. W(illard) W(ellington), West Virginia University, Morgantown, W. Va. *Chemical engineering, Metallurgy, Chemistry.* Ripon, Wis, Aug. 22, 84. A.B, Ripon Col, 09, fellow, 09; A.M, Wisconsin, 12, Yale, 13; Columbia, 21–22. Instr, high sch, Wis, 09–10; Mich, 10–11; asst. chem, Sheffield Sci. Sch, Yale, 11–13; plant supt. and chem. engineer, Gen. Labs, 14–15; prof. chem. and physics, Albany Col. (Oregon), 15–17; instr. chem, North Dakota, 17–18; asst. prof. and assoc. prof. org. and physical chem, Oregon State Col, 18–21; *prof. chem. eng. and head dept, West Virginia, 21–*, asst. director *eng. exp. sta, 27–36, director, 36–* Am. Iron and Steel Inst. indust. fellow and senior fellow, Mellon Inst, 38–40. Director, Nat. Council State Boards Eng. Examiners, 39–41. W. Va. Registration Board Professional Engineers, 35; v. chairman, W. Va. Water Purification Conf, 28. Chem. Soc. (chairman, north. W. Va. sect, 25, councilor, 26); Soc. Chem. Indust; Chem. Eng; Eng. Educ. (v. chairman chem. eng. div, 41); Chem. Eng; Water Works Asn; Soc. Professional Eng; Pa. Sewage Works Asn; W. Va. Soc. Professional Eng. (past pres, Morgantown chap); W. Va. Acad. Synthesis of higher phenols; water purification and prevention of stream pollution; utilization of trade wastes; corrosion of aluminum alloys; by-product values of West Virginia coals; extraction experiments on coal; by-products of iron and steel industries.

Hodges, Prof. Clarence (Albert), 6425 N. 13th St, Philadelphia, Pa. *Physics.* Covina, Calif, Dec. 13, 89. A.B, Texas, 21, A.M, 24; Ph.D, Calif. Inst. Tech, 28. Tutor *physics*, Texas, 21–23, instr, 23–26; asst, Calif. Inst. Tech, 26–28; asst. prof, *Temple*, 28–35, *assoc. prof, 35–* A.A; Asn. Physics Teachers; Franklin Inst; Rittenhouse Astron. Soc. Spectroscopy; measurement of the intensity of some lines in the spectrum of neutral helium.

Hodges, Dr. Elver M(yron), Lynch, Nebr. *Agronomy.* Lynch, Nebr, Aug. 2, 12. B.S, Nebraska, 34, M.S, 36; Ph.D, Rutgers, 41. Asst. agronomist, Hawaii, 39–41; *assoc. agronomist, Florida, 41–* Pasture improvement; plant selection, fertilization and management of pastures.

Hodges, Dr. Fred Jenner, University Hospital, Ann Arbor, Mich. *Roentgenology.* Anderson, Ind, Dec. 19, 95. B.S, Wisconsin, 17; M.D, Washington (St. Louis), 19. Asst. med, Washington (St. Louis), 17–19; res. pathologist, Barnes Hosp, 19–20; asst. surgeon, Am. Red Cross, Europe, 20; instr. psychiat. and physiol, Wisconsin, 20–24, lecturer radiol, 24–31; *prof. roentgenol, Michigan, 31–* Roentgen Ray Soc; Am. Med. Asn; Radiol. Soc. N. Amer. Clinical roentgenology; physiology.

Hodges, Dr. F(rederick) Allen, 5513 Worthington Drive, Westhaven, Md. *Botany.* Buffalo, N. Y, Nov. 9, 95. B.S, Syracuse, 23, M.S, 25, Ph.D, 32. Inspector, plant quarantine and control admin, U. S. Dept. Agr, 25–27; instr. plant path, Syracuse, 27–32; junior microanalyst and later *asst. microanalyst, food and drug admin, Fed. Security Agency, 32–* A.A. Plant pathology; mycology; fungal flora of sugar beets.

Hodges, Prof. J(ames) Hallett, University of Michigan, Ann Arbor, Mich. *Physical chemistry.* Mansfield, Mass, Aug. 13, 92. A.B, Harvard, 14, A.M, 15, Ph.D, 17. Instr. *gen. and physical chem, Michigan*, 19–26, *asst. prof, 26–* A.A; Chem. Soc. Compressibility of solids and liquids; atomic weight of zinc; photochemistry; chemical kinetics.

Hodges, Prof. J(ullan) A(dair), Kansas State College, Manhattan, Kans. *Agricultural economics.* Greensburg, Ky, June 26, 95. B.S. (Agr), Kentucky, 17, M.S, 23; Wisconsin, 25; Social Science Research Council fellow, Harvard, 28–29, A.M. and Ph.D, 38. Teacher agr. econ. and marketing, Tennessee, 23; instr. *agr. econ, Kans. State Col*, 23–26, asst. prof, 26–36, assoc. prof, 36–41, *prof, 41–* Econ. Asn; Farm Econ. Asn. Farm organization and types of farming in Kansas.

Hodges, Dr. Paul C(hesley), University of Chicago, Chicago, Ill. *Roentgenology.* Anderson, Ind, Jan. 6, 93. B.S, Wisconsin, 19, Ph.D, 24; M.D, Washington (St. Louis), 18. Instr. physiol, Harvard Med. Sch, Shanghai, China, 15–16; assoc. *roentgenol*, Peking Union Med. Col, Peking, China, 19–23, assoc. prof, 23–27, prof. and head dept, 27–28; assoc. prof, *Chicago*, 27–28, *prof, 28–* A.A; Roentgen Ray Soc. X-ray diagnosis; heart size; pelvimetry and fetometry; photoelectric x-ray exposure meters.

Hodgkins, Dr. E(dward) M(arshall), 45 Bay State Road, Boston, Mass. *Surgery.* Boston, Mass, Dec. 9, 91. M.D, Tufts Col, 15. *Prof. surg, med. sch, Tufts Col, 20–* Fel. Col. Surg. Method of inguinal herniorrhaphy with living fascial sutures obtained from the rectus sheath; use of fascial strips in the repair of recurrent inguinal hernia; treatment of the indirect sac in inguinal herniorrhaphy; Hirst transperitoneal Caesarean section.

Hodgkiss, Prof. H(arold) E(dward), Pennsylvania State College, State College, Pa. *Entomology.* Cambridge, Mass, April 8, 79. B.S, Mass. Col. and Boston, 02; Mass. Col, 02–04. Asst. entomologist, N. Y. Exp. Sta, 04–07; field entomologist, Illinois, 07–08; asst. entomologist, N. Y. Exp. Sta, Geneva, 08–19; *prof. entom, exten, and entomologist, agr. exten. service, Pa. State Col, 19–* A.A; Entom. Soc; Asn. Econ. Entom; Pa. Acad. Economic entomology; Eriophyidae.

Hodgkiss, Dr. W(illiam) S(earles), General Printing Ink Corp, 100 Sixth Ave, New York, N. Y. *Chemistry, Biochemistry.* Geneva, N. Y, Feb. 17, 10. B.S, Pa. State Col, 32, M.S, 34, Ph.D, 37. Asst. chemist, Exp. Sta, Kentucky, 37–42; *chemist, Gen. Printing Ink Corp, 42–* Chem. Soc. Mineral elements necessary for plant and animal growth; microanalysis of plant materials; textile coatings.

Hodgman, Prof. Charles D(avid), Case School of Applied Science, Cleveland, Ohio. *Physics.* Hollis, N. H, Sept. 22, 81. B.S, Dartmouth Col, 05; M.S, Case, 20. Asst. *physics*, Dartmouth Col, 05–06; instr, *Case*, 06–19, asst. prof, 19–21, *assoc. prof, 21–* Lecturer, Western Reserve. A.A; Physical Soc; Optical Soc; Ohio Acad. Three-color photography; the making and testing of color filters; spectrophotometry in the ultra-violet; transmission of ultra-violet radiation by water.

Hodgson, Dr. Ernest A(tkinson), Dominion Observatory, Ottawa, Ont, Can. *Seismology.* Utica, N. Y, 86. B.A, Toronto, 12, M.A, 13; Ph.D, St. Louis, 32. *Seismologist, Dom. Observatory, 14–* Ed, 'Bibliog. of Seismol.' Sec'y Can. sect. seismol, Int. Union Geod. Geophys; chairman, standing cmt. on seismol, 5th Pacific Science Cong. Seismol. Soc; Royal Astron. Soc. Can; fel. Royal Soc. Can; Eng. Inst. Can. Microseisms; seismic radiations; seismicity of Canada; rock bursts; earth structure.

Hodgson, Dr. R(alph) E(dward), Bureau of Dairy Industry, U. S. Department of Agriculture, Washington, D. C. *Dairy husbandry.* Arena, Wis, July 20, 06. B.S, Wisconsin, 29, Ph.D, 41; M.S, Kans. State Col, 30. Agent, bur. dairy indust, U. S. Dept. Agr, asst. dairy husbandman, Exp. Sta, State Col. Wash. and dairy husbandman, West. Wash. Exp. Sta, Puyallup, 30–40; assoc. dairy husbandman, *bur. dairy indust, U. S. Dept. Agr*, 40–41, dairy husbandman, 41–42, *prin. dairy technologist, 42–* Mem, Cmn. to Surv. Dairy Industries, Latin Am. Republics, 42. Animal nutrition; dairy cattle breeding, feeding and management; relation of nutrition to reproduction and artificial insemination in dairy cattle.

Hodgson, R(obert) E, Southeast Experiment Station of the University of Minnesota, Waseca, Minn. *Plant and animal breeding.* Luverne, Minn, Oct. 26, 93. B.S, Minnesota, 16, M.S, 30. County agr. agent, Lyon County, Minn, 18; *supt, southeast exp. sta, Minnesota, 19–* Swine inbreeding; corn breeding; agronomic research with pasture crops, soy-beans and winter wheat; cattle breeding.

Hodgson, Prof. Robert W(illard), University of California at Los Angeles, Los Angeles, Calif. *Horticulture.* Dallas, Texas, April 3, 93. B.S, California, 16, M.S, 17. Asst. bot, California, 15–17, instr. citriculture, 17–19, asst. farm adviser, Los Angeles County, 18–19, farm adviser, 19–24; assoc. prof. *subtrop. hort, California at Los Angeles*, 24–35, *prof, 35–, head div.* subtrop. hort, 25–41, *hort, 41–*, assoc. citriculturist, *Exp. Sta*, 24–29, *subtrop. horticulturist, 29–*, asst. director branch col. agr. in south. Calif, 32–38, acting asst. dean col. agr, 39. Consulting horticulturist, French protectorate govts, Tunisia and Morocco, 30–31; Jewish Farmers Federation, Palestine, 31; hort. adviser, H. H. Maharaja Patiala, India, 36; Govt. of Egypt, 37. Commander, Order of Nichan Iftikhar, Tunisia; officier, Order of Ouissam Alaouite, Morocco; Merite agricole, 38; emblem honor award, Calif. Avocado Soc. A.A; Soc. Hort. Sci; hon. mem. Calif. Avocado Asn. Subtropical

horticulture; citrus fruits; avocado; Oriental persimmon; loquat.

Hodson, Dr. Adrian Z(acharlah), 703 S. Third St, Greenville, Ill. *Nutritional biochemistry.* Gothenburg, Nebr, Jan. 8, 10. B.S, Iowa State Col, 33; Ph.D, Cornell, 37. Asst. animal nutrition, Cornell, 34–37, Borden investigator and instr. poultry nutrition, 37–40; agent, bur. animal indust, U. S. Dept. Agr, 41; fish and wildlife service, U. S. Dept. Interior, 41–42; *chief biochemist, labs, Pet Milk Co, 42–* A.A; Chem. Soc; Genetic Asn. Dairy nutrition, physiology and biochemistry; methods of determining the vitamin content of foods; poultry nutrition; fur animal nutrition; nutritive value of milk.

Hodson, Prof. A(lexander) C(arlton), University of Minnesota, St. Paul, Minn. *Entomology.* Reading, Mass, June 17, 06. B.S, Mass. Col, 28; A.M, Minnesota, 31, Ph.D, 35. Instr. zool, *Minnesota,* 31–32, *entom,* 32–36, asst. prof, 37–43, *assoc. prof, 43–* Field asst, bur. entom. and plant quarantine, U. S. Dept. Agr. Entom. Soc; Asn. Econ. Entom; Ecol. Soc. Insect ecology; forest entomology.

Hodson, Dr. Floyd, Hallandale, Fla. *Paleontology, Stratigraphy.* Newcastle, Ind, Dec. 29, 93. A.B, Indiana, 20; A.M, Cornell, 22, Ph.D, 25. Aid, Ky. Geol. Surv, 21; paleontologist, Standard Oil Co. of Venezuela, 22–34; *consulting paleontologist, 34–* A.A; Paleont. Research Institution; Geol. Soc; Soc. géol. de France. Tertiary Mollusca and Foraminifera.

Hoecker, Dr. F(rank) E(dward), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physics.* St. Joseph, Mo, July 2, 03. A.B, Col. of Emporia, 30; fellow, Kansas, 30–32, A.M, 32, Ph.D, 35. Asst. physics, Kansas, 33–34; chairman dept, Univ. Kansas City, 34–43; *senior physicist, nat. inst. health, U. S. Pub. Health Service, 42–* Physical Soc; Asn. Physics Teachers. Dielectric behavior of dilute binary solutions; moving phosphorescent screen oscillograph; instantaneous electrocardiograms; unique classroom demonstrations; x-ray protection.

Hoecker, Dr. Wesley H(enry), Iowa State College, Ames, Iowa. *Dairy bacteriology.* Warrenton, Mo, Feb. 16, 07. B.S, Iowa State Col, 37, M.S, 38, Ph.D, 41. Asst. *dairy bacter, Iowa State Col,* 37–41, *research assoc, 41–* Dairy Sci. Asn. Bacteriology of butter and cheese; bacteriology of butter cultures.

Hoefer, Prof. E(lmer) G(eorge), 19 Furches St, Raleigh, N. C. *Mechanical engineering.* Freeport, Ill, Aug. 25, 82. B.S, Wisconsin, 05, M.E, 15. Asst, D. C. and Wm. B. Jackson, 05–07; instr. *mech. eng,* Iowa, 07–08; *prof. and head dept,* Wyoming, 08–22; *North Carolina, 22–* Prof, Wisconsin, 14–15; consulting engineer, Wyoming, 08–22; board directors, Wyo. organization for indust. preparedness, U. S. Naval Consulting Board. Mech. Eng; Eng. Educ.

Hoefer, Dr. Paul F(rederick) A(dam), 3900 Greystone Ave, Riverdale, N. Y. *Clinical neurology, Neurophysiology.* Munich, Germany, Nov. 21, 03. Ph.D, M.A, Berlin, 27; M.D, Wurzburg, 28. Asst. physiol, Berlin, 29–32; neur, Heidelberg, 32–33; instr. med, med. sch, Tufts Col, 34–36; research fellow *neur,* Harvard Med. Sch, 36–37, asst, 37–39; assoc, *col. physicians and surg, Columbia,* 39–42, *asst. prof, 42–* Neur. Asn; Asn. Research Nervous and Mental Disease; Harvey Soc; N. Y. Acad. Electrophysiology; medicine; neurology; nerve and muscle action currents.

Hoeffel, Dr. Gerald (Norton), 319 Longwood Ave, Boston, Mass. *Pediatrics.* Oconto, Wis, June 23, 92. Catholic Univ; M.D, Harvard, 21. Intern, Boston City Hosp, 20–22; Mass. Gen. Hosp, 22–24; asst. *pediat, Harvard Med. Sch,* 24–28, *instr, 28–* Asst. visiting physician, Boston Children's Hosp, 24– Fel. Acad. Pediat; fel. Am. Med. Asn; New Eng. Pediat. Soc. (sec'y-treas, 30).

Hoehn, Dr. Willard M(ax), 3120 Coleman Road, Kansas City, Mo. *Organic chemistry.* Mt. Olive, Ill, April 27, 09. A.B.S, Blackburn Col, 30; B.S, Illinois, 32; fellow, Iowa State Col, 32–36, Ph.D, 36. *Research chemist,* Mayo Clinic, 36–39; *George A. Breon and Co, Inc, 39–* Chem. Soc; Mo. Acad. Furan chemistry; hormones; sterols and bile acids.

Hoel, Dr. A(rchie) B(ernhard), 1045 Morgan Ave, Drexel Hill, Pa. *Chemistry.* Menomonie, Wis, Jan. 30, 92. Wisconsin, 11–12; A.B, Montana, 16; Ph.D, Cornell, 21. Heckscher asst, Cornell, 21–22; research chemist, Atlantic Ref. Co, Phila, 22–33; *tech. rep, Sun Oil Co, Phila, 33–* Chem. Soc; Leather Chemists Asn. Hydronitric acid and the trinitrides; storage batteries; petroleum; rubber; leather.

Hoel, Prof. Paul G(erhard), University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* Iola, Wis, March 23, 05. A.B, Luther Col, 26; A.M, Minnesota, 29, Ph.D, 33. Instr. *math,* Rose Polytech, 31–35, asst. prof, 35–36; fellow, Am-Scandinavian Foundation, 36–37; instr, Oregon State Col, 37–39; *California at Los Angeles,* 39–41, *asst. prof, 41–* Math. Soc; Math. Inst; Inst. Math. Statist. Theoretical statistics; approximation theory.

Hoelscher, Dr. Arnold P(eter), 771 National Drive, Pittsburgh 10, Pa. *Chemistry, Metallurgy.* Hubbard, Iowa, March 21, 01. B.S, Iowa State Col, 23, Ph.D, 30. Asst, Pittsburgh, 24–25; chem, Iowa State Col, 23–24, 26–29, 31–32; instr, Iowa, 32–36; asst. prof. metal, Purdue, 36–37; *research assoc, Carnegie-Ill. Steel Corp, 37–* Hayes Process Co, 27, 30; du Pont Ammonia Corp, 28; metallurgist, Rock Island Arsenal, 34. Soc. Metals; Min. and Metal. Eng. Effect of manganese and sulfur on the rates of malleableization of white cast iron.

Hoelzel, Frederick, 5307 S. Ellis Ave, Chicago, Ill. *Physiology.* Küps, Bavaria, May 5, 89. Voluntary research *physiol, Chicago,* 25–41, *asst, 42–* A.A. Gastric secretory and motor activity; hunger; intestinal rate; experimental peptics; ulcer; experimental fasting; nutritional edema; incidence of cold; dietetic cellulose and mechanical laxatives.

Hoen, Albert B(erthold), 100 Ridgewood Road, Baltimore, Md. *Geology, Geography.* Baltimore, Md, Feb. 4, 64. A.B, A.M, Loyola Col. (Md); Hopkins. *Pres, A. Hoen and Co.* Advisory board, U. S. Board Surveys and Maps. A.A; fel. and hon. mem. Am. Geog. Soc; Md. Hist. Soc. Lithographic limestone in Iowa; lithography; map editing; color standards and nomenclature.

Hoen, Prof. R(eu) E(verett), Pacific Union College, Angwin, Calif. *Organic chemistry.* Ames, Iowa, Oct. 27, 88. A.B, Union Col. (Nebr), 13; M.S, Chicago, 28, Ph.D, 34. Head dept. science, Clinton Theol. Sem. (Mo), 13–23; registrar and head dept. physical sciences, Broadview Junior Col, 23–27; head dept. science, Hutchinson Theol. Sem. (Minn), 27–29; prof. physical science and math, Emmanuel Missionary Col, 29–36; *prof. math. and chem, Pacific Union Col, 36–* Summer, asst, Chicago, 29. Trustee, Broadview Junior Col, 24–27; Emmanuel Missionary Col, 30–34. A.A; Chem. Soc. General science; thermal decomposition of organic nitrites; tetracarbon saccharinic acids; carbohydrate chemistry; science survey courses.

Hoerner, G(odfrey) R(ichard), 2716 Arnold Way, Corvallis, Oregon. *Plant pathology.* San Antonio, Texas, May 2, 93. B.S, Oregon State Col, 16; M.S, Minnesota, 18. Field and lab. asst. plant path, Minnesota, 16–17, instr, 17–18; collaborator, fed. hort. board, U. S. Dept. Agr, 16–17, field asst, office cereal investigations, 17, agent, 17–18, asst. plant pathologist, 18–20; instr. bot, Oregon State Col, 20–21; asst. exten. prof. plant path, Cornell, 21–22; *agent, div. drug and related plants, bur. plant indust, U. S. Dept. Agr, 31–* Phytopath. Soc; West. Soc. Hort, Entom. and Plant Path; Northwest Sci. Soc. Crown rust of oats; downy mildew and other diseases of hops.

Hoerner, Prof. John L(indemuth), Colorado State College, Ft. Collins, Colo. *Zoology, Entomology.* Ennis, Texas, July 13, 94. B.S, Colo. Agr. Col, 20, M.S, 26. Assoc. entom, Colo. Agr. Col, 20–27; research investigations oxidized oils, Crop Protection Inst, 28–29; *asst. prof. zool. and entom, Colo. State Col, 30–* Asn. Econ. Entom. Alfalfa webworms; potato fleabeetle; insecticidal properties of oxidized oils; western rose curculio; squash bug.

Hoerner, Dr. M(iles) Tischer, 400 Salem Ave, Dayton, Ohio. *Surgery.* Dayton, Ohio, Aug. 27, 04. B.S, Dartmouth Col, 26; M.B, Cincinnati, 29, M.D, 30; Ph.D, Minnesota, 34. Asst. director diagnostic labs, *Miami Valley Hosp, Dayton, Ohio,* 29–31, *surgical staff, 35–; Good Samaritan and St. Elizabeth Hosps, 35–* Surgical consultant, Kettering Inst. Med. Research, 35– Fellow, Mayo Foundation, Minnesota, 31–35. Fel. Am. Med. Asn; fel. Col. Surg. Physiology; experimental and clinical surgery.

Hoerr, Dr. Normand L(ouis), Western Reserve University, Cleveland, Ohio. *Anatomy.* Peoria, Ill, May 3, 02. A.B, Hopkins, 23; Ph.D, Chicago, 29, M.D, 31. Instr. *anat,* Chicago, 26–33, asst. prof, 33–39; *Henry Willson Payne prof, Western Reserve, 39–* Visiting prof, sch. med, Southern California,

42–43. A.A; Asn. Anat. Fiber tracts of the opossum brain; cytology of adrenal and synapses; the freezing-drying method; histology of lipoids; structure of protoplasm; capillary circulation.

Hoersch, Dr. V(ictor) A(ugust), University of Illinois, Urbana, Ill. *Physics.* Davenport, Iowa, March 9, 93. A.B, Iowa, 15, M.S, 16, Ph.D, 22. Instr. physics, Iowa, 19–20; Oklahoma, 20–21, asst. prof, 22–23; instr. *math, Illinois,* 23–30, *assoc, 31–* A.A; Physical Soc; Math. Soc. Non-radial vibrations in a conical horn; theory of the optimum angle in a receiving conical horn; elastic stress within bodies in 'point contact.'

Hofbauer, Dr. Isfred, 707 Race St, Cincinnati, Ohio. *Gynecology, Obstetrics.* Vienna, Austria, Sept. 11, 81. M.D, Vienna, 04; hon. M.D, Berlin, 09. Assoc. prof. gynec. and obstet, Koenigsberg, 10–21; obstet, Hopkins, 24–33; *attending gynecologist, Cincinnati Gen. Hosp, 35–* Am. Med. Asn; Col. Surg; Deuts. Gesell. für Gynak. Biology of the human placenta; toxicoses of pregnancy; changes in maternal organs during pregnancy; pituitary extract in obstetrics; hyperplasia of endometrium; etiology of eclampsia gravidarum; etiology of uterine carcinoma; operation for uterine prolapse; etiology of pyelitis in pregnancy; hormonal gynecologic diseases; irradiation of pituitary for gynecologic disorders.

Hofer, Dr. A(lvin) W(illiam), New York Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* Cissna Park, Ill, Jan. 8, 03. B.S, Illinois, 29; M.S, Wisconsin, 30; Ph.D, Cornell, 37. Asst. agr. bacter, Wisconsin, 29–31; from asst. to *asst. prof. bacter, N. Y. Exp. Sta, Geneva, 31–* Summers, corn borer control, U. S. Dept. Agr, 28, barberry eradication, 29, legume inoculant inspection, 30. Soc. Bact; Soc. Agron. Inspection of commercial legume inoculants; inoculation of cannery peas; the bacterial flora of seeds.

Hofer, Dr. Jesse W, 338 Franklin Ave, River Forest, Ill. *Bacteriology.* Cissna Park, Ill, Aug. 27, 10. A.B, Illinois, 35, M.S, 36; Ph.D, Yale, 39; Northwestern, 39–42. *Research bacteriologist, Bowman Dairy Co, 39–* Soc. Bact; Pub. Health Asn. Bacterial nutrition; dairy and food bacteriology in relation to sanitation.

Hofer, Dr. Lawrence J(ohn) E(dward), 3820 Brownsville Road, Brentwood, Pittsburgh, Pa. *Physical chemistry.* Salt Lake City, Utah, June 26, 15. A.B, Utah, 37, A.M, 39; Sherman Clarke fellow, Rochester, 40–41, Ph.D, 41. Teaching fellow, Utah, 37–38; asst, Rochester, 38–40; *war research, Carnegie Inst. Tech, 41–* Chem. Soc. Adsorption of hydrogen on catalysts of copper dispersed in calcium oxide; photochemistry of the hydrogen-iodine monochloride reaction; fluorescence of cyanine dyes.

Hoff, Dr. C(larence) Clayton, Quincy College, Quincy, Ill. *Zoology.* Divide Co, N. Dak, July 6, 08. A.B, Bradley Col, 30; M.S, Illinois, 39, Ph.D, 41. Teaching asst. zool, Illinois, 39–41; *head dept. biol, Quincy Col, 41–; instr. microbiol. for nurses, Blessing Hosp. and St. Mary Hosp, 41–* Summer, research, Isles of Shoals Marine Zool. Lab, 39. A.A; Micros. Soc; Ill. Acad. Morphology, taxonomy and biology of invertebrates, especially fresh-water molluscs and ostracods.

Hoff, Dr. Ebbe C(urtis), Yale University School of Medicine, New Haven, Conn. *Physiology.* Rexford, Kans, Aug. 12, 06. Fellow, Washington (Seattle), 26–28, B.S, 28; B.A, Oxford, 30, M.A, Ph.D, 32, M.B, B.Ch, 41; L.R.C.P, 40. Demonstrator histol, Oxford, 30–32; Sterling fellow, *Yale,* 32–33, Alexander Brown Coxe fellow, 33–34, *instr. physiol, sch. med, 34–* Surg. asst, Hôpital Hôtel-Dieu, Lyon, France, 29; London Hosp, England, 37–38; Emergency Med. Service, London, 39–40; mem. faculty, Sarah Lawrence Col, 41– Physiol. Soc; fel. Royal Soc. Med; British Med. Asn; Royal Col. Physicians; Royal Col. Surg. Degeneration of the synapse; terminal distribution of corticofugal fibers; cortical control of cardio-vascular activity.

Hoff, Dr. G(eorge) P(reston), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Shelby, Ohio, May 1, 99. A.B, Ohio State, 21, M.S, 22, Ph.D, 25. Commercial Chem. Co, Memphis, 25–26; research chemist, du Pont Rayon Co, Buffalo, 26–28, manager chem. research, viscose process dept, 28–36, *nylon research, E. I. du Pont de Nemours and Co,* Buffalo, 36–38, *director, 38–* Chem. Soc. Sugars; cellulose; cellulose derivatives; rayon; Cellophane; nylon.

Hoff, Dr. H(ebbel) E(dward), McGill University, Montreal, Que, Can. *Physiology.* Urbana, Ill, Dec. 2, 07. B.S, Washington (Seattle), 28; Rhodes scholar, Oxford, 28–31, B.A, 30, senior demy, 30–32, Ph.D, 32; M.D, Harvard, 36. Instr, sch. med, Yale, 32–34; Ware fellow, Harvard Med. Sch, 34–36; asst. prof. *physiol,* sch. med, Yale, 36–39, assoc. prof, 39–43; *prof, McGill, 43–* Physiol. Soc; Physiol. Soc. Gt. Britain. Physiology of heart and nervous system.

Hoff, Prof. N(icholas) J(ohn), 131 Joralemon St, Brooklyn, N. Y. *Aeronautical engineering.* Magyarovar, Hungary, Jan. 3, 06. Dipl.Ing, Fed. Polytech. Inst, Zurich, 28; Ph.D, Stanford, 42. Aircraft stress analyst and designer, Manfred Weiss Aircraft and Motor Works, Ltd, Hungary, 29–38; asst, vibration and earthquake lab, Stanford, 39–40; instr. *aeronaut. eng, Polytech. Inst. Brooklyn,* 40–41, *asst. prof, 41–* Grant in aid, Sigma Xi, 41. Assoc. fel. Inst. Aeronaut. Sci; assoc. fel. Royal Aeronaut. Soc. Aircraft stress analysis, especially stress distribution in and instability of monocoque structures and of frameworks with rigid joints.

Hoff, Dr. Wilbur L(ee), Hollywood, Ill. *Physical chemistry.* Nachusa, Ill, Nov. 3, 97. A.B, Cornell Col. (Iowa), 20; M.S, Iowa State Col, 23, Ph.D, 28. Asst. chem, Iowa State Col, 21–23, 26–28; prof. chem. and physics, Upper Iowa, 23–26; Ga. State Womans Col, 28–30; *chem. engineer, West. Elec. Co, Chicago, 30–* A.A; Chem. Soc. Spectrographic analysis; soil colloids; x-ray orientation of quartz crystals.

Hoffer, Dr. G(eorge) N(issley), 1127 N. Grant St, West Lafayette, Ind. *Plant pathology.* Hummelstown, Pa, Nov. 20, 87. A.B, Lebanon Valley Col, 09, hon. Sc.D, 20; M.S, Purdue, 11, hon. Sc.D, 39. Asst. gen. biol, Purdue, 09–11, instr. bot, 11–14, asst. prof, 14–16, assoc. prof, 16–17, assoc. botanist, Exp. Sta, 17–29; agent and pathologist in charge corn disease investigations, bur. plant indust, U. S. Dept. Agr, 17–29; *manager* midwest branch, agr. and sci. bur, N. V. Potash Export My, Inc, 29–35; *midwest territory, Am. Potash Inst, Inc, 35–* A.A; Soc. Plant Physiol; Soc. Agron; Ind. Acad. Plant nutrition.

Hoffleit, Dr. (Ellen) Dorrit, Harvard College Observatory, Cambridge, Mass. *Astronomy.* Florence, Ala, March 12, 07. A.B, Radcliffe Col, 28, A.M, 32, Ph.D, 38. Asst, *col. observatory, Harvard,* 29–38, *research assoc, 38–* Caroline Wilby prize, Radcliffe Col, 38. A.A; Astron. Soc; Soc. Research Meteorites; Asn. Variable Star Observers. Spectroscopic absolute magnitudes, especially of southern stars; stellar parallaxes; meteors and variable stars.

Hoffman, Dr. Alfred, 409 E. 38th St, Paterson, N. J. *Chemistry.* New York, N. Y, Nov. 1, 81. A.B, Columbia, 03, A.M, 04; Ph.D, Berlin, 07. Asst. org. chem, Columbia, 07–10; *treas,* Hoffman and Knopff Chem. Co, 10–19; *Alco Deo Co, 11–;* private research, 19–33; chemist, Beyer Labs, Long Island City, N. Y, 33–37; research worker, Columbia, 37–38; *research chemist, Ganes Chem. Works, Carlstadt, N. J, 38–* Ketone condensations; organic phosphorus and organic sulfur compounds.

Hoffman, Dr. Arthur C(hristian II), Tufts College, Medford, Mass. *Physiological psychology.* Los Angeles, Calif, Jan. 22, 17. A.B, Whittier Col, 37; A.M, Rochester, 38, Ph.D, 41; Harvard, 39–41. Asst. educational psychol, Harvard, 39–41; *instr. psychol, Tufts Col, 41–* Assoc. Psychol. Asn. Visual fatigue in relation to eye-movements and reading.

Hoffman, A(ustin) C(lair), Office of Price Administration, Washington, D. C. *Agricultural economics.* Abilene, Kans, Jan. 6, 05. B.S, Kans. State Col, 26; M.S, Iowa State Col, 29. County agr. agent, Pawnee County, Kans, 26–28; asst. prof. agr. econ, Wisconsin, 30–34; agr. economist, bur. agr. econ, U. S. Dept. Agr, 34–41, prin. economist, 35–41; director food price div, Office Price Admin, 41–43; *chief, price branch, war food admin, U. S. Dept. Agr, 43–* Marketing of agricultural products.

Hoffman, Dr. Carl E(mil), University of Arkansas, Fayetteville, Ark. *Limnology, Entomology.* Appleton, Wis, March 22, 07. A.B, Lawrence Col, 30; A.M, Michigan, 32, Ph.D, 38. Asst. *zool,* Michigan, 30–32, teaching fellow, 35–38; *instr,* Lawrence Col, 32–35; *Arkansas, 38–* Ecol. Soc; Micros. Soc; Limnol. Soc; Mich. Acad; Wis. Acad. Plankton and aquatic insects.

Hoffman, Prof. C(harles) A(ndrew Frederick), 500 Ninth Ave, N. W, Minot, N. Dak. *Biology.* Sigourney, Iowa, Jan. 13, 03. B.S, Iowa Wesleyan Col, 24; M.S, Iowa State Col, 25; Ph.D, Chicago, 32. Alburz Col, Teheran, Iran, 26–30; *prof. biol, N. Dak. State Teachers Col, Minot, 35–* Plant morphology.

Hoffman, Dr. E(rnest) J(enkins), 681 Spruce St, Berkeley, Calif. *Chemistry.* Jacksonport, Ark, April 4, 79. A.B, Davidson Col, 00; Ph.D, Hopkins, 06. Instr. chem, N. C. State Col, 06–07; field asst, U. S. Geol. Surv, 07; chemist, Lucius P. Brown and Co, Tenn, 08; asst. chemist, U. S. Bur. Mines, Pittsburgh, 08–18; research chemist, W. B. Pratt, Inc, Boston, 19–26; assoc. chemist, *bur. agr. chem. and eng, U. S. Dept. Agr,* 28–36, *chemist, 36–* Chem. Soc. Spontaneous heating and ignition of agricultural products; the osmotic pressure of cane sugar solutions; gas sampling and analysis; the inflammability of coal dusts; the constitution of coal; the nitration of toluene and sucrose; hexanitro-diphenylamine; carotene preservation in alfalfa meal.

Hoffman, Dr. Everett J(ohn), 6400 Woodlawn Ave, Chicago, Ill. *Physical chemistry.* Spring Valley, Minn, Dec. 31, 08. B.Ch.E, Minnesota, 31, Ph.D, 35. Asst, Minnesota, 34–35; *research chemist, Armour and Co, 35–* Chem. Soc. Study of electrolyte solutions; physical properties of lubricants; phase rule; surface tension; monomolecular films.

Hoffman, Dr. Frederick L(udwig), 1978 Sunset Blvd, San Diego, Calif. *Statistics.* Varel, Germany, May 2, 65. Pub. and private schs, Germany; LL.D, Tulane, 11. Statist. asst, Prudential Ins. Co, 94–00, statistician, 00–34, 3rd v. pres, 18–35, *consulting statistician,* 23–35; *biochem. research foundation, Franklin Inst, 35–* Lecturer, Harvard; Yale; Columbia; California; Pennsylvania; Stanford. Advisory cmt, Nat. Research Council. Explors, S. Amer, Cent. Amer. and Mex. Gold medals, Int. Cong. Tuber, St. Louis and San Francisco and Int. Expos, 04–25. Chairman div. statistics, labor div, Nat. Council Defense; v. pres. indust. hygiene sect, Ghent Cong, Royal Inst. Pub. Health. A.A; Statist. Asn; fel. Pub. Health Asn; Meteorol. Soc; Seismol. Soc; Soc. Control Cancer (trustee); Safety Inst. (trustee); fel. Am. Med. Asn; fel. Royal Statist. Soc. Life insurance history, theory and practise; medicine; anthropology; economics; public health; mortality; industrial accidents; lead poisoning; occupational diseases; tuberculosis; cancer; leprosy; malaria; army anthropometry; aviation hazards; earthquake and tornado hazards; homicide and suicide.

Hoffman, Harry A(pgar), 230 Grove St, Bloomfield, N. J. *Chemistry.* Pottersville, N. J, Jan. 25, 97. B.S, Colgate, 23. Mfg. chemist, Bakelite Corp, 23–28; *research chemist,* Halowax Corp, 29; *Bakelite Corp, 30–* Chem. Soc. Colloidal developments in synthetic resins.

Hoffman, Dr. I(ra) C(urtis), Ohio Agricultural Experiment Station, Wooster, Ohio. *Horticulture.* Auburn, Ind, Feb. 12, 88. B.S.A, Purdue, 15, M.S, 16; Ph.D, Ohio State, 37. Asst. prof. hort, Colo. Agr. Col, 17–18; U. S. Dept. Agr, 19–20; asst. prof. hort, Exp. Sta, Purdue, 20–27; *asst. horticulturist, Ohio Exp. Sta, 27–; exten. specialist, Ohio State, 39–* U.S.A. 18. A.A; Soc. Hort. Sci. Vegetable gardening and greenhouse vegetable culture.

Hoffman, Dr. James I(rvin), National Bureau of Standards, Washington, D. C. *Chemistry.* Enterline, Pa, Oct. 26, 93. A.B, Franklin and Marshall Col, 18, hon. Sc.D, 43; M.S, George Washington, 21; Ph.D, American Univ, 30. *Chemist, Bur. Standards, 19–* Adj. prof, American Univ, 31–36; lecturer, U. S. Dept. Agr, 36–40; George Washington, 39– Sergt, C.W.S, 18–19. Chem. Soc; Wash. Acad. General analytical chemistry; chemistry of the rarer elements; chemical analysis of iron and steel; preparation and crystallization of pure gallium; atomic weight of gallium and aluminum.

Hoffman, Dr. John J(ames), St. Mary's College, Winona, Minn. *Chemistry.* Hilbert, Wis, Sept. 11, 92. A.B, 14; A.M, St. John's (Minn), 16; Ph.D, Chicago, 31. *In charge chem. and physics, St. Mary's Col. (Minn), 20–* A.A; Chem. Soc; Minn. Acad. Organic chemistry.

Hoffman, Dr. J(oseph) G(ilbert), 135 High St, Buffalo, N. Y. *Nuclear physics.* Buffalo, N. Y, Aug. 19, 09. A.B, Cornell, 35, Ph.D, 39. Asst. physics, Cornell, 35–39; radiation physicist, N. Y. State Inst. Study Malignant Disease, 39–41; assoc. physicist and later *physicist, Bur. Standards, 41–* Physical Soc; Cancer Research Soc. Transplantable tumors in mice; nuclear radiations; electrical network theory.

Hoffman, Dr. Malvin G(erald), Petroleum Administration for War, Washington, D. C. *Geology.* New York, N. Y, Feb. 22, 96. Ph.B, Chicago, 18, M.S, 20, Ph.D, 30. Geologist, Marland Oil Co, Okla, 20–21; Atlantic Oil Producing Co, Texas, 21–22; Carter Oil Co, Okla, 22–26; consulting geologist, Tulsa, Okla, 26–29; instr. petrol, State Col. Wash. 29–31, asst. prof. geol, 31–35; chief geologist, Midco Oil Corp, 36–40; research engineer, Geochem. Service Corp, 40–41; petrol. consultant, Nat. Resources Planning Board, 41; *chief facilities sect, production div, Petrol. Admin. for War, 41–* Summers, geologist, Okla. Geol. Surv, 29; Wash. Geol. Surv, 29–35. 2nd lieut, A.C, 17–19. A.A; Asn. Petrol. Geol; Geophys. Union; Soc. Explor. Geophys. Petrology; petrography; volcanic tuffs in central Oklahoma; Pennsylvanian sandstones in Oklahoma; geology and petrology of the Wichita Mountains; geology of Bald Butte Ridge, Washington; structural features in the Columbia River lavas of central Washington; isostasy and isostatic adjustment and geochemical exploration.

Hoffman, Prof. M(elvin) B(utler), Cornell University, Ithaca, N. Y. *Pomology.* Blythewood, S. C, Nov. 19, 03. B.S, Clemson Col, 23; M.S, Mich. State Col, 26; Ph.D, Cornell, 34. Instr. hort, West Virginia, 26–31; asst. and instr. *pomol, exten, Cornell,* 31–36, *asst. prof, 36–* Rate of photosynthesis in apple foliage; fertilization and soil requirements of fruit plants.

Hoffman, Dr. Robert M(ichael), Waynesboro, Va. *Physical chemistry.* Artesia, N. Mex, April 6, 06. B.S, Oregon State Col, 29; M.S, Wisconsin, 31, Ph.D, 33. Asst. chem, Wisconsin, 29–33, asst. alumni research foundation, 33–34, chem, 34–35; research chemist, *E. I. du Pont de Nemours and Co,* 35–40, *research supervisor, 40–* Chem. Soc; Va. Acad. Photochemistry; cellulose acetate.

Hoffman, R(udolph), 1729 Sherman Drive, Utica, N. Y. *Chemistry.* Germany, Jan. 26, 01. Asst. chemist, I. G. Dye Works, 22–25; manager lab, *Skenandoa Rayon Corp,* 26–37, *chief chemist, 37–* Chem. Soc. (councilor, Syracuse sect, 42); Soc. Test. Mat. Viscose rayon.

Hoffman, S(amuel) K(urtz), 1715 Malvin Road, Williamsport, Pa. *Engineering.* Williamsport, Pa, April 15, 02. B.S, Pa. State Col, 25. *Chief engineer, Lycoming div, Aviation Corp, 37–* Soc. Automotive Eng. (v. pres. aircraft engine activity, 43); Inst. Aeronaut. Sci. Liquid and air cooled aircraft engine development and production.

Hoffman, Samuel V(erplanck), 258 Broadway, New York, N. Y. *Astrophysics.* Brooklyn, N. Y, May 12, 66. M.E, Stevens Inst. Tech, 88; fellow, Hopkins, 93. *V. pres, E. A. Hoffman Estate, Inc, 17–* A.A; Astron. Soc; Physical Soc; N. Y. Hist. Soc. (hon. pres); fel. Royal Astron. Soc. Astrolabes.

Hoffman, Dr. W. A, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Revillo, S. Dak, Dec. 1, 08. B.S, De Paul, 34, M.S, 36; Ph.D, Northwestern, 39. *Research chemist, E. I. du Pont de Nemours and Co, 39–* Directed ring closure in the synthesis of chromans and coumarans from o-allylphenols; cellulose chemistry.

Hoffman, Dr. W(alter) F(rederick), 47 Bond St, Fitchburg, Mass. *Biochemistry.* Harvard, Nebr, July 9, 97. A.B, Nebr. Wesleyan, 19; M.S, Minnesota, 21, Ph.D, 24. Instr, Minnesota, 21–24, asst. prof, 24–26; tech. director and asst. supt, Northwest Paper Co, 26–40; *supt. production, Fitchburg Paper Co, 40–*

Hoffman, Prof. W(illia)m A(lbert), Columbia School of Tropical Medicine, San Juan, P. R. *Parasitology.* Long Branch, N. J, April 18, 94. B.S, Cornell, 17; Sc.D, Hopkins, 24. Teaching fellow entom. and zool, Iowa State Col, 17–18; sci. asst, bur. entom, U. S. Dept. Agr, 18–20; asst. state entomologist, N. Y, 20–21; asst. med. entom, Hopkins, 21–24; med. entomologist, Haiti Surv, int. health board, Rockefeller Foundation, 24–25; *asst. prof. parasitol, Columbia Sch. Trop. Med, Puerto Rico, 26–* A.A; Soc. Parasitol; Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash; Helminth. Soc. Wash; Wash. Acad. Ecology and taxonomy of Anopheles, Culicidae and Ceratopogonidae; biology of trematodes and nematodes.

Hoffman, Dr. William S(amuel), 2501 Morse Ave, Chicago, Ill. *Physiological chemistry.* Baltimore, Md, July 5, 99. A.B, Hopkins, 18, Ph.D, 22; M.D, Rush, Chicago, 30. Asst. physiol. chem, sch. med, Hopkins, 22–25, instr, 25–27; res. staff, Cook County Hosp, Chicago, Ill, 29–31; nat. research fellow med, Rush Med. Col, *Chicago,* 31–32, *prof. physiol. chem, med. sch, 32–,* asst. prof. *med,* 37–42, *assoc. prof, 42–* A.A; Soc. Biol. Chem; fel. Am. Med. Asn; Soc. Exp. Biol; fel. Col. Physicians; fel. Soc. Clin. Path; Cent. Soc. Clin. Research; Chicago Soc. Int. Med. Mineral metabolism; nephritis; blood chemistry; photoelectric analytical methods; photelometric clinical chemistry.

Hoffmann, Prof. Banesh, Queens College, Flushing, N. Y. *Mathematical physics.* Richmond, Eng, Sept. 6, 06. B.A, Oxford, 29; Ph.D, Princeton, 32. Assoc, Princeton, 29–32; Rochester, 32–35; worker, Inst. Advanced Study, 35–37; instr. *math, Queens Col, Col. City of N. Y,* 37–40, *asst. prof, 40–* Math. Soc; Physical Soc; Optical Soc. Theory of relativity; field theories; quantum theory; applications of tensor analysis.

Hoffmann, Cha(rle)s Barth, Sperti, Inc, Beech and Kenilworth Ave, Cincinnati, Ohio. *Electrical engineering.* Cincinnati, Ohio, Dec. 2, 88. M.E, Cornell, 11; E.E, Harvard, 13. Instr. elec. eng, grad. sch, Harvard, 12–13; from instr. to prof, Cincinnati, 14–42, director sch. telephone electricians for war work, 18; *tech. adviser to pres. and in charge new plants and processes, Sperti, Inc, 42–* Copper oxide rectifiers; electric clock motors; motor control; motion picture devices; ozonizers.

Hoffmann, Dr. Clarence H(oward), 223 Federal Bldg, Asheville, N. C. *Entomology.* Caldwell, Kans, Aug. 26, 08. A.B, Kansas, 30, fellow, 31, A.M, 31; Ph.D, Minnesota, 35. Field asst, bur. entom, U. S. Dept. Agr, 29; asst, biol. sta, Michigan, 30; asst. entom. and econ. zool, Minnesota, 31–35; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–37, asst. entomologist, 37–42, *assoc. entomologist, 42–, in charge forest insect field sta, 41–* Entom. Soc; Asn. Econ. Entom; Kans. Entom. Soc. Biology and taxonomy of Scarabaeidae; insects in relation to plant diseases; forest entomology.

Hoffmann, Dr. Gilbert F(rederick), 4420 N. Frederick Ave, Shorewood, Wis. *Chemistry.* Milwaukee, Wis, Dec. 19, 02. B.S, 24; M.S, Wisconsin, 26, Ph.D, 27. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 27–28; paint and varnish div, Pittsburgh Plate Glass Co, 28–38, chief chem. div, tech. dept, 30–38; *tech. director, O'Neil Duro Co, 38–* Synthetic resins; new developments.

Hoffmann, Prof. William E(dwin), Lingnan University, Honglok, Canton, China. *Entomology.* Caldwell, Kans, May 4, 96. Fellow, A.B, Kansas, 18; A.M, Minnesota, 24. Research and field asst, Kansas, 19, asst. curator entom. collections, 20; instr. entom. and econ. entom, Minnesota, 21–24; assoc. prof. biol. and head dept, *Lingnan Univ. (China),* 24–25, *prof,* 25–32, *entom. and director, Lingnan Nat. Hist. Surv. and Museum, 32–,* curator gen. museum, 26–27. Cooperator, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–; adviser cmt. on sci. work, bur. agr. and forestry, Dept. Reconstruction, Kwangtung, China, 31–36; special research, govt. of Kwangtung, 34–36. Entom. surv, Kansas. Ed, 'Lingnan Science Jour.' (China), 25– Minnesota Pacific exped, Hawaiian Islands, 24; Lingnan Univ. exped, Hainan Islands, 29, 32. Del, Pan-Pacific Food Conservation Conf, Honolulu, 24; Pan-Pacific Science Cong, Japan, 26; Pacific Science Cong, Java, 29. A.A; Entom. Soc; Asn. Econ. Entom; Soc. Ichthyol. and Herp; Am. Geog. Soc; Kans. Acad; Med. Asn. China. Economic entomology; aquatic Hemiptera; biology and ecology of insects.

Hoffmaster, Dr. Donald E(deburn), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Plant pathology.* New Castle, Pa, July 14, 11. B.S, Pa. State Teachers Col, 31; M.S, Cornell, 36; Ph.D, West Virginia, 40. *Instr. plant path, Okla. Agr. and Mech. Col, 40–* Phytopath. Soc. Sorghum diseases.

Hoffmeister, Prof. H(arold) A(rthur), 1071 11th St, Boulder, Colo. *Geography, Geology.* Ft. Madison, Iowa, Jan. 12, 00. A.B, Colorado, 25; Ph.D, Chicago, 39. Instr, *Colorado,* 25–26, asst. prof. and later *assoc. prof. geog,* 29– Summers, Colo. Geol. Surv, 24, 25; instr, Colorado, 26, 27. Geography of the Uncompahgre Valley irrigation project.

Hoffmeister, Prof. John Edward, 225 Summit Drive, Rochester, N. Y. *Geology, Paleontology.* Baltimore, Md, Feb. 1, 99. A.B, Hopkins, 20, Ph.D, 23. Prof. biol, Baltimore Col. Dental Surg, 22–23; asst. prof. *geol, Rochester,* 23–28, *prof, 28–, dean col. arts and science, 43–* Junior geologist, U. S. Geol. Surv, 23–; geol. field work, Tonga and Fiji Islands, 26, 28, 34; visiting prof, Hawaii, 38. Geol. Soc; Paleont. Soc; N. Y. Geol. Asn. (sec'y, 31). Corals and coral islands.

Hoffstadt, Prof. Rachel E(milie), University of Washington, Seattle, Wash. *Botany, Bacteriology.* Madison, Ind, June 14, 86. B.S, Hanover Col, 04; M.S, Chicago, 12, fellow, 14–15, Ph.D, 15; fellow, Hopkins, 22–23, Sc.D, 23. Teacher, high schs, Ind, 08–11; head dept. biol, Marshall Col, 11–13; dept. bot, Milwaukee-Downer Col, 15–23; asst. prof. *bacter, Washington (Seattle),* 23–32, assoc. prof, 32–38, *prof, 39–* Mary Pemberton Norse fellow, Pasteur Inst, Paris, 29–30. Bacteriologist, Camp Sevier, S. C, 18–19. A.A; Bot. Soc; Soc. Bact. Vascular anatomy of seed plants; bacteriology of meat; relation of calcium deficient diet to change in intestinal flora in white rats; plant morphology; mechanism of immunity; bacterial dissociation; viruses.

Hofmann, Dr. Corris M(abelle), Calco Chemical Division, American Cyanamid Co, Bound Brook, N. J. *Organic chemistry.* Plainville, Mass, Sept. 18, 15. B.S, Illinois, 37; fellow, Bryn Mawr Col, 39–41, Ph.D, 41. Demonstrator chem, Bryn Mawr Col, 37–39; *research chemist, Calco chem. div, Am. Cyanamid Co, 41–* Summers, research chemist, Bryn Mawr Col, 38, 40. Chem. Soc. Synthesis of unsaturated esters; molecular rearrangements; synthesis of barbiturates; azo dyestuffs.

HofMann, Dr. Fred(eric) W(enzl), 6524 N. 24th, Omaha, Nebr. *Horticulture.* Omaha, Nebr, Dec. 19, 87. B.S, Nebraska, 10, A.M, 11; M.S, Illinois, 24, Ph.D, 26. Asst. hort, Nebraska, 10–12; asst. horticulturist, Kentucky, 13–15; hort. market specialist, Indiana, 20–23; research horticulturist, Exp. Sta, Va. Polytech; *consultant horticulturist.* Soc. Hort. Sci; Pomol. Soc; Va. Acad. Fruit breeding; hybrid vigor in cow peas; germ plasm of Phaseolus vulgaris; reciprocal effects from grafting; fertilizers for apple orchards; ornamental shrubs and lawns; grape varieties; fruit sprays and washers; orchard tillage; fuzz-less peach.

Hofmann, Dr. J(ulius) V(alentine), 2800 Fairview Road, Raleigh, N. C. *Forestry.* Janesville, Minn, Feb. 20, 82. B.S, Minnesota, 11, M.F, 12, Ph.D, 14. Instr. forestry and bot, Minnesota, 11–12; pathologist, bur. plant indust, U. S. Dept. Agr, 12, sci. asst, Priest River Forest Exp. Sta, U. S. Forest Service, 12–13, director, Wind River Forest Exp. Sta, 13–24; asst. director, Pa. State Forest Sch, 24–29; head dept. forestry, *N. C. State Col,* 29–31, *director forest sch, 31–* Lecturer, Minnesota, 15. Soc. Foresters; Forestry Asn; Bot. Soc; Ecol. Soc; Phytopath. Soc; N. C. Forestry Asn. Silviculture; forest management; forest ecology and pathology; forest influences; regeneration of forests; meteorological factors and forest fires; seeds and seedlings.

Hofmann, Dr. Lulu, P. O. Box 302, Grass Valley, Calif. *Mathematics.* New York, N. Y, May 27, 02. Freiburg; Ph.D, Zurich, 26. Asst. *math,* Columbia, 26–28, lecturer, 28–29, *instr,* Barnard Col, 29–37; Queens Col, Col. City of N. Y, 37–40. Math. Soc. Geometry.

Hofstadter, Dr. Robert, College of the City of New York, New York, N. Y. *Physics.* New York, N. Y, Feb. 5, 15. B.S, Col. City of N. Y, 35; Gen. Elec. Co. Coffin fellow, Princeton, 35–36, A.M. and Ph.D, 38. Harrison fellow, Pennsylvania, 39–40, *instr,* 40–41; *physics, Col. City of N. Y, 41–* Infra red spectra; photoconductivity; construction of electrostatic generator; molecular beams.

Hofstetter, Dr. Henry W(illia)m, Ohio State University, Columbus, Ohio. *Physiological optics.* Windsor, Ohio, Sept. 10, 14. B.S, Ohio State, 39, Sheard Foundation fellow, 39–42, M.S, 40, Ph.D, 42. *Instr. physics, astron. and optom, Ohio State, 42–* Ohio Physical Soc. Relationship between accommodation and convergence of the eyes.

Hogan, Prof. Albert G(arland), University of Missouri, Columbia, Mo. *Animal nutrition.* Maryville, Mo, Dec. 31, 84. A.B, Missouri, 07, B.S.A, 09, A.M, 12; Ph.D, Yale, 14. Instr. chem, Mo. State Nor. Sch, Maryville, 09–11; asst. physiol. chem, Sheffield Sci. Sch, Yale, 13–14; asst. prof. chem, Kans. State Col, 14–16, asst. prof, 16–19; *prof.* biochem, Alabama, 19–20; *animal husbandry, Missouri, 20–, chairman dept. agr. chem, 23–* Ed. board, 'Jour. Nutrition,' 37–42. Sanit. C, U.S.A, 17–19, capt. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Nutrition (v. pres, 40, pres, 41). Vitamins; nutritional requirements for growth and reproduction.

Hogan, Prof. (Frank) Woodall, Texas Christian University, Ft. Worth, Texas. *Chemistry.* Nashville, Tenn, Oct. 6, 87. B.S, Vanderbilt, 11, M.S, 12, 12–14; Chicago, 24, 26. Instr. *chem,* Vanderbilt, 14–15; asst. prof, Ward-Belmont Sch, 15–20; *prof, Texas Christian, 20–,* chairman div. nat. sciences and math. A.A; Chem. Soc. Closure for a carbon cylinder with a method for spontaneous creation of pressure within the cylinder; recovery of waste carbon dioxide and waste heat from cement kilns; hydrogen sulfide from natural gas.

Hogan, John V(incent) L(awless), 730 Fifth Ave, New York, N. Y. *Electrical engineering.* Philadelphia, Pa, Feb. 14, 90. Yale, 08–10. Telegraph supt. and consulting engineer, Nat. Elec. Signaling Co, 10–14, chief research engineer, 14–18; manager, Int. Radio Telegraph Co, 18–21; *consulting engineer, 21; special asst. to director, Office Sci. Research and Develop, 43–* Pan-Am. Sci. Cong; Hoover Radio Confs. A.A; Elec. Eng; fel. Radio Eng. (v. pres, 16–19, chairman, standards cmt, 16–19, pres, 20); fel. Acoustical Soc; hon. mem. Radio Club. Applied physics; radio telegraphy and telephony; electromagnetic waves; signal-receiving methods; facsimile; military analysis and communications.

Hogan, Prof. Mervin B, University of Utah, Salt Lake City, Utah. *Mechanical design.* Woods Cross, Utah, July 21, 06. B.S, Utah, 27, M.E, 30; M.S, Pittsburgh, 29; Ph.D, Michigan, 36. Mech. engineer, Westinghouse Elec. and Mfg. Co, 27–31; asst. prof. *mech. eng, Utah,* 31–36, assoc. prof, 36–39, *prof, 39–* Sterling fellow, Yale, 37–38. Soc. Mech. Eng. Stress analysis.

Hoge, Dr. Harold J(ames), 5011 Baltimore Ave, N.W, Washington, D. C. *Physics.* Springville, Iowa, March 15, 07. A.B, Iowa, 32; Ph.D, Yale, 35. Asst. physics, Yale, 32–35; from junior physicist to *research physicist, Bur. Standards, 35–* Physical Soc. Precision thermometry; low temperatures; magnetism.

Hogentogler, C(hester) A(llen), 1927 37th St, N. W, Washington, D. C. *Engineering.* Columbia, Pa, April 2, 87. B.S, Pa. State Col, 09, C.E, 17. Draftsman, Riter-Conley Mfg. Co, Pittsburgh, Bethlehem Steel Co, Steelton, and Barber and Ross, Washington, D. C, 10–11; instr, Pa. State Col, 11–12; borough engineer and supervisor, Columbia, Pa, 12–16; asst. prof, Idaho, 16–17; asst. physicist, Bur. Standards, 18–19; special investigator, highway research board, Nat. Research Council, 24–26; asst. engineer and assoc. engineer, *bur. pub. roads, U. S. Dept. Agr,* 19–24, *senior highway engineer, 26–* Lecturer, George Washington, 31. Dudley medal, Am. Soc. Test. Mat, 34. A.A; assoc. Civil Eng; Asn. State Highway Officials. Highway engineering; motor truck impact; steel reinforcement in pavements; subgrade soils investigation and treatment.

Hogg, Prof. Frank S(cott), University of Toronto, Toronto, Ont, Can. *Astrophysics.* Preston, Ont, July 26, 04. B.A, Toronto, 26; A.M, Harvard, 28, Agassiz fellow, 27–29, Ph.D, 29. Asst, Harvard Observatory, 26–27, Parker traveling fellow, univ, 29–30; research assoc, Amherst Observatory, 30–31; asst. astronomer, Dom. Astrophys. Observatory, Victoria, B. C, 31–34; lecturer *astron, Toronto,* 34–36, asst. prof, *David Dunlap Observatory,* 36–42, *assoc. prof, 42–* Astron. Soc; Royal Astron. Soc. Can. (asst. ed, 'Jour,' 37–; pres, 41, 42); Int. Astron. Union. Stellar spectrophotometry; planetary nebulae; radial velocities; astro-navigation.

Hogg, Dr. Helen (Battles) Sawyer, David Dunlap Observatory, Richmond Hill, Ont, Can. *Astronomy.* Lowell, Mass, Aug. 1, 05. A.B, Mt. Holyoke Col, 26; Pickering fellow, Radcliffe Col, 26–30, A.M, 28, Ph.D, 31. Instr, Mt. Holyoke Col, 30–31; Dom. Astrophys. Observatory, Victoria, B. C, 31–34; asst, David Dunlap Observatory, *Toronto,* 35–37, research assoc, 38–41, *lecturer and research assoc, univ, 41–* Instr, Smith Col, 27; asst. prof. and acting chairman dept, Mt. Holyoke Col, 40–41. A.A; Astron. Soc; Asn. Variable Star Observers (chart curator, 28, 30–35; pres, 39–41); Royal Astron. Soc. Can; Int. Astron. Union. Globular star clusters; variable stars.

Hogg, Prof. Ira D(wight), University of Pittsburgh, Pittsburgh, Pa. *Neurology.* Delphos, Kans, Dec. 31, 92. A.B, Kansas, 21, A.M, 23, Ph.D, 26. Asst. *anat,* Kansas, 21–23, instr, 23–26; *asst. prof, sch. med, Pittsburgh, 26–* Consultant, U. S. Bur. Mines, 32–34. Summers, Wistar Inst, 27–30. Asn. Anat. Motor nuclei of the brain stem of albino rats; embryological development of nuclei and nerve tracts in the brain stem of the rat; development of tracts in the human nervous system; sensory nerves in the skin of human fetuses

Hogg, Dr. John L, 18 Webster Place, East Orange, N. J. *Physics.* Seaforth, Ont, Can, April 17, 71. B.A, Toronto, 99; A.M, Harvard, 02, Ph.D, 04. Instr, Harvard, 04–06; lecturer, McMaster, 06–08, prof, 08–11; Saskatchewan, 11–20; engineer, Bell Tel. Labs, 20–36; *retired.* Chairman, Board Educ, Saskatoon, Sask, Can, 16–20. A.A; fel. Physical Soc. Viscosity, external friction and thermal transpiration in gases; telegraph articulation and codes; voice operated systems.

Hogge, Dr. Ernest, Hercules Powder Co, Wilmington, Del. *Physical chemistry.* Morehead, Ky, Nov. 7, 11. B.S, Morehead State Teachers Col, Ky, 31; M.S, Kentucky, 34; Ph.D, Ohio State, 40. Instr, Morehead State Teachers Col, 35–37; asst. prof. physical chem, Georgia, 40–41; *chemist, Hercules Powder Co, 41–* Chem. Soc. Thermodynamics of electrolytes in water and mixed solvents.

Hoglan, Dr. Forest A, International Minerals and Chemical Corp, Rossford, Ohio. *Sanitary chemistry.* Center Point, Iowa, Oct. 21, 07. A.B, Iowa, 36, M.S, 38, Ph.D, 39. Chem. asst, Iowa, 36–39; chemist, Pabst Brewing Co, 39–43; *senior research chemist, Amino products div, Int. Minerals and Chem. Corp, 43–; research assoc. chem, Iowa, 43–* Chem. Soc. Preparation and properties of derivatives of inositol.

Hogness, Prof. T(horfin) R(usten), University of Chicago, Chicago, Ill. *8*Physical chemistry.* Minneapolis, Minn, Dec. 9, 94. B.S, Minnesota, 18, Chem.E, 19; Ph.D, California, 21. Instr. *chem,* California, 21–25, asst. prof, 25–28, assoc. prof, 28–30; *Chicago,* 30–39, *prof, 39–* Int. Educ. Board fellow, Göttingen, 27–28; sci. liaison officer, Office Sci. Research and Develop, London, 42–43. Chem. Soc; Physical Soc. Ionization of gases by electron impact; photochemistry; chemical kinetics; spectroscopy and physical chemistry applied to biological systems; the respiratory enzymes.

Hogue, Dr. M(ary) J(ane), University of Pennsylvania, Philadelphia, Pa. *Anatomy, Zoology.* West Chester, Pa, Oct. 12, 83. A.B, Goucher Col, 05; Bryn Mawr Col, 05–07; Ph.D, Wurzburg, 09; Columbia, 10–11. Demonstrator, Bryn Mawr Col, 06–07; prof. science, Pa. Col. for Women, 09–10; instr, Miss Chapin's Sch, New York, 10–11; zool, Mt. Holyoke Col, 11–14; Wellesley Col, 14–18; collaborator, Carnegie Institution, 19; fellow protozool, sch. hygiene and pub. health, Hopkins, 19–21, instr. bacter, sch. med, 21–22; assoc. prof. and prof, N. C. Col. for Women, 22–24; instr. and later *assoc. anat, sch. med, Pennsylvania, 24–* Alumnae trustee, Goucher Col, 16–19, 27–30. Lab. worker, base hosp, Ft. Sill, 18–19. A.A; Asn. Anat; Soc. Zool; Soc. Trop. Med; Soc. Parasitol; Physiol. Soc. Phila. Experimental embryology; protozoology; tissue culture.

Hohl, Dr. Leonora A(nita), 30 Beverly Road, Berkeley, Calif. *Microbiology.* Berkeley, Calif, March 9, 09. A.B, California, 31; F. C. and Susan Eastman Newcomb fellow, Michigan, 33–35, A.M, 34; Ph.D, California, 39. Teaching fellow bot, California, 32–33, asst. fruit products, 35–40, lecturer home econ, 41; microbiologist, Roma Wine Co, 40–41; Acme Breweries, 42; *assoc. fruit products, California, 42–* A.A; Inst. Food Technol; West. Soc. Nat; Pasteur Soc. North. Calif. Physiology and morphology of yeasts; lactic acid fermentation; dehydration of fruits and vegetables.

Hohman, Dr. Leslie B(enjamin), 1023 N. Calvert St, Baltimore, Md. *Psychiatry.* Columbus, Ohio, July 23, 91. A.B, Missouri, 12; M.D, Hopkins, 17. *Assoc. clin. psychiat, Hopkins, and asst. visiting psychiatrist, Hopkins Hosp,* 22– Psychiat. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Neur. Asn. Neurology.

Hohn, Dr. F(ranz) E(dward), University of Arizona, Tucson, Ariz. *Mathematics.* Warrenton, Mo, Sept. 4, 15. B.S, McKendree Col, 36; scholar, Illinois, 36–37, M.S, 37, fellow, 37–38, Ph.D, 40. Asst. *math,* Illinois, 38–40; *instr, Arizona, 40–* Cayley's dianodal surface; algebraic geometry.

Hoidale, P(aul) A(ndreas), 503 Rio Grande National Iife Bldg, Harlingen, Texas. *Entomology.* Larvik, Norway, Nov. 22, 86. Raade Landbrugskole, Norway, 04–06. Citrus canker and nursery inspection, bur. plant indust, U. S. Dept. Agr. and state of Texas, 15–17, pink bollworm eradication work, fed. hort. board, *U. S. Dept. Agr,* 17–27, in charge Mex. fruit-worm eradication, *plant quarantine and control admin,* 27–29, in charge inspection Mediterranean fruit-fly, south. states, 29–30, in charge Mediterranean fruit-fly eradication, Fla, 30–31, *prin. plant quarantine inspector in charge Mex. fruit-worm eradication, Texas, 31–* Asn. Econ. Entom. Citrus canker; pink bollworm; Mexican fruit-fly and fruit-worm; Mediterranean fruit-fly.

Hoijer, Dr. Harry, 191 Beloit Ave, Los Angeles, 24, Calif. *Anthropology.* Chicago, Ill, Sept. 6, 04. A.B, Chicago, 27, A.M, 29, Ph.D, 31. Instr. *anthrop,* Chicago, 31–40; *asst. prof, California at Los Angeles, 40–* Anthrop. Asn; Linguistic Soc. American Indian linguistics.

Hoisington, Dr. Laurence E(arl), 34 Metropolitan Ave, Kensington, Md. *Theoretical physics.* Orange, Calif, Feb. 14,

15. A.B, Colorado, 36; Ph.D, Wisconsin, 41. *Assoc. physicist, U. S. Navy, 40–* Physical Soc. Nuclear forces as evidenced by proton-neutron and proton-proton scattering; analysis of naval operations in mine warfare.

Hoisington, Prof. L(ouis) B(enjamin), University of Oklahoma, Norman, Okla. *Psychology.* Caldwell, Kans, July 8, 83. A.B, Oregon, 15; Ohio State, 15–17; Ph.D, Cornell, 20. Instr. educ, Cornell, 17–19, *psychol,* 19–20, asst. prof, 20–28; *prof, Oklahoma, 28–* A.A; Psychol. Asn; Okla. Acad. (v. pres, 32, 33). Psychophysics; perception; feeling and emotion.

Hoke, Miss C(alm) M(orrison), 1070 Anderson Ave, Palisade, N. J. *Industrial chemistry.* Chicago, Ill, Aug. 25, 87. A.B, Hunter Col, 08; A.M, Columbia, 13; Chicago; N. Y. Univ. Junior chemist, Harriman Research Lab, 11–12; asst. chem, Columbia, 17–19; *consulting chemist, Jewelers Tech. Advice Co, New York,* 13–17, *19–;* consulting chemist and v. pres, Hoke, Inc, New York, 26–34. A.A; Chem. Soc; Electrochem. Soc; fel. Inst. Chem. (councilor, 23–27); Min. and Metal. Eng. Handling and recovering precious metals; design of oxygen blowpipes and devices for the control of compressed gases.

Holaday, Horace A(sa), E. R. Squibb and Sons, New Brunswick, N. J. *Biochemistry, Pharmacology.* Denver, Colo, Feb. 26, 89. A.B, Colorado, 11, 12; Idaho, 13–15; Chicago, 15–16; Columbia, 11, 19. Asst. chem, Idaho, 11–12, instr, 12–15, asst. prof, 15–18; prof. physiol. chem. and head div. food and physiol. chem, N. Dak. Col, 19–20; director biochem. research, *E. R. Squibb and Sons,* 20–40, *chief biol. develop. and control labs, 40–* Advisory cmt. standardization of insulin, revision cmt, U. S. Pharmacopoeia, 41– Lieut, Sanit.C, 18–19. A.A; Chem. Soc; Drug Mfg. Asn. Nutrition; toxicology; biostatistics; biochemistry of allergens; antitoxins; hormones; vitamins; systemic and local toxicology of antiseptics, arsenicals and bismuth compounds, mustard gas, glycols and sulpha compounds; pharmacology of anesthetics, autonomic drugs, curares and curare type alkaloids; hypnotics; methods of bioassay; biochemical process patents.

Holben, Prof. Fred J(acob), 528 W. Foster Ave, State College, Pa. *Soils.* Macungie, Pa, Jan. 7, 89. B.S, Pa. State Col, 12, M.S, 25. With Armour and Co, Chicago, 12–13; Exp. Sta, Pa. State Col, 13–16; bur. chem, State Dept. Agr, Pa, 16–17; instr. and *asst. prof. soils, Pa. State Col, 17–* Soc. Agron; Soil Sci. Soc. Soil fertility and respiration; maintenance of turf grasses; effect of drainage on crop yield; biological and chemical studies of soils under cultivation and fertilization for fifty-four years.

Holbert, Dr. James R(ansom), P. O. Box 828, Bloomington, Ill. *Agronomy.* Muncie, Ind, July 18, 90. B.S.A, Purdue, 15, M.S.A, 18; Ph.D, Illinois, 26. Agronomist, Funk Brothers Seed Co, 15–18; pathologist, *div. cereal investigations, bur. plant indust, U. S. Dept. Agr,* 18–22, agronomist, 23–28, *senior agronomist, 29–* V. pres, Funk Brothers Sed Co, 37–, gen. manager, 43– A.A; Soc. Agron; Soc. Farm Managers and Rural Appraisers; Genetic Asn. Commercial corn breeding with special interest in insect resistance.

Holbrook, Dean E(lmer) A(llen), University of Pittsburgh, Pittsburgh, Pa. *Mining engineering.* Fitchburg, Mass, June 23, 81. B.S, Mass. Inst. Tech, 04; E.M, Illinois, 16. Prof. mining and metal, N. S. Tech. Col, 10–12; asst. prof. mining, Illinois, 12–15, prof, 15–17; mining engineer and metallurgist, U. S. Bur. Mines, 17–18, supt, Pittsburgh Exp. Sta, 19, asst. director, 20–22; dean sch. mines and metal, Pa. State Col, 22–27, acting dean grad. sch, 25–26; *dean schs. eng. and mines, Pittsburgh, 27–* Min. and Metal. Eng; Mech. Eng; Eng. Educ; Soc. Professional Eng. (pres, 42); Coal Min. Inst. (pres, 32). Preparation of minerals and coal.

Holbrook, Dr. George E(dward), Milton Drive and Whittier Road, Brandywine Hills, Wilmington, Del. *Chemical engineering.* St. Louis, Mo, March 4, 09. B.S, Michigan, 30, M.S, 31, Ph.D, 33. *Research chemist and chem. engineer, Jackson lab, E. I. du Pont de Nemours and Co, 33–* Chem. Soc; Chem. Eng. Distillation; polishing and grinding; organo-metallic compounds; internal combustion engines; synthetic organic chemicals.

Holch, Dr. A(rthur) E(verett), University of Denver, Denver, Colo. *Ecology.* Gilman, Ill, April 18, 91. A.B, Colorado, 13, A.M, 23; B.Mus, Illinois, 13; Ph.D, Nebraska, 31. Teacher, pub. schs, Colo. and Nebr, 13–19; asst. prof. biol, Nebr. State Teachers Col, Peru, 19–32, head dept, 21–32; *chairman dept. bot, Denver, 32–* Instr, Nebraska, 30–31. A.A; Ecol. Soc; Bot. Soc; Colo-Wyo. Acad; Nebr. Acad. (pres, 30); British Ecol. Soc. Plant ecology; forest ecology; genetics of roots.

Holck, Prof. Harald G(roth) O(xholm), University of Nebraska, Lincoln, Nebr. *Physiology.* Odense, Denmark, July 2, 86. B.S, Chicago, 21, Ph.D, 28. Asst. physiol, Chicago, 24–27, instr, 27–28; Rockefeller Foundation fellow pharmacol, 28–29; adj. prof, American Univ, Beirut, 29–34; Arno B. Luckhardt fellow, Chicago, 34–35, research assoc. physiol, 35–36; *assoc. prof. pharmacol, Nebraska, 36–* A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Pharmacol; Pharmaceut. Asn. Nutrition; pharmacology; calcium; barium and strontium upon tissue oxidation; barbiturates; caffeine; ephedrine; epinephrine; cocaine; morphine; sex hormones; glycerine; diethylene glycol; digitalis; benzedrine; dosages for rats.

Holcomb, Prof. Daisy Young, University of Arkansas, Fayetteville, Ark. *Zoology.* Springdale, Ark, Dec. 4, 80. A.B, Arkansas, 00; A.B, Missouri, 07, A.M, 08. Instr. *zool, Arkansas,* 25–27, asst. prof, 27–41, *assoc. prof, 41–* A.A. Histology; embryology.

Holcomb, Flight Lieut. R(obert Kirkwood), No. 2 Medical Selection Board, No. 2 Initial Training School, Royal Canadian Air Force, Regina, Sask, Can. *Chemistry.* Montreal, Que, Aug. 26, 07. B.Sc. (Agr), McGill, 29, Ph.D, 33. Demonstrator, McGill, 29–33, research assoc. agr. chem, Macdonald Col, 33–36; research director, Can. Packers, Ltd, 36–39; research fellow, Ont. Research Foundation, 39–41; *med. assoc, Royal Can. Air Force, 41–* Chemist, Dom. Dept. Agr, 29. A.A. Densimetric analysis; analysis of agricultural products; meats; food processing.

Holcomb, Prof. V(iolet) Louise, Wilson College, Chambersburg, Pa. *Psychology.* Southwick, Mass, June 19, 84. A.B, Colo. Col, 06; A.M, Radcliffe Col, 07; Cornell, 11; Columbia, 15, 23, 24, 26, 29, 36, 39; Harvard, 17; Smith Col, 19. Instr. physics, Mt. Holyoke Col, 07–09; teacher biol, Pa. Col. for Women, 11–14, philos, 14–19, head dept. physics, 11–19; exec. sec'y, Int. Inst. for Foreign-Born Women, New Haven, 19–22; prof. philos. and psychol. and head dept, Wilson Col, 23–39, *prof. psychol, 39–* Psychol. Asn; Philos. Asn. Genetic and social psychology.

Holdaway, Prof. C(harles) W(illiam), Virginia Polytechnic Institute, Blacksburg, Va. *Dairy husbandry.* Masterton, N. Z, May 24, 80. B.S, Va. Polytech, 12, M.S, 15. Asst. *dairy husbandry, Va. Polytech,* 03–07, instr, 07–14, assoc. prof, 14–18, *prof, 18–* A.A; Dairy Sci. Asn. Animal nutrition; genetics; dairy manufacturing.

Holdaway, Dr. F(rederick) G(eorge), University of Hawaii, Honolulu, Hawaii. *Entomology.* Bundaberg, Queensland, Australia, Sept. 13, 02. B.Sc, Queensland, 23, M.Sc, 25; Australian Commonwealth Council Sci. and Indust. Research student, Cornell, 26–27, Minnesota, 27–28; Ph.D, Minnesota, 28. Lecturer biol, Cent. Tech. Col. and Teachers' Training Col, Brisbane, Australia, 22–23; asst. to entomologist, State Dept. Agr, Queensland, 23–25; asst. lecturer zool, Adelaide, 25–26; research entomologist, Imp. Inst. Entom. and British Museum, Australian Commonwealth Council Sci. and Indust. Research, 28–29, Toulouse, 29–30, div. entom, C.S.I.R, Australia, 31–37; assoc. prof. and later *prof. entom. and head dept, Hawaii and entomologist, Exp. Sta, 37–* Lecturer, Australian Forestry Sch, 32–37. Hawaiian Entom. Soc; Hawaiian Acad. Economic entomology; chemical and biological control of insects; bioclimatics; cotton insects of Australia; sex ratio and sex reversal in insects; blowflies and wool maggots; termites; insect ecology and insect populations; humidity and Tribolium populations.

Holden, Prof. Charles A(rthur), Dartmouth College, Hanover, N. H. *Civil engineering.* Hudson, Mass, July 14, 72. B.S, Dartmouth Col, 95, C.E, 01; Harvard, 98. Engineer, Middletown and Portland Bridge Co. and Boston and Albany Ry, 95–98; instr. civil eng, Worcester Polytech, 98–00; math, Dartmouth Col, 01–04, asst. prof, 04–06, instr. civil eng, Thayer Sch. Civil Eng, 00–04, asst. prof, 04–05, assoc. prof, 05–08, prof, 08–25, acting director, 18–19, director, 19–25, prof. *civil eng,* dept. math, *Dartmouth Col,* 25–34, *Thayer sch. civil eng,* 34–37, *emer. prof, 37–* Instr, Wisconsin, 01; Tuck sch, Dartmouth Col, 02–03; res. hydrographer, U. S. Geol. Surv, 00–04; engineer for N. H. in N. H–Vt. boundary litigation, 16–37; mem. N. H. House of Representatives, 25–27, 41–43. Exec. sec'y, emergency help and equipment cmt, State Pub. Safety Cmn, N. H, 17; cmn. conservation water power, State Planning Board, N. H, 21. Supervisor mil. training,

Dartmouth Col, 18. Civil Eng; Soc. Mil. Eng; Eng. Educ; Thayer Soc. Eng; N. H. Acad.

Holden, Edwin C(hapin), 202 E. Chase St, Baltimore, Md. *Mining, Metallurgy.* New York, N. Y, Nov. 8, 72. B.S, Col. City of N. Y, 93; E.M, Columbia, 96. *Manager mines and consulting engineer, 96–;* prof. mining and metal, Wisconsin, 08–16; manager, Davidson Sulphur and Phosphate Co, 15–19. Min. and Metal. Eng; Min. and Metal. Soc. Mine valuation and management.

Holden, Prof. E(ugene) D(avenport), University of Wisconsin, Madison, Wis. *Agronomy.* Oviatt, Mich, Oct. 25, 93. B.S, Wisconsin, 15, M.S, 21. Instr. and *asst. prof. agron, Wisconsin,* 17, *19–* Sec'y, Seed and Weed Council, Wis; Seed Council N. Amer. Wis. Agr. Exp. Asn. (sec'y, 36–). Farm crops; reed canary grass; seed and forage production; seed certification.

Holden, Dr. Francis R(ichard), 170 Spring Road, Route 1, Wilkinsburg, Pa. *Chemistry.* Watertown, N. Y, Oct. 28, 07. B.S, Hobart Col, 30; A.M, Cincinnati, 32, Ph.D, 34. Indust. hygienist, Indust. Health Conservancy Labs, Cincinnati, 34–35; Pittsburgh Plate Glass Co, 35–40; *indust. fellow, Mellon Inst, 40–* Chem. Soc; Indust. Hygiene Asn. (director, 39); Pa. Chem. Soc. Industrial hygiene; organo-metallic compounds; reactions in liquid ammonia; natural gas and natural gasoline.

Holden, Dr. Frederick T(hompson), Carter Oil Co, Drawer 1739, Shreveport, La. *Petroleum geology.* New York, N. Y, June 23, 15. A.B, Denison, 37; Kansas, 37–38; Ph.D, Chicago, 41. *Subsurface geologist, Carter Oil Co, 41–* A.A; Asn. Petrol. Geol; Soc. Econ. Paleont. Mississippian stratigraphy of Ohio; Jurassic, Cretaceous and Tertiary stratigraphy and structure of Louisiana, Arkansas and Mississippi.

Holden, Dr. Geo(rge) W(ilfrid), 2112 Tupper St, Montreal, Que, Can. *Chemistry.* Frelighsburg, Que, 97. B.A, Bishop's Col. (Can), 18; M.Sc, McGill, 24, Nat. Research Council Can. student, 25–26, fellow, 26–27, Ph.D, 27. *Anal. and research chemist, Charles E. Frosst and Co, Montreal.* Hydrogen peroxide as an oxidizing agent in acid solution; the relative activity of ergotoxine and ergotamine; ergot derivatives; excretion of oestrogens and gonadotropic hormone and concentration of gonadotropic hormone in the serum of the pregnant sow.

Holden, H(iram) C(hester), 914 Chester Road, Charleston, W. Va. *Chemistry.* Spencer, Mass, Dec. 5, 88. B.S, New Hampshire, 12, M.S, 14. Fellow, Mellon Inst, 14–17; chemist, Washburn-Crosby Co, 17–18; develop. engineer, Am. Cotton Oil Co, 18–22; research chemist, *Carbide and Carbon Chem. Corp,* 22–31, *supt. research and develop, 31–* A.A; Chem. Soc. (chairman, Kanawha Valley sect, 36); Faraday Soc. Research and development; rare earths; organic solvents; hydrogenation of oils; industrial organic synthesis.

Holden, Dr. Margaret, 630 W. 168th St, New York, N. Y. *Bacteriology.* Traverse City, Mich, April 29, 94. B.S, Columbia, 24, A.M, 25, Ph.D, 30. Asst. *bacter, col. physicians and surg, Columbia,* 26–34, *instr, 34–* Virus diseases.

Holden, P(erry) G(reeley), Belleville, Mich. *Agronomy.* Dodge Co, Minn, Oct. 13, 65. B.S, Mich. State Col, 89, fellow, 89–93, M.S, 95; B.Pd, Mich. State Nor. Sch, Ypsilanti, 94. Instr. agr, Mich. State Col, 89–93; prof. science, Benzonia Col, 95; sch. supt, Mich, 95–96; prof. agron, Illinois, 96–00; agriculturist, Ill. Sugar Ref. Co, 00–01; organizer, Funk Brothers Seed Corn Breeding Co, 02; prof. agron. and v. dean dept. agron, Iowa State Col, 02–12, head agr. exten, 06–12; director agr. exten. dept, Int. Harvester Co, Chicago, 12–32; *retired.* Medal, Panama Pacific Expos, 14. Corn breeding; sugar beets; alfalfa; sweet clover; egg production.

Holden, Prof. R(oy) J(ay), Virginia Polytechnic Institute, Blacksburg, Va. *Geology.* Sheboygan Falls, Wis, Oct. 21, 70. B.S, Wisconsin, 00, Ph.D, 15. Teacher, schs, Wis, 92–02; assoc. geol, *Va. Polytech,* 05–07, assoc. prof. *geol. and miner,* 07–08, *prof, 08–* Commercial geologist; asst. geologist, Va. Geol. Surv, 05–07. A.A; fel. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Va. Acad. (chairman, geol. div, 32). Cytology; mineralogy; origin and alteration of iron ore; association and significance of minerals.

Holden, Dean W(illiam) Curry, Texas Technological College, Lubbock, Texas. *Anthropology.* Cooledge, Texas, July 19, 98. A.B, Texas, 23, A.M, 24, Ph.D, 28. Prof, McMurry Col, 23–27; instr, Texas, 27–28; *prof.* hist, *Texas Tech. Col,* 28–33, *hist. and anthrop, 33–, director archeol. research, 33–, dean div. research.* Director, Texas Tech. Col. sci. expeds, Mex, 34, 38, 40. Curator, Plains Museum Soc, 35– Texas Archeol. and Paleont. Soc. (director, 27–). Archeology of Texas Panhandle and Southwest; ethnology of Yaqui Indians.

Holder, Dr. C(linton) H(oward), 403 Orchard St, Cranford, N. J. *Physical chemistry.* St. John, N. B, Can, Dec. 25, 13. B.Sc, Mt. Allison, 34, 34–36; Nat. Research Council Can. bursar, McGill, 36–37, student, 37–38, fellow, 38–39, Ph.D, 39. *Research chemist, Standard Oil Develop. Co, 39–* Chem. Soc. Petroleum cracking.

Holdridge, L(eslie) R(ensselaer), Société Haitiano-Americaine de Developpement Agricole, Port au Prince, Haiti. *Tropical forestry.* Ledyard, Conn, Sept. 29, 07. B.S, Maine, 31, fellow, 31–32. Cultural foreman reforestation, Kisatchie Nat. Forest, La, 33–34; head planting dept, Caribbean Nat. Forest, P. R, 34–38; assoc. forester, trop. forest management and trop. dendrol, South. Forest Exp. Sta, U. S. Forest Service, 38–39, Trop. Forest Exp. Sta, P. R, 39–41; *manager forestry div, Soc. Haitiano-Americaine de Develop. Agr, 41–* A.A; Soc. Foresters; Soc. Plant. Taxon; Am. Geog. Soc; Soc. Amer. de Ciencias Agr; Britton-Stahl Bot. Club P. R. (pres, 41). Management and ecology of Pinus occidentalis Sw; forests in Haiti; floral and herpetological collections in Haiti.

Holdsworth, Prof. Robert P(owell), Massachusetts State College, Amherst, Mass. *Forestry.* East Lansing, Mich, Jan. 7, 90. B.S, Mich. State Col, 11; M.F, Yale, 28. U. S. Forest Service, 11–14; in business, 14–27; Am-Scandinavian Foundation fellow, forest high sch, Stockholm, Sweden, 28–29; *prof. forestry,* Arkansas, 29–30; Mass. Col, 30–31, *Mass. State Col, 31–; capt, U. S. Army, 42–* U.S.A; 17–19. Soc. Foresters. Forestry in Sweden; lumbering operations and adjacent agriculture; farm forest cultivation; forestry in the non-professional school; multiple use management as applied to timber lands.

Hole, Dr. Francis Doan, Earlham College, Earlham, Ind. *Geology.* Muncie, Ind, Aug. 25, 13. A.B, Earlham Col, 33; A.M, Haverford Col, 34; univ. fellow, Wisconsin, 41–42, Ph.D, 43. Instr. mod. languages, Friends Cent. Sch, Pa, 34–35; Westtown Prep. Sch, 35–38; *instr. geol, Earlham Col, and curator, Joseph Moore museum,* 40–41, *43–* A.A; Ind. Acad. Glacial geology and soils; correlation of the glacial border drifts of north central Wisconsin.

Hole, Prof. Winston L(eRoy), State Normal College, Ypsilanti, Mich. *Physics.* Leesburg, Ohio, July 2, 10. A.B, DePauw, 30; Rector fellow, Wisconsin, 30–31, A.M, 31, Ph.D, 37. Asst. physics, Wisconsin, 31–36; *prof.* math. and physics, Elmhurst Col, 36–41; *physics, Mich. State Nor. Col, 41–* Asn. Physics Teachers; Physical Soc. Photoelectric, thermionic and emissive properties of metals.

Holford, Prof. Frances E(lizabeth), University of Wisconsin, Madison, Wis. *Medical bacteriology, Immunology.* Cassville, Wis, Dec. 3, 94. A.B, Wisconsin, 23, A.M, 24, Ph.D, 29. Asst. *med. bacter, Wisconsin,* 22–27, instr, 27,32, *asst. prof, 32.* A.A; Soc. Bact. Placental permeability to foreign proteins; individual differences in human blood; antigenic specificity.

Holgate, Prof. Thomas F(ranklin), 617 Library Place, Evanston, Ill. *[1]*Mathematics.* Hastings Co, Ont, Can, April 8, 59. B.A, Toronto, 84, M.A, 89; fellow, Clark, 90–93, Ph.D, 93; LL.D, Illinois, 05, Queen's (Can), 19, Northwestern, 37. Master math, Albert, 84–90; instr, *Northwestern,* 93–94, prof. applied math, 94–05, *math,* 05–34, *emer. prof, 34–,* dean col, 02–19, acting pres, 04–06, 16–19. Sec'y geometry sect, St. Louis Expos, 04. Sec'y, Int. Cong. Mathematicians, Rome, 08. A.A; Math. Soc. (sec'y, Chicago sect, 97–05); Math. Asn. Ruled surfaces of the fourth order; loci of common points of tangents forming a circuit with circles of a co-axial system; construction of conics through given elements in part imaginary; geometry; projective pure geometry.

Holl, Dean Carl W(aldo), Manchester College, North Manchester, Ind. *Chemistry.* North Canton, Ohio, Nov. 16, 92. A.B, Manchester, 16; M.S, Ohio State, 21, du Pont fellow, 22–23, Ph.D, 23. Prin, high sch, Ind, 16–18; dept. chem, Blue Ridge Col, 19–20; Ohio State, 20–22; *prof. chem. and head dept, Manchester Col, 23–, dean, 27–* Chemist, U.S.A, 18–19. Chem. Soc. Oxidation of sugars and alcohols in neutral and alkaline solutions.

Holl, Prof. D(io) L(ewis), Iowa State College, Ames, Iowa. *Mathematics.* North Canton, Ohio, Jan. 7, 95. A.B, Manches-

ter, 17; A.M, Ohio State, 20; fellow, Chicago, 22-23, Ph.D, 25. Instr. *math*, Ohio State, 20-22; asst. prof, Ohio Wesleyan, 22-25; *Iowa State Col*, 25-30, assoc. prof, 30-34, prof, 34-37, *research prof, eng. exp. sta, 37-* U.S.A, 18-19. A.A; Math. Soc; Mech. Eng. Applied mathematics; elasticity; theory of thin plates; boundary value problems.

Holl, Prof. Frederick J(ohn), University of Buffalo, Buffalo, N. Y. *Zoology.* Buffalo, N. Y, March 22, 98. B.S, Buffalo, 22; M.S, Wisconsin, 26; Ph.D, Duke, 28. Instr. *biol, Buffalo*, 22-25, 28-29, asst. prof, 29-37, *assoc. prof, 37-* A.A; Soc. Zool; Soc. Parasitol; Ecol. Soc; Limnol. Soc; Micros. Soc; N. C. Acad. Parasitology; ecology; trematodes.

Holladay, L(ewis) L(ittlepage), 938 Dresden Road, Cleveland Heights, Ohio. *Physics.* Stafford Co, Va, Oct. 13, 76. B.S, Virginia, 99. Gen. Elec. Co, Lynn, Mass, 99-03; adj. prof. applied math, Virginia, 03-06, assoc. prof. elec. eng, 06-10; gen. consulting engineer, Chicago, 10-16; Emergency Fleet Corp, Merchants Shipbuilding Co. and Pa. Shipbuilding Co, 16-20; *physicist*, lab. applied science and *lighting research lab, Gen. Elec. Co, Cleveland, 20-* A.A; Elec. Eng; Illum. Eng. Soc; Optical Soc. Glare; visibility; energy radiated by incandescent solids; cost of daylight; biologically-effective ultraviolet radiation; spectral transmission of fog; radiant disinfection of air; resistivity of vitreous materials; brightness meter; paint for reflecting ultra-violet radiation.

Hollaender, Dr. Alexander, National Institute of Health, U. S. Public Health Service, Washington, D. C. *Biophysics.* Samter, Germany, Dec. 19, 98. A.B, Wisconsin, 29, A.M, 30, Ph.D, 31. Asst. physical chem, Wisconsin, 29-31; nat. research fellow, 32-33; special appointment, Rockefeller Foundation, 34; special investigator, radiation cmn, Nat. Research Council, 34-37; biophysicist, Washington biophys. inst, *nat. inst. health, U. S. Pub. Health Service*, 37-38, biochemist, *div. indust. hygiene*, 38-41, *senior biophysicist, 41-* A.A; Soc. Exp. Biol; Soc. Bact; Genetics Soc; Genetic Asn; Bot. Soc; Physical Soc. Raman effect; effect of radiation on microorganisms and virus; emission of light by and absorption spectra of biological material; aerobiology.

Holland, Dr. Dorothy F(itzGerald), U. S. Public Health Service, Washington, D. C. *Bacteriology, Public health.* Newburgh, N. Y, May 29, 97. A.B, Mt. Holyoke Col, 18; C.P.H, Yale, 20, Ph.D, 22. Asst, sch. med, Yale, 18-22; asst. prof. physiol. and hygiene, Vassar Col, 22-24; staff assoc, Am. Child Health Asn, 25-29; Am. Pub. Health Asn, 30, 34; asst. statistician, *U. S. Pub. Health Service*, 35-37, assoc. statistician, 37, *statistician, 37-* Fel. Pub. Health Asn; Statist. Asn. Statistics; morbidity; medical economics.

Holland, Prof. Edward Bertram, Massachusetts State College, Amherst, Mass. *Chemistry.* Amherst, Mass, Jan. 13, 72. B.S, Boston, 92; B.S, Mass. Col, 92, M.S, 98, Ph.D, 15. Asst. gen. and anal. chem, Exp. Sta, Mass. Col, 92-93, chem. and feeding dept, 93-94, asst. chemist, feeding experiments, 94-95, dept. foods and feeding, 95-99, first chemist, 99-08, assoc. chemist, research div, dept. *plant and animal chem*, 08-11, in charge div, 11-20, research prof, 20-31, *Mass. State Col*, 31-42, *emer. research prof. chem, 42-* Chem. Soc. Plant and animal chemistry; oils and fats; insecticides; fungicides; tobacco; rarer elements in fruits and vegetables; human and animal foods.

Holland, George Pearson, Dominion Entomological Laboratory, P. O. Box 210, Kamloops, B. C, Can. *Entomology.* Vancouver, B. C, Aug. 27, 11. B.A, British Columbia, 33, M.A, 37. Demonstrator biol, British Columbia, 34-36; asst, surv. party, Nat. Museum, Can, 36; *asst, livestock insect lab, Dom. Entom. Lab, 36-* Pacific Northwest Bird and Mammal Soc; Entom. Soc. B. C. Medical and veterinary entomology; Siphonaptera; taxonomy of Canadian fleas; bionomics and host relationships of Siphonaptera; ecology of Simuliidae.

Holland, Maurice, 40 W. 40th St, New York, N. Y. *Engineering.* Wickford, R. I, April 4, 91. Lowell Inst; Mass. Inst. Tech, 16; Pennsylvania; Harvard; Tufts Col; Columbia. Various eng. positions, 12-21; chief indust. eng. branch, Air Service, U.S.A, 21-23; director div. eng. and indust. research, Nat. Research Council, 23-41; *indust. research adviser, 41-; col. eng, N. Y. Univ, 42-* Asst. sec'y board trustees, Nat. Research Endowment, 25-27. Advisory cmt, Daniel Guggenheim Sch. Aeronaut, 25-; cmt. on commercial aviation, Am. Eng. Council, 25-26; mem. gen. cmt, Nat. Board Review of Motion Pictures, 25; director, Nat. Research Council science advisory cmt. to A Century of Progress Expos, Chicago, 29-; liaison officer, Science Advisory Board, U. S. Govt, with U. S. Dept. Commerce and Nat. Recovery Admin, 33-35; promotion consultant, study tours, Third World Power Conf, 36, organizer indust. research inst. and lab. tours, 30, 31, 35 and 37; mem. research advisory cmt, Nat. Asn. Mfrs. Nat. Research Council del, World Power Conf, London, 24; Pan-Pacific Sci. Cong, Tokyo, 26; Sci. Management Cong, Prague, 24; organizer and exec. sec'y, Am. Cmt. World Eng. Cong, Tokyo, 27. Lieut-pilot, A.S, 17-20. A.A; Elec. Eng; Soc. Automotive Eng; Acad. Polit. and Social Sci; assoc. fel. Inst. Aeronaut. Sci; Masaryk Acad, Prague. National and industrial organization of research in Europe, the United States and the Far East; industrial explorers; industrial transition in Japan; industrial research.

Holland, Dr. R. F, Cooperative G. L. F. Soil Building Service, Inc, Ithaca, N. Y. *Dairy chemistry.* Holley, N. Y, Sept. 21, 08. B.S, Cornell, 36, M.S, 38, Ph.D, 40. Instr. dairy chem, Cornell, 35-39; prof, N. Y. Exp. Sta, Geneva, 39-41; *director chem. research, Cooperative G. L. F. Soil Bldg. Service, Inc, 41-* Quick-time pasteurization of milk; remedies for poultry and animal diseases.

Hollander, Dr. Charles S(amuel), Care of Rohm and Haas Co, R. D. 2, Bristol, Pa. *Chemistry.* Baltimore, Md, Sept. 1, 77. Ph.D, Munich, 02. Chemist, Shaefer Alcaloid Works, N. J, 03-04; Mallinckrodt Chem. Works, St. Louis, 04-09; East. Chem. Works, Hartford, 10-14; *v. pres. and director, Rohm and Haas Co, Inc, Bristol, Pa, 14-* A.A; Chem. Soc; Chem. Eng.

Hollander, Dr. Franklin, Mt. Sinai Hospital, New York, N. Y. *Physiology.* New York, N. Y, 99. B.S, Columbia, 19, Ph.D, 23. Asst. instr. chem, Columbia, 19-22; nat. research fellow med, Yale, 25-27; asst. prof. physiol, N. Y. Homeop. Med. Col, 27-32; research assoc. dentistry, sch. dental and oral surg, Columbia, 32-36; *head gastro-enterol. research lab, Mt. Sinai Hosp, 36-* Asst. sch. med, Hopkins, 25; mem. research staff, biol. lab, Cold Spring Harbor, 29- A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Gastro-Enterol. Asn; Harvey Soc; N. Y. Acad. Chemical physiology; enzyme action; gastric secretions; dental calcification; sex hormones.

Hollander, Dr. W(illard) F(isher), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Animal genetics.* Madison, Wis, April 15, 13. A.B, Texas, 33; M.S, Wisconsin, 34, Ph.D, 37. Asst. genetics, Wisconsin, 33-37, 39; geneticist, Palmetto Pigeon Plant, Sumter, S. C, 40-41; *assoc. geneticist, genetics dept, Carnegie Institution, 42-* Genetics Soc. Genetics of pigeons.

Hollcroft, Prof. Temple R(ice), Wells College, Aurora-on-Cayuga, N. Y. *Mathematics.* Alton, Ind, April 8, 89. B.S, Hanover Col, 12, A.B, 14, Sc.D, 42; A.M, Kentucky, 15; fellow, Wisconsin, 15-16; fellow, Cornell, 16-17, Ph.D, 17. Instr. *math*, Kentucky, 13-15; Columbia, 17-18; *prof, Wells Col, 18-* Instr, F. A. Cent. Officers Training Sch, U.S.A, 18. A.A; Math. Soc. (councilor, 32-34, assoc. sec'y, 37-); Math. Asn; London Math. Soc. Algebraic geometry; transformations; singularities of curves; linear systems; geometry of hyperspace.

Hollenberg, Dr. Arthur V(ictor), Queens College, Flushing, N. Y. *Physics.* Corvallis, Oregon, May 21, 10. A.B, Willamette, 31; M.S, N. Y. Univ, 33, Ph.D, 38. Asst. *physics*, N. Y. Univ, 31-38; *instr, Queens Col. (N. Y), 38-* Physical Soc. Hyperfine structure.

Hollenberg, Prof. George J(acob), University of Redlands, Redlands, Calif. *Botany.* Grand Harbor, N. Dak, Dec. 5, 97. A.B, La Verne Col, 21; A.M, Manchester Col, 22; fellow, Stanford, 31-32, Ph.D, 33. Prof. *biol*, La Verne Col, 24-39; asst. prof, *Redlands*, 39-42, *assoc. prof, 42-* Summers, asst, Hopkins Marine Sta, Stanford, 31, 32; Marine Biol. Lab, Woods Hole, 34. Marine algae, especially Rhodophyceae and culture studies.

Holler, Dr. H(omer) D(enison), Export, Pa. *Chemistry, Physics.* Newark, Ohio, Nov. 25, 89. B.S, Denison, 11; A.M, Ohio State, 12, Ph.D, 17, Ch.E, 41. Asst. chemist, Bur. Standards, 15-18, assoc. chemist, 18-19; physical chemist, E. I. du Pont de Nemours and Co, 19-20; instr. physics, Columbia, 20-21; asst. prof, Polytech. Inst. Brooklyn, 21-23; chemist, Bur. Standards, 23-25; physicist, Phillips Petrol. Co, 25-27; research assoc, Bur. Standards, 27-29; *research engineer, Westinghouse Elec. and Mfg. Co, 29-* Electrodeposition of metals; batteries; standard cells; current rectifiers; electrolytic polarization; corrosion; seismographs; effect of electricity on chemical reactions; electric heaters.

Holley, Dr. Charles E(lmer), Jr, 1101 S. Race St, Urbana, Ill. *Physical chemistry.* Bellevue, Nebr, May 20, 17. A.B, Illinois, 37, Ph.D, 40. Abbott asst, Northwestern, 40; *research asst, Nat. Defense Research Cmt, Illinois, 40–* Chem. Soc. Separation of gases by thermal diffusion; war research.

Holley, K(irk) T(heron), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Chemistry.* Bexar, Ala, Oct. 4, 97. B.S, Ala. Polytech, 15, Missouri, 17. Asst. state lab. chemist, Texas, 17–18; Ga, 18–27; assoc. chemist, *Exp. Sta, Georgia,* 27–29, *chemist, 29–* Chem. Soc; fel. Inst. Chem. Cotton nutrition.

Holley, Capt. Sion W(oodson), Fitzsimmons General Hospital, Denver, Colo. *Pathology.* Weatherford, Texas, Oct. 7, 06. A.B, Baylor, 27; Ph.D, Chicago, 34, M.D, 35. Asst. *path,* Chicago, 30–34; adj. prof, sch. med, Texas, 36; *instr, col. med, Baylor, 37–; capt, Med. Corps, U. S. Army.* Experimental tuberculosis.

Holliday, Dr. Gail Hamilton, 85 31st St, Wheeling, W. Va. *Biology.* Wheeling, W. Va, April 28, 72. Chicago, 02; Harvard, 03–06; B.Pd, Bethany Col, 09; Brooklyn Inst. Arts and Sciences, 21–22; A.M, Washington and Jefferson Col, 24; Ph.D, Pittsburgh, 37. Teacher, pub. sch, *Wheeling, W. Va,* 91–01, *high sch,* 01–27, *head dept. biol, 27–* Research, Pittsburgh, 30–37. Summers, Marine Biol. Lab, Woods Hole, 27; instr, biol. lab, Cold Spring Harbor, 23, 24, research, 32. A.A; Bot. Soc; Sullivant Moss Soc; Torrey Bot. Club; South. Appalachian Bot. Club; L. I. Biol. Asn; W. Va. Nature Asn; W. Va. State Educ. Asn. (v. pres, 38); Northwest. W. Va. Teachers Asn. (pres, 39); Ohio Co. (W. Va) Educ. Asn. (pres, 40). The mosses of Northern Panhandle of West Virginia; flowering plants in the vicinity of Wheeling, West Virginia.

Hollingshead, Dr. E(dna) Lillian (Mrs. F. F. Hill), 616 Cayuga Heights Road, Ithaca, N. Y. *Cytology.* Ketteby, Ont, Can, Oct. 18, 00. B.A, Saskatchewan, 23, M.A, 26; Ph.D, California, 29. Asst. biol, Saskatchewan, 25–26; genetics, California, 26–29; cereal specialist cytol, Dom. Rust Research Lab, 29–31; collaborator, bur. plant indust, U. S. Dept. Agr, 38–40; *asst. pomol, Cornell, 40–* A.A; Genetics Soc; Can. Soc. Tech. Agr. Cytology and genetics of Crepis; cytology of wheats.

Hollingshead, Dr. E(than) A(llen), Aluminum Co. of Canada, Ltd, Shawinigan Falls, Que, Can. *Physical chemistry.* Ont, Oct. 1, 17. B.A, Toronto, 37, M.A, 38, Ph.D, 40. *Tech. control engineer, Aluminum Co, Can, Ltd, 40–* Assoc. Can. Inst. Chem. Differential diffusion coefficients of electrolytes in aqueous solution.

Hollingshead, R(obert) S(ullivan), 1569 44th St, N. W, Washington, D. C. *Chemistry.* Baltimore, Md, Sept. 9, 88. A.B, Cornell, 10, 10–11. Asst, Cornell, 09–11; chemist, N. Y. State Dept. Agr, 11; adj. prof, Ga. State Col, 12–13; chemist, bur. chem, U. S. Dept. Agr, 14–19, chief food and drug inspection sta, New Orleans, food and drug admin, 19–23; asst. chief foodstuff div, Bur. For. and Domestic Commerce, 23–33; tech. adviser and acting deputy administrator, fishery sect, Nat. Recovery Admin, 34–35; *asst. chief food research div, bur. chem. and soils, U. S. Dept. Agr, 35–* Chem. Soc; Inst. Food Technol; Wash. Acad. Composition and ripening of fruits; economics; export trade; foodstuffs; foreign pure food laws and restrictions on imports of agricultural products; dehydration of agricultural products.

Hollingsworth, Prof. Marion, Ohio State University, Columbus, Ohio. *Chemistry.* Near Jamestown, Ohio, Oct. 7, 77. B.S, Wilmington Col, 06; A.B, Ohio State, 08, A.M, 17, Ph.D, 19; Berlin. Teacher, rural schs, 95–01; draftsman, Sherwin-Williams Paint Co, 06–07; prof. chem, Wilmington Col, 08–14; asst, *Ohio State,* 14–18, instr, 18–19, asst. prof. anal. chem, 19–29, curator dept. chem, 29–32, *asst. prof. chem, 32–* A.A; Chem. Soc. Precision methods in analytical chemistry; care and construction of scientific instruments.

Hollingworth, Prof. H(arry) L, Columbia University, New York, N. Y. **3*Psychology.* DeWitt, Nebr, May 26, 80. A.B, Nebraska, 06, LL.D, 38; Ph.D, Columbia, 09. Teacher, rural schs, Nebr, 99–03; asst. psychol, Nebraska, 04–06; prin, high sch, Nebr, 06–07; asst. *psychol, Columbia,* 07–09; tutor, 09–10, instr, 10–14, asst. prof, 15–17, assoc. prof, 18–21, *prof, 22–* A.A; Psychol. Asn. (pres, 27). Psychology of movement; pharmaco-psychology; industrial, abnormal, educational and systematic psychology; judgment and thought processes; functional neuroses; mental measurement and growth.

Hollinshead, Dr. W(illiam) H(enry), Duke University School of Medicine, Durham, N. C. *Anatomy.* Winchester, Tenn, June 17, 06. A.B, Vanderbilt, 26, fellow, 26–27, M.S, 27, Ph.D, 32. Instr. biol, Vanderbilt, 27–30; *anat, sch. med, Duke,* 30–35, assoc, 35–39, *asst. prof, 39–* A.A; Asn. Anat. Limb development; Nissl granules of sympathetic neurones; innervation of adrenal glands and chromaffin tissue; innervation, morphology and distribution of vascular chemoreceptors.

Hollister, Prof. Paul L(ivingstone), Cumberland University, Lebanon, Tenn. *Biology, Ecology.* Irish Grove, Ill, Sept. 20, 93. A.B, Cumberland, 15, A.M, 17; B.Phys.Educ, Y.M.C.A. Col, 22; LaVerne Noyes scholar, Chicago, 27–29, M.S, 29; LaVerne Noyes scholar, Peabody Col, 35–37, Ph.D, 39. Instr. Latin and science, prep. sch, 16–17; biol. sciences, Y.M.C.A. Col, 22–28; assoc. prof. biol. and head dept, Blackburn Col, 29–34; teaching fellow, Peabody Col, 34–37; *instr. science surv, prof. biol. and head dept, Cumberland, 37–* Summers, prof, Peabody Col, 37, 40–42. Sergt, Med. Dept, 18–19. A.A; Genetic Asn; Tenn. Acad. Spraying and edibility of apples; relation of Wassermann reaction to anti-sheep amboceptor in patients' serum; swimming pool bacteriology; effects of soil reaction on earthworms; history of biology teaching in American colleges.

Hollister, Prof. S(herman) P(reston), University of Connecticut, Storrs, Conn. *Horticulture.* Medina, Ohio, Feb. 11, 84. Grad, Conn. Agr. Col, 05; B.S.A, Cornell, 09; Mich. State Col, 32. Asst. hort, Conn. Agr. Col, 05–07; horticulturist, Hampton Inst, 09–11; instr. hort, *Connecticut,* 11–17, exten. horticulturist, 16–19, asst. prof. pomol, 17–22, *prof. hort, 22–* Soc. Hort. Sci; Pomol. Soc; Conn. Pomol. Soc. Variation in length of apple stems.

Hollister, Dean S(olomon) C(ady), Cornell University, Ithaca, N. Y. *Engineering.* Crystal Falls, Mich, Aug. 4, 91. State Col. Wash, 09–11, 13–14; B.S, Wisconsin, 16, C.E, 32; D.Eng, Stevens Inst. Tech, 42. Engineer on municipal structural and flood control projects, 10–15; instr. mech, Illinois, 16–17; research engineer, Corrugated Bar Co, 17; chief designing engineer and head investigation branch, concrete ship sect, U. S. Shipping Board, Emergency Fleet Corp, 18–20; consulting engineer, Phila, 20–30; prof. struct. eng. and asst. director testing materials lab, Purdue, 30–34; director sch. civil eng, Cornell, 34–37, assoc. dean *col. eng,* 36–37, *dean, 37–* Consultant, Babcock and Wilcox Co, Boulder Dam, 32–36. Mem. Joint Cmt. Standard Specifications for Concrete and Reinforced Concrete, 19–40. Wason research medal, Am. Concrete Inst. A.A; Civil Eng. (past pres, Ind. sect; Ithaca sect); Mech. Eng; assoc. Ry. Eng; Eng. Educ. (councilor); Soc. Test. Mat; Concrete Inst. (pres, 32); Franklin Inst; Int. Asn. Bridge and Struct. Eng. Structural engineering and engineering materials; mechanics; reinforced concrete and masonry structures; handbook of building construction.

Hollister, Prof. Vernon (Leo), 1734 Pepper Ave, Lincoln, Nebr. *Electrical engineering.* Cadillac, Mich, March 14, 83. B.S, Illinois, 07, E.E, 11. Sales engineer, Century Elec. Co, 07; *prof. elec. eng, Nebraska, 07–* Asst. to v. pres, Continental Gas and Elec. Corp, 16–17; chief engineer, Nebr. State Ry. Cmn, 35–36. Elec. Eng. Induction motors in concatenations; evaluations and appraisals; errors in electrical instruments; economics of public utilities; electric rate studies.

Holloway, Dr. Donald Francis, 7804 S. Essex Ave, Chicago, Ill. *Chemistry.* Brooklyn, N. Y, Aug. 22, 16. B.S, Mass. Inst. Tech, 38, Ph.D, 41. *Org. research chemist, Swift and Co, 41–* Chem. Soc. Inorganic chemistry; organic chemistry; oxychlorides of silicon and ester derivatives; proteins and amino acids.

Holloway, J(ames) K(eever), U. S. Department of Agriculture, Whittier, Calif. *Entomology.* Aspinwall, Pa, Dec. 13, 00. B.S, Miss. Agr. and Mech. Col, 26; Ohio State, 26–27. Asst, Ohio State, 26–27; asst. entomologist, biol. control Japanese beetle, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 27–31; biol. control Oriental fruit moth, 31–35, Mediterranean fruit fly, 35–36, Oriental fruit moth, 36–37, *assoc. entomologist, research project influence of chem. control. on biol. control, 37–* M.C, U.S.A, 18–19. Asn. Econ. Entom. Biological control; biometry; population studies.

Holloway, Dr. Judson H(arry), Rayonier, Inc, Shelton, Wash. *Chemistry.* Denver, Colo, Aug. 8, 03. B.S, Denver, 24, M.S, 26; Ph.D, Illinois, 32. Asst. chem, 23–26; asst. and chief chemist, Pub. Service Co. of Colo, 26–29; asst. chem,

Illinois, 29–32; *with Rayonier, Inc, 34–* Chem. Soc. High pressure gas reactions; pulp and paper.

Holloway, T(homas) E(dmunds), U. S. Department of Agriculture, Houma, La. *Entomology.* Parsons, Kans, Aug. 20, 86. B.S, Agr. and Mech. Col. Texas, 08. Asst. boll weevil investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 09–11, in charge lab. sugar-cane insect investigations, senior entomologist in charge, New Orleans, and *asst. entomologist, Houma, 11–* New Orleans Acad. Sugar-cane insects; sugar-cane moth borer.

Hollowell, Dr. E(ugene) A, Bureau of Plant Industry Station, U. S. Department of Agriculture, Beltsville, Md. *Agronomy.* Jamestown, Ind, Dec. 29, 00. B.S, Iowa State Col, 23, M.S, 24; Ph.D, Illinois, 28. *Senior agronomist, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr.* Agronomy, physiology and breeding of clover.

Holm, Dr. George E(lmer), U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Cokato, Minn, Jan. 20, 91. B.S, Carleton Col, 14; M.S, Minnesota, 16, Ph.D, 19. Prin, high sch, Minn, 14–15; instr, Minnesota, 19, asst. prof, 19–20; *biochemist, bur. dairying, U. S. Dept. Agr, 20–, chief div. dairy research labs, 43–* A.A; Chem. Soc; Soc. Exp. Biol; Wash. Acad. Protein chemistry; chemistry of fat deterioration; colloids.

Holm, Dr. Glenn C(arlos), University of Idaho, Moscow, Idaho. *Animal pathology.* Shelley, Idaho, Dec. 17, 09. B.S, Idaho, 32, M.S, 33; D.V.M, Iowa State Col, 36. Asst, Idaho, 31–33; teaching asst, Iowa State Col, 33–36; practicing veterinarian, 36–38; animal pathologist, *Idaho,* 38–40, *veterinarian, Exp. Sta, 40–* Vet. Med. Asn; Idaho Vet. Med. Asn. Animal therapeutics; bovine mastitis; artificial insemination; porcine brucellosis.

Holman, Dr. Delavan V(anHorn), 660 Madison Ave, New York, N. Y. *Clinical medicine.* Iowa, May 13, 05. A.B, Iowa, 28, M.D, 30. Asst. pharmacol, Iowa, 29–30; intern, Montreal Gen. Hosp, 30–32; research fellow, McGill Clinic, Royal Victoria Hosp, Montreal, 32–33; asst. pharmacol, McGill, 33–34; asst. med. and asst. res. physician, Rockefeller Inst. Hosp, 34–37; *instr. med, sch. med, N. Y. Univ, 37–; major, Med. Corps, U. S. Army.* Clin. asst. attending physician, third div, Bellevue Hosp, 37; asst. physician, Post-Grad. Hosp, 42. Heart and circulation; coronary circulation; posterior pituitary hormone circulation in hypertension; the aging process on circulation; digitalis glucosides.

Holman, Dr. Emlle, Stanford Hospital, San Francisco, Calif. *Medicine.* Moberly, Mo, Aug. 12, 90. A.B, Stanford, 11; B.A, Oxford, 16; M.D, Hopkins, 18. Instr. surg, Hopkins, 20–23; Austin teaching fellow, Harvard, 23–24; asst. prof. *surg,* Western Reserve, 24–25; assoc. prof, *sch. med, Stanford,* 25–26, *prof, 26–; commander, U. S. Naval Res, 41–, chief surgeon, Mare Island Naval Hosp, 42–* Visiting prof, Peiping Union Med. Col, 30. Samuel D. Gross prize, 30. A.A; fel. Am. Med. Asn; fel. Col. Surg; Soc. Clin. Surg; Asn. Thoracic Surg; Surg. Asn; Heart Asn; Soc. Univ. Surg; Pacific Coast Surg. Soc; Calif. Acad. Med. Arterio-venous aneurism; patent ductus arteriosus; intracardiac fistula; intestinal anastomosis; skin grafting; hernia; lung abscess; surgery of pulmonary tuberculosis; carcinoma of the stomach; surgery of the spleen; peripheral vascular disease; carcinoma of lung; vitamins in surgery.

Holman, H(erbert) P(aul), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Vincennes, Ind, June 14, 82. A.B, Indiana, 03. Asst. chemist, La Clede Gas Light Co, St. Louis, Mo, 04; St. Louis Smelting and Ref. Co, 05–06; chemist, St. Louis Sampling and Testing Works, 06–08; from asst. to *senior chemist,* bur. chem, *U. S. Dept. Agr,* 08–27, *bur. agr. chem. and eng, 27–* Chem. Soc; Agr. Chem. Waterproofing; preservative treatments for fabrics.

Holman, Prof. Russell L(owell), University of North Carolina School of Medicine, Chapel Hill, N. C. *Experimental pathology.* Conway, Ark, Jan. 29, 07. A.B, Washington (St. Louis), 27; M.D, Vanderbilt, 31. Asst. *path,* Rochester, 31–33; instr, Columbia, 33–37; asst. prof, *sch. med, North Carolina,* 37–39, *assoc. prof, 39–* Am. Med. Asn; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol. Experimental necrotizing arteritis; the role of dietary deficiency and renal insufficiency in the production of arterial lesions.

Holman, Prof. Will(iam) F(rank), University of Minnesota, Minneapolis, Minn. *Engineering.* Friend, Nebr, March 6, 83. B.S, Nebraska, 04, A.M, 06; Ph.D, Göttingen, 08. Instr. physics, Worcester Polytech, 08–09; *Minnesota,* 09–11, assoc. prof. and *prof. math. and mech, 11–, supervising engineer, 28–* A.A; Eng. Educ. Photoelectric effect; piezo-electricity; administration.

Holman, W(illiam) H(arry), 4125 Tilden Ave, Culver City, Calif. *Geology.* Reno, Nev, Jan. 4, 97. A.B, Stanford, 26. *Paleontologist, Standard Oil Co. of Calif, 26–* Asn. Petrol. Geol. Paleontology, micropaleontology and stratigraphy applied to petroleum exploration and oil field development.

Holman, Prof. W(illiam) L(udlow), University of Toronto, Toronto, Ont, Can. *Bacteriology.* Summerside, P. E. I, May 17, 79. B.A, McGill, 03, M.D, 07. Anesthetist, Royal Victoria Hosp, Montreal, 07–08, asst. path. and bacter, 08–09; research worker, Hopkins, 09–10; hygiene inst, Breslau, 10–11; instr. *bacter,* Pittsburgh, 11–12, asst. prof, 12–16, assoc. prof, 16–18, prof, 18–20; asst. prof, Stanford, 20–21, assoc. prof, 21–23; Hopkins, 23–24; *Toronto,* 24–28, *prof, 28–* Asst, Walton Goelet Research Lab, Paris, 16–17. A.A; Soc. Bact; Asn. Path. and Bact; Soc. Exp. Biol. Anaerobic bacteria; bacteriology of soot; spontaneous infection in guinea pigs; streptococci; bacteriological media; anthrax; minute anaerobes in the mouth; filtration methods; bacterial synergism; focal infection; fatigue and infection.

Holmboe, Prof. Jörgen, 449 Levering Ave, Los Angeles, Calif. *Meteorology.* Hammerfest, Norway, Nov. 8, 02. M.S, Oslo, 30. Meteorologist, Norwegian Meteorol. Inst, 30–36; asst. prof. *meteorol,* Mass. Inst. Tech, 36–40; *assoc. prof, California at Los Angeles, 40–* Visiting prof, N. Y. Univ, 42. Meteorologist, Ellsworth Antarctic exped, 33–35. Meteorol. Soc; Int. Union Geophys. and Geod. Dynamic meteorology and hydrodynamics.

Holmes, Prof. A(ddison) F(rancis), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanics.* Sept. 16, 82. B.S, Mass. Inst. Tech, 04. *Assoc. prof. applied mech, Mass. Inst. Tech, 25–* Summers, exec. officer, Mass. Inst. Tech, 17– Soc. Test. Mat. Applied mechanics; strength and elastic properties of concrete filled pipe columns; structural mechanics.

Holmes, Prof. Arthur D(unham), Massachusetts State College, Amherst, Mass. *Chemistry.* Walpole, N. H, July 19, 84. B.S, Dartmouth Col, 06; Ph.D, Hopkins, 11. Asst. chem, Dartmouth Col, 05–06; instr, Maine, 06–07; Mass. Col, 07–08; asst, Hopkins, 09–11; instr, Ga. Tech, 11; research chemist, U. S. Dept. Agr, 11–18; E. I. du Pont de Nemours and Co, 18–21; director research, E. L. Patch Co, 21–42; *prof, Mass. State Col, 42–* Summer, chemist, Spanish-Am. Iron Co, Moa, Cuba, 10. Director, E. L. Patch Co. Assoc. ed, 'Oil and Soap.' Special vitamin cmt, revision cmt, U. S. Pharmacopoeia, 20–30. A.A; Chem. Soc. (chairman, northeast. sect, 28, med. div, 31, councilor, 29–); Inst. Nutrition; Soc. Biol. Chem; Pharmaceut. Asn; Pharmaceut. Mfrs. Asn; Drug Mfrs. Asn. (chairman, vitamin cmt, 27–); Oil Chemists Soc; Asn. Study Int. Secretions; N. H. Acad. Nutrition; digestibility of oils and fats; vitamin potency of fish liver oils; nutritional diseases; human foods; poultry nutrition.

Holmes, Prof. Cecil T(homas), Bowdoin College, Brunswick, Maine. *Mathematics.* Caribou, Maine, Dec. 8, 96. A.B, Bates Col, 19; A.M, Harvard, 25, Ph.D, 31. Asst. prof. *math, Bowdoin Col,* 25–31, assoc. prof, 31–37, *prof, 37–* Math. Soc; Math. Asn.

Holmes, Dr. Chauncey D(ePew), 316 S. Garth Ave, Columbia, Mo. *Geology.* New Woodstock, N. Y, March 9, 97. A.B, Syracuse, 25, A.M, 27; Ph.D, Yale, 39. Instr. *geol,* Syracuse, 27–36; Yale, 36–39; asst. prof, North Dakota, 39–40; instr, *Missouri,* 40–42, *asst. prof, 42–* Glacial geology.

Holmes, Prof. Clayton E(rnest), Oregon State College, Corvallis, Oregon. *Poultry husbandry.* Sechlerville, Wis, July 29, 04. B.S, Wisconsin, 27, M.S, 31, Ph.D, 38. Res. asst. *poultry husbandry,* Pa. State Col, 27–28; instr, Wisconsin, 28–34, asst. prof, 34–41; *assoc. prof, Oregon State Col, 41–* Genetic Asn; Poultry Sci. Asn. Pullorum disease; control of coccidiosis in poultry; nutritional requirements of poultry; breeding poultry for economic qualities.

Holmes, Dr. Dorothy Behner (Mrs. O. W. Holmes), 6700 Fourth St, N.W, Washington, D. C. *Ophthalmology, Bacteriology.* Newton, Iowa, May 25, 02. A.B, Montana, 25; M.S, N. Y. Univ, 29, Ph.D, 33; M.D, Pennsylvania, 41. Instr,

Montana, 25–26; asst, research lab, Dept. Health, New York, 26–27; biol, Wash. Sq. Col, N. Y. Univ, 27–31; bacter, Univ. and Bellevue Hosp. Med. Col, 31–35; asst. bacteriologist, N. Y. State Dept. Health, 35–36; *house officer, Wilmer Inst, Hopkins Hosp, 41–* Serum sensitization; bacillus Calmette-Guérin; beta streptococci antigens.

Holmes, Dr. Edward L(awson), Room 1200, 201 Varick St, New York, N. Y. *Inorganic chemistry.* Washington, D. C, Feb. 14, 09. A.B, Ohio State, 30, M.S, 31; Ph.D, McGill, 35. Asst, Ohio State, 31; demonstrator anal. chem, McGill, 33–35; junior inspector, *food and drug admin,* U. S. Dept. Agr, 35–38, asst. inspector, 38–39, assoc. inspector, *Fed. Security Agency, 42, inspector, 42–* Chem. Soc. Liquid ammonia solutions; reactions of cyanides on metallic elements; food chemistry; sanitation in food manufacture.

Holmes, Prof. E(dward) O(tis), Boston University, Boston, Mass. *Physical chemistry.* July 16, 92. A.B, Harvard, 14, A.M, 16; Ph.D, Hopkins, 20. Research chemist, E. I. du Pont de Nemours and Co, 17–18; instr. *chem, Boston,* 20–28, asst. prof, 28–33, *prof, 33–* Chem. Soc. Photochemistry; electrochemistry.

Holmes, Fletcher B(each), 2309 Ridgway Road, Wilmington, Del. *Chemistry.* Melrose, Mass, Jan. 13, 77. A.B, Harvard, 02. Asst. director east. lab, *E. I. du Pont de Nemours and Co,* 04–17, director Jackson lab, 17–31, asst. director chem. sect, dyestuffs dept, 31–41, *manager patents and processes div, org. chem. dept, 41–* Chem. Soc; Soc. Chem. Indust; Chem. Eng; Electrochem. Soc; British Soc. Dyers and Colorists. High explosives; dyes and intermediates; organic chemicals.

Holmes, Dr. Francis O(liver), Rockefeller Institute, Princeton, N. J. *Plant pathology.* Cambridge, Mass, Nov. 26, 99. B.S, Mass. Inst. Tech, 21; Sc.D, Hopkins, 25. Protozoologist, Boyce Thompson Inst, 23–32; *assoc. mem. div. plant path, Rockefeller Inst, 32–* Phytopath. Soc; Genetics Soc. Filterable viruses.

Holmes, Dr. F(rederick) T(aylor), University of Virginia, Charlottesville, Va. *Physics.* New York, N. Y, Feb. 6, 04. A.B, Yale, 25, Ph.D, 35; fellow, Virginia, 32–34. Instr. physics, Lehigh, 29–32; guest fellow, *Virginia,* 34–40, tech. asst, 40–41, *research assoc, 41–* A.A; Physical Soc; Va. Acad. Radiations; physical optics; magnetic suspension; ultracentrifuge.

Holmes, Dr. George W(inslow), 265 Charles St, Boston, Mass. *Roentgenology.* Waldo, Maine, Dec. 28, 76. M.D, Tufts Col, 06. Asst. roentgenologist, *Mass. Gen. Hosp,* 11–12, Dalton scholar, 12–13, asst. roentgenologist, 13–17, *roentgenologist, 17–*; instr. *roentgenol, Harvard Med. Sch,* 17–23, asst. prof, 23–31, clin. prof, 31–41, *emer. prof, 41–* Consulting roentgenologist, Mass. Eye and Ear Infirmary. Mem, Nat. Research Council, 27– A.A; Roentgen Ray Soc. (pres, 24); Am. Med. Asn; Soc. Control Cancer (director, 36–); Col. Radiol; New Eng. Roentgen Ray Soc; New Eng. Med. Asn. Roentgen interpretation; benign giant-cell tumors; radiographic findings in pericarditis with effusion; endothelial myeloma; congenital idiopathic enlargement of the heart; primary tumors and massive collapse of the lung; carcinoma of the breast.

Holmes, Glenn D, 304 W. Kennedy St, Syracuse, N. Y. *Sanitary engineering.* Alabama, N. Y, June 17, 73. C.E, Cornell, 96. Asst. engineer, Water Supply, Phila, 01–03; Additional Water Supply, New York, 03–04; expert computer, State Canals, N. Y, 04–05, engineer of water supply, 05–07; chief engineer, Intercepting Sewer Board, Syracuse, 07–33; chief engineer-director, Onondaga County Sanit. Sewer and Pub. Works Cmn, N. Y, 33–34; *consulting engineer.* Civil Eng. (director, 23–25); N. Y. Sewage Works Asn. (exec. cmt, 30); Technol. Club Syracuse (pres, 27). Water supply; sewage treatment; flood control.

Holmes, Harlan B(anta), 2725 Montlake Blvd, Seattle, Wash. *Biology.* Ashland, Oregon, Nov. 11, 98. A.B, Stanford, 22, A.M, 31. Asst, Calif. Fish and Game Cmn, 20–22; Bur. Fisheries, 22–24, junior aquatic biologist, 24–28, asst. aquatic biologist, 28–30, assoc. aquatic biologist, 30–35; U. S. Engineers, 35–36, aquatic biologist, 36–39; in charge hydraulics sect, *fish and wildlife service, U. S. Dept. Interior,* 39–41, *in charge north Pacific fishery investigations, 41–* Lecturer, Washington (Seattle), 31– Fisheries biology; natural history and economic importance of Pacific salmon.

Holmes, Dr. H(arrison) H(oward), Burnside Laboratory, E. I. du Pont de Nemours and Co, Penns Grove, N. J. *Chemistry.* Portland, Oregon, Dec. 28, 07. B.S, Oregon State Col, 30; Ph.D, Wisconsin, 34. Chemist, *E. I. du Pont de Nemours and Co,* 34–40, *chief chemist, Burnside lab, 40–* Chem. Soc. Photochemistry of nitrogen oxides; explosives.

Holmes, Prof. Harry N(icholls), Oberlin College, Oberlin, Ohio. ****Chemistry.* Fay, Pa, July 10, 79. B.S, Westminster Col. (Pa), 99, M.S, 07, LL.D, 41; Ph.D, Hopkins, 07. Asst. *chem,* Hopkins, 06–07; prof, Earlham Col, 07–14; *prof. and head dept, Oberlin Col, 14–* Chairman subcmt, on colloid chem, Nat. Research Council, 19–25, mem. div. chem, 22–28; faculty, 1st and 2nd insts. chem, Am. Chem. Soc, 27–28; consultant, Nat. Defense Research Cmt, 42; War Production Board, 42. A.A; Chem. Soc. (sec'y, div. physical and inorg. chem, 19, chairman, 21, chairman, Cleveland sect, 24, councilor at large, 24–26, 27–29, 30–32, 39–41; pres, 42); fel. Inst. Chem. General and colloid chemistry; vitamins; biochemistry.

Holmes, Prof. H(enry) Lavergne, University of Saskatchewan, Saskatoon, Sask, Can. *Organic chemistry.* Ottawa, Ont, June 28, 11. B.Sc, Queen's (Can), 34, M.Sc, 35; A.M, Harvard, 37, Ph.D, 38; Graz, 38; Mass. Inst. Tech, 39–40; Harvard, 40–41. Parker traveling fellow from Harvard and visiting prof, Oxford, 38–39; research assoc, Mass. Inst. Tech, 39–40; private asst, Harvard, 40–41; *asst. prof. org. chem, Saskatchewan, 41–* Synthesis of degradation products of morphine; synthesis of degradation products of strychnine; attempted synthesis of vitamin D; heart poisons of digitalis series.

Holmes, Dr. Jerome K(nowlton), 2627 Waolani Ave, Honolulu, Hawaii. *Physical and organic chemistry.* Tokyo, Japan, April 23, 15. A.B, Hawaii, 37; Ph.D, California, 40. Instr. chem, Hawaii, 40–42; *officer in charge decontamination, Office Civilian Defense, Honolulu, 42–; lieut, Chem. Warfare Service, U. S. Army, 42–* A.A; Sigma Xi (sec'y-treas, 41). Asymmetric synthesis; catalytic hydrogenation.

Holmes, Dr. John R(ichard), 1810 Euclid, Berkeley, Calif. *Physics.* Chula Vista, Calif, Sept. 24, 17. A.B, California, 38, A.M, 41, Whiting fellow, 41–42, Ph.D, 42. Teaching asst. physics, *California,* 38–41, *research physicist, radiation lab, 42–* Isotope shift in the atomic spectrum of nitrogen.

Holmes, Dr. Joseph H(enry), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Physiology.* Champaign, Ill, May 2, 09. A.B, Amherst Col, 30; M.D, Western Reserve, 34; Sc.D.Med, Columbia, 41. Intern, univ. hosp, Emory, 34–35; int. med. residency, Maryland, 35–37; instr. *physiol, col. physicians and surg, Columbia,* 37–41, *asst. prof, 41–* Harvey Soc. Fluid exchange in relation to diabetes insipidus, thirst, salt deficiency, dehydration and kidney function.

Holmes, Prof. Joseph L(awrence), Hunter College, New York, N. Y. *Psychology.* Oneonta, N. Y, June 12, 90. B.S, Columbia, 20, A.M, 21, Ph.D, 23. Instr. *psychol,* Columbia, 23–31; asst. prof, *Hunter Col,* 31–37, *assoc. prof, 37–* Psychol. Asn; N. Y. Acad. Med. Experimental psychology.

Holmes, Prof. Julia (Pratt) O(uthouse) (Mrs. Arthur Dunham Holmes), Massachusetts State College, Amherst, Mass. *Nutrition, Physiological chemistry.* Madison, Wis, July 9, 97. B.S, Wisconsin, 19, M.S, 20; fellow, Pa. State Col, 21–22; Ph.D, Yale, 31. Technician, hosp. lab, 20–21; asst. household science and anat, California, 23; research assoc, Merrill-Palmer Sch, Detroit, Mich, 24–28; prof. *nutrition,* dept. home econ, Illinois, 31–42; *research prof, Mass. State Col, 42–* A.A; Chem. Soc; Inst. Nutrition; Soc. Biol. Chem; Soc. Research Child Develop; Home Econ. Asn. Factors influencing bone calcification; dietary requirements of man; methods of determining nutritional status of, and rate of utilization of nutrients, by man.

Holmes, Dean M(ajor) E(dward), New York State College of Ceramics, Alfred University, Alfred, N. Y. *Ceramics.* La Grange, Ky, Jan. 8, 82. A.B, Indiana, 08; A.M, Cornell, 10, Ph.D, 18. Research and develop. engineer, Nat. Carbon Co, 10–18; chem. director, Nat. Lime Asn, 18–23; develop. engineer, U. S. Gypsum Co, 23–25; Dolomite, Inc, 25–26; director dept. ceramic eng, Mo. Sch. Mines, 26–32; director clay testing and research lab, Mo. Refractory Asn, 26–32; *dean, N. Y. State Col. Ceramics, Alfred, 32–* Chairman, C. F. Burns medal jury, 32– Fel. Ceramic Soc. (v. pres); Soc. Test. Mat; Ceramic Asn. N. Y. (sec'y-treas, 32–). Compounds of hydrogen and nitrogen; lime; basic refractories; primary batteries; clay products.

Holmes, Prof. Maurice C(offyn), University of Miami, Coral Gables, Fla. *Physics.* Livermore Falls, Maine, April 10, 01. B.S, West Virginia, 25; M.S, Mass. Inst. Tech, 27, Sc.D, 30. Instr. physics, West Virginia, 27–28; research dielectrics, Illinois, 28–29; asst. prof. *physics,* West Virginia, 30–43; *prof. and chairman dept, Miami (Fla), 43–* Physical Soc; assoc. Elec. Eng. Losses in large turbine generators; breakdown strength and methods of testing high voltage power cables; effect of insulation inhomogeneity on breakdown voltages; probability theory and applications; kinetic theory of gases.

Holmes, Dr. Maynard E, 2728 James St, Syracuse, N. Y. *Internal medicine.* Dec. 30, 94. M.D, Syracuse, 18. *Chief metabolic dept, univ. hosp, Syracuse, 22–, chief diabetic and metabolic clinic, 37–, attending physician, 38–, prof. clin. med, col. med, Syracuse, 38–* Am. Med. Asn; Diabetic Asn; Col. Physicians. Diabetes; metabolic diseases.

Holmes, Prof. R(alph) M(aynard), University of Vermont, Burlington, Vt. *Physics.* Ellsworth, Maine, June 11, 87. A.B, Maine, 11; A.M, Wesleyan, 13; Ph.D, Cornell, 23. Asst. *physics,* Wesleyan, 11–13; instr, Maine, 13–15, asst. prof, 15–17; instr, Cornell, 19–25; assoc. prof, *Vermont,* 25–34, *prof, 34–; commander, U. S. Naval Res, 42–* Aerologist, Sig. C, 17–19; lieut. commander, U.S.N.R, 25–42. Physical Soc; Asn. Physics Teachers. Thermo-electric properties of thin film; effect of occluded hydrogen on thermoelectric power; effect of light on thermoelectric power of selenium; electrical properties of single crystals of selenium; effect of hydrostatic pressure on conductivity of single crystals of selenium.

Holmes, Robert S, U. S. Department of Agriculture, Washington, D. C. *Soil chemistry.* Stewart, Tenn, Feb. 17, 89. B.S, Louisiana, 17; Chicago, 17. Instr, high sch, La, 13–15; Ill, 17–18; *assoc. chemist, div. soil chem. and physics, bur. plant indust, U. S. Dept. Agr, 19–* C.W.S, U.S.A, 18. Instr, Emerson Inst, 19–31. Soil colloids; copper and zinc in soils and plants.

Holmes, Dr. R(oger) B(radford), 45 Wilcox Ave, South River, N. J. *Chemistry.* Bridgewater, Mass, Jan. 6, 10. B.S, Yale, 31, Ph.D, 34. *Research chemist, E. I. du Pont de Nemours and Co, Parlin, N. J, 34–* Chem. Soc. Organic chemistry; organic finishes.

Holmes, Prof. S(amuel) J(ackson), University of California, Berkeley, Calif. *[1]Zoology, Genetics.* Henry, Ill, March 7, 68. B.S, California, 93, M.S, 94, LL.D, 43; Ph.D, Chicago, 97. Teacher, high sch, Calif, 98–99; instr. *zool,* Michigan, 99–05; asst. prof, Wisconsin, 05–11; assoc. prof, *California,* 11–16, *prof, 16–* Instr, Marine Biol. Lab, Woods Hole. A.A. (pres, Pacific div, 39); Soc. Nat. (pres, 31); Soc. Zool. (pres, 27); Genetics Soc; Genetic Asn; Soc. Exp. Biol; Eugenics Research Asn; Eugenics Soc. (pres, 38); Psychol. Asn; Popul. Asn; Am. Acad; West. Soc. Nat; Calif. Acad; Wis. Acad. Comparative psychology; Crustacea; embryology of Mollusca; animal behavior; heredity; evolution; eugenics.

Holmes, Walter C(ornelius), 305 Delaware St, Woodbury, N. J. *Chemistry.* Bridgewater, Mass, Dec. 5, 84. A.B, Harvard, 06. Chemist, Carnegie Steel Co, 06; asst. technol. librarian, Carnegie Library, Pittsburgh, 06–15; *chemist, east. lab, E. I. du Pont de Nemours and Co, Gibbstown, N. J, 15–* Chem. Soc. Explosives; acids; patent procedure.

Holmes, Dr. Willis B(olt), 1337 Buckland Ave, Fremont, Ohio. *Chemistry.* Cambridge, Mass, Sept. 27, 73. A.B, Harvard, 96, A.M, 97; Ph.D, Hopkins, 99. Asst. chem, Harvard, 96–97; instr, Mass. Inst. Tech, 00; asst. instr, Chicago, 00–03, assoc. instr, 03–07; assoc, Illinois, 07–10; supt. chemist, Am. Labs, 10; chemist in charge production, *W. V-B. Ames Co,* 10–22, v. pres. and gen. manager, 22–34, *pres, 34–* Cooperating expert, Int. Critical Tables. A.A; Chem. Soc. Dental cements.

Holmquist, Prof. A(lbert) M(artinius), St. Olaf College, Northfield, Minn. *Ecology.* Faribault, Minn, 91. A.B, St. Olaf Col, 14; M.S, Chicago, 17, Ph.D, 25. Teacher, high sch, 14–16, 19–20; instr. *zool,* St. Olaf Col, 17–18, 20–23; asst, Chicago, 23–25, nat. research fellow, 25–26; *prof, St. Olaf Col, 26–* Summer, Northwestern, 32; lecturer, Minnesota, 36. A.A; Ecol. Soc; Soc. Zool; Limnol. Soc. Hibernation of arthropods.

Holroyd, Dr. Howard B(yington), 1215 Arlington Ave, Davenport, Iowa. *Engineering.* Plymouth, Iowa, Sept. 29, 00. B.S, Iowa State Col, 24; Ph.D, Calif. Inst. Tech, 29. Research engineer, Westinghouse Elec. and Mfg. Co, 25–26, 30–32; *private research, 32–* A.A. Knocking in Otto cycle engines; oil engines.

Holroyd, Prof. Roland, 4614 Pilling St, Philadelphia, Pa. *Botany.* Manchester, Eng, May 9, 96. B.S, Pennsylvania, 18, A.M, 20, Ph.D, 23; Sc.D, La Salle Col, 27. Asst. bot, Pennsylvania, 16–18, instr, 19–30; *senior prof. biol, La Salle Col, 20–* A.A; Bot. Soc; Genetic Asn; Explorers Club; Pa. Bot. Soc. Experimental plant morphology; economic botany.

Holsopple, Dr. J(ames) Q(uinter), New Jersey State Hospital, Trenton, N. J. *Psychology.* Parkerford, Pa, 00. A.B, Juniata Col, 20; A.M, Hopkins, 23, Ph.D, 24. Asst, Hopkins, 22–24, nat. research fellow and fellow by courtesy, 24–25; instr. psychol, Yale, 25–26; asst. prof, Western Reserve, 26–28; psychologist, Cleveland City Hosp, 28–29; *chief clin. psychologist, State Dept. Institutions and Agencies, N. J, 29–; lecturer abnormal psychol, Princeton, 33–* A.A; Psychol. Asn; Asn. Applied Psychol. (exec. cmt, 32–34, 37–); N. J. Asn. Psychol. (pres, 32–34). Abnormal psychology; orientation and equilibrium; mental measurements.

Holst, Dr. Eugene C(hristian), U. S. Department of Agriculture, University of Wyoming, Laramie, Wyo. *Bacteriology.* Clintonville, Wis, April 13, 05. B.S, Wisconsin, 28, Ph.D, 35; M.S, Pa. State Col, 30. Asst. bacter, Pa. State Col, 28–30; asst, Forest Products Lab, U. S. Forest Service, 31–35; junior entomologist, Appalachian Forest Exp. Sta, 35–36; asst. forest pathologist, Dutch elm disease lab, *U. S. Dept. Agr,* 36–38, *asst. bacteriologist, div. bee culture, bur. entom. and plant quarantine, 38–* Bacteriology; yeasts in relation to forest pathology and forest entomology; diseases of the honey bee.

Holst, Dr. Karl A(ugust), 130 Fair St, Edgewood Station, Providence, R. I. *Organic chemistry.* Hartford, Conn, March 5, 14. B.S, Trinity Col. (Conn), 34, M.S, 37; univ. fellow, N. Y. Univ, 39–40, Ph.D, 40. Asst. chem, Trinity Col. (Conn), 34–36, instr, exten. div, 36–37; teaching fellow, N. Y. Univ, 37–39; *research chemist, Rumford Chem. Works, 40–* Chem. Soc. Hydrolysis of amides; pyrrolidinediones; development and manufacture of fine organic chemicals.

Holst, Dr. William H(enry), 821 Quackenbos St, N. W, Washington, D. C. *Organic chemistry.* Granite City, Ill, Oct. 5, 00. A.B, Illinois, 23, M.S, 33; Ph.D, Iowa, 36. Instr. chem, high sch, Ill, 24–32; asst, Iowa, 34–36; *research chemist, Atlas Research Lab, 36–; lieut, U. S. Naval Res.* A.A; Chem. Soc. Hexa-substituted ethanes; organic reactions in liquid ammonia.

Holstad, Prof. Grace E(sther), St. Olaf College, Northfield, Minn. *Biology.* Chicago, Ill, 95. A.B, St. Olaf Col, 18; A.M, Colorado, 26. Spokane Col, 18–20; Lutheran Nor, S. Dak, 21–22; *asst. prof. biol, St. Olaf Col, 23–* A.A. Invertebrate zoology; psychology; mental hygiene; genetics.

Holt, Prof. A(ndrew) H(all), 10 Germain St, Worcester, Mass. *Civil engineering.* Sunderland, Vt, Aug. 23, 90. B.S, Vermont, 12, C.E, 22; M.S, Iowa, 20, J.D, 31. Instr. *civil eng,* Vermont, 12–14; Iowa, 14–17, asst. prof, 19–21, assoc. prof, 21–34; prof, *Worcester Polytech,* 34–37, *head dept, 37–; lieut. col, Eng. Corps, U. S. Army.* U.S.A, 17–19, major, C.Eng.R. Civil Eng; Soc. Mil. Eng; Eng. Educ. Surveying; structures; law of boundaries.

Holt, Prof. Caroline (Maude), 38 Ridge Ave, Newton Center, Mass. *Anatomy.* Hartland, Vt, May 29, 78. A.B, Wellesley Col, 03; Harvard, 06–07; A.M, Columbia, 08; Pepper fellow, Pennsylvania, 12–14, Ph.D, 15. Asst. zool, Wellesley Col, 03–07, instr, 08–12; *biol, Simmons Col. (Mass),* 14–17, asst. prof, 17–27, assoc. prof, 27–39, *prof, 39–* A.A; Asn. Anat. Cytology; neurology.

Holt, Dr. Donald A(ubrey), 8857 Point Ave, Niagara Falls, N. Y. *Inorganic chemistry.* Brooklyn, N. Y, Nov. 18, 00. B.Ch, Cornell, 24, Heckscher research fellow, 25–28, Ph.D, 28. Asst, Cornell, 24–28; *research manager electrochem. dept, E. I. du Pont de Nemours and Co, 28–* Chem. Soc; Soc. Metals; Army Ordnance Asn. Chemical spectroscopy; case hardening and heat treatment of steel; electroplating.

Holt, Dr. Edwin B(issell), Tenants Harbor, Maine. *[2]Psychology.* Winchester, Mass, Aug. 21, 73. A.B, Harvard, 96, Ph.D, 01; A.M, Columbia, 00. Instr. psychol, Harvard, 01–05, asst. prof, 05–18; visiting prof, Princeton, 26–36; *retired.* Phototactic response; visual anesthesia; recurrent vision; the learning process.

Holt, Ernest G(olsan), U. S. Department of Agriculture, Washington, D. C. *Ornithology.* Barachias, Ala, Feb. 14, 89. Asst. biologist, U. S. Biol. Surv, 12–17; asst, Fawcett exped, cent. Brazil, 20–21; field collector for Am. Museum Nat. Hist, southeast. Brazil, 21–22; for Cleveland Museum Nat. Hist, Fla, 23–24; asst. ornithologist, Carnegie Museum, 24–29, British Honduras exped, 26, investigator, Argentine, Brazil, Paraguay and Venezuela, 26–27, Nat. Geog. Soc-Carnegie Museum Venezuelan exped, 28–29; leader, Nat. Geog. Soc-Brazilian-Venezuelan exped, 29–31; director sanctuaries, Nat. Asn. Audubon Societies, 32–33; conservation biologist and chief forester, *soil conservation service, U. S. Dept. Agr,* 33–35, head wildlife management sect, 35–39, *chief biol. div, 39–,* leader Ecuadorean econ. resources mission, office for. agr. relations, 41–42. Ornith. investigations in Brazil, Rockefeller Foundation, 40–41. Walker prize, Boston Soc. Nat. Hist, 26. U.S.A, 17–19. A.A; Ornith. Union; Soc. Agr. Sci. (pres); Wilson Ornith. Club; Soc. Mammal; Explorers Club; Wildlife Soc; Baird Ornith. Club; Biol. Soc. Wash; Bot. Soc. Wash; Wash. Acad; hon. mem. Soc. Venezalana de Ciencias Nat. Ornithology of Alabama, Florida, Brazil and Venezuela; mammalogy; geography; wild-life management; soil conservation; Latin American agriculture.

Holt, Dr. Harold S(tephens), Hawthorne Drive, Brandywine Hills, Wilmington, Del. *Chemistry.* Fargo, N. Dak, Jan. 17, 97. B.S, N. Dak. Col, 19; A.M, Harvard, 21; Ph.D, Hopkins, 24. *Research chemist, E. I. du Pont de Nemours and Co, 24–* Chem. Soc. Addition of phosphenyl chloride to alpha, beta unsaturated ketones; effect of sulfur on the color of triphenyl methane dyes and phthaleins.

Holt, Dr. J(oseph) P(ayntер), University of Louisville Medical School, Louisville, Ky. *Physiology.* Versailles, Ky, June 19, 11. B.S, Kentucky, 32; M.D, Louisville, 36, M.S, 38; Commonwealth Fund fellow, Chicago, 39–40, Ph.D, 40. Asst. physiol, med. sch, Louisville, 34–36; intern, Marine Hosp, U. S. Pub. Health Service, New Orleans, La, 36–37; instr. *physiol, med. sch, Louisville,* 37–39, asst. prof, 40–42, *assoc. prof, 42–* Physiol. Soc; Am. Med. Asn; Federation Clin. Research; Ky. Med. Asn. Physiology of circulatory system; physiology of gastro-intestinal tract.

Holt, Dr. Lee C(one), Philadelphia Pike and Clearview Ave, Wilmington, Del. *Organic chemistry.* Harlan, Iowa, Feb. 19, 80. B.S, Pomona Col, 01; Ph.D, Michigan, 05; Berlin, 07–08. Instr. chem, Pomona Col, 01–02, Carnegie asst, 03–05; instr. org. chem, Michigan, 05–10, asst. prof, 10–13, assoc. prof, 13–16; chemist, Dow Chem. Co, 16–17; director mfg. and research and v. pres, Nat. Aniline and Chem. Co, 17–29; *chemist, Jackson lab, E. I. du Pont de Nemours and Co, 29–* Chem. Soc; Chem. Eng. Free radicals; constitution of triphenylmethyl; quinocarbonium salts; derivatives and the constitution of histidin; constitution of salts of acridin; industrial work on dyestuffs and organic chemicals.

Holt, Dr. L(uther) Emmett, Jr, Johns Hopkins University, Baltimore, Md. *Pediatrics.* New York, N. Y, March 20, 95. A.B. Harvard, 16; M.D, Hopkins, 20. Asst. *pediat, Hopkins,* 22–23, instr, 23–25, assoc, 25–30, *assoc. prof, 30–* Ed, Hopkins Hosp. 'Bul,' 37– A.A; Am. Physicians; Pediat. Soc; Soc. Clin. Invest. (treas, 30–33); Soc. Biol. Chem; Soc. Exp. Biol; Soc. Pediat. Research (v. pres, 30, 37–39, pres, 39); Acad. Pediat. Calcium and phosphorus metabolism; tetany and alkalosis; calcification of bone; fat metabolism; vitamin B; amino acids.

Holt, Prof. M(atthew) Leslie, University of Wisconsin, Madison, Wis. *Chemistry.* Ellsworth, Iowa, June 19, 04. A.B, St. Olaf Col, 26; M.S, Wisconsin, 28, Ph.D, 30. Asst. *chem, Wisconsin,* 26–30, instr, 30–37, asst. prof, 43, *assoc. prof, 43–* Chem. Soc; Electrochem. Soc. Bimetallic electrodes; electrochemistry, especially of tungsten; electrodeposition of alloys; inorganic chemistry.

Holt, Lieut. Col. R(ufus) L(eroy), 1415 Van Buren St, N. W, Washington, D. C. *Medicine.* Decatur, Texas, Jan. 5, 90. M.D, Vanderbilt, 11. Instr, Army Med. Sch, 26–30; mem, Med. Dept. Research Board, Manila, P. I, 30–36; *instr, Army Med. Sch, 36–* Am. Med. Asn; fel. Col. Physicians. Dengue and osteomalacia; prevention of pneumonia; typhoid vaccine.

Holt, Prof. Vesta, Chico State College, Chico, Calif. *Embryology.* Talent, Oregon, May 4, 92. A.B, Oregon, 13; A.M, Columbia, 26; Ph.D, Stanford, 36. Head dept. science, pub. schs, Oregon, 16–24; instr. zool, Oregon, 24; assoc. prof. *biol, Chico State Col,* 26–31, *prof. and head dept, 31–* Summers, asst, Friday Harbor marine sta, Washington (Seattle), 23, instr, California at Los Angeles, 24. A.A; Soc. Zool; West. Soc. Nat. Polarity; effects of temperature on development and differentiation; teaching of biology.

Holt, Dr. William L(eland), Scarboro, Maine. *Medical sociology, Epidemiology.* Colorado Springs, Colo, Dec. 20, 78. A.B, Harvard, 01, M.D, 05; Freiburg and Heidelberg, 06–07; Freiburg, 10–13; C.P.H, Harvard Med. Sch. and Mass. Inst. Tech, 14. Austin teaching fellow, Harvard, 05–06; asst. bacteriologist, State Board Health, Fla, 14–15; health officer, South Orange, N. J, 15–17; instr. hygiene, Western Reserve, 17–18; health officer, Beloit, Wis, 18–19; Dept. Health, Los Angeles County, 19–20; prof. hygiene and univ. physician, Tennessee, 20–22; epidemiologist, State Board Health, Ark, 22–24; city health officer, Little Rock, Ark, 24–26; Hot Springs, Ark; State Dept. Health, Maine, 29–32; contract surgeon, Civilian Conservation Corps, 35; *head student health service, Mass. State Col, 42–* A.A; Asn. Variable Star Observers. Venereal peril; bacteria of milk; vital statistics; short method of correcting death rate.

Holt, W(illiam) L(eslie), 7313 Blair Road, Washington, D. C. *Mechanical engineering.* Grand Rapids, Mich, July 10, 90. B.M.E, Michigan, 13. Methods dept, West. Elec. Co, 13–18; exp. dept, B. F. Goodrich Co, 18–21; *with Bur. Standards, 21–* Rubber.

Holtby, Prof. Fulton, University of Minnesota, Minneapolis, Minn. *Metallurgy, Metallography.* Geneva, N. Y, May 10, 11. M.E, Cornell, 34; M.S, Minnesota, 39. Foundry engineer, Goulds Pump Inc, 34–35; instr. foundry practice, *Minnesota,* 35–40, *asst. prof. mech. eng, 40–* Foundrymen's Asn. (cupola research cmt); Mech. Eng; Soc. Metals. Control cupola and duplex cast iron; effects of control, impact testing and sulphur; temperature measurements molten iron and steel using immersion thermocouple.

Holter, Norman J(efferis), 1412 Virginia Way, La Jolla, Calif. *Physics.* Helena, Mont, Feb. 1, 14. A.B, California at Los Angeles, 37, A.M, 40; summers, Heidelberg, 37, Chicago, 38, 39; M.S, Southern California, 38. Physical chemist, Calif. Consumers Corp, 36–37; asst. physics, California at Los Angeles, 40–41; asst. physicist *war research,* Nat. Defense Research Cmt, 41; *assoc. physicist, U. S. Navy, 41–* A.A; Physical Soc. Submarine acoustics; electrical phenomena of the nervous system.

Holtman, Prof. D(arlington) Frank, Western Reserve University, Cleveland, Ohio. *Bacteriology.* Randolph, Kans, Oct. 12, 04. A.B, Kansas, 27; A.M, Tennessee, 30; Ph.D, Ohio State, 37. Asst. bacter, Tennessee, 27–29, instr, 29–32; asst, Ohio State, 32–36, instr, 36–42; *asst. prof. hygiene and bacter, Western Reserve, 42–* Assoc. prof, Tennessee, 40–41. Soc. Bact. Heterophile antigenicity of bacteria; food fermentations; microbiology of water and sewage.

Holtom, Prof. Carl, 613 Evergreen St, West Lafayette, Ind. *Mathematics.* Republic City, Kans, Oct. 27, 04. A.B, Nebraska, 30, A.M, 31; Ph.D, Chicago, 42. Asst. *math,* Nebraska, 30–31; instr, *Purdue,* 31–41, *asst. prof, 42–* Math. Soc. Mathematical astronomy; celestial mechanics.

Holton, Dr. C(harles) S(tewart), State College of Washington, Pullman, Wash. *Plant pathology.* Amite, La, Dec. 8, 04. B.S, Louisiana, 27; M.S, Minnesota, 29, Ph.D, 32. Instr. plant path. and bot, Minnesota, 29–32; agent, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 32–34, assoc. pathologist, *wheat and oat smuts sect,* 34–41, *pathologist, 41–* Phytopath. Soc. Cereal smuts; covered smut of wheat; genetics of the oat smuts; cereal diseases.

Holton, Prof. W(illiam) B(ultman), American University, Washington, D. C. *Chemistry.* Cleveland, Ohio, Sept. 10, 99. B.S, Illinois, 21, M.S, 23, Ph.D, 26. Assoc. prof. and later *prof. chem. and head dept, American Univ, 26–* Mem, Med. Board Basic Sciences, D. C. A.A; Chem. Soc. Inorganic chemistry.

Holtz, Dr. John C(romwell), 4625 Barlind Drive, Pittsburgh, Pa. *Engineering.* Baltimore, Md, Oct. 31, 04. B.S, Hopkins, 26, Ph.D, 30. Tech. service div, Standard Oil Co. of N. J, 30–31; consulting test engineer, 31–34; U. S. Naval Eng. Exp. Sta, 34–36; *explosives div, U. S. Bur. Mines, 36–* Sect. mem. explosives, Nat. Defense Research Cmt. Mech. Eng; Chem. Soc. Gas engineering; carbon-sulfur complex and its relation to organic sulfur compounds in gas; relation of Diesel

fuels to engine operation; toxic gases from explosives and Diesel engines; properties of high explosives.

Holtzinger, Dr. A(lbert) H(arrison), 525 McKee St, State College, Pa. *Organic chemistry.* Wrightsville, Pa, Aug. 2, 01. B.S, Pa. State Col, 27, Ph.D, 39. Instr. chem, *Pa. State Col,* 36–40, *asst. prof, 40–* A.A; Chem. Soc; Pa. Chem. Soc. Coal tar acids above the cresol range.

Holway, Dr. Alfred H(arold), 192 South St, Needham, Mass. *Physiological psychology.* Lowell, Mass, Feb. 28, 05. B.S, Mass. State Col, 31, M.S, 32; fellow, Harvard, 34–36, Ph.D, 36. Instr. *psychol,* Mass. State Col, 32–33; *asst, Wellesley Col, 36–; research assoc. biol, Harvard, 36–* Psychol. Asn; Optical Soc. Mathematical contributions to psychophysics; sensory psychology and physiology; sensory psychophysiology; aviation; pilot fatigue; visual fatigue; telescopic vision.

Holway, Dr. Richard T, South Duxbury, Mass. *Entomology.* Boston, Mass, Feb. 8, 11. A.B, Dartmouth Col, 32; M.S, Mass. State Col, 33, Ph.D, 37; Harvard, 33–34. Consulting entom. and research, Muirhead and Holway, Inc, 37–42; *U. S. Naval Res, 42–, lieut.* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Malariology; insect morphology; termite biology and control; mosquito biology.

Holyoke, Dr. Edward A(gustus), University of Nebraska College of Medicine, Omaha, Nebr. *Anatomy.* Madrid, Nebr, March 10, 08. B.S, Nebraska, 30, fellow, 30–31, A.M, 32, M.D, 34, Ph.D, 38. Instr. *anat, col. med, Nebraska,* 32–38, asst. prof, 38–41, *assoc. prof, 41–* Asn. Anat. Experimental embryology; spleen; fasciae and fascial spaces.

Holzapfel, Dr. Ruth A(dah), Oklahoma Tuberculosis Association, Oklahoma City, Okla. *Health education.* Oklahoma City, Okla, April 6, 95. A.M, Oklahoma, 24, Ph.D, 35. Asst. zool, Oklahoma, 24; head dept. science, high sch, Okla, 24–26; asst. physiol, California, 26–27; instr, Oklahoma, 27–30; acting head dept. biol, Southwest. State Teachers Col, Weatherford, Okla, 30–31; instr. zool, Oklahoma, 31–34, physiol, 36; director and later asst. prof. health educ, Northwest. State Teachers Col, 36–40; *director health educ, Okla. Tuber. Asn, 40–* Adaptations in caudal musculature; the cyclic character of hibernation in frogs.

Holzer, Prof. Robert E(dward), University of New Mexico, Albuquerque, N. Mex. *Physics.* Portland, Oregon, Nov. 21, 06. A.B, Reed Inst, 26; fellow, California, 26–30, A.M, 28, Ph.D, 30. Instr. *physics,* California, 30–31; nat. research fellow, Chicago, 31–33; asst. prof, Fenn Col, 33–34; instr, California, 34–35; *New Mexico,* 35–37, asst. prof, 37–40, *assoc. prof, 40–* Physical Soc; Meteorol. Soc. Absorption of positive rays; light excitation by positive rays; lightning; atmospheric electricity.

Holzinger, Prof. K(arl) J(ohn), 5647 Dorchester Ave, Chicago, Ill. *Education, Psychology.* Washington, D. C, Aug. 9, 92. A.B, Minnesota, 15, A.M, 17; Ph.D, Chicago, 22. Instr. math, Kansas, 15–16; Minnesota, 16–17; *educ, Chicago,* 20–23, asst. prof, 23–25, assoc. prof, 25–29, *prof, 29–* Statist. Asn. Educational and psychological statistics; factor theories of intelligence; construction of tests; correlation of mental and physical traits; the relative influence of heredity and environment; statistical tables; tracts for computers; twins; methods and studies in factor analysis.

Holzwasser, Dr. Florrie, Barnard College, Columbia University, New York, N. Y. *Geology.* Calvert, Texas, Aug. 7, 91. A.B, Columbia, 14, A.M, 18, Ph.D, 27. Asst. and instr. *geol, Barnard Col, Columbia,* 15–37, *asst. prof, 37–* Paleont. Soc. Geology of the Newburgh quadrangle.

Homberger, Prof. A(lfred) W(illiam), University of Louisville, Louisville, Ky. *Chemistry.* Prairie du Sac, Wis, May 18, 87. A.B, Wisconsin, 05; fellow, Illinois, 07–08, A.M, 08, fellow, 09–10, Ph.D, 10; Göttingen, 08–09; Columbia, 19. Instr. chem, Rose Polytech, 05–07; prof, Ill. Col, 10–11; Ill. Wesleyan, 11–18; *prof. and head dept, Louisville,* 18–42, *physiol. chem. and nutrition, sch. med, 42–* Chemist, Laclede Gas Co; Oliver Mining Co. A.A; Chem. Soc; Ky. Acad. (pres, 39); Deuts. Chem. Gesell. Quantitative estimation of tellurium; molecular rearrangement; turbidity in beverages containing maltose or glucose; quantitative determination of morphine; oil shales; milk as a food; nutritional relations; calcium metabolism; vitamin D; colloidal sulfur.

Homerberg, Prof. V(ictor) O(liver), Massachusetts Institute of Technology, Cambridge, Mass. *Metallography.* Balaton, Minn, Oct. 27, 89. Pharm.D, Phila. Col. Pharmacy, 13, hon. Sc.D, 41; B.S, Mass. Inst. Tech, 21, Sc.D, 27. Asst. anal. chem, *Mass. Inst. Tech,* 18–21, instr. metallog, 21–25, asst. prof. *physical metal,* 25–28, assoc. prof, 28–38, *prof, 38–* Min. and Metal. Eng; Soc. Metals; Iron and Steel Inst. Gt. Britain; British Inst. Metals. Principles of metallography; intercrystalline failure in steel; macroscopic examination of steel; heat-treatment, mechanical properties and microstructure of 60:40 brass; case-hardening of special steels and cast iron with ammonia.

Homeyer, Dr. August H(enry), 6648 Bancroft Ave, St. Louis, Mo. *Chemistry.* Chicago, Ill, April 21, 08. B.S, Washington (St. Louis), 30; M.S, Pa. State Col, 31, Ph.D, 33. *Research chemist, Mallinckrodt Chem. Works, 33–* Chem. Soc. Organic chemistry; alkaloids; organic medicinals.

Honaman, R(ichard) Karl, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Lancaster, Pa, Sept. 17, 95. B.S, Franklin and Marshall Col, 16, M.S, 17. Instr. physics, Franklin and Marshall Col, 16–17; asst. physicist, Bur. Standards, 17–18, assoc. physicist, 18–19; develop. and research dept, Am. Tel. and Tel. Co, 19–30, asst. protection develop. engineer, 30–34; protection methods engineer, *Bell Tel. Labs,* 34–38, inductive coordination engineer, 38–42, *director sch. war training, 42–* Asst. prof, George Washington, 18–19. A.A; fel. Elec. Eng; Franklin Inst. Communication engineering; insulating materials; electrical protection.

Honan, Dr. Edward M(ark), Western Electric Co, 6601 Romaine St, Los Angeles, Calif. *Chemistry.* Lebanon, Ind, Sept. 11, 91. A.B, Wabash Col, 13; Ph.D, Michigan, 17. Research chemist, Procter and Gamble Co, 19; West. Elec. Co, 19–25; Bell Tel. Labs, 25–30; lab. director, Elec. Research Products, Inc, 30–41; *eng. manager, elec. research products div, West. Elec. Co, 41–* Summer, chemist, Dow Chem. Co, 17. Ordnance Dept, U.S.A, 18–19. Chem. Soc; Electrochem. Soc. Inorganic and organic chemistry.

Honess, Dr. Charles W(illiam), Gulf Refining Co, P. O. Box 774, Evansville, Ind. *Geology, Paleontology.* Berea, Ohio, June 28, 85. A.B, Oberlin Col, 12; A.M, Cornell, 15; fellow, Columbia, 13–14, Ph.D, 24. Asst. geol, Missouri, 15–16; *field geologist,* Okla. Geol. Surv, 16–23; Empire Gas and Fuel Co, 23–27; *Gulf Oil Corp. of Pa, Kans, 27–* Summers, field geologist, Wis. Geol. Surv, 14, 15. A.A; fel. Geol. Soc; Asn. Petrol. Geol. Paleontology, areal and structural geology of the Ouachita Mountains; geology of the Oklahoma oil fields.

Honey, Dr. Edwin E(arl), 628 E. Michigan St, Milwaukee, Wis. *Plant pathology, Mycology.* May 2, 91. B.S, Cornell, 16; M.S, Illinois, 22; Ph.D, Wisconsin, 28. Asst. plant path, Cornell, 16–17; bot, Illinois, 19–20; instr. plant path, Cornell, 20–25; State Col. Wash, 25–26; exten. instr, N. Y. State Dept. Agr, Cornell, 26–27; asst. prof. bot, Albion Col, 28–29; prof. phytopath, dept. plant path, Escola Agricola Estado de São Paulo, Brazil, 29–31; research assoc. plant path, Wisconsin, 32–35; *asst. plant path. inspector, bur. entom. and plant quarantine, U. S. Dept. Agr, north. cent. region, Milwaukee, 35–* Indust. fellow, Genesee Co. Fruit Growers Asn, 17. Summers, hop expert, Cooperstown Hop Growers Asn. and Cornell, 15; inspector, white pine blister rust surv, bur. plant indust, U. S. Dept. Agr, 16, 33, 34, barberry eradication campaign, 19, 22; asst. plant pathologist, Harrisburg, Pa, 20. U.S.A, 17–19. A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc; Soc. Foresters. Discomycetes.

Honeywell, Prof. E(arl) R(obert), Purdue University, Lafayette, Ind. *Horticulture.* Leoti, Kans, 01. B.S.A, Kans. State Col, 25; M.S, Iowa State Col, 26. Asst. prof. and *assoc. prof. floricul, Purdue, 27–* Soc. Florists; Carnation Soc; Am. Rose Soc; Am. Iris Soc; Gladiolus Soc; Ind. Florists Asn. Floriculture.

Honeywell, Dr. George E(dward), The Upjohn Co, Kalamazoo, Mich. *Chemistry.* Persia, Iowa, Dec. 27, 07. A.B, Iowa, 29, M.S, 30, Ph.D, 32. Iowa, 32–33; *research and production, Upjohn Co, 33–* Chem. Soc. Organic synthesis; parenteral medication.

Honeywell, Dr. Hannah (Elizabeth), 992 Windsor Ave, Windsor, Conn. *Biochemistry.* Walton, N. Y, April 3, 90. A.B, Mt. Holyoke Col, 10; A.M, Columbia, 18, Ph.D, 21. Teacher science, Oxford Acad, 10–15; instr. chem, Teachers Col, Columbia, 15–25; assoc, Battle Creek Col, 24–25; assoc.

prof. biochem, Pa. State Col, 25–30. Agricultural chemistry; blood sugar and endocrine secretions; vitamins.

Honzik, Dr. Charles H, 1019 Ramona Ave, Albany, Calif. *Psychology.* Chicago, Ill, Feb. 27, 97. A.B, California, 23, Ph.D, 33. Asst. psychol, California, 28–33, research assoc, 33–37; *psychologist, Psychol. Clinic, Hawaii, 37–; asst. prof. psychol, Univ. Hawaii, 40–* Psychologist, Territory of Hawaii Prison, 37–; consulting psychologist, Territorial Hosp, 40– Summers, instr, California, 35, 36, 37. A.A; Psychol. Asn; Asn. Applied Psychol. Animal behavior, with special reference to learning; juvenile delinquency and criminology.

Honzik, Dr. Marjorie K(nickerbocker) P(yles) (Mrs. Charles H. Honzik), 2614 Stuart St, Berkeley, Calif. *Psychology.* Johannesburg, S. Africa, May 14, 08. A.B, California, 30, A.M, 33, Ph.D, 36. Research fellow, Nat. Child Research Center, Wash, D. C, 31–32; asst, *inst. child welfare, California,* 32–36, *research assoc, 36–* Research fellow, Gen. Educ. Board, 38–40. Assoc. Psychol. Asn; Soc. Research Child Develop. Child psychology; learning; statistics; parent education.

Hood, Prof. Frazer, Davidson College, Davidson, N. C. *Psychology.* Tupelo, Miss, June 2, 75. A.B, Southwest. Presb. Univ, 96; A.M, Yale, 00, fellow, 01–02, Ph.D, 02; hon. Litt.D, Presb. Col. (S. C), 23. Prof. ethics, Hanover Col, 02–03; asst. prof. psychol, Oklahoma, 03–04; prof. psychol. and head dept. educ, West Tenn. Teachers Col, 13–18; prof. *psychol.* and director lab, Northwestern, 19–20; *prof, Davidson Col, 20–* Lecturer, Presb. Theol. Sem. (Ky); Columbia Theol. Sem; Union Theol. Sem. Summers, prof, North Carolina, 22–29; Ohio State, 30–33. Pres, N. C. Col. Conf. Lieut, Sanit.C, 18–19. Assoc. Psychol. Asn; Statist. Asn; S. Soc. Philos. and Psychol; N. C. Acad. (chairman, psychol. sect, 41); Ill. Acad. Psychological foundation of insurance; perception or perceptive responses; images.

Hood, Prof. George J(ussen), 1505 Crescent Road, Lawrence, Kans. *Descriptive geometry.* Chicago, Ill, Dec. 31, 77. B.S, Kansas, 02, M.E, 17. Asst. prof. *mech. drawing, Kansas,* 02–11, assoc. prof, 11–17, *prof, 17–* Eng. Educ. Engineering drawing; geometry of engineering drawing; autographic devices; drawing instruments; gas explosion pumps; surgical instruments; direct method of descriptive geometry.

Hood, Prof. G(eorge) R(aymond), 711 Oak St, Oxford, Ohio. *Chemistry.* Dingman's Ferry, Pa, June 7, 00. B S, Lafayette Col, 23, du Pont fellow, 23–24, M.S, 24; Ph.D, Wisconsin, 30. Prof. *chem,* Alaska Agr. Col, 24–28; asst, Wisconsin, 28–30; asst. prof, *Miami (Ohio),* 30–38, *assoc. prof, 38–* Consulting chemist, F. E. Mining Co, Alaska, 26–28. Summer, research engineer, Fairbanks Explor. Mining Co, Alaska, 27. Chem. Soc; Soc. Rheol. Fluidity and plasticity; electrochemistry; overvoltage and reduction; viscosity of electrolyte solutions; voltammetry.

Hood, G(eorge) W(illiam), Soil Conservation Service, U. S. Department of Agriculture, Batesville, Ark. *Forestry, Horticulture.* Lancaster, Ohio, July 30, 88. B.S, Ohio State, 10, M.S, 14. Instr. hort, Ohio State, 07–09; asst, U. S. Dept. Agr, 10–11; instr. hort, Mich. State Col, 11–13; assoc. prof, Nebraska, 13–23, supt, Forest Lawn, 23–29; landscape engineer and forester, City Park Dept, Omaha, Nebr. 29–33; forester, *soil conservation service, U. S. Dept. Agr,* 33–35, regional forester, region 7, 35–39, chief regional forestry div, region 6, 39–43, *research supervisor in cooperation with Univ. Arkansas, 43–* Soc. Foresters; Soc. Hort. Sci; Nebr. Hort. Soc; Nebr. Acad; Mich. Acad; Ohio Acad. Viability and germination of tree seed; planting of woody plants for erosion control; seed collecting of woody plants; conservation; run-off and erosion.

Hood, H(arrison) P(orter), 83 E. Fourth St, Corning, N. Y. *Chemistry.* Manhattan, Kans, Jan. 6, 96. B.Chem, Cornell, 18. Chemist, Brown Co, N. H, 19–20; asst. chief chemist, Island Oil Ref. Corp, N. Y, 20; *research chemist, Corning Glass Works, 20–* A.A; Chem. Soc; Ceramic Soc. Superpalite; glass and refractory development.

Hood, Prof. J(oseph) Douglas, Cornell University, Ithaca, N. Y. *Biology, Entomology.* Laramie, Wyo, Nov. 29, 89. A.B, Illinois, 10; A.M, George Washington, 13; Ph.D, Cornell, 31. Asst. state entomologist, Ill, 10–12; expert, Coleoptera, bur. biol. surv, U. S. Dept. Agr, 12–17; instr. biol, Rochester, 22–25, asst. prof, 25–28, prof, 28–37; res. doctor, *Cornell,* 37–38, acting asst. prof. *biol,* 39–41, *asst. prof, 42–* Collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–Lieut, Inf, and capt, Ordnance Dept, 17–20. A.A; fel. Entom. Soc; N. Y. Entom. Soc; Entom. Soc. Wash; Biol. Soc. Wash; hon. mem. Nat. Hist. Soc. Canal Zone. Thysanoptera of the world; heterogony.

Hood, Dr. Marion, Louisiana State University School of Medicine, New Orleans, La. *Bacteriology, Parasitology.* Saginaw, Mich, July 21, 96. A.B, Carroll Col, 18; A.M, Wisconsin, 28; Ph.D, Illinois, 36. Teacher, high sch, 18–27; asst, med. sch, Northwestern, 28–30; instr. and later assoc. med, col. med, Illinois, 30–42; *asst. prof. parasitol, dept. pub. health, sch. med, Louisiana, 42–* Soc. Trop. Med; Soc. Bact. Amebiasis; the bacteriology of the upper part of the alimentary canal.

Hoogerheide, Dr. J(ohannes) C(ornelis), 220 Grant Ave, New Brunswick, N. J. *Biochemistry.* Bruinisse, Holland, April 24, 07. Ch.Eng, Tech. Hoogeschool, Delft, Holland, 32, Ph.D, 35. Asst. microbiol, Delft, Holland, 33–36; research biochemist and bacteriologist, biochem. research foundation, Franklin Inst, 36–41; *mem. staff, Squibb Inst. Med. Research, 41–* Soc. Bact; Nederlandsche Vereen. voor Microbiol. Yeast metabolism; Pasteur reaction; oxidation-reduction potentials in connection with metabolism; bacteriology and protein metabolism of the spore forming anaerobes; bactericidal substances from soil bacteria.

Hoogsteen, Dr. Harold M(artin), 309 Helen St, Midland, Mich. *Physical chemistry.* Moline, Mich, June 6, 16. A.B, Calvin Col, 38; Ph.D, Indiana, 42. Instr. chem, Indiana, 38–42; *research chemist, Dow Chem. Co, 42–* Chem. Soc. Kinetic study of the esterification of some substituted benzoic acids with cyclohexanol.

Hook, Prof. A(lonzo) L(ohr), Elon College, N. C. *Physics.* Hanging Rock, W. Va, July 19, 92. A.B, Elon Col, 13, A.M, 14; M.S, Cornell, 26. Instr. *physics, Elon Col,* 14–20, *prof, 20–,* dean, 22–35, *registrar, 35–* Sec'y, N. C. Physics Conf, 21–24. N. C. Acad. Absorption of the uranyl compounds.

Hook, Dr. Arnold E(vans), Bureau of Laboratories, State Department of Health, Lansing, Mich. *Bacteriology.* Koshkongong, Wis, Nov. 6, 13. B.S, Wisconsin, 34; fellow, Maine, 34–36, M.S, 36; Ph.D, Mich. State Col, 40. Asst. bacter, Mich. State Col, 36–40; *head media unit, State Dept. Health, Mich, 40–* A.A. Chemistry of peptones.

Hook, Prof. Warren H(oward), 105 Harvard Place, Ithaca, N. Y. *Mechanical engineering.* Ithaca, N. Y, May 1, 86. M.E, Cornell, 08. Instr. exp. eng, Cornell, 10–17; asst. engineer, Cluett, Peabody and Co, Troy, N. Y, 17–20; asst. prof. *heat power eng, Cornell,* 20–41, *assoc. prof, 41–* Special investigations, Rochester Gas and Elec. Corp, N. Y, 27–28; Detroit Edison Co, Mich, 37. Heat-power engineering; power plants; refrigeration.

Hooke, Dr. Robert, North Carolina State College, Raleigh, N. C. *Mathematics.* Chattanooga, Tenn, April 8, 18. A.B, North Carolina, 38, A.M, 39; junior fellow, Princeton, 39–40, A.M, 40, Procter fellow, 40–41, Ph.D, 42. Teaching fellow, North Carolina, 38–39; *instr. math, N. C. State Col, 41–* Lie algebras.

Hooker, Dr. Charles Wright, Yale University School of Medicine, New Haven, Conn. *Anatomy.* Fries, Va, Sept. 15, 10. A.B, Duke, 30, A.M, 32, Ph.D, 33. Nat. research fellow, Rochester, 33–34; research fellow med. Duke, 34–36; instr. *anat,* Tulane, 36–37; *sch. med, Yale,* 37–42, *asst. prof, 42–* A.A; Asn. Anat; Soc. Zool; Asn. Study Int. Secretions; Asn. Cancer Research. Biology of testes; puberty; function of corpus luteum; inter-relations of nervous and endocrine systems; experimental tumors.

Hooker, Dr. Davenport, University of Pittsburgh, Pittsburgh, Pa. *\$*Embryology.* Brooklyn, N. Y, May 13, 87. A.B, Yale, 08, fellow, 08–09, A.M, 09, Ph.D, 12; Bonn, 11–12; Naples Zool. Sta, 12; hon. Sc.D, Pittsburgh, 39. Instr. anat, Yale, 09–14; asst. prof. histol, Pittsburgh, 14–15; *anat,* Yale, 15–19; *prof. and head dept, Pittsburgh, 19–* Ed. board, 'Jour. Comp. Neur,' 32–, managing ed, 33–; mem. advisory board, 'Jour. Neurophysiol,' 38– A.A; Asn. Anat. (exec. cmt, 21–25; 2nd v. pres, 40–42); Physiol. Soc. Muscle development in absence of nerves; spinal cord regeneration; regulation in embryonic spinal cord; development and function of the fetal nervous system; human fetal activity.

Hooker, Dr. D(onald) R(ussell), 19 W. Chase St, Baltimore, Md. *\$*Physiology.* New Haven, Conn, Sept. 7, 76. A.B, Yale, 99, M.S, 01; M.D, Hopkins, 05. Asst. *physiol, Hopkins,* 06–07, instr, 07–08, assoc, 08–10, assoc. prof, 10–21,

lecturer, 26– Managing ed, 'Am. Jour. Physiol'; 'Physiol. Rev.' Physiol. Soc; Soc. Pharmacol; Social Hygiene Asn. (sec'y, 28); Federation Societies for Exp. Biol. (sec'y, 38). Respiration; circulation of blood.

Hooker, L(yle) T(ravers), University of Houston, Houston, Texas. *Zoology.* Paris, Texas. A.B, Texas, 25; A.M, 26. Instr, Edinburg Col, 27–29; assoc. prof. *biol,* Col. of Ozarks, 29–31; *head dept,* Houston Junior Col, 31–34; *Houston, 34–* Summers, Sam Houston State Teachers Col, Texas, 28–31. A.A. Biology.

Hooker, Dr. M(arian) O(sgood), Box 804, Santa Barbara, Calif. *Experimental medicine.* San Francisco, Calif, July, 75. M.D, California, 10. Intern, univ. hosp, California, 10–11, asst. med. examiner, infirmary, 12–13; assoc. in research, physiol. lab, col. med, Cincinnati, 15–18, 25–30; *retired.* Lecturer, Cincinnati Gen. Hosp. Training Sch. for Nurses, 16–18. Assoc. ed, 'Lancet-Clinic,' 16–18. A.A; Am. Med. Asn. Water absorption by nerve tissue; physical chemistry of emulsions; fats and fatty degeneration; soaps; electrical properties of mutually soluble systems.

Hooker, Dr. Sanford B(urton), 78 E. Concord St, Boston, Mass. *Immunology.* Peacham, Vt, April 23, 88. A.B, Dartmouth Col, 09; Ch.B, Boston, 12, M.D, 13; A.M, California, 16. Asst. prof. *immunol, Boston,* 21–23, assoc. prof, 24–32, *prof, 32–* Research assoc, Evans Mem. Hosp, Boston, 14–22, mem, 23– A.A; Asn. Immunol. (pres, 36); Soc. Bact; Soc. Exp. Biol; Pub. Health Asn; Soc. Study Asthma (pres, 35). Antigenic properties of Bacillus typhosus; human erythrocytes; Streptococcus viridans; diphtheria immunization; human hypersensitiveness; heterophil antigen; non-paternity; immuno-chemistry.

Hooker, Dr. W(illia)m A(nson), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Westhampton, Mass, Aug. 13, 77. B.S, Mass. Col. and Boston, 99; D.V.M, George Washington, 13; LL.B, National Univ, 20, LL.M, M.P.L, 21. Special field agent, bur. entom, *U. S. Dept. Agr,* 04–08, *zool, entom. and vet. ed, 'Exp. Sta. Record,' 08–* Contributor on entom. and vet. med, 'Am. Year Book'; 'Int. Encyclop'; 'Int. Year Book.' A.A; Asn. Econ. Entom; Soc. Parasitol; Vet. Med. Asn; Entom. Soc. Wash. Economic entomology; Thysanoptera; biology of the Ixodidae; animal pathology.

Hooley, Prof. J(oseph) Gilbert, 2121 McDonald St, Vancouver, B. C, Can. *Physical chemistry.* Vancouver, B. C, Sept. 26, 14. B.A, British Columbia, 34, M.A, 36; Ph.D, Mass. Inst. Tech, 39. Research chemist, Corning Glass Works, 39–42; *asst. prof. chem, British Columbia, 42–* Atomic weight rubidium and caesium; low temperature; specific heat measurements; glass composition.

Hooper, Dr. Emmet T(hurman), Jr, University of Michigan, Ann Arbor, Mich. *Vertebrate zoology.* Phoenix, Ariz, Aug. 19, 11. A.B, California, 33, A.M, 36, Ph.D, 39. Asst, U. S. Bur. Fisheries, 34; museum vert. zool, California, 34–35, teaching asst. zool, univ, 36–38; *asst. curator mammals, museum zool, Michigan, 38–* A.A; Soc. Mammal. (cor. sec'y, 41–); Cooper Ornith. Club. Taxonomics and life histories of mammals.

Hooper, Dr. Florence E(verett), George Washington University, Washington, D. C. *Chemistry.* Union Co, Ky, Dec. 6, 04. B.S, Butler, 26; Ph.D, Iowa State Col, 30. Asst. chem, Iowa State Col, 26–30; Nat. Tuber. Asn. fellow, Yale, 30–32, Metz fellow, 32–34; asst. biochemist, State Dept. Health, N. Y, 34–35; fellow, Yale, 35–37; microbiologist, cellulose dept, chem. foundation, Boyce Thompson Inst, 37–39; instr. *chem,* Iowa State Col, 40; teacher, Stout Inst, 40–42; *asst. prof, George Washington, 42–* Chem. Soc. Plant cell wall constituents; carbohydrates of tubercle bacilli; thiazoles.

Hooper, Dr. G(ilman) S(tanley), Box 23, Waynesboro, Va. *Chemistry.* Danvers, Mass, March 18, 09. B.S, Colby Col, 29; M.S, Brown, 31, Ph.D, 33. With Lewis Mfg. Co, 33–34; *du Pont Rayon Co, 34–* Chem. Soc. Electrolysis in liquid ammonia; dielectric constants of dilute solutions of electrolytes; cellulose acetate rayon.

Hooper, (John) Julian, Hayward, Calif. *Animal husbandry.* Colorado, Texas, March 16, 83. B.S. (Agr), Agr. and Mech. Col. Texas, 01; M.S. (Agr), Iowa State Col, 07; Europe, 12. Asst. prof. agr, Kentucky, 07–09, prof. animal husbandry and husbandman, Exp. Sta, 09–18, dairy husbandry and in charge dairy investigations, 18–27; *publisher, 'Review,' 30–* Director breeding bur, Ky. State Racing Cmn, 14–18. Dairy ed, 'Inland Farmer,' 09–13. Soc. Animal Production; Dairy Sci. Asn. (chairman, production sect, 22). Animal feeding and breeding; growth of thoroughbreds; inheritance of Jersey coat colors; estimating milk production; Jack stock in Kentucky; inheritance of milk production; stock judging.

Hooper, Prof. L(eslie) J(ames), Worcester Polytechnic Institute, Worcester, Mass. *Hydraulic engineering.* Essex, Mass, Feb. 15, 03. B.S, Worcester Polytech, 24, M.E, 28; Freeman scholar, Boston Soc. Civil Eng, 34–36. Test engineer, Can. and Gen. Finance Co, Ltd, 24–27; asst. to Prof. C. M. Allen, *Worcester Polytech,* 27–31, instr, 31–38, *asst. prof. hydraul. eng, 31–; hydraul. consultant, U. S. Naval Underwater Sound Lab, 41–* Junior award, Am. Soc. Mech. Engineers, 36. Mech. Eng. Application of piezometers; weirs; venturi meters; pitot tubes; absorption dynamometers; circular current meter rating stations; salt velocity method of water measurement; hydraulic model studies.

Hooper, Prof. W(illiam) J(ames), Principia College, Elsah, Ill. *Physics.* Iron Mountain, Mich, July 25, 95. A.B, California, 22, A.M, 23, Ph.D, 25; Chicago, 23. Teaching fellow physics, California, 22–23, asst, 23–25; *prof.* physics and math, Battle Creek Col, 25–31; *physics, Principia Col, 31–* A.A; Physical Soc; Asn. Physics Teachers; Mo. Acad. Critical ionization potentials by positive ion impact; deposition of dust on walls; practical utilization of solar energy.

Hoopingarner, Prof. Newman L(eander), 41 Heckscher Drive, Wincoma Estates, Huntington, L. I, N. Y. *Applied psychology.* Lincoln, Nebr, May 1, 91. A.B, Texas, 13, A.M, 15; Carnegie Inst. Tech, 17; Columbia, 17; N. Y. Univ, 24–26. Tutor educational psychol, Texas, 13–15; manager educational exhibits and lecturer sch. improv, Texas, 15–17; major research fellow applied psychol, Carnegie Inst. Tech, 17–18, assoc. prof, 19–20; lecturer business psychol. and management, *N. Y. Univ,* 22–26, asst. prof. *business psychol,* 26–27, assoc. prof, 27–31, *prof, 31–;* business consultant. Lecturer, Brooklyn Acad. Arts and Sciences; col. dentistry, N. Y. Univ. Expert examiner, Munic. Service Cmn, New York. Personnel adjutant, U. S. Army, 18–19. A.A; Soc. Advancement Management (v. pres); Personnel Research Federation; N. Y. Soc. Applied Psychol; N. Y. Acad. Personality analysis and development; psychological testing; training methods in business, industry and public service.

Hooton, Prof. E(arnest) A(lbert), Peabody Museum, Cambridge, Mass, ***Anthropology.* Clemansville, Wis, Nov. 20, 87. A.B, Lawrence Col, 07, Sc.D, 33; A.M, Wisconsin, 08, Ph.D, 11; Rhodes scholar, Oxford, 10–13, B.Litt, 13. Instr. *anthrop, Harvard,* 13–21, asst. prof, 21–27, assoc. prof, 27–30, *prof, 30–, curator somatol, Peabody Museum, 13–* Div. anthrop. and psychol, Nat. Research Council, 22–25, 35. Nat. Acad; A.A. (sec'y, H, 20–22, v. pres, 23–24); Soc. Nat; Anthrop. Asn; Asn. Physical Anthrop. (pres, 36); hon. mem. Am. Acad. Dental Sci; Philos. Soc; Am. Acad; Royal Anthrop. Inst; cor. mem. Soc. d'Anthrop. de Paris; Soc. des Américanistes de Paris. Physical anthropology.

Hoots, Dr. H(arold) W(illiam), 430 Richfield Bldg, Los Angeles, Calif. *Geology.* Winfield, Kans, Feb. 8, 99. Kans. State Col, 17–19; B.S, Oklahoma, 21; Kansas, 22–23; fellow, Stanford, 23–25, Ph.D, 25. Junior geologist, U. S. Geol. Surv, 21–24, asst. geologist, 24–28; geologist and asst. chief geologist, Union Oil Co. of Calif, 28–37; *chief geologist, Richfield Oil Corp, 37–* Asst, Kansas, 22–23. Geol. Soc; Asn. Petrol. Geol. Geology of oil and gas, especially in California.

Hoover, Prof. Borden P(arker), 2040 Fairlawn St, Pittsburgh, Pa. *Mathematics.* Ottawa, Kans, Feb. 5, 97. A.B, Baker, 18; A.M, Colorado, 22; Ph.D, Illinois, 25. Asst. prof. *math,* Baker, 19–22; asst, Illinois, 22–25; asst. prof, *Carnegie Inst. Tech,* 25–31, *assoc. prof, 31–* Difference equations.

Hoover, Dr. Herbert C(lark), Stanford University, Calif. *Mining engineering.* West Branch, Iowa, Aug. 10, 74. A.B, Stanford, 95; LL.D, Harvard, Princeton, Brown, Pennsylvania, Oberlin Col, Yale, Alabama, Penn Col. (Iowa), Georgetown, Columbia, Williams Col, Hopkins, George Washington, Swarthmore Col, Rutgers, Dartmouth Col, State Col. Wash, Cornell Col. (Iowa), California, Southwestern, Victoria (England), Warsaw; D.C.L, Oxford, Brussels; Ph.D, Ghent; M.D, Liége, Cracow, Kiel, Karlsruhe Tech. Col, Rensselaer Polytech, Tufts Col, Prague, Lemberg, Colby Col, Syracuse, Lincoln and Haverford Col. Consulting and managing engineer, mining, metal. and ry. operations, various countries, 95–13; chairman, Cmn. for Relief in Belgium, 15–19; Am. Children's

Fund; Belgian-Am. Educational Foundation; Finnish Relief Fund; Cmt. Food for Small Democracies. Sec'y of Commerce, United States, 21–29; President, United States, 29–33. U. S. Food Administrator, 17–19; joint chairman, Supreme Econ. Council, 18. Trustee, Stanford, 12–; Mills Col; Huntington Library, Calif; Carnegie Institution. Pres, Am. Eng. Council, 21. Chairman, Colo. River Cmn; Am. Relief Cmt, London, 14–15; Am. Relief Admin, 19–; European Relief Council, 20–; Miss. Flood Relief Cmn, 27. Medals, Civic Forum, Nat. Inst. Social Sciences, Nat. Acad, Inst. Min. and Metal. Eng; John Fritz gold medal, 29; Hoover medal, Soc. Mech. Eng; Louis Livingston Seaman gold medal, Am. Museum Safety; Washington award, West. Soc. Eng; City of Lille; City of Warsaw; Audiffret prize, French Acad; freeman, Belgian, Polish and Esthonian cities. Rep, Pan-Pacific Int. Expos, Europe, 13–14. Nat. Acad; A.A; hon. mem. Min. and Metal. Eng. (pres, 20); hon. mem. Mech. Eng. (pres, 20); hon. mem. Civil Eng. Economics in mining; principles of mining; American individualism; American ideals; problems of lasting peace.

Hoover, J(onas) W(enger), Arizona State Teachers College, Tempe, Ariz. *Geography.* Leaman Place, Pa, June 23, 89. A.B, Oberlin Col, 14; A.M, Chicago, 15. Prin, schs, Pa, 09–11; instr, high sch, Mich, 15–17; geog. and sociol, Humboldt State Nor. Sch, Calif, 19–20; *teacher,* high sch, Calif, 21; geog, Calif. State Teachers Col, San Francisco, 21–24; *geog. and geol, Ariz. State Teachers Col, Tempe, 24–* U.S.N, 17–19. A.A; Asn. Geog; fel. Am. Geog. Soc; Nat. Council Geog. Teachers (director, 27); Asn. Pacific Coast Geog. Geomorphology; geography of Arizona; geographic and ethnic groupings of Arizona Indians; Southwestern desert vegetation; the effect of aridity on Southwestern house and village types; the littoral of northern California.

Hoover, Kenneth H(arry), Commercial Solvents Corp, Terre Haute, Ind. *Organic chemistry.* Albia, Iowa, Dec. 18, 96. A.B, Wisconsin, 21. Research chemist, Nat. Aniline and Chem. Co, 21–25; research fellow, Miner Labs, 26–34; plant manager, Ind. Wood Preserving Co, 34–36; research and develop. chemist, *Commercial Solvents Corp,* 36–39, *manager research and develop. dept, 40–* O.R.C, U.S.A, 18–29. A.A; Chem. Soc; Chem. Eng; Ind. Chem. Soc. Organic syntheses; nitroparaffins and their derivatives.

Hoover, Marvin D(e Ward), Coweeta Experimental Forest, Route 1, Dillard, Ga. *Forestry.* Davenport, Iowa, July 10, 16. B.S.F, Michigan, 38; M.S, California, 39. Tech. asst. forestry, California, 38–39; junior forester, *Appalachian Forest Exp. Sta, U. S. Forest Service, 40–41, asst. forester, 41–* Summer, mem. Univ. Michigan forest path. surv, Northwest Territory, Can, 37. Soc. Foresters; Geophys. Union. Forest influences; influence of vegetation upon the hydrologic cycle.

Hoover, Dr. O(ra) L, Covington, Ohio. *Chemistry.* Garrett, Ind, Aug. 11, 91. A.B, 16; A.M, Ohio State, 19, du Pont fellow, 20–21, Ph.D, 21. Teacher science, Manchester, 16–17; instr, Ohio State, 17–20; research chemist, Psychopathic Hosp, Iowa City, 21–26; *manager, Sugar Grove Mills, 26–* Supt, MacOid div, Crawford, McGregor and Canby Co, 30–31. Organic and biological chemistry; oxidation of acetol; causative factors in the precipitation of colloidal gold in Lange's test.

Hoover, Prof. P(aul) L(eslie), Case School of Applied Science, Cleveland, Ohio. *Electrical engineering.* Mansfield, Ohio, Dec. 20, 98. B.S, Carnegie Inst. Tech, 21; A.M, Harvard, 23, fellow, 24–27, Sc.D, 26; Vienna, 24; Paris, 25. Asst. prof. *elec. eng,* Case, 27–30; assoc. prof. and asst. director eng, exp. sta, Rutgers, 30–34; prof. and director, 34–39; *prof. and head dept, Case, 39–* A.A; Elec. Eng; Radio Eng; Optical Soc; Eng. Educ; Franklin Inst. Dielectrics and insulation; electromedical apparatus; electrical measurements.

Hoover, Dr. Robert F(rancis), 165 Santa Rita Ave, Modesto, Calif. *Botany.* Modesto, Calif, Aug. 11, 13. A.B, Stanford, 34; A.M, California, 35, Ph.D, 37. *Instr. bot. and zool, Yakima Valley Junior Col, Wash, 41–* A.A; Soc. Plant Taxon. Classification, ecology and geographical distribution of native plants of California.

Hoover, Dr. Sam(uel) R(andolph), 7815 Linden Road, Chestnut Hill, Philadelphia, Pa. *Biochemistry.* Elkins, W. Va, Nov. 13, 10. B.S, Davis and Elkins Col, 30; A.M, George Washington, 33; Ph.D, Georgetown, 40. Asst. sci. aid, bur. chem. and soils, *U. S. Dept. Agr,* 31–35, junior chemist, 35–36, asst. chemist, 36–39, *chemist, east. regional research lab, bur. agr. and indust. chem, 39–* Chem. Soc; N. Y. Acad. Nutrition and growth of soil micro-organisms; chemistry of food storage; proteolytic enzymes; protein structure.

Hoover, Dean Theodore J(esse), Stanford University, Calif. *Mining, Metallurgy.* West Branch, Iowa, Jan. 28, 71. A.B, Stanford, 01. Consulting engineer; manager and director numerous concerns; prof. mining and metal, *Stanford,* 19–36, dean *sch. eng,* 25–36, *emer. dean, 36–* Min. and Metal. Eng; Eng. Educ; Cooper Ornith. Club. Concentrating ores by flotation; economics of mining.

Hoover, Prof. W(illiam) G(eorge), Stanford University, Calif. *Electrical engineering.* Pueblo, Colo, Nov. 10, 06. A.B, Stanford, 28, E.E, 29, Ph.D, 36. Student, Westinghouse Elec. and Mfg. Co, 29–30, control engineer, 30–31; instr. *elec. eng, Stanford,* 32–37, *asst. prof, 37–* Research engineer, Pacific Elec. Mfg. Corp, 36– Assoc. Elec. Eng. Power and high voltage; production and measurement of high impulse voltages and their effects on high voltage electric power equipment; means for and mechanism of interruption of alternating current arcs such as may exist in electric circuit breakers.

Hope, Prof. Ernest C(harles), University of Saskatchewan, Saskatoon, Sask, Can. *Agricultural economics.* Vancouver, B. C, March 29, 00. B.S.A, British Columbia, 24; M.S, Cornell, 29, Ph.D, 39. Lecturer agr. econ, Ont. Agr. Col, 29–30; asst. prof. *farm management, Saskatchewan,* 30–38, *prof, 39–* Mem, Sask. Land Utilization Board, Can; chairman board rev, Prairie Farm Assistance Act. Can. Agr. Econ. Soc. (v. pres, 38, pres, 39); Can. Soc. Tech. Agr. (v. pres, n. Sask. chap, 37, pres, 38). Farm management; farm finance; agricultural prices.

Hope, Prof. Henry B(ell), 141–03 73rd Ave, Flushing, N. Y. *Analytical chemistry.* Stamford, Conn, Oct. 31, 01. Ch.E, Rensselaer Polytech, 24; A.M, Columbia, 30, Ph.D, 38. Junior engineer and foreman, Columbia Mills Corp, 24–27; instr. *chem, Cooper Union,* 27–38, *asst. prof, 38–* Chem. Soc. Electrolytic determination of copper in the presence of bismuth.

Hopfield, Dr. J(ohn) J(oseph), Libbey-Owens-Ford Glass Co, Toledo, Ohio. *Physics.* Plock, Poland, July 8, 91. A.B, Syracuse, 17, fellow, 17–18; Whiting fellow, California, 20–21, Ph.D, 23. Instr. physics, Syracuse, 18–20; asst, California, 21–23, instr, 23–25, asst. prof, 25–30; *physicist,* A Century of Progress Expos, Chicago, 31–33; *Libbey-Owens-Ford Glass Co, 33–* Guggenheim Mem. Foundation fellow, Berlin, 28–29. A.A; Physical Soc. Continuous spectrum of helium; extreme ultra-violet spectra and resonance and ionization potentials of oxygen, sulfur and nitrogen; production of nebula lines; absorption spectra; ionization in argon by gamma rays; metal sealed double glass.

Hopkins, Dr. A(ndrew) D(elmar), 1708 Washington Ave, Parkersburg, W. Va. *Entomology.* Jackson Co, W. Va, Aug. 20, 57. Hon. Ph.D, West Virginia, 93. Special agent entom, Exp. Sta, West Virginia, 90–91, entomologist, 91–02, v. director, 97–02, prof. econ. entom, 96–02; forest entomologist in charge forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 02–04, senior entomologist, 04–23, special research bioclimatics, 23–31, collaborator, 31–43; *retired.* Lecturer, Yale, 02. Hon. custodian forest tree beetles, U. S. Nat. Museum, 23. A.A; Entom. Soc. Amer. (v. pres, 08); Asn. Econ. Entom. (v. pres, 00, pres, 01); Soc. Mammal; Meteorol. Soc; Entom. Soc. Wash. (v. pres, 05, pres, 07); Biol. Soc. Wash. (v. pres, 15, pres, 20); Bot. Soc. Wash; Wash. Acad. (v. pres, 07, 20); W. Va. Acad. (first pres); hon. mem. Soc. Econ. Biol. England. The bioclimatic law and development of the science of bioclimatics; phenology; grass breeding.

Hopkins, Dr. A(ubrey) E(dwin), U. S. Fisheries Biological Station, P. O. Box 1826, Pensacola, Fla. *Zoology.* Selma, N. C, Oct. 31, 00. B.S, Col. of William and Mary, 22; Ph.D, Harvard, 25. Austin teaching fellow, Harvard, 23–25; Parker traveling fellow from Harvard, Munich, Naples and Vienna, 25–27; asst, *fish and wildlife service, U. S. Dept. Interior,* 27–28, assoc. aquatic biologist, 28–30, *aquatic biologist, 30–, director fisheries biol. sta, Pensacola, 37–* A.A. Morphology and physiology of sense organs; physiology of the chemical senses; morphology, physiology and ecology of the oyster; circulatory system of lamellibranchs.

Hopkins, Prof. B. Smith, 402 Florida St, Urbana, Ill. ***Chemistry.* Owosso, Mich, Sept. 1, 73. A.B, Albion Col, 96, A.M, 97, hon. Sc.D, 26; Ph.D, Hopkins, 06. Prof. *chem,* Nebr. Wesleyan, 06–09; Carroll Col, 09–12; instr, *Illinois,*

12–14, assoc, 14–17, asst. prof, 17–19, assoc. prof, 20–23, prof, 23–41, *emer. prof, 41–* A.A; Chem. Soc. (sec'y, div. chem. educ, 23–26, chairman, 26, councilor at large, 35–41); Electrochem. Soc; Philos. Soc; Ill. Acad. (pres, 33). Osmotic pressure; rare earths; atomic weights of yttrium, erbium, europium, gadolinium, dysprosium and holmium; beryllium; selenium; tellurium; luminescence; illinium; ytterbium.

Hopkins, Dr. C(larence) Y(ardley), Rockcliffe Park, Ottawa, Ont, Can. *Chemistry.* Kinmount, Ont, June 20, 03. B.A, Queen's (Can), 24, M.A, 26; Ph.D, N. Y. Univ, 29. Demonstrator chem. eng. and applied chem, Toronto, 29–30; asst. research chemist and *research chemist, Nat. Research Council Can, 30–* Action of hypochlorous acid on organic compounds; derivatives of choline; polymerization of acrylic acid derivatives; alcohol motor fuels; protective coatings.

Hopkins, Prof. D(wight) L(ucian), Mundelein College, Chicago, Ill. *Zoology.* Chapel, W. Va, Aug. 14, 99. B.S, M.S, Virginia, 23; Bruce fellow, Hopkins, 25–26, Ph.D, 26. Asst. biol, Virginia, 22–23; Hopkins, 23–25, nat. research fellow, 26–27; instr. zool, Duke, 27–29, asst. prof, 29–37; fellow by courtesy, Hopkins, 37–38; *prof. zool, Mundelein Col, 38–* Summers, instr, Virginia, 23–26; investigator, marine lab, Carnegie Institution, Tortugas, Fla, 29–31. A.A; Soc. Zool. Cell physiology; protozoology; classification and life histories of Amoebae.

Hopkins, Edw(ard) S(cott), Montebello Filters, Hillen Road, Baltimore, Md. *Sanitary chemistry.* Aberdeen, Md, Nov. 24, 96. B.S, Milton Col, 19; Hopkins, 24; Maryland, 28–29; Georgetown, 30. Prin. sanit. chemist, *Bur. Water Supply, Baltimore, 23–37, filtration engineer, 37–; major, Sanit. Res. Corps, U. S. Army, 41–* Lecturer, sch. hygiene and pub. health, Hopkins, 34–35; Western Maryland Col, 35–40. Sanit.R, 36–, capt. Chem. Soc. (chairman, Md. sect, 28, water, sewage and sanit. div, 33; vocational study cmt, 38); Chem. Eng; Soc. Bact. (treas, Md. sect, 31–38); Water Works Asn. (chairman four states sect, 41; chairman, standards purification plant cmt, 40); Md. Water and Sewerage Asn. (pres, 36); Eng. Club Baltimore. Water purification plant control; colloidal characteristics of filter flocs; mixing basin design; sanitation.

Hopkins, Prof. Edwin F(raser), University of Puerto Rico, Rio Piedras, P. R. *Plant physiology.* Buffalo, N. Y, Nov. 30, 91. B.S, Cornell, 15, Ph.D, 20; Wisconsin, 17. Asst. agr. chem, Cornell, 14–15, instr. plant path, 15–18; assoc. prof. bot. and assoc. pathologist, Exp. Sta, Ala. Polytech, 19–20; plant pathologist and asst. prof. bot, Missouri, 20–22; physiologist in charge, Marble Lab, Canton, Pa, 22–23; nat. research fellow biol, 23–25; asst. prof. bot, Cornell, 25–39; biochemist, Yoder Brothers, Barberton, Ohio, 39–42; *plant physiologist and chief div, Exp. Sta, Puerto Rico, 42–* Biochemist, Chem. Foundation, 36–37. Summers, physiologist, United Fruit Co, Boston, 27; Ohio Exp. Sta, 28–31. Chemist, C.W.S, 17–18. A.A; Bot. Soc. (chairman, physiol. sect, 37). Metabolism; plant nutrition.

Hopkins, E(lizabeth) F(rances), 19 Everett St, Concord, Mass. *Botany.* Canandaigua, N. Y, Dec. 20, 95. A.B, Vassar Col, 19; M.S, Mass. Col, 27. Seed analyst, N. Y. Exp. Sta, Geneva, 20–27; in charge seed lab, Exp. Sta, Mass. Col, 27–30; *assoc. club agent, exten. service, Middlesex County, Mass, 30–* Fed. seed lab, Washington, D. C; seed investigation, Europe, 25. Asn. Seed Anal. Seed investigations; germination.

Hopkins, Dr. E(rvin) W(illiam), 628 W. North St, Hinsdale, Ill. *Bacteriology.* Randolph, Wis, May 15, 05. B.S, Wisconsin, 27, M.S, 28, Ph.D, 31. Nat. research fellow biol, 31–33; bacteriologist, Armour and Co, 33–34; fellow, dept. obstet. and gynec, Chicago, 34–35; research bacteriologist, *Armour and Co,* 34–40, *research chemist, 40–* A.A; Soc. Bact; Chem. Soc. Food chemistry and bacteriology; biochemistry of bacteria; legume root nodule bacteria; yeast-like organisms.

Hopkins, Dr. G(rant) S(herman), Cornell University, Ithaca, N. Y. *Anatomy.* Westfield, N. Y. B.S, Cornell, 89, Sc.D, 93, D.V.M, 00. Instr. histol. and embryol, *Cornell,* 89–96, asst. prof. anat. methods and comp. vet. anat, 96–03, prof. *vet. anat,* 03–34, *emer. prof, 34–* A.A; Asn. Anat; N. Y. State Vet. Med. Soc. Comparative and veterinary anatomy.

Hopkins, Dr. H. H, E. I. du Pont de Nemours and Co, Wilmington, Del. *Technicology.* De Soto, Mo, March 10, 97. B.S, Columbia, 20, Ph.D, 24. Chemist and group leader, Exp. Sta, *E. I. du Pont de Nemours and Co,* 24–27, research supervisor Phila. lab, 27–39, *asst. to chem. director, fabrics and finishes dept, 39–* Chem. Soc. Paints; enamels; varnishes; synthetic resins.

Hopkins, Dr. H(arris) H(azen), 343 Park Ave, Parchment, Mich. *Chemistry.* Kalamazoo, Mich, Oct. 27, 97. B.S, Kalamazoo Col, 19, Upjohn research scholar, 19–20, M.S, 20; Yale, 20–22; Michigan, 22, 23; Ph.D, Chicago, 24. Asst, Kalamazoo Col, 18–19; Yale, 20–22; research chemist, research labs, Johnson and Johnson Co, 24–28; A. M. Todd Co, 28–29; Nat. Aniline and Chem. Co, 29–30; Mid-Continent Petrol. Corp, 30–36; paper makers chem. div, Hercules Powder Co, 36–38; *director research and supt. ampul dept, Chicago Pharmacal Co, 38–* Summers, anal. chemist, Upjohn Co, 18, chemist, 20. Chem. Soc. Organic and pharmaceutical chemistry; preparation of di-para-trimethylbenzol chloride and the resolution of trimethylethylaniline; ragweed pollen proteins; bromo-methyl-phthalimide as a reagent for alcohols; optically active acid chlorides.

Hopkins, Prof. Hoyt S(tilson), New York University College of Dentistry, 209 E. 23rd St, New York, N. Y. *Physiology.* Port Byron, Ill, Feb. 14, 93. A.B, Oberlin Col, 14, A.M, 15; Ph.D, Hopkins, 20. Asst. zool, Hopkins, 15–17, *physiol,* sch. med, 20–21; asst. prof, col. med, Baylor, 21–23; Iowa State Col, 23–25; *col. dentistry, N. Y. Univ,* 25–32, *assoc. prof, 32–* Marine Biol. Lab, Woods Hole. A.A; Soc. Zool. Biology of Protozoa; properties of protoplasm; respiration in mollusks and salamanders; senescence and growth.

Hopkins, Dr. John Hall, 3 Fairview Place, Arlington, N. J. *Physical chemistry.* Philadelphia, Pa, Feb. 15, 11. B.S, Dickinson Col, 32; A.M, Boston, 34; Ph.D, Hopkins, 37. *Chemist and production supervisor, plastics dept, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Vinyl resins.

Hopkins, Dr. J(oseph) Gardner, 102 E. 78th St, New York, N. Y. *Bacteriology.* Brooklyn, N. Y, June 30, 82. A.B, Columbia, 02; M.D, Hopkins, 07. Asst. prof. bacter, *Columbia,* 15–17, *prof. dermat, 26–* Asn. Path. and Bact; Soc. Exp. Biol; Dermat. Asn. Dermatology; syphilis.

Hopkins, Prof. Louis A(llen), 1517 S. University Ave, Ann Arbor, Mich. *Mathematics.* Danville, Ind, May 9, 81. A.B, Butler, 05; M.S, Chicago, 06, Ph.D, 15. Instr. and *assoc. prof. math, Michigan, 06–, sec'y univ. senate and council, and* director and *dean summer session, 33–* A.A; Math. Soc; Math. Asn; Astron. Soc; Mich. Acad. Celestial mechanics.

Hopkins, Dr. M(arion) B(yrd), 747 Salem Ave, Elizabeth, N. J. *Chemistry.* West River, Md, June 24, 89. A.B, Hopkins, 12, Ph.D, 15. Asst, Hopkins, 14–15, Carnegie asst, 15; chief bur. chem, Health Dept, Baltimore, 15–20; research chemist, *Standard Oil Co. of N. J,* 20–24, director plant lab, 24–26, asst. supt, Eagle Works, 26–28, *manager chem. products plant and in charge tech. div, Stanco, Inc,* 28–; mfg. director, 31–38, director and v. pres, *Standard Alcohol Co,* 32–38, *pres, 38–; staff exec, Standard Oil Develop. Co, 38–* Director, Standard Catalytic Co, 38–; Jasco, Inc, 38–; Attapulgus Clay Co, 41– Chem. Soc. Food chemistry; milk and its relation to public health; chemistry of petroleum; chemicals from petroleum.

Hopkins, Prof. Milton, University of Oklahoma, Norman, Okla. *Botany.* Glen Cove, N. Y, Sept. 12, 06. A.B, Amherst Col, 30; A.M, Harvard, 33, Ph.D, 36. Instr. *bot,* Amherst Col, 33; asst, Gray Herbarium, Harvard, 34–36; asst. prof, *Oklahoma,* 36–39, *assoc. prof, 39–* A.A; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; South. Appalachian Bot. Club; New Eng. Bot. Club; Okla. Acad. Taxonomic and phytogeographic botany.

Hopkins, Dr. Nevil Monroe, 12 Washington Square North, New York, N. Y. *Chemistry, Physics.* Portland, Maine, Sept. 15, 73. B.S, George Washington, 99, M.S, 00, Ph.D, 02; Harvard, 01. Asst. *chem, George Washington,* 99–00, instr, 00–02, *asst. prof, 02–; mem. firm, Monroe, Hall and Hopkins; consulting and research engineer.* Lecturer, N. Y. Univ, 34– Elec. course, Gen. Elec. Co; in charge div. elec. and mech. science, Inst. Indust. Research; v. pres. and consulting engineer, Elec. Tachometer Corp; consulting engineer, Union Carbide and Carbon Corp; Aircraft Fireproof Corp; Ry. Elec. Equipment Co, Philadelphia, Pa; director research, Burnot Fireproofing Products; elec. engineer in charge power plant design and construction, all navy yards and stations, U. S. Navy Dept, 05–08; expert engineer, U. S. Office Pub. Roads, 09–; lecturer, Navy League U. S; pres, New-Mix Products, Inc; Int. Tube Co; Nat. Elec. Ballots, Inc; consultant relative to protection of animals from bombs and lethal gases, Am. Soc. Prevention Cruelty to Animals. Ed. rep, 'Elec. Eng.' John Scott medal, Frank-

lin Inst, 00; alumni award, George Washington, 42. Major and expert aid, gun div, Ordnance Dept. Chem. Soc; Electrochem. Soc; Chem. Eng; Elec. Eng; Mech. Eng; Soc. Test. Mat; Army Ordnance Asn; Soc. Mil. Eng. Self-checking pyrometers; comballots; televotes; radiovotes; automatic integration of individual ballots; infra-red target locators and range finders; long-range naval and anti-aircraft guns for submersible vessels; blastmeters for measuring force of high explosives; precision chronographs and flight of projectiles; new high explosives filler for munitions of war; torpedo proof equipment for freighters.

Hopkins, Dr. Oliver B(aker), 56 Church St, Toronto, Ont, Can. *Geology.* Penn Laird, Va, Dec. 4, 86. A.B, Hopkins, 09, Ph.D, 12. Junior geologist, U. S. Geol. Surv, 11–12; asst. state geologist, Ga, 12–14; asst. geologist, U. S. Geol. Surv, 14–20, geologist, 20; *chief geologist, Imp. Oil, Ltd, 20–* Director, Int. Petrol. Co. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Can. Inst. Min. and Metals. Mineralogy; physical chemistry; coal flora of Maryland; asbestos, talc, soapstone and slate deposits of Georgia; coal deposits of Wyoming and Colorado; oil and gas of the Gulf coastal plain, Canada, Peru and Colombia.

Hopkins, Dr. Pryns, 1375 S. Oak Knoll Ave, Pasadena, Calif. *Psychology.* Oakland, Calif, March 5, 85. Ph.B, Yale, 06; A.M, Columbia, 10; Ph.D, London, 27. Owner and supervisor, Boy Land Exp. Sch, Calif, 12–18; Chateau de Bures Sch. for Boys, France, 25–35; hon. lecturer *psychol,* univ. col, London, 28–40; *lecturer, sch. grad. studies, Claremont Cols, 41–* Ed, 'Freedom,' 40– Assoc. Psychol. Asn; Psychol. Corp; Soc. Sci. Treatment Delinquency; Sociol. Inst. London; Folklore Soc. London; fel. British Psychol. Soc; assoc. London Inst. Psychoanal; fel. Royal Geog. Soc; Soc. Study Religions, London. Psychology of religion; political psychology; motivation of religions and political groups and significance of intellectual forms in which their less conscious motives are rationalized; morale and other psychological repercussions of religions and political dogmas and conduct.

Hopkins, Prof. Sewell H(epburn), Agricultural and Mechanical College of Texas, College Station, Texas. *Zoology.* Nuttall, Va, March 24, 06. B.S, Col. of William and Mary, 27; A.M, Illinois, 29, Ph.D, 33. Asst, Illinois, 28–32; instr, Danville Junior Col, Ill, 33–35; *junior parasitologist, bur. animal indust, U. S. Dept. Agr, 34–;* instr. *zool, Agr. and Mech. Col. Texas,* 35–36, asst. prof, 36–41, *assoc. prof, 41–* A.A; Soc. Parasitol; Micros. Soc. Parasitology; life history, morphology and taxonomy of trematodes; life history of crabs.

Hopp, Dr. Henry, U. S. Department of Agriculture, Beltsville, Md. *Soil conservation.* Hastings-on-Hudson, N. Y. Feb. 11, 11. B.S, Syracuse, 31, M.S, 34, Ph.D, 36; Forstliche Hochschule, Eberswalde, Germany, 32; l'Ecole nationale des Eaux et Forêts, Nancy, France, 33. Instr, N. Y. State Col. Forestry, Syracuse, 32, research fellow, 33–36; *with soil conservation service, U. S. Dept. Agr, 36–, soil conservationist, hillculture div.* Soc. Foresters; Bot. Soc; Phytopath. Soc. Hillculture; tree crops; forest genetics; forest pathology; statistics.

Hoppe, P(aul) E(rich), U. S. Department of Agriculture, University of Wisconsin, Madison, Wis. *Plant pathology.* Platteville, Wis, Dec. 29, 96. B.S, Wisconsin, 21. Teacher agr, 21–24; asst. plant path, Wisconsin, 25–29; *assoc. pathologist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29– Diseases of corn; seedling blights; stalk and ear rots.

Hoppens, Dr. Harold A(lbert), 2265 Sherwood Road, Toledo, Ohio. *Organic chemistry.* Hastings, Nebr, Aug. 6, 16. B.S, Creighton, 38; M.S, Iowa, 40, Ph.D, 42. *Research chemist, Plaskon Co, 42–* Pyrrolidines from primary amine derivatives.

Hopper, Prof. Grace M(urray) (Mrs. V. F. Hopper), Vassar College, Poughkeepsie, N. Y. *Mathematics.* New York, N. Y, Dec. 9, 06. A.B, Vassar Col, 28, fellow, 28–29; A.M, Yale, 30, Ph.D, 34. Asst. *math, Vassar Col,* 31–34, instr, 34–39, *asst. prof, 39–* Faculty fellow, Vassar Col, 41–42. Math. Soc; Math. Asn; Inst. Math. Statist. Algebraic number theory.

Hopper, Capt. R(ichard) H, Headquarters, U. S. Army Forces in the Far East, Army Post Office, 501, San Francisco, Calif. *Geology.* Los Angeles, Calif, May 13, 14. A.B, California, 35, A.M, 36; Ph.D, Calif. Inst. Tech, 39. Instr. geol, Calif. Inst. Tech, 38–39; reconnaissance geologist, Standard Oil Co, Calif, 39–42; *capt, Eng. Corps, U. S. Army, 42–* Structural geology and geophysics; oil geology.

Hopper, Prof. S(amuel) H(ersey), University of North Carolina, Chapel Hill, N. C. *Bacteriology.* Boston, Mass, July 4, 11. B.S, Mass. Inst. Tech, 33, M.S, 34, Ph.D, 37; Harvard, 34. Research assoc, Mass. Inst. Tech, 37–39; *asst. prof. biol. and pub. health,* Ga. Tech, 39–42; *sch. pub. health, North Carolina, 42–; special consultant on sanitation, U. S. Pub. Health Service, 42–* A.A; Soc. Bact; Pub. Health Asn. Development of a course in public health engineering; carcinogenic hydrocarbons and their effect on bacterial metabolism.

Hopper, T(urner) H(arcourt), U. S. Department of Agriculture, New Orleans, La. *Agricultural chemistry.* Jacksonville, Ill, July 22, 94. A.B, Westminster Col. (Mo), 17; A.M, Missouri, 20. Asst. and instr. agr. chem, Missouri, 17–20; agr. chemist, Exp. Sta, N. Dak. Col, 20–39; senior chemist, regional soybean indust. products lab, bur. agr. chem. and eng, *U. S. Dept. Agr,* 39–41, director, 41–42, *prin. chemist, south. regional research lab, bur. agr. and indust. chem, 42–* Inst. Chem; Chem. Soc; Oil Chemists Soc. General agricultural chemistry; soils; plants; live stock feeds; animal nutrition; flax; linseed oil; industrial utilization of soybeans; cottonseed; peanuts; sweet potatoes.

Hopper, W(alter) E(verett), 512 National Mutual Bldg, Tulsa, Okla. *Geology.* Newark, N. J, Sept. 20, 86. A.B, Cornell, 08, A.M, 10. Asst. instr. geol, Cornell, 08, asst. geologist, La. Geol. Surv, 08–09; field asst, U. S. Geol. Surv, 09; instr. geol, Cornell, 10; Wisconsin, 10–12; Mich. Col. Mines, 12–14, asst. prof, 14–18; geologist, Brazos River Oil Corp, 20, gen. manager, 20–22; consulting geologist, 22–23; geologist, Bethany Oil and Gas Co, 24–26, manager, 26–28; Ark. Nat. Gas Corp, 28–29; pres, South. States Co, Inc, 29–31; consulting geologist and producer of oil and gas, 31–34; valuation engineer oil and gas, U. S. Securities and Exchange Cmn, 35–36, senior petrol. geologist in charge, 36–41; *geologist and consultant petrol. and nat. gas, 41–* Geologist, Mich. Geol. Surv, 14–18. Asst. ed, Mining and Sci. Press, 14–15. Bur. research, W.T.B, 19. Asn. Petrol. Geol. (dist. rep, 29); Min. and Metal. Eng; Shreveport Geol. Soc. (pres, 24). Economic geology; petroleum; natural gas.

Hopperstead, S(ever) L(averne), University of Delaware, Newark, Del. *Plant pathology.* Capron, Ill, May 14, 13. B.S, Illinois, 38, M.S, 42. Asst. plant pathologist, *Delaware,* 38–42, *assoc. plant pathologist, 42–;* asst. plant pathologist, *State Board Agr, Del,* 39–42, *state plant pathologist, 42–* Phytopath. Soc. Spray materials testing; spray injury and dosage; compatibility studies with fungicides and insecticide mixtures; physical and chemical properties of diluents and dust mixtures; bacterial spot of peach; damping-off; bitter rot of apples.

Hoppert, Prof. Carl A(rthur), Michigan State College, East Lansing, Mich. *Biochemistry.* Sheboygan, Wis, Aug. 4, 96. B.S, Wisconsin, 20, M.S, 23, Ph.D, 25; Kaiser Wilhelm Inst. (Berlin), 24. Instr. agr. chem. Wisconsin, 20–26; director chem. and nutrition, Soft Wheat Millers Asn, Nashville, 26–28; assoc. prof. biochem, *Mich. State Col,* 28–37, *prof. chem, 37–* A.A; Chem. Soc; Inst. Nutrition. Animal nutrition; vitamins; mineral metabolism; dental caries; the relation of diet to the development of dental caries in rats; crude fiber and laxation in humans.

Hopphan, Dr. Ethel (Linna), 3304 Jefferson Ave, Cincinnati, Ohio. *Bacteriology.* Lansing, Mich, Aug. 2, 97. B.S, Mich. State Col, 19; Hyman fellow, Cincinnati, 28–30, Ph.D, 30. Path. chemist, Toledo Hosp, 19–21; clin. microscopist and serologist, Kentucky, 22–24; *bacteriologist, Cincinnati Gen. Hosp, 26–* Hyman fellow, Cincinnati, 30– A.A; Soc. Bact. Vaccine therapy; bacterial asthma.

Hopping, Geo(rge) R(edstone), Dominion Entomological Laboratory, Vernon, B. C, Can. *Entomology.* Kaweah, Calif, Nov. 14, 99. B.S, Oregon State Col, 25; M.S, Iowa State Col, 31. Junior entomologist, *entom. lab, entom. branch, Can. Dept. Agr,* 25–27, asst. forest entomologist, 27–40, *entomologist in charge, 40–* Economic forest entomology; taxonomy; systematic entomology; biology.

Horberg, Dr. (Carl) Leland, University of Illinois, Urbana, Ill. *Geology.* Cambridge, Ill, May 7, 10. A.B, Augustana Col, 32; Ph.D, Chicago, 38. Asst. prof, Augustana Col, 35–37; asst, Chicago, 37–38; *instr. geol, Illinois, 38–* Ill. Acad.

Structural geology, geomorphology and glacial geology of the middle and northern Rocky Mountains.

Horecker, Dr. Bernard L(eonard), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physical biochemistry.* Chicago, Ill, Oct. 31, 14. B.S, Chicago, 36, Ph.D, 39. Asst. enzymes, Chicago, 39–40; civil service examiner, U. S. Civil Service Cmn, 40–41; *asst. chemist, nat. inst. health, U. S. Pub. Health Service, 41–* Respiratory enzymes; spectroscopic investigations; hemoglobin.

Horlacher, Dean L(evi) J(ackson), University of Kentucky, Lexington, Ky. *Animal husbandry.* Frankfort, Ind, June 9, 96. B.S.A, Purdue, 17; M.S, Kans. State Col, 19; Ph.D, Kentucky; Chicago. From instr. to *prof. animal husbandry, Kentucky, 18–*, in charge sheep husbandry, Exp. Sta, and field agent animal husbandry, agr. exten, 18–27, asst. to dean *col. agr, 27–39, asst. dean, 39–* Soc. Animal Production; Thoroughbred Club Amer; Ky. Acad; Ky. Ed. Asn. Sheep production; history and administration of land grant colleges; feeding of thoroughbred horses.

Horlacher, Dean Walter R(awlins), University of Arkansas, Fayetteville, Ark. *Genetics.* Frankfort, Ind, Aug. 4, 97. B.S, Kans. State Col, 20, M.S, 22; Ph.D, Wisconsin, 29. Instr. animal husbandry, Kans. State Col, 22–23; assoc. prof. genetics, Agr. and Mech. Col. Texas, 23–30, prof, 30–36; prof. animal indust. and head dept, *Arkansas,* 36–39, *dean col. agr, director Exp. Sta. and agr. exten. service, 39–* Genetic Asn; Soc. Animal Production; Ark. Acad. Animal genetics and nutrition; genetics of cotton; biological aspects of radiations.

Horn, Prof. C(larence) A, 736 N. Third St, Reading, Pa. *Biology.* McKeansburg, Pa, June 16, 91. B.S, Pa. State Col, 17; C.P.H, N. Y. Univ, 24; A.M, Columbia, 26; Sc.D, Albright Col, 36. *Prof. biol,* Tusculum Col, 17–18; W. Va. Wesleyan Col, 20–24; *Albright Col, 24–* Path. and bacter. labs, U.S.A, 18–20. A.A; Asn. Study Int. Secretions; Pub. Health Asn; L. I. Biol. Asn; Pa. Pub. Health Asn; Pa. Acad. (pres). Mitochondria of the anterior intestinal tract and the respiratory metabolic rates of tobacco hornworm; the grafting of endocrine structures in the body wall of intra-uterine rats; endocrines in invertebrate animals; longevity and blood changes following splenectomy; staphylococcus food poisoning.

Horn, Claud L(eslie), U. S. Department of Agriculture, Washington, D. C. *Horticulture.* Bauxite, Ark, Feb. 2, 03. B.S, Okla. Agr. and Mech. Col, 27. Asst, dept. agr. chem. research, Okla. Agr. and Mech. Col, 27–28; assoc. horticulturist, Virgin Islands Exp. Sta, office exp. stations, U. S. Dept. Agr, 28–32; horticulturist, Virgin Islands Agr. Sta, U. S. Dept. Interior, 32–33; staff asst, Caribbean Nat. Forest, emergency conservation work, U. S. Forest Service, Rio Piedras, P. R, 33–35; assoc. horticulturist, office exp. stations, *U. S. Dept. Agr,* 35–42, *senior agriculturist, office for. agr. relations, 42–* Plant introductions.

Horn, Prof. Clifford R(eifsnider), Texas Technological College, Lubbock, Texas. *Petroleum production engineering.* Independence, Utah, Dec. 26, 09. Petrol. Eng, Colo. Sch. Mines, 33; M.S, Pa. State Col, 40. Chemist rare metals, S. W. Shattuck Chem. Co, 33–34; research engineer petrol. production, Colo. Sch. Mines, 35; field investigator petrol, Min. Resources Surv, Colo, 35–36; geologist, Calif. Co, 36; asst. and instr. petrol. production, Pa. State Col, 36–40; instr, Texas Tech, 40–41; office engineer, U. S. Eng. Corps, 41; *asst. prof. petrol. production, Texas Tech, 41–* Min. and Metal. Eng; Eng. Educ. Control of oil well drilling fluids; secondary recovery of petroleum from depleted reservoirs.

Horn, David Wilbur, Bryn Mawr, Pa. *Chemistry.* Carlisle, Pa, May 7, 77. A.B, Dickinson Col, 97, A.M, 98; Ph.D, Hopkins, 00. Asst. chem, Hopkins, 00–01; assoc, Bryn Mawr Col, 01–04, assoc. prof, 04–07; *consulting chemist;* lecturer hygiene and later *assoc. prev. med. and pub. health, Hahnemann Med. Col. and Hosp. (Pa), 11–,* head sch. science, 16–21; *prof. inorg. and physical chem. and dean faculty, Wagner Inst, 12–;* prof. physics and physical chem, Phila. Col. Pharmacy, 21–37. A.A; Chem. Soc. (v. chairman, Phila. sect, 03, chairman, 04, 05, councilor, 08); Del. County Inst. Sci; Royal Soc. Arts. Boric acid; osmotic membranes by electrolysis; colorimetry; copper ammonia compounds; transition temperatures; solubility curve of borax; terminal fumigation; surface tension; cacao products; milk.

Horn, Dr. Edward C(harles), University of Arizona, Tucson, Ariz. *Zoology.* Hartford, Conn, Oct. 23, 16. B.S, Trinity Col. (Conn), 38; A.M, Princeton, 40, Class of '77 fellow, 40–41, Ph.D, 41. *Instr.* biol, Russell Sage Col, 41–42; *zool, Arizona, 42–* A.A; assoc. Soc. Zool. Effects of neutron radiation and x-radiation on amphibian regeneration.

Horn, Dr. F(ordyce) Hubbard, Johns Hopkins University, Baltimore, Md. *Physical chemistry.* Nagoya, Japan, July 27, 16. A.B, Oberlin Col, 37; Rochester, 37–39; du Pont fellow, Hopkins, 41–42, Ph.D, 42. *Research chemist,* Eastman Kodak Co, 37–39; *Nat. Defense Research Cmt. project, Hopkins, 42–* Superconductivity of interstitial alloys.

Horn, Dr. Millard J(acob), 1811 Varnum St, N. E, Washington, D. C. *Chemistry.* Brooklyn, N. Y, Feb. 24, 97. B.S, Maryland, 25, M.S, 26, du Pont fellow, 27, Ph.D, 29. Asst. chemist and *assoc. chemist protein and nutrition, bur. chem. and soils, U. S. Dept. Agr, 28–* Chem. Soc. Proteins of the peanut; alkali and proteins; non-protein nitrogen in juices; nitrogenous constituents of sugar cane-juice; organo-selenium compounds; thio ethers from proteins.

Hornbeck, Prof. J(ohn) W(esley), Kalamazoo College, Kalamazoo, Mich. *Physics.* Exeter, Ill, May 21, 81. B.S, Ill. Wesleyan, 06; A.M, Illinois, 09, Ph.D, 13. Prin, schs, Ill, 04–05; instr. math, Park Col. Acad, 06–08; asst. *physics,* Illinois, 09–10; Cornell, 10–11; instr, Illinois, 11–13; asst. prof, Carleton Col, 13–17, *prof,* 17–25; *Kalamazoo Col, 25–* Research, Cornell, 23–24. Summers, mem. faculty, West. Mich. Col. Educ, 37, 39. A.A; Physical Soc; Asn. Physics Teachers; Ornith. Union; Mich. Audubon Soc. Thermal and electrical conductivities of the alkali metals; photoelectric effect of potassium at low temperatures.

Horne, Prof. C(harles) E(llsworth), 10 Violeta Ave, San Juan, P. R. *Mathematics.* Washington, Pa, Feb. 20, 76. A.B, Waynesburg Col, 97; A.M, Harvard, 04; Ph.D, Chicago, 07. Instr. math, Waynesburg Col, 99–03; prof, Westminster Col. (Colo), 09–16, dean, 10–16; Park Col, 16–18; prof. math, *Puerto Rico,* 18–20, dean col. agr. and mech. arts, 20–26, *prof. math, 26–* Math. Soc. Theory of factoring numbers.

Horne, Ralph W(arren), 11 Beacon St, Boston, Mass. *Engineering.* Malden, Mass, July 25, 88. B.S, Mass. Inst. Tech, 10. Asst. instr, Mass. Inst. Tech, 10–11; designer, Metcalf and Eddy, 11–15; asst. engineer, *Fay, Spofford and Thorndike,* 15–22, *partner and mem. exec. board, 22–* Director, Emergency Planning and Research Bur, Inc. Civil Eng; Water Works Asn; New Eng. Sewage Works Asn; Boston Soc. Civil Eng. (past pres). Sanitary and hydraulic engineering.

Horne, Dr. William A(ppler), Gulf Research and Development Co, P. O. Box 2038, Pittsburgh, Pa. *Physico-organic chemistry.* Washington, D. C, Jan. 17, 12. B.S, Maryland, 34, fellow, 34–35, M.S, 35, Ph.D, 38. Asst. chem, Maryland, 35–38; *research chemist, Gulf Research and Develop. Co, 38–* Summers, chemist, Chesapeake Biol Lab, 35, 36; research chemist, Gulf Research and Develop. Co, 37. Chem. Soc. Hydrographic and chemical survey of the Chesapeake Bay area; viscosity studies and additives in petroleum oils; vapor phase oxidation of hydrocarbons; catalytic alkylation of paraffins and aromatics; isomerization; dehydrogenation; cracking.

Horne, Dr. W(illiam) D(odge), Beech Creek, Pa. *Chemistry.* Williamsburg, N. Y, Jan. 25, 65. Ph.B, Columbia, 86, Ph.D, 94. *Chemist, sugar ref. companies, 86–;* chem. engineer, Hershey Chocolate Co, 25–30. Instr, Columbia, 87; Rutgers, 89; consulting chemist and bacteriologist, companies and boards. Assoc. ed, 'Jour. Indust. and Eng. Chem,' 08– Silver medal, Asn. chim. de Sucre et de Dist. de France. Pres, sugar sect, Int. Cong. Applied Chem, 12. A.A; Chem. Soc; Soc. Chem. Indust; Asn. chim. de Sucre et de Dist. de France; Asn. de Tecnicos Azucareros de Cuba; Int. Soc. Sugar Cane Technol. Sugar manufacturing and refining.

Horne, Dr. William H(enry), Kenwood Mills, Albany, N. Y. *Chemistry.* Berlin, Germany, May 17, 07. B.S, N. Y. Univ, 29; Ph.D, Illinois, 33. *Research chemist, F. C. Huyck and Sons, 33–* Chem. Soc. Local anesthetics; chemistry of wool and wool processing.

Horne, Prof. W(illia)m T(itus), Citrus Experiment Station, Riverside, Calif. *Plant pathology.* Kankakee, Ill, Nov. 8, 76. B.S, Nebraska, 98; fellow, Columbia, 03–04. Instr. bot, Nebr. Wesleyan, 98–00; Nebraska, 99–00; asst. pathologist, Estación Cent. Agron, Cuba, 04–07, chief plant path, 07–09; asst. prof. *plant path, California,* 09–14, assoc. prof, 14–39, *prof, 39–,* assoc. plant pathologist, *Exp. Sta,* 14–39, *plant pathologist, 39–* A.A; Phytopath. Soc. (past sec'y, Pacific div); Torrey Bot. Club. Vegetable pathology; diseases of tropical plants; olive knot; root-rot of trees; avocado diseases; diseases of sub-tropical fruits.

Horner, Sister Agnes Marie, St. Mary College, Leavenworth, Kans. *Organic chemistry.* Atchison, Kans, Sept. 15, 06. A.B, St. Mary Col. (Kans), 32; A.M, Kansas, 36; Ph.D, St. Louis, 39. *Head dept. chem, St. Mary Col. (Kans), 39–* A.A; Chem. Soc; Kans. Acad. The wax of the nelumbo pentapetala; use of xenyl mustard oil as a reagent for amines.

Horner, Dr. Glenn M(aurice), Soil Conservation Service, Pullman, Wash. *Soils.* San Juan Co, N. Mex, July 9, 07. B.S, Colo. State Col, 31; A.M, Missouri, 32, Ph.D, 35. Instr. soils, State Col. Wash, 34–35; *supt. exp. sta, soil conservation service, U. S. Dept. Agr, 35–* Soil and water conservation studies; water content of soil colloidal material; calcium nutrition of soy-beans; toxicity of spray residues in soils to plants.

Horner, Dr. Henrietta (Anne) Calhoun, 604 Laurel Ave, Wilmette, Ill. *Pathology.* Clarinda, Iowa, Dec. 19, 80. B.S, Illinois, 01, A.M, 03; M.D, Michigan, 17. Instr. neuropath, Michigan, 11–14; asst. prof. path. and bacter, Iowa, 18–21; director lab, Rockford Hosp, 21–28; Bender Hygienic Lab, 29; practising physician, 29–39; *retired.* Assoc. neuropath, Albany Med. Col, Union (N. Y), 32–34. Lecturer, Rockford Col, 23–24. Exped, Pike's Peak, 03. Fel. Am. Med. Asn. Clinical pathology of alcoholism; a counting fluid for blood platelets; injection of non-specific protein in diphtheria virulence tests in guinea pigs; the brain in lethargic encephalitis.

Horner, Dr. Imre, 5306 S. Greenwood Ave, Chicago, Ill. *Physiological chemistry, Immunology.* Budapest, Hungary, May 4, 01. Vienna; Prague; M.D, Royal Hungarian Elizabeth Univ, 33. Asst, Royal Hungarian Elizabeth Univ, 30–32, research assoc, 33–34; *asst. prof. physiol, De Paul, 39–* Lipoids of liver in health and disease; chemical nature of complement.

Horner, W(esley) W(inans), 803 Shell Bldg, St. Louis, Mo. *Sanitary engineering, Hydrology.* Columbia, Mo, Sept. 22, 83. B.S, Washington (St. Louis), 05, C.E, 09. Civil engineer, *St. Louis, Mo,* 05–33, chief engineer, sewers and paving, 18–33; consulting engineer and mem. tech. board rev, Pub. Works Admin, 33–36; *mem.* board consultants, U. S. Dept. Agr, 38–41; *State Board Registration for Architects and Engineers, 41–* Lecturer, Washington (St. Louis), 34–37, prof, 37–41, lecturer, 41– Mem. board rev, Pub. Works Admin; water consultant, Nat. Resources Cmt. Rudolf Hering medal, Am. Soc. Civil Eng, 38. Civil Eng. (director, 33–35); Pub. Works Asn. (past pres); Soc. Test. Mat; Inst. Consulting Eng; Geophys. Union; Eng. Club St. Louis (past pres). Municipal sewerage and drainage; hydraulics.

Horney, Dr. Amos G(rant), 111 E. 208th St, Euclid, Ohio. *Chemistry.* Hortonville, Ind, March 18, 07. A.B, Earlham Col, 30; M.S, Ohio State, 32, A.M, 33, Ph.D, 37. Asst. chem, Ohio State, 36–37; org. research chemist, *Ohio Chem. and Mfg. Co,* 37–40, acting chief chemist, 40–41, *chief chemist in charge research develop. and control, 41–* Chem. Soc. (councilor and historian, Cleveland sect); Electrochem. Soc. (sec'y-treas, Cleveland sect). Hydrocarbon syntheses; syntheses of new general anesthetics.

Horning, Dr. E(van) C(harles), University of Michigan, Ann Arbor, Mich. *Organic chemistry.* Philadelphia, Pa, June 6, 16. B.S, Pennsylvania, 37; Röhm and Haas fellow, Illinois, 40, Ph.D, 40. *Instr. chem,* Bryn Mawr Col, 40–41; *Michigan, 41–* A.A; Chem. Soc. Synthetic organic chemistry; polymers.

Horning, Dr. S(amuel) C(yril), 6106 Oxford St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Jan. 22, 04. B.S, 25, M.S, 27, Deutsch fellow, 27–29; Ph.D, Cincinnati, 29. *Research chemist, du Pont Co, 29–* A.A; Chem. Soc. Physical chemistry; films; pigments.

Horning, W(alter) H(arold), General Land Office, U. S. Department of the Interior, Custom House, Portland, Oregon. *Forestry.* Mifflintown, Pa, Jan. 4, 92. B.S, Pa. State Forest Sch, 14; Baker fellow, California, 27–28, M.S, 28. Dist. forester, State Forest Service, Pa, 14–20; asst. prof. forestry, Pa. State Forest Sch, 20–29, assoc. prof, 29; asst. prof, Iowa State Col, 29–35; forester, *Nat. Park Service,* 35–38, *chief forester in charge revested Oregon and Calif. railroad grant lands, 38–* Soc. Foresters.

Hornsby, G(rover) J(ackson), U. S. Department of the Interior, Denver, Colo. *Hydraulics.* Rockford, Ala, Aug. 15, 92. B.S, Ala. Polytech, 21. Designing engineer, Standard Sci. Co, New York, 21–23; elec. draftsman, Ala. Power Co, 23–25, hydraul. research asst, 25–28, testing engineer, 28–30; engineer in charge operations, U. S. Waterways Exp. Sta, Vicksburg, Miss, 31; *director hydraul. research, bur. reclamation, U. S. Dept. Interior, 33–* Turbines, gates and penstocks; loss of head in pipe bends; prevention of erosion at the toe of overfall dams; balanced needle valves; pumping plants; hydraulic turbines; turbine testing, operating and maintenance.

Horowitz, Dr. N(orman) H(arold), Stanford University, Calif. *Biochemistry.* Pittsburgh, Pa, March 19, 15. B.S, Pittsburgh, 36; Ph.D, Calif. Inst. Tech, 39. Teaching fellow biol, Calif. Inst. Tech, 36–39; nat. research fellow, univ. and Hopkins Marine Sta, Stanford, 39–40; research fellow, Calif. Inst. Tech, 40–43; *research assoc. biol, Stanford, 43–* Soc. Zool. Cellular respiration; respiratory catalysts; chemical embryology.

Horr, Prof. W(orthie) H, University of Kansas, Lawrence, Kans. *Plant physiology.* Sept. 14, 91. A.B, Kansas, 22, A.M, 23; Ph.D, Chicago, 34. Instr. *bot, Kansas,* 22–23, asst. prof, 24–35, *assoc. prof, 35–* A.A; Soc. Plant Physiol; Ecol. Soc; Soc. Plant Taxon; Kans. Acad.

Horrall, Prof. B(urtis) E(lliott), 435 Robinson St, West Lafayette, Ind. *Dairying.* Decker, Ind, 96. B.S.A, Purdue, 21; M.S, Kans. State Col, 28; Ph.D, Wisconsin, 33. Supt, Blue Valley Creamery Co, 22–27; *assoc. dairy husbandry, Purdue, 29–, asst. prof, 31–* Chem. Soc; Dairy Sci. Asn. Dairy chemistry; lecithin in dairy products; quality of dairy products; ice cream; copper and bicetyl content in dairy products.

Horrall, Dr. O(nis) H(arrison), 547 W. Jackson Blvd, Chicago, Ill. *Physiology, Surgery.* Alfordsville, Ind, Oct. 24, 88. A.B, Ind. State Nor. Col, 13; M.D, Rush, Chicago, 19, M.S, Chicago, 25, Ph.D, 27. Teacher and sch. supt, 04–15; asst. prof. psychol. and educ, North. State Nor. Sch, Mich, 16–18; *instr. surg, med. sch, Northwestern, 31–* Chief surgeon, Chicago, Burlington and Quincy R. R. Co, Burlington Transportation Co. and Valier Coal Co; senior surgeon, Wesley Mem. Hosp, Chicago; consulting surgeon, Miner's Hosp, W. Frankfort; Marshall Browning Hosp, Du Quoin. Fel. Col. Surg; fel. Am. Med. Asn; Chicago Surg. Soc. Nontoxic bilirubin; toxicity of bile; experimental bile peritonitis; action of bile in intestinal tract; dehydrocholic acid in treatment of jaundice; experimental syphilis; experimental knee joint injuries; hemicidal blood serum in pernicious anemia; toxicity and relation of bile to disease; bile.

Horsch, Dr. William G(renville), 224 Briar Hill Lane, Woodbury, N. J. *Physical chemistry.* Newburyport, Mass, April 28, 90. B.S, Mass. Inst. Tech, 13; M.S, California, 16, Ph.D, 17. Asst. and teaching fellow chem, California, 15–17; electrochemist, U. S. Bur. Mines, 18; research assoc. applied chem, Mass. Inst. Tech, 19–22; research chemist, Guggenheim Bros, 22–24; chief chemist, The Vulcan Detinning Co, Pittsburgh, 24–27; *research chemist, research and develop. div, gen. labs, Socony-Vacuum Oil Co, Inc, Paulsboro, N. J, 27–* Lieut, research div, C.W.S. A.A; Chem. Soc; Electrochem. Soc; Elec. Eng. Electrode potentials; inorganic electrolysis; catalysis and gas reactions; metallurgy of tin and zinc; insulating oils.

Horsfall, Frank, 601 Ridgeway St, Little Rock, Ark. *Horticulture.* Hazen, Ark, Nov. 19, 78. B.S, Arkansas, 00; A.M, Missouri, 27. Horticulturist, Mo. State Fruit Exp. Sta, Mountain Grove, 01–09; pres, Ark. State Agr. and Mech. Col, Monticello, 10–35; *dist. supt, farm security admin, U. S. Dept. Agr, Ark, 35–* Soc. Hort. Sci. Differentiation in and hardiness of peach buds.

Horsfall, Dr. Frank L(appin), Jr, Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *'*Pathology, Bacteriology.* Seattle, Wash, Dec. 14, 06. A.B, Washington (Seattle), 27; M.D, McGill, 32. Vol. asst. bacter, Harvard Med. Sch, 32–33; res. med, Royal Victoria Hosp, Montreal, Que, Can, 33–34; asst. and res, Rockefeller Hosp, 34–37; mem. staff, Rockefeller Foundation, 37–41; *mem, Rockefeller Inst, 41–* House officer, Peter Bent Brigham Hosp, 32–33; Rockefeller Foundation study, Uppsala, 38; Messenger lecturer, Cornell, 42. Eli Lilly and Co. research award, 37. Am. Physicians; Asn. Immunol; Soc. Bact; Soc. Exp. Biol; Soc. Clin. Invest. (v. pres, 43); Harvey Soc; N. Y. Acad. Acute infections of the respiratory tract.

Horsfall, Dr. I(ra) Owen, University of Utah, Salt Lake City, Utah. *Mathematics.* Oceanside, N. Y, May 20,

85. A.B, Utah, 08; A.M, Chicago, 29; Ph.D, Cornell, 32. Teacher math. and director junior col, Latter Day Saints Col, 11–27; teacher, Cornell, 29–33; pres, Snow Col, 33–36; *prof. math. and director exten. div, Utah, 36–* Math. Soc; Math. Asn; Univ. Exten. Asn; Utah Educ. Asn; Utah Acad. Adult education and algebraic geometry.

Horsfall, Dr. James G, Connecticut Agricultural Experiment Station, New Haven, Conn. *Plant pathology.* Mountain Grove, Mo, Jan. 9, 05. B.S, Arkansas, 25; Ph.D, Cornell, 29. Asst. plant path, Cornell, 25–28, instr, 28–29, asst. prof. and research assoc, N. Y. Exp. Sta, Geneva, 29–36, prof. and chief research, 36–39; *chief dept. plant path. and bot, Conn. Exp. Sta, 39–;* asst. chairman, Crop Protection Inst, 39–42. Mem. crop protection cmt, Nat. Research Council, 42– A.A; Phytopath. Soc. (councilor, 41); Bot. Soc; Asn. Econ. Entom. New fungicides; internal chemotherapy of plant diseases.

Horsfall, Dr. J(ohn) L(ouis), American Cyanamid and Chemical Corp, 30 Rockefeller Plaza, New York, N. Y. *Entomology.* Iowa Falls, Iowa, April 2, 88. A.B, Iowa, 15, M.S, 16, Ph.D, 24. Prof. biol, Dubuque, 16–20; assoc. prof. entom, Pa. State Col, 20–25; *research entomologist,* Bayer Co, 26–28; *Am. Cyanamid and Chem. Corp,* 25–26, 28– Asn. Econ. Entom; N. Y. Entom. Soc. Aphididae.

Horsfall, Prof. W(illiam) R(obert), University of Arkansas, Fayetteville, Ark. *Entomology.* Mountain Grove, Mo, Jan. 11, 08. B.S, Arkansas, 28; M.S, Kans. State Col, 29; Ph.D, Cornell, 33. Asst, Kans. State Col, 28–29; Cornell, 30–33; prof. biol, Ark. Agr. and Mech. Col, 33–36; instr. entom, Arkansas, 36–37; asst. prof. entom. and zool, Exp. Sta, S. Dak. State Col, 37–38; *asst. prof. entom, Arkansas, and asst. entomologist, Exp. Sta, 38–; lieut, Sanit. Corps, U. S. Army, 43–* Entom. Soc. Amer; Asn. Econ. Entom; Ark. Acad. (treas, 35, 40–). Insect physiology; mosquito biology.

Horsley, Dr. J(ohn) Shelton, 617 W. Grace St, Richmond, Va. *Surgery.* Lovingston, Va, Nov. 24, 70. M.D, Virginia, 92; LL.D, Richmond, 31. Prof. surg, Med. Col. of Va, 03–13; *surgeon in charge, St. Elizabeth's Hosp, 12–* Gold medal, South. Med. Asn, 16. A.A; Surg. Asn; Am. Med. Asn; South. Surg. Asn; South. Med. Asn. (pres); Med. Soc. Va. (pres); Va. Acad. (pres); Richmond Acad. Med. (pres, 13); Int. Soc. Surg. Reversed circulation of the blood; surgery of the stomach and intestines; operative surgery.

Horsley, Dr. Lee H(erbert), Dow Chemical Co, Midland, Mich. *Physical chemistry.* Soda Springs, Idaho, Jan. 30, 11. B.S, Kansas, 32, A.M, 34, Ph.D, 36. Asst. instr. chem, Kansas, 34–36; *research chemist, Dow Chem. Co, 36–* Chem. Soc. Electrodeposition of metals from complex salts; azeotropes.

Horst, Dr. (Aaron) Paul, Procter and Gamble Co, Cincinnati, Ohio. *Psychology.* Newton, Kans, Nov. 28, 03. A.B, California, 27; fellow, Chicago, 29–30, Ph.D, 31. Instr. psychol, Kans. State Teachers Col, Emporia, 29; asst, research div, U. S. Civil Service Cmn, 30–32; *supervisor of selection research, personnel research dept, Procter and Gamble Co, 32–; major, Air Corps, U. S. Army, 42–* Mem. board of directors, Psychometric Corp, 36. Ed, 'Psychometrika,' 36– A.A; Statist. Asn; Psychol. Asn; Econometric Soc; Psychometric Soc. (sec'y, 35–36, councilor, 36–39); Midwest. Psychol. Asn. Statistics and psychology.

Horton, A(lbert) H(oward), 1307 Gallatin St, N.W, Washington, D. C. *Civil engineering.* Fairfield, Pa, July 24, 75. C.E, Cornell, 98. *Dist. engineer, U. S. Geol. Surv, 06–, chief power resources div, 19–* Assoc. Civil Eng; Wash. Soc. Eng. Collection and publication of information on the quantity of the nation's water resources for use by industries, cities, power plants and for irrigation and control of floods.

Horton, Dr. Bayard Taylor, Mayo Clinic, Rochester, Minn. *Medicine.* Gate City, Va, Dec. 6, 95. B.S, Virginia, 21, M.D, 22; M.S, Minnesota, 28; Mayo Foundation fellow, Minnesota, 25–28, M.S, 28. Prof. biol, Emory and Henry Col, 23–25; asst. prof. *med, Mayo Foundation, Minnesota,* 34–37, *assoc. prof, 37–, head sect. clin. investigation, 40–* John Horsley Mem. prize, Virginia, 29. Fel. Col. Physicians; fel. Am. Med. Asn; Soc. Clin. Invest; Cent. Soc. Clin. Research. Histamine in the treatment of headaches and Meniere's disease, as well as its use in clinical medicine; use of the pyridylalkylamines in clinical medicine; vasomotor regulation of the temperatures of the extremities in health and disease.

Horton, Dr. Ethel Sue, 1822 W. Lawn Ave, Madison, Wis. *Botany.* Ogle Co, Ill, 82. A.B, Beloit Col, 07; A.M, Wisconsin, 21; Ph.D, Minnesota, 32. Teacher, high sch, Wis, 07–20; asst. bot, Wisconsin, 20–21; teacher science, Milwaukee-Downer Sem, 21–23; asst. prof. bot, S. Dak. Col, 23–24; asst, Minnesota, 24–27, instr, 27–31; Beloit Col, 32–33; biol, Wis. State Teachers Col, Stevens Point, 34–38. A.A; Bot. Soc. Cytology of wheat and of a wheat species cross.

Horton, Prof. Geo(rge) P(lant), 4725 15th Ave, N. E, Seattle, Wash. *Psychology.* St. Louis, Mo, March 18, 04. B.S, Princeton, 26, A.M, 30, Ph.D, 32. Nat. research fellow, Princeton, 32–33, research assoc, 33–34; instr. *psychol, Washington (Seattle),* 34–39, *asst. prof, 39–* Visiting asst. prof, Princeton, 37–38; visiting prof, British Columbia, 41. Psychol. Asn. Comparative and experimental psychology; hearing problems, with especial reference to those of stimulation or occupational deafness.

Horton, Prof. George W(illiam), 1002 S. Grant Ave, Crawfordsville, Ind. *Physics.* Chillicothe, Ill, May 11, 96. B.S, Ill. Wesleyan, 18; M.S, Wisconsin, 22. Instr. *physics,* Northwestern, 19–21; asst, Wisconsin, 21–24; *Peck-Williams prof, Wabash Col, 24–; lieut, U. S. Naval Res, 43–* Physical Soc; Asn. Physics Teachers.

Horton, Prof. Goldie Printis (Mrs. M. B. Porter), 2402 Windsor Road, Austin, Texas. *Mathematics.* Athens, Texas, Sept. 4, 87. A.B, Texas, 08; fellow, Smith Col, 09–10, A.M, 10; fellow, Bryn Mawr Col, 12–13; Ph.D, Texas, 16. Teacher, high sch, 08–09, 10–12; tutor *pure math, Texas,* 13–17, instr, 17–26, adj. and *asst. prof, 26–* Math. Soc. Analysis.

Horton, J(ohn) R(aymond), 437 S. Fountain Ave, Wichita, Kans. *Entomology.* Ogden, Utah. B.S, Utah Col, 09. Asst. entom, Exp. Sta, Utah Col, 06–09; agent and expert fruit insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 09–10, sci. asst. in charge labs, Lindsay, Calif, and New Orleans, La, 10–17, assoc. entomologist, *cereal and forage insect investigations, Wichita,* 17–28, *entomologist, 28–, in charge lab, 17–* A.A; Asn. Econ. Entom; Kans. Acad. Citrus and fig insects; insects affecting cereal and forage crops.

Horton, Prof. J(oseph) Warren, Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Ipswich, Mass, Dec. 18, 89. B.S, Mass. Inst. Tech, 14, Sc.D, 35. Instr. physics, Mass. Inst. Tech, 14–16; mem. tech. staff, Bell Tel. Labs, 16–28; chief engineer, Gen. Radio Co, 28–33; research assoc, elec. eng, *Mass. Inst. Tech,* 33–37, *assoc. prof. biol. eng, 37–* U.S.N, 17–18, lieut. commander, U.S.N.R, 36–A.A; fel. Elec. Eng; fel. Radio Eng. (board editors); fel. Physical Soc; fel. Acoustical Soc. Multiplex telegraphy and telephony by means of carrier currents; detection of subaqueous sounds; electrical transmission of pictures; television; precision measurement of frequency and time; electrophysiology; biophysical measurements.

Horton, Dr. Lydiard H(eneage) W(alter), Trinity Court, 175 Dartmouth St, Boston, Mass. *Biopsychology.* London, Eng, May 9, 79. A.B, Williams Col, 01; A.M, Columbia, 11, Ph.D, 22. Research intern, Boston Psychopathic Hosp, 12–14; assoc, 'Jour. Abnormal Psychol,' 12–30; *research officer, Cartesian Research Soc. Phila, 20–;* assoc. biopsychol, Evans Clinic, Mass. Mem. Hosps, 29–36; *lecturer biopsychol, sch. med, Boston, 30–* Boston Noise Cmn, 31–32. Psychopath. Asn; Asn. Applied Psychol. Mechanism of thought in dreams; dementia praecox; origins of modern psychology in seventeenth century Cartesianism; critique of psychoanalysis in the light of brain-record concept; biopsychological interpretations of mentality based on neuro electric concept of brain fibre recording.

Horton, Prof. Paul M(acHeehan), Louisiana State University, Baton Rouge, La. *Chemical engineering.* Jackson, Ohio, July 28, 95. B.Ch.E, Ohio State, 18; M.S, Louisiana, 23; fellow, Ph.D, Columbia, 24. Plant chemist, Minn. Match Co, 19–20; B. F. Drakenfeld, 20–21; assoc. prof. *chem. eng, Louisiana,* 25–32, *prof. and head dept, 32–* C.W.S, U.S.A, 18. Chem. Soc; Chem. Eng; Eng. Educ. Unit operations; activated char; paper; naval stores; ramie fiber.

Horton, Dr. Ralph E(lison), 223 Nassau Ave, Huntington, L. I, N. Y. *Chemistry, Education.* Hammondsport, N. Y, Ph.B, Alfred, 05; A.M, Columbia, 22, Ph.D, 28. Prin, high sch, N. Y, 06–15; *chairman dept. science, Seward Park High* Sch, New York, 15–39; *chairman standing cmt. science, City Board Educ, New York, 39–, director war courses, 41–* A.A; Chem. Soc; Nat. Asn. Research Sci. Teaching; N. Y. Soc. Exp. Educ. Science education.

Horton, Prof. Richard G(reenfield), 28 Easterly Ave, Auburn, N. Y. *Physiology.* Auburn, N. Y, May 29, 12. A.B, Williams Col, 34; A.M, Cornell, 35, Ph.D, 37; Rochester, 39–41. Sterling fellow *physiol,* med. sch, Yale, 37–38; instr, Tennessee, 38–39; *asst. prof, Mich. State Col, 41–* Nerve-muscle physiology.

Horton, Dr. Robert E(lmer), Voorheesville, N. Y. *Civil engineering.* Parma, Mich, May 18, 75. B.S, Albion Col, 97, Sc.D, 32. Dist. engineer, U. S. Geol. Surv, 00–05; res. engineer, N. Y. State Barge Canal, 06–11; hydraul. expert, State Dept. Pub. Works, N. Y, 11–25; *consulting engineer, Albany Water Supply, 26–; Power Authority of N. Y, 31–; consultant flood control, U. S. Dept. Agr, 39–; hydraul. consultant, Tenn. Valley Authority, 42–; proprietor, Horton Hydrologic Research Lab, 42–* Lecturer, Michigan, 14; Eng. Board Rev, Sanit. Dist, Chicago. A.A; Civil Eng; Water Works Asn; Am. Geog. Soc; Inst. Water Eng; Geophys. Union; Meteorol. Soc; New Eng. Water Works Asn; British Inst. Civil Eng; Royal Meteorol. Soc. Hydrology; meteorology; rainfall; evaporation; stream drainage basins; underground waters; floods.

Horvath, Dr. William J, Columbia Research Group, Navy Bldg, Washington, D. C. *Physics.* New York, N. Y, Sept. 13, 17. B.S, Col. City of N. Y, 36; univ. fellow, N. Y. Univ, 37–39, M.S, 38, Ph.D, 40. Instr. physics, N. Y. Univ, 39; *physicist,* bur. ordnance, U. S. Navy Dept, 40–43; *Nat. Defense Research Cmt, Columbia, 43–* Physical Soc. Nuclear physics; electricity; magnetism; absorption of slow neutrons; war research.

Horvitz, Dr. Leo, 3738 Sunset Blvd, Houston, Texas. *Chemistry.* Central Falls, R. I, Aug. 12, 09. B.S, Brown, 31, M.S, 32; Ph.D, Chicago, 35. Asst. chem, Chicago, 33–35; research chemist, Femker Co, 36–37; chief research chemist and chief geochemist, Subterrex Co, 37–41; *consulting petrol. geochemist, 41–; pres, Horvitz Research Labs, Inc, 42–* Group leader, Nat. Defense Research Cmt. war project, Chicago, 42–43. A.A; Chem. Soc; Soc. Explor. Geophys; Geophys. Union; Asn. Petrol. Geol. Reaction rates; metallo-organic compounds; boron hydrides; vacuum technique; geochemical prospecting for petroleum.

Horwitt, Dr. Max K(enneth), Elgin State Hospital, Elgin, Ill. *Physiological chemistry.* New York, N. Y, March 21, 08. A.B, Dartmouth, 30; Ph.D, Yale, 35. Asst. biochem, sch. med, Yale, 32–35, Lead research fellow, 35–37; *research assoc, Elgin State Hosp, 37–, director biochem. research lab, 39–; asst. prof. physiol. chem, col. med, Illinois, 41–* Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Metabolism of heavy metals; availability of dietary constituents; protein isolation and mechanism of proteolytic action; brain metabolism with special reference to respiratory enzymes and vitamins; nutrition; inhibitors of catalyzed reactions.

Horwood, Dr. H(ereward) Clare(nce), Ontario Department of Mines, Toronto, Ont, Can. *Geological engineering.* Ottawa, Ont, April 4, 05. B.A.Sc, British Columbia, 30; M.Sc, Queens (Can), 31; Ph.D, Mass. Inst. Tech, 34. Instr, Queen's (Can), 30–31; field geologist, Geol. Surv. Can, 31, 32; instr, Mass. Inst. Tech, 33, 34; field geologist, North West Minerals, Ltd, 34; research geologist, *bur. econ. geol,* Geol. Surv. Can, 34–35, asst. geologist, 35–36, *geol. engineer, Ont. Dept. Mines, 36–* Min. and Metal. Eng; Soc. Econ. Geol; Can. Inst. Min. and Metal. Economic and mining geology; Precambrian ore deposits; structural geology; petrology.

Horwood, Dr. J(ames) F(rancis), The Aluminum Co. of Canada, Arvida, Que, Can. *Physical chemistry.* St. John's, Newfoundland, May 26, 11. B.Sc, Dalhousie, 32; M.Sc, McGill, 33, Ph.D, 35. Senior demonstrator, Western Ontario; *mem. staff, Aluminum Co, Can.* Kinetics of gaseous reactions.

Horwood, Prof. Murray P(hillip), Massachusetts Institute of Technology, Cambridge, Mass. *Bacteriology, Public health.* New York, N. Y, Dec. 31, 92. B.S, Col. City of N. Y, 13; M.S, Mass. Inst. Tech, 16, Ph.D, 21; Harvard, 17–18. Chemist and bacteriologist, Brooklyn Sewage Exp. Sta, 13–15; instr. *biol. and pub. health, Mass. Inst. Tech,* 16–23, asst. prof, 23–29, assoc. prof, 29–37, *prof, 37–* Instr, Wellesley Col, 17–18; sch. med, Boston, 19–21; med. sch, Tufts Col, 21–27; consulting bacteriologist, Atlantic Gelatin Co, 21–; consultant pub. health eng, Boston Health Dept, 41– Director, Pub. Health Surv, Glen Ridge, 16, Okla, 18–20, Lafayette and Tippecanoe County, 21, Somerville, 30; Tuber. Surv, Phila, 22, Boston, 25, Cambridge, 27, Holyoke, 29; New Eng. surveys, Am. Child Health Asn, 24; director bacter. investigations household dusts, 30; sanitary code, Arlington, Mass, 37. Ed. asst, 'Jour. Pub. Health,' 17, 23. A.A; Pub. Health Asn; Soc. Bact; Inst. Food Technol; Asn. Food and Drug Officials; Conf. Munic. Pub. Health Eng; Am. Acad; Mass. Pub. Health Asn. Public health surveys; sanitation; general and sanitary bacteriology; vital statistics.

Hosford, Dean H(emphill) M(offett), 724 W. Maple St, Fayetteville, Ark. *Mathematics.* Sterrett, Texas, Sept. 12, 96. A.B, South. Methodist, 19; A.M, Illinois, 23, fellow, 25–26, Ph.D, 26. Instr. *math,* South. Methodist, 19–22; asst, Illinois, 22–25; assoc. prof, South. Methodist, 26–29; *prof, Arkansas, 29–, dean col. arts and sciences, 39–* Math. Soc; Math. Asn. Theory of differential equations; divergent series and integrals.

Hosford, Prof. H(enry) H(allock), 3275 Stockholm Road, Cleveland, Ohio. *Chemistry.* Hudson, Ohio, July 12, 59. A.B, Western Reserve, 80, A.M, 83; Ph.D, Hopkins, 11. Prof. Latin, Doane Col, 87–89, *chem,* 92–18; *Western Reserve,* 18–30, *emer. prof, 30–* Non-ferrous alloys, especially mercury with other metals; composition of crystalline amalgams of zinc, lead, tin and cadmium.

Hosking, Dr. H(arry) J(ames), Groton Leatherboard Co, West Groton, Mass. *Chemistry.* Claremont, N. H, Nov. 19, 03. B.S, New Hampshire, 25; Ph.D, Cornell, 29. Instr. anal. chem, Cornell, 28–29; research dept, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 29–31; Foster Dee Snell, Inc, Brooklyn, 31–37; *Groton Leatherboard Co, 37–* Chem. Soc. General and industrial chemistry; separation of cobalt and nickel.

Hoskins, Prof. J(ohn) Hobart, University of Cincinnati, Cincinnati, Ohio. *Botany.* Carmel, Ind, Jan. 17, 96. B.S, Earlham Col, 19; M.S, Chicago, 20, fellow, 22–24, Ph.D, 24. Prof. biol, Whittier Col, 20–22; nat. research fellow, Europe, 24–25; asst. prof. *bot, Cincinnati,* 25–27, assoc. prof, 27–37, *prof, 37–, chairman dept, 31–* Summers, prof, Earlham Col, 24; Notre Dame, 25–33. Assoc. ed, 'Am. Midland Naturalist,' 35–; 'Lloydia,' 38– A.A; Bot. Soc; Paleont. Soc; Ohio Acad; Ill. Acad; Ind. Acad. Paleobotany.

Hoskins, J(ohn) K(urtz), U. S. Public Health Service, Washington, D. C. *Sanitary engineering.* New Holland, Pa, July 12, 84. B.S, Pa. State Col, 05, C.E, 10; Berlin, 08–09. Consulting sanit. engineer, 05–08, 10–12; sanit. engineer research investigations of stream pollution, water supply and sewage disposal, *U. S. Pub. Health Service,* 14–21, in charge, 22–40, *chief sanit. sect, 40–* A.A; Fed. Sewage Research Asn; Water Works Asn; Pub. Health Asn; hon. mem. British Inst. Sewage Purification. Water supply; sewage disposal; stream sanitation.

Hoskins, Prof. Margaret M(orris), New York University College of Dentistry, 477 First Ave, New York, N. Y. *Microscopic anatomy.* Williamstown, Mass, Dec. 10, 86. A.B, Bryn Mawr Col, 08; Ph.D, Yale, 16. Instr. histol, Univ. and Bellevue Hosp. Med. Col, 17–18; Minnesota, 20; assoc. prof. histol. and embryol, Med. Col. of Va, 20–21; prof. micros. anat, med. dept, Arkansas, 21–25; asst. prof. *anat, col. dentistry, N. Y. Univ,* 25–27, *assoc. prof,* 27– Asn. Anat; Asn. Study Int. Secretions. Thyroid and parathyroid.

Hoskins, Dr. R(oy) G(raham), Harvard Medical School, Boston, Mass. *Physiology.* Nevinville, Iowa, July 3, 80. A.B, Kansas, 05, A.M, 06; Ph.D, Harvard, 10; M.D, Hopkins, 20. Teaching fellow zool, Kansas, 06; *physiol,* Harvard, 08–10; prof. and head dept, Starling-Ohio Med. Col, 10–13; assoc. prof, Northwestern, 13–16, prof. and head dept, 16–18; assoc, Hopkins, 20–21; prof. and head dept, Ohio State, 20–27; *research assoc, Harvard Med. Sch, 27–* Director research, Mem. Foundation for Neuro-Endocrine Research, Boston; Worcester State Hosp. Ed, 'Endocrinology,' 17–40. Sanit.C, 17–19, major, chief sect. food and nutrition, 18. A.A. (exec. cmt, 21–, sec'y, N, 28); Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Asn. Research Nervous and Mental Disease; Am. Med. Asn. (chairman, sect. path. and physiol, 26–); Asn. Study Int. Secretions (pres, 26); Am. Acad. Physiology and pharmacology of internal secretions; psychiatry.

Hoskins, Prof. W(illiam) M(uriece), University of California, Berkeley, Calif. *Chemistry, Entomology.* Adin, Calif, April 2, 96. A.B, California, 19, fellow, 21–22, Ph.D, 22. Instr. chem, Nevada, 22–23, asst. prof, 23–24, assoc. prof, 24–28; asst. prof. *entom, California,* 28–35, assoc. prof, 35–43, *prof, 43–* A.A; Chem. Soc. Chemical and physiological effects of in-

secticides; insect physiology and toxicology; agricultural chemistry.

Hoslett, Dr. Sherman A(nderson), Luther College, Decorah, Iowa. *Zoology.* Sturgeon Bay, Wis, Feb. 14, 08. A.B, Luther Col, 30; Minnesota, 31; M.S, Michigan, 33, Hinsdale scholar, 39–40, Ph.D, 40. Asst. biol, Luther Col, 30–31; div. mammals, museum of zool, Michigan, 31–33; *biol, Luther Col,* 33–36, instr, 36–39, *head dept, 40–* A.A; Soc. Mammal; Ecol. Soc; Iowa Acad. Mammals of northeastern Iowa; systematics; ecology; effects of flooding on the distribution of small forms in the river valleys.

Hosley, Prof. N(eil) W(etmore), University of Connecticut, Storrs, Conn. *Forestry.* Hornell, N. Y, April 23, 01. B.S, Syracuse, 24; M.F, Harvard, 25; Ph.D, Michigan, 38. Forest asst, Harvard Forest, Harvard, 25–30, instr. forestry, 30–38; asst. prof. *forestry and wildlife management, Connecticut,* 38–40, *assoc. prof, 41–* Charles Lathrop Pack fellow, 34–35. Soc. Foresters; Fisheries Soc; Soc. Mammal; Wildlife Soc; Wildlife Inst. Forest, fish and game management.

Hosmer, Prof. Ralph S(heldon), New York State College of Agriculture, Ithaca, N. Y. *Forestry.* Deerfield, Mass, March 4, 74. B.S.A, Harvard, 94; M.F, Yale, 02. Asst, div. soils, U. S. Dept. Agr, 96–98, field asst, U. S. Forest Service, 98–03, collaborator, 03–14; supt. *forestry,* Hawaii, 03–14; prof. and head dept, *N. Y. State Col. Agr, Cornell,* 14–42, *emer. prof, 42–* Board regents, Col. of Hawaii, 07–14; chairman, Conservation Cmn. of Hawaii, 08–14; Northeast. Forest Research Council, 24–42; sec'y forestry sect, Int. Cong. Plant Science, 26; State Conservation Advisory Council, N. Y, 31–40. A.A; fel. Soc. Foresters (chairman, N. Y. sect, 20, pres, 23, councilor, 30–33); Forestry Asn; hon. mem. Soc. Forestry, Finland. Forest history; forest policy.

Hosmer, Sidney, Marion, Mass. *Electrical engineering.* London, Eng, July 13, 71. A.B, Yale, 92. Elec. engineer, Boston Elec. Light Co, 94–01; supt. installation, Edison Elec. Illuminating Co, 01–26, v. pres, 26–42, gen. manager, 32–42; *retired.* A.A; Elec. Eng; Mech. Eng.

Hosoi, Dr. Kiyoshi, 601 Judd St, Honolulu, Hawaii. *Surgery, Pathology.* Honolulu, Hawaii, Dec. 7, 97. B.S, Hawaii, 21; M.D, Cornell, 24; M.S, Tulane, 33, Ph.D, 34. Res. pathologist, Med. Col. of Va, 24–25; intern, Flushing Hosp. and Willard Parker Hosp, New York, 25–26; vol. asst. biopath, exp. med. and surg, Mayo Clinic, 26–27; res. instr. path, N. Y. Post-Grad. Med. Sch, Columbia, 27–28; asst. med, Mayo Clinic, 28–29; senior Eugene Littauer fellow path, Albany Med. Col, Union (N. Y), 29–31, instr, 29–30, asst. prof. path. and bacter, 30–31; instr. surg, sch. med, Tulane, 31–35, gynec, 35–37. Asst. pathologist, Albany Hosp, 29–31; asst. visiting surgeon, Charity Hosp, New Orleans, 31–; mem. staff, Queen's, Children's and Kapiolani Hosps; director labs, Kuakini Hosp; consulting pathologist, Queen's Hosp. A.A; fel. Col. Surg; Asn. Path. and Bact; Soc. Exp. Biol; Genetic Asn; Am. Med. Asn; N. Y. Acad; Hawaii Acad; Int. Asn. Geog. Path; Int. Asn. Med. Mus. Gastro-intestinal physiology and pathology; intestinal peristalsis and conduction; general pathology; neuropathology; thrombosis and embolism; effects of ultra-high frequency currents; etiology of peptic ulcers; neurogenic appendicitis.

Hospers, Dr. Cornelius A, 6001 S. Green St, Chicago, Ill. *Pathology.* Chicago, Ill, Dec. 25, 04. A.B, Hope Col, 26; Ph.D, M.D, Chicago, 32. Asst. path, Chicago, 29–32; *attending pathologist, Englewood Hosp, 34–; S. Chicago Hosp, 37–; Holy Cross Hosp, 38–* Soc. Clin. Path; Asn. Path. and Bact; Am. Med. Asn; Chicago Path. Soc. Experimental pathology; gallstones; cholesterol metabolism; clinical pathology.

Hostetler, Prof. Earl H(enry), North Carolina State College, State College Station, Raleigh, N. C. *Animal husbandry.* Arcola, Ill, Dec. 12, 90. B.S, Kans. State Col, 14, M.Agr, 25; M.S, N. C. State Col, 28. Asst. animal husbandry, *Exp. Sta, N. C. State Col,* 15–19, in charge swine research, 19–28, *prof. animal husbandry and in charge research, 28–* Soc. Animal Production; N. C. Acad. Beef cattle; sheep; swine.

Hostetter, Dr. D(avid) Ralph, Eastern Mennonite School, Harrisonburg, Va. *Ornithology.* Lititz, Pa, Feb. 1, 96. A.B, Franklin and Marshall Col, 21; M.Ed, Harvard, 22; M.S, Lebanon Valley Col, 33; Ph.D, Virginia, 38. Teacher, schs, Pa, 15–17, 22–23; *head dept. biol. and chem, East. Mennonite Sch, 23–, director high sch, 40–* Ornith. Union; Soc. Mammal; Asn. Biol. Teachers; Wilson Ornith. Club; Va. Acad; Va. Soc. Ornith. Preliminary biological survey of Lake Conewago; life history of Carolina junco.

Hostetter, Prof. I(ngomar) M, Oregon State College, Corvallis, Oregon. *Mathematics.* Reynolds, N. Dak, June 27, 99. B.S, Washington, 20, Ph.D, 35; Inst. Advanced Study, 36–37. Instr, high sch, Idaho, 20–22; rep. and sales supervisor, Int. Correspondence Schs, 22–30; teaching fellow, Washington, 33–35, instr. *math,* 35–36; assoc. prof, Howard Col, 37–39, prof. and head dept, 39–41; *asst. prof, Oregon State Col, 41–* Math. Soc; Ala. Acad. (v. pres, 40). Vector analysis; calculus of variations.

Hostetter, Dr. J(ohn) C(lyde), Hartford-Empire Co, Hartford, Conn. *Physical chemistry.* Williamsport, Pa, Feb. 18, 86. B.S, Bucknell, 08, M.S, 09, Ch.E, 30, hon. Sc.D, 36; hon. Sc.D, Alfred, 37; Chicago, 08. Instr. chem, Bucknell, 08–10; asst. chemist, Bur. Standards, 10–12; physical chemist, geophys. lab, Carnegie Institution, 12–19; manager Steuben div, Corning Glass Works, 19–21; asst. to v. pres. in charge mfg, 21–24, manager, R. I. div, 24–28, bulb and tubing production, 28–30, director develop. and research, 30–37; *v. pres. and director research and develop, Hartford-Empire Co, 37–* Mem, Nat. Research Council, 33–38. Councilor, Int. Union Chem, Lucerne, 36; Int. Cong. Glass Technol, Italy, 33, London, 36. Howard N. Potts medal, Franklin Inst, 37. A.A; Chem. Soc. (chairman, R. I. sect, 26); Soc. Test. Mat; Ceramic Eng; fel. Ceramic Soc. (chairman, glass div, 22, pres, 33); Chem. Eng; fel. Inst. Chem; Soc. Professional Eng; Franklin Inst; N. Y. Acad; Ceramic Asn. N. Y; Wash. Acad; Soc. Chem. Indust. Gt. Britain (exec. cmt, 38–40); fel. British Soc. Glass Technol; Deuts. Glastech. Gesell. Analytical methods; mineral densities at high temperatures; dissociation of calcium carbonate; effect of strain on solubility; growth of crystals; optical glass; iron oxides; glass technology.

Hotchkiss, Henry T(homas), Larchmont, N. Y. *Sanitary engineering.* Brooklyn, N. Y, April 15, 00. Chem.E, Polytech. Inst. Brooklyn, 23; Bache fellow, N. Y. Univ, 24–25, M.S, 25. Anal. chemist, Marx and Rawalli, 23–24; asst. chem, Wash. Sq. Col, N. Y. Univ, 25–26; research chemist, New Rochelle Research Labs, Inc, and engineer, Texas Gulf Sulphur Co, 26–32; research assoc, Feedwaters, Inc, 32–34; instr, Pratt Inst, 34–39; *supervising chemist, village of Larchmont, 35–; lecturer, Polytech. Inst. Brooklyn, 36–; engineer, Asiatic Petrol. Corp, 43–* Divisional cmt, Nat. Research Council, 25. Chem. Soc; Water Works Asn; Asn. Eng; N. Y. Sewage Works Asn. Shellac, varnish, sulfur and water technology.

Hotchkiss, H(omer) J(ames), 208 Dearborn Place, Ithaca, N. Y. *Physics.* Mosiertown, Pa, March 1, 60. B.S, North. Ind. Nor. Sch, 84; C.E, Allegheny Col, 88, A.B, 89, A.M, 92; M.M.E, Cornell, 96. Instr. math, Madisonville Nor. Sch, Ky, 86; Harper Nor. Sch, Kans, 87; math. and chem, Westminster Col. (Pa), 89; asst. instr. physics, Cornell, 90–93, instr, 93–03; prof, Drexel Inst, 03–14; instr. mech, Cornell, 16–33; *retired.* Physical Soc. Curve tracing galvanometers; counter electromotive force of arc; carbon-aluminum cells.

Hotchkiss, Dr. Margaret (Mrs. Margaret H. Noble), 146 Halsey St, Brooklyn, N. Y. *Bacteriology.* Brooklyn, N. Y, Nov. 25, 93. A.B, Vassar Col, 15; fellow, Yale, 19–22, Ph.D, 22. Labs, State Dept. Health, N. Y. and Univ. and Bellevue Hosp. Med. Col, 15–17; instr, Vassar Col, 17–19; research bacteriologist, N. J. Exp. Sta, 22, bacteriologist in charge, Paterson, 24–26; instr. *bacter, N. Y. Med. Col,* 28–43, *asst. prof, 43–* Investigator, Oceanog. Inst, Woods Hole, 32, 33, 35. Soc. Bact; Harvey Soc; N. Y. Acad. Bacteriology of sewage purification; marine and medical bacteriology; medical mycology.

Hotchkiss, Neil, U. S. Department of the Interior, Bowie, Md. *Biology.* Rose Hill, N. Y, Jan. 14, 01. A.B, Syracuse, 22, A.M, 24. Asst. agrost, U. S. Dept. Agr, 24–25; bot, N. Y. State Museum, 26–29; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 29–36, *assoc. biologist,* 36–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Waterfowl ecology; plant ecology.

Hotchkiss, Dr. Rollin D(ouglas), Rockefeller Institute for Medical Research, New York, N. Y. *Chemistry.* South Britain, Conn, Sept. 8, 11. B.S, Yale, 32, Loomis fellow, 34–35, Ph.D, 35. Asst. elementary chem, Yale, 32–34; fellow chem, Rockefeller Inst, 35–36, asst, 36–37; Rockefeller Foundation fellow, Carlsberg Lab, Copenhagen, 37–38; asst. *chem, Rockefeller Inst,* 38–42, *assoc, 42–;* U. S. Naval Res, 42– A.A; Chem. Soc; Soc. Biol. Chem; Harvey Soc; N. Y. Acad.

Pyrimidines; carbohydrates; uronic acids; immunochemistry; protein chemistry; bactericidal substances.

Hotchkiss, Pres. William O(tis), Rensselaer Polytechnic Institute, Troy, N. Y. **7Geology.* Eau Claire, Wis, Sept. 17, 78. B.S, Wisconsin, 03, C.E, 08, Ph.D, 16; Sc.D, Lafayette Col, 29, Columbia, 40; LL.D, Middlebury Col, 36, Wisconsin, 37. Mining engineer, Donora Mining Co, Minn, and geologist, Leith Explor. Co, 02–04; instr. geol. in charge miner. and petrog, Wisconsin, 04–07; econ. geologist, Wis. Geol. and Nat. Hist. Surv, 07–25, state geologist, 09–25, director, 19–25; *pres,* Mich. Col. Min. and Tech, 25–35; *Rensselaer Polytech, 35–; deputy director, Specialist Corps, U. S. Army, 42–* State Highway Cmn, Wis, 11–25; cmt. on geol, Nat. Research Council, 17; chairman subcmt. on geol, science advisory cmt, Nat. Research Council, A Century of Progress Expos, Chicago. War Minerals Cmt, 17–18. A.A; fel. Geol. Soc. (councilor, 33, 42–44, v. pres, 36); Asn. State Geol. (sec'y, 16–19, pres, 19–21); Min. and Metal. Eng; Min. and Metal. Soc; Inst. Consulting Eng; Civil Eng; Eng. Educ; Wis. Acad. Mining and mine taxation; road construction and materials; mineral land classification and areal survey of Wisconsin; magnetic methods in geological surveys; education.

Hotelling, Prof. Harold, Columbia University, New York, N. Y. **6Mathematics, Economics, Statistics.* Fulda, Minn, Sept. 29, 95. A.B, Washington (Seattle), 19, M.S, 21; J. S. K. fellow, Princeton, 21–22, Ph.D, 24. Teaching asst, Washington (Seattle), 20–21; instr. math, Princeton, 22–24; junior research assoc, food research inst, Stanford, 24–25, research assoc, 25–27, assoc. prof. math, 27–31; *prof. econ, Columbia, 31–* Visiting lecturer, Indian Statist. Inst, Calcutta, 39–40. Pres, Indian Statist. Cong, Madras and Mysore, 40. Math. Soc. (councilor, 33–35); fel. Econometric Soc. (pres, 36, 37, councilor, 41–); fel. Inst. Math. Statist. (pres, 41); Statist. Asn; Royal Econ. Soc. Mathematical economics; theoretical statistics; population theory; economics of exhaustible resources; analysis situs; mathematics of correlated commodities; social planning, utility and taxation; exact sampling theory; rank correlation; correlation and regression of n-dimensional variates; sampling techniques; design of experiments; computational methods involving matrices.

Hotson, Prof. J(ohn) W(illiam), University of Washington, Seattle, Wash. *Mycology.* Innerkip, Ont, Can, May 2, 70. B.A, McMaster, 01, M.A, 02; Chicago, 02, 06–07; Cornell, Columbia and Clark, 03; Ph.D, Harvard, 13. Lecturer bot, Ont. Agr. Col, 03–04; Austin teaching fellow, Harvard, 07–08; instr. *bot,* Pomona Col, 08–09, asst. prof, 09–11; instr, *Washington (Seattle),* 11–14, asst. prof, 14–28, assoc. prof, 28–36, *prof, 36–* A.A; Mycol. Soc; Bot. Soc; Phytopath. Soc. Bulbiferous fungi; fire blight; sphagnum as a surgical dressing; rusts; Agaricaceae.

Hottel, Prof. Hoyt C(larke), 27 Cambridge St, Winchester, Mass. *Engineering.* Salem, Ind, Jan. 15, 03. A.B, Indiana, 22; M.S, Mass. Inst. Tech, 24. Assoc. prof. *fuel eng, Mass. Inst. Tech,* 28–40, *prof, 40–, director fuels research lab.* Chem. Eng; Chem. Soc; Mech. Eng. Fuel engineering; radiant heat transmission; furnace design; mechanism of combustion of solid, liquid and gaseous fuels; optical pyrometry.

Hottes, Alfred C(arl), 2324 Ocean View Ave, Los Angeles, Calif. *Floriculture.* Ithaca, N. Y. B.S, Cornell, 13, M.S, 14. Instr. biol, Cornell, 13, floricul, 13–16; prof, Ohio State, 16–29; assoc. ed, 'Better Homes and Gardens,' 29–42. Gladiolus culture, breeding and varieties.

Hottes, Prof. Cha(rle)s F(rederick), University of Illinois, Urbana, Ill. **5Botany.* Mascoutah, Ill, July 8, 70. B.S, Illinois, 94, fellow, 94–95, M.S, 95; Ph.D, Bonn, 01. Asst. bot, *Illinois,* 95–98, instr, 01–02, asst. prof, 02–13, prof. *plant physiol,* 13–38, *emer. prof, 38–, consulting plant physiologist, dept. agron, 23–,* head *dept. bot,* 28–38, *emer. head, 38–* A.A; Bot. Soc; Soc. Plant Physiol; Ill. Acad. Physiology of vegetable cells; growth and development as affected by external conditions and apparatus of control.

Hottes, Prof. F(rederick) C(harles), Decatur Club, Decatur, Ill. *Biology.* Mascoutah, Ill, Oct. 20, 99. B.S, Colo. Agr. Col, 23; M.S, Iowa State Col, 25; Ph.D, Minnesota, 27. *Prof. biol, James Millikin, 28–, head dept, 29–* Summers, asst. entomologist, Ill. Nat. Hist. Surv, 28–30. A.A; Biol. Soc. Wash; Ill. Acad. Biology and taxonomy of Aphidae.

Hottle, Capt. George A(ustin), Billings General Hospital, Ft. Benjamin Harrison, Ind. *Bacteriology.* Easton, Pa. B.S, Lehigh, 32, M.S, 37; Ph.D, Pennsylvania, 42. Bacteriologist, Nat. Drug Co, 32–39; *bacteriologist and capt, Sanit. Corps, U. S. Army, 41–* A.A; Soc. Bact. Medicine; nutrition.

Houchin, Dr. O(llie) Boyd, 929 N. E. 17th, Oklahoma City, Okla. *Pharmacology.* Fulton, Mo, Dec. 1, 13. A.B, Westminster Col. (Mo), 35; A.M, Missouri, 39; Ph.D, Iowa, 42. Biochemist, Missouri, 37–39; lab. asst. physiol. chem, Yale, 39–40; asst. biochem, Iowa, 41–42; *instr. pharmacol, Oklahoma, 42–* Chem. Soc. Biochemistry of milk formation; hormones influencing metabolism; influence of vitamin E on tissue respiration and respiratory enzymes; nutrition of the hamster.

Houck, Dr. George H(amilton), 2007 Wilshire Blvd, Los Angeles, Calif. *Medicine.* Roseburg, Oregon, June 30, 02. A.B, Oregon, 23; M.D, Harvard, 27. Med. house officer, Peter Bent Brigham Hosp, 27–29; asst. res. *med,* Stanford Hosp, 29–30; asst, med. sch, California, 30–31; instr, *Southern California,* 31–33, asst. prof, 33–37, *asst. clin. prof, 37–; major, M.C, U. S. Army, and chief, sect. cardiovascular diseases, Sta. Hosp, U. S. Army Air Base, Santa Ana, Calif.* Fel. Col. Physicians; Pacific Interurban Clin. Club; Los Angeles Heart Soc. (pres, 39). Cardiovascular diseases.

Houck, Dr. R(obert) C(harles), 43 Reservoir Ave, Rochester, N. Y. *Chemistry.* Pittsburgh, Pa, April 8, 99. Ch.B, Cornell, 21, Ph.D, 26. *Research chemist, Eastman Kodak Co, Rochester, 27–* Chem. Soc. Physical and colloidal chemistry; viscosity and plasticity of cellulose esters; physical properties of gelatin.

Hougen, Prof. O(laf) A(ndreas), 2247 Rowley Ave, Madison, Wis. *Chemical engineering.* Manitowoc, Wis, Oct. 4, 93. B.S, Washington (Seattle), 15; M.S, Wisconsin, 18, Ph.D, 25. Instr, Wisconsin, 17–18; research chemist, Carborundum Co, 19–20; asst. prof. *chem. eng, Wisconsin,* 20–27, assoc. prof, 27–37, *prof, 37–* Consulting chem. engineer; director labs, U. S. Testing Co, 34–35; prof. chem. eng, Armour Inst. Tech, 37. Mem, Nat. Defense Research Cmt. Mem. ed. board, John Wiley and Sons, Inc. Chem. engineer, U. S. Chem. Plant No. 4, 18–19. Chem. Soc; Eng. Educ; Chem. Eng. (projects cmt). Heat transmission; refractories; gas absorption; drying; humidification; diffusion; textiles; industrial microscopy; industrial chemical calculations; applied chemical thermodynamics and kinetics.

Hough, A(shbel) F(airchild), U. S. Forest Service, 622 Bankers-Securities Bldg, Walnut and Juniper Sts, Philadelphia, Pa. *Forestry.* Washington, D. C, Nov. 24, 98. B.S, Syracuse, 23; M.F, Yale, 27. Junior range examiner, *U. S. Forest Service,* 23–27, junior forester, 27–28, *asst. silviculturist, Allegheny Forest Exp. Sta, Phila, 28–* Forestry Asn; Soc. Foresters; Ecol. Soc. Silviculture; ecological description of virgin stands; silvics of tree species; stand improvement and harvest cuttings; forest planting.

Hough, Floyd W(oodworth), U. S. Coast and Geodetic Survey, Washington, D. C. *Engineering.* Durham, N. Y, June 20, 98. C.E, Cornell, 19. Geod. engineer, Metropolitan Water Dist, South. Calif, 30–33; assoc. geod. engineer, U. S. Coast and Geod. Surv, 34–40; geod. engineer, Colpetco, Cucuta, Colombia, S. Amer, 40–41; U. S. Coast and Geod. Surv, 41–42; *Corps Engineers, U. S. Army, 42–, major.* Consulting engineer, cmt. on control through triangulation, city and county, Los Angeles, 33. Assoc. engineer, C.Eng, 37– Civil Eng; Soc. Mil. Eng. Geodetic engineering.

Hough, Dr. W(alter) S(eneff), Virginia Experiment Station, Winchester, Va. *Entomology.* Ruffsdale, Pa, Jan. 3, 93. A.B, Stanford, 18; A.M, Ohio State, 21, Ph.D, 25. Quarantine inspector, fed. hort. board, U. S. Dept. Agr, 18–20; assoc. entomologist, *Exp. Sta, Va. Polytech,* 21–30, *entomologist, 30–* A.A; Entom. Soc; Asn. Econ. Entom; Chem. Soc. Biology of mealy bugs; biology and control of apple insects.

Houghland, Dr. G(eoffrey) V(an) C(lief), 1 Clagett Road, Hyattsville, Md. *Soils.* Brooklyn, N. Y, Oct. 19, 97. N. Y. State Sch. Agr, 18; B.S, Delaware, 24; M.S, Iowa State Col, 26; Nat. Fertilizer Asn. fellow, Maryland, 26–28, Ph.D, 28. Asst. agronomist, Delaware, 18–24; Va-Carolina Chem. Co, 24–25; teaching fellow, Iowa State Col, 25–26; *assoc. soil technologist, div. soil fertility, bur. plant indust, U. S. Dept. Agr, 28–* Potato Asn. Soil fertility; fertilizing potatoes; absorption of potassium and nitrification on Norfolk sandy loam; sampling potatoes for starch analysis; effect of potash on starch in potatoes; placement of potato fertilizer.

Houghten, Lieut. Commander F(erry) C(harles), Turtle Creek, Pa. *Engineering, Industrial hygiene and physiology.* Troy, Mich, Feb. 13, 88. A.B, Olivet Col. (Mich), 13, Sc.D, 40; M.S, Washington (Seattle), 15. Teacher, sch, Wash, 15–18; physicist, U. S. Bur. Mines, 18–20; *research engineer, nat. sec'y and director research, Am. Soc. Heat. and Vent. Eng, 20–; lieut. commander, E-V(S), U. S. Naval Res, 42–* Indust. Hygiene Asn; Soc. Test. Mat; Heat. and Vent. Eng. Heating and ventilation; physiological reaction of man to temperature, humidity and air motion and other physiological effects of undesirable atmospheric conditions on naval ships; air infiltration; dust determinations; pipe sizes for heating systems; heat transfer.

Houghton, Prof. Clinton Osborne, University of Delaware, Newark, Del. *Entomology, Botany.* Helena, N. Y, April 7, 73. Grad, N. Y. State Nor. Sch, Potsdam, 93; A.B, Cornell, 02. Entomologist, Exp. Sta, *Delaware,* 02–09, assoc. prof. zool, *univ,* 02–06, *prof,* 06–09, *biol, 09–* A.A; Asn. Econ. Entom. Economic and systematic entomology and botany.

Houghton, Prof. H(enry) G(arrett), Jr, 29 Edmunds Road, Wellesley Hills, Mass. *Meteorology.* New York, N. Y, Feb. 2, 05. B.S, Drexel Inst, 26; M.S, Mass. Inst. Tech, 27. Eng. asst, Bell Tel. Co. of Pa, 27–28; asst, *Mass. Inst. Tech,* 28–32, research assoc. elec. eng, 32–39, asst. prof. *meteorol,* 39–42, *assoc. prof, 42–* A.A; Physical Soc; Meteorol. Soc. Meteorological physics; physical and chemical properties of fog; transmission of radiation through fog; local dissipation of fog.

Houghton, Dr. Henry S(pencer), China Medical Board, 49 W. 49th St, New York, N. Y. *Medicine.* Toledo, Ohio, March 27, 80. Ph.B, Ohio State, 01, Sc.D, 34; M.D, Hopkins, 05; LL.D, Univ. Hong Kong, 25. Asst, Rockefeller Inst, 05–06; prof. trop. med. and dean, Harvard Med. Sch, China, 12–17; director, Peking Union Med. Col, 18–28; dean and director med. services, col. med, Iowa, 28–32; assoc. dean, div. biol. sciences, Chicago, and director south side clinics, 32–35; director, China Med. Board, 35–37; *v. director, Peiping Union Med. Col, 37–* Soc. Trop. Med; Soc. Parasitol; fel. Col. Physicians; fel. Royal Soc. Trop. Med. and Hygiene (regional sec'y, 14–24); Far East. Asn. Trop. Med. (v. pres, 15–25); China Med. Asn; Nat. Med. Asn. China. Tropical medicine; medical education.

Houk, Ivan E(dgar), U. S. Bureau of Reclamation, Customs House, Denver, Colo. *Engineering.* Battle Creek, Iowa, Feb. 18, 88. B.S, Iowa, 11. Topog. aid, U. S. Geol. Surv, 10; hydraul. computer, Morgan Eng. Co, 11–13; asst. engineer, Miami conservancy dist, 13–21; city engineer, Dayton, Ohio, 21–23; engineer, *U. S. Bur. Reclamation,* 23–28, research engineer, 28–29, *senior engineer tech. investigations, 29–* A.A; Civil Eng. (pres, Dayton sect, 23, Colo. sect, 29); Meteorol. Soc; Geophys. Union; Colo. Soc. Eng. (director, 31). Meteorology; hydrography; hydraulic engineering; design of dams, especially Boulder, Grand Coulee, Norris, Madden, Parker, Seminoe and other high concrete dams.

Houlihan, Dr. Ralph B(enson), University of Virginia School of Medicine, Charlottesville, Va. *Bacteriology.* Bridgeport, Conn, Feb. 24, 13. B.S, Trinity Col. (Conn), 35; M.S, Connecticut, 38; fellow, George Washington, 37–40, Ph.D, 40. *Instr. bacter, sch. med, Virginia, 40–* Soc. Bact. (sec'y-treas, Va. branch, 41–). Typhoid and Salmonella groups; Myxoma virus.

Houlton, Dr. Harold G(eorge), 2213 Wrocklage, Louisville, Ky. *Physical chemistry, Chemical engineering.* Seattle, Wash, Dec. 29, 08. B.S, Washington (Seattle), 30, M.S, 32, Ph.D, 36. Teaching fellow anal. and physical chem, Washington (Seattle), 30–36; *process develop. chemist,* Procter and Gamble Co, 36–42; *Girdler Corp, 42–, director research and develop. votator div.* Chem. Soc; Chem. Eng. Raman spectra of organic and inorganic compounds in relation to their structure; process development in the soap, fat and oil field; heat transfer phenomena; petroleum products; synthetic resins.

House, Prof. Edward Bishop, 804 Elizabeth St, Ft. Collins, Colo. *Civil engineering.* Evans, Colo, Feb. 27, 72. B.S, Michigan, 96; M.S, Colo. Agr. Col, 04. Prof. math, Colo. Agr. Col, 96–04, assoc. prof. irrig, 04–09, prof. *civil and irrig. eng,* 09–35, *Colo. State Col,* 35–40, *emer. prof, 40–,* dean *div. eng, emer. dean, 40–* Eng. Educ. Irrigation engineering; drainage.

House, Dr. H(omer) D(oliver), Education Bldg, Albany, N. Y. *Botany.* Oneida, N. Y, July 21, 78. B.S, Syracuse, 02; A.M, Columbia, 04, Ph.D, 08; F.E, Biltmore Forest Sch, 13. Prof. bot. and bacter, Clemson Col, 06–07; assoc. director and lecturer bot. and dendrol, Biltmore Forest Sch, 08–13; asst. state botanist, *N. Y,* 13–14, *state botanist, 14–* Asst, Columbia, 02–03; aid, N. Y. Bot. Garden, 03–04, 07–08; U. S. Nat. Museum, 05; botanist, U. S. Dept. Agr, 06. Bot. Soc; Ecol. Soc; Torrey Bot. Club; Fern Soc; Bot. Soc. Czechoslovak. Taxonomic botany; ecology; dendrology; mycology.

Householder, Dr. A(lston) S(cott), 5822 Drexel Ave, Chicago, Ill. *Mathematical biophysics.* Rockford, Ill, May 5, 04. B.S, Northwestern, 25; A.M, Cornell, 27; Ph.D, Chicago, 37. Instr. math, Northwestern, 26–28; tutor, Miss Harris Schs, Chicago, Ill, 29–30; instr, Washburn Col, 30–31, asst. prof, 31–37; Rockefeller Foundation fellow, *Chicago,* 37–39, *research assoc. math. biophysics, 39–; instr. math, North. Ill. Col. Optom, 40–* A.A; Math. Soc; Math. Asn; Psychometric Soc; Inst. Math. Statist. Neural mechanisms; cellular metabolism; mathematical biophysics of the central nervous system.

Householder, Prof. Fred F, 1209 Berwyn St, Akron, Ohio. *Physics.* Sept. 1, 85. A.B, Wisconsin, 13, A.M, 16, summers, 19–21; Chicago, 23. Instr. *physics,* Iowa State Col, 14–18; *prof, Akron, 18–, chairman div. nat. sciences, 37–* Asst. physicist, Bur. Standards, 19. Physical Soc; Optical Soc; Asn. Physics Teachers. Engineering physics; electron atmosphere of metals; factors influencing the timing set of gypsum plasters.

Housel, Prof. W(illiam) S(tuart), University of Michigan, Ann Arbor, Mich. *Civil engineering.* Boulder, Colo, Feb. 16, 01. B.S, Michigan, 23, M.S, 31. Structural engineer, Ruhling and Holdsworth, Detroit, Mich, 23–24; instr. *civil eng, Michigan,* 24–29, asst. prof, 29–36, *assoc. prof, 36–; consulting engineer; lieut. commander, U. S. Naval Res.* Lab. director, State Highway Dept, Mich, 33–34, research consultant, 34–, mem. Highway Research Board. Civil Eng; Soc. Test. Mat; Mich. Eng. Soc; Detroit Eng. Soc. Applied soil mechanics; foundations; underground construction; bearing value of soils; soil mechanics in highway construction.

Houser, Prof. Gilbert L(ogan), 430 Iowa Ave, Iowa City, Iowa. **'Biology.* Lee Co, Iowa, July 9, 66. B.S, Iowa, 91, M.S, 92; Ph.D, Hopkins, 01. Instr. biol, *Iowa,* 92–95, asst. prof, 95–97, *prof.* animal morphol. and physiol, 97–05, *animal biol, 05–* Iowa Geol. Surv. Collaborator, 'Am. Jour. Anat.' and 'Jour. Applied Micros.' A.A; Soc. Nat; Soc. Zool; Iowa Acad. (pres). Experimental biology; cellular biology; vertebrate embryology; architecture of the nervous system of lower vertebrates; neurones of selachian brain; intracellular canaliculi of the liver; methods for the microscopical study of the nervous system; the animal cell.

Houser, J(ohn) S(amuel), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Oxford, Kans, April 19, 81. B.S, Kans. State Col, 04; M.S, Cornell, 11. Asst. entomologist, *Ohio Exp. Sta,* 03–07, 09–12, assoc. entomologist, 12–26, *entomologist, 26–* Primer ayudante, dept. path, Estacion Cent. Agron, Cuba, 07–08. A.A; Entom. Soc; Asn. Econ. Entom. (pres, 31); Ohio Acad. Economic entomology.

Houser, Dr. Karl Musser, 2010 Spruce St, Philadelphia, Pa. *Otolaryngology.* Pennsylvania Furnace, Pa, Sept. 30, 93. Ph.B, Franklin and Marshall Col, 15, hon. Sc.D, 37; M.D, Pennsylvania, 21, M.S, 26. Instr. chem. and physics, Mercersburg Acad, 20–21; assoc. *otolaryngol, sch. med, Pennsylvania,* 24–35, asst. prof, 35–39, *prof, 39–* Fel. Laryngol. Asn; fel. Am. Med. Asn; fel. Am. Acad; fel. Col. Surg; fel. Acad. Ophthal. and Otol; fel. Laryngol, Rhinol. and Otol. Soc; fel. Col. Physicians Phila. Medicine; effect of radium on the brain and spinal cord of dogs; action of novocaine when injected into the internal carotid arteries.

Houston, Prof. Bruce, University of Oklahoma, Norman, Okla. *Organic chemistry.* San Antonio, Texas, Oct. 15, 97. B.S, Texas, 19; Ph.D, Yale, 23. Research chemist, Parke, Davis and Co, Detroit, 23–24; asst. prof. *chem, Oklahoma,* 24–27, assoc. prof, 27–36, *prof, 36–* Chem. Soc. (chairman, Okla. sect, 28). Diazotization with nitrogen tetroxide; synthetic hypnotics; aliphatic sulfonic acids and sulfone derivatives.

Houston, Dr. Byron R(obinson), 319 First St, Davis, Calif. *Plant pathology.* Calif, June 8, 14. B.S, California, 36, Ph.D, 39. *Instr. plant path, California, and jr. plant pathologist, Exp. Sta, 39–* Phytopath. Soc. Cause and control of plant diseases.

Houston, David F(airchild), 111 Santa Fe Ave, El Cerrito, Calif. *Chemistry.* Kasson, Minn, Oct. 30, 05. A.B, Carleton Col, 27; M.S, George Washington, 32; Ph.D, Maryland, 38. Junior chemist, Bur. Standards, 28–36, asst. chemist, 36–40; *assoc. chemist fat and oil research, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Chem. Soc. Dyestuffs; plastics; fatty acid compounds.

Houston, Prof. Hale, Box 624, Lexington, Va. *Civil engineering.* Salem, Va, Feb. 17, 71. C.E, Washington and Lee, 92. Prof. math, Pantops Acad, Charlottesville, Va, 94–96; asst. supt, Toledo Rolling Mills, Ohio, 96–00; prof. math, Toledo Polytech. Inst, Ohio, 00–03; asst. prof. *civil eng,* Clemson Col, 03–08, prof, 08–21; assoc. prof, *Washington and Lee,* 21–34, prof, 34–37, *emer. prof, 37–* Mem, S. C. Highway Cmn. Assoc. Civil Eng; Eng. Educ.

Houston, Prof. William V(ermillon), California Institute of Technology, Pasadena, Calif. ***Physics.* Mt. Gilead, Ohio, Jan, 00. A.B, B.S, Ohio State, 20; fellow, Chicago, 21–22, M.S, 22; Ph.D, Ohio State, 25. Instr. *physics,* Ohio State, 22–25; nat. research fellow, Calif. Inst. Tech, 25–27; Guggenheim Mem. Foundation fellow, Europe, 27–28; asst. prof, *Calif. Inst. Tech,* 27–29, assoc. prof, 29–31, *prof, 31–; mem. staff div. war research, Columbia, 42–* Nat. Acad; A.A; Physical Soc. Spectroscopy; spectral fine structure and its atomic interpretation; electron theory of solids.

Houtz, Dr. Harold H(oward), Lewiston, N. Y. *Cellulose chemistry.* Niagara Falls, N. Y, Feb. 21, 14. Ch.E, Rensselaer Polytech, 36; M.S, Lawrence Col, 38, Ph.D, 40. Research chemist, cent. tech. dept, Crown Zellerbach Corp, 40–42; *chem. engineer, Stauffer Chem. Co, 42–* Tech. Asn. Pulp and Paper Indust. Papermaking properties of holocellulose; colloidal differentiation of starches.

Houtz, Dr. Ray C(lyde), 195 Roycroft Blvd, Snyder, N. Y. *Chemistry.* Springville, Utah, Jan. 21, 07. B.S, Brigham Young, 28; Ph.D, Wisconsin. 32. Asst. chem, Wisconsin. 28–32, agr. chem. and agr. bact, 32–33; *research chemist, rayon dept, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Polymerization catalysis; carbohydrates in mold tissue; synthetic fibers and films.

Hovde, Prof. Howard T, University of Pennsylvania, Philadelphia, Pa. *Marketing.* Des Moines, Iowa, Nov. 24, 99. B.S, Pennsylvania, 22, Ph.D, 30. Instr. *applied psychol. and marketing, Pennsylvania,* 22–30, *asst. prof, 30–* Lecturer, Phila. Col. Pharmacy; evening and exten. schs. and grad. sch, Pennsylvania, asst. director admissions, 26–27; board regents, Am. Savings and Loan Inst, 41; research assoc, Psychol. Corp; consultant, U. S. Dept. Commerce, 42– Fel. Asn. Applied Psychol; Psychol. Asn; Acad. Polit. and Social Sci; Marketing Asn. (pres, 41). Economics.

Hovey, Almon G(uion), 231 Oakland Ave, Birmingham, Mich. *Chemistry.* Bridgeport, Conn, Sept. 1, 01. B.S, Dartmouth Col, 23; M.S, Union (N. Y), 28. Anal. chemist, Handy and Harman, Conn, 19–23; research and anal. chemist, Remington Arms Co, Conn, 23–24; research chemist, Gen. Elec. Co, Schenectady, N. Y, 24–33; *director research, Reichhold Chems, Inc, Detroit, 33–* Chem. Soc; fel. Inst. Chem; Chemists' Club; Eng. Soc. Detroit. Synthetic resins from polyhydric alcohols and polybasic acid reactions; plastics and material in the colloidal state for insulation and protective coatings.

Hovey, Dr. H(enry) Birnet, Department of Justice Medical Center, Springfield, Mo. *Psychology, Physiology.* Salt Lake City, Utah, Jan. 11, 03. B.S, Utah, 25; M.S, Oregon, 27; Ph.D, Southern California, 34. Asst, Oregon, 25–29; Stanford, 29–30; teaching fellow, Southern California, 30–31; *asst. to warden,* U. S. Penitentiary Annex, *bur. prisons,* Leavenworth, Kans, 31–32, U. S. Penitentiary, McNeil Island, Wash, 32–33, *U. S. Dept. Justice Med. Center, 33–* A.A; Psychol. Asn. General physiology; experimental psychology; criminology.

Hovey, Mrs. H(enry) Birnet (Marion E. Warner), U. S. Medical Center, Springfield, Mo. *Chemistry.* Beacon Falls, Conn, July 10, 99. B.S, Conn. Col. for Women, 20; A.M, Wellesley Col, 23; Minnesota, 31–32. Asst. chem, Wellesley Col, 20–23, instr, 23–24; Colo. Col, 24–27; asst, Oregon, 27–28; Purdue, 28–29; assoc. prof, Lake Erie Col, 30; prof, Marymount Col, 30–31; part-time teacher, Drury Col, 34–36; *asst. chemist, U. S. Pub. Health Service, 42–* A.A; Chem. Soc. Inorganic chemistry; biochemistry; hormones.

Hovgaard, Dr. William, Hotel Margaret, Columbia Heights, Brooklyn, N. Y. *Naval construction.* Aarhus, Denmark, Nov. 28, 57. Naval Acad, Copenhagen, 75–79; Royal Naval Col, Greenwich, 83–86; Dr. Tech, Polytech. Inst, Copenhagen, 29; D.E, Stevens Inst. Tech, 34. Lieut, Danish Navy, 79–98. commander, 98–01; prof. *naval construction, Mass. Inst. Tech,* 01–33, *emer. prof, 33–* Naval tech. staff and prof, Dockyard Sch. Naval Archit. and Eng, Copenhagen, 88–95; director, Burmeister and Wains Shipbuilding Co, Copenhagen, 95–98; aid to Danish sec'y of navy, 00–01; tech. duty, bur. construction and repair, U. S. Navy Dept, 17–18, consulting engineer, 19–26, consulting naval architect, bur. yards and docks, 35–38. Special Cmt. Design of 'Shenandoah' and R.S-1, 22–25; tech. adviser, 'Shenandoah' Court of Inquiry, 25; Special Cmt. Airship Design and Construction, 35; Advisory Board Design New Battleships, 37. Danish Govt. transit of Venus exped, West Indies, 82. V. pres, Am-Scandinavian Foundation. Gold medal, British Inst. Naval Archit, 17. Nat. Acad; A.A; Naval Archit. and Marine Eng; Naval Inst; Am. Acad; British Inst. Naval Archit. Design and history of warships; water-tight bulkheads; submarine boats; the resistance of ships; diverging waves; gun-turrets; strength of airships; strength of gun turrets; stresses in welded connections; theory of elasticity and of relativity; hydrodynamics; balancing machines.

Hovland, Prof. Carl Iver, 333 Cedar St, New Haven, Conn. *Psychology.* Chicago, Ill, June 12, 13. A.B, Northwestern, 32; Catherine White scholar, 32–34, A.M, 33; fellow, Yale, 34–36, Ph.D, 36. Instr. *psychol, Yale,* 36–37, asst. prof, 37–43, *assoc. prof, 43–, research, inst. human relations, 36–, director grad. studies in psychol, 41–; director exp. studies, research branch, special service div, U. S. War Dept, 42–* Personnel consultant, Household Finance Corp, 35–; South. New Eng. Tel. Co, 42. Summer, instr, Northwestern, 36, 37. A.A; Psychol. Asn; Asn. Applied Psychol. Learning; conditioning; neurophysiology; physiological and experimental psychology; testing; industrial selection and training.

Hovorka, Prof. Frank, Western Reserve University, Cleveland, Ohio. *Physical chemistry.* Cernikovice, Bohemia, Aug. 5, 97. A.B, Iowa State Teachers Col, 22; M.S, Illinois, 23, fellow, 24–25, Ph.D, 25. Asst. *chem,* Illinois, 22–24; instr, *Western Reserve,* 25–28, asst. prof, 28–36, assoc. prof, 36–42, *prof, 42–, director univ. chem. labs, 42–* A.A; Chem. Soc. Electrochem. Soc; Soc. Chem. Indust. Gt. Britain; fel. Chem. Soc. London. The capillary rise of water in tubes of various metals; surface tension; freezing points of very dilute solutions of electrolytes; specific heats; physical properties of organic liquids; salt errors and normal electrode potentials of the quinhydrone, glass and antimony electrodes.

Howald, Dr. A(rthur) M(ark), Perrysburg, Ohio. *Industrial chemistry.* Sullivan, Mo, Oct. 12, 98. B.S, Missouri, 19, M.S, 20; Ph.D, Pittsburgh, 22. Indust. fellow, Mellon Inst, 22–32; *director research, Plaskon Co, 32–* Summer, acting head dept. chem, Alfred, 21. A.A; Chem. Soc. Preparation of methyl amines; catalytic-ammonolysis of naphthols and halobenzenes; preservative chemical treatment of wood; synthetic plastics; adhesives and varnish resins.

Howard, Dr. Alma, McGill University, Montreal, Que, Can. *Genetics.* Montreal, Que, Oct. 23, 13. B.Sc, McGill, 34, Ph.D, 38. Research assoc, McGill, 38–41. Genetics Soc. Cytological and other differences between mice of strains differing in their genetic susceptibility or resistance to spontaneous neoplasms.

Howard, Dr. Arthur David, 2475 38th St, Astoria, L. I, N. Y. *Geomorphology.* New York, N. Y, Aug. 9, 06. B.S, N. Y. Univ, 29, M.S, 31; Ph.D, Columbia, 37. Asst, N. Y. Univ, 29–32, instr. geol, 32–41; *meteorologist, U. S. Army, 41–* Instr, univ. exten, Columbia, 35–41. A. Cressy Morrison prize, N. Y. Acad. Sciences, 35. Fel. Geol. Soc; fel. Am. Geog. Soc; fel. N. Y. Acad. Petrology.

Howard, Dr. Arthur D(ay), 2307 W. 20th St, Los Angeles, Calif. *Biology.* Glencoe, Ill, Sept. 30, 74. B.S, Amherst Col, 98; M.S, Northwestern, 01; Ph.D, Harvard, 06. Teacher, Englewood Sch, 99–00; asst. zool, Harvard, 02–04, Austin teaching fellow, 04–05; prof. biol. and geol, Westminster Col. (Pa), 06–08; asst. prof. zool, Washington (Seattle), 08–11; asst, U. S. Biol. Sta, Fairport, Iowa, 12–22; asst. prof. biol, Southern California, 22–25. Biol. investigations, City of Los Angeles, 31–32. Board of directors, Puget Sound Marine Sta, 09. Naturalist, Gypsum Cave exped, 30. A.A; West. Soc. Nat; South. Calif. Acad. Visual cells of vertebrates; ecology and life histories of the Unionidae; embryology.

Howard, Burton James, 1212 Decatur St, N. W, Washington, D. C. *Microscopy.* Ionia, Mich, Sept. 17, 72. B.S, Michigan, 97, 00–01. Teacher, Mich, 98–00; asst. chem, Michigan, 94–96, bot, 01; prof. micros, Nat. Col. Pharmacy, 04–17; chief microchem. lab, U. S. Dept. Agr, 01–28, chief microanal. lab, food and drug admin, 29–39; Fed. Security Agency, 39–42; *retired.* A.A; Chem. Soc; Bot. Soc. Wash. Microanalysis; applied microscopy.

Howard, Dr. C(aryl) H(erbert), E. R. Squibb and Sons, New Brunswick, N. J. *Pathology, Physiology.* Hamilton, Mo, Oct. 21, 02. A.B, Baker, 24; Chicago, 25; M.S, Okla. Agr. and Mech. Col, 28; Cel-O-Glass fellow, Rutgers, 27–30, Ph.D, 30. Teacher, Okla. Agr. and Mech. Col, 26–27; *path. and physiol. dept, E. R. Squibb and Sons, 30–* Ultra-violet light and vitamin D; ovarian hormones; biochemistry.

Howard, Charles D(anforth), State Department of Health, Concord, N. H. *Sanitary chemistry.* Westford, Mass, July 31, 73. B.S, Worcester Polytech, 93. Asst. to Dr. Wolcott Gibbs, 93–94; asst. chemist, Exp. Sta, New Hampshire, 95–98; Exp. Sta, West Virginia, 98–03, assoc. chemist, 03–05; *chief chemist, State Dept. Health, N. H, 05–, director div. chem. and sanit, 20–, ed, 'N. H. Health News.'* Fed. Cmt. on Definitions and Standards for Food, 18–42. Chem. Soc; fel. Pub. Health Asn; Water Works Asn; New Eng. Water Works Asn; hon. mem. N. H. Med. Soc; N. H. Pharm. Asn; N. H. Acad. (pres, 42). Sanitation; sanitary and food chemistry; toxicology; water supply.

Howard, Dr. C(harles) S(paulding), U. S. Geological Survey, Washington, D. C. *Chemistry.* Townsend, Mass, July 21, 96. B.S, Worcester Polytech, 18; M.S, American Univ, 25, Ph.D, 28. Instr, U. S. Naval Acad, 19–20; *lab. and research chemist, U. S. Geol. Surv, 20–* A.A; Chem. Soc. Chemical character of waters of the United States; suspended matter carried by the Colorado River and its tributaries.

Howard, Major Clinton Wilbur, Langley Field, Hampton, Va. *Engineering.* Brockton, Mass, Nov. 27, 90. Clark Col; grad, U. S. Mil. Acad; Army Eng. Sch, 20; Sc.D, Mass. Inst. Tech, 23. Commanding officer, Langley Field, 17–18; chief engineer, eng. div, *Air Corps, U. S. Army,* 24–25, commanding officer, 3rd composite group, Manila, P. I, 25–27, chief engineer in charge research and develop, eng. div, 28–33, asst. exec. office of chief, 33–35, Army Indust. Col, 35–36, Army War Col, 36–37; *inspector, gen. headquarters, 37–* Mem, Nat. Advisory Cmt. Aerodynamics, 24–25, 28–34. A.A; Soc. Test. Mat; Soc. Automotive Eng; Inst. Aeronaut. Sci. Aircraft and engine development.

Howard, Prof. C(lyde) M(cNeel), North Texas Agricultural College, Arlington, Texas. *Mathematics.* Autaugaville, Ala, Sept. 7, 88. B.S, Ala. Polytech, 08, E.M, 09. Instr, high sch, Ala, 09–12; prof. *math,* Polytech. Col. (Ft. Worth), 12–14; Texas Woman's Col, 14–34; asst. prof. and later assoc. prof. and *prof, N. Texas Agr. Col, 34–* A.A; Math. Asn.

Howard, Prof. David G(oodale), 137 Monticello Ave, Annapolis, Md. *Electrical engineering, Physics.* Townsend, Mass, May 10, 90. B.S, Worcester Polytech, 13, E.E, 41. Research div, eng. dept, Westinghouse Elec. and Mfg. Co, 14–16; instr, dept. elec. eng, Carnegie Inst. Tech, 16–17; *elec. eng, U. S. Naval Acad,* 19–21, asst. prof, 21–26, assoc. prof, 26–37, *prof, 37–* Design and supervision construction elec. labs, U. S. Naval Acad. Mem, Am. Cmt. World Power Conf. Lieut, U.S.N.R, 17–19. A.A; assoc. Elec. Eng; assoc. Radio Eng. Electricity; magnetism; electrical relay; variable speed induction motor; system of vehicle control.

Howard, Prof. D(elton) T(homas), 2508 Park Place, Evanston, Ill. *Psychology.* South Bend, Ind, March 23, 83. A.B, Lawrence Col, 10; A.M, Illinois, 12; Ph.D, Cornell, 16. From instr. to assoc. prof. psychol, *Northwestern,* 16–30, prof, 30–35, *prof. philos. and chairman dept, 35–* Logical theory; history of psychology; personnel.

Howard, Dr. Evelyn, 710 N. Washington St, Baltimore, Md. *Physiology.* Bangor, Maine, 04. A.B, Stanford, 25, A.M, 27; Ph.D, Pennsylvania, 31. Asst. *physiol, sch. med, Hopkins,* 31–32, *instr, 32–* Physiol. Soc. Endocrinology; physical chemistry of protoplasm.

Howard, Frank C(harles), General Chemical Co, 40 Rector St, New York, N. Y. *Chemistry.* Haverhill, Mass, May 1, 96. B.S, Mass. Inst. Tech, 17, M.S, 24. Instr. chem, Illinois, 26–36, asst. prof. and later prof. chem. eng. and head dept, Worcester Polytech, 36–40; chem. eng. consultant, 40–42; *mem. staff, Gen. Chem. Co, 42–* Capt, U.S.A, 17–21. Chem. Soc. Metallurgy.

Howard, Dr. Frank L(eslie), Rhode Island State College, Kingston, R. I. *Plant pathology.* Los Angeles, Calif, June 11, 03. B.S, Oregon State Col, 25; Cornell, 25–28; Ph.D, Iowa, 30. Asst, Iowa, 28–30; nat. research fellow biol, Farlow herbarium, Harvard, 30–32; instr. *bot, R. I. State Col,* 32–35, asst. prof, 35–42, *assoc. prof, 42–, plant pathologist, Exp. Sta, 38–* Soc. Hort. Sci; Phytopath. Soc; Bot. Soc; Mycol. Soc. Chemical soil sterilization; tree chemotherapy; organic fungicides.

Howard, Dr. F(rederick) H(ollis), 101 E. 75th St, New York, N. Y. *Internal medicine.* Newburyport, Mass, Sept. 3, 76. Cornell, 93–94; M.D, Pennsylvania, 98; A.B, Williams Col, 26. Res. physician, Mercy Hosp, Pittsburgh, 98–99; asst. demonstrator path, Pennsylvania, 99–00; instr. anat. and physiol, Williams Col, 00–04, asst. prof. physiol, 04–08, prof, 08–27; asst. prof, col. physicians and surg, Columbia, 27–32; *practising physician; instr. med, Cornell, 36–* Assoc. visiting physician, Lincoln Hosp; physician to outpatients, New York Hosp; attending physician, New York Dispensary. Lieut. col, M.R.C. Am. Med. Asn; fel. N. Y. Acad. Med. Physiology.

Howard, Prof. Hartley (Wolle), 3215 13th St, N. W, Washington, D. C. *Chemistry.* Washington, D. C, Nov. 21, 09. B.S, Georgetown, 31, Ph.D, 40; fellow, Col. of Holy Cross, 31–32, M.S, 32; Munich, 32–33. Instr. *chem,* Col. of Holy Cross, 31–32; *asst. prof, Georgetown, 33–* Chem. Soc. Identification of organic compounds; chemistry of sulfur compounds.

Howard, Dr. Harvey J(ames), Park Plaza Hotel, St. Louis, Mo. *Ophthalmology.* Churchville, N. Y, Jan. 30, 80. A.B, Michigan, 04; M.D, Pennsylvania, 08; A.M, Harvard, 17, Rockefeller Foundation-China Med. Board fellow, 16–18; Oph.D, Colorado, 18; Rockefeller Foundation-China Med. Board fellow, Vienna, 23–24. Ophthal. surgeon and head dept. ophthal, Univ. Med. Sch, Canton, China, 10–13; ophthalmologist, Canton Christian Col, 13–16; ophthal. surgeon, Canton Hosp, 13–15; clin. asst. ophthal, Harvard Med. Sch. and Mass. Charitable Eye and Ear Infirmary, 16–18; prof. and head dept, Peking Union Med. Col, 18–27; prof, sch. med, Washington (St. Louis), 27–33; *flight surgeon, Air Corps, U. S. Army, 30–* Med. director, Mo. Cmn. for Blind. Adviser, dept. mil. aeronaut, Chinese Govt, 19–23. Assoc. ed, 'China Med. Jour.' Capt, M.C, 18–19, lieut-col, M.R.C, 23. Ophthal. Soc; fel. Acad. Ophthal. and Otolaryngol; fel. Col. Surg; Soc. Exp. Biol; Am. Med. Asn; Nat. Soc. Prevention Blindness (advisory cmt); South. Med. Asn; hon. mem. Kansas City Eye, Ear, Nose and Throat Soc; Md. Asn. China. Depth perception; ocular requirements for aviators; congenital eye anomalies; sutures for cataract operations; the epithelial cell and mucous membrane infections; non-specific protein therapy; trachoma.

Howard, Dr. H(ector) H(oldbrook), 1711 Robinson St, Jackson, Miss. *Medicine.* Carthage, Miss, Oct. 30, 73. M.D, Memphis Hosp. Med. Col, 10. Practising physician, Miss, 10–12; field director, Rockefeller Sanit. Cmn, 12–13; director exp. campaign, int. health cmn, Rockefeller Foundation, British Guiana, 14, int. health board, West Indies, 14–25, assoc. director, 25–34, director, int. health div, West Indies, Cent. and S. Amer, 14–27, assoc. director div, 27– Campaign for control and eradication of ankylostomiasis, Ceylon, 16. Nat. Malaria Cmt. Intestinal parasites; malaria.

Howard, Henry, Paradise Road, Newport, R. I. *Chemistry.* Boston, Mass, July 5, 68. Mass. Inst. Tech, 85–89. Chemist, asst. supt. and supt, Merrimac Chem. Co, 89–03, v. pres, 03–20; in charge research and develop, *Grasselli Chem. Co, Cleveland,* 20–26, *consulting engineer, 26–* Chem. Soc; Chem. Eng. (past pres); Soc. Chem. Indust; Electrochem. Soc. Sulfuric acid manufacture; heavy chemicals.

Howard, Dr. Henry C, 253 Kenforest Drive, Mt. Lebanon, Pittsburgh, Pa. *Chemistry.* Media, Pa, Nov. 25, 91. B.S, Washington (Seattle), 15; Ph.D, Princeton, 23. Chemist, Chas. A. Newhall Co, Wash, 15–17; research chemist, B. F. Goodrich Co, Ohio, 19–21, 27–30; asst. prof. chem, Missouri, 23–27; *coal research lab, Carnegie Inst. Tech, 30–* C.W.S. U.S.A, 17–18. Chem. Soc. Adsorption; catalysis; rubber; coal.

Howard, Dr. Hildegarde, Los Angeles Museum, Exposition Park, Los Angeles, Calif. *Paleontology.* Washington, D. C, April 3, 01. A.B, California, 24, A.M, 26, fellow, 27–28, Ph.D, 28. Asst. zool, California at Los Angeles, 24–25; research asst, Los Angeles Museum, 24–25, 28; teaching fellow

paleont, California, 25–27; *avian paleontologist, Los Angeles Museum, 28–* A.A; Paleont. Soc; Ornith. Union; Cooper Ornith. Club (sec'y, 38, v. pres, 40, pres, 41). Avian osteology; fossil birds, especially from the Pleistocene of Rancho La Brea; prehistoric avifaunae as represented by bird remains in Indian shellmounds.

Howard, Prof. Joseph Whitney, University of Montana, Missoula, Mont. *Chemistry.* Dixon, Ill, June 18, 89. A.B, Shurtleff Col, 12; A.M, Illinois, 13, fellow, 13–15, Ph.D, 15. Instr. *chem, Montana,* 15–18, asst. prof, 18–22, assoc. prof, 22–24, *prof, 24–* Chem. Soc; Northwest Sci. Asn. Organic chemistry; plant and water analysis; gem stones.

Howard, Dr. L(eland) O(ssian), 302 W. 12th St, New York, N. Y. *[1]*Entomology.* Rockford, Ill, June 11, 57. B.S, Cornell, 77, M.S, 83; hon. Ph.D, Georgetown, 96; hon. M.D, George Washington, 11; LL.D, Pittsburgh, 11, California, 29; D.Sc, Toronto, 21; Sc.D, Rutgers, 30. Asst. entomologist, U. S. Dept. Agr, 78–94, chief entomologist, 94–27, prin. entomologist in charge, 27–31; *retired; hon. curator, U. S. Nat. Museum, 95–* Lecturer, Swarthmore Col. Senior entomologist, U. S. Pub. Health Reserve. Ed, 'Insect Life'; contributor definitions in entom, 'Century' and 'Standard' Dictionaries. Capper gold medal, 31; medal, Al Merito Agricole, Italy; medal, Holland Soc, N. Y; officier, Légion d'honneur; officier, Ordre du Mérite agricole. Pres, Int. Cong. Entom, Ithaca, 28. Nat. Acad; A.A. (v. pres, 95, 97, permanent sec'y, 98–19, pres, 20); Soc. Nat; Asn. Econ. Entom. (pres, 94); Philos. Soc; Am. Acad; Biol. Soc. Wash. (pres, 97); hon. mem. Wash. Acad. (pres, 16); hon. mem. Entom. Soc. Ont; hon. fel. Entom. Soc. London; cor. mem. Zool. Soc. London; hon. mem. Gesell. Entom; hon. mem. Deuts. Entom. Gesell; hon. mem. Soc. entom. de France; Soc. nat. d'Acclimat. de France; Acad. d'Agr. de France; cor. Mus. d'Hist. nat. de Paris; hon. mem. Dutch Entom. Soc; Entom. Foren. Stockholm; cor. mem. Geneva Inst. Nat; hon. mem. Soc. Entom. de la Russie; Russian Acad; Moscow Entom. Soc; hon. mem. S. African Biol. Soc; Hungarian Royal Soc. Biol. Sci; Entom. Soc. Hungary; Entom. Soc. Czechoslovak; Czechoslovak. Acad. Agr; cor. mem. Barcelona Acad; hon. mem. Portuguese Royal League Agr; Soc. Cient. Ant. Alz. de Mex; Soc. Sci. de Chile. Economic entomology; relations of insects to disease; parasitic Hymenoptera.

Howard, Dr. Louis B(radley), 1001 Keith Ave, Berkeley, Calif. *Organic chemistry.* Bloomington, Ill, Feb. 5, 05. B.S, Purdue, 27; M.S, Chicago, 28, Ph.D, 31. Asst. chemist, bur. chem. and soils, *U. S. Dept. Agr,* 30–35, chemist, bur. entom. and plant quarantine, 35–39, senior chemist and asst. to director, north. regional research lab, *bur. agr. chem. and eng,* 39–40, *prin. chemist in charge commodity by-products div, west. regional research lab, 40–* Inst. Food Technol; Chem. Soc. Factors affecting the stability of C-C and C-N linkages; pyrolysis of aldazines and ketazines and related compounds; fixation of active nitrogen by certain organic compounds; ammoniated peat; fumigation of citrus insect pests; utilization of agricultural products and by-products.

Howard, Dr. Marion E(dith), New Haven Hospital, 789 Howard Ave, New Haven, Conn. *Internal medicine.* New York, N. Y, Sept. 26, 99. A.B, Columbia, 26; M.D, Hopkins, 31; Sterling fellow, Yale, 34–35. Asst. dispensary physician, Hopkins Hosp, 31–32; intern, *med,* New Haven Hosp, 32–33, asst. res, 33–34; asst, *sch. med, Yale,* 35–36, instr, 36–41, *asst. prof, 41–* Soc. Exp. Path; Asn. Immunol. Lymphogranuloma venereum; choriomeningitis.

Howard, Dr. Neale F(rederick), U. S. Department of Agriculture, 151 W. 11th Ave, Columbus, Ohio. *Entomology.* Milwaukee, Wis, Nov. 5, 90. B.S, Wisconsin, 14, M.S, 18; Ph.D, Ohio State, 28. Asst. entom, Wisconsin, 14; Ohio State, 15; specialist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 16–18, assoc. entomologist in charge bean insect investigations, 19–28, *senior entomologist, 28–* Lieut, Sanit. C, 18–19. A.A; Entom. Soc; Asn. Econ. Entom; Ohio Acad. (v. pres, sect. A, 34). Economic insects affecting truck and garden crops; Mexican bean beetle; insecticides.

Howard, Norman J(oseph), Filtration Plant Laboratories, Queen St, E. and Nursewood Road, Toronto, Ont, Can. *Chemistry, Bacteriology.* London, Eng, Nov. 29, 84. Xaverian Col, England; London. Asst. chem. and bacter. labs, Sir Wm. Crookes and Sir James Dewar's Lab, London, 05–07; Metropolitan Water Board, 07–11; bacteriologist in charge and later *director water purification, Filtration Labs, 11–* Lecturer, Toronto. Chem. Soc; Soc. Bact; Pub. Health Asn; Water Works Asn. (v. chairman, chem. and bact. sect, 23, mem, bact. cmt. standard methods of water anal, 24, chairman, water purification div, 28, Can. sect, 31; pres, 40); fel. Can. Inst. Chem; Can. Inst. Sewage and Sanit. (pres, 37); Can. Pub. Health Asn. (chairman, cmt. standard methods anal, 35, sanit. eng. sect, 36); British Sanit. Inst. Chemistry and bacteriology of water and sewage; bacteriology of carcinoma and sarcoma.

Howard, Dr. Richard A(lden), Harvard University, Cambridge, Mass. *Botany.* Stamford, Conn, July 1, 17. A.B, Miami (Ohio), 38; A.M, Harvard, 40, Ph.D, 42. *Junior fellow, Soc. of Fellows, Harvard, 42–* Bot. Soc; Asn. Plant Taxon; New Eng. Bot. Club. Taxonomy and morphology of the Icacinaceae; flora of Cuba.

Howard, Prof. Roscoe C(onklin), Virginia State College, Ettrick, Va. *Biology.* Petersburg, Va, Oct. 13, 03. B.S, Pittsburgh, 26; M.S, Cornell, 31, Ph.D, 42. Instr. *biol, Va. State Col,* 28–30, asst. prof, 31–39, *assoc. prof, 40–* Va. Acad; Va. Conf. Col. Sci. Teachers (pres, 38). Invertebrate zoology; comparative morphology, variation and seasonal studies on the genitalia of local species of the family Polygyridae.

Howard, Prof. S(amuel) Francis, Norwich University, Northfield, Vt. *Chemistry.* Wilbraham, Mass, June 14, 72. B.S, Mass. Col, 94, M.S, 01; Hopkins, 96–98, Ph.D, 12. Prin, high sch, Maine, 95; asst. prof. *chem,* Mass. Col, 99–12; assoc. prof, Amherst Col, 12–13; *prof, Norwich, 13–* Lieut. col, C.W. Res. A.A; Chem. Soc. (chairman, Vt. sect, 17). Inorganic and physical chemistry; molecular weights of electrolytes; conductivity of salts in solution.

Howard, Dr. W(aldorf) V(ivian), 211 S. Cheyenne, Tulsa, Okla. *Geology.* Inverness, Que, Can, April 5, 95. B.A, McGill, 16, M.Sc, 22, Ph.D, 24. Instr. geol, Williams Col, 24–26; Illinois, 26–27, assoc, 27–28, asst. prof, 28–31, assoc. prof, 31–36; consulting geologist, 36–40; *field ed, 'Oil and Gas Jour,' 40–* Am. Petrol. Inst. fellow, 26–30. Chief oil and gas sect, 'Annotated Int. Bibliog. of Econ. Geol,' 28–34. Fel. Geol. Soc; Asn. Petrol. Geol. Petroleum geology.

Howard, Prof. W(alter) L(afayette), College of Agriculture, University of California, Davis, Calif. *Horticulture.* Near Springfield, Mo, May 12, 72. B.Agr, B.S, Missouri, 01, M.S, 03; Leipzig, 05; Ph.D, Halle-Wittenberg, 06. Asst. hort, Missouri, and asst. horticulturist, Exp. Sta, 01–03, instr. hort, 03–04, asst. prof, 05–08, prof, 08–15; *pomol, California,* 15–37, *emer. prof, 37–,* acting director branch col. agr, Davis, 24, director, 25–37. Sec'y, State Board Hort, Mo, 08–12. Croix de Chevalier du Mérite agricole, 34. A.A; Soc. Hort. Sci. (pres, 15). Fruit tree root-stocks; rest period of plants.

Howard, William J(ohnston), 5518 Fairglen Road, Chevy Chase, Md. *Wildlife management.* Pittsburgh, Pa, Oct. 31, 97. A.B, Michigan, 23, M.S, 34. Mem. staff, State Dept. Conservation, Mich, 34; wildlife technician, Nat. Park Service, 34–38; biologist, in charge sect. program planning and ed, 'Pittman Robertson Quart,' fish and wildlife service, U. S. Dept. Interior, 38–42. Wildlife Soc; Ornith. Union; Soc. Mammal; Wilson Ornith. Club. Ecology of game birds and mammals; land use problems.

Howard, Dr. William Travis, 835 University Parkway, Baltimore, Md. *[1]*Pathology, Bacteriology.* Statesburg, S. C, March 13, 67. Virginia, 85–87; M.D, Maryland, 89; Hopkins, 89–94; Munich, 06–07. Prof. path. and bacter, Western Reserve, 94–14; lecturer biometry and vital statist, sch. hygiene and pub. health, Hopkins, 19–27, assoc, inst. biol. research, 26–40. Pathologist, Lakeside and City Hosps; city bacteriologist, Cleveland; asst. commissioner health, Baltimore, 15–19. Asn. Path. and Bact. (pres, 02); Am. Physicians. Heart hypertrophy; origin and occurrence of cells with eosinophil granulations; ulcerative endocarditis; origin of gas and gas cysts of the central nervous system; general gaseous emphysema; pathology of herpes actinomycosis; etiology of smallpox; vaccinia; physiological degeneration of Actinosphaerium eichhorni; biology of tumor cells; real risk rate of women in childbirth; public health administration and the natural history of disease in Baltimore.

Howarth, H(arry) A(rthur) S(tevens), 2601 Parkway, Philadelphia, Pa. *Mechanical engineering.* New Haven, Conn, Feb. 13, 77. Ph.B, Yale, 99. Forgeshop, Midvale Steel Co, Phila, 99–03; machine shop, Riter-Conley Mfg. Co, Pittsburgh, 03–04; gen. mfg, Hoggson and Pettis Mfg. Co, New Haven, 04–08; instr. and asst. prof. mech. eng, Lehigh, 08–12; asst. prof. machine design, Carnegie Inst. Tech, 12–14; from assoc. engineer to v. pres. and gen. manager, Kingsbury Ma-

chine Works, Inc, 14–38; *pres, Howarth Pivoted Bearings Co, 38–* Melville medal, Am. Soc. Mech. Eng, 36. A.A; Mech. Eng; Soc. Naval Eng; Soc. Naval Archit. and Marine Eng. Thrust and journal bearings of oil film type; machine shop practise; machine design; theory of lubrication; bearing design; viscous characteristics of lubricants.

Howarth, H(enry) C, 3188 Glendale Ave, Pittsburgh, Pa. *Mining.* England, Dec. 22, 79. Fire boss, mine foreman and mine supt, 05–10; *supt. exp. mine, U. S. Bur. Mines, 10–* State bituminous mine inspector, Pa, 13. Coal Min. Inst. Experimental mine explosions; means of preventing coal mine explosions.

Howe, Prof. Carl E(llis), Oberlin College, Oberlin, Ohio. *Physics.* Maitland, Pa, May 16, 98. A.B, Juniata Col, 19; Ph.D, Chicago, 29. Instr. science, Blue Ridge Col, 20–22; physics and biol, Juniata Col, 22–24; asst. prof. *physics, Oberlin Col,* 24–29, *assoc. prof, 29–* Asst, Chicago, 26–29. Physical Soc; Asn. Physics Teachers; Ohio Acad. (v. pres, physics sect, 34). Precision measurements of x-rays of very long wave-length by reflection from ruled glass gratings; laboratory physics; Laue photographs of oscillating quartz crystals.

Howe, Dr. C(lifton) D(urant), 107 Glengrove Ave, W, Toronto, Ont, Can. *Forest ecology.* Newfane, Vt, July 30, 74. A.B, Vermont, 98, M.S, 01; fellow, Chicago, 01–04; Ph.D, 04. Asst. biol, Vermont, 99–01; instr, Biltmore Forest Sch, 05–06, asst. director, 07–08; lecturer bot. and forestry, Toronto, 08–12, asst. prof, 13–15, assoc. prof, 16–20, prof. and dean faculty forestry, 20–40; *retired.* Soc. Foresters; Can. Soc. Forest Eng. Reforestation of sand plains, Vermont; forest distribution in Nova Scotia; forest conditions in the Trent watershed; reproduction of Douglas fir in the coast region, British Columbia.

Howe, Prof. Everett D(umser), 1131 Hollywood Ave, Oakland, Calif. *Mechanical engineering.* Calif, Jan. 10, 03. B.S, California, 25, M.S, 28. Asst. and instr. *mech. eng, California,* 27–30, asst. prof, 30–39, *assoc. prof, 39–* Mech. Eng; Eng. Educ. (sec'y, Pacific Southwest sect, 40–). Combustion phenomena of natural gas flames.

Howe, Prof. Frank B(onar), Cornell University, Ithaca, N. Y. *Soils.* Nashua, Iowa, June 4, 87. A.B, Colorado, 11; M.S, Iowa State Col, 15. Soil surveyor, Iowa State Col, 13–17; land classifier, U. S. Geol. Surv, 17–19; soil surveyor and asst. prof. soils, N. Y. State Col. Agr, Cornell, 19–33; regional director, soil conservation service, U. S. Dept. Agr, 33–35; *prof. soils, N. Y. State Col. Agr, Cornell, 35–* Soil Sci. Soc; Soc. Agron. Soil classification; soil conservation.

Howe, Prof. G(eorge) H(enry), New York State Agricultural Experiment Station, Geneva, N. Y. *Pomology.* Jericho, Vt, Feb. 9, 88. B.S, Vermont, 10. Asst. horticulturist, *N. Y. Exp. Sta, Geneva,* 10–18, *assoc. hort. research, 19–, asst. prof, 23–* U.S.A, 18–19. A.A; Soc. Hort. Sci. Ringing fruit trees; dressing for pruning wounds of fruit trees; effect of kinds of pruning on growth and yield of apple trees; Mazzard versus Mahaleb rootstocks for cherries; breeding tree fruits.

Howe, Prof. Harley E(arl), Cornell University, Ithaca, N. Y. *Physics.* Linneus, Mo, Aug. 26, 82. B.S, Missouri, 06; A.M, Cornell, 09, Ph.D, 16. Instr. *physics,* Cornell, 09–11; prof, Randolph-Macon Col, 12–18; asst. prof, *Cornell,* 18–37, *prof, 37–* A.A. Absorption by organic salts; optics; colorimetry.

Howe, Prof. Harold, Kansas State College, Manhattan, Kans. *Land economics.* Chapman, Kans, Feb. 24, 01. B.S, Kans. State Col, 22; M.S, Maryland, 23; Ph.D, Wisconsin, 37. Asst. soils, Maryland, 22–23; *agr. econ,* Wisconsin, 24–25; instr, *Kans. State Col,* 25–27, asst. and assoc. prof, 27–34, acting head dept, 34–35, *prof, 34–* Farm Econ. Asn; Nat. Tax Asn. Public finance; land tenure.

Howe, Dr. Harold S(haw), U. S. Rubber Co, 6600 E. Jefferson, Detroit, Mich. *Physics, Engineering.* Eng, June 7, 07. B.S, Union Col, 36; A.M, Michigan, 38, Ph.D, 40. Instrument design engineer, Gen. Elec. Co, 23–34; teaching fellow, Michigan, 36–39; *tire engineer, U. S. Rubber Co, 39–* Physical Soc. Shot effect; ultra high frequency waves in wave guides; absorption of ammonia.

Howe, Dr. H(enry) H(erbert), 1821 N. Tuckahoe St, Falls Church, Va. *Geomagnetism.* Table Rock, Nebr, Dec. 17, 05. A.B, Nebraska, 28, A.M, 31; Ohio State, 28–29; Ph.D, George Washington, 39. Asst. physics, Nebraska, 27–28, 30–31; math, Ohio State, 28–29; junior mathematician, *geomagnetism, U. S. Coast and Geod. Surv,* 31–37, asst. mathematician, 37–40, assoc. mathematician, 40–42, *mathematician, 42–* Seismol. Soc; Geophys. Union; Philos. Soc. Wash. Some fallacies about the magnetic compass.

Howe, Prof. Henry V(an Wagenen), Louisiana State University, Baton Rouge, La. *Geology, Paleontology.* Fulton, N. Y, June 15, 96. A.B, Oregon, 16, 18–19; Yale, 16–17; fellow, California, 19–21; fellow, Stanford, 21–22, Ph.D, 22. *Prof. geol. and petrol. eng. and director sch. geol, Louisiana, 22–* Director research div, La. Geol. Surv, 34–40; mem, State Min. Board, La, 37–41. Cmt. on micropaleont, Nat. Research Council. Am. Asn. Petrol. Eng. del, Int. Geol. Cong, Moscow, 37. A.A; Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner. (sec'y-treas, 37–39, pres, 41); Geophys. Union; La. Acad. (sec'y, 29); Shreveport Geol. Soc. Petroleum resources; stratigraphy; fossil Foraminifera, Ostracoda and Mollusca.

Howe, Dr. Howard A(tkinson), R.F.D. 6, Towson, Md. *Virus diseases.* Wabash, Ind, July 29, 01. A.B, Yale, 25; M.D, Hopkins, 29. Instr. *anat, med. sch, Hopkins,* 29–40, assoc, 40–42, *assoc. prof. epidemiol, sch. hygiene and pub. health, Hopkins, 42–* Asn. Anat; Soc. Bact; assoc. Neur. Soc. Neurology in relation to virus diseases with special reference to poliomyelitis.

Howe, Prof. Ja(me)s Lewis, Washington and Lee University, Lexington, Va. **Chemistry.* Newburyport, Mass, Aug. 4, 59. A.B, Amherst Col, 80; Ph.D, Göttingen, 82; Berlin, 82; Mass. Inst. Tech, 94; hon. M.D, Louisville Hosp. Med. Col, 86. Instr. chem, Brooks Mil. Acad, Cleveland, 82–83; prof. chem. and geol, Cent. Univ. of Ky, 83–87; scientist and lecturer, Polytech. Soc, Ky, 86–94; prof. chem. and dean, Louisville Hosp. Med. Col. and Col. Dentistry, 87–94; prof. *chem, Washington and Lee,* 94–37, *emer. prof, 37–,* dean sch. applied science, 21–34, *univ. historian, 37–* Chairman, A.A. Cmt. Inorg. Chem. Nomenclature, 12; mem, U. S. Assay Cmn, 16, 20, 26; special cmt. on platinum, Nat. Research Council, 17–18. Herty medal, Am. Chem. Soc, 37. A.A. (sec'y, C, 92, gen. sec'y, 95, v. pres, 00); Chem. Soc; Soc. Chem. Indust; Wash. Acad; Va. Acad. (pres, 25); London Chem. Soc; Deuts. Chem. Gesell. Ruthenium; other platinum metals.

Howe, Dean Jerome W(illard), 18 Boynton St, Worcester, Mass. *Civil engineering.* Worcester, Mass, Oct. 12, 86. B.S, Worcester Polytech, 09. Teacher, Pa. Mil. Col, 09–11; draftsman, Phoenix Bridge Co, 11–12; officer, U. S. Army, 13–24, major, 24, retired; prof. civil eng, *Worcester Polytech,* 24–37, head dept, 33–37, *dean students and admissions, 37–* Engineering education.

Howe, Prof. John P(erry), Brown University, Providence, R. I. *Chemistry.* Groton, N. Y, June 24, 10. B.S, Hobart Col, 33; univ. fellow, Brown, 34–35, Jesse Metcalf fellow, 35–36, Ph.D, 36. Analyst, du Pont Rayon Co, Buffalo, N. Y, 28–29; asst. *chem,* Hobart Col, 30–33; instr, Ohio State, 36–38; *asst. prof, Brown, 38–; research assoc, Chicago, 42–* A.A; Chem. Soc; N. Y. Acad. Physical chemistry; photochemistry of simpler organic molecules; molecular spectra.

Howe, Dr. John S(tewart), 6107 Howard Road, Richmond, Va. *Pathology, Immunology.* Deadwood, S. Dak, May 8, 08. A.B, South Dakota, 28; M.D, Hopkins, 32. Intern, univ. hosps, Chicago, 32–34; fellow, Trudeau Sch. Tuber, 35; from instr. to asst. prof. *path,* col. med, Illinois, 35–40; asst. prof. and *assoc. prof, Med. Col. of Va, 40–* Deuss research prize, 39. Asn. Path. and Bact; Soc. Clin. Path; Am. Med. Asn; Trudeau Soc; Inst. Med. Chicago. Pathology and immunology of tuberculosis; weather, climate and disease.

Howe, Prof. J(oseph) W(arner), State University of Iowa, Iowa City, Iowa. *Hydraulics.* Omaha, Nebr, Jan. 19, 02. B.E, Iowa, 24, M.S, 25. Asst. engineer, Miss. River Power Co, 25–27; instr. theoret. and applied mech, Illinois, 27–29; asst. prof. *mech. and hydraulics, Iowa,* 29–38, assoc. prof. and exec. sec'y dept, 38–42, *prof. and head dept, 42–* Summers, chief party, Eng. C, 28, 29, 30. Eng. Educ; Soc. Civil Eng; Geophys. Union; Iowa Eng. Soc. (director, 40, 43). Water measurement; hydrology.

Howe, Prof. M(ildred) Dorisse, Queens College, Charlotte, N. C. *Botany, Morphology.* Syracuse, N. Y, Aug. 31, 03. A.B, Syracuse, 25, A.M, 27; fellow, Chicago, 28–29, Ph.D, 29. Asst, Syracuse, 26–27, 32–34; assoc. prof. biol, Va. State Teachers Col, Harrisonburg, 29–32; *prof. biol. sciences, Queens Col. (N.C), 34–; W.A.V.E.S, 43–* A.A; Bot. Soc; N. C. Acad.

Morphology of the leaf notches of Bryophyllum calycinum; origin of the leaf, adventitious root and secondary root of Ceratopteris thalictroides; stem tips of ferns.

Howe, Dr. Paul E(dward), U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Chicago, Ill, July 29, 85. B.S, Illinois, 06, A.M, 07, Ph.D, 10. Asst. physiol. chem, Illinois, 07–10, instr, 10–12; asst. prof. biochem, Columbia, 12–17; assoc, dept. animal path, Rockefeller Inst, 17, 19–24; biochemist and senior biochemist in charge nutrition investigations, animal husbandry div, *bur. animal indust, U. S. Dept. Agr,* 24–36, *chief animal nutrition div. and asst. chief bur, 36–; col. in charge food and nutrition branch, Surgeon Gen.'s Office, Sanit. Corps, U. S. Army, 40–* Asst. ed, 'Chem. Abstracts.' Chairman cmt. animal nutrition, Nat. Research Council, 27–41, mem. food and nutrition board, cmts. med. nutrition and nutrition in industry, 40– Capt, sect. food and nutrition, Sanit.C, 17–19; chief nutrition lab, Army Med. Sch, 19; col, Sanit.Res.C, 36– A.A; Soc. Biol. Chem. (councilor, 32–34); Chem. Soc. (sec'y, biochem. div, 26, chairman, 27); Physiol. Soc; Inst. Nutrition (councilor, 37–39); Soc. Exp. Biol; Soc. Animal Production; Harvey Soc; Columbia Biochem. Asn; Wash. Acad. (cor. sec'y, 31–36, pres, 38); Chem. Soc. Wash. (pres, 33); Wash. Acad. Med. Animal nutrition; dietetics; fasting and recuperation; acidity of urine; proteins of blood and muscle; rationing and group feeding of men.

Howe, Dr. P(ercy) R(ogers), 140 The Fenway, Boston, Mass. *Nutrition.* Providence, R. I, 64. A.B, Bates Col, 87, Sc.D, 27; D.D.S, Phila. Dental Col, 90; Sc.D, Temple, 28; LL.D, Harvard, 41. Asst. prof. dental research, *Harvard,* 15–23, Thomas Alexander Forsyth prof. dental science, 23–42, *emer. prof, 42–,* instr. path, Harvard Med. Sch, 24–42. Chief research lab, Forsyth Dental Infirmary for Children, 14–27, director, 27– Jarvis medal, 25; Callahan medal, Ohio, 26; Newell Sill Jenkins medal, Conn, 27; R. I. State Dental medal, 28. A.A; Chem. Soc; Dental Asn. (pres, 29); Acad. Dental Sci; Am. Acad; New Eng. Pediat. Soc; Boston Bact. Club; Int. Dental Soc. Mineral and vitamin deficiencies.

Howe, Richard H(arris), Harvard University, Cambridge, Mass. *Physics.* Newark, Ohio, July 6, 98. B.S, Denison, 20, M.S, 25; Ohio State, 28–31. Instr. *physics,* Doane Acad, Ohio, 18–19; Denison, 20–25, asst. prof, 25–42; *research assoc, Harvard, 42–* Instr, exp. and 1st class govt. radio operator; director radio sta, WJD, 22–26; W8SG, 27– Ohio Physics Asn; Ohio Physics Club (sec'y-treas). Radio communications.

Howe, Dr. T(homas) D(udley), 745 S. Linden Ave, Pittsburgh, Pa. *Botany.* Table Rock, Nebr, Sept. 21, 98. B.S, Nebraska, 21, A.M, 22; Ph.D, Wisconsin, 25. Asst. bot, Wisconsin, 23–25; instr. *biol,* James Millikin, 25–27; acting asst. prof, Arizona, 28–29; asst. prof, *Duquesne,* 29–34, *prof, 34–* A.A; Bot. Soc; Micros. Soc. Morphology and cytology of angiosperms.

Howe, Prof. W(illia)m Warren, Colorado School of Mines, Golden, Colo. *Chemistry.* Pueblo, Colo, Dec. 31, 91. A.B, Colorado, 15, Ph.D, 22. Instr. *chem,* Colorado, 19–24, acting asst. prof, 24–26; instr, Yale, 26–29; *assoc. prof, Colo. Sch. Mines, 29–* Chem. Soc. Physical chemistry.

Howell, Prof. A(lfred) Brazier, Johns Hopkins University, Baltimore, Md. *Anatomy.* Catonsville, Md, July 28, 86. Yale, 08. Sci. asst, bur. biol. surv, U. S. Dept. Agr, 23–27; *collaborator, U. S. Nat. Museum, 26–;* lecturer comp. anat, *sch. med, Hopkins,* 28–32, *assoc. prof. anat, 32–* A.A; Asn. Anat; Soc. Mammal. (cor. sec'y, 25–31, director, 31–, ed, 'Jour,' 36–38; v. pres, 38–); Ornith. Union; Cooper Ornith. Club (sec'y, 13, trustee, 20, v. pres, 21). Mammalian anatomy; vertebrate zoology; morphology; geographic distribution and variation of birds and mammals.

Howell, Dr. Alvin H(arold), 35 Grafton St, Arlington, Mass. *Electrical engineering, Electronics.* Sedgwick, Kans, Feb. 5, 08. B.S, Kansas, 29; Union Col, 29–31; M.S, Mich. Col. Min. and Tech, 34; Sc.D, Mass. Inst. Tech, 38. Student engineer, Gen. Elec. Co, 29–31; instr. elec. eng, Mich. Col. Min. and Tech, 31–34; asst, Mass. Inst. Tech, 38–39, research assoc, 39–40; asst. prof. *elec. eng, Tufts Col,* 40–41, *chairman dept, 41–* A.A; assoc. Elec. Eng; assoc. Radio Eng; Eng. Educ. Gas discharges; dielectrics; geophysical prospecting.

Howell, Dr. Arden, 1430 Tulane Ave, New Orleans, La. *Medical mycology.* Richmond, Va, May 24, 10. A.B, Richmond, 33; A.M, Harvard, 35, Anna C. Ames Mem. fellow, 38–39, Ph.D, 39. Austin teaching fellow, Harvard, 36–37; nat. research fellow med. science, med. sch, Duke, 39–40; *instr. parasitol, sch. med, Tulane, 40–* Mycol. Soc; Soc. Trop. Med. Medical mycology; systematic fungus infections.

Howell, Prof. B(enjamin) F(ranklin), Princeton University, Princeton, N. J. *Geology, Invertebrate paleozoology.* Troy Hills, N. J, Sept. 30, 90. B.S, Princeton, 13, A.M, 15, Ph.D, 20. Asst. geol, *Princeton,* 13–15, instr, 15–17, 19–20, asst. prof, 20–25, *geol. and paleont,* 25–26, *assoc. prof, 26–, curator invert. paleont, 24–* Assoc. curator, Acad. Nat. Sciences, Phila, 36–37, curator, 37–; lecturer, Pennsylvania. Ed. paleozool, 'Biol. Abstracts'; Am. ed, 'Palaeontologisches Zentralblatt.' V. pres, acad. board, U. S. Sch. Mil. Aeronaut, 17–18. A.A; Geol. Soc; Paleont. Soc. (sec'y, 30–39); Int. Paleont. Union (sec'y, 37–). Cambrian paleontology and stratigraphy.

Howell, Prof. C(arroll) E(van), W. K. Kellogg Institute, University of California, Pomona, Calif. *Animal husbandry.* Holliday, Mo, Feb. 7, 92. B.S, Missouri, 15; M.S, State Col. Wash, 17. Instr. *animal husbandry,* State Col. Wash, 15–17, asst. prof, 17–20; *California,* 20–26, *assoc. prof, 26–, manager, W. K. Kellogg Inst, 39–* Soc. Animal Production. Nutrition; genetics; physiology; parasitology.

Howell, Prof. Charles D(eWitt), University of Rochester, Rochester, N. Y. *Zoology.* East Bangor, Pa, Oct. 29, 10. A.B, Oberlin Col, 32; Ph.D, Hopkins, 37. Asst. comp. anat, Hopkins, 32–35; asst. zool. and vertebrate anat, Maryland, 35–37; prof. biol, Elizabethtown Col, 37–38; *asst. prof,* Middlebury Col, 38–43; *zool, Rochester, 43–* A.A; assoc. Soc. Zool. Reactions to light; learning in invertebrates; teratology.

Howell, Dr. D(ariel) E, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Entomology.* Montebello, Calif, Dec. 27, 10. B.S, California, 33, M.S, 34, Ph.D, 39. *Cooperative agent anaplasmosis, bur. animal indust, U. S. Dept. Agr, 39–; asst. prof. entom, Okla. Agr. and Mech. Col, 39–* A.A; Soc. Trop. Med; Asn. Econ. Entom. Anaplasmosis investigations; ticks of Oklahoma.

Howell, Prof. E(verette) Irl, Belhaven College, Jackson, Miss. *Nuclear physics.* Shelby, Miss, Jan. 4, 14. A.B, Miss. Col, 36; M.S, Vanderbilt, 37; Ph.D, North Carolina, 40. *Assoc. prof. physical science, Belhaven Col, 40–* Physical Soc. Production of secondary electrons by electrons of energy between .7 and 2.6 MEV.

Howell, Francis M(cMurtrie), Aluminum Research Laboratories, New Kensington, Pa. *Engineering.* Trenton, N. J, Sept. 6, 94. B.S, Northwestern, 17, C.E, 18. Asst. materials engineer, U. S. Navy Dept, 18–20; metallurgist, Ill. Steel Co, 20–21; special asst, Illinois, 21–23; engineer of tests, U. S. Aluminum Co, 23–26; lab. director, A. O. Smith Corp, 26–28; *engineer, research labs, Aluminum Co. of Amer, 28–* Soc. Test. Mat; Soc. Metals. Mechanical testing of materials, especially aluminum and magnesium.

Howell, Prof. George D(ewey), College Station, Maryville, Tenn. *Chemistry.* Newton, N. J, May 19, 98. A.B, Maryville Col, 22; A.M, Vanderbilt, 25. Instr. *chem,* Maryville Col, 22–24; Vanderbilt, 25–26; *prof, Maryville Col, 26–* A.A; Chem. Soc; Tenn. Acad. Temperature coefficients of reference electrodes; tautomeric equilibrium of diphenyl ketoxime and related compounds.

Howell, Dr. J(esse) V, 1604 Swan Drive, Tulsa, Okla. *Geology.* Oskaloosa, Iowa, March 11, 91. B.S, Penn Col. (Iowa), 12; M.S, Iowa, 15, Ph.D, 22. Teacher, high sch, Wyo, 12–13; geologist, The Texas Co, 16–18; Gypsy Oil Co, 18–21; instr. geol, Iowa, 21–22; geologist, Marland Oil Co, 22–29; *consulting geologist, Tulsa, 29–* Summers, geologist, Colo. Geol. Surv, 15–17. Asn. Petrol. Geol. Structural, economic and petroleum geology.

Howell, John Thomas, California Academy of Sciences, San Francisco, Calif. *Botany.* Merced, Calif, Nov. 6, 03. A.B, California, 26, A.M, 27. Teaching fellow bot, California, 26–27, 29–30, asst, California at Los Angeles, 27–28; botanist, Rancho Santa Ana Bot. Garden, Calif, 28–29; *asst. curator bot, Calif. Acad. Sciences, 30–* Ed. and part owner, 'Leaflets of West. Bot.' A.A; Calif. Bot. Soc. (sec'y, 30–32); Calif. Acad; Calif. Hort. Soc. (bot. ed, 'Jour'). Systematic botany of Lessingia, Pogogyne, Phacelia and other flowering plants of the western United States; flora of Galapagos Islands.

Howell, Dr. J(oseph) C(orwin), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Ornithology.* A.B,

Rollins Col, 35; Ph.D, Cornell, 40. *Instr. zool, Okla. Agr. and Mech. Col, 40–* The American robin.

Howell, Dr. Katharine M(yrta), 6830 Merrill Ave, Chicago, Ill. *Serology, Bacteriology.* Kouts, Ind. A.B, Chicago, 05, M.D, Rush, 13. Intern, N. Y. Infirmary for Women and Children, 13–14; pathologist, Mary Thompson Hosp, Chicago, 14–20; serologist, John McCormick Inst, 14–16; *serologist and bacteriologist, Nelson Morris Mem. Inst, 16–* A.A; Soc. Bact; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Pub. Health Asn; Soc. Clin. Path; Asn. Immunol; Museum Workers Asn; Inst. Med. Chicago; Chicago Path. Soc. (pres, 38).

Howell, Dr. L(eander) D, 4650 Broad Branch Road, N.W, Washington, D. C. *Agricultural economics.* Dorsey, Miss, Aug. 27, 93. B.S, M.S, Agr. and Mech. Col. Texas, 22; Ph.D, Wisconsin, 34; LL.B, Georgetown, 41. Asst. prof. agron, Clemson Col, 22–23; assoc. prof. agr. econ, Okla. Agr. and Mech. Col, 25–27; prof, Texas Tech. Col, 27–28; *senior agr. economist, U. S. Dept. Agr, 28–* A.A; Farm Econ. Asn; Econ. Asn. Quality price relationships for cotton; protection afforded by trading in commodity futures; analyses of surplus disposal programs for cotton; analysis of trade barriers.

Howell, Prof. L(loyd) B(relsford), Wabash College, Crawfordsville, Ind. *Chemistry.* Piqua, Ohio, Aug. 29, 87. A.B, Wabash Col, 09; M.S, Illinois, 18, fellow, 18–19, Ph.D, 19. Instr. chem, Wabash Col, 12–13; asst. org. chem, Illinois, 16–18; instr, Rice Inst, 19–24; *prof. chem, Wabash Col, 24–* A.A; Chem. Soc; Ind. Acad. Organic chemistry; positive halogen in organic compounds; chemistry of taste; qualitative organic analysis.

Howell, Dr. Lynn G(orman), 8621 Georgia Ave, Silver Spring, Md. *Geophysics.* Winnsboro, Texas, Jan. 15, 05. A.B, Texas, 25, A.M, 26; Ph.D, Calif. Inst. Tech, 30. *Research geophysicist, geophys. dept, Humble Oil and Ref. Co, 30–; assoc. physicist, dept. terrestrial magnetism, Carnegie Institution, 41–; physicist, applied physics lab, Hopkins, 42–* Physical Soc; Soc. Explor. Geophys; Geophys. Union. Kinetic behavior of colloidal particles; cosmic rays; ground radioactivity; gravity measurements; seismology; sub-surface radioactivity in bore holes.

Howell, Dr. S(tacey) F(rancis), U. S. Marine Hospital, S. I, N. Y. *Biochemistry.* Glenn Richie, Pa. A.B, Maryville Col, 20; M.S, Pa. State Col, 29; Ph.D, Cornell, 34. Teacher, high sch, Pa, 20–28; asst. biochem, Pa. State Col, 28–29, nutrition, inst. animal nutrition, 29–30; instr. biochem, med. col, Cornell, 30–39; *chemist, U. S. Pub. Health Service, 39–* Soc. Biol. Chem; N. Y. Acad. Enzymes; crystalline proteins; blood urea determination; phospholipids.

Howell, Prof. Thelma, Wesleyan College, Macon, Ga. *Zoology.* New Bern, N. C, March 6, 01. A.B, Trinity Col, 22; A.M, Duke, 31. Mem. dept. *biol,* West. Carolina Teachers Col, 30–34; *assoc. prof, Wesleyan Col, 34–* Trustee, Highlands Museum and Biol. Lab, Inc, 40–; treas, Weyman Mem. Lab, 42– Research grant, Ga. Acad. Science, 41. Phipps-Bird award, Ga. Acad. Science, 41. A.A; Southeast. Biologists; N. C. Acad; Ga. Acad; Tenn. Acad. Aquatic insects; blood and respiration in Amphibia.

Howell, Dr. W(illiam) H(enry), 112 St. Dunstan's Road, Baltimore, Md. *[1]*Physiology.* Baltimore, Md, Feb. 20, 60. A.B, Hopkins, 81, Ph.D, 84; hon. M.D, Michigan, 90, LL.D, 12; Trinity Col. (Conn), 01; hon. Sc.D, Yale, 11; LL.D, Washington (St. Louis), 15, Edinburgh, 23. Asst. and assoc. biol, Hopkins, 84–88, assoc. prof. physiol, 88–89; prof. physiol. and histol, Michigan, 89–92; assoc. prof, Harvard, 92–93; prof, Hopkins, 93–31, dean med. faculty, 99–11, asst. director, sch. hygiene and pub. health, 16–26, director, 26–31; *retired.* Nat. Advisory Health Council, 31; chairman, Nat. Research Council, 32–33; exec. cmt, Science Service, 31–40, chairman and v. pres. Prize, Am. Physiol. Soc. Nat. Acad; A.A. (v. pres, K, 08); Soc. Nat. (pres, 24); Physiol. Soc. (pres, 05–10); Soc. Exp. Biol; Philos. Soc; hon. fel. N. Y. Acad. Med; hon. mem. London Physiol. Soc. Origin of the red corpuscles of the blood; degeneration and regeneration of nerve fibers; causation of the rhythmic beat of the heart; mechanism of sleep; internal secretion of hypophysis cerebri; isolated mammalian heart; relation of the inorganic salts of the blood to the beat of the heart; proteins of blood serum; theory of cardiac inhibition; coagulation of blood; isolation and function of heparin; nature of thromboplastin; origin of blood-platelets.

Howells, Dr. Henry P(rice), Quaker Oats Co, Cedar Rapids, Iowa. *Organic chemistry.* Ottumwa, Iowa, June 27, 00. B.S, Iowa, 21, M.S, 22; Lydia C. Roberts fellow, Columbia, 25–27, Ph.D, 27. Asst. instr. chem, Iowa, 20–22; instr, Oregon State Col, 22–25; assoc. prof. org. chem, Okla. Agr. and Mech. Col, 27–32; *research and, develop. eng, furfural div, Quaker Oats Co, 32–* Chem. Soc; Chem. Eng. Synthetic organic chemistry.

Howells, Dr. T(homas) A(lfred), 124 N. Durkee St, Appleton, Wis. *Chemistry.* Girard, Ohio, Sept. 21, 11. A.B, Ohio Wesleyan, 33; M.S, Lawrence Col, 35, Ph.D, 37. Mem. tech. staff, Munising Paper Co, 37–42; *research asst, inst. paper chem, Lawrence Col, 42–* Tech. Asn. Pulp and Paper Indust. Brightening of clays for use in paper-making; wood pulp-cuprammonium hydroxide system.

Howells, Prof. Thomas H, University of Colorado, Boulder, Colo. *Psychology.* Keokuk, Iowa, Oct. 28, 91. A.B, Utah, 15; A.M, Stanford, 23; Ph.D, Iowa, 27. Asst. *psychol,* Iowa, 25–27; asst. prof, Iowa State Col, 27–28; from asst. prof. to *prof, Colorado, 28–* A.A; Psychol. Asn. (pres, Rocky Mt. branch, 34); Colo-Wyo. Acad. Social, abnormal and experimental psychology; personality measurement; psychology of religion.

Howells, Dr. W. C, McColl-Frontenac Oil Co, Ltd, 708 Lancaster Bldg, Calgary, Alta, Can. *Geology.* Monmouthshire, Eng, Nov. 10, 10. B.Sc, Alberta, 32, M.Sc, 34; Toronto, 35–36; Ph.D, McGill, 40. Asst. petrol. engineer, Petrol. and Natural Gas Div, Alta. Govt, Can, 34–35; instr, McGill, 37–39; *senior geologist, McColl-Frontenac Oil Co, Ltd, 40–* Summers, geol. asst, Alta. Research Council, 30, 33; Geol. Surv. Can, 32, party chief, 35, 38, chief asst, 36; party chief, Labrador Mining and Explor. Co, Montreal, Que, Can, 37; asst. geologist, Que. Bur. Mines, 39. Asn. Petrol. Geog; Eng. Inst. Can; Alta. Asn. Professional Eng; Alta. Soc. Petrol. Geol. (sec'y-treas, 41, v. pres, 42). Sedimentary petrology; application of physical chemistry to Precambrian rocks.

Howells, Dr. W(illiam) W(hite), University of Wisconsin, Madison, Wis. *Anthropology.* New York, N. Y, Nov. 27, 08. B.S, Harvard, 30, A.M, 31, Ph.D, 34. Asst, Harvard, 30–31; *assoc. physical anthrop, Am. Museum Nat. Hist, 33–; asst. prof. sociol. and anthrop, Wisconsin, 39–* Lecturer, Hunter Col, 37–39. Mem. Irish surv, Harvard, 35. Director, Am. Asn. Indian Affairs; mem. advisory board, Lab. Anthrop. A.A; Anthrop. Asn. (councilor, 36–); Asn. Physical Anthrop. (sec'y-treas, 39–); Ethnol. Soc; Soc. Am. Archeol. Physical anthropology; racial history, especially Oceania, America; anthropology of population.

Howes, Prof. D(ouglas) E(dward), 3 Jefferson Ave, Northfield, Vt. *Electrical engineering.* Ashfield, Mass, May 7, 99. B.S, Worcester Polytech, 20, M.S, 22. Asst, Worcester Polytech, 20–22; research engineer, Westinghouse Elec. and Mfg. Co, 22–23; assoc. prof. elec. eng, *Norwich,* 23–39, *prof. elec. eng. and director bur. indust. research, 39–* A.A; Elec. Eng; Radio Eng; Physical Soc. Dielectrics; cathode-ray tubes; radio.

Howes, Dr. F(rederick) S(tanley), McGill University, Montreal, Que, Can. *Communication engineering.* Paris, Ont, July 25, 96. B.Sc, McGill, 24, M.Sc, 26; Dipl, London, 27, Ph.D, 29. Demonstrator and instr. elec. eng, *McGill, 24–27, lecturer radio eng, 29–* Assoc. Radio Eng. Direction finding; short wave loop antennas; ultra-high frequency generators; acoustical measurements.

Howes, Prof. Horace L(eonard), University of New Hampshire, Durham, N. H. *Physics.* Syracuse, N. Y, Oct. 19, 82. B.S, Syracuse, 05; Ph.D, Cornell, 15. Teacher, dept. science, Cook Acad, N. Y, 05–10; asst. physics, Cornell, 10–15; research asst, Carnegie Institution, 15–18; *prof. physics, New Hampshire, 18–* Fel. Physical Soc; fel. Optical Soc; N. H. Acad. Luminescence and phosphorescence of uranyl salts; luminescence of rare earths.

Howey, Prof. J(oseph) H(erman), Georgia School of Technology, Atlanta, Ga. *Physics.* West Salem, Ohio, 01. A.B, Col. of Wooster, 23; Ph.D, Yale, 30. Physicist, Firestone Tire and Rubber Co, 29–31; instr. *physics,* Yale, 31–35; *prof, Ga. Tech, 35–* Asn. Physics Teachers; Physical Soc. Magnetic behavior of evaporated films of iron and nickel; physical properties of rubber; structure of metals.

Howle, Prof. J(ohn) M, Nebraska Wesleyan University, Lincoln, Nebr. *Mathematics.* Bloomfield, Iowa, April 10, 71. A.B, Cotner Col, 96, Ed.D, 30; Wisconsin, 95–97; A.M, Nebraska, 22, Columbia, 24. Instr. *math,* Cotner Col, 91–94;

Nebraska, 94–95; Wisconsin, 95–97; *prof. and head dept*, Nebr. State Teachers Col, 98–22; *Nebr. Wesleyan, 24–* Acting head dept, Alma Col, 22–23. Summers, prof, Cent. Mich. State Nor. Sch, 23; instr, Colo. State Teachers Col, 24. A.A; Math. Asn. (past pres. and sec'y, Nebr. sect); Nat. Council Teachers Math; Cent. Asn. Sci. and Math. Teachers; Nebr. State Teachers Asn; Nebr. Acad. The development of elementary plane geometry without the use of incommensurables or theory of limits.

Howitt, Beatrice F(ay), Lederle Laboratories, Pearl River, N. Y. *Bacteriology.* San Francisco, Calif, 91. A.B, California, 24, A.M, 25. Research assoc, California, 24–25; asst, Connaught Labs, Toronto, 25–26; assoc. research med, Hooper Foundation, California, 26–42; *virus research, Lederle Labs, 42–* A.A; Soc. Bact; Soc. Exp. Biol; Pub. Health Asn. Cultivation of Endamoeba gingivalis; quantitative examination of mouth flora; oral Lactobacilli; poliomyelitis; monkey scurvy; equine encephalomyelitis; encephalitis.

Howitt, Prof. J(ohn) E(aton), Ontario Agricultural College, Guelph, Ont, Can. *Plant pathology.* Guelph, Ont, July 28, 81. B.S.A, Toronto, 05; M.S, Cornell, 06. Lecturer *bot, Ont. Agr. Col,* 07–11, *prof, 11–* Phytopath. Soc; Can. Phytopath. Soc. Systematic and economic botany; grain smuts; weeds of Ontario; fruit tree and vegetable diseases.

Howk, Dr. B(enjamin) W(ilson), 2215 W. 11th St, Wilmington, Del. *Chemistry.* Momence, Ill, April 10, 07. B.S, Illinois, 29; Ph.D, Wisconsin, 33. Research chemist, *chem. dept, Exp. Sta, E. I. du Pont de Nemours and Co,* 33–40, *research group leader, 41–* Chem. Soc. Organic chemicals; catalysis; resins and plastics.

Howland, Dr. Arthur L(loyd), Northwestern University, Evanston, Ill. *Geology.* Philadelphia, Pa, Jan. 13, 08. A.B, Cornell, 29; A.M, Northwestern, 31; Ph.D, Princeton, 33. Instr. *geol, Northwestern,* 33–39, asst. prof, 39–42, *assoc. prof, 42–* Geologist, Newfoundland Geol. Surv, 38; asst. geologist, U. S. Geol. Surv, 40–43, assoc. geologist, 43– Soc. Econ. Geol; Geophys. Union; Miner. Soc; Min. and Metal. Eng. Petrology and mineralogy.

Howland, Dean Leroy A(lbert), 255 High St, Middletown, Conn. *Mathematics.* Acushnet, Mass, July 6, 79. A.B, Wesleyan, 00; A.M, Harvard, 04, Parker fellow, 06–08; Ph.D, Munich, 08. Instr. *math,* Drexel Inst, 00–03; *Wesleyan,* 05–06, assoc. prof, 08–13, prof, 13–14, *Fisk prof, 14–,* v. pres, 21–26, 27–35, acting pres, 23–25, *dean, 35–* State Board Educ, Conn, 25–33. Assoc. ed, 'Annals of Math,' 10–11. Math. Soc; Math. Asn. The invariants of binary forms; algebraic plane curves.

Howland, Dr. Louis H(arold), 26 Fiske St, Waterbury, Conn. *Organic chemistry.* Near Georgetown, Ind, Jan. 13, 02. B.S, Louisville, 24, M.S, 26; Ph.D, Iowa, 28. Asst. gen. and biol. chem, Louisville, 24–26; gen. chem, Iowa, 26–28; research chemist, gen. labs, *U. S. Rubber Co,* Passaic, N. J, 28–36, *in charge* org. research group, 36–38, *rubber chemicals, rubber and synthetic rubber research and sales service div, lab, Naugatuck chem. div, 38–* Chem. Soc. Rubber chemistry.

Howland, Prof. Ruth B, New York University, Washington Square, New York, N. Y. *Biology.* Clay Center, Kans, Feb. 10, 87. Ph.B, Syracuse, 08, Ph.M, 09; Ph.D, Yale, 20. Asst. zool, Syracuse, 09–11; instr, Mt. Holyoke Col, 11–12; assoc. prof. *biol,* Sweet Briar Col, 12–19, prof, 20–23; asst. prof, *N. Y. Univ,* 23–27, *assoc. prof, 27–* A.A; Soc. Exp. Biol; Asn. Anat; Soc. Zool; Va. Acad. Micrurgical studies in cell physiology; experimental embryology of insects.

Howland, Prof. Warren Every, Purdue University, Lafayette, Ind. *Hydraulics, Sanitary engineering.* Athens, N. Y, March 22, 00. B.S, Mass. Inst. Tech, 22; M.S, Purdue, 29. Junior engineer, Weston and Sampson, Boston, Mass, 22–23; asst. to Prof. G. C. Whipple, Harvard, 23; from junior to asst. engineer, sanit. dist, Chicago, 23–25; asst. sanit. engineer, State Dept. Health, Conn, 25–26; from instr. to *prof. sanit. eng, Purdue, 26–* Gordon McKay fellow, Harvard, 36–37. Civil Eng; Eng. Educ. Hydraulics of sanitary engineering; structures and devices; pipe systems; porous plates; perforated pipes.

Howlett, Prof. F(reeman) S(mith), 1224 N. Palmer St, Wooster, Ohio. *Horticulture.* Jordanville, N. Y, June 15, 00. B.S, Cornell, 21, Ph.D, 25; London, 33. Asst. pomol, Cornell, 20–21, instr. agr. econ. and farm management, 21, pomol, 22–24; asst. *hort, Ohio Exp. Sta,* 24–27, *assoc, 27–;* asst. prof, *Ohio State,* 29–37, assoc. prof, 37–41, *prof, 42–* Nat. research foreign fellow, John Innes Hort. Inst, London, Eng, 32–33. A.A; Soc. Hort. Sci; Soc. Plant Physiol; Bot. Soc; Genetics Soc; Ohio Acad. Fruit setting in horticultural plants; physiology of reproduction in higher plants; parthenocarpy and effect of chemicals on fruit set and development; modern fruit production.

Howlett, Dr. Leslie E(rnest), National Research Council, Ottawa, Ont, Can. *Physics.* London, Eng, Oct. 29, 03. B.A, British Columbia, 27; M.A, Toronto, 28, Nat. Research Council Can. bursar, 28–29; student, McGill, 29–30, fellow, 30–31, Ph.D, 31. Demonstrator, Toronto, 27–28; *physicist in charge investigations in optics, spectroscopy, photometry and colorimetry, Nat. Research Council Can, 31–* Electrical discharges in gases; electrical conductivity at very low temperatures; Raman effect.

Howson, Elmer T(homas), 105 W. Adams St, Chicago, Ill. *Engineering.* Folletts, Iowa, May 23, 84. B.S, Wisconsin, 06, C.E, 14. Res. asst. and div. engineer, Chicago, Burlington and Quincy Ry, 06–11; eng. ed, 'Ry. Age,' *Simmons-Boardman Publishing Corp,* 11–17, *west. ed, 17–, v. pres, 31–, ed,* 'Ry. Eng. and Maintenance,' *16–* Ed, 'Ry. Eng. and Maintenance Cyclopedia,' 20– Civil Eng; Wood Preservers Asn. (v. pres, 30, pres, 32–); Am. Ry. Bridge and Bldg. Asn. (trustee, 18–22, v. pres, 22–26, pres, 26); Ry. Eng. Asn. (director, 41–); Roadmasters and Maintenance of Way Asn. (v. pres, 28–30, pres, 30–34); West. Soc. Eng. (trustee, 19–22, v. pres, 22–24, pres, 24). The design and maintenance of railway tracks.

Howson, L(ouis) R(ichard), 20 N. Wacker Drive, Chicago, Ill. *Engineering.* Near Clinton, Iowa, April 19, 87. B.S, Wisconsin, 08, C.E, 12. Asst. engineer, Alvord and Burdick, Chicago, 08–15, *partner,* 15–21, *Alvord, Burdick and Howson, 21–* Civil Eng; Mech. Eng; Water Works Asn. (director, 27–30; pres, 41); West. Soc. Eng. (pres, 37); Ill. Soc. Eng. Water supply; sewage disposal; public utility valuations and rate making.

Hoxie, Dr. George Howard, 2600 Ridge Road, Berkeley, Calif. *Medicine.* South Easton, N. Y, July 24, 72. A.B, Union (N. Y), 93, A.M, 96; M.D, Zurich, 01. Assoc. prof. anat, Kansas, 02–05, prof. internal med. and dean clin. dept, sch. med, 05–11; staff, St. Luke's and Gen. Hosps; med. director, Kansas City Open Air Schs. and Kansas City Tuber. Soc; *retired, 40–* Lieut-col, M.C. Am. Med. Asn; Col. Physicians; Tuber. Asn. (director); Asn. Study Int. Secretions; Therapeut. Soc. Medicine for nurses; blood pressure; reactivated thymus; blood sugar levels; symptomatic therapeutics; special schools for delicate school children.

Hoxie, Dr. Geo(rge) L, 605 S. Lucerne Blvd, Los Angeles, Calif. *Physics, Electrical engineering.* Leonardsville, N. Y, May 14, 72. M.E, Cornell, 92, M.M.E, 97, Ph.D, 02. Instr. physics, Arizona, 92–93, prof, 93–96; instr, Cornell, 98–99, elec. eng, 99–02; *consulting engineer, 02–* Mech. Eng; Elec. Eng. Engineering economics.

Hoxton, Prof. L(lewellyn) G(riffith), University of Virginia, Charlottesville, Va. *Physics.* Alexandria, Va, April 28, 78. B.S, A.M, Virginia, 00; Harvard, 00; George Washington, 01–02; fellow, Hopkins, 02–06, Ph.D, 16. Asst. physicist, Bur. Standards, 01–05; adj. prof. and assoc. prof. *physics, Virginia,* 06–16, *prof. and chairman dept, 16–* U. S. Naval Observatory eclipse exped, Spain and Africa, 05, Baker, Oregon, 18, San Diego, Calif, 23. A.A. (chairman, cmt. on grants, 28); Physical Soc; Asn. Physics Teachers; Astron. Soc; Optical Soc; Seismol. Soc; Va. Acad. (pres, 29). Thermodynamics; Joule-Thomson effect and specific heats in gases.

Hoy, Prof. Elvin A(lbert), 5534 Empire State Bldg, New York, N. Y. *Mathematics.* Falls City, Nebr, March 3, 03. B.S, Oregon State Col, 25; Stanford, 26–29; Munich, 33–34. Teacher, high sch, Oregon, 25–26; prof. math, Col. of Pacific, 26–27; Palo Alto Junior Col, 27–28; high sch, Calif, 28–30; *asst. prof. math. and eng, Hawaii, 30–; mem, War Production Board.* Eng. Educ. Statistics; mathematics of statistics; application of mathematics in engineering and physics.

Hoy, Prof. W(illiam) E(dwin), University of South Carolina, Columbia, S. C. *Biology.* Sendai, Miyagi Ken, Japan, Aug. 23, 90. A.B, Franklin and Marshall Col, 11; Ph.D, Princeton, 17. Instr. *biol,* Rochester, 16–18; prof, Presb. Col. (S. C), 20–29; *prof. and head dept, South Carolina, 30–* A.A; Asn. Anat; Soc. Mammal; Soc. Zool; fel. S. C. Acad. (pres, 27). Cytology.

Hoyem, Prof. Albert G(ustav), Augustana College, Sioux Falls, S. Dak. *Physics.* Lennep, Mont, July 25, 00. A.B, St. Olaf Col, 27; M.S, Iowa, 28, Ph.D, 31. *Prof. physics and math, Augustana Col. (S. Dak), 30–, coordinator, Civilian Pilot Training Program, 39–* A.A; Asn. Physics Teachers. Growth and electrical properties of zinc crystals.

Hoyle, Prof. Vinton A(sbury), Box 586, Chapel Hill, N. C. *Mathematics.* Jonesboro, N. C, 04. A.B, North Carolina, 24, A.M, 25; Ph.D, Princeton, 30. Instr. *math,* North Carolina, 25–27; Princeton, 27–30; asst. prof, *North Carolina,* 30–36, *assoc. prof, 36–* Math. Soc; Elisha Mitchell Sci. Soc. Tensor calculus.

Hoyman, Prof. William G(reig), University of Arizona, Tucson, Ariz. *Plant pathology.* Clarence, Iowa, April 4, 05. B.S, Coe Col, 28; M.S, Iowa State Col, 32, Ph.D, 40. Instr. biol, N. Mex. State Col, 39–40; *asst. prof, Arizona, and asst. plant pathologist, Exp. Sta, 40–* Phytopathological research with Phytomonas insidiosa on alfalfa and Sclerotinia sclerotiorum on head lettuce; nature of the emetic principle present in barley infected with Gibberella saubinetii.

Hoyne, Dr. Archibald L(awrence), 25 E. Washington St, Chicago, Ill. *Pediatrics.* Chicago, Ill, April 4, 78. A.B, Williams Col, 01; B.S, Chicago, 02, M.D, Rush, 04. From asst. prof. to assoc. clin. prof. med. and pediat, Rush Med. Col, *Chicago,* 13–34, clin. prof, 34–41, assoc. clin. prof, *sch. med,* 32–38, *clin. prof, 38–; prof. pediat, sch. med, Illinois, 41–;* attending physician and chief dept. contagious disease, Cook County Hosp, 12–, med. supt, Munic. Contagious Disease Hosp, 18–; Isolation Hosp, 13–; assoc. attending physician, Children's Mem. Hosp, 20–; attending pediatrician and head dept, St. Joseph Hosp, 37; consultant, St. Vincent's Infant Asylum and Maternity Hosp, 32– Am. Med. Asn; Col. Physicians; Acad. Pediat; Pub. Health Asn; Chicago Pediat. Soc. (past pres); Inst. Med. Chicago. Contagious diseases; meningococcus meningitis; diphtheritic myocarditis; scarlet fever and measles.

Hoyt, Dr. Anson P(helps) S(tokes), University of Southern California, Los Angeles, Calif. *Bacteriology.* Lenox, Mass, 97. A.B, Yale, 21; M.D, Columbia, 25. Asst. bacter, Columbia, 28–29, instr, 29–30; teaching fellow biol, Calif. Inst. Tech, 30–31; instr. *bacter, sch. med, Southern California,* 31–32, asst. prof, 32–34, assoc. prof, 34–41, *prof, 41–, asst. dean, 42–* Asst. pathologist, Los Angeles County Gen. Hosp, 31–34, attending physician, 34– A.A; Soc. Bact; Soc. Exp. Biol. Experimental rabies in mice; sterilization by steam under pressure; laboratory diagnosis of tuberculosis; etiology of human pneumonias.

Hoyt, Prof. Creig S, 631 S. Center St, Grove City, Pa. *Chemistry.* Auburn, N. Y, Feb. 27, 94. B.S, Grove City Col, 13, Sc.D, 43; A.M, Cornell, 17; Ph.D, Pittsburgh, 33. *Prof. chem, Grove City Col, 17–* Chem. Soc. Theory of solutions; petroleum refining.

Hoyt, Dr. Ernest B(asil), McMasterville, Que, Can. *Physical chemistry.* Hartland, N. B, Can, Dec. 23, 04. B.Sc, New Brunswick, 30; scholar, Brown, 30–31, M.S, 31; Ph.D, Cornell, 39. Chemist, Can. Int. Paper Co, 34–36; asst. physical chem, Cornell, 36–39; *chemist, Defense Industries, Ltd, 40–* Electrolytic reduction of nitrates and nitrites, at various electrode surfaces with measurements of potential, free energy calculations and quantitative data on the products of electrolysis.

Hoyt, Prof. Frank C(lark), University of Chicago, Chicago, Ill. *Physics.* Chicago, Ill, Sept. 12, 98. B.S, Mass. Inst. Tech, 18, M.S, 20; Ph.D, Stanford, 21. Asst. *physics,* Mass. Inst. Tech, 18–19, instr, 19–20; asst, Stanford, 20–21; instr, Wisconsin, 21–22; nat. research fellow, Copenhagen, 22–23; *Ryerson physical lab, Chicago,* 24–26, research assoc, 26–27, asst. prof, 27–28, *assoc. prof, 28–* Guggenheim Mem. Foundation fellow, Germany, 27–28. Physical Soc. Quantum theory of atomic structure.

Hoyt, Dr. Fred W(illis), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Laconia, N. H, June 16, 15. B.S, New Hampshire, 36; Ph.D, Iowa State Col, 40. *Research and develop. chemist, Kodak Park works, Eastman Kodak Co, 40–* Chem. Soc. Long chained aliphatic compounds; organometallic compounds; cellulose derivatives.

Hoyt, Dr. Howard C(harles), 15064 Grandville, Detroit, Mich. *Physics.* Blissfield, Mich, Sept. 2, 91. A.B, Michigan, 17, M.S, 27, Ph.D, 35. *Instr. physics,* Western Reserve, 21–22; Cass Tech. Sch, Detroit, Mich, 22–34; *Wayne, 34–* Physical Soc. Refraction in the x-ray region; diffraction of x-rays by crystals.

Hoyt, John C(layton), 1446 Belmont St, N. W, Washington, D. C. *Hydraulics.* La Fayette, N. Y, June 10, 74. C.E, Cornell, 97. Cornell Hydraul. Lab. Construction Co, U. S. Deep Waterways Cmn, and bur. yards and docks, Navy Dept, 97–99; U. S. Coast and Geod. Surv, 00–02; U. S. Geol. Surv, 02–30, hydraul. engineer in charge surface water div, 11–30; *consulting hydraul. engineer, 30–* Del, Int. Cong. Navig, London, 24; World Eng. Cong, Tokyo, 29. Civil Eng. (director, 20–22, v. pres, 27); Wash. Acad. (v. pres, 16); Wash. Soc. Eng. (sec'y, 08–15, pres, 16). Surface water; water supplies.

Hoyt, Dr. John E(zra), 304 Brookline Blvd, Upper Darby, Pa. *Physics.* Dexter, Mich, March 8, 79. A.B, Ursinus Col, 04; Tyndale fellow, Pennsylvania, 04–06, A.M, 06, Ph.D, 11. Instr. *physics, Drexel Inst. Tech,* 06–12, in charge dept, 12–14, *head dept, evening sch, 16–;* instr, W. Phila. High Sch, 14–26; Overbrook High Sch, Phila, 26–31; *head dept. science, Olney High Sch, Phila, 31–* A.A; Physical Soc; Physics Club Phila. (pres, 27). Electricity and magnetism; concise physics; oscillographic study of the singing arc.

Hoyt, Justus, 3 Abbey Road, Glenbrook, Conn. *Chemistry.* New Canaan, Conn, Dec. 13, 09. A.B, Wesleyan, 31, A.M, 33. Asst. anal. chem, Wesleyan, 31–33; anal. and research chemist, Lehn and Fink Products Co, 33–35; *research chemist,* E. I. du Pont de Nemours and Co, 35–41; *Gen. Printing Ink Corp, 41–* Physical and organic chemistry; industrial finishes; printing inks; synthetic resins; reaction kinetics; industrial utilization of synthetic resins in finishes, printing vehicles and textile proofing compounds.

Hoyt, Ray S(tevens), 827 Summit Ave, River Edge, N. J. *Communication engineering.* Auburn, N. Y, July 24, 82. B.S, Wisconsin, 05; M.S, Princeton, 10. Lab. worker, West. Elec. Co, 07–09, 10–11; transmission engineer, Am. Tel. and Tel. Co, 06–07, engineer theoret. investigations, 11–19, research and develop. engineer, 19–34; engineer transmission theory, *Bell Tel. Labs,* 34–40, *engineer, tech. consulting staff, 40–* Elec. Eng; Math. Soc; Acoustical Soc. Telephone engineering development and research; theory of telephone transmission and devices.

Hoyt, Dr. Robert N(elson), 1656 Crest Road, Cleveland, Ohio. *Parasitology.* Charles City, Iowa, Oct. 17, 83. B.S, Mass. Inst. Tech, 09, C.P.H, 20; C.P.H, Harvard, 20; D.P.H, Georgia, 25. Biologist, Metropolitan Sewerage Cmn, New York, 09–10; health inspector, Summit, N. J, 10–11; health officer, Princeton Univ. and borough, N. J, 11–13; director, Associated Boards Health, Wellesley, Framingham and Belmont, Mass, and lecturer pub. health admin, tech. sch. health officers, Harvard, 13–16; health officer, Manchester, N. H, 16–17; state dist. health officer, State Board Health, Calif, and lecturer hygiene, Univ. Calif, 16–18; acting bacteriologist, Health Dept, Boston, Mass, 20; instr. and asst. prof. prev. med, Georgia, 21–25; asst. prof. bacter, sch. med, *Western Reserve,* 25–29, assoc. prof. biol, 29–36, *assoc. parasitol, sch. med, 36–* Sec'y social hygiene, Cleveland Health Council and Acad. Med; coordinator venereal disease control, Cleveland, Ohio. Sanit.C, 18–19, capt. Fel. Pub. Health Asn. Control of communicable diseases; social hygiene; epidemiology of malaria.

Hoyt, Dr. Samuel L(eslie), Battelle Memorial Institute, Columbus, Ohio. *Metallurgy.* Minneapolis, Minn, May 29, 88. E.M, Minnesota, 09; Ph.D, Columbia, 14; Polytech, Charlottenburg, 11–13. Asst. and assoc. prof. metallog, Minnesota, 13–19; metal. engineer, Nat. Lamp Works, Ohio, 19–22; research metallurgist, Gen. Elec. Co, 22–31; A. O. Smith Corp, 31–34, director metal. research, 34–39; *tech. adviser, Battelle Mem. Inst, 39–* Field investigator, Nat. Research Council, 17–18; consulting metallurgist, U. S. Bur. Mines, 18–20; Inst. Metals lecturer, Inst. Mining and Metal. Engineers, 30. Min. and Metal. Eng; Soc. Metals (trustee, 38; Campbell Mem. lecturer, 40); Inst. Metals; Welding Soc; Army Ordnance Asn; Inst. Metals England. Metallography; single crystals; steel fabrication; tungsten; carboloy; steel welds; heat resisting alloys; stainless steel; steel quality.

Hoyt, Prof. W(illiam) D(ana), Washington and Lee University, Lexington, Va. *Botany.* Rome, Ga, April 16, 80. A.B, Georgia, 01, M.S, 04; fellow, Hopkins, 08–09, Ph.D, 09, Bruce fellow, 09–10. Tutor biol, Georgia, 01–04; sci. asst, U. S. Fisheries Lab, Beaufort, N. C, 02–09; instr. bot, Rutgers, 10–12; fellow, Hopkins, 12–15; assoc. prof. *biol, Wash-*

ington and Lee, 15–20, *prof*, *20–* Instr, Marine Biol. Lab, Woods Hole, 17–19. A.A; Bot. Soc; Genetic Asn; Forestry Asn; Asn. Research Human Heredity; Soc. Nat; Micros. Soc; Eugenics Soc; Va. Acad. Fertilization and hybridization in ferns; marine algae of southern United States; periodicity of reproduction and alternation of generations in Dictyota dichotoma; physiology of fertilization; physiological effects of colloidal metals.

Hoyt, W(illiam) G(lenn), U. S. Geological Survey, Washington, D. C. *Hydraulic engineering.* La Fayette, N. Y, Aug. 25, 86. C.E, Cornell, 09. *Hydraul. engineer, U. S. Geol. Surv, 09–* Civil Eng; Geophys. Union; Wash. Soc. Eng. (sec'y, 22–28). Hydrology; water supply; water power engineering.

Hron, Prof. R(alph) P(reston), Marshall College, Huntington, W. Va. *Physics.* Kingman, Kans, May 31, 86. B.S, Okla. City Univ, 11; Kansas, 12, 13; Ph.C, A.M, Oklahoma, 14; Columbia and Oklahoma, 28–31. Teacher, high sch, Okla, 11–13; Utah, 14; head dept. physics and chem, Methodist Univ. Okla, 15–19; chem. engineer, Empire Gas and Fuel Co, 19–20; *prof. physics and head dept, Marshall Col, 20–* A.A; Asn. Physics Teachers; W. Va. Acad. Petroleum technology; chemistry; education.

Hrones, Prof. John A(nthony), 15 Hamilton Road, Wellesley, Mass. *Mechanical engineering.* Boston, Mass, Sept 28, 12. B.S, Mass. Inst. Tech, 34, M.S, 36, Sc.D, 42. Asst. instr, Mass. Inst. Tech, 34–36, instr, 36–37; asst. to factory manager, Coldwell Lawnmower Co, N. Y, 37–39; instr, *Mass. Inst. Tech*, 39–41, *asst. prof. and research assoc. mech. eng, 41–* Mech. Eng. Machine design; automatic control.

Hrubesky, C(larence) E(arl), U. S. Forest Service, Madison, Wis. *Chemistry.* Menasha, Wis, July 12, 00. B.S, Wisconsin, 22, M.S, 24. *U. S. Forest Service, 25–*, asst. chemist and later *chemist, pulp and paper, Forest Products Lab.* Pulp and paper; glues; paints.

Hsü, Dr. Peng Cheng, Cornell University, Ithaca, N. Y. *Nutrition.* Foochow, China, May 18, 11. B.S, Yenching, 33, M.S, 35; Ph.D, Cornell, 42. Instr. chem, Yenching, 35–39; asst. *nutrition, Cornell*, 39–42, *instr, 42–* A.A; Chem. Soc. Biochemistry; inorganic chemistry; calcium nutrition in China; leafy vegetables in the Chinese diet; exercise and vitamin requirements; nutritive value of pineapples.

Hu, Dr. Seng-chiu, 729 E. 14th St, Los Angeles, Calif. *Aeronautical engineering.* China, March 16, 18. B.Sc, Chiao-Tung Univ, 39; M.S, Rensselaer Polytech, 40; Sc.D, Mass. Inst. Tech, 42. Mech. engineer, Tienchien Eng. Co, Shanghai, 38–39; testing engineer, Gen. Elec. Co, 40; chief instr. in charge aircraft dept, Boston Tech. Inst, 40–42; struct. engineer, Vought-Sikorsky div, United Aircraft Corp, 42; aeronaut. engineer, Zap Aircraft Corp, 42; *chief struct. and weight engineer, Aerojet Eng. Corp, 42–* Inst. Aeronaut. Sci; Chinese Inst. Eng. Aeronautics; mechanical engineering.

Hubard, Prof. Stephen S(wift), Tusculum College, Greeneville, Tenn. *Physical chemistry.* Lexington, Ky, April 14, 14. B.S, Kentucky, 35; Ph.D, Cornell, 40. Asst. soil. chem, N. Y. State Col. Agr, Cornell, 35–37, *chem*, univ, 37–40; *asst. prof, Tusculum Col, 40–* Summers, res. doctor, Bancroft Foundation, Cornell, 41, 42. A.A; Chem. Soc. Phase equilibria; induced oxidation-reduction reactions; distribution relations in ternary systems.

Hubbard, Dr. Bela, Standard Oil Co. of New Jersey, 30 Rockefeller Plaza, New York, N. Y. *Geology, Geophysics.* Detroit, Mich, Aug. 10, 90. Wisconsin, 10–12; Mich. Col. Mines, 13; B.S, Columbia, 14, A.M, 16, Ph.D, 22. Asst. geol, Columbia, 15–17; lecturer, Queen's (Can), 19–20; geologist, Carter Oil Co, 20; Standard Oil Co. of N. J, 20–22; chief geologist, Standard Oil Co. of Venezuela, 22–27; geophysicist, Creole Petrol. Corp, 27–30; Carter Oil Co, Tulsa, Okla, 30–35; *asst. to chief geologist, Standard Oil Co. of N. J, 35–* Summers, field geologist, Mich. Geol. Surv, 15; N. Y. Acad. Sciences geol. surv, P. R. and Virgin Islands, 16; topog. aid, U. S. Geol. Surv, 17. 2nd lieut, C. Eng, 18–19. A.A; fel. Geol. Soc; Geophys. Union; Paleont. Soc; Asn. Petrol. Geol; Soc. Explor. Geophys; Min. and Metal. Eng; Soc. Mil. Eng; fel. Am. Geog. Soc; fel. N. Y. Acad. Paleontology; stratigraphic and petroleum geology.

Hubbard, B(everly) R(aymond), 334 W. Emerson St, Melrose, Mass. *Acoustics.* Middletown, Conn, Dec. 27, 01. B.S. (E.E), Mass. Inst. Tech, 25. Instr. elec. eng, Mass. Inst. Tech, 25, 26; *sales engineer, Submarine Signal Co, 27–* Summers, engineer, Submarine Signal Co, 25–28. A.A; fel. Acoustical Soc; assoc. Elec. Eng; assoc. Radio Eng. Electrical communications; submarine signaling; longitudinal vibrations in a loaded rod; influence of atmospheric conditions upon the audibility of fog signals; the fog horn as an aid to navigation.

Hubbard, Prof. C(larence) Andresen, Pacific University, Forest Grove, Oregon. *Economic entomology.* Portland, Oregon, Dec. 10, 98. B.Ed, Washington (Seattle), 20, M.S, 30, M.Ed, 31; hon. Sc.D, Pacific (Oregon), 40. *Prof. biol, Pacific (Oregon), 22–* A.A; Pacific Northwest Bird and Mammal Soc; Oregon Entom. Soc. Life histories of western rodents; fleas of the western United States in all their aspects.

Hubbard, Dr. Donald, 2717 Ontario Road, N. W, Washington, D. C. *Chemistry.* Terra Ceia, Fla, Oct. 4, 00. B.S, Florida, 23, M.S, 24; Ph.D, American Univ, 32. *Research* photog. emulsions, *Bur. Standards*, 25–33, *optical glass, 33–* Asst, Florida, 23–24. Medal, French Photog. Soc, 34. A.A; Chem. Soc; Optical Soc. Physical chemistry of photographic emulsions; Donnan membrane equilibrium and hypersensitization; photographic gelatin; silver ion gelatin equilibria; chemical durability of glass by an interferometer method; voltage departures and asymmetry potential of the glass electrode; production of optical glass.

Hubbard, Prof. Geo(rge) D(avid), 279 Oak St, Oberlin, Ohio. *Geography, Geology.* Tolono, Ill, May 12, 71. B.S, Illinois, 96, fellow, 96–97, M.S, 98; A.M, Harvard, 01; Ph.D, Cornell, 05. Asst. geol, Illinois, 97–00; geog, East. Ill. State Nor. Sch, 01–03; physical geog, Cornell, 03–04, instr, 04–05; asst. prof. geol, Ohio State, 05–10, sec'y, col. educ, 07–10; prof. *geol. and geog.* and head dept, *Oberlin Col*, 10–36, *emer. prof, 36–* Temporary field asst. glacial geol, U. S. Geol. Surv, 04–05; asst. geologist, Ohio Geol. Surv, 06–26; teacher, Berea Col. (Ky), 41; visiting prof, Missouri, 42–Summer, mem. faculty, Harvard, 37. Assoc. ed, 'Ohio Naturalist,' 06–15; 'Ohio Jour. Science,' 16– Int. Geog. Cong, 04, 34; Int. Geol. Cong, 33. A.A; Asn. Geog; Am. Geog. Soc; Geol. Soc; Ohio Acad. (pres, 15, trustee, research fund, 19–27). Geographic influence of gold and silver in the development of the United States; influence of physiography and geography on industrial development; physiography of Ohio; geology of Giles County, Virginia, and of Wilmington, Vermont, quadrangle; geology and geography of China; geography of Europe.

Hubbard, Prof. J(ohn) C(harles), Johns Hopkins University, Baltimore, Md. ****Physics.* Boulder, Colo, April 16, 79. B.S, Colorado, 01; Ph.D, Clark, 04; LL.D, Loyola Col. (Md), 38. Instr. *physics*, Simmons Col, 04–05; asst. prof, N. Y. Univ, 05–06; Clark, 06–11, prof, 11–16; head dept, N. Y. Univ, 16–27; *prof, Hopkins, 27–* Assoc. ed, 'Physical Rev,' 32–34. Div. physical sciences, Nat. Research Council, 32, 33; Inst. Physics rep, Am. Eng. Standards Cmt. Officier d'Acad. française. Capt, Sig.C, 17–18, major, U.S.A, 18–19, official historian. A.A; Physical Soc; Optical Soc; Acoustical Soc; Asn. Physics Teachers; Am. Acad. Spark discharge; distributed capacity of solenoids; binary mixtures; electrical oscillations; recoil electrons; acoustic interferometry; ultrasonics.

Hubbard, Karl H(ammond), Taylor Instrument Companies, Rochester, N. Y. *Physics.* Mt. Sterling, Ill, Oct. 6, 99. B.S, Illinois, 24, M.S, 26. Asst. instr. physics, Illinois, 24–26; assoc. physicist, cryogenic lab, U. S. Bur. Mines, 26–28; research director, *Taylor Instrument Companies*, 28–38, *chief engineer in charge eng. and research, 38–* Summers, engineer, develop. dept, West. Elec. Co, Chicago, 24, 25. Physical Soc; Mech. Eng; Rochester Eng. Soc. Engineering physics; determination of the dielectric constant of air by a discharge method; the heat capacity of saturated ethane and heat of fusion of the solid; industrial temperature measurement and control; the recording sphygmomanometer.

Hubbard, Marion E(lizabeth), 56 Commonwealth Ave, Boston, Mass. *Zoology.* McGregor, Iowa, Aug. 31, 68. Mt. Holyoke Col, 86–89; B.S, Chicago, 94. Asst, high sch, Wis, 89–93; instr. zool, Wellesley Col, 94–01, assoc. prof, 02–16, prof, 17–37; *retired.* A.A. Poison glands of some California salamanders; order of succession of somites in the chick; variation in certain beetles.

Hubbard, Prevost, 801 Second Ave, New York, N. Y. *Chemistry.* Washington, D. C, Nov. 2, 81. George Washington, 03, 06. Chemist, B. P. Clapp Ammonia Co, 00–02;

U. S. Treasury Dept, 03; asst. chemist, office pub. roads, U. S. Dept. Agr, 05–07, chemist, 07–10; lecturer highway eng, Columbia, 10–14; chem. engineer in charge div. roads and pavement, Inst. Indust. Research, 11–15; chem. engineer and chief div. tests and research, bur. pub. roads, U. S. Dept. Agr, 14–19; *chem. engineer, Asphalt Inst, 19–* Advisory board on highways, State Dept. Efficiency and Econ, N. Y, 13–14; chairman subcmt. on cements, Nat. Research Council, 17–19, advisory board on highway research. Soc. Test. Mat. (sec'y, cmt. D–4 and D–8); Pub. Works Asn; assoc. Civil Eng; Road Asn; Asn. Asphalt Paving Technol. (pres, 30). Decomposition of the feldspars; extraction of potash from feldspathic rocks; dust preventives and road binders; chemical road materials; physical and laboratory tests of road-building materials; soil mechanics.

Hubbard, Prof. Roger S(anford), University of Buffalo School of Medicine, Buffalo, N. Y. *Biochemistry, Pharmacology.* Cambridge, Mass, Sept. 21, 88. A.B, Harvard, 11, A.M, 13; Ph.D, Washington (St. Louis), 21. Asst. chem, Harvard, 11–12, biochem, Harvard Med. Sch, 13–14; med. sch, Washington (St. Louis), 14–17; biochemist, Clifton Springs Sanitarium, 17–30; asst. prof. physiol, *sch. med, Buffalo,* 30–37, *prof.* pharmacol, 37–39, *applied physiol, 39–; biochemist, Buffalo Gen. Hosp, 30–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc; Physiol. Soc; Gastro-Enterol. Asn; assoc. fel. Am. Med. Asn. Ketogenesis; nephritis; urinary acidity; chemical and biological reactions of sugars.

Hubbard, Dr. Ruth M(arilla), 51 W. Warren Ave, Detroit, Mich. *Psychology.* Charleston, Ill, Sept. 22, 02. A.B, Oberlin Col, 24; A.M, Minnesota, 25, Ph.D, 27. Teaching fellow, Minnesota, 24–27; Laura Spelman Rockefeller Foundation fellow, Teachers Col, Columbia, 27–28; *psychologist,* Child Guidance Clinic, Cleveland, 28–30; Rochester, N. Y, 30–34; Kalamazoo State Hosp, 34–35; *Consultation Bur, Detroit, 35–* Instr, sch. nursing, Strong Mem. Hosp, Rochester, 32–34; lecturer, Michigan, 35–; Wayne, 36– A.A; Psychol. Asn; fel. Asn. Applied Psychol; Asn. Social Workers. Mental hygiene; child development and guidance; mechanical interests; social behavior of young children.

Hubbard, Dr. W(infield) S(cott), 4150 Utah St, San Diego, Calif. *Chemistry, Pharmacy.* Ogden, Utah, March 7, 84. Ph.G, Illinois, 04; B.S, Michigan, 08; A.M, Columbia, 09; Ph.D, Wisconsin, 11. Asst. org. chem, Wisconsin, 09–11; instr. food and drug anal, Michigan, 11–14; org. chemist, bur. chem, U. S. Dept. Agr, 14–17, chief control chemist, 18–19, org. chemist, 19–30; chief chemist, Schwarz Labs, Inc, 30–38; *consultant, 38–* Chem. Soc; Inst. Chem; Asn. Consulting Chem. and Chem. Eng; Agr. Chem; Oil Chemists Soc; Pharmaceut. Asn. Biochemistry; food; drugs; chocolate products.

Hubbell, D(ean) S(terling), Orchard Knoll, R. D. 2, Sharpsburg, Pa. *Chemistry.* Chagrin Falls, Ohio, March 9, 04. Ohio Wesleyan, 22–24; B.Ch.E, Ohio State, 28, M.S, 28, Ch.E, 39. *Indust. fellow, Mellon Inst, 28–* Chem. Soc; Chem. Eng. Cements for metal protection; rate of hydration of cement clinker and of the pure minerals found in cement clinkers; cellular concrete; development of Hubbellite, a copper-bearing magnesium oxychloride cement.

Hubbell, Dr. Donald S(idney), Navajo Experiment Station, Mexican Springs, N. Mex. *Soils.* Albuquerque, N. Mex, May 18, 06. B.S, Okla. Agr. and Mech. Col, 29; M.S, Iowa State Col, 30, Ph.D, 32. Asst. prof. hort, Arkansas, 32–33; assoc. soil conservationist, *Navajo Exp. Sta, U. S. Dept. Agr,* 34–35, *director, 35–, mem. agr. mission to Venezuela, S. Amer, 41–* Root behavior of pot plants; flower development of roses; buffering capacity of soils; erosion and run-off; physical, chemical and biological effects of diversion flooding on native vegetation, farm crops and soils.

Hubbell, Dr. Rebecca B(arnett), Connecticut Agricultural Experiment Station, New Haven, Conn. *Physiological chemistry.* East Wallingford, Conn, April 7, 87. A.B, Mt. Holyoke Col, 09; M.S, Yale, 23, Ph.D, 27. Instr, Science Hill Sch, Ky, 10–14; Monticello Sem, Ill, 14–18; assoc. prof. chem, Lake Erie Col, 18–19; prof, Hood Col, 19–25; nutrition, Fla. State Col. for Women, 26–29; research assoc. physiol. chem, Michigan, 29–33; *asst. biochemist, Conn. Exp. Sta, 33–* A.A; Inst. Nutrition; Soc. Biol. Chem; Chem. Soc. Zinc in nutrition; mineral metabolism.

Hubbell, Prof. Theodore H(untington), University of Florida, Gainesville, Fla. *Entomology.* Detroit, Mich, July 4, 97. A.B, Michigan, 20, Ph.D, 34. Asst, museum zool Michigan, 20–22; instr. *biol, Florida,* 23–24, asst. prof, 25–26, assoc. prof, 27–37, *prof, 37–,* acting head dept, 30–31, 40–41. Mem, Am. Cmn. Entom. Nomenclature, 42. Fel. Entom. Soc. Zoogeography; North American Orthoptera; camel and cave crickets of the genus Ceuthophilus and allies.

Hubbert, Dr. M(arion) King, 10 Bethune St, New York, N. Y. *Physics, Geology.* San Saba Co, Texas, Oct. 5, 03. B.S, Chicago, 26, M.S, 28, Ph.D, 37. Geologist, Amerada Petrol. Corp, 28; lecturer geol. and geophysics, Columbia, 30–40; private research on hydrodynamics of viscous fluids through porous solids, 40–42; *senior physicist, Bur. Standards, 42–* Geophysicist, Ill. Geol. Surv, 31–32, 35–37; assoc. geologist, U. S. Geol. Surv, 35. Mem. interdiv. cmt. geol, physics and chem, Nat. Research Council, 36. Geophys. Union; Geol. Soc. (cmt. geophys, 39–); Min. and Metal. Eng. (papers and publications cmt, 39–; v. chairman cmt. geophys. educ, 39–; cmt. geophys, 41–). Mineral economics; physics of terrestrial phenomena; general geophysics; geophysical prospecting; structural geology; dynamical similarity and theory of scale models; mineral resources and physical limitations upon evolution of industrial society; technological unemployment; monetary causes of mal-distribution; hydrodynamics of ground-water motion.

Hubble, Dr. Edwin P(owell), 1340 Woodstock Drive, San Marino, Calif. **⁴Astronomy.* Marshfield, Mo, Nov. 20, 89. B.S, Chicago, 10, Ph.D, 17; B.A, Oxford, 12, M.A, hon. Sc.D, 34; Princeton, 36; LL.D, Occidental Col, 36; Sc.D, Brussels, 37. Asst, Yerkes Observatory, Chicago, 14–17; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 19–* Silliman lecturer, Yale, 35. Rhodes mem. lecturer, Oxford, 36–37. Trustee, Huntington Library, Calif. Major, Inf, 17–19. Barnard medal, 35; Bruce gold medal, 38; Franklin gold medal, 39; gold medal, Royal Astron. Soc, 40. Nat. Acad; A.A. (v. pres, 41); Astron. Soc. (v. pres, 41); Astron. Soc. Pacific (pres, 34); Royal Astron. Soc. Nebulae.

Hubbs, Prof. Carl L(eavitt), University of Michigan, Ann Arbor, Mich. **⁵Zoology.* Williams, Ariz, Oct. 18, 94. A.B, Stanford, 16, A.M, 17; Ph.D, Michigan, 27. Asst. curator ichthyol. and herp, Field Museum Nat. Hist, 17–20; *curator fishes, museum zool, Michigan, 20–,* instr. *zool,* 20–27, asst. prof, 27–31, assoc. prof, 31–40, *prof, 40–,* director *inst. fisheries research,* 30–35, research assoc, 35–37, *hon. research assoc, 37–, research assoc, lab. vert. biol, 34–* Asst, ichthyol. surv, Utah, 15; Calif. Fish and Game Cmn, 16; Bur. Fisheries, 15, 20, 21; Geol. and Nat. Hist. Surv, Mich, 20, 21, dept. conservation, 23–25; Fish Surv, Wis, 25–29; consultant, Iowa Conservation Plan, 32. Tech. cmt, Wildlife Inst, 35–; research assoc, Cranbrook Inst. Science, 36–; field rep, U. S. Dept. Interior, 39–40; mem. sci. advisory cmn, Board Inquiry for Great Lakes Fisheries, 40– Rev. ed, 'Am. Naturalist,' 40–, mem. ed. board, 41– Expeds, U. S, 15–; Ont, 27–30; eastern Asia, 29; Guatemala, 35. Russel award, Michigan, 30. Del, Pacific Sci. Cong, Java, 29. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; Soc. Ichthyol. and Herp. (sec'y, 28–31, ed, 30–37, pres, 34); Soc, Limnol; Fisheries Soc; Wildlife Soc. (v. pres, 39, assoc. ed, 42–); Soc. Geneal; Pa. Fish Culturists Asn; Mich. Acad. (chairman, zool. sect, 28); fel. Calif. Acad; Texas Acad; Biol. Soc. Wash; hon. assoc. Cuban Nat. Hist. Soc. Ichthyology; taxonomy, distribution, ecology, variation, hybridization, genetics, evolution and life histories of fishes; fish management; conservation; principles of systematics and evolution.

Hubbs, Prof. Horace N(ewton), 406 Pulteney St, Geneva, N. Y. *Mathematics.* Grand Rapids, Mich, March 27, 93. B.E, Union (N. Y), 15; A.M, Rochester, 25; Ph.D, Cornell, 31. Instr. math. and physics, *Hobart Col,* 16–17, *math,* 22–25, asst. prof, 25–36, *prof, 36–* 2nd lieut, C.A. Res, 17–18, lieut, 18–19, capt, 26–36. Math. Soc; Math. Asn. Geometry.

Hubbs, Mrs. Laura C(lark), 1201 Fair Oaks Parkway, Ann Arbor, Mich. *Ichthyology.* St. Edward, Nebr, March 26, 93. A.B, Stanford, 15, A.M, 16. Asst. math, Stanford, 15–18; *cataloguer, fish div, museum zool, Michigan, 29–* Hybridization of fishes.

Hubbuch, Dr. L(eo) P(hillip), 112 Broadview Road, Springfield, Pa. *Chemistry.* Louisville, Ky, Sept. 6, 04. B.S, Louisville, 24, M.S, 25; Ph.D, Pittsburgh, 28. Asst. chem, Pittsburgh, 25–28; *research chemist org. chem, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Electrochemical reductions of organic compounds; synthetic resins, paints, lacquers and varnishes.

Huber, Charles J, United States Testing Co, 1415 Park Ave, Hoboken, N. J. *Electrical engineering.* Attica, Ind, Aug. 24, 86. B.S, Purdue, 08, M.S, 11. Lab. asst. and asst. physicist, Bur. Standards, 08–13; elec. and process engineer, Larkin Co, Buffalo, 13–17, 19–20; engineer in charge equipment and develop, United Drug Co, Boston, Mass, 20–23; far east manager, United States Testing Co, Shanghai, China, 23–27; director research and develop, Cheney Bros, Manchester, Conn, 27–31; *director labs. in charge eng. and research, United States Testing Co, 32–; purchasing raw silks, Defense Supplies Corp, 42–; develop. eng, Johnson and Johnson, 43–* Capt, U.S.A, 17–19. A.A; Optical Soc; Inst. Physics; Soc. Test. Mat; Elec. Eng. Electrical measuring instruments; the application of physics and chemistry in the solution of industrial problems; seri-culture and textile engineering; colorimetry; microscopy; electronics; acoustics; optics; precision measurements.

Huber, Prof. C(harles) R(ussell), Box 91, College, Alaska. *Civil engineering.* Marengo, Iowa, May 8, 01. B.S, Iowa, 25, M.S, 27. Prin, high sch, Iowa, 25–26; instr. eng. and math, Ripon Col, 27–28, asst. prof, 29–30; instr. civil eng, Alaska, 30–31, assoc. prof, 31–42, prof. mil. science and tactics, 31–40; *capt, Eng. Corps, U. S. Army, 42–* Private eng. practice, Wis, 27–30. Summers, inspector Iowa highways, 26; instr, Iowa, 28; inspector highways, Wis, 29; consulting engineer, Fairbanks, 36–42. Capt, Eng. Res. Asn. Eng. (legislative cmt, 36). Effect of permanent frost layers on ground water; sewage disposal at sub-zero temperatures; water supply developments.

Huber, Prof. Clyde M(ortimer), Wilson Teachers College, Washington, D. C. *Mathematics.* Saltillo, Pa, Feb. 26, 99. A.B, Pa. State Col, 22; A.M, Illinois, 24, Ph.D, 26. Asst. math, 34, asst. prof. and registrar, 34–40, acting pres, 40–41, *prof. math. and business educ. and chairman div, 41–* Math. Soc; Math. Asn. Algebraic geometry; prime divisors of cyclotomic functions; complete systems of irrational invariants of associated point sets.

Huber, Dr. Edward G(odfrey), Harvard School of Public Health, Boston, Mass. *Public health.* Menomonie, Wis, May 30, 82. A.B, Michigan, 03, M.D, 05; Army Med. Sch, 08; Dr.P.H, Harvard, 25. From lieut. to col, Med. Corps, U. S. Army, 08–35; *instr. prev. med. and hygiene, asst prof. pub. health admin, assoc. prof. pub. health practice,* asst. dean and later *acting dean, sch. pub. health, Harvard, 35–; director orthop. unit, State Dept. Pub. Health, Mass,* 36– Asst, sch. pub. health, Harvard, 24–25. Wellcome prize, 26. A.A; fel. Am. Med. Asn; fel. Pub. Health Asn; fel. Col. Physicians; Asn. Mil. Surg; Foundation Trop. Med; Soc. Trop. Med; fel. Am. Acad; N. Y. Acad; Mass. Pub. Health Asn. Blood pressure readings in normal adults; epidemiology of influenza; mortality from communicable diseases prevalent in Massachusetts; prevention of physical defects in school children.

Huber, Dr. Francis C(hristian), 100 Seventh St, Riverton, N. J. *Organic chemistry.* Minersville, Pa, April 19, 00. Ch.E, Lehigh, 22; Ph.D, Hopkins, 25. Assoc. prof. chem. and physics, Col. of Charleston, 25–26; chem, Southwestern (Tenn), 26–37; *with* Axton-Fisher Tobacco Co, 37–42; *Barrett div, Allied Chem. and Dye Corp, 42–* Chem. Soc; Tenn. Acad. Influence of rate of stirring on reaction velocity; composition of certain wood distillates; tobacco processing and manufacture; coal tar derivatives.

Huber, Dr. Glenn A(nthony), 313 Fourth St, S.W, Puyallup, Wash. *Plant pathology.* Oberlin, Kans, March 29, 99. B.S, State Col. Wash, 25, M.S, 29, Ph.D, 31. Teaching fellow, State Col. Wash, 26–31, asst, 31–34, *plant pathologist, West. Wash. Exp. Sta, 34–* A.A; Phytopath. Soc; Soc. Plant Physiol; West. Wash. Hort. Soc. Storage rots of apples; mosaic of raspberries; diseases of Narcissus, bulbous iris and greenhouse ornamentals; brown rot of stone fruits.

Huber, Dr. Harry L(ee), 122 S. Michigan Blvd, Chicago, Ill. *Medicine.* Ill, Aug. 1, 83. B.S, Chicago, 14, M.S, 16, Ph.D, 17, M.D, Rush, 18. Asst. anat, Chicago, 12–13, path, 14–17, mat. med, Rush Med. Col, Chicago, 17–18, instr. med, 24–28, asst. prof, Chicago, 28–34, assoc. prof, 34–35; *practising physician, 37–* Am. Med. Asn; Soc. Study Asthma and Allied Conditions (pres, 40); Asn. Study Allergy (pres, 36); Cent. Soc. Clin. Research; Chicago Path. Soc; Chicago Soc. Int. Med; Inst. Med. Chicago. Physiology; pathology; ammonia in gastric juice; chemotherapy of organic copper; fat embolism; asthma; hay fever; immunity; allergy; dermatitis; rhinitis; food allergy.

Huber, Prof. H(arvey) E(vert), 724 S. Union St, Ada, Ohio. *Biology.* Bluffton, Ohio, March 19, 84. B.S, Ohio Northern, 08, A.B, 09; A.M, Yale, 12, 12–13; Wisconsin, 20. Teacher, high sch, Colo, 09–11; *prof. biol,* Ohio Northern, 13–18; Bluffton Col, 18–19; *Ohio Northern, 19–, dean col. lib. arts, 20–* Summer, field plant pathologist, bur. plant indust, U. S. Dept. Agr, 18. Cmt. col. entrance procedure, Ohio Col. Asn. A.A; Genetic Asn; Ohio Acad. Plant pathology; leaf spot diseases; anatomy; embryology.

Huber, Dr. John Franklin, 454 Moreno Road, Wynnewood, Pa. *Anatomy.* Ann Arbor, Mich, Nov. 8, 04. A.B, Michigan, 25, A.M, 28, M.D, 29, Ph.D, 33. Instr. *anat,* Michigan, 28–36; *assoc. prof, med. sch, Temple, 36–* Asn. Anat. Nuclei of bird spinal cord; arterial supply of the foot; gross anatomy of the lung.

Huber, Dr. L(awrence) L(ester), Pennsylvania State College, State College, Pa. *Agronomy.* Bluffton, Ohio, March 8, 93. B.S.A, Ohio State, 20, M.S, 21, Ph.D, 22. Research entomologist, Nat. Hist. Surv, Illinois, 22–23; asst. entomologist, Ohio Exp. Sta, 23–26, assoc. entomologist, 26–43; *research prof. agron, Pa. State Col, 43–* Ecology of corn and corn insects; corn breeding.

Huber, Oren J(ohn), 505 King Ave, Columbus, Ohio. *Physics.* Columbus, Ohio, Oct. 9, 17. B.S, Ohio State, 39. *Research engineer, physics dept, Battelle Mem. Inst, 39–* Soc. X-Ray and Electron Diffraction. Electron and x-ray diffraction techniques; x-radiography; gas content of metals by vacuum fusion.

Huber, Dr. Paul (Lee), Milford, Mich. *Physics.* Pawnee, Okla, May 20, 05. A.B, Ohio Wesleyan, 26; A.M, Ohio State, 27, Ph.D, 31. *Physicist,* Republic Research Corp, 30–31; Gen. Motors Research Lab, 32–36; *Gen. Motors Proving Ground, 36–* Acoustical Soc. Spectroscopy; acoustics.

Huber, Walter L(eroy), 1 Montgomery St, San Francisco, Calif. *Civil engineering.* San Francisco, Calif, Jan. 4, 83. B.S, California, 05. Dist. engineer, U. S. Forest Service, Calif. and Nev, 10–13; *consulting civil engineer, 13–; consulting engineer, State Dept. Pub. Works, Calif, 14–; debris control, flood control dams and defense works, U. S. War Dept, 39–* Consulting engineer, Morris Dam, Tujunga Dam, Hogan Dam, San Gabriel No. 1 Dam; regional eng. adviser, Reconstruction Finance Corp, 32–33; regional water consultant, Nat. Resources Cmt, 34–, advisory cmt. to San Francisco Bur. Bldg. Inspection; Calif. forest study cmt, Calif. State Chamber Commerce. Civil Eng. (director, 22–24, v. pres, 26); Meteorol. Soc; Seismol. Soc; Concrete Inst; Am. Alpine Club (v. pres); Sierra Club (director, 15–, v. pres, 22–24, pres, 25); San Francisco Eng. Club. Exploration.

Huber, Dr. Wolfgang, Hillbrow, Castleton-on-Hudson, N. Y. *Organic chemistry.* Berlin, Germany, July 14, 10. B.Sc, Freiburg, 32; Kiel, 32–33; M.Sc, Berlin, 34; Ph.D, Göttingen, 35. Instr. med. chem, Göttingen, 35–37, research fellow org. chem, 36–38; chief chemist, Beta Chem. Research Inc, New York, 38–39; *research chemist, Winthrop Chem. Co, 39–* A.A; Chem. Soc; N. Y. Acad; Soc. Chem. Indust. Gt. Britain; Schweizerische Chem. Gesell; Deuts. Chem. Gesell. Sterols; vitamin D_2–D_3; steroid sex hormones; vitamin B_1 synthesis; pyrimidines; thiazoles; vitamin K; vitamin B_3; panthothenic acid; sulfonamides, antimalarial compounds.

Huberman, Dr. M(orris) A(braham), U. S. Forest Service, Washington, D. C. *Silviculture.* Lukow, Poland, Oct. 18, 10. B.S, Mich. State Col, 31; M.F, Yale, 33, univ. fellow, 41, Ph.D, 42. Chief field party, North. Rocky Mt. Forest and Range Exp. Sta, U. S. Forest Service, 33; junior forester-technician, Ouachita Nat. Forest, 33–34; junior forester, South. Forest Exp. Sta, *U. S. Forest Service,* 34–37, asst. to div. chief, forest management research, 37–39, assoc. silviculturist, Northeast. Forest Exp. Sta, 39–42, *senior forester, div. private forestry, 42–* Soc. Foresters; Ecol. Soc. Nursery and planting of southern pines; ecology of the western white pine; silviculture of the eastern white pine.

Hubert, Dr. Ernest E(verett), 4214 50th Ave, Seattle, Wash. *Forestry.* Philipsburg, Mont, Sept. 17, 87. B.S, Montana, 12, M.S, 18; Ph.D, Wisconsin, 23. U. S. Forest Service, 12–13; sci. asst, bur. plant indust, U. S. Dept. Agr, 13, asst. pathologist, 21–25; prof. forest products, Idaho, 25–28, forestry and in charge forest products lab, sch. forestry, 28–35, acting dean, 32, 34; research technologist, West. Pine Asn, 35–42; *chief pathologist, I. F. Laucks, Inc, 42–* Lecturer, Forest Products Lab, U. S. Forest Service, and Wisconsin, 23–25.

Collaborator, div. blister rust control, U. S. Dept. Agr, 25–35. Ed, 'Northwest Science,' 30–35. A.A; Soc. Foresters (pres, Madison sect, 24); Forestry Asn; Phytopath. Soc; Northwest Sci. Asn. (councilor, 32–36); Wis. Acad. Forest pathology; forest products; diseases of trees and of wood products; the heart-rots of standing timber; diagnosis of decay and stain in wood; the stain defects in lumber; dry-rot in buildings; wood decay; white pine blister rust; permatol millwork preservative.

Hubert, Prof. Warren G(engembre), 125 Lee Ave, Yonkers, N. Y. *Mathematics.* New York, N. Y, Sept. 13, 86. B.S, Col. City of N. Y, 07; M.S, N. Y. Univ, 09, Sc.D, 17. Teacher, pub. schs, New York, 07–10; *math,* Stuyvesant High Sch, 10–12; tutor, *Col. City of N. Y,* 12–16, instr, 16–18, asst. prof, 18–31, *assoc. prof, 31–* A.A; Math. Soc; Math. Asn. Higher plane curves; theory of probability.

Huberty, Prof. M(artin) R(ichard), College of Agriculture, University of California, Los Angeles, Calif. *Irrigation.* San Andreas, Calif, May 16, 94. B.S, California, 20; Engineer, Stanford, 35. Teacher, schs, 12–14; draughtsman, 20–21; asst. irrig. investigations and practise, 21–24; junior irrig. engineer, *col. agr, California,* 25–26, asst. irrig. engineer, 27–29, asst. prof. *irrig. investigations and practise,* 30–36, assoc. prof, 36–42, *prof, 42–,* assoc. irrig. engineer, *Exp. Sta,* 31–42, *irrigation engineer, 42–* Consulting engineer, Fed. Emergency Relief Admin, 34; consultant, U. S. Bur. Reclamation, 38. U.S.A, 17–19. A.A; Civil Eng; Agr. Eng; Geophys. Union; Soc. Soil Sci. Water supply and irrigation.

Hucker, Prof. G(eorge) J(ames), New York Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* Cascade, Iowa, Aug. 19, 93. Upper Iowa, 13–14; B.S, Lenox Col, 15; A.M, Columbia, 16; Cornell, 21; Cutler fellow, Yale, 23, Ph.D, 24. Instr. biol, Allegheny Col, 16–17, asst. prof, 17–18; special agent, U. S. Dept. Agr, 18; asst. bacteriologist, *N. Y. Exp. Sta, Geneva,* 19–22, assoc. research *bacter,* 22–29, *chief in research, 29–,* asst. prof, *Cornell,* 23–29, *prof, 29–* Int. Educ. Board fellow, Copenhagen and London, 26; consultant, New Zealand, 37. Lieut, Sanit.C, 18–19. Soc. Bact; Inst. Food Technol. (sec'y). Systematic studies on Coccaceae; nitrogen metabolism of bacteria; cheese ripening; bacteriology of mastitis; food microbiology and technology.

Huckert, Prof. Jesse W(illiam), University of Maryland, College Park, Md. *Engineering.* Elk Point, S. Dak, May 15, 97. B.S. (M.E), South Dakota, 20, B.S. (E.E), 23; M.S, Illinois, 25; Ph.D, Cornell, 34. Asst, eng. exp. sta, Illinois, 23–25; asst. prof. math. and thermodyn, Speed sci. sch, Louisville, 25–29, assoc. prof. mech. eng, 29–30; research and develop. gears, Gleason Works, Rochester, 30–33; design and mfg. precision instruments, Bausch and Lomb Optical Co, 34–37; *assoc. prof. mech. eng, Maryland, 37–; lieut. commander, U. S. Naval Res, Naval Gun Factory, Navy Yard, Washington, D. C, 42–* Mech. Eng. Gears; kinematics.

Huckett, Dr. H(ugh) C(ecil), Long Island Vegetable Research Farm, Riverhead, N. Y. *Entomology.* Tananarive, Madagascar, July 13, 90. B.S.A, Ont. Agr. Col, 19; A.M, Cornell, 20, Ph.D, 23. *Assoc. research entom, N. Y. Exp. Sta, Geneva, 22–* A.A; Entom. Soc; Asn. Econ. Entom; N. Y. Acad. Insects affecting vegetable crops; North American Muscidae.

Hudack, Dr. S(tephen) S(ylvester), Presbyterian Hospital, Columbia University, New York, N. Y. *Experimental surgery.* Cleveland, Ohio, 00. A.B, Western Reserve, 26, M.D, 29, Biggar fellow. Asst. path, Rockefeller Inst, 30–34; junior fellow surg, *Presb. Hosp, Columbia,* 34–36, *asst. attending surgeon, 36–, instr. surg, col. physicians and surgeons, 36–; lieut. commander, Med. Corps-V(S), U. S. Naval Res, U. S. Naval Hosp, Brooklyn, 41–* Gold medal award, Am. Acad. Orthopedic Surg, 41. Fel. Am. Med. Asn; Orthop. Asn; Harvey Soc; Federation Societies for Exp. Biol. Permeability studies in and pathological physiology of blood vessels and lymph capillaries; virus diseases; Rous' sarcoma; vaccinia virus; Shope virus infectious fibroma; fractures of the tibia in adults; high chromium, low nickel steel in the operative fixation of fractures.

Huddle, Prof. H(orace) B(aldwin), East Tennessee State Teachers Col, Johnson City, Tenn. *Chemistry.* Rogers, Texas. A.B, Ogden Col, 18; Georgetown Col, 19; M.S, Illinois, 22; Ph.D, Chicago, 30. *Prof. chem,* Ogden Col, 19–21; Tenn. Col, 25–30; *E. Tenn. State Teachers Col, Johnson City,* 23–25, *30–* A.A; Chem. Soc. Essential oils; anthocyanins.

Huddle, Prof. J(ohn) W(arfield), University of North Carolina, Chapel Hill, N. C. *Geology.* Eugene, Oregon, Aug. 14, 07. B.S, Northwestern, 29; Ph.D, Indiana, 34. Asst. *geol,* Indiana, 30–34; asst. prof, *North Carolina,* 34–38, *assoc. prof, 38–* Summers, mem. staff, Ind. Geol. Surv, 31–34; Ala. Geol. Surv, 41. A.A; Paleont. Soc; Asn. Petrol. Geol; Geophys. Union; Elisha Mitchell Sci. Soc; Carolina Geol. Soc; Ind. Acad; N. C. Acad. Paleontology; stratigraphy.

Huddleson, Dr. I. F(orest), Michigan State College, East Lansing, Mich. *Bacteriology.* Murphysville, Ky, Oct. 17, 93. B.S, Okla. Agr. and Mech. Col, 15; M.S, Mich. State Col, 16, D.V.M, 24, Ph.D, 37. *Research prof. bacter, Exp. Sta, Mich. State Col, 16–* Investigator undulant fever for U. S. Pub. Health Service, Mediterranean countries, 29; cooperative investigations undulant fever, Dept. Health, Malta, 37–38; cooperative investigations brucellosis, Dept. Health, Mex, 39–42. Brucella infection in animals and undulant fever in humans.

Huddleston, Dr. O. Leonard, 4200 E. Ninth Ave, Denver, Colo. *Physiology.* Indian Territory, Okla, Jan. 13, 03. A.B, California, 24, A.M, 26; M.D, Colorado, 31, Ph.D, 36. Asst. physiol, California, 25–28; physiol. and pharmacol, *sch. med, Colorado,* 28–31, fellow *physiol,* 31–33, *instr, 33–* Lecturer, California, research, Scripps Institution. Oceanography; marine and labyrinth physiology; endocrinology; ovarian and placenta hormones; vitamin B; bones in relation to parathyroid glands; pathology and toxicology of ethylene glycol; acute and chronic alcoholism; development of the polyelectrophysiograph.

Hudgins, Prof. Bert, Wayne University, Detroit, Mich. *Geography.* Farmingdale, Ill, Jan. 6, 87. B.Ed, Ill. State Nor. Sch, 15; M.S, Chicago, 21; Ph.D, Clark, 30. Teacher, pub. sch, 07–09, supt, 13–14, prin, high sch, 15–18; *prof. geog. and head dept. geog. and geol,* Col. City of Detroit, 20–33, *Wayne, 33–* Summers, special lecturer and research prof, Ill. State Teachers Col, Charleston, 19; Mich. State Teachers Col, Mankato, 20; Ill. State Nor. Univ, 23; Ohio (Athens), 36; Nebraska, 39, 40; Ohio State, 42. Fel. Am. Geog. Soc; Asn. Geog; Nat. Council Geog. Teachers; Mich. Acad. Water supply of cities; geography of St. Clair Delta; agricultural geography of Michigan; weather and disturbances in the Detroit River.

Hudgins, Dr. Clarence V(irginius), 82 Jackson St, Northampton, Mass. *Experimental phonetics, Psychology.* Diggs, Va, Jan. 22, 97. A.B, Oberlin Col, 28, A.M, 29; Ph.D, Clark, 32. *Director research, div. exp. phonetics, Clarence W. Barron research dept, Clarke Sch. for Deaf, 32–* Visiting lecturer, Smith Col, 34–35; visiting instr, Oberlin Col, 37–38. A.A; Psychol. Asn. Voluntary activity; breathing movements in speech; comparative studies of speech of normal and deaf subjects; visual aids for the speech of the deaf; analysis of errors of articulation and rhythm in the speech of the deaf; movement coordinations.

Hudiburg, Prof. Leo E(verett), Kansas State College, Manhattan, Kans. *Physics.* Independence, Kans, Nov. 20, 97. B.S, Kans. State Teachers Col, Pittsburg, 23; M.S, Kans. State Col, 30. Instr. physics and elec, Kans. State Teachers Col, Pittsburg, 22–29; asst. prof. *physics, Kans. State Col,* 30–40, *assoc. prof, 41–, asst. dean div. gen. science, 41–* Photography; meteorology.

Hudson, Charles John, Newton St, West Boylston, Mass. *Ceramics.* Clinton, Mass, Oct. 28, 86. A.B, Amherst Col, 10, A.M, 11. Instr, Amherst Col, 10–12; asst. astron, Allegheny Observatory, Pittsburgh, 12–17; research engineer, *Norton Co,* 17–35, product supervisor, 35–37, *quality manager, 37–* A.A; Soc. Tool Eng; Ceramic Soc; Astron. Soc.

Hudson, Dr. C(laude) S(ilbert), U. S. Public Health Service, Bethesda, Md. *[*2]Chemistry.* Atlanta, Ga, Jan. 26, 81. B.S, Princeton, 01, M.S, 02, Ph.D, 07. Asst. physical chem, Mass. Inst. Tech, 03–04; instr. physics, Princeton, 04–05; Illinois, 05–07; asst. physicist, U. S. Geol. Surv, 07–08; asst. chemist, bur. chem, and later chief carbohydrate lab, U. S. Dept. Agr, 08–19; chemist, Bur. Standards, 23–28; *director div. chem, nat. inst. health, U. S. Pub. Health Service, 28–* Mem. Am. Cmn. Org. Chem. Nomenclature, 12. Nichols medal, Am. Chem. Soc, 16; Willard Gibbs medal, 29; Hillebrand prize, 31; Richards medal, 40; Borden medal, 41; Cresson medal, 42. Nat. Acad; Chem. Soc. (chairman, div. org. chem, 33); Halle Akad. der Naturforscher. Laws of action of enzymes; constitution of complex sugars; the forms of milk sugar; mutarotation; hydration in solution; osmotic pres-

sure; mutual solubility of liquids; action of sucroclastic enzymes; mutarotation of rare sugars; decolorizing carbon; isorotation rules; ring structures of sugars; Walden inversions of sugars; syntheses of compound sugars.

Hudson, Dr. Colin M(unroe), 616 W. Washington St, Greenville, S. C. *Physics.* Greenville, S. C, March 8, 15. B.S, Presbyterian Col, 36; Ph.D, Wisconsin, 40. Assoc. physicist, Ordnance Lab, Frankford Arsenal, 40–42; *lieut, Air Corps, U. S. Army, 42–* Physical Soc; Math. Soc; Reserve Officers Asn. Nuclear physics; high voltage electrostatic generator.

Hudson, Dr. F(rank) S(amuel), Yuba Mfg. Co, San Francisco, Calif. *Mining engineering.* Marysville, Calif, July 9, 90. B.S, California, 12, Ph.D, 20. Asst. geologist, South. Pacific Co, 12–14; Standard Oil Co. of N. Y, China, 14–16; geologist, Ventura Consol. Oilfields, 20–26; Shell Oil Co, Calif, 26–30, engineer, 30–38, chief geologist, 38–41; *manager, Yuba Mfg. Co, 41–* A.A. Magmatic sulfide deposits; petroleum geology.

Hudson, Prof. G(eorge) Donald, Northwestern University, Evanston, Ill. *Geography.* Osaka, Japan, April 26, 97. Ph.B, Chicago, 25, A.M, 26, fellow, 31–33, Ph.D, 34. Director middle sch. and assoc. prof. educ, American Univ, Beirut, 26–29; dean, Blackburn Col, 29–30; prof. geog, Wis. State Teachers Col, Whitewater, 33–34; chief geog. sect, Tenn. Valley Authority, 34–37, chief div. land planning, 37–39; *prof. geog, Northwestern, 39–* Consultant, Nat. Resources Planning Board, 39–Geog. ed, 'Encyclopaedia Britannica,' 42– Asn. Geog; Geog. Soc. Chicago (v. pres, 41–43). Regional land use planning; the application of the field, statistical and cartographic methods to geographic patterns; land classification.

Hudson, Prof. G(eorge) E(lford), State College of Washington, Pullman, Wash. *Ornithology, Zoology.* Spartanburg, S. C, May 6, 07. B.S, Clemson Col, 28; M.S, Nebraska, 30, Ph.D, 36. Instr. biol, Nebr. Wesleyan, 30–31; zool, Nebraska, 31–38; *asst. prof. zool. and curator museum, State Col. Wash, 38–* Assoc. Ornith. Union. Myology of birds; field ornithology; herpetology.

Hudson, Dr. Imogene Moore (Mrs. William P. Hudson), 116 Livingston Ave, New Brunswick, N. J. *Zoology.* Washington, D. C, Jan. 21, 03. A.B, Goucher Col, 25; Ph.D, Yale, 31. Instr. biol, Ala. Col, 31–33, asst. prof, 33–36; instr. zool, N. J. Col. Women, Rutgers, 36–40, asst. prof, 40–41; *lecturer, Hunter Col, 41–* A.A. Protozoology.

Hudson, Dr. J(ames) Cramer, 36 Robin Hood Road, Arlington, Mass. *Physics.* Pleasanton, Kans, Oct. 16, 96. A.B, Park Col, 19; M.S, Pa. State Col, 22; A.M, Harvard, 24, Ph.D, 32. Instr. *physics,* Kentucky, 19–20; Pa. State Col, 20–22; asst, Harvard, 22–27, research assoc, 27–42; *lecturer, Tufts Col, 42–; physicist, State Dept. Pub. Health, Mass, 27–* A.A; Physical Soc. X-rays and radioactivity.

Hudson, Dr. N(oel) Paul, Ohio State University, Columbus, Ohio. *Bacteriology, Public health.* Lincoln, Ill, Jan. 9, 95. A.B, James Millikin, 17; Ph.D, Chicago, 23; M.D, Harvard, 25. Instr. bacter. and hygiene, Chicago, 22–24; asst. path, Boston City Hosp, 25–27; field director, int. health div, Rockefeller Foundation, 27–30; prof. bacter. and hygiene, Chicago, 30–35; *prof. bacter. and chairman dept, Ohio State, 35–* W. African yellow fever cmn, int. health div, Rockefeller Foundation, Nigeria, 27–29, health cmn, England, 40–41. A.A; Soc. Bact. (councilor, 41); Asn. Path. and Bact; Soc. Trop. Med. (sec'y-treas, 36–38, councilor, 38–41, pres, 43); Soc. Exp. Biol; fel. Pub. Health Asn; fel. Ohio Acad. Pathogenic bacteriology; immunology and viruses; yellow fever; poliomyelitis; vaccinia; herpes simplex; susceptibility of mammalian fetuses to infectious agents; influenza.

Hudson, Prof. Ralph G(orton), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Lawrence, Mass, June 7, 85. B.S, Mass. Inst. Tech, 07. Asst. *elec. eng, Mass. Inst. Tech,* 07–09, instr, 09–16, asst. prof, 16–22, assoc. prof, 22–29, *prof, 29–, in charge gen. science and gen. eng, 31–; mem. faculty, Lowell Inst. Sch, 22–* Consulting engineer. Emergency Fleet Corp, 17–18. A.A; Elec. Eng. General engineering.

Hudspeth, Dr. Emmett L(eRoy), Massachusetts Institute of Technology, Cambridge, Mass. *Nuclear physics.* Denton, Texas, Dec. 3, 16. A.B, Rice Inst, 37, fellow, 37–40, A.M, 38, Ph.D, 40. Research fellow, Bartol Research Foundation, Franklin Inst, 40–41; *staff mem, radiation lab, Mass. Inst. Tech, 41–* Physical Soc. Nuclear reactions; high voltage generators; Geiger counters.

Huelsen, Prof. Walter A(ugust), 508 W. Washington Blvd, Urbana, Ill. *Horticulture.* Brooklyn, N. Y, May 28, 92. B.S, Cornell, 17; M.S, Illinois, 26. Asst. horticulturist, Purdue, 18–20; assoc. olericulture, *Exp. Sta, Illinois,* 21–26, asst. chief, 26–31, assoc. chief, 31–39, *chief,* 34–40, *veg. crops, 40–,* asst. prof. olericulture, *univ,* 26–31, assoc. prof, 31–39, *prof,* 39–40, *veg. crops, 40–* A.A; Soc. Hort. Sci; Genetic Asn; Bot. Soc; Ill. Acad. Vegetable crops; plant breeding.

Hueper, Dr. Wilhelm C(arl Heinrich), Warner Institute for Therapeutic Research, 113 W. 18th St, New York, N. Y. *Pathology.* Schwerin, Germany, Nov. 4, 94. Marburg; Rostock; M.D, Kiel, 20. Vol. asst. physician, Frauenklinik, Kiel, 20; 1st asst. physician, surg. dept, Evangelisches Diakonissen Krankenhaus, Witten, 20–21; asst. physician, path. inst, Auguste Viktoria Krankenhaus, Berlin-Schoeneberg, 21–23, acting head path. inst, 23; pathologist, Mercy Hosp, Chicago, Ill, 23–24, director labs, 25–30; asst. prof. path, sch. med, Loyola, 24–25, assoc. prof, 25–30; chief pathologist, cancer research, grad. sch. med, Pennsylvania, and pathologist, Am. Oncologic Hosp, Phila, 30–33, res. pathologist, univ. hosp, 33–34; director labs, Uniontown Hosp, Uniontown, Pa, 34–35; pathologist and asst. director, Haskell Lab. Indust. Toxicol, 35–38; *asst. director and prin. pathologist, Warner Inst. Therapeut. Research, 38–* Pathologist, Misericordia Hosp, 25–30. A.A; Asn. Cancer Research; Soc. Exp. Path; Asn. Path. and Bact; Path. Soc. Phila. Histopathology of cancer; parathormone effects; blood diseases; leukemia; histochemical aspect of cancer; cardiovascular disease.

Huestis, Prof. R(alph) R(uskin), University of Oregon, Eugene, Oregon. *Zoology.* Bridgewater, N. S, Can, Jan. 14, 92. B.S.A, McGill, 14; M.S, California, 20, Ph.D, 24. Asst. biol, Scripps Inst, California, 20–24; asst. prof. and *prof. zool, Oregon, 24–* C.E.F, 14–19. Soc. Zool; Genetic Asn; Genetics Soc. Genetics and geographical distribution of Peromyscus; vertebrate fauna of Oregon.

Huettner, Prof. Alfred F(rancis), Queens College, Flushing, N. Y. **Zoology.* Reichenbach, Germany, Dec. 13, 82. A.B, South Dakota, 16; A.M, Columbia, 18, Ph.D, 23. Asst. zool, Columbia, 18–21, instr, 22–24, asst. prof, 25–28; assoc. prof. *biol,* Wash. Sq. Col, N. Y. Univ, 28–32, prof, 32–38; *assoc. prof, Queens Col (N. Y), 38–* A.A; Soc. Zool; Genetic Asn; Genetics Soc; Soc. Study Develop. and Growth; N. Y. Acad. Cytology and embryology of Drosophila melanogaster; central bodies; cytology of Miastor; health education.

Huey, Dr. Arthur S(idney), Shell Oil Co, Inc, Box 999, Bakersfield, Calif. *Petroleum geology.* Columbus, Kans, July 29, 09. A.B, Southern California, 32; Ph.D, California, 40. Teaching fellow geol, California, 32–36; *geologist, Shell Oil Co, Inc, 36–* Asn. Petrol. Geol. Geology of Tesla Quadrangle, California; problems in Cretaceous stratigraphy of California.

Huey, Dr. Clayton S(amuel), 1628 Oakview Ave, Berkeley, Calif. *Physical chemistry.* Roseburg, Oregon, Sept. 23, 10. Ph.D, Washington (Seattle), 38. Teaching fellow, Washington (Seattle), 34–38; *research chemist, Standard Oil Co. of Calif.* Chem. Soc. Stannous-stannic electrode potential in acid solutions; hydrolysis of the ammonium phosphates; catalytic petroleum refining.

Huey, Laurence M(arkham), Natural History Museum, Balboa Park, San Diego, Calif. *Ornithology, Mammalogy.* Oneonta, Calif, Sept. 6, 92. Asst. and field naturalist to Donald R. Dickey, 14–23; *curator birds and mammals, San Diego Soc. Nat. Hist, 23–* Ornith. Union; Cooper Ornith. Club; Soc. Mammal; Biol. Soc. Wash; fel. San Diego Soc. Nat. Hist. General ornithology and mammalogy.

Huff, Prof. C(lay) G, University of Chicago, Chicago, Ill. *Bacteriology, Parasitology.* Cory, Ind, Sept. 10, 00. Indiana; A.B, Southwestern Col, 24; Sc.D, Hopkins, 27. Asst. med. entom, sch. hygiene and pub. health, Hopkins, 24–27; assoc. prof. zool, Georgia, 27–28; nat. research fellow and fellow trop. med, Harvard Med. Sch, 28–30; asst. prof. *parasitol, Chicago,* 30–37, assoc. prof, 37–41, *prof, 41–, sec'y dept.* Field asst, bur. entom, U. S. Dept. Agr, 27. A.A; Soc. Parasitol; Soc. Trop. Med. Insect immunity; malaria of animals; insect transmission of disease.

Huff, Prof. George C(harles), 1216 39th St, Des Moines, Iowa. *Parasitology.* Des Moines, Iowa, Feb. 15, 06. B.S,

Drake, 28; M.S, Iowa, 29, Ph.D, 35. Asst. prof. *zool, Drake,* 33–34, *prof, 34–*, acting head *dept. biol,* 34–35, *head, 35–* A.A; Micros. Soc; Soc. Parasitol; Iowa Acad. Helminthology; ascaris development; trematode life cycle; cellular physiology.

Huff, Prof. L(orenz) D(itmar), Box 1423, Clemson College, S. C. *Physics.* Waukomis, Okla, Oct. 23, 05. A.B, Oklahoma, 27, M.S, 28; Ph.D, Calif. Inst. Tech, 31. *Asst. prof. physics, Clemson Col, 31–* Exchange prof, N. C. State Col, 41–42. A.A; Physical Soc. Theory of spectra; quantum theory.

Huff, Prof. N(ed) L, 1219 Seventh St, S. E, Minneapolis, Minn. *Morphology.* Pendleton Co, Ky, 76. A.B, Minnesota, 03, A.M, 06. Instr, high sch, Minn, 03–05; asst. *bot, Minnesota,* 05–06, instr, 06–10, *asst. prof, 10–* A.A; Bot. Soc; Ecol. Soc. Ecology of algae; the relation of algae to public water supplies and to aquatic animals.

Huff, Prof. Wilbert J(ames), University of Maryland, College Park, Md. *Chemistry, Engineering.* Butler, Pa, Oct. 4, 90. A.B, Yale, 14, fellow, 14–17, Ph.D, 17; hon. Sc.D, Ohio Northern, 27. Research chemist, Barrett Co, 17–18; U. S. Bur. Mines, 19–20; in charge research div, Koppers Co. Labs, 20–24; *prof.* gas eng, Hopkins, 24–37; *chem. eng. and chairman dept, Maryland, 37–, chairman div. physical sciences, 38–, director Eng. Exp. Sta, 40–,* chief chemist, explosives div, *U. S. Bur. Mines,* 35–37, *consulting explosives chemist, 37–* Consulting chemist and engineer. Mem, Mine Safety Board, 36–Lieut, C.W.S, 18–19. A.A; Chem. Eng. (chairman, Md. sect, 35); Chem. Soc. (chairman, gas and fuel div, 35); Gas Asn. (chairman, chem. cmt, 31). Hypophosphoric acid; coal tar chemistry; organic catalysis; corrosion in firearms; gas manufacture, purification and utilization; coke production; by-product recovery; gaseous and fixed explosives.

Huffaker, Dr. Carl B(arton), 720 Wollaston Ave, Newark, Del. *Medical entomology.* Monticello, Ky, Sept. 30, 14. A.B, Tennessee, 38, M.S, 39; fellow, North Carolina, 39–40; Ph.D, Ohio State, 42. Teaching asst. zool, Ohio State, 40–41; *asst. entomologist, Exp. Sta, Delaware, 41–* Summers, biol. studies, Tenn. Valley Authority, 37–39; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 40. Asn. Econ. Entom. Ecological, physiological and larvicidal studies on mosquitoes; insect transmission of elm necrosis.

Huffaker, Prof. Carl L(eo), University of Oregon, Eugene, Oregon. *Psychology, Education.* Mo, Oct. 15, 86. B.S, Chicago, 15; A.M, Iowa, 22, Ph.D, 23. Sch. supt, 15–22; asst, Iowa, 22–23; prof. educ. psychol, Arizona, 23–27, acting dean col. educ, 24–27; *prof. educ. and director bur. educ. research, Oregon, 27–* Statistics; tests and measurements; the learning process.

Huffer, Prof. C(harles) M(orse), 2119 Regent St, Madison, Wis. *Astronomy.* Edinburg, Ind, June 28, 94. A.B, Albion Col, 16; A.M, Illinois, 17; Ph.D, Wisconsin, 26. Asst, Santiago branch, Lick Observatory, 17–22; *Washburn Observatory, Wisconsin,* 22–28, asst. prof, 28–42, *assoc. prof, 42–* A.A; Astron. Soc. Spectroscopic binary stars; photoelectric photometry of variable stars; colorimetry of stars.

Huffer, Prof. Ralph C(raig), 729 Hobart Place, Beloit, Wis. *Astronomy.* Edinburg, Ind, Jan. 25, 96. A.B, Albion Col, 18; A.M, Illinois, 20; Ph.D, Chicago, 34. Prin, high sch, Mich, 20–21; instr, Mich. State Col, 21–23; asst. prof. *math, Beloit Col,* 23–26, assoc. prof, 26–36, *prof, 36–* A.A; Astron. Soc; Math. Asn. Double star orbits; masses of visual binaries.

Hufferd, Dr. R(alph) W(illiam), Kendall Refining Co, Bradford, Pa. *Chemistry.* Chanute, Kans, Aug. 5, 92. A.B, Washington (St. Louis), 15; A.M, Illinois, 17, Ph.D, 20. From asst. prof. to prof. org. chem, DePauw, 20–36; *research and develop. of new chem. products, Kendall Ref. Co, 36–; chief research and develop. div, tech. service, Office of Chief, Chem. Warfare Service, 41–* Chem. Soc; Ind. Acad. Organic and analytical chemistry; steric hindrance; esterification; qualitative analysis; petroleum hydrocarbons; distillation.

Huffington, Prof. Jesse M, Pennsylvania State College, State College, Pa. *Horticulture.* Allen, Md, Nov. 10, 96. B.S, Maryland, 22, fellow, 22–23; Clemson Col, 23–24. County agr. agent, Md, 24–27; *asst. prof. veg. gardening exten, Pa. State Col, 27–* A.A; Soc. Hort. Sci; Soc. Agron; Soc. Plant Physiol; Pa. Veg. Growers Asn. (sec'y, 41–); Pa. Ten-Ton Tomato Club (sec'y, 37–). Vegetable crops.

Huffman, Dr. Carl F(ountain), 624 Butterfield Drive, East Lansing, Mich. *Dairy husbandry.* Tonganoxie, Kans, Jan. 15, 93. B.S, Kansas, 17; M.S, Minnesota, 22; Ph.D, Wisconsin, 33. Instr. *dairying,* Kans. State Col, 19–20; asst, Minnesota, 21–22; *Mich. State Col,* 22–30, *research assoc, 30–* Borden award, 37. A.S, U.S.A, 17–19. Calcium; phosphorus; magnesium; fluorine; cottonseed meal; dietary factors carried by hay; vitamin D requirement of cattle.

Huffman, Dr. E(dward) W(illiam) D(ickson), Majestic Bldg, Denver, Colo. *Microchemistry.* Denver, Colo, Feb. 27, 10. A.B, Colorado, 31, A.M, 35, Ph.D, 40; N. Y. Univ, 31–32. Teaching fellow, N. Y. Univ; Colorado; *proprietor, Huffman Microanal. Labs, 38–* A.A; Chem. Soc. (v. chairman sect. anal. and microchem, 42). Microchemical analysis.

Huffman, Dr. Eugene H(arvey), 782 21st Ave, San Francisco, Calif. *Chemistry.* Lawrenceburg, Ind, Dec. 5, 05. A.B, Colorado, 27; M.S, Washington (Seattle), 29; Univ. Service fellow, Illinois, 35–36, Ph.D, 37. Asst. chem, Washington (Seattle), 27–29; instr, Oregon State Col, 29–33; asst, Illinois, 33–35; Kentucky, 36–37; Wisconsin, 37–38; asst. prof, Col. Puget Sound, 38–40; instr, Kans. State Col, 40–41; *asst. chemist, U. S. Bur. Mines, 41–* Summer, research, Naval Research Lab, 41. Chem. Soc. (sec'y-treas, Lexington, Ky, sect, 37). Inorganic and analytical chemistry; complex inorganic compounds; solubilities in mixed solvents.

Huffman, Dr. H(arold) C(harles), 1850 Oregon Ave, Long Beach, Calif. *Chemistry.* Mt. Pleasant, Iowa, 13. B.S, Iowa Wesleyan, 35; M.S, Purdue, 37, fellow, 38–40, Ph.D, 40. Asst. chem, Purdue, 35–38; *research chemist, Union Oil Co, Calif, 40–* Chlorination of hydrocarbons; anti-malarial drug intermediates; catalysts and catalytic processes.

Huffman, Prof. H(ugh) M(artin), 3216 Mount Curve Ave, Pasadena, Calif. *Physical chemistry.* Santa Ana, Calif, Nov. 19, 98. A.B, Stanford, 25, A.M, 26, fellow, 26–27, Ph.D, 28. Am. Petrol. Inst. research assoc, Stanford, 27–31; *asst. prof. biochem, Calif. Inst. Tech, 31–* Chem. Soc. Free energies of organic compounds; physical properties of organic glasses; biochemistry; heats of combustion; low temperature heat capacities.

Huffman, Prof. John R(andolph), New York University, University Heights, New York, N. Y. *Chemical engineering.* Norfolk, Va, Feb. 17, 05. B.S, Yale, 26, Ph.D, 30; Am-Scandinavian fellow, Copenhagen, 29–30. Research chem. engineer, Standard Oil Develop. Co. of N. J, 31–32; fellow, Yale, 32–33, Sterling fellow, 33–34; asst. to Prof. H. C. Urey, Columbia, 34–37; *asst. prof. chem. eng, N. Y. Univ, 37–* A.A; Electrochem. Soc; Chem. Eng; Chem. Soc. Physical chemistry; decomposition of methanol; water-methanol reaction; microgas analysis; ultra-violet spectrum of lithium; decomposition of acetone, propionaldehyde and acetaldehyde; separation of oxygen and nitrogen isotopes; distillation; thermodynamics.

Huffman, Dr. Max N(iel), U. S. Standard Products Co, Woodworth, Wis. *Biochemistry.* Norwood, Mo, April 1, 11. A.B, Missouri, 37; fellow, St. Louis, 37–41, Ph.D, 41. Nat. research fellow med. sciences, col. physicians and surgeons, Columbia, 41–42; *director research, U. S. Standard Products Co, 42–* Chem. Soc. Isolations and syntheses in the estrogenic hormone field.

Hufford, Prof. Mason E(dward), Indiana University, Bloomington, Ind. *Physics.* Frankfort, Ind, Sept. 27, 82. A.B, Indiana, 11, A.M, 12, Ph.D, 16; Chicago, 13, 14; Cambridge, 24–25. Instr. physics, Indiana, 13–17; asst. physicist, Bur. Standards, 17–18; asst. prof. *physics,* Swarthmore Col, 18–19; *Indiana,* 19–30, *assoc. prof, 30–* Summer, asst. prof, Northwestern, 27. Physical Soc; Ind. Acad. Diffraction photographs; diffraction ring system in the shadow of circular objects; diffraction ring pattern by a circular opening; discharge of electricity between equipotential plates; ionization of gases by positive ions; origin and destiny of energy; romance of research.

Huggins, Prof. C(harles) B(renton), University of Chicago, Chicago, Ill. *Surgery, Physiology.* Halifax, N. S, Can, Sept. 22, 01. B.A, Acadia, 20; M.D, Harvard, 24. Instr. *surg,* Michigan, 26; fellow, *Chicago,* 27, asst. prof, 28–31, assoc. prof, 32–36, *prof, 36–* Physiol. Soc. Bone physiology; calcium metabolism; sex hormones.

Huggins, Dr. Maurice L(oyal), Eastman Kodak Co, Rochester, N. Y. ****Chemistry.* Berkeley, Calif, Sept. 19, 97. A.B, B.S, California, 19, M.S, 20, fellow, 20–21, du Pont fellow, 21–22, Ph.D, 22. Asst. chem, California, 19–20, nat. research

fellow, California, Harvard, Calif. Inst. Tech, 22–25; instr, Stanford, 25–26, asst. prof, 26–33; Johnston scholar, Hopkins, 32–33, assoc, 33–36; *research chemist, Eastman Kodak Co, 36–* Assoc. ed, 'Jour. Chem. Physics,' 41– Chairman cmt, x-ray and electron diffraction, Nat. Research Council, 38–42. Morrison prize, N. Y. Acad. Science, 41. Chairman, Gibson Island Conf. X-Ray and Electron Diffraction, 34, 40, 41. A.A; Chem. Soc; Physical Soc; Optical Soc; Soc. X-Ray and Electron Diffraction (pres, 41); Soc. Rheol; N. Y. Acad. Structures of atoms, molecules and crystals; interatomic and intermolecular forces and distances; hydrogen bridges; structures and properties of long-chain compounds; properties of glasses and of solutions; photographic theory.

Huggins, Dr. Russell A(rno), Eastern State Teachers College, Madison, S. Dak. *Biology.* Cleveland, Ohio, June 25, 10. B.S, Aurora Col, 35; scholar, Western Reserve, 35–36, Ph.D, 39; Illinois, 36–37. Asst, Illinois, 36–37; in charge endocrinol. lab, Cleveland Clinic, 38–40; *instr.* biol, Western Reserve, 37–41; *zool, East. State Teachers Col, S. Dak, 41–* Asst, Baldwin Bird Research Lab, 36–39. A.A. Avian physiology and ecology; relative growth.

Huggins, Dr. Sara E(spe), 121 Washington N, Madison, S. Dak. *Zoology.* Denver, Colo, June 29, 13. A.B, Aurora Col, 34; M.S, Illinois, 36; Ph.D, Western Reserve, 39. Asst. zool, Western Reserve, 37–38; *independent research, 38–* Ecology; relative growth; vertebrate anatomy.

Hughes, Prof. A(rthur) Ll(ewelyn), Washington University, St. Louis, Mo. **[3]*Physics.* Liverpool, Eng, Dec. 18, 83. Oliver Lodge fellow, Liverpool, B.Sc, 06, D.Sc, 12; B.A, Cambridge, 10, MacKinnon student of Royal Soc. London. Asst. demonstrator *physics,* Cavendish lab, Cambridge; asst. prof, Rice Inst, 13–19; research prof, Queen's (Can), 19–23; *Wayman Crow prof. and head dept, Washington (St. Louis), 23–* A.A. (sec'y, B, 25–32, v. pres. and chairman, 40); Physical Soc. (councilor, 24–28, 41). Photoelectricity; spectroscopy; ionization in gases; electron scattering.

Hughes, Dr. A(usker) Edward, Michigan Alkali Co, Wyandotte, Mich. *Chemistry.* Jefferson, N. C, July 29, 05. B.S, Carson and Newman, 27; M.S, North Carolina, 29, Ober fellow, 30–31, Ph.D, 31. Research chemist, Champion Coated Paper Co, 27–28; asst. chemist, bur. chem. and soils, U. S. Dept. Agr, Fla, 31–35, chemist, bur. plant indust, 35–38; *research chemist, Mich. Alkali Co, 38–* Smith research prize, North Carolina, 31. Chem. Soc; Amaryllis Soc; Fla. Hort. Soc. Binary systems of the nitrotoluenes with benzoic acid; photographing of cooling curves; action of sulfur dioxide on the phosphates of calcium; soil fertility in Florida; dry ice; precipitated calcium carbonate; calcium hypochlorite; ferric chloride; coated paper.

Hughes, Dr. Beatrice Bolton, 96 College St, South Hadley, Mass. *Paleontology.* Syracuse, N. Y, Dec. 22, 04. A.B, Syracuse, 26, A.M, 27; fellow, Cornell, 28–29, Ph.D, 31. Teaching fellow, Syracuse, 26–28; curator paleont, Cornell, 29–32, research asst, 31–32; instr. geol. and geog, Mt. Holyoke Col, 32–35, geol, Hartford, Conn, 35–38; *research in paleont, 38–* Instr, Mt. Holyoke Col, 41–43.

Hughes, Prof. C(hester) A(rthur), 29 Lake Ave, White Bear Lake, Minn. *Engineering.* Toronto, Ont, Can, Sept. 20, 95. B.A.Sc, Toronto, 20, M.A.Sc, 22. Instr. civil eng, Toronto, 20–26; asst. prof. and *assoc. prof. struct. eng, Minnesota, 27–* Soc. Test. Mat; Concrete Inst. Steel; welded joints; torsion in I-beams; column bracket connections; plain concrete; volume changes; durability; pozzuolanic action.

Hughes, Dr. Darrell S(tephen), Shell Oil Co, Houston, Texas. *Physics.* Linton, Ind, July 3, 04. A.B, Kentucky, 26, M.S, 28; fellow, Chicago, 29–31, Ph.D, 31. Asst. physics, Kentucky, 26–28; nat. research fellow, Calif. Inst. Tech, 31–34; research physicist, Kettleman North Dome Asn, Los Angeles, Calif, 34–35; *asst. chief geophys. sect, Shell Oil Co, 35–, supt. geophys. research lab.* Physical Soc; Soc. Explor. Geophys; Geophys. Union. Isotope effect in atomic spectra; effect of temperature and pressure upon absorption line contours; interpretation of gravimetric and seismic data.

Hughes, Dr. Donald J(ames), University of Chicago, Chicago, Ill. *Physics.* Chicago, Ill, April 2, 15. B.S, Chicago, 36, Ph.D, 40. Asst. *physics, Chicago,* 38–40, *instr, 40–; physicist, Naval Ordnance Lab, Washington, D. C, 41–* Physical Soc. Cosmic rays; cloud chamber work.

Hughes, Dr. Edward W(esley), Crellin Laboratory, Pasadena, Calif. *Chemistry.* Wilkes-Barre, Pa, March 22, 04. B.Chem, Cornell, 24, Ph.D, 35. Asst. *chem,* Cornell, 24–28, 34–35, res. doctor, 37–38; *research fellow chem, Calif. Inst. Tech, 38–* Chem. Soc. Azides; x-ray crystal structure.

Hughes, Prof. E(lmer) H(oward), University Farm, Davis, Calif. *Animal husbandry.* Rewey, Wis, April 8, 87. B.S.A, Wisconsin, 12, Ph.D, 35; A.M, Missouri, 16. Dept. animal husbandry, Missouri, 13–17, asst. to dean and director, 17–20; assoc. prof. *animal husbandry, col. agr, California,* 20–36, *prof, 36–* A.A; Soc. Animal Production; Genetic Asn. Farm by-products as food for swine; sunlight and mineral metabolism in swine; deficiencies of barley as food; effect of fat- and water-soluble vitamins on growth and reproduction; hereditary defects of swine; inbreeding.

Hughes, Dr. Everett C, Standard Oil Co, 2127 Cornell Road, Cleveland, Ohio. *Chemistry.* Wadena, Minn, Nov. 22, 04. A.B, Carleton Col, 27; Ph.D, Cornell, 30. *Research chemist, Standard Oil Co. of Ohio, 30–* Chem. Soc. (chairman, Cleveland sect, 39; counselor, 39–42). Organic and petroleum chemistry.

Hughes, Dr. F(rancis) A(loysius), Sharples Chemicals Inc, Wyandotte, Mich. *Organic chemistry.* Conshohocken, Pa, Dec. 30, 12. A.B, Missouri, 36; Ph.D, Mich. State Col, 40. Asst. instr, Mich. State Col, 38–40; instr, Fordham, 41; *research chemist, Sharples Chem. Inc, 42–* Chem. Soc. Condensation of dialkyl aryl carbinols with benzene and phenol in the presence of aluminum chloride bromination of p-xylenol.

Hughes, Frederick G(eorge), 116 Belridge Road, Bristol, Conn. *Metallurgy.* West Cornwall, Conn, May 1, 78. Ph.B, Yale. Ordnance engineer, Bethlehem Steel Co, Pa, 05–11; chief engineer, *New Departure div, Gen. Motors Corp,* 11–14, production manager, 14–16, asst. gen. manager, v. pres. and director, 16–33, *gen. manager, 33–* Mech. Eng; Soc. Automotive Eng; Soc. Metals (director, 25–29, v. pres, 27, pres, 28). Ordnance; anti-friction bearing metallurgy.

Hughes, Dr. Gordon, Alabama Polytechnic Institute, Auburn, Ala. *Inorganic chemistry, Physics.* Bucyrus, Ohio, June 18, 05. A.B, Oberlin Col, 28; Illinium fellow, Illinois, 28–29, A.M, 29, Ph.D, 31. Asst. chem, Illinois, 29–31, research instr. and Illinium fellow, 31–33; instr. physics, Ala. Polytech, 33–38, asst. prof, 38–41; physicist, Naval Ordnance Lab, 41–43; *assoc. prof. physics, Ala. Polytech, 43–* Concentration of illinium; x-ray spectroscopy of the rare earths; chemical analysis by the magneto-optic apparatus.

Hughes, Prof. H(arold) D(e Mott), Iowa State College, Ames, Iowa. *Agronomy.* Antioch, Ill, Jan. 16, 82. B.S, Illinois, 07; M.S.A, Missouri, 08. Instr. *farm crops,* Missouri, 08–10; *prof, Iowa State Col, and chief, Exp. Sta, 10–* A.A; fel. Soc. Agron; Asn. Seed Anal. (pres, 17). Crop production; alfalfa; soy-beans; grasses and clovers; pasture improvement.

Hughes, Prof. Harold Kenneth, University of Newark, Newark, N. J. *Physics.* New York, N. Y, Dec. 31, 11. A.B, Columbia, 34. Instr. and tutor *physics,* Bard Col, Columbia, 36–40; *asst. prof, Newark, 40–* Mem. cmt. letter symbols for chem, Nat. Research Council; joint cmt. letter symbols for physics, Am. Standards Asn. and Am. Asn. Physics Teachers, 36– Physical Soc; Asn. Physics Teachers; Radio Eng; Meteorol. Soc. Electronics.

Hughes, Prof. Horatio, College of Charleston, Charleston, S. C. *Physical chemistry.* Charleston, S. C, Oct. 20, 85. B.S, Col. of Charleston, 05, A.M, 06; Ph.D, Hopkins, 13. Chem. engineer, Gen. Asbestos and Rubber Co, 08–11; asst. prof. *chem,* Ga. Tech, 13–16; *prof,* Fla. State Col. for Women, 19–23; *Col. of Charleston, 23–* A.A; fel. S. C. Acad. Electrical conductivity; electrochemistry.

Hughes, Prof. H(oward) K(ibble), 617 Dodge St, West Lafayette, Ind. *Mathematics.* Laurens, Iowa, Dec. 15, 99. A.B, Iowa, 23, M.S, 24; fellow, Michigan, 27–28, Ph.D, 30. Instr, Iowa, 24–25; Kansas, 25–27; Purdue, 28–29; Michigan, 29–30; asst. prof. *math, Purdue,* 30–40, *assoc. prof, 40–* Math. Soc; Math. Asn. Infinite series with special emphasis on factorial and asymptotic series; general theory of functions.

Hughes, Dr. J(oseph), 111 N. 49th St, Philadelphia, Pa. *Psychiatry.* Carbondale, Pa, April 17, 06. A.B, Pennsylvania, 25, M.D, 29. Henry Phipps Inst, Pennsylvania, 31–32; nat. research fellow, 32–34; fellow, Rockefeller Foundation, 34–35; *instr. psychiat, med. sch, Pennsylvania, 36–, asst. prof. exp. neur, grad. sch. med, 41–; director labs, dept. mental and nervous diseases, Pa. Hosp, 37–, psychiatrist, Inst. of the Pa. Hosp, 37–* Afferent function of nerve fibers; potentials in

the spinal cord; dried blood serum for treatment of shock; functional reflex changes in psychoses; electro-shock treatment of psychoses; electroencephalograms in neurological diagnosis.

Hughes, Prof. J(osiah) S(impson), Kansas State College, Manhattan, Kans. *Biochemistry.* Ohio, 84. B.S, Ohio Wesleyan, 08, M.S, 09; A.M, Ohio State, 10, Ph.D, 17. *Prof. chem, Kans. State Col, 10–* Chem. Soc; Kans. Acad. Nutrition; vitamins; ultra-violet light.

Hughes, Prof. M(artin) C(ollins), Agricultural and Mechanical College of Texas, College Station, Texas. *Electrical engineering.* Chariton, Iowa, Feb. 24, 93. Simpson Col, 11–12; B.S, Illinois, 17, E.E, 26; Cornell, 16–18. Instr. elec. eng, Cornell, 16–18; foreman in charge gen. lab, N. Y. Edison Co, 19–21, asst. rate engineer, 21–23; *prof. elec. eng, Agr. and Mech. Col. Texas, 23–, head dept, 32–* U.S.A, 18. Elec. Eng. (sec'y, Houston sect, 36, chairman, 37); Eng. Educ. Alternating current machinery.

Hughes, Prof. Percy, 819 Tioga Ave, Bethlehem, Pa. *Psychology, Philosophy.* Peshawur, India, Jan. 23, 72. A.B, Alfred, 99; A.M, Columbia, 02, fellow, 02–03, Ph.D, 04. Asst. philos, Alfred, 98–09; Columbia, 03–05; instr. philos. and psychol, Minnesota, 05–06; acting prof, Tulane, 06–07; prof, *Lehigh,* 07–31, head dept, 13–31, *Stewardson prof. philos, 31–, head dept.* philos. and educ, 31–33, *philos, 33–* Psychol. Asn; Philos. Asn; Soc. Col. Teachers Educ. Underlying concepts of natural science with special reference to psychology.

Hughes, Dr. R(aymond) M(ollyneaux), Iowa State College, Ames, Iowa. *Chemistry.* Atlantic, Iowa, Jan. 14, 73. A.B, Miami (Ohio), 93, LL.D, 27; M.S, Ohio State, 97; LL.D, Coe Col, 28. Teacher, high sch, Ohio, 93–95; prof. chem. and physics, Miami (Ohio), 98–04, chem, 04–13, dean col. lib. arts, 08–11, pres, 11–27; *Iowa State Col,* 27–36, *emer. pres.* Sec'y, Am. Council Educ, 24–27. Educ. director dist. No. 6, S.A.T.C, 18. Asn. Am. Cols. (sec'y-treas, 18–21); Nat. Asn. State Univs. (sec'y, 26); N. Cent. Asn. Cols. and Secondary Schs. (sec'y, cmn. on higher educ, 23–26). Educational administration.

Hughes, Prof. R(ichard) Chester, 511 W. Fifth St, Stillwater, Okla. *Zoology.* Chattanooga, Tenn, July 21, 00. A.B, Oklahoma, 22; Kansas, 23–24; M.S, Michigan, 27, Ph.D, 28. Instr, high sch, Okla, 21–22, 24–25; prof. zool, Phillips, 22–23; instr, Kansas, 23–24; head dept. biol, Trinity (Texas), 28–30; asst. prof. *zool, Okla. Agr. and Mech. Col,* 30–34, assoc. prof, 34–41, *prof, 41–* Micros. Soc; Soc. Parasitol. Helminthology; metacercariae of strigeid trematodes.

Hughes, Dr. Richard V(an Voorhees), 1512 N. Taylor St, Arlington, Va. *Petroleum geology.* Omaha, Nebr, Dec. 27, 00. B.S, Nebraska, 25; Ph.D, Hopkins, 33. Geologist, Lago Petrol. Corp, Venezuela, 26–29; asst. chemist, origin of petrol. project no. four, Am. Petrol. Inst, 33; asst. in charge acquisition surys, Cumberland Nat. Forest, U. S. Forest Service, 33–35; geologist and asst. chief geologist, Trop. Oil Co, Colombia, S. Amer, 35–40, chief geologist, 40–41; *prin. petrol. develop. analyst, Office Petrol. Coordinator, 42–* Asn. Petrol. Geol. Geology of Beartooth Mountain front, Park County, Wyoming.

Hughes, Prof. Roscoe D(urall), Medical College of Virginia, Richmond, Va. *Zoology.* DuPont, Ga, March 1, 03. B.S, U. S. Naval Acad, 27; A.M, Columbia, 37, Ph.D, 39. Research assoc, Carnegie Institution, 30–31; asst. zool, Columbia, 33–38; assoc. *biol, Med. Col. Va,* 38–40, *asst. prof, 40–* U.S.N, 41– Genetics Soc. Cytological genetics; salivary chromosomes.

Hughes, Dr. Thomas P(atrician), Rockefeller Institute, New York, N. Y. *Bacteriology, Immunology.* Sonora, Calif, May 19, 00. A.B, Stanford, 21, A.M, 22; Illinois, 22–24; fellow, Harvard, 24–26, Ph.D, 31. Instr. physiol. chem, col. med, Illinois, 22–24; nat. research fellow med, Harvard, 24–26; asst, Rockefeller Inst, 26–28, assoc, 28–31; *mem. staff, int. health div, Rockefeller Foundation, 31–* Soc. Exp. Biol; Asn. Immunol; Soc. Trop. Med; Soc. Bact; Harvey Soc; Royal Soc. Trop. Med. and Hygiene. Immunological and bacteriological chemistry.

Hughes, Dr. Walter L(ee), Jr, 14 Clearway St, Boston, Mass. *Biochemistry.* Trenton, N. J, Nov. 19, 15. B.S, Mass. Inst. Tech, 37, Ph.D, 41; fellow, Harvard, 40–42. *Research assoc. physical chem, Harvard, 42–* Chem. Soc. Plasma proteins and blood substitutes for transfusions.

Hughes, Prof. W(illiam) B(randt), Asbury College, Wilmore, Ky. *Physics.* Nashville, Ohio, Feb. 26, 80. A.B, Ohio Northern, 09; A.M, Hopkins, 15; Ph.D, Kentucky, 33. Prof. physics, Asbury Col, 09–14, 16–23, dean col. lib. arts, 20–23; *prof.* math. and physics, Ky. Wesleyan, 23–25; *physics, Asbury Col, 25–,* dean col. lib. arts, 25–34. Instr, Hopkins, 18–19. Asn. Physics Teachers. Aims and accomplishments of a group of Christian colleges; man and his physical universe.

Hughes, Prof. W(illiam) L(ee), 408 S. West St, Arlington, Texas. *Biology.* Ben Franklin, Texas, Dec 10, 97. B.S, Agr. and Mech. Col. Texas, 25; A.M, Colorado, 30. Assoc. prof. *biol, N. Texas Agr. Col,* 25–28, *prof, 28–* A.A; Texas Acad; N. Texas Biol. Soc. (sec'y, 35–40, pres, 41). Zoology.

Hughes-Schrader, Dr. Sally, Columbia University, New York, N. Y. ***Zoology.* Hubbard, Oregon, Jan. 25, 95. B.S, Grinnell Col, 17; Ph.D, Columbia, 24. Instr. zool, Grinnell Col, 17–19; lecturer, Barnard Col, Columbia, 19–21; demonstrator biol, Bryn Mawr Col, 22–24, *instr,* 24–30; *zool,* Sarah Lawrence Col, 31–41; *Columbia, 41–* Sarah Berliner fellow, Asn. Univ. Women, 29–30. Summers, asst, bur. entom, U. S. Dept. Agr, 14; Bur. Fisheries, 20. Soc. Nat; Soc. Zool. Cranial nerves of vertebrates; biology of coccids; chromosomes; cytology; parthenogenesis; hermaphroditism.

Hughson, Dr. Walter, Abington Memorial Hospital, Abington, Pa. *Surgery.* East Orange, N. J, Aug. 4, 91. B.S, Princeton, 14; M.D, Hopkins, 18. Instr. anat, sch. med, Hopkins, 20–22, assoc. surg, 22–25, assoc. prof, 25–31, otol, 31–35; *director otol. research lab, Abington Mem. Hosp, 35–; assoc. otology, med. sch. and grad. sch. med, Pennsylvania, 36–* Lecturer, Temple, 40–; consultant, U. S. Pub. Health Service. Mem. board directors, Pa. Sch. Deaf; advisory council, Princeton. Otol. Soc; Triolog. Soc. Cerebro-spinal fluid and subarachnoid space; intestinal obstruction; physiology and pathological physiology of the gastro-intestinal tract; physiology of the ear; diagnosis and treatment of deafness.

Huizenga, Dr. Lee S(joerd's), Jukao, Ku, China. *Public health.* Lioessens, Friesland, Netherlands, June 28, 81. Calvin Col, 06; Calvin Sem, 09; M.D, N. Y. Homeop. Med. Col, 13; C.P.H, Yale, 28, Dr.P.H, 29. Pastor, Christian Reformed Church, N. J, 09–13; med. missionary, Navajo Indians, N. Mex, 13–20; supt, Kashing and Jukao Hosps, *China,* 20–30; *med. adviser, Am. Mission to Lepers, 30–* A.A; fel. Pub. Health Asn; Soc. Parasitol; Am. Trop. Disease Asn; fel. Am. Geog. Soc; fel. Royal Geog. Soc; fel. China Med. Asn; Far East Trop. Disease Asn; Int. Soc. Leprosy. Leprosy in the Orient; leprosy control in the world; history and legends of leprosy; anhydrosis in leprosy; legislation and leprosy; disturbed nasal functions in leprosy.

Hulbert, H(arold) W(atkins), 215 Prospect Ave, Lewiston, Idaho. *Agronomy.* Owosso, Mich, Nov. 11, 92. B.S, Mich. State Col, 15; M.S, Iowa State Col, 17. Teacher, high sch, Mich, 15–16; teaching fellow crops and soils, Iowa State Col, 16–17; instr. agron, Idaho, 17–18, asst. prof, 18–20, assoc. prof, 20–23, prof. and head dept, 23–36; *manager seed pea and bean growing, breeding and sales div, Mark Means Co, 36–* Crop production; plant breeding; weed eradication.

Hulbert, R(oberts), Department of Water Supply, Detroit, Mich. *Chemistry.* Detroit, Mich, Jan. 9, 87. B.S, Michigan, 12. Bacteriologist, state pub. health lab, North Dakota, 12–14; sanit. chemist, N. Dak. Col, 14–23; senior chemist, *dept. water supply, Detroit,* 23–34, *asst. supt. filtration, 34–* A.A. Sanitation; water softening and purification; ground and natural waters; sewage.

Hulburt, Dr. E(dward) O(lson), 509 S. Lee St, Alexandria, Va. ***Physics.* Vermillion, S. Dak. Oct. 12, 90. A.B, Hopkins, 11, Ph.D, 15. Carnegie asst, Hopkins, 15–16; instr. physics, Western Reserve, 16–17; Hopkins, 19–21; asst. prof, Iowa, 21–23, assoc. prof, 23–24; *physicist and supt. physical optics div, Naval Research Lab, 24–* Sig.C, 17–19, capt. A.A; fel. Physical Soc; fel. Optical Soc; Geophys. Union (sec'y, sect. terrestrial magnetism, 32–39, pres, 39); Wash. Acad. Physical optics; optics of the sea and atmosphere; radio wave propagation; ionosphere; magnetic disturbance; zodiacal light; aurorae; terrestrial magnetism.

Hulburt, Dr. Hugh M(cKinney), Shell Oil Co, Inc, New York, N. Y. *Physical chemistry.* Nashua, N. H, Oct. 27, 17. A.B, Carroll Col, 38; Ph.D, Wisconsin, 42. Asst. chem, Wisconsin, 38–42; nat. research fellow, Princeton, 42–43; *research chemist, Shell Oil Co, Inc, 43–* Chem. Soc. Theory of reaction rates, viscosity and fluid flow.

Huleatt, Prof. W(illia)m P(enn), 1905 Glencoe St, Denver, Colo. *Mining, Geology.* Chicago, Ill, Oct. 7, 96. M.Eng, Colo. Sch. Mines, 21. Asst. engineer, Ariz. Copper Co, 18; Colo. Radium Co, 20; instr. geol, *Colo. Sch. Mines,* 21–22, asst. prof, 22–29, *assoc. prof,* 29–30, *geol. and ceramics, 30–* Clay filters for petroleum.

Hulett, Dr. George A(ugustus), Princeton, N. J. *[1]*Physical chemistry.* Will Co, Ill, July 15, 67. A.B, Princeton, 92; Ph.D, Leipzig, 98. Asst. chem, Princeton, 92–96; instr, Michigan, 99–04, asst. prof. *physical chem,* 04–05; *Princeton,* 05–09, prof, 09–35, *emer. prof, 35–* Chief chemist, U. S. Bur. Mines, 12. Mem. for. service cmt, Nat. Research Council, 17, res. chairman, 28–29. Research div, C.W.S, 17–18. Nat. Acad; Chem. Soc; Philos. Soc. Surface tension and solubility; nature of precipitates; standard cells; electrochemical equivalent; isomorphism in precipitates; electromotive force of amalgams; silver and cadmium coulometers; occlusions in electrodeposits; coal and thermal decompositions; properties of carbon; decomposition potentials.

Hulin, Prof. Carlton D, 35 Eucalyptus Path, Berkeley, Calif. *Geology.* Eugene, Oregon, July 6, 96. B.S, California, 20, Ph.D, 24. Geologist, Sun Co, Venezuela, 20–21; instr. *geol, California,* 21–24, asst. prof, 24–27, *assoc. prof, 27–* Consulting geologist, 20–; consultant, U. S. Bur. Reclamation, 25; Dept. Fomento y Agr, Mex, 25; U. S. Smelting Ref. and Mining Co, 26–; State Div. Mines, Calif, 28–; chief geologist, Cia. de Real del Monte y Pachuca, Pachuca, Mex, 26–27. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Seismol. Soc. Geology and ore deposits of Randsburg quadrangle, California; metallization from basic magmas; structural control of ore deposition; a mother lode gold ore; geology and mineralization at Pachuca, Mexico; subsequent faulting in the Great Basin; geology of the Searles Lake quadrangle, California; ore textures; ore genesis; ore deposits of the western United States.

Hulin, Dr. Wilbur S(chofield), Oregon State System of Higher Education, Eugene, Oregon. *Psychology.* Minneapolis, Minn, Oct. 2, 99. A.B, Oregon, 21; James Walker fellow, Harvard, A.M, 23; Ph.D, Princeton, 26. Instr. *psychol,* Princeton, 25–28, asst. prof, 28–36; asst. prof. and head dept, Occidental Col, 36–38, *lecturer,* exten. center, 38–41; *Oregon State System Higher Educ, 41–* Experimental psychology.

Hull, Dr. Albert W(allace), General Electric Co, Schenectady, N. Y. *[3]*Physics.* Southington, Conn, April 19, 80. A.B, Yale, 05, Ph.D, 09; Sc.D, Union (N. Y), 30, Middlebury Col, 31. Instr. physics, Worcester Polytech, 09–12, asst. prof, 12–14; *research physicist, Gen. Elec. Co, 14–, asst. director research lab, 28–* Potts medal, Franklin Inst, 23; Morris Liebmann prize, Am. Inst. Radio Engineers, 30. Nat. Acad; A.A; Physical Soc; Radio Eng. Photoelectrics; x-rays; thermionic vacuum relays.

Hull, Dr. C(arl) Max, 1724 W. 105th Place, Chicago, Ill. *Chemistry.* Clinton, Ill, Nov. 22, 08. B.S, Illinois, 30; Ph.D, Ohio State, 35. Chemist, E. I. du Pont de Nemours and Co, 30–31; asst. chem, Ohio State, 31–35; *research chemist, Standard Oil Co. of Ind, 35–* Chem. Soc. Petroleum products; polymerization.

Hull, Prof. Clark L(eonard), Yale University, New Haven, Conn. *[5]*Psychology.* Akron, N. Y, May 24, 84. A.B, Michigan, 13; A.M, Wisconsin, 15, Ph.D, 18. Asst. psychol, Wisconsin, 14–16, instr. exp. psychol, 16–20, asst. prof, 20–22, assoc. prof, 22–25, prof, 25–29, director psychol. lab; *prof. psychol, Yale, 29–* Nat. Acad; A.A. (v. pres, I, 39); Psychol. Asn. (pres, 35); Am. Acad. Principles and statistics of aptitude prognosis; quantitative investigation of the conditioned reflex and basic learning mechanisms.

Hull, Dr. D(onald) E(merson), Columbia University, New York, N. Y. *Chemistry.* Crooksville, Ohio, April 13, 11. A.B, Ohio State, 32; Ph.D, California, 35. Nat. research fellow chem, 35–36; instr. physical chem, Minnesota, 36–42; *research chemist, Columbia, 42–* Chem. Soc; Physical Soc. Radioactivity; artificial radioactivity.

Hull, Prof. Frank M(ontgomery), University of Mississippi, University, Miss. *Biology.* Coahoma, Miss, Nov. 3, 01. B.S, Miss. Agr. and Mech. Col, 22; M.S, Ohio State, 24, scholar, 24–25; Ph.D, Harvard, 37. Asst, Ohio State, 22–24; instr. biol, State Col. Wash, 25–26; asst. prof. biol. and acting state entomologist, N. Mex. Col, 26–27; entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 27–30; *prof. biol. and head dept, Mississippi, 30–* Summers, asst, Miss. Agr. and Mech. Col, 22; fed. Japanese beetle project, N. J, 20; fed. sweet potato weevil work, Texas, 21; state insect investigations, Iowa. 23; dipterological collecting exped, S. Dak, 24. A.A; Asn. Econ. Entom; Soc. Zool. Entomology; zoology; regeneration of planarians; physiology of vertebrate muscle; phylogeny and taxonomy of Diptera; ecology of insects and vertebrates.

Hull, Dr. Fred H(arold), University of Florida, Gainesville, Fla. *Plant genetics.* Martin City, Mo, Sept. 13, 98. B.S, Kans. State Col, 26; fellow, Iowa State Col, 26–27, M.S, 27, Ph.D, 34. Asst. plant genetics, Minnesota, 26; instr. genetics, Iowa State Col, 27; asst. and assoc. agronomist, *Exp. Sta, Florida,* 27–38, *agronomist, 38–* Chairman, South. Corn Improv. Conf, 39, 41. Genetics Soc; Genetic Asn; Soc. Agron. Genetics of maize, peanuts and tobacco.

Hull, Dr. Frederick C(harles), Westinghouse Research Laboratory, East Pittsburgh, Pa. *Physical metallurgy.* Alliance, Ohio, Nov. 9, 15. B.S, Michigan, 37; Westinghouse grad. fellow, Carnegie Inst. Tech, 39–41, Sc.D, 41. Teaching asst. metal. eng, Carnegie Inst. Tech, 37–39; *research metallurgist, Westinghouse Research Lab, 41–* Soc. Metals; Min. and Metal. Eng. Reaction kinetics of the austenite to pearlite transformation.

Hull, Prof. G(ordon) F(errie), Dartmouth College, Hanover, N. H. *[1]*Physics.* Garnet, Ont, Can, Oct. 7, 70. B.A, Toronto, 92, fellow, 92–95; fellow, Chicago, 95–97, Ph.D, 97; Cambridge and Berlin, 05–06. Asst. *physics,* Toronto, 92–95; Chicago, 95–97, instr, 97–98; prof, Colby Col, 98–99; asst. prof, *Dartmouth Col,* 99–03, Appleton prof, 03–40, emer. prof, 40–41, *emergency prof, 41–* Summers, instr, Chicago, 98–00; prof, Columbia, 09–14. Major, tech. staff, Ordnance Dept, 18–19, physics expert, 19– A.A. (v. pres, B, 18); Physical Soc. (councilor, 18–); Astron. Soc; Am. Acad. Electrical radiation; experimental determination of the pressure of light; the elimination of gas action in experiments on light pressure; determination of law of retardation of projectiles due to air streams of high velocity; physics of artillery.

Hull, Dr. Harold H(aight), 412 Chamberlain Ave, Madison, Wis. *Soils.* Whitewater, Wis, June 5, 96. B.S, Wisconsin, 26, M.S, 27, Ph.D, 32. *Instr. soils, Wisconsin, 26–, soil chemist, state soils lab, 33–* Soc. Agron. Soil fertility.

Hull, Harry Blair, P. O. Box 671, Dayton, Ohio. *Engineering.* St. Clairsville, Pa, Nov. 16, 90. M.E, Cornell, 13. Refrig. engineer, York Mfg. Co, 13–17; Gen. Motors Research Corp, 20–22; research engineer, *Frigidaire Corp,* 22–30, *manager research eng, 30–* Lieut, Inf, 18–20. A.A; Soc. Refrig. Eng; Heat. and Vent. Eng. Household refrigeration.

Hull, J(ohn) B(urrell), U. S. Department of Agriculture, St. Lucie, Fla. *Entomology.* Louisville, Miss, Sept. 20, 06. B.S, Miss. Agr. and Mech. Col, 30. Junior entomologist, *field lab, bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–35, *asst. entomologist, 35–* Soc. Parasitol. Biology and control of blood sucking midges Culicoides.

Hull, J(oseph) P(oyer) D(eyo), American Association of Petroleum Geologists, Box 979, Tulsa, Okla. *Geology.* Highland, N. Y, Aug. 10, 89. Ph.B, Hamilton Col, 13, Elihu Root fellow, 13–14, Ph.M, 16; A.M, Hopkins, 17. Field asst, N. Y. Geol. Surv, 13; asst. geol, Hopkins, 14; collaborator, bur. soils, U. S. Dept. Agr. and Md. Geol. Surv, 14, 16; field asst, Md. Geol. Surv, 15; asst. state geologist, Ga. Geol. Surv, 17–19; geologist, La. Oil Ref. Corp, 20–26, chief geologist, 26; *business manager, Am. Asn. Petrol. Geol, 26–* Asn. Petrol. Geol. (ed. board, 22–32, acting ed, 26–32); Min. and Metal. Eng; Southwest. Geol. Soc. (pres, 24); Tulsa Geol. Soc. Pyrite; manganese; barite; iron ores; petroleum geology of gulf coastal plain.

Hull, L(awrence) H(oward), 50 Wilson Dam Village No. 1, Sheffield, Ala. *Chemistry.* Athens, Ala, Oct. 2, 10. B.S, Ala. Polytech, 31, M.S, 32. Junior chemist, asst. chemist and *assoc. chemist, Tenn. Valley Authority, 34–* Chem. Soc. (chairman, local sect, 40). Inorganic and physical chemistry; utilization of blast furnace slag in glass manufacture; phosphorus and its compounds; production of synthetic ammonia.

Hull, Prof. Ralph, University of British Columbia, Vancouver, B. C, Can. *Mathematics.* Watford, Eng, May 12, 03. B.A, British Columbia, 29, M.A, 30; Ph.D, Chicago, 32. Teacher, pub. schs, B. C, Can, 22–27; instr. *math,* Northwest Mo. State Teachers Col, 32–33; nat. research fellow, Princeton, 33–35; instr, Chicago, 35–36; Michigan, 36–37; asst. prof,

Illinois, 37–38; *prof, British Columbia, 38–* Math. Soc. Theory of numbers; linear algebras.

Hull, Prof. Robert H(arsh), University of Utah, Salt Lake City, Utah. *Electrical engineering.* Golden, Colo, Sept. 22, 88. B.S, Colorado, 12, E.E, 25. Apprentice, Westinghouse Elec. and Mfg. Co, 12–15; field engineer, Am. Beet Sugar Co, Nebr, 15–17; design engineer, Great West. Sugar Co, 18–20, 25–27; teacher, Colorado, 20–25; design engineer, Dorr Co, 27–29; *prof. elec. eng,* Idaho, 29–42; *Utah, 43–* Lieut, U.S.N.R, 17–18. Elec. Eng. (chairman, Spokane sect, 34; student activities, ninth district, 40); Eng. Educ. (chairman, Pacific Northwest sect, 35). Fundamentals of electrical engineering and vacuum tubes.

Hull, Prof. Thomas G(ordon), American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Bacteriology.* Southington, Conn, Dec. 21, 89. Ph.B, Yale, 13, M.S, 15, Ph.D, 16. Bacteriologist and asst, Am. Museum Nat. Hist, 16–17; bacteriologist, Mass. Col, 19–20; chief bacteriologist, State Dept. Pub. Health, Ill, 20–30; *director sci. exhibit, Am. Med. Asn, 30–* Asst. prof, col. med, Illinois, 27– Chief sect. exhibits, Food Admin, 17–18; lieut, Sanit.C, 18–19. Soc. Bact; assoc. fel. Am. Med. Asn; Pub. Health Asn. Animal diseases and public health; health education of the public.

Hulpieu, Dr. H(arold) R(aymond), 4346 Carrollton Ave, Indianapolis, Ind. *Pharmacology.* Dodge City, Kans, 01. A.B, Southwestern Col. (Kans), 23; A.M, Oklahoma, 24; Adam T. Bruce fellow, Hopkins, 27–28, Ph.D, 28. Asst. gen. physiol, Hopkins, 24–27; *instr.* biol, N. C. Col. for Women, 26–27; *biochem. and pharmacol, sch. med, and pharmacol, sch. dentistry, Indiana,* 28– Summer, instr, Oklahoma, 24. A.A; Soc. Pharmacol; Soc. Zool; Ind. Acad.

Hulse, Dr. Frederick S(eymour), 726 Ten Forsyth St. Bldg, Atlanta, Ga. *Anthropology.* New York, N. Y, Feb. 11, 06. A.B, Harvard, 27, A.M, 28, Ph.D, 34. Asst, Hawaii, 30–32; nat. research fellow, Harvard, 34; research assoc. physical anthrop, Hawaii, 35–36; acting instr. anthrop, Washington, 36–37; physical anthropologist, Irene Mound Project, 38–40; *state supervisor, Univ. Research Assistance Program, Ga, 41–* Asst, Univ. California archeol. exped, Northwest Mex, 35. Anthrop. Asn. Environment and racial characteristics; race mixtures; acculturation.

Hulse, Dr. G(eorge) E(gbert, Jr), 61 Passaic Ave, Passaic, N. J. *Physical chemistry.* Newark, N. J, March 1, 08. B.S, Yale, 29, Ph.D, 32. Mem. staff, *gen. labs, U. S. Rubber Co, 35–, in charge physical research dept.* Chem. Soc. Behavior of insoluble surface films; physical research in field of rubber, synthetic rubber, plastics and cotton.

Hulse, Dr. Robert E(dwin), Roessler and Hasslacher Chemicals Dept, E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Inorganic chemistry.* Trenton, N. J, June 5, 05. B.S, Rutgers, 27, M.S, 28; Grasselli fellow, Cornell, 28–30, Ph.D, 30. Instr, Rutgers, 27–28; develop. chemist, *Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co,* 30–35, production manager, 36–40, *supt, 41–* Summers, chemist, bur. entom, U. S. Dept. Agr, 26, 28, 29. Chem. Soc. Electrochemistry.

Hulswit, Dr. William H(enry), Jr, 5243 Devonshire Road, Detroit, Mich. *Physics.* Cedar Rapids, Iowa, Dec. 7, 11. B.S, Armour Inst. Tech, 33; M.S, Northwestern, 34, fellow, 36–37, Ph.D, 37. Asst. physics, Northwestern, 34–36; *physicist, U. S. Rubber Co, 37–* Physical Soc; Soc. Automotive Eng. Supersonics; physical properties of tires.

Hultgren, Prof. Ralph (Raymond), 1501 LeRoy Ave, Berkeley, Calif. *Metallurgy.* Spokane, Wash, Sept. 7, 05. B.S, California, 28; M.S, Utah, 29; Ph.D, Calif. Inst. Tech, 33. Nat. research fellow chem, Mass. Inst. Tech, 33–35; instr. metal, Harvard, 35–38, *asst. prof,* 38–41; *physical metal, California, 41–* Nature of chemical bond; quantitative spectrographic analysis; crystal structures by x-rays; physical metallurgy; x-ray metallography.

Hultquist, Dr. Martin (Everett), Morning Glory Road, Bound Brook, N. J. *Chemistry.* Laird, Colo, Oct. 31, 10. B.S, Colorado, 31, M.S, 34, Ph.D, 35. Asst. org. chem, Colorado, 31–35; *research chemist, pharmaceut. div, Calco chem. div, Am. Cyanamid Co, Bound Brook, N. J, 35–* Inst. Chem; Chem. Soc. Organic and pharmaceutical chemistry, especially sulfanilamide derivatives.

Hultz, Prof. Fredric S(amuel), 1007 Sheridan St, Laramie, Wyo. *Animal husbandry.* Des Moines, Iowa, Oct. 3, 93. B.S, Iowa State Col, 15, M.S, 17, Ph.D, 27. Asst. *animal husbandry,* Pa. State Col, 17–18, asst. prof, 19–21, assoc. prof, 22–23; *prof. and head dept, Wyoming, 22–, husbandman, Exp. Sta, 22–,* director publicity, 30–34, univ. ed, 31–34. Assoc. ed, 'Wyo. Stockman and Farmer,' 23–27, ed, 27–28, live stock ed, 28–U.S.A, 18–19. Soc. Animal Production (west. v. pres, 34, 35; sec'y, 41). Genetics; wool; range beef production; range sheep and wool.

Humason, Milton L(a Salle), Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. **5Astronomy.* Dodge Centre, Minn, Aug. 19, 91. Asst. observer, *Mt. Wilson Observatory, Carnegie Institution,* 17–21, *astronomer, 21–* Astron. Soc; Astron. Soc. Pacific. Stellar and nebular spectroscopy.

Humbert, Prof. Eugene P(eter), Agricultural and Mechanical College of Texas, College Station, Texas. *Genetics.* Corning, Iowa, Sept. 1, 81. B.S.A, Iowa State Col, 06; M.S, Cornell, 08, Ph.D, 10. Instr, Iowa State Col, 06–07; asst. plant breeding, Cornell, 08–10; plant physiologist, U. S. Dept. Agr, 10; assoc. biologist, Exp. Sta, Maine, 11; agronomist, N. Mex. Col. and Exp. Sta, 12–15; plant breeder, *Agr. and Mech. Col. Texas,* 16–21, *prof. genetics and head dept, 21–* Soc. Nat; Soc. Agron. Plant breeding.

Hume, Prof. A(lbert) N(ash), South Dakota State College, Brookings, S. Dak. *Agronomy.* Plymouth, Ind, Dec. 3, 78. B.S.A, Purdue, 00, M.S, 02; Leipzig, 07; Ph.D, Göttingen, 10. Asst. agr, Purdue, 01–02; instr, Winona Inst, 02–03; from instr. to asst. prof. crop production, Illinois, 04–11; *prof. agron, S. Dak. State Col, and agronomist, Exp Sta, 11–* A.A; Soc. Agron. Crop improvement.

Hume, Dr. Alfred, University of Mississippi, University, Miss. *Mathematics.* Beech Grove, Tenn, Dec. 1, 66. B.E, Vanderbilt, 87, C.E, 88, fellow, 87–90, Sc.D, 90. Instr. civil eng, Vanderbilt, 87–90; prof. math, Mississippi, 90–26, v. chancellor and dean acad. dept, 05–24, acting chancellor, 06–07, chancellor, 24–30; prof. math, Southwestern (Tenn), 30–31; pres, Branham and Hughes Mil. Acad, 31–32; chancellor, *Mississippi,* 32–35, *emer. chancellor and head dept. math, 35–, acting chancellor, 42–* Prof, Summer Sch. of the South, 03. A.A; Math. Soc; Math. Asn; Eng. Educ; Eng. Asn. of the South (pres, 14).

Hume, Col. Edgar Erskine, Office of the Surgeon General, War Department, Washington, D. C. *Public health, Tropical medicine.* Frankfort, Ky, Dec. 26, 89. A.B, Centre Col, 08, A.M, 09, LL.D, 23; M.D, Hopkins, 13, Dr.P.H, 24; M.D, Munich, 14, Rome, 15; C.P.H, Harvard and Mass. Inst. Tech, 21; D.T.M, Harvard, 22; LL.D, Kentucky, 30, Col. of William and Mary, 32, Georgetown and Transylvania Col, 34; Sc.D, Washington and Lee, 32, Washington and Jefferson Col, 42; Litt.D, Hampden-Sydney Col, 32; hon. M.D, Léon, Nicaragua, 32; Madrid, 33. Asst. neur, Hopkins Hosp, 13; med. director, Am. exped. after Italian earthquake, 15; all grades to col, Med. Corps, 16–41, director, U.S.A. hosps, Italy, 17–19; director, U.S.A. Lab. for New England, Boston, 20; *ed,* 'The Index Catalog of the Army Med. Library,' 22; *'The Mil. Surg,' 22–; assoc. ed, 'Annals Med. Hist,' 36–;* librarian, Army Med. Library, 22–26, 32–36; director *dept. admin, Med. Field Service Sch, U. S. Army,* 36–42, *commanding officer, Winter Gen. Hosp, 43–* Hon. prof, Polish Army Med. Sch, 27; hon. curator, Osler Library, McGill. Commissioner to Serbia, Am. Red Cross, and director typhus fever campaign, 19–20; Oberlaender fellow, 37. Hoff mem. gold medal, 17; silver medal, Asn. française pour l'Avanc. des Sci, 22; D.S. medal; Silver Star; Purple Heart; Légion d'honneur and other for. decorations; Sir Henry Wellcome prize, 33; Founder's medal, Asn. Mil. Surg, 41. U. S. del, Int. Cong. of Mil. Med, Paris, 25, London, 29, The Hague, 31, Madrid, 33, Brussels, 35, Mexico, 36, Bucharest, 37, Washington, 39. A.A; fel. Pub. Health Asn; fel. Col. Physicians; fel. Col. Surg; Asn. Mil. Surg. (v. pres); fel. Am. Acad; fel. Royal Soc. Trop. Med. and Hygiene; fel. Royal Geog. Soc; fel. Soc. Antiquaries, Scotland; fel. Royal Soc. Edinburgh; Ital. Soc. Hygiene; Soc. Ital. d'Anthrop, Rome; Ital. Acad. Med; Swedish Soc. Anthrop. and Geog; Acad. Española; hon. mem. Mex. Asn. Mil. Surg; Mex. Acad. Med; Peruvian Acad. Military sanitation; sand-fly fevers; typhus fever; food poisoning; Jamaica ginger paralysis; influenza; pneumonia; Pettenkofer's theory of etiology of cholera; creeping eruption; water purification; history of medicine.

Hume, Dr. George S(herwood), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Milton, Ont, 93. B.A, Toronto, 15; Ph.D, Yale, 20. *Geol. Surv. Can,* 15–16, *20–*

Geologist for oil controller, Can, 41. Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Can. Inst. Min. and Metal; fel. Royal Soc. Can. The Lake Timiskaming district, Ontario; the MacKenzie district, Northwest Territories; central, eastern and southwestern Alberta; foothills of Alberta.

Hume, Dr. H(arry) V(ictor), The Atlantic Refining Co, 3144 Passyunk Ave, Philadelphia, Pa. *Organic chemistry.* Wesleyville, Pa, Jan. 22, 97. B.S, Chicago, 21, M.S, 22, Ph.D, 24. Asst. chem, Chicago, 20–23; instr. biochem, Tulane, 23–24; prof. chem, Sweet Briar Col, 24–27; research chemist, *Atlantic Ref. Co,* 27–38, *refinery supt, 38–* Instr, evening sch, Drexel Inst, 28–40. Chem. Soc. Active halogens in aromatic compounds; blood sugar; hydrogen ion concentration in the human duodenum.

Hume, Prof. William, 2nd, University of New Mexico, Albuquerque, N. Mex. *Civil engineering.* Oxford, Miss, Sept. 7, 10. Mississippi, 27–28, 29–30; B.E, Vanderbilt, 31; Ph.D, Hopkins, 34. Instr. physics, Hopkins, 34–35; *civil eng, New Mexico,* 35–37, *asst. prof, 37–* A.A; Physical Soc; assoc. Civil Eng. Far ultra-violet spectroscopy.

Humes, Dr. Arthur G(rover), University of Buffalo, Buffalo, N. Y. *Zoology.* Seekonk, Mass, Jan. 22, 16. A.B, Brown, 37; M.S, Louisiana, 39; Ph.D, Illinois, 41. *Instr. zool, Buffalo, 41–* Summer, instr, marine lab, Louisiana, 42. Micros. Soc; Soc. Parasitol. Parasites of Crustacea; carcinology; helminthology.

Humes, Dr. John Finton, Scranton-Keystone Junior College, La Plume, Pa. *Psychology.* Tarentum, Pa, June 27, 94. A.B, Pennsylvania, 23, A.M, 25, Ph.D, 29. Asst. psychol, Pennsylvania, 23–24, instr, 24–36; asst. prof. indust. psychol, foremanship training exten, Pa. State Col, 36–41; *coordinator community resources in terminal educ. study, Am. Asn. Junior Cols. and student personnel counselor, Scranton-Keystone Junior Col, 41–* Asst. instr, S. Jersey Law Sch, 31–33; asst. prof, Beaver Col, 35–36; private indust. personnel consultant, 37– Assoc. Psychol. Asn; assoc. Asn. Applied Psychol; East. Psychol. Asn. Audition; upper limen for tonal discrimination; occupational music; industrial and college personnel procedures; community surveys; public relations.

Humfeld, Dr. Harry, U. S. Department of Agriculture, Albany, Calif. *Bacteriology.* Amsterdam, Holland, Oct. 2, 94. B.S, Oregon State Col, 23; fellow, Iowa State Col, 25–27, M.S, 26, Ph.D, 28. Asst. supt, Umatilla branch, Exp. Sta, Oregon State Col, 23–25; asst. bacteriologist, bur. chem. and soils, *U. S. Dept. Agr,* 27–30, assoc. bacteriologist, bur. plant indust, 30–40, *microbiologist, west. regional research lab, bur. agr. chem. and eng, 40–* Fermentation and composting processes for utilization of agricultural wastes and surpluses; soil microbiology; electrodialysis of soil; carbon dioxide evolution from soil; decomposition of green manures; microbiological tests for soil deficiencies; mildew of cotton fabrics and fibers.

Humm, Dr. Doncaster G(eorge), 416 W. Eighth St, Los Angeles, Calif. *Psychology.* Punxsutawney, Pa, May 21, 87. A.B, Bucknell, 09; A.M, Southern California, 26, Ph.D, 32. Prin, high sch, Pa, 09–11; Ariz, 11–12; teacher, Calif, 12–18; prin, pub. sch, Ariz, 18–20; educ. counselor, *Los Angeles, California,* 20–32, *consulting psychologist and personnel consultant, 29–* Psychologist, Calif. Babies Hosp, Los Angeles, 34–36; Inst. Family Relations, 35–36. A.A; assoc. Psychol. Asn; Math. Soc; Psychometric Soc; Nat. Inst. Indust. Psychol. Great Britain. Statistics; educational placement; the inheritance of mental disorders; the measurement of temperament; personnel methods.

Humm, Dr. Frances Dorris (Mrs. D. G. Humm), Yale University, New Haven, Conn. *Zoology.* Tracy City, Tenn, Nov. 22, 04. A.B, Smith Col, 25; Ives fellow, Yale, 25–27, A.M, 27, Ph.D, 34. Technician zool, Yale, 27–29, fellow, 34–35; nat. research fellow, Chicago, 35–36; asst. embryol, *Yale,* 36–40, *Sigma Delta Epsilon research fellow, Osborn Zool. Lab, 41–* Experimental embryology; embryonic enzymes; development of amphibian gut; behavior of embryonic tissues in vitro.

Hummel, Prof. A(rnim) D(ean), 1120 W. Main, Richmond, Ky. *Physics.* London Mills, Ill, July 29, 02. B.S, Knox Col, 23; scholar from Knox Col, Illinois, 23–24, M.S, 24, fellow, 27–28, Ph.D, 28. Asst. *physics,* Illinois, 24–27, instr, 28–29; *prof, East. Ky. State Teachers Col, 29–* A.A; Physical Soc; Asn. Physics Teachers (exec. cmt, 39, 40). Ionization efficiency of electrons in alkali vapors; internal measurements with x-rays.

Hummel, J(ohn) A(dolph), 2143 Commonwealth Ave, St. Paul, Minn. *Chemistry.* Washington Co, Minn, June 12, 75. B.Agr, Minnesota, 99. Chemist, State Dairy and Food Dept, Minn, 99–00; asst. prof. agr. chem, Minnesota, and asst. chemist, Exp. Sta, 00–09; *chemist, State Grain Inspection Dept, Minn, 17–* A.A. Agricultural chemistry.

Hummel, Dr. Katharine P(attee), Jackson Memorial Laboratory, Bar Harbor, Maine. *Histology.* St. Paul, Minn, Oct. 2, 04. A.B, Carleton Col, 26; A.M, Minnesota, 27; Ph.D, Cornell, 34. Instr. zool, Carleton Col, 27–32; Mt. Holyoke, 35–36; research instr. animal nutrition, Cornell, 36–37; asst. prof. zool, N. J. Col. Women, Rutgers, 39–43; *staff mem, Jackson Mem. Lab, 43–* Asn. Anat. Development and structure of lymphatic tissue; experimental embryology; histological changes accompanying aging.

Hummel, Dr. L(awrence) Edgar, 135 Linwood Ave, Buffalo, N. Y. *Medicine.* Darien Center, N. Y, April 22, 03. B.S, Buffalo, 26; M.D, Harvard, 31. Intern, Mass. Gen. Hosp, Boston, 31–32; intern and house physician, St. Luke's Hosp, New York, 33–35; asst. path. and bacter, Rockefeller Inst. Hosp, 35–36, asst. res, 36–37; attending clin. asst, *Buffalo Gen. Hosp,* 37–39, *asst. physician,* out-patient dept, 39–42, *hosp, 42–; asst. prof. med, chairman dept. and asst. dean med. sch, Buffalo, 39–* Res. physician, Lenox Hill Hosp, N. Y, 35. Visiting physician, Meyer Mem. Hosp, 42. A.A; fel. Col. Physicians; Harvey Soc. Effect of adrenalin on muscle metabolism; bone marrow and blood observations in developing rabbits; blood changes in tuberculous rabbits; liver extract and reticulocytosis in guinea pigs; macrocytic anemia in association with intestinal strictures and anastomoses.

Hummel, Prof. Paul M(atthew), 8 N. Pinehurst, Tuscaloosa, Ala. *Mathematics.* Lancaster, Ohio, June 6, 08. A.B, Ohio State, 32, A.M, 33, Ph.D, 35. Teaching fellow, Ohio State, 32–35; instr. *math, Alabama,* 35–39, *asst. prof, 39–* Math. Soc; Math. Asn. Algebra and number theory; continued fractions.

Hummell, Prof. R(obert) C(leveland), 11325 Knowlton Ave, Cleveland, Ohio. *Chemistry.* Lithopolis, Ohio, Jan. 20, 85. B.S, Otterbein Col, 11; fellow, Ohio State, 11–13, A.M, 12, Ph.D, 18. Asst. *chem,* Ohio State, 13–14, instr, 14–17; asst. prof, *Case,* 17–33, *assoc. prof, 33–* Chem. Soc. (sec'y, Columbus sect, 16). Inorganic chemistry.

Hummer, Dr. Richard W(orthington), U. S. Department of Agriculture, Beltsville, Md. *Physical chemistry.* Birmingham, Ala, June 21, 16. A.B, American Univ, 37; Ph.D, Princeton, 40. Student asst, Bur. Standards, 36–38; asst, Princeton, 38–40; senior trainee, Union Oil Co, Calif, 40–41; asst. bio-org. chem, Calif. Inst. Tech, 41–42; *asst. chemist, bur. plant indust, U. S. Dept. Agr, 42–* Inst. Chem. Dehydrogenation catalysis and poisoning; high pressure adsorption; isolation of biological substances.

Humoller, Dr. Fred L(udwig), Loyola University School of Medicine, Chicago, Ill. *Physiological chemistry.* Hamburg, Germany, Jan. 23, 01. B.S, Chicago, 31, fellow, 33–34, Ph.D, 34. Teaching fellow, sch. med, Loyola (Ill), 31–33; research chemist, Miner Labs, Chicago, Ill, 34–35; fellow, Chicago, 35–36; instr. *physiol. chem, sch. med, Loyola (Ill),* 36–37, asst. prof, 37–43, *assoc. prof, 43–* Grant, cmt. sci. research, Am. Med. Asn, 37. A.A; Chem. Soc. Carbohydrate chemistry; chemistry of the toxic principle found in culture fluids of Bacterium enteritidis.

Humphrey, Dr. Bingham J(ohnson), Hard Rubber Co, 407 East St, New Haven, Conn. *Organic chemistry.* Proctor, Vt, Feb. 9, 06. B.S, Vermont, 27; Ph.D, Yale, 30. *Research chemist,* Firestone Tire and Rubber Co; *Hard Rubber Co.* Chem. Soc; fel. Inst. Chem. Rubber chemistry and technology.

Humphrey, Dr. C(larence) J(ohn), 543 N. La Cienega Blvd, Los Angeles, Calif. *Mycology, Plant pathology.* Cleveland, Ohio, March 3, 82. A.B, B.S, Nebraska, 06; Ph.D, Wisconsin, 20. Office wood preservation, U. S. Forest Service, 06–07; asst. mycol, Cornell, 07–09; in charge path. investigations, Forest Products Lab, U. S. Forest Service, 10–22, research, timber decay, 22–25, in charge path. investigations, Appalachian Forest Exp. Sta, 25–26; mycologist in charge div. mycol. and plant path, Bur. Science, P. I, 26–33; regional pathologist, soil conservation service, U. S. Dept. Agr, 35–37; *owner, Fax Service, 38–* Lecturer, Wisconsin, 13–25. Mem, P. I. Plant Quarantine Board. A.A; Soc. Foresters; Bot. Soc; Phytopath. Soc; Wis. Acad; Mich. Acad; British Mycol. Soc;

Soc. mycol. de France; Soc. de Path. vég. et d'Entom. agr. de France. Life history, distribution, morphology and control of timber-destroying fungi; tree diseases; general pathology; insect and fungus pest control.

Humphrey, Prof. George, Queen's University, Kingston, Ont, Can. *Psychology.* Boughton under Blean, Kent, Eng, July 17, 89. B.A, Oxford, 12, M.A, 20, Cassel scholar, Leipzig, 13–14; Ph.D, Harvard, 20. Tutor in classics, Borough Road Training Col, England, 14–15; prof. ancient hist, St. Francis Xavier Col, 16–18; asst. prof. psychol, Wesleyan, 20–24; *prof. philos. and head dept, Queen's (Can), 24–* Lecturer, Harvard, 24. Psychol. Asn; Can. Psychol. Asn. (sec'y, 38–42, pres, 42); fel. Royal Soc. Can. Thought; animal neurosis.

Humphrey, Prof. Geo(rge) C(olvin), 407 E. Court St, Ludington, Mich. *Animal husbandry.* Palmyra, Mich, Feb. 13, 75. B.S, Mich. State Col. Instr. animal husbandry, Mich. State Col, 01–03; prof. and chairman dept, *Wisconsin,* 03–38, prof. *dairy husbandry,* 38–42, *emer. prof, 42–* Soc. Animal Production (pres, 33). The feeding of farm animals; sheep and dairy cattle breeding; grain rations for milk production and for young animals; the relation of protein rations in milk secretion.

Humphrey, Dr. Harry Baker, U. S. Department of Agriculture, Washington, D. C. *Botany.* Granite Falls, Minn, Aug. 4, 73. B.S, Minnesota, 99; Ph.D, Stanford, 07. Asst. bot, Minnesota, 98–99; acting instr, Stanford, 05–08; asst. prof, State Col. Wash, 08–10, plant pathologist, Exp. Sta, 08–12, v. director, 11–12, prof. plant path, 10–12, bot. and plant path, 12; *prin. pathologist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 13–* Instr. in charge bot, Stanford Marine Biol. Summer Sch, 06–09; instr, Marine Biol. Lab, Friday Harbor, Wash, 12. U. S. rep, Int. Cong. Comp. Path, Athens, 36. A.A; Phytopath. Soc; Wash. Acad. (v. pres, 31). Plant pathology; development of Fossombronia longiseta; morphology and physiology of some California Hepaticae; life history and control of tomato blight; physiology and control of bunt; Puccinia glumarum of cereals and grasses; loose smut of rye; vegetable diseases due to lack of minerals; physiology of parasitism in cereal rusts; handbook on rammed earth construction.

Humphrey, Prof. L(eo) C(handler), Whitman College, Walla Walla, Wash. *Chemistry.* Charlemont, Mass, Sept. 28, 95. B.S, Mont. State Col, 19; M.S, Whitman Col, 33. Instr. *chem,* Mont. State Col, 19–21; asst, Minnesota, 21–24; asst. prof. and *assoc. prof, Whitman Col, 24–* Chem. Soc. Diphenyl derivatives.

Humphrey, Dr. L(lewellyn) M(ealey), Scott, Ark. *Agronomy.* Warren, Ill, March 14, 03. Maryland; Vermont; B.S, Minnesota, 28, M.S, 31, Ph.D, 33. Plant breeder, Minn. Valley Canning Co, Le Sueur, Minn, 28–31; instr. bot. and genetics, Iowa State Col, 31–35; assoc. prof. agron, Arkansas, 35–41, prof, 41; *chief agronomist and plant breeder, Robert L. Dortch Seed Farms, 42–* A.A; Ark. Acad. Cytogenetics; genetics and breeding of cotton, corn and soybeans.

Humphrey, Dr. Robert R(egester), U. S. Department of Agriculture, Washington, D. C. *Ecology.* Palo Alto, Calif, June 14, 04. A.B, Minnesota, 29, A.M, 30, Ph.D, 33; fellow, desert lab, Carnegie Institution, 30–31. Asst, Minnesota, 30–33; junior range examiner, Southwest. Forest and Range Exp. Sta, U. S. Forest Service, 33–35; asst. range examiner, *soil conservation service, U. S. Dept. Agr,* 35–39, *assoc. range conservationist, 39–* A.A; Ecol. Soc; Bot. Soc. Range ecology; ecological anatomy; autecology; range management.

Humphrey, Prof. R(ufus) R(ichard), 24 High St, Buffalo, N. Y. *Histology, Embryology, Anatomy.* Bear Lake, Mich, April 12, 92. B.Pd, Mich. State Nor. Col, 16, A.B, 17; A.M, Cornell, 20, Ph.D, 23. Instr. biol, Berea Col, 16–17; histol. and embryol, Cornell, 19–23; assoc. *anat. sch. med, Buffalo,* 23–24, asst. prof, 24–27, assoc. prof, 27–38, *prof, 38–* A.A; Asn. Anat; Soc. Zool; Soc. Exp. Biol; Genetic Asn. Interstitial cells, morphology of the testis, origin of the germ cells, sex reversal and gonad transplants in Amphibia; genetics of sex determination.

Humphrey, Dr. Tryphena, University of Pittsburgh, Pittsburgh, Pa. *Anatomy.* Bear Lake, Mich, May 25, 02. A.B, Mich. State Nor. Col, 24; A.M, Michigan, 27, M.D, 31, Ph.D, 36. Teacher, high sch, Mich, 25–26; junior instr. *anat,* Michigan, 32–34, instr, 34–38; *Pittsburgh,* 38–42, *asst. prof, 42–* A.A; Asn. Anat; Mich. Acad. Non-cortical telencephalic areas in reptiles, birds and mammals; development of human olfactory and accessory olfactory formations.

Humphreys, Dean Allan S(parrow), University of Arkansas, Fayetteville, Ark. *Chemistry.* Springfield, Mo, Oct. 26, 89. B.S, Drury Col, 10; B.Pd, Mo. State Teachers Col, Springfield, 13; M.S, Pennsylvania, 20. Teacher, high sch, Mo, 10–16; asst. *chem,* Minnesota, 16–17; Pennsylvania, 19–20; instr, *Arkansas,* 20–21, asst. prof, 22–41, *assoc. prof, 41–,* personnel director for men, 37–41, *dean men, 41–* Lieut, C.W.S, 18. Chem. Soc. Inorganic preparations.

Humphreys, Dr. Cecil W(alter), Box 2527, Houston, Texas. *Physical chemistry.* Grangeville, Calif, July 21, 05. A.B, Col. of Pacific, 27; Chem.E, Stanford, 28, du Pont fellow and Royall Victor fellow, 29–30, Ph.D, 31. Chem. engineer, Standard Oil Co. of Calif, 31; chemist, Shell Chem. Co, Pittsburg, Calif, 31–34, chief chemist, alcohol plant, Martinez, 34–36, asst. supt. Dominguez plant, Wilmington, 36–40, supt, 40–41, *asst. supt. in charge chem. div, Houston refinery, Shell Oil Co, Inc, 41–* Rates of saponification of commercial oils, fats, waxes and pure triglycerides by aqueous alkali; a microtome method for the determination of the absolute amount of adsorption at static air-water interfaces.

Humphreys, Dr. C(urtis) J(udson), National Bureau of Standards, Washington, D. C. *Physics.* Columbiana Co, Ohio, Feb. 17, 98. A.B, Ohio Wesleyan, 18; M.S, Kentucky, 21; Ph.D, Michigan, 28. Instr. physics, Kentucky, 19–21; asst, Michigan, 21–22; instr, Western Reserve, 22–27; assoc. physicist, Bur. Standards, 28–33; computer, U. S. Coast and Geod. Surv, 33–34; instr, Mass. Inst. Tech, 34–35; *assoc. physicist, Bur. Standards, 35–* Physical Soc; Optical Soc. Spectroscopy; vacuum spark spectra of arsenic and selenium; spectra of neon, argon, krypton and xenon; interferometer measurements; wave-length standards; hyperfine structures; spectra of antimony and columbium; Zeeman effect; intensity measurements in the spectrum of the solar chromosphere.

Humphreys, Dr. David (Druen), 17636 Matthews St, Wyandotte, Mich. *Organic chemistry.* Laclede Co, Mo, Feb. 12, 16. B.S, Texas Tech. Col, 36, M.S, 38; Ph.D, Texas, 41. *Group leader and research chemist, Sharples Chem, Inc, 41–* Chem. Soc. Pharmaceuticals; organic compounds.

Humphreys, Dr. Eleanor M(ary), University of Chicago, Chicago, Ill. *Pathology.* Fair Haven, Vt, Dec. 6, 92. A.B, Smith Col, 17; M.D, Rush, Chicago, 31. Physiol. chemist, Highland Hosp, Rochester, N. Y, 17–18; physiol. chemist and bacteriologist, div. labs, State Dept. Health, N. Y, 18–23; asst. *path, Chicago,* 26–29, instr, 29–30, asst. prof, 31–42, *assoc. prof, 42–* Asn. Path. and Bact; Chicago Path. Soc. Bacterial metabolism; pathological anatomy; pathology and chemistry of nutritional disorders.

Humphreys, Dr. Frederick B(rown), 61 Summer St, Forest Hills, L. I, N. Y. *Bacteriology.* Summit, N. J, July 10, 78. Ph.B, Yale, 99; M.D, Columbia, 03. Asst. histol, med. col, Cornell, 06; asst. pathologist, N. Y. Hosp, 06–08; asst. pathologist and pathologist, German Hosp. (Lenox Hill Hosp), N. Y, 08–17; res. bacteriologist, *Presb. Hosp,* 19–28, *assoc. attending bacteriologist, 23–*; from assoc. to *assoc. prof. bacter, Columbia, 20–* Instr, Columbia, 11. U.S.A, 17–19, lieut. col. N. Y. Med. Soc; N. Y. Path. Soc; fel. N. Y. Acad. Med. Pathogenic anaerobic bacilli.

Humphreys, Dr. Lloyd G(irton), Northwestern University, Evanston, Ill. *Psychology.* Lorane, Oregon, Dec. 12, 13. B.S, Oregon, 35; A.M, Indiana, 36; Ph.D, Stanford, 38. Nat. research fellow *psychol,* Yale, 38–39; *instr, Northwestern, 39–*; *2nd lieut, U. S. Army, 42–* Carnegie fellow, Columbia, 41–42. Psychol. Asn; Soc. Psychol. Study Social Issues. Experimental psychology and statistics; conditioning and learning.

Humphreys, Prof. M(abel) G(weneth), Tulane University, New Orleans, La. *Mathematics.* South Vancouver, B. C, Can, Oct. 22, 11. B.A, British Columbia, 32; fellow, Smith Col, 32–33, A.M, 33; fellow, Chicago, 33–35, Ph.D, 35. Instr. math. and physics, Mt. St. Scholastica Col, 35–36; *math, Newcomb Col, Tulane,* 36–41, *asst. prof, 41–* Math. Soc; Math. Asn. Theory of numbers; Waring problem.

Humphreys, Prof. Mary Emily, 477 Greensboro College, Greensboro, N. C. *Plant ecology.* Berlin, Md, July 5, 11. A.B, Western Maryland Col, 32; A.M, Duke, 38, Ph.D, 41. Teacher, high sch, Md, 34–38; asst. bot, Duke, 38–41; asst. teacher, E. Carolina Teachers Col, N. C, 41–42; *asst. prof,*

Greensboro Col, 42– N. C. Acad. Buried viable seed in a successional series of old field and forest soils; lawn grass species in Piedmont, North Carolina.

Humphreys, Prof. Richard F(ranklin), Yale University, New Haven, Conn. *Physics.* Greenville, Ohio, May 16, 11. A.B, DePauw, 33; A.M, Syracuse, 36; Ph.D, Yale, 39. Instr. *physics,* Syracuse, 39–40; *Yale, 40–43, asst. prof, 43–* A.A; Physical Soc. Spectroscopy; nuclear physics.

Humphreys, Dr. Robert E(dward), 1646 Central Ave, Whiting, Ind. *Chemistry.* Emory, Va, April 1, 68. A.B, Emory and Henry Col, 89, A.M, 93; Ph.D, Hopkins, 00. With Standard Oil Co. of Ind, 00–32, asst. supt, Whiting plant, 14–18, manager, 18–27, director Chicago office, 27–32, v. pres, 29–32; *retired.* Chem. Soc; London Soc. Chem. Indust. Petroleum chemistry; cracking heavy petroleum oils to form volatile motor fuels.

Humphreys, Dr. W(illiam) J(ackson), U. S. Weather Bureau, Washington, D. C. *[1]Physics.* Gap Mills, W. Va, Feb. 3, 62. A.B, Washington and Lee, 86, C.E, 88; Virginia, 88–89; fellow, Hopkins, 95–96, Ph.D, 97. Prof. physics and math, Miller Sch, Va, 89–93; physics and chem, Washington Col. (Md), 93–94; instr. physics, Virginia, 97–05; supervising director, Mt. Weather Observatory, 05–08, prof. *meteorol. physics, U. S. Weather Bur,* 05–35, *collaborator, 35–;* prof, *George Washington,* 11–33, *emer. prof, 33–* Assoc. ed, 'Jour. Franklin Inst,' 13– Naval observatory eclipse exped, Ga, 00, Sumatra, 01. Longstreth medal, Franklin Inst, 13, Potts medal, 14. A.A. (sec'y, B, 12–16, exec. cmt, 12–24, v. pres, B, 17, gen. sec'y, 25–28); Physical Soc. (councilor, 13–16); Geophys. Union (sec'y, 21, chairman, sect. seismol, 22, v. chairman, sect. meteorol, 20–22, nat. chairman, 32–35); Meteorol. Soc. (v. pres, 20–23, pres, 28, councilor, 37–); Optical Soc; Astron. Soc. (councilor, 10–12); Seismol. Soc; Math. Soc; Philos. Soc; Franklin Inst; Am. Acad; Philos. Soc. Wash. (sec'y, 10, pres, 19); Wash. Acad. (v. pres, 19–21, pres, 22); cor. mem. Meteorol. Soc. Hungary; cor. mem. State Russian Geog. Soc. Solution and diffusion of metals in mercury; electric discharges; flash spectra; upper inversion of the isothermal layer of the atmosphere; pressure effect on arc spectra; double reversal; spectroscopic and general radiation and absorption problems; physics of the air.

Hund, Dr. August, 718 Adelaide Place, Santa Monica, Calif. *Electrical engineering.* Offenburg, Germany, Dec. 17, 87. E.E, Karlsruhe, 11, D.E, 13; California. Asst, Karlsruhe, 09; commercial testing, elec. mfg. companies, Germany, 10; designing engineer, Bartelnus and Donat, Moravia, 11; switchboard dept, Dr. Steinmetz's lab. and research engineer, Gen. Elec. Co, 12–14; asst. prof. and assoc. prof. physics and elec. eng, Southern California, 15–17; consulting research engineer, Calif, 18–22; elec. engineer and later senior physicist, Bur. Standards, 22–29; special research and consulting engineer, Wired Radio, Inc, Ampere, N. J, 29–34; consulting engineer, *Los Angeles,* 34–42, *tech. consultant, U. S. Navy Radio and Sound Lab, 42–* A.A; Elec. Eng; fel. Physical Soc; Radio Eng; Philos. Soc; Wash. Acad. Radio; high frequency measurements; quartz oscillators at radio and audio frequencies; radio telephone; filamentless radio tubes; phenomena in high frequency systems; frequency modulation and television.

Hund, W(alter) J, 6119 Acacia Ave, Oakland, Calif. *Organic chemistry.* San Francisco, Calif, June 19, 88. B.S, California, 09; Berlin, 10–11. Chemist, *Shell Develop. Co, Emeryville, Calif,* 29–38, *asst. director research, 38–, asst. director and admin. manager labs, 41–* A.A; Petrol. Inst; Chem. Soc. Petroleum products and derived chemicals.

Hundley, Prof. John L(eslie), University Station, Grand Forks, N. Dak. *Physics.* Union, Mo, Dec. 23, 93. A.B, Missouri, 20, A.M, 21; Ph.D, Chicago, 27. Instr. *physics,* North Dakota, 21–24; acting prof, Kenyon Col, 25–26; asst. prof, Tulane, 27–29; *prof, North Dakota, 29–* Positive ray work; functions of isotopes.

Hungate, J(oseph) W(ynne), Eastern Washington College of Education, Cheney, Wash. *Entomology.* Almota, Wash, Oct. 28, 81. A.B, State Col. Wash, 02; M.S, Cornell, 10; California, 21, 28. Instr, high sch, Wash, 03–05; Wash. State Nor. Sch, *Cheney,* 05–18, *head dept. applied sciences and arts,* 20–37, *East. Wash. Col. Educ, 37–* A.A; Soc. Mammal; Cooper Ornith. Club; Northwest Sci. Asn. (councilor, 26–28, 34–, sec'y-treas, 27–33, trustee, 28–31, pres, 36–); Pacific Northwest Bird and Mammal Soc. Herpetology.

Hungate, Prof. R(obert) E(dward), University of Texas, Austin, Texas. *Biology.* Cheney, Wash, March 2, 06. A.B, Stanford, 29, Ph.D, 35. Acting instr. biol, Stanford, 30–33, instr, 33–35; *zool, Texas,* 35–38, *asst. prof, 38–* A.A; Soc. Zool. Cohesion of water; termite nutrition; wood decomposition; biological decomposition of cellulose; nutrition of ruminant protozoa.

Hungerford, Dean Cha(rle)s W(illiam), 514 E. C St, Moscow, Idaho. *Plant pathology.* Fillmore Co, Minn, Feb. 26, 85. B.S, Upper Iowa, 10; M.S, Wisconsin, 15, Ph.D, 25. Supt, high sch, Minn, 10–13; asst. bot. and plant path, Wisconsin, 13–15; sci. asst, U. S. Dept. Agr, 15–17, asst. pathologist, 17–19; *plant pathologist, Exp. Sta, Idaho, 19–, prof. plant path, 23–, v. director, 28–,* asst. dean col. agr, 28–31, *dean grad. sch, 31–* A.A; Phytopath. Soc; Northwest Sci. Asn. (v. pres, 36). Cereal pathology; rust of grains; potato diseases.

Hungerford, Prof. H(erbert) B(arker), University of Kansas, Lawrence, Kans. *Entomology.* Mahaska, Kans, Aug. 30, 85. A.B, Kansas, 11, A.M, 13; Ph.D, Cornell, 18. Prin. and sch. supt, Kans, 04–09; instr. *entom, Kansas,* 11–13, asst. prof, 13–16, assoc. prof, 17–19, *prof, 20–, head dept, 24–* Lecturer, Minnesota, 22; prof, biol. sta, Michigan, 23– Entom. surveys, Kans, Colo, Mont. and Minn. A.A; Entom. Soc. (sec'y-treas); Entom. Soc. Amer. (pres, 36); Asn. Econ. Entom; Soc. Parasitol; Ecol. Soc; Limnol. Soc; Kans. Entom. Soc. (pres, 29). Biology of aquatic Hemiptera; Corixidae; aquatic and semi-aquatic Hemiptera.

Hunner, Dr. G(uy) L(eRoy), Johns Hopkins University, Baltimore, Md. *Medicine.* Alma, Wis, Dec. 6, 68. B.S, Wisconsin, 93; M.D. Hopkins, 97. Assoc. prof. clin. gynec, *sch. med, Hopkins,* 21–32, adj. prof. *gynec,* 32–39, *emer. adj. prof, 39–* A.A; Am. Med. Asn; Col. Surg; Gynec. Soc; Urol. Asn; South. Med. Asn; South. Surg. Asn. (pres, 27–); Md. Acad; Soc. int. d'Urol. Gynecology and urology.

Hunninen, Prof. Arne V(erner), Oklahoma City University, Oklahoma City, Okla. *Parasitology.* Quincy, Mass, July 29, 03. A.B, Wesleyan, 31, A.M, 32; Sc.D, Hopkins, 35. Asst, Hopkins, 35–36; *prof. biol, Okla. City Univ, 36–* A.A; Soc. Trop. Med; Micros. Soc; Soc. Parasitol. Helminthology.

Hunsaker, Dr. J(erome) C, Massachusetts Institute of Technology, Cambridge, Mass. *Aerodynamics.* Creston, Iowa, Aug. 26, 86. U. S. Naval Acad; M.S, Mass. Inst. Tech, 12, Sc.D, 16. Instr. aeronaut. eng, Mass. Inst. Tech, 12–16; chief aircraft design, U.S.N, 16–23; asst. v. pres, Bell Tel. Labs, 26–28; v. pres, Goodyear-Zeppelin Corp, 28–33; *head dept. mech. eng. and dept. aeronaut. eng, Mass. Inst. Tech, 33–* Daniel Guggenheim medal, 33; Franklin medal, 42. Chairman, Nat. Advisory Cmt. Aeronautics; Fed. Aviation Cmn, 34–35. Army and Navy Tech. Aircraft Board, 17–19. Nat. Acad; A.A; Mech. Eng; hon. fel. Inst. Aeronaut. Sci; Soc. Naval Archit; fel. Physical Soc; Soc. Automotive Eng; Am. Acad; hon. fel. Royal Aeronaut. Soc. Aeronautical engineering.

Hunscher, Prof. Helen A(lvina), Western Reserve University, Cleveland, Ohio. *Nutrition.* Gates Mills, Ohio, Aug. 5, 04. A.B, Ohio State, 25; Merrill-Palmer Sch. fellow, 26–27; Ph.D, Chicago, 32. Nat. research fellow, 27–28, 29–30; asst, nutrition research labs, Merrill-Palmer Sch. and Children's Hosp, Mich, 28–29; instr. home econ, Chicago, 30–31; research assoc, Children's Fund of Mich, 31–37; acting prof. household admin. and later *prof. home econ. and head dept, Western Reserve, 37–* Special lecturer, Wayne, 31–37. A.A; Inst. Nutrition; Dietetic Asn; Chem. Soc; Home Econ. Asn; Soc. Exp. Biol; Soc. Research Child Develop. Vitamin content and chemistry of human milk; mineral metabolism of women during pregnancy and lactation; mineral and nitrogen metabolism of children; skeletal maturity and nutritional state.

Hunt, Cha(rle)s B(utler), U. S. Geological Survey, Washington, D. C. *Geology.* West Point, N. Y, Aug. 9, 06. B.S, Colgate, 28; Yale, 28–30. *U. S. Geol. Surv,* 30–36, assoc. geologist, 36–38, geologist, 38–43, *senior geologist, 43–* Geology of the Mount Taylor region of New Mexico, Pike County, Kentucky, and parts of Montana; geography and geology of the Henry Mountains, Utah; bedded manganese deposits in the Southwest; military geology.

Hunt, Dr. C(harles) H(enry), Ohio Agricultural Experiment Station, Wooster, Ohio. *Nutrition.* Fall Branch, Tenn, Nov. 3, 83. B.S, State Col. Wash, 10; A.M, Columbia, 16; Ph.D, Ohio State, 26. Instr. chem, State Col. Wash, 11–15, asst, Exp. Sta, 16–20; *animal indust, Ohio Exp. Sta,* 20–

26, *assoc, 26–* Chem. Soc; Soc. Animal Production. Mineral metabolism; vitamins.

Hunt, Dr. C(harles) K(ellogg), Sharples Chemicals, Inc, Wyandotte, Mich. *Chemistry.* Detroit, Mich, June 3, 07. A.B, Michigan, 29, M.S, 30, Prescott fellow, 33, Ph.D, 34. Teaching fellow, Michigan, 30–32; *research chemist,* Mellon Inst, 34–35; Gulf Research and Develop. Corp, 35–36; Columbia chem. div, Pittsburgh Plate Glass Co, Barberton, Ohio, 36–37; *Sharples Chems, Inc, 37–* Chem. Soc; Soc. Automotive Eng. Quinoidation of triarylmethyl chlorides; petroleum additives; corrosion and pickling inhibitors; plasticizers.

Hunt, Prof. DeWitt (Talmadge), 1411 College Ave, Stillwater, Okla. *Engineering.* Bruceville, Texas, Aug. 23, 89. B.S, B.M.T, Valparaiso, 08; B.S, Okla. Agr. and Mech. Col, 26; A.M, Ohio State, 31, Ph.D, 39. Teacher, high sch, Texas, 08–15; *prof.* indust. eng. and head dept. and head shops, *Okla. Agr. and Mech. Col,* 15–32, *indust. arts educ. and eng. shopwork and head dept, 32–* Chairman, State Advisory Cmt. Indust. Arts in Schs, Okla. Miss. Valley Manual Arts Conf. Vocational Asn. Industrial arts education; engineering shopwork; hand woodwork; machine woodworking; mechanical drawing.

Hunt, Dr. Eleanor A, Box 1593, University, Ala. *Anatomy.* Ilion, N. Y, June 4, 02. A.B, Mt. Holyoke Col, 24; A.M, Cornell, 25; fellow, Chicago, 28–29, Ph.D, 30. Asst, Cornell, 25; instr. biol, Adelphi Col, 25–27; asst. zool, Chicago, 27–28; research assoc. anat, sch. med, Alabama, 29–31, asst. prof. micros. anat, 31–36; *retired.* Ala. Acad. Chorio-allantoic grafts of chick limb buds; gall bladder.

Hunt, Dr. Franklin L(ivingston), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Manchester, N. H, Sept. 3, 83. B.S, Mass. Inst. Tech, 09, Ph.D, 19; A.M, Harvard, 13; Berlin, 13–14; Paris, 19–20; Cambridge, 20. Asst. physical chem, Mass. Inst. Tech, 09–10, physics, 10–11; Harvard, 15–16; instr, Mass. Inst. Tech, 11–13, 15–17; asst. physicist, Bur. Standards, 17–18, assoc. physicist, 18–20, physicist, 20–27; asst. manager eng. and research, Victor Talking Machine Co, 27–29; *tech. staff, Bell Tel. Labs, 29–* Rep, Bur. Standards, Europe, 19–20; lecturer, George Washington, 25–27. Subcmt. on aerodynamics, Nat. Advisory Cmt. for Aeronautics, 21–24. A.A; Physical Soc; Acoustical Soc. Aeronautics; electrolytic conduction of aqueous solutions; sound recording and reproduction; x-rays; telephony.

Hunt, Prof. Frederick V(inton), 44 Beatrice Circle, Belmont, Mass. **†Physics.* Barnesville, Ohio, Feb. 15, 05. A.B, Ohio State, 24, B.E.E, 25; A.M, Harvard, 28, Ph.D, 34. Asst. *physics,* Ohio State, 24–25; instr, *Harvard,* 29–37, asst. prof, 37–40, *assoc. prof, 40–, director underwater sound lab, 42–* Fel. Acoustical Soc; fel. Physical Soc; Radio Eng. Electron tubes; acoustics.

Hunt, Dr. George A(lbert), City Hospital, St. Louis, Mo. *Microbiology.* Montezuma, Iowa, March 20, 01. B.S, Coe Col, 22; M.S, Northwestern, 25; Ph.D, Yale, 28. Instr, sch. med, Yale, 28–29; hon. traveling fellow from Yale, Inst. für Gärungsgewerbe, Berlin, Inst. Pasteur, Paris, and Karlovy Univ, Praha, 29–31; asst, Yale, 31–33; research fellow, Washington (St. Louis), 33–34; *bacteriologist, St. Louis City Hosp, 34–* A.A; Soc. Bact; Soc. de Chim. biol. Bacterial fermentations; physiology of bacteria; tularemia; clinical diagnostic methods.

Hunt, George M(cMonies), 129 Bascom Place, Madison, Wis. *Chemistry.* Marion Co, Oregon, July 26, 84. B.S, California, 11. With *U. S. Forest Service,* 11–13, *Forest Products Lab,* 13–19, *in charge wood preservation div, 19–* Lecturer, Wisconsin. Cmt. marine piling investigations, Nat. Research Council, 22–24. Wood Preservers Asn. (San Francisco Bay marine piling cmt, 20–27; sec'y, 21); Soc. Foresters. Preservative treatment of wood; fireproofing; moisture resistant coatings for wood; wood gluing and painting.

Hunt, Prof. G(uy) H(ildebrand), 237 Tavistock Ave, Los Angeles, Calif. *Mathematics.* Washington, D. C, Sept. 21, 81. C.E, Cornell, 08. Instr, Case, 10–21; instr. and *asst. prof. applied math, California at Los Angeles, 21–* A.A; Math. Soc; Math. Asn. Applied mathematics.

Hunt, Prof. H(arrison) R(andall), Michigan State College, East Lansing, Mich. *Zoology.* Conneaut, Ohio, March 7, 89. B.S, Allegheny Col, 12; A.M, Harvard, 13, Ph.D, 16. Instr. zool, West Virginia, 16–18, asst. prof, 18–19; prof. biol. and head dept, Mississippi, 19–23; *prof. zool. and head dept, Mich. State Col, and zoologist, Exp. Sta, 23–* Summers, instr, Tennessee, 21–23. Cmt. on human heredity, Nat. Research Council, 35. A.A; Soc. Nat; Soc. Zool; Mich. Acad. (chairman, sect. zool, 26, v. pres, 27, pres, 43). Eugenics; mammalian genetics and anatomy; human genetics; birth rates; biological consequences of war; inheritance factor in caries.

Hunt, Prof. H(erschel), 210 E. Lutz Ave, Lafayette, Ind. *Electrochemistry.* Princeton, Ind, April 22, 06. A.B, Oakland City Col, 26; A.M, Indiana, 27, fellow, 27–29, Ph.D, 29. Instr. *chem,* Mass. Inst. Tech, 29–30; *Purdue,* 30–34, asst. prof, 34–38, *assoc. prof, 38–* Chem. Soc. Electrical conductivity of acids in non-aqueous solvents; reactions in electrodeless discharge; inorganic free radicals; liquid ammonia; metal surfaces; heats of combustion.

Hunt, Prof. Hope H(ilary), University of Saskatchewan, Saskatoon, Sask, Can. *Nutrition.* Montreal, Que, Oct. 28, 97. B.A, Toronto, 19; M.S, Columbia, 25; Ph.D, Minnesota, 32. Teacher, pub. sch, Alta, Can, 19–20; dietitian, Hosp. for Sick Children, Toronto, 20–22; Royal Alexandra Hosp, Edmonton, Alta, 22–24; lecturer home econ, Manitoba, 25–26; instr, Minnesota, 26–40; *prof. household science and dean col. household science, Saskatchewan, 40–* Summers, teacher, sch, Alta, Can, 17; dietitian, Calydor Sanitarium, 18. Home Econ. Asn. Physiological effects of ultra-violet irradiation of human adults.

Hunt, Dr. James K(arr), Brandywine Hills, Wilmington, Del. *Chemistry.* Near Memphis, Tenn, July 16, 91. B.S, Ala. Polytech, 23; M.S, Wisconsin, 24, fellow, 25–26, Ph.D, 26. Instr. and prin, high schs, Ala, 10–18, 19–21; instr. math, Ala. Polytech, 21–23; asst. chem, Wisconsin, 23–25; *chemist, E. I. du Pont de Nemours and Co, 26–* Ordnance Dept, U.S.A, 18–19. Chem. Soc. Unimolecular reactions; electrochemistry of gases; volatile and fixed oils.

Hunt, John H(erman), General Motors Corp, Detroit, Mich. *Electrical engineering.* Saranac, Mich, 82. B.S, Michigan, 05. Instr. elec. eng, Washington (St. Louis), 06–07; asst. prof, Ohio State, 07–08, assoc. prof, 08–11, prof, 11–12; elec. engineer, Packard Motor Car Co, 13; research engineer, Dayton Eng. Lab. Co, 13–20; *head* elec. div, *Gen. Motors Research Lab,* 20–28, *patent sect, 28–, director new devices sect, 32–* A.A; Elec. Eng; Physical Soc; Soc. Automotive Eng. (pres, 27); Eng. Soc. Detroit; British Inst. Automobile Eng. Ignition apparatus for internal combustion engines; electrical measurements applied to automotive problems.

Hunt, Prof. J(oseph) McV(icker), 108 Governor St, Providence, R. I. *Psychology.* Scottsbluff, Nebr, March 19, 06. A.B, Nebraska, 29, A.M, 30; Ph.D, Cornell, 33. Asst, Nebraska, 29–30, asst. instr, 30–31; asst, Cornell, 31–33; nat. research fellow psychol, N. Y. Psychiat. Inst. and Hosp. and Columbia, 33–34; Worcester State Hosp, 34–35; visiting instr, Nebraska, 35–36; research assoc, St. Elizabeths Hosp, Washington, D. C, 36; instr. *psychol, Brown,* 36–38, *asst. prof, 38–* A.A; Psychol. Asn; Soc. Psychoanal. Psychol; Statist. Asn; East. Psychol. Asn. Frustration and conflict; adult effects of infantile frustration; psychological deficit in the psychoses; personality and the behaviors.

Hunt, Prof. Kenneth W(hitten), College of Charleston, Charleston, S. C. *Morphology.* Westboro, Mass, May 29, 09. B.S, Mass. State Col, 30; A.M, Williams Col, 32; Ph.D, Cornell, 36. Acting asst. prof. biol, St. Lawrence, 36–37; *prof. bot. and geol. and director preforestry, Col. Charleston, 37–* Bot. Soc. (sec'y southeast. sect, 41). Taxonomy; paleobotany; Charleston County flora.

Hunt, Prof. Leila W(all), State College of Washington, Pullman, Wash. *Foods, Nutrition.* Meadow Brook, Tenn, Oct. 10, 87. A.B, Va. Intermont Col, 00; B.S, State Col. Wash, 08; A.M, Columbia, 18, summers, 21, 23, 27. Teacher, pub. schs, 04–05; instr. *foods and nutrition, State Col. Wash,* 08–14, asst. prof, 14–18, assoc. prof, 18–34, *prof, 34–* Wash. State Home Econ. Asn. (pres). Diet therapy; nutrition.

Hunt, Dr. Louis W(ood), 701 Nineteenth St, N.W, Washington, D. C. *Physical chemistry.* Kansas City, Mo, June 14, 90. B.Ch.E, Michigan, 14; A.M, Western Reserve, 29, Ph.D, 41. Prof. chem. eng. and head dept, Fenn Col, 30–39; *assoc. specialist eng. educ, eng, science and management war training, U. S. Office Educ, 43–* Additivity of salt errors of the quinhydrone electrode.

Hunt, Dr. Lucian F, Northern Michigan College of Education, Marquette, Mich. *Chemistry.* Montezuma, Iowa, May 4,

98. B.S, Coe Col, 20; A.M, Ohio State, 22, Ph.D, 31. *Instr.* chem,* Coe Col, 25–26; *physical science, North. Mich. Col. Educ, 27–* Chem. Soc; N. Cent. Asn. Sci. and Math. Teachers. Physical chemistry.

Hunt, N(icholas) Rex, 933 Kenmore St, Arlington, Va. *Plant pathology.* Pullman, Wash, Dec. 31, 85. B.S, State Col. Wash, 07; M.S, California, 09. Teacher, high sch, Wash, 07–08; asst. botanist, Exp. Sta, State Col. Wash, 09–12; expert, B. C. Dept. Agr, 12–13; plant pathologist, bur. plant indust, *U. S. Dept. Agr,* 13–20, fed. hort. board, 20–27, pathologist and *senior pathologist* in charge import div, plant quarantine and control admin, 27–30, *in charge tech. information,* 30–34, *bur. entom. and plant quarantine, 34–* Phytopath. Soc; Mycol. Soc; Bot. Soc. Wash. Forest tree rusts; soil disinfection; foreign plant diseases.

Hunt, Prof. O(rville) D(on), Kansas State College, Manhattan, Kans. *Electrical engineering.* Sheridan, Mo, April 13, 00. B.S, State Col. Wash, 23; M.S, Kans. State Col, 30. Instr. *elec. eng, Kans. State Col,* 19–21, asst. prof, 21–35, *assoc. prof, 35–* Exchange prof, Pittsburgh, 35–36. Elec. Eng; Eng. Educ; Indust. Eng. Soc. Eye fatigue under various types of illumination.

Hunt, Prof. R(alph) E(dward), Virginia Polytechnic Institute, Blacksburg, Va. *Animal husbandry.* Marysville, Kans, March 13, 89. B.S.A, Kans. State Col, 11; M.S, Va. Polytech, 16. Instr. *animal husbandry,* Pa. State Col, 11–12; West Virginia, 12–14; assoc. prof, *Va. Polytech,* 14–18, *prof. and head dept, 23–* Animal breeding; beef cattle; soft pork.

Hunt, Dr. R(eginald) S(tuart), 10 Bonmar Circle, Newton, Mass. *Biochemistry.* Bridgewater, Mass, Oct. 8, 94. B.S, Mass. Inst. Tech, 21, Ph.D, 24; M.D, Boston, 35. Teaching fellow, sch. med, Boston, 21–23; asst, Mass. Inst. Tech, 23–25; *assoc. staff, lab. supervisor, Evans Mem. Hosp, 25–;* instr. *chem, sch. med, Boston,* 25–30, *lecturer, 30–* Consulting chemist, Worcester State Hosp, 25–30. Conf. Biol. Chem. Respiratory and sulfur metabolism; anesthesia.

Hunt, Dr. Reid, Harvard Medical School, Boston, Mass. *[1]*Pharmacology, Toxicology.* Martinsville, Ohio, April 20, 70. A.B, Hopkins, 91, fellow, 94–96, Ph.D, 96; Bonn, 92; Cornell, 95; M.D, Maryland, 96; Chicago, 97; Frankfurt, 02–04. Asst. physiol, Hopkins, 92–94; tutor, Columbia, 96–98; assoc. and assoc. prof. pharmacol, Hopkins, 98–03; prof. *pharmacol,* U. S. Pub. Health Service, 04–13; *Harvard Med. Sch,* 13–36, *emer. prof, 36–* Visiting prof, Peking Union Med. Col, 23. Special expert pharmacol, U. S. Dept. Agr, 01; U. S. Treasury Dept; pharmacologist, State Dept. Health, Mass, 17–; consultant, U. S. Pub. Health Service. Pres, U. S. Pharmacopoeia, 29–30. Standardization cmt, League Nations. C.W.S, U.S.A. Nat. Acad; A.A; Soc. Pharmacol. (sec'y, 10, pres, 15); Am. Physicians; Physiol. Soc; Soc. Biol. Chem; Chem. Soc. (chairman, northeast. sect, 30); Am. Med. Asn. (chairman, council on pharmacol. and chem); Am. Acad; Pharmakol. Gesell; Leopold-Carol. Deuts. Akad. der Naturforscher. Physiology and pharmacology of the circulation; thyroid; nitriles; quinine; arsphenamin; choline compounds; alcohol; biological standardization of drugs.

Hunt, Prof. Thelma, George Washington University, Washington, D. C. *Psychology.* Ark, Nov. 30, 03. A.B, George Washington, 24, A.M, 25, Ph.D, 27, M.D, 35. Asst. psychol. tests, Fed. Civil Service Cmn, 23–27; instr. *psychol,* Middle Tenn. State Teachers Col, Murfreesboro, 27–28; *George Washington,* 28–31, asst. prof, 31–37, *assoc. prof, 37–, exec. officer dept, 38–* A.A; assoc. Psychol. Asn. Social intelligence; foundation of abnormal psychology; measurement in psychology.

Hunt, Prof. Thomas E(lwood), University of Alabama, University, Ala. *Histology, Embryology.* Blue Island, Ill, Dec. 15, 02. A.B, Earlham Col, 25; Ph.D, Chicago, 29. Asst. zool, Chicago, 28–29; instr. *histol. and embryol, sch. med, Alabama,* 29–30, asst. prof, 30–33, *assoc. prof, 33–* Soc. Zool; Asn. Anat. Differentiation and germ layer formation of chick blastoderms; mitotic activity in endocrine glands.

Hunt, Prof. Walter F(rederick), University of Michigan, Ann Arbor, Mich. *Mineralogy, Petrography.* Cincinnati, Ohio, Sept. 6, 82. A.B, Michigan, 04, A.M, 05, Ph.D, 15. Instr. miner, *Michigan,* 06–12, asst. prof, 12–18, assoc. prof, 18–22, *prof. petrol, 22–, chairman dept. miner. and director lab, 33–* Asst, Mich. Geol. Surv, 06; asst. chemist, U. S. Geol. Surv, 12. Ed, 'The Am. Mineralogist,' 22– A.A; Miner. Soc; Geol. Soc; Chem. Soc; Mich Acad. Sulfur and celestite; sulfur deposits of Sicily; crystallography and composition of American minerals; petrography of rocks of the Caroline and Pelew Islands.

Hunt, Prof. William A(lvin), Norton, Mass. *Psychology.* Hartford, Conn, Nov. 10, 03. A.B, Dartmouth Col, 28; A.M, Harvard, 29, Ph.D, 31. Asst. psychol, Harvard, 30–31; instr, Dartmouth Col, 31–33; Conn. Col. for Women, 33–34, asst. prof, Conn. Col, 34–37; asst, N. Y. State Psychiat. Inst. and Hosp, 37; research assoc, Hartford Retreat, 37–38; assoc. prof. *psychol, Wheaton Col. (Mass),* 38–40, *prof, 40–;* lieut, *H-V(S), U. S. Naval Res,* 41–42, *lieut. commander, 42–* A.A; Psychol. Asn; assoc. Asn. Applied Psychol; Soc. Exp. Psychol; Psychopath. Soc. Emotions; affectivity; abnormal psychology.

Hunt, Dr. William H(oward), 1 Rainbow Terrace, West Orange, N. J. *Pharmacology, Therapeutics.* Baltimore, Md, Nov. 22, 09. Ph.G, Maryland, 31, B.S, 32, M.S, 34, Ph.D, 37. Asst. bacter, Maryland, 31–34, instr, 34–36, pharmacol, 36–37; *pharmacologist, Maltbie Chem. Co, 37–* Pharmaceut. Asn; Inst. Chem. Bio-assay of Strophanthus; pharmacology of Ustilago maydis; anesthetic potency of some piperidine derivatives; pharmacology of B-2 and 4 pyridylalkalamines; absorption and excretion of organic mercurials; antipyretics and a new series of barbiturates

Hunt, Prof. Willis R(oberts), Lafayette College, Easton, Pa. *Biology.* Essex, Conn, Feb. 13, 93. Ph.B, Yale, 17, M.S, 23, Ph.D, 25. Asst. bot, Conn. Exp. Sta, 24–27; asst. pathologist, U. S. Forest Service, 27–28; instr. *biol, Lafayette Col,* 28–29, asst. prof, 29–36, *assoc. prof, 36–* A.A; Soc. Bact. New England Uredinales; tree rusts of Pennsylvania; Rhode Island and New York rusts and their hosts; fungi and bacteria; plant and forest tree fungi and bacteria.

Hunten, Prof. K(enneth) W(illiam), 253 Huron St, London, Ont, Can. *Physical chemistry.* Que, 96. B.A, Bishop's Col. (Can), 16; B.Sc, McGill, 23, M.Sc, 24, Ph.D, 26. Research fellow, Can. Pulp and Paper Asn, 26–28; instr. and *asst. prof. chem, Western Ontario, 28–* Surface energy; conductivity of solutions.

Hunter, Dr. Albert C(layton), Federal Security Agency, Washington, D. C. *Bacteriology.* East Providence, R. I, Feb. 23, 93. B.S, R. I. State Col, 15; M.S, Brown, 17, Ph.D, 18. Bacteriologist, Narragansett Bay Oyster Co, 16–18; bur. chem, U. S. Dept. Agr, 18–27, *food and drug admin,* 27–39, *chief div. bacter, Fed. Security Agency, 39–* Soc. Bact; fel. Pub. Health Asn. (chairman, food and nutrition sect, 40); Inst. Food Technol; Wash. Acad. Food and drug bacteriology; fish decomposition; food poisoning; antiseptic testing; sanitation in food and drug preparation.

Hunter, Prof. Andrew, University of Toronto, Toronto, Ont, Can. *Biological chemistry.* Edinburgh, Scotland, Sept. 28, 76. M.A, Edinburgh, 95, B.Sc, 99, M.B. and Ch.B, 01; Carnegie res. fellow, Berlin, 05–06, Heidelberg, 06–07. House physician, Edinburgh Royal Infirmary, 01–02; asst. physiol, Edinburgh, 02–05; demonstrator, Leeds, 08; asst. prof. biochem, Cornell, 08–14; biochemist in charge pellagra investigations, U. S. Pub. Health Service, 14–15; prof. path. chem, Toronto, 15–19, biochem, 19–29; Gardiner prof. physiol. chem, Glasgow, 29–35, dean faculty med, 30–35; *prof. path. chem, Toronto, 35–* Asst. ed, 'Chem. Abstracts,' 12–26; mem. ed. cmt, 'Jour. Biol. Chem, 20–29. Mem. assoc. biol. cmt. and chairman assoc. cmt. nutritional problems of fox industry, Nat. Res. Council Can, 19–26. Capt, M.C, Can. Army, 16–19. Soc. Biol. Chem. (councilor, 23); Biochem. Soc; Can. Physiol. Soc; fel. Royal Soc. Can. (pres, sect. V, 24); hon. fel. Toronto Acad. Med; fel. Royal Soc. Edinburgh; fel. Royal Faculty Physicians and Surgeons, Glasgow. Precipitins; protein chemistry; intracellular enzymes; urocanic acid; iodine in pituitary; purine metabolism; pellagra; blood creatinin; chemistry of proteins; arginase; citrulline and the urea cycle.

Hunter, Dr. A(rchibald) Stuart, du Pont Rayon Co, Buffalo, N. Y. *Chemistry.* Beachmont, Mass, Aug. 28, 97. B.S, Norwich, 20; Ph.D, Hopkins, 24. Research chemist, H. A. Metz Labs, 20–25; indust. fellow, Mellon Inst, 25–27; *research chemist, du Pont Rayon Co, 27–* Chem. Soc; Soc. Rheol. (sec'y-treas, 30–36, pres, 39–41). Physical and colloidal chemistry; rayon; Cellophane; textile physics.

Hunter, Dr. Byron A(lexander), 159 Cliff St, Naugatuck, Conn. *Organic chemistry.* Salt Lake City, Utah, Oct. 15, 10. A.B, Utah, 33, A.M, 38; scholar, Iowa State Col, 40–41, Ph.D, 41. Teaching fellow, Utah, 36–37; asst, Iowa State Col, 38–

40; *research chemist, Naugatuck chem. div, U. S. Rubber Co, 41–* Chem. Soc; Chemists' Club. A synthetic approach to bicyclo-octatetraene; high molecular weight aliphatic compounds of nitrogen and sulfur; rubber chemicals.

Hunter, Dr. Charles A(xtell), Kansas State Board of Health, Topeka, Kans. *Bacteriology.* Blue Rapids, Kans, July 30, 93. B.S, Kans. State Col, 15; M.S, Wisconsin, 16, Ph.D, 31. Asst. bacter, Exp. Sta, Kans. State Col, 13–15; agr. bacter, Wisconsin, 15–16; instr. bacter. and bot, Florida, 16–17; asst. prof. bacter, Pa. State Col, 17–19, assoc. prof, 19–21, prof, 21–22, bacteriologist, Exp. Sta, 17–22; prof. bacter, South Dakota, and asst. director, State Health Lab, 22–37; *director labs, State Board Health, Kans, 37–* Lecturer, Washburn, 37– Pub. health cmt, State Planning Board, S. Dak. Chairman, Conf. State and Provincial Pub. Health Lab. Directors, 43. A.A; Soc. Bact. (sec'y, cmt. on bacter. educ, 21–24; sec'y-treas, Missouri Valley branch); fel. Pub. Health Asn; Mid-Continent Food and Drug Asn. (v. pres); S. Dak. Acad. (2nd v. pres, 35, pres, 37). Serology; physiology; silage; dissociation; typhoid fever; undulant fever; anaerobes; water.

Hunter, Dr. F(rancis) Edmund, Jr, Washington University Medical School, St. Louis, Mo. *Physiological chemistry.* Alliance, Ohio, June 6, 16. B.S, Mt. Union Col, 38; Ph.D, Rochester, 41. *Asst.* pharmacol. and biochem, Rochester, 38–41; *pharmacol, med. sch, Washington (St. Louis), 41–* Chem. Soc. Phospholipids; sphingomyelin; oxidation of butyric acid.

Hunter, Dr. F(rancis) R(obert), University of Oklahoma, Norman, Okla. *Physiology.* New York, N. Y, Oct. 3, 12. B.S, Calif. Inst. Tech, 33; A.M, Wesleyan, 34; fellow, Princeton, 36–37, Ph.D, 37. Asst. biol, Princeton, 34–36; instr. *physiol,* R. I. State Col, 37–42; *asst. prof, Oklahoma, 42–; lieut, Air Corps, U. S. Army.* A.A; Soc. Zool. Permeability and metabolic studies.

Hunter, Frederick Lincoln, 200 Oak Terrace, Lake Bluff, Ill. *Electronics, Chemical engineering.* Denver, Colo, Sept. 19, 95. B.S, Mass. Inst. Tech, 20. Instr, Mass. Inst. Tech, 19–20; methods engineer, vacuum tube shop, Bell Tel. Labs, 20–23; chief engineer, audion div, de Forest Radio Co, 23–27; consulting engineer, 27–28; sales engineer and *chief engineer for tantalum, Fansteel Products Co, 28–* Physical Soc; Chem. Eng. Thermionics; properties of tantalum in vacuum tubes; rare metal carbides in low pressure neon arcs; applications of rare metals; corrosion-proof equipment for the chemical industry; absorption of hydrochloric acid.

Hunter, Prof. George, University of Alberta, Edmonton, Alta, Can. *Biochemistry.* Mauchline, Scotland, April 2, 94. M.A, Glasgow, 18, B.Sc, 21, D.Sc, 29. Lecturer path. chem, Toronto, 22–25, asst. prof, 25–29; *prof. biochem, Alberta, 29–* Soc. Biol. Chem; Biochem. Soc; fel. Royal Soc. Can; Can. Physiol. Soc. (councilor, 37–). Carnosine in muscle; diazo reaction of urine; blood chemistry; color reactions of thiolglyoxalines; guanidinoglyoxaline from guanine; synthesis of carbamidoglyoxaline; adrenal cortical hormone.

Hunter, Dr. George W(illiam), 466 W. Tenth St, Claremont, Calif. *Biology, Education.* Mamaroneck, N. Y, April 7, 73. Col. City of N. Y, 91–93; A.B, Williams Col, 95, A.M, 96; fellow, Chicago, 96–99; Ph.D, N. Y. Univ, 18. Teacher, Hyde Park High Sch, Ill, 98–99; teacher biol. and head dept, De Witt Clinton High Sch, New York, 99–19; prof, Carleton Col, 19–20; Knox Col, 20–26; Pomona Col, 26–29; *lecturer science educ, Claremont Cols, 29–* Lecturer, N. Y. Univ, 06–08, 14–16. Director educ, Wash. dist, war work council, Y.M.C.A, 18–19. A.A; Soc. Zool; Inst. Social Sci; Pub. Health Asn; Asn. Research Sci. Teaching. Anatomy, physiology and cytology of Tunicata; teaching of biology and general science in secondary schools; curricula and texts; health education in secondary schools and small colleges.

Hunter, Prof. George W(illiam), 3d, 139 Broad St, Middletown, Conn. *Zoology.* New York, N. Y, Jan. 27, 02. Carleton Col; B S, Knox Col, 23; scholar, Illinois, 23–24, M.S, 24, fellow, 26–27, Ph.D, 27. Asst. zool, Illinois, 24–26; *asst. prof. biol,* Rensselaer Polytech, 27–29; *Wesleyan, 29–* Lecturer, Albany Med. Col, Union (N. Y), 29. Summers, biologist, Bur. Fisheries, 27; State Conservation Dept, N. Y, 28–34, 36; staff, Rocky Mt. Biol. Lab, 32–, treas, 37–; biologist, State Board Fish and Game, Conn, 39– Sigma Xi grant-in-aid, 37, 38. Trustee, 'Biol. Abstracts,' 38–, pres, 38– Am. Soc. Parasitol; rep. on council of Union Am. Biol. Societies, 35–37, 41. A.A; Soc. Zool; Micros. Soc; Soc. Parasitol; Fisheries Soc; Soc. Bact. (v. pres, Conn. Valley branch, 37, pres, 38); Limnol. Soc; Soc. Nat; Union Am. Biol. Societies (sec'y, 37–40). General biology; helminthology; ecology of fish parasites; life cycles; host-parasite reactions; experimental zoology.

Hunter, H(erman) A(ull), University of Maryland, College Park, Md. *Horticulture.* Clinton, S. C, May 12, 02. B.S, Clemson Col, 23; M.S, Maryland, 26. Asst. bacter. and plant path, Clemson Col, 23–24; plant path, *Maryland,* 24–27, pathologist, canning crops, *exten. service,* 27–35, *canning crops specialist, 35–, assoc. prof. canning crops, 40–* Phytopath. Soc. Seed treatment; tomato breeding; vegetable fertilization.

Hunter, Prof. H(oward) L(ouis), Box 531, Clemson, S. C. *Chemistry.* Fulton, N. Y, June 17, 04. Ch.B, Cornell, 25, Heckscher fellow, 27–28, Ph.D, 28. Asst, Cornell, 24–27; asst. prof. and *assoc. prof. chem, Clemson Col, 28–; Chem. Warfare Service, chem. develop. lab, Mass. Inst. Tech, 41–, major.* A.A; Chem. Soc. Germanium halides; acetic acid; cellulose esters; wool.

Hunter, Prof. Hugh W(ylie), University of Connecticut, Storrs, Conn. *Physics.* Greeley, Colo, April 16, 11. A.B, Indiana, 32, Ph.D, 37. Instr. *physics,* Indiana, 37–38; *Connecticut,* 38–39, *asst. prof, 39–* Research assoc, Indiana, 41–42. Nuclear physics; cyclotron construction and operation.

Hunter, Dr. J(ames) H, 1216 Franklin Circle, Kalamazoo, Mich. *Organic chemistry.* Apalachicola, Fla, Oct. 31, 11. B.S, Florida, 33; Ph.D, Purdue, 39. Asst. instr, Florida, 32–33; Purdue, 33–38; *research chemist, Upjohn Co, 38–* Chemotherapy of sulfanilamide derivatives; substituted cyclopentanones.

Hunter, J(ames) H(orace), P. O. Box 84, Albany, Ga. *Soils.* Prosperity, S. C, Feb. 6, 01. B.S, Clemson Col, 23; M.S, Kentucky, 24. Instr. bot, Clemson Col, 25–26; asst. agronomist, Exp. Sta, Florida, 26–29; Exp. Sta, Clemson Col, 29–30; asst. soil technologist, *soil fertility investigations, bur. plant indust, soils and agr. eng, U. S. Dept. Agr,* 30–43, *assoc. soil technologist, 43–* A.A; Soil Sci. Soc; Soc. Agron. Special chemicals as plant stimulants; fertilizers, their placement and deep tillage of soils as related to cotton root-rot control; fertilizers and green manures as related to pecan production; oil content of peanuts; soil characteristics.

Hunter, Dr. J(esse) E(lmo), Allied Mills, Peoria, Ill. *Agricultural biochemistry.* Patterson, Mo, Nov. 16, 01. B.S. (Agr), Missouri, 24, A.M, 25, Ph.D, 27. Asst. agr. chem, Missouri, 23–27, instr, 27–29; asst. prof. agr. and biochem, Pa. State Col, 29–31, assoc. prof, 31–37; *director research, Allied Mills, 37–* Mem, Soybean Nutritional Research Council; Animal Vitamin Research Council. Feed Mfrs. Asn. (nutrition cmt); Inst. Nutrition; Poultry Sci. Asn; Chem. Soc. Deficiency diseases; nutrition of poultry; livestock and fur-bearing animals; soybean products; distillery residues.

Hunter, Prof. J(ohn) McN(elle), Virginia State College for Negroes, Ettrick, Va. *Physics.* Woodville, Texas, Jan. 23, 01. B.S, Mass. Inst. Tech, 24; M.S, Cornell, 27, Ph.D, 37; Gen. Educ. Board fellow, 32–33. Instr. physics, Prairie View State Col, 24–25; applied electricity, *Va. State Col,* 25–26, asst. prof. physics, 27–29, head dept. physics and chairman science unit, 29–40, *director grad. div, prof. physics and head dept, 40–* A.A; Physical Soc. Electronics; anomalous Schottky effect for oxygenated tungsten; adapting instructional materials in physics for Negro college students; vacuum tube amplifiers.

Hunter, Prof. J(oseph) L(awrence), John Carroll University, Cleveland, Ohio. *Physics.* New York, N. Y, May 16, 13. B.S, Manhattan Col, 34; M.S, Catholic Univ, 36, Ph.D, 40. Asst. instr, Catholic Univ, 37–39; instr, Manhattan Col, 39–40; *asst. prof. physics, John Carroll, 40–* A.A; Physical Soc; Math. Soc. High frequencies; supersonic waves.

Hunter, Dr. Lillian M(ary), Bradford, Ont, Can. *Botany, Mycology, Pathology.* May 26, 92. B.A, Toronto, 21, M.A, 24; Cornell, 31; Can. Federation Univ. Women scholar, Imp. Col. Science and Tech, 33–34, Dipl, 36; Ph.D, Radcliffe Col, 35. Asst. bot, Toronto, 22–31, 32–33, 36; teacher, sch, Ont, Can, 33–37; instr. science, Moulton Col, 37–40; asst. teacher science, Eng, hist. and music, Carp Continuation Sch, 40–42; prin, North Gower Continuation Sch, 42–43; *science instr, Ont. Ladies Col, 43–* The Uredinales, particularly the Melampsoraceae.

Hunter, Prof. M(atthew) A(lbert), Rensselaer Polytechnic Institute, Troy, N. Y. *Physical chemistry.* Auck-

land, N. Z, Nov. 9, 78. B.S, New Zealand, 00, M.A, 01; 1851 Exhib. scholar, London, 02, D.Sc, 04; Göttingen and Paris, 04–05. Gen. Elec. Co, Schenectady, 06–08; asst. prof. physics and electrochem, *Rensselaer Polytech*, 08–10, prof. electrochem, 10–35, head dept. elec. eng. and physics, 33–35, *prof. and head dept. metal. eng, 35–; consulting engineer, Driver Harris Co, 19–; W. and L. E. Gurley Co, 22–* Special investigator magnesium alloy sheet in aircraft, Nat. Defense Research Cmt, 43. A.A; Chem. Soc; Electrochem. Soc; Min. and Metal. Eng; Soc. Metals; Eng. Educ. Physical and electrical properties of metals and alloys; heat and corrosion resisting alloys; magnesium alloys; electrometallurgy.

Hunter, Dr. Oscar B(enwood), 1835 Eye St, N.W, Washington, D. C. *Bacteriology, Pathology.* Cherrydale, Va, Jan. 31, 88. M.D, George Washington, 12, A.B, 16, A.M, 17. Instr. anat, med. sch, George Washington, 12–13, prof. histol. and embryol, 13–16, bacter. and path, 16–32, asst. dean, 18–32, acting dean dental sch, 18; *practising physician.* Prof, Cent. Training Sch. for Nurses, 24–30, lecturer, 32–; pathologist, hosp. and dispensary, George Washington, 16–32, Kober lecturer, med. sch, 26; consulting pathologist, Sibley Mem. Hosp; Gen. Hosp, Montgomery County, Md; professional lecturer, Georgetown, 35– Pres. and chairman, Board Med. Examiners, D. C, 29, examiner bacter. and path, 33– Cong. Internal Med. Major, Med. R.C. A.A; Asn. Path. and Bact; fel. Am. Med. Asn; Asn. Anat; Therapeut. Soc. (sec'y, 34–38, 39–, pres, 38); fel. Col. Physicians; Soc. Bact; Soc. Clin. Path. (councilor, 34–); Asn. Study Neoplastic Diseases; Asn. Mil. Surg; Pub. Health Asn; South. Med. Asn. (councilor, 40–); Tri-State Med. Asn; D. C. Med. Soc. (v. pres, 15, pres, 28); Path. Soc. Wash. (pres, 37); Wash. Med. Surg. Soc. (v. pres, 17); Med. Soc. D. C. (v. pres, 15, pres, 28; chairman sect. path. and lab. med, 34–; cmt. govt. and pub. health agencies, 34–; director health security admin, 34–; cent. admitting cmt, 34–; chairman cmt. post-grad. educ, 39–); Wash. Acad; Int. Asn. Med. Mus. The histologic relationship of the thymus and thyroid glands; spontaneous closure of intestinal perforation; primary lymphoblastoma of the stomach; pernicious anemia; experimental insomnia; syphilis; gall bladder disease; standardized tests; isopropyl alcohol; purpurea hemorrhagica; spinal puncture; ulceration of abdominal wall; acne vulgaris.

Hunter, Richard S(ewall), National Bureau of Standards, Washington, D. C. *Psychophysics.* Washington, D. C, Oct. 25, 09. A.B, George Washington, 37. From lab. apprentice to *assoc. physicist colorimetry, Bur. Standards, 27–* Optical Soc; Ceramic Soc; Inter-Soc. Color Council. Colorimetry; gloss and its measurements; photoelectric tristimulus colorimetry; design of instruments for gloss, color and reflection measurements.

Hunter, R(obert) G(rant), Research Enterprises, Ltd, Leaside, Toronto, Ont, Can. *Physics.* Clinton, Ont, Sept. 21, 06. B.A, Toronto, 28, M.A, 29; Nat. Research Council Can. bursar, McGill, 30–31. Demonstrator physics, Toronto, 28–29; instr, McGill, 29–30; research and develop. dept, physics div, Owens-Ill. Glass Co; *mem. staff, Research Enterprises, Ltd.* Recorder, Geol. Surv. Can, 28; observer, Dom. Observatory geophys. surv, 30. A.A. Photoelectric effect of metals in the superconducting state; crystal structure of hydrates; physical properties and thermal endurance of glass; viscosity; surface tension; light transmission.

Hunter, Dr. R(ussell) P(almer), 491 Wells Road, Wethersfield, Conn. *Comparative anatomy.* Portland, Oregon. A.B, Colo. Col, 24, A.M, 25; Ph.D, Cornell, 33. Instr. comp. anat, Cornell, 25–35; director, Vt. Fish and Game Service, 35–38; *supt, State Board Fisheries and Game, Conn, 38–* Fisheries Soc. (sec'y-treas, 40–). Vertebrate embryology; biological survey; ecology.

Hunter, Prof. Walter S(amuel), Brown University, Providence, R. I. **[3]*Psychology.* Decatur, Ill, March 22, 89. A.B, Texas, 10; Ph.D, Chicago, 12. Instr. philos, Texas, 12–14, adj. prof. psychol, 14–16; prof, Kansas, 16–25; G. Stanley Hall prof. genetic psychol, Clark, 25–36; *prof. psychol. and director lab, Brown, 36–* Visiting prof, Harvard, 27, 28; expert consultant to U. S. Sec'y War, 41–42. Summers, lecturer, Tulane, 15; Iowa, 20; Chicago, 23, 30; California at Los Angeles, 26; Northwestern, 27; Harvard, 32; Minnesota, 36. Assoc. ed, 'Psychol. Bul,' 16–24; 'Jour. Animal Behavior,' 14–17; 'Jour. Comp. Psychol,' 21–35; 'Pedag. Sem,' 25–34; 'Genetic Psychol. Monograph,' 25–34; ed, 'Behavior Monograph,' 22; 'Comp. Psychol. Monographs,' 22–27; 'Psychol. Index,' 26–36; 'Psychol. Abstracts,' 27–; assoc. ed, 'Am. Jour. Psychol,' 40– Cmt. Int. Cong. Psychol, 29– Nat. Research Council, 26–29, 33–36, 39–42, chairman div. anthrop. and psychol, 36–38; mem, Social Science Research Council, 42– Sanit.C, 17–18, capt. Nat. Acad; A.A. (chairman, I, 32); Psychol. Asn. (councilor, 22–24, pres, 31); Soc. Exp. Psychol; Philos. Soc; Am. Acad; East. Psychol. Asn. (pres, 41). Experimental and theoretical psychology.

Hunter, Dr. Wanda S(anborn), University of Arizona, Tucson, Ariz. *Zoology.* Lime Springs, Iowa, Nov. 29, 04. A.B, Wisconsin, 26; M.S, Illinois, 27; Ph.D, California at Los Angeles, 43. Asst. zool, Illinois, 26–27; Denison research asst. biol, Wesleyan, 30–31, 34–39; asst. *zool,* California at Los Angeles, 40–43; *asst. prof, Arizona, 43–* Summers, biologist, State Conservation Dept, N. Y, 28–30, 32–35. Soc. Parasitol; West. Soc. Nat. Parasitology; trematode morphology; life cycles; proteocephalid cestodes; strigeid trematodes; distribution studies; host-parasite relations.

Hunter, Dr. Warren C(lair), University of Oregon Medical School, Portland, Oregon. *Pathology.* Dustin, Nebr, Feb. 14, 95. A.B, Albany Col. (Oregon), 20; M.D, Oregon, 24; A.M, Michigan, 27. Asst. prof. and later assoc. prof. *path, med. sch, Oregon, 25–41, prof, 41–* Nat. research fellow, Michigan, 26–27. Asn. Path. and Bact; Am. Med. Asn; Pacific Northwest Soc. Path; Oregon Med. Soc; Portland Acad. Med. Coronary arterial disease; immunity in renal epithelium; experimental nephritis; phlebothrombosis.

Huntington, Arthur, Room 304, Security Bldg, Cedar Rapids, Iowa. *Engineering.* Springfield, Ohio, Feb. 2, 74. M.E, Ohio State, 99. Apprentice engineer, salesman and manager branch office, Westinghouse Elec. and Mfg. Co, 99–05; pres. and gen. manager, Cascade Milling Co. and Sioux Falls Light and Power Co, S. Dak, 05–10; irrig. and hort. work in the northwest, 05–13; special eng. rates and develop. work, Ill. Traction System, 13–16; *sales engineer, Iowa Ry. and Light Co, 16–* Agr. and Indust. Cmn, Iowa, 27–31; cmt. land utilization, U. S. Dept. Agr, 32– Agr. Eng. (v. pres, 26, 29, pres, 33, 34). Economic apportioning of the benefits of engineering development; cross-pollenization of apples; cost allocation of industries which sell only the use of the property or service from it; use and value of power in agriculture; value of engineering sales and sales promotion; the value of power in industrial production.

Huntington, Prof. C(harles) C(lifford), 2500 Henthorn Road, Columbus, Ohio. *Economic geography.* Springfield, Ohio. Ph.B, Ohio State, 02, A.M, 03; Ph.D, Cornell, 15. Fellow econ, Ohio State, 03–04; asst. politics and finance, Cornell, 05–06; special examiner, bur. corporations, U. S. Dept. Commerce and Labor, 06–09; asst. prof. econ. and sociol, *Ohio State,* 09–13, prof, 13–22, chairman dept. *geog,* 22–34, *prof, 22–* Geog. Soc; Nat. Council Geog. Teachers; Econ. Asn; Ohio Acad. Conservation and land utilization; geography as a social science; flood control projects in Ohio.

Huntington, Prof. E(dward) V(ermilye), 48 Highland St, Cambridge, Mass. **[1]*Mathematics.* Clinton, N. Y, April 26, 74. A.B, Harvard, 95, A.M, 97; Ph.D, Strassburg, 01; Sc.D, San Marcos, Peru, 25. Instr. math, Harvard, 95–97; Williams Col, 97–99; *Harvard,* 01–05, asst. prof, 05–15, assoc. prof, 15–19, prof. *mech,* 19–41, *emer. prof, 41–* West. exchange prof, Beloit Col, Carleton Col. and Knox Col, 25. Ed, 'Annals of Math,' 02–11. Nat. Research Council. Chairman Am. sect, Int. Math. Union, 23–26. Major, Gen. Staff, 18–19. A.A; Math. Soc. (v. pres, 24); Math. Asn. (pres, 18); Statist. Asn; Philos. Soc; Inst. Math. Statist; Asn. Symbolic Logic; Acad. Polit. Sci; Am. Acad. Systems of postulates forming the bases of elementary mathematical theories.

Huntington, Dr. Ellsworth, Yale University, New Haven, Conn. **[3]*Geology, Geography.* Galesburg, Ill, Sept. 16, 76. A.B, Beloit Col, 97; A.M, Harvard, 02, Hooper fellow, 06–07; Ph.D, Yale, 09. Asst. to pres, Euphrates Col, Harput, Turkey, 97–01; mem, Pumpelly's Carnegie Institution exped, Turkestan, 03–04; R. L. Barrett's exped, Chinese Turkestan, 05–06; instr. geog, Yale, 07–12, asst. prof, 12–15; private research, 15–17; *research assoc. geog, Yale, 17–* Research assoc, Carnegie Institution, 12–14. Assoc. ed, 'Geog. Rev,' 'Econ. Geog.' and 'Ecology.' Div. geol. and geog, Nat. Research Council, 19–23, 35–, biol. and agr, 21–24, chairman cmt. on atmosphere and man, cmt. on human heredity and cmt. preservation nat. conditions. Yale exped, Palestine, 09. Gill Mem. medal, Royal Geog. Soc; Maunoir medal, Soc. géog. de Paris; Kane medal, Geog. Soc. Phila; medal, Harvard Travelers Club; award of merit, Council of Am. Geographers, 42. Del, Pan-Pacific Sci. Cong, Australia, 23. A.A; Asn.

Geog. (pres, 23); Geol. Soc; Ecol. Soc. (pres, 17); Eugenics Soc. (pres, 34–38); Meteorol. Soc; Popul. Asn. (director); Inst. Social Sci; Am. Acad. Climatology; effect of climate on man; systematic anthropogeography; fundamental relationships of environment and heredity and their bearing on civilization.

Huntington, Prof. F(orrest) W(illiam), Kansas City-Western Dental College, Kansas City, Mo. *Dentistry.* Kansas City, Kans, April 17, 92. A.B, Kansas, 19, A.M, 26; D.D.S, Kansas City, 29. *Assoc. prof. chem, Kansas City-Western Dental Col, Kansas City, 25–* A.A; Dental Asn; Chem. Soc. Metallographic studies in dental metallics; dental materials.

Huntington, Dr. H(illard) B(ell), Massachusetts Institute of Technology, Cambridge, Mass. *Theoretical physics.* Wilkes-Barre, Pa, Dec. 21, 10. A.B, Princeton, 32, A.M, 33, Ph.D, 41. Research assoc. physics, Pennsylvania, 39–41; instr, Washington (St. Louis), 41–42; *research assoc, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Theory of solids.

Huntington, Prof. R(ichard) L(ee), 515 E. Shawnee, Norman, Okla. *Chemical engineering.* Blackwell, Okla, March 24, 96. A.B, Oklahoma, 17; M.S, Michigan, 32, Ph.D, 34. Chemist, Texas Co. Refinery, West Tulsa, Okla, 19–20; dist. supt, gasoline dept, Skelly Oil Co, 20–30; *prof. petrol. eng, Oklahoma, 33–* Summers, research, Phillips Petrol. Co, Okla, 34–43. C.W.S, U.S.A, 18–19. Chem. Soc. Petroleum technology; cracking of petroleum; entrainment in fractionating towers; heat transfer; production of crude oil and natural gasoline; separation of oil-gas mixtures.

Huntington, Prof. Whitney C(lark), University of Illinois, Urbana, Ill. *Civil engineering.* Denver, Colo, Sept. 29, 87. B.S, Colorado, 10, C.E, 12, M.S, 13. Engineer, Crocker and Ketchum, 10; asst. civil eng, Colorado, 10–11, instr, 11–14, asst. prof, 14–18, acting prof. and asst. dean col. eng, 18–19, prof. and head dept, 19–26, head construction dept, 17–26; *prof. civil eng. and head dept, Illinois, 26–* Engineer, M. S. Ketchum, 10–19. Summer, bridge designer, C. B. and Q. R. R, 15. Chairman eng. advisory board, Civil Works Admin, Ill, 33–34; v. chairman state advisory board, work and rehabilitation div, State Emergency Relief Cmn, Ill, 34–35; state chairman organization cmt, Am. Eng. Council, 35. Alumni Norlin medal, Colorado, 37. Civil Eng. (pres, Colo. sect, 19; cent. Ill. sect, 39); Eng. Educ. (councilor, 29–32); Soc. Test. Mat; Concrete Inst; West. Soc. Eng. (trustee, 36–39); Ill. Soc. Eng. Structural engineering; building construction; design of masonry structures; earth pressures.

Huntley, Dr. C(harles) William, Western Reserve University, Cleveland, Ohio. *Psychology.* Schenectady, N. Y, July 23, 13. A.B, Union Col. (N. Y), 34; A.M, Harvard, 35, Ph.D, 38. Asst. psychol, Harvard and Radcliffe Col, 36–38; instr, Flora Stone Mather Col, *Western Reserve,* 38–42, *asst. prof. psychol. and dean, Adelbert Col, 42–* Psychol. Asn; Midwest. Psychol. Asn. General psychology and personality.

Huntley, Louis Grow, 1217 Grant Bldg, Pittsburgh, Pa. *Geology.* Greenville, Mich, July 22, 85. B.S, Carnegie Inst. Tech, 08; M.S, Pittsburgh, 22. Rodman, asst. engineer, prospector, placer miner, oil geologist and petrol. engineer, 08–12; asst. petrol. eng, U. S. Bur. Mines, 12–13; consulting oil geologist, Johnson and Huntley, 13–18; pres, Island Oil and Transport Corp, 18–19; consultant and operator, Johnson, Huntley and Somers, 19–23; *partner, Huntley and Huntley, 22–* Director, Papantla Royalties Co; geol. work, U. S, Can, Mex, W. I, S. Amer, Turkey, Germany and China. Asn. Petrol. Geol; Min. and Metal. Eng; N. Y. Eng. Club; N. Y. Explorers Club. Petroleum engineering; geology of oil and gas; oil and gas production.

Huntly, Prof. Phil(ip) C(onrad), 3300 Federal St, Chicago, Ill. *Civil engineering.* Camden, Ark, Sept. 27, 85. B.C.E, Arkansas, 10. Adj. prof. civil eng, Arkansas, 10–12; C. M. and St. P. Ry, Morey and Newgard and C. B. and Q. Ry, Que, 12–14; instr. exp. eng, *Armour Inst. Tech,* 14–22, assoc. prof, 24–34, prof. mech. eng. and director dept, 34–38, *prof. civil eng. and director dept, 38–; consulting and testing engineer, Chicago, 14–* Summers, designer, Hedrick and Cochrane, Kans, 10, 14. Soc. Metals; Mech. Eng; Concrete Inst; Eng. Educ. Materials; machine design and development.

Huntoon, L(ouis) D(oremus), 15 Park Row, New York, N. Y. or 156 Yonge St, Toronto, Ont. Can. *Mining engineering, Metallurgy.* Paterson, N. J, Jan. 28, 69. Ph.G, N. Y. Col. Pharmacy, 90; E.M, Columbia, 95; hon. A.M, Yale, 07. Chemist and assayer, Colo, 95–96; mine examiner, N. Y, 96–03; consulting mining and metal. engineer, 03–05; asst. prof. mining and metal, Sheffield Sci. Sch, Yale, 04–08, prof. and mem. board governors, 08–11; *consulting mining engineer, 11–* Min. and Metal. Eng; Min. and Metal. Soc. (sec'y-treas, 16–19); Am. Geog. Soc; Can. Min. Inst; Inst. Min. and Metal. Gt. Britain.

Huntoon, Dr. R(obert) D(eWitt), National Bureau of Standards, Washington, D. C. *Nuclear physics.* Waterloo, Iowa, July 20, 09. A.B, Iowa State Teachers Col, 32; Ph.D, Iowa, 38. Instr. physics, N. Y. Univ, 38–40; research physicist, Hygrade Sylvania Corp, 40–41; assoc. physicist, *Bur. Standards,* 41–42, *physicist, 42–* Physical Soc; assoc. Radio Eng. Electronics; angular distribution of protons from deuteron; deuteron reaction.

Huntress, Prof. E(rnest) H(amlin), Massachusetts Institute of Technology, Cambridge, Mass. **[7]Chemistry.* Laconia, N. H, May 9, 98. B.S, Mass. Inst. Tech, 20, Ph.D, 27. Asst. chem, *Mass. Inst. Tech,* 20–22, instr, 22–29, asst. prof, 29–35, assoc. prof. *org. chem,* 35–41, *prof, 41–, in charge undergrad. div, 35–, in charge grad. students in chem, 40–* A.A; Asn. Textile Chem. and Colorists; Chem. Soc. (sec'y, northeast sect, 28–30, councilor, 36, v. chairman, 37, chairman, 38–); Am. Acad; Deuts. Chem. Gesell. Organic chemistry; organic qualitative analysis; chemiluminescence.

Huntsinger, Dr. Mildred E(lizabeth), St. John's Riverside Hospital, Yonkers, N. Y. *Biochemistry.* Buffalo, N. Y, Feb. 26, 02. B.S, Simmons Col, 23; A.M, Boston, 29, Ph.D, 35. Technician, Rochester Genesee Hosp, 23–24; technician and asst, Evans Mem. Hosp, Boston, 24–35; *senior technician in charge lab, St. John's Riverside Hosp, 35–* Assoc. N. Y. State Asn. Pub. Health Labs. Liver function; estimation of pancreatic enzymes; methods of bile analysis; bromine number method; fat metabolism; cholesterol.

Huntsman, Prof. A(rchibald) G(owanlock), University of Toronto, Toronto, Ont, Can. *Biology.* Tintern, Ont, Nov. 23, 83. B.A, Toronto, 05, M.B, 07, M.D, 33. Asst. *biol, Toronto,* 05–07, lecturer, 07–16, assoc. prof, 17–27, *prof, 27–;* curator, Atlantic Biol. Sta, 11–13, 16–19, director, 19–34; *ed. and consulting director, Biol. Board Can, 34–* Director, Atlantic Exp. Sta. Fisheries, 24–28; sec'y, N. Am. Council Fisheries Investigations, 22–38, chairman, 38–; sec'y, Board Inquiry Great Lakes Fisheries, 40– Trustee, Oceanog. Inst, Woods Hole, 31–; Bermuda Biol. Sta, 26–, v. pres, 35– A.A; Ecol. Soc; Soc. Zool; Limnol. Soc; Fisheries Soc. (pres, 37); Royal Soc. Can. (pres, sect. V, 25, pres, 38); Royal Can. Inst. (librarian, 20–25). Ascidians; Decapoda; Amphipoda; plankton; marine fishes; oceanography; factors affecting herring and salmon.

Huntzicker, Dr. H(arry) N(oble), 9414 Drake Ave, Evanston, Ill. *Chemistry.* Omaha, Nebr, June 29, 06. A.B, Macalester Col, 27; M.S, Wisconsin, 30, Ph.D, 32. *Head lime research sect, bldg. mat. research labs, U. S. Gypsum Co, 32–* Chem. Soc; Soc. Test. Mat. Lime research; dialysis rates; electrochemistry of metallic nickel; production and use of industrial and building lime.

Hunziker, Dr. O(tto) F(rederick), 103 Seventh St, La Grange, Ill. *Dairying.* Zurich, Switzerland, Dec. 25, 73. B.S.A, Cornell, 00, M.S, 01; hon. Sc.D, Purdue, 32. Asst. path. bacter. and instr. dairy bacter, Cornell, 01–02; milk expert, Scranton Condensed Milk Co, N. Y, 02–05; instr. dairying, Purdue, 05–06, prof. and chief dept, Exp. Sta, 06–16; manager mfrs. and director research lab, Blue Valley Creamery Co, 16–39; *dairy consultant, 39–* Lecturer, Grad. Sch, U. S. Dept. Agr, 10. Assoc. ed. and chairman cmt. on jour. management, 'Jour. Dairy Science,' 31– Pres, Board Health, La Grange, Ill, 26. Exped. for Australian dairy indust, Australia and New Zealand, 27. Diploma, Int. Expos, Milan, 25; trophies, Australian Dairy Council, 27; medals, Swiss Dairy Federation, 28; distinguished service scroll, Am. Dairy Sci. Asn, 34. U. S. Dept. Agr. del, Int. Dairy Cong, Stockholm, 11, London, 28, Copenhagen, 31, Berlin, 37, to study dairy conditions in Latin Am. republics, 42. Dairy Sci. Asn. (pres, 10–13); Agr. Eng; Nat. Dairy Council; Nat. Dairy Asn; Am. Dairy Federation. Production, manufacture and preservation of butter, condensed milks, dried milks and other dairy products; dairy processes.

Hurd, Prof. Charles B(uell), Union College, Schenectady, N. Y. *Physical chemistry.* New Britain, Conn, March 10, 94. B.S, Worcester Polytech, 15, M.S, 17; A.M, Clark, 20, fellow, 20–21, Ph.D, 21. Instr. chem, Worcester Polytech, 15–20; asst. prof, Colby Col, 21–22; Trinity Col. (Conn), 22–

23; *Union (N. Y)*, 23–25, assoc. prof, 25–31, *prof. physical chem, 31–, chairman dept. chem, 34–* A.A; Chem. Soc. Heat capacities of aqueous solutions; metal hydrides and amides; conductance of glass; silicic acid gels; solution vapor equilibria.

Hurd, Prof. Charles D(eWitt), Northwestern University, Evanston, Ill. **5Chemistry.* Utica, N. Y, May 7, 97. B.S, Syracuse, 18, Sc.D, 43; Ph.D, Princeton, 21; Minnesota. Instr. chem, Illinois, 21–24; asst. prof. *org. chem, Northwestern*, 24–28, assoc. prof, 28–33, *prof, 33–* Lecturer, Chicago, 28–39; Southern California, 36. Ed. in chief, 'Chem. Bul,' 31–33; mem. ed. board, 'Jour. Org. Chem.' Mem, Nat. Defense Research Cmt, 40– A.A; Chem. Soc. (councilor, director, Chicago sect, 29–, chairman, 38; chairman, nomenclature cmt, org. div, 30–38; cmt. on Langmuir award in pure chem, 31–33; chairman carbohydrate div, 39–); Chicago Chemists Club; Int. Union Chemists (Am. cmt. org. nomenclature, 38–). Organic chemistry; pyrolysis of carbon compounds; ketenes; allenes; organic molecular rearrangements; hydrocarbons; unsaturated ethers of phenols; carbohydrates; organic nitrogen compounds.

Hurd, Dr. C(uthbert) C(orwin), Michigan State College, East Lansing, Mich. *Mathematics.* Estherville, Iowa, April 5, 11. A.B, Drake, 32; M.S, Iowa State Col, 34; fellow, Illinois, 34–36, Ph.D, 36. Asst, Iowa State Col, 32–34; instr. *math, Mich. State Col*, 36–40, *asst. prof, 40–; instr, U. S. Coast Guard Acad, 42–* Math. Soc. Differential equations.

Hurd, Dr. Lee M(aidment), Rowayton, Conn. *Laryngology.* St. Charles, Minn, Dec. 23, 73. Phillips Acad; M.D, Columbia, 95. Prof. *laryngol,* N. Y. Polyclinic Med. Sch; *Univ. and Bellevue Hosp. Med. Col, emer. prof,* 32– Consulting laryngologist, Flower and Fifth Ave. Hosp; Downtown Hosp; prof, N. Y. Polyclinic Med. Sch. and Hosp. Laryngol. Asn; Laryngol, Rhinol. and Otol. Soc; Ophthal. Soc; Am. Med. Asn; fel. Col. Surg; N. Y. Acad. Med. Otolaryngology; rhinology.

Hurd, Dr. Loren C(urtis), 508 Highland Ave, Jenkintown, Pa. *Chemistry.* Madison, Minn, April 28, 05. A.B, Carleton Col, 25; A.M, Wisconsin, 27, Ph.D, 29. Asst. chem, Wisconsin, 25–29; instr. anal. chem, 29–36; *research chemist, Rohm and Haas Co, Phila, 36–* Nat. research fellow, Tech. Hochschule, Hannover, Germany, 32–33. Chem. Soc; Electrochem. Soc. Inorganic and analytical chemistry; rhenium; copper fungicides; rare earths; zirconium.

Hurewicz, Prof. Witold, University of North Carolina, Chapel Hill, N. C. **7Mathematics.* Lodz, Poland, June 29, 04. Ph.D, Vienna, 26. Lecturer, Amsterdam, 28–36; fellow, Inst. Advanced Study, 36–38, asst, 38–39; *asst. prof. math, North Carolina, 39–* Visiting prof, Brown, 43– Math. Soc. Topology; theory of real variables; group theory; dimension theory.

Hurlbut, Prof. Cornelius S(earle), Jr, Harvard University, Cambridge, Mass. *Mineralogy.* Springfield, Mass, June 30, 06. A.B, Antioch Col, 29; A.M, Harvard, 32, Ph.D, 33. Instr. petrog, *Harvard,* 31–33, *miner,* 33–40, *assoc. prof, 40–* Fel. Miner. Soc; fel. Geol. Soc; Boston Mineral Club; Miner. Soc. Gt. Britain. Crystallography.

Hurlbut, Lieut. H(erbert) S(umner), Medical Office, Tenth Naval District Headquarters, San Juan, P. R. *Medical entomology.* Wales Center, N. Y, Feb. 18, 08. B.S, Cornell, 32, M.S, 37; Ph.D, 40. Asst. entomologist, Tenn. Valley Authority, 40–42; *lieut, Hosp. Corps, U. S. Naval Res, 42–* A.A; Entom. Soc. Amer; Soc. Trop. Med. Entomological aspects of malaria; sanitation.

Hurley, Dr. Frank H(ouse), Reed College, Portland, Oregon. *Chemistry.* Houston, Texas, Jan. 12, 12. A.B, Rice Inst, 33, fellow, 33–37, A.M, 35, Ph.D, 37. Instr. anal. chem, Rice Inst, 37–42; *asst. prof. chem, Reed Col, 42–* Chem. Soc. Atomic weights; nephelometry; analytical standards; quantitative analysis; electrodeposition of metals.

Hurley, Dr. Patrick M(ason), Massachusetts Institute of Technology, Cambridge, Mass. *Geology.* Hong Kong, China, Jan. 12, 12. B.A, British Columbia, 34, B.A.Sc, 34; Ph.D, Mass. Inst. Tech, 40. Teaching fellow, Mass. Inst. Tech, 38–39; Royal Soc. Can. research fellow, 39–41; *research assoc, Mass. Inst. Tech, 40–* Use of radioactivity in the measurement of geological time.

Hurlin, Dr. Ralph G(ibney), Russell Sage Foundation, 130 E. 22nd St, New York, N. Y. *Statistics.* Antrim, N. H, Sept. 30, 88. A.B, Brown, 12, A.M, 13, Ph.D, 15. Asst. biol, Brown, 13–15; instr, Clark, 16, asst. prof, 17–18, docent biol, 17–18; statistician, *Russell Sage Foundation,* 19–20, *director dept. statist, 21–* Social statist. consultant, State Dept. Social Welfare, N. Y, 31–; children's bur, U. S. Dept. Labor, 32–; U. S. Social Security Board, 36–; State Div. Probation, N. Y, 39–; lecturer, N. Y. Sch. Social Work, 39– Chairman research cmt, Welfare Council, New York, 40– U.S.A, 18–19, major. A.A; fel. Statist. Asn. (v. pres, 29–31); Econ. Asn; Sociol. Soc. Social science; statistics of social conditions; statistics of welfare activities.

Hurlock, Dr. Elizabeth B(ergner), Columbia University, New York, N. Y. *Psychology.* Harrisburg, Pa, July 4, 98. A.B, Bryn Mawr Col, 19, A.M, 22; Ph.D, Columbia, 24. Teacher, schs, N. Y. and Pa, 19–21; *instr. psychol, Columbia, 24–* Lecturer, Barnard Col, Columbia, 25–27. Psychol. Asn. Educational, child and applied psychology; psychology of fashion.

Hursh, Dr. Charles R(aymond), Appalachian Forest Experiment Station, Asheville, N. C. *Forestry.* Jonesboro, Ill, Sept. 16, 95. B.S, Missouri, 17; Lackland fellow, Washington (St. Louis), 20; Ph.D, Minnesota, 23. Asst. bot, Missouri, 15–16; plant path, Oregon State Col, 17; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 18–19, agent, 20–23; instr. plant path, Minnesota, 20–23; Rockefeller Foundation Int. Educ. Board fellow, Pasteur Inst, 24; nat. research fellow, Boyce Thompson Inst, 25–26; assoc. forest ecologist, *U. S. Forest Service,* 26–29, forest ecologist, 29–32, senior forest ecologist, 37, *chief div. forest investigations, 37–* Mem. cmt. roadside develop, highway research board, Nat. Research Council. Ecol. Soc; Soc. Foresters (chairman sect); Chem. Soc; Geophys. Union (cmt. transpiration and evaporation); Int. Soc. Soil Sci. Forest influences; applied botany; land use hydrology.

Hursh, Dr. John B(achman), Strong Memorial Hospital, Rochester, N. Y. *Physiology.* Martins Ferry, Ohio, March 31, 07. A.B, Western Reserve, 30; fellow, Rochester, 32–36, Ph.D, 36. Asst. physiol, sch. med. and dentistry, Rochester, 37; nat. research fellow, Rockefeller Inst, 37–39; *instr. physiol, sch. med. and dentistry, Rochester, 39–* Effect of carbon monoxide on recovery processes in frog muscle after exercise; eye movements; isotonic heat of frog muscle; action potentials of nerves; electroencephalography.

Hursh, Prof. R(alph) K(ent), University of Illinois, Urbana, Ill. *Ceramics.* Woodstock, Ill, Dec. 21, 85. B.S, Illinois, 08. Stock and shipping clerk, Ohio Mining and Mfg. Co, 09; junior ceramic chemist, Bur. Standards, 09–11; from asst. to *prof. ceramic eng, Illinois, 11–,* acting head dept, 32–33. Fel. Ceramic Soc. (treas, 17–23); Soc. Test. Mat; Ceramic Eng; Ceramic Educational Council; Eng. Educ; Ill. Clay Mfrs. Asn. (sec'y-treas). Ceramic engineering; drying and burning of clay wares; structural clay products; refractories.

Hurst, Dean C(larence) T(homas), 420 N. Main St, Gunnison, Colo. *Zoology, Archeology.* Kingston, Ky, June 20, 95. A.B, A.M, West. State Col, Colo, 23; Ph.D, California, 26. Asst. prof. *zool,* Mills Col, 26–28; *prof, West. State Col, Colo, 28–, dean grad. sch, 30–, chairman div. nat. science and math, 37–* Director, Museum Archeol; Art Asn. Ed, 'Southwest Lore,' 35– A.A; Soc. Archeol; Soc. Zool; Colo-Wyo. Acad. (treas, 33–40, pres, 40); N. Mex. Archeol. Soc; Colo. Archeol. Soc. (exec. sec'y, 35–); State Hist. Soc. Colo. Protozoology; evolutionary zoology; zoological dictionary; larval trematodes; effect of solutions of copper sulfate on ducks; pathology of fluke infections in gastropods; plate structure in ceratium; culture of mitochondria; temperature reactions in parasitism; southwestern archeology.

Hurst, Dr. D(onald) G(eoffrey), National Research Council, Ottawa, Ont, Can. *Physics.* Eng, March 19, 11. B.Sc, McGill, 33, M.Sc, 34, Ph.D, 36. Demonstrator physics, McGill, 33–34; 1851 Exhib. scholar from McGill, California, 36–37, Cambridge, 37–39; *junior research physicist, Nat. Research Council Can, 39–* Physical Soc. Induced radioactivity of potassium; energy losses of fast electrons; deuteron bombardment of bismuth; alkali metal films transparent in the Schumann region.

Hurst, Prof. John W(ildeboor), Montana State College, Bozeman, Mont. *Mathematics.* Garden City, Mo, Nov. 24, 95. B.S, Missouri, 21; A.M, Illinois, 22, Ph.D, 25. Asst, Illinois, 20–25; asst. prof. *math, Mont. State Col,* 25–29, *assoc. prof, 29–* Instr, California, 37–38. Math. Soc; Math. Asn.

Hurst, Dr. Julius H(arold), 3842 Garrison St, N. W, Washington, D. C. *Medicine.* June 7, 73. M.D, Columbian, 03, Yale, 04. Practising physician, 04–18; capt, M.C, 18–20; res. surgeon, U. S. Pub. Health Service, 20–24; chairman appeal group cent. office cases, *U. S. Veterans Admin,* 27–28, *senior med. officer expert, compensation div, 31–* Med. mem, Emergency Officers Retirement Board; Rating Schedule Board; Med. Consultant Board Veterans' Appeals. A.A. Thirty-day rhythm in apoplexy; relation of influenza and epidemic encephalitis.

Hurst, Lewis A(lexander), U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Muncie, Ind, Dec. 14, 74. B S, Purdue, 99. Sci. asst, bur. soils, *U. S. Dept. Agr,* 01–04, scientist, 04–16, *biochemist,* bur. plant indust, 16–27, bur. chem. and soils, 27–34, *bur. plant indust, 34–, in charge fertilizer and soil fertility investigations with sugar beets and sugar-cane, 31–* A.A; Soc. Agron; Soil Sci. Soc. Biochemistry of soils and plants; soil types; relation of soil conditions to plant growth; fertilizers; plant diseases.

Hurst, Dr. M(acleod) E(wart), Ontario Department of Mines, Toronto, Ont, Can. *Geology.* Sydney, Australia, Aug. 1, 97. B.A, British Columbia, 18; M.A, Toronto, 19; Ph.D, Mass. Inst. Tech, 22; Wisconsin, 22–23. Instr, Mass. Inst. Tech, 21–22; asst. geologist, Geol. Surv. Can, 23–24; instr. geol, Ohio State, 24–27; miner, Brown, 27–29; geologist, *Ont. Dept. Mines,* 29–35, assoc. provincial geologist, 35–38, *provincial geologist, 38–* Summers, field asst, Geol. Surv. Can, 18–24; field geologist, Nipissing Mining Co, Ont, 25; Ont. Dept. Mines, 27–29. Min. and Metal. Eng; Soc. Econ. Geol; Royal Soc. Can. Economic geology; Precambrian stratigraphy and ore deposits.

Hurst, Dr. Thomas F(elix), 514 37th St, N, St. Petersburg, Fla. *Engineering.* San Francisco, Calif, Aug. 14, 98. B.S, Giessen, 21, Ph.D, 24; Columbia, 28. *Director research, Hurst Labs, 28–* Illum. Eng. Soc. Luminous materials; ultraviolet light; tropical plants.

Hurt, Prof. J(ohn) T(om), Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics.* Waco, Texas, March 12, 08. A.B, Rice Inst, 31, A.M, 32, Ph.D, 35. Teaching fellow math, Rice Inst, 31–35; geophys. computer, Texas Co, 35–36; instr. *math, Agr. and Mech. Col. Texas,* 36–39, *asst. prof, 39–* Math. Soc. Potential theory; properties of level curves of the Green's function; polynomial expansions; geophysical computations.

Hurtt, L(eon) C(laude), 541 Evans Ave, Missoula, Mont. *Forestry.* Sheldon, Mo, Jan. 6, 89. B.S, Nebraska, 14. Grazing asst, U. S. Forest Service, Utah, N. Mex. and Ariz, 14–17, grazing examiner in charge dist. range investigations, Mont, 17–21, inspector grazing, 21–24, forest supervisor, Idaho and Mont, 24–31, assoc. and *senior range examiner in charge range research, North. Rocky Mountain Forest and Range Exp. Sta, U. S. Forest Service, 31–* Lecturer, Montana and Idaho. Range ecology and economics.

Hurvich, Dr. Leo M(aurice), Soldiers Field, Boston, Mass. *Psychology.* Malden, Mass, Sept. 11, 10. A.B, Harvard, 32, A.M, 34, Ph.D, 36. Asst. psychol, *Harvard,* 36–37, instr, 37–40, *research asst, dept. indust. research in physiol. and psychol, 40–* Psychol. Asn; Optical Soc; N. Y. Acad. Sensory psychology; psychophysiology of vision; visual fatigue; selection of aircraft pilots.

Hurwitz, Dr. Henry, Jr, Cornell University, Ithaca, N. Y. *Physics.* New York, N. Y, Dec. 25, 18. A.B, Cornell, 38; Ph.D, Harvard, 41. *Instr. physics, Cornell, 41–* Quantum theory.

Hurwitz, Dr. Samuel H(ayman), 490 Post St, San Francisco, Calif. *Medicine.* Poland, Sept. 6, 85. A.B, Harvard, 07, A.M, 08; M.D, Hopkins, 12. Instr. research med, Hooper Foundation, California, 15–17, asst. prof. clin. med, 17–26; assoc. clin. prof. *med.* and *clin. prof, sch. med, Stanford, 26–* Chief med. dept, Mt. Zion Hosp, San Francisco, 18–28. Am. Med. Asn; Asn. Study Allergy; fel. Col. Physicians. Experimental medicine and biology; functions of liver and kidney; hemorrhagic diseases; blood proteins; metabolism; asthma.

Hurwitz, Prof. W(allie) A(braham), Cornell University, Ithaca, N. Y. *[3]Mathematics.* Fulton, Mo, Feb. 18, 86. A.B, B.S, A.M, Missouri, 06; Ph.D, Göttingen, 10. Asst. *math,* Missouri, 05–06; instr, *Cornell,* 10–14, asst. prof, 14–24, *prof, 24–* Summer, asst, Missouri, 08. Ed, 'Math. Monthly,' 19–22. Int. Cong. Math, Zurich, 32. A.A; Math. Soc. (assoc. ed, 'Trans,' 14–26, councilor, 19–24, ed, 'Bul,' 21–24); Math. Asn. (councilor, 19–22); London Math. Soc; Soc. math. de France; Circolo Mat. di Palermo. Analysis; differential and integral equations; infinite series.

Husa, Prof. William J(ohn), University of Florida, Gainesville, Fla. *Pharmacy, Chemistry.* Iowa City, Iowa, Feb. 5, 96. Ph.G, Iowa, 13, Ph.C, A.B, 20, Ph.D, 23; A.M, Columbia, 21. Research chemist, E. I. du Pont de Nemours and Co, 17–19; asst. chem, Iowa, 19–20, 21–23; food chem, Columbia, 20–21; *prof. pharmacy and head dept, Florida, 23–* Ebert medal, Am. Pharmaceut. Asn, 41. V. chairman, Nat. Conf. Pharmaceut. Research, 30–31, chairman, 38–41. Pharmaceut. Asn. (chairman, sci. sect, 32; practical pharm. sect, 38). Enzyme action; pharmaceutical chemistry; drug extraction.

Husband, Dr. Richard W(ellington), Carnegie-Illinois Steel Corp, Pittsburgh, Pa. *Psychology.* Hanover, N. H, Aug. 8, 04. A.B, Dartmouth Col, 26; A.M, Stanford, 27, Ph.D, 29. Asst. prof. psychol, Wisconsin, 29–41; Pa. State Col, 41–42; *research indust. relations dept, Carnegie-Ill. Steel Corp, 42–* A.A; Psychol. Asn; Asn. Applied Psychol. Learning; applied, industrial and vocational psychology; motor skills.

Huskins, Prof. C(harles) Leonard, McGill University, Montreal, Que, Can. *Genetics, Cytology.* Walsall, Eng, Nov. 30, 97. B.S.A, Alberta, 23, M.Sc, 25; 1851 Exhib. scholar, London, 25–27, Ph.D, 27, D.Sc, 33. Asst. plant breeding, Alberta, 23–25; research geneticist, John Innes Hort. Institution, London, 27–30; assoc. prof. bot. and *prof. genetics, McGill, 30–* Visiting prof, California, 38; Guggenheim Mem. Foundation fellow, Columbia, 42–43. Soc. Nat; Genetics Soc; fel. Royal Soc. Can; Can. Soc. Tech. Agr. Genetics and cytology of various plants and animals; human inheritance.

Husmann, Prof. Werner, Virginia Polytechnic Institute, Blacksburg, Va. *Agronomy.* Magdeburg, Germany, Feb. 1, 08. D.Agr, Berlin, 33. Agr. adviser and economist, Nitrogen Syndicate and I. G. Farben Industry, Berlin, Germany, 33–39; *asst. prof. agron, Va. Polytech, 39–* Soc. Agron; Soil Sci. Soc. Soil fertility; nitrogen fertilizer; tropical crops.

Huss, Dr. Paul O(swald), 834 N. Howard, Akron, Ohio. *Electrical engineering.* Ann Arbor, Mich, Dec. 30, 07. B.S, Michigan, 28, B.S.E, 29, M.S.E, 32, Sc.D, 35. Assoc. eng, Michigan, 29–33, teaching fellow eng. mech, 35–36, research assoc. elec. eng, 34–37; elec. engineer, West. Elec. Co, 37–41; asst. prof. and later *prof. meteorol, Guggenheim Airship Inst, Akron, 41–, research physicist, 41–* Elec. Eng; Inst. Aeronaut. Sci; Meteorol. Soc. Aerology; electrical instruments; copper-oxide rectifiers; atmospheric turbulence; statistical analysis of engineering data.

Hussakof, Dr. L(ouis), American Museum of Natural History, New York, N. Y. *Ichthyology, Zoology.* Kiev, Russia, Nov. 19, 81. B.S, Col. City of N. Y, 00; Ph.D, Columbia, 06; Naples Zool. Sta, 09. Teacher, pub. sch, N. Y, 01–02; asst, Am. Museum Nat. Hist, 05–08, asst. curator ichthyol, 09–10, assoc. curator, 10–13, curator, 14–16; private research, 17–28; *research assoc. ichthyol, Am. Museum Nat. Hist, 29–* A.A; Soc. Ichthyol. and Herp; Soc. Zool; Geol. Soc; Paleont. Soc; N. Y. Acad. Morphology and evolution of fishes; Arthrodira; early fossil vertebrates; biology of sharks and rays; history of evolutionary theory.

Hussey, Keith M(organ), University of Houston, Houston, Texas. *Micro-paleontology.* Rock Island, Ill, Dec. 2, 08. A.B, Augustana Col, 36; M.S, Louisiana, 39, Ph.D, 40. Asst. instr, field camp, Louisiana, 37–40; *teacher gen. geol, miner, paleont. and struct. geol, Houston, 40–; lieut, U. S. Army.* Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Ostracoda and Foraminifera.

Hussey, Prof. Priscilla Butler, Louisiana State Normal College, Natchitoches, La. *Biology.* Bowling Green, Fla, Jan. 24, 94. A.B, Michigan, 19; A.M, Smith Col, 21; Sc.D, Radcliffe Col, 23. Asst. zool, Michigan, 17–19; curator zool, Smith Col, 19–21; instr. *biol,* N. Y. Univ, 23–27; asst. prof, Battle Creek Col, 27–28; assoc. prof. and later *prof, La. State Nor. Col, Natchitoches, 28–* A.A; La. Acad. Economic biology; entomology; microtechnique; embryology of insects; trematode parasites.

Hussey, Dr. Raymond, 9 E. Chase St, Baltimore, Md. *Pathology.* Greensboro, N. C. M.D, Maryland, 11; hon. A.M, Yale, 27. Res. physician, Munic. Tuber. Hosp, Baltimore, 11–12; Md. Tuber. Sanatorium, 12–14; vol. asst. and asst. path, Hopkins, 14–17; res. pathologist, City Hosp, Baltimore,

15–17; assoc. path. and biophys, Rockefeller Inst, 19–22; asst. prof. path, Cornell, 22–24; assoc. prof, sch. med, Yale, 24–27, prof, 27–36; *assoc. prof. med, Maryland, 36–; instr, Hopkins, 36–, sci. director Army indust. hygiene lab, sch. hygiene and pub. health, 43–* M.C, 17–19, major. A.A; Soc. Exp. Path. General pathology; clinical medicine; cardiac and pulmonary diseases.

Hussey, Prof. Robert E(lliott), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Portland, Maine, Dec. 16, 88. B.S, Maine, 12, Ch.E, 16; Ph.D, Harvard, 26. Instr, Norwich, 12–13, asst. prof, 13–18; research chemist, E. I. du Pont de Nemours and Co, 18–19; instr, Williams Col, 19–21; asst. prof. *org. chem, Va. Polytech,* 26–27, assoc. prof, 27–29, *prof, 29–* Chem. Soc. Organic chemistry.

Hussey, Prof. R(ussell) C(laudius), University of Michigan, Ann Arbor, Mich. *Paleontology, Stratigraphy.* Mendon, Ohio, Oct. 31, 88. A.B, Michigan, 11, Ph.D, 25. Instr. *hist. geol. and paleont, Michigan,* 22–26, asst. prof, 26–31, *assoc. prof, 31–* A.A; Paleont. Soc; Mich. Acad. Historical geology and stratigraphy.

Hussong, Dr. R(alph) V(ictor), 123 N. Washington Ave, Danville, Ill. *Bacteriology.* Corwith, Iowa, Oct. 31, 04. B.S, Iowa State Col, 26, M.S, 28, Ph.D, 32. Asst. dairy bacter, Iowa State Col, 26–31, instr, 32–34, asst. prof, 34–35; *research lab, Sugar Creek Creamery Co, 35–* Soc. Bact; Dairy Sci. Asn; Chem. Soc. Bacteriology of butter; classification of microorganisms.

Husted, Prof. Ladley, University of Virginia, Charlottesville, Va. *Botany.* Wayne Co, N. Y, Sept. 30, 06. A.B, Oberlin Col, 28; du Pont fellow, Virginia, 30–31, Blandy Farm fellow, 31–34, Ph.D, 34. Asst. plant path, Cornell, 28–29; instr. bot, Oberlin Col, 29–30; Gen. Educ. Board fellow, Missouri, 34–35; Harvard, 35–36; John Innes Hort. Institution, London, Eng, 36–37; *asst. prof. biol, Virginia, 37–* A.A; Genetic Asn; Genetics Soc; Va. Acad. Plant cytology; chromosome behavior and structure.

Huston, Dr. Henry A, Kew Hall, Kew Gardens, New York, N. Y. *Agricultural chemistry.* Damariscotta, Maine, April 20, 58. A.B, Bowdoin Col, 79, A.M, 82; A.C, Purdue, 82, hon. Sc.D, 31. Asst. chem. and physics, Bowdoin Col, 79–80; prin. and teacher, high sch, Ind, 80–84; prof. physics, Purdue, 84–88, agr. chem, Purdue, 88–03, director, Exp. Sta, 02–03; state chemist, Ind, 88–03; manager west. office propaganda dept, German Kali Works, St. Louis, 03–05, Chicago, 05–10, sec'y, Baltimore, 10–12, New York, 12–19; tech. manager in the U. S. Potash Syndicate, 19–23; *consulting agr. chemist, 23–* Asst. state chemist, Ind, 84–86; director, State Weather Service, 84–96. A.A; Agr. Chem. (pres, 95, cmt. on food preservatives, 95–); Chem. Soc; Soc. Agron; Ind. Acad. Methods of agricultural analysis; soil improvement; swamp lands; fertilizers; phosphates; potash; the sugar-beet; composition of maize at different periods of growth; symbiotic bacteria.

Huston, Dean Ralph C(hase), Michigan State College, East Lansing, Mich. *Chemistry.* Fairfield, Iowa, March 10, 85. B.S, Parsons Col, 06, Sc.D, 41; M.S, Iowa, 08, Ph.D, 14. Teacher, high sch, Kans, 06–07; instr. chem, State Col. Wash, 09–10, asst. prof, 10–11; *Mich. State Col,* 11–15, assoc. prof, 15–25, *prof. org. chem, 25–, dean applied science, 30–* A.A; Chem. Soc; Inst. Chem. (chairman, cooperating cmt; chemist, advisory council). Nitrosulfonic acids of paraxylene; aromatic alcohols and compounds in presence of aluminum chloride; relation of phenols to xerophthalmia; effect of unsaturation on the activity of alcoholic hydroxyl; halogen derivatives of phenols; tertiary aliphatic alcohols and aromatic compounds in the presence of aluminum chloride; ethylene oxide and Grignard reagents; halocarbonyl compounds and Grignard reagents; fragmentation of higher alcohols.

Huston, Prof. Ralph E(rnest), South Lake Ave, Troy, N. Y. *Mathematics.* Huntington, Ind, Sept. 16, 02. B.S, Chicago, 23, Ph.D, 32; Rhodes scholar, Oxford, 23–26, B.A, 26. Assoc. prof. modern languages, Southwestern (Tenn), 27–29; asst. *math,* Chicago, 30–31; acting prof, Iowa State Col, 31; asst, Chicago, 32; prof. and acting head dept, Wesleyan Col. (Ga), 32–33; instr, *Rensselaer Polytech,* 34–37, asst. prof, 37–43, *assoc. prof, 43–* Theory of numbers.

Hutchens, Dr. John O(liver), University of Chicago, Chicago, Ill. *Physiology.* Noblesville, Ind, Nov. 8, 14. A.B, Butler, 36; Ph.D, Hopkins, 39. Nat. research fellow zool, Harvard, 39–40; Johnston scholar, Hopkins, 40–41; *instr. physiol, Chicago, 41–* Cellular physiology; growth requirements; carbon and nitrogen metabolism; respiration of protozoa; carbon and nitrogen metabolism and respiration of marine eggs.

Hutcherson, Prof. W(illiam) R(obert), Berea College, Berea, Ky. *Mathematics.* Glasgow, Ky, Dec. 20, 98. A.B, Kentucky, 22, A.M, 24; Chicago; fellow, Cornell, Ph.D, 31. Asst. *math,* Kentucky, 22–24; head dept, Berea Junior. High Sch, 24–26; assoc. prof, *Berea Col,* 26–29, *prof. and head dept, 29–* Summer, teacher defense training program, exten. dept, Pa. State Col, 41, 42. Math. Soc; Math. Asn. (pres, Ky. sect, 34); Ky. Acad. (v. pres, 35; assoc. ed, 'Transactions,' 40–). Algebraic geometry.

Hutcheson, Dr. John Redd, Virginia Polytechnic Institute, Blacksburg, Va. *Agriculture.* Charlotte Court House, Va, Jan. 13, 86. B.S, Va. Polytech, 07, M.S, 09; D.Sc, Clemson Col, 37. Prin, high sch, Va, 09–14; specialist, *agr. exten, Va. Polytech,* 14–17, asst. director, 17–19, *director, 19–* Summers, instr, Virginia, 11–14. Country Life Asn. (director); Farm Econ. Asn. Agricultural economics; rural sociology.

Hutcheson, Dr. T(homas) B(arksdale), Virginia Polytechnic Institute, Blacksburg, Va. *Agronomy.* Charlotte Court House, Va, March 23, 82. B.S, Va. Polytech, 06, M.S, 08; M.S.A, Cornell, 13; Sc.D, Clemson Col, 37. Instr. agron, Va. Polytech, 08–12; assoc. agronomist, Minnesota, 13–14; *agronomist, Va. Polytech, 14–* A.A; Soc. Agron. Growth and maturity of maize; pastures.

Hutchings, Dr. Brian L(aMar), 115 Forest Ave, Pearl River, N. Y. *Biochemistry.* South Jordan, Utah, June 11, 15. B.S, Brigham Young, 38; Alumni Research Foundation fellow, Wisconsin, 38–40, M.S, 40, Ph.D, 42. Asst, Wisconsin, 40–42, fellow, 42; *research chemist, Lederle Labs, Inc, 42–* Biochemistry of microorganisms.

Hutchings, Dr. I(mri) J(oseph), Jacob Mushroom Division, Grocery Products Manufacturing Corp, West Chester, Pa. *Mycology, Bacteriology.* South Jordan, Utah, April 5, 09. B.S, Brigham Young, 32, M.S, 33; Ph.D, Rutgers, 36. Asst. soil microbiol, N. J. Exp. Sta, 33–36; *mycologist and bacteriologist, Jacob mushroom div, Grocery Products Mfg. Corp, 36–* Lignin decomposition; nitrogen relationships of decomposing organic materials; mushroom diseases; thermophilic organisms in composts.

Hutchings, Prof. Phyllis Hayford (Mrs. W. L. Hutchings), Whitman College, Walla Walla, Wash. *Astronomy.* Washington, D. C, May 18, 04. B.S, Northwestern, 26; Lick Observatory fellow, California, 30–32, Ph.D, 32. Asst, Lick Observatory, California, 26–28, 33–35, teaching fellow *astron,* 28–30, instr, 32; Rollins Col, 35–41, *asst. prof,* 41–43; *Whitman Col, 43–* Astron. Soc. Galactic rotation; orbit computation; asteroids and comets.

Hutchings, Selar S(tephen), U. S. Forest Service, Ogden, Utah. *Forestry.* Springville, Utah, May 5, 04. A.B, Brigham Young, 27; scholar, Yale, 30–31, M.S, 31. Asst. bot, Brigham Young, 25–27; junior range examiner, *U. S. Forest Service,* 28–30, *Intermountain Forest and Range Exp. Sta,* 31–35, asst. forest ecologist, 35–43, *assoc. forest ecologist, 43–* Bot. Soc. Ecology; taxonomy; grazing and range ecology.

Hutchings, Prof. W(illiam) L(awrence), Rollins College, Winter Park, Fla. *Mathematics.* Lehi, Utah, Oct. 2, 03. A.B, California, 31, A.M, 32, Ph.D, 35. Teaching fellow math, California, 32–35, asst, 35; instr. *math. and physics, Rollins Col,* 35–38, asst. prof, 38–42, *assoc. prof, 42–* Math. Soc. Projective differential geometry.

Hutchins, Prof. Arthur E(ugene), University Farm, St. Paul, Minn. *Horticulture, Olericulture.* Dickinson Center, N. Y, March 20, 97. B.S, Minnesota, 25, Ph.D, 33. Asst. *hort, Minnesota,* 27–28, instr, 28–39, *asst. prof, 39–,* asst, *Exp. Sta,* 28–39, *asst. horticulturist, 39–* Genetics Soc; Soc. Hort. Sci; Minn. Acad. Vegetable production; culture; breeding; classification; variety studies; morphology.

Hutchins, Dr. Lee M(ilo), Bureau of Plant Industry Station, U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Fennville, Mich, April 21, 88. B.S, Mich. State Col, 13; Ph.D, Hopkins, 24; Univ. Montpellier, 19; Wageningen and Paris, 30. Sci. asst, *bur. plant indust, U. S. Dept. Agr,* 14–17, asst. pathologist, 20, assoc. pathologist, 24–29, pathologist, 29–30, senior pathologist, Ft. Valley, Ga, 30–41, in charge peach disease and hort. field lab, 21–37, fruit tree virus disease investigations, 35–41, *prin. pathologist in charge div. forest path, 41–* Assoc. ed, 'Phytopath,' 32–34. Sanit.C,

17–19, lieut. A.A; Bot. Soc; Phytopath. Soc. (v. pres, 41, pres, 42); Soc. Foresters; Soc. Plant Physiol; Soc. Hort. Sci; Soc. de Path. comparée. Virus and physiological diseases of fruit, forest and shade trees; oxygen supplying power of the soil.

Hutchins, Prof. Ross E(lliott), Mississippi State College, State College, Miss. *Entomology.* Ruby, Mont, April 30, 06. B.S, Mont. State Col, 29; M.S, Miss. State Col; Ph.D, Iowa State Col, 36. Instr. *zool. and entom,* Miss. Agr. and Mech. Col, 29–32, *Miss. State Col,* 32–38, asst. prof, 38–39, *assoc. prof, 39–; lieut, Med. Corps, U. S. Navy, 43–* Taxonomy and biology of the vertebrates; wildlife conservation; entomology; malariology.

Hutchinson, Prof. A(ndrew) H(enderson), University of British Columbia, Vancouver, B. C, Can. *Botany.* York Co, Ont. B.A, McMaster, 09, M.A, 11, 13; fellow, Chicago, 13–15, Ph.D, 15. Teacher science, Collegiate Inst, Whitby, Ont, 10; Peterborough, 11; *asst. prof. bot,* Agr. and Mech. Col. Texas, 15; *British Columbia, 16–, head dept.* Biol. Board Can; bot. and oceanog. cmt, Nat. Research Council Can. A.A; Bot. Soc; fel. Royal Soc. Can; B. C. Acad. Morphology; cytology; fertilization; gametophytes; forests of Ontario and British Columbia; oceanography of the Strait of Georgia; effect of radiant energy on protoplasm.

Hutchinson, Prof. Cha(rle)s A(ngevine), University of Colorado, Boulder, Colo. *Mathematics.* Springfield, Ohio, Aug. 18, 97. A.B, Wittenberg Col, 16, A.M, 18. Instr. math. and chem, Wittenberg Col, 16–18; *eng. math, Colorado,* 18–20, acting head dept, 21–24, asst. prof, 20–22, assoc. prof, 22–24, *prof. and head dept, 24–,* recreational director, 25–33. Mem, Joint Nat. Cmn. Math. in Secondary Educ, 34–40. A.A; Math. Soc; Math. Asn; Eng. Educ. Theory of orbits.

Hutchinson, Dr. E(dward) P(rince), 2032 Belmont Road, N.W, Washington, D. C. *Demography.* Auburn, Maine, Jan. 3, 06. A.B, Bowdoin Col, 27; Ph.D, Mass. Inst. Tech, 33. Asst. pub. health, med. sch. and dental sch, Tufts Col, 27–29; vital statist, sch. pub. health, Harvard, 29–30, instr, 30–32, sociol, 35–40; fellow population, Library of Congress, 40–41; Guggenheim Mem. Foundation fellow, 41–42; *mem, Nat. Resources Planning Board, 42–* Social Science Research Council fellow, 33–35. A.A. (sec'y, K, 37–); Popul. Asn. (director, 37–41); Sociol. Soc; Statist. Asn. Population; differential fertility; epidemiology of tuberculosis; migration.

Hutchinson, Prof. Eliot D(ole), University of Rochester, Rochester, N. Y. *Psychology.* Cambridge, Mass, 00. A.B, Harvard, 22, Sheldon fellow, 22–23, A.M, 25, Ph.D, 26. Nat. research fellow, 26–27; instr. *psychol, Rochester,* 25–26, 27–28, *asst. prof, 28–* A.A; Psychol. Asn. Psychology of creative thought.

Hutchinson, Prof. G(eorge) Evelyn, Yale University, New Haven, Conn. *Zoology.* Cambridge, Eng, Jan. 30, 03. B.A, Cambridge, 24, M.A, 28. Senior lecturer zool, Univ. Witwatersrand, S. Africa, 26–28; instr. *biol, Yale,* 28–31, asst. prof, 31–41, *assoc. prof, 41–* Rockefeller Foundation Int. Educ. Board fellow, Naples Zool. Sta, 25–26. Biologist, Yale N. India exped, 32. Mem. ed. board, 'Ecol,' 41–43; assoc. ed, 'Am. Jour. Science,' 43– Ecol. Soc; Limnol. Soc. (v. pres, 39); fel. Linnean Soc. London; Entom. Soc. London. Limnology; aquatic Hemiptera; biogeochemistry; invertebrate zoology.

Hutchinson, Dr. L(eroy) Charles, Columbia University, New York, N. Y. *Mathematics, Mechanics.* Boston, Mass. B.S, Mass. Inst. Tech, 37, Ph.D, 40. Instr. math. and physics, Mich. Col. Min. and Tech, 41; math, Maryland, 41–42; Rockefeller research fellow, Brown, 42–43; *asst. research mathematician, Columbia, 43–* A.A; Math. Soc; Math. Asn; Asn. Symbolic Logic. Tensor analysis; projective and algebraic geometry; elasticity and acoustics; mathematical logic.

Hutchinson, Dr. (Robert) Cranford, Morris Biological Farm, Bristol, Pa. *Zoology.* Paterson, N. J, Jan. 25, 04. A.B, Ohio Wesleyan, 26; Hopkins, 26–27; fellow, Yale, 29–31, Ph.D, 31. Asst, Hopkins, 26–27; Yale, 27–28; research fellow, *Morris biol. farm, Wistar Inst,* 31–36, *assoc, 36–* A.A. Neurology; embryology; experimental morphogenesis of the nervous system.

Hutchinson, Prof. R(obert) O(rland), Tennessee Polytechnic Institute, Cookeville, Tenn. *Physics, Mathematics.* Near Bedford, Ind, Jan. 15, 89. A.B, Indiana, 14; Ph.D, Chicago, 23. Instr. physics, Maine, 16–17; Miss. Agr. and Mech. Col, 19–20, asst. prof, 20–21; asst, Chicago, 21–23; asst. prof, State Col. Wash, 23–26, acting head dept, 25–26, assoc. prof, 26–29; *prof. math. and head dept,* Lincoln Mem. Univ, 29–31; *Tenn. Polytech, 31–, coordinator, Civilian Pilot Training Program, 40–* Meteorol. service, U.S.A, 17–19. A.A; Council Teachers Math; Math. Asn; Asn. Physics Teachers; Tenn. Acad. Extreme ultra-violet arc and spark spectra; a Boyle's law and air thermometer apparatus; normal curve for college grades.

Hutchinson, Prof. W(esley) G(illis), 1139 S. 61st St, Philadelphia, Pa. *Botany, Bacteriology.* Providence, R. I, March 28, 03. A.B, Brown, 25, A.M, 27; Ph.D, Pennsylvania, 33. Instr. bot, Brown, 25–28; biol, Franklin and Marshall Col, 28–33, *asst. prof,* 33–34; *bot, Pennsylvania, 34–* Summers, investigator, U. S. Dept. Agr, 25–34. A.A; Soc. Bact; Bot. Soc. Pa. (sec'y, 38–40). Biology of bacteria; mycology.

Hutchinson, Prof. W(illiam) Spencer, Room 1101, 31 Milk St, Boston, Mass. *Mining engineering, Geology.* Boston, Mass, Oct. 9, 70. B.S, Mass. Inst. Tech, 92. Mine operator, Calif, Idaho and Mo, 94–03; *consulting mining engineer, Boston, 03–; prof. mining, Mass. Inst. Tech, 22–, head dept.* mining and metal, 27–37, *mining eng, 37–* Mem. eng. div, Nat. Research Council, 23–25, 26–28. Min. and Metal. Eng. (director, 26–28); Min. and Metal. Soc. (councilor, 29–34). Principles of mining; mining economics; mine valuation; mineral supplies and markets.

Hutchison, Prof. A(lbert) Witt, Pennsylvania State College, State College, Pa. *Chemistry.* Carlisle, Pa, March 19, 05. B.S, Dickinson Col, 25; M.S, Pa. State Col, 28; Ph.D, 31. Asst. *chem, Pa. State Col,* 28–31, instr, 31–33, asst. prof, 33–40, *assoc. prof, 40–* Chem. Soc. Non-aqueous solutions of electrolytes; oxidation-reduction potentials.

Hutchison, Dean C(laude) B(urton), University of California, Berkeley, Calif. *Genetics.* Chillicothe, Mo, April 9, 85. B.S.A, Missouri, 08, LL.D, 37; fellow, Cornell, 12–13, M.S.A, 13; M.S, Harvard, 17; hon. D.Agr, Sofia, 39. Asst. agron, Missouri, 08–09, instr, 09–10, asst. prof, 11–12, prof, 13–14, farm crops and chairman dept, 14–16; plant breeding, Cornell, 16–22; California, and director branch col. agr, 22–24; assoc. director for Europe, div. agr. educ, Int. Educ. Board, 24–26, director, 26–28; *prof. agr, California, 28–,* assoc. director research, *Exp. Sta,* 28–29, *director, 30–, dean col. agr, 30–* Director, Giannini Foundation, California, 28–31. Chairman, State Soil Conservation Cmn, Calif, 39– Order of the White Lion, Czechoslovakia; Agr. Decoration 1st Class, Belgium; Croix d'Officier du mérite agricole. A.A; Soc. Nat; Genetics Soc; Genetic Asn; Bot. Soc; Soc. Agron; cor. mem. Czechoslovak. Acad. Agr. Crop production; plant breeding and genetics.

Hutchison, Prof. Clyde A(llen), University of Virginia, Charlottesville, Va. *Physical chemistry.* Alliance, Ohio, May 5, 13. A.B, Cedarville Col, 33; Ph.D, Ohio State, 37; Columbia, 38–39. Nat. research fellow, Columbia, 38, asst, 39; *asst. prof. chem, Buffalo, 39–; research assoc, Rouss physical lab, Virginia, 42–* Chem. Soc. Isotopes.

Hutchison, Dr. Miller Reese, Box 1703, 180 Central Park, S, New York, N. Y. *Engineering.* Montrose, Ala, Aug. 6, 76. Marion Mil. Inst, 89–91; Spring Hill Col, 91–92, Ph.D, 14; Univ. Mil. Sch, 92–95; Ala. Polytech, 95–97, E.E. Chief elec. engineer, U. S. lighthouse estab, 7th and 8th districts, Spanish-Am. War; research and develop, 99–10; chief engineer, Edison lab, Thos. A. Edison, Inc, 10–17, chief engineer to and personal rep. to Thos. A. Edison, 10–18; pres, M. R. Hutchison, Inc, 17–18; *proprietor, Hutchison Lab, 18–* Mem, Naval Consulting Board, 15– Special gold medal from Queen of England, 02; gold and silver medals, La. Purchase Expos, 04; cross of honor, Accad. Int. di Lettre e Sci, 26. Int. Elec. Cong, 04; Int. Eng. Cong, 15. Mech. Eng; Soc. Automotive Eng; Elec. Eng; Radio Eng; Naval Eng; U. S. Naval Inst; Soc. Mil. Eng; Optical Soc; Acad. Polit. Sci; Inst. Social Sci; N. Y. Elec. Soc; Royal Soc. Arts. Instruments to relieve defective hearing; combustion indicators for internal combustion motors; photography; acoustics; storage batteries; electrical instruments.

Hutchisson, Prof. E(lmer), University of Pittsburgh, Pittsburgh, Pa. ***Physics.* Cleveland, Ohio, Dec. 29, 02. B.S, Case, 23; Charles A. Coffin Foundation fellow, Mass. Inst. Tech, 23–24, M.S, 24; Ph.D, Minnesota, 26. Asst, Minnesota, 24–26; instr. *physics, Pittsburgh,* 26–27, asst. prof, 27–36, *prof, 37–,* acting head dept, 37–38, *head dept, 38–* Ed,

'Jour. Applied Physics,' 37– A.A; Optical Soc; Acoustical Soc; Soc. Rheol; Physical Soc; Asn. Physics Teachers; Inst. Physics (asst. director, 36). Quantum theory of the hydrogen molecule; intensities in band spectra of diatomic molecules; specific heats of gases; effects of high electrostatic fields; applied physics; war research.

Hutner, Dr. R(eina) A(lbagli), 342 Commonwealth Ave, Boston, Mass. *Physics.* Atlantic City, N. J, March 28, 11. A.B, Temple, 31, A.M, 33; Ph.D, Mass. Inst. Tech, 37. Teaching fellow physics, Temple, 31–33, instr, 33–34; asst, *Mass. Inst. Tech,* 40, research, inst. fund, 40–41, *staff mem. elec. eng. dept, 41–* Research grant, Am. Asn. for Advancement of Science, 38. Physical Soc. Theory of the effect of the earth's magnetic field on the orbits of cosmic rays; spheroidal wave functions.

Hutson, Prof. Ray, Michigan State College, East Lansing, Mich. *Entomology.* Salem, W. Va, Oct. 6, 96. B.S. (Agr), West Virginia, 22; M.S, Rutgers, 30. Asst. entomologist, N. J. Exp. Sta, 22–28, assoc. entomologist, 28–30, instr. *entom,* Rutgers, 26–30; assoc. prof, *Mich. State Col,* 30–34, *prof, 34–,* assoc. entomologist, *Exp. Sta,* 30–34, *entomologist, 34–* A.A; Asn. Econ. Entom. Economic entomology; pollination by insects.

Hutt, Prof. F(rederick) B(ruce), Cornell University, Ithaca, N. Y. *Genetics.* Guelph, Ont, Can, Aug. 20, 97. B.S.A, Toronto, 23; M.S, Wisconsin, 25; M.A, Manitoba, 27; Ph.D, Edinburgh, 29, D.Sc, 39. Lecturer poultry husbandry, Manitoba, 23–27; asst. prof, Minnesota, 28–29, assoc. prof, 29–31, prof. animal genetics, 31–34; prof. poultry husbandry and animal genetics and head poultry dept, *Cornell,* 34–40, *prof. zool, col. arts and sciences, 40–, chairman dept, 39–, head dept, col. agr, 39–, prof. animal genetics, 40–* Collaborator, U. S. Dept. Agr, 38–; mem. advisory cmt, Regional Poultry Research Lab, East Lansing, Mich, 39– Research prize, Poultry Sci. Asn, 29. A.A; Soc. Nat; Genetics Soc; Genetic Asn; Poultry Sci. Asn. (pres, 33); Soc. Zool; Ornith. Union; Soc. Study Growth and Develop. Genetics of the fowl and other domestic animals; physiology of avian reproduction; embryonic mortality in the fowl; hereditary anomalies in human dentition.

Hutt, Prof. R(obert) B(ines) W(oodward), Trinity College, Hartford, Conn. *Psychology.* Glen Mills, Pa, Nov. 13, 86. B.S, Pennsylvania, 09, A.M, 11, Ph.D, 24. Asst. Eng, Pennsylvania, 09–10, instr. psychol, 19–21; psychologist, Montgomery Sch, Wynnewood, Pa, 21–22; asst. prof. philos, *Trinity Col. (Conn),* 27–30, *prof. psychol, 30–* A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Anthrop. Asn; Conn. Valley Asn. Psychol. (pres, 33). Sex factors in social maladjustments; remedial factors in scholastic failures; industrial psychology; psychopathology.

Huttar, Dr. J(ohn) C(arl), Cooperative G.L.F. Exchange, Ithaca, N. Y. *Poultry husbandry.* Pola, Austria, Dec. 16, 01. B.S, Cornell, 24, Ph.D, 28. Instr. poultry husbandry, N. Y. State Col. Agr, Cornell, 24–31; manager, Dewey Meadows Poultry Farms, Inc, Vineland and Millington, N. J, 32; asst. manager, New York egg sales office, G.L.F. Marketing Corp, and later New York unit, Cooperative G.L.F. Egg Marketing Service, Inc, 32–38, v. pres, 35–38; *in charge poultry service dept, Cooperative G.L.F. Exchange, 38–* Poultry house ventilation; poultry marketing.

Hutton, Dr. John E(vans), Columbia University, New York, N. Y. *Medicine.* Mechanicville, N. Y, July 6, 97. M.D, Syracuse, 21. Instr. *med,* N. Y. Post-Grad. Med. Sch, 21–24, assoc, 24–28; asst. prof, *Columbia,* 28–31, *assoc. clin. prof, 31–* Gastro-enterologist, Woman's Hosp, New York; visiting physician, Gouverneur Hosp; assoc. physician, Post-Grad. Hosp. Col. Physicians; N. Y. Gastro-Enterol. Asn. Digestive diseases; hematology; gastro-enterology.

Huxford, Prof. Walter S(cott), 2606 Hartzell St, Evanston, Ill. *Physics.* Neligh, Nebr, Dec. 15, 92. A.B, Doane Col, 17; fellow, Nebraska, 21–22, M.S, 24; fellow, Michigan, 26–28, Ph.D, 28. Instr, high sch, Nebr, 19–21; prof. physics, Doane Col, 23–26; research physicist, Michigan, 29–31; asst. prof. *physics, Northwestern,* 31–35, assoc. prof, 35–39, *prof, 39–* U.S.A, 17–19. Physical Soc; Physics Club Chicago (pres, 41). Thermionic emission of electrons and positive ions; the charge of thermions and the shot effect; thermionic and photoelectric properties of compound cathodes; gaseous discharges.

Hvorslev, Dr. Mikael Juul, Harvard University, Cambridge, Mass. *Soil mechanics.* Denmark, Dec. 25, 95. C.E, Royal Tech. Col, Copenhagen, 18; Dr.Tech, Vienna Inst. Tech, 36. Design and construction reinforced concrete and hydraul. structures, Denmark and France, 18–21, U. S, Australia and S. Amer, 22–32; research, soil mech. and hydraulic labs, Europe, 32–33; Vienna Inst. Tech, 33–36; Copenhagen, Denmark, 37; *research fellow, grad. sch. eng, Harvard, 38–* Assoc. Civil Eng; Danish Inst. Eng; Dansk Selskab Bygningsstatik. Physical properties of soils; undisturbed sampling of soils; foundation engineering.

Hyatt, Dean J(ames) M(ead), Simmons College, Boston, Mass. *Physics.* Owego, N. Y, Aug. 5, 96. A.B, Cornell, 18, Ph.D, 22. Instr. *physics,* Cornell, 18–22; Union (N. Y), 22–24, asst. prof, 24–29, assoc. prof, 29–31; *prof. and head dept, Simmons Col, 31–, dean grad. div, 40–* A.A; Asn. Physics Teachers. Ultra-violet absorption; secondary electron emission.

Hyatt, Prof. Joseph Lewis, Hanover College, Hanover, Ind. *Zoology.* Benham, Ind, June 19, 88. B.Ed, Ill. State Nor. Sch, 21; M.S, Illinois, 23. Instr. *biol,* N. Y. Univ, 23–25; *head dept,* Lincoln Inst. Ky, 25–28; *prof, Hanover Col, 29–* A.A; Ind. Acad. Cuculannid parasite of the black spotted trout; embryology of turtles.

Hyde, Prof. Charles Gilman, University of California, Berkeley, Calif. *Engineering.* Norwich, Conn, May 7, 74. B.S, Mass. Inst. Tech, 96. Engineer, State Board Health, Mass, 96–00; filtration engineer, Phila, 00–02; Harrisburg, 02–05; *prof. sanit. eng, California, 05–* Civil Eng; fel. Pub. Health Asn; Water Works Asn; New Eng. Water Works Asn. Hydraulic, economic and sanitary engineering.

Hyde, Dr. Clarence L(udlam), Edwin Shaw Sanatorium, East Akron, Ohio. *Medicine.* Buffalo, N. Y, May 23, 78. M.D, Michigan, 06. Director div. tuber, Dept. Health, Buffalo, N. Y, 09–11; consultant in tuber, Buffalo City Hosp, 11–12; *supt,* J. N. Adam Mem. Hosp, Perrysburg, N. Y, 13–20; *Edwin Shaw Sanatorium, 20–* Consultant in tuber, Ernest Wende Hosp, 09–12; Akron City Hosp, 21; med. director, Munic. Tuber. Clinic, Akron and Summit County, Ohio. Am. Med. Asn; fel. Col. Physicians; Tuber. Asn; Trudeau Soc. Tuberculosis; surgical treatment, artificial light therapy and heliotherapy; the carbon arc as a source of ultra-violet; the closure of pulmonary cavities in relation to prevention; tuberculosis of the bones and joints; public health aspects.

Hyde, Dr. Edw(ard) P(echin), 115 Lakeshore Drive, Asheville, N. C. ***²***Physics.* Baltimore Co, Md, Jan. 3, 79. A.B, Hopkins, 00, fellow, 01–02, fellow by courtesy, 02–06, Ph.D, 06. Lab. asst, Bur. Standards, 02–05, asst. physicist, 05–07, assoc. physicist, 07–08; director, Nela Research Lab, Nat. Lamp Works, Gen. Elec. Co, 08–20, director research, 20–23. Pres, Int. Cmn. Illum, 21–27. Illum. Eng. Soc. (pres, 10); cor. mem. London Illum. Eng. Soc. Theory of Matthews and Russell-Leonard photometers; Talbot's law for sectored disks; international comparison of unit of luminous intensity; geometrical theory of radiating surfaces; determining mean horizontal intensity of incandescent lamps; plain and frosted lamps; radiation from metals; radiating properties of metals; spectrophotometric methods; high temperature scale and temperature methods.

Hyde, Prof. Elizabeth C(harlotte), Wells College, Aurora, N. Y. *Chemistry.* Trout River, N. Y, Oct. 4, 88. A.B, Mt. Holyoke Col, 09; A.M, Illinois, 22, Ph.D, 25. Asst. *chem,* Illinois, 20–24; instr, *Wells Col,* 24–26, asst. prof, 26–28, assoc. prof, 29–30, *prof, 30–* A.A; Chem. Soc; N. Y. Acad. Biochemistry.

Hyde, Prof. Emma, 320 N. 15th St, Manhattan, Kans. *Mathematics.* Leavenworth, Kans. A.B, Kansas, 12; A.M, Chicago, 16. Teacher, high sch, Kans, 13–18; James Millikin, 18–19; *math, Kans. State Col,* 20–26, *assoc. prof, 26–* Statistician, Ordnance Dept, U.S.A, 18. Math. Soc; Math. Asn. (chairman, Kans. sect, 31); Eng. Educ. The maximum or minimum kinetic energy generated by revolving a wire about a fixed point in a plane; revolving in space.

Hyde, Dr. Ida H(enrietta), Bishop Berkeley Apartments, 2709 Dwight Way, Berkeley, Calif. *Physiology.* Davenport, Iowa, Sept. 8, 57. Illinois, 81; A.B, Cornell, 91; fellow, Bryn Mawr Col, 91, 91–93; Strassburg, 93; Col. Alumnae European fellow, 94–95; Hearst fellow, 95–96; Ph.D, Heidelberg, 96; Naples Zool. Sta, 96; Bern, 96; Radcliffe Col, 97; Harvard Med. Sch, 97; Liverpool, 04; M.D, Rush, Chicago, 11. Teacher, pub. schs, Chicago, 81–83; asst. biol, Bryn Mawr Col, 91; prof. histol. and anat, Ingalls and Dr. Sargent's

Prep. Sch, Cambridge, Mass, 97-00; assoc. prof. physiol, Kansas, 99-05, prof, 05-25. Summers, prof, Hyannis Nor. Sch, 99-01; asst, Marine Biol. Lab, Woods Hole, 02. Hon. life mem. Am. woman's table, Naples Zool. Sta, sec'y, 97-00. Chairman health and sanit. women's cmt. for Kans, C.N.D, 18. Physiol. Soc; Eugenics Soc. Comparative studies of respiration and circulation; the nervous system and the sense organs.

Hyde, Dr. James Franklin, 179 Dodge Ave, Corning, N. Y. *Organic chemistry.* Solvay, N. Y, March 11, 03. A.B, Syracuse, 23, A.M, 24; Ph.D, Illinois, 28. Asst, Harvard, 28-30; *research chemist, Corning Glass Works, 30–* A.A; Chem. Soc. Stereochemistry of diphenyl compounds; structure of chlorophyl.

Hyde, Dr. J(ames) L(ogan), 545 Boulevard, Westfield, N. J. *Physical chemistry.* Kansas City, Mo, Oct. 29, 14. B.S, Antioch Col, 36; Ohio State, 36-37; Ph.D, California, 41. Asst. chem, Ohio State, 36-37; teaching asst, California, 37-40; research chemist, Sprague Specialties Co, 41-43; *mem. staff, Bell Tel. Labs, 43–* Chem. Soc. Mechanisms of reactions in solution; isotopic exchange reactions; mass spectrometer; dielectrics and dielectric phenomena.

Hyde, Prof. Karl C(layton), Skidmore College, Saratoga Springs, N. Y. *Botany.* Brazil, Ind, Aug. 27, 91. A.B, Indiana, 15; A.M, Cornell, 21, Ph.D, 23. Instr, high sch, Ind, 15-17; bot, Montana, 19-20; Cornell, 20-23; *prof. biol, Skidmore Col, 23–* Lieut, U.S.A, 17-19. A.A. Anatomy of tropical light-weight woods; anatomy of a gall on Populus trichocarpa; comparative anatomy of vertebrates; the lacrimal region of the turtle.

Hyde, Prof. Roscoe R(aymond), 615 N. Wolfe St, Baltimore, Md. *Zoology, Immunology.* Cory, Ind, March 23, 84. A.B, Ind. State Nor. Sch, 08; A.B, A.M, Indiana, 09; fellow, Columbia, 12-13, Ph.D, 15. Asst. embryol, Indiana, 08-09; asst. prof. and prof. zool. and physiol. and head dept, Ind. State Nor. Sch, 09-19; assoc. immunol, *sch. hygiene and pub. health, Hopkins,* 19-23, assoc. prof, 23-28, filterable viruses and in charge dept, 28-32, *prof. immunol. in charge dept, 32–* Lecturer, Terre Haute Vet. Col, 10-19; fellow, Hopkins, 18-19. Managing ed, 'Am. Jour. Hygiene,' 28– A.A; Soc. Zool; Genetics Soc; Ind. Acad. Ultra-microscopic biology; genetics of Drosophila; mechanism of serum and immunity reactions; filterable virus diseases of rabbits; transplantable rat tumors; acute respiratory diseases; influenza.

Hyde, W(illiam) A(lbert), Box 378, Worcester, Mass. *Engineering.* Wilmar, Minn. Aug. 10, 74. Ph.B, Yale, 01, 02-03; Mass. Inst. Tech, 03-04; George Washington, 06-07; Harvard, 11-12. Elec. asst, Sig. C, U.S.A, 05; elec. expert, Ordnance Dept, U.S.N, 05-13; pres, Anchor Scale Co, Mass, 14-17; *director research, Leon J. Barrett Co, Worcester, 28–* Wetherill medal, Franklin Inst, 39. Sig.C, 17-18, lieut; capt, A.S.R, 20– A.A; Army Ordnance Asn; Asn. Textile Chem. and Colorists; Franklin Inst. Ballistics; stabilization; centrifugal engineering; photography of air waves about bullets in flight; flight of projectiles; photography at high velocities; stabilization of airplane instruments; applying centrifugal force to industry.

Hyden, Prof. John A(lbert), 300 24th Ave, S, Nashville, Tenn. *Mathematics.* Knoxville, Tenn, Jan. 17, 93. A.B, Maryville Col, 14; A.M, Vanderbilt, 23; Chicago, 27-28; Ph.D, Cornell, 34. Teacher and prin, high sch, 14-19; assoc. prof. *math,* Maryville Col, 19-24; asst. prof, *Vanderbilt,* 24-38, assoc. prof, 38-43, *prof, 43–* Summers, teacher, Peabody Col. Math. Asn; Tenn. Acad. Differential equations; algebraic geometry.

Hyden, Dr. William L(eonard), 313 Parkwood Ave, Kenmore, N. Y. *Chemistry.* Philadelphia, Tenn, Nov. 3, 98. B.S, Cumberland, 20; M.S, Lafayette Col, 21; Ph.D, Hopkins, 25. Prof. chem, Maryville Col, 21-23; Centre Col, 25-27; manager chem. research, du Pont Rayon Co, Buffalo, 27–; *asst. director Cellophane research, E. I. du Pont de Nemours and Co.* Summers, chemist, E. I. du Pont de Nemours and Co, 24-27. Chem. Soc. Fluidity and plasticity of nitrocellulose solutions, soaps and oils; colloid and cellulose chemistry.

Hyers, Dr. D(onald) H(olmes), 101 N. Hill Ave, Pasadena, Calif. *Mathematics.* Los Angeles, Calif, April 1, 13. A.B, California at Los Angeles, 33, A.M, 34; Ph.D, Calif. Inst. Tech, 37. Asst. math, Calif. Inst. Tech, 36-37; instr, Wisconsin, 37-42; *research fellow mech. eng, Nat. Defense Research Cmt, Calif. Inst. Tech, 42–* Math. Soc. Functional analysis; linear topological spaces.

Hylan, Prof. Malcolm C(leveland), 1550 Park Ave, Boulder, Colo. *Physical chemistry.* Westboro, Mass, Sept. 29, 96. Ph.B, Brown, 18, A.M, 20; fellow, Colorado, 22-23, Ph.D, 23. Head dept. chem. and physics, Yankton Col, 20-22; *physics,* Miss. Col, 23-25; instr, *Colorado,* 25-27, *asst. prof, 27–,* acting dean men, summer sch, 29-38; *major, Ordnance Dept, U. S. Army, 41–* A.A; Physical Soc; Asn. Physics Teachers; Colo-Wyo. Acad. Adsorption in photography.

Hyland, Prof. F(ay), University of Maine, Orono, Maine. *Botany, Forestry.* Portland, Mich, March 10, 00. B.S, Mich. State Col, 25; M.S, Maine, 29. Asst. forestry, Dunbar Forest Exp. Sta, Mich, 25-26; instr. *bot, Maine,* 26-31, *asst. prof, 31–* Soc. Foresters; Soc. Plant Taxon; New Eng. Bot. Club; Josselyn Bot. Soc. (sec'y, 32–). Occurrence and distribution of woody plants of Maine; plant anatomy.

Hylander, Prof. Clarence J(ohn), 89 Hamilton St, Hamilton, N. Y. *Biology.* Waterbury, Conn, Nov. 24, 97. A.B, Yale, 20, A.M, 22, Ph.D, 25. Prof. biol, Am. Int. Col, 33-35; instr. *bot, Colgate,* 35-36, asst. prof, 36-39, *assoc. prof, 39–* Bot. Soc; N. Y. Acad. Botany; nature study; taxonomy; evolution and biography of biology.

Hyma, Prof. Nicholas, P. O. Box 289, Buckhannon, W. Va. *Chemistry.* Kalamazoo, Mich, April 9, 86. A.B, Kalamazoo Col, 13; M.S, Chicago, 24; hon. Sc.D, W. Va. Wesleyan Col, 36. Teacher, high sch, Mich, 16-17; Ill, 17-18; Howe Mil. Acad, Ind, 18-19; *prof. chem, W. Va. Wesleyan Col, 19–* A.A; Chem. Soc; W. Va. Acad. Manganate and permanganate of lithium; antiseptic value of phenols.

Hyman, Dr. Albert S(olomon), 46 E. 73rd St, New York, N. Y. *Cardiology.* Boston, Mass, April 6, 93. A.B, Harvard, 15, M.D, 18; D.Sc, London, 24; Vienna, 25. Res. physician, Boston City Hosp, 17-18; chief res. physician and asst. med. supt, Long Island Hosp, Boston, 19-20; med. supt, Mt. Sinai Hosp, Philadelphia, 20-23; Beth David Hosp, N. Y, 23-24. Med. director, Jewish Maternity Hosp, Philadelphia, 22-23; director, Witkin Foundation Study and Prevention Heart Disease, 26–; attending cardiologist, Beth David Hosp, 26; Geriatric Hosp, 29; Manhattan Gen. Hosp, 30; Jewish Mem. Hosp, 33; New York City Hosp, 34; med. dept, 3rd Naval Dist; consulting cardiologist, Hudson View Hosp, 33; Yonkers Hosp, 37; Richmond Mem. Hosp, 38; New Amsterdam Hosp, 40. Ed, 'Medico-Masonicus,' 26– Chairman, Louis Adler Cardiovascular Research Foundation, 37–; pres. board governors, Carolina Greenwood Fund for Study Heart Disease, 38– Lieut. commander, M.C, U.S.N.R. Fel. Col. Physicians; fel. Am. Med. Asn; Pub. Health Asn; Am. Heart Asn; Am. Cardiol. Asn. (pres, 27); Master Mason Physicians Amer. (pres, 27-29); U.S.N.R. Med. Officers Asn. (pres, 40); N. Y. Cardiol. Soc. (sec'y, 34, v. pres, 40–); Harlem Med. Asn. (pres, 35); Riverside Med. Soc. (pres, 37); Physicians Square Club, New York (pres, 24); Alumni Soc. Am. Med. Asn, Vienna (pres, 35-38). Cardiovascular disease; electrocardiography; x-ray orthodiography; vital capacity; exercise tolerance tests; phonocardiography; hemodynamic physiology; ballistocardiography; aviation cardiology; oxygen pressure factors in cardiology; electrophysiology of the dying heart; resuscitation; artificial pace-maker; oscillometry in peripheral vascular pathology; dermal and subdermal pyrometry; infra-red photography in heart disease; coronary artery disease; angina pectoris.

Hyman, Dr. Harold Thomas, 940 Park Ave, New York, N. Y. *Medicine, Pharmacology.* New York, N. Y, Nov. 23, 94. A.B, Columbia, 15, M.D, 17. Asst. prof. pharmacol, col. physicians and surg, Columbia, 23-42; adj. physician, *Mt. Sinai Hosp,* 23-29, assoc. physician, 29-41; attending physician, Montefiore Hosp, 29-32; *consulting internist, Monmouth Mem. Hosp, Long Branch, N. J.* Lieut, M.C, 18-19. Am. Med. Asn; Harvey Soc; N. Y. Acad. Med. Internal medicine; therapeutics; Graves' disease; the involuntary nervous system; response to intravenous injection; 'speed shock' and the intravenous drip; massive dose chemotherapy of early syphilis by the intravenous drip method.

Hyman, Dr. Harriet S(ylvia) (Mrs. Milton M. Parker), Ohio State University, Columbus, Ohio. *Zoology.* Keystone, W. Va, May 18, 11. A.B, Ohio State, 32, M.S, 33, Ph.D, 36. Asst. zool, *Ohio State,* 33-36, asst. instr, 36, asst, dept. univ. schs, 36-37, tech. asst. *zool,* 37-39, instr, 39-40, *research asst, 40–* Genetics Soc. Human genetics; genetic and ontogenetic studies of the agglutinogens A, B, M and N in

human blood; practical application of blood grouping in medico-legal cases.

Hyman, Prof. Hugh H(arvey), Henderson State Teachers College, Arkadelphia, Ark. *Physics.* Galveston, Ind, Feb. 6, 96. A.B, Ind. State Teachers Col, 24; A.M, California, 28, Ph.D, 29. Teaching fellow, California, 25–29; asst. prof. *physics,* Union (N. Y), 29–30; *prof,* Franklin Col, 30–32; *Henderson State Teachers Col, 32–,* dean faculty, 36–39. Summers, instr, Ind. State Teachers Col, 24, 25, 29, 30. Physical Soc. Band spectra; molecular constants of hydrogen; resonance band system of hydrogen; vacuum spectrographs.

Hyman, Dr. L(ibbie) H(enrietta), Millwood, N. Y. *5*Zoology.* Des Moines, Iowa, Dec. 6, 88. B.S, Chicago, 10, Ph.D, 15, Sc.D, 41. Asst. zool, Chicago, 10–17, research asst, 17–31; *research assoc, Am. Museum Nat. Hist, 37–* Soc. Zool; Micros. Soc. Regeneration; ameboid movement; oxygen consumption of organisms; metabolism of lower invertebrates; bioelectric phenomena; taxonomy of Turbellaria and Hydra.

Hyman, Dean O(rren) W(illiams), 874 Union Ave, Memphis, Tenn. *Biology.* Tarboro, N. C, Dec. 21, 90. A.B, North Carolina, 10, A.M, 11; Ph.D, Princeton, 21. Prin, pub. sch, N. C, 11–12; asst. prof. biol, Mississippi, 12–13; histol. and embryol, *Tennessee,* 13–17, assoc. prof, 17–19, prof. histol, 19–41, acting dean and *dean col. med, 26–, dean admin, health service dept, 23–* Crustacean development; cytology of germ cells; medical education; college administration.

Hynek, Prof. J(oseph) Allen, Perkins Observatory, Ohio Wesleyan University, Delaware, Ohio. *Astrophysics.* Chicago, Ill, May 1, 10. B.S, Chicago, 31, Yerkes Observatory fellow, 32–33, Ph.D, 35. Asst, Yerkes Observatory, Chicago, 34; instr. *physics and astron, Ohio State,* 35–41, *asst. prof, 41–, astronomer, 35–; Perkins Observatory, Ohio Wesleyan, 35–,* instr. *astron, univ,* 35–41, *asst. prof, 41–; mem. staff, Hopkins, 42–* A.A; Astron. Soc. Stellar spectra; F type stars.

Hynes, Prof. W(alter) A(loysius), 714 Yonkers Ave, Yonkers, N. Y. *Chemistry.* New York, N. Y, Jan. 21, 97. A.B, Fordham, 16, M.S, 20, Sc.D. 27. From asst. to *assoc. prof. anal. chem, Fordham, 14–* Prof, Good Counsel Col. Chem. Soc; Microchem. Soc. Metabolism of nitrobenzaldehydes and p-nitrophenylacetaldehyde; semi-micro method for qualitative analysis of cations; the microscopic detection of anions; qualitative analysis.

Hyre, Dr. R(ussell) A, University of Tennessee, Knoxville, Tenn. *Plant pathology.* Dayton, Ohio, Nov. 22, 07. B.S, Ohio State, 30; fellow, Cornell, 31–38, Ph.D, 38. Asst. plant path, Ohio State, 29–31; Cornell, 38–39; asst. plant pathologist, *Exp. Sta, Tennessee,* 39–41, *assoc. plant pathologist, 41–* Summer, fellow, Crop Protection Inst, 39. A.A; Phytopath. Soc. Fungicides.

Hyslop, G(eorge) R(obert), 544 N. Seventh St, Corvallis, Oregon. *Agronomy.* Deshler, Ohio, Nov. 17, 84. B.S, Ohio State, 07. Asst. agron, Ohio State, 06–08; from instr. to assoc. prof, *Oregon State Col,* 08–16, prof. farm crops and agronomist, 16–33, *head div. plant indust. and agronomist, 33–* Collaborator, U. S. Forest Service, 10; seed lab, food distribution admin, U. S. Dept. Agr, 16–, chairman grain standards investigating cmt, bur. agr. econ, 29–30. Chairman, State Flax and Linen Board, Oregon. Soc. Agron. Field crops.

Hyslop, J(ames) A(ugustus), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Chicago, Ill, July 7, 84. B.S, Mass. Col, 08; M.S, State Col. Wash, 11. Entomologist, cereal and forage insect investigations, bur. entom, *U. S. Dept. Agr,* 08–17, exten. work entom, 17–19, in charge insect pest surv. and pub. relations, 19–34, *prin. entomologist in charge insect pest surv. and information, bur. entom. and plant quarantine, 34–* Summers, asst, Mass. Col, 05; in charge gipsy moth work, Conn, 06. Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash; Wash. Acad. North American Elateridae; ecology.

Hyslop, Prof. W(illiam) H(enry), University of Denver, Denver, Colo. *Physics.* Verona, Ill, Dec. 15, 83. A.B, Knox Col, 08; A.M, Illinois, 11, Ph.D, 20. Asst. physics, Illinois, 09–11, 14–17; teacher, high sch, Ill, 11–14; instr, Illinois, 19–21; asst. prof, *Denver,* 21–22, assoc. prof, 22–29, *prof. physics and elec. eng, 29–* A.A; Physical Soc. Dielectric constants of liquids.

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Iams, Harley (Ambrose), 86 Division Ave, Summit, N. J. *Radio engineering.* Lorentz, W. Va, March 13, 05. San Diego State Col, 22–24; A.B, Stanford, 27; Pittsburgh, 28. *Research engineer,* Westinghouse Elec. and Mfg. Co, 27–29; *RCA Mfg. Co,* Camden, N. J, 31–33, *Harrison, N. J, 33–* Radio Eng. Television; vacuum tubes.

Ibsen, Prof. Heman L(auritz), Kansas State College, Manhattan, Kans. *Genetics.* Chicago, Ill, Sept. 16, 86. B.S, Wisconsin, 12, fellow, 12–13, M.S, 13, Ph.D, 16. Asst. exp. breeding, Wisconsin, 13–16, genetics, 16–17, zool, 17–18; asst. prof. animal husbandry, *Kans. State Col,* 19–21, assoc. prof, 21–24, *prof. genetics, 24–* A.A; Soc. Nat; Genetic Asn; Soc. Zool; Soc. Animal Production. Animal genetics; inheritance and reproduction in rodents, cattle and sheep.

Ichniowski, Dr. C(asimer) T(haddeus), 113 W. 18th St, New York, N. Y. *Pharmacology, Toxicology.* Baltimore, Md, March 4, 09. B.S, Maryland, 30, M.S, 32, Ph.D, 36. Asst. pharmacol, Maryland, 30–36; asst. toxicologist, Edgewood Arsenal, 36–38; *pharmacologist, Warner Inst. Therapeut. Research, 38–* A.A; Pharmaceut. Asn. Pharmacology of spirit ethylnitrite; toxicology of bismuth compounds; hydrogen ion concentration control of pharmaceuticals; stability and physiologic standardization of digitalis and aconite preparations; bioassay of pharmaceuticals; digitalis; stability of pharmaceuticals; toxicities of pharmaceuticals.

Iddings, Dr. Carl, 119 Kensett Road, Munsey Park, Manhasset, N. Y. *Chemistry.* Guatemala, Cent. Amer, Oct. 24, 94. B.S, California, 18, fellow, 24–25, Ph.D, 25. Instr, San Diego State Col, 22–23; assoc. chemist, Union Oil Co, 25–29; senior chemist, fixed nitrogen research lab, U. S. Dept. Agr, 29–30; manager, Laurel Hill research lab, Gen. Chem. Co, 30–32; *consultant, 32–;* tech. director, Muralo Co, Inc, 32–38, v. pres. and gen. manager, 38–41; *Prescott Paint Co, Inc,* 41–42, *pres, 42–* A.A; Chem. Soc; Chem. Eng; Inst. Chem; Chemists' Club; N. Y. Acad. Photochemistry; organic chemistry; chemical engineering; water paints.

Iddings, Dean Edward John, University of Idaho, Moscow, Idaho. *Animal husbandry.* Peru, Ind, March 22, 79. B.S, Colo. Agr. Col, 07, M.S, 22. Special agent, bur. plant indust, U. S. Dept. Agr, 06; asst. to dean agr, Colo. Agr. Col, 07–09, asst. animal husbandry, 09–10; prin, sch. practical agr, and asst. *animal husbandry, Idaho,* 10–11, *prof, 11–,* v. dean col. agr, 13–15, dean, 15–18, *dean agr. and director, Exp. Sta, 18–, director exten, 23–* Summers, field commissioner, Dry Farming Cong, 09, ed, 'Bul,' 10. A.A; Soc. Animal Production; Genetic Asn. Live stock and general farming; feeding of swine and sheep; milk production and growth in various breeds of sheep.

Iddles, Prof. H(arold) A(ugustus), University of New Hampshire, Durham, N. H. *Organic chemistry.* South Haven, Mich, May 20, 96. B.S, Mich. State Col, 18; M.S, Iowa, 21; Ph.D, Columbia, 25. Instr. *chem,* Mich. State Col, 18–20; asst, Iowa, 20–22; asst. and instr, Columbia, 22–29; *prof, New Hampshire, 29–* Cutting traveling fellow, Columbia, 27–28. Chem. Soc; Deuts. Chem. Gesell. Organic rearrangements and analysis; chemistry of starch.

Ide, Prof. F(rederick) P(almer), University of Toronto, Toronto, Ont, Can. *Invertebrate zoology.* Ottawa, Ont, Sept. 4, 04. B.A, Toronto, 28, M.A, 30, Ph.D, 34. Instr. biol, *Toronto,* 30–33, lecturer, 33–39, *asst. prof,* 39–41, *entom, 41–; asst. meteorologist, air services branch, Dept. Transport, Ottawa, 43–* Demonstrator, Toronto, 28–30. Summers, entom. branch, Ottawa Dept. Agr, 19–27, asst. entomologist, div. entom, 38–39. Asst. ed, 'Can. Entom,' 38–40. A.A; Limnol. Soc; fel. Entom. Soc. Amer; Ont. Entom. Soc. (director, 38–40); Toronto Field Nat. Club (sec'y-treas, 30–33, v. pres, 33–36, pres, 36–38). Life histories of Canadian May-flies; ecology of stream inhabiting insects.

Ide, Dr. John M(cDonald), Naval Research Laboratory, Washington, D. C. *Physics.* Mt. Vernon, N. Y, Aug. 17, 07. A.B, Pomona Col, 27; M.S, Harvard, 29, M.S. (Communication Eng), 30, Sc.D, 31. Asst. physics, Harvard, 30–31, instr. physics and communication eng, 31–36; *research physicist,* Shell Oil Co, 36–41; *mem. sound div, Naval Research Lab, 41–* Geophys. Union; Philos. Soc. Wash. Magnetostriction; elastic constants of rocks; geophysics; underwater sound.

Idzkowsky, Prof. Henry J(oseph), St. Francis College, Loretto, Pa. *Endocrinology, Embryology.* Pittsburgh, Pa, March 19, 08. B.S, Pittsburgh, 32, M.S, 33, Ph.D, 36. Teaching fellow zool, Pittsburgh, 34–37; *prof. biol. and head dept, St. Francis Col. (Pa), 37–* Buhl Foundation research fellow, 36–37. A.A; Genetics Soc. Ovarian implant; adrenal X-zone

relationships in castrated male mice; experimental embryology.

Igelsrud, Dr. Iver, Battelle Memorial Institute, Columbus, Ohio. *Chemistry.* Hadeland, Norway, May 23, 97. B.S, Washington (Seattle), 31, Ph.D, 35. State Dept. Fisheries Investigation, Wash, 30; teaching fellow, Washington (Seattle), 30–35; *research chemist, Battelle Mem. Inst, 35–* Summers, oceanog. labs, Friday Harbor, 31–35. U.S.A, 17–19, A.C, 20–22, lieut, A.C.Res, 22–37. Chem. Soc. Oceanographic chemistry; saturated salt solutions; metallurgical chemistry; corrosion; electrochemistry; electroplating.

Ignatieff, Dr. V(ladimir), University of Alberta, Edmonton, Alta, Can. *Biochemistry.* Kiev, Russia, Aug. 28, 05. B.Sc, London, 27; M.Sc, Alberta, 32; fellow, Toronto, 32–36, Ph.D, 35. Asst. *soils, Alberta,* 30–32, *lecturer, 36–* Can. Physics Soc; Can. Soc. Tech. Agr; Inst. Chem. Gt, Britain and Ireland. Soils; plant biochemistry.

Ihde, Dr. Aaron J(ohn), University of Wisconsin, Madison, Wis. *Food chemistry.* Neenah, Wis, Dec. 31, 09. B.S, Wisconsin, 31, M.S, 39, Ph.D, 41. Research chemist, Blue Valley Creamery Co, 31–38; asst. food chem, Wisconsin, 39–41; *instr. chem,* Butler, 41–42; *Wisconsin, 42–* Chem. Soc. Metals in foods; vitamin content of rye; fatty oils.

Ijams, Dr. (Charles) Carroll, Gulf Ordnance Plant, Aberdeen, Miss. *Physical chemistry.* Jackson, Tenn, Dec. 23, 13. A.B, Union (Tenn), 36; M.S, Vanderbilt, 37, Ph.D, 41. Asst. instr. physical and pre-med. chem, Vanderbilt, 37–41; *chief chemist, Gulf Ordnance Plant, 42–* Chem. Soc; Tenn. Acad. Solubility of gases in non-aqueous solvents.

Ikeler, Kenneth C(ole), U. S. Range and Livestock Experiment Station, Burns, Oregon. *Animal husbandry.* Millville, Pa, Dec. 25, 89. M.E, Pa. State Nor. Sch, 09; B.S, Pa. State Col, 13; M.S, Iowa State Col, 14. Field agent of beef cattle, bur. animal indust, U. S. Dept. Agr, 14–15; from asst. prof. to prof. animal husbandry, Iowa State Col, 16–20; breeding pure bred cattle, Newark, Ohio, 21–26; prof. animal husbandry and head dept, Utah Col, 26–30, dean sch. agr, 26–30; manager and director, Union Stock Yards, Ogden, Utah, 30–36; prof. animal and dairy husbandry and head dept, col. agr, Maryland, 36–41; *supt. range and livestock exp. sta, grazing service, U. S. Dept. Interior, 41–* U.S.A, 18. Animal feeding; lamb feeding in dry lots.

Ikenberry, Prof. Gilford J(ohn), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Botany.* North Bend, Nebr, March 12, 95. B.S, Kans. State Col, 20, M.S, 24; Ph.D, Ohio State, 33. Prof. bot, N. Dak. Col, 24–30; technician, U. S. Forest Service, 33–35; prof. science, East. N. Mex. Col, 35–39; *assoc. prof. bot, Okla. Agr. and Mech. Col, 39–* A.A; Bot. Soc; Sullivant Moss Soc. Physiology of bryophytes; taxonomy of mosses.

Ikenberry, Prof. J(esse) Emmert, 916 State St, Lancaster, Pa. *Mathematics.* Daleville, Va, Jan. 30, 07. A.B, Bridgewater Col, 28; A.M, Cornell, 32, Erastus Brooks fellow, 36–37, Ph.D, 37. Instr. math. and director residence for boys, Daleville Acad, Va, 28–30; asst. prof. math. and dean men, Bridgewater Col, 30–35; *asst. prof. math, Franklin and Marshall Col, 37–* Math. Asn. An involutorial transformation with a multiple correspondence on lines joining conjugate points.

Ikins, Dr. William C, Tide Water Associated Oil Co, Box 1404, Houston, Texas. *Geology.* Mineral Wells, Texas, Jan. 29, 16. B.S, Texas, 38, A.M, 39, Joseph S. Cullinan scholar, 39–40, Ph.D, 41. Instr. geol. and paleont, Texas, 38–41; *geologist and paleontologist, Tide Water Associated Oil Co, 41–* Summers, asst. geologist, State Bur. Econ. Geol, Texas, 38; junior geologist, groundwater div, U. S. Geol. Surv, 39; chief geologist, Black Mesa Mining Co, 41. Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Southwest. Geol. Soc. (sec'y-treas, 38). Cretaceous and Tertiary stratigraphy and paleontology; petroleum geology.

Iler, Dr. R(alph) K(ingsley), E. I. du Pont de Nemours and Co, Cleveland, Ohio. *Chemistry.* Kingsville, Ont, Can, July 12, 09. B.Sc, Toronto, 30, M.Sc, 31, Ph.D, 33. Asst, sch. eng. research, Toronto, 30–33; develop. chemist, Can. Industries, Ltd, 33–35; U. S. Rubber Products, 36–37; *research chemist, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Surface reactions; catalysis; adsorption; chemical engineering; explosives; chlorine; caustic manufacture; rubber; new products and process development.

Illick, Prof. J(ohn) Theron, Syracuse University, Syracuse, N. Y. *Zoology.* Cherry Valley, Pa, Dec. 3, 88. A.B, Taylor, 10; A.B, Syracuse, 12, A.M, 13; Francis Hinton Maule fellow, and China Med. Board fellow, Princeton, 23, Ph.D, 27. Asst. zool, Syracuse, 12–13; instr, West Virginia, 13–16; head dept. biol, Univ. Nanking, 20–27; instr. histol. and embryol, sch. med, Western Reserve, 27–29; prof. *zool,* Univ. Nanking, 29–38; *assoc. prof, Syracuse, 38–* Asst, Princeton, 22. Summer, instr, West Virginia, 15. A.A; Soc. Zool; Genetic Asn; fel. Peiping Soc. Nat. Hist. Taxonomy of Coelenterata; cytology of Oenothera; cytology of Ginkgo.

Illick, Prof. J(oseph) S(imon), Syracuse University, Syracuse, N. Y. *Forestry.* Easton, Pa, Sept. 16, 84. A.B, Lafayette Col, 07, Sc.D, 27; B.F, Biltmore Forest Sch, 11, F.E, 14; Polytech, Darmstadt, 12; Munich, 12; M.S, Juniata Col, 25. Instr. biol, Pa. State Forest Sch, 07–10, prof. forestry, 12–17, acting director, 17–19; chief research, State Dept. Forestry, Pa, 20–27, state forester, 27–31; *prof. forest management and head dept, N. Y. State Col. Forestry, Syracuse, 31–, acting dean, 43–* Soc. Foresters (chairman, Allegheny sect, 28, New York sect, 37); Pa. Eng. Soc. Trees of Pennsylvania, New Jersey, New York, Ohio, Massachusetts, Indiana and Michigan; tree habits and distribution; forest organization; forest administration; forestry in our constitutions.

Iliff, Dr. Alberta, Child Research Council, 4200 E. Ninth Ave, Denver, Colo. *Biochemistry.* Denver, Colo, Nov. 24, 09. A.B, Denver, 31, M.S, 32; Ph.D, Colorado, 42. *Child Research Council fellow biochem, sch. med, Colorado, 32–* Assoc. Soc. Exp. Biol. Basal metabolism.

Illingworth, Dr. J(ames) F(rankiin), Bishop Museum, Honolulu, Hawaii. *Entomology.* Lenark, Ill, May 11, 70. B.S, Pomona Col, 00; A.M, Stanford, 01; Ph.D, Cornell, 12. Asst. zool, Pomona Col, 97–99; Stanford, 01; head dept. biol, high sch, Wash, 01–10; prof. entom, Hawaii, 12–17; *research assoc. entom, Bishop Museum, Honolulu, 22–; consulting entomologist, 30–* Introducer parasitic sugar insects, Fiji, for Colonial Sugar Ref. Co, Australia, 13; investigator sugar-cane pests, Queensland Govt, 17–21; specialist, bur. entom, U. S. Dept. Agr, Japan and China, 22–24; entomologist, Asn. Hawaiian Pineapple Canners, 26–30. A.A; Entom. Soc; Asn. Econ. Entom; Cooper Ornith. Club; Wash. State Audubon Soc. (pres, 09); Hawaiian Entom. Soc; Hawaiian Acad. Economic entomology; fruit-flies; house-flies; fleas; dermestids; cockroaches; ants; white grubs; sugar-cane and pineapple pests and their parasites.

Ilsley, Lee C(lyde), 4800 Forbes St, Pittsburgh, Pa. *Electrical engineering.* Thetford, Vt, Feb. 20, 80. B.S, Worcester Polytech, 03, E.E, 05. Am. Tel. and Tel. Co, 03–05; Gen. Elec. Co, 05–06; coal mine dept, Delaware, Lackawanna and West. R. R, 06–10; *U. S. Bur. Mines, 10–, supervising engineer, elec. sect, 18–* Assoc. Elec. Eng. Safety in electrical mining.

Iltis, Prof. Hugo, 818 Marye St, Fredericksburg, Va. *Botany, Genetics.* Brünn, Czechslovakia, April 11, 82. Zurich, 00–03; Ph.D, Prague, 05. Prof, Masaryk Gymnasium, Brünn, 05–38; dozent, Technische Hochschule, Brünn, 11–38; director, Masaryk Volks Hochschule, 21–38; *prof. biol, Mary Washington Col, 39–* Advisory board, Va. Fisheries Lab. A.A; Genetic Asn; Va. Acad. Life of Mendel.

Imboden, Dr. H(arry) M(iles), 850 Park Ave, New York, N. Y. *Roentgenology.* Lebanon, Pa, Aug. 23, 78. A.B, Lebanon Valley Col, 99, Sc.D, 36; M.D, Jefferson Med. Col, 03. Visiting physician, x-ray dept, Presb. Hosp, 18–24; prof. roentgenol, med. col, Cornell, 24–39. Consulting roentgenologist, Mem. Hosp; Knickerbocker Hosp; Hosp. Ruptured and Crippled; New York Hosp; Flushing Hosp; Mt. Vernon Hosp. Roentgen Ray Soc. (pres, 29); Am. Med. Asn; N. Y. Acad. Med; N. Y. Roentgen Soc. (sec'y, 20; pres, 24, 40); British Inst. Radiol. Medical roentgenology.

Imes, Dr. Marion, R.F.D. 4, Kansas City, Kans. *Parasitology.* Laurel Furnace, Ky, Sept. 3, 73. B.S.A, Ohio State, 99, D.V.M, 01; M.S.A, New Hampshire, 00. Veterinarian and senior veterinarian, bur. animal indust, U. S. Dept. Agr, 01–43; *retired.* Treatment and control of external animal parasites.

Imlay, Dr. Ralph W(illard), U. S. Geological Survey, Washington, D. C. *Geology.* Hampton, Iowa, Feb. 21, 08. A.B, Montana, 30; A.M, Michigan, 31, fellow, 32–33, Ph.D, 33. Instr. geol, Rutgers, 34–35; research assoc, Michigan, 35–36, instr, 36–40; *geologist, U. S. Geol. Surv, 40–* Paleont. Soc. Geology of northern Mexico; Jurassic and Cretaceous paleontology.

Imle, Dr. E(rnest) P(aul), Cornell University, Ithaca, N. Y. *Plant pathology.* Marshall, Ill, Oct. 15, 10. B.S, Purdue, 33, M.S, 36; Ph.D, Cornell, 42. Asst. bot, Purdue, 34–36, asst. pathologist, 36–37; asst. *plant path, Cornell,* 37–42, *instr,* 42– Pathologist and research plant pathologist, Boyce Thompson Inst, 37–42; pathologist, rubber plant field sta, U. S. Dept. Agr, 43. Phytopath. Soc. Virus diseases of tomato; bulb rot diseases of lilies; diseases of ornamentals.

Imler, Ralph H(ysel), 546 Customhouse, Denver, Colo. *Biology.* Wallace, Kans, Nov. 19, 06. B.S, Ft. Hays Kans. State Col, 28; Kansas, summers, 30–32. Instr. science, high schs, Kans, 28–29, 30–37; *biologist, wildlife research lab, fish and wildlife service, U. S. Dept. Interior, 37–* Plant collector in south. Kans. and Alaska, 41. Wilson Ornith. Club; Inland Bird Banding Asn. Food habits of birds and mammals, especially eagles; food habits of native ruminants; bullsnake predation on nesting waterfowl and snake trapping.

Immediata, Dr. T(ony) M(ichael), 1011 Fairview Ave, Bellefonte, Wilmington, Del. *Organic chemistry.* Riverside, N. J, June 1, 13. B.S, Phila. Col. Pharmacy, 36; M.S, Pennsylvania, 37, Ph.D, 40. *Research chemist, Sharp and Dohme, Inc, 41–* Chem. Soc. Organic medicinals; heterogeneous catalysis.

Immel, Dean Ray K(eeslar), 2917 W. 78 Place, Inglewood, Calif. *Speech.* Gilead, Mich, Oct. 31, 85. A.B, Michigan, 10, A.M, 13, Ph.D, 31. Prof. oratory, Muskingum Col, 10–12; instr. and asst. prof. *speech,* Michigan, 12–24; *prof. and dean sch. speech, Southern California, 24–* Summers, Iowa, 19; Michigan, 26, 30; Wisconsin, 31; Wayne, 38. Experimental phonetics; the overlap of sounds in speech; synchronization of muscle movements in speech; speech melody.

Immer, Prof. F(orrest) R(hinehart), University Farm, St. Paul, Minn. *Plant genetics.* Spencer, Iowa, July 18, 99. B.S, Minnesota, 24, M.S, 25, Ph.D, 27. Instr. plant genetics, Minnesota, 27–29, asst. plant geneticist, 29–30; assoc. geneticist, div. sugar plant investigations, U. S. Dept. Agr, 30–35; assoc. prof. *agron. and plant genetics, Minnesota,* 35–37, *prof, 37–,* v. director, *Exp. Sta,* 41–42, *assoc. director, 42–* Nat. research fellow, 30–31. A.A; Genetics Soc; Soc. Agron. Biometry.

Imperial, Dr. F(elix) Fabiano, 120 Santa Monica, Ermita, Manila, P. I. *Engineering.* San Jose, Camarines Sur, P. I, March 1, 08. B.S, California, 31, M.S, 32, M.E, 33, Ph.D, 35. *Lecturer, Philippines, 36–; inst. tech, Far Eastern Univ, 36–; Ateneo, 37–; designing engineer, Nat. Develop. Co, 36–* Mech. Eng; Inst. Aeronaut. Sci. Elastic stability of structures; construction of metal aircrafts; development of aeronautics in the Philippines.

Imus, Dr. Henry A(lfred), Dartmouth Medical School, Hanover, N. H. *Psychology, Physiological optics.* Holland, Mich, June 26, 03. A.B, Rochester, 31, A.M, 32; Ph.D, Dartmouth, 39. Asst. psychol, Rochester, 31–32; research assoc. educ. psychol, grad. sch. educ, Harvard, 32–34; asst. *physiol. optics, Dartmouth Med. Sch,* 34–35, *research fellow, eye inst, 35–;* research assoc, field lab, Princeton, 41–43; *research psychologist, Brown, 43–* Psycho-physiological optics; space perception; aniseikonia; ocular refraction and myology; visual factors in reading.

Ince, Prof. J(oseph) W(alte), Kingston, R. I. *Chemistry.* Providence, R. I, March 26, 80. A.B, Brown, 02, A.M, 04; McGill, 05–08. Instr. chem, Brown, 02–04; Denison, 04–05; demonstrator, McGill, 05–08; prof. agr. chem, N. Dak. Col, and asst. chemist, Exp. Sta, 08–19; *prof. chem. and head dept, R. I. State Col, 19–* Chem. Soc; New Eng. Asn. Chem. Teachers; Inst. Chem; N. Dak. Acad. (pres, 19). Soils; silage; chemical education.

Infeld, Dr. Helen S(chlauch) (Mrs. L. Infeld), 87 Lyndhurst Ave, Toronto, Ont, Can. *Mathematics.* Bronx, N. Y, July 20, 07. A.B, N. Y. Univ, 28; A.M, Cornell, 29, Ph.D, 33. Tutor, Hunter Col, 29–31, instr. math, 31–41. Math. Soc; Math. Asn. Systems of inequalities; the normal rational N-ic curve.

Infeld, Prof. Leopold, University of Toronto, Toronto, Ont, Can. *Mathematical physics.* Cracow, Poland, Aug. 20, 98. Ph.D, Cracow, 23. Docent, Lwów; asst. prof. *applied math, Toronto,* 38–42, *assoc. prof, 42–* Anisfield award. Physical Soc. Relativity theory; equations of motion; unitary field theory and quantum electrodynamics; evolution of physics.

Ingall, Elfric Drew, Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Eng, May 13, 58. Assoc, Royal Sch. Mines, England, 78. Mining geologist, Geol. Surv. Can, 84–08, in charge borings div, 08–28; *retired.* Hon. mem. Can. Inst. Min. and Metal. Mining districts of Canada.

Ingalls, Prof. Edmund E(llsworth), 1111 Michigan Ave, Albion, Mich. *Mathematics.* Brooklyn, N. Y, June 25, 93. Ph.B, Yale, 15, M.F, 17; M.S, Iowa, 30; Ph.D, Michigan, 40. Instr. math. and eng, Cornell Col, 21–25; assoc. prof. *math,* Iowa Wesleyan Col, 25–30; *asst. prof, Albion Col, 30–* Math. Asn. Statistical study of the growth of trees.

Ingalls, Dr. R(alph) A(rchibald), Department of Agriculture, Sackville, N. B, Can. *Plant physiology.* Grand Manan, N. B, Aug. 27, 04. B.A, Acadia, 25; M.S, Rutgers, 27, Ph.D, 29. Asst. plant physiol, N. J. Exp. Sta, 26–29; lecturer biol, Queen's (Can), 29–31; asst. plant physiol, Dom. Exp. Farms, Ottawa, 31–33; lecturer biol, Mt. Allison, 33–34, asst. prof, 34–43; *supervising analyst, Dept. Agr, Sackville, 43–* Summers, special investigator, N. S. Econ. Council, 39, 40, 41, 42. Nutrition; mollusk investigations.

Ingalls, Dr. Walter Renton, 33 Rector St, New York, N. Y. *Metallurgy, Engineering.* Lynn, Mass, Oct. 25, 65. B.S, Mass. Inst. Tech, 86; D.E, Missouri, 23. Engineer and supt, companies, 86–05; *consulting engineer, 05–* Consulting engineer, Can. Dept. Mines, 10–15. Ed, 'Eng. and Mining Jour,' 05–19; 'The Miner. Indust,' 05–10. Chief, Can. Zinc Cmn, 05–06; chairman cmt. on prevention accidents in metal mines, U. S. Bur. Mines, 11–15, cmt. on revision of the mining laws, 17–24. Min. and Metal. Soc. (pres); Min. and Metal. Eng; Soc. Chem. Indust; hon. mem. Zinc Inst; cor. mem. Can. Inst. Min. and Metal; Inst. Min. and Metal. Gt. Britain. Metallurgy of zinc and cadmium; history of lead and zinc in the United States; statistics of the metal industries.

Ingberg, S(imon) H, National Bureau of Standards, Washington, D. C. *Physics.* Ringsager, Norway, June 24, 77. C.E, Minnesota, 09; M.S, Illinois, 10. Instr. civil eng, Lehigh, 10–11; struct. engineer, James Stewart and Co, Ill, 11–14; assoc. physicist, *Bur. Standards,* 14–19, *physicist and chief fire resistance investigations, 19–* A.A; Soc. Test. Mat; Nat. Fire Protection Asn; Philos. Soc. Wash. Structural mechanics and construction; fire resistance of materials.

Inge, Prof. Frederick D(ouglass), Florida Agricultural and Mechanical College, Tallahassee, Fla. *Plant physiology.* Charlottesville, Va, May 30, 96. B.S, Minnesota, 24; M.S, Iowa State Col, 37, Ph.D, 40. *Prof.* biol, Southern Col. (Fla), 29–36; *bot, Fla. Agr. and Mech. Col, 38–* Bot. Soc. Growth correlations in maize seedlings.

Ingebritsen, Prof. Otis C(larence), 115 Buckingham Road, Upper Montclair, N. J. *Psychology.* Hollandale, Wis, April 9, 93. Ph.B, Wisconsin, 24, Ph.M, 26; Ph.D, Chicago, 31. Instr, pub. schs, Wis, 19–23; *psychol,* Wisconsin, 24–26; Syracuse, 27–29; Chicago, 29–31; prof, Queens-Chicora Col, 31–34; from instr. to *assoc. prof, N. J. State Teachers Col, 34–* Assoc. Psychol. Asn. Physiological psychology; comparative psychology.

Ingelfinger, Dr. Franz J(osef), 65 E. Newton St, Boston, Mass. *Internal medicine.* Dresden, Germany, Aug. 20, 10. A.B, Yale, 32; M.D, Harvard, 36. Research fellow, Thorndike Mem, Boston City Hosp, 38–39; fellow gastro-enterol, Penna. Hosp, 39–40; instr. *int. med, sch. med, Boston,* 40–42, *asst. prof, 42–* Asst, Evans Mem. Hosp, 40–42, assoc, 42– Am. Med. Asn. Gastro-intestinal motility and absorption.

Ingersoll, Prof. A(rthur) W(illiam), 2121 Garland Ave, Nashville, Tenn. *Organic chemistry.* Near Syracuse, Nebr, Nov. 8, 94. B.S, Nebraska, 17, M.S, 18; Ph.D, Illinois, 22. Asst. *chem,* Nebraska, 17–18, instr, 18–19; asst, Illinois, 19–22; asst. prof, *Vanderbilt,* 22–28, assoc. prof, 28–38, *prof, 38–* Summers, instr, Illinois, 24, 26, 27, 32. Chem. Soc. Problems in stereochemistry; amines and terpenes.

Ingersoll, Dr. Chandler D, U. S. Leather Co, Tuckahoe, N. Y. *Chemistry.* Brooklyn, N. Y, Jan. 1, 97. B.S,

Columbia, 17, A.M, 24, Ph.D. 25. E. I. du Pont de Nemours and Co; Spreckels Sugar Corp; *tech. develop, U. S. Leather Co.* Am. Field Service fellow, France, 25–26. Chem. Soc; Inst. Chem; Chemists' Club. Sugar; leather.

Ingersoll, Ernest, Explorers Club, 57 W. 58th St, New York 19, N. Y. *Zoology.* Monroe, Mich, March 13, 52. Oberlin Col, 67–71; museum comp. zool, Harvard, 72–73. Ed. asst. zool, 'Standard Dict,' 92–95, 10–12; ed. nat. hist, 'Montreal Weekly Star,' 01–38. Collaborator, Smithsonian Inst, Hayden Surv, 74, 77. Ed. zool, 'New Int. Encyclop,' 02–03. Nuttall Ornith. Club; Boston Soc. Nat. Hist; Linnaean Soc. N. Y. Oyster industries of the United States; book of the ocean; nature's calendar; wildlife of orchard and field; life of mammals; wit of the wild; birds in legend, fable and folk-lore; dragons and dragon-lore.

Ingersoll, Prof. Everett H(arold), Medical College of Virginia, Richmond, Va. *Anatomy.* Overbrook, Kans, Nov. 5, 00. B S, Kans. State Col, 25, M.S, 26; Ph.D, St. Louis, 32. Instr. *anat,* St. Louis, 26–29; assoc, *Med. Col. of Va,* 29–32, asst. prof, 32–36, *assoc. prof, 36–* Asn. Anat; Va. Acad. Physiology of the nerve cell; neuro-physiology of the central nervous system.

Ingersoll, Guy E(rnest), 711 El Paso National Bank Bldg, El Paso, Texas. *Mining.* Elk River, Minn, Sept. 3, 89. E.M, Minnesota, 18. Asst. metal mining engineer, U. S. Bur. Mines, 18–20; asst. prof. geol. and miner, Mich. Col. Mines, 20–23; mining work, 23–28; asst. prof. mining and metal, State Col. Wash, 28–33, assoc. prof, 33–43; *supervising engineer, mining sect, Reconstruction Finance Corp, 43–* Min. and Metal. Eng. Mining cost data; hand and small scale methods of placer mining and placer mining districts in Washington and Oregon.

Ingersoll, Dr. H(enry) G(ilbert), 2407 W. 16th St, Wilmington, Del. *Physical chemistry.* Chestertown, Md, Sept. 11, 15. B.S, Washington Col. (Md), 35; M.S, Maryland, 37; Ph.D, Mass. Inst. Tech, 40. Teaching fellow, Maryland, 35–37; Mass. Inst. Tech, 37–39, research fellow, 39–40; *mem. staff, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Compressibility of hydrocarbons.

Ingersoll, Dr. J(ohn) M(arvin), 1700 S. Bayshore Lane, Miami, Fla. *Otolaryngology.* Youngstown, Ohio, March 11, 69. A.B, Western Reserve, 91, A.M, 95, M.D, 93. Lecturer *otolaryngol, Western Reserve,* 95–03, asst. prof, 03–10, assoc. prof, 10–24, clin. prof, 24–26, *emer. clin. prof, 26–* Consulting otolaryngologist, St. Francis Hosp, Miami Beach, 32– Chief dept. otolaryngol, Gen. Hosp. No. 11, U.S.A, 18–19. A.A; Laryngol, Rhinol. and Otol. Soc. (pres, 25); Acad. Ophthal. and Otolaryngol. (pres, 19); Laryngol. Asn; Otol. Soc; Am. Med. Asn; Col. Surg. Comparative anatomy of the nose and the accessory cavities; stereoscopic x-rays of the head; morphology of the nose.

Ingersoll, Prof. Leonard R(ose), University of Wisconsin, Madison, Wis. *[2]Physics.* New York, N. Y, June 1, 80. B.S. Colo. Col, 02; Ph D, Wisconsin, 05. Instr. *physics, Wisconsin,* 05–08, asst. prof, 08–10, assoc. prof, 10–25, *prof, 25–* Smithsonian exped, Mt. Wilson, Calif, 05, 06, 09. A.A; Physical Soc. Efficiency of the Nernst glower; measurement of high temperatures with the Nernst glower; magnetic rotatory polarization in the infra-red spectrum; reflecting power of metals; dispersion of metals in the infra-red spectrum; polarization by gratings; magnetism and crystal structure; metal films; Kerr electro-optic effect in infra-red; geothermal gradients; optical rotatory power of crystals in infra-red.

Ingerson, Dr. (Fred) Earl, Geophysical Laboratory, 2801 Upton St, N.W, Washington, D. C. *[7]Geology, Geochemistry.* Barstow, Texas, Oct. 28, 06. A.B, Simmons (Texas), 28, A.M, 31; Ph.D, Yale, 34; hon. Sc.D, Hardin-Simmons, 42. Instr. chem, Simmons (Texas), 30–31; miner, Yale, 32–34, Sterling fellow, Leopold-Franzens Univ. (Austria), 34–35; asst. physical chemist, *geophys. lab, Carnegie Institution,* 35–39, physical chemist, 39–43, *petrologist, 43–* Mem. faculty, grad. sch, U. S. Dept. Agr, 40– Mem. cmt. on struct. petrol, div. geol. and geog, Nat. Research Council, 35–38, cmt. problems ore deposits, 40– Yale exped, Newfoundland, 33. Fel. Miner. Soc. (treas, 41–); Geophys. Union (sec'y, sect. volcanoes, 40, sect. tectonophysics, 42); Geol. Soc; Geol. Soc. Wash. (councilor, 37, 39); Petrologists' Club Wash. (sec'y, 36–39). Petrography of igneous and metamorphic rocks; petrofabrics; role of volatile constituents in mineral and petrogenesis; hydrothermal formation of the silicates.

Ingham, Leroy W, 218 E. Court St. Doylestown, Pa. *Dairying.* Whiting, Iowa, Aug. 17, 96. B.S, Nebraska, 21; M.S, California, 22. Prof. dairying, Maryland, 22–38; *head dairy and animal husbandry dept, Nat. Farm Sch, 38–* Dairy Sci. Asn. Dairy cattle; ground versus unground soy-bean hay; fish meal versus cottonseed meal for dairy cows; contagious abortion in the station dairy herd; calf feeding.

Ingle, D(wight) J(oyce), 2321 Springhill Drive, Kalamazoo, Mich. *Physiology.* Kendrick, Idaho, Sept. 4, 07. B.S, Idaho, 29, M.S, 31; George S. Cox fellow, Pennsylvania, 38–41; Ph.D, Minnesota, 41. Teaching asst. psychol, Idaho, 30–31; Minnesota, 31–34; asst. biochem, Mayo Clinic, 34–38; *research physiologist, Upjohn Co, 41–* Physiol. Soc; Asn. Study Int. Secretions. Physiology of work; physiology of adrenals, pituitary and pancreas; experimental surgery.

Ingle, Dr. J(ames) D(avis), 8246 Vernon Ave, Chicago, Ill. *Physical chemistry.* Louisiana, Mo, Sept. 21, 13. B.S, Ottawa (Kans), 32; A.M, Kansas, 34, Ph.D, 37. Asst. instr. chem, Kansas, 32–37; research chemist, Swift and Co, 37–42; *Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Glass and quinhydrone electrodes; vapor density of liquids close to their boiling points; pasteurized process cheese.

Ingle, Dr. Lester, University of Illinois, Urbana, Ill. *Zoology.* Howard, Kans, July 30, 08. B.S, Kans. State Teachers Col. 32; M.S, Brown, 34. Ph.D, 36. Asst, Brown. 32–35; nat. research fellow *zool,* Chicago, 36–37; instr, *Illinois,* 37–39, *assoc, 39–* Summer, instr, Kans. State Teachers Col, Pittsburg, 32. Honorarium, Carnegie Institution, Cold Spring Harbor, 32. Assoc. Soc. Zool. Problems of aging in cladocerans; life history of Daphnia longispina; reaction of Daphnia to vertebrate hormones.

Ingles, Prof. L(loyd) G(lenn), Chico State College, Chico, Calif. *Zoology.* Camden, Ill. A.B, Redlands, 25; A.M, Claremont Cols. 28; Ph.D, California, 32. Instr. *zool,* Junior Col, Bakersfield. 28–31; assoc. prof. and later *prof, Chico State Col, 32–* Pomona Col. zool. exped, Lower Calif, 27. Soc. Zool; Micros. Soc; Cooper Ornith. Club. Parasitology; mammalogy.

Inglis, Prof. D(avid) R(ittenhouse), Johns Hopkins University, Baltimore, Md. *Physics.* Detroit, Mich, Oct. 10, 05. A.B, Amherst Col, 28; Sc.D, Michigan, 31. Instr. *physics,* Ohio State, 31–34, asst. prof, 34; Pittsburgh, 34–37; visiting asst. prof, Princeton, 37–38; assoc, *Hopkins,* 38–42, *assoc. prof, 42–* Fel. Physical Soc. Atomic mechanics; magnetism; geophysics; nuclear physics.

Ingmanson, J(ohn) H(arold), 29 Blackburn Place, Summit, N. J. *Chemical engineering.* Sycamore, Ill, April 9, 98. B.S, Chicago, 25. Chemist, Sherwin-Williams Co, 19; Conley Foil Co, 20–23; chem. engineer, U. S. Foil Co, 23–24; Tower Mfg. Co, 25–27; works manager, Crown Chem. Corp, 27–28; *mem. tech. staff, Bell Tel. Labs, 28–* Chem. Soc. Rubber; rubber insulation; jute impregnation.

Ingols, Dr. Robert S(malley), 32 Fairmount Ave, Hackensack, N. J. *Sanitary chemistry.* Newark, N. J, March 5, 11. B.S, Bucknell, 31; A.M, Columbia, 37; M.S, Rutgers, 37, Ph.D, 39. Asst. chemist, dept. water and sewage research, N. J. Exp. Sta, 36–41; *chemist, sewage plant, Hackensack, N. J, 41–* Visiting prof, Manhattan Col, 42–43; N. Y. Univ, 42–43. Chem. Soc; N. J. Sewage Works Asn. Recording dissolved oxygen to control sewage treatment and stream pollution; destruction of sewage solids by digestion; control of activated sludge process bulking.

Ingraham, Dean Mark H(oyt), 110 Virginia Terrace, Madison, Wis. *[5]Mathematics.* Brooklyn, N. Y, March 19, 96 A.B, Cornell. 17; fellow, Wisconsin, 21–22, A.M, 22; fellow, Chicago, 22–24, Ph.D, 24; LL.D, Lawrence Col, 43. Instr. *math,* Wisconsin, 19–21, asst. prof, 24–26; Brown. 26–27; *prof, Wisconsin, 27–, dean col. letters and science, 42–* A.A. (councilor, 29, 31–37); Math. Soc. (assoc. sec'y, 28–, special rep. to univs, 34); Math. Asn; Inst. Math. Statist; Asn. Univ. Prof. (councilor, 37–; pres, 38; chairman cmt. retirement plans, 39–). Foundations of algebra; algebras of infinite rank; theory of matrices.

Ingraham, Dr. R(aymond) C(lifford), 1853 W. Polk St, Chicago, Ill. *Physiology, Chemistry.* Clinton, Iowa, Sept. 26, 05. B S, Iowa, 28, M.S, 29; Sage fellow, Cornell. 29–30, du Pont fellow, 30–31, Ph.D, 31. Asst. *physiol, col. med, Illinois,* 31–35, instr, 35–38, assoc, 38–43, *asst. prof, 43–* Physiol. Soc. Physiology of secretion and absorption.

Ingram, J(esse) W(ilburn), Box 387, Houma, La. *Entomology.* Kilmichael, Miss, April 29, 00. B.S, Miss. State Col, 22, M.S, 32. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 22–27, asst. entomologist, 27–34, *entomologist, 34–* Asn. Econ. Entom; Entom. Soc. Amer; Entom. Soc. Wash; Int. Asn. Sugarcane Technol. Sugarcane and rice insects; insects as vectors of sugarcane diseases.

Ingram, Dr. S(ydney) B(ettinson), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Bottineau Co, N. Dak, Oct. 8, 03. B.A, British Columbia, 25; Ph.D, Calif. Inst. Tech, 28. Asst. physics, Calif. Inst. Tech, 25–28; nat. research fellow, Michigan, 28–30; *Bell Tel. Labs, 30–* Fel. Physical Soc; Elec. Eng; Radio Eng. Measurement and analysis of line spectra; infra-red emission and absorption spectra; gas discharge devices; electronics.

Ingram, Dr. W(alter) G(lenn), State Teachers College, Wayne, Nebr. *Analytical chemistry.* Burlington, Kans, March 14, 96. B.S, Hastings Col, 21; M.S, Iowa, 28, Ph.D, 39; Nebraska, 32. *Head dept. science,* schs, Nebr, 21–41; *Nebr. State Teachers Col, 41–* Mem. sub. cmt. revision of curriculum, Nat. Cmt. Science Teaching, 40– Comparison of various methods in industrial gas analysis; filter photometer and its application to quantitative micro-analysis.

Ingram, Prof. Walter Robinson, 333 Lexington Ave, Iowa City, Iowa. *Neurology, Endocrinology.* Liverpool, Eng, Feb. 12, 05. A.B, Grinnell Col, 26; M.S, Iowa, 28, Ph.D, 29. Instr. zool, Syracuse, 29–30; neur, med. sch, Northwestern, 30–31, assoc, 31–32, asst. prof, 32–36; *Iowa,* 36–37, assoc. prof. *anat,* 37–40, *prof. and head dept, 40–* A.A; Asn. Anat; Physiol. Soc; Soc. Exp. Biol. Mammalian neurology; mesencephalon and diencephalon; neuro-endocrine relationships.

Ingram, W(yatt) H(awkins), 150 Claremont Ave, New York, N. Y. *Mathematics.* Palo Alto, Calif, May 1, 94. B.S, Chicago, 17; M.S, Mass. Inst. Tech, 22; fellow, Calif. Inst. Tech, 25–26; M.Sc, Cambridge, 35. Bell System Labs, 17–20, 24–25; instr, Mass. Inst. Tech, 20–22; asst. prof, Minnesota, 26–27; Washington (Seattle), 27–30; research assoc, sch. eng, Columbia, 32–33; *mem. staff, dept. math, Col. City of N. Y, 33–* U.S.A, 17–18. Math. Soc. Theory of electrical machinery and apparatus; dynamics; integral equations.

Ingram, Prof. William M(arcus), Mills College, Calif. *Zoology.* Los Angeles, Calif, Feb. 11, 13. A.B, Pomona Col, 35; A.M, Hawaii, 37; Ph.D, Cornell, 40. Instr. *zool,* Hawaii, 35–37; Cornell, 40–41; *asst. prof, Mills Col, 41–* Summers, instr, Pomona Col, 38; fellow, Edmund Niles Huyck Preserve, Rensselaerville, N. Y, 40. A.A; Soc. Mammal; Malacol. Union. Molluscan ecology and systematics; vertebrate ecology; fossil mollusks.

Inman, Dr. Gerald O(rville), Rock Island Arsenal, Rock Island, Ill. *Chemistry.* Vinton, Iowa, March 8, 08. B.S, Iowa, 30, M.S, 31, Ph.D, 33. Asst. chem, Iowa, 30–33; asst, Inst. Paper Chem, Lawrence Col, 34; *research assoc, Rock Island Arsenal, 35–* Chem. Soc. Organic chemistry.

Inman, Dr. Thomas G(eorge), 2000 Van Ness Ave, San Francisco, Calif. *Medicine.* Perth Co, Ont, Can, July 24, 72. Ph.G, Calif. Col. Pharmacy, 92; M.D, Cooper Med. Col, 94; California, 00–03; Frankfurt, Berlin, Paris, 13–14. Asst. demonstrator anat, Cooper Med. Col, 95–00, instr. applied anat, 00–11; from asst. prof. to clin. prof, *sch. med, Stanford,* 15–37, *emer. clin. prof. med, 37–* Am. Med. Asn. Anatomy; the nervous system; psychology; circulation; cerebrospinal fluid; human medulla; neuro-psychiatry.

Inman, Dr. Verne T(homson), University of California Hospital, San Francisco, Calif. *Anatomy, Orthopedic surgery.* San Jose, Calif, Nov. 6, 05. A.B, California, 28, A.M, 29, M.D, 32, Ph.D, 34. Instr. anat, med. sch, *California,* 32–39, asst-res. orthop, hosp, 39–42, instr. anat. and orthop. surg, 40–42, *Nat. Foundation Infantile Paralysis research fellow, 42–* Distribution of cutaneous nerves; fetal growth and development of bone; anatomy and pathology of intervertebral disc; functional anatomy of shoulder.

Innes, Dr. William B(everidge), 2 Hunter St, Old Greenwich, Conn. *Physical chemistry.* Cambria, Calif, March 8, 13. B.S, California, 37; M.S, Iowa, 39, Ph.D, 41. Chemist, Westvaco Chlorine Products Corp, 38; teaching asst, Iowa, 39–41; *research chemist,* Champion Paper and Fibre Co, 41–43; *Am. Cyanamid Co, 43–* Chem. Soc. Thermodynamics of surface phenomena; utilization of soy-bean protein; paper coatings.

Insko, Prof. W(yatt) M(arion), Jr, 725 Melrose, Lexington, Ky. *Nutrition.* Carlisle, Ky, March 10, 01. B.S. (Agr), Kentucky, 24; M.S, West Virginia, 27; fellow, Wisconsin, 27–28. Asst. animal husbandry, West Virginia, 25–27; asst. animal nutrition, *Kentucky,* 28–31, *poultry husbandry,* 31–39, *assoc. prof. in charge, 39–* A.A; Poultry Sci. Asn; Ky. Acad. Poultry nutrition; vitamin D and embryo mortality in poultry; calcium and phosphorus metabolism; hatchability of turkey eggs; effect of formaldehyde fumigation on embryo mortality.

Insley, Dr. Herbert, National Bureau of Standards, Washington, D. C. *Petrography.* Nanuet, N. Y, May 16, 93. B.S, Hamilton Col, 14; Ph.D, Hopkins, 19. Asst. physicist, Bur. Standards, 17–18; asst. geologist, U. S. Geol. Surv, 19–21; *petrographer,* U. S. Bur. Mines, 21–22; *Bur. Standards, 22–* A.A; Geol. Soc; Miner. Soc; Ceramic Soc; Optical Soc; Geol. Soc. Wash; Wash. Acad. Petrography, microscopy and x-ray structure of cements, ceramics and artificial silicates; applications of electron microscopy to inorganic materials.

Iob, Dr. (Leona) Vivian, University of Michigan, Ann Arbor, Mich. *Organic chemistry, Pediatrics.* Atlantic City, N. J, March 3, 04. A.B, Smith Col, 26; M.S, Chicago, 31, Ph.D, 35. Asst. chem, Mass. Gen. Hosp, Boston, 26–28; research chemist, Harriet Lane Home, Hopkins Hosp, 28–30; pediat, Chicago, 30–36, asst, 36–39; biochemist, Toledo Hosp, 39–41; *research asst. surg, Michigan, 42–* Chem. Soc. Ketogenic diet in epilepsy; chemical composition of the human fetus; fetal growth; vitamin D and fetal calcium and phosphorus; chemical reactions of ergosterol.

Ipatieff, Prof. Vladimir N(ikolaevich), Pearson Hotel, 190 E. Pearson St, Chicago, Ill. ***\

Ohio. *Geology.* Chattanooga, Tenn, Aug. 26, 04. A.B, Ohio Wesleyan, 25; fellow, Am. Petrol. Inst, 26–27; M.S, Oklahoma, 27; Kansas, 28; Ph.D, Chicago, 35. Instr. geol, Oklahoma, 25–33; geologist, Okla. Geol. Surv, 35; *assoc. geologist, climatic and physiog. div, soil conservation service, U. S. Dept. Agr, 35–* Summers, field asst, U. S. Geol. Surv, 26; geologist, Okla. Geol. Surv, 29; research geologist, Phillips Petrol. Co, 33; geologist, Ill. Geol. Surv, 35. Fel. Geol. Soc; fel. Ohio Acad. Relation of geology and physiographic processes and climate to soil erosion and floods.

Ireland, Prof. J(oseph) C, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Plant physiology.* Burnettsville, Ind, Sept. 6, 93. A.B, Wabash Col, 17; M.S, Chicago, 22, Ph.D, 27. *Prof.* biol, Southeast. State Teachers Col, Okla, 23–28; *plant physiol. and plant breeder, Okla. Agr. and Mech. Col, 28–* A.A; Soc. Plant Physiol; Soc. Agron. Plant breeding; influences which contribute to disease resistance; hormones.

Ireland, Col. Mark L(orin), 924 Lyons St, Flint Mich. *Engineering.* Chesaning, Mich, Sept. 26, 80. B.S, Mich. State Col, 01, M.E, 13, C.E, 24; M.S, Mass. Inst. Tech, 21; Roy D. Chapin fellow, Michigan, 23, Ph.D, 23; grad, Ordnance Sch, 07; dist. grad, Coast Artil. Sch, 12; grad, Quartermaster Sch, 27; Command and Gen. Staff Sch, 28. Chairman and rodman, N.Y.C. and H.R.R.R, 01–02; mech. draftsman, Ordnance Dept, 02–04; from 2nd lieut. to *col,* Inf, Coast Artil, Ordnance, Motor Transport and *Q.M. Corps, U. S. Army, 04–* Chief repair div, office of director, M.T.C, A.E.F, 18–19; director, Quartermaster Tractive Resistance of Roads Research, Mass. Inst. Tech. and Michigan, 21–23. Army rep, tech. cmt, Lincoln Highway Asn, 22–23; cmt. on econ. theory of highway improv, Nat. Research Council. D.S. medal; Officier d'Acad, France. A.A; Mech. Eng; Soc. Mil. Eng; Soc. Automotive Eng; Quartermaster Asn; Asn. permanente int. des Congrés de la Route. Transportation engineering; highway transportation; traffic control; tractive resistance of roads; military value in highways; construction; heating; ventilation; sanitary water supply; highway engineering.

Ireland, Gen. Merritte Weber, U.S.A, Office of Surgeon General, War Department, Washington, D. C. *Medicine.* Columbia City, Ind, May 31, 67. M.D, Detroit Col. Med, 90; M.D, Jefferson Med. Col, 91, LL.D, 19; A.M, Michigan, 20; LL.D, Gettysburg Col, 22. Asst. surgeon, U.S.A, 91–96, capt, asst. surgeon, 96–99, major surgeon, 99–11, major, M.C, 03, lieut. col, 11–17, col, 17–18, brig. gen, 18, major gen. and surgeon gen, 18–32; *retired.* Nat. Board Med. Examiners. D.S. medal; Légion d'honneur; Order of the Bath; Order Restituta, Poland. Chief surgeon, A.E.F, France. Col. Surg. (board regents); fel. Edinburgh Royal Col. Surg.

Irion, Dr. Clarence E(ugene), 84 Hawthorne Road, Essex Fells, N. J. *Chemistry.* Abilene, Kans, May 4, 97. B.S, Chicago, 20; M.S, Iowa State Col, 23; Ph.D, Ohio State, 35. Research chemist, Battelle Mem. Inst, 28–36; Gen. Printing Ink Corp, 37–38, director research intaglio div, 39–41; head develop. dept, Kimble Glass Co, 41–43; *research chemist, J. M. Huber Co, 43–* A.A; Chem. Soc; Physical Soc; fel. Inst. Chem; Ceramic Soc. Physical chemistry; chemical engineering.

Irish, Dr. Cullen Ward, 1930 Wilshire Blvd, Los Angeles, Calif. *Neuropsychiatry.* Barberton, Ohio, Sept. 16, 89. A.B, Ohio State, 11, M.D, 15; M.S, Pennsylvania, 30, D.S, 37. Senior attending neurologist, Los Angeles Gen. Hosp; *assoc. prof. neur, Col. Med. Evangelists.* Chief neuropsychiat. service, Bruns Gen. Hosp, Santa Fe, N. Mex. Lieut. col, M.R.C. Fel. Col. Physicians; Am. Med. Asn; fel. Psychiat. Asn. Neurology; psychiatry.

Irish, Dr. Don D(eLance), Dow Chemical Co, Midland, Mich. *Biochemistry.* Turner, Maine, Jan. 17, 05. B.S, Antioch Col, 29; M.S, Cincinnati, 30, fellow, 30–32, Ph.D, 32. Asst. chem, Antioch Col, 25–26; metallographist, Frigidaire Corp, 27–28; asst. biochem, Cincinnati, 29–30; research biochemist, Wm. S. Merrell Co, 32–33; *biochemist in charge biochem. research lab, Dow Chem. Co, 33–* A.A; Indust. Hygiene Asn. (director); fel. Pub. Health Asn; Chem. Soc. Blood coagulation; blood platelet fragility; toxicology; industrial biochemistry; chemical toxicology.

Irish, H(enry) C(lay), Board of Education, St. Louis, Mo. *Horticulture.* Emerald Grove, Wis, April 22, 68. B.S, S. Dak. Col, 91; M.S, Iowa State Col, 97. Hort. asst, Mo. Bot. Garden, 94–02, supt, 03–12; asst. prof. hort, Iowa State Col, 13–14; supervisor sch. gardens, *Board Educ, St. Louis,* 14–40, *limited service asst, 40–* A.A; Pomol. Soc; St. Louis Acad. Garden peppers; garden beans.

Irish, Prof. Oliver J(ohn), 711 Van Buren St, N. W, Washington, D. C. *Chemistry.* Hancock Co, Iowa, April 2, 92, A.B, Iowa, 16; Princeton, 16–17; M.S, George Washington, 24, Ph.D, 39; Illinois, 33–34. Instr, Iowa, 14–16; Princeton, 16–17; Union (N. Y), 20–22; *assoc. prof. biochem, sch. med, George Washington, 22–; capt, Sanit. Corps, U. S. Army, 42–* M.C. and Sanit.C, U.S.A, 17–19. A.A. Biochemistry; blood analysis; metabolism.

Irland, Prof. G(eorge) A(llison), Bucknell University, Lewisburg, Pa. *Electrical engineering.* Lewisburg, Pa, Jan. 3, 94. B.S, Bucknell, 15, E.E, 22; M.E.E, Hopkins, 25, D.E, 32. Motor control supervisor, Bethlehem Steel Co, Md, 16–18, 19–20; instr. *elec. eng, Bucknell,* 20–25, asst. prof, 25–34, assoc. prof, 34–37, *prof, 37–, chairman dept. elec. eng. and eng. group.* Sig.C, U.S.A, 18–19. A.A; Elec. Eng; Eng. Educ; Geophys. Union. Development of portable seismic recorder; master mechanical oscillator for testing seismic recorders; three-component seismometer.

Irons, Dr. E(rnest) E(dward), 5830 Stony Island Ave, Chicago, Ill. *Medicine.* Council Bluffs, Iowa, Feb. 17, 77. B.S, Chicago, 00, fellow, 00–01, Ph.D, 12, M.D, Rush, Chicago, 03. Asst. bacter, Chicago, 01–03, med, Rush Med. Col, 05–07, assoc, 07–09, instr, 09–12, asst. prof, 12–18, assoc. prof, 19–23, clin. prof. and chairman dept, 24–40, dean, 24–36. Attending physician, Presb. Hosp. A.A; Am. Physicians; Soc. Bact; Soc. Clin. Invest; Asn. Path. and Bact; Chicago Soc. Int. Med. (pres, 26); Chicago Path. Soc. (pres, 14). Internal medicine; methods in water analysis; blastomycosis; gonococcal infections; focal infections in relation to arthritis and the eye; pneumonia.

Irons, Dr. J. V(ernal), 705 E. 17th St, Austin, Texas. *Bacteriology.* Sullivan Co, Ind, May 17, 03. A.B, Ind. State Teachers Col, 27; fellow, Rockefeller Inst, N. J, 32–33; Sc.D, Hopkins, 33. Tech. and teaching asst. filterable viruses, Hopkins, 30–32; *bacteriologist, State Dept. Health, Texas, 33–,* asst. director *labs,* 35–40, *assoc. director, 40–; adj. research assoc, med. sch, Texas, 41–* Summers, prof, Ind. State Teachers Col, 30; asst, Bassett Hosp, Cooperstown, N. Y, 32. Pub. Health Asn; Soc. Bact; Soc. Trop. Med; Texas Acad; Texas Pub. Health Asn; Ind. Acad. Viruses; bacterial variation; public health laboratory methods; tropical medicine.

Irreverre, Dr. Filadelfo, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Biochemistry.* Vigan, P. I, June 27, 09. A.B, George Washington, 36; M.S, Georgetown, 38, Ph.D, 39. Research staff mem, chemo-med. research inst, Georgetown, 34–42, instr. biochem, grad. sch, 39–42; *assoc. chemist, nat. inst. health, U. S. Pub. Health Service, 42–* A.A; Chem. Soc; assoc. Soc. Exp. Biol. Biochemistry of the quanidines; muscular dystrophy; creatine-creatinine; sulfur compounds; naphthoquinones; vitamin K and derivatives; toxicology of tungsten.

Irvin, Dr. Elinor Moore (Mrs. J. Logan Irvin), R. F. D. 2, Media, Pa. *Biochemistry.* Martha's Vineyard, Mass, Aug. 2, 08. A.B, Oberlin Col, 30; fellow, Pennsylvania, 32–34, Ph.D, 36. Asst. physiol, *Pennsylvania,* 36–38, *med. assoc. physiol. chem, 38–* A.A. Nitrogenous muscle extractives; mechanism of liver secretion; aqueous humor.

Irvin, Dr. J(oseph) Logan, Johns Hopkins University School of Medicine, Baltimore, Md. *Physiological chemistry.* Jacksonville, Fla, Nov. 24, 13. B.S, South Carolina, 34; Ph.D, Pennsylvania, 38. Asst. instr. physiol. chem, Pennsylvania, 36–38; instr. physiol. chem. and research assoc. surg, col. med, Wayne, 38–41; *instr. physiol. chem, sch. med, Hopkins, 41–* Chem. Soc; Soc. Biol. Chem. Nitrogenous muscle extractives; physiological chemistry of bile; synthesis of bile acids and derivatives.

Irvin, Prof. O(scar) W(illiam), Brooklyn College, Bedford Ave. and Ave. H, Brooklyn, N. Y. *Mathematics.* Greenville, Ky, June 29, 89. B.S, Kentucky, 10, M.S, 18; A.M, Columbia, 24, Ph.D, 27. Instr. physics, Sayer Inst, 10; asst, Kentucky, 10–12; assoc. prof, Univ. City of Toledo, 12–15, prof, 15–24, dean men, 19–24; instr. *math, Col. City of N. Y,* 24–30, asst. prof, *Brooklyn Col,* 30–36, *assoc. prof, 36–* Asst, Teachers Col, Columbia, 24–26. State budget control of state institutions of higher education.

Irvin, (Robert) Roy, Red Star Yeast and Products Co, Milwaukee, Wis. *Chemistry.* Lawrence, Kans, June 11, 87. A.B,

Kansas, 16, fellow, 16–17, M.S, 17. Fellow, Mellon Inst, 17–35; director lab, Nat. Grain Yeast Corp, 35–41; *director production, Red Star Yeast and Products Co, 41–* Analyst, State Food Lab, Kans, 17– A.A; Chem. Soc; Asn. Cereal Chemists. Food chemistry; fermentology.

Irvine, Dr. John Withers, Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Radioactivity, Radiochemistry.* Marshall, Mo, July 15, 13. A.B, Mo. Valley Col, 34; Ph.D, Mass. Inst. Tech, 39. Instr. chem, *Mass. Inst. Tech,* 37–39, research assoc. *physics,* 39–43, *asst. prof. chem, 43–* Chem. Soc; Physical Soc. Preparation of lower oxides of rhenium; artificial radioactivity in uranium; standards of beta-ray activity; applied radiochemistry.

Irving, Dr. Frederick C(arpenter), 221 Longwood Ave, Boston, Mass. *Obstetrics, Gynecology.* Gouverneur, N. Y, May 30, 83. A.B, Harvard, 06, M.D, 10. Prof. *obstet, Harvard Med. Sch,* 31–34, *William Lambert Richardson prof, 34–* Visiting obstetrician, Boston Lying-In Hosp, 31– Fel. Gynec. Soc. (v. pres); fel. Col. Surg; Am. Med. Asn.

Irving, Dr. George W(ashington), Jr, U. S. Department of Agriculture, New Orleans, La. *Biochemistry.* Caribou, Maine, Nov. 20, 10. B.S, George Washington, 33, A.M, 35, Parke, Davis fellow, 36–38, Ph.D, 39; fellow, Cornell, 38–39. Lab. asst. chem, Bur. Standards, 27–28; bur. chem, U. S. Dept. Agr, 28–35, junior chemist, bur. entom, 35; asst. chem, Rockefeller Inst, 39–42; *biochemist, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc; Oil Chemists Soc. Chemistry of posterior pituitary hormones; activation and kinetics of proteolytic enzymes; plant proteins and proteolytic enzymes.

Irving, Prof. Laurence, Swarthmore College, Swarthmore, Pa. **7Zoology, Physiology.* Boston, Mass, May 3, 95. A.B, Bowdoin Col, 16; A.M, Harvard, 17; Ph.D, Stanford, 24. Instr, Menlo Sch, 21–23; asst, Stanford, 23–24, instr, 24–25; nat. research fellow biol, Germany, 25–26; asst. prof. physiol, Stanford, 26–27; assoc. prof, Toronto, 27–34, prof. exp. biol, 34–37; *prof. biol. and chairman dept. zool, Swarthmore Col, and director Martin biol. lab, 37–; major, Air Corps, U. S. Army, 43–* Lecturer, Pennsylvania, 37–; Bryn Mawr Col, 43. Instr, Marine Biol. Lab, Woods Hole, 31–40, in charge physiol, 34–40, trustee, 35– Ed, 'Jour. Cellular and Comp. Physiol,' 32; 'Biol. Bul,' 39; 'Physiol. Reviews,' 40; treas, 'Biol. Abstracts,' 41– Mem. div. biol. and agr, Nat. Research Council, 38–41, v. chairman, 40; mem. div. chem. and chem. technol, 38–; div. med, 41– Lieut, Inf, 17–19. A.A; Physiol. Soc; Soc. Zool. Comparative physiology of respiration.

Irwin, Prof. Francis W(illiam), University of Pennsylvania, Philadelphia, Pa. *Psychology.* Philadelphia, Pa, Feb. 11, 05. A.B, Pennsylvania, 26, A.M, 28, Ph.D, 31. Asst. *psychol, Pennsylvania,* 26–29, instr, 29–39, *asst. prof, 39–* Social Science Research fellow, California and Iowa, 40–41. A.A; Psychol. Asn. Perception; memory; motivation.

Irwin, Prof. Frank, 2921 Regent St, Berkeley, Calif. *Mathematics.* Englewood, N. J, June 5, 68. A.B, Harvard, 90, B.S, 92, A.M, 94, Ph.D, 08. Instr. *math,* Harvard, 94; Princeton, 08–11; *California,* 11–18, asst. prof, 18–23, assoc. prof, 23–38, *emer. assoc. prof, 38–* Math. Soc. Invariants of differential expressions.

Irwin, Dr. G(eorge) R(ankin), Naval Research Laboratory, Washington, D. C. *Physics.* El Paso, Texas, Feb. 26, 07. A.B, Knox Col, 30; A.M, Illinois, 33, fellow, 36–37, Ph.D, 37. Asst. physics, Illinois, 31–35; asst. prof, Knox Col, 35–36; *physicist, Naval Research Lab, 37–* Physical Soc. Isotope mass ratio from band spectra; armor; dynamics of projectile penetration.

Irwin, Prof. M(alcolm) R(obert), University of Wisconsin, Madison, Wis. **7Zoology, Genetics.* Mitchell, S. Dak, March 2, 97. B.S, Iowa State Col, 20, M.S, 25, Ph.D, 28. Exp. agr, Greece, 21–24; instr. genetics, Iowa State Col, 27–28; nat. research fellow, Harvard, 28–29; Rockefeller Inst, 29–30; *cooperative agent, U. S. Dept. Agr, 30–,* asst. prof. genetics and bacter, *Wisconsin,* 30–36, assoc. prof. *genetics,* 36–39, *prof, 39–* A.A; Soc. Nat; Genetic Asn; Soc. Exp. Biol; Genetics Soc; Soc. Zool; Asn. Immunol. Genetics of disease resistance; immunogenetics of species and of species hybrids; physiological genetics.

Irwin, Dr. Margaret House, University of Wisconsin, Madison, Wis. *Physiological chemistry, Nutrition.* Ft. Collins, Colo, Nov. 6, 00. B.S, Colo. Agr. Col, 22; M.S, Iowa State Col, 25, Ph.D, 31. Asst. chem, Iowa State Col, 23–25; instr, Texas State Col. for Women, 25–26; research assoc, Iowa State Col, 26–31; indust. fellow agr. chem, *Wisconsin,* 32–36, *instr. home econ, 41–* Vitamin A technique; effect of cultural conditions and degree of maturity on the vitamin content of vegetables; vitamin feeding; the absorption of fats; the effect of rancid fats on nutrition.

Irwin, Dr. Marian (Mrs. W. J. V. Osterhout), Rockefeller Institute, New York, N. Y. *Physiology.* Tokyo, Japan, 89. A.B, 13, Ph.D, 19. Nat. research fellow, Radcliffe Col, 23–25; assoc, *dept. gen. physiol, Rockefeller Inst,* 25–33, *emer. assoc, 33–* A.A; Physiol. Soc; Soc. Exp. Biol; Bot. Soc; Harvey Soc. The permeability of cells.

Irwin, Prof. Orvis C(arl), 619 N. Governor St, Iowa City, Iowa. *Psychology.* Detroit, Mich, Jan. 5, 91. A.B, Baldwin-Wallace Col, 14; A.M, Columbia, 24; Ph.D, Ohio State, 29. Prin, high sch, Ohio, 14–18, 21–27; instr, Mich, 18–20; instr. *psychol,* Ohio State, 27–28; research assoc, *child welfare research sta, Iowa,* 29–31, asst. prof, 31–33, *research assoc. prof, 33–* Psychol. Asn; Soc. Research Child Develop. Comparative psychology; infant psychology; activities of newborn infants.

Irwin, Prof. Ralph A(lexander), University of Nevada, Reno, Nev. *Psychology.* San Francisco, Calif, Jan. 24, 05. B.S, Kans. State Col, 28, M.S, 29; Ph.D, Ohio State, 38; summers, Colorado, 29, Washington (Seattle), 23, Wisconsin, 32. Asst. educ, Kans. State Col, 28–29; teaching asst. *psychol,* Ohio State, 34–35; instr, *Nevada,* 29–31, asst. prof, 31–37, *assoc. prof, 37–* Statist. consultant and interviewer, State Merit Supervisor's Office, Nev, 37– Summer, instr, State Col. Wash, 38. Assoc. Psychol. Asn; West. Psychol. Asn. Social psychology; psychological measurement; the use of emotionally stereotyped phrases for measuring attitudes; recent trends in civic indoctrination; attitudes of delinquent boys; predicting college success.

Irwin, Prof. W(illiam) H(arold), 215 E. 19th Ave, Denver, Colo. *Geology.* Delaware, Ohio, April 8, 08. A.B, Ohio Wesleyan, 30; Ohio State, 31–32; A.M, Columbia, 34, James F. Kemp fellow, 36–37, Ph.D, 37. Asst, dept. geol, Columbia, 33–36; jr. geologist, eng. geol, U. S. Bur. Reclamation, 36–39; asst. prof. petrol, dept. geol, North Carolina, 37–41; *consulting geologist, eng. geol, U. S. Bur. Reclamation, 40–* Miner. Soc; Carolina Geol. Soc; N. S. Acad. General petrology; engineering geology; geology of Columbia Basin project, Washington and Grand Coulee Dam; disintegration of concrete due to reactions between cement and aggregate.

Irwin, Dr. William H(enry), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Zoology.* Alpena, Mich, Jan. 12, 97. A.B, Mich. State Nor. Col, 25; A.M, Michigan, 31, Ph.D, 40. Supt. and chairman science dept, schs, Mich, 25–37; teaching fellow *zool,* Michigan, 37–40; *asst. prof, Okla. Agr. and Mech. Col, 40–* Summers, asst, Michigan, 38–40. Limnol. Soc; Ecol. Soc; Mich. Acad; Okla. Acad. Limnology, taxonomy and ecology of mosquitoes.

Isaac, Leo A(nthony), 424 U. S. Court House, Portland, Oregon. *Silviculture.* Fond du Lac, Wis, Sept. 12, 92. B.S, Minnesota, 20. Junior forester, *U. S. Forest Service,* 20–24, forest examiner, *Pacific Northwest Forest Exp. Sta,* 24–27, asst. silviculturist, 27–34, *assoc. silviculturist, 34–* U.S.A, 19. Soc. Foresters; Ecol. Soc. Natural regeneration of Douglas fir; wind dissemination of forest tree seeds; forest soils and changes wrought upon it by flash burning; silviculture of the Douglas fir type; vegetative succession after logging in the Douglas fir region.

Isaacs, Dean M(oses) L(egis), Yeshiva College, New York, N. Y. *Sanitary science.* Cincinnati, Ohio, June 3, 99. A.B, A.M, Cincinnati, 21, Merrell fellow, 21–24, Ph.D, 23. Nat. research fellow bacter, Columbia, 24–26, instr. sanit. science, 26–35, asst. prof, col. physicians and surg, 35–42; *prof. chem. and dean, Yeshiva Col, 42–* A.A; Soc. Bact. (pres, New York branch, 41); Pub. Health Asn; Harvey Soc; Soc. de Chim. biol; Int. Asn. Milk Sanitarians. Anaphylaxis; chemical analysis; disinfection.

Isaacs, Dr. Raphael, 104 S. Michigan Ave, Chicago, Ill. *Medicine.* Cincinnati, Ohio, Aug. 29, 91. A.B, Cincinnati, 11, A.M, 12, M.D, 18; Harvard Med. Sch, 23. Asst. biol, Cincinnati, 10–11, zool, 11–14, physiol, 17–19; instr. med, Cincinnati, 20–22; asst, Peter Bent Brigham Hosp, Boston, 22–23; instr, Harvard, and asst. physician, Huntington Mem. Hosp, 23–27; asst. prof. med, Michigan, 27–30, assoc. prof, 30–41,

asst. director Simpson mem. inst, 27–41; *director dept. hematol, Michael Reese Hosp, 40–* Hematologist, Beth Israel Hosp, 26–27. Res. staff, Cincinnati Gen. Hosp, 18–22. Assoc. ed, 'Folia Haematologica'; sect. ed. blood diseases, 'Biol. Abstracts'; consultant hematol, 'Standard Nomenclature of Disease.' Alvarenga prize, Col. Physicians Phila, 25. A.A; Am. Med. Asn; Soc. Exp. Path; Soc. Exp. Biol; fel. Col. Physicians; Soc. Clin. Invest; Am. Physicians; Cent. Soc. Clin. Research; Soc. française d'Hématol. Morphological properties of proteins; hematology; cancer; ventriculin; intravenous liver extract.

Isaacs, Schachne, New York State Training School for Boys, Warwick, N. Y. *Psychology.* Cincinnati, Ohio, Dec. 8, 88. A.B, Cincinnati, 10, A.M, 12. Asst. psychol, Cincinnati, 12–15, instr. and asst, psychol. clinic, 15–17; psychologist, U. S. Bur. Mines, 17; instr. psychol, Hopkins, 21–24, assoc, 24–28; city psychologist, Health Bur, Rochester, 28–31; psychiat. social worker, N. Y. State Agr. and Indust. Sch, 31–32; *psychologist, N. Y. State Training Sch. for Boys, 33–; lieut, U. S. Army.* Soc. Am. Fellowships fellow, French univs, 20, 21. Psychol. Corp. Psychologist, med. research lab, A.S, U.S.A, 17–20. N. Y. State Asn. Applied Psychol. Mental deficiency; juvenile delinquency.

Isaminger, Dr. M(elvin) P(rice), District of Columbia Health Department, Washington, D. C. *Hygiene.* Rogers, Mich, Aug. 29, 97. A.B, Michigan, 25, M.S, 26, D.P.H, 27. Instr. hygiene and pub. health, Michigan, 26–30; director dept. hygiene, Oregon State Col, 30–37; *director bur. pub. health educ, Health Dept, Wash, D. C, 37–* Lecturer, exten. div, Michigan, 28–30. A.A; Pub. Health Asn. Statistics of the communicable diseases; nitrogen metabolism; protein requirements in obesity; college hygiene; health education.

Isbell, Dr. H(orace) S(mith), National Bureau of Standards, Washington, D. C. *Chemistry.* Denver, Colo, Nov. 13, 98. B.S, Denver, 20, M.S, 23; Ph.D, Maryland, 26. Asst. chemist, Am. Smelting and Ref. Co, 20–21; bur. animal indust, U. S. Dept. Agr, 23–24; assoc. chemist, U. S. Pub. Health Service, 25–27; *Bur. Standards,* 27–30, chemist, 30–37, *senior chemist, 37–* Instr, Maryland, 26. Chem. Soc. (chairman, div. sugar chem, 38–); Wash. Acad. (assoc. ed, 'Jour,' 40–); N. Y. Acad. Oxidation of sugars; synthetic sugars and their derivatives; electrolytic oxidations in the presence of bromides; organic gold compounds.

Isbell, Prof. R(obert) Nevill, Wake Forest College, Wake Forest, N. C. *Organic chemistry.* Nashville, Tenn, Nov. 8, 00. A.B, William Jewell Col, 23; Yale, 24–26; hon. fellow, Wisconsin, 30–31, Ph.D, 31. Asst. chemist, Freeport Sulphur Co, Texas, 23–24; asst. *chem,* Yale, 24–25; instr, Conn. Col. Pharmacy, 25–26; instr, *Wake Forest Col,* 26–28, asst. prof, 28–31, *assoc. prof, 31–; capt, Chem. Warfare Service, U. S. Army.* A.A; Chem. Soc. (councilor, N. C. sect, 33, 34, v. pres, 37; exec. cmt, 33–35, 37–40; chairman, N. C. sect, 38); fel. Inst. Chem. Centrifugal qualitative analysis; relation of structure to chemical activity of organic compounds.

Iselin, Prof. Columbus O'D(onnell), Woods Hole, Mass. *Oceanography.* New Rochelle, N. Y, Sept. 25, 04. A.B, Harvard, 26, A.M, 28. *Asst. curator oceanog, museum comp. zool, Harvard, 30–,* asst. prof. *physical oceanog,* 37–39, *assoc. prof, 39–;* physical oceanographer, *Oceanog. Inst, Woods Hole,* 32–40, *director, 40–* Pres. board trustees, Bermuda Biol. Sta, 36–; trustee, Marine Biol. Lab, Woods Hole, 41– Agassiz medal, Nat. Acad. Sciences, 43. A.A; Geophys. Union. Physical oceanography; gulf stream.

Isely, Dr. Duane, Cornell University, Ithaca, N. Y. *Botany.* Bentonville, Ark, Oct. 24, 18. A.B, Arkansas, 38, M.S, 39; scholar, Cornell, Ph.D, 42. Asst. *bot,* Arkansas, 38–39; asst. and later *instr, Cornell, 39–* Bot. Soc; Soc. Plant Taxon. Weeds; seed germination and dormancy; taxonomy and ecology of Leguminosae.

Isely, Dwight, Fayetteville, Ark. *Entomology.* Fairview, Kans, Aug. 15, 87. A.B, Fairmount Col, 10; A.M, Kansas, 13; Schuyler fellow, Cornell, 13–14. Sci. asst, bur. entom, U. S. Dept. Agr, 14–21; assoc. entomologist, *Exp. Sta, Arkansas,* 21–31, *entomologist, 31–* Entom. Soc. Amer; Asn. Econ. Entom. Deciduous fruit insects; cotton insects; relation of environment to insect abundance.

Isely, Prof. F(rederick) B, Trinity University, San Antonio, Texas. *Zoology.* Fairview, Kans, June 20, 73. B.S, Fairmount Col, 99; M.S, Chicago, 09; Marine Biol. Lab, Woods Hole, 09. Instr, high sch, Kans, 01–06; prep. sch, Okla, 06–12; prof. *biol,* Cent. Col. (Mo), 12–20; prof. and dean, Culver-Stockton Col, 20–22; Texas Woman's Col, 22–31; *prof, Trinity (Texas), 31–* Asst, Bur. Fisheries, 10–13. A.A; Soc. Zool; Ecol. Soc; Entom. Soc. Amer; Texas Acad. (v. pres, 32, pres, 38); Okla. Acad. (sec'y, 09–12); N. Cent. Texas Biol. Soc. (pres, 23–25). Kansas Orthoptera; growth and migration of mussels; ecology of orthopterous insects; acridian plant and soil relations; survival value of acridian protective coloration; Texas Tettigoniidae; correlation between mandibular morphology and food specificity in grasshoppers.

Isenbarger, Jerome, 2200 Greenleaf Ave, Chicago, Ill. *Plant physiology.* Kosciusko Co, Ind, 77. B.S, Indiana; Chicago. Teacher, high schs, Ind. and Ky, 02–13; Chicago, 13–22; prof. bot. and head dept, Crane Junior Col, 22–33; head dept. biol. science, *Wright City Junior Col,* 34–35, asst. dean, 34–42, *emer. dean, 42–* Sec'y in charge science curriculum revision, Chicago. Ed. dept. zool, 'Sch. Science and Math,' 20–28, gen. biol, 28–40. A.A. (cmt. place of sci. in educ); Sci. Teachers Asn. (second v. pres, 37); Biol. Teachers Asn; Cent. Asn. Sci. and Math. Teachers (pres, 19); Ill. Acad. Botany; relation of hydrogen ion concentration to plant distribution; pedagogy of science.

Isenberg, Dr. Irving H(arry), Lawrence College, Appleton, Wis. *Wood technology.* Buffalo, N. Y, Sept. 11, 09. B.S, Syracuse, 31, M.S, 32; Bidwell fellow, California, 34–35, Ph.D, 36. Asst, N. Y. State Col. Forestry, Syracuse, 31–32; California, 34–35, Ph.D, 36. Asst, N. Y. State Col. Forestry, Syracuse, 31–32; California, 32–34, tech. asst. forestry, 35–37; *research assoc. and instr. wood technol, Inst. Paper Chem, Lawrence Col, 37–* A.A; Chem. Soc; Soc. Foresters. Wood chemistry; cell wall chemistry; fiber structure.

Isenberger, Dr. Robert M(urray), University of Kansas Hospitals, Kansas City, Kans. *Pharmacology.* Albany, Ind, Feb. 23, 98. A.B, Kansas, 18, A.M, 23; M.D, Western Reserve, 25. Instr. physiol, *Kansas,* 19–23, asst. prof. physiol. and pharmacol, 25–27, assoc. prof. *pharmacol,* 27–39, *prof, 39–* Soc. Pharmacol; Am. Med. Asn; Kansas City Acad. Med. (pres, 40). Anesthesia; drug antagonism; effect of potassium salts on isolated kidney; repair of vascular injuries and hemostasis; thrombosis.

Isenburger, Herbert R(udolf), 30–20 Thomson Ave, Long Island City, N. Y. *Physics.* Frankfurt am Main, Germany, July 22, 00. With *St. John X-Ray Service, Inc,* 26–33, *pres, 33–; instr, Columbia, 43–* Soc. Metals; Welding Soc; Soc. Test. Mat; Asn. Consulting Chem. and Chem. Eng; Soc. X-Ray and Electron Diffraction. Design and installation of equipment and instrument for x-ray and radium inspection of materials; x-ray diffraction analysis; industrial radiography; field inspection of castings and welded structures; industrial radiology; stress determination by means of x-rays.

Isenhour, Dr. Lloyd L(eroy), P. O. Box 98, Oakland, Calif. *Chemistry.* New Augusta, Ind, Dec. 16, 04. A.B, DePauw, 26; M.S, Northwestern, 28, Ph.D, 03. Research chemist, Van Camp Packing Co, Indianapolis, 29–31; indust. fellow for furfural dept, Quaker Oats Co, Miner Labs, 31–32; *chemist and tech. rep, Rohm and Haas Co, 32–* A.A; Chem. Soc. Mercurated aromatic acids; chemistry of the pentoses; preparation of furfural and derivatives.

Isgur, Dr. Benj(amin), 215 Warner St, Woodbury, N. J. *Agronomy.* Boston, Mass, June 19, 11. B.S, Mass. State Col, 33, M.S, 35, Ph.D, 40. Instr. agron, Mass. State Col, 35–38; agronomist, U. S. Dept. Agr, 38–42; *agricultural adviser, Dominican Republic Settlement Asn, 42–* Soc. Agron. Crops; soils; soil colloids; vitamins in relation to fertilizers; vitamins in plants in relation to stage of maturity.

Isham, Dr. Robert M(elyne), Okmulgee Chemical and Clinical Laboratory, Okmulgee, Okla. *Chemistry.* Madras, India, Jan. 22, 89. A.B, Nebr. Wesleyan Univ, 09; A.M, Nebraska, 11; Ph.D, Columbia, 13. Instr, Columbia, 12–14; Colo. Agr. Col, 14–16; director research, Pittsburgh Testing Lab, 16–17; chief research chemist, Air Reduction Co, 17; Empire Gas and Fuel Co. and associated companies, 17–20; *director, Okmulgee Chem. and Clin. Lab, 20–* Chem. Soc. Production of organic chemicals from petroleum and natural gas.

Iskenderian, Dr. Haig P(arnag), 1446 Tuckerman St, N. W, Washington, D. C. *Magnetism.* Constantinople, Turkey, Jan. 23, 05. B.S, Michigan, 27; A.M, Columbia, 32, Ph.D, 37. Asst. physics, Columbia, 35–37; instr, Stevens Inst. Tech, 37; eng. mech, Cooper Union, 37–38; telephone appara-

tus designing engineer, Bell Tel. Labs, 27–32; instr. math. and physics, Pratt Inst, 38–40; *research physicist, Bur. Ordnance, U. S. Navy, 40–* Physical Soc. Rankine magnetic balance and the magnetic susceptibility of water, HDO and D_2O; magnetism

Israel, Prof. Harold E(dward), Northampton, Mass. *Psychology.* Harrison, Ohio, 99. A.B, Miami (Ohio), 21; A.M, Ohio State, 22; A.M, Harvard, 26, Ph.D, 27. Instr. and asst. prof. *psychol,* Dartmouth Col, 23–25; assoc. prof, *Smith Col,* 27–37, *prof,* 37– Visiting assoc. prof, Wesleyan, 30. Assoc. Psychol. Asn.

Israel, Dr. Harold L(ouis), University of Pennsylvania, Philadelphia, Pa. *Medicine.* Boston, Mass, Nov. 16, 09. A.B, Amherst Col, 30; M.D, Jefferson Med. Col, 34; M.P.H, Pennsylvania, 42. Instr. med, sch. med. and grad. sch. med, Pennsylvania, 37–42; *capt, Med. Corps, U. S. Army, 42–* Am. Med. Asn; Pub. Health Asn; Trudeau Soc. Clinical epidemiology of tuberculosis.

Israelsen, Prof. O(rson) W(inso), Utah State Agricultural College, Logan, Utah. *Hydraulic engineering.* Hyrum, Utah, Dec. 25, 87. B.S, Utah Col, 12; M.S, California, 14, Ph.D, 25. Instr. exp. irrig, California, 14–16; asst. prof. *irrig. and drainage eng, Utah State Col,* 16–17, assoc. prof, 17–19, *prof, 19–, irrig. and drainage engineer, Exp. Sta, 16–,* acting dean sch. eng, 28–29. Collaborator, soil conservation service and bur. plant indust, U. S. Dept. Agr, 38– Summers, asst, div. irrig. investigations, U. S. Dept. Agr, 13, 14, 36. Special investigations in soil moisture, California, 23–24. Cmt. irrig, Food Admin, Utah, 17–18. A.A; Civil Eng; Agr. Eng; Geophys. Union; West. Soc. Soil Sci. (v. pres, 22); Utah Acad. (1st v. pres, 35, pres, 36). Soil mechanics and physics; irrigation and drainage engineering; mathematical analysis of the duty of water; the application of hydrodynamics to irrigation and drainage; water and soils relations; drainage of land overlying artesian basins; water-application efficiencies in irrigation; irrigation principles and practices; water conveyance efficiencies; design of drainage wells.

Israelsky, Merle C(athcart), Union Producing Co, 841 M. and M. Bldg, Houston, Texas. *Paleontology.* San Francisco, Calif, April 20, 00. A.B, California, 22. Asst, museum paleont, California, 23; asst. curator paleont, Calif. Acad. Sciences, 23–24; *paleontologist,* Rycade Oil Corp, Houston, 24–25, Humble Oil and Ref. Oil Co, 25–26; Standard Oil of La, Shreveport, 26–27; United Gas System, 27–37, *Union Producing Co, 37–* Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. (v. pres, 34, pres, 36); Calif. Acad. Invertebrate paleontology and stratigraphy.

Itter, Dr. Stuart, Standard Brands, Inc, New York, N. Y. *Biochemistry.* Grand Forks, B. C, Can, March 13, 07. B.A, British Columbia, 30; fellow, Washington (Seattle), 31–32, M.S, 32; fellow, Hopkins, 32–34, Sc.D, 34. Director biol. labs, Loose-Wiles Biscuit Co, 34–38; asst. director *applied research, Standard Brands, Inc,* 38–42, *director, 42–* Vitamins.

Ittner, Dr. Martin H(ill), Colgate-Palmolive-Peet Co, Jersey City, N. J. *Chemistry, Physics.* Berlin Heights, Ohio, May 2, 70. Ph.B, Washington (St. Louis), 92, B.S, 94; A.M, Harvard, 95, Ph.D, 96; hon. Sc.D, Colgate, 30; LL.D, Washington (St. Louis), 38. Asst, Harvard, 94; private asst. to Prof. Jackson, 95; Dr. Wolcott Gibbs, 96; *chief chemist,* Colgate and Co, 96–28, *Colgate-Palmolive-Peet Co, 28–* Indust. advisory council, Bur. Indust. Alcohol. Mod. Pioneer award, Nat. Asn. Mfrs, 40; Perkin medal, 42. Int. Cong. Applied Chem. Chem. Soc. (chairman, N. Y. sect, 23, cmt. on indust. alcohol, councilor, 30, mem, cmt. on revision constitution); Soc. Chem. Indust; Chem. Eng. (treas, director, chairman, cmt. on revision constitution, membership cmt, cmt. ethics, pres, 36, 37); Chemists' Club (pres, 35–36). Engineering.

Iverson, Dr. Vincent E, Montana State College, Bozeman, Mont. *Horticulture.* Minneapolis, Minn, Oct. 6, 10. B.S, Minnesota, 33, M.S, 36, Ph.D, 39. Acting horticulturist, Northwest Sch. Agr. and Exp. Sta, Minnesota, 34; asst. prof. hort. and asst. horticulturist, *Mont. State Col,* 36–41, *assoc. prof. hort. and assoc. horticulturist, Mont. State Col, 41–* Soc. Hort. Sci; Northwest Asn. Hort, Entom. and Plant Path; Northwest Fertilizer Conf. Nutrition of horticultural crops; bacterial ring rot of potatoes; culture of ornamental crops.

Ives, Dr. Herbert E(ugene), 32 Laurel Place, Montclair, N. J. *[3]*Physics.* Philadelphia, Pa, July 31, 82. B.S, Pennsylvania, 05, hon. Sc.D, 29; fellow, Hopkins, 06–08, Ph.D, 08; hon. Sc.D, Yale, 28, Dartmouth Col, 28. Asst. and asst. physicist, Bur. Standards, 08–09; *physicist,* Nat. Elec. Lamp Asn, Cleveland, 09–12; United Gas Improv. Co, 12–18; West. Elec. Co, 19–25; *Bell Tel. Labs, 25–* Mem, Nat. Defense Research Cmt, 41– Longstreth medal, Franklin Inst, 06, 15, 18; John Scott medal, 27; Traill-Taylor medal, Royal Photog. Soc, 33; Frederic Ives medal, Optical Soc. Amer, 37. In charge aerial photog. research, A.S, U.S.A, 18–19. Nat. Acad; A.A. (v. pres, B, 38); Physical Soc; Illum. Eng. Soc. (v. pres, 11); Optical Soc. (v. pres, 23, pres, 24); Elec. Eng; Philos. Soc; Astron. Soc; Franklin Inst; Phila. Physics Club (pres, 17); Physical Soc. London. Diffraction color photography; Lippmann color photography; light of the firefly; phosphorescence; illumination; photometry; primary standard of light; color measurement; intermittent vision; radiometry and physical photometry; photoelectricity; positive rays; second order Doppler effect; artificial daylight; Welsbach mantle; airplane photography; photoengraving; transmission of pictures by electricity; television; parallax panoramagrams and projection in relief; scientific simplification of artist's palette.

Ives, Howard C(hapin), P. O. Box O, San Clemente, Calif. *Civil engineering.* Cheshire, Conn, March 20, 78. Ph.B, Yale, 98, C.E, 00. Civil engineering, 99–00; instr. civil eng, Worcester Polytech, 00–03; asst. prof, Pennsylvania, 03–06; ry. eng, Worcester Polytech, 06–12, prof, 12–25; *civil and consulting engineer, 25–* Civil Eng; Eng. Educ; Inst. Social Sci. Stereotomy; railroad engineering; surveying; highways; mathematical tables; map drafting.

Ives, Prof. J(udson) D(unbar), Jefferson City, Tenn. *Biology.* Alfred, Maine, Feb. 19, 84. A.B, Wake Forest Col, 05, A.M, 06; Chicago, 08, 14–15, 16–17, 22–23; Marine Biol. Lab, Woods Hole, 09; Yale, 31–32. Asst. biol, Wake Forest Col, 04–06, instr, 06–14; *prof.* science, Ouachita Col, 15–16; biol, Mt. Allison, 17–18; biol. and geol, Col. of Charleston, 18–20; *biol,* Stetson, 20–21; William Jewell Col, 21–22; *Carson-Newman Col, 23–* A.A; Eugenics Soc; Entom. Soc. Amer; Ecol. Soc; Genetic Asn; Asn. South. Biol; N. Y. Acad; N. C. Forest Asn; Tenn. Acad. (exec. cmt, 38–41); N. C. Acad. The gall-fly, Diastrophus nebulosus; cross-overs in Drosophila; cave animals of Tennessee; breeding habits of cave spiders; cave hibernation of mosquitoes.

Ives, Dr. Philip T(ruman), 56 Taylor St, Amherst, Mass. *Genetics.* Amherst, Mass, Aug. 15, 09. A.B, Amherst Col, 32, A.M, 34; Ph.D, Calif. Inst. Tech, 38. Rufus B. Kellogg research fellow, *Amherst Col,* 34–41, *research asst. biol, 41–* A.A; Genetics Soc. Population genetics of Drosophila; developmental genetics; spontaneous and induced mutation rates.

Ives, Prof. Sumner A(lbert), Furman University, Greenville, S. C. *Plant physiology.* Alfred, Maine, July 23, 82. A.B, Wake Forest Col, 03; B.S, Chicago, 09, M.S, 18, Ph.D, 22. Prin, Siler City Inst, 03–05; teacher nat. sciences, Chowan Col, 05–09; prof, Ouachita Col, 09–12; cashier, Bank of Harrellsville, N. C, 12–17; prof. biol, Howard Col, 18–26, dean science, 24–26; *prof. biol, Furman, 26–, director camps, 27–, curator museum, 34–* Consulting botanist, City Park Cmn, Greenville. Chairman cmt, Furman-Greenville Arboretum, 34. A.A; Soc. Plant Physiol; Bot. Soc; fel. S. C. Acad. (v. pres, 27, pres, 28, governor); Ala. Acad. (sec'y, 23); Birmingham Sci. Soc. (pres, 23). Germination of dormant seeds; flora of Greenville County; ecology of Myrtle Beach, South Carolina.

Ivett, Dr. Reginald W(illiam), 1411 Hamilton St, Wilmington, Del. *Physical chemistry.* Stockton, N. Y, Oct. 27, 15. A.B, Allegheny Col, 36; M.S, Purdue, 39, Ph.D, 41. *Research chemist, Hercules Exp. Sta, Hercules Powder Co.* Chem. Soc. Electrochemistry; catalysis.

Ivie, Wilton, University of Utah, Salt Lake City, Utah. *Arachnology.* Eureka, Utah, March 28, 07. B.S, Utah, 30, M.S, 32; Stanford, 37. Instr. *biol, Utah,* 33–39, *curator, 39–* Classification and biogeography of Arachnida.

Ivy, Dr. A(ndrew) C(onway), Northwestern University Medical School, Chicago, Ill. *[4]*Physiology.* Farmington, Mo, Feb. 25, 93. B.S, Chicago, 16, M.S, 17, Ph.D, 18, M.D, Rush, Chicago, 21. Instr. physiol, Chicago, 18–19; assoc. prof, sch. med, Loyola (Ill), 20–23; Chicago, 23–25; *Nathan Smith Davis prof. physiol. and pharmacol. and head dept, med. sch, Northwestern, 25–; sci. director, Naval Med. Research Inst, 42–* Carpenter lecturer, N. Y. Acad. Med, 34. Ed. board, 'Am. Jour. Physiol'; 'Am. Jour. Digest. Dis. Nutrition.' Int. Cong. Hepatic Insufficiency and Liver Dis-

eases, Vichy, France, 37. A.A; Physiol. Soc. (pub. trustee, 33–35, sec'y, 35–39, pres, 39–41); fel. Am. Med. Asn. (chairman, sect. physiol. and path, 31); Soc. Exp. Biol. (councilor, 30, chairman, Ill. sect, 29); fel. Col. Physicians; Asn. Study Int. Secretions; Gastro-Enterol. Asn. (pres, 41); Inst. Nutrition; hon. fel. Gorgas Med. Soc; hon. mem. Harvey Soc; Ill. Acad; Chicago Soc. Int. Med; Inst. Med. Chicago. The gastro-intestinal tract; the gallbladder; the brain; glands of internal secretion; peptic ulcers.

Ivy, Dr. Emma Kohman, University of Chicago, Chicago, Ill. *Physiology.* Dillon, Kans, Jan. 10, 89. B.S, Kansas, 16; Ph.D, Chicago, 19. Asst. *physiol, Chicago,* 16–18, assoc, 18–19, *instr, 19–* Protein deficiency; edema.

Ivy, John S(mith), 1124 Neils Esperson Bldg, Houston, Texas. *Economic geology.* Cape Girardeau, Mo, April 14, 98. B.S, Chicago, 21. Geologist, Shell Co. of Calif, 20; coal sect, Ill. Geol. Surv, 22; chief geologist, Palmer Corp. of La, 23–27; La. Gas and Fuel Co, 27–30; consulting geologist, Rumanian investigations, Am. For. Power Corp, 30–31; chief geologist and gen. supt. explorations and developments, United Gas System, 31–37, v. pres. and chief geologist, Union Producing Co, 37–41; *consulting geologist and petrol. engineer, 41–* Summer, geologist, Ill. Geol. Surv. and U. S. Geol. Surv, Barrington Quadrangle, Ill, 21. A.A; Asn. Petrol. Geol. (regional director); Min. and Metal. Eng; Soc. Explor. Geophys; Seismol. Soc; N. Y. Acad. Stratigraphic and structural geology; the Barrington quadrangle and the stratigraphy of the coal measures of Illinois; oil and gas exploration and development and the historical geology of the Gulf coast.

Izard, Dr. E(mmette) F(arr), 356 McKinley Ave, Kenmore, N. Y. *Chemistry.* Hazlehurst, Miss, Jan. 28, 04. A.B, Miss. Col, 24; M.S, Louisiana, 25; Ph.D, Mass. Inst. Tech, 29. Instr. chem, Louisiana, 23–26; Mass. Inst. Tech, 26–29; *chemist,* exp. sta, *E. I. du Pont de Nemours and Co,* 29–35, *rayon dept, 35–* Chem. Soc. Physical chemistry; reduction potential of selenious acid; free energy of formation of trichloride ion; cellulose derivatives; plasticizers; resins; Cellophane; rayon, dyeing.

J

Jaap, Prof. R(obert) George, 129 Kings Highway, Stillwater, Okla. *Poultry husbandry.* Thedford, Ont, Can, Oct. 27, 05. B.A, Saskatchewan, 27, B.S.A, 29; M.S, Wisconsin, 30, Ph.D, 33. Poultry asst, Saskatchewan, 26–29; asst, Wisconsin, 29–33, research assoc. genetics, 33–34; Swift and Co, 34–35; asst. prof. *poultry husbandry, Okla. Agr. and Mech. Col,* 35–40, *assoc. prof, 40–* A.A; Poultry Sci. Asn; Genetics Soc; Genetic Asn. Poultry breeding, genetics; endocrinology; genetics and physiology of plumage coloration in ducks; pituitary and gonad relation in chicks and ducks; genetics of rate of feathering, cross-breeding and growth of chickens; inheritance of market type of turkeys.

Jack, Prof. E(ugene) L(owry), 340 A St, Davis, Calif. *Dairy technology.* Pa, June 14, 99. B.S, Pa. State Col, 33, M.S, 34, Ph.D, 36. Research chemist, Borden Co, 36–37; *asst. prof. dairy industry and dairy technol, col. agr, California, 37–* A.A; Chem. Soc; Dairy Sci. Asn. Physical and chemical properties of milk fat; properties of dry milk.

Jack, Dr. G(eorge) W(illiam), 1301 25th St, Galveston, Texas. *Physical chemistry.* Kittanning, Pa, July 25, 11. B.S, Grove City Col, 36; Virginia, 36–37; Ph.D, Pittsburgh, 41. *Research chemist on by-products, Pan American Ref. Corp, 40–* Chem. Soc. Heat capacities and entropies of monosaccharides.

Jack, Prof. John G(eorge), East Walpole, Mass. *Forestry.* Chateaugay, Que, Can, April 15, 61. Lecturer, Arnold Arboretum, Harvard, 91–35, instr. forestry, *Harvard,* 03–08, asst. prof. *dendrol,* 08–35, *emer. asst. prof, 35–* Lecturer, Mass. Inst. Tech, 99–08; U. S. Geol. Surv; U. S. Forest Service. A.A; Soc. Foresters; Forestry Asn; Bot. Soc; Am. Acad; Mass. Hort. Soc; Boston Soc. Nat. Hist; Dendrol. Gesell. Dendrology; arboriculture; horticulture; economic entomology.

Jacklin, H(arold) M(adison), 111 Fowler Ave, West Lafayette, Ind. *Engineering.* Toronto, Ont, Can, Dec. 28, 90. B.S, Mich. State Col, 13, M.E, 19. Teacher, high sch, Mich, 13–15; instr. eng, Wisconsin, 15–19; asst. chief engineer, Oneida Truck Co, 19–21; instr. and asst. prof, Ohio State, 21–27; assoc. prof. automotive eng, *Purdue,* 27–37, *prof. mech. eng, 37–* Consulting engineer. Soc. Automotive Eng; Mech. Eng; Eng. Educ. Automotive engineering; effects of vibrations in vehicles on humans; high speed indicators; testing of fuels and engines; riding qualities.

Jackling, Daniel (Cowan), 1800 Hobart Bldg, San Francisco, Calif. *Mining engineering.* Near Appleton City, Mo, Aug. 14, 69. B.S, Mo. Sch. Mines, 92, Met.E, 00, D.Eng, 33; LL.D, California, 40; D.Eng, Southern California, 40; Sc.D, Utah, 42. Asst. prof. chem. and metal, Mo. Sch. Mines, 91–93; chemist and metallurgist, Cripple Creek Dist, Colo, 94–95; in charge construction and operation, metal. works, Mercur Gold Mines, Utah, 96–00; consulting engineer, U. S. Reduction and Ref. Co, Colo, 01–02; organizer, Utah Copper Co, 03, *pres. and director; Mesabi Iron Co;* Ray and Gila Valley R. R. Co; Nev. Consol. Copper Corp; Butte and Superior Mining Co; Bingham and Garfield Ry; Gallup Am. Coal Co; Nev. North. Ry. Co. Managing director mining operations, Kennecott Copper Corp; director, Braden Copper Co. D.S. medal, 19; gold medal, Mining and Metal. Soc. Amer, 26; William Lawrence Saunders gold medal, Am. Inst. Mining and Metal. Eng, 30; John Fritz gold medal, 33; Washington award, 40. Director, U. S. Govt. Explosives Plants, 17–20; asst, U. S. Director Purchases, Storage and Traffic, 18. Min. and Metal. Soc. (councilor, 39–41); Chem. Soc; fel. Mech. Eng; Elec. Eng; West. Soc. Eng; Newcomen Soc. England. Development and improvement of known methods of mining; chemical or other metallurgical beneficiation of low-grade, metalliferous ores, principally those of copper, lead, zinc, molybdenum, gold, silver and the metals of the platinum group.

Jackman, Harold W(esley), 606 S. McKinley Ave, Champaign, Ill. *Chemical engineering.* Martinsville, Ind, Oct. 19, 01. B.S, Michigan, 23, M.S, 24. Chief chemist and supt. of mfg, Battle Creek Gas Co, Mich, 25–41; *chem. engineer, Ill. Geol. Surv, 42–* Chem. Soc. Carbonization properties of Illinois coals.

Jackman, Dr. Roscoe E(lmer), Jackman's Floral Villa, Rattlesnake Drive, R.F.D. 2, Missoula, Mont. *Organic chemistry, Horticulture.* Washington Co, Nebr, Dec. 16, 96. A.B, Montana, 21; Ph.D, Minnesota, 29. Asst, Montana, 19–21; inorg. and org. chem, Minnesota, 24–29; org. research chemist, Roessler and Hasslacher Chem. Co, Niagara Falls, N. Y, 29–32; *plant propagator.* Janitor-custodian-engineer, Missoula Pub. Sch. System, Mont, 32–43. 1, 3-diketo hydrindene and certain derivatives; chlorinated hydrocarbons.

Jackson, Dr. Arnold O(sborne), 185 Highfield Lane, Nutley, N. J. *Organic chemistry.* Mattituck, L. I, N. Y, March 2, 07. B.S, Presb. Col. (S. C), 30; M.S, Illinois, 31, Ph.D, 34. Asst. org. chem, Illinois, 31–33; research chemist, *G. W. Carnrick Co, Newark, N. J,* 33–39, *asst. chief chemist, 39–* Chem. Soc; Asn. Study Int. Secretions. Synthesis of thiolimidazoles and compounds related to adrenaline; sex hormones; synthetic estrogenic compounds.

Jackson, Dr. C(arey) B(irdsong), 321 Castlegate Road, Forest Hills, Wilkinsburg, Pittsburgh, Pa. *Physical chemistry.* Meridian, Miss, July 4, 07. B.S, Miss. State Col, 28; M.S, George Washington, 29; Ph.D, Hopkins, 34. Instr, George Washington, 29–30; *research chemist,* Carbon Monoxide Eliminator Corp, 30–34; Armour and Co, 34–35; Catalyst Research Corp, 35–37; *Mine Safety Appliances Co, 37–* A.A; Chem. Soc. Hydrogenation of fats; fatty acids; respiratory equipment; peroxides.

Jackson, Cha(rle)s F(reeman), Ancor Corp, 230 Park Ave, New York, N. Y. *Mining engineering.* Minneapolis, Minn, Jan. 27, 86. E.M, Minnesota, 07, 13. Miner, millman, assayer, surveyor and mine engineer, various mining companies, 07–13; chief mining engineer, Hibbing dist, Arthur Iron Mining Co. Minn, 14–17; chief mining engineer, consulting eng. dept, M. A. Hanna Co, Cleveland, 17–22; consulting mining engineer, Crowell and Murray, Cleveland, 23; mine manager, Cyprus Mines Corp, Island of Cyprus, 24–25; chief engineer, Ranney Oil Mining Co, 26–27; supt, Paymaster Mine, Ont, 28; prin. mining engineer, investigating mining methods and costs, U. S. Bur. Mines, 28–33; manager, Bussieres Mine, Senneterre, Que, Can, 34; *chief engineer, mining div, U. S. Bur. Mines, 35–, director exploration for strategic mineral deposits, 39–; consulting engineer, Ancor Corp, 43–* Min. and Metal. Eng. Mining methods and costs; sampling and estimation of ore deposits.

Jackson, Dr. Chevalier, Temple University Hospital, Broad and Ontario Sts, Philadelphia, Pa. *Medicine.* Pittsburgh, Pa, Nov. 4, 65. West. Univ. of Pa; M.D, Jefferson Med. Col, 86. *Prof.* laryngol, Pittsburgh, 12–16; Jefferson Med. Col, 16–24, *bronchoscopy and esophagoscopy,* 24–30; grad. sch. med, Pennsylvania, 24–30, sch. med, 26–30; *Temple, 30–; Woman's Med. Col. of Pa, 34–, pres.* Visiting prof, sch. med, Louisiana. Research fund prize, Laryngol, Rhinol. and Otol. Soc; de

Roadles medal, Laryngol. Soc, 26; Bok prize, 27; gold medal, Radiol. Soc. N. Amer, 33; officier, Légion d'honneur; chevalier, Order of Leopold; commander, Order of the Crown, Italy; officer, Cruzeiro, Brazil. Am. Med. Asn; Col. Surg; Laryngol. Asn; Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol; Bronchos. Soc; Therapeut. Soc; Asn. Thoracic Surg; Philos. Soc; Phila. Laryngol. Soc; Col. Physicians Phila; hon. mem. N. Y. Acad. Med; Pittsburgh Acad. Med; hon. fel. Royal Soc. Med; hon. fel. Scottish Otolaryngol. Soc; hon. fel. Soc. française d'Otolaryngol; hon. mem. Swedish Med. Soc; hon. fel. Soc. Ital. d'Otolaryngol; Soc. Otolaryngol. de Madrid; Rumanian Otolaryngol. Soc; Polish Otolaryngol. Soc; hon. mem. Nat. Acad. Med. Mex. Bronchoscopy; esophagoscopy; gastroscopy; foreign bodies in the air and food passages; cancer of the larynx.

Jackson, Prof. C(icero) F(loyd), University of New Hampshire, Durham, N. H. *Zoology.* Lafayette, Ind, Sept. 30, 82. A.B, DePauw, 05; fellow, Ohio State, 05–07, M.S, 07. Asst. zool, DePauw, 04–05; Ohio State, 07–08; instr. entom, New Hampshire Col, 08–10, *prof. zool. and entom,* 10–23, *New Hampshire, 23–,* dean col. lib. arts, 30–39, *director biol. inst, 39–* A.A; Entom. Soc; Ecol. Soc; Soc. Mammal; Genetic Asn; Boston Soc. Nat. Hist; N. H. Acad. Ecology; mammalogy.

Jackson, Dr. C(larence) M(artin), University of Minnesota, Minneapolis, Minn. *[1]*Anatomy.* What Cheer, Iowa, April 12, 75. Fellow, Missouri, 97–99, B.S, 98, M.S, 99, M.D, 00, LL.D, 23; Chicago, 00–01; Leipzig, 03–04; Berlin, 04. Instr. anat, Missouri, 99–00, asst. prof. in charge anat. and histol, 00–02; prof, 02–13, dean med. sch, 09–13; prof. *anat.* and head dept, *Minnesota,* 13–41, *emer. prof, 41–,* acting dean grad. sch, 17–18, 25. Assoc. ed, 'Am. Jour. Anat'; ed, 5th to 9th editions, 'Morris's Human Anat.' Advisory board, Wistar Inst; chairman med. div, Nat. Research Council, 23–24; pres, State Board Examiners in Basic Sciences, Minn, 30–43. A.A; Soc. Nat; Asn. Anat. (pres, 22–24); Am. Med. Asn; Soc. Exp. Biol; Anat. Geseli. Human and comparative anatomy, histology and embryology; experimental morphology; human and animal growth; effects of inanition upon growth and structure.

Jackson, D(avid) H(oughton), 8260 Audley St, Kew Gardens, L. I, N. Y. *Chemistry, Chemical engineering.* Milledgeville, Ga, July 24, 99. B.S, Guilford Col, 18; du Pont fellow, North Carolina, 19–20, M.S, 20. Research chemist, Aluminum Co. of Amer, 20–21; research chemist and chem. engineer, Elliott Co, Jeannette, Pa, 21–26; manager information and advertising depts, Am. Chem. Soc, 26–31; *chem. engineer, Croll-Reynolds Eng. Co, 31–, v. pres, 38–* Chem. Soc; Inst. Chem. (sec'y-treas, New York sect, 38–41); Chemists' Club. High vacuum process; removing dissolved air and gases from water and other liquids.

Jackson, Dr. D(ennis) E(merson), University of Cincinnati Medical School, Cincinnati, Ohio. *Pharmacology.* Ridgeport, Ind, Sept. 3, 78. A.B, Indiana, 05, A.M, 06, Ph.D, 08; M.D, Rush, Chicago, 13. Asst. physiol, Indiana, 04–06; pharmacol. and physiol. chem, Chicago, 06–07; instr. pharmacol, Indiana, 07–08, asst. prof. physiol. and pharmacol, 08–10; assoc. pharmacol, Washington (St. Louis), 10–15, assoc. prof, 15–18; *prof. pharmacol. and therapeut, Cincinnati, 18–* Summer, special expert, div. pharmacol, hygienic lab, U. S. Pub. Health Service, 18. Assoc. ed, 'Jour. Lab. and Clin. Med.' Revision cmt, U. S. Pharmacopoeia, 20–30, 40– Scroll of Merit, Nat. Anesthesia Research Soc, 23. A.A; Soc. Pharmacol; Physiol. Soc; Am. Med. Asn; Soc. Exp. Biol; Asn. Hist. Med; Physicians Art Asn; hon. mem. Ohio State Anesthesia Soc; Int. Anesthesia Research Soc. (hon. pres, 25). Methods for study of general anesthesia, artificial respiration and action of drugs on the lungs; pharmacology of organic metallic compounds and opium derivatives; respiratory stimulants; the pathology and treatment of coronary and respiratory diseases; anaphylaxis; autonomic nervous system; drugs; glandular extracts; experimental pharmacology and materia medica.

Jackson, Dr. Donald R(ichard), 4117 Kirby St, S. W, South Charleston, W. Va. *Organic chemistry.* Wooster, Ohio, Nov. 21, 09. B.S, Col. of Wooster, 31; M.S, Ohio State, 34, Ph.D, 36. Asst. chem, Ohio State, 31–35; *research chemist,* Union Carbide and Carbon Research Labs, Inc, 36–39; *Carbide and Carbon Chemicals Corp, 39–* Chem. Soc. Effects of temperature and acid catalysis on ammonolytic reactions.

Jackson, Dr. Donald T(ash), Hammermill Paper Co, Erie, Pa. *Chemistry.* Bannack, Mont, March 28, 03. B.S, Mont. State Col, 26; Ph.D, Pittsburgh, 32. Instr. chem, Mont. State Col, 26–28; analyst, Mont. Oil Cmn, 26–28; asst, Pittsburgh, 28–30, instr. chem, Erie center, 30–33; *research chemist, Hammermill Paper Co, 33–* Summer, analyst, State Board Health, Mont, 28; asst, Mellon Inst, 30. Chem. Soc; Asn. Pulp and Paper Indust; Pa. Chem. Soc. (governor, 38–). Synthetic glycerides; analytical procedures; pulp and paper; colloid chemistry.

Jackson, Prof. Dugald C(aleb), 5 Mercer Circle, Cambridge, Mass. *[1]*Electrical engineering.* Kennett Square, Pa, Feb. 13, 65. B.S, Pa. State Col, 85, C.E, 88; Cornell, 85–87; hon. Sc.D, Columbia, 32; hon. D.Eng, Northeastern, 38. Instr. physics, Cornell, 86–87; v. pres. and engineer, West Eng. Co, Lincoln, Nebr, 87–89; asst. chief engineer, Sprague Elec. Ry. and Motor Co, N. Y, 89–90; chief engineer, cent. dist, Edison Gen. Elec. Co, 90–91; prof. *elec. eng,* Wisconsin, 91–07; prof. and head dept, *Mass. Inst. Tech,* 07–35, *emer. prof, 35–* Iwadare lecturer, Inst. Elec. Eng, Japan, 35; lecturer, China, 36; col. agr. and eng, North Carolina, 38. Consulting engineer and expert for various corporations, 91–30, chairman div. eng. and indust. research, Nat. Research Council, 30–33, exec. cmt, 33–35. Mem, Eng. Council Professional Develop, 32–38. Jury awards, Columbia Expos, 93; Pan-Am. Expos, '01. Lamme medal, Soc. Promotion Eng. Educ, 31; chevalier, Légion d'honneur; commendation of commander in chief, U.S.A; Edison medal, Am. Inst. Elec. Engineers, 38. U. S. del, World Eng. Cong, 29. Col, C.Eng. Aux. R. A.A. (v. pres. and chairman, M, 32); Elec. Eng. (pres, 10); Mech. Eng; Civil Eng; Eng. Educ. (pres, 06); Physical Soc; Philos. Soc; Inst. Consulting Eng. (pres, 38, 39); Am. Acad. (pres, 37, 38); Inst. Elec. Eng. Gt. Britain; Soc. française des Elec. Electrical power and its applications; engineering education.

Jackson, Lieut. Col. D(ugald) C(aleb), Jr, Frankford Arsenal, Bridesburg Station, Philadelphia, Pa. *Electrical engineering.* Madison, Wis, Aug. 3, 95. A.B, Harvard, 17; B.S, Mass. Inst. Tech, 21, M.S, 22. Instr. elec. eng, Missouri, 22–23; asst. prof, Duke, 23–25; prof. and head dept. mech. and elec. eng, Louisville, 25–30; elec. eng, Kansas, 30–36; director, Lewis Inst, 35–38; educational research, Eng. Council Professional Develop, 38–39; *dean col. eng, Notre Dame, 39–; exec, Instrument Dept, Frankford Arsenal, 41–* Summers, engineer, Jackson and Moreland, Boston, 21, 24; develop. engineer, West. Elec. Co, Chicago, 29; engineer, Kans. City Power and Light Co, Mo, 31. Engineer, Am. Peace Cmn, 19. Second lieut, C.A.C, 17–19, lieut, C.A.Res, 19–23, capt, 23–28, major, 28–42, lieut. col, 42– A.A; fel. Elec. Eng. (chairman, Louisville sect, 26–28; South Bend sect, 41); Mech. Eng; Civil Eng; Eng. Educ. (pres, Kans-Nebr. sect, 35); Inst. Aeronaut. Sci; Newcomen Soc; West. Soc. Eng. Power transmission; electrical machinery.

Jackson, Prof. Dunham, University of Minnesota, Minneapolis, Minn. *[2]*Mathematics.* Bridgewater, Mass, July 24, 88. A.B, Harvard, 08, A.M, 09; Ph.D, Göttingen, 11. Instr. *math,* Harvard, 11–16, asst. prof, 16–19; *prof, Minnesota, 19–* Capt, Ordnance Dept, 18–19. Nat. Acad; A.A. (v. pres, A, 27, sec'y, 41–); Math. Soc. (v. pres, 21, ed, 'Trans,' 26–31); Math. Asn. (v. pres, 24, pres, 26); Physical Soc; Inst. Math. Statist; Nat. Council Teachers Math; Am. Acad. Trigonometric and other series; polynomial approximation; orthogonal polynomials; theory of statistics.

Jackson, Dr. E(rnest) L(ee), U. S. Public Health Service, Washington, D. C. *Organic chemistry.* Gillsville, Ga, Sept. 27, 91. A.B, Georgia, 13; M.S, Vanderbilt, 17; A.M, Harvard, 20, du Pont fellow, 20–22, Ph.D, 24. Instr. chem, Georgia, 17–18; Austin teaching fellow, Harvard, 18–20; asst. prof, Emory (Ga), 22–24; instr, Western Reserve, 24–26, asst. prof, 26–28; *chemist, nat. inst. health, U. S. Pub. Health Service, 28–* A.A; Chem. Soc. Reaction of alkaline reagents with betabromophosphonic acids; addition of alkyl hypohalites to ethylene derivatives; iodo-alkoxy derivatives of cinnamic acid; mechanism of certain reactions; wool; sugar chemistry; choline derivatives; chemotherapy.

Jackson, Prof. Eugene L(aVerne), 133 Pinecrest Ave, Decatur, Ga. *Pharmacology.* French Creek, Ohio, Aug. 3, 95. B.S, Michigan, 20, Ph.C, 23; Ph.D, Western Reserve, 39. Veg. histologist, Exp. Sta, Kentucky, 20–23; asst. prof. *pharmacol, Emory,* 23–29, *assoc. prof, 29–,* acting chairman *dept,* 28–29, *chairman, 29–* A.A; Soc. Pharmacol. Insulin-barbital antagonism; hypnotics.

Jackson, Frank H(erbert), 106 E. Raymond St, Chevy Chase, Md. *Engineering.* Washington, D. C, Sept. 1, 82. High sch; univ. Asst, physical testing lab, *bur. pub. roads,*

U. S. Dept. Agr, 05–24, engineer in charge, 24–28, *senior engineer of tests in charge research on non-bituminous materials*, 28– Soc. Test. Mat. (exec. cmt, 30–32, sec'y, cmt. C-1, 28–31); Concrete Inst. Non-bituminous road materials; methods of testing and physical properties of cement, concrete, sand, stone, gravel and other non-bituminous materials used in road construction.

Jackson, Prof. Fred K(inney), 466 S. Prospect St, Burlington, Vt. *Physiology*. Barre, Vt, March 14, 74. A.B, Vermont, 97, M.D, 99. Intern, Mary Fletcher Hosp, Burlington, Vt, 00–01; instr. *physiol, Vermont*, 01–03, adj. prof, 03–11, prof, 11–41, *emer. prof, 41–* Asst. demonstrator anat, Vermont, 04–06. A.A; Vt. Hist. Soc; Burlington Clin. Soc. Lethal reduction of temperature; diet and dietaries; internal secretions; genealogy.

Jackson, Dr. Hartley H(arrad) T(hompson), U. S. Department of the Interior, Washington, D. C. *Zoology*. Milton, Wis, May 19, 81. A.B, Milton Col, 04; A.M, Wisconsin, 09; Ph.D, George Washington, 14. Instr, high schs, 04–08; asst. zool, Wisconsin, 09–10; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 10–24, biologist, 24–25, in charge div. biol. investigations, 25–27, senior biologist in charge mammalian taxon, 27–35, *in charge* sect. mammal, 35–36, wildlife surveys, 36–40; *biol. surveys, U. S. Dept. Interior, 40–* Summers, field naturalist, Wis. Geol. and Nat. Hist. Surv, 08–10. A.A. (councilor, 22–26); Soc. Nat; assoc. Ornith. Union; Soc. Mammal. (cor. sec'y, 19–25, ed, 25–29, director, 30–37, v. pres, 37, pres, 38–40); Cooper Ornith. Club; Wis. Acad; Biol. Soc. Wash. (pres, 31–33); Wash. Acad. (v. pres, 31–33). Ecology of vertebrates; zoogeography; systematic mammalogy; behavior of amphipods.

Jackson, Dr. Henry, Jr, Boston City Hospital, Boston, Mass. *Medicine*. Boston, Mass, Oct. 22, 92. A.B, Harvard, 15, M.D, 19. *Asst. prof. med, Harvard, 31–; assoc. physician, Thorndike Mem. Lab, Boston City Hosp, 29–* Physician, Pondville Hosp, 28–; assoc. physician, Collis P. Huntington Hosp, Harvard, 26–41; asst. visiting physician, Boston City Hosp, 42– Soc. Exp. Biol; Soc. Clin. Invest; assoc. Am. Physicians; Asn. Cancer Research; Am. Acad; New Eng. Cancer Soc. Blood diseases; cancer; diseases of lymph nodes.

Jackson, H(enry) Louis, Rhode Island State College, Kingston, R. I. *Chemistry*. Utica, N. Y, Feb. 8, 79. B.S, Mass. Inst. Tech, 05; M.S, Hamilton Col, 09. Asst. chem, Mass. Inst. Tech, 05; sugar chemist, 06; instr. chem, Mass. Inst. Tech, 07; asst. prof, Kansas, 07–13; state chemist, Idaho, 13–17; prof. indust. chem, N. Dak. Col, 17–18; R. I. State Col, 19–31; chemist, State Board Pub. Roads, *R. I*, 34–40, *senior materials chemist, div. roads and bridges, State Dept. Pub. Works, 40–* Sanit.C, 18–19, capt. New Eng. Asn. Chem. Teachers. The action of pyridin on salicyl chlorides; lead number of vanilla extracts; vinegar; testing for saccharin; benzoate of soda in food; tin in canned foods; egg albumen in baking powder; composition of milk of known purity.

Jackson, Prof. H(erbert) S(pencer), University of Toronto, Toronto, Ont, Can. *[3]Botany*. Augusta Center, N. Y, Aug. 29, 83. A.B, Cornell, 05; Harvard, 08–09; Ph.D, Wisconsin, 29. Asst. mycol. and instr. bot, Del. Col. and Exp. Sta, 05–08; Austin teaching fellow, Harvard, 08–09; prof. bot. and plant path, Oregon State Col, 09–15; chief bot, Exp. Sta, Purdue, 15–29; *prof. mycol, Toronto, 29–, head dept. bot, 41–* Agent, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 18–29. Summers, instr, Harvard, 09; prof, Cornell, 16, 17. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc. (pres, Pacific div, 15); Mycol. Soc. (pres, 34); New Eng. Bot. Club; fel. Royal Soc. Can. (pres, sect. V, 43). Mycology; rusts and smuts; Thelephoraceae.

Jackson, Dr. H(erbert) W(illiam), Box 527, Blacksburg, Va. *Hydrobiology*. Durham, N. H, Jan. 5, 11. A.B, Dartmouth Col, 34; Cramer Foundation fellow, 34–35; Harvard, 34–36; fellow, Cornell, 36–39, Ph.D, 39. Instr. *biol, Va. Polytech*, 39–41, *asst. prof, 41–* Collector, zool. lab, New Hampshire, 27–37. A.A; Soc. Mammal; Ecol. Soc; Soc. Ichthyol. and Herp; Va. Acad. Limnology; pollution; marine invertebrate ecology.

Jackson, Prof. H(oward) C(ampbell), 4014 Council Crest, Madison, Wis. *Dairy industry*. Covert, N. Y, Feb. 20, 92. B.S, Cornell, 15, M.S, 17, Ph.D, 20. Asst. and instr. dairying, Cornell, 15–20, asst. prof, 21–24; assoc. dairy mfg. specialist, bur. dairy indust, U. S. Dept. Agr, 24–27; *prof.* dairy husbandry, *Wisconsin*, 27–33, *dairy indust, 33–, chairman dairy dept, 27–* Dairy Sci. Asn. (v. pres, 30, pres, 33). Dairy manufacturing.

Jackson, Prof. J(esse) B(ythwood), 227 S. Waccamaw Ave, Columbia, S. C. *Mathematics*. Hagood, S. C, June 24, 89. A.B, South Carolina, 10; A.M, Columbia, 17. Prin. and teacher, high schs, Ga. and S. C, 10–16, 18; assoc. prof. *math, South Carolina*, 19–32, *prof, 32–* A.A; Math. Soc; Math. Asn. (chairman south east. sect, 38). Teaching of mathematics; actuarial science.

Jackson, Dr. J(ohn) M(athews), American Can Co, 11th Ave. and St. Charles Road, Maywood, Ill. *Physical chemistry*. Chicago, Ill, July 9, 08. B.S, Chicago, 29, Ph.D, 32. *Chemist, research dept, Am. Can Co, 32–* Chem. Soc; Inst. Food Technol. Food preservation; decomposition of organic compounds in electrical discharges; heating rates of canned foods during sterilization; flash sterilizing foods as a means of quality improvement.

Jackson, Dr. John Price, R. F. D. 1, Pittston, Pa. *Electrical engineering*. B.S, Pa. State Col, 89, M.E, 92, E.E, 01; Sc.D, Pittsburgh, 06. Constructing and consulting engineer; prof. elec. eng, dean sch. eng. and director eng. exp. sta. and eng. exten, Pa. State Col, 07–13; Pa. commissioner labor and indust, chairman, Indust. Board, and v. chairman, Pa. Workmen's Ins. Fund, 13; report on operation, elec. power utilities, 20; tech. adviser, Indust. Relations Cmt. Phila, 21; nat. director joint fuel cmt, Nat. Utility Asn, Washington, D. C, 22; director personnel, Consol. Edison Co. of N. Y, 23–38; *retired*. Trustee, Pa. State Col, 17; mem, N. Y. State and U. S. Advisory Board on Employment. Officer, Crown of Italy; chevalier, Légion d'honneur; Cross of War of Italy; citation, Gen. Pershing. Director econ. damage sect, Am. Peace Cmn, mil. report indust. conditions, England and France, and Am. Mil. Mission, Turkey. C.Eng, U.S.A, 17–18, col, C.Eng.R. Fel. Elec. Eng; fel. Mech. Eng; hon. mem. Pub. Works Asn; N. Y. Elec. Soc. Electricity and magnetism; heat insulation; heat treatment of metals; road materials; light transmission qualities of glass; accident prevention; alternating current machinery; safety and production; safety and industrial standards; personnel methods.

Jackson, Dr. J(ohn) R(alph), Alabama Polytechnic Institute, Auburn, Ala. *Botany*. Stockton, Mo, May 19, 03. A.B, Missouri, 25, A.M, 27, Ph.D, 33; summer, Collecting Net fellow, Marine Biol. Lab, Woods Hole, 32. Instr. biol, Trenton Jr. Col, 27–28; Park Col, 28–30; biologist, Univ. Kansas City, 33–34; instr. *bot*, Missouri, 35–36; *Ala. Polytech*, 36, *asst. prof, 36–* Bot. Soc. Plant physiology; weed control.

Jackson, Prof. Jos(eph) L(eonard), University of Saskatchewan, Saskatoon, Sask, Can. *Anatomy*. Battersea, Ont. B.A, Alberta, 15, M.A, 16; M.B, Toronto, 22; Banting fellow, 28, 30. Lecturer *anat*, Manitoba, 26–30, asst. prof, 31–35; *prof, Saskatchewan, 35–* Asn. Anat. Thyroid gland; arteries.

Jackson, Dr. L(ambert) L(incoln), Box 4335, University Station, Tucson, Ariz. *Mathematics*. Binghamton, N. Y, April 14, 70. A.B, Michigan, 97, A.M, 99; B.Pd, Mich. Nor. Col, 00; Ph.D, Columbia, 06. Instr. math, Mich. Nor. Col, 91–00; prof, N. Y. State Nor. Sch, Brockport, 00–06; head dept. educ, D. Appleton and Co, 06–12; asst. sch. supt, N. J, 13–18; supt, N. J. State Home for Boys, Jamesburg, 18–19; asst. commissioner educ, N. J, 20–28; asst. supt. schs, Newark, 28–35; *retired*. Joint author math. articles, 'Int. Encyclop.' A.A; Math. Soc. The teaching of mathematics in the sixteenth century.

Jackson, Lloyd E(arl), 119 Dahlem St, Pittsburgh, Pa. *Chemistry*. Oswego, Kans, Dec. 6, 92. B.S, Kansas. Anal. chemist, water labs, State Board Health, Kans, 13–16; control chemist, E. I. du Pont de Nemours and Co, 16; chemist, Empire Gas and Fuel Co, Okla, 17–20; indust. fellow, Mellon Inst, 20–34; *pres. and manager, Spix Products Co, 34–* Chem. Soc; Asn. Textile Chem. and Colorists; hon. mem. Nat. Asn. Dyers and Cleaners. Water; sewage; dry cleaning; dyeing.

Jackson, Lloyd R(oss), 3140 Ainwick Road, Columbus, Ohio. *Physical metallurgy*. Cripple Creek, Colo, March 2, 06. B.S, Colorado, 28; M.S, Yale, 32. Asst. physics, Yale, 29–32; research engineer, Jones and Laughlin Steel Corp, 32–35; *Battelle Mem. Inst*, 35–39, *research supervisor, 39–* Physical Soc; Soc. Metals. Application of physics to metallurgy; development of permanent magnet alloys; blocking layer rectifiers.

Jackson, Dr. Lyle W(endell) R(edverse), 538 Castalia Ave, Athens, Ga. *Forestry*. Lookout, Wis, Feb. 21, 00. B.S,

Minnesota, 25, Am. Chem. Co. fellow, 26–27, M.S. 27; Harrison fellow, Pennsylvania, 29–30, Ph.D, 32. Junior pathologist, *div. forest path. bur. plant indust, U. S. Dept. Agr*, 27–29, *asst. pathologist in charge*, Philadelphia, Pa. 30–40. *Athens, Ga, 40–* Summers, bur. plant indust, U. S. Dept. Agr, 25; Minnesota, 26. Diseases of forest trees; ecology; physiology.

Jackson, Prof. M(arion) L(eRoy), University of Wisconsin, Madison, Wis. *Soils.* Reynolds, Nebr, Nov. 30, 14. B.S, Nebraska, 36, M.S, 37; Ph.D, Wisconsin, 39. Land classification aide, Resettlement Admin, 36–37; asst. soils, *Wisconsin*, 37–39, Wisconsin Alumni Research Foundation and univ. fellow, 39–41, instr. *soils*, 41–42, *asst. prof, 42–* A.A; Soil Sci. Soc; Soc. Agron. Soil physics; soil chemistry; physical and chemical properties of soils in relation to plant nutrition, crop quality and yield; mineralogical analysis of the inorganic colloidal portion of soils.

Jackson, Lieut. M(inter) M(organ), 22 Catherine St, Newport, R. I. *Psychology.* Abingdon, Va, April 15, 15. A.B, Virginia, 38, A.M, 39, Ph.D, 41. *Psychologist, U. S. Navy, 41–* Assoc. Psychol. Asn; South. Soc. Philos. and Psychol. Sleep motility; vibratory sensitivity.

Jackson, Prof. Perry Y(ates), U. S. Naval Academy, Annapolis, Md. *Chemistry.* Ayden, N. C, Aug. 23, 99. B.S, Wake Forest Col, 19; M.S, Chicago, 24, Ph.D, 27. Chairman dept. chem, Park Col, 27–30; *prof. chem. and head dept, Norfolk div, Col. of William and Mary, 30–; lieut. commander, U. S. Naval Reserve and mem. faculty, U. S. Naval Acad, 39–* Summer, Berlin, 32. A.A; Chem. Soc.

Jackson, Prof. R(aymond) O(lden), Box 307, Rolla, Mo. *Mechanical engineering.* Forest City, N. B, Can, Oct. 31, 88. B.S, Maine, 13, M.E, 23. Construction engineer, J. A. Greenleaf and Sons Co, 13–14; instr, Case, 14–16; research, 16–18; construction work, Hercules Powder Co, 18–19, test engineer, 19, res. engineer in charge power maintenance and construction, 19–21; *prof. mech. eng. and head dept, Mo. Sch. Mines, 21–* Mech. Eng. Metallurgy of zinc.

Jackson, Dr. R(ichard) F(ay), National Bureau of Standards, Washington, D. C. *Chemistry.* Boston, Mass, Jan. 2, 81. A.B, Harvard, 03, Ph.D, 17. Asst. physicist, *Bur. Standards*, 07–16, assoc. chemist, 17–22, chemist, 22–27, *senior chemist, 27–* Mem, Int. Cmn. on Sugar Anal. Chem. Soc; Agr. Chem. (referee sugars and sugar products); fel. Inst. Chem; Wash. Acad. Polarimetry; phase rule; homogeneous catalysis; sugar analysis; production of levulose from artichokes and dahlias; difructose anhydrides; inulin; partially substituted fructose derivatives; physical properties and stability of the sugars.

Jackson, Dr. Richard W(illet), Ardmore and Mermaid Aves, Chestnut Hill Station, Philadelphia, Pa. *Chemistry.* Camp Point, Ill, June 14, 01. B.S, Eureka Col, 22; M.S, Illinois, 23, Ph.D, 25. Asst. prof. physiol. chem, Louisville, 25–27; Seessel fellow and nat. research fellow med, Yale, 27–31, instr. physiol. chem, 31–32, asst. prof, 32–33; biochem, med. col, Cornell, 33–38, assoc. prof, 38–39; *chief protein div, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 39–* Cmt. chem. of proteins, Nat. Research Council. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition; Harvey Soc; N. Y. Acad. Intermediary metabolism; metabolism of tryptophane, cystine and methionine; synthesis of indole derivatives; chemistry and utilization of proteins and derivatives.

Jackson, Dr. Robert T(racy), Peterborough, N. H. *[1]*Paleontology.* Dorchester, Mass, July 13, 61. B.S, Harvard, 84, Sc.D, 89. Instr. paleont, Harvard, 92–99, asst. prof, 99–09, assoc. paleont, museum comp. zool, 11–16, curator fossil echinoderms, 28–40; *retired.* A.A. (sec'y, F, 98); Soc. Nat; Paleont. Soc; Geol. Soc. (v. pres, 19); Am. Acad. Anatomy, structure and phylogeny of Pelecypoda and Paleozoic Echini; localized stages in the development of plants and animals; development and morphology of Echini.

Jackson, Dr. Rosa Lea, Alabama College, Montevallo, Ala. *Mathematics.* Ripley, Tenn, May 7, 83. A.B, Western Col. (Ohio), 04; A.M, Chicago, 22, Ph.D, 28. Prof. *math*, Athens Col, 04–10, 16–21; acting assoc. prof, Randolph-Macon Womans Col, 14–16; instr, Northwestern, 22–26; acting assoc. prof, Stanford, 27–28; asst. prof, Hunter Col, 28–31; *prof, Ala. Col, 31–* Math. Soc; Math. Asn. Calculus of variations.

Jackson, Dr. Stanley M(cAfee), Loose-Wiles Biscuit Co, Long Island City, N. Y. *Biochemistry.* St. Paul, Minn, March 21, 07. B.S. Minnesota, 29, Caleb Dorr fellow, 30–31, Ph.D, 33; M.S, Illinois, 30. Asst. physiol. chem, Illinois, 29–30; biochem. Minnesota, 31–33; research chemist and director lab, United Mills Co. Kansas City, Mo, and Grafton, Ohio, 33–38; *director biochem. lab, Loose-Wiles Biscuit Co, 33–* Chem. Soc: Asn. Cereal Chemists; Am. Inst. Metabolism of amino acids; physiology of mammary glands; cereal milling; enzyme reactions; manufacture of biscuits and cereal products; rancidity and antioxidants; biological assays; chemical methods of vitamin determinations; nutritional fortification of biscuits.

Jackson, Dr. Theodore A(ndrew), University of Delaware, Newark, Del. *Psychology.* Muncie, Ind, Nov. 17, 01. A.B, Indiana, 25, A.M, 26; Ph.D, Columbia, 31. Asst. psychol, Indiana, 25–26; instr, Kans. State Teachers Col, Emporia, 26–27; prof, Cent. Wesleyan Col, 27–28; asst. psychol, Columbia, and lecturer, Barnard Col, 29–31; exten. instr, Col. City of N. Y, 30–31; visiting asst. prof, N. Y. Univ, 31–32; nat. research fellow, Yale, 32–34; instr. psychol, Columbia, 34–42; asst. prof. psychol. and director psychol. clinic, Indiana, 42–43; *asst. prof. psychol, Delaware, 43–* Exten. instr, Hunter Col, 41–42. A.A; Psychol. Asn. Transfer of training; instrumentation; learning.

Jackson, Prof. Tho(ma)s W(esley), 329 Lincoln Ave, Jamestown, N. Dak. *Mathematics, Physics.* Waverly, Mo, March 20, 86. A.B, Westminster Col. (Mo), 12, B.L, 13; A.M, Missouri, 20; Minnesota, 30. Instr. math, Westminster Col. (Mo), 12–14; prin, high sch, Mo, 14–19; *prof. math. and eng. and head dept, Jamestown Col, 19–* Summer, teacher, Missouri. A.A; Math. Asn.

Jackson, Prof. Vestus T(wiggs), University of Florida, Gainesville, Fla. *Physical chemistry.* Sandersville, Ga, Jan. 29, 89. A.B, B.S, Mercer, 12; M.S, Chicago, 16, Ph.D, 21. Asst. physics, Mercer, 10–11, chem, 11–12; Okla. Agr. and Mech. Col, 12–16; chemist, Lindsay Light Co, 16–20; Catholic Univ, 21–22; West. Elec. Co, 22–23; acting head dept. *chem*, Heidelberg Col. (Ohio), 24; asst. prof, *Florida*, 24–27, assoc. prof, 27–35, *prof, 35–* Major, C.W. Res. Chem. Soc. (chairman, Fla. sect, 30). Manganates; rare and precious metals; photolysis; pyrolysis.

Jackson, Dr. Wendell F(ord), Willing Way, Westhaven, Wilmington, Del. *Chemistry.* New York, N. Y, Nov. 25, 07. A.B, Princeton, 29, A.M, 30, Ph.D, 32. Asst. chem, Princeton, 31–32; nat. research fellow, Calif. Inst. Tech, 32–34; research chemist, Burnside lab, smokeless powder dept, *E. I. du Pont de Nemours and Co*, 34–40, *ballistic engineer, 40–* A.A; Chem. Soc. Photochemistry; kinetics; adsorption; ballistics.

Jackson, Prof. Wilfrid J(ames), 250 Lawrence Ave, New Brunswick, N. J. *Physics.* Jacksonville, N. S, Can, May 11, 00. B.A, Dalhousie, 21, M.A, 23; J. W. Queen fellow, Princeton, 25–26, A.M, 26, Ph.D, 27. Demonstrator physics, Dalhousie, 21–22, MacGregor teaching fellow, 22–23; instr, Princeton, 23–25, asst, 26–27; interim lecturer math. physics, King's Col. Dalhousie, 27–28; instr. *physics, Rutgers*, 28–29, asst. prof, 29–43, *assoc. prof, 43–* Visiting lecturer, eng, science and management war training, Mass. Inst. Tech, 41–Summer, special lecturer, Dalhousie, 41. A.A; Physical Soc; Asn. Physics Teachers; N. Y. Acad; N. B. Sci. Soc; N. S. Inst. Educational problems in physics; design of scientific apparatus; conduction of electricity through crystals; secondary electron emission from metals due to positive ion bombardment; effect of electrical discharge on secondary electron emission.

Jacob, C(harles) E(dward), 226 Post Office Bldg, Jamaica, N. Y. *Hydraulic engineering.* Phoenix, Ariz, Sept. 3, 14. B.S, Utah, 35; M.S, Columbia, 36. Junior hydraulic engineer, *U. S. Geol. Surv*, 36–39, *asst. hydraulic engineer, 39–* Research assoc, Columbia, 42. Geophys. Union; assoc. Civil Eng; N. Y. Acad. Ground-water hydraulics and hydrology; estimating ground-water supplies; elasticity of artesian aquifers.

Jacob, H(arry) E(rnest), College of Agriculture, University of California, Davis, Calif. *Horticulture.* Columbus, Ohio, Oct. 30, 96. B.S, Ohio State, 18; M.S, California, 20. Asst. hort, Ohio State, 17–19; viticulture, *California*, 21–26, junior viticulturist, *Exp. Sta*, 26–28, *assoc. viticulture, 28–* Asst, cold storage investigations, California, 21. Mem, Nat. Geog. Soc. exped, Valley of Ten Thousand Smokes, Alaska, 19. Soc. Hort. Sci. Viticulture; volcanic ash of Mt. Katmai as a medium for plant growth; internal browning of the yellow Newtown apple; treatment of fresh grapes with sulfur dioxide; girdling grape vines; vine root stocks.

Jacob, K(enneth) D(onald), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Carpenter, Miss, Dec. 17, 96. B.S, Miss. Agr. and Mech. Col, 18; M.S, George Washington, 26. Asst. chemist, fixed nitrogen research lab, *U. S. Dept. Agr,* 19–22, bur. soils, 22–27, chemist, *phosphate investigations,* bur. chem. and soils, 27–39, *senior chemist, bur. plant indust, 39–* Asst. ed, 'Chem. Abstracts.' C.W.S, U.S.A, 18, control chemist, U. S. Nitrate Plant No. 1, Ala, 19. Chem. Soc; Agr. Chem. Calcium cyanamide; phosphoric acid by volatilization processes; phosphate rock; fluorine in phosphate rock; availability of phosphate fertilizers; preparation and properties of phosphate fertilizer materials.

Jacobs, Prof. Edwin Elmore, Ashland College, Ashland, Ohio. *Biology.* Congress, Ohio, Feb. 19, 77. A.B, Col. of Wooster, 01; M.S, Mt. Union Col, 05; fellow, Clark, 16, Ph.D, 17; Harvard; Chicago; California, 37. Teacher, high schs; *prof. biol, Ashland Col,* 05–16, *18–,* pres, 18–35, *emer. pres, 35–* Summers, Col. of Wooster, 07–08. A.A; Sociol. Soc; fel. Ohio Acad. Physical vigor of college women; nature stories.

Jacobs, Prof. Elbridge C(hurchill), University of Vermont, Burlington, Vt. *Geology, Mineralogy.* Ogunquit, Maine, Feb. 15, 73. B.S, Mass. Inst. Tech, 96; A.M, Columbia. Asst. mining and metal, Mass. Inst. Tech, 97–99; instr. chem. and miner, *Vermont,* 99–01, asst. prof, 01–04, *prof,* 04–24, *geol. and miner, 24–, seismologist, seismog. sta.* Geologist, flood control investigations, U. S. Eng. Corps, west Vt, 29; state geologist, Vt, 33– A.A; Geol. Soc; Miner. Soc; Seismol. Soc; Geophys. Union. Vermont mineral deposits and geology.

Jacobs, Prof. Melville, University of Washington, Seattle, Wash. *Anthropology.* New York, N. Y, July 3, 02. A.B, Col. City of N. Y, 22; A.M, Columbia, 23, Ph.D, 31. Assoc. *anthrop, Washington (Seattle),* 28–29, instr, 29–37, *asst. prof, 37–* Summers, linguistic sect, Santa Fe Lab, Anthrop, 30; instr, Columbia, 31. Assoc. ed, 'Am. Anthrop,' 39– Advisory mem. research cmt. on Am. Indian languages. Expeds. to tribes in Oregon and Wash, 26– Anthrop. Asn. (councilor); Ethnol. Soc; Folk-Lore Soc; Linguistic Soc. Indian languages of Oregon and Washington; ethnology of western Oregon.

Jacobs, Prof. M(erkel) H(enry), University of Pennsylvania, Philadelphia, Pa. **Zoology, Physiology.* Harrisburg, Pa, Dec. 6, 84. A.B, Pennsylvania, 05, Ph.D, 08; Berlin, 08–09. Instr. zool, *Pennsylvania,* 09–13, asst. prof, 13–23, *prof. gen. physiol, 23–* Instr, Marine Biol. Lab, Woods Hole, 21–29; assoc. director, Marine Biol. Lab, 25–26, director, 26–37, trustee, 38– Ed. board, 'Biol. Bul'; 'Jour. Cellular and Comp. Physiol'; 'Jour. Exp. Zool'; 'Annual Rev. Physiol.' Capt, Sanit.C, 18–19. Nat. Acad; A.A; Soc. Nat; Physiol. Soc; Soc. Zool. (v. pres, 28, pres, 38); Soc. Exp. Biol; Chem. Soc; Philos. Soc; Physiol. Soc. Phila. (pres, 20–22). Effects of desiccation, high temperatures and carbon dioxide on organisms; cell permeability; osmotic properties of the erythrocyte; hemolysis; diffusion; physiological differences of species.

Jacobs, Dr. Morris B(oris), 355 Bradford St, Brooklyn, N. Y. *Chemistry.* Ekaterinoslav, Russia. B.S, Col. City of N. Y, 26; M.S, N. Y. Univ, 29, Ph.D, 31. Chemist, Dovan Chem. Corp, 27; junior chemist, food, drug and insecticide admin, U. S. Dept. Agr, 27–28; *chemist, bur. food and drugs, Dept. Health, New York, 28–* A.A; Chem. Soc; Pub. Health Asn; Indust. Health Asn; N. Y. Acad; N. Y. Asn. Food Technol. Physical chemistry of solutions; true gums; foods; food analysis; Jacobs-Singer separatory extractor flask for multiple extractions with a supernatant solvent; industrial hygiene; chemical analysis of food and food products; analytical chemistry of industrial poisons, hazards and solvents.

Jacobs, Nathan B(ernd), 1312 Park Bldg, Pittsburgh, Pa. *Civil engineering.* Pittsburgh, Pa, Dec. 18, 91. B.S, Pittsburgh, 14, Sanit.E, 17. Asst. engineer, *Morris Knowles, Inc,* 14–18, div. engineer, 18–21, v. pres. and asst. chief engineer, 21–32, *pres. and chief engineer, 32–, manager, Knowles-Main Appraisal Bur, Pittsburgh and New York, 21–; assoc. engineer, Maurice R. Scharff, 34–; gen. manager and engineer, Lewistown-Reedsville Water Co, Pa, 25–; consulting sanit. engineer.* V. pres, Irene Kaufmann Settlement; manager, Maurice and Laura Falk Foundation. Am. Soc. Civil Engineers rep, Int. Housing and Town Planning Cong, Berlin, 31; director, Ohio Valley Conservation and Flood Control Cong. Civil Eng; Inst. Consulting Eng; Soc. Professional Eng; Pub. Health Asn; Soc. Test. Mat; Water Works Asn; Pa. Pub. Health Asn; Pa. Soc. Professional Eng; Pa. Water Works Asn. (v. pres); Eng. Soc. West. Pa; Int. City Managers Asn. Chemistry and bacteriology of water supply and sewage disposal and the application of these sciences to construction of plants.

Jacobs, O(liver) B(urlingame), 20 Hamilton Road, Morristown, N. J. *Telephone engineering.* Danielson, Conn, Jan. 23, 89. B.S, Worcester Polytech, 10. Maintenance work, Am. Tel. and Tel. Co, Buffalo, 10–12, installation engineer, New York, 12–17, div. transmission engineer, 19–21, dept. operation and eng, 21–29; *mem. tech. staff, Bell Tel. Labs, 29–* Capt, Sig.C, 17–19. Elec. Eng. Long distance land and submarine wire communication systems.

Jacobs, P(aul) Burke, U. S. Department of Agriculture, Peoria, Ill. *Organic chemistry.* York, Pa, June 12, 89. B.S, Pa. State Col, M.S, 13; Chem.E, Iowa State Col, 32. Chemist, coal companies, W. Va, 10–14; supt. acetone plant, Norwich Chem. Co, Smethport, Pa, 15–19; plant supt, Seaboard Chem. Co, Newark, N. J, 19–27; chem. engineer, Ga. Pine Turpentine Co, 28; chem. engineer, bur. chem. and soils, *U. S. Dept. Agr,* 29–31, chief agr. by-products lab, Ames, Iowa, 31–36, senior chem. engineer, Washington, D. C, 37–39, in charge surv. on production motor fuels from agr. products, and chief fermentation fuels sect, *north. regional research lab,* bur. agr. chem. and eng, 39–40, chief fermentation fuels tech. sect, *bur. agr. and indust. chem,* 40–42, *senior tech. analyst, commodity develop. div, 42–* Reporter, Cong. Int. Tech. et Chim. des Indust. Agricoles, Paris, 34. Chem. Soc; Chem. Eng. Technical process applications of industrial utilization of corn, wheat, surplus farm crops and agricultural residues.

Jacobs, Dr. R(obert) B(yron), M. W. Kellogg Co, Jersey City, N. J. *Physics.* Los Angeles, Calif, 09. B.S, Calif. Inst. Tech, 31, Ph.D, 34. Nat. research fellow, Harvard, 34–36; instr. physics, 36–38; Lalor Foundation fellow physical chem, Mass. Inst. Tech, 38–40; asst. exec. sec'y, Nat. Research Council, 40–42; *mem. staff, M. W. Kellogg Co, 42–* Low temperatures; high pressures; x-rays.

Jacobs, Dr. S. Nicholas, Sutter Hospital, San Francisco, Calif. *Surgery.* Oakland, Calif, May 2, 84. B.S, California, 04, M.D, 08. Chief dept. surg, San Francisco Polyclinic and Post-Grad. Col, 20–25, v. pres. and trustee, 24–30; *med. director, Sutter Hosp, 28–, chief dept. surg, 30–* Visiting surgeon, San Francisco Hosp, 17–21; lecturer, sch. med, Stanford, 19–21. Mem. Calif. state governing cmt, Gorgas Mem. Foundation, 26–28. A.A; Am. Med. Asn; fel. Col. Surg; Calif. Acad. Med. Fractures of the skull.

Jacobs, Dr. Thomas L(loyd), 405 Hilgard Ave, Los Angeles, Calif. *Chemistry.* Forest City, Iowa, Aug. 18, 08. A.B, Cornell Col. (Iowa), 30; Ph.D, Cornell, 35. Instr. *chem,* Harvard, 35–39; *California at Los Angeles,* 39–41, *asst. prof, 41–* Chem. Soc. Acetylenic compounds.

Jacobs, Dr. W(alter) A, Rockefeller Institute, New York, N. Y. **Chemistry.* New York, N. Y, Dec. 24, 83. A.B, Columbia, 04, A.M, 05; Ph.D, Berlin, 07. Fellow chem, *Rockefeller Inst,* 07–08, asst, 08–10, assoc, 10–12, assoc. mem, 12–23, *mem, 23–* Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Therapeut. Soc; Harvey Soc. Organic chemistry; chemotherapy; amino-acids; nucleic acids; sugars; synthesis of bactericidal compounds; hexamethylene tetramine; cinchona compounds; arsenic compounds; dyes; alkaloids; structure of cardiac glucosides; strophanthin; digitalis glucosides; saponins; ergot alkaloids; aconite alkaloids; veratrine alkaloids.

Jacobsen, Prof. Carlyle F(erdinand), 640 S. Kingshighway, St. Louis, Mo. **Psychology.* Minneapolis, Minn, Jan. 17, 02. A.B, Minnesota, 24, Ph.D, 28. Instr. psychol, Minnesota, 25–28; nat. research fellow, Chicago, 28–30; research assoc. psychobiol, sch. med, Yale, 30–32, asst. prof, 32–37; psychol, dept. psychiat, med. col, Cornell; *prof. psychol, Washington (St. Louis).* Psychologist, Barnes, and St. Louis Children's Hosp; Bliss Psychopath. Hosp. Psychol. Asn; Asn. Research Nervous and Mental Disease. Comparative psychology; learning; physiology of cerebral cortex; psychopathology.

Jacobsen, Prof. Lydik (Siegumfeldt), 222 Sequoia Ave, Palo Alto, Calif. *Mechanical engineering.* Nyborg, Denmark, June 17, 97. A.B, Stanford, 21, Ph.D, 27. Westinghouse Elec. and Mfg. Co, 21–24; asst. prof. and assoc. prof. *mech. eng, Stanford, 24–36, prof, 36–; lieut. commander, U. S. Naval Res.* Guggenheim Mem. Foundation fellow, 31–32. Tech. adviser, seismol. program, Calif, U. S. Coast and Geod. Surv. Seismol. Soc. Theory of elasticity and elastic vibrations; torsion of bars; steady forced vibrations with

complicated types of damping; earthquake resistance of different types of construction; dynamic behavior of buildings; vibrations of prismatical bars.

Jacobsen, Dr. Robert P(arker), 8320 16th St, Washington, D. C. *Chemistry.* Crete, Nebr, Dec. 26, 08. A.B, Doane Col, 30; Sanders fellow, George Washington, 30–31, A.M, 31; fellow, Maryland, 31–35, Ph.D, 35. du Pont research fellow, Harvard, 35–38; *chemist,* Washington Biophysical Inst, 38–41; *chem. div, nat. inst. health, U. S. Pub. Health Service, 41–* Chem. Soc. Steroids.

Jacobsen, Prof. T(heodor) S(iegumfeldt), University of Washington, Seattle, Wash. *Astronomy.* Denmark, 01. A.B, Stanford, 23; Lick Observatory fellow, California, 23–26, Ph.D, 26. Computer, Mt. Wilson Observatory, Carnegie Institution, 22; asst, Lick Observatory, California, 26–28; asst. prof. *astron. and math, Washington (Seattle),* 28–41, *assoc. prof, 41–* Vol. asst, Dom. Astrophysical Observatory, 36; acting asst. prof, Stanford, 37. A.A; Astron. Soc; Asn. Variable Star Observers; Astron. Soc. Pacific; Royal Astron. Soc. Variable stars; radial velocities.

Jacobsen, Dr. Victor C(larence), 51 First St, Troy, N. Y. *Internal medicine.* La Crosse, Wis, Sept. 17, 91. B.S, Wisconsin, 15; M.D, Harvard, 17. Med. house officer, Peter Bent Brigham Hosp, 17–18, path. house officer, 19, res. pathologist, 20–21; asst. prof. path, Wisconsin, 19–20; prof. path. and bacter, *Albany Med. Col, Union (N. Y),* 21–34, asst. prof. and later *assoc. prof. med.* Pathologist, Albany Hosp, 21–34, assoc. attending physician; attending physician, Samaritan Hosp, Troy, N. Y. Med. div, Nat. Research Council, 30–33; research work, Pasteur Inst, Paris, 31. Lieut, M.C, 18. Asn. Path. and Bact; Asn. Cancer Research; N. Y. Asn. Pub. Health Labs. (pres, 25); Int. Asn. Med. Mus. (pres, 32). Internal medicine; autotransplantation of animal tissues; multiple myeloma; hypernephroma; tumors of acoustic nerve; hemoglobin determination; paralysis agitans; diseases of the spinal cord; biological effects of cathode rays; pathology of high frequency heating; melanin and mouse melanoma; periarteritis nodosa; levulosuria.

Jacobsohn, Dr. I(sadore) M(eyer), 8333 Ingleside Ave, Chicago, Ill. *Chemistry.* Chicago, Ill, Sept. 28, 93. B.S, Chicago, 17, Ph.D, 21. Assoc, Sprague Mem. Inst, Chicago, 19–21; asst. chemist, Bur. Standards, 17–18, 22–25, assoc. chemist, 25–29; chief chemist, research dept, Coe Labs, Inc, Chicago, 29–38; *chemist, Inventions Inc, 38–, v. pres, 41–* Subcmt. coverings, dopes and protective coatings, Nat. Advisory Cmt. Aeronautics, 23–29. Chem. Soc. Mercuri-organic derivatives; gas-impermeable fabrics.

Jacobsohn, Dr. Samuel, 3722 Polk St, Chicago, Ill. *Optics.* Chicago, Ill, May 2, 98. B.S, Chicago, 20, M.S, 24; Ph.D, Yale, 25. Physicist, *Gaertner Sci. Corp,* 20–36, *v. pres. and chief physicist, 36–* Physical Soc. Theory of heat radiation; optical instruments used in spectroscopy.

Jacobson, Bernard H(oward), Box 98, Nitro, W. Va. *Chemistry.* Baltimore, Md, Aug. 28, 95. Lehigh, 17. Research dept, Hooker Electrochem. Co, Niagara Falls, N. Y, 17–21; E. C. Klipstein and Sons Co, South Charleston, W. Va, 21–27, plant manager, 27–33; *manager,* South Charleston works, Calco Chem. Co, 33–36; *Ohio-Apex, Inc, Nitro, W. Va, 36–* Chem. Soc. (chairman, Kanawha Valley sect, 33, councilor, 36); Electrochem. Soc. Friedel-Craft syntheses; production of anhydrous aluminum chloride and its use in industry; plasticizers; anthraquinones; organic phosphates and esters.

Jacobson, Dr. Bernard M(ax), Massachusetts General Hospital, Boston, Mass. *Internal medicine.* Boston, Mass, July 31, 04. B.S, Harvard, 25, M.D, 29. Moseley traveling fellow, *Harvard,* 31–32, fellow *med,* 32–35, *instr, 35–; mem. staff, Mass. Gen. Hosp.* Soc. Clin. Invest. Pathological physiology of gout; separation from liver of the anti-anemic substances; biological standardization of the therapeutic potency of substances effective in pernicious anemia.

Jacobson, Prof. C(arl) A(lfred), 447 Cedar St, Morgantown, W. Va. *Chemistry.* Grantsburg, Wis, Jan. 25, 76. B.S, Carleton Col, 03, M.S, 07; Ph.D, Hopkins, 08; Cracow, Geneva, Upsala and Halle, 11–13. Fellow and research chemist, Rockefeller Inst, 08–09; prof. agr. chem, Nevada, and chief chemist, Exp. Sta, 09–18; fellow, Hopkins, 19–20; *prof. chem, West Virginia, 20–* Ed. in chief, 'Encyclopedia Chem. Reactions.' A.A; Chem. Soc. Chemistry of alfalfa constituents; water hemlock; chlorophyl; fluosilicic acid and organic fluosilicates; method for determining carbon dioxide; silica black; silica fluff; process for treating powdered coal; carburized silica; pronouncing chemical formula speller and contest guide.

Jacobson, Dr. Edmund, Laboratory for Clinical Physiology, 310 S. Michigan Ave, Chicago, Ill. *Physiology.* Chicago, Ill, April 22, 88. B.S, Northwestern, 07; A.M, Harvard, 09, Ph.D, 10; M.D, Rush, Chicago, 15. Research assoc, Chicago, 26–30, asst. prof. physiol, 30–36; *with Lab. Clin. Physiol, 36–* A.A; Am. Med. Asn; Col. Physicians. Progressive relaxation; electrical measurements of activities in nerve, muscle and brain tissues.

Jacobson, Dr. H(enning) W(aldemar), 1410 Hamilton St, Wilmington, Del. *Organic chemistry.* Decorah, Iowa, Oct. 1, 15. A.B, St. Olaf Col, 38; Ph.D, Purdue, 42. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 42–* Chem. Soc.

Jacobson, H(enry) G(eorge) M(artin), Connecticut Agricultural Experiment Station, New Haven, Conn. *Soils.* Chicago, Ill, April 2, 92. B.S, Illinois, 18; M.S, Iowa State Col, 24. Asst. agron, Illinois, 19–23; instr, Arkansas, 24–26; *asst. agronomist, Conn. Exp. Sta, 26–* A.A; Soc. Agron. Plant nutrition; fertilizers; lysimeters; soil chemistry.

Jacobson, Dr. Moses A, 25 E. Washington St, Chicago, Ill. *Bacteriology.* Portsmouth, Va, Feb. 26, 96. B.S, Va. Polytech, 16; M.S, Purdue, 18; Ph.D, Chicago, 27, M.D, Rush, 32. Instr, Purdue, 16–18; asst. prof, Med. Col. of Va, 21; Tennessee, 22–24; exten. instr, Chicago, 25–27; asst. director, Chicago Lab, 27–30; med. director, Pepsodent Co, 32–36; *practising physician, 32–; lieut. commander, Med. Corps, U. S. Naval Res, 42–* Director, Medico-Pharmacal Research, 36–42. A.A; Soc. Bact; Am. Med. Asn; Pub. Health Asn. Clinical pathology.

Jacobson, Prof. Nathan, University of North Carolina, Chapel Hill, N. C. **7Mathematics.* Warsaw, Poland, Sept. 8, 10. A.B, Alabama, 30; Ph.D, Princeton, 34. Asst. math, Inst. Advanced Study, 33–34; Procter fellow, Princeton, 34–35; lecturer *math,* Bryn Mawr Col, 35–36, nat. research fellow, Chicago, 36–37; instr, North Carolina, 37–38, asst. prof, 38–40; visiting assoc. prof, Hopkins, 40–41; *assoc. prof, North Carolina, 41–* Math. Soc. Algebra; hypercomplex numbers.

Jacobson, Dr. Ralph A(lbert), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Omaha, Nebr, June 22, 96. Ph.G, Creighton, 16; B.S, Nebraska, 18, A.M, 22; fellow, Illinois, 24–25, Ph.D, 25. Chemist, Union Pacific Ry, 18–21; asst. chem, Nebraska, 21–22; Illinois, 22–24; *research org. chemist, exp. sta, E. I. du Pont de Nemours and Co, 25–* Chem. Soc. Polyhydrox-methylanthraquinones; synthetic resins; polymerization; acetylene derivatives.

Jacobson, Dr. Samuel, New Haven Water Co, New Haven, Conn. *Chemistry.* Boston, Mass, Aug. 8, 09. B.S, Mass. Inst. Tech, 31, M.S, 32, Ph.D, 35. Research assoc, Mass. Inst. Tech, 35–37; assoc. bacteriologist, State Dept. Health, Md, 39–41; *chemist and director research, New Haven Water Co, 41–* Chem. Soc; Soc. Bact. Detoxification of snake venoms; germicides; public health laboratory methods.

Jacobson, Dr. Sheldon A(lbert), 6035 Tyndall Ave, Riverdale, New York, N. Y. *Pathology.* New York, N. Y, June 25, 03. A.B, Col. City of N. Y, 22; M.D, Yale, 28. Interne and res. path, Montefiore Hosp, 28–30; Emmanuel Libman traveling fellow, Hamburg and Dresden, 30–31; Brown fellow and asst. pathologist, Hosp. for Joint Diseases, 31–36; pathologist and director labs, Crown Heights Hosp, Brooklyn, N. Y, 36–40; lab. officer, U. S. Naval Hosp, Phila, Pa, 40–42; med. officer, U. S. S. Housatonic, New York, *N. Y,* 42–43; *lab. officer, U. S. Naval Hosp, St. Albans, 43–* Gold medal, Am. Acad. Orthop. Surgeons, 35. Asn. Path. and Bact; N. Y. Acad. Med; N. Y. Path. Soc. Bone pathology.

Jacobus, Prof. David D(inkel), 18 Farwell Place, Cambridge, Mass. *Engineering.* Jersey City, N. J, Feb. 16, 00. M.E, Stevens Inst. Tech, 21; Sc.D, Mass. Inst. Tech, 30. Stone and Webster Eng. Corp, 22–26; research assoc. physical chem, Mass. Inst. Tech, 27–30; asst. prof. chem, Stevens Inst. Tech, 31–40; director research, Keuffel and Esser Co, 36–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* A.A; Chem. Soc; Mech. Eng. Photosensitive papers; chemical education of engineering students.

Jacobus, Dr. D(avid) S(chenck), 93 Harrison Ave, Montclair, N. J. *Mechanical engineering, Physics.* Ridgefield, N. J, Jan. 20, 62. M.E, Stevens Inst. Tech, 84, D.E, 06. Instr. and asst. prof. exp. mech, Stevens Inst. Tech, 84–98, prof. exp. mech. and eng. physics, 98–03, exp. eng, 03–06, in charge Carnegie lab. eng, 00–06; advisory engineer, Babcock and Wilcox Co, 06–41; *retired.* Trustee, Stevens Inst. Tech. Morehead medal, Int. Acetylene Asn, 37; Mod. Pioneer award, Nat. Asn. Mfrs. A.A. (sec'y, D, 93, v. pres, 04); hon. mem. Mech. Eng. (manager, 00, v. pres, 03, pres, 16, chairman, exec. cmt, mem. boiler code cmt, 17–, chairman, 36–41); Min. and Metal. Eng; Elec. Eng; Eng. Educ; Naval Archit. and Marine Eng; Soc. Refrig. Eng. (director, 04, pres, 06); Heat. and Vent. Eng; Welding Soc. (pres, 34, chairman welding handbook cmt); Math. Soc; Soc. Metals; Soc. Test. Mat; Petrol. Inst; Newcomen Soc; Franklin Inst. Steam engineering; codes for boilers and pressure vessels.

Jacoby, Dr. Arthur L(awrence), 6216 W. 66th Place, Chicago, Ill. *Organic chemistry.* Chicago, Ill, Oct. 4, 10. B.S, Illinois, 34; fellow, Iowa State Col, 34–38, Ph.D, 38. *Chief organic chemist, Nat. Aluminate Corp, 38–* Chem. Soc. Reversibility of the Friedel-Crafts reaction; chemistry and orientation of dibenzofuran and dibenzothiophene; hydrogenolysis of organometallic compounds; organic chemistry of water treatment.

Jacoby, Prof. Henry S(ylvester), 3000 Tilden St, N. W, Washington, D. C. *Bridge engineering.* Springtown, Pa, April 8, 57. C.E, Lehigh, 77, hon. D.Eng, 41. Topog. corps, 2nd Pa. Geol. Surv, 78; transitman, gaging Red River and Atchafalaya River, 79; chief draftsman, U. S. Engineer's Office, Memphis, Tenn, 79–85; instr. civil eng, Lehigh, 86–90; asst. prof. *bridge eng. and graphics, Cornell,* 90–94, assoc. prof, 94–97, prof, 97–22, *emer. prof, 22–* Civil Eng; Eng. Educ. (sec'y, 00–02, ed, 'Proc,' 00, 01, pres, 15); Ry. Eng. (chairman, cmt. on wooden bridges and trestles, 06–11); hon. mem. Wash. Soc. Eng; Wash. Acad. Bridge stresses and design; graphic statics; stresses in metallic arches and in reinforced concrete arches; timber design and construction.

Jacoby, Dr. J(ames) Ralph, 44 W. 72nd St, New York, N. Y. *Neurology, Psychiatry.* New York, N. Y, July 9, 71. A.B, Harvard, 91; M.D, Columbia, 95. Attending neurologist, *Lenox Hill Hosp. Dispensary,* 00–10, chief clinic, neur. dept, 10–25, *consulting neurologist, 25–* Psychiat. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Soc. Med. Jurisprudence; N. Y. Neur. Soc; N. Y. Acad. Med. Tabes dorsalis; electricity in medicine.

Jacques, Dr. J(oseph) Emile, Montreal Botanical Garden, Montreal, Que, Can. *Plant pathology, Mycology.* Contrecoeur, Que, Jan. 7, 08. Licentiate Nat. Sciences, Montreal, 35, M.Sc, 37; Ph.D, Cornell, 40. Asst. *bot, Montreal,* 34–36, instr, 36–37, *asst. prof, 37–, plant pathologist, Montreal Bot. Garden, 40–* A.A; Mycol. Soc; Phytopath. Soc; Torrey Bot. Club; Can. Phytopath. Soc; Soc. de Biol. de Montreal. Diseases of florists' crops; taxonomy of Heterosporium.

Jaeger, Dr. A(lphons) O(tto), 1 Spring Road, Milbrook, Greenwich, Conn. *Chemistry.* Bergzabern, Palatinate, Germany, Oct. 14, 86. B.S, Zurich, 11; M.A, Ph.D, Basle, 13. Asst. to head dept. org. chem, Basle, 12–13; research chemist, Badische Anilin and Soda-Fabrik, Ludwigshafen, Rhine, Germany, 19–23; Nat. Aniline and Chem. Co, Buffalo, N. Y, 24–25, consulting chemist, 25–26; tech. director, Seldon Co, Pittsburgh, 26–29, v. pres, 29–34, gen. chairman, 34–38; chairman develop. cmn, Am. Cyanamid Co, 38–41; *retired.* Chem. Soc; Chem. Eng; Soc. Test. Mat; Chemists' Club; Deuts. Chem. Gesell; Chem. Verein. Development of new catalytic processes for oxidation of organic compounds and for production of sulfuric acid; alkyd resins; dyes; leather; paper.

Jaeger, Prof. Chester G(eorge), Pomona College, Claremont, Calif. *Mathematics.* St. Louis, Mo, Aug. 22, 96. A.B, Missouri, 20, B.S, 21, A.M, 24, Ph.D, 27. Instr. *math,* Missouri, 22–28; asst. prof, Tulane, 28–31; *prof, Pomona Col, 31–* Math. Soc; Math. Asn. Number of classes of ideals in a pure cubic field; a class of surfaces applicable to the sphere.

Jaeger, Edmund C(arroll), 4462 Sixth St, Riverside, Calif. *Zoology, Botany.* Loup City, Nebr, Jan. 28, 87. B.S, Occidental Col, 18; Pomona Col; Colorado; California. *Head dept. zool, Riverside Junior Col, 21–* Exten. lecturer, California, 24–25. A.A; Soc. Mammal; Cooper Ornith. Club; West. Soc. Nat. (pres, San Jacinto sect, 29–31); Calif. Acad; Calif. Bot. Soc. Ecology of plants and animals of arid regions; distribution of desert plants; taxonomy; forest trees; mollusks; philology.

Jaffé, Prof. George (Cecil), Louisiana State University, Baton Rouge, La. *Theoretical physics.* Moscow, Russia, Jan. 16, 80. Munich, 98–99; Ph.D, Leipzig, 03; Cambridge, 03–04; Paris, 04–05. Privat-docent and later prof, Leipzig, 08–26; prof. theoret. physics, Giessen, 26–33; *assoc. prof. physics, Louisiana, 39–* Conduction of gases; liquid dielectric and crystals.

Jaffe, Dr. G(erald) M(yer), 136 Chestnut St, Rutherford, N. J. *Organic chemistry.* Philadelphia, Pa, Feb. 5, 18. A.B, Pennsylvania, 38, M.S, 39, Ph.D, 42. Asst. to Dr. Charles Mazer, Parke, Davis and Co, 40–41; *indust. fellow, Mellon Inst, 42–* Chem. Soc. Reactions of phenanthraquinone and retenquinone with amines under pressure; organic medicinal compounds.

Jaffe, Dr. Henry L, Hospital for Joint Diseases, 1919 Madison Ave, New York, N. Y. *Pathology, Experimental medicine.* New York, N. Y, 96. B.S, M.D, N. Y. Univ, 20. Asst. pathologist, serologist and bacteriologist, Montefiore Hosp, New York, 22–25; *director labs, Hosp. for Joint Diseases, 25–* A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc. Pathological physiology of the endocrine glands and bones; metabolic diseases of bone; pathology of skeletal diseases.

Jaffey, Dr. Arthur H(arold), 1539 S. Ridgeway Ave, Chicago, Ill. *Physical chemistry.* Chicago, Ill, Dec. 25, 14. B.S, Chicago, 36, Ph.D, 41. *Research assoc,* Chicago, 41; Columbia, 42; *Chicago, 42–* Radioactivity.

Jaggar, Dr. T(homas) A(ugustus), Hawaii National Park P. O, Hawaii. **²Geology.* Philadelphia, Pa, Jan. 24, 71. A.B, A.M, Harvard, 94, Ph.D, 97; Heidelberg and Munich, 94–95; Sc.D, Dartmouth, 38. Instr. geol, Harvard, 95–03, asst. prof, 03–06; prof. and head dept, Mass. Inst. Tech, 06–12; director, Hawaiian Volcano Observatory, 12–19; volcanologist, U. S. Weather Bur, 19–24; U. S. Geol. Surv, 24–35, chief sect. volcanol, 26–35; prin. volcanologist, Nat. Park Service, 35–40; *research assoc, Hawaii, 40–* Asst. geologist, U. S. Geol. Surv, 98–04. Am. Acad; Wash. Acad. Experimental geology; volcanology; physical mineralogy; geophysics; the Caribbean eruptions of 1902; volcanology of Aleutian Islands, Hawaii, Japan, Italy, New Zealand, Central America and Tonga Islands.

Jahn, Prof. Edwin C(ornelius), New York State College of Forestry, Syracuse University, Syracuse, N. Y. *Forest chemistry.* Oneonta, N. Y, Sept. 6, 02. B.S, Syracuse, 25, M.S, 26; Ph.D, McGill, 29. Am-Scandinavian Foundation fellow, 29–30; assoc. prof. forestry, Idaho, 30–35, *prof,* 35–38; *forest chem, N. Y. State Col. Forestry, Syracuse, 38–* Soc. Foresters; Chem. Soc. (chairman, Wash-Idaho border sect, 33–; Syracuse sect, 41); Tech. Asn. Pulp and Paper Indust. Cellulose, lignin and wood chemistry; chemical utilization of wood; wood technology.

Jahn, Prof. Theo(dore) L(ouis), 329 Beldon Ave, Iowa City, Iowa. *Biology.* New Orleans, La, Dec. 17, 05. A.B, Rice Inst, 27; M.S, N. Y. Univ, 29, Ph.D, 31. Teaching fellow biol, univ. col, N. Y. Univ, 27–31; nat. research fellow, Osborn zool. lab, Yale, 31–33, instr. protozool, 33–34; research assoc. *zool, Iowa,* 34–36, assoc, 36–37, asst. prof, 37–41, *assoc. prof, 41–* Lecturer, exten. div, N. Y. Univ, 29–31. A.A; Soc. Parasitol; Soc. Zool; Micros. Soc; Soc. Exp. Biol; Soc. Nat; Iowa Acad. Physiology; protozoology; parasitology; physiology and cytology of flagellates; autocatalysis; life history of Epibdella melleni; oxidation-reduction potential of protozoan cultures; chemical nature and permeability of membranes of the grasshopper egg; invertebrate electrocardiograms; vision, electrical response and persistent diurnal rhythm of arthropod eyes; taxonomy of various protozoan groups.

Jahns, Richard H(enry), U. S. Geological Survey, Washington, D. C. *Geology.* Los Angeles, Calif, March 10, 15. B.S, Calif. Inst. Tech, 35, Ph.D, 43; M.S, Northwestern, 37. Teaching asst, Northwestern, 35–37; teaching fellow, Calif. Inst. Tech, 37–39; junior geologist, *U. S. Geol. Surv,* 37–41, asst. geologist, 41–42, *assoc. geologist, 42–* Igneous and metamorphic petrology and structure; glacial geology.

Jaller, Dr. J(oseph) W(illiam), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Endocrinology.* New York, N. Y, July 7, 14. B.S, Col. City of N. Y, 34; M.S, N. Y. Univ, 36; univ. fellow, Columbia, 38–39, Ph.D, 40, M.D, 43. Instr. *anat, col. physicians and surg, Columbia,* 37–

38, 39–41, *research asosc, 41–* Asn. Study Int. Secretions. Creatine metabolism and the hormones; anti-gonadotropic principles; thyroid physiology.

Jakkula, Prof. A(rne) A(rthur), Agricultural and Mechanical College of Texas, College Station, Texas. *Civil engineering.* Hancock, Mich, March 19, 04. B.S, Minnesota, 26, M.S, 27, fellow, 27–28, C.E, 37; Ph.D, Michigan, 33. Research engineer, State Highway Dept, Minn, 28–29; instr. civil eng, Michigan, 29–33, asst. prof, 33–37; assoc. prof. *struct. eng, Agr. and Mech. Col. Texas,* 37–39, *prof, 39–* Railroad Eng; Eng. Educ; Civil Eng; Int. Asn. Bridge and Struct. Eng. Structural engineering; engineering mechanics.

Jakob, Dr. Max, 5412 East View Park, Chicago, Ill. *Applied physics, Engineering.* Ludwigshafen, Germany, July 20, 79. Dipl. Ing, Tech. Hochschule, Munich, 02, 03, Dr. Ing, 04. Prof. and mem. Physikalisch-Technische Reichsanstalt, Berlin, Germany, 10–35; *research prof. mech. eng, Ill. Inst. Tech, and director lab. heat exchange, Armour Research Foundation, 37–* Ed, 'Forschung auf dem Gebiete des Ingenieurswesens,' 30–33. Mech. Eng; Chem. Eng; Eng. Educ. Chemical engineering; thermodynamics; heat transfer and insulation; flow of fluids; electrophysics.

Jakobsen, B(ernhard) F(aaborg), 439 Lincoln Ave, Palo Alto, Calif. *Engineering.* Hjøring, Denmark, Sept. 25, 81. E.E, Mittweida Tech. Inst, Germany, 02; Dresden, 03. Draftsman and designer, 03–07; engineer, U. S. Reclamation Service, 07–12; elec. engineer, Cerro de Pasco Mining Co, Peru; with Sanderson and Porter, Chicago, and designing engineer, Homestake Mining Co, S. Dak, 12–19; designing engineer in charge, San Joaquin Light and Power Corp, Calif, 19–22; consulting engineer, Feather River Power Co, 22–24; engineer in charge dams, Los Angeles County Flood Control Dist, 24–27; consulting engineer, 27–35; *prin. engineer, div. office, U. S. Army Engineers, San Francisco, Calif, 35–* Consulting engineer, Maricopa County Munic. Conservation Dist. No. 1; United Verde Copper Co; Colo. River Cmn. of Ariz; Middle West Utilities Co; Los Angeles City Water and Power Cmn. Norman medal, Soc. Civil Eng, 24, 27. A.A; Soc. Mil. Eng. Economics of synchronous condensers; corona tests at high altitude; surge tanks; stresses in multiple arch and gravity dams; stresses in thick arches of dams.

Jakosky, Dean J(ohn) J(ay), 1120 W. 11th St, Lawrence, Kans. *Electrical engineering.* Vinita, Okla, Jan. 20, 96. B.S, Kansas, 20, M.E, 26; Carnegie Inst. Tech, 23–24; B.S, Pittsburgh, 25; Sc.D, Arizona, 33. Asst. oil shale engineer, U. S. Bur. Mines, 20–22, asst. elec. engineer, 22–24, assoc. elec. engineer, in charge radio and underground communication labs, 24–25; elec. research engineer, West. Precipitation Co, and consulting engineer, Southwest. Eng. Corp, 25–29; tech. director and pres, Int. Geophys, Inc, Los Angeles, 29–40; director research, Electroblacks, Inc, 29–40; *prof. petrol. eng, dean sch. eng. and archit. and director, Eng. Exp. Sta, Kansas, 40–* Instr, Kansas; construction engineer, Kans. Nat. Gas Co; lecturer, Arizona. 2nd lieut, U.S.A, 18. Mech. Eng; Min. and Metal. Eng; Soc. Explor. Geophys; Geophys. Union; Asn. Petrol. Geol. Geophysical prospecting for oil, water supply, dam site and mining; electrical methods for subsurface exploration; well-logging; carbon black processing; radio interference correction; exploration geophysics.

James, Prof. Arthur E(dwin), 408 S. Walnut St, West Chester, Pa. *Chemistry.* West Chester, Pa, Jan. 21, 97. B.S, Pa. State Col, 21; A.M, Pennsylvania, 24; Gen. Educ. Board fellow, Cornell, 29–30, Ph.D, 33. Instr. chem, Lincoln (Pa), 21–22, asst. prof, 22–24, *prof,* 24–37, registrar, 23–31; *inorg. chem, sch. pharmacy, Temple, 37–* Manager, Westtown Sch, 35– A.A; Chem. Soc; Pharmaceut. Asn. (pres, Phila. sect, 42); Pa. Acad. Reactions in liquid ammonia; history of science; inorganic pharmaceutical assays.

James, Prof. C(harles) M(orton), 136 De Hart St, West Lafayette, Ind. *Biology.* North Vernon, Ind, Dec. 20, 91. B.S.A, Purdue, 14, M.S.A, 17; Wisconsin. Asst. *biol, Purdue,* 14–17, instr, 19–22, asst. prof, 22–39, *assoc. prof, 39–* Lieut, U.S.A, 17–19. Anatomy; physiology; pigeon milk; interstitial cells in rat testes; Golgi bodies; uterine contraction in cats; thymus glands in birds.

James, Dean Emory S(ylvester), 3337 Forbes St, Pittsburgh, Pa. *Anatomy.* Preble Co, Ohio, April 6, 07. A.B, Miami (Ohio), 30, A.M, 33; Ph.D, N. Y. Univ, 38. Teaching fellow biol, N. Y. Univ, 33–38; instr. anat, col. med, Ohio State, 38–39; *dean, Pittsburgh Sch. Embalming, 39–* The morphology of the thymus in Necturus maculosus.

James, Dr. Floyd L(amb), Ohio University, Athens, Ohio. *Chemistry.* West Lafayette, Ind, July 20, 11. A.B, Indiana, 31, A.M, 32, Ph.D, 37. *Instr. chem,* univ. exten, Indiana, 36–41; *Ohio (Athens), 41–* Chem. Soc. Molecular rearrangements.

James, Prof. Glenn, University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* Wabash, Ind, Oct. 2, 82. A.B, Indiana, 05, A.M, 10; Ph.D, Columbia, 17. Instr. *math,* Mich. State Col, 05–08; Purdue, 08–17, asst. prof, 17–19; Carnegie Inst. Tech, 19–20, assoc. prof, 20–22; asst. prof, *California at Los Angeles,* 22–25, *assoc. prof, 25–* A.A; Math. Soc; Math. Asn. Theory of divergent series.

James, Major Harold C(edric), Staunton Military Academy, Staunton, Va. *Physics.* Pacolet, S. C, Oct. 1, 96. B.S, South Carolina, 17; Paris, 19; Wisconsin, 22; A.M, Columbia, 32. Teacher chem, *Staunton Mil. Acad,* 19–22, *director dept. physics,* 22– A.A; Asn. Physics Teachers; Va. Acad. Science teaching.

James, Prof. Harold L(loyd), Montana State University, Missoula, Mont. *Geology.* Nanaimo, B. C, Can, June 11, 12. B.S, State Col. Wash, 38; Washington, 38–40; Princeton, 40–42. Asst, Washington (Seattle), 39–40; junior geologist, U. S. Geol. Surv, 41–42; instr. miner, Princeton, 42; *asst. prof. geol, Montana, 42–* Petrology and mineralogy of southern Oregon gabbros; chromite in Oregon and Washington.

James, Prof. H(arry) R(aymond), 222 W. 12th St. Hastings, Nebr. *Physics.* Strawn, Kans, Jan. 1, 90. B.S. Kans State Teachers Col, 18; A.M, Kansas, 29; Ph.D, Wisconsin. 34. *Prof. physics, Hastings Col, 32–* Asst, Wis. Geol. and Nat. Hist. Surv. Absorption of light in waters of inland lakes of Wisconsin correlated with the influence of organic color materials from bogs and marshes; transmission of solar radiation in lake waters; absorption of the visible spectrum by pure water.

James, Henry D(uvall), Commonwealth Bldg. Annex, Pittsburgh, Pa. *Electrical engineering.* Baltimore, Md, Sept. 21, 74. B.S, Pennsylvania, 95, M.E, 96. *Consulting engineer.* Fel. Elec. Eng; Eng. Soc. West. Pa. (past pres). Control of electric motors.

James, Prof. Hubert M(axwell), Purdue University, Lafayette, Ind. *Physics.* Clarksburg, W. Va, March 10, 08. A.B, Randolph-Macon Col, 28; A.M, Harvard, 30, Ph.D, 34. Instr, Harvard, 31–34, fellow, 34–36; asst. prof. *physics, Purdue,* 36–38, *assoc. prof, 38–; staff mem, radiation lab, Mass. Inst. Tech, 41–* Guggenheim Mem. Foundation fellow, Oslo, 39–40. Asn. Physics Teachers; Physical Soc. Wave mechanical treatment of atoms and molecules; statistical mechanics; theory of properties of rubber.

James, Dr. J(oseph) H(idy), 5868 Douglass Ave, Pittsburgh, Pa. *Industrial organic chemistry.* Jeffersonville, Ohio, Nov. 3, 68. B.S, Buchtel, 94; Ph.D, Pennsylvania, 99. Asst. chem. and physics, Buchtel, 94–97; chief chemist, Lake Superior Power Co, Can, 99–02; asst. prof. textile chem, Clemson Col, 02–05; prof. chem. eng. and head dept, Carnegie Inst. Tech, 05–38; *retired.* Chem. Soc; Chem. Eng. Storage of acetylene; manufacture of oxidation products from hydrocarbons.

James, Prof. Lawrence H(enry), University of Maryland, College Park, Md. *Bacteriology.* Wayne, Nebr, Aug. 5, 98. B.S, Iowa State Col, 21; Sterling fellow, Yale, 26–27, Ph.D, 27. Bacteriologist, bur. chem, U. S. Dept. Agr, 22–27, food research, bur. chem. and soils, 27–36; *prof. bacter, Maryland, 37–* Soc. Bact; Chem. Soc; Pub. Health Asn. Food bacteriology and technology; sanitation; industrial fermentation; food poisoning; microbial thermogenesis.

James, Dr. Maurice T(heodore), Colorado State College, Ft. Collins, Colo. *Entomology.* Elwood, Ind, Sept. 16, 05. Kansas, 23; A.B, Colorado, 32, A.M, 34, Ph.D, 38; Scripps Institution, California, 34. Instr. zool, Colorado, 32–34; *curator museum and asst. prof. zool. and entom, Colo. State Col, 34–* Fel. Entom. Soc. Amer; Ecol. Soc; Limnol. Soc; Soc. Study Speciation; Colo-Wyo. Acad. Taxonomy of Stratiomyidae, Asilidae, Bibionidae and other Diptera; terrestrial synecology of semi-desert insects; disease-producing Arthropoda.

James, M(ilton) C(arl), U. S. Department of the Interior, Washington, D. C. *Fisheries.* Meriden, Conn, March 26, 97. B.S, Washington (Seattle), 23. Junior aquatic biologist, Bur. Fisheries, 23–37, asst. chief *div. fish culture,* 27–40, *fish and*

wildlife service, U. S. Dept. Interior, 40–42, chief, 42– Investigation fisheries resources, Lake Titicaca, S. Amer, 36. Fisheries Soc. Fish culture; propagation of pond fishes.

James, Prof. Norman, University of Manitoba, Winnipeg, Man, Can. *Soil microbiology.* Staffa, Ont, May 14, 91. B.S.A, Ont. Agr. Col, 18; M.S, Iowa State Col, 23, Ph.D, 38. Lecturer dairying, Man. Agr. Col, 18–29; asst. prof. *bacter, Manitoba,* 30–37, *assoc. prof, 38–* Can. Soc. Tech. Agr. The plate method of estimating the number of bacteria in soil.

James, Prof. Preston E(verett), University of Michigan, Ann Arbor, Mich. *Geography.* Brookline, Mass, Feb. 14, 99. A.B, Harvard, 20, A.M, 21; Ph.D, Clark, 23. Asst. *geog,* Harvard, 19–21; Radcliffe Col, 20; instr, Clark, 21–23; *Michigan,* 23–24, asst. prof, 24–28, assoc. prof, 28–34, *prof, 34–; chief Latin Am. div, Office Strategic Services, 41–; major Mil. Intel, U. S. Army, 42–* Summer, California, 33; Wisconsin, 37; Texas, 40; Harvard, 41. Nat. Research Council grant-in-aid, Brazil, 30–31; Social Science Research Council grant-in-aid, 38. V. chairman div. geol. and geog, Nat. Research Council, 39, chairman cmt. geog. research, 41–; sec'y, cmt. Latin Am. studies, Am. Council Learned Societies, 34–41, joint cmt. Latin Am. studies, 41–, chairman cmt. research planning and personnel, 41– A.A; Am. Geog. Soc; Asn. Geog. (councilor, 34–36, chairman, cmt. on credentials, 35, sec'y, 36–41); Meteorol. Soc; Int. Geog. Union (nat. cmt). Regional and economic geography of Latin America, especially Brazil.

James, Prof. R(alph) D(uncan), University of British Columbia, Vancouver, B. C, Can. *Mathematics.* Liverpool, Eng, Feb. 8, 09. B.A, British Columbia, 28, M.A, 30; Ph.D, Chicago, 32. Nat. research fellow, Calif. Inst. Tech, 32–33; Cambridge, 33–34; instr. *math,* California, 34–36, asst. prof, 36–39; prof. and head dept, Saskatchewan, 39–43; *prof, British Columbia, 43–* Visiting lecturer, Wisconsin, 42. Reviewer, 'Math. Revs,' 40– Math. Soc; Math. Asn; fel. Royal Soc. Can; London Math. Soc. (cooperating ed, 'Jour,' 38–). Additive theory of numbers; analytic theory of numbers.

James, Prof. R(ichard) V(ernon), University of Oklahoma, Norman, Okla. *Mechanics.* Piatt Co, Ill, June 20, 92. B.S, Oklahoma, 18, M.S, Illinois, 28. Highway surv's, plants and estimates, 19–20; *asst. prof.* civil eng, *Oklahoma,* 20, *mech, 20–, head dept, 37–* C.Eng, 18–19, 2nd lieut. Plaster-model method of determining stresses applied to curved beams; the brittle material method applied to stress analysis; effects of high stress in sucker rods in deep pumping.

James, Dr. T(homas) H(oward), 580 Seneca Parkway, Rochester, N. Y. *Chemistry.* Denver, Colo, Nov. 7, 12. A.B, Colorado, 32, A.M, Ph.D, 35. Asst. chem, Colorado, 31–35, instr, 35–36; *chemist, research labs, Eastman Kodak Co, 36–* Chem. Soc; Physical Soc; N. Y. Acad. Photography; latent image theory; theory of development; surface chemistry.

James, Dr. Vern, 604 Tennyson Ave, Palo Alto, Calif. *Mathematics.* Lincolnville, Ind, April 30, 89. A.B, Indiana, 12; A.M, Columbia, 16; Ph.D, Stanford, 27. Instr. *math,* Mich. State Col, 16–17; Carnegie Inst. Tech, 17–22, asst. prof, 22–24; instr, Stanford, 26–28; *head dept, Menlo Junior Col, 28–* Theory of groups.

James, Prof. Walter H(erman), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Portsmouth, N. H, Aug. 26, 73. B.S, Mass. Inst. Tech, 96. Asst. to mech. engineer, Waltham Bleachery and Dye Works, 96–00; asst. and instr, *Mass. Inst. Tech,* 00–12, asst. prof. and assoc. prof. *mech. eng. drawing,* 12–38, *emer. prof, 38–* A.A. Kinematics; principles of mechanism; power plant machinery.

James, Dr. W(endell) E(verett), 12 Handy Court, Burlington, Vt. *Bacteriology.* R. I, June 8, 96. A.B, Brown, 17, M.S, 34; M.D, Vermont, 38. Asst. biol, Brown, 20–23; instr, Trudeau sch. nursing, Trudeau Foundation, 24–25, research fellow bacter, 24–26; asst. prof. *bacter. and clin. path, med. sch, Vermont,* 27–40, *assoc. prof, 41–* Attending bacteriologist, Mary Fletcher Hosp, 39– A.A; Am. Med. Asn. Clinical pathology.

James, Dr. W(illiam) A(ddison), P. O. Box 542, Arvida, Que, Can. *Physical chemistry.* Toronto, Ont, Aug. 15, 15. B.A, Toronto, 36, M.A, 37, Nat. Research Council Can. bursar, 38–39, Ph.D, 39. Lecturer chem, Toronto, 36–38; *chemist,* E. B. Shuttleworth Chem. Co, 39–40; *Aluminum Co, Can, Ltd, 40–* Can. Inst. Chem; Can. Chem. Asn. (sec'y Saguenay branch, 41). Diffusion of hydrochloric acid over a range of temperature and concentration.

James, Dr. W(illiam) F(leming), Bank of Hamilton Bldg, Toronto, Ont, Can. *Geology.* St. John, N. B, Dec. 1, 94. B.A, St. Francis Xavier (Can), 18; M.Sc, McGill, 21; Ph.D, Princeton, 23. Geol. Surv. Can, Ottawa, 23–28; *consulting geologist, 28–* Investigation of Precambrian geology of northern Quebec and Ontario.

James, Dr. William H(olden), Pennsylvania State College, State College, Pa. *Organic chemistry.* Ellijay, Ga, April 14, 09. B.S, Emory, 28, M.S, 29; Ph.D, Pa. State Col, 43. Asst. chem, Pa. State Col, 29–34; research chemist, Socony-Vacuum Oil Co, 34–41; *research asst. chem, Pa. State Col, 41* - A.A; Chem. Soc. Aliphatic chlorides; petroleum additives; synthetic lubricants; thermal data on organic reactions; synthetic organic chemistry.

James, W(illia)m S(tubbs), 1429 E. Wayne St, South Bend, Ind. *Engineering.* Asbury Park, N. J, Sept. 3, 92. B.S, George Washington, 17. Physicist, Bur. Standards, 20–24; engineer, Hupp Motor Car Co, 24; asst. technologist, Associated Oil Co, 24–26; *chief engineer, Studebaker Corp, 26–* A.A; Soc. Automotive Eng; Soc. Test. Mat; fel. Physical Soc. Automotive engineering; oil technology.

James, Dr. William T(homas), University of Colorado, Boulder, Colo. *Psychology.* Greer, S. C, June 9, 03. B.S, Furman, 24; Ph.D, Cornell, 29. Asst. prof. psychol, Miss. State Col. for Women, 29–31; anat, med. col, Cornell, 31–39, research assoc. psychobiol, 39–42; *asst. prof. psychol, Colorado, 42–* Summer, asst, Cornell, 29. Experimental psychology and physiology.

Jameson, Dr. Eloise, Stanford University School of Medicine, San Francisco, Calif. *Physical chemistry.* Corona, Calif, 88. A.B, Stanford, 10, A.M, 12, Ph.D, 30. Plant chemist, Exchange Lemon Products Co, 17–20; research chemist, Calif. Fruit Growers Exchange, 20–25; *research assoc. med, sch. med, Stanford, 30–* A.A; Chem. Soc; Soc. Exp. Biol. Physical chemistry of proteins; pectin; phase rule study of serum proteins; electrophoresis of serum proteins.

Jamieson, Dr. George S(amuel), 3914 McKinley St, N. W, Washington, D. C. *Chemistry.* Bridgeport, Conn, June 7, 79. Ph.B, Yale, 01, Ph.D, 04. Instr. anal. chem, Sheffield Sci. Sch, Yale, 04–09, asst. prof, 09–18, anal. research chemist, 18–19; *chemist in charge oil, fat and wax lab,* bur. chem, *U. S. Dept. Agr,* 19–27, bur. chem. and soils, 27–41, bur. agr. chem. and eng, 41–43, *food distribution admin, 43–* A.A; Chem. Soc; Oil Chemists Soc; Brazilian Chem. Soc. Organic, inorganic and analytical chemistry; mineralogy; methods for various elements; vegetable fats and oils; volumetric iodate methods.

Jamieson, Dr. W(alter) A(lbert), Eli Lilly and Co, Indianapolis, Ind. *Immunology, Bacteriology.* Utica, N. Y, May 10, 90. A.B, Trinity Col. (Conn), 11, hon. Sc.D, 41. Bacteriologist, Lederle Labs, 11–17; asst. director biol. div, *Eli Lilly and Co,* 17–23, *director biol. div. and research, 23–* A.A; Pub. Health Asn; Soc. Bact; Asn. Immunol; Soc. Trop. Med. Bacterial antigens; viruses; toxins; antitoxins; germicides; biological preservatives; tropical medicine.

Jamison, Dr. F(rank) S(tover), University of Florida, Gainesville, Fla. *Horticulture.* Bellwood, Pa, Feb. 12, 03. B.S, Pa. State Col, 24; fellow, Iowa State Col, 24–25, M.S, 25; Ph.D, Cornell, 33. Instr. hort, Agr. and Mech. Col. Texas, 25–28, asst. prof, 28–30; research instr. veg. crops, Cornell, 30–34; *truck horticulturist, Florida, 34–* A.A; Soc. Hort. Sci. (chairman south. sect, 39); Fla. State Hort. Soc; Soil Sci. Soc. Fla. Nutrition, physiology and breeding of vegetable crops.

Jamison, Dr. Vernon C(arnehan), Citrus Experiment Station, Lake Alfred, Fla. *Soil chemistry.* Preston, Idaho, July 14, 07. B.S, Utah State Col, 36; Ph.D, Cornell, 41. *Soil chemist, Citrus Exp. Sta, Florida, 41–* Soil structure and moisture relations; exchangeable bases; copper fixation.

Janes, Dr. Byron E(verett), University of Florida, Gainesville, Fla. *Plant physiology.* Durango, Mex, Aug. 8, 10. B.S, California, 34; Michigan, 39, Newcombe fellow, 40–41, Ph.D, 41. Lab. asst, California, 36–38; instr. hort, Agr. and Mech. Col. Texas, 41–42; *asst. horticulturist, Exp. Sta, Florida, 42–* Physiology of vegetable crops.

Janes, Dr. Melvin J(oseph), Agricultural Experiment Station, Alta Loma, Texas. *Entomology.* Providence, Utah, Oct. 28, 09. B.S, Utah State Col, 31, M.S, 33; Iowa State Col, 33–35, Ph.D, 37. Asst. entom, Exp. Sta, Utah State Col, 31–33;

fellow, Iowa State Col, 33–35, instr, 34–35; *entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 35–* Summers, asst. state entomologist, Iowa, 34, 35. Asn. Econ. Entom; Entom. Soc. Amer. Economic entomology.

Janes, Prof. Ralph G(ordon), Wayne University College of Medicine, Detroit, Mich. *Anatomy.* Newton Falls, Ohio, Nov. 8, 07. A.B, Battle Creek Col, 30; Michigan, 32; M.S, N. Y. Univ, 33, Ph.D, 36. Instr. biol, Battle Creek Col, 30–31; asst, N. Y. Univ, 31–37, instr. *anat, col. med, Wayne,* 37–41, *asst. prof, 41–* Summers, research assoc, inst. fisheries research, Michigan, 32–34; instr, Col. City of N. Y, 35, 36, 37. Mich. Acad. Science grant, 38. Asn. Anat; Asn. Study Int. Secretions; Soc. Zool. Effect of steroid hormones on carbohydrate metabolism; human embryology.

Janes, Dr. Robert B(rown), RCA Manufacturing Co, Harrison, N. J. *Physics, Chemistry.* Burlington, Mass, Feb. 2, 09. B.S, Kenyon Col, 28; Harvard, 28–29; Ph.D, Wisconsin, 35. Instr. physics, Colgate, 29–31; asst, Wisconsin, 31–35; *research engineer electronic television, RCA Mfg. Co, 35–* Radio Eng. Electronic television; magnetic susceptibilities of inorganic compounds; photoelectricity; electronic television tubes.

Janeway, Dr. Charles A(lderson), 300 Longwood Ave, Boston, Mass. *Clinical bacteriology and immunology.* New York, N. Y, May 26, 09. A.B, Yale, 30; Cornell, 30–32; M.D, Hopkins, 34. Research fellow bacter. and immunol, *Harvard Med. Sch,* 37–38, instr, 39–40, med, bacter. and immunol, 40–42, *asst. prof. pediat, 42–* Consulting bacteriologist, Boston Lying-In Hosp, 39–41; assoc, Peter Bent Brigham Hosp, 40–41; visiting physician, Children's Hosp, 42– Am. Med. Asn; Soc. Clin. Invest. Clinical and immunological studies of plasma protein fractions.

Janis, Dr. A(llan) A(braham), 34 Rosecliffe Ave, Toronto, Ont, Can. *Physical chemistry.* Toronto, Ont, May 18, 14. B.A, Toronto, 34, M.A, 35, Nat. Research Council Can. bursar, 37–38, Ph.D, 39. Asst. chem, Toronto, 34–37, 38–39; *chief chemist, Can. Kodak Co, Ltd, 39–* Chem. Soc; assoc. Can. Inst. Chem. Vapor pressures of aqueous solutions by the isopiestic method.

Jankelson, Dr. I(saac) R(udolph), 483 Beacon St, Boston, Mass. *Gastro-enterology.* Libau, Latvia, May 14, 93. M.D, Tufts Col, 18. *Asst. prof. med, med. sch, Tufts Col.* Gastro-Enterol. Asn; Nat. Gastro-Enterol. Asn. Gastroscopy; liver disease.

Jankiewicz, Dr. H(arry) A(nthony), 4258 S. Main St, Los Angeles, Calif. *Parasitology.* Konin, Poland, April 17, 08. A.B, California at Los Angeles, 29; Stanford, 29–31; Ph.D, Southern California, 42. *Instr. anat. and physiol, Los Angeles Sch. Optometry, 38–; anat, physiol, zool. and sanit. science, Southern California, 42–* Soc. Parasitol; Micros. Soc; South. Calif. Parasitol. Taxonomy, symptomatology and immunology of the coccidia and coccidiosis of rabbits and chickens; vitamins and oils as they affect severity of coccidiosis.

Janney, Dr. John H(all), Jr, Rockefeller Foundation, Casilla 13240, Santiago de Chile, S. Amer. *Public health.* Brookeville, Md, July 24, 93. B.S, Earlham Col, 13; M.D, Hopkins, 17, M.P.H, 28. *Int. health div, Rockefeller Foundation, 21–, rep,* Spain and Portugal, 40–41, *Chile, 42–* Assoc, sch. hygiene and pub. health, Hopkins, 31–36; scarlet fever studies, Rumania, 36–40. County health officer, N. C, 20–21; Brazil, 21–27; Miss, 28–31; Md, 31–36. M.C, U.S.A, 17–19. A.A; Pub. Health Asn. Training of county health personnel; epidemiology.

Janney, Dr. J(oseph) Elliott, Stevenson, Jordan and Harrison, Inc, 205 W. Wacker Drive, Chicago, Ill. *Psychology.* Brighton, Md, Nov. 9, 03. A.B, Earlham Col, 25; T. Wistar Brown scholar, Haverford Col, A.M, 26; Ph.D, Ohio State, 35. Instr. psychol, Col. City of N. Y, 29–31; assoc. prof. and prof, Western Col, 31–39; asst. prof, Western Reserve, 39–43; *consulting psychologist, Stevenson, Jordan and Harrison, Inc, 43–* Asst, Ohio State, 34–35. Summer, mem. faculty, Syracuse, 38–41. A.A; assoc. Psychol. Asn; Ohio Acad. Objective measurement of sociality; personality; management; personnel.

Jansen, Dr. G(erhard) V(ogt), S. C. Johnson and Son, Ltd, Brantford, Ont, Can. *Chemistry.* St. Thomas, Ont, Aug. 10, 07. B.A.Sc, Toronto, 31, M.A.Sc, 32, Ph.D, 37. Asst, Toronto, 31–33, demonstrator, 33–37; paint chemist, 37–43; *chief chemist, S. C. Johnson and Son, Ltd, 43–* Chlorination of lignin; adsorption of stannic chloride by silk fibroin.

Jansen, Dr. J(acob) Eden, 295 Kenilworth Drive, Akron, Ohio. *Organic chemistry.* Alvord, Iowa, March 10, 09. A.B, Carleton Col, 30, A.M, 32; Ph.D, Harvard, 37. Teaching fellow chem, Harvard, 33–37, instr, 37–38; *research chemist, B. F. Goodrich Co, 38–* Chem. Soc. Alicyclic beta lactones; ketonic beta lactones and the Walden inversion.

Jansky, Prof. Cyril M(ethodius), 2117 Jefferson St, Madison, Wis. *Electrical engineering.* Richland Co, Wis, March 15, 70. A.B, Valparaiso, 91; B.S, Michigan, 04. Asst, Bur. Standards, 04–05; prof. elec. eng. and acting dean sch. applied science, Oklahoma, 05–08; prof. *elec. eng, Wisconsin,* 08–40, *emer. prof, 40–* A.A; fel. Elec. Eng; Eng. Educ; Wis. Acad; Prague Soc. Physics and Math. Determination of electromotive force of Clark and Weston cells; the coulometer; electrical meters; direct current machinery; principles of the telephone and radiotelegraphy; storage batteries; correspondence and residence instruction.

Jansky, Karl G(uthe), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Norman, Okla. A.B, Wisconsin, 27, scholar, 28, A.M, 36. *Tech. staff, Bell Tel. Labs, 28–* Subcmt. radio direction finding, Nat. Defense Research Cmt. Radio Eng. Atmospherics and other radio interference; radio waves of interstellar origin; radio transmission phenomena.

Janssen, Capt. John F, Jr, 17th Observation Squadron, Salinas Airdrome, Salinas, Calif. *Zoology.* Seattle, Wash, Nov. 27, 10. A.B, California, 38. Marine fisheries biologist, state div. fish and game, bur. marine fisheries, Calif, 35–38, 39–41; 2nd lieut, Infantry Reserve, 35–36, Field Artil. Reserve, 36–40, lieut, 40–42, *Air Corps Reserve,* 42, *capt,* 42– Migrations of the California sardine.

Janssen, Dr. Raymond E(llsworth), Marshall College, Huntington, W. Va. *Paleobotany.* Springfield, Ill, Nov. 1, 03. B.S, Northwestern, 32; M.S, Chicago, 37, Ph.D, 39. Geologist, Century of Progress Expos, 33; Museum Science and Indust, 33; Texas Centennial Expos, 35–36; research in paleobot, Ill. State Museum, 38–39; science writer and editor, 'Encyclopaedia Britannica,' 40–42; *head dept. geol, Marshall Col, 42–* A.A; Asn. Mus; Ill. Acad. Carboniferous coal paleobotany.

Janus, Sidney Q, 851 Wildwood Road, N.E, Atlanta, Ga. *Psychology.* New York, N. Y, Nov. 7, 12. B.S.S, Col. City of N. Y, 33; A.M, Columbia, 34; George Washington, 37– Occupational analyst, Social Security Board, 38–40; regional occupational analyst, War Manpower Cmn, Ga, 40–43; *ensign, U. S. Naval Res, 43–* Instr, eng. science and management war training, Alabama, 42; Ga. Sch. Tech, 43– Assoc. Psychol. Asn. Industrial psychology.

Japs, A(rchie) B(ernard), B. F. Goodrich Co, Akron, Ohio. *Chemical engineering.* Hopkins, Minn, June 2, 13. B.Ch.E, Minnesota, 33. Chemist, lab, *B. F. Goodrich Co,* 33–34, asst. manager gen. lab, 34–35, research chemist on koroseal, 35–37, develop. chem. engineer, 37–39, asst. manager koroseal research and develop, 39–42, *director chem. eng. develop, 42–* Chem. Eng; Chem. Soc. Chemical engineering development of synthetic rubber, plastics and rubber chemicals.

Jaques, Prof. H(arry) E(dwin), Iowa Wesleyan College, Mt. Pleasant, Iowa. *Entomology.* Danville, Iowa, July 24, 80. B.S, Iowa Wesleyan Col, 11, Sc D, 31; A.M, Ohio State, 17; Iowa State Col. *Prof. biol, Iowa Wesleyan Col, 12–* Field entomologist and collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 18. A.A; Iowa Acad. (v. pres, 31, pres, 32). Biology; economic entomology; grasshopper control; white grub and army worm distribution; reproduction of weeds; trees and flowering plants; distribution of insects of Iowa; pictured-key nature books.

Jaques, Dr. L(ouis) B(arker), University of Toronto, Toronto, Ont, Can. *Physiology.* Toronto, Ont, July 10, 11. B.A, Toronto, 33, M.A, 35, Ph.D, 41. *Asst. physiol, Toronto, 36–,* asst. chemist, Connaught labs, 39–40, asst. physiol. hygiene, 40–41. Chem. Soc; Can. Inst. Chem. Chemistry and physiology of blood clotting and heparin.

Jaramillo, Dr. T(rinidad) J(aramillo), Department of Finance, Manila, P. I. *Mathematics.* Santo Domingo, Ilocos Sur, P. I, May 25, 02. B.S, Chicago, 24, M.S, 25, Ph.D, 29. Instr. math, San Beda Col, Manila, 29–30; math. and physics, Univ. Manila, 29–30; North. Luzon Junior Col, P. I, 30–34; asst. statistician, dept. commerce and agr, P. I, 34–35; *with bur. treas, dept. finance, Manila, 35–* A.A; Math. Soc; Edin-

burgh Math. Soc. Energy function in elasticity theory; forms of generalized energy function appropriate for each of the crystal classes.

Jardine, Dr. James T(ertius), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Cherry Creek, Idaho, Nov. 28, 81. B.S, Utah Col, 05; Chicago, 05, 06; hon. Sc.D, Kans. State Col, 35, Clemson Col, 37. Instr. English, Utah Col, 05–07; special agent, U. S. Forest Service, 07–08, deputy forest supervisor, 08–10, inspector grazing and in charge range investigations and surveys, 10–20; director, Exp. Sta, Oregon State Col, 20–31; *chief office exp. stations, U. S. Dept. Agr, 31–,* director research, 36–41. Lecturer, Washington, (Seattle), 10–11; Montana, 10–11; Colo. Col, 11; forest sch, Yale, 14–16. Summer, inspecting exp. stations, U. S. Dept. Agr, Alaska, 24. Specialist, Nat. Land Grant Col. Surv, bur. educ, U. S. Dept. Interior, 29–30. A.A; Wash. Acad. Range management; livestock production; native pastures; economic botany; research administration, planning and coordination.

Jardine, Pres. W(illiam) M(arion), Municipal University of Wichita, Wichita, Kans. *Agriculture.* Oneida Co, Idaho, Jan. 16, 79. B.S.A, Utah Col, 04, LL.D, 25; LL.D, Lafayette Col, 27, Kans. State Col, 38. Asst. agron, Utah Col, 04, instr, 05, prof, 05–06; asst. cerealist in charge dry land cereal investigations, U. S. Dept. Agr, 07–10; agronomist, Kans. State Col. and Exp. Sta, 10–13, dean and director, Exp. Sta, 13–18, pres. col, 18–25; Sec'y of Agr, United States, 25–29; counsel, Fed. Fruit and Veg. Growers, 29–30; U. S. Minister to Egypt, 30–33; state treasurer, Kans, 33–34; *pres, Munic. Univ. Wichita, 34–* Lecturer, grad. sch, Mich. State Col, 12. Nat. Forest Reservation Cmn; Fed. Board for Vocational Educ; past mem. exec. board, Nat. Research Council. Jury awards, Pan-Pacific Expos, 15; pres, Int. Dry Farming Cong. and Soil Products Expos, 15–16; Int. Wheat Cong, 20. A.A; Forestry Asn; Soc. Agron. (pres, 16); Inst. Social Sci; Nat. Educ. Asn. (v. pres, 20); Mass. Hort. Soc; Wash. Acad. Dry farming; agronomy; farm tenancy; land settlement; rural life.

Jares, Dr. J(ohn) J(ames), Jr, 522 du Pont Bldg, Miami, Fla. *Radiology.* Cleveland, Ohio, June 18, 07. A.B, Western Reserve, 29; M.S, Rochester, 32, M.D, 35. Fellow, H. G. Cushing lab. exp. med, Western Reserve, 28–39; anat, *Rochester,* 29–30, physiol, 30–32, radiol, 32–36; *instr. med, 37–,* asst. res, Strong Mem. Hosp, 36–37, assoc. res, 37–38. Asst, N. Y. State Hosp. for Incipient Tuber, Ray Brook, N. Y, 35; director dept. radiol, Jackson Mem. Hosp, Miami, Fla. A.A; Am. Med. Asn; Col. Radiol; Cong. Physical Therapy; Fla. Radiol. Soc. Endocrinology; cancer; metabolism; radiology; tuberculosis; hyperthermia; allergy.

Jarnagin, Dr. Milton (Preston), University of Georgia, Athens, Ga. *Animal husbandry.* Farmville, Va, Sept. 17, 81. Tennessee, 00–03; Wisconsin, 03–04; B.S.A, Iowa State Col, 05, M. Agr, 30; Sc D, Georgia, 21. Instr. *animal husbandry,* Va. Polytech, 06–07; assoc. prof, *Georgia,* 07–08, *head div, 08–* A.A; Ga. Acad. Feeding and management of dairy cattle, beef cattle, hogs and horses.

Jarrell, T(emple) D, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Md, June 7, 87. B.S, Maryland, 09, M.S, 18. First asst. chemist, Fertilizer, Feed and Lime Control Lab, Md, 09–18; *chemist, bur. agr. and indust. chem, U. S. Dept. Agr, 18–* Chem. Soc; Agr. Chem. Chemistry of cellulose and paper; waterproofing and mildewproofing of textiles; agricultural chemistry.

Jarvis, Prof. C(harles) W(illard), Ohio Wesleyan University, Delaware, Ohio. *Physics.* Harrison Co. Ohio, 86. B.S, Valparaiso, 09; A.B, Ohio State, 15, A.M, 16, Ph.D, 26. Instr. *physics,* Case, 18–19; Ohio State, 20–25; assoc. prof, *Ohio Wesleyan,* 25–29, *prof. and head dept, 30–* Nat. Research Council grant-in-aid, 29, 31–34. A.A; Physical Soc; Ohio Acad. (v. pres, sci. sect, 35); Cent. Ohio Physics Club (pres, 29–31). Critical potentials in metallic vapors; gallium and indium; excitation of mercury vapor with slow speed electrons for evidence of molecular energy levels.

Jarvis, Dr. C(larence) S(ylvester), 134 C St, S.E, Washington, D. C. *Engineering.* St. George, Utah, Feb. 17, 80. B.S, Missouri, 06, C.E, 08; Detroit-Edison fellow, Michigan, 24–25, M.S.E, 25; Ph.D, American Univ, 27. U. S. Reclamation Service, 06–07; construction and irrig. eng, water supply and flood control, 07–17; highway engineer, 17–18; highway and bridge engineer, bur. pub. roads, U. S. Dept. Agr, 23–29; prin. hydraul. engineer, U. S. eng. office, War Dept, 29–34; U. S. Geol. Surv, 34–35; *hydraulic engineer,* soil conservation service, U. S. Dept. Agr, 35–42; *Office U. S. Engineers, War Dept, 42–* Croes medal, Soc. Civil Eng, 26. Capt, C.Eng, 18–22. Civil Eng; Soc. Mil. Eng; Wash. Soc. Eng. Flood control; relation of rainfall to soils and run-off; flood stage records of the Nile River; magnitude and frequency of floods in the United States; forecasting run-off from index area data; consumptive use of water; inventory of unpublished hydrologic data; early contributions to Mississippi River hydrology; gleanings from the field of hydrology.

Jason, Dr. Robert S(tewart), Howard University, Washington, D. C. *Pathology.* Santurce, P. R, Nov. 29, 01. A.B, Lincoln (Pa), 24; M.D, Howard, 28; Gen. Educ. Board fellow, Chicago, 29–31, Ph.D, 32. Asst. prof. *path, Howard,* 31–34, assoc. prof, 34–37, *prof, 37–,* acting head dept, 34–35, *head dept, 35–* Int. Asn. Med. Mus. Syphilis of aortic valve; aneurysm of the hepatic artery; Schuller-Christian's disease; histopathology of the palatine tonsil; syphilis in the American Negro.

Jasper, Dr. Herbert H(enry), McGill University, Montreal, Que, Can. *Psychology.* La Grande, Oregon, July 27, 06. Willamette, 23–26; A.B, Reed Col, 27; A.M, Oregon, 29; fellow, Iowa, 29–30, Ph.D, 31; Sc.D, Paris, 35. Instr, Oregon, 29; Iowa, 32; nat. research fellow biol, Sorbonne, Paris, 32–34; instr. psychol, Brown, 34–35, asst. prof. and director psychol. clinic and labs, Emma Pendleton Bradley Home, 35–39; *lecturer, McGill, and director dept. neurophysiol, Montreal Neur. Inst, 39–* A.A; Psychol. Asn; Physiol. Soc; Asn. de Physiol. de Langue française; Soc. Philomath; Soc. de Biotypologie. Physiological psychology; clinical psychology and neurophysiology; nerve excitability; electrical activity of the central nervous system.

Jasper, Prof. J(oseph) J(ohn), 1440 W. Bethune Ave, Detroit, Mich. *Physical chemistry.* Grand Rapids, Mich, July 28, 95. B.S, Mich. State Col, 24, M.S, 27; Ph.D, Chicago, 31. Instr. chem, Mich. State Col, 24–28; asst. *physical chem,* Chicago, 29–30; instr, Col. City of Detroit, 31–33, asst. prof, *Wayne,* 33–40, *assoc. prof, 41–* Ed, 'Detroit Chemist,' 35–36. Chem. Soc. (chairman, Detroit sect, 37; councilor, 38–; chairman banquet cmt, nat. conv, 40, 43); Detroit Eng. Soc. Surface chemistry.

Jasper, T(homas) McLean, A. O. Smith Corp, Milwaukee, Wis. *Engineering.* Tregunnon, Altarnum, Eng, Dec. 25, 82. B.S, Illinois, 10, M.S, 11, C.E, 21. Asst. engineer, Alvord and Burdick, 11–13; examiner efficiency, Dept. Health, Chicago, 13–15; asst. prof. mech, Wisconsin, 20–21; special research assoc. prof. eng. materials, Illinois, 21–26; *director research, A. O. Smith Corp, 26–* Engineer of tests, fatigue of metals investigations, Nat. Research Council, 21–26; asst. state sanit. engineer, Wis, 19. Commissioned officer, artil, British Army, 15–19. Civil Eng; Mech. Eng; Soc. Test. Mat. Metals under elevated temperatures; fatigue, corrosion and creep; complex stresses in structures and shapes.

Jastrow, Prof. Joseph, Stockbridge, Mass, *¹*²*Psychology.* Warsaw, Poland, Jan. 30, 63. A.B, Pennsylvania, 82, A.M, 85; fellow, Hopkins, 85–86, Ph.D, 86; LL.D, Wittenberg Col, 28. Prof. *psychol, Wisconsin,* 88–27, *emer. prof,* 27–; lecturer, New Sch. for Social Research, 27–34. Nonres. lecturer, Columbia, 10. In charge sect. psychol, Columbian Expos, 93. A.A. (sec'y, H, 90, v. pres, 91); Psychol. Asn. (pres, 00); Harvey Soc. Development, analysis and correlation of mental processes; abnormal psychology; the subconscious; character and temperament; belief, judgment and their irregular forms.

Jauncey, Prof. G(eorge) E(ric) M(acdonnell), 7310 Lindell Ave, St. Louis, Mo. *¹*²*Physics.* Adelaide, Australia, Sept. 21, 88. B.Sc, Adelaide, 10, D.Sc, 22; 1851 Exhib. scholar, Leeds, 12–13; M.S, Lehigh, 16. Instr. *physics,* Lehigh, 14–16; Missouri, 16–18; Iowa State Col, 19–20; *Washington (St. Louis),* 20–21, asst. prof, 21–24, assoc. prof, 24–30, *prof, 30–* Assoc. ed, 'Physical Rev,' 26–28; 'Radiology,' 30– A.A; fel. Physical Soc. Scattering of x-rays from crystals; corpuscular quantum theory of the scattering of x-rays; polarizing angle of scattered x-rays; atomic structures; collisions of photons; disintegration and aggregations of atoms; Pauli exclusion principle in x-ray scattering; atomic vibrations in anisotropic crystals; diffuse reflection of x-rays from crystals.

Jay, Dr. P(hilip), University of Michigan School of Dentistry, Ann Arbor, Mich. *Dental pathology.* Detroit, Mich, June 5, 98. D.D.S, Michigan, 23, M.S, 24; hon. Sc.D, Washington (St. Louis), 41. Assoc. dental bacter, sch. med. and dentistry, Rochester, 24–29; research assoc, *sch. dentistry,*

Michigan, 29–39, asst. prof. oral path, 39– A.A; Dental Asn; Soc. Bact; Int. Asn. Dental Research. Bacteriology, etiology and control of dental caries.

Jaynes, H(arold) A(ndrus), 209 River St, Hoboken, N. J. *Entomology.* Bridgeport, Conn, May 11, 00. B.S, Conn. Agr. Col, 22; M.S, Louisiana, 34. Assoc. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 22–37, investigator, Japanese beetle, China, 24–27, sugar-cane moth borer, S. Amer, 28–32, La, 32–37, *entomologist in charge relation of chem. control practices to population of natural enemies, div. for. parasite introd, 37–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. Biology of parasites.

Jean, Dr. F(rank) C(overt), 1810 Seventh Ave, Greeley, Colo. *Ecology.* Plattsmouth, Nebr, June 21, 80. A.B, Nebraska, 11, A.M, 17, Ph.D, 25. Asst. prof. *biol,* Nebr. State Teachers Col, Peru, 11–17, *head dept,* 17–21; *Colo. State Col. Educ, 21–* A.A; Bot. Soc; Nebr. Acad. (pres, 17); Colo-Wyo. Acad. (pres, 33). Plant and field crops ecology; ecotone between prairie and woodland; development and activities of roots of crop plants; root behavior and crop yield under irrigation; root inheritance in peas.

Jeanes, Dr. Allene Rosalind, U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Waco, Texas, July 19, 06. A.B, Baylor, 28; A.M, California, 29; Ph.D, Illinois, 38. Head dept. science, Athens Col, 30–35; Chem. Foundation research fellow sulfanilamides, Illinois, 37–38; Corn Industries Research Foundation fellow *starch chem,* Nat. Inst. Health, 38–40; *asst. chemist, starch and dextrose div, North. Regional Research Lab, U. S. Dept. Agr, 41–* Chem. Soc. Addition of alkali metals to phenanthrene; sulfanilamide derivatives; action of chlorites on carbohydrates; starch structure.

Jeans, Dr. Philip C(harles), Children's Hospital, Iowa City, Iowa. *Pediatrics.* Hillsboro, Ohio, Jan. 3, 83. A.B, Kansas, 04; M.D, Hopkins, 09. From instr. to assoc. prof. *pediat,* Washington (St. Louis), 13–24; *prof, Iowa, 24–* Am. Med. Asn. council on foods, 30– Pediat. Soc; Am. Med. Asn; Inst. Nutrition; Soc. Research Child Develop; Soc. Pediatric Research; Soc. Exp. Biol. Clinical pediatrics; congenital syphilis; nutrition and metabolism of infants and children.

Jebens, Dr. Walter (John), Bakelite Corporation, Bound Brook, N. J. *Chemistry.* Davenport, Iowa, May 31, 05. B.S, Iowa, 27, M.S, 28; Ph.D, Cornell, 30. *Chemist,* du Pont Cellophane Co, 30–42; *Bakelite Corp, 42–* Chem. Soc. Plasticity; Cellophane; plastics.

Jeffers, Dean D(wight) S(mithson), University of Idaho, Moscow, Idaho. *Forestry.* Deland, Ill, May 21, 83. A.B, Ill. Wesleyan, 06; M.F, Yale, 11, Ph.D, 35. U. S. Forest Service, 11–15, forest supervisor, 15–21; assoc. prof. forestry, Iowa State Col, 21–31; prof, col. forestry, Washington (Seattle), 31–35; *dean sch. forestry, Idaho, 35–* Soc. Foresters, Forest policy and economics.

Jeffers, Prof. G(eorge) W(illiam), State Teachers College, Farmville, Va. *Biology.* Freshwater, Newfoundland, Aug. 28, 97. B.S, Boston, 24, A.M, 25; Ph.D, Toronto, 31. Asst, Toronto, 25–26; *prof. biol. and head dept, State Teachers Col, Va, 26–* Summers, research student, Biol. Board Can, 26, 27, 29, 30. Mem, Nat. Science Cmt. A.A; Asn. Biol. Teachers (pres, 40); Sci. Teachers Asn. (director at large, 39–); Va. Acad. (pres, 41). Fisheries; marine biology.

Jeffers, Dr. Hamilton M(oore), Lick Observatory, University of California, Mt. Hamilton, Calif. *[5]*Astronomy.* Sewickley, Pa, Oct. 13, 93. A.B, California, 17, Ph.D, 21. Asst, California, 16–18, instr, 18–19, fellow, Lick Observatory, California, 19–21; instr, Iowa, 21–23, assoc, 23–24; asst. astronomer, *Lick Observatory, California,* 24–35, assoc. astronomer, 35–39, *astronomer, 39–; staff mem, radiation lab, Mass. Inst. Tech.* A.A; Astron. Soc; Astron. Soc. Pacific; Royal Astron. Soc. Theoretical astronomy; comets and minor planets; meridian astronomy; double stars.

Jeffers, Prof. Katharine R(osetta), Duke University, Durham, N. C. *Zoology.* California, Pa, March 19, 07. A.B, Missouri, 27, A.M, 28; Fanny Bullock Workman fellow, Bryn Mawr Col, 29–30, Ph.D, 32. Instr, Missouri, 32–33; nat. research fellow, McGill, 33–34; research assoc, Missouri, 34–37; instr. *zool, Duke,* 37–40, *asst. prof, 40–* A.A; Soc. Zool; Asn. Anat. Chemistry of staining reactions; cytology of endocrine glands.

Jeffers, Dr. Walter F(ulton), 6824 Pine Way, College Heights, Hyattsville, Md. *Plant pathology.* Washington, D. C, Oct. 8, 15. Ph.D, Maryland, 39. *Instr. plant path, Maryland, 39–* Phytopath. Soc; Mycol. Soc. Diseases of small fruits with special reference to the red stele disease of strawberry and the verticillium wilt of raspberry.

Jefferson, Prof. Mark, Michigan State Normal College, Ypsilanti, Mich. *Geography.* Melrose, Mass, March 1, 63. A.B, Boston, 89; A.B, Harvard, 97, A.M, 98. Asst. astronomer, Argentine Nat. Observatory, Cordoba, 83–86; teacher and sch. supt, 89–96; 98–01; prof. geog, Mich. State Nor. Col, Ypsilanti, 01–39, head dept. Summer, instr, Harvard, 98, 00; Michigan, 03; Yale, 07; Chicago, 17; California, 20; Columbia, 34. Am. Geog. Soc. exped, Chile, Argentina and Brazil, 18; chief cartographer, Am. Peace Cmn, Paris, 19, 20. Div. geol. and geog, Nat. Research Council, 32– Cullum geog. medal, Am. Geog. Soc, 31; Helen Culver medal, Geog. Soc. Chicago, 32. Asn. Geog. (pres, 17); cor. mem. Am. Geog. Soc; Geol. Soc; Mich. Acad. (v. pres, 03, 04, pres, 07); cor. mem. Svenska Sällskapet för Anthrop. och Geog; cor. mem. Soc. Geog. de Beograd. Distribution of man; distribution of climates and of culture; population growth; geography of cities.

Jefferson, Dr. R(oland) N(ewton), Virginia Polytechnic Institute, Blacksburg, Va. *Economic entomology.* Washington, D. C, Nov. 7, 11. B.S, Va. Polytech, 34, M.S, 36; Ph.D, Iowa State Col, 42. Asst. entom, *Exp. Sta, Va. Polytech,* 34–36, *asst. entomologist, 36–; lieut, Coast Artil. Corps, 42–* Acting instr, Va. Polytech, 39–40. Va. Acad. Science prize, 42.

Jeffery, Prof. R(alph) L(ent), Wolfville, N. S, Can. *Mathematics.* Yarmouth, N. S, Oct. 3, 89. B.A, Acadia, 21; A.M, Cornell, 23, Ph.D, 28. Instr. *math,* Cornell, 21–23; Harvard, 23–24; *prof. and head dept, Acadia, 24–* Instr, Cornell, 27–28; visiting lecturer, Wisconsin, 35–36; acting head dept. math, Saskatchewan, 39. Cmt. for revising high sch. curriculum, N. S, 32–; chief reader, Matriculation Exam. Board, N. S. and Newfoundland, 31–33. Math. Soc. (councilor, 34–36); Math. Asn; fel. Royal Soc. Can; London Math. Soc. Analysis; function theory.

Jeffress, Prof. Lloyd A(lexander), 3404 Hampton Road, Austin, Texas. *Psychology.* San Jose, Calif, Nov. 15, 00. A.B, California, 22, Ph.D, 26. Adj. prof. *psychol, Texas,* 26–27, assoc. prof, 27–36, *prof, 36–* A.A; Psychol. Asn; Acoustical Soc. Experimental and physiological psychology; statistics.

Jeffrey, Prof. E(dward) C(harles), 47 Lakeview Ave, Cambridge, Mass. *[1]*Botany.* St. Catharines, Ont, Can, May 21, 66. B.A, Toronto, 88, hon. D.Sc, 18; Ph.D, Harvard, 98; LL.D, Acadia, 23. Lecturer biol, Toronto, 92–02; asst. prof. veg. histol. and gen. morphol, *Harvard,* 02–07, prof. *plant morphol,* 07–33, *emer. prof, 33–* A.A; Soc. Nat; Bot. Soc; hon. mem. Bot. Soc. Japan. Evolution; morphology and experimental morphology of vascular plants; paleobotany and fossil plants of America, Europe and Australasia; evolution of fossil plants; origin and structure of coal and lignites.

Jeffrey, Prof. Fred(erick) P(ainter), Rutgers University, New Brunswick, N. J. *Poultry genetics.* Trauger, Pa, Feb. 19, 11. B.S, Pa. State Col, 32; M.S, Mass. State Col, 34. Instr. poultry, *Rutgers,* 35–39, *asst. prof. poultry husbandry, 39–,* asst. poultry research, *N. J. Exp. Sta,* 35–40, *asst. poultry husbandman, 40–* Genetic Asn; Poultry Sci. Asn. Inheritance of various morphological characters in poultry; applied methods of breeding chickens for desired economic qualities.

Jeffrey, Dr. Helen L(asby), 225 Shady Lane, Lexington, Ky. *Biochemistry.* Minneapolis, Minn, March 28, 10. A.B, Minnesota, 30, M.S, 31, Ph.D, 34; Columbia, 31–32. *Asst. prof. chem, Transylvania Col, 42–* Chem. Soc. Mineral nutrition.

Jeffrey, Dr. Robert N(ewell), University of Kentucky, Lexington, Ky. *Plant physiology, Biochemistry.* Ithaca, N. Y, Dec. 18, 06. B.S, California, 29, M.S, 31; Shevlin fellow, Minnesota, 31–32, Ph.D, 34. Field asst. and agent, bur. entom, U. S. Dept. Agr, 29–31; teaching fellow biochem, Minnesota, 32–34; research chemist, Gen. Foods Research Labs, 34–36; *plant physiologist, dept. agron, Exp. Sta, Kentucky, 36–* A.A; Soc. Plant Physiol; Chem. Soc. Food dyes; plant oxidases; photosynthesis; pectin; physiology of tobacco curing.

Jeffreys, Dr. Cecil E(dward) P(rutt), 2240 Adair St, San Marino, Calif. *Chemistry.* Killeen, Texas, April 18, 03. A.B, Texas, 25, A.M, 27; Ph.D, Calif. Inst. Tech, 31. Chemist, Tubize Art Silk Co, Va, 25; Lazote, Inc, Va, 25–26; tutor, Texas, 26–28; teaching fellow, Calif. Inst. Tech, 28–32;

chemist, Davis and Sharp, Beverly Hills, 33; biochem. research, Calif. Inst. Tech, 34–36; research assoc, Truesdail Labs, Inc, 36–41; research fellow bio-org. chem, Calif. Inst. Tech, 41–42; *director research, Truesdail Labs, Inc, 42–* Chem. Soc. Photochemistry; analytical chemistry; biochemistry.

Jeffries, Prof. Louis F(reeman), Virginia Union University, Richmond, Va. *Chemistry.* Jones, Tenn, April 15, 94. A.B, Va. Union, 22; B.S, Chicago, 29, M.S, 30. *Prof.* chem. and physics, Roger Williams Col, 22–25; *chem,* Claflin Col, 25–27; *Va. Union, 27–* Chem. Soc. Molecular weight of potassium copper succinimide.

Jeffries, Dr. Zay, General Electric Co, Nela Park, Cleveland, Ohio. *Metallurgy.* Willow Lake, S. Dak, April 22, 88. B.S, S. Dak. Sch. Mines, 10, Met.E, 14, hon. D.E; Sc.D, Harvard, 18, Case, 37. Instr. metal, Case, 11–16, asst. prof, 16–17; director research, Aluminum Castings Co, 17–20; consultant, lamp works, *Gen. Elec. Co,* 14–25, *tech. director lamp dept, 36–;* Middle States Securities Corp, 29–42; pres, *Carboloy Co,* 32–36, *chairman board, 36–* Special lecturer, Harvard, 20; consulting metallurgist, Aluminum Co. of Amer, 20–36. James Douglas medal, Am. Inst. Min. and Metal. Eng, 27; Albert Sauveur medal, Am. Soc. Metals, 35. Nat. Acad. (v. chairman, war metal. cmt, chairman advisory div; metals conservation and substitution group, advisory cmt. metals and minerals); A.A; Min. and Metal. Eng; fel. Physical Soc; Soc. Test. Mat. (exec. cmt, 30); Inst. Physics; fel. Elec. Eng; Illum. Eng. Soc; Inst. Aeronaut. Sci; Soc. Metals (pres, 29); Soc. Automotive Eng; Franklin Inst; Cleveland Eng. Soc; British Inst. Metals. Metallography; tungsten; aluminum; iron; steel.

Jehle, Ferdinand, Hoffman Specialty Co, 1001 York St, Indianapolis, Ind. *Engineering.* Highland, Ill, Feb. 27, 88. B.S, Illinois, 10, M.E, 31. Engineer, Commercial Eng. Labs, 13–14; Automobile Club of Amer, 14–16; Aluminum Castings Co, Aluminum Mfrs. Inc, and U. S. Aluminum Co. 16–23; research engineer, White Motor Co, 23–37; *director eng, Hoffman Specialty Co, 37–* A.A; Mech. Eng; Soc. Automotive Eng. (sec'y, Cleveland sect, 26–28, chairman, 28, v. chairman, 29, treas, 30); Heat. and Vent. Eng. Aluminum pistons; idiosyncrasies of valve mechanisms and their causes; valve clearance indicator.

Jehle, Dr. Leon P(aul), 201 Lexington Ave, Buffalo, N. Y. *Physical chemistry.* Buffalo, N. Y, June 18, 13. A.B, Buffalo, 35; Ph.D, California, 38. Teaching asst. chem, California, 35–38; *research chemist, Linde Air Products Co, 38–* Radioactive indicators; research and development in industrial, organic and inorganic problems and processes.

Jehle, Prof. R(obert) A(ndrew), University of Maryland, College Park, Md. *Plant pathology.* St. Paul, Minn, Jan. 30, 82. B.S.A, Minnesota, 05, M.S.A, 10; fellow, Cornell, 11–12, Ph.D, 15. Asst. plant pathologist, Exp. Sta, Minnesota, 09–10; prof, high sch, Minn, 10–11; asst. plant pathologist, Kans. State Col, 12–13; instr. plant path, Cornell, 13–14; asst. plant pathologist, Cuban Exp. Sta, Santiago, 14–15; State Plant Board, Fla, 15–17; exten. pathologist, Exp. Sta, N. C. State Col, 17–21; *specialist path, exten. service, Maryland, 21–, prof. plant path, 40–,* asst. plant pathologist, Exp. Sta, 22–40; *state plant pathologist, Md, 40–* A.A; Phytopath. Soc; Crop Protection Inst; Potato Asn; Md. Veg. Growers' Asn. Diseases of fruit and truck crops, especially white potatoes; brown-rot of orchard fruits; improvement of potato seed stocks.

Jelinek, Viola C(armen), Merck Institute for Therapeutic Research, Rahway, N. J. *Biochemistry.* Crete, Nebr, Dec. 1, 03. B.S, Nebraska, 25, M.S, 27; Yale, 32–35. Instr. chem, Norfolk Junior Col, 28–32; asst. instr, Nebraska, 35–37; junior chemist, textiles, U. S. Dept. Agr, 38–42; *chemist, Merck Inst. Therapeut. Research, 42–* A.A; Chem. Soc; Soc. Exp. Biol. Organic chemistry; textiles.

Jelley, Dr. Edwin E(rnest), Kodak Research Laboratory, Rochester, N. Y. *Chemical microscopy.* Sheffield, Eng, Nov. 2, 98. B.Sc, London, 31, Ph.D, 34, D.Sc, 36. Sugar mfg, Natal and Zululand, Union S. Africa, 16–26; asst. supt, *research lab,* Kodak, Ltd, England, 28–38, *research chemist, Eastman Kodak Co, 38–* A.A; Optical Soc; Chem. Soc; fel. Royal Micros. Soc. (councilor, 35–37; v. pres, 38); fel. Inst. Chem. Gt. Britain; fel. Royal Photog. Soc. Optical properties of absorbing crystals and dye aggregates; color photographic processes.

Jelliffe, Dr. Smith Ely, Huletts Landing, N. Y. *Neurology, Psychiatry.* New York, N. Y, Oct. 27, 66. M.D, Columbia, 89, A.M, Ph.D, 00; A.B, Polytech. Inst. Brooklyn, 99; Vienna, 90; Paris, 91; Munich, Berlin, Paris, 06–09. Prof. pharmacog, N. Y. Col. Pharmacy, 95–07; clin. asst, dept. neur, Columbia, 99–09, instr. pharmacol. and therapeut, 02–06; prof. psychiat, Fordham, 07–12; assoc. prof. diseases of mind and nervous system, N. Y. Post-Grad. Med. Sch, 12–17; consulting neurologist, Manhattan State Hosp; Kings Park State Hosp; *retired.* Visiting physician, City Hosp; Hosp for Nervous Diseases, 06–16; asst, Neur. Inst, 09–14. Ed. 'Med. News,' 00–06; managing ed, 'Jour. Nervous and Mental Disease,' 02; assoc. ed, 'N. Y. Med. Jour,' 06–08, 16–19; 'Psychoanal. Rev,' 13–; 'Nervous and Mental Disease Monograph Series,' 09– Neur. Asn. (pres, 30); Psychiat. Asn; Psychopath. Asn. (pres, 17); Psychoanal. Asn. (pres, 19); Am. Med. Asn; N. Y. Psychiat. Soc. (pres, 22–24); N. Y. Psychoanal. Soc; N. Y. Acad. Med; hon. fel. N. Y. Neur. Soc. (pres, 13, 14); hon. mem. Royal Soc. Gt. Britain; cor. mem. Soc. neur. de Paris; cor. mem. Paris Soc. Med. Psychol; hon. mem. Acad. Med, Brazil. Clinical investigations; diseases of the nervous system; psychology of unconscious; psychoneuroses; multiple sclerosis; convulsive disorders; dementia praecox; unconscious psychical factors in the causation of somatic diseases; tuberculosis; skin; kidneys; blood; bone; tumor formation.

Jellinek, E(lvin) Morton, 4 Hillhouse Ave, New Haven, Conn. *Biometry.* New York, N. Y, Aug. 15, 90. Berlin; Grenoble; M.Ed, Leipzig, 14. Biometrician, Govt. Sch. for Nervous Children, Budapest, 15–20, Elder Dempster Plant Research, Sierra Leone, W. Africa, 20–25; asst. director research, United Fruit Co, Tela, Honduras, 26–30; *director biometric lab, Worcester State Hosp, Mass, 31–* A.A. Plant growth; biometry in human physiology; philosophy of statistics.

Jellison, William L(ivingston), U. S. Public Health Service, Hamilton, Mont. *Parasitology.* Columbia Falls, Mont, Feb. 28, 06. B.S, Mont. State Col, 29; M.S, Minnesota, 33, Ph.D, 40. Asst. bacteriologist, *Rocky Mt. spotted fever lab, U. S. Pub. Health Service,* 29–35, asst. parasitologist, 35–41, *assoc. parasitologist, 41–; major, A.S.F, U. S. Army, 42–* Mem, Am. Med. Cmn, China, 41–42. Tularemia; Rocky Mountain spotted fever; encephalitis; ectoparasites.

Jemison, Dr. George M(eredith), U. S. Forest Service, Asheville, N. C. *Forestry.* Spokane, Wash, July 11, 08. B.S, Idaho, 31; Charles Lathrop Pack fellow, Yale, 35–36, M.F, 36; Ph.D, Duke, 42. Junior forester, *forest fire research,* North. Rocky Mt. Forest and Range Exp. Sta, *U. S. Forest Service,* 31–36, asst. forester, 36–37, assoc. forester, *Appalachian Forest Exp. Sta,* 37–39, *forester, 40–* Soc. Foresters. Forest fire research; fire behavior; relation of meteorological factors to forest fire danger; fire control techniques; physiological and anatomical effects of fire on trees; development of fire damage appraisal methods.

Jenkins, Dr. Anna E(liza), Bureau of Plant Industry Station, U. S. Department of Agriculture, Beltsville, Md. *Mycology, Phytopathology.* Walton, N. Y, Sept. 10, 86. B.S.A, Cornell, 11, M.S, 23, Ph.D, 27; George Washington, 18–25. Asst. plant path, Cornell, 10–12; sci. asst, mycologist and *assoc. mycologist, div. mycol. and disease surv, bur. plant indust, U. S. Dept. Agr, 12–* Senior ed, 'Myriangiales Selecti Exsiccati.' A.A; Mycol. Soc; Phytopath. Soc; Bot Soc. Wash; Biol. Soc. Wash; Wash. Acad; British Mycol Soc; Primiera Reun. Phytopath. Brazil; Primiera Reun Sul-Amer. Bot. Ascomycetes and Fungi imperfecti; fungus diseases of roses; taxonomy of Exoascaceae; Myriangiales; taxonomy and life history of citrus scab fungi and avocado scab fungus and diagnoses of new species; new or little known fungi of various genera; Brazilian mycological and phytopathological history.

Jenkins, Prof. D(avid) R(hys), University Station, Grand Forks, N. Dak. *Electrical engineering.* Morris Co, N. J, Sept. 1, 65. B.S, Colorado, 04, E.E, 07. Instr. *elec. eng,* Colorado, 05–09, asst. prof, 09–18; *prof, North Dakota, 18–* Elec. Eng; Eng. Educ; Illum. Eng. Soc. Life tests of incandescent lamps.

Jenkins, Prof. F(rancis) A(rthur), University of California, Berkeley, Calif. **7Physics.* Nashville, Tenn, June 2, 99. Swarthmore Col, 16–18; B.S, Chicago, 21, Ph.D, 25; diploma, Toulouse, 22. Nat. research fellow, 25–27; asst. prof. *physics,* N. Y. Univ, 27–29; *California,* 29–31, assoc. prof, 31–36, *prof, 36–* Guggenheim Mem. Foundation fellow, 32. Assoc. ed, 'Physical Rev,' 38– Fel. Physical Soc; Optical Soc. Separation and spectra of isotopes; band spectra.

Jenkins, Dr. George B(ain), 30 Gallatin St, N.W, Washington, D. C. *Anatomy.* Bardstown, Ky, Dec. 19, 74. M.D, Hosp. Col. Med. (Ky), 98; Ky. Med. Sch, 00. Intern, City Hosp, Louisville, 98–99, asst. med. supt, 99–03; prof. anat, Ky. Med. Sch, 05–08; Louisville, 08–12; asst, Hopkins, 12–13; prof. anat, histol. and embryol, Louisville, 13; *anat,* Iowa, 16–19; *George Washington,* 19–41, *emer. prof, 41–* A.A; Asn. Anat; Acad. Med. Wash. Embryology; anatomy; neurology.

Jenkins, Dean Glenn L(lewellyn), Purdue University, West Lafayette, Ind. *Pharmaceutical chemistry.* Sparta, Wis, March 25, 98. Ph.G, Wisconsin, 21, B.S, 22, Hollister fellow, 22–23, M.S, 23, Ph.D, 26. Instr. pharmacy, Wisconsin, 24–27; prof. *pharmaceut. chem,* sch. pharmacy, Maryland, 27–36; head dept, col. pharmacy, Minnesota, 36–41; *prof. pharmaceut. chem. and dean sch. pharmacy, Purdue, 41–* Mem, Nat. Formulary Revision Cmt, chairman subcmt. on chemicals, 30–; mem, Syllabus Revision Cmt, Am. Asn. Cols. Pharmacy, 27–; chairman conf. chem. teachers, 28; mem. and chairman subcmt. reagents, revision cmt, U. S. Pharmacopoeia; chairman, Ind. Interprofessional Health Council. Ebert medal, Am. Pharmaceut. Asn, 36. A.A. (exec. cmt, sub-sect. pharmacy, 37–); Chem. Soc; Pharmaceut. Asn. (2nd v. pres, 37, councilor, 37, chairman, 38–40, sect. on educ. and legislation, 29, cmt. on Ebert prize, 30, 31, 34, sci. sect, 36); Nat. Conf. Pharmaceut. Research (exec. cmt, 35, councilor, 37–); Ind. Pharmaceut. Asn. Quantitative pharmaceutical chemistry; phytochemistry of medicinal plants; synthetic medicinal products.

Jenkins, Heroy, 259 Winona Blvd, Rochester, N. Y. *Optics.* Red Rock, N. Y, Aug. 21, 86. C.E, Syracuse, 09. Astronomer, Carnegie Institution, San Luis, Argentina, 09–11, 12–13, Dudley Observatory, Union (N. Y), 11–12, 13–37; *research lab, Eastman Kodak Co, 37–* A.A. Meridian astrometry; geometrical optics.

Jenkins, Prof. Howard M(alcolm), Swarthmore College, Swarthmore, Pa. *Engineering.* Chicago, Ill, July 23, 97. A.B, Swarthmore Col, 20, E.E, 23. Test engineer, Gen. Elec. Co, 20–21; asst. prof. *elec. eng, Swarthmore Col,* 21–37, assoc. prof, 37–43, *prof, 43–, pres, Kinsford Specialty Co.* Sec'y and director, Taplet Mfg. Co, 22–40; physicist, U. S. Navy Dept, 41– Indust. engineer, Arthur Andersen and Co, Chicago, 29–30. Elec. Eng; Eng. Educ. Electrical and industrial engineering.

Jenkins, Dr. Hubert O(liver), 2116 Third Ave, Sacramento, Calif. *Natural history.* Terre Haute, Ind, Jan. 24, 85. A.B, Stanford, 07, Ph.D, 40; M.S, Mass. Inst. Tech, 12. City health officer, Palo Alto, Calif, 10–14; Winston-Salem, N. C, 15; instr. biol, Calif. State Nor. Sch, San Jose, 15–16; seed grower, 17–19; instr. olericult, col. agr, California, 20–21; *teacher* hort, high sch, Calif, 21–31; *astron, geol, forestry and nat. hist, Sacramento Junior Col, 31–* Special investigator, State Fish and Game, Calif, 35–36; nature guide, State Parks, Calif, 42, 43. A.A; Soc. Ichthyol. and Herp; Soc. Mammal; Wildlife Soc; Cooper Ornith. Club; West. Soc. Nat; Calif. Acad. Vertebrate ecology; physiographic geology.

Jenkins, Dr. J(ames) A, University of California, Berkeley, Calif. *Genetics.* Regina, Sask, Can, Ang. 6, 04. B.Sc, Saskatchewan, 27, Nat. Research Council Can. bursar, 28–29, M.Sc, 29; Ph.D, California, 36. Lab. instr. biol, Saskatchewan, 27–28; asst. genetics, *California,* 32–35, assoc, *Exp. Sta,* 35–38, instr. *genetics,* 38–43, *prof, 43–,* junior geneticist, 38–43, *asst. geneticist, 43–* Cytogenetics of wheat hybrids and of Crepis.

Jenkins, Dr. J(ohn) D(onald), 5518 N. Diversey Blvd, Milwaukee, Wis. *Physical chemistry.* Brookings, S. Dak, Jan. 25, 97. B.S, Oregon State Col, 20; M.S, Wisconsin, 21, Ph.D, 23. Asst. chem, Wisconsin, 20–23, research chemist, paint and varnish div, Pittsburgh Plate Glass Co, 23–32, Ditzler Color Co, Detroit, 32–36; fellow, Mellon Inst, 36–41; *research chemist, paint and varnish div, Pittsburgh Plate Glass Co, 41–* Chem. Soc. (past treas, past v. chairman, Milwaukee sect). Velocity of crystallization of substances from solution; chemistry of paint, varnish and pyroxylin lacquers.

Jenkins, Prof. John G(amewell), University of Maryland, College Park, Md. *Psychology.* South Amboy, N. J, May 30, 01. A.B, Cornell, 23, Ph.D, 29; M.S, Iowa State Col, 27. Instr. *psychol,* Iowa State Col, 24–27; asst, Illinois, 27–28; Cornell, 28–29; asst. prof, Iowa State Col, 29–30; Cornell, 30–37; *prof. and head dept, Maryland, 38–; lieut. commander, U. S. Naval Res, and head aviation psychol. sect, bur. med. and surg. U. S. Navy Dept.* Chairman cmt. selection and training of aircraft pilots, Nat. Research Council, 39, 41–, director research, 40. A.A; Psychol. Asn; Asn. Applied Psychol; Inst. Aeronaut. Sci. Attention; market research; industrial psychotechnology; aeronautics.

Jenkins, J(ohn) Mitchell, Jr, P. O. Box 337, Charleston, S. C. *Horticulture, Plant breeding.* Greenville, S. C, Nov. 6, 08. B.S, Clemson Col, 29; M.S, Louisiana, 31; Minnesota, 39–40. Instr. hort, Louisiana, 31–32; Clemson Col, 33; *asst. horticulturist, S. C. Truck Exp. Sta, 33–* Soc. Hort. Sci; Agr. Soc. S. C. Vegetable crops; genetic studies and breeding work with cucumbers, beans and potatoes.

Jenkins, L(awrence) W(aters), Peabody Museum, Salem, Mass. *Anthropology.* Salem, Mass, Dec. 23, 72. A.B, Harvard, 96. *Curator ethnol, Peabody Museum, 01–,* asst. director in charge, 14–37, *director, 37–, curator marine room, 25–* A.A; Anthrop. Asn; Asn. Mus; Antiq. Soc; Mass. Hist. Soc. Polynesian ethnography; Hawaiian portion of the Polynesian collections in the Peabody Museum.

Jenkins, Dr. Marion, 38 Eighth Ave, New York, N. Y. *Psychology.* New Haven, Conn, Oct. 13, 97. B.S, Columbia, 25, A.M, 26, Ph.D, 28. *Psychologist,* Syracuse State Sch, 25; psychiat. clinic, Children's Court, New York, 26; *Board Educ, New York, 27–* Asn. Applied Psychol. (exec. cmt, 30); Psychol. Asn; Asn. N. Y. Sch. Psychol. (v. pres, 31–33, pres, 35–37). Clinical psychology; animal motivation; measurement of levels of intelligence.

Jenkins, Dr. Merle T(ruman), Bureau of Plant Industry Station, U. S. Department of Agriculture, Beltsville, Md. *Genetics, Agronomy.* Brookings, S. Dak, Jan. 4, 95. B.S, Oregon State Col, 16; M.S, Iowa State Col, 25, Ph.D, 28. Sci. asst, *bur. plant indust, U. S. Dept. Agr,* 19–22, asst. agronomist, 22–25, assoc. agronomist, 25–34, *prin. agronomist in charge corn investigations, div. cereal crops and diseases, 34–* A.A; Genetics Soc; Soc. Agron. (chairman, crops sect, 33); Genetic Asn; Soc. Nat; Bot. Soc. Wash. Breeding and genetics of maize.

Jenkins, Dr. Olaf P(itt), 1033 Keeler Ave, Berkeley, Calif. *Geology.* Greencastle, Ind, Feb. 9, 89. A.B, Stanford, 13, A.M, 15, Ph.D, 30. Asst. geologist, Tenn. Geol. Surv, 13–16; asst. prof. econ. geol, State Col. Wash, 16–18; geologist, Ariz. Bur. Mines, 18–19; Sinclair Consol. Oil Corp, 19–20; assoc. prof. econ. geol, State Col. Wash, 20–25; geologist, Standard Oil Co. of N. J, Batavia, 25–28; *chief geologist, geol. branch, State Div. Mines, Calif, 29–* Geologist, State Dept. Conservation and Develop, Wash, 21–25. Asst. geologist, Stanford exped, Brazil, 11. Geol. Soc; Asn. Petrol. Geol; Seismol. Soc; Min. and Metal. Eng; Calif. Acad. (recording sec'y, 38). Stratigraphy; economic geology.

Jenkins, Dr. Ralph H(athaway), New Haven Hospital, New Haven, Conn. *Urology.* Baltimore, Md, Sept. 30, 92. M.D, Med. Col. of Va, 16. Clin. asst. *urol,* Hopkins, 26–27; clin. instr, *Yale,* 29–32, asst. clin. prof, 32–37, *assoc. clin. prof, 37–* U.S.N, 17–20, M.R.C, 20–25, lieut. commander. Urol. Asn; Col. Surg; Am. Med. Asn; Yale Med. Soc. Prostatic hypertrophy in relation to the endocrines; treatment of undescended testicle with gonotrophic hormones; comparative histology of the prostate in man, monkey and rat; cyst of the testicle; tumors of the kidney; the cause of ureteral dilatation in pregnancies.

Jenkins, Dr. R(ichard) L(eos), Institute for Juvenile Research, Chicago, Ill. *Psychiatry.* Brookings, S. Dak, June 3, 03. A.B, Stanford, 25; M.D, Chicago, 30. Instr. physiol, Chicago, 30–31; pediatrician, Inst. Juvenile Research, 31–36; instr. juvenile behavior, dept. criminol, social hygiene and med. jurisprudence, col. med, Illinois, 32–33, assoc, 33–34, asst. prof, 34–36, physiol, 34–36; mem. staff, Henry Phipps, Inst, Pennsylvania, 36–37; *psychiatrist,* New York State Training Sch. for Boys, 38–41; Mich. Child Guidance Inst, 41–43; instr. psychiat, med. sch, Michigan, 41–43; *mem. staff, Inst. for Juvenile Research, 43–* Rockefeller fellow, 36–38. Am. Med. Asn; Psychiat. Asn; Orthopsychiat. Asn. Child guidance and child psychiatry; juvenile delinquency; mongolism; plural births.

Jenkins, Dr. Russell L(ewis), Monsanto Chemical Co, Anniston, Ala. *Organic chemistry.* Richmond, Ind, Jan. 4, 97. Earlham Col, 15–17; B.Ch, Pittsburgh, 20; M.S, Illinois, 21, Carr fellow, 22–23, Ph.D, 23. Asst. chem, Illinois, 21–22; fellow, Lyons, 23–24; indust. fellow, Mellon Inst, 24–27; research chemist, Swann Research, Inc, Anniston, Ala, 27–35; research chemist and asst. director research, *Monsanto Chem.*

Co, 35–40, *director research, phosphate div, 40–* Chem. Soc; Deuts. Chem. Gesell; Soc. chim. de France. Relation between physical properties and physiological action of certain local anesthetics; organo-aluminum compounds; derivatives of diphenyl.

Jenkins, Dr. Sanford S(windell), 315 Birkwood Place, Baltimore, Md. *Chemistry.* Town Creek, N. C, Nov. 24, 89. A.B, Trinity Col. (N. C), 15, A.M, 24, Angier B. Duke mem. fellow, Duke, 29–30, Ph.D, 30. Assoc. prof. chem, sch. med, Emory, 15–17; instr, North Carolina, 20; textile chemist, 20–21; head dept. science, high sch, N. C, 22–29; Grafflin scholar, Hopkins, 30–31, instr. org. chem, 31–32, assoc, 32–36; chemist, U. S. Indust. Chem. Co, 37–40; *research chemist, Crown Cork and Seal Co, 40–* U.S.A, 17–19, capt. Chem. Soc. Organic chemistry; catalytic reduction; structure; rearrangements; Grignard reaction; medicinals; synthetic resins.

Jenkins, Prof. Tho(ma)s N(icholas), 38 Eighth Ave, New York, N. Y. *Psychology.* Mapleton, Iowa, May 2, 92. B.S, 10; A.B, Nebraska, 15, fellow, 15–17, A.M, 16; Chicago, 19–20; Ph.D, Columbia, 27. Nat. research fellow *psychol*, Columbia, 25–27; instr, *N. Y. Univ*, 27–29, *asst. prof, 29–* A.A; Psychol. Asn; Asn. Applied Psychol; Statist. Asn; N. Y. Acad. Motor facilitation and inhibition; effect of subliminal stimulation upon reactions to visual and auditory stimuli; visual auditory and electrical stimulation; apparatus for motivation and learning in animals; statistical methods for animal data; fatigue in reaction-time; psychology of estimation; comparative psychology.

Jenkins, Dr. Wilbert A(rmonde), Virginia Polytechnic Institute Agricultural Experiment Station, Chatham, Va. *Botany.* Pekin, N. C, Sept. 16, 05. A.B, Duke, 28, A.M, 29; Cornell, 29–31; fellow, Hopkins, 32–33, Ph.D, 33. Asst. bot, Duke, 27–29, instr, 31–32; asst. mycol, Cornell, 29–31; prof. biol, Brenau Col, 33–34; asst. botanist, *Exp. Sta*, Georgia, 34–37, assoc. botanist, 37–41; *assoc. plant pathologist, tobacco research lab, Exp. Sta, Va. Polytech, 41–* Summers, instr, Duke, 29–31. Phytopath. Soc; Tobacco Disease Council; South. Agr. Workers Asn. Mycology; plant pathology; cytology; sexuality; comparative morphology of fungi; tobacco diseases.

Jenkins, Prof. W(illiam) L(eroy), Lehigh University, Bethlehem, Pa. *Psychology.* Newark, N. J, April 14, 98. B.S, Polytech. Inst. Brooklyn, 21; A.M, Michigan, 32, Ph.D, 36. Instr. *psychol, Lehigh*, 35–39, *asst. prof, 39–* A.A; Psychol. Asn. Cutaneous temperature sensitivity.

Jenks, Prof. A(lbert) E(rnest), University of Minnesota, Minneapolis, Minn. *Anthropology, Archeology, Ethnology.* Ionia, Mich, Nov. 28, 69. B.S, Kalamazoo Col, 96, hon. Sc.D, 24; B.S, Chicago, 97; hon. fellow, Wisconsin, 98–99, Ph.D, 99. Econ. ed, 'Am. Thresherman,' 00–01; asst. ethnologist and ethnologist, Bur. Am. Ethnol, 01–02; asst. chief and chief, Ethnol. Surv, P. I, 02–05; asst. prof. sociol, *Minnesota*, 06–07, prof. *anthrop*, 07–38, *emer. prof, 38–*, chairman dept, 18–38, director archeol. field research, 29–38. Summers, lecturer, California at Los Angeles, 23, 25. Assoc. ed, 'Am. Jour. Physical Anthrop,' 18– Archeol. field expeds, N. Mex, 28, 29, 31; Africa, France and Moravia, 30; Minn, 32–37. Chief ethnol. dept, Philippine Expos, La. Purchase Expos, 04. Nat. Research Council, 22–25, chief div. anthrop. and psychol, 23–24. A.A. (v. pres, chairman, H, 19, 21); Anthrop. Asn; Genetic Asn; Sociol. Soc. American archeology; primitive economics of the American Indian; Philippine ethnology; human heredity and amalgamation; immigrant peoples; racial psychology; prehistoric man and culture.

Jenks, G(len) F, 2424 Wilshire Blvd, Los Angeles, Calif. *Engineering.* Deansboro, N. Y, June 13, 80. B.S, Hamilton Col, 01, M.S, 04; Army War Col, 24; M.B.A, Harvard, 30. 2nd lieut, Artil. Corps, 01–03; Ordnance Dept, 03–24, lieut. col, 24–33, col, 33–42, in charge instrument dept, Frankford Arsenal, 08–12, proving ground and field maintenance duties, 13–17, chief heavy artil. div, office chief ordnance officer, France, 17–18, chief ordnance inspector of artil, 18, col, Nat. Army, 18–20, chief artil. div, mfg. service, Office Chief of Ordnance, 19–23, chief ordnance officer, VIII Corps Area, 24–26, works manager, Rock Island Arsenal, 26–28, director labs, Watertown Arsenal, 30–32, commanding officer, 32–37, chief tech. staff, Office Chief of Ordnance, 37–38, tech. consultant, 38–42; *consulting engineer, Taylor-Winfield Corp, 42–* Officier, Légion d'honneur; D.S. medal. A.A; Mech. Eng; Army Ordnance Asn; Min. and Metal. Eng; Soc. Metals; Welding Soc. (v. pres, 37–39; director at large, 39–40, pres, 40–42, welding research council, 36–, chairman indust. research div, 36–42); Soc. Test. Mat. (chairman cmt. on research, 40–); Soc. Automotive Eng; Acad. Polit. and Social Sci. Ordnance; metallurgy; welding.

Jenks, Dr. William F(urness), Casilla 283, Arequipa, Peru, S. Amer. *Economic geology.* June 28, 09. A.B, Harvard, 32, Ph.D, 36; A.M, Wisconsin, 33. Junior geologist, Texas Corp, 36–38; asst. geologist, *Cerro de Pasco Copper Corp*, 38–41, *geologist, 41–* Asn. Petrol. Geol; Soc. Geol. del Peru. Stratigraphy of mesozoic formations of central Peru; petrogenic provinces of Peru.

Jenne, Lyle L(oren), 825 City Hall Annex, Philadelphia, Pa. *Sanitary engineering.* Enosburg Falls, Vt, Feb. 18, 88. B.S, Pennsylvania, 09, Ch.E, 31. Asst. chemist, Phila. Sewage Disposal Exp. Sta, 09–10; chemist in charge sewage disposal investigations, Pittsburgh, 10–12; asst. engineer, *Bur. Water, Phila*, 12–17, chemist, 17–21, *sanit. engineer, 21–; practising chem. engineer, 17–* Operating chemist, New Chester Water Co, 24–28; asst. prof, med. sch, Temple. Tech. advisory staff, Phila. Council Defense. Chem. Soc. (sec'y-treas, Phila. sect); fel. Inst. Chem; Chem. Eng. (director Phila. sect); Eng. Club Phila. (director); Phila. Inst. Consulting Chem. and Chem. Eng. (sec'y). Water and sewage; investigation and supervision of water, sewage, trade waste and process control.

Jenner, Prof. E(dwin) A(lexander), 806 W. Davis St, Fayette, Mo. *Biology.* St. Marys, Iowa, June 27, 70. B.S, Simpson Col, 03; A.M, Wisconsin, 07; Iowa, 04–05, 05, 24. Prof. *biol*, Simpson Col, 07–18; head dept, Wis. State Nor. Sch, La Crosse, 18–20; *prof, Cent. Col. (Mo), 20–* Summer, teacher, Nebr. State Nor. Sch, Wayne, 20. A.A.

Jenness, Prof. Arthur (Freeman), University of Nebraska, Lincoln, Nebr. *Psychology.* Rosario de Santa Fé, Argentina, Jan. 6, 01. A.B, Northwestern, 23, A.M, 27; fellow, Syracuse, 27–29, Ph.D, 30. Instr. psychol, Syracuse, 29–30; adviser to freshmen and instr. *psychol, Nebraska*, 30–31, asst. prof, 31–36, assoc. prof, 36–42, *prof, 42–, chairman dept, 40–; lieut, Air Corps, U. S. Army, 43–* Visiting lecturer, Harvard, 37–38. A.A; Psychol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn; Nebr. Acad. Social and abnormal psychology.

Jenness, Dr. D(iamond), Victoria Memorial Museum, Ottawa, Ont, Can. *Anthropology.* Wellington, N. Z, Feb. 10, 86. M.A, New Zealand, 08, hon. Litt.D, 35; diplomé, Oxford, 10, M.A, 11, scholar from Oxford, Papua, 11–12. Anthropologist, Geol. Surv. Can, 13–26; *chief div. anthrop, Nat. Museum, 26–* Ethnologist, Can. Arctic exped, 13–16. Anthrop. Asn; fel. Royal Soc. Can. Ethnography of the D'Entrecasteaux Archipelago, Papua; Eskimo ethnology and archeology; ethnology of the Indian tribes of Canada.

Jenness, Prof. J(ames) R(ussell), Parsons College, Fairfield, Iowa. *Physics.* Chrisman, Ill, March 14, 80. B.S, Denison, 06; A.M, Cornell, 27, Ph.D, 28. Instr. physics, Kentucky, 08–09; Kans. State Col, 09–16; Cornell, 16–18, 19–20; asst. prof, Ga. Tech, 20–21, assoc. prof, 21–28; Southern Methodist, 28–30, prof, 30–33; prof. *physics and math.* and head dept, Col. of Ozarks, 37–40; *prof. and chairman depts, Parsons Col, 40–* A.A; Physical Soc; Asn. Physics Teachers. Fluorescence.

Jenness, Dr. Leslie G(eorge), 66 Summer St, Buffalo, N. Y. *Chemical engineering.* Danbury, N. H, Aug. 12, 98. B.S, New Hampshire, 20; M.S, Maine, 24; Ph.D, Columbia, 30. Eng. dept, Gen. Elec. Co, 20–21; instr. chem. eng, Maine, 22–24; Pratt Inst, 24–32; tech. director, Intermetal Corp, 32–41; *research staff, Linde Air Products Co, 41–* Consulting chem. engineer, 26–32. Chem. Soc; Electrochem. Soc; Oil Chem. Soc. Metal recovery; chlorination; hydrogenation; catalysis.

Jenness, Prof. L(yle) C(layton), 80 Forest Ave, Orono, Maine. *Chemistry.* South Danbury, N. H, Nov. 1, 00. B.S, New Hampshire, 22; M.S, Maine, 25. Teacher, Proctor Acad, N. H, 22–23; asst. prof. and later *assoc. prof. chem, Maine, 23–* Chem. Soc. Cement mortar chemistry.

Jenney, Dr. C(harles) P(hillip), American Metal Co. of Canada, Ltd, 68 Yonge St, Toronto, Ont, Can. *Geology.* Toronto, Ont, April 25, 09. A.B, Columbia, 30, A.M, 33, Ph.D, 36; Princeton, 33–34. Asst, Geol. Surv. Can, 31; *geologist*, Consol. Oil Corp, 34–36; McIntyre Porcupine Mines, Ltd, 36–43; *Am. Metal Co, Can, Ltd, 43–* Min. and Metal. Eng; Soc. Econ. Geol. Precambrian and economic geology.

Jennings, Prof. B(urgess) H(ill), 2049 Hawthorne Lane, Evanston, Ill. *Mechanical engineering.* Baltimore, Md,

Sept. 12, 03. B.E, Johns Hopkins, 25; M.S, Lehigh, 28, A.M, 35. Instr, schs, Va, 25–26; instr. *mech. eng, Lehigh*, 26–29, asst. prof, 29–35, assoc. prof, 35–40; *prof, Northwestern, 40–, chairman dept, 42–* , Consulting engineer, Phila. and Reading Coal and Iron Co, 34–38. Mem, Nat. Research Council, 39–Soc. Refrig. Eng. (director, 41–); Eng. Educ. (sec'y mech. eng. div, 42); Mech. Eng. (chairman refrig. test code cmt, 38–). Heat engines and thermodynamics; engineering laboratory methods; refrigeration, particularly absorption refrigeration and air conditioning; internal combustion engines; steam and gas engineering.

Jennings, Prof. Earle DeWitt, College of Charleston, Charleston, S. C. *Chemistry.* Spencer, W. Va, Nov. 19, 99. B.S, North Carolina, 22, M.S, 24, Ph.D, 26. Instr. *chem*, North Carolina, 24–26; assoc. prof, *Col. of Charleston*, 26–31, *prof, 31–* Chem. Soc; S. C. Acad. Organic chemistry; paracymene; bromination of paracymylene-2, 6-diamine; reaction between dichloroacetic acid and aromatic amines; occurrence of estrogenic substances in the ovaries of echinoderms.

Jennings, Dr. H(erbert) S(pencer), University of California at Los Angeles, Los Angeles, Calif. *#1Zoology, Genetics.* Tonica, Ill, April 8, 68. B.S, Michigan, 93, Sc.D, 18; Morgan fellow and Parker fellow, Harvard, 95–97, A.M, 95, Ph.D, 96; Jena, 96–97; LL.D, Clark, 09; Sc.D, Pennsylvania, LL.D, 40; LL.D, Oberlin Col, 33, Chicago, 41, California, 43. Asst. prof. bot. and hort, Agr. and Mech. Col. Texas, 88–89; asst. zool, Michigan and Harvard, 92–95; prof. bot, Mont. State Col, 97–98; instr. zool, Dartmouth Col, 98–99; Michigan, 99–01, asst. prof, 01–03; Pennsylvania, 03–06; assoc. prof. physiol. zool, *Hopkins*, 06–07, prof. exp. zool, 07–10, Henry Walters prof. zool. and director zool. lab, 10–38, *emer. prof. zool, 38–*, mem. academic council, 12–34; *research assoc, California at Los Angeles, 39–* Director biol. surv. Great Lakes, U. S. Fish Cmn, 01; asst, Carnegie Institution, 03–04; visiting prof, Keio Univ, Japan, 31–32; Terry lecturer, Yale, 33; Vanuxem lecturer, Princeton, 34; Eastman visiting prof, Oxford, 35–36; Leidy lecturer, Pennsylvania, 40. Assoc. ed, 'Jour. Exp. Zool'; 'Genetics'; 'Biol. Bul'; 'Human Biol.' Trustee, Marine Biol. Lab, Woods Hole. Leidy award, Acad. Nat. Sci. Phila; Walker prize, Boston Soc. Nat. Hist. Nat. Acad; A.A; Soc. Nat. (pres, 11); Soc. Zool. (pres, 09); Soc. Exp. Biol; Philos. Soc; Am. Acad; Acad. Nat. Sci. Phila; hon. fel. Royal Micros. Soc; cor. mem. Soc. de Biol. de France; cor. mem. Russian Acad. Behavior and genetics, especially of lower organisms.

Jennings, Prof. O(tto) E(mery), Carnegie Museum, Pittsburgh, Pa. *Botany.* Olena, Ohio, Oct. 3, 78. B.S.A, Ohio State, 03; Ph.D, Pittsburgh, 11, Sc.D, 30. Florist, Ohio State, 01–02, asst. *bot*, 02–04; custodian, *Carnegie Museum*, 04–07, asst. curator, 07–15, *curator, 15–, director educ, 30–*; instr. paleobot, *Pittsburgh*, 11–14, *prof. and head dept.* bot, 14–35, *biol, 35–, director lake lab, 30–* Instr. in charge bot, lake lab, Ohio State, 05, ecol, 10; lecturer, Pittsburgh and Allegheny Kindergarten Col, 10. Assoc. ed, 'Ohio Naturalist,' 03–04; ed, 'Bryologist,' 13–38. Summers, Carnegie Museum bot. expeds, Isle of Pines, 10, northwest. Ont, 12–17, Wash, 15. Mem. advisory council, Allegheny Fed. Forest Sta, 32– A.A; (gen. sec'y, 18); Bot. Soc; Paleobot. Soc; Micros. Soc. (1st v. pres, 37); Ecol. Soc; Sullivant Moss Soc; Fern Soc; Asn. Geog; Asn. Mus; Pa. Acad. (pres, 24); Ohio Acad; Bot. Soc. West. Pa. (pres, 07–09, 36–, sec'y, 09); Biol. Soc. Wash; Pittsburgh Acad. (pres, 34–); Ottawa Field Nat. Club. Systematic botany and ecology of western Pennsylvania and Oligocene plants of western Montana.

Jennings, Robert K(immel), R.F.D. 2, Newark, Del. *Bacteriology.* Cody, Wyo, March 10, 12. B.S, Purdue, 34, M.S, 36. Lab. asst, Purdue, 34–36; *research bacteriologist, Biochem. Research Foundation, 36–* Immunology; chemistry of immunity.

Jennings, Dr. Stephen A(rthur), University of British Columbia, Vancouver, B. C, Can. *Mathematics.* Walthamstow, Essex, Eng, May 11, 15. B.A, Toronto, 36, fellow, 36–39, M.A, 37, Ph.D, 39. Instr. *math*, Yale, 39–40; *lecturer, British Columbia, 40–* Math. Soc. Abstract algebra; theory of groups.

Jennings, Dr. Walter L(ouis), 8A Chauncy St, Cambridge, Mass. *Chemistry.* Bangor, Maine, Nov. 15, 66. A.B, Harvard, 89, A.M, 90, Ph.D, 92; Heidelberg, 92–93; Berlin, 93–94. Asst. prof. chem, Worcester Polytech, 94–01, prof, 01–37, director, 11–37; *retired.* Parker fellow, Harvard. A.A; Chem. Soc; Am. Acad; Deuts. Chem. Gesell. Products of the dry distillation of wood; constitution of rosanilin and para-rosanilin; condensation of phenols with sugars; synthetic glucosids; cyanogen chlorid.

Jennings, Dr. William H(arney), 3118 Wenonah Ave, Berwyn, Ill. *Physical chemistry.* Elizabeth City, N. C, April 16, 02. B.S, N. C. State Col, 23; Ph.D, Iowa State Col, 27. Prof. physical chem, Iowa State Col, 27–37; *engineer, West. Elec. Co, Chicago, 37–* A.A; Chem. Soc. Physical metallurgy.

Jennison, Prof. Marshall W(alker), Massachusetts Institute of Technology, Cambridge, Mass. *Bacteriology.* Portland, Maine, May 27, 05. B.S, Mass. Inst. Tech, 27, Ph.D, 32. Asst. biol, *Mass. Inst. Tech*, 27–30, instr, 30–35, asst. prof. sanit. biol, 35–41, *assoc. prof. bacter. and sanit. biol, 41–* Advisory ed, 'Jour. Bacter,' 31– Mem, Cmt. Standardization Biol. Stains, 37– A.A; Soc. Bact. (cmt. bact. technique, 34–); Pub. Health Asn; Limnol. Soc; Soc. Exp. Biol; Mass. Pub. Health Asn; Boston Bact. Club (sec'y-treas, 31–38). Bacterial growth phases; temperature effects; general bacterial physiology; high-speed photography of droplet production in sneezing.

Jenny, Prof. Hans, University of California, Berkeley, Calif. *Soils.* Basle, Switzerland, Feb. 7, 99. Diploma, Eidg. Tech. Hochschule, 22; Rockefeller Foundation fellow, 26–27; D.S, Zurich, 27. Instr. agr. and colloid chem, Zurich, 23–26; asst. prof. soils, Missouri, 27–36; assoc. prof. *soil chem, California*, 36–41, *prof, 41–, head div. soils, 43–* Chilean Nitrate of Soda Nitrogen research award, 31. A.A; Soc. Agron; Chem. Soc; Kolloid-Gesell; Int. Soc. Soil Sci. Soil colloids; physical chemistry of soils; soil formation; soil fertility.

Jenny, Dr. W(illiam) P(aul), 1404 Esperson Bldg, Houston, Texas. *Geology.* Berne, Switzerland, Aug. 31, 99. Ph.D, Zurich, 24. Geophysicist, Shell Petrol. Corp, 25–30; Magnolia Petrol. Co, 30–32; *consulting geologist and geophysicist, 32–* Applied geophysics; gravimetric, magnetic, seismic, electric and magnetic methods; major magnetic trends of earth in correlation with alpine trends; micromagnetic surveys; geological interpretation of regional magnetic anomalies in the United States.

Jensen, Dr. A(dolph) R(obert), 274 W. Bagley Road, Berea, Ohio. *Analytical chemistry.* Elmhurst, Ill, April 14, 15. B.S, Wheaton Col, 37; M.S, Illinois, 40, Ph.D, 42. Asst. chem, Wheaton Col, 37–38; anal. chem, Illinois, 38–42; *asst. chemist and head anal. chem. sect, aircraft engine research lab, Nat. Advisory Cmt. Aeronautics, 42–* Analytical chemistry of fuels and lubricants.

Jensen, Dr. Arthur S(eigfried), 25 Murray Ave, Annapolis, Md. *Nuclear physics.* Trenton, N. J, Dec. 24, 17. B.S, Pennsylvania, 38, M.S, 39, Hector Tyndale fellow, 39–40, George Leib Harrison fellow, 40–41, Ph.D, 41. *Lieut, U. S. Naval Res, and instr. physics, U. S. Naval Acad, 41–* Summer, research physicist, U. S. Naval Research Lab, 41. Physical Soc. Radiations from radioactive cobalt.

Jensen, Axel G(eorg), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Engineering.* Copenhagen, Denmark, Feb. 17, 96. E.E, Royal Tech. Col, Copenhagen, 20; Columbia, 21–22. *Research engineer*, West. Elec. Co. and later *Bell Tel. Labs, 22–* Elec. Eng; Radio Eng; Soc. Motion Picture Eng. Communication engineering; measurements of field strength and high frequency measurements of radio signals; coaxial cable transmission systems; television.

Jensen, Prof. C(arey) M(organ), Kansas Wesleyan University, Salina, Kans. *Mathematics.* Minneapolis, Minn, Jan. 14, 95. A.B, Minnesota, 18, A.M, 20, Ph.D, 24. Asst. *math*, Minnesota, 19–23, instr, 35; Wisconsin, 23–26; asst. prof, Macalester Col, 26–32, 35–36; *prof, Kans. Wesleyan, 36–* Math. Soc. Theory of interpolation by Sturm-Liouville functions.

Jensen, Prof. Christian, North Dakota Agricultural College, Fargo, N. Dak. *Dairy industry.* Denmark, Dec. 13, 99. B.S, Iowa State Col, 26, M.S, 29, Ph.D, 40. From instr. dairy husbandry to asst. dairy mfg, *N. Dak. Col*, 26–29, asst. prof. dairy husbandry, 29–41, *assoc. prof. dairy husbandry and assoc. dairy husbandman, 41–* Dairy Sci. Asn; Soc. Bact. Relationship of biochemical characteristics of Penicillia to the ripening of blue mold cheeses; effect of water on bacterial contamination of creamery butter; source of mold in creamery butter; testing skim milk and whey for butter fat.

Jensen, Dr. C(lifford) O(liver), P. Lorillard Co, Middletown, Ohio. *Chemistry.* Rushford, Minn, Feb. 10, 03. A.B, St. Olaf Col, 24; M.S, Pa. State Col, 30, Ph.D, 33. Asst. agr.

chem, Pa. State Col, 30–32, instr, 32–36; *chemist, P. Lorillard Co, 36–* Chem. Soc. Cigar and cigarette smoke; tobacco.

Jensen, Prof. Cyril D(ewey), Lehigh University, Bethlehem, Pa. *Structural welding.* Brownton, Minn, Aug. 17, 98. B.S, Minnesota, 21, C.E, 31; M.S, Lehigh, 29. Instrumentman and locating engineer, State Highway Dept, Minn, 21–23; instrumentman, North. States Power Co, 23–25; from instr. to *assoc. prof. civil eng, Lehigh, 25–; welding engineer, U. S. Naval Eng. Exp. Sta, 42–* Summer, welding engineer, Lehigh Structural Steel Co, 30. Assoc. Chem. Eng; assoc. Welding Soc. Arc welding under water; girders with inclined stiffeners.

Jensen, (Estelle) Louise (Mrs. Elvin Charles Stakman), 1411 Hythe St, St. Paul, Minn. *Plant pathology.* Minneapolis, Minn, May 25, 88. A.B, Minnesota, 09, fellow, 11–12; A.M, Smith Col, 10. Instr, high sch, S. Dak, 10–11; xylotomist, forest products lab, Wisconsin, 12–13; instr. mycol, Minnesota, and mycologist, Exp. Sta, 13–17. Imperfect fungi on cereals.

Jensen, Dr. H(ans), Upjohn Co, Kalamazoo, Mich. *Biochemistry.* Hamburg, Germany, July 5, 96. Ph.D, Göttingen, 21. Asst. chem, Kaiser Wilhelm Inst, 22; chem. lab, Göttingen, 23; asst. prof, Louisville, 23–26; assoc. pharmacol, sch. med, Hopkins, 27–32, lab. endocrine research, 32–37; assoc, inst. exp. biol, California, 37–38; in charge biochem. lab, Squibb Inst, 38–41; *mem. research labs, Upjohn Co, 41–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Endocrine Research; N. Y. Acad. Imidazol, steroids and acridine derivatives; chemistry of insulin; toad poison; pituitary; hypertension.

Jensen, Dean Henry Wilhelm, Warren Wilson College, Swannanoa, N. C. *Botany.* Boston, Mass, July 4, 08. B.S, Mass. Col, 30; A.M, Harvard, 31, Ph.D, 33. Asst. bot, Mass. Col, 29–30; Harvard, 30–31, Austin teaching fellow, 31–33; instr. science, Asheville Farm Sch, 33–42, *dean, Warren Wilson Col, 42–* Summers, instr, Asheville Nor. and Teachers Col, 35, 36. Cytology; genetics; sex chromosomes; origin of new species; hybridization; parthenogenesis.

Jensen, Prof. James H(erbert), University of Nebraska, Lincoln, Nebr. *Plant pathology.* Madison, Nebr, June 16, 06. B.S, Nebraska, 28, A.M, 30; Columbia, 31–32; Ph.D, Wisconsin, 35. Asst. plant pathologist, Sugar Club Exp. Sta, Cuba, 30–31; fellow, Rockefeller Inst, 31–32, asst, 32–35; plant pathologist, P. R. exp. sta, office exp. stations, U. S. Dept. Agr, 35–37; *assoc. prof. plant path, Nebraska, and assoc. plant pathologist, Exp. Sta, 37–* Phytopath. Soc. Plant virus diseases; potato diseases and bean diseases.

Jensen, Jens, Ellison Bay, Wis. *Landscape gardening.* Dybbol, Denmark, Sept. 13, 60. Agr. Col, 78–80; LL.D, Wisconsin, 38. Supt, Humboldt Park, *Chicago,* 94–00, *gen. supt, West Park System, 06–; pres, The Clearing.* Consulting landscape architect, West Chicago Parks, 09–20; mem. Chicago Art Cmn; chairman, Miss. River Park Cmn, Ill; sec'y, Ill. Art Cmn. A.A; Ill. Acad; Chicago Art Inst; Chicago Acad. Destruction of the oak at Lake Geneva; plant acclimatization; the beach in northern Illinois; proposed park sites for Illinois.

Jensen, Dean J(ohn) C, Nebraska Wesleyan University, Lincoln, Nebr. *Physics.* Near Utica, Nebr, Oct. 19, 80. B.S, Nebraska Wesleyan, 09; A.M, Nebraska, 16, Ph.D, 39; Iowa, 16; Chicago, 21. Sch. supt, Nebr, 03–07; instr. *physics, Nebraska Wesleyan,* 07–09, *prof, 09–, dean men,* 34–36, *38–, coordinator, civil aeronaut. admin. war training sch, 39–* Operator in charge and later director and engineer, Radio Sta. WCAJ, 21–33. Chief instr. radio, War Training Unit, Nebraska, 18. A.A. (Am. Inst. Radio Eng. rep, council 35–); fel. Physical Soc; Optical Soc; Radio Eng; Meteorol. Soc; Geophys. Union; Aeronaut. Asn; Nebr. Acad. (pres, 14, 21). Radio engineering; spark potentials; radio signal fading as related to weather conditions; branching of lightning; ball lightning; relation of ponds and lakes to precipitation from local thunderstorms.

Jensen, Prof. J(ohn) H(enry), 802 Eighth Ave, S. E, Aberdeen, S. Dak. *Chemistry.* Chicago, Ill, July 1, 83. A.B, Michigan, 11, M.S, 16; Minnesota; Columbia. Head dept. science, Aurora Col, 12–16; teacher, high sch, Mich, 16–18; *prof.* chem. and physics, *North. State Teachers Col, Aberdeen,* 18–22, *chem. and gen. science and head div. science, 22–* Chairman science div, dept. curriculum revision, State Dept. Pub. Instruction, S. Dak. A.A; Chem. Soc; fel. Inst. Chem; Nat. Asn. Research Sci. Teaching; S. Dak. Acad. (past v. pres). Science teaching in South Dakota; types of classrooms for the teaching of chemistry and other sciences; minimum equipment for high-school chemistry; including stock room and demonstration equipment.

Jensen, Dr. Julius, 3720 Washington Ave, St. Louis, Mo. *Medicine.* Copenhagen, Denmark, Aug. 17, 98. B.A, Copenhagen, 17; Licentiate, Royal Col. Physicians, 23; Ph.D, Minnesota, 29. Res. med. officer, Ministry of Pensions, England, 23–24; teaching fellow *med, sch. med,* Minnesota, 26–29; instr. and *asst. prof, Washington (St. Louis), 29–* Parasystole; heart disease and pregnancy; clinical nursing in medicine.

Jensen, Prof. Kai, University of Wisconsin, Madison, Wis. *Psychology.* Silkeborg, Denmark, July 31, 01. A.B, Washington (Seattle), 24, Loretta Denny fellow, 25–26, A.M, 26; Ph.D, Ohio State, 30. Instr. educ, Oregon, 26–27; psychol, Ohio State, 27–30, research assoc, 30–31; assoc. prof. and prof, Conn. Agr. Col, 31–32; asst. prof. educ, *Wisconsin,* 32–36, assoc. prof. educational psychol, 36–43, *prof. child develop. and chairman cmt, 43–* Summers, mem. faculty, Oregon; Washington (Seattle); Harvard. Ed. board and book rev. ed, 'Jour. Educational Research'; contributing ed, 'Jour. Exp. Educ.' A.A; Psychol. Asn; Midwest. Psychol. Asn; Genetic Asn; Educ. Research Asn; Soc. Study Child Develop. Child and experimental psychology; child development; differential reactions in newborn human infants; x-ray studies of fetal development; action currents of the brain and their relation to learning and problem solving behavior.

Jensen, Dr. L(loyd) B, Swift and Co, Chicago, Ill. *Bacteriology.* Alta, Iowa, Nov. 20, 96. A.B, Iowa, 23; M.S, Chicago, 24, Ph.D, 27. Instr. hygiene and bacter, Chicago, 25–27; research bacteriologist, Inst. Am. Meat Packers, 28; asst. prof. bacter, Mayo Foundation, Minnesota, 29–30; bacter. research, *Swift and Co,* 30–33, *chief bacteriologist, 33–* Assoc. ed, 'Food Research,' 36– Soc. Bact. (councilor, 37–39); Agr. Chem. (assoc. referee canned meats, 36–39); Inst. Food Technol; fel. Pub. Health Asn; Ill. Soc. Bact. (pres, 37). Medical, food and general bacteriology; botulism; diphtheria; arthritis; encephalitis; Friedlander group of bacteria; discolorations in meats and fats; oxidations; dissociation; bacteriology of meats and fats.

Jensen, Dr. Milton B, 2306 Alta Ave, Louisville, Ky. *Psychology.* Mendon, Utah, July 19, 98. B.S, Utah State Col, 24; A.M, Stanford, 25, Ph.D, 27. Asst, Stanford, 26, 27; head dept. psychol, N. Mex. Nor. Univ, 27–28; Mich. Cent. State Teachers Col, 29–31; West. Ky. State Teachers Col, 31–32; consulting psychologist, 34–42; *capt, U. S. Army, 42–* Special lecturer, Louisville. A.A; Psychol. Asn; Asn. Applied Psychol; Ky. Psychol. Asn. (chairman). Vocational, clinical, industrial and military psychology.

Jensen, Dr. Otto G(erhard), Boyce Thompson Institute, 1086 N. Broadway, Yonkers, N. Y. *Chemistry.* Rushford, Minn, June 22, 05. A.B, St. Olaf Col, 27; M.S, Pa. State Col, 29; Ph.D, Minnesota, 31. Asst, Pa. State Col, 27–29; Minnesota, 29–31; research chemist, Gen. Foods Corp, Battle Creek, Mich, 32–37; Borden Co, 37–43; *physical chemist, Boyce Thompson Inst, 43–* Dairy Sci. Asn; fel. Inst. Chem; Chem. Soc. Colloids; hydrogen ion concentration; electrokinetics; dairy chemistry; vitamins.

Jensen, Ove F(rederick), Chapel Hill, N. C. *Agronomy.* Newaygo, Mich, July 22, 93. B.S, Mich. State Col, 14; M.S, Iowa State Col, 16. Asst. chemist, Exp. Sta, Mich. State Col, 14–15; asst. chief in forage crops, Exp. Sta, Iowa State Col, 16–19; *agronomist,* Nat. Fertilizer Asn, Ravinia, Ill, 20–32; *ammonia dept, E. I. du Pont de Nemours and Co, 33–* Sec'y joint cmt. fertilizer application, 25–32. A.A; Soc. Agron; Chem. Soc. Fertilizer application; equipment for applying fertilizers; fertilizer ammoniation and formulation.

Jensen, Dr. V(ernon) P(eter), Douglas Aircraft Co, Inc, El Segundo, Calif. *Civil engineering, Mechanics.* Chicago, Ill, June 5, 04. B.S, Illinois, 29, M.S, 31; Ph.D, Iowa State Col, 36. Asst. theoret. and applied mech, Illinois, 29–31; instr, Iowa State Col, 31–32, asst. prof, 32–36; special research asst. prof, Illinois, 36–41, research assoc. prof, 41–43; *research engineer, Douglas Aircraft Co, Inc, 43–* Engineer, 21–24; Coolidge Dam, 27–28. Assoc, Highway Research Board. Civil Eng; Concrete Inst. Reinforced concrete; engineering structures; elasticity.

Jensen, Victor S(ylvan), U. S. Forest Service, Laconia, N. H. *Forestry.* Hutchinson, Minn, Oct. 30, 01. B.S, Minnesota, 25; M.F, Yale, 28. Junior forester, *U. S. Forest Service,* 28–29, asst. silviculturist, 30–35, *assoc. silviculturist, 35–* Soc. Foresters. Forest management.

Jensen, Prof. William J(acob), Missouri School of Mines and Metallurgy, Rolla, Mo. *Physics.* Morocco, Ind, Feb. 12, 97. A.B, Carleton Col, 20; A.M, Illinois, 22. Instr. *physics, Mo. Sch. Mines,* 24–25, asst. prof, 25–30, *assoc. prof, 30–* Physical Soc.

Jenss, Dr. Rachel M(arie), U. S. Department of Commerce, Washington, D. C. *Biostatistics.* Lockport, N. Y, July 1, 03. A.B, Vassar Col, 25; Vassar Col. fellow, Hopkins, 33–34, Sc.D, 34. Asst, San Francisco cancer surv, Prudential Life Ins. Co, 25–26; statistician, office Indian affairs, U. S. Dept. Interior, 26–30; Gen. Educ. Board fellow, inst. child welfare, California, 34–35; statistician, div. research child develop, children's bur, U. S. Dept. Labor, 35–42; *statistician and tech. asst. to math. adviser, bur. census, U. S. Dept. Commerce, 42–* Statist. Asn; Soc. Research Child Develop; Pub. Health Asn. Child growth and development; pediatrics; physiology.

Jeppesen, Prof. C(harles) Rulon, Montana State University, Missoula, Mont. *Physics.* Logan, Utah, July 22, 03. A.B, Brigham Young, 28; A.M, California, 30, Ph.D, 32. Instr. physics, California, 32–34, 36–39; asst, Hopkins, 34–35, Johnston scholar, 35–36; lecturer, British Columbia, 39–40; instr, Montana, 40–41; asst. physicist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–42, assoc. physicist, 42–43; *assoc. prof. physics, Montana, 43–* Fel. Physical Soc. The spectrum of molecular hydrogen and heavy hydrogen; spectrochemical analysis.

Jeppesen, Prof. Myron A(lton), 8 Harpswell Place, Brunswick, Maine. *Physics.* Logan, Utah, Oct. 28, 05. B.S, Idaho, 30; M.S, Pa. State Col, 32, Ph.D, 36. Asst. physics, Pa. State Col, 30–36; instr. *physics and math, Bowdoin Col,* 36–38, *asst. prof, 38–* Physical Soc. Spectroscopy.

Jepsen, Prof. Glenn L(owell), Princeton University, Princeton, N. J. *Vertebrate paleontology.* Lead, S. Dak, March 4, 04. B.S, Princeton, 27, Ph.D, 30. Instr. *geol, Princeton,* 29–34, asst. prof, 34–40, *assoc. prof, 40–, curator vert. paleont, 34–* Mont, Wyo, Utah and S. Dak, 28– A.A; Paleont. Soc; Soc. Mammal; fel. Geol. Soc; Soc. Vert. Paleont. (sec'y-treas, 42–); Explorers Club. Tertiary vertebrate paleontology; Tertiary stratigraphy; organic evolution; Paleocene, Eocene and Oligocene sediments and faunas; early Tertiary primates; relationships of paleontology and genetics; Cretaceous Tertiary boundary.

Jepson, Dr. William, 707 20th St, Sioux City, Iowa. *Surgery.* Aarhus, Denmark, June 29, 63. M.D, Iowa, 86, Pennsylvania, 91, Jefferson Med. Col, 91; L.R.C.P. and L.R.C.S, Edinburgh, 98; B.S, Univ. Northwest, 99; A.M, South Dakota, 08; LL.D, Morningside Col, 42. Practicing physician, Oakland, Nebr, 86; prof. surg. and clin. surg, Sioux City Col. Med, 91–01; *practicing surgeon, 86–;* prof. *surg. and clin. surg, Iowa,* 02–13, *emer. prof, 13–* Asst. demonstrator anat. and demonstrator histol. and path, Iowa. Past pres, State Board Med. Examiners, Iowa. Major, M.C, 16–17; chief surg. staff, Base Hosp, Camp Bowie, 18–19. Am. Med. Asn; fel. Col. Surg; West. Surg. Soc; Tri-State Med. Soc. (past pres); Mo. Valley Med. Soc; Iowa State Med. Soc. (pres, 06); Iowa Clin. Surg. Soc. (past pres); Sioux Valley Med. Soc. (past pres); Int. Col. Surgeons. Gunshot wounds of the head; fractures of the patella and astragalus; facilitation of suprapubic cystotomy; prostatic hypertrophy; empyemia; hepatic changes following occlusion or removal of gall bladder; cancer.

Jepson, Dr. W(illis) L(inn), 11 Mosswood Road, Berkeley, Calif. *²*Botany.* Vacaville, Calif, Aug. 19, 67. Ph.B, California, 89, Ph.D, 99, LL.D, 41; Cornell, 95; Harvard, 96; Kew and Berlin, 05–06. Asst. *bot, California,* 91–94, instr, 95–98, asst. prof, 99–18, prof, 18–37, *emer. prof, 37–,* faculty research lecturer, 34. Ed, 'Erythea,' 93–; 'Madrono,' 15–33. Councilor, Rancho Santa Ana Bot. Garden, 30– Del, Int. Bot. Cong, Cambridge, 30, Amsterdam, 35. A.A; Bot. Soc; Genetic Asn; Soc. Foresters; fel. Am. Acad; Calif. Bot. Soc. (pres, 13–15, 18–29); Save Redwoods League (councilor, 20–); fel. Calif. Acad; Wash. Acad; fel. Royal Soc. Arts; for. mem. Soc. linn. de Lyon; for. mem. Nat. Bot. Soc. Czechoslovak. Taxonomy, special morphology, geographic distribution, life history and habits of western American, especially Californian, seed-plants.

Jerabek, Prof. Henry S, University of Minnesota, Minneapolis, Minn. *Physical metallurgy.* Silver Lake, Minn, Feb. 3, 00. B.S, Minnesota, 26, M.S, 29, Ph.D, 37. Instr. *metallog, Minnesota,* 27–35, *asst. prof, 35–* Metallurgical consultant, chem. eng. div, Tenn. Valley Authority, 39– Summers, metallurgical research, U. S. Naval Research Lab, 30, 31, 34–36; Minn. Mines Exp. Sta, 38; chem. eng. div, Tenn. Valley Authority, 39, 40. Soc. Metals (chairman northwest chap, 40); Min. and Metal. Eng. Alloy development; iron-nitrogen, iron-phosphorus and iron-cobalt alloys; stainless steels; micrographic equipment.

Jerbert, Prof. A(rthur) R(udolph), University of Washington, Seattle, Wash. *Mathematics.* Seattle, Wash, July 24, 94. B.S, Washington (Seattle), 16, M.S, 23, Ph.D, 27. Instr. *math, Washington (Seattle),* 23–28, asst. prof, 28–37, *assoc. prof, 37–* Projective d.fferential geometry.

Jersey, Dr. Vernon, R. 1, South Whitely, Ind. *Biochemistry.* Buffalo, N. Y, Sept. 1, 98. A.B, Western Reserve, 20, A.M, 21, Ph.D, 35. Demonstrator biochem, sch. med, Western Reserve, 21–23, instr, 23–24, 25–26; physiol. chem, Michigan, 24–25; research chemist, Cleveland Varnish Co, 27–29; in charge dairy research, S. M. A. Corp, 29–35; *sec'y-treas, Nutritional Research Associates, Inc, 36–* Chem. Soc. Dairy chemistry; density and cryoscopy of phosgene and phosgene solutions; lacquer; glandular activity; specific rotatory power of glucose-insulin solutions; enzymic hydrolysis of carbohydrates, especially of starch in high concentrations by malt amylase; vitamins and animal nutrition; carotene.

Jersild, Prof. Arthur T(homas), 525 W. 120th St, New York, N. Y. *Psychology.* Elk Horn, Iowa, Nov. 12, 02. A.B, Nebraska, 24; Ph.D, Columbia, 27. Instr. psychol, Columbia, 27–29; asst. prof, Wisconsin, 29–30; *educ, Teachers Col, Columbia,* 30–34, assoc. prof, 34–38, *prof, 38–,* research assoc, child develop. inst, 30–36. Consulting psychologist, Columbia Broadcasting System, 35– Ed, 'Child Develop. Monographs'; assoc. ed, 'Child Develop. Abstracts and Bibliog'; ed. board, 'Jour. Exp. Educ.' A.A; Psychol. Asn; Soc. Research Child Develop; Asn. Nursery Educ. (governing board, 38); Educ. Research Asn. Child psychology; childhood learning; social and emotional development.

Jervey, Brig.-Gen. J(ames) P(ostell), University of the South, Sewanee, Tenn. *Mathematics.* Powhatan Co, Va, Nov. 14, 69. Grad, U. S. Mil. Acad, 92; grad, U. S. Eng. Sch. From 2nd lieut. to brig.-gen, C.Eng, U.S.A, 92–20; city manager, Portsmouth, Va, 20–26; *prof. math, Univ. of the South, 26–* Instr. and asst. prof, U. S. Mil. Acad, 98–05; director, U. S. Eng. Sch, 07–08; res. engineer, Panama Canal, 08–13 D.S. medal. C.Eng, U.S.A, 17–18. History of mathematics: science of municipal government.

Jervis, Dr. George A(mede), Thiells, N. Y. *Medicine.* Lucerne, Switzerland, Aug. 15, 03. M.D, Royal Univ. Milan, 27, Ph.D, 32. Assoc. research neuropathologist, N. Y. State Psychiat. Inst, 38–40; *neuropathologist, Letchworth Village, 41–* Instr, Columbia. Am. Med. Asn; Asn. Neuropath; Psychopath. Asn; Psychiat. Asn; Asn. Study Mental Deficiency Neuropathology; child neurology.

Jeskey, Dr. Harold A(lfred), University of Tennessee, Memphis, Tenn. *Organic chemistry.* St. Louis, Mo, Aug. 18, 12. B.S, St. Louis Col. Pharmacy, 33; A.B, Washington (St. Louis), 37; Ph.D, Wisconsin, 42. Chemist, James F. Ballard, Inc, 33–35; instr. *chem,* St. Louis Col. Pharmacy, 35–38; asst, Wisconsin, 38–41; *instr, Tennessee, 41–* Chem. Soc. Oxidation of saturated cyclic compounds with ozone; chemistry of malaria parasite; electrophoresis plasma proteins.

Jesse, Prof. R(ichard) H(enry), University of Montana, Missoula, Mont. *Chemistry.* Princess Anne, Md, Jan. 4, 84. A.B, Missouri, 02; A.M, Harvard, 07, Ph.D, 09. Austin teaching fellow, Harvard, 08, Carnegie asst, 09; instr. applied chem, Illinois, 09–12, assoc. *chem,* 12; *prof, Montana, 12–, dean,* 15–36, *col. arts and sciences, 36–* Chem. Soc. Atomic weights; thermochemistry; gas analysis; sewage disposal.

Jesse, Dr. William P(olk), University of Chicago, Chicago, Ill. *Physics.* New Orleans, La, March 14, 91. A.B, M.E, Missouri, 13, 15–17; Chicago, 19–21; Ph.D, Yale, 24. Asst, Missouri, 15–17; instr. physics, Yale, 21–24; asst. prof, Lehigh, 24–27; research, Davy-Faraday Lab, Royal Institution of Gt. Britain, 27–29; research physicist, Gen. Elec. Co, 29–33; *research assoc. physics, Chicago, 34–* Artil.C, U.S.A, 18. A.A; Physical Soc. Ionization of gases; x-rays and crystal structure; cosmic rays.

Jessen, Dr. Frank W(eldon), Humble Oil and Refining Co, Houston, Texas. *Chemical engineering.* Austin, Texas, Feb. 21, 07. A.B, B.S, Texas, 27, M.S, 30, Ph.D, 33. Tutor chem.

Texas, 27–28, sanit. engineer, bur. indust. chem, 28–30, instr. chem, 30–33; *director service lab, Humble Oil and Ref. Co, 33–* Chem. Soc. (sec'y-treas, southeast Texas sect, 39–41); Chem. Eng; Petrol. Inst. Water treatment and sanitation; gaseous equilibria and heat capacities; research and development of petroleum production methods.

Jessup, Ralph S(locomb), National Bureau of Standards, Washington, D. C. *Physics.* Fayetteville, N. C, April 4, 94. B.S, Va. Polytech, 14; A.M, George Washington, 29. From lab. asst. to *physicist, Bur. Standards, 16–* Physical Soc; Philos. Soc. Wash; Wash. Acad. Calorimetry; pressure measurements; thermal properties of materials.

Jessup, Walter E(dgar), American Society of Civil Engineers, 33 W. 39th St, New York, N. Y. *Civil engineering.* Pasadena, Calif, May 25, 88. A.B, Southern California, 10; C.E, Wisconsin, 12. Construction engineer, 06–17; engineer, factory construction, 19-20; Quinton, Code and Hill, Los Angeles, 20–24; mem. firm, Henry Z. Osborne and Walter E. Jessup, 24–30; ed, 'Civil Eng,' *Am. Soc. Civil Eng,* 30–35, field sec'y, 35–41, *acting asst. sec'y, 41–* 1st lieut, U. S. Engineers, 17–19; major, Eng. Res. Civil Eng. (pres, Los Angeles sect, 29). Education; administration.

Jette, Prof. Eric R(andolph), Columbia University, New York, N. Y. *Metallurgy.* Lancaster, Pa, Sept. 30, 97. B.S, Franklin and Marshall Col, 18; A.M, Columbia, 20, Ph.D, 23. Chemist, Arthur D. Little, Inc, 19; Am-Scandinavian Foundation fellow, Sweden and Denmark, 22–24; instr. chem, Columbia, 24–26; asst. prof, N. Y. Univ, 26–28, assoc. prof, 28–29; *metal,* Columbia, 29–40, *prof, 40–* Assoc. ed, 'Jour. Chem. Physics,' 33–36. C.W.S, U.S.A, 18. A.A; Chem. Soc; Min. and Metal. Eng; Soc. Metals. Vapor pressure of salt hydrates; cataphoresis of proteins; migration of ions; fluorescence; crystal structure of metallic alloys; thermodynamics and velocities of metallurgical reactions.

Jetter, Dr. Lawrence K(losson), Aluminum Research Laboratories, Aluminum Company of America, New Kensington, Pa. *Physical metallurgy.* Williamsport, Pa, April 24, 15. B.S, Carnegie Inst. Tech, 36, M.S, 37, Aluminum Co. of Amer. fellow, 36–39, Sc.D, 39. *Research metallurgist, aluminum research labs, Aluminum Co. of Amer, 39–* Instr. and lecturer, evening courses, Carnegie Inst. Tech, 40–41. A.A; Soc. Metals; Min. and Metal. Eng. Mechanism of precipitation from metallic solid solution; age hardening of metals; alloy development and physical metallurgical research in aluminum and its alloys.

Jewel, Dr. Paul W(illard), 1666 N. Highland Ave, Los Angeles, Calif. *Chemistry.* Gary, S. Dak, June 2, 98. B.S, Oregon State Col, 20; A.M, Southern California, 29, Ph.D, 32. Pharmaceut. chemist, U. S. Dept. Agr, 21–23; research chemist, Union Oil Co, 32–34; *chief chemist, Max Factor and Co, 34–* Teaching fellow, Southern California, 29–32, fellow by courtesy, sch. research, 32–33. Determination of alkaloids quantitatively; biological methods for evaluating insecticides; synthesis and manufacture of dyes; immunology; perfumes; organic dyes; inorganic compounds.

Jewell, Prof. Minna E(rnestine), Thornton Junior College, Harvey, Ill. *Zoology.* Irving, Kans, Feb. 9, 92. A.B, Colo. Col, 14; A.M, Illinois, 15, Ph.D, 18. Biochemist, Ill. State Water Surv, 18–19; asst. prof. *zool,* Milwaukee-Downer Col, 19–22; instr, Kans. State Col, 22–24, *asst. prof,* 24–30; *Thornton Junior Col, 30–* A.A; Soc. Zool; Ecol. Soc; Micros. Soc. General animal ecology; factors limiting the distribution of fish in bog lakes, polluted streams and other unusual bodies of water; ecology and distribution of fresh-water sponges.

Jewell, Prof. Willard B(rownell), Vanderbilt University, Nashville, Tenn. *Geology.* Little Compton, R. I, April 4, 99. Ph.B, Brown, 23; Ph.D, Princeton, 26. Asst. prof. *geol, Vanderbilt,* 26–37, assoc. prof, 37–41, *prof. and chairman dept, 41–* Asst, Alaskan branch, U. S. Geol. Surv, 24–25; assoc. geologist, Tenn. Geol. Surv, 27–28, 37–; visiting prof, Colo. Col, 35; asst. geologist, Newfoundland Geol. Surv, 37–38. Soc. Econ. Geol; Tenn. Acad. Coast range intrusives; ore deposits of southeastern Alaska; ore deposits of Tennessee.

Jewett, Dr. Frank B(aldwin), 195 Broadway, New York, N. Y. **3Physics, Electrical engineering.* Pasadena, Calif, Sept. 5, 79. A.B, Throop, 98; Ph.D, Chicago, 02, hon. Sc.D, 29; hon. Sc.D, N. Y. Univ, Dartmouth Col, 25, Columbia, Wisconsin, 27, Rutgers, 28, Harvard, 36, Pennsylvania, 40; D.E, Case, 28; LL.D, Miami (Ohio), 32, Rockford Col, 39. Asst. to Prof. A. A. Michelson, Chicago, 01–02; instr. physics and elec. eng, Mass. Inst. Tech, 02–04; transmission engineer, Am. Tel. and Tel. Co, 04–12; asst. chief engineer, West. Elec. Co, 12–16, chief engineer, 16–21, v. pres. and chief engineer, 21–22, v. pres, 22–25; *v. pres. in charge develop. and research, Am. Tel. and Tel. Co, 25–,* pres, *Bell Tel. Labs,* 25–40, *chairman board, 40–* V. chairman, Eng. Foundation, 19–25; chairman div. eng. and indust. research, Nat. Research Council, 23–27, mem, cmt. on sci. aids to learning; Nat. Defense Research Cmt, Office Sci. Research and Develop, 41– Pres. and trustee, N. Y. Museum Sci. and Indust; trustee, Carnegie Institution; Tabor Acad; Princeton; Oceanog. Lab, Woods Hole; life mem. corp, Mass. Inst. Tech. D.S. medal, 19; Edison medal, 28; 4th Order of the Rising Sun, Japan, 23, 3rd Order of the Sacred Treasure, 30; Faraday medal, British Inst. Elec. Eng, 35; Franklin medal, 36; Washington award, West. Soc. Eng, 38; John Fritz award, 39. Lieut. col, Sig.C, 17–18; past advisory mem, Submarine Board, U.S.N, mem, State Dept. Special Cmt. on Cables, 17. Nat. Acad. (pres, 39–); A.A; fel. Physical Soc; fel. Elec. Eng. (pres, 23); fel. Acoustical Soc; fel. Radio Eng; Eng. Educ; Philos. Soc; Am. Acad; N. Y. Elec. Soc; British Inst. Elec. Eng. Vapor density of sodium vapor; magnetic change of resistance in bismuth; effect of pressure on insulation resistance; electrical communication.

Jewett, H(oward) H(erman), University of Kentucky, Lexington, Ky. *Entomology, Botany.* Celina, Ohio, Oct. 25, 84. A.B, Ohio Wesleyan, 07; A.M, Ohio State, 10. Asst. bot, Maryland Col, 10–11; *asst. research entomologist, Exp. Sta, Kentucky, 11–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. The corn ear worm; the greenhouse white fly; tobacco worms; Mexican bean and cucumber beetles; tobacco and potato flea beetles; the potato leaf-hopper on clovers; sod webworms; wireworms of tobacco; pea aphid on clover; tomato fruit worm; tobacco plant bed insects.

Jewett, Stanley G(ordon), 600 Weatherly Bldg, Portland, Oregon. *Ornithology.* Fredericton, N. B, Can, Feb. 5, 85. *Fish and wildlife service, U. S. Dept. Interior, 10–, regional biologist, region 1.* U. S. Dept. Agr. sci. expeds, Rocky Mountains and Pacific states; 1st Field Museum Nat. Hist. exped, S. Amer, 10–11, Alaska, 41. Fel. Ornith. Union; Cooper Ornith. Club; Nat. Asn. Audubon Societies; Soc. Mammal; Wildlife Soc; Pacific Northwest Bird and Mammal Soc. (pres, 43). Mammalogy; wildlife refuges.

Jillson, Dr. W(illard) R(ouse), 301 W. Third St, Frankfort, Ky. *Geology.* Syracuse, N. Y, May 28, 90. B.S, Syracuse, 12, Sc.D, 21; M.S, Washington (Seattle), 15; Chicago, 15–16; Yale, 16–17; Sc.D, Berea Col, 25. Instr. geol, Washington (Seattle), 14–15; asst. prof. geol, Kentucky, and asst. state geologist, Ky, 18–19, state geologist, 19–32; *geologist and engineer, Mid-Continent, Appalachian and European oil and mining fields, 12–* Lecturer, Kentucky, 28–31. With U. S. Geol. Surv, 15; Carter Oil Co. and Dorsey Hager, 16–17; geologist, Bur. Int. Revenue, 18; curator, Ky. State Museum, 24–32; chief geologist, Am. Rolling Mill Co, 24, 25; H. L. Doherty and Co, 30, 31. Chairman, Ky. State Park Cmn, 24–26, mem, 26–32; chairman, Ky. Geog. Council, 27–32. Del, Int. Geol. Cong, Madrid, 26; Int. Geog. Cong, Paris, 31. A.A; Am. State Geologists; Min. and Metal. Eng; Am. Geog. Soc; Am. Hist. Asn; Soc. Professional Eng; Miss. Valley Hist. Asn; Ky. Soc. Professional Eng. (v. pres, 34, director, 35); Ky. Hist. Soc. (v. pres, 23–25, exec. cmt, 26–); Ky. Acad. (pres, 24, cmt, 30); fel. Royal Geog. Soc; Royal Soc. Arts. Economic, physiographic and glacial geology; petroleum, natural gas, coal, rock asphalt and other non-metals; geology of Kentucky; paleontology; mining.

Jitkow, Dr. Olga N, Verley Chemical Co, 1621 W. Carroll Ave, Chicago, Ill. *Chemistry.* Moscow, Russia, March 11, 09. B.Ph, Paris, 28; A.M, Columbia, 35, Ph.D, 40. Research chemist, *Verley Chem. Co,* 40–41, *chief chemist in charge research and develop. of production, 41–* Summer, mem. staff, Noel Labs, Grass, France, 37. Chem. Soc. Organic chemistry related to essential oils; compounds related to the terpenes, the inones, vitamin A and the Diels and Alder reaction; new methods to manufacture aldehydes, ketones and esters.

Job, Robert, 980 St. Antoine St, Montreal, Que, Can. *Chemistry.* Boston, Mass, Oct. 10, 66. A.B, Harvard, 90. Asst. chemist, P. and R. Ry, 92–97, chemist, 97–06; mem. firm of Booth, Garrett and Blair, 06–10; *v. pres, Milton Hersey Co, 10–* Chemist, Lehigh Valley Ry, 07–27; Grand Trunk Ry; Can. North. Ry; Can. Nat. Ry; asst. chemist, Can. Pacific Ry; professional chemist, Que. A.A; Chem. Soc; Soc. Chem. Indust. (chairman, Montreal sect, 18); Min. and Metal. Eng; Soc. Test. Mat. (exec. cmt, 14–16); Soc. Metals (chairman,

Montreal chap, 28); Franklin Inst; Can. Inst. Chem. Industrial chemistry; steel rails; bearing metals; iron castings; oils; paints and varnishes; patent chemistry; causes of failure of materials; metallurgy; alloys.

Job, Prof. Thesle T(heodore), 706 S. Walcott St, Chicago, Ill. *Anatomy.* Boone Co, Iowa, Dec. 24, 85. A.B, Simpson Col, 12; M.S, Iowa, 15, fellow, 15–17, Ph.D, 17; Marine Biol. Lab, Woods Hole, 16. Asst, Simpson Col, 10–12; instr. animal biol, Iowa, 17–18; assoc. prof. *anat, Loyola,* 18–25, *prof, 25–* Univ. Iowa exped, Barbados, 18. A.A; Asn. Anat; Soc. Zool; fel. Ill. Acad. Anatomy of the lymphatics; inguinal canal; larynx; biological effect of x-ray.

Jobbins, Daniel M(anley), Apt. 1252, Panama, Republic of Panama. *Medical entomology.* New Brunswick, N. J, April 8, 10. B.S, Rutgers, 31, M.S, 35. Asst, N. J. Agr. Exp. Sta, Rutgers, 34–38; *senior medical entomologist, Gorgas Mem. Lab, 38–* A.A; Soc. Trop. Med; Soc. Econ. Entom; Isthmian Med. Asn; Royal Soc. Trop. Med. and Hygiene. Bionomics of anopheles mosquitoes; insecticides; insect repellents; physical control of insects; anopheles mosquitoes and malaria transmission.

Jobes, Dr. Frank W(atkins), U. S. Department of the Interior, Ann Arbor, Mich. *Zoology, Ichthyology.* Arlington, Kans, Sept. 16, 03. A.B, Southwestern Col. (Kans), 26; M.S, Kans. State Col, 27; Ph.D, Michigan, 40. Asst. zool, Kans. State Col, 26–27; Illinois, 27–28; instr, high sch, Kans, 28–29; junior col, Ill, 29–30; temporary asst, Bur. Fisheries, 30–31, *junior aquatic biologist,* 31–41, *fish and wildlife service, U. S. Dept. Interior, 41–* Limnol. Soc; Fisheries Soc; Mich. Acad. Life history of Perca flavescens of the Great Lakes as determined from a study of scales; age and growth of fish in the Great Lakes.

Jobling, Dr. James W(esley), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. **3*Pathology.* Steubenville, Ohio, Aug. 2, 76. M.D, Tenn. Med. Col, 97. Director, Serum Lab, Manila, P. I, 02–04; assoc, Rockefeller Inst, 06–09; pathologist, Michael Reese Hosp, 09–13; asst. prof. *path,* Columbia, 13–14; *prof,* Vanderbilt, 14–18; *col. physicians and surg, Columbia, 18–* A.A; Asn. Path. and Bact; Soc. Exp. Path; Am. Physicians; Harvey Soc; Soc. Bact; Soc. Exp. Biol; Asn. Cancer Research; N. Y. Path. Soc. Antimeningitis serum; malignant tumors in small animals; ferments and antiferments; pellagra; anemias.

Jobling, Dr. William H(oward), Faulkland Road, Marshallton, Del. *Organic chemistry.* Geuda Springs, Kans, Aug. 19, 10. B.S, Kans. State Col, 30; Ph.D, Cornell, 40. Anal. chemist, Jackson lab, *E. I. du Pont de Nemours and Co,* 30–34, *chem. supervisor dye works,* 34–36, *40–* Chem. Soc. Mercuration of 1, 3-butadiene.

Jodidi, Dr. Samuel L, U. S. Department of Agriculture, Washington, D. C. *Biochemistry, Plant physiology.* Kovno, Russia, Oct. 6, 67. Ph.D, Giessen, 94. Chief chemist and asst. director, sugar factory, Russia, 99–01; chemist and manager, Dnicprovsky Chem. Factory, 02–03; chief chemist, sugar factory, Mich, 04, Utah, 05–06, N. Y, 07; research chemist, Exp. Sta, Mich. State Col, 08–09; in charge soil chem. research, Exp. Sta, Iowa State Col, 09–13; org. chemist, *bur. plant indust, U. S. Dept. Agr,* 13–24, biochemist, 24–29, physiologist, 29–37, *collaborator, 37–* A.A; Chem. Soc; Franklin Inst; Bot. Soc. Wash. Physiological and organic chemistry; plant biology and physiology; nitrogen metabolism in plants.

Joel, A(rthur) H(enry), Vista, Calif. *Soils.* Plymouth, Pa, April 5, 96. B.S, Mich. State Col; Paris. Asst. soils, Mich. State Col, 21–22; asst. prof, Saskatchewan, 22–25, prof. and in charge dept, 26–34; owner and operator subtrop. fruit ranch, Calif, 34; chief soil expert, Colo. div, senior soil scientist in charge west. unit, conservation sect, and *dist. conservationist, soil conservation service, U. S. Dept. Agr, 35–* Lieut, Inf, 18–19. Soil survey of Saskatchewan; weed distribution and soil types; development of soils in northern latitudes; classification of northern semiarid soils; conservation survey of southern great plains wind erosion area.

Joël, Dr. Walther, 1742 Silverwood Terrace, Los Angeles, Calif. *Psychology.* Lübeck, Germany, April 3, 99. B.S, Kiel, 22; A.M, Southern California, 31, Ph.D, 34. Asst. *psychol, Southern California,* 32, instr, 32–34, *lecturer, 34–; psychologist,* emergency nursery schs, Los Angeles, 35–36, pub. schs, 36–38; instr. psychol, Los Angeles City Col, 38–41; *personnel technician, Los Angeles City Civil Service Cmn, 42–* Psychol. Asn. Experimental psychology; perception; child psychology; mental hygiene.

Joerg, W(olfgang) L(ouis) G(ottfried), National Archives, Washington, D. C. *Geography.* Brooklyn, N. Y, Feb. 6, 85. Leipzig, 04; Columbia, 04–06; Göttingen, 06–11. Asst. ed, 'Bul,' Am. Geog. Soc, 11–15, assoc. ed, 'Geog. Rev,' 15–20, ed, 'Research Series,' 20–26, research ed, 26–37; *chief div. maps and charts, Nat. Archives, 37–* Div. geol. and geog, Nat. Research Council, 24–27, 31–34, exec. cmt, 31–36, v. chairman, 33–36; sec'y, U. S. nat. cmt, Int. Geog. Union, 28–37, chairman, 37–39; advisory cmt, U. S. Geog. Board, 31–34; science advisory board, cmt. mapping services of Fed. Govt, 34; Fed. Board Surv. and Maps, 37–42; U. S. Board Geog. Names, 37–, chairman, 40–, pres, sect. geog. educ. and bibliog, Int. Geog. Cong, Paris, 31. A.A. (councilor, 27–37); Asn. Geog. (councilor, 22–24, v. pres, 28, pres, 37); Geophys. Union; Soc. Photogrammetry; Cong. Surv. and Mapping; Soc. Archivists; hon. mem. Geog. Soc. Neuchâtel; cor. mem. Russian Geog. Soc. Regional synthesis and natural regions concept as applied to North America; polar geography; cartography; methods of geography.

Joesting, Dr. Henry R, College, Alaska. *Mining geology.* Baltimore, Md, Nov. 16, 03. B.S, Hopkins, 23, Ph.D, 40. Chemist, research lab, U. S. Indust. Chem. Co, 23; plant chemist, Standard Oil Co, 24; junior chemist, org. research lab, Chem. Warfare Service, Edgewood Arsenal, 25, 26; in charge wintering exped, Jan Mayen Island, 26–27; field geologist, Sinclair Explor. Co, S. Amer, 29–31; prospector and miner, Alaska, 33–35; instr. chem, math. and geol, Alaska, 35–38; *assoc. mining engineer in charge geol. and geophys. investigations, Territorial Dept. Mines, 38–* Lecturer, Alaska, 42–43. Min. and Metal. Eng. (cmt. geophys, 41–43). Exploration geophysics; magnetic studies of placers and of geologic structures in Alaska; electrical resistivity studies of permanently frozen ground in Alaska; geologic and geophysical studies of mineral deposits; correlation of geophysical measurements and geologic features.

Joffe, Dr. J(acob) S(amuel), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Soil chemistry.* Koopishky, Kovno, Russia, Sept, 86. Baron de Hirsch Agr. Sch, 10; B.S, Rutgers, 18, M.S, 21, Ph.D, 22. Asst. soil microbiol, *N. J. Exp. Sta,* 19–23, *chemist and soil research,* 23–, assoc. prof. soils, *Rutgers, prof. pedology, 37–* Assoc, N. Y. Exp. Sta, Geneva, 23. Director, Yiddish Sci. Inst, 40–A.A; Am. Geog. Soc; Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Soil genetics and colloids.

Joffe, Dr. Joseph, Newark College of Engineering, Newark, N. J. *Physical chemistry.* Moscow, Russia, Oct. 27, 09. A.B, Columbia, 29, B.S, 30, A.M, 31, fellow, 31–32, Ph.D, 33. Asst. physics, Columbia, 31, chem, univ. exten, 32; instr. math, *Newark Col. Eng,* 32–37, asst. prof. mech, 37–38, chem, 38–39, assoc. prof. *chem. eng,* 39–40, *prof, 40–* Chem. Soc; Eng. Educ; Physical Soc. Nuclear and molecular structure; combustion of carbon.

Joffe, S(olomon) A(chillovich), 515 W. 110th St, New York, N. Y. *Mathematics, Actuarial science.* Petropavlovka, Russia, May 9, 68. M.S, N. Y. Univ, 93; Chicago, 93, fellow, 94–95. Asst. math, Columbia, 97; instr, N. Y. Ethical Culture High Sch, 97–98; with Mutual Life Ins. Co, 98–33, asst. actuary, 10–33; *retired.* A.A; Math. Soc. (trustee, 23, auditing cmt, 22–26, 35–37); Math. Asn; Statist. Asn; fel. Actuarial Soc. (exam. cmt, 22); Soc. astron. de France; Circolo Mat. di Palermo. Mortality tables; Bernoullian numbers; Eulerian numbers; central differences; interpolation.

Johann, Helen, University of Wisconsin, Madison, Wis. *Plant pathology.* Eureka, Ill. A.B, Eureka Col; A.M, Missouri, 16. Asst, Missouri, 18; asst. and *assoc. pathologist, div. cereal crops and diseases, U. S. Dept. Agr, 19–* A.A; Phytopath. Soc. Wheat scab; seedling blight, root, stalk and ear rots of corn; disease resistance.

Johann, Prof. Norma E(va), Hunter College, New York, N. Y. *Chemistry.* New York, N. Y, Jan. 9, 93. A.B, Hunter Col, 14; A.M, Columbia, 17, Ph.D, 21. Instr. chem, Hunter Col, 14–16; asst, Columbia, 16–21; chemist, N. Y. Skin and Cancer Hosp, 21–22; research chemist, Fleischmann Co, 22–26; instr. *chem, Hunter Col,* 26–28, *asst. prof, 28–* A.A; Chem. Soc; N. Y. Acad.

Johannsen, Dr. Albert, 2203 W. 111th St, Chicago, Ill. **3*Geology.* Belle Plaine, Iowa, Dec. 3, 71. B.S, Illinois, 94; Utah, 98; fellow, Hopkins, 02–03, Ph.D, 03. Geol. asst, Md. Geol. Surv, 01–03, geologist, U. S. Geol. Surv, 03–25, acting chief sect. petrol, 07–10; asst. prof. petrol, Chicago, 10–14, assoc. prof, 14–18, prof, 18–37; *retired.* Lecturer, Chi-

cago, 09. Petrógrafo, Inst. Geol. de Mex, 19. Assoc. ed, 'Jour. Geol,' 10–37. A.A; Geol. Soc; Miner. Soc; Deuts. Miner. Gesell; hon. mem. Acad. Nacional de Cienc, Mex. Petrology.

Johannsen, Prof. O(skar) A(ugustus), Cornell University, Ithaca, N. Y. *[6]*Zoology, Entomology.* Davenport, Iowa, May 14, 70. B.S, Illinois, 94; A.M, Cornell, 02, Ph.D, 04. Engineer, Chicago, 94–99; instr. civil eng, Cornell, 99–04, asst. prof, 04–09; prof. entom, Maine, and entomologist, Exp. Sta, 09–12; prof. biol, *Cornell, 12–18, entom, 18–38, emer. prof, 38–*, head dept, 36–38. A.A; Soc. Nat; Entom. Soc; Entom. Soc. Amer. (pres, 37); Asn. Econ. Entom; Soc. Zool. Hydrobiology; biology and taxonomy of Diptera; medical entomology; insect embryology, histology and morphology; parthenogenesis in insects.

Johansen, Dr. Donald A(lexander), Box 32, Stanford University, Calif. *Botany.* Arcata, Calif, July 7, 01. A.B, Stanford, 25, scholar, 25–26, A.M, 26, fellow, 26–28, Ph.D, 28. Nat. research fellow biol, 28–30; *private research.* A.A; Bot. Soc; Torrey Bot. Club. Morphology and cytology of Onagraceae; plant embryology; phylogeny from the cytological standpoint; microtechnique.

Johanson, Dr. A(lbert) M(athew), 5400 Fieldston Road, New York 63, N. Y. *Psychology.* New York, N. Y, Dec. 31, 93. A.B, Columbia, 16, A.M, 20, Ph.D, 22. Instr. psychol, Columbia, 21–24; *advertising consultant, 25–; pres, North. Products Corp; North. Incandescent Lamp Co.* Summers, instr, Columbia, 21–24. Psychol. Asn. Psychology of advertising; influence of incentive and punishment upon reaction time.

Johanson, Prof. Alva J(oseph), 107 E. 6 North St, Provo, Utah. *Chemistry.* Rexburg, Idaho, May 10, 03. A.B, Brigham Young, 31, A.M, 34; Ph.D, Illinois, 38. Asst. *chem,* Brigham Young, 31–34, instr, 34–36; asst, Illinois, 37–38; *asst. prof, Brigham Young, 38–* Chem. Soc; Utah Acad. Organic and biological chemistry; sulfanilamide derivatives; biological value of proteins.

Johanson, Prof. Ralph N(athanael), Hamilton College, Clinton, N. Y. *Geometry.* Hyde Park, Mass, Nov. 21, 14. B.S, Boston Univ, 36; M.S, Chicago, 37, Ph.D, 39. Instr. *math,* Bradley Polytech, 39–41, asst. prof, 41–43; *Hamilton Col, 43–* Math. Soc; Math. Asn. Projective differential geometry; Plücher numbers of the Hessian, Steinerian and Cayleyan; ruled surfaces with intersecting generators.

Johlin, Prof. J(acob) M(artin), Vanderbilt University School of Medicine, Nashville, Tenn. *Biochemistry.* Toledo, Ohio, Jan. 8, 84. B.S, Chicago, 08; Ph.D, Berlin, 10; D.Sc, London, 25. Asst. prof. and assoc. prof, Syracuse, 13–18; research chemist, Semet Solvay Co, 18–22; *assoc. prof. biochem, sch. med, Vanderbilt, 25–* A.A. Physical properties of proteins.

John, Prof. F(ritz), University of Kentucky, Lexington, Ky. *Mathematics.* Berlin, Germany, June 14, 10. Ph.D, Göttingen, 33. Asst, Göttingen, 32; research scholar, Cambridge, 34–35; asst. prof. *math, Kentucky, 35–39, assoc. prof, 39–* Math. Soc. Analysis; geometry.

Johns, Prof. A(lfred) E(dward), McMaster University, Hamilton, Ont, Can. *Mathematics.* Exeter, Ont, Dec. 7, 84. B.A, Toronto, fellow, 07–10, M.A, 08, Ph.D, 35. *Prof. math,* West China Union Univ, 10–25; Brandon Col, 26–30; *McMaster, 31–* Linear transformations in the real plane.

Johns, Dr. C(yril) K(ay), Division of Bacteriology and Dairy Research, Department of Agriculture, Ottawa, Ont, Can. *Dairy bacteriology.* London, Eng, June 22, 99. B.S.A, Alberta, 25; M.Sc, Macdonald Col, 26; Ph.D, Wisconsin, 37. Bacteriologist, Edmonton City Dairy, Alta, Can, 25; Alberta Dairy Branch, 26–27; asst. agr. bacteriologist, *div. bacter, Cent. Exp. Farm, Dept. Agr, Ont, 27–37, assoc. bacteriologist, 37–* Soc. Bact; Pub. Health Asn; Can. Soc. Tech. Agr; Int. Asn. Milk Sanitarians (pres, 34). Dye reduction tests for milk quality; bacteriophage in dairying; chemical sterilization of dairy equipment.

Johns, Dr. H. E, University of Alberta, Edmonton, Alta, Can. *Physics.* Chengtu, West China, July 4, 15. B.A, McMaster, 36; M.A, Toronto, 37, Nat. Research Council Can. bursar, 37–38, student, 38–39, Ph.D, 39. Sessional instr, *Alberta, 39–41, lecturer physics, 42–* Refractive indices of liquid oxygen, nitrogen, hydrogen, liquid helium I and helium II; flow and viscosity of liquid helium; viscosity of liquid hydrogen.

Johns, Prof. I(ral) B(rown), Jr, Iowa State College, Ames, Iowa. *Chemistry.* Rossville, Ill, Oct. 24, 01. B.S, Knox Col, 24; Ph.D, Iowa State Col, 30. Teacher, high sch, Ill, 24–26; instr. *chem, Iowa State Col, 27–31,* asst. prof, 31–37, *assoc. prof, 37–* Chem. Soc. Microchemistry; organic compounds of mercury; electron-sharing ability of organic radicals; hydrogenation; synthetic rubber.

Johns, Prof. Martin W(esley), Brandon College, Brandon, Man, Can. *Spectroscopy.* Chengtu, West China, March 23, 13. B.A, McMaster, 32, M.A, 34; Ph.D, Toronto, 38. *Prof. physics, Brandon Col.* Summers, lecturer, Manitoba, 41, 42. Physical Soc. The spectrum of mercury III.

Johnsen, Dr. Bjarne, Hammermill Paper Co, Erie, Pa. *Chemistry.* Stavanger, Norway, May 25, 84. Zurich; diploma, Tech. Hochschule, Darmstadt; Eberswalde; D.Ing, Tech. Hochschule, Charlottenburg. Asst. prof. chem. and miner, acad. forestry, Eberswalde; research chemist, Forest Products Lab. Can; *director labs, Hammermill Paper Co, 19–* Lecturer, Princeton. Chem. Soc; Chem. Eng; Tech. Asn. Pulp and Paper Indust; Asn. Pulp and Paper Eng, Norway; Norwegian Eng. Asn. Utilization of waste sulfite liquor; manufacture of sulfite pulp.

Johnson, Dr. A(aron) G(uy), Bureau of Plant Industry Station, U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Brookings Co, S. Dak, Sept. 1, 80. Washington (St. Louis); B.S, S. Dak. State Col, 07; M.S, Purdue, 11; Ph.D, Wisconsin, 14. Bot. asst, Mo. Bot. Garden, 03–06; asst. bot. and hort, S. Dak. State Col, 06–08; asst. botanist, Exp. Sta, Purdue, 08–11; asst. bot. and plant path, Wisconsin, 11–12, plant path, 12–13, instr. and asst. prof, 13–18, assoc. prof, 18–22; *pathologist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 14–* A.A; Bot. Soc; Phytopath. Soc. Unattached forms of plant rusts; diseases of cereals.

Johnson, Prof. A(da) Frances, Rockford College, Rockford, Ill. *Physics.* Red Wing, Minn, Dec. 18, 94. A.B, Bryn Mawr Col, 17; A.M, Minnesota, 18, Ph.D, 21. *Prof.* physics, Constantinople Col, 22–23, physics and math, 24–26; physics, *Rockford Col, 27–28, physics and math, 28–* A.A; Physical Soc; Asn. Physics Teachers; Ill. Acad. Bioelectric potentials; osmotic pressures.

Johnson, Albert E(dwin), U. S. Geological Survey, Columbia, S. C. *Hydrology.* New Britain, Conn, Aug. 24, 96. B.S, Maine, 22. Instr, Maine, 22–23; junior hydraul. engineer, *water resources branch, U. S. Geol. Surv,* Albany, N. Y, 23–27, asst. hydraul. engineer, Albany, N. Y, Washington, D. C, and Asheville, N. C, 27–29, assoc. hydraul. engineer, Asheville, N. C, 29–30, *dist. engineer, Columbia, S. C, 30–* Summer, Phoenix Utilities Co, Allentown, Pa, 22; State Highway Dept, Maine, 22. Civil Eng. (sec'y-treas, S. C. sect, 34–); Geophys. Union; S. C. Soc. Eng. (sec'y-treas, 35–). Water resources.

Johnson, Dr. A(lfred) A(nton), Experimental Station, E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* Morrisonville, Ill, Dec. 17, 16. B.S, Illinois, 36, Carr fellow, 38–39, Ph.D, 39. Asst. chem, Illinois, 36–38; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Synthetic fiber spinning; ionization of salts on tungsten filaments; conductance and transference numbers of solid salts.

Johnson, Dr. Arnold H(arvey), 1403 Eutaw Place, Baltimore, Md. *Biochemistry.* Minneapolis, Minn, Nov. 21, 96. B.S, Minnesota, 21, Strietmann fellow, 22–23, M.S, 23, Ph.D, 24. Asst. prof. biochem, Minnesota, 24; asst. chemist, Exp. Sta, Mont. State Col, 25–27; Rockefeller Foundation fellow, Carlsberg Lab, Copenhagen, 27; asst. chemist, Exp. Sta, Mont. State Col, 28–29; *chemist, research labs, Nat. Dairy Products Corp, 29–* A.A; Chem. Soc; Asn. Cereal Chemists. Biochemistry as applied to cereals; fractionation of gliadin; effect of freezing premature wheat on its milling and baking properties; dairy science.

Johnson, Dr. Arthur B(eers), 681 Coventry Road, Berkeley 8, Calif. *Petroleum chemistry.* San Francisco, Calif, Jan. 26, 06. A.B, Stanford, 27, A.M, 28, Ph.D, 32. Asst, Stanford, 30; *research chemist, Standard Oil Co. of Calif, 33–* Air pollution; the effect of low concentration of sulfur dioxide on wheat plants grown under controlled conditions.

Johnson, Prof. Arthur F(rederick), Oakcrest, Arlington, Va. *Mechanical engineering.* New York, N. Y, June 27, 89.

Webb Inst. Naval Archit, 11; M.E, George Washington, 15; Ph.D, Michigan, 38. Naval architect and marine engineer, 11–17; head dept. naval archit, George Washington, 16–18; secy-treas, Electro Novelty Co, Ohio, 18–23; *prof. mech. eng. and head dept, George Washington, 23–; consultant, U. S. Maritime Cmn, U. S. War Dept. and Cargoes, Inc, 41–* Asst. marine supt, Army Transport Service, 17–18. Mech. Eng. Design and construction of power work-boats; descriptive geometry.

Johnson, Prof. Arthur J(ohn) M, 912 S. Third Ave, Bozeman, Mont. *Physics.* Bayard, Nebr, Feb. 18, 00. A.B, Nebr. Wesleyan, 24; M.S, Ph.D, Iowa, 28. Instr. *physics,* George Washington, 28–29, asst. prof, 29–30; *prof. and head dept, Mont. State Col, 30–* Physical Soc. Radiation.

Johnson, Arvid J(ohn), Leland, Miss. *Agricultural economics, Marketing.* Ortonville, Minn, Nov. 17, 04. A.B, Gustavus Adolphus Col, 29; George Washington, 30; grad. sch, U. S. Dept. Agr, 31. Junior sci. aid, *cotton div, agr. marketing service, U. S. Dept. Agr,* 30–32, asst. sci. aid, 32–34, junior cotton technologist, 34–38, asst. cotton technologist, 38–41, *assoc. cotton technologist, 41–* Cotton fiber quality in relation to ginning; fiber testing and statistical analyses.

Johnson, Berkeley, U. S. Geological Survey, Santa Fe, N. Mex. *Sanitary engineering.* Waltham, Mass, Sept. 3, 95. Ph.B, Yale, 16; C.E, Cornell, 20. Hydrographer, Twin Falls North Side Land and Water Co, Jerome, Idaho, 20–21; from junior engineer to *dist. engineer, U. S. Geol. Surv, 21–* Chairman, Rio Grande Compact Cmn; Pecos River Compact Cmn. Civil Eng. Surface waters.

Johnson, Dr. B(ernard) L(ars), 766 Glendora Ave, Akron, Ohio. *Chemistry.* Elkhart, Ind, March 13, 05. B.S, Purdue, 28; M.S, Illinois, 31; Ph.D, North Carolina, 33. *Firestone Tire and Rubber Co,* 28–30, *research chemist, 33–* Chemistry of rubber.

Johnson, Bertrand L(eroy), U. S. Bureau of Mines, Washington, D. C. *Geology, Mining.* Boston, Mass, May 11, 82. B.S, Mass. Inst. Tech, 05. Hydrol. aid, U. S. Geol. Surv, 05–06, junior geologist, 07–10, asst. geologist, 11–12, assoc. geologist, 12–20, geologist, 20–25; supervising engineer, sect. for. mineral econ, *U. S. Bur. Mines,* 25–28, assoc. scientist, div. metals and non-metals, 28–37, *assoc. mineral economist, div. non-metals, 37–* A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Wash. Acad. Titaniferous iron ores; Pleistocene terracing and underground waters in the North Carolina coastal plain; coal fields of southern Wyoming; soil movements in Alaska; chalmersite in copper ores; silver, coal and tin resources of the world; foreign mineral resources; economics of phosphate rock, nitrogen, potash, minor mineral fertilizer materials, mica, barite, talc, pyrophyllite and abrasives; mineral production and consumption; geology and mineral resources of Alaska.

Johnson, Prof. B(irger) L(ars), 519 Seventh Ave, S, Bozeman, Mont. *Biochemistry.* Kinne Klefva, Sweden, Aug. 14, 95. B.S, Mass. Col, 18; Ph.D, Iowa State Col, 25. Asst. org. chem, Mass. Col, 17–18; dairy analyst, S. Dak. State Col, 18–21; asst. *chem,* Iowa State Col, 21–25; asst. prof, *Mont. State Col,* 25–28, assoc. prof, 29–41, *prof, 41–* C.W.S, U.S.A, 18. Chem. Soc. (councilor, Mont. sect, 28–, ed, 27–, chairman, 34, v. chairman, Mont. sect, 36–38). Vitamins; organic analysis; heat coagulations; chemical education; chemical treatment of wheat straw; chemical pathology.

Johnson, Dr. B(ruce) Connor, University of Illinois, Urbana, Ill. *Biochemistry.* Regina, Sask, Can, April 28, 11. B.A, McMaster, 33, M.A, 34; Ph.D, Wisconsin, 40. Research chemist, Can. Canners, Ltd, 34–37; asst, Wisconsin, 37–40; special asst. animal nutrition, Illinois, 40–42; research biochemist, Golden State Co, 42–43; *asst. prof. animal nutrition, Illinois, 43–* A.A; Chem. Soc; assoc. Can. Inst. Chem. Nutrition.

Johnson, Dr. Buford J(ennette), 3401 N. Charles St, Baltimore, Md. *Psychology.* Thomson, Ga, Aug. 23, 80. A.B, La Grange Col, 95; A.M, Hopkins, 15, Ph.D, 16. Assoc. psychologist, Lab. Social Hygiene, Bedford Hills, N. Y, 16–17; Bur. Educ. Exp, New York, 17–20; assoc. prof. psychol, Hopkins, 20–24, prof, 24–38; *retired.* Summers, instr, Hopkins, 18–20; Emory, 22, 23; Ohio State, 28, 30. Ed, 'Child Develop,' 30–38; managing ed, 'Mental Measurements Monograph Series,' 25–41. Trustee, Roland Park Country Sch. A.A; Psychol. Asn; Soc. Research Child Develop. (sec'y-treas, 33); S. Soc. Philos. and Psychol. (pres, 24); Md. Mental Hygiene Soc. (director). Psychology of children; emotion and personality; thought and learning.

Johnson, Dr. Burt (Parker), Goodyear Tire and Rubber Co, Akron, Ohio. *Plant physiology.* Ft. Wayne, Ind, June 5, 05. A.B, Park Col, 28; Ph.D, Wisconsin, 31. Asst. plant physiol, Wisconsin, 28–31; nat. research fellow, Citrus Exp. Sta, California, 31–32; asst, Wisconsin, 32–34; instr. bot, Montana, 34–35; asst. prof. agron, Arkansas, 36–39; *mem. staff, Goodyear Tire and Rubber Co, 39–* Properties of virus of mosaic of tobacco; specificity to diseases in plants; cotton fibers.

Johnson, Prof. C(arl) G(ustav) Harry, Colorado State College, Ft. Collins, Colo. *Physical chemistry.* St. Francis, Kans, April 17, 97. A.B, Bethany Col. (Kans), 20; A.M, Kansas, 25, Ph.D, 34. Teacher, high sch, 21–24; instr, Kansas, 24–25; *Colo. State Col,* 25–28, asst. prof. *chem,* 28–40, *assoc. prof, 40–* A.A; Chem. Soc; Kans. Acad. Colloidal solutions in anhydrous acetic acid.

Johnson, Prof. C(arl) H(enry), University of Florida, Gainesville, Fla. *Pharmacy.* Tacoma, Wash, Aug. 18, 06. B.S, Washington (Seattle), 30, M.S, 32, Ph.D, 36. Pharmacognocist, Upjohn Co, 36–39; instr. *pharmacog. and pharmacol, Florida,* 39–41, *asst. prof, 41–* Pharmaceut. Asn. Volatile oils and plants.

Johnson, Dr. C(arl) M(ilton), P. O. Box 1252, Panama City, Republic of Panama. *Protozoology.* York, Pa, Aug. 13, 05. B.S, Mt. Union Col, 29; Sc.D, Hopkins, 31. Nat. research fellow med, 31–33; protozoologist, *Gorgas Mem. Lab,* 34–35, *asst. director, 35–* Exped, study of amebiasis, Panama, 31, 32. Soc. Trop. Med; assoc. C. Z. Med. Asn. Trypanosomiasis; amebiasis; malaria.

Johnson, Dr. Charles C(hristian), 1605 Princeton Ave, Salt Lake City, Utah. *Pharmacology.* Logan, Utah, Sept. 1, 95. A.B, Stanford, 24, M.D, 28. Instr. pharmacol, sch. med, Stanford, 27–30; *prof. pharmacol. and physiol, sch. med, Utah, 30–* A.A; Soc. Pharmacol; Soc. Exp. Biol; assoc. fel. Am. Med. Asn. Actions of the salicylates and nitroprusside; experimental syphilis.

Johnson, Prof. C(harles) H(enry), 362 Jerris Ave, Salem, Oregon. *Organic chemistry.* Sterling, Va, Feb. 21, 96. A.B, Wabash Col, 19, A.M, 23; Ph.D, Cornell, 25. Asst. prof. *chem,* Wabash Col, 21–24; Oregon State Col, 25–28; *prof, Willamette, 28–* Summer, instr, Cornell, 25. Chem. Soc. (v. chairman, Oregon sect, 32, chairman, 33, councilor, 34). Substituted hydroxy fluorans pinene.

Johnson, C(harles) M(orris), 731 Orchard St, Avalon, Pa. *Chemistry.* Alliance, Ohio, Aug. 15, 69. Ph.B, West. Univ. of Pa, 88, Ph.M, 89. Asst. chemist, Park Steel Co, 89–00, supt. tungsten works, *Crucible Steel Co. of Amer,* 09–26, *chief chemist, Park works, 00–, director research dept, 17–, metallurgist.* A.A; Chem. Soc; Soc. Test. Mat; Soc. Metals; Eng. Soc. West. Pa. Alloy steels; laboratory refractories; metallic tungsten powder; molybdenum; analysis of special steels, steel-making alloys and graphite.

Johnson, Prof. Cha(rle)s W(illis), University of Washington College of Pharmacy, Seattle, Wash. *Chemistry.* Concord, Ind, Sept. 23, 73. Ph.C, Michigan, 96, B.S, 00, Ph.D, 03. Asst. instr. chem, Michigan, 98–01; instr, Iowa, 01–02; asst. prof, *Washington (Seattle),* 03–04, *prof. pharmaceut. chem, 04–,* dean *col. pharmacy,* 04–39, *emer. dean, 39–; state chemist, Wash, 09–* Revision cmt, U. S. Pharmacopoeia, 20–40. Pharmaceut. Asn. (pres, 27); Asn. Cols. Pharm. (pres, 23); Wash. State Pharmaceut. Asn. (pres, 15–17).

Johnson, Prof. C(larence) A(lbert), 1853 W. Polk St, Chicago, Ill. *Biochemistry.* Waterford, Wis, Jan. 29, 00. B.S, Chicago, 25, M.S, 27; Lilly fellow, Illinois, 27–31, Ph.D, 31. Chemist, Sewage Disposal Plant, Milwaukee, 25–26; asst. *physiol. chem, col. med, Illinois,* 26–31, instr, 31–35, assoc, 35–41, *asst. prof, 41–* A.A; Inst. Chem; Ill. Acad. Biuret reaction of imids; pollen proteins and their relation to hay fever; globin of hemoglobin; blood chemistry following brain lesions; antirenin; experimental hypertension; peroxidase activity of hematin.

Johnson, Dr. Clarence A(lbert), M. W. Kellogg Co, Jersey City, N. J. *Physical chemistry.* Alta, Can, Nov. 24, 12. B.Sc, Alberta, 34, M.Sc, 36; Royal Soc. Can. research fellow, 38; Ph.D, Mass. Inst. Tech, 39. Research assoc, Mass. Inst. Tech, 39–41; *research chemist, M. W. Kellogg Co, 41–* Chem. Soc.

Phase equilibria in hydrocarbon mixtures; low temperature properties of metals and gases.

Johnson, C(leon) R(upert), 6132 W. 51st St, Chicago, Ill. *Chemical engineering.* Worcester, Mass, Dec. 15, 89. B.S, Mass. Inst. Tech, 11. Chief chemist, Goodyear Tire and Rubber Co, 15–18, manager develop. dept, 19–20; Humble Oil and Ref. Co, 24–25; *tech. director,* Godfrey L. Cabot, Inc, 27–30; *Continental Carbon Co, 37–* Chem. Soc; Chem. Eng. Rubber; carbon black; petroleum; synthetics.

Johnson, Prof. Clyde R(oland), University of Texas, Austin, Texas. *Chemistry.* Astoria, Oregon, March 5, 01. A.B, Reed Col, 25; A.M, Rice Inst, 28, Ph.D, 30. Asst, Rice Inst, 27–30; nat. research fellow chem, Princeton, 30–32, asst, 32–34; asst. tech. adviser, Ajax Electrothermic Corp, 36–37; asst. prof. *chem, Texas,* 37–41, *assoc. prof, 41–* Chem. Soc. Precise measurements; atomic weights; photometric analysis.

Johnson, Dr. Daniel P(almer), 1110 Lancaster Road, Takoma Park, Md. *Physics.* Lindsborg, Kans, Jan. 14, 10. B.S, McPherson Col, 30; A.M, Kansas, 33; Ph.D, Wisconsin, 39. *Asst. physicist aeronautic instruments, Bur. Standards, 35–* Philos. Soc. Wash. Aeronautic instruments; mercurial barometers.

Johnson, Prof. D(avid) F(ranklin), 108 Monroe Blvd, Terre Haute, Ind. *Biology, Protozoology.* Parsons, Kans, July 31, 09. A.B, Wabash Col, 31; M.S, N. Y. Univ, 33, Ph.D, 37. Asst. *biol,* N. Y. Univ, 31–35; instr, Fla. Southern Col, 35–36, assoc. prof, 36–38; *asst. prof, Ind. State Teachers Col, 38–* Soc. Zool; Ind. Acad. Morphology and life history of green flagellates; physiology and nutrition of ciliates in bacteria-free cultures.

Johnson, Dr. David H(orn), U. S. National Museum, Washington, D. C. *Vertebrate zoology.* Albany, Oregon, Sept. 9, 12. A.B, California, 34, A.M, 36, Ph.D, 40. Asst, museum vert. zool, California, 36–41; asst. curator, *div. mammals, U. S. Nat. Museum,* 41–42, *assoc. curator, 42–* Soc. Mammal; Cooper Ornith. Club; Grinnell Naturalists Soc. (treas, 40). Taxonomy and geographic variation in mammals.

Johnson, Prof. Donald M(cEwen), Ft. Hays Kansas State College, Hays, Kans. *Psychology.* Ogdensburg, N. Y, June 8, 09. A.B, Columbia, 36, Ph.D, 39. Instr. *psychol,* Long Island, 37–39; *asst. prof, Ft. Hays Kans. State Col, 39–* Assoc. Psychol. Asn; Midwest. Psychol. Asn; Kans. Acad. (sec'y psychol. sect, 40). Higher mental processes.

Johnson, Prof. Douglas, Columbia University, New York, N. Y. *$*Geology, Geography.* Parkersburg, W. Va, Nov. 30, 78. Denison, 96–98, hon. Sc.D, 32; B.S, New Mexico, 01, LL.D, 42; fellow, Columbia, 02–03, Ph.D, 03, hon. Sc.D, 29; Harvard, 03–04; hon. Dr, Grenoble, 24, Nancy, 32, Montpellier, 33. Teacher, pub. schs, 97–98; field asst, Univ. Geol. Surv, N. Mex, 99–01; instr, high sch, N. Mex, 00–01; instr. geol, Mass. Inst. Tech, 03–05, asst. prof, 05–07; physiog, Harvard, 06–12; lecturer geog, Teachers' Sch. Science, 07–12; assoc. prof. *physiog, Columbia,* 12–19, prof, 19–43, *Newberry prof, 43–, exec. officer dept. geol, 37–* Asst, U. S. Geol. Surv, 01, 03, 04–05; N. J. Geol. Surv, 11; geog. adviser, U. S. Dept. State, 19–20; exchange prof, France, 23–24. Assoc. ed, 'Geog. Rev'; ed, 'Jour. Geomorphol,' 38– Director, Shaler Mem. exped, 11–12. Nat. Research Council, 17–23, 27–29, for. rep, div. geol. and geog, 18; mem, Rumanian, Jugoslav, Cent. Territorial Cmns, and chief div. boundary geog, Am. Cmn. to Negotiate Peace, Paris, 18–19; consulting physiographer for Can. Govt. in Labrador boundary dispute, 26; chairman cmt. investigating surveying and mapping activities, Science Advisory Board, U. S. Govt, 34. Janssen medal, Soc. de Géog. de Paris, 20; Kane medal, Geog. Soc. Phila, 22; medal, Univ. Nancy, 24; Gaudy medal, Soc. de Géog. commerciale de Paris, 25; A. Cressy Morrison prize, N. Y. Acad. Sciences, 24, 30; chevalier, Légion d'honneur, 24; Order of St. Sava, 34; Cvijic medal, Geog. Soc. Belgrade, 35; Cullum medal, Am. Geog. Soc, 35. Pres. physiog. and geog. sect, Int. Geog. Cong, Paris, 31; chairman Am. cmt, Int. Geog. Union, 33–37, pres. int. terrace cmn, 34–38. Major, intel. div, 18–19. Nat. Acad; A.A. (chairman, E, 31); Geol. Soc. (v. pres, 27, 39–41, pres, 42); Asn. Geog. (pres, 28); Am. Geog. Soc; Philos. Soc; Am. Acad; N. Y. Acad. (v. pres, 16–18); Geog. Soc. Phila; Royal Geog. Soc; British Asn. (guest and v. pres, E, 28); Geol. Soc. London; for. cor. mem. Bordeaux Geog. Soc; Soc. belge de Géol; Soc. royale belge de Geog; Royal Serbian Acad; Geog. Soc. Belgrade; Swedish Soc. Anthrop. and Geog; Russian Geog. Soc; Geol. Soc. China; Geog. Soc. Finland. Geomorphology; shoreline physiography; military geography.

Johnson, Dr. E(arl) H(anford), Remington Arms Co, Bridgeport, Conn. *Chemistry.* Omro, Wis, May 24, 03. A.B, Lawrence Col, 26; A.M, Illinois, 28, Ph.D, 31. *Research chemist,* North. Paper Mills, Green Bay, Wis, 31–35; du Pont Rayon Co, 35–41; *Remington Arms Co, 41–* Chem. Soc. Organic chemistry on some derivatives of benz-anthraquinones; paper chemistry; cellulose; viscose rayon; explosives.

Johnson, Prof. Edna L(ouise), 1005 Gilbert St, Boulder, Colo. *Botany.* Brimfield, Ill, Jan. 18, 87. A.B, Illinois, 16; A.M, Colorado, 21; Ph.D, Chicago, 26. Instr. *biol, Colorado,* 19–25, asst. prof, 25–29, assoc. prof, 29–39, *prof, 39–* A.A; Bot. Soc; Soc. Plant Physiol; Colo-Wyo. Acad. Plant physiology; effect of x-rays upon the growth and metabolism of plants; growth substances.

Johnson, Dean Edw(ard) C(arl), State College of Washington, Pullman, Wash. *Plant pathology, Agricultural economics.* Otisco, Minn, April 18, 80. A.B, Minnesota, 06, A.M, 07; George Washington, 10–11. Instr. bot, Minnesota, 06–07; asst. plant pathologist, U. S. Dept. Agr, 07–08, plant pathologist in charge cereal disease work, 08–12; supt. farmers insts. and state leader farm demonstration work, Kans. State Col, 12–15, *dean* div. col. exten, 15–18; *col. agr, State Col. Wash, and director, Exp. Sta, 19–* A.A; Farm Econ. Asn. Farm management; cereal diseases.

Johnson, Dr. E(dward) M(arshall), University of Kentucky, Lexington, Ky. *Plant pathology.* Adams Co, Ohio, Feb. 2, 96. B.S, Kentucky, 21, M.S, 23; Ph.D, Minnesota, 30. Asst. agronomist, *Exp. Sta, Kentucky,* 23–26, *asst. plant pathologist, 26–* A.A; Phytopath. Soc. Virus diseases of tobacco; host range; bacterial diseases of tobacco.

Johnson, Dr. E(dwin) P(eter), Virginia Polytechnic Institute, Blacksburg, Va. *Animal pathology.* Gulliver, Mich, Nov. 14, 95. D.V.M, Mich. State Col, 25, M.S, 27; Ph.D, Virginia, 35. Asst. bacteriologist, Mich. State Col, 25–28; bacteriologist, State Dept. Health, Mich, 28–30; asst, animal pathologist, *Exp. Sta, Va. Polytech,* 30–36, assoc. animal pathologist, 36–37, *animal pathologist, 37–* Collaborator, bur. animal indust, U. S. Dept. Agr, 40– Va. Acad. research award, 34; Poultry Sci. Asn. research award, 34. A.A; Vet. Med. Asn. (res. sec'y, Va, 41–); Poultry Sci. Asn; Va. Vet. Med. Asn. (sec'y, 41–); Va. Acad; Int. Asn. Med. Mus. Avian leukosis; parasitic diseases of turkeys; paratuberculosis of cattle; animal pathology; bacteriology; histology.

Johnson, Dr. Eino A(lgot), 150 Robin Road, West Hartford, Conn. *Physics.* Rockford, Ill, Dec. 31, 06. B.S, Dartmouth Col, 28; M.S, Trinity Col. (Conn), 33; Ph.D, Yale, 41. *Teacher* biol. and math, high sch, Conn, 28–31, *physiol, physics and biol, Bulkeley High Sch, Hartford, 31–; instr. physics, Trinity Col. (Conn), 41–* Research dissector, sch. med, Yale, 34–35. Natural philosophy; human anatomy and physiology; epistemology in philosophical biology; neural electronics; measurement of minimal electrical potentials and differentials of nerve impulse.

Johnson, Prof. E(lbe) H(erbert), Kenyon College, Gambier, Ohio. *Physics.* Traverse City, Mich, Aug. 9, 87. A.B, Olivet Col. (Mich), 11, A.M, 13; Wisconsin, 11–14; fellow, Chicago, 25, Ph.D, 26; Columbia, 28, 31. Asst. physics, Olivet Col. (Mich), 09–11; asst. instr, Wisconsin, 11–14; asst. prof. *Kenyon Col,* 14–15, physics and chem, 15–17, assoc. prof. *physics,* 17–18, *prof. and head dept, 18–* Lecturer, Indiana, 29. Lecturer, Great Lakes Naval Training Sta, 18. A.A; fel. Physical Soc; Asn. Physics Teachers; Hist. Sci. Soc. (councilor, 32–35, 39–42); Ohio Acad. (v. pres, 28, 43); Cent. Ohio Physics Club (pres, 28). History of science; scientific education; college and university science curricula; laboratory physics; spectroscopy and the quantum theory; molecular spectra; thermodynamics; physical laboratory guide; Johann Kepler; harmonic motion.

Johnson, Prof. Eleanor Hope, 351 Farmington Ave, Hartford, Conn. *Psychology.* Rutland, Vt, May 12, 71. A.B, Smith Col, 94; A.M, Columbia, 21; Ph.D, Hartford Sem. Foundation, 24. Social worker, Dept. Ungraded Classes, New York, 20–21; asst. prof. and assoc. prof. *psychol, Hartford Sch. Religious Educ,* 22–37, *emer. assoc. prof, 37–* U.S.A, 18–19, Assoc. Psychol. Asn; fel. Asn. Applied Psychol; fel. Orthopsychiat. Asn. Child psychology; individual differences; application of psychology to the public school and to social service; personal counseling.

Johnson, Prof. Elizabeth (Almy) Bindloss (Mrs. Raymond E. Johnson), Connecticut College, New London, Conn. *Botany.* New London, Conn, July 23, 15. A.B, Conn. Col, 36; A.M, Columbia, 38, Ph.D, 41. Asst. *bot,* Barnard Col, 36–39; instr, Conn. Col, 39–41; Wellesley Col, 41–43; *asst. prof, Conn. Col, 43–* Summers, asst, Conn. Col, 36, 37; biol. sta, Michigan, 38. A.A; Bot. Soc. Inheritance of tallness and dwarfness; growth and differentiation at plant meristems; plant hormones and physiology of growth.

Johnson, Lieut. Commander E(lis) A(dolph), 419 Essex Ave, Chevy Chase, Md. *Physics.* Quincy, Mass, Sept. 2, 06. B.S, Mass. Inst. Tech, 28, M.S, 29. With New York Telephone Co. and Bell Tel. Labs, 26–29; asst. and instr. elec. eng, Mass. Inst. Tech, 29–34; assoc. elec. eng, U. S. Coast and Geod. Surv, 34–35; asst. physicist, *Carnegie Institution,* 35–36, assoc. physicist, 36–37, *math. physicist, 37–; prin. physicist, Naval Ordnance Lab,* 40–42, *research officer, 42–; lieut. commander, U. S. Naval Res, 42–* Fel. Physical Soc; Geophys. Soc; Philos. Soc. Wash. Electrical engineering; geophysics; communications; sound; measurement of radiation; sputtering; design of amplifiers; limitations of measurement; absolute measurement of magnetic fields; high pressures; pressure and temperature of the upper atmosphere.

Johnson, Prof. E(lmer) W(alter), 5412 Clinton Ave, S, Minneapolis, Minn. *Electrical engineering.* Minneapolis, Minn, Jan. 11, 92. B.S, Minnesota, 14, E.E, 15, M.E, 21. Westinghouse Elec. and Mfg. Co, 15–17; instr. *elec. power eng, Minnesota,* 20–24, *prof, 25–* U.S.A, 17–19. Elec. Eng; Illum. Eng. Soc; Eng. Educ. Electric power.

Johnson, Dr. Ernest W(illiam), 971 Mountain Ave, Mountainside, N. J. *Physical chemistry.* Worcester, Mass, Feb. 14, 02. A.B, Clark, 21, A.M, 22; Ph.D, Brown, 25. *Chemist,* Anglo-Chilean Nitrate Corp, 25–27; *Metal and Thermit Corp, 28–* Chem. Soc. Electrical conductance of tellurium.

Johnson, Prof. Evan, Jr, 345 S. Buckhout St, State College, Pa. *Applied mathematics.* Oak Park, Ill, Aug. 15, 10. B.S, Chicago, 30, Ph.D, 34; A.M, Pa. State Col, 32. Asst. *math, Pa. State Col,* 30–33, instr, exten, Uniontown, Pa, 34–39, *asst. prof, col, 39–* Math. Soc; Math. Asn; Inst. Math. Statist. Analytical mechanics; statistics.

Johnson, Dr. Francis B(onneau), 16 Lucas St, Charleston, S. C. *Pathology.* Charleston, S. C, Jan. 17, 81. Col. of Charleston; M.D, Med. Col. State of S. C, 03. Assoc. prof. clin. path. and bacter, *Med. Col. State of S. C,* 14–18, *prof. clin. path, 18–* Director lab, Roper Hosp, 09– Soc. Clin. Path; Am. Med. Asn; Col. Physicians; Soc. Trop. Med; Tri-State Med. Asn. (pres, 33); Med. Soc. S. C. (pres, 34, 35). Clinical pathology.

Johnson, Dean F(rancis) Ellis, University of Wisconsin, Madison, Wis. *Electrical engineering.* LeRoy, Mich, May 27, 85. A.B, Wisconsin, 06, E.E, 09. Instr, Rice Inst, 12–15; from instr. to prof. elec. eng. and head dept, Kansas, 15–30; Iowa State Col, 30–35; *dean col. eng,* Missouri, 35–38; *Wisconsin, 38–* Am. Inst. Elec. Engineers rep, Engineers Council Professional Develop, 37–43. Fel. Elec. Eng. (director, 36–39); Eng. Educ; Newcomen Soc. Electric power transmission.

Johnson, Prof. Frank H(arris), Princeton University, Princeton, N. J. *Biology.* Raleigh, N. C, July 31, 08. A.B, Princeton, 31, Sterry fellow, 35–36, Ph.D, 36; A.M, Duke, 32; N. C. State Col, 33; Vanderbilt, 33–34. Teaching fellow biol, Vanderbilt, 33–34; Eli Lilly and Co. research fellow, *Princeton,* 36–37, instr. *biol,* 37–41, *asst. prof, 41–* Rockefeller fellow, Delft and Utrecht, Netherlands, 39. Summer, grad. fellow, Oceanog. Inst, Woods Hole, 35. Am. Asn. Advancement of Science prize, 41. A.A; Soc. Bact. (sec'y-treas, N. J. branch, 41–; director employment bur, 42–); Soc. Zool; Soc. Exp. Biol; Physiol. Soc. Physiological studies on microorganisms with special reference to luminous bacteria and luminescence; mechanism of biological effects of temperature, pressure and narcotics; action of sulfanilamide and related compounds.

Johnson, Dr. F(rank) Willard, 410 Irving Drive, Wilmington, Del. *Organic chemistry.* Lincoln, Nebr, Feb. 12, 02. A.B, Nebraska, 24, A.M, 25; Ph.D, Northwestern, 27. *Chemist, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Anthraquinone derivatives; synthetic organic insecticides; synthetic detergents; lubricants; acetylene derivatives.

Johnson, Dr. Frederick F, Cutter Laboratories, foot of Carleton St, Berkeley, Calif. *Pharmaceutical chemistry.* Seattle, Wash, May 17, 12. B.S, Washington (Seattle), 33, M.S, 34, Ph.D, 37. State chemist, Wash, 36–38; Mellon Inst, 38–41; *director pharmaceut. research, Cutter Labs, 41–* Chem. Soc; Pharmaceut. Asn. Blood chemistry; food chemistry.

Johnson, Dr. G(eorge) Duncan, 2205 Branch Ave, S.E, Washington, D. C. *Geology.* Roland Park, Md, Nov. 17, 07. Ph.D, Hopkins, 34. Field asst, U. S. Geol. Surv, 29, 30; Am. Petrol. Inst. asst, 35; field geologist, Standard Oil Co. of Venezuela, 35–40; Shell Oil Co, 41–42; *mem. staff,* U. S. Hydrographic Office, 42–43; *petrol. div, Office Econ. Warfare, 43–* Rocky Mountain and mid-continent stratigraphy; foreign oil field development.

Johnson, Dr. Ha(ro)l(d) G(ustav), Commercial Solvents Corp, Terre Haute, Ind. *Organic chemistry.* Saginaw, Mich, April 30, 15. B.S, Beloit Col, 36, M.S, 38; Ph.D, Wisconsin, 41. Instr. chem, Beloit Col, 35–38; chem. asst, Wisconsin, 38–41; *research chemist, Commercial Solvents Corp, 41–* Chem. Soc.

Johnson, Prof. Harry (Isaac), Roanoke College, Salem, Va. *Physical chemistry.* Hagerstown, Md, Jan. 23, 90. A.B, A.M, Roanoke Col, 12; Ph.D, Hopkins, 17. Prof. nat. sciences, Daleville, 12–14; asst. prof. *chem,* Louisville, 17–19; N. C. Col, 19–20; *prof, Roanoke Col, 20–* Chem. Soc. (councilor, 43); Va. Acad. (chairman chem, 43); fel. N. Y. Acad. Conductivity; photochemistry; agricultural chemistry; biochemistry.

Johnson, Prof. H(arry) M(iles), Tulane University, New Orleans, La. *[5]*Psychology.* Nelson, Mo, May 16, 85. A.B, Mo. Valley Col, 09; Chicago, 11; fellow, Hopkins, 11–12, Ph.D, 12. Asst. psychologist, Nela Research Lab, 12–13, assoc. psychologist and psychologist, 14–18; chief psychol. sect, med. research lab, Air Service, 19–20; research, B. F. Goodrich Co, 20–21; lecturer psychol, Minnesota, 21–23; asst. prof, Ohio State, 23–25; senior fellow and head Simmons investigation of sleep, Mellon Inst, 25–32; visiting prof, grad. sch, American Univ, 31–32, prof. psychol, 32–36; research assoc, Nat. Research Council, 36–38; *prof. psychol. and head dept, Tulane, 38–* Div. anthrop. and psychol, Nat. Research Council, 27–31, mem. board fellowships in biol. sciences, 30–33, chairman cmt. on psychol. of the highway, 34– Lieut, Sanit.C, 18, capt, 18–20. A.A; Psychol. Asn; Soc. Exp. Psychol; Inst. Psychol; Optical Soc; S. Soc. Philos. and Psychol. (pres, 31); Midwest. Psychol. Asn. Pattern-vision in vertebrates; audition and habit-formation in the dog; physiological optics; selection and classification of aviators; reaction-time; attention; fatigue and sleep; psychological indicators of narcosis and partial asphyxiation; memory; human causes of highway accidents.

Johnson, Prof. Helgi, "Highwood," R.F.D. 3, New Brunswick, N. J. *Geology, Paleontology.* Akureyri, Iceland, Feb. 3, 04. B.Sc, Manitoba, 26; Ph.D, Toronto, 33. Asst, Royal Ont. Museum Paleont, 26–29; instr. *geol. and paleont, Rutgers,* 29–33, asst. prof, 33–41, *assoc. prof, 41–* A.A; Paleont. Soc; Archeol. Soc. N. J. Stratigraphy and paleontology of the Lower Silurian of Ontario; paleoecology of sedimentary iron ores; lower Paleozoic of western Newfoundland; graptolites of western Newfoundland; petroleum resources of Newfoundland.

Johnson, Prof. H(enry) Herbert, College of the City of New York, New York, N. Y. *Cytology.* Macon, Ga, Aug. 29, 98. B.S, Mercer, 18; A.M, Columbia, 20, fellow, 22, Ph.D, 31. Field asst, bur. entom, U. S. Dept. Agr, 19; tutor, Col. City of N. Y, 23–24; field asst, China Med. Board, Soochow, China, 24–25; instr. *biol, Col. City of N. Y,* 25–33, asst. prof, 33–37, *assoc. prof, 37–* Guest instr, Soochow, China, 25. King Solomon Lodge, F. and A. M, Educ. Fund fellow, 31. A.A; Soc. Zool; N. Y. Acad. (sec'y, sect. biol, 35, v. pres, 36, cor. sec'y, 42–). Centrioles and other cytoplasmic formed bodies in germ cells; embryology; twinning.

Johnson, Dean Henry S(toddard), 53 Florence Ave, Morris Cove, New Haven, Conn. *Pharmaceutical chemistry.* New Haven, Conn, April 13, 99. Ph.B, Yale, 19, M.S, 22, Ph.D, 33. Instr, high sch, Conn, 19–23, 25–26; prof. org. chem, Puerto Rico, 23–25; prof. chem. and head dept, Conn. Col. Pharmacy, 25–41, assoc. dean, 27–28, acting dean, 28–30, dean, 30–41, *prof. chem, head dept. and dean col. pharmacy, Connecticut, 41–* Pharmaceut. Asn. Organic chemistry; p-hydroxy-methyl benzoic acid; morpholines.

Johnson, Dr. Herbert L(eslie), 209 W. Garfield Ave, Norwood, Pa. *Chemistry.* Inwood, Iowa, Jan. 23, 08. A.B,

Iowa, 33, M.S, 35, Ph.D, 37. Asst. chem, Iowa, 34–36, bot, 36–37; *exp. chemist, exp. div, Sun Oil Co, 37–* Chem. Soc. Organic and petroleum chemistry; reactions of organometallic compounds; rearrangement of hydroxyamines; electrolytic reduction of organic acids; synthesis and purification of petroleum derivatives.

Johnson, Hollister, 169 Ward St, Watertown, N. Y. *Engineering.* Dryden, N. Y, Dec. 19, 90. C.E, Cornell, 12. *Engineer,* Conservation Cmn, N. Y, 12–17, 19–21; Black River Regulating Dist, N. Y, 21–33; *water resources branch, U. S. Geol. Surv, 34–* C.Eng, U.S.A, 17–19, capt. Civil Eng; Geophys. Union. Hydrology.

Johnson, Dr. Howard W, 306 E. Thatch St, Auburn, Ala. *Bacteriology.* Mich, Feb. 2, 05. B.S, Mich. State Col, 28, M.S, 29, D.V.M, 32. Asst. bacteriologist, Mich. State Col, 30–34; state vet. pathologist, Wis, 34–36; junior veterinarian, *bur. animal indust, U. S. Dept. Agr,* 36–38, assoc. veterinarian, 38–43, *veterinarian, 43–* Vet. Med. Asn. Bacteriology and immunology of the Brucella; bacteriology acid fast group; serological classification of mastitis streptococcus; mycobacterium group of organisms in Johne's disease.

Johnson, Dr. Howard W(ilfred), Bureau of Plant Industry, Soils and Agricultural Engineering, Beltsville, Md. *Plant pathology.* Columbus, Ohio, Jan. 25, 01. A.B, Ohio State, 23, M.S, 24, scholar, 24–25; Ph.D, Minnesota, 28. Instr. plant path, Minnesota, 26–28; asst. prof. bot, Louisiana, 28–30; assoc. pathologist, *bur. plant indust, soils and agr. eng, U. S. Dept. Agr,* 30–37, pathologist, 37–42, *senior pathologist, 42–* A.A; Phytopath. Soc; Mycol. Soc; Ohio Acad. Alfalfa, clover, soybean and grass diseases.

Johnson, Prof. I(ver) J, Iowa State College, Ames, Iowa. *Agronomy.* Warren, Minn, Jan. 27, 04. B.S, Minnesota, 28, M.S, 29, Ph.D, 31. Asst. agron. and plant genetics, Minnesota, 28–29, instr, 30–31, asst. prof, 31–39, assoc. prof, 39; *prof. farm crops, Iowa State Col, 40–* Maize breeding; sweet clover breeding and genetics.

Johnson, Prof. J. S(tuart), 1602 Pine St, Rolla, Mo. *Electrical engineering.* Gower, Mo, May 8, 12. B.S, Missouri, 32, M.S, 34; Ph.D, Iowa State Col, 37. Asst. elec. eng, Iowa State Col, 34–36, instr. mech, 36–37; *elec. eng, Mo. Sch. Mines,* 37–39, *asst. prof, 39–* Summers, Gen. Elec. Co, 40, 41. Elec. Eng. Induction motor design.

Johnson, Prof. James, University of Wisconsin, Madison, Wis. *Horticulture.* Deerfield, Wis, May 11, 86. B.S.A, Wisconsin, 09, M.S, 11, Ph.D, 18. Asst. *hort, Wisconsin,* 09–11, instr, 11–16, asst. prof, 16–20, assoc. prof, 20–22, *prof, 22–* Agent, U. S. Dept. Agr, 17– A.A; Phytopath. Soc. Phytopathology; virus diseases of plants; soil sterilization; tobacco culture and diseases.

Johnson, Dr. J(ames) M(cIntosh), U. S. Public Health Service, Washington, D. C. *Chemistry.* Newberry, S. C, Aug. 15, 83. B.S, Newberry Col, 02, A.M, 03; Ph.D, Hopkins, 08. Asst. chem, Newberry Col, 02–03; prin, schs, 03–04; lecture asst. and Carnegie research asst, Hopkins, 06–08, asst. med, 08–09; chemist, Tenn, 09–10; instr, high sch, Ala, 10; asst. org. chemist, bur. chem, U. S. Dept. Agr, 10–18; org. chemist, hygienic lab, *U. S. Pub. Health Service,* 18–30, *senior chemist, nat. inst. health, 30–* Chem. Soc. Organic chemistry; acetyl derivatives of sugars; edible oils; vitamins in nutrition; trinitrotoluene poisoning; arsenicals; synthesis of chemotherapeutic drugs; biochemistry of sulfhydryl compounds; synthesis of organic-sulfur compounds.

Johnson, Prof. J(ames) R(ichard), University of Kentucky, Lexington, Ky. *Mechanics.* Louisa, Ky, Oct. 11, 68. B.M.E, Kentucky, 93. Asst. prof. math, Kentucky, 93–05; prof. math. and mech, Nevada, 05–07; math, Ky. State Nor. Sch, 07–16; practising engineer, 16–19; prof. applied mech, *Kentucky,* 19–31, prof. mech. and head dept. eng. mech, 31–38, *emer. prof. eng. mech, 38–* Soc. Test. Mat.

Johnson, Prof. J(esse) Harlan, 1220 Cheyenne St, Golden, Colo. *Geology.* Philadelphia, Pa, March 21, 92. B.S, S. Dak. Sch. Mines; certificate, Montpellier; M.S, Colo. Sch. Mines; Ph.D, Colorado, 37. Instr, *Colo. Sch. Mines,* 20–21, asst. prof. *geol,* 21–25, *assoc. prof, 25–* Asst. geologist, U. S. Geol. Surv, 30–41. Fel. Geol. Soc; fel. Paleont. Soc; Asn. Petrol. Geol; Miner. Soc; Min. and Metal. Eng; Rocky Mt. Asn. Petrol. Geol. (pres, 30); Colo-Wyo. Acad. (sec'y, 31, v. pres, 34); Soc. géol. de France (v. pres, 34). Stratigraphic and historic geology; Colorado stratigraphy and paleontology; fossil algae.

Johnson, John A(ndrew), Soil Conservation Service, U. S. Department of Agriculture, Spartanburg, S. C. *Biology.* Birmingham, Ala, Nov. 6, 09. B.S, Birmingham-Southern Col, 32; grad. fellow, Alabama, 34–35, A.M, 35. Instr. geol. and paleont, Birmingham-Southern Col, 32–33; teacher biol. and chem, high sch, Ala, 35; junior biologist wildlife conservation, *soil conservation service, U. S. Dept. Agr,* Meridian, Miss, 35–37, junior biologist and project biologist, New Albany, 37–38, asst. biologist and area biologist, 38–40, assoc. biologist and area biologist, 40, *assoc. biologist and asst. regional biologist, Spartanburg, S. C, 40–* Wildlife conservation; soil conservation practices for wildlife lands of agriculture to conserve wildlife on individual farms.

Johnson, Dr. J(ohn) B(ertrand), 463 West St, New York, N. Y. *Physics.* Sweden, 87. B.S, North Dakota, 13, M.S, 14; Ph.D, Yale, 17. *Research engineer,* West. Elec. Co, 17–25; *Bell Tel. Labs, 25–* A.A; Physical Soc; Franklin Inst; Radio Eng. Infra-red absorption; ionization in gases; shot effect; cathode ray oscillograph; thermal agitation of electric charge.

Johnson, Prof. John C(hristopher), Pennsylvania State Teachers College, Edinboro, Pa. *Zoology.* Sterling, Colo, Feb. 25, 91. A.B, Colo. State Teachers Col, 11; M.S, California, 15, fellow, 18–19, Ph.D, 19; Columbia, 25–26; Harvard, 25–26; summers, Chicago, 13, 16. Instr. biol. and agr, Colo. State Nor. Sch, 11–14; asst. zool, California, 14–15; assoc. prof. biol, Colo. State Teachers Col, 15–18; prof. biol. and dean, West. State Col, Colo, 19–28, v. pres, 27–28; prof. biol. and head dept. science, Pa. State Teachers Col, West Chester, 28–38; research assoc. and instr. zool, Pennsylvania, 38–40; *prof. biol, Pa. State Teachers Col, 40–* Director, Rocky Mt. Biol. Lab, Colo, 28– Pres, Conf. on Educ. Teachers in Science, 34–36. A.A; Nat. Educ. Asn. (pres, dept. science instruction, 21); Soc. Parasitol; Pa. Acad. (pres, 34); Colo-Wyo. Acad. Cultivation of tissues from amphibians; life cycle of Echinostroma revolutum; educational biology; parasitology.

Johnson, Prof. J(ohn) Hugo, 101 N. Hayes St, Moscow Idaho. *Electrical engineering.* Everett, Mich, May 6, 87. A.B, Wisconsin, 09, E.E, 11; Calif. Inst. Tech. Elec. engineer, Strong Elec. Co, Iowa, 15; Great West. Sugar Co, Colo, 16–18; *prof. elec. eng. and head dept, Idaho, 18–,* acting dean, 33–34, 37. Elec. Eng; Eng. Educ. Transients in synchronous generators; rural power lines; development of phosphate resources.

Johnson, Prof. John R(aven), Cornell University, Ithaca, N. Y. *[5]*Organic chemistry.* Chicago, Ill, Aug. 9, 00. B.S, Illinois, 19, M.S, 20, Ph.D, 22. Am. Field Service fellow, Col. de France, 22–24; instr. *chem,* Illinois, 24–27; asst. prof, *Cornell, 27–30, prof, 30–; liaison officer, Office Sci. Research and Develop, 42–* Ed. board, 'Org. Syntheses'; 'Org. Reactions.' Organic compounds of arsenic, boron and germanium; derivatives of furan; unsaturated compounds; mechanism of reactions.

Johnson, Prof. J(ohn) Raymond, Long Island College of Medicine, Brooklyn, N. Y. *Physiology, Pharmacology.* Bureau, Ill, March 16, 05. B.S, Washburn Col, 26; Chicago, 26–28; Ph.D, Tulane, 34. Instr. physiol. and anat, Battle Creek Col, 28–30; asst. physiol, sch. med, Tulane, 30–34, instr, 34–35; sch. med, Western Reserve, 35–36; *physiol. and pharmacol, L. I. Col. Med,* 36–38, *asst. prof, 38–, asst. physiologist, col. hosp, 38–* Summer, instr, col. med, Tennessee, 35. Physiol. Soc. Effect of carbon arc radiation on cardiac output and blood pressure in hypertension; hemoglobin values in normal blood; coronary sinus outflow; intramyocardial pressure.

Johnson, Dr. Josef J(erome), 1030 San Pasqual St, Pasadena, Calif. *Astrophysics.* Decatur, Ill, Aug. 28, 99. B.S, Calif. Inst. Tech, 30, Ph.D, 35; M.S, Ohio Wesleyan, 32. *Research fellow astrophys, Calif. Inst. Tech, 35–* Mem, Harvard eclipse exped, Malaya, 29; U. S. Naval Observatory eclipse exped, Niuafou Island, 30; Perkins Observatory eclipse exped, Maine, 32; Japanese naval eclipse exped, Caroline Islands, 34; Calif. Inst. Tech. eclipse exped, Japan, 36. A.A; Astron. Soc; Seismol. Soc; fel. Am. Geog. Soc. Observations of solar eclipses; theories of the solar corona; spiral nebulae.

Johnson, Dr. Joseph L(ealand), Howard University College of Medicine, Washington, D. C. *Physiology, Medicine.* Philadelphia, Pa, Jan. 14, 95. B.S, Pa. State Col, 19; M.D, Ph.D, Chicago, 31. Instr. gen. science and zool, Kans. Vocational Col, 19–20; pub. sch, Mo, 20–26; *prof. physiol. and head dept, col. med, Howard, 31–,* acting dean sch. med, 40–41.

2nd lieut, U.S.A, 17–19, O.R.C, 20– A.A; Physiol. Soc; Nat. Med. Asn. D. C. (v. pres, 41–); fel. N. Y. Acad. Chronic hyperparathyroidism; metabolism in man; production of osteitis fibrosa in dogs and rats; effect of administration of irradiated ergosterol; endocrine system in relation to dental problems; influence of calcium salts upon blood sugar.

Johnson, Dr. K(arl) Richard, National College of Education, Evanston, Ill. *Plant ecology.* Galesburg, Ill, Feb. 28, 07. B.S, Knox Col, 29; M.S, Colorado, 32, Ph.D, 39. Instr, high sch, Ill, 29–37; biol, Knox Col, 39–40; *head dept. science, Nat. Col. Educ, 40–* A.A; Ecol. Soc; Ill. Acad. Plant ecology of lakes of northwestern Colorado.

Johnson, Kenneth S(imonds), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Woburn, Mass, Feb. 12, 85. A.B, Harvard, 07. Engineer, Am. Tel. and Tel. Co, 09–13; transmission engineer, West. Elec. Co, 13–25; transmission research engineer, *Bell Tel. Labs,* 25–38, *transmission standards engineer, 38–* DeForest lecturer, Yale, 22; lecturer, Harvard, 22, 27. Transmission circuits for telephonic communication; electric wave filters; electric network theory.

Johnson, Dr. L(aura) Louise, Reed College, Portland, Oregon. *Algebra.* Carrollton, Ill, Jan. 21, 08. A.B, Colorado, 28, A.M, 33, Ph.D, 39. Teacher, high schs, Colo, 28–30; asst. *math,* Colorado, 30–35, instr, 35–39; fellow, teaching seminar, *Reed Col,* 39–40, *instr, 40–* Math. Soc; Math. Asn. Theory of numbers.

Johnson, Dean Lee H(arnie), Box 66, University, Miss. *Civil engineering.* Houston, Texas, Jan. 4, 09. A.B, Rice Inst, 30, Hohenthal scholar, 30, fellow, 30–31, A.M, 31; Hilton scholar, Harvard, 31, M.S, 32, Sc.D, 35. Asst. *civil eng,* Harvard, 32–35; *prof, Mississippi, 37–,* acting dean, 37–38, *dean, 38–* Simplified methods for solving statically indeterminate structures.

Johnson, Dr. Leland P(arrish), Drake University, Des Moines, Iowa. *Zoology.* Ponemah, Ill, Nov. 14, 10. B.S, Monmouth Col, 32; M.S, Iowa, 37, Ph.D, 42. Teacher science, high sch, Ill, 33–36; instr. *biol, Drake,* 37–39, asst. prof, 39–41, *assoc. prof, 41–* A.A; Micros. Soc; Iowa Acad. Protozoology; cause of the green-red color change in Euglena Rubra; some Euglenae of Iowa.

Johnson, Dr. L(eRoy) P(eter) V(ernon), National Research Council, Ottawa, Ont, Can. *Genetics, Plant breeding.* Stavely, Alta, July 28, 05. B.Sc, Alberta, 31, M.Sc, 33; Ph.D, State Col. Wash, 35; McGill, 35–36. Asst. grass breeding, div. forage plants, Cent. Exp. Farm, Ottawa, 36–38; *forest geneticist, forest tree breeding, Nat. Research Council Can, 38–* A.A; Genetics Soc; Genetic Asn; Can. Soc. Tech. Agr; Can. Soc. Forest Eng. Interspecific hybridization, experimental production of amphidiploids, genetics and selection among natural forms in forest tree breeding.

Johnson, Prof. Leslie E(ckroat), 1302 Eighth St, Brookings, S. Dak. *Animal breeding.* Oskaloosa, Iowa, Nov. 7, 05. B.S, Iowa State Col, 29, M.S, 38, Ph.D, 40. Instr. *animal husbandry,* Iowa State Col, 39–41; *assoc. prof, S. Dak. State Col, 41–* Genetics Soc; Soc. Animal Production.

Johnson, Prof. L(ewis) J(erome), 90 Raymond St, Cambridge, Mass. *Civil engineering.* Milford, Mass, Sept. 24, 67. A.B, Harvard, 87, C.E, 88; Polytech, Zurich, 88–89; École des Ponts et Chaussées, Paris, 89–90. Instr. civil eng, Harvard, 90–92; practising engineer, Chicago, 92–94; instr. *civil eng, Harvard,* 94–96, asst. prof, 96–06, prof, 06–34, *emer. prof, 34–* Prof, Mass. Inst. Tech, 14–19. Civil Eng; Am. Acad; Boston Soc. Civil Eng. Political and economic science; reinforced concrete, particularly proportioning of concrete; design of web reinforcement for beams; distribution of stress in the general case of flexure; floor loads due to crowds of people.

Johnson, Dr. L(innea) Margaret, George Peabody College, Nashville, Tenn. *Biochemistry.* Minneapolis, Minn, Feb. 14, 98. A.B, Macalester Col, 20; Iowa State Col, 27; M.S, Purdue, 29; Ph.D, Wisconsin, 38. From asst. to asst. prof. chem. of food and nutrition, Purdue, 27–34, 37–39; asst. prof. nutrition, Drexel, 39–40; *assoc. prof. nutrition, food and physiol. chem, Peabody Col, 40–* Lecturer, Scarritt Col, 42. A.A; Chem. Soc; Dietetic Asn; Home Econ. Asn. Calcium metabolism; calcium retention on a diet containing high and low fat, cheese, lettuce, milk; sulfur and nitrogen metabolism of rats; nutritive value of soybean protein.

Johnson, Prof. Marie M(athilda), Oberlin College, Oberlin, Ohio. *Mathematics.* Galesburg, Ill, 98. A.B, Knox Col, 20; M.S, Iowa, 21; fellow, Chicago, 26–27, Ph.D, 28. Instr, Lake Forest Col, 21–25, asst. prof, 25–26; *math, Oberlin Col,* 27–43, *assoc. prof, 43–* Math. Soc; Math. Asn. Tensors of the calculus of variations; extension of a covariant differentiation process.

Johnson, Prof. Marion A(lvin), Colonial Gardens, New Brunswick, N. J. *Botany.* Oskaloosa, Iowa, Aug. 27, 01. B.S, Penn Col. (Iowa), 24; M.S, Chicago, 26, fellow, 27–28, Ph.D, 28. Prin, high sch, Iowa, 24–25; instr. *bot,* Syracuse, 26–27; acting assoc. prof, Ind. State Teachers Col, Terre Haute, 28–29; asst. prof, *Rutgers,* 29–41, *assoc. prof, 41–* Summers, instr, George Peabody Col, 30, 31. A.A; Bot. Soc. Morphology and anatomy of Equisetum scirpoides; pericycle in the root and origin and development of tissues in the stem of Equisetum; origin of pseudo-bulbils in Kalanchoe daigremontiana; structure of shoot-apex in Zamia.

Johnson, Dr. Martha, 1125 Hudson St, Hoboken, N. J. *Food technology.* Worcester, Mass, June 5, 07. A.B, Mt. Holyoke Col, 29; M.S, Chicago, 30, Ph.D, 33. Asst. physiol. chem, Chicago, 30–34; lab. asst, *Gen. Foods Corp,* New York, 34–39, *chemist, N. J, 39–* Fellow, Chicago, 33–34; asst, Presb. Hosp, Chicago, Ill, 34. A.A; Chem. Soc. Determination of iron in blood; gasometric analyses of blood; acid-base balance; pectin; flour.

Johnson, Dr. Martin W(iggo), Scripps Institution of Oceanography, La Jolla, Calif. *Zoology.* Chandler, S. Dak, Sept. 30, 93. B.S, Washington (Seattle), 23, fellow, 29–31, M.S, 30, Ph.D, 32. Teacher, high schs, Wash, 24; curator, Puget Sound Biol. Sta, 24–29; asst: zooplanktonologist, Int. Passamaquoddy Fisheries Cmn, 32–33; assoc, Washington (Seattle), 33–34; *Scripps Institution, California,* 34–35, instr. *marine biol,* 35–36, *asst. prof, 36–, biol. consultant, div. war research, univ, 42–* Assoc. prof, Washington (Seattle), 41. A.A; Ecol. Soc; Micros. Soc; West. Soc. Nat; Oceanog. Soc. Pacific. Seasonal variations in plankton communities and sea water; life histories of marine animals; habits of marine wood-boring organisms; distribution, biology and production of copepods; oceanographic and aquatic biology.

Johnson, Prof. Marvin J(oyce), University of Wisconsin, Madison, Wis. *Biochemistry.* McIntosh, Minn, Nov. 25, 06. A.B, Wisconsin, 27, M.S, 30, Ph.D, 32. Nat. research fellow biol. sciences, Deuts. Tech. Hochschule, Prague, 32–33; research assoc. *biochem, Wisconsin,* 33–40, asst. prof, 40–41, *assoc. prof, 41–* Chem. Soc; Soc. Biol. Chem. Peptidases; mechanism of bacterial fermentations.

Johnson, Maxwell O(scar), California Packing Corp, Wahiawa, Oahu, Hawaii. *Chemistry.* Lafayette, Ind, July 28, 92. B.S, Purdue, 13, Ch.E, 28; M.S, George Washington, 15. Asst. chemist, U. S. Rubber Co, 13–14; *chemist,* U. S. Dept. Agr, 14–19; Pearl City Fruit Co, 19–22; *Calif. Packing Corp, 22–* A.A; Chem. Soc. Agricultural chemistry.

Johnson, Dr. Maynard S(tickney), New Holland, N. C. *Zoology.* Brownville, Maine, Jan. 21, 00. A.B, Bates Col, 21; A.M, Illinois, 23, fellow, 23–25, Ph.D, 25; Harvard, 32–34. Asst. zool, Illinois, 21–23; asst. prof. econ. zool, Minnesota, 25–30; assoc. prof. zool, Utah, 30–33; instr. histol. and embryol, Western Reserve, 34–35; assoc. wildlife technician, state park div, Nat. Park Service, 35–38; *asst. refuge manager, biol. surv, fish and wildlife service, U. S. Dept. Interior, 38–* A.A; Soc. Mammal; Ecol. Soc; Fisheries Soc; Audubon Soc; Wildlife Soc. Wildlife conservation; animal ecology; economic vertebrate zoology; mammalogy; aquatic biology; periodicities.

Johnson, Meredith E(srey), State House Annex, Trenton, N. J. *Geology.* Embreeville, Tenn, Aug. 16, 97. E.M, Lehigh, 18; Harvard, 23–24. Sampler, Ray Consol. Copper Co, Ariz, 19, chief sampler, 20; assoc. geologist, Pa. Topographic and Geol. Surv, 21–27; asst. state geologist, *State Dept. Conservation and Develop, N. J,* 28–37, *state geologist, 37–* Emergency Coordinator of Mines, N. J. C.Eng, U.S.A, 18. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. (v. chairman, east. magnetite mining and milling cmt); Geophys. Union; assoc. N. Y. Acad. Geology, topography and mineral resources of New Jersey.

Johnson, Dr. Minnie M(ay), Stephens College, Columbia, Mo. *Botany.* McConnelsville, Ohio, Feb. 27, 96. B.S, Ohio (Athens), 22; M.S, Ohio State, 26, Ph.D, 29. Substitute prof. biol, Urbana, 29–30; *instr. bot, Stephens Col, 30–*

Summers, instr, West. Ill. State Teachers Col, Macomb, 30–33, 38; Northwest. Okla. State Col, 41. A.A; Bot. Soc; Mycol. Soc; Mo. Acad. Mycology; Gasteromycetae of Missouri and Ohio; Ohio subterranean Ascomycetes and their ascomycetous parasites.

Johnson, Dr. M(ontgomery) H(unt), Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Utica, N. Y, Nov. 21, 07. A.B, Harvard, 29, A.M, 31, Whiting fellow, 31–32, Ph.D, 32. Instr. *physics,* Harvard, 30–31; nat. research fellow, N. Y. Univ, 32–34, instr, 34–38, asst. prof, 38–41; engineer, Sperry Gyroscope Co, 41–42; *research assoc, Mass. Inst. Tech, 42–* Physical Soc. The theory of complex spectra and other topics in the quantum theory.

Johnson, Prof. M(ychyle) W(ellington), Duke University, Durham, N. C. *Cytology.* Mt. Horeb, Wis, Sept. 11, 10. A.B, Ind. Cent. Col, 30; Ph.D, Indiana, 36. Asst, Indiana, 30–35; research asst, dept. genetics, Carnegie Institution, 35–37; instr. *zool, Duke,* 37–42, *asst. prof, 42–* A.A. Cytology of the nucleolus.

Johnson, Prof. Myra L(ouise), Smith College, Northampton, Mass. *Anatomy.* Wadsworth, Ohio, July 17, 09. A.B, Smith Col, 31, trustee fellow, 31–32, A.M, 32; fellow, Columbia, 33–35, Ph.D, 35. Instr. anat, col. physicians and surg, Columbia, 32–33; *zool, Smith Col,* 35–40, *asst. prof, 40–; ensign, Women's Naval Res.* Research assoc, col. physicians and surgeons, Columbia, 40–41. A.A; Asn. Anat. Ossification; histogenesis of bone; development of grafted retinae; droplets in grafted retinae; effect of avitaminosis A upon the retina.

Johnson, Prof. Myrtle E(lizabeth), 4647 55th St, San Diego, Calif. *Zoology.* East Troy, Wis, June 4, 81. B.S, California, 08, M.S, 09, Ph.D, 12. Asst, Scripps Institution, California, 09–11; teacher, high sch, Calif, 12–20; from instr. to *prof. zool. and head dept. biol, San Diego State Col, 21–* A.A. Seashore animals of the Pacific coast.

Johnson, N(orman) G(ardner), 9 N. Jackson Ave, Wenonah, N. J. *Chemistry.* Oakland, Calif, July 4, 02. B.S, Washington (Seattle), 25. *Chemist and head explosives dept, east. lab, E. I. du Pont de Nemours and Co, Gibbstown, N. J.* Chem. Soc; Asn. Pulp and Paper Indust. Explosives.

Johnson, Major Oliver H, care of Office Chief, Chemical Warfare Service, Washington, D. C. *Organic chemistry.* Columbia, Mo, Aug. 25, 12. A.B, Missouri, 34, A.M, 35; Ph.D, Cornell, 39. Asst. org. chem, Cornell, 36–39; research chemist, anthraquinone dyes, Jackson lab, E. I. du Pont de Nemours Co, Inc, 39–41; lieut, *Chem. Warfare Service, U. S. Army,* 41, capt, 41–43, *major, 43–* Chem. Soc. Effect of isomerism on ammonolysis of some aliphatic esters; effect of geometrical isomerism on dehydration of certain unsaturated 1, 4 diols; anthraquinone dyes, especially wool types.

Johnson, Prof. O(liver) R(ay), University of Missouri, Columbia, Mo. *Agricultural economics.* Kans, Nov. 15, 87. B.S, Missouri, 10, A.M, 12; fellow, Cornell, 25–26. Asst. farm management, *Missouri,* 11–12, instr. *agr. econ,* 12–13, asst. prof, 13–14, *chairman dept, 14–,* assoc. prof, 16–19, *prof, 19–* Special agent, Farm Credit Admin, U. S. Dept. Agr, 34. U.S.A, 17–19. Econ. Asn; Farm Econ. Asn; Acad. Polit. and Social Sci. Farm management.

Johnson, Dr. Oliver W(olcott), 1831 Waverley St, Palo Alto, Calif. *Physical chemistry.* Riverside, Calif, Feb. 29, 96. A.B, Stanford, 21, Ph.D, 26. *Chem. engineer, Standard Oil Co. of Calif, 26–; pres, Johnson-Williams, Ltd, 30–* Chem. Soc. Properties of explosive gas mixtures; rate of flame propagation; analysis.

Johnson, Dr. Oscar H(ugo), 269 S. Park Drive, Woodbridge, N. J. *Organic chemistry.* Hartford, Ohio, Aug. 29, 14. A.B, Hiram Col, 36; M.S, Nebraska, 39, Parke, Davis and Co. fellow, 39–41, Ph.D, 41. Asst. chem, Nebraska, 36–39; *research chemist, Merck and Co, Inc, 41–* Chem. Soc. Synthesis of chemotherapeutic agents.

Johnson, Prof. Palmer O(liver), 3312 Edmund Blvd, Minneapolis, Minn. *Statistics, Educational psychology.* Eagle Grove, Iowa, Sept. 13, 91. A.B, Wisconsin, 13; B.S, Minnesota, 21, A.M, 26, Ph.D, 28. Teacher and administrator, pub. schs, 13–17, 21–25; supt. stock-breeding farms, 17; asst. prof. *educ, Minnesota,* 28–34, assoc. prof, 34–36, *prof, 36–* Mem. surv. higher education institutions in Oregon, U. S. Office Educ, 29; visiting prof, West Virginia, 32; volunteer, Galton lab, London, 34–35. Summer, prof, Texas, 39. Consultant, Advisory Cmt. Educ, 37–38. Lieut, C.A.C, 18. A.A; Educ. Research Asn; Nat. Asn. Research Sci. Teaching; Soc. Sci. Educ; Statist. Asn; Genetic Asn; Psychometric Soc; Inst. Math. Statist; Minn. Acad. Curricular studies in science; land-grant college education; tests and measurements in science and mathematics; statistical methods in education and educational psychology.

Johnson, Dr. Paul E(dwin), North Dakota Agricultural College, Fargo, N. Dak. *Animal nutrition.* Chama, N. Mex, Jan. 23, 12. A.B, Park Col, 34; A.M, Missouri, 36; Ph.D, Cornell, 39. *Asst. animal nutritionist, Exp. Sta, N. Dak. Col, 39–* Nutrition of the pigeon and of farm animals.

Johnson, Dr. Percy L(eroy), Missouri Valley College, Marshall, Mo. *Zoology.* Bangor, Maine, Feb. 15, 01. B.S, Maine, 23; M.S, Syracuse, 25; Bruce fellow, Hopkins, 28–30, Ph.D, 29. Asst. bot. and entom, Maine, 22–23; biol, Syracuse, 23–25; comp. anat. and physiol, Hopkins, 25–30, zool, 30–31; *prof. biol, Mo. Valley Col, 31–* Soc. Zool. Anatomy; protozoology; general physiology.

Johnson, Prof. P(hilip) G(ustaf), Cornell University, Ithaca, N. Y. *Science education.* Loomis, Nebr, Sept. 21, 00. B.S, Nebraska, 23, M.S, 31; Charles Lathrop Pack fellow, Cornell, 31–33, Ph.D, 33. Supervisor nat. science, teachers col, Nebraska, 25–27, supervisor, 27–31, 33–35, asst. prof. secondary educ, 33–35; acting asst. prof. *rural educ, Cornell,* 35–36, *asst. prof, 36–* A.A; Sci. Teachers Asn; Asn. Research Sci. Teaching; Nature Asn; N.E.A. (pres, council sci. teachers); N. Y. State Sci. Teachers Asn. (sec'y-treas, 38–). The reaction of fluorine with calcium carbide; the content and organization of science courses of study for pre-college levels; plans and methods for natural science teaching.

Johnson, Dr. R(alph) P(oole), General Electric Co, Schenectady, N. Y. *Physics.* St. Pauls, N. C, Nov. 2, 09. A.B, Richmond, 29; A.M, Virginia, 30; Ph.D, Mass. Inst. Tech, 36. Physicist, Geophys. Research Corp, 30–31; instr. math, Richmond, 31–33; *research lab, Gen. Elec. Co, 36–* Physical Soc. Electron emission.

Johnson, Prof. R(ay) G(eorge), Oregon State College, Corvallis, Oregon. *Animal husbandry.* B.S, Oregon State Col, 24. Range cattle operations, Oregon and Calif, 16–28; agr. agent, Grant County, Oregon Exten. Service, 28–35; *prof. animal husbandry, Oregon State Col, 35–,* animal husbandman, Exp. Sta, acting supt, Squaw Butte Range livestock exp. sta, 36–38. Range live stock and range management problems.

Johnson, Dr. Raymond C(aridon), Alden Park Manor, Germantown, Philadelphia, Pa. *Chemistry.* Gillespie, Ill, Sept. 2, 04. B.S, Monmouth Col, 27; fellow, Carnegie Inst. Tech, 27–28, M.S, 28; Ph.D, Pittsburgh, 30. Asst, U. S. Bur. Mines, 28–30; research chemist, Phila-Reading Coal and Iron Co, 30–37; indust. fellow, Mellon Inst, 37–42; *director, Anthracite Industries Lab, 42–* Chem. Eng; Chem. Soc; Min. and Metal. Eng. Coal chemistry.

Johnson, Prof. R(aymond) Wright, 1220 E. 54th St, Chicago, Ill. *Chemistry.* Stillman Valley, Ill, July, 00. A.B, Oberlin Col, 21, A.M, 23; Ph.D, Chicago, 32. Asst. prof. *chem,* Bethany Col. (W. Va), 24–30; instr, *Chicago,* 30–40, *asst. prof, 40–* Chem. Soc. Physical and organic chemistry; mechanism of organic chemical reactions; polymerization; acridines.

Johnson, R(euben) F(rederic), R. D. 3, Caldwell, Idaho. *Animal husbandry.* Idaho Falls, Idaho, May 2, 99. B.S. (Agr), Idaho, 21. Asst. animal husbandman, *Exp. Sta, Idaho,* 25–34, *supt, Caldwell substa, 34–* Soc. Animal Production. Live-stock feeding; Idaho grown feeds and by-products for fattening range cattle and lambs; phosphorus deficiency and its relation to live-stock industry; growth and vitamin A studies of plants in irrigated grass pastures.

Johnson, Prof. Richard P(otts), 1238 Lancaster Ave, Swissvale, Pa. *Mathematics.* Frederick, Md, Oct. 7, 88. A.B, Virginia, 09, C.E, 10, A.M, 12; A.M, Harvard, 15; Ph.D, Pittsburgh, 39. Instr. and later asst. prof, U. S. Naval Acad, 17–22; from instr. to *assoc. prof. math, Carnegie Inst. Tech, 22–* Math. Asn. Algebraic geometry.

Johnson, Dr. R(obert) A(nthony), New York State Teachers College, Oneonta, N. Y. *Ornithology.* Gosport, Ind, Nov. 2, 98. B.S.A, Purdue, 24; M.S, Syracuse, 26; Charles Lathrop Pack fellow, Cornell, 29, Ph.D, 36. Prin, high sch,

Ind, 24–25; *head dept. science, N. Y. State Teachers Col, Oneonta, 30–* Summers, ranger naturalist, Rainier Nat. Park, 26; instr, summer sch. camp, N. Y. Univ, 28, 29. Exped, Can. Labrador, 31, 34, 38. Ornith. Union; Ecol. Soc; Wildlife Soc; Wilson Ornith. Club. Life history and ecology; food habits of ruffed grouse; methods of collecting carcasses; life history and behavior studies of the Atlantic murre; relation of certain gulls to other birds on the nesting grounds; winter birds of Nova Scotia; weight studies of American Alcidae; bird notes from the upper Susquehanna.

Johnson, Prof. R(obert) E(benezer), University of Connecticut, Storrs, Conn. *Dairying.* Norwich, Conn, May 2, 01. B.S, Conn. Agr. Col, 22; fellow, Iowa State Col, 22–23, M.S, 23, fellow, 30–31. *Asst. dairy husbandman, Storrs Exp. Sta, 23–; assoc. prof. dairy indust, Connecticut, 31–* Dairy Sci. Asn. (chairman east. sect, 34); Genetic Asn; Soc. Animal Production. Infectious abortion in cattle; corn silage feeding; dairy cattle breeding.

Johnson, Dr. Robert E(ugene), Harvard University, Cambridge, Mass. *Biochemistry.* Conrad, Mont, April 8, 11. B.S, Washington, 31; B.A, Oxford, 34, Ph.D, 35; M.D, Harvard, 41. Junior demonstrator *biochem,* Oxford, 33–35; *tutor, Harvard, 35–,* research assoc, *fatigue lab,* 36–43, *asst. prof. indust. physiol, 43–* Francis Gotch Mem. prize, Oxford, 35. Biochem. Soc; Soc. Biol. Chem. Intermediary carbohydrate metabolism; muscular contraction; exercise.

Johnson, Dr. Robert W(ilkinson), Jr, 4 E. Madison St, Baltimore, Md. *Surgery.* Baltimore, Md, June 3, 91. A.B, Princeton, 12; M.D, Hopkins, 17. *Assoc. orthop. surg, sch. med, Hopkins, 27–* Assoc. director, Children's Hosp. Sch. Orthop. Asn. Orthopedic surgery; bone physiology; pathology.

Johnson, Prof. Roberta Frances, Wilson College, Chambersburg, Pa. *Mathematics.* Philadelphia, Pa, Jan. 22, 02. A.B, Wilson Col, 25, fellow, 30–33; A.M, Cornell, 31, Erastus Brooks fellow, 31–32, Ph.D, 33. Teacher, high schs, Pa, 25–30; instr. *math, Wilson Col,* 33–35, *asst. prof, 35–* Math. Soc. Algebraic geometry.

Johnson, Prof. Roger A(rthur), Brooklyn College, Brooklyn, N. Y. *Mathematics.* Gardner, Mass, June 9, 89. A.B, Amherst Col, 10; A.M, Harvard, 11, Ph.D, 13. Instr. *math,* Western Reserve, 13–17; prof, Hamline, 17–26; asst. prof, Hunter Col, 26–28; assoc. prof, *Brooklyn Col, Col. City of N. Y,* 28–36, *prof, 37–* Math. Soc; Math. Asn. Modern geometry.

Johnson, Dr. Roswell H(ill), 607 S. Hill St, Los Angeles, Calif. *Sociology.* Buffalo, N. Y, Oct. 9, 77. Brown, 95–96; Harvard, 96–99; B.S, Chicago, 00; M.S, Wisconsin, 03; Ph.D, Pittsburgh, 33; California; Columbia. Instr, high sch, S. Dak, 00–01; asst. vert. anat, Wisconsin, 01–03; instr. biol. and agr, Wash. State Nor. Sch, Cheney, 03–05; asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 05–08; consulting geologist, 08–33; prof. oil and gas production, Pittsburgh, 16–32; exec. sec'y, Social Hygiene Asn. Hawaii, 35–36; *director personnel service, Inst. Family Relations, Los Angeles, 36–* Lecturer, Hawaii, 35; Occidental, 36; Southern California, 40. Summers, Nebraska, Utah, Nevada. Eugenics Soc. (past pres); Eugenics Research Asn. Family relations; temperament.

Johnson, Prof. R(uben) C(umby), University of South Carolina, Columbia, S. C. *Civil engineering.* Pittsview, Ala, May 17, 00. B.S, Rice Inst, 24; Wisconsin, 33. Struct. steel detailer, Am. Bridge Co, 24–25; concrete and steel designer, United Gas Improv. Contracting Co, 25–27; assoc. prof. *civil eng, South Carolina,* 27–42, *prof, 42–; capt, Sanit. Corps, U. S. Army.* Summers, concrete designer, Duke Power Co, 28; concrete designer and checker, W. S. Lee Eng. Corp, 30; hydraul. research, U. S. Dept. Interior, 34; soil erosion hydraul. research, U. S. Dept. Agr, 35, collaborator, 35–; asst. hydraul. engineer, Tenn. Valley Authority, 36; designing and consulting engineer, 37–; prof, Tennessee, 39. Civil Eng; fel. S. C. Acad. Water power developments; hydraulic design of hydraulic structures.

Johnson, S(amuel) Arthur, Colorado State College, Ft. Collins, Colo. *Entomology.* Morristown, N. J, Dec. 13, 66. B.S, Rutgers, 91, M.S, 95. Prin, pub. sch, Ill, 93–95; high sch, Colo, 96–02; asst. zool, *Colo. State Col,* 02–07, assoc. prof, 07–29, dean faculty, 13–34, *emer. dean men, 34–* Inst. instr, Colo. State Col, 03–14; instr, teachers nor. insts, 08–17. Asn. Econ. Entom; Entom. Soc. Wash. Economic entomology.

Johnson, Prof. S(eth) R(oth), University of Arkansas, Fayetteville, Ark. *Animal nutrition.* Paducah, Ky, Oct. 3, 06. A.B, Kentucky, 28; M.S, West Virginia, 30; Ph.D, Missouri, 35. Technician, State Vet. Lab, W. Va, 28–31; asst. animal husbandry, Missouri, 31–33, agr. chem, 33–35, instr, 35–37; *asst. prof,* animal nutrition, Pa. State Col, 37–38; *animal indust, Arkansas, 38–* Soc. Animal Production; Poultry Sci. Asn. Mineral and vitamin requirements of swine, poultry and herbivora.

Johnson, Dr. Sydney E(vans), 101 W. Chestnut St, Louisville, Ky. *Anatomy.* Lansing, Minn, May 1, 89. A.B, Washington (Seattle), 13, M.S, 14; fellow, Northwestern, 14–16, Ph.D, 16, M.D, 22. Instr. *anat,* Northwestern, 16–18, assoc, 19–20, asst. prof, 20–23; *prof, sch. med, Louisville, 23–* Roentgenologist, Louisville City Hosp, 24– A.A; Asn. Anat; Am. Med. Asn; fel. Col. Physicians; Roentgen Ray Soc. Osteology; sense organs of the lateral canal system; sympathetic trunks; myenteric plexus; kymo-roentgenography of the heart.

Johnson, Dr. Thomas H(ope), 812 S. Union Ave, Havre de Grace, Md. **5*Physics.* Coldwater, Mich, Sept. 12, 99. A.B, Amherst Col, 20; Maine, 20–21; Chicago, 22–23; Ph.D, Yale, 26. Instr. math, Maine, 20–21; master, Moses Brown Sch, 21–23; Sterling research fellow, Yale, 26–27; fellow, *Bartol Research Foundation,* 27–31, *asst. director, 31–; research assoc, Carnegie Institution, 33–;* mem. sect. and official investigator, Nat. Defense Research Cmt, 40–42; *chief physicist, ballistic research lab, Aberdeen Proving Ground, 42–* Lecturer, California, 29. Summer, special lecturer, Michigan, 34. Chairman, Joint Phila. Physics Colloquium, 35. A.A; fel. Physical Soc; Geophys. Union (v. chairman, sect. terrestrial magnetism, 35–38). Molecular beams; diffraction of atoms by crystals; secondary structure of crystals; earth-magnetic and nuclear effects of cosmic radiation; nature of primary cosmic radiation; blast measurement; ballistics.

Johnson, Dr. Thorvaldur, Dominion Laboratory of Plant Pathology, Winnipeg, Man, Can. *Plant pathology.* Arnes, Man, Oct. 23, 97. B.Sc, Saskatchewan, 22; Ph.D, Minnesota, 30. Asst. plant pathologist, *Dom. Lab. Plant Path,* 25–29, *plant pathologist, 29–* Phytopath. Soc; Can. Phytopath. Soc. (sec'y-treas, 41–). Cereal rusts, with particular reference to physiologic specialization.

Johnson, Dr. Treat Baldwin, Bethwood, Amity Road, Bethany, Conn. **2*Chemistry.* Bethany, Conn, March 29, 75. Ph.B, Yale, 98, Ph.D, 01. Instr. chem, Sheffield Sci. Sch, Yale, 01–08, asst. prof. org. chem, 08–15, prof, 15–28, Sterling prof. chem, 28–43; *retired.* Nichols medal, Am. Chem. Soc, 18. Nat. Acad; A.A; Chem. Soc. (asst. ed, 'Chem. Abstracts'); Inst. Chem; Soc. Biol. Chem; Conn. Acad; Deuts. Chem. Gesell; Halle Wissensch. Akad. Organic chemistry; biochemistry; synthetic organic chemistry; organic synthesis as applied to therapeutic substances; nuclei acid; new local anesthetics; silk fibroin; phenanthrene and its relation to morphin; histamin; tyramin; nucleosid; cyclic polypeptids; thiopolypeptides; chemistry of tubercle bacilli; biochemistry of sulfur, pyrimidines and hydantoins; heterocyclic chemistry; germicides and antiseptics.

Johnson, Dean Victor (Einar), 5807 Dorchester Ave, Chicago, Ill. *Physiology.* Chicago, Ill, Jan. 19, 01. Ph.B, Chicago, 26, Ph.D, 30, M.D, 39. Instr. *physiol, Chicago,* 29–37, asst. prof, 37–40, *assoc. prof, 40–, dean students in biol. and med, 40–* A.A. Blood, circulation and lymph.

Johnson, Dr. Vivian A(nnabelle), Purdue University, Lafayette, Ind. *Theoretical physics.* Portland, Oregon, July 1, 12. A.B, Reed Col, 32; M.S, Purdue, 34, Ph.D, 37. Asst. *physics, Purdue,* 32–37, *instr, 37–* Physical Soc; Asn. Physics Teachers. Atomic and molecular structure.

Johnson, W(allace) M(aughan), U. S. Forest Service, Ft. Collins, Colo. *Forestry.* Ogden, Utah, Jan. 25, 12. B.S, Utah State Col, 33; M.S, Minnesota, 38. Junior range examiner, *U. S. Forest Service,* 34–35, *asst. forest ecologist, 36–* Soc. Foresters; Ecol. Soc. Watershed management; soil stabilization; range management; range forage plants; livestock production.

Johnson, Prof. Walter H(enry), Georgetown University School of Medicine, Washington, D. C. *Physiology.* Montreal, Que, Can, Feb. 9, 11. B.Sc, McGill, 33; research fellow, Oceanographic Inst, Woods Hole, 36–37; Ph.D, Toronto, 37. Asst. biol, Toronto, 33–37; teaching fellow *physiol,* McGill, 37–39; instr, *sch. med, Georgetown,* 39–41, *asst. prof, 41–* Assoc. Soc. Exp. Biol. Phototropism of marine animals; physiology of semicircular corals; water metabolism; electrophysiology.

Johnson, Prof. Warren C(harles), 1301 E. 60th St, Chicago, Ill. **Chemistry.* Otter Lake, Mich, Sept. 22, 01. B.S, Kalamazoo Col, 22; A.M, Clark, 23; Ph.D, Brown, 25. Research instr. *chem,* Brown, 25–27; instr, *Chicago,* 27–28, asst. prof, 28–32, assoc. prof, 32–43, *prof, 43–* Assoc. ed, 'Chem. Rev,' 42– A.A; Chem. Soc. (sec'y, R. I. sect, 25–27; chairman, Chicago sect, 42); Ill. Acad. Liquid ammonia solutions; inorganic chemistry; gallium and germanium; hydrogen compounds of metals.

Johnson, Prof. W(endell), 508 Melrose Court, Iowa City, Iowa. *Speech pathology.* Roxbury, Kans, April 16, 06. A.B, Iowa, 28, A.M, 29, Ph.D, 31. Asst. speech path, *Iowa,* 29–31, research assoc. and clinician, child welfare research sta, 31–37, asst. prof. *psychol. and speech path,* 37–39, *assoc. prof, 39–, director speech clinic, 43–* Tech. director, State Remedial Educ. Surv. and Demonstration Program, Iowa, 39–42. Chairman subcmt. speech correction terms, Phi Delta Kappa Dictionary Educ, 40–41; ed, 'Jour. Speech Disorders,' 43–; assoc. ed, 'Gen. Semantics Rev,' 43– Psychol. Asn; fel. Speech Correction Asn. (nat. defense cmt, 40–; councilor, 40–); fel. Inst. Gen. Semantics; Asn. Teachers Speech; Linguistic Soc; Iowa Acad; Int. Council Exceptional Children (research cmt, 38). Stuttering; personality; clinical psychology; semantics.

Johnson, Dr. William A(ustin), Westinghouse Research Laboratory, East Pittsburgh, Pa. *Metallurgy.* Washington, D. C, Nov. 9, 13. B.S, Lehigh, 35; fellow, Westinghouse Research Lab, 39–40; Sc.D, Carnegie Inst. Tech, 40. Instr. metal, Carnegie Inst. Tech, 40–41; *research metallurgist, Westinghouse Research Lab, 41–* Soc. Metals; Min. and Metal. Eng. Solid reactions in metals; diffusion in metals as studied by radioactive tracers; heat treatment of steel.

Johnson, Prof. William S(ummer), University of Wisconsin, Madison, Wis. *Organic chemistry.* New Rochelle, N. Y, Feb. 24, 13. A.B, Amherst Col, 36; A.M, Harvard, 38, Ph.D, 40. Instr. chem, Amherst Col, 36–37; asst. to Prof. R. P. Linstead, Harvard, 40; instr. *org. chem, Wisconsin,* 40–42, *asst. prof, 42–* Summers, asst, Eastman Kodak Co, 36–40. Natural products; synthesis of polycyclic compounds.

Johnson, Prof. W(illis) H(ugh), 2421 Ramona St, Palo Alto, Calif. *Zoology.* Parkersburg, Ind, Dec. 21, 02. A.B, Wabash Col, 25; M.S, Chicago, 29, fellow, 30–31, Ph.D, 32. Instr. zool, Wabash Col, 25–27, assoc. prof, 27–35; asst. prof. *biol, Stanford,* 35–37, assoc. prof, 37–41, *prof, 41–* A.A; Soc. Zool; Ecol. Soc; West. Soc. Nat. Reactions of paramecium to solutions of known hydrogen ion concentration; the relation of volume of medium to fission rate in ciliates; effects of population density on reproduction rate in Oxytricha; growth and reproduction in paramecium; sterile culture of ciliates; reorganization in ciliates.

Johnson, Dr. Winifred Bent (Mrs. George Archer), 2920 Canyon Road, Burlingame, Calif. *Psychology.* Ogden, Utah, Nov. 1, 98. A.B, Wisconsin, 17; A.M, Oregon, 30; Ph.D, California, 36. Asst. physiol, Mayo Clinic, 18–20; psychol, Stanford, 31–35, research assoc, 36–41; *private practicing clin. psychologist.* Assoc. Psychol. Asn. Psychology of personality; mood; interpersonal relationship; sex differences; cultural differences.

Johnson, Dr. W(oodrow) E(ldred), Syracuse University, Syracuse, N. Y. *Physics.* Forest Lake, Minn, Oct. 22, 17. B.S, Hamline, 37; M.S, Brown, 39, Ph.D, 42. Asst, Brown, 37–40; instr. *physics, Syracuse,* 41–43, *asst. prof, 43–* Thin polycrystalline silver films on silver single crystals by means of high speed electron diffraction.

Johnstin, Prof. Ruth, Wellesley College, Wellesley, Mass. *Biochemistry.* London, Ohio, May 24, 82. A.B, Pa. Col. for Women, 03; A.M, Ohio State, 14, Ph.D, 26. Prof. chem, Milwaukee-Downer Col, 09–21; research chemist, states relations service, U. S. Dept. Agr, 21–23; assoc. prof. *chem, Wellesley Col,* 23–35, *prof, 35–* A.A; Chem. Soc. Preparation, properties and uses of the pectic constituent of plants; galacturonic acid as a precursor of ascorbic acid; photometric determinations of urea, uric acid, creatinine and hemoglobin in the blood of scorbutic guinea pigs; use of nickel pectinate in healing of wounds; determination of minerals in biological material.

Johnston, Alexander, University of Wyoming, Laramie, Wyo. *Animal husbandry.* Cathcart, Glasgow, Scotland, June 6, 04. B.S, Wyoming, 33, M.S, 36. Agr. exten. agent, 34; agent, U. S. Rural Rehabilitation and Rural Resettlement, 34–36; asst. animal fiber technologist, bur. animal indust, U. S. Dept. Agr, 36–37; *asst. wool specialist and asst. prof, Wyoming,* 37– Wool shrinkage; growth; inheritance; projection measurement; physical measurements of wool fibers; culling of sheep

Johnston, Prof. Bruce (Gilbert), Lehigh University, Bethlehem, Pa. *Civil engineering.* Detroit, Mich, Oct. 13, 05. B.S, Illinois, 30; M.S, Lehigh, 34; Ph.D, Columbia, 38. With U. S. Indian Service on construction of Coolidge Dam, 27–29; concrete designer with Roberts and Schaefer Eng. Co, 30–31; instr. *civil eng,* Columbia, 34–38; asst. prof, *Lehigh,* 38–41, *assoc. prof, 41–,* asst. director, *Fritz Lab,* 38–41, *assoc. director, 41–; engineer, lab. applied physics, Hopkins, 42–* James J. R. Croes medal, Am. Soc. Civil Eng, 37. Assoc. Soc. Civil Eng. (chairman struct. div, cmt. design struct. members); Welding Soc; Eng. Educ. Structural mechanics and materials.

Johnston, Dr. Cha(rle)s G(eorge), 1512 St. Antoine St, Detroit, Mich. *Surgery.* St. Louis, Mo, March 13, 99. B.S, Washington (St. Louis), 26, M.D, 26; M.S, Pennsylvania, 28. Asst. instr. physiol. chem, Pennsylvania, 26–27, instr, 27–28; house physician, Presb. Hosp, New York, 28–29; Harriet M. Frazier fellow, Pennsylvania, 29–36, instr. *surg,* 29–36, assoc, 35–36; *prof, col. med, Wayne, 36–* Nat. research fellow med, 26–27; grant, cmt. sci. research, Am. Med. Asn, 38. Col. Surg; Physiol. Soc; Asn. Surg. Trauma; Surg. Asn; Diabetes Asn; Soc. Exp. Biol; West. Surg. Asn; Cent. Surg. Asn; Cent. Soc. Clin. Research. Physiology of biliary tract and intestine; hydrogen ion concentration of blood; pancreatic secretion; ovarian hormones; intestinal obstruction.

Johnston, C(harles) O(tis), Kansas State College, Manhattan, Kans. *Plant pathology.* Sharon, Kans, Oct. 21, 93. B.S, Kans. State Col, 18, M.S, 24. *Assoc. pathologist, bur. plant indust, U. S. Dept. Agr, Kans. State Col,* 19–42, *pathologist, 42–* Phytopath. Soc; Soc. Agron; Kans. Acad. Cereal rusts.

Johnston, Dr. Christopher, Duke Hospital, Durham, N. C. *Medicine.* Baltimore, Md, Dec. 7, 01. A.B, Hopkins, 22, M.D, 26. Res. house officer and asst. res. physician, Hopkins Hosp, 26–28; asst. res. physician, Rockefeller Inst. Hosp, 28–30; *asst. prof. med, Duke, 30–* Cardiac disease; nephritis.

Johnston, Prof. C(larence) N(ettleton), University of California, Davis, Calif. *Irrigation engineering.* Cheyenne, Wyo, Oct. 31, 98. B.S, Michigan, 21, M.E, 37. Asst. to state engineer, Wyo, 21–22; junior irrigation engineer, California, 22–26; draftsman, Union Oil Co. of Calif, 26–29, asst. supt. producer pipe line, 29–32; in automobile business, 32–36; *asst. irrigation engineer, California, 36–, asst. prof. irrigation, 42–* Geophys. Union; Mech. Eng; Agr. Eng. Development of underground water; pumping; heat transfer in soils as a function of moisture content and hydrology.

Johnston, Prof. Clarence T, 1335 Hill St, Ann Arbor, Mich. *Irrigation engineering.* Near Denver, Colo, Oct. 23, 72. B.S, Michigan, 95, C.E, 99. West Side Mining Co, Colo, 95–96; asst. state engineer, Wyo, 96–98; asst. chief irrig. investigations, U. S. Dept. Agr, 99–03; state engineer, Wyo, 03–11; prof. *geod. and surv, Michigan,* 11–41, *emer. prof, 41–* Summers, asst, state engineer's office, Wyo, 89–95; stream gaging, U. S. Geol. Surv, 96–99. A.A; Civil Eng. (chairman, cmt. boundary surveys, 26–); Mich. Eng. Soc. Irrigation and drainage laws; flow of water in canals and ditches; administration of water resources; design of irrigation structures; coefficient of friction and value of coefficient of roughness; Egyptian irrigation.

Johnston, Dr. Earl S(teinford), Smithsonian Institution, Washington, D. C. *Plant physiology.* Quarryville, Pa, Feb. 5, 89. Ph.B, Dickinson Col, 13, A.M, 14; Ph.D, Hopkins, 17. Instr. science, Pennington Sch. for Boys, 13–14; asst. physiol, Hopkins, 14–17; assoc. prof. plant physiol, Maryland, and assoc. plant physiologist, Exp. Sta, 17–31; consulting plant physiologist, *Smithsonian Institution,* 29–31, research assoc, *div. radiation and organisms,* 31–33, *asst. director, 33–* Fellow, California, 26–27. Summer, asst, desert lab, Carnegie Institution, 15. A.A; Soc. Plant Physiol. (sec'y-treas, 43–); Bot. Soc. Wash. (v. pres, 42). Growth and climatic conditions; mineral nutrients; physiological effects of radiant energy on plants; biophysics.

Johnston, Prof. F(rancis) E(dgar), 1835 K St, Washington, D. C. *Mathematics.* Alexandria, Va, April 24, 97. A.B, George Washington, 21; A.M, Illinois, 23, Ph.D, 26. Asst. *math,* Illinois, 21–25, instr, 26–28; asst. prof, *George Washington,* 28–31, assoc. prof, 31–38, *prof, 38–* A.A; Math.

Soc; Math. Asn; Philos. Soc. Wash; Wash. Acad. Theory of finite groups.

Johnston, Dr. Francis Newlands, 4 E. Leland St, Chevy Chase, Md. *Paleontology.* Brush Hill, Mass, March 8, 04. A.B, Harvard, 27; A.M, Stanford, 30; Ph.D, Catholic Univ, 42. Asst. eng. aid, *Alaska branch, U. S. Geol. Surv,* 41–42, *senior eng. aid, 42–* Paleont. Soc; Paleont. Soc. Wash; Geol. Soc. Wash; Soc. géol. de France. Geography; paleontology; new lower Karnic ammonoids.

Johnston, Dr. Franklin, Carbide and Carbon Chemicals Corporation, South Charleston, W. Va. *Chemistry.* Kansas City, Mo, Jan. 2, 08. A.B, Missouri, 29, A.M, 30; fellow, Pa. State Col, 33, Ph.D, 34. Asst. chem, Missouri, 30; Pa. State Col, 30–32; *research chemist, Carbide and Carbon Chem. Corp, 33–* Summers, chemist, B. F. Goodrich Co, 29, 30. Chem. Soc. Molecular rearrangements of aliphatic chlorides.

Johnston, Dr. George W(ashington), Mississippi State College, State College, Miss. *Cytology.* Quitman, Miss, Feb. 1, 10. B.S, Miss. State Col, 33, M.S, 38; Ph.D, Duke, 41. *Instr. bot, Miss. State Col, 40–* Bot. Soc; Miss. Acad. Botany; cytological studies of male gamete formation in certain angiosperms.

Johnston, Dr. Gerald (Gale), 2002 James St, St. Paul, Minn. *Chemistry.* Dahinda, Ill, April 9, 13. B.S, Illinois, 35; Ph.D, Lawrence Col, 40. *Chemist, Waldorf Paper Products, 39–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Methylation of cellulose; pulp and paper cellulose chemistry; chemistry of packaging and paper making.

Johnston, Dr. Helen, 430 W. 116th St, New York, N. Y. *Physical chemistry.* Birmingham, Ala, Aug. 18, 06. B.S, Howard Col. (Ala), 28; scholar, Johns Hopkins, 28–29; scholar, Columbia, 29–30, Ph.D, 32. Asst. *chem,* Barnard Col, Columbia, 30–32; substitute instr, *Hunter Col,* 32–36, *instr, 36–* A.A; Chem. Soc; Physical Soc. Molecular spectra; nuclear spin.

Johnston, H(enry) Freeborn, 5421 Broad Branch Road, N. W, Washington, D. C. *Terrestrial magnetism.* Hay, Ont, Can, 88. B.A, Toronto, 10. Computer, Dom. Astron. Observatory, 08; *physicist, Carnegie Institution,* 10–16, *dept. terrestrial magnetism, 19–* In charge, Watheroo Magnetic Observatory, 24–29. Sci. adviser to supt, compass dept, British Admiralty, 16–19. Geophys. Union; Philos. Soc. Wash; Wash. Acad. Terrestrial magnetism; atmospheric electricity.

Johnston, Dr. H(enry) Wyatt, Forest Products Laboratories of Canada, 3420 University St, Montreal, Que, Can. *Chemical engineering.* Montreal, Que, Oct. 18, 96. B.Sc, McGill, 21, Nat. Research Council Can. bursar, 26–27, M.Sc, 27, student, 27–29, Ph.D, 29. Engineer, Charlton and Pope, Montreal, 21–22; manager, Atlas Press, Ltd, 22–23; chief engineer, Can. Prest-Air, Ltd, 24–25; chemist and *officer in charge, forest products labs, Can. Dept. Mines and Resources, Montreal, 29–* Can. Red Cross, 14–15; C.Eng, C.E.F, 17–19. Assoc. Eng. Inst. Can. Penetration of wood by cooking liquors and other liquids; measurement of consistency of wood pulps by light absorption; paper color determination; production and quality of ground wood; rod mills for refining pulp; classification of pulps by selective screening.

Johnston, Prof. H(errick) L(ee), 177 Brevoort Road, Columbus, Ohio. *[6]*Physical chemistry.* North Jackson, Ohio, March 29, 98. A.B, Muskingum Col, 22; B.S, Col. of Wooster, 22, hon. Sc.D, 43; Ohio State, 23–24; Ph.D, California, 28. Instr, high sch, Ohio, 16–17; teaching fellow *chem,* California, 26–28, instr, 28–29; asst. prof, *Ohio State,* 29–33, assoc. prof, 33–38, *prof, 38–* Guggenheim Mem. Foundation fellow, Göttingen, 33. Summer, physical chemist, Gen. Elec. Co, 37. Assoc. ed, 'Jour. Physical Chem,' 35–38. Cmt. deuterium research, Nat. Research Council, 34–37, cmt. thermodynamic constants to aid industry, 40–, subcmt. thermodynamic constants, cmt. nat. and physical constants, 41– Shared Pacific Coast sect. A.A.A.S. award, 29. C.A.C, 17–19, 2nd lieut. A.A; Chem. Soc. (chairman, div. physical and inorg. chem, 37; divisional officers group, 37; Columbus sect, 38); Physical Soc; Ohio Acad. Photochemistry; low temperature calorimetry; third law of thermodynamics; band spectra; ortho and para hydrogen; chemical application of the quantum theory; isotopes of oxygen; deuterium; separation of isotopes; thermodynamic and physical properties of gases.

Johnston, Dr. Howard K(endall), Apt. 201, 2721 Adams Mill Road, N. W, Washington, D. C. *Dairy husbandry.* Newville, Pa, July 7, 13. B.S, Pa. State Col, 35, M.S, 38, Ph.D, 41. Instr. dairy husbandry, West Virginia, 41–42; *asst. milk specialist, U. S. Pub. Health Service, 42–* Comparison of high temperature short time and low temperature long time pasteurization of milk; platform quality tests of milk; curd tension of milk as affected by heat and homogenization.

Johnston, Dr. Ivan M(urray), Arnold Arboretum, Jamaica Plain, Mass. *Botany.* Los Angeles, Calif, Feb. 28, 98. A.B, California, 20, A.M, 22; Sheldon traveling fellow from Harvard, Chile, 25–26; Ph.D, Harvard, 25. Asst, Gray Herbarium, *Harvard,* 22–31, *research assoc, Arnold Arboretum, 31–,* lecturer *bot, univ,* 34–38, *assoc. prof, 38–* Guggenheim traveling fellow, 32–33. Summers, asst, Alpine lab, Carnegie Institution, 19, 20, 22; botanist, Calif. Acad. exped, Gulf of Calif, 21. A.A; Am. Acad; New Eng. Bot. Club; cor. mem. Argentina Soc. Nat. Sci; cor. mem. Chilean Soc. Nat. Hist. Boraginaceae of the world; floras and phytogeography of the xerophytic areas of America; Andean and extra-tropical floras of South America.

Johnston, Dr. J(ames) W(eeks), Jr, Harvard Forest, Petersham, Mass. *Forest entomology.* New York, N. Y, July 21, 07. B.S.F, Syracuse, 30; M.F, Harvard, 32, Ph.D, 36. Field asst, div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–33; silvicultural foreman, Civilian Conservation Corps, Vt, 33–34; nat. research fellow, Fed. Swedish Inst. Exp. Forestry, Stockholm, 36; private consultant insect pest control and hort, N. Y, 37–38; sub-dist. supervisor, State Timber Salvage Admin, Mass, 39; *tech. asst, Harvard Forest, Harvard, 40–* Field sec'y, Mass. Forest and Park Asn, 40. Soc. Foresters; N. Y. Entom. Soc. Forest soil biology; the arthropod and oligochaet fauna of north temperate forest soils; biology and control of the white pine weevil.

Johnston, Dr. Jean V(ance), Connecticut College, New London, Conn. *Organic chemistry.* Shippensburg, Pa, Feb. 17, 12. A.B, Smith Col, 34; Ph.D, Yale, 38. Asst. chem, Smith Col, 39; instr. science, Oxford Sch, Conn, 40; asst. prof. *chem,* Furman, 40–42; *instr, Conn. Col, 42–* A.A; Chem. Soc. Amidines.

Johnston, Dr. John, U. S. Steel Corp. Research Laboratory, Kearny, N. J. *[8]*Chemistry.* Perth, Scotland, Oct. 13, 81. Carnegie scholar, St. Andrews, Scoltand, 03–05, B.Sc, 03, D.Sc, 08; 1851 Exhib. scholar, Breslau, 05–07; A.M, Yale, 19; hon. Sc.D, N. Y. Univ, 28, Lehigh, 29. Research assoc. physical chem, Mass. Inst. Tech, 07–08; chemist, geophys. lab, Carnegie Institution, 08–16; in charge research dept, Am. Zinc, Lead and Smelting Co, 16–17; chemist, U. S. Bur. Mines, 17–18; with Nat. Research Council, 18–19; prof. chem. and chairman dept, Yale, 19–27; *head research dept, U. S. Steel Corp, 27–* Chem. Soc. (ed. board, 14–23, councilor, 36); Electrochem. Soc. (pres, 33); Soc. Metals; Faraday Soc; Min. and Metal. Eng; Franklin Inst; British Inst. Metals; London Iron and Steel Inst; Bunsen Gesell; Verein Deuts. Eisenhüttenleute. Physical chemistry; metallurgy.

Johnston, John R(obert), 231 Bellevue St, West Roxbury, Mass. *Plant pathology.* Ludlow, Vt, June 19, 80. B.S, Harvard, 02, M.S, 04. Plant path. lab, bur. plant indust, U. S. Dept. Agr, 05–10; pathologist, Estacion Exp. de los Productores de Azucar, Rio Piedras, P. R, 10–14; Estacion Exp. Agron, Santiago, Cuba, 14–17, chief office veg. sanit, 16–22; director agr. research, United Fruit Co, Boston, 20–34; director, Escuela Nacional Cent. de Agr, Chimaltemango, Guatemala, 39–41; *agr. adviser, Banco Nacional de Comercio Exterior S.A, 42–* Prof, Univ. Havana, 18–20. Bot. exped, Margarita, Venezuela, 01; Gray Herbarium exped, Margarita and Trinidad, 03; sugar-cane disease surv, Santo Domingo, P. R. Board Commissioners Agr, 11; sugar-cane disease surv, south. U. S, U. S. Dept. Agr, 13. A.A; Bot. Soc; Phytopath. Soc; Mass. Hort. Soc; Bot. Soc. Wash; Boston Soc. Nat. Hist. Flora of Margarita, Venezuela; cocoanut, sugar-cane and banana diseases; entomogenous fungi; pine diseases in Guatemala.

Johnston, Dr. J(oseph) R(ex), Temple, Texas. *Soil technology.* Iredell, Texas, April 24, 15. B.S, Texas Tech. Col, 36; Ph.D, Iowa State Col, 41. Teaching fellow, Iowa State Col, 36–37, research fellow, 37–38; junior soil surveyor, *U. S. Dept. Agr,* 38–40, asst. soil technologist, 41, *asst. soil* conservationist, 42–43, *assoc. soil scientist, 43–* Soil Sci. Soc; Soc. Agron. Soil and water conservation.

Johnston, Dr. Marion Jane Lawson, Dominion Fisheries Experimental Station, Halifax, N. S, Can. *Biochemistry.* Tillsonburg, Ont, March 26, 10. B.H.Sc, Toronto, 31, M.A, 33, Banting Research Foundation fellow, 33–35, Ph.D, 35. Fellow, Banting Research Foundation, Toronto, 35–36; *research, Fisheries Exp. Sta, 38–* Carbohydrate metabolism of kidney; an addition compound of histidine.

Johnston, Dr. Norris, 1115 S. Almansor St, Alhambra, Calif. *Physics.* Morgantown, W. Va, May 9, 02. Minnesota, 19–21; B.S, Mass. Inst. Tech, 24, M.S, 25; Am. Petrol. Inst. fellow, Calif. Inst. Tech, 27–29, Ph.D, 30. Research engineer, Carborundum Co, Niagara Falls, 25–26; teaching fellow physics, Calif. Inst. Tech, 26–27; research physicist, Union Oil Co. of Calif, Los Angeles, 29–31; supervisor physical research, Firestone Tire and Rubber Co, Akron, 31–37; *physicist, Gen. Petrol. Corp, 37–* Summers, asst, Gen. Elec. Co, 23, 24. Advisory council applied physics, Am. Inst. Physics, 37– Physical Soc; Petrol. Inst. Sedimentation equilibria of colloidal particles; physics of rubber; core analysis interpretation; oil reservoir behavior.

Johnston, Prof. Ola, North Texas State Teachers College, Denton, Texas. *Biology.* Groveton, Texas. A.B, Texas, 24, A.M, 26, Ph.D, 33. Teacher, high schs, La, 13–22; tutor zool, Texas, 24–26, instr, 26–27; *prof. biol, N. Texas State Teachers Col, 27–* A.A; Texas Acad. Zoology.

Johnston, R(obert) A(ngus) A(lister), 112 Old Forest Hill Road, Toronto, Ont, Can. *Mineralogy.* Reach, Ont, July 5, 67. Toronto. Asst. chemist, *Geol. Surv. Can,* 87–07, mineralogist, 07–22, *hon. curator miner.* A.A; fel. Royal Soc. Can. Rocks; meteorites.

Johnston, Dr. Robert L(ee), Superior Ave, Silverton, Ohio. *Physiology.* Pender Co, N. C, Feb. 1, 92. A.B, Trinity Col. (N. C), 20; M.S, Chicago, 22, 32, M.D, Rush, 24. Instr. physiol. and pharmacol, sch. med, Georgia, 22–24; intern, Henry Ford Hosp, 25–27; Packard fellow, Cleveland Clinic, 28–31; *private practise, 32–;* instr. *physiol, sch. med, Cincinnati,* 32–40, *asst. prof, 40–; major, Med. Corps, U. S. Army, 41–* Private practise, Chicago, 28–29. Fel. Am. Med. Asn; Cincinnati Acad. Med. Physiology of gastric secretion; basal blood pressure; pulse and blood pressure in physical efficiency tests; therapeutic effects of physical exercise; blood urea clearances in experimental nephritis; physiology of the prostate gland; effect of salicylic acid derivatives and barbiturates on the isolated heart.

Johnston, Stanley, South Haven Experiment Station, South Haven, Mich. *Horticulture.* Roscommon, Mich, Sept. 9, 98. B.S, Mich. State Col, 20, M.S, 30. *Supt, South Haven exp. sta, Mich. State Col, 20–* Soc. Hort. Sci. Peach varieties; raspberry fruiting habit and pruning; pollination of peaches, pears and apples; propagation of the highbush blueberry; blueberry culture; pear, peach and small fruit breeding.

Johnston, Dr. Stewart A(rchibald), Western Washington College of Education, Bellingham, Wash. *Physical chemistry.* Ft. William, Ont, Can, Aug. 22, 11. B.Sc, Manitoba, 32, M.Sc, 37; Lever Brothers Co. fellow, Stanford, 39–40, Ph.D, 40. Demonstrator chem, Manitoba, 29–33; lecturer physics, United Col, Winnipeg, 34–38; teaching asst. physical sciences, Stanford, 38–39; research chemist, Va. Chem. Corp, 40–41; United Color and Pigment Co, 41; develop. engineer, West. Elec. Co, 41–42; *instr. physics and math, West. Wash. Col. Educ, 42–* Summer, asst, Stanford, 39. Amplification of direct current by gaseous positive ions; constitution of aqueous solutions of colloidal electrolytes.

Johnston, Dr. W(illiam) D(rumm), Jr, U. S. Geological Survey, Washington, D. C. *Geology.* Garrett, Ind, Nov. 3, 99. B.S, Chicago, 21; Ph.D, George Washington, 32. Instr. geol, Cincinnati, 22–23; asst. prof, Kentucky, 23–24; geologist, Inst. Indust. Research, Cincinnati, 24–25, hon. fellow geol, 25–26; asst. prof, N. Mex. Sch. Mines, and geologist, N. Mex. Bur. Mines, 27–28; asst. geologist, U. S. Geol. Surv, 28–31, assoc. geologist, 32–35, geologist, 36–41; *prin. geologist, Board Econ. Warfare, Brazil, 42–* Geol. Soc; Soc. Econ. Geol. (sec'y, 36–41); Miner. Soc; Geol. Soc. Wash. Groundwater; metalliferous deposits; California gold veins; Comstock lode; chromite; mineral deposits of South America; especially Brazil.

Johnston, Dr. W(illiam) R(edmond), 810 Grand Concourse, New York, N. Y. *Chemistry.* Chicago, Ill, June 26, 07. B.S, Washington (Seattle), 30; Fleischmann fellow, Hopkins, 30–33, Ph.D, 33. *Research chemist, Fleischmann Labs, 33–* Chem. Soc; Am. Inst; N. Y. Acad. Physical and organic chemistry; free radicals; enzyme kinetics; chemistry of coffee; autoxidation; high vacuum dehydration.

Johnstone, Dr. E(dward) R(ansom), Vineland, N. J. *Psychology.* Galt, Ont, Can, Dec. 27, 70. Hon. M.S, Princeton, 23; hon. Litt.D, Rutgers, 41. Teacher, Ohio, 89–93; prin, Ind. Sch. Feeble-Minded, 93–98; asst. supt, *Training Sch. for Feeble-Minded, Vineland,* 89–00, supt, 00–21, *exec. director, 21–* Pres, Prison and Parole Board, N. J, 27–; consultant, N. J. Dept. Institutions and Agencies; N. J. Council Educ; chairman, cmt. educ, N. J. Crime Cmn, 35. V. pres. advisory board, North Jersey Branch Exp. Sta. Order St. Sava, Serbia, 20. A.A; Asn. Mental Deficiency (pres, 02, 27); Am. Prison Asn; Eugenics Research Asn. Feeble-mindedness.

Johnstone, Dr. Francis E(lliott), Jr, Alabama Polytechnic Institute, Auburn, Ala. *Plant breeding, Plant genetics.* Georgetown, S. C, April 22, 11. B.S, Clemson Col, 32; M.S, Louisiana, 37; Ph.D, Cornell, 40. Teacher, high sch, S. C, 33–35; asst. plant path, S. C. Truck Exp. Sta, 35; admin. officer, camp, Civilian Conservation Corps, 35–36; asst. hort, Louisiana, 36–37; plant breeding, Cornell, 37–40; *asst. horticulturist, Ala. Polytech, 40–; lieut, U. S. Naval Res, 41–* A.A; Soc. Hort. Sci; Genetics Soc; Potato Soc; Ala. Acad. Effect of cold on different potato varieties and lines; doubling of potato chromosomes with colchicine and the effects; breeding tomato, bean, English pea and cabbage varieties adapted to Alabama conditions.

Johnstone, Prof. G(eorge) R, University of Southern California, Los Angeles, Calif. *Plant physiology.* Galva, Ill, July 21, 88. A.B, Illinois, 13; M.S, Chicago, 17, Ph.D, 24. Instr. bot, Mich. State Col, 13–16; N. Y. State Col. Forestry, Syracuse, 19–20; assoc. prof. bot. and assoc. botanist, Ala. Polytech, 20–23; asst. prof. and *prof. bot, Southern California, 24–* Summer, lecturer, Iowa, 31. A.A; Bot. Soc. Respiration; polyembryony; germination; under-water plants.

Johnstone, Prof. H(enry) F(raser), 802 Delaware Ave, Urbana, Ill. *Chemical engineering.* Georgetown, S. C, Dec. 16, 02. B.S, Univ. of the South, 23; M.S, Iowa, 25, fellow, 25–26, Ph.D, 26. Asst. chem, Iowa, 23–24, physical chem, 24–25; asst. prof. chem, Mississippi, 26–28; research asst. *chem. eng, Illinois,* 28–29, research assoc, 29–31, research asst. prof, 31–36, assoc. prof, 36–39, *prof, 39–* Walker medal, 43. Chem. Soc; Chem. Eng. Corrosion; absorption of gases; distillation; treatment of waste gases; sulfur chemistry.

Johnstone, Prof. Herbert G(eorge), University of California Medical School, San Francisco, Calif. *Medical parasitology, Bacteriology.* San Francisco, Calif, Oct. 12, 03. A.B, California, 27, A.M, 28, Ph.D, 33. Asst, protozool. sect, Calif. Stomatol. Research Group, 27–31; Pacific inst. trop. med, Hooper Foundation, *California,* 31–33, assoc. trop. med, 33–36, instr. *bacter, med. sch,* 36–39, *asst. prof, 39–* A.A; Soc. Trop. Med; Soc. Bact. (sec'y-treas. north Calif-Hawaii branch, 41); Soc. Parasitol; Pub. Health Asn; Pasteur Soc. Cent. Calif. (v. pres, 35, sec'y-treas, 37, pres, 39). Medical zoology; animal parasites of the mouth and their relation to dental disease; chemotherapy and epidemiology of amebiasis; chemotherapy of hookworm infection; onchocercosis; trichiniasis; filariasis; relapsing fever; yeast-like fungi.

Johnstone, Prof. J(ohn) H(amilton) L(ane), Dalhousie University, Halifax, N. S, Can. *Physics.* Pictou, N. S, April 27, 91. B.Sc, Dalhousie, 12, M.Sc, 14; 1851 Exhib. scholar, 14–16; Ph.D, Yale, 16, M.B.E, 18. Instr. *physics, Dalhousie,* 12–14, 19–20, asst. prof, 20–22, assoc. prof, 22–25, *prof, 25–* Research physicist, Gen. Elec. Co, 28–29. Commissioner, Provincial Science Library, N. S, 32–36. Div. physics and elec. eng, Nat. Research Council, Can, 40– Physical Soc; Seismol. Soc; N. S. Inst. Sci. (pres, 27–29); Int. Union Geod. and Geophys. (nat. cmt. Can). Electrical conductivity and resistance; radioactivity; dielectric constants.

Johnstone-Wallace, Prof. D(enis) B(owes), 210 Willard Way, Ithaca, N. Y. *Agrostology.* Newcastle-upon-Tyne, Eng, March 25, 94. B.Sc, Durham (England), 14, M.Sc, 24; Florida, 30–31. Recorded experiments, Exp. Sta, Durham, 14–15; lecturer agr, Leeds, 19–22; organizer agr. educ. for Devonshire, 22–24; prin, E. Anglian Inst. Agr, Chelmsford, 24–29; director agr. research in U. S, Brotex Cellulose Fibres, London, 29–31; *asst. prof. agrost, Cornell, and agrostologist, Exp. Sta, N. Y. State Col. Agr, 31–* Consulting agronomist and cooperative agent, soil conservation service, U. S. Dept. Agr, 35–38. Mem. board studies, Seale Hayne Agr. Col, Devon, England, 22–24; agr. cmt, London, 24–29; board studies, sch. agr, Cambridge, 24–29. Nat. Dipl. Dairying,

Royal Agr. Soc. England and Highland and Agr. Soc. Scotland, 14. Capt, Royal Garrison Artil, 15–19. Soc. Agron; Agr. Educ. Asn. Gt. Britain (chairman, agr. organizers cmt, 27, councilor, 27); London Farmers Club. Improvement and management of pastures.

Joliat, Rev. J(oseph) S(ebastian), S.J, John Carroll University, Cleveland, Ohio. *Geophysics.* Louisville, Ohio, Jan. 12, 82. A.B, St. Louis, 10, A.M, 11, M.S, 12. Instr. chem, St. Louis, 12–13, asst. prof, 13–16, assoc. prof. geophys, 25–32, *prof*, 32–33; *math, John Carroll, 33–* A.A; Math. Soc; Meteorol. Soc; Seismol. Soc. Earthquakes; seismological equipment.

Joliffe, Dr. Norman, New York University College of Medicine, 477 First Ave, New York, N. Y. *Nutrition.* W. Va, Aug. 18, 01. A.B, West Virginia; M.D, N. Y. Univ, 26. Instr. physiol, *col. med, N. Y. Univ*, 30–32, *med*, 32–34, asst. prof, 34–39, *assoc. prof, 39–* Mem. food and nutrition board and sec'y subcmt. med. nutrition, div. med. sciences, Nat. Research Council. Fel. Am. Med. Asn; fel. Col. Physicians; N. Y. Acad. Med.

Jollvette, Capt. James P, APO 6, San Luis Obispo, Calif. *Plant pathology.* La Crosse, Wis, July 20, 15. B.S, Wisconsin, 37, Ph.D, 41. *U. S. Army, 42–, capt.* Vegetable diseases.

Jolley, Dr. J(ohn) Irving, University of Idaho, Moscow, Idaho. *Physical chemistry.* Seattle, Wash, Dec. 14, 07. B.S, Washington, 30, Lorretta Denny fellow, 30–31, Ph.D, 40. *Instr. chem,* Cent. Wash. Col. Ed, 36; *Idaho, 37–* Kinetics of zinc-hydrogen irreversible cell.

Jolliffe, Dr. A(lfred) W(alton), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Winnipeg, Man, May 8, 07. B.A, Queen's (Can), 29, Nat. Research Council Can. bursar, 30–32, M.A, 31; scholar, Princeton, 32–33, fellow, 33–35, Ph.D, 35. Asst. geologist, *Geol. Surv. Can*, 35–36, *assoc. geologist, 36–* Fel. Geol. Soc; fel. Miner. Soc; fel. Can. Geog. Soc; fel. Royal Soc. Can. Precambrian structural and economic geology.

Jolliffe, Dr. Charles B(yron), Victor Division, RCA Corp, Camden, N. J. *Radio engineering.* Mannington, W. Va, Nov. 13, 94. B.S, West Virginia, 15, M.S, 20, LL.D, 42; Ph.D, Cornell, 22. Asst. physics, Ohio State, 16–17; instr, West Virginia, 17–20; Cornell, 20–22; assoc. physicist, Bur. Standards, 22–24, physicist and asst. chief, 24–26, 27–30; research director, Buckeye Incubator Co, 26–27; chief engineer, Fed. Radio Cmn, 30–34; Federal Communications Cmn, 34–35; engineer in charge frequency bur, *Radio Corp. Amer*, 35–41, chief engineer, labs, 41–42, v. pres. and chief engineer, RCA Mfg. Co, 42–43, *chief engineer, RCA Victor Div, 43–* Chairman communication div, Nat. Defense Research Cmt, 40–; mem. cmts, board of war communications, 41; Engineers Defense Board, 41. Mem. cmt, 3rd and 4th Nat. Radio Confs; tech. asst, U. S. delegation, Int. Radio Conf, Washington, 27; tech. asst, Int. Tech. Consulting Cmt, The Hague, 29, U. S. del, Copenhagen, 31; Int. Telecommunications Conf, Madrid, 32; chief tech. adviser, N. A. Regional Radio Conf, Mexico City, 33; RCA rep, Int. Broadcasting Union, Paris, 36; Int. Consulting Cmt, Bucharest, 37; Inter-Am. Radio Conf, Havana, 37; Int. Telecommunications Conf, Cairo, 38. Sig.C, A.C, 18–19. A.A; fel. Radio Eng. (past chairman, Washington sect; sub-cmt. vacuum tubes); Elec. Eng. Electrolytic capacity; regeneration in radio receiving sets; radio frequency standardization; radio wave phenomena; vacuum tubes; frequency allocations.

Jominy, Walter E(dwin), Dodge Chicago Plant, Chicago, Ill. *Chemical engineering.* Detroit, Mich, 93. B.Ch.E, Michigan, 15, M.S, 16. Research metallurgist, Studebaker Corp, 16–17; senior inspector, U. S. Bur. Aircraft Production, 17–18; metal. engineer, Packard Motor Car Co, 18–21; director labs, Studebaker Corp, 21–23; assoc. investigator, Michigan, 23–27, investigator, 27–30, research engineer, 30–31; *research metallurgist*, A. O. Smith Corp, 31–34; research labs, Gen. Motors Co, 34–41; *Chrysler Corp, 41–* Soc. Metals; Foundrymen's Asn. Selection of automobile steels; charcoal pig iron in making grey iron castings; metallurgy of forging steel; scaling and decarburization of steel; metallic wear; hardenability of steel.

Jonah, Prof. Fred(erick) C(hapman), 119 W. Fifth Ave, Laurel Beach, Milford, Conn. *Mathematics.* Alma, N. B, Can, Aug. 3, 99. B.A, Mt. Allison, 23; A.M, Brown, 26, Sharpe fellow, 27–28, Ph.D, 30. Prof. math, Acadia, 23–24; asst, Brown, 24–26; instr, Harvard, 26–27; asst. prof, Adelbert Col, Western Reserve, 28–43; *project anal. engineer, Chance Vought Aircraft Div, United Aircraft, 42–* Research fellow, Brown, 42; research engineer, Pratt and Whitney Aircraft, United Aircraft, 42. Math. Soc; Math. Asn. Differential, integral and integro-differential equations.

Jonah, Prof. Harold F(rancis) S(ecord), Purdue University, West Lafayette, Ind. *Mathematics.* Sackville, N. B, Can, Oct. 20, 04. B.Sc, Mt. Allison, 27; M.S, Brown, 29; Ph.D, Purdue, 41. Asst. *math*, Brown, 27–29, instr, 29–30; *Purdue*, 30–41, *asst. prof, 41–* Application of the theory of functions to the theory of numbers; congruences connected with the solution of a diophantine equation; summability of Fourier series.

Jonas, Dr. Leon, 255 S. 17th St, Philadelphia, Pa. *Internal medicine.* White Haven, Pa, Aug. 30, 83. M.D, Pennsylvania, 09. *Assoc. med, Pennsylvania, 12–, Woodward fellow, 14–* A.A; Am. Med. Asn; Soc. Exp. Biol; Physiol. Soc. Phila; Col. Physicians Phila. Diseases of metabolism.

Jones, Dr. A(rthur) Letcher, University of Virginia, Charlottesville, Va. *Analytical chemistry.* New Canton, Va, May 2, 14. B.S, Hampden-Sydney Col, 36; Cornell, summers, 37, 38; J. T. Baker Chem. Co. fellow, Virginia, 42–43, Ph.D, 43. Instr. chem, Hampden-Sydney Col, 36–39. Chem. Soc; Va. Acad. A new organic reagent for the gravimetric determination of tungstates; a new colorimetric reagent for ferric iron; the bacteriostatic action of glycine on Streptococcus hemolyticus.

Jones, Prof. A(rthur) T(aber), 78 N. Elm St, Northampton, Mass. *Physics.* Vassalboro, Maine, Sept. 9, 76. B.S, Chicago, 99; fellow, Clark, 11–13, Ph.D, 13; Yale, 26–27. Teacher, high schs, Ill, 00–02; asst. *physics*, Purdue, 02–03, instr, 03–06, asst. prof, 06–11; Iowa State Col, 13–14; *Smith Col*, 14–19, assoc. prof, 19–28, *prof, 28–*, chairman dept, 38–41. Assoc. ed, 'Am. Jour. Physics,' 42– Summer, asst. physicist, Bur. Standards, 18. A.A; fel. Physical Soc; fel. Acoustical Soc. (councilor, 35–38); Asn. Physics Teachers. Acoustics, especially bells and organ pipes; sound.

Jones, Austin E(mery), Boulder City, Nev. *Seismology, Volcanology.* Crescent City, Calif, Nov. 9, 98. A.B, California, 24; M.S, Hawaii, 38. Asst. scientist, U. S. Geol. Surv, Kilauea Volcano, Hawaii, 31–35; asst. geologist, Board of Water Supply, Honolulu, 35–37; with Shell Geophys. Co, Midland, Texas, 37–38; junior foreman on trails, U. S. Forest Service, Oregon, 38; inspecting geologist, Lava Beds Nat. Monument, 39; asst. and later *assoc. magnetic and seismol. observer, U. S. Coast and Geod. Surv, Nev, 40–* Soil surv, bur. chem. and soils, U. S. Dept. Agr, 35. Summers, U. S. Geol. Surv, Calif, 27, 28, Alaska, 29; instr, Hawaii, 33–35. Mem. Mauna Kea exped, Hawaiian Acad, 35. Seismol. Soc; Geophys. Union; Hawaiian Acad. Terrestrial magnetism; ground water; volcanic ground movements; seismic wave velocities; time and place distribution of earthquakes; distribution of volcanic products.

Jones, Benjamin E(arl), 3611 Military Road, N. W, Washington, D. C. *Hydraulic engineering, Geophysics.* Conneaut, Ohio, Jan. 11, 83. B.S, Michigan, 08. Civil engineer student and junior engineer, Office Pub. Roads, 08–10; from junior engineer to *chief water and power div, conservation branch, U. S. Geol. Surv, 10–* Civil Eng. (sec'y D. C. sect, 39–); Geophys. Union; Wash. Soc. Eng. (director, 34–35). Correcting river discharge for changing stage; water power and estimates; geophysics of dam sites.

Jones, Prof. B(urton) W(adsworth), Cornell University, Ithaca, N. Y. *Mathematics.* Redwood Falls, Minn, Oct. 1, 02. A.B, Grinnell Col, 23; A.M, Harvard, 24; Ph.D, Chicago, 28. Instr. *math*, Western Reserve, 24–26; Chicago, 28–29; nat. research fellow, Chicago and Calif. Inst. Tech, 29–30; asst. prof, *Cornell*, 30–40, *assoc. prof, 40–* Math. Soc; Math. Asn. Theory of numbers; quadratic forms.

Jones, Dr. Cecil Charles, Fredericton, N. B, Can. *Mathematics.* Boundary Creek, N. B, Feb. 11, 72. B.A, New Brunswick, 97, M.A, 99, Ph.D, 02; A.B, Harvard, 98; Chicago, 04; LL.D, Toronto, 07, Bates Col, 20, McMaster, 23; D.C.L, Acadia, 34, Kings, 39. Prof. math, Acadia, 98–06; New Brunswick, 06–40, chancellor, 06–31, pres, 31–40; *retired.* Education.

Jones, Dr. Charles L(uther), H. J. Heinz Corp, 1062 Progress St, Pittsburgh, Pa. *Food chemistry.* Wilkinsburg,

Pa, Dec. 19, 98. B.S, Allegheny Col, 19; M.S, Pittsburgh, 20, Ph.D, 23. Asst. to director, Mellon Inst, 19–20, indust. fellow, 20–24; sales manager and chem. engineer, Vesuvius Crucible Co, Swissvale, Pa, 24–27; production manager, Dry Ice Corp, 28–29, v. pres, 30–34; chem. engineer, H. J. Heinz Corp, 34–38; *research chemist, Firth-Sterling Steel Corp, 40–* In charge investigations, Compressed Gas Mfrs. Asn, 22–24; consulting engineer, Am. la France and Foamite Corp, 27–35. Chem. Soc; Soc. Refrig. Eng; Eng. Soc. West. Pa. Foods; compressed gases; manufacture and uses of liquid and solid carbon dioxide.

Jones, Prof. Cha(rle)s R(ichardson), Colorado State College of Agriculture and Mechanic Arts, Ft. Collins, Colo. *Zoology, Entomology.* Hastings, Nebr, Oct. 17, 79. B.S, Colo. Agr. Col, 04, M.S, 16; Ph.D, Iowa State Col, 26. Agent and expert, bur. entom, U. S. Dept. Agr, 04–09; entomologist, Bur. Science, P. I, 09–10, Bur. Agr, 10–13; assoc. prof. *zool. and entom, Colo. State Col,* 13–15, *prof, 35–,* asst. entomologist, *Exp. Sta,* 13–35, *entomologist, 35–* Summers, lecturer, Iowa State Col, 25; assoc, Denver, 27–30. Major, R.O.T.C, 18–19, 25. Asn. Econ. Entom.

Jones, Dr. Chase B(reese), 280 Columbia Ave, Berkeley, Calif. *Biochemistry.* Madison, Wis, Jan. 14, 12. A.B, Ripon Col, 32; A.M, George Washington, 33, fellow, 35–37, Ph.D, 38. Teaching fellow biochem, George Washington, 35–37; research biochemist, Schieffelin and Co, N. Y, 37–39; research fellow immunochemistry, Western Reserve, 39–40; *assoc. chemist, protein div, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 40–* A.A; Chem. Soc. Biochemistry of the sulfur of proteins and sulfur-containing amino acids.

Jones, Dr. Chester M(orse), Massachusetts General Hospital, Boston, Mass. *Medicine.* Portland, Maine, March 29, 91. A.B, Williams Col, 13, Sc.D, 42; M.D, Harvard, 19. Asst. med, *Harvard,* 21–24, Moseley traveling fellow, 24–25, instr. med. and Henry P. Walcott fellow clin. med, 25–28, asst. prof. *med,* 28–40, *clin. prof, 40–* Asst, Mass. Gen. Hosp, 20–21, assoc. physician, 25–28, physician, 28–; acting assoc. prof, Vanderbilt, 40–41. Adviser, Am. Board Int. Med. Am. Med. Asn; Soc. Clin. Invest; Am. Physicians; Col. Physicians; Clin. and Climat. Asn; Gastro-Enterol. Asn. (pres, 36). Blood pigment metabolism; liver disease and liver function; nutritional edema and protein deficiency; gastritis; mucous colitis; esophageal hiatus hernia; digestive tract pain; vitamin C and wound healing.

Jones, Prof. Clarence F(ielden), Clark University, Worcester, Mass. *Geography.* Radford, Va, Aug. 30, 93. B.S, Chicago, 17, Ph.D, 23. Prin, high sch, Ill, 13; Minn. State Teachers Col, St. Cloud, 17–18; asst. geog, Chicago, 21–23; asst. prof. *econ. geog, Clark,* 23–26, assoc. prof, 26–28, *prof, 28–* Visiting prof, Wellesley Col, 30–31; Puerto Rico, 31. Summers, instr, Ill. State Nor. Univ, 20; lecturer, West. Ill. State Teachers Col, 24; visiting prof, Iowa, 24, 25; prof, Clark, 26, 27, 30, 34; visiting prof, Western Reserve, 35. Assoc. ed, 'Econ. Geog,' 24. Sergt. major, U.S.A, 18–19. Asn. Geog. (councilor, 38–); Am. Geog. Soc; Acad. Polit. Sci; Nat. Council Geog. Teachers. General economic geography; economic geography and agricultural regions of South America; trends in modern geography; rainfall in South America; routes and traffic of Atlantic railway connections at Montreal, Canada; grain trade in Montreal; foreign commerce and trade; geographic influences in American history.

Jones, Dr. Clement R(ussell), University of Pittsburgh, Pittsburgh, Pa. *Medicine.* Waynesburg, Ohio, 17. M.D, Ohio State, 92. *Dental sch, Pittsburgh, 96–* Am. Med. Asn; Col. Physicians (treas, 21–32, mem. board regents, 32); Therapeut. Soc. (pres, 31); Gastro-Enterol. Asn. (v. pres, 31). The gastro-intestinal tract.

Jones, Dan H(erbert), Ontario Agricultural College, Guelph, Ont, Can. *Bacteriology.* Stourbridge, Eng, Sept. 29, 75. B.S.A, Ont. Agr. Col, 08. Res. master, Ont. Agr. Col, 06–08, lecturer bacter, 08–15, prof, 15–36; *retired.* Soc. Bact; Can. Phytopath. Soc. Agricultural bacteriology; bacterial diseases of plants; soil bacteria.

Jones, Dr. D(avid) Breese, U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Cambria, Wis, Oct. 5, 79. A.B, Ripon Col, 04; Ph.D, Yale, 10. Research chemist, Conn. Exp. Sta, 08–09; assoc. prof. chem, Morningside Col, 10–11; instr. org. chem, Wisconsin, 11–15; senior chemist and *prin. chemist in charge protein and nutrition div,* bur. chem, *U. S. Dept. Agr,* 15–27, bur. chem. and soils, 27–39, *bur. agr. chem. and eng, 39–* In charge org. chem, Pittsburgh, 14. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Pub. Health Asn; Inst. Nutrition; Inst. Food Technol; Wash. Acad. Proteins; amino acids; vitamins; nutrition.

Jones, Dr. D(avid) F(ranklin), 425 N. Park St, Watertown, S. Dak. *Pharmacy.* Bangor, Wis, Oct. 26, 67. Ph.G, Northwestern, 95; hon. Sc.D, South Dakota, 27; hon. Ph.M, Phila. Col. Pharmacy, 28. *Pharmacist, 91–* Prof, S. Dak. Col, 94–95. Trustee, Dakota Wesleyan. A.A; Pharmaceut. Asn. (pres, 29); Council Pharmaceut. Educ; S. Dak. Pharmaceut. Asn. (past pres, mem. examining board, and chairman, cmt. on drug standardization); S. Dak. Acad. Pharmaceutical chemistry.

Jones, Dr. David M, 1342 McCutcheon Ave, Richmond Heights, Mo. *Organic chemistry.* Forty Fort, Pa, Oct. 3, 10. B.S, Pa. State Col, 32, M.S, 34, Ph.D, 39. *Research chemist, Mallinckrodt Chem. Works, 37–* Chem. Soc. Aliphatic synthesis; sterolic hormones; medicinals; tannins.

Jones, Dr. David S(mith), Loyola University School of Medicine, Chicago, Ill. *Anatomy.* Holliday, Mo, Feb. 2, 10. B.S, Westminster Col. (Mo), 32; M.S, St. Louis, 34; Ph.D, Minnesota, 37. Teaching fellow, St. Louis, 32–34; Minnesota, 34–37; instr. *anat, sch. med, Loyola (Ill),* 37–39, *assoc, 39–* A.A; Asn. Anat. Origin of autonomic ganglion cells; origin of sympathetic ganglia and sheath cells in the chick.

Jones, Prof. David T(racy), 818 E. Fifth St, Vinton, Iowa. *Comparative histology, Entomology.* Near Mt. Auburn, Iowa, Jan. 9, 00. A.B, Iowa, 23, M.S, 25; Ph.D, Indiana, 33. Instr. zool, Utah, 26–27; director labs, Oregon, 27–28; instr. biol, Marietta Col, 28–31; *assoc. prof. zool, Utah, 33–* Summers, instr, Yankton Col, 25; Utah, 27. A.A; Malacol. Union; Iowa Acad; Ind. Acad; Utah Acad. Zoology; malacology; solid secretion; dipterology; physiology.

Jones, D(ettmar) W(entworth), Onancock, Va. *Entomology.* Melrose, Mass, Sept. 2, 90. B.S, Mass. Col, 14. *Entomologist in charge European corn borer, bur. entom. and plant quarantine, U. S. Dept. Agr, 14–* European earwig and its control; corn borer parasites; parasites of the gipsy and brown tail moth.

Jones, Dr. Donald C(ecil), 872 Millwood Road, Leaside, Toronto, Ont, Can. *Physics.* St. John, N. B, July 1, 10. B.A, New Brunswick, 33; Ph.D, McGill, 37. Physicist, Nat. Research Council, Can, 37–40; *director optical shops, Research Enterprises, Ltd, 40–* Spectroscopy; optical instruments.

Jones, Dr. D(onald) F(orsha), Box 1106, New Haven, Conn. *[5]Genetics.* Hutchinson, Kans, April 16, 90. B.S, Kans. State Col, 11; M.S, Syracuse, 16; Sc.D, Harvard, 18. Asst. plant breeder, Exp. Sta, Arizona, 11–13; instr. hort, Syracuse, 13–15; *geneticist, Conn. Exp. Sta, 15–* Visiting prof, Calif. Inst. Tech, 35–36. Nat. Acad; A.A; Soc. Nat. (v. pres, 27); Genetics Soc. (pres, 35); Genetic Asn; Bot. Soc; Am. Acad; Conn. Acad. Genetics.

Jones, Prof. E(dgar) P(ercival), 635 Lakemont Ave, Akron, Ohio. *Biology.* Butte, Mont, Feb. 19, 96. B.S, Pittsburgh, 26, M.S, 28, Ph.D, 32. Instr. *biol,* Pittsburgh, 28–32; *Akron,* 32–35, *asst. prof, 35–* Photographer and asst. director, Univ. Pittsburgh exped, British Guiana, 26. A.A; Micros. Soc; Soc. Zool. Cellular physiology; protozoology; population growth; paramecium cultures relative to population growth, size changes and population changes as affected by food concentrations, excretory products and hydrogen ion concentration; bioassay of artificially produced vitamin D.

Jones, Prof. E(dmund) Ruffin, Jr, College of William and Mary, Norfolk, Va. *Zoology.* Charlottesville, Va, Oct. 1, 05. A.B, B.S, Virginia, 27, A.M, 28, Ph.D, 30. Lecturer *biol,* Dalhousie, 30–31; assoc. prof, *Col. of William and Mary,* 31–37, *prof, 37–, director summer session, 41–,* chairman faculty, 41–42, *director evening col, 42–* Summers, instr, Virginia, 28, 29; Mt. Lake Biol. Sta, 35; Marine Biol. Lab, Woods Hole, 41–42, mem. corp. A.A; Soc. Zool; Micros. Soc; N. Y. Acad; Va. Acad. (chairman, cmt. on fauna of Va, 35–). Morphology, histology and cytology of invertebrates, especially of the Turbellaria.

Jones, Pres. Edward N(ewlon), Texas College of Arts and Industries, Kingsville, Texas. *Biology, Eugenics.* Downs, Kans, April 15, 99. B.S, Ottawa (Kans), 21, LL.D, 40; fellow, Iowa, 24–25, Ph.D, 25. Prof. bot. and head dept. Baylor, 25–34, biol, 34–42, dean, col. arts and sciences, 35–39. univ,

39–42; *pres, Texas Col. Arts and Indust, 42–* Summers, head ranger naturalist, Yellowstone Nat. Park, 29, 30. A.A; Eugenics Soc; Texas Acad. (pres, 32). Human genetics.

Jones, Prof. Edward S(afford), University of Buffalo, Buffalo, N. Y. *Psychology.* Madura, S. India, Aug. 18, 88. A.B, Oberlin Col, 10; Ph.D, Chicago, 17. Instr. *psychol,* Northwestern, 16–17; asst. prof, Oberlin Col, 19–23; *Buffalo,* 23–25, *prof, 25–, director office personnel research, 25–, dean students, 42–* Director surv. on comprehensive examinations for Asn. Am. Cols, Gen. Educ. Board, 31–32, director study articulation high sch. and col, 33–36. Mem. Nat. Occupational Conf. Sanit.C, 17–19, capt. Psychol. Asn; Am. Acad; N. Y. Asn. Deans and Advisers. Experimental and social psychology; mental tests; personnel problems.

Jones, E(dward) W(alley), 941 Boyer Ave, Walla Walla, Wash. *Economic entomology.* Portland, Oregon, Aug. 28, 04. A.B, Reed Col, 27; A.M, Minnesota, 30. Asst. biol, Reed Col, 28; entom, Minnesota, 29–30; *asst. entomologist, div. truck crop and garden insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–* Summer, field asst, bur. entom, U. S. Dept. Agr, 29. Asn. Econ. Entom. Wireworm control investigations; insect ecology.

Jones, Dr. Edwin P(atterson), West Copake, N. Y. *Chemistry.* Durham, N. C, May 23, 00. A.B, Duke, 20, A.M, 21; Ph.D, Yale, 26. Liggett and Myers Foundation research chemist, Duke, 21–23, 27–30; research chemist, Roxana Petrol. Corp, 26–27; Victor Chem. Works, 30–31; director research, Champagne Paper Corp, and Ecusta Paper Corp, 31–40; *tech. and research director, Ancram Paper Mills, 40–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Industrial physicochemistry; technical problems in the manufacture of high grade tissue, carbonizing and cigarette paper.

Jones, Dr. Eldon M(elton), Parke, Davis and Co, Detroit, Mich. *Organic chemistry.* Chenoa, Ill, Feb. 1, 14. B.S, Illinois, 36; M.S, Pa. State Col, 37, Ph.D, 40. Asst, Pa. State Col, 40–41; *senior research chemist, Parke, Davis and Co, 41–* Chem. Soc. Polymerization of olefins; steroidal hormones and sapogenins; antimalarial agents.

Jones, Prof. Elmer E(llsworth), 129 W. Irvington Place, Denver, Colo. *Psychology.* Pennville, Ind, May 31, 66. A.B, Monmouth Col, 94; A.M, Colorado, 01; Ph.D, Columbia, 08. Prof. psychol. and educ, Va. State Nor. Sch, 02–08; hist. and philos. of educ, Indiana, 08–14; head dept. educ, Northwestern, 14–20, director sch. educ, 20–24, prof. educ, 24–31; director, Denver Psychol. Lab, 31–36; *prof. psychol, Univ. Nat. Healing Arts, 36–* Ill. Acad. Individual differences; educational measurements; heredity; psychology of drawing and music; the senile mind; mental states; vocational guidance; sex relations among adolescents; association among delinquents; the sense impression of children; the waning of consciousness under chloroform; mental hygiene.

Jones, Prof. E(lmer) M(aurice), Adrian College, Adrian, Mich. *Chemistry.* Alexandria, Ohio, Oct, 77. B.S, Denison, 03, M.S, 06; hon. Sc.D, Adrian Col, 30; Chicago; Michigan. Teacher, high sch, Ill, 03–04, prin, 06–07; prof. chem. and physics, *Adrian Col,* 07–40, *emer. prof. chem, 40–* Consulting chemist, Parker Rust Proof Co, 22– Trustee, Adrian Col; research foundation, Denison, 42– Metal finishing; photochemical research.

Jones, Prof. Ernest Victor, Birmingham-Southern College, Birmingham, Ala. *Chemistry.* Bronaugh, Mo, Jan. 7, 82. A.B, Morrisville Col, 05; A.M, Vanderbilt, 09, Ph.D, 12. Prof. *chem,* Southern (Ala), 12–13; Soochow, China, 13–22, 35–36; Univ. Nanking, 22–27; *prof. and head dept, Birmingham-Southern Col, 28–* Co-director, Nat. Science Teachers Inst, China, 24, 26. A.A; Chem. Soc. (chairman, Ala. sect, 33); fel. Inst. Chem; Ala. Acad. (ed, 'Jour,' 30–42, pres, 43); Am. Christian Cols, China (sec'y, 21). Spectrography; surface tension; electrometric titrations.

Jones, Dr. Eugenia C(uvillier), Agnes Scott College, Decatur, Ga. *Parasitology.* Washington, D. C, July 8, 09. B.S, George Washington, 30, A.M, 32, M.D, 38; Sc.D, Hopkins, 36. Jr. zoologist, U. S. Dept. Agr, 30–34; nat. inst. health, U. S. Pub. Health Service, 36; intern, Jersey City Med. Center, 38–39; res, Children's Hosp, Washington, D. C, 39–40; *res. physician and prof. hygiene, Agnes Scott Col, 40–* Am. Med. Asn; South. Student Health Asn. (v. pres, 41). Helminthology; pediatrics.

Jones, Prof. E(va) Elizabeth, Wellesley College, Wellesley, Mass. *Zoology, Comparative pathology.* Ottawa, Kans, Sept. 12, 98. A.B, Radcliffe Col, 20, Ph.D, 30; A.M, Maine, 24. Asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 21–22; Maine, 22–24, instr. biol, 24–25; cancer cmn, biophys. lab, Harvard, 26–27, fellow comp. path, Harvard Med. Sch, 30–34; instr. zool, Wellesley Col, 34–36; special lecturer biol, Simmons Col, 36–37; asst. prof. *zool, Wellesley Col,* 37–43, *assoc. prof, 43–* A.A; Soc. Zool; Asn. Cancer Research. Genetics of tumors in mice; avian coccidiosis; diseases of birds.

Jones, Dr. F(lorence) Shirley (Patterson), 872 Millwood Road, Toronto, Ont, Can. *Astronomy.* Newmarket, Ont, March 26, 13. B.A, Toronto, 35, M.A, 36; Royal Soc. Can. fellow, Radcliffe Col, 39–40, Caroline I. Wilby scholar, 41, Ph.D, 41. Computer, David Dunlap Observatory, Toronto, 36–38; *physicist, Research Enterprises, Ltd, 41–* Astron. Soc; Royal Astron. Soc. (councilor, 42).

Jones, Prof. F(loyd) Burton, University of Texas, Austin, Texas. *Mathematics.* Cisco, Texas, Nov. 22, 10. A.B, Texas, 32, Ph.D, 35. Instr. *pure math, Texas,* 32–41, *asst. prof, 41–; research assoc, underwater sound lab, Harvard, 42–* Math. Soc. Point-set theory; abstract spaces; topology; plane analysis situs.

Jones, Prof. Francis T(ucker), 735 Everett St, El Cerrito, Calif. *Chemistry.* Rocklin, Calif, Jan. 17, 05. A.B, Pacific (Oregon), 28; A.M, Oregon, 31; Ph.D, Cornell, 34. Asst. chem, Pacific (Oregon), 26–28; prof, high sch, Oregon, 28–29; asst, Oregon, 29–31; Cornell, 32–34; prof, Pacific (Oregon), 34–42; *asst. research chemist, west. regional research lab, bur. agr. and indust. eng, U. S. Dept. Agr, 42–* Chem. Soc; Soc. Amateur Microscopists; Nature Asn. Chemical microscopy; qualitative analytical tests.

Jones, Dr. Frank L(ydick), Bausch and Lomb Optical Co, Rochester, N. Y. *Chemistry.* Punxsutawney, Pa, April 17, 04. B.S, Bucknell, 25; A.M, Columbia, 27, Ph.D, 31. Tutor chem, Col. City of N. Y, 26–27; asst. chem. eng, Columbia, 27–28; assoc. prof. chem, Howard Col, 28–30; fellow, Mellon Inst, 30–40; *director chem. research, Bausch and Lomb Optical Co, 40–* Optical Soc; Soc. Test. Mat; Chem. Soc; Electrochem. Soc; Ceramic Soc. Electrodeposition; optical glass; optical instruments.

Jones, Dr. Frank Morton, 2000 Riverview Ave, Wilmington, Del. *Entomology.* Wilmington, Del, Jan. 13, 69. Certificate, Franklin Inst, 21; Sc.D, Delaware, 31. A.A; Entom. Soc; Entom. Soc. Amer; Ecol. Soc; N. Y. Entom. Soc; Pa. Bot. Soc; Soc. Nat. Hist. Del. (pres, 28–); Acad. Nat. Sci. Phila; fel. Royal Entom. Soc. London. Insectivorous plants and their insect associates; lepidopterous insects; Psychidae; insect coloration.

Jones, Franklin T(urner), 10109 Wilbur Ave, Cleveland, Ohio. *Physics.* Geneva, Ohio, Nov. 13, 74. A.B, Western Reserve, 97, A.M, 02. Teacher physics, Chicago, 99–00; high sch, Ohio, 00–03; univ. sch, Cleveland, 03–18; supervisor apprentice sch, The Warner and Swasey Co, Cleveland, 18–22; training, The White Motor Co, 22–27; *departmental ed, science questions dept, 'Sch. Science and Math,' 08–* Lecturer, Cleveland Col, 25–31. Management Asn. (sec'y, cmt. cooperation between schs. and indust, 24); Asn. Physics Teachers; Cent. Asn. Sci. and Math. Teachers (pres, 08); Cleveland Chem. Soc. (pres). The art and practice of questioning in science; mathematics; chemistry; elements of physics.

Jones, Dr. F(red) Nowell, (Jr), University of Alabama, University, Ala. *Experimental psychology.* Santa Monica, Calif, Aug. 16, 12. A.B, California at Los Angeles, 34, A.M, 37; California, 34–35; Ph.D, Cornell, 39. Asst. *psychol,* California at Los Angeles, 36–37; Cornell, 37–39; *instr, Alabama, 39–* A.A; assoc. Psychol. Asn. Learning; psychophysiology of the skin senses; perception and learning in rats.

Jones, Dr. Fred R(euel), University of Wisconsin, Madison, Wis. *Plant pathology.* Mercer, Maine, June 9, 84. Bates Col, 05–07; B.S, Maine, 12; M.S, Wisconsin, 14, Ph.D, 17. Pathologist and *senior pathologist, bur. plant indust, U. S. Dept. Agr, Wisconsin, 17–* A.A; Bot. Soc; Phytopath. Soc; Soc. Nat; Wis. Acad. Diseases of leguminous forage plants.

Jones, Prof. F(red) R(ufus), Agricultural and Mechanical College of Texas, College Station, Texas. *Agricultural engineering.* New Lisbon, Wis, June 2, 93. B.S, Wisconsin, 15; M.S, Iowa State Col, 31. Instr. agr. eng, Wisconsin, 15–16; exten. agr. engineer, Miss. Agr. and Mech. Col, 17; farm machinery salesman, 19–21; assoc. prof. *agr. eng, Agr. and*

Mech. Col. Texas, 21–35, *prof*, 35–, *head dept*, 40– U. S. Marine Corps, 18. Agr. Eng. (councilor, 28–31). Farm gas engines and tractors; farm machinery and power.

Jones, Dr. Fred(eric)k S(cheetz), Yale University, New Haven, Conn. *[1]*Physics*. Palmyra, Mo, April 7, 62. A.B, Yale, 84, A.M, 90; Berlin, 87–88; Zurich, 88–89; LL.D, Kentucky, 15. Instr. physics, Shattuck Sch, 84–85; Minnesota, 85–89, prof, 89–09, dean col. eng. and mech. arts, 02–09; *Yale Col, Yale*, 09–27, *emer. dean*, 27–, *assoc. fellow, Berkeley Col*, 34– Board trustees, Hotchkiss Sch, 11–20; chairman, 20– State Board Educ, Conn, 19. Primary cells; roentgen rays.

Jones, Dr. G. Ivor, U. S. Department of Agriculture, Albany, Calif. *Pharmaceutical chemistry*. Cardiff, Wales, Oct. 25, 08. Ph.C, Washington (Seattle), 29, B.S, 30, Denny fellow, 31–32, M.S, 32, Ph.D, 34. Instr, Washington (Seattle), 31–32; pharmacy, Purdue, 34–35; professional rep, Abbott Labs, 35–36; chemist, food and drug admin, *U. S. Dept. Agr*, 36–37, asst. biochemist, vitamin div, 37–39, drug chemist, 39–41, *assoc. chemist, biochem. div, west. regional research lab, bur. agr. chem. and eng*, *41*– Medal, Am. Pharmaceut. Asn, 29. Fellow, Nat. Conf. Pharmaceut. Research, 33–34. Pharmaceut. Asn; Chem. Soc. Plant chemistry; vitamins; agricultural biochemistry.

Jones, Prof. George Ellis, 73 Harwood St, Pittsburgh, Pa. *Psychology, Hygiene*. Tipton, Eng, June 7, 79. A.B, Kans. State Teachers Col, 09; A.M, Clark, 13, fellow, 13–15, Ph.D, 15. Asst. prof. *educ, Pittsburgh*, 15–17, *prof*, *17*– A.A; Soc. Study Educ; Soc. Col. Teachers Educ. Educational psychology; school hygiene.

Jones, Dr. G(eorge) M(aco), 417 E. 47th St, Chicago, Ill. *Civil engineering*. Albany, Ga, Aug. 25, 00. B.S, Michigan, 25, M.S, 25, Ph.D, 34. Asst. dean, Fla. Agr. and Mech. Col, 27–29; asst. prof. bldg. construction, Howard, 30–37; *architect*, *37*– A.A; Inst. Archit; Math. Soc. Engineering mechanics; statically indeterminate stresses; graphical analyses.

Jones, Dr. George R(obert), University of Washington, Seattle, Wash. *Pharmacy*. Dunnellon, Fla, May 7, 11. Ph.G, Florida, 33, B.S, 34, M.S, 36, Ph.D, 38. Asst. *pharmacy*, Florida, 34–38; *instr, Washington (Seattle)*, *39*– Pharmaceut. Asn. Incompatibilities in prescriptions.

Jones, Prof. George T(allmon), 322 W. College St, Oberlin, Ohio. *Botany, Ecology, Mycology*. Oberlin, Ohio, Aug. 28, 97. A.B, Oberlin Col, 20, A.M, 23; Nebraska, 22–23; Illinois, 23–24; Ph.D, Chicago, 35. Asst. bot, Nebraska, 22–23; Illinois, 23–24; instr, *Oberlin Col*, 24–25, 26–35, acting prof. animal ecol, 25–26, *asst. prof. bot*, *35*– A.A; Ecol. Soc. Mycorrhiza; phenology.

Jones, G(eorge) W(illiam), 2467 Plainview Ave, Pittsburgh, Pa. *Chemistry*. Barry Co, Mich, Feb. 23, 91. A.B, Denver, 14. Junior chemist, *U. S. Bur. Mines*, 14–18, asst. chemist, 18–22, assoc. explosives chemist, 22–30, chemist, 30–41, *senior chemist*, *41*– Exchange investigator, Safety in Mines Research Sta, Buxton, England, 30. Chem. Soc. (sec'y, Pittsburgh sect, 19–21, chairman, cmt. hazardous chemicals and explosives, 31–); fel. Int. Col. Anesthetists. Explosiveness of gases and vapors; flame temperatures of gases; safety in the use of combustibles and explosives; elimination of explosions in manholes and sewers; anesthesia.

Jones, Dr. Giffin D(enison), 401 Melrose Court, Iowa City, Iowa. *Organic chemistry*. Fond du Lac, Wis, Dec. 16, 18. B.S, Wisconsin, 39; Ph.D, Illinois, 42. *Instr. org. chem, Iowa*, *42*– Chem. Soc. Basic vinyl polymers.

Jones, Prof. Grinnell, Harvard University, Cambridge, Mass. *[3]*Chemistry*. Des Moines, Iowa, Jan. 14, 84. B.S, Vanderbilt, 03, fellow, 03–04, M.S, 05; A.M, Harvard, 05, Ph.D, 08. Austin teaching fellow, Harvard, 06–07; instr. chem, Illinois, 08–12; Harvard, 12–16, asst. prof, 16–17; chief chemist, U. S. Tariff Cmn, 17–19, consulting chemist, 19–26; asst. prof. *chem, Harvard*, 19–20, assoc. prof, 20–34, *prof*, *34*– Chem. Soc; Chem. Eng; Am. Acad. Atomic weight of sulfur; compressibility of salts; negative coefficient of expansion of silver iodide; atomic weight of phosphorus; equilibrium of iodine and iodides, bromine and bromides; electrochemistry of silver iodide, thallium and thallium salts; coal-tar products; potash; sulfur and pyrites; thorium nitrates and Welsbach mantles; fixation of atmospheric nitrogen; conductivity, viscosity and surface tension of solutions; transference numbers of ions in solution.

Jones, Prof. Harold C(harles), Berry College, Mt. Berry, Ga. *Ecology*. Oberlin, Ohio, May 25, 03. A.B, Oberlin, 28, A.M, 30; Ph.D, Peabody Col, 40. Asst. ecol, Oberlin Col, 28–30, 34; bot, Nebraska, 30–32; instr, *Berry Col*, 34–35, *prof. biol*, *35*– A.A; Ecol. Soc; Ga. Ornith. Soc. (pres, 42). Membracidae; plant physiology; bio-ecology; ornithology.

Jones, Prof. H(arold) E(llis), University of California, Berkeley, Calif. *[2]*Psychology*. New Brunswick, N. J, Dec. 3, 94. A.B, Amherst Col, 18; A.M, Columbia, 20, Ph.D, 23. Asst. biol, Amherst Col, 18–19; psychologist, City Children's Hosp, New York, 20; instr. psychol, Columbia, 22–26, asst. prof, 26–27; *psychol, California*, 27–28, assoc. prof, 28–31, *prof*, *31*–, director research, *inst. child welfare*, 27–35, *director*, *35*– Psychologist, Riverdale Sch, 22–27. Summers, lecturer, Columbia, 22–24; California, 28, 29; Chicago, 31. Ed. board, 'Jour. Genetic Psychol'; 'Jour. Educ. Psychol'; 'Child Develop'; 'Jour. Consulting Psychol.' Mem. regional cmt, Social Science Research Council, 37–; div. anthrop. and psychol, Nat. Research Council, 41–, child develop. cmt, 43–A.A; Psychol. Asn. (councilor, 35–38); Educ. Research Asn; Soc. Research Child Develop. (councilor, 42–); Sociol. Soc; West. Psychol. Asn. (pres, 34). Rural community surveys; familial resemblance in mental traits; mental growth; intellectual functions in later maturity; memory; children's learning; instrumental studies of emotional processes; physical and mental relations; social development in adolescence.

Jones, Dr. H(arry) Roswell, 2715 Burlington Ave, Dallas, Texas. *Physical chemistry*. Baltimore, Md, June 1, 10. B.S, Hopkins, 30, Ph.D, 34. Asst. chemist, Continental Oil Co, 30–31; apprentice, Atlantic Ref. Co, 31, chemist, 34–37; asst. research chemist, Pure Oil Co, 37–39; asst. chief chemist, Alco products div, Am. Locomotive Co, 39; research chemist, Pan Am. Refining Corp, 40–41; *senior chem. engineer, Magnolia Petrol. Co*, *41*– Chem. Soc. Polymerization of hydrocarbons; petroleum engineering.

Jones, Dr. Haydn, 1037 Marion Ave, Highland Park, Ill. *Physics*. Muskogee, Okla, Feb. 15, 11. A.B, Lake Forest Col, 32; M.S, Chicago, 32, fellow, 34–35, 36–37, Ph.D, 39. Asst. physics, Chicago, 36–36, 37–38, research assoc, 38–39; research director, Hizone Products, Wilmette, Ill, 39–42; *research assoc, metal. lab, Chicago*, *42*– Physical Soc. Magnetic permeability of iron at ultra radio frequencies; cosmic rays; preservation of animal tissues at ordinary temperatures; nuclear physics.

Jones, Prof. Helen T(hayer), Wellesley College, Wellesley, Mass. *Chemistry*. Salem, Mass, July 15, 94. A.B, Mt. Holyoke Col, 16, fellow, 17–19, A.M, 19; Collamore fellow, Mass. Inst. Tech, 23–25, Ph.D, 25. Asst. *chem*, Mt. Holyoke Col, 17–19; instr, Vassar Col, 19–22; Wellesley Col, 25–26; Milwaukee-Downer Col, 26–27, *asst. prof*, 27–29; *Wellesley Col*, *29*– Summer, instr, Vassar Training Camp for Nurses, 18. A.A; Chem. Soc. Physical-organic chemistry.

Jones, Dr. Henry A(lbert), U. S. Department of Agriculture, Beltsville, Md. *Horticulture*. Deer Park, Ill, May 6, 89. B.S.A, Nebraska, 16; Ph.D, Chicago, 18. Asst. marketing, bur. markets, U. S. Dept. Agr, 18; assoc. prof. hort, West Virginia, and assoc. horticulturist, Exp. Sta, 19–20; prof. veg. gardening, Maryland, 20–22; assoc. prof. and prof. truck crops, California, 22–36, plant breeder and later olericulturist, Exp. Sta, 22–36; *prin. olericulturist, U. S. Dept. Agr*, *36*– A.A. Plant breeding and physiology; truck crops.

Jones, Prof. Henry N(eely), 859 Lancaster Ave, Syracuse, N. Y. *Bacteriology*. Ashland, Maine, Oct. 25, 81. A.B, Colby Col, 05; Harvard Med. Sch, 08–10. Bacteriologist, State Board Health, Mass, 10–14; from asst. to *prof. bacter, Syracuse*, *14*– City bacteriologist, Health Dept, Syracuse, 22–25. Quantitative relationships of types of pneumococci as found in Syracuse; differentiation of colon aerogenes group members.

Jones, Prof. Herbert L, University of New Mexico, Albuquerque, N. Mex. *Radio engineering*. Copperton, N. Mex, Dec. 2, 04. A.B, Oregon, 26; A.M, Oregon State Col, 34, Ph.D, 35. Transmission engineer, Pacific Tel. and Tel. Co, Portland, Oregon, 26–29; radio telephone engineer, Bell Tel. Labs, 29–32; *asst. prof. elec. eng. and radio, New Mexico*, *36*– Elec. Eng; Radio Eng. Transmission of short radio waves over dry terrain; atomic relationships between Hall effect and susceptibility.

Jones, Prof. Herman D(onglas), Oglethorpe University School of Medicine, Oglethorpe University, Ga. *Biological*

and organic chemistry. Central City, Ala, July 21, 98. B.S, Ala. Polytech, 24; A.M, Columbia, 29; Ph.D, Vanderbilt, 39. Instr. org. chem, Ala. Polytech, 24–28; research, Zonite Products Corp, 28–33; assoc. prof. org. and biol. chem, Ala. Polytech, 30–41; *prof. biol. chem. and head dept, sch. med, Oglethorpe, 42–*, dean, 48. A.A; Chem. Soc; Pharmaceut. Asn; Soc. Study Int. Secretions; Ala. Acad. (v. pres; chairman sect. biol. and med). Extracts from the agave plant; nephritis; uranium in body tissues; blood urea; blood chlorides; pituitary and blood sugar relationship.

Jones, Dr. Hilton Ira, 1538 Forest Ave, Wilmette, Ill. *Chemistry.* Mankato, Minn, May 9, 82. A.B, Parker, 03; A.M, Drake, 04; Harvard, 06–08; fellow, Chicago, 08–09; Ph.D, South Dakota, 16. Instr, high sch, Iowa, 04–06; chemist, B. O. and G. C. Wilson Co, 07; head dept. science, Muskogee, Okla, 09–12; head dept. chem, Dakota Wesleyan, 12–18; Okla. Agr. and Mech. Col, 18–22; director dept. sci. research, The Redpath Bur, 22–29; research director, Nat. Selected Morticians, 29–33; managing director, Naselmo Corp, Chicago, 33–37; *owner, Hizone Products, 37–* A.A; Inst. Chem; London Chem. Soc. Rare organic chemicals; metallic soaps; specific germicidal and textile reagents.

Jones, Dr. Howard, Park Place, Circleville, Ohio. *Medicine.* Cleveland, Ohio, 53. A.B, Hobart Col, 75, A.M, 84; M.D, Ohio Med. Col, 76. Prof. physiol, Columbus Med. Col, 78–84; *surgeon,* Pa. lines west of Pittsburgh; *Norfolk and West. Ry; Chesapeake and Ohio Ry; U. S. Army.* Lecturer, Kenyon Col. Am. Med. Asn; Col. Physicians; Am. Acad. Med; Nuttall Ornith. Club. Clinical medicine; biology; ornithology and archeology of Ohio.

Jones, Dr. H(oward) A(lgernon), 223 Robinson St, Schenectady, N. Y. *Physical chemistry.* Conshohocken, Pa, July 28, 98. B.S, Pa. State Col, 18; Harvard fellow, Princeton, 20–21, A.M, 21, fellow, 21–22, Ph.D, 22. Research chemist, Hercules Powder Co, 18–19; asst. chem, Princeton, 19–20; research chemist and later commercial engineer, Gen. Elec. Co, 22–42; lieut. col, Sig. Corps, *U. S. Army,* 42–43, *deputy director, ANEPA, 43–* Catalysis; ballast resisters; tungsten temperature scale; mechanism of ionization in gases; vapor pressure of metals; electronic devices.

Jones, Howard A(llen), 714 Woodward Ave, Orlando, Fla. *Chemistry.* New York, N. Y, March 2, 04. B.S, George Washington, 25, M.S, 30. Asst. chemist, D. C. Paper Mfg. Co, 24–25; junior chemist, food and drug admin, *U. S. Dept. Agr,* 26–28, bur. chem. and soils, 29–30, asst. chemist, 30–35, *bur. entom. and plant quarantine,* 35, assoc. chemist, 35–41, *chemist, 41–* Junior chemist, Bur. Standards, 26. Chem. Soc; Asn. Econ. Entom. Chemistry of insecticides.

Jones, H(ugh) C(lifford), New Jersey Zinc Co, Palmerton, Pa. *Chemistry.* Wilkes-Barre, Pa, Oct. 7, 06. Ch.E, Lehigh, 27, M.S, 28. *Research div, N. J. Zinc Co, 28–* Chem. Soc. Rubber chemistry and technology.

Jones, Prof. I(dwal) R(alph), 2759 Arnold Way, Corvallis, Oregon. *Dairy husbandry.* Friendsville, Pa, Dec. 22, 98. B.S, Pa. State Col, 20; fellow, Rutgers, 20–21, M.S, 21; Caleb Dorr fellow, Minnesota, 23–25, Ph.D, 25. Asst. dairyman, Clemson Col, 21–23; asst. prof. *dairy husbandry, Oregon State Col,* 25–29, assoc. prof, 29–40, *prof, 40–,* assoc. dairy husbandman, *Exp. Sta,* 29–40, *dairy husbandman, 40–* Dairy Sci. Asn. (chairman, west. div, 30). Mineral and vitamin requirements of dairy cattle for growth, reproduction and lactation; irrigated pastures; raising calves on dry calf meals; sterility and abortion in dairy cattle; succulence in the dairy cow's ration; protein and fat deficiencies of alfalfa hay for dairy cows.

Jones, Dr. I(slwyn) W(inwaloe), Department of Mines, Parliament Building, Quebec, Que, Can. *Geology.* Dowlais, Glamorganshire, Wales, Oct. 24, 02. B.A, Alberta, 22, B.A.Sc, 24; Nat. Research Council Can. bursar, Toronto, 25–26, Ph.D, 28. Asst. geol, Toronto, 24–28; temporary geologist, Geol. Surv. Can, 28–29; geologist, Bur. Mines, Que, 29–39; *chief div. geol. surv, Dept. Mines, Que, 39–* Fel. Geol. Soc; Min. and Metal. Eng; Can. Inst. Min. and Metal; fel. Royal Soc. Can. Carbon ratios as an index of oil and gas in western Canada; geology of the Canadian Pacific Railway tunnel, Quebec; chemistry and microscopy of Alberta coals; Gaspé peninsula.

Jones, Dr. Ivan D(unlavy), North Carolina State College, Raleigh, N. C. *Biochemistry.* Holdrege, Nebr, Dec. 10, 03. A.B, Nebr. Wesleyan, 26; Ph.D, Minnesota, 31. Instr. agr. biochem, Minnesota, 29–30; *assoc. horticulturist, Exp. Sta, N. C. State Col, 31–* Summers, asst. to Dr. J. Arthur Harris, 'Desert Vegetation Studies,' Utah and Ariz, 27–30. Chem. Soc; Soc. Hort. Sci; N. C. Acad. Alkali and drought resistant vegetation; hydration of colloids; fruit growth and soil moisture measurements; brine fermentation; fruit and vegetable crop utilization.

Jones, Prof. J Shirley, Oregon State Agricultural College, Corvallis, Oregon. *Chemistry.* Garrett, Ind, Feb. 14, 76. B.S, California, 03; M.S.A, Cornell, 14. Chemist, Giant Powder Co, 04–06; prof. agr. chem, Idaho, and chemist, Exp. Sta, 06–14, director, 14–18; *prof. agr. chem, Oregon State Col, and chemist, Exp. Sta, 19–* Navy Consulting Board, 14–18, operating chemist, U. S. Nitrate Plant No. 1, 18–19. A.A; Chem. Soc. (pres, Oregon sect, 36); Soc. Chem. Indust. Soils and soil surveys; wheat and flour; forage crops; orchard fruits; inorganic spray residue accumulations; cold locker storage of meats.

Jones, Prof. J(acob) O(scar), University of Kansas, Lawrence, Kans. *Hydraulics.* Barrett, Kans, Sept. 10, 84. B.S, Kansas, 12; M.C.E, Cornell, 15. Instr. civil eng, Kansas, 12–14, asst. prof. *hydraul,* 15–21, assoc. prof, 21–22; Minnesota, 22–26, *prof,* 26–28; *Kansas, 28–* Hydraulic resistance to flowing fluids; hydrology.

Jones, Prof. J(ames) B(ernard), Box 205, Blacksburg, Va. *Mechanical engineering.* Pendleton, Va, July 11, 00. B.S, Va. Polytech, 21, M.E, 22; M.S, Iowa State Col, 24; M.M.E, Cornell, 29. Instr, dept. applied mech. and exp. eng, *Va. Polytech,* 22–24, asst. prof, 24–29, assoc. prof, 29–32, *mech. eng,* 32–37, *prof, 37–, head dept, 32–* Mech. Eng. (sec'y, Va. sect, 35–40, v. chairman, 40–); Eng. Educ; Va. Acad. (sec'y, eng. sect, 41). Internal combustion engines.

Jones, Prof. James H(azlitt), University of Pennsylvania, Philadelphia, Pa. *Physiological chemistry.* Spring Green, Wis, Dec. 18, 96. B.S, Wisconsin, 20, M.S, 21, Ph.D, 24. Asst. agr. chem, Wisconsin, 20–24; instr. *physiol. chem, sch. med, Pennsylvania,* 24–28, *asst. prof, 28–* Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Vitamins; parathyroid tetany and calcium metabolism; diet and infection.

Jones, Dr. James Homer, Indiana University, Bloomington, Ind. *Chemistry.* Forney, Texas, July 6, 14. B.S, N. Texas State Teachers Col, 37, M.S, 38; Ph.D, Texas, 41. Assoc. prof. *chem,* John Tarleton Agr. Col, 41; *instr, Indiana, 41–* Chem. Soc. General and physical chemistry; activity coefficients from freezing point measurements; electrical conductances of aqueous solutions.

Jones, Prof. James W(ilson), State University of Iowa, Iowa City, Iowa. *Chemistry, Pharmacy.* Center Point, Iowa, Dec. 7, 99. B.S, Iowa, 29, M.S, 30, Ph.D, 35. *Prof. pharmacy, Iowa, 30–* Pharmaceut. Asn; Iowa Pharmaceut. Asn. Chloroureas and chloroamides with Grignard reagents; monochloroamine; cold processed soaps; washable ointment bases; soft paste of zinc oxide.

Jones, Dr. J(ean) Elmore, Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Wichita, Kans, Sept. 7, 17. B.S, Munic. Univ. Wichita, 38; univ. fellow, Harvard, 39–40, A.M, 40, Abbott research fellow, 40–41, Ph.D, 41. Du Pont research fellow, Harvard, 41–42; *mem. staff synthetic org. research lab, Eastman Kodak Co, 42–* Chem. Soc. Partial reduction of nitro compounds; n-methylformanilide synthesis of aldehydes; effect of hindrance in preventing resonance in triarylmethyl compounds; experimental approach leading to the production of the free radical, phenyldi-t-butylmethyl.

Jones, Jenkin W(illiam), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Malad City, Idaho, April 9, 88. B.S, Utah Col, 12; M.S, California, 24. Supt, Cheyenne Exp. Farm, *U. S. Dept. Agr,* Wyo, 12–15, Nephi substa, Utah, 15–18, senior agronomist and supt, Biggs rice field sta, Calif, 18–30, *senior agronomist in charge rice production and improv. project, div. cereal crops and diseases, bur. plant indust, 30–* Collected rice varieties and studied production and improv. in Japan, Korea, China, Java and P. I, 25–26. A.A; Soc. Agron; Genetic Asn. Rice production and improvement; rice genetics; dry farming.

Jones, Dr. Jennings H(inch), Pennsylvania State College, State College, Pa. *Organic chemistry.* Petrolia, Pa, Aug. 19, 13. B.S, Pa. State Col, 34, M.S, 37, fellow, 37–41, Ph.D, 41. Chemist, organic labs, Pa. Coal Products Co, 34–36; *research asst. petrol. ref, Pa. State Col, 41–* Summer, chemist, Pa. Coal Products Co, 37. Chem. Soc. Vapor phase oxidation of hydrocarbons.

Jones, J(ohn) M(cKinley), Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Laramie, Wyo, May 26, 86. B.S. (M.E), Wyoming, 07, B.S, 11; A.M, Missouri, 12. Animal husbandman, Exp. Sta, New Hampshire, 12–14; *chief div. range animal husbandry, Exp. Sta, Agr. and Mech. Col. Texas, 14–* A.A: Soc. Animal Production. Sheep and wool production; sheep breeding and feeding; cattle production and feeding; Angora goat production; horse feeding.

Jones, Dr. John P(aul), 919 Lindale Ave, Drexel Hill, Pa. *Agronomy.* Davidsonville, Md, May 9, 97. B.S, Maryland, 18, M.S, 21; Ph.D, Cornell, 26. Asst. plant physiol, Exp. Sta, Maryland, 19–21; instr. bot, Cornell, 21–23; asst. research prof. agron, Mass. Col, 23–26, research prof, 26–30, agronomist, Koppers Research Corp, 30–32; U. S. Steel Corp, 32–35; chief agronomist, *soil conservation service, U. S. Dept. Agr,* 35, assoc. regional conservator, 35–37, regional conservator, 37–42, *asst. regional conservator, 42–* 2nd lieut, Inf, 18. A.A; Soc. Agron; Soc. Plant Physiol. Hard seed in vetch; cropping systems for and nutrient requirement of tobacco and onions; magnesium requirement of crops; fertilizer materials; smoke damage around industrial centers; soil erosion.

Jones, Prof. Joseph W(illiam) L(ester), Heidelberg College, Tiffin, Ohio. *Ethics.* East Orange, N. J, July 4, 73. A.B, Princeton, 94, A.M, 95, Ph.D, 01. *Prof. philos. and psychol, Heidelberg Col. (Ohio), 02–* The ethics of sympathy.

Jones, Prof. K(enneth) K(arl), 405 Blackhawk Ave, Chicago, Ill. *Physiology, Pharmacology.* Hutchinson, Kans, March 19, 88. A.B, Fairmount Col, 10; M.S, Kans. State Col, 12; Ph.D, Northwestern, 31. Asst. animal nutrition, inst. animal nutrition, Pa. State Col, 11–16; food analyst, Pellagra Hosp, U. S. Pub. Health Service, Spartanburg, S. C, 16–18; fellow, Mellon Inst, 18–20; chief div. biol. research, Swift and Co, Chicago, Ill, 20–30; instr. physiol, *med. sch, Northwestern,* 31–40, asst. prof. physiol. and pharmacol, 40–43, *assoc. prof. pharmacol, 43–* Soc. Animal Production; Physiol. Soc; Soc. Exp. Biol. Nutrition; physiology of the liver; physiology and pharmacology of the skin.

Jones, Prof. K(enneth) L(ester), University of Michigan, Ann Arbor, Mich. *Soil microbiology.* Keweenaw Bay, Mich, Dec. 3, 05. A.B, Syracuse, 28; Ph.D, Michigan, 33. Instr. *bot, Michigan,* 29–37, *asst. prof, 37–* Genetics of Ambrosia; variation in actinomycetes.

Jones, Dr. Lauder W(illiam), 515 S. Mariposa Ave, Los Angeles, Calif. **[3]*Chemistry.* New Richmond, Ohio, July 22, 69. A.B, Williams Col, 92, Sc.D, 27; fellow, Chicago, 95–97, Ph.D, 97. Asst. chem, Chicago, 97–00, assoc, 00–02, instr, 02–07, asst. prof, 07; prof, Cincinnati, 07–18; dean sch. chem, Minnesota, 18–20, eng. and archit, 19–20; A. Barton Hepburn prof. *org. chem, Princeton,* 20–37, *emer. prof, 37–* Assoc. director nat. sciences, Rockefeller Foundation, Europe, 29–34. Chevalier, Légion d'Honneur. Chief research sect. offense, C.W.S, 18–19. A.A; Chem. Soc. (chairman, sect. org. chem, 19). Nitroparaffin salts; alkyl derivatives of hydroxylamin; preparation of hydroxamic acids from hydroxylamin salts of organic acids; the Beckman molecular rearrangement; electron conception of valence; alkyl derivatives of mercury and lead; preparation of electromeres.

Jones, Leo D(edrich), Sharples Corp, Philadelphia, Pa. *Chemical engineering.* Philadelphia, Pa, Nov. 29, 93. A.B, Cent. High Sch. Phila, 11; B.S, Pennsylvania, 15. Asst. chemist, Hercules Powder Co, 15–16; asst. chemist and later *director research, Sharples Corp, 16–* Chem. Soc. Centrifugal engineering and research; petroleum refining.

Jones, Dr. L(eo) Meyer, University of Minnesota, Minneapolis, Minn. *Veterinary physiology.* Hartford City, Ind, March 2, 13. A.B, DePauw, 35; M.S, Iowa State Col, 39, D.V.M, 39. Instr. vet. physiol. and pharmacol, Iowa, 39–40, asst. prof, 40–42; *nat. vet. research fellow, Minnesota, 42–* Vet. Med. Asn. Effects of various drugs on the gastro-intestinal tract; chemotherapy of calf pneumonia.

Jones, Prof. Leon K(ilby), 414 Illinois Ave, Pullman, Wash. *Plant pathology.* Seattle, Wash, Jan. 15, 95. B.S, Oregon State Col, 17; M.S, Wisconsin, 21, Ph.D, 22. Instr, Wisconsin, 22–25; assoc. research plant path, N. Y. Exp. Sta, Geneva, 25–28; *assoc. prof. and assoc. plant pathologist, State Col. Wash, 28–* A.A; Phytopath. Soc; Wash. Hist. Soc. (director). Vegetable and small fruit diseases; virus diseases; diseases of ornamentals.

Jones, Lewis A(llen), 7131 Chestnut St, Takoma Park, D. C. *Agricultural engineering.* St. James, Minn, Dec. 20, 85. C.E, Minnesota, 07. Asst. engineer, Mitchell, S. Dak, 07; G. N. Ry, 08; from junior drainage engineer to senior drainage engineer, bur. agr. eng, *U. S. Dept. Agr,* 09–30, *chief* div. drainage and erosion control, 31–35, div. drainage, 35–41, *chief div. water conservation and disposal, soil conservation service, 42–* Agr. Eng. (councilor, 30–32); Civil Eng. Land drainage; flood control.

Jones, Prof. L(ewis) R(alph), Brookfield, Vt. **[1]*Plant pathology.* Brandon, Wis, Dec. 5, 64. Ripon Col, 82–86; Ph.B, Michigan, 89, Ph.D, 04, LL.D, 35; hon. Sc.D, Vermont, 10, Cambridge, 30, Wisconsin, 36. Instr. nat. science, Mt. Morris Acad, Ill, 87–88; nat. hist, Vermont, 89–90, asst. prof. bot, 91–92, assoc. prof, 92–93, prof. bot, 93–09, botanist, Exp. Sta, 90–09; prof. *plant path, Wisconsin,* 09–35, *emer. prof, 35–* Special agent, bur. plant indust, U. S. Dept. Agr, 04. V. chairman div. biol. and agr, Nat. Research Council, 20– Int. Bot. Cong, Cambridge, 30. Nat. Acad; A.A; Soc. Nat; Bot. Soc. (v. pres, 10, pres, 13); Phytopath. Soc. (pres, 09); Philos. Soc; New Eng. Bot. Club; Vt. Bot. Club (sec'y, 95–09); Vt. Forestry Asn. (pres, 08); Wis. Acad; Acad. Nat. Sci. Phila; Asn. Applied Biol. England; hon. mem. Verein für Angewandte Bot; Soc. de Path. vég, et d'Entom. agr; Phytopath. Soc. Japan. Bacterial diseases of plants; disease resistance; relation of environment to disease.

Jones, Dr. Linus H(ale), Massachusetts State College, Amherst, Mass. *Botany.* Quincy, Mass, Dec. 25, 93. B.S, Mass. Col, 16, M.S, 19; Ph.D, Rutgers, 22. Instr. pharmacog, Western Reserve, 22–23; teacher, high sch, Conn, 24–25; nematologist, *Exp. Sta,* Mass. Col, 25–26, *plant physiologist,* 26–31, *Mass. State Col, 31–* A.A; Soc. Plant Physiol. (sec'y-treas, New Eng. sect, 35–). Iron availability and hydrogen ion concentration in nutrient solution; eradication of nematodes from soils; containers in relation to growth; effect of soil temperature on vegetative and reproductive phases; nutrition and root development.

Jones, Prof. Lloyd R(obert), 1402 S. Grand Ave, St. Louis, Mo. *Bacteriology.* Blackwell, Okla, April 3, 96. B.S, Okla. Agr. and Mech. Col, 15; M.S, Mich. State Col, 25; Ph.D, St. Louis, 28. Bacteriologist, U. S. Pub. Health Service, 18–24; from instr. to *assoc. prof. bacter. and chairman dept, St. Louis, 28–* A.A; Soc. Bact; Soc. Exp. Biol; Asn. Immunol; Pub. Health Asn. Anaphylaxis and related phenomena; experimental chemotherapy with sulfonamide drugs; serology of virus diseases.

Jones, Dr. Lloyd T(heodore), 896 Santa Barbara Road, Berkeley, Calif. *Physics, Engineering.* Raymond, Ill, Feb. 20, 87. A.B, Lake Forest Col, 09; Ph.D, Illinois, 15. Instr. physics, Illinois, 14–15; asst. prof, California, 15–28; *private research eng, 28–; col, Air Corps, U. S. Army, 41–* Capt, A.C, 17–19, A.C.Res, 19–23, major, 23–40. Luminescent signs; insect eradication devices; electric welding for heavy steel; unionmelt welding process.

Jones, Dean Lonzo, Central Missouri State Teachers College, Warrensburg, Mo. *Psychology.* Davis City, Iowa, Nov. 22, 95. A.B, Iowa, 21, A.M, 24, Ph.D, 29. Prof. philos. and dean men, Graceland Col, 21–23; asst, Iowa, 23–24; prof. psychol. and dean col, Graceland Col, 24–28; asst. prof. psychol. and asst. dean men, Iowa, 28–39; *dean faculty and director student personnel, Cent. Mo. State Teachers Col, 39–* Student personnel service.

Jones, Dr. Loren T(homas), 3508 E. Genesee St, Syracuse, N. Y. *Physical chemistry.* Carroll, Iowa, May 3, 05. A.B, Iowa, 31; M.S, Michigan, 33, Ph.D, 34. Teaching fellow, Michigan, 31–34; prof. chem, Ferris Inst, 34–36; *research chemist, Solvay Process Co, 36–* Kinetic studies in photochemical oxidation of alkyl halides.

Jones, Dr. Louis Cleveland, American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Chemistry.* Oak Hill, N. Y, Dec. 24, 70. A.B, Yale, 96, Ph.D, 99. Asst. to Prof. Gooch, Yale, 96–99; chemist, Solvay Companies, 99–10, lab. manager, 10–13, chief chemist and chem. director, 13–18; v. pres, Solvay Collieries Co, 07–13; Nat. Aniline Co, 18–21; gen. manager, Atmospheric Nitrogen Co, 19–22; consulting chem. engineer, 22–25; engineer, construction of chem. plants in U. S, China, Norway, Poland, Czechoslovakia, Germany, Italy, France, Belgium, Japan, Russia and Hungary, 25–30; chairman board, Chem. Eng. Co, 30–33; pres, China Chem. Industries,

Shanghai, 33–35; director, Chem. Construction Corp, 35–38; research director, *labs, Am. Cyanamid Co*, 38–40, *admin. director, 40–* Pres, Nitrogen Eng. Co. Mem. Am. Econ. Missions to Japan, China and Philippines, 35. Chem. Soc. (cmt. on chem. warfare); Chem. Eng. Alkali; synthetic ammonia; coal by-products; nitrogen chemicals.

Jones, Dr. Lowell L(eander), University of Oregon, Eugene, Oregon. *Invertebrate zoology, Comparative physiology.* Anaheim, Calif, Aug. 23, 13. A.B, California, 35, Ph.D, 39. *Instr. zool, Oregon, 40–* A.A. Osmotic regulation in marine invertebrates.

Jones, Dr. Loyd A(ncile), Eastman Kodak Co, Rochester, N. Y. **Physics.* York, Nebr, April 12, 84. B.S, Nebraska, 08, A.M, 10; hon. Sc.D, Rochester, 33. Asst. physics, Nebraska, 08–10; Bur. Standards, 10–12; asst. physicist, *research lab, Eastman Kodak Co*, 12–16, *chief physicist, 16–* Progress medal, Soc. Motion Picture Engineers, 39. Lieut, U.S.N.R, 17–19. A.A; fel. Physical Soc; Optical Soc. (pres, 29–31); Motion Picture Eng. (pres, 23–26, eng. v. pres, 33–39); Illum. Eng. Soc; Soc. Cinematog. Photometry; physical optics; illumination; colorimetry; physics of photography; visual sensitometry; motion picture engineering.

Jones, Prof. L(uther) G(oodrich), Agricultural and Mechanical College of Texas, College Station, Texas. *Soils.* Temple, Texas, Feb. 1, 94. B.S, Princeton, 17; M.S, Agr. and Mech. Col. Texas, 21; Ph.D, Cornell, 27. Field agent, forestry dept, Texas, 19–22; instr, high sch, 22–23; asst. prof. chem, *Agr. and Mech. Col. Texas*, 24–26, *prof. agron, 26–* A.A; Soc. Agron; fel. Texas Acad. Fluctuation on nitrates in surface soils under certain crops and fallow.

Jones, Dr. Lynds, 352 W. College St, Oberlin, Ohio. *Zoology, Ornithology, Ecology.* Jefferson, Ohio, Jan. 5, 65. Grinnell Col, 88–90; A.B, Oberlin Col, 92, M.S, 95; fellow, Chicago, 04–05, Ph.D, 05. Asst. zool. and geol, Oberlin Col, 92–99, instr, 99–00, acting prof, 00–01, instr. zool, 01–05, Chicago, 04–05, Ph.D, 05. Asst. zool. and geol, *Oberlin Col,* assoc. prof, 05–08, *animal ecol,* 08–22, prof, 22–31, *emer. prof, 31–* Teacher, Oberlin Col, 95–98, asst. curator museum, 99–09, curator, 09–31; lake lab, Ohio State, 07–08; Berry Schs, 36–37. Ed, 'Wilson Bul,' 92–24. A.A; fel. Ornith. Union; Ecol. Soc; Ohio Acad. Bird migration; molting of birds; development of nestling feathers; pterylosis and molting of passerine birds; skeleton of Asterias; birds of Ohio.

Jones, Prof. Lynn W(illiam), University of Redlands, Redlands, Calif. *Physics, Engineering.* Sparta, Wis, May 2, 02. A.B, Ripon Col, 25; Washington (St. Louis); Wisconsin; A.M, Southern California, 31. Asst. prof. and later *assoc. prof. physics and eng, Redlands, 27–* Teacher, evening high sch, Calif; elec. engineer, iron and steel div, Kaiser Co. A.A; Asn. Physics Teachers; Eng. Educ; Radio Eng; Asn. Educ. by Radio; Elec. Eng; N. Y. Acad. Electron reflection from helium atoms; resistances of selenium cells; black body radiation; three point problem; photo-voltaic effect; electrical units; magnifying power of a telescope; correlations of the concepts common to gravitational, electric and magnetic fields.

Jones, Prof. Mack M(arquis), University of Missouri, Columbia, Mo. *Agricultural engineering.* Edgerton, Mo, Oct. 8, 96. B.S, Illinois, 18; M.S, Iowa State Col, 27. Instr. *agr. eng, Missouri,* 19–20, asst. prof, 20–25, assoc. prof, 25–36, *prof, 36–* Agr. Eng. Farm machinery and power.

Jones, Dr. Marvin F(isher), 121 E. 60th St, New York, N. Y. *Medicine.* Spencer, N. Y, March 10, 89. M.D, Buffalo, 13. *Prof. otol, N. Y. Post-Grad. Med. Sch, Columbia, 27–, univ, 31–* Consultant otologist, Tioga County Hosp, N. Y, 31–; Newton Mem. Hosp, Newton, N. J; consultant otolaryngologist, New York Hosp. Surgeon director otol, Manhattan Eye, Ear and Throat Hosp. A.A; Am. Med. Asn; fel. Col. Surg; Otol. Soc; Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol; Asn. Mil. Surg; N. Y. Acad. Med; N. Y. Otol. Soc. Otology; laryngology; rhinology; chlorine gas as a treatment for respiratory diseases; ear infections; maxillary sinusitis; intracranial lesions; otosclerosis and progressive deafness; the use of radiopaques in the para-nasal sinuses.

Jones, Dr. Mary Cover, 2739 Bancroft Way, Berkeley, Calif. *Psychology.* Johnstown, Pa, Sept. 1, 96. A.B, Vassar Col, 19; A.M, Columbia, 20, Rockefeller fellow, 25–27, Ph.D, 26. Asst. psychologist, N. Y. Children's Hosp, 20; teacher, schs, New York, 20–21; lecturer, Woman's Med. Col, Phila, 21–22; psychologist, Commonwealth Fund Pre-Sch. Surv. N. Y, 21–23; research assoc, inst. child welfare research, Columbia, 23–25; lecturer parent educ, State Dept. Educ, Calif, 27–28; *research assoc, inst. child welfare, California, 28–* Psychol. Asn; Asn. Nursery Educ. (exec. cmt, 32–); Pacific Coast Nursery Sch. Asn. (sec'y, 29–32, v. pres, 32–). Mental development in infancy; emotional behavior of children; nursery school techniques; adolescent development.

Jones, Dr. Matthew T(urner), 117 Myers Ave, Fostoria, Ohio. *Physics.* Cleveland, Ohio, Dec. 25, 08. B.S, Case, 29, M.S, 30; Ph.D, Cornell, 35. *Research and develop. engineer, Nat. Carbon Co, Inc.* Physical Soc. X-ray spectroscopy; x-ray diffraction.

Jones, M(erlin) P(erry), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Laura, Ohio, Feb. 3, 95. B.S, Ohio State, 24, M.S, 25. Asst. exten. entomologist, Ohio, 25–30; *exten. entomologist,* bur. entom. and plant quarantine, *U. S. Dept. Agr,* 31–34, *exten. service, 34–* A.A; Asn. Econ. Entom; Entom. Soc. Wash. Extension entomology.

Jones, Dr. Molly Mason, Scripps College, Claremont, Calif. *Child psychology.* Madison, Wis, Nov. 4, 11. Ph.B, Chicago, 33; M.A, Toronto, 35, Ph.D, 40. Asst, cooperative nursery sch, Chicago, 33–34; instr, inst. child study, Toronto, 35–39, asst. psychol, univ, 35–38; *director Mary B. Eyre nursery sch, Scripps Col, 39–* Asn. Nursery Educ. Nursery education.

Jones, Dr. Myrna F(rances), U. S. Pub. Health Service, Washington, D. C. *Zoology, Parasitology.* Trenton, Nebr, Feb. 4, 03. A.B, Doane Col, 24; M.S, Illinois, 26; Ph.D, George Washington, 32. Asst. instr. biol, James Millikin, 26–27; junior zoologist, bur. animal indust, U. S. Dept. Agr, 27–30, asst. zoologist, 30–36; *zoologist, nat. inst. health, U. S. Pub. Health Service, 36–* A.A; Soc. Parasitol; Soc. Trop. Med; Helminth. Soc. Wash. (cor. sec'y, 30, pres, 33); Wash. Acad. Life histories and morphology of cestodes of birds and poultry; human helminthology; oxyuriasis; amebiasis.

Jones, Dr. N(ewton) C(harles), P. O. Box 125, Moundsville, W. Va. *Chemistry.* Cleveland, Ohio, Feb. 8, 05. A.B, Western Reserve, 25, A.M, 26; Ph.D, Cornell, 29. *Electrochem. dept, E. I. du Pont de Nemours and Co, 29–,* production manager, 35–40, service manager, 40–42, *plant manager, 42–* Electrochemistry; physical and analytical chemistry.

Jones, Dr. Noble W(iley), 2004 N.W. Irving St, Portland, Oregon. *Medicine.* Wauseon, Ohio, June 13, 76. A.B, Stanford, 95; M.D, Rush, Chicago, 01. *Clin. prof. med, med. sch, Oregon, 20–* Ed. council, 'Gastroenterol.' A.A; Am. Med. Asn. (cmt. sci. research); fel. Col. Physicians (board regents, 26); Am. Physicians; Gastro-Enterol. Asn. (2nd v. pres, 38); Interurban Clin. Club (pres, Pacific Coast branch, 28–30); North Pacific Soc. Int. Med; Portland Acad. Med. (pres, 20–22); hon. fel. Royal Australian Col. Physicians. Gastroenterology.

Jones, Prof. Oliver P(erry), 24 High St, Buffalo, N. Y. *Anatomy.* West Chester, Pa, May 13, 06. A.B, Temple, 29; Ph.D, Minnesota, 35. Asst. zool, Indiana, 29–31; fellow *anat,* Minnesota, 31–34, asst, 34–35, instr, 35–37; asst. prof, *Buffalo,* 37–43, assoc. prof, 43, *prof. and head dept, 43–* Summers, asst. prof, Minnesota, 38, 39. Asn. Anat. Megaloblast-normoblast problem; pernicious anemia bone marrow; placental transfer of antianemic principle.

Jones, Paul C(arlton), B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Toledo, Ohio, June 6, 03. B.S, Michigan, 25, M.S, 27. *Research chemist, B. F. Goodrich Co, 27–* Rubber technology; anti-oxidants and accelerators for rubber.

Jones, Dr. Paul T(heron), American Bemberg Corp, Elizabethton, Tenn. *Physical chemistry.* Wellington, Texas, April 5, 94. A.B, A.M, Baylor, 20; Ph.D, Mass. Inst. Tech, 30. Prof. chem, La. Col, 20–31; asst. org. chem, Mass. Inst. Tech, 25–28, instr. inorg. chem, 31–33; *research chemist, Am. Bemberg Corp, 33–* Chem. Soc. Differential potentiometric titration; freezing point depressions of alkali nitrates; apparatus for the measurement of the freezing point depressions of dilute solutions.

Jones, Dr. Randall J(efferies), Alabama Polytechnic Institute, Auburn, Ala. *Soils chemistry.* Gould, Okla, Oct. 16, 15. B.S, Okla. Agr. and Mech. Col, 36; indust. fellow, Wisconsin, 36–39, M.S, 37, Ph.D, 39. Asst. and later *assoc. soil chemist, Exp. Sta, Ala. Polytech, 39–* Soil Sci. Soc. Nitrogen economy in different systems of soil and crop management.

Jones, Dr. R(eginald) L(amont), 463 West St, New York, N. Y. *Electrical engineering.* New York, N. Y, Feb. 28, 86. B.S, Mass. Inst. Tech, 09, M.S, 10, Sc.D, 11. Mem. research staff, West. Elec. Co, 11–14, in charge transmission research dept, 14–23, inspection eng. dept, 23–24; inspection manager, *Bell Tel. Labs, Inc,* 25–28, *director apparatus develop,* 28– Capt, Sig.C, 17–18. A.A; fel. Elec. Eng; fel. Physical Soc; fel. Acoustical Soc; Standards Asn. (councilor, 38–). Wire and radio communication; properties of materials; development of apparatus for the Bell system.

Jones, Dr. R(eginald) M(ax), 3100 S. Kedzie Ave, Chicago, Ill. *Industrial chemistry.* Florence, S. C, Oct. 11, 04. B.S, Florida, 28; M.S, Iowa State Col, 29, Ph.D, 37. Chief entomologist, Mo. Fruit Exp. Sta, Mountain Grove, Mo, 30–31; *Liquid Carbonic Corp,* 33–36, *chief chemist, 37–* Chem. Soc; Inst. Food Technol. Toxicology; effects of carbon dioxide fumigant mixtures on stored products insects; carbon dioxide, oxygen and acetylene production chemistry; water chemistry; essential oils chemistry; emulsions; food flavor chemistry.

Jones, Prof. R(ichard) N(eville), 60 Berryman Drive, Snyder, N. Y. *Optics.* Can, Dec. 10, 94. B.A, McMaster, 23; M.S, Chicago, 26, Ph.D, 28. Asst, Chicago, 26–28; asst. prof, Drexel Inst, 28–29; *assoc. prof. physical optics, Buffalo, 29–* Physical Soc. Physical optics; spectroscopy.

Jones, Dr. R(obert) C(aldwell), 5334 Forbes St, Pittsburgh, Pa. *Organic chemistry.* Yakima, Wash, May 6, 12. B.S, Calif. Inst. Tech, 37; Ph.D, Harvard, 41. Research assoc. chemotherapy, Harvard, 40–41; *instr. org. chem, Carnegie Inst. Tech, 41–* Structure of coal; reactions of naphthalene derivatives; reactions of epoxy compounds.

Jones, Dr. R(obert) Clark, 6G Beech Spring Drive, Summit, N. J. *Physics.* Toledo, Ohio, June 30, 16. A.B, Harvard, 38, scholar, 38–41, A.M, 39, Ph.D, 41. *Mem. tech. staff, dept. physical research, Bell Tel. Labs, 41–* Summer, mem. staff, research lab, Polaroid Corp, 40. Physical Soc; Acoustical Soc. Thermal diffusion and its use in separating isotopes.

Jones, Dr. Robert E(dwin), 7404 Rhode Island Ave, College Park, Md. *Botany.* Espyville, Pa, Dec. 20, 12. A.B, Miami (Ohio), 38; M.S, Maryland, 40, Ph.D, 42. *Instr. bot, Maryland, 42–* Cytology; genetics.

Jones, Robert L(ambert), Abbott Laboratories, North Chicago, Ill. *Biochemistry.* Easton, Mass, May 25, 98. B.S, Mass. Col, 21; M.S, R. I. State Col, 24; Ph.C, Detroit Inst. Tech, 31. Asst. chem, Exp. Sta, R. I. State Col, 21–24; physiol. chem, Iowa State Col, 24–28; chemist, Frederick Stearns and Co, 28–31, director insulin lab, 31–35; *biochemist, Abbott Labs, 35–* Research chemist, Children's Fund of Mich, 35. Ed, 'Detroit Chemist,' 29–33. Chem. Soc. (chairman, Detroit sect, 33; councilor, 34); Asn. Study Int. Secretions. Insulin; female sex hormones; pituitary extracts.

Jones, Dr. Rodney H(umphrey), 227 16th St, Denver, Colo. *Clinical pathology.* Sumpter, Oregon, Aug. 2, 01. M.D, Colorado, 27. Instr. clin. path, sch. med, Colorado, 28–31, asst. prof, 31–35; *practising physician, 35–* Gold medal, Am. Soc. Clin. Path, 30. Aschheim-Zondek pregnancy test; internal medicine.

Jones, Dean Roy W(infield), 216 E. Third St, Edmond, Okla. *Zoology.* Shawnee, Okla, Sept. 16, 05. A.B, Okla. City Univ, 27; M.S, Kans. State Col, 28; Ph.D, Oklahoma, 37. Asst, Okla. City Univ, 26–27; parasitol, Kans. State Col, 27–28; teacher, high sch, La, 28; asst. prof. *biol, Cent. State Teachers Col,* 29–31, assoc. prof, 31–37, *prof, 37–, dean col. and acting dean men, 39–* A.A; Micros. Soc; Soc. Zool; Okla. Acad. (pres, 41). Resistance to parasitism; experimental embryology; mitotic index; effects of auxilin, colchicine, thiamin on mitosis and development of fish embryos; life history, embryology and ecology of Siphonaptera.

Jones, Prof. R(ufus) Vernon, 1405 Moore St, Commerce, Texas. *Organic chemistry.* Mullin, Texas, July 23, 12. A.B, Texas Tech. Col, 32; scholar, Florida, 32–33; A.M, Texas, 34, Ph.D, 37. Tutor, Texas, 33–34, instr, 34–36, lecturer, 36–37; asst. prof. science, *E. Texas State Teachers Col,* 37–39, assoc. prof. *chem,* 39–41, *prof, 41–* Chem. Soc; Inst. Chem; Texas Acad. Keto and mercapto derivatives of cinchoninic acid.

Jones, Dr. Russell L(owell), Indiana University School of Medicine, Bloomington, Ind. *Anatomy, Neurology.* Holliday, Mo, March 8, 08. A.B, Westminster Col. (Mo), 30; M.S, St. Louis, 32; Ph.D, Minnesota, 34. Asst, sch. med, St. Louis, 30–32; Minnesota, 32–34; instr. *anat,* Georgetown, 34–35; instr. and later *asst. prof, sch. med, Indiana, 35–* Numerical analyses and cell fiber relationships of the vagus nerve; technique of counting unmyelinated fibers; mechanics of human foot.

Jones, Prof. S. Guy, 955 E. Cypress Ave, Redlands, Calif. *Inorganic and analytical chemistry.* Licking Co, Ohio, Sept. 7, 81. B.S, Denison, 03; M.S, Ohio State, 24; Western Reserve. Instr, high sch, Ohio, 03–04; Pillsbury Acad, Minn, 04–09; *prof. chem, Redlands, 09–* Y.M.C.A. sec'y, A.E.F, 18–19. A.A; Chem. Soc; fel. Inst. Chem; N. Y. Acad. Resistance of electroplated metals to corrosion; corrosion of electroplated metals by strong chemicals.

Jones, Dr. Samuel O'Brien, R. J. Reynolds Tobacco Co, Winston-Salem, N. C. *Chemistry.* Franklin Co, N. C, March 14, 11. B.S, N. C. State Col, 32; R. J. Reynolds Tobacco Co. fellow, Hopkins, 32–36, Ph.D, 36. *Research chemist, R. J. Reynolds Tobacco Co, 36–* The addition of sulfur, hydrogen sulfide and mercaptans to unsaturated hydrocarbons.

Jones, Dr. Sarah (Elizabeth), Texas State College for Women, Denton, Texas. *Animal ecology.* Brenham, Texas, Aug. 3, 14. B.S, Southern Methodist, 34, grad. scholar, 34–35, M.S, 35; Ph.D, Illinois, 39. *Instr. biol,* McMurry Col, 40–41; *Texas State Col. Women, 41–* N. Texas Biol. Soc. Ecological studies on invertebrate animals, especially spiders and insects.

Jones, Dr. Sarah Van Hoosen, Rochester, Mich. *Genetics.* Rochester, Mich, June 23, 92. Ph.B, Chicago, 14; M.S, Wisconsin, 16, Ph.D, 21. Asst, Wisconsin, 17–21; *manager, Van Hoosen Dairy Farm.* Mem. State Board Agr, Mich, 43. A.A; Soc. Zool; Wis. Acad; Mich. Acad; Mich. State Holstein-Friesian Asn. (pres). Animal genetics; inheritance in pigeons, poultry and dogs; statistics from herd books.

Jones, Dr. S(loan) E(arle), Substation 17, Ysleta, Texas. *Entomology.* Greer, S. C, Aug. 6, 05. B.S, Clemson Col, 28; fellow, Agr. and Mech. Col. Texas, 28–29, M.S, 29; Ph.D, Iowa State Col, 40. Field asst, bur. entom, U. S. Dept. Agr, 29–30; entomologist, *Exp. Sta, Agr. and Mech. Col. Texas,* 30–42, *supt. substa. 17, 42–* Asst, Iowa State Col, 36–38. Summers, field asst, U. S. Dept. Agr, Tallulah, La, 28; asst. entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 29. Asn. Econ. Entom. Cotton, fruit and vegetable production in El Paso Valley.

Jones, Prof. Stephen B(arr), University of Hawaii, Honolulu, Hawaii. *Geography.* Seattle, Wash, Feb. 23, 03. B.S, Washington (Seattle), 24; A.M, Harvard, 29, Ph.D, 34. Instr. *geog,* Oregon Nor. Sch, 32–35; *Hawaii,* 35–38, *asst. prof, 38–* Summer, instr, Pa. State Col, 32; asst. prof, Washington (Seattle), 39. Political geography; geography of recreational regions; climatology.

Jones, T(homas) H(enry), 8 Whippany Road, Morristown, N. J. *Entomology.* Pawtucket, R. I, Sept. 25, 85. B S, Mass. Col, 08. P. R. Sugar Producers Exp. Sta. and Insular Exp. Sta, 11–14; Exp. Sta, Louisiana, 20–24; *bur. entom. and plant quarantine, U. S. Dept. Agr,* 09–11, 14–20, assoc. entomologist, 24–28, *senior entomologist, 28–* Asn. Econ. Entom; Entom. Soc. Wash.

Jones, Prof. Thomas O(swell), Haverford College, Haverford, Pa. *Chemistry.* Oshkosh, Wis, May 13, 08. B.E, Oshkosh State Teachers Col, Wis, 30; Ph.M. and Ph.D, Wisconsin 37. Instr. *chem, Haverford Col,* 37–40, *asst. prof, 40–* Chem Soc. Solubilities; tellurium compounds; isotopes; hydrazides.

Jones, Dr. Verner (Everett), P. O. Box 128, Mattoon, Ill. *Geology.* Radnor, Ohio, Sept. 11, 05. A.B, Ohio Wesleyan, 27; M.S, Cornell, 30, Ph.D, 33. Asst. geol, Cornell, 27–28, 29–30, instr, 30–34; petrol. geologist, Standard Oil Co. of N. J, 30–33; Standard Oil Co. of Argentina, 34–37; *dist. geologist, Magnolia Petrol. Co, 37–; capt, Air Corps, U. S. Army, 42–* Soc. Econ. Geol; Min. and Metal. Eng; Asn. Petrol. Geol; Ill. Acad; Ill. Geol. Soc. (pres, 39). Economic geology.

Jones, Prof. Vernon, Clark University, Worcester, Mass. *Educational psychology.* Portsmouth, Va, Oct. 13, 97. A.B, A.M, Virginia, 20; A.M, Columbia, 24, Ph.D, 26. Prin, sch, 18–23; director research, pub. schs, Va, 24–25; assoc, Teachers Col, Columbia, 25–26; assoc. prof. *educ. psychol, Clark,* 26–38, *prof, 38–, chairman* dept. educ, 36–40, *dept. psychol. and educ, 40–* Lecturer, Columbia, 27–29. Psychol. Asn; Asn. Applied Psychol; Educational Research Asn; Soc. Study Educ. Measurement and adjustment; character education and citizen-

ship training; effect of age and experience on tests of intelligence.

Jones, Dr. Victor H(arlan), U. S. Department of Agriculture, Washington, D. C. *Geology.* Sparta, Minn, Oct. 1, 05. A.B, Minnesota, 26; M.S, Iowa, 28, Ph.D, 33. Asst. geol, Iowa, 26–28, sedimentation, 28–31; asst. prof. geol. and geog, N. Dak. Col, 31–32; field geologist, Iowa Geol. Surv, 34–35; junior eng. sedimentologist, *sect. sedimentation and hydraul. studies, soil conservation service, U. S. Dept. Agr,* 35–37, asst. geologist, 37–39, *assoc. geologist, 39–* Summers, asst, Ill. Geol. Surv, 29, 30. A.A; Geol. Soc. Wash. Sedimentation in Red River; geology and underground water resources in western Iowa; glacial gravels of eastern Illinois; sedimentation in reservoirs of the Great Plains region; modern sedimentation in alluvial valleys and reservoirs of the southwestern Gulf of Mexico region.

Jones, Volney H(urt), Care of Shada, Jeremie, Haiti. *Ethnobotany.* Comanche, Texas, April 30, 03. B.S, Agr. and Mech. Col. Texas, 29; A.M, New Mexico, 31; Michigan, 31–34. Asst, *museum anthrop, Michigan,* 34–38, asst. curator, 38–41, assoc. curator, 41–42; *production supt. cryptostegia rubmer, Société Haitiano-Americaine de Developpment Agricole, 43–* Mem, Peabody Museum, Harvard exped, Awatovi, Ariz, 35–39. A.A; Anthrop. Asn; Soc. Am. Archeol; Midwest Museums Conf; Mich. Acad. Ethnobotany of North American Indians; origin and history of agriculture and cultivated plants; interrelations of man and plants; identification of plant materials from archeological sites.

Jones, Dr. Walter B(ryan), University, Ala. *Geology.* Huntsville, Ala, Feb. 25, 95. A.B, Alabama, 18, A.M, 20; Ph.D, Hopkins, 24. Instr. geol, North Carolina, 20–21; chief asst, Ala. Geol. Surv, 24–27; *state geologist, Ala, 27–* Director, State Dept. Conservation, Ala, 39–43. Summers, geologist, petrol. companies, S. Amer. and Mex, 20–22. U.S.A, 18–19, lieut. col, C.Eng.R. A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Mil. Eng; Soc. Econ. Geol; Ala. Acad. Economic geology.

Jones, Dr. Walter C(linton), 2420 Arlington Ave, Birmingham, Ala. *Zoology, Medicine.* Chicago, Ill, May 2, 74. A.B, Northwestern, 98, A.M, 99, M.D, 02. Asst. zool, Northwestern, 98–99, anat, med. sch, 00–02; instr. surg. path, col. med, Illinois, 05–08, asst. prof, 13–15; *prof.* path. and bacter, sch. med, Alabama, 18–19; biol, *Birmingham-Southern Col,* 20–24, *zool, 24–; pathologist, Tenn. Coal, Iron and Ry. Hosp, Birmingham, 18–* Pathologist, South. Highlands Infirmary and St. Vincent's Hosp, 19–23. A.A; fel. Am. Med. Asn; fel. Col. Surg; Soc. Clin. Path; South. Med. Asn; Ala. Acad. (v. pres, 24–26, pres, 27); Birmingham Sci. Soc. (v. pres, 22, pres, 23, 24). Pathology; the autonomic nervous system; the ureter; gastric surgery; index of body resistance.

Jones, Dr. Webster N(ewton), 562 Briar Cliff Road, Pittsburgh, Pa. *Chemistry.* Rich Hill, Mo, July 29, 87. A.B, Missouri, 08, A.M, 09; Ph.D, Harvard, 20. Teacher chem, Missouri, Harvard, Purdue, Maine, Montana, 08–18; research chemist, B. F. Goodrich Co, 19–25, tech. supt, 25–27, gen. supt. processing div, 27–32; *director col. eng, Carnegie Inst. Tech, 32–* Fellow, Missouri; Austin teaching fellow, Harvard. Mem, State Council Defense, Pa; Nat. Inventors Council. Lieut, C.W.S, 18, chem. expert, W.T.B, 19. A.A; Chem. Soc; Chem. Eng. (director, 31–33, 34–36, v. pres, 37, pres, 38, 39). Rubber chemistry; selection of technical personnel; rubber products; prices of chemicals; engineering education.

Jones, Prof. Wellington D(owning), University of Chicago, Chicago, Ill. *Geography.* Kansas City, Mo, April 4, 86. B.S, Chicago, 08, Ph.D, 14. Asst. *geog, Chicago,* 09–11, instr, 13–16, asst. prof, 16–22, assoc. prof, 22–25, *prof, 25–* Argentine Govt. exped, Patagonia; Univ. Chicago expeds, China and Japan, 16, India, 20. A.A; Asn. Geog. Regional geography of India, China and Japan; economic geography; land utilization survey techniques; world classification of regional modes of population support.

Jones, W(illiam) Catesby, 1123 State Office Bldg, Richmond, Va. *Chemistry.* Lynchburg, Va, June 9, 81. Va. Polytech, 00. Chemist, iron and steel labs, 00–12; fertilizer lab, Va-Carolina Chem. Co, 13–14; chemist in charge fertilizer lab, div. chem, *State Dept. Agr, Va,* 15–17, 19–29, *chief chemist, 30–* Major, C.W.S, 17–19. Chem. Soc. (chairman, Va. sect, 22, business manager, 'Bul,' 27–); Va. Acad. (pres, 43). Agricultural and food chemistry.

Jones, Prof. William H(enry, Jr), Emory University, Ga. *Chemistry.* Waycross, Ga, March 3, 04. B.S, Emory, 24; A.M, Princeton, 25, Ph.D, 29. Asst, Princeton, 24–27; instr. *chem, Emory,* 27–30, asst. prof, 30–36, *assoc. prof, 36–* Research fellow, Calif. Inst. Tech, 41–42. Physical Soc; Chem. Soc. (chairman, Ga. sect, 35, councilor, 36); Ga. Acad. Physical chemistry; mechanism of reactions; x-rays and molecular structure.

Jones, Dr. W(illia)m S(amuel), 854 E. 39th St, Brooklyn, N. Y. *Chemistry.* Ottawa, Ill, April 13, 96. A.B, West Virginia, 19; A.M, Ohio State, 20, Ph.D, 24. Asst. gen. chem, West Virginia, 17–19; Ohio State, 19–22, indust. chem, 22–24; research lab, *E. R. Squibb and Sons,* 24–37, *develop. lab, 37–, asst. to director research, 29–, Brooklyn works lab,* 42–, sec'y, Parkhurst Cod Liver Oil Corp, 29–37. Chem. Soc. Fish-liver oils; vitamins; organic medicinals.

Jones, Prof. W(illiam) W(arren), Kentucky State College, Frankfort, Ky. *Mathematics.* Waynesboro, Ga, Feb. 6, 04. B.S, J. C. Smith Univ, 28; Gen. Educ. Board scholar, Cornell, 31–32, M.S, 32; Michigan, 36–37. *Head dept.* science and math, *Ky. State Col,* 29–40, *math, 40–* The potential of, and the Green's function for a circular disc or spherical bowl.

Jones, Dr. Winston W(illiam), University of Hawaii, Honolulu, Hawaii. *Horticulture.* Eclectic, Ala, Jan. 18, 10. B.S, Ala. Polytech, 31; M.S, Purdue, 33; fellow, Chicago, 34–36, Ph.D, 36. Asst, Purdue, 31–33; asst. plant physiologist, *Exp. Sta, Hawaii,* 36–38, *asst. horticulturist, 38–* Soc. Plant Physiol. Respiration, culture and storage of tropical fruits.

Jones, Dr. Wyatt W(agner), 661 Ninth St, Douglas, Ariz. *Entomology, Plant pathology.* Galesburg, Ill, Oct. 28, 79. B.S, Mont. State Col, 01, M.S, 02; B.S, Harvard, 03; M.S, California, 13, Ph.D, 29. Asst. biol, Mont. State Col, 04–07; prin, high sch, Mont, 08–09; investigator, smelter smoke damage, Shasta County, Calif, 10–12; Shelby Smelter Cmn, 13; Am. Smelting and Ref. Co, 14–31. United Verde Ext. Mining Co, 20–25; Calumet and Ariz. and Phelps Dodge Corp, Ariz, 20–; Consol. Mining Co. Can, B. C, 27–30. A.A; Asn. Econ. Entom; Phytopath. Soc. Economic entomology; taxonomic botany; effect of smelter smoke on vegetation; leaf-mining insects.

Jonnard, Dr. Raymond, 2489 Sedgwick Ave, New York, N. Y. *Physical chemistry.* Paris, France, Jan. 27, 13. Dr.Sc, Paris, 37, David Weill fellow, Fordham, 38–39. Asst. prof, Sorbonne, Paris; *head dept. physical chem, Warner Inst. Therapeut. Research, 42–* Gold medal, Paris World's Fair, 37. Soc. X-ray and Electron Diffraction. Description of an automatic high pressure-high temperature pilot hydrogenation plant; extraction of vegetal drugs by continuous azeotropic distillation; extraction of the alkaloids of Rauwolfia.

Jonte, Prof. J(ohn) H(erbert), 324 W. Park St, Stockton, Calif. *Chemistry.* Kearney, Nebr, Aug. 13, 85. B.S, Kansas, 12; M.S, Iowa, 28. Analyst, chem. dept, State Col. Wash, 16–17; State Bur. Mines and Geol, Idaho, 17–20; *prof.* chem and geol, *Col. of Pacific,* 20–37, *chem, 37–; prof. chem, Stockton Junior Col, 35–* Chem. Soc. (v. chairman, Sacramento sect, 26, chairman, 27, councilor, 28, 43). Dental amalgams; properties of and reactions in silicic acid gels.

Jopson, Prof. Harry G(orgas) M(ichener), Bridgewater College, Bridgewater, Va. *Herpetology.* Philadelphia, Pa, June 23, 11. B.S, Haverford Col, 32; A.M, Cornell, 33, Ph.D, 36. Instr. *biol,* Iowa State Teachers Col, 36; asst. prof, *Bridgewater Col,* 36–37, *assoc. prof, 37–* A.A; Ecol. Soc; Soc. Ichthyol. and Herp; Soc. Mammal. Herpetology of the southeastern states; salamanders of the United States.

Jopson, Dr. John H(oward), Pawley's Island, S. C. *Surgery.* Philadelphia, Pa, Dec. 28, 71. M.D, Pennsylvania, 93. Res. physician, Univ. Hosp, Phila, 93–95; Children's Hosp, 95; dispensary surgeon, Episcopal Hosp, 95–02; attending surgeon, Children's Hosp, 02–29; Presb. Hosp, 05–37; prof. clin. surg, Pennsylvania, 29–37; *retired.* Consulting surgeon, Children's Hosp; Bryn Mawr Hosp. Major, M.R.C, 17–18, lieut. col, M.C, 18–19. Surg. Asn. (recorder, 19–30); Col. Surg; Soc. Clin. Surg; Phila. Acad. Surg. (recorder, 04–14, v. pres, 20, pres, 23); Col. Physicians Phila. (councilor, 25–28); Phila. Pediat. Soc. (pres, 04). General surgery.

Joralemon, Ira B(eaman), 315 Montgomery St, San Francisco, Calif. *Mining engineering, Geology.* Antwerp, N. Y, July 27, 84. A.B, A.M, Harvard, 05. Engineer, asst. geologist and chief geologist, Calumet and Ariz. Mining Co, 07–16, asst. gen. manager, 20–22; examinations, Anaconda Copper Mining Co, 14–16; Siberia, 17; *consulting mining engineer and geologist, 23–* Lecturer, California, Stanford, Harvard

and Wisconsin. A.S, U.S.A, 17–19. Chevalier, Légion d'honneur, 18. Min. and Metal. Soc. (councilor, 26); Soc. Econ. Geol. (chairman nomination cmt, 39); Min. and Metal. Eng. (chairman, San Francisco sect, 31; director).

Joranson, Dr. Yngve, 7454 Cottage Grove Ave, Chicago, Ill. *Anatomy.* Chicago, Ill, July 14, 88. A.B, Augustana Col. (Ill), 13; B.S, Chicago, 15, M.D, 17. *Practising physician, 20–; instr. anat, col. med, Illinois,* 23–29, asst. prof, 29–37, *assoc. prof, 37–* 1st lieut, M.C, 18–19. Am. Med. Asn. Blood supply of the human testis; experimental infection of the stomach with Endamoeba histolytica.

Jordahl, Prof. O(laf) M(elvin), P. O. Box 65, Parkland, Wash. *Theoretical physics.* Sioux Falls, S. Dak, Oct. 9, 02. A.B, Luther Col, 25; M.S, Pittsburgh, 27; Ph.D, Wisconsin, 33, 34–35. Asst. physics, Pittsburgh, 25–27; instr, Luther Col, 27–30; asst, Wisconsin, 30–31, 34–35; instr, Knox Col, 34; Northwestern, 35–40; *prof. physics and math, Pacific Lutheran Col, 40–* Physical Soc. Effect of crystalline electric fields on the paramagnetic susceptibility of cupric salts.

Jordan, Prof. A(rthur) M(elville), 401 Pittsboro St, Chapel Hill, N. C. *Educational psychology.* Somerton, Va, Oct. 9, 88. A.B, Randolph-Macon Col, 07; A.M, Trinity Col. (N. C), 09; Ph.D, Columbia, 19. Instr. psychol, Arkansas, 14–15, asst. prof, 15–19, *prof,* 19–23; *educ. psychol, North Carolina, 23–* A.A; Psychol. Asn; Educ. Research Asn. Education; interests of school children in reading; objective tests; mental growth; intelligence quotients and occupations; test validation; qualities of leadership; sex differences in mental traits; how to study; educational psychology.

Jordan, Prof. Cha(rle)s N(eal), 1402 S. Grand Ave, St. Louis, Mo. *Chemistry.* Catlettsburg, Ky, Dec. 31, 90. B.S, Okla. Agr. and Mech. Col, 14; M.S, Washington (St. Louis), 22; Ph.D, St. Louis, 27. Asst. prof. chem, Norwich, 18–21; instr. *org. chem,* Kans. State Col, 22–24; *St. Louis,* 24–28, asst. prof, 28–36, assoc. prof, 36–42, *prof, 42–, chairman dept, 43–* A.A; Chem. Soc. (councilor, 28, 34, 36, 43, v. chairman, 29, chairman, St. Louis sect, 30). Organic chemistry and biochemistry.

Jordan, Prof. E(dward) B(rent), Jr, Bennington College, Bennington, Vt. *Physics.* Glenwood Springs, Colo, April 5, 06. A.B, Colo. Col, 28; M.S, Washington (Seattle), 30; fellow, California, 30–33, Ph.D, 33. Whiting fellow, California, 33–34; nat. research fellow, Harvard, 34–36, instr. *physics,* 36–37; Illinois, 37–38, assoc, 38–41, asst. prof, 41–43; *prof, Bennington Col, 43–* Summers, instr, California, 32–34. Physical Soc. The scattering of electrons by gases and liquids; measurements of the collision cross-section for positive ions in gases; relative abundance of isotopes and the measurement of atomic masses.

Jordan, Dr. Edwin P(ratt), American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Medicine.* Chicago, Ill, Nov. 2, 02. B.S, Chicago, 23, M.D, Rush, 28. Billings fellow, John McCormick Inst, 28–30; instr. med, Chicago, 30–33, Rush Med. Col, 33–37; *asst. ed, 'Jour,' Am. Med. Asn, 37–* Ed, 'Standard Nomenclature of Disease.' A.A. (councilor, 40–). Am. Med. Asn; Rheumatism Asn; Inst. Med. Chicago. Bacteriology and pathology of arthritis; medical editing.

Jordan, Harry E, 29 W. 39th St, New York, N. Y. *Chemistry.* Coulterville, Ill, Nov. 15, 82. B.S, Franklin Col, 03. Director in charge filtration labs, Indianapolis Water Co, 04–36, filtration plant supt, 11–37; *sec'y, Am. Water Works Asn, and ed, 'Jour,' 36–* Chairman ed. board, 'Standard Methods for Examination Water and Sewage.' Construction div, U.S.A, 18–19, major. Chem. Soc; Water Works Asn. (pres, 34); affiliate Civil Eng. Purification of public water supplies.

Jordan, Dean H(arvey) E(rnest), University of Virginia, Charlottesville, Va. ***Anatomy.* Coopersburg, Pa, Aug. 14, 78. A.B, Lehigh, 03, A.M, 04, Sc.D, 41; Columbia; Ph.D, Princeton, 07. Asst. biol, Lehigh, 03–04; histol. and embryol, med. col, Cornell, 04–06; adj. prof. anat, *Virginia,* 07–08, assoc. prof, 08–11, prof. histol. and embryol, 11–38, *prof. anat. and director anat. labs, 38–,* asst. dean *dept. med,* 28–39, *dean, 39–* Asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 07; Marine Biol. Lab, Woods Hole, 08. Summers, in charge histol, Columbia, 18; Chicago, 20; investigator embryol, marine lab, Carnegie Institution, Tortugas, Fla, 07, 14, Montego Bay lab, 12. Assoc. ed, 'Jour. Morphol. and Physiol'; 'Folia Haematologica,' 28– Advisory council, U. S. Eugenics Cmt; cmn. standardization biol. stains, div. med. sciences, Nat. Research Council, 30–36; Soc. Zool. rep, Union Am. Biol. Societies, 37. A.A; Soc. Nat; Asn. Anat. (exec. cmt, 18–21, cmt. journals, 26–29, v. pres, 36–38); Am. Med. Asn. (cmt. med. aptitude tests, 38–); Soc. Zool. (exec. cmt, 11–14); Soc. Exp. Biol; Micros. Soc. (pres, 39); Asn. Physical Anthrop; Eugenics Research Asn; Va. Acad. (pres, 37); Sigma Xi (exec. cmt, 39–). Human yolk sac; pineal gland; blood development; primordial germ cells of loggerhead turtle embryo; spermatogenesis of the opossum; histology of lymph; blood platelets and giant cells; histology of striped muscle; function of the lymphocyte; intercalated disks of heart muscle; red bone marrow of the frog; the significance of spleen; mitochondria and Golgi apparatus of giant cells; extramedullary blood production; comparative hematology; histology; embryology.

Jordan, Prof. H(arvey) H(erbert), University of Illinois, Urbana, Ill. *Hydraulics.* Waltham, Maine, March 7, 85. B.S, Maine, 10. Water resources branch, U. S. Geol. Surv, 09–10; asst. civil eng, Maine, 10–11; instr. and asst. prof. *gen. eng. drawing, Illinois,* 11–21, *prof, 21–,* asst. dean *col. eng,* 21–34, *assoc. dean, 34–* Summers, State Highway Dept, Maine, and Bangor Power Co, 13, 16; instr, sch. mil. aeronaut, Illinois, 18. A.A; Civil Eng. (pres, cent. Ill. sect, 31); Eng. Educ. (v. pres, 31); Ill. Soc. Eng. The pipe orifice as a means of measuring the flow of water through a pipe; engineering drawing; descriptive geometry.

Jordan, Dr. H(enri) A(lbert), Box 1058, Williamsburg, Va. *Mathematics.* Brussels, Belgium, Dec. 15, 02. Dr.phil. nat, Frankfurt, 28; Edinburgh, 28–29. Asst, Remeis Astron. Observatory, Bamberg, 30; League of Nations Inst, Rome, 30–34; lecturer math. St. Andrews Univ. and Dundee Univ. Col, 34–35; asst. prof. math, Georgetown, 36–40, assoc. prof, 40–42; acting asst. prof, Col. of William and Mary, 42–43. Summer, research, Catholic Univ, 42. A.A; Math. Soc; Philos. Soc. Wash; Edinburgh Math. Soc. Analysis.

Jordan, Dr. Henry, Flintridge, Pasadena, Calif. *Chemistry.* Cologne, Germany, Sept. 22, 76. Bonn; Ph.D, Heidelberg, 99. Plant supervisor, Portland Cement Factory, Germany, 99–00; research, Bayer Co, Germany, 00–20; expert azo dyes, E. I. du Pont de Nemours and Co, 21–41; *retired.* Chem. Soc. Azo dyes.

Jordan, Prof. H(erbert) E(dwin), 1600 Kentucky St, Lawrence, Kans. *Mathematics.* Lemonville, Ont, Can, Feb. 18, 78. B.A, McMaster, 00, M.A, 01; Ph.D, Chicago, 04. Instr. math. and science, Brandon, 04–06; math. and physics, Mich. Col. Mines, 06–11; asst. prof. *math, Kansas,* 11–25, *assoc. prof, 25–* Linear groups.

Jordan, Prof. Hovey, 449 S. Prospect St, Burlington, Vt. *Histology.* Jericho Center, Vt, Feb. 26, 91. Ph.B, Vermont, 13, M.S, 14; A.M, Harvard, 17. Instr. zool, Vermont, 13–14; asst, Harvard, 14–17, Austin teaching fellow, 19; asst. prof. and assoc. prof. *histol, embryol. and biol, col. med, Vermont,* 19–37, *prof, 37–* Whitefish investigations, Lake Champlain, 13–14. Summers, Bermuda Biol. Sta, 15, 16, mem. corp. Lieut, U.S.A, 17–19, instr, A.E.F. Univ. Beaune, 19. A.A; Genetic Asn; Soc. Adv. Educ; N. Y. Acad. Embryology; zoology; human histology; Reissner's fiber; integumentary photosensitivity and rheotropism in fishes; staining of cancer cells; inheritance of appendicitis; anomalies of lung development; microprojection apparatus; adjustable sectioning box.

Jordan, Howard V(ernon), 2518 Van Hise Ave, Madison, Wis. *Soils.* McDonald, Pa, Jan. 18, 96. B.S, Mich. State Col, 18; A.M, Missouri, 24. Instr. soils, Missouri, 20–24; asst. prof. agron, N. Mex. Col, 24–28; *assoc. soil technologist,* bur. chem. and soils and later *bur. plant indust, soils and agr. eng, U. S. Dept. Agr,* Texas, 28–42; *Wisconsin, 42–* A.A; Soc. Agron; Soil Sci. Soc. Soil survey; soil fertility; relation of soil conditions to plant diseases; culture of hemp.

Jordan, Dr. H(ubert) F(airlee), 7 Pomander Walk, Nutley, N. J. *Chemistry.* Rockford, Ill, May 1, 04. A.B, Northwestern, 24; M.S, Chicago, 27, Ph.D, 29. *Research chemist, gen. labs, U. S. Rubber Co, Passaic, N. J,* 29– Ring method for the measurement of the surface tension of liquids; entropy principle and the entropy of surface formation of certain liquids; rubber latex and its industrial applications.

Jordan, Dr. John W(illiam), R.D. 7, Pittsburgh, Pa. *Colloid chemistry.* Pittsburgh, Pa, April 25, 12. A.B, Marietta Col, 34; Ph.D, Columbia, 38. Asst. food anal. and colloid chem, Columbia, 35–38; fellowship asst. tech. glassware, Mellon Inst, 38–39; chemist, Pittsburgh Corning Co, 39–41; *indust. fellow, Lead fellowship, Mellon Inst, 41–* Anionic catalysis of rate of dissolution of ferric oxides; mortar-bond-

ing resinous coatings for glass surfaces; classification and applications of bentonite.

Jordan, Louis, 2101 Constitution Ave, Washington, D. C. *Metallurgy.* Bethel, Maine, May 28, 94. A.B, Bates Col, 15; A.M, Illinois, 17. Chemist, Sears, Roebuck and Co. and U. S. Indust. Alcohol Co, 17; asst. chemist, Bur. Standards, 18–19, assoc. chemist, 19–21, chemist, 21–28, senior metallurgist, 28–36, chief sect. chem. metal, 20–30, sect. thermal metal, 30–36, asst. chief div. metal, 30–36; asst. sec'y, Am. Inst. Min. and Metal. Eng, and sec'y metals div, 36–41; consultant on nickel, Office Production Management and War Production Board, 41–42; *exec. sec'y war metal. cmt, Nat. Acad. Sciences and Nat. Research Council, 42–; tech. aide, Nat. Defense Research Cmt, 42–* Mem. iron alloys cmt, Eng. Foundation, 30–36. Ed. staff, 'Mining and Metal.' and 'Metals Technol,' 36– Min. and Metal. Eng; Soc. Metals; Wash. Acad. Rare earths; gases in metals; pure metals; refractories; heat treatment and high temperature properties of metals; wear and machinability of metals.

Jordan, Dr. Louise, Sun Oil Company, Box 2880, Dallas, Texas. *Geology, Micropaleontology.* Joplin, Mo, Jan. 3, 08. A.B, Wellesley Col, 29; M.S, Mass. Inst. Tech, 31, Ph.D, 39. Instr. physics and geol, Am. Col. for Girls, Istanbul, Turkey, 31–33; geol. and geog, Mt. Holyoke Col, 34–35; micropaleontologist, petrol. group, Maden Tetkik ve Arama Enstitüsü, Turkey, 35–38; geologist, Anzac Oil Corp, Coleman, Texas, 38–41; *geologist and research micropaleontologist, Sun Oil Co, 41–* Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Ecol. Geol. Helvetiae.

Jordan, Prof. P(hilip) S(coble), West Central School of Agriculture, Morris, Minn. *Animal husbandry.* Milbank, S. Dak, July 25, 88. B.S.A, Minnesota. Instr, high sch, Minn, 13–15; *west cent. sch. agr, Minnesota, 15–, asst. prof. animal husbandry.* Sheep; fattening of lambs; cross breeding of hogs; dairy cattle feeding.

Jordan, Dr. Robert, 41 E. 57th St, New York, N. Y. *Statistics.* Bethel. Maine, May 24, 97. B.S, Bates Col, 21; C.P.H, Yale, 22, Ph.D, 27. Instr, sch. med, Yale, 25–27; Rockefeller Foundation fellow, 27–28; asst. supt, New Haven Hosp, 28–35; *assoc, div. rural hosps, Commonwealth Fund, 35–* Ed. asst, Modern Hosp. Publishing Co, 22–24; asst. statistician, U. S. Pub. Health Service, 26; U. S. Dept. Agr; bur. census, U. S. Dept. Commerce. Trustee, Bates Col. A.A; Am. Hosp. Asn. Hospital administration.

Jordan, Dr. Stroud, 350 Parkside Ave, Brooklyn, N. Y. *Chemistry.* Orange Co, N. C, Nov. 11, 85. A.B, North Carolina, 05, M.S, 07, Ph.D, 09. Asst, Col. City of N. Y, 05; teacher chem. and physics, Gordon, 05–06; asst. chem, North Carolina, 06–09; instr, Mass. Inst. Tech, 09–11; chief chemist, Am. Tobacco Co, 11–20; Henry Heide, Inc, 20–30; managing director, Applied Sugar Labs, Inc, 30–34; director, Stroud Jordan Labs, 34–39; *manager mfrs. service div, Am. Sugar Ref. Co, 39–* Consulting chemist, Nat. Confectioners Asn, 35–39. Deputy city commissioner of purchase, New York, 35–39. Capt, C.W.S, 18–19. A.A; Chem. Soc; Asn. Cereal Chem; Inst. Food Technol; Nat. Confectioners Asn. Condensation of aldehydes with amines; cigarette paper; sugar syrups; storax; tobaccos; confectionery; almond products; water; confectionery problems and standards; chocolate evaluation.

Jordan, Prof. W(alter) E(dward), 902 Brooks Ave, Raleigh, N. C. *Chemistry.* Winston-Salem, N. C, Jan. 27, 95. B.S, Wake Forest Col, 17, A.M, 18; M.S, N. C. State Col, 25. Columbia; Cornell; Duke; Wisconsin. Chemist, Viscose Co, 18; E. I. du Pont de Nemours and Co, 18; instr. *chem, N. C. State Col,* 19–21, asst. prof, 21–25, *assoc. prof, 25–* Instr. chem, Inf, U.S.A, 18–19. Chem. Soc; N. C. Acad. Chemical kinetics; ultra-violet light; fluorescence.

Jordan, Prof. W(alter) H(arrison), University of South Dakota, Vermillion, S. Dak. *Physics.* Whitehall, Mont, April 22, 08. A.B, Oklahoma, 30, M.S, 31; Ph.D, Calif. Inst. Tech, 34. Asst. *physics,* Calif. Inst. Tech, 31–34; *prof, South Dakota, 34–* Physical Soc; Asn. Physics Teachers. Photoelectricity; x-rays; electronics.

Jordy, Prof. Louis C(leveland), Drew University, Madison, N. J. *Chemistry.* Flemington, N. J, Nov. 20, 88. B.S, Syracuse, 10, M.S, 11, B.Pd, 15, Ph.D, 27. Prof. *chem,* Wyo. Sem, Pa, 11–17; instr, Syracuse, 19–22, asst. prof, 22–23, assoc. prof, 24–29; Puerto Rico, 23–24; *prof, Brothers Col, Drew, 29–* C.W.S, U.S.A, 17–19. Chem. Soc. Mineral and rock analysis; atomic weights.

Jorgensen, Prof. Guy C(ady), 4440 Hillside St, Lincoln, Nebr. *Organic chemistry.* Neenah, Wis, Dec. 31, 92. A.B, Pacific Union Col, 17; M.S, Nebraska, 30, Ph.D, 38. Head dept. science, Hutchinson Sem, 17–18, 19–25; *prof. chem. and head dept, Union Col. (Nebr), 25–* U.S.A, 18–19. A.A; Chem. Soc. Isomeric alpha, beta-diphenyl-delta ketonic acids; bismuth organic compounds.

Jorgensen, Dr. Myron Nels, 2876 Mary St, Omaha, Nebr. *Biochemistry.* Lehi, Utah, Oct. 9, 06. A.B, Brigham Young, 28, A.M, 31; Ph.D, St. Louis, 37. Teaching fellow, Brigham Young, 28–30, instr, 30–31; teaching fellow, St. Louis, 31–36; instr. biol. chem, sch. med, Creighton, 38–41; *officer in charge dept. chem, seventh corps area lab, U. S. Army, 41–* Physiology and biochemistry of the pituitary hormones; biochemistry.

Jorgensen, Dr. Wilhelm, Battelle Memorial Institute, 505 King Ave, Columbus, Ohio. *Electrochemistry, Radio electricity.* Yacolt, Wash, Feb. 25, 08. B.S, Washington (Seattle), 33, Ph.D, 38. Asst. physics, Washington (Seattle), 33–37; *research engineer, Battelle Mem. Inst, 37–* Reserve officer, U. S. Army, 41– Physical Soc. Absorption and scattering of light in water.

Jorstad, Dr. Louis H(elmar), 3720 Washington Ave, St. Louis, Mo. *Bacteriology, Pathology.* Morris, Ill, Sept. 16, 96. M.D, Washington (St. Louis), 24. Director path. labs, *Barnard Free Skin and Cancer Hosp, 32–39, chief surgeon, head and neck service, 39–* Surgeon, gen. staff, Jewish Hosp, 32–; surgeon, St. Luke's Hosp, 34; Mo. Baptist Hosp, 35– Radium Soc; Soc. Exp. Biol; Am. Med. Asn; Asn. Cancer Research; Soc. Control Cancer (chairman, Mo); South. Med. Asn. Cancer pathology; surgery; radium therapy; neoplastic disease.

Joseph, Brother Adelphus (Joseph Arthur Veno), St. Mary's College, Calif. *Chemistry.* Oct. 26, 91. A.B, Manhattan Col, 21; A.M, Columbia, 27; Ph.D, Fordham, 30. Head dept. chem, Manhattan Col, 23–35, dean Staten Island div, 35–38; *dean sch. science, St. Mary's Col. (Calif), 41–* Chem. Soc. College chemistry.

Joseph, Dr. Glenn H(owe), Exchange Research Department, Corona, Calif. *Chemistry.* Tuscola, Ill, Sept. 21, 98. B S, Illinois, 22, M.S, 23; fellow, Wisconsin, 26–27, Ph.D, 27. Asst. chem, Illinois, 22–23; instr, Kans. State Col, 23–25; asst. physical chem, Wisconsin, 25–26; *physical chemist, research dept, Calif. Fruit Growers Exchange, 27–, chemist in charge lab, Corona, 32–,* acting manager, Ontario and Corona, 35–36. A.A; Chem. Soc. Colloid chemistry of citrus-fruit products; constitution, manufacture and uses of pectin; medical and pharmaceutical applications of citrus products.

Joseph, Dr. Michael, 1464 Fifth Ave, San Francisco, Calif. *Biochemistry.* Forest City, Pa, March 31, 12. B.S, Col. City of N. Y, 34; M.S, Arizona, 37; Ph.D, California, 40. Asst. biochem, California, 37–40; *research assoc. pharmacol, California, 41–, lecturer, 42–* Mineral metabolism; endocrine glands; cancer.

Joseph, Dr. Norman R(oss), 508 Belgravia Court, Louisville, Ky. *Physical chemistry.* Bradford, Pa, March 27, 08. B.S, Harvard, 28, Ph.D, 35. Research fellow pharmacol, Pennsylvania, 35–37; fellow chem, Cincinnati, 39–40; *biochemist, Joseph E. Seagram and Sons, Inc, 40–* Chem. Soc; Physiol. Soc. Phila. Physical chemistry of amino acids and proteins; cardiac physiology.

Joseph, Prof. T(homas) L(eonard), University of Minnesota, Minneapolis, Minn. *Metallurgy.* Beaver, Utah, Sept. 12, 94. A.B, Utah, 16, A.M, 17. Metal. chemist, Am. Smelting and Ref. Co, Utah, 17; asst, U. S. Bur. Mines, 19–23, assoc. metallurgist, 23–24, metallurgist and supervising engineer, n. cent. sta, 24–36; *prof. metal, inst. tech, Minnesota, 36–* J. E. Johnson, Jr, award, Am. Inst. Min. and Metal. Engineers, 27, Robert H. Hunt prize, 37. Min. and Metal. Eng. (chairman, blast-furnace cmt, 30); Soc. Metals (chairman, northwest. chap, 29, pub. cmt, 32–). The iron blast-furnace; effect of sulfur on blast-furnaces; effect of silica on cost of pig iron; combustibility of coke and stock descent; time element in iron ore reduction; coke; manganese; reducibility, porosity and size preparation of iron ores; iron oxide sinters; desulfurization of pig iron; use of reflecting microscope in the examination of open hearth slag.

Joseph, Dr. W(alter) E(dward), Newton, Ill. *Animal husbandry.* Lovett, Ind, Dec. 22, 81. B.S, Purdue, 07; scholar and fellow, Illinois, 09–12, Ph.D, 12. Asst. animal

husbandry, S. Dak. State Col, 08–09; instr, Illinois, 12–13, assoc, 13–16; asst. prof, Mont. State Col, 16–24, assoc. prof, 24–31; special study and research, Illinois, 31–32; agr. supervisor, div. subsistence homesteads, *Resettlement Admin*, 34–35, *supervisor, Fed. Security Agency*, 37– Sheep and wool production; pork production; nutrition of swine; composition of animal bodies and distribution of nitrogen; digestibility of feeds and rations; physical properties of wool.

Josephs, Dr. Hugh W(ilson), 1533 Bolton St, Baltimore, Md. *Medicine.* New Orleans, La, Jan. 13, 92. A.B, Harvard, 14; M.D, Hopkins, 19. Instr. *pediat, sch. med, Hopkins*, 22–25, assoc, 25–34, *assoc. prof, 34–* Pediat. Soc; Soc. Clin. Invest. Metabolism in diphtheria; hypoglycemia in children; metabolic studies in anemia.

Josephson, Prof. E(dward) S(amuel), Oglethorpe University, Ga. *Biochemistry.* Boston, Mass, Sept. 30, 15. A.B, Harvard, 36; scholar, Mass. Inst. Tech, 37–40, Ph.D, 40. Williams-Waterman research fellow *biochem*, Mass. Inst. Tech, 40–42; *asst. prof, sch. med, Oglethorpe, 42–* A.A; Chem. Soc. Vitamins; enzymes.

Josephson, Dr. H(orace) R(ichard), 231 Giannini Hall, Berkeley, Calif. *Forestry.* Loleta, Pa, Dec. 20, 08. B.S, Pa. State Col, 32; M.S, California, 33, Bidwell fellow, 33–34, Charles Lathrop Pack fellow, 37–38, Ph.D, 39. Assoc. forester, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 34–40; *asst. prof. forest econ, California, 40–* Forest economics; forest taxation; land utilization; costs and returns of timber growing.

Josephson, Dr. L(eonard) M(elvin), University of Wisconsin, Madison, Wis. *Plant pathology, Agronomy.* Ashland, Wis, Dec. 4, 13. B.S, Wisconsin, 36, Ph.D, 41. Agent, U. S. Dept. Agr, Madison, Wis, 33–36, purchasing seed grain, Minneapolis, Minn, 36–37; asst, *Wisconsin*, 37–39, *sec'y and field rep, malt research inst, 39–* A.A; Soc. Agron; Phytopath. Soc; Genetic Asn. Intermediate loose smut of barley; genetics of barley; industrial evaluation of barley varieties.

Josey, Prof. Charles C(onant), 301 Buckingham Drive, Indianapolis, Ind. *Psychology.* Scotland Neck, N. C, Jan. 1, 93. A.B, Wake Forest Col, 13; A.M, Columbia, 18, Ph.D, 21. Instr. psychol, Dartmouth Col, 21–22, asst. prof, 22–23; *prof.* psychol. and philos, South Dakota, 23–39; *psychol, Butler, 39–* Summers, instr, Duke, 27; Asheville Nor. Sch, N. C, 29. Social, religious and general psychology.

Joshel, Dr. Lloyd M(arvin), 4310 Van Buren St, Hyattsville, Md. *Organic chemistry.* Geneva, Ill, Dec. 21, 14. B.S, Illinois, 35; Ph.D, Ohio State, 38. Finney-Howell research fellow, Harvard, 38–40; asst. chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 40, assoc. chemist, bur. animal indust, 40–42; *indust. analyst, chem. branch, War Production Board, 42–* Chem. Soc; Inst. Chem. Synthesis of carcinogenic hydrocarbons; diene syntheses; synthesis of polycyclic compounds.

Joslin, Dr. Elliott P(roctor), 81 Bay State Road, Boston, Mass. *Medicine, Physiological chemistry.* Oxford, Mass, June 6, 69. A.B, Yale, 90, Ph.B, 91, hon. A.M, 14; M.D, Harvard, 95, Sc.D, 40. Asst. physiol. chem, *Harvard Med. Sch*, 98–00, theory and practise of med, 00–05, instr, 05–12, asst. prof. *med*, 12–22, clin. prof, 22–37, *emer. clin. prof, 37–* Consulting physician, Boston City Hosp; med. director, Baker Clinic, New Eng. Deaconess Hosp. Kober Foundation medal, 32. Lieut-col, M.C, 18–19. A.A; fel. Am. Med. Asn; Am. Physicians; Soc. Clin. Invest. (past pres); Philos. Soc; Am. Acad; Interstate Post-Grad. Med. Asn. (pres, 37). Diabetes mellitus.

Joslyn, Prof. M(aynard) A(lexander), University of California, Berkeley, Calif. *Chemistry.* Alexandrovsk, Russia, July 7, 04. B.S, California, 26, M.S, 28, Ph.D, 35. Asst. fruit products, *California*, 27–35, instr, 35–37, *asst. prof. fruit technol, 37–*, junior chemist, *col. agr*, 35–37, *asst. chemist, 37–; capt. in charge develop. food dehydration indust. overseas, U. S. Army, 42–* Supt. production and director research, Nat. Juice Corp, Fla, 31. A.A; Chem. Soc; Soc. Plant Physiol; N. Y. Acad. Citrus fruit products; fruit juices; pickles; preservation freezing of fruits and vegetables; wine technology; technical microbiology.

Joss, Dr. E(dward) C(larence), 2520 14th St, N. W, Washington, D. C. *Veterinary medicine.* Fairview, Kans, Feb. 28, 73. B.S, Kans. State Col, 96; M.D.C, Chicago Vet. Col, 02. Instr. vet. med, State Col. Wash, 02–03; *meat inspection div, bur. animal indust, U. S. Dept. Agr, 03–*, in charge field project, Tacoma, Wash, 05–06, Portland, Oregon, 06–23, in charge meat inspection, New York, 23–24, asst. chief *div*, 25–36, *chief, 36–* Asst. state veterinarian, Wash, 02. Veterinary and meat inspection.

Joss, Dr. Ernest J(acob), 4782 N. Cumberland Blvd, Milwaukee 11, Wis. *Chemistry.* Anaconda, Mont, Feb. 28, 03. A.B, Oklahoma, 22; A.M, Kansas, 24; Ph.D, Cornell, 26. Chem. engineer, develop. dept, U. S. Rubber Co, 26–31, Providence, R. I, plant, 31–41; asst. tech. director munitions div, Des Moines Ordnance Plant, 41–42; *tech. manager, Milwaukee Ordnance Plant, 42–* Chem. Soc. Physical chemistry; rubber technology.

Josselyn, Dr. L(ivingston) E(li), Highwood, Ill. *Anatomy.* Chicago, Ill, Sept. 16, 04. B.S, Chicago, 27, M.D, 32, Ph.D, 33. Asst. anat, Chicago, 28–30, instr, 30–33; res, Wash. Blvd. Hosp, *Chicago*, 34–35; *practising physician, 35–; Med. Corps, U. S. Army, 41–, major.* Fel. Am. Med. Asn. Finer structure of the lung.

Jotter, M(ary) Lois, Grand Rapids Junior College, Grand Rapids, Mich. *Plant genetics.* Weaverville, Calif, March 11, 14. A.B, Michigan, 35, M.S, 36, 36–42. Teaching fellow *bot*, Michigan, 35–41; *instr, Grand Rapids Junior Col, 42–* Genetics and systematics of Oenothera.

Jourdonais, Dr. L(eonard) F(rancis), 636 Church St, Evanston, Ill. *Bacteriology, Clinical medicine.* Havre, Mont, July 27, 04. A.B, Montana, 26; M.B, Northwestern, 32, M.D, 33. Asst. *bacter, Northwestern*, 28–30, *instr, 30–*, bot, 28–30, asst. *med*, 33–36, instr, 36–42, *assoc, 42–* Junior asst. physician, N. Y. Post-Grad. Hosp, New York, 36–37; assoc. physician, Evanston Hosp. Mem. Am. Board Int. Med. Fel. Col. Physicians; fel. Am. Med. Asn; Ill. Soc. Bact. Effect of mucin on virulence of pneumococci; experimental pneumonia; bacteriology of gastrointestinal tract with special reference to diarrheas.

Joy, Alfred H(arrison), Mt. Wilson Observatory, Pasadena, Calif. *⁴*Astronomy.* Greenville, Ill, Sept. 23, 82. Ph.B, Greenville Col, 03; A.M, Oberlin Col, 04; Thaw fellow, Princeton, 10–11. Instr, American Univ. Beirut, 04–10, prof. and director observatory, 10–16; instr. astron, Yerkes Observatory, Chicago, 14–15; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 15–, sec'y, 20–* Lick Observatory, California, eclipse exped, Egypt, 05. A.A; Astron. Soc. (councilor, 37); Astron. Soc. Pacific (pres, 31, 39); fel. Royal Astron. Soc. Stellar parallax; spectroscopy; variable stars.

Joy, Prof. Edward A(lbert), 92 Plymouth Ave, Milton, Mass. *Anatomy.* Boston, Mass, Dec. 1, 97. A.B, Tufts Col, 20; A.M, Harvard, 30, Ph.D, 33. Instr. biol, *Tufts Col*, 20–28, *anat, med. sch*, 28–35, asst. prof, 35–37, *assoc. prof, 37–* Asn. Anat. Experimental embryology; sensory primordia.

Joy, Edward L(ouis), 618 Realty Bldg, Spokane, Wash. *Forest pathology.* Huron, S. Dak, Nov. 17, 01. B.S, Oregon State Col, 27. Assoc. forester in charge field operations, Colo. and Wyo, *white pine blister rust control, bur. entom. and plant quarantine, U. S. Dept. Agr*, 25–37, *asst. regional leader, northwest region, 37–; lieut, Air Corps, U. S. Army.* Soc. Foresters; Northwest Sci. Asn. (chairman forestry sect, 40). Life history of white pine blister rust; relation of weather to spread of white pine blister rust; Ribes eradication in Wyoming and Colorado.

Joyce, C(larence) M(ason), 91 Beech St, Arlington, N. J. *Chemistry.* Medford, Mass, April 1, 81. B.S, Mass. Inst. Tech, 03. *Chemist*, Arlington Co, 03–14; Viscoloid Co, 14–25; *du Pont-Viscoloid Co, 25–* Sec'y, Leominster Sewage Cmn. A.A; Chem. Soc. (sec'y, N. Y. sect, 06–16); Soc. Chem. Indust; Chem. Eng; Franklin Inst. Cellulose esters; camphor; standards for acid control.

Joyce, Dr. J(ames) Wallace, U. S. Coast and Geodetic Survey, Washington, D. C. *Geophysics.* Providence, R. I, July 8, 07. B.E, Hopkins, 28, Ph.D, 31. Asst. geophys. technologist, U. S. Bur. Mines, 31–35; *geophys. prospecting, magnetic observatory, U. S. Coast and Geod. Surv, 35–* Geophys. Union; Seismol. Soc. Geophysical prospecting; magnetic observatory research.

Joyce, Dr. Robert M(ichael), Jr, Marshall and Clayton Aves, Marshallton, Del. *Organic chemistry.* Lincoln, Nebr, Sept. 19, 15. B.S, Nebraska, 35, M.S, 36; Ph.D, Illinois, 38. *Research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 38–* A.A; Chem. Soc. Stereochemistry of biphenyls; vinyl polymerization; new vinyl polymers.

Joyner, Dr. L(eslie) G(ordon), 1234 N. Highland Ave, Pittsburgh, Pa. *Physical chemistry.* Toronto, Ont, Can, Aug. 28, 12. B.S, Brown, 37; Ph.D, Cornell, 41. Asst. chem, Cornell, 37–41; *research chemist, Gulf Research and Develop. Co, 41–* Asst. staff mem, poison gas div, Allegheny County Office Civilian Defense, 42– Chem. Soc. Dielectric polarization; hydrocarbon isomerization and cracking; catalysis; adsorption.

Joyner, Mary C(ross) (Mrs. Frederick H. Seares), Mt. Wilson Observatory, Pasadena 4, Calif. *Astronomy.* Bedford, Ind, Aug. 3, 89. A.B, Smith Col, 12. *Computer, Mt. Wilson Observatory, Carnegie Institution, 15–* Astron. Soc. Photometry.

Józsa, Dr. Stephen, Fleischmann Malting Co, 327 S. LaSalle St, Chicago, Ill. *Chemistry.* Sopron, Hungary, 98. Ch.E, Univ. Tech. Sciences, Budapest, 21, D.Tech. Sciences, 25. Asst. prof, Univ. Tech. Sciences, Budapest, 20–27; Jeremiah Smith fellow, 27; research chemist, Fleischmann labs, Standard Brands, Inc, 27–35; *chief chemist, Fleischmann Malting Co, 35–* Mem. exec. cmt, Malt Research Inst, 40– Soc. Brewing Chem. (v. pres, 42); Chem Soc. Agricultural chemical technology; enzyme chemistry; malting; brewing.

Juday, Prof. Chancey, University of Wisconsin, Madison, Wis. *⁴*Limnology.* Near Ligonier, Ind, May 5, 71. A.B, Indiana, 96, A.M, 97, LL.D, 33. Teacher, high sch, Ind, 98–00; biologist, Wis. Geol. and Nat. Hist. Surv, 00–01; acting prof. biol, Colorado, 03–04; instr. zool, California, 04–05; biologist, Wis. Geol. and Nat. Hist. Surv, 05–31; lecturer, *Wisconsin,* 08–31, *prof. limnology, 31–, director limnol. lab, Trout Lake, 25–* A.A; Soc. Nat; Limnol. Soc. (pres, 35, 36); Soc. Zool; Micros. Soc. (pres, 23); Ecol. Soc. (pres, 27); Wis. Acad. (sec'y-treas, 22–30, pres, 37–39); Int. Limnol. Soc. Biological significance of gases dissolved in lakes; productivity of lakes; chemistry of lake waters; plankton; growth of fish in inland lakes.

Judd, Dr. B(enjamin) Ira, 115 E. Seventh St, Tempe, Ariz. *Agronomy.* Granite, Utah, Dec. 8, 04. B.S, Utah State Col, 28, M.S, 29; Arizona, 31; Ph.D, Nebraska, 36. Asst, Utah State Col, 28; Nebraska, 34–36; asst. soil scientist, Resettlement Admin, 36; asst. soil conservationist, Soil Conservation Service, 37; *head agr. dept, Ariz. State Teachers Col, 37–* Summers, special agent, div. investigations, U. S. Dept. Interior, 39, 40. A.A; Soc. Agron; Ecol. Soc. Natural revegetation of abandoned farm lands; water percolation; awn inheritance in wheat.

Judd, Prof. Charles H(ubbard), 4418 Circle View Blvd, Los Angeles, Calif. *¹*Psychology, Education.* Bareilly, British India, Feb. 20, 73. A.B, Wesleyan, 94; Ph.D, Leipzig, 96; hon. A.M, Yale, 07; LL.D, Miami, 09, Wesleyan, 13, Iowa, 23, Colo. Col, 23; Sc.D, Louisville, 37. Instr. philos, Wesleyan, 96–98; prof. exp. psychol, N. Y. Univ, 98–01; psychol. and pedag, Cincinnati, 01–02; instr. psychol, Yale, 02–04, asst. prof, 04–07, prof. and director psychol. lab, 07–09; head prof. *educ, Chicago,* 09–38, *emer. prof, 38–,* chairman dept. psychol, 20–24. Consultant, Nat. Youth Admin, 37–40, director student work, 40– Ed, 'Mon. Supplements, Psychol. Rev,' 03–09; 'Studies from Psychol. Lab. of Yale Univ'; 'Lessons in Community and Nat. Life,' U. S. Bur. Educ. and Food Admin, 17–18; 'Sch. Rev,' 'Element. Sch. Jour,' 09–29. Mem. at large, Social Sci. Research Council, 31–40; chairman, Am. Council Educ, 30, 31; mem. science cmn, Nat. Resources Planning Board, 37; Nat. Advisory Cmt. Educ, 37. A.A. (v. pres, Q, 20); Soc. Nat; Psychol. Asn. (pres, 09); Soc. Col. Teachers Educ. (pres, 11, 16); N. Cent. Asn. Col. and Secondary Schs. (pres, 24). Social and educational psychology; nature and development of reading; variation and nature of visual perceptions; mental development; number ideas and their development.

Judd, Dr. Deane B(rewster), 5 Woodhaven Blvd, Bethesda, Md. *Physics.* South Hadley Falls, Mass, Nov. 15, 00. A.B, Ohio State, 22, A.M, 23; Ph.D, Cornell, 26. Instr. physics, Ohio State, 23–24; research assoc, Munsell Research Lab, 26–27; assoc. physicist, *Bur. Standards,* 27–36, physicist, 36–37, *senior physicist, 37–* Am. rep. colorimetry, Int. Cmn. on Illum, 31, 35, artificial daylight, 39. Optical Soc; Inter-Soc. Color Council (chairman, 40–); Wash. Acad; Philos. Soc. Wash. Colorimetry; Purkinje after-image; equivalent color stimuli; chromaticity sensibility; light-scattering materials.

Judd, Prof. Horace, Ohio State University, Columbus, Ohio. *Hydraulics.* North Hatfield, Mass, May 4, 68. M.E, Ohio State, 97, M.S, 99. Instr. mech. eng, Ohio State, 97–99; dept. science and technol, Pratt Inst, 99–02; asst. prof. exp. eng, *Ohio State,* 02–09, assoc. prof, 09–18, *hydraul. eng,* 18–20, prof, 20–39, *emer. prof, 39–* A.A; Mech. Eng. (special research cmt. on fluid meters, 19–32); Eng. Educ. Experimental hydraulics; form and velocity of jets with pilot-tubes; the frictionless orifice; diaphragm orifices for flow meters; centrifugal pumps for motor fire-engines; effect of pulsations on fluid flow.

Judd, Neil M(erton), U. S. National Museum, Washington, D. C. *Anthropology, Archeology.* Cedar Rapids, Nebr, Oct. 27, 87. A.B, Utah, 11; A.M, George Washington, 13. Aid anthrop, *U. S. Nat. Museum,* 11–17, asst. curator dept, 18, *curator* Am. archeol, 19–30, *div. archeol, 30–* Asst, Univ. Utah archeol. expeds, 07–09; Sch. Am. Archeol. expeds, 10, 14; in charge reproduction of stone monuments of Guatemala, Calif-Pacific Expos, 14; field director, numerous Smithsonian Inst. archeol. expeds; director, Pueblo Bonito explorations, Nat. Geog. Soc, 20–29; archeol. explorations, 29, 31. Div. anthrop. and psychol, Nat. Research Council, 25–28, 31–32, 37–39. Trustee, Lab. Anthrop, Sante Fe, N. Mex, 27–36, advisory board, 36– A.A; Anthrop. Asn. (treas, 16–19, councilor, 16–); Anthrop. Soc. Wash. (v. pres, 23, pres, 25–27); Wash. Acad. (manager, 31–34); Archeol. Soc. Wash. (chairman, research cmt. and trustee, 26–30). American archeology, especially of Utah, Arizona and New Mexico.

Judefind, Dr. T(homas) F(rancis), Loma Linda, Calif. *Medical bacteriology.* Rock Hall, Md, Aug. 8, 03. B.S, Washington Missionary Col, 33; M.D, Col. Med. Evangelists, 35; California, 37–38. Instr. *bacter, Col. Med. Evangelists,* 36–38, *asst. prof, 39–* A.A; Soc. Bact; Am. Med. Asn; Pub. Health Asn. Preservation of bacterial cultures.

Judefind, Dr. W(illia)m Lee, 3804 Dorchester Road, Baltimore, Md. *Chemistry.* Baltimore Co, Md, Oct. 6, 96. A.B, Western Maryland Col, 15; Ph.D, Hopkins, 20. *Chief research chemist, Davison Chem. Co, Baltimore, 20–* U. S. Bur. Mines and later C.W.S, U.S.A, 17–18. Chamber and contact manufacture of sulfuric acid; manufacture of superphosphate, phosphoric acid and phosphates, fluosilicates and silica gel.

Judkins, H(enry) F(orest), National Dairy Products Corp, 230 Park Ave, New York, N. Y. *Dairying.* Kingston, N. H, Feb. 13, 90. B.S, New Hampshire, 11. Assoc. prof. dairying, Conn. Col, 13–18; Iowa State Col, 18–19; prof. and head dept, Mass. Col, 19–26; *director* research and production, East. Dairies, Inc, 26–28; Gen. Ice Cream Corp, 28–31; *production, Nat. Dairy Products Corp, 31–, exec. v. pres, Sealtest, Inc, 35–* Dairy Sci. Asn. (pres, 41). Principles of dairying.

Judkins, Dr. Wesley P(arkhurst), University of Connecticut, Storrs, Conn. *Plant physiology.* Oakland, Maine, Sept. 27, 11. B.S, Maine, 34; M.S, Ohio State, 37, Ph.D, 41. Instr. vocational agr, North Yarmouth Acad, Maine, 34–35; *hort,* Maine, 35–36; N. Mex. Col, 37–38; *asst. prof, Connecticut, 40–* Soc. Hort. Sci. Soils; horticulture; soil management problems of fruit production; plant hormones.

Judson, Prof. J(ames) Edward, West Virginia Wesleyan College, Buckhannon, W. Va. *Biology.* Bristol, Ind, June 15, 00. B.S, Illinois, 22; M.S, Wisconsin, 24, Ph.D, 27. Instr. *biol,* Albion Col, 24–25, acting head dept, 25–26, asst. prof, 27–28; assoc. prof, Fla. State Col. for Women, 28–29; *prof, W. Va. Wesleyan Col, 29–* A.A; Bot. Soc; W. Va. Acad. (sec'y, 37–). Morphology and anatomy of plants; cytology and genetics.

Judson, Dr. Lewis V(an Hagen), 3417 Northampton St, N. W, Washington 15, D. C. *Physics.* Plainville, Conn, Aug. 10, 93. A.B, Clark, 16, A.M, 17; Ph.D, Hopkins, 25. Lab. asst, *Bur. Standards,* 17–18, asst. physicist, 18–20, *chief length sect, 18–,* assoc. physicist, 20–29, physicist, 29–36, *senior physicist, 36–* A.A; Physical Soc; Optical Soc; Soc. Test. Mat; Geophys. Union; Philos. Soc. Wash. (cor. sec'y, 29–31); Soc. française de Physique. Weights and measures; length measurements; calibration of divided circles and theodolites; dimensional changes in photographic films and papers; precision sieve testing.

Jugenheimer, Dr. R(obert) W(illiam), 1837 Anderson, Manhattan, Kans. *Agronomy.* Scott Co, Iowa, Nov. 6, 04. B.S, Iowa State Col, 34, M.S, 36, Ph.D, 40. Agent, *corn breeding, genetics and production, bur. plant indust, U. S. Dept. Agr,* 28–39, *assoc. agronomist, 39–* A.A; Soc. Agron; Genetics Soc. Developing desirable dent and popcorn hybrids; determination, nature and inheritance of resistance to drought, insects and diseases.

Juhn, Prof. Mary, Box 65, Beltsville, Md. *Zoology.* Vienna. B.Sc, Zurich, 16, Ph.D, 23. Asst. zool, Whitman lab. exp. zool, Chicago, 23–28, research assoc, 28–38; *research assoc. prof. poultry husbandry, Maryland, 38–* A.A; Soc. Zool; Soc. Exp. Biol; Genetic Asn. Embryology of reptiles and birds; hormones in birds; plumages as indicators of hormonal and related conditions; gradients and asymmetries in plumage.

Jukes, Dr. Thomas H(ughes), Lederle Laboratories, Pearl River, N. Y. *Nutrition.* Hastings, Eng, Aug. 25, 06. B.S.A, Toronto, 30, Ph.D, 33. Nat. research fellow biochem, California, 33–34, instr. poultry husbandry, 34–39, asst. prof, 39–42; *assoc. director pharmaceut. div, Lederle Labs, 42–* Inst. Nutrition (councilor, 41); Soc. Biol. Chem; Soc. Exp. Biol. Chemistry of proteins and amino-acids; chemistry and immunology of egg yolk; water-soluble vitamin requirements of the chick; vitamin B complex; choline.

Jukkola, Dr. W(aino) H(elmer), 2408 W. Irwin St, Aliquippa, Pa. *Analytical chemistry.* Lead, S. Dak, Feb. 15, 07. B.S, S. Dak. Sch. Mines, 29, fellow, 29–30, Chem.E, 37; M.S, Colorado, 32, Ph.D, 35. Asst. instr. anal. chem, Colorado, 30–35; physical science aide chem. eng, Tenn. Valley Authority, 35–36; junior chemist, Bur. Standards, 36–40; *asst. chief chemist, Aliquippa works, Jones and Laughlin Steel Corp, 39–* A.A; Chem. Soc; assoc. Optical Soc. Extraction of alumina from shales; Grignard reactions with trichloroacetic esters; analytical chemistry of columbium and tantalum; iron and steel analysis.

Julianelle, Dr. Louis A, Public Health Research Institute, New York, N. Y. *Bacteriology.* New Haven, Conn, March 12, 95. A.B, Yale, 17, M.S, 19; Ph.D, Pennsylvania, 22. Instr. bacter, Pennsylvania, 22–24; asst, Rockefeller Inst. Hosp, 24–27, bacteriologist, 27–30, assoc, 29–30; assoc. prof. bacter. and immunol, med. sch, Washington (St. Louis), 30–42, chairman trachoma cmn, 32–37; *chief div. infectious diseases, Pub. Health Research Inst, 42–* Senior bacteriologist, Phila. Gen. Hosp, 20–24; assoc. bacteriologist, St. Louis Children's Hosp, 38–42. A.A; Soc. Exp. Biol; Asn. Immunol; Asn. Research Ophthalmol; Soc. Bact; Asn. Path. and Bact; Harvey Soc. Bacteriology of the eye and of respiratory diseases; immunology; bacterial hypersensitiveness; etiology of trachoma; inclusion conjunctivitides; listerellosis.

Juliano, Prof. J(osé) B(uencamino), College of Agriculture, University of the Philippines, Los Baños, Laguna, P. I. *Plant morphology.* San Miguel de Mayumo, Bulacan, P. I, Feb. 10, 00. B.S. (Agr), Philippines, 23, M.S, 25; Univ. Philippines fellow, Stanford, 28–30, Ph.D, 30. Asst. *plant physiol, col. agr, Philippines,* 23–30, instr, 30–35, *asst. prof, 35–* A.A; Bot. Soc; Ecol. Soc; Genetic Asn; British Ecol. Soc; Philippine Sci. Soc; Soc. Advancement Research (treas, 30–33, sec'y, 36–); Nat. Research Council P. I. Comparative morphology of Philippine crop and fruit plants, weeds and phanerogamic root parasites; rice classification; sterility.

Julien, Dr. A(rlie) P(aul), 2119 S. Geddes St, Syracuse, N. Y. *Chemistry.* Delphi, Ind, April 21, 98. A.B, DePauw, 20; A.M, Wisconsin, 22, Ph.D, 24. Research chemist, *Solvay Process Co,* Syracuse, 24–34, *asst. chief chemist, 34–* Chem. Soc. (chairman, Syracuse sect, 35). Electrical conductance of selenium oxychloride solutions; the heavy alkali industry.

Jull, Prof. Morley A(llan), University of Maryland, College Park, Md. *Poultry husbandry.* Burford, Ont, Can, Aug. 26, 85. B.S.A, Toronto, 08; M.Sc, McGill, 19; Ph.D, Wisconsin, 22. Exp. Sta, West Virginia, 08–09; B. C. Dept. Agr, 09–11; McGill, 12–23; office poultry investigations, bur. animal indust, U. S. Dept. Agr, 23–36, senior poultry husbandman in charge; *prof. poultry husbandry and head dept, Maryland, 36–.* Sec'y indust. cmt, World's Poultry Cong, 39. Poultry Sci. Asn. (pres, 15); Genetic Asn; World Poultry Sci. Asn.

Jump, Dr. John Austin, State Teachers College, Frostburg, Md. *Plant pathology.* Easton, Md, Dec. 28, 13. A.B, Swarthmore Col, 34; Harrison fellow, Pennsylvania, Ph.D, 38. *Instr. biol. sciences, Md. State Teachers Col, 38–* Phytopath. Soc; Torrey Bot. Club. The forking of Pinus resinosa and fungi associated with the disturbance; fossil oaks; Sphaeropsis disease of Pinus excelsa; wound responses of Ficus.

Jung, Dr. Frederic T(heodore), 303 E. Chicago Ave, Chicago, Ill. *Physiology.* Sheboygan, Wis, Jan. 15, 98. B.S, Wisconsin, 19; fellow, Chicago, 23–26, Ph.D, 25, M.D, 32. Asst. prof. physiol. and pharmacol, and later *assoc. prof. physiol, med. sch, Northwestern, 26–* Physiol. Soc; Am. Med. Asn; Inst. Med. Chicago. Physiology of the parathyroids, gall bladder, stomach, teeth and mammary glands; biometry.

Jung, Dr. Ruth (Elvira) Westlund, 521 Ridge Ave, Evanston, Ill. *Bacteriology, Immunology.* New Haven, Conn. B.S, Chicago, 23; M.S, Illinois, 27; Ph.D, Northwestern, 33. Asst. bacter, Chicago, 21–23; serologist, Michael Reese Hosp, Chicago, Ill, 23–25; bacteriologist, Ill. Research Hosp, Chicago, 25–27; asst. *bacter, med. sch, Northwestern,* 27–33, *instr, 33–* Soc. Ill. Bact. Pneumococci in children; phagocytosis; bacteriology of vaginitis; immunology in hyperpyrexia; pectin fermenting bacteria; sulfathiazole treatment of gonorrhea.

Jungeblut, Prof. Claus W, 468 Riverside Drive, New York, N. Y. *Bacteriology.* St. Paul, Minn, June 12, 97. M.D, Berne, 21. Robert Koch Inst, Berlin, 21–22; Inst. for Exp. Therapy, Berlin-Dahlem, 22–23; asst. bacteriologist, div. labs. and research, Dept. Health, N. Y, 23–25, bacteriologist, 25–27; asst. prof. *bacter,* Stanford, 27–28, assoc. prof, 28–29; *Columbia,* 29–36, *prof, 37–* Nat. research fellow, 27. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Bact; Am. Med. Asn; Soc. Exp. Biol; Asn. Immunol; N. Y. Acad. Med; Harvey Soc; Int. Soc. Microbiol. Bacteriology and immunology of infectious diseases, particularly infantile paralysis.

Jungherr, Prof. E(rwin) L(eopold), University of Connecticut, Storrs, Conn. *Animal pathology.* Oberndorf, Austria, Feb. 21, 97. V.Dipl, Vet. Col, Vienna, 22, Ph.D, 23. Asst. veterinarian, Exp. Sta, Mont. State Col, 24–30; veterinarian, Exp. Sta, Agr. and Mech. Col. Texas, 30; *prof. animal path, Connecticut, and animal pathologist, Storrs Exp. Sta, 30–* A.A. Anaerobic infections in lambs; blackleg in sheep; lechuguilla fever of sheep and goats; mycosis and leucosis in fowls; gout in birds.

Jupnik, Dr. Helen, Spencer Lens Co, Buffalo, N. Y. *Physics.* Kenosha, Wis, Sept. 30, 15. A.B. and A.M, Wisconsin, 37; Ph.D, Rochester, 40. Helen Schaeffer Huff research fellow, 40–41; Sarah Berliner research-docentship fellow, 41–42; *physicist,* Nat. Research Corp, 42–43; *Spencer Lens Co, 43–* Physical Soc. Photoelectricity; optics.

Jura, Dr. G(eorge), 6201 S. Ingleside, Chicago, Ill. *Physical chemistry.* New York, N. Y, Nov. 18, 11. Ph.D, Chicago, 42. *Research assoc, Chicago, 42–* Chem. Soc. Energy relations of the surfaces of solids.

Jurgensen, Dr. Delbert F(rederick), Jr, 76 High Haith Road, Arlington, Mass. *Chemical engineering.* St. Paul, Minn, March 31, 09. B.Ch.E, Minnesota, 31, M.S, 32, Ph.D, 34. Chemist, Pure Oil Co, 34–35; research supervisor, U. S. Gypsum Co, 35–42; *chem. engineer, chem. warfare service develop. lab, Mass. Inst. Tech, 42–* Chem. Eng; Chem. Soc. Heat transfer; coefficients on inclined tubes; building materials; gypsum products.

Jurgenson, Prof. Leo, University of Tartu, Tartu, Estonia. *Engineering.* Tartu, Estonia, Jan. 21, 01. Grad, Reval Inst. Tech, 24; M.S, Mass. Inst. Tech, 26, Sc.D, 29. Construction engineer, Coolidge, Shepley, Bulfinch, 27–29; research assoc, Mass. Inst. Tech, 29–34; *assoc. prof, Tartu, 34–* Soil mechanics; foundation engineering.

Jurica, Prof. Edmund J(oseph), St. Procopius College, Lisle, Ill. *Physiology.* Cloverdale, Ill, July 16, 00. A.B, St. Procopius Col, 20; Ph.D, Chicago, 26. Instr. *zool, St. Procopius Col,* 20–23, *prof, 26–* A.A; Am. Med. Asn. Motility of the denervated mammalian esophagus.

Jurica, Prof. Hilary S(tanislaus), St. Procopius College, Lisle, Ill. *Botany.* Czechoslovakia, June 19, 92. A.B, St. Procopius Col, 17; M.S, Chicago, 20, Ph.D, 22. Instr, *St. Procopius Col,* 17–22, *prof. bot. and head dept. biol, 22–; head dept. biol, De Paul, 38–* A.A; Bot. Soc; Soc. Plant Physiol; Genetic Asn; Asn. Biol. Teachers; Torrey Bot. Club; Fern Soc; Ill. Acad. Morphology; ecology; head and flower of Dipsacus sylvestris; Umbelliferae; grouping of plants; Jurica series of biological charts.

Jurist, Dr. Alfred E(dward), E. R. Squibb and Sons, Brooklyn, N. Y. *Chemistry.* Philadelphia, Pa, Jan. 28, 95. B.S, Chicago, 17, Ph.D, 21. Research dept, Barrett Co, 17; research fellow chem, Nelson Morris Mem. Inst, 23–25; *research dept, E. R. Squibb and Sons, 25–* Chem. Soc. Organic chemistry; biochemistry; fatty acids; volatile organic acids; organic medicinal product synthesis; organo-metallic substances.

Just, Prof. Theo(dor) K(arl), University of Notre Dame, Notre Dame, Ind. *Botany.* Gross-Gerungs, Austria, Oct. 27,

04. Ph.D, Vienna, 28. Asst, herbarium, Museum Nat. Hist, Vienna, 28–29; instr. and asst. prof. *biol, Notre Dame*, 29–36, assoc. prof, 36–41, *prof, 41–, head dept, 40–*, asst. curator and *curator herbaria*, 29– Librarian and ed, 'Lloydia,' Lloyd Library, Cincinnati, Ohio, 38– Asst. ed. and ed, 'Am. Midland Naturalist,' 30–; asst. ed, 'Chronica Botanica,' 40– A.A; Bot. Soc; Ecol. Soc; Entom. Soc. Amer; Mycol. Soc; Torrey Bot. Club; Geog. Soc. N. Y; Ind. Acad. (v. pres, 42, pres, 43); Zool-Bot. Gesell. Wien. Morphology and taxonomy of flowering plants; plant sociology and geography.

Justice, Prof. H(oward) K(enneth), 927 Kreis Lane, Cincinnati, Ohio. *Mathematics.* Williamstown, Ky, Jan. 6, 96. C.E, Cincinnati, 19, Ph.D, 33. Construction work, 15–16; R. R. surveying and mapping, 16–21, chief, 18–21; instr. *math, Cincinnati*, 21–23, asst. prof, 23–27, assoc. prof, 27–37, *prof, 37–, head gen. eng, 37–* Math. Soc; Math. Asn. Lie theory of continuous one-parameter groups applied to vector differential equations; calculus.

Justice, Dr. John L(yttleton), 808 Monument Ave, Fredericksburg, Va. *Physical chemistry.* Sussex Co, Va, Dec. 3, 06. B.S, Virginia, 29, Ph.D, 34. Chemist, Carbide and Carbon Chem. Corp, 29–30; head dept. science, high sch, Va, 34–35; asst. fuel tech, sch. mineral indust, Pa. State Col, 36–40; *research chemist, Sylvania Indust. Corp, 40–* Chem. Soc. Fuel technology; heterogeneous equilibria; cellulose products.

Justice, Dr. O(ren) L(loyd), State Department of Agriculture, Montgomery, Ala. *Botany.* Pikeville, Ky, Nov. 11, 07. B.S, Ohio (Athens), 32, A.M, 37; Goldwyn Smith scholar, Cornell, 40, Ph.D, 40. Teacher, high sch, Ohio, 32–36; asst. bot, Cornell, 37, 38, 39–40, exten. botanist, 40; chief seed analyst, *State Dept. Agr, Ala*, 41–43, *director seed div, 43–* Summers, exten. specialist, Cornell, 38, 39. Bot. Soc; Soc. Agron. Physiology of seeds; dormancy in seeds of the genus Polygonum and in Cyperus; germination of seeds of velvet-bean; germination of bulblets of Allium species.

Justin, Prof. E(dward) M(artin), Case School of Applied Science, Cleveland, Ohio. *Mathematics.* London, Ont, Can, June 25, 84. B.S, Case, 09, M.S, 22; Chicago, 25–27. *Asst. prof. math, Case, 18–* Math. Asn; Astron. Soc; Eng. Educ. Astronomy.

Justin, Prof. Florence, Ohio University, Athens, Ohio. *Home economics.* Phillips Co, Kans, Dec. 28, 95. B.S, Kans. State Col, 16; A.M, Chicago, 23; Ph.D, Minnesota, 29. Teacher, high schs, Mont. and Calif, 18–21; teacher, Isabella Thoburn Col, Lucknow, India, 23–27; assoc. prof. *child develop. and family relationships, Ohio (Athens)*, 30–39, *prof, 39–* Child development.

Justin, Dean Margaret M, Kansas State College, Manhattan, Kans. *Home economics.* Agra, Kans, 89. B.S, Kans. State Col, 09; A.B, Columbia, 15; Susan Rhoda Cutler fellow and Am. Asn. Univ. Women fellow, Yale, 22–23, Ph.D, 23. Settlement worker, Bennett Acad, Mathiston, Miss, 09–13; dist. leader home demonstration agents, Mich. State Col, 15–18; *dean div. home econ, Kans. State Col, 23–, in charge home econ. research, Exp. Sta.* Chairman, State Cmt. Nutrition in Relation to Defense, Kans. Y.M.C.A. canteen service, 18–19. A.A; Home Econ. Asn. (pres, 28–30); Kans. Acad. Effect of weather on health; seasonal variation in the growth curve of children; resumption of growth by stunted children.

Justin, Miner M(onroe), Agricultural Experiment Station Annex, West Lafayette, Ind. *Agriculture, Statistics.* Phillips Co, Kans, June 15, 86. B.S. (Agr), Kans. State Col, 07, M.S. (Agr), 17. Field agent, bur. crop estimates, *U. S. Dept. Agr*, 17–21, bur. crops and markets, 22–23, agr. statistician, *bur. agr. econ*, 24–28, *senior agr. statistician, 29–; chief agr. statist, Exp. Sta, Purdue, 25–* Soc. Agron; Farm Econ. Asn; Statist. Asn. Crop production and weather.

Juterbock, Dr. Edwin E(mil), 215 Hart Blvd, Staten Island, N. Y. *Chemistry.* Foster, Ohio, Jan. 26, 09. A.B, Cincinnati, 30, A.M, 31; fellow, N. Y. Univ, 31–33, Ph.D, 33. Asst. chem, Cincinnati, 30–31; chemist, Thomas and Hochwalt Labs, 33–34; *chem. engineer, Standard Oil Co. of N. J, 34–* N. Y. Acad. Chemical kinetics.

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Kaan, Prof. Helen W(arton), Wellesley College, Wellesley, Mass. *Zoology, Anatomy.* Brookline, Mass, July 4, 97. A.B, Mt. Holyoke Col, 19; fellow, Yale, Ph.D, 25. Asst. and instr. biol, Wheaton Col. (Mass), 19–21; instr. zool, Wellesley Col, 21–22; anat, Univ. and Bellevue Hosp. Med. Col, 25–27; assoc. prof. *zool*, Wheaton Col. (Mass), 27–28; asst. prof, *Wellesley Col*, 28–38, *assoc. prof, 38–* A.A. The development of the ear in Amblystoma punctatum; development of cataract in lens of albino rat embryo.

Kabakjian, Prof. D(icran) H(adjy), University of Pennsylvania, Philadelphia, Pa. *Physics.* Armenia, Nov. 11, 75. A.B, Anatolia, 96; M.S, Pennsylvania, 07, Frazier fellow, 09–10, Ph.D, 10. Prin, Sivas Nor. Sch, 98–05; instr. *physics, Pennsylvania*, 10–14, asst. prof, 14–26, *prof, 26–* Physical Soc. Silent discharge and ozone formation; radioactivity: luminescence due to radioactivity; luminescence in pure crystals.

Kabat, Dr. Elvin A(braham), Neurological Institute, 710 W. 168th St, New York, N. Y. *Biochemistry, Immunochemistry.* New York, N. Y, Sept. 1, 14. B.S, Col. City of N. Y, 32; A.M, Columbia, 34, Ph.D, 37. Lab. asst. immunochem, Presbyterian Hosp, 33–37; Rockefeller Foundation fellow, Inst. Physical Chem, Upsala, 37–38; instr. path, med. col, Cornell, 38–41; *research assoc. biochem, col. physicians and surg, Columbia, 41–* A.A; Chem. Soc; Soc. Biol. Chem; Asn. Sci. Workers; Harvey Soc; N. Y. Acad. Organic reagents in qualitative analysis; mechanisms of precipitin and agglutination reactions; antibody purification; physico-chemistry of antibodies, tissue proteins and antigens; tumor viruses; histochemistry of tissue enzymes; serum proteins; spinal fluid proteins.

Kabat, Dr. Herman, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Pharmacology.* Brooklyn, N. Y, Jan. 8, 13. B.S, N. Y. Univ, 32; Elizabeth J. Ward fellow, Northwestern, 32–35, Ph.D, 35; M.D, Minnesota, 42. Asst. anat, med. sch, Northwestern, 35–36; instr. physiol, Minnesota, 36–42, asst. prof. physiol. and neuropsychiat, 42–43; *mem. staff, nat. inst. health, U. S. Pub. Health Service, 43–* Cutts prize, med. sch, Minnesota. Asn. Anat; Physiol. Soc. Autonomic functions of hypothalamus, forebrain and midbrain; relation of hypothalamus to emotional reactions; functional and pathological effects of arrest of brain circulation; nervous factor in traumatic shock; nervous and toxic factors in burns; effects of poliomyelitis on neuromal metabolism; pathologic physiology and therapy of clinical poliomyelitis.

Kabler, Dr. Paul W(esley), 309 Union St, S. E, Minneapolis, Minn. *Bacteriology.* Kingman, Kans, March 15, 07. A.B, Kansas, 28, A.M, 30, Ph.D, 33; M.B. and M.D, Minnesota, 38; A.M, Harvard, 42. Lab. asst. bacter, Kansas, 28–30, instr, sch. med, 30–33; bacteriologist, *div. preventable disease, State Dept. Health, Minn*, 33–38, *asst. chief labs, 38–; capt, Med. Corps, U. S. Army.* A.A; Pub. Health Asn; Minn. Trudeau Soc. Relative resistances of E. typhosa and Esch. coli to chlorine compounds.

Kac, Prof. Mark, Cornell University, Ithaca, N. Y. *Mathematics.* Krzemieniec, Poland, Aug. 3, 14. Magister Philos, John Casimir Univ, Lwów, Ph.D, 37. Teaching asst, John Casimir Univ, Lwów, 35–37; research fellow, Parnas Foundation, Lwów, Poland, 38–39, fellow, Johns Hopkins, 38–39; instr. *math, Cornell*, 39–43, *asst. prof, 43–* A.A; Math. Soc; Math. Asn; Polish Math. Soc. Analysis, theoretical statistics with applications to number theory.

Kaczmarek, Prof. Regidius M(arion), 317 Napoleon Blvd, South Bend, Ind. *Physiology.* Chicago, Ill, Nov. 21, 88. A.B, St. Stanislaus Col, 06; Illinois, 06–08; Ph.C, Notre Dame, 12, fellow, 12–15, M.S, 13, Ph.D, 15. Instr. *biol, Notre Dame*, 15–18, asst. prof, 18–23, assoc. prof, 23–27, *prof, 27–* A.A; fel. Ind. Acad. Biology; pharmacodynamics.

Kade, Dr. Charles F(rederick), Jr, Frederick Stearns and Co, Detroit, Mich. *Biochemistry.* Sheboyan, Wis, April 4, 14. A.B, Carleton Col, 36; M.S, N. Dak. Col, 38; Ph.D, Illinois, 41. Asst. chem, Carleton Col, 35–36; N. Dak. Col, 36–38; Illinois, 38–43; *biochemist, biochem. lab, Frederick Stearns and Co, 43–* Chem. Soc. Intermediary metabolism of amino acids.

Kadesch, Dr. Richard G(ilmore), 218 Twin Oaks Road, Akron, Ohio. *Organic chemistry.* Annapolis, Md, March 1, 18. A.B, Iowa State Teachers Col, 38; Eli Lilly fellow, Chicago, 38–39, Charles H. Viol fellow, 40–41, Ph.D, 41. *Research chemist, Columbia chem. div, Pittsburgh Plate Glass Co, 41–* Chem. Soc. Steric effects on the properties of aromatic ketones; monomers which polymerize to useful plastics.

Kadesch, Prof. W(illiam) H(enry), 1803 Clay St, Cedar Falls, Iowa. *Physics.* Grand Rapids, Ohio, 79. B.S, Ohio Wesleyan, 06; Ph.M, Chicago, 10, Ph.D, 15. Prof. physics, Iowa State Teachers Col, 10–13; instr. elec. eng. and physics, U. S. Naval Acad, 13–18, prin, Calvert Sch, 18–21; *prof. physics, Iowa State Teachers Col, Cedar Falls, 21–* A.A; Physical Soc. Photoelectricity.

Kadner, Dr. Carl G(eorge), Loyola University, Los Angeles, Calif. *Parasitology.* Oakland, Calif, May 23, 11. B.S, San Francisco, 33; M.S, California, 36, Ph.D, 41. *Prof. biol, Loyola (Calif), 36–, chairman dept, 41–* A.A; Entom. Soc. Amer. Transmission of Hemoproteus malarias.

Kadow, Dr. Kenneth J(ohn), University of Delaware, Newark, Del. *Plant pathology.* Chicago, Ill, Feb. 11, 08. B.S, State Col. Wash, 30, M.S, 32; Ph.D, Illinois, 34. Asst. plant path, State Col. Wash, 29–31; field asst, U. S. Dept. Agr, 31; asst. pathologist and *assoc. pathologist,* dept. hort, Illinois, 31–37; *dept. plant path, Delaware, 37–, head dept. hort, 40–; plant pathologist, State Board Agr, Del, 38–* Phytopath. Soc. (advertising manager, 'Phytopath,' 41–). Diseases of peas, tomatoes, crucifers, eggplant and raspberries; use of zinc sulfate in peach and apple sprays; spray residue removal; comparative value of fungicides; arsenical injury to peaches and apples and methods of prevention; compatibility of fungicides with insecticides.

Kaelser, Prof. Margaret, Cedar Crest College, Allentown, Pa. *Botany.* McAlester, Okla, June 20, 12. B.S, Oklahoma, 34, M.S, 36; summer scholar, Wyoming, 35; senior fellow, Illinois, 39–40, Ph.D, 40. Asst, Illinois, 37–39; instr. biol, Pa. Col. for Women, 40–41; instr. *biol. and bot, Cedar Crest Col,* 41–42, asst. prof, 42–43, *assoc. prof, 43–* Summers, asst, dept. genetics, Carnegie Institution, 42, 43. A.A; Bot. Soc; Ill. Acad; Okla. Acad. General and morphological botany; transitional phenomena in a normal seedling of Althaea rosea; pollen of Taxodiaceae; embryo development in Hippuris; morphology and embryogeny of the bald cypress; pollen grain size and cotyledon number in the sequoias.

Kaempffert, Waldemar (Bernhard), Tenth Floor, New York Times, 229 W. 43rd St, New York, N. Y. *Engineering.* New York, N. Y, Sept. 23, 77. B.S, Col. City of N. Y, 97; LL.B, N. Y. Univ, 03. Asst. ed, 'Sci. American,' 97–11, managing ed, 11–16; ed, 'Popular Science Monthly,' 16–21; science and eng. ed, 'N. Y. Times,' 27–28; director, Museum Science and Indust, Chicago, Ill, 28–31; *science ed, 'N. Y. Times,' 31–* A.A; Mech. Eng; Meteorol. Soc; Hist. Sci. Soc; Nat. Asn. Sci. Writers (pres, 37); Newcomen Soc, London. History of invention; social aspects of science and technology.

Kagan, Dr. Solomon R(obert), 176 Seaver St, Roxbury, Mass. *Medical biography.* Orany, Russia, Dec. 15, 89. Freiburg, 12–13; Giessen, 14; Psycho-Neurol. Inst, Russia, 15; M.D, Dorpat, 17. City physician, Rostov-Don, Russia, 18; med. examiner, Dept. Health, Kislovodsk, 19; pres. med. examiners cmt, Dept. Health, Rostov-Don, 20–21; attending physician, Jewish Mem. Hosp, Roxbury, Mass, 29–35; *assoc. ed, 'Med. Leaves.'* Ed, 'Am. Jewish Physicians of Note.' Gastro-intestinal and respiratory diseases; gangrene; syncope; medical history and bibliography; ancient Hebrew medicine and philosophy.

Kagy, Dr. J(ohn) Franklin, Dow Chemical Co, Great Western Division, Seal Beach, Calif. *Entomology.* Denver, Colo, July 3, 07. B.S, Iowa State Col, 31, M.S, 32, Ph.D, 35. Investigator, Crop Protection Inst, Iowa State Col, 31–37; research fellow, citrus exp. sta, California, 37–41; *research entomologist, Dow Chem. Co, 41–* Chem. Soc; Asn. Econ. Entom; Entom. Soc. Insect toxicology; agricultural poisons.

Kahlenberg, Dr. Herman H(eald), 175 Clematis St, Sarasota, Fla. *Chemistry, Medicine.* Madison, Wis, Feb. 19, 01. B.S, Wisconsin, 22, M.S, 23, Ph.D, 25; Cand. Chem, Freiburg, 24. Chemist, Newport Chem. Works, 21; asst, hosp, Rockefeller Inst, 23; chief chemist and v. pres, *Kahlenberg Labs,* 25–41, *pres, 41–* A.A; Chem. Soc. The production of metallic tungsten and its alloys; preparation, properties and alloys of pure boron; use of colloids in medicine; surgical sutures; treatment of drug addiction; preparation of bichloracetic acid; treatment of dermatomycoses, scabies, oxyuriasis; anticorrosive and non-fouling ship's bottom paints.

Kahlenberg, Dr. Orme J(ulius), U. S. Department of Agriculture, Washington, D. C. *Dairy chemistry and nutrition.* Two Rivers, Wis, Aug. 12, 04. B.S.Agr, Wisconsin, 27; M.S, Rutgers, 28; Ph.D, Cornell, 38. Asst, Rutgers, 27–28; Dry Milk Research Labs, 28–30; assoc. nutrition, inst. animal nutrition, Pa. State Col, 30–36; asst, dairy dept, Cornell, 36–37; research biochemist, biol. and chem. lab, Borden Co, 37–42; *senior chemist in charge agr. marketing admin. labs, U. S. Dept. Agr, 42–* Chemistry and nutrition of milk and milk derivatives; animal respiration calorimetry; chemistry of eggs and egg products.

Kahler, Dr. H(erbert), 11 Prospect St, Kensington, Md. *Physics.* Medford, Oregon, Dec. 20, 96. B.S, Washington (Seattle), 18; Ph.D, Cornell, 21. Instr, Yale, 22; nat. research fellow, Calif. Inst. Tech, 23–26; Westinghouse Research Lab, 27–28; biophysicist, *nat. inst. health, U. S. Pub. Health Service,* 28–31, *senior biophysicist, 31–* Physical Soc. Biophysics; crystal structure by x-rays; biological effect of high frequency radio waves; the glass electrode; hydrogen ion concentration of biological material; absorption spectra.

Kahn, Dr. Eugen, 333 Cedar St, New Haven, Conn. *Psychiatry.* Stuttgart, Germany, May 20, 87. M.D, Munich, 11. Practicant, intern clinic, Munich, 10–11, intern, 12, asst. res. and res, 13–20, chief staff, 21–29; prof. *psychiat. and mental hygiene,* Inst. Human Relations and *sch. med, Yale,* 30, *Sterling prof, 30–* Neuropsychiat. clinic, Munich, 24–29; privatdocent psychiat, 24–26, prof. extraordinarius, 27–29; psychiatrist in chief, New Haven Hosp. and Dispensary. Psychiat. Asn; Asn. Research Nervous and Mental Disease. Psychiatry.

Kahn, Prof. Morton C(harles), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Public health, Parasitology, Bacteriology.* Montgomery, Ala, Jan. 23, 96. B.S, Cornell, 16, Ph.D, 24; A.M, Columbia, 17. Instr. hygiene, *med. col, Cornell,* 19–26, assoc, 27–28, asst. prof. *pub. health and prev. med,* 28–34, *assoc. prof, 34–* Research assoc, Nat. Tuber. Asn, 26–; sci. asst, U. S. Pub. Health Service, 21; adviser, U. S. Office Strategic Services, 42; expert consultant to U. S. Sec'y War, 43. Exped, Cent. Amer, 22; British Guiana, 25; leader expeds, Dutch Guiana, 27, 28, 30, tuber. surv. Bush Negroes, 36; director, Cuban Nat. Tuber. Surv, 37– Hon. mem, Finlay Inst, Havana, 41. Order of Carlos Finlay, Cuba, 37; Order of Manuel De Cespedes, 38. Chief bacteriologist, U. S. Navy Lab. Unit 1, 17–19. A.A; Soc. Bact. (v. chairman, New York branch, 36, chairman, 37); Soc. Exp. Biol; Soc. Trop. Med; Soc. Parasitol; Pub. Health Asn; Harvey Soc; N. Y. Soc. Trop. Med. (v. pres, 41); N. Y. Acad. Med; fel. N. Y. Acad. Malaria and tuberculosis control; anaerobic spore-bearing bacteria; tubercle bacillus.

Kahn, Prof. R(euben) L(eon), University of Michigan, Ann Arbor, Mich. *Bacteriology, Immunology.* Kovno, Lithuania, July 26, 87. B.S, Valparaiso, 09; M.S, Yale, 11; Sc.D, N. Y. Univ, 16. Bacteriologist, Dept. Health, New York, 13–14; research chemist, Harriman Research Lab, 16–17; immunologist, State Dept. Health, Mich, 20–28; *director labs, Univ. Hosp, and asst. prof. bacter, Michigan, 28–* Special consultant, U. S. Pub. Health Service. A.A.A.S. award, 33; Phi Lambda Kappa gold medal, 37. Mem. serol. confs, League Nations Health Organization, Copenhagen, 28, Montevideo, 30; immunol. conf, Royal Acad, Rome, 33. Sanit. C, 17–19, capt. A.A; Soc. Bact; Asn. Path. and Bact; Asn. Immunol; Soc. Exp. Biol; Soc. Exp. Path; Chem. Soc; Pub. Health Asn; Mich. Acad. (v. pres, 23); cor. mem. Asn. Argentina de Dermat. y Sifilol; cor. mem. Soc. Chilena de Microbiol. e Higiene. General and tissue immunity; serology of syphilis; Kahn test.

Kaiser, Dr. Donald W(illiam), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* Burlington, Iowa, Dec. 16, 12. A.B, Iowa, 35, M.S, 37, Ph.D, 39. *Org. research chemist, Am. Cyanamid Co, 40–* Chem. Soc. Fundamental organic research on cyanamide and its derivatives.

Kaiser, Herman F, Naval Research Laboratory, Washington, D. C. *Physical metallurgy.* Carson City, Nev, April 29, 06. B.S, Nevada, 28; A.M, George Washington, 31. *Physicist, Naval Research Lab, 28–* Mem. inst. eng. defense training, Maryland, 41–42. Physical Soc; Soc. Metals; Indust. Radium and X-ray Soc; Soc. X-ray and Electron Diffraction; Philos. Soc. Wash. Recrystallization studies on iron; Widmanstatten structures in metals; lead alloys; iron alloys; radium and x-ray radiography; non-destructive testing.

Kaiser, Dr. Samuel, 2 Lafayette St, New York, N. Y. *Biology.* Brooklyn, N. Y, Dec. 30, 10. B.S, Col. City of N. Y, 29; Ph.D, Columbia, 35. Tutor biol, Brooklyn Col, 30–36, instr, 36–40, asst. prof, 41; *science research and writing, 41–* Asn. Sci. Workers. Popular education; radio; motion pictures.

Kalbfell, Dr. D(avid) C(onrad), 941 Rosecrans, San Diego, Calif. *Nuclear physics.* Ind, Aug. 20, 14. A.B, California at Los Angeles, 34; A.M, California, 36, Ph.D, 39. Asst, California, 35–39; research physicist, Standard Oil Co, Calif, 39–41; *physicist, Nat. Defense Research Cmt, 41–* Physical Soc; Acoustical Soc. Beta ray line spectra from artificially radioactive materials.

Kalckar, Dr. Herman M(oritz), Public Health Research Institute, New York, N. Y. *Biochemistry.* Copenhagen, Denmark, March 26, 08. M.D, Copenhagen, 39; Int. Research fellow, from Rockefeller Foundation, Calif. Inst. Tech, Hopkins Marine Sta, Washington (St. Louis), Columbia, Rochester and Harvard Med. Sch, 39–41. Asst. prof. physiol, inst. med. physiol, Copenhagen, 37–39; research assoc, med. sch, Washington (St. Louis), 41–43; *mem. staff, Pub. Health Research Inst, 43–* Soc. Biol. Chem; Nordisk Forening for Fysiol, Stockholm. Intermediary carbohydrate metabolism, in particular the role of phosphate and phosphorylations in cellular respiration and fermentation; enzymes which catalyze phosphate transfer.

Kales, Dr. M(orris) L(eon), University of Maine, Orono, Maine. *Mathematics.* New York, N. Y, Aug. 26, 10. B.S, Mass. Inst. Tech, 33, M.S, 34; fellow, Brown, 35–36, Ph.D, 36. *Instr. math,* Brown, 36–37; Michigan, 37–39; Tulane, 39–42; *Maine, 42–* Math. Soc. Tauberian theorems.

Kalichevsky, V(ladimir) A(natole), 24 N. Woodland Ave, Woodbury, N. J. *Chemical engineering.* Tiflis, Russia, April 9, 95. War Col, Russia, 17; B.S, Calif. Inst. Tech, 24. Lecturer, Pavlovskoe Mil. Col, 17; asst. Russian mil. attache, Denmark, 17–19; manager topog. dept, Chukotsk Peninsula Mining Corp, Japan, 20–21; research chemist, Union Oil Co. of Calif, 24–29; Standard Oil Develop. Co, 29–31; head oil sect, *research and develop. dept, Socony-Vacuum Oil Co,* 31–37, *gen. supervisor,* 37– Chem. Soc. Natural gasoline; asphalt; petroleum refining; military sciences; physical and chemical properties of petroleum.

Kalinske, Prof. A(nton) A(dam), University of Iowa, Iowa City, Iowa. *Fluid mechanics.* Plymouth, Wis, Sept. 1, 11. B.S, Wisconsin, 33, fellow, 34–36, M.S, 35. Instr. hydraul, *Iowa.* 36–39, *asst. prof. mech. and hydraul, 39–* Civil Eng; Eng. Educ; Geophys. Union. Fluid flow; turbulence; sediment transportation.

Kalisch, Dr. Gerhard K(arl), 533½ Ohio St, Lawrence, Kans. *Mathematics.* Breslau, Germany, Dec. 21, 14. B.S, Iowa, 38, A.M, 39; Ph.D, Chicago, 42. Asst, Inst. Advanced Study, 41–42; *instr. math, Kansas, 42–* Summer, teacher, Notre Dame, 42. Math. Soc. Abstract algebra; topological algebra.

Kaliss, Dr. Nathan, 477 E. 21st St, Brooklyn, N. Y. *Zoology.* New York, N. Y, Aug. 1, 07. B.S, Col. City of N. Y, 29; A.M, Columbia, 31, Ph.D, 38. *Asst.* zool, Columbia, 31–38; Pennsylvania, 39–40; *path, med. col, Cornell, 41–* A.A; Soc. Zool; Genetics Soc; Genetic Asn; Asn. Cancer Research. Genetics of neoplasms; transmission of leukemia; relation between neoplasms and normal tissues in transplantation; medical genetics.

Kalkus, Supt. J(ulius) W(ilbur), Western Washington Experiment Station, Puyallup, Wash. Atkinson, Nebr, Sept. 14, 86. D.V.S, Kansas City Vet. Col, 09. Instr. path. and histol, *State Col. Wash,* 09–11, asst. prof. path. and histol, 11–15, prof, 15–23, asst, vet. exp. sta, 09–15, head div. vet. science, 15–26, *supt, West. Wash. Exp. Sta, 26–* A.A; Vet. Med. Asn; Wash. State Vet. Med. Asn. (pres, 14, sec'y-treas, 20–26). Red water; simple goitre in domestic animals; walking disease in horses; Bangs disease in cattle.

Kallis, Dr. Selma Gottlieb (Mrs. Milton A. Kallis), 5913 Fourth St, N.W, Washington, D. C. *Chemistry.* Pleasanton, Kans, Nov. 23, 00. A.B, Kans, 22, A.M, 24, Ph.D, 27. Asst. instr. chem, Kansas, 21–23, 25–26, instr, 23–24, asst. prof, 27–35; *assoc. analyst, Board Econ. Warfare, 43–* Chemist, div. sanit, State Board Health, Kans, 24–25, 27–35. Chem. Soc; Water Works Asn. Voltaic cell using unsaturated hydrocarbons; precipitin reaction; analysis of water and sewage.

Kallmann, Dr. Franz J(osef), New York State Psychiatric Institute, New York, N. Y. *Psychiatry.* Neumarkt, Germany, July 24, 97. M.D, Breslau, 19. Asst, psychiat. univ. inst, Berlin and Breslau, and psychiat. research inst, Kaiser Wilhelm Inst, 19–27; director neuropath, Munic. Hosps, Berlin-Herzberge and Berlin-Wuhlgarten, 28–35; *research assoc. genetics, N. Y. State Psychiat. Inst, 36–; assoc. psychiatry, col. physicians and surg, Columbia, 38–* A.A; Psychiat. Asn; Psychopath. Asn; Am. Med. Asn; Genetic Asn; Asn. Mental Deficiency; Eugenics Soc. Medical genetics; neuropathology; genetics of mental disorders; tuberculosis and certain physical defects; clinical psychiatry.

Kalmbach, E(dwin) R(ichard), 2654 Forest St, Denver, Colo. *Ornithology.* Grand Rapids, Mich, April 29, 84. Pub. schs. Asst. director, Kent Sci. Museum, 03–10; asst. biologist, *bur. biol. surv, U. S. Dept. Agr,* 10–24, biologist, 24–28, *senior biologist, 28–* Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Soc. Mammal; Wildlife Soc. Economic ornithology and mammalogy.

Kalmus, Dr. Herbert T(homas), 6311 Romaine St, Hollywood, Calif. *Physics.* Boston, Mass, Nov. 9, 81. B.S, Mass. Inst. Tech, 04; Ph.D, Zurich, 06. Prin, Univ. Sch, San Francisco, 05; research assoc, Mass. Inst. Tech, 06–07, instr. physics, 07–10, asst. prof, 10–12; prof. electrochem. and metal, Queen's (Can), and director research lab. electrochem. and metal, Can. Govt, 13–15; *pres, Technicolor Motion Picture Corp, 16–; Technicolor, Inc, 22–* Pres, Exolon Co, 22–25. Soc. Motion Picture Eng; Physical Soc; Electrochem. Soc; Chem. Eng. Electrical conductivity and viscosity of fuel salts; latent heat of fusion and specific heats of salts; electromotive forces in the human body; bacteriological effects of ultra-violet radiation; metallic cobalt by the reduction of the oxide; physical properties of metallic cobalt; electroplating with cobalt.

Kalousek, Dr. George L(awrence), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Fayette, N. Dak, May 16, 06. B.S, Idaho, 30; M.S, Maryland, 36, Ph.D, 41. Junior chem. engineer, *Bur. Standards,* 30–36, materials engineer, 36–40, *physical chemist, 40–* Concrete Inst. Acceptance tests of cements and concrete; properties of concretes; chemical reactions of setting and hardening of cements; phase equilibria studies involving cement components and water.

Kaltreider, Prof. Nolan L, University of Rochester, Rochester, N. Y. *Internal medicine.* Red Lion, Pa, March 7, 05. A.B, Swarthmore Col, 27; M.D, Hopkins, 31. Instr. *med, Rochester,* 34–38, *asst. prof, 38–* Asst. physician, Strong Mem. and Rochester Munic. Hosps, 34– Soc. Clin. Invest. Clinical investigation; cardio-respiratory diseases.

Kambly, Dr. Paul E(duard), State University of Iowa, Iowa City, Iowa. *Mycology.* Cissna Park, Ill, May 14, 08. B.Ed, Ill. State Nor. Univ, 30; M.S, Iowa, 34, Ph.D, 39. *Assoc. prof. educ. and head dept. sci, univ. exp. schs, Iowa, 39–* Bot. Soc. Myxomycete physiology.

Kamen, Dr. M(artin) D(avid), Radiation Laboratory, University of California, Berkeley, Calif. *Physical chemistry.* Toronto, Ont, Can, Aug. 27, 13. B.S, Chicago, 33, Ph.D, 36. Reynolds fellow chem, Chicago, 36; research fellow physics, *California,* 37–39, *research assoc, radiation lab, 39–* Chem. Soc; Physical Soc. Scattering of neutrons; nuclear processes; production of tracers; application of tracer elements to the study of biochemical processes.

Kamenoff, Prof. Ralph J(ohn), 17 Lexington Ave, New York, N. Y. *Genetics.* New York, N. Y, May 17, 02. A.B, Col. City of N. Y, 23, fellow, 23–24; A.M, Columbia, 26, Ph.D, 34. Instr, high schs, N. Y, 24–28; tutor *biol, Col. City of N. Y,* 28–34, instr, 34–41, *asst. prof, 42–* Summers, asst. director, Col. City of N. Y, 42, 43. Genetic Asn; Genetics Soc. Mouse genetics and development.

Kamerling, Prof. S(amuel) E(dward), Bowdoin College, Brunswick, Maine. *Chemistry.* Paterson, N. J, Nov. 14, 03. B.S, N. Y. Univ, 26; Ph.D, Princeton, 32. Asst, Harvard, 30–32; div. gen. physiol, Rockefeller Inst, 32–34; asst. prof. *chem, Bowdoin Col,* 34–39, *assoc. prof, 39–* A.A; Chem. Soc. Electric moment and molecular structure; chlorophyll; catalytic oxidation; penetration of electrolytes.

Kamm, Mrs. Minnie Watson, 365 Lake Shore Road, Grosse Pointe Farms, Mich. *Zoology.* Fostoria, Mich, Dec. 8, 86. A.B, Olivet Col. (Mich), 09; M.S, Illinois, 13, Ph.D, 15. Micros. Soc; Soc. Parasitol; Fern Soc; Mich. Acad. Protozoology; gregarines; the preschool age; herbs.

Kamm, Dr. Oliver, Box 488, Parke, Davis and Co, Detroit, Mich. *[5]*Chemistry.* Highland, Ill, Dec. 6, 88. B.S, Illinois, 11, M.S, 13, Ph.D, 15. Instr. chem, Michigan, 16; Illinois, 17–18, asst. prof, 18–20; director chem. research, *Parke, Davis*

and Co, 20–28, *sci. director*, *28–* A.A; Chem. Soc; Soc. Biol. Chem; Pharmaceut. Asn; Soc. Exp. Biol; Asn. Study Int. Secretions; London Chem. Soc. Organic synthesis; correlation between ionization and structure; relation between chemical structure and physiological action; organic analysis; medicinal chemistry; isolation of posterior pituitary principles.

Kammeraad, Dr. Adrian, Louisiana State University School of Medicine, New Orleans, La. *Anatomy*. Holland, Mich, Feb. 25, 12. A.B, Hope Col, 33; Ph.D, Yale, 40. Asst. zool, Yale, 33–36; instr, Dartmouth Col, 36–38; asst. *anat, sch. med, Louisiana*, 38–40, *instr, 40–; capt, Med. Corps, U. S. Army, and director dietetics, 64th gen. hosp, 42–* Asn. Anat. Experimental embryology.

Kammerer, Dr. Alfred L(ewis), Tower Grove and Flad Aves, St. Louis, Mo. *Chemistry*. St. Louis, Mo, Oct. 21, 77. B.S, Washington (St. Louis), 00; Ph.D, Pennsylvania, 02. Asst. city chemist, St. Louis, 03–04; U. S. Forest Service, 04–07; *consulting timber engineer, 07–* A.A; Chem. Soc; Archeol. Inst; Ry. Eng; Wood Preservers Asn; Mo. Forestry Asn; St. Louis Acad. Wood technology; timber preservation.

Kammerer, Dr. Robert C(rane), 2280 W. Broad St, Columbus, Ohio. *Psychology*. Pittsfield, Ill, July 21, 10. A.B, Illinois, 33, A.M, 36; Ph.D, Indiana, 39. Clin. psychologist, Ind. Reformatory and State Prison, 40–42; *psychologist, Bur. Juvenile Research, 42–* Assoc. Psychol. Asn; Asn. Applied Psychol; Ind. Asn. Clin. Psychol; Ohio Asn. Applied Psychol. Clinical psychology.

Kammermeyer, Dr. Karl, 15 Sylvan Ave, Rutledge, Pa. *Chemical engineering*. Nuremberg, Germany, June 15, 04. Munich, 23–25; B.S, Michigan, 29, Tau Beta Pi fellow, 30–31, M.S, 31, Sc.D, 32. Assoc, dept. eng. research, Michigan, 30–33; research engineer, Standard Oil Co. of Ind, 33–36; refinery chief chemist, Pure Oil Co, 36–39; asst. prof. chem. eng, Drexel, 39–42; *director chem. and chem. eng. research, Publicker Commercial Alcohol Co, 42–* Chem. Eng; Eng. Educ; Chem. Soc. Organic chemical manufacture.

Kammlade, Prof. W(illiam) G(arfield), 810 Florida Ave, Urbana, Ill. *Animal husbandry*. Near Bangor, Wis, Aug. 11, 92. B.S, Wisconsin, 15; M.S, Illinois, 17, Ph.D, 31. *Prof. sheep husbandry, Illinois, 15–* U.S.A, 17–19. Sheep production; lamb feeding; nutrition of sheep; growth of lambs.

Kamner, Dr. Mildred E(lsie) (Mrs. Edward Merrill Tolman), 501 W. 113th St, New York, N. Y. *Chemistry*. Buffalo, N. Y, Dec. 11, 04. A.B, Buffalo, 24; A.M, Columbia, 28, Am. Asn. Univ. Women fellow, 33–34, Ph.D, 35; L. I. Col. Med, 42– Teacher, high schs, N. Y, 24–26; asst, N. Y. Post-Grad. Med. Sch, 26–29; Columbia, 29–33, dept. chem, Barnard Col, 35; teacher, Gardner Sch, New York, 35–37; research chemist, Air Reduction Co, 37–38; teacher, Beard Sch, 39–42. Assoc, New Col, Columbia, 36–37. Chemistry of the ocular humors of oxen; kinetics of reactions in solutions.

Kampmeier, Dr. Otto Frederic, University of Illinois College of Medicine, Chicago, Ill. *Anatomy*. Clarksville, Iowa, May 7, 88. A.B, Iowa, 09; fellow, Princeton, 09–12, Ph.D, 12; Munich, 13, M.D, 24. Asst. biol, Iowa, 06–08; instr. anat. and embryol, Pittsburgh, 12–15, asst. prof, 15–18; instr, col. med, Illinois, 18–19; assoc. prof. *anat.* and director dept, Marquette, 19–20; assoc. prof, *col. med, Illinois*, 20–22, 24–28, *prof, 28–, head dept, 29–* Vol. asst, Freiburg; asst, Bur. Fisheries, 08. A.A; Soc. Nat; Asn. Anat; Am. Med. Asn; Inst. Med. Chicago. Development of the lymphatic system in vertebrates; development of the venous system; the human kidney; congenital renal cysts; abdominoscopy; pseudoparthenogenesis; teratology; aortic thyroids.

Kampmeier, Dr. R(udolph) H(erman), Vanderbilt University, Nashville, Tenn. *Internal medicine*. Clarksville, Iowa, Jan. 15, 98. A.B, Iowa, 20, M.D, 23. Asst, Otho Sprague Mem. Inst, med. sch, Chicago, 24–25; instr. int. med, Michigan, 25–29; asst. prof. *med, sch. med*, Louisiana, 32–35, clin. prof, 35–36; asst. prof, *Vanderbilt*, 36–38, *assoc. prof, 38–* Am. Med. Asn; Col. Physicians; Clin. and Climat. Asn; South Med. Asn. Syphilis; lymphopathia venereum.

Kanagy, Dr. Joseph R(aymond), 9922 Sutherland Road, Silver Spring, Md. *Organic chemistry*. Volant, Pa, May 7, 06. B.S, Westminster Col, 28; A.M, Oberlin Col, 30; Ph.D, Maryland, 36. Junior chemist, *Bur. Standards*, 30–36, asst. chemist, 36–40, assoc. chemist, 40–42, *chemist, 42–* Effect of acids on leather; amino-nitrogen groups in collagen; decomposition products in deteriorated leather; effect of oxygen and moisture on leather; effect of oxygen on tannins; use of iron salts for tanning leather; synthetic tanning materials.

Kane, Brother Gabriel, Manhattan College, New York, N. Y. *Physics*. Brooklyn, N. Y, July 17, 09. A.B, Manhattan Col, 32; Columbia, 33–35; Ph.D, Catholic Univ, 39. Teacher, parochial schs, N. Y, 29–33, high schs, 33–36; *physics*, De La Salle Col, 36–39; instr, *Manhattan Col*, 39–41, *asst. prof, 41–* A.A; Physical Soc. Interatomic forces in crystals; equation of state of neon, krypton, argon and xenon; lattice summations for hexagonal crystals; equation of state of solid helium.

Kane, Dr. H(oward) L, 300 West 12th St, New York, N. Y. *Organic chemistry*. Pittsburgh, Pa, Dec. 11, 11. B.S, Pittsburgh, 32, Ph.D, 36. Chief research chemist, *Nat. Starch Products, Inc*, 36–42, *chief chemist, synthetics div, 42–* Phillips medal, 32. Chem. Soc. Friedel-Crafts reaction.

Kania, Dr. J(oseph) E(rnest) A(nthony), 418 Howe St, Vancouver, B. C, Can. *Geology*. Vienna, Austria, March 1, 01. B.A.Sc, British Columbia, 26, M.A.Sc, 28; Emmons fellow, Mass. Inst. Tech, 29–30, Ph.D, 30. Field engineer and geologist in charge, 26, 28, 29; instr. geol, Illinois, 31–32; *mem. firm, Pemberton and Son, Ltd, 32–* A.A; Min. and Metal. Eng; Asn. Professional Eng. B. C. Petrography; economic geology.

Kanne, Prof. W(illiam) Rudolph, 3300 Federal St, Chicago, Ill. *Physics*. Baltimore, Md, July 7, 13. Ph.D, Hopkins, 37. Instr. *physics*, Wisconsin, 37–40; *asst. prof, Ill. Inst. Tech, 40–* Physical Soc. Nuclear physics; high pressure electrostatic generator.

Kannenstine, Dr. Fablan M(iller), 1922 W. Gray Ave, Houston, Texas. *Physics*. St. Louis, Mo, Sept. 16, 91. B.S, Washington (St. Louis), 13; Ph.D, Chicago, 22. Elec. engineer, Gen. Elec. Co, 13–14; instr, pub. schs, Mo, 14–16; asst. physics, Chicago, 16–22, research instr, 22–25; director research lab, Geophys. Research Corp, N. J, 25–32; *v. pres. in charge research*, Rosaire and Kannenstine, 32–37, *Kannenstine Labs, 37–* A.A; fel. Physical Soc; Optical Soc; Soc. Petrol. Geophys. (ed, 35–37, v. pres, 37, pres, 38); Geophys. Union; assoc. Radio Eng; Soc. Mil. Eng. Life of metastable helium.

Kanner, Dr. Leo, 4510 Wentworth Road, Baltimore, Md. *Psychiatry*. Klekotow, Austria, June 13, 94. M.D, Berlin, 21. Asst, univ. hosp, Berlin, 20–23; senior physician, S. Dak. State Hosp, Yankton, 24–28; Commonwealth fellow psychiat, Phipps Psychiat. Clinic, Hopkins Hosp, 28–30; psychiatrist, Juvenile Court, Baltimore, 30; Josiah Macy, Jr, research fellow child psychiat, Harriet Lane Home, *Hopkins*, 30–33, *assoc. prof. psychiat, 33–* Fel. Psychiat. Asn. Child psychiatry; psychology; internal medicine; cardiology; gastro-enterology; history and folk-lore of medicine and dentistry; judgment of emotions from facial expressions.

Kanning, Dr. Eugene W(illiam), P. O. Box 364, Midland, Mich. *Chemistry*. Ft. Wayne, Ind, March 27, 07. A.B, Indiana, 28, A.M, 29, Ph.D, 31; Wisconsin. Asst. chem, Indiana, 29–31, instr, 31–34, asst. prof, 34–41, assoc. prof, 41–42; research physical chemist, *Dow Chem. Co*, 42–43; *mem. tech. service and develop. div, 43–* A.A; Chem. Soc. Analytical and physical chemistry; phase rule; physico-chemical methods of analysis; electrochemistry of solutions of electrolytes in non-aqueous solvents.

Kanolt, Dr. C(larence) W(hitney), 85 Bronx River Road, Yonkers, N. Y. *Physics*. Susquehanna, Pa, Aug. 14, 80. B.S, Columbia, 02, Ph.D, 05; Berlin, 05; Mass. Inst. Tech, 06. Barnard fellow, Columbia, 05–07; instr. chem, Adelbert Col, Western Reserve, 06–09; asst. physicist, Bur. Standards, 09–13, assoc. physicist, 13–18, physicist, 18–26; in charge cryogenic lab, U. S. Bur. Mines, 25–28; tech. adviser, Perser Corp, 28–38; *physicist, Farrand Optical Co, 40–* A.A; Physical Soc; Optical Soc; Wash. Acad. Combination of a solvent with the ions; ionization of water; melting points of refractory materials; thermal conductivity; liquefaction of hydrogen; thermal properties of substances at low temperatures; low temperature apparatus; stereoscopy.

Kanouse, Dr. Bessie B(ernice), University of Michigan, Ann Arbor, Mich. *Botany*. Quincy, Mich, Nov. 21, 89. A.B, Michigan, 22, M.S, 23, Ph.D, 26. Teacher, pub. schs, 08–13; Ind, 16–18; sch. supervisor, N. J, 18–21; *curator herbarium, Michigan, 26–, asst. to director, 28–* A.A; Mycol. Soc; Mich. Acad. Mycology; Phycomycetes; Discomycetes.

Kanouse, Dr. Edgar L(aroe), 2506 Wellington Road, Los Angeles, Calif. *Electrical engineering*. Amarillo, Texas,

Aug. 23, 10. B.S, Oklahoma, 32; M.S, Calif. Inst. Tech, 34; Harris J. Ryan fellow, Stanford, 37–39, E.E, 38, Ph.D, 41. *Research engineer, dept. water and power, City Bur. Power and Light, Los Angeles, 39–* Assoc. Elec. Eng. Power transmission; corona loss.

Kanthak, Dr. Frank F(olbert), 808 S. Wood St, Chicago, Ill. *Biochemistry.* Chicago, Ill, July 1, 10. B.S. and D.D.S, Northwestern, 32; Rockefeller fellow, Yale, 32–36, M.D, 36. *Asst. prof. oral and plastic surg, Illinois, 38–; mem. U. S. Army staff, Lawson Gen. Hosp, Atlanta, Ga, 42–* Plastic surgery; solubility of dental enamel; unilateral hypertrophy of the mandibular condyle associated with chondroma; fractures of the zygomatic bone; x-ray irradiation and osteonecrosis of the jaws.

Kantor, Prof. J(acob) R(obert), Indiana University, Bloomington, Ind. *Psychology.* Harrisburg, Pa, Aug. 8, 88. Ph.B, Chicago, 14, Ph.D, 17. Instr. *psychol,* Minnesota, 15–17; Chicago, 17–20; asst. prof, *Indiana,* 20–21, assoc. prof, 21–23, *prof, 23–* Summer, visiting prof, Chicago, 25; Ohio State, 28, 38. A.A; Psychol. Asn; Philos. Asn; Hist. Sci. Soc. Theoretical psychology; psychopathology; social psychology; language.

Kantor, Dr. John L(eonard), 295 Central Park, W, New York, N. Y. *Medicine.* Moscow, Russia, April 12, 90. A.B, Columbia, 08, M.D, Ph.D, 12. Intern and house physician, Mt. Sinai Hosp, 12–14; clin. asst, *Columbia,* 16–24, *assoc. med, 24–, assoc. clin. prof, 39–,* chief in gastro-enterol, 19–34; *col, Med. Corps, U. S. Army.* Attending gastro-enterologist and assoc. roentgenologist, Montefiore Hosp, 21; chief gastro-enterol, Vanderbilt Clinic, Presb. Hosp, 19–29, visiting physician, 29–34; attending gastro-enterologist, Beth David Hosp, 38– Gastro-enterologist and lieut, U.S.A, 18–19, M.R.C, 24–, col. Am. Med. Asn; Gastro-Enterol. Asn. (chairman cmt. mil. preparedness, 40–42); Roentgen Ray Soc; Asn. Mil. Surg; N. Y. Gastro-Enterol. Asn. (pres, 36); N. Y. Acad. Med; Med. Soc. State N. Y. (chairman sect. gastro-enterol. and proctol, 40). Gastro-enterology; roentgen diagnosis; biochemistry; body types; atmospheric air in the digestive tract; hookworm; digestive, especially colon, anomalies; constipation; unstable colon; diseases of the small intestine; common digestive disorders; regional ileitis; steatorrhea; military medicine.

Kapff, Dr. S(ixt) Frederick, 268 Susquehanna Road, Rochester, N. Y. *Organic chemistry.* Pittsburgh, Pa, March 10, 17. B.S, Pittsburgh, 38, Ph.D, 42. Fellowship asst. lubricating oil research, Mellon Inst, 38–41; *research chemist, Distillation Products, Inc, 41–* Chem. Soc. Petroleum lubricants; effect of an aluminum chloride treatment on the composition and properties of Pennsylvania type lubricants.

Kaplan, Dr. Emanuel, 4002 Garrison Blvd, Baltimore, Md. *Biochemistry.* Clearfield, Pa, March 12, 10. A.B, Hopkins, 31, Sc.D, 34. Asst. biochem, sch. hygiene and pub. health, Hopkins, 31–34; *chief div. chem, Baltimore City Health Dept, 34–* Synthetic sutures; extraction of vitamins; industrial poisons.

Kaplan, Dr. H(arold) M, 11 Ellery St, Cambridge, Mass. *Physiology.* Boston, Mass, Sept. 4, 08. A.B, Dartmouth Col, 30; Jeffries Wyman scholar, Harvard, 31–33, A.M, 31, Ph.D, 33. Asst. zool, Harvard, 33–34; *instr. biol. and physiol, Middlesex Univ, 34–* Private research with Dr. E. V. Enzmann, biol. labs, Harvard, 35–37. A.A; Soc. Develop. and Growth; Soc. Vert. Paleont; Asn. Biol. Teachers; N. Y. Asn. Biol. Teachers. Variable frequency timer for physiological work.

Kaplan, Dr. Harry, Winthrop Chemical Co, 33 Riverside Ave, Rensselaer, N. Y. *Organic chemistry.* Tamaqua, Pa, Jan. 11, 13. B.S, N. Y. Univ, 37, William H. Inman fellow, 37–38, Ph.D, 41. Asst. chem, grad. sch, N. Y. Univ, 37–38, teaching fellow, 37–41; *research chemist, Winthrop Chem. Co, 41–* Quinoline aldehydes; pharmaceuticals; vitamins.

Kaplan, Dr. Ira I, 755 Park Ave, New York, N. Y. *Radiotherapy.* New York, N. Y, Oct. 11, 87. B.S, Col. City of N. Y, 10; M.D, Columbia, 14. Radiation therapist, Bellevue Hosp, 24–30, director radiation therapy dept, 30; *clin. prof. surg,* Univ. and Bellevue Hosp. and Med. Col, 31–35, *col. med, N. Y. Univ, 35–* Director div. cancer, dept. hosps, New York, 29–40; director, New York Cancer Inst, 30–40; assoc. radiologist, Lenox Hill Hosp, 31; consultant radiation therapist, Beth-El Hosp, Brooklyn, 31; Brunswick Gen. Hosp, Amityville, L. I; St. Mary's Hosp, Brooklyn; Southside Hosp, Bayshore, L. I; French Hosp, New York, 41; Jewish Mem. Hosp, 41. A.A; Soc. Cancer Research; Col. Radiol; Radium Soc; Roentgen Ray Soc; Radiol. Soc. N. Amer; Am. Med. Asn; N. Y. Roentgen Ray Soc; N. Y. Acad. Med. Cancer; radiation therapy.

Kaplan, Dr. Irving, 311 E. 26th St, Brooklyn, N. Y. *Physical chemistry.* New York, N. Y, Dec. 1, 12. A.B, Columbia, 33, A.M, 34, Ph.D, 37. *Research chemist,* Michael Reese Hosp, Chicago, Ill, 37–41; *div. nat. defense research, Columbia, 41–* Physical Soc. Enzymes; chemistry of the central nervous system; theoretical physics.

Kaplan, Prof. Joseph, University of California at Los Angeles, Los Angeles, Calif. *Physics.* Tapolcza, Hungary, Sept. 8, 02. B.S, Hopkins, 24, A.M, 26, Ph.D, 27. Nat. research fellow physics, Princeton, 27–28; asst. prof, *California at Los Angeles,* 28–35, assoc. prof, 35–40, *prof. physics and chairman dept. physics and meteorol, 40–* Astron. Soc; fel. Physical Soc; Soc. Research Meteorites; Astron. Soc. Pacific; Int. Geophys. Union. Spectroscopy; molecular physics; aurora borealis; light of the night sky; structure of the earth's atmosphere.

Kaplan, Dr. Julius F(rank), McHenry, Ill. *Organic chemistry.* Chicago, Ill, June 2, 12. B.S, Illinois, 37, Ph.D, 41. *Chief chemist, Ringwood Chem. Corp, 41–* Chem. Soc. Dissociation of hexa-arylethanes; pharmaceuticals; catalytic hydrogenations; amino acids; pilot plant operations.

Kaplan, Dr. Wilfred, University of Michigan, Ann Arbor, Mich. *Mathematics.* Boston, Mass, Nov. 28, 15. A.B, Harvard, 36, A.M, 36, Rogers traveling fellow, 36–37, Ph.D, 39. Teaching fellow *math,* Rice Inst, 38–39; *instr,* Col. of William and Mary, 39–40; *Michigan, 40–* A.A; Math. Soc; Math. Asn; Physical Soc. Topological theory of solutions of differential equations, with applications to celestial mechanics.

Kaplansky, Dr. Irving, 17 Sumner Road, Cambridge, Mass. *Mathematics.* Toronto, Ont, Can, March 22, 17. B.A, Toronto, 38, M.A, 39; Ph.D, Harvard, 41. *Instr. math,* Toronto, 38–39; *Harvard, 40–* Math. Soc; Inst. Math. Statist. Algebra; probability; statistics.

Kapp, Dr. L(awrence) C(ornelius), University of Arkansas, Fayetteville, Ark. *Agronomy.* Somerville, Ohio, June 11, 02. B.S, Ohio State, 25, M.S, 26; Ph.D, Mich. State Col, 29. Instr. *agron, Arkansas,* 29–41, *asst. prof, 41–, asst. agronomist, Exp. Sta, 41–* Physical and chemical studies on submerged soils; fertilization of rice.

Kapp, Dr. Mary Eugenia, 218 Shafer St, Richmond, Va. *Analytical chemistry.* Mt. Airy, N. C, April 15, 09. A.B, Woman's Col, North Carolina, 30; A.M, Duke, 31; Ph.D, North Carolina, 38. Head dept. science, Blackstone Col, 31–34; asst, North Carolina, 35–37; head dept. science, Averett Col, 38–39; instr. chem, Newcomb Col, Tulane, 39–40; head dept, Richmond Professional Inst, Col. William and Mary, 40–42; *asst. chief chemist, E. I. du Pont de Nemours and Co, 42–* Chem. Soc; Elisha Mitchell Sci. Soc; Va. Acad. A semimicro scheme of analysis for the anions.

Kappauf, Dr. William E(mil, Jr), Princeton University Field Laboratory, Fortress Monroe, Va. *Psychology.* New York, N. Y, Oct. 2, 13. A.B, Columbia, 34; A.M, Brown, 35; Ph.D, Rochester, 37. Instr. *psychol, Rochester,* 37–41, *asst. prof, 41–; research assoc, Princeton, 41–; U. S. Army, 42–* Assoc. Psychol. Asn; East. Psychol. Asn. Comparative psychology; vision; brain function.

Karapetoff, Prof. Vladimir, 39 Claremont Ave, Apt. 84, New York, N. Y. *Electrical engineering.* Petrograd, Russia, Jan. 8, 76. C.E. Inst. Way of Communication, 97, M.M.E, 02; Darmstadt Polytech, Germany, 99–00; hon. D.Mus, N. Y. Col. Music, 34; hon. Sc.D, Polytech. Inst. Brooklyn, 37. Engineer, Dept. Waterways, Petrograd, and instr. hydraul. and elec. eng, tech. schs, 97–02; Westinghouse Elec. and Mfg. Co, Pa, 03–04; asst. prof. *elec. eng, Cornell,* 04–08, prof, 08–39, *emer. prof, 39–* Outside expert, Gen. Elec. Co, 24–31; consulting engineer; eng. consultant, Board Econ. Warfare, 42–43. Chairman subcmt. physics and monographs, cmt. on insulation, Nat. Research Council, 28–36. Chairman, board trustees, Ithaca Col, 33. Lieut. commander, U.S.N.R, 33. A.A; Elec. Eng; Math. Soc; Math. Asn; Physical Soc. Transmission lines; electrical machinery and circuits; the magnetic circuit; theory of relativity; dielectrics; electronics; structure of matter; applications of higher mathematics.

Karcher, Dr. J(ohn) C(larence), 406 Continental Bldg, Dallas, Texas. *Geophysics.* Dale, Ind, April 15, 94. B.S, Oklahoma, 16; Tyndale fellow, Pennsylvania, 17–20, Ph.D, 20.

Physicist, Bur. Standards, 20–23; engineer, research div, West. Elec. Co, 23–25; v. pres. and gen. manager, Geophys. Research Corp, 25–30; pres. and gen. manager, Geophys. Service, 30–39; Coronado Corp, 39–41; *chairman board, Las Tecas Petrol. Co, 41–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Econ. Geol; Geophys. Union; Physical Soc. Reflection seismograph; x-ray spectroscopy; internal ballistics; refraction seismograph.

Kardos, Dr. L(ouis) T(homas), 30 Ballard Road, Durham, N. H. *Soil chemistry.* Perth Amboy, N. J, Aug. 15, 10. B.S. Rutgers, 32, M.S, 34, Ph.D, 37. Asst. prof. soils, State Col. Wash, 36–43; *asst. prof. agron, New Hampshire, and cooperative field agent, soil conservation service, U. S. Dept. Agr, 43–* Soil Sci. Soc. Soil colloidal chemistry; anomalies in base exchange phenomena; toxicity of spray residues in soils; soil structure.

Karjala, Dr. S(ulo) A(rthur), 815 Bigelow, Peoria, Ill. *Carbohydrate chemistry.* Ironwood, Mich, July 9, 08. B.S, Illinois, 30; Ph.D, Wisconsin, 33. Teaching asst, Wisconsin, 34; biochemist, Inst. Plant Indust, Leningrad, U.S.S.R, 34–36; Vitamin Inst, 37; Nat. Tuber Asn. fellow, Columbia, 38–40; assoc. chemist and later *chemist, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 40–* Chem. Soc. Starch.

Kark, Flight Lieut. Robert (Manoah), Royal Canadian Air Force, Englinton, Toronto, Ont, Can. *Internal medicine.* Cape Town, S. Africa, Aug. 29, 11. B.A, Cape Town, 31; London, 32–35; L.R.C.P, 35; M.R.C.S, 35; M.R.C.P, 37. Demonstrator path, Guy's Hosp. Med. Sch, London, 37–38, pharmacol, 36, med. registrar, 37–38; research fellow med, Harvard Univ. Med. Sch, 38–41; *flight lieut, Med. Service, Royal Can. Air Force, 41–* Research fellow, Thorndike Mem. Lab, Boston City Hosp, 38–41; Adrian Stokes Mem. fellow, Guy's Hosp, London, 39; Rockefeller traveling fellow, Med. Research Council, London, England, 39–40. Charles Oldham prize, Guy's Hosp, London, 35. Fel. Royal Soc. Med. Nutrition and nutritional diseases; gastro-enterology; pigment metabolism; hematology; aviation medicine.

Karl, Sister Mary Cordia, College of Notre Dame of Maryland, Baltimore, Md. *Projective geometry.* New York, N. Y, Nov. 16, 93. A.B, Hunter Col, 16; A.M, Hopkins, 27, Ph.D, 31. *Prof. math, Col. of Notre Dame (Md), 22–* Math. Asn. Projective theory of orthopoles.

Karling, Prof. J(ohn) S(idney), Columbia University, New York, N. Y. *[*3]Botany.* Austin, Texas, Aug. 2, 99. A.B, Texas, 18, A.M, 20; Ph.D, Columbia, 25. Instr. bot, Texas Wesleyan Col, 17–20, dean faculty, 20–21; instr. *bot,* Texas, 21; *Columbia,* 24–27, asst. prof, 27–35, *assoc. prof, 35–; bot. specialist, dept. rubber explor, Am. Republics Aviation, 43–* Physiologist, Trop. Plant Research Foundation. Leader and director, chicle research expeds, Cent. and S. Amer, 25–35. A.A; Torrey Bot. Club (v. pres, 33–35, pres, 41); Bot. Soc; Mycol. Soc; Phytopath. Soc. Cytology of the Characeae; cytology and phylogeny of the Chytridiales; cytology of lichens; physiology of latex; chicle production in the tropics; anatomy and morphology of the Sapotaceae.

Karn, Prof. Harry W(endell), 53 Pocono Drive, Pittsburgh, Pa. *Psychology.* Pittsburgh, Pa, Feb. 11, 07. B.S, Muskingum Col, 29; A.M, Pittsburgh, 31; Ph.D, Clark, 34. Psychologist, West. State Penitentiary, Pittsburgh, 34–35; instr. *psychol, Pittsburgh,* 35–40, *asst. prof, 40–* Psychol. Asn. Animal behavior; experimental and physiological psychology.

Karnatz, Dr. F(rank) A(lbert), 6009 Haverford Ave, Indianapolis, Ind. *Organic chemistry.* Chicago, Ill, Jan. 29, 08. B.S, Illinois, 30; M.S, Pa. State Col, 31, Ph.D, 37. *Research chemist, Reilly Tar and Chem. Corp, 36–* Chem. Soc. Isolation and purification of coal tar derivatives.

Karnes, Prof. Houston T(hurman), Louisiana State University, Baton Rouge, La. *Mathematics.* Mt. Juliet, Tenn, Aug. 9, 05. A.B, Vanderbilt, 28, A.M, 29; summers, Wisconsin, 30, Michigan, 36; Ph.D, Peabody Col, 40. Prof. math. and biol, Northwest. Junior Col, Iowa, 29–35; prof. *math,* head dept. and dean men, Harding Col, 35–36; teacher, high sch, Tenn, 36–38; asst, *Louisiana,* 38–40, instr, 40–42, *asst. prof, 42–* Summers, teaching fellow, Peabody Col, 37–41. Math. Soc; Math. Asn; Council Teachers Math. (chairman, La-Miss. branch, 40). Mathematical study of diverse systems of breeding; professional preparation of teachers of secondary mathematics.

Karns, Dr. Geo(rge) M(elvin), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Carrollton, Ohio, March 12, 99. B.S, Mt. Union Col, 22; M.S, Ohio State, 24, Ph.D, 25. Instr. chem, Illinois, 25–28; senior fellow, Mellon Inst, 28–33; research chemist, rayon div, *E. I. du Pont de Nemours and Co,* 33–37, research supervisor, 37–40, *director Cellophane research, 40–* Chem. Soc. Physical and inorganic chemistry; cellulose technology.

Karper, R(obert) E(arl), Agricultural and Mechanical College of Texas Experiment Station, Lubbock, Texas. *Agronomy.* Chambersburg, Pa, Oct. 9, 88. B.S, Kans. State Col, 14; M.S, Agr. and Mech. Col. Texas, 28. Asst. agronomist, Okla. Agr. and Mech. Col, 14–15; supt, Exp. Substa. No. 8, *Agr. and Mech. Col. Texas,* 15–25, *v. director and agronomist, Exp. Sta, 25–* A.A; Soc. Agron; Bot. Soc; Genetic Asn. Genetics, breeding and cytology of sorghums.

Karpinski, Prof. Louis C(harles), University of Michigan, Ann Arbor, Mich. *[*3]Mathematics.* Rochester, N. Y, Aug. 5, 78. A.B, Cornell, 01; Ph.D, Strassburg, 03; Columbia, 09–10. Instr. *math,* Berea Col, 98–00; N. Y. State Nor. Sch, Oswego, 03–04; *Michigan,* 04–10, asst. prof, 10–15, assoc. prof, 15–19, *prof, 19–* Assoc. ed, 'Scripta Mathematica.' U. S. del, Descartes Tercentenary, Paris, 37. A.A. (sect. councilor, 21–23, chairman, L, 23); Math. Soc; Math. Asn. (librarian, 22); Hist. Sci. Soc. (councilor, 26–28, 34, 40–; v. pres, 36–39, pres, 42); Mich. Acad; Deuts. Math. Verein; mem. effectiv. Comité int. d'Hist. des Sci. History, bibliography and pedagogy of mathematics; history of science and cartography; public utility rates.

Karpov, A(lexander) V(ladimir), Century Bldg, Pittsburgh, Pa. *Engineering.* Kursk, Russia, Aug. 26, 88. E.E, Tech. Univ, Darmstadt, 10; C.E, Tech. Inst. Charkow, 13. Designing engineer, city of Pittsburgh, 26–27; Aluminum Co. of Amer, 27–38; *consulting engineer, 38–* Thomas Fitch Rowland prize, Soc. Civil Eng, 36. A.A; Civil Eng; Mech. Eng; Soc. Mil. Eng; Math. Asn. Civil and electrical engineering; hydropower developments; design of dams; fluid mechanics; applied mechanics; light weight alloys; fatigue problems; airplane design; stress theories.

Karpov, Prof. Boris G(eorge), Vassar College, Poughkeepsie, N. Y. *Astronomy.* Jaroslav, Russia, July 13, 03. California, 30, Ph.D, 33. Instr, exten. div, California, 34–35, with Mt. Wilson Observatory, Carnegie Institution, 36–37; instr. *astron,* Minnesota, 37–38; *Vassar Col,* 38–40, *asst. prof, 40–* Stellar magnitudes.

Karpovich, Dr. Peter V, International Y.M.C.A. College, Springfield, Mass. *Physiology.* Russia, April 6, 96. M.D, State Mil. Med. Acad, Leningrad, 19; M.P.E, Int. Y.M.C.A. Col, 29. Research fellow, Med. Sch, Leningrad, 19; physician, Red Cross Hosp, Kotelnich, Russia, 19–20; mil. sch, Ekaterinburg, 20–21; garrison surgeon, Kamyshloff, 21–22; physician, Leningrad, 22–23; consultant physician, Y.M.C.A, Riga, Latvia, 23–25; *prof. physiol, Int. Y.M.C.A. Col, 27–; with research sect, sch. aviation med, Randolph Field, Texas, 42–* A.A; Physiol. Soc; Health and Physical Ed. Asn. Physiology of exercise; circulatory reaction in golf; mechanics and metabolism in swimming; effects of ergogenics on muscular performance; morphology of blood; training and fatigue; seismographic study of athletic activities; drowning and artificial respiration.

Karr, Prof. Lois, Lindenwood College, St. Charles, Mo. *Physics.* Paxton, Ill, April 22, 91. A.B, Simpson Col, 13; A.M, Wisconsin, 22. Teacher, high sch, 13–20; asst, Wisconsin, 21–22; *assoc. prof. math. and physics, Lindenwood Col, 22–* Physical Soc; Math. Asn. Properties of certain metals.

Karr, Prof. Walter G(erald), University of Pennsylvania Graduate School of Medicine, Philadelphia, Pa. *Biochemistry.* Almond, N. Y, Dec. 18, 92. B.S, Alfred, 13; M.S, Illinois, 16; Ph.D, Yale, 20. Research chemist, Parke, Davis and Co, 20–21; asst. prof. biochem, grad. sch. med, *Pennsylvania,* 22–27, assoc. prof, 27–33, *asst. prof. physiol. chem, 33–, chemist, med. clinic, Univ. Hosp, 33–* Chief biochemist, Phila. Gen. Hosp, 21–27, metabolic chemist, 27–33, visiting biochemist, 33–40; consulting biochemist, Abington Mem. Hosp, 31–; Smith, Kline and French Labs, 36–; Bryn Mawr Hosp, 38–A.A; Gastro-Enterol. Asn; Soc. Biol. Chem; Chem. Soc. Vitamins; carbohydrate metabolism; clinical biochemistry; chemistry of the small intestine.

Karraker, Prof. P(erry) E(lmer), University of Kentucky, Lexington, Ky. *Agronomy.* Dongola, Ill, Nov. 14, 86. B.S,

Illinois, 11; fellow, Missouri, 12-13, A.M, 13. Asst. soil sury, Illinois, 11-12; *soils*, Mich. State Col, 13-14; asst. prof, *Kentucky*, 14-19, assoc. prof. and later *prof, 20–, agronomist, soil tech, Exp. Sta, 35–* A.A; Soc. Agron; Ky. Acad; Int. Soc. Soil Sci. Soil technology; soil fertility.

Karrer, Dr. A(nnie) M(ay) H(urd), U. S. Department of Agriculture, Washington, D. C. *Plant physiology.* La Conner, Wash, July 28, 93. B.S, Washington (Seattle), 15, Denny fellow, 16-17, M.S, 17; fellow, California, 17-18, Ph.D, 18. Asst. physiologist, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr*, 18-24, *assoc. physiologist, 24–* Summers, asst. instr, Puget Sound Biol. Sta, 16-18. A.A; Soc. Plant Physiol; Bot. Soc; Bot. Soc. Wash; Wash. Acad. Physicochemical properties and buffer systems of plant sap; disease resistance in plants; selenium absorption by plants; physiology of herbicides.

Karrer, Dr. Enoch, U. S. Department of Agriculture, New Orleans, La. *Physics.* Rich Hill, Mo, May 23, 87. A.B, Washington (Seattle), 11, fellow, 11-12, A.M, 12; fellow, Hopkins, 13-14, Ph.D, 14. Physicist, United Gas Improv. Co, 14-18; chief searchlight sect, Bur. Standards, 19-21; Nat. Lamp Works, Gen. Elec. Co, 21-26; research assoc, Cushing lab. exp. med, Western Reserve, 23-35; consulting physicist, 31-36; *senior cotton technologist in charge physical studies of fiber quality*, agr. marketing service, *U. S. Dept. Agr*, 36-42, *south. regional research lab, bur. agr. chem. and eng, 42–* Research physicist, Goodrich Rubber Co, 26-31; econ. and govt. research, Washington, D. C, 34-35; biophys, Smithsonian Institution, 35; tech. consultant and research physicist, Am. Instrument Co, 36. Capt, Eng. O.R.C. Physical Soc; Optical Soc; Chem. Soc; Soc. Rheol; Philos. Soc; Franklin Inst; Berlin Soc. Tech. Physics. Photometry; radiation; properties of matter; viscosity, elasticity and plasticity of rubber; nerve-muscle phenomena; structure of colloids; phototrophy and growth hormones; cotton fiber quality, standardization and utilization.

Karrer, Dr. S(ebastian), Consolidated Gas, Electric Light and Power Company of Baltimore, Baltimore, Md. *Physics, Chemistry.* Rich Hill, Mo, April 10, 89. A.B, Washington (Seattle), 11, A.M, 13; Ph.D, Illinois, 18. Instr, Illinois, 18-19; physicist, fixed nitrogen research lab, U. S. Dept. Agr, 19-26; *director research, Consol. Gas, Elec. Light and Power Co. of Baltimore, 26–* A.A; Physical Soc; Chem. Soc; Optical Soc; Econometric Soc; Statist. Soc; Newcomen Soc; Md. Acad. (pres); Philos. Soc. Wash; Wash. Acad. Science and industry.

Karshan, Prof. M(axwell), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* New York, N. Y, Dec. 27, 93. B.S, Col. City of N. Y, 17; A.M, Columbia, 20, Ph.D, 25. *Assoc. prof. biochem, col. physicians and surg, Columbia, 30–* Attending director lab, Seaside Hosp, Staten Island. A.A; Soc. Biol. Chem; Harvey Soc; Int. Asn. Dental Research. Dietary studies in relation to calcification of teeth and bones; biochemistry in relation to dental caries and periodontoclasia.

Karslake, Dr. William J(ay), 158 Linden Ave, Buffalo, N. Y. *Chemistry.* Le Roy, N. Y, April 5, 69. B.S, Lafayette Col, 91, M.S, 94; Ph.D, Hopkins, 95. Asst. to Dr. Wolcott Gibbs, Newport, R. I, 91-92; asst. chem, Pa. State Col, 92-93; demonstrator, Maryland, 94-95; lecturer, Dalhousie, 95-96; chemist with Prof. W. O. Atwater, Middletown, Conn, 96-97; prof. chem, Butler, 97-04; assoc. prof, Iowa, 04-18; patent chemist, Nat. Aniline and Chem. Co, Inc, 18-39; *retired.* Oxidation products of the nitroxylene sulfonic acids; nitration of acid-chlorides; identification of manganese and chromium in their compounds; the nitro-p-xylene sulfonic acids; the nitro-methyl-sulfobenzoic and the nitro-sulfophthalic acids.

Karsner, Dr. Howard T(homas), Western Reserve University School of Medicine, Cleveland, Ohio. *[*3]Pathology.* Philadelphia, Pa, Jan. 6, 79. B.S, Cent. High Sch. Phila, 99; M.D, Pennsylvania, 03. Res. physician, Phila. Gen. Hosp. and Phila. Hosp. for Contagious Diseases, 03-06; asst. demonstrator *path*, Pennsylvania, 07-08, demonstrator, 08-11; asst. prof, Harvard Med. Sch, 11-14; *prof, sch. med, Western Reserve, 14–, director inst. path, 29–* Mem. Am. Board Path, 24–; chairman div. med. sciences, Nat. Research Council, 27-28; mem. Nat. Board Med. Examiners, 42– Med. advisory board, Leonard Wood Mem; advisory councilor, Henry Phipps Inst, Pennsylvania. Mem. cmt. award, Theobald Smith award, A.A.A.S, 36-37. A.A. (chairman, N, 31); Soc. Exp. Path. (pres, 22); Asn. Path. and Bact. (pres, 20, sec'y, 20–); Am. Med. Asn. (chairman, sect. path. and physiol, 19); Am. Physicians; Soc. Exp. Biol; hon. mem. Soc. Clin. Path; Path. Soc. Gt. Britain and Ireland; French Asn. Study Cancer; Int. Soc. Geog. Path. (exec. cmt). Human pathology; infarction; anaphylaxis; anaphylactoid phenomena; nephritis; vascular disease.

Karsten, Prof. A(ndrew), State School of Mines, Rapid City, S. Dak. *Chemistry, Chemical engineering.* Jamestown, Mich, June 18, 95. A.B, Hope Col, 19, A.M, 22; A.M, Ohio State, 20, fellow, 21-22, Ph.D, 22. Asst. gen. chem, Hope Col, 15-17, 18-19; Ohio State, 19-20, anal. chem, 20-21; *prof. chem. eng. and head dept. chem. and chem. eng, S. Dak. Sch. Mines, 22–* Chem. Soc; Chem. Eng. Toxic effect of cyanide on trout; cellulose in sweet clover.

Karsten, Dr. Kenneth S(tephen), Niagara Sprayer and Chemical Co, Middleport, N. Y. *Chemistry, Physiology.* Holland, Mich, July 24, 13. A.B, Hope Col, 35; M.S, Nevada, 37; Ph.D, Wisconsin, 39. Teaching fellow chem, Nevada, 35-37; chemist-analyst, Sullivan Mining Co, Kellogg, Idaho, 37; asst, Wisconsin, 37-39; tutor biol, Brooklyn Col, 39-41; *director org. research, Niagara Sprayer and Chem. Co, 41–* Summer, asst, Carnegie Institution, 39. Chem. Soc; Bot. Soc. Invention and development of insecticides and fungicides.

Karush, Dr. William, Geophysical Laboratory, Carnegie Institution of Washington, 2801 Upton St, N.W, Washington, D. C. *Mathematics.* Chicago, Ill, March 1, 17. B.S, Chicago, 38, M.S, 39, Ph.D, 42. *Mathematician, geophys. lab, Carnegie Institution, 42–* Math. Soc. Calculus of variations; exterior ballistics.

Karwoski, Prof. T(heodore) F(rancis), 2 Tyler Road, Hanover, N. H. *Psychology.* Odessa, Russia, Sept. 23, 96. Ph.B, Chicago, 20; A.M, Columbia, 23; A.M, Harvard, 23, Ph.D, 28. Instr. *psychol*, North Dakota, 23-25; nat. research fellow, 27-29; asst. prof, *Dartmouth Col*, 31-36, *prof, 36–* A.A; Optical Soc; Psychol. Asn. Color vision; psychology of thinking; imagery.

Kasehagen, Dr. Leo, 409 W. Broad St, Tamaqua, Pa. *Chemistry.* Manassas, Va, Aug. 18, 09. B.S, Carnegie Inst. Tech, 30, M.S, 33, fellow, 33-35, Sc.D, 35. Junior chem. engineer, Carbide and Carbon Chem. Corp, 30-32; chemist, coal research lab, Carnegie Inst. Tech, 35-39; *research chemist, Atlas Powder Co, 39–* Chem. Soc. Action of alkali on coal; hydrogenation of coal; high pressure reactions; high pressure design.

Kasel, R(udolph) G(ustav), 4745 32nd N, Country Club Hills, Arlington County, Va. *Civil engineering.* St. Louis, Mo, Oct. 15, 99. B.S, Missouri, 23, C.E, 36. Instrument man, South. Carbon Co, 23-24; office engineer, State Highway Dept, Mo, 24; from junior engineer to assoc. engineer, water resources branch, *U. S. Geol. Surv*, 24-32, dist. engineer, and assoc. director inst. hydraul. research, Iowa, 32-40, *chief div. surface water, 40–* Civil Eng. Hydrology; river hydraulics.

Kaser, Dr. Margaret (Matilda), Vanderbilt University, Nashville, Tenn. *Biochemistry.* Las Vegas, N. Mex, Jan. 20, 11. A.B, Milwaukee-Downer Col, 33; M.S, Wisconsin, 34; Child Research Council fellow, Colorado, 35-38, Ph.D, 38. Instr. biochem, Kansas, 38-39; asst. chem, N. Mex. Highlands Univ, 39-40; *instr*, Wellesley Col, 41; *biochem, Vanderbilt, 42–* A.A; Chem. Soc. Nutrition.

Kask, Dr. John Laurence, University of Washington, Seattle, Wash. *Fisheries.* Sylvan Lake, Alta, Can, March, 06. B.A, British Columbia, 28; Ph.D, Washington (Seattle), 36. Asst, Biol. Board Can, 28; *asst. scientist*, Int. Fisheries Cmn, *29–* Lecturer, sch. fisheries, Washington (Seattle), 35–; scientist, Int. Pacific Salmon Fisheries Cmn, 38, asst. director investigations, 41; assoc. curator fishes, Calif. Acad. Sciences, 43-A.A; Soc. Ichthyol. and Herp. Life histories of Pacific salmon and halibut.

Kasner, Prof. Edward, Columbia University, New York, N. Y. *[*1]Mathematics.* New York, N. Y, April 2, 78. B.S, Col. City of N. Y, 96; A.M, Columbia, 97, Ph.D, 99; Göttingen, 99-00. Tutor *math, Columbia*, 00-05, instr, 05-06, adj. prof, 06-10, prof, 10-37, *Adrain prof, 37–* Lecturer, St. John's (Md) and New Sch. for Social Research. Assoc. ed, 'Rev. sem. des Math.' Townsend Harris medal, Col. City of N. Y, 36. Int. Cong. Arts and Sciences, St. Louis, 04; del, Int. Cong. Math, Rome, 22, Bologna, 28, Zurich, 32. Nat. Acad; A.A. (v.

pres, A, 07); Math. Soc. (v. pres, 09, ed, 'Trans,' 23–); Soc. math. de France; Circolo Mat. di Palermo. Algebraic forms; differential geometry of dynamics; conformal geometry; geometry of divergent series; heat conduction; relativity; Einstein manifolds; null spaces; irregular invariants; polygenic functions; topological and contact invariants; differential equations; Lie theory; calculus of variations; geometric groups; symmetry; biharmonic functions; horn angles and trihornometry; optical transformations; isothermal families; packing spheres in geology.

Kasper, Dr. Charles, National Bureau of Standards, Washington, D. C. *Chemistry, Physics.* Chicago, Ill, March 19, 05. A.B, Indiana, 26; Ph.D, California, 30. Asst. chemist, *Bur. Standards,* 30–36, assoc. chemist, 36–43, *chemist, 43–* Thermodynamics; transport phenomena in solutions; dia- and paramagnetism; high current density nickel and iron electro-deposition; theory of chromium deposition; application of the potential theory to electrolytic systems.

Kasper, Dr. E(ugene) M(itchell), 372 St. Peter St, St. Paul, Minn. *Obstetrics, Gynecology.* Owatonna, Minn, June 15, 03. B.S, Minnesota, 25, M.B, 26, M.D, 27, Ph.D, 31. House surgeon and physician, Minneapolis Gen. Hosp, 27–28; Swedish Hosp, 28; teaching fellow *obstet. and gynec, Minnesota,* 28–31, *instr, 31–* Obstetrician and gynecologist, St. Paul Clinic, St. Luke's, St. Joseph's, Miller, Ancker and Univ. Hosps. A.A; Am. Med. Asn; Minn. Path. Soc. Anatomy; icterus neonatorum; the genital tract of the rat, especially changes in pregnancy and during vitamin E deficiency; the structure of the ovary of the rat following a diet deficient in vitamin E.

Kasper, Dr. John S(imon), Johns Hopkins University, Baltimore, Md. *Physical chemistry.* Newark, N. J, May 27, 15. A.B, Hopkins, 37, Ph.D, 41. Junior instr. chem, Hopkins, 37–41; instr, St. Louis, 41–42; *research asst, Nat. Defense Research Cmt. contract, Hopkins, 42–* A.A; Chem. Soc; Inst. Chem. Structural properties of aqueous salt solutions; electrochemistry of solutions.

Kass, Dr. J. Peter, Interchemical Corp, 432 W. 45th St, New York, N. Y. *Chemistry.* Grodno, Russia, May 25, 10. A.B, Minnesota, 30, Ph.D, 37. Instr. and asst. prof. chem, Wis. State Teachers Col, Milwaukee, 30–37; research assoc. chemist, Minnesota, 37–41; assoc. chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–42, chemist, 42–43, senior chemist, 43; *research chemist, Interchem. Corp, 43–* Oil Chem. Soc; Chem. Soc. Organic chemistry; chemistry of milk; oils and fats; isomerism of unsaturated fatty acids.

Kassel, Dr. Louis S(tevenson), 42 West Ave, Riverside, Ill. ****Chemistry.* Louisville, Ky, Dec. 31, 05. B.S, Chicago, 24, M.S, 25, Ph.D, 27. Nat. research fellow, Calif. Inst. Tech, 27–30; instr. chem, California, 30–31; assoc. physical chemist, U. S. Bur. Mines, 31–35, physical chemist, 35–36; *research engineer, Universal Oil Products Co, Riverside, 36–; consultant, Nat. Defense Research Cmt, 41–* Assoc. ed, 'Jour. Chem. Physics,' 35–37. Cmt. research catalysis, Nat. Research Council, 37– A.A; Chem. Soc; Physical Soc. Rates of gas reactions; thermodynamics of gases; normal modes of vibration of polyatomic molecules; catalytic methods in petroleum refining.

Kassell, Dr. Beatrice, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* New York, N. Y, March 25, 12. A.B, Columbia, 31, Ph.D, 38. *Research asst. biochem, Columbia, 39–* Chem. Soc; Biochem. Soc. Gt. Britain. Determination of structure of proteins by amino acid analysis; metabolic studies in human and canine cystinuria.

Kassner, Prof. J(ames) L(yle), 1620 Second Ave, Tuscaloosa, Ala. *Chemistry.* Whitehall, Mich, Nov. 6, 94. Life certificate, Mich. State Nor. Col, Ypsilanti, 16, B.Pd, 19; A.B, Michigan, 20, M.S, 22, Ph.D, 26. Teaching fellow, Michigan, 25–27; acting head dept. science, Adrian Col, 27–28; instr. physical chem, *Alabama,* 29–32, asst. prof. chem, 32–35, *anal. chem,* 35–41, *assoc. prof, 41–* Chem. Soc. Lead perchlorate; solubility of lead sulfate, chromate and molybdate in nitric and perchloric acids; lead in alloys; the vacuum tube in electrometric titrations; polarization of platinum electrodes; quantitative analysis; use of the Cenco-Kassner titrometer; preparation of stable sodium thiosulfate solutions; determination of phosphorus in ores, rocks, steel and alloys; preparation of stable molybdate solutions.

Kastler, Prof. Arthur O(rdway), 2005 Audubon St, New Orleans, La. *Biochemistry.* New Orleans, La, Jan. 14, 99. B.E, Tulane, 20, M.S, 24, Ph.D, 27. Instr. chem, *Tulane,* 20–24, *biochem,* 24–28, asst. prof, 29–34, *assoc. prof, 34–* Chem. Soc. Inorganic and carbohydrate metabolism.

Kaston, Prof. B(enjamin) J(ulian), Brenau College, Gainesville, Ga. *Biology.* New York, N. Y, July 2, 06. B.S, N. C. State Col, 30; fellow, Yale, 33–34, Ph.D, 34. Asst. zool, N. C. State Col, 28–30, bot, 29–30; zool, Yale, 30–33; asst, Conn. Exp. Sta, 34–38; *prof. biol, Brenau Col, 38–* A.A; Soc. Zool; Asn. Southeast. Biol. Taxonomy, morphology, sexual behavior and parasitism in spiders; spiders of Connecticut; bark beetles and other insects of elms.

Kater, Dr. J(ohn) McA(llister), Walker Vitamin Products, Inc, Mt. Vernon, N. Y. Stephens City, Va, Dec. 7, 01. B.S, Virginia, 23; A.M, Princeton, 25; Ph.D, California, 29. Instr. zool, St. Louis, 25–27; Utah Col, 28; asst. prof, State Col. Wash, 29–32; biol, Detroit, 34–39; physiol, Fordham, 39–43; *lab. director, Walker Vitamin Products, Inc, 43–* A.A; Soc. Zool; Mich. Acad; N. Y. Acad. Protistan cytology; protozoan life cycles, especially encystment; nuclear structure and chromosomal individuality; morphology of cytoplasm, especially mitochondrial response to specific physiological states; cytology in relation to sympathetic shock and vitamin deficiency; biological assay; analytical and synthetic chemistry; pharmacodynamics in endocrinology.

Kates, Dr. K(enneth) C(asper), Bureau of Animal Industry, U. S. Department of Agriculture, Beltsville, Md. *Parasitology.* Millville, N. J, April 29, 10. A.B, Columbia, 32; A.M, Duke, 34, univ. fellow, 34–35, Ph.D, 37. Asst. zool, St. Stephen's Col, Columbia, 30–32; teaching asst, Duke, 32–34; instr. biol, Williamsport-Dickinson Junior Col, 35–38; junior parasitologist, *zool. div, bur. animal indust, U. S. Dept. Agr,* 38–41, *asst. zoologist, 41–; lieut, Sanit. Corps, U. S. Army, 43–* A.A; Soc. Parasitol; Helminth. Soc. Wash. (recording sec'y, 41, v. pres, 42). Cytology; parasites of swine and sheep.

Katz, Prof. Daniel, Brooklyn College, Brooklyn, N. Y. *Psychology.* Trenton, N. J, July 19, 03. A.B, Buffalo, 25; A.M, Syracuse, 26, Ph.D, 28. Instr. *psychol,* Princeton, 28–31, asst. prof, 31–40, assoc. prof, 40–43; *chairman dept, Brooklyn Col, 43–* Assoc. ed, 'Pub. Opinion Quart,' 39– Soc. Psychol. Study Social Issues (councilor, 41); Psychol. Asn. Social psychology.

Katz, Prof. D(onald) L(a Verne), 1038 Martin Place, Ann Arbor, Mich. *Chemical engineering.* Jackson Co, Mich, Aug. 1, 07. B.S, Michigan, 31, M.S, 32, Ph.D, 33. Research engineer, Phillips Petrol. Co, 33–36; asst. prof. *chem. eng, Michigan,* 36–42, *assoc. prof, 42–* A.A; Chem. Soc; Min. and Metal. Eng; Chem. Eng; Petrol. Inst. Physical properties of petroleum hydrocarbons; oil production; reservoir engineering.

Katz, Dr. Evelyn, Western Reserve University, Cleveland, Ohio. *Psychology.* Cleveland, Ohio, Jan. 8, 09. A.B, Western Reserve, 31, A.M, 33; Ph.D, Minnesota, 37. Asst. child welfare, Minnesota, 33–37; *clin. psychologist and lecturer psychol, Western Reserve, 37–* Summer, director, Parent Educ. Inst, Ind, 35. Assoc. Psychol. Asn; Asn. Applied Psychol. Child psychology; applied psychology; child development.

Katz, Dr. Gerhard, Tulane University, New Orleans, La. *Pharmacology.* Berlin, Germany, July 4, 07. Fellow, Berlin, 28–33, M.D, 32. Asst, Pharmacol. Inst, Strasbourg, 33–34; instr. *pharmacol, Tulane,* 35–40, *asst. prof, 40–* Soc. Pharmacol; Soc. Exp. Biol. Peripheral circulation; vascular diseases; humoral transmission; histamine; allergy; effect of drugs on bodily exercise.

Katz, Dr. Harry L(eon), 935 Parkwood Drive, Cleveland, Ohio. *Physiology, Medicine.* Poland, Jan. 27, 10. A.B, Western Reserve, 31; Ph.D, Ohio State, 34, M.D, 38. Asst. biol. and zool, Western Reserve, 31; physiol, Ohio State, 32–35; intern, City Hosp, Cleveland, Ohio, 38–39; res, Sea View Hosp, S. I, N. Y, 40–41; *Med. Corps, U. S. Army, Tilton Gen. Hosp, Fort Dix, N. J, 41–, capt.* Hematocrit; blood volume; reticulocytes; chemical, cytological and physical changes in the blood during emotional excitement; aortic aneurysm simulating pulmonary tuberculosis; tuberculosis of the tongue.

Katz, Dr. L(ouis) N(elson), Michael Reese Hospital, Chicago, Ill. *Physiology, Medicine.* Pinsk, Poland, Aug. 25, 97. A.B, Western Reserve, 18, M.D, 21, A.M, 23. Demonstrator med, Western Reserve, 22–23, physiol, 23–24; nat. research

fellow med, London, 24–25; senior instr. *physiol*, sch. med, Western Reserve, 25–27, asst. prof, 27–30; *Chicago*, 30–40, *professorial lecturer, 41–; director cardiovascular research, Michael Reese Hosp, 30–* Consulting cardiologist, St. Luke's Hosp, Cleveland, 28–30. A.A; Physiol. Soc; Am. Med. Asn; fel. Col. Physicians; Soc. Exp. Biol; Am. Heart Asn; Soc. Clin. Invest; Cent. Soc. Clin. Research; English Physiol. Soc; Asn. française de Physiol. Applied physiology of the circulation.

Katz, Dr. Morris, National Research Council, Ottawa, Ont, Can. *Chemistry.* Kiev, Russia, April 6, 01. B.Sc, McGill, 26, M.Sc, 27, Ph.D, 29. Demonstrator, McGill, 26–29; chemist, investigations conducted by *Nat. Research Council Can, 29–30, mem. staff, div. chem, 30–* Chem. Soc; Soc. Chem. Indust; fel. Can. Inst. Chem; Eng. Inst. Can. Polymers and polymerization; synthetic and natural rubber; composition and utilization of Alberta bitumen; effect of smelter fumes on vegetation and soil; effect of dilute sulfur dioxide on plants; carbon monoxide.

Katz, Dr. S(idney) H(ershberg), Edgewood Arsenal, Edgewood, Md. *Chemistry.* Gilmore, Pa, Feb. 1, 84. B.S, Ohio State, 09; M.S, Pittsburgh, 23, Ch.E, 25, Ph.D, 26. Chemist, Nat. Carbon Co, Ohio, 09; instr, New Hampshire, 10–14; assoc. physical chemist, U. S. Bur. Mines, 14–28; *prin. chemist, Chem. Warfare Service, Edgewood Arsenal, 29–* Lecturer, Pittsburgh, 24. Exchange research worker, Safety in Mines Research Board Gt. Britain, Sheffield, Eng, 28–29. Lieut, C.W.S, 18–19, major, C.W.S.R, 24– A.A; Chem. Soc. (chairman, employment cmt, Pittsburgh sect, 24); Soc. Test. Mat; Indust. Hygiene Asn. Industrial gases; carbon monoxide; gas masks; protective equipment; suspensoids in air; measurement of odors; combustion; coal.

Katzenelbogen, Dr. Solomon, St. Elizabeths Hospital, Washington, D. C. *Psychiatry.* Ouman, Russia, Dec. 3, 90. M.D, Geneva, 18. Asst. path. anat. and otorhinolaryngol, Zurich, 19; internal med, med. clinic, med. faculty, Geneva, 20–25, privat-docent, med. faculty, 25, head lab. internal med, 25–28; assoc. prof. psychiat, sch. med, Hopkins, and in charge lab, Phipps Psychiat. Clinic, Hopkins Hosp, 28–38; *director lab. and research, St. Elizabeths Hosp, 38–; clin. prof. psychiat, med. sch, George Washington, 39–* Fel. Psychiat. Asn; fel. Col. Physicians; Neur. Asn; Soc. Exp. Biol. Barrier between blood and cerebrospinal fluid; anaphylaxis; proteinotherapy; hypertension; histamine; lipase in blood; effect of sleep on blood, cerebrospinal fluid and brain tissues; chemistry of blood and cerebrospinal fluid in mental diseases; insulin and metrazol therapies in mental diseases; psychosomatic medicine.

Katzin, Dr. Leonard I(saac), University of Chicago, Chicago, Ill. *General physiology.* Eau Claire, Wis, Jan. 18, 15. A.B, California at Los Angeles, 35; fellow, California, 37–38, Ph.D, 38. Teaching asst. zool, California, 35–37, research fellow, 38–40; junior biologist, U. S. Pub. Health Service, 40–41, asst. biologist, 41–42; research fellow radiol, sch. med. and dentistry, Rochester, 42–43; *research assoc, metal. lab, Chicago, 43–* Summer, asst, California at Los Angeles, 36. A.A; Soc. Zool; Va. Acad. Membrane bioelectrics and permeability; stream ecology; bacterial death rates; shock.

Katzman, Prof. P(hilip) A(aron), 1402 S. Grand Blvd, St. Louis, Mo. *Biochemistry.* Omaha, Nebr, May 18, 06. A.B, Kalamazoo Col, 27; Ph.D, St. Louis, 32. Research instr. *biochem, St. Louis,* 32–36, senior instr, 36–41, *asst. prof, 41–* Soc. Exp. Biol; Asn. Study Int. Secretions; Soc. Biol. Chem. Biochemistry and physiology of gonadotropic and female sex hormones; biochemistry of antibiotic substances.

Katznelson, Dr. H(arry), Central Experimental Farm, Ottawa, Ont, Can. *Soil microbiology.* Russia, Nov. 7, 12. B.S.A, British Columbia, 34; Julius Galland fellow, State Col. Wash, 35–37, M.S, 37; Ph.D, Rutgers, 39. Asst. soil microbiol, State Col. Wash, 34–36; Rutgers, 37–39; res. doctor bacter, Cornell, 39–40; *agr. asst, div. bacter. and dairy research, Cent. Exp. Farm, 40–* Bacteriophage of nodule bacteria; bacteriophage in dairying; organic matter decomposition in soils; azotobacter; antagonism among microorganisms; rhizosphere and root rots; nutritional requirements of microorganisms; vitamin assays; industrial fermentations.

Katzoff, Dr. Samuel, 145 Linden Ave, Hampton, Va. *Physical chemistry.* Baltimore, Md, Aug. 18, 09. B.S, Hopkins, 29, Ph.D, 34. Research chemist, Baltimore Paint and Color Works, 34–35; Jones fellow biophys. from Hopkins, Cold Spring Harbor, 35–36; *physicist, Nat. Advisory Cmt. Aeronautics, 36–* X-rays; colloids; aerodynamics.

Kaufert, Prof. Frank (Henry), University Farms, St. Paul, Minn. *Forest pathology.* Princeton, Minn, Dec. 2, 05. B.S, Minnesota, 28; exchange fellow, Halle, Germany, 30; M.S, Minnesota, 30, Ph.D, 35. Field asst, U. S. Forest Service, 29, 31; instr. forestry, Minnesota, 32–37; with div. pest control research, exp. sta, E. I. du Pont de Nemours and Co, 37–40; *assoc. prof. forestry, Minnesota, 40–* Summers, U. S. Forest Service, 33–36. Phytopath. Soc; Soc. Foresters; Bot. Soc; Wood Preservers Asn. Wood preservation; forest products pathology; wood utilization.

Kauffman, Dr. F(loyd) Leo, Washington and Jefferson College, Washington, Pa. *Chemistry.* Mt. Pleasant, Iowa, Nov. 18, 15. A.B, Iowa Wesleyan, 36; A.M. and Ph.D, Indiana, 39. Asst. gen. chem, Indiana, 36–39; *instr. physical and anal. chem, Washington and Jefferson Col, 39–* Chem. Soc. The electrical reduction of organic nitro compounds; the demethylation of aromatic compounds.

Kauffmann, Dr. H(ans) O(tto), 58 Koster Row, Eggertsville, Buffalo, N. Y. *Chemistry.* Stuttgart, Germany, May 24, 04. B.S, Tech. Hochschule, Stuttgart, 23, D.Ch, Tübingen, 26. Asst, Textile Institution, Reutlingen, Germany, 27; chem, Elektrochem. Werke, Munich, 28; *head research dept, Buffalo Electrochem. Co, 28–* Chem. Soc. Textile chemistry; bleaching; hydrogen peroxide and its practical application.

Kaufman, Prof. Fred H(enry), Forest Park, Valparaiso, Ind. *Metallurgical chemistry.* Sheboygan, Wis, May 26, 04. B.S, Wisconsin, 25, Ph.D, 33; M.S, Mich. State Col, 26. Agronomist, Ark. State Teachers Col, 26–27; instr. bot, Valparaiso, 27–32, asst. prof. bot. and pharmacog, 33–40, assoc. prof. biol. and director placement bur, 41–42; *research chemist, Ind. Steel Products Co, 42–* Germination of the spores of Basidiomycetae.

Kaufman, Prof. K(arl) L(incoln), Medical College of Virginia, Richmond, Va. *Pharmacy, Pharmaceutical chemistry.* Attica, Ohio, Aug. 18, 11. B.S, Ohio State, 33; J. K. Lilly fellow, Purdue, 33–36, Ph.D, 36. Special investigator, revision cmt, U. S. Pharmacopoeia, 36; instr. pharmacy, State Col. Wash, 36–38, *asst. prof,* 38–40; *pharmacy and pharmacog, Med. Col. of Va, 40–* Drug deterioration; drug analysis.

Kaufmann, Prof. Albert R, Massachusetts Institute of Technology, Cambridge, Mass. *Physical metallurgy.* Philadelphia, Pa, Nov. 20, 11. B.S, Lafayette Col, 33; Sc.D, Mass. Inst. Tech, 38. Research assoc, *Mass. Inst. Tech,* 37–39, *asst. prof. physics of metals, 39–* Physical Soc; Min. and Metal. Eng. Magnetic properties of metals.

Kaufmann, Dr. Berwind P(etersen), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Biology.* Philadelphia, Pa, April 23, 97. B.S, Pennsylvania, 18, A.M, 20, Ph.D, 25. Asst. bot, Pennsylvania, 16–24; teacher, high sch, Pa, 19–25; prof. biol, Southwestern (Tenn), 26–28; prof. bot. and head dept, Alabama, 28–37; *res. investigator, sta. for exp. evolution, dept. genetics, Carnegie Institution, 37–* Nat. research fellow, Calif. Inst. Tech, 32–33; guest investigator, Carnegie Institution, 36. A.A; Soc. Nat; Bot. Soc; Genetics Soc. (sec'y-treas, 41–); Soc. Zool. Cytogenetics of Drosophila; structure of chromosomes.

Kaufmann, Dr. Herbert M(oses), 970 Park Ave, New York, N. Y. *Chemistry.* Philadelphia, Pa, May 21, 70. B.S, Pennsylvania, 88; Ph.D, Basle, 91. *Pres, Mutual Chem. Co. of Amer.* A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng; Franklin Inst. Bichromates; prussiates; oxalic acid.

Kaufmann, Prof. Ralph J(ennings), University of Tulsa, Tulsa, Okla. *Organic chemistry.* Glenmont, Ohio, Sept. 14, 96. A.B, A.M, Oberlin Col, 18; Ph.D, Illinois, 23. Chemist, Jackson lab, E. I. du Pont de Nemours and Co, 18–20; asst. prof. *chem,* North Dakota, 23–24; prof. and acting head dept, Hiram Col, 24–25; asst. prof, Louisville, 25–28; *prof. and head dept, Tulsa, 28–* Summer, instr, Illinois, 23. Mem, State Board Examiners Basic Sciences, Okla. Chem. Soc. Production of imido thiol esters by the condensation of organic thiocyanates with resorcinol or phloroglucinol.

Kaufmann, Prof. W(ilford) E(dward), Carleton College, Northfield, Minn. *Industrial chemistry.* Glenmont, Ohio, Feb. 12, 93. A.B, Oberlin Col, 18, A.M, 19; Ph.D, Illinois, 23. Research chemist, E. I. du Pont de Nemours and Co, 19–21; prof. chem, Hiram Col, 23–24; asst. research director, Meadows plant, E. I. du Pont de Nemours and Co, 24–26; asst. prof,

Williams Col, 27; prof. *chem*, Alma Col, 27–41; *prof. and chairman dept, Carleton Col, 41–* A.A; Chem. Soc. Vibration and syneresis of silicic acid gels; catalytic reduction of furane ring compounds with platinum black.

Kaupp, Dr. B(enjamin) F(ranklin), 405 S. Eighth St, Minneapolis, Minn. *Poultry science.* Williamsport, Pa, March 16, 74. B.S. and M.S, Colo. Agr. Col; D.V.M, Kansas City Vet. Col; Chicago; Odessa Col; Cornell, 15. Vet. inspector, bur. animal indust, U. S. Dept. Agr, 96–04; director anat. lab. and lab. diagnosis, Kansas City Vet. Col, 04–08; prof. path, Colo. Agr. Col, and pathologist, Exp. Sta, 08–12; commissioner pub. health, Spartanburg, S. C, 12–14; prof. poultry science, N. C. State Col, head poultry dept. and pathologist, Exp. Sta, 14–30; asst. dean, Salsbury's Sch. Poultry Diseases, 33–38. Lecturer, Harper-Adams Agr. Col, England, 21; v. pres, Kansas City Vet. Col, 96–08. Del, World's Poultry Cong, 21. Poultry Sci. Asn. (pres, 24); Vet. Med. Asn. (chairman, cmt. on diseases, 11); Mo. Vet. Med. Asn. (sec'y, 96–00, pres, 01); Colo. Vet. Med. Asn. (sec'y, 08–12); N. C. Poultry Asn. (sec'y, 15–). Animal parasites and parasitic diseases; poultry raising and poultry diseases.

Kauzmann, Dr. Walter (Joseph), Westinghouse Research Laboratories, East Pittsburgh, Pa. *Physical chemistry.* Mt. Vernon, N. Y, Aug. 18, 16. A.B, Cornell, 37; Ph.D, Princeton, 40. *Research fellow, Westinghouse Elec. and Mfg. Co, 40–* Chem. Soc. Optical rotatory power; plastic properties of matter; dielectric losses.

Kavanagh, Dr. F(rederick), University of Rochester, Rochester, N. Y. *Plant physiology.* Montgomery Co, Ark, May 25, 08. A.B, Missouri, 31, A.M, 33; Ph.D, Columbia, 42. Asst. chem, Missouri, 31–33, plant physiol, 36–38; tech. asst, N. Y. Bot. Garden, 38–42; *instr. bot, Rochester, 42–* Bot. Soc; Chem. Soc; Torrey Bot. Club. Plant nutrition; vitamins.

Kaveler, Dr. H(erman) H(enry), 1717 Cherokee Place, Bartlesville, Okla. *Physical chemistry.* St. Charles, Mo, Dec. 5, 05. B.S, Mo. Sch. Mines, 27, M.S, 28; Ph.D, Maryland, 31. Instr. chem, George Washington, 31–35; junior chemist, U. S. Bur. Mines, 35–36; research engineer, *Phillips Petrol. Co,* 36–40, *tech. adviser to production manager, 40–* Min. and Metal. Eng; Chem. Soc. Solubility; catalysis; flame temperatures; petroleum technology.

Kay, Prof. G(eorge) Marshall, Columbia University, New York, N. Y. *?*Geology.* Paisley, Ont. Can, Nov. 10, 04. A.B, Iowa, 24, M.S, 25; Chicago, 24; Ph.D, Columbia, 29. Asst. curator paleont, *Columbia,* 25–27, asst. *geol,* Barnard Col, 27–29, lecturer, 29–30, instr, 30–31, *univ,* 31–37, asst. prof, 37–42, *assoc. prof, 42–* Geologist, N. Y. State Museum, 40–; U. S. Geol. Surv, 43– Kunz prize, N. Y. Acad. Sciences, 41. A.A; Geol. Soc; Paleont. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; N. Y. Acad; Iowa Acad. Stratigraphy; Ordovician stratigraphy of eastern North America; Trenton group; metabentonites; Mohawkian Ostracoda; Taconian structure and paleogeography; Ottawa-Bonnechere graben; Carboniferous-Permian of Russia; Appalachian geosynclines.

Kay, J(ames) LeRoy, Carnegie Museum, Pittsburgh, Pa. *Paleontology.* Mona, Utah, 92. Head field explor. geol. and paleont. and later *curator vert. paleont, Carnegie Museum, 22–* Soc. Vert. Paleont. Geology and paleontology.

Kay, Dr. Webster B(ice), Standard Oil Company of Indiana, Whiting, Ind. *Chemistry.* Hammond, Ind, Dec. 8, 00. B.Ch.E, Ohio State, 22; Ph.D, Chicago, 26. *Research chemist, Standard Oil Co. of Ind, 26–* Chem. Soc; Chem. Eng. Atomic structure; thermal and physical properties of liquid and gaseous mixtures.

Kay, Dr. William C(ameron), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering.* Melrose, Minn, 08. B.Ch.E, Minnesota, 30; M.S, Mass. Inst. Tech, 31, Bolles fellow, 32–33, Sc.D, 37. *Develop. engineer, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. Vapor-liquid equilibria of hydrocarbons under high pressures.

Kaye, Dr. Albert L(ouis), 6416 Moraine Ave, Hammond, Ind. *Electrochemical engineering.* New York, N. Y, March 16, 09. B.S, Mass. Inst. Tech, 31, Swope fellow, 31–32, M.S, 32, Sc.D, 34. Asst. chem, Calif. Inst. Tech, 32–33; research assoc, div. indust. cooperation, Mass. Inst. Tech, 34–37, sec'y, cmt. corrosion metals, 35–37; metallurgist, *Carnegie-Ill. Steel Corp, Chicago,* 37–41; *manager alloy bur, metal. div, Chicago dist, 41–* Soc. Metals; Chem. Soc. Electrometallurgy; electroplating and refining of metals; electric furnace design; the corrosion of metals; surface studies of metals and alloys; heat treatment of alloy steels; development of alloy steels for automotive, aircraft and high temperature applications.

Kaye, Dr. Irving Allan, Northwestern University, Evanston, Ill. *Organic chemistry.* New York, N. Y, May 23, 16. A.B, Col. City of N. Y, 35; M.S, N. Y. Univ, 39; Ph.D, Mich. State Col, 42. Mem. pediat. research lab, Brooklyn Jewish Hosp; *research assoc, Northwestern, 41–* Chem. Soc. Steryl sulfates; resynthesis of the sterol side-chain; investigation of the sterols in the thymus gland; analysis of lipids in naturally occurring substances; synthesis of alkylbenzenes.

Kaye, Dr. J(oseph), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Malden, Mass, Nov. 16, 12. B.S, Mass. Inst. Tech, 34, fellow, 35–36, Ph.D, 37. Arthur D. Little fellow, *Mass. Inst. Tech,* 37–39, asst, lubrication lab, div. indust. cooperation, 39–40, *instr. heat eng, dept. mech. eng, 40–* Summer, engineer, turbine design dept, Gen. Elec. Co, 40. Chem. Soc; Physical Soc; Mech. Eng; N. Y. Acad. Applications of thermodynamics to engineering; heat engineering; applied thermodynamics; heat transfer; fluid mechanics.

Kaylor, Dr. Cornelius T(impson), Syracuse University Medical College, Syracuse, N. Y. *Biology.* Naugatuck, Conn, Aug. 8, 09. A.B, Wesleyan, 31; M.S, Rutgers, 33; Ph.D, Princeton, 36. Instr. *anat,* col. med, N. Y. Univ, 36–38; *med. col, Syracuse,* 38–43, *asst. prof, 43–* Assoc. Soc. Zool. Experimental embryology.

Kays, Donald Jackson, Ohio State University, Columbus, Ohio. *Animal husbandry.* Magnolia, Ill, Sept. 11, 86. B.S, Illinois, 12. Teacher, high sch, Ill; instr. *animal husbandry, Ohio State,* 12–14, *prof, 14–, chairman dept.* Soc. Animal Production. Grass silage as a feed for fattening lambs.

Kazal, Dr. Louis A(nthony), Sharp and Dohme, Inc, Glenolden, Pa. *Biochemistry.* Newark, N. J, July 2, 12. B.S, Seton Hall Col, 35; Ph.D, Rutgers, 40. Asst. physiol. and biochem, Rutgers, 37–40; *research biochemist, Sharp and Dohme, Inc, 40–* A.A; Chem. Soc. Protein chemistry; tissue extracts; bacterial metabolism.

Keach, Prof. DeWitt T(almage), Yale University, New Haven, Conn. *Chemistry.* Enfield, Conn, Sept. 3, 90. Ph.B, Yale, 15, Ph.D, 23; M.S, Pa. State Col, 17. Instr. *chem,* Pa. State Col, 15–17, asst. prof, 17–20; instr, *Yale,* 20–25, *asst. prof, 25–* A.A; Chem. Soc. Synthetic drugs; molecular structure in relation to physiological effect; hypnotics; ether-substituted derivatives of diethyl malonate and barbituric acid.

Kean, Dr. Robert H(ill), Virginia-Carolina Chemical Corp, Richmond, Va. *Physical chemistry.* Morristown, N. J, July 5, 00. B.S, Mass. Inst. Tech, 23, M.S, 24; fellow, Virginia, 37–38, Ph.D, 38. Asst, Bangor field sta. and sch. chem. eng. practice, Mass. Inst. Tech, 24–26; asst. chem. director, Nat. Lime Asn, 26–27; research chemist, Int. Filter Co, 27–31; instr. chem, Virginia, 38; *mem. chem. div, Va-Carolina Chem. Corp, 38–, tech. director.* Chem. Soc. Effect of the adsorption of known amounts of oxygen and hydrogen on the photoelectric emissivity of silver.

Keane, J(ohn) C(harles), Utah-Idaho Sugar Co, Salt Lake City, Utah. *Chemistry.* Pine Island, Minn, Aug. 19, 97. A.B, Columbia Col. (Iowa), 19. Chemist, Utah-Idaho Sugar Co, Salt Lake City, 19–22, asst. plant supt, Idaho, 23–24; junior chemist, bur. chem. and soils, U. S. Dept. Agr, 25–26, asst. chemist, 26–28, chemist, 29–37; *asst. gen. supt, Utah-Idaho Sugar Co, 37–* Chem. Soc. Technology of beet and cane sugar manufacture.

Kear, Dr. Frank G(regg), 13 W. Leland St, Chevy Chase, Md. *Radio engineering.* Minersville, Pa, Oct. 18, 03. E.E, Lehigh, 26; M.S, Mass. Inst. Tech, 28, Sc.D, 33. Asst. and instr. elec. eng, Mass. Inst. Tech, 26–28; assoc. physicist, Bur. Standards, 28–31; instr. elec. eng, Mass. Inst. Tech, 31–32; assoc. physicist, Bur. Standards, 32–33; radio engineer, Wash. Inst. Tech, 33–41; *consulting radio engineer, 34–* Lecturer, Maryland, 36–41. Mem, Radio Tech. Cmt. Aeronautics. A.A; Radio Eng; Standards Asn. Aircraft radio and radio aids to air navigation; broadcast station design, especially directional antennas.

Kearby, Dr. K(enneth K), 1013 N. Broad St, Elizabeth, N. J. *Catalytic chemistry.* Helena, Mont, Oct. 8, 10. B.S, Illinois, 32, M.S, 33, fellow, 34–37, Ph.D, 37. *Research chemist,* Am. Can Co, 33–34; *Standard Oil Develop. Co, 37–*

A.A; Chem. Soc. Relation between structure and activity of catalysts; development of new catalysts.

Kearney, Dr. Thomas H, U. S. Department of Agriculture, Washington, D. C. \ *[1]*Botany.* Cincinnati, Ohio, June 27, 74. Tennessee, 99–92; Columbia, 93–94; LL.D, Arizona, 20. Asst. botanist, Exp. Sta, Tennessee, 92–93; asst. curator herbarium, Columbia, 94; asst. bot, *U. S. Dept. Agr*, 94-95, asst. agrostologist, 95–98, asst. botanist, 98–00, asst. physiologist, 00–02, *physiologist*, 02–07, *in charge* alkali and drought resistant plant investigations and later *Egyptian cotton breeding investigations, bur. plant indust, 08–* A.A; Soc. Nat; Bot. Soc; Bot. Soc. Wash. (v. pres, 08, pres, 16); Biol. Soc. Wash; Wash. Acad. (v. pres, 08, board managers, 17–19). Genetics; ecological plant geography; physiology of arid region crop plants; Egyptian cotton; taxonomy of Malvaceae; flora of Arizona.

Kearns, Prof. Clyde W, University of Illinois, Urbana, Ill. *Entomology.* Denver, Colo, Nov. 1, 09. B.S, Colo. State Col, 31; M.S, Illinois, 33, Ph.D, 36. Insecticide invests, Monsanto Chem. Co, 34–38; *asst. prof. entom, Illinois, 38–* Chem. Soc; Asn. Econ. Entom; Entom. Soc. Amer. Relationship of chemical structure of synthetic organic compounds to insect toxicity

Kearns, Dr. Walter Melody, Marquette University, Milwaukee, Wis. *Medicine, Urology.* Milwaukee, Wis, Sept. 24, 94. B.S, Marquette, 20, M.D, 21, M.S, 25. From lecturer urogenital path. to *asst. prof. urol, sch. med, Marquette, 25–* Mem. senior staff, Marquette Hosp, 24–29; Misericordia Hosp, 26–; Mt. Sinai Hosp, 29–; Johnson Emergency Hosp; Milwaukee Gen. Hosp, 30–; Columbia Hosp; St. Joseph's Hosp. Am. Med. Asn; Urol. Asn; Col. Surg; Wis. Urol. Soc; Milwaukee Acad. Med. Alkaline incrusted cystitis; prostatic enlargement; ureter catheter drainage in ureterotomy; dissolution of urinary stone and pyelography in renal tuberculosis; testicular deficiency.

Keating, Dr. B(ernard) J(oseph), Sigma Mines Ltd, Bourlamaque, Que, Can. *Geology.* New Glasgow, N. S, March 22, 09. B.A, St. Francis Xavier, 30; M.Sc, McGill, 33, Ph.D, 37. Asst. and chief parties, Geol. Surv. Can. and Que. Bur. Mines, 31–37; *geologist*, Sigma Mines Ltd, 38–43; *Labrador Mining and Explor. Co, Ltd, 43–* Field geologist, Dome Explor. Co, Ltd, 38–43. Geology of the Augmentation of Grenville Township, Quebec; the Laurentian Morin series derived from a quartz mangerite stem and presenting similarities to the Bergen-Jotun and Adirondack stems.

Keaton, Dr. Clark M, 421 Pine St, Shelton, Wash. *Soil chemistry.* LaGrande, Oregon, Feb. 24, 10. B.S, Kansas, 31; M.S, Idaho, 36; Ph.D, State Col. Wash, 38. Asst, State Col. Wash, 36–40; *research chemist*, Grange Powder Co, 40–42; *Rayonier Inc, 42–* Electrophysical properties of soils, with particular emphasis on oxidation-reduction potentials and hydrogen ion concentration.

Keator, Prof. Frederic W(illiam), Yale University, New Haven, Conn. *Mechanical engineering.* Freeport, Ill, April 29, 96. B.S, Washington (Seattle), 21; M.S, Yale, 23, M.E, 24. Asst, *Yale*, 22–24, instr. *mech. eng*, 24–28, *asst. prof, 28–* Mech. Eng. (chairman New Haven sect, 39). Air raid alarm systems for Connecticut communities.

Keats, Dr. John L(ewis), P. O. Box 166, Wilmington, Del. *Chemistry, Chemical engineering.* Milwaukee, Wis, Sept. 21, 97. Wisconsin; B.S, Mass. Inst. Tech, 20, M.S, 21, Sc.D, 24. Instr. chem. eng, Mass. Inst. Tech, 22–23; chem. engineer and later *research group leader, E. I. du Pont de Nemours and Co, 23–* Chem. Soc; Chem. Eng. Interaction between gases and liquids; basic open hearth steel manufacture; manufacture of paints and paint pigments; high pressure reactions; synthetic fibers and films.

Kebler, Dr. Lyman F(rederic), 1322 Park Road, N. W, Washington, D. C. *[2]*Chemistry, Medicine.* Lodi, Mich, June 8, 63. Ph.C, Michigan, 90, B.S, 91, M.S, 92; Jefferson Med. Col, 99; Temple, 99–03; M.D, George Washington, 06. Instr. chem, Iowa State Col, 88–89; Michigan, 91–92; chief mfg. chemist, Phila, 92–03; chief drug lab, bur. chem, U. S. Dept. Agr, 03–07, drug div, 07–23, special collaborating investigator in charge food and drug work, 23–29; *research fed. food and drug legislation; chem-med. consultant;* assoc. prof. mat. med, med. col, Georgetown, 12–32. Radio broadcaster on food dietetics and health. Sec'y, U. S. Pharmacopoeial Convention, 20–30; revision cmt, U. S. Pharmacopoeia, 10–20. Jury award, Nat. Export Expos, 98. A.A; Chem. Soc. (v. pres, 17); Agr. Chem; Am. Med. Asn. (council pharmacy and chem, 05–14); Pub. Health Asn; Pharmaceut. Asn. Chemical, pharmaceutical, medicinal and commercial value of drugs; purity of chemical reagents; methods of assaying alkaloidal drugs; headache mixtures; alcohol in medicinal agents; medicated soft drinks; cancer remedies; drug addiction treatments; American and Norwegian cod-liver oils; diet therapy; uniformity of medicinal tablets; weight reduction; mail order medical schemes.

Keck, Dr. David D(aniels), Carnegie Institution, Stanford University, Calif. *Botany.* Omaha, Nebr, Oct. 24, 03. A.B, Pomona Col, 25, A.M, 26; Ph.D, California, 30. Teaching fellow biol, Pomona Col, 25–26; asst. exp. taxon, *cent. lab, div. plant biol, Carnegie Institution, 26–34, staff mem, 34–* A.A; Bot. Soc; Torrey Bot. Club; Calif. Bot. Soc. (treas, 31–40); Calif. Acad. Experimental taxonomy; distribution and evolution; ecology and cytogenetics as applied to taxonomy; western American flora.

Keck, Prof. Warren N(orwood), Coe College, Cedar Rapids, Iowa. *Zoology.* Stockport, Iowa, Nov. 11, 00. A.B, Iowa, 24, M.S, 26, Ph.D, 33. Prof. and head dept. biol, Milton Col, 26–29; instr. zool, N. Dak. Col, 33–36; *biol, Coe Col, 36–38*, asst. prof, 38–43, *assoc. prof, 43–* Soc. Plant Taxon; Ornith. Union; Sch. Sci. and Math. Asn; N. Dak. Acad; Iowa Acad; Iowa Ornith. Union (pres, 40–42). Control of secondary sexual characters in birds, especially the English sparrow.

Keefe, Rev. Anselm M(aynard), St. Norbert College, West De Pere, Wis. *Botany.* Oconto, Wis, Jan. 21, 95. A.B, St. Norbert Col, 16; A.M, Catholic Univ, 23; fellow, Wisconsin, 24–25, Ph.D, 26. Asst. instr. bot, Wisconsin, 25–26; *prof. biol, St. Norbert Col, 26–; lieut. col, Med. Corps, U. S. Army.* Summer, instr, Marine Biol. Lab, Woods Hole, 25. A.A; Bot. Soc; Ecol. Soc; Genetic Asn; Wis. Acad. (v. pres, 34). Morphology and cytology of algae; ecology.

Keefer, Dr. C(hester) S(cott), Evans Memorial, Massachusetts Memorial Hospitals, Boston, Mass. *Internal medicine.* Altoona, Pa, 97. B.S, Bucknell, 18, M.S, 22; M.D, Hopkins, 22. Asst. and instr. *med*, Hopkins, 22–26; instr, Chicago, 26–28; assoc. prof, Peiping Union Med. Col, 28–30; asst. prof, Harvard Med. Sch, 30–36, assoc. prof, 36–40; *Wade prof, sch. med, Boston, 40–* Physician in chief, Mass. Mem. Hosps, director, Evans Mem. Soc. Clin. Invest; Am. Physicians. Clinical and experimental medicine.

Keefer, C(larence) E(dward), Bureau of Sewers, Municipal Bldg, Baltimore, Md. *Sanitary engineering.* Baltimore, Md, July 10, 91. B.E, Hopkins, 19. *Engineer, Bur. Sewers, Baltimore, 19–* Civil Eng; Munic. Eng; Pub. Health Asn; hon. mem. Inst. Sewage Treatment, England. Digestion, dewatering and fertilizing value of sewage sludge; hydraulic sludge and sewage; sewage treatment with chlorine and lime.

Keefer, Dr. Raymond M, University of California College of Agriculture, Davis, Calif. *Physical chemistry.* Idaho, April 29, 13. B.S, California, 34, Ph.D, 40. *Instr. and junior chemist, California, 41–* Solubility measurements in amino acid solutions as a means of determining the effect of dipolar ions on the activity coefficient of a simple ion; complex ions involving amino acids.

Keegan, Prof. E(dward) J(oseph), St. John's University, Brooklyn, N. Y. *Biology.* Waterbury, Conn, March 30, 01. A.B, Catholic Univ, 23; M.S, St. John's (N. Y), 29. City bacteriologist, Waterbury, Conn, 24; *asst. prof. biol. and bacter, St. John's (N. Y), 29–*, chairman dept. biol, 35–38. Lecturer, Georgian Court Col, 29–33; St. Mary's Hosp. and St. Catherine's Hosp, 35– A.A; Soc. Bact. (sec'y-treas, N. Y. branch). Diagnosis carcinoma by means of blood smears.

Keegan, Harry J(oseph), National Bureau of Standards, Washington, D. C. *Physics, Engineering.* Washington, D. C, Oct. 11, 03. George Washington, 21–23, B.M.E, 40; Cincinnati, 29–33; Michigan, 39. Lab. apprentice, *Bur. Standards*, 21–22, junior sci. aid, 22–27, 29–36, physical science aid, 36–39, senior physical science aid, 39–40, junior physicist, 40–41, asst. physicist, 41–43, *assoc. physicist, 43–; lecturer mech. eng, George Washington, 42–* Optical Soc. Spectrophotometry; reflectance standards; permanence of artist's oil paints; fluorescence and phosphorescence; color specifications; spectral absorption due to hydrogen ion concentration changes; camouflage; color of water; measurement of spectral transmission and spectral reflectance.

Keegan, Dr. J(ohn) Jay, 107 S. 17th St, Omaha, Nebr. *Medicine.* Axtell, Kans, Jan. 8, 89. A.B, Nebraska, 12, A.M, 14, M.D, 15. Instr. anat, Nebraska, 15–17; intern, Peter Bent Brigham Hosp, 17, 19–20; *prof.* clin. path, *col. med, Nebraska,* 20–29, *neurosurg, 29–,* dean, 25–29, *chairman dept. surg, 33–* Lieut, M.C, 17–19. Soc. Neur. Surg. (pres, 41); West. Surg. Asn; Cent. Neuropsychiat. Asn. Neurology; epidemiology; pathology; neurosurgery.

Keegan, Prof. L(eslie) A(rthur), Wakefield Road, Kingston, R. I. *Agronomy.* Uxbridge, Mass, April 7, 95. B.S, R. I. State Col, 19, M.S, 32. Instr. *agron,* Maine, 19–20; *R. I. State Col,* 20, *asst. prof, 20–, exten. agronomist, 25–* 2nd lieut, A.S, 18. Soc. Agron. Soils; fertilizers; crops; landscape gardening.

Keeler, Dr. Clyde E(dgar), Edgewood School, Greenwich, Conn. *Zoology.* Marion, Ohio, April 11, 00. B.S, Denison, 23, M.S, 25; A.M, Harvard, 25, Sc.D, 26. Asst. zool, Harvard, 24–25, instr. ophthal. research, Howe lab, 27–39; fellow, Wistar Inst, 39–42, curator animal colony, 40–42; *mem. staff, Edgewood Sch, 42–* Asst, Radcliffe Col, 28–30; Sheldon fellow, Paris and Berlin, 26–27; Turkey, 30; Milton fellow, China and Japan, 36; Guggenheim Mem. Foundation fellow, Europe, 38. A.A; Soc. Zool; Eugenics Research Asn; L. I. Biol. Asn; Soc. zool. de France. Medico-genetics; mammalian heredity; vertebrate eye defects; physiology of vision; effect of coat color genes on morphology and behavior.

Keeler, Prof. Irvin F(rederick), North Central College, Naperville, Ill. *Mathematics.* Winona, Minn, Dec. 14, 07. B.Ed, Minn. State Teachers Col, 29; M.S, Iowa, 32, Ph.D, 38; Harvard, 32–33; *prof. math, N. Cent. Col, 37–* Math. Soc. Topology.

Keen, Dr. (Angeline) Myra, Box 1563, Stanford University, Calif. *Paleontology, Conchology.* Colorado Springs, Colo, May 23, 05. A.B, Colo. Col, 30; A.M, Stanford, 31; Ph.D, California, 34. Research assoc. geol, *Stanford,* 34–36, *curator paleont, 36–* Malacol. Union (councilor, 38–41); Paleont. Soc. Geographic distribution of Mollusca; statistical studies of variation; pelecypod family Cardiidae.

Keen, F(rederick) P(aul), 341 Giannini Hall, University of California, Berkeley, Calif. *Entomology.* San Diego, Calif, Nov. 20, 90. B.S, California, 14. Entom. ranger, forest insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 14–16, sci. asst, 16–17, 21–22, asst. entomologist, 22–24, assoc. entomologist, 24–29, entomologist, 29–37, *senior entomologist, 37–* 2nd lieut, C.A.C, 17–19. A.A; Asn. Econ. Entom; Soc. Foresters; Ecol. Soc; Pacific Coast Entom. Soc. Forest entomology; bark-beetle control.

Keen, Prof. Richard C(lifton), Louisiana State University, Baton Rouge, La. *Physics.* Abita Springs, La, Jan. 28, 99. B.S, Louisiana, 20; M.S, Chicago, 31, Ph.D, 35. Instr. *physics, Louisiana,* 20–25, asst. prof, 25–35, *assoc. prof, 35–* X-ray and crystal analysis.

Keenan, George L, 1339 Taylor St, N. W, Washington, D. C. *Chemistry.* Buffalo, N. Y, Feb. 16, 86. B.S, Michigan, 11, A.M, 12. Assoc. microanalyst and *microanalyst,* bur. chem. and later *food and drug admin, Fed. Security Agency, 13–* A.A; Bot. Soc. Wash. Microchemistry; optical crystallography; microscopy of foods, drugs, insecticides and fungicides; amino acids; calcium oxalate; sugars; alkaloids.

Keenan, Prof. Joseph H(enry), 48 Old Middlesex Road, Belmont, Mass. *Mechanical engineering.* Wilkes-Barre, Pa, Aug. 24, 00. B.S, Mass. Inst. Tech, 22. Steam turbine engineer, Gen. Elec. Co, Schenectady, 23–28; asst. prof. *mech. eng,* Stevens Inst. Tech, 28–34; assoc. prof, *Mass. Inst. Tech,* 34–39, *prof, 39–; research engineer, Jabez Burns and Sons, New York, 29–; lieut. commander, U. S. Naval Res, 40–* Eng. Educ; Am. Acad; Mech. Eng. Thermodynamics; fluid flow; thermodynamic properties of steam.

Keenan, Dr. Philip C(hilds), Yerkes Observatory, Williams Bay, Wis. *Astronomy, Astrophysics.* Pittsburgh, Pa, March 31, 08. B.S, Arizona, 29, M.S, 30; Ph.D, Chicago, 32. Asst. *astron,* Yerkes Observatory, Chicago, 29–35; *instr,* Perkins Observatory, Ohio Wesleyan, 35–36; *Yerkes Observatory, Chicago, 36–; physicist, bur. ordnance, U. S. Navy Dept, 42–* Astron. Soc; Astron. Soc. Pacific. Astronomical spectrophotometry; solar physics; spectral classification.

Keene, Purley L(orenzo), Soil Conservation Service, Alcester, S. Dak. *Horticulture.* Nicollet Co, Minn, Dec. 14, 90. B.S, Minnesota, 15, M.S, 22. Asst. prof. hort, S. Dak. State Col, 22–37; *with soil conservation service, U. S. Dept. Agr, 37–* Culture and new methods of growing horticultural crop plants; controlling pests and new varieties of horticultural plants; landscape gardening, especially home grounds; soil conserving practices.

Keenen, Dr. F(rank) G(ilbert), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Newark, Ohio, 02. B.S, Denison, 23; M.S, Ohio State, 24, Ph.D, 26. Instr. chem, Ohio State, 25–26; *chemist,* Eastman Kodak Co, 24–25; *ammonia dept, exp. sta, E. I. du Pont de Nemours and Co, 26–* Chem. Soc. Crystal growth and colloids; calcium phosphates; commercial applications of synthetic ammonia in fertilizer and other industries.

Keener, Prof. Charles A(lva), 1014 W. Healey St, Champaign, Ill. *Electrical engineering.* Colorado Springs, Colo, June 29, 97. B.S, Kansas, 19; M.S, Mass. Inst. Tech, 20; E.E, Illinois, 28. Engineer, Gen. Elec. Co, 29–30; *assoc. prof. elec. eng, Illinois, 30–* Elec. Eng. Magnetic fields in electrical machinery.

Keener, Dr. Harry A(llan), University of New Hampshire, Durham, N. H. *Dairy husbandry.* Greensboro, Pa, Dec. 22, 13. B.S, Pa. State Col, 36, Ph.D, 41; M.S, West Virginia, 38. Asst. dairy husbandry, West Virginia, 36–38; Pa. State Col, 38–42; *instr. animal and dairy husbandry, New Hampshire, and research asst, Exp. Sta, 41–* Dairy Sci. Asn. Carotene in calf nutrition; pathology of calves on low vitamin A diets.

Keener, Prof. Rufus L(aFayette), University of Georgia, Athens, Ga. *Horticulture.* Persimmon, Ga, Dec. 10, 92. B.S.A, Georgia, 21, M.S.A, 32. Adj. prof. *hort,* Ga. State Col, *Georgia,* 21–26, assoc. prof, 26–32, *col. agr,* 32–40, *prof, 40–* Emergency county agent, Ga, 33. Lieut, Inf, 17–18. Asn. South. Agr. Workers; Ga. Hort. Soc; Ga. Veg. Growers Asn; Ga. Acad. Storage of sweet potatoes; vegetable storage; climatic adaptation of vegetables.

Keeney, Dr. Dorothea L(illian), 123 N. E. 97th St, Miami, Fla. *Botany.* Elmira, N. Y, May 2, 96. A.B, Syracuse, 17, A.M, 18, Ph.D, 32. Teacher biol, Drew Sem, Carmel, N. Y, 18–20; head dept, Hwa Nan Col, Foochow, China, 20–26; asst. bot, Syracuse, 17–18, instr, 27–32. Nitrogen fixation in legumes.

Keeney, Robert M(ayro), Connecticut Light and Power Co, Waterbury, Conn. *Metallurgy.* Somersville, Conn, May 28, 87. E.Met, Colo. Sch. Mines, 10. Metallurgist, U. S. Bur. Mines, 13–14; asst. manager, Baker Mines Co, 14–15; metallurgist, Standard Chem. Co, 15–16; Snyder Elec. Furnace Co, 16; manager, Ferro Alloy Co, 16–18; director dept. metal. research, Colo. Sch. Mines, 19–21; indust. heating engineer, Westinghouse Elec. and Mfg. Co, 21–25; *indust. engineer, Conn. Light and Power Co, 25–* Carnegie scholar, British Iron and Steel Inst, 11–12; consulting engineer, U. S. Bur. Mines and indust. concerns, 17–; chief nickel sect. and deputy director gen. indust. equipment div, War Production Board, 42–43. Soc. Metals; Gas Asn. Electrometallurgy; ferro-alloys; electric smelting; alloy steels; industrial heating.

Keenoy, Rev. Francis P(atrick), S.J, Rockhurst College, Kansas City, Mo. *Chemistry.* St. Louis, Mo, Aug. 20, 92. A.B, St. Louis, 19, A.M, 20. Instr. chem, Creighton, 20–23; St., Mary's Col. (Kans), 27–28; prof, Regis Col, 28–30, 34–39; high sch, 31–34; *instr. math, high sch, Rockhurst Col, 39–* Chem. Soc. De-icing solutions for windshields of high-speed trains; anti-sweat solution for windows of air-conditioned trains.

Keeping, Prof. E(rnest) S(ydney), University of Alberta, Edmonton, Alta, Can. *Mathematical physics.* Southsea, Hampshire, Eng, Sept. 19, 95. B.Sc, London; D.I.C, Imp. Col. Science, London, 17. Lecturer, Wales, 22–29; *asst. prof. math, Alberta, 29–* Assoc. Inst. Physics; Inst. Math. Statist; assoc. Royal Col. Sci. Electromagnetic theory; quantum mechanics; probability theory; statistics.

Keesing, Prof. Felix M(axwell), 2837 23rd Road, N, Arlington, Va. *Anthropology.* Penang, Straits Settlements, Jan. 5, 02. B.A, New Zealand, 24, M.A, 25, Litt.D, 33; Yale, 28–29; Laura Spelman fellow, Rockefeller Foundation, 28–30; Chicago, 29–30; London Sch. Econ. and Polit. Science, 33–34. Research staff, Inst. Pacific Relations, 30–34; assoc. prof. and *head dept. anthrop, Hawaii, 34–, prof, 37–* Applied anthropology; the changing life of non-western peoples in modern times; race mixture and cultural change, especially in the Pacific.

Keeton, Dr. R(obert) W(ood), 5555 Sheridan Road, Chicago, Ill. *Medicine.* West Point, Miss, July 7, 83. A.B, Cumberland, 03; A.B, Chicago, 06, M.S, 14; M.D, Northwestern, 16. Asst. physiol, Illinois, 10–12; adj. prof, Albany Med. Col, Union (N. Y), 12–14; asst. pharmacol, Northwestern, 14–16; instr, col. med, Illinois, 18–20, asst. prof. pharmacol. and therapeut, 20–21; assoc. mem, Sprague Mem. Inst, Chicago, and assoc. med, Rush Med. Col, 21–25; assoc. prof. *med, col. med, Illinois,* 25–28, *prof, 28–, head dept, 34–* Summers, instr, Chicago, 13, 15, 16. A.A; Physiol. Soc; Soc. Pharmacol; Inst. Med. Chicago; Chicago Int. Med. Soc. Physiology; pharmacology; gastric secretion; hypophysis and carbohydrate metabolism; fever; nausea; obesity.

Keevil, Prof. Charles S(amuel), 1205 Adams Ave, Lewisburg, Pa. *Chemical engineering.* Woodside, L. I, N. Y, Oct. 3, 99. B.S, Mass. Inst. Tech, 23, M.S, 27, Sc.D, 30. Chem. engineer, 23–26; instr, Mass. Inst. Tech, 27–30; *prof. chem. eng. and head dept,* Oregon State Col, 30–36; *Bucknell, 36–* Chem. Eng; Chem. Soc. Heat transmission.

Keevil, Dr. N(orman) B(ell), University of Toronto, Toronto, Ont, Can. *Chemistry, Physics, Geophysics.* Saskatoon, Sask, Oct. 24, 10. B.Sc, Saskatchewan, 30, M.Sc, 32; Royal Soc. Can. fellow, Mass. Inst. Tech, 37; Ph.D, Harvard, 37. Demonstrator chem, Saskatchewan, 30–33; asst. physical chem, Harvard, 33–37, research assoc. geophysics, 37–38; geol, Mass. Inst. Tech, 38–39; *geophysics, Toronto,* 39–43, *asst. prof, 43–* A.A; Physical Soc; Chem. Soc; Miner. Soc; Geophys. Union; Min. and Metal. Eng. Hydrothermal reactions and vapor pressures; electrochemical and equilibrium data; radioactive tracers; age and heat production of rocks; diffusion; viscosity; gas analysis; polarography; mass spectrometry; geological mapping.

Kehoe, Dr. John A(loysius), University of Scranton, Scranton, Pa. *Psychology.* Ashley, Pa, Sept. 12, 14. A.B, Scranton, 37; Knights of Columbus fellow, Catholic Univ, 37–40, A.M, 38, Ph.D, 41. *Asst. prof. psychol, Scranton, 40–* Summers, instr, Catholic Univ, 40, 41. Assoc. Psychol. Asn. Social psychology; educational psychology.

Kehoe, Dr. Robert A(rthur), 345 Resor Ave, Cincinnati, Ohio. *Physiology.* Georgetown, Ohio, Nov. 18, 93. Ohio State, 14–15; B.S, Cincinnati, 18, M.D, 20, fellow, 39. Pathologist, Cincinnati Gen. Hosp, 19–20; asst. prof. *physiol, col. med, Cincinnati,* 20–31, assoc. prof, 31–39, *research prof, 39–, fellow, grad. sch. arts and sciences, 37–, director Kettering lab. applied physiol.* Mem. cmt. indust. med, Nat. Research Council, 42– A.A; fel. Am. Med. Asn; Chem. Soc; fel. Pub. Health Asn. (chairman cmt. on lead poisoning, indust. hygiene sect, 38–); Physiol. Soc; Indust. Hygiene Asn. (director, 40–43); Asn. Indust. Physicians (director, 41–); Cent. Soc. Clin. Research; Sigma Xi (v. pres, 34); Ohio Acad. (v. pres, 39); Cincinnati Acad. Med. Industrial toxicology; metabolism of trace metals; lead absorption and lead poisoning.

Keighton, Prof. Walter B(arker), Jr, 311 Cedar Lane, Swarthmore, Pa. *Physical chemistry.* Swarthmore, Pa, June 17, 01. A.B, Swarthmore Col, 23; Ph.D, Princeton, 33. Chemist, E. I. du Pont de Nemours and Co, Gibbstown, N. J, 23–24; Sharples Specialty Co, Phila, 24–29; instr. *chem, Swarthmore Col,* 31–36, asst. prof, 36–43, *assoc. prof, 43–* Chem. Soc. Catalytic hydrogenation; autoxidation of petroleum products.

Keil, Elsa M(arie) (Mrs. Ferdinand Sichel), 35 Henderson Terrace, Burlington, Vt. *Zoology.* New Rochelle, N. Y, March 2, 06. B.S, Elmira Col, 27; A.M, Brown, 29. Asst. zool, Brown, 27–29; instr, N. J. Col. Women, Rutgers, 29–34, asst. prof, 34–39; head dept. science, Vt. State Nor. Sch, 39–43; *prof. biol, St. Michael's Col, 43–* Summers, Marine Biol. Lab, Woods Hole. Mem. corp, Marine Biol. Lab, Woods Hole. Soc. Zool. Regeneration in flatworms; effect of cations on regeneration and growth; micrurgical studies on invertebrate and vertebrate muscles.

Keil, Dr. H(avard) Lawrence, Armour and Co, Chicago, Ill. *Physiological chemistry.* St. Louis, Mo, Jan. 7, 99. B.S, Kans. State Col, 28; Ph.D, Iowa State Col, 33. Research technician, Iowa State Col, 28–34; *research biochemist, chem. research dept, Armour and Co, 34–* Chem. Soc. Nutritional anemia; essential elements in nutrition; blood sugar; physiologically active substances; proteins; enzymes.

Keim, Dr. Chris P, Mellon Institute, Pittsburgh, Pa. *Chemistry.* Tecumseh, Nebr, April 6, 06. A.B, Nebr. Wesleyan, 27; Pittsburgh, 27–28; M.Sc, Nebraska, 32, fellow, 37–40, Samuel Avery fellow, 39–40, Ph.D, 40. Head dept. physical sciences, York Col, 33–37; instr. chem, Tulsa, 40–41; research engineer, Sylvania Corp, Mass, 41–42; *research chemist and indust. fellow, Mellon Inst, 42–* Chem. Soc. Physical and surface chemistry; colloid chemistry; effect of electrode materials on sparking potentials in gaseous discharge; spreading of organic liquids and binary mixtures on water and the effect of unimolecular surface films.

Keim, Prof. F(ranklin) D(avid), 1400 N. 37th St, Lincoln, Nebr. *Agronomy.* Hardy, Nebr, Sept. 10, 86. B.S, Nebraska, 14, M.S, 18; Ph.D, Cornell, 27. Sch. supt, 10–11; asst. *agron, Nebraska,* 14–16, exten. specialist, 17–18, *prof, 18–, chairman dept, 30–* A.A; Soc. Agron. (v. pres, 42, pres, 43); Genetic Asn; Ecol. Soc. Agricultural botany; genetics; native grasses of Nebraska; relations of vegetation composition and cattle grazing; identification of prairie grasses by vegetative characters; prairie hay; regional adaptation of corn; weed identification and eradication.

Keipper, Dr. Charles H, Red Star Yeast Co, Milwaukee, Wis. *Bacteriology.* Van Wert, Ohio, 98. B.S.A, Purdue, 26, M.S, 28; fellow, Wisconsin, 30–31, Ph.D, 31. Asst. bacter, Purdue, 26–28; Wisconsin, 28–30; *research bacteriologist and director research, Red Star Yeast Co, 31–* Soc. Bact. Agricultural bacteriology; plant flora; improvement of sauerkraut; immunity.

Keith, Arthur, U. S. Geological Survey, Washington, D. C. **3*Geology.* St. Louis, Mo, Sept. 30, 64. A.B, Harvard, 85, A.M, 86. Asst, U. S. Geol. Surv, 87–94, geologist, 94–34; *retired.* Prof, Texas, 26. Cmts. on tectonics, batholiths and fellowships, Nat. Research Council, chairman div. geol. and geog, 28–30. Int. Cong. Geol, 13. Nat. Acad. (treasurer, 32–); A.A. (finance cmt, 34–); Geol. Soc. (councilor, 13, v. pres, 21, pres, 27); Asn. Geog; Seismol. Soc; Min. and Metal. Eng; Asn. Petrol. Geol; Am. Acad; Geophys. Union; Geol. Soc. Wash. (pres, 14); Wash. Acad. (v. pres, 15). Stratigraphy and structural geology in the United States, especially the Appalachian region of the United States and Canada; earthquakes in New England.

Keith, Dr. M(ackenzie) L(awrence), Queen's University, Kingston, Ont, Can. *Geology.* Edmonton, Alta, Oct. 12, 12. B.Sc, Alberta, 34; M.Sc, Queen's (Can), 36; Ph.D, Mass. Inst. Tech, 39. Field geologist, Ventures, Ltd, 37; Geol. Surv. Can, 38; U. S. Smelting, Ref. and Mining Co, 39–40; *lecturer geol, Queen's (Can), 40–* Field geologist, McIntyre Porcupine Mines, 41. Royal Soc. Can. research fellow, 39. Petrology; petrology of the alkaline rocks; staining techniques for rock minerals.

Keith, Marcia A(nna), 393 Washington St, Braintree, Mass. *Physics.* Brockton, Mass, Sept. 10, 59. Worcester Polytech, 89; B.S, Mt. Holyoke Col, 92; Berlin, 97–98. Teacher, pub. schs, Mass, 76–79; instr. sciences, Mich. Sem, 83–85; math, Mt. Holyoke Col, 85–88, head dept. physics, 89–03; Lake Erie Col, 05–06; asst. to H. C. Keith, consulting engineer, 06–18. A.A; Physical Soc. Heat transmission in gases at low pressures.

Keith, Prof. M(ark) M(ariam), Minnesota State Teachers College, Mankato, Minn. *Cytology.* Armour, S. Dak, Oct. 19, 98. B.S, Idaho, 27, fellow, 27–28, M.S, 28; fellow, Minnesota, 31–33, Ph.D, 33. Instr. and technician, Idaho, 28–31; *prof. biol, Minn. State Teachers Col, 33–* Genetic Asn. Cytology; technique.

Keith, Dr. N(orman) M(acdonnell), 615 Eighth Ave, S. W, Rochester, Minn. *Internal medicine.* Toronto, Ont, Can, June 8, 85. B.A, Toronto, 08; M.D, Hopkins, 11. Instr. med, Hopkins, 14–16; clinician, Toronto, 19–20; asst. prof. *med, Mayo Foundation, Minnesota,* 20–21, assoc. prof, 21–36, *prof, 36–* B.E.F, 18. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Path; Soc. Pharmacol; Physiol. Soc. Surgical shock; dehydration; blood volume; diuretics; renal function; hypertension.

Keith, Prof. T(homas) B(yron), 732 W. College Ave, State College, Pa. *Animal husbandry.* Bowling Green, Mo, April 7, 97. B.S, Idaho, 24; M.S, Illinois, 26; Ph.D, Pa. State Col, 33. Asst. *animal husbandry, Pa. State Col,* 27–33, instr, 33–35, *asst. prof, 35–* Soc. Animal Production; Inst. Nutrition. Protein requirement of the young pig; vitamin requirements of the young; manganese in animal nutrition; cross breeding of lambs.

Keitt, Prof. G(eorge) W(annamaker), University of Wisconsin, Madison, Wis. **7*Botany, Plant pathology.* Newberry,

S. C, June 11, 89. B.S, Clemson Col, 09, Sc.D, 37; M.S, Wisconsin, 11, Ph.D, 14. Asst. plant path, Exp. Sta, Clemson Col, 09; special agent, bur. plant indust, U. S. Dept. Agr, 10, sci. asst, 10–13; asst. prof. *plant path, Wisconsin*, 14–17, assoc. prof, 17–20, *prof, 20–, chairman dept, 30–* Lecturer, Wisconsin, 13. Ed. board, 'Am. Jour. Bot.' 35– C.W.S, 17–19, lieut, capt; major, O.R.C, 19–29. A.A; Soc. Nat; Phytopath. Soc. (v. pres, 34, pres, 37); Bot. Soc; Mycol. Soc; Soc. Exp. Biol; Biol. Soc; Wis. Acad. Parasitism; genetics of phytopathogenic fungi; epidemiology and control of plant diseases.

Kelker, Prof. George H(ills), Utah State Agricultural College, Logan, Utah. *Wildlife management.* Mt. Gilead, Ohio, May 30, 06. A.B, Hiram Col, 28; B.S.F, Michigan, 31, M.S.F, 32, 35–37. Teacher math, high sch, Ohio, 28–29; technician, civilian conservation corps, U. S. Forest Service, 33–35; *asst. prof. wildlife management, Utah State Col, 37–* Summers. field asst, Michigan, 31, 32. A.A; Soc. Foresters; Wildlife Soc; Soc. Mammal; Limnol. Soc; Wilson Ornith. Soc; Utah Acad. Population growths; census methods; ecology.

Kell, Dr. Robert W(arren), 6216 W. 66th Place, Chicago, Ill. *Organic chemistry.* St. Louis, Mo, July 6, 15. B.Ed, South. Ill. State Teachers Col, 37; M.S, Illinois, 38, Ph.D, 41. Asst. org. chem, Illinois, 38–41; *research chemist, Nat. Aluminate Corp, 41–* Chem. Soc; assoc. Inst. Chem. Kinetics and mechanism of vinyl polymerization; organic chemistry of water treatment.

Keller, Prof. Allen D(udley), University of Alabama, University, Ala. *Physiology, Pharmacology.* Minkcreek, Idaho, April 16, 01. B.S, Utah Col, 24; Ph.D, Cornell, 29. Instr. zool, Utah Col, 23–24; asst. physiol, Cornell, 25–26, instr, 26–28; Yale, 28–31; *prof. physiol. and pharmacol, Alabama, 31–* A.A; Physiol. Soc; Soc. Exp. Biol. Brain-stem and related functions.

Keller, Dr. Alvin E(manuel), Vanderbilt University School of Medicine, Nashville, Tenn. *Medicine.* Birmingham, Ala, Oct. 3, 98. A.B, Alabama, 20; M.D, Hopkins, 24. House officer surg, Hopkins Hosp, 24; county health officer, Ala, 25–27; instr. *prev. med. and pub. health, sch. med, Vanderbilt*, 27–30, asst. prof, 30–36, *assoc. prof, 36–* Pub. Health Asn. Preventive medicine; human parasitology; ascariasis; hookworm.

Keller, Pres. Arthur R(ipont), 2456 Oahu Ave, Honolulu, Hawaii. *Engineering.* Buffalo, N. Y, July 28, 82. C.E, Cornell. 03; LL.B, Nat. Univ, 06; M.S, Mass. Inst. Tech, 16; M.S. (C.E), Harvard, 16; hon. Sc.D, Hawaii, 42. Eng. work, 03–09; *prof. civil eng, Hawaii, 09–*, dean col. applied science, 21–42, v. pres, 32–42, acting pres, 41–42, *pres, 42–* Trustee, Queen's Hosp. Civil Eng; Eng. Educ. Hydraulics; models on flood flows and gaging; valuation of utilities.

Keller, Prof. E(dward) L(uther), 610 N. Burrowes St, State College, Pa. *Industrial engineering.* Harrisburg, Pa, March 8, 04. B.S, Pa. State Col, 25. Service inspector, John J. Nesbitt Co, 25–26; instr, *eng. exten, Pa. State Col*, 26–30, asst. prof, 30–34, assoc. prof, 34–35, *prof. and director, 35–* Management Asn; Eng. Educ; Pa. State Asn. Adult Educ. Effective teaching of adults at the professional and scientific level for industrial occupations.

Keller, Dr. Ernest George, 1316 Bruce Ave, Glendale, Calif. *Mathematics.* Axtell, Kans, Nov, 96. B.A, Alberta, 18; M.S. and Ph.D, Chicago, 28. Instr. math, Purdue, 20–21; Wisconsin, 21–26; asst. prof, Pa. State Col, 26–27; Texas, 27–28, assoc. prof, 34–36, prof, 36–39, elec. eng, 39–41; mathematician, Gen. Elec. Co, 29–34; *consulting engineer, Lockheed Aircraft Corp, 41–* Math. consultant, Gen. Elec. Co, 34–41. U. S. Navy, 18. Rotating electrical machinery; nonlinear circuits; dynamic braking; analytical nonlinearity; compressibility in aerodynamics; landings of elastic airplanes; airplane control systems.

Keller, Dr. F(red) S(immons), Columbia University, New York, N. Y. *Psychology.* Rural Grove, N. Y, Jan. 2, 99. B.S, Tufts Col, 26; A.M, Harvard, 28, Ph.D, 31. Instr. *psychol*, Tufts Col, 26–29; asst. and tutor, Harvard, 29–31; *instr*, Columbia, 31–38; *Columbia, 38–* Assoc. Psychol. Asn; Hist. Sci. Soc. Animal and child psychology.

Keller, Dr. Jacob L(ouis), 345 Walnut Ave, Cranford, N. J. *Organic chemistry.* New York, N. Y, Sept. 19, 12. A.B, Fordham, 33, M.S, 35, Ph.D, 38. Instr. gen. and anal. chem, Cathedral Col, 33–37; *research chemist, research lab*, Atlas Powder Co, 37–40; *Gen. Aniline Works, 41–* Lecturer, sch. business, Fordham, 35–36. Chem. Soc. Oxidation of sugars and sugar derivatives; organic acids; dyestuffs and intermediates.

Keller, Prof. J(ohn) C(alvin), 39 N. 15th St, Allentown, Pa. *Chemistry.* Sidney, N. Y, May 7, 98. B.S, Colgate, 21; Ph.D, Cornell, 26. Asst. *chem*, Cornell, 21–26; instr, Lehigh, 26–27; *prof, Muhlenberg Col, 27–* Chem. Soc. Physical chemistry; electrochemistry.

Keller, J(ohn) O(rvis), 218 E. Prospect Ave, State College, Pa. *Industrial engineering.* Bellefonte, Pa, April 1, 93. B.S, Pa. State Col, 14, M.S, 19. Safety engineer, Ocean Accident and Guarantee Corp, 14–16; instr. indust. eng, Pa. State Col, 16–17, asst. prof, 18–19; assoc. prof. mech. eng, Iowa State Col, 19–21; assoc. prof. and prof. indust. eng, *Pa. State Col*, 21–25, prof. eng. exten, 25–34, *asst. to pres. in charge exten, 34–* Surveyor, San Pedro, Los Angeles and Salt Lake R. R. South. Calif, 12–13; draftsman, Utah Power and Light Co, Salt Lake City, 13. Summers, Aluminum Castings Co, Detroit; Austin Co, Cleveland; Westinghouse Elec. and Mfg. Co, S. Phila. and E. Pittsburgh; Winchester Repeating Arms Co, New Haven; Pratt and Whitney Co, Hartford. Nat. Cmt. Educ. by Radio. 2nd lieut, Ordnance Dept, 17–18. Indust. Eng; Eng. Educ; Nat. Univ. Exten. Asn. (pres, 40); Pa. State Asn. Adult Educ. (pres, 39–41). Industrial problems pertaining to personnel and training; hardness testing for machinability and drawability of metals; education by radio.

Keller, Dr. Joseph M(ichels), Columbia University, New York, N. Y. *Physics.* New York, N. Y, April 23, 11. B.S, Harvard, 32; Ph.D, California, 40. Lecturer *physics*, British Columbia, 40–41; instr, Washington (St. Louis), 41–42; *lecturer, Columbia, 42–* Physical Soc. Theoretical physics; determination of the fine structure constant.

Keller, Dr. M(arion) Wiles, Purdue University, Lafayette, Ind. *Mathematics.* Dayton, Ohio, June 21, 05. A.B, Ohio Wesleyan, 26; A.M, Indiana, 29, Ph.D, 32. Teacher, high schs, Ohio, 26–27, 33–36; head dept. *math*, Kansas Wesleyan, 27–28; teaching asst, Indiana, 28–29, 30–31, instr, 29–30; *Purdue*, 36–42, *asst. prof, 42–* Math. Asn. (sec'y-treas, Ind. sect, 41–). Applied mathematical analysis; educational statistics.

Keller, Dr. R(aymond) N(evoy), 1317 Pontiac St, Ann Arbor, Mich. *Inorganic chemistry.* Wolcott, Ind, April 21, 09. A.B, Indiana, 37, A.M, 37; Ph.D, Illinois, 40. Reporter, The Bradstreet Co, Ft. Wayne, Ind, 30–32; sec'y to director athletics, Indiana, 34–36, asst. *chem*, 36–37; Illinois, 37–39, fellow, 39–40; *instr*, Wisconsin, 40–42; *Michigan, 42–* Chem. Soc. The catalytic activity of the sulfides of copper and bismuth in the reduction of nitrobenzene; coordination compounds of platinum, chromium and cobalt; mineral resources of the chemical industries.

Keller, Prof. W(alter) D(avid), University of Missouri, Columbia, Mo. *Geology, Ceramics.* North Kansas City, Mo, March 13, 00. A.B, Missouri, 25, A.M, 26, Gregory fellow, Ph.D, 33; B.S, Mo. Sch. Mines, 30; Leverett Saltonstall scholar, Harvard, A.M, 32. Instr, Missouri, 26–29; ceramic technologist, A. P. Green Fire Brick Co, 29–31; asst. prof. *geol, Missouri*, 32–36, *assoc. prof, 36–* A.A; Ceramic Soc; Miner. Soc; Geophys. Union; Min. and Metal. Eng; Geol. Soc. Sedimentary petrography; ceramic technology.

Keller, Dr. W(ayne) H(icks), Iowa State College, Ames, Iowa. *Physical chemistry.* Henderson, Ky, July 8, 99. A.B, Georgetown Col, 21; M.S, Kentucky, 32; Ph.D, Cornell, 37. Instr. chem, Kentucky, 27–38; assoc. prof, Morehead State Teachers Col, Ky, 38–42; *research assoc. physical chem, Iowa State Col, 42–* Asst, Cornell, 35–37. A.A; Chem. Soc. (sec'y and chairman, local sect). Stability of lyophobic sols; absorption spectra at low temperatures; war research.

Keller, Dr. Wesley, Utah State Agricultural College, Logan, Utah. *Plant breeding, Genetics.* Logan, Utah, Dec. 13, 05. B.S, Utah State Agr. Col, 29, M.S, 32; fellow, Wisconsin, 34–36, Ph.D, 39. Agent, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–33; technician, Intermountain Forest and Range Exp. Sta, U. S. Forest Service, 33–34; agent, *div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr*, 36–38, *assoc. geneticist, 38–* A.A; Genetic Asn; Soc. Agron. Color inheritance in beets; forage plant improvement; range and pasture grass breeding and genetics.

Kellermann, William Francis, Federal Works Agency, Public Roads Administration, Washington, D. C. *Engineering.* Washington, D. C, Jan. 3, 01. B.S, Maryland, 26, C.E,

30. *Senior materials engineer, pub. roads admin, Fed. Works Agency, 20–* Concrete pavements and bridges and materials used in connection with the construction of highways.

Kellert, Dr. Ellis, Ellis Hospital, Schenectady, N. Y. *Pathology.* Albany, N. Y, July 16, 86. M.D, Albany Med. Col, Union (N. Y), 09; Harvard. Prof. path, Albany Med. Col, Union (N. Y), 13–16; *director,* Bender Hygienic Lab, 13–23; *labs, Ellis Hosp, and City and County of Schenectady, 23–* Huntington Hosp, 12–13; pathologist, North Adams Hosp, 22–; Plunket Mem. Hosp, Adams, Mass, 29–; Putnam Mem. Hosp, Bennington, Vt, 29– Harvard Cancer Cmt. A.A; Asn. Path. and Bact; Am. Med. Asn; Pub. Health Asn; Asn. Cancer Research; N. Y. Asn. Pub. Health Labs. (pres, 33); Int. Asn. Med. Mus. Cancer; tuberculosis; blood diseases.

Kelley, Dr. Arthur Pierson, Landenberg, Pa. *Botany.* Malvern, Pa, Aug. 15, 97. B.S, Pennsylvania, 20, A.M, 21, Ph.D, 23. Instr. bot, Rutgers, 22–26, asst. prof, 26–28; research, Boyce Thompson Inst, 28–29; fellow, Hopkins, 29–30; *research, 30–* Ecological botany.

Kelley, E(arl) F(oster), 6409 Maple Ave, Chevy Chase, Md. *Highway engineering.* Latimer, Iowa, July 29, 86. B.C.E, Iowa State Col, 09, C.E, 19. Struct. detailer and checker, Am. Bridge Co, Pa, 09–13; asst. designing engineer and asst. bridge engineer, Highway Cmn, Iowa, 13–19; chief draftsman, Red Oak Bridge and Iron Works, Iowa, 19–20; highway bridge engineer, *bur. pub. roads, U. S. Dept. Agr,* 20–25, *chief div. tests, 25–* Soc. Test. Mat; Asn. Asphalt Paving Technol. Highway bridges and research.

Kelley, Dr. Edward G(ilman), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Biochemistry.* Brewer, Maine, March 11, 07. A.B, Maine, 29; M.S, N. Y. Univ, 30; fellow, Columbia, 31–32, Ph.D, 35. Asst. physiol, N. Y. Univ, 29–30; biochem, Columbia, 30–31, 32–33; research chemist, Calco Chem. Co, 33–35; biochem. research, Franklin Inst, 35–41; *chemist, east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Staining reactions of extracted nucleoproteins, mucoproteins, nucleic acid and proteins compared with staining in thymus and tumor tissue; utilization of vegetable products; vitamin analysis and sources.

Kelley, Dr. G(eorge) L(eslie), Pressed Steel Co. of Gt. Britain, Ltd, Cowley, Oxon, Eng. *Chemistry.* Quincy, Mass, June 30, 79. B.S, Harvard, 07, Ph.D, 11. Austin teaching fellow, Harvard, 07–09, instr. chem, 09–12; research chemist, Midvale Steel and Ordnance Co, 12–21; research director, Edward G. Budd Mfg. Co, 21–31; *director and gen. manager, Pressed Steel Co. of Gt. Britain, Ltd, 31–* A.A; Soc. Automotive Eng; Franklin Inst; Inst. Automobile Eng, London; Oxford Eng. Soc. (pres, 33–41). Analytical and organic chemistry; metallurgy.

Kelley, Prof. J(ohn) L(eRoy), Notre Dame University, Notre Dame, Ind. *Mathematics.* Kansas City, Kans, Dec. 6, 16. A.B, California at Los Angeles, 36, A.M, 37; Ph.D, Virginia, 40. Instr, Virginia, 38–40; *asst. prof. math, Notre Dame, 40–* Math. Soc; Math. Asn. Topology.

Kelley, Dr. Kenneth K(eith), U. S. Bureau of Mines, University of California, Berkeley, Calif. *Physical chemistry.* Columbus, Ohio, Dec. 16, 01. A.B, Stanford, 23, A.M, 24, Ph.D, 26. Instr. applied math, Stanford, 23–25, math, 25–26; nat. research fellow, California, 26–28; acting asst. prof. chem, Stanford, 28–29; assoc. chemist, *U. S. Bur. Mines,* 29–37, chemist, 37–41, *senior chemist, 41–* Chem. Soc. Specific heats at low and high temperatures; application of thermodynamic methods to metallurgical reactions.

Kelley, Prof. K(enneth) L(loyd), 321 E. Erie St, Kent, Ohio. *Zoology.* Covington, Pa, Jan. 28, 01. B.S, Pa. State Col, 26; M.S, Pittsburgh, 30, Ph.D, 35. Teacher, high schs, Pa, 26–29; asst, Pittsburgh, 29–32, instr, 32–33; asst. prof. and later *assoc. prof. zool, Kent State Univ, 35–* Experimental morphology; embryology; pigmentation of Triturus.

Kelley, Prof. Louise, Goucher College, Baltimore, Md. *Organic chemistry.* Franklin, N. H, Oct. 10, 94. A.B, Mt. Holyoke Col, 16, A.M, 18; Ph.D, Cornell, 20; Graz, 29. Instr. *chem,* Wheaton Col, 17–18; asst. prof, *Goucher Col,* 20–23, assoc. prof, 23–30, *prof, 30–* Asst. ed, 'Chem. Reviews,' 29–; 'Jour. Physical Chem,' 37– A.A; Chem. Soc; Inst. Chem. Syntheses of organic compounds.

Kelley, M(anley) A(lexander) R(aymond), 4817 Davenport St, N. W, Washington, D. C. *Agricultural engineering.* Battle Creek, Iowa, April 2, 88. B.S. (M.E), Iowa State Col, 12, B.S. (A.E), 13, A.E, 22. Instr. in charge agr. eng, Missouri, 13–16; in charge service bur, Louden Machinery Co, Iowa, 16–18; *agr. engineer, bur. agr. eng, U. S. Dept Agr, 18–* Agr. Eng. (past v. pres); Soc. Animal Production (chairman, farm building research cmt). Farm building ventilation; farm structure design; ventilation of farm barns; farm bulk storage for small grain; sweet potato storage houses; improvements of old bank dairy barns.

Kelley, Dr. Noble H(enry), University of Louisville, Louisville, Ky. *Psychology.* Thamesville, Ont, Can, Aug. 10, 01. A.B, Iowa, 33, A.M, 35, Ph.D, 36. *Asst. prof. psychol, Louisville, 37–* Assoc. Pyschol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn; Ky. Psychol. Asn. Human hearing; diagnosing speech of deaf children; personality adjustment.

Kelley, Prof. Truman L(ee), Harvard University, Cambridge, Mass. ***Psychology.* Muskegon, Mich, May 25, 84. A.B, Illinois, 09, A.M, 11; Ph.D, Columbia, 14. Adj. prof. math, Ga. Tech, 09–10; teacher, high sch, Calif, 11–12; consulting psychologist, Culver Mil. Acad, 13–14; adj. prof. educ. psychol, Texas, 14–17; asst. prof. educ, Teachers Col, Columbia, 17–20; acting prof, Stanford, 20–21, *prof,* 22–26, educ. and psychol, 26–30; *educ, Harvard, 30–* Expert psychol. service, Nat. Research Council; psychologist, cmn. on investigation social studies, Am. Hist. Asn, 29–33. Sanit. C, U.S.A. A.A. (v. pres, Q, 28); Psychol. Asn; fel. Statist. Asn. (v. pres, 26); Soc. Study Educ; Eugenics Soc. (advisory council); Asn. Directors Educ. Research; Psychometric Soc. (pres, 38); fel. Am. Acad. Mental measurement; educational and vocational guidance; social statistics.

Kelley, Prof. Victor W(endell), University of Illinois, Urbana, Ill. *Pomology.* Garrett, Ill, June 6, 89. B.S, Illinois, 21, M.S, 23, Ph.D, 29. Instr, high sch, Ill, 18–20; asst. agr. educ, *Illinois,* 21–23, assoc. *pomol,* 23–30, asst. prof, 30–35, *assoc. prof, hort. exten, 35–* Soc. Hort. Sci. Pomological physiology; effect of oil sprays on respiration and transpiration of fruit plants; heading and ringing apple trees; effect of pruning on growth; relation of transpiration rate to leaf form and drought resistance; respiration as a measure of hardiness; relation of firmness to picking maturity of the Elberta peach.

Kelley, Prof. Vincent C(ooper), University of New Mexico, Albuquerque, N. Mex. *Economic geology.* Seattle, Wash, July 6, 04. A.B, California at Los Angeles, 31; Southern California, summers, 31, 32; M.S, Calif. Inst. Tech, 32, Ph.D, 37. Instr. *geol, New Mexico,* 37–38, asst. prof, 38–41, *assoc. prof, 41–* Junior geologist, U. S. Geol. Surv, 38–42, asst. geologist, 42– A.A; Min. and Metal. Eng. Geology and ore deposits in the San Juan Mountains, Colorado.

Kelley, Prof. Walter P(earson), University of California, Berkeley, Calif. *Chemistry, Soil science.* Franklin, Ky, Feb. 19, 78. B.S, Kentucky, 04; M.S, Purdue, 07; Ph.D, California, 12. Asst. chemist, Exp. Sta, Purdue, 05–08; chemist, Exp. Sta, Hawaii, 08–14; *prof.* agr. chem, Citrus Exp. Sta, *California,* 14–39, *soil chem, univ, 39–* A.A; Chem. Soc; fel. Soc. Agron. (pres, 30); Soil Sci. Soc; Geophys. Union; West. Soc. Nat; Int. Soc. Soil Sci. Nitrogen utilization by rice; effect of heat on soils; composition of Hawaiian soils; forms of nitrogen in soils; nitrification; effect of boron on citrus and walnut trees; cation exchange; alkali soils; crystallinity of soil colloids; crystal structure in relation to base exchange; clay minerals of soils; soil science and geology.

Kelley, Dr. W(illiam) H(enry), Medical College of the State of S. C, Charleston, S. C. *Bacteriology.* Coffee Co, Ala, Feb. 2, 03. M.D, Georgia, 26. Res. physician, Univ. Hosp, Georgia, 28–29; asst. res. physician, Rockefeller Inst. Hosp, 29–31; prof. exp. med, med. sch, Georgia, 33–34; assoc. *med,* sch. med, Duke, 34–37; *prof, Med. Col. State of S. C,* 37– Fel. Col. Physicians. Pneumococcus infection; malaria.

Kellner, Dr. Henry L(ouis), 16 Cherry Ave, Waterbury, Conn. *Chemical engineering.* Philadelphia, Pa, Sept. 18, 05. B.S, Pa. State Col, 26; Ph.D, Yale, 30. Research chemist, Scovill Mfg. Co, 27–29; chem. engineer, Doherty Research Co, 30–33; East. Eng. Co, 33–35; chem. engineer and later *sec'y and tech. director, Lea Mfg. Co, 35–* Chem. Soc; Electroplaters Soc. Metal coloring processes; fractional distillation petroleum hydrocarbons; buffing and polishing compounds.

Kellogg, Dr. (Arthur) Remington, U. S. National Museum, Washington, D. C. *Zoology, Paleontology.* Davenport,

Iowa, Oct. 5, 92. A.B, Kansas, 15, A.M, 16; Ph.D, California, 28. Biologist, museum, Kansas, 13–15; teaching fellow, California, 16–20; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 20–24, assoc. biologist, 24–28; asst. curator *div. mammals, U. S. Nat. Museum*, 28–40, *curator, 41–* Field naturalist, bur. biol. surv, U. S. Dept. Agr, 15–17; research assoc, Carnegie Institution, 22– Am. del, Int. Conf. Regulation Whaling, London, 37, Oslo, 38, London, 38. Mem. cmt. on whales, Econ. Cmt. League of Nations, Berlin, 30; mem. div. biol. and agr, Nat. Research Council, 35– Paleont. Soc; Soc. Mammal. (director, 27–); Soc. Nat; Crop Protection Inst. (director, 35); Soc. Ichthyol. and Herp; Asn. Anat; Nat. Parks Asn. (trustee, 31–); Biol. Soc. Wash. Pelagic mammals; mammals; herpetology.

Kellogg, Cha(rle)s E(dward), 920 15th, Wilmette, Ill. *Biology.* Red Cloud, Nebr, Oct. 10, 90. A.B, Doane Col, 12; B.S.A, Nebraska, 17; M.S, Georgia, 28. Teacher and prin, high schs, Nebr, 12–15; sci. asst. animal husbandry, bur. animal indust, U. S. Dept. Agr, 17–19; exten. animal husbandman, Ga. State Col, Georgia, 19–21, assoc. prof. animal husbandry, 21–26, prof, 26–32; *biologist, sect. fur resources, fish and wildlife service, U. S. Dept. Interior, 32–* 2nd lieut, Q.M.C, 17–18. Soc. Animal Production; Biol. Soc. Wash. Feeding beef cattle; breeding, growing, feeding and management of sheep; live stock production; native sheep for spring lamb production; rabbit production; fur animal feeding and management; pelt qualities and values.

Kellogg, Dr. Charles E(dwin), U. S. Department of Agriculture, Washington, D. C. *Soils.* Ionia, Mich, Aug. 2, 02. B.S, Mich. State Col, 25, fellow, 26–28, Ph.D, 29. Asst. soils, Mich. State Col, 25–26; soil scientist, Wis. Geol. and Nat. Hist. Surv, 28–30; asst. prof. in charge soils, N. Dak. Col, 30–34, prof, 34–35; *chief div. soil surv, bur. plant indust, U. S. Dept. Agr, 35–*, prin. soil scientist, 35–42, *head soil scientist, 42–* U. S. del, Int. Cong. Soil Science, England, 35; Int. Inst. Agr, Rome, 38; Inter-Am. Conf. Agr, Mexico City, 42. A.A; fel. Soc. Agron; Soil Sci. Soc. (pres, 41); fel. Asn. Am. Geog; fel. Am. Geog. Soc; Int. Soc. Soil Sci. Soil and land classification; rural land use planning; soil profile development; soils and social development.

Kellogg, Prof. Chester E(liah), 615 Pine Ave, St. Lambert, Que, Can. *Psychology.* Melrose, Mass, Nov. 11, 88. A.B, Bowdoin Col, 11; A.M, Harvard, 12, Austin fellow, 12–13, Ph.D, 14. Asst. psychol, Radcliffe Col, 13–14; lecturer, Bryn Mawr Col, 14–15; instr, Minnesota, 15–16; develop. specialist grading and testing, war plans div, Gen. Staff, U.S.A, 20–21; prof. psychol. and educ, Acadia, 21–24; *assoc. prof. psychol, McGill, 24–* Supervisor research on the unemployed, 31– Psychol. examiner, med. dept, U.S.A, 17; Sanit. C, 18–20, capt. Psychol. Asn. Alternation and interference of feelings; maze reactions; relative values of intelligence tests and matriculation examinations; social-psychological version of the esthetic attitude; revision of U. S. Army Beta examination; occupational abilities of the unemployed; factor analysis; army tests.

Kellogg, Prof. C(laude) R(upert), Fukien Christian University, Foochow, China. *Economic entomology.* Minneapolis, Minn, April 6, 86. A.B, Denver, 09; A.M, Wisconsin, 18; fellow, Maryland, 31. Asst, Denver, 08–09; teacher science, Anglo-Chinese Col, Foochow, China, 10–18; prof. zool, Fukien Christian Univ, 18–31; asst. prof, Mass. State Col, 31–35; *prof. entom, Fukien Christian Univ, 35–* Collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 35– Summer, field asst, bee culture lab, U. S. Dept. Agr, 31. Asn. Econ. Entom; fel. Peiping Soc. Nat. Hist. Apiculture; sericulture.

Kellogg, Dr. F(rederic) H(artwell), Care of Tennessee Valley Authority, Knoxville, Tenn. *Civil engineering.* Pittsburgh, Pa, July 31, 04. Geol.E, Colo. Sch. Mines, 27; A.M, Hopkins, 29, Ph.D, 34. Research dept, Pittsburgh Coal Co, 27; fuel div, U. S. Geol. Surv, 28–29; geologist, Panama Canal, 29–34; *engineer, Tenn. Valley Authority, 34–* Engineering geology; foundation engineering; soil mechanics.

Kellogg, Dr. J(erome) M(erle) B(lake), Columbia University, New York, N. Y. *Physics.* Des Moines, Iowa, Feb. 18, 05. A.B, Iowa, 28, M.S, 29, Ph.D, 32. Research assoc. *physics, Columbia,* 33–35, instr, 35–42, *asst. prof, 42–* Molecular beams.

Kellogg, Dr. John Harvey, 202 Manchester St, Battle Creek, Mich. *Surgery.* Tyrone, Mich, Feb. 26, 52. Mich. State Nor. Sch, 72; M.D, Bellevue Hosp. Med. Col, 75; LL.D, Olivet Col. (Mich), 13, Lincoln Mem. Univ, 21. Med. director and surgeon, *Battle Creek Sanitarium, Mich,* 76–42, *supt, 42–* Pres, Battle Creek Col, 23–26; mem, State Board Health, Mich, 78–90, 12–16; founder and med. director, Miami-Battle Creek Sanitarium, Miami Springs, Fla. Ed, 'Good Health,' 73– A.A; fel. Col. Surg; Am. Med. Asn; Eugenics Soc; Pub. Health Asn; Calhoun County Med. Soc. (pres, 87); Royal Soc. Med. Dietetics; nutrition; physiotherapy; anthropometry; physical education; light therapeutics; electrotherapy; eugenics; race betterment; public health.

Kellogg, L(eonard) F(ield), U. S. Forest Service, Columbus, Ohio. *Forestry.* Marshalltown, Iowa, Feb. 4, 00. Chicago, 18–20; B.S, California, 24; M.F, Yale, 27. Junior forester, Shasta Nat. Forest, Calif, 24–26; Appalachian Forest Exp. Sta, *U. S. Forest Service,* Asheville, 26, *Cent. States Forest Exp. Sta,* 27–28, asst. silviculturist, 28–31, assoc. silviculturist, 31–35, *silviculturist, 35–* Soc. Foresters. Forestation; yield of forest plantations; growth, yield and condition of black walnut and black locust in plantations of the Middle West; land use in relation to flood control and water problems; mensuration.

Kellogg, Prof. (Peter) Paul, Cornell University, Ithaca, N. Y. *Ornithology.* Wilkes-Barre, Pa, Dec. 13, 99. Ph.D, Cornell, 38. *Asst. prof. ornith, Cornell, 29–* Lecturer, N. Y. State Exten. Service. Ornith. Union. Bird songs; hearing range of birds; methods of recording biological sounds in the field.

Kellogg, Dr. Wilfred H(arvey), University of California, Berkeley, Calif. *Bacteriology, Immunology.* Arkansas City, Kans, Sept. 3, 71. Ph.G, California, 92, M.D, 96. Bacteriologist, Board Health, San Francisco, 00–03; acting asst. surgeon, U. S. Pub. Health Service, plague investigations, Venezuela, 09–11; clin. instr. prev. med, Stanford, 12–15; asst. clin. prof. *prev. med. and hygiene, California,* 17–28, assoc. prof, 28–41, *emer. assoc. prof, 41–*; director, State Hygiene Lab, 17–41. Lecturer, Southern California. Sec'y and exec. officer, State Board Health, Calif, 18–20; director labs, San Francisco, 12–17. Soc. Bact; fel. Pub. Health Asn; fel. Am. Med. Asn; Soc. Exp. Biol; Calif. Acad. Med. Pathology and bacteriology of plague; epidemiology of a pneumonic outbreak of plague; antigens used in the Wassermann test; diphtheria immunity; control measures in influenza; the Kellogg test.

Kellogg, Prof. W(inthrop) N(iles), Indiana University, Bloomington, Ind. *Psychology.* Mt. Vernon, N. Y, April 13, 98. A.B, Indiana, 22; A.M, Columbia, 27, Ph.D, 29. Asst. psychol, Columbia, 27–29; asst. prof. *exp. psychol, Indiana,* 29–30, assoc. prof, 30–37, *prof, 37–*; *major, U. S. Army, 42–* Social Science Research Council fellow, 31–32. Summer, prof, Columbia, 33, 34. A.A; Psychol. Asn. Psychophysics; genetic, experimental and comparative psychology.

Kellum, Dr. Lewis B(urnett), University of Michigan, Ann Arbor, Mich. *Geology, Paleontology.* Baltimore, Md, March 24, 97. A.B, Hopkins, 19, Ph.D, 24. Asst. geologist, Carter Oil Co, Okla. and N. Mex, 19–20; geologist, Standard Oil Co. of N. J, Mex, 20–21, 24–28; instr. *geol, Michigan,* 28–29, asst. prof, 29–37, *assoc. prof, 37–, director museum paleont, 41–* Chief geologist, N. Z. Petrol. Co, Ltd, 38–40. Summers, geologist, Standard Oil Co. of N. J, Mex, 22; U. S. Geol. Surv, 23. Director, Univ. Mich. expeds, 30– 2nd lieut, Inf, 18. A.A; Geol. Soc; Paleont. Soc; Asn. Petrol. Geol; Mich. Acad; Royal Soc. N. Z. Tertiary paleontology and stratigraphy of North Carolina; Mesozoic stratigraphy and mountain structure of northern Mexico.

Kelly, Dr. A(rthur) R(andolph), 1522 East-West Highway, Silver Spring, Md. *Anthropology.* Hubbard City, Texas, Oct. 27, 00. A.B, Texas, 21; Hemenway fellow, Harvard, 25–27, A.M, 26, fellow, 29, Ph.D, 29. Curator anthrop, Texas, 21–23, instr, 23–25; asst, Harvard, 26–28; nat. research fellow, 29–30; asst. prof. in charge field explorations, Cahokia and Starved Rock, Illinois, 30–33; technical supervisor and archeologist in charge archeol. explor, Ocmulgee Nat. Monument, 33–37; assoc. archeologist, *Nat. Park Service,* 38, *chief archeol. sites div, 38–* Asst, Social Sci. Research Council grants, Harvard, 27–29. Summers, leader, Santa Fe Lab. Anthrop. exped, Macon, Ga, 36; director field session, Chaco Canyon, New Mexico, 38. Asn. Physical Anthrop. American archeology; physical and criminal anthropology; mound archeology of the upper Mississippi and southeastern United States; comparative racial morphology of Cherokee full and mixed bloods; socio-anthropometric study of Mexican mixed-bloods in Texas;

archeology of central Georgia; national conservation and preservation of archeological sites.

Kelly, C(larence) F(rancis), 2340 Storm St, Ames, Iowa. *Agricultural engineering.* Lawton, N. Dak, Oct. 18, 06. B.S, N. Dak. State Col, 31, M.S, 33. Senior engineer, State Dept. Conservation, Ill, 33–35; acting head dept. agr. eng, N. Dak. State Col, 35; *assoc. agr. engineer, div. farm structures research, bur. agr. chem. and eng, U. S. Dept. Agr, 36–* Soc. Agr. Eng. Farm structures; storage and drying of grain.

Kelly, Dr. C(lifford) D(arton), McGill University, Montreal, Que, Can. *Bacteriology.* New Westminster, B. C, Dec. 25, 94. B.A, British Columbia, 22, M.A, 24; fellow, N. Y. Exp. Sta, Geneva, 29–30; Ph.D, Cornell, 32. Asst. bacter, British Columbia, 22–24; director labs, Fraser Valley Milk Producers' Asn, Vancouver, B. C, 24–29; instr. bacter, Cornell, 31; research fellow, N. Y. Exp. Sta, Geneva, 32–33; Bergey's 'Manual of Determinative Bacter,' 33–34; bacteriologist, Old Tavern Farm, Portland, 34–36; research assoc, N. Y. Exp. Sta, Geneva, 36–37; lecturer *bacter. and immunity, McGill,* 37–42, *asst. prof,* 42– Soc. Bact; Dairy Sci. Asn; Can. Soc. Tech. Agr. Bacteriological and chemical changes in cheese ripening; bacteriology of dairy starters and market milk; taxonomy; spoilage of evaporated milk and other foods; physiology.

Kelly, Dr. E(dward) G(uerrant), Kansas State College, Manhattan, Kans. *Entomology.* Fulton, Ky, July 25, 80. B.S, Kentucky, 03, M.S, 04; Ph.D, Iowa State Col, 27. Asst. to state entomologist, Ill, 04–07; asst. entomologist, U. S. Dept. Agr, 07–18; *exten. entomologist, Kans. State Col, 18–* Entom. Soc; Asn. Econ. Entom; Kans. Acad; Entom. Soc. Wash. Control of farm crop insects; state-wide insect control of major pests like Hessian flies, grasshoppers, chinch bugs and ox warbles; spread of insect control practices.

Kelly, Ernest, U. S. Department of Agriculture, Washington, D. C. *Dairy industry.* Washington, D. C, Nov. 28, 83. Cornell, 02–06. Sanitarian, Fairfield Dairy Co, N. J, 06–07; Newark Milk and Cream Co, 08–09; deputy dairy and food commissioner, Wash, 09–10; senior market milk specialist, *bur. dairy indust, U. S. Dept. Agr,* 10–38, *asst. chief, 38–* Milk Sanit. Advisory Board, U. S. Pub. Health Service. Dairy Sci. Asn; Int. Asn. Milk Sanitarians (pres, 20). Market milk; dairy sanitation; factors affecting marketability of milk and cream; construction, equipment and operation of city milk plants.

Kelly, Dr. E(vander) F(rancis), 2215 Constitution Ave, Washington, D. C. *Pharmacy.* Carthage, N. C, July 2, 79. Phar.D, Maryland, 02; hon. Sc.D, Temple, 33. Instr. pharmacy, *Maryland,* 03–06, assoc. prof, 06–17, prof, 17–25, chem, *dental sch,* 16–22, dean, 18–26, *advisory dean, 26–; lecturer pharmacy, Hopkins, 17–; sec'y, Am. Pharmaceut. Asn, 26–* Pharmacist, Sharp and Dohme, 02–11. State Board Health, Md, 20– Revision cmt, U. S. Pharmacopoeia, 20–30, mem. board trustees, 30–; mem, Am. Council Pharmaceut. Educ, 32– Remington medal, Am. Pharmaceut. Asn, 33. A.A; Pharmaceut. Asn. (chairman, house delegates, 20–22, treas, 22–25); Asn. Cols. Pharm. (v. pres, 21); Md. Pharmaceut. Asn. (sec'y, 07–42); Md. Acad. Preparation and standardization of drugs and medicines; pharmaceutical education and organization.

Kelly, Lieut. Commander E(verett) Lowell, Aviation Psychology Section, Bureau of Medicine and Surgery, Washington, D. C. *Psychology.* Kokomo, Ind, Nov. 15, 05. B.S, Purdue, 26; fellow, Colo. State Teachers Col, Greeley, 27–28, A.M, 28; Ph.D, Stanford, 30. Prin, high sch, N. Mex, 26–27; asst. psychol, Stanford, 28–30; asst. prof. educ. and psychol, Hawaii, 30–31, assoc. prof. psychol. and director admissions, 31–33; asst. prof. *psychol,* Conn. State Col, 33–37, assoc. prof. and head dept, 37–39; *assoc. prof, Purdue, 39–; lieut. commander, U. S. Naval Res.* Social Science Research Council fellow, Germany, Austria and Switzerland, 32–33. Summers, instr, N. Mex. Nor. Univ, 27; Purdue, 30, Missouri, 39. Asn. Applied Psychol; Psychol. Asn; Ind. Asn. Clin. Psychol. Clinical psychology; tests and measurements; personality factors in marital compatibility; pilot selection and training.

Kelly, Dr. Frank L, 1438 Hawthorne Terrace, Berkeley, Calif. *Public health.* Oakland, Calif, July 12, 84. B.S, California, 08, M.D, 12, M.S, 14, Dr.P.H, 24. State Board Health, Calif, 15–23; asst. prof. pub. health admin, California, 23–37; *health officer, Berkeley,* 23–25, *28–* Lecturer, med. sch, California. Am. Med. Asn; Pub. Health Asn. Communicable diseases; public health administration.

Kelly, Prof. Geo(rge) A(lexander), 710 Park Ave, Hays, Kans. *Psychology.* Perth, Kans, April 28, 05. A.B, Park Col, 26; A.M, Kansas, 28; Minnesota, 28; exchange fellow, Edinburgh, 29–30, B.Ed, 30; Ph.D, Iowa, 31. Instr. *psychol,* Sheldon Jr. Col, Iowa, 27–29; asst. prof, *Ft. Hays Kans. State Col,* 31–39, *assoc. prof, 39–; director, Ft. Hays Kans. State Psychol. Clinic, 35–* Summers, prof, Ohio State, 38; assoc. prof, Chicago, 40; prof, Nebraska, 42. A.A; Psychol. Asn; fel. Asn. Applied Psychol. (board affiliates); fel. Speech Correction Asn. Physiological psychology; psychopathology; statistics.

Kelly, Dean G(eorge) Lombard, University Place, Augusta, Ga. *Biology.* Augusta, Ga, Oct. 8, 90. A.B, Georgia. 11, B.S, 22, M.D, 24. Instr. *anat,* med. dept, *Georgia,* 18–21, acting head dept, 21–22, assoc. prof, 26–29, *prof,* 29–33, *sch. med, 33–,* v. dean, 34–35, *dean, 35–* Research assoc, med. col, Cornell, 26–27. A.A; Asn. Anat; Am. Med. Asn; South. Med. Asn; Ga. Acad. Physiology of reproduction; ovarian and anterior pituitary hormones; mechanics of ovulation; ovulation in rabbits.

Kelly, Dr. Harry C(harles), 18 Belfry Terrace, Lexington, Mass. *Physics.* Wilkes-Barre, Pa, Sept. 3, 08. B.S, Lehigh, 31, M.S, 33; Ph.D, Mass. Inst. Tech, 36. Teaching fellow, Lehigh, 31–33; Mass. Inst. Tech, 33–36; research engineer, Am. Thermos Co, 36–37; asst. prof. and assoc. prof. physics, Mont. State Col, 37–41; director labs, St. John's Col. (Md), 41–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Electronics; electricity; magnetism.

Kelly, Dr. Isabel T(ruesdell), Consulado norteamericano, Guadalajara, Jalisco, Mex. *Anthropology.* Santa Cruz, Calif, Jan. 5, 06. A.B, California, 26, A.M, 27, Ph.D, 32. Research assoc. anthrop, California, 30–36, 39; Gila Pueblo, 37–38; Guggenheim Mem. Foundation fellow, 40; *director west Mexican archeol, Inst. Andean Research, 41–* Nat. research fellow, California and Lab. Anthrop, Santa Fe, 33–35. Ethnography of California and the Great Basin; archeology of western Mexico.

Kelly, Prof. James P(eter), Pennsylvania State College, State College, Pa. *Botany, Genetics.* Hamilton, Ont, Can, June 9, 85. B.S, Col. City of N. Y, 06; A.M, Columbia, 14; Sc.D, Princeton, 20. Teacher, schs. N. Y, 06–14; instr. *bot, Pa. State Col,* 14–18, asst. prof, 18–20, assoc. prof, 20–25, *prof, 25–* Asst, Princeton, 18–19. Asst. ed, 'Bot. Abstracts,' 20–22. Walker prize, Boston Soc. Nat. Hist, 24. A.A; Bot. Soc; Genetic Asn; Soc. Plant Taxon; Pa. Acad. Genetics of Phlox, aphids and potatoes; vascular plants of central Pennsylvania.

Kelly, Prof. Margaret W, Connecticut College, New London, Conn. *Chemistry.* Oakmont, Pa, Jan. 6, 86. A.B, Mt. Holyoke Col, 09; A.M, Columbia, 20, Ph.D, 23. Teacher, schs, Pa, 10–18; asst. *chem,* Columbia, 20–24, 25–28; asst. prof, Mt. Holyoke Col, 24–25, 28–29; Vassar Col, 29–30, *assoc. prof,* 30–32; *Conn. Col, 32–* A.A; Chem. Soc. Physical and colloid chemistry; proteins; tanning materials.

Kelly, Dr. Mervin J(oe), Bell Telephone Laboratories, 463 West St, New York, N. Y. **7Applied physics.* Princeton, Mo, Feb. 14, 94. B.S, Mo. Sch. Mines, 14, hon. D.E, 36; M.S, Kentucky, 15; Ph.D, Chicago, 19. Instr. physics, Kentucky, 14–16; physicist, West. Elec. Co, 19–25; physicist, *Bell Tel. Labs,* 25–30, *director* vacuum tube develop, 30–36, *research, 36–* DeForest lecturer, Yale, 25. Fel. Physical Soc. (councilor, 37–); fel. Elec. Eng; Radio Eng; fel. Acoustical Soc. Applications of physics in communication; electronics.

Kelly, Prof. Philip L(auren), 205 Watson St, Fayetteville, Ark. *Dairy husbandry.* Hudson, Wis, Sept. 13, 05. B.S, Minnesota, 30, Ph.D, 36. Asst. in charge dairy herd improv. associations, dairy exten. div, Minnesota, 30–32; asst. prof. in charge *dairy production work, Arkansas,* 36–43, *assoc. prof, 43–* Dairy production; fat and enzymes in milk secretion.

Kelly, Major Sam(uel) G(reenberry), 1028 W. Magnolia, San Antonio, Texas. *Entomology.* Wheatland, Mo, Feb. 25, 05. B.S, Kans. State Col, 29, M.S, 30. *Asst. research officer, div. econ. entom, Australia, 29–*; cocklebur control investigations, Exp. Sta, Kans. State Col, 29–36, Uvalde, Texas, 36–40, capt, *U. S. Army,* 40–43, *major, 43–* Biological control of weeds by the use of insects.

Kelly, T(imothy) Leonard, State Teachers College, Westfield, Mass. *Chemistry.* Amsterdam, N. Y, Aug. 17, 98. A.B, Col. of Holy Cross, 21, M.S, 24; A.M, Columbia, 27.

Instr, Col. of Holy Cross, 24, asst. prof, 24–26; asst, Columbia, 26–27; assoc. prof. chem, Col. of Holy Cross, 27–36; *head science dept, State Teachers Col*, 36– A.A; Chem. Soc. Organic and physical chemistry; science education.

Kelly, Dr. Walter R(obert), Clarkson College of Technology, Potsdam, N. Y. *Physical chemistry.* Burlington, Vt, Oct. 19, 04. B.S, Syracuse, 28, Ph.D, 33. Instr. chem, Syracuse, 28–33; research chemist, Solvay Process Co, 33–38; *instr*, Agr. and Mech. Col. Texas, 38–39; *anal. chem, Clarkson Tech, 39–* Summer, research chemist, Va. Smelting Co, 39. Chedirect Assn. (treas, Syracuse sect, 36–38). Gaseous solutions.

Kelly, Col. W(illiam), Niagara Hudson Power Corp, Electric Bldg, Buffalo, N. Y. *Engineering.* New York, N. Y, Jan. 8, 77. Yale; U. S. Mil. Acad; U. S. Eng. Sch. of Application. Officer, C.Eng, 99–26, col; chief engineer, Fed. Power Cmn, 20–25; director eng, Nat. Elec. Light Asn, 25–26; v. pres, *Buffalo, Niagara and East. Power Corp*, 26–33, gen. manager, 29–33, *pres, 33–* Chairman board on head-water reservoirs, Miss. Valley Flood Protection, 27–28; Joint Board Engineers, St. Lawrence River, 24–28. James Laurie prize, Soc. Civil Eng; D.S. medal; officer, Légion d'honneur. A.A; hon. mem. Civil Eng. (pres, Buffalo sect, 30); fel. Elec. Eng; Soc. Mil. Eng. Generation transmission and distribution of power.

Kelly, Prof. William A(ultin), Michigan State College, East Lansing, Mich. *Geology.* Edmonton, Alta, Can, Feb. 19, 96. B.A, Alberta, 21, M.A, 22; Ph.D, Princeton, 25. Instr. *geol*, Princeton, 25–26; *Mich. State Col*, 26–30, asst. prof, 30–37, *assoc. prof, 37–* Paleont. Soc; Mich. Acad. Mississippian and Pennsylvanian faunas.

Kelser, Brig. Gen. Raymond A(lexander), Surgeon General's Office, War Department, Washington, D. C. *Bacteriology, Pathology, Immunology.* Washington, D. C, Dec. 2, 92. D.V.M, George Washington, 14; A.M, American Univ, 22, Ph.D, 23. Bacteriologist, H. K. Mulford Co, Pa, 14; bur. animal indust, U. S. Dept. Agr, 15–18; chief vet. lab. service, Letterman Gen. Hosp, San Francisco, 18–19; commanding officer, Army Vet. Lab, Pa, 19–20; mem, U. S. Med. Dept. Research Board, Manila, P. I, 25–28; officer in charge vet. lab. div, Army Med. Sch, and instr. bacter, 21–25, 28–33; instr. infectious diseases and roentgenol, Army Vet. Sch, 24–25, 28–33; research fellow bacter, Harvard Med. Sch, 33–35; mem, Army Med. Research Board, 35–38; *chief vet. div, Surgeon Gen's. Office, War Dept, 38–* Consulting prof, American Univ, 30–33. A.A; Soc. Path. and Bact; Soc. Exp. Path; Asn. Mil. Surg; Vet. Med. Asn. (v. pres, 23, 29, 30); fel. Acad. Trop. Med; fel. Pub. Health Asn; Soc. Trop. Med; N. Y. Acad; Wash. Acad. Filterable viruses; rinderpest; rabies; encephalomyelitis; mosquito transmission of equine encephalomyelitis; Chagas disease.

Kelsey, Prof. E(rwin) B(urr), 6 Waite St, Hamden, Conn. *Chemistry.* Bristol, Conn, Sept. 29, 96. Ph.B, Yale, 18, Ph.D, 21. From instr. to *assoc. prof. chem, Yale, 21–* Chem. Soc. (treas. and chairman, local sect). Pharmaceutical derivatives; hydantoins; amino alcohols.

Kelsey, Dr. F(remont) Ellis, 947 E. 58th St, Chicago, Ill. *Pharmacology.* Erie, Pa, Oct. 14, 12. B.S, Pittsburgh, 35; Ph.D, Rochester, 39. Asst. pharmacol, Rochester, 35–39; nat. research fellow med, Pittsburgh, 39–40; *research assoc. pharmacol, Chicago, 40–* Chem. Soc; Soc. Pharmacol. and Exp. Therapeut. Lipid chemistry; enzymes; chemotherapy of malaria.

Kelsheimer, Dr. E(ugene) G(illespie), Vegetable Crops Laboratory, Bradenton, Fla. *Entomology.* Paris, Ill, Oct. 14, 02. B.S, Illinois, 25; M.S, Iowa State Col, 25; Ph.D, Ohio State, 31. Asst. state entomologist and exten, Iowa State Col, 23–26; asst. entomologist, Ohio Exp. Sta, 26–33; technician forest path, *bur. plant indust, U. S. Dept. Agr*, 33–35, asst. pathologist, 35–37, agent, 37–42, *entomologist, Fla. exp. sta, 42–* Entom. Soc. Amer; Asn. Econ. Entom. Insect behavior.

Kelton, Prof. F(rank) C(aleb), 412 E. Fourth St, Tucson, Ariz. *Civil engineering.* Montgomery, Vt, Nov. 25, 81. B.S, Arizona, 04; M.S, California, 16. Asst. irrig. engineer, *Arizona*, 07–12, asst. prof. *civil eng*, 12–18, assoc. prof, 18–19, *prof. and head dept, 19–* Civil Eng. (pres, Ariz. sect, 32); Eng. Educ; Asn. Eng.

Kelty, Prof. R(ussell) H(iram), Michigan State College, East Lansing, Mich. *Horticulture.* Morris, Ill, Oct. 3, 97. B.S, Mich. State Col, 19. Instr. *apicult, Mich. State Col*, 19–24, *asst. prof, 24–* Apiculture; bee diseases; apiary management; pollenizing activity of honey-bees on clovers; use of honey-bees in orchards.

Kemble, Prof. Edwin C(rawford), Harvard University, Cambridge, Mass. **Physics.* Delaware, Ohio, Jan. 28, 89. B.S, Case, 11, hon. Sc.D, 31; A.M, Harvard, 14, Ph.D, 17. Asst. instr. physics, Carnegie Inst. Tech, 11–12, instr, 12–13; eng. physicist, Curtiss Aeroplane Co, 17–18; instr. *physics*, Williams Col, 19; *Harvard*, 19–24, asst. prof, 24–27, assoc. prof, 27–30, *prof, 30–* Guggenheim Mem. Foundation fellow, 27. Nat. Acad; A.A; Physical Soc; Asn. Physics Teachers; Am. Acad. Band spectra; quantum theory.

Kemler, Prof. Emory N(eudeck), Purdue University, Lafayette, Ind. *Mechanical engineering.* Basehor, Kans, July 26, 96. B.S, Kansas, 27, M.E, 32; M.S, Pittsburgh, 31, Ph.D, 34. Engineer, Dodge Mfg. Corp, 27–29; research engineer, Gulf Research and Develop. Corp, 30–36; asst. prof. mech. eng, Pittsburgh, 29–36; chief production engineer, Gypsy Div, Pan-American Petroleum Corp, Tulsa, Okla, 36–40; assoc. prof. *mech. eng, Purdue*, 40–42, *prof, 42–* Mech. Eng. (chairman mid-continent sect, 38); Petrol. Inst; Eng. Educ. Fluid flow; petroleum engineering; machine design.

Kemmerer, Dr. Arthur R(udolph-Barnsel), Agricultural and Mechanical College of Texas, College Sta, Texas. *Biochemistry.* Beloit, Wis, Nov. 26, 04. B.S, Beloit Col, 28; fellow, Wisconsin, 28–32, Ph.D, 32. Indust. fellow, Cornell Univ, 32–34; *chemist, Exp. Sta, Agr. and Mech. Col. Texas*, 34–37, *assoc. biochemist, Univ. Wisconsin Alumni Research Foundation, 37–39, prof. agr. chem, Wisconsin, 39–42, prof. biochem, Arkansas, 42–* Chemist, Univ. Wisconsin Alumni Research Foundation, 34–37; Chem; Agr. A.A; Chem. Soc. (chairman local sect, 39); Inst. of Nutrition and cop-per in nutrition; manganese in nutrition; fat absorption; Chem. (assoc. referee riboflavin and carotene). Irradiation and chemical methods for vitamin A and carotene in commercial feeds and their relation to biology; vitamin D in commercial feeds; vitamin A requirements of farm animals.

Kemmerer, Dr. K(enneth) S(tanley), Mead, Johnson & Co, Evansville, Ind. *Biochemistry.* Beloit, Wis, Nov. 14, 07. B.S, Beloit Col, 30, M.S, 32; Ph.D, Illinois, 35. *Chemist, Mead Johnson and Co, 35–* Protein chemistry.

Kemmerer, Dr. Mabel C. Williams (Mrs. T. W. Kemmerer), Nutridge, R.F.D. 1, Jackson, Miss. *Psychol.* Coralville, Iowa, Nov. 6, 78. Ph.B, Iowa, 99, fellow, 99–02, Ph.D, 03. Asst. instr. psychol, Iowa, 02–03, instr, 03–04; prof. psychol. and philos, Coe Col, 04–05; instr. psychol, Iowa, 05–10, asst. prof, 10–20, assoc. prof, 20–24, correspondence courses, 24–36; *retired.* A.A; Psychol. Asn; West. Philos. Asn; Iowa Acad. Visual illusions; color vision; early memories.

Kemp, A(rchie) R(eed), Bell Telephone Laboratories, West St, New York, N. Y. *Chemistry.* Groton, S. Dak, April 24, 94. B.S, Calif. Inst. Tech, 17, M.S, 18. *Research chemist, in charge org. and elec. insulation materials, Bell Tel. Labs, 18–* Chem. Soc. (chairman, N. Y. rubber sect, 33, mem. executive cmt, rubber div, 36, v. chairman, 37, chairman, 38); Soc. Test. Mat; Chem. Eng; N. Y. Acad; fel. Institution Rubber Industry, Gt. Britain. Organic chemistry; rubber chemistry and technology; insulating materials; submarine insulation; viscous flow studies on high polymers; rubber covered wire; pressure equalizing materials.

Kemp, Dr. Edward H(arris), Brown University, Providence, R. I. *Psychology.* Wakefield, N. C, May 9, 08. A.B, Wake Forest Col, 28; Ph.D, Clark, 34. Asst. psychol, Cornell, 30–31; Porter fellow, Am. Physiol. Soc, Clark, 34–35; nat. research fellow, Harvard Med. Sch, 35–36; *instr. psychol, Brown, 36–* Psychol. Asn. Audition; animal behavior.

Kemp, Dr. Garrett, 3633 Binkley St, Dallas, Texas. *Physics.* Baltimore, Md, Aug. 26, 84. A.B, Illinois, 06, A.M, 10, fellow, 11–12, Ph.D, 12. Instr. physics, Purdue, 06–08; Illinois, 08–11; assoc. prof, Arkansas, 12–14; acting prof. math. and astron, Baker, 14–15; prof. physics, Okla. Agr. and Mech. Col, 15–20; assoc. prof, Kentucky, 20–23; geophys. and petrol. eng. research, Atlantic Ref. Co, 26–39; *owner, Consulting Service, 39–* A.A. Photoelectricity; photoelectric cells.

Kemp, Dr. Hardy A(lfred), Ohio State University, Columbus, Ohio. *Preventive medicine, Bacteriology.* Monett, Mo, July 13, 02. B.S, St. Louis, 23, M.D, 26. Teaching fellow bacter, St. Louis, 23–26; pathologist, Mo. State Hosps, 27; assoc. prof. bacter. and hygiene, col. med, Baylor, 28–37, prof. bacter. and prev. med, 37–39, prof. prev. med, head dept. prev. med. and pub. health and dean col. med, Vermont, 39–41; *dean col. med, Ohio State, and director univ. hosp, 41–; U. S. Army, 42–, lieut. col.* A.A; fel. Am. Med. Asn; fel. Soc. Clin.

Path; Soc. Exp. Biol; Soc. Trop. Med; Asn. Path. and Bact; fel. Texas Acad; fel. Royal Soc. Trop. Med. and Hygiene. Public health; tropical medicine; transmission and serology of endemic typhus; bacillary dysentery; relapsing fever of North America.

Kemp, James T(aylor), Office of Production Management, Washington, D. C. *Metallurgy.* Kingston, R. I, Aug. 7, 90. B.S, Columbia, 12, Met.E, 16. Foreman and supt, Int. Nickel Co, 16–18, asst. manager and metallurgist, ref. div, 18–23; metallographer, Am. Brass Co, 24–26, asst. metallurgist, 26–29, tech. supervisor, Ansonia branch, 30–33, service engineer, 33–41; *adviser non-ferrous metals, bur. indust. conservation, Office Production Management, 41–* Min. and Metal. Eng; Mech. Eng. Metallurgy and usage of copper alloys in engineering.

Kemp, Prof. Margaret, Smith College, Northampton, Mass. *Botany.* Boston, Mass, Jan. 28, 01. A.B, Smith Col, 22; A.M, Radcliffe Col, 23; Ph.D, California, 41. Asst. *bot,* Mt. Holyoke Col, 23–25; instr, *Smith Col,* 27–35, *asst. prof, 35–* A.A; Bot. Soc; Torrey Bot. Club. Comparative morphology and anatomy of vascular plants; phylogeny of the gymnosperms.

Kemp, Dr. W(illiam) B(eck), University of Maryland, College Park, Md. *Agronomy.* Baltimore Co, Md, March 3, 90. B.S, Maryland, 12; Ph.D, American Univ, 28. Instr, high sch, Md, 12–13, prin, 17–21; instr. agron, West Virginia, and asst. agronomist, Exp. Sta, 13–14, asst. prof, 14–16; exten. agronomist, Exp. Sta, Md. State Col, 16–17, assoc. prof. agron, *Maryland,* 21–28, prof. genetics and statist, 28–40, *head dept. agron, 40–,* assoc. agronomist, Exp. Sta, 21–40. A.A; Soc. Agron. Genetics; statistics; breeding of wheat, corn and grass.

Kemp, W(illiam) V(an) A(ntwerp), Ammunition Division, Ordnance Department, 1140 Social Security Bldg, Washington, D. C. *Engineering.* New York, N. Y, Nov. 19, 90. A.B, Williams Col, 11; Mass. Inst. Tech, 13. Research engineer, Am. Eng. Co, Phila, 21–26; director heat transmission cmt, Nat. Research Council, 27–30; research sec'y, Nat. Elec. Light Asn, 29–33; *private consultant, 33–* Mech. Eng. Heat transmission; electric public utilities.

Kemper, Dr. J(ohn) W(illard), Ann Arbor Hills, Ann Arbor, Mich. *Dentistry.* Richmond, Ind, Sept. 14, 91. D.D.S, Michigan, 17, M.D, 27. Res. physician obstet. and gynec, univ. hosp, *Michigan,* 28–29, asst. prof. *oral surg, sch. dentistry,* 29–35, *prof, 35–, director dept. oral surg, univ. hosp, 35–* Mem. Am. Board Plastic Surg. Dental Asn; Am. Med. Asn; Asn. Oral and Plastic Surg; Col. Surg; Col. Dentists; Mich. Dental Soc. Oral, maxillofacial and plastic surgery.

Kemper, Dr. William A(lexander), 3400 Taney Road, Baltimore, Md. *Chemistry.* Baltimore, Md, Jan. 1, 11. Ph.D, Hopkins, 34. Research chemist, Consol. Gas and Elec. Co, Baltimore, 34–43; *lieut, U. S. Naval Res, Naval Proving Ground, 43–* Chem. Soc. Physical properties of adsorbed substances; organic sulfur in manufactured gas; corrosion of condenser tubes; ballistics.

Kempf, Dr. Alice H(ayes), University of Michigan, Ann Arbor, Mich. *Bacteriology.* South Bend, Ind, Feb. 12, 15. B.S, Michigan, 36, M.S, 38, Ph.D, 40. Asst, *Michigan,* 37–41, Horace H. Rackham fellow, 41–42, *research assoc, hygienic lab, 42–* Soc. Bact. Experimental pneumonia.

Kempf, Dr. Edward J(ohn), Wading River, L. I, N. Y. *Psychopathology.* Jasper, Ind, July 26, 85. A.B, Indiana, 07; M.D, Western Reserve, 10. House staff, Phipps Psychiat. Clinic, Hopkins Hosp, 13–14; clin. psychiatrist, Govt. Hosp. for Mental Diseases, Washington, D. C, 14–20; *practising psychopathologist, New York, 20–* A.A; Psychopath. Asn. (pres, 33–35); Psychiat. Asn; Psychoanal. Asn; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Anthrop. Asn; N. Y. Acad. Med; N. Y. Neur. Soc; N. Y. Soc. Clin. Psychiat. Autonomic functions and personality; psychopathology; physiology of attitude and emergence of ego-organization; maturation of sexual functioning; differentiation of constitutional types; law of attitude.

Kempf, Dr. Gerald F(idells), Indianapolis City Hospital, Indianapolis, Ind. *Clinical medicine.* Jasper, Ind, Dec. 24, 91. A.B, Indiana, 16, M.D, 28. Instr. *physiol, Indiana,* 23–26, *asst. prof, 27–* Am. Med. Asn; Cent. Soc. Clin. Research. Hypertension.

Kempf, Dr. J(ohn) E(merson), 3549 E. Medical Bldg, Ann Arbor, Mich. *Virology.* Pittsfield, Mich, Sept. 14, 12. A.B, Michigan, 34, M.D, 37. Asst. virology, *Michigan,* 38–41, *instr. bacter, 41–* Soc. Bact; Pub. Health Asn. Non-specific defense mechanisms in virus diseases; epidemiological methods in poliomyelitis.

Kempf, L(ouis) W(alter), 2210 Harvard Ave, Cleveland, Ohio. *Metallurgy.* Luther, Mich, March 22, 98. B.S. (Ch.E), Michigan, 23, Detroit-Edison fellow, 23–24, M.S. (Ch.E), 24. *Metallurgist, Aluminum Co. of Amer, 24–* Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Foundrymen's Asn; British Inst. Metals. Metallurgy of aluminum alloys.

Kempner, Prof. Aubrey J(ohn), 956 13th St, Boulder, Colo. **Mathematics.* London, Eng, Sept. 22, 80. Ph.D, Göttingen, 11. From instr. to asst. prof. *math,* Illinois, 11–25; *prof. and head dept, Colorado, 25–* Math. Asn. (trustee, pres, 37–39). Algebra; theory of numbers.

Kempner, Dr. Walter, Duke Hospital, Durham, N. C. *Medicine, Physiology.* Berlin, Germany, Jan. 25, 03. M.D, Heidelberg, 27. Research assoc, Kaiser Wilhelm Inst, 27–28, asst, 33–34; Med. Clinic, Berlin, 29–33; assoc. med. and physiol. and later *asst. prof. med, Duke, 34–* Physiol. Soc. Cellular respiration and fermentation; pathological physiology; kidney diseases.

Kempster, Prof. H(arry) L(averne), 811 College Ave, Columbia, Mo. *Poultry husbandry.* Coldwater, Mich, Oct. 6, 83. B.S, Mich. State Col, 09; M.S, Wisconsin, 28. Instr. *poultry husbandry,* Mich. State Col, 09–11; *prof, Missouri, 11–* Fel. Poultry Sci. Asn. (pres, 40). Growth investigations with poultry.

Kempton, Dr. F(orrest) E(llwood), Centerville, Ind. *Plant pathology.* Centerville, Ind, Oct. 5, 83. B.S, Earlham Col, 06; M.S, Wisconsin, 13; Ph.D, Illinois, 18. Teacher, pub. schs, Ind, 05–12; prof. biol, Ill. Col, 13–14; asst. bot, Illinois, 14–18; plant pathologist, smelter smoke investigations, St. Louis Smelting and Ref. Co, 17; U. S. Dept. Agr, 18–27, in charge barberry eradication; acting prof. biol, Mt. Union Col, 28–29; *farmer, Centerville, 29–* Sec'y-treas, Wayne County Wheat Production Control Asn, 34–36; county cmt. man, Agr. Adjust. Admin, U. S. Dept. Agr, 39– Phytopath. Soc; Bot. Soc; Soil Conservation Asn. (county board, 37); Ill. Acad; Bot. Soc. Wash. Cytology of Entylomas; origin and development of the pycnidium; barberry eradication.

Kempton, J(ames) H, U. S. Department of State, Caracas, Venezuela, S. Amer. *Genetics.* Cincinnati, Ohio, April 14, 91. Minnesota. Botanist, bur. plant indust, U. S. Dept. Agr, 07–42; *agr. adviser, U. S. Embassy, Caracas, 42–* Soc. Nat; Genetic Asn. Genetics in corn; tropical agriculture.

Kempton, Prof. Rudolf T(heodore), Vassar College, Poughkeepsie, N. Y. *Biology.* Haverhill, Mass, May 30, 02. B.S, Bates Col, 24; A.M, Columbia, 25; Ph.D, N. Y. Univ, 32. Asst. biol, N. Y. Univ, 24–26, instr, 26–32; research assoc. pharmacol, med. sch, Pennsylvania, 32–35; asst. prof. biol, Princeton, 35–37; *prof. zool. and curator nat. hist. museum, Vassar Col, 37–, chairman dept. zool, 40–* Mem. teaching staff, Marine Biol. Lab, Woods Hole, 41– Mem. corp, Marine Biol. Lab, Woods Hole; Mt. Desert Biol. Lab. Soc. Zool; Soc. Growth; Physiol. Soc. Phila. Tissue culture and microdissection; kidney morphology and function; experimental embryology; cell organoids and cell function; structure and development in vivo and in vitro; correlation of cell structure and function.

Kendall, Prof. A(nson) R(ay), Dakota Wesleyan University, Mitchell, S. Dak. *Chemistry.* Kokomo, Ind, May 10, 06. A.B, DePauw, 30; Ph.D, Iowa State Col, 34. *Prof. chem, Dakota Wesleyan, 35–* A.A; Chem. Soc. Biophysical chemistry; production of 2, 3-butandiol by fermentation; fermentation of rye.

Kendall, Prof. Arthur I(saac), Northwestern University Medical School, Chicago, Ill. **Bacteriology, Hygiene.* Somerville, Mass, May 7, 77. B.S, Mass. Inst. Tech, 00, fellow, 02–03; fellow, Hopkins, 03–04, Ph.D, 04; Dr.P.H, Harvard, 11; Sc.D, Southern California, 32. Acting chief board health lab, Isthmian Canal Cmn, Panama, 04–06; fellow, Rockefeller Inst, 06–09; instr, dept. prev. med. and hygiene, Harvard Med. Sch, 09–12; prof. bacter. and director Patten research foundation, Northwestern, 12–24, dean med. sch, 16–24; prof. bacter. and pub. health, sch. med, Washington (St. Louis), 24–28; research prof. bacter, med. sch, Northwestern, 28–42; *retired.*

Chairman yellow fever cmn, int. health board, Rockefeller Foundation, 18. Trustee, Wesley Mem. Hosp, 17–24; Northwestern, 18–24. Service medal, Isthmian Canal Cmn. Asn. Path. and Bact; Pub. Health Asn; Soc. Exp. Biol; Chem. Soc; Inst. Med. Chicago; Chicago Int. Med. Soc; Chicago Path. Soc. (pres, 17). Bacterial metabolism; chemistry of bacterial action; intestinal bacteriology; filterable bacteria; public health.

Kendall, Prof. Claribel, 1305 Euclid Ave, Boulder, Colo. *Mathematics.* Denver, Colo, Jan. 23, 89. A.B, B.E, Colorado, 12, A.M, 14; fellow, Chicago, 20–21, Ph.D, 21. Asst. *math, Colorado,* 11–13, instr, 13–22, asst. prof, 22–28, assoc. prof, 28–43, *prof, 43–* Summer, California, 25. Math. Soc; Math. Asn. (pres, Rocky Mt. sect, 30); Asn. Teachers Math. Projective differential geometry.

Kendall, Prof. E(dward) C(alvin), 627 Eighth Ave, S. W, Rochester, Minn. **3Physiology, Chemistry.* South Norwalk, Conn, March 8, 86. B.S, Columbia, 08, A.M, 09, Goldschmidt fellow, 09–10, Ph.D, 10; Sc.D, Cincinnati, 23. Research chemist, Parke, Davis and Co, Detroit, 10–11; St. Luke's Hosp, New York, 11–14; *prof. and head sect. biochem, grad. sch, Mayo Foundation, Minnesota, 14–* A.A; Chem. Soc; Soc. Biol. Chem; Physiol. Soc; Soc. Exp. Biol; Soc. Exp. Path; Asn. Study Int. Secretions (pres, 30); Am. Physicians. Chemistry of the thyroid gland; isolation and investigation of thyroxin; oxidation in the animal organism; isolation of crystalline glutathione; chemistry of suprarenal cortex.

Kendall, Prof. Forrest E(verett), Research Service, Columbia Division, Goldwater Memorial Hospital, Welfare Island, New York, N. Y. *Chemistry.* Galesburg, Ill, Oct. 20, 98. B.S, Illinois, M.S, 24, Ph.D, 26. Asst. animal nutrition, Illinois, 21–24, chem, 24–26; instr, Lafayette Col, 26–28; assoc. *biochem, col. physicians and surg, Columbia,* 28–37, *asst. prof, 37–;* asst. chemist, Presb. Hosp, 28–36; *chemist, research div, Welfare Island, 36–* Chem. Soc. Chemistry of immune reactions.

Kendall, Prof. Henry Madison, 805 Heather Way, R. R. 5, Ann Arbor, Mich. *Geography.* Chicopee, Mass, Dec. 15, 01. A.B, Amherst Col, 24; A.M, Michigan, 28, Ph.D, 33. Asst. *geog, Michigan,* 28–29, instr, 29–38, *asst. prof, 38–; head geographer, mil. intel. service G-2, U. S. War Dept.* Belgian-Am. Educational Foundation advanced fellow, Belgium, 36–37. Asn. Am. Geog; Mich. Acad; Soc. belge d'Etudes Géog. Climatology; regional geography of Europe and Africa.

Kendall, Prof. James, University of Edinburgh, Edinburgh, Scotland. **3Chemistry.* Surrey, Eng, June 30, 89. B.Sc, M.A, Edinburgh, 10, D.Sc, 15; Nobel Inst, Stockholm, and Tech. Inst, Petrograd, 12–13. Instr. chem, Columbia, 13–15, asst. prof, 15–16, assoc. prof, 16–22, prof, 22–26; administrative head dept, Wash. Sq. Col, N. Y. Univ, 26–28, dean grad. sch, 27–28; *prof. chem, Edinburgh, 28–* Acting prof, Stanford, 19, 23; California, 23; Pa. State Col, 27. Lieut, U.S.N. R.F, 17, lieut. commander, 25–26. A.A. (sec'y, C, 16); Chem. Soc. (chairman, N. Y. sect, 25); Soc. Chem. Indust. (chairman, Edinburgh sect, 39–41); hon. mem. Inst. Chem. (pres, N. Y. chap, 26); Faraday Soc; London Chem. Soc; Royal Soc; Royal Soc. Edinburgh. (gen. sec'y, 36–). Ionic dissociation; addition compound formation; viscosity; separation of isotopes and rare earths; chemical education.

Kendall, Prof. James (Irving), Tenafly, N. J. *Cytology, Genetics.* Sloatsburg, N. Y, March 17, 06. B.S, N. Y. Univ, 27; M.S, Harvard, 28, Ph.D, 31; D.Sc, Sofia, Bulgaria, 30. Instr. *biol, Col. City of N. Y,* 31–37, *asst. prof, 37–* A.A; Soc. Zool. Microscopic anatomy of vertebrates; structure and development of galls; histological and cytological studies of plants injected with chemicals; genetics and cytology of aberrants and variants of tobacco and Petunia.

Kendeigh, Prof. S(amuel) Charles, University of Illinois, Urbana, Ill. *Zoology.* Amherst, Ohio, Dec. 18, 04. A.B, Oberlin Col, 26, A.M, 27; Ph.D, Illinois, 30. Research assoc, Baldwin Bird Research Lab, Cleveland, 25–39; teaching fellow, Nebraska, 27–28; instr. biol, Adelbert Col. and Mather Col, Western Reserve, 30–36; asst. prof. *zool, Illinois,* 36–40, *assoc. prof, 41–* A.A; Ecol. Soc; Ornith. Union; Soc. Zool; Soc. Mammal; Genetic Asn; Wilson Ornith. Club; Cooper Ornith. Club; Ohio Acad; Ill. Acad; British Ecol. Soc. Bird temperatures; nesting behavior of birds; ecological distribution, migration and abundance; physiological relations of birds to environmental conditions.

Kendig, Dr. Paul M(iller), Harvard University, Cambridge, Mass. *Physics.* Millersville, Pa, June 25, 06. B.S, Franklin and Marshall Col, 30; M.S, Pa. State Col, 32, Ph.D, 38. Asst. physics, Pa. State Col, 30–37, asst. prof. math. and physics, Schuylkill undergrad. center, 37–41; physics, Franklin and Marshall Col, 41–43; *mem. staff, underwater sound lab, Harvard, 43–* A.A; Asn. Physics Teachers. Supersonic velocity and absorption measurements in oxygen mixed with foreign gases.

Kendrick, Aaron B(aker), 1853 W. Polk St, Chicago, Ill. *Physiological chemistry.* McCalla, Ala, July 18, 05. A.B, Howard Col. (Ala), 27; Inst. Am. Meat Packers fellow, Chicago, 28–31, Ph.D, 33. Asst, dept. physiol. chem, Chicago, 31–34; asst. *internal med,* Illinois, 34–35, instr, 35–37, assoc, 37–43, *asst. prof, 43–* Action of nitric oxide on hemoglobin; alteration of serum proteins as an index of hepatic failure; use of iodine and other modifications in the Van Slyke manometric amino nitrogen method; effects of intravenously injected acacia in the dog; effect of iodine and mercury on amino nitrogen values with nitrous acid; effects of calcium administered parenterally to the normal and the parathyroidectomized dog.

Kendrick, Dr. James B(lair), College of Agriculture, University of California, Davis, Calif. *Plant pathology.* Clover, S. C, Aug. 13, 93. B.S, Clemson Col, 16; M.S, Iowa State Col, 19, Ph.D, 25. Asst. botanist, *Exp. Sta,* Purdue, 19–27; *assoc. plant pathologist, California, 27–,* asst. prof. *plant path, univ,* 36–38, assoc. prof, 38–43, *prof, 43–* 2nd lieut, Inf, 18. A.A; Phytopath. Soc. Truck crop, vegetable and field crop diseases.

Kendrick, Dr. J(ames) F(rank), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Williamsport, Ohio, April 20, 04. B.S, Ohio State, 26, M.S, 27; Ph.D, American Univ, 35. Agr. exten. agent, Ohio, 27–31; asst. to the asst sec'y of agr, *U. S. Dept. Agr,* 31–33, asst. chief *div. dairy herd improv. investigations, bur. dairy indust,* 33–38, *chief, 38–* Dairy herd improvement; proved sire work.

Kendrick, Dr. Pearl (Luella), Michigan Department of Health, Grand Rapids, Mich. *Bacteriology, Immunology.* Wheaton, Ill, Aug. 24, 90. B.S, Syracuse, 14; summers, Columbia, 17, Michigan, 24, 30; Sc.D, Hopkins, 32. Teacher and prin, high sch, N. Y, 14–19; div. labs. and research, State Dept. Health, N. Y, 19–20; *Dept. Health, Labs, Mich, 20–, assoc. director, 32–* A.A; fel. Pub. Health Asn; Soc. Bact; Mich. Acad. Public health; serology of syphilis; bacteriophage; whooping cough diagnosis and control.

Kenerson, Prof. W(illiam) H(erbert), 100 Morris Ave. Providence, R. I. and 2101 Constitution Ave, Washington, D. C. *Mechanical engineering.* Mass, Dec. 9, 73. M.E, Brown, 96; A.M, Harvard, 06; Sc.D, R. I. State Col, 19. Instr. drawing and math, *Brown,* 96–99, asst. prof. *mech. eng,* 99–05, assoc. prof, 05–12, prof, 12–41, *emer. prof, 41–,* chairman div. eng. Consulting engineer; supervising engineer, Gen. Fire Extinguisher Co; director R. I. conservation. Fuel Admin. Chairman bldg. ordinance board of reviews, Am. Eng. Council; exec. sec'y, Nat. Research Council Army Educ. Corps, U.S.A. A.A; Mech. Eng. (v. pres, 22–24); Eng. Educ; Soc. Test. Mat; Providence Eng. Soc. (pres). Materials of construction; power measurement; modulus of elasticity of steel; losses in power transmissions.

Kenk, Prof. Roman, University of Puerto Rico, Rio Piedras, P. R. *Zoology.* Ljubljana, Yugoslavia, Nov. 25, 98. Ph.D, Graz, 21. Asst. zool, Ljubljana, Yugoslavia, 21–26, docent, 26–37, extraordinary prof, 37–38; *assoc. prof. biol, Puerto Rico, 38–* Research fellow, Virginia, 31–32; exchange curator, museum zool, Michigan, 40–41. Summer, prof, Mt. Lake Biol. Sta, Virginia, 33. A.A; Soc. Zool; Micros. Soc; Mich. Acad. Morphology; ecology; taxonomy and physiology of freshwater Triclads; ecology of cave animals; fresh-water biology.

KenKnight, Dr. Glenn, University of Idaho, Moscow, Idaho. *Plant pathology.* Canby, Oregon, Nov. 26, 10. A.B, Carleton, Col, 34; Minnesota, 35; M.S, Mich. State Col, 37, Ph.D, 39. Asst. plant path, Minnesota, 35; Exp. Sta, Mich. State Col, 35–39; plant pathologist, Texas Agr. Exp. Sta, 40–42; *assoc. plant pathologist, Exp. Sta, Idaho, 42–* Phytopath. Soc. Vegetable diseases.

Kennard, D(wight) C(linton), Ohio Agricultural Experiment Station, Wooster, Ohio. *Poultry husbandry.* Smith Center, Kans, 81. Ph.C Kansas; B.S.A, Wisconsin. Asst. chemist, Santa Fe Ry, 04–09; commercial poultry keeping, Petaluma dist, Calif, 10–15; poultry dept, Purdue, 18–20; *in charge* poultry feeding investigations, food research lab,

bur. chem, U. S. Dept. Agr, 20–21; *poultry investigations, Ohio Exp. Sta, 21–* Poultry ed, 'Farm Jour,' 29–42; assoc. ed, 'Poultry Science,' 29–32. Poultry Sci. Asn; Int. Asn. Poultry Husbandry. Minerals in the poultry ration; vitamin requirements of chickens; utilization of vegetable proteins to replace animal proteins; all mash feeding; keeping chickens in confinement; all night light for winter layers; individual laying batteries.

Kennard, Prof. E(arle) H(esse), Cornell University, Ithaca, N. Y. ***Physics.* Columbus, Ohio, Aug. 2, 85. A.B, Pomona Col, 07; B.Sc, Oxford, 11; fellow, Cornell, 11–12, Ph.D, 13. Asst. *physics,* Cornell, 12–13, instr, 13–14; Minnesota, 14–16; *Cornell,* 16–17, asst. prof, 19–27, *prof, 27–* A. K. Angström nocturnal radiation exped, Mt. Whitney, 13. A.A; Physical Soc. Unipolar induction; excitation of fluorescence; theoretical physics, especially quantum mechanics; kinetic theory of gases.

Kennard, Dr. Margaret A(lice), New York University School of Medicine, New York, N. Y. *Physiology.* Brookline, Mass, Sept. 25, 99. A.B, Bryn Mawr Col, 22; M.D, Cornell, 30. Intern, Strong Mem. Hosp, Rochester, 30–31; fellow, dept. physiol, sch. med, Yale, 31–32, instr. physiol, 32–33, asst. prof, 33–43; *assoc. prof. neuropsychiat. and neuroanat, 43–* Rockefeller Foundation fellow, 34–36. A.A; Physiol. Soc; Asn. Research Nervous and Mental Disease; Neur. Asn. Neurophysiology; cerebral cortex.

Kennard, Dr. Ralph B(randreth), 1629 Nicholson St, N. W, Washington, D. C. *Physics.* New York, N. Y, Dec. 19, 91. Mass. Inst. Tech, 09–13; Ch.E, Columbia, 16, A.M, 19; Ph.D, Chicago, 27. Research and production in chem. industries, 16–18; prof. physics and head dept, Shanghai Col, China, 19–25; Robert Col, Constantinople, 27–30; Luther B. McMillan fellow, Johns Manville Corp, Bur. Standards, 30–32; *head dept. physics, Wilson Teachers Col, 32–, adviser to men, 39–; mem. aeronautic instruments dept, Bur. Standards, 41–* 2nd lieut, F.A, 18–19. Asn. Physics Teachers; Guidance and Personnel Asn; fel. Physical Soc; Philos. Soc. Wash. Mean free paths and distribution in angle of positive ions; temperature distribution and heat flux in air by interferometry; heat transfer by convection; oxygen in aviation.

Kennard, Dr. T(heodore) G(ladden), 117 E. Seventh St, Claremont, Calif. *Chemistry.* Glendora, Calif, Aug. 9, 03. A.B, Pomona Col, 25; Ph.D, Cornell, 29. Instr. chem, Pomona Col, 29–31, research fellow, Claremont Cols, 31–42; *chief spectroscopist and asst. chief chemist, iron and steel div, Kaiser Co, Inc, 42–* A.A; Chem. Soc; Optical Soc. Chemical spectral detection and estimation of elements by arc and spark emission spectra; geochemistry of the rare elements; color in minerals; effect of lightning in disintegrating rocks.

Kennedy, Prof. Clarence H(amilton), Ohio State University, Columbus, Ohio. ***Zoology, Entomology.* Rockport, Ind, June 25, 79. A.B, Indiana, 02, A.M, 03; Stanford, 14; Ph.D, Cornell, 19. Asst. zool, Indiana, 02–03; sci. asst, Bur. Fisheries, 03; bot. collector, Mt. Holyoke Herbarium, Texas and Oregon, 08; sci. artist, 13–15; asst. biol, Cornell, 15, instr. limnol, 16–17; zool, N. C. State Col, 18–19; *entom, Ohio State,* 19–21, asst. prof, 21–30, assoc. prof, 30–33, *prof, 33–,* in charge entom, lake lab, 20–39. Collector Odonata, Calif. and Nev, 14. Summers, instr, biol. sta, Indiana, 02; Cornell, 18–20. A.A; Entom. Soc. Amer. (managing ed, 'Annals,' pres, 35); Asn. Econ. Entom; Soc. Nat; Ecol. Soc. (ed. board); fel. Ohio Acad. (v. pres, zool. sect, 26, 37); Ind. Acad; fel. Entom. Soc. London; Soc. entom. de France. Morphology and ecology of insects; Odonata; ants.

Kennedy, Prof. Cornelia, University of Minnesota, Minneapolis, Minn. *Biochemistry.* Eau Claire, Wis, Feb. 3, 85. A.B, Minnesota, 03; M.S, Wisconsin, 16; Berliner fellow, Hopkins, 18–19, Ph.D, 19. Asst. chemist, Washburn-Crosby Flour Mills, 03–08; instr. *agr. chem, Minnesota,* 08–14, asst. prof, 20–30, *assoc. prof, 30–, asst. agr. biochemist, Exp. Sta, 08–* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Nutrition.

Kennedy, Dr. Edward Stewart, care of Miss Annie Kennedy, 238 Lincoln St, Easton, Pa. *Mathematics.* San Angel, D. F, Mex, Jan. 3, 12. B.S, Lafayette Col, 32; A.M, Lehigh, 37, Ph.D, 39. Instr. math, Alborz Col, Teheran, Iran, 32–36; Alabama, 39–41; *asst. mil. attaché, Am. Legation, Teheran, Iran, 41–; capt, U. S. Army, 42–* Math. Asn; Hist. Sci. Soc. History of mathematics.

Kennedy, Dr. E(dwin) Russell, 127 E. 56th St, Long Beach 5, Calif. *Chemistry.* Los Angeles, Calif, Nov. 4, 11. B.S, Calif. Inst. Tech, 33, M.S, 34, Ph.D, 36. *Technologist, Shell Oil Co, 36–; capt, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Physical and chemical properties of hydrocarbons; organic iodine compounds.

Kennedy, Prof. E(rnest) C(arleton), Texas College of Arts and Industries, Kingsville, Texas. *Pure mathematics.* Smithville, Texas, Dec. 21, 98. E.M, Texas, 21, A.M, 26; fellow, Rice Inst, 36–37, Ph.D, 37. Adj. prof. *math,* col. mines and metal, Texas, 28–33; *assoc. prof, Texas Col. Arts and Indust, 37–* Math. Soc; Math. Asn; Texas Acad. Theory of equations; Fuchsian groups.

Kennedy, Dr. Foster, 410 E. 57th St, New York. N. Y. *Neurology.* Belfast, Ireland, Feb. 7, 84. Queen's Col. Belfast; M.D, Royal Univ. Ireland, 06. Res. med. officer, Nat. Hosp, London, 06–10; *chief clinic, Neur. Inst. N. Y, 10–; prof. neur, med. col, Cornell.* Attending physician in charge neur. dept, Bellevue Hosp, New York; attending neurologist, New York Hosp; consulting neurologist, Gen. Mem. Hosp; Lennox Hill Hosp; Women's Hosp; Monmouth Hosp, Long Branch, N. J; Nassau Hosp, Mineola, L. I. Chairman, Fed. Med. Cmn, Ellis Island. Chairman cmt. neur, Nat. Research Council. Officer, Order of Carlos Finlay, Cuba. M.C, Royal Army, major. A.A; Neur. Asn. (past pres, 40); N. Y. Acad. Med; N. Y. Neur. Soc; hon. mem. Neur. Soc. Mex; fel. Royal Soc. Med; fel. Royal Soc. Edinburgh; hon. mem. Neur. Soc. Paris; hon. mem. Neur. Soc. Mexico. Nervous and mental diseases; psychiatry.

Kennedy, H(arold) S(chwinn), Falls Church, Va. *Chemistry.* Franklin, Pa, Jan. 26, 95. A.B, George Washington, 24, M.S, 26; Cornell, 14–15, 16–17. *Petrol. engineer, U. S. Bur. Mines, 20–* Min. and Metal. Eng. Helium-bearing natural gas; petroleum and natural gas.

Kennedy, Dr. Harvey T(homas), 537 12th St, Oakmont, Pa. *Physical chemistry.* Penfield, N. Y, June 3, 00. Ch.B, Cornell, 21; Ph.D, Hopkins, 28. Chemist, Rochester, N. Y, 21–24; from junior asst. to assoc. scientist, Bur. Standards, 24–30; physical chemist, *Gulf Research Lab,* 30–36, *chief petrol. production, chem. sect, 36–* Lecturer, Pittsburgh. Chem. Soc; Petrol. Inst; Physical Soc. Pittsburgh. Critical temperature of liquid carbon dioxide; determination of sulfur in volatile fuels; lubricants and fuels for internal combustion engines; petroleum-bearing formations; recovery of petroleum.

Kennedy, Dr. Hunter F(elix), Food and Drug Administration, Washington, D. C. *Medicine.* Indianapolis, Ind, May 21, 10. M.D, Indiana, 37. *Clin. instr. med, sch. med, George Washington, 40–; senior med. officer, food and drug admin, Fed. Security Agency, 40–* Effect of amino acetic acid on work capacity of human subjects.

Kennedy, Prof. James A(rthur), University of Louisville School of Medicine, Louisville, Ky. *Bacteriology, Public health.* Brooklyn, N. Y, Sept. 3, 94. A.B, Cornell, 17, Ph.D, 24. Asst. instr. sanit. chem, Cornell, 17–24; nat. research fellow *bacter,* Harvard Med. Sch, 24–26; instr, sch. med. and dentistry, Rochester, 26–28, assoc, 28–30, asst. prof, 30–33; prof, *sch. med,* Georgia, 33–34; assoc. prof, *Louisville,* 34–39, *prof, 39–, director bacter. and serol. labs, Dept. Health and City Hosp, Louisville, 34–* Control analyst, water purification plant, Cornell, 20–24; chemist, N. Y. State Col. Agr, Cornell, 20–22; assoc. director labs, Health Bur, Rochester, and bacter. labs, Strong Mem. and Rochester Munic. Hosps, 26–32, director div. diagnostic labs, 32–33. A.A; Soc. Bact; Pub. Health Asn; Chem. Soc; Soc. Trop. Med. Parasitology; immunology.

Kennedy, Dr. John J(oseph), Maywood Chemical Works, Maywood, N. J. *Chemistry.* New York, N. Y, Nov. 21, 91. A.B, Cornell, 12, B.Ch, 13, Ph.D, 16. *Chemist, Maywood Chem. Works, 16–* Chem. Soc; Min. and Metal. Eng; Chemists' Club. Nitration products of phenol-tetrachlorophthalein and tetrachlorofluoran; pegmatite dyke minerals and their manufactured products; metal and salt products of beryllium, tin, tantalum, lithium, rubidium and caesium ores.

Kennedy, Dr. John L(yon), National Research Council, 2101 Constitution Ave, Washington, D. C. *Physiological psychology.* Saginaw, Mich, May 26, 13. A.B, Stanford, 34; A.M, Brown, 36, Ph.D, 37. Asst, lab. primate biol, Yale, 36–37; fellow psychical research, Stanford, 37–39; asst. prof. psychol, Tufts Col, 39–42; *mem. staff, Nat. Research Council,* 42– A.A; Psychol. Asn. Psychophysiology of vision and perception.

Kennedy, Dr. J(oseph) W(illiam), 2829 Forest Ave, Berkeley, Calif. *Nuclear chemistry and physics.* Nacogdoches, Texas, May 30, 16. A.B, Stephen F. Austin State Teachers Col, Texas, 35; A.M, Kansas, 37; Ph.D, California, 39. *Instr. chem, California, 39–* Nuclear transmutations; isotope separation; tracer chemistry.

Kennedy, Dr. L(uther) E(ugene), 1735 S. Victor, Tulsa, Okla. *Petroleum geology.* Waverly, Ill, Aug. 4, 90. A.B, Illinois, 15, A.M, 15, Ph.D, 20. Geologist, Sun Oil Co, Texas, 18–21; chief geologist, Douglas Oil Co, Okla, 21–32; geologist, U. S. Geol. Surv, 34–36; Nat. Park Service, 36–38; *pres, Peters Petrol. Corp, 39–* Asn. Petrol. Geol. Shoestring oil sands of Oklahoma and Kansas; geology and subsurface structure of Osage County, Oklahoma.

Kennedy, Dr. Robert M(ichael), Sun Oil Co, Norwood, Pa. *Physical chemistry.* Scranton, Pa, July 6, 15. B.S, St. Thomas Col, 37; M.S, Pa. State Col, 38, Ph.D, 41. *Research assoc, exp. div, Sun Oil Co.* Chem. Soc. Petroleum.

Kennedy, Dr. Robert P(helps), Knollwood, R. D. 1, Rochester, N. Y. *Medicine.* Buffalo, N. Y, July 29, 90. A.B, Cornell, 12; M.D, Hopkins, 20. Asst. path, sch. med, Hopkins, 20–21; res. house officer, Mass. Gen. Hosp, 23–24; fellow *path, sch. med. and dentistry, Rochester,* 24–27, *instr, 27–* Soc. Exp. Path; Asn. Path. and Bact; Chem. Soc.

Kennedy, Prof. W(adaran) L(atamore), Agricultural and Technical College of North Carolina, Greensboro, N. C. *Dairy husbandry.* Bison, Okla, March 3, 05. B.S, Illinois, 27, M.S, 29; Ph.D, Pa. State Col, 36. Instr. animal husbandry, Va. State Col, 27; agr, W. Va. State Col, 29–31; assoc. prof. animal husbandry, Colored Agr. and Nor. Univ, 31–33; *prof. dairy husbandry, Agr. and Tech. Col. N. C, 36–,* chairman grad. sch, 39. Summer, special lecturer, State Agr. and Mech. Col. S. C, 30. The composition of bovine blood as influenced by age, lactation and gestation.

Kennedy, Dr. W(illiam) D(empsey), 35 Burlington Road, Tenafly, N. J. *Physical chemistry.* Chicago, Ill, Dec. 10, 14. A.B, Stanford, 36, Ph.D, 40. Asst. research, *Harvard,* 40–41, *research assoc. chem, 41–* Chem. Soc. Thermodynamic properties of organic compounds; spectroscopic studies.

Kennelly, Sister M(ary) Antonius, College of St. Catherine, St. Paul, Minn. *Organic chemistry.* St. Thomas, N. Dak, May 8, 01. A.B, Col. of St. Catherine, 26; Minnesota, 28–29; Inst. Int. Educ. exchange fellow, Munich, 29–33, Ph.D, 33. Asst. *chem, Col. of St. Catherine,* 26–28, prof, 33–36, *head dept, 36–* Chem. Soc; Minn. Acad; Deuts. Chem. Gesell. Bile acids.

Kennelly, Dr. R(eginald) Grice, 115 Overbrook Road, Longmeadow, Mass. *Chemistry.* Cambridge, Mass, Oct. 8, 09. A.B, Harvard, 31, A.M, 33, Ph.D, 35; M.S, Mass. Inst. Tech, 32. *Chemist,* E. I. du Pont de Nemours and Co, 35–38; *Monsanto Chem. Co, 38–* Fel. Inst. Chem; Chem. Soc. Acid-base equilibria in non-aqueous media; reduction potentials of quinones of thionaphthene; methacrylic ester resins.

Kenner, Prof. C(harles) T(homas), The Citadel, Charleston, S. C. *Chemistry.* Waxahachie, Texas, Oct. 20, 10. B.S, Trinity (Texas), 32; M.S, Tennessee, 35; Ph.D, Texas, 39. Teaching fellow gen. and physical chem, Tennessee, 32–33, 34–35; instr. gen. chem, Texas, 35–38; *asst. prof. chem, The Citadel, 38–; lieut, Ordnance Dept, U. S. Army, 42–* Chem. Soc. Atomic refraction of phosphorus; pressure-volume-temperature relations of monomethylamine; physical chemistry; inorganic chemistry.

Kennerly, Prof. W(illiam) J(ulian), 220 Moody St, Montevallo, Ala. *Chemistry.* Greenwood, S. C, Jan. 20, 98. B.S, Clemson Col, 19; M.S, Emory, 24. Instr. chem, Clemson Col, 20–21; *prof. chem. and physics and head dept, Ala. Col, 21–*

Kenney, Dr. Arthur W(ebster), E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* Pownal, Maine, Nov. 15, 91. B.S, Mass. Inst. Tech, 13, M.S, 14, Ph.D, 18. Research assoc. physical chem, Mass. Inst. Tech, 17; *research chemist, E. I. du Pont de Nemours and Co, 19–,* head intel. div, chem. dept, 21–27, x-ray lab, 28–32, *optics and gen. physics labs, Exp. Sta, 32–; tech. aide, Nat. Defense Research Cmt, 42–* C.W.S, 17–18, capt. Chem. Soc; Physical Soc; Optical Soc. Physical techniques applied to chemical research; optics; microscopy; spectroscopy; x-ray diffraction; infra-red spectroscopy.

Kennicott, Cass (Langdon), Donswood, R.F.D. 2, Chesterton, Ind. *Chemistry.* Chicago, Ill, Feb. 25, 71. Case, 93. Chemist, Nelson Morris and Co, 93; city chemist, Chicago, 93–97; chemist, Consumers Ice Co, 97–98; v. pres. and gen. manager, Kennicott Water Softener Co, Chicago and London, 99–14; chief engineer ry. dept, Permutit Co, 14–19; consulting chem. engineer, 19–40; *retired.* Pres, Mariner and Hoskins, Inc. Chem. Soc; Chicago Acad; Chicago Eng. Club; fel. London Chem. Soc. Milk analysis; water analysis; softening and purification; dust explosions; methods of mineral water analysis; food adulteration.

Kennison, Prof. Lawrence S(anford), 1003 E. 39th St, Brooklyn, N. Y. *Mathematics.* Ayer, Mass, Sept. 23, 05. A.B, Dartmouth Col, 26; A.M, Brown, 28; Ph.D, Calif. Inst. Tech, 31. Asst. and teaching fellow *math,* Brown, 26–28; Calif. Inst. Tech, 28–30; Princeton, 30–31, instr, 31–32; *Brooklyn Col, Col. City of N. Y, 32–35, asst. prof, 35–; lieut, U. S. Naval Res.* Math. Soc; Math. Asn. Integral equations and functionals.

Kennon, Prof. W(illiam) L(ee), University of Mississippi, University, Miss. *Physics, Astronomy.* Columbus, Miss, May 3, 82. B.S, Millsaps Col, 00, M.S, 01; fellow, Hopkins, 05–06, Ph.D, 06. Asst. chem. and physics, Millsaps Col, 00–01; prof, Ky. Wesleyan Col, 01–03; instr. chem, Williams Col, 06–09; asst. prof, *Mississippi,* 09–11, *prof. physics and astron, 11–* A.A; Physical Soc. (v. chairman, southeast. sect, 36, chairman, 42). Physical properties and specific heats and solutions; the direct measurement of the osmotic pressure of cane-sugar solutions.

Kenny, Prof. C(hristopher) L(eo), 420 N. 40th St, Omaha, Nebr. *Chemistry.* St. Paul, Minn, June 22, 93. B.S, Macalester Col, 16; A.M, Columbia, 24, Ph.D, 26. Instr. *chem,* Columbia, 24–30; *prof, Creighton, 30–, director dept, 32–* A.A; Chem. Soc. (chairman, Omaha sect, 33); Nebr. Acad. Chemistry of solutions.

Kenny, Dr. Frederic J, 70 Haven Ave, New York, N. Y. *Electrochemistry.* St. Paul, Minn, Nov. 5, 94. B.S, Macalester Col, 16; A.M, Columbia, 22, Ph.D, 31. Teacher, high sch, Minn, 16–18, 19–21; Iowa, 22–25; asst. *chem,* Columbia, 25–29; prof, Manhattan Col, 26–36; *head dept, St. Francis Col. (N. Y), 36–; consulting electrochemist, 37–* Research chemist, Yale Exp. Sta, C.W.S, U.S.A, 18. A.A; Chem. Soc; Eng. Educ; Electrochem. Soc. Corrosion and its prevention; electrodeposition; passivity; galvanizing; inorganic quantitative analysis.

Kenoyer, Prof. Leslie A(lva), Western Michigan College of Education, Kalamazoo, Mich. *Plant ecology.* Dover, Ill, April 14, 83. A.B, Campbell Col, 06; A.M, Kansas, 08; Ph.D, Chicago, 16, Iowa State Col, 16. Prof, high sch, Kans, 08–09; biol, Leander Clark Col, 10–15; Ewing Christian Col, India, 16–22; asst. prof. bot, Mich. State Col, 22–23; *prof. and head dept. biol, West. Mich. Col. Educ, 23–* A.A; Bot. Soc; Ecol. Soc; Mich. Acad. (pres, 41). Ecology of nectar secretion; tropical ecology; Mexican botany.

Kenrick, Prof. Frank B(oteler), 77 Lonsdale Road, Toronto, Ont, Can. *Chemistry.* Send, Eng, Feb. 4, 74. B.A, Toronto, 94, 1851 Exhib. scholar, 94–97, M.A, 01; Ph.D, Leipzig, 96. Asst. *chem, Toronto,* 97–00, lecturer, 00–07, assoc. prof, 07–19, *prof, 19–* Chem. Soc; fel. Royal Soc. Can. Physical chemistry; equilibrium; rate of reaction; surface tension phenomena.

Kenrick, Prof. Gleason W(illis), Rio Piedras, P. R. *Radio engineering.* Brockton, Mass, May 25, 01. B.S, M.S, Mass. Inst. Tech, 22, Sc.D, 27. Dept. physics, Mass. Inst. Tech, 20–22; dept. develop. and research, Am. Tel. and Tel. Co, 22–23; dept. elec. eng, Mass. Inst. Tech, 23–27; Moore sch. elec. eng, Pennsylvania, 27–29; asst. prof, Tufts Col, 29–34, director communication research, 31–34; *prof. physics and director radio research lab, Puerto Rico, 34–, director solar radiation studies, Columbia Sch. Trop. Med, 39–* Consulting physicist, Bur. Standards, 30–31; special consultant communications, Radio Corp. Amer, 34–38; consulting prin. physicist, P. R. Reconstruction Admin, 35–39; sec'y cmt. cooperation, Am. sect, U.R.S.I, 31–38. A.A; fel. Radio Eng. (papers cmt, 30–32, ed. board, 32–34); Eng. Educ; Meteorol. Soc; fel. Physical Soc; Geophys. Union (cmt. cosmic terrestrial relationships, 40–). Low and high frequency radio transmission; harmonic analysis of irregular motions; the height of the Kennelly-Heaviside layer; radio wave propagation phenomena; atmospherics.

Kensler, Dr. George T(ilghman), Kraft Cheese Co, 500 Peshtigo Court, Chicago, Ill. *Bacteriology.* Bicknell, Ind,

Jan. 25, 02. B.S, Purdue, 28, Ph.D, 40. Asst. bacteriologist, Lederle Labs, Inc, 29–36; assoc. bacteriologist, Pitman Moore Co, 37–39; *chief bacteriologist, Kraft Cheese Co, 40–* Soc. Bact. Immunology of toxic substances produced by streptococci isolated from equine encephalomyelitis; staphylococcus toxin and toxoid.

Kent, Prof. Carleton V(olney), 626 Ohio St, Lawrence, Kans. *Physics.* Marshalltown, Iowa, April, 81. B.S, M.S, Iowa, 04; Ph.D, Michigan, 15. Prof. *physics,* Carleton Col, 05–13; instr, Michigan, 14–18, 19–22; asst. prof, *Kansas,* 22–23, assoc. prof, 23–25, *prof, 25–* Visiting prof, Michigan, 41– Physical Soc. Metallic conduction of electricity; optical constants of metal; photoelectric determination of elliptically polarized light.

Kent, Prof. C(larence) H(ammond), College of the City of New York, New York, N. Y. *Mechanical engineering.* Churubusco, Ind, Oct. 16, 92. B.S, Purdue, 15, M.E, 27; Ph.D, Michigan, 31. Engineer, Westinghouse Elec. and Mfg. Co, 14–17; assoc. prof. *mech. eng,* Nevada, 20–28; prof. and head dept, Arkansas, 28–30; *prof,* Pa. State Col, 31–37; *Col. City of N. Y, 37–* Lieut, C.Eng, 17–19. Mech. Eng; Eng. Educ. Thermal stresses in solid bodies; stresses in machine parts.

Kent, Dr. George C(antine), Jr, Louisiana State University, Baton Rouge, La. *Zoology.* Kingston, N. Y, July 25, 14. A.B, Maryville Col, 37; A.M, Vanderbilt, 38, Ph.D, 42. Asst. biol, Maryville Col, 36–37; teaching fellow, Vanderbilt, 37–42; *instr. comp. anat, Louisiana, 42–* A.A; Asn. Southeast. Biol; Tenn. Acad. Vertebrate anatomy; histology and cytology of endocrines.

Kent, Prof. G(eorge) C(larence), 430 Franklin Ave, Ames, Iowa. *Plant pathology.* Keene, N. H, July 28, 10. Rhodes scholar, Oxford, 30–33, B.A, 33; Ph.D, Iowa State Col, 36. Instr. *plant path, Iowa State Col,* 37–39, *asst. prof, 39–* Phytopath. Soc. Bacteriophages of plant pathogenic bacteria; inhibitive substances produced by plant pathogens; diseases of fruits and ornamentals; nutrition of plant pathogens.

Kent, Dr. Grace H(elen), Box 50, Hathorne, Mass. *Psychology.* Michigan City, Ind, 75. A.B, Iowa, 02, A.M, 04; Ph.D, George Washington, 11. Psychol. research, Phila. Hosp. for Insane, 06–07; Kings Park State Hosp, N. Y, 07–10; Govt. Hosp. for Insane, Wash, D. C, 10–11; State Hosp, Warren, Pa, 11–12; *psychologist,* State Training Sch, Clinton, S. C, 20–22; Worcester State Hosp, 22–26; *Danvers State Hosp, 28–* Psychol. Asn; Asn. Applied Psychol; Mass. Soc. Research in Psychiatry. Psychiatry; association in insanity; habit formation in dementia praecox; occupations for the insane; performance tests; tests of special aptitudes; individual psychology.

Kent, Dr. Lois Schoonover, 624 Third St, Marietta, Ohio. *Paleontology.* Marietta, Ohio, Dec. 1, 12. A.B, Oberlin Col, 34; A.M, Cornell, 36; Ph.D, Bryn Mawr Col, 40. Asst, Paleont. Research Inst, 34–36; demonstrator geol, Bryn Mawr Col, 36–40; junior geologist, *sect. metalliferous deposits, U. S. Geol. Surv,* 41–43, *asst. geologist, 43–* Paleont. Research Inst; Paleont. Soc; Geol. Soc. Wash. Miocene mollusks of Maryland.

Kent, Prof. Norton A(dams), 1 Waterhouse St, Cambridge, Mass. *[2]Physics.* New York, N. Y, July 28, 73. A.B, Yale, 95, 97–98, Ph.D, Hopkins, 01. Asst, Yerkes Observatory, Chicago, 01–03; prof. *physics,* Wabash Col, 03–06; asst. prof, Boston, 06–10, prof, 10–42, director dept, 06–42; *visiting prof, Mass. Inst. Tech, 42–* Fel. Am. Acad. (councilor and chairman Rumford cmt). Zeeman effect; electric spark in liquids and in air at high pressure; shifts of spark lines due to changed conditions; vacuum tube discharge in magnetic field; magnetic separation of lithium doublets; line structure; mounting of Littrow spectrograph; wave-lengths of H_2 spectrum lines; interferometer determination of wave-lengths.

Kent, Dr. O(liney) B(rown), Quaker Oats Co, Chicago, Ill. *Poultry husbandry.* Meriden, Conn, Nov. 16, 90. B.S, Cornell, 13, M.S, 14, Ph.D, 17 Instr. poultry husbandry, Cornell, 13–17, asst. prof, 17–20, prof, 20–22; *manager feed service, Quaker Oats Co, 22–* Poultry Sci. Asn. (pres, 20, sec'y and ed, 'Jour,' 21). Poultry and livestock nutrition and management; zoology.

Kent, R(obert) H(arrington), Aberdeen Proving Ground, Md. *Engineering.* Meriden, Conn, July 1, 86. A.B, Harvard, 10, A.M, 16. Asst. physics, Harvard, 10–16, instr. math, 14; elec. eng, Pennsylvania, 16; capt, *Ordnance Dept, U. S. Army,* 17–19, *ordnance engineer, 19–* A.A; Physical Soc. Ordnance engineering; exterior and interior ballistics; instruments for ballistic measurements; projectile aerodynamics.

Kenton, Dr. Harold B(enjamin), New England Deaconess Hospital, Boston, Mass. *Bacteriology, Immunology.* Forsyth, Ill, June 6, 02. B.S, Chicago, 30, Ph.D, 33. Instr. prev. med, Chicago, 31–41; *bacteriologist, New Eng. Deaconess Hosp, 41–* Asn. Immunol; Asn. Path. and Bact. Inflammatory reactions in immunity.

Kenty, Dr. Carl, General Electric Co, Nela Park, Cleveland, Ohio. *Physics.* Elmsdale, N. S, Can, July 12, 02. B.Sc, Dalhousie, 23, MacGregor fellow, 24–25, M.Sc, 25; fellow, Princeton, 28, Ph.D, 29. Instr. physics, Princeton, 26–27, asst, 29; *research physicist,* Gen. Elec. Vapor Lamp Co, 30–39; *lamp develop. lab, Gen. Elec. Co, 39–* A.A; Physical Soc. Surface layers on tungsten; activation of nitrogen by electron impact; recombination of argon ions and electrons; photoelectric and metastable atom emission of electrons from surfaces; collisions involving ionization; photo electric efficiencies in the extreme ultra violet; resonance radiation diffusion; physics of gas discharge lamps, including the high pressure mercury arc.

Kenworthy, Prof. Ray W(illiam), University of Washington, Seattle, Wash. *Physics.* Boone Grove, Ind, Nov. 29, 98. A.B, Iowa, 24, M.S, 25; Ph.D, Washington (Seattle), 38. Instr. *physics,* S. Dak. State Col, 25–28, asst. prof, 28–29; instr, *Washington (Seattle),* 29–39, *asst. prof, 39–; capt, Chem. Warfare Service, U. S. Army.* Acoustical Soc; Physical Soc. Thermionics; acoustics.

Kenyon, Otis Allen, 247 Park Ave, New York, N. Y. or Steamboat Road, Greenwich, Conn. *Electrical engineering.* Baldwinsville, N. Y, Nov. 19, 79. M.E, Cornell. Ed, McGraw-Hill Book Co, 05–11; asst. to Dr. Edward Weston, 11; consulting engineer, 12–15; chief engineer, Arc Welding Machine Co, 15–18; v. pres, Ray D. Lillibridge, Inc, 19–29; *treas, Kenyon and Eckhardt, Inc, 29–, chairman board, 42–* A.A; Elec. Eng; Soc. Automotive Eng. Arc welding; production processes; market distribution; stray currents; induction coils; engineering mathematics.

Kenyon, Reid L, 2806 Elmo Place, Middletown, Ohio. *Metallurgy.* Indianapolis, Ind, Dec. 7, 96. B.S, Purdue, 19, Chem.E, 27. Chemist, Hercules Powder Co, 18–19; research metallurgist, *Am. Rolling Mill Co,* 20–40, *assoc. director research labs, 40–* Am. Iron and Steel medal, 33. Soc. Test. Mat; Soc. Metals (trustee, 35–37); Mech. Eng; Army Ordnance Asn. Testing of metals, including development of apparatus and technique; aging and blue brittleness of iron and mild steel.

Kenyon, Prof. W(alter) A(lexander), Hamline University, St. Paul, Minn. *Zoology.* Alfred, N. Y, June 15, 97. A.B, Milton Col, 19; A.M, Wisconsin, 22, Ph.D, 24. Instr. biol, Milton Col, 20–21; asst. zool, Wisconsin, 21–24; asst. prof. *biol, Hamline,* 24–26, assoc. prof, 26–27, *prof, 27–* Summers, investigator, Bur. Fisheries, 22–24; aquatic biologist, State Conservation Dept, Minn, 39–43. A.A; Soc. Zool; Ecol. Soc; Eng. Soc; Soc. Mammal; Minn. Acad. (v. pres, 34). Physiology; genetics; animal ecology; digestion in poikilothermal vertebrates; electric potentials and cell respiration in growing root tips.

Kenyon, Dr. William O(rlin), 134 Merrick St, Rochester, N. Y. *Organic chemistry.* Concordia, Kans, April 23, 05. B.S, Washburn Col, 27; Cornell, 27–28; A.M, Kansas, 31; Ph.D, Rochester, 35. Anal. chemist, Columbia chem. div, Pittsburgh Plate Glass Co, Ohio, 27; asst. chem, Cornell, 27–28; research chemist, Nat. Aniline and Chem. Co, Buffalo, N. Y, 28; instr. chem, Washburn Col, 28–30; *research chemist, Eastman Kodak Co, Rochester, 30–, asst. supt. in charge org. research lab, 37–* Chem. Soc. (sec'y-treas, cellulose div, 33–38, v. chairman, 39, chairman, 40); Optical Soc. Reduction of aromatic nitro and nitroso compounds; alkaline decomposition of cellulose nitrate; cellulose esters; synthetic resins; oxidation of cellulose.

Keosian, Prof. John, 57 Fifth Ave, New York, N. Y. *Physiology.* Armenia, March 28, 06. B.S, N. Y. Univ, 27, Ph.D, 36. Asst. *biol,* Wash. Sq. Col, N. Y. Univ, 27–33; instr, *Newark,* 33–37, asst. prof, 37–42, *assoc. prof, 42–* Summers, asst. prof, N. Y. Univ, 41– N. Y. Acad. Cellular physiology; renal function; microchemistry.

Kepfer, Dr. Raymond J(ohn), 420 S. Eighth Ave, La Grange, Ill. *Chemistry.* Idaville, Ind, March 26, 02. A.B,

DePauw, 26; A.M, Wisconsin, 28, Ph.D, 30. Asst. anal. chem, DePauw, 25–26; gen. chem, Wisconsin, 26–30; *research chemist, E. I. du Pont de Nemours and Co, 30–* Chem. Soc. General, physical and colloidal chemistry.

Kephart, L(eonard) W(heeler), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Ithaca, N. Y, Jan. 10, 92. B.S, Cornell, 13. Sci. asst, *bur. plant indust, U. S. Dept. Agr,* 13–21, asst. agronomist, 21–23, assoc. agronomist, 23–28, agronomist, 28, *senior agronomist, 28–* Bot. explor, E. Africa, 27–28. Soc. Agron; Bot. Soc. Wash. Weed control; forage crops; taxonomy; plant breeding.

Kepner, Prof. H(arold) R(aymond), Utah State Agricultural College, Logan, Utah. *Civil engineering.* Mt. Hope, Ohio, Sept. 18, 95. A.B, Ohio Wesleyan, 17; B.S, Mass. Inst. Tech, 20, M.S, 25. Asst. engineer, Sanit. Dist, Chicago, 20; State Dept. Health, Ill, 20–22; Water Supply Board, Providence, 22–23; Cannett, Seelye and Fleming, Inc, 23; asst. and instr. civil eng, Mass. Inst. Tech, 23–25; Rensselaer Polytech, 25–30; from asst. prof. to *prof. eng, Utah State Col, 30–* Assoc. Civil Eng. Welding and structural steel joints; pressures in soil stacks; model analysis.

Kepner, Prof. W(illiam) A(llison), University of Virginia, Charlottesville, Va. *[5]Zoology.* Mt. Alto, Pa, July 9, 75. A.B, Franklin and Marshall Col, 98, A.M, 00, Sc.D, 26; Göttingen, 03; fellow, Princeton, 03–04; Ph.D, Virginia, 08. Prof. invert. zool, Pa. State Nor. Sch, Millersville, 01; teacher, Leyte Island, P. I, 01–03; instr. *biol, Virginia,* 04–08, adj. prof, 08–17, *prof, 17–* A.A; Soc. Nat; Soc. Zool. (ed, 'Jour. Morphol,' 37–). Animal histology; food reactions of Amoeba; nematocysts of Microstoma; special sense organs of Rhabdocoeles; structure and reactions of Hydra.

Keppel, Dr. David, Montrose, N. Y. *Geology.* Quogue, N. Y, Aug. 5, 11. A.B, Columbia, 32, A.M, 34, Ph.D, 40. Field asst, Tenn. Valley Authority, 33–34; geol. and geog, Texas Co, 34–35; asst. geol, Columbia, 35–36; tutor, Brooklyn Col, 36–37; teaching fellow geol, Wesleyan Univ, 37–38, instr, 38–41; asst. tech. aide, Nat. Defense Research Cmt, 41–42; *geologist, Colonial Mica Corp, 42–* Geologist, Conn. Geol. and Nat. Hist. Surv, 38–41. A.A; Miner. Soc; Min. and Metal. Eng; Geophys. Union. Structural geology; petrology.

Kerber, Lawrence Vincent, Lockheed Aircraft Corp, Burbank, Calif. *Aeronautics.* Sandusky, Ohio, Sept. 2, 95. B.S, Michigan, 18, A.E, 36. Chief aerodynamist, material div, A. C, U.S.A, Wright's Field, Dayton, 25–27; Guggenheim prof. applied aeronaut, Michigan, 28; chief engineer, aeronautics branch, U. S. Dept. Commerce, 29; pres, Spartan Aircraft Co. and Spartan Sch. Aeronautics, Tulsa, Okla, 29–32; chief aircraft airworthiness sect, bur. air commerce, U. S. Dept. Commerce, 34–38; manager Washington office, *Lockheed Aircraft Corp,* 38–41, *contract officer, Burbank, Calif, 41–* Tech. adviser, Congressional cmt, A.S, U.S.A, 24; mem. aerodynamics cmt, Nat. Advisory Cmt. Aeronautics, 35–38. Stability, performance and structural design of airplanes.

Kercheval, Prof. James W(illiam), State Normal College, Ypsilanti, Mich. *Organic chemistry.* Rowan, Iowa, Oct. 7, 06. A.B, Iowa State Col, 29; M.S, Iowa, 34, Ph.D, 39; Colorado, summers, 35–37. Teacher, high sch, Iowa, 25–37; asst, Iowa, 37–39; *asst. prof. chem, Mich. State Nor. Col, 39–* Chem. Soc; Iowa Acad. Disaccharides in hydrol.

Kerchner, Prof. R(ussell) M(arion), 1730 Poyntz Ave, Manhattan, Kans. *Electrical engineering.* Belleville, Ill, July 29, 99. B.S, Illinois, 22; M.S, Kans. State Col, 27. Instr. *elec. eng, Kans. State Col,* 22–25, asst. prof, 25–27, assoc. prof, 27–34, *prof, 34–* Power transformer engineer, Gen. Elec. Co, 37–38. Elec. Eng. (exec. cmt, Kansas City sect, 40–42); Eng. Educ. Power engineering; direct current machinery; alternating current circuits.

Kerekes, Prof. Frank, 1123 Burnett Ave, Ames, Iowa. *Engineering.* Budapest, Hungary, Jan. 13, 96. B.S, Col. City of N. Y, 17; C.E, Columbia, 20. Asst. tutor, Col. City of N. Y, 17; instr. math, night sch, Navy Y.M.C.A, Brooklyn, 18; asst. tutor, night sch, Columbia, 19; asst. prof. *struct. eng, Iowa State Col,* 20–25, assoc. prof, 25–31, *prof, 31–* Engineer, N. Y. Cent. R. R, 17, 26, 27; bridge computer, Steinman and Robinson, 25. Summers, eng. exp. sta, Iowa State Col, 21–25. Chairman, Ames City Plan Cmn, Iowa, 39– Civil Eng; Eng. Educ. (chairman, civil eng. div, 34); Ry. Eng; Concrete Inst; Soc. Planning Officials; Iowa Eng. Soc. (chairman, struct. sect, 33, 34). Analysis and design of steel structures; theory of engineering drawing with applications.

Keresztesy, Dr. John C(harles), 684 Rahway Ave, Westfield, N. J. *Chemistry.* New York, N. Y, Aug. 17, 07. B.S, Col. City of N. Y, 28; A.M, Columbia, 32, Ph.D, 35. Asst, Columbia, 29–34; *chemist, Merck and Co, 34–* Chem. Soc; Soc. Biol. Chem. Vitamins; starch; nutritional factors.

Kern, Prof. Edward F(rank), Route 2, Argyle, N. Y. *Chemistry, Metallurgy.* Knoxville, Tenn, Dec. 13, 72. B.S, Tennessee, 97; Pennsylvania, 99–00; Ph.D, Columbia, 01. Electrometallurgist, Can. Smelting Works, Trail, B. C, 01–02; research metallurgist and electrometallurgist, Belt's Lab, Troy, N. Y, 02–05; instr. *metal. and electrometal, Columbia,* 05–11, prof, 11–40, *emer. prof, 40–* A.A; Chem. Soc; Min. and Metal. Eng; Electrochem. Soc; Ceramic Soc; fel. N. Y. Acad. Uranium; vanadium; lead coulometer; electrolytic addition agents; electrolytic refining of copper, lead, silver, nickel, iron, tin, zinc and lead-tin alloys; treatment of anode residues; conductivity and specific heat of electrolytes; electrode potentials; recovery of metals from ores, mattes, speiss and metallurgical products; high temperature refractories; tarnish resisting silver alloys; agricultural products as electrolytic addition agents; recovery of aluminum.

Kern, Dean Frank D(unn), Pennsylvania State College, State College, Pa. *[3]Botany.* Reinbeck, Iowa, June 29, 83. B.S, Iowa, 04; M.S, Purdue, 07; fellow, Columbia, 10–11, Ph.D, 11; Sc.D, Puerto Rico, 26. Asst. animal morphol. and physiol, Iowa, 02–04; special agent, bur. plant indust, U. S. Dept. Agr, 04–05; asst. and assoc. botanist, Exp. Sta, Purdue, 05–13, instr. crypt. bot, 10–11; *prof. bot. and head dept, Pa. State Col, 13–, dean grad. sch,* 22– Research scholar, N. Y. Bot. Garden, 06–08, 10; collaborator, bur. plant indust, U. S. Dept. Agr, 07–; dean cols. agr. and eng, Puerto Rico, 25–26, 33–34. Pub. Instruction medal, Venezuela, 34. A.A; Phytopath. Soc. (v. pres, 14, councilor, 16); Bot. Soc; Mycol. Soc. (councilor, 42); Torrey Bot. Club; Pa. Acad. (pres, 29); Ind. Acad; Deuts. Bot. Gesell. Fungus diseases of crop plants; the genus Gymnosporangium; plant rusts.

Kern, Dr. Richard A(rminius), University of Pennsylvania, Philadelphia, Pa. *Medicine.* Columbia, Pa, Feb. 20, 91. A.B, Pennsylvania, 10, M.D, 14. Instr. med, *Pennsylvania,* 16–21, assoc, *sch. med. and grad. sch. med,* 21–28, asst. prof, 28–34, *prof. clin. med, 34–* Asst. physician, Univ. Hosp, 19– Am. Med. Asn; assoc. Am. Physicians; Soc. Clin. Invest; Soc. Study Asthma (pres, 34); Clin. and Climat. Asn; Col. Physicians; Asn. Study Allergy (pres, 31); Col. Physicians Phila; Path. Soc. Phila. Internal medicine; allergy.

Kernaghan, Mother Marie, R.S.C.J, Maryville College, St. Louis, Mo. *Physics.* New Orleans, La, June 9, 89. A.B, St. Louis, 21, A.M, 25, Ph.D, 29. Instr, Acad. Sacred Heart, Grand Coteau, 10–13; St. Michael's, La, 13–14; St. Charles, 14–15; *Maryville Col,* 15–23, *physics and math,* 23–25, asst. prof, 25–29, *prof. and head dept, 29–* Exchange prof, Convent Sacred Heart, England, 35– Summers, prof, Nor. Training Col. Sacred Heart, 37; San Francisco Col. for Women, 38, 39. A.A; Physical Soc; Asn. Physics Teachers; Math. Soc; Council Teachers Math; Astron. Soc. of the Pacific; Mo. Acad; St. Louis Acad. Surface tension of liquid metals.

Kernkamp, Dr. Howard C(arl) H(enry), University Farm, St. Paul, Minn. *Veterinary medicine.* St. Paul, Minn, Jan. 30, 92. D.V.M, Ohio State, 14; M.S, Iowa State Col, 28. Instr. *vet. med, Minnesota,* 14–16, asst. prof, 16–28, *assoc. prof, 28–* Vet. Med. Asn. (trustee, 35–40). Diseases of swine; hog cholera; influenza; brucellosis; enteritis complex.

Kernohan, Prof. J(ames) W(atson), Mayo Clinic, Rochester, Minn. *Pathology.* Moyasset, Ireland, Oct. 1, 97. B.A.O, M.B, B.Ch, Queens (Ireland), 20, D.P.H, B.Sc, 21, M.D, 31; Mayo Foundation fellow, Minnesota, 22–24, A.M, 24. Clin. pathologist, Crichton Royal Inst, Scotland, 21–22; asst. path. anat, *Mayo Clinic,* 25, *assoc. path. anat. and neuropath, 25–;* asst. prof. and *assoc. prof. path, Mayo Foundation, Minnesota, 29–* Asn. Path. and Bact; Am. Med. Asn; Neur. Asn; Cent. Neuropsychiat. Asn; Minn. Path. Soc; Minn. Neur. Asn; British Med. Asn. Pathologic anatomy; neuropathology; surgical pathology.

Kerns, Kenneth R(aymond), Wahiawa, Oahu, Hawaii. *Genetics.* Santa Cruz, Calif, Nov. 12, 03. B.S, Hawaii, 26, M.S, 31; Am-German exchange fellow, Berlin, 31. *Exp. Sta, Hawaii, U. S. Dept. Agr, 26–, asst. geneticist, Exp. Sta, Pineapple Research Inst. Hawaii, 27–* Genetics of the pineapple.

Kerr, C(harles) H(enry), 1020 LeRoy St, San Diego, Calif. *Ceramics.* Cleveland, Ohio, Sept. 23, 84. E.M, Ohio State,

09. Chemist, Riverton Lime Co, 05; Abrasive Materials Co, 06; Carborundum Co, 07–08; Am. Optical Co, 09–11; director research lab, Pittsburgh Plate Glass Co, 11–17; research manager, Am. Optical Co, 17–20; v. pres, De Zeng Standard Co, Camden, N. J, 20–26; works manager and later v. pres. and gen. manager, Brown Instrument Co, 26–35; *retired*. Mem, War Production Board, 42– Ceramic Soc; Chem. Soc; Optical Soc. Glass; refractories; optics; instruments.

Kerr, Dr. C(harles) V(olney), 418 Ulysses St, Los Angeles, Calif. *Engineering*. Miami Co, Ohio, March 27, 61. Ph.B, Pittsburgh, 84, Ph.D, 98; M.E, Stevens Inst. Tech, 88. Prof. eng, Arkansas, 91–96; mech. eng, Armour Inst. Tech, 96–02; *chief engineer, Kerr Turbine Co, and consulting mech. engineer, 02–* Mech. Eng; Ark. State Teachers Asn. (past pres). Centrifugal pumping machinery; moment of inertia and resistance; potential efficiency of prime movers; Berthier method of coal calorimetry; gas engine efficiency as modified by point of ignition; theory and development of steam turbines, condensers and deep well pumps.

Kerr, Dr. H(arold) Dabney, University Hospital, Iowa City, Iowa. *Radiology*. Catonsville, Md, Oct. 16, 92. B.S, Wisconsin, 16; M.D, Hopkins, 19. Assoc. roentgenol, Peking Union Med. Col, 27–28; instr, Michigan, 28–29; assoc. prof, *Iowa, 30–33, prof. and head dept. radiol, 33–* Am. Med. Asn; Radiol. Soc. N. Amer; Roentgen Ray Soc. (sec'y, 41); fel. Col. Radiol; Am. Board Radiol. Radiotherapy; radiobiology; diagnostic roentgenology.

Kerr, Dr. J(ohn) A(ustin), Caixo Postal 89, Rio de Janeiro, Brazil, S. Amer. *Tropical medicine*. Chicago, Ill, July 15, 00. B.S, M.D, Northwestern, 24. *Staff, int. health div, Rockefeller Foundation, 26–* A.A; Soc. Parasitol; Soc. Trop. Med; Royal Soc. Trop. Med. and Hygiene. Epidemiology of jungle yellow fever; yellow fever vaccine.

Kerr, Dr. K(athel) B(edortha), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Parasitology*. Chicago, Ill, Jan. 28, 08. A.B, Oberlin Col, 29; M.S, Washington (St. Louis), 31; Sc.D, Hopkins, 36. Instr. zool, Washington (St. Louis), 32–34; nat. research fellow, Hopkins, 36–37; asst. bacteriologist, Tennessee, 37–38; junior zoologist, *nat. inst. health, U. S. Pub. Health Service, 38–40, asst. zoologist, 40–* Zoologist, State Dept. Pub. Health, Calif, 40–41. Pub. Health Asn; Soc. Parasitol. Immunity to helminths; trichinosis.

Kerr, Prof. Paul F(rancis), Columbia University, New York, N. Y. *[7]*Geology, Mineralogy*. Hemet, Calif, Jan. 12, 97. B.S, Occidental Col, 19; Ph.D, Stanford, 23. Acting instr. *miner*, Stanford, 23–24; instr, *Columbia*, 24–26, asst. prof, 26–32, assoc. prof, 32–40, *prof, 40–* Tech. consultant, U. S. Navy, 42–43. Summers, asst. prof, Stanford, 24–32; Carnegie Endowment for Int. Peace visiting prof, S. Amer, 41. Mem. cmt. on clay materials, Nat. Research Council. A.A; fel. Miner. Soc. (councilor, 31–33, sec'y, 34–); fel. Geol. Soc; Soc. Econ. Geol; Soc. X-ray and Electron Diffraction; fel. Am. Geog. Soc; Min. and Metal. Eng; N. Y. Miner. Club (past pres); fel. N. Y. Acad. (chairman, div. geol. and miner, 34, v. pres, 34); Miner Soc. Gt. Britain. Identification of minerals by means of x-ray diffraction patterns; coast range geology of California; mineralogy of clays; mineralogy of gem-stones; non-metallic minerals; optical mineralogy; opaque minerals; mineralogy of tungsten deposits; geology of non-metallic mineral deposits.

Kerr, Dr. Ralph W(aldo), 83 Cowley Road, Riverside, Ill. *Chemistry*. New York, N. Y, May 19, 99. A.B, Columbia, 21, A.M. and Ph.D, 24. Instr. biochem. and research assoc, Columbia, 24–29; *research chemist and head div. starch research, Corn Products Ref. Co, 29–* Chem. Soc; Asn. Cereal Chemists. Carbohydrate chemistry; starch; enzymes; starch manufacturing processes.

Kerr, Robert H(ay), 5507 43rd Ave, Hyattsville, Md. *Chemistry*. Lyon Co, Kans, Sept. 18, 81. B.S, Okla. Agr. and Mech. Col, 03; George Washington, 04–06. Asst. state chemist, Md. Agr. Col, 03–06; sci. asst, U. S. Dept. Agr, 06–07; chemist, Lazaretto Guano Works, Baltimore, Md, 07; *bur. animal indust, U. S. Dept. Agr, 07–, senior chemist in charge meat inspection labs.* Meat inspection; edible fats and oils; enforcement of the federal meat inspection act.

Kerr, Prof. Stanley E(lphinstone), American University of Beirut, Beirut, Lebanese Republic. *Physiological chemistry*. Hopewell, N. J, March 30, 94. B.S, Pennsylvania, 17, M.S, 21, Ph.D, 25. Instr. chem, Pennsylvania, 18–19, 20–21; adj. prof. *physiol. chem, American Univ. Beirut*, 25–28, assoc. prof, 28–35, *prof, 35–* Rockefeller fellow, Pennsylvania, 25; Harvard, 32–33; mem. staff, Biochem. Research Foundation, 41–42. Soc. Biol. Chem, N. Y. Acad. Inorganic composition of blood; effect of insulin on blood phosphorus, potassium and amino acids and on the phosphorus partition in muscle; permeability of erythrocytes; purine metabolism in muscle; methods for nucleotides in blood and tissues; phosphorus compounds and carbohydrate metabolism in the brain; nucleotide catabolism in brain.

Kerr, Dr. Thomas, North Carolina State College, Raleigh, N. C. *Botany*. Philadelphia, Pa, July 22, 05. A.B, Pennsylvania, 26, A.M, 29, Ph.D, 32. Asst. instr. bot, Pennsylvania, 26–28, 30–32; asst. biol, Wash. Sq. Col, N. Y. Univ, 28–30; nat. research fellow, Bussey Institution, Harvard, 32–34, fellow, 34–35, instr. bot, 35–36; assoc. cytologist, *bur. plant indust, U. S. Dept. Agr, Cooperative Exp. Sta, N. C. State Col*, 36–38, *cytologist, 38–* A.A; Bot. Soc. Micro-dissection; plant cell wall; cotton fiber structure.

Kerr, Dr. W(illia)m J(ohn), University of California Hospital, San Francisco, Calif. *Medicine*. Blencoe, Iowa, April 30, 89. B.S, California, 12; M.D, Harvard, 15. Intern, Mass. Gen. Hosp, 15–16; traveling fellow research med, Harvard, and fellow, Hooper Foundation, *California*, 16–17, instr. *med*. and exec. officer, med. div, *sch. med*, 19–21, asst. prof, 21–22, assoc. prof, 22–27, *prof, 27–, physician in chief, univ. hosp, 25–* Univ. Col. Hosp, London, 29. Consulting physician, San Francisco Hosp, 27– M.C, 17–19, major. A.A; fel. Am. Med. Asn; Heart Asn. (pres, 37–39); Rheumatism Asn. (pres, 37); Asn. Hist. Med; Asn. Study Int. Secretions; Am. Physicians; Col. Physicians (pres, 38); Pacific Interurban Clin. Club (pres); Calif. Acad. Med. (pres, 41); Calif. Tuber. Asn; San Francisco Tuber. Asn. (exec. councilor). The thyroid gland; heart disease; liver function; Raynaud's disease.

Kershman, Dr. John, Montreal Neurological Institute, Montreal, Que, Can. *Neurology, Psychiatry*. London, Eng, Sept. 14, 08. B.Sc, McGill, 27, M.D, 32, M.Sc, 33. Research fellow neur. and neurosurg, *McGill*, 32–41, *lecturer neur, 41–, exec. asst, Montreal Neur. Inst, 41–* Assoc. neurologist, Royal Victoria Hosp; Jewish Gen. Hosp; neurologist, Women's Gen. Hosp; Hosp. of Hope. Exec. cmt, Montreal Neur. Inst; family welfare and child welfare cmt, Federation Jewish Philanthropies. A.A; Can. Med. Asn. Neuroembryology; cytology; neuropathology; electroencephalography.

Kershner, Dr. Richard B(randon), Apt. 235, 3100 Connecticut Ave, N.W, Washington, D. C. *Mathematics*. Ohio, Oct. 11, 13. Ph.D, Hopkins, 37. *Instr. math*, Wisconsin, 37–40; *Hopkins, 40–* Math. Soc. Functions of real variables; packing problems; analytical mathematics.

Kerst, Prof. D(onald) W(illiam), University of Illinois, Urbana, Ill. *[7]*Physics*. Galena, Ill, Nov. 1, 11. A.B, Wisconsin, 34, Ph.D, 37; hon. Sc.D, Lawrence Col, 32. X-ray tube develop, Gen. Elec. X-ray Corp, 37–38; instr. *physics, Illinois*, 38–40, asst. prof, 40–42, *assoc. prof, 42–* With research lab, Gen. Elec. Co, 40–42. Comstock prize, Nat. Acad. Sciences, 43. A.A; Physical Soc. Nuclear physics; pressure electrostatic high voltage generation; originator of the betatron for acceleration of electrons by magnetic induction.

Kersten, Prof. H(arold John), University of Cincinnati, Cincinnati, Ohio. *Biophysics*. Ill, Sept. 10, 98. B.S, 23; M.S, Wisconsin, 24; A.M, Chicago, 26; Ph.D, Cincinnati, 38. Instr. math, *Cincinnati*, 26–31, asst. prof, 31–40, assoc. prof. *biophysics*, 40–43, *prof, 43–, fellow, grad. sch, 39–* A.A; Math. Soc; fel. Physical Soc; Chem. Soc; Soc. Plant Physiol; fel. Ohio Acad. Biological effects of radiations; crystal structure.

Kerswill, Dr. C(harles) J(ames), Prince Edward Island Biological Station, Ellerslie, P. E. I, Can. *Marine biology*. Toronto, Ont, Can, Sept. 20, 12. B.A, Toronto, 35, Ramsay Wright scholar, 40–41, Ph.D, 41; M.A, Western Ontario, 37. Demonstrator zool, Western Ontario, 35–37; asst. *biol*, Toronto, 37–40; *sci. asst, Fisheries Research Board, Can, 41–; in charge P. E. I. biol. sta. and oyster culture, Can. Dept. Fisheries, 42–* Summers, asst, Fisheries Research Board, Can, 37–41. Assoc. N. S. Inst. Oceanography; ecology of quahaug and soft-shell clam in Canadian Atlantic waters; oyster culture.

Kertesz, Dr. François, 195 Cleveland Ave, Great Kills, N. Y. *Electrochemistry, Ceramic chemistry*. Nagyvarad, Hungary, Oct. 16, 11. Ch.E, Inst. Tech. Stuttgart, 33; Sc.D, Paris, 38. Research worker, Ecole Pratique des Hautes Etudes, Paris,

37–38; lecturer, Palace of Discovery, French Nat. Council Sci. Research, 37, 38–39; in charge sci. sect, French Pavilion, New York World's Fair, 39–40; mem. research dept, New York Museum Science and Industry, 41; guest worker chem, Columbia, 41; *research chemist, E. I. du Pont de Nemours and Co, 41–* Chem. Soc; N. Y. Acad. Potentiometric and conductimetric measurements; ceramic pigments and materials.

Kertesz, Prof. Z(oltan) I(mre), New York Agricultural Experiment Station, Geneva, N. Y. *Chemistry.* Budapest, Hungary, Sept. 2, 03. B.S, Budapest, 25; Ph.D, Debreczin, 27. Instr. *chem,* Agr. Chem. Inst, Budapest, 26–27, asst, 28–29; instr. and asst, *N. Y. Exp. Sta, Geneva,* 29–30, asst. prof. and research assoc, 30–40, *prof. and chief in research, 40–* Biochem. Inst, Stockholm, 28, Rockefeller Foundation fellow, 37–38. Soc. Plant Physiol; Chem. Soc; Inst. Food Technol. Plant biochemistry; pectin and pectic enzymes.

Keshian, H(enry) G(arabed), Chase Companies, Inc, Waterbury, Conn. *Metallurgy.* Chepney, Sivas, Armenia. B.A, Cent. Turkey Col, 08; Ph.B, Yale, 13, E.M, 17. Winchester Repeating Arms Co, 15–17; *metallurgist, Chase Companies, Inc, 17–* Soc. Metals (chairman, cmt. on macroetching, 29, sec'y and chairman, New Haven chap, 26, 30, nat. director); Iron and Steel Inst. Gt. Britain. Testing, heat treatment and industrial application of ferrous and non-ferrous metals; deep etch test for iron and steel; dendric steel; tool steel; iron and steel used in a modern brass and copper mill; development and application of macroetching.

Kesler, Thomas L(ingle), U. S. Geological Survey, Washington, D. C. *Geology.* Salisbury, N. C, Dec. 29, 08. B.S, North Carolina, 29, M.S, 30. Asst. geologist, Shell Petrol. Corp, 30–31; junior geologist, U. S. Geol. Surv, 34; junior engineer, soil conservation service, U. S. Dept. Agr, 34–35, asst. engineer, 35–36; asst. geologist, *U. S. Geol. Surv,* 36–42, *assoc. geologist, 42–* Chief sect. nonmetallic products, Annotated Bibliog. Econ. Geol, 39–42. Soc. Econ. Geol; Geophys. Union; Geol. Soc. Wash. Structural and economic geology of the southern Appalachians; origin of metamorphic rocks.

Kesner, Prof. H(enry) J(ames), University of Nebraska, Lincoln, Nebr. *Civil engineering.* Ont, Can, Oct. 30, 83. A.B, Colorado, 05, B.S, 07, C.E, 11. Instr. *civil eng,* Minnesota, 07–08; California, 09–11, asst. prof, 11–13; instr, Purdue, 15–17, asst. prof, 17–18, assoc. prof, 18–21; Armour Inst. Tech, 21–23; asst. prof, *Nebraska,* 23–25, assoc. prof, 25–27, *prof, 27–* Civil Eng. Structural engineering.

Kessel, Prof. Edward L(uther), University of San Francisco, San Francisco, Calif. *Zoology.* Osborne, Kans, April 27, 04. B.S, California, 25, M.S, 28, Ph.D, 36. Instr. zool. and entom, Marquette, 28–30; asst. prof. *biol, San Francisco,* 30–36, assoc. prof, 36–38, *prof. and chairman dept, 38–* Ed, 'Wasmann Collector,' 39– A.A; Pacific Coast Entom. Soc; Wasmann Biol. Soc; Calif. Acad. Entomology; invertebrate embryology; herpetology.

Kessel, Prof. John F(lenniken), University of Southern California School of Medicine, Los Angeles, Calif. *Bacteriology, Medical zoology.* Medicine Lodge, Kans, Feb. 28, 94. A.B, Greenville Col, 19; A.M, California, 21, fellow, 23, Ph.D, 23. Asst. zool, California, 22–23; instr. biol, Peking Union Med. Col, 23–25, assoc. parasitol, 25–27; assoc. prof, California at Los Angeles, 27–29; trop. med, Col. Med. Evangelists, 28–29; *bacter. and parasitol, sch. med, Southern California,* 29–31, *prof, 31–; bacteriologist and parasitologist, Los Angeles Gen. Hosp, 28–* A.A; Soc. Bact; Soc. Zool; Soc. Parasitol; Soc. Exp. Biol; Soc. Trop. Med; Acad. Trop. Med; fel. Pub. Health Asn; Royal Soc. Trop. Med. Intestinal Protozoa of man and laboratory animals; intestinal bacteria; fungus infections of man; infectious myxomatosis; poliomyelitis.

Kessell, Prof. John E(rnest), 41 Lenox Road, Berkeley, Calif. *Physical geography.* Paris, France, May 23, 95. Halle-Wittenberg, 21–24; Lausanne, 26–27; Ph.D, California, 38. Instr. *geog, California,* 32–41, *asst. prof, 41–* Geophys. Union; Asn. Pacific Coast Geog; Natur. Wissenschaftliche Gesell. St. Gallen; Ostschweizerische Geog-Kommerzielle Gesell. Geomorphology.

Kessler, Prof. Clarence F(rank), 1756 Broadway Road, Ann Arbor, Mich. *Mechanical engineering.* Sandusky, Ohio, Jan. 9, 98. B.S.E, Michigan, 19, M.S.E, 24. Draftsman, Perfection Stove Co, Ohio, 19; Buick Motor Co, Mich, 20; instr. *mech. eng, Michigan,* 20–26, *asst. prof, 26–*

Kessler, D(aniel) W(illiam), 2031 Rosemont Ave, Washington, D. C. *Engineering.* Chillicothe, Mo, Aug. 20, 83. B.S, Missouri, 08; C.E, George Washington, 21. *Chief building stone sect, Bur. Standards, 14–* Soc. Test. Mat; Geol. Soc. Wash. Building materials, especially stone.

Kessler, Prof. Lewis H(anford), Room 2104, New War Bldg, Washington, D. C. *Engineering.* South Haven, Mich. March 12, 00. B.S, Wisconsin, 22, M.S, 28, C.E, 27. Instr. hydraul. eng, *Wisconsin,* 22–27, asst, 28–31, *hydraul. and sanit. eng,* 32–36, *assoc. prof, 37–; mem. staff, office chief of engineers, U. S. War Dept, 43–* Water Works Asn. (cmt. water hammer, 38–); assoc. Civil Eng. Pipe friction; air-lifts; erosion control spillways; oil truck tanks; water-hammer; tapered aeration and oxygen utilization by activated sludges.

Kesten, Dr. H(omer) D(avies), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Pathology.* Fond du Lac, Wis, April 15, 96. B.S, Wisconsin, 20, M.S, 21; M.D, Columbia, 24. Nat. research fellow, *Columbia,* 25–27, asst. *path, col. physicians and surg,* 26–28, assoc, 28–31, asst. prof, 31–43, *assoc. prof, 43–* Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Hemolysis; bacterial carbohydrates; arteriosclerosis.

Kester, Dr. Ernest B(owman), 401 Vermont Ave, Berkeley, Calif. *Organic chemistry.* Chicago, Ill, Jan. 9, 97. A.B, Minnesota, 22, M.S, 23; Ph.D, Northwestern, 27. Research chemist, Sharp and Dohme, Baltimore, 26–28; Baltimore Gas Eng. Corp, W. Va, 28–30; senior org. chemist, exp. sta, U. S. Bur. Mines, Pittsburgh, 30–33; fellow, Mellon Inst, 33–39; *senior chemist west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 39–* Lieut, C.W.Res, 26–35. A.A; Oil Chemists Soc; Chem. Soc. Organic chemistry of arsenic; chemical oxidation of aliphatic hydrocarbons; analytical procedures related to coal tar; constitution of low temperature tar; solvent analysis of coal; synthetic drugs; tar acid recovery; synthetic resins; technology of fats and oils; chemistry of saturated fatty acids.

Kester, Prof. F(rederick) E(dward), University of Kansas, Lawrence, Kans. *[*2]Physics.* Eaton, Ohio, Feb. 22, 73. M.E, Ohio State, 95, fellow, 95–96; A.M, Cornell, 99, Ph.D, 05; Göttingen, 03–04. Asst. *physics,* Ohio State, 96–98, instr, 99–01, asst. prof, 01–07, assoc. prof, 07–09; *prof, Kansas, 09–,* head dept, 09–41. A.A; fel. Physical Soc; Asn. Physics Teachers; Kans. Acad. Phosphorescence; grouping of asteroids; Joule-Thomson effect in gases.

Ketch, James M(oss), Nela Park, Cleveland, Ohio. *Electrical engineering.* Plain City, Ohio, Sept. 18, 92. James Millikin, 10–12; B.S, Illinois, 17, E.E, 28. Engineer, signal dept, Wabash R. R, 12–13; A. E. Staley Mfg. Co, Ill, 13–15; *illum. engineer, Gen. Elec. Co, 17–* Illum. Eng. (past v. pres, chairman, Mich. sect). Cotton mill lighting; depreciation of lighting equipment; lighting for the inspection of polished surfaces; lighting for special industrial processes; engineering aspects of direct lighting; louvered systems; expanding usefulness of a portion of the spectrum.

Ketcham, Dr. H(enry) C, 32 Albert St, Johnson City, N. Y. *Optical chemistry.* Brooklyn, N. Y, Aug. 27, 07. Ch.B, Cornell, 29, Bausch and Lomb fellow, 29–30, Ph.D, 33. Instr. chem, Cornell, 29–35; chemist, Corning Glass Works, 35–37; *optical chief, Link Aviation Devices, 40–* Summer, mem. Cornell exped, Lowell Observatory, 33. Chemical spectroscopy; glass technology; optical design.

Ketcham, H(enry) H(endricks), Box 484, Scranton 2, Pa. *Electrical engineering.* Menomonie, Wis, Dec. 28, 85. E.E, Lehigh, 09. Eng. dept, Cutler-Hammer Mfg. Co, 09–13; maintenance dept, Frisco Ry, 14–16; eng. dept, Chicago and Northwest. Ry, 17; Research Corp, 18; head elec. dept, United Y.M.C.A. Schools, 19–23; eng. dept, Honolulu Iron Works Co, 23–26; research dept, Leonard Refrigerator Co, 26–27; Forest Products Lab, U. S. Forest Service, 27–33; *tech. ed, Int. Correspondence Schs.* A.A; Elec. Eng; Mech. Eng; Mil. Eng. Mechanical and civil engineering; chemistry.

Ketchum, Dr. Bostwick H(awley), Oceanographic Institution, Woods Hole, Mass. *Marine biology.* Cleveland, Ohio, Jan. 21, 12. A.B, Columbia, 34; Ph.D, Harvard, 38. Asst, biol. labs, Harvard, 38–39; instr. biol, Long Island, 39–40; *biologist, U. S. Navy anti-fouling project, Oceanog. Inst, Woods Hole, 40–, assoc. marine biol, 40–* Summers, instr, N. H. Summer Sch, Isles of Shoals, N. H, 40. A.A; Bot. Soc. Nutrition of marine diatoms and other unicellular algae; fouling of ships' bottoms.

Ketchum, Prof. P(ierce) W(addell), University of Illinois, Urbana, Ill. *Mathematics.* Salt Lake City, Utah, Sept. 5, 03. B.S, Utah, 22; M.S, Illinois, 23, Ph.D, 26. Asst. ceramic eng, *Illinois,* 23–25, physics, 25–26, instr. *math,* 26–28, assoc, 28–37, *asst. prof,* 37– Mem, Inst. Advanced Study, 36–38; fellow and mem. faculty, sch. mech, Brown, 42–43. Math. Soc. Ceramic engineering; mathematical analysis; fluid dynamics.

Ketron, Dr. Lloyd W(arren), 1125 St. Paul St, Baltimore, Md. *Medicine.* Bloomingdale, Tenn, May 21, 85. M.D, Hopkins, 11. *Hopkins, 14–, assoc. prof. dermat, 28–, dermatologist, Hopkins Hosp.* Dermat. Asn. Acne vulgaris.

Kettelkamp, Prof. B(en) H, Wisconsin State Teachers College, River Falls, Wis. *Physiology.* Pana, Ill, June 25, 01. A.B, Kansas, 25, A.M, 26; Ph.D, Pittsburgh, 31. Instr. zool. in charge Erie branch, Pittsburgh, 27–35; *assoc. prof. biol. and head dept, Wis. State Teachers Col, 35–* A.A; Chem. Soc; Minn. Acad. Physiology of reproduction; oxidation rate of mammalian ova; physiology of prostate gland.

Kettering, Dr. Charles Franklin, Ridgeleigh Terrace, Dayton, Ohio. *Engineering.* Ashland Co, Ohio, Aug. 29, 76. A.B, Ohio State, 04, D.E, 29; hon. D.E, Polytech. Inst. Brooklyn, 30, Detroit, 34; Sc.D, Cincinnati, 28, Michigan, 29, Brown, 32, Toledo, 34, Northwestern, 35, Lafayette, 36; N. Y. Univ, 37. Pres, C. F. Kettering, Inc, 25; Flexible Co; v. pres, Moraine Develop. Co; Domestic Bldg. Co; *v. pres. and director, Gen. Motors Corp, 17–, gen. manager research labs. div.* Trustee, Antioch Col. Washington award, 36; Sullivant medal, Ohio State; John Scott Mem. award, 36; gold medal, Franklin Inst, 36; chevalier, Légion d'honneur, 37. Nat. Acad; A.A. (v. pres, M, 33); Elec. Eng; Soc. Mil. Eng; Soc. Automotive Eng. (pres, 17); Mech. Eng; Chem. Soc; Soc. Test. Mat; Physical Soc; Acad. Polit. and Social Sci; Philos. Soc; Gas Eng. Asn; Soc. Metals; Am. Acad; Ohio Acad; Eng. Soc. Detroit. Electrical and mechanical phases of the automotive industry; research engineering.

Keulegan, Dr. G(arbis) H(ovannes), 2302 Tunlaw Road, N. W. Washington, D. C. *Physics.* Armenia, July 12, 90. A.B, Ohio State, 13, A.M, 15; Ph.D, Hopkins, 28. Research engineer, Westinghouse Elec. and Mfg. Co, E. Pittsburgh, 19–21; asst. physicist, *Bur. Standards,* 21–28, assoc. physicist, 28–40, *physicist, 40–* Geophys. Union; Math. Asn; Wash. Acad. Elasticity; viscosity; hydrodynamics; hydraulics.

Keur, Dr. Dorothy L(ouise), 2475 Palisade Ave, New York, N. Y. *Anthropology.* New York, N. Y, Feb. 13, 04. A.B, Hunter Col, 25; A.M, Columbia, 28, Ph.D, 41. *Instr. anthrop, Hunter Col, 28–* Soc. Archeol; Soc. Physical Anthrop; Ethnol. Soc. Navaho archeology; Navaho acculturation, 1745–1812.

Keur, Prof. John Y(ak), Long Island University, Brooklyn, N. Y. *Phytopathology.* The Hague, Holland, Feb. 11, 04. B.S, Haarlem Col, Holland, 22; M.F, Yale, 25; Ph.D, Columbia, 34. Park commissioner, Manchester, Conn, 25–27; asst. naturalist, Bear Mountain Nature Trails, N. Y, 27–28; instr. *biol, Long Island,* 28–39, *asst. prof, 39–* Field work, Chaco Canyon, N. Mex, Smithsonian Institution; field investigator, Nat. Park Service, N. Mex; investigator, Park Asn. New York. Soc. Foresters; Phytopath. Soc; Hort. Soc; N. Y. Acad; Park Asn. New York. Virus diseases of the genus Abutilon; engineering accomplishments of prehistoric Indians in the Southwest; archeology of Chaco Canyon, New Mexico.

Kevorkian, Dr. Arthur G(eorge), Care of American Legation, Managua, Nicaragua. *Mycology, Plant pathology.* Providence, R. I, Dec. 15, 05. B.S, R. I. State Col, 29; A.M, Harvard, 31, Ph.D, 33. Instr. biol, Simmons Col, 34–36; lecturer bot, col. agr, Puerto Rico, 36–37, instr, 37; *with P. R. Exp. Sta, U. S. Dept. Agr, 37–* Edwin F. Atkins fellow, Cuba, 33; agr. adviser to Govt. Ecuador, 41. Collaborator, Ecuadorean Econ. Mission, 41. A.A; Phytopath. Soc; Mycol. Soc; Soc. Americana de Ciencias Agrícolas (sec'y-treas, Ecuador chap, 41). Morphology and cytology of aquatic Phycomycetes; morphology of Entomophthoraceae; vanilla and cinchona diseases and culture.

Kew, Dr. W(illiam) S(tephen) W(ebster), Standard Oil Bldg, Los Angeles, Calif. *Geology.* San Diego, Calif, June 15, 90. B.S, California, 12, M.S, 14, Ph.D, 17. Asst. geologist, U. S. Geol. Surv, 17, assoc. geologist, 18–20, *geologist,* 20–24; Gulf Oil Corp, 24–25; *Standard Oil Co. of Calif, 25–* Geol. surveys, Marland Oil Co, Sonora and Lower Calif, 20. A.A; Geol. Soc; Asn. Petrol. Geol; Seismol. Soc; Paleont. Soc; Calif. Acad. Paleontology; petroleum geology.

Key, Mrs. Francis B. (Dr. Wilhelmine E(nteman)), Somers, Conn. *Eugenics.* Hartland, Wis, Feb. 22, 72. A.B, Wisconsin, 94; fellow, Chicago, 99–01, Ph.D, 01. Asst, high sch, Wis, 94–98; zool, Chicago, 99–02; head. dept. biol. and nature study, N. Mex. Nor. Univ, 03–04; presiding teacher, Belmont Col, 07–09; prof. biol, Lombard Col, 09–12; eugenical field worker, eugenics record office, Carnegie Institution, 12–14; investigator, Pub. Charities Asn. of Pa, 14; educ. director, Pa. State Training Sch, Polk, 14–17; archivist, eugenics record office, Carnegie Institution, 17–20; in charge biol. and eugenics, Race Betterment Foundation, 20–25; *private research, 25–* A.A; Popul. Asn. Variation in Daphnia and Polistes; feeble-minded citizens; human heredity; race and family in the history of American institutions; heredity in fiction; differential fertility in old colonial families.

Key, Dr. J(ohn) A(lbert), Washington University School of Medicine, St. Louis, Mo. *Surgery.* Jackson, Miss, April 21, 90. B.S, Ala. Polytech, 13; M.D, Hopkins, 18. Instr. anat, Creighton, 15–16; res. house officer, Children's Hosp, Boston, 19–20; Mass. Gen. Hosp, 20–22; instr. applied physiol, Harvard, 21–22; *orthop. surg,* Maryland, 22–24; assoc. and asst. prof, *sch. med, Washington (St. Louis),* 26–30, *clin. prof, 31–* Visiting orthop. surgeon, Barnes, Children's, Jewish, Maternity and City Hosps; consulting surgeon, Shriners' Hosp. Crippled Children, 24–31. Lieut, M.C, 17–19. Am. Med. Asn; Acad. Orthop. Surg; Surg. Soc; Asn. Anat; Soc. Exp. Biol; Orthop. Asn. Anatomy and physiology of the bones and joints; chronic arthritis; orthopedic surgery.

Keyes, Prof. D(onald) B(abcock), University of Illinois, Urbana, Ill. ***Chemistry.* Westerly, R. I, Feb. 8, 91. B.S, New Hampshire, 13; A.M, Columbia, 14; Ph.D, California, 17. Asst. chem, Columbia, 14; teaching fellow, California, 14–17; chem. engineer, Bechman and Linden, 17–18; U. S. Indust. Alcohol Co, 18–24, director research, 24–26; *prof. chem. eng. and head div, Illinois, 26–;* consultant, Office Production Management, 41–42; *chief chem. industries branch office production research and develop, War Production Board, 43–* Summer, chief chem. sect, O.P.A.C.S, 41. A.A; Chem. Soc. (chairman Ind. div, 31); Electrochem. Soc; Chem. Eng. (director, 39); fel. Inst. Chem. (councilor, 43); Eng. Educ; Ill. Acad; Ill. Soc. Eng; Soc. Chem. Indust. Gt. Britain. Applied physical chemistry.

Keyes, Dr. Edward L(oughborough), Tuxedo, N. Y. *Medicine.* Elizabeth, N. J, May 15, 73. A.B, Georgetown, 92, Ph.D, 01; M.D, Columbia, 95. Prof. *urol,* Univ. and Bellevue Hosp. Med. Col, 10–11; *med. col, Cornell,* 11–37, *emer. prof, 37–* Officier, Légion d'honneur. A.A; Am. Med. Asn; Urol. Asn. (pres, 16); Soc. Clin. Urol. (pres, 23); Asn. Genito-Urinary Surg. (pres, 12); Social Hygiene Asn. (pres, 24–36, hon. pres, 37); hon. fel. Royal Col. Surg; Int. Urol. Soc. (pres, 26–35).

Keyes, Dr. Frederick G(eorge), Massachusetts Institute of Technology, Cambridge, Mass. ****Chemistry, Physics.* Kingston, Ont, Can, June 24, 85. B.S, R. I. State Col, 06; M.S, Brown, 07, G.A.R. fellow, Ph.D, 09; Sc.D, Yale, 34. Asst. chem, Brown, 06–07, instr, 08–09; research assoc. physical chem, Mass. Inst. Tech, 10–13; chief engineer, Cooper Hewitt Elec. Co, 13–16; assoc. prof. *physical chem. research, Mass. Inst. Tech,* 16–19, *director lab, 20–, in charge dept. chem, 22–* Consulting prof, Brown, 26– Director, C.W.S. research and control lab, Puteaux, U.S.A. Nat. Acad; Chem. Soc; Physical Soc; hon. mem. Soc. Refrig. Eng; Am. Acad. Gas metabolism of bacteria; equilibria measurements; development of kinetic theory; gas and liquid phase isometrics; thermodynamic properties of ammonia; establishment of the absolute temperature scale; low temperature and kinetic theory development.

Keys, Prof. Ancel (Benjamin), University of Minnesot. Minneapolis, Minn. *Physiology.* Colorado Springs, Colo, Jan. 26, 04. A.B, California, 25, A.M, 28, Ph.D, 30; Ph.D, Cambridge, 38. Asst, Scripps Institution, California, 27–30; nat research fellow, Copenhagen, 30–31; Cambridge, 31–32, lecturer and demonstrator, physiol. lab, 32–33; instr. biochem sciences, Harvard, 33–36; asst. prof. biochem, Mayo Foundation, *Minnesota,* 36–37, assoc. prof. biochem, 37, *physiol. and physical educ,* 37–38, *prof, 39–, director lab. physiol. hygiene 39–* Research assoc, Oceanog. Inst, Woods Hole, 33, 34; tutor Harvard, 34–36. Manager, Int. High Altitude exped, Chile 35. Soc. Biol. Chem; Soc. Exp. Biol; Physiol. Soc; Faraday Soc; cor. mem. Soc. Geográfica Americana, Buenos Aires. Physiology of the human heart; analytical methods; respira-

tion; exercise; human and applied physiology; high altitude; diet and fatigue.

Keys, Prof. David A(rnold), McGill University, Montreal, Que, Can. *Physics.* Toronto, Ont, Nov. 4, 90. Munich, 10–11; B.A, Toronto, 15, fellow, 15–16, M.A, 16; Whiting fellow, Harvard, 16–17, A.M, 18, Ph.D, 20, Sheldon traveling fellow, 20–21; B.A, Ph.D, Cambridge, 22. Austin teaching fellow, Harvard, 19–20; asst. demonstrator, Cavendish lab, Cambridge, 21–22; asst. prof. *physics, McGill,* 22–26, assoc. prof, 26–29, prof, 29–41, *Macdonald prof, 41–, director radio mech. sch, Royal Can. Air Force, 41–; in charge research personnel, Wartime Bur. Tech. Personnel, 41–* Physicist, anti-submarine div, Board Invention and Research Admiralty, 18–19. A.A; fel. Physical Soc; fel. Royal Soc. Can. Geophysics; cathode ray oscillograph and piezoelectricity; discharge of electricity through gases; spectroscopy.

Keyser, Prof. C(assius) J(ackson), Columbia University, New York, N. Y. *[1]Mathematics.* Rawson, Ohio, May 15, 62. Ohio Nor. Univ, 79–83; B.S, Missouri, 92, LL.D, 14; Michigan, 94; A.M, Columbia, 96, fellow, 96–97, Ph.D, 02, Sc.D, 29; L.H.D, Yeshiva Col, 42. Sch. supt, 85–89; prof. *math,* N. Y. State Nor. Sch, New Paltz, 92–94; instr, Smith Acad, Washington (St. Louis), 94–95; Barnard Col, Columbia, and tutor, *Columbia,* 97–00, instr, 00–02, adj. prof, 02–04, Adrain prof, 04–27, *emer. Adrain prof,* 27–, head dept, 10–16, *mem. advisory council, inst. int. educ.* Summers, instr, Mo. State Summer Sch, Kirksville, 92–93; prof, California, 11, 15, exchange prof, 16. Ed. pure math, 'Encyclop. Americana,' 04–; assoc. ed, 'Scripta Mathematica.' A.A. (v. pres, A, 08); Math. Soc; Philos. Soc; Mo. Valley Teachers Asn. (pres, 89). Geometry; foundations of mathematics and logic; philosophy of mathematics.

Keyser, Dr. Louis S(chroer), Ninth and Grant Sts, Shelton, Wash. *Organic chemistry.* Ancon, C. Z, Panama, Dec. 20, 10. B.S, Idaho, 34, M.S, 35; Ph.D, Illinois, 38. Hormel research fellow, Minnesota, 38–40; *research chemist, Rayonier, Inc, 40–* Chem. Soc. Cellulose.

Keyser, P(aul) V(ictor), Jr, 38–56 Hillcrest Ave, Douglaston, N. Y. *Chemical engineering.* Washington, D. C, Nov. 12, 06. B.S, Mass. Inst. Tech, 29, M.S, 30. Chem. engineer, Standard Oil of New York, 30–32; *Socony-Vacuum Oil Co, Inc,* 32–37, asst. in charge *gen. labs, tech. service div,* 37–38, *in charge, 38–* A.A; Chem. Soc; Asn. Tech. Chem. and Colorists. Colloids and petroleum; chemistry and processing.

Kezer, Prof. Alvin, Colorado State College, Ft. Collins, Colo. *Agriculture.* Bower, Nebr, Nov. 7, 77. B.S, Nebraska, 04, A.M, 06. Asst, bur. plant indust, U. S. Dept. Agr, 04–06; *prof.* soils, Nebraska, 06–09; agron. and farm management, *Colo. State Col,* 09–33, *agron, 33–,* chairman div. agr, 10–33, *chief agronomist, Exp. Sta.* A.A; Agr. Eng; Soc. Agron; Farm Econ. Asn; Genetic Asn; Chem. Soc. Agronomy; yellow berry in hard winter wheat; copper sulfate for pond scums; inoculation of Nebraska soils with alfalfa bacteria; Colorado soils and crops.

Kharasch, Prof. M(orris) S(elig), University of Chicago, Chicago, Ill. *[2]Organic chemistry.* Kremenetz, Ukrainia, Aug. 24, 95. B.S, Chicago, 17, Ph.D, 19. Lecture assoc, Chicago, 16–17, chemist, Sprague Mem. Inst, 18–19, nat. research fellow org. chem, 19–22; prof, Maryland, 22–28; assoc. prof, *Chicago,* 28–30, prof, 30–36, *Carl William Eisendrath prof. chem, 36–* Consultant, fixed nitrogen research lab, U. S. Dept. Agr; C.W.S, 26–; lecturer, Bur. Standards, 24. Subcmt. on metallo-organic compounds, Nat. Research Council. U.S.A, 18. Chem. Soc. Organo-metallic derivatives; the relation between the electronic structure and the physical properties of organic compounds; the theory of partial polarity in the interpretation of organic reactions; isolation of the orally effective principle of ergot; the peroxide effect in the addition of hydrogen bromide to ethylene and acetylene compounds.

Kibbe, Prof. Alice L(ovina), Carthage College, Carthage, Ill. *Biology.* Bridgewater, S. Dak, June 27, 81. A.B, Washington (Seattle), 10, A.M, 14; M.S, Cornell, 20, Ph.D, 26. Teacher, prin. and sch. supt; *prof. biol. and head dept, Carthage Col, 20–* Bot. Soc; Ill. Acad. Taxonomy; morphology; zoology; Alaria fistulosa; Chytridium alaria.

Kibler, Dr. A(lton) L(ewin), Edgewood Arsenal, Edgewood, Md. *Chemistry.* Trappe, Md, Dec. 6, 80. A.B, Randolph-Macon Col, 04; M.S, George Washington, 09, Ph.D, 12; Berlin; Karlsruhe Tech, 09–10. Research chemist, E. I. du Pont de Nemours and Co, 12–15; chief chemist, Picatinny Arsenal, 15–20; supt. platinum recovery, Old Hickory Powder Plant, Tenn, 20–21; *chief* physical dept, chem. div, *Edgewood Arsenal, Chem. Warfare Service,* 21–28, *information div, 28–, recorder patent board, 30–* Major, Ordnance Dept, 18–19. Chem. Soc. Explosives; recovery of platinum from used contact mass; aerosols; physical chemical aspects of toxicity; chemical warfare agents.

Kibler, Dr. Charles J(acob), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Greensboro, Md, June 20, 15. A.B, St. John's Col. (Md), 36; du Pont research fellow, Virginia, 38–39, Ph.D, 39. Teaching fellow chem, Virginia, 36–38; *research chemist, Eastman Kodak Co, 39–* Chem. Soc. 1, 4-diketones; poly aryl furans.

Kibrick, Dr. Andre C(hornac), 153 E. 27th St, New York, N. Y. *Biological chemistry.* New York, N. Y, April 25, 06. B.S, Harvard, 26; Ph.D, N .Y. Univ, 42. Chemist, City Health Dept, New York, 27–29; asst, Hosp. for Joint Diseases, 29–30; chemist, med. col, Cornell, 30–37; *asst. chem, med. col, N. Y. Univ, 41–, chemist, 42–* Harvey Soc. Protein research; vitamin P

Kidd, Dr. Desmond F(lfe), 5816 Kingston, Vancouver, B. C, Can. *Economic geology.* London, Eng, 05. B.A.S, British Columbia, 27; Ph.D, Princeton, 33. Asst. geologist, Geol. Surv. Can, 30–35; *consulting geologist, 35–* A.A; fel. Soc. Econ. Geol; Min. and Metal. Eng; Can. Inst. Min. and Metal; Asn. Professional Eng. B. C. Geology and mineral deposits; Northwest Territories of Canada.

Kidd, Dr. John G(raydon), Rockefeller Institute, New York, N. Y. *Pathology, Bacteriology.* Edgewood, Texas, July 20, 08. A.B, Duke, 28; M.D, Hopkins, 32. Intern and asst. res. physician, dept. med, Henry Ford Hosp, Detroit, 32–34; asst, *Rockefeller Inst,* 34–38, assoc, 38–42, *assoc. mem, 42–* Eli Lilly award, 39. Asn. Path. and Bact; Soc. Exp. Biol; Soc. Bact; Asn. Immunol; Harvey Soc; N. Y. Path. Soc. Experimental tumors; viruses.

Kidder, A(lbert) F(ranklin), 155 W. Losey St, Galesburg, Ill. *Agronomy.* Good Hope, Ill, April 2, 81. B.S, Illinois, 06. Asst, farm crops lab, Illinois, 04–06, soil physics, 06–07; asst. prof. agron, Louisiana, 07–10, prof, 10–19, agronomist and asst. director, Exp. Sta, 19–26; cotton breeder, Cañete, Peru, 26–27; director cotton exp. sta. and cotton breeder, Soc. Nacional Agraria, 27–33. Summers, asst, Ill. Soil Surv, 03, 04, 06. A.A; Soc. Agron. Plant breeding.

Kidder, Dr. Alfred, II, Harvard University, Cambridge, Mass. *Anthropology.* Nantucket, Mass, Aug. 2, 11. A.B, Harvard, 33, A.M, 35, Ph.D, 37. *Instr. and tutor anthrop, Harvard, 35–, asst. curator Andean archeol, Peabody Museum, 39–* Anthrop. Asn; Soc. Archeol. American archeology, particularly that of the Andean area.

Kidder, Dr. A(lfred) V(incent), 10 Frisbie Place, Cambridge, Mass. *[3]Archeology.* Marquette, Mich, Oct. 29, 85. A.B, Harvard, 08, A.M, 12, Ph.D, 14; LL.D, New Mexico, 34. Excavations in N. Mex, Harvard, 08. Austin teaching fellow, 10, 12–14, curator N. Am. archeol, Peabody Museum, 14; research, N. Mex. Territorial Museum, 10–11; director excavations in Pecos, N. Mex, Phillips Acad. (Andover), 15–29; assoc. in charge archeol. investigations, *Carnegie Institution,* 27–29, *chairman div. hist. research, 29–; mem. faculty and hon. curator southwest. Am. archeol, Harvard, 39–* Research assoc, Southwest Museum, Los Angeles, 27–30, mem. advisory cmt, 31–; Peabody Museum, Yale, 31–; chairman board, Lab. Anthrop, 27–35. V. chairman div. anthrop. and pyschol, Nat. Research Council, 24, chairman, 26. Chevalier, Légion d'honneur. Inf, 17–18, capt. Nat. Acad; Anthrop. Asn. (sec'y-treas, 22–25, pres, 42); Soc. Archeol. (pres, 37); Philos. Soc. Archeological exploration in northeastern Arizona; basket-maker caves in northeastern Arizona; southwestern archeology; artifacts of Pecos.

Kidder, Prof. George W(allace), Brown University, Providence, R. I. *Protozoology.* Oregon City, Oregon, Dec. 29, 02. A.B, Oregon, 26; A.M, California, 29; Ph.D, Columbia, 32. Instr. *biol,* Col. City of N. Y, 29–37; *asst. prof, Brown, 37–* Summers, instr, Marine Biol. Lab, Woods Hole, 35–40. Soc. Zool; Soc. Develop. and Growth; Soc. Nat. Life histories of ciliate commensals; ciliate cytology; neuromotor structures; ciliate chromatin and chromosomes; growth and populations; accessory growth substances.

Kiech, Prof. Veon C(arter), 1820 Los Lomas Road, Albuquerque, N. Mex. *Physiological chemistry.* Nettleton, Ark,

April 19, 04. A.B, New Mexico, 24; A.M, Stanford, 28, Ph.D, 31. From instr. to *prof. chem, New Mexico, 25–* A.A; Chem. Soc. Protein metabolism; metabolic rate.

Kiefer, Prof. Earl (Chester), 131 N. Summit Ave, Decatur, Ill. *Mathematics.* Frankfort, Mich, Oct. 29, 87. B.S, Mich. State Col, 13; M.S, Michigan, 19, fellow, 23. Instr. *math,* Mich. State Col, 13–18; asst. prof, Iowa State Col, 19–23; *prof, James Millikin, 23–* Math. Asn. (pres, Ill. sect, 26, 35; sec'y, 42); Eng. Educ. Friction.

Kiefer, Prof. Paul J(ames), U. S. Naval Academy, Annapolis, Md. *Mechanical engineering.* Camden, Ind, Nov. 26, 86. A.B, Wittenberg Col, 08; B.S, Case, 11, M.E, 30. Power plant design and construction, Int. Harvester Co, 11–13; instr. mech. eng, Pennsylvania, 13–18; asst. prof. steam eng, Illinois, 19–20; assoc. prof. *mech. eng, post-grad. sch, U. S. Naval Acad,* 20–25, *prof. and head dept, 25–* Lieut, U. S. Navy, 18–19. Mech. Eng; Meteorol. Soc; Naval Eng; Eng. Educ. Engineering and atmospheric thermodynamics.

Kieffer, Prof. William F(ranklin), Western Reserve University, Cleveland, Ohio. *Physical chemistry.* Trenton, N. J, March 16, 15. A.B, Col. of Wooster, 36; M.S, Ohio State, 38; Ph.D, Brown, 40. *Instr. gen. and physical chem,* Col. of Wooster, 40–42; *Western Reserve, 42–* Chem. Soc. Photochemistry of isobutene.

Kieft, Prof. Lester, 623 Market St, Lewisburg, Pa. *Analytical chemistry.* Grand Haven, Mich, Sept. 18, 12. A.B, Hope Col, 34; A.M, Pa. State Col, 36, Ph.D, 39. *Asst. prof. chem,* Pa. State Col, 37–42; *Bucknell, 42–* Summer, lecturer, eng, science and management war training, Pa. State Col, 41. Chem. Soc. Analytical properties of cinchonine salts of the iodometallic acids.

Kiehl, Dr. H(arry) R(ay), 223 Chemung St, Corning, N. Y. *Physics.* Lebanon, Pa, Aug. 14, 04. B.S, Lebanon Valley Col, 25; M.S, Pa. State Col, 29, Ph.D, 34. Instr, Franklin Day Sch, Baltimore, Md, 25–26; asst. physics, Pa. State Col, 26–34; *physicist, Corning Glass Works, 34–* Physical Soc. Glass technology; general properties of glass; electrical insulation.

Kiehl, Prof. S(amuel) J, Harrisburg, Ohio. *Chemistry.* Herminie, Pa, May 16, 83. A.B, Otterbein Col, 10; Ph.D, Columbia, 21. Teacher math, Otterbein Col, 09–13; high sch, Ohio, 13–17; instr. *chem, Columbia,* 17–21, asst. prof, 21–27, assoc. prof, 27–38, prof, 38–43, *emer. prof, 43–* Chem. Soc. Phase rule; ortho, pyro and meta phosphates, phosphites and pyrophosphites and their transformations; columbium; hydrogen ion concentration determination in alkaline solutions; glass electrode in unbuffered solutions; purification and hydrogen ion values of water; phase rule studies of vanadates.

Kiener, Dr. Walter, University of Nebraska, Lincoln, Nebr. *Plant ecology.* Berne, Switzerland, Oct. 18, 94. Ph.D, Nebraska, 40. Asst. bot, *Nebraska,* 30–40, *ecologist, conservation and surv. div, 41–* A.A; Ecol. Soc; Bot. Soc; Sullivant Moss Soc. Rocky Mountain alpine vegetation, chiefly on Long's Peak, Colorado; ecology and taxonomy of algae, bryophytes and lichens and their relationships within the vegetation of Nebraska.

Kienholz, J(ess) R, Hood River, Oregon. *Plant pathology.* Spokane, Wash, Jan. 25, 04. B.S, State Col. Wash, 28, M.S, 29; fellow, Mich. State Col, 31; Ph.D, Oregon State Col, 38. Teaching fellow, Mich. State Col, 30; junior plant pathologist, *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 31–41, *assoc. pathologist, 41–* A.A; Phytopath. Soc; Mycol. Soc. Wheat smut; fruit diseases; perennial canker; pear scab; mycology.

Kienle, Dr. R(oy) H(erman), Calco Chemical Division, American Cyanamid Co, Bound Brook, N. J. *Chemistry.* Easthampton, Mass, April 27, 96. B.S, Worcester Polytech, 16; M.S, Union (N. Y), 27; Ph.D, Rutgers, 38. Chemist, Gen. Elec. Co, Schenectady, N. Y, 16–17, research chemist, research lab, 19–33; research chemist and chief physical chem. div, Calco Chem. Co, 33–41; *asst. director research, Am. Cyanamid Co, 41–* Lieut, C.W.S, 17–19. Chem. Soc. (sec'y, east. N. Y. sect, 27–29; sec'y-treas, paint, varnish and plastics div, 33–35, chairman, 37, mem, exec. cmt, 38); fel. Inst. Chem; Faraday Soc. Varnishes; synthetic resins; dyestuffs; colloids.

Kiess, Dr. C(arl) C(larence), 2928 Brandywine St, N. W, Washington, D. C. *Spectroscopy.* Ft. Wayne, Ind, Oct. 18, 87. A.B, Indiana, 10; fellow, Lick Observatory, California, 10–13, Ph.D, 13. Instr. astron, Missouri, 13–15; asst. prof, Pomona Col, 15–16; instr, Michigan, 16–17; asst. physicist, *Bur. Standards,* 17–19, assoc. physicist, 19–24, physicist, 24–29, *senior physicist, 29–* Donohoe medal, Astron. Soc. Pacific, 11. A.A; Astron. Soc; Physical Soc; Optical Soc; Astron. Soc. Pacific; Wash. Acad. Astrophysics; variable stars; red and infra-red spectra of the chemical elements; standard wavelengths; analysis of complex spectra.

Kiesselbach, Prof. T(heodore) A(lexander), University of Nebraska, Lincoln, Nebr. *Agronomy.* Polk Co, Nebr, March 14, 84. A.B, Nebraska, 07, B.S, 08, A.M, 12, Ph.D, 19. Instr. *agron, Nebraska,* 09, exp. asst, 10–11, *prof, Exp. Sta, 12–* Frank Azor Spragg lecturer, Mich. State Col, 31. A.A; Soc. Nat; Soc. Agron; Genetics Soc. Crop production and improvement; technique of field experimentation; adaptation; crop physiology; crop ecology; genetics; weed eradication.

Kiessling, Dr. O(scar) E(dward), R. D. 1, Falls Church, Va. *Mineralogy.* Jefferson, Wis, April 15, 01. A.B, Wisconsin, 23, A.M, 25; fellow, U. S. Bur. Mines, 25–27; Eastman fellow, Brookings Institution, 25–27, Ph.D, 27. Mineral economist, U. S. Bur. Mines, 27–30, econ. analyst, 30, chief economist, div. mineral statist, 30–35, mineral resources and econ. div, 35–39, in charge mineral tech. and output studies in cooperation with Works Progress Admin-Nat. Research Project, 36–39; *chief mineral industries, U. S. Bur. Census, 39–* Lecturer, American Univ, 30–31, 34–35, 37–38. Summer Sch. Eng. Teachers, 33. Ed, 'Minerals Yearbook,' 32–36. Cent. statist. board, U. S. Dept. Interior, 33– Norman Wait Harris Mem. Foundation Round Table Conf. in Popul. Problems, 29. Statist. Asn; Wash. Statist. Soc. (pres, 37). Mineral economics; anthracite and bituminous coal; economics of fuel and metals; cooperative development of oil pools; economics of strip coal mining; mining technology, economic changes and use of man-power; mineral resources of the United States; census of mineral industries.

Kievit, Dr. Ben, Jr, Box 247, Emporium, Pa. *Physics.* Toledo, Ohio, Dec. 20, 02. Toledo, 20–22; B.S, Kentucky, 24, M.S, 26; Ph.D, Michigan, 30. Asst. physics, Kentucky, 22–25, instr, 25–26; Michigan, 26–30; research physicist, Hygrade Sylvania Corp, 30–32, supervisor tube application dept, 32–39, asst. director, 39–41, commercial eng. dept, 41–42; *supervisor customer services and tech. publications, Sylvania Elec. Products, Inc, 43–* A.A; Physical Soc; Radio Eng. (electronics cmt, 35–). Absorption of x-rays by elements calcium to gallium; photoelectricity; radio tube development; radio circuits.

Kik, Prof. M(arinus) C(ornelis), 515 W. Maple St, Fayetteville, Ark. *Agricultural chemistry.* Bruinisse, Holland, Aug. 15, 96. M.Sc, Agr. Col, Wageningen, Holland, 23; Ph.D, Hopkins, 27. *Asst. prof. agr. chem, Arkansas, 27–* Nutrition; physiological chemistry; vitamins.

Kilborn, Dean Leslie G(ifford), 42 Dalton Road, Toronto, Ont, Can. *Physiology.* Kiating, Szechwan, China, April 7, 95. B.A, Toronto, 17, fellow, 17–21, M.A, 18, M.D, 21, Ph.D, 28. Instr. physiol, *West China Union Univ,* 23–26, assoc. prof, 26–28, *prof,* 28–30, *physiol. and pharmacol, 30–,* assoc. dean *med,* 29–33, *dean, 36–* Fellow, Rockefeller Foundation, 27–28; lecturer, Nat. Univ, Szechwan, 33–34. A.A; Physiol. Soc; Asn. Study Int. Secretions; Royal Asiatic Soc; Physiol. Soc. China; Med. Asn. China; Border Research Soc. West China (sec'y, 29–32, editor, 32–35, 36–41, pres, 41); Sci. Soc. China; Peking Nat. Hist. Soc; Int. Asn. Dental Research. Vasodilator action of adrenalin; blood pressure; respiratory quotient of eviscerated preparations; basal metabolism and other aspects of physiological anthropology in West China; physiology text-books in Chinese.

Kilbourne, Dr. F(rederick) L(ewis, Jr), Firestone Tire and Rubber Co, Akron, Ohio. *Physical chemistry.* Westboro, Mass, Feb. 20, 06. B.S, Brown, 26; M.S, Akron, 27; Ph.D, Mass. Inst. Tech, 34. *Chemist, Firestone Tire and Rubber Co,* 27–31, *34–* Chem. Soc. Preparation and properties of reclaimed rubber; thermal diffusion of gases.

Kilby, Prof. C(linton) M(aury), Randolph-Macon Woman's College, Lynchburg, Va. *Physics.* Suffolk, Va, Nov. 1, 74. A.B, A.M, Randolph-Macon Col, 96; Chicago, 03; Columbia, 04; Ph.D, Hopkins, 09. Instr. math, Randolph-Macon Col, 94–96; prin, pub. sch, 96–98; master physics and math, Woodberry Forest Sch, Va, 98–05; lecture asst. physics, Hopkins, 08–09; instr, Lehigh, 09–10; *prof. physics and*

astron, Randolph-Macon Woman's Col, 10– A.A; fel. Asn. Physics Teachers; Physical Soc; Optical Soc; Va. Acad. Spectroscopy; redetermination of wave-lengths of arc and spark lines of titanium, manganese and vanadium; effects of self-induction and capacity on wave-lengths.

Kildale, Prof. Malcolm B(rus), 1726 Laird Ave, Salt Lake City, Utah. *Economic geology.* Eureka, Calif, May 25, 99. A.B, Stanford, 21, A.M, 22, Ph.D, 38. Geologist, Compañia de Santa Gertrudis, Mex, 22–25; Int. Smelting Co, Salt Lake City, 26–39; *prof. econ. geol, Stanford, 39–* Lecturer, Columbia, 25–26. Summers, instr, Stanford, 22, 25. A.A; Soc. Econ. Geol; Min. and Metal. Eng. Arsenical ores of cobalt and nickel; economic geology of the Tintic district of Utah.

Kildare, Prof. Albert A(lexander), Lincoln University, Jefferson City, Mo. *Physics.* Kingston, Jamaica, B. W. I, Dec. 16, 97. B.S, Boston, 21, A.M, 27, Ph.D, 34; Chicago, 31–32. Instr. chem. and physics, Va. State Col, 21–26; asst. prof. *physics,* Wilberforce, 27–28; *prof, Lincoln (Mo), 28–* A.A; Mo. Acad. The interferometric measurements of the lines in the secondary spectrum of hydrogen.

Kildee, Dean H(enry) H(erbert), Iowa State College, Ames, Iowa. *Agriculture.* Osage, Iowa, March 1, 84. B.S.A, Iowa State Col, 08, fellow, 08–09, M.S.A, 17, D.Agr, 40. Instr. animal husbandry, Iowa State Col, 09, experimentalist, 09–10, assoc. prof. in charge dairy production, 10–15, prof. animal husbandry and chief dairy husbandry, 15–16; chief div. dairy husbandry, Minnesota, 16–18; *prof. animal husbandry and head dept, Iowa State Col, and chief sect, Exp. Sta, 18–,* v. dean *div. agr,* 23–33, *dean, 33–* Chairman, State Planning Board, Iowa, 34–39. Judge, Int. Live Stock Expositions; director, Am. Royal Live Stock Expos; Ak-Sar-Ben Live Stock Expos; mem, Nat. Cmt. Record of Performance for Swine; cmt. livestock marketing, Am. Farm Bur. A.A; Soc. Animal Production (pres, 34); Dairy Sci. Asn; Asn. Land-Grant Cols. and Univs. (chairman agr. sect, 38); Nat. Dairy Asn. (director, chairman, cmt. on cattle classification); Soc. Planning Officials (director, 35–37). Animal husbandry and feeding; dairy production; land utilization.

Kilgore, Dr. B(enjamin) W(esley), Raleigh, N. C. *Chemistry.* Lafayette Co, Miss, March 27, 67. B.S, Miss. Agr. and Mech. Col, 88, M.S, 91; Hopkins, 96; hon. Sc.D, Davidson Col, 15. Asst. chem, Miss. Agr. and Mech. Col, 88–89; asst. chemist, Exp. Sta, N. C. State Col, 89–97; prof. chem, Miss. Agr. and Mech. Col, 97–99; state chemist, N. C, 99–19; director, Exp. Sta, N. C. State Col, 01–25, exten. service, Exp. Sta, 14–25, dean agr, 23–25; pres, N. C. Cotton Growers Cooperative Asn, 23–30; *farmer and manufacturer.* Am. Cotton Growers Exchange, 24–26. State Board Vocational Educ, N. C. Chem. Soc. (chairman, N. C. sect, 01); Agr. Chem. (pres, 00). Soil and farm crops; value of fertilizers, soils and feeds.

Kilgore, Dr. Lowell B(erry), 3813 20th St, N, Arlington, Va. *Chemistry, Economics.* Lafferty, Ohio, Jan. 28, 01. A.B, Oberlin Col, 23, A.M, 25; Ph.D, Hopkins, 31. Research chemist, du Pont Rayon Co, 25–27; indust. research fellow, bur. chem. and soils, U. S. Dept. Agr, 30–32; sci. director, Kilgore Develop. Corp, 32–42; *chief econ. analyst, war requirements cmt, War Production Board, 42–* Chem. Soc. Colloid chemistry; food investigations; vegetable oils; synthetic insecticides, insectifuges and germicides; antioxidants; rubber chemicals.

Kilgore, William, University of Minnesota, Minneapolis, Minn. *Ornithology.* Minneapolis, Minn, Aug. 15, 79. Asst. curator *museum nat. hist, Minnesota,* 21–24, *curator, 24–* Assoc. Ornith. Union; Minneapolis Audubon Soc. (pres, 25–28).

Kille, Prof. Frank R(alph), Swarthmore College, Swarthmore, Pa. *Zoology.* Salem, Ohio, Aug. 2, 04. B.S, Col. of Wooster, 26; M.S, Chicago, 29, Ph.D, 34. Teacher, high sch, Ohio, 26–28; asst. prof. *zool,* Birmingham-Southern Col, 29–30, assoc. prof, 30–31; asst, Chicago, 31–33; Rochester, 33; instr, *Swarthmore Col,* 34–36, *asst. prof, 36–* Summers, instr, Marine Biol. Lab, Woods Hole, 35–39. A.A; Soc. Zool; Asn. Anat; Soc. Growth and Develop. Embryology; regeneration and origin of germ cells in holothurians.

Killeffer, D(avid) H(erbert), 168 Westchester Ave, Crestwood, N. Y. *Chemistry.* Columbia, Tenn, Dec. 22, 95. B.S, North Carolina, 15. Chemist, Brown Labs, Tenn, 15–16; N. C. and St. Louis Ry, 16–18; Calco Chem. Co, N. J, 18–19; ed, 'Drug and Chem. Markets,' 20–22; assoc. ed, 'Indust. and Eng. Chem,' 22–28; tech. director, *Dry Ice Corp. of Amer,* 28–31, *consultant, 31–* Consultant, office production research and develop, War Production Board, 42– Contributing ed, 'Indust. and Eng. Chem,' 31– A.A; Chem. Eng; Chem. Soc. (sec'y, N. Y. sect, 24–27, councilor, 30–); Chemists' Club (manager, bur. employment, 31–34). Solid carbon dioxide refrigeration; public relations.

Killian, Prof. J(ohn) A(llen), 49 W. 45th St, New York, N. Y. *Biochemistry.* Philadelphia, Pa, Jan. 4, 91. A.B, St. Joseph's Col. (Phila), 13; A.M, Fordham, 15, Ph.D, 21. Instr. anal. chem, Fordham, 13–15, physiol. chem, 15–16; *biochem, N. Y. Post-Grad. Med. Sch,* 16–18, assoc, 18–21, asst. prof, 21–23, assoc. prof, 23–26, *prof, 26–,* director dept, 30–33, *consulting biochemist, 33–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc; Urol. Soc; Gastro-Enterol. Asn; Soc. chim. de France. Nutrition; blood and urine in diabetes, nephritis, toxemias of pregnancy, pneumonia and diseases of the liver; humors of the eye; spinal fluid in meningitis and epilepsy; polychrome methylene blue stains.

Killian, Prof. O(scar) L(eander), North Texas Agricultural College, Arlington, Texas. *Biology.* Ft. Payne, Ala, Nov. 19, 81. A.B, Texas, 19, A.M, 28. *Prof. biol. and head dept, N. Texas Agr. Col, 24–* Texas Acad. Sci; N. Texas Biol. Soc. (sec'y, 31, pres, 35).

Killian, Lieut. Commander T(homas) J(oseph), U. S. Naval Academy, Annapolis, Md. *Physics.* Schenectady, N. Y, Aug. 4, 05. B.S, M.S, Mass. Inst. Tech, 26; Charles A. Coffin fellow, Princeton, 26–27, A.M, 27, fellow, 27–29, Ph.D, 29. Instr. elec. eng, Mass. Inst. Tech, 29–30, physics, 30–32; physicist, *Barkon Tube Lighting Corp,* 32–34, *v. pres. and director research, 34–;* v. pres, *Barkon-Frink Corp,* 36–40, *pres, 40–; lieut. commander, E-V(RS), U. S. Naval Reserve, 41–, radio physicist,* Mass. Inst. Tech, 41–42; *post-grad. sch, U. S. Naval Acad, 42–* Fellow, Bartol Research Foundation, 31–32; dean math, Seattle Pacific Col, 34–36. Summers, research lab, Gen. Elec. Co, 25, 26, 28. A.A; Physical Soc; Optical Soc; Illum. Eng. Soc; Elec. Eng. Thermionics; electrical discharges in gases; statistical mechanics; luminous tube lighting; electronic control devices; colorimetry; artificial daylighting; radiation.

Killinger, Dr. Gordon B(everly), University of Florida, Gainesville, Fla. *Agronomy.* Elliott, Iowa, Dec. 31, 08. B.S, Iowa State Col, 30, M.S, 31, Ph.D, 33. Special investigator, Fed. Land Bank, 33; soils specialist, soil conservation service, U. S. Dept. Agr, Kans, 34–36; *assoc. agronomist,* Clemson Col, 36–42; *Florida, 42–* Soc. Agron; Soil Sci. Soc. Soil colloid and soil solution as a measure of soil type; legume inoculants; carbon dioxide evolution from soils as a measure of soil reactions; wind erosion.

Killip, Ellsworth P(aine), U. S. National Museum, Washington, D. C. *Botany.* Sept. 2, 90. A.B, Rochester, 11. Assoc. curator, Rochester Acad. Science, 14–17; aid and later *assoc. curator, div. plants, U. S. Nat. Museum, 19–* Chevalier, Légion d'honneur, 37. A.A; Bot. Soc; Wash. Acad. (ed, 'Jour,' 23–25); Rochester Acad. Taxonomy of South American plants.

Killough, D(avid) T(hornton), Agricultural and Mechanical College of Texas, College Station, Texas. *Agronomy.* Galveston, Texas, July 29, 95. B.S, Agr. and Mech. Col. Texas, 14, M.S, 25. Supt, Exp. Sta, *Agr. and Mech. Col. Texas,* Temple, 16–23, *main sta. farm, College Station,* 23–25, *agronomist in charge cotton breeding investigations,* 25– Soc. Agron; Genetic Asn. Genetics; plant breeding.

Kilmer, Dr. G(len William), University of Pittsburgh, Pittsburgh, Pa. *Organic chemistry.* Shunk, Pa, July 3, 14. B.S, Pa. State Col, 36, M.S, 37; Ph.D, Harvard, 40. Research assoc, med. col, Cornell, 40–42; *instr. chem, Pittsburgh, 42–* Chem. Soc.

Kilpatrick, Prof. Martin, University of Pennsylvania, Philadelphia, Pa. *[7]*Chemistry.* New York, N. Y, April 3, 95. A.B, Col. City of N. Y, 15, fellow, 15–18; A.M, Columbia, 17; Ph.D, N. Y. Univ, 23. Asst. chem, N. Y. Univ, 17–19; asst. prof, Vassar Col, 19–23; prof, Duke, 23–25; nat. research fellow, Hopkins, 25–27; Copenhagen, 27–28; asst. prof. *physical chem, Pennsylvania,* 28–37, *assoc. prof, 37–* A.A; Chem. Soc; fel. Inst. Chem. Inorganic and physical chemistry; kinetics; catalysis and solutions; war research.

Kilpatrick, Dr. M(ary) L(ydston), University of Pennsylvania, Philadelphia, Pa. *Chemistry.* Weston, Mass, Dec. 15, 98. A.B, Radcliffe Col, 20; A.M, Vassar Col, 22; Ph.D,

Hopkins, 26. Asst. chem, Vassar Col, 20–23; chemist, Liggett and Myers Tobacco Co, 23–24; asst. chem, *Pennsylvania*, 29–31, *volunteer research worker, 31–* Physical and inorganic chemistry.

Kiltz, B(urton) F(rederick), 5127 Vickery, Dallas, Texas. *Agronomy.* Chambers, Nebr, Nov. 2, 01. B.S, Nebraska, 25, M.S, 27. Asst. plant breeding, Illinois, 27; instr. agron, sch. agr, Nebraska, 27–28; assoc. prof, Okla. Agr. and Mech. Col, 28–34; *regional nurseryman, soil conservation service, U. S. Dept. Agr,* Stillwater, Okla, Salina, Kans, and *Amarillo, Texas, 34–* Soc. Agron. Soil conservation; forage crops; pastures; sorghums; grasses; native plant distributions.

Kimball, Dr. Anne C(harlotte), State Department of Health, Minneapolis, Minn. *Bacteriology, Immunology.* Butte, Mont, July 23, 07. A.B, Montana, 29; Minnesota; Ph.D, Pennsylvania, 40. Technician, Mayo Clinic; *bacteriologist, State Dept. Health, Minn.* Hemophilus pertussis; serology of syphilis.

Kimball, Cyril S(teere), Foster D. Snell, Inc, 305 Washington St, Brooklyn, N. Y. *Chemistry.* Manville, R. I, Oct. 15, 03. B.S, R. I. State Col, 26. Asst. chemist, *Foster D. Snell, Inc,* 26–27, chemist, 27–29, chief chemist, 29–31, *consulting chemist, 31–* V. pres, Foster D. Snell, Inc, 35. Chem. Soc; Soc. Chem. Indust. (hon. sec'y, Am. sect, 37); fel. Inst. Chem; Chemists' Club. Trade waste; silk treatment; latex; coal briquetting; chemical specialties; iron oxide pigments; soaps; detergents.

Kimball, Dr. Dexter S(impson), Cornell University, Ithaca, N. Y. *Mechanical engineering.* New River, N. B, Can, Oct. 21, 65. A.B, Stanford, 96, M.E, 13; LL.D, Rochester, 26; Sc.D, Case, 29; D.E, Kans. State Col, 33, Northeastern, 34, Lehigh, 39. Apprentice, Pope and Talbot, Wash, 81–87; machine shop, Union Iron Works, Calif, 87–93, drafting room, dept. eng, 96–98; designing engineer, Anaconda Mining Co, Mont, 98; asst. prof. machine design, Cornell, 98–01; works manager, Stanley Elec. Mfg. Co, Mass, 01–04; prof. machine design, *Cornell,* 04–05, machine design and construction, 05–15, indust. eng, Sibley Col, 15–36, acting pres, 18, 29–30, dean *col. eng,* 20–36, *emer. dean, 36–* Steinmetz lecturer and Brackett lecturer, Princeton, 29; lecturer, Stanford, 30. Council indust. educ, State Dept. Educ, N. Y, 11; pres, Am. Eng. Council, 26–28; mem. staff, Alexander Hamilton Inst, pres. board, 29, 35; director, McGraw-Hill Pub. Co, 29. Ed, 'Popular Science.' Chairman, John Fritz Medal Board, 29; pres, Herbert Hoover Medal Board, 30; mem, H. L. Gantt Medal Board, 29. Lamme medal, Soc. Prom. Eng. Educ, 32; Warner medal, Soc. Mech. Eng, 33. Fuel administrator, Tompkins County, N. Y, 17–18; director training sch. army mech, Cornell, 17–18; chairman, Priority Cmt. on Machine Tools and Equipment, Office Production Management, 41; chief priority sect, machine tool div, War Production Board, 42. A.A; Mech. Eng. (pres, 21); Eng. Educ. (v. pres, 22, pres, 24); Fed. Am. Eng. Societies (v. pres, 21). Elements of machine design; industrial education and organization; elements of cost finding; plant management; industrial economics.

Kimball, Prof. George E(lbert), Columbia University, New York, N. Y. *Chemistry.* Chicago, Ill, July 12, 06. B.S, Princeton, 28, A.M, 29, Ph.D, 32. Asst, Princeton, 32–33; nat. research fellow, Mass. Inst. Tech, 33–35; instr. physics, Hunter Col, 35–36; *chem, Columbia,* 36–39, *asst. prof, 39–* Examiner and reader, Col. Ent. Exam. Board, 39–42. Assoc. ed, 'Jour. Chem. Physics,' 39–41. Cmt. catalysis, Nat. Research Council, 40–42. Chem. Soc; Physical Soc; N. Y. Acad. Reaction kinetics; quantum mechanics; molecular structure; electrochemistry.

Kimball, Dr. H(erbert) H(arvey), 1819 Monroe St, N.W, Washington, D. C. *Meteorology.* Hopkinton, N. H, Feb. 13, 62. B.S, New Hampshire, 84, LL.D, 21; M.S, George Washington, 00, Ph.D, 10. Asst. ed, 'Monthly Weather Rev,' 01–03; librarian, U. S. Weather Bur, 04–08, prof. meteorol. and in charge solar radiation investigations, 08–20, meteorologist, 20–27, senior meteorologist, 27–32; research assoc, Harvard, 32–39; *retired.* Cmn. solar radiation, Int. Geod. and Geophys. Union; Int. Meteorol. Organization. A.A; fel. Meteorol. Soc; Geophys. Union; Philos. Soc. Wash. Atmospheric circulation; evaporation from water surfaces; meteorology of smoke; solar radiation; atmospheric transmission; sky brightness; daylight illumination; skylight polarization; nocturnal radiation; atmospheric turbidity and water-vapor content.

Kimball, Dr. James H(enry), U. S. Weather Bureau, 17 Battery Place, New York, N. Y. *Meteorology.* Detroit, Mich, Feb. 12, 74. B.S, Mich. State Col, 12, hon. Sc.D, 34; A.M, Richmond, 14; Ph.D, N. Y. Univ, 26. With *U. S. Weather Bur,* 95–36, *prin. meteorologist, 36–* Officer, cross, Order of Polonia Restituta; chevalier, Légion d'honneur, 34; commendatore, Royal Crown of Italy. Fel. Meteorol. Soc; fel. Inst. Aeronaut. Sci; Inst. Social Sci. (v. pres); N. Y. Acad; hon. mem. Ligue int. des Aviateurs. Atmospheric visibility: marine meteorology.

Kimball, Dr. J(ohn) Willard, 85 Washington St, East Orange, N. J. *Chemistry.* Manhattan, Kans, July 30, 89. B.S, Colby Col, 12; Ph.D, Hopkins, 16. Instr. chem, Colby Col, 12–13; asst. prof, Maine, 16–17; instr, Western Reserve, 17–18; *chemist,* E. I. du Pont de Nemours and Co, 19–21; Nat. Aniline and Chem. Co, 21–24; *Valentine and Co, 24–* Lieut, C.W.S. 18–19. Chem. Soc. Limits of esterification; lacquers; synthetic resin enamels.

Kimball, Dr. R(ichard) F(uller), Johns Hopkins University, Baltimore, Md. *Genetics.* Baltimore, Md, Feb. 1, 15. A.B, Hopkins, 35, Ph.D, 38. Sterling fellow, Yale, 38–39; *instr. zool, Hopkins, 39–* A.A; assoc. Soc. Zool; Genetics Soc. The genetics of ciliate protozoa, in particular Euplotes.

Kimball, Dr. R(ichard) H(azen), Hooker Electrochemical Co, Niagara Falls, N. Y. *Organic chemistry.* Concord, N. H, Sept. 4, 96. A.B, Harvard, 18, A.M, 20, Ph.D, 32. Asst. prof. chem, New Hampshire, 27–37; *research chemist, Hooker Electrochem. Co, 37–* Chem. Soc. Hydroxy acids and lactones; organic phosphorus compounds; racemization and enolization; organic analytical methods; lubrication chemicals.

Kimball, Dr. Solon T(oothaker), 1730 Houston St, Manhattan, Kans. *Social anthropology.* Manhattan, Kans, Aug. 12, 09. B.S, Kans. State Col, 30; A.M, Harvard, 30, Sheldon traveling fellow, 33, Ph.D, 36. Chief sect. socio-econ. surveys, Navajo Reservation, 36–42; *head sect. community and govt, War Relocation Authority, 42–* Summer, special instr, Oklahoma, 40. Anthrop. Asn; Soc. Applied Anthrop. Application of the techniques of social anthropology to the study of modern society; rural Ireland; application of anthropology to administration and planning.

Kimball, Prof. S(pofford) H(arris), University of Maine, Orono, Maine. *Mathematics.* West Newton, Mass, Nov. 13, 01. B.S, Denison, 23; A.M, Pittsburgh, 25, Harvard, 29, Ph.D, 32. Instr. *math,* Denison, 23–24; Pittsburgh, 24–27; Pennsylvania, 30–31; Rochester, 31–35; instr. and asst. prof, *Maine,* 36–41, *assoc. prof, 41–, acting head dept. math. and astron.* Math. Soc; Math. Asn. Geometry.

Kimball, Prof. William S(cribner), U. S. Naval Academy, Annapolis, Md. *Mathematical physics.* Plainfield, N. J, Aug. 28, 87. A.B, Amherst Col, 08; LL.B, N. Y. Law Sch, 11; A.M, Chicago, 18, Ph.D, 22. Instr. physics, Michigan, 22–25; asst. prof. math, Mich. State Col, 25–38; prof. and head dept, Robert Col, Istanbul, 39–41; *lieut. commander and prof. marine eng, U. S. Naval Acad, 41–* Physical Soc; Math. Soc. Theory of relativity; theory of electron currents; kinetic theory of gases; space charge and potential theory; thermodynamics; heat conduction and convection; geometrical weight method in statistical mechanics; calculus of variations; dynamical meteorology.

Kimbark, Dr. Edward W(ilson), Northwestern University, Evanston, Ill. *Electrical engineering.* Chicago, Ill, Sept. 21, 02. B.S, Northwestern, 24, E.E, 25; M.S, Mass. Inst. Tech, 33, Sc.D, 37. Test engineer, Pub. Service Co, North. Ill, 25–27; instr. elec. eng, California, 27–29; asst. curator div. power, Museum Science and Indust, Chicago, 29–32; asst. and instr. *elec. eng,* Mass. Inst. Tech, 33–37; asst. prof, Polytech. Inst. Brooklyn, 37–39; *tech. inst, Northwestern,* 39–41, *assoc. prof, 41–; teacher radio to Army and Navy officers, Mass. Inst. Tech, 42–* Summer, engineer, cent. sta. dept, Gen. Elec. Co, 37. Elec. Eng. (relay subcmt, protective devices cmt, 37–39; cmt. students and young engineers, Chicago sect, 41; cmt. student activities, Great Lakes dist, 42–); Eng. Educ. Protective relaying; symmetrical components and electric circuit theory; power transmission and distribution.

Kimberly, Prof. E(merson) E(dward), 2638 York Road, Columbus, Ohio. *Electrical engineering.* Circleville, Ohio, Oct. 17, 95. B.E.E, Ohio State, 21, M.S, 29. With Gen. Elec. Co, 21–22; sales engineer, Westinghouse Elec. and Mfg. Co, 22–24; instr. *elec. eng, Ohio State,* 24–25, asst. prof, 25–32, assoc. prof, 32–41, *prof, 41–* Consulting engineer, various

mfg. companies. Design and performance of fractional horsepower alternating current motors.

Kimbrough, Prof. W(illiam) D(uke), Louisiana State University, Baton Rouge, La. *Horticulture.* Jonesboro, Tenn, Dec. 10, 96. B.S, Ala. Polytech, 20; M.S, Maryland, 24, Ph.D, 25. Instr, Ala. Polytech, 20–22, asst. prof. hort. and asst. horticulturist, Exp. Sta, 25–29, assoc. prof. and assoc. horticulturist, 29–30; assoc. prof. hort, *Exp. Sta, Louisiana,* 30–43, *horticulturist, 43–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Storage of potatoes; vegetable fertilizer; tung tree; sweet potato investigations.

Kime, Pres. D(avid) O(rin), 935 Fourth Ave, S.E, LeMars, Iowa. *Physics.* Dudley, Ill, 91. B.S, East. Ill. State Teachers Col; M.S, Illinois; LL.D, West. Union Col. Prin, high sch, Ill, 12–17; *prof. physics and head dept, West. Union Col, 19–, pres, 30–* U.S.A, 18–19. Radio Eng. Radio.

Kimmel, Dr. Donald L(oraine), Louisiana State University School of Medicine, New Orleans, La. *Neuro-anatomy.* Juniata, Pa, July 12, 06. B.S, Gettysburg Col, 29; M.S, Michigan, 35, univ. fellow, 36–37, Ph.D, 38. Science instr, high sch, N. J, 29–36; demonstrator *anat,* Michigan, 37–38; *instr, sch. med, Louisiana, 38–* Asn. Anat. Cranial nerves and fiber pathways of the central nervous system.

Kimmelstiel, Dr. Paul, Medical College of Virginia, Richmond, Va. *Pathology.* Hamburg, Germany, March 21, 00. Bonn; M.D, Tübingen, 23. Privat-docent *path,* Hamburg, 30; instr, Harvard, 34–35; asst. prof, *Med. Col. of Va,* 35–37, *assoc. prof, 37–* Asn. Path. and Bact. Pathology of renal diseases; chemistry and biochemistry of lipoids; special pathology.

Kimmey, Dr. J(ames) W(illiam), U. S. Department of Agriculture, 446 Phelan Bldg, San Francisco, Calif. *Forest pathology.* St. Johns, Oregon, Jan. 24, 07. B.S, Oregon State Col, 31, McDonald fellow, 31–32, M.S, 32; Ph.D, Yale, 40. Field asst, U. S. Forest Service, 27; *div. forest path, bur. plant indust, U. S. Dept. Agr,* 28–35, asst. pathologist, 35–42, *assoc. pathologist, 42–* A.A; Soc. Foresters; Forestry Asn; Phytopath. Soc. Deterioration of fire-killed timber; white pine blister rust; general forest pathology; wood decay.

Kinard, Prof. F(rederick) W(illiam), Medical College of the State of South Carolina, Charleston, S. C. *Physiology, Physiological chemistry.* Leesville, S. C, Oct. 14, 06. B.S, Clemson Col, 27; fellow, Virginia, 30–33, M.S, 32, Ph.D, 33. Asst. chem, Med. Col. State of S. C, 27–30; instr. biochem, Virginia, 30–33; *physiol, Med. Col. State of S. C,* 33–38, assoc, 38–41, *asst. prof, 41–* Joint winner, Jefferson medal, S. C. Acad. Science, 36. A.A; fel. Inst. Chem; S. C. Acad. (sec'y and treas, 36–38, ed, v. pres, pres). Creatine and creatinine metabolism; phosphatase; toxicity of tungsten.

Kinard, Pres. James C(ampsen), Newberry College, Newberry, S. C. *Chemistry.* Newberry, S. C, Oct. 1, 95. A.B, Newberry Col, 16, A.M, 17; Litt.D, Erskine Col, 28; LL.D, South Carolina, 31. Instr, *Newberry Col,* 16–17, head dept. math, 17–18, prof. nat. sciences and head dept, 18–30, dean, 24–30, *pres, 30–* A.A; Chem. Soc. Inorganic chemistry; astronomy; geology.

Kincaid, Dr. J(ohn) F(ranklin), University of Rochester, Rochester, N. Y. *Chemistry.* Blackwell, Mo, Feb. 27, 12. A.B, Cent. Col. (Mo), 34; A.M, George Washington, 36; Ph.D, Princeton, 38. *Instr. chem, Rochester, 38–* Summer, asst, Geophys. Lab, 36, 37. Chem. Soc. Physical organic chemistry; kinetics and mechanism of organic reactions.

Kincaid, Dr. Randall R(ich), North Florida Experiment Station, Quincy, Fla. *Plant pathology.* Lakenan, Mo, April 24, 03. B.S, Southeast. Mo. State Teachers Col, 25; A.M, Missouri, 29, Ph.D, 34. Asst. bot, Missouri, 28–29; asst. plant pathologist, *Exp. Sta, Florida,* 29–34, *assoc. plant pathologist, 34–* A.A; Phytopath. Soc. Diseases of tobacco and breeding for resistance; tobacco seed germination.

Kincaid, Prof. Trevor, University of Washington, Seattle, Wash. *Entomology.* Peterboro, Ont, Can, Dec. 21, 72. B.S, Washington (Seattle), 99, A.M, 01. *Prof. zool, Washington (Seattle), 01–* Special agent, U. S. Dept. Agr, 08; director, Puget Sound Biol. Sta, 10–15. Asst, Am. Fur Seal Cmn, Alaska, 97; entomologist, Harriman Alaska exped, 99. A.A; Entom. Soc; Asn. Econ. Entom; Soc. Zool; Ecol. Soc; Pacific Coast Entom. Soc. Fishes; insects of Alaska; Psychodidae; Crabronidae; Tenthredinidae; life histories of Coleoptera; taxonomy, morphology, life histories and habits of insects; marine life of Puget Sound; oyster culture.

Kincer, J(oseph) B(urton), U. S. Weather Bureau, Washington, D. C. *Meteorology, Climatology.* Wytheville, Va, Nov. 15, 74. Private schs. Farmer; teacher, 96–04; *U. S. Weather Bur,* 05–22, *chief* div. agr. meteorol, 25–32, *div. climate and crop weather, 32–* A.A; fel. Meteorol. Soc. (pres, 36); Geophys. Union; Asn. Geog; Int. Climat. Cmn; Int. Cmn. Agr. Meteorol. Climatology and agricultural meteorology.

Kinder, Dr. Elaine F(litner), Rockland State Hospital, Orangeburg, N. Y. *Psychology.* St. Paul, Minn, Sept. 22, 90. B.S, Utah, 21, fellow, Utah, 21–22, A.M, 22; Ph.D, Hopkins, 25. County supt. schs, Wyo, 17–20; instr. psychol, Utah, 22–23; asst. psychobiol, Henry Phipps Psychiat. Clinic, Hopkins Hosp, 25–27; psychologist and social investigator, N. Y. State Training Sch. for Girls, 27–28; chief psychologist, psychiat. div, Bellevue Hosp, 28–31, instr. clin. psychol, Bellevue Med. Sch, 29–31; research psychologist, Letchworth Village, Thiells, N. Y, 34–41; *chief psychologist, Rockland State Hosp, 41–* Instr, exten. div, Columbia, 29–31, 37– A.A; Psychol. Asn; Asn. Mental Deficiency; Asn. Consulting Psychol. (sec'y, 36–38); fel. Asn. Applied Psychol. (sec'y clin. sect, 38–); fel. Soc. Research Child Develop; East. Psychol. Asn; N. Y. State Asn. Applied Psychol. (sec'y, 37); Metrop. Asn. Applied Psychol; fel. N. Y. Acad. Animal behavior; performance tests; subnormal mental development; social adjustment; clinical and abnormal psychology.

Kinderman, Dr. Edwin M(ax), 2386 W. Burnside, Portland, Oregon. *Physical chemistry.* Cincinnati, Ohio, Aug. 21, 16. A.B, Oberlin Col, 37; M.S, Notre Dame, 38, Ph.D, 41. *Instr. chem, Portland, 41–* Chem. Soc; Soc. Metals; Electrochem. Soc. Thermodynamic ionization constants; solubility of gases.

Kindle, Prof. Cecil H(aldane), College of the City of New York, New York, N. Y. *Geology, Paleontology.* Elmira, N. Y, Oct. 16, 04. B.A, Queen's (Can), 26; Ph.D, Princeton, 31. Tutor *geol, Col. City of N. Y,* 31–34, instr, 34–40, *asst. prof, 41–* Paleont. Soc. Geology and paleontology of eastern Gaspé and western Newfoundland; lower Paleozoic trilobites.

Kindle, Dr. E(dward) D(arwin), Geological Survey, Ottawa, Ont, Can. *Geology.* Washington, D. C, Nov. 6, 06. B.A, Queen's (Can), 30, M.A, 31; Ph.D, Wisconsin, 33. *Asst. geologist, Geol. Surv. Can, 34–* Sudbury nickel basin; gold deposits of Ontario; mineral resources of Terrace, Hazelton and Smithers areas, British Columbia, Beauchastel Township and Brock River areas, Quebec; exploration of Liard River, British Columbia, Canada.

Kindred, Prof. James E(rnest), University of Virginia, Charlottesville, Va. *Zoology.* Boston, Mass, Oct. 20, 93. A.B, Tufts Col, 14; A.M, Illinois, 15, fellow, 17–18, Ph.D, 18. Asst. zool, Illinois, 15–17; instr. biol, dental sch, and demonstrator histol. and embryol, med. sch, Western Reserve, 18–20, instr. and asst. prof. biol, 20–23; histol. and embryol, dept. med, *Virginia,* 23–25, assoc. prof, 25–38, *prof. anat, 38–* Marine Biol. Lab. Corp. A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Soc. Nat; Va. Acad; fel. Ohio Acad. (v. pres, zool. sect, 21). Vertebrate and invertebrate hematology; the crania of the Teleostei; embryology.

Kindy, Prof. Ward B(eecher), 566 Everett Ave, Palo Alto, Calif. *Electrical engineering.* Medina, Ohio, July 17, 90. B.E.E, Ohio State, 16, E.E, 29. Elec. inspector, Sig. C, U.S.A, 16–17; instr. *elec. eng,* Iowa State Col, 20–21; asst. prof, *Stanford,* 21–31, *assoc. prof, 31–* Indust. research, Elec. Controller and Mfg. Co, 28–29; Pacific Elec. Mfg. Corp, 41. Aerial gunnery and bombing officer, U. S. Naval Air Sta, Key West, 18. Elec. Eng. Low voltage electric arcs; control contacts and arc lengths.

King, Prof. A(den) J(ackson), Syracuse University, Syracuse, N. Y. *Chemistry.* La Fayette, N. Y, Nov. 25, 97. B.S, Syracuse, 21, M.S, 22, Ph.D, 27. Teaching fellow physical chem, Syracuse, 21–22, instr. gen. chem, 22–27; Illinois, 27–28; nat. research fellow, 28–29; assoc. prof. chem, *Syracuse,* 29–30, *prof. chem. and radiol. research, 30–* Pres, King Labs, Inc, 31–; sec'y-treas, Kraft Textiles, Inc, 42– Chem. Soc. (sec'y, Syracuse sect, 25, v. pres, 30, v. chairman, 38, chairman, 39). X-ray in chemistry and metallography; the binary alloys of barium.

King, Dr. Allen L(ewis), Rensselaer Polytechnic Institute, Troy, N. Y. *Physics.* Rochester, N. Y, March 27, 10. A.B, Rochester, 32, fellow, 32–33, A.M, 33, fellow, 35–36, Ph.D, 37. *Instr. physics,* Rochester, 34–35; *Rensselaer Polytech, 37–* Physical Soc; Asn. Physics Teachers. Optics; electronics; metals; biophysics.

King, Dr. Arthur S(cott), Mt. Wilson Observatory, Pasadena, Calif. **²Experimental physics.* Jerseyville, Ill, Jan. 18, 76. B.S, California, 99, M.S, 01, Ph.D, 03; Whiting fellow, Bonn, 03–04. Asst. physics, California, 01–03; Carnegie research asst, Berlin, 04–05; instr. physics, California, 05–08; *supt. physical lab, Mt. Wilson Observatory, Carnegie Institution, 08–* Lecturer, California, 18. Nat. Acad; A.A; Physical Soc; Optical Soc; Astron. Soc; Astron Soc. Pacific (pres, 41). Effect of changes of physical conditions on arc and spark spectra; electric furnace spectra and Zeeman effect in relation to astrophysical phenomena; temperature classification of spectrum lines; spectra of rare earths; photometry of absorption spectra.

King, Lieut. Barry G(riffith), Naval Medical Center, Bethesda, Md. *Physiology.* Pittsburgh, Pa, Dec. 19, 04. A.B, California, 24, A.M, 25; Colorado, 25; Pasteur Inst, Paris, 26–27; Physiol. Inst, Cambridge, England, 27; Ph.D, Columbia, 34. Instr, California, 24–26; physiol, col. physicians and surg, Columbia, 27–37, asst. prof, 37–43; *lieut, U. S. Naval Res. and physiologist, Naval Research Inst, Naval Med. Center, 43–* A.A; Physiol. Soc; Harvey Soc. Luetic and sclerotic aneurysm; effects of electric shock on heart action; anoxia; experimental surgery.

King, Prof. C(ecil) V(ictor), New York University, Washington Square, New York, N. Y. *Chemistry.* Union City, Ind, Dec. 22, 99. A.B, Indiana, 19; A.M, Columbia, 22, Ph.D, 24. Asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 19–20; *chem,* Columbia, 20–24, instr, 25–28; asst. prof, *Wash. Sq. Col, N. Y. Univ,* 28–40, *assoc. prof, 40–* Am-Scandinavian Foundation fellow, 24–25. Chem. Soc; Electrochem. Soc; N. Y. Acad. Solutions; kinetics.

King, C(halmers) J(ackson), U. S. Field Station, Sacaton, Ariz. *Agronomy.* Lancaster, S. C, Oct. 26, 93. B.S, Clemson Col, 13. Asst. to director, Exp. Sta, Clemson Col, 13, instr. soils, col, and asst. chemist, Exp. Sta, 14–16; asst. biophys. investigations, *bur. plant indust, U. S. Dept. Agr,* 17–20, from asst. agronomist to agronomist, 20–36, *senior agronomist, 36–, supt. field sta, Sacaton, and coordinator irrigated cotton research.* A.A; Soc. Agron; Phytopath. Soc; Genetic Asn. Cotton root-rot; cotton physiology and disease; cotton breeding and improvement; soil microbiology.

King, Prof. Charles E(dwin), Vanderbilt University School of Medicine, Nashville, Tenn. *Physiology.* Thornville, Ohio, June 4, 86. Ph.B, Heidelberg Col. (Ohio), 08; Ph.D, Chicago, 14. Instr. science, Wayland Acad, 08–10; from asst. prof. to prof. *physiol,* North Dakota, 13–19; prof, Alabama, 19–20; acting prof, *sch. med, Vanderbilt,* 20–25, *assoc. prof, 25–* Physiol. Soc. Blood and urinary enzymes; villi and muscularis mucosae; alkali on smooth muscle; spinal reflexes; reflex control of respiration.

King, Prof. C(harles) G(len), 54 Malvern Road, Scarsdale, N. Y. **³Chemistry.* Entiat, Wash, Oct. 22, 96. B.S, State Col. Wash, 18; M.S, Pittsburgh, 20, Ph.D, 23. Asst, Exp. Sta, State Col. Wash, 18, by-products specialist, 19; instr. *chem,* Pittsburgh, 19–25, asst. prof, 25–29, prof, 30–43; *visiting prof, Columbia, 42–; sci. director, Nutrition Foundation, 42–* Asst, Columbia, 26–27. Mem, food and nutrition board and cmt. med. nutrition, Nat. Research Council. A.A; Chem. Soc. (sec'y, biol. div, 35, chairman, 36, Pittsburgh sect, 38); Soc. Biol. Chem. (sec'y, 38–41); fel. Inst. Chem; Inst. Nutrition; fel. Pub. Health Asn. Biochemistry; vitamins; enzymes; synthetic fats; dairy sanitation; nutrition.

King, Dale S(tuart), National Park Service, Coolidge, Ariz. *Archeology.* Goodland, Kans, Jan. 2, 08. A.B, Denver, 30, A.M, 31; gen. studies fellow, Yale, 36–37. Junior park naturalist, *Southwest. Monuments, Nat. Park Service,* 34–37, asst. archeologist, 37–40, *assoc. archeologist, 40–* Fellow, Lab. Anthrop, Santa Fe, 31. Univ. Denver and Smithsonian Institution archeol. surv, east. Colo, 30; foreman and archeologist, Civil Works Admin. excavations, Wupatki Nat. Monument, Ariz, 33, 34. Southwestern archeology and ethnology, particularly popular interpretation.

King, Dr. Don(ald Eliot), Stanford University School of Medicine, San Francisco, Calif. *Surgery.* Porterville, Calif, March 13, 03. A.B, Stanford, 23, scholar, 24–26, M.D, 27. Asst. prof. *surg,* med. sch, Michigan, 32–34; *assoc. prof, sch. med, Stanford, 34–* Fel. Col. Surg; fel. Acad. Orthop. Surg; Am. Med. Asn. Healing and regeneration of the knee joint semilunar cartilage; specialties in medical practice.

King, Dr. Edward J(asper), Yale University, New Haven, Conn. *Physical chemistry.* Iowa City, Iowa, June 4, 16. A.B, Iowa, 37; Allied Chem. and Dye Corp. fellow, Yale, 41–42, Ph.D, 42. Anal. chemist, Dow Chem. Co, 37–39; *instr. gen. and physical chem, Yale, 42–* A.A; Chem. Soc; assoc. N. Y. Acad. Electrochemistry of solutions.

King, Dr. E(dward) P(eter), R. R. 1, Charleston, W. Va. *Chemical engineering.* Deer Creek, Ill, May 29, 05. B.S, Eureka Col, 26; M.S, Illinois, 27, Ph.D, 30. Research chem. engineer, Atlantic Ref. Co, 29–37; *res. chemist, Pure Oil Ref, Cabin Creek, 37–* Chem. Eng. Liquid phase partial oxidation; process development in petroleum refining.

King, Dr. E(dward) S(andling), Bowman Gray School of Medicine, Winston-Salem, N. C. *Bacteriology.* Clinton, N. C, April 18, 01. A.B, Wake Forest Col, 25; M.D, Jefferson Med. Col, 27; Harvard, 36. Intern, James Walker Mem. Hosp, N. C, 26; King's Park State Hosp, N. Y, 27; assoc. prof. bacter. and biochem, sch. med, *Wake Forest Col,* 27–28, *prof.* bacter, biochem. and prev. med, 28–36, bacter. and prev. med, 36–41, *bacter, Bowman Gray Sch. Med, 41–* Soc. Bact; fel. Col. Physicians. Culturing tubercle bacilli; agranulocytic blood studies.

King, Dr. E(llis) Gray, 641 Gettysburg St, Pittsburgh, Pa. *Chemistry.* Vancouver, B. C, Can, April 27, 10. B.A, British Columbia, 30. M.A, 32; Int. Paper Co. fellow, McGill, 32–34, Ph.D, 34. Research lab, Can. Fishing Co, 30; asst. chem, British Columbia, 30–32; research chemist, Celanese Corp. of Amer, Cumberland, 34–37; indust. fellow, *Mellon Inst,* 37–41, *senior indust. fellow, 41–* Chem. Soc. Cellulose chemistry; polymers of unsaturated hydrocarbons and sulfur dioxide; lignin and related compounds; cellulose esters and ethers; cork; synthetic resins; elastomers.

King, Dr. Ernest Q(uong), U. S. Food and Drug Administration, Washington, D. C. *Internal medicine.* Salt Lake City, Utah, Nov. 1, 05. A.B, Utah, 26; A.M, M.D, Illinois, 31; Hertz fellow, Chicago, 32–33, Ph.D, 33. Asst. res. physician med, Chicago, 31–32; epidemiologist, U. S. Army, 33–35, med. officer, 36–39; prof. path. and bacter. and director dept, Kwong Wah Med. Col, Canton, China, 35–36; med. officer, *food and drug admin, Fed. Security Agency,* 39–42, *senior med. officer, 42–* Flight surgeon, U.S.A, 35, capt, M.C.Res, 36. Pub. Health Asn; Soc. Trop. Med; Chinese Soc. Microbiol. and Path. Endocrinology; medical pharmacology; fatigue; anterior pituitary gland; malaria; meningococcus meningitis; effect of glycine on work capacity; clinical safety of new drugs; medical pharmacology.

King, Prof. Everett Edgar, University of Illinois, Urbana, Ill. *Civil engineering.* Warren, Ind, 77. B.S, Rose Polytech, 01, M.S, 02, C.E, 09; A.B, Indiana, 10; fellow, Cornell, 10–11, M.C.E, 11. Ry. engineer, 01–07; prof. civil eng, Okla. Agr. and Mech. Col, 07–10; *prof.* ry. eng, Iowa State Col, 11–18; *ry. civil eng, Illinois, 18–* Civil Eng; Ry. Eng; Eng. Educ. Preservation of timber by antiseptic treatment; railway signaling; economics.

King, Prof. Florance B(eeson), 371 Pearl St, Burlington, Vt. *Food chemistry.* Richmond, Ind, Dec. 5, 89. B.S, Illinois, 14; A.M, California, 26; Ph.D, Indiana, 29. Instr, Indiana, 17–19; Chicago, 19–20; Indiana, 20–26, asst. prof, 27–29; assoc. prof, Iowa State Col, 29–31; in charge food utilization, bur. home econ, U. S. Dept. Agr, 31–40; *prof. home econ. and head dept, Vermont, 40–* Chem. Soc. Effect of heat on the biological value of cereal proteins; nutrition; physical chemistry of food preparation.

King, Prof. F(ranklin) G(eorge), 408 Russell St, West Lafayette, Ind. *Animal husbandry.* Sweet Springs, Mo, Dec. 18, 84. B.S. (Agr), Missouri, 07. Asst. animal husbandry, Missouri, 07–08; live stock asst, State Board Agr, Mo, 08–09; asst. prof. *animal husbandry,* Kans. State Col, 09–10; assoc, *Exp. Sta, Purdue,* 10–17, 19–28, *prof. and head dept, 28–* Capt, F.A, 17–19. Soc. Animal Production (pres, 24). Cattle production.

King, Prof. G(eorge) C(aryl), Purdue University, West Lafayette, Ind. *Mechanical engineering.* Painesville, Ohio, May 23, 78. B.S, Purdue, 01, M.E, 17. Supt, Russell Eng. Co, 05–09; asst. gen. manager, Union Irrig. Co, La, 09–12; *prof. mech. eng, Purdue, and consulting engineer, power plant, 12–* Design and construction of power plants.

King, Prof. George Edward, 105 W. Broad St, Mt. Pleasant, Iowa. *Mathematics, Astronomy.* Ft. Scott, Kans, April 14,

75. Ph.B, Baker, 98; fellow, Missouri, 00–01; scholar, Wisconsin, 01–02, M.S, 02, Washburn Observatory, 03, 04; Columbia, 12, 16. Head dept. math, St. Johns Mil. Acad, 02–08; math. and astron. and registrar, Kans. Wesleyan, 08–19; *prof. math. and astron. and head dept, Iowa Wesleyan, 20–, registrar, 22–* Summer, computer, U. S. Coast and Geod. Surv. Math. Asn; Iowa Acad. Terrestrial refraction of light.

King, Dr. G(ilbert) W(illiam), A. D. Little, Inc, Cambridge, Mass. *Physical chemistry.* Long Eaton, Derbyshire, Eng, Jan. 13, 14. B.S, Mass. Inst. Tech, 33, Ph.D, 35. Nat. research fellow physical chem, Calif. Inst. Tech, 35–37; Harvard, 37; Princeton, 37–38; instr. chem, Yale, 38–39; research assoc, Mass. Inst. Tech, 39–41; *research chemist, A. D. Little, Inc, 41–* A.A; Chem. Soc; Physical Soc. Molecular structure.

King, Prof. Harold S(kinner), Dalhousie University, Halifax, N. S, Can. *Chemistry.* Liverpool, N. Y, April 5, 92. A.B, Harvard, 17, Ph.D, 28. Asst. prof. *chem, Dalhousie,* 22–30, *assoc. prof, 30–; chief inspector, ordnance, U. S. War Dept, Volunteer Ordnance Works, Tenn, 42–* A.A; Chem. Soc; fel. Can. Inst. Chem. (v. pres, 38–40); N. S. Inst. (ed, 'Proc,' 29–40; pres, 39, 40). Isotopes; atomic structure; organic syntheses; explosives.

King, Mrs. Harold S(kinner) (Susan Raymond), Smith College, Northampton, Mass. *Astronomy.* Darien, Conn, June 27, 92. A.B, Smith Col, 13, A.M, 19. Demonstrator astron, Smith Col, 13–15; fellow, Nantucket Maria Mitchell Asn, 15–17; instr, Smith Col, 17–22; computer, Yale Observatory, 42–43; *instr, Smith Col, 43–* Astron. Soc; N. S. Inst. Variable stars; asteroids.

King, Prof. Helen Dean, Wistar Institute, Philadelphia, Pa. *[1]Zoology.* Owego, N. Y, Sept. 27, 69. A.B, Vassar Col, 92; fellow, Bryn Mawr Col, 97–98, Ph.D, 99. Asst, biol. lab, Bryn Mawr Col, 99–04; teacher physiol, Miss Baldwin's Sch, Bryn Mawr, 99–07; fellow, Pennsylvania, 06–08; asst. anat, *Wistar Inst,* 08–09, assoc, 09–12, asst. prof. and assoc. prof. *embryol,* 12–27, *prof, 27–, mem, 27–, mem. advisory board, 28–* Assoc. ed, 'Jour. Morphol. and Physiol,' 24–27; ed, 'Bibliog. Service,' 22–35. Ellen Richards prize, Asn. Aid Sci. Research by Women, 32. A.A; Soc. Nat; Soc. Zool. (v. pres, 37); Genetic Asn; Eugenics Research Asn; Soc. Exp. Biol; Soc. Mammal; Asn. Anat. Sex determination in amphibians and mammals; germ-cells in amphibians and mammals; parthenogenesis; growth and reproduction of the white rat; modification of sex ratio; inbreeding; domestication; linkage in rats.

King, Prof. H(erbert) H(iram), 1711 Fairchild Ave, Manhattan, Kans. *Chemistry.* Ewing, Ill, Feb. 28, 83. A.B, Ewing Col, 04, A.M, 06; M.S, Kans. State Col, 15; fellow, Chicago, 17–18, Ph.D, 18. Prof. *chem,* Manchester, 04–06; asst, *Kans. State Col,* 06–08, instr, 08–09, asst. prof, 09–14, assoc. prof, 14–18, *prof. and head dept, 18–,* asst. chemist, *eng. exp. sta,* 10–14, assoc. chemist, 14–16, *chemist in charge, 18–, Exp. Sta, 18–* A.A; Chem. Soc; Kans. Acad. Surface tension; adsorption; colloids; soils.

King, Prof. Horace W(illiams), Hilldene Manor, Ann Arbor, Mich. *Civil engineering.* Big Rapids, Mich, Feb. 10, 74. B.S, Michigan, 95. Practising engineer, 95–12; prof. *hydraul. eng, Michigan,* 12–39, *emer. prof, 39–* Civil Eng. Hydraulic engineering; irrigation and water power.

King, Dr. James D(avid), Ohio State University, Columbus, Ohio. *Research surgery.* East Indies, Jan. 4, 09. A.B, Miami (Ohio), 31; M.D, George Washington, 34; M.S, Ohio State, 39, Comly fellow, 39–41, Ph.D, 40. Intern, Yonkers Gen. Hosp, N. Y, 34–35; mem. surg. res. staff, Peiping Union Med. Col. Hosp, 35–36; Nat. Med. Col, Shanghai, 36–38; asst. *research surg, Ohio State,* 38–39, *Comly teaching fellow, 41–* A.A; Ohio Acad. Iodine metabolism; thyroid diseases; thoracic surgery.

King, Prof. Jessie L, Gilman Apartments, Calvert and 31st Sts, Baltimore, Md. *Physiology.* Richmond, Ind, Oct. 19, 81. B.S, Earlham Col, 04; Ph.D, Cornell, 11. Instr. *physiol, Goucher Col,* 11–15, assoc. prof, 15–19, *prof, 19–* A.A; Physiol. Soc; Soc. Bact; Asn. Anat. Physiology of reproduction.

King, Prof. John A(ubrey), 908 Maryland Ave, Syracuse, N. Y. *Mechanical engineering.* Stockdale, Texas, Oct. 17, 96. B.S, Texas, 22; M.S, Lehigh, 28. Tutor mech. eng, Texas, 22–23, instr, 24–26; engineer, State Fire Ins. Cmn, Texas, 23–24; asst. prof. *mech. eng,* Lehigh, 26–28; assoc. prof, Kansas, 28–34, prof, 34–41; *prof. and chairman dept, Syracuse, 41–* Summers, turbine eng. dept, Gen. Elec. Co, 27, 29, 41. Mech. Eng; Eng. Educ.

King, Dr. Jno. (John) C, 990 Atchison St, Pasadena, Calif. *Medicine.* Pittsburgh, Pa, Feb. 9, 53. M.D, Nashville, 74. Surgeon, South. Pacific Ry. Co; Banning Hosp; *retired.* State Board Med. Examiners, Calif, 04–06. Am. Med. Asn; Col. Surg; Calif. Med. Soc. (pres); S. Calif. Med. Soc. (pres). Tuberculosis.

King, Prof. J(ohn) Fitch, Williams College, Williamstown, Mass. *Chemistry.* Ohio, Oct. 13, 94. Wisconsin, 16; A.B, Oberlin Col, 17; A.M, Harvard, 19; Ph.D, Hopkins, 21. Asst, Hopkins, 17–18, instr. *chem,* 19–21; asst. prof, *Williams Col,* 21–25, assoc. prof, 25–32, *prof, 32–, chairman dept.* Fellow, Munich, 27–28; consultant, Bennington Col, 31–34, tutor, 32–33; Oberlaender fellow, Kaiser Wilhelm Inst, 37–38. Summers, asst. prof, Oberlin Col, 20, 22, 23. Science ed, Oxford Book Co, 31–32. Am-German student exchange cmt. on selection, Inst. Int. Educ. C.W.S, U.S.A. Chem. Soc. (assoc, cmt. professional training of chemists); fel. Inst. Chem. (cmt. professional educ); N. Y. Acad. Measurements of dielectric constants; density of hydrochloric acid; vapor pressures of liquids; electrochemistry of iron; adsorption of radioactive ions.

King, Dr. J(ohn) R(ichard), College of Agriculture, University of California, Davis, Calif. *Botany.* Williamsport, Ind, May 28, 10. A.B, Indiana, 31; M.S, Maryland, 32, Ph.D, 35. *Histologist, col. agr, California, and collaborator, bur. plant indust, U. S. Dept. Agr, 35–* Plant cytology; morphology.

King, Dr. John T(heodore), 1210 Eutaw Place, Baltimore, Md. *Internal medicine.* Baltimore, Md, Sept. 18, 89. A.B, Princeton, 10; M.D, Hopkins, 14. Res. house officer, Hopkins Hosp, 14–15, asst. res. physician, 15–16, asst. clin. med, *sch. med, Hopkins,* 16–17, instr, 17–26, assoc. *med,* 26–39, *assoc. prof, 39–* Asst. visiting physician, Hopkins Hosp, 25–38, physician in charge, med. dispensary, 27–35, director med. clinics, 35–39, visiting physician, 38–; Hosp. for Women of Md, 23–; Bon Secours Hosp, 24–; Union Mem. Hosp, 25–; consulting physician, Sydenham Hosp, 25–39; Provident Hosp, 28–31; visiting physician, Church Home and Infirmary, 39–; physician in chief, City Hosps, 39–; consultant, Hanover Gen. Hosp, 40–; Baltimore Eye, Ear and Throat Hosp, 41– Trustee, Sheppard and Enoch Pratt Hosp; Buckingham Sch, Frederick, Md. Lieut, M.C, 17–19, major, M.O.R.C, 31–36. Col. Physicians; Am. Med. Asn; Clin. and Climat. Asn; Soc. Clin. Invest; Am. Physicians; Cong. Am. Physicians and Surg. (sec'y, 32–); South. Med. Asn; Med. and Chirurg. Faculty Md. (sec'y, 28–32). Basal metabolism; the heart.

King, Dr. J(oseph) Lyonel, 211 Linden Ave, Riverton, N. J. *Entomology.* Cleveland, Ohio, Jan. 10, 88. B.S, Ohio State, 14, Ph.D, 30; M.S, Illinois, 16. Asst. entomologist, Ohio Exp. Sta, 12–17; sci. asst, bur. plant indust, State Dept. Agr, Pa, 17–20; special agent, *U. S. Dept. Agr,* Japan, 20–23, entomologist and *senior entomologist, div. Japanese and Asiatic beetle investigations, bur. entom. and plant quarantine, Moorestown, 23–* Entom. Soc; Asn. Econ. Entom. Biological control; insect parasites.

King, Dr. Joseph T(homas), University of Minnesota, Minneapolis, Minn. *Physiology.* Masonville, Iowa, March 13, 96. B.S, A.M, Minnesota, 24, M.D, 25, Ph.D, 29. Teaching fellow *physiol, Minnesota,* 23–24, instr, 26–29, *asst. prof, 29–* Physiol. Soc; Soc. Exp. Biol. Histology and chemistry of tissue cultures; radiation; blood; chemotherapy.

King, Dr. Kenneth M(arion), Dominion Entomological Laboratory, Saskatoon, Sask, Can. *Entomology.* Virginia City, Mont, March 1, 96. B.S, Mont. State Col, 20; M.Sc, Saskatchewan, 26; Caleb Dorr fellow, Minnesota, 28–29, Ph.D, 40. Asst, Exp. Sta, Mont. State Col, 16, 17, 19; sci. asst, bur. entom, U. S. Dept. Agr, Va, 20–22; *entomologist, entom. branch, Can. Dept. Agr, 22–* Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Can. Soc. Tech. Agr; Entom. Soc. Ont. Red-backed cutworms; wireworms; animal ecology of crop rotation.

King, Dr. L. D. Percival, Purdue University, West Lafayette, Ind. *Physics.* Williamstown, Mass, Dec. 29, 06. B.S, Rochester, 30; Mass. Inst. Tech, 31–33; Ph.D, Wisconsin, 37. Asst. *physics,* Rochester, 30–31; Mass. Inst. Tech, 31–33; fellow and teaching asst, Wisconsin, 35–37; *instr, Purdue, 37–* Physical Soc. Nuclear physics; construction of high voltage generators of the transformer rectifier type and the cyclotron; artificially radioactive materials and nuclear structure.

King, Dr. L(afayette) Carroll, 2215 Maple St, Evanston, Ill. *Organic chemistry.* Marysvale, Utah, Sept. 9, 14. B.S, Utah State Col, 36; M.S, Mich. State Col, 38, fellow, 42, Ph.D, 42. Asst, Mich. State Col, 36–42; research assoc. *chem, Northwestern, 42, instr, 42–* Chem. Soc. Isolation and partial synthesis of steroids.

King, Prof. Louis V(essot), McGill University, Montreal, Que, Can. *Physics.* Toronto, Ont, April 18, 86. B.A, McGill, 05, D.Sc, 15; B.A, Cambridge, 08, M.A, 15. Lecturer *physics, McGill,* 10–13, asst. prof, 13–15, assoc. prof, 15–20, *Macdonald prof, 20–* Cambridge math. tripos. Flavelle medal, Royal Soc. Can, 34. Physical Soc; fel. Acoustical Soc; Math. Soc; Astron. Soc; Chem. Soc; fel. Royal Soc. Can; fel. Royal Soc. London. Mathematical physics and electrophysics; solar and sky radiation; anemometry; fog-signal machinery; submarine acoustics; molecular scattering of light; numerical calculation of elliptic functions and integrals; calculations of self and mutual inductance; gyromagnetic electron theory; radiating networks.

King, Dr. Merrill J(enks), 264 Beacon St, Boston, Mass. *Ophthalmology, Bacteriology.* Whitewater, Wis, March 18, 94. Lake Forest Col, 12–15; M.D, Pennsylvania, 19. *Instr.* bacter, *Harvard Med. Sch,* 28–30, *ophthalmol, 33–, ophthalmic research, 31–; surgeon, Mass. Eye and Ear Infirmary, 33–* Asst. surgeon, Mass. Gen. Hosp, 33–; consulting ophthal. surgeon, Framingham Hosp. Ophthal. Soc; Am. Med. Asn; Asn. Path. and Bact; New Eng. Ophthal. Soc; New Eng. Med. Soc. Bacteriology of tuberculosis; undulant fever; conjunctivitis; physiology of alpha lobelin; ocular sarcoidosis.

King, Prof. Morland, Lafayette College, Easton, Pa. *Electrical engineering.* Brooklyn, N. Y, Nov. 22, 81. B.E, Union (N. Y), 05, M.E.E, 06, hon. Sc.D, 30. Instr. *elec. eng,* Union (N. Y), 06–13, asst. prof, 13–20; assoc. prof, *Lafayette Col,* 20–21, *prof. and head dept, 21–* Fel. Elec. Eng. (chairman; Lehigh Valley sect, 31); Eng. Educ. Vacuum tubes; transient phenomena.

King, Dr. Peter, Naval Research Laboratory, Anacostia Station, D. C. *Chemistry.* Boston, Mass, Dec. 12, 10. A.B, California at Los Angeles, 36; Ph.D, Catholic Univ, 42. *Assoc. chemist, Naval Research Lab, 39–* Chem. Soc. Physical and organic chemistry; reactions of free radicals at metallic surfaces.

King, Dr. Philip B(urke), U. S. Geological Survey, Washington, D. C. **7Geology.* Richmond, Ind, Sept. 24, 03. A.B, Iowa, 24, M.S, 27; Ph.D, Yale, 29. Instr, Texas, 25–27; Arizona, 29–30; asst. geologist, *U. S. Geol. Surv,* 30–35, assoc. geologist, 35–39, geologist, 39–43, *senior geologist, 43–* Cmt. on tectonics, Nat. Research Council, 34– Geol. Soc; Asn. Petrol. Geol. (research cmt, 39–); fel. Am. Geog. Soc. Stratigraphy; structural geology; strategic mineral deposits.

King, Ralph H(ughes), Box 829, Carlsbad, N. Mex. *Economic geology.* Primghar, Iowa, June 14, 09. A.A, Wichita Falls Junior Col, 28; B.S, Texas, 31, M.S, 33; Kansas, 40–41. Penrose research grant, 34; instr. petrol. eng, Pa. State Col, 35–36; asst. ed, 'Petrol. Engineer,' Petrol. Eng. Publishing Co, Dallas, Texas, 37–39; geologist and ed, 'Publs,' Kans. Geol. Surv, and instr. paleont, dept. geol, Kansas, 39–41; junior geologist, *U. S. Geol. Surv,* 41–42, *asst. geologist, 42–* Min. and Metal. Eng; Soc. Econ. Paleont. Magnesium; potash; Carboniferous and Permian stratigraphic paleontology, especially sponges.

King, Ralph T(erence), New York State College of Forestry, Syracuse, N. Y. *Economic zoology.* St. Paul, Kans, June 30, 00. B.S, Utah Col, 24, A.M, 25; Minnesota, 25–26; fellow, 29–37. Instr. zool, Utah Col, 24–25; zool, Minnesota, 25–26; head dept. biol, Col. of St. Thomas, 26–29; instr. econ. zool, Minnesota, 29–37; *head dept. zool. and director, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 37–* A.A; Soc. Foresters; Wildlife Soc; Soc. Wildlife Specialists (pres, 36). Field zoology; vertebrate ecology; vertebrate populations; wildlife management.

King, R(eginald) H(art), Bureau of Agriculture and Forestry, Canton, Kwangtung, China. *Sugar chemistry.* Austin, Texas, July 2, 90. B.S, California, 21; M.S, Hawaii, 27. Chemist, West. Sugar Refinery, San Francisco, 19–23; asst. chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, Honolulu, 23–28; prof. sugar technol, col. agr, Philippines, 28–34; *sugar technologist in charge plantations, Kwangtung Provincial Govt, 34–* M.C, U.S.A, 17–19. Philippine Soc. Sugar Cane Technol. (chairman, chem. sect. and cmt. methods, 31–); Int. Soc. Sugar Cane Technol. Sugar technology; manufacturing; chemistry of soils and sugar cane agriculture; fertilization and intensive cultivation of South China sugar.

King, Dr. Robert B(urnett), Mount Wilson Observatory, Pasadena, Calif. *Astrophysics.* Pasadena, Calif, June 6, 08. A.B, Pomona Col, 30; Ph.D, Princeton, 33. Nat. research fellow physics, Mt. Wilson Observatory, Carnegie Institution, 33–34, asst, 34–35; instr, Mass. Inst. Tech, 35–38; *asst. physicist, Mt. Wilson Observatory, Carnegie Institution, 38–* Astron. Soc; Physical Soc; Astron. Soc. Pacific. Sun-spot spectra; fugacity-values for metallic spectra.

King, Dr. Robert E(vans), 613 N. Lake St, Carlsbad, N. Mex. *Geology.* Ann Arbor, Mich, Sept. 20, 06. A.B, Iowa, 26; Ph.D, Yale, 29. Research in West Texas, State Bur. Econ. Geol, Texas, 25–28; geologist, Texas Co, Colombia, S. Amer, 29–31; research, Sonora, Mex, 31–33; petrol. geol. explor, Colombia, S. Amer, Socony-Vacuum Oil Co, 34–36; *geologist,* Shell Oil Co, West Texas, 37–42; *Superior Oil Co, N. Mex,* 42– Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner; fel. Am. Geog. Soc; fel. Geol. Soc. Invertebrate paleontology and stratigraphy.

King, Prof. Robert L(eslie), State University of Iowa, Iowa City, Iowa. *Zoology.* Chester, Pa, July 7, 96. A.B, Pennsylvania, 19, Ph.D, 22. Instr. *zool,* Pennsylvania, 22–27, asst. prof, 27–29, assoc. prof, 29–30; *Iowa,* 30–39, *prof, 39–* A.A; Soc. Zool; Genetics Soc; Micros. Soc; Soc. Nat. Cytology; genetics; Protozoa.

King, Prof. R(obert) M(aynard), Ohio State University, Columbus, Ohio. *Ceramic technology.* Eddy, Texas, May 28, 93. A.B, Texas, 16; M.S, Ohio State, 23. Chief works chemist, Aluminum Co. Amer, 16–19, supt. carbon electrode plant, 19–22; research engineer, U. S. Bur. Mines and Am. Lava Corp, 23–26; refractories engineer, Wellsville Fire Brick Co, 26; Lukens Steel Co, 27; asst. prof. *ceramic eng, Ohio State,* 27–36, *assoc. prof, 36–* Chem. Soc; Ceramic Soc. (chairman enamel div, 36); Eng. Educ. Ceramic technology; enamel technology; refractories; metal-to-glass adherence; clays; use of sodium aluminate in conditioning clays.

King, Dr. R(obert) W(aldo), 195 Broadway, New York, N. Y. *Physics.* Sioux Falls, S. Dak, May 13, 90. A.B, Cornell, 12, Ph.D, 15. Instr. physics, Cornell, 13–17; physicist, West. Elec. Co, 17–20; engineer, Am. Tel. and Tel. Co, 20–27; asst. director publication, Bell Tel. Labs, 27–29; asst. tech. rep, Am. Tel. and Tel. Co, Europe, 29–35; asst. to pres, Bell Tel. Labs, 35–40; *asst. v. pres, Am. Tel. and Tel. Co, 40–;* tech. aide, *Nat. Defense Research Cmt,* 41–42, *deputy mem. and div. mem, 43–* Ed, 'Bell System Tech. Jour,' 22–28, 35–A.A; fel. Physical Soc; Elec. Eng; N. Y. Elec. Soc. (past pres). Heat conductivity; thin metal films; high vacua and thermionic tubes, particularly amplifiers.

King, Dr. Ronold (Wyeth Percival), Harvard University, Cambridge, Mass. *Physics.* Williamstown, Mass, Sept. 19, 05. A.B, Rochester, 27, M.S, 29; Am-German exchange student, Munich, 28–29; White fellow, Cornell, 29–30; fellow, Wisconsin, 30–32, Ph.D, 32. Asst. physics, Rochester, 27–28; Wisconsin, 32–33, Alumni Research Foundation, 33–34; instr. physics, Lafayette Col, 34–36, asst. prof, 36–37; Guggenheim Mem. Foundation fellow, Berlin, 37–38; instr. *physics and communication eng, Harvard,* 38–39, asst. prof, 39–42, *assoc. prof, 42–* A.A; Physical Soc; Radio Eng. Electrodynamics; ultra-high frequency theory and measurement; antennae.

King, Prof. Roy Stevenson, 1293 Oxford Road, N. E, Atlanta, Ga. *Mechanical engineering.* Xenia, Ohio, Sept. 10, 76. M.E, Ohio State, 02; M.S, Minnesota, 07; Sc.D, Georgia, 22. Instr. mech. eng, Minnesota, 03–05; asst. prof. exp. eng, Ohio State, 05–07; asst. prof. mech. eng, Arizona, 14–17; *prof.* exp. eng, *Ga. Tech,* 17–23, *mech. eng. and head dept, 23–* Consulting engineer. Pres, Ga. Board Registration Professional Engineers and Surveyors. A.A; Mech. Eng; Eng. Educ. (v. pres, 24). Flow of water through thin orifices; power and heating plants.

King, Dr. Thomas L(uther), 1 Christopher St, New York, N. Y. *Chemistry.* Roanoke, Ala, May 4, 08. B.S, Emory, 29; M.S, North Carolina, 30, Ph.D, 32. Teaching fellow, North Carolina, 29–32; chemist, South. Dyeing Co, Burlington, N. C, 32–33; Ideal Mercerizing Co, Burlington, N. C, 33; *chemist, Merck and Co, Rahway, N. J, 33–* Summer, anal. chemist, Merck and Co, 29. Organic and analytical chemistry;

cymyl hydrazine; naphthols; detection and determination of traces of impurities; industrial hazards; laboratory design.

King, Dr. V(ictor) L(ouis), Box 166, Bound Brook, N. J. *Chemistry.* Nashville, Tenn, March 14, 86. Dartmouth Col, 07; Columbia, 08; Zurich; Ph.D, Swiss Fed. Polytech, 12. Smelter supt, Vt. Copper Co; operating supt, Hoffman La-Roche, Germany; builder and operator benzol, phenol and picric acid plants for various companies; tech. director and production manager, Chas. Pfizer Co; *tech. director, Calco Chem. div, Am. Cyanamid Co, 18–* Chief dyestuffs sect, W.I.B. Chem. Eng; Chemists' Club. Complex coordination compounds; constitution of naphthalene; optically active cobaltamines; cupferron; manufacture of raw materials; intermediates, dyestuffs, explosives, pharmaceuticals and inks.

King, Prof. W(alter) Bernard, Iowa State College, Ames, Iowa. *Chemistry.* Ewing, Ill, Dec. 3, 00. B.S, Illinois, 23; M.S, Iowa State Col, 24, Ph.D, 30. Instr, Ft. Dodge Junior Col, 25–26; asst. *chem, Iowa State Col,* 23–25, instr, 27–30, asst. prof, 31–37, *assoc. prof, 37–* Chem. Soc. (sec'y-treas, Ames sect, 30). Condensation of benzaldehyde with ethyl acetate; reactions of substituted mercaptomagnesium halides; quantitative analysis of tin in organic compounds; liquid hydrogen sulfide; hydrogen persulfide; decomposition of potassium chlorate; arsenic and mercury determination.

King, Dr. W(illard) V(an Orsdel), Bureau of Entomology, Orlando, Fla. *Entomology.* Virginia City, Mont, July 19, 88. B.S, Mont. State Col, 11; Ph.D, Tulane, 15. Entom. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 10–24, entomologist, 24–28, *senior entomologist, 28–; major, Sanit. Corps. Res, U. S. Army, 41–* Research, int. health div, Rockefeller Foundation, P. I, 28–29, 30–32; entom. consultant, State Board Health, Fla, 34–; mem. board malaria consultants, Tenn. Valley Authority, 35– Mem, Nat. Malaria Cmt. A.A; Entom. Soc; Asn. Econ. Entom; Soc. Parasitol; Soc. Trop. Med; Fla. Entom. Soc; Fla. Pub. Health Asn; Fla. Anti-Mosquito Asn; Wash. Entom. Soc; P. I. Soc. Parasitol. Medical entomology; Rocky Mountain spotted fever; pellagra; malaria fever; mosquitoes; oriental Anopheles.

King, Prof. Willford I(shell), 28 Shore Road, Douglaston, N. Y. *Economics.* Cascade, Iowa, June 2, 80. A.B, Nebraska, 05, LL.D, 31; A.M, Wisconsin, 10, Ph.D, 13. Teacher econ, Wisconsin, 10–17; assoc. statistician, U. S. Pub. Health Service, 17–20; economist, Nat. Bur. Econ. Research, 20–30; *prof. econ, sch. commerce, N. Y. Univ, 27–* Adviser, U. S. Pub. Health Service; bur. agr. econ, U. S. Dept. Agr; U. S. Census Bur. Econ. Asn; Statist. Asn. (v. pres, 19, sec'y-treas, 24–34, pres, 35). Quantitative economics; economic theory; statistical economics; statistical method.

King, Dr. Willis, State Division of Game and Inland Fisheries, Raleigh, N. C. *Fisheries management, Herpetology.* Washington Court House, Ohio, May 24, 08. B.S, Wilmington Col, 29; scholar, Haverford Col, 29, A.M, 30; Ph.D, Cincinnati, 39. Instr. biol, Nebr. Cent. Col, 30–31; Wilmington Col, 31–32; wildlife technician, Great Smoky Mountains Nat. Park, 34–40; *supervisor fish resources, State Div. Game and Inland Fisheries, N. C, 40–* Soc. Ichthyol. and Herp; Wildlife Soc; Fisheries Soc. Wildlife; herpetology; amphibians and reptiles in ecological relationships in the Great Smoky Mountains; game fish distribution and management.

Kingdon, Dr. K(enneth) H(ay), General Electric Co, Schenectady, N. Y. *[6]Physics.* Jamaica, B. W. I, May 13, 94. B.A, McMaster, 14; M.A, Toronto, 15, Ph.D, 20. *Physicist, Gen. Elec. Co, 20–* Physical Soc. Thermionic emission; electrical discharge in gases.

Kingerley, Dr. Richard W(illiam), Jr, Grasselli Chemicals Department, E. I. du Pont de Nemours and Co, Cleveland, Ohio. *Physical chemistry.* Providence, R. I, July 8, 12. B.S, Brown, 34; M.S, R. I. State Col, 37; Ph.D, Columbia, 41. Statutory asst, Columbia, 39–41; *research chemist, Grasselli chem. dept, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Physical inorganic chemistry.

Kingery, Prof. H(ugh) M(cMillan), 2350 Colorado Blvd, Denver, Colo. *Anatomy.* Emporia, Kans, May 19, 87. A.B, Wabash Col, 08, A.M, 09; Ph.D, Cornell, 17. Instr. physics and chem, Idaho, 09–10; elementary science, Robert Col, Constantinople, 10–11; high sch, Kans, 11–12; asst. and instr. histol. and embryol, Cornell, 12–18; instr. *anat, Colorado,* 19–20, asst. prof, 20–23, *assoc. prof, 23–* A.S, U.S.A, 18–19. A.A; Asn. Anat. Histology; cytology; embryology.

Kinghorn, Dr. Hugh M(cLennan), 14 Church St, Saranac Lake, N. Y. *Medicine.* Kingston, Ont, Can, Nov. 9, 69. B.A, McGill, 90, M.D, 94. Res. physician, Montreal Gen. Hosp, 94–96; *practising physician, 96–* Acting supt, Montreal Gen. Hosp, 96. Clin. and Climat. Asn. Tuberculosis.

Kingman, Edward D(yer), Brookline, Mass. *Engineering.* Holliston, Mass, 84. Ph.B, Yale, 07. Practising engineer, 07–11; instr, Mich. State Col, 11–13; asst. prof. civil eng, Wisconsin, 13–15; Maine, 17; *head dept. applied mech, Wentworth Inst, Boston, 17–* A.A; assoc. Civil Eng; Eng. Educ; fel. Geog. Soc; Newcomen Soc, London. Engineering education; history of engineering.

Kingman, Prof. Robert H(ills), Washburn College, Topeka, Kans. *Zoology.* Topeka, Kans, July 18, 90. A.B, Washburn Col, 13; A.M, Illinois, 17; Columbia, 19–20. Asst. biol, Park Col, 13–15; zool, Illinois, 15–17; instr. biol, Buena Vista Col, 17–19; *prof. zool, Washburn Col, 20–* Embryological anatomy.

Kingsbury, Dr. B(enjamin) F(reeman), 2 Stacy Apartments, 612 North St, Chapel Hill, N. C. *[8]Histology, Embryology.* St. Charles, Mo, Nov. 18, 72. A.B, Buchtel, 93; Ph.D, Cornell, 95; M.D, Freiburg, 03; hon. Sc.D, Bowdoin, 34. Instr. histol, *Cornell,* 96–99, asst. prof, 99–01, physiol, 03–08, prof. *histol. and embryol,* 08–41, *emer. prof, 41–; guest prof. anat, North Carolina.* Collaborator, 'Jour. Comp. Neur'; 'Am. Jour. Anat.' A.A; Soc. Zool; Asn. Anat. Comparative anatomy.

Kingsbury, Dr. B(urton) A(ddison), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Mumford, N. Y, Jan. 5, 99. A.B, Rochester, 20; A.M, Michigan, 26; Ph.D, Columbia, 35. Teacher, high sch, N. Y, 20–24; *research physicist, Bell Tel. Labs, 25–* Physical Soc; Acoustical Soc. Loudness of pure tones; shot-effect; sound recording.

Kingsbury, E(dwin) F(oster), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Hamilton, N. Y, Dec. 24, 86. B.S, Colgate, 10. *Physicist,* United Gas Improv. Co, Pa, 10–18; Eastman Kodak Co, 19–20; West. Elec. Co, 20–25; *Bell Tel. Labs, 25–* Longstreth medal, Franklin Inst, 19. A.S, 18–19, capt; A.S.R, 19–29. A.A; fel. Physical Soc; Optical Soc; Franklin Inst. Photometry; illuminating engineering; photography; telephone transmission; telephotography; photoelectricity; television.

Kingsbury, Prof. Forrest A(lva), University of Chicago, Chicago, Ill. *Psychology.* Oelwein, Iowa, Aug. 3, 83. Ph.B, Cent. Col. (Iowa), 09; A.M, Yale, 11; Ph.D, Chicago, 20. Prof. philos. and educ, Grand Island Col, 11–15; prof, Ottawa (Kans), 15–18; asst. prof. *psychol, Chicago,* 20–23, *assoc. prof, 23–, exec. sec'y dept, 39–,* dean cols. of arts, lit. and science, 24–27. Educ. sec'y, army Y.M.C.A, 18–19. A.A; Psychol. Asn. Psychological tests; job analysis and grading; personnel rating scales; business psychology; history of psychology.

Kingsbury, Franklin L(aflin), S. Cherry Lane, Rumson, N. J. *Chemical engineering.* Indianapolis, Ind, Aug. 13, 00. B.S, Illinois, 24. Chem. engineer, Titanium Pigment Co, 24–25; chief chemist, *titanium div, Nat. Lead Co, Mo,* 25–38, *research chem. engineer, research lab, South Amboy, 38–* A.A; Chem. Soc. Uses of titanium oxide pigments; digestion of ilmenite ores; methods of titanium hydrolysis; preparation of titanium pigments.

Kingscote, Dr. A(nthony) A(ugustus), Ontario Veterinary College, Guelph, Ont, Can. *Parasitology.* Manchester, Eng, Dec. 1, 02. B.V.Sc, Toronto, 28, D.V.Sc, 35. Asst. zool. and path, Guelph, 28–29; private practise, diseases of fur-bearing animals, 29–30; *lecturer path. and parasitol, head dept. parasitol, Ont. Vet. Col, 30–; Royal Can. Artil, 40–, major.* Can. Soc. Parasitol; Entom. Soc. Ont. Control of parasitism on fur farms; life cycle, distribution, bionomics and control of animal parasites; ascaris sensitivity; goiter in foxes; tuberculosis in mink.

Kingsford, Dr. H(oward) N(elson), Dartmouth College, Hanover, N. H. *Pathology, Bacteriology.* Providence, R. I, Sept. 24, 71. Brown, 94; M.D, Dartmouth Col, 97, A.M, 08; Harvard Med. Sch, 98. Instr. *path. and bacter, Dartmouth Col,* 98–00, prof, 01–41, *emer. prof, 41–,* med. director, 02–41, *emer. director, 41–* House officer, Hitchcock Hosp, Hanover, 97; path. dept, Boston City Hosp, 98; pathologist, Hitchcock Hosp, 02; Littleton, N. H, Hosp; Manchester, N. H,

Hosp; state bacteriologist, N. H. Asn. Path. and Bact; Am. Med. Asn; N. H. Med. Soc. (pres, 23). Mosquitoes; etiology of cancer; infectious diseases; gallstones; water pollution; copper sulfate and water supplies; college sanitation; rabies in New Hampshire.

Kingslake, Rudolf, 56 Westland Ave, Rochester, N. Y. *Applied optics.* London, Eng, Aug. 28, 03. B.Sc, London, 24, Beit fellow, 25–27, M.Sc, D.I.C, 26. Optical designer, Sir Howard Grubb, Parsons, and Co, Newcastle-on-Tyne, England, 27–28; research engineer, Int. Standard Elec. Corp, London, 28–29; asst. prof. geometrical optics and lens design, Rochester, 29–35, assoc. prof, 35–37; *optical designer, Eastman Kodak Co, 37–* Exchange prof, Imp. Col. Science and Technol, London, 36–37. Optical Soc. (councilor, 39–43); Soc. Motion Picture Eng; Physical Soc. London. Aberrations of lenses and their measurement; effects of aberrations on optical images; design of photographic objectives and optical systems.

Kingsley, Prof. Howard L, 84 Exeter St, Boston, Mass. *Psychology.* Shelby, Mich, Nov. 27, 92. A.B, Adrian Col, 15; fellow, Michigan, 15–16, A.M, 16; fellow, Illinois, 21–22, Ph.D, 24. Prof. psychol. and educ, Greenville Col, 16–18; instr. educ, Michigan, 18–19; psychol. and educ, Peniel Col, 19–20; McKinney Junior Col, 20–21; asst. psychol, Illinois, 22–24, instr, 24–25; asst. prof, Goucher Col, 25–27; assoc. prof, col. practical arts and letters, *Boston,* 27–29, *prof,* 29–36, *educ, sch. educ, 36–* Summers, instr, La. State Nor. Col, 21, 22; Ill. State Nor. Univ, 25, 26, 27. A.A; Psychol. Asn; Soc. Col. Teachers Educ. Psychology of search and learning.

Kingsley, Prof. Louise, Wellesley College, Wellesley, Mass. *Geology.* Binghamton, N. Y, 99. A.B, Smith Col, 22, A.M, 24; Ph.D, Bryn Mawr Col, 31. Asst. geol, Smith Col, 22–24, instr, 24–27; *geol. and geog, Wellesley Col,* 30–34, asst. prof, 34–39, *assoc. prof, 39–* A.A. Cauldron subsidence of the Ossipee Mountains; the Cardigan quadrangle of New Hampshire.

Kingston, Prof. H(arold) R(eynolds), University of Western Ontario, London, Ont, Can. *Mathematics.* Picton, Ont, June 26, 86. M.A, Queen's (Can), 08; Ph.D, Chicago, 14. Teacher, pub. schs, Ont, 03–06; asst, high sch, Ind, 08–12; lecturer math. and astron, Manitoba, 13–18, asst. prof, 18–21; *prof. math. and head dept. math. and astron, Western Ontario, 21–, director summer sch. and extramural dept, 23–* A.A; Math. Soc; Math. Asn; Astron. Soc; Royal Astron. Soc. Can. (pres, 30-32, sec'y, Winnipeg branch, 15–17, pres, 17–19, London branch, 22–30, hon. pres, 30–); fel. Royal Astron. Soc. Metric differential geometry.

Kingston, Dr. J(ohn) Maurice, 4340 Sixth Ave, N.E, Seattle, Wash. *Mathematics.* Joliet, Ill, May 25, 14. B.A, Western Ontario, 35; M.A, Toronto, 36, Ph.D, 39. Teaching fellow *math,* Toronto, 35–39; lecturer, British Columbia, 39–40; assoc, *Washington (Seattle),* 40–43, *instr, 43–* Math. Soc. Theory of abstract groups.

Kinietz, W(illiam) Vernon, Museums Bldg, Ann Arbor, Mich. *Anthropology.* Lapeer, Mich, May 6, 07. A.B, Michigan, 28; A.M, Chicago, 33. Field and lab. asst. archeol, Illinois, 30–32; cataloguer, *museum anthrop, Michigan,* 26–27, asst, 27–28, *curator, 28–, research assoc. ethnohist, 35–* Anthrop. Asn; Soc. Archeol; Mich. Acad. Michigan Indian history; culture change; American Indian ethnology.

Kinman, C(harles) F(ranklin), U. S. Bureau of Plant Industry, Beltsville, Md. *Agriculture.* Ill, Dec. 11, 80. B.S, Kans. State Col, 04. Asst. horticulturist, Ala. Polytech. and Exp. Sta, 04–06; Estacion Cent. Agron. de Cuba, 07–09; horticulturist, P. R. Exp. Sta, *U. S. Dept. Agr,* 09–18, *pomologist,* fruit production research in Calif, *div. fruit and veg. crops and diseases, bur. plant indust,* 18–38, *hort. field sta, Md, 38–* A.A. Fruit culture; leguminous cover crops and root crops for Puerto Rico; vegetables in Puerto Rico.

Kinne, Dr. Raymond C(harles), 409 S. Cherry St, Cameron, Mo. *Chemical engineering.* Hamilton, Mo, March 17, 01. A.B, Mo. Wesleyan Col, 24; M.S, Iowa, 28, Ph.D, 31. Prof. chem, Mo. Wesleyan, 24–27; asst, Iowa, 27–31; *manager, Kinne Gas Co, 31–; Chem. Warfare Service, U. S. Army, 40–, lieut. col.* Gas Asn. Fuel technology; carbonization of Iowa coal.

Kinney, Prof. A(sa) S(tephen), 70 Woodbridge St, South Hadley, Mass. *Botany.* Worcester, Mass, Aug. 23, 73. B.S, Mass. Col, 96; B.S, Boston, 96, M.S, 97. Instr. bot, Mass. Col, 97–98; *Mt. Holyoke Col,* 98–27, asst. prof. *floricul,* 27–36, assoc. prof, 36–39, *emer. prof, 39–,* director botanical gardens, 98–39. Relation of electricity and soils to plant growth.

Kinney, Prof. Charles Noyes, 1318 27th St, Des Moines, Iowa. *Chemistry.* Iowa City, Iowa, 69. B.S, Drake, 93, M.S, 94; Mass. Inst. Tech; Chicago; Yale. *Prof. chem, Drake,* 96–30, *org. chem, 30–* Consulting and anal. chemist; past state chemist, Iowa; past chemist, State Board Health, Iowa; past pres, Pub. Sch. Board, Des Moines. Chem. Soc; Iowa Acad. Water, oil, coal and food analysis; chemical composition of food.

Kinney, Prof. Corliss R(obert), Pennsylvania State College, State College, Pa. *Chemistry.* Des Moines, Iowa, July 19, 00. B.S, Iowa State Col, 22; A.M, Harvard, 23, Ph.D, 25. Instr. chem, Utah, 25–27, asst. prof, 27–31, assoc. prof, 31–42, *prof,* 42–43; *fuel tech, Pa. State Col, 43–* Director and treas, Utah Conservation and Research Foundation. Chem. Soc. (sec'y, northwest. Utah sect, 26–35, v. chairman, 37, chairman, 38). Furazan oxides; organoboron compounds; boiling point numbers; oil artemisia tridentata.

Kinney, Prof. E(dmund) J, 750 Rose St, Lexington, Ky. *Agronomy.* Yellow Springs, Ohio, Dec. 26, 79. B.S.A, Ohio State, 08. Asst. entom. and bot, *Exp. Sta, Kentucky,* 08–10, asst. agronomist, 10–17, assoc. agronomist, 17–35, *agronomist, 36–,* asst. prof. agron, *univ,* 10–16, assoc. prof, 16–19, *prof. farm crops, 19–* A.A; Soc. Agron. Field crops.

Kinney, Prof. E(dward) D(onald), University of Kansas, Lawrence, Kans. *Chemical engineering.* Utica, N. Y, Feb. 4, 84. Harvard, 04–07; B.S, Kansas, 30. Research, Shannon Copper Co, Ariz, 07; chemist, metallographist, gen. foreman zinc plant and chief chemist, Anaconda Copper Mining Co, 10–20; chief chemist, Edison Chem. Works, N. J, 20; metallurgist, Norton Co, Mass, 21; *assoc. prof. chem. eng. and head dept, Kansas, 21–* Consulting engineer, Weyerhaeuser Timber Co. Min. and Metal. Eng; Eng. Educ; Kans. Acad. Non-ferrous metallurgy; electrolytic zinc process; copper leaching processes; general metallurgy.

Kinney, Dr. Gilbert Ford, U. S. Naval Academy, Annapolis, Md. *Physical chemistry.* Judsonia, Ark, Dec. 29, 07. A.B, Ark. Col, 28; M.S, Tennessee, 30; Ph.D, N. Y. Univ, 35. Instr. chem. technol, Pratt Inst, 35–39, head instr. chem, 39–43; *mem. faculty, post-grad. sch, U. S. Naval Acad, 43–* Chem. Soc; Radio Eng; Eng. Educ; N. Y. Acad. Electronics; instrumentation; corrosion and its control; chemical engineering thermodynamics.

Kinney, Dr. J(acob) M(illison), University of Chicago, Chicago, Ill. *Mathematics.* Spencer, Ind, Dec. 21, 77. A.B, Indiana, 04; A.M, Nebraska, 07; fellow, Illinois, 08–10; Ph.D, Chicago, 17. Teacher and prin, schs, Ind, 96–06; teaching fellow, Nebraska, 06–08; instr. *math,* Lewis Inst. (Ill), 10–12; Hyde Park High Sch, Chicago, Ill, 12–22; Crane Junior Col, 22–27, head dept, 27–34; Wilson Junior Col, 34–43; *visiting prof, Chicago, 43–* A.A; Math. Soc; Math. Asn. Projective differential geometry.

Kinney, Prof. J(oseph) Sterling, Rensselaer Polytechnic Institute, Troy, N. Y. *Civil engineering.* Millport, N. Y, May 15, 09. C.E, Rensselaer Polytech, 31, M.C.E, 34, D.C.E, 37. Instr. civil eng, Rensselaer Polytech, 31–37; designing and estimating engineer, Am. Bridge Co, 37–40; *asst. prof. civil eng, Rensselaer Polytech, 40–* Civil Eng; Eng. Educ. Interminate structures; the effects of elevated temperatures on the fatigue properties to two alloy steels.

Kinnison, A(llen) F(isher), Soil Conservation Service, Phoenix, Ariz. *Soil conservation.* Hopkins, Mo, Jan. 10, 93. B.S. (Agr), Idaho, 16; M.S, California, 26. Asst. prof. hort, Arizona, and asst. horticulturist, Exp. Sta, 18–22, special agr. exten. service, 22–24, assoc. prof. and assoc. horticulturist, 25–27, prof. and horticulturist, 27–37; in charge southwest nurseries, *soil conservation service, U. S. Dept. Agr,* 37–39, state coordinator, *Ariz,* 39–42, *state conservationist, 42–* Production and use of vegetation in soil erosion control; cooperation with state and federal agencies in soil and moisture conservation and erosion control.

Kinnison, H(arvey) B(anks), 945 Post Office Bldg, Boston, Mass. *Engineering.* Hopkins, Mo, July 21, 90. B.S, Idaho, 14. Deputy county engineer, Idaho, 14–15; engineer, land develop. co, Calif, 15–18; *U. S. Geol. Surv,* Texas, 18–21, *dist. engineer,* Kans, 21–25, *Boston, 25–* Desmond Fitzgerald medal, Boston Soc. Civil Eng, 30. Civil Eng; Boston Soc. Civil Eng. Streamflow data.

Kinsella, Dr. Ralph A, St. Louis University School of Medicine, St. Louis, Mo. *Medicine.* St. Louis, Mo, Feb. 13, 86. A.B, St. Louis, 07, A.M, 10, M.D, 11. Fellow med. research, Columbia, 14–17, instr. med, 15–17; prof. exp. med, St. Louis, 19–21; assoc. prof. *med,* Washington (St. Louis), 21–24; *prof, St. Louis, 24–* Chairman staff, St. Mary's Hosp, 25–; Firmin Desloge Hosp, 33– Major, M.R.C, 17–19. A.A; Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; Harvey Soc. Infectious diseases; Streptococcus; acute rheumatic fever; gonococcus infection; endocarditis.

Kinsey, Prof. Alfred C(harles), Indiana University, Bloomington, Ind. *[6]Zoology, Entomology.* Hoboken, N. J, June 23, 94. B.S, Bowdoin Col, 16; Sheldon traveling fellow, Harvard, 19–20, Sc.D, 20. Asst. prof. *zool, Indiana,* 20–22, assoc. prof, 22–29, *prof, 29–, Waterman research prof,* 25–29, *31–* A.A; Soc. Nat. (sec'y, 41–); Entom. Soc. Amer. (second v. pres, 37); Asn. Econ. Entom; Genetics Soc; Soc. Zool; New Eng. Bot. Club; Ind. Acad; Cambridge Entom. Club; Soc. linn. de Lyon. Elementary biology curriculum; life histories, gall formations, evolution, geographic distribution, taxonomy and nature of species of gall wasps; exploratory research on human sex behavior.

Kinsey, Dr. E(dgar) L(ee), University of California at Los Angeles, Los Angeles, Calif. *Physics.* Baltimore, Md, July 24, 03. B.S, Hopkins, 24, A.M, 26, Ph.D, 27. Asst. *physics,* Hopkins, 25–27; nat. research fellow, Yale, 27–28; asst. prof, *California at Los Angeles,* 28–37, *assoc. prof, 37–* Fel. Physical Soc. Fluorescence spectrum of sodium vapor; Raman scattering of light by solutions of strong electrolytes; molecular structure.

Kinsey, Dr. Maurice E(verett), Rayonier, Inc, Fernandino, Fla. *Chemistry.* Fairview, Oregon, May 4, 05. B.S, Oregon State Col, 27; Ph.D, Wisconsin, 31. Research chemist, Rainier Pulp and Paper Co, 31–39, *head chemist, Rayonier, Inc, 39–* Catalytic organic reactions at high pressures.

Kinsey, Dr. V. Everett, Harvard Medical School, Boston, Mass. *Biochemistry.* Pittsburgh, Pa, Aug. 4, 09. B.S, Pittsburgh, 31, Ph.D, 35. Biophysicist, research lab, Westinghouse Elec. and Mfg. Co, 32–33; asst. zool, Pittsburgh, 33–35; cancer research lab, Pennsylvania, 35–36; biochemist, research lab, Sharp and Dohme Co, 36–38; research fellow physiol. chem, sch. med, Pittsburgh, 38–40; *asst. and instr. ophthal. research, Howe lab. ophthal, Harvard Med. Sch, 41.* Biophysics; biochemical effects of x-rays; fractionation of serum proteins; visible and infra-red studies in ophthalmology; ocular physiological chemistry.

Kinsey, Prof. Wendell H, University of Connecticut, Storrs, Conn. *Physics.* Kosciusko Co, Ind. A.B, Indiana, 25, A.M, 27. Instr, Eveleth Junior Col, Minn, 27–29; asst. prof. *physics, Connecticut,* 29–42, *assoc. prof, 42–* Summer, instr, Indiana, 38. Asn. Physics Teachers. High school examination for physics; college physics laboratory manual.

Kinsler, Lieut. Lawrence E(dward), U. S. Naval Academy, Annapolis, Md. *Physics.* Los Angeles, Calif, June 25, 10. B.S, Calif. Inst. Tech, 31, Ph.D, 34. Teaching fellow, Calif. Inst. Tech, 31–34; asst. prof. physics, Rollins Col, 34–37, assoc. prof, 37–41, chairman science div, 38–41; *lieut, U. S. Naval Res, and officer instr. physics, U. S. Naval Acad, 41–* Physical Soc. Zeeman effect; determination of specific charge of electron.

Kinsley, Carl, Cosmos Club, Washington, D. C. *[8]2]Physics.* Lansing, Mich, Nov. 25, 70. A.B, Oberlin Col, 93, A.M, 96; E.E, Cornell, 94; fellow, Chicago, 01–02; Cambridge, 04. Instr. physics, Washington (St. Louis), 94–99; elec. expert, War Dept, 99–01; instr. physics, Chicago, 02–03, asst. prof, 03–09, assoc. prof, 09–19; *consulting engineer, 19–* Major, Sig.C, chief sect, 10, M.I.D, Gen. Staff, U.S.A, 17–19. A.A; fel. Physical Soc; fel. Elec. Eng; Radio Eng; Soc. Test. Mat. Frequency of alternating currents; series-dynamo electric machines; coherers for wireless telegraphy; residual charges of condensers; short spark discharges; methods of designing electrical machines; dielectric losses; discharge through gases; radio direction measurements; telegraphy; photoelectric photometer; magnetic analysis; non-destructive testing of steel, including location of fatigue foci.

Kinsman, Dr. J. Murray, 606 Heyburn Bldg, Louisville, Ky. *Medicine.* Kentville, N. S, Can, Feb. 11, 99. B.A, Mt. Allison, 18; M.D, McGill, 22. Instr. path, McGill, 22–23; house officer *med,* Peter Bent Brigham Hosp, 23–24; instr, Yale, 24–25; res, *sch. med, Louisville,* 25–26, instr, 25–29, asst. prof, 29–36, *assoc. prof, 36–* Interpreter electrocardiograms, Norton Mem. Infirmary; St. Joseph Infirmary; Ky. Baptist Hosp. Soc. Clin. Invest; Cent. Soc. Clin. Research. Dye injection method for measuring the blood flow; chemotherapy; sulfa drugs.

Kinsman, J(ames) Warren, Nemours Bldg, Wilmington, Del. *Organic chemistry.* Elizabeth, N. J, Dec. 4, 94. Wesleyan (Conn), 14; Columbia, 16. Asst. director dyestuffs sales and later *director org. chem. sales and manager alcohol div, E. I. du Pont de Nemours and Co, 23–, asst. gen. manager plastics dept; v. pres, Bayer-Semesan Co, New York, 28–* Pres, Gasoline Antioxidant Co, 34– Nomenclature cmt. and cmt. on transportation of explosives, Am. Dyes Inst. and Synthetic Org. Chem. Mfg. Asn, 20; nomenclature cmt, Nat. Research Council, 22; cmt. for preparation and publication of a list of ring systems, Am. Chem. Soc, 22. Chem. Soc; Indust. Alcohol Inst; Nat. Paint, Varnish and Lacquer Asn. (mem. alcohol adv. cmt); Wood Preservers Asn; Chemists' Club; N. J. Chem. Soc. Chemical nomenclature; seed, soil and plant disinfectants; wood preservatives; insecticides; coal-tar and rubber chemicals; dyestuff intermediates; flotation reagents; oxidation inhibitors; alcohols by fermentation methods; extreme pressure lubricant bases; chemicals for treating petroleum derivatives.

Kintner, Prof. Edward, 1004 East St, North Manchester, Ind. *Biology.* Near Ney, Ohio, July 1, 79. A.B, Manchester Col, 12, hon. Sc.D, 38; A.M, Ohio State, 14; Indiana, summers, 24, 25, 33, 34. Instr, *Manchester Col,* 09–12, *prof.* science, 12–23, *biol, 23–, sec'y faculty, 20–, mem. exec. board,* 27– A.A; Ind. Acad. (v. pres, 35, chairman, program cmt, 37). Spiders, especially those of lake borders; fresh-water sponges.

Kintner, Lieut. Col. J(ohn) H(arold), Ft. Mason, Calif. *Medicine.* Riegelsville, Pa, Sept. 13, 91. Ph.G, Medico-Chirurg. Col. of Phila, 12; D.V.M, Pennsylvania, 17. Exec. officer and instr, U. S. Army Vet. Sch, Washington, D. C, 24–27; vet. research, trop. diseases of animals, Bur. Science, P. I, 30–32; Sta. Vet. Hosp, Ft. Sam Houston, 32–33, lab, 33–36, *food inspection, Ft. Mason, Calif, 36–* Med. dept. research board, U.S.A. A.A; Inst. Food Tech; Vet. Med. Asn. Tropical and infectious diseases of animals; food inspection.

Kinzer, Dr. G(ilbert) D(eForest), 3211 Wheeler Road, S.E, Washington, D. C. *Physics.* Ottawa, Ill, Nov. 2, 09. B.S, Illinois, 31, M.S, 32, Ph.D, 36. Head dept. physics and math, St. Viator Col, 36–38; *assoc. physicist, Naval Research Lab, 38–* Physical Soc; Soc. Metals. Emission spectrum of diatomic arsenic; fluorescence of diacetyl; ballistics.

Kip, Dr. Arthur F(rederic), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Los Angeles, Calif, Sept. 27, 10. A.B, California, 35, Ph.D, 39. *Research assoc. radioactivity, Mass. Inst. Tech, 39–* Electrical discharge in gases; artificial radioactivity.

Kiplinger, C(laude) C(layton), West Liberty State College, West Liberty, W. Va. *Physics, Chemistry.* West Salem, Ohio, Jan. 6, 84. A.B, Western Reserve, 10; M.S, Ohio State, 32. Teacher, high sch, Ill, 10–13; instr. chem, Iowa State Col, 13–16; asst. prof, Mississippi, 16–17; org. chem, Kentucky, 17–18; acting head dept. chem, Mt. Union Col, 18–25; acting prof. physics, Wells Col, 26; *head dept.* math. and physics, *W. Liberty State Col, W. Va,* 29–37, *chem, 37–* A.A; Chem. Soc; Math. Asn; Ky. Acad. Chemistry; ebullioscopic determination of molecular weights; apparatus designing; crystallization phenomena; surface tension.

Kipp, Dr. Egbert M, Aluminum Co. of America, New Kensington, Pa. *Physical chemistry.* Angola, Portuguese W. Africa, Nov. 27, 14. B.S, Iowa Wesleyan, 34; A.M, Boston, 35; Ph.D, Pa. State Col, 39. Teaching scholar, Boston, 34–35; asst. chem, Pa. State Col, 35–39; *research chemist, Aluminum Co. Amer, 39–* Chem. Soc. Manufacture and fabrication of aluminum; magnesium and aluminum-magnesium alloys; specialized problems in the development of fabrication lubricants.

Kipper, Dr. H(erman) B(runswick), Kipper Research Laboratories, Accord, Mass. *Chemistry.* Adams, Mass, Feb. 6, 82. B.S, Harvard, 04, A.M, 05, Ph.D, 07. Chief plant chemist, research chemist and dept. manager, Semet-Solvay Co. and Solvay Process Co, Syracuse, 08–16; chief and research chemist, dept. and plant manager, Cent. Paper Co, Mich, 17–28; *director, Kipper Research Labs, 29–* A.A; Chem. Soc. Electrochemistry; organic and inorganic chemistry.

Kipps, Prof. M(ichael) S(mith), Virginia Polytechnic Institute, Blacksburg, Va. *Agronomy.* Blacksburg, Va, Dec. 30,

00. B.S, Va. Polytech, 23, M.S, 26. Asst. *agron, Va. Polytech,* 23–26, instr, 26–38, *asst. prof, 38–, asst. agronomist, Exp. Sta,* 26– Soc. Agron; Va. Acad. Crop varieties; fertilizers; rotations; production of field crops.

Kirby, Dr. Ben H(arrison), 9 Meadowbrook Village, Plainfield, N. J. *Organic chemistry.* Denver, Colo, Aug. 26, 15. A.B, Colo. Col, 37, A.M, 39; Ph.D, Iowa, 42. Lab. asst, Colo. Col, 36–39; teaching asst, Iowa, 40–42; *research chemist, Gen. Aniline and Film Corp, 42–* Chem. Soc. Preparation of fertilizers from open hearth furnace slag; effects of substituents in the preparation of 1,3 diaryl uretediones.

Kirby, Dr. George F(rancis), Jr, 2073 Cloverdale Ave, Baton Rouge, La. *Physical chemistry.* Cheneyville, La, Dec. 7, 16. A.B, Louisiana, 36, M.S, 38, Ph.D, 40. Instr. chem, Louisiana, 38; *research chemist, Ethyl Co, 40–* Chem. Soc. Kinetics of gaseous reactions.

Kirby, G(eorge) W, Standard Brands, Inc, 810 Grand Concourse, New York, N. Y. *Chemistry.* Memphis, Tenn, Oct. 21, 99. B.Ch.E, Dayton, 22; George Washington, 26, 27; N. Y. Univ, 29, 32. Bur. chem, U. S. Dept. Agr, 23–27; *research chemist, Fleischmann labs, Standard Brands, Inc,* 27– Chem. Soc; Asn. Cereal Chemists. Yeast; fermentation; bacterial metabolism; baking.

Kirby, Prof. Harold, University of California, Berkeley, Calif. **Zoology.* Tusket, N. S, Can, Feb. 2, 00. B.S, Emory, 22; A.M, California, 23, James M. Goewey fellow, 24–25, Ph.D, 25. Teaching fellow zool, California, 22–24; instr. *biol,* Yale, 25–28; asst. prof, *California,* 28–31, assoc. prof, 31–40, *prof, 40–* Guggenheim Mem. Foundation fellow, 34–35. A.A; Soc. Zool; Micros. Soc; Soc. Parasitol; Soc. Trop. Med; Cooper Ornith. Club; West. Soc. Nat; Calif. Acad. Protozoology; parasitology; cytology; protozoa of termites.

Kirby, Dr. James Emory, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Boone, Iowa, Aug. 14, 03. A.B, Drake, 24; M.S, Iowa State Col, 26, Ph.D, 29. Research chemist, *chem. dept, E. I. du Pont de Nemours and Co,* 29–36, group leader, 36–42, *research supervisor, 42–* Synthetic organic chemicals; organometallic compounds; synthetic rubber; plastics; insecticides; ore flotation.

Kirby, Richard S(helton), 152 Washington St, St. Augustine, Fla. *Civil engineering.* Port Chester, N. Y, Sept. 16, 74. Ph.B, Yale, 96, C.E, 98. Practising civil engineer, 96–06, 09–11; instr. civil eng, Yale, 06–09; prof, Gettysburg Col, 11–15; asst. prof. and assoc. prof. eng. drawing, Yale, 15–43; *retired.* Civil Eng. Engineering drawing; specification writing; automobile accident statistics; engineering history.

Kirby, Prof. R(obert) S(tearns), Pennsylvania State College, State College, Pa. *Plant pathology.* Battle Creek, Mich, March 18, 92. B.S, N. Mex. Col, 16; fellow, Iowa State Col, 16–18, M.S, 17; Ph.D, Cornell, 23. Asst. pathologist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 18–19; instr. *exten. plant path,* Cornell, 20–24; *asst. prof, Pa. State Col, 24–,* asst. exten. pathologist and *exten. pathologist, 24–* A.A; Bot. Soc; Phytopath. Soc. (sec'y, 38–41); Pa. Acad; Okla. Acad; Iowa Acad. Cereal, fruit and flower diseases.

Kirby-Smith, Dr. J(ohn) S(elden), 7 Dana St, Cambridge, Mass. *Physics.* Sewanee, Tenn, March 31, 14. B.S, Univ. of the South, 35; A.M, Duke, 37, Ph.D, 39. Asst, Duke, 39–40; research fellow, nat. cancer inst, U. S. Pub. Health Service, 40–41, asst. physicist, 41–42, assoc. physicist, 42; *mem. staff, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Molecular spectroscopy and molecular structure; biophysics.

Kirchner, Dr. Fred(erick) K(arl), Bridgewater College, Bridgewater, Va. *Organic chemistry.* New York, N. Y, May 10, 11. A.B, Maryville Col, 34; M.S, Tennessee, 35; Ph.D, Ohio State, 38. *Asst. prof. chem, Bridgewater Col, 38–* A.A; Chem. Soc. Introduction of chlormethyl group in aromatic nuclei; preparation of alkyl naphthyl carbinols.

Kirchner, Dr. J(ustus) G(eorge), California Institute of Technology, Pasadena, Calif. *Chemistry.* Iowa, May 11, 11. B.S, Creighton, 35; scholar, Iowa State Col, 35–36, fellow, 36–39, Ph.D, 39. Asst, *Calif. Inst. Tech,* 39–40, *Hawaiian Pineapple Producers Cooperative Asn. fellow bio-org. chem, 40–* Chem. Soc. Nitrogen heterocyclics; vitamins; plant hormones.

Kirchner, W(illiam) H(erman), 722 Tenth Ave, S. E, Minneapolis, Minn. *Mathematics, Graphics.* Templeton, Mass, Oct. 24, 68. B.S, Worcester Polytech, 87. Instr. and junior prof, Rose Polytech, 88–94; prof. *drawing and descriptive geom.* and head dept, *Minnesota,* 94–37, *emer. prof,* 37– Librarian, Rose Polytech, 91–93. A.A; Math. Soc; Math. Asn. (chairman, Minn. sect, 25); Eng. Educ; Circolo Mat. di Palermo. Descriptive geometry; geometric construction and transformation; graphical computation; calligraphy; typography.

Kirgis, Dr. Homer (Dale), Tulane University, New Orleans, La. *Anatomy.* Cawker City, Kans, March 15, 12. B.S, Kans. State Col, 36, M.S, 37; Ph.D, St. Louis, 39; M.D, Tulane, 43. Asst. zool, Kans. State Col, 35–37; micro-anat, St. Louis, 37–39, *instr.* anat, 39–41; *micro-anat, Tulane, 41–* Autonomic nervous system.

Kirk, Dr. Charles T(ownsend), 1226 S. Newport Ave, Tulsa, Okla. *Geology.* Francisco, Ind, June 22, 76. B.S, Oklahoma, 04, A.M, 05; fellow, Wisconsin, 08–10, Ph.D, 11. Instr. and sch. supt, Okla, 03, 05–06; instr. geol, Mont. Sch. Mines, 06–08; statistician, U. S. Geol. Surv, 07–08, junior geologist, 10–12; asst. prof. geol, Hunter Col, 10–13; prof, New Mexico, and state geologist, 13–17; *consulting geologist, 18–* Jury awards, San Diego Expos, 15. Geol. Soc; Asn. Petrol. Geol; N. Mex. Geog. Soc. (sec'y, 16–17); N. Y. Acad. (sec'y, geol. sect, 13); Tulsa Geol. Soc. (pres, 23). Drainage and sedimentation; stratigraphy; mineralization at Butte, Montana; western coal deposits; tungsten of Boulder County, Colorado; loci and migration of oil in anticlines; oil geology of New Mexico; oil prospecting; steep subsurface folds versus faults.

Kirk, Dr. Edwin, U. S. Geological Survey, Washington 25, D. C. *Paleontology.* Richland, S. Dak, Dec. 6, 84. A.B, Columbia, 07, Ph.D, 11. Asst. paleont, Columbia, 07–09; junior geologist, *U. S. Geol. Surv,* 09–17, paleontologist, 17–19, *geologist, 21–* A.A; Geol. Soc; Paleont. Soc; Am. Geog. Soc; Wash. Acad; Geol. Soc. Wash; Biol. Soc. Wash.

Kirk, Dean L(awrence) E(ldred), University of Saskatchewan, Saskatoon, Sask, Can. *Agronomy.* Bracebridge, Ont, May 27, 86. B.A, Saskatchewan, 16, B.S.A, 17, M.S.A, 22; Ph.D, Minnesota, 27. Instr. agron, Saskatchewan, 17–19; teacher agr, Moose Jaw Collegiate, 19–20; asst. prof. agron, Saskatchewan, 20–22, prof. field husbandry, 22–31; Dom. agrostologist, cent. exp. farm, Can. Dept. Agr, 31–37; *dean agr, Saskatchewan, 37–* A.A; Soc. Agron. (pres, 41); Can. Soc. Tech. Agr. (pres, 40); fel. Royal Soc. Can. Field husbandry; plant breeding; genetics.

Kirk, Prof. Paul L(eland), University of California, Berkeley, Calif. *Biochemistry.* Colorado Springs, Colo, 02. A.B, Ohio State, 24; M.S, Pittsburgh, 25; Ph.D, California, 27. Asst. chem, Pittsburgh, 24–25; *biochem, California,* 25–27, asst, 27–28, research assoc, 28–29, instr, 29–32, asst. prof, 32–39, *assoc. prof, 39–; mem. staff, metal. lab, Chicago.* Summer, asst. prof, Stanford, 35. A.A; Chem. Soc; Soc. Biol. Chem; Microchem. Soc. (v. pres, west. sect, 35–). Protein and amino acid chemistry; biological microchemistry; microchemical methods.

Kirk, Prof. Raymond E(ller), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Chemistry.* Hamilton Co, Nebr, 90. B.S, Nebraska, 15; M.S, Iowa State Col, 17; Grasselli fellow, Cornell, 27, Ph.D, 27. Instr. chem, Iowa State Col, 17–20; asst. prof. gen. inorg. chem, Minnesota, 20–27, assoc. prof, 27–29; prof. chem. and head dept, Mont. State Col, and chemist, eng. exp. sta, 29–31; *prof. inorg. chem. and head dept, Polytech. Inst. Brooklyn, 31–* State chemist, Mont, 29–31. State Highway Dept, Minn, 21; marl investigation, Minn. Eng. Exp. Sta, 22, 26. Ordnance Dept, U.S.A, 18, O.R.C, 23–, major, 30– A.A; Chem. Soc; fel. Inst. Chem. Inorganic chemistry; qualitative analysis; origin, occurrence and uses of marl; cement; colloidal character of asphalts and road oils; petroleum products; hydrazine; rare elements.

Kirk, Dr. Roy C(harles), 1601 Sayre, Midland, Mich. *Electro-metallurgy.* Milton, Oregon, July 21, 08. B.S, State Col. Wash, 33, M.S, 34, Ph.D, 36. Junior technologist, Shell Oil Co, 36–37; *chemist, Dow Chem. Co, 37–* Electrochemical nitration and oxidation of toluene; decomposition potentials in fused salts; electrothermal production of magnesium.

Kirk, Dr. William, Maple Ave. and State St, Pennsgrove, N. J. *Chemistry.* Greenfield, Iowa, Oct. 23, 90. A.B, Tarkio Col, 12; A.M, Nebraska, 14; Ph.D, Cornell, 16. Chemist, *E. I. du Pont de Nemours and Co, 16–, manager dye works, Deepwater, N. J.* Chem. Soc; Chem. Eng. Management; manufacture of organic chemicals.

Kirk, Dr. W(illiam) G(ordon), Range Cattle Experiment Station, Ona, Fla. *Agriculture, Animal nutrition.* Kirkton, Ont, Can, Jan. 26, 98. B.S.A, Saskatchewan, 28; M.S, Iowa State Col, 31, fellow, 31–34, Ph.D, 34. Instr. animal husbandry, Saskatchewan, 28–30; asst. prof, *Florida,* and asst. animal husbandman, Exp. Sta, 36–41, *animal husbandman in charge, Range Cattle Exp. Sta, 41–* A.A; Soc. Animal Production; Fla. Acad; Can. Soc. Tech. Agr. Animal nutrition and production.

Kirkbride, Dr. Mary B(utler), State Laboratory, New Scotland Ave, Albany, N. Y. *Bacteriology.* Philadelphia, Pa, June 15, 74. Pennsylvania, 97–06; Harvard, 09; Cornell, 09–10; Columbia, 10–14; hon. Sc.D, Smith Col, 32. Asst. to director and registrar, Phila. Polyclinic and Col. Graduates Med, 99–09; asst. bacteriologist, *div. labs. and research, State Dept. Health, N. Y,* 14–16, bacteriologist, 16–30, asst. director *in charge antitoxin, serum and vaccine labs,* 30–32, *assoc. director, 32–* Rockefeller Inst. grant, 12–14. Gold medal, State Asn. Pub. Health Labs, N. Y, 35. A.A; Soc. Bact; Asn. Path. and Bact; Soc. Exp. Biol; Asn. Immunol; fel. Pub. Health Asn. (councilor, lab. sect, 24); N. Y. Asn. Pub. Health Labs. (sec'y-treas, 20–). Medical sciences; pathological histology; immunology.

Kirkham, Dr. Don, Bureau of Ordnance, U. S. Department of the Navy, Washington, D. C. *Physics.* Provo, Utah, Feb. 11, 08. A.B, Columbia, 33, A.M, 34, Ph.D, 38. Asst. physics, Ernest Kempton Adams precision lab, Columbia, 35–37; instr. physics and math, Utah State Col, 37–40, asst. prof. physics, 40; *physicist, bur. ordnance, Navy Dept, 40–* Physical Soc; Geophys. Union; Soil Sci. Soc; Utah Acad. Ferromagnetism; hydrodynamics; soil physics.

Kirkham, Dr. Virgil R(aymond) D(rexel), 1126 N. Michigan Ave. Saginaw, Mich. *Economic geology.* Newton, Ill, Feb. 26, 94. B.S, Washington (Seattle), 20; M.S, Idaho, 22; Ph.D, Chicago, 30. Instr. geol, Idaho, 20–23, asst. prof, 23–28; asst, Chicago, 28–30; *chief geologist and pres, AKS Syndicate, 28–; chief geologist and exec. v. pres, Pacific Explor. Co, 29–* Chief geologist and v. pres, Mich-Pacific Oil and Gas Co, 30–33; Apex Gas, Inc; chief geologist, Petrol. Transportation Co; Porter Royalty Pool, Inc; Buckeye Royalty Pool, Inc; Double K Co; Bentley Oil Co; Cent. Mich. Oil Co. Consulting geologist, 20–; asst. geologist, Idaho Bur. Mines and Geol, 20–23, geologist, 23–28. Summers, Wash. Geol. Surv, 17; U. S. Geol. Surv, 19–20. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; fel. Am. Geog. Soc; Northwest Sci. Asn. (sec'y, Idaho sect, 26, chairman, 27); Mich. Acad; Ill. Acad. Stratigraphic, structural and physiographic geology.

Kirkham, Dr. William B(arr), 70 Chestnut St, Springfield, Mass. *Zoology.* Springfield, Mass, Feb. 11, 82. A.B, Yale, 04, A.M, 06, Ph.D, 07; Harvard, 04–05. Asst. biol, Sheffield Sci. Sch, Yale, 05–07, instr, 07–16, asst. prof, 16–21; prof, Int. Y.M.C.A. Col, 21–30, dean freshmen, 23–30; *consulting director, Springfield Museum Nat. Hist, 30–* A.A; Soc. Zool; Anthrop. Asn; Asn. Anat; N. Y. Zool. Soc; Springfield City Library and Mus. Asn. (v. pres, 34–41, pres, 41–). Vertebrate embryology and anatomy.

Kirkham, Dr. W(illia)m J(ohn), Oregon State College, Corvallis, Oregon. *Mathematics.* Elizabeth, Ind, Aug. 3, 01. A.B, Indiana, 27, A.M, 28, Ph.D, 35. Acting instr. *math,* Indiana, 27–28; instr, *Oregon State Col,* 29–34, 35–36, *asst. prof, 36–* Statistician, Fed. Home Loan Bank Board, 37–39. Math. Asn. Statistics; molecular configurations; quantum mechanics.

Kirkland, Burt P(ersons), U. S. Forest Service, Washington, D. C. *Forestry.* Silver Creek, N. Y, Feb. 6, 81. A.B, Cornell; Yale. Forest supervisor, U. S. Forest Service, 06–12; prof. forestry, Washington (Seattle), 12–31; *prin. forest economist, U. S. Forest Service, 31–* Carl Schurz Mem. Foundation fellow, Phila, 37. A.A; Soc. Foresters (exec. council, 21–26). Forest economics, finance and management.

Kirkman, Prof. H(adley), Stanford University, Calif. *Cytology.* Richmond, Ind, March 14, 01. A.B, Iowa, 25; M.S, Chicago, 29; Ph.D, Columbia, 37. Asst. zool, Iowa, 25–26; asst. prof, Ohio (Athens), 28–29; instr. histol, embryol. and neurol, N. Y. Homeop. Med. Col, 29–32, gross anat, 30–32; *anat,* Columbia, 34–36; *Stanford,* 36–38, asst. prof, 38–43, *assoc. prof, 43–* A.A; Asn. Anat; Soc. Nat; Iowa Acad; N. Y. Acad; Calif. Acad. Golgi apparatus and mitochondria; cytology of endocrine glands; kidney glomeruli; macrophages.

Kirkpatrick, Prof. Clifford, University of Minnesota, Minneapolis, Minn. *Sociology, Psychology.* Fitchburg, Mass, 98. A.B, Clark, 20, A.M, 22, fellow, 22–23; Harrison fellow, Ph.D, Pennsylvania, 25. Instr. sociol. and social psychol. Brown, 23–24; Pennsylvania, 25–30; assoc. prof. and *prof. sociol, Minnesota, 30–* Guggenheim Mem. Foundation fellow, 36–37. Sociol. Soc; Social Research Asn. Social psychology; sociology of religion; linguistic handicap of immigrant children; immigration; criminology; resemblance in eminence of twins; attitude measurements; reactions of radio listeners; marriage adjustment; status of women and family life in Nazi Germany; sociology of invention.

Kirkpatrick, Dr. D(onald) E(verette), Queens College, Flushing, N. Y. *Physics.* Swepsonville, N. C, May 4, 04. A.B, Duke, 27, A.M, 28; Ph.D, N. Y. Univ, 34. Asst. *physics,* Duke, 27–28; Wash. Sq. Col, N. Y. Univ, 28–31, instr, 31–37; *Queens Col. (N. Y),* 37–39, *asst. prof, 39–,* chairman dept, 37–41. A.A; Asn. Physics Teachers; Physical Soc. Vibration-rotation absorption spectra.

Kirkpatrick, Prof. Harry A(llister), 1555 N. Ave 46, Los Angeles, Calif. *Physics.* Wessington, S. Dak, Nov. 8, 91. B.S, Occidental Col, 14; Ph.D, Calif. Inst. Tech, 31. Assoc. physics, California at Los Angeles, 24–28; instr, Occidental Col, 29–30; asst. prof, Hawaii, 31–35; math, *Occidental Col,* 35–36, asst. prof. *physics* and acting head dept, 36–37, assoc. prof, 37–42, *prof, 42–, head dept, 37–; staff mem, radiation lab, Mass. Inst. Tech, 41–* Research fellow, Calif. Inst. Tech, 36–41. A.A; Asn. Physics Teachers; fel. Physical Soc. X-rays; Compton effect.

Kirkpatrick, Prof. Paul (Harmon), Stanford University, Calif. *[*7]Physics.* Wessington, S. Dak, July 21, 94. B.S, Occidental Col, 16; Whiting fellow, California, 22–23, Ph.D, 23. Instr. *physics,* Hangchow Col, China, 16–18; prof, Hawaii, 23–31; acting assoc. prof, *Stanford,* 31–32, assoc. prof, 32–37, *prof, 37–* Research fellow, Cornell, 29–30. Summers, California at Los Angeles, 23–25. Assoc. ed, 'Am. Jour. Physics,' 41– Fel. Physical Soc. (sec'y Pacific Coast sect, 35–41); Asn. Physics Teachers (exec. cmt, 43–). X-ray physics.

Kirkpatrick, R(alph) Z(enas), 27 Glenthorne Road, Rochester 13, N. Y. *Engineering.* Bardolph, Ill, Feb. 10, 80. South Dakota; B.C.E, Iowa State Col, 07, C.E, 14. Navy and War Depts, draftsman, foreman and junior engineer, Panama Canal, 10–16, hydrographer and chief hydrographer, 17–18, chief hydrographer, 19–26, chief surveys, 26–39, civil engineer, 39, structural steel draftsman, bur. yards and docks, U. S. Navy, 16–17; *retired.* Major, U. S. Engineers, 18–19. Assoc. Naval Inst; C. Z. Eng. Soc. (past pres.). Meteorology; hydrography; seismology; history and descriptions of the Panama Canal.

Kirkpatrick, Sidney D(ale), McGraw-Hill Publishing Co, 330 W. 42nd St, New York, N. Y. *Engineering.* Urbana, Ill, April 2, 94. B.S, Illinois, 16. Chemist, State Water Surv, Ill, 16–17; chem. adviser, U. S. Tariff Cmn, 17–21; ed, *McGraw-Hill Publishing Co,* 21–30, *consulting ed, chem. eng. texts and reference books, 30–, director, 36–,* asst. ed, *'Chem. and Metal Eng,'* 21–24, assoc. ed, 25–28, *ed. in chief, 28–* Consultant, War Production Board; War Manpower Cmn; advisory cmt. to Chem. Warfare Service and Quartermaster Corps; U. S. Army. Chairman cmt. miscellaneous materials, Nat. Research Council. Chem. adviser, Am. Cmn. to Negotiate Peace, Paris, 19; investigator, Tariff Cmn, European chem. indust, 19. Public relations adviser, Ethyl Gasoline Corp, 25. Lieut, Sanit. C, 18. Chem. Soc. (councilor, 23, 27, 29–42); Chem. Eng. (director, 32–35, ed, silver anniversary vol, 33; v. pres, 41; pres, 42); Electrochem. Soc. (v. pres, 30, 35–, manager, 33–36, chairman, N. Y. sect, 30); Eng. Council Professional Develop. (chairman professional training, 41; exec. cmt, 42); Chemists' Club (trustee, 35–); Soc. Chem. Indust. Gt. Britain (director, Am. sect, 40–). Chemical and metallurgical engineering; history of engineering; petroleum technology; economics.

Kirkpatrick, Dr. W(illard) H(ann), Box 295, Sugar Land, Texas. *Chemistry.* Cedar Rapids, Iowa, July 10, 09. B.S, Iowa State Col, 30, fellow, 30–35, Ph.D, 35. Research chemist, Nat. Aluminate Corp, Chicago, 36–37; *plant manager and chief chemist, Visco Products Co, 37–* Chem. Soc. Furan chemistry; water and oil treatment using organic chemicals.

Kirkpatrick, Prof. W(illia)m F(ranklin), University of Connecticut, Storrs, Conn. *Poultry husbandry.* Charlotte, N. C, April 9, 80. B.E, N. C. State Col, 04, B.Agr, 05; M.S.

Rutgers, 29. Asst, Exp. Sta, R. I. State Col, 05–09; instr, Miss. Agr. and Mech. Col, 10–11; *prof. poultry husbandry*, Conn. Agr. Col, 12–33, *Connecticut*, 33–41, *emer. prof, 41–* Poultry Sci. Asn; World's Poultry Sci. Asn. Egg production.

Kirkpatrick, Dr. W(illiam) J(ohn), Hercules Powder Co, Wilmington, Del. *Physical chemistry.* Cornwall, N. Y, May 2, 08. B.S, Hopkins, 35, Ph.D, 39. *Research chemist, Exp. Sta, Hercules Powder Co, 39–* A.A; Soc. X-ray and Electron Diffraction; Chem. Soc. Heterogeneous catalysis; hydrogenation, dehydrogenation and oxidation; mechanism for the action of the vanadium pentoxide-alkali pyrosulfate-silica; preventing platinum dioxide from becoming colloidal during preparation; crystallization of carbon.

Kirkwood, Prof. John Gamble, Cornell University, Ithaca, N. Y. *[6]*Physical chemistry.* Gotebo, Okla, May 30, 07. B.S, Chicago, 26; Ph.D, Mass. Inst. Tech, 29. Nat. research fellow, 29–30; research assoc. physical chem, Mass. Inst. Tech, 30–31; int. research fellow, Leipzig and Munich, 31–32; research assoc, Mass. Inst. Tech, 32–34; asst. prof. *chem*, Cornell, 34–37; assoc. prof, Chicago, 37–38; *prof, Cornell, 38–* Assoc. ed, 'Jour. Chem. Physics,' 41– Chem. Soc. award. 36. Nat. Acad; Chem. Soc. (chairman div. physical and inorg. chem, 40); fel. Physical Soc. Dielectric constants of gases; theory of inter-molecular forces; applications of statistical mechanics to the theory of solutions; theory of dielectric polarization and loss; structure of liquid state; statistical mechanics of cooperative phenomena.

Kirner, Dr. Walter R(aymond), Carnegie Institute of Technology, Pittsburgh, Pa. *Organic chemistry.* Chicago, Ill, July 23, 95. B S, Illinois, 18, M.S, 20; Austin fellow, Harvard, 20–21, du Pont fellow, 22, Ph.D, 24; Munich, Graz and Univ. Col, London, 29–30. Instr. chem, Middlebury Col, 23; Rice Inst, 24–25, asst. prof. org. chem. and head div, 26–31; *org. chemist, coal research lab, Carnegie Inst. Tech, 31–;* tech. aide div. B, *Nat. Defense Research Cmt*, 40–43, *chief div. nine, 43–* Lieut, C.W.S, 17–18. Chem. Soc. (chairman, southeast Texas sect, 26–28, sec'y, microchem. sect, 36, chairman, 37); N. Y. Acad; Pittsburgh Chem. Club (chairman, 36). Furfuryl chloride and its derivatives; relation of strûcture to reactivity; methylglyoxal; organic microanalysis of solid fuels; direct microdetermination of oxygen in organic substances by hydrogenation.

Kirschbaum, Dr. Arthur, University of Minnesota Medical School, Minneapolis, Minn. *Anatomy.* New York, N. Y, Oct. 15, 10. B.S, N. Y. Univ, 31; A.M, Minnesota, 33, Ph.D, 36, M.D, 43. Teaching asst. zool, Minnesota, 31–34, teaching fellow anat, med. sch, 34–37; Alexander Brown Coxe Mem. fellow, sch. med, Yale, 37–38, instr. anat, 38–39, Finney-Howell Research Foundation fellow, 39–40, instr. *anat*, 40–41; *med. sch, Minnesota*, 41–42, *asst. prof, 42–* Soc. Exp. Biol; Asn. Anat; Asn. Cancer Research. Hematology; experimental leukemia in mice; fowl leukosis; physiology of reproduction in birds.

Kirschman, Dr. H. Darwin, 301 James Campbell Bldg, Honolulu, Hawaii. *Physical chemistry.* Little Turkey, Iowa, Sept. 29, 96. B.S, Calif. Inst. Tech, 18, M.S, 19, Ph.D, 29. U. S. Geol. Sury, 20–21; instr. chem, Hawaii, 21–25; California at Los Angeles, 26–29; asst. prof, Colo. Sch. Mines, 29–30; research physical chemist, A. O. Smith Corp, Milwaukee, 30–31; instr. chem, California at Los Angeles, 31–32; *consulting chemist, Honolulu, 32–* Chem. Soc. (sec'y, Hawaiian sect, 35, chairman, 38). Vapor pressure; potentiometric analysis; ionization constants.

Kirsh, Dr. D(avid), University of Pennsylvania, Philadelphia, Pa. *Radiology.* Philadelphia, Pa, Dec. 7, 09. B.S, Pa. State Col, 31; fellow, Rutgers, 31–34, M.S, 32, Ph.D, 34; M.D, Pennsylvania, 40. Bacteriologist, Merck and Co, 35; instr. bacter, Tennessee, 35–36; *asst. instr. radiol, med. sch, Pennsylvania, 42–* Bacteriologist, Oceanog. Inst, Woods Hole, 34– Am. Med. Asn. Fermentation; fungus enzymes; marine bacteriology; genito-urinary antiseptics.

Kirsner, Dr. Joseph B(arnett), 950 E. 59th St, Chicago, Ill. *Medicine, Gastro-enterology.* Boston, Mass, Sept. 21, 09. M.D, Tufts Col, 33; Ph.D, Chicago, 42. Asst. *med, Chicago*, 35–39, instr, 39–42, *asst. prof, 42–* Fel. Am. Med. Asn; Gastroscopic Club (sec'y-treas); Cent. Soc. Clin. Research. Gastric secretion; chemical effects of antacids; alterations in the serum electrolytes; effect of sulfonamides on bacterial flora of intestine.

62

Kirsten, Prof. F(rederick) K(urt), University of Washington, Seattle, Wash. *Aeronautical engineering.* Saxony, Germany, March 13, 85. B.S, Washington (Seattle), 09, E.E, 14. Asst. prof. elec. eng, *Washington (Seattle)*, 15–18, assoc. prof. elec. eng. in charge develop. aeronautics courses, 21–28, *prof.* elec. eng, 24, *aeronaut. eng, 28–* Elec. Eng; Mech. Eng; Inst. Aeronaut. Sci; Soc. Professional Eng.

Kirwin, Dr. Thomas J(oseph), 1 E. 63d St, New York, N. Y. *Urology.* Frederick, Md, Aug. 31, 91. Ph.C, Michigan, 10, B.S, 16; Wisconsin, 12–13; M.D, Tulane, 16, Cornell, 17; A.M, Columbia, 23; M.S, Yale, 29. Instr. urol, med. col, Cornell, 20–22; embryol. and histol, Columbia, 21–24; *chief clinic and adj. visiting urologist, James Buchanan Brady Foundation, dept. urol, New York Hosp.* Attending visiting genito urinary, New York City Hosp; consulting urologist, Coney Island; Benedictine Hosp, Kingston, N. Y; Monmouth Mem. Hosp, Long Branch, N. J; St. Vincent Hosp, Montclair. Capt, M.C, 17–19. Am. Med. Asn; fel. Col. Surg; Urol. Asn; Acad. Med; Italian Urol. Soc; Soc. de Obstet Gynec. et Urol, Rumania. Surgery; ureteral implantation; clinical urology; urological instruments.

Kise, Dr. M(earl) A(lton), Solvay Process Co, Solvay, N. Y. *Organic chemistry.* Allentown, Pa, Feb. 14, 08. B.S, Lehigh, 30; univ. fellow, Yale, 32–33, Ph.D, 33. Instr. chem, Yale, 30–32, Textile Foundation fellow, 33–35; *research chemist, nitrogen div, Solvay Process Co, 35–* Chem. Soc. Physiological activity of pyrimidine and quinazoline derivatives; silk dispergation and regeneration; organic chemical process development.

Kishlar, Lamar (Morey), Sr, 312 Planthurst Road, Webster Groves, Mo. *Electrical engineering, Chemical engineering.* Ypsilanti, Mich, Sept. 25, 94. B.S, Michigan, 17, E.E, 41. Elec. engineer, Wagner Elec. Mfg. Co, 19–22; dept. manager, *Ralston Purina Co*, 22–27, personal rep. to v. pres. in charge production, 27–33, *manager research, 33–* Chief electrician, U. S. Navy, 17–19. A.A; Oil Chemists Soc. (2d v. pres, 39; mem. referee board, 41–; pres, 43); fel. Soc. Agr. Eng; Inst. Food Technol. (councilor, 43); Chem. Soc; Soybean Asn; Soybean Nutritional Research Council (chairman, 43). Oil chemistry; food technology; light.

Kisliuk, Max, Jr, Federal Bldg, Christopher St, New York, N. Y. *Entomology.* London, Eng, Nov. 10, 89. B.S, Md. Agr. Col, 15; M.S, Ohio State, 18. Field asst, bur. entom, *U. S. Dept. Agr*, 15, asst. zool. and entom, 16–17, field agent, bur. plant indust, 16, field asst, *bur. entom. and plant quarantine*, 18, sci. asst, 18, *senior plant quarantine inspector in charge, New York.* Summer, asst. nursery inspector, Md, 14 A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash; N. Y. Entom. Soc. (pres, 41). Medical entomology; plant quarantine; muscid flies; insects affecting the castor oil plant; trypetid flies.

Kissam, Prof. Philip, 15 Newlin Road, Princeton, N. J. *Civil engineering.* West Orange, N. J, July 5, 96. C.E, Princeton, 19. Winchester Repeating Arms Co, 20–21; instr. *civil eng, Princeton*, 21–26, asst. prof, 26–35, *assoc. prof, 35–, chairman dept, 41–* N. J. state representative, U. S. Coast and Geod. Surv, 33–35; director, N. J. Geod. Surv, 35, tech. adviser, 35– 2nd lieut, U.S.A, 18–19. Civil Eng. (chairman, cmt. topographic surveys, 35, chairman, cmt. control surv, 36–); Eng. Educ; Geophys. Union; Road Builders Asn. Railway and highway engineering; theory of concrete mixtures; surveying.

Kissell, Mary Lois, 527 W. 121st St, New York, N. Y. *Anthropology.* Iowa. B.S, Columbia, 11, A.M, 13. Staff, Am. Museum Nat. Hist, 05–10, exped, 10–11; assoc. prof, California, 12–14; *private research.* A.A. Aboriginal, ancient and medieval textiles; primitive and decorative arts; basketry of Papago and Pima; new type of spinning; early geometric patterned Chilkat; organized Salish blanket pattern; earliest American patterned silks; yarn and cloth making.

Kistiakowsky, Prof. George B(ogdan), 12 Oxford St, Cambridge, Mass. *[5]*Physical chemistry.* Kiev, Russia, Nov. 18, 00. Ph.D, Berlin, 25. Int. research fellow, 25–27; research assoc, Princeton, 28–30; asst. prof. *physical chem, Harvard*, 30–33, assoc. prof, 33–37, *prof, 37–* Bache fund grant, Nat. Acad. Sciences, 32. Nat. Acad; A.A; Chem. Soc; Philos. Soc. Photochemistry; kinetics of gaseous reactions; calorimetry.

Kistler, Dr. Gene H(avland), Medical Arts Bldg, Chattanooga, Tenn. *Surgery, Pathology.* Royal Centre, Ind, May

9, 04. A.B, Wabash Col, 26; Billings Med. Club fellow, Chicago, 28, M.S, 28, M.D, Rush, 31. Asst. zool, Wabash Col, 25; physiol, Chicago, 27; Illinois, 28; intern, St. Luke's Hosp, Chicago, Ill, 30, res. pathologist, 31; asst. prof. physiol. and pharmacol. and instr. surg, Alabama, 31–32, assoc. prof, 33–34, path. and bacter. and instr. surg, 34–35; fellow surg, Lahey Clinic, Boston, 35–36; *surgeon, Baroness Erlanger Hosp, 36–* Surgeon, T. C. Thompson Hosp; Children's Hosp. Summers, John Jay Borland fellow, St. Luke's Hosp, Chicago, 31–34. Joseph A. Capps prize, Inst. Med. Chicago, 33. A.A; Am. Med. Asn; Soc. Exp. Biol; Col. Surg; South. Med. Soc; Ala. Acad. Gall bladder; blood supply and necrosis of bone; experimental arthritis.

Kistler, Dr. S(amuel) S(tephens), West Boylston, Mass. *Physical chemistry.* Cedarville, Calif, March 26, 00. A.B, Stanford, 21, Ch.E, 22, Ph.D, 29; Kaiser Wilhelm Inst. and Göttingen, 29–30. Research dept, Standard Oil Co. of Calif, 22–23; assoc. prof. chem, Col. of Pacific, 23–29, prof, 30–31; asst. prof, Illinois, 31–35; *research dept, Norton Co,* 35–41, *assoc. director, 41–* A.A. (chairman Gibson Island research conf, 41, 42); Chem. Soc. (chairman colloid div, 36); Chem. Eng; Franklin Inst. Ultrafiltration of aqueous and nonaqueous solution; thixotropic gels; aerogels; bound water; heat conductivity of microporous solids; thermoplastic behavior of resins; estimation of area of microporous solids by adsorption.

Kitchen, Dr. S(tuart) F(ordyce), P. O. Box 962, Tallahassee, Fla. *Pathology.* London, Ont, Can, Jan. 24, 02. M.D, Western Ontario, 26. Instr. path. and bacter, med. sch, Western Ontario, 26–28; *staff mem, int. health div, Rockefeller Foundation, 28–,* labs, New York, 28–33, *sta. for malaria research, Tallahassee, Fla, 33–; visiting staff in charge malaria therapy service, Fla. State Hosp, 33–* A.A; fel. Am. Med. Asn; Soc. Trop. Med; Malaria Soc. (chairman cmt. med. research, 39); Harvey Soc; Path. Soc. Gt. Britain and Ireland. Experimental pathology; virus diseases, especially yellow fever and Rift Valley fever; clinical and parasitological studies of malaria.

Kitchin, Prof. Irwin C(lark), University of North Carolina, Chapel Hill, N. C. *Embryology.* Scotland Neck, N. C, Sept. 6, 11. B.S, Wake Forest Col, 31; Naples Zool. Sta, 33; Ph.D, Freiburg, 35. Seessel research fellow, Yale, 35–36; instr. biol, Rice Inst, 36–39; asst. prof. zool, *North Carolina,* 39–42, *assoc. prof, 42–* Artificial development of duplicitas cruciata in amphibians; development of nerve endings; experimental vertebrate embryology.

Kitchin, Prof. Paul C(lifford), 474 E. Dunedin Road, Columbus, Ohio. *Dental histology.* Toledo, Ohio, Oct. 8, 91. B.S, Ohio State, 15, D.D.S, 24; M.S, Mich. State Col, 17; Sc.D, Washington (St. Louis), 41. Instr. histol. and clin. dentistry, *Ohio State,* 25–28, asst. prof, 28–34, assoc. prof, 34–39, *prof. dental histol. and embryol, col. dentistry, 39–, sec'y col, 39–* A.A. (sec'y subsect. dentistry, 39–42); Int. Asn. Dental Research (pres, 38). Submicroscopic structure of hard dental tissues.

Kitchin, Pres. Thurman D(elna), Wake Forest College, Wake Forest, N. C. *Physiology, Pharmacology.* Scotland Neck, N. C, Oct. 17, 85. A.B, Wake Forest Col, 05; M.D, Jefferson Med. Col, 08; North Carolina; Columbia; LL.D, Duke, 32, North Carolina, 33. Practising physician, 08–17; prof. physiol. and pharmacol, *Wake Forest Col,* 17–30, *pres, 30–,* dean med. sch, 19–34. Consulting physician, N. C. State Hosp; mem. cmt. study of feeble-mindedness, N. C; director, N. C. Tuber. Sanatorium. A.A; fel. Am. Med. Asn; fel. Col. Physicians; South. Med. Asn; N. C. Med. Asn. (pres); N. C. Med. Soc. (chairman, sci. sect, 27). The effect of pituitrin on blood pressure; idiosyncrasy and acetyl salicylic acid; the doctor and citizenship; doctors in other fields.

Kitselman, Prof. C(harles) H(oward), 1810 Laramie St, Manhattan, Kans. *Animal pathology.* Haverford, Pa, Aug. 31, 95. V.M.D, Pennsylvania, 18; M.S, Kans. State Col, 27. Assoc. prof. *path, Kans. State Col,* 19–33, *prof, 33–;* major, *Vet. Corps, U. S. Army,* 42–43, *lieut. col, 43–* Vet. Med. Asn; Kans. Vet. Med. Asn. Infectious abortion of cattle; meat and food hygiene; equine encephalomyelitis virus isolated from naturally infected Triatoma sanguisuga Le Conte.

Kitson, Prof. Harry Dexter, 400 W. 119th St, New York, N. Y. *Psychology.* Mishawaka, Ind, Aug. 11, 86. A.B, Hiram Col, 09; A.M, Minnesota, 13; fellow, Chicago, 13–14, Ph.D, 15. Assoc. psychol, Chicago, 14–15, instr, 15–19; assoc. prof, Indiana, 19–20, *prof,* 20–25; *educ, Teachers Col, Columbia, 25–* Ed, 'Occupations.' Lieut, C.A.C. Psychol. Asn. Vocational and industrial psychology.

Kittelberger, W(illiam) W(alton), 474 Columbia Ave, Palmerton, Pa. *Chemistry.* Curwensville, Pa, Feb. 28, 06. Chem.E, Lehigh, 27, M.S, 29. *Research chemist, N. J. Zinc Co, 29–* Chem. Soc. Paints; pigments; drying oils.

Kittell, Dr. Irving, 1432 University Ave, New York, N. Y. *Mathematics.* Jefferson, Texas, Feb. 10, 05. A.B, South. Methodist, 24, A.M, 25; M.S, Illinois, 26; Ph.D, N. Y. Univ, 34; M.D, Columbia, 41. Junior meteorologist, U. S. Weather Bur, 26–29; junior astronomer, U. S. Naval Observatory, 29–30; instr. math, Bradley Polytech, 30–31; N. Y. Univ, 31–34; asst. prof, Washington (Seattle), 34–35; instr, N. Y. Univ, 35–37; Hunter Col, 37–42; intern, Lincoln Hosp, 41–42; surg. res, Pima County Gen. Hosp, Tucson, Ariz, 42; lieut, *Med. Corps, U. S. Army,* 42–43, *capt, 43–* Analysis situs; the four-color problem.

Kittell, Sister M(ary) Teresita, Holy Family College, Manitowoc, Wis. *Botany.* DePere, Wis, Nov. 10, 92. A.B, Catholic Sisters Col, 31; M.S, Catholic Univ, 38, Ph.D, 40. Instr. art, *Holy Family Col,* 34–35, *biol,* 40–43, *prof. and head dept, 43–* Sci. Teachers Asn. The Compositae.

Kittredge, Clifford P(roctor), 19 Glenwood Ave, New London, Conn. *Mechanics.* Lowell, Mass, June 30, 06. B.S, Mass. Inst. Tech, 29; John R. Freeman fellow, Boston Soc. Civil Eng, Tech. Hochschule, Munich, 32, Dr. tech. Wissen, 32. Asst. mech. eng, Mass. Inst. Tech, 29–30, instr, 32–33; power eng, Thayer sch. civil eng, Dartmouth Col, 33–34; hydraul. engineer, Freeman Eng. Corp, Providence, R. I, 34–36; asst. prof. theoret. and applied mech, Illinois, 36–41; *develop. engineer, div. war research, Columbia, 41–* Hydraulic machinery; fluid mechanics.

Kittredge, George W(atson), 592 N. Broadway, Yonkers, N. Y. *Civil engineering.* North Andover, Mass, Dec. 11, 56. B.S, Mass. Inst. Tech, 77. Asst. engineer, South Boston Flats Improv, 77–79; maintenance of way dept, Pa. R. R. lines, 80–90; chief engineer, Cleveland, Cincinnati, Chicago and St. Louis Ry, 90–06; *N. Y. Cent. R. R,* 06–27, *pensioned chief engineer and consulting engineer, 27–* Lecturer, cols; eng. societies; hist. societies. A.A; hon. mem. Civil Eng. (director, 08–10, v. pres, 17); hon. mem. Ry. Eng. (pres, 02–04, director, 04–07). Efficiency and economy of railroad location, operation and maintenance; terminal facilities.

Kittredge, Prof. Joseph, 1747 Spruce St, Berkeley, Calif. *Forestry.* Marblehead, Mass, Nov. 26, 90. A.B, Harvard, 12, M.F, 13; Ph.D, Minnesota, 31. Forest asst. and examiner, U. S. Forest Service, 13–17, chief office forest exp. station, 19–23, silviculturist and senior silviculturist, Lake States Forest Exp. Sta, 23–31; *prof. forestry, California, and ecologist, Exp. Sta, 31–* Summer, asst, Gray Herbarium, Harvard, bot. exped, Newfoundland, 10. C.Eng, 17–19, capt. A.A; Soc. Foresters; Ecol. Soc; Geophys. Union; Soil Sci. Soc. Statistical methods in forestry; forest planting in the Lake States; growth and natural succession of aspen-paper birch in the Lake States; correlation of soils, growth and plant indicators; forest influences.

Kittredge, Prof. R(aymond) B(rown), 630 S. Governor St, Iowa City, Iowa. *Engineering.* Beverly, Mass, Sept. 10, 86. B.S, Maine, 06. Rodman, Maine Cent. R.R, 06–08, asst. engineer, 08–11; instr. civil eng, Maine, 11–12; *col. eng, Iowa,* 12–13, asst. prof. ry. eng, 13–17, assoc. prof, 17–25, *prof. transportation eng, 25–* Civil Eng. (sec'y, Iowa sect, 25–39, pres, 40); Ry. Eng; Eng. Educ; Iowa Eng. Soc. Transportation engineering and economics.

Kittrell, Dean Flemmie P, Hampton Institute, Va. *Nutrition.* Henderson, N. C, Dec. 25, 04. B.S, Hampton Inst, 28; M.S, Cornell, 30, Ph.D, 35. Director home econ, Bennett Col, 28–40, *dean* students, 32–40; *women, Hampton Inst, 40–* A.A; Home Econ. Asn; Asn. Deans Women. The feeding of Negro infants; responses children make to guidance; family education.

Kitzmeyer, Edmund L(eith), Varnum Yeast Co, West Brookfield, Mass. *Chemistry.* Woodstock, Va, Jan. 27, 06. A.B, Gettysburg Col, 26; Yale, 26–29; Columbia, 32–33. Plant chemist and bacteriologist, Fruit Indust, Ltd, 29–31; Nat. Grain Yeast Corp, 31–35; chief chemist, U. S. Yeast Corp, 35–38; *chief chemist and v. pres, Varnum Yeast Co, 38–* A.A; Asn. Cereal Chemists; Soc. Bact; Soc. Plant Physiol;

Chemists' Club. Yeast fermentations and nutrition; industrial fermentations.

Kitzmiller, Prof. Albanus Blaine, Mt. Union College, Alliance, Ohio. *Psychology.* Canton, Ohio, May 5, 84. B.S, Mt. Union Col, 14; A.M, Ohio State, 26, Ph.D, 28. Sch. supt, Ohio, 17–25; *prof. psychol, Mt. Union Col, 27–* Educational psychology; vocabulary problems in high school science.

Kitzmiller, Dr. K(arl) V(ivian), 3129 Jefferson Ave, Cincinnati, Ohio. *Internal medicine.* Kitzmiller, Md, April 10, 98. B.S, Cincinnati, 21, M.D, 23. Res. pathologist, Cincinnati Gen. Hosp, 23–24, asst. res. med, 26; research assoc, *Kettering lab, col. med, Cincinnati,* 30–40, *asst. prof. applied physiol, 40–* Fel. Am. Med. Asn; Soc. Clin. Path; Col. Physicians; Acad. Med. Cincinnati. Clinical pathology; histopathology.

Kjellgren, Bengt (Ragnar Fritiof), 2423 Eaton Road, University Heights, Cleveland, Ohio. *Engineering.* Sweden, July 19, 94. Chem.E, Royal Tech. Inst. Stockholm, 18; Am-Scandinavian Foundation scholar, Mass. Inst. Tech, 23–24. *Research and develop. engineer,* Hoganas-Billesholm Co. and Uddeholms Co, Sweden, 18–23; *Brush Labs. Co, Cleveland, 24–, v. pres; Brush Beryllium Co.* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc; Electrochem. Soc. Growing of piezo-electric crystals; beryllium production methods.

Kjerstad, Prof. C(onrad) L(und), University of North Dakota, Grand Forks, N. Dak. *Psychology.* Charles Mix Co, S. Dak, July 11, 83. A.B, South Dakota, 11; fellow, Chicago, 15–16, A.M, 16, Ph.D, 17. Teacher, pub. schs, S. Dak, 05–07; prof. educ. and psychol, Augustana Col, 11–15; psychol, Minn. State Nor. Sch, Winona, 16–17; asst, N. Dak. State Teachers Col, Valley City, 17–18, prof. educ. and psychol. and head dept, 19–29, dean faculty, 25–29; pres, N. Dak. State Teachers Col, Dickinson, 29–36; assoc. prof. philos. and educ, *North Dakota,* 36–39, *prof. philos. and educ. and head dept. philos, 39–* Lieut, Sanit.C, 18–19. A.A; Psychol. Asn. Learning curves.

Klaas, Dr. Rosalind (Amelia) (Mrs. G. W. Schimpff), 5923 N. Manton Ave, Chicago 30, Ill. *Chemistry.* Maple Park, Ill, May 8, 05. B.S, Arizona, 26. M.S, 27; Ph.D, Chicago, 32. Instr. chem, Arizona, 27–29; asst, Chicago, 29–32, asst, 32–37; *biochemist, Munic. Tuber. Sanitarium, 37–* A.A; Chem. Soc. Carbohydrates; bacterial metabolism; silicosis.

Klages, Prof. K(arl) H(enry William), University of Idaho, Moscow, Idaho. *Agronomy.* Dannenberg, Germany, March 27, 98. B.S, Oregon State Col, 21; M.S, Illinois, 22, fellow, 24–25, Ph.D, 25. Asst. prof. *agron,* Colo. Agr. Col, 22–23; Okla. Agr. and Mech. Col, 25–28; assoc. prof, S. Dak. State Col, 28–36; *prof. and head dept, Idaho, 36–* A.A; Soc. Agron. (pres, west. sect, 37); fel. Am. Geog. Soc. Crop ecology; ecological crop geography; physiology of crop plants; forage crop seed production.

Klapman, Dr. S(olomon) J(oel), Illinois Institute of Technology, Chicago, Ill. *Mathematical physics.* Chicago, Ill, April 25, 12. B.S, Chicago, 32; M.S, Michigan, 35, Ph.D, 40. Mathematical physicist, Jensen Radio Mfg. Co, Ill, 37–40; junior physicist, Frankford Arsenal, 40–41; *physicist, Utah Radio Products Co, 41–; instr. physics, evening div, Ill. Inst. Tech, 41–* Physical Soc; Acoustical Soc. Acoustics.

Klapper, Dr. Clarence E(dward), Hobart College, Geneva, N. Y. *Biology.* Schenectady, N. Y, Dec. 13, 08. A.B, Union (N. Y), 32; A.M, Cornell, 33, Ph.D, 38. Asst. histol. and embryol, Cornell, 32–37; *instr. biol, Hobart and William Smith Cols, 37–* Technician, biol. surv, State Conservation Dept, N. Y, 34, 39. Histology; embryology; development of the pharyngeal derivatives of the guinea pig.

Klarmann, Dr. Emil, 153 Franklin St, Bloomfield, N. J. *Organic chemistry.* Restov, Austria, Dec. 31, 00. Polytech. Inst. Brünn; Ch.E, Halle, 22, D.Sc, 23. Asst, Inst. Physical Chem, Brünn, 21–22; instr, dept. physiol, Halle, 23–24; research chemist, Plaut Research Lab, *Bloomfield, N. J,* 24–26; *chief chemist, Lehn and Fink, Inc, 26–* A.A; Chem. Soc; Chem. Eng; Inst. Chem. Chemical structure and antibacterial action; proteins.

Klassen, C(larence) W(illard), State Department of Public Health, Springfield, Ill. *Engineering.* Grand Rapids, Mich, Nov. 28, 03. B.S, Michigan, 25. Asst. sanit. engineer, *State Dept. Pub. Health,* 25–35, *chief sanit. engineer, 35–, assoc. bacter. and pub. health, col. med, Illinois.* Tech. sec'y, State Sanit. Water Board, Ill; sec'y, Upper Miss. River Board Engineers; mem. engineers consultant board, Upper Miss. River Control Project; State Advisory Cmt. Poliomyelitis, Ill; basin cmt, Ill. Nat. Resources Board; chairman sanit. advisory cmt. and war gas consultant, State Council Defense, Ill; mem, State Tech. Cmt. Synthetic Rubber Program. Cmt. sanit. eng. personnel and qualifications, Nat. Research Council. Water Works Asn. (director, Ill. sect, past sec'y); Ill. Pub. Health Asn. (v. pres). Sanitary engineering.

Klauber, L(aurence) M(onroe), 233 W. Juniper St, San Diego, Calif. *Electricity, Herpetology.* San Diego, Calif, Dec. 21, 83. A.B, Stanford, 08; LL.D, California, 41. Salesman, *San Diego Consol. Gas and Elec. Co,* 11, engineer, records, 11–14, supt. elec. dept, 14–18, asst. gen. supt, 18–20, gen. supt, 20–32, in charge operation, 32–41, *v. pres, 32–, gen. manager, 41–* Curator reptiles, Zool. Soc, San Diego; San Diego Soc. Nat. Hist; lecturer, Stanford. A.A; fel. Elec. Eng; Soc. Ichthyol. and Herp. (v. pres, 37, pres, 38–40); Civil Eng; Mech. Eng; Gas Asn; Chem. Soc; Math. Soc; Math. Asn; Seismol. Soc; Meteorol. Soc; Statist. Asn; Ecol. Soc; Am. Geog. Soc; Inst. Math. Statist; West. Soc. Nat; Pacific Coast Elec. Asn. (pres, 23); Pacific Coast Gas Asn. (pres, 28); fel. Calif. Acad; fel. San Diego Soc. Nat. Hist. Electrical production and distribution; distribution of reptiles; rattlesnakes; herpetological literature.

Kleckner, Dr. Albert L(ouis), University of Pennsylvania, Philadelphia, Pa. *Bacteriology.* Allentown, Pa, Oct. 23, 09. B.S, Franklin and Marshall Col, 31; T. A. Scott fellow, Pennsylvania, 32–36, M.S, 32, Ph.D, 35. Geo. B. Wood teaching fellow bacter. and hygiene, Pennsylvania, 31–32, instr. bacter. 32–36; Kans. State Col, 36–37; *agent in mastitis, bur. animal indust, U. S. Dept, Agr, 37–; research assoc. milk hygiene, sch. vet. med, Pennsylvania, 37–* Soc. Bact. Fecal and lactic acid streptococci; anaerobic bacteria; bovine mastitis.

Kleemeier, Dr. Robert Watson, Northwestern University, Evanston, Ill. *Psychology.* Cincinnati, Ohio, Nov. 10, 15. A.B, Ohio Wesleyan, 38; Ohio State, 38; A.M, Michigan, 39, Ph.D, 42. Asst, Ohio State, 38; teaching fellow, Michigan, 38–41, clin. asst, psychol. clinic, 39; clin. counselor and instr. psychol, Illinois, 41–42; *instr. psychol, Northwestern, 42–* Psychol. Asn; Midwest. Psychol. Asn. Learning.

Kleene, Prof. S(tephen) C(ole), Amherst College, Amherst, Mass. *Mathematics.* Hartford, Conn, Jan. 5, 09. A.B, Amherst Col, 30; fellow, Princeton, 32–33, Ph.D, 33. Instr, Princeton, 30–31, asst, 34–35; instr. *math,* Wisconsin, 35–37, asst. prof, 37–41; *assoc. prof, Amherst Col, 41–; lieut, U. S. Naval Res, 42–* Math. Soc. (assoc. ed, 'Trans,' 42–); Asn. Symbolic Logic (consulting ed, 'Jour'; v. pres, 41). Mathematical logic; recursive functions.

Kleiber, Prof. Max, College Park, Davis, Calif. *Animal husbandry.* Zurich, Switzerland, Jan. 4, 93. Diploma, Swiss Tech. Inst, Zurich, 20, D.Sc, 24. Asst. agr. chem, Swiss Tech. Inst, Zurich, 20–24, animal nutrition, 24–28, privat-docent, 28–29; assoc. *animal husbandry, col. agr, California,* 29–35, assoc. prof, 35–38, *prof, 38–* A.A; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition; Zurich Nat. Gesell. Conservation of roughage; electric currents and micro-organisms; food value and food effect; utilization of food and plane of nutrition; temperature and metabolism; body size and metabolism; mineral deficiency and energy metabolism.

Kleiderer, Dr. Ervin C(arleton), Eli Lilly and Co, Indianapolis, Ind. *Organic chemistry.* Evansville, Ind, Nov. 1, 07. B.S, Illinois, 28, M.S, 30, Ph.D, 33. Anal. chemist, E. I. du Pont de Nemours and Co, 28–29; *research chemist, Eli Lilly and Co, 33–* Chem. Soc; Ind. Acad; N. Y. Acad. Pharmaceutical and sugar chemistry; optical isomerism of organic compounds; alkaloids of ergot; chemotherapy.

Kleiman, Dr. Morton, 5433 Kenwood Ave, Chicago, Ill. *Organic chemistry.* Kansas City, Mo, March 8, 16. B.S, Michigan, 37, M.S, 38; du Pont fellow, Chicago, 41–42, Ph.D, 42. Asst. org. chem, *Chicago,* 40–41; *Coman fellow med. chem, 42–* Synthesis of medicinal chemicals; condensations effected by sodamide in liquid ammonia; Grignard reactions; carboxylations with diphosgene.

Klein, A(braham) Albert, Norton Co, Worcester, Mass. *Ceramics.* Syracuse, N. Y, May 6, 89. B.S, Michigan. Semet Solvay Co, 06–07; asst. miner, Michigan, 08–11; asst. physicist, Bur. Standards, 11–16; with *Norton Co,* 16–41, *asst. director research, 41–* A.A; fel. Ceramic Soc; Soc. Test. Mat; fel. Miner. Soc. Portland cement; porcelain; silica brick; lead silicates; glazes; abrasives; refractories.

Klein, Prof. A(rthur) L(ouis), 2771 Glendower Ave, Los Angeles 27, Calif. *Aeronautics.* Los Angeles, Calif, April 10, 98. B.S, Calif. Inst. Tech, 21, M.S, 24, Ph.D, 25. Teaching fellow physics, *Calif. Inst. Tech,* 21–25, research fellow physics and aeronautics, 27–29, asst. prof. *aeronautics,* 29–34, *assoc. prof, 34–* Design consultant, Douglas Aircraft Co. A.A; Physical Soc; fel. Inst. Aeronaut. Sci; Seismol. Soc; Soc. Metals; Soc. Automotive Eng. Secondary emission due to positive ion bombardment; wind tunnel technique; aerodynamic interferences; airplane design and manufacturing methods; wind tunnel design.

Klein, Prof. Arthur W(arner), 43 Wall St, Bethlehem, Pa. *Mechanical engineering.* New Haven, Conn, Nov. 17, 80. M.E, Lehigh, 99, 99-00. Cadet engineer, Essex and Hudson Gas Co, Newark, 00-01; asst. to supt. gas works, Atlanta Gas Light Co, 01–03; prof. mech. and civil eng. and physics, Grove City Col, 03–04; from instr. to *prof. mech. eng, Lehigh, 04–* Mech. Eng; Eng. Educ; Eng. Club Lehigh Valley. Kinematics of machinery; steam turbines.

Klein, Dr. Daniel, Philadelphia General Hospital, Philadelphia, Pa. *Biochemistry.* Newark, N. J, May 19, 08. B.S, Rutgers, 29, Acetol Products Indust. fellow, 30–31, M.S, 31, Ph.D, 36; univ. fellow, Yale, 31–32. Asst. agr. biochem, Rutgers, 29–30, 33–36; *asst. chemist, clin. biochem, Phila. Gen. Hosp, 36–* A.A; Physiol. Soc. Phila. Nutrition; clinical biochemistry.

Klein, Dr. David, 4221 S. Western Ave, Chicago, Ill. *Chemistry.* Chicago, Ill, Oct. 22, 84. A.B, Illinois, 06, A.M, 07; fellow, Wisconsin, 07–08, Ph.D, 10. Instr. chem, Illinois, 06–07; asst, Wisconsin, 08–09, instr, 09–11, asst. prof, 11–14; state analyst, Ill, 14–18; assoc. prof. chem, sch. hygiene and pub. health, Hopkins, 19–20; tech. director, *Wilson Labs,* 20–26, *pres, 26–* Sanit. C, 18–20, major. A.A; Chem. Soc. Physical chemistry; biochemistry; food chemistry.

Klein, Prof. David Ballin, University of Texas, Austin, Texas. *Psychology.* New York, N. Y, April 15, 97. A.B, Col. City of N. Y, 18; A.M, Columbia, 21, Ph.D, 30. Instr. *psychol,* 21–23; adj. prof, Texas, 23–26; instr, col. teachers, Hopkins, 26–27; assoc. prof, *Texas,* 27–35, *prof, 35–* Social Science Research Council fellow, 30–31. Psychol. Asn. General, theoretical and abnormal psychology.

Klein, Dr. Elias, Naval Research Laboratory, Washington, D. C. *Physics.* Wilno, Poland, Jan. 11, 90. B.S, 11, B.C.E, 12; Howard fellow, Yale, 20–21, Ph.D, 21. Instr. physics, Valparaiso, 12–17; asst, Yale, 17–21; instr, Saskatchewan, 21–22; asst. prof, Lehigh, 22–25, assoc. prof, 25–27; *physicist, Naval Research Lab, 27–* Physical Soc; Acoustical Soc. Subaqueous acoustics; supersonics.

Klein, Dr. Henry, 5910 Wilson Lane, Bethesda, Md. *Epidemiology, Public health.* Newark, N. J, Nov. 14, 03. D.D.S, Pennsylvania, 28; Sc.D, Hopkins, 30. Research fellow, sch. hygiene and pub. health, Hopkins, 28–33; Yale, 33–34; director dental research, Detroit, 34–35; assoc. pharmacologist, *U. S. Pub. Health Service,* 36–38, dental officer, *nat. inst. health,* 38–43, *senior dental officer, 43–* Am. Dental Asn. fellow, 28–33. Soc. Research Child Develop; Pub. Health Asn; Int. Asn. Dental Research. Public health aspects of dental disease; dental histology; biochemistry; dental pathology; nutrition and dental disease; bioelectric phenomena; epidemiology of dental disease.

Klein, Hugo, 132 Floral Blvd, Floral Park, N. Y. *Chemical engineering.* Brooklyn, N. Y, Oct. 19, 05. A.B, Columbia, 26, B.S, 27, Ch.E, 28. Chem. engineer, E. I. du Pont de Nemours and Co, 28–29; *Charles Bruning Co, Inc,* 29–35, production manager, 35–38, *tech. director, 38–* Alumni service medal, Columbia, 42. A.A; Chem. Soc; Chem. Eng; Tech. Asn. Pulp and Paper Indust. Naphthenic acids; chlorination of hydrocarbons; diazotype photography; blueprint paper; organic syntheses; organic chemistry.

Klein, Dr. J(ames) Raymond, Illinois Neuropsychiatric Institute, Chicago, Ill. *Biochemistry.* Parkton, Md, May 8, 08. A.B, Duke, 35, Ph.D, 39. Instr. biochem, sch. med, Duke, 39–42; *asst. prof. psychiatry and physiol. chem, sch. med, Illinois, 42–* Soc. Biol. Chem. Biological oxidations.

Klein, Prof. M(ichael) W(illiam), University of Wisconsin, Madison, Wis. *Chemistry.* Appleton, Wis, Jan. 30, 95. B.S, Lawrence Col; M.S, Wisconsin, 23, Ph.D, 24. Instr. *org. chem, Wisconsin,* 24–36, *asst. prof, 36–* Azo dyes.

Klein, Dr. Millard A(lschuler), Denver, Colo. *Chemistry.* Corydon, Iowa, Aug. 25, 86. B.S, Nebraska, 09; Ph.D, Cornell, 15. Asst. soil technol, Cornell, 11–15; instr. soil chem, California, 15–16; soil chemist, Spreckels Sugar Co, Calif, 16–20; Symmes and Associates, 20–22; *consulting agr. engineer, 22–; agr. manager, Jameson Ranch, Los Angeles, Calif, 42–* Agr. economist, Agr. Adjust. Admin, U. S. Dept. Agr, 32–34; soil and irrig. investigations, bur. agr. eng, 38–41. Agr. Eng; fel. Royal Soc. Arts. Soil chemistry and bacteriology.

Klein, Dr. Morton, University of Pennsylvania, Philadelphia, Pa. *Bacteriology.* Philadelphia, Pa, Nov. 30, 14. A.B, Pennsylvania, 38, M.S, 40, Ph.D, 42. Asst. instr. bacter, Pennsylvania, 40–42; research assoc, dept. med, Chicago, 42–43; *research virus infections and chemotherapy, sch. med, Pennsylvania, 43–* A.A. Detection of typhoid carriers; bacterial germicides.

Kleinberg, Dr. J(acob), James Millikin University, Decatur, Ill. *Inorganic chemistry.* Passaic, N. J, Feb. 14, 14. B.S, Randolph-Macon Col, 34; M.S, Illinois, 37, Ph.D, 39. Asst. *chem,* Illinois, 37–39; instr, *James Millikin,* 40–41, *asst. prof, 41–* Chem. Soc. Reactions in non-aqueous solvents; the positive character of the halogens.

Kleinberg, William, 48 Nassau St, Princeton, N. J. *Physiology.* New York, N. Y, Jan. 24, 11. B.S, N. Y. Univ, 32, M.S, 35; Ph.D, Princeton, 43. Asst. biol, N. Y. Univ, 32–33, teaching fellow, 33–36, asst, 36–41; *instr. biol, Princeton, 41–* Blood formation; R. E. system; endocrines.

Kleiner, Prof. Israel S(imon), 27 W. 96th St, New York, N. Y. *Physiological chemistry.* New Haven, Conn, April 8, 85. Ph.B, Yale, 06, Ph.D, 09. Asst. physiol. chem, Yale, 07–09; demonstrator and instr. chem, sch. med, Tulane, 09–10; asst, Rockefeller Inst, 10–14, assoc, 14–19; *prof. physiol. chem,* N. Y. Homeop. Med. Col, 19–35, *N. Y. Med. Col, 35–* Consulting chemist, Flower Hosp, 19–; Metropolitan Hosp, 25– Mem. staff, biol. lab, Cold Spring Harbor, 28–33. L. M. Littauer Foundation grants, 29, 30; Elizabeth Thompson science fund, 22; Am. Med. Asn. research fund, 31–32, 35; United Hosp. Fund, 42. A.A; Soc. Biol. Chem; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Inst. Nutrition; Harvey Soc; assoc. fel. N. Y. Acad. Med. Hormones; vitamins; enzymes.

Kleinheksel, Dr. J. (Harvey), Hope College, Holland, Mich. *Chemistry.* Mich, Sept. 1, 00. A.B, Hope Col, 22; M.S, Illinois, 25, Ph.D, 27. *Instr. chem, Hope Col, 28–* Properties of the anhydrous rare earth chlorides.

Kleinheksel, Dr. Stanley, Socony-Vacuum Oil Co, Inc, Brooklyn, N. Y. *Chemistry.* Holland, Mich, Jan. 16, 07. A.B, Hope Col, 29; Illinium fellow, Illinois, 29–30; Ph.D, Michigan, 35. Teaching fellow gen. and physical chem, Michigan, 34–35; *research chemist, Socony-Vacuum Oil Co, 36–* Electrochemistry; electrode potentials; polarization; oxygen and hydrogen overvoltage; passivity of metals; metallurgy; corrosion; cathodic protection of metal structures.

Kleinholz, Lieut. L(ewis) H(ermann), U. S. Army Air Corps Gunnery School, Tyndall Field, Fla. *Physiology.* Brooklyn, N. Y, May 18, 10. B.S, Colby Col, 30; A.M, Harvard, 35, Ph.D, 37; Dipl, U. S. Army Sch. Aviation Med, 42. Instr. biol, Colby Col, 30–33; Austin teaching fellow, Harvard, 34–35, asst, 35–37, Austin traveling fellow, 37–38, instr. and tutor, 40–41; instr, Cambridge Junior Col, 38–42; *lieut, Air Corps, U. S. Army, 42–* Asst, Radcliffe Col, 36–37. Lecturer, American Univ. Beirut and Egyptian Univ, 38. Soc. Zool. Biochemistry; physiology of endocrine systems of vertebrates and invertebrates; physiology of nervous system.

Kleinpell, Dr. Robert M(inssen), 675 S. Euclid Ave, Pasadena, Calif. *Geology.* Chicago, Ill, Sept. 13, 05. A.B, Occidental Col, 26; A.M, Stanford, 28, Ph.D, 34. Field geologist, Richfield Oil Co. of Calif, 28–31; asst. geologist, U. S. Geol. Surv, 31–38; *consulting geologist, 38–, Gen. Petrol. Corp, 38–; Richfield Oil Corp, 38–; Honolulu Oil Corp, 38–; asst. prof. micropaleont, Calif. Inst. Tech, 39–; senior geologist, Nat. Develop. Co. Philippines, 39–* A.A; Assn. Petrol. Geol; fel. Geol. Soc; fel. Paleont. Soc. Stratigraphic distribution of the Foraminifera in the Middle Tertiary of California.

Kleinschmidt, Dr. R(obert) V(ictor), 20 East St, Stoneham, Mass. *Physics, Mechanical engineering.* Johnstown, Pa, Feb. 28, 96. A.B, Harvard, 16, A.M, 17, fellow, 20–26, B.S, 20, Sc.D, 23. Bur. Standards, 17–19; research engineer, Arthur D. Little, Inc, 26–30; asst. tech. manager, du Pont

Ammonia Corp, 30–32; *physicist and consulting engineer, Arthur D. Little, Inc, 32–; bur. ships, U. S. Naval Reserve, 41–, commander.* A.A; Physical Soc; Mech. Eng. Thermodynamics; heat transfer; process engineering.

Kleinsmith, Dr. A(lbert) W(illoughby), 615 Madison St, Decatur, Ind. *Organic chemistry.* Clinton, Iowa, March 20, 13. B.S, Iowa State Col, 35; Ph.D, Purdue, 41. Asst. agr. chem, Purdue, 35–40; *research chemist, Cent. Soya Co, 40–* Chem. Soc. Composition and drying rates of soybean oil; fractionation of liquid fats by solvent extraction; isolation of soya sterols; refining of soybean oil.

Kleis, Dr. John D(iffenbach), 290 Scott St, Lake Forest, Ill. *Physics.* Hamburg, N. Y, Feb. 1, 12. A.B, Buffalo, 32, A.M, 33; Ph.D, Yale, 36. Asst. physics, Buffalo, 30–33; asst, Yale, 33–36; *research physicist, Fansteel Metallurgical Corp, 36–* Physical Soc; Automotive Eng; Soc. Test. Mat. Technique and apparatus for the measuring of the magnetic anisotropy of iron-nickel and iron-nickel-cobalt single crystals from room temperature to the Curie point; development of electrical contact materials; automobile ignition and electrical systems; engineering; electrical contacts.

Kleitman, Prof. Nathaniel, University of Chicago, Chicago, Ill. *Physiology.* Bessarabia, April 26, 95. B.S, Col. City of N. Y, 19, fellow, 19–20; A.M, Columbia, 20; Ph.D, Chicago, 23. Instr. physiol. and pharmacol, Georgia, 20–22; assoc. physiol, Chicago, 22–23; nat. research fellow med, Utrecht, Paris and Chicago, 23–25; asst. prof. *physiol, Chicago,* 25–29, *assoc. prof, 29–* A.A; Physiol. Soc; Soc. Exp. Biol; Inst. Med. Chicago; Soc. Philomat. de Paris. Physiology of the central and peripheral nervous systems; sleep; body-righting reflexes; retina; conditioned reflexes; diurnal cycle of body temperature and efficiency.

Klemin, Prof. Alexander, New York University, New York, N. Y. *Aeronautics.* London, Eng, May 15, 88. B.Sc, London, 09; M.S, Mass. Inst. Tech, 15; LL.D, Kenyon Col, 35. *Guggenheim research prof. aeronaut. eng, Daniel Guggenheim sch. aeronautics, N. Y. Univ, 25–* Officer in charge research dept, A.S, U.S.A, 17–19. Aerodynamics; dynamic stability of the airplane; rotary aircraft.

Klemme, Dr. Carl J(oseph), 1 Scarsdale Road, Tuckahoe, N. Y. *Pharmacy.* Alexander, Iowa, April 25, 98. Ph.C, Colorado, 23, B.S, 24, M.S, 25; Ph.D, Harvard, 32. Asst. instr. pharmacy, Colorado, 22–24; pharmaceut. chem, Purdue, 24–25, instr, 25–28, asst. prof, 28–33, assoc. prof, 33–38, prof, 38–41, acting dean, 41; *director develop. and control labs, Burroughs Wellcome and Co, 41–* A.A; Pharmaceut. Asn; Chem. Soc. Addition of alkyl halides to aldehydes and ketones; phosphocreatine; synthesis of phosphamic acids; radiographic opaques; stability of liquid enzyme preparations; synthesis of organic medicinals; enteric coatings; iodination of cyclic compounds; predictive and achievement tests in pharmacy.

Klemme, Dr. Dorothea E(lizabeth), 4000 N. Fifth St, Arlington, Va. *Bacteriological chemistry.* Boulder, Colo, July 17, 06. A.B, Colorado, 28, M.S, 29, Ph.D, 35. Asst. inorg, org. and physiol. chem, Colorado, 28–35, sec'y-librarian, chem. dept, 36–38; junior chemist *textiles and clothing, bur. home econ, U. S. Dept. Agr,* 38–42, *asst. chemist, 42–* Chem. Soc. Colorimetric determinations of reducing sugars; products of metabolism of strains of E. coli and A. aerogenes on carbohydrates; mildew and sterilization of textiles and clothing.

Klendshoj, Dr. Niels C(hristian), 187 Linwood Ave, Buffalo, N. Y. *Physiological chemistry.* Denmark, Feb. 1, 02. B.A, Copenhagen, 21, Cand.Phil. and Polytech, 26; M.D, Buffalo, 37. *Chem. consultant, Arner Co, Inc, Buffalo, N. Y, 27–;* asst. biochemist, *Buffalo Gen. Hosp,* 37–40, *biochemist and special asst. med, 40–; asst, sch. med, Buffalo, 41–* Fel. Am. Med. Asn; Human Serum Asn. Blood group specific carbohydrates; chemical isolation of the blood group specific substances B and O; practical use of group specific substances in universal blood transfusions.

Klepper, M(ontis) R(uhl), U. S. Geological Survey, Washington, D. C. *Mining geology.* Lock Haven, Pa, Sept. 3, 15. B.S, Pa. State Col, 39; Yale, 39–42. Asst. instr. geol, Yale, 40–42; junior geologist, *U. S. Geol. Surv,* 42–43, *asst. geologist, 43–* Geology of metallic mineral deposits; strategic mineral deposits.

Klepser, Prof. Harry J(ohn), Capital University, Columbus, Ohio. *Geology.* Buffalo, N. Y, March 10, 08. A.B, Syracuse, 32, scholar, 32–33, A.M, 33; scholar, Ohio State, 35, Bownocker fellow, 36, Ph.D, 37. Asst. *geol,* Ohio State, 34; *prof, Capital Univ, 36–* Summers, instr, Syracuse, 32–35. Paleont. Soc. The lower Mississippian rocks of the highland rim in southern Kentucky and Tennessee.

Kletzien, Dr. Seymour W(illiam Frederick), 22 Lafayette Blvd, Williamsville, N. Y. *Chemistry, Nutrition.* New Holstein, Wis, April 1, 00. B.S, Wisconsin, 24, M.S, 26, Ph.D, 29; Harvard, 27. Asst. agr. chem, Wisconsin, 24–27, instr, 27–29, research fellow, 29–31; *biochemist, State Inst. for Study Malignant Diseases, Buffalo, 31–* A.A; Chem. Soc; Inst. Nutrition; Soc. Cancer Research. Calcium, phosphorus, iron and copper metabolism; vitamin D in pregnancy and lactation; ultra-violet irradiation; cancer.

Kligman, Dr. Albert M, 2013 Mt. Vernon St, Philadelphia, Pa. *Mycology.* Philadelphia, Pa, March 17, 16. B.S, Pa. State Col, 39; Ph.D, Pennsylvania, 42. *Research on cultivated mushroom, J. B. Swayne Co, 39–* A.A. Cultivation of the mushroom; control of parasitic and weed fungi; genetics of Agaricus campestris.

Klimm, Prof. L(ester) E(arl), 4647 Locust St, Philadelphia, Pa. *Geography.* Brooklyn, N. Y, June 6, 02. B.S, Middlebury Col; Columbia, 24; Ph.D, Pennsylvania, 30. Instr. *geog, Pennsylvania,* 24–30, asst. prof, 30–36, *assoc. prof, 36–* Social Science Research fellow, Ireland, 33–34; lecturer, U. S. Navy. Finance and Supply Sch, 34, 35. Summer, instr, Columbia, 27. Asn. Geog; Geog. Soc. Phila. (ed. publications, 31–36). Port studies; population; congested districts of Ireland; text material in economic geography.

Klinck, Dr. G(ustavus) H(erman), Jr, 90 23rd St, Troy, N. Y. *Pathology.* Charleston, S. C, May 7, 03. B.S, Col. of Charleston, 24; M.D, Med. Col. State of S. C, 28. Res. pathologist, Univ. Hosp, Pennsylvania, 29–31, asst. instr. path, univ, 29–31; Eugene Littauer research fellow path, *Albany Med. Col,* 31–34, assoc. prof. path. and bacter, 34–39, *path, 36–; consulting pathologist, Albany Hosp, 39–; director labs, tumor clinic and sch. lab. tech, Samaritan Hosp, 39–* V. pres, N. Y. State Asn. Pub. Health Labs, 42. Asn. Path. and Bact. Sedimentation of erythrocytes in inflammation; the pathology and pathogenesis of mammary tumors in rats; carcinoma of the thyroid gland.

Klinck, Pres. L(eonard) S(ilvanus), University of British Columbia, Vancouver, B. C, Can. *Agriculture.* Victoria Square, Ont, Jan. 20, 77. B.S.A, Ont. Agr. Col, 03; M.S.A, Iowa State Col, 05, Sc.D, 20; LL.D, Western Ontario, 24. Asst. prof. field crops, Iowa State Col, 04–05; prof. cereal husbandry, Macdonald Col, McGill, 06–14; dean col. agr, *British Columbia,* 14–19, *pres, 19–* Officer, Order Agr. Merit, Que. Govt, 28; officier de l'Instruction pub, France, 31. A.A; Soc. Agron; Can. Soc. Tech. Agr. (pres, 20–22); fel. Royal Soc. Can.

Kline, Dr. Albert P(ierce Franz), Still Memorial Research Trust, Kirksville, Mo. *Physiology.* Philadelphia, Pa, Sept. 20, 10. A.B, Western Maryland Col, 37; Boston, 38; Ph.D, Hopkins, 41. Prin, rural schs, Md, 33–36, specialist science, high sch, 37–38; asst. prof. biol, Washington Col. (Md), 41–42, *prof.* chem, 42–43; *biochem, Still Mem. Research Trust, 43–* Clin. chemist, Kent and Queen Anne's Hosp, Chestertown, Md. Nitrogen compounds necessary for growth in Colpidium striatum Stokes with special reference to the amino acids; physiological significance of the amino acids.

Kline, Dr. Benjamin S, Western Reserve University, Cleveland, Ohio. *Pathology.* Philadelphia, Pa, May 4, 86. A.B, Swarthmore Col, 07; M.D, Hopkins, 11. Asst. path, Hopkins, 12–14; fellow pharmacol, Rockefeller Inst, 14–15; instr. path, Columbia, 15–17, assoc, 19–21; instr. *path, Western Reserve,* 21–23, assoc, 23–27, *asst. prof, 27–* Pathologist, Montefiore Home and Hosp, New York, 15–17, director labs, 19–21; pathologist, Lakeside Hosp, 21–23; chief labs, Mt. Sinai Hosp, Cleveland, 23– Ward Burdick award, Am. Soc. Clin. Path, 32. Pathologist, Hopkins Overseas Unit, 17–19. Soc. Clin. Path; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol. Experimental pathology; lobar pneumonia; spirochetal gangrene; slide tests for syphilis.

Kline, Prof. Ernest R(ay), University of Connecticut, Storrs, Conn. *Chemistry.* Three Rivers, Mich, Jan. 26, 03. A.B, Kalamazoo Col, 26; M.S, Brown, 28, Ph.D, 38. Instr, R. I. Sch. Design, 26–27; *Connecticut,* 29–33, asst. prof. *chem,* 33–42, *assoc. prof, 42–* Chem. Soc; New Eng. Asn. Chem.

Teachers. Text, methods and devices of use in instruction in organic chemistry.

Kline, Prof. Frances Littleton (Mrs. Linus W(ard) Kline), 4631 Walker Ave, Houston, Texas. *Psychology.* Farmville, Va, Jan. 10, 69. B.S, Cornell, 00; A.M, Michigan, 29. Teacher chem. and physics, Va. State Nor. Sch, Farmville, 93–02; from instr. to assoc. prof. *psychol, Skidmore Col,* 23–35, *emer. assoc. prof, 35–* Experimental psychology; chemistry.

Kline, Dr. Gordon M(abey), National Bureau of Standards, Washington, D. C. *Chemistry.* Trenton, N. J, Feb. 9, 03. A.B, Colgate, 25; M.S, George Washington, 26; Ph.D, Maryland, 34. Research chemist, State Dept. Health, N. Y, 26–28; asst. chemist; Picatinny Arsenal, 28–29; assoc. chemist, *Bur. Standards,* 30–35, *chief org. plastic sect, 35–* Tech. ed, 'Mod. Plastics,' 36– Chem. Soc; Soc. Test. Mat; Mech. Eng; Wash. Acad. Oxidation of sugars; airplane dopes; polymerization of olefins; organic plastics.

Kline, H(ayden) B(enjamin), 12511 Fairhill Road, Cleveland, Ohio. *Chemistry.* Denver, Colo, March 17, 02. B.S, Mass. Inst. Tech, 24. Research chemist, Nat. Aniline and Chem. Co, 24–25; *Indust. Rayon Corp,* 25–26, head research dept, 26–28, tech. asst. to manager plant operations, 28–29, tech. director in charge plant operations, 29–30, *v. pres. in charge plant operations, 30–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A; Chem. Soc; Chem. Eng; Inst. Chem; Asn. Textile Chem. and Colorists. Chemistry and processes in the manufacture of rayon by the viscose process; development of continuous spinning and processing method for the manufacture of viscose rayon.

Kline, Dr. James E(dward), St. Edward's University, Austin, Texas. *Astronomy.* South Bend, Ind, Feb. 9, 98. A.B, Notre Dame, 22; Catholic Univ, 22–26; Ph.D, California, 35. Instr. math. and physics, St. Edward's, 26–27; instr. astron, Notre Dame, 27–31, asst. prof, 34–39; *instr. math. and head dept, St. Edward's, 39–* Astron. Soc; Ind. Acad. Determination of the orbits of comets and asteroids.

Kline, Prof. J(ohn) R(obert), University of Pennsylvania, Philadelphia, Pa. ***Mathematics.* Quakertown, Pa, Dec. 7, 91. A.B, Muhlenberg Col, 12, Sc.D, 34; A.M, Pennsylvania, 14, Harrison fellow, Ph.D, 16. Instr. *math,* Pennsylvania, 16–18; Yale, 18–19; assoc, Illinois, 19–20; asst. prof, *Pennsylvania,* 20–28, *prof, 28–, chairman dept, 40–* Guggenheim Mem. Foundation fellow, Göttingen, 26–27. Assoc. ed, 'Am. Jour. Math.' A.A; Math. Soc. (assoc. ed, 'Trans,' 'Bul,' assoc. sec'y, 32–; sec'y, 41–); Math. Asn; Philos. Soc; Circolo Mat. di Palermo; Polish Math. Soc. Analysis situs; foundations of geometry; real variable theory.

Kline, Prof. Linus W(ard), 4631 Walker Ave, Houston, Texas. *Psychology, History of science.* Benton, Pa, Oct. 16, 66. B.S, Harvard, 96; Ph.D. Clark, 98. Teacher psychol. and pedag, Minn. State Nor. Sch, Mankato, 99–00, 02–18; Va. State Nor. Sch, Farmville, 00–02; prof. *psychol. and hist. of science, Skidmore Col,* 20–35, *emer. prof, 35–* Fellow by courtesy, Hopkins, 19–20. Summers, lecturer, Virginia, 02. A.A. Experimental psychology; migratory impulse versus love of home; psychology of property; methods in animal psychology; association in animals; juvenile ethics; psychology of the sermon; origin, function and nature of humor; the writing process; acquisition of skill; inhibition in higher thought processes; measurement scale for drawing; associative inhibition.

Kline, Dr. Morris, Sycamore Ave, Little Silver, N. J. *Mathematics.* New York, N. Y, May 1, 08. B.S, N. Y. Univ, 30, M.S, 32, Ph.D. 36. *Instr. math, Wash. Sq. Col, N. Y. Univ, 30–; assoc. radio engineer, ground signal service Sig. Corps, U. S. Army, Eatontown Sig. Lab.* Asst, Inst. Advanced Study, 36–38; lecturer, New Sch. Social Research, 39; Hunter Col, 39–40. Math. Soc. Topology; pedagogy.

Kline, Dr. O(ral) L(ee), 3509 Rodman St, N. W, Washington, D. C. *Biochemistry.* Reynolds, Ind, Sept. 12, 05. B.S, Wisconsin, 29, M.S, 31, Ph.D, 34. Asst. agr. chem, Wisconsin, 29–36; assoc. biochemist, *vitamin div, food and drug admin, Fed. Security Agency,* 36–38, biochemist, 38–42, *senior biochemist, 42–* Chem. Soc; Inst. Nutrition; Soc. Exp. Biol. Nutrition; vitamins; bio-assay methods.

Kline, Dr. Virginia H(arriet), Petroleum Administration for War, Chicago, Ill. *Paleontology.* Coleman, Mich, July 14, 10. B.S, Mich. State Col, 31; A.M, Michigan, 33, Ph.D, 35. Micropaleontologist, Mich. Oil Explor. Co, 35–36; stratigrapher, N. Dak. Geol. Surv, 37–38; geologist, Chapman Minerals Corp, 38–40; Standard Oil Co. of Ohio, 40; assoc. prof. geol, Mississippi, 42–43; *asst. petrol. production analyst, Petrol. Admin. for War, 43–* Asst. geologist, Miss. Geol. Surv, 42– Mich. Asn. Petrol. Geol; Mich. Acad. Traverse stratigraphy and paleontology of Michigan; stratigraphy of North Dakota.

Klineberg, Dr. Otto, Columbia University, New York, N. Y. *Psychology.* Quebec, Que, Can, Nov. 2, 99. B.A, McGill, 19, M.D, 25; A.M, Harvard, 20; Ph.D, Columbia, 27. Asst. psychol, Columbia, 26–27; nat. research fellow, 27–29; research assoc, *Columbia,* 29–31, instr. *psychol,* 31–37, *asst. prof, 37–,* Guggenheim Mem. Foundation fellow, 35–36; prof. anthrop, Sarah Lawrence Col, 34–37. Director inst. race relations, Am. Friends Service Cmn; cmt. Negro study, Am. Council Learned Societies, 41– A.A; Psychol. Asn; Anthrop. Asn; Sociol. Soc; Soc. Psychol. Study Social Issues (mem. board, 41–). Racial differences; social psychology; effect of environment on intelligence and personality; relation between culture and psychology.

Klinefelter, T(heron) A(lbert), Box 1883, University, Ala. *Clay technology.* Woodbridge, Calif, May 1, 86. A.B, Ohio State, 08, B.Cer.E, 15, Cer.E, 37. Engineer, indust. concerns, 15–27; supt, Columbus branch, Bur. Standards, 27–33, engineer and technologist, ceramic div, 33–40; *technologist, U. S. Bur. Mines, 41–* A.A; Ceramic Soc. Electrical porcelain; architectural terra cotta; clays; boiler furnace slags and refractories.

Kling, Dr. Carlos, 208 Homer St, Marlin, Texas. *Psychology.* Marlin, Texas, April 23, 06. A.B, Texas, 27, Oldright fellow, 27–28, A.M, 28, fellow, 28–29, Oldright fellow, 29–30, Ph.D, 32. *Instr. psychol, Texas, 30–* Pragmatism and critical realism; psychology of the emotions and individual differences; delusions common to the normal mentality.

Klingelhoefer, Dr. William C(hristian), Jr, Maple Road, Baldwinsville, N. Y. *Physical chemistry.* Beaver, Pa, Aug. 17, 04. B.S, Pittsburgh, 25; Ph.D, Illinois, 32. *Research chemist,* Atmospheric Nitrogen Corp, 25–29; *nitrogen div, Solvay Process Co, 32–* Chem. Soc. Atomic chlorine; nitrogen oxides; nitrosyl chloride; sulfur chlorides.

Klipple, Prof. E(dmund) C(hester), Agricultural and Mechanical College of Texas, College Station, Texas. *Mathematics.* Cuero, Texas, July 5, 06. A.B, Texas, 26, Ph.D, 32. Instr. pure math, Texas, 26–27, 29–35; *math,* San Antonio Junior Col, 27–29; *Agr. and Mech. Col. Texas,* 35–37, asst. prof, 37–41, *assoc. prof, 41–* Math. Soc; Math. Asn. Point set theory; real variables.

Klipstein, Kenneth H(ampton), New Vernon, N. J. *Chemistry.* East Orange, N. J, March 23, 00. A.B, Princeton, 21, A.M, 24. Treas, E. C. Klipstein and Sons Co, 24–33; *mem. staff, develop. dept, Calco Chem. div, Am. Cyanamid Co, 33–* Chem. Soc; Inst. Chem; Chem. Eng. Dyes; intermediates; synthetic organic chemicals.

Kloeffler, Prof. R(oyce) G(erald), Kansas State College, Manhattan, Kans. *Electrical engineering.* Armada, Mich, 90. B.S, Michigan, 13; M.S, Mass. Inst. Tech, 30. Instr. *elec. eng,* Idaho, 15–16; asst. prof, *Kans. State Col,* 16–19, assoc. prof, 19–23, *prof, 23–, head dept, 27–* Fel. Elec. Eng. Telephone communication systems; direct current machinery; principles of electronics.

Kloepfer, Prof. H(enry) Warner, Dakota Wesleyan University, Mitchell, S. Dak. *Biology.* Roseville, Ohio. B.S, Ohio (Athens), 34, A.M, 38; A.B, Muskingum Col, 35; Ph.D, Ohio State, 42. Teacher, high sch, 35–36; *prof. biol. and head dept, Dakota Wesleyan, 42–* 171 possible linkage relationships in man; human genetics.

Kloetzel, Prof. Milton C(arl), DePauw University, Greencastle, Ind. *Organic chemistry.* Detroit, Mich, Aug. 28, 13. B.S, Michigan, 34, Ph.D, 37. Du Pont fellow *org. chem,* Michigan, 37–38; instr, Harvard, 38–41; *asst. prof, DePauw, 41–* Chem. Soc. Polycyclic hydrocarbons; the Diels-Alder reaction.

Klopsteg, Dr. Paul E(rnest), Central Scientific Co, 1700 Irving Park Blvd, Chicago, Ill. **?*Physics.* Henderson, Minn, May 30, 89. B.S, Minnesota, 11, A.M, 13, Ph.D, 16; Sc.D, Northwestern, 42. Asst. physics, Minnesota, 11–13, instr, 13–17; physicist, Leeds and Northrup Co, 18–21; director in charge develop. and mfg, *Cent. Sci. Co,* 21–29, *pres, 30–, gen. manager, 41–;* v. chairman sect. D3-instruments, *Nat. Defense Research Cmt,* 40–42, *chief div. 17, 42–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Engineer, Ordnance Dept, U.S.A, 17–18.

A.A; Physical Soc; Optical Soc; Inst. Physics (governor, 31–, exec. cmt, 36–; chairman governing board, 40–; war policy cmt, 42–); Asn. Sci. Apparatus Makers (director, 33–; sec'y-treas, 39–42); Asn. Physics Teachers (v. pres, 31, treas, 32–); Chicago Physics Club (treas, 32, pres, 33). Moving coil galvanometers; measurement of short time intervals; hydrogen ion concentrations; educational problems in physics; design of scientific apparatus; theory and design of the bow.

Klosky, Dr. Simon, 100 N. Fifth Ave, Highland Park, N. J. *Chemistry.* Mobile, Ala, Feb. 4, 95. A.B, St. Mary's Col. (Md), 14, A.M, 16; Ph.D, Hopkins, 21. Assoc. chemist, Edgewood Arsenal, 21–23; instr. chem, Catholic Univ, 23–27, assoc. prof, 27–28; chem. patent expert, War Dept, 28–29; research chemist, *Am. Agr. Chem. Co,* 30–36, *director* research lab, 36–39, *chem. control dept, 39–* Chem. Soc. Colloids; impregnated silica gel; titania jellies; catalysis fertilizers.

Klosterman, Prof. Julius A(ugust), 40 Maplewood Ave, Bogota, N. J. *Bacteriology, Immunology.* Jersey City, N. J, Dec. 10, 98. B.S, N. Y. Univ, 29, M.S, 30, Ph.D, 32; M.D, Cornell, 36. Tech. asst, Rockefeller Inst, 18–25; instr, Univ. and Bellevue Hosp. Med. Col. and dental sch, *N. Y. Univ,* 25–26, asst. prof. bacter. and immunol, 26–29, lecturer, 29–32, asst. prof. *bacter,* 32–34, *assoc. prof, 34–; capt, Med. Corps, U. S. Army, 42–* U.S.A. A.A; Soc. Bact; Harvey Soc; Am. Med. Asn; Asn. Mil. Surg. Bacteriophage.

Klots, Dr. Alexander B(arrett), College of the City of New York, New York, N. Y. *Biology.* New York, N. Y, Dec. 12, 03. B.S, Cornell, 28, M.S, 29, Ph.D, 31. Asst. *biol,* Cornell, 29–31; assoc, Rochester, 31–33; *instr, sch. business and civic admin, Col. City of N. Y, 33–; capt, Sanit. Corps, U. S. Army, 43–* Entom. Soc. Amer; Falconers Asn; Soc. Study Speciation; Explorers Club (library cmt, 40–); N. Y. Entom. Soc. (pres, 40); South. Calif. Acad. Systematic entomology; taxonomy of Lepidoptera; insect ecology; North American insect zoogeography.

Klots, Mrs. Elsie B(roughton), 170 Elm Ave, Mt. Vernon, N. Y. *Entomology.* Quincy, Mass, April 8, 01. A.B, Wheaton Col. (Mass), 22; A.M, Cornell, 26, Ph.D, 32. Asst. prof, Elmira Col, 27–28; instr. entom, Cornell, 30–32, Heckscher asst, 28–30; *science teacher, Finch Junior Col, 37–* Taxonomy of Odonata.

Klotz, Dr. I(rving) M(yron), Northwestern University, Evanston, Ill. *Physical chemistry.* Chicago, Ill, Jan. 22, 16. B.S, Chicago, 37, fellow, 39–40, Ph.D, 40. Asst. *chem,* Chicago, 37–39; research assoc, *Northwestern,* 40–42, *instr, 42–* A.A; Chem. Soc. Thermodynamics of solutions; surface chemistry; spectrophotometry.

Klotz, J(ohn) R. M(acPherson), 165 Midland Ave, Montclair, N. J. *Chemistry.* Newark, N. J, Jan. 2, 87. B.S, Pennsylvania, 09. Chemist, Barrett Mfg. Co, 10–15; manager, Newport Chem. Works, Inc, 15–21; *consulting chem. engineer, 21–* Chem. Soc; Chem. Eng; Chemists' Club (trustee, 15–, sec'y, 16–22). Aromatic hydrocarbons and their derivatives; contact sulfuric acid; catalysts; naphthenic acids.

Klotz, Dr. L(eo) Jos(eph), Citrus Experiment Station, Riverside, Calif. *Botany.* Carleton, Mich, April 3, 95. B.S, Mich. State Col, 20, M.S, 21; Lackland fellow, Washington (St. Louis), 21–23, Ph.D, 23. Asst. prof. bot, New Hampshire, and asst. botanist, Exp. Sta, 23–25; nat. research fellow and research assoc. plant path, *Citrus Exp. Sta, California,* 25–28, asst. plant pathologist, 28, *assoc. plant pathologist, 30–, assoc. prof. plant path, 40–* Phytopath. Soc; Chem. Soc; Mycol. Soc; Inst. Serotherapatico, Milan. Plant pathology; physiology; physiology of fungi.

Klotz, Dean Lyell J(oseph), 423 W. Eighth St, Cincinnati, Ohio. *Chemistry, Pharmacy.* Exeter, Nebr, April 22, 08. B.S, Nebraska, 28, M.S, 29; Ph.D, Florida, 34. Asst. prof. pharmacy, Med. Col. State of S. C, 29–30; assoc. prof, South Carolina, 30–32; prof, Ferris Inst, 34–35; chem, Southwest. State Teachers Col, Okla, 35–41; *dean, Cincinnati Col. Pharmacy, 41–* Mem, Board Examiners in Basic Sciences, Okla, 35–41. Pharmaceut. Asn. Vanillin; ferrous iodide; hydriodic acid.

Kloyda, Sister Mary Thomas a Kempis, College of St. Teresa, Winona, Minn. *Mathematics.* Manley, Iowa, May 15, 96. A.B, Col. of St. Teresa, 20; A.M, Michigan, 26; Ph.D, 36. Instr, high schs, Minn, 20–22; Ohio, 22–24; prin, Minn, 24–26; instr. physics, *Col. of St. Teresa,* 26–30, 32–34, 35–39, *head dept. math, 39–* Math. Asn. (chairman, Minn. sect, 34, mem. exec. cmt, 35, 38). Linear and quadratic equations.

Kluckhohn, Prof. Clyde (Kay Maben), Harvard University, Cambridge, Mass. *Anthropology.* LeMars, Iowa, Jan. 11, 05. A.B, Wisconsin, 28; A.M, Oxford, 34; Ph.D, Harvard, 36. Asst. prof. *anthrop,* New Mexico, 32–34; instr, *Harvard,* 35–37, asst. prof, 37–40, *assoc. prof, 40–* A.A; Anthrop. Asn; Soc. Am. Archeol; Asn. Physical Anthrop. Socialization of Navaho Indian children; ethnology of Navaho and Hopi Indians; anthropological theory.

Klug, Prof. Harold P(hilip), 4701 E. 34th St, Minneapolis, Minn. *Chemistry.* Zanesville, Ohio, Sept. 20, 02. A.B, Ohio State, 24, A.M, 26, Ph.D, 28. Asst. chem, Ohio State, 24–27; instr, Carleton Col, 27–30, asst. prof, 30–32; research fellow physical chem, Calif. Inst. Tech, 32–34; lecturer *chem,* Utah, 34; *asst. prof,* Idaho, 34–37; *Minnesota, 37–* Chem. Soc. (chairman, Wash-Idaho border sect, 35); Soc. X-Ray and Electron Diffraction. X-ray studies of crystal and molecular structure; molecular rotation in crystalline solids; dehydration of hydrates.

Klumpp, Dr. Theodore G(eorge), 170 Varick St, New York, N. Y. *Internal medicine.* New York, N. Y, May 15, 03. B.S, Princeton, 24; M.D, Harvard, 28. Med. house officer, Peter Bent Brigham Hosp, 29–30; asst. res. physician, Lakeside Hosp, 30–32; instr. internal med, Yale, 32–36, asst. clin. prof. med, 36; med. officer, chief med. officer and chief drug div, food and drug admin, Fed. Security Agency, 36–41; adj. clin. prof. med, med. sch, George Washington, 41; director div. drugs, foods and physical therapy and sec'y council pharmacy and chem, Am. Med. Asn, 41–42; *pres, Winthrop Chem. Co, Inc, 42–* Assoc. physician, New Haven Hosp, 32–36, chief hematol. clinic and director med. lab, 33–36; attending physician, Gallinger Munic. Hosp, 41; mem. pharmaceut. mfrs. cmt, War Production Board. Director, Am. Foundation Trop. Med. Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest. Therapeutics; materia medica; medical pharmacology.

Klüver, Dr. H(einrich), University of Chicago, Chicago, Ill. **Psychology.* Germany, May 25, 97. Hamburg, 20–22; Berlin, 22–23; Ph.D, Stanford, 24. Asst, Stanford, 23–24; instr. psychol, Minnesota, 24–26; Social Science Research Council fellow, 26–28; research psychologist, Behavior Research Fund, Chicago, 28–33; assoc. mem, *Sprague Mem. Inst, Chicago,* 33–38, *mem, 38–,* assoc. prof. *exp. psychol, div. psychiat, univ,* 36–38, *prof, 38–* Summer, acting assoc. prof, Stanford, 30. Cooperating ed, 'Jour. Psychol.' A.A; Psychol. Asn; Soc. Exp. Psychol; Soc. Exp. Biol; Physiol. Soc; Optical Soc; Neur. Asn; Nat. Inst. Psychol; Inst. Med. Chicago. Experimental psychology; animal behavior; neuropsychology.

Knandel, Prof. H(erman) C(lyde), 329 Ridge Ave, State College, Pa. *Poultry husbandry.* May 18, 91. B.S, Cornell, 14. Bristol County Agr. Sch, Mass, 14–16; head exten. dept, *poultry husbandry, Pa. State Col,* 16–20, *prof. and head dept, 20–* Poultry ed, 'Comfort Magazine,' 25; 'Pa. Farmer,' 22–Poultry Sci. Asn. (pres, 23). Poultry management; chickens; turkeys.

Knapp, Dr. B(urton) B(ower), 837 Carleton Road, Westfield, N. J. *Chemistry.* Northfield, Minn, May 29, 10. A.B, Carleton Col, 33; Ph.D, Wisconsin, 37. *Research chemist, Int. Nickel Co, 37–* Corrosion; conductivity of mixed salt solutions; autoxidation of chromous sulfate and indigo white.

Knapp, Prof. E(dwin) J(ohn), 2100 N. Stanton St, El Paso, Texas. *Physics.* Milwaukee, Wis, April 15, 99. Ph.B, Wisconsin, 21, Ph.D, 31. Asst. physics, Wisconsin, 20–23; instr, Western Reserve, 23–27; math, Wisconsin, 30–31; assoc. prof. *math. and physics, col. mines and metal, Texas,* 31–33, *head dept, 32–, prof, 33–* A.A; Physical Soc. Effect of transverse magnetic fields on thermal conductivity of bismuth at low temperatures; basic physics for pilots and flight crews.

Knapp, Prof. Robert T(albot), California Institute of Technology, Pasadena, Calif. *Engineering.* Loveland, Colo, Jan. 5, 99. B.S, Mass. Inst. Tech, 20; Ph.D, Calif. Inst. Tech, 29. Designer, Gay Eng. Corp, 20–21; instr, *Calif. Inst. Tech,* 22–30, asst. prof. mech. eng, 30–36, *assoc. prof. hydraul. eng, 36–, in charge power plant lab, 23–, hydraul. lab, 27–, consultant, Ordnance Dept, U. S. Army, 42–* Consulting engineer, Riverside Cement Co, 27–29; Soc. Mech. Eng. Freeman scholar, Europe, 29–30; consultant Los Angeles County Flood Control dist, 32–; Metropolitan Water Dist, South. Calif, 33–36; collaborator, soil conservation service, U. S. Dept. Agr, 35– Mech. Eng; Civil Eng; Geophys. Union. Mechanical and hydraulic engineering; determination

of size distribution of particles in fine powders; laboratory investigations of hydraulic structures and hydraulic machines; hydraulics of soil erosion.

Knapp, Willard Alfred, Purdue University, Lafayette, Ind. *Engineering.* Piatt Co, Ill, Jan. 29, 85. B.S, Illinois, 07; C.E, Purdue, 11. Instr, Illinois, 07–08; struct. eng, *Purdue,* 08–12, asst. prof, 12–17, assoc. prof, 17–25, prof. eng. exten, 25–35, asst. dean *eng,* 35–43, *assoc. dean, 43–, sec'y, eng. exp. sta.* Summers, draftsman, Am. Bridge Co, 07, 14; Chicago, Milwaukee and St. Paul Ry, 09, 10, 12, 13; Rock Island Ry, 11. Lieut. col, Eng. Res. Assoc. Civil Eng; Soc. Mil. Eng; Eng. Educ; Soc. Adult Educ; Ind. Eng. Council; Ind. Safety Council.

Knappen, Dr. R(ussell) S(tafford), Gulf Oil Corp, Box 661, Tulsa, Okla. *Geology.* Three Rivers, Mich, July 17, 92. B.S, Ohio Wesleyan, 13, hon. Sc.D, 38; A.M, Wisconsin, 15; Ph.D, Columbia, 27. Asst. geol, Columbia, 15–17; instr. econ. geol, Chicago, 19–20; asst. prof, Kansas, 20–21, assoc. prof, 21–25, prof, 25; visiting lecturer, Harvard, 25–26; geologist, Gulf Oil Co, 26–28; *exec,* Gypsy Oil Co, 28–36; *Gulf Oil Corp, 36–* Aid, U. S. Geol. Surv, 14–15, geologist, 21–26; Ill. Geol. Surv, 19–21. Nat. Research Council, 32–35. Geologist, U.S.A, 18. A.A; Geol. Soc. (councilor, 32, 35–38); Asn. Petrol. Geol; Min. and Metal. Eng. Petroleum and economic geology; geology of Dixon, Illinois, of northern Bighorn Basin, Montana, and of Alaska Peninsula.

Knauf, Dr. A(lbert) E(nsign), 434 Hickory St, Waukegon, Ill. *Chemistry.* Salem, Ohio, Feb. 22, 04. B.S, Western Reserve, 28, A.M, 29; Ph.D, Illinois, 33; J.D, Loyola (Ill), 42. Research and teaching asst. chem, Illinois, 33–36; asst. chemist, nat. inst. health, U. S. Pub. Health Service, 36–40; *research chemist, Abbott Labs, 40–* Substituted o-amino-thiophenols; esters of diheptyl acetic acid for leprosy remedies; optically active diphenyls; sugars; pharmaceuticals.

Knauss, Prof. Harold P(aul), Ohio State University, Columbus, Ohio. *Physics.* Lehigh Co, Pa, July 12, 00. B.S, Muhlenberg Col, 22; M.S, N. Y. Univ, 24; Charles A. Coffin Foundation fellow, Leiden, 25–26; Ph.D, California, 28. Instr. *physics,* N. Y. Univ, 24–25; *Ohio State,* 28–32, *asst. prof, 32–* A.A; Physical Soc; Acoustical Soc. Band spectra; active nitrogen; electrodeless ring discharge; spark discharge; musical acoustics.

Knaysi, Prof. Georges (Abdallah), Cornell University, Ithaca, N. Y. *Bacteriology.* Hasbaya, Great Lebanon, June 21, 98. B.S, Cornell, 24, M.S, 25, Ph.D, 29. Instr. *bacter, Cornell,* 26–31, asst. prof, 31–41, *assoc. prof, 41–* Am. Med. Asn. fellow, 30. A.A; Soc. Bact; Dairy Sci. Asn. Cytology and microchemistry of bacteria; variability in microorganisms; relation of oxygen and oxidation-reduction potentials to the life of bacteria.

Knebelman, Prof. M(orris) S(amuel), 2008 Indiana St, Pullman, Wash. *Mathematics.* Nikolaev, Russia, Nov. 26, 91. B.S, Pennsylvania, 12; M.S, Lehigh, 14; Ph.D, Princeton, 28. Instr. *math,* Lehigh, 13–16, asst. prof, 16–25; Princeton, 29–39; *prof. and head dept, State Col. Wash, 39–* Nat. research fellow, 28–29. Math. Soc; Math. Asn. Differential geometry; theory of invariants.

Knechtel, Dr. M(axwell) M(cMichael), 7 Duvall Drive, Westmoreland Hills, Md. *Geology.* Leslie, Mich, April 7, 97. A.B, George Washington, 23; Ph.D, Hopkins, 27. Geologist, Sinclair Explor. Co, 27–30; asst. geologist, *U. S. Geol. Surv,* 30–38, assoc. geologist, 38–43, *geologist, 43–* A.A; Asn. Petrol. Geol; Geol. Soc; Geol. Soc. Wash. Stratigraphy, structure and geology of fuels.

Kneeland, Dr. Hildegarde, 3316 Circle Hill Road, Alexandria, Va. *Economics.* Brooklyn, N. Y, July 10, 89. A.B, Vassar Col, 11; Ph.D, Brookings Institution, 30. Asst. physics, Vassar Col, 11–12; instr. nutrition, Missouri, 14–17; lecturer sociol. and statist, Barnard Col, Columbia, 18–19; prof. household econ. and head dept, Kans. State Col, 19–22; in charge econ. div, bur. home econ, U. S. Dept. Agr, 24–35; prin. economist in charge consumption research, indust. sect, Nat. Resources Cmt, 35–40; *prin. agr. economist, bur. agr. econ, U. S. Dept. Agr, 40–* Econ. Asn; Statist. Asn. Economics of consumption; income distribution.

Kneen, Dr. Eric, University of Nebraska, Lincoln, Nebr. *Plant physiology, Cereal chemistry.* Battleford, Sask, Can, March 23, 09. B.Sc, Alberta, 31; M.S, Minnesota, 33, Ph.D, 42. Instr. agr. biochem, Minnesota, 34–36; *asst. agr. chemist and asst. plant pathologist, Exp. Sta, Nebraska, 38–* Soil Sci. Soc. Physiological diseases of plants, particularly low temperature injury; physiology of host-parasite relations in plant disease; the nature and mode of action of plant enzymes.

Knerr, Prof. Henry W(illiam), 219 Adams Ave, State College, Pa. *Physics.* Fisher, Ill, Dec. 6, 05. A.B, Illinois, 28; A.M, Harvard, 35; Ph.D, Michigan, 37. Instr, high sch, Ill, 28–29; math, Ga. Tech, 30–33; teaching fellow *physics,* Michigan, 34–36; instr, *Pa. State Col,* 36–41, asst. prof, 41–42, *assoc. prof, 42–* Summer, asst, research lab, Gen. Elec. Co, 30. A.A; Asn. Physics Teachers; Physical Soc. Absorption and dispersion of microwaves by liquid water.

Kniffen, Prof. Fred B(owerman), Louisiana State University, Baton Rouge, La. *Geography, Anthropology.* Britton, Mich, Jan. 18, 00. A.B, Michigan, 22; fellow, California, 27–28, Ph.D, 29. Teaching fellow geog, California, 25–27, 28–29; asst. prof. *geol. and geog, Louisiana,* 29–30, assoc. prof, 30–41, *prof, 41–* Summer, scholar, Southwest Lab. Anthrop, 29. A.A; Asn. Geog; Anthrop. Asn. Cultural geography; geography of American Indians.

Knight, Prof. A(bner) R(ichard), University of Illinois, Urbana, Ill. *Electrical engineering.* Columbus, Ohio, Sept. 8, 85. M.E, Ohio State, 09; M.S, Illinois, 17, E.E, 22. Asst. underground engineer, Dayton Lighting Co, 07–08; electrician, Springfield Light, Heat and Power Co, 09–11; instr. *elec. eng,* Pennsylvania, 11–13; from instr. to *prof, Illinois, 13–* Elec. Eng; Eng. Educ. Metering; electrical power.

Knight, B(urke) H(aywood), 50 E. 41st St, New York, N. Y. *Chemistry.* Wake Co, N. C, Dec. 19, 91. A.B, North Carolina, 11, M.S, 13. Plant anal. chemist, Gen. Elec. Co, 13–14; chemist, disc record mfg. div, Thos. A. Edison, Inc, 14–15, asst. supt. disc blank mfg. div, 15–17; asst. to Dr. P. C. McIlhiney, consulting chemist, 17–23; *anal. and consulting chemist, 23–* Official analyst, U. S. Shellac Importers Asn. and Am. Gum Importers Asn. Soc. Test. Mat; Chemists' Club (trustee, 33–36); fel. Inst. Chem. (treas, 36–40, chairman, N. Y. sect, 34–36). Shellac; allied resins; analysis of shellac; spirit soluble gum; analytical methods for commercial evaluation.

Knight, Dr. C(laude) A(rthur), Rockefeller Institute, Princeton, N. J. *Biochemistry.* Petoskey, Mich, Oct. 17, 14. B.S, Alma Col, 36; stipend scholar, Pa. State Col, 36–38, Ph.D, 40. Teaching asst, Pa. State Col, 38–40; fellow, *Rockefeller Inst,* 40–42, *asst, 42–* A.A; Chem. Soc; N. Y. Acad. Vitamin C nutrition; biochemistry of viruses.

Knight, Cyril W(orkman), 80 King St, W, Toronto, Ont, Can. *Geology.* Kingston, Ont, Nov. 28, 79. B.S, 03. Assoc. provincial geologist, Ont, 06–23; geologist and chief geologist, Nipissing Mining Co, 23–28; *consulting geologist, 28–* Bigsby medal, Geol. Soc. London, 25. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Royal Soc. Can; Can. Inst. Min. and Metal. Precambrian stratigraphy; ore deposits in Ontario.

Knight, Dr. F(rederic) B(utterfield), Purdue University, Lafayette, Ind. *Psychology.* Springfield, Mass, July 2, 91. A.B, Boston, 13; A.M, Harvard, 15; Ph.D, Columbia, 20. Sch. supt, Mass, 15–19; prof. psychol. educ, Iowa, 19–37; *director div. educ. and applied psychol, Purdue, 37–* Lecturer, Columbia, 25. Ed, 'Longmans Educ. Series.' A.A; Psychol. Asn; Educ. Research Asn; Soc. Study Educ. (chairman, 'Year Book,' 30). Psychology of elementary school subjects; industrial problems.

Knight, Dr. G(arold) L(ouis), 1700 Jackson St, Amarillo, Texas. *Geology.* Carthage, Mo, Sept. 16, 94. B.S, Missouri, 17; Ph.D, Wisconsin, 25. Asst. geol, Wisconsin, 24–25, instr, Kansas, 25–27, asst. prof, 27–35; *geologist, Phillips Petrol. Co, 35–* Quantitative studies of material carried in solution in river waters; geology of Barber County, Kansas.

Knight, Prof. H(arry) H(azelton), Iowa State College, Ames, Iowa. *Entomology.* Koshkonong, Mo, May 13, 89. B.S, Cornell, 14, Ph.D, 20. Investigator *entom,* Cornell, 16–17; asst. prof. and curator collections, Minnesota, 19–24; asst. prof, *Iowa State Col,* 24–25, assoc. prof, 25–35, *prof, 35–* Entomologist, Genesee County, N. Y, Fruit Growers' Asn, 13–16. Summers, asst. entomologist, Nat. Hist. Surv, Ill, 30–33, 37. Sect. ed, Hemiptera, 'Biol. Abstracts.' Cornell biol. exped, 17. Lieut, A.S, 17–19. A.A; fel. Entom. Soc; Asn. Econ. Entom; N. Y. Entom. Soc; Iowa Acad; Biol. Soc. Wash; Soc. entom. de France; Soc. entom. de Belg. Economic and

systematic entomology; Miridae; army worm; fruit insects; melanism in Perillus bioculatus; nature of color in Hemiptera.

Knight, Howard L(awton), 1364 Kalmia Road, Washington 12, D. C. *Nutrition.* Gardner, Mass, Sept. 29, 81. B.S, Mass. Col. and Boston, 02; Wesleyan, 04–06. Instr. chem. and eng, Mass. Col, 02–04; asst. chem, Wesleyan, 04–06; sci. asst. physiol. and nutrition, *U. S. Dept. Agr,* 04–06, asst. ed, *'Exp. Sta. Record,'* 06–18, assoc. ed, 18–23, *ed, 23–* Special ed. agr, 'Webster's New Int. Dict,' 34. A.A. Food economics; agriculture.

Knight, Dr. J(ames) Brookes, Princeton University, Princeton, N. J. *Paleontology.* St. Louis, Mo, July 14, 88. A.B, Princeton, 11; A.M, Kansas, 28; Ph.D, Yale, 31. In business, 11–26; research assoc. invert. paleont, Peabody Museum, Yale, 31–33, Sterling research fellow, 31–32, asst, 33–36; *lecturer and curator Paleozoic invertebrates, Princeton, 36–* Asst. geologist, U. S. Geol. Surv, 31–; acting asst. prof, Occidental Col, 33–34; Penrose Fund grant, Geol. Soc, 34–35. A.A; fel. Geol. Soc. (board editors, 40–42); Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol. Invertebrate paleontology; Paleozoic Gastropoda.

Knight, Dr. Odon S(tahlhut), 101 N. 36th St, Terre Haute, Ind. *Chemical engineering.* Denver, Colo, June 22, 07. B.S, Colorado, 28, M.S, 32, Ph.D, 33, Chem.E, 35. Engineer, Link-Belt Co, Indianapolis, 28–29; instr. mech. eng, Colorado, 29–35, asst. prof. chem. eng, 35–37; director chem. div, J. P. Devine Mfg. Co, 37–39; *asst. prof. chem. eng, Rose Polytech, 39–* Summers, engineer, Link-Belt Co, 30, 34–36. Chem. Soc; Chem. Eng; Eng. Educ. Chemical engineering unit operations and industrial chemistry; correlation of vapor pressure with temperature; design of chemical process equipment.

Knight, Prof. Paul, University of Maryland, College Park, Md. *Entomology.* Sept. 21, 03. Chicago, 22; B.S, Illinois, 23; M.S, Maryland, 27; Cornell, 38, 39. Asst, Ill. State Nat. Hist. Surv, 21–25; *entom,* Illinois, 25; *asst. prof, Maryland, 25–* Asn. Econ. Entom; Wash. Entom. Soc. History of entomology; insect behavior and ecology; teaching methods in elementary entomology; nature photography; taxonomy of Pentatomoidea.

Knight, Prof. S(amuel) B(radley), 523 E. Franklin St, Chapel Hill, N. C. *Chemistry.* Bowman, S. C, Dec. 25, 13. B.S, Clemson Agr. Col, 34; M.S, North Carolina, 37, Ph.D, 38. Asst. *chem,* North Carolina, 34–38; asst. prof, Davidson Col, 38–40, assoc. prof, 40–41; *asst. prof, North Carolina, 41–* Chem. Soc; Elisha Mitchell Sci. Soc; N. C. Acad. Complex uranium acetates; decomposition of deuteroammonium chloride.

Knight, Prof. S(amuel) H(owell), University of Wyoming, Laramie, Wyo. *Geology.* Laramie, Wyo, July 31, 92. A.B, Wyoming, 13; fellow, Columbia, 15, Ph.D, 29. Asst. prof. *geol, Wyoming,* 17–18, *prof, 19–, director summer camp;* state geologist, Wyo, and director, Wyo. Geol. Surv, 33–40. Lieut, Intel. Div, 18. A.A; Geol. Soc; Paleont. Soc; fel. Am. Geog. Soc; N. Y. Acad. Stratigraphy and paleontology of Paleozoic and Mesozoic formations of the Rocky Mountains region.

Knight, Prof. W(illiam) A(bner), 206 W. Lane Ave, Columbus, Ohio. *Mechanical engineering.* Delaware Co, Ohio, Jan. 12, 64. M.E, Ohio State, 00. Machinist, 80–93; instr. *machine practise, Ohio State,* 93–00, asst. prof, 00–08, assoc. prof, 08–17, prof, 19–32, *emer. prof, 32–* Head depts. gunnery and airplanes, Ground Sch. Aviation, Ohio State, 17–19. A.A; Mech. Eng; Eng. Educ. Setting angle for milling angular cutter; metal dynamograph; test of lathe tools for finishing cuts; trisecting any angle by means of a hyperbola; laps and lapping; cutting speeds and feeds.

Knipling, E(dward) F(red), P. O. Box 3391, Orlando, Fla. *Entomology.* Port Lavaca, Texas, March 20, 09. B.S, Agr. and Mech. Col. Texas, 30; M.S, Iowa State Col, 32. Field asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30, junior entomologist, 31–35, asst. entomologist, 35–40, *assoc. entomologist, 40–* Asn. Econ. Entom. Taxonomy of immature stages of myiasis producing Diptera; biology and control of myiasis producing Diptera and mosquitoes.

Knipmeyer, Prof. C(larence) C(arl), 2611 N. Eighth St, Terre Haute, Ind. *Engineering.* Higginsville, Mo, Aug. 1, 83. B.S, Michigan, 07. Asst. *elec. eng,* Mass. Inst. Tech, 07–09; asst. prof, *Rose Polytech,* 09–12, assoc. prof, 12–20, *prof, 20–* Chairman, State Board Registration Professional Eng, Ind. Pres, Nat. Council State Boards Eng. Examiners. Major, Specialist Res, U.S.A. A.A; Elec. Eng; Soc. Professional Eng. Electrical and mechanical engineering; underground heat transfer; mine ventilation; power conservation in industry.

Knipp, Prof. Cha(rle)s T(obias), 1003 W. Nevada St, Urbana, Ill. *[1]Physics.* Napoleon, Ohio, Aug. 13, 69. A.B, Indiana, 94, A.M, 96; Pres. White fellow, Cornell, 98–00, Ph.D, 00; Cambridge, 10–11, 26–27. Instr. *physics,* Indiana, 96–98, asst. prof, 00–03; *Illinois,* 03–15, assoc. prof, 15–18, prof, 18–37, *emer. prof, 37–; visiting prof, Rollins Col.* Summers, instr, Missouri, 02; Indiana, 05, 22, 31; research, Nat. Elec. Light Asn, 25; Northwestern, 29, 32. Advisory cmt. on physics, A Century of Progress Expos, Chicago, 33. A.A; Physical Soc; Optical Soc; Ill. Acad. (v. pres, 20, pres, 21); Ind. Acad. Surface tension; simplified alpha ray-track apparatus; electron emission in alkali-vapors; conduction of electricity through gases; electrodeless discharge; cold cathode rectifier.

Knipp, Prof. Julian K(nause), Purdue University, Lafayette, Ind. *Physics.* Urbana, Ill, Jan. 18, 10. A.B, Illinois, 31; A.M, Harvard, 32, Ph.D, 35. Sheldon traveling fellow from Harvard, Utrecht and Leipzig, 35–36; instr. *physics, Purdue,* 36–41, *asst. prof, 41–* Asst, Wisconsin, 37–38. Physical Soc. Theory of molecular and nuclear structure.

Knisely, Prof. Melvin H(enry), University of Chicago, Chicago, Ill. *Microscopic physiology.* Hillman, Mich, June 17, 04. A.B, Albion Col. (Mich), 27; Gen. Educ. Board fellow, Rockefeller Foundation, 34–37; Ph.D, Chicago, 36; Copenhagen, 36–37. *Asst. prof. anat, Chicago, 37–* Asst. prof, Tennessee, 40–42. A.A; Asn. Anat. Microscopic structure and function of living spleens; liver lobules; mechanisms of removal of particulate matter from the blood stream; pathological physiology of monkey malaria and intravascular agglutination in human diseases.

Knobel, Dr. Max, 30 Memorial Drive, Cambridge, Mass. *Physics.* Dedham, Mass, May 22, 98. B.S, Mass. Inst. Tech, 18, M.S, 19, Ph.D, 21. Asst. physics, Mass. Inst. Tech, 18–19, instr, 19–23; nat. research fellow chem, California, 23–24; res. chemist, Guggenheim Brothers, N. Y, 24; instr. physics and electrochem, Mass. Inst. Tech, 24–25, asst. prof, 25–31; treas, Barss, Knobel and Young, Inc, 31–38; *consulting physicist, Arthur D. Little, Inc, 38–* Physical Soc. Industrial physics; electronics.

Knoblauch, Dr. H(arold) C(arl), U. S. Department of Agriculture, Washington, D. C. *Soil technology.* Blissfield, Mich, Oct. 9, 08. B.S, Mich. State Col, 31; M.S, R. I. State Col, 33; Ph.D, Rutgers, 42. Asst agronomist, R. I. State Col, 31–35; asst. in research, soil conservation service, *U. S. Dept. Agr,* N. Y, 35, asst. soil surveyor, Ga, 35–36, assoc. soil conservationist, N. J, 36–38, soil conservationist, 38–40, *senior soil technologist and exp. sta. administrator, office exp. stations, 40–* Soc. Agron; Geophys. Union; Soil Sci. Soc. (chairman sect. VI, 42). Soil conservation; soil fertility; nitrogen carbohydrate utilization of timothy.

Knoblaugh, Dr. A(rmand) F(rank), 6408 Cary Ave, College Hill, Cincinnati, Ohio. *Physics.* Cincinnati, Ohio, June 10, 03. B.S.E, Cincinnati, 25, A.M, 27, Ph.D, 29. Asst, sound research lab, physics dept. and basic science lab, Cincinnati, 25–32; *research engineer, Baldwin Co, Cincinnati, 32–* Vibrations of strings and plates; the electrical production of musical tones; musical sounds.

Knobloch, Dr. I(rving) W(illiam), Iowa State College, Ames, Iowa. *Botany.* Buffalo, N. Y, March 1, 07. A.B, Buffalo, 30, A.M, 32; fellow, Iowa State Col, 41–42, Ph.D, 42. Asst, Buffalo, 28–30; teaching fellow, Harvard, 30–31; *Iowa State Col,* 41–42, *instr. bot, 42–* Fern Soc; Wildflower Preservation Soc; Nature Sanctuary Soc. Conservation; cytology; morphology; agrostology.

Knoefel, Dr. Peter K(lerner), 101 W. Chestnut St, Louisville, Ky. *Pharmacology.* New Albany, Ind, Aug. 4, 06. A.B, Wisconsin, 27, A.M, 28; M.D, Harvard, 31. Asst. and instr. pharmacol, Wisconsin, 27–29; nat. research fellow, California, 31–33; research assoc. *pharmacol,* Vanderbilt, 33–35; asst. prof, *sch. med, Louisville,* 35–38, assoc. prof, 38–39, *prof, 39–* Soc. Pharmacol; Am. Med. Asn; Chem. Soc; Soc. Exp. Biol. Pharmacology of the nervous system.

Knoll, Dr. Alexander (F), Metals Disintegrating Co, Townley, N. J. *Chemistry.* New York, N. Y, Sept. 25, 01. B.S, Polytech. Inst. Brooklyn, 24; A.M, Columbia, 28, Ph.D, 33;

Graz Chem-Mediz. Inst, Austria, 32. Technician, chem. works, 19–27; asst. mining and chem, Columbia, 28–29, instr. chem, 31–40; *chief chemist, Metals Disintegrating Co, 40–* A.A; Chem. Soc. Reactions of organic compounds at mineral surfaces; chemistry of flotation of ores; metal flake powder.

Knopf, Prof. Adolph, Yale University, New Haven, Conn. ***Geology.* San Francisco, Calif, Dec. 2, 82. B.S, California, 04, M.S, 05, Ph.D, 09; hon. A.M, Yale, 23. Aide, U. S. Geol. Surv, 06–07, asst. geologist, 08–12, geologist, 12–40; assoc. prof. *geol, Yale,* 20–23, *prof, 23–, director grad. studies, dept. geol, 33–* Assoc. ed, 'Am. Jour. Sci,' 26– Div. geol. and geog, Nat. Research Council, 23–26. Nat. Acad; A.A; Geol. Soc. (councilor, 34–36); Soc. Econ. Geol. (councilor, 25; v. pres, 37); Miner. Soc; Wash. Acad. (ed, 'Jour,' 16–18). Petrology; Precambrian geology; economic geology.

Knopf, Mrs. Adolph (Dr. Eleanora Frances Bliss), 105 E. Rock Road, New Haven, Conn. ***Geology.* Rosemont, Pa, July 15, 83. A.B, A.M, Bryn Mawr Col, 04, Ph.D, 12. Demonstrator, geol. lab, Bryn Mawr Col, 05–06, asst. curator, geol. museum, 04–05, 08–09; aide, *U. S. Geol. Surv,* 12–17, asst. geologist, 17–18, assoc. geologist, 18–28, *geologist, 28–* Geologist, Md. Geol. Surv, 17– Geol. Soc; Wash. Acad. Structural petrology; Precambrian geology of the northern Atlantic states; physiography.

Knorr, Prof. H(arry) V(irgil), 140 W. Center College St, Yellow Springs, Ohio. *Physics.* Berwick, Pa, Aug. 24, 96. A.B, Susquehanna, 17; Ph.D, Ohio State, 31. Prof. *physics,* Cent. Wesleyan Col, 20–25; asst, Ohio State, 28–30; asst. prof, *Antioch Col,* 30–33, assoc. prof, 33–43, *prof, 43–, research physicist, Kettering Foundation, 30–, acting director, 42–; mem. staff, underwater sound lab, Harvard, 43–* Fel. Physical Soc. Spectroscopy; absorption spectra of plant pigments and of porphyrins; fluorescence of chlorophyl; chlorophyl and photosynthesis; the recording microphotometer.

Knott, Dr. Arthur D, Leesburg, Ga. *Public health.* Belton, Texas, June 27, 76. A.B, Bethel Col, 96; M.D, Vanderbilt, 00; D.P.H, Hopkins, 24. Surgeon, Kimball Lumber Mfg. Co, 06–13; physician and surgeon, Murray, Utah, 14–21; health officer, Accomac County, Va, 24–25; prof. prev. med, Med. Col. of Va, 25–28; health officer, Health Dept, Wood County, W. Va, 29–40; *practicing physician, 40–* M.C, U.S.A, 17–20. A.A; Pub. Health Asn; Am. Med. Asn; W. Va. Pub. Health Asn. Public health administration.

Knott, Dr. Elizabeth M(ay), Cincinnati General Hospital, Cincinnati, Ohio. *Pediatrics, Nutrition.* Antigo, Wis, Feb. 6, 02. B.S, Wisconsin, 24, M.S, 30, M.D, 43. Ph.D, Iowa, 36. Teacher, high sch, Wis, 24–27; itinerant nutritionist, Am. Red Cross, 27–29; asst, child welfare research sta, Iowa, 30–35; asst. and later research assoc. pediat, Chicago, 35–42; intern, Cincinnati Gen. Hosp, 43–44; *res, Children's Hosp, Cincinnati, Ohio, 44–* Soc. Research Child Develop. Child nutrition.

Knott, Prof. J(ames) E(dward), University of California College of Agriculture, Davis, Calif. *Plant physiology.* Jamaica Plain, Mass, June 5, 97. B.S, R. I. State Col, 20, hon. Sc.D, 42; M.S, Cornell, 24, Ph.D, 26. County agr. agent, Newport, R. I, 20–23; instr. plant physiol, Cornell, 23–25, veg. gardening, 25–26; assoc. prof, Pa. State Col, 26–27, prof, 27–29; asst. prof, dept. veg. crops, Cornell, 29–32, research prof, 32–40; *prof. truck crops and head div, col. agr, California, 40–* Prin. production specialist, Australian Mission, U. S. Board Econ. Warfare, 42–43. Lieut, A.S, 18–19. A.A; Soc. Plant Physiol; Soc. Hort. Sci; Soc. Agron. Physiological problems in vegetable production.

Knott, Prof. John R(ussell), State University of Iowa, Iowa City, Iowa. *Psychology.* Chicago, Ill, Nov. 6, 11. A.B, Iowa, 35, A.M, 36, Ph.D, 38. Research assoc. psychol, *Iowa,* 38–40, *asst. prof. psychol. and research assoc. neur, 40–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Physiological psychology; speech pathology; abnormal psychology.

Knott, Dr. J(oseph) C(arlton), State College of Washington, Pullman, Wash. *Dairy husbandry.* Tipton, Iowa, May 26, 93. B.S, State Col. Wash, 20, M.S, 30; Ph.D, Minnesota, 41. Dairy herdsman, *State Col. Wash,* 20–26, instr. dairy husbandry, 26–30, asst. prof, 30–36, assoc. prof, 36–40, prof, 40–42 asst. dairy husbandman, 30–36, assoc. dairy husbandman, 36–42. *director agr. exten, 42–* Dairy Sci. Asn. (director, 41); Soc. Animal Production. Dairy cattle feeding, breeding and management.

Knouff, Prof. R(alph) A(lbert), Ohio State University, Columbus, Ohio. *Anatomy.* Centerburg, Ohio, Aug. 13, 90. A.B, Ohio State, 15, A.M, 16; Ph.D, Chicago, 27. Asst. anat. and physiol, *Ohio State,* 14–15, physiol, 15–16, *anat,* 16–17, instr, 17–21, asst. prof, 21–28, assoc. prof, 28–31, *prof, 32–* A.A; Asn. Anat; Ohio Acad. Origin of cranial ganglia and early development of the nervous system.

Knower, Prof. Franklin H(ayward), State University of Iowa, Iowa City, Iowa. *Speech.* Viroqua, Wis, Dec. 15, 01. A.B, Northwestern, 25; A.M, Syracuse, 28; Ph.D, Minnesota, 33. Prof. *speech,* Hastings Col, 25–26; instr, Syracuse, 26–28; Minnesota, 28–36, asst. prof, 36–39; *assoc. prof, Iowa, 39–* Ed. board, 'Speech Monographs,' 36–; assoc. ed, 'Quart. Jour. Speech.' A.A; Psychol. Asn; Asn. Teachers Speech; Educational Research Asn; Cent. States Asn. Teachers Speech (pres, 38). Individual differences and social psychology in speech; test construction; speech education.

Knowler, Prof. Lloyd A, State University of Iowa, Iowa City, Iowa. *Actuarial science.* Hedrick, Iowa, Jan. 30, 08. A.B, Iowa, 32, M.S, 34, Ph.D, 37. Actuary, State Old Age Assistance Cmn, Iowa, 34–35; consulting actuary, State Old Age Assistance Dept, Mo, 35; instr, Hunter Col, 37–39; asst. prof. *math, Iowa,* 39–43, *assoc. prof, 43–* Summer, consulting actuary, State Old Age Assistance Cmn, Iowa, 36. Inst. Math. Statist; Statist. Asn; Math. Soc; Math. Asn; Iowa Acad. Social security legislation; retirement systems; statistics.

Knowles, Dewey D(eforest), Westinghouse Electric and Manufacturing Co, Bloomfield, N. J. *Electrical engineering.* LaGrange, Ohio, March 14, 99. A.B, Baldwin-Wallace Col, 22; B.S, Purdue, 23. Research engineer, Westinghouse Elec. and Mfg. Co, 24–30, head gaseous conduction sect, 30–36, electronic sect, 36–37; director research and special products eng, Raytheon Production Corp, 37–39; develop. ultraviolet sources, sterilamps, *Westinghouse Elec. and Mfg. Co,* 39–40, asst. manager special products eng. dept, 40–41, *manager special products research and develop, 42–* John Scott medal, 27. Elec. Eng; fel. Physical Soc. Grid glow tube; electronics; gaseous conduction; electricity in gases; control circuits.

Knowles, Prof. F(rank) E(lwood), Phillips University, Enid, Okla. *Physics.* Spencer, Iowa, Sept. 19, 72. Ph.B, Drake, 00, A.M, 04, 30; Chicago, 02–03, 05, 07; Iowa, 27, 28. Instr. math, Rugby, Chicago, 03; Oklahoma, 03–08, registrar, 08–10; instr, Washington (St. Louis), 10–11; asst. prof. *physics,* Oregon State Col, 19–20; *prof, Phillips, 20–,* asst. dean col. arts and sciences, 23–28, dean men, 28–39, *chairman lib. arts, 39–* A.A; Physical Soc; Asn. Physics Teachers; Okla. Acad. (v. pres, 26, pres, 32). Theoretical and experimental acoustics; laboratory physics.

Knowles, Prof. H(arold) L(oraine), University of Florida, Gainesville, Fla. *Physics.* Chicago, Ill, Aug. 21, 05. A.B, Phillips, 26; fellow, Kansas, 26–27, 28–29, Ph.D, 31. Asst. instr. *physics,* Kansas, 27–28, 29–31; instr, *Florida,* 31–35, asst. prof, 35–43, *assoc. prof, 43–* Physical Soc; Fla. Acad. Dielectric constants and electric moment of ethyl alcohol vapor; effect of conductivity upon the dielectric constant measurements.

Knowlton, Prof. A(nsel) A(lphonso), Reed College, Portland, Oregon. *Physics.* New Portland, Maine, Oct. 12, 76. A.B, Bates Col, 98; A.M, Northwestern, 03; Ph.D, Chicago, 10. Instr. *physics,* Carleton Col, 99–02; assoc. prof, Armour Inst. Tech, 03–09; Utah, 09–15; *prof, Reed Col, 15–* Chairman admin. cmt, Reed Col, 20–21. A.A; Physical Soc; Asn. Physics Teachers (v. pres, 38, 40, pres, 41); Utah Acad. Microstructure of magnetic alloys; electrification of snow flakes.

Knowlton, Archer E(ben), P. O. Box 213, Short Beach, Conn. *Electrical engineering.* New Haven, Conn, Feb. 16, 86. B.S, Trinity Col. (Conn), 10, M.S, 12; E.E, Yale, 21. Asst. prof. physics, Trinity Col. (Conn), 10–19; instr. and asst. prof. elec. eng, Yale, 20–27, assoc. prof, 27–30; *assoc. ed, 'Elec. World,' 30–* Ed. in chief, 'Standard Handbook for Elec. Engineers.' Fel. Elec. Eng. Utility economics and regulation; electrical measurements; electrical codes and standards; public utility technology.

Knowlton, Clarence Hinckley, Hingham, Mass. *Botany.* Farmington, Maine, Sept. 9, 76. A.B, Harvard, 99. Teacher, pub. schools, 99–06; *agent, D. C. Heath and Co, Boston, Mass, 06–* A.A; Fern Soc; New Eng. Bot. Club (v. pres, 17–20, pres, 25–28); Vt. Bot. Club; Josselyn Bot. Soc. Maine. Systematic botany and plant distribution in New England.

Knowlton, Dr. Frank P(attengill), 436 Salt Springs Road, Syracuse, N. Y. *Physiology.* Holland Patent, N. Y.

June 17, 75. A.B, Hamilton Col, 96; A.M, Michigan, 97; M.D, Syracuse, 00; Cambridge, 11; Univ. Col, London, 11, 12. Instr. physiol. and embryol, *col. med, Syracuse*, 97–00, lecturer *physiol*, 00–06, assoc. prof, 06–08, *prof, 08–* Instr, Marine Biol. Lab, Woods Hole, 09–26, trustee, 23– A.A; Physiol. Soc; Am. Med. Asn; Soc. Exp. Biol; London Physiol. Soc. Effect of temperature on growth; action of urea on the isolated heart; action of various salts on the selachian heart; physiology of the heart and circulation; physiology of the kidney; oxygen consumption and blood flow in the thyroid gland; physiology of crustacean muscle and nerve.

Knowlton, Prof. G(eorge) Clinton, 419 S. Summit St, Iowa City, Iowa. *Physiology.* Ireton, Iowa, Jan. 21, 06. A.B, Iowa, 29, M.S, 30, Ph.D, 34. Instr. *physiol, col. med, Iowa*, 30–36, assoc, 36–40, *asst. prof, 41–*; lieut, *Air Corps, U. S. Army*, 42–43, *capt, 43–* Commonwealth Fund fellow, 40–41. Soc. Exp. Biol; Physiol. Soc. Blood calcium; tissue oxidases; muscle atrophy.

Knowlton, Dr. George F(ranklin), Utah State Agricultural College, Logan, Utah. *Entomology.* Farmington, Utah, July 28, 01. B.S, Utah Col, 23, M.S, 25; Ph.D, Ohio State, 32. Asst. entomologist, *exp. sta, Utah State Col*, 26–30, assoc. entomologist, 30–38, *research assoc. prof. entom, 38–* V. chairman, Rocky Mountain Conf. Entomologists, 40. A.A; fel. Entom. Soc. Amer; Asn. Econ. Entom. (v. pres, 42; chairman Pacific Slope branch, 42); Soc. Ichthyol. and Herp; Entom. Soc. Wash; fel. Utah Acad. Systematic and economic entomology; morphology; reptile and bird food habits.

Knowlton, Dr. H(arry) E(dward), National Labor Relations Board, Boston, Mass. *Pomology, Plant physiology.* Fennville, Mich, May 1, 90. B.S, Mich. State Col, 12; Ph.D, Cornell, 20. Asst, bur. plant indust, U. S. Dept. Agr, 12; asst. entom, Illinois, 12–14; instr. bot, Cornell, 15–17; assoc. prof. hort. and assoc. horticulturist, West Virginia, 19–29, prof. and horticulturist, 29–36, head dept, 30–36; horticulturist, nat. research project, Works Project Admin, 36–37; *senior field examiner, Nat. Labor Relations Board, 37–* Field artil, U.S.A, 17–19. Peach and apple sterility; orchard fertilization; hardiness of plants; labor relations.

Knowlton, Dr. John W(ellington), U. S. Department of Agriculture, Peoria, Ill. *Physical chemistry.* New Bedford, Mass, Dec. 19, 07. B.S, George Washington, 34, M.S, Maryland, 38, Ph.D, 41. Anal. and physical chemist, Bur. Standards, 30–41; *physical chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. General physical chemistry; thermochemistry.

Knowlton, Dr. Kathryn, University of Chicago, Chicago, Ill. *Biochemistry.* Fargo, N. Dak, Jan. 20, 99. A.B, Oberlin Col, 21; M.S, Chicago, 23, Ph.D, 39. Instr. chem, Hollins Col, 23–25; research chemist, Maybury Sanatorium, 26–27; asst. biochem, Chicago, 28–30; chemist, Children's Mem. Hosp, 31–37; *asst. and instr, dept. med. and head med. chem. lab, Chicago, 37–* Chem. Soc. Biochemistry in tuberculosis; blood chemistry; metabolic response to steroid hormones.

Knowlton, Prof. Lawrence G(ane), Western Michigan College of Education, Kalamazoo, Mich. *Chemistry.* Fargo, N. Dak, March 19, 01. A.B, Oberlin Col, 23; Ph.D, Cornell, 27. Asst. *chem*, Cornell, 23–27; instr, Case, 27–29; *prof*, Olivet Col. (Mich), 29–41; *West. Mich. Col. Educ, 41–* Summer, Mich. State Nor. Col, Ypsilanti, 28. Chem. Soc. Physical chemistry; experiments on iron.

Knowlton, Dr. Millard, Connecticut State Department of Health, Hartford, Conn. *Medicine.* Colfax Co, Nebr, Feb. 18, 75. M.D, Indiana, 05; C.P.H, Harvard-M.I.T, 18. Teacher, rural schs, Ind, 96–01; private practise med, 05–10; educ. work, State Dept. Health, N. J, 11–15, chief bur. educ. and publicity, 15–17; chief bur. venereal diseases, State Board Health, Kans, 18–19; State Board Health, N. C, 19–21; acting asst. surgeon, U. S. Pub. Health Service and U. S. Veterans' Bur, 21–23; *director bur. preventable diseases, State Dept. Health, Conn, 23–* Summer, field asst, U. S. Fish Cmn, Lake Maxinkuckee, 00. Gold medal, Int. Expos. Hygiene, Lima, Peru, 13. A.A; Am. Med. Asn; Pub. Health Asn; Conn. Pub. Health Asn. Educational work in public health; the prevention of disease.

Knox, A(rthur) S(tewart), 65 Bromfield Road, West Somerville, Mass. *Paleobotany.* Charlestown, Mass, Jan. 10, 03. B.S, Tufts Col, 28, M.Ed, 39; A.M, Harvard, 30. Control chemist, Cities Service Ref. Co, 28–29; asst. miner. and geol, Tufts Col, 29–33, instr. geol. and paleont, 33–38; dean, Nature Inst, Ferry Beach Park Asn, 38–40; *research geol, Harvard, 41–* Mem, U. S. Geol. Surv, 39–40. A.A; Paleont. Soc; N. Y. Acad. Pleistocene and post-Pleistocene micropaleobotany.

Knox, Dr. Charles W(ebster), U. S. Department of Agriculture, Beltsville, Md. *Genetics.* Brooklyn, N. Y, Nov. 24, 96. B.S, Cornell, 21; M.S, Iowa State Col, 23, Ph.D, 27. Instr. poultry husbandry, Iowa State Col, 21–27, asst. prof. and asst. chief, 27–28, assoc. prof. and assoc. chief, 28–31; geneticist, *bur. animal indust, U. S. Dept. Agr*, 31–35, *senior geneticist, 35–* Genetic Asn; Soc. Animal Production; Poultry Sci. Asn; Int. Poultry Sci. Asn. Poultry breeding; genetics of plumage color in poultry; genetics of broodiness, maturity, egg size and adult size; genetics of resistance to disease and resistance to mortality; cross-breeding and inbreeding of poultry.

Knox, Dr. J(ames) H(all) Mason, Jr, 211 Wendover Road, Baltimore, Md. *Pediatrics.* Philadelphia, Pa, May 20, 72. A.B, Yale, 92, Ph.D, 94; hon. A.M, Lafayette Col, 96; M.D, Hopkins, 98; hon. Sc.D, Dickinson, 34. *Med. director, Thomas Wilson Sanitarium for Children, 00–*; asst. instr. and assoc. clin. pediat, Hopkins, 08–41, lecturer child hygiene, 24–41. Chief bur. child hygiene, State Dept. Health, Md, 22–Pres, Babies' Milk Fund Asn, Baltimore; chairman exec. cmt, Nat. Maternal and Child Health Council. Acad. Pediat; Pediat. Soc. (pres, 26); fel. Pub. Health Asn; Child Health Asn. (past pres); Board Pediat; hon. mem. Faculty Med, Lima, Peru. Child health; gastro-intestinal diseases of infants, especially infection with dysentery; Gaucher's disease; Bacillus welchii in the dejections of children; morbidity and mortality of the Negro infant; maternal and early infant mortality.

Knox, Prof. J(ohn) H(arvey), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Animal husbandry.* Geauga Co, Ohio. B.S, Ohio State, 21; M.S, Illinois, 24. Asst. *animal husbandry*, Illinois, 21–25, instr, 25–27; asst. prof, Agr. and Mech. Col. Texas, 27–28, assoc. prof, 28–35; *prof, N. Mex. Col, 35–* Cattle feeding; mineral feeding for range cattle; improving efficiency of range cattle by breeding; range revegetation.

Knox, Dr. John K(nox), Phillips Petroleum Co, Bartlesville, Okla. *Geology.* Fergus, Ont, Can, Aug. 14, 86. B.A, Toronto, 14; Ph.D, Chicago, 17. Field geologist, Geol. Surv. Can, 12–16; geologist, Roxana Petrol. Co, 17–18; asst. state geologist, Kans, 18–19; geologist, Whitehall Petrol. Corp, 20–23; consulting geologist, Denver, 23–25; chief geologist, *Phillips Petrol. Co*, 25–35, *research geologist, 35–* Petrography.

Knox, Prof. William Jacob, Jr, Talladega College, Talladega, Ala. *Physical chemistry.* New Bedford, Mass, Jan. 5, 04. B.S, Harvard, 25; M.S, Mass. Inst. Tech, 29, Ph.D, 35. Instr, J. C. Smith Univ, 25–28; Howard, 28–34; prof. and head dept. *chem*, Agr. and Tech. Col. N. C, 35–37; *prof, Talladega Col, 37–* Chem. Soc. Dissociation constants; absorption spectra.

Knudsen, Dr. Oran M(ilton), 206 Northlawn Ave, East Lansing, Mich. *Physical chemistry.* Provo, Utah, Nov. 14, 09. B.S, Wisconsin, 33; Ph.D, N. Y. Univ, 38. Teaching fellow chem, N. Y. Univ, 33–38; instr, Long Island, 39; asst. prof. chem. and biol, Jamestown exten, Alfred, 39–42; director, 41–42; *instr. chem, Mich. State Col, 42–* Chem. Soc. The persulfate-iodide reaction in aqueous solutions of low ionic strength.

Knudsen, Prof. Vern O(liver), University of California at Los Angeles, Los Angeles, Calif. ***Physics.* Provo, Utah, Dec. 27, 93. A.B, 15; Ph.D, Chicago, 22. Engineer, research labs, West. Elec. Co, N. Y, 18–19; asst. *physics*, Chicago, 20–22; asst. prof, *California at Los Angeles*, 23–27, assoc. prof, 27–34, *prof, 34–, chairman dept, 32–, dean grad. study, 34–* A.A.A.S. prize, 34. A.A; fel. Physical Soc; fel. Acoustical Soc. (v. pres, 29–31, exec. councilor, 31–33, pres, 33–35); Standards Asn. (chairman, cmt. on acoustical measurements and terminol). Physiological and architectural acoustics; sensibility of the ear; reverberation and the interfering effect of tones and noise upon speech reception; speech in auditoriums; hearing with sense of touch; sound insulation; acoustics of music rooms; absorption of sound in gases; architectural acoustics; resonance in rooms; audiometry.

Knudson, Prof. Arthur, Albany Medical College, Albany, N. Y. *Biochemistry.* Milwaukee, Wis, Aug. 13, 89. A.B, Mis-

souri, 12; Ph.D, Columbia, 15. Asst. biochem, Columbia, 12–14; adj. prof. physiol. chem, *Albany Med. Col, Union (N. Y)*, 14–15, assoc. prof. *biochem*, 15–21, *prof, 21–, assoc. dean, 43–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition. Metabolism in leukemia; metabolism of cholesterol and cholesterol esters; chemical assay of digitalis and strophanthus series; rickets; formation of vitamin D by cathode rays and ultra-violet radiation; exposure of animals to ultra-high frequency field; formation of vitamin D by monochromatic light and fate of vitamin D in animals.

Knudson, Dean Clarence M(ilton), University of Denver, Denver, Colo. *Chemical engineering.* Denver, Colo, Dec. 19, 00. B.S, Denver, 21, A.M, 22; Ph.D, Iowa, 24. Instr. *chem*, Denver, 21–22; asst, Iowa, 22–24; instr, Nebraska, 24–26; Colo. Sch. Mines, 26–27, asst. prof, 27–29; assoc. prof, *Denver*, 29–33, *prof, 33–, chairman dept. chem. eng, 38–, dean sch. eng, 41–, director eng, science and management war training program.* Summer, research chemist, Mid-Continent Petrol. Corp, 26. Chem. Soc. (v. chairman, Colo. sect, 28–30, chairman, 30–32, councilor, 32); Chem. Eng; Eng. Educ; Colo-Wyo. Acad. Electrometric titrations; adsorption; sugar technology; heat transfer and evaporation.

Knudson, Prof. Harold W(illiam), Concordia College, Moorhead, Minn. *Analytical chemistry.* Viroqua, Wis, Dec. 12, 12. A.B, St. Olaf Col, 34; J. T. Baker fellow, Wisconsin, 38–39, Ph.D, 39. Asst. limnol, Wisconsin, 36–38; *assoc. prof. chem, Concordia Col, 39–* Chem. Soc. Applied spectrophotometry.

Knudson, Prof. L(ewis), Cornell University, Ithaca, N. Y. ***§***Plant physiology.* Milwaukee, Wis, Oct. 15, 84. B.S.A, Missouri, 08; Ph.D, Cornell, 11. Asst. *plant physiol, Cornell*, 08, instr, 08–11, asst. prof, 11–16, *prof, 16–*, head dept. bot, 41. Lecturer, Madrid and Barcelona, 20, 21. Summers, Woods Hole, 10–12. Agr. exped, San Juan, P. R, 28. Soc. Nat; Bot. Soc; Soc. Espan. Hist. Nat. Tannic acid fermentation; growth; enzyme production; organic nutrition of green plants; orchid seed germination; symbiosis; x-rays; chloroplasts; plants as sources of rubber.

Knull, Prof. Josef N(issley), Ohio State University, Columbus, Ohio. *Entomology.* Harrisburg, Pa, Oct. 12, 91. B.S, Pa. State Col, 15; M.S, Ohio State, 24. Entomologist, State Bur. Plant Indust, Pa, 16–30; senior research entomologist, forest research inst, State Dept. Forests and Waters, Pa, 30–33; *asst. prof. zool. and entom. and curator insects, Ohio State, 34–* Entom. Soc. Amer; Asn. Econ. Entom; fel. Ohio Acad. Coleoptera, especially Cleridae; Elateridae; Buprestidae; Cerambycidae; Scolytidae.

Knutson, Dr. Herbert (Claus), Rhode Island State College, Kingston, R. I. *Zoology.* Crawfordsville, Iowa, Sept. 6, 15. A.B, Iowa Wesleyan Col, 36; fellow, Southern Methodist, 36–37, M.S, 37; Ph.D, Minnesota, 41. Instr. biol, Southern Methodist, 39–40; asst, Minnesota, 40–41; *instr. zool, R. I. State Col, 41–* Summer, aquatic biologist, div. game and fish, State Dept. Conservation, Minn, 41. Asn. Econ. Entom; Entom. Soc. Amer. Entomology; biology of mosquitoes; soil insects; Orthoptera.

Knutti, Dr. Ralph E(ddy), University of Southern California, Los Angeles, Calif. *Pathology.* Palo Alto, Calif, July 24, 01. A.B, West Virginia, 23, B.S, 26; M.D, Yale, 28. Asst. path, Vanderbilt, 28–29; house officer, Lakeside Hosp, Cleveland, 29–30; asst, Rockefeller Inst, 30–32; instr. *path*, Rochester, 32–35, asst. prof, 35–42; *asst. prof, Southern California, 42–* Director labs, Children's Hosp, Los Angeles, 42– A.A; Soc. Exp. Path. Rabies; lymphosarcoma; trachoma; Bartonella canis; bile pigments; plasma proteins; liver injury; protein metabolism; gum acacia.

Kobe, Prof. Kenneth A(lbert), University of Texas, Austin, Texas. *Chemical engineering.* Osakis, Minn, March 19, 05. B.S, Minnesota, 26, du Pont fellow, 28, M.S, 28, Ph.D, 30. Asst, Minnesota, 26, 27, 29; research chemist, du Pont Ammonia Corp, 30; instr. *chem. eng*, Washington (Seattle), 31–34, asst. prof, 34–39, assoc. prof, 39–41; *prof, Texas, 41–; major, Chem. Warfare Service, U. S. Army, 42–* Capt, C. W. Res. Chem. Soc; Chem. Eng. Gas chemistry; submerged combustion processes; utilization of natural resources and waste products.

Kober, Philip Adolph, Sherman Laboratories, Detroit, Mich. *Industrial chemistry.* Pittsburgh, Pa, Sept. 28, 84. Lehigh, 02–03, B.S, Harvard, 06. Chemist, U. S. Leather Co, 06; Roberts Chem. Co, 07; Rockefeller Inst, 07–08; expert analyst, Remsen Referee Board, 08–09, expert anal. chemist, 09–10; chemist, Harriman research lab, Roosevelt Hosp, 10–15; physiol. chemist, Dept. Health, N. Y, 16–19; chemist, E. R. Squibb and Sons, 19–20; pres, Kober Chem. Co, 20–25; *director* chem. and research labs, G. D. Searle and Co, Chicago, 25–35; *science, Sherman Labs, 37–* Chem. Soc; Physiol. Soc; Soc. Biol. Chem; Chemists' Club. Ammonia distillation; phenolphthalates; copper complexes of amino acids; polypeptids and proteases; nephelometry; arsphenamines; bismuth tartrates; mineralization.

Kobrak, Dr. H(einrich) G(uenther), 950 E. 59th St, Chicago, Ill. *Medicine, Physiology.* Berlin, Germany, March 19, 05. M.D, Munich, 28; Ph.D, Chicago, 37. Research assoc, Chicago, 34–42; *Med. Corps, U. S. Army, 42–* A.A; Am. Med. Asn; Acad. Otol; Acoustical Soc. Physiology and diseases of the ear.

Kobuski, Dr. Clarence E(mmeren), Arnold Arboretum, Jamaica Plain, Mass. *Botany.* Gloversville, N. Y, Jan. 9, 00. B.S, Cornell, 24; Rufus J. Lackland fellow, Mo. Bot. Garden, 24–27; M.S, Washington (St. Louis), 25, Ph.D, 27. Asst, *herbarium, Arnold Arboretum, Harvard*, 27–30, *asst. curator, 30–* Systematic botany; taxonomy and morphology of genera in Theaceae, Oleaceae, Verbenaceae and Acanthaceae.

Koch, Pres. Adolph M(eyer), 300 Verona Ave, Newark, N. J. *Psychology.* Austria, June 18, 08. A.B, George Washington, 30; A.M, Columbia, 31, Ph.D, 35; LL.B, St. John's, 37; J.D, St. Lawrence, 39. Research, Rockefeller Inst, 32–33; instr. psychol, Essex County Junior Col, 33–36; Yonkers Col, 36–37; prof. psychol. and asst. dean, *Essex Junior Col*, 37–38, dean, 38–39, *pres, 39–* Research, Columbia, 36. A.A; Psychol. Asn. Abnormal and clinical psychology; animal and experimental psychology; psychology of esthetics.

Koch, Dr. Edward William, University of Buffalo, Buffalo, N. Y. *Pharmacology.* Lawrenceburg, Ind, Jan. 8, 82. A.B, Indiana, 08, A.M, 09; M.D, Rush, Chicago, 11. Asst. physiol. and pharmacol, Indiana, 07–08, teaching fellow, 08–09, instr, 13–15; pharmacologist, Eli Lilly and Co, 15–18; *prof. pharmacol, dept. med, Buffalo, 18–, dean, 30–* A.A. Experimental therapeutics.

Koch, E(rnest) H(erman), Jr, 253 Cumberland St, Brooklyn, N. Y. *Mathematics.* Philadelphia, Pa, Sept. 7, 75. B.S, Pennsylvania, 97. Math. master, MacKenzie Sch, 01–04; instr. math, Pratt Inst, 04–13; High Sch. of Commerce, New York, 13–22; *dean, Brooklyn Tech. High Sch, 22–* A.A; Math. Soc; Eng. Educ. Engineering mathematics; generalization of human knowledge through mathematical conceptions.

Koch, Prof. F(red) C(onrad), 1534 E. 59th St, Chicago, Ill. ***§***Physiology, Physiological chemistry.* Chicago, Ill, May 16, 76. B.S, Illinois, 99; fellow, Chicago, 09–12, Ph.D, 12. Instr. chem, Illinois, 00–02; research chemist, Armour and Co, 02–09; asst. physiol. chem, *Chicago*, 09–12, instr, 12–13, asst. prof, 13–19, assoc. prof, 19–23, prof, 23–41, acting chairman dept, 19–26, chairman dept. physiol. chem. and pharmacol, 26–36, dept. *biochem*, 36–41, *Frank P. Hixon distinguished service emer. prof, 41–; research biochemist, Armour and Co, 41–* Cmn. on biol. standardization sex hormones, League Nations, London, 35. Int. Cong. Sex Research, London, 30; Pan-Am. Cong. Endocrinol, Montevideo, 41. A.A; Soc. Biol. Chem. (sec'y, 26); Chem. Soc; Soc. Exp. Biol; Am. Med. Asn; Asn. Study Int. Secretions (pres, 37); Inst. Med. Chicago; hon. for. mem. Acad. Nacional de Med. Buenos Aires. Secretins; gastrin; histamine; thyroid hormone; sex hormones; phospholipins; enzymes; blood chemistry; sterols; vitamin D; pituitary hormones.

Koch, Mrs. Fred Conrad (Dr. Elizabeth Miller), 1534 E. 59th St, Chicago, Ill. *Biochemistry.* Winneconne, Wis, July 19, 85. Ph.B, Chicago, 14, A.M, 15, Ellen H. Richards fellow, 18–20, Ph.D, 20. Instr. home econ. Chicago, 14–17; assoc. prof, Iowa State Col, 17–18, prof, 20–21; research assoc. pharmacol. and pediat, col. med, Illinois, 24–26; research instr. biochem, Chicago, 26–41. Yeast and animal nutrition; sterols; vitamins.

Koch, Dr. George P(eters), Shell Oil Co, Inc, 50 W. 50th St, New York, N. Y. *Chemistry.* Elma, Wash, April 26, 90. B.S, State Col. Wash, 13; M.S, Minnesota, 14; fellow, Rutgers, 14–17, Ph.D, 17. Agr. chemist and bacteriologist, H. K. Mulford Co, 17–20; chief research chemist, Shell Co. of Calif, 22–28, chief anal. chemist, 29–36, in charge tech. educ. dept, 29–37; director educational dept, Shell Union Oil Corp, 37–42;

supervisor training and educ, Shell Oil Co, Inc, 42– Inst. Chem. Petroleum production, manufacturing and marketing.

Koch, Prof. Helen L(ois), University of Chicago, Chicago, Ill. *Psychology.* Blue Island, Ill, 95. Ph.B, Chicago, 18, fellow, 19–21, Ph.D, 21. Instr. educ. psychol, Texas, 21–22, adj. prof, 23–26, assoc. prof, 26–28, prof, 28–30, grad. prof, 30; *prof. child psychol, dept. home econ, Chicago, 30–, coordinator, univ. nursery sch, 34–* Summers, lecturer, Chicago, 27– A.A; Psychol. Asn; Asn. Applied Psychol; Psychometric Soc; Soc. Study Educ; Soc. Research Child Develop. (exec. cmt); Ill. Soc. Consulting Psychol. (sec'y, 36–40, pres, 40); Chicago Psychol. Club (sec'y, 34, pres, 37); Chicago Asn. Child Study and Parent Educ. (v. pres, 34–37). Child, educational, social and experimental psychology.

Koch, Prof. John R(alph), Marquette University, Milwaukee, Wis. *Chemistry.* Janesville, Wis, Sept. 23, 98. B.S, Wisconsin, 20, M.S, 22, Ph.D, 24. Asst. to Prof. Louis Kahlenberg, Wisconsin; research lacquers, Sherwin-Williams Co, 24–25; *prof. org. and physical chem, Marquette, 25–, head dept, 26–* Chem. Soc. (chairman Milwaukee sect, 38). Osmosis and dialysis; lacquers; electrochemistry; biochemistry; resins; waxes; enzymes.

Koch, Prof. Julius A(rnold), 1431 Blvd. of the Allies, Pittsburgh, Pa. *Pharmaceutical chemistry.* Bremen, Germany, Aug. 15, 64. Ph.G, Pittsburgh, 84, Phar.D, 95; Munich, 96; Heidelberg, 97; Ph.D, Scio, 05; Sc.D, Washington and Jefferson Col, 07. *Prof. pharmacy, Pittsburgh, 91–99, chem. and dean col. pharmacy, 99–,* prof, med. sch, 00–12. Revision cmt, U. S. Pharmacopoeia, 10–20. Pharmaceut. Asn. (ed, 'Year Book,' v. pres, 04, councilor, 08–, pres, 23); Am. Conf. Pharmaceut. Faculties (chairman, exec. cmt, 07–19); Pa. Pharmaceut. Asn. (pres, 07); British Pharmaceut. Conf; Deuts. Chem. Gesell. Synthesis of aromatic aldehydes.

Koch, Dr. Karl (Lee), Box 865, Presque Isle, Maine. *Plant pathology.* Seward, Nebr, Oct. 5, 03. B.S, Nebraska, 28, M.S, 29; Ph.D, Wisconsin, 32. Asst. plant pathologist, Nebraska, 27–29; research assoc, Wisconsin, 32–34; *plant pathologist, East. States Farmers Exchange, 34–* The nature and transmission of virus diseases of the potato.

Koch, Dr. L(yle) W(ard), Laboratory of Plant Pathology, Harrow, Ont, Can. *Plant pathology.* Durham, Ont, April 26, 05. B.A, Queen's (Can), 26, fellow, 26–27; M.A, Toronto, 28, Nat. Research Council Can. scholar, 28–29, Ph.D, 31. Asst, Toronto, 27–28; asst. plant pathologist, *field lab. plant path, Can. Dept. Agr,* 29–39, *plant pathologist in charge, 39–* Phytopath. Soc; Can. Phytopath. Soc. Canadian Rotifera; spur blight of raspberries in Ontario caused by Didyella applanata; black-knot of plums and cherries in Canada; root-rots and other diseases of tobacco; ear rots and other diseases of corn; diseases of soybeans.

Koch, Mathilde L(ouise), Edgewood School, Greenwich, Conn. *Biochemistry.* St. Louis, Mo, June 30, 80. B.S, Chicago, 10, M.S, 12; scholar, Yale, 22–23. Asst, Chicago, 10–13; special asst. expert, hygienic lab, U. S. Pub. Health Service, 14–15; special asst, Psychiat. Inst, N. Y. State Hosps, 15–19; assoc, sch. hygiene and pub. health, Hopkins, 20–22; *head dept. science, Edgewood Sch, 23–* A.A; Soc. Exp. Biol. Chemistry of the central nervous system during growth and development.

Kochakian, Dr. Charles D(aniel), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Physiology.* Haverhill, Mass, Nov. 19, 08. A.B, Boston, 30, A.M, 31; fellow, Rochester, 33–36, Ph.D, 36. Instr. *vital econ, sch. med. and dentistry, Rochester,* 36–40, *assoc, 40–* A.A; Chem. Soc; Physiol. Soc; Soc. Exp. Biol; Soc. Study Int. Secretions. Endocrinology; metabolism; steroids.

Kocher, Dr. Rudolph A(lfred), Bushnell General Hosp, Brigham, Utah. *Medicine.* San Jose, Calif, Nov. 4, 88. A.B, Stanford, 08; M.D, Hopkins, 12; Munich, 12–14. Instr. research med, California, 14–16; director, Grace Deere Velie Metabolic Clinic, Ltd, Calif, 29–41; *major, Med. Corps, U. S. Army, and asst. chief med. service, Bushnell Gen. Hosp, 41–* Soc. Exp. Biol; Soc. Biol. Chem; Chem. Soc. Protein metabolism in fever; effects of exercise on protein metabolism; intermediate metabolism of protein.

Koehler, Dr. Alfred E(dward), Santa Barbara, Calif. *Internal medicine.* Manitowoc, Wis, Aug. 31, 96. B.S, Wisconsin, 18, M.S, 19, Ph.D, 21; M.D, Harvard, 24. Physician and research assoc, Henry Ford Hosp, 25–28; instr. med, Chicago, 28–29, asst. prof, 29–31; *physician, Sansum Clinic and Santa Barbara Cottage Hosp, 31–* Soc. Biol. Chem; Soc. Exp. Biol; Soc. Study Int. Secretions (v. pres, 30). Energy metabolism and nutrition.

Koehler, Arthur, 109 Chestnut St, Madison, Wis. *Forestry.* Manitowoc Co, Wis, June 4, 85. B.S, Michigan, 11; M.S, Wisconsin, 28. *Research wood structure, U. S. Forest Service, 11–, in charge sect. silvicultural relations, Forest Products Lab.* Lecturer, Wisconsin. Assoc. ed, 'Jour. Forestry,' 30–34. A.A; Soc. Foresters (pres, Madison sect, 28); Int. Asn. Wood Anat. (councilor). Growth, structure, identification, properties and utilization of wood.

Koehler, Dr. Benjamin, University of Illinois, Urbana, Ill. *Plant pathology.* Mishicot, Wis, May 17, 90. A.B, Lawrence Col, 17; M.S, Wisconsin, 20, Ph.D, 25. Asst. pathologist, office cereal investigations, U. S. Dept. Agr, 19–24; asst. chief *field crop path, Illinois,* 24–37, *chief, 37–* Phytopath. Soc. Corn root, ear and stalk rot diseases; pathology of farm crops.

Koehler, Dr. Fulton, Route 2, Hopkins, Minn. *Mathematics.* Minneapolis, Minn, Feb. 22, 15. A.B, Minnesota, 36, A.M, 37, Ph.D, 39. Instr. *math, Minnesota,* 39–40, *lecturer, inst. tech, 42–* Math. Soc; Math. Asn. Orthogonal polynomials in two real variables.

Koehler, Prof. James F(rederic), 98 N. Elm St, Northampton, Mass. *Physics.* Chicago, Ill, Oct. 21, 04. B.S, Princeton, 26, A.M, 29, Ph.D, 34. Instr. *physics,* Lafayette Col, 26–27; Princeton, 27–28; prof, Presb. Col. (S. C), 30–31; asst. prof, *Smith Col,* 32–37, *assoc. prof, 37–* Physical Soc. Fluorescence.

Koehler, Dr. James (Stark), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Oshkosh, Wis, Nov. 10, 14. B.Ed, Wis. State Teachers Col, 35; Ph.D, Michigan, 40. Rackham fellow, Michigan, 40–41; Westinghouse research fellow, 41–42; *instr. physics, Carnegie Inst. Tech, 42–* Effects of internal rotation on molecular spectra; plastic deformation of solids.

Koehler, Dr. W(alter) A(llos), West Virginia University, Morgantown, W. Va. *Ceramics, Chemical engineering.* Mishicot, Wis, March 25, 93. B.S, Wisconsin, 19, Ch.E, 20, Ph.D, 24; M.S, Illinois, 22. Research chemist, Carborundum Co, Niagara Falls, 20–21; from instr. to *prof. chem. eng, West Virginia, 24–,* acting head dept, 38–40, acting director eng. exp. sta, 38–40. Ceramic Soc; Chem. Soc; Electrochem. Soc; Chem. Eng; Eng. Educ. Electrochemistry; corrosion; drying; applications of electrochemistry.

Koehn, Prof. C(arl) J(ames), Alabama Polytechnic Institute, Auburn, Ala. *Biochemistry, Nutrition.* Madison, Wis, Dec. 3, 10. B.S, Wisconsin, 32, M.S, 34, Ph.D, 36. Asst. biochem, Wisconsin, 32–36, research assoc, 36; *assoc. animal nutritionist, Exp. Sta, Ala. Polytech, 36–, assoc. prof, animal nutrition inst, 40–* The vitamin A content and means of increasing the vitamin A content of dairy products; vitamin content of vegetables preserved in various ways.

Koehne, Dr. Martha, 75 18th Ave, Columbus, Ohio. *Nutrition.* Ohio, July 21, 84. A.B, Ohio State, 08, A.M, 10; Ph.D, Yale, 28. Chemist and chief chemist, State Dept. Health, Ohio, 11–18; instr. biochem, sch. hygiene and pub. health, Hopkins, 18–20; asst. prof. home econ, Washington (Seattle), 20–25; med, Columbia, and director dept. nutrition, Presb. Hosp, New York, 27–28; assoc. prof. and prof. home econ, Tennessee, 28–30; research assoc. nutrition, dept. med. dental sch, Michigan, 30–35; specialist, bur. home econ, U. S. Dept. Agr, 35–36; *nutritionist, State Dept. Health, Ohio, 36–* Dietetic Asn. (v. pres, 28–30, pres, 31). Etiology of dental caries; dietetics.

Koehring, Dr. Vera, Hunter College, 68th St. and Park Ave, New York, N. Y. *Biology.* Indianapolis, Ind, Aug. 1, 96. A.B, Butler, 16; fellow, Smith Col, 23–24, A.M, 24; fellow, Pennsylvania, 27–28, Ph.D, 29. Teacher, P. I, 18–21; instr. zool, Butler, 22–23; Smith Col, 24–27; prof. biol, Beaver Col, 29–31; assoc. aquatic biologist, Bur. Fisheries, 31–35; research, New Eng. Deaconess Hosp, 35–37; *instr. biol, Hunter Col, 37–* Vital staining; narcosis.

Koelsch, Prof. C(harles) Frederick, University of Minnesota, Minneapolis, Minn. *Chemistry.* Boise, Idaho, Jan. 31, 07. B.S, Wisconsin, 28, du Pont fellow, 30, Ph.D, 31. Instr. *chem,* Illinois, 31–32; nat. research fellow, Harvard, 32–33; asst. prof. *org. chem, Minnesota,* 33–37, *assoc. prof, 37–* Langmuir award, 34. Chem. Soc. Organic chemistry.

Koelz, Dr. Walter (Norman), University of Michigan, Ann Arbor, Mich. *Ichthyology, Ornithology.* Waterloo, Mich, Sept. 11, 95. A.B, Olivet Col. (Mich), 15; A.M, Michigan, 17, Ph.D, 20. Instr. German, Olivet Col. (Mich), 15; sci. investigator, Bur. Fisheries, 19–27; Lloyd fellow, Michigan, 28–29, asst. curator fish, 29; fisheries investigator, Dept. Conservation and Inst. Fish Research, 30; botanist, Roerich Museum, India, 30–32; *hon. collaborator Asiatic research, Michigan, 30–* Freer fellow, Michigan, 32–33. Summer, instr, Michigan, 17. Naturalist, MacMillan Arctic exped, 25. Fisheries industry; coregonid fishes of North America; oriental art; ethnobotany; Asiatic ornithology.

Koenig, Dr. Adolphus, 250 S. Evaline St, Pittsburgh, Pa. *Physiology.* Pittsburgh, Pa, Sept. 6, 96. B.S, Pittsburgh, 20, M.D, 21. Instr. physiol. and pharmacol, *Pittsburgh,* 22–26, *dept. med,* 26–31, *asst. prof. med,* 32–, *instr. physiol. and pharmacol, 42–; practising physician,* 21–35; *internal med, 35–;* fellow, Mellon Inst, 33–35; *senior staff, Presb. Hosp, 35–* Am. Med. Asn; Heart Asn. Narcosis; mechanism of the heart beat; heart diseases and electrocardiography; medical uses of sodium hexametaphosphate; liver extract in hypertension; treatment for nonspecific enteritis; heart sound tracings with electrocardiogram.

Koenig, Prof. A(lfred) E(dward), Montana School of Mines, Butte, Mont. *Chemistry.* Howard Lake, Minn, May 30, 82. A.B, Macalester Col, 04; A.M, Wisconsin, 10, Ph.D, 12. Teacher, high schs, Minn. and Oregon, 04–08; asst. and instr. *chem,* Wisconsin, 08–16, asst. prof, 16–20; assoc. prof, *Mont. Sch. Mines,* 20–23, *prof, 23–* A.A; Chem. Soc. (sec'y, Wis. sect, 14, 16, chairman, 19, Mont. sect, 31); Electrochem. Soc; Mont. Soc. Eng. Electrochemistry.

Koenig, Prof. Frederick (Otto), 1945 Cowper St, Palo Alto, Calif. *Physical chemistry.* New York, N. Y, Oct. 15, 02. A.M, Harvard, 22; Ph.D, Munich, 29. Nat. research fellow, 30–31; instr. *chem,* California, 31; *Stanford,* 31–36, asst. prof, 36–38, assoc. prof, 38–43, *prof, 43–* A.A; Chem. Soc; Hist. Sci. Soc. Thermodynamics; the electrocapillary curve and the electrolytic double layer; effects of external fields on electromotive force; history of science.

Koenig, Dr. Virgil L(e Roy), 5621 Woodlawn Ave, Chicago, Ill. *Biochemistry.* Kansas City, Mo, Oct. 10, 13. A.B, Univ. Kansas City, 36; fellow, Okla. Agr. and Mech. Col, 36–37, M.S, 38; grad. scholar, Colorado, 38–39, Ph.D, 40. Chief chemist, State Board Agr, Okla, 37–38; asst, Colorado, 39–40; research fellow, Minnesota, 40–41; *research biochemist, Armour Labs, 41–* A.A; Chem. Soc. Oat flour and oat flour extracts as oxidants for food products; the ovarian-thyroid relationship; iodine determinations; stilbestrol; colorimetric reaction for testosterone; intermediary metabolism of sex hormones; pharmaceuticals.

Koepfli, Dr. J(oseph) B(lake), 955 Avondale Road, San Marino, Calif. *Chemistry.* Los Angeles, Calif, Feb. 5, 04. A.B, Stanford, 23, A.M, 25; Ph.D, Oxford, 28. Fellow, Calif. Inst. Tech, 29–30; instr. pharmacol, sch. med, Hopkins, 30–32; *research assoc. chem, Calif. Inst. Tech, 32–* A.A; Chem. Soc. Alkaloids; hormones.

Koepke, Prof. C(harles) A(ugustus), 2303 Folwell St, St. Paul, Minn. *Mechanical engineering.* Garrett, Ind, Nov. 7, 93. B.S. Purdue, 20; M.S, Colorado, 28. Instr. mech. eng, Lewis Inst. (Ill), 20–21; math, Colorado, 22–23; asst. supt. methods and standards dept, Studebaker Corp, Ind, 23–25; asst. prof. mech. eng, Wyoming, 25–29; assoc. prof. and supt. eng. shops, indust. eng. branch, *Minnesota,* 29–37, *prof. indust. eng. and admin. asst, inst. tech, 37–* Mech. Eng. (sec'y-treas, St. Paul sect); Eng. Educ. Industrial engineering; motion.

Koeppe, Dr. Clarence E(ugene), Southwest Missouri State Teachers College, Springfield, Mo. *Climatology.* Nunda, N. Y, Aug. 8, 91. B.S, Colgate, 14; A.M, Clark, 27, Ph.D, 29. Teacher, pub. schs, Pa, 14–20; prin, high sch, N. Y, 20–24; rep, Benjamin H. Sanborn and Co, 24–26; *prof. geog, Southwest Mo. State Teachers Col, 29–; lieut. col, U. S. Army.* Summers, Clark, 28–31. Meteorol. Soc. Canadian climate; weather and climate; fundamentals of climate; regional map of climates of the world; earth and sun relations.

Koerner, Dr. Harold E(lton), Lafayette College, Easton, Pa. *Geology.* Freeport, Ill, March 2, 05. A.B, Colorado, 29, A.M, 30; Ph.D, Yale, 39. Asst. *geol,* Colorado, 29–30; instr, *Lafayette Col,* 30–33, 35–39, *asst. prof, 39–* A.A; Paleont. Soc; Soc. Vertebrate Paleont; Pa. Acad. Vertebrate paleontology; stratigraphy; sedimentation.

Koerth, Dr. Wilhelmine, 3452 S. W. Falcon St, Portland 1, Oregon. *Psychology.* Boyne Falls, Mich, Oct. 29, 89. A.B, Iowa, 19, A.M, 20, Ph.D, 22. Teacher, pub. sch, Mich, 08–09, 10–12; Oregon, 14–17; asst. psychol, Iowa, 19–20, asst. to dean col. lib. arts, 20–22, asst. to registrar, 22–23; instr. psychol, Strong Mem. Hosp. Training Sch. for Nurses, Rochester, 26–32; *consulting psychologist, 33–* N. Y. Asn. Applied Psychol. Eye-hand coordination; measurement of intelligence and of musical talent; mental concomitants of specific diseases; psychology in nursing; controlling human behavior; psychology in education; gerontology.

Koffolt, Prof. Joseph H(oward), 214 W. Cooke Road, Columbus, Ohio. *Chemical engineering.* Cleveland, Ohio, March 19, 02. B.Ch.E, Ohio State, 24, M.S, 29, Ph.D, 31. Chem. engineer and asst. head bleach dept, Indust. Rayon Corp, Cleveland, 24–26; head bleach, finishing and shipping depts, Skenndoa Rayon Corp, 26–28; instr. *chem. eng, Ohio State,* 31–32, asst. prof, 32–36, assoc. prof, 36–40, *prof, 40–* Eng. Educ. (chairman chem. eng. div, 39); Chem. Eng; Chem. Soc. (sec'y, Columbus sect). Evaporation; crystallization; distillation; extraction; drying rayon; salt; graphical computations.

Kofoid, Prof. Charles A(twood), University of California, Berkeley, Calif. **1Zoology.* Granville, Ill, Oct. 11, 65. A.B, Oberlin Col, 90, Sc.D, 15; A.M, Harvard, 92, Ph.D, 94; Smithsonian table, Naples Zool. Sta, 09; D.Sc, Wales, 20; LL.D, California, 37. Instr. vert. morphol, Michigan, 94–95; supt. biol. exp. sta, Illinois, 95–00; asst. prof. zool, 97–00; histol. and embryol, *California,* 00–04, assoc. prof, 04–10, prof. *zool,* 10–36, *emer. prof, 36–* Asst. director, San Diego Marine Biol. Sta, 07–10; Scripps Institution, California, 10–23; State Fish Cmn, Mich, 94. Assoc. ed, 'Am. Naturalist,' 97–09; zool. ed, 'Jour. Applied Micros,' 00–03; ed, 'Univ. Calif. Pub. Zool,' 08–36; 'Int. Rev. Hydrol,' 10–; 'Zool. Acta,' 20–; 'Jour. Morphol,' 20–23; 'Am. Jour. Hygiene,' 20–; 'Jour. Parasitol'; 'Biol. Abstracts.' Supt, Ill. Nat. Hist. Surv, 98–00. Agassiz exped, south. Pacific, 04–05. Diploma, Paris Expos, 00; gold medal, La. Purchase Expos, 04; Pan-Pacific Expos, 15; Alexander Dallas Bache grant, Nat. Acad. Sciences, 32. Nat. Acad; A.A; Soc. Nat; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Ecol. Soc; Entom. Soc; Eugenics Soc; Pub. Health Asn; Soc. Trop. Med; Micros Soc; Philos. Soc; Am. Acad; Acad. Trop. Med; Calif. Acad; Wash. Acad; Acad. Nat. Sci. Phila; Royal Soc. Trop. Med. and Hygiene; Soc. de Path. exot; Acad. Biol. appliquée, Paris. Plankton; morphology and taxonomy of Protozoa; embryology of Mollusca; plankton of Illinois River; protozoology; parasitology; marine zoology; amoebiasis; history of science.

Kogbetliantz, Dr. Ervand, Lehigh University, Bethlehem, Pa. *Mathematics.* Nakitshevan, Russia, Feb. 9, 88. M.S, Paris, hon. D.Sc, 23; Moscow. Privat-docent math, Moscow, 14–18; assoc. prof, Ekaterinodar Polytech. Inst, 18–20; prof, Erivan Univ, 20–21; lecturer, Sorbonne, Paris, 21–27; manager, Soc. Geophys. Surveying, 27–33; prof. math, Teheran Univ, 33–38, applied geophys, 36–38; *instr. math, Lehigh, 42–* Soc. math. de France. Applied geophysics; divergent series and integrals; orthogonal functions and polynomials; geological interpretation of physical anomalies and maps.

Kohl, Dr. E(dwin) J(acob), Ripon, Wis. *Botany.* Myerstown, Pa, April 27, 93. B.S, Albright Col, 15; M.S, Purdue, 19; Ph.D, Wisconsin, 29. Teacher, high sch, Pa, 15–16; asst. instr. gen. biol, Purdue, 16–19, instr, 19–21, bot, 21–25, asst. prof, 25–33, assoc. prof, 33–41; *Triarch Botanical Products, 41–* Summers, instr, Hopkins, 19, 20. Bot. Soc; Phytopath. Soc; Ind. Acad. Morphology; microtechnique; photography.

Kohl, Dr. Mathias F(ranz) F(rederick), Strong Memorial Hospital, Rochester, N. Y. *Biochemistry, Pharmacology.* Detroit, Mich, Aug. 16, 11. B.S, Mt. Union Col, 33; Ph.D, Rochester, 38; M.D, Washington (St. Louis), 41. Asst. biochem. and pharmacol, sch. med, Rochester, 34–38; asst. pharmacol, sch. med, Washington (St. Louis), 38–41; *intern surg, obstet. and gynec, Strong Mem. Hosp, 41–* Elaidic acid metabolism; sulfonamides.

Kohl, Dr. W(alter) H(einrich), 115 Constance St, Toronto, Ont, Can. *Electronics.* Kitzingen, Bavaria, Germany, Jan. 22, 05. Dr.Ing, Tech. Hochschule, Dresden, 30, Dipl. Ing, 28. *Research and develop. engineer, Rogers Radio Tubes Ltd, 30–* Special lecturer, Toronto, 35–40. Radio Eng. (chairman To-

ronto sect, 37). Cathode ray tubes; luminescent screens; glass-metal seals; thermionic emission; electron microscope.

Kohl, Rev. Walter J, 321 Lake Ave, Rochester, N. Y. *Education, Psychology.* Rochester, N. Y, May 19, 97. A.B, St. Bernard's Sem. and Col, 22; Loyola (Ill), 25; A.M, St. Bonaventure Col, 31, Ph.D, 35. Instr. physical sciences, high sch, N. Y, 22–25; director dept, Aquinas Inst, 25–30; *head dept. science and director studies, St. Andrew's Sem, 30–* Prof, Mercy Nor. Sch, 37–38, 39–40. A.A; Chem. Soc; Soc. Study Educ; Genetic Asn. Science curriculum in the seminary.

Kohler, Dr. George O(scar), 5913 Buena Vista, Mission, Kans. *Biochemistry, Nutrition.* Milwaukee, Wis, April 9, 13. B.S, Wisconsin, 34, M.S, 36, Ph.D, 38. Asst, Wisconsin, 34–39; *lab. director, Cerophyl Labs, Inc, 39–* A.A; Chem. Soc. Plant chemistry; utilization of iron and copper in cure of anemia; nutritive studies on goat's milk; grass juice factor; metabolism of chlorophyll; isolation and fractionation of chloroplast pigments; poultry nutrition.

Kohler, Dr. Wolfgang, Swarthmore College, Swarthmore, Pa. ****Psychology.* Reval, Esthonia, Jan. 21, 87. Ph.D, Berlin, 09. Asst, Frankfurt-am-Main, 10, privat-docent, 11; director, Anthropoid Sta, Tenerife, 13–20; prof. psychol, Göttingen, 21; philos. and director psychol. inst, Berlin, 22–35; *prof. psychol, Swarthmore, 35–* Psychol. Asn; Soc. Exp. Psychol; Philos. Soc. Perception; animal psychology; memory; problems of psychophysics; problems of natural philosophy.

Kohls, Glen M(ilton), U. S. Public Health Service, Hamilton, Mont. *Entomology.* Vesta, Minn, Oct. 23, 05. B.S, Mont. State Col, 29; M.S, Minnesota, 37. Lab. asst, State Board Entom, Mont, 27–28, asst. entomologist, 29–31; *U. S. Pub. Health Service,* 31–41, *assoc. entomologist, 41–; capt, Sanit. Corps, U. S. Army, 43–* Asn. Econ. Entom; Soc. Parasitol. Medical entomology; ticks; Siphonaptera.

Kohman, Dr. Edw(ard) F(rederick), Campbell Soup Co, Camden, N. J. *Chemistry.* Dillon, Kans, Jan, 85. A.B, Kansas, 12; Ph.D, Yale, 15. Assoc. dairy chem, Illinois, 15–17; org. and physiol. chemist, bur. chem, U. S. Dept. Agr, 17–18; *research chemist,* Nat. Canners Asn, 19–37; *Campbell Soup Co, 37–* Lieut, Sanit.C, 18–19. Chem. Soc. Food and dairy chemistry; poultry nutrition and metabolism; effect of carbon dioxide on metabolism; cause of vitamin C destruction in cooking; preservation of vitamins in canned foods; phenolchlorine water contamination; oxygen and other corrosive agents in canned foods; electrochemical relationship of tin and iron; tin-iron alloy in tin plate; calcifying principle in foods; calcium availability; volatile constituent of onion.

Kohman, Dr. G(irard) T(heodore), 133 Ashland Road, Summit, N. J. *Physical chemistry.* Dillon, Kans, Nov. 28, 97. B.S, Kansas, 20; Ph.D, Yale, 23. *Research chemist, Bell Tel. Labs, 23–* Chem. Soc. Solubility relations in ternary systems of O-M-P isomers; absorption of water by rubber; oxidation of organic materials; impregnated paper; dielectrics.

Kohman, Dr. H(enry) A(dolph), Mellon Institute, Pittsburgh, Pa. *Chemistry, Bacteriology.* Dillon, Kans, Jan. 30, 81. A.B, Kansas, 08, fellow, 08–11, Ph.D, 11. *Fellow and research chemist, Mellon Inst, 11–* Lecturer, Pittsburgh, 11–12. Chem. Soc. Salt-raising bread; yeast nutrients; fermentation; flour.

Kohn, Dr. Hedwig, Wellesley College, Wellesley, Mass. *Physics.* Breslau, Germany, April 5, 87. Ph.D, Breslau, 13. Asst. and privat-docent *physics,* Breslau, 14–34; *instr,* Woman's Col, North Carolina, 40–42; *Wellesley Col, 42–* Research, Lichtklinatisches Observatorium, Switzerland, 35. Summer, research, Duke, 41, 42. Physical Soc. Optics, particularly radiation; photometric and energetic radiation measurements; radiation qualities of matter and illuminating engineering; thermic and spectroscopic problems; atomic physics; pyrometry.

Kohn, Prof. Henry I(rving), Duke University School of Medicine, Durham, N. C. *Physiology, Pharmacology.* New York, N. Y, Aug. 19, 09. A.B, Dartmouth Col, 30; Ph.D, Harvard, 35. Gen. Educ. Board fellow, Stockholm and Cambridge, 35–37; instr. *physiol. and pharmacol, sch. med, Duke,* 37–40, assoc, 40–41, *asst. prof, 41–* Physiol. Soc. Mode of action of drugs and vitamins.

Kohn, Dr. Lawrence A(lbert), 176 S. Goodman St, Rochester, N. Y. *Medicine.* New York, N. Y, June 19, 94. A.B, Williams Col, 14; M.D, Hopkins, 23. Asst. bacter, research lab, Dept. Health, New York, 14–17; intern, Hopkins Hosp, 23–24; asst. res. physician, Peter Bent Brigham Hosp, Boston, 24–25; instr. *med, Rochester,* 25–30, asst. prof, 30–41, *assoc. prof, 41–* Res. physician, Strong Mem. Hosp, Rochester, 25–27. Gout; pneumonia; heart disease.

Kohnke, Dr. Helmut, U. S. Department of Agriculture, Lafayette, Ind. *Agronomy.* Rostov, Russia, Aug. 6, 01. B.Sc, Berlin, 25, Dr.Agr, 26; M.Sc, Alberta, 32; scholar, Ohio State, 32–34, Ph.D, 34. Exten. agronomist, Germany, 26–27; instr. German, Alberta, 29–30; soil surveyor, *soil conservation service, U. S. Dept. Agr,* 34–35, *in charge soil dept,* North. Appalachian watershed exp. sta, 35–39, *Ind. agr. hydrol. studies, 39–* Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Soil fertility; soil erosion; run-off chemistry; soil hydrology.

Kohs, Dr. S(amuel) C(almin), 3200 California St, San Francisco, Calif. *Psychology.* New York, N. Y, June 2, 90. B.S, Col. City of N. Y, 12; fellow, Training Sch, Vineland, N. J, 12–14; Clark, 13–14, A.M, 14; Chicago, 16; fellow, Stanford, 16–18, Ph.D, 19. Director clinic, children's inst, Clark, 13–14; psychopathic lab, Chicago House of Correction, 14–16; asst. prof. psychol, Reed Col, 18–19, 21–23; psychologist, court of domestic relations, Portland, 19–23; exec. director, Oakland Jewish Federation, 23–25; director social service, Eureka Benevolent Soc, 25–28; exec. director, Brooklyn Federation Jewish Charities, 28–31; prof. social technol, Grad. Sch. Jewish Social Work, 31–42; *director bur. war records, Nat. Jewish Welfare Board, 42–* Lecturer, N. Y. Univ, 17; Training Sch, Vineland, N. J, 13–14; Stanford, 16–18; St. Mary's Acad, Portland, 22; Oregon, 20–23; Wisconsin, 22, 23; California, 37. Ed, 'Jewish Social Service Quarterly,' 28–35. A.A; Psychol. Asn; Asn. Applied Psychol; Statist. Asn; Soc. Study Educ. Clinical and educational psychology; statistics; intelligence and performance tests; social service.

Kokatnur, Dr. V(aman) R(amchandra), 114 E. 32nd St, New York, N. Y. *Chemistry.* Athani, India, Dec. 16, 86. B.Sc, Bombay, 12; M.S, Minnesota, 14, Shevlin fellow, 14–15, Ph.D, 16. Asst, Minnesota, 15–17; with Mathieson Alkali Works, 17–18; chief research dept, Niagara Alkali Co, 18–20; asst. chief vat dye-group, Nat. Aniline and Chem. Co, 20–21; By-Product Steel Corp. and E. I. du Pont de Nemours and Co, 21–22; *consulting chemist, 22–;* consultant on caustic and chlorine, Russia, 28; *director research, Antoxygen, Inc, 34–, pres, 42–* Gen. manager, Alkali Works, Dhrangadhra, India, 30–31. Capt, C.W.S. A.A; Chem. Soc; fel. Inst. Chem; Chemists' Club. Action of trioxymethylene and carbohydrates on hydrocarbons; commercial chlorine; influence of catalysts on chlorination of hydrocarbons; molecular compounds; benzoic acid; indanthrene dyes; indigo; phenolic compounds; soap and glycerine; batik embroidery; solvents; organic peroxides; food bleaching; medicinals.

Kokomoor, Prof. F(ranklin) W(esley), 1634 W. Court St, Gainesville, Fla. *Mathematics.* Dale, Ind, June 10, 90. B.S, Valparaiso, 15; A.M, Michigan, 24, Ph.D, 26. Instr. *math,* Michigan, 26–27; asst. prof, *Florida,* 27–29, assoc. prof, 29–31, *prof, 31–* Math. Soc; Math. Asn; Nat. Council Teachers Math; Hist. Sci. Soc. History of mathematics; checklist of seventeenth century treatises on elementary geometry; distinctive features of seventeenth century geometry; teaching of seventeenth century geometry; mathematics in human affairs.

Kolachov, Dr. P(aul), Joseph E. Seagram and Sons, Louisville, Ky. *Chemistry.* Atamanskaja, Russia, June 28, 99. B.S, Teachers Inst, Russia, 18; Eng.Tech, Prague, 26, M.S, 28, D.Sc, 37. Instr, high sch, Russia, 18–20; research chemist, French Nat. Sch. Agr, 23–26; tech. director distillery and brewing firm, Prague, 26–29; instr, Columbia, 29–30; in charge research and control labs, Dairy Co, Lincoln, Nebr, 30–33; brewmaster and in charge research, Brewing Co, York, Nebr, 33–34; research chemist, Hiram Walker and Sons, 34–37; director research and develop. and later *tech. counselor, Joseph E. Seagram and Sons, Inc, 37–* Lecturer, Prague Polytech. Inst; French Nat. Sch. Agr. A.A; Soc. Bact; Chem. Soc. (chairman Louisville sect, 41); Inst. Food Technol; N. Y. Acad; Ky. Acad. (v. pres). Fermentations; biochemical processes in beer and whiskey manufacturing; yeast in brewing and distilling; importance of temperature and hydrogen ion concentration in fermentation process; mycological control in industrial fermentation; ingredient basis for brewing and gin manufacturing; grains; feeds; aromatic plants; drugs; essential oils.

Kolb, Dr. Lawrence, U. S. Public Health Service, Washington, D. C. *Public health.* Galesville, Md, Feb. 20, 81. M.D,

Maryland, 08. Commissioned, *U. S. Pub. Health Service*, 09, hosp. quarantine and immigration duties, 09–19, med. officer in charge, Hosp. for Nervous Diseases, Waukesha, Wis, 19–23, nat. inst. health, Washington, D. C, 23–28, research, Europe, 28–33, supt, U. S. Hosp. for Defective Delinquents, Springfield, Mo, 33–34, med. officer in charge hosp, *Lexington, Ky*, 34–38, *asst. surgeon gen. in charge div. mental hygiene, 38–* A.A; Am. Med. Asn; Psychiat. Asn; Col. Physicians. Drug addiction; intelligence of immigrants.

Kolb, Prof. Robert P(hillips), Worcester Polytechnic Institute, Worcester, Mass. *Mechanical engineering.* Tamaqua, Pa, Nov. 5, 97. M.E, Rensselaer Polytech, 18; M.M.E, Cornell, 32. Instr. mech. eng, Rensselaer Polytech, 19–21; Clarkson Tech, 21–22; Lehigh, 22–25; asst. prof, Washington (St. Louis), 25–27; N. C. State Col, 27–35; *prof.* aeronaut. eng, head dept. and director exp. lab, Alabama, 35–36; *heat-power eng, Worcester Polytech, 36–* Sibley fellow, Cornell, 32. Ensign, transport service, U.S.N, 18–19; lieut, U.S.N.R, 33–Mech. Eng. (sec'y-treas, Raleigh sect, 28–31, 32–34, chairman, 34–36; Worcester sect, 40); Eng. Educ; Soc. Heat. and Vent. Eng. Heat transmission in furnace walls.

Kolbe, Ernest L(awrence), 421 Pacific National Bldg, Los Angeles 15, Calif. *Forestry.* Glencoe, Minn, Sept. 21, 03. B.S, Minnesota, 27; M.F, Cornell, 28. Asst. forestry, Cornell, 27–28; junior forester, *Pacific Northwest Forest Exp. Sta, U. S. Forest Service*, 28–35, asst. silviculturist, 35–37, *assoc. silviculturist*, 37–40, *Calif. Forest and Range Exp. Sta, 40–* Senior rep, U. S. Dept. Agr. Pajaro River flood control surv, U. S. Forest Service, 40, Santa Maria River flood control surv, 41, project leader, Santa Ynez River flood control surv, 41; San Diego River flood control surv, 42; ecologist, guayule emergency rubber project, U. S. Forest Service, 43. Soc. Foresters; Ecol. Soc. Ponderosa pine silviculture; upstream land measures and their influence on flood control; selection of land for guayule production.

Kolchin, Dr. E(lis) R(obert), 1816 37th St, N.W, Washington, D. C. *Mathematics.* New York, N. Y, April 18, 16. A.B, Columbia, 37, Ph.D, 41. Instr. math, Hofstra Col, 40–41; lecturer, Barnard Col, Columbia, 40–41; nat. research fellow, 41–42; *asst. ordnance engineer, U. S. War Dept, 42–* Math. Soc; Math. Asn. Algebraic differential equations; differential rings and fields.

Kolin, Dr. Alexander, 610 Riverside Drive, New York, N. Y. *Physics.* Odessa, Russia, March 12, 10. Dr, Prague, 34; Chicago, 35, 37. Research fellow biophysics, Michael Reese Hosp, Chicago, Ill, 35–37; physicist, Mt. Sinai Hosp, New York, 38–41; *instr. physics, Col. City of N. Y, 41–; research assoc. civil eng, Columbia, 41–* Research fellow, med. sch, N. Y. Univ, 41–42. Physical Soc; Asn. Physics Teachers. Hydrodynamics; photo-electric quantum counters; electro-magnetic method for measuring blood flow; applications of physics to medicine; electro-magnetic method for determination of velocity distribution in fluid flow; fluid turbulence.

Kolk, Dr. Laura A(lma), 416 Ocean Ave, Brooklyn, N. Y. *Botany.* Brooklyn, N. Y, 90. A.B, Wellesley Col, 13; A.M, Columbia, 23, Ph.D, 31. Asst, Brooklyn Bot. Garden, 24–26; instr. *biol*, Women's Col, Delaware, 26–27; Hunter Col, 28–30; *Brooklyn Col*, 30–38, *asst. prof, 38–* A.A; Bot. Soc; Phytopath. Soc; Torrey Bot. Club. Mycology; cytology; relation of host and pathogen in the smut fungi.

Koller, Dr. Carl, 30 W. 59th St, New York, N. Y. *Ophthalmology.* Schuettenhofen, Bohemia, Dec. 3, 57. M.D, Vienna, 82. *Consulting ophthalmic surgeon, Mt. Sinai and Montefiore Hosps.* Gold medals, Am. Ophthal. Soc, 22; Heidelberg, 28; N. Y. Acad. Med, 30; Am. Acad. Ophthal. and Otolaryngol, 34. Am. Med. Asn; Ophthal. Soc; Pharmacol. Soc; N. Y. Acad. Med; hon. mem. Gesell. der Arzte Wien; Heidelberg Ophthal. Gesell; hon. mem. Soc. Physicians Budapest; hon. mem. Reale Accad. Med. di Rome. Embryology; origin of mesoderm; local anesthesia; use of cocain in operations on the eye.

Koller, Dr. Lewis R(ichard), General Electric Co, Schenectady, N. Y. *Physics.* New York, N. Y, Sept. 12, 95. A.B, Cornell, 17, Ph.D, 21. Asst. physics, Cornell, 16–17, instr, 19; *research lab, Gen. Elec. Co, 22–* Radio engineer, Sig. C, 17–19. A.A; Physical Soc; Optical Soc. Electron emission; photoelectricity; ultra-violet.

Kollmorgen, Frederick L(udwig) G(eorge), Dwindle House, Onancock, Va. *Optics.* Stettin, Germany, Sept. 16, 71. Berlin, 90–93. Chief optical adviser, Carl Reichert, Vienna, 98–00; Ross, Ltd, London, 00–02; Keuffel and Esser Co, Hoboken, N. J, 05–15; *v. pres, Kollmorgen Optical Corp, 15–* A.A; Optical Soc. Applied optics; army and navy optical equipment.

Kolloff, Dr. H(arold) G, Upjohn Co, Kalamazoo, Mich. *Organic chemistry.* Allegan, Mich, July 13, 08. A.B, Kalamazoo Col, 33; Ph.D, Illinois, 36. *Research chemist org. chem, Upjohn Co, 33–* Asst. instr, Illinois, 35. Chem. Soc. Germicides; hypnotics; sterols.

Kollros, Dr. Jerry J, University of Chicago, Chicago, Ill. *Zoology, Surgery.* Vienna, Austria, Dec. 29, 17. B.S, Chicago, 38, Ph.D, 42. Teaching asst. zool, *Chicago*, 40–42, *war research, 42–* Summer, instr, Chicago, 42. A.A. Experimental studies on the development of the corneal reflex in amphibia.

Kolmer, Dr. J(ohn) A(lbert), Cynwyd, Pa. **⁴*Pathology.* Lonaconing, Md, April 24, 86. M.D, Pennsylvania, 08, D.P.H, 14; hon. M.S, Villanova Col, 15, hon. Sc.D, 18, hon. LL.D, 26, L.H.D, 35. *Prof.* path. and bacter, Pennsylvania, 19–32; *med, Temple, 32–* Mendel medal. Asn. Path. and Bact; Soc. Exp. Biol; Asn. Immunol; Soc. Bact; fel. Col. Physicians Phila. Immunity; bacteriology; chemotherapy, especially in the treatment of syphilis.

Kolodney, Dr. M(orris), College of the City of New York, New York, N. Y. *Electrochemistry.* New York, N. Y, Sept. 24, 11. B.S, Col. City of N. Y, 32, Ch.E, 33; M.S, Columbia, 36, Ph.D, 39. *Instr. chem. eng, Col. City of N. Y, 34–* Soc. Metals; Electrochem. Soc. Electrowinning of manganese.

Kolodny, Dr. Anatole, 1100 Park Ave, New York, N. Y. *Surgery.* Kasan, Russia, Nov. 23, 92. Matura, Classical Gym, Russia, 09; Ph.D, Dorpat, 12; M.D, Basle, and Imp. Univ. Kasan, 16. Instr. surg, Kasan, 18; v. asst. path, Berlin, 19–21; pathologist, Iowa, 22–23; instr. anat, Illinois, 23–24; surg. and surg. research, Iowa, 24–26; neur. surg, Hopkins Hosp, 26–27; neur, London, Nat. Hosp, Queens, 27–28; asst. prof. surg, Iowa, 28–32; *practising surgeon.* Med. exped, Caucasia and Asia Minor, 15. Regimental chief surgeon, Russian Imp. Army, 17. A.A; fel. Col. Surg; Asn. Path. and Bact; fel. Asn. Surg. of Trauma; Am. Med. Editors' Asn; Berlin Surg. Soc. Bone anatomy and pathology; bone sarcoma; mineral metabolism of the skeleton; pigmentation of skin; congenital malformations of spine and cord; human post-natal growth of organs derived from ectoderm.

Kolodny, Dr. L(eo), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Soil chemistry.* Chicago, Ill, June 6, 11. B.S, Rutgers, 34, M.S, 36, Ph.D, 38. *Asst. soil chemist, N. J. Exp. Sta, 38–; instr. soil colloidal chem, Rutgers, 41–* Soil Sci. Soc. Soil colloidal chemistry; soil structure.

Kolster, Frederick A, Palo Alto, Calif. *Radio engineering.* Geneva, Switzerland, Jan. 13, 83. Harvard, 08. Radio engineer, Stone Tel. and Tel. Co, 02–09; de Forest Radio Tel. and Tel. Co, 09–12; chief radio sect, Bur. Standards, 12–21; chief research engineer, Fed. Telegraph Co, 21–31; *consultant, Int. Communications Labs, Inc, 31–* Fel. Radio Eng. Decremeter; radio compass; directive radio reception and transmission; radio devices for the reception of music and speech; ultra-short waves.

Kolthoff, Prof. I(saac) M(aurits), University of Minnesota, Minneapolis, Minn. **⁵*Analytical chemistry.* Almelo, Holland, Feb. 11, 94. Ph.D, Utrecht, 18. Conservator, pharmaceut. inst, Utrecht, 17–27, privat-docent applied electrochem, 24–27; *prof. anal. chem. and head dept, Minnesota, 27–* Officer, Order of Orange-Nassau. A.A; Chem. Soc; hon. mem. Pharmaceut. Asn; Electrochem. Soc; Chem. Vereen; Dutch Pharmaceut. Asn; Prov. Utrechtsch Genootschap; for. mem. Royal Soc. Bohemia; for. mem. Royal Flemish Acad. Belgium. Inorganic and physical chemistry; acid-base indicators; potentiometric, conductometric, polarography and amperometric titrations; volumetric analysis; properties of crystalline precipitates; adsorption phenomena.

Komarewsky, Dr. Vasili I, Illinois Institute of Technology, Chicago, Ill. *Chemistry.* Moscow, Russia, Feb. 17, 95. Ph.D, Moscow, 25. Asst, Kaiser Wilhelm Inst, Berlin, 26; lecturer, Acad. Mines, Moscow, 27–28, chief chemist, State Inst. Peat Indust, 27–30; *research chemist, Universal Oil Products Co, 31–; lecturer, Northwestern, 32–; prof, Ill. Inst. Tech, 36–, director catalytic lab.* Sci. guest, Kaiser Wilhelm Inst, Berlin, 27, 30. A.A; Chem. Soc; Eng. Educ; Ill. Acad; Deuts. Chem.

Gesell. Chemistry of cellulose and peat; catalysis in organic chemistry; chemistry of petroleum.

Komarov, Dr. S(imon) A(ndrew), Medical Research Laboratory, Samuel S. Fels Fund, Medical Tower, Philadelphia, Pa. *Physiology, Biochemistry.* Lugansk, Russia, June 5, 92. B.M, Charkov, 15; M.D, Riga, 26; M.Sc, McGill, 31, Ph.D, 35. Asst. physiol. chem, Charkov (Russia), 19–22; prosector *physiol*, Riga, 22–29; asst, McGill, 30–39, lecturer, 39–42; *director biochem, med. research lab, Samuel S. Fels Fund, 42–* Physiol. Soc. Chemistry of muscular tissue; secretagogue substances and digestive secretions.

Kommers, Prof. J(esse) B(enjamin), 1930 Regent St, Madison, Wis. *Mechanical engineering.* Sheboygan, Wis, March 11, 84. B.S, Wisconsin, 06, M.E, 22. Instr. applied mech, Wisconsin, 07–13, asst. prof, 13–20; research assoc. prof. eng. materials, Illinois, 20–21; assoc. prof. *mech, Wisconsin*, 21–27, *prof, 27–* Consulting engineer, Fulton Co, Knoxville, Tenn, 23–27. Soc. Test. Mat. Mechanics; strength of materials; fatigue of metals.

Komp, W(illiam) H. W(ood), U. S. Public Health Service, Washington, D. C. *Entomology.* Yokohama, Japan, March 16, 93. Mass. Col; N. Y. Univ; B.S, Rutgers, 16, M.S, 17; fellow, Cornell, 17. Asst. sanit. engineer, *U. S. Pub. Health Service*, 18–24, assoc. sanit. engineer, 24–29, sanit. engineer, 29–38, *senior sanit. engineer, 38–* Traveling rep, Pan-Am. Sanit. Bur, 37–; consultant, div. health and sanit, Office of Coordinator Inter-Am. Affairs, 42– Mosquito studies, Cent. Amer. and S. Amer, 31– A.A; Malaria Soc. (chairman, 41); Soc. Trop. Med; Acad. Trop. Med; Isthmian Med. Soc. Culicidae; biology and taxonomy.

Kongsted, Ludvig P(etersen), 24 Chatham Road, Longmeadow, Mass. *Electrical engineering.* Copenhagen, Denmark, June 16, 94. B.S, Washington (Seattle), 18. With West. Elec. and Mfg. Co, 18–21; asst. research engineer, *Am. Bosch Corp*, 21–25, *research engineer, 25–* Fel. Elec. Eng; Soc. Test. Mat; Automotive Eng. Design and process engineering covering automotive electrical equipment and various accessories; aviation ignition equipment.

Konigsberg, Dr. M(oses), 820 Greenwich St, New York, N. Y. *Organic chemistry.* Montreal, Que, Can, Sept. 21, 12. A.B, Ohio State, 35, Ph.D, 39. Atlas Powder Co. fellow sugar alcohol research, Ohio State, 39–40; *research chemist, Nat. Starch Products, Inc, 40–* Chem. Soc. Carbohydrates; investigation of sugar and starch derivatives.

Konopinski, Prof. Emil J(ohn), Indiana University, Bloomington, Ind. *Physics.* Michigan City, Ind, Dec. 25, 11. A.B, Michigan, 33, A.M, 34, fellow, 35–36, Ph.D, 36. Asst, Michigan, 34–35; nat. research fellow, Cornell, 36–38; *asst. prof. physics, Indiana, 38–* Physical Soc. Beta-radioactivity; disintegration functions; x-ray excitation; theory of nuclei.

Koon, Ray M(ilton), 240 Beaver St, Waltham, Mass. *Horticulture.* Greenville, Pa, April 18, 89. B.S, Pa. State Col, 14; M.S, Delaware, 23. Prin, Lake Vocational Sch, Lake Ariel, Pa, 17–20; horticulturist, rehabilitation div, Delaware, 20–23; exten. specialist veg. gardening, *Mass. State Col*, 23–28, *head, Waltham Field Sta, 23–*

Koontz, Dr. Amos R, 1014 St. Paul St, Baltimore, Md. *Surgery.* Marksville, Va, Feb. 12, 90. A.B, B.S, Col. of William and Mary, 10, A.M, 11; Chicago, 10, 11; M.D, Hopkins, 18. Asst. clin. surg, *sch. med, Hopkins*, 26–29, instr, 29–34, *assoc. surg, 34–* Summers, investigator, biol. lab, Bur. Fisheries, Fairport, Iowa, 15, 16. Pathologist, div. med. research, C.W.S, 21–38. A.A; Col. Surg; Am. Med. Asn; Asn. Mil. Surg; Surg. Asn; South. Surg. Asn; South. Med. Asn; Med. and Chirurg. Faculty Md; Baltimore Clin. Club. Hernia repair; persistence of absorptable suture as compared with preserved fascia strips; artificial production of myositis ossificans; war gases and tuberculosis; edema of the lungs and various pharmacological agents; treatment of burns; effect of ether anesthesia on anaphylaxis; preserved fascial sutures in bone.

Koontz, Prof. Philip G(rant), Colorado State College, Ft. Collins, Colo. *Physics.* Pawnee City, Nebr, Dec. 21, 03. B.S, Hastings Col, 27; A.M, Nebraska, 29; Ph.D, Yale, 35. Instr. *physics*, Nebraska, 29–32; asst. prof, *Colo. State Col*, 35–41, *assoc. prof, 41–* Asn. Physics Teachers; Physical Soc; Colo-Wyo. Acad. Molecular spectra; cosmic rays.

Koonz, Dr. C(arl) H(enry), Swift and Co, Chicago, Ill. *Zoology.* Gresham, Wis, Oct. 23, 07. A.B, Carroll Col, 31; A.M, Northwestern, 34, Ph.D, 37. *Research biologist, research labs, Swift and Co, 37–* A.A; Soc. Parasítol; Micros. Soc; Inst. Food Technol. Cytology and spermatogenesis of haploid parthenogenetic Hymenoptera; microscopy of foods, particularly changes due to processing and manufacture; low-temperature research with emphasis on the effect of freezing and storage on quality; poultry and poultry products.

Koopman, Prof. Bernard Osgood, Columbia University, New York, N. Y. **Mathematics.* Paris, France, Jan. 19, 00. A.B, Harvard, 22, A.M, 24, Ph.D, 26. Instr. *math*, Harvard, 25–26; nat. research fellow, Princeton, 26–27; instr, *Columbia*, 27–28, asst. prof, 28–40, *assoc. prof, 40–* Lecturer, Harvard, 36–37. Math. Soc. Analysis; mathematical physics; probability.

Koopman, Dr. Richard J(ohn) W(alter), University of Kansas, Lawrence, Kans. *Electrical engineering.* St. Louis, Mo, June 24, 05. B.S, Missouri, 28, Gregory scholar, 34–35, Ph.D, 42; M.S, Yale, 33. Test engineer, Gen. Elec. Co, 28–30; instr. *elec. eng*, Yale, 30–31; Mich. Col. Min. and Tech, 35–37; asst. prof, *Kansas*, 37–40, *assoc. prof, 40–* Prize, Am. Inst. Elec. Eng, 37. Eng. Educ; Elec. Eng. (v. chairman, Kansas City sect, 41); Kans. Acad. Induction motors; electrical machinery; variation of rotor resistance with frequency.

Kooyman, Dr. Daniel J(ohn), 41 Forest Ave, Wyoming, Ohio. *Biochemistry.* Salt Lake City, Utah, Nov. 18, 05. A.B, Utah, 27, A.M, 28; Ph.D, Rochester, 31. Instr. applied biochem. in med, sch. med, Washington (St. Louis), 30–34; *research chemist, Procter and Gamble Co, 34–* Chem. Soc. Biochemistry of fats; biochemistry of the skin.

Kopac, Dr. M(ilan) J(ames), New York University, Washington Square, New York, N. Y. *Physiology, Zoology.* Ravenna, Nebr, March 12, 05. B.S, Nebraska, 27, M.S, 29; Ph.D, California, 34. Asst. zool, Nebraska, 27–29, visiting instr, 34; teaching fellow, California, 30–33; research assoc. *biol, Wash. Sq. Col, N. Y. Univ*, 34–38, *visiting asst. prof, 39–* Nat. research fellow, 34–35. Summers, Tortugas lab, Carnegie Institution, 33–37. Mem. corp, Marine Biol. Lab, Woods Hole. Soc. Zool; Asn. Cancer Research; Harvey Soc. Cellular physiology; micrurgical apparatus and technique; intracellular hydrogen ion concentration; miscibility of protoplasm with aqueous solutions; enzymatic activity of cytoplasm and cellular inclusions; oil-protoplasm interfacial phenomena; properties of extraneous coats; protein adsorption at oil-water interfaces; Devaux effect; interaction between carcinogenic hydrocarbons and proteins at oil-water interfaces.

Kopal, Dr. Zdeněk, Harvard University, Cambridge, Mass. *Astronomy.* Litomyšl, Czechoslovakia, April 4, 14. Sc.D, Charles Univ, Praha, 37; Cambridge, 38; Harvard, 39–40. *Research assoc. astron, Harvard, 40–* Summers, lecturer, conf. astron, Harvard, 39. Astron. Soc; Royal Astron. Soc; Czech Astron. Soc; Int. Astron. Union (mem. cmn. 27 and 35). Stellar astronomy, with special respect to double stars.

Kopeloff, Dr. Nicholas, Psychiatric Institute, Columbia Medical Center, New York, N. Y. *Bacteriology.* New York, N. Y, June 6, 90. B.S, Columbia, 12; B.S.A, Cornell, 14; fellow, Rutgers, 14–17, M.S, 16, Ph.D. 17. Field asst, U. S. Dept. Agr, 17; bacteriologist, La. Sugar Exp. Sta, 17–20; *prin. res. bacter, N. Y. State Psychiat. Inst, 20–; asst. prof, col. physicians and surg, Columbia, 40–* A.A; Soc. Bact; Chem. Soc; Soc. Exp. Biol; Asn. Immunol; assoc. fel. Am. Med. Asn; Pub. Health Asn; N. Y. Acad. Med; Harvey Soc. Focal infection and tuberculous bacillemia in psychiatry; anaphylaxis in monkeys; experimental production of acute and chronic Jacksonian seizures; Lactobacillus acidophilus; soil and sugar microbiology.

Kopp, Prof. George A(dams), Teachers College, Columbia University, New York, N. Y. *Speech.* Montgomery City, Mo, Feb. 7, 00. B.S, Monmouth Col, 26; M.S, Wisconsin, 30, Ph.D, 33. Chairman dept. speech, Jamestown Col, 26–28; research assoc. and asst. prof. *speech*, Wisconsin, 28–36; Wayne, 36–39; *assoc. prof, teachers col, Columbia, 39–* Research scholar, Wisconsin, 30–34. Biochemical studies of stuttering.

Koppányi, Prof. Theodore, Georgetown University, Washington, D. C. *Physiology, Pharmacology.* Gyöngyös, Hungary, Dec. 26, 01. Budapest, 18–19; fellow, Vienna, 20–23, Ph.D, 23. Research assoc. physiol, Chicago, 23–25, instr, 25–27; asst. prof. *pharmacol*, Syracuse, 27–29; research assoc, Cornell, 29–30; *prof, Georgetown, 30–* A.A; Physiol. Soc; Soc. Pharmacol; Soc. Zool; Soc. Exp. Biol; Biol. Gesell; Zool-Bot. Gesell. Wien. Regeneration and transplantation; internal secretions of the gonads, adrenals and pancreas;

physiology and pharmacology of posture and of pupillary reaction; pharmacology of vomiting and defecation; duration of action of drugs; circulation time; pharmacology of barbiturates.

Koppenhoefer, Dr. R(obert) M(ack), Socony-Vacuum Oil Co, 412 Greenpoint Ave, Brooklyn, N. Y. *Chemistry.* Cincinnati, Ohio, Sept. 4, 09. B.S, Cincinnati, 33, M.S, 34, Ph.D, 36. Research assoc. leather chem, tanner's council lab, Cincinnati, 36–39; *research chemist, tech. service div, Socony-Vacuum Oil Co, 39–* Investigator on leather, Nat. Defense Research Council, Cincinnati, 42–43. Alsop award, Am. Leather Chemists Asn, 41. Leather Chem. Asn. (exec. councilor, 40–42); Chem. Soc. Leather chemistry; chemistry of the lipids of the skin; effect of tanning processes on the lipids of steer, sheep and goat skins; curing of heavy hides; chemistry of sulfation of oils; the fatliquoring of leather.

Koppisch, Prof. Enrique, School of Tropical Medicine, San Juan, P. R. *Pathology.* Mayaguez, P. R, April 12, 04. Puerto Rico, 21–23; M.D, Jefferson Med. Col, 27. Instr. *path, sch. trop. med, Columbia,* 28–29, assoc, 30–32, *asst. prof, 32–;* asst. res. path, Presbyterian Hosp, N. Y, 29–30; *pathologist, Presb. Hosp. and Univ. Hosp, San Juan, 32–* A.A; Asn. Path. and Bact; Col. Physicians; Soc. Trop. Med. Tropical pathology; filterable viruses.

Koppius, Prof. O(tto) T(ownsend), University of Kentucky, Lexington, Ky. *Physics.* Hettstedt, Germany, Dec. 24, 89. B.S, Marion Inst, 09; Chicago, 13, fellow, 14–15, Ph.D, 20. Asst, Chicago, 15–17, instr. *physics,* 17–20; asst. prof, Oberlin Col, 20–24; assoc. prof, *Kentucky,* 24–32, *prof, 32–* Geophysicist, Sun Oil Co, Dallas, 28–29. Physical Soc; Asn. Physics Teachers; Ky Acad. Electronics; heat; thermodynamics.

Korchin, Dr. B(arney), 637 Montgomery St, Brooklyn, N. Y. *Psychology.* New York, N. Y, July 1, 15. B.S, Col. City of N. Y, 36; Ph.D, Cornell, 39. Teaching asst, Cornell, 37–40; asst. psychiatry, col. physicians and surg, Columbia, 40–41; *lieut, U. S. Naval Res, and psychol. officer, U. S. Naval Air Sta. and U. S. Naval Aviation Cadet Selection Board, 41–* Summer, instr, Col. City of N. Y, 40. Assoc. Psychol. Asn; N. Y. Asn. Applied Psychol. Psychiatry; vision; emotions; selection of pilots; neuro-physiology; tests and interview aids; parotid secretory action in humans.

Korff, Dr. S(erge) A(lexander), 4991 Henry Hudson Parkway, New York, N. Y. *Physics.* Helsingfors, Finland, June 5, 06. A.B, Princeton, 28, A.M, 29, Ph.D, 31. Nat. research fellow, Mt. Wilson Observatory, Carnegie Institution, 31–33; research fellow, Calif. Inst. Tech, 33–35; *research assoc, Carnegie Inst, 36–; asst. prof. physics, N. Y. Univ, 41–* Research fellow, Bartol Research Foundation, 38–42. Cosmic rays expeds, Mexico, 34, Peru, 34, 35, 37; adviser cosmic rays, U. S. Antarctic Service, 39–42. Fel. Physical Soc; Optical Soc; Astron. Soc; Philos. Soc. (exec. staff, cmt. educ. and participation in sci, 38–42); Geophys. Union; N. Y. Acad; Geog. Soc. Phila. (geog. research cmt); Royal Geog. Soc; hon. mem. Peruvian Chem. Soc; hon. mem. Lima Geog. Soc. Astrophysics; cosmic radiation and high energy nuclear reactions.

Korfhage, Dr. Roy F(red), R. F. D. 1, Fulton, N. Y. *Chemistry.* St. Paul, Minn, Nov. 25, 96. A.B, Minnesota, 19, B.S, 20; Ph.D, Wisconsin, 27. Analyst, State Dept. Feed Inspection, Minn, 20–24; asst. instr. chem, Wisconsin, 24–27; *chief chemist, Peter Cailler Kohler Swiss Chocolate Co, 27–* Chem. Soc. Candy.

Korgen, Prof. Reinhard Lunde, Prince's Point Road, Brunswick, Maine. *Mathematics.* Newfolden, Minn, Dec. 31, 06. A.B, Carleton Col, 30; A.M, Harvard, 31. *Assoc. prof. math, Bowdoin Col, 31–* Math. Soc; Math. Asn; Asn. Symbolic Logic. Logical studies of scientific language; logical analyses of measurement.

Korman, Dr. S(amuel), 163 Ocean Ave, Brooklyn, N. Y. *Chemistry.* N. Y, 10. Ph.D, Columbia, 36. Asst. chem. to Prof. H. C. Urey, Columbia, 33–34; to Prof. R. K. Cannan, col. med, N. Y. Univ, 36–37; chief chemist, R. H. Macy and Co, 37–38; chemist, Prudential Ins. Co. Amer, 38–42; *capt, Air Forces, U. S. Army, 42–* Chem. Soc; N. Y. Acad. Deuterium exchange reactions in solution; structure and titration curves of proteins; testing and standards of consumers' merchandise; chemical research related to life insurance selection, longevity, clinical pathology and public health.

Korn, Prof. A(rthur), 523 River St, Hoboken, N. J. *Mathematics, Physics, Electrical engineering.* Breslau, Germany, May 15, 70. Freiburg, 86; Ph.D, Leipzig, 90; Paris, 90–91; hon. D.Ing, Inst. Tech, Breslau, 30. Privat-docent physics, Munich, 95–03, asst. prof, 03–07; *prof,* Inst. Tech, Berlin-Charlottenburg, 14–36; *elec. eng, Stevens Inst. Tech, 39–* Prix vaillant de l'Acad. des Sciences, Paris, 07; grand prix, Int. Exhib, Turin, Italy, 11. Math. Soc; Elec. Eng. Phototelegraphy; electromechanical weaving; mechanical theories in physics; potential theory; theory of elasticity in mathematics.

Kornberg, Dr. H(arry) A(lexander), Northwestern University, Evanston, Ill. *Bio-organic chemistry.* Chicago, Ill, Aug. 18, 14. B.S, Illinois, 38; M.S, State Col. Wash, 40; Ph.D, Texas, 42. Teaching fellow *chem,* State Col. Wash, 38–40; instr, Texas, 40–41, asst, 41–42, *research assoc,* 42; *Northwestern, 42–; med. biochemist and lieut, U. S. Army, 43–* Chem. Soc. Steroids; B group of vitamins; gerontology.

Kornblum, Dr. Nathan, Harvard University, Cambridge, Mass. *Organic chemistry.* New York, N. Y, March 22, 14. B.S, N. Y. Univ, 35, M.S, 37; Ph.D, Illinois, 40. Charles M. Hall research instr, Oberlin Col, 40–42; *nat. research fellow chem, Harvard, 42–* Stereochemistry of many membered rings; deamination of aromatic primary amines; constituents of yellow bone marrow.

Kornfeld, Dr. G(ertrude), 26 Portsmouth Terrace, Rochester, N. Y. *Physical chemistry.* Prague, Czechoslovakia, July 25, 91. Fellow, Prague, 14–18, Ph.D, 15; Berlin, 28. Asst. physical chem, Sch. Technol, Hanover, Germany, 19–25; instr, Berlin, 25–28, asst. prof, 28–33; lecturer photography, Nottingham Univ. Col, 34; Am. Asn. Univ. Women int. fellow, 35–36; *research chemist, Eastman Kodak Co, 37–* Chem. Soc; Physical Soc; Soc. Protection Sci. and Learning; N. Y. Acad; Faraday Soc. Photochemistry; spectra; kinetics of chemical reactions; gaseous reactions; theory of photography.

Kornhauser, Prof. Arthur W(illiam), University of Chicago, Chicago, Ill. *Psychology.* Steubenville, Ohio, Nov. 23, 96. B.S, Pittsburgh, 17; A.M, Carnegie Inst. Tech, 19; Ph.D, Chicago, 26. Research psychologist, Scott Co, 19–20; from instr. to *assoc. prof. psychol, Chicago, 21–; director Chicago office, Psychol. Corp.* Psychol. Asn; Asn. Applied Psychol. (chairman sect. indust. and business psychol, 40–42); Soc. Psychol. Study Social Issues; Midwest. Psychol. Asn; Ill. Soc. Consulting Psychol. (pres, 38, v. pres, 39–42). Industrial and social psychology.

Kornhauser, Prof. S(idney) I(saac), University of Louisville School of Medicine, Louisville, Ky. *Anatomy, Zoology.* Cleveland, Ohio, Nov. 3, 87. A.B, Pittsburgh, 08; A.M, Harvard, 10, Ph.D, 12. Instr. biol, George Washington, 08–09; Austin teaching fellow, Harvard, 09–12; Hooper fellow, Halle, 12–13; Sheldon traveling fellow, Wurzburg, 13–14; asst. prof. zool, Northwestern, 14–17, assoc. prof, 17–18; *prof,* Denison, 19–22; *anat, histol. and embryol. and head dept, sch. med, Louisville, 22–, exec. sec'y, sch. med, 29–* V. pres. and treas, Biol. Stain Cmn. 2nd lieut, Sanit.C, 18–19. A.A; Soc. Nat; Asn. Anat; Soc. Zool. Chromosomes; hermaphroditism; parasitism and sexual characteristics; stains and microscopical technique.

Korns, Dr. Horace M(arshall), University Hospital, Iowa City, Iowa. *Internal medicine.* Alliance, Ohio, Jan. 10, 93. A.B, Mt. Union Col, 16; M.D, Western Reserve, 18, A.M, 21; Zeugnis, Vienna, 30. From demonstrator to asst. clin. prof. *med,* sch. med, Western Reserve, 20–27; assoc. prof, *Iowa,* 27–36, *prof, 36–* Assoc. ed, 'Am. Heart Jour,' 38– Fel. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Cent. Soc. Clin. Research; Cent. Interurban Clin. Club. Cardiovascular system; quinidine sulphate; arteriosclerotic aneurysm; heart failure; inequality of blood pressure in the brachial arteries; orthostatic hypotension.

Korns, Dr. John H(amilton), Rocky Crest Sanatorium, Olean, N. Y. *Medicine.* Mt. Victory, Ohio, Oct. 7, 83. A.B, Ohio Wesleyan, 04; M.D, Rush, Chicago, 09; A.M, Columbia, 18. Assoc. prof. med, Peiping Union Med. Col, China; *supt, Rocky Crest Sanatorium, 28–* Director bur. tuber, County Dept. Health, Olean, 28– Fel. Am. Med. Asn; Tuber. Asn; Pub. Health Asn; Sanatorium Asn. Tuberculosis.

Korns, Dr. Robert F(ulton), 50 Fuller Road, Albany, N. Y. *Public health, Epidemiology.* Tai An Fu, Shantung, China, Oct. 4, 12. A.B, Dartmouth Col, 34; M.D, Hopkins, 37; M.P.H, 39, D.P.H, 39. House physician, Harriet Lane home, Hopkins Hosp, 37–38; acting dist. health officer, *State Dept. Health, N. Y,* 40–41, *epidemiologist, 41–* Instr, Albany Med.

Col. Am. Med. Asn; Pub. Health Asn. Communicable disease; field epidemiology.

Korr, Dr. Irvin M(orris), New York University College of Medicine, 477 First Ave, New York, N. Y. *Physiology.* Philadelphia, Pa, Aug. 24, 09. A.B, Pennsylvania, 30, A.M, 31; fellow, Princeton, 33–34, Class of 1877 fellow, 34–35, Ph.D, 35. Asst. instr. physiol, Princeton, 32–33, Procter fellow, 35–36; *instr. physiol, col. med, N. Y. Univ, 36–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Soc. Zool; Physiol. Soc; Asn. Sci. Workers; Harvey Soc. Cellular physiology; bioluminescence; biological oxidations.

Korstian, Prof. C(larence) F(erdinand), Duke University, Durham, N. C. *Forestry.* Saline Co, Nebr, June 26, 89. B.S.F, Nebraska, 11, M.F, 13; A.M, Southeast. Christian Col, 24; fellow, Yale, 25–26, Ph.D, 26. Asst. dendrol. and silviculture, Nebraska, 09–10; asst. pathologist, Pa. Chestnut Blight Cmn, 12; field asst, U. S. Forest Service, 10–11, forest asst, 12–13, forest examiner, 13–22, assoc. silviculturist, Appalachian Forest Exp. Sta, 22–27, silviculturist, 27–28, senior silviculturist, 28–30; *prof. silviculture, Duke, and director, Duke Forest, 30–, dean sch. forestry, 38–* Ed. board, 'Ecology,' 23–30, 33–; ed. 'Naturalists' Guide to Americas,' 23–26; ed, 'Ecol. Monographs,' 33– Cmt. on cooperation, Nat. Research Council, 19–22, adv. rep. div. biol. and agr, 35–41, mem. exec. cmt, 39–40, mem, 41– A.A. (councilor, 33–); Soc. Foresters (chairman, forestry classification cmt, 20–26, sec'y, intermountain sect, 16–20, Appalachian sect, 21–25, chairman, 28, 35, nat. exec. councilor, 32–35, pres, 38–41); fel. Forestry Asn. (v. pres, 39, 41); Soc. Plant Physiol; Ecol. Soc. (v. pres, 39, pres, 42); N.C. Forestry Asn. (pres, 43); N.C. Acad. (v. pres, 36); Utah Acad. (councilor, 18, v. pres, 19, pres, 20). Silviculture; forest management; growth and reproduction of forest trees; artificial reforestation; forest ecology and pathology; chlorosis of conifers; forestry bibliography; sap density of vegetation in relation to environmental conditions; water relations of forest trees.

Korzybski, Count Alfred, 1234 E. 56th St, Chicago, Ill. *General semantics.* Warsaw, Poland, 79. Chem.E, Polytech. Inst. Warsaw. Teacher math, physics, French and German, Warsaw, Poland; mem. intel. dept, Russian Gen. Staff, 14–16; artil. expert, U.S.A, 16–17; sec'y, Polish-French Mil. Cmn, U. S; recruiting officer, Polish-French Army; war lecturer, U. S. Govt; sec'y Polish cmn, League of Nations; *sci. writer and lecturer; director, Inst. Gen. Semantics, 38–* A.A; Math. Soc; Asn. Symbolic Logic; Soc. Applied Anthrop; N. Y. Acad; Chicago Soc. Personality Study. Non-Aristotelian systems; general theory of values; theory of sanity.

Koschmann, A(lbert) Herbert, U. S. Geological Survey, Washington, D. C. *Geology.* Wausau, Wis, March 6, 96. Chicago, 15–17; A.B, Wisconsin, 19, A.M, 20, 22–23; fellow, Yale, 23–24. Instr. geol, Washington (St. Louis), 20–22; assoc. prof, Okla. Agr. and Mech. Col, 24–28; prof. and head dept, N. Mex. Sch. Mines, 28–30; asst. geologist, *U. S. Geol. Surv,* 30–31, *assoc. geologist, 31–* Summers, Wis. Geol. Surv, 18, 19; Ill. Geol. Surv, 20; Mo. Geol. Surv, 21; State Bur. Mines, N. Mex, 28, 29. A.A; Miner. Soc; Soc. Econ. Geol; Geophys. Union. Geology of Payne County, Oklahoma, and of Annette and Duke Islands, Alaska; geology and ore deposits of the Magdalena district, New Mexico, of the Cripple Creek district, Colorado, and of the Dominican Republic.

Koser, Prof. Stewart A(rment), University of Chicago, Chicago, Ill. *Bacteriology.* Harrisburg, Pa, March 30, 94. Ph.B, Yale, 15, A.M, 17, Ph.D, 18. Asst. bacter. and hygiene, Yale, 16–18; bacteriologist, bur. chem, U. S. Dept. Agr, 19–23; asst. prof. *bacter,* Illinois, 23–28; *Chicago,* 28–36, assoc. prof, 36–43, *prof, 43–* Advisory ed, 'Jour. Bacter,' 35–; 'Jour. Infectious Diseases,' 41– M.C, U.S.A, 18–19. Soc. Bact; Pub. Health Asn; Soc. Exp. Biol; Soc. Nat. Bacterial nutrition and metabolism; hemolysin of streptococci; food bacteriology; botulism and food poisoning; paratyphoid-enteritidis group; colon group; sanitary water analysis; dysentery group; bacterial variation; accessory growth factors for microorganisms.

Koshuba, Walter J(oseph), 1413 S. 76th St, Milwaukee 14, Wis. *Metallurgy.* St. Paul, Minn, Aug. 22, 17. B.Met.E, Minnesota, 40. *Asst. research engineer, Allis-Chalmers, 41–* Soc. Metals. Heat treatments and their effects on heavy forgings; ferrous and non ferrous high temperature alloys.

Koski, Dr. Walter S, 410 W. Ninth St, Wilmington, Del. *Physical chemistry.* Philadelphia, Pa, Dec. 2, 13. Ph.D, Hopkins, 42. *Research chemist, Hercules Powder Co, 42–* Chem. Soc. Kinetics of exchange reactions; radioactive tracers; explosives.

Koskoff, Dr. Yale David, Montefiore Hospital, Pittsburgh, Pa. *Physiology.* New Haven, Conn, Nov. 5, 05. A.B, Yale, 26, M.S, 28, Ph.D, 29, M.D, 31. Asst. physiol, Yale, 27–29, instr, 31–33, neur. and neurosurg, 33–35; res. neurosurgeon, Boston City Hosp, 35–36; *neurosurgeon, Montefiore Hosp, 36–* Carbohydrate and fat metabolism; neurophysiology; neurosurgery.

Kosolapoff, Dr. G(ennady) M(ichael), 260 Victor Ave, Dayton, Ohio. *Organic chemistry.* Viatka, Russia, Sept. 2, 09. B.S, Cooper Union, 32; fellow from Cooper Union, Michigan, 33–34, M.S, 33, Rackham fellow, 35–36, Sc.D, 36. *Research chemist,* Libbey-Owens-Ford Glass Co, 36–38; *Monsanto Chem. Co, 38–; instr. org. chem, Dayton, 39–* A.A; Chem. Soc. Amino acids; quinonoidation; plastics; organophosphorus compounds.

Kossack, Dr. Carl F(redrick), University of Oregon, Eugene, Oregon. *Mathematical statistics.* Chicago, Ill, May 30, 15. A.B, California at Los Angeles, 35, A.M, 36; Ph.D, Michigan, 39. Instr. *math, Oregon,* 39–42, *asst. prof, 42–* Inst. Math. Statist; Math. Soc. Foundation of theory of probability; placement techniques for mathematics students; theory and uses of growth curves; correlation theory; applications of statistical methods in the social sciences.

Kossiakoff, Dr. Alexander, Catholic University of America, Washington, D. C. *Chemistry.* St. Petersburg, Russia, June 26, 14. B.S, Calif. Inst. Tech, 36; Ph.D, Hopkins, 38. *Instr. chem, Catholic Univ, 39–* A.A; Chem. Soc. The mechanism of organic reactions in solution, particularly those related to protein synthesis; the structure and stability of metal ion complexes in solution.

Kossmann, Dr. Charles E(dward), 140 E. 54th St, New York, N. Y. *Medicine.* Brooklyn, N. Y, April 20, 09. B.S, N. Y. Univ, 28, M.D, 31, Sc.D, 38. House physician, Bellevue Hosp, 31–33; asst. *med,* Michigan, 34; *col. med, N. Y. Univ,* 34–38, instr, 38–42, *asst. prof, 42–,* chief peripheral vascular disease clinic, 36–41, *in charge electrocardiog. lab, 39–;* asst. director dept. aviation med, *sch. aviation med, Randolph Field, Texas,* 41–42, *director lab. clin. research 42–, lieut. col.* Asst. clin. visiting physician, third N. Y. Univ. med. div, Bellevue Hosp, 34–40, asst. visiting physician and chief cardiac clinic, 40–; adj. physician, attending physician, cardiac clinic and director cardiog. lab, Lenox Hill Hosp, 37–; special consultant venereal disease div, U. S. Pub. Health Service, 39–40. Fel. Am. Med. Asn; Heart Asn. (cmt. films and slides); Harvey Soc; N. Y. Heart Asn. (criteria cmt). Circulation; electrocardiography.

Koster, Dr. J(ohn), Box 306, Boulder City, Nev. *Metallurgy.* Indianapolis, Ind, July 21, 02. B.S, Purdue, 24; fellow, Utah, 29–30, M.S, 30; Ph.D, Maryland, 34. Chem. engineer, Nat. Lead Co, 24–28; metallurgist, West. Elec. Co, 28–29; junior metallurgist, U. S. Bur. Mines, 30–31, asst. metallurgist, 31–35, supervising engineer electrometal. sect, 35–42; *staff engineer, Basic Magnesium Inc, 42–* Electro and process metallurgy on manganese, chromium, magnesium, nickel and cobalt.

Koster, Prof. W(illia)m J(acob), University of New Mexico, Albuquerque, N. Mex. *Ichthyology, Limnology.* March 13, 10. B.S, Cornell, 31, scholar, 32–34, Ph.D, 36; summer, N. Y. Biol. Surv, 31–38. Asst, Cornell, 34–38; *asst. prof. biol, New Mexico, 38–* Summer, special scout, bur. entom. and plant quarantine, U. S. Dept. Agr, 29. A.A; Soc. Ichthyol. and Herp; Soc. Limnol; Fisheries Soc. Life history and ecology of sculpins; life history and relationship of Clinostomus elongatus; condition factor and growth rate in Micropterus dolomieu; aquatic plants of the Cayuga Lake basin; fishes, amphibians and reptiles of New Mexico; life history of the Rio Grande cut-throat trout.

Kosting, Dr. Peter R, Watertown Arsenal, Watertown, Mass. *Metallurgy.* Edinburgh, Scotland, 03. B.S, Cooper Union, 25; M.Ch.E, Rensselaer Polytech, 26, Ph.D, 28. Fixed nitrogen research lab, U. S. Dept. Agr, 28–30; Copper and Brass Research Asn, 30–31; Bur. Standards, 31–32; *Watertown Arsenal, 32–* Soc. Metals; Soc. Test. Mat; Min. and Metal. Eng. Physical metallurgy; corrosion.

Kostir, Prof. W(encel) J(erome), Ohio State University, Columbus, Ohio. *Zoology.* Cleveland, Ohio, Sept. 28, 86. A.B, Ohio State, 12, A.M, 13; Columbia, 19–20, 21. Instr. zool. and entom, Ohio State, 13–21; zool, Columbia, 21–22;

asst. prof. *zool. and entom, Ohio State*, 22–42, *assoc. prof, 42–* Summers, instr, Marine Biol. Lab, Woods Hole, 17, 18; sci. consultant, Int. Auxiliary Language Asn, New York, 40–42. A.A; Micros. Soc; Ohio Acad. (treas, 19, v. pres, zool. sect, 30). Protozoology; invertebrate zoology; cranial ganglia of Amphibia; language problems of science.

Kotcher, Dr. Emil, Box 427, Clinton, Miss. *Helminthology.* Passaic, N. J, July 19, 13. A.B, Wesleyan, 37, A.M, 38; Sc.D, Hopkins, 41. Under biol. aide, Tenn. Valley Authority, 39–40, junior biol. aide, 40; *asst. biologist, State Board Health, Miss, 41–* Soc. Parasitol. Medical entomology; development of frog filariae; household anophelism.

Koten, Dr. I(rvin) A(lvin), 516 School Ave, Naperville, Ill. *Chemistry.* Bonduel, Wis, Dec. 15, 99. A.B, North Cent. Col, 20; M.S, Illinois, 21, Ph.D, 24. Asst, Illinois, 20–23; asst. prof. *chem*, Ill. Wesleyan, 24–30, prof, 30; prof. and head dept, Battle Creek Col, 30–38; lecturer, Hiram Col, 38–39; *prof. and head dept, N. Cent. Col, 39–* Chem. Soc. Organic compounds of mercury; potassium xanthate; arsenicals.

Kotila, Dr. J(ohn) E(rnest), U. S. Department of Agriculture, Beltsville, Md. *Botany, Plant pathology.* Hancock, Mich, Feb. 13, 93. B.S, Mich. State Col, 18, M.S, 20; Ph.D, Michigan, 28. Asst. plant path, Mich. State Col, 20–30; *pathologist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 30–* Phytopath. Soc. Hopperburn of potato plants; blackleg disease of potatoes; bacteriophage in relation to plant pathogenes; biology of Rhizoctonia; sugar beet root-rots.

Kotok, Edward I, U. S. Forest Service, Washington, D. C. *Forestry.* Russia, Sept. 20, 88. B.S, 09, M.S, 11. Forest examiner, Calif, 11; forest supervisor, Eldorado Nat. Forest, 15–18; in charge fire control, Calif. Nat. Forests, 18–26; director, Calif. Forest and Range Exp. Sta, *U. S. Forest Service*, 26–41, *asst. chief, 41–* Consulting forester, Univ. Calif. A.A; Soc. Foresters. Forest fire control; influence of forest cover on water supply; lightning and forest fires; fire protection in the California pine forests; economics of the live stock industry.

Kountz, Dr. William B(ryan), Washington University School of Medicine, St. Louis, Mo. *Medicine.* Saxton, Mo, 98. M.D, Washington (St. Louis), 26. Asst. path, sch. med, Washington (St. Louis), 26–27; intern, Barnes Hosp, St. Louis, 27–28; asst. med, sch. med, Washington (St. Louis), 28–29, instr, 29–30; nat. research fellow, Egypt, England and Germany, 30–31; instr. *med, sch. med, Washington (St. Louis)*, 32–33, *asst. prof, 34–* Soc. Clin. Invest; Cent. Soc. Clin. Research. Heart physiology; diseases of lungs; the influence of anoxemia on the electrocardiogram; the nature of bundle branch block after section of the bundle of His in revived perfused human hearts; emphysema and allied conditions.

Kouwenhoven, Prof. William B(ennett), Johns Hopkins University, Baltimore, Md. *Electrical engineering.* Brooklyn, N. Y, Jan. 13, 86. E.E, Polytech. Inst. Brooklyn, 06, M.E, 07; D.Ing, Karlsruhe Tech. Hochschule, Baden, 12, Dr.Eng, 13. Asst. physics, Polytech. Inst. Brooklyn, 06–07, instr. physics and elec. eng, 07–10; *elec. eng*, Washington (St. Louis), 13–14; *Hopkins*, 14–17, assoc, 17–19, assoc. prof, 19–30, *prof, 30–*, asst. dean *sch. eng*, 30–38, *dean, 38–* Eng. supt, Winchester Repeating Arms Co, 19–20; consulting engineer, U. S. Bur. Mines and Bur. Standards. Capt, R.O.T.C, 17–19. A.A; fel. Elec. Eng. (chairman Baltimore sect, 22–31; v. pres, 31–33, director, 35–39); Welding Soc. (exec. fundamental research cmt, 41–); Soc. Test. Mat. Magnetic analysis of steel; electrical measurements; electrical welding; electric shock.

Kovalenko, Dr. Michael S(tephanovitch), 154 Holmes Ave, Glenbrook, Conn. *Astronomy.* Taganrog, Russia, Nov. 20, 88. Diploma, St. Petersburg Inst. Tech, 12; Licencié, Paris, 24; Ph.D, Princeton, 27. Prof. math, tech. schs, Russia, 12–16; Russia Naval Col, Africa, 20–22; instr. astron, Virginia, 24–25; asst. prof. astron. and math, Swarthmore Col, 27–39; *retired.* Smithsonian Institution eclipse exped, Norway, 27. St. George Cross, Russia. A.A; Astron. Soc; Math. Soc; Royal Astron. Soc. Can; Royal Astron. Soc. Sun's apex with respect to faint stars; parallactic motion and proper motions of faint stars; mass ratios of double stars.

Kovarik, Prof. Alois F(rancis), Yale University, New Haven, Conn. ****Physics.* Spillville, Iowa, March 8, 80. A.B, Minnesota, 04, A.M, 07, Ph.D, 09; John Harling fellow, Victoria (Manchester), 10–11, D.Sc, 16; hon. A.M, Yale, 25; hon. D.Sc, Charles Univ, Prague, 32. Instr. *physics*, Decorah Inst, Iowa, 96–00; asst, Minnesota, 02–04, instr, 04–12, asst. prof, 12–15, assoc. prof, 15–16; asst. prof, Sheffield Sci. Sch, *Yale*, 16–22, assoc. prof, 22–25, *prof, 25–* Mem. cmt; Nat. Research Council. Medal, Charles Univ, Prague, 25; medal, Comenius Univ, Bratislava, 32. Radioactivity Cong, Brussels, 10. Instr, Sig. C, U.S.A, 17–18, cmt. pub. information, research submarine detection. A.A. (councilor, 19); Physical Soc; Math. Soc; Math. Asn; Meteorol. Soc; Soc. de Physique; hon. mem. Soc. Math. and Physicists, Czechoslovakia; Soc. Royale de Bohême. Mobility of ions in gases; absorption and reflection of beta particles; periods of radioactive substances; recoil atoms; statistical method for alpha and beta particles; gamma rays; x-rays; electronics; radioactivity; Decorah ice cave; age of the earth; automatic registration of rays.

Kowalke, Prof. O(tto) L(ouis), University of Wisconsin, Madison, Wis. *Chemical engineering.* Manitowoc, Wis, Jan. 18, 78. B.S, Wisconsin, 06, Ch.E, 09. Instr. *chem. eng, Wisconsin*, 08–11, asst. prof, 11–14, assoc. prof, 14–17, *prof, 17–* A.A; Chem. Eng; Chem. Soc; Min. and Metal. Eng; Electrochem. Soc; Gas Asn; Eng. Educ; Wis. Acad. (v. pres, 30). City gas, its manufacture, purification, measurement, combustion procedures, burner design and density testing devices; fluid flow through orifices; absorption of gases in liquids; pyrometry; refractories; mechanism of case hardening steel; post-glacial beach ridges.

Kozanowski, Dr. H(enry) N(ikodem), 925 Belmont Ave, Collingswood, N. J. *Physics.* Buffalo, N. Y, Aug. 15, 07. B.S, Buffalo, 27, A.M, 29; Ph.D, Michigan, 30. Asst. physics, Buffalo, 27–28; research labs, Westinghouse Elec. and Mfg. Co, 30–35; *research dept, RCA-Victor div, RCA Mfg. Co, 35–* Physical Soc; Radio Eng. Thermionics; acoustics; high frequency electrical oscillations; discharge in gases; shot-effect; television.

Kozelka, Dr. A(dolph) W(illiam), University of Wisconsin, Madison, Wis. *Zoology.* Kewaunee, Wis, Feb. 20, 98. B.S, Wisconsin, 22, M.S, 26, 33–; Ph.D, Pittsburgh, 30; M.D, Chicago, 37. Instr, high sch, Iowa, 22–25; zool, Pittsburgh, 26–28, asst. prof, 28–30; nat. research fellow, Chicago, 30–33; *practising physician and surgeon, Two Rivers, Wis.* Soc. Zool; Genetic Asn; Am. Med. Asn. Integumental grafting, sex hormones, secondary sexual structures and parabiosis of domestic fowls; tissue antagonism and absorption; inheritance of natural immunity among animals; effect of the male hormone, theelin and theelol on the chick embryo.

Kozelka, Dr. F(rank) L(udwig), 426 N. Charter St, Madison, Wis. *Toxicology.* Kewaunee, Wis, Aug. 20, 96. B.S, Wisconsin, 22, M.S, 30, Ph.D, 33. Asst. biochem, *Wisconsin*, 32–33, *asst. prof. pharmacol. and toxicol, 33–; toxicologist, Wis. Gen. Hosp, 33–* A.A; Chem. Soc; Soc. Pharmacol. Toxicological methods; barbiturates; anticonvulsant drugs.

Kraatz, Dr. C(harles) P(arry), 710 S. Wolcott St, Chicago, Ill. *Physiology.* Rochester, N. Y, Aug. 6, 06. A.B, Berea Col, 26; A.M, Kentucky, 32; Ph.D, Cincinnati, 36. Instr. and *asst. prof. physiol. and pharmacol, Chicago Med. Sch, 36–* Endocrinology.

Kraatz, Prof. Walter C(harles), 1437 Bryden Drive, Akron, Ohio. *Zoology.* Milwaukee, Wis, Jan. 20, 93. A.B, Wisconsin, 18; A.M, Ohio State, 20, Ph.D, 23. Asst. anthrop, Milwaukee Pub. Museum, 12–14; zool, Wisconsin, 16–18; Ohio State, 18–22, instr, 22–23; asst. prof, Miami (Ohio), 23–24; biol, *Akron*, 24–28, zool, 28–31, assoc. prof, 31–34, acting head dept. *biol*, 32–34, *prof. and head dept, 34–* Summers, instr, Ohio State, 19; asst, aquatic surv, Div. Fish and Game, Ohio, 21, 22. A.A; assoc. Soc. Zool; Entom. Soc; Ecol. Soc; fel. Ohio Acad. (v. pres, zool. sect, 33). Aquatic biology; food of fishes; morphology of fish intestines; plankton.

Krabill, Dr. David M(ilton), Smithville, Ohio. *Mathematics.* Sterling, Ohio, July 8, 14. A.B, Col. of Wooster, 36; Ph.D, Ohio State, 41. Asst. instr. math, Ohio State, 36–40; instr, Potomac State Col, 40–42; *ensign, U. S. Naval Res, and instr. navigation, Midshipmen's Sch, New York, 42–* Math. Soc. Extension of functional matrices.

Kracek, Dr. F(rank) C(harles), Carnegie Institution, Washington, D. C. *Physical chemistry.* Tvrzice, Bohemia, Czechoslovakia, Nov. 16, 90. B.S, Minnesota, 20, du Pont fellow, 21–23, Ph.D, 24. Asst. physical chemist, *geophys. lab, Carnegie Institution*, 23–30, *physical chemist, 30–* Chem. Soc; fel. Physical Soc; Geophys. Union; Philos. Soc. Wash; Wash.

Acad. Radium concentration; high temperature silicate chemistry; thermodynamics of multi-component systems; polymorphism; physics of crystals.

Kracke, Dr. R(oy) R(achford), Emory University, Ga. *Bacteriology, Pathology.* Hartselle, Ala, Dec. 5, 97. B.S, Alabama, 24; M.D, Rush, Chicago, 28. Instr. *bacter. and path,* Alabama, 25; asst. prof, *sch. med, Emory,* 26–29, assoc. prof, 30–34, *prof, 34–* Bacteriologist and pathologist, Emory Univ. and Grady Hosp, Atlanta, Ga. Ward Burdick medal, Soc. Clin. Path, 34. Soc. Clin. Path. (chairman, cmt. research, exec. cmt, 37–); Am. Med. Asn; South. Med. Asn; Ga. Acad. Diseases of the blood; agranulocytosis; leukemia; blood cultures; leukocyte stimulation.

Kraebel, Cha(rle)s J(ohn), U. S. Forest Service, Berkeley, Calif. *Forestry.* Rochester, N. Y, 89. A.B, Michigan, 12, 14. From forest ranger to forest examiner, Oregon and Wash, U. S. Forest Service, 15–17, 19–20; asst. territorial forester, Hawaii, 20–24; supt, Glacier Nat. Park, Mont, 24–27; *prin. silviculturist, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 27–* C.Eng, U.S.A, 17–19. A.A; Soc. Foresters; Ecol. Soc; Geophys. Union; Calif. Bot. Soc. Forest influences; watershed management; erosion control; forest ecology and planting.

Kraehenbuehl, Prof. John O(tto), R.D. 2, St. Joseph, Ill. *Electrical engineering.* Knoxville, Tenn, Oct. 4, 94. B.S. (E.E), B.S. (M.E), Tennessee, 17, M.S, 22; E.E, Illinois, 25. Production dept, Westinghouse Elec. and Mfg. Co, 17–18; elec. auto. sales rooms, 20–21; instr. *elec. eng,* Tennessee, 21–22; *Illinois,* 22–27, assoc, 27–30, asst. prof, 30–37, assoc. prof, 37–39, *prof, 39–* U.S.A, 18–19. Assoc. Elec. Eng. (chairman, Urbana branch, 27); assoc. Illum. Eng. Soc; Optical Soc. Dielectric strength of porcelain; accuracy of the watt-hour meter; classroom and study surface illumination; text-books on electrical circuits and machines; design manual for illumination and wiring of buildings; illumination.

Kraemer, Albert J(ohn), U. S. Bureau of Mines, Washington, D. C. *Chemical engineering.* Louisville, Ky, Dec. 26, 92. B.S, Kentucky, 15. Union Oil Co. of Calif, 15–17; Standard Oil Co. of Ky, 18–23; *senior ref. engineer, U. S. Bur. Mines, 23–* Sec'y tech. cmt, lubricants and liquid fuels, Fed. Specifications Exec. Cmt. Chem. Soc. (petrol. div); Soc. Test. Mat. (mem, cmt. D-2, chairman subcmt. crude petrol). Chemistry; refining of petroleum; properties of crude petroleum and gasoline; specifications for petroleum products.

Kraemer, Dr. Manfred, 549 High St, Newark, N. J. *Gastro-enterology.* Newark, N. J, July 27, 04. A.B, Pennsylvania, 26, M.D, 29; Vienna, 32. Asst. visiting physician, Newark City Hosp, 32; asst, cardiac service, *Presbyterian Hosp,* 32–36, *chief gastro-intestinal clinic, 36–, visiting physician, 42–; attending gastro-enterologist, St. James Hosp, 36–; consulting physician, Irvington Gen. Hosp, 38–; lecturer, sch. med, N. Y. Univ, 40–; major, Med. Corps, U. S. Army.* Fel. Col. Physicians; assoc. Gastro-Enterol. Asn; fel. Royal Soc. Trop. Med. and Hygiene. Antacids for peptic ulcer; therapy of ulcerative colitis; serum coagulation reaction; erythremia; amebiasis; treatment of ulcer and gall bladder disease.

Krafka, Dr. Joseph, Jr, University of Georgia School of Medicine, Augusta, Ga. *Anatomy.* Ottumwa, Iowa, Aug. 14, 90. A.B, Lake Forest Col, 14, A.M, 15; Ph.D, Illinois, 19; M.D, Georgia, 33. Asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 15–16; Illinois, 16–19; assoc. prof. zool, *Georgia,* 19–20, prof, 20–26, assoc. prof. anat, *sch. med,* 26–33, *prof. microanat, 33–* Grant cmt. sci. research, Am. Med. Asn, 37. Asn. Anat; Soc. Zool; Entom. Soc. Hemopoiesis; endogenous uric acid; heredity in Drosophila; fetal circulation; medical history of colonial Georgia; measurements on muscle and connective tissue; mechanical factors in production of arteriosclerosis; thirteen-day human ovum.

Kraft, Prof. Frances L, Wells College, Aurora, N. Y. *Bacteriology.* Chicago, Ill, May 22, 05. A.B, Northwestern, 27, M.S, 28; Ph.D, Cornell, 36. Asst. *zool,* Northwestern, 25–28; instr. biol, Morningside Col, 28–29; *Wells Col,* 29–34, asst. prof, 34–39, *assoc. prof, 39–* Respiratory enzymes of fresh water clams; partially heat-stable enterotoxic substances of the Salmonella group; contraction potentials in man during reading.

Kraft, Dr. Jean Craig, 1513 Crain St, Evanston, Ill. *Zoology.* Chicago, Ill, June 2, 08. B.S, Northwestern, 30, A.M, 32, fellow, 39–40, Ph.D, 40. *Mem. staff, Gen. Biol. Supply House, 40–* Cytology; endocrinology.

Krahl, Dr. M(aurice) E(dward), Eli Lilly and Co, Indianapolis, Ind. *Chemistry.* Cambridge City, Ind, Sept. 17, 08. A.B, DePauw, 29; Eli Lilly and Co. fellow, Hopkins, 29–33, Ph.D, 32. *Research chemist, Eli Lilly and Co, 33–* A.A; Soc. Biol. Chem; Chem. Soc; Asn. Cancer Research. Crystallization velocity; cell metabolism; cell division; mechanism of drug action.

Kraitchik, Dr. M(aurice), 34–10 84th St, Jackson Heights, N. Y. *Mathematics.* Minsk, Russia, April 21, 82. Eng, Liége, 09, Dr, 10; Brussels, 22. Prof. *math,* Brussels, 22–41; *assoc. prof, New Sch. for Social Research, 41–* French Acad. prize, 30. Math. Asn. Theory of numbers; recreational mathematics; actuarial mathematics.

Krakower, Prof. C(ecil) A(lexander), School of Tropical Medicine, San Juan, P. R. *Pathology.* Montreal, Que, Can, Sept. 4, 07. B.Sc, McGill, 28, M.D, 32. Instr. *path,* Harvard Med. Sch, 34–36; *asst. prof, Columbia Sch. Trop. Med, Puerto Rico, 39–* Asn. Path. and Bact. Tropical diseases.

Krall, Dr. H(arry) L(eVern), Pennsylvania State College, State College, Pa. *Mathematics.* York, Pa, June 13, 07. B.S, Gettysburg Col, 27, M.S, 28; Ph.D, Brown, 32. Instr. *math,* Brown, 28–32; *Pa. State Col,* 33–38, *asst. prof, 38–* Math. Soc. Partial differential equations; orthogonal polynomials.

Kramer, Dr. Amihud, 1739 H St, N.W, Washington, D. C. *Food technology.* Austria-Hungary, May 7, 13. B.S, Maryland, 38, M.S, 39, Ph.D, 42. Farm manager, Herzliah, Palestine, 33–34; cooperative agent, soil conservation service, U. S. Dept. Agr, 39–41; *food research chemist, Nat. Canners Asn, 41–* Asst, Maryland, 38–41. Soc. Hort. Sci; Soc. Plant Physiol; Inst. Food Technol. Establishing objective methods for measuring quality of canned foods.

Kramer, Dr. Benjamin, 60 Plaza St, Brooklyn, N. Y. *Pediatrics.* Russia, Aug. 15, 88. M.D, N. Y. Univ, 09; M.S, Iowa, 17. Instr. physiol, Iowa, 13–15, asst. prof, 15–17; instr. pediat, Hopkins, 17–20, assoc. prof, 20–22, assoc. pediatrician, Hopkins Hosp, 22–25; *pediatrician-in-chief, Jewish Hosp, in charge Harry Caplin pediat. research lab, 25–;* assoc. prof. pediat, L. I. Col. Hosp, 25–31, *prof. clin. pediat, L. I. Col. Med, 31–* Pediat. Soc; Am. Med. Asn; Physiol. Soc; Soc. Biol. Chem; Soc. Clin. Invest; Acad. Pediat; Pediat. Soc. Inorganic components of blood; rickets; calcification; experimental tuberculosis; lead poisoning.

Kramer, Prof. Martha M(orrison), Yenching University, Peiping, China. *Nutrition.* Frankfort, Ind. B.S, Chicago, 16; Ph.D, Columbia, 22. Dept. food econ. and nutrition, Kans. State Col, 22–25, *prof,* 25–36; *dept. home econ, Yenching, 36–* A.A; Chem. Soc; Home Econ. Asn. Food economics.

Kramer, Prof. Paul J(ackson), Duke University, Durham, N. C. *Plant physiology.* Brookville, Ind, May 8, 04. A.B, Miami (Ohio), 26; fellow, Idaho, 26–27; M.S, Ohio State, 29, Ph.D, 31. Asst. *bot,* Ohio State, 28–31; instr, *Duke,* 31–35, asst. prof, 35–38, *assoc. prof, 38–* Summers, bur. plant indust, U. S. Dept. Agr, 27, 28. A.A; Soc. Plant Physiol. (sec'y-treas, 41–43, v. pres, 43); Bot. Soc; N. C. Acad. Botany; plant water relations; physiology of woody plants; dormancy and photoperiodic reactions of trees.

Kramer, Dr. S(idney) D(avid), Wood St, R. F. D. 1, East Lansing, Mich. *Pediatrics.* Austria, Dec. 25, 93. B.S, Col. City of N. Y, 14; A.M, Columbia, 18, M.D, 20; Ph.D, Mass. Inst. Tech, 27. Asst. biochem, col. physicians and surg, Columbia, 16–19; *assoc. attending physician pediat, Brooklyn Jewish Hosp, 27–; asst. prof. pediat. and director research, infantile paralysis cmn, L. I. Col. Med, 32–; attending pediatrician, Trinity Hosp, Brooklyn, 36–; assoc. director bur. labs. and director div. virology, State Dept. Health, Mich, 39–; special lecturer, Mich. State Col, 39–* Instr, sch. pub. health, and assoc, infantile paralysis cmt, Harvard Med. Sch, 28–32. Am. Med. Asn; Acad. Pediat; Soc. Exp. Biol; Mich. Med. Soc. Rickets; rheumatic fever; poliomyelitis; chemotherapy in virus diseases.

Kramer, Dr. Warren A(lvin), State Board of Health, Jefferson City, Mo. *Chemistry.* Franklin, La, July 16, 96. B.S, Mississippi, 21; M.S, Louisiana, 23; Ph.D, Ohio State, 27. Instr. chem, Louisiana, 23–24; research chemist, Dearborn Chem. Co, 27–30; *asst. chem. engineer,* City Water Div, St. Louis, 30–38; *water purification, State Board Health, Mo, 38–* Chem. Soc; Water Works Asn. Water treatment and purification.

Krampitz, Dr. L(ester) O(rville), Iowa State College, Ames, Iowa. *Bacteriology.* Maple Lake, Minn, July 9, 09. A.B, Macalester Col, 31; Ph.D, Iowa State Col, 42. Asst, Rockefeller Inst, 42–43; *research assoc. bacter, indust. science research inst, Iowa State Col, 43–* Chem. Soc; N. Y. Acad. Physiology of bacteria; biochemistry of bacteria.

Kraner, Hobart M(cKinley), 215 Wall St, Bethlehem, Pa. *Ceramic engineering.* Columbus, Ohio, Nov. 3, 96. B.Cer.E, Ohio State, 21, M.S, 22, Cer.E, 38. Research engineer, U. S. Bur. Mines, 22–23, AC Spark Plug Co, 23–24; supt, Ill. Elec. Porcelain Co, 24–25; research engineer, Westinghouse Elec. and Mfg. Co, 25–30, supt, Derry, Pa, 30–32; *research engineer,* Corhart Refractories Co, 32–35; *Bethlehem Steel Co, 35–, chairman refractories div, 37–* Ceramic Eng. (pres, 42); fel. Ceramic Soc. (chairman, whitewares div, 32, research cmt, 31). Ceramics; electrical porcelain; refractories for glass and steel; non-metallic problems in steel industry; electrocast products.

Krantz, Prof. Fred A(lfred), 132 Langford Park, St. Paul, Minn. *Horticulture.* Westphalia, Iowa, Nov. 10, 90. B.S, Minnesota, 18, M.S, 21, Ph.D, 24. Instr. *hort, Minnesota,* 19–23, asst. prof, 23–34, assoc. prof, 34–37, *prof, 37–, head sect. veg. gardening, Exp. Sta.* Collaborator. U. S. Dept. Agr. Soc. Hort. Sci; Potato Asn. (pres, 38). Potato breeding; truck crops.

Krantz, Dr. John C(hristian), Jr, University of Maryland, Baltimore, Md. *Pharmacology, Chemistry.* Baltimore, Md, Oct. 8, 99. Ph.G, Maryland, 19, Ph.C, 20, Phar.B, 23, M.S, 24, Ph.D, 28; Sc.D, Md. Acad. Science, 24; hon. Ph.M, Phila. Col. Pharmacy, 31. Assoc. prof. chem. and instr. physics, dental sch, Maryland, 21–23, assoc. prof. pharmacy, 21–26, prof, 26–27; director pharmaceut. research, Sharp and Dohme, 27–30; chief bur. chem, State Dept. Health, Md, 30–35; *prof. pharmacol, sch. med, Maryland, 32–* Asst. lecturer, Hopkins, 21–25, consulting pharmacist, Hopkins Hosp, and lecturer, nurses' sch, 24–30; professorial lecturer, George Washington. Revision cmt, U. S. Pharmacopoeia, 30–, sec'y, 40– Nat. Conf. Pharmaceut. Research, 25–41. A.A. (chairman, N); Pharmaceut. Asn. (chairman, sect. practical pharmacy, 24); Chem. Soc. (chairman, Md. sect, 36–); Soc. Pharmacol; Soc. Exp. Biol; Asn. Cancer Research; Med. and Chirurg. Faculty Md. Pharmaceutical chemistry; electrometric determination of alkaloids; theory and stability of emulsions; photopharmacological methods of standardization; effect of polarized light on drugs; carbohydrate metabolism; sodium malate as a salt substitute; hydrogen-ion concentration; buffer capacity of drugs; structure and nutritional value of carbohydrates; metabolism of sugar alcohols; fate of sugars in normal and neoplastic tissues; volatile anesthetics.

Kranz, Dr. Fred(erick) W(illiam), 207 Broadway, Dobbs Ferry, N. Y. *Physics, Otology.* Dixon, Ill, Sept. 26, 87. A.B, Lawrence Col, 11; A.M, Wisconsin, 19; Ph.D, Chicago, 22. *Research physicist,* West. Elec. Co, N. Y, 13–20; Riverbank Labs. Ill, 20–31; Magnavox Co, Ind, 31–34; Consol. Mfg. Co, 35–36; *Sonotone Corp, 36–* A.A; Radio Eng; Acoustical Soc; N. Y. Acad. Physical aspects of audition; acoustics.

Krase, Prof. Norman W(illiam), 904 S. Harvard Ave, Swarthmore, Pa. *Chemical engineering.* Chicago, Ill, Aug. 16, 95. B.S, Illinois, 18; M.S, American Univ, 22; Ph.D, Yale, 26. Instr. chem. eng, Yale, 23–26; assoc. prof, Illinois, 26–36; prof, Pennsylvania, 36–39; *head semi-works operations, ammonia dept, chem. div, E. I. du Pont de Nemours and Co, 39–* Chem. Soc; Chem. Eng. High pressure gas research; measurements of fundamental properties and new synthesis reactions.

Krasno, Dr. Louis R(ichard), Northwestern University Medical School, Chicago, Ill. *Physiology, Psychology.* Chicago, Ill, Sept. 2, 14. B.S, Northwestern, 36, M.S, 37, Ph.D, 39. Asst. psychol, Northwestern, 36–39; instr. biol, Herzl Junior Col, 39–40; asst. *physiol, med. sch, Northwestern,* 40–42, *instr, 42–* Aviation medicine; anoxia of high altitude; efficiency of psychomotor performances at high altitudes.

Krasnow, Dr. Frances, 405 E. 72nd St, New York, N. Y. *Biochemistry.* New York, N. Y, Oct. 16, 97. B.S, A.M, Columbia, 17, fellow, 19, Ph.D, 22. Asst. biochem, col. physicians and surg, Columbia, 19–22, instr, 22–32; *in charge biochem. and related sciences, Guggenheim Dental Clinic Sch, 32–, consulting biochemist-bacteriologist, 35–, asst. director.* Consulting biochemist, N. Y. Post-Grad. Med. Sch, 31– A.A; Chem. Soc; Soc. Exp. Biol; Inst. Chem; Soc. Bact; Am. Med. Asn; Asn. Dental Editors; N. Y. Acad. Med; N. Y. Acad; Int. Asn. Dental Research (ed, N. Y. sect, 33–). Agglutinin; hemolysin; yeast; streptococcus; synthetic media; disinfectants; sterilization; vitamins; skin diseases; syphilis; cholesterol; phospholipid; caries; biochemistry of saliva in relation to dental disease; place of nutrition in dentistry; correlation between general metabolic levels and tooth condition.

Krathwohl, Prof. W(illiam) C(harles), Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Buffalo, N. Y, Oct. 10, 82. A.B, Harvard, 07; A.M, Columbia, 10; Ph.D, Chicago, 13. Instr. *math,* Columbia, 07–11; Washington (St. Louis), 11–12; prof, Ripon Col, 13–14; asst. prof, *Ill. Inst. Tech,* 14–18, assoc. prof, 19–31, *prof, 31–, director dept. educational tests and measurements, 36–* A.A; Math. Soc; Math. Asn; Eng. Educ; Vocational Guidance Asn; Cent. Asn. Sci. and Math. Teachers. Modular invariants.

Kratz, Prof. Alonzo P(lumsted), 1003 Douglas Ave, Urbana, Ill. *Mechanical engineering.* Champaign, Ill, 85. B.S, Illinois, 07, M.S, 09. Asst, eng. exp. sta, *Illinois,* 08–10, instr. *mech. eng,* univ, 10–12, asst, *eng. exp. sta,* 12–15, research assoc, 15–18, research asst. prof, 18–21, *research prof, 21–* Mech. Eng; Heat. and Vent. Eng. Combustion; heating and ventilation; refrigeration; air conditioning.

Kratz, Dr. H(oward) R(ussell), University of Chicago, Chicago, Ill. *Physics.* Mattoon, Wis, Nov. 2, 16. A.B, Ripon Col, 38; Princeton, 41–42; Ph.D, Wisconsin, 42. Teaching asst. *physics,* Wisconsin, 38–41; asst, Princeton, 41–42; *research assoc, Chicago, 42–* Physical Soc. Spectroscopy.

Krauch, Hermann, U. S. Forest Service, Tucson, Ariz. *Forestry.* St. Paul, Minn, Feb. 10, 86. B.S, Minnesota, 10. Forest asst, *U. S. Forest Service,* 10–12, forest examiner, 13–21, assoc. silviculturist, *Southwest. Forest and Range Exp. Sta,* 22–37, *silviculturist, 37–* Soc. Foresters. Forest management.

Krauel, Dr. Kathryn K(reamer Kopf), Eloise Hospital, Eloise, Mich. *Biochemistry.* Bandon, Oregon, March 20, 15. A.B, Iowa, 38, M.S, 40, Ph.D, 42. Chem. analyst, path. chem. lab, Iowa, 39–42; *research biochemist, Frederick Stearns lab, Dr. Wm. J. Seymour Hosp, 42–* Chem. Soc. Metabolism of proteins and amino acids in the human.

Kraus, Prof. Charles A(ugust), 92 Keene St, Providence, R. I. *²*Chemistry.* Knightsville, Ind, Aug. 15, 75. B.S, Kansas, 98, 98–99, fellow, 00–01; fellow, Hopkins, 99–00; Ph.D, Mass. Inst. Tech, 08; hon. Sc.D, Kalamazoo Col, 33, Colgate, 39. Instr. physics, California, 01–04; asst, Mass. Inst. Tech, 04–08, research assoc. physical chem, 08–12, asst. prof. physical chem. research, 12–14; prof. chem. and director lab, Clark, 14–24; *prof. chem. and director chem. research, Brown, 24–; consulting chemist.* Fixed nitrogen research lab, U. S. Dept. Agr, 22–24. Lecturer, Harvard, 29; Ohio State, 32. Summers, lecturer, Chicago, 19; Western Reserve, 27. V. chairman div. chem. and chem. technol, Nat. Research Council, 31–32, chairman, 32–33, field sec'y, fellowship board in physical sciences, 34–35. Nichols medal, 23; Gibbs medal, 35; Richards medal, 36; Franklin medal, Franklin Inst, 38. Consulting chemist, U. S. Bur. Mines, 18; C.W.S, 18–19. Nat. Acad. (chairman sect. chem, 35–38; councilor, 39–42); A.A; Chem. Soc. (pres, 39); Philos. Soc; Physical Soc; Am. Acad; Wash. Acad. Electrically conducting systems; critical phenomenon; liquid ammonia; electrolytic and non-aqueous solutions; metals and their solutions; metallo-organic compounds; free radicals; phase rule; gaseous equilibria; conduction in glass; vacuum seals; electrical apparatus; gases and chemical processes.

Kraus, Dean E(dward) H(enry), University of Michigan, Ann Arbor, Mich. *Mineralogy.* Syracuse, N. Y, Dec. 1, 75. B.S, Syracuse, 96, M.S, 97, hon. Sc.D, 20, LL.D, 34; Ph.D, Munich, 01. Instr. German and miner, Syracuse, 96–99, miner, 01–02, assoc. prof, 02; head dept, high sch, N. Y, 02–04; asst. prof. miner, *Michigan,* 04–06, junior prof, 06–07, miner. and petrog, 07–08, *prof,* 08–19, *crystallog. and miner, 19–,* director miner. lab, 08–33, acting dean col. pharmacy, 20–23, *dean,* 23–33, *col. lit, science and arts, 33–* Summer, prof, Syracuse, 03–05; acting dean, Michigan, 11–15, dean, 15–33. Mem. revision cmt, U. S. Pharmacopoeia, 31. A.A; Miner. Soc. (pres, 20); Geol. Soc; Chem. Soc; Optical Soc; Min. and Metal. Eng; Pharmaceut. Asn; Asn. Cols. Pharm. (exec. cmt, 23–28, pres, 25); hon. fel. Col. Dentists; Mich. Acad. (v. pres, 07, pres, 19); hon. mem. Gemmol. Asn. Gt. Britain; hon. mem. Deuts. Miner. Gesell. Descriptive mineralogy; chemical and physical crystallography; optical constants of crystals at varying temperatures; gems and gem materials; correlation of properties and uses of the diamond.

Kraus, Prof. E(zra) J(acob), University of Chicago, Chicago, Ill. ***Botany.* Lansing, Mich, March 19, 85. B.S, Mich. State Col, 07; Ph.D, Chicago, 17; Sc.D, Oregon State Col, 38. Sci. asst, U. S. Dept. Agr, 07–09; prof. hort. research, Oregon State Col, 09–18, dean art and science depts, 18–19; *prof.* applied bot, Wisconsin, 19–27; *bot, Chicago, 27–* Prin. plant physiologist, bur. plant indust, U. S. Dept. Agr, 38– Ed, 'Bot. Gazette.' Mem, State Board Nat. Resources and Conservation, Ill, 40– A.A. (chairman, G, 30); Soc. Nat. (v. pres, 31); Bot. Soc. (pres, 33); Ecol. Soc; Soc. Plant Physiol. (pres, 28); Soc. Hort. Sci. (pres, 27); Hort. Soc. (pres, 41); Torrey Bot. Club; Ill. Acad; Wash. Entom. Soc. Applied botany; plant morphology and physiology; photoperiodism; plant hormones.

Kraus, Dr. James E(llsworth), University of Idaho Agricultural Experiment Substation, Aberdeen, Idaho. *Horticulture.* Rocky Ford, Colo, Nov. 19, 09. B.S, Colo. State Col, 32; scholar, Wisconsin, 32–33, M.S, 34; Ph.D, Cornell, 40. Asst. hort, Wisconsin, 33–34; veg. crops, Cornell, 39–40; asst. physiologist, U. S. Dept. Agr, 36–41; *assoc. horticulturist, Exp. Substa, Idaho, 41–* Soc. Hort. Sci. Culture and storage of Idaho potatoes.

Kraus, Dr. John D(aniel), 3813 Vee St, S.E, Washington, D. C. *Physics.* Ann Arbor, Mich, June 28, 10. B.S, Michigan, 30, M.S. 31, Ph.D, 33. Asst. physics, Michigan, 31–32, research assoc, dept. eng. research, 34–35, research physicist, dept. physics, 36–37; Physicists Research Co, 37–38; independent research and consulting, 38–40; *mem. staff, Naval Ordnance Lab, 40–* Radio Eng. (chairman Detroit sect, 40; mem. board editors, 41–); Acoustical Soc; Physical Soc. Ultra-short-wave radio propagation; directive radio antennas; noise reduction.

Kraus, Dr. Walter M(ax), 4 W. 43rd St, New York, N. Y. *Neurology, Psychiatry.* New York, N. Y, Aug. 25, 89. A.B, Harvard, 10; M.D, Hopkins, 13; A.M, Columbia, 14; Paris, 23–24. Intern, Bellevue Hosp, 14–16; instr. biochem, Columbia, 15–16; clin. asst, Cornell Dispensary, 17–29; instr. neur, med. col, Cornell, 20–26, assoc. neurologist, 26–32; adj. neurologist, Neur. Inst, 33–38; *major, Med. Corps, U. S. Army.* Asst, Vanderbilt dispensary, col. physicians and surg, Columbia, 19–20; adj. neurologist, Mt. Sinai Hosp, chief clinic, 20–22; adj. and asst. neurologist, Bellevue Hosp, 16–23, asst. neurologist, 23–32; clin. asst, Neur. Inst, N. Y, 19–21, asst. neurologist, 29–32; attending and consulting neurologist, Montefiore Hosp, 21–30, exec. officer, neur. div, 26, director lab. neuropath, 23–30; consulting neurologist, French Hosp, 1st and 2nd med. divisions, 23–28. Capt, M.C, 17–19, major, M.C.Res, 25–35. Neur. Asn; fel. Psychiat. Asn; Asn. Research Nervous and Mental Disease; Am. Med. Asn; Asn. Neuropathologists (chairman and sec'y, 25); Econ. Asn; N. Y. Geneal. and Biog. Soc; N. Y. Neur. Soc; N. Y. Soc. Clin. Psychiat; fel. N. Y. Acad. Med. (sec'y, neur. and psychiat, 26, chairman, 27); Metropolitan Med. Soc. (treas, 26, pres, 28); cor. mem. Soc. neur. de Paris. Neuroanatomy; neurophysiology: clinical neurology and endocrinology.

Krause, Dr. A(rlington) C(olton), University of Chicago, Chicago, Ill. *Ophthalmology.* Chicago, Ill, July 27, 96. A.B, Lawrence Col, 18; A.M, Wisconsin, 21, Ph.D, 23; M.D, Yale, 28. Asst. chem, Wisconsin, 19–22, dept. agr, 22–23; instr. pharmacol, sch. med, Yale, 23–25, research surg, 25–28; res. house officer, New Haven Hosp, 28–29; Hopkins Hosp, 29–30, ophthalmologist, 30–35, instr. ophthal, Wilmer inst, Hopkins, 30–35; asst. prof. and later *assoc. prof. surg, Chicago, 35–; surgeon, 35–* Fel. Inst. Chem; Chem. Soc; Am. Med. Asn; Ophthal. Soc; Acad. Ophthal; fel. Col. Surg. Organic catalysis; organic nitrogen compounds of molybdates and tungstates; toxicology; chemistry and physiology of the eye.

Krause, Prof. E(llis) L(lewellyn), 430 Fifth St, Marietta, Ohio. *Chemistry.* Brooklyn, Wis, June 27, 89. A.B, Ripon Col, 12; A.M, Wisconsin, 13. *Prof.* chem. and physics, Buena Vista Col, 13–16; *chem, Marietta Col, 16–* Chem. Soc.

Krause, Lieut. Ralph A(lvin), 262 Yale Ave, Berkeley, Calif. *Engineering.* San Francisco, Calif, Nov. 11, 09. B.S, California, 32, 33; U. S. Naval Acad, 41. Biophysical research, dept. anat, California, 31–32; radio engineer, Remler Co, 32–37; electronic engineer, instrumentation research and develop. dept, Standard Oil Co, Calif, 37–41; *lieut, U. S. Naval Res, Office Coordinator Research and Develop, U. S. Navy Dept, 41–* Electronic engineering; electrical masking of nerves; electrocephalographic equipment design; radio speech input circuit design; magnetostrictive pressure gauges; radar.

Krause, Dr. William F(rederick), 10 Logan St, Lemont, Ill. *Chemistry.* Canton, Minn, Dec. 20, 08. A.B, Macalester Col, 30; A.M, Wisconsin, 32, Ph.D, 34. Asst. chem, Wisconsin, 30–34; research chemist, *Globe Oil and Ref. Co, 34–38, chief chemist, 38–* Palladium-hydrogen; uses of gasoline antioxidants and formation of gum in gasolines; developments in the petroleum industry.

Krauskopf, Prof. Elizabeth Jane, University of South Carolina, Columbia, S. C. *Agricultural bacteriology.* Madison, Wis, Feb. 22, 15. A.B, Wisconsin, 35, M.S, 36, Ph.D, 39. Instr. *biol, South Carolina,* 40–41, *adj. prof, 41–* Soc. Bact. Anaerobic soil bacteria.

Krauskopf, Prof. Francis C(raig), University of Wisconsin, Madison, Wis. *Chemistry.* Richmond, Ind, Nov. 13, 77. A.B, Indiana, 04; A.M, Wisconsin, 07, Ph.D, 09. Asst. *chem,* Indiana, 03–04; Cornell, 04–06; instr, *Wisconsin,* 06–11, asst. prof, 11–19, assoc. prof, 19–29, *prof, 29–* Chem. Soc. Analytical and inorganic chemistry; separation of lithium; absorption of carbon monoxide; silicon and titanium; substituted ammonium molybdates and tungstates; reduction reactions with calcium hydride and with electrolytic hydrogen; zinc ferrite; beryllium oxide sols; lanthanum oxide sols; dry reactions at high temperature.

Krauskopf, Dr. Konrad B(ates), Stanford University, Calif. *Geology.* Madison, Wis, Nov. 30, 10. A.B, Wisconsin, 31; Ph.D, California, 34, Stanford, 39. Instr. chem, California, 34–35; acting instr. physical sciences, dept. geol, *Stanford,* 35–37, instr, 37–39, asst. prof. *geol,* 39–42, *assoc. prof, 42–* Photochemistry of gases; geology of north-central Washington.

Krausnick, Dr. Walter, 245 Audubon Park, Dayton, Ohio. *Electrical engineering.* St. Louis, Mo, July 28, 88. B.S, Missouri, 09; M.S, Agr. and Mech. Col. Texas, 28; Ph.D, Michigan, 30. Assoc. prof. elec. eng, Newark Col. Eng, 20–26; prof. math. and physics, Shurtleff Col, 34–35; instr. elec. eng, *Washington (St. Louis),* 36–39; *engineer propeller vibration problems, Wright Field, 40–* Asst. regional director, Surv. Fed. Archives, Mo, 36–38. Elec. Eng. Oscillograph investigations of arc phenomena; methods in the teaching of electrical engineering; mathematical methods applicable to electrical engineering.

Krauss, Beatrice H(ilmer), 2437 Parker Place, Honolulu, Hawaii. *Plant physiology.* Honolulu, Hawaii, Aug. 4, 03. B.S, Hawaii, 26, M.S, 30; Berlin, 27–28; Cornell, 39, 41. *Asst. plant physiologist, Pineapple Research Inst, Hawaii, 26–* A.A; Chem. Soc; Hawaiian Bot. Soc. (sec'y, 32); Hawaiian Meteorol. Soc; Hawaiian Acad. (sec'y-treas, 35). Water relations and anatomy of pineapple plants.

Krauss, Dr. F(rederick) G(eorge), 2437 Parker Place, Honolulu, Hawaii. *Agronomy, Genetics.* San Francisco, Calif, May 6, 70. Stanford, 91–94; California, 98–01; Sc.D, Hawaii, 21; Berlin, 27–28. In charge plant breeding, Sunset Seed and Plant Co, Calif, 94–98; in charge agron. field exp, California, 98–01; consulting agriculturist and instr. agr, Kamehameha Schs, Hawaii, 01–05; agronomist, Exp. Sta, Hawaii, 05–10; prof. agr, Col. of Hawaii, 10–14; in charge, Hawaii Agr. Substa, Haiku, and proprietor, New Era Farms, 14–21; prof. agron. and genetics, *Hawaii,* 21–29, director agr. exten. service in cooperation with U. S. Dept. Agr, 29–36, *emer. prof. agr, 36–; consulting agriculturist, 36–* Rice investigations, China and Japan, 09; agr. explor, Java, Malaya and Himalayas, 27–; agr. investigations, U. S. S. R, 36; cent. Europe, 39. Ed, 'Jour,' Pan-Pacific Research Inst. Del, Int. Cong. Genetics, Berlin, 27; Int. Cong. Agr. Econ, St. Andrews, B. C; Int. Agr. Conf, Rome, 36. A.A; Soc. Agron; Genetic Asn; Agr. Eng; Farm Econ. Asn; Am. Geog. Soc; Hawaiian Bot. Soc; Hawaiian Acad; Pan-Pacific Union (pres); World Agr. Soc. Plant breeding; rice; cotton; leguminous forage crops; culture and improvement through breeding; Cajanus indicus as a forage and green manuring crop; grain and forage grasses; plant nutrition.

Krauss, Dr. W(illiam) E(rnest), Cleveland Road, Wooster, Ohio. *Nutrition.* Newark, N. J, Jan. 11, 99. B.S, Cornell, 22, Ph.D, 26. Instr. animal husbandry, N. Y. State Col. Agr, Cornell, 22–26; research in nutrition, *Ohio Exp. Sta, Wooster,* 26–42, *chief dairy dept, 42–* Soc. Biol. Chem; Dairy Sci. Asn; Inst. Nutrition; Soc. Animal Production (ed. board, 'Jour,' 42–). Nutritive value of milk as affected by pasteurization and

.by the feed of the cow; vitamin D milk; preservation of plant pigments; nutritional aspects of dairy cattle diseases.

Kraybill, Dr. Henry R(eist), University of Chicago, Chicago, Ill. *Agricultural chemistry.* Mt. Joy, Pa, May 1, 91. B.S, Pa. State Col, 13, fellow, 13–14; M.S, Chicago, 15, Ph.D, 17. Asst. chem, Exp. Sta, Pa. State Col, 13–15, instr. agr. chem, 15–17; teaching fellow, Chicago, 16–17; asst. physiologist, bur. plant indust, U. S. Dept. Agr, 17–19; prof. agr. chem, New Hampshire, and chemist, Exp. Sta, 19–24; biochemist, Boyce Thompson Inst, 24–26; prof. agr. chem. and head dept, Purdue, 26–41; *director research, lab, Am. Meat Inst, 41–* Sci. adviser, Frasch Foundation, 39–; professorial lecturer, Chicago. A.A; Agr. Chem. (ed. board, 28–, v. pres, 37, pres, 38); Asn. Cereal Chemists; Chem. Soc. (sec'y, div. agr. and food chem, 34, chairman, 36); Soc. Plant Physiol. (sec'y-treas, 28, pres, 30, v. pres, 33, ed. board, 37–); Asn. Feed Control Officials (pres, 32); Oil Chemists Soc; Soc. Hort. Sci; Bot. Soc. Biochemistry; carbohydrate and nitrogen metabolism of plants; phosphatides and sterols of soybeans.

Kraybill, Dr. H(erman) F(ink), 251 W. Market St, Marietta, Pa. *Biochemistry, Physical chemistry.* Marietta, Pa, June 27, 14. B.S, Franklin and Marshall Col, 36; M.S, Maryland, 38, fellow, Ph.D, 41. Instr. chem, Maryland, 36–37, fellow and sci. aide, fish and wildlife service, U. S. Dept. Interior, technol. lab, 38–41; *research chemist, Swift and Co, 41–; lieut. and camp nutritionist, U. S. Army.* Chem. Soc. Dairy technology; a chemical and pharmacological study of the oxidation of oils, with special reference to fishmeal; reproductibility of the mercury-mercurous iodate electrode.

Krayer, Dr. Otto, 25 Shattuck St, Boston, Mass. *Pharmacology.* Köndringen, Germany, Oct. 22, 99. M.D, Freiburg, 26. Prof. extraordinarius pharmacol. and toxicol, Berlin, 32–34; prof. pharmacol, American Univ. Beirut, 34–37; assoc. prof. *Harvard Med. Sch,* 37–39, *assoc. prof. comp. pharmacol. and head dept. pharmacol, 39–,* lecturer, 36. Soc. Pharmacol; British Pharmacol. Soc. Pharmacology of the circulation; pharmacology of the autonomic nervous system.

Krebs, Dr. K(arl) F(rederick), 230 Grove St, Bloomfield, N. J. *Physical chemistry.* Oxford, Wis, Nov. 21, 14. B.S, Illinois, 36, Ph.D, 40. *Research chemist, Bakelite Corp, 40–* Molding materials.

Krecker, Prof. Frederick H(artzler), Ohio University, Athens, Ohio. *Zoology.* Tokyo, Japan, Dec. 21, 81. A.B, Princeton, 04, Class of 77 fellow, 08–09, Ph.D, 09; A.M, Cornell, 06; Freiburg, Munich and Chicago, 06–08. Prof. biol, Marietta Col, 09–14; asst. prof. zool, Ohio State, 14–23, prof, 23–29, acting director lake lab, 16–25, asst. director, 25–36; *prof. and head dept.* biol, *Ohio (Athens),* 29–36, *zool, 36–* Ohio Biol. Surv. Board, 29– Ed, 'Ohio Jour. Science,' 18–29. A.A; Soc. Zool; Micros. Soc. (v. pres, 24); Ecol. Soc; Limnol. Soc; Ohio Acad. (v. pres, zool. sect, 20; pres, 42); Biol. Soc. Wash. Regeneration; ecology.

Kredel, Dr. Frederick E(vert), Medical College of the State of South Carolina, Charleston, S. C. *Surgery.* Pittsburgh, Pa, Sept. 12, 03. B.S, Pittsburgh, 24, M.S, 27; Dennison fellow, Hopkins, 26–29, M.D, 29. Asst. trop. biol, Kartabo Lab, British Guiana, 25; fellow, asst. and instr. *surg,* Chicago, 29–36; *prof, Med. Col. State of S. C, 38–* Summers, mem. staff, Marine Biol. Lab, Woods Hole, 24, 25; voluntary asst, Harvard, 27–28. Advisory cmt, Renziehausen Trust, 37– Am. Med. Asn; Col. Surg; Soc. Univ. Surg. (exec. cmt, 41–); S. C. Med. Asn. (chairman cancer cmt, 38–42). Experimental surgery and pathology; nerve regeneration; cerebral thrombosis.

Kreezer, Dr. George L(aurence), Cornell University, Ithaca, N. Y. *Psychology.* Perth Amboy, N. J, Sept. 22, 02. A.B, Cornell, 24, Ph.D, 28. Asst. psychol, Cornell, 25–27, instr, 27–30; nat. research fellow biol, Berlin, 30–31; Sorbonne, Paris, 31–32; Merriam research fellow, Cornell, 32–33; research assoc, Training Sch, Vineland, N. J, 33–38; *asst. prof. psychol, Cornell, 38–; staff mem, radiation lab, Mass. Inst. Tech, 43–* Cooperating ed, 'Am. Jour. Psychol,' 40–, book rev. ed, 42– Mem, Nat. Inst. Psychol. A.A; Psychol. Asn; Asn. Mental Deficiency; Soc. Research Child Develop; Psychometric Soc. Physiological psychology; experimental psychology; electro-encephalography; mental deficiency.

Krefeld, Prof. William J(ohn), Columbia University, New York, N. Y. *Civil engineering.* New York, N. Y, April 27, 92. C.E, Columbia, 14. Engineer, 14–17; instr. and asst. prof. *civil eng, Columbia,* 17–36, *assoc. prof, 36–,* assoc. director testing lab, 17–36, *director research lab, 36–* Civil Eng; Eng. Educ; Concrete Inst; Soc. Test. Mat; N. Y. Soc. Professional Eng. Properties of materials and testing materials; investigations of materials of construction.

Kreger, Prof. Clarence W(illiam), Miami University, Oxford, Ohio. *Chemistry.* Louisville, Ky, June 1, 96. A.B, Miami (Ohio), 19; A.M, Illinois, 22; Ph.D, Ohio State, 25. Asst. prof. *chem, Miami (Ohio),* 19–20, 22–25, assoc. prof, 25–37, *prof, 37–, asst. dean lib. arts col, 30–* Col. and univ. examiner, N. Cent. Asn. Cols. and Sec. Schs. A.A; Nat. Hist. Soc. Organic and physiological chemistry; synthetic drugs; structure of disalicyl aldehyde; oxidation mechanism of raffinose; dioxans.

Krehbiel, Dr. R(obert) H(enry), 1853 W. Polk St, Chicago, Ill. *Anatomy.* Lind, Wash, March 4, 08. B.S, State Col. Wash, 30, M.S, 32; Ph.D, Chicago, 35. Instr. *anat, med. col, Illinois,* 35–41, *asst. prof, 41–* Asn. Anat. Decidual reaction in rodents.

Kreidel, Dr. K(atherine) V(eronica), Hunter College, 68th St. and Park Ave, New York, N. Y. *Hematology.* New York, N. Y, April 23, 02. A.B, Hunter Col, 23; Cornell, 25; M.S, N. Y. Univ, 37; Ph.D, Fordham, 38. Hematologist, dept. diseases of children, Babies' Hosp, New York, 23–35; *instr. physiol, Hunter Col, 38–* Size of the reticulocyte in experimental anemia in the rabbit.

Kreider, Prof. D(avid) Albert, 41 Urban St, Stamford, Conn. *Physics, Chemistry.* Annville, Pa, March 23, 71. A.B, Lebanon Valley Col, 92; Ph.D, Yale, 95; Göttingen, 01. Asst. chem, *Yale,* 93–96, instr. *physics,* 96–02, asst. prof, 02–20, assoc. prof, 20–35, *emer. assoc. prof, 35–* A.A; Physical Soc; Conn. Acad. Structural and magneto-optic rotation; potassium; sodium; detection and quantitative determination of perchlorates; perchloric acid; iodine titration voltameter; selective emission by flames.

Kreider, Prof. H(enry) R(oyer), 3902 Homewood Ave, Toledo, Ohio. *Chemistry.* Millheim, Pa, April 24, 74. A.B, Franklin and Marshall Col, 98, A.M, 01; East. Theol. Sem, 01; Ph.D, Hopkins, 10. Prof. sciences, Pa. State Forest Acad, 05–07; *chem,* Baltimore Med. Col, 10–13; acting prof, Carleton Col, 13–15; *prof. and head dept, Toledo, 15–* Fellow by courtesy, Hopkins, 10–13. Chem. Soc. (chairman Toledo sect, 38; councilor, 40). Conductivity in non-aqueous solvents; chlorination and hydration of certain heptanes.

Kreider, Dr. Henry R(oyer), Jr, Mead Johnson and Co, Evansville, Ind. *Organic and physical chemistry.* Baltimore, Md, Dec. 31, 11. B.S, Toledo, 33; A.M, Ohio State, 35, Ph.D, 36. Asst. lab, Toledo, 30–33; Ohio State, 34–36; *chemist,* Am. Med. Asn, 36–42; *Mead Johnson and Co, 42–* A.A; Optical Soc; Chem. Soc; Federation Clin. Research. Infra-red and visible spectroscopy and ultra-violet; structure of dyes; standardization of drugs; chemistry of vitamins.

Kreider, Prof. Leonard C(ale), Bethel College, North Newton, Kans. *Chemistry.* Sterling, Ohio. A.B, Goshen Col, 31; M.S, Ohio State, 33, Ph.D, 36. Grad. asst. chem, Ohio State, 32–35, asst, 35–36; research chemist, Rockefeller Inst, 36–37; *prof. chem, Bethel Col. (Kans), 37–* Chem. Soc; Kans. Acad. Carbohydrate chemistry.

Kreidl, Dr. Norbert J(oachim), 475 Gardliam Road, Rochester 12, N. Y. *Glass technology.* Atzgersdorf, Austria, July 3, 04. Ph.D, Vienna, 27. Glass technologist, Kaiser Wilhelm-institut Silicatforschung, Berlin, 28; glass technologist and director, Glass Works Schreiber and Nephews, Rapotin Czechoslovakia, 29–38; asst. prof. glass technol, Pa. State Col, 38–43; *head div. inorg. chem. glass technol, chem. lab, Bausch and Lomb Optical Co, 43–* Optical Soc; Chem. Soc; Ceramic Soc; British Soc. Glass Technol. Ceramics.

Kreidler, Dr. W(illiam) A(lfred), Jefferson Medical College, Philadelphia, Pa. *Bacteriology, Immunology.* Tatamy, Pa, June 17, 96. B.S, Lehigh, 20, M.S, 24; Ph.D, Pennsylvania, 26. Instr, high sch, Pa, 20–21; *bacter,* Lehigh, 21–24; Pennsylvania, 24–31, asst. prof, 31–32; *Jefferson Med. Col,* 32–37, *assoc. prof, 37–* Physiol. chemist, St. Luke's Hosp, Bethlehem, Pa, 20–24; bacteriologist, Bethlehem Steel Co, 22–24; Phila. Gen. Hosp, 24–31. Soc. Bact. Eberthella typhi at low temperatures; adjustment of gold sols; endocarditis; biology and serology of Streptococcus cardioarthritidis; precipitin test for meningitis; rheumatic fever; chemotherapy; insulin hypersensitivity; sulfanilamide.

Kreisinger, Henry, Combustion Engineering Co, 200 Madison Ave, New York, N. Y. *Engineering.* Radnice, Bohemia,

Feb. 17, 76. B.S, Illinois, 04, M.E, 06. Engineer, U. S. Bur. Mines, 04–10, in charge fuel efficiency lab, 13–20; *research develop. engineer, Combustion Eng. Co, 20–* Fuel engineer, Clinchfield Fuel Co, 10–13. Chanute medal, West. Soc. Eng. A.A; Mech. Eng; Min. and Metal. Eng. Fuel combustion; heat transmission; furnace design.

Kreitlow, Dr. K(ermit) W(illiam), U. S. Regional Pasture Research Laboratory, State College, Pa. *Plant pathology.* Minneapolis, Minn, July 24, 13. B.S, Minnesota, 36; M.S, Louisiana, 38, Ph.D, 40. Asst. *plant path,* Louisiana, 37–40; fellow, Rockefeller Inst, 40–41; *agent, U. S. Regional Pasture Research Lab, 41–* Phytopath. Soc; Minn. Acad; La. Acad. Fundamental and practical research on diseases of forage grasses and legumes.

Kremer, Dr. C(hester) B, 314 W. 77th St, New York, N. Y. *Chemistry.* New York, N. Y, March 4, 10. B.S, Col. City of N. Y, 29; A.M, Columbia, 31, Ph.D, 35. *Instr. chem, Col. City of N. Y, 30–* Chem. Soc; Baskerville Chem. Soc. Colloid and organic chemistry; new local anesthetics.

Kremers, Dr. H(arry) C(leveland), Harshaw Chemical Co, Cleveland, Ohio. *Chemistry.* Springfield, S. Dak, Jan. 28, 89. A.B, Hope Col, 13; M.S, Illinois, 15, Ph.D, 17. Asst. chem, Illinois, 13–17, instr, 17–18; production chemist, Fansteel Products Co, 18–20; assoc. chem, Illinois, 20–21, asst. prof, 21–29; chief chemist, Chas. Lennig Co, Phila, 29–35; *chemist, Harshaw Chem. Co, 35–* Chem. Soc; Electrochem. Soc; Ceramic Soc. Chemistry of rare elements and porcelain enamels; metallurgy of rare earths; synthetic optical crystals.

Kremers, Dr. Roland E(dward), General Foods Corp, Hoboken, N. J. *Chemistry.* Madison, Wis, Feb. 7, 94. A.B, Wisconsin, 15, Ph.D, 21. Instr. chem, Wabash Col, 15–16; asst. chemist, Forest Products Lab, U. S. Forest Service, 17; asst. prof. org. chem, Vanderbilt, 19–22; nat. research fellow, Wisconsin, 22–23; asst. prof. mat. med, Ohio State, 23–24; research chemist, Postum Cereal Co. and later *Gen. Foods Corp,* 24–39, *in charge org. research, 39–* A.A; Chem. Soc; Pharmaceut. Asn. Plant and organic chemistry; the genus Mentha; oil-yielding plants; chemistry of foodstuffs; cashew shell oil.

Krems, Dr. Abraham D(avid), Washington University, St. Louis, Mo. *Pharmacology.* Seattle, Wash, Jan. 16, 20. B.S, Washington (Seattle), 37, univ. fellow, 37–40, Ph.D, 40. *Student asst.* pharmacol, *sch. med, Washington (St. Louis),* 40–41, *neuropsychiatry, 41–, instr. pharmacol, sch. dentistry, 42–,* Jackson Johnson scholar, 40–42. Pharmacology of sulfanilamide; tolerance to drugs; neuropharmacology.

Kress, Dr. Otto, Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Chemistry.* New York, N. Y, Dec. 14, 84. B.S, Columbia, 06, A.M, 07, Ph.D, 09. Instr. chem, Columbia, 06–09; pulp and paper mills, 09–13; tech. expert, Badische Co, 13–16; in charge research, sect. pulp and paper, Forest Products Lab, U. S. Forest Service, 16–18; Consol. Water Power and Paper Co, 18–20; supt. manufacture, Thilmany Pulp and Paper Co, 20–28; consultant, 28–30; *tech. director, Inst. Paper Chem, Lawrence Col, 30–* Chem. Soc; Soc. Chem. Indust; Asn. Pulp and Paper Indust. Pulp; paper; cellulose.

Kressmann, F(rederick) W(illiam), Continental Turpentine and Rosin Corp, Laurel, Miss. *Chemistry.* Chicago, Ill, Feb. 6, 88. B.S, Illinois, 09, M.S, 10. Asst. chem. eng, Illinois, 09–10; asst. chemist forest products, Forest Products Lab, U. S. Forest Service, 10–12, chemist, 12–16; v. pres. and director develop. dept, Int. Alcohol Corp, N. Y. and La, 16–19; *v. pres. and gen. manager, Continental Turpentine and Rosin Corp, 20–* Lecturer, Wisconsin, 14–16. A.A; Chem. Soc; Chemists' Club. Bituminous coals; spontaneous combustion; dyes and tannins of woods and barks; acid catalytic hydrolysis of wood waste; terpenes; resenes; rosin; patents on decolorization of rosin, preparation of plastics, thermo setting and coating from rosin bases; high density carbons for activation.

Kretschmar, Prof. G(eorge) G(ustav), Walla Walla College, College Place, Wash. *Physics.* Corning, N. Y, Aug. 3, 94. A.B, Union Col. (Nebr), 15; B.S, Colorado, 19; fellow, Washington (Seattle), 22–24, M.S, 24; Ph.D, Chicago, 33. Instr. physics and math, *Walla Walla Col,* 19–22, *prof. physics, 34–* Summer, physicist, Arcturus Radio Tube Co, 29. Physical Soc; Optical Soc; Radio Eng; Asn. Physics Teachers. X-ray photoelectrons; electronics.

Kretschmer, Dr. Carl B(ernard), 604 Russell St, Peoria, Ill. *Physical chemistry.* Pueblo, Colo, Aug. 4, 16. A.B, Colorado, 38; fellow, Illinois, 39–41, Ph.D, 41. *Asst. physicist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Motor fuels.

Kretschmer, Dr. Herman Louis, 122 S. Michigan Ave, Chicago, Ill. *Surgery.* Chicago, Ill, April 22, 79. M.D, Northwestern, 04. *Prof. urol, Rush Med. Col, Illinois.* Urologist, Presb. Hosp; Children's Mem. Hosp. Pres, Am. Board Urol, Inc. A.A; fel. Col. Surg; Asn. Genito-Urinary Surg. (pres, 31); Clin. Asn. Genito-Urinary Surg. (pres, 37); Am. Med. Asn. (treas, 33–, sec'y, urol. sect, 20–23, chairman, 23); Urol. Asn. (pres, 25); Inst. Traumatic Surg; Asn. Study Int. Secretions; Social Hygiene Asn; West. Surg. Asn; Chicago Urol. Asn. (pres, 15); Inst. Med. Chicago; Chicago Path. Soc; Chicago Med. Soc. (pres, 32); Chicago Soc. Med. Hist; Minn. Surg. Soc; cor. mem. Urol. Gesell; cor. mem. Magyar Urol. Tarsasag; Int. Soc. Urol. Genito-urinary surgery; urology; treatment of the bladder, kidney, ureter, urethra and prostate; urology for children.

Kreutzer, Dr. W(illiam) A(lexander), Colorado State College, Ft. Collins, Colo. *Plant pathology.* Gunnison, Colo, April 13, 08. B.S, Colo. State Col, 30, M.S, 32; Ph.D, Iowa State Col, 39. Instr. bot, Colo. State Col, 31–32, asst. prof, 32–34; asst. *bot. and plant path,* Iowa State Col, 34–36; asst. prof, *Colo. State Col,* 36–42, *assoc. prof, 42–* Diseases of cucurbits, sugar beets, peppers, onions, tomatoes and potatoes; studies in the genus Phytophthora.

Krewson, Dr. Cha(rle)s F(lemings), Bureau of Agricultural and Industrial Chemistry, U. S. Department of Agriculture, Philadelphia, Pa. *Biochemistry.* Philadelphia, Pa, May 17, 05. B.S, Pa. State Col, 27; M.S, Kentucky, 32; Ph.D, Wisconsin, 40. Instr. gen. chem, Kentucky, 27–41; asst. research chemist, *tobacco sect, anal. and physical chem. div, east. regional research lab,* bur. agr. chem. and eng, *U. S. Dept. Agr,* 41–42, *assoc. research chemist, bur. agr. and indust. chem, 42–* Asst, Wisconsin, 38–39. Mem. cooperating cmt, Chemist Advisory Council, Inc, chairman, East. Ky, 40– Chem. Soc. (councilor, Lexington sect, 36, 40, sec'y-treas, 36, chairman, 37); Inst. Chem; Pharmaceut. Asn; Ky. Acad. Vegetable oils; terpenes; apparatus; nutritional cataract; relation of fat to utilization of lactose; nutritive value of fats; organic synthesis.

Kribs, Prof. David A(lson), Pennsylvania State College, State College, Pa. *Botany.* Thief River Falls, Minn, Jan. 2, 96. B.S, Minnesota, 24, M.S, 26; Sterling fellow, Yale, 27–29, Ph.D, 30. Instr. forestry, Minnesota, 24–27; nat. research fellow, Bussey Institution, Harvard, 29–31; instr. *bot, Pa. State Col,* 31–38, *asst. prof, 38–* Soc. Foresters; Torrey Bot. Club. Morphology; anatomy; taxonomy; phylogeny in dicotyledons; wood technology.

Krichesky, Dr. Boris, 2131 Selby Ave, Los Angeles, Calif. *Endocrinology.* Russia, Dec. 23, 03. A.B, Reed Col, 26; A.M, California at Los Angeles, 34; Rosenberg fellow, Stanford, 36–37, Ph.D, 39. Assoc. *zool, California at Los Angeles,* 30–38, instr, 39–42, *asst. prof, 42–* Soc. Exp. Biol; Asn. Study Int. Secretions; West. Soc. Nat. Physiology of reproduction.

Krick, Prof. I(rving) P(arkhurst), California Institute of Technology, Pasadena, Calif. *Meteorology.* San Francisco, Calif, Dec. 20, 06. A.B, California, 28; M.S, Calif. Inst. Tech, 33, Ph.D, 34. Instr, *Calif. Inst. Tech,* 33–35, asst. prof. *meteorol,* 35–38, assoc. prof, 38–42, *prof, 42–, head dept, 38–; major, Air Corps, U. S. Army, 42–* Consulting meteorologist, West. Air Express, 32–, Am. Airlines, 35– Junior Chamber of Commerce distinguished service award. A.A; Meteorol. Soc; Inst. Aeronaut. Sci. Air mass and frontal methods of weather analysis and forecasting; long range forecasting methods adopted by Army Air Forces with extension of technique begun to cover world weather.

Krider, Dr. J(ake) L(uther), 511 W. Oregon, Urbana, Ill. *Animal husbandry.* Lewistown, Ill, Dec. 12, 13. B.S, Illinois, 39, M.S, 41; Ph.D, Cornell, 42. Asst. *animal husbandry,* Illinois, 39–40; Cornell, 40–42; *assoc, Illinois, 42–* Soc. Animal Production. Swine nutrition, breeding and management.

Krieble, Dr. R(obert) H(enry), Socony-Vacuum Oil Co, Paulsboro, N. J. *Organic chemistry.* Worcester, Pa, Aug. 22, 16. Ph.D, Hopkins, 39. *Research chemist, Socony-Vacuum Oil Co, 39–* Chem. Soc. Configuration of hemin; oxidation of hydrocarbons.

Krieble, Prof. Vernon K(riebel), Trinity College, Hartford, Conn. *Chemistry.* Worcester, Pa, March 4, 85. Ph.B, Brown, 07; M.Sc, McGill, 09, Ph.D, 13; Hopkins; Pennsylvania; Jefferson Med. Col. Demonstrator *chem,* McGill, 07–12, lecturer, 12–14, asst. prof, 14–20; *Scoville prof, Trinity Col. (Conn), 20–* Cambridge, 30–31. Trustee, Perkiomen Sch, 39– Chem. Soc. (chairman, Conn. Valley sect, 28–30, councilor, 36–38); Inst. Chem; New Eng. Asn. Chem. Teachers. Amygdalins; enzymes, with special reference to emulsins and oxynitrilases; asphalts; hydrolysis with concentrated acids.

Krieg, Dr. Wendell J(ordan), 477 First Ave, New York, N. Y. *Anatomy.* Lincoln, Nebr, April 13, 06. B.S, Nebraska, 28; M.S, N. Y. Univ, 31, Ph.D, 35. Instr. *anat,* Nebraska, 28–29; col. dentistry, *N. Y. Univ,* 29–32, *col. med,* 32–37, *asst. prof, 37–* A.A; Asn. Anat; Harvey Soc. Anatomy and physiology of brain of albino rat and man.

Kriege, Dr. Herbert F(rick), France Stone Co, Toledo, Ohio. *Chemistry.* Omaha, Nebr, March 14, 95. B.S, Cent. Wesleyan Col, 16; scholar, Missouri, 19–20, A.M, 20; Nat. Agstone fellow, Ohio State, 24–26, Ph.D, 26. Teacher, high sch, Iowa, 16–19; instr. chem, Missouri, 20–23; research chemist, State Highway Cmn, Mo, 23–24; *in charge labs, France Stone Co, 26–* U.S.A, 18–19. Chem. Soc; Ceramic Soc; Soc. Test. Mat; Munic. Eng; Concrete Inst. Properties of mineral aggregates and correlation of tests with their behavior in use; cement content determination in concrete; rate dissolution of limestones; lime; structural strength of bitumen-aggregate mixtures under moving wheel loads.

Kriegel, Prof. W(illiam) Wurth, North Carolina State College, Raleigh, N. C. *Ceramic engineering.* Seattle, Wash, Dec. 4, 07. B.S. (C.E), Washington (Seattle), 29, B.S. (Cer.E), 32; M.S, Mont. Sch. Mines, 36; exchange fellow, Inst. Int. Educ, 37–38; D.Ing, Tech. Hochschule, Hannover, 39. Research fellow, U. S. Bur. Mines, Washington (Seattle), 29–30; engineer, Aberdeen Clay and Color Co, 30–31; Gladding, McBean and Co, 31–32; officer, Civilian Conservation Corps, 33–34; asst. ceramics, Mont. Sch. Mines, 34–35, instr, 35–39; ceramic eng, *N. C. State Col,* 39–40, asst. prof, 40–41, *assoc. prof, 41–* Ceramist, Bur. Mines and Geol, Mont, 35–39. Ceramic Soc; Ceramic Eng; Ceramic Ed. Council; Eng. Educ. Dehydration and rehydration of clays; refractory properties of chrome ores; clay and ocher beneficiation; unfired ceramic bodies; ceramic properties of industrial topaz.

Krieger, Dr. Carl H(enry), 2408 Kendall Ave, Madison, Wis. *Biochemistry.* Milwaukee, Wis, Aug. 14, 11. B.S, Wisconsin, 33, M.S, 38, Ph.D, 40. Teaching asst, *Wisconsin,* 38–40, *research assoc, Alumni Research Foundation, 34–* Interrelations of calcium, phosphorus and vitamin D with particular emphasis on the utilization of phytic acid phosphorus; chemical, microbiological and biological assay of vitamins; milk and nutrition.

Krieger, Prof. C(harles) J(ohn), San Diego State College, San Diego, Calif. *Astronomy.* Trieste, Austria, July 2, 98. Diploma, Tech. Hochschule, Munich, 22; Lick Observatory fellow, California, 28–29, Ph.D, 29. Instr. *astron,* St. Louis, 29–31, *asst. prof,* 31–40; Stanford, 41; *San Diego State Col, Calif, 41–* Vol. research asst, Yerkes Observatory, Chicago, 32, 33. A.A; Astron. Soc; Astron. Gesell. Observations and orbits of minor planets; scutum cloud; spectra of cepheid variables.

Krieger, Dr. C(ypra) Cecilia, 382 Roxton Road, Toronto, Ont, Can. *Mathematics.* Jaslo, Poland, April 9, 94. B.A, Toronto, 24, M.A, 25, Ph.D, 30. Instr. *math, Toronto,* 28–31, *lecturer, 31–* Math. Soc. Theory of functions of a real variable.

Krieger, H(erbert) W, U. S. National Museum, Washington, D. C. *Anthropology.* Burlington, Iowa, Dec. 8, 89. A.M, Iowa. Instr, Minnesota, 22–24; asst. curator, *U. S. Nat. Museum,* 24–25, *curator, 25–* Bur. Am. Ethnol. exped, Columbia River valley and southeast. Alaska, 26–27; Smithsonian Institution exped, Santo Domingo, 28–30, Haiti, 31, Cuba, 32, Columbia River Valley, 34, Bahama Islands, 36, Virgin Islands, 37. Anthrop. Asn. (board managers); Anthrop. Soc. Wash. (board managers). Material culture of the peoples of Panama; aboriginal weapons and armor of the Philippines; archeology of the American northwest; archeology and ethnology of the West Indies; technology and art of the Pacific peoples and of the American Indians.

Krieger, Dr. K(nut) A(xel), University of Pennsylvania, Philadelphia, Pa. *Physical chemistry.* Philadelphia, Pa, Feb. 1, 11. B.S, Pennsylvania, 33, M.S, 34, Ph.D, 37. *Instr. chem, Pennsylvania, 37–* Chem. Soc. Adsorption.

Krienke, Prof. W(alter) A(lbert), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Dairy manufacturing.* Enid, Okla, Oct. 2, 07. B.S, Okla. Agr. and Mech. Col, 32, M.S, 40. Asst. *dairy mfg, Okla. Agr. and Mech. Col,* 38–40, instr, 40–41, *asst. prof, 41–* Dairy Sci. Asn. Milk flavors; flavoring materials in ice cream.

Krimmel, Maxamillian (Albright), 1019 W. Sixth St, Erie, Pa. *Chemistry.* Pine Grove, Pa, April 4, 92. B.S, Pa. State Col, 13. Asst. chief chemist, *Hammermill Paper Co, Erie,* 13–19, asst. director labs, 20–42, *manager plastics div, 40–* A.A; Chem. Soc. (chairman, Erie sect, 25, v. chairman, 26); Soc. Test. Mat; Asn. Pulp and Paper Indust. (v. pres, 29, pres, 30–32). Pulp and paper technology; process control; water purification; corrosion; plastics.

Kritchevsky, Dr. W(olf), 7049 Chappell Ave, Chicago, Ill. *Chemistry.* Russia, Sept. 16, 86. D.Sc, Grenoble, 10; Bern; Geneva. Instr. org. chem. and dyestuffs, Minnesota, 12–16; research director dyestuffs div, Sherwin-Williams Co, Chicago, 16–19; *consulting chemist, 16–; chem. director, Rit Products Co, Chicago, 19–* Chem. Soc; fel. Inst. Chem; Deuts. Chem. Gesell. Chemistry of dyestuffs; organic chemistry.

Krivobok, Dr. Vsevolod N, 1521 Mellwood Drive, Glendale, Calif. *Metallurgy.* Poltava, Russia, Nov. 1, 94. B.S, Harvard, 21, Met.E, 22, Sc.D, 24. Research assoc, bur. metal. research, Carnegie Inst. Tech, 24–29, assoc. prof. metal, 29–32, prof, 32–40; assoc. director research, Allegheny Steel Co, 34–40; *chief metallurgist, Lockheed Aircraft Corp, 40–* Howe Mem. lecturer, Am. Soc. Metals, 34. Soc. Metals (trustee); Min. and Metal. Eng; British Inst. Metals; Russian Metal. Soc. Metallography of iron, steel and alloy steels; nonferrous metals and alloys.

Kriz-Hettwer, Dr. Rose, 3948 W. Vliet St, Milwaukee, Wis. *Pharmacology.* New York, N. Y, May 6, 94. B.S, Wisconsin, 18; M.B, Minnesota, 20, M.D, 21. Asst. prof. pharmacol, sch. med, Marquette, 21–27; *practising physician and research work, 27–* Fel. Am. Med. Asn; Wis. Med. Women's Soc. (sec'y and treas, 24–34, v. pres, 34). Effect of strychnine and nicotine on unicellular organisms; absorption of undigested protein.

Kroc, Dr. Robert L(ouis), Indiana University, Bloomington, Ind. *Zoology, Physiology.* Chicago, Ill, June 19, 07. A.B, Oberlin Col, 29, A.M, 31; Ph.D, Wisconsin, 33. Asst. *zool,* Wisconsin, 30–33; instr, *Indiana,* 33–37, *asst. prof,* 37–Soc. Zool; Asn. Study Int. Secretions. Endocrinology; physiology of adrenal cortex; glandular interrelationships.

Kroeber, Prof. A(lfred) L, University of California, Berkeley, Calif. *[1]*Anthropology.* Hoboken, N. J, June 11, 76. A.B, Columbia, 96, A.M, 97, Ph.D, 01. Curator *anthrop,* Calif. Acad. Sciences, 00, 03–06; instr, *California,* 01–06, asst. prof, 06–12, assoc. prof, 12–19, *prof, 19–,* curator, 08–25, *director museum anthrop, 25–* Visiting prof, Columbia, 32; Chicago, 38. V. chairman div. anthrop. and psychol, Nat. Research Council, 21–22. Nat. Acad; A.A. (v. pres, 07); Anthrop. Asn. (pres, 17); fel. Ethnol. Soc; Folk-Lore Soc. (pres, 06). Ethnology; American languages; ethnology of California; archeology of Mexico and Peru; North American Indians.

Kroeck, Prof. Louis (Samuel), College of the Pacific, Stockton, Calif. *Anatomy.* Iowa, 72. B.S, Col. of Pacific, 95, M.S, 98, Sc.D, 32; A.M, Stanford, 97. Instr. biol, *Col. of Pacific,* 96–99, prof. biol. and geol, 99–04, *biol,* 04–32, *emer. prof, 32–* Summers, research, Hopkins biol. lab, Stanford; Calif. Acad. Sciences. A.A; Calif. Acad. Cellular anatomy.

Kroeckel, Rev. C(larence) J(ohn), St. Joseph's College, Collegeville, Ind. *Zoology, Histology.* Defiance, Ohio, April 1, 02. St. Joseph's Col. (Ind), 22–23; St. Charles Sem, 23–30; M.S, Catholic Univ, 33. *Chairman dept. science, St. Joseph's Col. (Ind), 38–* A.A; Asn. Biol. Teachers; Ind. Acad. Histological study of the taste buds in the tongue of the opossum; history of medicine in America; histological and microtechnical methods; application of polarized light to microscopical study.

Kroeger, Dr. W(illiam) J(ohn), Ordnance Laboratory, Frankford Arsenal, Philadelphia, Pa. *Physics.* Duquesne, Pa, June 5, 06. B.S, Carnegie Inst. Tech, 27; M.S, Pittsburgh, 34, Ph.D, 37. Field engineer, transmission eng. dept,

Westinghouse Elec. and Mfg. Co, 27–31; asst. physics, Pittsburgh, 31–35, instr, 37–38; tech. asst, Fed. Bur. Investigation, 36; *assoc. physicist, Ordnance Dept, U. S. Army, 40–* Physical Soc. Ballistics; physical properties of propellants; transient phenomena in gases at high temperature and pressure.

Kroeker, Dr. E(dwin) H(enry), Rohm and Haas Co, 222 W. Washington Square, Philadelphia, Pa. *Chemistry.* Inman, Kans, Jan. 2, 06. B.S, Kans. State Col, 29; Ph.D, Wisconsin, 34. Asst. chem, Wisconsin, 29–30, 31–34; instr. agr. chem, Kans. State Col, 30–31; prof. chem, Bethel Col. (Kans), 34–37; *research staff, Rohm and Haas Co, 37–* A.A; Chem. Soc. Mechanisms of acetoacetic ester condensation; baking quality of wheat varieties; lipids of mold fats.

Krogdahl, Dr. Wasley S(ven), Naval Ordnance Laboratory, Washington, D. C. *Astrophysics.* Springfield, Ill, Jan. 17, 19. B.S, Chicago, 39, univ. fellow, 41–42, Ph.D, 42. *Civilian employee, Naval Ordnance Lab, 42–* Astron. Soc. Stellar rotation.

Krogman, Prof. Wilton Marion, University of Chicago, Chicago, Ill. **[7]Anthropology, Anatomy.* Oak Park, Ill, June 28, 03. Ph.B, Chicago, 26, A.M, 27, Ph.D, 29. Instr. physical anthrop, Chicago, 29–30; nat. research fellow biol, 30–31; *assoc. prof. anat. and physical anthrop,* Western Reserve, 31–38; *Chicago, 38–* Field director, Ill. Archeol. Surv, 26–30. Morris L. Chaim prize, 27; 'Readers Digest' prize, 36. A.A. (sec'y, H, 33, 37); Asn. Physical Anthrop; Anthrop. Asn. (pres, cent. sect, 37). Physical anthropology; anthropological aspects of human dentition; comparison of growth in face and skull; racial differences in human anatomy; child development; prehistoric racial movements in Europe and Asia Minor.

Krohn, Dr. Ivar T(rygve), Ethyl Corp, 1600 W. Eight Mile Road, Detroit, Mich. *Physical chemistry.* Minneapolis, Minn, Jan. 15, 16. B.Ch, Minnesota, 37; Ph.D, Illinois, 41. Special research asst. chem, Illinois, 37–41, Nat. Defense Research Cmt, 41–43; *research chemist, Ethyl Corp, 43–* A.A; Chem. Soc. Infrared absorption measurements; photochemical and thermal reactions.

Krombein, Karl v(on Vorse), U. S. National Museum, Washington, D. C. *Entomology.* Buffalo, N. Y, May 26, 12. B.S, Cornell, 34, A.M, 35, Comstock fellow, 37–38, grad. scholar, 38–39. Asst, N. Y. State Exp. Sta, 36; entomologist, Niagara Sprayer and Chem. Co, Middleport, N. Y, 39–40; assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 41–42; lieut, *Sanit. C, U. S. Army,* 42–43, *capt, 43–* Summers, asst, N. Y. State Exp. Sta, Geneva, 37, 38. Entom. Soc. Amer; Entom. Soc; Brooklyn Entom. Soc; Entom. Soc. Wash. Taxonomy of aculeate Hymenoptera.

Kron, Gabriel, General Electric Co, Schenectady, N. Y. *Electrical engineering.* Nagybánya, Hungary, July 23, 01. B.S, Michigan, 24, hon. M.E, 36. Draughtsman, Jeannin Elec. Co, 24–25; designer, Robbins and Myers Co, 25–26; research, Lincoln Elec. Co, 28–30; develop, Westinghouse Elec. and Mfg. Co, 30; consulting engineer, United Research Corp, 30–34; engineer, gen. dept, *Gen. Elec. Co,* 34–38, *consulting engineer, 38–* George Montefiore prize award, Belgium, 35. Elec. Eng. Tensor analysis.

Kron, Dr. Gerald E(dward), Lick Observatory, University of California, Mt. Hamilton, Calif. *Astrophysics.* Milwaukee, Wis, April 6, 13. B.S, Wisconsin, 33, M.S, 34, 34–36; Ph.D, California, 38. Junior astronomer, *Lick Observatory, California,* 38–42, *asst. astronomer, 42–* A.A. Photoelectric photometry.

Kroner, Dr. T(homas) D(avis), 87 Upham St, Malden, Mass. *Bacteriology, Biochemistry.* Malden, Mass, Feb. 6, 14. A.B, Dartmouth Col, 35; Ph.D, Mass. Inst. Tech, 40. Asst. prof. bacter, Colo. State Col, 40–41; Louisiana, 41–42; U. S. Army, 42–43, *lieut, Sanit. Corps, 43–* A.A; Chem. Soc; Soc. Bact. An attempt to increase the alcohol production of Fusarium radicicola; disinfection of potato cutting knives; foods grown in Louisiana.

Kronfeld, Dr. Peter C(lemens), 904 W. Adams St, Chicago, Ill. *Ophthalmology.* Vienna, Austria, Sept. 12, 99. M.D, Vienna, 23. Instr. human physiol, Vienna, 19–24, ophthal, 24–26, asst, 26–28; asst. prof, Chicago, 28–29, assoc. prof, 29–33; prof. and head dept, Peiping Union Med. Col, 33–39; *assoc. prof. ophthal. and director educ, Ill. Eye and Ear Infirmary, Illinois, 39–; asst. prof. ophthal, Northwestern, 39–* Prize, Vienna Ophthal. Soc, 26. A.A; Am. Med. Asn; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Chicago Ophthal. Soc; Chicago Path. Soc; Kansas City Eye, Ear, Nose and Throat Soc; Deuts. Ophthal. Gesell; Ophthal. Gesell. Wien. Vegetative physiology of the eye.

Kropa, Dr. Edward L(ewis), Greenwich Gardens, 7 Rockmere Road, Old Greenwich, Conn. *Chemistry.* Meriden, Conn, Dec. 14, 07. B.S, Wesleyan, 29, A.M, 30; Ph.D, N. Y. Univ, 33. Asst. org. chem, Wesleyan and N. Y. Univ, 30–32; asst. to Dr. R. R. Renshaw, 33; *research chemist,* Ellis Labs, Montclair, N. J, 34–35, Ellis-Foster Co, 35–37; *Stamford labs, Am. Cyanamid Co, 37–* Chem. Soc; Inst. Chem. Organic chemistry; resin formation; alkyd resins; plastics; high polymers.

Kropp, Prof. Benjamin, Queen's University Medical School, Kingston, Ont, Can. *Developmental anatomy.* Boston, Mass, May 24, 00. B.S, Harvard, 23, A.M, 24, Ph.D, 27. Austin teaching fellow zool, Harvard, 26–27, instr, 27–29; research, Naples Zool. Sta. and Kaiser Wilhelm Inst, Berlin, 29–31; research fellow anat, Harvard Med. Sch, 36–37, obstet, 37–38; lecturer *embryol, med. sch, Queen's (Can),* 38–42, *asst. prof, 42–* Parker fellow, 29–30. A.A; Soc. Zool; Asn. Anat; Can. Physiol. Soc. Animal reactions; endocrine and pigmentary systems; regeneration; growth and reproduction; placenta.

Krotkov, Dr. G(leb), Queen's University, Kingston, Ont, Can. *Plant physiology, Biology.* Moscow, Russia, May 9, 01. Prague Agr. Col, 25; M.A, Toronto, 31, Ph.D, 34. Lecturer *biol, Queen's (Can),* 31–36, asst. prof, 36–43, *assoc. prof, 43–* Soc. Plant Physiol. Respiration; plant metabolism.

Kroulik, Dr. J(ohn) T(heodore), Clemson Agricultural College, Clemson, S. C. *Bacteriology.* Bellville, Texas, May 20, 10. A.B, Texas, 34, A.M, 35; Ph.D, Kans. State Col, 39. Bacteriologist, State Dept. Health, Texas, 40–41; *instr. bot. and bacter, Clemson Agr. Col, 41–; lieut, Sanit. Corps, U. S. Army, 42–* Special agent, U. S. Dept. Agr, Texas; asst. bacteriologist, State Dept. Health, Kans. Soc. Bact. Respiration, infectiveness and nitrogen fixing efficiency of Rhizobium meliloti.

Krueger, Dr. Albert Paul, University of California, Berkeley, Calif. *Bacteriology, Physiology.* Butte, Mont, March 17, 01. A.B, Stanford, 25, M.D, 28. Asst. bacter. and exp. path, Stanford, 27–28, acting instr, 28–29, instr. and asst. prof, 29; assoc. gen. physiol, Rockefeller Inst, 29–31; assoc. prof. *bacter, California,* 31–38, *prof, 38–, consultant communicable diseases, student health service, and lecturer med, med. sch, 32–; commander, Med. Corps, U. S. Naval Res, 40–* Asst. visiting physician, Univ. Calif. Hosp, 31–, consultant bacter, 32–; grant, cmt. sci. research, Am. Med. Asn, 38. A.A; Soc. Bact; Soc. Exp. Biol; Soc. Exp. Path; Asn. Immunol; Am. Med. Asn; Pub. Health Asn; Asn. Mil. Surg; Calif. Acad. Bacteriophage; antigens; general physiology of bacteria; viruses.

Krueger, Prof. Hugo (Martin), St. Louis University School of Medicine, St. Louis, Mo. *Pharmacology, Physiology.* Denver, Colo, Nov. 30, 02. A.B, Denver, 24, A.M, 26; Ph.D, Michigan, 30. Instr. Latin, Denver, 24–27, asst. chem, 26–27; physiol, med. sch, Michigan, 27–30, instr, 30–31, *pharmacol,* 31–33, research asst. prof, 33–39; senior instr, *sch. med, St. Louis,* 39–41, *asst. prof, 41–* Soc. Exp. Biol; Physiol. Soc; Soc. Pharmacol; Mich. Acad. Respiration; pharmacology of morphine derivatives; theory of diffusion; gastro-enterology; histamine; anaphylaxis; air embolism.

Krueger, Dr. John, Edwal Laboratories, 732 Federal St, Chicago, Ill. *Organic chemistry.* Summit Hill, Pa. B.S, Bucknell, 32, M.S, 33; Ph.D, Virginia, 38. Research assoc, Virginia, 37–39; asst, Pa. State Col, 39–40; *chief research chemist, Edwal Labs, Inc, 40–* A.A; Chem. Soc. Systematic organic chemistry; alkaloids; steroids; mustard oils; trinitrotoluene.

Krueger, Prof. Myron (Edward), University of California, Berkeley, Calif. *Forestry.* Glenville, N. Y, June 15, 90. B.S, Union (N. Y), 12; B.S.A, Cornell, 14; M.S, California, 17. Engineer and forester, Pacific Lumber Co, 19–23; logging engineer, North. Redwood Lumber Co, 23–25; assoc. prof. *forestry, California,* 25–39, *prof, 39–* Senior code examiner, U. S. Forest Service, 34. U.S.A, 17–19. Soc. Foresters (sec'y, Calif. sect, 29, v. chairman, 31, chairman, 36; councilor, 37–41). Logging time.

Krueger, Dr. Paul A, 223 Royal Ave, Ferguson, Mo. *Organic chemistry.* Madison, S. Dak, Feb. 4, 06. A.B, Sioux Falls Col, 27; M.S, Northwestern, 29; Ph.D, Pa. State Col, 32.

Asst. tech. director, Mallinckrodt Chem. Works, St. Louis, 32– Chem. Soc. Product development; technical service; patents.

Krueger, Dr. Raymond L(eslie), Wittenberg College, Springfield, Ohio. *Mathematics.* Chicago, Ill, July 1, 02. A.B, Illinois, 27, fellow, 27–28, A.M, 28; Ph.D, Marquette, 34. Instr. math, Marquette, 28–33; master, Lake Forest Acad, 33–37; asst. prof. math. and astron. and director, Elgar Weaver Observatory. *Wittenberg Col, 37–38,* asst. prof. *math,* 38–42, *assoc. prof, 42–, head dept, 38–* Summer, lecturer, Marquette, 36. Math. Asn. Higher plane curves; number theory; educational statistics.

Krueger, Dr. William C(harles) F(rederick), Wayne University, Detroit, Mich. *Psychology.* St. Louis, Mo, Sept. 29, 97. A.B, A.M, Drake, 25; Ph.D, Chicago, 28. From instr. to *assoc. prof. psychol,* Col. City of Detroit, 28–33, *Wayne, 33–* Experimental and theoretical psychology; relations of overlearning to retention; reading-recitation process; measuring retention; guessing factor in true-false tests.

Kruesi, Paul J(ohn), Southern Ferro Alloys Co, Chattanooga, Tenn. *Electrochemistry, Electrical engineering.* Menlo Park, N. J, Feb. 3, 78. Union (N. Y), 96–98, hon. Sc.D, 35. Statist. dept, Chicago Edison Co, 98–99; Gen. Incandescent Arc Light Co, N. Y, 99–02; *manager, Am. Lava Corp, 02–, pres, 18–; pres. and gen. manager, South. Ferro Alloys Co, 17–* Mem. advisory cmt. electrotech. lab, U. S. Bur. Mines, Norris, Tenn; advisory board, Birmingham Eng. Procurement Dist. Director, South. Chem. Cotton Co; Provident Life and Accident Ins. Co; Nashville, Chattanooga and St. Louis Ry; trustee, Univ. Tenn. and Univ. Chattanooga. A.A; Electrochem. Soc. (pres, 28, rep, Nat. Research Council); Elec. Eng; Iron and Steel Inst. Extruded steatite insulation for the radio tube field; lava insulation for electrical apparatus; ferro silicon.

Kruger, Dr. F(rederick) C(hristian), Cerro de Pasco, Peru, S. Amer. *Structural geology.* St. Paul, Minn, April 1, 12. B.S, Minnesota, 35, M.S, 36; Ph.D, Harvard, 41. Instr. geol, Dartmouth Col, 36–38; *mining geologist, Cerro de Pasco Copper Corp, 41–* Glacial geology; metamorphic geology.

Kruger, Prof. P(eter) Gerald, University of Illinois, Urbana, Ill. *Physics.* Deer Creek, Minn, May 7, 02. A.B, Carleton Col, 25; German-Am. exchange fellow, Berlin, 26–27; Ph.D, Cornell, 29. Instr, Cornell, 25–26, 27–29; nat. research fellow, Berlin, 29–30; Heckscher fellow, Cornell, 30–31; asst. prof. *physics, Illinois,* 31–36, assoc. prof, 36–39, *prof, 39–,* acting head dept, 38–39, *acting head dept, 40–* Fel. Physical Soc. Spectroscopy; nuclear physics.

Krukoff, B(oris) A(lexander), New York Botanical Garden, Bronx Park, New York, N. Y. *Economic botany.* Kasan, Russia, July 20, 98. Kasan Univ. (Russia); Syracuse, 25–28. Forester, Intercontinental Rubber Co, 28–31; consulting forester, Insul. Rubber Co, 30–34, 36–40; v. pres. and production manager, Caffco Drugs Inc, 35–36; *botanist, Merck and Co, Inc, 35–; hon. curator econ. bot, N. Y. Bot. Garden, 40–* Hevea rubber investigations, U. S. Rubber Co, 31–32; consulting botanist, Chicle Develop. Co, 41–; tech. v. pres, Experimental Plant, Inc, 42– Mem. bot. expeds, Brazil, 28, 29, 31–37, 41; Chile and Argentina, 29; Spain, 29–30; West Coast of Africa, 30; Sumatra, 30–31, 32–33; Bolivia, 39; Trinidad, British Guiana and Surinam, 41. Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club. Tropical economic plants; crude drugs, especially cinchona; antimalarials; organic insecticides and repellents; taxonomy of Strychnos, Erythrina and American Menispermaceae.

Krukovsky, Dr. Vladimir Nicitich, 116½ Heights Court, Ithaca, N. Y. *Dairy industry.* Odessa, Russia, Oct. 8, 01. Agr. Eng, Praha, 26; M.S, Cornell, 34, Ph.D, 35. Instr. *dairy indust, Cornell,* 35–39, *asst. prof, 39–* A.A; Chem. Soc; Dairy Sci. Asn. Lipolysis of milk fat; agglutination of the fat globules in milk; physico-chemical properties of the fat in relation to deterioration of fat; milk fat oil; casein.

Krull, Dr. Wendell (Henry), U. S. Department of Agriculture, Beltsville, Md. *Parasitology.* Tripoli, Iowa, Dec. 8, 97. A.B, Upper Iowa, 21; M.S, Iowa, 24; Ph.D, Michigan, 31. Asst. zool, Iowa, 21–24; prof, Northwestern Col, 24–25; biol, Kans. Wesleyan, 25–26; Elmhurst Col, 26–28; instr. zool, Michigan, 28–30; fish pathologist, inst. fisheries research, 30–31; asst. parasitologist, *zool. div, bur. animal indust, U. S. Dept. Agr,* 31–38, *assoc. zoologist, 38–* Fel. Iowa Acad; Wash. Acad. Biology; life histories of trematode and cestode parasites.

Krumb, Henry, 14 Wall St, New York, N. Y. *Mining engineering.* Brooklyn, N. Y, Nov. 15, 75. E.M, Columbia, 98. Draftsman, engineer, assayer, chemist, mine supt. and chief engineer, various mining companies, 98–04; field engineer, Guggenheim Explor. Co, 04–07; *consulting mining engineer, 07–* Investigator, Utah Copper, Nevada Consol. and other porphyry copper mines; investigator, Braden, Chile Copper Co. and Cerro de Pasco Mines, S. Amer; consulting engineer, Ray Consol, Inspiration Copper, Magma Copper, Newmont Mining Corp. and others. Trustee, Columbia. Egleston medal, 39. Priorities cmt, W.I.B, U.S.A, 18. Hon. mem. Min. and Metal. Eng. (v. pres. and director, 28–43); fel. Am. Geog. Soc. Porphyry copper mines; churn drills for developing copper mines.

Krumbein, Dr. W(illiam) C(hristian), University of Chicago, Chicago, Ill. *[7]*Geology.* Beaver Falls, Pa, Jan. 28, 02. Ph.B, Chicago, 26, M.S, 30, Ph.D, 32. Instr. *geol, Chicago,* 33–39, *asst. prof, 39–; senior geologist, beach erosion board, office of chief of engineers, U. S. War Dept,* 42– Guggenheim Mem. Foundation fellow, 41–42. Assoc. ed, 'Jour. Sedimentary Petrol,' 36– Cmt. sedimentation, Nat. Research Council, 39– Asst. geologist, Ill. Geol. Surv. A.A; fel. Geol. Soc; Geophys. Union (cmt. stream dynamics, 40–); Asn. Petrol. Geol. (research cmt, 39–); Min. and Metal. Eng. (cmt. geophys. courses, 40–); Soc. Econ. Paleont. and Miner; Ill. Acad. Physical properties of sediments; applications of statistical methods to geology; dynamics of sedimentary processes.

Krumbhaar, Dr. E(dward) B(ell), University of Pennsylvania, Philadelphia, Pa. *[8]*Medicine.* Philadelphia, Pa, Aug. 1, 82. A.B, Harvard, 04; M.D, Pennsylvania, 08, fellow, 13–14, Ph.D, 16. Res. pathologist, Pa. Hosp, 08–09; instr. med, *Pennsylvania,* 12–15, assoc, 15–16, asst. prof, 16–20, assoc. prof, grad. sch. med, 20–27, *prof. path, 27–* Director lab, 22–25, ed, 25–; 'Clio Medica'; 'Castiglioni's Hist. of Med.' Exec. cmt, Nat. Research Council, 29–31; mem. Am. Board Path, 35–40. U. S. del, Int. Cong. Hist. Med, Madrid, 35. Lieut. col, M.R.C, 16–39. A.A; Am. Med. Asn; Am. Physicians; Physiol. Soc; Asn. Path. and Bact. (pres, 28); Soc. Exp. Biol; Soc. Exp. Path. (sec'y, 24–27, v. pres, 27, pres, 28); Soc. Clin. Invest; Asn. Hist. Med. (sec'y, 26–30, pres, 34, hon. pres, 39); Soc. Control Cancer; Asn. Cancer Research (v. pres, 31, pres, 32); Am. Heart Asn. (director, pres, 33–); Union Am. Biol. Societies (exec. cmt); Col. Physicians Phila. (library cmt, v. pres, 37, pres, 40–43); Path. Soc. Phila. (pres, 24–26); Physiol. Soc. Phila. (treas, 16–22, pres); Acad. Nat. Sci. Phila; cor. mem. Soc. française d'Hematol; hon. mem. Rumanian Soc. Med. Hist; cor. mem. Soc. de Biol. Mex; Colegio de Doctores de Madrid; Int. Asn. Med. Mus; Int. Asn. Med. Hist. Cardiac pathology; electrocardiography; physiology and pathology of the blood, spleen, lymphoid tissue and bone marrow; medical history.

Krumrein, Dr. Louis F(rederick), 722 N. Kenwood Ave, Baltimore, Md. *Medicine.* Baltimore, Md, July 16, 92. A.B, George Washington, 14; M.D, Hopkins, 18. Intern, Md. State Tuber. Sanatorium, 18–19; res. physician, Loomis Sanatorium, N. Y, 19–20; *asst. clin. med, dispensary, Hopkins Hosp, 22–, instr, Hopkins, 27–* Instr, Maryland, 22–26. Fel. Am. Med. Asn; South. Med. Asn; Baltimore Med. and Chirurg. Soc. Internal medicine; pulmonary conditions.

Kruse, Dr. H(arry) D(ayton), Milbank Memorial Fund, 40 Wall St, New York, N. Y. *Biochemistry.* Bridgeton, N. J, July 9, 00. A.B, Dickinson Col, 22, A.M, 26; Sc.D, Hopkins, 25, M.D, 32. Nat. research fellow biochem, 26–28; assoc, sch. hygiene and pub. health, Hopkins, 28–33, assoc. prof, 33–37; *with Milbank Mem. Fund,* 37– A.A; Soc. Biol. Chem. Diagnosis of deficiency diseases.

Kruse, Prof. Paul J, 121 Heights Court, Ithaca, N. Y. *Psychology.* Boone, Iowa, Sept. 7, 83. A.B, Iowa, 06; A.M, Washington (Seattle), 12; Ph.D, Columbia, 17. Prin. and sch. supt, Iowa, 06–12; instr. *educ,* Washington (Seattle), 14–16; asst. prof, *N. Y. State Col. Agr, Cornell,* 17–18, *prof, 18–* Summers, California at Los Angeles, 24, California, 33. Colo. State Col, 38, 40– Investigator, N. Y. State Rural Sch. Surv; director div. educ. measurement, Texas State Educ. Surv. Cmn. Trade test div, Cmt. Classification of Personnel, War Dept, 18. A.A; Psychol. Asn. Educational and genetic psychology; the learning process.

Kruse, Prof. T(heophile) K(arl) T(heodore), University of Pittsburgh, Pittsburgh, Pa. *Physiology, Pharmacology.* Sappington, Mo, March 3, 88. A.B, Missouri, 12, A.M, 13,

Ph.D, 18. Asst. *physiol. and pharmacol*, 12–14, instr, 14–16; *Pittsburgh*, 16–19, asst. prof, 19–20, assoc. prof, 20–31, *prof, 31–* Research div, C.W.S, 18. A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol. Muscle physiology and pharmacology; pharmacology of Acacia; ether; hydroxyethylapo cuprein.

Krusekopf, Prof. H(enry) H(erman), 613 Lee St, Columbia, Mo. *Soils.* Casco, Mich, Jan. 7, 86. B.S, Missouri, 08, A.M, 16. *Prof. soils, Missouri, 08–* A.A; Soc. Agron; Mo. Acad. (cmt. conservation, 37–); Int. Soc. Soil Sci. Soil morphology; the relation of soil structure to the processes of soil development.

Krusen, Dr. Frank H(ammond), Mayo Clinic, Rochester. Minn. *Physical medicine.* Philadelphia, Pa, June 26, 98. M.D, Jefferson Med. Col, 21. Res. path, Jefferson Med. Col, 21–22, res. physician, 22–24, clin. asst. surg, 24–25; asst. surg, Phila. Gen. Hosp, 25–26; assoc. dean, sch. med, Temple, 25–35; director physical med, 29–35; *physical therapy*, Jewish Hosp, Phila, 33–35; *head sect, Mayo Clinic, 35–;* assoc. prof. *physical med, Minnesota*, 35–41, *prof, 41–* Consultant in physical therapy, Norristown State Hosp, Pa, 33–35. Assoc. ed, 'Pa. Med. Jour,' 30–35; mem. ed. board, 'Archives Physical Therapy,' 32– Sec'y subcmt. physical therapy, Nat. Research Council, 41– Sec'y cmt. miscellaneous diseases treated by fever therapy, Int. Cong. Fever Therapy, New York, 37. A.A; Am. Med. Asn. (council physical therapy; cmt. Am. health resorts); Am. Cong. Physical Therapy (v. pres, 34–36, pres, 37); Am. Acad. Physical Med. (pres, 35–36); Hosp. Asn; Pan-Am. Med. Asn. (v. pres, sect. on physical therapy); fel. Col. Physicians; Rheumatism Asn; hon. mem. Liga Argentina contra el Rheumatisme. Physical agents in the treatment of disease; light therapy; high frequency electrical currents; therapeutic fever by physical means; light therapy; physical therapy in arthritis; physical medicine.

Krynine, D(imitri) P(avlovitch), 15 Prospect St, New Haven, Conn. *Civil engineering.* Moscow, Russia, April 27, 77. C.E, Inst. Ways of Communication, St. Petersburg, 01. Construction engineer, Russia and abroad, 01–17; prof. highway eng, Moscow Superior Tech. Sch, 18–29, in charge soil lab, 23–29; Moscow Inst. Transportation Eng, 25–29; *research assoc. soil mech, Yale, 30–* A.A; Civil Eng; Soc. Rheol; Conn. Acad; cor. mem. Argentine Sci. Soc; Asn. int. des Cong. de la Route. Soil physics and soil mechanics as applied to civil engineering; highway engineering.

Krynine, Prof. Paul D(imitri), Pennsylvania State College, State College, Pa. *Geology.* Krasnoyarsk, Russia, Sept. 19, 02. A.B, California, 27; Dana fellow, Yale, 32–34, Ph.D, 36. Field geologist, Standard Oil Co. of Calif, 28–31; research fellow, Yale, 36–37; instr. *miner, Pa. State Col*, 37–40, asst. prof, 40–43, *assoc. prof, 43–* Mem. cmt. sedimentation, Nat. Research Council, 38– Fel. Geol. Soc. Sedimentation; the petrology of sedimentary rocks; continental red beds; geosynclinal deposition; petrography of oil reservoirs; paleography; paleoclimatology and Triassic of Eastern United States; mineralogy of heavy minerals, especially the tourmaline group.

Ksycki, Sister M(ary) Joecile, 6300 W. Main Street, Belleville, Ill. *Electrochemistry.* Du Bois, Ill, May 26, 13. B.S, St. Louis, 36, M.S, 40, Ph.D, 42. *Instr. chem, Le Clerc Col, 42–* Chem. Soc. Electrodeposition of rare metals.

Kubichek, W(esley) F(rank), U. S. Fish and Wildlife Service, Merchandise Mart, Chicago, Ill. *Ornithology.* Iowa City, Iowa, July 11, 92. A.B, Iowa, 17. Asst. curator, Children's Museum, Brooklyn, N. Y, 17–18; asst. biologist, Bur. Biol. Surv, 19–22; asst. prof. zool, Coe Col, 23–34; assoc. biologist, Bur. Biol. Surv, 34–38, biologist, 38–40; *biologist and chief sect. visual information, fish and wildlife service, U. S. Dept. Interior, 40–* U. S. Army, 18–19. Ornith. Union. Life histories of North American grebes.

Kubie, Dr. Lawrence S(chlesinger), 7 E. 81st St, New York, N. Y. *Neurology, Psychiatry.* New York, N. Y, March 17, 96. A.B, Harvard, 16; M.D, Hopkins, 21. Asst. psychiat, Phipps Psychiat. Clinic, Hopkins Hosp, 21–22, instr. psychiat. and in charge neur. lab, 22–24, instr. physiol, sch. med, Hopkins, 24–26; assoc, Rockefeller Inst, 26–28; Med. Research Council traveling fellow, London, 28–30; *assoc. neur, neur. inst, col. physicians and surg, Columbia, 30–* Rockefeller Foundation traveling fellow, Madrid and Munich, 26; assoc. psychiatrist, Mt. Sinai Hosp, New York, 39– Subcmt. war neuroses, Nat. Research Council, 40– A.A; Neur. Asn; Psychiat. Asn; Asn. Research Nervous and Mental Disease; Soc. Exp. Path; Psychoanal. Asn. (sec'y, 37–40); N. Y. Neur. Soc; N. Y. Psychoanal. Soc. (pres, 39); N. Y. Soc. Clin. Psychiat; N. Y. Acad. Med. Psychoanalysis; histopathology and physiology of the nervous system; infections of the nervous system; embryogenesis of the cortex; psychoanalysis in relation to psychiatry.

Kubin, Prof. Rosa, 185 South St, Waltham, Mass. *Medical biochemistry.* St. Poelten, Austria, Dec. 15, 06. B.S, St. Poeltner Obergymnasium, 25; M.S, Vienna, 29, Ph.D, 31. Asst, Oesterreichische Chem. Werke, 31–35; Syngala, Inc, Vienna, 35–38; Eli Lilly fellow, med. sch, Oregon, 39–40, asst, 40–41; *asst. prof. biochem. and lab. diagnosis, med. sch. Middlesex, 41–* Chem. Soc; New Eng. Asn. Chem. Teachers; Deuts. Chem. Gesell. Inhibitory hormone of the testis; effects of anterior pituitary-like substance and carbohydrate metabolism; placental transmission of blood; quantitative determination of bile pigments.

Kubis, Prof. Joseph F(rancis), Fordham University, New York, N. Y. *Psychology.* New York, N. Y, March 13, 11. A.B, St. John's (N. Y), 32; A.M, Fordham, 35, Ph.D, 37. Asst. *psychol, Fordham*, 34–37, instr, 37–38, *asst. prof, 38–* A.A; Psychol. Asn; Catholic Philos. Asn; Math. Soc; Math. Asn; East. Psychol. Asn; N. Y. State Asn. Applied Psychol. Motivation; emotions.

Kuck, Dr. Julius A(nson), College of the City of New York, New York, N. Y. *Organic chemistry.* Willimantic, Conn, Jan. 6, 07. A.B, Hamilton Col, 28; Ph.D, Cornell, 32. Asst. *chem*, Cornell, 28–32; fellow, *Col. City of N. Y*, 34–35, tutor, 35–36, instr, 37–42, *asst. prof, 42–* Chem. Soc; Metrop. Microchem. Soc. New York (sec'y, 39–42, chairman, 42); Chemists' Club. Microanalysis; microchemistry; synthetic organic chemistry.

Kuder, Dr. G(eorge) Frederic, 415 N. Oxford St, Arlington, Va. *Psychology.* Holly, Mich, June 23, 03. A.B, Arizona, 25; A.M, Michigan, 29; Ph.D, Ohio State, 37. Editorial asst, 'Am. Men of Science,' 26–27; asst. educational and vocational guidance, Michigan, 28–29; research assoc, personnel research dept, Procter and Gamble Co, 29–32; teaching asst, Ohio State, 34–36; examiner, Board Exams, Chicago, 36–40; personnel methods consultant, Social Security Board, 40–42; *chief test construction and review unit, U. S. Civil Service Cmn, 42–* Summers, personnel adviser, U. S. Resettlement Admin, 35; lecturer, Syracuse, 37; professorial lecturer, Minnesota, 40; consultant, Am. Pub. Health Asn, 42. Ed, 'Educational and Psychological Measurement,' 40– A.A; Psychometric Corp; Psychometric Soc; assoc. Psychol. Asn; Vocational Guidance Asn; Wash. Psychometric Soc. Aptitude and achievement testing; test theory; measures of motivation; vocational preferences; rating scales.

Kudo, Prof. R(ichard) R(oksabro), University of Illinois, Urbana, Ill. **Zoology.* Japan, July 25, 86. D.A.Sc, D.Sc, Tokyo. Instr, Tokyo Agr. Col, 10–11, protozoologist, Sericult. Exp. Sta, 11–15; asst, Rockefeller Inst, 16–18; instr. *zool, Illinois*, 18–21, assoc, 21–25, asst. prof, 25–36, *assoc. prof, 36–* Summers, int. health div, Rockefeller Foundation, 23, 24; State Nat. Hist. Surv, Ill, 30; U. S. Fisheries Lab, 36; Chesapeake Biol. Lab, 38, 39, 41. A.A; Soc. Zool; Micros. Soc; Limnol. Soc; Soc. Parasitol; hon. mem. Les Amis de l'Inst. de Biol. appliquée. Protozoology; cytology and taxonomy of protozoa, especially parasitic forms; life-histories of Microsporidia and Myxosporidia; parasitic protozoa of arthropods and fishes.

Kuehne, Prof. J(ohn) M(atthias), University of Texas, Austin, Texas. *Physics.* Hallettsville, Texas, Aug. 11, 72. B.S, Texas, 99, A.M, 01; fellow, Chicago, 06–08, Ph.D, 10. Instr. *physics, Texas*, 01–09, adj. prof, 09–17, assoc. prof, 17–23, *prof, 23–* Summer, Chicago, 13. A.A; Physical Soc; Astron. Soc; Texas Acad. Electrostatic effect of changing magnetic field; polarization and phase change of diffracted light.

Kuehner, Prof. A(lbert) L(incoln), Bishop's University, Lennoxville, Que, Can. *Chemistry.* Kitchener, Ont, Dec. 24, 02. B.A, Queen's (Can), 24, Nat. Research Council Can. bursar, 24–25, M.A, 25. Lecturer *chem, Bishop's (Can)*, 25–29, *prof, 29–* A.A; Chem. Soc; fel. Can. Inst. Chem. Organic chemistry.

Kuentzel, Dr. L(ester) E(verette), 177 Riverbank Ave, Wyandotte, Mich. *Chemistry.* Ft. Worth, Texas, Feb. 12, 11. A.B, Colorado, 36, fellow, 38–40, Ph.D, 41. Asst. chem, Colorado, 36–38, 40–41; *head physical measurements and metal*

cleaning sect, chem. research dept, Wyandotte Chem. Corp, 41– Physical measurements; detergents; metal cleaners.

Kuentzel, Dr. Ward E(dward), 1824 Central Ave, Whiting, Ind. *Chemistry.* Taylor, Minn, Oct. 17, 93. B.S, Minnesota, 17; M.S, George Washington, 24, Ph.D, 28. *Research chemist,* fixed nitrogen research lab, U. S. Dept. Agr, 19–30; *Standard Oil Co. of Ind, 30–* Chem. Soc. Nitrogen fixation by the direct synthetic process; preferential oxidation of carbon monoxide in hydrogen; high pressure gas reactions.

Kuethe, Dr. Arnold M(artin), 1516 Harbrooke, Ann Arbor, Mich. *Fluid mechanics, Aerodynamics.* Marshfield, Wis, Aug. 24, 05. Ph.B, Ripon Col, 26; Ph.D, Calif. Inst. Tech, 33. Junior physicist, Bur. Standards, 27–30; teaching fellow, Calif. Inst. Tech, 30–32; research fellow, Daniel Guggenheim airship inst, Univ. Akron, 33–38; assoc. ed, 'Jour. Aeronaut. Sciences,' 38–40; aeronaut. engineer, Nat. Advisory Cmt. Aeronautics, Langley Field, Va, 40–41; assoc. prof. *aeronaut. eng, Michigan, 41–43, prof, 43–, acting chairman dept, 42–* Lecturer, N. Y. Univ, 39; Mass. Inst. Tech, 39–40; consultant, U. S. Navy, 39–40; Daniel Guggenheim airship inst, Univ. Akron. Assoc. fel. Inst. Aeronaut. Sci. (ed. board, 35–; chairman, Detroit sect, 42). Fluid mechanics; turbulence in boundary layers, in wind tunnels and in the atmosphere.

Kuettel, Dr. G(len) M(arcellus), 140 Lindbergh Blvd, Bloomfield, N. J. *Chemistry.* Winchester, Wis, March 10, 07. A.B, Lawrence Col, 28; A.M, Wisconsin, 30, Ph.D, 33. Asst, Forest Products Lab, U. S. Forest Service, 29–33; *tech. rep, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Chemical research and production of synthetic resins; organic chemistry; paper industry.

Kuever, Dean R(udolph) A(ndrew), 5 Melrose Circle, Iowa City, Iowa. *Pharmacy.* Lowden, Iowa, Oct. 27, 86. Ph.G, Iowa, 07, Ph.C, 11. Asst. *pharmacy, col. pharmacy, Iowa,* 07–08, instr, 08–13, asst. prof, 13–16, assoc. prof, 16–25, *prof, 25–, dean, 37–, director pharmaceut. labs.* Pharmacist, Univ. Hosp, Iowa, 07–14. Pres, Am. Asn. Cols. of Pharmacy, 41. Auxiliary mem. revision cmt, U. S. Pharmacopoeia, X. A.A; Pharmaceut. Asn; Chem. Soc; Iowa Pharmaceut. Asn. Pharmaceutical chemistry.

Kugelmass, Dr. I(saac) Newton, 1060 Park Ave, New York, N. Y. *Pediatrics.* New York, N. Y, June 28, 96. B.S, Col. City of N. Y, 16, fellow, 17; A.M, Columbia, 17; Ph.D, Hopkins, 21; Paris, 21; D.Sc, Brussels, 22; Göttingen and Leipzig, 22; M.D, Yale, 25. Instr. chem, Col. City of N. Y, 17; Columbia, 18; prof, Howard Col, 18–20; research assoc. pediat, Yale, 22–25; *director, Heckscher Inst, New York.* Lecturer, Boards Educ, New York and Birmingham, 18–20. Pediatrician, French Hosp; Hosp. for Ruptured and Crippled; Riverside Hosp; Broad St. Hosp; New York City Children's Hosp; consultant pediatrician, Northwoods Sanatorium, Saranac Lake; Dobbs Ferry Hosp; Monmouth Mem. Hosp, N. J; Lynn Mem, N. J; Muhlenberg Hosp, N. J. Ed, 'Ostwald's Colloid Chem.' A.A; fel. Am. Med. Asn; Therapeut. Soc; Asn. Mental Deficiency; Physiol. Soc; Stomatol. Asn. (adviser, pediat. research); Tuber. Asn; Pub. Health Asn; Soc. Exp. Biol; Chem. Soc. (v. pres, Ala. sect); Harvey Soc; Ala. Tech. Asn; fel. N. Y. Acad. Dentistry; N. Y. Acad; Soc. belge de Biol; hon. mem. Union Méd. Latine; Am. Med. Asn, Vienna. Blood buffer mechanisms; blood clotting index; blood coagulation mechanism; hemorrhagic diseases; chemical pediatrics; developmental disorders; dental caries; developmental acceleration of children; growth ingredients in children; milk physiology; nutritional therapy in pediatric practice; prenatal prevention of disease; vitamins K and P.

Kugler, Dr. O(tto) E(rich), University of Illinois, Urbana, Ill. *Zoology.* Cape Girardeau, Mo, July 4, 05. B.S, Elmhurst Col, 29; M.S, Illinois, 30, Ph.D, 36. Asst. zool, Illinois, 30–31; tutor biol, Col. City of N. Y, 31–35, instr, 35–40; *assoc. zool, Illinois, 41–* A.A. Developmental anatomy of urodeles; lipoid phosphorus in avian development.

Kuhlen, Dr. Raymond G(erhardt), Syracuse University, Syracuse, N. Y. *Psychology.* Kenton, Ohio, Feb. 2, 13. B.S, Ohio State, 36, A.M, 37, Ph.D, 40. Teaching asst, Ohio State, 37–40; *asst. prof. educational psychol, Syracuse, 40–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Educational and genetic psychology; psychological tests; psychology of adolescence and adult life; social psychology.

Kuhlenbeck, Prof. H(artwig), Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Anatomy, Neurology.* Jena, Germany, May 2, 97. Ph.D, Jena, 20, M.D, 22. Lecturer neurol. and anat, Imp. Univ. Tokyo, 24–27; privat-docent *anat,* Breslau, 27–33; *prof. and head dept, Woman's Med. Col. of Pa, 35–* Asn. Anat; Asn. Neuropath. Evolution of brain; structure and homologies of nerve centers; neuroectodermal tumors.

Kuhlman, Prof. Arthur H(enry), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Dairying.* Lowell, Wis, Jan. 1, 86. B.S, Wisconsin, 10, M.S, 16, Ph.D, 28. Asst. animal husbandry, Wisconsin, 10–14, instr, 14–17; emergency demonstration agent, Dodge County, Wis, 17–18; assoc. prof. animal husbandry, S. Dak. State Col, 18–26; *prof. dairying, Okla. Agr. and Mech. Col, 29–* Dairy Sci. Asn. (sec'y, south. div, 34, v. chairman, 35, chairman, 36; v. chairman production sect, 38, chairman, 39); Soc. Animal Production. Use of cottonseed meal in dairy rations; vitamin A requirements of dairy cattle for growth, maintenance, reproduction and lactation.

Kuhlmann, Prof. J(ohn) H(enry), 2136 Penn Ave, S, Minneapolis, Minn. *Electrical engineering.* Waverly, Iowa, Nov. 26, 93. A.B, Wartburg Col, 13; B.E, Iowa, 17, E.E, 21. Designing engineer, Elec. Machinery Co, 17–20; instr. *elec. design, Minnesota,* 20–24, asst. prof, 24–30, *assoc. prof, 30–* Consultant, Elec. Machinery Mfg. Co, 23, 25–28; Myer Governor Co, 22–28; Chas. Arnao Co, 31; Phelps Power and Light Corp, 35; consulting engineer, Minneapolis Honeywell Regulator Co; Franklin Transformer Co. Elec. Eng. (councilor, Minn. sect, 23–, sec'y-treas, 34, v. chairman, 35–); Eng. Educ; Minn. Federation Archit. and Eng. Societies (director, 34, 41). Design of electrical apparatus; calculating characteristics of synchronous machines; vacuum tube rectifier.

Kuhn, Dr. Carl S(ellner), Jr, Magnolia Petroleum Co, Dallas, Texas. *Chemistry.* Galveston, Texas, Feb. 6, 12. B.S, Rice Inst, 33, A.M, 35; fellow, Carnegie Inst. Tech, 35–37, Sc.D, 37. Teaching fellow, Rice Inst, 34–35; research chemist, *Magnolia Petrol. Co,* 37–41, *chem. research supervisor, 41–* Synthesis of pyridine derivatives of barbituric acid; solvent action of liquid propane on coal tar; hydrocarbon chemistry and petroleum research.

Kuhn, Col. H(arry) A(lbert), c/o The Adjutant General, U. S. Army, Washington, D. C. *Pharmacology.* Horrel, Pa, Jan. 18, 95. Carnegie Inst. Tech, 15–17; Ph.B. and M.S, Wisconsin, 25; Army Indust. Col, 32. Assoc. pharmacologist, U. S. Bur. Mines, 17–19; chief dept. toxicol, *Chem. Warfare Service, U. S. Army,* 19–29, asst. chief med. research div, 25–29, Canal Zone, 29–31, exec. officer, chem. warfare procurement dist, Chicago, Ill, 32–35, first chem. co, Canal Zone, 35–37, exec. officer chem. warfare procurement dist, N. Y, 37–42; *office of chief, Washington, D. C, 42–* 4th Int. Cong. Entom. Soc. Pharmacol; assoc. fel. Am. Med. Asn; Chem. Soc; N. Y. Acad. Toxicology; experimental therapeutics; chemistry; entomology.

Kuhn, Prof. H(arry) W(aldo), 1179 Fairview Ave, Grandview Heights, Columbus, Ohio. *Mathematics.* Etna, Ohio, May 26, 74. B.S, Ohio State, 97, fellow, 97–98; Erastus Brooks fellow, Cornell, 99–00, Ph.D, 01. Asst. math, Cornell, 00–01; asst. prof, Ohio State, 01–07, assoc. prof, 07–08, prof, 08–43; *retired.* Math. Soc. Imprimitive substitution groups; mathematics of finance.

Kuhn, Prof. L(udwig) R(oland), University of Georgia, Athens, Ga. *Immunology.* South Wilmerding, Pa, Aug. 24, 08. B.S, Pa. State Col, 30; fellow, N. Y. Zool. Soc, 30; fellow, Chicago, 31–34, Ph.D, 36. Asst, Chicago, 31–34, instr. bacter, 35–39; assoc. prof. bacter. and prev. med, Texas, 34–35; *asst. prof. bacter, Georgia, 39–* Infection and resistance defense mechanisms.

Kuhn, Dr. W(ayne) E(dward), The Texas Co, 135 E. 42nd St, New York, N. Y. *Chemical engineering.* Oshkosh, Wis, Oct. 25, 03. A.B, Reed Col, 25; Ph.D, Cornell, 30. Asst. instr, Cornell, 25–29; chem. engineer, *Texas Co,* 29–30, director research fractionation and distillation, 30–33, asst. chief chemist, Port Arthur, Texas, 33–37, asst. director research, *New York,* 37–38, asst. manager *tech. and research div,* 38, *manager, 38–* Chem. Soc; Inst. Chem; Soc. Automotive Eng; Soc. Test. Mat; Petrol. Inst; Chem. Soc. London. Inhibitors in the action of acid on steel; petroleum refining.

Kuhns, Dr. Ralph H, 1256 W. Seventh St, Los Angeles 14, Calif. *Medicine.* Cincinnati, Ohio, Nov. 12, 89. B.S, Chicago, 11, M.D, 13. Instr. med, Rush Med. Col, Chicago, 17–22; California, 22–25; Chicago, 25–28; chief res. physician, asst. supt. and director asthma clinic, St. Luke's Hosp, Chicago, Ill, 30–

32; chief res. physician, asst. director and chairman sect. research, State Psychopathic Inst, Ill, 32–34; chief lab, Elgin State Hosp, 32–34; State Dept. Pub. Welfare, Ill, 32–34; *instr. neuropsychiat, col. med, Illinois, 34–; attending neuropsychiatrist, Cook County Bur. Pub. Welfare, 34–; Fed. Emergency Relief Admin, 34–; Mandel clinic, Michael Reese Hosp, Chicago, 34–; psychiatrist in chief, Armed Forces Joint Exam. Board for south. Calif; psychiatrist, U. S. Maritime Cmn.* Asst. attending physician, Children's Mem. Hosp, Chicago, 25–28. Physician, Red Cross, Europe, 16; capt, M.C, 17–19. Psychiat. Asn; Am. Med. Asn; Col. Physicians; Asn. Research Nervous and Mental Disease; Cent. States Pediat. Soc; Chicago Pediat. Soc. Etiology and treatment of bronchial asthma; hyperpyrexia in treatment of dementia paralytica.

Kuiper, Dr. G(erard) P(eter), Yerkes Observatory, University of Chicago, Williams Bay, Wis. **⁵*Astronomy.* Harencarspel, Netherlands, Dec. 7, 05. Ph.D, Leiden, 33. Asst, observatory, Leiden, 28–33; fellow, Lick Observatory, California, 33–35, research assoc, 35; lecturer astron, Harvard, 35–36; asst. prof. *practical astron, Yerkes Observatory, Chicago,* 36–37, assoc. prof, 37–43, *prof, 43–* Dutch solar eclipse exped, Sumatra, 29. Int. Astron. Union. Statistics of binary stars; discovery of binary stars and white dwarf; stellar statistics.

Kulzenga, Dr. M(arvin) H(enry), 1426 Edgemoor Ave, Kalamazoo, Mich. *Physiological chemistry.* Zeeland, Mich, May 9, 08. A.B, Hope Col, 30; Baldwin fellow, Cincinnati, 31, M.S, 31, Taft fellow, 31–33, Ph.D, 33. *Physiol. chemist, Upjohn Co, 33–* Internal secretions; adrenal glands; adrenal cortex; assay and purification of adrenal cortical hormone extracts.

Kukolich, Dr. Stephen (Irvin), Neenah Paper Co, Neenah, Wis. *Chemistry.* Rockvale, Colo, Oct. 25, 08. A.B, Grinnell Col, 31; M.S, Lawrence Col, 32, Ph.D, 36. Research chemist, *Neenah Paper Co,* 36–38, *supt. pulp dept, 38–* Use of hydrogen ion concentration indicators in the presence of chlorine; an improved process for the manufacture of rag half stock.

Kulash, Dr. Walter Michael, North Carolina State College, Raleigh, N. C. *Entomology.* Haydenville, Mass, Jan. 8, 12. B.S, Mass. State Col, 33, M.S, 38, Ph.D, 42. *Instr. zool. and entom, N. C. State Col, 42–* Asn. Econ. Entom; Entom. Soc. Amer; N. C. Acad. Soil insects; applied and systematic entomology.

Kullback, Major Solomon, 1259 Van Buren St, N.W, Washington, D. C. *Mathematics.* Brooklyn, N. Y, April 3, 07. B.S, Col. City of N. Y, 27; A.M, Columbia, 29; N. Y. Univ, 28–30; Ph.D, George Washington, 34. Teacher, high schs, N. Y, 27–30; junior cryptanalyst and asst. cryptanalyst, *Sig. C, U. S. Army,* 30–41, capt, 41–42, *major, 42–* Lecturer, George Washington, 39. Math. Asn; Math. Soc; Inst. Math. Statist. Mathematical statistics; cryptanalysis.

Kulp, Prof. W(alter) L(eroy), University of Connecticut, Storrs, Conn. *Bacteriology.* West Middlesex, Pa, July 29, 90. A.B, Allegheny Col, 11, M.S, 12; Ph.D, Yale, 23. Indust. chem, 12–14; instr. bacter, Mich. State Col, 14–16; asst. biochem, N. Y. Exp. Sta, Geneva, 16–20; asst. *bacter,* Yale, 20–23, instr, 23–26, asst. prof, 26–30; *prof, Connecticut, 30–* Asst, N. Y. Exp. Sta, Geneva, 14. A.A; Soc. Bact; fel. Pub. Health Asn. Lactobacillus acidophilus and Lactobacillus bulgaricus; dairy bacteriology; vitamins and respiratory quotients; chemistry of vegetable proteins; indol studies; method for flagella staining; non-specific immunity; Salmonella variation; Proteus hydrophilus.

Kumler, Prof. W(arren) D(onald), University of California College of Pharmacy, San Francisco, Calif. *Chemistry.* Seven Mile, Ohio, Feb. 18, 05. B.S, Antioch Col, 29, M.S, 30; Ph.D, California, 34. Instr, Deep Springs Col, 30, dean, 30–31; asst. *chem, California,* 32–35, instr, *col. pharmacy,* 35–38, *asst. prof, 38–* Chem. Soc. Dipole moments; hydrogen bond; dissociation constants.

Kummel, Dr. Henry B(arnard), 100 Abernethy Drive, Trenton, N. J. *¹*Geology.* Milwaukee, Wis, May 25, 67. A.B, Beloit Col, 89; A.M, Harvard, 92; fellow, Chicago, 92–95. Ph.D, 95. Instr, acad, Beloit Col, 89–91; asst. geol, Harvard, 91–92; asst. prof. physiog, Lewis Inst. (Ill), 96–99; asst. state geologist, N. J, 99–02, state geologist, 02–37, director conservation and develop, 22–37; *consulting geologist, 37–* Asn. Am. State Geologists rep, div. states relations, Nat. Research Council, 37. A.A; Geol. Soc; Asn. State Geol. (pres, 08–11). Glacial and stratigraphical geology; Paleozoic rocks of New Jersey; stratigraphy of clays of New Jersey; areal and economic geology of New Jersey.

Kumro, Dr. Donald M(ilheim), 289 Winspear Ave, Buffalo, N. Y. *Chemistry.* Tonawanda, N. Y, July 20, 98. B.S, Buffalo, 23; M.S, Illinois, 25; Ph.D, Duke, 29. Asst. chem, Buffalo, 23; Illinois, 23–25; chemist, Niagara Falls Mem. Hosp, 25–27; asst. *chem,* Duke, 27–29; asst. prof, Buffalo, 29–33; *teacher, East High Sch, Buffalo; consultant, Iroquois Gas Corp.* A.A; Chem. Soc; N. Y. State Sci. Teachers Asn. (pres). Toxicity of lead compounds; effect of lead on rat sarcoma.

Kunerth, Prof. William, 2227 Storm St, Ames, Iowa. *Physics.* LaCrosse Co, Wis, Aug. 19, 78. A.B, Wisconsin, 04, A.M, 10; Ph.D, Chicago, 21. Instr, high schs, Wis, 04–07; *physics, Iowa State Col,* 07–16, *assoc. prof, 16–* Optical Soc; Illum. Eng. Soc; Iowa Acad. Illumination; kerosenes; lighting systems; reflecting power of metals; solubility of gases in liquids; variation of ultra-violet in sunlight and in skylight; orientation of buildings for sunlight; polarized light; ultra-violet light transmitting glasses; variation in index of refraction of oils while drying.

Kunitz, Dr. M(oses), Rockefeller Institute, Princeton, N. J. *Physiology.* Slonim, Russia, Dec. 19, 87. B.S, Cooper Union, 16; Ph.D, Columbia, 24. Tech. asst. to Dr. Jacques Loeb, *Rockefeller Inst,* 13–23, asst. *gen. physiol,* 23–25, assoc, 25–40, *assoc. mem, 40–* A.A; Soc. Exp. Biol. Colloidal properties of proteins; enzymes.

Kunke, William F(red), 904 S. Elmwood Ave, Oak Park, Ill. *Pharmaceutical chemistry.* Dundee, Ill, Dec. 28, 83. B.S, Michigan, 15. Junior chemist, U. S. Dept. Agr, 16–24, asst. chemist, 24–31, *assoc. chemist, food and drug admin,* 31–39; *Fed. Security Admin, 39–* A.A; Agr. Chem. (assoc. referee, 26–). The determination of active medicinal ingredients in drug preparations.

Kunkel, Prof. B(everly) W(augh), Lafayette College, Easton, Pa. *Zoology.* Harrisburg, Pa, Oct. 27, 81. Ph.B, Yale, 01, Ph.D, 05; Freiburg, 11–12. Asst. biol, Sheffield Sci. Sch, Yale, 01–05, instr, 05–12; *prof.* zool, Beloit Col, 12–15; *biol, Lafayette Col, 15–* A.A; Soc. Zool; Asn. Anat. Vertebrate embryology; Crustacea.

Kunkel, Dr. G(eorge) M(errill), 118 Brown St, Lewisburg, Pa. *Mechanical engineering.* Lewisburg, Pa, Aug. 31, 96. B.S, Bucknell, 19, M.S, 20; Ph.D, Cornell, 32. Instr. *mech. eng, Bucknell,* 20–35, *asst. prof, 35–* Mech. Eng; Eng. Educ. Radiator tests in a vacuum for direct radiation and convection.

Kunkel, Dr. L(ouis) O(tto), Rockefeller Institute, Princeton, N. J. *⁴*Botany.* Mexico, Mo, May 7, 84. B.S, Missouri, 09, A.B, 10, A.M, 11; Ph.D, Columbia, 14. Pathologist, bur. plant indust, U. S. Dept. Agr, 14–20; assoc. pathologist, Hawaiian Sugar Planters' Asn, 20–23; pathologist, Boyce Thompson Inst, 23–32; *mem, Rockefeller Inst, 32–* Nat. Acad; Bot. Soc; Phytopath. Soc; Philos. Soc. Plant pathology.

Kunsman, Dr. C(harles) H(enry), 781 Santa Barbara Road, Berkeley, Calif. *Physics.* Flicksville, Pa, June 7, 90. Grad, Pa. State Nor. Sch, E. Stroudsburg, 10; B.S, Pa. State Col, 14; M.S, California, 15, Whiting fellow, 18–20, Ph.D, 20. Prof. physics, N. Mex. Col, 15–17; physicist and research engineer, Bell Tel. Labs, 20–23; fixed nitrogen research lab, *U. S. Dept. Agr,* 23–30, asst. chief fertilizer and fixed nitrogen unit, bur. chem. and soils, 30–34, *chief* fertilizer investigations, *bur. agr. chem. and eng,* 34–39, *physicochem. and anal. div, west. regional research lab, 40–* Assoc. ed, 'Jour. Chem. Physics,' 33; 'Jour. Applied Physics,' 37–39. Mem, council applied physics, Am. Inst. Physics, New York, 36– Chairman Am. delegation, Int. Cong. Chem. Fertilizers, Rome, 38. Instr, Sch. Mil. Aeronaut, Calif, 17–18, Sig.R.C, U.S.A. A.A; Physical Soc; Chem. Soc; Franklin Inst; Wash. Acad. Earth's penetrating radiation; thermionics; ionization and low pressure discharges; surface catalysis; nitrogen fixation; fertilizers; agricultural physics; reaction kinetics; physicochemical methods of investigation and analysis of agricultural products.

Kuntz, Dr. Albert, St. Louis University School of Medicine, St. Louis, Mo. *⁶*Anatomy, Embryology.* Batesville, Ind, March 19, 79. A.B, Morningside Col, 04; fellow, Iowa, 09–10, Ph.D, 10, senior fellow, 10–11; M.D, St. Louis, 18. Prof. nat. science, Charles City Col, 05–08; instr. biol, Iowa, 11–13; asst.

prof, *sch. med, St. Louis,* 13–16, assoc. prof. anat. and biol, 16–19, *prof.* anat, 19–30, *microanat, 30–* Summers, investigator, Bur. Fisheries, 13–16. A.A; Asn. Anat. (v. pres, 38–40); Soc. Zool; Soc. Exp. Biol; assoc. Neur. Asn; Mo. Acad; fel. Iowa Acad; St. Louis Acad. (pres, 35, 36). Development of the sympathetic nervous system and of the adrenals; innervation of the digestive tube and the gonads; embryology of fishes; adaptive color changes; superfetation; changes in amphibian digestive system during metamorphosis; structure and function of the autonomic nerves; neuroanatomy; the autonomic nervous system.

Kunz, Prof. A(dolf) H(enry), University of Oregon, Eugene, Oregon. *Chemistry.* Leavenworth, Kans, Nov. 23, 00. A.B, William Jewell Col, 23; M.S, Iowa, 26, Ph.D, 28. Teacher, high sch, Mo, 23–26; nat. research fellow, Calif. Inst. Tech, 28–29; project director, du Pont Ammonia Corp, 29–30; asst. prof. *chem,* Oregon, 30–32; Oregon State Col, 32–34; *Oregon,* 34–36, *assoc. prof, 36–,* acting head dept, 41–42, *head dept, 42–* A.A; Chem. Soc. Oxidation-reduction potentials.

Kunz, Walter B(ramble), Sylvania Industrial Corp, Fredericksburg, Va. *Physical chemistry.* Cincinnati, Ohio, Feb. 10, 01. A.B, Cincinnati, 23, Baldwin fellow, 23–24, A.M, 24; Cornell, 24–27, 32–35. Asst. physical chem, Cornell, 25–27; research chemist, E. I. du Pont de Nemours and Co, 27–30; Heckscher asst, Cornell, 30–32; instr. physical chem, George Washington, 35–40; *research chemist, Sylvania Indust. Corp, 40–* A.A; Chem. Soc. Viscosity of lyophilic colloids; concentration cells; nickel hydrogenation catalysts; Cellophane and cellulose products.

Kuper, Dr. J(ames) B(rown) Horner, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* New York, N. Y, Nov. 5, 09. A.B, Williams Col, 30; Ph.D, Princeton, 38. Junior and asst. physicist, Wash. Biophys. Inst, 37–40; assoc. physicist, nat. inst. health, U. S. Pub. Health Service, 40–41; *staff mem, radiation lab, Mass. Inst. Tech, 41–* Physical Soc; assoc. Radio Eng. Electronics; nuclear physics; counter techniques; high voltage; electron scattering; spectrophotometry.

Kupfer, Dr. Elsie M(abel), 808 West End Ave, New York, N. Y. *Plant physiology.* Bayreuth, Germany, Sept. 5, 77. A.B, Columbia, 99, Curtis fellow, 00–01, A.M, 01, Ph.D, 07. *Chairman dept. biol, Wadleigh High Sch, New York.* A.A; Torrey Bot. Club; N. Y. Biol. Teachers Asn. (pres, 36–). Plant regeneration, especially conditions under which plants replace roots and shoots; anatomy of fungi.

Kupperman, Dr. Herbert S(pencer), University of Georgia School of Medicine, Augusta, Ga. *Endocrinology.* Newark, N. J, April 12, 15. A.B, Wisconsin, 36, A.M, 37, Ph.D, 40. Asst. zool, Wisconsin, 36–42; *research fellow endocrinol, sch. med, Georgia, 42–* Physiology of reproduction; characterization of antigonadotropic substances.

Kurbatov, Prof. J(oann Ivan) D, Ohio State University, Columbus, Ohio. *Physical chemistry.* Voronesh, Russia, Aug. 25, 94. Moscow Polytechnicum, 20; Ph.D, Moscow, 22. Instr, Moscow Polytechnicum, 20–22, asst. prof, 22–26; assoc. prof. physics, Moscow, 26–30; fellow, Kaiser Wilhelm Inst. für Chemie, 30–31; research chemist, Universal Oil Products Co, Chicago, Ill, 32–39; *asst. prof. radioactivity, Ohio State, 41–* Chairman cent. research lab, U.S.S.R. Mineral Syndicate, 26–30; mem. council, Inst. Radioactivity, Leningrad, Russia, 28–30. Chem. Soc; Miner. Soc; Physical Soc. Radioactivity; radioactive tracers.

Kurbatov, Prof. M(argaret) H. (Mrs. J. D. Kurbatov), Hiram College, Hiram, Ohio. *Organic and physical chemistry.* Worthington, Ohio, March 17, 03. B.S, Ohio State, 24; Ph.D, Chicago, 31. Research chemist, Universal Oil Products Co, 31–36; instr, Denison, 41; *asst. prof. chem, Hiram Col, 42–* Chem. Soc. Physical properties of organic compounds; minute concentrations of inorganic compounds.

Kurie, Dr. Franz N(ewell) D(evereux), Indiana University, Bloomington, Ind. *Physics.* Victor, Colo, Feb. 6, 07. B.Sc, McGill, 27; Sterling fellow, Yale, 31–33, Ph.D, 32. Asst. physics, Yale, 27–31; nat. research fellow, California, 33–35, instr. and research assoc. *physics,* 35–38; asst. prof, *Indiana,* 38–40, *assoc. prof, 40–; mem. board editors, 'Rev. Sci. Instruments,' 43–* A.A; fel. Physical Soc. Ranges of alpha particles; neutron scattering; disintegrations by neutrons; beta and gamma ray spectra; cyclotron.

Kurrelmeyer, Prof. B(ernhard), Brooklyn College, Brooklyn, N. Y. *Physics.* Baltimore, Md, March 27, 03. A.B, Hopkins, 21, Ph.D, 24. Nat. research fellow, Harvard, 25–27; instr. *physics,* Columbia, 27–31; asst. prof, *Brooklyn Col,* 31–35, assoc. prof, 35–41, *prof, 41–* Physical Soc; Radio Eng. Corona in gases; photoelectric conductivity of crystals; dielectric constants of gases; electrostatic capacity measurements; shot effect of secondary electrons; specific heat of metals at low temperatures.

Kurt, Dr. O(scar) Edward, Seven Oaks Drive, Baton Rouge, La. *Physical chemistry.* Bellevue, Iowa, Jan. 7, 08. A.B, Columbia Col. (Iowa), 26; scholar, Illinois, 26–27, M.S, 27, fellow, 28–29, Ph.D, 29. Instr, Illinois, 27–28; research chemist, Eastman Kodak Co, 28; U. S. Rubber Co, Passaic, N. J, 29–31, Detroit, 31–36; *Ethyl Corp,* 36–41, *manager tech. div, Baton Rouge, 41–* A.A; Chem. Soc. (sec'y-treas, Detroit sect, 37, 38; councilor, 39; chairman, 41). Magnetic properties of atomic oxygen; physical properties of rubber compounds and compounding ingredients; tire physics; applied mathematical statistics; electrolysis of fused salts; metal-organic salts; manufacture of tetraethyl lead, ethyl chloride and hydrogen chloride.

Kurth, Major Ervin F(rederick), Headquarters, Services of Supply, War Department, Washington, D. C. *Chemistry.* Cascade, Wis, May 26, 03. B.S, Wisconsin, 27, M.S, 29, Ph.D, 33. With J. I. Case Co, 27; ammonia dept, E. I. du Pont de Nemours and Co, 29–30; Forest Products Lab, U. S. Forest Service, 27–29, 30–34; Gulf States Paper Corp, 34–36; research assoc, Inst. Paper Chem, Lawrence Col, 36–41; *U. S. Army, 41–,* chief wood and paper sect, office quartermaster gen, 41–42, *standards and specifications headquarters, Services of Supply, 42–* Mem. Fed. Specifications Exec. Cmt. Chem. Soc. (sec'y-treas, northeast Wis. sect, 39, v. chairman, 40). Forest products; plastics; organic chemistry.

Kurtz, Dr. Albert K(enneth), Care of Psychological Corp, 310 S. Michigan Ave, Chicago, Ill. *Psychology, Statistics.* Boise, Idaho, April 21, 04. A.B, Stanford, 26; Ph.D, Ohio State, 30. Asst. psychol, Stanford, 25–27, instr, Ohio State, 27–30; asst. personnel research, U. S. Civil Service Cmn, 30–33; statistician, Procter and Gamble Co, 33–36; *research assoc. and consultant, Life Ins. Sales Research Bur, 36–* Ed, 'Psychometrika,' 36– A.A; Psychol. Asn; Psychometric Soc. (treas, 36–40); Inst. Math. Statist; Statist. Asn. (v. pres, Conn. chap. 39–41, pres, 41); fel. Asn. Applied Psychol. (treas, 41–); East. Psychol. Asn; assoc. N. Y. Acad; Conn. Valley Asn. Psychol. (v. pres, 40, pres, 41–). Psychometrics; nomographs and slide rules; statistical terminology and symbols; multiple correlation; construction and validation of psychological tests and rating scales.

Kurtz, Prof. Edwin B, University of Iowa, Iowa City, Iowa. *Electrical engineering.* Cedarburg, Wis, Dec. 10, 94. B.S, Wisconsin, 17; M.S, Union (N.Y), 19; E.E, Iowa State Col, 25, Ph.D, 32. Engineer, Gen. Elec. Co, 17–19; asst. prof. elec. eng, Iowa State Col, 19–24, assoc. prof, 24–25; prof. and head dept, Okla. Agr. and Mech. Col, 25–29, acting dean eng, 28–29; *prof. elec. eng. and head dept, Iowa, 29–* A.A; fel. Elec. Eng; Eng. Educ. Valuation, depreciation and mortality laws of physical property; electrical machinery; rural electrification; theory of rural line design; electric transients; television.

Kurtz, H(enry) F(rederick), 31 Highland Parkway, Rochester, N. Y. *Optics.* Rochester, N. Y, March 30, 88. Rochester, 09–13. *Sci. bur, Bausch and Lomb Optical Co.* Optical Soc. (sec'y, Rochester sect, 17–19, pres, 23, treas, 32–); Mech. Eng.

Kurtz, Prof. H(erman) F(letcher), Mercer University, Macon, Ga. *Chemistry.* Vinukonda, S. India, Dec. 8, 94. A.B, Kalamazoo Col, 18; A.M, Clark, 20, Ph.D, 22. Assoc. prof. *chem,* Mercer, 22–23; prof, Bessie Tift Col, 23–39; *prof, Mercer, 39–* Summers, Mercer, 23, 29, 30; Howard, 24. Chem. Soc; Inst. Chem. Conductance of salts in phenol; reduction of metals from their salts by means of other metals in liquid ammonia solution.

Kurtz, Stewart S(ylvanus), Jr, 122 Kenilworth Road, Merion, Pa. *Chemistry.* Canton, Ohio, May 21, 00. A.B, Harvard, 21, A.M, 22. With T. W. Richards, Harvard, 22–24; research chemist, Goodyear Tire and Rubber Co, 24–28; Atlantic Ref. Co, 28–35; *develop. engineer, Sun Oil Co, 35–* Levy medal, Franklin Inst, 38. Chem. Soc; Franklin Inst. Adhesion of rubber to metal; thermoplastic rubber products; solvent extraction of lubricating oil; refractive index of hydrocarbons; analysis of hydrocarbon mixtures.

Kurz, Prof. H(erman), Florida State College for Women, Tallahassee, Fla. *Plant ecology.* Cedar Rapids, Iowa, April

12, 86. B.S, Chicago, 20, M.S, 21, Ph.D, 22. Asst. prof. *bot, Fla. State Col. for Women*, 22–25, assoc. prof, 25–27, *prof, 27–* Summers, asst, Chicago, 21–24, 26, assoc. prof, 27; Cold Spring Harbor, 25. A.A; Ecol. Soc; Bot. Soc; Fla. Acad. (pres, 36). Hydrogen ion in relation to plant distribution; ecology of cypress; phenology and distribution of vernal woodland angiosperms; Hepaticae of northern Florida; freezing experiments on native perennial herbs; plant successions and vegetation of Florida dunes, scrub and Tallahassee Red Hills.

Kurzrok, Dr. Raphael, 1016 Fifth Ave, New York, N. Y. *Obstetrics, Gynecology.* Austria, March 31, 95. A.B, Columbia, 18, M.D, 20, A.M, 26, Ph.D, 28. Asst. obstet. and gynec, Columbia, 28–30, assoc. obstet, gynec. and biochem, 30–34, obstet. and gynec, 34–41; *attending gynecologist and obstetrician, Morrisania City Hosp, New York, 41–* Attending gynecologist, State Labor Dept, N. Y, 23–26; Beth Israel Hosp, 30, Morrisania City Hosp; attending gynecologist, Vanderbilt Clinic, 28–41. A.A; Chem. Soc; Harvey Soc; N. Y. Acad. Med; Biochem. Soc. Gt. Britain. Human sterility; ovarian hormones; pharmacology of the human uterus; biochemistry of human semen; pituitary gland; artificial production of sterility; gynecological endocrine dysfunctions; relations of trauma to gynecological conditions.

Kusaka, Dr. Shuichi, Smith College, Northampton, Mass. *Theoretical physics.* Osaka, Japan, Oct. 17, 15. B.A, British Columbia, 37; M.S, Mass. Inst. Tech, 38; Ph.D, California, 42. Teaching asst. physics, California, 38–40; mem, Inst. Advanced Study, 42–43; *instr. physics, Smith Col, 43–* Physical Soc. Quantum field theories; cosmic rays; nuclear physics.

Kusch, Dr. P(olykarp), 375 Riverside Drive, New York, N. Y. *Physics.* Germany, Jan. 26, 11. B.S, Case, 31; M.S, Illinois, 33, Ph.D, 36. Asst. physics, Illinois, 31–36; asst, Minnesota, 36–37; instr, Columbia, 37–41; develop. engineer, Westinghouse Elec. and Mfg. Co, 41–42; *research assoc, radiation lab, Columbia, 42–* Physical Soc. Molecular structure; electronics.

Kuschke, Prof. Carl G(ustav) P(aul), University of Puerto Rico, Rio Piedras, P. R. *Mathematics.* Germany, Dec. 2, 80. M.E, Saxony, Germany, 06; A.M, Columbia, 08; Ph.D, California, 12. Instr. math, California, 08–12; docent math. and mech, Sch. Tech, Saxony, 13–14; instr. *math*, Washington (Seattle), 14–18; asst. prof, Alabama, 20–21; *prof. and head dept, Puerto Rico, 21–* A.A; Math. Soc. Theory of groups.

Kusner, Prof. Joseph H(arrison), University of Florida, Gainesville, Fla. *Mathematics.* Philadelphia, Pa, Jan. 6, 03. A.B, Pennsylvania, 24, Ph.D, 32; A.M, Columbia, 29. Instr. *math*, Florida, 26–29, asst. prof, 29–30; asst, Pennsylvania, 30–32; asst. prof, *Florida*, 32–37, *assoc. prof, 37–* A.A. (councilor, 37–); Math. Soc; Math. Asn; Meteor Soc; Asn. Variable Star Observers; Fla. Acad. (sec'y, 36–); Deuts. Math. Verein. Analysis situs; point set theory; foundations of geometry.

Kuster, Prof. K(imber) C(leaver), 26 First St, Bloomsburg, Pa. *Zoology.* Bloomsburg, Pa, Dec. 1, 91. B.S, Michigan, 25, M.S, 26, Ph.D, 32. Instr. zool, Oregon State Col, 27; museums librarian, Michigan, 28–30, instr. zool, 30–35; *prof. biol, Pa. State Teachers Col, Bloomsburg, 35–* A.A; Pa. Acad. Respiration of aquatic insects.

Kutchin, Mrs. H(arriet) L(ehmann), The Maplewood, Green Lake, Wis. *Zoology.* Neosho, Wis, April 10, 79. A.B, Ripon Col, 02; A.M, Northwestern, 03, fellow, 03–04; Bermuda Biol. Sta, 04; Alice Freeman Palmer fellow from Wellesley Col, Radcliffe Col, 04–05; Am. woman's table, Naples Zool. Sta, 05; Chicago, 05–06. Asst. zool, Ripon Col, 01–02; Northwestern, 02–03; instr. biol, Montana, 07–08. A.A; Soc. Zool; Asn. Anat; Wis. Acad. Crustacea; mammalian embryology; the peripheral nervous system of amphioxus.

Kuthy, Prof. Olga, Hunter College, 695 Park Ave, New York, N. Y. *Geography.* New York, N. Y, May 23, 01. A.B, Hunter Col, 24; A.M, Columbia, 26; Clark, 26; Ph.D, N. Y. Univ, 39. Instr. *geol. and geog, Hunter Col*, 25–40, *asst. prof, 41–* Am. Geog. Soc. award, 30. Geog. Soc. Economic geography; regional geography of South America and of Europe; conservation of natural resources; land utilization.

Kuttner, Dr. Ann Gayler, Peiping Union Medical College, Peiping, China. *Pediatrics, Bacteriology.* New York, N. Y, Sept. 16, 94. B.S, Columbia, 15, Ph.D, 23; M.D, Hopkins, 30. Instr. bacter, col. physicians and surg, Columbia, 20–23; bacteriologist, Rockefeller Hosp, New York, 24–27; intern and asst. res. pediatrician, Hopkins Hosp, 30–33; *asst. med, dept. infectious diseases, Peiping Union Med. Col, 33–* Bacteriophage; filterable virus; suipestifer infections.

Kutz, Dr. H(arry) L(eon), Wildlife Research Center, Delmar, N. Y. *Ornithology, Wildlife.* Harrisburg, Pa, Jan. 1, 01. A.B, Syracuse, 30, A.M, 31; Ph.D, Cornell, 40. Asst. prof. biol. and psychol, Norwich, 31–36; instr. zool, Cornell, 38–41; *wildlife research investigator, State Conservation Dept, N. Y, 41–* Wildlife Soc; Ornith. Union; Wilson Ornith. Club. Reproductive behavior in wild ducks; starvation and reproductive studies in the ring-neck pheasant; life history and management studies of the ring-neck pheasant.

Kutz, Prof. Sally E(mily), 420 West End Ave, New York, N. Y. *Physiology, Hygiene.* New York, N. Y, Dec. 26, 89. A.B, Hunter Col, 09; C.P.H, Bellevue Med. Col, 15; M.S, N. Y. Univ, 16, Ph.D, 32. Visitor, Elizabeth Tuber. Asn, 12–14; asst. prof. *physiol. and hygiene*, Hunter Col, 14–30; asst. prof. and *prof, Brooklyn Col, Col. City of N. Y, 30–* A.A; fel. Pub. Health Asn; Health and Physical Educ. Asn; Student Health Asn. Measles immunity; newspapers as source material in health education.

Kutz, Dr. Walter M(onroe), 553 Celeron St, Pittsburgh, Pa. *Chemistry.* Ft. Dodge, Iowa, Feb. 28, 03. B.S, Alberta, 25; Ph.D, Wisconsin, 30. Instr. chem, Alberta, 25–27; research chemist, Gen. Elec. Co, 30–37; *indust. fellow, Mellon Inst, 37–* Chem. Soc. Synthetic organic materials; reaction rates of organic compounds; synthetic insulating materials; synthetic resins; catalysis.

Kuykendall, Dr. S(idney) B(enson), Firestone Tire and Rubber Co, Akron, Ohio. *Organic chemistry.* Vienna, Ill, Dec. 31, 08. B.S, Illinois, 30; Ph.D, Ohio State, 35; LL.B, Akron Law Sch, 42. Anal. chemist, E. I. du Pont de Nemours and Co, 30–31; research chemist, *Firestone Tire and Rubber Co*, 35–38, *patents dept, 38–* Chem. Soc. Dihydro-I, 4-pyrans; synthesis and properties of octenes; rubber chemistry.

Kuyper, Prof. A(drian) C(ornelius), Tulane University, New Orleans, La. *Biochemistry.* Grand Rapids, Mich, June 9, 07. A.B, Hope Col, 29; M.S, Iowa, 30, Ph.D, 33. Instr. *biochem*, Iowa, 33–36; sch. med, Ohio State, 36–41; *asst. prof, Tulane, 41–* Chem. Soc. (sec'y-treas, Iowa sect, 35); Iowa Acad. Oxidation and metabolism of citric acid.

Kvalnes, Dr. D(onovan) E(rb), 10 Ziegler Tract, Penns Grove, N. J. *Organic chemistry.* Valley City, N. Dak, March 10, 05. A.B, Montana, 27; Ph.D, Minnesota, 31. Instr. org. chem, Minnesota, 31–32; nat. research fellow, Harvard, 32–34; *research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 34–* Oxidizing power of quinone-hydroquinone systems.

Kvalnes, Dr. H(amline) M(onroe), du Pont Experimental Station, Wilmington, Del. *Chemistry.* La Moure, N. Dak, June 14, 02. A.B, Montana, 25; Ph.D, California, 28. Asst. chemist, fixed nitrogen research lab, U. S. Dept. Agr, 28–29, assoc. chemist, 29–30; *chemist, exp. sta, E. I. du Pont de Nemours and Co, 30–* Chem. Soc. Positive ray analysis; compressibility of gases.

Kwartler, Dr. Charles E(dward), Winthrop Chemical Co, Rensselaer, N. Y. *Organic chemistry.* Austria, Oct. 5, 11. B.S, N. Y. Univ, 32, Ph.D, 36. Lecture asst, N. Y. Univ, 28–32, micro-chem. technician, 34–36, asst. instr, 36–38; research chemist, *Winthrop Chem. Co*, 39–43, *director pilot lab, 43–* Chem. Soc; fel. Inst. Chem; Microchem. Soc. (Pregl cmt, 36). Anti-malarials; synthetic sex hormones; synthetic detergents; sulfanilamides; vitamin D; analgesics; vitamin B_2; antimony; arsenic; bismuth organic compounds; trypanosomicides.

Kyes, Dr. Preston, North Jay, Maine. **²Experimental medicine.* North Jay, Maine, Jan. 24, 75. A.B, Bowdoin Col, 96, A.M, 00, Sc.D, 21; Harvard, 98–99; M.D, Hopkins, 00. Assoc. anat, *Chicago*, 00–02, instr, 02–03, asst. prof, 04–06, exp. path, 06–12, *prev. med*, 12–16, assoc. prof, 16–17, prof, 17–40, *emer. prof, 40–* Fellow, Rockefeller Inst, 02–03, 04–05; assoc, Mem. Inst. for Infectious Diseases, Chicago, 04–09; Royal Inst. Exp. Therapy, Frankford-on-the-Main, 00–02, 04–06. Assoc. ed, 'Univ. Chicago Science Series.' A.A; Asn. Anat; Asn. Path. and Bact; Asn. Immunol. The structure of toxins and antitoxins; structure of the human spleen; the structure of venoms; venom hemolysis; fixed tissue phagocytes; serum therapy in pneumonia; experimental pneumonia and tuberculosis.

Kyger, Dr. J(ack) A(dolphus), Box 42, Bremen Station, St. Louis, Mo. *Physical chemistry.* Brooklyn, N. Y, Sept. 7, 15. B.S, Yale, 35; Ph.D, Mass. Inst. Tech, 40. *Research chemist, Mallinckrodt Chem. Works, 40–* Chem. Soc. Measurement of gaseous and liquid equilibria by means of light transmission.

Kyker, Dr. Granvil C(harles), University of North Carolina School of Medicine, Chapel Hill, N. C. *Biochemistry.* Sevier Co, Tenn, April 7, 12. B.S, Carson-Newman Col, 32; Ph.D, North Carolina, 38. Asst. chem, North Carolina, 32–33, teaching fellow, 33–36; asst. prof, Richmond, 36–37; instr. *biol. chem, sch. med, North Carolina,* 37–38, *asst. prof, 38–* Chem. Soc; Elisha Mitchell Sci. Soc. (v. pres, 41). Cymene chemistry; quinine determination methods.

Kyle, C(urtis) H(ernon), 14 W. Lenox St, Chevy Chase, Md. *Agronomy.* St. Louis Crossing, Ind, April 8, 78. B.S.A, Kans. State Col, 03. Asst. agr, Kans. State Col, 03–05; asst. agronomist, Ohio Exp. Sta, 06–07; asst. physiologist, corn investigations, *U. S. Dept. Agr,* 07–22, agronomist and *senior agronomist, div. cereal crops and diseases, bur. plant indust,* 22– Seed Stock Cmt, 17–18. A.A; Soc. Agron; Soc. Physiol; Genetic Asn; Bot. Soc. Wash. Plant physiology.

Kyle, Dean E(dwin) J(ackson), Agricultural and Mechanical College of Texas, College Station, Texas. *Horticulture.* Kyle, Texas, July 22, 76. B.S, Agr. and Mech. Col. Texas, 99; B.S.A, Cornell, 01, M.S.A, 02. Asst. prof. *hort, Agr. and Mech. Col. Texas,* 02–05, *prof, 11–, dean sch. agr, 11–* Director, Farm Credit Admin, Houston. Trustee, Luling Foundation, Luling, Texas. Soc. Hort. Sci; Nut Growers Asn. Pomology; vegetable gardening; pecan growing; agricultural education; agricultural economy.

Kyrides (Kyriakides), Dr. Lucas P(etrou), Monsanto Chemical Works, St. Louis, Mo. *Chemistry.* Broussa, Asia Minor, April 13, 83. A.B, Michigan, 07, Sc.D, 09. Asst, Illinois, 09–10; research chemist, Hood Rubber Co, 10–14; Parke, Davis and Co, 14–15; Allied Dye and Chem. Corp, 16–28; *chem. director, Monsanto Chem. Works, 28–* Chem. Soc; Chem. Eng. Synthesis of rubber hydrocarbons and of laurolene.

Kyropoulos, Dr. S(piro), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Leipzig, Germany, April 26, 87. Ph.D, Leipzig, 11. Asst. agr. bacter, Göttingen, 12–13, asst. and teaching asst. physical chem, 14–25, physics, 25–28; research fellow fluid mech, 29–31, privat-docent physical technol, 31–35; *research fellow physics, Calif. Inst. Tech,* 37– Physical Soc. Fluid mechanics; molecular physics; electrochemistry; oil physics; metallography and applications.

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Laake, Dr. E(rnest) W(illiam), Box 208, Dallas, Texas. *Entomology.* New Ulm, Texas, Sept. 22, 87. B.S, Agr. and Mech. Col. Texas, 13; Ph.D, Iowa State Col, 33. From assoc. entomologist to *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 13–* A.A; Asn. Econ. Entom; Soc. Parasitol; Texas Entom. Soc. (pres, 32–34); fel. Texas Acad. Insects affecting the health of man and domestic animals.

Labarthe, Dr. Jules, Jr, Mellon Institute, Pittsburgh, Pa. *Chemistry.* Trail, B. C, Can, 01. B.S, California, 22; Ph.D, Pittsburgh, 31. *Indust. fellow, Mellon Inst, 22–* Chem. Soc; Asn. Textile Chem. and Colorists; Soc. Test. Mat. (cmt. textile materials). Refractories for zinc metallurgy; synthetic waxes; evaluation of department store merchandise and the development of new products.

Labaw, Dr. Louis W(arne), Brown University, Providence, R. I. *Physics.* Hopewell, N. J, Jan. 27, 18. B.S, Albright Col, 38; M.S, Brown, 40, Ph.D, 42. *Instr. physics, Brown, 42–* Acoustical Soc; Physical Soc. Acoustics.

Labberton, Prof. J(ohn) M(adison), 114 W. 183rd St, New York, N. Y. *Mechanical engineering.* Orange Co, N. C, April 22, 93. B.S, North Carolina, 13. Elec. and mech. engineer, Westinghouse Elec. and Mfg. Co, 14–25, tech. asst. to manager railway dept, 25–32, in charge design air conditioning apparatus, 32–34; marine engineer, U. S. Navy, 35–37; *assoc. prof. mech. eng, N. Y. Univ, 37–* Lecturer, Pittsburgh, 28–32; lieut. commander, U. S. Naval Res, 33– Examiner, Munic. Civil Service Cmn, N. Y, 39– Mech. Eng; Naval Eng; Eng. Educ. Commutation on single phase and direct current motors; locomotive drives; gearing; refrigeration; ship's propellers; marine feed systems; marine power plant arrangements; ship propulsion; electric locomotives.

Labrie, Prof. Arthur, 72 Ave. De Bernières, Quebec, Que, Can. *Biochemistry.* St. Charles de Bellechasse, Que, Aug. 19, 05. B.A, Laval, 26, Price scholar, 30, M.Sc, 31, Nat. Research Council Can. bursar, 31–32, D.Sc, 33. Chemist, Chem. Analysis and Research Lab, Quebec, 33–34; biochemist, Fisheries Exp. Sta, Halifax, 34–36; director, Gaspé Fisheries Exp. Sta, 36–38; *prof. biochem, Laval, 38–* Assoc. Can. Inst. Chem; N. S. Inst. Chem. The flavor of maple products; fish preservation.

Lacaillade, Prof. C(harles) William, Jr, St. John's University, Brooklyn, N. Y. *Animal pathology.* Forest Hills, L. I, N. Y, Nov. 30, 04. B.S, Conn. Agr. Col, 29; M.S, Harvard, 30, Ph.D, 33. Instr. zool, Harvard, 31; fellow, Rockefeller Inst, 31–34; asst. prof. and *prof. biol, St. John's (N. Y), 35–* A.A; Soc. Bact; N. Y. Acad; Cambridge Entom. Club. Reactions caused by insect venoms; virus diseases of insects; transmission of equine encephalomyelitis by mosquitoes.

La Cauza, Prof. Frank E(milio), U. S. Naval Academy, Annapolis, Md. *Electrical engineering.* Novara di Sicilia, Italy, Nov. 22, 00. B.S, Harvard, 23, M.S, 24, A.M, 29; Mass. Inst. Tech, 26–27. Student engineer, test dept, Gen. Elec. Co, Schenectady, 24; instr. *elec. eng,* Harvard, 24–26; asst. prof, *post-grad. sch, U. S. Naval Acad,* 29–39, *assoc. prof, 39–* Knight officer, Order of the Crown, Italy. Lieut. commander, U.S.N.R. Elec. Eng.

Lacey, Dr. H(arold) T(albot), 1165 Kensington Ave, Plainfield, N. J. *Chemistry.* Binghamton, N. Y, Oct. 18, 97. Ch.B, Cornell, 21, Grasselli fellow, 25–26, Ph.D, 26; Vienna, Munich and Graz, 26–27. Asst. instr. org. chem, Cornell, 20–25; indust. fellow, Mellon Inst, 27–29; research chemist, Grasselli Chem. Co, 29–32; *chem. supervisor, org. pigment research sect, Calco chem. div, Am. Cyanamid Co, Bound Brook, N. J, 32–* A.A; Chem. Soc; fel. Inst. Chem. Organic pigments; thymol benzein; glycyrrhizin; azo dyes and intermediates.

Lacey, Prof. William N(oble), California Institute of Technology, Pasadena, Calif. *Chemical engineering.* San Diego, Calif, July 25, 90. A.B, Stanford, 11, Chem.E, 12; M.S, California, 13, Ph.D, 15. Asst. chem, Stanford, 11–12; California, 12–15; research chemist, Giant Powder Co, 15; research assoc. chem, Mass. Inst. Tech, 16; instr, *Calif. Inst. Tech,* 16–17, asst. prof, 17–19, assoc. prof. *chem. eng,* 19–31, *prof, 31–* Chem. Soc; Chem. Eng. Phase equilibrium and thermodynamics; Portland cement; inorganic salt recovery; petroleum.

Lachance, Dr. René-O(nésime), Ste-Anne-de-la-Pocatiere, Que, Can. *Plant pathology.* Quebec, Que, March 22, 09. B.A, Laval, 32, B.S.A, 35; M.Sc, McGill, 39, Ph.D, 40. Asst, *lab. plant path, Dom. Dept. Agr, Science Service,* 34–39, *asst. plant pathologist, 40–* Lecturer, Laval. Can. Phytopath. Soc; Asn. can-française pour l'avance. des Sci; Que. Soc. Plant Protection. Boron-deficiency diseases; pathological anatomy of boron-deficient plants.

Lachat, Dr. L(awrence) L(ysle), 1007 Macon St, Pittsburgh, Pa. *Biochemistry.* Clearfield, Pa, March 22, 04. B.S, Pa. State Col, 29, M.S, 30; Ph.D, Minnesota, 33. Asst, Exp. Sta, Pa. State Col, 29–30; supervision vitamin-testing lab, State Dept. Agr, Dairy and Food, Minn, 30–37; in charge feed testing lab, Great Atlantic and Pacific Tea Co, 37–39; *H. J. Heinz Co. indust. fellow, Mellon Inst, 39–* Chem. Soc; Inst. Food Technol; Official Agr. Chem. (assoc. referee, 34–37). Vitamin studies; feed stuffs; biochemistry and nutritive value of foods.

Lachman, Dr. Arthur, 837 Arlington Ave, Berkeley, Calif. ****Chemistry.* San Francisco, Calif, Dec. 4, 73. B.S, California, 93; Ph.D, Munich, 95. Instr. chem, Michigan, 96–97; prof, Oregon, 97–02, dean col. eng, 00–02; tech. chemist, 02–19; *consulting chem. engineer, 19–; research assoc, California, 20–* Consulting chemist, Richfield Oil Corp. A.A; Chem. Soc. Valence of nitrogen in oxygen compounds; azoxybenzene; nitromid; molecular rearrangements of benzil and oximes; technical and industrial applications of organic and physical chemistry; petroleum technology.

Lachman, Prof. Ernst, University of Oklahoma, Oklahoma City, Okla. *Anatomy.* Glogau, Germany, Feb. 8, 01. M.D, Breslau, 25. Asst, x-ray and cancer dept, Rudolf Virchow Hosp, Berlin, 26–30, chief asst, 30–33; asst. prof. *anat, Oklahoma,* 34–39, *assoc. prof, 39–* Asn. Anat; fel. Am. Med. Asn; Col. Radiol. Limitations of the x-ray diagnosis of diseases of the heart, lungs and bones; x-ray therapy of pulmonary tuber-

culosis; Grenz-rays; the dependence of gene mutations in plants on quality and quantity of x-rays; x-ray anatomy of skeleton and thoracic viscera.

Lachmund, H(arry) G(ray), P. O. Box 422, Carmel, Calif. *Forest pathology.* Fresno, Calif, Jan. 1, 93. A.B, Stanford, 16; M.S, Minnesota, 41. From field asst. to pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 19–35; private research and study, 35–38; *war industry, 42–* Summers, agent, blister rust in Calif, U. S. Dept. Agr, 38–40; assoc. pathologist, forest production lab, U. S. Forest Service, 41. U.S.A, 17–19. A.A; Phytopath. Soc; Soc. Foresters. The formation of fire scars and relative susceptibility to fire damage to the boles in incense cedar and western yellow pine; white pine blister rust, decay and disposal of slash, the deterioration of wind-thrown timber and general pathology of forest trees and products in the Pacific northwest; white pine blister rust in California; decay resistance of black locust.

Lack, F(rederick) R(eginald), Western Electric Co, New York, N. Y. *Physics.* Eastbourne, Eng, July 18, 95. B.S, Harvard. Mem. mfg. dept, West. Elec. Co, 11–23; tech. staff, Bell Tel. Labs, 25–38; manager specialty products div, *West. Elec. Co,* 38–42, *v. pres. and manager radio div, 42–* Elec. Eng; Physical Soc; Radio Eng. Radio apparatus and transmission.

Lackey, C(harles) F, U. S. Department of Agriculture, Riverside, Calif. *Plant pathology.* Portland, Colo, June 15, 99. B.S, State Col. Wash, 24; M.S, California, 34. Field asst, office white pine blister rust control, *bur. plant indust, U. S. Dept. Agr,* 22–24, junior pathologist, 24–29, *asst. pathologist, 29–* A.A; Phytopath. Soc; Bot. Soc. Nature and properties of curly-top virus; histology and cytology of resistant and susceptible sugar beets affected by different strains of the curly-top virus; histological studies of the relationship of dodder to healthy and curly-top infected sugar beets and tobacco; sugar beet seed; pathological anatomy of mildew and rust infected sugar beet leaves.

Lackey, Prof. E(arl) E(mmet), 3303 R St, Lincoln, Nebr. *Geography.* Arlington, Ohio, May 1, 78. A.B, Nebraska, 11, A.M, 19; Ph.D, Columbia, 33. Teacher, pub. schs, Nebr, 98–11; Wayne State Teachers Col, Nebr, 11–24; *assoc. prof. geog, Nebraska, 24–* Nat. Council Geog. Teachers (sec'y, 29–33, pres, 37–). Weather and climate; geography in education; regional geography of the continents.

Lackey, Dr. James B(ridges), U. S. Public Health Service, Cincinnati, Ohio. *Biology.* Crystal Springs, Miss, Aug. 19, 93. A.B, Miss. Col, 15, fellow, 15, A.M, 22; Ph.D, Columbia, 30. Instr, Miss. Col, 22; asst, Columbia, 23–24; research zoologist, Sewage Investigations Lab, New Brunswick, N. J, 24–26; instr. biol, Wash. Sq. Col, N. Y. Univ, 25–28; prof, Southwestern (Tenn), 28–32; Seton Hall Col, 32–35; assoc. aquatic biologist, Tenn. Valley Authority, 35–36; *senior biologist, U. S. Pub. Health Service, 36–* Fellow, Oceanog. Inst, Woods Hole, 34–35. Limnol. Soc. (v. pres, 40); Micros. Soc; fel. Ohio Acad. Cytology; protozoology; biology of sewage disposal; food and tropisms of mosquito larvae; cytology and life histries of Euglenidae; cytology of division figure in selected types of cells; ecology and microbiology of streams; water supplies.

Lackey, Prof. Robert W(oodfin), 6500 Thackeray St, Dallas, Texas. *Chemistry, Physiology.* Hico, Texas, Nov. 25, 99. A B, South. Methodist, 22; M.S, Chicago, 27; Ph.D, Texas, 34. Instr. *physiol,* col. med, Baylor, 25–28, asst. prof, 28–36, assoc. prof, 36–43; *prof, sch. med, Southwest. Med. Foundation, 43–* Nitrogen compounds of petroleum distillates; carbohydrate metabolism; internal secretions.

Lackman, Dr. David B(uell), University of Pennsylvania, Philadelphia, Pa. *Bacteriology, Public health.* Plymouth, Conn, Dec. 29, 11. B.S, Connecticut, 33; Ph.D, Pennsylvania, 37. Instr. bacter, med. sch, *Pennsylvania,* 37–40, *assoc. pub. health, 40–* Soc. Bact. Antigenic structure of hemolytic streptococci; public health bacteriology.

LaCoste, Dr. Lucien J(ean) B(atiste), University of Texas, Austin, Texas. *Physics.* San Antonio, Texas, Aug. 25, 07. B.S, Texas, 31, A.M, 33, Ph.D, 33. Research fellow, Calif. Inst. Tech, 33–35; instr. *physics, Texas,* 35–37, *asst. prof, 37–* X-ray crystallography; seismographs; gravity meters; wave mechanics.

Lacount, Prof. Reginald G(age), 11 Cleveland Road, Wellesley, Mass. *Physics.* Gardner, Mass, May 27, 05. B.S, Boston Univ, 28, A.M, 33, Ph.D, 36; Mass. Inst. Tech, 28–30. Instr, high sch, Mass, 30–32; special lecturer and research in spectros, grad. sch, Boston, 36–38; instr. math, *Northeastern,* 38–40, asst. prof, 40–41, *physics,* 41–43, *assoc. prof, 43–* Physical Soc. Interferometer wave-lengths in the spectrum of H_2, HD and D_2; mount for the 30 foot Littrow spectrograph.

Lacy, Dr. B(urritt) S(amuel), E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Chemistry.* Dubuque, Iowa, March 4, 82. A.B, Harvard, 03, A.M, 04, fellow, 05–06, Ph.D, 06. Asst. chem, Harvard, 04–06, Parker fellow, 06–07; instr, Illinois, 08–09; Roessler and Hasslacher Chem. Co, Inc, *Niagara Falls, N. Y,* 11–32, *E. I. du Pont de Nemours and Co, 32–* A.A. Electrochemistry; chemistry of flames; Thomson effect in electrolytes; separation of gases; chlorination of hydrocarbons; alcohols; hydrocyanic acid; formamide.

Lacy, Dr. G(eorge) R(ufus), University of Pittsburgh, Pittsburgh, Pa. *Bacteriology, Immunology.* Marble Falls, Texas, Sept. 3, 86. Texas, 06–08; M.D, Vanderbilt, 13. Demonstrator bacter, Vanderbilt, 13–15; bacteriologist, Singer Research Lab, Pittsburgh, Pa, 15–18, 20–23; special rep, Rockefeller Foundation, Bur. Science, P. I, 23–25; *prof. bacter. and immunol. and head dept. path. and bacter, Pittsburgh, 26–* U.S.A, 17–19, capt. Soc. Bact; Soc. Exp. Path; Asn. Path. and Bact; Am. Med. Asn; Col. Physicians; Pittsburgh Acad. Med. Typhoid, paratyphoid, colon and dysentery bacilli; pneumococci and immunological responses to the pneumococci and influenza bacillus infections; immunological responses to infections with Treponema pertinue.

Lacy, Walter N(ind), St. Luke's Hospital, Cleveland, Ohio. *Geography.* Pleasant Prairie, Wis, Dec. 12, 84. B.S, Ohio Wesleyan, 06; A.B, Harvard, 07, A.M, 08. Prof. geog. and physics, Anglo-Chinese Col. High Sch, 08–15, 16–22, acting prin, 22; exec. sec'y, Methodist Episcopal Mission, and manager, Methodist Book Store, Foochow, 23–27; *business manager, St. Luke's Hosp, Cleveland, 28–* Asst, Ohio Wesleyan, 16. Climatology.

Ladd, Dr. Harry S(tephen), U. S. Geological Survey, Washington, D. C. *Geology.* St. Louis, Mo, Jan. 1, 99. A.B, Washington (St. Louis), 22; M.S, Iowa, 24, Ph.D, 25. Asst. geol, Iowa, 22–25, Bishop Museum fellow, 25, 28; asst. prof. geol, Virginia, 26–29; paleontologist, Venezuela Gulf Oil Co, 29–31; private research, U. S. Nat. Museum, 31–33; research assoc. geol, Rochester, 33–35; assoc. geologist, Nat. Park Service, 35–38, geologist, 38–40; assoc. geologist, *U. S. Geol. Surv,* 40–41, geologist, 41–43, *senior geologist, 43–* A.A; Geol. Soc; Paleont. Soc; Geol. Soc. Wash; Iowa Acad. Invertebrate paleontology; stratigraphy; origin of coral reefs.

Ladd, J(ohn) E(verett), Rhode Island State College, Kingston, R. I. *Animal husbandry.* Raymond, N. H, Sept. 17, 90. B.S, New Hampshire, 13; M.S.A, Purdue, 17. Instr. animal husbandry, New Hampshire, 14–15; asst. dairy husbandry, Purdue, 15–17; prof. and *specialist animal husbandry, R. I. State Col, 17–* Nutrition; pasture; breeding.

Ladd, Dr. William (Edwards), 300 Longwood Ave, Boston, Mass. *Surgery.* Milton, Mass, Sept. 8, 80. A.B, Harvard, 02, M.D, 06. *Chief surgeon, Children's Hosp, 26–; later William E. Ladd prof. child surg, Harvard Med. Sch.* Mem. Am. Board Surg, 37–; Am. Board Plastic Surg, 37– Surg. Asn; fel. Col. Surg; Am. Med. Asn; Asn. Oral and Plastic Surg; New Eng. Surg. Soc; New Eng. Pediat. Soc; Boston Surg. Soc. Child surgery.

Ladd, Dean William Sargent, 135 E. 65th St, New York, N. Y. *Medicine.* Portland, Oregon, Aug. 16, 87. B.S, Amherst Col, 10; M.D, Columbia, 15. Instr. med, Columbia, 18–19; Hopkins, and asst. med, Hopkins Hosp, 19–21; instr, Columbia, 21–24, assoc. med. and asst. physician, Presb. Hosp, 24–31; asst. prof. med, *med. col, Cornell,* 31–32, *clin. med,* 32–35, *prof, 34–,* assoc. dean, 31–35; dean, 35–42. Consulting staff, dept. med, Nassau Hosp. Asn, 29– Asst. visiting physician, 2nd div, Bellevue Hosp, 32–35; attending physician, New York Hosp, 35– Trustee, American Univ. Beirut, 24–41; Mem. Hosp, 35–; Amherst Col, 36–42; director, Seabord Surety Corp, 29–; Mesa Verde Co, 37– Lieut, M.C. A.A; Soc. Exp. Biol; Soc. Mammal; Harvey Soc; N. Y. Acad. Med. (trustee, 35–40). Pernicious anemia; metabolism of diabetes mellitus and renal diabetes; hospital food control; mountaineering and exploring the Canadian Rocky Mountains and Fairweather Range, Alaska.

Laden, Dr. H(yman) N(athaniel), 347 S. Fifth St, Philadelphia, Pa. *Mathematics.* Philadelphia, Pa, July 10, 15.

A.B, Pennsylvania, 36, Ph.D, 41; A.M, Maryland, 38. Asst. instr. math, Maryland, 36–38; instr, Drexel Inst, 38–39; faculty research cmt. grant, Pennsylvania, 39–40, asst. instr. *math*, 40–41; *instr, Wisconsin, 41–, lieut, U. S. Naval Res, 42–* Asst, cmt. bibliog. orthogonal polynomials, div. physical sciences, Nat. Research Council, 36–40. A.A; Math. Soc. Application of the classical orthogonal polynomials to the theory of interpolation; theory of interpolation; mechanical quadrature; orthogonal polynomials.

Ladenburg, Dr. Kurt, 55 Princeton Ave, Princeton, N. J. *Organic chemistry.* Breslau, Germany, June 19, 14. A.B, Princeton, 35, fellow from Harvard, 38–39, Ph.D, 39. Research assoc, Stanford, 39–40; *senior research chemist, Merck and Co, Inc, 40–* Sterols and sex hormones; alkaloids and therapeutic chemicals; synthesis of vitamins; synthesis of 3-hydroxy-2-(3)-benzofuranone and of 4-hydroxy-mandelic acid; separation of sterols by the chromatographic adsorption method; molecular rearrangements in the sterols; structure of saponins and sapogenins.

Ladenburg, Prof. R(udolf), Princeton University, Princeton, N. J. ***Physics.* Kiel, Germany, June 6, 82. Heidelberg; Breslau; Cambridge; Berlin; Ph.D, Munich, 06. Privatdocent, Breslau, 09, prof, 14; Berlin, 25; mem. staff and head dept. physics, Kaiser Wilhelm Inst, Berlin, 25; *Brackett research prof. physics, Princeton, 31–* A.A; fel. Physical Soc; N. Y. Acad; Berl. Physik. Gesell. (pres, 29); cor. mem. Göttingen Acad; hon. mem. Frankfurter Nat. Gesell. Hydrodynamics; sound; electricity in gases; atom and nuclear physics; electro-optics; magneto-optics; cosmic rays.

Ladoo, Raymond B(ardeen), 42 Huntington Road, Newton, Mass. *Engineering.* Ayer, Mass, May 1, 93. A.B, Harvard, 14, M.M.E, 16. Asst. to mgr, Low Moor Iron Co, Va, 16–17; mgr. mines, John B. Guernsey and Co, 17–19; mineral technologist, U. S. Bur. Mines, 19–23; gen. mgr, South. Minerals Corp. (Tenn), 23–25; pres, Colo. Fluorspar Co, 25–26; engineer, U. S. Gypsum Co, N. Y, 26; mgr. indust. commodity dept, Chicago, 27–31; *consulting engineer and manufacturer dry pigment colors, 32–* Chief mica-graphite branch, materials div, War Production Board, 42–43. Mem. advisory cmt. to minerals div, U. S. Bur. For. and Domestic Commerce; v. pres, Colonial Mica Corp, 42–43. Min. and Metal. Eng. Economic and technologic aspects of non-metallic minerals.

LaDue, Dr. John S(amuel), Louisiana State University School of Medicine, New Orleans, La. *Internal medicine.* Minot, N. Dak, Sept. 6, 11. A.B, Minnesota, 32, M.S, 40, Ph.D, 41; M.D, Harvard, 36. Intern, L. I. Col. Hosp, 36–37; teaching fellow med, med. sch, Minnesota, 37–40, *instr.* med. and physiol, 40–41; *med, sch. med, Louisiana, 41–* Res, Minneapolis Gen. Hosp, 37–40. Cardiology; lantoside C; intravenous use of cardiac glycosides; toxicity of cardiac glycosides; mechanism of compensation by digitalis of the failing human heart; heart failure in acute glomerulonephritis; ECG ischemia-injury patterns in experimental coronary occlusion, impending infarction and pericarditis; treatment of massive hemorrhage due to peptic ulcer.

Laemmle, Dr. George J(oseph), Winthrop Chemical Co, 33 Riverside Ave, Rensselaer, N. Y. *Biological chemistry.* New York, N. Y, Aug. 30, 14. A.B, Fordham, 36, Ph.D, 41. *Research chemist, Winthrop Chem. Co, 41–* Chem. Soc; Asn. Cereal Chem. Assay methods for vitamin B complex; adsorption studies on vitamin A.

La Farge, Oliver, 2126 Decatur Place, N.W, Washington, D. C. *Anthropology.* New York, N. Y, Dec. 19, 01. A.B, Harvard, 24, Hemenway fellow, 24–26, A.M, 29; hon. A.M, Brown, 32. Asst. ethnol, Tulane, 26–28; research assoc. anthrop, Columbia, 31–32; mem. advisory board, Lab. Anthrop, 34–39, chairman cmt. on publication, 35–39; *capt, Air Corps, U. S. Army, 43–* Field rep, U. S. Indian Service, 36. Trustee, Museum of Navajo Ceremonial Art, 38– Peabody Museum-Harvard archeol. expeds, Ariz, 21, 23, 24; Tulane anthrop. expeds, middle Amer. 25, 27; Columbia exped, Guatemala, 32. A.A; Anthrop. Asn. Mayan ethnology.

La Fétra, Dr. Linnaeus E(dford), 345 21st Ave, N. E, St. Petersburg, Fla. *Medicine.* Washington, D. C, Oct. 12, 68. A.B, Wesleyan, 91, hon. Sc.D, 41; M.D, Columbia, 94. *Practising physician, 98–*; lecturer pediat, N. Y. Polyclinic Med. Sch, 97–00; prof. diseases of children, Columbia, 02–20; pediat, N. Y. Post-Grad. Med. Sch, 20–26. Chief children's clinic, Vanderbilt Clinic, 02–11; physician, Roosevelt, Babies', Bellevue, N. Y. Skin and Cancer, Italian and Flushing Hosps, New York; St. Joseph's Hosp, Far Rockaway; Lawrence Hosp, Bronxville; St. Vincent's Hosp, Montclair. Ed, 'Archives of Pediat.' Am. Med. Asn; Pediat. Soc; N. Y. Acad. Pediatrics; bronchial asthma in children; infantile scurvy; anterior poliomyelitis; nutrition of feeble infants; high caloric feeding in typhoid fever.

Laffer, Dr. N(orman) C(allender), 873 Liberty St, Meadville, Pa. *Bacteriology.* Meadville, Pa, Nov. 26, 07. B.S, Allegheny Col, 29; M.S, Maine, 32; Ph.D, Illinois, 37. Asst. bacter, Maine, 29–30, 31–32, instr, 30–31; asst, Illinois, 33–35; instr, Arizona, 35–38, asst. prof, 38–41; mem. staff, Lederle Labs, 41–42; lieut, *Sanit. Corps, U. S. Army*, 42–43, *capt, 43–* Inst. Food Technol; Soc. Bact; assoc. Ariz. Pub. Health Asn. Yeasts and related forms.

Lafferty, Dr. Robert H(ervey), Jr, Lehigh University, Bethlehem, Pa. *Analytical chemistry.* Charlotte, N. C, May 10, 16. B.S, Davidson Col, 37; Ph.D, Cornell, 41. *Instr. anal. chem, Lehigh, 41–* Summers, photo products div, E. I. du Pont de Nemours and Co, 34–36, 42. Chem. Soc. Thermal decomposition of barium carbonate.

La Forge, Dr. F(rederick) B(urr), U. S. Department of Agriculture, Washington, D. C. ***Organic chemistry.* Bridgeport, Conn, March 12, 82. B.S, Princeton, 05; M.A, Ph.D, Berlin, 08. Asst, Berlin, 08–09; fellow and asst, Rockefeller Inst, 10–12, assoc, 12–15; org. chemist, bur. chem, *U. S. Dept. Agr*, 15–27, *senior chemist*, bur. chem. and soils, 27–35, *bur. entom. and plant quarantine, 35–* Drug addiction cmt, Nat. Research Council. A.A; Chem. Soc. Nucleic acid; chondroitin sulfuric acid; pentosuria; sugars; corn-cob utilization; furfural; insecticides; rotenone; pyrethrum.

LaForge, Dr. Laurence, 5 Concord Ave, Cambridge, Mass. *Geology, Geomorphology.* New York, N. Y, Sept. 17, 71. Alfred, 87–92; A.B, Harvard, 99, A.M, 00, Austin fellow, 02–03, Ph.D, 03. Instr. astron, Alfred, 96–97; asst. geologist, U. S. Geol. Surv, 01–05; aid geol, U. S. Nat. Museum, 05–08; consulting geologist, 08–14; geologist, U. S. Geol. Surv, 14–27; *consulting geologist and engineer, 27–; prof. geol, Teachers' Sch. Science, 34–; Tufts Col, 42–* Meteorologist, Alfred, 95–97; lecturer, Harvard, 25, asst, 30–36; prof, Suffolk, 39–40. Ed. specialist geol, 'Standard Dict,' 11–12. A.A; Geophys. Union; fel. Am. Geog. Soc; N. Y. Acad. Weather periodicity; geology of parts of New York, New Jersey, Massachusetts, New Hampshire, Maine and Georgia; morphology of Appalachian region and fall zone; Pleistocene coastal terraces; physical problems of the New England coast; mathematical crystallography; cenozoic history of southern New England.

LaFuze, Prof. H(enry) Harvey, Eastern Kentucky State Teachers College, Richmond, Ky. *Botany.* Liberty, Ind, March 3, 08. A.B, DePauw, 29; M.S, Iowa, 30, Ph.D, 36. Asst. bot, Iowa, 29–35, research assoc. plant physiol, 36–37; *asst. prof. biol,* Southwest. State Teachers Col, Okla, 37–39; *East. Ky. State Teachers Col, 39–* Bot. Soc; Soc. Plant Physiol; Ky. Acad. Plant physiology; nutrition.

Lagaard, Prof. M(aurice) B, Northwestern University, Evanston, Ill. *Engineering.* Minneapolis, Minn, Sept. 1, 91. B.S, Minnesota, 14, C.E, 15. Asst. engineer, commercial testing, Minnesota, 15–18, asst. prof. struct. eng, 19–26; assoc. engineer, research lab, Portland Cement Asn, 26–30; chief engineer, Minneapolis Bridge Co, and later field engineer, Portland Cement Asn, 30–37; chief struct. engineer, Fargo Foundry Co, 37–39; *asst. prof. civil eng, tech. inst, Northwestern, 39–* Asst. engineer, North Pacific Ry, 15; bur. pub. roads, U. S. Dept. Agr, 20; res. engineer, State Highway Dept, Minn, 23–24. Concrete engineer, Emergency Fleet Corp, U. S. Shipping Board, 18–19. Civil Eng; Concrete Inst. Saturation of concrete; use of calcium chloride in concrete; shrinkage in buildings in service; setting temperature of Portland and aluminite concrete; steam curing of concrete for early test results.

Lagassé, Dr. F(elix) S(cott), 124 N. Government St, Gainesville, Fla. *Horticulture.* Nashua, N. H, Nov. 25, 97. B.S.A, New Hampshire, 21; M.S.A, Maryland, 24, Ph.D, 32. Asst. pathologist, bur. plant indust, U. S. Dept. Agr. Wenatchee, Wash, 24, asst. plant physiologist, bur. chem, 25; research horticulturist, Exp. Sta, Delaware, 25–38; *pomologist, bur. plant indust, U. S. Dept. Agr, 38–* Soc. Hort. Sci; Soc. Plant Physiol. Carbohydrate-nitrogen relationship in apple spurs; shade and plant growth; pollination; fertilizers; root stocks; nutritional studies with tung trees.

Lagemann, Dr. R(obert) T(heodore), Emory University, Ga. *Physics.* Marion, Ohio, Aug. 31, 12. A.B, Baldwin-Wal-

lace Col, 34; M.S, Vanderbilt, 35; fellow, Ohio State, 39–40, Ph.D, 40. Teaching fellow *physics*, Vanderbilt, 34–36; asst, Ohio State, 36–39; instr, Marshall Col, 40–41; *asst. prof, Emory, 41–* Physical Soc. Magneto-optics; infra-red spectra.

Lagerstrom, Dr. Paco (Axel), Princeton University, Princeton, N. J. *Mathematics.* Oskarshamn, Sweden, Feb. 24, 14. Stockholm, 32–37, 38–39; Münster, 37–38; Ph.D, Princeton, 42. *Instr. math, Princeton, 41–* Mathematical logic; abstract spaces; algebra; theory of integration.

Lagler, Dr. Karl F(rank), University of Michigan, Ann Arbor, Mich. *Zoology.* Rochester, N. Y, Nov. 15, 12. A.B, Rochester, 34; M.S, Cornell, 36; Ph.D, Michigan, 40. Teaching asst. bot, Rochester, 34–35; investigator fish management, *Michigan, 37–39, instr. zool, 39–* Leader, Mich. cooperative fish research unit, Am. Wildlife Inst, 37–; special investigator fish predation, inst. fisheries research, Dept. Conservation, Mich, 39– Summers, biologist, biol. surv, N. Y. State Conservation Dept, 34–36, aquatic biologist, Ind. Dept. Conservation Lake and Stream Surv, 40. Fisheries Soc; Soc. Ichthyol. and Herp; Soc. Mammal; Wilson Ornith. Club; Mich. Acad. Ichthyology; fisheries biology; natural history of vertebrates.

LaGrange, Prof. William F(rancis), Iowa State College, Ames, Iowa. *Animal husbandry.* Marion, Iowa, Sept. 18, 94. B.S, Iowa State Col, 17, M.S, 28. Instr. animal husbandry, Iowa State Col, 17–18; exten. animal husbandman, N. Dak. Col, 19–20; *prof. animal husbandry, Iowa State Col, 20–* Summer, county agr. agent, Iowa, 18. Soc. Animal Production.

Lahee, Dr. F(rederic) H(enry), Sun Oil Co, Dallas, Texas. **Geology.* Hingham, Mass, July 27, 84. A.B, Harvard, 07, A.M, 08, Ph.D, 11. Asst. geol, Harvard, 06–09, instr, 09-12; Mass. Inst. Tech, 12–14, asst. prof. dynamical and field geol, 14–18; assoc. geologist, *Sun Oil Co, 18–20, chief geologist, 20–* Instr, Wellesley Col, 08–18; geol. aid, U. S. Geol. Surv 12, field investigator, 13. Exec. cmt, div. geol. and geog, Nat. Research Council, 36. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol. (v. pres, 29–32, pres, 32); Petrol. Inst; Min. and Metal. Eng; Am. Geog. Soc; Mid-Cont. Oil and Gas Asn; Dallas Petrol. Geol. Soc. Structural geology; petrology; metamorphism and metamorphic rocks; mineral growth during metamorphism; field, glacial and petroleum geology.

Lahr, Dr. Paul H(illmon), 3706 Hillside Ave, Indianapolis, Ind. *Physical chemistry.* Glasco, Kans, June 20, 07. B.S, Buena Vista Col, 30; M.S, Iowa, 37, Ph.D, 41. Teacher, high schs, Iowa, 31–37; univ. high sch, Iowa, 37–41; *chem. research engineer, Prest-o-lite Co, 41–* Chem. Soc. Evidence for a rigid water layer at a solid-water interface.

Laidlaw, Dr. Harry H(yde), Jr, 515 Dexter Ave, Montgomery, Ala. *Apiculture.* Houston, Texas, April 12, 07. B.S, Louisiana, 33, M.S, 34; univ. fellow, Wisconsin, 35–36, fellow, 36–37, Ph.D, 39. Minor sci. helper, field aide, field asst. and agent, U. S. Dept. Agr, 29–34, 35–39; teaching asst. zool. and entom, Louisiana, 33–34, asst, exp. sta, Louisiana, 34–35; Wis. Alumni Research Foundation asst, Wisconsin, 37–39; prof. biol. science, Oakland City Col, 39–41; *apiarist, State Dept. Agr. and Industries, Ala, 41–* A.A; Genetics Soc; Soc. Zool. Genetics and morphology of the honey bee.

Laing, M(ilton) L(lonel), 6627 Greenwood Ave, Chicago, Ill. *Industrial chemistry, Food technology.* Peever, S. Dak, March 19, 03. B.S, North, S. Dak. State Teachers Col, 28; indust. fellow, Illinois, 29–31, M.S, 31. Chief bacteriologist, *Armour and Co,* 31–37, asst. chief chemist, 37–39, *chief chemist, 39–* Soc. Bact. (councilor, 41); Pub. Health Asn; Chem. Soc; Oil Chemists Soc; Inst. Food Technol. (councilor, 40). Distribution of spores of Clostridium botulinum in soils; effect of curing agents and heat on spores of Clostridium botulinum in canned cured meat.

Laird, Prof. Clinton N(evius), 1513 Q St, N.W, Washington, D. C. *Chemistry.* Winona, Minn, Feb. 10, 80. A.B, Pennsylvania, 03, A.M, 05. Instr, *Canton Christian Col. (Lingnan Univ),* 05–08, *prof. chem, 08–,* head dept, 08–30, dean col. arts and sciences, 22–24, 28–36. A.A; Chem. Soc; Soc. Chem. Indust; Franklin Inst; fel. Biochem. Soc. Gt. Britain; fel. London Chem. Soc. Nutrition; vitamins; Chinese foods.

Laird, Prof. D(avid) G(ordon), University of British Columbia, Vancouver, B. C, Can. *Soil bacteriology.* Summerside, P. E. I, Oct. 10, 90. B.S.A, Toronto, 15; M.S, Wisconsin, 24, Ph.D, 30. Dist. agriculturist, Soldier Settlement Board Can, 19–20; asst, *British Columbia,* 20–24, asst. prof, 24–30, assoc. prof. *soil bacter,* 30–40, *prof, 40–* C.E.F, 16–19. A.A; Can. Soc. Tech. Agr; B. C. Acad. (pres, 38–40); Int. Soc. Soil Sci. Bacteriophage and activators in relation to soil bacteria.

Laird, Dr. Donald A(nderson), Rivercrest Laboratory, Middle Haddam, Conn. *Industrial psychology.* Angola, Ind, May 14, 98. A.B, Dubuque, 19, hon. Sc.D, 28; A.M, Iowa, 21, Ph.D, 23. Asst, Iowa Child Welfare Research Sta, 19–21; instr, Iowa, 21–22; asst. prof. psychol, Wyoming, 22–23; nat. research fellow biol, Yale, 23–24; prof. psychol. and director lab, Colgate, 24–39; director, Ayer Foundation Consumer Analysis, 39–40; *indust. consultant, 41–* Special lecturer, Northwestern; Army War Col; Grad. Inst. Savings and Loan. Mem. sci. advisory board, Noise Abatement Council, 41– Director sleep and fatigue exhibit, A Century of Progress Expos, Chicago, 33. Psychol. examiner, U.S.N, 18–19. A.A; fel. Acoustical Soc. (exec. councilor, 37–39); Asn. Applied Psychol; fel. Royal Soc. Arts. Fatigue reduction and personnel management in industry; morale problems, especially in defense plants.

Laird, Prof. E(lizabeth) R(ebecca), 1146 Richmond St, London, Ont, Can. *Physics.* Owen Sound, Ont, Can, Dec. 6, 74. B.A, Toronto, 96, hon. D.Sc, 27; fellow from Bryn Mawr Col, Berlin, 98–99, Ph.D, 01; Cambridge, 09; Chicago, 19. Instr. math, Ont. Ladies' Col, 96–97; *physics, Mt. Holyoke Col,* 01–03, prof, 04–40, *emer. prof, 40–* Substitute demonstrator, Bryn Mawr Col, 00; Sarah Berliner research fellow, Wurzburg, 13–14; hon. research fellow, Yale, 25. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Hist. Sci Soc. Solids vibrating in liquids; magnetic lag; spectrum analysis; density of thin films; soft x-rays; Raman effect; discharge rays.

Laird, Dr. Frederick William, 1402 S. Grand, St. Louis, Mo. *Chemistry.* Victoria, B. C, Can, Oct. 9, 00. B.A, British Columbia, 22, B.Sc, 23; M.S, Washington (Seattle), 24; Ph.D, Wisconsin, 28; M.D, St. Louis, 41. Asst. chem, Washington (Seattle), 23–24; Wisconsin, 24–28; instr. physical chem, St. Louis, 28–41; *res. obstet. and gynec, univ. hosps, St. Louis, 41–* Colloid, inorganic and physical chemistry; quantitative analysis.

Laird, Dr. H(arry) C, 1101 Federal Bldg, 85 Richmond St, W, Toronto, Ont, Can. *Mining, Geology.* Thedford, Ont, May 24, 03. B.A, Western Ontario, 27; M.A, Toronto, 28, Nat. Research Council Can. bursar, 30–32, student, 32–33, Ph.D, 33. Asst. geologist, Ont. Dept. Mines, 26–29, geologist, 30–35; *consulting geologist, 36–;* McDonough Mining Syndicates, 36–41. Gold medal, Western Ontario, 27. Min. and Metal. Eng. Gold deposits; origin of chert.

Laird, Dr. Raymond L(ee), University of Michigan, Ann Arbor, Mich. *Parasitology.* Galveston, Ind, Dec. 2, 08. B.S, Columbia, 36; Sc.D, Hopkins, 42. *Instr. epidemiol, Michigan, 42–* Mem. field exped. to Trinidad, British West Indies, 41. Soc. Trop. Med; Soc. Parasitol. Malaria.

Laird, Dr. Wilson (Morrow), University of North Dakota, Grand Forks, N. Dak. *Geology.* Erie, Pa, March 4, 15. A.B, Muskingum Col, 36; A.M, North Carolina, 38; Ph.D, Cincinnati, 42. Asst. *geol,* North Carolina, 36–38; Cincinnati, 38–40; asst. prof, *North Dakota, 40–42, assoc. prof, 42–; state geologist, N. Dak, 41–* Summers, field geologist, Pa. Geol. Surv, 36, 37, 40. Assoc. Asn. Petrol. Geol; Paleont. Soc; Asn. State Geol; N. Dak. Acad. Stratigraphy and structure of Martinsburg formation near Harrisburg, Pennsylvania; stratigraphy of the upper Devonian and lower Mississippian of southwestern Pennsylvania; stratigraphy and physiography of North Dakota.

Laist, Frederick, 25 Broadway, New York, N. Y. *Metallurgy.* Cincinnati, Ohio, Oct. 30, 78. B.S, California, 01; Sc.D, Colo. State Sch. Mines, 21. Chief chemist and supt. blast-furnace dept, asst. supt. and gen. supt, Anaconda Reduction Works; metal. manager, Anaconda and Great Falls Reduction Works, *Anaconda Copper Mining Co,* 14–16, *gen. metal. manager, 16–; Giesche Spolka Akcyjna* Consulting engineer, Chile Copper Co; Andes Copper Co; pres, Nat. Tunnel and Mines Co; v. pres, Silesian Am. Co; Int. Smelting and Ref. Co; Tooele Valley Ry; director, Butte Copper and Zinc Co; Electrolytic Zinc Process Co. Gold medal, Am. Inst. Mining Engineers. Min. and Metal. Eng. Development of copper leaching and electrolytic zinc processes.

Laitinen, Dr. Herbert A(ugust), University of Illinois, Urbana, Ill. *Physical-inorganic chemistry.* Ottertail Co, Minn, Jan. 17, 15. B.Ch, Minnesota, 36, Shevlin fellow, 39–40,

Ph.D, 40. Teaching asst. physical chem, Minnesota, 36–39; instr. *chem, Illinois*, 40–42, assoc, 42–43, *asst. prof, 43–* Chem. Soc. (sec'y Illinois sect, 42). Electrochemistry; polarization of microelectrodes; polarography; diffusion.

Lake, Dr. Dyer B(arker), 527 W. 121st St, New York, N. Y. *Chemistry.* South Shaftsbury, Vt, Oct. 19, 84. B.S, Syracuse, 09, M.S, 10; Columbia, 12–15; Ph.D, Cornell, 16. Prof. chem. and head dept, Alfred, 10–12; asst, dept soils, Cornell, 13; instr. agr, Columbia, 13–15; asst. chem, Cornell, 15–16; instr. physical chem. and head dept, Lehigh, 16–18; asst. prof. animal husbandry, N. Y. State Col. Agr, Cornell, 18; chemist, Chile Explor. Co, 18–20; chief chemist. Am. Chem. and Mfg. Corp, 20–23; chemist, Chem. Warfare Service, Edgewood Arsenal, 24–27; fuels, refrig, Baltimore, 27–29; chemist and director research, Bullard Co, Bridgeport, Conn, 29–31; research, Columbia, 33–40; *research sales, D. W. Haering and Co, Inc, 41–* A.A. Inorganic, physical and industrial chemistry; electrochemistry; dyeing and cleaning; colloidal chemistry; domestic and industrial water treatment.

Lake, E(dward) R(alph), Fairfax Farms, Fairfax, Va. *Horticulture.* Peterboro, Eng, 60. B.S, Mich. State Col, 85, M.S, 88. Instr. bot, Mich. State Col, 86–88; prof. bot. and hort, Oregon State Col, 88–91; State Col. Wash, 91–94; newspaper work and politics, 94–97; prof. bot, hort. and forestry, Oregon State Col, 97–05, bot. and forestry, 06–10; pomologist, U. S. Dept. Agr, 10–30; *retired.* Govt. expert, Paris Expos, 00. A.A; Soc. Hort. Sci; Pomol. Soc. (sec'y, 12–20); Oregon Acad. Pomology; plant breeding; nuts; walnuts; Persian pecans; filberts.

Lake, M(ack) C(layton), M. A. Hanna Co, 206 Sansome St, San Francisco, Calif. *Geology, Mining engineering.* Brodhead, Wis, April 29, 90. B.S, Wisconsin, 14. *Geologist, M. A. Hanna Co, 15–* Consulting geologist, various companies in U. S. and Can; v. pres, Manganese Ore Co. Soc. Econ. Geol; Min. and Metal. Eng. (sec'y, Minn. sect, 27); Lake Superior Min. Inst. Iron ore reserves of the Lake Superior district; manganese ore properties and processes for the treatment of low grade manganese ores.

Lake, Dr. Robert E(dgar), 201 Clinton Ave, Brooklyn, N. Y. *Physics.* Clanton, Ala, July 31, 07. B.S, Alabama, 32, M.S, 34; Ph.D, Pa. State Col, 40. Instr. math, N. C. State Col, 40–41, mech. eng, 41–42; math, *Pratt Inst*, 42–43, *asst. prof. elec. eng, 43–* Diffusion of gases through metals.

Lake, Prof. W(illiam) W(alter), College of Mines and Metallurgy, El Paso, Texas. *Chemistry.* Richwood, Ohio, June, 8, 91. B.S, Ohio State, 13, M.S, 21; Ph.D, Chicago, 41. Chemist, Nat. Carbon Co, Cleveland, Ohio, 13; chief chemist, William Edwards Co, 14; instr, high sch, Ohio, 14–17; Texas, 19–21, head science dept, El Paso Jr. Col, 21–27; asst. prof. chem, *col. mines and metal, Texas*, 27–35, assoc. prof, 35–40, *prof. and chairman dept, 40–* 2nd lieut, Inf, 18–19. Chem. Soc. The synthesis of DL-threose.

Lakela, Dr. Olga, Minnesota State Teachers College, Duluth, Minn. *Botany.* Kestila, Finland, March 11, 90. B.S, Minnesota, 21, M.S, 24, Ph.D, 32. Teacher, rural sch, Minn, 14–17, instr, high sch, 21–25; biol, State Teachers Col, Minot, 25–30; asst, herbarium, Minnesota, 30–35; *instr. biol, Minn. State Teachers Col, Duluth, 35–* A.A; Bot. Soc; Ecol. Soc; Soc. Plant Taxon; Torrey Bot. Club; Minn. Acad. Taxonomy of flowering plants; ecology.

Lal, Dr. Gobind Behari, 235 E. 45th St, New York, N. Y. *General science.* Delhi, India, Oct. 9, 90. B.A, Imperial Univ. Punjab, 07, M.A, 08; Ph.D, California, 16. Assoc. prof. physics, Hindu Col, Delhi, India, 10–12; research scholar social sciences, California, 13–17; features writer science, 'Examiner,' San Francisco, 25–30; *science editor, Int. News Service and Hearst Newspapers, 30–* Pulitzer award, 37. U.S.A, 17–18. Nat. Asn. Sci. Writers (pres, 41). Physics; astrophysics and cosmology; medicine and surgery; anthropology and historical research; biology, biochemistry and biophysics; chemistry; technology.

La Lande, Dr. W(illiam) A(lfred), Jr, 31 Kent Road, Upper Darby, Pa. *Chemistry.* Philadelphia, Pa, June 19, 05. B.S, 27, M.S, 28; Ph.D, Pennsylvania, 31. Instr. chem, Pennsylvania, 27–36, asst. prof, 36–37; George Leib Harrison fellow, Swiss Fed. Polytech. Inst, Zurich, 37–38; *research director, Attapulgus Clay Co. and Porocel Corp, 38–* A.A; Chem. Soc; Franklin Inst. Chemistry of abietic acid and related substances; organic chemistry of natural products; synthetic chemistry of compounds related to natural products; polyterpens; petroleum refining; application of natural and synthetic adsorbents to refining and to degradation and synthesis of organic compounds.

Lalicker, Prof. Cecil G(ordon), University of Oklahoma, Norman, Okla. *Paleontology.* South Haven, Kans, Sept. 30, 07. B.S, Oklahoma, 30, M.S, 32; scholar, Harvard, 32–33, A.M, 33, Ph.D, 35. Asst. geol, Oklahoma, 30–32; Austin teaching fellow, Harvard, 33–35; paleontologist, Sun Oil Co, 35–36; chief paleontologist, Phillips Petrol. Co, 36–38; asst. prof. *geol, Oklahoma*, 38–40, *assoc. prof, 40–* Paleont. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Foraminifera; Ostracoda; stratigraphy.

Lalonde, Rev. Father Louis M(arie), La Trappe, Que, Can. *Botany, Genetics.* Montreal, Que, Oct. 17, 96. B.A, Montreal, 17, Licencié, 24; Ph.D, Harvard, 28. *Prof. bot. and genetics, Inst. agr. d'Oka, Montreal, 28–* Del. Int. Cong. Bot, Montreal, Cambridge, 30. A.A; Genetic Asn; New Eng. Bot. Club; Asn. can-française pour l'avance. des Sci. Trisetum; Trillium; Aplectrum; Hepatica; systematics of grasses; flora of the Province of Quebec and East Arctic America.

Lamanna, Dr. Carl, Louisiana State University School of Medicine, New Orleans, La. *Bacteriology.* Brooklyn, N. Y, Dec. 1, 16. B.S, Cornell, 36, M.S, 37, Ph.D, 39. Asst. bacter, Cornell, 36–39; *instr.* bacter. and pub. health, State Col. Wash, 40–41; *bacter*, Oregon State Col, 41–42; *sch. med, Louisiana, 42–* Soc. Bact; assoc. Soc. Exp. Biol. (south. sect). Aerobic spore-forming bacteria; serology of bacterial endospores; sulfanilamide bacteriostasis.

Lamar, Dr. Edward S(tonestreet), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Rockville, Md, Aug. 22, 05. A.B, George Washington, 26, A.M, 28; Ph.D, Princeton, 34. Instr. *physics*, George Washington, 26–28; research assoc, *Mass. Inst. Tech*, 31–36, *asst. prof, 36–* Physical Soc. Electrical discharges in gases.

Lamar, J(ohn) E(verts), State Geological Survey, Urbana, Ill. *Geology.* Grand Rapids, Mich, Dec. 6, 97. B.S, Chicago, 20. *Geologist and head indust. minerals div, geol. resource sect, Ill. Geol. Surv, 20–* Instr, Illinois, 20–21. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. (v. chairman indust. minerals div, 39; exec. cmt, 39–41); Ill. Acad. (chairman, sect. geol, 32). Non-metallic economic geology; sedimentation.

Lamar, Dr. Jule K(itchell), University of Texas School of Medicine, Galveston, Texas. *Endocrinology.* Birmingham, Ala, Dec. 5, 09. B.S, Birmingham-Southern Col, 31; Ph.D, Chicago, 38. Asst. biol, Birmingham-Southern Col, 31–33, instr, 33–34; asst. zool, Chicago, 34–38; Nat. Cmt. Maternal Health fellow, Carnegie Lab. Embryol, 38–40; *instr. obstet. and gynec, sch. med, Texas, 40–* A.A; assoc. Soc. Zool. Spermatology in reference to sterility; effects of hormones; sex hormonology.

Lamar, Dr. Richard V(anderhorst), Milledgeville State Hospital, Milledgeville, Ga. *Pathology, Bacteriology.* Milledgeville, Ga, April 8, 83. M.D, Georgia, 02. Scholar-assoc. path, Rockefeller Inst, 07–13; prof. path. and bacter, Georgia, 13–31, asst. dean, 26–31; *pathologist, Milledgeville State Hosp, 31–* Pneumococcic infections; bacteriolysis; hemolysis; gram-negative streptococci; medical education.

Lamar, William L, U. S. Geological Survey, Washington, D. C. *Chemistry.* Hagerstown, Md, Aug. 26, 05. B.S, Maryland, 29; A.M, George Washington, 32. Asst. chemist and later *assoc. chemist, U. S. Geol. Surv, 29–* Chem. Soc; Water Works Asn. Water chemistry.

LaMaster, Prof. J(oseph) P(aul), Clemson Agricultural College, Clemson, S. C. *Dairy production.* Campbellsburg, Ky, March 21, 92. B.S, Kentucky, 13, M.S, 29. Bacteriologist, Elmendorf Farm, Lexington, Ky, 13–15; asst. dairy husbandman, dairy exten, U. S. Dept. Agr, 15–19; exten. dairy specialist, *Clemson Agr. Col*, 20, *prof. dairying and head dept, 20–* Mem. dairy cattle judging team, Nat. Dairy Show, Kentucky, 11, saddle horse judging team, Int. Livestock Expos, 12, fat stock judging team, 12. Dairy Sci. Asn. (sec'y-treas, south. div, 24, v. pres, 25, pres, 26, sec'y-treas. and v. pres, 42; sec'y production sect, 30). Animal nutrition; genetics.

Lamb, Dr. Alvin R(omaine), Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Biochemistry.* Bangor, Wis, April 23, 90. Beloit Col, 09–11; B.S, Wisconsin, 13, M.S, 15, Ph.D, 30. Asst. agr. chem, Wisconsin, 12–14; research chemist, Exp. Sta, Iowa State Col, 14–25, chief nutri-

tion, 19–25; director research, Morrman Mfg. Co, 25–28; research fellow, Exp. Sta, Wisconsin, 28–31; biochemist, leprosy investigation sta, U. S. Pub. Health Service, 31–33; *research assoc, Exp. Sta, Hawaiian Sugar Planters' Asn, 35–; major, Hawaiian Dept. Headquarters, U. S. Army, 41–, exec. food control, Office Mil. Governor, 42–* Lieut, Sanit.C, 18–19, capt, Sanit.R.C, 24–35, major, 35–41. A.A; Soc. Biol. Chem; Inst. Nutrition; Soc. Animal Production. Fermentation; animal nutrition; rat leprosy; yeast production.

Lamb, Prof. Arthur B(ecket), Harvard University, Cambridge, Mass. **3*Chemistry.* Attleboro, Mass, Feb. 25, 80. A.B, A.M, Tufts Col, 00, Ph.D, 04, Sc.D, 20; A.M, Harvard, 03, Ph.D, 04, traveling fellow, Leipzig and Heidelberg, 04–05. Instr. chem, Tufts Col, 01–02; electrochem, Harvard, 05–06; prof. chem. and director Havemeyer chem. lab, N. Y. Univ, 06–12; *prof. chem. and director chem. lab, Harvard, 12–*, dean grad. sch. arts and sciences, 40–43. U. S. Fixed Nitrogen Cmn. and director fixed nitrogen research lab, U. S. Dept. Agr, 19–20. Ed, 'Jour. Am. Chem. Soc,' 17– Nichols medal, Am. Chem. Soc, 43. Chief defense chem. research, C.W.S, 17–19, lieut. col, 18–19. Nat. Acad; A.A; Chem. Soc. (pres, 33); Electrochem. Soc; Philos. Soc; Am. Acad; Wash. Acad; Deuts. Chem. Gesell; Bunsen Gesell. Eye muscles in Squalus acanthias; dehydration of periodic acid; the specific heat of aqueous solutions; isomerism in cumaric acid derivatives; mechanics of mitosis; partial vapor pressures of binary mixtures; the potential of iron; density of aqueous salt solutions; Thomson effect in electrolytes; cobalt, rhodium and iridium ammines; detection of carbon monoxide and its removal from air; active charcoal; heat of adsorption; preferential combustion of carbon monoxide; hydrolysis of chloroaquochromic chloride; liquid junction potentials; electrical filter; iodic acid; electromotive activation of oxygen; crystallogenetic adsorbents; cobaltammines; adsorption and vapor pressure of hydrocarbons.

Lamb, Dr. C(ecil) A(lexander), 532 N. Bever St, Wooster, Ohio. *Agronomy.* New Westminster, B. C, Can, Jan. 28, 00. B.S.A, British Columbia, 21; M.S.A, McGill, 24; Ph.D, Cornell, 35. Cereal breeding, Dom. Exp. Sta, Charlottetown, P. E. I, Can, 24–26; asst. *agron,* British Columbia, 27–28, 29–30; *Ohio Exp. Sta,* 31–35, *assoc, 35–; asst. prof. agron, Ohio State, 40–* A.A; Soc. Agron; Genetic Asn; Asn. Cereal Chem. Wheat, oats and barley improvement; cereal chemical investigations on soft winter wheats; influence of climatic and edaphic factors on wheat; teaching cereal crops.

Lamb, Dr. Frances W(illard), 17140 Third Ave, Detroit, Mich. *Chemistry.* Aug. 27, 08. B.S, Mich. State Col, 30, M.S, 31, Ph.D, 33. Asst. physical chem, Mich. State Col, 30–33, chemist, Exp. Sta, 33–34; spectros. dept, Bohn Aluminum and Brass Corp, 34–41; *research chemist, Gelatin Products Co, 41–* A.A; Optical Soc; Chem. Soc. Spectroscopy; adsorption; determination of lead; standards for spectroscopic analysis; spectroscopy of cadmium alloys, bearing materials, plant ashes, biological materials and vitamins.

Lamb, Prof. G(eorge) F(ranklin), 234 Hartshorn St, Alliance, Ohio. *Geology.* Near Lancaster, Ohio, Aug. 20, 72. Ph.B, Ohio (Athens), 02; A.M, Ohio State, 09; Chicago, 11–12. Asst. biol. and geol, Ohio (Athens), 00–02; prin, high sch, 02–04; *prof.* biol. and geol, *Mt. Union Col,* 05–16, *geol, 16–; consulting geologist, 12–* Asst, Ohio Geol. Surv, 10–18. A.A; Ohio Acad. (v. pres, geol. sect, 18–20). Geology of Ohio; preglacial drainage systems; drainage changes; limestones; the Mississippian-Pennsylvanian unconformity; deposition in lower Pennsylvanian; the structure and significance of the Sharon Conglomerate; Mississippian physiography; Silurian coral reef and high land rock wells of moulin origin in Ontario; Pleistocene crystal warp in northeastern Ohio; over-deepened valleys by glacial scour; cause of asymmetrical drainage patterns in Ohio, Pennsylvania, West Virginia and Kentucky.

Lamb, Dr. George G(oodrich), 3614 T St, N.W, Washington, D. C. *Chemical engineering.* Grand Rapids, Mich, April 26, 06. B.S.E, Michigan, 27, M.S, 28; Ph.D, N. Y. Univ, 35. Junior chem. engineer, Atlantic Ref. Co, 28–30; instr. *chem. eng,* N. Y. Univ, 30–35; *research, Standard Oil Co. of Ind, 35–; lieut, U. S. Naval Res, bur. aeronautics, U. S. Navy Dept, 41–* Soc. Automotive Eng; Mech. Eng; Chem. Soc; Chem. Eng. Development of new processes and products for petroleum industry; petroleum fuels and lubricants.

Lamb, Dr. John, Jr, R. D. 3, Ithaca, N. Y. *Soils.* Worden, Ill, Sept. 6, 94. B.S, Illinois, 18, M.S, 29; Ph.D, Cornell, 33. Assoc. soil exp. fields, Illinois, 19–29; asst. agron, N. Y. State Col. Agr, Cornell, 29–34; *supt. soil erosion exp. field, U. S. Dept. Agr, 34–* Soil fertility plot work; soil chemistry; soil survey and erosion.

Lamb, Sister M. Alice, College of St. Scholastica, Duluth, Minn. *Botany.* Duluth, Minn, March 4, 96. B.S, Chicago, 18, M.S, 22; Ph.D, Minnesota, 30. Instr. *biol, Col. of St. Scholastica,* 20–21, 22–29, *prof, 29–* Bot. Soc; Minn. Acad. Gymnospermae; algae.

Lamb, Dr. Vernon A(rthur), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Spencer, Iowa, Dec. 12, 09. A.B, Iowa, 33, M.S, 35, Ph.D, 37. Asst. chem, Iowa, 33–37; instr. math. and chem, Wis. State Teachers Col, Platteville, 37; physical chem, Maryland, 37–41; *asst. chemist, Bur. Standards, 41–* Chem. Soc; Electroplaters Soc. (librarian, Wash-Baltimore branch, 42). Electrochemistry; phase rule; electroplating.

Lamb, Dr. Willis E(ugene), Jr, Columbia University, New York, N. Y. *Physics.* Los Angeles, Calif, July 12, 13. B.S, California, 34, Ph.D, 38. Asst. *physics,* California, 34–35, 36–37; *instr, Columbia, 38–* Physical Soc. Theoretical physics; quantum mechanics; nuclear physics.

Lambert, Dr. Adrian V(an) S(inderen), 768 Park Ave, New York, N. Y. *Surgery.* New York, N. Y, June 30, 72. A.B, Yale, 93; M.D, Columbia, 96. Asst. demonstrator anat, *Columbia,* 00–04, instr. surg, 04–12, assoc. prof, 12–21, *prof. clin. surg, 21–* Attending surgeon, Lincoln Hosp, 06–08; asst. attending surgeon, Bellevue Hosp, 05–09, attending surgeon, 21–; asst. attending surgeon, Roosevelt Hosp, 08–12; assoc. attending surgeon, Presb. Hosp, 12–17, director surg. service, 17–21, consulting surgeon, 21–; Orthop. Hosp, 22–; Sea View Hosp, 23– Fel. Col. Surg; Am. Med. Asn; Asn. Anat; Asn. Thoracic Surg; N. Y. Acad. Med.

Lambert, Prof. A(very) E(ldorus), State University of Iowa, Iowa City, Iowa. *Histology.* Waldoboro, Maine, Oct. 31, 73. B.S, Dartmouth Col, 02, Ph.D, 06; Harvard; Chicago. Instr. biol, Mass. State Nor. Sch, Framingham, 05–11; *prof,* Middlebury Col, 12–17; histol. and embryol, Vermont, 18–20; anat, Alabama, 20–25; anat. and later *histol, col. med, Iowa, 25–* A.A. Microscopic anatomy; a new trilobite of the lower Devonian; minerals and rocks; cephalic lobes of arachnids; variations in the human musculature and their significance.

Lambert, Prof. B(yron) J(ames), 4 Melrose Circle, Iowa City, Iowa. *Civil engineering.* Argyle, Wis, April 25, 74. B.Di, Iowa State Teachers Col, 96, M.Di, 97; Ph.B, Iowa, 00, B.S, 01, C.E, 06. Instr, *Iowa,* 02–06, from asst. prof. to *prof.* struct. and civil eng, 06–15, *civil eng. and head dept, 15–,* acting dean, 35–36. Consulting engineer. Eng. Educ; Civil Eng. Reinforced concrete; steel structures.

Lambert, C(harles) A(lfred), Hercules Powder Co, Hattiesburg, Miss. *Chemistry.* Philadelphia, Pa, May 31, 84. B.S, Pa. State Col, 10, Chem.E, 21. Chemist, Ordnance Dept, U.S.A, 02–07; U. S. Bur. Mines, 10–11; Ordnance Bur, U.S.N, 11–13; Carnegie Steel Co, 13–15; *Hercules Powder Co, 15–, manager naval stores plant.* Chem. Soc; Chemists Club. Manufacture of ether; fractional distillation; turpentine; rosin; pine oil.

Lambert, Dr. Charles I(rwin), 567 Park Ave, New York, N. Y. *Psychiatry.* Argyle, Wis, Dec. 6, 77. B.S, Iowa, 01, M.S, M.D, 03. Instr. path, Iowa, 04; asst. neuropath, N. Y. State Psychiat. Inst, 04–10; pathologist, Manhattan State Hosp, 10–13; 1st asst. physician, Bloomingdale Hosp, 13–22; assoc. prof. psychiat, col. physicians and surg, Columbia, 22–37, prof. psychiatric educ, Teachers Col; asst. attending psychiatrist, Presb. and Sloan Hosps, 22–37. Lecturer, Columbia; med. director, 'Four Winds' Sanitarium, Katonah, N. Y. Psychiat. Asn; Psychopath. Asn; N. Y. Psychiat. Soc. (pres); N. Y. Soc. Clin. Psychiat. Neuropathology; clinical psychiatry.

Lambert, Dr. Edmund B(ryan), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* St. Paul, Minn, March 3, 97. B.S, Minnesota, 20, M.S, 22, Ph.D, 27. Asst. plant path, Minnesota, 21–23; asst. plant pathologist, *bur. plant indust, U. S. Dept. Agr,* 23–29, assoc. plant pathologist, 29–36, *plant pathologist, 36–* Phytopath. Soc; Mycol. Soc; Wash. Acad. Cereal smuts and rusts; epidemiology of cereal rusts; mushroom culture and diseases; aerobiology.

Lambert, Prof. E(dwin) M(aximilian), 705 S. E. Sixth St, Minneapolis, Minn. *Mining engineering.* St. Paul, Minn,

Jan. 6, 82. M.E, Minnesota, 09. Instr. math, *sch. mines, Minnesota,* 09, asst. prof, 10–18, assoc. prof. *mining eng,* 18–22, *prof, 22–* Min. and Metal. Eng.

Lambert, Dr. R(aymond) H(enry), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Davenport, Nebr, May 2, 93. B.S, Nebraska, 18, A.M, 19; Ph.D, Mass. Inst. Tech, 24. Instr. chem, Iowa State Col, 19–20; asst. applied chem, Mass. Inst. Tech, 20–21, instr. chem. eng, 22; *research chemist, Eastman Kodak Co, 24–* Chem. Soc; Rochester Acad. Heats of reaction; phase rule considerations; colloids and crystal growth; physico-chemical studies of photographic materials.

Lambert, Dr. Robert A(rchibald), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Pathology.* Lamison, Ala, Oct. 3, 83. A.B, Howard Col, 02, A.M, 03; M.D, Tulane, 07. Instr. surg. path, Hopkins, 08–09; asst. path, Columbia, 09–11, assoc, 11–17, acting head dept, 17–18; asst. prof, sch. med, Yale, 19–23; prof. path. anat, Faculdade de Med. de São Paulo, Brazil, 23–25; path. and director, Columbia Sch. Trop. Med, Puerto Rico, 26–28; *assoc. director med. sciences, Rockefeller Foundation, 28–* Montefiore Hosp, New York, 14–15, 17–18; Presb. Hosp, 15–16, 17–18; New Haven Hosp; director labs, Near East Relief, Turkey and Syria, 19–20; lecturer, Univ. Salvador, 22. Rice exped, Brazil, 16–17. A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Asn. Cancer Research; Harvey Soc. (sec'y and ed, Harvey lectures, 14–17); N. Y. Path. Soc. (sec'y and ed, 'Proc,' 12–16, v. pres, 17); N. Y. Acad. Med; Soc. de Med. e Cirurg. de São Paulo; Soc. Biol. and Hygiene São Paulo; Int. Asn. Med. Mus. (v. pres, 22). Cultivation of tissues in vitro; pathology of war gases; tuberculosis in the tropics; immunity to rat and mouse cancer; ocular lesions in vitamin A deficiency.

Lambert, W(alter) D(avis), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy.* West New Brighton, N. Y, Jan. 12, 79. A.B, Harvard, 00, A.M, 01; Harrison fellow, Pennsylvania, 07–08. Instr. math, Maine, 02–04; instr, Pennsylvania, 08–11; with *U. S. Coast and Geod. Surv,* 04–07, 11–42, *chief sect. gravity and astron, 42–* Lieut, C.Eng, 17–19. A.A; Math. Soc; Math. Asn; Geophys. Union (sec'y, sect. geod, 25–29, chairman, 29–32); Wash. Acad. (rec. sec'y, 24–29, v. pres, 30); Philos. Soc. Wash. (treas, 25, v. pres, 27–29, past pres); Geophysik. Gesell; Int. Asn. Geod. (exec. cmt, 33–36, v. pres, 36–); Int. Geod. and Geophys. Union; Int. Astron. Union. Geophysics; variation of latitude; figure and rigidity of the earth; elliptic integrals.

Lambert, Dr. W(illiam) V(incent), 233 Lincoln St, West Lafayette, Ind. *Animal genetics.* Stella, Nebr, Sept. 13, 97. B.S, Nebraska, 21; M.S, Kans. State Col, 23; Rosenberg scholar, California, 29–30, Ph.D, 31. Asst, Kans. State Col, 21–23; instr. genetics, Iowa State Col, 23–27, asst. prof, 27–36; in charge genetics investigations, bur. animal indust, U. S. Dept. Agr, 36–40; *assoc. director, Exp. Sta, Purdue, 40–* A.A; Genetics Soc; Soc. Animal Production; Soc. Zool; Soc. Nat. Inheritance of disease resistance in the fowl and in mammals; genetics of the fowl and of mammals; inbreeding in the fowl; reproductive physiology in mammals.

Lamborn, Dr. Helen Morningstar, 224 Piedmont Road, Columbus, Ohio. *Geology.* Columbus, Ohio, Sept. 23, 93. A.B, Ohio State, 13, A.M, 15; M. Carey Thomas fellow, Europe, 16; A.M, Ph.D, Bryn Mawr Col, 22. Instr. geol. and paleont, Ohio State, 17–23; *private research, 23–* Paleont. Soc; Ohio Acad. Paleontology; Pottsville fauna of Ohio; type fossils.

Lamborn, R(aymond) E(llwood), 224 Piedmont Road, Columbus, Ohio. *Geology.* Beloit, Ohio, Nov. 12, 90. A.B, Ohio State, 15, A.M, 17; Chicago, 17; Yale, 21–22, 27–28. Instr. geol, Ohio State, 19–27; *asst. geologist, Ohio Geol. Surv,* 16–26, *29–* Min. and Metal. Eng; Ohio Archeol. and Hist. Soc; fel. Ohio Acad. Stratigraphic and economic geology.

LaMer, Prof. Victor K(uhn), Columbia University, New York, N. Y. ****Chemistry.* Leavenworth, Kans, June 15, 95. A.B, Kansas, 15; Chicago, 16; Ph.D, Columbia, 21; Cambridge, 22; Copenhagen, 23. Instr, high sch, Kans, 15–16; research asst, Carnegie Institution, 16–17; asst, *Columbia,* 19, food chem, 19–20, instr. *gen. and inorg. chem,* 20–24, asst. prof, 24–28, assoc. prof, 28–35, *prof, 35–; mem, Nat. Council Defense, 40–* Cutting traveling fellow, Columbia, 22–23; acting assoc. prof, Stanford, 31; Priestley lecturer, Pa. State Col, 32. Summer, lecturer, inst. chem, Northwestern, 28. Nichols medal jury of award, 33–36. Lieut, Sanit.C, 17–19. A.A; Chem. Soc. (sec'y, 27, v. chairman, 28, chairman, div. physical and inorg. chem, 29, v. chairman, N. Y. sect, 32, chairman, 33); fel. Physical Soc; Electrochem. Soc; Soc. Exp. Biol; fel. N. Y. Acad. Physical chemistry; biochemistry; physical chemistry of vitamin C; autoxidation; free energy of oxidation reduction reactions; quinhydrone electrode; solubility product of calcium phosphate and calcification; thermodynamic properties of strong electrolytes; neutral salt catalysis; theory of electrolytic dissociation; non-aqueous solutions; reaction velocity; isotopes; aerosols.

Lamey, Prof. Carl A(rthur), 129 W. Schreyer Place, Columbus, Ohio. *Geology.* St. Louis, Mo, Oct. 28, 92. B.S, E.M, Mich. Col. Mines, 25; fellow, Northwestern, 25–27, M.S, 27, Ph.D, 33. Asst. miner. and petrol, Mich. Col. Mines, 21–25; geol, Northwestern, 25–27; instr. geol. and miner, Indiana, 27–30; *geol,* Northwestern, 30–33; Mundelein Col, 34; *Ohio State,* 35–40, *asst. prof, 40–* Mem. staff, U. S. Geol. Surv. Summers, geologist, Mich. Geol. Surv, 27, 28, 35, 37–41. Champion Copper Co, 28; Norgan Gold Mining Co, 36. Penrose grant, Geol. Soc. Amer, 34. A.A; Min. and Metal. Eng; Geol. Soc; Soc. Econ. Geol; Ohio Acad. (v. pres. geol. sect, 40); Mich. Acad. Precambrian geology of Lake Superior region, especially igneous intrusions and metamorphism; geology of the Michigan copper district; geology of Menominee iron range.

Lamiman, Dr. John F(ranklin), 2244 Summer St, Berkeley, Calif. *Entomology, Parasitology.* Shasta Co, Calif, May 12, 99. B.S, California, 22, M.S, 24, Ph.D, 31. Asst. entom. and parasitol, *California,* 22–31, junior entomologist, 31–33, *instr. entom, 33–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Morphology and biology of Tetranychus telarius; Acarina; Tetranychidae.

Lamkey, Prof. E(rnest) M(ichael) R(udolph), 507 S. University St, Normal, Ill. *Plant physiology.* Riverton, Ill, Jan. 1, 90. A.B, Illinois, 13, A.M, 14, fellow, 15–16, Ph.D, 16. Asst. bot, Illinois, 13–15; plant pathologist, St. Louis Smelting and Ref. Co, 16; instr. floricul. path, Exp. Sta, Illinois, 16–17; plant physiologist, Exp. Sta, Delaware, 17–24; *prof. bot, Ill. State Nor. Univ, 27–* A.A; Phytopath. Soc; Bot. Soc; Entom. Soc. Fungi; carnation yellows; transpiration; enzymes; permeability of plant tissues.

Lamme, Dr. M(aurice) A(llison), 32 Mountain Ave, Maplewood, N. J. *Chemistry.* Bozeman, Mont, Sept. 5, 81. B.S, Mont. State Col, 03; A.M, Columbia, 04, Ph.D, 09. Instr, Columbia, 04–12; director, Inst. de Geol. y Perforaciones, Montevideo, Uruguay, 12–19; asst. director research lab, L. D. Caulk Co, Del, 19–20; geologist, Standard Oil Co, Maracaibo, Venezuela, 20–22; *engineer, West. Elec. Co,* Chicago, Ill, and *Kearny, N. J, 23–* A.A; Chem. Soc. Electroplating.

Lammers, Prof. Edward C(hauncey) H(inman), 202 McDowell St, Lexington, Va. *Geology.* Spokane, Wash, July 24, 10. B.S, Princeton, 32; Ph.D, Chicago, 36. Instr. *geol, Washington and Lee,* 36–38, *asst. prof, 38–* Va. Acad. Structural geology; stratigraphy; Precambrian geology.

Lammerts, Prof. W(alter) E(dward), 2004 N. Beverly Glen Blvd, West Los Angeles, Calif. *Genetics.* Terre Haute, Ind, Sept. 25, 04. B.S, California, 27, Ph.D, 30. Nat. research fellow, Calif. Inst. Tech, 30–32; research assoc, California, 32–34; with Armstrong Nursery, 35–40; *asst. prof. ornamental hort, California at Los Angeles, 40–* Interspecific hybridization in Nicotiana, especially the hybrids between Nicotiana rustica and Nicotiana paniculata; cytology of Nicotiana tabacum derivatives; hybridization in roses and fruits.

La Monte, Miss Francesca R(aimonde), American Museum of Natural History, 77th St. and Central Park West, New York, N. Y. *Ichthyology.* Bensberg, Germany, June 5, 95. A.B, Wellesley Col, 18. Sec'y *dept. ichthyol, Am. Museum Nat. Hist,* 19–21, 22–23, 25–28, staff asst, 28–29, asst. curator, 29–35, *assoc. curator, 35–* Am. Museum Nat. Hist. del, Int. Cong. Zool, Italy, 30. Mem. Lerner-Cape Breton exped, 36, 38; Lerner-Bimini exped, 37; Chile-Peru exped, 40. A.A; Soc, Ichthyol. and Herp; Am. Geog. Soc; Acad. Polit. Sci; Outdoor Writers Asn; fel. N. Y. Acad; Int. Game Fish Asn. (sec'y and exec. mem). Taxonomic ichthyology.

Lamoreux, Dr. W(elford) F(orrest), Cornell University, Ithaca, N. Y. *Genetics.* Britt, Iowa, June 6, 08. B.S, Iowa State Col, 31; M.S, Cornell, 37, Ph.D, 38. Instr. *poultry husbandry, Cornell,* 35–39, asst. prof, 39–43, *assoc. prof, 43–* A.A; Soc. Zool; Genetics Soc; Genetic Asn; Poultry Sci. Asn; Biol. Photographic Asn. Genetics of the fowl; physiology of reproduction.

La Motte, Prof. Charles, Agricultural and Mechanical College of Texas, College Station, Texas. *Botany.* Montague, Texas, Aug. 29, 00. A.B, A.M, Texas, 29; Illinois, 34–35, Ph.D, 36. Acting prof. *biol,* Sul Ross State Teachers Col, Alpine, Texas, 29–30; asst. prof, *Agr. and Mech. Col. Texas,* 30–37, assoc. prof, 37–39, *prof, 39–* A.A; Bot. Soc; Texas Acad. Embryogeny of the heterosporous lycopods; meristems.

LaMotte, Dr. Robert S(mith), 667 Aileen St, Oakland, Calif. *Paleobotany.* Philadelphia, Pa, April 6, 95. U. S. Naval Acad, 12–15; B.S, Washington (Seattle), 31; Ph.D, California, 35. Asst. geologist, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 35–37; U. S. Engineers Office, Sacramento Dist, Calif, 38–40; Hercules Powder Co, 41–42; *major, Coast Artil. Corps, U. S. Army, 42–* Paleont. Soc. Tertiary of western North America.

Lampe, Prof. J(ohn) H(arold), University of Connecticut, Storrs, Conn. *Electrical engineering.* Baltimore, Md, Dec. 1, 96. B.S, Hopkins, 18, M.E, 25, D.E.E, 31. Research engineer, Winchester Repeating Arms Co, 19–20; instr. *elec. eng,* Hopkins, 20–28, assoc, 28–33, assoc. prof, 33–38; *prof. and head dept, Connecticut, 38–, dean sch. eng, 40–, rep. eng, science and management war training program, 41–* Engineer, Consol. Gas, Elec. Light and Power Co, Baltimore, Md, 25–28; owner and engineer, Homewood Elec. Co, 26–28. Summers, engineer, Chesapeake and Potomac Telephone Co, Washington, D. C, 23, engineer in charge elec. eng. instruction, 29; engineer, Consol. Gas, Elec. Light and Power Co, Baltimore, Md, 24. Mem, State Cmt. Employment of Women, Conn; State War Industries Cmn; chairman air raid alarm cmt, State Defense Council; mem, State Board Registration for Professional Engineers and Land Surveyors, 42–2nd lieut, A.S, 18–19. Elec. Eng. (exec. cmt; sec'y Baltimore sect, 34–38; chairman program cmt, Conn. sect, 39–42, membership cmt, 43; elec. welding cmt, 42); Soc. Test. Mat; Eng. Council Professional Develop; Eng. Educ. (cmt. conf, New Eng. sect); Conn. Soc. Civil Eng. Insulating materials; liquid dielectric; use of the unbalanced magnetic bridge for non-destructive testing of steel; engineering laboratory trends; non-destructive tests of welds.

Lampe, Dr. Lois, Ohio State University, Columbus, Ohio. *Botany.* Washington Court House, Ohio. A.B, B.S, Ohio State, 19, M.S, 22, Ph.D, 27; fellow, Boyce Thompson Inst, 24–26. Asst. *bot, Ohio State,* 20–23, instr, 23–24, 26–40, *asst. prof, 40–* Summer, asst, Cold Spring Harbor, 22. A.A; Bot. Soc; Genetics Soc; fel. Ohio Acad. (v. pres, 40). Plant microchemistry, cytology and genetics.

Lampen, Prof. Albert E(ugene), 86 E. 14th St, Holland, Mich. *Mathematics.* Allegan Co, Mich, June 8, 87. A.B, Hope Col, 11; scholar, Michigan, 13–14, A.M, 15; Chicago. Supt. schs, 05–08, 11–13, 14–16; *prof.* physics, Washburn Col, 17–18; math. and Latin, Winona Col, 16–18; *math. and astron, Hope Col, 18–* Math. Asn. (chairman Mich. sect, 39). Physics.

Lampland, Dr. Carl O(tto), Lowell Observatory, Flagstaff, Ariz. ****Astronomy.* Hayfield, Minn, Dec. 29, 73. B.S, Valparaiso, 99; A.B, Indiana, 02, A.M, 05, LL.D, 30. *Astronomer, Lowell Observatory, 03–* Exchange prof, Princeton, 29–Lowell Observatory exped, 18, eclipse exped, 23. Medal, Royal Photog. Soc, 07. A.A; Astron. Soc. (councilor, 36); Physical Soc; Math. Soc; Math. Asn; Philos. Soc; Soc. Research Meteorites; Am. Acad; Astron. Soc. Pacific; N. Ariz. Soc. Sci. and Art (v. pres, 37–); Astron. Gesell; Soc. astron. de France; hon. mem. Soc. Astron. de Mex; Int. Astron. Union (cmt. on planets, comets and satellites, nebulae, 37). Photography of surface detail of planets; photographic observations of nebulae; star fields, novae, star clusters, comets and satellites; stellar and planetary radiometry; determination of planetary temperatures; transmission of the earth's atmosphere.

Lampman, Prof. C(lifford) E(lmer), University of Idaho, Moscow, Idaho. *Poultry husbandry.* Richland Center, Wis, Oct. 15, 97. B.S.A, Wisconsin, 21. Exten. poultryman, Macdonald Col, McGill, 21–23; instr. *poultry husbandry,* Wisconsin, 23–27; *prof. and head dept, Idaho, 28–* Poultry Sci. Asn. Poultry nutrition, genetics and pathology.

Lamprey, Dr. Headlee, Linde Air Products Co, Tonawanda, N. Y. *Chemistry.* Snohomish, Wash, Oct. 30, 08. B.S, Washington (Seattle), 31, M.S, 31; Ph.D, Michigan, 35. *Chemist, Linde Air Products Co, 35–* Chem. Soc. Corrosion inhibition.

Lampson, Dr. Curtis W(illiam), Princeton University, Princeton, N. J. *Physics.* Colman, S. Dak, April 14, 07. B.S, S. Dak. State Col, 29; A.M, Princeton, 35, Ph.D, 37. Vacuum tube application engineer, Gen. Elec. Co, 29–33; asst, Am. Inst. Physics, 35–37; instr. physics, Richmond, 37–39, asst. prof, 39–41; *senior physicist and consultant, Nat. Defense Research Cmt, Palmer physical lab, Princeton, 41–* Physical Soc; Va. Acad. The neutron-proton interaction by means of scattering of protons by neutrons.

Lamson, Prof. H(erbert) D(ay), 77 Bennoch St, Orono, Maine. *Sociology.* Exeter, N. H, June 28, 99. Ph.B, Brown, 24, A.M, 25; Harrison fellow, Pennsylvania, 25–26; A.M, Harvard, 34, Ph.D, 35. From instr. to assoc. prof. *sociol,* Shanghai, 27–33; asst, Harvard, 34–35; asst. prof, *Maine,* 35–40, *assoc. prof, 40–* Summer, visiting prof, N. Texas State Teachers Col, 35. Sociol. Soc; Conf. Family Relations. Social pathology in China; race relations, acculturation and demographic trends in Maine.

Lamson, Prof. K(enneth) W(orcester), Lehigh University, Bethlehem, Pa. *Mathematics.* St. Johnsbury, Vt, Oct. 20, 85. A.B, Harvard, 06; Ph.D, Chicago, 17. Instr. *math,* Columbia, 17–26; asst. prof, *Lehigh,* 26–34, *assoc. prof, 34–* Math. Soc. Geometry applied to relativity theory.

Lamson, Dr. Paul D(udley), Vanderbilt University School of Medicine, Nashville, Tenn. *Pharmacology.* Charlestown, Mass, Jan. 31, 84. A.B, Harvard, 05, M.D, 09. House officer, Mass. Gen. Hosp, 09–11; Sheldon traveling fellow, 11–13; asst. pharmacol, Wurzburg, 12–13; asst. res. physician, Peter Bent Brigham Hosp, 13–14; asst. exp. therapeut, Hopkins, 14–15, assoc. *pharmacol,* 16–20, assoc. prof, 20–25; *prof, sch. med, Vanderbilt, 25–* Ed, 'Jour. Pharmacol. and Exp. Therapeut,' 37–40, assoc. ed, 40– A.A. (pres, N, 43); Soc. Pharmacol; Physiol. Soc; Am. Physicians; Chem. Soc; Am. Med. Asn. Heart rhythm; liver function; acute polycythemia; blood volume; carbon tetrachloride poisoning; experimental cirrhosis; anthelmintics; anesthesia; shock; hookworm disease; ascariasis.

Lamson, Dr. Robert W(ard), 1930 Wilshire Blvd, Los Angeles, Calif. *Internal medicine.* Amherst, Mass, July 22, 89. B.S, Mass. Col, 12; A.M, Columbia, 17; Ph.D, Harvard, 22, M.D, 25. Asst. bacter. and immunol, Mass. Col, 11–12; chem. and bacter, Md. State Col. and Exp. Sta, 12–14; bacteriologist, bur. chem, U. S. Dept. Agr, 14–18; asst. prev. med. and hygiene, Harvard Med. Sch, 19–21, instr. bacter. and immunol, 24–25; assoc. prof, col. med, Baylor, 25–27; sch. med, Southern California, 29–33, pub. health, 30–34, prof. med. and pub. health, 34–42. Capt, lab. div, Sanit.C, 18–19. Asn. Immunol; Soc. Exp. Biol. Bacteriology; immunology; allergy; pathology.

Lancaster, Prof. L(ennie) Y(oung), 930 Lehman Ave, Bowling Green, Ky. *Zoology.* Dover, Tenn, Aug. 12, 93. B.S, Kentucky, 23; M.S, Ohio State, 28, Ph.D, 31. Instr. agr. and biol, *West. Ky. State Teachers Col, Bowling Green,* 23–26, biol, 28–30, *assoc. prof. zool, 31–* Ky. Acad. The bottom invertebrates of western Lake Erie; the bottom shore fauna of Lake Erie; winter food studies on Ohio and Kentucky fishes; aquatic biology.

Lancaster, Prof. Otis E(wing), University of Maryland, College Park, Md. *Mathematics.* Pleasant Hill, Mo, Jan. 28, 09. B.S, Cent. Mo. State Teachers Col, 29; curators' scholar, Missouri, 30, A.M, 34; Shattuck scholar, Harvard, 35–36, Ph.D, 37. Teacher high sch, Mo, 29–30, *math,* 30–33; instr. and tutor, Harvard, 36–37; instr, *Maryland,* 37–40, *asst. prof, 40–* Summer, instr, Cent. Mo. State Teachers Col, 35. A.A; Math. Soc; Math. Asn; Inst. Math. Statist. Non-linear algebraic difference equations and orthogonal polynomials defined by non-linear algebraic difference equations.

Lancaster, Dr. Walter B(rackett), 520 Commonwealth Ave, Boston, Mass. *Ophthalmology.* Newton, Mass, May 11, 63. A.B, Harvard, 84, M.D, 89, hon. Sc.D, Dartmouth Col, 40. Assoc. ophthal, Harvard Med. Sch, 12–23, 35–40; prof. ophthal, med. sch, Dartmouth Col, 40–42, chief staff, Dartmouth Eye Inst, 40–42. Pres, Am. Board Ophthal. Examinations, 15–; mem. exec. cmt, Advisory Board Med. Specialties, 38– Major, M.C, in charge ophthal, med. research lab, A.S, 18–19. A.A; Acad. Ophthal. and Otolaryngol. (councilor, 15, 16, 24, pres, 24); Ophthal. Soc. (councilor, 18, pres, 35); Am. Med. Asn. (del, 19, chairman, sect. ophthal, 28); Col. Surg; Asn. Research Ophthal; Optical Soc. (councilor, 17, assoc. ed, 'Jour,' 17–23); Illum. Eng. Soc. (cmt. on research, 13, cmt.

on progress, 15–21); New Eng. Ophthal. Soc. (pres). Physiological optics.

Lancefield, Prof. D(onald) E(lwood), Queens College, Flushing, N. Y. *Genetics.* Amity, Oregon, Jan. 9, 93. A.B, Reed Col, 15; A.M, Columbia, 17, Ph.D, 22. Asst. prof. zool, Oregon, 21–22; Columbia, 22–28, *assoc. prof*, 28–38; *biol, Queen's Col, Col. City of N. Y, 38–* A.A; Soc. Nat; Soc. Exp. Biol; Genetics Soc. Genetics of Drosophila melanogaster and Drosophila pseudo-obscura; interspecific crosses; crossing-over.

Lancefield, Dr. R(ebecca) C(raighill), Rockefeller Institute, New York, N. Y. *Bacteriology.* Ft. Wadsworth, N. Y, Jan. 5, 95. A.B, Wellesley Col, 16; A.M, Columbia, 18, Ph.D, 25. Tech. asst, Rockefeller Inst, 18–19; sta. for exp. evolution, dept. genetics, Carnegie Institution, 19–21; instr. bacter, Oregon, 21–22; tech. asst, *Rockefeller Inst*, 22–25, asst, 25–29, assoc, 29–42, *assoc. mem, 42–* A.A; Soc. Bact. (councilor, 38, v. pres, 42, pres, 43); Asn. Immunol; Harvey Soc. Immunol-chemical studies of the hemolytic streptococcus.

Lanczos, Prof. C(ornelius), Purdue University, Lafayette, Ind. *Mathematical physics.* Szekesfehervar, Hungary, Feb. 2, 93. B.S, Budapest, 18; Ph.D, Univ. Szeged, 21. Dept. physics, Polytech. Budapest, 16–20; Freiburg, 21–24; asst. prof. theoret. physics, Frankfurt-am-Main, 24–31; *prof. math. physics, Purdue, 31–* Deuts. Notgemeinschaft scholar, Berlin, 27–28. Physical Soc; Math. Soc; Math. Asn. Theory of relativity; wave-mechanics; Hamiltonian dynamics; approximate solution of differential equations.

Land, Edwin H(erbert), 211 Massachusetts Ave, Cambridge, Mass. *Physics.* Bridgeport, Conn, May 7, 09. Harvard, 30. *Pres. and director research, Polaroid Corp, 35–* Hood medal, Royal Photog. Soc. London, 35; Cresson medal, Franklin Inst, 37; John Scott medal and award, Phila. City Trusts, 38; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Optical Soc; Am. Acad. Optical anisotropy; polarized light; light-polarizing sheets; synthetic birefringent materials; plastics and colloids in optics; three-dimensional pictures; vectographic images; binocular devices; optical instruments.

Land, Dr. Gustav, Yale University Observatory, New Haven, Conn. *Astronomy.* Danzig, Germany, April 15, 80. Ph.D, Berlin, 08. Research assoc. and asst, meteorol. inst, Berlin, 07–08; univ. observatory, Koenigsberg, 09; Inst. für Geschichte des Fixsternhimmels, Berlin, 10; Astronomisches Rechen-Institut, 08, 11; univ. observatory, Leipzig, 12–19; chem. and statist, Berlin, 20–38; computer, Nautical Almanac Office, London, 39; research assoc, Sproul Observatory, Swarthmore Col, 39–41; *asst, univ. observatory, Yale, 41–* Astron. Soc. Statistical and practical astronomy.

Land, Dr. W(illiam) Everett, American Zirconium Corp, Dundalk, Baltimore, Md. *Chemistry.* Baltimore, Md, Aug. 23, 08. B.S, Hopkins, 28, Ph.D, 33. Indust. chemist, Devoe and Raynolds Co, 28–29; asst. chem, Emory, 33–34, instr, 34–37; research chemist, *Am. Zirconium Corp*, 37–39; *asst. research director, 39–; U. S. Navy, 42–, lieut.* Chem. Soc; Southeast. Physical Soc. Physical and surface chemistry; adsorption; catalysis; pigments; chemical engineering; microscopy; explosives.

Land, Prof. W(illiam) J(esse) G(oad), 1114 Elizabeth St, N. W, Brownsville, Texas. *Botany.* Alton, Ind, Dec. 2, 65. B.S, Chicago, 02, fellow, 02–04, Ph.D, 04. Prin, Rome Acad, Ind, 91–94; sch. supt, Ill, 95–01; asst. morphol, *Chicago*, 04–06, instr. *bot*, 06–11, asst. prof. and later assoc. prof, 11–28, prof, 28–31, *emer. prof, 31–* Bot. explor. in Am. tropics, 06, 08, 10; Polynesia and Australia, 12; tropical and neotropical America, 31–38. Angiosperms; gymnosperms; morphology of Hepaticae, especially tropical species.

Landahl, Dr. H(erbert) D(aniel), University of Chicago, Chicago, Ill. *Mathematical biophysics.* Fancheng, China, April 23, 13. A.B, St. Olaf Col, 34; M.S, Chicago, 36, Ph.D, 41. Asst. *math. biophysics, dept. physiol, Chicago*, 39–42, *research assoc, 42–* Physical Soc; Psychometric Soc. Theoretical biology; theory of cell division; cell respiration; reaction times; psychophysical discrimination; conditioning; distribution of response times.

Landau, Dr. Samuel, 50 E. Kingsbridge Road, New York, N. Y. *Chemistry.* Hodasz, Hungary, Nov. 4, 92. A.B, Ohio State, 19, A.M, 20; Ph.G, Fordham, 26, Ph.D, 29. Rubber research, 20–22; *director, Concourse Clin. and Chem. Lab. and Concourse Research and Indust. Lab, 23–* Inst. Chem; N. Y. Asn. Diagnostic Labs. Biochemistry; preparation and properties of benzene sulfonic acids; a differential preparation of the various reduction products of mono- and di-nitrobenzene by means of glucose and sodium hydroxide as reducing agents.

Landauer, Dr. Robert S(tern), Highland Park, Ill. *Physics.* Chicago, Ill, March 27, 97. Ph.D, Chicago. Chief physicist, *Standard X-Ray Co*, 22–32, *consulting physicist, 32–* Electron discharge in gases; tri-atomic hydrogen; x-ray technology.

Landauer, Dr. Walter, University of Connecticut, Storrs, Conn. ***Zoology, Genetics.* Mannheim, Germany, July 15, 96. Frankfurt; Ph.D, Heidelberg, 21. Asst, Zool. Inst, Heidelberg, 22–24; asst. geneticist, *Storrs Exp. Sta, Connecticut*, 24–28, *prof. genetics, 28–* A.A; Soc. Nat; Genetics Soc; Poultry Sci. Asn; Soc. Zool; Soc. Develop. and Growth; Royal Acad. Med, London; Deuts. Zool. Gesell; Gesell. für Vererbungswissen. Poultry; genetics, mechanics and physiology of development; skeletal abnormalities.

Landé, Prof. Alfred, Ohio State University, Columbus, Ohio. **Physics.* Elberfeld, Germany, Dec. 13, 88. Marburg; Göttingen; Ph.D, Munich, 14. Privat-docent, Frankfurt, 20–22; *prof*, Tübingen, 22–31; *physics, Ohio State, 31–* A.A; fel. Physical Soc; Ohio Acad. Atomic structure and quantum theory; spectral lines; Zeeman effect and multiplet theory.

Landen, Dr. Ernest W(ilhelm), Caterpillar Tractor Co, Peoria, Ill. *Physics.* Shenandoah, Iowa, Jan. 13, 08. A.B, Northwest Mo. State Teachers Col, 31; A.M, Missouri, 33, Ph.D, 38. Asst. physics, Missouri, 31–33, 35–38, instr, 38–40; physicist spectroscopy, Armour Research Foundation, 40–43; *research engineer, Caterpillar Tractor Co, 43–* A.A; Physical Soc; Mo. Acad. Spectral sensitivity of spores and sporidia of Ustilago Zeae to monochromatic ultra-violet light; ultra-violet absorption spectra of active and inactive yeast; quantum yield as a function of wave length for the inactivation of urease; instrumentation in the study of Diesel combustion; glass windows for iron engines.

Landers, Dr. Aubrey W(ilfred), 108–48 67th Drive, Forest Hills, N. Y. *Mathematics.* Manchester, N. H, Sept. 2, 06. B.A, Acadia, 26; M.S, Brown, 29; Ph.D, Chicago, 39. *Instr*, Brown, 26–29; *math*, Hunter Col, 29–30; *Brooklyn Col, 30–* Math. Soc; Math. Asn. Calculus of variations.

Landers, Dr. Mary K(enny) (Mrs. Aubrey W. Landers), 108–48 67th Drive, Forest Hills, N. Y. *Mathematics.* Fall River, Mass, Feb. 5, 05. A.B, Brown, 26, Anne Crosby Emery fellow, 26–27, A.M, 27; Ph.D, Chicago, 39. *Instr. math, Hunter Col, 27–* Math. Soc; Math. Asn. Calculus of variations.

Landes, Prof. Kenneth K(night) University of Michigan, Ann Arbor, Mich. *Geology.* Seattle, Wash, May 10, 99. B.S, Washington (Seattle), 21; A.M, Harvard, 23, Ph.D, 25. Asst, Harvard, 23–24; instr, Wellesley Col, 24–26; asst. prof. *geol*, Kansas, 26–29, assoc. prof, 29–33, prof, 33–41, chairman dept, 39–41; *prof. and chairman dept, Michigan, 41–* Asst. state geologist, Kans. Geol. Surv, 26–41. Summers, geol. aid, junior geologist and asst. geologist, U. S. Geol. Surv, 21, 24–26. A.A; fel. Geol. Soc; fel. Miner. Soc. (councilor, 33–33, v. pres, 38). Origin of minerals; economic geology.

Landis, Dr. Agnes T(horson), 7120 Willow St, New Orleans, La. *Psychology.* Rochester, Minn, Oct. 22, 99. B.S, Minnesota, 23, A.M, 24, Ph.D, 34. Teaching fellow psychol, Minnesota, 23–25; instr, Smith Col, 25–28, asst. prof, 28–30; lecturer, N. Y. Univ, 30–31; psychologist, Brearley Sch, 31–33; special investigator psychol, N. Y. State Psychiatric Inst. and Hosp, 34–37; personnel asst, Social Security Board, 40–41; *visiting asst. prof. psychol, Tulane, 42–* Assoc. Psychol. Asn. Internal speech; child psychology; personality and abnormal psychology.

Landis, Birely J, Second and Pine Sts, Union Gap, Wash. *Entomology.* Greenville, Ohio, Feb. 28, 04. B.S, Miami (Ohio), 27; M.S, Ohio State, 29. Asst. entomologist and later *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–* Truck crop insects.

Landis, Prof. Carney, New York State Psychiatric Institute and Hospital, 722 W. 168th St, New York, N. Y. ***Psychology.* West Alexandria, Ohio, Jan. 11, 97. A.B, Ohio State, 21; A.M, Dartmouth Col, 22; Ph.D, Minnesota, 24. Instr. psychol, Dartmouth Col, 21–22; Minnesota, 22–24, nat. research fellow biol, 24–25; London, 25–26; asst. prof. *psychol*, Wesleyan, 26–29, assoc. prof, 29–30; research assoc, *N. Y. State Psychiatric*

Inst. and Hosp, 30–38, *prin. research psychologist, 38–;* asst. prof, *Columbia,* 32–38, assoc. prof, 38–43, *prof, 43–* Summers, lecturer, Minnesota, 23; Columbia, 32, 41; Harvard, 36. Consulting ed, 'Jour. Psychol,' 35–; 'Jour. Abnor. and Social Psychol,' 37– Mem. div. anthrop. and psychol, Nat. Research Council, 39–41. Treas, Cmn. Study Sex Variants, 35– A.A; Psychol. Asn; Soc. Exp. Psychol; Soc. Exp. Biol; Nat. Inst. Psychol; Physiol. Soc; Psychopath. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn; East. Psychol. Asn; Harvey Soc; N. Y. Acad. Med; N. Y. Asn. Applied Psychol. (v. pres, 40). Psycho-pathology; abnormal psychology; physiological psychology.

Landis, Dr. Eugene M(arkley), Harvard Medical School, Boston, Mass. ***Physiology, Medicine.* New Hope, Pa, April 4, 01. A.B, Pennsylvania, 22, M.S, 24, M.D, 26, Ph.D, 27; hon. M.S, Yale, 38. Asst. zool, Pennsylvania, 20–21, asst. instr, 21–22; nat. research fellow, 26–27; intern, Univ. Hosp, Phila, 27–29; Guggenheim Mem. Foundation fellow, 29–31; assoc. med, Pennsylvania, 31–34, asst. prof, 34–39; prof. internal med, Virginia, 39–43; *George Higginson prof. physiol, Harvard Med. Sch, 43–* Sec'y cmt. aviation med, Nat. Research Council, 39– John Phillips mem. medal, Am. Col. Physicians, 36. Physiol. Soc; Soc. Clin. Invest. (sec'y, 39–41, pres, 42); Am. Physicians. Physiology of circulation; pathogenesis of edema; peripheral vascular disease; renal disease.

Landis, Quick, 810 Grand Concourse, New York, N. Y. *Food chemistry.* Hoyt, Kans, Oct. 21, 01. B.S, California, 24; M.S, George Washington, 27; Ph.D, Columbia, 38. Junior chemist, bur. chem. and soils, U. S. Dept. Agr, 25–27, asst. chemist, food and drug admin, 27–29; *research chemist, Fleischmann labs, Standard Brands, Inc, 30–* A.A; Chem. Soc; Asn. Cereal Chemists; Agr. Chem; Am. Inst; N. Y. Acad. Cereal chemistry; starch; enzymes.

Landis, Dr. Walter Savage, American Cyanamid Co, 30 Rockefeller Plaza, New York, N. Y. *Chemistry, Metallurgy.* Pottstown, Pa, July 5, 81. Met.E, Lehigh, 02, M.S, 06, Sc.D, 22; Heidelberg, 05–06; Aachen, 09. Asst. metal, Lehigh, 02–04, instr, 04–07, asst. prof, 07–10, assoc. prof, 10–12; chief technologist, *Am. Cyanamid Co,* 12–22, *v. pres,* 22– Trustee, Lehigh. Chem. Indust. medal, Am. sect, Soc. Chem. Indust, 36; Perkin medal, 39; medal, Am. Inst. Chemists, 43. Min. and Metal. Eng; Chem. Eng; Chem. Soc. (chairman, N. Y. sect, 32); Electrochem. Soc. (chairman, N. Y. sect, 19, pres, 20). Nitrogen fixation; electric smelting; heavy chemicals.

Landman, Dr. J(acob) H(enry), 17 Lexington Ave, New York, N. Y. *Eugenics.* Philadelphia, Pa, May 21, 98. A.B, Col. City of N. Y, 18; A.M, Columbia, 20, D.D.S, 22; J.D, N. Y. Univ, 27, J.S.D, 28, Ph.D, 31. *Instr. hist, Col. City of N. Y, 22–* A.A; Eugenics Soc; Sociol. Soc; Popul. Asn; Acad. Polit. and Social Sci. Human sterilization; feeble-mindedness; genius; population.

Landolt, Dr. Geo(rge) L(ifred), Austin College, Sherman, Texas. *Chemistry.* Somerville, Texas, May 19, 02. A.B, Austin Col, 23, A.M, 26; Ph.D, Pittsburgh, 30. Instr. chem, Austin Col, 24–26; asst, Pittsburgh, 26–28; head dept, S. Park Junior Col, 28–31; *Austin Col,* 31–36, *v. pres, 36–* Preparation, manufacture and activity of organic flotation reagents.

Landolt, P(ercy) E(dward), 444 Madison Ave, New York, N. Y. *Chemical engineering.* Brooklyn, N. Y, Oct. 21, 91. Chem.E, Columbia, 12. Engineer in charge research, Research Corp, New York, 12–17, manager commercial dept. and asst. to pres, 19–24; east. manager, West. Precipitation Corp, 24–33; *consulting chem. engineer, 33–* Pres. and treas, Allied Process Corp, 33–; pres, Ferrous Metals Corp, 33–; Z-Metals, Inc, 33–; Lithaloys Corp, 33– Capt, nitrate div, Ordnance Dept, 17–19, major, Ordnance R.C, 19–39. A.A; Chem. Soc; Chem. Eng; fel. Inst. Chem; Soc. Metals; Electrochem. Soc; Asn. Consulting Chem. and Chem. Eng. Cottrell electrical precipitation process; lithium and lithium alloys; heat-treated cast ferrous alloys; fine particle size developments; Portland cement manufacture.

Landon, Ira K(aull), Soil Conservation Service, Lincoln, Nebr. *Agronomy.* Forest City, Mo, Nov. 15, 97. B.S. (Agr), Kans. State Col, 21. Asst. prof. agron, Kans. State Col, and in charge, Southeast. Kans. Exp. Fields, Exp. Sta, 23–33; *zone technician, soil conservation service, U. S. Dept. Agr, 33–* Soc. Agron. Soil fertility; erosion control.

Landon, Prof. R(ansom) D(urell), Southern Methodist University, Dallas, Texas. *Hydraulics, Sanitary engineering.* Geneseo, N. Y, Jan. 6, 03. C.E. and M.S, Cincinnati, 27. Eng. computer, Cleveland, Cincinnati, Chicago and St. Louis Ry. Co, Cincinnati, Ohio, 25; draftsman, Stacey Bros. Gas Construction Co, 26; asst. engineer, City of Cincinnati, 27; instr, sch. eng, *South. Methodist,* 27–28, asst. prof, 28–32, assoc. prof. *civil eng,* 32–38, *prof, 38–* Civil Eng. (pres, Dallas branch, 39); Eng. Educ; Soc. Test. Mat. (cmt. malleable-iron castings, 40–). Stress-strain relations for malleable cast iron in tension; comparative strength of long and short rivets.

Landon, Dr. R(aymond) H(orace), University Farm, St. Paul, Minn. *Plant physiology.* Winona, Minn, Jan. 27, 93. A.B, Macalester Col, 19; M.S, Minnesota, 22, Ph.D, 32. Asst. instr. bot, *Minnesota,* 21–24, *plant physiol,* 30–31, *instr, 31–* A.A; Soc. Plant Physiol; Bot. Soc. Respiratory enzymes; chemical eradication of weeds; effect of low temperatures on plants.

Landon, Dr. Robert E, 829 Midland Savings Bldg, Denver, Colo. *Geology.* Chicago, Ill, June 1, 05. B.S, Chicago, 26, Ph.D, 29. Instr, Y.M.C.A. Col, 28–29; geologist, Anaconda Copper Mining Co, 29–30; asst. geologist, U. S. Geol. Surv, 30–31; instr. geol, Colo. Col, 31–33; consulting mining geologist, 33–39; *senior min. securities analyst, U. S. Securities and Exchange Cmn, 40–* Summers, instr, Wash. State Nor. Sch, Bellingham, 26, 27. Min. and Metal. Eng. Mineralogy; sedimentation; petrography; roemerite from California; analysis of beach pebble abrasion and transportation; metamorphism and ore deposition; mutual relations of porosity, vectoral permeability and resistance to erosion; desericitization; age of volcanism in Colorado.

Landrum, Robert D(allas), Harshaw Chemical Co, 1945 E. 97th St, Cleveland, Ohio. *Chemical engineering.* Terre Haute, Ind, Feb. 8, 82. B.S, Rose Polytech, 04, M.S, 09, Chem.E, 14. Chemist, Columbian Enameling and Stamping Co, Ind, 04–07; asst. prof. chem, Kansas, 07–10; chem. engineer, Lisk Mfg. Co, 10–13; factory manager, Mich. Enamel Works, 13–14; chem. engineer, Gen. Stamping Co, 14; chem. engineer and manager service dept, Harshaw Fuller and Goodwin Co, 14–22; v. pres, Vitreous Enameling Co. and Vitreous Steel Products Co, 22–25; gen. manager ceramic materials div, Titanium Alloy Mfg. Co, 25–32; sales manager, Chicago branch, *Harshaw Chem. Co,* 32–35, *manager special products div, Cleveland, 35–* Expert, Bur. Standards, 15. A.A; Chem. Soc. (sec'y, Cleveland sect, 19); Chem. Eng; Ceramic Soc. (chairman, enamel div, war service cmt, 17–19, trustee, 18–20, v. pres, 23, pres, 24); Chemists' Club; Soc. Chem. Indust. Gt. Britain; Soc. de Chim. indust. Composition of enamels; methods of analysis for enamels, glass and their raw materials; enamelware resistance to acids; enamels for sheet steel; cobalt oxide in ground coat enamels for sheet steel; zirconium and titanium compounds for industrial use; fluorescent and phosphorescent pigments; synthetic optical crystals; enamels; enamel bibliography and abstracts.

Landry, Prof. A(ubrey) E(dward), Catholic University of America, Washington, D. C. *Mathematics.* Memramcook, N. B, Can, Nov. 24, 80. A.B, Harvard, 00; fellow, Hopkins, 06–07, Ph.D, 07. Instr. *math, Catholic Univ,* 07–09, assoc. prof, 09–12, *prof, 12–* Math. Soc. Algebraic geometry.

Landry, Bertrand A(ndré), Battelle Memorial Institute, Columbus, Ohio. *Chemical engineering.* Manchester, N. H, Feb. 25, 99. B.S, Mass. Inst. Tech, 23; M.S, Carnegie Inst. Tech, 33. Junior engineer, petrol. div, U. S. Bur. Mines, 23–25, asst. engineer, oil shale exp. plant, Colo, 25–27, asst. fuel engineer and later assoc. fuel engineer, coal div, 27–41; *asst. supervisor fuels div, Battelle Mem. Inst, 41–* Oil shale; combustion of solid fuels; combustion equipment; coal sampling.

Landry, Dr. Bruno, Napierville, Que, Can. *Agriculture.* Napierville, Que, Jan. 4, 11. B.L. and B.A, Montreal, 32, Licencié en Sci. Agr, 36; McGill; Ph.D, Cornell, 40. *Asst. to chief hort. service, Prov. Que. Dept. Agr, 40–; prof. plant physiol, Oka Agr. Inst, Montreal, 40–* Vegetable crops.

Lands, Dr. A(lonzo) M(itchell), Frederick Stearns and Co, Detroit, Mich. *Pharmacology, Physiology.* Lesterville, Mo, Aug. 19, 04. B.S, Tenn. State Teachers Col, 26; A.M, Kansas, 30, Ph.D, 34. Teacher, high sch, 26–28; asst. prof. physiol, Kentucky, 29–31; instr, Kansas, 31–34; sch. med, Georgetown, 34–41; *mem. staff, Frederick Stearns and Co, 41–* Soc. Exp. Biol; Physiol. Soc; Ky. Acad; Kans. Acad. Physiological effects of sunlight; calcium metabolism; water metabolism; kidney trauma.

Landsberg, Prof. Helmut, University of Chicago, Chicago, Ill. *Geophysics.* Frankfurt-am-Main, Germany, Feb. 9, 06.

Woehler Col; Munich; Ph.D, Frankfurt, 30. Asst, inst. meteorol. and geophys, Frankfurt, 30–31; supervisor, Taunus Observatory, 31–34; instr. *geophys*, Pa. State Col, 34–35, asst. prof, 35–41; *assoc. prof, Chicago, 41–* A.A; Meteorol. Soc; Seismol. Soc. (treas, east. sect, 39–42); Min. and Metal. Eng. (cmt. geophys. courses, 40–); Geophys. Union (cmt. struct. of ocean basins, 38–41; cmt. cosmic terrestrial relations, 39–); cor. mem. Physiat. Soc. Czechoslovakia; Deuts. Meteorol. Gesell; Deuts. Geophys. Gesell; Senckenberg Gesell. Nat. Sci; fel. Soc. Sismol. Ital. Seismology; bioclimatology; aerosol; mine subsidence; meteorology.

Landshoff, Dr. Rolf, College of St. Thomas, St. Paul, Minn. *Theoretical physics.* Berlin, Germany, Nov. 30, 11. Dr.Ing, Tech. Hochschule, Berlin, 36; Ph.D. Minnesota, 38. Asst. physics, Minnesota, 36–40; *prof. physics and math, Col. of St. Thomas, 40–* Physical Soc; Math. Soc. Theory of the solid state.

Landsverk, Dr. O(le) G(odfred), 842 Third St, S, Virginia, Minn. *Physics.* Minn, Nov. 19, 01. A.B, Luther Col, 24; A.M, Minnesota, 30; Ph.D, Chicago, 39. Prin, high sch, S. Dak, 24–27, supt. schs, 27–29; *instr.* physics and math, Maquoketa Junior Col, Iowa, 30–37; *physics, elec. eng. and surveying, Va. Junior Col, 39–, ground sch. instr. and coordinator, civilian pilot training, 41–, instr. radio war training, 43–* Summer, instr, Chicago, 43. Molecular spectra of diatomic carbon.

Landt, Dr. G(ustave) E(rnest), Continental-Diamond Fibre Co, Wilmington, Del. *Chemistry.* Highwood, Ill, Nov. 25, 94. B.S, Chicago, 18; Ph.D, Columbia, 23. Instr. chem, Columbia, 20–23; research chemist, Agasote Millboard Co, Trenton, N. J, 23–25; chief chemist, Diamond State Fibre Co, 25–29; *Continental-Diamond Fibre Co, 29–37, tech. director, 37–* Chem. Soc; Tech. Asn. Pulp and Paper Indust; Soc. Test. Mat. Synthetic resins; cellulose and paper; insulating materials; enzymes; methods of test.

Landwer, Prof. M(ilton) F(rederic), Texas Technological College, Lubbock, Texas. *Zoology.* Barrington, Ill, 97. B.S, Northwestern, 20; A.M, Nebraska, 26; Ph.D, Michigan, 40. Instr. *zool*, Nebraska, 23–26; *assoc. prof, Texas Tech. Col, 27–* A.A. Mammalogy.

Lane, Abbot A(twood), 22 Caroline Park, Waban, Mass. *Mechanical engineering.* New York, N. Y, Feb. 16, 94. Ph.B, Yale, 14. Asst. engineer, Thomas Auto Truck Co, 16; Czarnikow-Rionda Co, 19–24; mech. engineer, Stevens and Wood, 24–25; asst. engineer, Pub. Service Production Co, 25–28; power engineer, United Engineers and Constructors, Inc, 28; managing engineer, Brownback Motor Labs, Pottstown, Pa, 28–29; mech. engineer, Allied Engineers, Inc, 29–30; Gulf Research and Develop. Co, Pittsburgh, 30–40; *engineer, mech. div, Stone and Webster Eng. Co, 40–* Sig.C, U.S.A, 16–19. Mech. Eng; Soc. Automotive Eng. Plunger packing; water wall for boilers; testing machines; hydraulic drive bottom hole pump construction; valve seat members; pneumatic fuel supply system for automobiles; anti-breather valve; hydraulic brake control; marsh buggy.

Lane, Prof. Alfred C(hurch), Tufts College, Mass. or 22 Arlington St, Cambridge, Mass. *[1]Geology.* Boston, Mass, Jan. 29, 63. A.B, Harvard, 83, Ph.D, 88; Heidelberg, 85–87; hon. Sc.D, Tufts Col, 13. Instr. math, Harvard, 83–85; U. S. Geol. Surv, 88–89; petrographer, Mich. Geol. Surv, 89–92; asst. state geologist, Mich, 92–99, state geologist, 99–09; Pearson prof. geol. and miner, *Tufts Col*, 09–35, *emer. prof. geol, 35–* Teacher, Mich. Col. Mines, 89–92; lecturer, Field Museum Nat. Hist; Michigan; Wisconsin. First consultant in science, Library of Congress, Washington, D. C, 29–30. Chairman subcmt. on estimation of geol. age by atomic disintegration, Nat. Research Council, 22– Head dept. mining, A.E.F. Univ. Beaune. A.A. (v. pres, 06); Geol. Soc. (pres, 31); Min. and Metal. Eng. (chairman, Boston sect, 18); Miner. Soc; Asn. Sci. Workers; Am. Acad. (councilor, 16–19, librarian, 30–36); Mich. Eng. Soc. (pres, 08); hon. mem. Mich. Acad. (pres, 05); Boston Geol. Soc. (pres, 20, 36); Lake Superior Min. Inst; cor. mem. Can. Inst; hon. mem. Soc. belge de Géol. Petrographical geology; theory of heat in its geological applications; grain of igneous rocks; mine waters and connate waters; geologic time.

Lane, Dr. C(ecil) T(averner), Yale University, New Haven, Conn. *Physics.* Montreal, Que, Can, Sept. 10, 04. B.Sc, McGill, 25, M.Sc, 27, Nat. Research Council Can. bursar, 27–28, student, 28–29, Ph.D, 29. Nat. Research Council Can. fellow and special tutor physics, Rockefeller Foundation, McGill, 29–30; 1851 Exhib. scholar, Munich, 30–32; Sloane physics lab, *Yale*, 32–33, Sterling fellow physics, 33–34, asst. biophys, 34–36, instr. *physics*, 36–40, *asst. prof, 40–* The magnetic properties of the elements; magnetic measuring instruments; the magnetic properties of bismuth; Fermi-Thomas statistics applied to ionic magnetism; optical diffraction theory; development of methods for liquefying gases; superconductivity and low temperature physics.

Lane, Prof. C(harles) E(dward), 1805 Harvard St, Wichita, Kans. *Zoology.* Riverton, Wyo, Dec. 17, 09. A.B, Wisconsin, 31, A.M, 33, Ph.D, 35. Asst. *zool*, Wisconsin, 31–36; asst. prof, *Wichita*, 36–41, *assoc. prof, 41–* A.A. Physiology of reproduction; human embryology; comparative vertebrate histology; aviation physiology.

Lane, Dr. C(harles) E(lmer), Jr, Pine Bluff School of Aviation, Army Air Corps Training Detachment, Pine Bluff, Ark. *Chemistry.* Quincy, Ill, Jan. 20, 05. B.S, Chicago, 26, Ph.D, 33. Asst. chem, Chicago, 27–29; prof. physics and chem, Tenn. State Teachers Col, Memphis, 29–40; assoc. prof. physics, Miss. State Col, 40–41; *director ground sch, Pine Bluff Sch. Aviation, U. S. Army Air Corps Training Detachment, 41–* Chem. Soc. Photochemical reaction between chlorine and benzene in the gaseous phase.

Lane, Dr. C(larence) B(ronson), Nauvoo Milk Products Co, Nauvoo, Ill. *Dairying.* Washington, D. C, Aug. 20, 07. B.S, Pa. State Col, 29; M.S, Iowa State Col, 32, Ph.D, 34. Teaching fellow, Iowa State Col, 31–34, asst. dairy indust, 34–39; *Nauvoo Milk Products Co.* The manufacture and ripening of cheeses; the chemistry and biology of Cheddar and Roquefort cheeses.

Lane, Prof. C(larence) G(uy), 416 Marlborough St, Boston, Mass. *Medicine.* Billerica, Mass, Oct. 21, 82. A.B, Harvard, 05, M.D, 08. Asst, *Harvard Med. Sch*, 25–29, instr, 29–36, lecturer, 36–39, *clin. prof. dermat, 39–* Mem. ed. board, 'Archives Dermat. and Syphilol,' 'New Eng. Jour. Med.' Sec'y, Am. Board Dermat. and Syphilol, 33–, treas, 37–; sec'y-treas, Advisory Board for Med. Specialties, 41– Lieut, M.C, 18–19, capt. Dermat. Asn. (sec'y-treas, 25–30, pres, 35). Dermatology; syphilis.

Lane, Earl C(arlton), 525 E. Eighth St, Bartlesville, Okla. *Chemistry.* Livermore Falls, Maine, Sept. 30, 80. A.B, Bates Col, 04; M.S, California, 12. Asst. chem, Bates Col, 05–07; Pomona Col, 07–09; prof, Changsha Tech. Col, China, 10–11; asst. chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, Hawaii, 13–15; research chemist, Calif. Ink Co, Berkeley, 16–17; Calif. Paint Co, Oakland, 18; *asst. chemist, U. S. Bur. Mines*, San Francisco, 19–24, *Bartlesville, 24–* Chem. Soc. Chemistry of petroleum.

Lane, Prof. E(mory) W(ilson), State University of Iowa, Iowa City, Iowa. *Hydraulic engineering.* Lafayette, Ind, Feb. 21, 91. B.S, Purdue, 12; C.E, Cornell, 14. Computer and asst. engineer, Miami Conservancy Dist, 14–19; manager China branch, Morgan Eng. Companies, 20–23; asst. engineer, Pueblo Conservancy Dist, 24–25; hydraul. engineer, St. Lawrence Waterways Board, 25–26; Miss. Flood Control, 26–27; engineer, Susquehanna River Resources Investigation, 28–29; research engineer, U. S. Bur. Reclamation, 29–35; *prof. hydraul. eng, Iowa, 35–; prin. hydraul. engineer, Tenn. Valley Authority, 42–* Civil Eng; Geophys. Union; Chinese and Am. Soc. Eng. Design of earth dams and masonry dams on porous foundations; hydraulic model tests on dam spillways; prevention of scour below overfall dams; engineering aspects of sediment transportation and deposition.

Lane, Prof. Ernest P(reston), University of Chicago, Chicago, Ill. *[2]Mathematics.* Russellville, Tenn, Nov. 28, 86. A.B, Tennessee, 09; A.M, Virginia, 13; Ph.D, Chicago, 18. Prof. math, Milligan Col, 09–11; math. and physics, Va. State Nor. Sch, Radford, 13–14; instr, Tennessee, 14–16; *math*, Rice Inst, 18–19; asst. prof, Wisconsin, 19–23; *Chicago*, 23–26, Guggenheim Mem. Foundation fellow, 26–27, assoc. prof, 27–28, *prof, 28–, chairman dept, 41–* A.A; Math. Soc. (v. pres, 30); Math. Asn. (v. pres, 34). Projective differential geometry.

Lane, Dr. Frederick W(illiam), Edgewood Arsenal, Edgewood, Md. *Chemistry.* Springfield, Mass, Feb. 17, 89. B.S, Mass. Inst. Tech, 14; Ph.D, Yale, 20. Asst. org. chem, Mass. Inst. Tech, 13–15; instr. chem, Maine, 15–16; Yale, 16–20; petrol. chemist, U. S. Bur. Mines, 20–29; *senior chemist, Chem. Warfare Service, 29–* A.A; Chem. Soc. Alkyl de-

rivatives of resorcinol as antiseptics; viscosity of fractions of crude oils; pollution by oil of coast waters; the less volatile constituents of crude oil; protective equipment.

Lane, Prof. Geo(rge) H(enry), Colorado State College, Ft. Collins, Colo. *Plant ecology and taxonomy.* Eldora, Iowa, May 30, 03. A.B, Grinnell Col, 27; M.S, Oklahoma, 32. *Asst. prof. bot. and plant path, Colo. State Col, 35–* Ecol. Soc. Pollen analysis; Colorado plants.

Lane, Prof. H(arry) I(sler), 1220 Davis St, Conway, Ark. *Mathematics.* San Antonio, Texas, May 1, 01. A.B, Hendrix Col, 22; A.M, Cornell, 23, Ph.D, 30. Instr, South Dakota, 23–25; Cornell, 25–28; asst. prof. *math,* South Dakota, 28–29, assoc. prof, 29–34, *prof,* 34–37; *Hendrix Col, 37–* Gen. Educ. Board fellow, 40. Math. Asn. Projective geometry.

Lane, Dr. Helen Schick, 818 S. Kingshighway Blvd, St. Louis, Mo. *Psychology.* Columbus, Ohio, Feb. 24, 06. A.B, Ohio State, 26, A.M, 28, Ph.D, 30; Eastman Sch. Music, Rochester, 27. Assoc. psychologist and *psychologist, Cent. Inst. for the Deaf, 30–,* registrar, *Teachers Training Col,* 34–41, asst. prin, 41–42, *prin, 42–* A.A; assoc. Psychol. Asn. Experimental and educational psychology; effect of practise on the production of rhythmic patterns; verbal and non-verbal tests for ability of deaf and hearing children; diagnostic tests of hearing for infants.

Lane, Prof. H(enry) H(iggins), University of Kansas, Lawrence, Kans. *Zoology.* Bainbridge, Ind, Feb. 17, 78. Ph.B, DePauw, 99; A.M, Indiana, 03; Cornell, 03–04; Chicago, 04–05; Ph.D, Princeton, 15. Prof. biol, Hiram Col, 05–06; instr. zool. and embryol, Oklahoma, 06–08, *prof,* 08–20; biol, Phillips, 20–22; *zool. and vert. paleont. and head dept, Kansas, 22–, curator, Dyche Museum Nat. Hist, 35–, director, 41–* Summers, dean undergraduates, Oklahoma; instr, Indiana, 06, 08; Chicago, 05, 11. Soc. Nat; Soc. Zool; Soc. Mammal; Soc. Vert. Paleont. Vertebrate paleontology.

Lane, Dr. John F(ero), Princeton University, Princeton, N. J. *Organic chemistry.* Los Angeles, Calif, May 13, 16. A.B, California at Los Angeles, 36, A.M, 37; Walter Lowey fellow from California, Heidelberg, 37–38; du Pont fellow, Princeton, 39–40, Charlotte Elizabeth Procter fellow, 40–41, Ph.D, 41. *Instr. chem, Princeton, 41–* Chem. Soc. Molecular rearrangements; stereochemistry; organic synthesis.

Lane, Merton C(hesleigh), Box 616, Walla Walla, Wash. *Entomology.* Everett, Mass, Sept. 4, 93. B.S, Mass. Col, 15. Deputy nursery inspector, State Board Agr, Mass, 16; sci. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 17–23, junior entomologist, 23–24, asst. entomologist, 24–29, assoc. entomologist, 29–35, *entomologist, 35–* A.A; Asn. Econ. Entom. Economic and taxonomic entomology; truck crop and garden insects; the Coleoptera, especially Elateridae.

Lane, Dr. William Hugh, Monsanto Chemical Co, Texas City, Texas. *Chemical engineering.* Marshall, Texas, Oct. 3, 17. B.S, Rice Inst, 38; M.S, Lawrence Col, 40, Ph.D, 42. *Chem. engineer, Texas div, Monsanto Chem. Co, 42–* Westbrook Steele medal, Inst. Paper Chem, Lawrence Col, 42. Chem. Soc; Tech. Asn. Pulp and Paper Indust. Lignin chemistry; physical measurements on paper; thiophenol spruce lignin; relationship between air permeability and oil permeability of paper.

Lane, Prof. W(ilmot) B(urkemar), Picton, Ont, Can. *Psychology, Philosophy.* Perth, Ont, Dec. 13, 72. B.A, Toronto, 93, M.A, 94, 95–97; Victoria, 95; fellow, Wisconsin, 97–99, Ph.D, 99; Cornell, 99–00. Asst. psychol, Wisconsin, 97–99; prof. psychol. and philos, Mt. Union Col, 00–02; philos. and pedag, Randolph-Macon Col, 02–13; *ethics, Toronto,* 13–40, *emer. prof, 40–* Examiner, Toronto, 96–97. Summer, asst, Cornell, 00. Philos. Asn; S. Soc. Philos. and Psychol. Color contrast; mental fatigue; elemental consciousness; poetry and art psychology.

Lanfear, Dr. Leslie Hofer (Mrs. Vincent Wesley), 4360 Centre Ave, Schenley Farms, Pittsburgh, Pa. *Botany.* Irvington, N. J, June 11, 96. A.B, Texas, 18; Curtis scholar, Columbia, 21–22, A.M, 22; Ph.D, Pittsburgh, 33. Asst. bot, Texas, 15–17; instr, high sch, Texas, 17–21; *independent research.* Summers, asst, Texas, 18, 19. A.A; Sullivant Moss Soc; Bot. Soc. West. Pa; Pa. Acad. Bryology.

Lanford, Dr. Caroline Sherman, Elmbrook Farm, Castleton-on-Hudson, N. Y. *Chemistry.* Hastings-on-Hudson, N. Y, Nov. 12, 11. A.B, Vassar Col, 31; Ph.D, Yale, 35. Mem. nutrition research group, Columbia, 35–36; asst, Carnegie Institution, 36–39; *mem. nutrition research group, Columbia, 39–* Nutrition; calcium retention in growth; caicium levels in nutrition; metabolism and nutritional properties of fruits and fruit acids.

Lanford, Prof. Oscar E(rasmus), New York State College for Teachers, Albany, N. Y. *Chemistry.* Apple Grove, Va, Dec. 19, 14. B.S, Va. Mil. Inst, 34; A.M, Columbia, 37, Ph.D, 39. Research chemist, Gold Dust Corp, 34–35; asst. *chem,* Columbia, 35–37, instr, 37–40; *prof. and chairman dept, N. Y. State Col. Teachers, 40–* A.A; Chem. Soc. Inorganic chemistry; physical chemistry; complex ion formation; dissociation constants of acids and bases; phase rule applications; oxidation potentials.

Lang, Prof. A(lvin) L(eonard), University of Illinois, Urbana, Ill. *Soil fertility.* Dilsboro, Ind, Sept. 7, 96. B.S, Illinois, 20; M.S, Cornell, 29. Mem. farm labor crop production, Illinois, 20, exp. field work, 20–21, asst. soil exp. fields, 21–25, assoc, 25; asst, Cornell, 29; assoc. *soil exp. fields, dept. agron, Illinois,* 29–31, *asst. chief, 31–* Soc. Agron. Soil management and fertilization practices

Lang, Dr. A(ndrew) G(eorge), Champion Paper and Fibre Mfg. Co, Hamilton, Ohio. *Paper chemistry.* Dayton, Ohio, Nov. 18, 08. A.B, Miami (Ohio), 32; Goldwin-Smith fellow, Cornell, 32–33, M.S, 33; Ph.D, North Carolina, 36. Teaching asst, N. C. State Col, 33–36; agent, bur. plant indust, U. S. Dept. Agr, 36–37; assoc. chemist, Chesapeake Biol. Lab, 38–39; chief chemist, Biochem. Labs, 39–41; *research chemist, Champion Paper and Fibre Mfg. Co, 41–* A.A. Proteins; plastics; drugs.

Lang, Dr. Arthur (Hamilton), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Peachland, B. C, July 3, 05. B.A, British Columbia, 27, M.A, 28; Ph.D, Princeton, 30. *Geol. Surv. Can, 30–* Soc. Econ. Geol; fel. Can. Geog. Soc; Can. Inst. Min. and Metal. Economic geology.

Lang, Prof. Frederic C, University of Minnesota, Minneapolis, Minn. *Engineering.* London, Minn, April 28, 86. C.E, Minnesota, 08. Assoc. prof. and *prof. highway eng, Minnesota, 18–; eng. materials and research, State Highway Dept, Minn, 18–* Cmt. on materials and construction and chairman cmt. on curing concrete pavements, highway research board, Nat. Research Council, 18– Mem, Miss. Valley Conf. State Highway Depts. Soc. Test. Mat. (chairman, cmt. D-4, 35–); Asn. State Highway Officials (chairman, cmt. materials, 18–); Am. Road Builders Asn. (chairman, cmt. cooperation between educators and road builders, 35–); Concrete Inst. (chairman, cmt. concrete roads). The use of highway materials.

Lang, Commander Frederick Robert, Bureau of Medicine and Surgery, U. S. Navy Department, Washington, D. C. *Internal medicine, Public health.* Lansdowne, Pa, Oct. 5, 00. B.S, Pennsylvania, 26, M.D, 31; M.P.H, Hopkins, 39, Dr. P.H, 41. Asst. ward med. officer, U. S. Naval Hosp, Philadelphia, 32–33; camp surgeon, Civilian Conservation Corps, 33, subdistrict med. supervisor, 33–35, asst. to corps area surgeon in charge med. activities, third corps area, 35; med. officer and div. officer, U.S.S. Saratoga, 35–36; ward med. officer, U.S.S. Relief, 36–37; asst. to officer in charge div. prev. med, bur. med. and surg, U. S. Navy Dept, 37–38, officer in charge sect. epidemiol, div. prev. med, 39–42; *asst. naval attaché and staff med. officer, U. S. Embassy, to U.S.S.R, Moscow and Kuibyshev, 42–* Instr, Naval Med. Sch. and Naval Dental Sch, 37–38, 39–42. Fel. Col. Physicians; Soc. Trop. Med; fel. Pub. Health Asn; fel. Am. Med. Asn; Asn. Mil. Surg. Epidemiology; public health and preventive medicine; tropical medicine.

Lang, Prof. Gaines B(arrett), West Georgia College, Carrollton, Ga. *Mathematics.* Calhoun, Ga, Dec. 20, 06. A.B, Georgia, 27, A.M, 29; Ph.D, Illinois, 36. Instr. physics, Georgia, 27, math, 28; asst, Illinois, 29–35; *prof. math. and science, W. Ga. Col, 35–* Math. Soc; Math. Asn. Linear differential and difference equations.

Lang, Dr. Harold A(rthur), 4209 Eastern Ave, Seattle, Wash. *Mathematics, Education.* Bozeman, Mont, May 1, 03. B.S, Mont. State Col, 25; A.M, Washington (Seattle), 29, Ph.D, 35. Teacher, high sch, Mont, 25–27, prin, 27–28; prof. math. and physics, Mt. Vernon Junior Col, 29–39; *director, State Personnel Board, Wash, 39–* Mathematical study of budget revisions of state departments of education.

Lang, Prof. Harold L(ocke), Carnegie Institute of Technology, Pittsburgh, Pa. *Biology, Public health.* Franklin, N. H, March 5, 87. B.S, Mass. Inst. Tech, 10. Instr, Mass. Inst.

Tech, 10–12; sci. asst, U. S. Dept. Agr, 12–17, consulting specialist, 17–23; *prof. biol. and pub. health, Carnegie Inst. Tech, 17–* A.A; fel. Pub. Health Asn; Soc. Bact; Inst. Food Technol. Food bacteriology.

Lang, Dr. Joseph W(illiam), 25 Rose Court, Albany 2, N. Y. *Chemical engineering.* Ironton, Ohio, July 3, 02. B.S, Washington (Seattle), 28; M.S, Columbia, 33, Ph.D, 35. Instr. chem. eng, Washington (Seattle), 28–31; asst, Columbia, 31–34; research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 34–43; *head process eng. div, process develop. dept, Gen. Aniline Works, 43–* Chem. Eng; Chem. Soc. Pyrolysis of hydrocarbons; gas analysis; organic pigments.

Lang, Prof. R(obert) J(ames), University of Alberta, Edmonton, Alta, Can. *Physics.* Peterborough, Ont. B.A, McMaster, 16; M.A, Toronto, 17, Ph.D, 23. Lecturer *physics, Alberta,* 20–24, asst. prof, 24–26, assoc. prof, 26–33, *prof, 33–, acting head dept, 39–* A.A; fel. Physical Soc; fel. Royal Soc. Can. Production of helium from natural gas; purification of helium; vacuum spectroscopy; analysis of line spectra.

Lang, Walter (T) B(arnes), U. S. Geological Survey, Washington, D. C. *Geology.* St. Paul, Minn, 90. A.B, Minnesota, 15, M.S, 16; Currier fellow, Yale, 20; Columbia, 21. Instr, univ. high sch, Minnesota, 14, asst. instr. geol, Minnesota, 15; asst, Sloane physical lab, Yale, 16–17, 19; geol. aid, *U. S. Geol. Surv,* 22, paleontologist, 23–24, asst. geologist, 24–26, assoc. geologist and mining supervisor, southeast. N. Mex, 26–29, geologist and mining supervisor in charge potash investigations, 29–32, *geologist, 32–* Tech. expert ballistic photog, Aberdeen Proving Ground, Md, 18. A.A; Asn. Petrol. Geol; Am. Geog. Soc; Min. and Metal. Eng; Seismol. Soc; Pioneer Trails Asn; Geol. Soc. Wash. Potash investigations; Permian stratigraphy; petroleum geology; hydrology of Pecos Valley; geothermal gradients; natural gases; sodium and magnesium sulphates of the southwest Tuscaloosa formation; kaolins of South Carolina; bauxite and kaolin of Georgia.

Langan, Dr. William B(ernard), P. O. Box 4, Hawley, Pa. *Physiology.* Hawley, Pa, Oct. 31, 13. B.S, Scranton, 36; Maine, 36; A.M, Columbia, 37, 38–40; Ph.D, Fordham, 42. Asst. zool, Fordham, 40–42; *instr. physiol, N. Y. Med. Col, 42–* Summer, instr. biol, Scranton, 38. A.A; N. Y. Acad. Experimental morphology; gonadotropic factors and steroid hormones.

Langdon, Prof. Howard H(arland), 210 Pioneer Way, Pullman, Wash. *Mechanical engineering.* Sumner, Wash, Feb. 22, 96. B.S, State Col. Wash, 19; M.S, Mass. Inst. Tech, 33. Testing dept, Gen. Elec. Co, 19–21, turbine eng. dept, 21–23; asst. prof. *mech. eng, State Col. Wash,* 23–32, *prof. and head dept, 33–* A.S, U.S.A, 17–19. Assoc. Mech. Eng. Development of hydrostatic type of compress-extensometer; elasticity of concrete; simple reinforced concrete beams; automotive lubricating oils; strength of alloy steels at high temperatures.

Langdon, Prof. LaDema Mary, Allston Apartments, N. Charles St, Baltimore, Md. *Botany.* Arcade, N. Y, Jan. 5, 93. A.B, Oberlin Col, 16; M.S, Chicago, 17, fellow, 18–19, Ph.D, 19. Instr, high sch, Ill, 20; *biol, Goucher Col,* 20–23, asst. prof, 23–34, *assoc. prof, 34–* A.A; Bot. Soc. Stem anatomy of Dioon spinulosum; floral anatomy and embryology of the Juglandaceae; comparative morphology and taxonomy of the Fagaceae.

Langdon, Dr. Seth C(hapin), Curtis Lighting, Inc, Chicago, Ill. *Physical and electro-chemistry.* Leadville, Colo, June 18, 87. B.S, Northwestern, 11; A.M, Washington (Seattle), 13, Ph.D, 15. Instr. chem. Washington (Seattle), 17–18; assoc. chemist, Bur. Standards, 19; asst. prof. chem, Northwestern, 19–28; *director chem. research, Curtis Lighting, Inc, 28–* Research engineer, C.W.S, 18–19. Chem. Soc; Electrochem. Soc. Passivity of metals; gas exchange in kelp; electrodeposition of metals; hydrogen embrittlement of steels; chemical deposition of silver; aluminum subjected to anodic treatment.

Langdon, Prof. W(illiam) M(ondeng), University of Illinois, Urbana, Ill. *Chemical engineering.* LaGrange, Ill, Aug. 18, 14. B.S, Illinois, 35, M.S, 39, Ph.D, 41. Testing engineer and metallurgist, Wis. Steel Works, 36–37; carbon chemist, McCormick works, Int. Harvester Co, 37; asst. chem. and chem. eng, Illinois, 37–41; research chemist, Standard Oil Develop. Co, 41–42; *asst. prof. chem. eng, Illinois, 42–* Chem. Soc. Distillation.

Lange, Prof. E(rnest) O(tto), Drexel Institute, Philadelphia, Pa. *Electrical engineering.* Fond du Lac, Wis, Sept. 27, 91. B.S, Wisconsin, 15. With Westinghouse Elec. and Mfg. Co, 15–16; instr, Wisconsin, 16–19; asst. prof, *Drexel Inst,* 19–26, assoc. prof. *elec. eng,* 26–40, *prof, 40–* Eng. Educ; Elec. Eng. High frequency heating of liquids and semi-solids.

Lange, Dr. Karl O(tto Heinrich), 143 N. Hanover Ave, Lexington, Ky. *Aeronautical meteorology.* Frankfurt-am-Main, Germany, June 13, 03. Dipl. Ing, Darmstadt, 25, D.Ing, 30. Asst, German Research Inst. for Motorless Flight, 25–28, in charge aeronaut. research, 28–31; instr, Mass. Inst. Tech, 31–34, research assoc, 34–35; Blue Hill Meteorol. Observatory, Harvard, 35–37, research meteorologist, 37–42; *research meteorologist and consulting engineer, Aerological Developments, Inc, 42–* Collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 35; agent, weather bur, U. S. Dept. Commerce. Meteorol. Soc; Inst. Aeronaut. Sci. Atmospheric air currents; upper air observations; meteorological instruments.

Lange, Dr. L(inda) B(artels), 6357 Wayne Ave, Philadelphia, Pa. *Medicine.* New York, N. Y, Jan. 15, 82. A.B, Bryn Mawr Col, 03; Goucher Col, 06–07; M.D, Hopkins, 11. Asst, Bryn Mawr Sch, Baltimore, 05–07; intern, N. Y. Infirmary Women and Children, 11–12; fellow path. and bacter, Rockefeller Inst, 12–14; pathologist and director lab, H. A. Kelly Hosp, Baltimore, 14–15; instr. path, med. sch, Wisconsin, 15–16; asst. and instr. med, sch. med, Hopkins, 16–19, fellow, instr. and assoc. bacter, sch. hygiene and pub. health, 19–27, assoc. prof, 27–37; prof. bacter. and immunol, Woman's Med. Col. of Pa, 37–40; *retired.* Infectious diseases; bacteriology; malignant tumors; tuberculosis; spirochetes.

Lange, Dr. L(uise), 5851 Blackstone Ave, Chicago, Ill. *Mathematical physics.* Braunschweig, Germany, April 14, 91. Ph.D, Göttingen, 17. Sci. staff, Siemens and Halske, Berlin, 18; Wm. Gaertner Sci. Instrument Co, Chicago, 20–21; prof. *math,* Oxford Col. for Women, 21–26; *teacher,* Crane Junior Col, *Chicago,* 27–33; *Wilson Junior Col, 34–* Math. Asn. Dielectrics; exposition of theory of relativity.

Lange, Prof. Mathilde Magarethe, Wheaton College, Norton, Mass. *Zoology.* New York, N. Y, April 14, 88. Ph.D, Zurich, 19. U. S. Dept. Agr, 20–21; *prof. zool, Wheaton Col. (Mass), 21–* Marine Biol. Lab, Woods Hole. A.A; Soc. Parasitol. Growth.

Lange, Dr. N(orbert) A(dolph), Handbook Publishers, Inc, Sandusky, Ohio. *Chemistry.* Sandusky, Ohio, Aug. 4, 92. A.B, Michigan, 15, M.S, 17, Ph.D, 18. Instr. org. chem, Michigan, 17–19; asst. prof, Case, 19–34, assoc. prof, 34–35; *lecturer chem, Western Reserve, 25–* Ed, 'Handbook Chem. and Physics,' 20–32; 'Lange's Handbook Chem.' Chem. Soc. (sec'y-treas, Cleveland sect, 27–29, chairman, 30); fel. Inst. Chem; Deuts. Chem. Gesell. Organic chemistry; condensation of isocyanic acid and of phenols; ureas; quinazolines.

Lange, Dr. W(illiam) Harry, Jr, P. O. Box 1370, Court House, Salinas, Calif. *Entomology.* San Francisco, Calif, Sept. 2, 12. B.S, California, 33, M.S, 34, Ph.D, 41. Sci. aide, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–36; *junior entomologist, Exp. Sta, California, 36–* Agricultural entomology; control of vegetable crop insects; systematics and biology of the Microlepidoptera; biology of California slugs.

Lange, Dr. Willy, University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Berlin, Germany, Oct. 31, 00. Ph.D, Berlin, 23. Asst. to Wilhelm Traube, Berlin, 23–25; asst, chem. inst, Berlin, 25–30, privat-docent, 30–37; head research dept, Henkel and Co, Düsseldorf, 35–39; research assoc, *Cincinnati,* 39, *assoc. prof. applied science, 40–* Chem. Soc; Deuts. Chem. Gesell. Fluorine compounds; substances with surface activity; detergents; wetting agents; emulsifiers; disinfectants; insecticides; oxidation of paraffin.

Langeller, Prof. Wilfred F(rancis), University of California, Berkeley, Calif. *Chemistry.* Nashua, N. H, Sept. 25, 86. B.S, New Hampshire, 09; M.S, Illinois, 11. Asst. chem, Illinois, 09–11; chemist, Ill. Water Surv, 11–16; asst. prof. *sanit. eng, California,* 16–22, assoc. prof, 22–38, *prof, 38–* Consultant sanit. and water technol, U. S. Pub. Health Service, 18–19. Water purification and corrosion researches.

Langenhan, Dr. H(enry) A(ugust), Mercer Island, Wash. *Pharmacy.* Ableman, Wis, March 26, 83. Ph.C, Illinois, 08, Ph.C, 09; B.S, Wisconsin, 13, M.S, 15, Ph.D, 18. Instr. pharmaceut. chem, Illinois, 09–12; pharmacy, Wis-

consin, 12–18, asst. prof, 19–22; assoc. prof, Washington (Seattle), 22–27, prof, 27–40; manager Skagit Valley Drug Farms, S. B. Penick and Co, 40–43; *retired*. Research pharmacist, pharmaceut. exp. sta, Wisconsin, 13–21, univ. hosps, 18–22. Revision cmt, U. S. Pharmacopoeia, 30–, chairman subcmt, 12; revision cmt, Nat. Formulary, 30–40, chairman subcmt. 3. Pharmaceut. Asn. (chairman, sci. sect, 29); ; Asn. Cols. Pharm. (v. pres, 30). Arsenical solutions; hypochlorite solutions; acetylsalicylic acid; halide syrups; hydrastis canadensis; drug plant cultivation.

Langer, Dr. A(lois), 135 Sumner Ave, Forest Hills, Pa. *Chemistry.* Paseka, Czechoslovakia, Feb. 10, 09. Ph.D, Masaryk Univ. Bruno, 34; Minneapolis, 28–29. Instr. anal. chem, Masaryk Univ, 35–38; exchange research fellow, Minnesota, 38–39; research fellow, *Westinghouse Research Lab*, 39–41, *research engineer, 41–* Lecturer, Pittsburgh, 39– Chem. Soc; Czechoslovak Chem. Soc; Microchem. Soc. Czechoslovakia. Microchemistry; radioactive tracer work; polarography.

Langer, Dr. Lawrence M(arvin), Indiana University, Bloomington, Ind. *Physics.* New York, N. Y, Dec. 22, 13. B.S, N. Y. Univ, 34, M.S, 35, Ph.D, 38. Asst. *physics*, N. Y. Univ, 34–38; instr, *Indiana*, 38–42, *asst. prof, 42–* Research assoc, Mass. Inst. Tech, 41–42; assoc. physicist, div. war research, California, 43. Fel. Physical Soc. Nuclear physics and radio-activity; artificial disintegration of nuclei by high voltage and cyclotron; correlation of beta and gamma rays emitted from nuclei by measurements of time coincidences.

Langer, Prof. Rudolph E(rnest), University of Wisconsin, Madison, Wis. **Mathematics.* Boston, Mass, March 8, 94. B.S, Harvard, 17, A.M, 20, Ph.D, 22. Instr. *math*, Harvard, 20–22; Sheldon traveling fellow, Göttingen, 22–23; instr, Dartmouth Col, 23–24, asst. prof, 24–26; Brown, 26–27; *prof, Wisconsin, 27–* Lecturer, Harvard, 35–36. Summers, prof, Ohio State, 30; Stanford, 36. A.A. (sect. cmt, A); Math. Soc. (councilor, assoc. ed, 'Trans,' v. pres, 38); Math. Asn. (v. pres, 41). Analysis; differential and integral equations.

Langer, Prof. R(udolph) M(eyer), California Institute of Technology, Pasadena, Calif. *Physics.* Rochelle Park, N. J, Dec. 1, 99. A.M, Columbia, 21; Ph.D, Calif. Inst. Tech, 26. Asst. physicist, Naval Research Lab, 26–27; nat. research fellow, Bur. Standards, 27–29; Univ. Berlin, 29–30; asst. prof. physics, Mass. Inst. Tech, 30–31; professorial lecturer, Minnesota, 31–32; research fellow, *Calif. Inst. Tech*, 32–35, *senior fellow astrophys. research, 35–* A.A; fel. Physical Soc; Chem. Soc; Optical Soc; Physik. Gesell. Dispersion of atomic hydrogen; light scattering; quantum mechanics of chemical reaction; energy levels in complex atoms; theory of the neutron and radioactivity; physics of the nucleus and cosmic rays.

Langer, Dr. Theodore W(illiam), Texas Co, Beacon, N. Y, *Physical chemistry.* New York, N. Y, Aug. 12, 06. A.B, Hopkins, 28; fellow, Yale, 30–31, Ph.D, 31. Asst, Yale, 28–30; *research chemist, Texas Co*, 31–33, *35–;* director research, Texaco Salt Products Co, 33–35. Chem. Soc. Electrolytic conductivity; polarization effects in conductivity cells; physical characteristics of petroleum products; crystallization; petroleum refining; metal cutting coolants; lubricating greases.

Langfeld, Prof. Herbert S(idney), Princeton University, Princeton, N. J. ***Psychology.* Philadelphia, Pa, July 24, 79. Haverford Col, 97–98; Ph.D, Berlin, 09. Research fellow, Harvard, 09–10, instr. *psychol*, 10, asst. prof, 15–22, assoc. prof, 22–24, acting director *lab*, 17–19, *director*, 19–22; *Princeton, 24–*, prof, 24–38, *Stuart prof, 38–, chairman dept, 31–* Ed, 'Psychol. Rev,' 34– Mem. cmt, Int. Cong. Psychol, assoc. sec'y, 32–, mem. int. exec. cmt, Paris, 37. A.A. (v. pres, I, 31); Psychol. Asn. (sec'y, 17–19, pres, 30, hon. pres, N. Y. branch, 35); Soc. Exp. Psychol. (chairman, 38). Pupillary action; visual sensations; inhibitory processes; voluntary action; psychological effects of fasting; experimental esthetics; nature of consciousness.

Langford, Dr. A(rthur) N(icol), Bishop's University, Lennoxville, Que, Can. *Biology.* Ingersoll, Ont, July 30, 10. B.A, Queen's (Can), 31; M.A, Toronto, 33, Ph.D, 36. Asst. bot, Toronto, 33–36, bacter, 37; *lecturer biol, Bishop's Univ, 38–* Summers, asst, Hort. Exp. Sta, Vineland Sta, Ont, 37–40. Genetics Soc; Can. Phytopath. Soc. Parasitism of and genetics of resistance to Clodosporium fulvum; breeding of vetomold tomato.

Langford, Dr. Cecil T(heodore), 220 Moss Ave, Peoria, Ill. *Chemical engineering.* Spanish Ft, Texas, Sept. 6, 96. B.S, 18, M.S, 20, Ph.D, 26. Instr. chem, Oklahoma, 20–22, asst. prof, 22–26; research chemist, Marland Oil Co, 26–29; prof. chem. eng, Oklahoma, 29–41; *chief engineering and develop. div, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Chem. Soc; Chem. Eng. Activity coefficients of mixed electrolytes; free energy of chemical compounds; heat transfer; plant design.

Langford, Prof. Geo(rge) B(urwash), University of Toronto, Toronto, Ont, Can. *Geology.* Toronto, Ont, May 21, 98. B.A.Sc, Toronto, 23; Ph.D, Cornell, 28. Instr, Cornell, 25–28; geologist, Ont. Dept. Mines, 26–28; consulting geologist, 28–31; geologist, McIntyre-Porcupine Mines, Ltd, 31–37; *prof. mining geol, Toronto, 37–* Examiner mines, Can, Newfoundland, Cuba and S. Amer. Min. and Metal. Eng; Soc. Econ. Geol; fel. Royal Soc. Can; Can. Inst. Min. and Metal; Asn. Professional Eng. Ont. Mining geology.

Langford, Dr. George S(healy), University of Maryland, College Park, Md. *Entomology.* Blythewood, S. C, March 9, 01. B.S, Clemson Col, 21; M.S, Maryland, 24; Ph.D, Ohio State, 29. Teacher, pub. schs, N. C, 21–22; asst. entom, Maryland, 22–24; deputy state entomologist, Colo, 24–27; asst. zool, Ohio State, 27–28; Ohio Exp. Sta, 28–29; *specialist insect control and assoc. prof. entom, Maryland, 29–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. Economic entomology.

Langford, Dr. M(ichael) H(endrix), U. S. Department of Agriculture, Turrialba, Costa Rica. *Plant pathology.* Fairfield Co, S. C, June 21, 15. B.S, Clemson Agr. Col, 36; Ph.D, Wisconsin, 40. Asst, Wisconsin, 36–40; *agent rubber investigations, cooperative rubber field sta, bur. plant indust, U. S. Dept. Agr, 40–* Epidemiology and control of apple scab; variability and inheritance in Venturia inaequalis and Venturia pirina; South American leaf disease of Hevea rubber.

Langford, Dr. R(aymond) R(obert), University of Toronto, Toronto, Ont, Can. *Biology.* Warkworth, Ont, Can, Sept. 22, 08. B.Sc, Saskatchewan, 32; Ph.D, Toronto, 36; *lecturer dental anat, Toronto, 39–* Fisheries Soc; Limnol. Soc. General limnology; plankton quantitative; the utilization of plankton by small fish.

Langford, Prof. Roy C(linton), Kansas State College, Manhattan, Kans. *Psychology.* Cherokee, Kans, June 17, 03. B.S, Kans. State Col, 25, M.S, 26; Ph.D, Stanford, 34. Instr. *psychol, Kans. State Col*, 26–33, asst. prof, 33–37, assoc. prof, 37–41, *prof, 41–* Assoc. Psychol. Asn. Psychology of art; experimental esthetics.

Langham, Prof. D(erald) G(eorge), Instituto Experimental de Agricultura y Zootecnia, El Valle, Caracas, Venezuela, S. A. *Genetics.* Vinton, Iowa, May 27, 13. B.S, Iowa State Col, 36; Ph.D, Cornell, 39. Sec'y maize genetics cooperation, Cornell, 36–39; *geneticist, Instituto Experimental de Agr. y Zootecnia, 39–*, asst. prof. *genetics, sch. agr*, 39–40, *prof, 40–, chief dept, 42–* A.A; Genetics Soc; Soc. de Ciencias Nat. Genetics of corn and sesame.

Langhorne, Prof. M(aurice) C(urtis), Emory University, Ga. *Psychology.* Smithfield, Va, Oct. 2, 03. A.B, Washington and Lee, 25, A.M, 26; Ph.D, Ohio State, 32. Instr. *psychol, Emory*, 26–32, asst. prof, 32–36, *assoc. prof, 36–, chairman dept, 41–, asst. registrar, 30–* Assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Age and sex differences in learning; mental testing; attitudes.

Langille, Prof. H(erbert) B(amford), 2418 Dana St, Berkeley, Calif. *Mechanical engineering.* Tusket, N. S, Can, Jan. 27, 71. A.B, Stanford, 15. Wireman and operator, San Gabriel Elec. Co, Los Angeles, 98–99; machinist, Fulton Iron Works, San Francisco, 00–01, draftsman, 01–04; chief draftsman, Risdon Iron Works, San Francisco, 05–06; private practise, 07; eng. practise, Oregon, 08–11; asst. mech. engineer, P. P. I. Expos, San Francisco, 12–13; instr. *mech. eng, California*, 13–14, asst. prof, 14–19, assoc. prof, 19–36, *emer. prof, 36–; supervisor design sch, Mare Island Navy Yard, 41–* Lieut, U.S.N.R, 17–19. A.A; Mech. Eng. (director, San Francisco sect, chairman, 34, director, 35, sec'y-treas, 36–39); Eng. Educ. Drafting room practise.

Langkammerer, Dr. Carl M(artin), 200 Curtis Ave, Woodcrest, Wilmington, Del. *Organic chemistry.* Schwer, Ill, June 5, 05. B.S, Minnesota, 29, Ph.D, 34. Teaching asst, Minnesota, 30–34; prof. chem, Concordia Col, 34–36; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. The action of sulfur dioxide and its salts on organic compounds; the Piria reaction; synthetic resin coatings.

Langley, Prof. Wilson D(avis), New Road, East Amherst, N. Y. *Physiological chemistry.* Charleston, S. C, Jan. 7, 95. Ph.D, 22. Instr. *physiol. chem,* Pennsylvania, 22–28; asst. prof, *Buffalo,* 28–33, *assoc. prof, 33–* A.A; Chem. Soc; Soc. Biol. Chem. Extractives of muscle.

Langlie, Dr. T(heos) A(lvin), National Starch Products, Inc, New York, N. Y. *Psychology.* Cooperstown, N. Dak, April 20, 02. A.B, Minnesota, 24, Ph.D, 29. Personnel asst. to dean col. sciences, lit. and arts, Minnesota, 25–26, instr. psychol, 26–27; Wesleyan, 27–29, asst. prof, 29–36, assoc. prof, 36–39; *personnel director,* Hat Corp. Amer, 38–42; *Nat. Starch Products, Inc, 42–* A.A; Asn. Applied Psychol; assoc. Psychol. Asn; East. Personnel Officers Asn. (pres, 32). Personnel research.

Langlois, Dr. D(avid) P(ercy), A. E. Staley Mfg. Co, Decatur, Ill. *Organic chemistry.* Ogden, Utah, Oct. 14, 01. A.B, Utah, 29, A.M, 30; fellow, Pa. State Col, 30–32, Ph.D, 33. Asst. chem, Utah, 29–30; *research chemist, A. E. Staley Mfg. Co, 32–* Chem. Soc. Preparation of acids by the Grignard reaction; rearrangements in aliphatic compounds; starch and sugar refining and derivatives; fatty acids and their glycerides; photomicrography.

Langlois, Dr. T(homas) H(uxley), P. O. Box C, Put-in-Bay, Ohio. *Ichthyology.* Detroit, Mich, Feb. 19, 98. B.S, Michigan, 24, M.S, 25; Ph.D, Ohio State, 35. Asst. fisheries biologist, State Dept. Conservation, Mich., 25–27, state fish pathologist, 27–29; *chief fish sect, State Div. Conservation and Nat. Resources, Ohio, 30–;* asst. prof. animal husbandry, *Ohio State,* 36–37, *prof. zool, 38–* Asst. director, Franz Theodore Stone Lab, 36–37, director, 38– Director, research foundation, Ohio State, 38–; sci. adviser, Int. Board Inquiry for Great Lakes Fisheries. A.A; Soc. Ichthyol. and Herp; Fisheries Soc. (pres, 40); Limnol. Soc; Wildlife Soc. (v. pres, 38); Ecol. Soc; fel. Ohio Acad; Toledo Zool. Soc. (trustee, 39–). Fisheries biology; fish management, culture and habits.

Langlykke, Dr. A(sger) F(under), U. S. Department of Agriculture, Peoria, Ill. *Biochemistry.* Pleasant Prairie, Wis, July 17, 09. B.S, Wisconsin, 31, M.S, 34, Ph.D, 36. Asst. agr. chem. and agr. bacter, Wisconsin, 32–36, research assoc, 36–37; biochemist, Hiram Walker and Sons, 37–40; supt, Butyl Alcohol Plant, Asoc. Azucarera Cooperativa, 40–43; *mem. staff, north. regional research lab, bur. agr. and indust. eng, U. S. Dept. Agr, 43–* A.A; Chem. Soc; Biochem. Soc. Chemistry and mechanism of fermentation; utilization of distillery wastes.

Langman, Dr. Harry, 1196 Eastern Parkway, Brooklyn, N. Y. *Mathematics.* New York, N. Y, Nov. 7, 89. B.S, Col. City of N. Y, 11; Ph.D, Columbia, 22. Statist. bur, Metropolitan Life Ins. Co, 15–16; chief statistician, Ocean Accident and Guarantee Corp, 16–18; head statist. div, Youroveta Home and For. Trade Co, 18–19; Bur. Jewish Social Research, 19–20; instr. statist, Col. City of N. Y, 19–20; proprietor, Solar Chem. Mfg. Co, Brooklyn, N. Y, 20–32; instr. math, Cooper Union, 32–33; proprietor, Solar Chem. Mfg. Co, 34–35; *staff, Chas. E. Dunbar Associates, 35–; proprietor, Solor Advertisers, 38–* Math. Soc; Math. Asn; Statist. Asn. Mathematical and applied statistics.

Langmuir, Dr. David B(ulkeley), Office of Scientific Research and Development, 1530 P St, N.W, Washington, D. C. *Physics.* Los Angeles, Calif, Dec. 14, 08. B.S, Yale, 27–31; Ph.D, Mass. Inst. Tech, 35. Research physicist, RCA Mfg. Co, Harrison, N. J, 35–41; *tech. aide to director, Office Sci. Research and Develop, 41–* Radio Eng; Physical Soc. Thermionics; electro optics; television tubes; ultra short waves.

Langmuir, Dr. Irving, General Electric Co, Schenectady, N. Y. *[3]*Chemistry.* Brooklyn, N. Y, Jan. 31, 81. Met.E, Columbia, 03, Sc.D, 25; Ph.D, Göttingen, 06; Sc.D, Northwestern, 21, Union (N. Y), 23, Kenyon Col, 27, Princeton, 29, Lehigh, 34, Rutgers, 41, Queen's (Can), 41; LL.D, Edinburgh, 21, Hopkins, 36; D.E, Tech. Hochschule, Berlin-Charlottenburg, 29. Asst. director *research lab, Gen. Elec. Co,* 09–32, *assoc. director, 32–* Johnson Foundation lecturer, Pennsylvania, 37. Nichols medal, Am. Chem. Soc, 15, 20; Hughes medal, Royal Soc, 18; Rumford medal, Am. Acad, 21; Cannizzaro prize, Royal Nat. Acad. Lincei, Rome, 25; Perkin medal, Soc. Chem. Indust, 28; sch. mines medal, Columbia, 29; Chandler medal, 29; Willard Gibbs medal, 30; Nobel prize, 32; 'Popular Science Monthly' award and gold medal, 32; Franklin medal, Franklin Inst, 34; Holley medal, Am. Soc. Mech. Eng, 34; John Scott award and copper medal, Phila, 37. Nat. Acad; A.A. (pres, 41); Chem. Soc. (pres, 29); fel. Physical Soc; Philos. Soc; Am. Acad; hon. mem. Chemists' Club; for. mem. Royal Soc; hon. mem. London Chem. Soc; hon. mem. Royal Inst. Gt. Britain; hon. mem. Deuts. Chem. Gesell; hon. mem. Gesell. für Tech. Physik; Acad. Sci. Halle; Royal Soc. Uppsala; for. mem. Royal Physiog. Soc. Sweden; for. cor. mem. Acad. Brasil. de Sci. Kinetics of gas reactions, especially at low pressures; dissociation of hydrogen; nitrogen and argon filled tungsten lamps; vapor pressures of metals; production of high vacuum; electron discharges; constitution of solids and liquids; adsorption; surface tension; structure of atoms; theory of chemical valence; acoustic devices for submarine detection; electric discharges in gases; surface chemistry.

Langner, Dr. Helen P(arthenay), Vassar College, Poughkeepsie, N. Y. *Psychiatry.* Meriden, Conn, May 9, 92. A.B, Hunter Col, 14; M.D, Yale, 22. Intern and asst. physician, Manhattan State Hosp, New York, 22–27; Nat. Cmt. Mental Hygiene fellow extra-mural psychiat, 27–28; acting director mental hygiene clinic, State Dept. Pub. Welfare, Va, 28–29; director child guidance clinic and asst. prof. nervous and mental diseases, sch. med, Indiana, 29–31; *assoc. physician and asst. prof. hygiene, Vassar Col, 31–* Mem, Nat. Cmt, Mental Hygiene. A.A; Am. Med. Asn; Psychiat. Asn; Pub. Health Asn; Social Hygiene Asn; Orthopsychiat. Asn; N. Y. Med. Soc. Psychiatric service in a community health program.

Langsdorf, Dean A(lexander) S(uss), 5187 Cabanne Ave, St. Louis, Mo. *Electrical engineering.* St. Louis, Mo, Aug. 31, 77. B.S, Washington (St. Louis), 98; M.M.E, Cornell, 01. Instr. physics, Washington (St. Louis), 98–00, asst. prof. elec. eng, 01–04, prof, 04–20, dean sch. eng, 10–20; indust. engineer and sec'y, Crunden Martin Mfg. Co, 20–23; v. pres. and chief engineer, Alvey Mfg. Co, 23–26; *director dept. indust. eng. and research, Washington (St. Louis), 26–, dean schs. eng. and archit, 28–, prof.* applied math, 32–38, *elec. eng, 38–* V. chairman city plan cmn, St. Louis, 17–35; mem, State Planning Board, Mo, 34–35; adviser, region 16, Eng, Science and Management War Training. A.A; Elec. Eng; Mech. Eng; Eng. Educ; Inst. Archit; Mo. Acad. (pres, 34); St. Louis Acad. (sec'y, 29–31, v. pres, 36); St. Louis Eng. Club (past pres). Alternating current machinery; industrial engineering problems; principles of direct current machines.

Langsdorf, Dr. Alexander (Suss), Jr, Washington University, St. Louis, Mo. *Physics.* St. Louis, Mo, May 30, 12. A.B, Washington (St. Louis), 32; Ph.D, Mass. Inst. Tech, 37. Nat. research fellow, California, 38; *instr. physics, Washington (St. Louis), and asst. physicist, Mallinckrodt inst. radiol, 39–* Physical Soc. Wilson cloud chambers and a continuously sensitive cloud chamber; nuclear physics; artificial radioactivity.

Langston, J(ames) M(atthew), Mississippi State College, State College, Miss. *Entomology.* Covington Co, Miss, Feb. 9, 86. B.S, Miss. Agr. and Mech. Col, 12, M.S, 25. Sci. asst, bur. entom, U. S. Dept. Agr, 14–18; asst. entomologist, *State Plant Board, Miss,* 18–28, *entomologist, 28–;* asst. entomologist, Exp. Sta, Miss. Agr. and Mech. Col, 25–32, Miss. State Col, 32–33, assoc. entom, 33–38. Entom. Soc. Amer; Asn. Econ. Entom. Phyllophaga of Mississippi; life history of the cowpea curculio.

Langston, Dr. W(illiam) C(leaver), University of Arkansas School of Medicine, Little Rock, Ark. *Anatomy.* Newberry, S. C, Jan. 3, 90. A.B, Furman, 11; Chicago, 14, 21; Georgia, 15; fellow, Middlebury Col, 16–17, M.S, 17; Paris, 19; M.D, Iowa, 29. Asst. prof. and assoc. prof, Ala. Col. Med, 21–26; demonstrator and asst. prof, col. med, Iowa, 26–30; assoc. prof. *anat, sch. med, Arkansas,* 30–31, *prof, 31–, head dept, 41–* Am. Med. Asn. grant, 32, 35. A.A; Genetic Asn; fel. Am. Med. Asn. Histology; embryology; renal anomalies; cataract and blood dyscrasias in vitamin C deficiency; castration atrophy and theelin.

Langstroth, C(lifford) B(arnes), Boulder Acres, R. D. 1, Danbury, Conn. *Metallurgy.* Rahway, N. J, July 1, 84. M.E, Lehigh, 08. Asst. mech. engineer, Reading Coal and Iron Co, 08–09; Am. Iron and Steel Mfg. Co, 09–10; supt. eight inch mill, Bethlehem Steel Co, 10–12; metallurgist, Winchester Repeating Arms Corp, 12–16; supervisor, Ross Rifle Co, 16–17; metallurgist, Link Belt Co, 17–18; lab. director, A. O. Smith Corp, 19–30; v. pres, Amer. Detachable Bit Corp, 30–31; *welding engineer, Am. Locomotive Co, 31–* Capt, Ordnance Dept, 18–19. A.A; Mech. Eng; Iron and Steel Inst. Gt. Britain. Steel and heat treatment for rifles; weld rod coat-

ings; welding of pressure vessels, locomotive boiler, diesel engines, army tanks and parts subject to dynamic loading.

Langstroth, Dr. George O(tty), University of Manitoba, Winnipeg, Man, Can. *Physics.* Hampton, N. B, Aug. 9, 05. B.A, Dalhousie, 27; Nat. Research Council Can. bursar, McGill, 28–29, student, 29–30, Ph.D, 30. 1851 Exhib. scholar, King's Col, London, 30–32; Physical Inst, Utrecht, 32–33; research assoc, McGill, 33–38; Mass. Inst. Tech, 38–39; *assoc. prof. physics, Manitoba, 39–* A.A; Optical Soc; fel. Royal Soc. Can. Perturbations in line spectra; Stark effect; excitation and emission of band spectra; methods of spectrographic analysis and application in biological problems; absorption spectrum studies of androgens; electron polarization and scattering; heat transfer problems.

Langstroth, Dr. Lovell, 2285 Broadway, San Francisco, Calif. *Internal medicine.* San Francisco, Calif, June 19, 80. A.B, Stanford, 08; M.D, Cooper Med. Col, 12. Instr. med, California, 18–21, asst. clin. prof, 21–28; practising physician, 28–32; *assoc. clin. prof. med, Stanford, 32–* Soc. Exp. Biol; Calif. Acad. Med. Nutrition.

Langton, Dr. Clair V(an Norman), Oregon State Agricultural College, Corvallis, Oregon. *Public health.* Millgrove, Ont, Can, Nov. 1, 95. B.S, Michigan, 23, M.S, 25, Dr.P.H, 28; D.Ed, Oregon, 38. Instr. physical educ, Michigan, 23–25, asst. prof. hygiene, 25–28; prof. hygiene and physical educ, *Oregon State Col,* 28–29, dean sch. health and physical educ, 29–32, *tech. councilor sanit. eng, 30–, director div. physical educ, 32–* Mem, State Basic Science Exam. Cmt, Oregon, 37– Fel. Pub. Health Asn; Student Health Asn; Col. Physical Educ. Asn; fel. Asn. Health, Physical Educ. and Recreation (nat. councilor, 30–; pres, northwest dist, 42); Mich. Physical Educ. Asn. (pres, 27); Oregon Physical Educ. Asn. (pres, 34). Hygiene; sanitation.

Langworthy, Dr. Orthello R(ichardson), Johns Hopkins University, Baltimore, Md. *Neurology.* Hamilton, N. Y, Aug. 23, 97. A.B, Colgate, 18, A.M, 21; M.D, Hopkins, 22. Asst, *sch. med, Hopkins,* 22–23, instr, 23–25, assoc. anat, 25–28, *neur,* 28–32, *assoc. prof, 32–,* house officer psychiatry, 41–42. Neur. Asn; Asn. Anat; Physiol. Soc. Innervation of the tongue; morphology and physiology of the developing central nervous system of mammals; injuries produced in the organism by electricity; control of micturition by the nervous system; innervation of the iris.

Lanham, W(illiam) B(radford), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Boone Co, Mo, June 27, 82. B.S.A, Missouri, 07, A.M, 17; Agr. and Mech. Col. Texas. Asst. director exten, Agr. and Mech. Col. Texas, 15–25; chief div. hort, Exp. Sta, Agr. and Mech. Col. Texas, 25–27; *prin. marketing specialist, agr. marketing service, U. S. Dept. Agr, 27–* A.A; Farm Econ. Asn. Horticulture; cotton marketing.

Lanham, Dr. William M(orton), 840 D Mathews Ave, Charleston, W. Va. *Organic chemistry.* Charleston, W. Va, Nov. 3, 15. A.A, Kanawha Junior Col, 34; A.B, Illinois, 38; Ethyl Gasoline fellow, Brown, 38–41, Ph.D, 41. *Research chemist, Carbide and Carbon Chem. Corp, 41–* Reaction between alkyl halides and sodium-tin alloys.

Lanier, Prof. L(yle) H(icks), Vassar College, Poughkeepsie, N. Y. *Psychology.* Madison Co, Tenn, Jan. 11, 03. A.B, Vanderbilt, 23; A.M, George Peabody Col, 24, Ph.D, 26. Asst. psychol, Vanderbilt, 22–23; George Peabody Col, 23–24; asst, Nat. Research Council Cmt. on Migrations grant, 24–26; instr. *psychol,* N. Y. Univ, 26–28; asst. prof, Vanderbilt, 28–38; *prof, Vassar Col, 38–* Summers, lecturer, George Peabody Col, 26–32. A.A; Psychol. Asn; Soc. Exp. Psychol; South. Soc. Philos. and Psychol. (sec'y-treas, 31–37, pres, 37); East. Psychol. Asn. (treas, 41–). Experimental and physiological psychology; comparative racial psychology; statistical analysis of mental tests; neurological mechanism underlying cutaneous sensation.

Lanier, Prof. Mary J(ean), Wellesley, Mass. *Geography.* Nashville, Tenn, 72. B.S, Chicago, 09, Ph.D, 24. Asst. geog, Chicago, 10–12, instr, 13–17; assoc. prof, *Wellesley Col,* 17–26, prof. *geol. and geog,* 27–39, *emer. prof, 39–* Historical geography of the United States.

Lanier, Dr. Raymond R(ay), 4576 Chouteau Ave, St. Louis, Mo. *Anatomy.* Louisville, Ky, July 24, 14. A.B, Richmond, 35; Duke, 35–36; Ph.D, Washington (St. Louis), 39. *Asst. anat, Washington (St. Louis), 39–* Asn. Anat; Asn. Physical Anthrop. Gross anatomy; physical anthropology; osteology of American whites and Negroes; age changes in the skeleton.

Laning, Dr. W(illard) A(rthur), Jr, 70 Glen Ridge Ave, Glen Ridge, N. J. *Electrical engineering.* New Kensington, Pa, June 1, 06. B.S, Bucknell, 27; M.S, Illinois, 31, Ph.D, 38. Eng. asst, Bell Tel. Co. of Pa, 27–29; asst, Illinois, 29–31; instr. elec. eng, Bucknell, 31–32; Gettysburg Col, 34–38; asst. prof, Maryland, 38–42; *electronics engineer, Westinghouse Elec. and Mfg. Co, 42–* Elec. Eng. (chairman meetings and papers cmt, 41, educ. cmt, 42–); Eng. Educ; Soc. Professional Eng; Md. Soc. Professional Eng. (v. pres, 40; director, 41). Power cables; hydraulic measurements; high-frequency measurements; radio tube design.

Lankelma, Prof. Herman P(eter), Western Reserve University, Cleveland, Ohio. *Chemistry.* Pella, Iowa, July 28, 96. A.B, Cent. Col. (Iowa), 18; M.S, Iowa, 21, Ph.D, 23. Asst. *chem,* Iowa, 19–21; asst. prof, *Western Reserve,* 23–36, assoc. prof, 36–42, *prof, 42–* A.A; Chem. Soc. The migration of acyl from oxygen to nitrogen and from sulfur to nitrogen; condensation of aldehydes with o-aminothiophenols; thermodynamic properties of organic liquid liquids; catalytic conversion of hydrocarbons.

Lankford, Prof. F(rancis) G(reenfield), Jr, 1940 Thomson Road, Charlottesville, Va. *Mathematics.* Morattico, Va, Feb. 14, 06. B.S, Randolph-Macon Col, 28; M.S, Virginia, 32, Ph.D, 38; Chicago, 34; Michigan, 39–40. Teacher, high sch, Kilmarnock, Va, 26–27, prin, Heathsville, 28–31; instr. *teaching of math. and science, Virginia,* 32–38, *asst. prof, 38–* Gen. Educ. Board fellow, Michigan, 39–40. Summers, consultant, curriculum and instruction workshop, Michigan, 40; director, Virginia, 41, prof, Harvard, 42. Asn. Research Sci. Teaching; Council Elementary Sci. Teachers; Council Teachers Math. Elements and proofs of plane geometry; teaching of mathematics and science.

Lanning, Dr. Charles E(dward), Standard Oil Co. of New Jersey, 30 Rockefeller Plaza, New York, N. Y. *Chemistry.* Washington, Kans, Sept. 16, 94. A.B, Earlham Col, 16; Ph.D, Hopkins, 20. Chief chemist, Bayonne Refinery, *Standard Oil Co. of N. J,* 20–25, supt. operations, 25–28, acting gen. supt, Baltimore Refinery, 29–33, asst. to manager, N. Jersey plants, 33–34, asst. to pres. and sec'y refinery advisory cmt, 34–35, asst. to manager, *for. ref. operations,* 35–36, *tech. adviser, Europe, 36–*

Lanning, Dr. W(illiam) Clarence, 3002 Laurel Ave, Cheverly, Md. *Physical chemistry.* Boicourt, Kans, Dec. 9, 13. A.B, Sterling Col, 34; A.M, Kansas, 36, Ph.D, 38. Asst. instr. chem, Kansas, 35–38; research chemist and later *senior chemist, Naval Research Lab, 38–* Chem. Soc. Physical chemistry of solutions of electrolytes in anhydrous acetic acid.

Lanphere, Prof. W(illiam) M(ax), Humboldt State College, Arcata, Calif. *Botany.* Bear Lakes, Wis, March 24, 01. B.S, Washington (Seattle), 30, M.S, 33, Ph.D, 36. Asst. and assoc. *bot,* Washington (Seattle), 30–36; *asst. prof, Humboldt State Col, 36–* Asst. prof, North. Mont. Col, 35. Phytopath. Soc. Pathology; mycology.

Lansil, Prof. C(lifford) E(arl), 48 Oakland Ave, Arlington, Mass. *Engineering.* Melrose, Mass, Dec. 19, 95. B.S, Mass. Inst. Tech, 17. Asst, *Mass. Inst. Tech,* 17–19, instr, 19–25, asst. prof. elec. measurement, 25–31, *assoc. prof. elec. eng, 31–* Elec. Eng; Eng. Educ. Engineering education methods.

Lansing, Dr. Albert I(ngram), Washington University School of Medicine, St. Louis, Mo. *Zoology.* Woodbine, N. J, March 13, 15. A.B, Pennsylvania, 37; George Washington, 37–38; Hopkins, 39; Ph.D, Indiana, 41. Instr, Indiana, 39–41; *research fellow anat, sch. med, Washington (St. Louis), 41–* Physiological aspects of senescence; cytochemical changes associated with aging; microincineration and electron microscopy.

Lansing, Prof. J(ohn) E(rnest), Hobart College, Geneva, N. Y. *Chemistry.* Brookline, Mass, June 3, 78. A.B, Harvard, 98, A.M, 00. Instr. nat. sciences, Phillips Acad, Mass, 01–05; *prof. chem, Hobart Col, 05–,* acting pres, Hobart and William Smith Cols, 41–42. Chem. Soc. Qualitative analysis.

Lantow, J(ohn) L(awrence), 505 S. Wellesley Ave, Albuquerque, N. Mex. *Animal husbandry.* Lyons, Kans, May 26, 92. B.S, Kans. State Col, 17; M.S, Illinois, 24. N. Mex. Col, 19–35, prof. animal husbandry; *chief range management, region 8, soil conservation service, U. S. Dept. Agr, 35–* Range nutrition; range mineral supplements.

Lantz, Prof. C(yrus) W(illiam), Iowa State Teachers College, Cedar Falls, Iowa. *Botany.* Brooklyn, Ill, June 27, 89. A.B, Illinois, 13, A.M, 14, fellow, 19, Ph.D, 25; Chicago, 16–17. Asst. bot, Illinois, 14–15; asst. prof. bot. and hort, Nevada, 17–21; *prof. biol, Iowa State Teachers Col, Cedar Falls, 21–* Summer, visiting lecturer, Ohio (Athens), 36. Sanit. C, 19. A.A; Bot. Soc; Genetic Asn; fel. Iowa Acad. Plant physiology; plant respiration; science education.

Lantz, Prof. H(arvey) L(ee), Iowa State College, Ames, Iowa. *Pomology.* Carlock, Ill, Sept. 24, 88. B.S, Oregon State Col, 16; M.S, Iowa State Col, 18. Teaching fellow hort, *Iowa State Col,* 16–17, asst. fruit breeding, *Exp. Sta,* 17–18, *asst. chief pomol. and research asst. prof, 18–* Pomol. Soc. (sec'y, 31–); Soc. Hort. Sci. Breeding of tree fruits, especially apples, pears, plums and peaches.

Lanwermeyer, C(harles) F(rank), 621 Keith Ave, Waukegan, Ill. *Pharmacy.* St. Louis, Mo, Dec. 7, 94. Pharm.B, St. Louis, 14. Retail pharmacy, Knight Drug Co, St. Louis, 12–17; pharmaceutical mfg, John T. Milliken Co, 17–20, chief anal. control, 20–27, control research, 27–28; anal. control, *Abbott Labs, N. Chicago,* 28–31, *pharmaceutical research, 31–* Pharmaceut. Asn; Chem. Soc. Pharmaceutical research on elixirs, ampoules, syrups, tablets and capsules; pharmaceutical incompatibilities; vitamins and vitamin preparations; package and container stability.

Lanyon, Prof. M(ary) K, 1611 Shenandoah St, Los Angeles, Calif. *Chemistry.* Flagstaff, Ariz, March 8, 82. Ph.G, Southern California, 20, Ph.C, 21, B.S, 23. Teacher, schs, Ariz, 03–12; asst. prof. pharmacy, col. pharmacy, Southern California, 20–33. Pharmacy.

Lanza, Lieut. Col. A(nthony) J(oseph), Office of the Surgeon General, War Department, Washington, D. C. *Medicine.* New York, N. Y, March 8, 84. M.D, George Washington, 06. In charge office indust. hygiene, U. S. Pub. Health Service, 07–20; chief surgeon, U. S. Bur. Mines, 14–19; Rockefeller Foundation adviser indust. hygiene, Australia, 21–24; *asst. med. director, Metropolitan Life Ins. Co, 26–; lieut. col, Med. Corps, U. S. Army, chief occupational hygiene branch, Office Surgeon Gen.* Exec. officer, Nat. Health Council, 24–26. Med. consultant, Gen. Motors Corp, 31–32. Am. Med. Asn; Pub. Health Asn; Min. and Metal. Eng. Industrial hygiene; silicosis and other occupational dust diseases of the lungs.

La Paz, Prof. Lincoln, Ohio State University, Columbus, Ohio. *Mathematics.* Wichita, Kans, Feb. 12, 97. A.B, Fairmount Col, 20; scholar, Harvard, 20–21, A.M, 22; Ph.D, Chicago, 28. Instr. *math,* Harvard, 21–22; Dartmouth Col, 22–25; nat. research fellow, 28–29; instr, Chicago, 29–30; asst. prof, *Ohio State,* 30–35, assoc. prof, 35–42, *prof, 42–; research mathematician, Office Sci. Research and Develop,* 43– A.A; Math. Soc; Math. Asn; Meteor Soc; fel. Soc. Research Meteorites (rep. to council of Am. Asn. Advancement of Sci, 39–; pres, 41–); Ohio Acad. Inverse problems and direct methods of the calculus of variations; optimum current distributions on vertical antennas; meteoritics; instrumental meteorite detection; meteoric astronomy; exterior ballistics.

Lapham, Macy H(arvey), 5515 Taft Ave, Oakland, Calif. *Soils.* Okemos, Mich, April 10, 74. B.S, Mich. State Col, 99. Sci. aid, bur. soils, *U. S. Dept. Agr,* 99–10, asst. and scientist, soil surv, in charge field parties, 10–29, *senior soil scientist and inspector west. div, bur. chem. and soils,* 29– Board Surv. and Adjustment, 25; cmts, U. S. Bur. Reclamation. A.A; Soil Sci. Soc; Forestry Asn; Am. Geog. Soc; Calif. Acad; Int. Soc. Soil Sci. Field study, classification and mapping of soils.

Laplace, Dr. Louis B(orsch), 1900 Rittenhouse Square, Philadelphia, Pa. *Physiology, Medicine.* Philadelphia, Pa, Dec. 13, 03. A.B, Georgetown, 24; M.D, Pennsylvania, 28. Asst. instr. physiol, Pennsylvania, 30–31; nat. research fellow, dept. clin. research, Univ. Col. Hosp. Med. Sch, London, 31–32; med, universitätsklinik, Leipzig, 32–33; instr. physiol, *Pennsylvania,* 33–34, med, 34–38, *assoc. cardiology, grad. sch. med, 34–; assoc. med, Jefferson Med. Col, 38–* Am. Med. Asn; Col. Physicians. Cardiovascular physiology and disease.

Laporte, Prof. Otto, University of Michigan, Ann Arbor, Mich. **5Physics.* Mainz, Germany, July 23, 02. Frankfurt, 20–21; Ph.D, Munich, 24. Int. Educ. Board fellow, 24–26; instr. *theoret. physics, Michigan,* 26–27, asst. prof, 27–35, *assoc. prof, 35–* Lecturer, Bur. Standards; Kyoto Imp. Univ. and Inst. Physical and Chem. Research, Tokyo, 28; Tokyo Imp. Univ, 33. Physical Soc. Theoretical spectroscopy; the spectra of metals; the structure of atoms; theory of the elementary particles.

Lapp, Prof. C(laude) J(erome), 426 Bayard St, Iowa City, Iowa. *Physics.* Smiths Creek, Mich, June 24, 92. A.B, Albion Col, 17; A.M, Illinois, 20, Ph.D, 22. Asst. *physics,* Illinois, 19–22; assoc, *Iowa,* 22–24, asst. prof, 24–30, *assoc. prof, 30–; director math. and physics teaching, Naval Aviation Induction Center, Iowa City, 42–* Mil. research, Bur. Standards, 18. Summer, supervisor physics teaching research, eng, science and management defense training, Pa. State Col, 41. Assoc. ed, 'Am. Physics Teacher,' 33–36. Physical Soc; Asn. Physics Teachers (chairman, test measurements cmt, 34–); Iowa Acad. Knipp tube; sound waves; high frequencies; trace left by a helical beam of electron on a plane perpendicular to its axis; L series x-rays in rare earths; radio frequency magnetic fields of large intensity; mathematics required for and mathematical disabilities of students of college physics; objective testing.

Lapp, Dr. Walter S(wartz), 724 Derstine Ave, Lansdale, Pa. *Botany, Chemistry.* Fricks, Pa, Nov. 4, 93. A.B, Pennsylvania, 18, A.M, 26, Ph.D, 42; Columbia, 26–29. Prin, high schs, *Pa,* 13–17, 19–20; *teacher chem, Northeast High Sch, Phila, 20–* U.S.A, 18–19. A.A; Chem. Soc; Bot. Soc; Franklin Inst; Pa. Acad. (v. pres, 40). Factors affecting the growth of lawn grasses.

LaQue, F(rancis) L(aurence), 96 S. Oraton Parkway, East Orange, N. J. *Metallurgical engineering.* Gananoque, Ont, Can, July 21, 04. B.Sc, Queen's (Can), 27. *Develop. and research, Int. Nickel Co, 27–* Soc. Test. Mat; Soc. Metals; Chem. Soc; Asn. Pulp and Paper Indust. Corrosion of metals.

Laquer, Prof. F(ritz) O(scar), 6605 McCallum St, Philadelphia, Pa. *Biochemistry.* Frankfurt, Germany, Sept. 15, 88. M.D, Heidelberg, 13. Asst. prof. physiol, Frankfurt, 21–34; consulting biochemist, Basle, Switzerland, 35–39; *research prof. biochem, sch. pharmacy, Temple, 40–* Pharmacotherapy consultant, Govt. Venezuela, S. Amer, 38–40. Physiol. Soc. Phila. Hormones; vitamins.

Lara, Dr. C(asimiro) B(aldoria), Culion Leper Colony, Culion, Palawan, P. I. *Medicine.* Magsingal, Ilocos Sur, P. I. M.D, Philippines, 19. Asst. res. med, Philippine Gen. Hosp, 19–22; supervising physician, *Culion Leper Colony,* 22–24, *chief physician, 24–, senior leprologist, 35–* Fellow, Mayo Foundation, 24–26. Lecturer, Philippine Health Service Conventions, 27, 29; govt. del, Cong. Far East. Asn. Trop. Med, Bangkok, 30. Leonard Wood Mem. Conf. on Leprosy, Manila, 31; mem. Leprosy Advisory Board, Governor-Gen. Office, P. I, 27–35; mem. Leprosy Cmn, P. I, 35; Nat. Research Council, P. I, 34– Fel. Am. Med. Asn; Far East. Asn. Trop. Med; P. I. Med. Asn; Culion Med. Soc. (pres, 24, 27); Int. Leprosy Asn. Clinical investigation and treatment of leprosy.

Lara, Dr. H(ilario), University of the Philippines, Manila, P. I. *Public health.* Imus, Cavite, P. I, Jan. 15, 94. M.D, Philippines, 19; M.P.H, Hopkins, 23, Dr.P.H, 24. Surgeon and dist. health officer, 20–22, senior surgeon, 22–24, asst. to director health and sec'y, retirement and pension board, 25; assoc. prof. hygiene and prev. med. and head dept, col. med, *Philippines,* 25–28, sec'y, sch. hygiene and pub. health, 27–37, assoc. prof. hygiene and prev. med. and head dept. hygiene and parasitol, 28–31, *prof. hygiene and prev. med. and head dept. epidemiol, statist. and pub. health admin, sch. hygiene and pub. health, 31–,* acting director, 31–32, 34–35. Fellow, int health board, Rockefeller Foundation, 22–24; consulting epidemiologist, Bur. Health, P. I, 37–; undersec'y dept. health and pub. welfare, P. I, 41– P. I. del, Pan-Pacific Science Cong, Tokyo, Japan, 26. Fel. Am. Geog. Soc; Philippine Soc. Adv. Research; Philippine Pub. Health Asn. (sec'y-treas. 32, pres, 34; managing ed, 'Philippine Jour. Pub. Health,' 34–37); Philippine Sci. Soc. (v. pres, 31, pres, 32); Philippine Soc. Parasitol; Philippine Med. Asn. Epidemiology.

Larew, Prof. Gillie A(ldah), Randolph-Macon Woman's College, Lynchburg, Va. *Mathematics.* Pulaski Co, Va, July 28, 82. A.B, Randolph-Macon Woman's Col, 03; A.M, Chicago, 11, fellow, 15–16, Ph.D, 16. Instr. *math, Randolph Macon Woman's Col,* 03–09, adj. prof, 09–18, assoc. prof, 18–21, *prof, 21–, head dept, 36–* A.A; Math. Soc; Math. Asn Va. Acad. Calculus of variations.

Large, Thomas, R.F.D. 5, N. 2906 Center (Orchard Ave), Spokane, Wash. *Zoology, Limnology, Geology.* Mt. Etna

Ind, June 21, 71. A.B, Indiana, 97; Illinois, 99–02; fellow, Chicago, 03. Teacher, schs, Ind, Ill, Idaho and Wash, 98–41; *retired*. U. S. Fish Cmn. Surv, Lake Maxinkuckee, 99; ichthyol, Ill. Nat. Hist. Surv, 99–02; farmer, Idaho, 09–20; field asst. and collaborator, bur. plant indust, U. S. Dept. Agr, 24–26. Summers, instr, Chicago, 03; Sigma Xi exped, Oregon, 31. A.A; Limnol. Soc; Northwest Sci. Asn. (councilor, 23–30, trustee, 32–, pres, 34–, ed, 'Northwest Sci,' 35–37). Glaciation, drainage and lava flows in northeastern Washington and northern Idaho; natural history and glaciation in Wallowa Mountains, Oregon.

Larimore, Dr. J(oseph) W(illiam), 3720 Washington Blvd, St. Louis, Mo. *Internal medicine*. Greenfield, Ind, April 5, 87. A.B, DePauw, 08; M.D, Washington (St. Louis), 13. Intern, Univ. Hosp, *Washington (St. Louis)*, 13–14, instr. *clin. med, sch. med*, 15–25, *assoc. prof*, 25– Physician, Washington (St. Louis) Univ. Dispensary, and asst. physician, Barnes Hosp, 15–; gastro-enterologist, Barnard Free Skin and Cancer Hosp, 22–28; mem. visiting staff, Robert Koch Hosp, 23–34; asst. roentgenologist, Barnes Hosp. and sch. med, Washington (St. Louis), 25–; gastro-enterologist, Mo. Pacific Hosp, 28–; mem. staff, St. Luke's Hosp, 30– M.C, 17–19, capt. A.A; Am. Med. Asn; fel. Col. Physicians; Roentgen Ray Soc; Gastro-Enterol. Asn; Radiol. Soc. N. Amer; South. Med. Asn; St. Louis Soc. Int. Med; St. Louis Acad. Gastro-intestinal roentgenology; diseases of the human alimentary tract.

Larisey, Prof. M(ary) M(axine), Judson College, Marion, Ala. *Botany*. Terre Haute, Ind, July 1, 09. A.B, Washington (St. Louis), 32, M.S, 34, Ph.D, 39. Asst. bot, Henry Shaw sch. bot, Washington (St. Louis), 34–36, instr, 36–38; Wellesley Col, 39–40; *asst. prof. biol, Judson Col, 40–* Soc. Plant Taxon; Bot. Soc; Torrey Bot. Club; Sullivant Moss Soc. Taxonomy of flowering plants; Baptisia; revision of North American species of Thermopsis.

Larkey, Dr. Sanford V(incent), 1900 E. Monument St, Baltimore, Md. *Medicine*. Oakland, Calif, May 11, 98. A.B, California, 21, M.D, 25; B.A, Oxford, 28, M.A, 31. Asst. prof. med. hist, med. sch, California, 30–35; *librarian, William H. Welch med. library, and lecturer hist. med, Hopkins, 35–* Mem. cmt. information, div. med. sciences, Nat. Research Council, 40– Hist. Sci. Soc; Med. Library Asn. History of medicine.

Lark-Horovitz, Prof. Karl, Purdue University, Lafayette, Ind. *[7]*Physics, Physical chemistry*. Vienna, Austria, July 20, 93. Ph.D, Vienna, 19. Vienna, 19–25; Int. Research Council fellow, Toronto, 25–26; Chicago, 26; Rockefeller Inst, 27; Stanford, 27–28; *prof. physics, Purdue, 28–, director physical lab, 29–, head dept. physics, 32–* Lecturer, Purdue, 28. A.A; Physical Soc; Chem. Soc; Ceramic Soc; German Asn. Adv. Sci; Deuts. Physik. Gesell; Physik. Chem. Gesell; Gesell. für Tech. Physik; Bunsen Gesell. Electron diffraction; electrification of interfaces; electromotive force of dielectrics; surface layers; adsorption; x-rays and crystal structures; physiological optics; physics of glass; nuclear physics; radioactive tracers.

Larkin, Dr. Charles R(ozier), Johns Hopkins University, Baltimore, Md. *Physics*. Washington, D. C, 99. A.B, Virginia, 23, A.M, 25, Ph.D, 29. Instr. physics, Virginia, 22–23, math, 23–28, research assoc. physics, 28–29; asst. prof, Lehigh, 29–37, assoc. prof, 37–42; *physicist, Office Sci. Research and Develop, radiation lab, Hopkins, 42–* Physical Soc; Optical Soc; Seismol. Soc. Kerr effect; electro-optics.

Larkin, Prof. F(red) V(iall), Lehigh University, Bethlehem, Pa. *Mechanical engineering*. Verona, Wis, April 2, 83. B.S, Wisconsin, 06, M.E, 15. Asst. and supt, hydroelec. work, 06–09; Barge Canal contract, 09–11; asst. engineer, Terry and Tench Co, New York, 11–12; instr. mech. eng, Lehigh, 12–13, asst. prof, 13–15; asst. gen. supt, indust. plant, 15–19; *prof. mech. eng, Lehigh, 19–* Chairman, Watt Bicentenary Cmt, 36. Mech. Eng. (publications cmt, 26–31, chairman, 31); Management Asn; Eng. Educ. (councilor, 31–, v. pres, 33); Eng. Club Lehigh Valley; Newcomen Soc. England. Engineering projects.

Larkin, Sister Julitta, Trinity College, Washington, D. C. *Physiology*. Springfield, Mass, Sept. 20, 87. A.B, Trinity Col. (D. C), 17, M.S, 19; Ph.D, Catholic Univ, 27. Instr. *biol, Trinity Col. (D. C)*, 18–20, *head dept, 20–* Physiology; absorption.

Larkum, Dr. N(ewton) W(heeler), Army Medical School, Washington, D. C. *Immunology, Pathology*. Hartford, Conn, July 4, 97. B.S, Bates Col, 20; Ph.D, Yale, 25; M.D, Virginia, 41. Asst. bacter. and path, Yale, 22–25, instr. bacter, 25–26; immunologist, State Dept. Health, Mich, 26–33; pres, N. W. Larkum Clin. Lab, 33–38; Sanit. Corps, *U. S. Army, 41, lieut. col, Med. Corps, 41–* Immunologist, Upjohn Co, 33–37; prof, Olivet Col. (Mich), 36–38. Lecturer, Mich. State Col. Pathologist, Edward W. Sparrow Hosp. Pres, Conf. Bacteriologists and Pathologists, Mich, Ohio and Ind, 28–29. Fel. Pub. Health Asn; Soc. Exp. Biol; Mich. Path. Soc; Mich. Acad. Bacteriophage reactions and therapy.

Larmer, F(inley) G(eorge), U. S. Department of Agriculture, Beltsville, Md. *Pathology*. Albany, Wis, Sept. 29, 02. B.S, Colo. Agr. Col, 26; M.S, Mich. State Col, 28. Asst, *div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 25–28, asst. pathologist, 28–* Asst, Mich. State Col, 26–28. Phytopath. Soc; Mich. Acad. Diseases of the sugar beet.

Larmour, Prof. R(alph) K(enneth), 909 Temperance St, Saskatoon, Sask, Can. *Chemistry*. Morrisburg, Ont, 94. B.Sc, Saskatchewan, 23, M.Sc, 25; Shevlin fellow, Minnesota, 25–27, Ph.D, 27. Asst. prof. *chem, Saskatchewan, 27–35, prof, 35–* Asn. Cereal Chemists; Can. Soc. Tech. Agr; West. Can. Soc. Agron. Cereal chemistry; chemistry of plant proteins.

Larocque, Dr. G(erard) L(ouis), 220 E. 42nd St, New York, N. Y. *Physical chemistry*. Ottawa, Ont, Can, May 10, 11. B.Ch.E, McGill, 32, M.Sc, 33, Ph.D, 35. Instr, McGill, 33; asst, Forest Products Labs, Can, 35; Can. Pulp and Paper Inst, 36; tech. director, Rolland Paper Co, 38; technician, News Syndicate Co, 41; *asst. to director-gen, chem. and explosives branch, Dept. Munitions and Supply, Montreal, 42–* Tech. Asn. Pulp and Paper Indust; Can. Pulp and Paper Asn. (chairman cmt. physical and chem. standards, 41–). Physical chemistry of pulp and paper; solubility of lime in water; mechanism of the alkaline delignification of wood; absorption of water-vapor by paper; printability of paper.

Larose, Dr. Paul, 294 Manor Road, Rockcliffe Park, Ont, Can. *Chemistry*. Montreal, Que, April 26, 98. B.Sc, McGill, 20, M.Sc, 23, Ph.D, 25. Chief chemist, North. Elec. Co, 20–22; prof. physical chem. and physics, Laval, 25–30; *assoc. research chemist, Nat. Research Council Can, 30–* Fel. Can. Inst. Chem; Can. Asn. Textile Colourists and Chem; Textile Soc. Can; Textile Inst. Gt. Britain; Soc. Chem. Indust. Gt. Britain (chairman Ottawa sect, 40). Diffusion of gases through metals; wool; textiles.

Larrabee, Prof. Austin P(ark), Yankton College, Yankton, S. Dak. *Ornithology, Ecology*. Gardiner, Maine, Jan. 26, 78. A.B, Bowdoin Col, 01; A.M, Harvard, 03; Ph.D, Iowa, 27. Asst. biol, Bowdoin Col, 01–02; zool, Harvard, 03–04; teacher, high sch, Utah and Calif, 04–09; *prof. biol*, Fairmount Col, 09–16; *Yankton Col, 16–* Instr, Iowa, 22–23; visiting prof, Carleton Col, 26–27. A.A; Ornith. Union; Audubon Soc; Wilson Ornith. Club; S. Dak. Acad. (pres, 26). Genetics; ecology of fishes.

Larrabee, Dr. Martin G(lover), University of Pennsylvania, Philadelphia, Pa. *Biophysics*. Boston, Mass, Jan. 25, 10. A.B, Harvard, 32; fellow, Pennsylvania, 34–37, Ph.D, 37. Fellow med. physics, Pennsylvania, 37–40; asst. prof. physiol, med. col, Cornell, 40–41; *fellow med. physics, Johnson Foundation, Pennsylvania, 41–* Physiol. Soc. Neurophysiology of circulation and respiration; synaptic mechanisms in sympathetic ganglia.

Larrick, Dr. Lewis, B. F. Goodrich Co, Akron, Ohio. *Physics*. Enid, Okla, Sept. 1, 05. A.B, Phillips, 26; fellow, Washington (Seattle), 26–29, M.S, 29; Ph.D, Iowa, 33. Asst, Iowa, 29–32; *research physicist, B. F. Goodrich Co, 32–* Physical Soc. X-rays; polarization of resonance radiation and hyperfine structure; physical properties of rubber products; textile research.

Larrimer, Dr. W(alter) H(arrison), U. S. Department of Agriculture, Washington, D. C. *Forestry*. Bloomingburg, Ohio, Feb. 23, 89. B.S, Ohio State, 13, Ph.D, 25; M.S, Purdue, 21. Sci. asst, bur. entom, U. S. Dept. Agr, 13–19, assoc. entomologist in charge, cent. states lab, 19–25, prin. entomologist, in charge cereal and forage insect investigations, 25–35, *staff asst. forest research, U. S. Forest Service, 35–* Capt, F.A, 17–19, F.A.R, 19– A.A; Entom. Soc; Asn. Econ. Entom; Soc. Foresters. Cereal and forage crop insects; ecology; biometrical methods in research; research administration.

Larrison, Dr. M(illard) S(amuel), 1329 Arrott St, Philadelphia, Pa. *Organic chemistry.* Oak Hill, W. Va, May 27, 05. A.B, West Virginia, 28; fellow, Purdue, 39–41, Ph.D, 42. Chemist, Evans Lead Co, 28; du Pont Ammonia Corp, 29; asst, Pa. State Col, 29–30; Mass. Inst. Tech, 30–31; *research chemist,* Reilly Tar and Chem. Corp, 31–38; U. S. Gypsum Co, 41–42; *Barrett div, Allied Chem. and Dye Corp, 42–* Chem. Soc. Bituminous materials; hydrogenation processes; nitroparaffin reactions; pharmaceuticals.

Larrivee, Dr. Jules A(lphonse), U. S. Naval Observatory, Washington, D. C. *Astronomy, Mathematics.* Fall River, Mass, Aug. 5, 09. B.S, Mass. Inst. Tech, 30; A.M, George Washington, 35; Ph.D, Catholic Univ, 42. Research physicist, Sprague Specialties Co, 30; junior astronomer, *Nautical Almanac Office, U. S. Naval Observatory,* 31–35, asst. astronomer, 35–39, *assoc. astronomer, 39–* Math. Soc; Math. Asn; Astron. Soc. Fundamental astronomy; star catalogs; algebraic geometry.

Larsell, Prof. O(lof), University of Oregon Medical School, Portland, Oregon. ***⁶***Anatomy.* Rättvik, Sweden, March 13, 86. B.S, Linfield Col, 10, Sc.D, 37; fellow, Northwestern, 13–14, A.M, 14, Ph.D, 18; Chicago, 14–15. Prof. biol, Linfield Col, 10–15; instr. zool, Northwestern, 15–18; asst. prof. anat, Wisconsin, 18–20; assoc. prof. zool, Northwestern, 20–21; *prof. anat, med. sch, Oregon, 21–; dean grad. div, Oregon State System Higher Educ, 38–* Visiting prof, Northwestern, 26; lecturer, California, 31–32; guest, Wistar Inst, 29, 34, 35. Ed. board, 'Jour. Comp. Neur.' Shared with R. A. Fenton Casselberry prize, Laryngol. Asn, 28. A.A; Asn. Anat. (exec. cmt, 38–42); Soc. Exp. Biol; Hist. Sci. Soc. Embryology and anatomy of the avian lung; the nervus terminalis in vertebrates; comparative anatomy of the cerebellum; innervation of the lung; experimental and comparative neurology; medical history and biography; paranasal sinuses.

Larsen, B(ernard) M(arvin), U. S. Steel Corp, Kearny, N. J. *Physical chemistry.* Woodford, Wis, July 29, 99. B.S, Wisconsin, 21; M.S, Washington (Seattle), 22. Asst. metallurgist, U. S. Bur. Mines, 23–28; *physical chemist, research lab, U. S. Steel Corp, 29–* Min. and Metal. Eng. Physical chemistry of steel making reactions; low temperature reduction of iron ores; refractories service and temperature measurements in open-hearth furnaces; inclusions and gases in steel; determination of oxygen in steel.

Larsen, Dr. C(arl) Donald, 4419 Maple Ave, Bethesda, Md. *Biochemistry.* Kalamazoo, Mich, Aug. 29, 05. B.S, Kalamazoo Col, 30, M.S, 31; Ph.D, Rochester, 38. Chemist, Upjohn Co, 31–36; research assoc. sterols and fats, sch. med, Rochester, 36–39; *research fellow biochem, nat. cancer inst, U. S. Pub. Health Service, 39–* Chem. Soc; Asn. Cancer Research; Soc. Exp. Biol. Sterols; sterols, fats and nutrition in cancer.

Larsen, Dean C(hristian), South Dakota State College, Brookings, S. Dak. *Dairy husbandry.* Odense, Denmark, Aug. 4, 74. B.S, Iowa State Col, 02, M.S, 04. Instr. dairy husbandry, Mass. Col, 01–02; asst. prof. and assoc. prof, Iowa State Col, 02–06; prof, Utah Col, 06–07; prof. and director exten, S. Dak. State Col, 07–20; director dairy marketing dept, Ill. Agr. Asn, 21–23; *dean agr, S. Dak. State Col, 23–* Ed, dairy dept, 'Dakota Farmer'; former ed, Iowa dept, 'Dairy Record.' Chairman, S. Dak. produce cmt, U. S. Food Admin, 18. Dairy Sci. Asn. Dairy technology; butter manufacture; farm dairying; effects of water and alkali water on nutrition, secretion and the physiology of milk; production hereditary through the sire; chemistry of butter.

Larsen, Dr. Edwin M(erritt), University of Wisconsin, Madison, Wis. *Inorganic chemistry.* Milwaukee, Wis, July 12, 15. B.S, Wisconsin, 37; Ph.D, Ohio State, 42. Asst, Rohm and Haas, 37–38; asst. and special asst. *chem,* Ohio State, 38–42; *instr, Wisconsin, 42–* Chem. Soc. Chemistry of zirconium and hafnium.

Larsen, Dr. E(lmer) C(onrad), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physical chemistry.* Owen, Wis, Oct. 23, 12. A.B, St. Olaf Col, 34; M.S, Mont. Sch. Mines, 36; Dr. der technischen Wissenschaften, Tech. Hochschule Stuttgart, 38; Ph.D, Wisconsin, 39. Instr. chem, Mont. Sch. Mines, 34–36; *research chemist, Bell Tel. Labs, 39–* Chem. Soc. Electrochemistry; catalysis; erosion of electrical contacts.

Larsen, Prof. Esper S(ignius), Harvard University, Cambridge, Mass. ***⁴***Geology.* Astoria, Oregon, March 14, 79. B S, California, 06, Ph.D, 18. Instr. geol. and miner, California, 06–07; asst. petrographer, geophys. lab, Carnegie Institution, 07–09; asst. geologist, U. S. Geol. Surv, 09–14, geologist, 14, in charge petrol. sect, 18–23; *prof. petrog, Harvard, 23–* Acting assoc. prof, California, 14–15. Geol. Soc; Miner. Soc. (pres, 28); Min. and Metal. Eng; Am. Acad; Miner. Soc. Gt. Britain. Petrology; geology of southwestern Colorado; optical mineralogy; tungsten deposits.

Larsen, Dr. Esper S(ignius) 3d, 8501 Greenwood Ave, Takoma Park, Md. *Mineralogy.* Los Angeles, Calif, Oct. 10, 12. B.S, Harvard, 34, A.M, 35, Ph.D, 40. Asst. petrog, Harvard, 35–37, ore microscopy, 37–40; petrographer, Saranac Lab, 41–42; *junior geologist, U. S. Geol. Surv, 42–* Miner. Soc; Soc. X-ray and Electron Diffraction. Mineralogy and paragenesis; mineralogy related to industrial dust hazards.

Larsen, Dr. Harold D(aniel), University of New Mexico, Albuquerque, N. Mex. *Mathematics.* Warren, Pa, Dec. 7, 04. A.B, Michigan, 27, fellow, 27–28, A.M, 28; Ph.D, Wisconsin, 36. Instr. *math,* Wisconsin, 28–35; *New Mexico,* 35–38, *asst. prof, 38–* Math. Asn. (sec'y southwest. sect, 38–); Inst. Math. Statist. Mathematical statistics.

Larsen, Harold T(heodore), 48 Rockcrest Road, Manhasset, N. Y. *Civil engineering.* Portland, Maine, Sept. 20, 96. B.S, Illinois, 23, C.E, 28. Rodman, Daboll and Crandall, Conn, 15–16; chairman, N. Y, N. H. and H. R. R, 16–17, leveller and field inspector, 17–18; rodman, Ill. Cent. R. R, 23, building inspector, 23–25, instrumentman, 25–26, draftsman, 26; instr. surveying, Illinois, 26–27; asst. tech. ed, *Am. Soc. Civil Eng,* 27–30, *ed, 'Proc,' 30–* Statistician, health service, Univ. Ill, 20–25. Summer, inspector concrete streets, Ashkum, Ill, 22. Trustee, schs, Manhasset, N. Y, 40–43. M.C, 18–19, sergt. Soc. Mil. Eng; Standards Asn. (steering cmt. standard letter symbols, 36–); Civil Eng. Public health statistics.

Larsen, Prof. J(ullus) A(nsgar), Iowa State College, Ames, Iowa. *Forestry.* Drammen, Norway, 77. A.B, Yale, 08, M.F, 10; Ph.D, Iowa State Col, 36. With U. S. Forest Service, 10–23, asst. silviculturist, 24; *asst. prof. forestry, Iowa State Col, 24–* Soc. Foresters; Ecol. Soc; Iowa Acad. Silvics; ecology; wood technology; forest nurseries; soil erosion.

Larsen, Prof. Junius, 1037 S. Fourth, Pocatello, Idaho. *Chemistry.* Nampa, Idaho, March 11, 05. B.S, Idaho, 28; Ph.D, Colorado, 41. *Assoc. prof. chem, south. branch, Idaho.* Chem. Soc. Chemical microscopy; optical crystallography of amino-acid derivatives.

Larsen, Prof. K(arl) D(avis), University of Maine, Orono, Maine. *Physics.* Bangor, Maine, Feb. 3, 08. A.B, Maine, 29, A.M, 30; Ph.D, Pa. State Col, 34. Asst, Maine, 29–30; Pa. State Col, 30–34; instr. *physics, Maine,* 34–37, *asst. prof, 37–; U. S. Naval Res, 43–, lieut.* Spectroscopy; photoelasticity.

Larsen, Dr. Louis Melvin, 2211 Elston Ave, Chicago, Ill. *Chemistry.* Santa Fe, N. Mex, Jan. 28, 92. Ph.D, Chicago, 21. Ault and Wiborg Co, 19–29; *research chemist, Int. Printing Ink Div, Interchem. Corp, 29–* Chem. Soc. Organic chemistry; inks; varnishes; driers; pigments.

Larsen, Dr. M(erwin) J(ohn), Michigan College of Mining and Technology, Houghton, Mich. *Electrical engineering.* Spencer, Iowa, Nov. 20, 09. Ph.D, Iowa, 37. Instr. *elec. eng, Mich. Col. Min. and Tech,* 37–40, *asst. prof, 40–* Research and develop, Cent. Commercial Co, Chicago, Ill, 40– Radio Eng; Eng. Educ. Electrostatic generators and applications in field of hearing; electronic musical instruments; communication.

Larsen, Dr. R(obert) G(ordon), 905 Ventura Ave, Berkeley, Calif. *Organic chemistry.* Ephraim, Utah, May 5, 09. A.B, Utah, 31, A.M, 32; Ph.D, Harvard, 35. Teaching asst, Utah, 31–32; mem. staff, Mass. Inst. Tech, 35–37; *research chemist in charge lubricating oil dept, Shell Develop. Co, 37–* Mem. div. elec. insulating materials, Nat. Research Council, 35–37. Chem. Soc. Addition of Grignard reagent to olefins; addition reactions of unsaturated keto-sulfones; deterioration of insulating oils; oxidation of pure hydrocarbons; specific dispersion of hydrocarbons; catalysis of oil oxidation; bearing corrosion.

Larsen, Dr. Robert P(eter), University of Illinois, Urbana, Ill. *Clinical psychology.* Spencer, Iowa, May 29, 09. A.B, Dana Col, 33; Northeast. State Teachers Col, 33–34; A.M, Iowa, 36, Ph.D, 38. Prin, high sch, Iowa, 33–35; director reading clinic, Iowa, 37–38; instr. *psychol, Illinois,* 38–39, *assoc, 39–, psychometrist, 38–* Semester grade determination

for first year college German; factor analysis of language tests; prediction of grades in foreign language study; reading training as applied to rhetoric classes.

Larsen, Thorstein, Johns Hopkins University, Baltimore, Md. *Electrophysics.* Skien, Norway, April 27, 97. Dipl. Ing, Norway Inst. Tech, 23; A.M, Columbia, 32. Asst, research bur, Brooklyn Edison Co, Inc, 25–39; research assoc, Consolidated Edison Co, New York, Inc, 39–42; *assoc. elec. eng, Hopkins, 42–* Mem. conf. elec. insulation, Nat. Research Council, 33–, sec'y, 39– A.A; Physical Soc; Elec. Eng; Math. Soc. Dielectrics; electric breakdown of liquid dielectrics; elevated temperature deterioration of impregnated paper insulation.

Larsen, Dr. W(illiam) Eugene, Box 250, Waynesboro, Va. *Chemistry.* Salt Lake City, Utah, Nov. 14, 06. B.S, Utah, 29, M.S, 31; Ph.D, Purdue, 35. Asst, Utah, 29–31; Purdue, 31–35; *research chemist, du Pont Rayon Co, 35–* Vapor pressures of liquid ammonia solutions; the activities of the ammonium salts in liquid ammonia solutions.

Larsh, Dr. Howard W(illiam), University of Oklahoma, Norman, Okla. *Plant pathology, Mycology.* East St. Louis, Ill, May 20, 14. A.B, McKendree Col, 36; Washington (St. Louis), 36–37; M.S, Illinois, 38, Ph.D, 41. *Instr. bot, Oklahoma, 41–* Summer, research, Exp. Sta, Delaware, 42. A.A; Bot. Soc; Phytopath. Soc; Okla. Acad; Ill. Acad. Vegetable and fruit diseases and their control.

Larsinos, George J, 710 Crescent St, Brockton, Mass. *Agronomy.* Island Samos, 94. B.S, Mass. Col, 26, M.S, 28. Research agronomist, Mass. Col, 29–30, *junior chemist, Exp. Sta,* 30–31, *Mass. State Col, 31–* Plant nutrition; water cultures under sterile and semi-sterile conditions; aqua ammonia as a nitrogen fertilizer; repair of soil filter tubes; a water culture technique for studies in tobacco nutrition.

Larson, Dr. Alfred T(heodore), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Montevideo, Minn, July 4, 84. B.S, Carleton Col, 08, M.S, 12; Ph.D, Harvard, 17. Instr. chem, Harvard, 14–17; asst. prof, Carleton Col, 17–19; catalytical chemist, Ordnance Dept, U.S.A, 19–20; fixed nitrogen research lab, U. S. Dept. Agr, 20–24; *asst. chem. director, ammonia dept, E. I. du Pont de Nemours and Co, 24–* Asst. gas chemist, U. S. Bur. Mines, 18, lieut, N. A, 18, capt, C.W.S, 18–19. Chem. Soc. Inorganic complexes; electrodes; carbon monoxide; synthetic ammonia.

Larson, Prof. A(lvin) H(alver), 1551 Grantham St, St. Paul, Minn. *Botany.* Henderson, Minn, May 7, 86. B.S, Minnesota, 15. Asst. *agr. bot, Minnesota,* 17–20, instr, 20–21, *asst. prof, 21–, in charge sect, 26–* Director, State Seed Lab, Minn, 21–26. Soc. Plant Physiol. (exec. cmt, 30). Effects of light in germination; dormancy in seeds of cereals.

Larson, Dr. Carl A(ugust), Newell, S. Dak. *Soils.* Oak Point, Wash, Aug. 18, 02. B.S, State Col. Wash, 27, fellow, 28–31, M.S, 29, Ph.D, 31. Agent, irrig. branch exp. sta, div. west. irrig. agr, bur. plant indust, *U. S. Dept. Agr,* 31–38, assoc. agronomist, 38–42, *agronomist and supt. Belle Fourche field sta, bur. plant indust, soils and agr. eng, 42–* A.A; Soc. Agron; West. Soc. Soil Sci. Irrigation; orchard fertilization; soil salinity; crop rotations.

Larson, Dr. Carl L(eonard), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Bacteriology.* Butte, Mont, Jan. 28, 09. B.S, Mont. State Col, 32; M.B, Minnesota, 38, M.D, 39; nat. research fellow, Rochester, 38–39. Research assoc, bur. biol. surv, U. S. Dept. Agr, 32–38; asst. prof. bacter, George Washington, 39; *asst. surgeon, div. infectious diseases, nat. inst. health, U. S. Pub. Health Service, 39–* Soc. Trop. Med. Leptospirosis; rat-bite fever; relapsing fever; tularemia.

Larson, Dr. C(arl) W(illiam), Bryant and Chapman, 255 Homestead Ave, Hartford, Conn. *Dairying.* St. Ansgar, Iowa, May 29, 81. B.S. Iowa State Col, 06; M.S, Pa. State Col, 11; Ph.D, Columbia, 16. From instr. to prof. dairying in charge dept, Pa. State Col, 07–15; asst. prof. agr. and agr. econ, Columbia, 16–17; dairy expert, dairy div, U. S. Dept. Agr, 17–19, asst. chief. 19–21, chief, 21–24, bur. dairy indust, 24–28; director. Nat. Dairy Council, 28–29; managing director west. N. Y. div, Gen. Ice Cream Corp, 29–36; pres, Whiting Milk Co. and Bushway-Whiting Ice Cream Co, Boston, 36–41; *managing director, Conn. milk plants, Gen. Ice Cream Corp, 42–* Del. Int. Dairy Cong, Sweden, 11, London, 28. A.A; Dairy Sci. Asn. (sec'y, 14–16). Economics of dairying; production, distribution and manufacture.

Larson, Dr. C(larence) E(dward), College of the Pacific, Stockton, Calif. *Biochemistry.* Cloquet, Minn, Sept. 20, 09. B.S, Minnesota, 32; Nat. Tuber. Asn. fellow, Mt. Zion Research Lab, 36–37; Ph.D, California, 37. *Chairman dept. chem, Col. Pacific, 37–* Chem. Soc; Soc. Exp. Biol. Physical chemistry of proteins; colloids; enzymes; analytical methods; radioactive tracers.

Larson, Prof. Edward, Temple University Medical School, Philadelphia, Pa. *Pharmacology.* Nekoma, Ill, Dec. 8, 97. B.S, Illinois, 20; M.S, Iowa, 21; Ph.D, Chicago, 29. Prof. chem, sch. pharmacy, Western Reserve, 21–23; instr, col. med, Illinois, 24–26; asst. prof. physiol. and pharmacol, Alabama, 26–30; *pharmacol, Temple,* 30–40, *assoc. prof, 40–* Ed. staff, 'Endocrinology,' 27–35, collaborator, 36– A.A; Physiol. Soc; Soc. Exp. Biol; Pharmacol. Asn; assoc. fel. Am. Med. Asn; Asn. Study Int. Secretions. Endocrinology; chemistry and physiology of parathyroids and of extracts from the posterior lobe of the pituitary gland.

Larson, Prof. G(ustus) L(udwig), 1213 Sweetbriar Road, Shorewood Hills, Madison, Wis. *Mechanical engineering.* Werpinge, Lund, Sweden, June 30, 81. B.S, Idaho, 07; M.E, Wisconsin, 15. Test engineer, Gen. Elec. Co, Schenectady, 07–09; prof. mech. eng, Idaho, 09–14; asst. prof. *steam and gas eng, Wisconsin,* 14–15, assoc. prof, 15–20, *prof, 20–, chairman dept. mech. eng, 20–* Consulting mech. engineer, 15– Mech. Eng; Heat. and Vent. Eng. (pres, Wis. sect, 27, nat. councilor, chairman, cmt. on research, nat. pres, 36); Eng. Educ; Nat. Asn. Power Eng; Eng. Soc. Wis. (pres, 33). Recirculation of washed air; fuel conservation by the economical combustion of soft coal; utility demands of a modern hospital; air infiltration through various types of brick wall and wood wall construction; economics of good construction.

Larson, Dr. H(ardy) W(illiam), 1 Madison Ave, New York, N. Y. *Organic chemistry.* Des Moines, Iowa, April 26, 99. B.S, Drake, 21; Roberts fellow, Columbia, 23–25, A.M, 24, Ph.D, 27. Instr, Des Moines, 21–23; asst. chem, Columbia, 25–26; instr, Milwaukee Vocational Sch, exten, Wisconsin, 26–29; *research chemist, biochem. labs, Metropolitan Life Ins. Co, 29–* Chem. Soc; Soc. Biol. Chem; Iowa Acad. Synthetic organic chemistry; shale oils; kinetics of enzyme action; carbohydrates; urea; allantoin; uranium nephritis; pentose, heptose and sugar alcohol metabolism.

Larson, Dr. H(arold) W(illiam) E(manuel), 102 S. Howard St, Moscow, Idaho. *Soils.* Stanton, Iowa, Jan. 22, 03. B.S, Iowa State Col, 26; fellow, Oregon State Col, 26–28, M.S, 28; fellow, Wisconsin, 31–32, legislative scholar, 32–34, Ph.D, 34. Asst. soils, Saskatchewan, 28–31; *exten. soil specialist, Idaho, 35–* Soc. Agron; Soil Sci. Soc. Soil fertility; fertilizer placement; effect of heat on the availability of phosphorus in rock phosphate; kinds of chlorosis.

Larson, Dr. John Augustus, Psychopathic Clinic, Recorder's Court, Detroit, Mich. *Physiology, Psychology.* Shelburne, N. S, Can, Dec. 11, 92. A.B, Boston, 14, A.M, 15; Ph.D, California, 20; M.D, Rush, Chicago, 28; Harvard. Asst. biol, Boston, 14–15; instr. physiol, pharmacol. and dietetics, sch. med, Southern California, 15–16; research finger-prints and deception tests, Police Dept, Berkeley, 20–23; psychol. and psychiat, Inst. Juvenile Research, 23–27; intern, Hopkins Hosp, 27–28, asst. res, 28–29, instr. psychiat, sch. med, Hopkins, 28–29; assoc. col. med, Iowa, 29–30; asst. state criminologist, Ill, 30–36; research psychiatrist, Inst. Juvenile Research, Chicago, 30–36; asst. clin. prof. psychiat, Rush Med. Col, Chicago, 30–36; *asst. director psychopathic clinic, Recorder's Court, 36–* Asst, California; instr, Mills Col. Attending psychiatrist, Iowa Psychopath. Hosp, 29–30; Cent. Free Dispensary; Mandel Clinic, 31–36; supervisor electro and insulin shock therapy, Long Island Home, Amityville. Soc. Exp. Biol. Psychiatry; neuropsychiatry; criminology; biology; heredity in relation to finger-prints; single finger-print system; endocrine glands; conduction of impulses in the spinal cord; deception tests.

Larson, Prof. K(arl) G(ottfrid), Augustana College, Rock Island, Ill. *Physics.* Sweden, Nov. 5, 83. A.B, Augustana Col, 15; A.M, Wisconsin, 29. Assoc. prof. *physics, Augustana Col,* 31–43, *prof, 43–* A.A; Physical Soc; Asn. Physics Teachers. Formation of singe crystals; fusion method.

Larson, Dr. Leslie L, 3444 Erdman Ave, Baltimore, Md. *Chemistry.* Preston, Idaho, Oct. 18, 10. B.S, Idaho, 34, M.S, 36; Ph.D, Lawrence Col, 40. Research chemist, Kimberly-Clark Corp; *assoc. chemist, Chem. Warfare Service, U. S.*

Army, Edgewood Arsenal. Utilization of sawmill waste products; bleaching of sulfite wood pulp and groundwood; machine coating of paper; protective clothing for gaseous warfare.

Larson, Prof. Mary E, 1225 Kentucky St, Lawrence, Kans. *Zoology.* Assaria, Kans, April 1, 94. A.B, Kansas, 19, A.M, 22; Upsala, 28-29. Instr. *zool, Kansas, 22-27, asst. prof, 27–* A.A; Micros. Soc; Soc. Parasitol. Parasitology; endocrinology; protozoan parasites.

Larson, Dr. N(oal) P, South Dakota State College, Brookings, S. Dak. *Economic entomology.* Castle Dale, Utah, Sept. 17, 12. B.S, Oregon State Col, 34, M.S, 36; Ph.D, Iowa State Col, 41. Agent, grasshopper control, bur. entom. and plant quarantine, U. S. Dept. Agr, 38; *asst. prof. entom. and zool, S. Dak. State Col, and asst. entom, Exp. Sta, 38–* Asn. Econ. Entom; Entom. Soc. Amer. Insect physiology; olfactory responses and toxicity to houseflies; studies of Meloidae.

Larson, Prof. Olga, Florida State College for Women, Tallahassee, Fla. *Mathematics.* Apopka, Fla, Oct. 5, 91. A.M, Missouri, 20, fellow, 23-24. Instr. *math, Fla. State Col. for Women,* 15-19, 20-21, asst. prof, 21-23, 24-40, *assoc. prof, 41–* Math. Asn; Fla. Acad. Indices of correlation.

Larson, Dr. P(aul) S(tanley), Medical College of Virginia, Richmond, Va. *Pharmacology.* Cannon Falls, Minn, June 9, 07. A.B, California, 30, Ph.D, 34. Instr. physiol, sch. med, Georgetown, 34-39; assoc. physiol. and pharmacol, Med. Col. of Va, 39-40; pharmacologist, Frederick Stearns and Co, and lecturer pharmacol, med. sch, Wayne, 40-41; *research assoc, Med. Col. of Va, 41–* A.A; Physiol. Soc; Soc. Exp. Biol. Purine metabolism; water and salt metabolism; antispasmodics; nicotine metabolism.

Larson, Dr. R(aymond) G(eorge), 255 College Ave, Valparaiso Ind. *Physical chemistry.* Grand Forks, N. Dak, June 1, 09. B.S, North Dakota, 31, M.S, 34; Ph.D, Purdue, 38; Cornell, 38; Minnesota, 39. Asst. prof. chem, Manchester Col, 37-38; instr, Washington and Jefferson Col, 38-39; science dept, Valparaiso, 39-41; *head anal. div, Kingsbury Ordnance Plant, 41–* A.A; Chem. Soc. Solubility and solvent power; vapor pressures of binary mixtures.

Larson, Prof. R(ussell) E(dward), Rhode Island State College, Kingston, R. I. *Agronomy.* Minneapolis, Minn, Jan. 2, 17. B.S, Minnesota, 39, M.S, 40, Ph.D, 42. Asst. hort, Minnesota, 39-41; *asst. research prof. agron, R. I. State Col, and asst. agronomist, Exp. Sta, 41–* Soc. Hort. Sci. Vegetable production, culture and breeding; soil fertility.

Larson, Dr. R(ussell) H(arold), University of Wisconsin, Madison, Wis. *Plant pathology.* Wausau, Wis, Nov. 5, 04. Ph.B. Ripon Col, 28; M.S, Wisconsin, 30, Ph.D, 34. Instr. bot, Ripon Col, 26-28; asst. plant path, Wisconsin, 28-34, in charge field sta, truck crop path, 30-31, asst. veg. path, 34-36; *agent div. fruit and veg. crops and diseases, U. S. Dept. Agr, 36–* Hosts, transmission and control of spindle tuber, spinach leaf, yellow dwarf, bacterial ring rot and sprain of potato; control of potato scab; disease resistance.

Larson, Dr. Thurston E(ric), Illinois State Water Survey, Urbana, Ill. *Chemistry.* Chicago, Ill, March 3, 10. B.S, Illinois, 32, Ph.D, 37. *Chemist, Ill. State Water Surv, 32–* Chem. Soc; Water Works Asn. Chemistry of industrial and sanitary water treatment; colloid chemistry.

Larson, Prof. William D(ay), 957 Hague Ave, St. Paul, Minn. *Chemistry.* St. Paul, Minn, Oct. 3, 08. A.B, Minnesota, 29, Ph.D, 36; M.S, Mich. State Col, 31. Teaching fellow, Mich. State Col, 29-31; spectroscopist, Dow Chem. Co, 31-32; *prof. chem, Col. of St. Thomas, 32–* Chem. Soc. Physical chemistry; electrolytic solutions; adsorption indicators; electromotive force of galvanic cells.

Larson, Dr. William S(evert), University of Rochester, Rochester, N. Y. *Psychology.* Stromsburg, Nebr, Sept. 4, 99. B.F.A, Nebraska, 20; A.M, Columbia, 26; Ph D, Iowa, 28. *Music psychologist and chairman dept. music educ, Eastman sch. music, Rochester, 29–* Psychology of music; music education.

Larson, Dr. Winford Porter, University of Minnesota, Minneapolis, Minn. *Bacteriology, Immunology.* Poy Sippi, Wis, March 7, 80. M.D, Illinois, 04; Berlin; Paris; Copenhagen. Instr. bacter, *Minnesota,* 11-12, asst. prof, 12-15, assoc. prof, 15-18, *prof. bacter. and immunol, 18–* Soc. Bact; Asn. Path. and Bact; Asn. Immunol. Immunity.

Lartigau, Dr. A(ugust) J(erome), 1201 California St, San Francisco, Calif. *[1]*Pathology, Gynecology.* San Francisco, Calif, Feb. 19, 75. M.D, California, 96. Asst, Bender Hygienic Lab, 96-99; instr. path, Columbia, 99-03; *attending surgeon, Children's Hosp, 03–* Asst. prof, California, 03-06. A.A; Am. Med. Asn; Col. Surg; Calif. Acad. Med; San Francisco County Med. Soc. (pres). Bacteriology of Bacillus pyocyaneus; bacterial etiology of gall-stones; tuberculosis of adenoids; hyperplastic tuberculosis of caecum; endothelioma of ovary; solid tumors of ovary; bacteria and channels of urinary infections.

La Rue, Prof. Carl D(owney), University of Michigan, Ann Arbor, Mich. **[6]*Botany.* Williamsville, Ill, April 22, 88. B.S, Valparaiso, 10; A.B, Michigan, 14, A.M, 16, Ph.D, 21. Instr. bot, Syracuse, 16-17; botanist, Hollandsch-Amerikaansche Plantage Maatschappij, Sumatra, 17-20; instr. *bot, Michigan,* 20-23, asst. prof, 24-34, *assoc. prof, 34–, mem. staff, univ. biol. sta, 25–* Research, Harvard, 36-37. Assoc. ed, 'Phytopath,' 33-35. Specialist rubber investigations and director, S. Am. rubber exped, U. S. Dept. Agr, 23-24, agent rubber investigations in charge party no. four, Bolivia, and party no. two, Nicaragua and Mex, 40-41; specialist rubber production, Ford Motor Co. Amazon exped, 27. A.A; Bot. Soc; Torrey Bot. Club; Mich. Acad. (sec'y, 23). Rubber-bearing plants; tropical economic botany; physiological plant anatomy; morphogenesis; plant tissue cultures; growth hormones; wound hormones.

La Rue, E(ugene) C(lyde), 1628 Walworth Ave, Pasadena, Calif. *Hydraulic engineering.* Riverside, Calif, Nov. 11, 79. B.S, California, 04. Aid to engineer, U. S. Reclamation Service, 04-05, asst. engineer in charge stream gaging, Idaho, 05-07; dist. engineer, in charge stream gaging, Idaho, Utah and Nev, U. S. Geol. Surv, 07-11, hydraul. engineer investigation irrig. and water power, 11-16; water power classification of R. R. grant land in Oregon, 16-17; hydraul. engineer investigating water power flood control and irrig. projects in west. states, U. S. Geol. Surv, 17-27; *consulting engineer, Los Angeles, 27–; engineer, flood control, Los Angeles County.* C.Eng, U.S.A. Civil Eng. (past pres, Utah sect); Eng. Soc. Pasadena (past pres). River hydraulics; Colorado River and its utilization; water supply; water power and flood control of Colorado River.

La Rue, Prof. George R(oger), 2019 Day St, Ann Arbor, Mich. *[3]*Zoology.* Paullina, Iowa, Jan. 1, 82. B.S, Doane Col, 07; A.M, Nebraska, 09; Ph.D, Illinois, 11. Asst, med. col, Nebraska, 07-09; *zool,* Illinois, 09-11; instr, *Michigan,* 11-13, asst. prof, 13-21, assoc. prof, 21-27, *prof, 27–, chairman dept, 34–* Hon. curator, museum, Michigan, 15-17, research assoc, 27–, director biol. sta, 16-39. Summers, sci. asst, Bur. Fisheries, Alaska, 09, asst, Illinois, 10, 11. Am. Med. Asn. grant, 28. A.A. (sec'y, F, 33-36); Soc. Zool; Soc. Parasitol. (v. pres, 29, pres, 37); Ecol. Soc; Micros. Soc. (pres, 26); Soc. Nat; Mich. Acad. (pres, 32); Helminth. Soc. Wash. Parasitic worms.

Larwood, Dean Charles H(omer), University of Grand Rapids, Grand Rapids, Mich. *Bacteriology.* Melbourne, Ark, Nov. 8, 95. Ph.G, Oklahoma, 22, B.S, 25; M.S, Okla. Agr. and Mech. Col, 29; Ph.D, Mich. State Col, 39. Prof. biol, Ferris Institute, 29-34; dean pharmacy and prof. bacter, Grand Rapids, 36-42; *capt, Sanit. Corps, U. S. Army, 42–* Pub. Health Asn; Mich. State Pharmaceut. Asn. Salt concentration of natural waters of the Southwest; comparison of adapted bacteriophage with shigella dysentery antigens and the purification of bacteriophage toxins and exotoxin.

Lasby, Dean W(illiam) F(rederick), University of Minnesota, Minneapolis, Minn. *Dentistry.* Castle Rock, Minn, Oct. 25, 76. B.S, Carleton Col, 00; D.D.S, Minnesota, 03. Practicing dentist, Fairmont, Minn, 03; instr, *sch. dentistry, Minnesota,* 08-10, asst. prof, 10-12, assoc. prof, 12-19, prof. and chairman prosthetic dentistry, 19-27, *dean, 27–* Past pres, Am. Asn. Dental Schs, chairman cmt. grad. study, 38–Major, Dental Res. Corps, 24-34, lieut. col, 34-41. A.A; Dental Asn; fel. Col. Dentists (v. pres, 35, regent, 39); Minn. State Dental Asn; Minn. Acad; Int. Asn. Dental Research. Prosthetic dentistry; dental education.

Lash, Dr. Abraham F(ae), 30 N. Michigan Ave, Chicago, Ill. *Obstetrics, Gynecology.* Chicago, Ill, Nov. 25, 98. B.S, Chicago, 19, M.D, Rush, 21; M.S, Illinois, 25, Ph.D, 29. Instr, dept. gynec, *col. med, Illinois,* 23-26, assoc. *obstet. and gynec,* 26-29, *asst. prof, 29–* Mem, Am. Board Obstet. and

Gynec. Clin. Path. Soc; Col. Surg. Bacteriology; immunology of puerperal sepsis.

Lash, Prof. M(endel) E(lmer), Kansas State College, Manhattan, Kans. *Chemistry.* New Washington, Ohio, Sept. 30, 95. A.B, Ohio State, 20, M.S, 22, Ph.D, 28. Instr. *chem,* Kans. State Col, 22–26; prof, Nebr. State Nor. Col, 28; asst. prof, *Kans. State Col,* 29–41, *assoc. prof, 41–* Chem. Soc. Crystal growth; chemical education.

Lashley, Prof. K(arl) S(pencer), Yerkes Laboratories, Orange Park, Fla. **‡Psychology, Zoology.* Davis, W. Va, 90. A.B, West Virginia, 10; M.S, Pittsburgh, 11, Sc.D, 36; fellow, Hopkins, 13–14, Ph.D, 14; Sc.D, Chicago, 41. Teaching fellow, Pittsburgh, 11; Bruce fellow, Hopkins, 14–15, Johnston scholar, 15–16, fellow, 19; instr. psychol, Minnesota, 17–18; investigator, U. S. Inter-departmental Hygiene Board, 19; asst. prof. psychol, Minnesota, 20–21, assoc. prof, 21–24, prof, 24–26; psychologist, behavior research fund, Inst. Juvenile Research, Chicago, 27–29; prof. psychol, Chicago, 29–35; *Harvard,* 35–37, *research prof. neuropsychol, 37–, director, Yerkes Labs. Primate Biol, 42–* Hughlings Jackson lecturer, Montreal, 37. Assoc. ed, 'Jour. Genetic Psychol'; 'Quart. Rev. Biol'; 'Acta Psychol'; 'Jour. Philos. Sci.' Howard Crosby Warren medal, Soc. Exp. Psychol, 37. Nat. Acad; Psychol. Asn. (councilor, 26–28, pres, 29, pres, east branch, 37); Philos. Soc; Soc. Zool; Physiol. Soc; Soc. Nat; Am. Acad; hon. mem. Harvey Soc; hon. mem. N. Y. Acad. Heredity; color vision; instincts of birds and primates; learning; neural anatomy and physiology; sex behavior of animals. Soc. Bact. Meningitis; human parasitology.

Laskin, Dr. Bess Segal, 410 Girard Ave, Philadelphia, Pa. *Bacteriology.* Philadelphia, Pa, May 6, 08. B.S, Pennsylvania, 29, scholar, 29–31, M.S, 31, Pepper fellow, 31–32, Ph.D, 32. Research bacteriologist, Mulford labs, Sharp and Dohme, Phila, 29–32; asst. bacter, Jefferson Med. Col, 32–33; *chief bacteriologist, Mt. Sinai Hosp, 33–* Soc. Bact. Meningitis; human parasitology.

Lasky, Samuel G(rossman), U. S. Geological Survey, Tucson, Ariz. *Economic geology.* Denver, Colo, July 22, 01. E.M, Colo. Sch. Mines, 22; M.S, Yale, 29. Metal. and construction engineer, in charge construction, Rosario Mines, Honduras, 22–24; mining engineer and geologist, Kennecott Copper Corp, Alaska, 25–28; geologist, State Bur. Mines and Mineral Resources, N. Mex, 29–31; *with U. S. Geol. Surv, 31–* Min. and Metal. Eng; Soc. Econ. Geol; Geol. Soc. Ore deposits and related branches of geology; exploration for ore deposits.

Laslett, Prof. H(erbert) R(eynolds), Oregon State College, Corvallis, Oregon. *Psychology.* Carthage, Mo, Aug. 23, 91. A.B, Kansas, 18; A.M, Stanford, 23, Ph.D, 26. Assoc. prof. psychol, Colo. Agr. Col, 23–24; *prof.* psychol. and educ, Whitman Col, 26–28; *psychol, Oregon State Col, 28–; major, Inf, U. S. Army, 41–* Summers, prof, N. Mex. Nor. Univ, 25–26. A.A; Psychol. Asn. Loss of sleep; educational psychology.

Laslett, Dr. L(awrence) Jackson, 474 Broadway, Cambridge, Mass. *Physics.* Boston, Mass, Jan. 12, 13. B.S, Calif. Inst. Tech, 33; Ph.D, California, 37. Rockefeller Foundation fellow, Inst. Teoretisk Fysik, Copenhagen, Denmark, 37–38, H. C. Oersted fellow, 38; instr. physics, Michigan, 39; Indiana, 39–42; *staff mem, radiation lab, Mass. Inst. Tech, 41–* A.A; fel. Physical Soc. Nuclear physics; cyclotrons.

Lasley, Prof. J(ohn) W(ayne), Jr, University of North Carolina, Chapel Hill, N. C. *Mathematics.* Burlington, N. C, Sept. 22, 91. A.B, North Carolina, 10, fellow, 10–11, A.M, 11; fellow by courtesy, Hopkins, 15–16; fellow, Chicago, 19–20, Ph.D, 20. Instr. *math, North Carolina,* 11–15, 16–18, asst. prof, 18–20, assoc. prof, 20–24, *prof. 24–* Math. Soc; Math. Asn. (v. chairman southeast. sect, 40, chairman, 41); Elisha Mitchell Sci. Soc. (pres, 33–34); N. C. Acad. (pres, 38). Projective differential geometry; transformations of the Flecnode congruence; the curvature of manifolds; penosculating conics of a plane curve; Monge's differential equation.

Lassalle, Prof. Leo Joseph, Frankfort Arsenal, Philadelphia, Pa. *Physics, Engineering.* Opelousas, La, Sept. 8, 86. B.S, Louisiana, 08; fellow, Chicago, 09–12, 15, Ph.D, 17; M.S, Pa. State Col, 11. Asst. physics, Louisiana, 08–09; instr, Pa. State Col, 09–12; asst. prof, Philippines, 12–13; assoc. prof, Pa. State Col, 13–17, prof, 17–18; chief physicist and head optical dept, Recording and Computing Machines Co, 18–20; prof. mech. eng. and head dept, *Louisiana,* 20–24, *prof. eng. mech. and head dept, 24–, dean col. eng. and director eng. exp. sta, 31–; head ordnance engineer, Frankford Arsenal, 41–* Summers, faculty, Chicago, 15; special mech. engineer, U. S. Dept. Agr, 24. Mech. Eng. (chairman New Orleans sect, 40); Eng. Educ. (pres, southeast sect, 41); La. Eng. Soc. Optics; atmospheric radioactivity; corrosion of ferrous metals; law of fall of oil droplet and coefficiency of viscosity of carbon dioxide; sugar and syrup making; optical manufacturing.

Lassek, Dr. Arthur M(arvel), Medical College of the State of South Carolina, Charleston, S. C. *Anatomy.* Eau Claire, Wis, Sept. 17, 02. B.S, Washington (Seattle), 28; M.S, Northwestern, 29, Ph.D, 31; M.D, Tennessee, 36. Asst. anat, Washington (Seattle), 27–28; instr, med. sch, Northwestern, 28–31; asst. prof, South Dakota, 31–32; *prof. anat. and chairman dept, Med. Col. State of S. C, 32–* Am. Med. Asn; Asn. Anat; S. C. Acad. Pyramidal tract; neurology; quantitative distribution of the pyramidal tract; volumetric study of the gray and white matter of the spinal cord.

Lasselle, Prof. Percy A(lexander), University of Idaho, Moscow, Idaho. *Organic chemistry.* Albany, Oregon, Sept. 20, 00. A.B, Oregon, 23, A.M, 25; Ph.D, Pa. State Col, 33. Chemist, Calif. and Hawaiian Sugar Ref. Corp, Crockett, Calif, 23; jr. chemist, meat inspection lab, bur. animal indust, U. S. Dept. Agr, 23–24; asst. chem, Oregon, 24–25; research chemist, Int. Filter Co, Chicago, Ill, 25–27; chief chemist and plant supt, Krim-Ko Co, 27; research chemist, Bell Tel. Labs, 27–31, asst. chem, Pa. State Col, 31–33; asst. to Dean Frank C. Whitmore, Pa. State Col, 33–34; research chemist, Thomas and Hochwalt Labs, Inc, Dayton, Ohio, 34–35; manager, Forest Grove Canning Co, 35–37; *asst. prof. chem, Idaho,* 37– Capt, C.W.S, 40–41. Chem. Soc. Reaction rates; conductivity of solution; organic synthesis.

Lassen, Leon, U. S. Engineer Office, Mobile, Ala. *Engineering.* Kiev, Russia, Jan. 2, 02. E.E. and M.E, Tulane, 24. Asst. engineer, Sewerage and Water Board, New Orleans, La, 24–31; inspector, second dist, *U. S. Engineers,* 31–34, inspector and eng. field aide, Vicksburg, Miss, 34–36, junior engineer, 36, chief engineer, *Mobile, Ala,* 36, junior engineer, 36–37, asst. engineer, 37–39, assoc. engineer, 39–40, *hydrologic engineer, 40–* Chief engineer, Ideal Elec. Co, Texas, 34; State Planning Cmn, Miss, 36. Geophys. Union; Ala. Acad. Feasibility of pumping clay slurry through a four-inch pipe line; flood peak formation; economic importance of controlling floods; processes of adjustment in channels flowing through corrodible material.

Lassen, Dr. Sven H(ald), 3720 Floresta Way, Los Angeles, Calif. *Chemistry.* Copenhagen, Denmark, June 30, 95. Grad, Copenhagen, 20; Ph.D, Southern California, 34. Chief chemist and plant manager, United Water Softeners, Ltd, London, Eng, 20–24; chief chemist, Veg. Oil Product Co, 28–32; *director, Park Research Foundation, 37–; Van Camp Biol. Labs, 38–* Mem, Danish sci. exped, northwest coast, Greenland, 14–15. Chem. Soc; fel. Royal Geog. Soc. London; Danish Inst. Civil Eng. Oil refining; hygrometry; vitamins; nutrition.

Lassettre, Prof. Edwin N(ichols), 7 East Lane Ave, Columbus, Ohio. *Physical chemistry.* Ga, Oct. 26, 11. B.S, Mont. State Col, 33; Ph.D, Calif. Inst. Tech, 38. Instr. *chem, Ohio State,* 37–40, *asst. prof, 40–* Summer, lecturer, Brown, 40. Properties of solutions; theory of solutions; molecular structure.

Latham, Dr. G(eorge) H(enry), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Jamaica, B. W. I, Sept. 17, 95. B.S, Va. Polytech, 17; A.M, South Carolina, 22; Ph.D, Hopkins, 28. Instr. math, bacter, agr. and surveying, Miller sch, Virginia, 19–20; instr, high sch, S. C, 20–25; asst. chem, Hopkins, 25–28; *research chemist, E. I. du Pont de Nemours and Co,* 28– Chem. Soc. Adsorption of polar compounds on glass surfaces.

Latham, Dr. Vida (Annette), 1644 Morse Ave, Rogers Park, Chicago, Ill. *Pathology, Stomatology.* Hindley Hall, Lancashire, Eng. Cambridge, 83–87; M.Sc, London. 89; D.D.S, Michigan, 92; M.D, Northwestern, 95; Paris; Berlin; Hamburg. Assoc. ed, 'Sci. Enquirer, England' and 'Int. Jour. Micros,' 83–98; demonstrator path, bacter. and comp. dental anat. and curator museum, Michigan, 87–92, asst. sec'y and registrar. med. sch, lecturer stomatol. and dental surg; prof. histol, bacter. and path. and director labs, Northwestern, 92–29; *practising physician and microanalyst, 29–* Lecturer, Col. Pharmacy, 92;

exten. lecturer, Col. Physicians and Surg, Chicago, Ill, 93–; oral surgeon, pathologist and sec'y staff, Women's and Children's Hosp, 92–97; prof, Am. Dental Col, 92–98; Col. Physicians and Surg, Milwaukee, 02–; attending physician, Edgewater Hosp, 29–31. Ed. dental research sect, 'Med. Woman's Jour.' Chairman exhibits, A Century of Progress Expos, Chicago, 33. V. pres, World's Columbian Dental Cong, 93. U.S.A, 17–19. A.A; fel. Stomatol. Soc. (ed. board, 'Jour,' 29–); fel. Am. Med. Asn. (chairman, sect. stomatol, med. and pub. health sect, 05); Am. Dental Asn; Micros. Soc. (v. pres, 88); Soc. Parasitol; Ill. Micros. Soc. (cor. sec'y, 93–, pres, 32); Ill. Acad; N. Y. Acad; Women's Med. Club, Chicago (v. pres, 31, pres, 33); Women's Dental Asn. (past pres); Chicago Med. Dental Soc; hon. fel. Buffalo Micros. Soc; fel. Royal Micros. Soc; cor. mem. Manchester Micros. Soc; cor. mem. Victoria Micros. Soc. Australia; Int. Stomatol. Asn. Oral surgery; operative dentistry; nerve supply of pulp, teeth and jaw; pathology of tumors of the palate; cysts of the oral cavity; lead poisoning; fractures of the face; aniline dyes and tissue reaction; tests for diabetic blood; vasomotor system in teeth; neoplasm in the pulp of the teeth.

Lathe, F(rank) E(ugene), National Research Council, Ottawa, Ont, Can. *Metallurgy, Chemistry.* Lacolle, Que, March 5, 83. B.A, McGill, 04, B.Sc, 07, M.Sc, 15. Chemist, Granby Consol, B. C, 08–09, chief chemist and assayer, 10–14, 15–17; lecturer metal, Toronto, 14–15; chief chemist, Chile Explor. Co, Chile, 17–19; chief chemist and metallurgist, British Am. Nickel Corp, Ont. and Que, 20–24; tech. asst. to pres, *Nat. Research Council Can,* 25–29, director div. research information, 30–39, *in charge research on metal. and refractories, 39–* Gold medals, Can. Inst. Min. and Metal, Eng. Inst. Can. A.A; Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; Can. Inst. Chem. (councilor, 30–33, pres, 36); Can. Inst. Min. and Metal; Soc. Chem. Indust. Gt. Britain (chairman, Ottawa sect, 35). Metallurgy and chemistry of copper and nickel; basic and neutral refractories.

Lathrop, Dr. Elbert C(lyde), Mt. Hawley Road, Peoria, Ill. *Industrial chemistry.* Greensburg, Ind, Oct. 6, 85. A.B, DePauw, 07, hon. Sc.D, 36; Ph.D, American Univ, 16. Asst. chem, DePauw, 06–07; Purdue, 07–08; instr, Pratt Inst, 08–09; consulting and anal. chemist, New York, 08–09; chemist, bur. soils, U. S. Dept. Agr, 09–15, biochemist, bur. plant indust, 15–18; head gen. div, Jackson lab, E. I. du Pont de Nemours and Co, 18–19, manager standards div, chem. dept, 19–22; v. pres. and treas, Samuel P. Sadtler and Son, Inc, Phila, 22–28; director research and develop, Celotex Co, Chicago, 25–32; consulting chem. engineer, 32–34; tech. director, Crown Zellerbach Corp, 34–38; v. pres, Celotex Corp, 38–39; *chief agr. residues div, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 39–* Assoc. Am. ed, 'Allen Commercial Org. Anal.' Longstreth medal, Franklin Inst, 11. A.A; Chem. Soc. (councilor, 36); Soc. Agr. Eng; Chem. Eng; Tech. Asn. Pulp and Paper Indust; Pulp and Paper Indust. Can. Organic compounds of soils; fertilizers; fibers; synthetic insulating products; coal tar dyestuffs; organic products; pulp and paper; agricultural residues.

Lathrop, Dr. Frank H(eidtman), University of Maine, Orono, Maine. *Entomology.* Orangeburg, S. C, July 31, 91. B.S, Clemson Col, 13; M.S, Ohio State, 15, Ph.D, 23. Asst. entom, Exp. Sta, Clemson Col, 13; zool. and entom, Ohio State, 13–15; asst. entomologist, N. Y. Exp. Sta, Geneva, 15–16, assoc. entomologist, 23–24; Oregon State Col, 17–22; fellow, Crop Protection Inst, 22–23; head dept. entom. and zool, Clemson Col, and state entomologist, S. C, 24–25; entomologist, bur. entom, U. S. Dept. Agr, 25–28, senior entomologist, 28–34; *entomologist, Exp. Sta, Maine, 34–, head dept. entom, 37–* 2nd lieut, Sanit.C, 18. A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Cicadellidae; insect ecology and bionomics; control of fruit tree insects.

Lathrop, Dr. H(arry) O(wen), 505 Normal Ave, Normal, Ill. *Geography, Geology.* Lawrence Co, Ill, July 22, 87. B.Ed, Ill. State Nor. Univ, 14; M.S, Chicago, 22; Ph.D, Wisconsin, 30. *Head dept. geog,* Ariz. State Teachers Col, Flagstaff, 15–18; Wis. State Teachers Col, Whitewater, 18–33; *Ill. State Nor. Univ, 33–* Nat. Council Geog. Teachers; Ill. Acad. Conservation of natural resources; political and economic geography; regional geography of the San Francisco mountains; geography of the upper Rock River Valley; geography of Illinois.

Latimer, Prof. Claiborne G(reen), University of Kentucky, Lexington, Ky. *Mathematics.* Hyattsville, Md, Sept. 23, 93. B.S, Chicago, 20, M.S, 21, Ph.D, 24. Instr. *math,* Swarthmore Col, 21–22; Tulane, 23–24, asst. prof, 24–27; *prof, Kentucky,* 27– Visiting prof, Wisconsin, 38. Ed. board, 'Duke Math. Jour,' 38–41. Math. Soc. (councilor, 30, 38–41); Math. Asn. (governor, 42–). Hyper complex numbers; algebraic numbers.

Latimer, Prof. Homer B(arker), University of Kansas, Lawrence, Kans. *Anatomy.* Rock Creek, Ohio, March 2, 82. A.B, Minnesota, 07, A.M, 08, Ph.D, 21. Prof. biol, Charles City Col, 08–10; sci. asst, Bur. Fisheries, 10–11; prof. zool, Nebr. Wesleyan, 11–16; assoc. prof. vert. anat, Nebraska, 16–18, *prof. anat,* 18–26; *med. sch, Kansas, 26–* Instr, Minnesota, 20–21. Summer, prof, med. branch, Texas, 42. A.A; Asn. Anat; Soc. Zool. Comparative neurology; postnatal and prenatal growth.

Latimer, Prof. L(orenzo) Phelps, University of New Hampshire, Durham, N. H. *Horticulture.* San Francisco, Calif, July 7, 96. B.S, California, 21, M.S, 22, Ph.D, 26. Asst. pomol, California, 22–26; instr. *hort, New Hampshire,* 26–28, *asst. prof, 28–, asst. horticulturist, Exp. Sta, 26–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Pomol. Soc; N. H. Hort. Soc; N. H. Acad. Pomology; apple pollination; fertilizers for strawberries; fertilizing elements; minor elements and boron tolerance in relation to fruit trees and plants; breeding strawberries; premature dropping of apples; leaf scorch of fruit trees.

Latimer, Prof. Wendell M(itchell), University of California, Berkeley, Calif. **5Chemistry.* Garnett, Kans, April 22, 93. A.B, Kansas, 15; fellow, California, 17–18, Ph.D, 18. Instr. *chem,* Kansas, 15–17; lecturer and demonstrator, *California,* 18–21, asst. prof, 21–23, assoc. prof, 24–31, *prof, 31–,* asst. dean col. letters and science, 23–24, *dean col. chem, 41–* Guggenheim Mem. Foundation fellow, Munich, 30. Assoc. ed, 'Jour. Chem. Physics,' 33; 'Chem. Rev,' 39; ed, 'Prentice-Hall Chem. Series.' Nat. Acad; A.A. Dielectric constants; specific heats; heats of fusion; liquefaction of hydrogen; thermoelectric force; ionization of gases; organic rearrangements; reaction free energies; nuclear structure; entropy of aqueous ions; coefficients of expansion; oxidation reduction potentials.

Laton, Dr. Anita D, San Jose State College, San Jose, Calif. *Science education.* Duncan Mills, Calif, Jan. 4, 95. A.B, California, 17; Ph.D, Columbia, 29. Supervisor teaching of science and lecturer educ, California, 27–38, asst. prof. educ, 38–39; research assoc. bur. educational research in science, Teachers Col, Columbia, 39–42; *asst. prof. hygiene, San Jose State Col, 42–* Research assoc, Teachers Col, Columbia, 35–36. A.A; Nat. Asn. Research Science Teaching; Asn. Health, Physical Educ. and Recreation; Pub. Health Asn. Science and health education; child development.

Latshaw, Dr. V(oris) V, Lehigh University, Bethlehem, Pa. *Mathematics.* Frankfort, Ind, Nov. 10, 03. Cent. Nor. Col, 20, 22; Wisconsin, 26; A.B, Indiana, 27, A.M, 28, Ph.D, 30. Acting instr. math, Indiana, 28–30; acting head dept. math, Ft. Hays Kans. State Col, 30–31; instr. *math, Lehigh,* 31–38, *asst. prof, 38–* Summer, instr, Ball State Teachers Col, Ind, 30. Adjoint boundary value problems; curve fitting.

Latshaw, Walter L(eroy), 1803 Yale Ave, Salt Lake City, Utah. *Chemistry, Agriculture.* Spring City, Pa, Dec. 16, 89. B.S, Pa. State Col, 12; M.S, Kans. State Col, 22. Asst. chemist, Armour and Co, Chicago, 12–14; chemist, Kans. State Col, 14–33, assoc. prof. chem, 27–30, prof, 30–33; *director agr. dept, U. S. Smelting, Ref. and Mining Co, 33–* A.A; Chem. Soc; Int. Soc. Soil Sci. Plant nutrition; chemical weed killers; agronomy.

Latta, Prof. John S(tephens), University of Nebraska College of Medicine, Omaha, Nebr. *Histology, Embryology.* North Tonawanda, N. Y, June 5, 95. A.B, Miami, 16; Ph.D, Cornell, 20. Instr. histol. and embryol, med. col, Cornell, 18–21; asst. prof. *anat, col. med, Nebraska,* 21–24, assoc. prof, 24–28, *prof, 28–,* sec'y dept, 30–41, *chairman dept, 41–* Mem, State Board Examiners Basic Sciences, Nebr, 29– A.A; Asn. Anat. Blood and lymph vascular formation; histogenesis of the cells of the blood, lymph and connective tissues; pathology of the fetus and the new-born child; early stages of human embryology; experimental histology of endocrine glands.

Latta, Randall (Kirk), Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, Washington, D. C. *Entomology.* Morning Sun, Iowa, Aug. 7, 05. A.B, Iowa Wesleyan, 27; M.S, Iowa State Col, 28. Junior entomologist, bur. entom, *U. S. Dept. Agr,* Calif, 28–30, asst. entomol-

ogist, *bur. entom. and plant quarantine*, Wash, 30–36, asst. entomologist in charge, Babylon, N. Y, 37, assoc. entomologist, *div. control investigations*, 38–40, *entomologist*, *40–* Asn. Econ. Entom; Entom. Soc. Amer; Soc. Hort. Sci; Entom. Soc. Wash. Fumigation and thermal treatment procedures for plants and plant products and their commercial application.

Lattman, Dr. Isidore, 1801 Eye St, N.W, Washington, D. C. *Radiology.* Russia, May 16, 94. Ph.G, Columbia, 16; A.B, George Washington, 21, M.D, 25. Assoc. radiologist, Garfield Mem. Hosp, 26–38; clin. instr. *radiol, med. sch, Georgetown*, 32–33, *assoc. prof*, 33–40, *42–* Radiologist, Columbia Hosp. for Women, 40–; Nat. Homeopathic Hosp, 40–; Children's Hosp, 41– A.A; Roentgen Ray Soc; fel. Am. Med. Asn; fel. Col. Physicians; fel. Col. Radiol; Asn. Study Neoplastic Diseases; Radiol. Soc. N. Amer. Diathermia in pelvic inflammatory diseases; roentgen examination in intestinal obstruction; modern concept of lymphadenomā; x-ray treatment in hyperthyroidism; roentgen treatment of subacromial bursitis; a review of Ewing's tumor with case reports.

Laubengayer, Prof. A(lbert) W(ashington), 113 Heights Court, Ithaca, N. Y. *Inorganic chemistry.* Saline Co, Kans, Feb. 22, 99. Ch.B, Cornell, 21, Ph.D, 26. Asst, Cornell, 20–21, 23–26; instr. chem, Oregon State Col, 21–23; lecturer *inorg. chem, Cornell*, 27–28, asst. prof, 28–37, *prof, 37–* Chem. Soc. Ceramic chemistry; chemistry of germanium, boron, gallium, indium and zirconium; structure of inorganic compounds; alkyls of metals.

Laubengayer, Dr. Richard A(ugust), 224 Bryant Ave, Ithaca, N. Y. *Botany.* Salina, Kans, Sept. 10, 02. B.S, Cornell, 25, Ph.D, 34. *Instr. bot, Cornell, 25–* Prof, Puerto Rico, 29; exchange prof, Chicago, 37–38. A.A; Bot. Soc. Plant anatomy, morphology and physiology.

Laucius, Dr. Joseph F(rancis), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Elizabeth, N. J, Sept. 17, 13. B.S, Pa. State Col, 36, M.S, 37, Ph.D, 40. *Research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Azo dyes; organic synthesis; olefin polymerization.

Laucks, I(rving) F(ink), 314 Maritime Bldg, Seattle, Wash. *Chemistry.* Akron, Ohio, July 3, 82. B.S, Case, 04, M.S, 08. Partner, Falkenburg and Laucks, Seattle, 08–18; *pres, I. F. Laucks, Inc, Seattle, 18–, Vancouver, 38–, Laucks Labs, Inc, 27–, I. F. Laucks, Inc, Portsmouth, Va, 33–, Laucks Labs, Ltd, Vancouver, 35–, Speedwall Co, Seattle, 38–, Lauxite Corp, Lockport, 41–* A.A; Chem. Soc; Chem. Eng; Min. and Metal. Eng; Soc. Test. Mat. Low temperature carbonization of coal; synthetic resins; soy-bean adhesives; fatty oils.

Laude, Prof. H(ilmer) H(enry), 321 Denison St, Manhattan, Kans. *Agronomy.* Rose, Kans, July 9, 87. B.S, Kans. State Col, 11; M.S, Agr. and Mech. Col. Texas, 18; Ph.D, Chicago, 36. Asst. agron, Kans. State Col, 11–13; county agr. agent, Missouri, 13–14; supt, Sub. Exp. Sta, Beaumont, Texas, 14–19; agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 19–20; assoc. prof. agron, *Kans. State Col*, 20–31, *prof. crop production, 31–* A.A; Soc. Agron. Influence of stress periods of high and low temperature on the growth and production of farm crops; relation of weather to crop production.

Laudermilk, J(erome) D(ouglass), Box 184, Claremont, Calif. *Geochemistry.* Richhill, Mo, Aug. 16, 93. Ph.G, Kansas City Col. Pharmacy, 14. Chemist, Armour and Co, Kansas City, 15–17; *private lab, Claremont, Calif, 25–* Research assoc, Pomona Col, 34; expert micros, San Diego, 35. Instr, sch. gas defense, Ft. Sill, Okla, C.Eng, 18–19. A.A. Mineral chemistry products and processes of weathering; identification of ignited fabrics; anthophyllite asbestos; quicklime burial; oxidized textiles; flora in dung of Nothrotherium; hair of Nothrotherium; origin of desert varnish; lightning spalling; hydrous iron sulphide in California crystalline limestone; identification of spermatozoa in criminological investigations; a new microchemical reaction for cellulose.

Laudon, Prof. L(owell) R(obert), University of Kansas, Lawrence, Kans. *Geology.* Redwood Falls, Minn, Feb. 4, 05. Minnesota; A.B, Iowa, 28, A.M, 29, Ph.D, 30. Asst. prof. geol, Tulsa, 30–42, dean men, 35–42; *assoc. prof. geol, Kansas, 42–* Asn. Petrol. Geol; Geol. Soc; Paleont. Soc. Mississippian stratigraphy and paleontology.

Lauer, Prof. A(lvhh) R, 622 11th St, Ames, Iowa. *Psychology.* Orient, Iowa. Paris, 19; B.Mus, Bethany Col, 21; A.B, McPherson Col, 22; Chicago, 22–27; A.M, Iowa, 25; M.S, Iowa State Col, 28; Ph.D, Ohio State, 29: Instr, Bethany Col, 20–21; prof, McPherson Col, 21–24; instr, Iowa State Col, 25–28; Ohio State, 28–29, nat. research fellow biol, 29–30; assoc. prof. *psychol, Iowa State Col*, 30–41, *prof, 41–*, research prof, eng. exp. sta, 39. Summer, instr, Iowa, 23. Mem. cmt. on psychol. of the highway, Nat. Research Council, 30–31; mem. advisory cmt. on the driver, Nat. Safety Council, 30–31. A.A; Psychol. Asn; Optometric Asn. (assoc. director bur. motor vision); Midwest. Exp. Psychol. Asn. Experimental psychology; motor coordination; nature of integrated responses; vocational aptitude; analysis of accident proneness; electrical phenomena accompanying sensory excitation; factors involved in teaching and academic success; statistical method; psychology of automotive driving and motor vision.

Lauer, Dr. A(rnold) W(illiam), 132 E. 26th Court, Tulsa, Okla. *Geology.* Middletown, Iowa, July 18, 81. Ph.B, Iowa, 04; fellow, Yale, 12–13, Ph.D, 17. Geologist, Cia. de Petroleo la Corona, Mex, 13–16; asst. econ. geol, Yale, 16–17; field geologist, Carter Oil Co, 17–19, geologist in charge sub-surface dept, 19–24; Okla. div, East. Oil Co, N. Y, 24–25; div. geologist, Okla-Kans. div, Texas Co, 26–34. Summers, asst, Colo. Geol. Surv, 10, topographer, 11. Tulsa Geol. Soc. Petroleum bearing rocks; sedimentary history of oil bearing regions; contouring methods in map making.

Lauer, Prof. B(yron) E(lmer), 2510 Clark Ave, Raleigh, N. C. *Chemical engineering.* Glencoe, Okla, April 14, 07. B.S, Oregon State Col, 27; M.S, Minnesota, 29, Ph.D, 31. Asst. instr, Minnesota, 27–31; research chem. engineer, North. Paper Mills, 31–34; Crown-Willamette Paper Co, 34–35; asst. prof. *chem. eng, N. C. State Col*, 35–38, assoc. prof, 38–41, *prof, 41–; major, Chem. Warfare Service, U. S. Army, Rocky Mountain Arsenal.* Summers, research chemist, Oregon State Col, 27; junior chemist, U. S. Bur. Mines, 30. Capt, C. W. Res. Chem. Soc; Tech. Asn. Pulp and Paper Indust. (chairman fibrous raw materials testing cmt, 41); Eng. Educ; Chem. Eng. Pulp production; fibrous raw materials testing; corrosion inhibitors.

Lauer, Prof. Walter M(cClellan), University of Minnesota, Minneapolis, Minn. *Organic chemistry.* Thomasville, Pa, July 18, 95. A.B, Ursinus Col, 13; M.S, Minnesota, 17, Ph.D, 24. Research chemist, E. I. du Pont de Nemours and Co, 19–20; instr. *org. chem, Minnesota*, 20–25, asst. prof, 25–35, assoc. prof, 35–38, *prof, 38–* Inspector powder and explosives, Ordnance Dept, U.S.A, 17–19. Chem. Soc. Structure and reaction mechanism in organic chemistry.

Laufer, Maurice K(enneth), 6706 N. Central Ave, Chevy Chase, Md. *Physics.* Indianapolis, Ind, May 14, 09. A.B, Ripon Col, 30; M.S, Brown, 32. Instr. physics, R. I. Col. Pharmacy and Allied Sciences, 32–33; junior physicist, *Bur. Standards*, 36–38, asst. physicist, 38–40, *assoc. physicist, 40–* Instr, grad. sch, U. S. Dept. Agr, 37–38. Physical Soc; Optical Soc. Photoelectricity; electronics; optics.

Laufer, Dr. Stephen, 202 E. 44th St, New York, N. Y. *Chemistry.* Bolechow, Austria, Jan. 6, 94. D.Eng, Hochschule für Bodenkultur, 22. Leather chemist and technologist, Wolfner Gyula and Co, Budapest, Hungary, 15–18; agr. chemist, Exp. Sta, Stanislawow, Poland, 23; instr. biochem, Gymnasium, Kalisz, 24–25; research biochemist, *Schwarz Labs, Inc*, 29–32, *director* research, 33–37, *lab, 37–* A.A; Chem. Soc; Oil Chem. Soc; Asn. Consulting Chem. and Chem. Eng. (councilor, 39–); Asn. Cereal Chemists; Soc. Brewing Chem. (chairman tech. cmt. and ed. board, 42–); Inst. Food Technol. Biochemistry and technology of fermentation industry; brewing; foods; enzymes; vitamins; fine chemicals.

Lauffer, Dr. Max A(ugustus), Jr, Rockefeller Institute, Princeton, N. J. *Physical biochemistry.* Middletown, Pa, Sept. 2, 14. B.S, Pa. State Col, 33, scholar, 33–34, M.S, 34; Ph.D, Minnesota, 37. Asst, Minnesota, 35–36, instr. biochem, 36–37; fellow *plant path, Rockefeller Inst*, 37–38, asst, 38–41, *assoc, 41–* Special lecturer, Stanford, 41. A.A; Chem. Soc; N. Y. Acad. Electrokinetics; physical chemistry of viruses; kinetics of virus protein denaturation; size and shape of macromolecules.

Lauffer, Dr. Paul G(ideon) I(saac), 9 Ashley Road, Hastings-on-Hudson, N. Y. *Chemistry.* Farmersville, Ohio, Oct. 9, 00. B.S, Washington and Jefferson Col, 21, fellow, 21–23, M.S, 23; A.M, Columbia, 24, du Pont fellow, 24–25, Ph.D, 26. Asst. chem. Columbia, 25–26, Fritzsche fellow, 26–27; *chief chemist*, Pinaud, Inc, 27–33; *Geo. W. Luft Co, 33–* A.A; Chem. Soc. Acridines; chemistry of perfumes.

Laug, Dr. Edwin P(euckert), 103 Dresden St, Kensington, Md. *Pharmacology.* Philadelphia, Pa, Oct. 4, 02. A.B, Haverford Col, 25, A.M, 26; Ph.D, Pennsylvania, 30. Asst. chem, Haverford Col, 25–26; physiol. chem, Pennsylvania, 33, asst, 34–35; fellow nutrition, Tennessee, 33–34; asst. pharmacologist and *pharmacologist, food and drug admin, Fed. Security Agency, 35–* A.A; Soc. Biol. Chem. Determination of hydrogen ion concentration in physiological fluids with quinhydrone; hydrogen and glass electrodes, particularly the application of the glass electrode to whole blood; carbohydrate availability in bread; lead toxicology.

Laughlin, Dr. Edwin R(omig), Fenwick Drive and Grove St, Fenwick Park, Penns Grove, N. J. *Chemistry.* Ashtabula, Ohio, Nov. 21, 08. A.B, Ohio Wesleyan, 30; M.S, Lawrence Col, 31, Ph.D, 33. *Dyestuffs technician, E. I. du Pont de Nemours and Co, 33–* Tech. Asn. Pulp and Paper Indust. Pulp and paper manufacture; practical application of dyestuffs to cellulose; measurement of color.

Laughlin, Dr. K(enneth) C(lifford), 3208 W. Second St, Wilmington, Del. *Petroleum chemistry.* Council Bluffs, Iowa, Dec. 5, 05. B.S, Huron Col, 26; M.S, Pa. State Col, 32, Ph.D, 34. Research chemist, Esso Labs, Standard Oil Co. of La, 33–43; *research technician, research dept, Hercules Powder Co, 43–* Chem. Soc. Hydrocarbon chemistry.

Laughton, Dr. N(elles) B(oyd), 55 Warren Road, Toronto, Ont, Can. *Medicine.* Strathroy, Ont, Sept. 26, 96. B.A, Toronto, 21; M.Sc, Western Ontario, 24, M.D, 33; Ph.D, Chicago, 24. Demonstrator biol, Toronto, 20–21; instr. physiol, Western Ontario, 21–33, asst. prof, 23–25, assoc. prof, 25–34; dept. exp. med, Parke, Davis and Co, 34–37; *private practise, 37–* Physiol. Soc. Kidneys; circulation; endocrinology; anemias.

Launer, Dr. Herbert F(ranz), National Bureau of Standards, Washington, D. C. *Chemistry.* St. Louis, Mo, Dec. 7, 05. A.B, California at Los Angeles, 29; M.S, Calif. Inst. Tech, 32; Ph.D, Berlin, 34. Instr. chem, California at Los Angeles, 29–32, German, 35; junior chemist, *Bur. Standards,* 35–36, asst. chemist, 37–40, *assoc. chemist, 40–* Chemical kinetics in aqueous systems; gaseous photochemical kinetics of hydrogen chloride synthesis; analytical chemistry of cellulose and related materials; photochemistry of cellulose and paper; optical properties of sheet materials.

Laurence, Dr. George C(raig), 4744 Grosvenor Ave, Montreal, Que, Can. *Physics.* Charlottetown, P. E. I, Jan. 21, 05. B.Sc, Dalhousie, 25, M.Sc, 27; 1851 Exhib. scholar, Cambridge, 27–30, Ph.D, 31. Junior research physicist and later *physicist, Nat. Research Council Can, 30–* Fel. Royal Soc. Can. Radioactivity; x-rays; positive rays; photoelectric effect; moisture condensation on ions and dust.

Laurence, Robert A(braham), 101 Bureau of Mines Bldg, College Park, Md. *Geology.* Wyoming, Ohio, Oct. 1, 08. A.B, Cincinnati, 29, A.M, 31; Minnesota, 32–34. Asst. geologist, Bertha Mineral Co, 30; field asst, Va. Geol. Surv, 31–32; junior geologist, U. S. Geol. Surv, 34; asst. geologist, Tenn. Valley Authority, 34–36, assoc. geologist, 36–40, *geologist,* 40–43; *U. S. Geol. Surv, 43–* A.A; Min. and Metal. Eng; Soc. Econ. Geol; assoc. N. Y. Acad; Yellowstone-Bighorn Research Asn; Tenn. Acad. Engineering and economic geology.

Laurence, William L(eonard), The New York Times, New York, N. Y. *General science.* Salantai, Russia, March 7, 88. B.S, Harvard, 15; Univ. Besançon, 19; LL.B, Boston, 25. With New York World, 26–27, assoc. aviation ed, 27–30; *science news reporter, New York Times, 30–* Conf. Arts and Sciences, 36. Pulitzer prize journalism, 37. Fellow, Am. Inst, 40. Mem. subcmt. publicity, div. med. sciences, Nat. Research Council, 40– Nat. Asn. Sci. Writers (v. pres, 36, pres, 39). Dissemination of science news; interpretation of significance of scientific achievements; reduction of lag between discovery and application; social responsibility of science; interpretative reports of current developments in science; intellectual catalysis between isolated fields of science; biotin-avidin balance in malignancy.

Laurens, Prof. Henry, Tulane University School of Medicine, New Orleans, La. *Physiology.* Charleston, S. C, Oct. 15, 85. A.B, Col. of Charleston, 07, A.M, 08, LL.D, 35. Ph.D. Harvard, 11. Asst. zool, Harvard, 10–11; Kirkland fellow at Bonn and Freiburg, 11–12; instr. biol, Yale, 12–16, asst. prof 16–21. in charge dept. physiol, 17–19, assoc. prof. *physiol,* 21–26; *prof, sch. med, Tulane, 26–* Grant, cmt. sci. research, Am. Med. Asn, 38. Asst. physiologist, C.W.S, 18. Physiol. Soc; Soc. Exp. Biol. Reactions of animals to light; physiology and anatomy of the heart; melanophores; spectral sensitivity and visibility; physiological effects of radiation.

Laurgaard, Olaf, 328 Railway Exchange Bldg, Portland, Oregon. *Engineering.* Trondhjem, Norway, Feb. 21, 80. B.S, Wisconsin, 03, C.E, 14. Asst. engineer, U. S. Reclamation Service, 03–10; chief engineer, Oregon, Wash. and Idaho Finance Co, 10–13; state project engineer, irrig. project, Oregon, 13–15; consulting engineer, Portland, 15–17, 33–34, city engineer, 17–34; construction engineer, Parker Dam, and engineer, U. S. Bur. Reclamation, Denver, 34–36; gen. office engineer, Tenn. Valley Authority, Knoxville, 36–37, construction engineer, Hiwassee Dam, 37–40; *consulting engineer, 40–* Pres, Nat. Council State Boards Eng. Examiners. Capt, C.Eng, 18. Civil Eng; Soc. Munic. Eng; Asn. Eng. (past nat. director, past nat. v. pres, past pres, Oregon sect); Road Builders Asn. (director and v. pres, city officials div); Northwest Highway Eng. Soc. (past pres); Int. Asn. Pub. Works Officials. Extension and improvement on concrete, especially on viaducts, dams and bridges; stream pollution; traffic; city planning; public markets; disposal of city waste; unification of freight terminals; hydraulics; design and construction of dams, defense projects and shipyards.

Laurie, Prof. Alex, Ohio State University, Columbus, Ohio. *Horticulture.* France, 92. B.S, Cornell, 14; A.M, Washington (St. Louis), 17. Instr. hort, Maine, 14–16; horticulturist, Mo. Bot. Garden, 16–20; commercial work, 20–25; asst. prof. *hort,* Mich. State Col, 25–29; *prof, Ohio State, 29–* Soc. Hort. Sci. (pres, 36). Floriculture; photoperiodism; fertilizers; soilless culture; roses; soils; chrysanthemums.

Lauritsen, Prof. Charles C(hristian), 1444 Blanche St, Pasadena, Calif. *[6]Physics.* Holstebro, Denmark, April 4, 92. Odense Tekniske Skole, Denmark, 11; Ph.D, Calif. Inst. Tech, 29. Elec. and radio eng, 11–26; asst. prof. *physics, Calif. Inst. Tech,* 30–31, assoc. prof, 31–35, *prof, 35–; mem, Nat. Defense Research Cmt.* Gold medal, Am. Col. Radiol. Nat. Acad; fel. Physical Soc; fel. Col. Radiol; for. mem. Det Kgl. Danske Videnskabernes Selskab. Electron emission; high potential x-rays; nuclear physics.

Lauritsen, Dr. Thomas, 1444 Blanche St, Pasadena, Calif. *Physics.* Denmark, Nov. 16, 15. B.S, Calif. Inst. Tech, 36, Ph.D, 39. Teaching asst. electrical measurement, Calif. Inst. Tech, 38–39; Rockefeller research fellow nuclear physics, Inst. Theoret. Physics, Copenhagen, 39–40; asst. physicist, Bur. Standards, 41; *research assoc. physics, Calif. Inst. Tech, 42–* Physical Soc. Gamma radiation from elements of low atomic number; Van de Graaff generator installations; retardation of uranium fission fragments; war research.

Lauritzen, Dr. C(yril) W(alker), Soil Conservation Service, Logan, Utah. *Soils.* Salt Lake Co, Utah, June 6, 05. B.S, Utah State Col, 30; M.S, Mich. State Col, 32, Ph.D, 34. Asst. soils, Mich. State Col, 30–34; asst. soil expert, *soil conservation service, U. S. Dept. Agr,* 34–35, assoc. soil technologist, sect. watershed and hydrologic studies, 35–41, *project supervisor, 41–* A.A; Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Intake of plant nutrients; soil structure; soil water; hydrology.

Lauritzen, Dr. John I(rvin), 4005 Leland St, Chevy Chase, Md. *Plant pathology, Physiology.* Moroni, Utah, July 28, 84. B.S, Utah Col, 14; Ph.D, Cornell, 18. Asst. bot, Utah Col, 12–13, instr, 13–14; asst. plant physiol, Cornell, 15–16, instr, 17; asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 18–19, pathologist, 20–24, assoc. pathologist, 24–27, pathologist, 27–30, *senior physiologist, 30–* Summers, asst, Exp. Sta, Utah Col, 12–14. A.A; Bot. Soc; Phytopath. Soc. Temperature and moisture relations; diseases of vegetables in storage; physiology of sugar cane, especially deterioration of sucrose in harvested cane.

Laurson, Prof. Philip G(ustave), Yale University, New Haven, Conn. *Engineering, Mechanics.* Oneida, Ill, Dec. 10, 85. B.S, Dakota Wesleyan, 07, Mass. Inst. Tech, 10; M.S, Yale, 26. Draftsman and asst. engineer, Am. Bridge Co, N. Y, 10–17; Fed. Shipbuilding Co, N. J, 17–20; asst. prof. *eng. mech, Yale,* 20–25, *assoc. prof, 25–* Civil Eng; Eng. Educ; Conn. Soc. Civil Eng. Structural mechanics; indeterminate structures; properties and mechanics of materials; early years of modern civil engineering; mechanics of materials.

Lauson, Dr. Henry D(unke), 477 First Ave, New York, N. Y. *Physiology, Medicine.* Wis, Aug. 20, 12. B.S, Wisconsin, 36, Ph.D, 39, M.D, 40. Asst. med, Wisconsin, 36–39; intern, univ. hosps, Kansas, 40–41; asst. res. med, Henry Ford Hosp, 41–42; fellow physiol. and med, *col. med, N. Y. Univ,* 42–43, *instr. physiol, 43–* Harvey Soc. Pituitary-ovary interrelationships; cardio-vascular and renal physiology, especially as related to the shock syndrome.

Lauter, Dr. W(erner) M(aximillian), 56 Highland Road, Glen Rock, N. J. *Pharmaceutical chemistry.* Kiel, Germany, April 19, 00. B.Sc, Kiel, 21; Ph.D, Greifswald, 23. Research chemist, E. R. Squibb and Sons, 25–29; Goodyear Tire and Rubber Co, 29–33; Upjohn Co, 33–36, indust. research fellow, 33–34; research director, R. J. Strasenburgh Co, N. Y, 36–42; *chief chemist in charge applied research, Hoffman-La Roche, Inc, 42–* Chem. Soc; Pharmaceut. Asn. Organic bismuth compounds and their spirocheticidal action; toxicity of glycols; isolation, determination of constituents and standardization of the venom of Apis mellifica; ascorbic acid as stabilizing agent for medicinal foods.

Lava, Dr. V(icente) G(regorio), Bureau of Science, Manila, P. I. *Industrial chemistry.* Bulacan, Bulacan, P. I, Dec. 24, 94. B.S, Philippines, 16; A.M, Columbia, 20, Ph.D, 23. Asst. chem, Philippines, 16–17; physical chemist, Bur. Science, P. I, 23–25; lecturer chem, Nat. Univ, Manila, 23–25; assoc. prof. physical and colloid chem, Philippines, 25–29; Grasselli research fellow, Oberlin Col, 29–30; chemist, N. Y. Appraisers Labs, U. S. Treasury Dept, 31–34; research assoc, N. Y. Univ, 31–34; *consulting chemist, Consol. Mines, 35–* Mem, Nat. Research Council P. I. Chem. Soc; Asn. Pulp and Paper Indust; Philippine Sci. Soc. (exec. sec'y, 23–25). Utilization of low-grade Philippine coals and chromite; non-gas electrodes for determining hydrogen ion concentration; enzymes; chemistry of the coconut.

Laverdière, Prof. J(oseph) W(illie), Laval University, Quebec, Que, Can. *Geology.* Ste-Croix of Lotbinière, Que, Sept. 2, 97. B.A, Laval, 20, L.Sc, 27; D.Sc, Lille (France), 30. Lecturer geol, *Laval,* 30–35, *prof. geol. and paleont, 35–, director dept.* Paleont. Soc; Can. Inst. Min. and Metal; Soc. Linn. Que. (pres, 33); Soc. géol. de France; Soc. géol. du Nord. Geology of Quebec.

Laves, Dr. Kurt, Route 1, Coopersville, Mich. *[1]*Astronomy. Lyck, Germany, Aug. 24, 66. Königsberg, 86–87; Ph.D, Berlin, 91. Asst, Royal Observatory, Berlin, 92–93; docent *astron, Chicago,* 93–97, instr, 97–01, asst. prof, 01–08, assoc. prof, 08–32, *emer. assoc. prof, 32–* A.A; Astron. Soc; Math. Soc; Astron. Gesell. Lunar equation and the solar parallax; effective potential forces; Jacobi's partial differential equation; Maupertius' principle; graphic method to determine orbits of spectroscopic and visual binaries; theory of satellites; orbits of binary stars.

Lavin, Dr. G(eorge) I(srael), Rockefeller Institute, New York, N. Y. *Chemistry.* Clifton Forge, Va, Sept. 14, 03. B.S, Virginia, 25; Ph.D, Hopkins, 28. Research assoc. chem, Princeton, 29–34; fellow, *Rockefeller Inst,* 34–35, *asst, 35–* A.A; Chem. Soc; Harvey Soc. Atomic hydrogen; dissociated water vapor; catalysis in relation to atoms and radicals; ammonia discharge tube; spectrochemistry of enzymes and proteins.

Lavinder, Dr. C(laude) H(ervey), U. S. Public Health Service, Stapleton, N. Y. *Medicine, Public health.* Lynchburg, Va, July 24, 72. Randolph-Macon Col, 91–92; M.D, Virginia, 95. *Commissioned officer, U. S. Pub. Health Service, 97–, med. director.* Lecturer, N. Y. Post-Grad. Med. Sch, Columbia, 14–16; consulting physician, N. Y. Post-Grad. Sch. and Hosp, 35– Assoc. ed, 'Modern Hosp,' 22–23. Am. Med. Asn; Pub. Health Asn; Asn. Mil. Surg. (pres, 28–29); Nat. Asn. Study Pellagra (pres, 12); fel. Col. Surg; fel. N. Y. Acad. Med; hon. mem. Ga. Med. Soc; hon. mem. Mex. Asn. Mil. Surg. Pellagra; poliomyelitis.

Lavine, Dr. Irvin, Industrial Research Service, Dover, N. H. *Chemical engineering.* Minsk, Russia, Dec. 6, 02. B.S, Minnesota, 24, du Pont fellow, 26–27, Ph.D, 30. Teaching asst, Minnesota, 25–26, instr. chem. eng, 29–30; asst. prof, North Dakota, 27–29, assoc. prof, 30–32, prof. and head dept, 32–41; *sec'y-treas, Indust. Research Service, 41–* Consultant, Nat. Resources Cmt, Wash, D. C, 35–; State Planning Board, N. Dak, 35–40; State Water Cmn, N. Dak, 37–38; personnel director and coordinator of statist. and research projects, N. Dak. Works Progress Admin, 35–36. Chem. Soc; Electrochem. Soc; Chem. Eng. Lignite and sodium sulfate resources in North Dakota; aqueous tension of moisture in lignite; steam drying and critical oxidation temperature of lignite; adsorption of water vapor by lignite, peat and wood; chemical process; chemical engineering laboratory equipment.

Lavine, Dr. Theodore F(rederick), 131 Lodges Lane, Bala-Cynwyd, Pa. *Organic chemistry.* Cambridge, Mass, Aug. 25, 06. B.S, Clarkson Tech, 27; Ph.D, Pennsylvania, 34. *Chemist,* Texas Co, 27–29; *research inst, Lankenau Hosp, 29–* A.A; Chem. Soc; Soc. Biol. Chem. Amino acids; proteins; organic sulfur compounds.

Lavis, Fred, 30 Broad St, New York, N. Y. *Engineering.* Torquay, Eng, Jan. 8, 71. St. Luke's Sch, Torquay, Eng. *Ry. and highway eng, 89–; consulting engineer, 10–* Lecturer, Rensselaer Polytech; Yale; Princeton; eng. work, U. S. and various countries of Latin Amer. and Europe. Mem. Nat. Research Council; Highway Research Board. Civil Eng; Ry. Eng; Asn. Am. and Chinese Eng; N. Y. Ry. Club; Inst. Civil Eng. Gt. Britain. Economics of transportation; railway highway design construction.

Law, Dr. G(eorge) H(artland), Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Organic chemistry.* Camden, N. J, June 30, 04. Ch.E, Lehigh, 26; Ph.D, Yale, 29. *Research chemist, Carbide and Carbon Chem. Corp, 29–* Chem. Soc. Aliphatic alcohols and acids.

Law, Dr. Harold Bell, RCA Laboratories, Princeton, N. J. *Physics.* Douds, Iowa, Sept. 7, 11. Ph.D, Ohio State, 41. *Physicist, electronic research div, RCA Labs, 41–* Physical Soc. Induced radioactivity in neodymium, illinium and samarium.

Law, Dr. L(loyd) W(illiam), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Biology.* Ford City, Pa, Oct. 28, 10. B.S, Illinois, 31; Austin fellow, Harvard, 34–37, A.M, 35, Ph.D, 37. Instr, high sch, Ill, 31–33; asst, Harvard, 36–37; research assoc. and Parker fellow from Harvard, Stanford, 37–38; *research assoc, Roscoe B. Jackson Mem. Lab, 38–,* Finney-Howell med. research fellow, 38–41, *Commonwealth Fund med. research fellow, 41–* Asst, Radcliffe Col, 37. Genetics Soc; Asn. Cancer Research. Factors affecting induction of leukemia in mice; carcinogenesis; factors affecting transplantation of tumors; factors affecting development of mammary tumors in mice.

Lawall, Pres. Charles E(lmer), West Virginia University, Morgantown, W. Va. *Mining engineering.* Catasauqua, Pa. Nov. 21, 91. E.M, Lehigh, 14, M.S, 21, LL.D, 39; LL.D. Waynesburg Col, 39. Testing engineer, Pittsburgh Testing Lab, 14–15; chemist, N. J. Zinc Co, 15–16; mining engineer, Peal, Peacock and Kerr, Pa, 16–17; metallurgist, Gen. Motors Corp, 17; mining engineer, Bethlehem Steel Co, 17–18, research engineer, 19–21; instr. geol, Lehigh, 21; asst. prof. mining eng. and later prof. mining eng. and director sch. mines, *West Virginia,* 21–38, acting pres, 38–39, *pres, 39–* Regional adviser, Eng, Science and Management War Training. Trustee, Waynesburg Col. U.S.A, 18–19. Min. and Metal. Eng. (chairman coal div, 40); Eng. Educ. (councilor); Eng. Council Professional Develop. (inspection cmt); Coal Min. Inst; W. Va. Coal Min. Inst. (pres, 29, sec'y-treas, 30–39); W. Va. Sci. Soc. (pres, 32); Newcomen Soc. (chairman state cmt). Training future coal mining executives; dry preparation of bituminous coal; leadership in the coal industry; haulage ropes; reclamation of big vein coal in Maryland; important uses of coal; mining methods in West Virginia; mining engineering as a profession; physical characteristics of West Virginia coals; combustion.

Lawler, Prof. F(rancis) C(ornelius), University of North Dakota School of Medicine, Grand Forks, N. Dak. *Bacteriology.* Boise, Idaho, Oct. 5, 05. A.B, Georgetown Col, 31; M.S, Hopkins, 34; Sc.D, Phila. Col. Pharmacy and Science, 36. Teaching fellow, Phila. Col. Pharmacy and Science, 34–36; bacteriologist and chemist, Nat. Dairy Products Co, 35–37; asst. prof. bacter. and immunol. and later hygiene and pub. health, *sch. med,* Oklahoma, 37–41; assoc. prof. *bacter. and immunol, North Dakota,* 41–42, *prof, 42–* Soc. Bact; fel. Pub. Health Asn. Yeasts in the normal mouth; bacteriology and chemistry of water; Candida and intestinal parasites; effect of sulfonamides on Candida.

Lawless, Prof. J(ohn) J(oseph), University of Texas School of Medicine, Galveston, Texas. *Anatomy.* St. Paul, Minn, Nov. 21, 08. B.S, Minnesota, 30, A.M, 31, Ph.D, 34, M.D, Rush, Chicago, 39. Teaching fellow *anat,* Minnesota

30–33, asst, 33–34; instr, *sch. med*, Georgetown, 34–35; *asst. prof*, West Virginia, 35–40; *Texas, 40–* Asn. Anat. Effects of castration; anoxia.

Lawless, Dr. Theodore K(enneth), 4321 S. Parkway, Chicago, Ill. *Medicine.* New Orleans, La, Dec. 6, 92. A.B, Talladega Col, 14; M.D, Northwestern, 19, M.S, 20; Columbia, Harvard, 20–21; Paris, 21–22; Freiburg, 22–23; clinics, Vienna, 23–24. In charge med. labs, *med. sch, Northwestern*, 19–20, *Elizabeth J. Ward research fellow and instr. dermat, 26–* Assoc. examiner, Nat. Board Med. Examiners, 28– A.A; fel. Am. Med. Asn; Social Hygiene Asn; Chicago Med. Soc; Chicago Dermat. Soc; Miss. Valley Dermat. Soc; Deuts. Path. Gesell. Bacteriology; dermatology; syphilology.

Lawlor, Sister Anna Catherine, College of St. Elizabeth, Convent Station, N. J. *Vertebrate zoology.* Waterbury, Conn, May 20, 98. B.S, Col. of St. Elizabeth, 31; A.M, Columbia, 34; Ph.D, Catholic Univ, 37. *Prof. biol. and head dept, Col. of St. Elizabeth, 33–* A.A; Genetic Asn; Soc. Bact; Pub. Health Asn. Sensory structures of the proboscis and tongue of the ground mole.

Lawrance, Prof. Walter A(lbert), 111 Bardwell St, Lewiston, Maine. *Organic chemistry.* Watford, Eng, Sept. 4, 94. B.A, McMaster, 18, M.A, 19; M.A, Toronto, 20, Nat. Research Council Can. student, 19–20, bursar, 20–21, Ph.D, 21. Asst. prof. *chem*, McMaster; *prof, Bates Col, 21–* Chem. Soc; Soc. Chem. Indust; London Chem. Soc. Friedel-Craft reactions; textile chemistry; latex; photography.

Lawrence, Dr. C(arl) A(dam), Winthrop Chemical Co, Inc, 33 Riverside Ave, Rensselaer, N. Y. *Bacteriology.* Jackson, Mich, July 13, 07. B.S, Michigan, 32, M.S, 35, Ph.D, 37. Asst. bacter, Pennsylvania, 33–34; instr, Michigan, 34–37; assoc. bacteriologist, State Health Dept, Md, 37–38; *director bacter. research and control lab, Winthrop Chem. Co, Inc, 38–* A.A; Soc. Bact; Pub. Health Asn. Microbial dissociation; antibacterial effects of sulfonamides; antibacterial properties of mold extracts; isolation and use of bacterial products in bovine mastitis; tyrothricin.

Lawrence, Dr. Charles K(iddell), Maple Road, Baldwinsville, N. Y. *Physical chemistry.* Charleston, S. C, Aug. 21, 02. A.B, Harvard, 23; M.S, Mass. Inst. Tech, 24, Ph.D, 28. Research assoc, Mass. Inst. Tech, 25–27; research dept, Cambridge Labs, Inc, 27–28; Atmospheric Nitrogen Corp, 28–34; *nitrogen div, Solvay Process Co*, 35–41, *lab. director, 41–* Chem. Soc. Thermodynamics of ammonia; production and properties of fixed nitrogen compounds.

Lawrence, Dr. Donald B(uermann), University of Minnesota, Minneapolis, Minn. *Ecology.* Portland, Oregon, March 8, 11. Reed Col, 28–31; Ph.D, Hopkins, 36. Research under Sigma Xi grant, 36–37; instr. *bot, Minnesota*, 37–39, *asst. prof, 39–; 2nd lieut, Air Corps, U. S. Army, and instr. meteorol, preflight sch, 42–* Ed. board, 'Ecol,' 40– Mem. Mazama Research Cmt, 36– Mem. Hopkins bot. exped, Jamaica, B.W.I, 32. A.A; Ecol. Soc. (ed. board, 40–42); Bot. Soc; Minn. Acad. (sec'y-treas, 42). Submerged forests; landslide vegetation; effects of wind on plants; ecological aspects of volcanic deposits; asymmetry of trees in the Columbia River Gorge; volcanic activity and vegetation of Mt. St. Helens, Washington; experimental ecology.

Lawrence, Prof. Ernest O(rlando), University of California, Berkeley, Calif. ***^{5}***Physics.* Canton, S. Dak, Aug. 8, 01. A.B, South Dakota, 22, hon. Sc.D, 36; A.M, Minnesota, 23; Ph.D, Yale, 25, hon. Sc.D, 37; hon. Sc.D, Stevens Inst. Tech, 36, Princeton, 37; LL.D, Michigan, 37, Pennsylvania, 42; Sc.D, Harvard, 41, Chicago, 41, Rutgers, 41. Nat. research fellow *physics*, Yale, 25–27, asst. prof, 27–28; assoc. prof, *California*, 28–30, *prof, 30–, director radiation lab.* Am. speaker, Solvay Int. Inst. Physics, Brussels, 33. Mem. consulting board, Inst. Cancer Research, Columbia, 35– Prize and plaque, Research Corp, N. Y, 37; Comstock prize, Nat. Acad, 37; Elliott Cresson medal, Franklin Inst, 37; grant-in-aid, Nat. Advisory Cancer Council, 37; Hughes medal, Royal Soc, England, 37; Nobel prize in physics, 39; Duddell medal, London Physical Soc, 40; Copernican citation, 43. Nat. Acad; fel. Physical Soc; Philos. Soc; Am. Acad; Asn. Physics Teachers. Nuclear biological and medical physics.

Lawrence, Prof. George H(ill) M(athewson), Cornell University, Ithaca, N. Y. *Systematic botany.* East Greenwich, R. I, June 19, 10. B.S, R. I. State Col, 32, M.S, 33; Ph.D, Cornell, 39. Research asst, Exp. Sta, R. I. State Col, 32–33; asst. bot, *Cornell*, 36–38, res. instr, *Bailey Hortorium*, 39, *asst. prof. bot, 40–; lieut, U. S. Naval Res.* Systematic botany of cultivated plants; Armeria; Limonium; Iris; Arenaria; phytogeography; economic botany.

Lawrence, Prof. Henry E(dmund), University of Rochester, Rochester, N. Y. *Physics.* Sodus, N. Y, Aug. 2, 64. A.B, Rochester, 89; Cornell, 92–94; Sc.D, Colgate, 21. Instr. *physics*, Cornell, 92–94; *Rochester*, 94–95, assoc. prof, 95–01, prof, 01–34, *emer. prof, 34–* A.A; fel. Physical Soc; Radio Eng; Rochester Eng. Soc. High-frequency electrical phenomena.

Lawrence, Dr. James N(elson), The Drackett Co, 5020 Spring Grove Ave, Cincinnati, Ohio. *Chemistry.* Attica, N. Y, May 25, 87. B.S, Syracuse, 09, M.S, 10; Ph.D, Wisconsin, 12. Chemist, Gen. Elec. Co, 12–13; asst. physical chemist, U. S. Bur. Mines, 13–15; chemist, U. S. Naval Eng. Exp. Sta, Annapolis, Md, 15–16; research chemist, Nat. Aniline and Chem. Co, 17–25; manager tech. sales service div, du Pont Rayon Co, 25–29; senior indust. fellow, Mellon Inst, 29–32; research chemist and *asst. chem. director, Drackett Co, 34–* C.W.S, 17–18, capt. Chem. Soc. Dyes and intermediates; fuels; gas calorimetry; non-ferrous alloys; explosibility of coal dust; war gases; rayon; synthetic waxes; soybean products.

Lawrence, Prof. John H(undale), University of California, Berkeley, Calif. *Experimental medicine.* Canton, S. Dak, Jan. 7, 04. A.B, South Dakota, 26, hon. Sc.D, 42; M.D, Harvard Med. Sch, 30. Res. physicjan, Yale, 33–34, instr. *med*, sch. med, 34–37; *asst. prof, med. sch, California, 37–, in charge biol. and med. research, Crocker Radiation Lab, 37–* Caldwell lecturer, Am. Roentgen Ray Soc, 41; Kreschmer lecturer, Chicago, 41. Mem. subcmt. decompression sickness, Nat. Research Council. Caldwell medal, Am. Roentgen Ray Soc, 41. Soc. Clin. Invest; Soc. Exp. Biol. Metabolism of and effects of radiation on experimental tumors and leukemia in animals; application of artificial radio-isotopes to biological and medical problems; clinical investigation.

Lawrence, Dr. John S(eward), Strong Memorial Hospital, Rochester, N. Y. *Medicine.* Isle of Wight Co, Va, Aug. 15, 96. A.B, Virginia, 17, M.D, 21. Assoc. prof. biochem, Virginia, 22–23; Edward Hickling Bradford fellow, Harvard Med. Sch, 25–26, asst. chem, Harvard, 26; instr, sch. med, Vanderbilt, 27–28; Harvard Med. Sch, 28–29; asst. *med*, Thorndike Mem. Lab, Boston City Hosp, 28–29; *assoc. prof, sch. med. and dentistry, Rochester, 29–; assoc. physician, Strong Mem. and Rochester Munic. Hosps, 29–* A.A; assoc. Am. Physicians; Soc. Clin. Invest; Am. Heart Asn; Clin. and Climat. Asn. Physiology of circulation and of white blood cells.

Lawrence, Dr. John V(incent), 507 S. Euclid Ave, St. Louis, Mo. *Internal medicine.* Terre Haute, Ind, June 18, 93. B.S, Chicago, 17, M.D, 24. Assoc. physiol. chem, Chicago, 17–20; *asst. prof.* pharmacol. and mat. med, col. med, Cincinnati, 21–22; *internal med, Washington (St. Louis), 26–*, med. director *clinics*, 29–32, *director, 32–* Summers, lecturer, North Carolina, 28; Oklahoma, 29; Kansas, 30. Fel. Am. Med. Asn; Pub. Health Asn; non-res. fel. Inst. Med. Chicago. Plant physiology; physiological chemistry; pharmacology and therapeutics; clinic organization.

Lawrence, Prof. Ralph R(estieaux), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Boston, Mass, Feb. 28, 73. B.S, Mass. Inst. Tech, 95. Asst. and instr. physics, *Mass. Inst. Tech*, 96–01, instr. elec. eng, 01–04, asst. prof. and assoc. prof, 04–22, prof. *elec. machinery*, 22–41, *emer. prof, 41–* Fel. Elec. Eng; Am. Acad. Principles of alternation currents and alternating current machinery.

Lawrence, Dr. R(alph) W(alter), E. I. du Pont de Nemours and Co, Curtis Bay, Baltimore, Md. *General chemistry.* Troy, Mont, May 8, 14. B.S, State Col. Wash, 36, M.S, 38; Ph.D, Wisconsin, 41. *Research chemist, Krebs pigment div, E. I. du Pont de Nemours and Co, 41–* Auto-oxidation inhibitors.

Lawrence, Dr. Robert W(ilbur), 1408 Hamilton St, Wilmington, Del. *Physical chemistry.* New York, N. Y, May 12, 04. B.S, California, 24, Ph.D, 29. *Research chemist, Hercules Powder Co, 29–* Chem. Soc. Magnetism and atomic structure; nitrocellulose; explosives; pigments.

Lawrence, Prof. V(ivian) S(treeter), Jr, Cornell University, Ithaca, N. Y. *Mathematics.* Churchland, Va, Jan.

20, 96. B.S, Richmond, 17; M.E, Cornell, 22. Ph.D, 33. Assoc. prof. *math*, Richmond, 24–28; instr, *Cornell*, 28–33, *asst. prof, 33–; major, U. S. Army, and instr, U. S. Mil. Acad.* Math. Soc. Analysis.

Lawrence, Prof. William E(vans), 695 Hanover St, Palo Alto, Calif. *Plant ecology, Botany.* Randolph Co, Ind, April 15, 83. B.S, Earlham Col, 04; Chicago, 05–06, 07. Instr. bot, Mich. State Col, 06–09; Okla. Agr. and Mech. Col, 09–10; *Oregon State Col*, 10–15, asst. prof, 15–20, *assoc. prof. plant ecol, 20–* Asst. pathologist, U. S. Dept. Agr, 22, assoc. botanist, div. plant introd. and explor, 34. A.A; Ecol. Soc; Bot. Soc; West. Soc. Nat. Plant communities and successions; race ecology and geographic distribution; life forms of plants; poisoning plants and ecology of Oregon; range, forest and agricultural ecology; morphology.

Lawrence, Dr. W(illiam) M(ason), Brooktondale, N. Y. *Biometrics.* Brooktondale, N. Y, Oct. 2, 18. B.S, Cornell, 38, Schuyler fellow, 40–41, Ph.D, 41. *Biometrician, bur. game, State Conservation Dept, N. Y, 41–* Summers, biologist, bur. biol. surv, State Conservation Dept, N. Y, 38–41. A.A; Statist. Asn; Fisheries Soc; Limnol. Soc; Soc. Ichthyol. and Herp. Biometrical analysis of wildlife research data; fishery biology.

Lawrence, Winthrop Stanley, R. D. 2, Wilmington, Del. *Chemistry.* Falmouth, Mass, Jan. 14, 99. B.S, Worcester Polytech, 20. *Research chemist*, Nat. Aniline and Chem. Co, 20–22; *Kaumagraph Co, 23–* A.A; Inst. Chem; Chem. Soc. Ink; dyes; prints; plastics; resins; oils; fusible hot melts compositions.

Lawrie, Dr. James W(right), Jos. Schlitz Brewing Co, Milwaukee, Wis. *Organic chemistry.* Paisley, Scotland, April 27, 81. B.S, Chicago, 04, Ph.D, 06. Asst. to Dr. Stieglitz, Chicago, 06–07; Miner-Lawrie Labs, 07–08; director research, Int. Harvester Co, 08–10; Pullman Co, 10–12; gen. manager, German-Am. Chem. Works, 12–14; Wm. F. Jobbins, Inc, 14–19; research and consulting chemist, E. I. du Pont de Nemours and Co, 19–29; director, Lawrie Labs, 29–30; *director* chem. research, A. O. Smith Corp, 30–34; *research, Jos. Schlitz Brewing Co, 34–* Chem. Soc. (sec'y, Milwaukee sect, 12, v. chairman, Del. sect, 25, senator, 26, councilor, 32); Chem. Eng. Glycerol and the glycols; chemistry of the acetylidenes.

Lawson, Prof. Andrew C(owper), University of California, Berkeley, Calif. *[1]*Geology. Anstruther, Scotland, July 25, 61. B.A, Toronto, 83, M.A, 85, hon. D.Sc, 23; Ph.D, Hopkins, 88; LL.D, California, 35; Sc.D, Harvard, 36. Geologist, Geol. Surv. Can, 82–90; prof. *miner. and geol, California*, 90–28, *emer. prof, 28–* Chairman, State Earthquake Investigation Cmn, Calif, 06–10; U. S. Assay Cmn, 16; advisory cmt. on seismol, Carnegie Institution, 21–; chairman div. geol. and geog, Nat. Research Council, 23–24. Ed, 'Bul,' dept. geol, California, 92–30. Hayden medalist, Acad. Nat. Sci. Phila, 36; Penrose medal, Am. Geol. Soc, 38. Nat. Acad; A.A. (exec. cmt, Pacific div, 16); Geol. Soc. (v. pres, 08, pres, 26); Soc. Econ. Geol; Asn. Petrol. Geol; Seismol. Soc. (pres, 09); Min. and Metal. Eng; Philos. Soc; Am. Acad. Archean geology; petrography; geology of California; economic geology; geomorphology; seismology.

Lawson, Prof. A(ndrew) W(erner), University of Pennsylvania, Philadelphia, Pa. *Physics.* San Francisco, Calif, March 3, 17. A.B, Columbia, 36, fellow, 39–40, Ph.D, 40. Asst. *physics*, Columbia, 36–39; instr, *Pennsylvania*, 40–41, *asst. prof, 41–* Physical Soc. Elasticity; piezoelectricity; photoconductivity.

Lawson, Prof. Chester A(lvin), 542 Gunson St, East Lansing, Mich. *Genetics.* Salamanca, N. Y, April 22, 08. B.S, Thiel Col, 30; M.S, Michigan, 31, fellow, 33–34, Ph.D, 34. Asst, Michigan, 31–33; instr. zool, Mich. State Col, 34–35; asst. prof. biol, Wittenberg Col, 35–40, assoc. prof, 40–42; instr. *zool, Mich. State Col*, 42–43, *asst. prof, 43–* Cytology; relation of genes to embryonic development.

Lawson, Dr. Edwin H(ugh), 2700 Napoleon Ave, New Orleans, La. *Pathology, Bacteriology.* Indianapolis, Ind, May 13, 99. B.S, Arkansas, 20; M.D, Tulane, 24. Instr. chem, *Tulane*, 20–21, physiol, 26–27, path. and bacter, 27–36, *asst. prof. clin. med. and director clin. labs, med. sch, 36–; chief dept. path. and bacter, South. Baptist Hosp, 26–; consulting pathologist, U. S. Marine Hosp, 40–; pathologist, New Orleans Dispensary for Women and Children, 40–* Lieut. commander, U.S.N.R. Am. Med. Asn; Chem. Soc; Soc. Clin. Path. (councilor, 40); South. Med. Asn; La. Asn. Path. (pres, 40); Orleans Parish Med. Soc. (v. pres, 35; mem. board, 36; treas, 37–40, pres, 41). Rat-bite fever; ruptured adrenal in the new-born; chordoma; toxicology and pharmacology of pyridium erythrocytic sedimentation rate; cancer.

Lawson, Dr. George McL(ean), University of Virginia Department of Medicine, Charlottesville, Va. *Public health.* Middle Haddam, Conn, May 26, 98. Bates Col, 15–19; M.D, Yale, 24; Dr.P.H, Harvard, 32. Intern pediat, New Haven Hosp, 23–25, asst. res, 25; nat. research fellow, 25–27; instr. *bacter*, Harvard Med. Sch, 27–29; *prof.* bacter. and pub. health, sch. med, Louisville, 29–37; *prev. med. and bacter, dept. med, Virginia, 37–* Bacteriologist, Mass. Gen. Hosp, 27–29; Rockefeller fellow, sch. pub. health, Harvard, 31–32; epidemiologist and statistician, Louisville City Health Dept, 32–37. Pub. Health Asn. (referee on pertussis, 34–); Asn. Path. and Bact; Soc. Pediat. Research; Med. Soc. Va. Bacteriology; pertussis; epidemiology.

Lawson, Dr. Hampden C(lisby), 101 W. Chestnut St, Louisville, Ky. *Physiology.* Fayetteville, Ark, May 1, 04. A.B, Davidson Col, 26; Donnelley fellow, Chicago, 31, Ph.D, 32; M.D, Louisville, 38. Asst. physiol. chem, Arkansas, 28–30; physiol, Chicago, 30–31; asst. prof. physiol. and pharmacol, *Louisville*, 32–37, assoc. prof. *physiol*, 37–39, *prof, 39–, chairman dept, 41–* A.A; Soc. Exp. Biol; Physiol. Soc. The physiology and pharmacology of the gastro-intestinal tract.

Lawson, Prof. James R(aymond), Fisk University, Nashville, Tenn. *Physics.* Louisville, Ky, Jan. 15, 15. A.B, Fisk, 35; M.S, Michigan, 36, Ph.D, 39; Julius Rosenwald fellow, 37–39. *Prof. physics*, Southern Univ, 39–40; Langston, 40–42; *Fisk, 42–* Infra-red spectroscopy.

Lawson, Prof. Paul B(owen), 2215 Vermont St, Lawrence, Kans. *Entomology.* Sitapur, India, Aug. 18, 88. B.S, John Fletcher Col, 09; M.S, Kansas, 17, Ph.D, 19. Instr. *entom, Kansas*, 16–20, asst. prof, 20–21, assoc. prof, 21–22, *prof, 22–*, asst. dean *col. lib. arts and sciences*, 23–29, assoc. dean, 29–33, acting dean, 33–34, *dean, 34–* Entom. Soc; Entom. Soc. Kans. (ed, 'Jour'); Kans. Acad. Systematic work on Homoptera, especially Cicadellidae.

Lawson, Prof. Thomas R, 105 W. 55th St, New York, N. Y. *Engineering.* Wheeling, W. Va, Dec. 24, 73. C.E, Rensselaer Polytech, 98. Instr. mech, *Rensselaer Polytech*, 98–03, asst. prof, 03–06, assoc. prof, 06–08, William Howard Hart prof. *rational and tech. mech*, 08–39, *emer. prof, 39–*, head dept. civil eng, 21–39, in charge materials testing labs. Consulting engineer. A.A; Civil Eng; Welding Soc; Concrete Inst; Soc. Test. Mat. (exec. cmt, past v. pres, pres, 33); Am. Clay Products Inst. (past pres); Eng. Soc. East. N. Y. (past pres). Mechanics; permeability and weathering of concrete; internal stress due to welding; fatigue of materials; weathering and absorption of slate and composition shingles; reinforced brickwork; strength of welded rail joints; stresses in bridges.

Lawson, Dr. Walter E(astby), 1109 Brandon Lane, Wilmington, Del. *Chemistry.* Dunlap, S. Dak, Dec. 12, 92. B.S, Washington (Seattle), 17, M.S, 22; Ph.D, Hopkins, 25. Research chemist, Cuba Cane Sugar Corp, Havana, 20–21; biochem. research, Edgewood Arsenal, Chem. Warfare Service, 21–25; research chemist, *E. I. du Pont de Nemours and Co*, 25–33, director east. lab, 33–39, *asst. chem. director explosives dept, 39–* Consultant, Chem. Warfare Service, 25– 2nd lieut, Marine C, 17, capt, 18–20, major, C.W.S.R, 29– A.A; Chem. Soc; Chem. Eng; Min. and Metal. Eng. Organic chemistry; chemical warfare; explosives.

Lawton, Prof. Elva, Hunter College, 68th St. and Park Ave, New York, N. Y. *Botany.* West Middletown, Pa, April 3, 96. B.S, Pittsburgh, 23, A.M, 25; Ph.D, Michigan, 32. Instr, *Hunter Col*, 28–32, *asst. prof. biol. sciences, 32–* A.A; Bot. Soc; Torrey Bot. Club; Fern Soc. Regeneration and polyploidy in ferns.

Lawton, Dr. H(oward) C(hampreux), Shell Development Co, Emeryville, Calif. *Chemistry.* Oakland, Calif, July 8, 06. B.S, California, 29; fellow, Mellon Inst, 30–35; M.S, Pittsburgh, 32, Ph.D, 36. *Chemist petrol. production research,* Gulf Research and Develop. Co, 35–37; *Shell Develop. Co, 37–* A.A; Chem. Soc. Petroleum production chemistry.

Lay, Prof. W(alter) E(dwin), 101 Orchard Hill Drive, Ann Arbor, Mich. *Mechanical engineering.* Fulton, Mich, Feb. 5, 89. B.M.E, Michigan, 15. Mechanic, Packard Motor Co, 12–13; asst. *mech. eng, Michigan*, 15–16, instr, 16–19, asst. prof, 19–23, assoc. prof, 23–30, *prof, 30–* Summers, engineer, Chevrolet Exp. Dept, 23; assoc. mech. engineer, N.A.C.A, 24.

Consulting engineer, Gen. Motors Proving Ground, 25. Internal combustion engines; automotive vehicles; car and truck performance; carbureters.

Laycock, Prof. Sam(uel) R(alph), University of Saskatchewan, Saskatoon, Sask, Can. *Educational psychology.* Marmora, Ont, March 7, 91. B.A, Toronto, 11; M.A, Alberta, 16, M.Ed, 23; Ph.D, London, 27. Lecturer classics, Alberta Col, 11–16, 19–22, Alberta, 22–25, psychol, 23–25; *prof. educ. psychol, Saskatchewan, 27–;* research director, Sask. div, *Can. Nat. Cmt. Mental Hygiene,* 28–36, mem. *div. educ. and mental health,* 36–43, *director, 43–* Assoc. ed, 'Understanding the Child,' 37– A.A; British Psychol. Soc. Mental hygiene; adaptability to new situations; adjustments of inferior and superior children; teachers' reactions to personality and behavior maladjustments of school children; mental tests.

Layde, Dr. Durward C(harles), 320 Marsh St, West De Pere, Wis. *Chemistry.* LaCrosse, Wis, Dec. 29, 12. A.B, St. Norbert Col, 33; Ph.D, Wisconsin, 40. Asst. *chem, Wisconsin,* 36–39, *instr, 39–* Chem. Soc. Electrode potentials in alkaline solutions.

Layman, Lieut. James W(alter), Indiana University, Bloomington, Ind. *Clinical psychology.* Cleveland, Ohio, Dec. 8, 04. A.B, Western Reserve, 32, A.M, 33; Ph.D, Iowa, 36. Asst. psychol, Western Reserve, 29–33; psychologist, Psychopath. Hosp, Iowa, 34–37; director and clin. psychologist, Child Guidance Center, Des Moines, Iowa, 37–42; *asst. prof. clin. psychol. and director psychol. clinic, Indiana, 42–; lieut, Sanit. Corps, U. S. Army, Walter Reed Gen. Hosp, 42–* Instr, Iowa, 34–37; Drake, 37–41; Simpson Col, 37–39; visiting prof, Indiana, 41. Assoc. Psychol. Asn; fel. Asn. Applied Psychol. Quantitative study of certain changes in schizophrenic patients under the influence of sodium amytal; intelligence quotient changes in older-age children placed for foster home care; psychological implications in clients on public assistance; effects of public assistance on children.

Layman, Dr. Mary H(elen), 2156 Pacific Ave, San Francisco, Calif. *Pediatrics.* Alameda, Calif, Aug. 19, 84. Munich, Berlin and Heidelberg, 05–12; M.D, Ludwig Maximilian, 12. Asst. *pediat,* Univ. Clinic, Munich, 15–16; *sch. med, Stanford,* 17–22, asst. clin. prof, 22–29, assoc. clin. prof, 29–33, *clin. prof, 33–, director div. child psychiatry, dept. pediat, 22–* Asst. visiting pediatrician, San Francisco County Hosp, 18–20. A.A; Am. Med. Asn; Social Hygiene Educ. Asn; Orthopsychiat. Asn; Calif. Asn. Neur. and Psychiat; North. Calif. Mental Hygiene Asn; North. Calif. Pediat. Soc. (sec'y-treas, 26–28). Mental hygiene.

Laymon, Dr. Carl Warren, University of Minnesota, Minneapolis, Minn. *Dermatology.* Hot Springs, S. Dak, June 5, 06. B.S, Minnesota, 29, M.B, 30, M.D, 31, M.S, 33, Ph.D, 34. Instr. *dermat, Minnesota,* 34–37, *asst. prof, 37–* Asst, Minneapolis Gen. Hosp, 34– Minn. Dermat. Soc. Cutaneous lipoidoses.

Layng, Dr. Edwin T(ower), M. W. Kellogg Co, Ft. Danforth Ave, Jersey City, N. J. *Chemistry.* Greenville, Pa, Jan. 20, 09. B.S, Allegheny Col, 30; Ph.D, N. Y. Univ, 33. Asst. and teaching fellow, N. Y. Univ, 30–33; *research chemist, M. W. Kellogg Co, 34–* Chem. Soc; Inst. Chem; N. Y. Acad. Kinetics of gaseous reactions; petroleum research and development; catalysis.

Layton, Dr. Duke V(ivia), J. C. Robinson Seed Co, 311 Eleventh St, Modesto, Calif. *Plant pathology, Botany.* Eden, Texas, Dec. 14, 03. B.S, N. Mex. Col, 26; M.S, Iowa State Col, 29, Ph.D, 36. Asst, Exp. Sta, Iowa State Col, 27–31, 32–34, exten. specialist, exten. service, 32–34, exten. asst. plant pathologist and botanist, 34–38; *manager, J. C. Robinson Seed Co, 38–* Summer, field agent and asst, U. S. Dept. Agr, 26. Phytopath. Soc; Iowa Melon Growers Asn. (sec'y, 32–34). Sweet potato, watermelon, small grain and corn diseases; biology and control of the anthracnose disease of cucurbits.

Layton, Dr. Laurence Laird, 755 Ridge Road W, Rochester, N. Y. *Physical chemistry.* Boomer, W. Va, March 8, 14. B.S, W. Va. Inst. Tech, 37; M.S, West Virginia, 39; stipend scholar, Pa. State Col, 41–42, Ph.D, 42. Asst. chem, West Virginia, 38–39; vitamin research, Pa. State Col, 40–41; *research physical chemist, Distillation Products Inc, 42–* Chem. Soc. Molecular distillation of various organic substances; the ester distillation method for separating the monoaminomonocarboxylic acids.

Layton, Dr. Roy F(rancis), Short Hills, N. J. *Physical chemistry.* Liberty Corners, N. J, Jan. 4, 96. B.S, Rutgers, 17; Ph.D, Columbia, 26. Instr. physics, Columbia, 21–26; develop. work, West. Elec. Co, 26–32; *sec'y, Lusteroid Container Co, 32–* Chem. Soc. The rôle of electrolyte in the formation of gold sols; plastics.

Lazar, Dr. Arthur, 99 El Camino Real, Berkeley, Calif. *Chemistry.* Berlin, Germany, July 18, 89. Ph.D, Berlin, 12. *Research chemist,* Allgemeine Gesell. für Chem. Indust, Berlin, 14–27; *Tide Water Associated Oil Co, San Francisco, 27–* Chem. Soc. Organic chemistry; chemistry and technology of petroleum.

Lazarus, Lieut. Commander Alfred S, U.S.S. Birmingham, Fleet Post Office, New York, N. Y. *Bacteriology.* Hamilton, Ont, Can, Oct. 5, 07. A.B, California, 35, Edith Claypole fellow, 36–38, A.M, 37, Ph.D, 38. Fellow virus research, Connaught lab, Toronto, 39; instr. bacter, sch. med, Colorado, 39–40, asst. prof, 40–41; *communication officer, U. S. Naval Res, 34–, lieut.* A.A; Pub. Health Asn; Soc. Bact. Psittacosis; tissue culture; germicides; typhoid typing; bacteriophage.

Lazier, Prof. E(dgar) L(ocke), University of California at Los Angeles, Los Angeles, Calif. *Zoology.* Gonzales, Calif, March 10, 99. A.B, California, 21, A.M, 23, Ph.D, 28. Instr. biol, Reed Col, 23–25; asst. and assoc. *zool,* California, 25–27, instr, *California at Los Angeles,* 27–29, asst. prof, 29–43, *assoc. prof, 43–, asst. dean col. letters and science, 37–* A.A; West. Soc. Nat. Vertebrate morphology.

Lazier, Dr. Wilbur A(rthur), Shipley Road, Wyckwood, Wilmington, Del. *Chemistry.* Rochelle, Ill, March 28, 00. B.S, Illinois, 22; M.S, Wisconsin, 23, Ph.D, 25. Research chemist, *E. I. du Pont de Nemours and Co,* 25–33, *research group head, exp. sta, 33–* Cmt. contact catalysis, Nat. Research Council, 37– Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc; Franklin Inst. Heterogeneous catalysis as applied to the reactions of organic chemistry; high pressure synthesis; gaseous reactions; hydrogenation; long-chain alcohols; nylon intermediates.

Lazzell, Prof. Charles L(ester), 209 McLane Ave, Morgantown, W. Va. *Organic chemistry.* Monongalia Co, W. Va, July 31, 96. A.B, West Virginia, 18, M.S, 21; Ph.D, Yale, 27. Instr. *chem, West Virginia,* 25–29, asst. prof, 29–35, *assoc. prof, 36–* Chem. Soc. Synthesis of local anesthetics; solubility of organic compounds in organic liquids.

Leach, Dr. Charles N(elson), Alabama State Board of Health, Montgomery, Ala. *Preventive medicine.* Burlington, Vt, July 2, 84. A.B, Stanford, 09, M.D, 13; C.P.H, Hopkins, 21. *Int. health div, Rockefeller Foundation, State Board of Health, Ala, 21–* Asst. state health officer, Ala, 25–28; visiting prof, Peiping Union Med. Col, 35. Cmn. Relief Belgium and France, 15–17; surgeon, Ambulance Corps, Paris, 17; capt, M.C, 17–18. A.A; Am. Med. Asn. (v. chairman, sect. prev. med, 28); Pub. Health Asn. Public health; training of county health personnel; typhoid; epidemiology; sanitation; water; hookworm; therapeutics; diphtheria; rabies.

Leach, Prof. J(ulian) G(ilbert), West Virginia University, Morgantown, W. Va. *Plant pathology.* Somerville, Tenn, Nov. 16, 94. B.S, Tennessee, 17; Shevlin fellow, Minnesota, 17–18, M.S, 18, Ph.D, 22. Agent, U. S. Dept. Agr, 16–17; asst. plant path, Minnesota, 18–19; acting head dept. bot, Colo. Agr. Col, 19–20; asst. prof. plant path, Minnesota, 20–28, assoc. prof, 28–37, prof, 37–38; *prof. plant path. and bacter. and head dept, West Virginia, 38–* Int. Educ. Board fellow, 27–28. Mem. div. biol. and agr, Nat. Research Council, 42– A.A; Phytopath. Soc. (v. pres, 40, pres, 41). Diseases of vegetable crops; insects in relation to plant diseases.

Leach, Prof. L(ysle) D(ouglas), College of Agriculture, University of California, Davis, Calif. *Plant pathology.* Stuart, Nebr, Nov. 10, 00. B.S, Kans. State Col, 23; M.S, Iowa State Col, 26, Ph.D, 30. Agent, U. S. Dept. Agr, 26–28; assoc. plant path, *Exp. Sta, California, Davis,* 28–31, junior plant pathologist, 31–34, asst. prof. plant path, 34–40, *assoc. prof. plant path. and assoc. plant pathologist, 40–* A.A; Phytopath. Soc. Seedling diseases of vegetable and field crops; sugar beet diseases.

Leach, Robert H(owland), Fairfield, Conn. *Metallurgy.* Brockton, Mass, March 30, 78. B.S, Mass. Inst. Tech, 00. Mining engineer, supt. and manager, metal. work, 00–14; *manager research and develop, Handy and Harman, Bridge-*

port, 14–, manager, Bridgeport plant, 29–, v. pres, 38– Min. and Metal. Eng. (chairman, inst. of metals div, 37); Chem. Soc; Soc. Metals; Welding Soc; Soc. Test. Mat. (chairman, precious metals cmt, 27–). Silver; silver alloys; precious metals.

Leach, Tho(ma)s Witt, 706 National Bank of Commerce Bldg, Tulsa, Okla. *Geology.* La Crosse, Wis, Dec. 23, 96. B.S, Mo. Sch. Mines, 20. Production dept, Josey Oil Co, and asst. engineer, Wiser Oil Co, 20–21; field geologist, Transcontinental Oil Co, 21–24, div. geologist, 24–29, chief geologist, 29–30; *independent oil producer and geologist, 30–; capt, Anti-Aircraft Artil, U. S. Army, 43–* V. pres, South. Oil Co. Lieut, F.A. and A.S, 17–19. Asn. Petrol. Geol; Min. and Metal. Eng; Independent Petrol. Asn. (director, 41–). Petroleum engineering.

Leach, Prof. W(illiam), University of Manitoba, Winnipeg, Man, Can. *Plant physiology, Plant ecology.* Crewe, Eng, May 28, 91. B.Sc, Manchester, 22, M.Sc, 24; Ph.D, Birmingham, 30, D.Sc, 32. Lecturer and later senior lecturer *bot,* Birmingham, 22–37; *prof, Manitoba, 37–* Lecturer, Univ. Col. Leicester, 36–37. Soc. Plant Physiol; Bot. Soc. Plant respiration; methods of measuring respiration.

Leaders, Dr. W(illia)m M(organ), 7750 S. Essex Ave, Chicago, Ill. *Radioactivity.* Holyoke, Mass, March 18, 16. B.S, Ohio (Athens), 37; Ph.D, Mass. Inst. Tech, 40. Instr. chem, Mass. Inst. Tech, 40–41; *research chemist, Swift and Co, 41–* Radio Relay League. Radioactive determination of the relative abundance of the isotope K^{40} in terrestrial and meteoritic potassium.

Leadingham, Dr. Roy S(amuel), 3 Park Lane, Atlanta, Ga. *Medicine.* Newell, Iowa, Aug. 22, 82. M.D, Creighton, 07. Intern, Denver and Rio Grande Hosp, 09–10; physician, Presb. Church, U. S. Mission Hosp, Mokpo, and prof. clin. med, Severance Union Med. Col, Seoul, Korea, 12–21; instr. path. and bacter, Tulane Univ. Charity Hosp, New Orleans, 21–23; assoc. prof, Emory, and pathologist, Wesley Mem. Hosp, 23–27; instr. and *assoc. med, Emory, 27–; practising physician, 27–* Pathologist, Grady Hosp, 27–31; attending physician, Atlanta hosps. A.A; fel. Am. Med. Asn; fel. Col. Physicians; fel. Soc. Clin. Path; Soc. Parasitol; Soc. Trop. Med; South. Med. Asn; Ga. Acad. Rat-bite fever.

Leaf, Dr. Boris, 606 W. Ohio St, Urbana, Ill. *Physical chemistry.* Japan, March 4, 19. B.S, Washington (Seattle), 39; univ. scholar, Illinois, 39–40, Carr fellow, 40–41, univ. fellow, 41–42, Ph.D, 42. Special asst. chem, *Illinois,* 42–43, *instr. physical chem, 43–* Summer, chemist, Rohm and Haas Co, 41. Chem. Soc. Thermal diffusion in the separation of gas mixtures.

Leaf, Dr. Clyde W(illiam), 17546 Matthews Ave, Riverview, Mich. *Organic chemistry.* Evansville, Ind, Jan. 12, 10. A.B, Evansville Col, 34; Ph.D, Columbia, 41. *Org. chemist,* Armour Research Foundation, 41–43; *Sharples Chemicals, Inc, 43–* Chem. Soc. Adsorption of hydroquinone by calcite and aragonite from organic solvents.

League, Prof. Bessie B(eakley), Texas Technological College, Lubbock, Texas. *Zoology, Cytology.* San Marcos, Texas, June 23, 91. A.B, Texas, 21, A.M, 25, fellow, 29–30, Ph.D, 31. Instr. *biol,* Texas, 25–26; *Texas Tech. Col,* 26–27, *assoc. prof,* 27–29, *31–* Analysis of the constituents of the gonads of a sex intergrade opossum; anovular graafian follicles in mammalian ovaries; chromosomes of the guinea pig; normality of the maturation divisions in the male of Drosophila melanogaster; meiotic phenomena in Drosophila melanogaster.

Leake, Dr. Chauncey D(epew), University of Texas School of Medicine, Galveston, Texas. *Physiology, Pharmacology.* Elizabeth, N. J, Sept. 5, 96. Litt.B, Princeton, 17; M.S, Wisconsin, 20, Ph.D, 23. Instr. physiol, Wisconsin, 20–23, asst. prof. pharmacol, 23–25, assoc. prof, 25–28; prof, California, 28–42, lecturer med. hist. and librarian, med. sch, 30–42; *v. pres. sch. med, Texas, 42–* Mem. cmt. award, Theobald Smith award, A.A.A.S, 36–43. C.W.S, U.S.A, 18. A.A. (v. pres, 40); Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol. (v. pres, 40); Am. Med. Asn; Hist. Sci. Soc. (pres, 36–39); Int. Anesthetic Research Soc. (hon. pres, 29). Hematology; anesthesia; history of science; pharmacology of morphine, nitrites, barbitals and carbon dioxide; intrapleural pressure; chemotherapy of amoebiasis and leprosy; toxicity of industrial solvents; action of war gases; science and ethics.

Leake, Dr. J(ames) P(ayton), U. S. Public Health Service, Washington, D. C. *Public health.* Sedalia, Mo, June 4, 81. A.B, Harvard, 03, M.D, 07. Asst. surgeon, U. S. Pub. Health and Marine Hosp. Service, 09–13; passed asst. surgeon, *U. S. Pub. Health Service,* 13–21, surgeon, 21–30, senior surgeon, 30–35, *med. director, 35–,* in charge serums and vaccines, hygienic lab, 13–22, *in charge office* indust. hygiene and sanit, 30–33, *epidemiological studies, 34–* De Lamar lecturer, sch. hygiene and pub. health, Hopkins, 27. Sec'y, Basic Science Board, D C, 29– Soc. Exp. Biol; Soc. Epidemiol. (pres, 43); Am. Med. Asn. (council pharmacy and chem, 41–); N. Y. Acad. Med. Biologic products; epidemiology; poliomyelitis; smallpox and vaccination; cerebrospinal fever; encephalitis; industrial hygiene; influenza.

Leamer, F(rank) D(ale), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Vinton, Iowa, June 28, 03. A.B, Morningside Col, 26; M.S, Iowa, 28. Head dept. physics, Willamette, 28–30; *tech. staff, Bell Tel. Labs, 30–* Scattering of x-rays in liquids; new value for optimum thickness in x-ray scattering.

Lear, Prof. Mary E(ngleton), Lindenwood College, St. Charles, Mo. *Chemistry.* Madison, Mo, Sept. 4, 91. A.B, B.S, Missouri, 16, A.M, 20. Teacher *chem, Lindenwood Col,* 16–28, *prof, 28–* Dielectric constant germanium chloride.

Lear, Dr. Samuel A(sher), U. S. Health Department, Washington, D. C. *Dairy husbandry.* Pa, Oct. 29, 09. B.S, Pa. State Col, 35, Ph.D, 42; M.S, Minnesota, 39. Teaching asst. dairy husbandry, Minnesota, 36–37, asst, 37–40; instr, West Virginia, 42–43; *mem. staff, U. S. Health Dept, 43–* Dairy Sci. Asn. Dairy products.

Leary, Dr. Daniel Bell, University of Buffalo, Buffalo, N. Y. *Psychology, Education.* New York, N. Y, June 16, 86. A.B, Columbia, 09, A.M, 15, Ph.D, 19. Prof. educ, Tulane, 16–18; *prof. psychol. and head dept. psychol. and educ, Buffalo, 19–* Ethics and philosophy in the light of the newer psychological knowledge of human nature; psychology and religion; correlations of physical and mental traits; reduction of Freudian concepts to standard psychological bases.

Leary, Dr. Timothy, 43 Bay State Road, Boston, Mass. *Pathology, Bacteriology.* Waltham, Mass, 70. M.D, Harvard, 95; hon. A.M, Tufts Col, 07. First res. asst. pathologist, Boston City Hosp, 95–97; asst. prof. *path. and bacter, Tufts Col,* 97–00, prof, 00–29, *emer. prof, 29–* Assoc. med. examiner, Suffolk County, Mass, 08, med. examiner, 10–; lecturer, Harvard, 39– Grant, cmt. sci. research, Am. Med. Asn, 37– Trustee, Forsythe Infirmary for Children. A.A; Asn. Path. and Bact; Soc. Bact; Am. Med. Asn; Mass. Medico-Legal Soc. (past pres); Boston Med. Library Asn. Etiology of atherosclerosis; the subdural space and subdural hemorrhage.

Lease, Dr. E(lmer) J(ohn), Clemson Agricultural College, Clemson, S. C. *Biochemistry.* Madison, Wis, 08. B.S, Wisconsin, 31, M.S, 33, Ph.D, 35. Asst. agr. chem, Wisconsin, 32–35, indust. fellow agr. chem, 35–38; *assoc. chemist, Exp. Sta, Clemson Col, 38–, prof. nutrition, 43–* Nat. research fellow, Wisconsin, 32–35. Summers, special chemist, U. S. Dept. Agr, 31–32. S. C. Acad. Vitamins; animal and human nutrition; applied nutrition.

Leasure, Prof. E(lden) E(manuel), Kansas State College, Manhattan, Kans. *Anatomy, Physiology.* Solomon, Kans. D.V.M, Kans. State Col, 23, M.S, 30. Asst. prof. path, *Kans. State Col,* 26–35, *prof. physiol, 35–* Vet. Med. Asn; Kans. Vet. Med. Asn. (pres, 35). Feline infectious enteritis; anaplasmosis; equine encephalomyelitis; bovine allergic dermatitis.

Leathem, Dr. J(ames) H(ain), Rutgers University, New Brunswick, N. J. *Endocrinology.* Lebanon, Pa, April 10, 11. B.S, Lebanon Valley Col, 32; Pittsburgh, 33–34; A.M, Princeton, 36, Ph.D, 37; Michigan, 40. Procter fellow biol, Princeton, 37–38; research assoc. anat, med. sch, Columbia, 38–41; instr. *zool, Rutgers,* 41–42, *asst. prof, 42–* A.A; Asn. Anat; Soc. Zool; Soc. Study Int. Secretions; Pa. Acad. Pituitary-gonad interrelationship; extracts from blood serum and human urine, and their effect on the gonads of female dogs and cats and also hypophysectomized rats.

Leatherman, Dr. Martin, Chemical Warfare Service Technical Command, Edgewood Arsenal, Md. *Physical chemistry.* River Styx, Ohio, Sept. 13, 02. A.B, Ohio State, 24; fellow, Maryland, 24–27, M.S, 25, Ph.D, 28. Asst. chemist, *bur. chem. and soils, U. S. Dept. Agr,* 27–30, *assoc. chemist, 30–; capt, Chem. Warfare Service, U. S. Army, 42–* Fel. Inst.

Chem. Metallurgy; gas analysis; fertilizers; fireproofing, rotproofing and waterproofing of textiles; naval stores technology; chemical warfare gases.

Leathers, Dr. Waller S(mith), Vanderbilt University, Nashville, Tenn. *Medicine.* Near Charlottesville, Va, Dec. 4, 74. Grad, Virginia, 92, M.D, 95; Hopkins, 96; LL.D, Mississippi, 24, Tulane, 38; Chicago, 98, 01, 02, 07; biol. lab, Long Island, 97; Marine Biol. Lab, Woods Hole, 00; Harvard, 06. Asst. prof. biol, Mississippi, 95–96; head dept. science, Miller Sch, Virginia, 96–97; prof. biol, South Carolina, 97–99; Mississippi, 99–03, physiol, 03–10, histol. and hygiene, 10–24, dean med. sch, 08–24; *prof. prev. med. and pub. health, sch. med, Vanderbilt, 24–, dean, 28–* Director pub. health, Miss, 10; exec. officer, State Dept. Health, Miss, 17–24; mem. board sci. directors, int. health div, Rockefeller Foundation, 30–33, 35–37; Nat. Advisory Health Council, 31. Mem. and pres, Nat. Board Med. Examiners, 30. Pres, Asn. Am. Med. Cols, 42. A.A. (v. pres, K, 27); fel. Am. Med. Asn. (sec'y, sect. prev. and indust. med. and pub. health, 20–23, chairman, 23); fel. Pub. Health Asn. (chairman, cmt. professional educ, 32–; pres, 40); Tuber. Asn; South. Med. Asn. (pres, 22, sec'y, sect. trop. diseases and pub. health, 13–17); Miss. Med. Asn. (pres, 18); fel. Royal Sanit. Inst; fel. Soc. Med. Officers Health England. Preventive medicine; public health administration; control of tuberculosis; lead poisoning; the health officer and medical profession; ascariasis; health personnel.

Leavell, Dr. Gladys, 1 Forestway, Greenbelt, Md. *Chemistry.* Chicago, Ill, 91. A.B, Ill. Woman's Col, 11; M.S, Chicago, 13, Ph.D, 25. Asst. prof, Oberlin Col, 18–19; Saskatchewan, 19–21; lecturer, Alberta, 21–22; asst. prof, Russell Sage Col, 23–24; instr, Margaret Morrison Col, Carnegie Inst. Tech, 26–28; prof, Col. of St. Catherine, 28–29; library and patent research, 29–31; *junior chemist, bur. animal indust, U. S. Dept. Agr, 31–* Chem. Soc. Carbohydrates; fats; micromethods for iron and gold in biological materials; organic synthesis; nutrition and metabolism; analytical procedures in nutrition.

Leavell, Dr. Hugh R(odman), 101 W. Chestnut St, Louisville, Ky. *Public health.* Louisville, Ky, Nov. 17, 02. B.S, Virginia, 25; M.D, Harvard, 26; Dr.P.H, Yale, 40. Instr. med, med. sch, Hopkins, 29–30; *sch. med, Louisville,* 30–34, *prof. pub. health and head dept. pub. health and bacter, 39–* Fel. Pub. Health Asn; fel. Col. Physicians. Teaching preventive medicine to medical students; undulant fever; epidemiology.

Leavenworth, Charles S(tanley), Sanford St, Hamden, Conn. *Biochemistry.* Hamden, Conn, July 21, 79. Ph.B, Yale, 02. *Asst.* physiol. chem, Yale, 04–07; *protein chem, Conn. Exp. Sta, 08–* A.A. Protein chemistry.

Leavenworth, Prof. William Stowell, 2720 Poinsettia Drive, San Diego, Calif. *Chemistry.* Brattleboro, Vt, July 28, 62. B.S, Hamilton Col, 89, M.S, 92; Harvard, 89, 90; Chicago, 99, 01. Asst. chem, Hamilton Col, 88–89; *prof.* chem. and physics, Ripon Col, 89–03; chem, Olivet Col. (Mich), 03–18; Maryville Col, 18–19; *chem. and agr,* Ill. Col, 19–38, *emer. prof, 38–* Acting prin, Vt. State Nor. Sch, Castleton, 92. Chem. Soc. The marble region of New England; a method of analyzing the inorganic acids; some derivatives of wood tar; methods of sewage disposal; new Tennessee phosphate deposits; dicyandiamide as a stabilizer of explosives.

Leaver, Edmund S(priggs), 801 Lake St, Reno, Nev. *Metallurgy.* Salt Lake City, Utah, April 13, 73. Met.E, Utah, 93. Metallurgist, Mercur, Utah, 93–96; engineer and manager, Charles Butters and Co, 96–03; operating mines, 03–04; supt, Dexter-Tuscarora Consol. Mines, Nev, 04–06; gen. supt, Nev. Goldfield Reduction Co, 06–09; manager, Daisy-Combination Mines, 09–12; consultation and marketing ores, 12–14; supt, Knight Metal. Works, Utah, 14–17; *metallurgist and supervising engineer, U. S. Bur. Mines,* Tucson, 17–23, *rare and precious metals exp. sta, Reno, 23–* A.A; Min. and Metal. Eng; fel. Royal Soc. Metallurgy of copper and rare and precious metals.

Leavitt, Dr. B(enjamin) B(urton), 166 Tappan St, Brookline, Mass. *Marine biology.* Brookline, Mass, April 5, 06. A.B, Dartmouth Col, 29; Ph.D, Harvard, 37. Instr. zool, Dartmouth Col, 29–31; master biol, chem. and gen. science, Berkshire Sch, 34–37; biologist, State Div. Fish and Game, Mass, 37–38; head dept. science, physics, chem. and biol, Ashville Sch, 38–41; Trinity Sch, 41–42; *lieut, Air Force, U. S. Army, 42–* Quantitative vertical distribution of bathypelagic macrozooplankton in deep water.

Leavitt, Clyde, New York State College of Forestry, Syracuse, N. Y. *Forestry.* Elk Rapids, Mich, March 1, 78. A.B, Michigan, 01, M.S.F, 04. U. S. Forest Service, 04–12; chief forester, Cmn. of Conservation, Can, 12–21; chief fire inspector, Board Ry. Commissioners for Can, 12–32; acting director forest research, N. Y. State Col. Forestry, Syracuse, 32–33, asst. dean, 33–43; *retired.* Soc. Foresters; Can. Soc. Forest Eng. (pres, 16, sec'y, 18–20, treas, 24–32). Forest protection and conservation; administration.

Lebacqz, Dr. Jean V(ictor), 6306 Broadway Terrace, Oakland, Calif. *Electrical engineering.* Tilff, Belgium, July 30, 11. Brussels, 28–33; Ph.D, Stanford, 35. Engineer, Sofina, Brussels, Belgium, 36–39; *instr. elec. eng, California, 39–; staff mem, radiation lab, Mass. Inst. Tech.* Electronics; dielectric phenomena.

LeBaron, Dr. I(ra) Milton, International Minerals and Chemical Corp, 20 N. Wacker Drive, Chicago, Ill. *Metallurgy, Electrochemistry.* Taunton, Mass, July 20, 11. B.S, Syracuse, 33; M.S, R. I. State Col, 34; N. Y. Univ, 35–36; Louisiana, 36–38; Dr.Met.E, Colo. Sch. Mines, 41. Teaching fellow chem, Louisiana, 36–38; Colo. Sch. Mines, 38–41; *research metallurgist,* Aluminum Co. of Amer, 41–42; *Int. Minerals and Chem. Corp, 42–* Soc. Metals; Min. and Metal. Eng; Electrochem. Soc. Alloy deposition and electrochemical subjects; light metal alloy development; development of ore dressing practice for concentration of non-metallics.

LeBarron, Russell K(enneth), U. S. Forest Service, St. Paul, Minn. *Silviculture.* Napoleon, N. Dak, July 13, 07. B.S, Idaho, 31; Minnesota, 40. *Assoc. silviculturist, Lake States Forest Exp. Sta, U. S. Forest Service, 31–* A.A; Ecol. Soc; Soc. Foresters; Minn. Acad; Mich. Acad. Growth, care and regeneration of several native conifers, especially Pinus Banksiana and Picea Mariana.

le Beau, Dr. Rée Vilma (D. S. le Beau), Massachusetts Institute of Technology, Cambridge, Mass. *Colloid chemistry, Physics.* Teschen, Poland, Feb. 14, 07. Vienna, 26–29; Ph.D, Graz, 31. Prof. chem, junior col, 31–32; research chemist, Austro-Am. Rubberworks, Austria, 32–35; consultant chemist, Soc. de progres techniques, France, 35–36; research chemist, *Dewey and Almy Chem. Co,* 36–40, *consultant chemist, 40–; research assoc, Mass. Inst. Tech, 40–* A.A; Chem. Soc. Colloid chemistry of clays; the chemistry and technology of natural, synthetic and reclaimed rubber.

Lebedeff, Dr. Gabriel A, Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Genetics.* Krivoy-Rog, Russia, April 10, 94. B.S, Conn. Agr. Col, 28; M.S, Cornell, 31, Ph.D, 38. Assoc, dept. genetics, Carnegie Institution, 31–35; experimentalist, plant breeding, Cornell, 35–40; plant breeder, *Exp. Sta,* Puerto Rico, 40–43; *assoc. agronomist, Georgia, 43–* Genetic Asn. Genetics of Drosophila; intersexuality in Drosophila virilis; factor interaction; genetics of maize.

Lebel, Dr. M(oise) W(illiam), 252 Laurier Ave, E, Ottawa, Ont, Can. *Biology.* Ottawa, Ont, Oct. 5, 91. B.A, Ottawa (Can), 12; M.D, McGill, 19. Chief intern, Royal Victoria Hosp, Montreal, Que, Can, 18–21; *asst. surgeon, Ottawa Gen. Hosp,* 21–25, *32–; physician and surgeon, St. Vincent's Hosp. for Incurables, Ottawa, 23–; prof. biol, pre-med. course, Ottawa (Can), 28–* Surgeon, Ottawa Civic Hosp, 25–32, hon. surgeon, 32–; asst. surgeon, Ottawa Gen. Hosp, 32– C.E.F. and B.E.F, 14–17, surgeon probationeer, H.M.S. 'Trenchant,' 17–18. War research.

Lebensohn, Dr. James E(lzar), 20 E. Delaware Place, Chicago, Ill. *Ophthalmology.* Chicago, Ill, Nov. 5, 93. B.S, Chicago, 14, M.S, 15, fellow, 17, M.D, Rush, 17; Ph.D, Northwestern, 35; Cornell; Paris; Vienna. Res, Cook County Hosp, Chicago, 20–21; ophthalmologist and otolaryngologist, U. S. Veterans' Hosp, Ill, 21–24; instr. and later *asst. prof. ophthal, sch. med, Northwestern, 29–; commander, Med. Corps, U. S. Naval Res.* Attending ophthalmologist, Mt. Sinai Hosp, Chicago, 21–; Cook County Hosp, 37–; assoc. ophthal. surgeon, Ill. Charitable Eye and Ear Infirmary, 25–37; visiting ophthalmologist, Passavant and Wesley Mem. Hosps, 29– A.A; Acad. Ophthal. and Otolaryngol; Am. Med. Asn; fel. Col. Surg; Chicago Ophthal. Soc; Chicago Otolaryngol. Soc; Chicago Soc. Hist. Med; cor. mem. Mex. Ophthal. Soc. Retinal determination of blood-pressure; oculo-visceral reflexes; nystagmus of ophthalmic origin; radiational cataract; biochemistry of lens; nature of photophobia; vision charts; the eye and sleep; ophthalmic optics; medical history.

LeBlanc, Dean Floyd J(oseph), South Dakota State College, Brookings, S. Dak. *Pharmacy.* Madelia, Minn, May 30, 97. B.S, S. Dak. State Col, 24, M.S, 27; Ph.D, Purdue, 38. Asst, *S. Dak. State Col,* 22–24, instr, 24–27, asst. prof, 27–38, prof. pharmaceut. chem, 38–40, acting dean *pharmacy,* 40–41, *dean, 41–* Pharmaceut. Asn; S. Dak. Pharmaceut. Asn. Toxic principles of red squill; chenopodium as a worm eradicator.

LeBlanc, Prof. T(homas) J(ohn), Eden and Bethesda Aves, Cincinnati, Ohio. *Biometry, Statistics.* Cheboygan, Mich, June 28, 94. A.M, Michigan, 17, M.S, 20; fellow, Rockefeller Inst, 20; C.P.H, Hopkins, 22, Sc.D, 24. Asst. statistician, U. S. Pub. Health Service, 24–25; assoc. prof. *prev. med, Cincinnati,* 25–35, *prof. and head dept, 35–* Medal, yellow fever work, citizens of Vera Cruz. A.A. Yellow fever; vital statistics; human biology.

Leblond, Dr. C(harles) P(hilippe), 340 Willowdale, Montreal, Que, Can. *Endocrinology.* Lille, France, Feb. 5, 10. License-es-Sciences, Nancy, 32; M.D, Paris, 34; D.Sc, Montreal, 42. Asst. histol, Med. Sch. Paris, 34–35; Rockefeller fellow, sch. med, Yale, 36–37; asst, Lab. de Synthèse Atomique, Paris, 38–40; *lecturer histol. and embryol, McGill, 41–* Asn. Anat; Asn. des Anat. Histological localization of vitamin C in plants and animals, especially in endocrine organs; role of hormones and nervous system in material behavior; fixation of iodine by thyroid.

Lebo, Prof. M(iles) B(lshoff), Box 25, North Texas Agricultural College, Arlington, Texas. *Horticulture.* Dauphin Co, Pa, Oct. 22, 96. B.S, Agr. and Mech. Col. Texas, 20, M.S, 32. Prin. and teacher, high sch, Texas, 21–28; *prof. hort, N. Texas Agr. Col, 28–* N. Texas Pecan Growers Asn. (sec'y). Maturity in watermelons.

Lecher, Dr. Hans Z(acharias), 1049 Kenyon Ave, Plainfield, N. J. *Organic chemistry.* Vienna, Austria, March 20, 87. Ph.D, Munich, 13. Privat-docent, Munich, 20–22; prof. chem, Freiburg, 22–27; *director* rubber dept, I. G. Farbenindustrie A. G. Leverkusen, Germany, 27–32, director org. research, 29–32; gen. org. research div, *Calco Chem. Co,* 34–38, *assoc. director research, 38–* Chem. Soc; Inst. Chem; Chemists' Club; Soc. Chem. Indust. Gt. Britain; Deuts. Chem. Gesell. Organic radicals, sulfur compounds, guanidines and thioureas; synthetic rubber; Kolbe synthesis; ice-colors; various intermediates and dyestuffs.

LeClaire, Dr. Claire Dean, Mellon Institute of Industrial Research, Pittsburgh, Pa. *Organic chemistry.* Huron, S. Dak. B.S, S. Dak. State Sch. Mines, 33; Ph.D, Minnesota, 39. Mem. staff, coal research lab, Carnegie Inst. Tech, 38–41; develop. research on monomer production for polymers, Röhm and Haas Co, Bristol, Pa, 41–42; org. insecticides, Charles Lennig Co, 42; *rubber fellow, Mellon Inst, 42–* Chem. Soc. Nature of oils obtained from the hydrogenation of a few typical bituminous coals; reactions and enolizations of cyclic diketones; polymeric substances; elastomers.

Le Clerc, Dr. J(oseph) Arthur, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Ware, Mass. B.S, Worcester Polytech, 95; Ph.D, Halle, 03. Asst. chemist, Sewage Purification Works, Worcester, Mass, 95; N. Y. Exp. Sta, Geneva, 95–01; physiol. chemist, bur. chem, U. S. Dept. Agr, 03–19; chief chemist, Miner-Hillard Milling Co, 19–21; special trade commissioner, Dept. Commerce, 21–22, grain specialist, 22–28; *senior chemist, food research div, bur. agr. chem. and eng, U. S. Dept. Agr, 28–* Jury awards, Paris Expos, 00; La. Purchase Expos, 04; Pan-Pacific Expos, 15. Chevalier, Mérite agricole, 97. A.A; Chem. Soc. (sec'y, Wash. sect, 07–10, pres, 12); Wash. Acad. Chemistry and physiology of plants; cereal chemistry; international trade in wheat and flour; rice trade of the Far East; corn flour and meal; flour substitutes; wheat germ; soy-beans; peanut baking; mineral content of crops.

LeClerg, Dr. E(rwin) L(ouis), Louisiana State University, Baton Rouge, La. *Plant pathology.* St. Louis, Mo, Feb. 16, 01. B.S, Colo. Agr. Col, 24; M.S, Iowa State Col, 25; Ph.D, Minnesota, 32. Junior pathologist, office of cereal diseases, bur. plant indust, U. S. Dept. Agr, 24–25; asst. plant pathologist, Exp. Sta, Colo. Agr. Col, 25–30; asst. pathologist, div. sugar plant investigations, *bur. plant indust, U. S. Dept. Agr,* 30–39, *pathologist, div. fruits, veg. crops and diseases, 39–* A.A; Phytopath. Soc; Soc. Hort. Sci; Bot. Soc; Soc. Plant Physiol; fel. Iowa Acad; Minn. Acad; La. Acad. Pathology and breeding of Irish potatoes; biology of Rhizoctonia.

LeCompte, Dr. Stuart B(urnette), Jr, Connecticut Agricultural Experiment Station, Windsor, Conn. *Plant physiology.* Baltimore, Md, Aug. 22, 13. A.B, Hopkins, 34, Ph.D, 39. Asst. plant physiol, Hopkins, 36–39; hormone chem, dept. gynec, Hopkins Hosp, 39–40; *asst. plant physiologist, tobacco and veg. substa, Conn. Agr. Exp. Sta, 40–* A.A; Bot. Soc; Soc. Plant Physiol. Physiology and chemistry of pigments in cured tobacco leaf; lysimeter studies on tobacco soils.

Le Compte, Dr. T(homas) R(obert), Jonas and Naumburg Corp, 516 W. 35th St, New York, N. Y. *Chemistry.* Cambridge, Md, June 11, 86. A.B, Western Maryland Col; M.S, Louisiana; Ph.D, Columbia, 27. Instr, Louisiana, 12–15; junior chemist, bur. animal indust, U. S. Dept. Agr, 15–18; instr, Polytech. Inst. Brooklyn, 18–24; indust. fellow, Mellon Inst, 24–31; *Jonas and Naumburg Corp, 31–* Asst, Columbia. Chem. Soc. Charcoal adsorption; action of various charcoals on iron oxide sols and on ferric chloride and hydrochloric acid solutions; the technology of felt hat and paper manufacture; technology of carroting of fur for felt hat manufacture.

LeComte, Dr. R(alph) M(ichael), 1801 Eye St, N. W, Washington, D. C. *Surgery.* Butler, Pa, Feb. 19, 88. M.D, Georgetown, 10. *Practising surgeon, 10–; prof. genito-urinary surg, Georgetown, 26–* Col. Surg; Am. Med. Asn; Urol. Asn. Genito-urinary surgery.

LeConte, Joseph N(isbet), Box 1312, Carmel, Calif. *Mechanical engineering.* Oakland, Calif, Feb. 7, 70. B.S, California, 91; M.M.E, Cornell, 92. Instr. mech. eng, California, 92–00, prof, 00–37; *retired.* Mech. Eng. Experimental and applied mechanics; exploration of Sierra Nevada Mountains; experimental hydraulics.

LeConte, Dr. Joseph N(isbet), 1044 Cleburne Ave, N.E, Atlanta, Ga. *Organic chemistry.* Atlanta, Ga, Feb. 23, 07. A.B, Emory, 27, M.S, 29; Ph.D, North Carolina, 34. Asst. chem, Emory, 28–29; head dept. science, Middle Ga. Col, 29–30; teaching fellow chem, North Carolina, 30–31, asst, 31–34, asst. and research fellow, 34–35; *head physical science dept, Atlanta exten. center, Georgia, 35–* Chem. Soc; Elisha Mitchell Sci. Soc. Derivatives of pseudo-cumidine; quinoline derivatives of 2-amino-p-cymene and thymol; chlorination of 2-nitro-p-cymene.

Le Corbeiller, Dr. P(hilippe), Harvard University, Cambridge, Mass. *Engineering.* Paris, France, Jan. 11, 91. Ecole Polytech, 11–13; M.A, Paris, 19, Ph.D, 26, M.A, 39. Mem. eng. staff, Dept. Communications, France, 19–39; prof. theoret. electricity, Ecole Nationale Superieure des P. T. T, 32–40; director tech. and program depts, French Govt. Broadcasting System, 39–41; *lecturer electronics, Harvard, 41–* Asst, Ecole Polytech, 35–40. Chairman permanent cmt. coordination of radio and wire telephony, Int. Telephone Cmt, 32– Sec'y-gen, Interallied Radio Conf, Paris, 21. Sig.C, French Army, 14–19, capt, 39–40, major, 40– Acoustical Soc; Econometric Soc. Geometry and arithmetic of quadratic forms in the complex field; oscillating generators; symbolic calculus of transient phenomena; electroacoustics.

L'Ecuyer, Dr. Philibert, Faculte des Sciences, Blvd. de L'Entente, Quebec, Que, Can. *Organic chemistry.* Quebec, Que, Oct. 3, 08. B.A, Nicolet, 29, B.App.Sc, 33; Rhodes scholar, Oxon, B.Sc, 35, Ph.D, 36. *Lecturer and demonstrator, Laval.* A.A; Can. Inst. Chem. Alkaloids.

Lederer, Dr. Ernest A(nton), Fells Road, Essex Fells, N. J. *Physics, Chemistry.* Prague, Czechoslovakia, Jan. 25, 95. Ph.D, Vienna, 20. Research engineer, Westinghouse Lamp Co, Vienna, Austria, 20–22; photophone research, Vienna, 22–23; research engineer, Westinghouse Lamp Co, N. J, 23–30; chief engineer, Nat. Union Radio Corp, 30–34; research engineer and later *manager chem. sect, RCA Mfg. Co, 34–* Radio Eng. Electron emitters, getters and special radio tube problems; physics and chemistry of vacuum tubes.

Lederer, Dr. Ludwig G(eorge), Pennsylvania Central Air-Lines Medical Department, Washington National Airport, Washington, D. C. *Physiology, Pharmacology.* Chicago, Ill, Jan. 19, 11. A.B, Illinois, 31; M.S, Northwestern, 32, fellow, 31–37, M.B, 37, M.D, 38, Ph.D, 39. Assoc. research physiol, dept. physiol. and pharmacol, med. sch, Northwestern, 31–39, instr, 39–41; assoc. pharmacologist, drug div, med. sect, food and drug admin, Fed. Security Agency, 41–43; *asst. chief med. dept, Pa. Cent. Airlines, 43–* Instr. and director student health, Chicago Munic. Cols, 37–41. Fel. Am. Med. Asn;

Physiol. Soc. Calcium; toxicology of heavy metals, particularly mercury and lead.

Lederer, Dr. Max, 1037 President St, Brooklyn, N. Y. *Pathology.* New York, N. Y, July 21, 85. M.D, Columbia, 06. Assoc. pathologist, *Jewish Hosp,* 08–15, *assoc. attending physician, 08–, director labs, 15–*; assoc. prof. path, L. I. Col. Med, 27–36. Am. Med. Asn; Soc. Immunol; Asn. Path. and Bact; N. Y. Path. Soc; N. Y. Acad. Med; Brooklyn Path. Soc. (pres, 15–17); Williamsburg Med. Soc. (pres, 15–16). Hematology; clinical pathology; forensic medicine and pathology.

Lederman, Prof. J(ohn) M(cDonald), University of Manitoba, Winnipeg, Man, Can. *Pathology.* Milverton, Ont, Feb. 10, 12. B.Sc, Saskatchewan, 32; M.D, Manitoba, 36. Demonstrator med. and clin. path, *Manitoba,* 36–37, lecturer *path,* 37–43, *asst. prof, 43–* Asst. pathologist, Winnipeg Gen. Hosp, 38–; pathologist, Victoria Hosp, 37– Can. Med. Soc; Manitoba Med. Soc; Winnipeg Med. Soc. Hematology; shock; blood transfusion; blood substitutes.

Ledig, Paul G(erhard), Huancayo Magnetic Observatory, Apartado 46, Huancayo, Peru. *Terrestrial magnetism, Electricity.* Summerfield, Ill, Feb. 21, 89. B.S, California, 17. Gas chemist, Bur. Standards, 17–27; observer in charge, Huancayo Magnetic Observatory, *dept. terrestrial magnetism, Carnegie Institution,* 27–32, field observations, S. Amer, 33, mem. staff, Wash, D. C, 34–40, *observer in charge, Huancayo Magnetic Observatory, 40–* A.A; Geophys. Union; Philos. Soc. Wash; Soc. Geog. de Lima. Gas chemistry; magnetism.

Ledingham, Dr. G(eorge) A(leck), National Research Council, Ottawa, Ont, Can. *Botany.* Dornoch, Ont, Oct. 23, 03. B.Sc, Saskatchewan, 27, M.Sc, 28; Ph.D, Toronto, 32. *Mycologist, div. applied biol, Nat. Research Council Can.* Mycol. Soc; Can. Soc. Tech. Agr; Can. Phytopath. Soc. Life histories of lower fungi; fermentations and industrial utilization of farm crops.

Lee, Alfred R(ogers), U. S. Department of Agriculture, Washington, D. C. *Poultry husbandry.* Wakefield, Mass, 87. B.S, R. I. State Col, 09. *Assoc. poultry husbandman, bur. animal indust, U. S. Dept. Agr, 09–* Poultry Sci. Asn; Soc. Animal Production. Administration and publicity; poultry breeding investigations.

Lee, Prof. Aubrey M(cDaniel), University of Wyoming, Laramie, Wyo. *Veterinary science, Bacteriology.* Conroe, Texas, June 12, 99. D.V.M, Kans. State Col, 22; M.S, Ohio State, 30. Instr. bacter, Wyoming, 22–25, asst. prof. vet. science and bacter, 25–29; asst. path, Ohio State, 29–30; assoc. prof. *vet. science and bacter, Wyoming,* 30–35, *prof, 35–, head dept, 31–* Vet. Med. Asn. Fowl paralysis; avian tuberculosis in cattle; bovine skin tuberculosis; avian tuberculosis; calf diphtheria; avian coccidiosis; Bang's disease; abortion in sheep.

Lee, Charles H(amilton), 58 Sutter St, San Francisco, Calif. *Civil engineering.* Oakland, Calif, Feb. 1, 83. B.S, California, 05. Asst. engineer, Los Angeles Aqueduct Bur, 07–12; consulting hydraul. engineer, 12–17; pres. and exec. mem, State Water Cmn, Calif, 19–21; *consulting engineer, 21–* Chief div. water supply and sanit, Golden Gate Int. Expos, 36–39. Norman medal, Am. Soc. Civil Engineers, 39. Capt, C.Eng, 17–19. Civil Eng; Water Works Asn; Seismol. Soc; Meteorol. Soc; Geophys. Union. Ground water hydrology; precipitation; evaporation; stream flow; soil mechanics; transpiration; absorption; earth dam construction; tunneling; dredger fills; soil leaching; water supply; sewage disposal; foundations.

Lee, Prof. C(harles) O(ren), 600 Robinson Ave, West Lafayette, Ind. *Pharmacy.* McCune, Kans, Nov. 25, 83. B.S, Kansas, 13; M.S, Chicago, 17; Ph.D, Wisconsin, 30. Instr. mat. med, sch. pharmacy, Med. Col. of Va, 13–15; prof. pharmacy, sch. pharmacy, Purdue, 15–20; pharmacist, Wuhu Gen. Hosp, China, 20–23; prof. chem, Univ. Nanking, 23–25; in charge dispensary, Wisconsin, 25–26; *prof. pharmacy, sch. pharmacy, Purdue, 26–* Mem. revision cmt, Nat. Formulary, 39–, U. S. Pharmacopoeia, 40– Chairman cmt. libraries, Am. Asn. Cols. Pharmacy, 33– A.A; Pharmaceut. Asn; Ind. Acad. Pharmaceutical education; emulsions; ointments; precipitation in fluid extracts; toxic principle of red squill.

Lee, Prof. Chester D(aniel), Iowa State College, Ames, Iowa. *Veterinary pathology.* Salt Lick, Ky, Sept. 3, 03. A.B, Morningside Col, 23; D.V.M, Iowa State Col, 27, M.S, 31. House surgeon, vet. clinic, *Iowa State Col,* 27–28, instr. vet. path, 28–33, director vet. diagnostic lab, 29–33, asst. prof, *vet. research,* 33–39, *assoc. prof, 39–* Director Bang's disease lab, bur. animal indust, U. S. Dept. Agr, 34; mem. path. sect, advisory cmt, regional poultry research lab. Vet. Med. Asn; Soc. Parasitol; Asn. Path. and Bact; Soc. Bact; Asn. Mil. Surg; Poultry Sci. Asn; Livestock Sanit. Asn; Research Workers Asn; Iowa Acad; Iowa Vet. Med. Asn. Seasonal prevalence of swine diseases; coccidiosis of the dog; diseases and parasites of fur bearing animals; Bang's disease control in cattle; diseases and parasites of poultry; fowl leucosis.

Lee, C(larence) E(dgar), R. D. 4, Auburn, N. Y. *Poultry nutrition.* Deep River, Conn, Sept. 11, 93. B.S, Connecticut, 16; Cornell, 21–23. Instr, high schs, Mass, 16–19; Conn, 19–20; rural educ, Cornell, 20–22, poultry husbandry, 23; head dept, N. Y. State Inst. Agr, 23–27; poultry specialist, *Beacon Milling Co, Inc,* 27–35, *v. pres. and director poultry research, 35–* Lecturer, Columbia, 25–27. A.A; Poultry Sci. Asn; Feed Mfrs. Asn. (chairman cmt. nutrition, 42); World Poultry Sci. Asn. Poultry management, housing and ventilation.

Lee, Prof. Claudius, Virginia Polytechnic Institute, Blacksburg, Va. *Electrical engineering.* Culpeper, Va, May 30, 72. B.S, Va. Polytech, 96, M.E, 07. From asst. instr. to *prof. elec. eng, Va. Polytech, 93–* Capt, Ordnance Dept, 17–19. Elec. Eng; Illum. Eng. Soc; Physical Soc; Soc. Professional Eng; Va. Acad. Ordnance instruction; electrically actuated time apparatus; laboratory testing appliances; electrical and mechanical horological devices; fire arms.

Lee, Dr. Donald D(ouglas), E. I. du Pont de Nemours and Co, Inc, Wilmington, Del. *Physical chemistry, Chemical engineering.* Chicago, Ill, Jan. 5, 14. B.S, California, 35, Ph.D, 38. Teaching asst. chem, California, 35–37; *research chemist, E. I. du Pont de Nemours and Co, Inc, 38–* Chem. Soc. Radioactivity; chemical process development.

Lee, Dr. Dorothy D(emetracopoulou) (Mrs. Otis H. Lee), Vassar College, Poughkeepsie, N. Y. *Anthropology.* Constantinople, Turkey, July 20, 05. A.B, Vassar Col, 27; Ph.D, California, 31. Instr. *anthrop,* Washington (Seattle), 31–32; Sarah Lawrence Col, 32–33; *lecturer,* Pomona Col, 37; *Vassar Col, 39–* Anthrop. Asn; Ethnol. Soc; Folklore Soc. Society; primitive systems of thought; ethical and philosophical concepts underlying linguistic categories and usages; folklore of the Greeks of the United States.

Lee, Everett S(amuel), 1350 Wendell Ave, Schenectady, N. Y. *Electrical engineering.* Chicago, Ill, Nov. 19, 91. B.S, Illinois, 13; M.S, Union Col. (N. Y), 15. Instr. elec. eng, Union Col. (N. Y), 13–16; mech. expert, Locomotive Stoker Co, Pittsburgh, 16–18; *engineer, gen. eng. lab, Gen. Elec. Co, 19–* Lieut, U.S.A, 18–19. Fel. Elec. Eng. (director, 33–37, v. pres, 40–42); Mech. Eng; Radio Eng. Electrical measurements and developments.

Lee, Dr. Ferdinand C(hristian), Riderwood, Md. *Surgery.* McDonogh, Md, Feb. 13, 94. A.B, Cornell, 15; M.D, Hopkins, 19. Res. house officer, Hopkins Hosp, 19–20, from asst. to assoc. anat, 20–25, asst. res. surgeon, 26–29, assoc. surgeon, 29–41, from assoc. to assoc. prof. surg, Hopkins, 25–36; acting prof, Georgia, 33–34; prof. and head dept. surg. and dean, N. Y. Med. Col, 39–40; *assoc. prof. surg, med. sch, Hopkins, 40–, visiting surgeon, Hopkins Hosp, 40–* Asn. Anat; Soc. Exp. Biol. Regeneration in the sympathetic nervous system; physiology of the lymph system; anatomy and physiology of the reproductive system; anatomy of the hypophysis; surgery of the large bowel; experimental cancer; hare-lip; meralgia paresthetica; Pacinian corpuscle; purpura hemorrhagica.

Lee, Dr. Frederick W(illiam), U. S. Bureau of Mines, Washington, D. C. *Geophysics.* Baltimore, Md, Nov. 5, 89. M.E, Cornell, 11; Harvard, 11–13; Ph.D, Hopkins, 20. Asst, Harvard, 11–13; research assoc, Hopkins, 14–16. assoc. prof. elec. eng, 25–28; head geophys. sect, U. S. Bur. Mines, 28–35; *chief,* U. S. Geol. Surv, 35–42; *div. geophys. explor, U. S. Bur. Mines, 42–* Geophys. Union. Applied physics; geophysical prospecting for finding buried mineralization.

Lee, Prof. George H(amor), 219 Ridgedale Road, Ithaca, N. Y. *Mechanical engineering.* Oakmont, Pa, June 3, 08. B.S, Pittsburgh, 36; McMullen scholar, Cornell, 36–37, M.S, 37, Ph.D, 40. Asst, research labs, Aluminum Co. Amer, 28–33; Westinghouse research assoc, Cornell, 36, instr. *mech. of eng,* 37–40; Carnegie Inst. Tech, 40–41; *asst. prof, col. eng, Cornell, 41–, coordinator courses in math. and mech, eng, sci-*

ence and management war training, 42– Research on tube expanding, Babcock and Wilcox Co, 42. A.A; Mech. Eng. (cmt. indust. regulators, 38–41); Eng. Educ. Theory of elasticity, especially thin plate theory; pressure responsive elements; photoelasticity.

Lee, Harley C(lyde), Basic Magnesium, Inc, Las Vegas, Nev. *Chemistry, Mineralogy.* Bellville, Ohio, Nov. 7, 01. B.E.M, Ohio State, 27. Mining engineer, Wright Hargreave Mines, Ltd, 24–25; research engineer, Bur. Standards, Ohio, 25; chief chemist, Dolomite, Inc, 26–30; asst, research lab, U. S. Steel Corp, 30–31; *director* research, Basic Dolomite, Inc, 31–41, director *tech. service, Basic Magnesium, Inc, 41–* Min. and Metal. Eng; Chem. Soc; Ceramic Soc; Miner. Soc; Electrochem. Soc; Faraday Soc. Metallurgical processes; magnesium products; slags; refractories; silicate chemistry.

Lee, (Henry) Atherton, Office of the Rubber Director, War Production Board, Washington, D. C. *Agronomy, Plant physiology.* White Hills, Conn, Jan. 5, 94. B.S, California, 15, M.S, 16. Pathologist, bur. plant indust, U. S. Dept. Agr, 16–20; mycologist, Bur. Science, P. I, 20–23; director sugar cane investigations, Philippine Sugar Asn, 23; pathologist, Exp. Sta, Hawaiian Sugar Planters' Asn, 23–26; director research, Philippine Sugar Asn, 27–34; director, P. R. Exp. Sta, U. S. Dept. Agr, 34–41; *chief nat. rubber sect, office rubber director, War Production Board, 41–* Decoration, Govt. Haiti, 39; Govt. Ecuador, 40; Govt. Dominican Republic, 41. A.A; Phytopath. Soc; Soc. Plant Physiol; Int. Soc. Sugar Cane Technol. Sugar cane agronomy, physiology, pathology and technology.

Lee, Dr. Henry M(offet), 717 W. Drive Woodruff Place, Indianapolis, Ind. *Pharmacology.* Pyeng Yang, Korea, Dec. 4, 06. A.B, Occidental Col, 29; A.M, California, 31, Ph.D, 34. Teaching asst, California, 31–34; *pharmacologist, research labs, Eli Lilly and Co, 34–* A.A. Cardiac physiology; anterior pituitary; estrogenic hormones; hypertension.

Lee, Prof. Herbert L(eonard), University of Tennessee, Knoxville, Tenn. *Mathematics.* Lenoir City, Tenn, April 5, 01. A.B, Tennessee, 27, A.M, 31; Chicago, summers, 28–30; Ph.D, Duke, 41. Teacher *math,* high sch, Tenn, 27–28; instr, *Tennessee,* 28–42, *asst. prof, 42–* Math. Asn; Tenn. Acad. Algebra; power sums of polynomials in a Galois field.

Lee, H(orace) N(ewton), 41 North Ave, Melrose, Mass. *Industrial physics.* Wakefield, Mass, Oct. 15, 89. B.S, Maine, 11; A.M, Harvard, 13. Chief div. timber physics, Forest Products Labs, Can, 14–18; microscopist, Warwick Mills, 19–20; wood and paper technologist, Hammermill Paper Co, 20–33; asst, Harvard, 33–36; *research microscopist, Arthur D. Little, Inc, 36–* Austin teaching fellow, Harvard, 13–14. Inspector airplanes and airplane engines, bur. aircraft production, U.S.A, 18–19. Tech. Asn. Pulp and Paper Indust. Wood and paper technology; preservation of records; microscopy of paper; textiles; wood; printing.

Lee, Dr. I(ra) E(lver), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Alamo, Ind, July 10, 83. A.B, Indiana, 11, fellow, 11–12, A.M, 12; Ph.D, Cornell, 15. Asst. chem, Cornell, 12–14; chief chemist, Am. Refrig. Co, 14–15; instr. chem, Rochester, 15–18; research chemist, *E. I. du Pont de Nemours and Co,* 18–28, plant supervisor, 28–29, *chem. supervisor, 29–* Binary systems; intermediates for dyes; accelerators; flotation agents; solvents.

Lee, James A(ugustine), McGraw-Hill Publishing Co, 330 W. 42nd St, New York, N. Y. *Chemical and metallurgical engineering.* New Iberia, La, Aug. 7, 94. A.B. and B.S, Washington and Lee, 17; Mass. Inst. Tech, 18; A.M, Columbia, 25. Chemical engineer and foreman, Citizens Gas Co. of Indianapolis, 20; chem. engineer, West. Elec. Co, 21–25; Bell Tel. Labs, 26–28; *managing ed, 'Chem. and Metal. Eng,' McGraw-Hill Publishing Co, 29–* C.W.S, U.S.A, 19. Chem. Eng; Chem. Soc; Soc. Test. Mat; Electrochem. Soc. (v. pres, 41–); Tech. Asn. Pulp and Paper Indust; Royal Soc. Arts. Materials of construction; corrosion; plastics and synthetic resins.

Lee, Prof. James S(umner), North Carolina College for Negroes, Durham, N. C. *Bacteriology, Protozoology.* Lancaster, S. C, Dec. 7, 03. A.B, Lincoln (Pa), 27; M.S, Michigan, 34. Gen. Educ. Board fellow, 37, Ph.D, 39. Instr. *biol,* Shaw, 30–37; *prof, N. C. Col. for Negroes, 38–* Distribution and viability of rabies virus in body tissues and fluids following intravenous injection; continuous observation of contractile vacuoles of paramecium; fixative and stain for the cilia and trichocysts of paramecium.

Lee, Dr. John, Oval Road, Essex Fells, N. J. *Chemistry.* Barnard Castle, Eng, Sept. 3, 01. Ph.C, Glasgow, 23; B.S, Polytech. Inst. Brooklyn, 31; Ph.D, Zurich, 34. *Research chemist,* E. R. Squibb and Sons, 28–34; *Hoffmann-La Roche, Inc, 34–* Chem. Soc; Deuts. Chem. Gesell. Carotinoid hydrocarbons; synthetic drugs.

Lee, Dean J(ordan) G(rey), Louisiana State University, Baton Rouge, La. *Animal industry.* Farmerville, La, Oct. 29, 85. B.S, Louisiana, 06, M.S, 29. In charge animal nutrition, Exp. Stations, Louisiana, 06–09; *prof.* agr, Southwest. La. Inst, 09–19; agr. educ, *Louisiana,* 19–31, *animal indust. and dean col. agr, 31–* Animal nutrition.

Lee, Prof. J(ordan) G(rey), Jr, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal nutrition.* Lafayette, La, Feb. 28, 14. B.S, Louisiana, 34, fellow, 34–35, M.S, 35; Ph.D, Missouri, 40. Teaching fellow biochem, med. sch, Louisiana, 35–37; asst. agr. chem, Missouri, 38–40; instr. *chem, Okla. Agr. and Mech. Col,* 40–42, *asst. prof, 42–* A.A; Chem. Soc; Okla. Acad. Vitamin requirements of the pigeon.

Lee, Prof. Julia Southard, Iowa State College, Ames, Iowa. *Textile chemistry.* Southard, Mo, Sept. 29, 97. B.S, Missouri, 26; M.S, Kans. State Col, 29, fellow, 29–30; Ellen H. Richards fellow, Am. Home Econ. Asn, 30–31, fellow, 31–33; Ph.D, Chicago, 36. *Assoc. prof. textiles and clothing, Iowa State Col, 39–* A.A; Chem. Soc; Soc. Test. Mat; Asn. Textile Chem. and Colorists. Protein textile fibers.

Lee, Prof. Konrad O(lav), Concordia College, Moorhead, Minn. *Spectroscopy.* N. Dak, Nov. 24, 92. A.B, Concordia Col, 19; A.M, Chicago, 21, Ph.D, 26. Instr. *physics,* Albion Col, 21–23; *prof. and head dept, Concordia Col, 26–* Physical Soc. Wave-lengths in the secondary spectrum of hydrogen.

Lee, Dr. Linwood L(awrence), Rutgers University, New Brunswick, N. J. *Soils.* Trenton, N. J, Jan. 11, 94. B.S, Rutgers, 16; Princeton, 24–25; D.Sc, London, 31. *Asst. prof. soils, Rutgers, and research specialist, land utilization, N. J. Exp. Sta, 25–; state co-ordinator, soil conservation service, U. S. Dept. Agr, 35–* Asst. to state geologist, N. J, 16–19; in charge, N. J. Soil Surv, 19–; Rockefeller Foundation Int. Educ. Board fellow, Europe, 29–30; nat. research fellow, Europe, 31; research staff, Rothamsted Exp. Sta, Harpenden, England, 29–31; lecturer, Southeast. Agr. Col, London, 29–31; land planning consultant, Nat. Resources Board, 34; agr. adjust. admin, U. S. Dept. Agr, 34; regional director soil erosion service, U. S. Dept. Interior, 34–35. Summer, staff, Princeton, 26. Mem, State Soil Conservation Cmt, N. J, 37–; State Defense Council, 40–; state defense board, U. S. Dept. Agr, 41– Lieut, U.S.A, 18–19. Soc. Agron; Geophys. Union; Soil Sci. Soc; N. J. Hort. Soc; N. J. Pub. Health Asn; N. J. Parks and Recreation Asn; New Brunswick Sci. Soc; Int. Soc. Soil Sci. Soil geography and classification; agricultural geology; land utilization; soil conservation.

Lee, Marvin, 809 Bitting Bldg, Wichita, Kans. *Economic geology.* Greenville, Ky, Oct. 3, 89. West. Ky. State Nor. Sch. U. S. Geol. Surv, 11–14; Norfolk and West. Ry, 15; consulting oil geologist, F. Julius Fohs, 16–18; East Butte Copper Mining Co, 18–19; Allen and Lee, 20–23; *petrol. geologist,* Marvin Lee–J. L. Garlough, 23–32, *Marvin Lee, 32–; consulting geologist, 37–* Chairman oil advisory cmt, Kans. Pub. Service Cmn, 31–33; tech. adviser, State Corp. Cmn, Kans, 33–36; consultant, State Board Health, 35–36; chairman subcmt. on conservation laws; asst. chief petrol. production sect, dist. two, Petrol. Admin. for War, 42–43. Interstate Oil Compact Cmn, 36. Asn. Petrol. Geol. (2nd v. pres, 30); Min. and Metal. Eng; Independent Petrol. Asn. (director); Gas Asn; Kans. Geol. Soc. (past pres. and sec'y-treas). Economic petroleum geology; development of oil and gas fields; oil and gas discovery and conservation in production practices.

Lee, Dr. Mary A(lden) M(organ), 1362 Astor St, Chicago, Ill. *Psychology.* Little Falls, N. Y, Nov. 17, 90. A.B, Bryn Mawr Col, 12; A.M, Columbia, 18; M.D, Rush, Chicago, 28, Ph.D, Chicago, 30. Research assoc, Behavior Research Fund, 27–29; *lecturer, Chicago, 29–; psychologist, Girls Latin Sch, 29–* Psychol. Asn; Asn. Applied Psychol; Ill. Soc. Consulting Psychol. Physiological and child psychology.

Lee, Dr. M(ilton) O(liver), Harvard Medical School, Boston, Mass. *Physiology.* Conneaut, Ohio, Sept. 8, 01. A.B, A.M, Ohio State, 23, Ph.D, 26. Instr. *physiol,* Ohio State.

23–27; *research fellow, Harvard Med. Sch,* 27– Instr, Iowa State Col, 25. Assoc. Mem. Foundation Neuro-Endocrine Research, 27– Managing ed, 'Endocrinol,' 36–; 'Jour. Clin. Endocrinol,' 40– Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions (v. pres, 29); Inst. Nutrition. Insect physiology; physiology of internal secretions.

Lee, Prof. Oliver J(ustin), Dearborn Observatory, Evanston, Ill. *Astronomy.* Montevideo, Minn, Dec. 16, 81. A.B, Minnesota, 07; fellow, Yerkes Observatory and Chicago, 10–12, M.S, 11, Ph.D, 13. Computer, Yerkes Observatory, Chicago, 07–10, asst, 12–14, instr. practical astron, 14–23, asst. prof, 23–26; *astron, Northwestern,* 28–30, assoc. prof, 30–35, *prof, 35–, chairman dept. and head, Dearborn Observatory, 29–, director, 32–* Summers, lecturer, Minnesota, 08–10; prof, Oregon, 28. Exec. mem, Yerkes Observatory, Chicago, total solar eclipse exped, Calif, 23; Mich, 25; head, Dearborn Observatory exped, Maine, 32. Director sch. navig, U. S. Shipping Board, Chicago, 17–19. A.A; Astron. Soc; fel. Royal Astron. Soc. Solar physics; stellar spectroscopy and parallaxes; radial velocities with orbits; correlation between solar phenomena; proper motions of stars; solar parallax; classification of faint red stars in northern sky.

Lee, Dr. R(ichard) E(verett), Washington Square College, New York University, New York, N. Y. *Biology.* New Bedford, Mass, March 13, 15. B.S, Mass. State Col, 39; A.M, Harvard, 40, Ph.D, 42. Teaching fellow, Harvard, 39–42; *research assoc, Office Sci. Research and Develop, N. Y. Univ, 42–* Summers, research fellow, Oceanog. Inst. Woods Hole, 40–42. Soc. Ichthyol. and Herp. Marine biology; pituitary physiology; nerve mechanisms; traumatic shock.

Lee, Dr. R(obert) J(ames), Box 292, La Marque, Texas. *Chemistry.* San Jose, Ill, Jan. 4, 16. A.B, St. Olaf Col, 37; A.M, Indiana, 38, Ph.D, 41. Asst, Indiana, 37–41; research chemist, *Pan Am. Ref. Corp,* 41–42, *research group leader, 42–* Chem. Soc. The effectiveness of catalysts in the vapor phase oxidation of aniline; production of phenazine and azobenzene.

Lee, Dr. Roger I(rving), 264 Beacon St, Boston, Mass. *Medicine.* Peabody, Mass, Aug. 12, 81. A.B, Harvard, 02, M.D, 05. Med. intern, Mass. Gen. Hosp, 05–07; asst. med, Harvard Med. Sch, 07–12, instr, 12–14, prof. hygiene, Harvard, 14–24; *practising physician, 24–* Physician to outpatients, Mass. Gen. Hosp, 08–12, visiting physician, 12–20, asst. chief med. service, 20–24. Overseer, Harvard, 30–31, fellow, 31– Mem. cmt. med, Nat. Research Council. A.A; Am. Med. Asn. (chairman board trustees); Col. Physicians (pres, 41); Am. Physicians; Soc. Clin. Invest; Pub. Health Asn. (treas, 19–23); Clin. and Climat. Asn; Am. Acad; Mass. Med. Soc. (pres, 43); fel. Royal Col. Physicians, London. Internal medicine; hygiene.

Lee, Roland L(inwood), Jr, 2100 Robert E. Lee Blvd, New Orleans, La. *Cotton textiles.* Landrum, S. C, Jan. 12, 05. B.S, Clemson Agr. Col, 25; Ga. Tech, 25; M.S, N. C. State Col, 30; Textile Foundation junior fellow, Lowell Textile Inst, 32–33, Textile Foundation senior fellow, 33–34. Vocational instr, high sch, S. C, 25–26; instr. and asst. prof. yarn mfg, textile sch, Clemson Agr. Col, 26–35; assoc. cotton technologist, U. S. Dept. Agr, 35–40; prof. textile eng. and head dept, Texas Tech, 40–41; *senior cotton technologist, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Eng. Educ. Development of cotton products; cotton manufacturing processes; spinning tests; quality of cottons; development of cotton products to meet the requirements of specific uses.

Lee, S(tark) O(lan) Ivan, 2684 Boulevard, Jersey City, N. J. *Chemistry, Mineralogy.* Madison, Ohio, April 17, 88. B.S, Polytech. Inst. Brooklyn, 11. Research chemist, Colgate and Co, 11–13; chemist, Tagliabue and Co, 13; path. research chemist, Crocker Lab, Columbia, and St. Luke's Hosp, 13–17; tech. adviser, Great Am. Chem. Products Co, 17–19; chemist, Antoine Chiris and Co, 19–20; chem. director, T. M. and G. Chem. Co, 20–23; chem. research and automotive engineer, Van Dyke and Co. and Boyce and Veeder, 23–26; chem. research engineer, Pan-Org. Corp. and Process Labs, 26–29; spectrog. research chemist, inst. cancer research, Columbia, 29–31, chem. consultant, 32–34; research chemist, Synthetic Chem. Co, 34–37; spectrographer, Lucius Pitkin, *New York,* 37–41; consultant chem. miner, 41–42; *technologist, Katz and Ogush, 42–* Ed. in chief, 'Polytech. Eng,' 11. Fel. Miner. Soc; N. Y. Acad; N. Y. Miner. Club; N. J. Miner. Soc. Organic and pathological chemistry; terpenes; rare elements; aromatic chemicals; micro-chemical analysis; selenium and tellurium dyes; colloidal gold; oxidase stain; foaming inhibitors; mercury poisoning; manganotantalite; fuel research; anti-freeze solutions; corrosion; automotive development; chromic acid; hafnium; spectrography; chemical microscopy; heterocyclic mercaptans; reversible photosensitivity; biochemistry; thermoluminescence; spectrography; quartz oscillators.

Lee, Dr. Sylvan B(urton), General Mills, Inc, 2010 E. Hennepin Ave, Minneapolis, Minn. *Biochemical bacteriology.* Holmen, Wis, Jan. 5, 16. B.S, Wisconsin, 38, M.S, 39, Ph.D, 42. Asst, Wisconsin, 36–39, 41–42; *research bacteriologist and biochemist,* research dept, Commercial Solvents Corp, 39–41; *research labs, Gen. Mills, Inc, 42–* Chem. Soc; Soc. Bact. Bacteriology and biochemistry in relation to the food industry and to microbial fermentations.

Lee, Dr. Walter Estell, 905 Pine St, Philadelphia, Pa. *Surgery.* Philadelphia, Pa, July 22, 79. M.D, Pennsylvania, 02. *Prof. surg, grad. sch. med, Pennsylvania; lieut. col, Med. Res. Corps, U. S. Army.* Chairman, ed. board, 'Annals of Surg.' Surg. Asn. (ed, 'Trans'); Soc. Clin. Surg; Asn. Thoracic Surg; fel. Col. Surg; Am. Med. Asn; Phila. Acad. Surg; Col. Physicians Phila; Phila. Pediat. Soc; Path. Soc. Phila; Int. Surg. Asn. Germicidal agents; post-operative complications; traumatic shock; herniorrhaphy; surgical treatment of burns; military surgery; fractures; surgery of the heart and blood vessels; gastro-intestinal, thoracic and cardiovascular surgery; wound infection.

Leech, Dr. Clifton B(riggs), 82 Waterman St, Providence, R. I. *Medicine.* Winthrop, Maine, Feb. 17, 95. M.D, Boston, 19, B.S, 28. *Cardiologist, Union Hosp, Fall River, Mass, 22–, Gen. Hosp, 24–* Fellow, Hopkins, 28–30; visiting physician, out-patient dept, R. I. Hosp, 30–; cardiologist, Newport Hosp, 37–; C. V. Chapin Hosp, 41; consulting cardiologist, Cape Cod Hosp. Am. Med. Asn. Heart disease.

Leech, Dr. W(illiam) D(ale), Pasadena Junior College, Pasadena, Calif. *Chemistry.* Kingsville, Mo, Oct. 3, 94. A.B, Union Col. (Nebr), 19; A.M, Southern California, 26; Ph.D, Calif. Inst. Tech, 42. Teaching fellow, Southern California, 25–26; instr. chem, Pasadena Junior Col, 26–32; mem. staff, Australasian Food Research Lab, Sydney, Australia, 32–38; *instr. chem, Pasadena Junior Col, 38–; director, Emenel Labs, 42–* Australian Chem. Inst; Royal Soc. New South Wales. Bio-organic chemistry; vitamins; plant growth hormones; chlorophyll; neoplasma.

Leed, Prof. Russell E(rnest), 430 Parade Ave, Lexington, Va. *Physical chemistry.* Denver, Pa, Dec. 24, 15. B.S, Franklin and Marshall Col, 37; M.S, Maryland, 39, Ph.D, 41. Teaching fellow chem, Maryland, 37–41; *asst. prof. physical chem, Va. Mil. Inst, 41–* Chem. Soc. Solubility of mercurous iodate.

Leeds, Morris E(vans), 4901 Stenton Ave, Philadelphia, Pa. *Physics.* Philadelphia, Pa, March 6, 69. A.B, Haverford Col, 88; Berlin, 92–93; hon. Dr.Eng, Polytech. Inst. Brooklyn, 36. Queen and Co, Phila, 90–99; Morris E. Leeds and Co, 99–03; pres, *Leeds and Northrup Co,* 03–39, *chairman board, 39–* A.A; Physical Soc; Elec. Eng; Philos. Soc; Franklin Inst; Acad. Nat. Sci. Phila. Electrical and heat measuring apparatus.

Leedy, Dr. Danlle L(oney), Ohio State University, Columbus, Ohio. *Zoology, Ecology.* North Liberty, Ohio, Feb. 17, 12. A.B, Miami (Ohio), 34, B.S, 35; M.S, Ohio State, 38, Ph.D, 40. *Asst. director, Ohio Wildlife Research Sta. and instr. zool, Ohio State, 40–; U. S. Army, 42–* Soc. Mammal; Wildlife Soc; Ornith. Union; Wilson Ornith. Club; Ohio Acad. Population studies; census methods; food habits; land-use and farmer attitudes toward pheasants and other game birds; farmer-sportsman relationships; wildlife management techniques; inter-relationship of soil conservation, water resources and wildlife.

Leedy, Dr. Haldon Arthur, Armour Research Foundation, 35 W. 33rd St, Chicago, Ill. *Physics.* Fremont, Ohio, April 15, 10. A.B, N. Cent. Col, 33; A.M, Illinois, 35, Ph.D, 38. Asst. physics, Illinois, 33–38; *research physicist, Armour Research Foundation, Ill. Inst. Tech, 38–* Acoustical Soc; Physical Soc. Industrial problems in acoustics and vibration.

Leedy, Prof. J(ohn) W(entworth), 214 E. Jefferson Ave, Wheaton, Ill. *Botany.* Warsaw, Ind, Dec. 4, 67. B.S, Minnesota, 99; M.S, Wisconsin, 16. Instr, Science Epworth Sem, Epworth, Iowa, 02–05; prof. biol, John Fletcher Col, 06–15, acting pres, 10–15; Junior Col, Rochester, Minn, 16–20; bot, Marion Col, 20–22, pres, 22–27; *prof. bot, Wheaton Col.*

(*Ill*), *28–* Genetic Asn; Victoria Inst. Gt. Britain. Economic importance of facultative parasites; the saprophyte Peziza as a facultative parasite on Potentilla canadensis in Wisconsin.

Leeg, Dr. Kenton J(ames), 1824 W. 41 Drive, Los Angeles, Calif. *Plastic chemistry, Engineering.* Spokane, Wash, Aug. 31, 11. A.A, Santa Rosa Junior Col, 32; A.B, California, 35; Arizona, 36–37; Ph.D, Southern California, 40. *Director research, Baker Oil Tools Inc, 40–; lecturer indust. chem, Southern California, 40–* Chem. Soc; Soc. Test. Mat. Preparation and uses of liquid phenolic casting resins; sugars; starches; plastics.

Leekley, James R(ussell), Experimental Fur Station, Petersburg, Alaska. *Biology.* Ocean Park, Wash, Feb. 7, 11. B.S, Oregon State Col, 38. Asst. to director, fur animal exp. sta, sect. fur resources, div. wildlife research, *fish and wildlife service, U. S. Dept. Interior,* 38–41, *assoc. biologist in charge territorial exp. fur sta, Alaska game cmn, 41–* Propagation and nutrition of various species of fur bearing animals as applied to Alaska.

Leeper, Prof. Robert (Ward), University of Oregon, Eugene, Oregon. *Psychology.* Braddock, Pa, Sept. 25, 04. A.B, Allegheny Col, 25; A.M, Clark, 28, Ph.D, 30. Instr. social sciences, Paine Col, 26–27; asst. psychol, Clark, 28–30; instr, Arkansas, 30–33; nat. research fellow, Chicago, 33–34; instr. *psychol,* Cornell Col. (Iowa), 34–37; asst. prof, *Oregon,* 37–43, *assoc. prof, 43–* Psychol. Asn; Soc. Psychol. Study Social Issues; West. Psychol. Asn. Learning; motivation; personality.

Leermakers, Dr. John A(ndrews), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Omaha, Nebr, April 29, 07. B.S, Iowa State Col, 28, M.S, 29; Ph.D, Calif. Inst. Tech, 32. Nat. research fellow chem, Harvard, 32–34; *research chemist, Eastman Kodak Co, 34–* Chem. Soc. The mechanisms of thermal and photochemical reactions as deduced from rate measurements; experimental photographic emulsions.

Lees, Dr. H(arry) De W(itt), 2 Balfour Circle, Lansdowne, Pa. *Public health.* St. Thomas, Ont, Can, Nov. 23, 88. M.D, Toronto, 10. Chief res. physician, Parkview Sanatorium, Minneapolis, 23–24; asst. prof. prev. med. and pub. health and asst. director student health service, Minnesota, 24–31; *assoc. prof. hygiene and director student health service, Pennsylvania, 31–* Assoc. tuber, Minneapolis Gen. Hosp, 24–31. Fel. Am. Med. Asn; Student Health Asn. (pres, Pa. and N. J. sect, 33, mem. tuber. cmt, 33–); Asn. School Physicians (mem. tuber. cmt, 34–); Pa. Tuber. Soc. (director, 33–). The Dick test and immunization in scarlet fever; diphtheria; tuberculosis infection in adults; correlation of vital capacity and various physical measurements; variations in blood pressure of normals.

Leese, Prof. Chester E(lwood), George Washington University School of Medicine, Washington, D. C. *Physiology.* Clinton, Iowa, Aug. 15, 99. A.B, Iowa, 22, M.S, 25, Ph.D, 30. Instr. physiol, Iowa, 22–29, assoc, 29–30; research fellow and nat. research fellow *physiol,* Harvard Med. Sch, 30–32; asst. prof, *sch. med, George Washington,* 32–37, *assoc. prof, 37–* A.A; Physiol. Soc; Soc. Exp. Biol. (sec'y-treas, D.C. sect, 38, chairman, 39; councilor, 40). Carbohydrate metabolism; neuromuscular physiology; pharmacology of Bulbocaprine.

Leet, Prof. L(ewis) Don, Harvard University, Cambridge, Mass. *Seismology.* Alliance, Ohio, July 1, 01. B.S, Denison, 23; A.M, Harvard, 29, Ph.D, 30. Fellow seismol, Dom Observatory, Ottawa, 29; commercial seismol, 30; instr. *seismol, Harvard,* 30–36, asst. prof, 36–42, *assoc. prof, 42–, seismologist in charge seismograph sta, 30–* Seismol. Soc. (chairman, east. sect, 35); Geophys. Union; Soc. Econ. Geol; Geol. Soc; Soc. Explor. Geophys; Am. Acad. Experimental seismology; local earthquakes; seismic prospecting.

Lefavour, Dr. Henry, 119 Bay State Road, Boston, Mass. *[3]Physics, Education.* Salem, Mass, Sept. 4, 62. A.B, Williams Col, 83, Ph.D, 86, LL.D, 02; Berlin, 88–90; LL.D, Tufts Col, 05. Instr, Williston Sem, 83–84; physics and math, Williams Col, 84–88, prof. physics, 88–02, dean, 97–02; pres, *Simmons Col. (Mass),* 02–33, *emer. pres, 33–* Trustee, Williams Col; Simmons Col. A.A; Am. Acad.

Lefebvre, Dr. C(amille) L(eon), U. S. Department of Agriculture, Washington, D. C. *Botany, Plant pathology.* Elk River, Minn, June 28, 05. B.S, Minnesota, 29; A.M, Harvard, 31, Ph.D, 32. Barberry eradication, bur. plant indust, U. S. Dept. Agr, 24–29, corn borer, bur. entom, 29–32; asst. prof. bot, Kans. State Col, 32–37; *pathologist, div. forage crops and diseases, U. S. Dept. Agr, 37–* Diseases of forage crops.

Leffler, Dr. Marlin T(empleton), Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* College Corner, Ind, Feb. 28, 11. A.B, Miami (Ohio), 32; A.M, Illinois, 33, Ph.D, 36. Asst. chem, Illinois, 33–35, fellow, 35–36; *research chemist, Abbott Labs, 36–* Local anesthetics; antiseptics; optical activity of organic deuterium compounds.

Lefforge, Prof. J(esse) H, Purdue University, West Lafayette, Ind. *Agronomy.* Oaklandon, Ind, Nov, 89. B.S.A, Purdue, 18; M.S, Minnesota, 26. Instr, Minnesota, 24–27; *asst. prof. agr. bot, Purdue, 28–* Effect of low temperatures on corn at various stages of development; barley inheritance.

Lefler, Dr. Glenn Q(uenton), 313 Highland Ave, Kent, Ohio. *Physics.* Huntington Co, Ind, Dec. 31, 05. A.B, Indiana, 29, A.M, 32, Ph.D, 36. Instr. *physics,* Maine, 29–34; asst. instr, Indiana, 34–36; *instr, Kent State Univ, 36–* Physical Soc; Asn. Physics Teachers; Ind. Acad. The effect of resistance on dielectric constant.

Lefschetz, Prof. S(olomon), 129 Broadmead, Princeton, N. J. *[3]Mathematics.* Moscow, Russia, Sept. 3, 84. M.E, École cent, Paris, 05; Ph.D, Clark, 11. Westinghouse Elec. and Mfg. Co, 07–10; instr. *math,* Nebraska, 11–13; Kansas, 13–16, asst. prof, 16–20, assoc. prof, 20–23, prof, 23–24; visiting prof, *Princeton,* 24–25, assoc. prof, 25–28, prof, 28–33, *Henry Burchard Fine prof, 33–* Summer, lecturer, Europe, 36. Ed, 'Annals Math'; assoc. ed, 'Bul. des Sci. Math.' Bordin prize, French Acad, 19; Bocher prize, Am. Math. Soc, 24. Nat. Acad; A.A; Math. Soc. (pres, 35–); Math. Asn; Philos. Soc; Soc. math. de France; cor. mem. Böhmische Gesell. der Wiss. Algebraic geometry; topology; multiply periodic functions.

LeGalley, Dr. Donald P(aul), Philadelphia College of Pharmacy and Science, Philadelphia, Pa. *Physics.* Norwalk, Ohio, June 30, 01. B.S, Heidelberg Col. (Ohio), 25; M.S, Pa. State Col, 30, Ph.D, 35. Instr, high sch, Ohio, 25–26; *physics,* Capital Univ, 26–28; asst, Pa. State Col, 28–35, instr, 35–37; *asst. prof, Phila. Col. Pharmacy, 37–* Research physicist, Gen. Elec. Research Labs, 30; Bartol Research Foundation, 33; visiting assoc. prof, Haverford Col, 43– Summer, asst. supervisor physics, eng, science and management defense training, Pa. State Col, 41. Physical Soc; Asn. Physics Teachers. Measurement of absolute x-ray intensities with a Geiger-Muller counter; a type of Geiger-Muller counter suitable for measurement of diffracted molybdenum K x-rays; action of high frequency sound waves on bacteria; effect of drying agents on moisture content of digitalis; effect of vitamin A and vitamin B on color vision.

Legault, Dr. R(omeo) R(alph), Bucknell University, Lewisburg, Pa. *Organic chemistry.* Argyle, Minn, March 14, 05. A.B, South Dakota, 26; M.S, Maryland, 28; Ph.D, Chicago, 30. Prin. and instr, high sch, S. Dak, 26–27; Pierre du Pont fellow, Chicago, 30–32. Research Corp, fellow, 32–35; asst. prof. *chem, Bucknell,* 35–39, *assoc. prof, 39–* Co-winner Am. Med. Asn. gold medal, 35. Chem. Soc. Organomercury compounds; catalysis by heavy metal ions; ergot derivatives; peroxide formation in ethers; the Etard reaction.

Leggatt, Dr. C(yril) W(ilmer), 7637 French St, Vancouver, B. C, Can. *Biochemistry.* London, Eng, Nov. 10, 95. B.S.A, Toronto, 21, Ph.D, 36; Ont. Govt. scholar, Paris, 21–22; M.Sc, Alberta, 28. Supervising analyst, dom. seed branch, *Dept. Agr, Can,* 22–36, *in charge seed research lab, 36–* Asn. Official Seed Analysts (pres, 31); Can. Soc. Tech. Agr; Int. Seed Testing Asn. Statistical problems of seed testing and analysis; factors influencing seed germination; purity analysis techniques.

Legge, Dr. Robert Thomas, 6 Roble Road, Berkeley, Calif. *Hygiene.* San Francisco, Calif, July 16, 72. Ph.G, California, 91, M.D, 99. Prof. *hygiene, California,* 15–43, *emer. prof, 43–* Physician, California, and lecturer, med. sch. A.A; Pub. Health Asn; fel. Am. Med. Asn; fel. Col. Surg; Calif. Acad. Med. Industrial hygiene and occupational diseases; health of college students.

Leggette, R(alph) M(axwell), 226 Post Office Bldg, Jamaica, N. Y. *Geology.* Edgar, Ont, Can, Feb. 14, 99. B.S, Chicago, 23, 25–28. Instr. geol, Ohio State, 28; junior geologist, *U. S. Geol. Surv,* 28–29, asst. geologist, 29–34, assoc. geologist, 34–37, *geologist, 37–* Summers, Ill. Geol. Surv, 25,

27; U. S. Geol. Surv, 26. Geol. Soc; Geophys. Union; Geol. Soc. Wash. Ground water hydrology; coastal plain and glacial geology.

LeGrys, Herbert J(ames), 305 E. Erie Ave, St. Marys, Pa. *Electrochemistry.* Troy, N. Y, April 26, 01. Chem.E, Rensselaer Polytech. Inst, 24. Research engineer, Fisk Rubber Co, Chicopee Falls, Mass, 24–25; *Stackpole Carbon Co,* 26–29, *chief chemist, 29–* A.A; Electrochem. Soc; Chem. Soc; Soc. Test. Mat; fel. Inst. Chem; Nat. Soc. Professional Eng; Pa. Soc. Professional Eng; Faraday Soc; Bunsen Gesell. Conversion of carbon to graphite; graphite and carbon electrodes; compressed metal powders for electrical contacts.

Lehenbauer, Prof. P(hilip) A(ugustus), University of Nevada, Reno, Nev. *Plant physiology.* Hannibal, Mo, Nov. 1, 82. A.B, Westminster Col. (Mo), 07; A.M, James Millikin, 09; Ph.D, Illinois, 14. Asst. prof. bot, Nevada, 14–17; Illinois, 17–22; *prof. bot. and hort, Nevada, 22–* A.A; Bot. Soc; Phytopath. Soc; Pomol. Soc. Seed germination; medicinal plants of the western American Indian.

Lehman, Dr. A(rnold) J(ohn), 1512 St. Antoine St, Detroit, Mich. *Pharmacology.* Good Thunder, Minn, Sept. 2, 00. B.S, Washington (Seattle), 25, M.S, 26, Ph.D, 31; M.D, Stanford, 36. Instr. pharmaceut. org. chem, Washington (Seattle), 29–30; asst. *pharmacol,* Stanford, 31–35, instr, 35–37; asst. prof, sch. med, Oklahoma, 37–39; *assoc. prof, col. med, Wayne, 39–* Pharmaceut. Asn. Digitalis and digitaloids; curare substitutes; hypotensive substances in tissue extracts; antisyphilitics.

Lehman, Dr. Edwin Partridge, University of Virginia, Charlottesville, Va. *Surgery.* Germantown, Pa, June 9, 88. A.B, Williams Col, 10; M.D, Harvard, 14. Asst. *surg,* sch. med, Washington (St. Louis), 16–20, instr, 20–26, asst. prof, 26–27, assoc. prof, 27–28; *prof. and director dept, sch. med, Virginia, 28–, chief surgeon and gynecologist, Univ. Hosp, 28–* Fel. Surg. Asn; fel. Col. Surg; Soc. Surg. of Trauma; hon. mem. Soc. Univ. Surg; South. Surg. Asn; Int. Surg. Soc. Fat embolism; neurofibromatosis; heparin in prevention of peritoneal adhesions.

Lehman, Prof. Harvey C(hristian), 173 Grosvenor St, Athens, Ohio. *Psychology, Education.* Near Humboldt, Kans, March 13, 89. A.B, Kansas, 12, B.S, A.M, 13; Ph.D, Chicago, 25. Prin, high sch, Kans, 13–14; teacher, N. Dak. State Nor. Sch, Mayville, 14–16; psychol, Hibbing Junior Col, Minn, 17–23; asst. prof. educ, Kansas, 23–27; assoc. prof. *psychol, Ohio (Athens), 27–35, prof, 35–* A.A; Psychol. Asn; Nat. Soc. Study Educ; Educ. Research Asn. Psychology of play activities; child psychology; sex differences in mental traits; man's creative years.

Lehman, Dr. Robert A(lonzo), New York University College of Medicine, New York, N. Y. *Pharmacology.* Camden, N. J, Oct. 13, 11. B.S, Pennsylvania, 32; M.S, N. Y. Univ, 34, fellow, 36–38, Ph.D, 37. Teaching fellow chem, *N. Y. Univ,* 32–36, *instr. therapeut, col. med, 38–* Mem. U. S. Pharmacopoeial Conv, 40– Chem. Soc; Soc. Pharmacol. and Exp. Therapeut; N. Y. Acad; Metrop. Microchem. Soc. Relationship of chemical structure to physiologic action, especially in the field of digitalis glycosides; mercurial diuretics and antiluetic bismuth compounds.

Lehman, Roy P(hilip), Box 152, Shawnee, Okla. *Geology.* Halstead, Kans, Sept. 18, 01. A.B, Kansas, 23. Field geologist, Atlantic Oil Producing Co, Tulsa, 26–27; Phillips Petrol. Co, Okla, 27–29; Sinclair Oil and Gas Co, Tulsa, 29–31; consulting geologist, 31–33; field geologist, *Phillips Petrol. Co,* 33–37, *dist. geologist, 37–* Asn. Petrol. Geol; Shawnee Geol. Soc. (past pres).

Lehman, Russell S(herman), U. S. Department of Agriculture, Walla Walla, Wash. *Entomology.* Sunbury, Pa, May 9, 00. B.S, Pa. State Col, 25; M.S, Iowa State Col, 30. Teacher, high sch, Pa, 25–27; chem, Colo. Agr. Col, 27–29; *assst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–* Asn. Econ. Entom; Chem. Soc. Toxicity studies with insects; tomato psyllid; toxicity studies with paradichlorobenzene and naphthalene; control of wire-worms.

Lehman, Prof. S(amuel) G(eorge), North Carolina State College, Raleigh, N. C. *Botany.* Defiance Co, Ohio, March 25, 87. B.S, Ohio (Athens), 15; M.S, N. C. State Col, 17; Ph.D, Washington (St. Louis), 23. Instr. bot, *N. C. State Col,* 15–19, asst. plant pathologist, *Exp. Sta,* 19–25, assoc. plant pathologist, 25–26, *prof. plant path. and plant pathologist, 26–* A.A; Bot. Soc; Phytopath. Soc; Asn. South. Agr. Workers (chairman, phytopath. sect, 26); N. C. Acad. Mycology; pathology; physiology; plant diseases.

Lehmann, Dr. A(ldo) Spencer, Naval Research Laboratory, Washington, D. C. *Chemistry, Chemical engineering.* Los Angeles, Calif, Sept. 23, 16. A.B, Stanford, 38; Ph.D, Brown, 41. *Research chemist,* Brown, 40–42; *Naval Research Lab, 42–* Automatic recording infra red spectrometer; physical-inorganic chemistry.

Lehmann, Prof. Emil W, University of Illinois, Urbana, Ill. *Agricultural engineering.* Oldenburg, Miss, April 19, 87. B S, Miss. Agr. and Mech. Col, 10; E.E, Agr. and Mech. Col. Texas, 13; B S, Iowa State Col, 14, A.E, 19; Cornell; Wisconsin. Instr. physics, Agr. and Mech. Col. Texas, 10–13; instr. and asst. prof. agr. eng, Iowa State Col, 14–16; assoc. prof. and prof, Missouri, 16–20; *prof. agr. eng. and head dept, Illinois, 21–* Summer, instr, Illinois, 19. Agr. eng. ed, 'Successful Farming,' 20–21. Agr. Eng. (pres, 23); Elec. Eng; Ill. Soc. Eng. Farm mechanics; septic tanks; crop drying and storage; use of electricity in agriculture; soil erosion control.

Lehmann, Dr. Gerhard, 101 W. Chestnut St, Louisville, Ky. *Pharmacology.* Regensburg, Germany, Jan. 18, 02. Dr.Ing, Tech. Hochschule, Munich, 27; Munich, 31–34; M.D, Berne, 35. Asst. chem, Tech. Hochschule, Munich, 27–31; research fellow *pharmacol, Louisville,* 37–38, instr, 38–40, asst. prof, 40–42, *assoc. prof, 42–* Soc. Pharmacol. and Exp. Therapeut. Pharmacology of smooth muscle.

Lehmann, Valgene W(illiam), Box 271, Hebbronville, Texas. *Wildlife management.* Brenham, Texas, Aug. 20, 13. B.B.A, Texas, 34; M.S, Agr. and Mech. Col. Texas, 40. Field asst. econ. mammal, U. S. Biol. Surv, 34, wildlife technician, 35–36; instr. comp. anat, Texas, 34–35; field biologist, State Cooperative Wildlife Research Unit, *Texas,* 36–39; *regional game manager, fed. aid div, State Game, Fish and Oyster Cmn, 39–* Soc. Mammal; Wildlife Soc; Texas Acad. Life history and management of Attwater's prairie chicken; the Texas bobwhite; history and status of game in southern Texas; factors limiting antelope in southwestern Texas.

Lehmer, Prof. D(errick) H(enry), 942 Hilldale Ave, Berkeley, Calif. *[*7]Mathematics.* Berkeley, Calif, Feb. 23, 05. A.B, California, 27; M.S, Brown, 29, Ph.D, 30. Asst, Brown, 28; nat. research fellow, Calif. Inst. Tech. and Stanford, 30–32; research worker, Inst. Advanced Study, 33–34; instr. *math,* Lehigh, 34–37, asst. prof, 37–38, 39–40; Guggenheim Mem. Foundation fellow, 38–39; asst. prof, *California,* 40–42, *assoc. prof, 42–* Summer, lecturer, Stanford, 34. Math. Soc. (councilor, 42–); Math. Asn. Theory of numbers.

Lehner, Prof. George F(rederick) J(ohn), University of Miami, Coral Gables, Fla. *Psychology.* Eustis, Nebr, March 26, 14. A.B, South Dakota, 35; A.M, Brown, 36, fellow, 36–38, Ph.D, 41. Asst. *psychol,* Brown, 35–36; instr, Vermont, 38–39; N. Y. Univ, 39–40; *asst. prof, Miami (Fla), 40–; lieut, Adjutant Gen's. Dept, Army Air Corps.* A.A; assoc. Psychol. Asn; Fla. Acad. Genetic, general, experimental and learning psychology; development of temperature sensitivity during the fetal period; extinction of unconditioned reflexes.

Lehnerts, Prof. Edward M, Hunter College, New York, N. Y. *Geography, Geology.* Winona, Minn, March 29, 73. B.S, Pennsylvania, 02; A.M, Minnesota, 08. Instr. geog, Minn. State Nor. Sch, Winona, 96–98, prof, 98–07; asst. prof. geog. and geol, Minnesota, 07–18; lecturer geog, Teachers Col, Columbia, 18–21; assoc. prof. geol, Hunter Col, 21–29, prof, 29–42; *retired.* Director, Am. Bur. Geog, 00–02. Ed, 'Jour. Geog,' 02–05. Physical and commercial geography; the teaching of geography; physical and economic geography of the upper Mississippi Valley; geology of northern New York.

Lehninger, Dr. Albert L(ester), 303 Princeton Ave, Madison, Wis. *Physiological chemistry.* Bridgeport, Conn, Feb. 17, 17. A.B, Wesleyan, 39; M.S, Wisconsin, 40, Ph.D, 42. Asst. *physiol. chem, Wisconsin,* 41–42, *instr, 42–* Chem. Soc. Chemistry and intermediate metabolism of fatty acids.

Lehotsky, Prof. K(oloman), Escola Superior de Agricultura e Veterinaria, Viçosa, Brazil, S. A. *Forestry.* Spisská, Nová Ves, Czechoslovakia, Feb. 18, 06. F.E, Prague, 28; Ph.D, Michigan, 34. Asst, Michigan, 30–34; junior forester, soil conservation service, U. S. Dept. Agr, 34–35, asst. forester, 35, assoc. forester, sect. watershed and hydraul. studies, 35–36; *prof. forestry, Escola Superior de Agr. e Vet, 36–* Soc. Foresters. Silvics; silviculture.

Lehr, Prof. (Anna) Marguerite (Marie), Bryn Mawr College, Bryn Mawr, Pa. *Mathematics.* Baltimore, Md, Oct. 22, 98. A.B, Goucher Col, 19; M. Carey Thomas fellow from Bryn Mawr Col, Rome, 21, Am. Asn. Univ. Women fellow, 23–24, Ph.D, 25. Reader *math, Bryn Mawr Col,* 19–21, instr, 24–29, assoc, 29–35, asst. prof, 35–37, *assoc. prof, 37–* A.A; Math. Soc; Math. Asn. Algebraic geometry.

Lehrman, Prof. Alexander, College of the City of New York, New York, N. Y. *Chemistry.* Brooklyn, N. Y, Aug. 31, 96. B.S, Col. City of N. Y, 18; A.M, Columbia, 20, Ph.D, 25. Instr. *chem, Col. City of N. Y,* 18–31, asst. prof, 31–37, *assoc. prof, 37–* Asst, Harriman Research Lab, Roosevelt Hosp, 17–18. Chemist, U.S.N, 18–19. Chem. Soc. Inorganic and physical chemistry.

Lehrman, Prof. L(eo), 430 E. 86th St, New York, N. Y. *Organic chemistry.* New York, N. Y, July 3, 00. B.S, Col. City of N. Y, 21; A.M, Columbia, 23, Ph.D, 26. Instr. *chem, Col. City of N. Y,* 21–34, *asst. prof, 34–* Dept. chem, N. Y. Univ, 21, 25–29; exten. dept, Columbia, 23–25. Chem. Soc. Fatty acids associated with starches; methods of qualitative analysis; transformation of orange antimony trisulfide to black; organic reagents in qualitative analysis; coprecipitation; analytical chemistry.

Lehrman, Dr. Philip R(aphael), 25 Central Park W, New York, N. Y. *Psychiatry.* Vilna, Russia, Oct. 12, 95. M.D, Fordham, 18; Vienna, 28–29. Asst. physician, St. Lawrence State Hosp, N. Y, 18–19; attending neurologist, Vanderbilt Clinic, Columbia, 20–28; visiting physician in charge psychoanal. clinic, Manhattan State Hosp, 25–29; exec. officer, dept. psychiat, and asst. prof. neur. and psychiat, *N. Y. Post-Grad. Med. Sch, Columbia,* 29–35, *director mental hygiene clinic and clin. prof. neur. and psychiat, 35–* Lecturer, N. Y. Psychoanal. Inst. Lieut. commander, N.R.M.C. A.A; Psychiat. Asn; Soc. Clin. Psychiat; Psychoanal. Asn; Am. Med. Asn; N. Y. Neur. Soc; N. Y. Psychoanal. Asn. (cor. sec'y, 25–29); N. Y. Acad. Med; Int. Psychoanal. Asn. Psychoanalysis.

Leibler, Dr. R(ichard) A(rthur), Purdue University, Lafayette, Ind. *Mathematics.* Chicago, Ill, March 18, 14. B.S, Northwestern, 35, A.M, 36; Ph.D, Illinois, 39. Asst, Illinois, 37–38, 39–40; *instr. math, Purdue, 40–* Probability; statistics.

Leiby, Dr. George M(artin), 4934 Music St, New Orleans, La. *Medicine.* Reading, Pa, April 30, 02. B.S, North Carolina, 29; M.D, Vanderbilt, 31; M.P.H, Harvard, 35; Dr.P.H, Hopkins, 38. Practising physician and surgeon, Gibsonville, N. C, 33–34; asst. dist. health officer, venereal disease control officer and epidemiol. officer, State Board Health, 36–39; director bur. venereal diseases, Health Dept, D. C, 39–41; *director div. prev. med, State Board Health, La, 41–* Instr, Duke, 37–39; lecturer, North Carolina, 37–39; Catholic Univ, 41. Am. Med. Asn; Pub. Health Asn. Effects of antuitrin S and theelin on weights of pituitary, adrenal and thyroid; diagnosis and management of syphilis.

Leiby, Prof. R(owland) W(illis), Cornell University, Ithaca, N. Y. *Entomology.* Allentown, Pa, Sept. 29, 92. B.S. Muhlenberg Col, 12; Ph.D, Cornell, 21. Asst. entom, Cornell, 12–15; asst. entomologist, State Dept. Agr, N. C, 15–25, chief entomologist, 25–37; *asst. exten. prof. entom, Cornell, 37–* Trustee, Lenoir-Rhyne Col. Sec'y, Nat. Plant Board. Entom. Soc; Asn. Econ. Entom; N. C. Acad. (sec'y, 19–21). Economic entomology; insect polyembryony.

Leicester, Prof. Henry M(arshall), 344 14th St, San Francisco, Calif. *Chemistry.* San Francisco, Calif, Dec. 22, 06. A.B, Stanford, 27, A.M, Ph.D, 30; Tech. Hochschule, Zurich, and Univ. Col, London, 33. Charles M. Hall research instr. chem, Oberlin Col, 30–31; chemist, div. plant biol, Carnegie Institution, 31–32; junior research assoc, Stanford, 34–35; research chemist, Midgley Foundation, 36–38; *asst. prof. physiol. chem, Col. Physicians and Surgeons, San Francisco, 38–* Chem. Soc. Selenonium salts; carotene; local anesthetics; history of chemistry.

Leichsenring, Prof. Jane M(arie), 1487 Fulham St, St. Paul, Minn. *Nutrition.* Winnetka, Ill, Nov. 2, 92. B.S, Illinois, 19, M.S, 21, Ph.D, 24. Asst. physiol, Illinois, 19–24; asst. prof. and *assoc. prof. nutrition, Minnesota, 24–* A.A. Catalase; mineral metabolism; vitamins; blood regeneration; nutrition of high school girls.

Leidigh, Dean A(rthur) H(enry), 2101 17th St, Lubbock, Texas. *Agriculture.* Hutchinson, Kans, Aug. 14, 80. B.S, Kans. State Col, 02; M.S, Agr. and Mech. Col. Texas, 23. Asst. agronomist and supt. exp. farm, Texas, U. S. Dept. Agr, 03–08; asst. prof. crops, Kans. State Col, 11–13; agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 13–23, agronomist and asst. director, 23–25; *dean agr, Texas Tech. Col, 25–* Mem. Texas Cotton Cmn; Texas Land Use Cmn; State Planning Board. Soc. Agron. Wheat and grain sorghums.

Leifson, Prof. Einar, 216 Pine St, Vermillion, S. Dak. *Bacteriology.* Kristiansand, Norway, Nov. 8, 02. B.S, N. Dak. Col, 25; Ph.D, Chicago, 31. Asst. chem, Iowa State Col, 25–27; *bacter,* Chicago, 27–29; instr, Hopkins, 29–37; *prof, South Dakota, 37–* Bacterial spore formations; flagella staining; culture media for isolation of intestinal pathogens; bacteriological peptones.

Leifson, Prof. Sigmund W(aldemar), University of Nevada, Reno, Nev. *Physics.* Fessenden, N. Dak, 97. B.S, N. Dak. Col, 22; Ph.D, California, 25. Teaching fellow, California, 22–25; instr. *physics, Nevada,* 25–26, asst. prof, 26–29, assoc. prof, 29–35, *prof, 35–* A.A; Physical Soc; N. Y. Acad. Absorption spectra in Schumann region.

Leigh, Dean Townes R(andolph), University of Florida, Gainesville, Fla. *Chemistry.* Panola Co, Miss, Oct. 26, 80. B.S, Iuka Inst, 01; A.B, Lebanon (Ohio), 02; fellow, Chicago, 14–15, Ph.D, 15; hon. Sc.D, John B. Stetson, 41. Head dept. science, Ouachita Col, 07–09; *chem,* Woman's Col. of Ala, 09–14; asst. prof, Carleton Col, 15–17; *head dept,* Georgetown Col. (Ky), 17–20; *Florida, 20–, dean* col. pharmacy, 23–33, *col. arts and sciences, 33–, acting v. pres, 34–* State chemist, Fla, 31. Org. cmt, State Farm Chemurgic Council, Fla; Am. Council Pharmaceut. Educ, 32– Chairman cmt. curriculum and teaching methods, Am. Asn. Cols. Pharmacy, 28–31, pres, 31. Assoc. ed, 'Southeast. Drug Jour,' 30– Mem. revision cmt, U. S. Pharmacopoeia XI. Charles Herty medal, 42. Lieut. col, C.W.Res, 32– Chem. Soc. (chairman, Ky. sect, 19, Fla. sect, 23–25, past director, 4th dist); fel. Inst. Chem; hon. mem. Ala. Anthrop. Soc; hon. mem. Fla. Pharmaceut. Asn; cor. mem. Ky. Acad; Fla. Acad. Chlorimido-esters; chlorimido-benzil; smoke screen.

Leighly, Prof. John B(arger), University of California, Berkeley, Calif. *Geography.* Locust Grove, Ohio, Nov. 6, 95. A.B, Michigan, 22; Am-Scandinavian Foundation fellow, Stockholms Högskola, Stockholm, 25–26, Ph.D, California, 27. Assoc. *geog, California,* 23–25, 26–27, instr, 27–28, asst. prof, 28–35, *assoc. prof, 35–; senior instr, tech. training cmt, Air Force, U. S. Army, 43–* Field asst, Mich. Land Econ. Surv, 22; special asst, Ky. Geol. Surv, 23; prin. climatologist, U. S. Weather Bur, 40; senior soil conservationist, soil conservation service, U. S. Dept. Agr, 41, 42. Social Science Research Council fellow, 29–30. A.A; Asn. Geog; Meteorol. Soc. (councilor, 37–39); Geophys. Union; Ecol. Soc; Mich. Acad; Calif. Acad. Climatology; mechanics of streams.

Leighton, Alan, Cottage City, Md. *Physical chemistry.* Concord, N. H, March 26, 90. B.S, New Hampshire, 12; Cornell, 12–14. Asst. chem, Cornell, 13–14; junior chemist, U. S. Bur. Mines, Denver, 14–16; research chemist, Goodyear Rubber Co, 16–17; asst. chemist, U. S. Bur. Mines, Pittsburgh, 17–20; physical chemist and *senior physical chemist, dairy research lab, bur. dairy indust, U. S. Dept. Agr, 20–* Chem. Soc; Dairy Sci. Asn. Photochemistry; colloid chemistry; dust inflammability; ice cream.

Leighton, Prof. Henry, University of Pittsburgh, Pittsburgh, Pa. *Geology.* Canandaigua, N. Y, 84. A.B, Cornell, 06. Instr. geol, Cornell, 06–08; asst. econ. geologist, N. Y. Geol. Surv, 08–10; instr. *econ. geol, Pittsburgh,* 10–12, asst. prof, 13, *prof, 14–,* acting head dept, 28–31, *head dept, 31–* A.A; Geol. Soc; Soc. Econ. Geol; Pa. Acad. Economic geology; history of clay-working industries; testing of clays; gypsum deposits; Carboniferous stratigraphy.

Leighton, Prof. J(oseph) A(lexander), 817 Oxford St, Worthington, Ohio. *Psychology.* Orangeville, Ont, Can, Dec. 2, 70. B.A, Trinity Col. (Can), 91; fellow, Cornell, 91–94, Ph.D, 94; Episcopal Theol. Sch. and Harvard, 94–96, B.D, 96; Tübingen, Berlin and Erlangen, 96–97; LL.D, Hobart Col, 13. Prof. philos. and psychol, Hobart Col, 97–10; prof. *philos.* and head dept, *Ohio State,* 10–41, *emer. prof, 41–* Visiting prof, Stanford, 25; California, 28, 37; Southern California, 28–29; Utah, 32; examiner, Trinity Col. (Can), 93–95. Program cmt, Int. Cong. Philos, 25–26. A.A; Psychol. Asn; Philos. Asn. (pres, 37). Logic; epistemology; problems of individuality and personality in logic, psychology, education and social philosophy.

Leighton, Dr. Morris M(organ), State Geological Survey, Urbana, Ill. *[5]*Geology.* Near Wellman, Iowa, Aug. 4, 87. A.B, Iowa, 12, M.S, 13; fellow, Chicago, 13–15, Ph.D, 16. Instr. geol, Washington (Seattle), 15–16; acting prof, Iowa State Teachers Col, 16–17; asst. prof, Washington (Seattle), 17–18; acting prof, Ohio State, 18–19; asst. prof, Illinois, 19–23; geologist, *Ill. Geol. Surv,* 19–23, *chief, 23–* Geologist, Wash. Geol. Surv, 17–18. Summer, instr, Washington (Seattle), Chicago and Iowa, 16. Mem. State Museum Board, Ill; Nat. Acad. Science and Nat. Research Council advisory cmt. metals and min. to Office Production Management. A.A; fel. Geol. Soc. (councilor, 37–39); Soc. Econ. Geol; Asn. Petrol. Geol; Asn. State Geol. (pres, 31–34); Ceramic Soc; Min. and Metal. Eng; West. Soc. Eng; Ill. Soc. Eng; Ill. Min. Inst. (pres, 40); Ill. Acad. (pres, 30); fel. Chicago Geog. Soc; Chicago Acad. Physiography; the Pleistocene; weathering.

Leighton, Prof. Philip A(lbert), Stanford University, Calif. *[7]*Physical chemistry.* Los Angeles, Calif, Aug. 9, 97. A.B, Pomona Col, 20, A.M, 23; A.M, Harvard, 25, Ph.D, 27. Instr. *chem,* Harvard, 27, Sheldon traveling fellow, Munich, 27–28; instr, *Stanford,* 28–29, asst. prof, 29–32, assoc. prof, 32–37, *prof, 37–, exec. head dept, 40–; lieut. col, Chem. Warfare Service, U. S. Army, 43–* Lalor fellow, London and Cambridge, 37–38. Cmt. photochem, Nat. Research Council; sect. B, Nat. Defense Research Cmt. A.A; Optical Soc; Chem. Soc. Thermochemistry of solutions; photochemistry; spectrophotometry in the extreme ultra-violet; reaction kinetics.

Leighton, Dr. Walter, Jr, Rice Institute, Houston, Texas. *Mathematics.* Toledo, Ohio, Sept. 6, 07. A.B, Northwestern, 31, A.M, 32; A.M, Harvard, 33, Ph.D, 35. Instr. and tutor *math,* Harvard, 33–36; instr, Rochester, 36–37; *lecturer, Rice Inst, 37–* Math. Soc. The calculus of variations; continued fractions.

Leighton, Dr. W(esley) G(lck), 108 W. Seventh St, Claremont, Calif. *Physical chemistry.* Los Angeles, Calif, Feb. 22, 01. A.B, Pomona Col, 23; A.M, Harvard, 27, du Pont research fellow, 27–28, Ph.D, 29. Asst. city engineer, Covina, Calif, 23–24; instr. chem, Pomona Col, 24–25; asst, Harvard, 25–26, instr, 26–27, Milton research asst, 28–30; asst. prof. chem, Pomona Col, 31–38; *citriculturist, Leighton Trust, 38–* Int. research fellow, Frankfurt-am-Main, Germany, 30–31. Summers, asst, Carnegie Institution, Stanford, 34, 35. Absorption spectra; radiometry; chemical actinometry; quantum yields; action of light at surfaces; atomic hydrogen; porosity of zeolites; mercury vapor detection.

Leighty, Dr. Clyde E(vert), 2831 N. Franklin Road, Arlington, Va. *Agronomy.* Lawrence Co, Ill, May 7, 82. A.B, Ill. Wesleyan, 04; Ph.D, Cornell, 12. Soil analyst, Exp. Sta, Illinois, 05–06; expert grain standardization, *U. S. Dept. Agr,* 06–07, asst, 07–09, agronomist in charge east. wheat investigations, 12–30, *prin. agronomist in charge dry land agr. investigations, bur. plant indust, 30–* A.A. Plant breeding.

Leighty, Dr. J(ohn) A(dam), 4301 E. 38th St, Indianapolis, Ind. *Chemistry.* Shelbyville, Ill, March 31, 10. A.B, James Millikin, 31; M.S, Purdue, 33, Ph.D, 36. Asst. chem, Purdue, 31–36; *research biochemist, Eli Lilly and Co, 36–* Chem. Soc. (sec'y Ind. sect, sec'y, 40–42, chairman, 42). Intermediary metabolism; hormones; group specific substances; blood substitutes.

Leighty, Wilbur R(oy), 1307 Farragut St, N. W, Washington, D. C. *Chemistry.* Lawrenceville, Ill, March 31, 87. B.S, Ill. Wesleyan, 10; M.S, George Washington, 24. Asst. chem, Exp. Sta, Illinois, 10–13, first asst, 13–16, assoc, 16–20; asst. biochemist, bur. plant indust, *U. S. Dept. Agr,* 21–27, bur. chem. and soils, 27–30, *assoc. biochemist,* 30–34, *bur. plant indust, 34–* Soil fertility; tobacco investigations; minor elements in tobacco.

Leikind, Morris C(ecil), Library of Congress, Washington, D. C. *History of science.* Russia, April 5, 05. A.B, Ohio State, 27, M.S, 28; Hopkins, 31–32, 33–37. Asst. physiol, Ohio State, 27–28, bacter, 28–29; bacteriologist, St. Lukes Hosp, Cleveland, Ohio, 30; asst, card div, *Library of Congress,* 33–40, *assoc. fellow med. and biol, 40–, ref. asst, science and technol. ref. room, 41–; lieut, Sanit. Corps, U. S. Army, 42–* Hist. Sci. Soc; Soc. Bact; Asn. Hist. Med. (subcmt. bibliog. of hist. of med. in U. S. and Can). Bacteriology; immunology; history of diseases; discovery of pathogenic germs; introduction of agar-agar into bacteriology; history of vaccination; bacteriological work of Ferdinand Cohn and of John Tyndall; early American bacteriological literature; history of virus research.

Leim, Dr. A(lexander) H(enry), Atlantic Biological Station, St. Andrews, N. B, Can. *Marine biology.* Stirton, Ont, Nov. 10, 97. B.A, Toronto, 19, Ph.D, 24. Asst. director, Can. Biol. Board, Atlantic Biol. Sta, 24–26; Fisheries Exp. Sta, 27–29, director, 30–34; *Atlantic Biol. Sta,* 34–41, *chief biologist, 41–; assoc. prof. zool, Dalhousie.* A.A; Soc. Ichthyol. and Herp; Fisheries Soc; Can. Conservation Asn; N. S. Inst. Sci. (pres, 33, 34). Atlantic species of the Spirontocaris; life history of the shad; egg and larval stages of marine and freshwater species; technology of fish curing; sardine herring fishery; nutrition of trout.

Lein, Dr. Allen, Ohio State University, Columbus, Ohio. *Endocrinology.* New York, N. Y, April 15, 13. A.B, California at Los Angeles, 35, A.M, 38, Ph.D, 41; Chicago, 35; Muelhaupt scholar, Ohio State, 40–41. Assoc. zool, California at Los Angeles, 37, teaching asst, 37–40; instr. surg. research, *Ohio State,* 41–42, *research assoc, Office of Sci. Research and Develop. project,* 42– A.A. Thyroid physiology and iodine metabolism.

Leinbach, Prof. Fred(erick) H(arold), 4322 Van Buren St, University Park, Hyattsville, Md. *Animal husbandry.* Irving, Ill, April 22, 01. B.S, Iowa State Col, 26; M.S, Colo. State Col, 27; univ. fellow, Cornell, 36–37, Ph.D, 40. Asst. prof. *animal husbandry,* Colo. State Col, 27–31, assoc. prof, 31–38; *prof, Maryland, 38–, head dept, 40–* Instr, Cornell, 37. A.A; Soc. Animal Production. Relative energy values of various feeds in the rations of meat animals.

Leinbach, L(uther) Richard, 201 Purdue Ave, Berkeley, Calif. *Chemistry.* Robesonia, Pa, June 2, 99. B.S, Princeton, 19. Anal. chemist, Bethlehem Steel Co, 19–20; junior chemist, *bur. agr. chem. and eng, U. S. Dept. Agr,* 20–29, asst. chemist, 29–38, *assoc. chemist, 38–* Anal. chemist, Carpenter Steel Co, Reading, Pa, 17; N. Y. State Dept. Health, Albany, 19. A.A; Chem. Soc. Analysis of coal and of coke oven by-products; leather and tanning materials; smelter fumes; explosibility of dusts; frozen and dehydrated foods.

Leininger, Prof. Elmer, 700 W. Grand River Ave, East Lansing, Mich. *Chemistry.* Milwaukee, Wis, April 19, 00. B.S, Carroll Col, 23; M.S, Mich. State Col, 30. Instr. *chem, Mich. State Col,* 24–30, asst. prof, 30–38, *assoc. prof, 38–* Chem. Soc. Analytical chemistry.

Leininger, Dr. P(aul) M(iller), 202 77th St, Niagara Falls, N. Y. *Physical chemistry.* Mohnton, Pa, Oct. 29, 11. B.S, Pennsylvania, 32, 34, M.S, 36, du Pont fellow, 38–39, Ph.D, 39. Asst. instr. chem, Pennsylvania, 34–38; *chemist, E. I. du Pont de Nemours and Co, 39–* Chem. Soc; Soc. Metals; Leather Chem. Asn. Reaction kinetics of solutions, in particular the variation of the energy of activation with temperature and concentration.

Leiserson, Dr. (Joseph) Lee, 72 Magee Ave, Rochester, N. Y. *Organic chemistry.* Toledo, Ohio, March 30, 16. B.S, Antioch Col, 37; A.M, North Carolina, 40, Va. Smelting Co. fellow, 39–41, Ph.D, 41. Asst, Vernay Patents Co, 35–37; junior chemist, Swann and Co, 37–38; asst, North Carolina, 38–39; *research chemist, Eastman Kodak Co, 41–* A.A; Chem. Soc. Addition of molecular oxygen to cyclohexene; relationship of molecular structure to wetting activity; color photographic processes.

Leister, Dr. C(laude) W(illard), New York Zoological Park, 185th St. and Southern Blvd, New York, N. Y. *Ornithology.* West Point, Pa, Aug. 25, 93. B.S, Cornell, 17, Ph.D, 29. Instr. ornith, Cornell, 19–22, 28–29; asst. to director and curator educ. activities, *N. Y. Zool. Park,* 30–40, *curator mammals, 40–* Ornith. Union; Soc. Mammal. Birds and mammals; conservation; mammalogy.

Leitch, Prof. Andrew, Bethany College, Bethany, W. Va. *Psychology.* Glencoe, Ont, Can, Dec. 16, 85. A.B, Butler, 11, A.M, 12; B.D, Yale, 14, Hooker-Dwight and Currier fellow, Ph.D, 19; Columbia, summers, 21–23; Chicago, 28; Pennsylvania, 29; Harvard, 36. *Prof. psychol, Bethany Col. (W. Va), 20–* Summers, prof, Butler, 24–27, 30. A.A; Psychol. Asn; Soc. Psychol. Study Social Issues; W. Va. Acad. (v. pres, 41, pres, 42–). Short versus long psychological examinations; academic student mortality as related to psychological examinations; changes in personality during college career; intellectual caliber of a college student body over a twelve-year period; college student persistence and mortality as related to high-school standing, college grades and scores on psychological examinations; case study of a paranoiac.

Leitch, Dr. James L(ockhart), Bel Air, Md. *Biology, Toxicology.* Wallasey, Eng, June 28, 07. A.B, California, 29,

Ph.D, 33. Asst. prof. biol, Armstrong Col, 32–34, assoc. prof, 34–36; asst. toxicologist, med. research div, *Edgewood Arsenal*, 36–38, *med. dept. at large*, 38–40, *assoc. toxicologist, 40–* Fellow, California, 33–36. Summers, research investigator, Tortugas lab, Carnegie Institution, 32, 34, 36. A.A; Chem. Soc. Physicochemical biology and zoology; water exchanges of living cells; non-solvent volume determinations of living cells from swelling and analytical data; correlation between chemical composition and certain physicochemical properties of marine eggs; medical aspects of chemical warfare; toxicology.

Leitch, John D(avie), Electric Controller and Mfg. Co, 2700 E. 79th St, Cleveland, Ohio. *Electrical engineering.* Glasgow, Scotland, May 20, 00. B.Sc, Glasgow, 25; M.A, Toronto, 35, Ph.D, 39. Mem. elec. eng. dept, Steel Co. of Can, 25–27; demonstrator and lecturer physics, Toronto, 27–30; salesman, Elec. Controller and Mfg. Co, Can, 30–32; physicist and engineer, div. cancer control and indust. hygiene, Ont. Dept. Health, 32–37; *develop. engineer, Elec. Controller and Mfg. Co, Ohio, 37–* Summers, elec. draftsman, Steel Co. of Can, 21–25, 27–30. Elec. Eng. X-rays and radium; industrial hygiene; electric motor control.

Leitch, Dr. Mary Sanford, Bel Air, Md. *Zoology.* Alameda, Calif. A.B, California, 27, A.M, 30, Ph.D, 34. Teaching fellow zool, California, 27, 29–30, asst, 27–29, teaching fellow paleont, 30–33; asst. to R. W. Chaney, Carnegie Institution, 35–36; instr, high sch, Md, 42. Teaching asst, California, 36. Summer, asst, San Francisco Library, 25; teaching fellow, California, 32. A.A; Cooper Ornith. Club. Termites; vertebrate embryology; paleobotany.

Leitch, R(ichard) D(uddleston), 2618 New Interior Bldg, Washington, D. C. *Chemical engineering.* Terre Haute, Ind, April 18, 94. B.S, Rose Polytech, 16, Ch.E, 21, M.S, 22. Research chemist, U. S. Rubber Co, 16–17; E. I. du Pont de Nemours and Co, 17–18; v. pres. and treas, Cellulo Co, 19–20; gas engineer and later *chief explosives control div, U. S. Bur. Mines, 20–* Consultant, U. S. Pub. Health Service; mem. Nat. Research Council; Nat. Resources Cmt. 2nd lieut, C.Eng, 18–19. A.A. Acid mine drainage and metal mill tailings stream pollution; explosives; gas and gas making processes; warning agents for gases.

Leiter, Dr. Louis, Montefiore Hospital, 150 E. Gun Hill Road, New York, N. Y. *Medicine.* Falticeni, Roumania, Oct. 24, 98. McGill, 14–16; B.S, Chicago, 19, M.S, 20, fellow, 20–23, Ph.D, 24, M.D, Rush, Chicago, 22. Instr. path, Chicago, 23–24; asst. res. physician, Rockefeller Inst. Hosp, 24–26; asst. prof. med, Chicago, 26–30, assoc. prof, 30–41; attending physician, Michael Reese Hosp, 41–42; *chief med. div, Montefiore Hosp, 42–* Soc. Clin. Invest; Soc. Exp. Biol; Am. Physicians; Cent. Soc. Clin. Research (pres, 30); Cent. Clin. Research Club; Chicago Soc. Int. Med; Inst. Med. Chicago. Uremia; nephritis; edema of Bright's disease; hypertension.

Leith, Dr. Andrew, 4860 Linnean Ave, N.W, Washington, D. C. *Geology.* Madison, Wis, Oct. 29, 04. A.B, Wisconsin, 26, A.M, 27, Ph.D, 31. Instr. geol. Wisconsin, 30–34, asst. prof, 34–36; geologist, Benguet gold dist, Geol. Surv. P. I, 37; Picknands, Mather and Co, 38–40; *branch chief, manganese and chrome branch, War Production Board, 40–* Special lecturer, Columbia, 39. Geol. Soc. The Precambrian geology of the Lake Superior region; structural and economic geology; metamorphism; seismology.

Leith, Prof. Benjamin Donald, University of Wisconsin, Madison, Wis. *Agronomy.* Eldorado, Wis, Sept. 2, 75. B.S, Wisconsin, 11. *Prof. agron, Wisconsin, 29–* Plant breeding; small grains; corn.

Leith, Prof. C(harles) K(enneth), University of Wisconsin, Madison, Wis. *²*Geology.* Trempealeau, Wis, Jan. 20, 75. B.S, Wisconsin, 97, Ph.D, 01; LL.D, Kenyon Col, 26; Sc.D, Lawrence Col, 30, Columbia, 40, Stevens Inst. Tech, 43. Asst. prof. *geol, Wisconsin*, 02–03, *prof, 03–; head metals and minerals branch, production research and develop, War Production Board, 40–* Asst, U. S. Geol. Surv, 95–00, asst. geologist, 00–05; professorial lecturer, Chicago, 05–17. Mineral adviser, U. S. Shipping Board, W.T.B, W.I.B. and Am. Cmn. to Negotiate Peace, Paris; consultant, Nat. Resources Cmt; mem, Council on For. Relations; Sci. Advisory Board; business advisory council, U. S. Dept. Commerce; mem. advisory board, U. S. Bur. Mines; v. chairman, Planning Cmt. for Miner. Policy. Nat. Acad; A.A. (v. pres, 20); Geol. Soc. (v. pres, 27, pres, 33); Soc. Econ. Geol. (pres, 25); Min. and Metal. Eng. (director, 35); Min. and Metal. Soc; Philos. Soc; Am. Acad; Lake Superior Min. Inst; Wis. Hist. Soc; Wis. Acad; Can. Inst. Min. and Metal; British Inst. Min. and Metal. Precambrian, structural, metamorphic and economic geology; geology of the United States iron districts and origin of iron ores; political and social aspects of mineral resources.

Leith, Edward (Isaac), University of Manitoba, Winnipeg, Man, Can. *Paleontology.* Winnipeg, Man, Jan. 24, 06. B.Sc, Manitoba, 28, M.Sc, 29; Manitoba traveling fellow, Yale, 29–30, Dana fellow, 30–31. Demonstrator, Manitoba, 27–29; asst, Geol. Surv. Can, 29–32; instr, Yale, 32–35; *lecturer paleont, Manitoba, 35–* Yale exped, Newfoundland, 33. Paleont. Soc. Ordovician of Newfoundland and Manitoba.

Leith, Prof. T(homas) S(eeter), Iowa State College, Ames, Iowa. *Veterinary medicine.* Appleton, Wis, Sept. 26, 84. D.V.M, Iowa State Col, 14. Prof. *vet. anat*, Agr. and Mech. Col. Texas, 37–40; *asst. prof, Iowa State Col.* A.A; Vet. Med. Asn. Diseases of swine.

Leland, Dr. Jessica P(endleton), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Biochemistry.* Preston, Conn, Sept. 18, 96. B.S, Simmons, 19; A.M, Columbia, 28, Ph.D, 32. Teacher chem, Masters Sch, 21–23; asst. biochem, *col. physicians and surg, Columbia*, 28–31, *research asst. med, 32–* Biochemistry; thyroxine; isolation; normal and pathological thyroid glands; chemistry and metabolic effects.

Leland, Dean O(ra) M(iner), University of Minnesota, Minneapolis, Minn. *Astronomy, Geodesy, Civil engineering.* Grand Haven, Mich, June 28, 76. B.S, Michigan, 00, C.E, 20. U. S. Gen. Land Office, 98–99, 00, 03; U. S. Coast and Geod. Surv, 00–03; instr. civil eng, Cornell, 03–06, asst. prof. geod. and astron, 06–16, prof, 16–20, head dept. topog. and geod. eng, 11–20; dean col. eng. and archit. and sch. chem, *Minnesota*, 20–36, *dean admin, 36–* Eng. supervisor, J. G. White Eng. Corp, 20. Chief of party, Alaska Boundary Surv, 04–11; mem. Costa Rica-Panama boundary arbitration cmn, 11–13; mem. exec. cmt, Asn. Land-Grant Cols. and Univs, 34–38. Lieut. col, C.Eng, 17–19, col, C.Eng.R, 22–A.A; Astron. Soc; Civil Eng; Asn. Eng; Soc. Mil. Eng. (director, 42–); Eng. Educ. (pres, 26). Least squares; technical education.

LeMaistre, Frederic J(ohn), 12 Swarthmore Ave, Ridley Park, Pa. *Chemical engineering.* Quebec, Que, Can, April 26, 79. Ph.G, Montreal Col. Pharmacy, 95; B.Sc, McGill, 04. Research chemist, Spackman Eng. Co, Phila, 04–05; from research chemist to consulting chem. engineer and div. head chem. dept, E. I. du Pont de Nemours and Co, 06–20; *consulting chem. engineer, Phila, 20–* Mem, Franco-Am. Cmn, France, 16. A.A; Chem. Eng. (exec. sec'y, 30–37); Chem. Soc; Inst. Consulting Eng. N. Y; Franklin Inst; Chemists' Club; London Soc. Chem. Indust. Explosives; solvents; artificial leather; rayon; bleaching of textiles.

Lemert, Dr. Ben(jamin) F(ranklin), Duke University, Durham, N. C. *Economic geography.* Dresden, Ohio, July 26, 92. B.S, Ohio State, 27, A.M, 28; Ph.D, Columbia, 33. Asst. instr. geog, Ohio State, 26–28, instr, 28–29; physical geog, Columbia, 29–30; geog, *Duke*, 30–35, *asst. prof. econ. geog, 35–* Director Indust. Surv, Durham, N. C, 36–37; corp. tax surv, Asn. Commercial Secretaries, 40–41. Am. Geog. Soc; Council Geog. Teachers. The industrial development of the Southern Appalachian Piedmont; the economic development of Mexico; tobacco manufacturing industry in North Carolina.

Lemkau, Dr. Paul (Victor), 7017 Kenleigh Road, Baltimore, Md. *Psychiatry.* Springfield, Ill, July 1, 09. A.B, Baldwin-Wallace Col, 31; M.D, Hopkins, 35. *Instr. psychiat, sch. med, Hopkins, 37–, assoc. pub. health admin. and psychiatrist, mental hygiene study, sch. hygiene and pub. health, 41–; capt, Med. Corps, U. S. Army.* Asst. res, Hopkins Hosp, 37–40. Fel. Am. Med. Asn; Psychiat. Asn; Md. Psychiat. Soc. The epidemiology of mental hygiene problems; the development of clinical technics for the application of mental hygiene knowledge to public health programs.

Lemmon, Dr. Dwight M, U. S. Geological Survey, Washington, D. C. *Economic geology.* Fair Oaks, Calif, Jan. 23, 12. A.B, Stanford, 33, A.M, 35, Ph.D, 37. Instr. geol, Stanford, 39; asst. geologist, *U. S. Geol. Surv*, 39–42, assoc. geologist, 42–43, *geologist, 43–* Tungsten deposits in the United States; mineralogy.

Lemmon, Dr. Martha Lou, Colorado College, Colorado Springs, Colo. *Experimental psychology.* Springfield, Mo, Oct. 25, 13. A.B, Sweet Briar Col, 34; A.M, Cornell, 35, Ph.D,

37. Instr. *psychol, Colo. Col,* 37–43, *asst. prof, 43–* Temperature sensitivity; symbolic processes in thinking.

Lemmon, Dr. Paul E(dgar), Box 790, San Fernando, Calif. *Plant physiology.* Palco, Kans, Dec. 26, 07. A.B, Montana, 30; M.S, Wisconsin, 33, Ph.D, 35. Junior range examiner, U. S. Forest Service, 30–31, 34; asst, Wisconsin, 31–35; from assoc. forester to *nursery manager, soil conservation service, U. S. Dept. Agr, 35–* Summer, junior range examiner, U. S. Forest Service, 33. Soc. Foresters; Soc. Agron; Bot. Soc. Plant respiration; seed germination and nursery propagation of native woody plants; direct seeding of important browse plants; selection and improvement of native woody and agronomic plants; seed production of native grasses.

Lemmon, Prof. V(ernon) W(ilbur), Washington University, St. Louis, Mo. *Psychology.* East Orange, N. J, Jan. 27, 94. M.E, Stevens Inst. Tech, 15; A.M, Columbia, 24, Ph.D, 28. Research dept, Am. Tel. and Tel. Co, 15–23; asst. psychol, Columbia, 24–26; research assoc, inst. child welfare, California, 27–28; *assoc. prof. psychol, Washington (St. Louis), 28–, acting assoc. prof. physics, 43–* A.A; assoc. Psychol. Asn; Physical Soc. Reaction time; physiological optics; animal psychology; physics.

Lemon, Prof. Allan C(lark), 1102 E. Sixth St, Moscow, Idaho. *Psychology.* Akron, Iowa, Jan. 23, 89. A.B, Morningside Col, 13; A.M, Iowa, 21, fellow, 25, Ph.D, 26. Prin, high sch, Iowa, 13–14; sch. supt, Mont, 14–17; prof. hist, Wesleyan Col. (Mont), 17–19; dean and prof. educ, Intermountain Union Col, 19–26; dean and prof. psychol, Col. Puget Sound, 26–31; *prof. psychol, Idaho, 31–* A.A; Mental Hygiene Asn. Student personnel; mental hygiene; college administration; guidance and placement of freshmen.

Lemon, Dean A(sa) B(ertram), 3435 Main St, Buffalo, N. Y. *Pharmacy.* Hartford, Ont, Can, Sept. 3, 89. Ph.G, Buffalo, 13; Phar.D, Brooklyn Col. Pharmacy, 16. Instr, *sch. pharmacy, Buffalo,* 16–20, asst. prof, 20–22, *prof. mat. med, 22–, dean, 36–* Pharmaceut. Asn; N. Y. Pharmaceut. Asn; Buffalo Soc. Nat. Sci. Value of intelligence tests; cat eye methods for bio-assaying; basic material for a pharmaceutical curriculum; state professional licensing examinations; aptitude tests.

Lemon, Dr. B(urton) J(udson), 1023 Fisher Bldg, Detroit, Mich. *Chemistry.* Bethel, N. Y, March 25, 83. A.B, Cornell, 08, Ph.D, 13. Instr. chem, Cornell, 08–15; asst. to the director gen. labs, U. S. Rubber Co, 15–17, tech. service dept, 19–23, field engineer, tire div, 24–33, co. exhibit, Century of Progress, Chicago, 34, tech. rep, Wash, D. C, 35–37, *sec'y* gen. tech. cmt, 38–40; Nat. Defense Research Cmt, 40–41; *lieut. col, Ordnance Dept, U. S. Army, 41–* Capt, motor transport, U.S.A, 17–19, lieut. col, U. S. Res, 19– A.A; Soc. Automotive Eng. (pres, Detroit sect, 28). Electrolytic separation of the rare earths; balloon tires for drop center rims; tire production; crude rubber; tire and rim; super-balloon tires; qualitative and quantitative analysis.

Lemon, Prof. Harvey B(race), University of Chicago, Chicago, Ill. ***Physics.* Chicago, Ill, April 23, 85. A.B, Chicago, 06, M.S, 11, Ph.D, 12. Instr. *physics, Chicago,* 12–17, asst. prof, 17–22, assoc. prof, 22–28, *prof, 28–; chief physicist, ballistics research lab, Aberdeen Proving Grounds, 43–* Trustee and mem. exec. cmt, Ill. Inst. Tech, 39– A.A; fel. Physical Soc; Asn. Physics Teachers (v. pres, 37, pres, 38). Spectroscopy of line structure and intensity distribution in hydrogen; polarization Brace spectrophotometer; adsorption of gases by carbon; continuous spectrum of hydrogen; comet-tail spectra; biophysical studies on effects of ultra-violet; cosmic rays.

Lemon, J(ames) McW(illiams), 6700 Fifth St, N. W, Washington, D. C. *Chemistry.* Auxvasse, Mo, 91. Westminster Col. (Mo), 13; B.S, M.S, Florida, 25. Great West. Sugar Co, Denver, Colo, 13–17; Indust. Sugar Co, Ft. Lupton, Colo, 19–20; asst. chem, Florida, 22–25; assoc. research chemist, Gilchrist Eng. Corp, Chicago, 25; research chemist, Complex Ores Corp, Denver, Colo, 26; asst. chemist, Bur. Internal Revenue, 26–28; *assoc. chemist, Bur. Fisheries, 28–, director research, technol. lab,* Gloucester, Mass, 30–35, *Maryland, 35–* U.S.A, 17–18, chief chemist. Chem. Soc. (director northeast. sect, 35); Gloucester Chemists Club (pres, 34). Analysis of Florida sugar cane; refrigeration of southern fish for market; survey of oyster market in the United States; smoking fishery products; electrometric method for detecting decomposition in fish; prevention of freezer burn in cold storage.

Lemon, Willis S(torrs), Mayo Clinic, Rochester, Minn. *Medicine.* Villa Nova, Ont, Can, Feb. 8, 78. M.B, Toronto, 05. Chief med. officer, Can. Nat. Sanatorium for Tuber, Ont, 08–09; *senior consultant sect. diseases of the chest, Mayo Clinic, 18–; prof. med, Mayo Foundation, Minnesota, 34–* Am. Med. Asn; Am. Physicians; Asn. Thoracic Surg; Soc. Clin. Invest; Cent. Interurban Clin. Club; Minn. Trudeau Soc. Diseases of the chest; lymphatics of the diaphragm and pleura; physiology of the diaphragm; results produced by the dusts of industries.

Lemp, Hermann, 561 Lincoln Ave, Glen Rock, N. J. *Electrical engineering.* Switzerland, Aug. 8, 62. Electrician, Edison Lab, 81–82; elec. engineer, Schuyler Elec. Light Co, 83–87; Thomson Houston Elec. Co, 87–89; chief engineer, Thomson Elec. Welding Co, 89–95; elec. engineer, Gen. Elec. Co, Lynn, Mass, 95–11; Erie, Pa, 11–12, works engineer, 12–25; chief engineer, Erie Steam Shovel Co, 25–26; *consulting engineer, 26–;* locomotive dept, Ingersoll Rand Co, 26–38; railroad bldg, N. Y. World's Fair, 38–40. Elec. Eng; Welding Soc. Electrical welding; oil engine design; incandescent lamp, arc and dynamo manufacture; automatic locomotive control; rectifiers for x-ray tubes.

Lendall, Prof. H(arry) N(elson), Rutgers University, New Brunswick, N. J. *Engineering.* Essex, Mass, July 13, 78. B.S, Tufts Col, 06, C.E, 26. Practising engineer, 06–09; instr. civil eng, Pennsylvania, 09–12; from instr. to *prof. munic. and sanit. eng, Rutgers, 12–,* acting head dept. *civil eng,* 28–29, *head dept, 29–* Consulting engineer. Civil Eng; Eng. Educ; Water Works Asn. (director, 41–); New Eng. Water Works Asn; N. J. Sewage Works Asn. Hydraulics; municipal and sanitary engineering.

Lenfest, Dr. B(ertram) A(ugustus), 130 Sterling Place, Brooklyn, N. Y. *Mechanical engineering.* Lawrence, Mass, June 2, 67. B.S, Mass. Inst. Tech, 90; Harvard, 99–01; Ph.D, Yale, 05. Instr, Mass. Inst. Tech, 90–91; high sch, Conn, 95–98; prin, manual training high sch, Mass, 98–02; prof. machine design and head dept, Pa. State Col, 02–04; instr, Sheffield Sci. Sch, Yale, 04–05; first asst. and head dept. metal works, Manual Training High Sch. and Brooklyn Tech. High Sch, 05–37; *retired.* Head instruction dept, Wright-Martin Aircraft Co, Long Island City, 18. A.A; Mech. Eng. Secondary education; genealogy.

L'Engle, C. Louise (Mrs. Wallace L. Cassell), Iowa State College, Ames, Iowa. *Nutrition.* Atlanta, Ga, Jan. 13, 00. A.B, Goucher Col, 22; M.S, Columbia, 29. Nutrition bur, A.I.C.P, New York, 23–24; nutrition service, Am. Red Cross, Washington, D. C, 24–28; asst. prof. foods and nutrition, Iowa State Col, 29–42. State home economist, Emergency Relief Admin, Fla, 34–35. Home Econ. Asn. Foods.

Lengyel, Dr. Béla A(dalbert), College of the City of New York, New York, N. Y. *Mathematics.* Budapest, Hungary, Oct. 5, 10. Polytech. Inst. Budapest, 27–28; Ph.D, Pázmany Univ, Budapest, 35. Instr. math, Polytech. Inst. Budapest, 31–34; research fellow, Harvard, 35–36; asst. statistician, Worcester State Hosp, Mass, 38–39; *instr. math, Rensselaer Polytech, 39–* Math. Soc; Inst. Math. Statist; Hungarian Math. and Physical Soc. Theory of operators; interpolation; mathematical statistics.

Lenher, Dr. S(amuel), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Madison, Wis, June 19, 05. A.B, Wisconsin, 24; Ph.D, London, 26. Int. Educ. Board fellow, Berlin, 27–28; nat. research fellow and research assoc, California, 28; research chemist, exp. sta, *E. I. du Pont de Nemours and Co,* 29–31, tech. lab, org. chem. dept, 31–38, production manager fine chem. div, 38–43, *develop. supt. org. chem. dept, 43–* A.A; Inst. Chem; Franklin Inst; Chem. Soc; Asn. Textile Chem. and Colorists; N. Y. Acad. General physical chemistry; textile processing; surface active chemicals; organic chemicals manufacture.

Lennes, Prof. N(els) J(ohann), University of Montana, Missoula, Mont. *Mathematics.* Norway, June 15, 74. B.S, Chicago, 98, M.S, 03, Ph.D, 07. Instr. *math,* Mass. Inst. Tech, 07–10; Columbia, 10–13; *prof. and head dept, Montana, 13–* Head dept. math, Chautauqua, 08–13. Math. Soc; Math. Asn. Analysis situs; foundations of mathematics; projective geometry; mathematical education.

Lennette, Dr. Edwin H(erman), Fundacao Rockefeller, Caixa Postal 49, Rio de Janeiro, Brazil, S. Amer. *Bacteriology, Pathology.* Pittsburgh, Pa, Sept. 11, 08. B.S, Chicago,

31, Ph.D, 35, M.D, 36. Instr. bacter, Chicago, 36–37, research assoc, 37–38; instr. path, Washington (St. Louis), 38–39; *mem. staff, int. health div, Rockefeller Foundation, 39–* Soc. Bact; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Harvey Soc. Equine encephalomyelitis; Japanese B encephalitis; St. Louis encephalitis; influenza; yellow fever; poliomyelitis.

Lennox, Colin G(ordon), Board of Agriculture and Forestry, Honolulu, Hawaii. *Genetics.* Kauai, Hawaii, May 29, 04. B.S, Cornell, 26. Asst. geneticist, Exp. Sta, Hawaiian Sugar Planters' Asn, 26–33, assoc. geneticist, 34–43; *pres, Board Agr. and Forestry, Territory of Hawaii, 43–* A.A; Hawaiian Acad; Hawaiian Bot. Soc. Administration; agriculture; forestry; livestock; entomology; fish and game production.

Lennox, Dr. William G(ordon), 47 Dudley Road, Newton Center, Mass. *Neurology.* Colorado Springs, Colo, July 18, 84. A.B, Colo. Col, 09, Sc.D, 29; M.D, Harvard, 13; A.M, Denver, 21. Intern, Mass. Gen. Hosp, 15; assoc. med, Peking Union Med. Col, 17–21; Rockefeller Foundation fellow, 22; asst. med, *Harvard Med. Sch,* 22–27, research fellow neuropath, 22–30, instr, 30–34, assoc. *neur,* 34–36, *asst. prof, 36–* Nat. research fellow, 22–24. Junior visiting physician, Boston City Hosp, 26–34, asst. visiting neurologist, 34–38, visiting neurologist, 38– A.A; Neur. Asn; Psychiat. Asn; Soc. Clin. Invest; Asn. Research Nervous and Mental Disease; Boston Soc. Psychiat. and Neur; Int. League Epilepsy (pres). Epilepsy; migraine.

Lenth, Dr. C(harles) William, Soapy Glycerine Division, Food Distribution Administration, Washington, D. C. *Organic chemistry.* Chicago, Ill, Nov. 20, 07. B.S, Chicago, 28, Ph.D, 30. Asst. chemist, Sanit. Dist, Chicago, 27–28; research chemist, A. O. Smith Corp, 30–32; Girdler Corp, 32–33; Miner Labs, 33–42; *chief soap and glycerine div, Food Distribution Admin, 42–* Chem. Soc. Molecular rearrangements; commercial utilization of natural gas hydrocarbons; carbon dioxide and hydrogen sulfide recovery; farm waste utilization; catalytic hydrogenation; properties and uses of glycerine.

Lentz, Gustav H, U. S. Forest Service, Glenn Bldg, Atlanta, Ga. *Forestry.* Catonsville, Md, Dec. 3, 94. Ph.B, Yale, 15, M.F, 17. Forester, W. A. Harriman, Arden Estate, 19–21; N. Y. State Col. Forestry, Syracuse, 21–30; silviculturist, South. Forest Exp. Sta, U. S. Forest Service, 30–33; chief sect. reforestation and soil erosion, div. forestry, Tenn. Valley Authority, 33–36; in charge private forest management, *div. state and private forestry, U. S. Forest Service,* 36–39, *chief div, 39–* Special investigator for state forester, La, 28. Soc. Foresters. Soil erosion; hardwoods of Mississippi bottomlands; hardwood forest survey.

Lentz, Prof. Theo(dore) F, 400 Bompart Ave, Webster Groves, Mo. *Educational psychology.* Beverly, Mo, Oct. 31, 88. A.B, Park Col, 14; A.M, Columbia, 22, Ph.D, 25. Psychologist, Psychiat. Clinic, St. Louis, Mo, 25–27; *assoc. prof. educ, Washington (St. Louis), 27–, director character research inst, 30–* A.A; Psychol. Asn. Character measurement and character research.

Lenz, Dr. Arno T(homas), University of Wisconsin, Madison, Wis. *Engineering.* Fond du Lac, Wis, Sept. 22, 06. B.S, Wisconsin, 28, M.S, 30, C.E, 37, Ph.D, 40. Instr. *hydraul. and sanit. eng, Wisconsin,* 28–37, *asst. prof, 37–* Asst. hydraulic engineer, Tenn. Valley Authority; in charge model tests, Rothschild, Vesuvius, Big Eau Pleine and Petenwall Dams. Assoc. Civil Eng; Geophys. Union. Monthly variation of rainfall intensities in Wisconsin; viscosity and surface tension effects upon v-notch weir coefficients.

Lenz, Dr. M(aurice), 180 Ft. Washington Ave, New York, N. Y. *Radiotherapy.* Kovno, Russia, March 23, 90. M.D, Columbia, 13. Dept. dermat, Vanderbilt Clinic, 19–21; research in deep x-ray therapy and radiumtherapy, France and Germany, 21–23; assoc. radiotherapist, Mt. Sinai Hosp, 24–27; attending radiotherapist in charge dept, *Montefiore Hosp,* 25–41, *consulting radiotherapist, 41–;* assoc. radiotherapist, *Columbia Univ. and Presb. Hosp,* 29–41, *chief radiotherapy div, roentgen ray dept, 34–,* assoc. prof. clin. radiol, Columbia, 35–41; *director, City Div. of Cancer, New York, 41–* Consulting radiotherapist, Mary Imogene Bassett Hosp, Cooperstown, United Hosp, Port Chester, North Hudson Hosp, Weehawken; chief clinic, dept. dermat, Mt. Sinai Hosp, 20. Lieut, M.C, 17–19. Radium Soc; Am. Med. Asn; Am. Roentgen Ray Soc; Asn. Cancer Research; Radiol. Soc. N. Amer; Am. Board Radiol; Cancer Research Soc; Harvey Soc; N. Y. Roentgen Ray Soc; N. Y. Physicians Asn; N. Y. Acad. Med. Roentgenotherapy; radiumtherapy of cancer; bactericidal effect of secondary rays; carcinoma of the tongue and breast; malignant neoplasms and epitheliomas of the pharynx and larynx; metastases; experimental poliomyelitis; causes of failure of roentgen therapy in carcinoma of larynx.

Lenz, Dr. William J(oachim), 312 Armory Place, Louisville, Ky. *Chemistry.* Godesberg, Rhein, Germany, Feb. 22, 88. Koenigs Gym; M.D, Bonn, 10; Ph.D, Heidelberg, 13. *Consulting and research chemist, 27–* Chief chemist, Frankfort Distilleries, 32–34; consultant, distilling and blending industries, 30–38; owner, Lenz Testing Labs, 35. Tech. ed, 'Mida's Criterion,' 33–34; 'Spirits,' 34–35. A.A; fel. Inst. Chem; fel. Am. Geog. Soc; Soc. Mil. Eng; Soc. Test. Mat; Pharmaceut. Asn; Pub. Health Asn; Ky. Acad; Ky. Soc. Radiographers; N. Y. Acad. Fermentation; rancidity in coffee.

Lenzen, Prof. V(ictor) F, University of California, Berkeley, Calif. *Physics.* San Jose, Calif, Dec. 14, 90. B.S, California, 13, 19–21; Ph.D, Harvard, 16. Sheldon traveling fellow from Harvard, Paris and Cambridge, 16–17; instr. *physics, California,* 21–25, asst. prof, 25–30, assoc. prof, 30–39, *prof, 39–* Guggenheim Mem. Foundation fellow, Göttingen, 27–28. Physical Soc; Math. Soc; Philos. Asn; Hist. Sci. Soc. The logic of science.

Leo, Rev. Brother Amandus, Manhattan College, New York, N. Y. *Engineering.* New York, N. Y, Feb. 14, 01. B.S, Manhattan Col, 20, C.E, 29; Columbia, 29–32. Asst. prof. eng, *Manhattan Col,* 29–30, *dean eng, 30–* Trustee and sec'y board, Manhattan Col, 30–; advisory commissioner, Bronx Co. Advisory Planning Board, 37– Eng. Educ; Soc. Metals; Soc. Test. Mat; Road Builders Asn; Nat. Soc. Professional Eng. City planning; highways.

Leo, Brother I(gnatius), Christian Brothers College, Memphis, Tenn. *Chemistry.* Graceville, Minn, April 1, 04. B.S, De Paul, 27, A.M, 31; Ph.D, Catholic Univ, 36. Instr. chem, De La Salle Inst, 28–33; St. Mary's Col. (Minn), 36–40; *instr. chem. and dean junior col. dept, Christian Brothers Col, 40–* Chem. Soc. Organic diselenides, especially the diseleno derivatives of the alkoxy ethers.

Léon, Brother (Dr. Joseph Sylvestre Sauget-Barbier), Colegio de La Salle, Vedado, Habana, Cuba. *Systematic botany.* Mesany les Arbois, France, Dec. 31, 71. Sc.D, Columbia, 27. Prof. math, *Col. de La Salle (Cuba),* 10–21, nat. hist, 13–35, director, 38, Herbario La Salle, 10–42, *research assoc, Arnold Arboretum, Harvard, 42–* Hon. curator, Sauvalle-Wright Herbarium, Havana Acad. Sciences, 40–42; Milton research grant, Harvard, 42. Medal, Soc. La Bourgogne Apicole, Dijon, France; Soc. Nat. d'Acclimatation de France, 23; official, Nat. Order Merit Carlos Manuel de Céspedes, Cuba, 35. A.A; Torrey Bot. Club; Cactus and Succulent Soc. (v. pres); Wash. Acad; Soc. Cubana de Hist. Nat. (v. pres, 37–40); Soc. Geog. de Cuba (pres, sect. flora and fauna, 29); Acad. Sci. Havana; Soc. linn. de Lyon; cor. mem. Acad. Sciences Bogota. Phanerogamic flora of Cuba; palms; cacti; grasses.

Leonard, Prof. A(rthur) Byron, University of Kansas, Lawrence, Kans. *Zoology.* Manhattan, Kans, April 11, 04. B.S, Cent. Teachers Col, Okla, 31; A.M, Kansas, 33, Ph.D, 37. Asst. instr. *zool, Kansas,* 31–36, instr, 37–38, *asst. prof, 39–* Soc. Parasitol; Malacol. Union. Immunity to metazoan parasites; ecology of Tertiary and Quaternary Mollusca.

Leonard, Prof. Clifford S(hattuck), 31 Cliff St, Burlington, Vt. *Pharmacology, Toxicology.* Springfield, Mass, Nov. 2, 94. Ph.B, Yale, 15, M.S, 17; Ph.D, Wisconsin, 20. Research chemist, E. I. du Pont de Nemours and Co, 17–18; Am-Scandinavian Foundation fellow, Stockholm, 20–21; research instr. pharmacol, Wisconsin, 21–22; assoc. pharmacologist, U. S. Pub. Health Service, 22–23; nat. research fellow med, Yale, 23–25, instr. pharmacol. and toxicol, 25–26, asst. prof, 26–28; director exp. research labs, Burroughs Wellcome and Co, 28–35; spectrometric research, White Labs, Newark, N. J, 36–38; *asst. prof. pharmacol, col. med, Vermont, 38–* 2nd lieut, Sanit.C, 18–19. A.A; Chem. Soc; Soc. Exp. Biol; Soc. Pharmacol; Inst. Chem; Wis. Acad. Chemotherapy; organic syntheses; analytical methods; pharmacology of arsenic, bismuth, sulfur compounds, tartrates and pyrethrins; mechanism of heavy metal toxicities; nephrotoxicities; pharmaceuticals; vitamins; absorption spectrophotometry.

Leonard, Emery C(larence), U. S. National Museum, Washington, D. C. *Botany.* Champaign Co, Ohio, Jan. 9,

92. A.B, Wittenberg Col, 15; A.M, Ohio State, 17. *Botanist, U. S. Nat. Museum, 18–* Biol. exped, Haiti, 20, bot. collecting trip, 25–26, 28–29. A.A; Fern Soc; Sullivant Moss Soc; Biol. Soc. Wash. The Astereae of Ohio; new plants from the Dominican Republic; North American Scutellaria; flora of Hispaniola; mosses of the District of Columbia and vicinity; Acanthaceae.

Leonard, Dr. Frederick C(harles), University of California at Los Angeles, Los Angeles, Calif. *Astronomy, Meteoritics.* Mt. Vernon, Ind, March 12, 96. B.S, Chicago, 18, fellow, 18–19, M.S, 19; Lick fellow, California, 21, Ph.D, 21. Instr. math, Chicago, 18; teaching fellow astron, California, 19–20, instr. math, *California at Los Angeles,* 22, *astron,* 22–27, asst. prof, 27–31, *assoc. prof. and chairman dept, 31–* Lecturer, exten. div, California, 24– Summers, California at Los Angeles, 24, 31–33, 35, 36, 43; California, 30; British Columbia, 37, 39, 41. Soc. Research Meteorites exped, Goose Lake, Calif, 39. A.A; Astron. Soc; Soc. Research Meteorites (pres, 33–37, ed, 'Contributions,' 33–, councilor, 37–41); Meteor Soc; Astron. Soc. Pacific; British Astron. Asn; fel. Royal Astron. Soc; Royal Astron. Soc. Can; Int. Astron. Union (cmn. meteors). Meteoritics; discovery, measurement and spectra of visual double stars; terminology in meteoritics and astronomy; statistical studies of the meteoritic falls of the world.

Leonard, Dr. G(eorge) F(erree), 63 N. Fifth Ave, Highland Park, N. J. *Bacteriology.* Lexington, N. C, Sept. 19, 79. A.B, North Carolina, 07; M.D, George Washington, 12. State Dept. Health, N. C, 12–14; U. S. Pub. Health Service, 14–15; *research and biol. lab, E. R. Squibb and Sons, 15–* Mayor, Highland Park, 24–26. Soc. Bact; Am. Med. Asn; New Brunswick Sci. Soc. Freezing of diphtheria toxin-antitoxin mixture; application of scarlet fever antitoxin; germicidal activity tests; non-specific flocculation of diphtheria toxoid and its bearing on flocculation titer; production of diphtheria toxin of high flocculation value; purification of diphtheria toxoid; production of Staphylococcus toxin and toxoid.

Leonard, Prof. Heman Burr, University of Arizona, Tucson, Ariz. *Mathematics.* Detroit, Mich, Aug. 22, 72. B.S, Michigan, 95; Ph.D, Colorado, 06. Prof. *math,* Ill. Wesleyan, 01–03; instr, Oregon, 06–09, asst. prof, 09–12, *prof,* 12–14; *Arizona, 15–* A.A; Math. Soc; Eng. Educ; Asn. Eng. Linear associative algebra; the definition of reducibility and the factoring of composite hypercomplex number systems; properties of the characteristic equations of hypercomplex number systems; use of calculating machines by engineers.

Leonard, Dr. J(ustin) W(ilkinson), Hunt Creek Fisheries Experiment Station, Lewiston, Mich. *Aquatic biology.* Moulton, Iowa, Oct. 28, 09. A.B, Grinnell Col, 31; A.M, Michigan, 32, Ph.D, 37. Investigator, *Inst. Fisheries Research, Mich,* 34–36, asst. aquatic biologist, 36–39, *assoc. aquatic biologist in charge Hunt Creek Exp. Sta, 39–* A.A; Entom. Soc. Amer; Entom. Soc; Fisheries Soc; Limnol. Soc; Soc. Ichthyol. and Herp; Mich. Acad; Entom. Soc. Ont. Fisheries biology; ecology, life-histories and taxonomy of aquatic insects, especially Odonata.

Leonard, Lewis T(hompson), R. F. D. 3, Rockville, Md. *Bacteriology.* Academia, Pa, Jan. 23, 85. B.S, George Washington, 14, A.M, 24. Sci. asst, *U. S. Dept. Agr,* 12–17, asst. physiologist, 17–22, physiologist, 22–28, *bacteriologist soil microbiol, bur. plant indust, 28–* A.A; Soc. Bact; Soc. Agron; Bot. Soc. Wash. Soil microbiology; plant physiology.

Leonard, Dr. M(ortimer) D(emarest), Agricultural Chemicals Section, Office of Price Administration, Washington, D. C. *Entomology.* Brooklyn, N. Y, June 23, 90. B.S, Cornell, 13, Ph.D, 21. Asst. exten. entomologist, N. Y. State Col. Agr, Cornell, 13–18, exten. entomologist, 19–21; asst. prof. entom, Pa. State Col, 18–19; director field service div, Bowker Chem. Co, 21–23; acting state entomologist, N. Y, 23–24; ed, 'N. Y. State List Insects,' Cornell, 24–25; entomologist and plant pathologist, Fla. Agr. Supply Co, Orlando, 25–27; special field agent, European corn borer control, bur. entom, U. S. Dept. Agr, 27–28; entomologist, Tobacco By-Product and Chem. Corp, 28–29; chief entomologist, Insular Exp. Sta, Puerto Rico, 30–32; research entomologist, John Powell and Co, 33–38; entomologist in charge pest control exhibit, du Pont Bldg, N. Y. World's Fair, 39–40; *in charge insecticide unit, agr. chem. sect, Office Price Admin, 41–* Emergency exten. specialist, bur. entom. and plant quarantine, U. S. Dept. Agr, 19, asst. entom, 20, collaborator, 23–24, 30–; special investigator, N. Y. Fruit Exchange, Mediterranean fruit-fly, Spain, 24. Mem. Okefinokee exped, Cornell, 12. Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash; N. Y. Entom. Soc; Brooklyn Entom. Soc. Control of fruit and vegetable insects; vegetable garden insects; Rhagionidae; commercial and systematic entomology; entomological extension; tropical entomology; Aphidae.

Leonard, Dr. Nelson J(ordan), University of Illinois, Urbana, Ill. *Organic chemistry.* Newark, N. J, Sept. 1, 16. B.S, Lehigh, 37; B.Sc, Oxford, 39; Ph.D, Columbia, 42. Asst. and *instr. org. chem, Illinois, 42–* Chem. Soc. Alkaloids.

Leonard, Dr. O(liver) A(ndrew), Mississippi State College, State College, Miss. *Plant physiology.* Pullman, Wash, Jan. 5, 11. B.S, State Col. Wash, 33, M.S, 35; Ph.D, Iowa State Col, 37. Instr. bot, Agr. and Mech. Col. Texas, 37–39; *assoc. plant physiologist, Exp. Sta, Miss. State Col, 39–* Sigma Xi grant, 38. Soc. Plant Physiol; Bot. Soc. Root ecology and affecting factors; sugar transformations and translocation; factors influencing the destruction of carotene and ascorbic acid; weeds.

Leonard, Dr. Robert W(alton), 1867 Greenfield Ave, Los Angeles, Calif. *Physics.* San Diego, Calif, April 6, 10. A.B, California, 35, A.M, 36, Ph.D, 40. *Instr. physics,* San Francisco State Col, 40; *California at Los Angeles, 41–* Propagation of sound in polyatomic gases.

Leonard, Prof. Samuel L(eeson), Cornell University, Ithaca, N. Y. *Zoology, Biology.* Elizabeth, N. J, Nov. 26, 05. B.S, Rutgers, 27; M.S, Wisconsin, 29, Ph.D, 31. Asst. zool, Wisconsin, 27–31; nat. research fellow, col. physicians and surg, Columbia, 31–33; asst. prof. biol, Union (N. Y), 33–37; *zool,* Rutgers, 37–41; *assoc. prof, Cornell, 41–* Summer, asst, Bur. Fisheries, 28. A.A; Soc. Exp. Biol; Asn. Anat; Asn. Study Int. Secretions; Soc. Zool. Physiology; physiology of reproduction; endocrinology.

Leonard, Prof. Warren H, 525 Whedbee St, Ft. Collins, Colo. *Agronomy.* New Sharon, Iowa, July 5, 00. B.S, Colo. Agr. Col, 26; M.S, Nebraska, 30; Ph.D, Minnesota, 40. Asst. exten. agronomist, Colo. Agr. Col, 26–27, asst. ed. publications, 28; asst. *agron,* Nebraska, 28–29; asst. prof, Colo. Agr. Col, 29–35, *Colo. State Col,* 35–36, *assoc. prof, 36–,* asst, *Exp. Sta,* 29–36, *assoc, 36–; capt, Coast Artil, U. S. Army, 42–* A.A; Soc. Agron; Bot. Soc; Genetic Asn. Maize breeding and cultural methods; effect of foreign pollen in maize; inheritance of fertility in barley; applied statistics.

Leonian, Prof. Leon H(atchig), West Virginia University, Morgantown, W. Va. *Plant pathology.* Van, Armenia, Feb. 27, 88. B.S, Kentucky, 16; M.S, Michigan, 17, Ph.D, 22. Asst. research horticulturist, Exp. Sta, Clemson Col, 17–18; asst. prof. bot. and plant path, N. Mex. Col. and Exp. Sta, 18–22; asst. plant pathologist, Exp. Sta, *West Virginia,* 22, asst. prof. plant path, *univ,* 23–26, assoc. prof, 27–36, *prof. mycol, 36–* A.A; Phytopath. Soc; Bot. Soc; Soc. Bact; Soc. Nat; Soc. Plant Physiol. Heterothallism, physiology and mutations in Phytophthora; physiology and mutations in Fusarium; physiology of dissociations; taxonomy of the genus Phytophthora; sexuality and growth-promoting substances for fungi; nutrition of and vitamin synthesis by yeasts.

Leopold, Prof. Aldo, 2222 Van Hise Ave, Madison, Wis. *Forestry, Ornithology.* Burlington, Iowa, Jan. 11, 87. B.S, Yale, 08, M.F, 09. From forest asst. to chief of operations, U. S. Forest Service, Albuquerque, N. Mex, 09–24, assoc. director, Forest Products Lab, Madison, Wis, 24–28; conductor game surv, Sporting Arms and Ammunition Mfrs. Inst, 28–31; *prof. game management, Wisconsin, 33–* Carl Schurz Mem. Foundation traveling fellow, 35. Chairman, cmt. wildlife studies, Nat. Research Council, 34–. Mem, State Conservation Cmn, Wis, 43– Permanent Wildlife Protection Fund medal, 17; Outdoor Life medal, 31. Soc. Foresters (exec. cmt, 27–32); Nat. Asn. Audubon Societies (director, 35–). Game management; conservation policy; erosion; forest products; land utilization.

Leopold, Dr. Eugene J(oseph), 200 W. Lafayette Ave, Baltimore, Md. *Medicine.* Baltimore, Md, Dec. 1, 79. A.B, Hopkins, 01, M.D, 05. *Instr. clin. med, Hopkins, and dispensary physician, Hopkins Hosp, 18–,* asst. visiting physician, 32. Visiting physician and chairman med. board, Sinai Hosp, 20– A.A; Am. Med. Asn; Col. Physicians; Med. and Chirurg. Faculty Md. Internal medicine; diabetes mellitus.

Leopold, Dr. Francis D, 39 Nottingham Terrace, Buffalo, N. Y. *Internal medicine.* Buffalo, N. Y, May 23, 90. M.D, Buf-

falo, 14. *Asst. prof. med. and therapeut, Buffalo.* Staff, Buffalo Gen. Hosp; Buffalo City Hosp. Fel. Col. Physicians. Hematology; diagnoses.

LePage, Dr. W(ilbur) R(eed), 7005 Alden Road, Pikesville, Md. *Electrical engineering.* Arlington, N. J, Nov. 16, 11. E.E, Cornell, 33, McMullen scholar, 38–41, Ph.D, 41; M.S, Rochester, 39. Instr. elec. eng, Rochester, 33–38; research engineer, advanced develop. sect, photophone div, RCA Mfg. Co, 42; *research physicist, radiation lab, Hopkins, 42–* Consultant, 33–38. Summer, engineer, Eastman Kodak Co, 36. Elec. Eng. Electrical conductivity of dielectric liquids; electric circuit analysis; transients in transmission lines and equivalent circuits for transmission lines; photographic sound recording; ultra high frequency phenomena.

Lepard, Dr. Olin L(afayette), Dairy Research Station, Sussex, N. J. *Dairy nutrition.* Lake Odessa, Mich, Nov. 9, 10. B.S, Mich. State Col, 33, summers, 33–34; Ph.D, Cornell, 39; Rutgers, 42. Teacher science, high sch, 33–35; teaching asst, Cornell, 36–39; *director dairy research sta, N. J. Exp. Sta, 39–* Dairy Sci. Asn; Soc. Animal Production. Dairy cattle breeding and nutrition.

Lepeschkin, Prof. W(ladimir) W(asilievich), Physiological Institute, University of Vienna, Vienna, Austria. *Plant physiology, Cell physiology.* Moscow, Russia, Aug. 12, 76. Leipzig, 00–01; Ph.D, Zurich, 02; Dr. Bot, Moscow, 09. Instr. biochem, Inst. Tech, St. Petersburg, Russia, 02–10, asst. prof. plant physiol, 05–10; prof, Kazan, Russia, 10–21; Russian Univ, Czechoslovakia, 22–27; biochemist, Desert Sanatorium and Inst. Research, 29–32; research assoc, California, 32–34; *prof. physiol, Vienna, 34–* Visiting prof, St. Louis, 27–28; Illinois, 28; California, 28–29. Achmatov's prize, St. Petersburg Acad, 11. Bot. Soc; Colloid Chem. Gesell; Deuts. Bot. Gesell; hon. mem. Russian Bot. Soc; Kazan Soc. Nat. (v. pres, 14–21). Mutations; exudation of water, turgor pressure and movements of plants; effect of high temperature, narcotics, poisons and light on protoplasm; red corpuscles and hemolysis; proteins; starch; osmosis; colloid chemistry of living matter; death and its causes; necrobiotic rays.

Lepkovsky, Dr. Samuel, 2815 Channing Way, Berkeley, Calif. *Zoology.* Poland, Feb. 12, 99. M.S, Wisconsin, 23, Ph.D, 25 Asst. agr. chem, Wisconsin, 19–22, instr, 22–25, research zool, 25–28; nutrition, dept. anat, *California,* 28–32, research assoc, inst. exp. biol, 32–35, *poultry div, col. agr,* 35–37, *assoc. prof, 37–* Summers, sci. research asst, Bur. Fisheries, 25–27. Metabolism in plants; relation of light and antirachitic vitamins; chemical properties of the antiscorbutic vitamins; changes in blood composition of fish; blood chemical changes and immunization against antigens; relation of fat to vitamin B; single fatty acids and nutrition; the rôle of the vitamin B complex in nutrition.

Lepley, Prof. William M(orton), Pennsylvania State College, State College, Pa. *Psychology.* Beaman, Iowa, Jan. 17, 06. B.S, Iowa State Col, 28; A.M, California, 30; Ph.D, Pa. State Col, 34. With U. S. Forest Service, 27–28; psychologist, San Francisco Protestant Orphanage, 29; director athletics, Berkeley, Calif, 30; instr. *psychol, Pa. State Col,* 30–37, *asst. prof, 37–; capt, Air Corps, U. S. Army, 42–* A.A; assoc. Psychol. Asn; Pa. Asn. Clin. Psychol. Performance tests; serial learning; conditioned reactions.

Leppard, Prof. H(enry) M(ilton), University of Chicago, Chicago, Ill. *Geography.* Listowel, Ont, Can, July 23, 86. B.A, Queen's (Can), 19; Ph.D, Chicago, 28. Instr. *geog, Chicago,* 26–27, asst. prof, 27–39, *assoc. prof, 39–* Geography of Europe; cartography, meteorology and climatology.

Lepper, Henry A(lbert), 314 Ellsworth Drive, Silver Spring, Md. *Food chemistry.* Washington, D. C, March 27, 89. B.S, George Washington, 13. Chemist, *food and drug admin, Fed. Security Agency,* 13–37, *senior chemist, 37–* Instr, George Washington, 13–23. Asst. ed, food sect, 'Chem. Abstracts.' Chem. Soc; Agr. Chem. (ed, 'Jour'). Fruit products; coffee; salad dressings and their analysis; vinegar; determination of fat in cacao products; eggs and egg products; determination of milk solids in food products; cheese; cereal products.

Leraas, Dr. Harold J, Luther College, Decorah, Iowa. *Mammalogy.* Barrett, Minn, Dec. 30, 08. A.B, Luther Col, 30; M.S, Michigan, 32, Edwin Hinsdale scholar, 33–34, Ph.D, 35. Asst, dept. zool, Northwestern, 30–31; museum zool, Michigan, 31–33; asst. zoologist, Cranbrook Inst. Science, 34–35; *instr. biol,* Pacific Lutheran Col, 35–42; *biol. and chem, Luther Col, 42–* A.A; Soc. Mammal; Pacific Northwest Bird and Mammal Soc. Ornithology; ecology.

Lerner, Dr. Eugene, Sarah Lawrence College, Bronxville, N. Y. *Psychology.* Budapest, Hungary, Nov. 19, 01. A.M, Columbia, 33, Glider fellow and univ. fellow, 33–35, Ph.D, 37; Social Science Research Council fellow, Geneva, 35–36. Clin. case-work in child guidance institutions, Brooklyn, N. Y, and Newark, N. J, 27–33; *mem. faculty, dept. psychol, Sarah Lawrence Col, 36–* Psychol. Asn; Sociol. Soc; Asn. Social Workers; fel. Soc. Research Child Develop; N. Y. Acad. Social psychology; child psychology; sociology; the relation of culture areas to children's moral judgments; personality development in nursery school children; approaches to frustration and ego-organization; hostility and its management.

Lerner, Dr. I. Michael, University of California, Berkeley, Calif. *Genetics.* Harbin, Manchuria, May 15, 10. B.S.A, British Columbia, 31, M.S.A, 32; Ph.D, California, 36. Asst. *poultry husbandry,* British Columbia, 31–32; *California,* 33–36, instr, 36–41, *asst. prof, 41–* Research prize, Poultry Sci. Asn, 37. A.A; Soc. Zool; Soc. Develop. and Growth; Genetics Soc; Poultry Sci. Asn. Genetics of egg production and growth.

Le Rosen, Dr. A(rthur) L(e Doux), California Institute of Technology, Pasadena, Calif. *Organic chemistry.* Shreveport, La, April 28, 13. B.S, Centenary Col, 34; M.S, Iowa, 38, Ph.D, 40. Asst. chem, Centenary Col, 33–34; lab. technician and operator at treating plant, Rodessa Oil and Ref. Co, 36–37; asst, Iowa, 37–39, *research asst,* 39–40; *chem, Calif. Inst. Tech, 40–* Chem. Soc. Aromatic fluorine compounds; carotenoid pigments.

Le Roy, Dr. D(onald) J(ames), National Research Laboratories, Ottawa, Ont, Can. *Physical chemistry.* Detroit, Mich, March 5, 13. B.A, Toronto, 35, M.A, 36, Ph.D, 39. Asst. chem, Toronto, 35–37, demonstrator electrochem, Toronto, 37–39; mem, Ont. Research Foundation, 39; *chem. div, Nat. Research Labs, 40–* Chem. Soc; Can. Inst. Chem. Chemical kinetics; photochemistry.

Leroy, Dr. Louis, 1210 Madison Ave, Memphis, Tenn. *Medicine.* Chelsea, Mass, Sept. 15, 74. M.D, Medico-Chirurg. Col. Phila, 96; B.S, Nashville, 00. *Prof.* path. and bacter, Vanderbilt, 96–06; *theory and practise of med, Tennessee, 06–* State bacteriologist, Tenn, 96–10; city bacteriologist, Nashville, 00–04; lecturer, Harvey Med. Col. and Illinois, 00–02; pathologist, Nashville City Hosp, 00. Pres, State Board Health, Tenn, 10–11; trustee, Oakville Mem. Tuber. Hosp. Am. Med. Asn. Pathology; bacteriology; smallpox; tuberculosis; pellagra; hookworm; meningitis; malaria.

LeRoy, Dr. Royce H(arold), University of Kansas City, Kansas City, Mo. *Chemistry.* Carterville, Mo, Dec. 18, 99. A.B, Missouri, 22, A.M, 24; fellow, Nebraska, 32–33, Ph.D, 33. Asst. instr. *chem,* Nebraska, 24–26; *prof. and chairman dept,* Doane Col, 26–34; *Univ. Kansas City, 34–* Junior explosives technologist, bur. pub. roads, U. S. Dept. Agr, 23. Chem. Soc; Mo. Acad; Nebr. Acad. Physical chemistry; radioactivity measurements; heats of solution and reactions of sugars; periodic classification.

Lesher, C(arl) E(ugene), Wilson Drive, Ben Avon Heights, Pittsburgh, Pa. *Engineering.* La Junta, Colo, 85. Met.E, Colo. Sch. Mines, 08. Geologist, U. S. Geol. Surv, 10–19; ed, 'Coal Age,' 20–23; asst. to pres, Pittsburgh Coal Co, 23–27, exec. v. pres, 27–38; *pres, Pittsburgh Coal Carbonization Co, 39–* Engineer, U. S. Coal Cmn, 22–23. Chief bur. statist, U. S. Fuel Admin, 17–19. Min. and Metal. Eng. Production and distribution of coal; economics; coal carbonization.

Lesley, Dr. J(ames) W(yvill), Citrus Experiment Station, Riverside, Calif. *Plant breeding.* Leeds, Eng, May 8, 88. B.A, Cambridge, 10, agr. diploma, 11, M.A, 19, fellow, Emmanuel Col, 19–21; Ph.D, California, 27. Asst. plant breeding, Cambridge, 19–21; *Citrus Exp. Sta, California,* 22–29, asst. plant breeder, 29–41, *assoc. plant breeder, 41–* Lecturer, Mills Col, 22. A.A; Soc. Nat; Genetics Soc; Soc. Hort. Sci. Tomato and peach breeding.

Lesley, Dr. Margaret M(ann) (Mrs. James W(yvill) Lesley), 3638 Bandini, Riverside, Calif. *Cytology.* Detroit, Mich, June 16, 91. A.B, Oregon, 15; A.M, California, 18, Goewey fellow, 19–21, Ph.D, 31. Asst. zool, California, 18–19, genetics, 21–24, instr, 24–26. Genetics.

Leslie, Dr. E(ugene) H(endricks), Traver Road, Ann Arbor, Mich. *Chemical engineering.* Ottawa, Ill, Aug. 28, 92. B.S, Illinois, 13; Ph.D, Columbia, 16. Chief chemist,

Gen. Petrol. Corp, 16–18; asst. to pres, U. S. Indust. Alcohol Co, 18–20; assoc. prof. chem. eng, Michigan, 20–24, prof, 24–29; *consulting engineer, 29–; director, Leslie Labs, 23–* V. pres. and tech. director, Leader Industries, 32–37; tech. director, Blaw-Knox Corp, 37– Chem. Eng; Chem. Soc; Soc. Chem. Indust. Petroleum; motor fuels; hydrocarbons; gas; combustion; furnaces; distillation; extraction, processing in organic industries; foods; vegetable oils; synthetic rubber; butadiene.

Leslie, Prof. Lawrence Dale, San Jose State College, San Jose, Calif. *Experimental biology.* New Castle, Pa, April 11, 07. A.B, Oregon, 29, A.M, 32; Ph.D, Stanford, 39. Instr. educ, Oregon, 32–35; biol, Stanford, 38–40; *asst. prof. zool, San Jose State Col, Calif,* 40–41, *assoc. prof, 42–* A.A; Soc. Zool; West. Soc. Nat. Nutrition of protozoa.

Leslie, Dr. R(obert) T(hies), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Chester, Ill, June 3, 02. Ph.D, Illinois, 28. Research assoc, *Bur. Standards,* 28–41, *chemist, 41–* Electrochemistry; petroleum chemistry; inorganic chemical research and plant development.

Leslie, William Russel, Dominion Experimental Station, Morden, Man, Can. *Horticulture.* Saskatoon, Sask, March 26, 91. B.S.A, Manitoba, 16. Hort. div, cent. exp. farm, *Can. Dept. Agr,* Ottawa, 16, plant specialist in charge, North. Ont. Plant Breeding Sta, 17–21, *supt, Dom. Exp. Sta, Morden, 21–* A.A; Soc. Hort. Sci; Pomol. Soc. Plant breeding of hardy fruits, vegetables and ornamentals.

L'Esperance, Dr. Elsie S(trang), 321 E. 15th St, New York, N. Y. *Pathology.* Yorktown, N. Y. M.D, Woman's Med. Col, N. Y, 99. Asst. path, Cornell, 10–12, instr, med. col, 12–20, asst. prof, 20–32; *pathologist and director labs, N. Y. Infirmary for Women and Children, New York, 12–, director Strang dept, 33–* Mary Putnam Jacobi fellow, Path. Inst, Munich, 14; instr, Bellevue Hosp, 18–32; serologist, Mem. Hosp, N. Y. Asn. Path. and Bact; Asn. Immunol; Asn. Cancer Research; Harvey Soc; N. Y. Path. Soc; Women's Med. Soc. N. Y. (pres, 35–); N. Y. Acad. Med; N. Y. Woman's Med. Asn. Gynecological pathology; tuberculosis; Wassermann reaction; Hodgkin's disease.

Lessells, Prof. John M(oyes), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering.* Dunfermline, Scotland, Feb. 5, 88. Herriot Watt Col, Edinburgh, 10–11; B.Sc, Glasgow, 15. Aero-inspection dept, British War Office, 15; asst. manager, Armstrong Whitworth, Newcastle, 15; special engineer, Rolls Royce, Derby, 16–18; manager mech. div, research labs, Westinghouse Elec. and Mfg. Co, E. Pittsburgh, 20–31, eng. manager, S. Phila. works, 31–34; *consulting engineer, 34–; assoc. prof. mech. eng, Mass. Inst. Tech, 36–* Tech. ed, 'Jour. Applied Mech,' 35– Bernard Hall prize, Inst. Mech. Eng. London, 26; Levy medal, Franklin Inst, 41. A.A; Mech. Eng. (sec'y, exec. cmt. applied mech. div, 32, chairman, 33); Soc. Test. Mat; Soc. Metals; London Iron and Steel Inst; London Inst. Mech. Eng. Strength of materials; applied elasticity.

Lesser, Alexander, 4216 28th St, Mt. Rainier, Md. *Anthropology.* New York, N. Y, Oct. 4, 02. A.B, Columbia, 23. Social Science Research Council fellow, 29–30; Council Research in Social Sciences, Columbia, 30–31; Am. Council Learned Societies fellow, 31–32; *anthrop,* univ. exten, Columbia, 34–39; *instr, Brooklyn Col, 40–; social science analyst, Office Coordinator Inter-Am. Affairs, 43–* Visiting lecturer, N. Y. Univ, 34–35; visiting asst. prof, Northwestern, 38. Summer, asst. prof, Pennsylvania, 31. Field leader, field training exped, Lab. Anthrop, 35. Cmt. on Am. Indian Languages, 29, 30. A.A; Anthrop. Asn. (councilor, 31–); Ethnol. Soc. (sec'y-treas, 34–38, ed. 'Monographs,' 38–41; v. pres, 40–42, director, 42–); Folk-Lore Soc. American Indian ethnology; sociology of primitive peoples; race and race problems; acculturation; methodology and theory; social evolution.

Lessig, Dr. Edward T(hompson), B. F. Goodrich Co, Akron, Ohio. *Chemistry.* Schuylkill Haven, Pa, July 8, 01. B.S, Pa. State Col, 26; Ph.D, Wisconsin, 29. Asst. physical chem, Wisconsin, 26–28; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–31; *senior physicist, B. F. Goodrich Co, 31–* Chem. Soc; Physical Soc. Pyrolysis of organic vapors at elevated temperatures; oxidation of hydrocarbons; catalytic addition reactions with unsaturated hydrocarbons; physical behavior of rubber compositions; development of industrial fabrics.

Lester, Dr. D(avid), Yale University, New Haven, Conn. *Organic chemistry.* New Haven, Conn, Jan. 16, 16. B.S, Yale, 36, Ph.D, 40. *Research asst. physiol, Yale, 40–* A.A; Chem. Soc. Respiratory physiology; the structure of caryophyllene; the sterols and other lipids of the coral animals; the effects of certain drugs on the blood pigments and the corresponding respiratory changes.

Lester, Dr. H(orace) H(ardy), Watertown Arsenal, Watertown, Mass. *Physics.* Shelburn, Ind, 84. A.B, Minnesota, 06; A.M, Washington (Seattle), 12; fellow, Princeton, 12–14, Ph.D, 15. Instr. physics, Princeton, 14–15; Washington (Seattle), 15–17; physicist, Westinghouse Lamp Co, 20–21; asst. prof, Case, 21–22; *senior physicist, Watertown Arsenal, 22–* Lecturer, Harvard, 31– Radio laboratorian, Puget Sound Navy Yard, 17–20. Henry Marion Howe medalist, 25. Physical Soc; Soc. Test. Mat; Soc. Metals. Index of refraction of water; thermionics; radiography of metals; defects in cast steel; elastic properties of iron crystals in steel; distribution of carbon in steel; x-ray metallography.

Lester, Prof. Olive P(eckham), University of Buffalo, Buffalo, N. Y. *Psychology.* Lancaster, N. Y, Dec. 19, 03. B.S, Buffalo, 24, A.M, 26; Ph.D, Chicago, 31. Instr. *psychol, Buffalo,* 25–31, asst. prof, 31–38, *assoc. prof, 38–* Psychol. Asn. Experimental and social psychology; factors in maladjusted personalities; retroactive inhibition and learning; student attitudes; social maturity in pairs of identical twins.

Lester, Prof. O(liver) C(larence), 1061 11th St, Boulder, Colo. *Physics.* Morris Co, Kans, Nov. 3, 73. A.B, Cent. Col. (Mo), 97; A.M, Yale, 02, Loomis fellow, 03–04, Ph.D, 04; LL.D, Colo. Col, 41. Prof. Latin and Greek, Hendrix Col, 97–98; asst. prof, Cent. Col. (Mo), 98–01; asst. *physics,* Yale, 02–04, instr, Sheffield Sci. Sch, 04–07; prof, Colorado, 07–42, dean grad. sch, 19–42, v. pres, 31–42, acting pres, 22–23, 32–33; *prof,* Indiana, 42–43; *Colorado, 43–* Physicist, Colo. Geol. Surv, 14–18; director research, Carnotite Products Co, 19–22; consultant, Midwest Ref. Co, 25–30; Gen. Petrol. Co, Calif, 26–28. A.A. (pres, southwest. div, 33); fel. Physical Soc; Geophys. Union; Eng. Educ; Asn. Physics Teachers; Eng. Educ; Asn. Sci. Workers; assoc. N. Y. Acad; Colo. State Hist. Soc; Colo-Wyo. Acad. (pres, 29); Soc. française de Physique. Spectroscopy; atomic theory; radioactivity; geophysics.

Le Stourgeon, Prof. (Flora) Elizabeth, 630 Maxwelton Court, Lexington, Ky. *Mathematics.* Farmville, Va, June 1, 81. A.B, Georgetown Col. (Ky), 09; A.M, Chicago, 13, Ph.D, 17. Prof. *math,* St. Mary's Col. (Texas), 10–12; Beaver Col, 13–15; instr, Mt. Holyoke Col, 18–19; asst. prof, Carleton Col, 19–20; *Kentucky,* 20–26, *assoc. prof, 26–* Math. Soc; Math. Asn. Functions of lines.

Letendre, Prof. Gerard, Laval University, Quebec, Que, Can. *Physical metallurgy.* St. Germain, Que, Sept. 24, 06. B.A, Montreal, 27; B.Eng, McGill, 32; Province of Que. fellow, 32–35; Imp. Col. Science and Tech, 32–34; Ph.D, London, 35. Asst. metallurgist, Robert Mitchell Co, 31; engineer, Can. Bur. Mines, 36–39; lecturer, Laval, 39, *prof. metal. and director dept. min. and metal, 40–* Joint consulting metallurgist, Inspection Board United Kingdom and Can, 43– Min. and Metal. Eng; Soc. Metals; Corp. Professional Eng. Que; Iron and Steel Inst. Gt. Britain. Cementation of copper and copper alloys; heat treatment of high carbon steels; powder metallurgy.

Letzter, Dr. Margaret C(atherine), San Jose State College, San Jose, Calif. *Psychology.* Austria, May 18, 89. A.B, Northwestern, 15, A.M, 30, Ph.D, 37; Wisconsin, 17, 20; Iowa, 31–32. Teacher and prin, high schs, Minn, N. Dak. and S. Dak, 15–21; instr. speech reeduc, Northwestern, 30–31, 32–36; *assoc. prof. speech and director speech clinic, San Jose State Col, 37–* Psychol. Asn; Asn. Teachers Speech; Speech Correction Asn; West. Asn. Teachers Speech. Learning; rate of forgetting for incidental learning.

Leuba, Prof. Clarence (James), Antioch College, Yellow Springs, Ohio. *Psychology.* Bryn Mawr, Pa, July 3, 99. B.S, Haverford Col, 20; A.M, Harvard, 21; Ph.D, Syracuse, 29. Instr. *psychol,* Syracuse, 28–29; lecturer, Bryn Mawr Col, 29–30; assoc. prof, *Antioch Col,* 30–37, *prof, 37–, chairman dept, 39–* Visiting prof, Indiana, 40–41. A.A; Psychol. Asn. Psychology of motivation and incentives; social and genetic psychology.

Leuba, Prof. James H(enry), Bryn Mawr, Pa. *[1]*Psychology, Philosophy.* Neuchâtel, Switzerland, April 9, 68. B.S Neuchâtel, 86; Ph.D, Clark, 95. Prof. *psychol, Bryn Mawr*

Col, 98–33, *emer. prof*, *33–* A.A. Social psychology; psychology of religion; belief in God and immortality; religious mysticism.

Leuck, Dr. Gerald J(ohn), 2326 Ridge Ave, Evanston, Ill. *Organic chemistry.* Wisner, Nebr, March 3, 00. B.S, Nebraska, 21, A.M, 22; Ph.D, Northwestern, 24; Marburg and Col. de France, 24–25; Vienna, 32–33. Asst, Nebraska; *research chemist, Miner Labs*, 25–31, *34–*; Quaker Oats Co, 32. Research fellow, Northwestern. Chem. Soc. Benzyl esters; organic mercury derivatives; furfural and its derivatives; rubber vulcanization accelerators; farm waste materials; x-ray analysis of organic substances; proteins; starch; sugar derivatives.

Leukel, R(obert) W(hilmer), 3119 Key Blvd, Clarendon, Va. *Plant pathology.* Brillion, Wis, Oct. 2, 88. B.S, Wisconsin, 18, M.S, 21. Sci. asst, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr*, 19–20, asst. pathologist, 20–25, assoc. pathologist, 25–42, *pathologist*, 42– M.C, U. S. A, 18–19. Phytopath. Soc; Bot. Soc. Wash. Nematode disease of cereals caused by Tylenchus tritici; infection of barley by Helminthosporium gramineum; control of cereal diseases; nature and control of sorghum diseases.

Leum, Dr. L(eonard) N(orman), 134 Summit Ave, Upper Darby, Pa. *Chemistry.* Westby, Wis, Oct. 8, 08. A.B, St. Olaf Col, 29; Ph.D, Mass. Inst. Tech, 36. Lab. asst, Mass. Inst. Tech, 29–36; junior chemist in *research and develop. dept, Atlantic Ref. Co*, 36–40, *senior chemist, 40–*; *instr, evening sch, Drexel Inst. Tech, 39–* Chem. Soc. Reactions of tertiary butyl nitrite; lubricating oil treatment; Diesel fuel additives; caustic methanol treatment of naphthas.

Leuschner, Prof. A(rmin) O(tto), 1816 Scenic Ave, Berkeley, Calif. *[1]Astronomy.* Detroit, Mich, Jan. 16, 68. Grad, Royal Friedrichs and Wilhelms Gym, Cassel, Germany, 86; A.B, Michigan, 88, hon. Sc.D, 13; California and Lick Observatory, 88–90; Ph.D, Berlin, 97; hon. Sc.D, Pittsburgh, 00; LL.D, California, 38. Instr. math, *California*, 90–92, asst. prof, 92–94, astron. and geod, 94–98, assoc. prof, 98–07, director *students' observatory*, 98–38, *emer. director, 38–*, prof. *astron.* and chairman dept, 07–38, *emer. prof, 38–*, dean grad. sch, 13–18, 20–23, chairman board research, 16–18, 21–25, 26–35, advisory board, exten. div, 30–38. Faculty research lecturer, California, 15; Halley lecturer, Oxford, 38. Special expert, U. S. Shipping Board, 17; chairman sci. cmt. and cmt. on occupational selection, State Council Defense, Calif, 18; exec. sec'y and acting chairman div. physical sciences, Nat. Research Council, 19. Knight, Order of the North Star, Sweden, 24. Watson gold medal, Nat. Acad. Sciences, 16; Bruce gold medal, Astron. Soc. Pacific, 36. In charge naval training, Univ. Calif, 17–18; C.W.S, 18–19, major. Nat. Acad. (chairman, board Watson trustees, 17–, astron. sect, 35–38); A.A. (v. chairman, A, 17, pres, Pacific div, 31); Astron. Soc; Math. Soc; Seismol. Soc; Asn. Prof. (pres, 24–26); Philos. Soc; Geophys. Union; Astron. Soc. Pacific (pres, 08, 36, 43); fel. Calif. Acad; Wash. Acad; hon. mem. Rittenhouse Astron. Soc, Phila; for. assoc. Royal Astron. Soc; Astron. Gesell; for. mem. Royal Physiog. Soc, Lund, Sweden; Int. Geophys. Union; Int. Astron. Union (chairman, cmt. on comets and minor planets, 19–38, hon. chairman, 38–). Theoretical astronomy; perturbations of the Watson asteroids; improvement in the methods of determining preliminary orbits of comets and planets; perturbations of the Hecuba group of minor planets; short methods of determining orbits from three observations; minor planets.

Leutgoeb, Dr. Rosalia A, Marycrest College, Davenport, Iowa. *Mathematics.* Vienna, Austria, April 2, 01. B.S, Marquette, 35, M.S, 37, Ph.D, 38. *Teacher chem. and math, Marycrest Col*, *40–* Chem. Soc. Electrolytic preparation of glucuronic acid.

Leutner, Dr. Fred(erick) S(tanley), University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Cleveland, Ohio, Sept. 30, 13. A.B, Harvard, 34; Ph.D, Western Reserve, 42. *Instr. chem, Cincinnati, 41–* Summer, lecturer, Western Reserve, 42. Chem. Soc. Inorganic and physical chemistry; decomposition of dichlorodifluoromethane.

Leutwiler, Prof. O(scar) A(dolph), 710 Pennsylvania Ave, Urbana, Ill. *Mechanical engineering.* Highland, Ill, Feb. 16, 77. B.S, Illinois, 99, M.E, 00. Asst. prof. machine design, *Illinois*, 03–15, *prof*, 15–21, *mech. eng. design, 21–, head dept. mech. eng, 34–* Mech. Eng; Soc. Automotive Eng; Eng. Educ; Gear Mfrs. Asn. Machine design; design of steam power plants.

LeVan, Prof. W(illiam) C(hristian), Findlay College, Findlay, Ohio. *Physiology.* Catawissa, Pa, 85. A.B, DePauw, 10; A.M, Michigan, 14; Ph.D, Pennsylvania, 29. Asst. bot, Michigan, 13–14; biol, Northeast. State Teachers Col, Okla, 14–18; chem. and biol, Cedar Crest Col, 25–28; *prof. biol, Findlay Col*, *29–* Bot. Soc. Effect of metals on the respiration of Lupinus albus.

Levanas, Dr. Leo D(aniel), 224 W. 78th St, Los Angeles, Calif. *Physical chemistry.* Chicago, Ill, April 11, 14. A.B, California at Los Angeles, 33, A.M, 34; Ph.D, Stanford, 36. *Technologist, Shell Oil Co*, *36–* Chem. Soc. Physics; organic chemistry; petroleum chemistry; synthesis; photochemistry of aldehydes; Lyman-Birge-Hopfield bands of nitrogen.

Levengood, Dr. C(laude) A(nderson), University of Tulsa, Tulsa, Okla. *Zoology.* Boyertown, Pa, March 5, 10. B.S, Franklin and Marshall Col, 31; M.S, Northwestern, 34, Ph.D, 37. Lab. asst, Northwestern, 31–36, part-time instr, 36–37; instr. *zool, Tulsa*, 37–39, asst. prof, 39–43, *assoc. prof, 43–* Okla. Acad. Physiology; regeneration; parasitology.

Levenstein, Dr. Irving M(ax), Leberco Laboratories, Bloomfield, N. J. *Endocrinology, Nutrition.* Fair Lawn, N. J, Aug. 14, 12. A.B, N. Y. Univ, 34, M.S, 36, Ph.D, 38. Teaching fellow biol, N. Y. Univ, 36–38, asst. instr, 38–40; *endocrinologist, Leberco Labs, 40–* Asn. Anat; Soc. Zool. Adrenals and lactation; pituitary histology; hormones and blood formation; physiology of human spermatozoa.

LeVeque, Prof. Norma, 2135 Fourth St, Boulder, Colo. *Biology.* Iron Mountain, Mich, July 31, 91. A.B, Colorado, 13, Ph.D, 31; A.M, California, 19. Teacher, high sch, Colo, 13–18, 23–24; instr. biol, *Colorado*, 24–31, *asst. prof. zool, 31–* Cmn. Relief Belgium Educ. Foundation fellow, Belgium, 31–33; Am. Woman's table, Naples Zool. Sta, 31. A.A; Entom. Soc. Amer; Soc. Zool; Colo-Wyo. Acad. Entomology; zoology.

Lever, Cyril, W. H. Burns Co, 503 Rodman Ave, Jenkintown, Pa. *Organic chemistry.* Philadelphia, Pa, June 23, 95. A.B, Pennsylvania, 15, B.S, 20. *Director research, W. H. Burns Co, 20–* Chem. Soc; Asn. Textile Chem. and Colorists; Franklin Inst. Colloid chemistry.

Leverett, Dr. Frank, 1724 S. University Ave, Ann Arbor, Mich. *[1]Geology.* Denmark, Iowa, March 10, 59. B.S, Iowa State Col, 85; hon. Sc.D, Michigan, 30. Instr. nat. science, Denmark Acad, Iowa, 80–83; field asst, U. S. Geol. Surv, 86–90, asst. geologist, 90–01, geologist, 01–29; lecturer glacial geol, Michigan, 09–29; *retired.* Nat. Acad; A.A; Geol. Soc; Philos. Soc; Forestry Asn; Am. Geog. Soc; Mich. Acad; Wis. Acad; Iowa Acad; Wash. Acad. Glacial geology; physiography; water resources; glacial deposits of Europe; glacial investigations in the upper Mississippi and Great Lakes regions and the Ohio Valley; raised beaches of Atlantic and Gulf coastal plains.

Leverett, Dr. M(iles) C(orrington), University of Chicago, Chicago, Ill. *Metallurgy.* Danville, Ill, Dec. 18, 10. B.S, Kans. State Col, 31; M.S, Oklahoma, 32; Sc.D, Mass. Inst. Tech, 38. Asst. chemist, Marathon Paper Mills Co, 32–33; Phillips Petrol. Co, 33–35; *senior research engineer, Humble Oil and Ref. Co, 38–; war work, metal. lab, Chicago, 42–* Physical Soc. Physics of petroleum production.

LeVesconte, Prof. Amy (Marie), Mary Hardin-Baylor College, Belton, Texas. *Chemistry.* Prior Lake, Minn, April 24, 98. A.B, Macalester Col, 19; M.S, Minnesota, 24; Ph.D, Iowa State Col, 28. Instr, Iowa State Col, 28–30; *prof. chem. and head dept, Mary Hardin-Baylor Col, 30–* A.A; Chem. Soc; Texas Acad. Food chemistry; the teaching of chemistry.

Levesque, Dr. Charles L(ouis), Resinous Products and Chemical Co, Philadelphia, Pa. *Organic chemistry.* Manchester, N. H, Feb. 16, 13. A.B, Dartmouth Col, 34, A.M, 36; Cramer fellow, Illinois, 36–37, Chem. Foundation fellow, 37–38, du Pont fellow, 38–39, Ph.D, 39. Instr. anal. chem, Dartmouth Col, 34–36; *senior chemist, Resinous Products and Chem. Co, 39–* Chem. Soc. Alkyd resins and raw materials.

Levey, Harold A(lvin), 8127–33 Oleander St, New Orleans, La. *Chemistry, Engineering.* New Orleans, La, Oct. 14, 89. B.E, Tulane, 10, hon. Chem.E, 30; B.S, Illinois, 15, M.S, 16. Consulting elec. engineer, Thos. S. Watson Co, Milwaukee, Wis, 12–14; consulting mech. engineer, Chas. H. Cahill Co, 15; research chemist, Mariner and Hoskins, Chicago, 16–17; chem. engineer, bur. aircraft production, 18–19; tech. director, Gen. Mfg. Co, Iowa, 19–20; *pres, Am. Products Mfg. Co,*

20–; consulting chem. engineer, 25–; tech. director, Chem. Products Mfg. Co, 33–; pres, Inceloid Co, 36– A.A; fel. Chem. Eng. (director, La. sect); Chem. Soc. (v. pres, 30; past pres, La. sect; nat. councilor, 32–; gen. chairman nat. conv, 32); fel. Inst. Chem; La. Eng. Soc. Carbohydrate chemistry; chemistry of cellulose derivatives; manufacture of transparent cellulose sheetings; transparent sheeting as food packaging material; adhesives; cellulose lacquers and plastics; coating compositions for food containers; plastic products; transparent films from starch hydrate; film-forming apparatus; chemical smokes.

Levin, Dr. A(aron) A, 136 Warrington Drive, Rochester, N. Y. *Physics.* Detroit, Mich, May 26, 02. B.S, Michigan, 23, M.S, 25, Ph.D, 28. Junior engineer, Milwaukee Elec. Ry. and Light Co, 24; instr. physics, Michigan, 26–27; *optical engineer, Bausch and Lomb Optical Co, 28–* Optical Soc. Light; infrared absorption spectra of acetylene, ethylene and ethane; absorption spectra of hydrogen chloride; method of predicting daylight illumination from sloping windows; optical instruments.

Levin, Dr. Isaac, 57 W. 57th St, New York, N. Y. *Physiology, Pathology.* Sagor, Russia, Nov. 1, 66. M.D, Imp. Mil. Med. Acad, St. Petersburg, 90. Assoc. path, Columbia, 09–15; *clin. prof. cancer research,* Univ. and Bellevue Hosp. Med. Col, 15–35, *N. Y. Univ. Col. Med, 35–* Director, N. Y. Cancer Inst, 23–30. A.A; Physiol. Soc; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Asn. Cancer Research; Radium Soc; Harvey Soc; N. Y. Acad. Med. Fat and protein absorption; physiology of the thyroid and adrenals; etiology of tumors; function of the spleen; hemolysis; function of the kidney capsule; fat necrosis and acute pancreatitis; transplantation of blood-vessels; experimental cancer; arteriosclerosis; assimilation of food in different segments of the gastro-intestinal tract; biological action of x-rays and radium; crown gall and other parasitic diseases of plants.

Levin, Dr. Louis, 630 W. 168th St, New York, N. Y. *Biochemistry.* Milwaukee, Wis, May 9, 08. A.B, Kalamazoo Col, 29; Ph.D, St. Louis, 34. Asst, sch. med, St. Louis, 29–34; *research assoc. anat, col. physicians and surg, Columbia, 34–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Study Int. Secretions; Harvey Soc. Chemistry and physiology of estrogenic hormones; gonadotropic hormones.

Levin, Dr. Morton L(oeb), 102 S. Pine, Albany, N. Y. *Epidemiology, Public health.* Russia, Aug. 25, 03. M.D, Maryland, 30; Dr.P.H, Hopkins, 34. Intern and asst. res, Sinai Hosp, Baltimore, 30–32; asst. dispensary physician, Hopkins Hosp, 32–33; lecturer, sch. nursing, Sinai Hosp, 32–34; commissioner health, Ottawa Co, Mich, 34–35; instr. epidemiol, sch. hygiene and pub. health, Hopkins, 35–36; attending physician, State Inst. for Study of Malignant Disease, *N. Y,* 36–39; *asst. director div. cancer control, State Dept. Health, 39–* Assoc. director research surv, State Legislative Cancer Surv. Cmn, N. Y, 38–39. A.A; Pub. Health Asn; Asn. Cancer Research. Public health aspects of cancer; epidemiology of malignant tumors; public health administration; internal medicine.

Levin, Dr. N(athan), Upjohn Co, Kalamazoo, Mich. *Organic chemistry.* Baltimore, Md, July 30, 15. B.S, Maryland, 36, M.S, 38, Ph.D, 41. Asst. instr. bacter, Maryland, 36–37, *org. chem,* 37–41; *research fellow, Upjohn Co, 41–* Abstractor, 'Pharmaceut. Abstracts,' 37– Chem. Soc. Organic chemistry in the field of synthetic medicinals; amines related to epinephrine-ephedrine, nitrosation and catalytic reduction.

Levine, Dr. Albert K(enneth), Peter J. Schweitzer, Inc, Spotswood, N. J. *Physical chemistry.* Bayonne, N. J, Sept. 13, 17. B.S, Rutgers, 38, M.S, 39, Ph.D, 41; visiting scholar, Columbia, 41. Research chemist, Glyco Products Co, 41–42; *chief research chemist, Peter J. Schweitzer, Inc, 42–* Physical, colloidal and organic chemistry of cellulose and cellulose products; utilization of lignin in commercial plastics; synthetic resins.

Levine, Prof. Arthur S(idney), 22 Nutting Ave, Amherst, Mass. *Food technology.* Boston, Mass, March 15, 13. B.S, Mass. State Col, 35, M.S, 36, Ph.D, 39. Asst. food tech, Mass. State Col, 36–40, asst. prof, 40–42; *lieut, Sanit. Corps, U. S. Army, 42–* Soc. Bact; Inst. Food Technol. Chemistry and bacteriology of foods; nutrition; freezing, canning, drying, storage and processing of foods; effect of acetic acid on food spoilage microorganisms.

Levine, Dr. B(enjamin) S(amuel), Rapides Parish Health Unit, Alexandria, La. *Bacteriology, Immunology.* Yekaterinoslav, Russia, 87. B.S, Trinity Col, 12; M.S, Brown, 13, Ph.D, 15. Bur. chem, U. S. Dept. Agr, 15–21; director clin. lab, U. S. Pub. Health Service, 21–23; U. S. Veterans' Bur, 23–31; clin. labs, Pub. Health Inst, Chicago, 31–35; bacteriologist, nat. inst. health, U. S. Pub. Health Service, 36–39; mem, Ohio River Pollution Surv. Pub. Health Aspects Clamming in Raritan Bay, 39–41; *asst. director labs, State Dept. Health, La, 41–* Teacher, R. I. Sch. Design; instr, sch. med, Marquette, 23; prof, Carroll Col, 24; expert chemophysiologist, Waukesha Co, Wis, 21–26. A.A; Soc. Bact; fel. Pub. Health Asn; Soc. Exp. Biol. Effect of radium emanation upon bacteria; medical and industrial microbiology; experimental Staphylococcus toxin, antitoxin and toxoid; identification and classification of micro-organisms; pharmacology; chemophysiology of the psychoneuroses; serology of syphilis and gonorrhea; theory of immunity; nomograph for measuring basal metabolic rates.

Levine, Dr. Harold, Pabst Brewing Co, 917 W. Juneau Ave, Milwaukee, Wis. *Physiological chemistry, Nutrition.* Middletown, Conn, Dec. 30, 00. B.S. Wesleyan, 22; Ph.D, Yale, 26. Asst. physiol. chem, Yale, 23–26; asst. director in charge nutritional div, Food Research Labs, Inc, 26–27; chief chemist, Scott and Bowne, 27–30; research assoc, S. C. Food Research Lab, 30–34; lecturer, Med. Col. State of S. C, 30–34; *biochemist, Pabst Brewing Co, 34–* Assoc. mem, 13th Int. Physiol. Cong. Chem. Soc; Inst. Nutrition; Soc. Biol. Chem; Inst. Food Technol. Ketosis; nutrition; value of foods in nutritional anemia; vitamins; diet and goiter; food technology.

Levine, Dr. Irving E, 225 Bush St, San Francisco, Calif. *Chemistry.* Cincinnati, Ohio, Oct. 18, 09. A.B, Cincinnati, 34, A.M, 36, Ph.D, 37. *Research chemist, research and develop. dept, Standard Oil Co. of Calif, 37–* Chem. Soc. Reaction mechanism of organic sulfides with halides; partial oxidation of hydrocarbons.

Levine, Dr. J(ack), North Carolina State College, Raleigh, N. C. *Mathematics.* Philadelphia, Pa, Dec. 15, 07. A.B, California at Los Angeles, 29; Ph.D, Princeton, 34. Asst. *math,* California at Los Angeles, 29–30; instr, Princeton, 30–35; *N. C. State Col,* 35–37, asst. prof, 37–39, *assoc. prof, 39–* Math. Soc; Math. Asn. Differential geometry; tensor analysis.

Levine, Prof. Max, Iowa State College, Ames, Iowa. *Bacteriology.* Poland, April 4, 89. B.S, Mass. Inst. Tech, 12; Ph.D, Iowa, 22. Asst, Mass. Inst. Tech, 12–13; instr, *Iowa State Col,* 13–14, asst. prof, 14–18, assoc. prof, 19–24, *prof. food and sanit. bacter, 24–, in charge dept, 33–; Sanit. Corps, U. S. Army, 41–, lieut. col.* Consultant, U. S. Dept. Agr. Sanit.C, 18–19, capt; major, Sanit.R.C, 22. A.A; Soc. Bact. (v. pres, n. cent. branch, 37, pres, 38); fel. Pub. Health Asn. (cmt. standard methods, 17); Soc. Exp. Biol; Sewage Works Asn; Water Works Asn; Inst. Food Technol; Iowa Acad; hon. mem. Soc. Biol. Chem. India. Intestinal group of bacteria; purification of creamery, packing house and industrial wastes; technique in bacteriology; compilation of culture media.

Levine, Dr. Michael, 266 Bedford Park Blvd, New York, N. Y. *Botany, Cytology.* April 16, 86. B.S, Col. City of N. Y, 06; A.M, Columbia, 10, Ph.D, 13. Research physiol. and bot, Columbia, 07–16; biologist, *Montefiore Hosp,* 16–24, *biologist in charge cancer research lab, 24–* A.A; Bot. Soc; Phytopath. Soc; Soc. Exp. Biol; Asn. Cancer Research; Torrey Bot. Club (business manager); Harvey Soc; Deuts. Bot. Gesell. Cytology of the Boleti; development of lamella in fungi; cytology of the crown gall and animal cancer; cytology of pathological conditions induced by radium and x-rays in animals and plants; effect of carcinogenic agents on plants.

Levine, Dr. Morris, Box 1662, Pampa, Texas. *Chemistry.* Birmingham, Eng, Jan. 21, 98. B.S, Chicago, 22, Ph.D, 25; M.S, Illinois, 23. Asst, Sprague Mem. Inst, Chicago, 23–25; research chemist, Universal Oil Products Co, 26–31; Mariner and Hoskins, 31–32; patent engineer, Texas Pacific Coal and Oil Co, 32–33; *with Danciger Oil and Refineries, Inc, 33–; chem. engineer, Ferroline Corp, Shreveport, La, 36–* Chem. Soc; fel. Inst. Chem. Determination of hydrocarbon groups in petroleum; chemical treatment of cracked petroleum distillates; gas polymerization; utilization of petroleum wastes; isomerization; alkylation.

Levine, Dr. Moses (ben) N(aphtali), University Farm, St. Paul, Minn. *Phytopathology.* Ludza, Latvia, June 23, 86. B.S, Minnesota, 15, M.S, 16, Ph.D, 24. Asst. plant path,

Minnesota, 15–17; Kans. State Col, 17; agent, *cereal disease investigations, bur. plant indust, U. S. Dept. Agr*, 17, field asst, 17–18, asst. pathologist, 19–24, assoc. pathologist, 24–28, *pathologist, 29–* In charge irrig. and path. truck crop investigations, U. S. Dept. Agr. and Exp. Sta, Minnesota, 14; asst, Exp. Sta, Minnesota, 15; plant quarantine inspector, U. S. Dept. Agr, 16–17. Exec. council, Am. Cmn. Sci. Tech. Hebrew Univ. Palestine. Advisory board, Am. Cmn. Col. Agr. Palestine. A.A; Phytopath. Soc; Genetic Asn; Soc. Pub. Admin; Humanist Asn; Polit. Sci. Asn; Torrey Bot. Club; N. Y. Acad; Wash. Acad; Minn. Mycol. Soc; Minn. Acad; Soc. linn. de Lyon. Cereal rusts and smuts; physiologic specialization and genetic nature of rust pathogenes; environment and predisposition of grain crops.

Levine, Dr. Norman D(ion), Station Surgeons Office, Ft. Sam Houston, Texas. *Bacteriology, Parasitology.* Roxbury, Mass, Nov. 30, 12. B.S, Iowa State Col, 33; Ph.D, California, 37. Asst. zool, California, 33–37; asst. animal parasitologist, dept. animal path. and hygiene, Illinois, 37–41, assoc. animal pathologist, 41–42; *lieut, Sanit. Corps, U. S. Army, 42–* A.A; Asn. Mil. Surg; Soc. Ill. Bact. Bacterial, parasitic and virus diseases of domestic animals.

Levine, Dr. Philip, 819 River St, Mattapan, Mass. *Organic chemistry.* Boston, Mass, May 19, 17. A.B, Harvard, 39, A.M, 40, Ph.D, 42. *Research chemist, Squibb Inst. Med. Research, 42–* Chem. Soc. Stereochemistry of the catalytic hydrogenation of polynuclear aromatics; synthesis of sulfa drugs and compounds for test as antimalarials.

Levine, Dr. P(hilip), Newark Beth Israel Hospital, 201 Lyons Ave, Newark, N. J. *Bacteriology, Immunology.* Russia, Aug. 10, 00. B.S, Col. City of N. Y, 19; M.D, Cornell, 23, A.M, 26. Vol. worker, N. Y. Hosp, 25; asst, Rockefeller Inst, 25–28, assoc, 28–32; instr. path. and bacter, Wisconsin, 32–35; *bacteriologist and serologist, Newark Beth Israel Hosp, 35–* A.A; Asn. Immunol; Soc. Study Asthma; Harvey Soc; Soc. Exp. Biol; Genetic Asn; N. Y. Acad; N. Y. Acad. Med; Blood Transfusion Asn. New York (board med. control). Human hypersensitiveness and anaphylaxis; individual differences of human and animal blood; serologically active bacterial products; specificity of phage; legislation on blood test for non-paternity; prevention of intra-group transfusion accidents; pathogenesis of erythroblastosis fetalis; isoimmunization of mother by fetus.

Levine, Dr. P(incus) P(hilip), New York State Veterinary College, Cornell University, Ithaca, N. Y. *Pathology, Bacteriology.* New York, N. Y, Aug. 25, 07. B.S, Col. City of N. Y, 27; M.S, Cornell, 32, D.V.M, 32, Ph.D, 37. Wildlife research pathologist, State Conservation Dept, N. Y, 32–34; instr. research poultry diseases, *N. Y. State Vet. Col, Cornell, 34–41, research asst. prof. path. and bacter, 41–* Collaborator, fish and wildlife service, U. S. Dept. Interior. Horace K. White prize, 32. Vet. Med. Asn; Soc. Parasitol; Soc. Exp. Biol; Soc. Zool; Conf. Research Workers Animal Diseases N. Amer. Bacteriology; diseases of wild life; diseases of captive game birds; ascarid, capillaria, cestode and coccidial infections in chickens; viability of helminth ova; chemotherapy in taeniasis and coccidiosis of chickens; epidemiology of coccidiosis in poultry.

Levine, Dr. Rachmiel, 2900 S. Ellis Ave, Chicago, Ill. *Physiology.* Poland, Aug. 26, 10. B.A, McGill, 32, M.D, 36. Research fellow *metabolism, Michael Reese Hosp,* 36–39, Francis Williams fellow, 36, *asst. to director, 39–* Soc. Exp. Biol; Federation Clin. Research; Physiol. Soc. Utilization of carbohydrates; mode of action of insulin; metabolic disturbances of denervated muscle.

Levine, Dr. S(am) Z(achary), 525 E. 68th St, New York, N. Y. *Pediatrics.* New York, N. Y, Aug. 8, 95. A.B, Col. City of N. Y, 16; M.D, Cornell, 20. Instr. *pediat, Cornell,* 24–27, assoc, 28–29, asst. prof, 30–32, assoc. prof, 33, acting prof, 34–36, *prof. and head dept, 36–* Asst. attending pediatrist, New York Nursery and Child's Hosp, 24–31; attending pediatrician, N. Y. Hosp, 32–33, acting pediatrician in chief, 34–36, pediatrician in chief, 36– A.A; Asn. Study Int. Secretions; Soc. Research Child Develop; fel. Am. Med. Asn; Acad. Pediat; Pediat. Soc; Soc. Pediat. Research (councilor, 37, pres, 38); Soc. Exp. Biol; Inst. Nutrition; Harvey Soc; N. Y. Acad. Med. (pres, pediat. sect, 38); N. Y. Heart Asn. Respiratory metabolism and water exchange of infants and children; intermediary metabolism of amino acids and the relation of vitamin C thereto.

67

Levine, Dr. S(amuel), Princeton University, Princeton, N. J. *Physical chemistry, Geophysics.* Toronto, Ont, Can, Feb. 15, 11. B.A, Toronto, 32, M.A, 33, Ph.D, 36; fellow, Cincinnati, 34–35; fellow, Pennsylvania, 35–36. Penrose Fund grant, Am. Philos. Soc, Princeton, 36–37; Royal Soc. Can. fellow, Cambridge, 37–38, dept. indust. and sci. research grant, 38–39; research assoc. geophysics, Toronto, 39–40, indust. research, 42–43; *instr. physics, Princeton, 43–* Stability properties of colloidal solutions; calculation of forces between colloidal particles; long range electrical forces responsible for gelation; gravity anomalies due to sub-surface masses.

Levine, Dr. Samuel A(lbert), 270 Commonwealth Ave, Boston, Mass. *Medicine.* Poland, Jan. 1, 91. A.B, Harvard, 11, M.D, 14. Assoc. *med,* Peter Bent Brigham Hosp, Boston, 14–15; asst, Rockefeller Hosp, New York, 16–17; assoc, senior assoc. and *physician, Peter Bent Brigham Hosp, 19–,* instr, *Harvard Med. Sch,* 20–30, *asst. prof, 30–* A.A; Am. Physicians; fel. Col. Physicians; Soc. Clin. Invest; Am. Acad; New Eng. Heart Asn. (pres, 36). Clinical medicine; clinical heart disease; action of drugs on the heart.

Levine, Dr. Victor E(manuel), Halloran General Hospital, Staten Island, N. Y. *Biochemistry, Nutrition.* Russia, Aug. 4, 91. A.B, Col. City of N. Y, 09; A.M, Columbia, 11, Ph.D, 14; Hopkins, 19, 20, 21; Toronto, 23; M.D, Creighton, 28. Asst. biol. chem, col. physicians and surg, Columbia, 13–15, instr. chem. hygiene, 16–17; asst. prof. org. chem, Fordham, 15–16; director chem. lab, Beth Israel Hosp, 16–17; asst. prof. biochem, *sch. med, Creighton,* 18–20, *prof. biochem. and nutrition and head dept, 20–, advisory director grad. sch. chem, 30–, prof. nutrition, sch. dentistry, 33–; major, Med. Corps, U. S. Army.* Consultant, U. S. Pub. Health Service, 37– Summer, instr, Hunter Col, 16. Med. and biol. research in Arctic, 21, 34, 35; director med. and biol. sta, U. S. Pub. Health Service, Point Barrow, Alaska, 37–39, 41, 42. Assoc. ed, 'Archives Physical Therapy,' 28–M.R.C, major. A.A; Chem. Soc. (v. chairman, Omaha sect, 24, chairman, 25); Pharmaceut. Asn; Soc. Exp. Biol; Soc. Bact; fel. Am. Med. Asn; Soc. Biol. Chem; Asn. Study Int. Secretions; Pub. Health Asn; Bot. Soc; Asn. Mil. Surg; Am. Med. Editors' Asn; fel. Cong. Physical Therapy; Nebr. Nutrition Council (pres, 34); fel. Nebr. Acad. (pres, 31); fel. N. Y. Acad. (sec'y, sect. astron, physics and chem, 16–18); fel. Royal Soc. Arts; fel. Am. Inst. Philos. Studies Gt. Britain. Biochemical and nutritional aspects of the rare elements; dietary problems in disease; biological studies of the Eskimos; health and nutritional problems of the Eskimos.

Levinger, D(avid), Western Electric Co, Hawthorne Station, Chicago, Ill. *Engineering.* Delta, Idaho, Aug. 27, 87. Chicago Tech. Col. Steel inspector, Int. Harvester Co, 07–10; mech. engineer, *West. Elec. Co,* 10–18, engineer of mech. methods, 18–20, asst. tech. supt, 20–22, asst. supt. develop, 22–25, supt. mfg. develop, 25–28, engineer of mfg, 28–40, *works manager, Hawthorne Sta, 40–, v. pres, 42–* Mem. board directors, West. Elec. Co, 31. A.A; Mech. Eng; Min. and Metal. Eng. (director, 27–30); Soc. Metals; Elec. Eng; Standards Asn. (mem. mech. standards cmt). Metallurgy.

Levinson, Dr. Abraham, 30 N. Michigan Ave, Chicago, Ill. *Medical sciences.* Russia, Aug. 25, 88. M.D, Illinois, 11; B.S, Chicago, 17. *Prof. pediat, Cook County Grad. Sch. Med, 34–; asst. prof, med. sch, Northwestern, 36–* Attending physician, children's hosp, Cook County Hosp, 20–; senior attending physician, Mt. Sinai Hosp, 23–42, senior attending physician, 42–; attending physician, Sarah Morris Hosp. for Children, 23–36, senior attending physician, 36– Certificate of merit, Class I, Am. Med. Asn, 32; Ill. Med. Soc, 36, 40; achievement in med. medal, Phi Lambda Kappa, 40;. orator key, Hist. Med. Soc, Tulane, 42. Am. Med. Asn; Acad. Pediat; Asn. Med. Hist; Hist. Med. Soc; Chicago Pediat. Soc. (pres, 36); Inst. Med. Chicago. Cerebrospinal fluid, with special reference to its chemistry, physical chemistry and enzymology; various phases of physiology and pathology of the central nervous system; cerebral manifestation in the newborn.

Levinson, Dr. Horace C(lifford), 401 Nassau St, Princeton, N. J. *Mathematics.* Chicago, Ill, June 30, 95. A.B, Yale, 17; Ph.D, Chicago, 22; Dr, Paris, 23. Instr. math, Ohio State, 23; statistician, Bernard-Hewitt and Co, 24–26, officer and director, 26–31; v. pres. and director, Rural Progress, Inc, 34–38; *treas. and director, L. Bamberger and Co, 39–* Math. Soc. Theory of relativity.

Levinson, Prof. Norman, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Lynn, Mass, Aug. 11, 12. B.S, Mass. Inst. Tech, 33, M.S, 34, Sc.D, 35; Procter traveling fellow from Mass. Inst. Tech, Cambridge, 34–35. Nat. research fellow, Inst. Advanced Study, 35–37; instr. *math, Mass. Inst. Tech,* 37–40, *asst. prof, 40–* Assoc. ed, 'Duke Math. Jour,' 38– Fourier transforms; quasianalytic functions; entire functions; engineering applications of mathematics; nonlinear vibration problems.

Levinson, Dr. Samuel A(zor), 808 S. Wood St, Chicago, Ill. *Pathology.* Chicago, Ill, Jan. 8, 95. B.S, Illinois, 17, M.S, 19, M.D, 19. *Director hosp. labs, research and educ. hosp, Illinois, 29–,* asst. prof. med, col. med, 30–39, assoc. prof. *path. and bacter,* 33–39, *prof, 39–* A.A; Soc. Exp. Biol; Asn. Path. and Bact; Inst. Med. Chicago. Experimental medicine.

Levinson, Dr. S(idney) O(lder), 29th St. and Ellis Ave, Chicago, Ill. *Medicine.* New York, N. Y, Oct. 13, 04. B.S, Washington (St. Louis), 25, M.D, 27. Asst. director, *Samuel Deutsch Serum Center,* 31–34, *director, 34–* Am. Med. Asn; Pub. Health Asn. Serum; infectious diseases.

Levis, Dr. Irene (Becker), Case School of Applied Science, Cleveland, Ohio. *Chemistry.* Cassel, Prussia, Jan. 21, 95. Ph.D, 19. Microchemist, instr. and asst. to Prof. G. Popp, Frankfurt, 29–33; *microchemist and instr, Case, 38–* Chem. Soc. Analytical chemistry; microchemistry; metallo-organic compounds.

Levit, Dr. Robert J(ules), 1380 Taylor St, San Francisco, Calif. *Mathematics.* San Francisco, Calif, Aug. 17, 16. B.S, Calif. Inst. Tech, 38, M.S, 39; Ph.D, California, 41. Teaching asst. *math, California,* 40–41, *instr, eng, science and management war training program in San Diego, 42–; U. S. Naval Res, 42–, lieut.* Math. Soc. Algebra.

Levitt, I(srael) M(onroe), 1755 N. 57th St, Philadelphia, Pa. *Astronomy.* Philadelphia, Pa, Dec. 19, 08. B.S, Drexel Inst, 32; A.M, Pennsylvania, 37. Engineer, Abrasive Co, 29–30; *astron, Franklin Inst, 33–, asst. director, Fels Planetarium, and asst. assoc. director astron, photog. and seismol, 39–; research assoc, Cook Observatory, Pennsylvania, 35–* Engineer, Franklin Inst. eclipse exped, 32. A.A; Astron. Soc; Rittenhouse Astron. Soc. Popularization of astronomy; aluminization of telescope mirrors; solar research and spectroheliograph design.

Levitt, Dr. J(acob), University Farm, St. Paul, Minn. *Botany.* Montreal, Que, Sept. 22, 11. B.Sc, McGill, 32, M.Sc, 33, Ph.D, 35. Asst. plant physiol, Macdonald Col, McGill, 34, Nat. Research Council Can. bursar, 35–36; research fellow, Royal Soc. Can, 36–37; lecturer bot, McGill, 38–40; *instr. plant physiol, Minnesota, and junior plant physiologist, div. plant path. and bot, Exp. Sta, 41–* Cold resistance; cellular physiology; permeability.

Levorsen, A(rville) I(rving), 221 Woodward Blvd, Tulsa, Okla. **Geology.* Fergus Falls, Minn, July 5, 94. E.M, Minnesota, 17. Geologist, Greenwood Co, Getzandaner and Johnston and Gypsy Oil Co, 17–27; chief geologist, Philmack Co, 27–28; Independent Oil and Gas Co, 28–30; Tidewater Oil Co, 34–35; *consulting geologist,* 30–34, *35–* Mem. div. geol. and geog, Nat. Research Council, 41–43. Geol. Soc. (councilor, 42–); Asn. Petrol. Geol. (pres, 35, chairman research cmt, 39–43); Soc. Econ. Paleont. and Miner; Soc. Econ. Geol. (councilor, 42–); Min. and Metal. Eng; Am. Geog. Soc. Petroleum geology and stratigraphy.

Levy, Dr. David M, 136 E. 57th St, New York, N. Y. *Psychiatry.* Scranton, Pa, April 27, 92. A.B, Harvard, 14; M.D, Rush, Chicago, 18. Psychiatrist, Inst. Juvenile Research, Ill, 20–22, 23–24; instr. criminol, col. med, Illinois, 22–23; director children's mental hygiene clinic, Michael Reese Dispensary, Chicago, Ill, 22–27; chief staff, Inst. Child Guidance, New York, 27–33; *lecturer, New Sch. for Social Work, New York, 27–* Lecturer, Chicago, 24–28; attending neurologist, Michael Reese Hosp, Chicago, 23–27; consultant, U. S. Pub. Health Service. Summers, lecturer, Smith Sch. for Social Work, 26–32. Mem. Am. Board Neur. and Psychiat. A.A; Psychiat. Asn; Orthopsychiat. Asn. (pres, 30); Am. Med. Asn; assoc. Psychol. Asn; Nat. Cmt. Mental Hygiene; N. Y. Psychoanal. Soc; N. Y. Neur. Soc; N. Y. Soc. Clin. Psychiat; N. Y. Acad. Med; Swiss Med. Psychoanal. Asn. Behavior problems of children; human relationships.

Levy, Dr. Fritz, Davis Memorial Hospital, Elkins, W. Va. *Clinical pathology.* Berlin, Germany, Nov. 18, 87. Ph.D, Friedrich Wilhelms Univ, 15, M.D, 16. Asst. and later acting head dept. exp. embryol, Kaiser Wilhelm Institut für Biol, Berlin-Dahlem, 19–22; *director* labs, Jewish Hosp, Berlin, 23–24; private diagnostic and research lab, 22–36; *labs, Davis Mem. Hosp, Elkins, W. Va, 36–* Mem, State Board Examination Med. Technologists, Berlin, 22–34. Mem. med. advisory board, Selective Service, W. Va, 40– Director labs, hosps, German Army, 14–18. A.A; Am. Med. Asn; Asn. Study Neoplastic Diseases; Soc. Clin. Path; Asn. Path. and Bact; W. Va. Acad. Spermatogenesis; pathology of cells; parthenogenesis in frogs; aberrant cell divisions and tissue mutations; heteroploidy and polyploidy in animals and man; malignancy as a cytological problem.

Levy, Prof. Harry, University of Illinois, Urbana, Ill. *Mathematics.* Boston, Mass, Jan. 9, 02. A.B, Harvard, 20, A.M, 23; J.S.K. fellow, Princeton, 22–24; Ph.D, 24. Instr. *math,* Harvard, 20–22, nat. research fellow, 24–27; *asst. prof, Illinois, 27–* Math. Soc; Math. Asn. Riemann geometry; geometry of paths; differential geometry.

Levy, Dr. Henri A(rthur), 1201 E. California St, Pasadena, Calif. *Physical chemistry.* Oxnard, Calif, Sept. 12, 13. B.S, Calif. Inst. Tech, 35, Ph.D, 38. *Research fellow chem, Calif. Inst. Tech, 38–* Crystal structure; electron diffraction.

Levy, Prof. Milton, 477 First Ave, New York, N. Y. *Biochemistry.* St. Louis, Mo, July 13, 03. B.S, Washington (St. Louis), 25; Ph.D, St. Louis, 29. Asst. biochem, sch. med, St. Louis, 25–29; nat. research fellow med, Harvard, 29–30; instr. *chem,* Univ. and Bellevue Hosp. Med. Col, 30–33, *asst. prof,* 33–35, *N. Y. Univ. Col. Med, 35–* Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Harvey Soc; N. Y. Acad. Reactions of sugars with borate; methemoglobin; equilibria of formaldehyde and amino acids; chemical embryology.

Levy, Dr. Robert L(ouis), 730 Park Ave, New York, N. Y. *Medicine.* New York, N. Y, Oct. 14, 88. A.B, Yale, 09; M.D, Hopkins, 13. Asst. med, Hopkins, 13–16; physiol, Harvard Med. Sch, 16; instr. med, Hopkins, 16–17; assoc, Rockefeller Inst, and res. physician, hosp, 19–22; from asst. prof. to *prof. clin. med, col. physicians and surg, Columbia,* and asst. visiting physician and later *assoc. visiting physician and cardiologist, Presb. Hosp, 22–* Consulting cardiologist, French Hosp, White Plains Hosp. and N. Y. Infirmary Women and Children, 32– Ed. board, 'Am. Heart Jour.' Mem. overseers cmt, Harvard Med. Sch, 34– Subcmt. cardiovascular diseases, Nat. Research Council. A.A; Am. Physicians; Soc. Clin. Invest; Soc. Pharmacol; Clin. and Climat. Asn; fel. Col. Physicians; Soc. Exp. Biol; Am. Med. Asn. (chairman sect. pharmacol. and therapeutics, 32); N. Y. State Med. Soc. (chairman sect. med, 25); N. Y. Tuber. and Health Asn. (director); N. Y. Acad. Med. (steering cmt); cor. mem. Soc. française de Cardiologie. Physiology; pharmacology; internal medicine.

Levy, Prof. Sophia H(azel), University of California, Berkeley, Calif. *Mathematics.* Alameda, Calif, Dec. 12, 88. B.S, California, 10, fellow, 12–14, Ph.D, 20. Watson asst. astron, California, 10–14, asst. to dean grad. div, 14–18; credentials sec'y, State Board Educ, Calif, 18–20; asst. to dean grad. div, *California,* 20–21, research assoc. theoret. astron, 20–21, instr. *math,* 21–24, asst. prof, 24–40, *assoc. prof, 40–* Math. Soc; Math. Asn; Astron. Soc; Astron. Soc. Pacific. Theoretical astronomy.

LeWald, Dr. L(eon) T(heodore), 1200 Fifth Ave, New York, N. Y. *Roentgenology.* Port Henry, N. Y, Feb. 27, 74. Union (N. Y), 91–92; M.D, Columbia, 95; U. S. Army Med. Sch, 03. D.M.R.E, Cambridge, 26. Instr. gross path, Bellevue Hosp. Med. Col, 97–99; N. Y. Univ, 99–02, 10–12, roentgenol, 10–17, prof, 17–39. Director, E. N. Gibbs Mem. X-Ray Lab, 10–32; x-ray dept, St. Luke's Hosp, 11–24; attending roentgenologist, Willard Parker Hosp, 18–34, consultant, 34– Lieut. and capt, U.S.A, 02–10, major, 17–19, commanding officer, Sch. Roentgenol, and roentgenologist, Aviation Research Lab, 19, lieut. col, M.R.C, 29– Roentgen Ray Soc; Radiol. Soc. N. Amer. (v. pres, 23); fel. Col. Radiol; Asn. Thoracic Surg; fel. Am. Med. Asn; fel. Col. Physicians; Soc. Med. Jurisprudence (treas, 28–34, trustee, 34–); Soc. Plastic and Reconstructive Surg. (treas, 24–34); N. Y. Roentgen Ray Soc. (sec'y, 23); N. Y. Gastro-Enterol. Soc. (pres, 31); fel. N. Y. Acad. Med; Greater N. Y. Med. Asn. (treas, 28–32, pres, 32–34); Int. Med. Club (treas, 29–34). Roentgen diagnosis; transposition of the viscera; cancer and lues of the stomach; Paget's disease; digestive diseases of children; effect of altitude on the heart; relation of heart to chest wall; diverticulitis

of colon versus cancer; diaphragmatic hernia and thoracic stomach; congenital absence of orbital wall.

Lewey, Dr. F(rederick) H(enry), 3400 Spruce St, Philadelphia, Pa. *Neurophysiology, Neuropathology.* Berlin, Germany, Jan. 28, 85. M.D, Berlin, 10. Prof. clin. neur, med. sch, Berlin, 23–33, director neur. inst, univ, 30–33; research worker occupational diseases of the nervous system, British Home Office, 33–34; *visiting prof. neurophysiol, med. sch, Pennsylvania, 34–, neuropath, grad. sch, 40–* Consultant in occupational and nervous diseases, Pennsylvania, 38–39. A.A; Neur. Asn; Physiol. Soc; Asn. Neuropath. (v. pres, 36); Asn. Research Nervous and Mental Disease; Hosp. Asn. Occupational diseases of the nervous system; avitaminotic diseases of the nervous system.

Lewin, Dr. Bertram D(avid), 32 E. 64th St, New York, N. Y. *Psychiatry.* Victoria, Texas, Nov. 30, 96. A.B, Texas, 16; M.D, Hopkins, 20. Asst. psychiat, Hopkins Hosp, 20–22; neuropath, N. Y. State Psychiat. Inst, 22–24, senior asst. physician, 24–25; clinical instr. med, dept. psychiat, Cornell, 22–25; *lecturer, N. Y. Psychoanal. Inst, 32–; consulting psychiatrist.* Ed. board, 'The Psychoanal. Quarterly.' Fel. Psychiat. Asn; Psychoanal. Asn; Orthopsychiat. Asn; Am. Med. Asn; N. Y. Psychoanal. Soc. (sec'y, 30–32, v. pres, 32–36, pres, 36–38); N. Y. Soc. Clin. Psychiat; Int. Psychoanal. Asn. Endocrine pathology; psychoanalysis; psychiatric history; clinical psychoanalysis.

Lewin, Prof. Kurt, State University of Iowa, Iowa City, Iowa. **Child psychology.* Mogilno, Prussia, Sept. 9, 90. Freiburg, 08; Munich, 08; Ph.D, Berlin, 14. Asst, psychol. inst, Berlin, 21–33; acting prof. educ, Cornell, 33–35; *prof. child psychol, child welfare research sta, Iowa, 35–* Privat-docent, Berlin, 22–26, lecturer, 27–33; visiting prof, Stanford, 32–33; lecturer, Japan and U.S.S.R, 33; visiting prof, Harvard, 38–40. Summer, mem. faculty, California, 39. Cmt. personality in relation to culture, Nat. Research Council. Psychol. Asn; Soc. Recreation Workers Amer. (cmt. study and research); Soc. Psychol. Study Social Issues (chairman); Soc. Research Child Develop; Midwest. Sociol. Asn; for. mem. Soc. psychol. française. Experimental, theoretical and social psychology.

Lewinski, Dr. Robert John, 1615 Circular Road, Toledo, Ohio. *Psychology.* Feb. 10, 12. Ph.B, Toledo, 34; A.M, Iowa, 36, Ph.D, 39. *Director and chief psychologist, Child Study Institute, Toledo, Ohio, 39–; U. S. Naval Res, lieut.* Lecturer, Toledo, 39– Psychol. Asn; Midwest. Psychol. Asn; Ohio Acad. Experimental psychology; clinical psychology; visual perception; mental deficiency; psychopathology; juvenile delinquency.

Lewinsohn, Dr. M(argarethe) Helene, 21 Bradford St, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, Sept. 14, 00. A.B, Adelphi Col, 22; A.M, Columbia, 26, Ph.D, 34. Asst. *chem,* Adelphi Col, 22–23, *instr,* 23–35; *high sch,* Jamaica, 35–42, *Richmond Hill, 42–* Chem. Soc; Am. Inst. Analytical determinations of iodine; history of solutions.

Lewis, Dr. Allen H(arry), 112 Kenyon Ave, Berkeley, Calif. *Physical chemistry.* Kingston, N. Y, May 1, 16. A.B, N. Y. State Col. Teachers, 36; Ph.D, Stanford, 40. Asst, Stanford, 38–39; *research chemist, Standard Oil Co, Calif, 39–* Chem. Soc. Colloid chemistry; directly air-driven ultracentrifuges; surface chemistry.

Lewis, Prof. Arthur B(everly), University of Mississippi, University, Miss. *Physics.* Forest, Miss, Nov. 21, 01. A.B, Mississippi, 23, A.M, 25; Ph.D, Hopkins, 30. Asst. prof. math. and physics, Mississippi, 25–26; junior physicist, Bur. Standards, 26–30, asst. physicist, 30–36; assoc. prof. *math. and physics, Mississippi,* 36–41, *prof, 41–* Physical Soc; Asn. Physics Teachers; Miss. Acad. (v. pres. and acting pres, 40); Philos. Soc. Wash. Coupled vibrations with applications to specific heats of crystals and to electrical circuits; electrical measurements and instruments; the sphere-gap voltmeter.

Lewis, Prof. Arthur J(ames), 2136 S. Josephine St, Denver, Colo. *Mathematics.* Denver, Colo, June 22, 84. A.B, Denver, 07, A.M, 09; Ph.D, Colorado, 32. High schs, Colo, 07–08, 16–18; Idaho State Nor. Sch, Albion, 08–12; Wis. State Nor. Sch, La Crosse, 12–16; private business, 18–26; *prof. math, Denver, 26–* Math. Asn. (sec'y, Rocky Mt. sect, 29–). Solution of algebraic equations by infinite series.

Lewis, Dr. Bernard, U. S. Bureau of Mines, Pittsburgh, Pa. **Physical chemistry.* London, Eng, Nov. 1, 99. B.S, Mass. Inst. Tech, 23; A.M, Harvard, 24; Ph.D, Cambridge, 26. Demonstrator physical chem, Cambridge, 25–26; nat. research fellow, 26–28; research guest, Univ. Berlin, 28–29; physical chemist, *U. S. Bur. Mines,* 29–41, *senior physical chemist, 41–; major, Ordnance Dept, U. S. Army.* Mem. sci. advisory cmt. ballistics, U. S. Ordnance Dept; Cmt. to Investigate Operating Room Hazards. Director, Mirus Labs, Inc. Chem. Soc; Physical Soc; N. Y. Acad. Chemical kinetics of gas reactions and explosions; thermodynamics of explosions; moving and stationary flames; flame temperature; explosion limits; state of flame gases; photochemistry; active nitrogen; propellant powder; explosives; internal combustion engines.

Lewis, Dr. Charles E(dward), 35 E. Cliff St, Somerville, N. J. *Organic chemistry.* Hagerstown, Md, Oct. 18, 12. B.S, Maryland, 34; M.S, Pa. State Col, 39, Ph.D, 41. Chemist, West. Md. Ry. Co, Hagerstown, 35–38; *research chemist, Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Reactions and enolization of sterically hindered carbonyl compounds.

Lewis, Dr. Charlton M(iner), Mt. Wilson Observatory, Pasadena, Calif. *Physics.* New Haven, Conn, Aug. 13, 05. A.B, Yale, 28, 28–29; Ph.D, Calif. Inst. Tech, 33. Nat. research fellow, 33–35; research assoc, div. plant biol, Carnegie Institution, 38–41; biol, Stanford, 41–42; *war research, Nat. Defense Research Cmt, Mt. Wilson Observatory, Carnegie Institution, 42–* Physical Soc. Raman effect in gases; infrared absorption spectra of gases; quantum yield of photosynthesis and the wave length dependence of this yield.

Lewis, Dr. Clayton R(oy), R.R. 6, Outer Washington Ave, Evansville, Ind. *Physics, Engineering.* Ellenburg, N. Y, Dec. 5, 08. B.S, Middlebury Col, 31; A.M, Brown, 33, Ph.D, 39; M.M.E, Chrysler Inst. Eng, 38. Lab. instr. and asst, Brown, 31–36; student engineer, *Chrysler Corp,* 36–38, *exp. engineer, 38–, in charge eng. research, ordnance plant, 43–* Research and exp. physicist, U. S. Naval Ordnance Lab, 42–43. Physical Soc; Soc. Automotive Eng. (Chrysler rep, subcmt. surface finish, aeronaut. div); Mech. Eng. (Chrysler rep, sectional cmt. classification and designation of surface qualities). Acoustics; atomic physics; friction; lubrication; surface finish; war research.

Lewis, Prof. Daniel C(lark), Jr, University of New Hampshire, Durham, N. H. *Mathematics.* Millville, N. J, Aug. 14, 04. A.B, Haverford Col, 26; A.M, Harvard, 28, Ph.D, 32. Instr. math, Lehigh, 29–31; nat. research fellow, Hopkins, Princeton and Inst. Advanced Study, 33–35; instr. *math,* Cornell, 35–39; asst. prof, *New Hampshire,* 39–41, *assoc. prof, 41–* Math. Soc; Math. Asn. Partial differential equations; infinite systems of ordinary differential equations; dynamics; four color map problem.

Lewis, Prof. David, 75 Park Terrace East, New York, N. Y. *Chemistry.* New York, N. Y, Dec. 5, 03. B.S, Col. City of N. Y, 24, fellow, 26–29; A.M, Columbia, 26, Ph.D, 31. Tutor *chem, Col. City of N. Y,* 30–36, instr, 37–40, *asst. prof, 40–* A.A; Chem. Soc. Optical properties of glycosides; quantitative chemical analysis; analysis of ancient coins; absorption spectra in the field of carbohydrates; chemical behavior and structure of starch.

Lewis, Dr. Don, State University of Iowa, Iowa City, Iowa. *Psychology, Acoustics.* Mesa, Ariz, Nov. 11, 01. A.B, Parsons Col, 24; A.M, Iowa, 32, Ph.D, 33. Instr, Colo. State Col, 24–25; Utah, 25–27; N. Y. Univ, 28–31; research assoc, *Iowa,* 33–37, assoc. *psychol,* 37–38, asst. prof, 38–41, *assoc. prof, 41–* Psychol. Asn; fel. Acoustical Soc. (exec. councilor, 38–41); Midwest. Psychol. Asn; Iowa Acad. Audition; quantitative methods.

Lewis, Dr. Evan J(arrett), 218 Watauga Ave, Corning, N. Y. *Physics.* Christiana, Pa, April 1, 93. B.S, Pennsylvania, 20; M.S, Pa. State Col, 26; fellow, Cornell, 26–27, Ph.D, 29. Chemist, Nat. Aniline and Chem. Co, Pa, 18–21; instr, Western Reserve, 22–23; Pa. State Col, 23–26; Cornell, 27–29; *physicist, Corning Glass Works, 29–* A.A; Ceramic Soc; Physical Soc. Thermal and electrical properties of beryllium; thermal conductivity of lead and of single and polycrystal zinc.

Lewis, Dr. E(verett) Vernon, 109 North Road, Lindamere, Wilmington, Del. *Physical chemistry.* Malden, Mass, Aug. 3, 07. B.S, Mass. Inst. Tech, 28, fellow, 30–31, Ph.D, 31. *Research chemist, E. I. du Pont de Nemours and Co, 31–* Chem. Soc. Synthetic yarns; synthesis of certain aromatic dicarboxylic acids from Grignard compounds; heat of dilution of hydrochloric acid with a continuous flow calorimeter.

Lewis, Prof. Florence P, 2435 N. Charles St. Baltimore, Md. *Mathematics.* Ft. Scott, Kans, Sept. 24, 77. A.B, Texas, 97; A.M, Radcliffe Col, 26; Ph.D, Hopkins, 13. *Prof. math, Goucher Col,* 22– A.A; Math. Soc. (councilor, 19-22); Math. Asn; Astron. Soc; Astron. Soc. Pacific. Geometrical interpretation of algebraic invariants.

Lewis, Prof. Francis J(ohn), Fouad I University, Cairo, Egypt. *Botany.* London, Eng, 75. D.Sc, Liverpool. Demonstrator bot, Liverpool, 00-05, lecturer geog. bot, 05-12; *prof. bot,* Alberta, 12-35; *Fouad I Univ, 35–* Cuthbert Peek award, Royal Geog. Soc, 05; Neill gold medal, Royal Soc. Edinburgh, 10. Bot. Soc; British Asn; fel. Royal Soc. Edinburgh; fel. Linnean Soc. London. Pleistocene plant deposits; paleobotany; ecology; plant physiology.

Lewis, Prof. Frank M(endell), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* New York, N. Y, Sept. 26, 95. Webb Inst. Naval Archit, 17. Asst. prof. and *prof.* eng, Webb Inst. Naval Archit, New York, 18-36; *marine eng, Mass. Inst. Tech, 36–* Emergency Fleet Corp, 17-18. Mech. Eng; Naval Archit. and Marine Eng. (v. pres). Dynamics; vibration of ships and machinery.

Lewis, Prof. F(red) A(lbert), Box 1444, University, Ala. *Mathematics.* Talladega, Ala, April 13, 95. A.B, Alabama, 15, A.M, 16; Ph.D, Ohio State, 34. Asst. prof. *math,* Agr. and Mech. Col. Texas, 19-20; *Alabama,* 20-25, assoc. prof, 25-37, *prof, 37–* A.A; Math. Soc; Math. Asn. Collineation groups.

Lewis, Dr. Frederic T(homas), Harvard Medical School, Boston, Mass. **²Microscopic anatomy, Embryology.* Cambridge, Mass, March 18, 75. A.B, Harvard, 97, A.M, 98, M.D, 01. Austin teaching fellow, *Harvard Med. Sch,* 01-02, instr. histol. and embryol, 02-06, asst. prof. embryol, 06-15, assoc. prof, 15-31, James Stillman prof. *comp. anat,* 31-41, *emer. prof, 41–* Ed, 'Am. Naturalist,' 07; assoc. ed, 'Anat. Record,' 08-21. A.A; Asn. Anat. (v. pres, 14-16, pres, 36-38); Bot. Soc; Am. Acad; Boston Soc. Nat. Hist. (v. pres, 26-29); fel. Royal Micros. Soc. Development of the vena cava inferior and other veins; development of the lymphatic system and of the digestive tract; the tetrakaidecahedral form of vegetable and animal cells; morphological cytology; history of anatomy.

Lewis, Dr. Garland E(dison), E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Chemistry.* Broken Bow, Nebr, Dec. 17, 80. Ph.G, Nebraska, 13, Ph.D, 16. Asst. prof. chem, Nebraska, 16-17; Rutgers, 17-18; *research chemist, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 18–*

Lewis, Prof. George, La Salle College, Philadelphia, Pa. *Mathematics.* Washington, D. C, April 12, 88. A.B, La Salle Col, 18; A.M, Pennsylvania, 22; Sc.D, Duquesne, 25. Prof. physics, La Salle Col, 19-22; St. Thomas Col, 22-25, v. pres, 22-25, pres, 25-31; *prof. math, La Salle Col, 33–, dean, 38–* A.A. Physics.

Lewis, Dr. G(eorge) Edward, Yale University, New Haven, Conn. *Vertebrate paleontology.* Lorain, Ohio, Oct. 27, 08. Ph.B, Yale, 30, Ph.D, 37. Research, Peabody Museum, *Yale,* 30-37, Sterling fellow, 37-38, instr. *vert. paleont,* 38-43, *asst. prof, 43–, leader univ. expeds. fossil vertebrates, 38–, curator dept. vert. paleont, Peabody Museum, 39–* Soc. Vert. Paleont. Morphology, phylogeny and taxonomy of the higher anthropoids; Cenozoic faunas and stratigraphy.

Lewis, Prof. George T(ruman), 254 Wilton Drive, Decatur, Ga. *Biochemistry.* Bolton, N. Y, July 1, 01. B.S, Middlebury Col, 22; Ph.D, Michigan, 27. Instr. physiol. chem, Michigan, 25-27; asst. prof. *biochem, Emory,* 27-34, *assoc. prof, 34–* Fellow, Commonwealth Fund, 39-40. A.A; Chem. Soc. Metabolism of sulfur; indole metabolism.

Lewis, Dr. George W(illiam), 1500 New Hampshire Ave, N.W, Washington, D. C. *Aeronautics.* Ithaca, N. Y, March 10, 82. M.E, Cornell, 08, M.M.E, 10; Sc.D, Norwich, 34. Instr. eng, Swarthmore Col, 08-10, prof, 10-17; engineer in charge, Clarke Thomson Research, Philadelphia, Pa, 17-19; sales manager, Phila. Surface Combustion Co, 19; exec. officer, *Nat. Advisory Cmt. Aeronautics,* 19-24, *director aeronaut. research, 24–* Wilbur Wright Mem. lecturer, Royal Aeronaut. Soc. Gt. Britain, 39. Pres, Daniel Guggenheim Medal Fund, Inc, 38; mem. U. S. nat. cmn, Permanent Am. Aeronaut. Cmn, 41– Trustee, Norwich. Daniel Guggenheim medal, 36. U. S. plenipotentiary del, Inter-Am. Tech. Aviation Conf, Lima, Peru, 37. Aeronaut. Asn. (D. C. governor, 24-36; chairman contest board, 35-38; chairman int. affairs, council federation aeronaut, 38); Inst. Aeronaut. Sci. (v. pres, 35-38, pres, 39); Automotive Eng. (v. pres, 41); Aero Club Wash. (pres, 24, v. pres, 32). Scientific research in aeronautics.

Lewis, Prof. Gilbert Newton, University of California, Berkeley, Calif. **¹Chemistry.* Weymouth, Mass, Oct. 23, 75. Nebraska, 90-93; A.B, Harvard, 96, A.M, 98, Ph.D, 99; Leipzig and Göttingen, 00-01; hon. D.Sc, Liverpool, 23, Wisconsin, 28, Chicago, 29; hon. Dr, Madrid, 34. Teacher, Phillips Acad, 96-97; instr. chem, Harvard, 99-00, 01-06; in charge weights and measures, Bur. Govt. Labs, P. I, 04-05; asst. prof. physicochem. research, Mass. Inst. Tech, 07-08, assoc. prof, 08-11, prof, 11-12, acting director research lab, 07-09; *prof. chem. and dean col. chem, California, 12–* Summers, George Fisher Baker non-res. lecturer, Cornell, 34; prof, Chicago, 42. Davy medal, Royal Soc, 29; Willard Gibbs medal, Chicago sect, Am. Chem. Soc, Theodore William Richards medal, Am. Chem. Soc, 38; D. S. medal; chevalier, Légion d'honneur; Arrhenius medal, Swedish Acad. Major, lieut. col, chief defense div, gas service, U.S.A, and chief training div, C.W.S. A.A; Chem. Soc; Physical Soc; Philos. Soc; Am. Acad; hon. fel. Royal Inst; hon. mem. London Chem. Soc; Royal Soc; Swedish Acad; Danish Acad; hon. fel. Indian Acad. Thermodynamic theory and its application to chemistry; free energy tables; equilibrium in numerous reactions; electrode potentials of the common elements; properties of solutions and the activity of ions; distribution of thermal energy; specific heat of electrons; the principle of relativity and non-Newtonian mechanics; application of four-dimensional vector analysis to electromagnetic theory; the geometry of the space time manifold of relativity; ultimate rational units; calculation of Stefan's constant; the structure of the atom and molecule; electron pair and chemical bond; the third law of thermodynamics; magento-chemical theory; law of entire equilibrium; theory of photons; symmetry of time in physics; principle of identity; theory of fluctuations; preparation of a pure isotope; deuterium; color and phosphorescence of organic substances.

Lewis, Harold M(ac Lean), 18 E. 48th St, New York, N. Y. *Engineering.* Red Hook, N. Y, Aug. 8, 89. A.B, Williams Col, 09; C.E, Rensselaer Polytech, 12. Design and construction, water supply and sewerage systems, N. Y, Mo. and Germany, 12-15; landscape and city planning projects, N. Y, 15-17, 19-20; exec. engineer, Regional Plan of New York and Its Environs, 21-32; *consulting engineer, 29–;* chief engineer, Regional Plan Asn, 32-42; *consulting engineer, office of pres, Borough of Manhattan, New York, 42–* Engineer, City Plan Cmn, Bayonne, N. J, 29-31; consulting engineer, Town Planning Board, Montclair, N. J; consultant, Nat. Resources Planning Board, 35–; City Planning Board, Mt. Vernon, N. Y, 37; lecturer, N. Y. Univ, 39-41. C.Eng, 17-19, capt. Civil Eng. (chairman, city planning div, 36-39; director, 39-42); Soc. Terminal Eng. (pres, 28); Inst. Planners (board governors, 28-31, 33-36, sec'y, 40-42); Planning and Civic Asn. City planning; reports of regional plan of New York and its environs on highway traffic; physical conditions and public services.

Lewis, Dr. Harrison F(lint), National Parks Bureau, Ottawa, Ont, Can. *Ornithology.* Sag Harbor, N. Y, Dec. 15, 93. B.A, Acadia, 17; M.A, Toronto, 26; Ph.D, Cornell, 29. *Chief fed. migratory bird officer, nat. parks bur, Can. Dept. Mines and Resources, Ont. and Que, 20–* Ed, 'Can. Field Naturalist,' 22-25. Fel. Ornith. Union; Ottawa Field Nat. Club (pres, 30). Botany; general biology; conservation.

Lewis, Dean H(arry) F(letcher), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Chemistry.* Denver, Colo, May 27, 91. B.S, Wesleyan, 12, M.S, 13; fellow, Illinois, 14-17, Ph.D, 16. Pharmaceut. research chemist, Illinois, 16-17; instr. chem, Grinnell Col, 17; asst. org. chemist, color lab, bur. chem, U. S. Dept. Agr, 17-18; assoc. prof. chem, Maine, 18-19; research chemist, Nat. Aniline and Chem. Co, 19-21; prof. chem, Cornell Col. (Iowa), 21-28; Ohio Wesleyan, 28-30, head dept, 29-30; *prof. org. chem. and dean students, Inst. Paper Chem, Lawrence Col, 30–, dean, 33–* Chem. Soc. (chairman, cellulose div, 35, assoc. chairman, Iowa sect, 23, chairman, 24, northeast. Wis. sect, 30); Asn. Pulp and Paper Indust; fel. Iowa Acad. (chairman, chem. sect, 25). Organic and cellulose chemistry.

Lewis, Prof. Howard B(ishop), University of Michigan, Ann Arbor, Mich. **³Chemistry, Biochemistry.* Southington, Conn, Nov. 8, 87. A.B, Yale, 08, Ph.D, 13. Asst. *physiol.*

chem, Yale, 11–13; instr, Pennsylvania, 13–15; assoc, Illinois, 15–17, asst. prof, 17–19, assoc. prof, 19–22; *prof, Michigan, 22–, director col. pharmacy, 33–* Chemist, Conn. Hosp. for Insane, 11; Harvey lecturer, 41. Ed. board, 'Jour. Nutrition,' 35–39, 41–; 'Physiol. Rev,' 35–40; 'Chem. Reviews,' 38–40; 'Jour. Biol. Chem,' 38– Mem, Nat. Board Med. Examiners, 35– A.A; Physiol. Soc; Chem. Soc. (sec'y, 20, chairman, div. biochem, 21); Soc. Biol. Chem. (sec'y, 29–33, v. pres, 33–35, pres, 35–37, councilor, 37–40, 41); Inst. Nutrition (councilor, 41–); Am. Med. Asn. (council foods and nutrition, 35–, v. chairman, 39–); Soc. Exp. Biol. (ed. board, 'Proc,' 27–38), hon. mem. Harvey Soc; Federation Societies for Exp. Biol. (exec. sec'y, 30); Pharmaceut. Asn; Inst. Nutrition (councilor, 41, v. pres, 42, pres, 43–). Nutrition; hydantoin, uric acid and sulfur metabolism; inulin as a food; hippuric acid synthesis; amino acid synthesis in the animal organism.

Lewis, Mrs. Isabel M(artin), 6515 16th St, N.W, Washington, D. C. *Astronomy.* Old Orchard Beach, Maine, July 11, 81. A.B, Cornell, 03, A.M, 05. Astron. computer for Prof. Simon Newcomb, 05–09; asst. astronomer, nautical almanac office, *U. S. Naval Observatory*, 09–27, asst. scientist, 27–30, *astronomer, 30–* A.A; Astron. Soc. Eclipses; occultations.

Lewis, Prof. Ivey F(oreman), University of Virginia, Charlottesville, Va. *‡*Botany.* Raleigh, N. C, Aug. 31, 82. A.B, North Carolina, 02, M.S, 03; Ph.D, Hopkins, 08. Prof. biol, Randolph-Macon Col, 05–06, 08–12; asst. prof. bot, Wisconsin, 12–14; *prof,* Missouri, 14–15; *biol, Virginia, 15–, dean, 33–* Sci. asst, Bur Fisheries, 06, investigator, 09; holder, Smithsonian table, Naples Zool. Sta, 08; instr, Marine Biol. Lab, Woods Hole, 07, 10–17; instr. in charge, 18–27, trustee and mem. exec. cmt. Summer, prof, Stanford, 29. Mem. div. biol. and agr, Nat. Research Council, 28–32, exec. cmt, 30–31, v. chairman div. biol. and agr, 31–32, chairman, 33–36. Trustee, 'Biol. Abstracts.' Walker prize, Boston Soc. Nat. Hist, 09. A.A; Bot. Soc. (sec'y, 22–26, v. pres, 27); Biol. Soc. (pres, 42); Soc. Nat. (pres, 39); Union Biol. Societies (sec'y, 27); New Eng. Bot. Club; Va. Acad. (pres, 24). Morphology of algae; fossil pollen; ecology of strand plants.

Lewis, James A(lbert), Core Laboratories, Inc, Dallas, Texas. *Petroleum engineering.* Kansas City, Mo, Aug. 3, 08. Southwestern Col. (Kans); B.S, Oklahoma, 31; M S, Pa. State Col, 32. Asst, Pa. State Col, 32–34; petrol. research engineer, Petrol. Reclamation Co, 34–37; appraisal and evaluation engineer, *Core Labs, Inc,* 37–41, *près, 41–* Petroleum production; flow of fluids through unconsolidated materials and through porous materials; physical tests and properties of oil and gas sands; analysis of oil field cores for well completion and evaluation.

Lewis, Dr. J(ames) C(lement), U. S. Department of Agriculture, Albany, Calif. *Microbial biochemistry.* Lewisville, Minn, Aug. 10, 15. B.Ch, Minnesota, 36; fellow, Oregon State Col, 37–40, M.S, 39, Ph.D, 40. *Asst. chemist* animal nutrition, Exp. Sta, Oregon State Col, 40–41; *biochem, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* A.A; Chem. Soc; Soc. Plant Physiol; Bot. Soc. Trace elements in plant and microbiological nutrition; microbiological vitamin assay methods.

Lewis, Prof. J(ames) Franklin, 1188 Boswell St, Batesville, Ark. *Organic chemistry.* DeSoto, Ind, March 14, 03. A.B, DePauw, 25; A.M, Ohio State, 27, Ph.D, 30. Instr. *chem,* Bluffton Col, 23; La Crosse State Teachers Col, Wis, 30; *prof,* Col. of St. Scholastica, 30–37; Shurtleff Col, 37–38; Ark. Col, 39–40; Miss. State Col, 40; *Ark. Col, 41–* A.A; Chem. Soc. Unsaturation in organic compounds.

Lewis, J(ames) O(gier), 1912 Commerce Bldg, Houston, Texas. *Geology.* San Jose, Calif, Jan. 21, 86. A.B, Stanford, 16. Oil geologist and engineer, 09–14; petrol. engineer, U. S. Bur. Mines, 14–19, chief petrol. technologist, 19–20; *partner, Dunn and Lewis, 20–; consulting engineer, 21–* Asn. Petrol. Geol; Min. and Metal. Eng. Recovery of oil and gas.

Lewis, Prof. John R(oberts), University of Utah, Salt Lake City, Utah. *Chemistry, Metallurgy.* Spanish Fork, Utah, June 22, 95. A.B, Brigham Young, 19; M.S, Utah, 20; Ph.D, Wisconsin, 24. Asst. *chem,* Brigham Young, 17–18; Utah, 19–20; Wisconsin, 20–23, instr, 24–28; assoc. prof, *Utah,* 29–41, *prof, 41–, head dept, 43–* Prof, Princeton, 36–37. Chem. Soc. (v. chairman, northwest. Utah sect, 30, 40, chairman, 31, 41); Utah Acad. Viscosity of liquids containing dissolved gases; promoter action in heterogeneous catalysis; alkaline earth peroxides; qualitative analysis without hydrogen sulfide; chemical education; adsorption of hydrogen on metals; oxides of metals; oxidation of metallic sulfides.

Lewis, J(oseph) Volney, National Park Service, 601 Sheldon Bldg, San Francisco, Calif. *Geology.* Rutherford Co, N. C, Sept. 14, 69. B.E, North Carolina, 91; B.S, Harvard, 93; Hopkins, 93–94; Columbia. Asst. geologist, N. C. Geol. Surv, 91–96; prof. geol, Clemson Col, 96–04; Rutgers, 04–26, curator geol. museum, 04–14, director, 14–26; chief staff geologist, for. explor, Gulf Oil Corp, Pa, 24–31; in charge earth sciences, A Century of Progress Expos, Chicago, 31–32; *regional geologist, Nat. Park Service, San Francisco, Calif, 34–* Geologist, N. J. Geol. Surv, 05–25; U. S. Geol. Surv, 91, 02, 18, 34. Summers, prof, S. C. State Sch. for Teachers, 00–02. Geol. Soc; Soc. Econ. Geol. (sec'y-treas, 20, treas, 23–26); Min. and Metal. Eng; Min. and Metal. Soc; Miner. Soc; Asn. Petrol. Geol. Mining and petroleum geology; péridotites, chromite and corundum of the Appalachians; eastern Triassic; gold and copper ores; ore genesis; pillow lavas; zeolites; geophysical prospecting; transformation in the coal series; orogeny and volcanology in western United States.

Lewis, Dr. Julian H(erman), 4750 Champlain Ave, Chicago, Ill. *Pathology.* Shawneetown, Ill, May 26, 91. A.B, Illinois, 11, A.M, 12; Ph.D, Chicago, 15, M.D, Rush, 17. Instr. *path, Chicago,* 17–23, asst. prof, 23–32, *assoc. prof, 32–, mem, Sprague Mem. Inst, 17–* Pathologist, Provident Hosp, 19. Ricketts prize, 15; Benjamin Rush medal, 17. Soc. Exp. Path; Asn. Path. and Bact; Asn. Immunol; Tuber. Asn; Chicago Path. Soc; Inst. Med. Chicago; Chicago Soc. Int. Med. Lipoids in immunity; immunological specificity; pathologic physiology of the neuroses.

Lewis, Prof. Keith H(arrower), University of Nebraska, Lincoln, Nebr. *Bacteriology.* Patch Grove, Wis, June 17, 10. A.B, Wisconsin, 32; M.S, Maine, 34; Ph.D, Yale, 39. Instr. *bacter, Nebraska,* 36–40, *asst. prof, 40–; lieut, Chem. Warfare Service, U. S. Army.* A.A; Soc. Bact. Slow lactose-fermenting bacteria; root nodule bacteria; antiseptics; non-sporulating anaerobic bacteria of intestinal origin; fermentation of sugar acids by bacteria.

Lewis, Prof. Leland J, Florida State College for Women, Tallahassee, Fla. *Chemistry.* Broken Bow, Nebr. B.S, Grand Island Col, 09; A.M, Nebraska, 12; Ph.D, Columbia, 21. Prof. chem, Sioux Falls Col, 12–13; Munic. Univ. Omaha, 13–18; supply prof, Maine, 18–19; *prof.* physics, Miss. Col, 21–23; *chem. and head dept, Fla. State Col. for Women, 23–* Chem. Soc. (pres, Fla. sect, 31–32). The hydrolysis of fats by reagents made from cymene; fat splitting reagents from cymene; gums from different varieties of southern pine; extraction analysis of rotenone.

Lewis, Dr. Lena A(rmstrong), Cleveland Clinic, Cleveland, Ohio. *Physiology.* Lancaster, Pa, July 12, 10. A.B, Lindenwood Col, 31; A.M, Ohio State, 38, Ph.D, 40. Asst. biochem, sch. med, Hopkins, 31–32; bacteriologist and technologist, Gen. Hosp, Lancaster, Pa, 32–36; asst. *physiol,* Ohio State, 36–41; *research fellow, Cleveland Clinic Foundation, 41–* Relation of the adrenal cortex to electrolyte metabolism, blood volume and plasma proteins; modifications in the blood picture of adrenalectomized animals under different treatments.

Lewis, Prof. Lillian B(urwell), Tillotson College, Austin, Texas. *Embryology.* Meridian, Miss, Aug. 13, 04. B.S, Howard, 25; M.S, Chicago, 31, Rosenwald fellow, 31–32. *Prof. zool,* State Agr. and Mech. Col. S. C, 25–29; Morgan Col, 29–31; *Tillotson Col, 31–* Early differentiation of the duck gonad.

Lewis, Dr. Lloyd G(riffith), 11 E. Chase St, Baltimore, Md. *Surgery.* Remsen, N. Y, Nov. 10, 02. A.B, Hamilton Col, 24; M.D, Hopkins, 28. *Assoc. urol, sch. med, Hopkins, asst. visiting urologist, Hopkins Hosp, and urologist in charge urol. dispensary; lieut. col, Med. Corps, U. S. Army.* Assoc. urologist, St. Joseph's and Md. Gen. Hosps. Fel. Am. Med. Asn; Urol. Asn; Med. and Chirurg. Faculty Md. Genito-urinary surgery; physiology of micturition; the neurological bladder; unilateral renal disease and hypertension.

Lewis, Dr. Margaret N(ast), International House, Berkeley, Calif. *Biophysics.* Baltimore, Md, Aug. 20, 11. A.B, Goucher Col, 31; Ph.D, Hopkins, 37. Asst. physics, Vassar Col, 37–38; Am. Asn. Univ. Women Sarah Berliner research fellow, *California,* 38–39, research fellow, *Crocker Radiation Lab,* 39–40, *Finney Howell research fellow, 40–* Biological effect of radiation.

Lewis, Prof. Milton T(ichenor), Pennsylvania State College, State College, Pa. *Plant breeding.* Barneveld, N. Y, March 16, 00. B.S, Cornell, 23; M.S, Pa. State Col, 25. Asst. *plant breeding, Pa. State Col,* 23–26, instr, 26–31, asst. prof, 31–37, *assoc. prof, 37–* Soc. Hort. Sci; Genetic Asn. Inheritance in lettuce and tomato; Antirrhinum.

Lewis, M(ortimer) R(eed), Country Club Heights, Corvallis, Oregon. *Irrigation.* Evanston, Wyo, April 11, 86. B.S, Utah, 06, C.E, 25. Asst. irrig. engineer, U. S. Dept. Agr, 16–19; mem. firm, Hays, Sloan and Lewis, 19–22; assoc. prof. agr. eng, Idaho, 22–25, prof. and head dept, 25–28; *irrig. engineer, Exp. Sta, Oregon State Col, and senior agr. engineer in charge cooperative irrig. investigations, soil conservation service, U. S. Dept. Agr, 28–* Agr. Eng; Civil Eng. Drainage; flow of water through soils; irrigation practices.

Lewis, Dr. Nolan D(on) C(arpentier), N. Y. State Psychiatric Institute and Hospital, New York, N. Y. *Pathology, Psychiatry.* Coudersport, Pa, 89. M.D, Maryland, 14; Hopkins, 14–17; Vienna, 27–28. Pathologist, Md. Gen. Hosp, 14; pathologist and clin. director, Crownsville State Hosp, 15–17; fellow, Hopkins, 17–18; director lab, Phipps Psychiat. Clinic, Hopkins, 18; neuropathologist, Office Surgeon Gen, 18–19; pathologist, St. Elizabeths Hosp, 19–22, director clin. psychiat, 23–32, director labs, 33–35; prof. exp. path, George Washington, 20–24, clin. psychiat, 25–35; assoc. director and director labs, Neur. Inst, 36; *director, N. Y. Psychiatric Inst. and Hosp, 36–; prof.* neur, *Columbia,* 36, *psychiat, 36–* Lecturer, Naval Med. Sch, Washington, 19–35; Army Med. Sch, 19–22; consulting prof, American Univ, 29–35; director and attending psychiatrist, Vanderbilt clinic, Presb. Hosp, 36– A.A; Psychopath. Asn. (pres, 34–36); fel. Psychiat. Asn; Genetic Asn; Asn. Research Nervous and Mental Disease; Asn. Study Int. Secretions; Chem. Soc; D. C. Soc. Nervous and Mental Diseases (pres, 25); Neur. Asn; Soc. Psychotherapy and Psychopath; Wash. Psychopath. Asn. (pres, 27); Int. Psychoanal. Asn. General pathology; neuropathology; clinical psychiatry.

Lewis, Ollie Lee, 421 North Blvd, Richmond, Va. *Physics.* West Liberty, Ky, Feb. 14, 85. A.B, George Washington, 17, M.S, 20, LL.B, 28, B.S, 31, B.S. (M.E), 33. Teacher, pub. schs, Ky, 03–08; observer and meteorologist, U. S. Weather Bur, 08–20; master computer, Ordnance Bur. Ballistics, 20–21; assoc. physicist, eng. div, Air Service, U. S. Army, 21–24; *assoc. patent examiner, U. S. Patent Office, 24–* Teacher, evening schs, 17–20. Meteorol. Soc. Aerology; aerodynamics; aerostatics; meteorology; patent law.

Lewis, Dr. Paul Edwin, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Mathematics.* West Fork, Ark, Oct. 6, 11. B.S, Northeast. State Teachers Col, Okla, 31; M.S, Okla. Agr. and Mech. Col, 36; Ph.D, Illinois, 40. Instr, pub. schs, Okla, 31–36; asst, Illinois, 36–40; *instr. math, Okla. Agr. and Mech. Col, 40–* Characters of Abelian groups.

Lewis, Richard H(anna), U. S. Federal Works Agency, Washington, D. C. *Chemistry.* Chicago, Ill, April 7, 89. B.S, Illinois, 10. From assoc. chemist to *senior chemist, pub. roads admin, Fed. Works Agency, 11–* Asn. Asphalt Paving Technol. Keto ester addition products with aryl amines and alcohols; bituminous road materials; public roads; highways.

Lewis, Prof. Robert C(urtis), University of Colorado School of Medicine, Denver, Colo. *Biochemistry.* Stratford, Conn, March 3, 88. Ph.B, Yale, 09, Ph.D, 12. Research physiologist, Gen. Mem. Hosp, New York, 12–14; asst. biochemist, U. S. Pub. Health Service, 14–16; asst. prof. biochem. and physiol, *Colorado,* 16–17, *prof,* 17–18, *biochem, 18–* A.A; Soc. Biol. Chem; Chem. Soc; assoc. Am. Med. Asn; Soc. Exp. Biol; Inst. Nutrition. Metabolism; blood chemistry; nutrition.

Lewis, Prof. R(obert) D(onald), Ohio State University, Columbus, Ohio. *Agronomy.* Wyalusing, Pa, Nov. 4, 97. B.S, Pa. State Col, 19; fellow, Cornell, 22–23, Ph.D, 26. Asst. agron, Pa. State Col, 18–19, instr. exp. agron, 19–24; asst. plant breeding, Cornell, 23–24, instr, 24–26, exten. asst. prof. 26–30; exten. prof. *agron, Ohio State,* 30–39, prof. and v. chairman dept, 39–40, *chairman dept, 40–; assoc. agronomist, Ohio Exp. Sta, 39–* Agent, bur. plant indust, U. S. Dept. Agr, 36–A.A; Soc. Agron. (chairman, crops sect, 35); Genetics Soc; Ohio Seed Improvement Asn. (sec'y-treas, 30–39). Inheritance of dwarfness in oats; plot technique with farm crops; field seed inspection methods; corn breeding; production and distribution of improved seeds of field crops.

Lewis, Prof. Robert S(trong), 1023 E. Third South St, Salt Lake City, Utah. *Mining.* Bridgeport, Conn, Nov. 19, 82. A.B, Stanford, 05, E.M, 12. Surveyor, Detroit Copper Mining Co, Ariz, 05; supt, Kuykendall Mining and Milling Co, N. Mex, 06; engineer, Warrior Copper Co, Ariz, 07; Steptoe Valley Mining and Smelting Co, Nev, 08–10; Goldfield Consol. Mining Co, Nev, 11; assoc. prof. *mining, Utah,* 12–16, *prof, 16–* A.A; Min. and Metal. Eng. Boring; metalliferous mining; flotation; high voltage motors for mines and mills; compression and transmission of air; centrifugal pumps; amortization and depreciation; milling calculations; shafting and belting; compressed air; mine ventilation.

Lewis, Rulon D, University Farm, St. Paul, Minn. *Soil technology.* Marion Summit Co, Utah, Sept. 15, 02. B.S, Brigham Young, 28; M.S, Oregon State Col, 30. Asst. soil technologist, bur. chem. and soils, *U. S. Dept. Agr,* Shreveport, La, 31–33, Albany, Ga, 33–36, *assoc. soil technologist,* 36–42, *rubber plant field lab, bur. agr. and indust. chem. cooperative with Univ. Farm, Minnesota, 42–* The relation of nitrogen and organic matter to soil productivity; the effect of nitrogen fertilizers on nitrates in soil; nitrate nitrogen in soil types; cover crops; chemical treatment of pecan rosette.

Lewis, Samuel Richard, 407 S. Dearborn St, Chicago, Ill. *Engineering.* Ottawa, Ill, July 14, 78. Int. Correspondence Sch; business col. Chief engineer, Lewis and Kitchen, 08–13; partner, Lewis and Capron, 13–24; *consulting engineer, 24–* Pres, Chicago Vent. Cmt, 12. Heat. and Vent. Eng. (pres, 14, chairman, guide cmt, 20, chairman, cmt. research, 28, chairman, finance cmt. research lab, 32); Soc. Refrig. Eng. (councilor); West. Soc. Eng; Chicago Tuber. Inst. (director). Heating; ventilating; air-conditioning; mechanical engineering.

Lewis, Prof. T(homas) A(lbert), Denison University, Granville, Ohio. *Psychology.* Dawn, Mo, 78. A.B, William Jewell Col, 05; Ph.D, Hopkins, 10. Richmond Col, 10–13; Chicago Kindergarten Inst. and Cent. Y.M.C.A, 13–14; *prof. psychol, Denison, 14–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Psychological factors in vocational guidance; emotions; individual differences and their significance for parents; children's motives.

Lewis, Dr. Warren Harmon, Wistar Institute, Philadelphia, Pa. *[1]*Anatomy, Cytology.* Suffield, Conn, June 17, 70. B.S, Michigan, 94; M.D, Hopkins, 00. Asst. zool, Michigan, 94–96; anat, Hopkins, 00–01, instr, 01–03, assoc, 03–04, assoc. prof, 04–13, prof. physiol. anat, 13–40; *mem, Wistar Inst, 40–* Research assoc, Carnegie Institution, 19–40. Ed, 'Gray's Anat.' Pres, Mt. Desert Biol. Lab, 33–37. William Gerhard gold medal, Path. Soc. Phila, 38. Nat. Acad; A.A; Soc. Nat; Asn. Anat. (pres, 34–36); Physiol. Soc; Philos. Soc; hon. mem. Gand Med. Soc; Int. Soc. Exp. Cytol. (pres, 38–). Development of the arm, eye, ear, muscular system and head in man; experimental embryology and cytology; tissue culture; blood cells; heart muscle; cytology and motion pictures of normal and malignant cells; cell division; pinocytosis.

Lewis, Mrs. Warren H(armon) (Margaret A. Reed), Wistar Institute, Philadelphia, Pa. *[6]*Anatomy, Physiology.* Kittanning, Pa, Nov. 9, 81. A.B, Goucher Col, 01; Bryn Mawr Col, 01–03, fellow, 08–09; Columbia, 03–09; Zurich, 06; Paris and Berlin, 08. Lecturer, N. Y. Med. Col. for Women, 04–07; physiol. and instr. biol, Barnard Col, Columbia, 07–09; instr. anat. and physiol, training sch. for nurses, Hopkins Hosp, 11–12; collaborator, dept. embryol, Carnegie Institution, 15–27, *research assoc,* 27–40; *Wistar Inst, 40–* Preparator zool, Columbia, 03–06; lecturer, Stanford, 30; investigator, Mt. Desert Biol. Lab. Co-editor, 'Gen. Cytol'; 'Arch. für exp. Zellforsch.' William Wood Gerhard gold medal, Path. Soc. Phila, 38. Asn. Anat. Embryology; cytology of living cells in tissue cultures; Bacillus typhosus; heart muscle of chick embryos; origin of the epithelioid cells; relation of white blood cells to tumors; chicken sarcoma; behavior of malignant tissue; tuberculosis; cancer; ultramicroscopic viruses.

Lewis, Prof. W(arren) K(endall), Massachusetts Institute of Technology, Cambridge, Mass. *[3]*Chemical engineering.* Laurel, Del, Aug. 21, 82. B.S, Mass. Inst. Tech, 05; Ph.D, Breslau, 08; Sc.D, Delaware, 37. Research assoc. applied chem, Mass. Inst. Tech, 08–09; chemist, W. H. McElwain Co, 09–10; *prof. chem. eng, Mass. Inst. Tech, 10–* Nat. Acad; Chem. Eng; Chem. Soc; Leather Chemists Asn; Am. Acad; British Inst. Chem. Eng. Distillation; flow of heat.

Lewis, Dr. W(elcome) B(abcock), 367 Champion St, Battle Creek, Mich. *Biochemistry.* Adams Center, N. Y, June 14, 83. B.S, Alfred, 07; M.D, Illinois, 12. Asst. chem-

ist, lab, *Battle Creek Sanitarium*, 07–08, *chief chemist, physiol. labs, 12–, chief anesthetist, 22–*; prof. physiol. chem, Battle Creek Col, 24–34; *chief anesthetist*, Nichols Hosp, 35–39; *Community Hosp, 39–* Soc. Clin. Path; Am. Med. Asn; Mich. Acad. Physiological chemistry; hydrogen ion concentration of physiological liquids; calcium deficiencies; glucose tolerance and its alterations in various conditions; acid base balance as influenced by foods; carbohydrate metabolism; cyclopropane anesthesia.

Lewis, Dr. W(illard) D(eming), Little Silver Point Road, Little Silver, N. J. *Physics.* Augusta, Ga, Jan. 6, 15. A.B, Harvard, 35; Rhodes scholar, Oxford, 35–38, B.A, 38; A.M, Harvard, 39, Ph.D, 41. *Mem. tech. staff, Bell Tel. Labs, 41–* A.A; Physical Soc. Radio physics.

Lewis, Dr. W(illiam) A(bbett, Jr), Cornell University, Ithaca, N. Y. *Electricity.* Harriman, Tenn, Jan. 21, 04. B.S, Calif. Inst. Tech, 26, M.S, 27, Ph.D, 29. Cent. sta. engineer, Westinghouse Elec. and Mfg. Co, 29–39; *director sch. elec. eng, Cornell, 39–* Elec. Eng. (chairman cmt. basic sciences, 41); Eng. Educ. Electric power transmission; power system analysis; power system protection and stability.

Lewton, Dr. Frederick L(ewis), 217 Albany Ave, Takoma Park, D. C. *Botany.* Cleveland, Ohio, March 17, 74. Rollins Col, 88–90, Sc.D, 30; Drexel Inst, 92–95; A.B, George Washington, 22. Chem. asst, test. dept, Baldwin Locomotive Works, 95; instr. chem. and qual. anal, Drexel Inst, 95–04; curator, Phila. Museums, 00–04; sci. asst. bot, U. S. Dept. Agr, 04–08, asst. botanist, 08–12; *curator div. crafts and industries, U. S. Nat. Museum, 12–* Econ. botanist, Phila. Commercial Museum, 96–00. Acad. Nat. Sci. Phila; Wash. Acad. Industrial chemistry; classification of vegetable exudates; plant breeding; taxonomy of cotton; terminology and technology of textile industries.

Lewy, Dr. Hans, 1068 Sterling Ave, Berkeley, Calif. *Mathematics.* Breslau, Germany, Oct. 20, 04. Ph.D, Göttingen, 26. Privat-docent, Göttingen, 27–33; assoc, Brown, 33–35; lecturer *math, California,* 35–37, asst. prof, 37–39, *assoc. prof, 39–* Math. Soc. Calculus of variations; partial differential equations.

Leyda, Dr. Frank A(rthur), 1312 Monterey Ave, Berkeley, Calif. *Physical chemistry.* Ohio, Feb. 16, 13. B.S, Mt. Union Col, 35; M.S, Syracuse, 37; Ph.D, Stanford, 39. Lab. asst. chem, Mt. Union Col, 33–35; teaching asst, Syracuse, 35–37, asst, 37–39; *research chemist, Standard Oil Co. of Calif, 39–* Chem. Soc. Colloidal chemistry; molecular diffusion in an electric field of force; development and use of the opaque ultracentrifuge; compounded lubricants.

Li, Dr. C(hoh) H(ao), 1618 Parker St, Berkeley, Calif. Canton, China, April 21, 12. *Chemistry.* B.S, Nanking, 33; Ph.D, California, 38. Instr. chem, Nanking, 33–35; *research assoc, inst. exp. biol, California, 38–* A.A. Electrochemistry; chemical kinetics of organic reactions; physico-chemical investigations in proteins and biochemistry of the pituitary hormones.

Libbey, D(onald) S(mith), Glacier National Park, Belton, Mont. *Geology.* La Plata, Mo, Dec. 27, 92. B.S, Missouri, 15, A.M, 22; Colorado, 25, 27. Prof. geol, Drury Col, 22–31; park naturalist and asst. supt, *Nat. Park Service*, Crater Lake Nat. Park, 31–34, supervisor emergency construction work, 34–35, deputy asst. director, bur. planning and state cooperation, 35–36, *supt*, Hot Springs Nat. Park, 36–39, *Glacier Nat. Park, 39–* Curator geol. sect, Edward M. Shepard Museum, 23–31. Summers, lecturer, Southwest. Mo. State Teachers Col, 28–31. Calif. Acad. Geography; anthropology; economic utilization of Llano Estacado; correlation of mammalian life with physical conditions in Europe during the Pleistocene; São Paulo coffee region; Ozark highland; carbonized wood deposits of Crater Lake National Park.

Libby, Prof. C(larence) E(arl), New York State College of Forestry, Syracuse, N. Y. *Chemistry.* Benton, Maine, Nov. 14, 92. B.S, Maine, 16. Paper technologist, R. A. Pettingill Co, Ill, 16–18; research chemist, Aetna Explosives Co, Pa, 18–19; chief chemist, Bayless Mfg. Co, 19–20; *prof. pulp and paper mfg, N. Y. State Col. Forestry, Syracuse, 20–, head dept, 33–* Chem. Soc; Asn. Pulp and Paper Indust; Soc. Test. Mat. Chemistry of pulp and paper making.

Libby, Dr. Raymond L(oring), American Cyanamid Co, Stamford, Conn. *Biophysics.* Portland, Maine, Aug. 26, 03. B.S, Rutgers, 25, M.S, 35, Ph.D, 37. Asst. director biol. research, Lederle Labs, 37–42; *bio-physicist, Am. Cyanamid Co, 42–* Asn. Immunol; Soc. Zool. Bio-physical research with radio tracers.

Libby, Dr. Walter, 338 Spadina Road, Toronto, Ont, Can. *History of science.* Port Hope, Ont, March 2, 67. B.A, Victoria (Can), 87; M.A, Toronto, 02; Leipzig, Berlin, Munich, Paris, 02–04; Ph.D, Clark, 05; Oxford, 15–16. Asst. prof. educ, Northwestern, 05–12; prof. hist. educ, Carnegie Inst. Tech, 13–15, hist. science, 16–17; lecturer hist. med, Pittsburgh, 17–21, hist. science, 18–24; contemporary civilization, Toronto, 27–28. Summers, lecturer, Chicago, 06; Illinois, 08. A.A; hon. mem. Toronto Hist. Med. Soc. History of medicine; relation of the development of sciences to contemporary civilization.

Libby, Dr. W(illard) F(rank), University of California, Berkeley, Calif. *Chemistry.* Grand Valley, Colo, Dec. 17, 08. B.S, California, 31, Ph.D, 33. *Instr. chem, California,* 33–38, *asst. prof, 39–* Guggenheim Mem. Foundation fellow, 41. Chem. Soc; N. Y. Acad. Physical chemistry; natural and artificial radioactivity.

Libby, Winthrop C(harles), University of Maine, Orono, Maine. *Agronomy.* Caribou, Maine, June 8, 11. M.S, Maine, 34; Rutgers; Cornell. *Head dept. agron, Maine, 34–* A.A; Potato Asn. White potato production.

Liben, Dr. William, Engineer Board, U. S. Army, Ft. Belvoir, Va. *Physics.* Malden, Mass, July 4, 10. B.S, Mass. Inst. Tech, 32, M.S, 33, Sc.D, 36. Develop. engineer, J. Freeman, Inc, 36–37; lab. asst. evaporation of metals, Mass. Inst. Tech, 37–38; instr. physics, Middlesex, 38–40; *physicist, Engineer Board, U. S. Army, 40–* Physical Soc; Optical Soc. Photoelectricity; optics.

Libet, Dr. B(enjamin), 111 N. 49th St, Philadelphia, Pa. *Physiology.* Chicago, Ill, April 12, 16. B.S, Chicago, 36, Ph.D, 39. Asst. physiol, Chicago, 37–39; instr, Albany Med. Col, 39–40; *research assoc. physiol. and biochem, Inst. Penna. Hosp, 40–* Physiol. Soc. Neurophysiology; brain respiration.

Libman, Dr. Earl E(manuel), Control Instrument Co, Inc, 67 35th St, Brooklyn, N. Y. *Physics, Mathematics, Chemistry.* Chicago, Ill, Jan. 21, 94. B.S, Illinois, 16, M.S, 20, Ph.D, 22. Instr. ceramic chem, Illinois, 17–22, math, 22–25, nat. research fellow physics, 25–27, asst. prof, 27–29; engineer in charge ordnance, aeronaut. and marine dept, Gen. Elec. Co, 29–42; *v. pres, Control Instrument Co, Inc, 42–* Soc. Naval Eng. Surface tension; high temperatures; phase rule and melting points; vector analysis; quaternions; ballistics; ordnance computing mechanisms.

Libman, Dr. E(manuel), 180 E. 64th St, New York, N. Y. *Pathology, Medicine.* New York, N. Y, Aug. 22, 72. A.B, Col. City of N. Y, 91; M.D, Columbia, 94; Berlin and Vienna, 96–97, 10; Berlin, 03; Hopkins, 06. House physician, *Mt. Sinai Hosp*, 94–96, assoc. pathologist, 98–23, adj. visiting physician, 03–14, attending physician, 14–20, physician, 20–23, *consulting physician, 23–; prof. clin. med, Columbia, 09–* Consulting physician, Beth Israel Hosp. for Joint Diseases, Mt. Sinai, Beth David, Harlem, Montefiore and French Hosps, New York; Meth. Episcopal, United Israel-Zion, Bethel Hosps, Brooklyn; mem. board, Dazian Foundation Med. Research, 37– A.A; Asn. Path. and Bact; Am. Med. Asn; Am. Physicians; Soc. Clin. Invest; Tuber. Asn; Asn. Immunol; Harvey Soc; fel. N. Y. Acad. Med; N. Y. Path. Soc. (pres, 08); Int. Asn. Med. Mus. Clinical medicine; streptococcus intestinal infection; precipitation in serum-sugar media; sarcoma of the small intestine; paracolon infections; systematic otitic infections; blood transfusion; endocarditis; valvular disease; diseases of the coronary arteries; growth of bacteria in the presence of carbohydrates and serum; pain; gout; Libman-Sacks' disease.

Lichte, Dr. William (Hell), Southern Methodist University, Dallas, Texas. *Psychology.* Allentown, Pa, April 8, 11. A.B, Doane Col, 33; Mus.B, Northwestern, 35; A.M, Iowa, 38, Ph.D, 40. Instr. music, Snead Junior Col, 35–37; junior personnel technician, U. S. Employment Service, 40–41; *instr. psychol, South. Methodist, 41–* Assoc. Psychol. Asn. Audition; psychology of music.

Lichtenberg, Col. Chester, 4624 Tacoma Ave, Ft. Wayne, Ind. *Engineering.* New York, N. Y, Aug. 27, 84. E.E, Columbia, 06. Asst. to Prof. M. I. Pupin, 06; testing dept, *Gen. Elec. Co*, 07–08, eng. dept, 09–17, 20–40, *mfg. dept, 40–* Capt, C.Eng, 17–25, major, res, 25–26, lieut. col, 26–33, col, 33–

A.A; Elec. Eng; Mech. Eng; Soc. Refrig. Eng; Soc. Mil. Eng; Army Ordnance Asn; Soc. Professional Eng; Franklin Inst. Heat; light; electricity; sound; oil and air circuit breakers; protective relays, high voltage insulations; high speed motion pictures; searchlights; automatic stations; supervisory systems; telemetering systems; electric refrigeration; air conditioning; food preservation; magnetos; infections; tests; standards; codes.

Lichtenwalner, Dr. D(aniel) C, Drexel Institute, Philadelphia, Pa. *Chemistry.* Tatamy, Pa, Aug. 27, 94. B.S, Lafayette Col, 17; M.S. Maryland, 23, Ph.D, 26. J. T. Baker Chem. Co, 17; U. S. Civil Service, 19; N. J. Zinc Co, 20–21; instr, Maryland, 21–26, *asst. prof,* 26–27; *chem, Drexel Inst,* 27– Chem. Soc.

Lichthardt, G(eorge) H(enry) P(hilip), 2309 L St, Sacramento, Calif. *Chemical engineering.* Sacramento, Calif, March 17, 77. Ph.G, California, 96; LL.B, Hamilton Col. City chemist, Sacramento, 09–15; chemist, S. Pacific Ry, 18–21; testing engineer, purchasing dept, Calif, 21; chem. testing engineer, *State Highway Cmn, Calif,* 22–31, *senior chem. testing engineer, 31–* Analyst, U. S. Geol. Surv. water investigation; instr, Sacramento Night High Sch. Int. Cong. Applied Chem, 12. Dept. of Justice investigations, U.S.A, 17–19; C.W.S.R, 24–, major. A.A; Chem. Soc. (past pres, Sacramento chap); Electrochem. Soc; Pharmaceut. Asn; Soc. Mil. Eng; Calif. Pharmaceut. Asn. (past pres); N. Y. Acad; London Chem. Soc. Colloidal silver; identification test for vanilla; pour test for lubricating oils; a new constant for linseed oil; corrosion factors with relation to iron and steel culverts; absorbed water and its effect upon workability in the fabrication of concrete; wear resistant traffic line paint; organic antimony compounds; fire retardants for wood; colloidal carbon suspension.

Lichtwitz, Dr. Leopold, 667 Madison Ave, New York, N. Y. *Medicine.* Ohlau, Germany, Dec. 9, 76. Breslau; Munich; Freiburg; M.D, Leipzig, 01. Prof. and asst. chief med. clinic, Göttingen; med. director, City Hosp, Altona-Hamburg; Rudolf Virchow Hosp, Berlin; *chief med. div, Montefiore Hosp, 33–, pres, med. board, 39–* Clin. prof, Columbia, 35– Am. Med. Asn; N. Y. Acad. The formation of gall and kidney stones; clinical chemistry; diseases of the kidney; diseases of metabolism; colloid chemistry in medicine; pathology of functions and regulations; mechanism of internal diseases; nephritis.

Lichty, Dr. John A, Jr, Strong Memorial Hospital, Rochester, N. Y. *Pediatrics.* Pittsburgh, Pa, May 30, 06. A.B, Princeton, 27; M.D, Rochester, 32. Instr. *pediat, med. sch, Rochester,* 38–41, *asst. prof, 41–* Asst. director, Strong Mem. Hosp, 43. Soc. Pediat. Research. Infectious disease; rheumatic fever.

Lichty, Dr. J(oy) G, 143 Charing Cross Drive, Stow, Ohio. *Organic chemistry.* Waterloo, Iowa, Jan. 12, 00. B.S, 22, M.S, 28; Ph.D, Iowa, 30. *Research dept, Goodyear Tire and Rubber Co, 30–* Chem. Soc. Chlorine derivatives of vanillin; diazonium salts on sodium alkyl dithiocarbamates.

Lichty, Prof. L(ester) C(lyde), 400 Temple St, New Haven, Conn. *Mechanical engineering.* Carleton, Nebr, July 5, 91. B.S, Nebraska, 13; M.S, Illinois, 16; M.E, Yale, 25. Asst. prof. and assoc. prof. *mech. eng,* Oklahoma, 16–23; asst. prof. and *assoc. prof, Yale, 24–* Mech. Eng; Soc. Automotive Eng; Chem. Soc. Internal combustion engines; thermodynamics; combustion and detonation.

Lidbury, F(rank) A(ustin), 33 Hyde Park Blvd, Niagara Falls, N. Y. ****Chemistry.* Middlewich, Eng, March 14, 79. Manchester, 95–99, M.Sc; London, 99–00; Physik-Chem. Inst, Leipzig, 00–01. Demonstrator chem, Manchester, 02–03; chemist, *Oldbury Electrochem. Co,* 03–05, works manager, 05–22, *pres, 22–* Schoellkopf medal, 35. A.A; Chem. Soc; Electrochem. Soc. (pres, 14); Chem. Eng; Elec. Eng; Mech. Eng; Min. and Metal. Eng; Soc. Chem. Indust; Faraday Soc; Buffalo Eng. Soc. (pres, 17).

Liddel, Urner, Harbor Heights, Greenwich, Conn. *Physics.* Butler, Mo, Sept. 3, 05. A.B, Cent. Col. (Mo), 26; Ph.D, George Washington, 41. Cereal chemist, Larabee Flour Mills Co, 26–28; junior chemist, food research div, bur. chem. and soils, U. S. Dept. Agr, 29, fertilizer investigations, 29–30, asst. physical chemist, 30–36; physicist, Am. Cyanamid Co, Stamford, 36–42; *lieut, bur. ordnance, U. S. Naval Res, 42–* Optical Soc; Chem. Soc; Physical Soc; N. Y. Acad. Infra-red absorption of gases, liquids and solutions; spectroscopic analysis of organic compounds for specific linkages; heats of dissociation of organic acid polymers; hydrogen bond in organic compounds; influence of dissolved substances on infra-red absorption of water.

Liddell, Prof. H(oward) S(cott), Cornell University, Ithaca, N. Y. *Psychobiology.* Erie, Pa, Nov. 9, 95. A.B, Michigan, 17, A.M, 18; Sage fellow, Cornell, 18–19, Ph.D, 23. Asst. psychol, Michigan, 17–18; instr. physiol, med. col, *Cornell,* 18–24, nat. research fellow zool, 24–26, asst. prof. physiol, 26–30, *prof,* 30–39, *psychobiol, 39–* A.A; Physiol. Soc; Soc. Exp. Biol; Psychol. Asn. Effects of thyroidectomy on growth, heat regulation, neuromuscular function and conditioned reflexes; comparative physiology of the conditioned reflex and the experimental neurosis.

Liddell, Dr. Robert W(illiam, Jr), Box 1346, Pittsburgh, Pa. *Chemistry.* Pittsburgh, Pa, Sept. 11, 13. B.S, Pittsburgh, 34, fellow, 36–40, Ph.D, 40. Chem. and thermal engineer, Swindell-Dressler Corp, 34–35; chemist, *Hall Labs,* 35–36, *research chemist, 40–* Chem. Soc. Biological and organic chemistry; the chemistry of cascara sagrada; organic and inorganic phosphates; boiler treatment compounds.

Liddle, R(alph) A(lexander), 908 Ft. Worth National Bank Bldg, Ft. Worth, Texas. *Geology.* Argyle, N. Y, Nov. 18, 97. A.B, Cornell, 18. Assoc. geologist, State Bur. Econ. Geol. and Technol, Texas, 19–20; geologist, Standard Oil Co. N. J, S. Amer, 20–25; div. geologist, Pure Oil Co, 25–35; *geologist, City Nat. Bank and Trust Co, Chicago, 39–* Fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. géol. de France. Petroleum development in east Texas; the geology and mineral resources of Medina County; tectonics of the Maracaibo Basin; geology of Venezuela and Trinidad; the Van oil field of Van Zandt County, Texas; geology of the Cuenca-Azogues-Biblian region, provinces of Canar and Azuay, Ecuador and the Rio Cachirí section in the Sierra de Perijá, Venezuela.

Lieb, Dr. Charles C(hristian), Columbia University, New York, N. Y. *Pharmacology.* New York, N. Y, April 19, 80. A.B, Columbia, 02, M.D, 06. Asst. prof. *pharmacol, Columbia,* 11–20, prof, 20–29, *Hosack prof, 29–* A.A; Soc. Pharmacol; Soc. Exp. Biol; Physiol. Soc; Am. Med. Asn.

Lieber, Dr. Eugene, 18 Myrtle Ave, West New Brighton, S. I, N. Y. *Organic chemistry.* Philadelphia, Pa, July 15, 07. B.S, Pennsylvania, 30; M.S, Polytech. Inst. Brooklyn, 34, Ph.D, 37. Research chemist, Standard Oil Develop. Co, 30–36; asst. org. chem, *Polytech. Inst. Brooklyn,* 34–36, *instr. anal. chem, 37–; supervisory chemist paraflow lab, Standard Oil Co, N. J, 36–* Fel. Inst. Chem; Chem. Soc. Gas analysis; guanidines; promoter catalysis; hydrogenation of guanidine derivatives; organic analysis; by-products of petroleum industry; synthesis of high molecular weight hydrocarbons related to petroleum; phenolic sulfur compounds; synthetic lubricants; chemistry of aminoguanidines.

Lieber, Prof. Hugh Gray, 258 Clinton Ave, Brooklyn, N. Y. *Mathematics.* Maryville, Mo, April 17, 96. A.B, Oklahoma, 19; A.M, Columbia, 23 Instr. *math,* Oklahoma, 19–22; Columbia, 23–26; *Long Island,* 28–30, *asst. prof, 30–, head dept, 31–* Capt, C.A, 17–19. Math. Soc. Mathematical murals and paintings.

Lieber, Dr. Lillian R, 258 Clinton Ave, Brooklyn, N. Y. *Mathematics, Physical chemistry.* Nicolaev, Russia, July 26, 86. A.B, Barnard Col, Columbia, 08, A.M, Columbia, 11; Ph.D, Clark, 14. Huff mem. fellow, Bryn Mawr Col, 15–17; head dept. physics, Wells Col, 17–18; Conn. Col, 18–20; *director Galois math. inst, Long Island, 32–* A.A; Math. Soc; Math. Asn. Non-Euclidean geometry; Galois theory of groups; relativity; sugar hydrolysis.

Lieber, Dr. M(arshall) M(ax), Jefferson Medical College, Philadelphia, Pa. *Pathology.* New York, N. Y, April 21, 04. B.S, Trinity Col. (Conn), 26; M.D, Jefferson Med. Col, 30. Asst, path. inst, Freiburg, 31–33; asst. demonstrator *path, Jefferson Med. Col,* 33–36, instr, 36–38, demonstrator, 38–40, assoc, 41–42, *asst. prof, 42–* Asn. Path. and Bact; Am. Med. Asn; Physiol. Soc. Phila; Path. Soc. Phila. The localization of rheumatic affections; hepatic infarction; renal changes following biliary obstruction and decompression and operation on the biliary tract; carcinoma of the duodenum and bile ducts; histamine and leucocytosis; distinctions between shock and hemorrhage.

Lieberman, Dr. Arnold L(eo), 738 Broadway, Gary, Ind. *Internal medicine.* Dnepro-petrovsk, Russia, Oct. 13, 03. B.S, Chicago, 24, M.D, Rush, 27, Sandoz fellow, 27–31, Ph.D, 31. Sandoz fellow physiol, Chicago, 31–33; *clin. asst. med, Northwestern, 33–* Instr, Gary Col, 33–34; attending staff physician, Methodist Episcopal and St. Mary's Mercy Hosps, Gary, Ind. Int. Physiol. Cong, Russia, 35. Capt, M.R.C. Physiol. Soc; Am. Med. Asn. Calcium metabolism; edema.

Lieberman, Dr. Seymour, Harvard University, Cambridge, Mass. *Organic chemistry.* New York, N. Y, Dec. 1, 16. A.B, Brooklyn Col, 36; M.S, Illinois, 37; Ph.D, Stanford, 41. Chemist, Schering Corp, 38–39; asst. on funds from Rockefeller Foundation, Stanford, 39–41; *special research assoc, Harvard, 41–* Chem. Soc. Sapogenins; steroids; metabolism of the sex hormones.

Liebermann, Dr. L(eonard) N(orman), University of Kansas, Lawrence, Kans. *Physics.* Ironwood, Mich, May 14, 15. B.S, Chicago, 37, M.S, 38, Ph.D, 40. Instr. *physics, Kansas, 41–43, asst. prof, 43–* Physical Soc. Band spectra; spectroscopy; supersonics.

Liebhafsky, Dr. Herman A(lfred), General Electric Co, Schenectady, N. Y. *Chemistry.* Zwittau, Austria-Hungary, Nov. 18, 05. B.S, Agr. and Mech. Col. Texas, 26; M.S, Nebraska, 27; Ph.D, California, 29. Instr. physical and inorg. chem, California, 29–34; *inorg. and anal. chemist and consultant, Gen. Elec. Co, 34–* Electro-potentials; rates and mechanisms of reactions; catalyses in homogeneous systems; kinetic salt effects; hydrolysis and hydration equilibria of halogens; analytical and spectrophotometric methods; chemical problems of the mercury boiler, mercury power rectifiers and vacuum tubes; reactivity of amalgams and purification of mercury.

Liebmann, Dr. A(lfred) J, Vernon Manor, Oak and Burnet, Cincinnati, Ohio. *Engineering.* Zurich, Switzerland, Aug. 4, 85. Ch.E, Fed. Polytech. Sch, Zurich, 07; Ph.D, Zurich, 09. Mem. staff research lab, Gen. Elec. Co, 09–10; chief chemist, Filament Works, Munich, Germany, 11; Watt Incandescent Lamps, Vienna, 12; gen. engineer, Independent Lamp and Wire Co, N. J, 12–20; works manager, Elkon Works, 21–26; indust. consultant, 26–33; *tech. director, Schenley Distillers Corp, and pres, Schenley Research Inst, Inc, 33–* A.A; Chem. Soc; Electrochem. Soc. Improvements in production of ethyl alcohol and alcoholic beverages; production of butane-diol from grains and conversion to butadiene; utilization of distillery by-products, plastics and factices from agricultural products.

Liebowitz, Dr. Benjamin, 350 Fifth Ave, New York, N. Y. *Physics.* New York, N. Y, Feb. 20, 90. E.E, Columbia, 11, fellow, 13–14, Ph.D, 15. Independent research, 15–22; tech. consultant in garment indust, 22–32; *pres, Trubenizing Process Corp, 33–* With Thos. A. Edison, 17; radio engineer with E. J. Simon, 17–18; research consultant, bur. pub. roads, U. S. Dept. Agr, 28–30. A.A; fel. Physical Soc; Mech. Eng; Soc. Automotive Eng. Electrical oscillations; vehicle suspensions; road impacts; contact accelerometers; laminated garment parts.

Liefeld, T(heodore) A(lbert), U. S. Department of Agriculture, New Orleans, La. *Forestry.* Ft. Wayne, Ind, Nov. 30, 04. B.S.F, Mich. State Col, 29; M.S, Pa. State Col, 31. Asst. forestry, Pa. State Col, 29–31; junior forester, *U. S. Forest Service,* 31–34, asst. silviculturist, 34–38, *assoc. silviculturist, 38–* Soc. Foresters. Forest management; silviculture; naval stores management.

Lien, Dr. Arthur P(hilip), 2004 Atchison Ave, Whiting, Ind. *Organic chemistry.* Liberal, Kans, May 27, 14. A.B, Ottawa (Kans), 37; M.Sc, Ohio State, 39, Am. Petrol. Inst. fellow, 39, Ph.D, 41. Asst. inorg. chem, Ohio State, 37–39; org. chem, 39–41; *research chemist, Standard Oil Co, Ind, 41–* Chem. Soc. Methods of synthesis of pure hydrocarbons; mechanisms of the Friedel-Craft type reaction.

Lieneman, Prof. Catharine, River Falls State Teachers College, River Falls, Wis. *Mycology.* Omaha, Nebr, April 11, 99. A.B, Nebraska, 25, Ph.D, 34; M.S, Washington (St. Louis), 27. Instr. bot, Washington (St. Louis), 26–29; Woman's Col, North Carolina, 30–34, assoc. prof. biol, 34–35; instr. *bot,* Vassar Col, 35–36; *asst. prof, River Falls State Teachers Col, 36–* Bot. Soc; Mycol. Soc. Botany; morphology and physiology of certain Ascomycetes.

Lienemann, Dr. Louise Joanne, 1269 Ogden St, Denver, Colo. *Zoology.* Omaha, Nebr, Dec. 12, 00. A.B, Nebraska, 25; A.M, Cornell, 28, Ph.D, 37; Michigan; Wisconsin; Denver. Teacher, high sch, Wyo. and Colo, 25–27; instr. *science,* Estherville Junior Col, Iowa, 28–29; prof, *Colo. Woman's Col,* 31–35, *head dept, 37–* Green glands as a mechanism for osmotic and ionic regulation in the crayfish.

Liepmann, Dr. H(ans) W(olfgang), California Institute of Technology, Pasadena, Calif. *Aeronautics.* Berlin, Germany, July 3, 14. Istanbul, 33–35; Prague, 35; Ph.D, Zurich, 38. *Research fellow* physics, Zurich, 38–39; *aeronautics, Calif. Inst. Tech, 39–* Prize, Zurich, 39. Ultra-acoustics; low temperatures; fluid mechanics; turbulence.

Lierle, Dr. Dean M(cAllister), State University of Iowa, Iowa City, Iowa. *Otolaryngology, Oral surgery.* Marshalltown, Iowa, May 21, 95. Stanford, 14, 16; B.S, Iowa, 19, M.D, 21, M.S, 23; Pennsylvania, 28; Vienna, 29. Intern, Boston, 21–22; *otolaryngol. and oral surg, Iowa,* 22–23, instr, 23–26, asst. prof, 26–28, *prof. and head dept, 28–* Sec'y-treas, Am. Board Otolaryngol. A.A; Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol. (sec'y instruction in otolaryngol); Laryngol. Asn; Bronchoscopic Soc; Otol. Soc; Soc. Research Child Develop; Am. Med. Asn; Col. Surg; Laryngol. Soc; Iowa Acad. Ophthal. and Otolaryngol; Iowa Acad. Vitamin deficiencies in otolaryngology; histopathology and physiology of the middle ear tract; effect of drugs on the ciliary activity of the upper respiratory mucosa.

Liferock, Morris, 224 Woodburn Road, Raleigh, N. C. *Astronomy.* Palestine, Nov. 3, 88. B.E, North Carolina, 13, C.E, 17. Engineer-inspector and surveyor, U. S. War Dept, 13–14, 18–19; asst, Am. Ephemeris, U. S. Naval Observatory, 14–17, 20–29, assoc. astronomer, 30–33; final design, hur. construction and repair and hydrographic office, Navy Dept, 34–38; air almanac office, U. S. Naval Observatory, 40–41; *private astron. research, 42–* Astron. Soc; Philos. Soc. Wash; Wash. Soc. Eng. The satellites of Saturn; new elements; star catalogues; submarines; destroyers; aircraft carriers; computations; astronomy applied to aerial and marine navigation.

Liggett, Dr. R(obert) Winston, 930 E. Lincoln Ave, Decatur, Ill. *Chemistry.* Calgary, Alta, Can, June 25, 16. B.Sc, Alberta, 38; Ph.D, Northwestern, 41. Du Pont fellow, Minnesota, 41–42; *research chemist and bacteriologist, A. E. Staley Mfg. Co, 42–* A.A; Chem. Soc. Carbohydrate analysis; the mechanism of the hindered carbonyl Grignard reaction.

Liggett, Prof. Thomas H(arrison), 308 Broadway, Pella, Iowa. *Chemistry.* Leesville, Ohio, July 20, 85. Ph.B, Col. of Wooster, 10; M.S, Westminster Col. (Colo), 14. *Prof. chem,* Westminster Col. (Colo), 10–15; *Cent. Col. (Iowa), 16–* Chem. Soc; Iowa Acad. Isotopes of chlorine; standardization of thermometers and analytical weights.

Light, Prof. George H(eyser), 801 Base Line, Boulder, Colo. *Mathematics.* Bedington, W. Va, March 19, 75. A.B, Princeton, 99, A.M, 00; Ph.D, Yale, 16. Adj. prof. *math,* Ga. Tech, 01–05; instr, Purdue, 05–13; *Colorado,* 16–17, asst. prof, 17–18, assoc. prof, 18–20, *prof, 20–* A.A; Statist. Asn. Calculus of variations; intrinsic geometry; statistics.

Light, Dr. Richard U(pjohn), 602 W. South St, Kalamazoo, Mich. *Surgery.* Kalamazoo, Mich, March 29, 02. Ph.B, Yale, 24; M.D, Michigan, 28. Surgical house officer, Peter Bent Brigham Hosp, 29–30; A. T. Cabot fellow, lab. surg. research, Harvard, 31; asst. res. neur. surg, Peter Bent Brigham Hosp, 32, gen. surg, 32–33; asst. surg, sch. med, Yale, 33–34, instr, 34–35; sch. med. and dentistry, Rochester, 35–36; *surgeon, 36–* Am. Geog. Soc. (councilor, 40–). Neurological and experimental surgery; neurophysiology.

Light, R(obert) F(rederick), Fleischmann Laboratories, 810 Grand Concourse, New York, N. Y. *Nutrition, Biochemistry.* Ottawa, Ohio, July 26, 01. B.S, Minnesota, 26, M.S, 27. *Fleischmann labs, Standard Brands, Inc, 24–25, plant and research chemist, 27–* Chem. Soc; fel. Inst. Chem; Inst. Food Technol; Am. Inst. New York; N. Y. Acad. Vitamin D, calcium and phosphorus metabolism of animals; B complex fractions; nutrition.

Light, Prof. S(ol) F(elty), University of California, Berkeley, Calif. **Zoology.* Elm Mills, Kans, May 5, 86. A.B, Park Col, 08; A.M, Philippines, 13; Procter fellow, Princeton, 14–15, M.S, 25; Goewey fellow, California, 26, Ph.D, 26. Instr. *zool,* Philippines, 12–14, from instr. to prof, 15–22; prof. and head dept, Univ. Amoy, China, 22–24; assoc. *California,* 25, lecturer, 26, asst. prof, 26–27, assoc. prof, 27–29, *prof, 29–* A.A; Soc. Zool: Ecol. Soc; Limnol. Soc; West. Soc. Nat;

fel. Calif. Acad; Soc. Iinn. de Lyon. Philippine Scyphomedusae and Alcyonaria; Protozoa of termites; termites of North America, the Pacific Islands and China; determination of castes of termites; diaptomid copepods of North America.

Light, Prof. V(ernal) Earl, R. D. 1, Annville, Pa. *Zoology.* Annville, Pa, Jan. 9, 92. A.B, Lebanon Valley Col, 16, M.S, 26; Ph.D, Hopkins, 29. Teacher, high schs, Pa, 16–26; *assoc. prof. biol, Lebanon Valley Col, 29–* A.A; assoc. Soc. Zool; Pa. Acad. (sec'y, 36). Morphology and physiology; photoreceptors in Mya arenaria, especially their distribution, structure and function; double turtle of the genus Chrysemys; two-headed snakes.

Lightbody, Dr. Howard D(avid), U. S. Department of Agriculture, Albany, Calif. *Biochemistry.* Glasford, Ill, March 10, 91. B.E, Ill. State Nor. Univ, 14; M.S, Chicago, 17; Ph.D, Michigan, 30. Instr. and asst. prof. chem, Mich. State Col, 17–28; director, John C. Oliver Research Foundation, Pittsburgh, 28–31; pharmacologist and later senior pharmacologist, food and drug admin, *U. S. Dept. Agr,* 31–39, *prin. biochemist, west. regional research lab, bur. agr. chem. and eng, 39–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Food Tech. Vitamins; amino acid metabolism; carbohydrate metabolism; enzymes; toxicity.

Lightburn, Prof. Frank E, Iowa State College, Ames, Iowa. *Mechanics.* Denver, Colo, June 2, 09. B.S, Colorado, 31; M.S, Iowa State Col, 35. Instr. *theoret. and applied mech, Iowa State Col,* 31–36, asst. prof, 36–40, *assoc. prof, 40–; lieut, Air Corps, U. S. Army, 42–* Summers, traffic surveys and office work, State Highway Dept, Colo, 27–30. Eng. Educ; Iowa Eng. Soc. Engineering materials; stresses in concrete pavement slabs; brittle material method of stress analysis.

Ligon, Dr. E(dgar) William, Jr, 1335 H St, N.W, Washington, D. C. *Pharmacology.* Lawrenceville, Va, Oct. 25, 12. B.S, Richmond, 32; Med. Col. of Va, 32–33; Chesapeake Biol. Lab, 35; Ph.D, Duke, 38. Student asst. zool, Richmond, 31–32, instr, 33–35; asst, Duke, 35–38; fellow biol, Col. City of N. Y, 38–39, instr. *pharmacol, sch. med, George Washington,* 39–43, *asst. prof, 43–* A.A; assoc. fel. Am. Med. Asn. Cytological structure of the digestive system of Musculium (Sphaeriidae).

Ligon, Prof. Ernest M(ayfield), 260 Bradley Blvd, Schenectady, N. Y. *Psychology.* Iowa Park, Texas, April 27, 97. A.B, A.M, Texas Christian, 21; B.D, Yale, 24, Ph.D, 27. Asst. *psychol,* Yale, 24–27, asst. instr, 25–27; asst. prof, Conn. Col, 27–29; *Union (N. Y),* 29–39, *assoc. prof, 39–, chairman field of psychol, 43–; expert consultant to U. S. Sec'y War and lecturer personnel classes, Ft. Washington,* 42–A.A; Psychometric Asn; Psychol. Asn. Incentives in the learning of the white rat; color naming phenomenon; psychology of anger; psychology of Christian personality; basic attitudes in children; measurement and positive mental hygiene in personality development; the administration of group tests.

Ligon, Prof. L(ouis) L(ucian), 1733 College Ave, Stillwater, Okla. *Agronomy.* Piedmont, S. C, Jan. 7, 89. B.S, Col. of Charleston, 10; Iowa State Col, 24, fellow, 24–25, M.S, 25. Asst. prof. *agron, Okla. Agr. and Mech. Col,* 25–29, *assoc. prof, 29–,* asst agronomist, *Exp. Sta,* 25–29, *assoc. agronomist, 29–* Agent, U. S. Dept. Agr, 35. Soc. Agron; Genetic Asn; Asn. South. Agr. Workers (chairman, agron. sect, 36). Field crops and soils; cotton breeding; field plat technique; correlations; genetic inheritance in cotton; genetics and breeding with cowpeas, mung beans and peanuts.

Ligon, Dr. W(illiam) S(cherffius), Soil Conservation Service, Dayton, Ohio. *Soils.* Corydon, Ky, July 23, 03. B S, Kentucky, 25; M.S, West Virginia, 30; Potash fellow, Mich. State Col, 30–34, Ph.D, 34. Teacher, Ohio, 26–29; asst. soils, West Virginia, 29–31; asst. soil expert, *soil conservation service, U. S. Dept. Agr,* Ga, 34–35, chief soil expert, Ky, 35–36, *soil scientist, Ohio, 37–* Aluminum toxicity to plants; muck soil; analysis of tree planting sites.

Likert, Dr. Rensis, U. S. Department of Agriculture, Washington, D. C. *Psychology.* Cheyenne, Wyo, Aug. 5, 03. A.B, Michigan, 26; Ph.D, Columbia, 32. Asst. psychol, Columbia, 28–30; instr, N. Y. Univ, 30–33, asst. prof, 33–36; director research, Life Ins. Sales Research Bur, 36–39; *head div. programs surveys, bur. agr. econ, U. S. Dept. Agr, 39–* A.A; Psychol. Asn; Statist. Asn; Management Asn; Personnel Research Federation; Asn. Applied Psychol; Marketing Asn; Vocational Guidance Asn; Soc. Adv. Management (pres, Conn. chap, 39, mem. ed. board); Conn. Valley Asn. Psychol. (pres, 39); Washington-Baltimore Psychol. Asn. Social attitudes; human motivation.

Likes, Dr. Carl J(ames), Apt. 4, 636 Pine St, New Orleans, La. *Physical chemistry.* Charleston, S. C, Sept. 11, 16. B.S, Col. of Charleston, 37; Ph.D, Virginia, 41. *Instr. chem, Virginia, 41–; visiting asst. prof, Tulane, 43–* Chem. Soc. Electrometric study of the system lead chloride-potassium chloride-water at 25°, 35° and 45° C.

Lilienthal, Dr. Howard, 20 W. 77th St, New York, N. Y. *Surgery.* Albany, N. Y, Jan. 9, 61. A.B, Harvard, 83, M.D, 87. Prof. clin. surg, med. col, Cornell, 17–27; *retired.* Consulting surgeon, Bellevue and Mt. Sinai Hosps. Lieut. col, M.C. A.A; Surg. Asn; Asn. Thoracic Surg. (past pres); N. Y. Surg. Soc. (past pres); for. mem. Acad. de Chirurg. de Paris. Surgery of the thorax.

Lilleland, Dr. Omund, College Park, Davis, Calif. *Pomology.* Stavanger, Norway, March 12, 99. B.S, California, 21, Ph.D, 34. Junior pomologist, *California,* 26–30, asst. pomologist, 31–37, *assoc. pomologist, 37–* Growth of fruits; thinning of deciduous tree fruits; phosphate and potash nutrition of fruit trees.

Lilley, Prof. Ernest R(aymond), New York University, University Heights, New York, N. Y. *Economic geology.* New York, N. Y, Aug. 19, 97. B.S, N. Y. Univ, 17, M.S, 18, Sc.D, 21. Geologist, South. Pacific Co, 18; instr. physics, N. Y. Univ, 19; geologist, Texolean Oil Co, 20; Okla. Petrol. and Ref. Co, 20; instr. geol, *N. Y. Univ,* 20–23, asst. prof, 23–27, assoc. prof, 27–30, prof. econ. geol, 30–38, *prof. geol, chairman dept. and director geol. museum, 38–* Guggenheim Mem. Foundation fellow, 30–31. Chairman, 'Annotated Bibliog. Econ. Geol,' 38– Consultant and engineer, U. S. S. Balino, 18–19. Asn. Petrol. Geol; Min. and Metal. Eng; Geol. Soc; Soc. Econ. Geol. (councilor, 41). Petroleum and natural gas; mineral economics.

Lillick, Dr. Lois C(arol), New York Medical College and Flower Hospital, New York, N. Y. *Bacteriology, Parasitology.* Cincinnati, Ohio, Dec. 20, 13. A.B, Cincinnati, 33, A.M, 34; N. Y. Bot. Garden, 34; exchange fellow from Michigan, Radcliffe Col, 37–38; Ph.D, Michigan, 38. Teaching asst. bot, Cincinnati, 33–35, grad. fellow, 39–40; teaching fellow, Michigan, 35–37; asst. physiol, Harvard, 38–39; *instr. bacter, N. Y. Med. Col, 40–* Summers, research fellow, Oceanog. Inst, Woods Hole, 35–40, 42. A.A; fel. Am. Geog. Soc. Oceanic biology; marine plankton.

Lillie, Prof. Frank R(attray), 5801 Kenwood Ave, Chicago, Ill. **Zoology, Embryology.* Toronto, Ont, Can, June 27, 70. B.A, Toronto, 91, D.Sc, 20; Clark, 91–92; Ph.D, Chicago, 94; Sc.D, Yale, 32, Harvard, 38; LL.D, Hopkins, 42. Reader embryol, Chicago, 93–94; instr. zool, Michigan, 94–99; prof. biol, Vassar Col, 99–00; asst. prof. zool, *Chicago,* 00–02, assoc. prof. *embryol,* 02–06, prof, 06–35, *emer. prof, 35–,* chairman dept, 10–31, dean div. biol, 31–35. Bacon lecturer, Illinois, 32. Asst. director, Marine Biol. Lab, Woods Hole, 00–08, director, 08–26, pres. corp. and board trustees, Marine Biol. Lab, Woods Hole, 25–42, emer. pres, 42–, pres, Oceanog. Inst, 30–39; chairman, Nat. Research Council, 35–36. Ed, 'Biol. Bul'; ed, 'Jour. Exp. Zool.' Nat. Acad. (pres, 35–39); A.A. (v. pres, F, 15); Soc. Nat. (v. pres, 14, pres, 15); Soc. Zool. (pres, 05–08, cent. branch); Asn. Anat; Philos. Soc; Soc. Exp. Biol; cor. mem. Acad. Nat. Sci. Phila; fel. Am. Acad; Zool. Soc. London; hon. fel. Royal Soc. Edinburgh; Soc. biol. de Paris; Soc. belge de Biol; Soc. royale de Sci. méd. et nat. de Bruxelles. Early history of ovum; fertilization of ovum; physiology of development; biology of sex.

Lillie, Howard R(ussell), 191 Delevan Ave, Corning, N. Y. *Physics.* Northeast, Pa, May 13, 02. B.S, Allegheny Col, 24; M.S, Wisconsin, 26. *Physical lab, Corning Glass Works, 27–* Soc. Rheol; Ceramic Soc. Viscosity, especially of silicates; general glass technology, especially as applied to viscosity and other physical properties.

Lillie, Dr. R(alph) D(ougall), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Pathology.* Cucamonga, Calif, Aug. 1, 96. A.B, Stanford, 17, M.D, 20. Asst. surgeon, reserve, *U. S. Pub. Health Service,* 20–21, asst. surgeon, 21–25, passed asst. surgeon, *nat. inst. health,* 25–32, surgeon, 32–40, *senior surgeon, 40–,* acting chief, *div. path,* 37–38, *chief, 38–* Prof, Maryland, 29–30. Mem. exec. cmt, Cmn. Standardization Biol. Stains, 40– Asn. Path. and Bact; Soc. Exp. Path; Wash. Soc. Path. (pres, 31); Int. Asn. Med.

Mus. (councilor, 37–42, v. pres, 43). Human and experimental pathology of acute infectious diseases; experimental dietary deficiencies; intoxications; hepatic cirrhosis; technical methods; standardization of dyes.

Lillie, Prof. Ralph S(tayner), University of Chicago, Chicago, Ill. *[1]Zoology, Physiology.* Toronto, Ont, Can, Aug. 8, 75. B.A, Toronto, 96, D.Sc, 36; Michigan, 96–97; Ph.D, Chicago, 01; Naples Zool. Sta, 04–05. Instr. physiol. and histol, Nebraska, 02–03, adj. prof, 03–05; instr. physiol, Harvard, 05–06; Johnston scholar, Hopkins, 06–07; instr. physiol. and zool, Pennsylvania, 07–11, asst. prof, 11–13; prof. and head dept. biol, Clark, 13–20; biologist, Nela Research Lab, 20–24; *prof. gen. physiol, Chicago, 24–* Investigator, Marine Biol. Lab, Woods Hole, 01–, trustee. A.A. (chairman, F, 37); Soc. Nat; Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Soc. Biol. Chem; Am. Acad; Philos. Soc. Histology and development of nephridia; oxidation in cells; physiology of protoplasmic contractility; stimulation; cell-division; artificial parthenogenesis; osmotic pressure of colloids; physiology of growth processes; protoplasmic transmission; salt-action; anesthesia.

Lillis, Prof. G(erald) A(lbert), St. Ambrose College, Davenport, Iowa. *Organic chemistry.* Lost Nation, Iowa, Aug. 30, 04. A.B, St. Ambrose Col, 24; S.T.B, Catholic Univ, 27, A.M, 28; M.S, Iowa, 33, Ph.D, 35. *Prof. chem, St. Ambrose Col, 35–* A.A; Chem. Soc; Iowa Acad. Grignard reagents with nitrosyl chloride.

Lilly, Dr. D(aniel) M(cQuillan), 108 Vine St, Pawtucket, R. I. *Biology, Physiology.* Central Falls, R. I, July 20, 10. A.B, Providence Col, 31, M.S, 36; Ph.D, Brown, 40. Instr. *biol, Providence Col, 32–41, asst. prof, 41–* A.A; Inst. Food Technol. Physiology of growth and nutrition in microorganisms; growth factors and vitamin B complex.

Lilly, Dr. John H(enry), University of Wisconsin, Madison, Wis. *Economic entomology, Zoology.* Elk Mound, Wis, Oct. 22, 07. Ph.D, Wisconsin, 39. Instr. econ. entom, *Wisconsin, 36–41, asst. prof. zool. and econ. entom, 41–* Asn. Econ. Entom; Entom. Soc. Amer. Physiology and ecology; biology and control of insects attacking corn.

Lilly, Prof. Scott B(arrett), 600 Elm Ave, Swarthmore, Pa. *Civil engineering.* Poweshiek Co, Iowa, May 27, 85. B.S, Mich. State Col, 07; C.E, Cornell, 09. Instr. civil eng, Cornell, 07–10; asst. prof, Swarthmore Col, 10–17; asst. plant engineer, Merchant Shipbuilding Corp, Phila, 17–18; with Beale and Lilly, Inc, Phila, 18; sales engineer, J. N. Kinney, New York, 18–21; Ohio Locomotive Crane Co, New York, 22–24; Philip T. King, New York, 24–25, 26–28; research engineer, Fla. Rock Products Co, 25–26; sales engineer, Automatic Ball Valve Co, New York, 28–29; *prof. civil eng, Swarthmore Col, 29–, chairman div. eng, 36–* Summers, rodman, Park Blvd. Cmn, Detroit, 07, 08; draftsman, city engineer's office, Grand Rapids, 10. Civil Eng. (pres, Phila. sect, 39; director dist. no. four, 42); Eng. Educ; Concrete Inst. Effective moment of inertia of a plate girder.

Lilly, Dr. Virgil Greene, R. D. 4, Morgantown, W. Va. *Organic chemistry.* Gales Creek, Oregon, Oct. 23, 00. A.B, Pacific (Oregon), 26; A.M, West Virginia, 29, fellow, 30–32, Ph.D, 32. Demonstrator electrochem, Toronto, 29–30; *asst. physiologist, dept. plant path. and bact, West Virginia, 34–* A.A; Chem. Soc; W. Va. Acad. Growth substances.

Liming, Dr. Franklin G(lenn), U. S. Forest Service, Columbus, Ohio. *Forestry, Plant physiology.* Bethel, Ohio, Oct. 29, 04. A.B, Ohio State, 30, M.S, 32, Ph.D, 35. Manager, Davey Tree Expert Co, Kent, Ohio, 23–26; asst. bot, Ohio State, 30–34, instr, 34–37; assoc. conservationist, *Cent. States Forest Exp. Sta, U. S. Forest Service, 37–40, assoc. silviculturist, 40–* Asst. forest pathologist, bur. plant indust, U. S. Dept. Agr, 33–34. Summers, Davey Tree Expert Co, 27–30. A.A; Soc. Foresters. Water-conducting system of woody plants; materials to be used in teaching elementary botany; silviculture in upland hardwood forests in the central states.

Liming, Dr. O(ra) Neal, 57 Collins Ave, Bloomfield, N. J. *Entomology, Forest pathology.* Brown Co, Ohio, Nov. 22, 02. B.S, Wilmington Col, 27; M.S, Ohio State, 29, Ph.D, 30; fellow, Ohio Exp. Sta, 28–30. Asst, Ohio State, 28–30; agent div. forest path, bur. plant indust, *U. S. Dept. Agr, 30–34, agent Dutch elm disease eradication, div. Japanese beetle control, bur. entom. and plant quarantine, 34–* A.A; Phytopath. Soc. Economic entomology; sulfur fungicides; diseases of shade and forest trees; Dutch elm disease.

Lin, Dr. Cho-Yuan, care of M. W. Kellogg Co, 225 Broadway, New York, N. Y. *Ceramics, Chemistry.* Fukien, China, Sept. 15, 09. B.S, Yenching, 32, M.S, 34; fellow, Pa. State Col, 37–39, Ph.D, 39. Research assoc, Yenching, 34–37; ceramic engineer, Nat. Refractories Co, 39–40; Mex. Refractories Co, 40; *chem. engineer,* Universal Trading Corp, 40–42; *M. W. Kellogg Co, 42–* Ceramic Soc; Chem. Soc. Hydrogen-ion concentration of clays and their efficiency as dehydration catalysts; decolorization of vegetable oils with activated clays; glazed roofing tiles of China; polymorphic transformation of quartz to cristobalite and tridymite with catalysts at high temperatures.

Lin, Dr. Wei-cheng, care of Legation of the Republic of China, Ottawa, Ont, Can. *Electrochemistry.* Amoy, China, Feb. 15, 15. B.Sc, Nanking, 36; Ph.D, McGill, 42. Asst. chem, Nanking, 36–39; staff mem. electrochem. eng, Chungkeng Copper Refinery, 39–40; *metallurgist, Defense Industries, Ltd, 42–* Anode potentials of lead and lead alloys.

Lincicome, Dr. David Richard, University of Kentucky, Lexington, Ky. *Parasitology.* Champaign, Ill, Jan. 17, 14. B.S, Illinois, 37, M.S, 37; Ph.D, Tulane, 41. Asst. zool, Illinois, 37; parasitol, med. sch, Tulane, 37–41; *instr. zool, Kentucky, 41–* A.A; Soc. Trop. Med; Soc. Parasitol; Micros. Soc. Amebiasis; taxonomy of Acanthocephala and Cestoda; diagnosis of protozoan and helminth diseases.

Lincoln, Prof. A(zariah) T(homas), 203 Maple Ave, Northfield, Minn. *Chemistry.* Montfort, Wis, June 25, 68. B.S, Wisconsin, 94, M.S, 98, fellow, 98–99, Ph.D, 99. Asst. physical chem, Cornell, 99–00; instr. *chem,* Cincinnati, 00–01; Illinois, 01–03, asst. prof, 03–08; Rensselaer Polytech, 08–12, prof, 12–21; *Carleton Col,* 21–39, chairman dept, *emer. prof, 39–* A.A; Chem. Soc; Electrochem. Soc; Soc. Chem. Indust. Solution of silicates of the alkalies; electrical conductivity of non-aqueous solutions; ternary systems; vapor pressure of solutions; electrolytic corrosion of brasses; Liesegang phenomenon.

Lincoln, Bert H(artzell), Continental Oil Co, Ponca City, Okla. *Chemistry.* Van Buren, Ark, Sept. 6, 00. B.S, Arkansas, 23; Colorado, 23–26. Asst. instr. chem, Arkansas, 22–23; instr, Colorado, 24–26; bacteriologist, State Sanit. Eng. Dept, Colo, 27; chief research chemist, *Continental Oil Co,* 27–29, asst. to mfg. manager, 29–33, *chief chemist, 33–, asst. sec'y, Lubrizol Corp, 35–* Capt, C.W.Res. A.A; Chem. Soc; N. Y. Acad. Chemical engineering; lubricants; motor fuels; history of petroleum; chemical warfare; biochemistry; bacteriology.

Lincoln, Dr. Charles (Gatewood), University of Arkansas, Fayetteville, Ark. *Entomology.* Bentonville, Ark, Feb. 23, 14. B.S.A, Arkansas, 34; Ph.D, Cornell, 38. Asst. entom, Cornell, 34–35, instr, 35–41, asst. prof, 41–42; *exten. entomologist, agr. exten. service, col. agr, Arkansas, 42–* Asn. Econ. Entom; Entom. Soc. Amer; Kans. Entom. Soc. Forage crop insects, particularly the alfalfa snout beetle.

Lincoln, Dr. Francis B(usy), University of Maryland, College Park, Md. *Pomology.* Fitchburg, Mass, Feb. 29, 92. B.S, Pa. State Col, 15; M.S, California, 24, Ph.D, 32. Teacher, high sch, Pa, 15–17; instr. pomol, Pa State Col, 19–23; assoc, Exp. Sta, California, 24–32; *assoc. prof. plant propagation, Maryland and assoc. pomologist, Exp. Sta, 32–* C.Eng, U.S.A, 17–19. Soc. Hort. Sci. Plant physiology in in horticulture; organic nutrition of fruit trees; seasonal sequence of chemical changes in Bartlett pear trees; biology of the apple tree; configuration and functioning of tree roots; selection, propagation and behavior of root stocks for fruit trees; biology of the apple tree; cytogenetics of American crabapples.

Lincoln, Prof. Francis Church, South Dakota School of Mines, Rapid City, S. Dak. *Geology, Mining.* Boston, Mass, Sept. 8, 77. B.S, Mass. Inst. Tech, 00; E.M, N. Mex. Sch. Mines, 04; A.M, Columbia, 06, fellow, 06–07, Ph.D, 11. Assayer, Butterfly-Terrible Gold Mining Co, Colo, 00–01; prof. geol, N. Mex. Sch. Mines, 01–02, chem. and metal, 02–04; asst. supt, Ruby Gold and Copper Co, Mex, 04; Ariz. Gold and Copper Co, 05; asst. physics, Columbia, 06; prof. geol. and miner, Mont. Sch. Mines, 07–10; consulting mining engineer, 10–11; assoc. mining, Illinois, 11–12, asst. prof, 12–13; res. mining engineer, Bolivian Develop. and Explor. Co, 13–14; director, Mackay Sch. Mines, Nevada, 14–23; *prof. mining, S. Dak. Sch. Mines, 23–; consulting mining engineer, Bur. Mines, 42–* State ore sampler, Nev, 17–20. Soc. Econ.

Geol; Min. and Metal. Eng. Economic geology; mineral resources; sampling, mining and milling of ores and economic minerals.

Lincoln, Frederick C(harles), 6633 Barnaby St, Chevy Chase, D. C. *Biology.* Denver, Colo, May 5, 92. High sch. Curator ornith, Colo. Museum Nat. Hist, 13–19; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 20–24, assoc. biologist, 24–30, biologist, 30–35, *senior biologist, in charge distribution and migration of birds, div. wildlife research,* 35–40, *fish and wildlife service, U. S. Dept. Interior, 40–* Leader, Colo. Biol. Surv, 13–17; ornith. expeds, Ariz, 16, S. C, 17, 28, La, 19, 29, N. Dak, 21, 29, Ill, 22, 26, Mich, 23–25, 28, Utah, 26; Smithsonian exped, Haiti and Dominican Republic, 31. Director bird banding activities in Amer. Pigeon expert, West. Dept, U.S.A, 18–19, capt, Sig.R C. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Biol. Soc. Wash. (treas, 20–); Baird Ornith. Club (sec'y, 27–36, v. pres, 36–38, pres, 38–42); Wash. Biol. Field Club (sec'y, 23–34, v. pres, 34–37, pres, 37–40). Ornithology; ecology of game birds.

Lincoln, Dr. Paul M(artyn), Cornell University, Ithaca, N. Y. *Electrical engineering.* Norwood, Mich, Jan. 1, 70. Western Reserve, 88–89; M.E, Ohio State, 92, hon. D.E, 33. Brush Elec. Co, 92; Westinghouse Elec. and Mfg. Co, 92–95; elec. supt, Niagara Falls Power Co, 95–02; elec. engineer, Westinghouse Elec. and Mfg. Co, 02–19; consulting elec. engineer, Lincoln Elec. Co, 19–22; *director sch. elec. eng, Cornell, 22–* World Eng. Conf, Yokohama, 29; World Power Conf, Berlin, 30. Elec. Eng. (pres, 14); Mech. Eng; Eng. Educ. Electrical measurements by thermal methods.

Lincoln, Dr. Ralph (Ernest), Purdue University, Lafayette, Ind. *Genetics.* Grinnell, Iowa, June 25, 12. B.S, Iowa State Col, 34, Ph.D, 39; M.S, Nebraska, 36. Nat. research fellow, Cornell, 39–40; *assoc. bot, Purdue, 40–* Genetics Soc. Genetics and evolution in bacterial population; disease resistance of vegetable crops; phlox.

Lincoln, Dr. Rush A(ldridge), 1212 Union Ave, Brackenridge, Pa. *Metallurgy.* Richmond, Va, Oct. 30, 07. B.S, Va. Polytech, 29; fellow, Carnegie Inst. Tech, 30–31, M.S, 31, Sc.D, 35. Asst. metal, Youngstown Sheet and Tube Co, 29–30; teaching asst, Carnegie Inst. Tech, 31–35; *metallurgist and asst. director research, Allegheny-Ludlum Steel Corp, 35–* Physical chemistry of steel making; treatment and properties of stainless and heat resistant steels.

Lind, Dr. Edmund L(eRoy), 608 N. Rulig St, Ellensburg, Wash. *Physical chemistry.* Joliet, Ill, Jan. 31, 00. A.B, Wabash Col, 21; Gustavus F. Swift fellow, Chicago, 30–31, Ph.D, 31. Asst. chem, Wabash Col, 20–21; teaching and study, 21–33; research chemist, Pure Oil Co, Chicago, 33–36; *prof. physical science and chairman div. sci. and math, Cent. Wash. Col. Educ, Ellensburg, 36–; capt, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc; Northwest Sci. Asn. Electrochemistry; thermodynamics; surface phenomena; allotropy of liquid nitrobenzene; industrial applications of ozone; petroleum technology; synthetic oil-well drilling muds.

Lind, Dr. Howard E(ric), 1800 W. Fillmore, Chicago, Ill. *Bacteriology, Public health.* Providence, R. I. B.S, R. I. State Col, 34, M.S, 35; C.P.H, Mass. Inst. Tech, 37; St. Louis, 39–40; Ph.D, Northwestern, 43. Asst. bacter, R. I. State Col, 34–35; lecturer, R. I. Sch. Educ, 35; asst. bacteriologist, State Health Dept, R. I, 35–36; sanitarian and bacteriologist, 36–37; bacteriologist, St. Louis County Hosp. and director labs, County Health Dept, St. Louis, Mo, 37–40; *senior bacteriologist, Chicago branch lab, State Dept. Health, Ill, 40–* Lecturer, sch. med, Washington (St. Louis), 38. Soc. Bact; Pub. Health Asn; Soc. Ill. Bact; Ill. Pub. Health Asn. Infant diarrhea; the new T-G-E-M agar on milk analysis; fluorescent staining technique for acid-fast bacilli; variations of the diphtheria bacillus.

Lind, Dr. Rudolph, Harshaw Chemical Co, Cleveland, Ohio. *Chemistry.* Rohrbach, Germany, July 16, 96. B.Ch.Eng, Inst. Tech. Darmstadt, 21, Ph.D, 30. Asst, Inst. Tech. Karlsruhe, 21–22; lab. chemist, Mallinckrodt Chem. Works, 22–25; research and develop, Shell Petrol. Co, 25–28; in charge lab. and develop, Selig Co, 30–36; *research chemist, Harshaw Chem. Co, 36–* Chem. Soc. Synthetic glycerol; naphthenic acids; organic addition agents to bright-nickel plating baths; alkaloids.

Lind, Dr. S(amuel) C(olville), University of Minnesota, Minneapolis, Minn. *[3]*Chemistry.* McMinnville, Tenn, June 15, 79. A.B, Washington and Lee, 99; B.S, Mass. Inst. Tech, 02; Ph.D, Leipzig, 05; Paris, 10; Radium Inst, Vienna, 11. Asst. chem, Mass. Inst. Tech, 02–03; instr. gen. and physical chem, Michigan, 05–12, asst. prof, 12–15; chemist, radioactivity, U. S. Bur. Mines, 13–18, physical chemist, 18–23, chief chemist, 23–25; assoc. director fixed nitrogen research lab, U. S. Dept. Agr, 25–26; director sch. chem, *Minnesota,* 26–35, *dean inst. tech, 35–* Mem. div. chem, Nat. Research Council, 31–34; Int. Radium Standards Cmn, 28–; Nat. Advisory Health Council, 31. Ed. board, 'Int. Critical Tables'; 'Jour. Physical Chem,' 32– Nichols medal, 26. Del, Int. Cong. Chem, Rome, 38. Nat. Acad; A.A; Chem. Soc. (mem. ed. board, 'Sci. Monographs'; pres, 40); Electrochem. Soc. (pres, 27); Eng. Educ; Physical Soc; Chem. Eng; Philos. Soc; Minn. Acad. Radioactivity; radium extraction and measurement; influence of radiation on chemical action; kinetics of chemical reactions; relation of gaseous ionization to chemical action; photochemistry; chemical effect in electrical discharge.

Lindbeck, Prof. Wendell A(rthur), 208 Fonville Ave, Martin, Tenn. *Inorganic chemistry.* Rockford, Ill, Sept. 28, 12. B.S, Beloit Col, 36; Ph.M, Wisconsin, 37, Ph.D, 40. Asst. instr, Wisconsin, 36–40; *asst. prof. chem, junior col, Tennessee, 40–* Sulfur in certain scleroproteins.

Lindegren, Dr. Carl C(larence), Washington University, St. Louis, Mo. *Genetics.* Ashland, Wis, Jan. 24, 96. B.S, Wisconsin, 22, M.S, 23; Ph.D, Calif. Inst. Tech, 31. Asst, West. Penna. Hosp, 32–34; asst. prof. *bacter,* Southern California, 34–42; *research assoc, Washington (St. Louis), 42–* Genetics and cytology of yeasts, bacteria and fungi.

Lindeman, Dr. V(erlus) F(rank), Syracuse University, Syracuse, N. Y. *Zoology.* Ashton, Ill, Sept. 2, 02. A.B, N. Cent. Col, 26; M.S, Iowa, 29, Ph.D, 30. Instr, Iowa, 29–30; *zool, Syracuse,* 30–35, asst. prof, 35–38, *assoc. prof, 38–* Soc. Zool. Physiology of the crustacean heart; amphibian metamorphosis; respiration of aquatic invertebrates; respiration of the retina.

Lindemann, Dr. Erich, Massachusetts General Hospital, Boston, Mass. *Psychiatry.* Witten, Germany, May 2, 00. Cologne; Marburg; Ph.D, Giessen, 22, M.D, 26. Asst. physician neur, Heidelberg, 26–27; research assoc. psychol, Iowa, 27–28, asst. prof. clin. psychol. and asst. physician psychiat, 28–31, asst. prof. psychiat, 31–35; research fellow neuropath, *Harvard Med. Sch,* 35–37, instr. *psychiat,* 37–41, *assoc, 41–* A.A; Psychiat. Asn; Psychol. Asn; Am. Med. Asn; Neur. Asn. Psychology and psychopathology of perception; psychopathology of drug action; psychotherapy of mental diseases; psychoanalysis; measurement of interpersonal communication.

Linden, B(ernard) A(rthur), U. S. Food and Drug Administration, Washington, D. C. *Bacteriology.* New York, N. Y, Dec. 17, 93. George Washington. *Bacteriologist, food and drug admin, Fed. Security Agency, 14–* Soc. Bact; Agr. Chem. (referee bacter. methods). Food and drug bacteriology; food poisoning; sanitation.

Linder, Dr. David H(unt), Harvard University, Cambridge, Mass. *[7]*Botany.* Brookline, Mass, Sept. 24, 99. A.B, Harvard, 21, A.M, 22, Ph.D, 26, Sheldon traveling fellow, British Guiana, 23–24. Instr, Washington (St. Louis), 27–28, asst. prof. *bot,* 28–31; instr, *Harvard,* 31–34, *lecturer, 34–,* curator fungi, Farlow Herbarium, 32–34, *curator, Farlow Herbarium and Library, 34–* Ed, 'Farlowia.' Botanist, Harvard African exped, 26–27. A.A; Bot. Soc; Mycol. Soc. (sec'y-treas, 36–38, v. pres, 39, pres, 40); Soc. Plant Taxon; New Eng. Bot. Club; Torrey Bot. Club; British Mycol. Soc. Mycology.

Linder, Dr. Ernest G(ustaf), RCA Laboratories, Princeton, N. J. *Physics.* Waltham, Mass, May 16, 02. A.B, Iowa, 25, M.S, 27; Ph.D, Cornell, 31. Instr. physics, Iowa, 25–27; Calif. Inst. Tech, 27–28; Detroit Edison research assoc, Cornell, 28–32; *with RCA Mfg. Co, 32–* Physical Soc; Iowa Acad. Photoelectricity; thermoelectricity; crystals; vapor pressure; electrical discharges; positive ray analysis; cable insulation; radio; electronics.

Linder, Dr. F(orrest) E(dward), Bureau of the Census, Washington, D. C. *Demography.* Waltham, Mass. A.B, Iowa, 30, A.M, 31, Ph.D, 32. Assoc. statistician, mem. foundation for neuro-endocrine research, Worcester State Hosp, Worcester, Mass, 32–35; tech. expert, *div. vital statist, Bur. Census,* 40–42, *asst. chief statistician, 40–* Biostatist. consultant, Nat. Govt. Uruguay, 39–40. Pub. Health Asn. (sec'y cmt. statist. practice, 42); Statist. Asn; Population Asn. Interpretation and evaluation of public health and demo-

graphic statistics; biostatistical characteristics of persons with various types of mental disease.

Lindgren, Dr. David L(eonard), Citrus Experiment Station, Riverside, Calif. *Entomology.* St. Paul, Minn, Sept. 17, 06. B.S, Minnesota, 30, M.S, 31, Ph.D, 35. Junior entomologist and later *asst. entomologist, Citrus Exp. Sta, California, 35–* Entom. Soc. Amer; Asn. Econ. Entom. Insecticides.

Lindgren, Dr. Ralph M(elvin), U. S. Department of Agriculture, Beltsville, Md. *Forest pathology.* St. Paul, Minn, Oct. 5, 04. B.S, 26, M.S, 28; Wisconsin, 31–32, Charles Lathrop Pack forestry fellow, 32–33; Ph.D, Minnesota, 37. Instr. forest path, Minnesota, 26–28; asst. pathologist, South. Forest Exp. Sta, U. S. Forest Service, 28–31, div. forest path, bur. plant indust, U. S. Dept. Agr, 33–34, pathologist, 34–37; research and exploitation, A. D. Chapman and Co, Inc, 37–42; *senior pathologist rubber plant investigations, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 42–* Phytopath. Soc; Soc. Foresters. Pathology of forest trees and forest products, especially control of fungus deteriorating agents attacking lumber and logs.

Lindley, Dr. Stanley B(ryan), State Hospital, Fergus Falls, Minn. *Psychology, Psychiatry.* Bloomington, Ind, June 9, 06. A.B, Kansas, 27; A.M, Stanford, 28; Illinois, 28–29; Ph.D, Yale, 33; M.D, Minnesota, 39. Asst. instr, Illinois, 28–29; asst. psychol, Inst. Human Relations, Yale, 29–34; instr. col. educ, Minnesota, 34–37; asst. physician, *Fergus Falls State Hosp, Minn,* 39–40, *asst. supt, 40–* Experimental and educational psychology; animal behavior; muscle tonus and work output; performance of simple motor tests by psychiatric patients; aptitude tests.

Lindner, Milton J(erome), 1609 Masonic Temple Bldg, New Orleans, La. *Fisheries.* Jerome, Ariz, Sept. 9, 08. A.B, Fresno State Col, 29. Asst. marine biol, State Div. Fish and Game, Calif, 28–30; from temporary asst. to *aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 31–, in charge shrimp investigations, 33–, chief fisheries mission to Mex, 41–* A.A; Fisheries Soc; Soc. Ichthyol. and Herp; New Orleans Acad. Fisheries biology; biology of California sardine; life history, abundance and economics of southern shrimp.

Lindner, Dr. R(obert) C(lement), Box 99, Wenatchee, Wash. *Plant physiology, Biochemistry.* Auburn, Calif, March 6, 14. A.B, California, 36; Ph.D, Chicago, 39. *Agent deciduous fruit investigations, bur. plant indust, U. S. Dept. Agr, 39–* A.A; Soc. Plant Physiol; Soc. Hort. Sci. Mineral nutrition; growth and plant hormones.

Lindner, Dr. Robert M(itchell), U. S. Public Health Service Hospital, U. S. Penitentiary, Lewisburg, Pa. *Clinical psychology, Psychopathology.* New York, N. Y, May 14, 14. A.B, Bucknell, 35; A.M, Cornell, 36, Ph.D, 39. Teaching asst. psychol, Cornell, 36–38; clin. psychologist, N. J. State Colony, 38; instr. psychol, Lehigh, 38–39; asst. psychologist, *U. S. Pub. Health Service, U. S. Penitentiary,* 39–42, *assoc. psychologist, 42–* Asst. prof. and lecturer, Bucknell, 40–42, lecturer, univ. exten, 40–42. Psychol. Asn; Asn. Applied Psychol; Prison Asn; Med. Correctional Asn. (sec'y-treas, 41–); Rorschach Inst. Criminal psychopathology, with special reference to psychopathic personality in all its clinical, social and psychological aspects.

Lindow, Dr. Carl W(arning), Kellogg Co, Battle Creek, Mich. *Food chemistry, Nutrition.* Elkhorn, Wis, May 6, 99. B.S, Wisconsin, 22, M.S, 27, Ph.D, 29. Chairman dept. chem, West. Ky. State Teachers Col, 22–26; asst. instr. agr. chem, Wisconsin, 26–29; chairman dept. chem, Cent. State Teachers Col, Wis, 29–30; research chemist, *Kellogg Co,* 30–36, *director research labs, 36–* Chem. Soc; fel. Inst. Chem. Biological chemistry; foods; mineral elements in nutrition.

Lindquist, Dr. C(larence) B(ernhart), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Superior, Wis, Dec. 21, 13. B.Ed, Wis. State Teachers Col, 37; M.Ph, Wisconsin, 39, fellow, 40–41, Ph.D, 41. Asst, Wisconsin, 37–40; *instr. math, U. S. Naval Acad, 41–* Lieut, U. S. Naval Res. Math. Soc. Mathematical theory of elasticity.

Lindquist, Dr. F(rank) E(ugene), 256 Purdue Ave, Berkeley, Calif. *Chemistry.* Kingsburg, Calif, March 19, 07. B.S, California, 29, M.S, 30, Ph.D, 37. Junior research assoc, Stanford, 37; biochemist, med. sch, Pennsylvania, 37–39, instr. physiol. chem, 38–39; biochem, col. med, Baylor, 39–42; *assoc. chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Photochemistry; physical chemistry; protein chemistry; dielectric constants of aqueous amino acid solutions; high speed centrifugation; electrophoresis of protein solutions.

Lindquist, Prof. Harry Gotfred, Massachusetts State College, Amherst, Mass. *Dairying.* Holden, Mass, July 30, 95. B.S, Mass. Col, 22; M.S, Maryland, 24. Asst, Maryland, 22–24, instr, 24–25; asst, Ohio State, 25–27; instr. *dairying,* Mass. Col, 27–30, *Mass. State Col,* 30–36, *asst. prof, 36–* A.A; Pub. Health Asn; Dairy Sci. Asn. Vitamins in dairy products; some factors affecting the properties of whipping cream; electric steam generator for sterilizing utensils; factors affecting wheying off of cultured buttermilk.

Lindquist, Prof. Theodore, 103 Elm St, Ypsilanti, Mich. *Mathematics.* Andover, Ill, Aug. 11, 75. A.B, Lombard Col, 97; M.S, Northwestern, 99; Ph.D, Chicago, 11. Prof. math, Mt. Morris Col, 97–98; instr. physics and math, Kans. State Col, 99–01; high sch, Ill, 01–03; prof. *math,* N. Dak. Sch. Science, 03–07; instr, Michigan, 07–12; prof, Lombard Col, 12–14; head dept, Kans. State Teachers Col, Emporia, 14–23; *prof, Mich. State Nor. Col, Ypsilanti, 23–, head dept, 35–* Math. Asn; Mich. Math. Teachers Asn. The teaching of arithmetic; engineering mathematics; modern arithmetic; junior high school mathematics.

Lindsay, Dr. E(ric) M(ervyn), Armagh Observatory, Armagh, Ireland. *Astronomy.* Portadown, N. Ireland, Jan. 26, 07. B.Sc, Queen's (Ireland), 28, M.Sc, 29, Musgrave research student, 29–31; A.M, Harvard, 31, Ph.D, 34. Musgrave demonstrator physics, Queen's (Ireland), 28–29; asst. and tutor physical sciences, Harvard, 31–34, research asst, Boyden Sta, Harvard Observatory, S. Africa, 34–37; *director, Armagh Observatory, 37–; lecturer astron, Queen's (Ireland), 38–* A.A; Astron. Soc; Astron. Soc. Pacific; Royal Astron. Soc. Can; Royal Astron. Soc; British Astron. Asn; Royal Irish Acad; Soc. astron. de France. Galactic structure.

Lindsay, Prof. George Allan, 2015 Day St, Ann Arbor, Mich. *Physics.* Wyandotte, Mich, Nov. 1, 79. A.B, Michigan, 05, A.M, 08, Ph.D, 13. Instr. *physics,* Washington (St. Louis), 07–12; *Michigan,* 13–20, asst. prof, 20–29, assoc. prof, 29–36, *prof, 36–* A.A; fel. Physical Soc; Astron. Soc. X-rays.

Lindsay, Prof. J(ames) D(onald), Box 244 F.E, College Station, Texas. *Chemical engineering.* Jamaica, N. Y, Aug. 24, 99. B.S, Michigan, 24, M.S, 25, Ph.D, 34. Chem. engineer, Standard Oil Co. of Ind, 25–27; Kelvinator Corp, 27–30; Tenn. Valley Authority, 34–35; asst. prof. *chem. eng,* Idaho, 35–37; assoc. prof, N. C. State Col, 37–38; *prof, Agr. and Mech. Col. Texas, 38–,* acting head dept, 40–42, *head dept, 42–* Gen. Chem. Co, 17–18; Chas. Pfizer and Co, 19–20. U.S.N, 18–19. Chem. Soc; Eng. Educ; Chem. Eng. Petroleum technology; phosphate technology.

Lindsay, Dr. J(ohn) R(alston), 950 E. 59th St, Chicago, Ill. *Otolaryngology.* Renfrew, Ont, Can, Dec. 23, 98. M.D, McGill, 25. Asst. prof, assoc. prof. and *prof. surg, clinics, Chicago, 28–* Am. Med. Asn; Acad. Ophthal. and Otol; Laryngol, Rhinol. and Otol. Soc; Inst. Med. Chicago; Chicago Laryngol. and Otol. Soc. (v. pres, 42). Otology.

Lindsay, Prof. R(obert) B(ruce), Brown University, Providence, R. I. *Physics.* New Bedford, Mass, Jan. 1, 00. A.B, M.S, Brown, 20; Am-Scandinavian Foundation fellow, Denmark, 22–23; Ph.D, Mass. Inst. Tech, 24. Instr. physics, Mass. Inst. Tech, 20–22; Yale, 23–27, asst. prof, 27–30; assoc. prof. *theoret. physics, Brown,* 30–36, *prof, 36–, chairman dept. physics, 34–* Visiting prof, Polytech. Inst. Brooklyn, 32, 35–36. A.A; Physical Soc. (chairman, New Eng. sect, 35); Math. Soc; Am. Acad; Hist. Sci. Soc; Philos. of Sci. Asn. Atomic theory; acoustics; foundations of physics.

Lindsay, Prof. Ruth H(utchinson), Wellesley College, Wellesley, Mass. *Botany.* Milwaukee, Wis, Dec. 20, 93. A.B, Wellesley Col, 15; A.M, Wisconsin, 16, fellow, 28–29, Ph.D, 29. Instr. *bot,* Missouri, 20–23; *asst. prof, Wellesley Col, 29–* A.A; Bot. Soc. Cytology; chromosomes of dioecious angiosperms.

Lindsey, Prof. Alton A(nthony), University of New Mexico, Albuquerque, N. Mex. *Botany, Ornithology.* Monaca, Pa, May 7, 07. B.S, Allegheny Col, 29; Ph.D, Cornell, 37. Asst. bot, Cornell, 29–33, 35–37; vert. zoologist, Byrd Antarctic exped, 33–35; instr. *biol,* American Univ, 37–40; *asst. prof,* Redlands, 40–42; *New Mexico, 42–* Summers, ranger-naturalist, Nat. Park Service, Mt. Rainier, 33, 35, 41, Glacier, 39. Bot. Soc; Ecol. Soc; Polar Soc; Wilson Ornith. Club. Floral

anatomy; life history of Antarctic seals; Antarctic oceanic birds.

Lindsey, Prof. A(rthur) W(ard), P. O. Box 612, Granville, Ohio. *Biology, Entomology.* Council Bluffs, Iowa, Jan. 11, 94. A.B, Morningside Col, 16; M.S, Iowa, 17, fellow, 17–19. Ph.D, 19. Curator, Barnes Collection N. Am. Lepidoptera, 19–21; asst. prof. biol, Morningside Col, 21–22; *prof.* zool, *Denison,* 22–40, *biol. science, 40–* Asst. prof, Franz Theodore Stone Lab, 28; prof, Rocky Mt. Biol. Lab, 32; Chesapeake Biol. Lab, 40. Summers, bur. entom, U. S. Dept. Agr, 16–18. A.A; Entom. Soc; Genetic Asn; Soc. Zool; Ohio Acad. (v. pres, 28, 36, sec'y, 41–); fel. Iowa Acad. Ecology of insects; human biology; genetics; evolution; relations of heritage and environment.

Lindsey, Prof. Louis, 201 Scottholm Blvd, Syracuse, N. Y. *Astronomy.* Dryden, N. Y, Dec. 12, 77. A.B, Syracuse, 06, A.M, 09, Ph.D, 11. Dickinson Sem, 06–07; instr. *applied math, Syracuse,* 11–13, asst. prof, 13–20, assoc. prof, 20–25, *prof, 25–, head dept, 33–* Nautical Almanac, U. S. Naval Observatory. Math. Soc; Math. Asn. Definite comet orbits.

Lindsey, Dr. Tate J(efferson), Georgia Southwestern College, Americus, Ga. *Physics.* Morton, Miss, Oct. 1, 03. A.B, Mississippi State Col, 28; Ph.D, Indiana, 36. Teaching fellow, N. Y. Univ, 28–31; asst. prof. math, Miss. State Col, 31–32, prof. physics, 32–34; asst, Indiana, 34–35; *head dept. science, Ga. Southwest. Col, 36–* Glow of mercury vapor in a vacuum tube; cadmium arcs and lead glass seals.

Lindsley, Dr. Charles H(alsey), Black Mountain College, Black Mountain, N. C. *Chemistry.* Berea, Ky, Sept. 4, 08. B.S, Princeton, 30, A.M, 31, Ph.D, 33. Research chemist, biochem. research foundation, Franklin Inst, 34–36; research chemist, Int. Nickel Co, 36–38; instr. and *asst. prof. chem, Black Mountain Col, 38–; research asst, Nat. Defense Research Cmt, Virginia, 41–* A.A; Chem. Soc; Hist. Sci. Soc; N. C. Acad. Cryoscopy; vacuum fusion method for gas analysis of steels; corrosion; history of science.

Lindsley, Dr. D(onald) B(enjamin), Brown University, Providence, R. I. *Psychology.* Brownhelm, Ohio, Dec. 23, 07. A.B, Wittenberg Col, 29; A.M, Iowa, 30, Ph.D, 32. Instr. psychol, Illinois, 32–33; nat. research fellow physiol, Harvard Med. Sch, 33–35; research assoc, Brush foundation, sch. med, Western Reserve, 35–38, asst. prof. psychol, 35–38; *director psychol. and neurophysiol. lab, Bradley Home, 38–; asst. prof. psychol, Brown, 38–* A.A; Asn. Applied Psychol; Soc. Exp. Biol; Psychol. Asn; Physiol. Soc. Electroencephalography; experimental, physiological and clinical psychology.

Lindstrom, Prof. E(rnest) W(alter), Iowa State College, Ames, Iowa. ***Botany, Genetics.* Chicago, Ill, Feb. 5, 91. A.B, Wisconsin, 14; Ph.D, Cornell, 17. Asst. and investigator plant breeding, Cornell, 14–17; asst. prof. *genetics,* Wisconsin, 19–22; *prof. and head dept, Iowa State Col, 22–, v. dean grad. col, 36–* Int. Educ. Board asst, Rockefeller Foundation, Paris, 27–28. Lieut, A.S, 17–19. A.A; Soc. Nat. (sec'y, 32–35); Genetic Asn; Bot. Soc; Genetics Soc. (sec'y-treas, 38–40, v. pres, 41, pres, 42); fel. Iowa Acad. Genetics of maize and tomatoes; plant genetics; corn breeding; polyploidy in tomatoes; quantitative inheritance.

Lindvall, Prof. F(rederick) C(harles), California Institute of Technology, Pasadena, Calif. *Engineering.* Moline, Ill, May 29, 03. B.S, Illinois, 24; Ph.D, Calif. Inst. Tech, 28. Elec. eng. dept, Los Angeles Ry. Corp, 24–25; teaching fellow, Calif. Inst. Tech, 25–28; gen. eng. dept, Gen. Elec. Co, 28–30; asst. prof. *elec. eng, Calif. Inst. Tech,* 30–37, *assoc. prof, 37–, mech. eng,* 39–41, *prof, 41–* Elec. Eng. Electrical and mechanical engineering; current rupture in vacuum; railway engineering; resistance welding.

Lindwall, Prof. H(arry) G(ustave), New York University, University Heights, New York, N. Y. *Organic chemistry.* New Haven, Conn, Nov. 22, 02. B.S, Yale, 23, Ph.D, 26. Research chemist and chem. engineer, E. I. du Pont de Nemours and Co, 26–28; asst. prof. chem, *N. Y. Univ,* 28–35, assoc. prof, 35–38, *prof. org. chem, 38–, admin. chairman dept. chem, 37–* A.A; Chem. Soc; Inst. Chem; Chemists' Club; Soc. Chem. Indust. Gt. Britain. Chemistry of indoles, indigoids and quinolines; condensation reactions; medicinal products.

Line, Prof. Willard R(iggs), University of Rochester, Rochester, N. Y. *Chemistry.* Rochester, N. Y, Oct. 20, 88. B.S, Rochester, 12; M.S, Michigan, 14; Ph.D, Columbia, 28. Instr. *chem, Rochester,* 14–16, asst. prof, 19–27, *prof, 27–* Chem. Soc. (chairman, Rochester sect, 32). Inorganic and analytical chemistry.

Line, Prof. W(illiam), University of Toronto, Toronto, Ont, Can. *Psychology.* High Wycombe, Eng, Aug. 23, 97. B.Sc, Mt. Allison, 21; M.A, Alberta, 22, B.E, 25; Ph.D, London, 29. Lecturer *psychol,* Alberta, 23–24; Manitoba, 25–26; prof, Mt. Allison, 28–29; asst. prof, *Toronto,* 29–32, *assoc. prof, 32–* Col. and director personnel selection, Nat. Defence Headquarters, Ottawa. Mem, Toronto research div, Can. Nat. Cmt. Mental Hygiene. Assoc. Psychol. Asn; British Psychol. Soc. General psychology; individual differences.

Lineberry, Dr. R(ichard) A(rthur), 3006 Ruffin St, Raleigh, N. C. *Chemistry.* Siler City, N. C, Aug. 4, 96. B.S, Guilford Col, 20; M.S, North Carolina, 25, Ph.D, 30. Chemist, Hall Tobacco Chem. Co, N. C, 22–24; head dept. science, Mars Hill Col, 25–28; *asst. chemist, bur. chem. and soils, U. S. Dept. Agr, 29–* Chem. Soc; Soc. Agron; N. C. Acad. Zirconium citrate; clays; soils; strawberry fertilizer; vitamin C.

Lineburg, Prof. Bruce, Lake Forest College, Lake Forest, Ill. *Biology.* Strasburg, Va. A.B, Ohio, 15; A.M, Hopkins, 23, Adam T. Bruce fellow, 23–24, Ph.D, 24. Asst. prof. *biol, Lake Forest Col,* 24–25, *prof, 25–* Soc. Zool; Soc. Parasitol. Animal behavior; life history and behavior of the honey bee.

Linegar, Dr. Charles R(amon), 304 N. Fourth Ave, Highland Park, N. J. *Pharmacology.* Brookville, Ind, Sept. 27, 05. A.B, DePauw, 27; Ph.D, Western Reserve, 34. Teaching fellow chem, Iowa State Col, 29–30; biochemist, Cleveland City Hosp, Ohio, 31–32; teaching fellow biochem, Western Reserve, 32–34; instr. pharmacol, sch. med, Georgetown, 34–36, asst. prof, 36–39, assoc. prof, 39–43; *chief biol. develop. and control lab, E. R. Squibb and Sons, 43–* Cardiac and voluntary muscle creatine content; barbiturates; autonomic drugs.

Linehan, Prof. Paul H(enry), 346 Convent Ave, New York, N. Y. *Mathematics.* Boston, Mass, Jan. 15, 79. A.B, Harvard, 02; Ph.D, Columbia, 16. Tutor *math, Col. City of N. Y,* 03–12, instr, 12–16, asst. prof, 16–26, assoc. prof, 26–30, *prof, 30–* Asst. director evening session, Col. City of N. Y, 16–26, assoc. director, 26–27, director, 27–39. A.A; Math. Soc; Math. Asn; Asn. Urban Univ. (pres, 32–33). Equilong geometry.

Lineken, Dr. Edgar E(lwyn), 25 N. Bridge St, Somerville, N. J. *Inorganic chemistry.* Thomaston, Maine, July 3, 01. B.S, Maine, 23, M.S, 25; Ph.D, Iowa State Col, 39. Submaster, high sch, Maine, 23–24; instr. chem, Vermont, 25–34, asst. prof, 34–42; *research chemist, Calco chem. div, Am. Cyanamid Co, 42–* Asst, Iowa State Col, 28–29, 37–38. A.A; Chem. Soc. The electrometric titration of manganese in pyrolusite; the equilibrium between manganate and permanganate ions; the conductance of organosubstituted ammonium chlorides in liquid hydrogen sulfide; the equilibrium in aqueous solution between ammonium acetate, acetamide and water.

Linell, Dr. Eric A(mbrose), 188 Glencairn Ave, Toronto, Ont, Can. *Neurology.* Preston, Lancashire, Eng, July 11, 91. M.B, Ch.B, Manchester, 14, Leech fellow, 19–20, M.D, 20. Tom Jones Mem. research scholar, Manchester, 22–23; *prof.* neur. anat, *Toronto,* 23–31, *neuropath, 31–* A.A; Asn. Anat; Anat. Soc. Gt. Britain and Ireland; British Med. Asn. Neurological anatomy and pathology.

Lineweaver, Dr. Hans, U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Pickens, W. Va, Dec. 25, 07. A.B, George Washington, 30, A.M, 33; Ph.D, Hopkins, 36. Junior chemist, fertilizer investigations, bur. chem. and soils, *U. S. Dept. Agr,* 30–36, assoc. chemist, food research div, 36–38, chemist, 38–39, *senior chemist, west. regional research lab, bur. agr. chem. and eng, 39–* A.A; Chem. Soc. Biophysical chemistry; enzymes.

Linfield, Prof. B(en) Z(ion), University of Virginia, Charlottesville, Va. *Mathematics.* Birzai, Russia, 97. B.S, Virginia, 18, M.S, 20; Ph.D, Harvard, 23; D.Sc, Strasbourg, 25. *Assoc. prof. math, Virginia, 26–* A.A; Math. Soc; Math. Asn; Soc. math. de France. Operations with discrete spaces, functions, vectors and matrices.

Linfield, F(rederick) B(loomfield), Montana State College, Bozeman, Mont. *Agriculture.* Twillingate, Newfoundland, July 18, 66. B.S.A, Ont. Agr. Col, 91. Instr. dairying, Ont. Agr. Col, 92–93; prof. live stock and dairying, Utah Col. and Exp. Sta, 93–02; agr, *Mont. State Col,* and agricul-

turist, *Exp. Sta*, 02–04, director, 04–37, *emer. director, 37–* dean col. agr, 14–37. A.A; Genetic Asn. Dairying; animal husbandry.

Linford, Dr. Henry B(lood), Columbia University, New York, N. Y. *Electrochemistry.* Logan, Utah, April 23, 11. B.S, Utah State Col, 31; M.S, State Col. Wash, 33, Ph.D, 36; Columbia, 36–37. Research chemist, Am. Smelting and Ref. Co, 37–41; *instr. chem. eng, Columbia, 41–* Chem. Soc; Electrochem. Soc; Min. and Metal. Eng. Electrodeposition of metals from aqueous solutions.

Linford, Dr. Hooper, 1608 Margate Road, Palos Verdes Estates, Calif. *Organic chemistry.* Logan, Utah, June 24, 06. B.S, Utah Col, 26; M.S, State Col. Wash, 28; Laws fellow, Cincinnati, 30–31, Ph.D, 31. Research assoc. chem, California, 31–32; *research chemist, Union Oil Co. of Calif, 32–* Chem. Soc. Orientation in benzene substitution; reducing action of sodium on organic compounds in liquid ammonia solution; extreme pressure agents in automotive gear oils; synthesis of organic acids; chemical utilization of petroleum hydrocarbons.

Linford, Prof. Leo H(ulme), Utah State Agricultural College, Logan, Utah. *Physics.* June 5, 07. B.S, Utah State Agr. Col, 29; A.M, California, 32, Ph.D, 35. Instr. physics, *Utah State Agr. Col*, 35–38, *asst. prof, 38–* Physical Soc; Utah Acad. Impact emission of electrons by high speed ions.

Linford, Prof. Leon B(lood), Utah State Agricultural College, Logan, Utah. *Physics.* Logan, Utah, July 8, 04. B.S, Utah Col, 23, A.M, 25; Thompson scholar, California, 28–30, Ph.D, 30. Nat. research fellow physics, Princeton, 30–32; assoc. prof. math, *Utah State Col*, 32–35, *prof. physics and head dept, 35–; staff mem, radiation lab, Mass. Inst. Tech, 41–* A.A; Physical Soc. Moisture relations in soils; external photoelectric effect.

Linford, Dr. M(aurice) B(lood), Pineapple Research Institute, Honolulu, Hawaii. *Plant pathology.* Logan, Utah, March 9, 01. B.S, Utah Col, 22, A.M, 24; Wis. Pea Packers Asn. fellow, Wisconsin, 24–26, fellow, 26–27, Ph.D, 27. Asst. bot, Utah Col, 21–24; nat. research fellow, 27–29; *pathologist, Exp. Sta, Pineapple Research Inst, Hawaii, 29–* Summer, assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 28. A.A; Phytopath. Soc; Bot. Soc; Soc. Plant Physiol; Mycol. Soc; Helminth. Soc. Wash; Wash. Acad. Diseases of peas and pineapples; plant parasitic nematodes; nematode biology and populations; natural enemies of nematodes.

Ling, Dr. Charles J(oseph), 1225 Park Ave, Rochester 10, N. Y. *Physics, Astronomy.* Auburn, N. Y, Dec. 8, 67. B.S, Cornell, 90; A.M, Denver, 00, Ph.D, 02. Prof. nat. science, La. State Nor. Sch, 90–92; instr, high schs, Colo, 92–06; prof. *physics and astron, Allegheny Col*, 06–33, *emer. prof, 33–* Summers, instr, Denver, 03; director, Allegheny Col, 25–27. Strong solutions with special reference to change of density with temperature; maximum density; freezing and boiling points; observations of Eros, minor planets and comets; light efficiency and life of incandescent lamps.

Lingafelter, Dr. Edward Clay (Jr), University of Washington, Seattle, Wash. *Chemistry.* Toledo, Ohio, March 28, 14. B.S, California, 35, Ph.D, 39. Assoc. *chem, Washington (Seattle)*, 39–41, *instr, 41–* Chem. Soc. Complexes of mercury and ammonia; strengths of acids and bases; colloidal electrolytes.

Lingane, Dr. James J(oseph), Harvard University, Cambridge, Mass. *Chemistry.* St. Paul, Minn, Sept. 13, 09. Ch.B, Minnesota, 35, Ph.D, 38. *Instr.* physical chem, Minnesota, 38–39; *chem*, California, 39–41; *Harvard, 41–* Chem. Soc. Analytical chemistry; electrochemistry; physico-chemical methods of chemical analysis; polarographic analysis with the dropping mercury electrode.

Lingard, Dr. A(mos) L(ister), R. R. 2, Newburgh, Ind. *Physical chemistry, Engineering.* Princeton, Kans, Nov. 12, 11. B.S, Ottawa (Kans), 35; A.M, Kansas, 37, Ph.D, 40. Asst. instr. chem, Kansas, 35–40; *research chemist and engineer, Servel, Inc, 40–* Chem. Soc. Mercury-oil emulsions; heat transfer and absorption refrigeration.

Linhart, Dr. George A(ugustus), Riverside Junior College, Riverside, Calif. *Physical chemistry.* Bohemia, 84. A.B, Cent. High Sch, Phila, 06; B.S, Pennsylvania, 09; A.M, Yale, 11, Ph.D, 13. Asst. instr. chem, Yale, 10–12; instr, high sch, Conn, 13; teaching fellow, Washington (Seattle), 14; California, 15–18; instr. soil chem. and bacter, 19–20; educ. research in coordination of curriculum, high sch, Calif, 20–23; *instr. math, Riverside Junior Col, 23–* Chem. Soc. Mercury; electrolytes; free energy of biological processes; pressure-volume-temperature relations of gas; correlation of heat capacity; absolute temperature and entropy; ocean turbulence; solar and cosmic rays.

Linhorst, Dr. E(rwin) F(rederick), 639 Helen Ave. Detroit, Mich. *Physical chemistry.* St. Louis, Mo, Oct. 10, 03. A.B, B.S, Missouri, A.M, 28; Ph.D, Michigan, 31. *Chemist, U. S. Rubber Co, 33–* Gas chemistry.

Lininger, Dr. F(rederick) F(ouse), 159 W. Park Ave, State College, Pa. *Agricultural economics.* Martinsburg, Pa, July 29, 92. B.S, Pa. State Col, 17; M.S, Cornell, 26, Ph.D, 28. Agr. agent, Mercer Co, Pa, 17–18; farmer, Blair Co, 18–20; supervisor agr, Morrison Cove Vocational Sch, 20–23, director, 23–25; asst. prof. agr. econ, *Pa. State Col*, 26–28, assoc. prof. 28–29, prof, 29–38, head dept, 38–41, *v. dean sch. agr, 40–* Special investigations, Brookings Institution. Farm Econ. Asn. Marketing of dairy products.

Link, Prof. Conrad B(arnett), Pennsylvania State College, State College, Pa. *Floriculture.* Dunkirk, N. Y, March 5, 12. B.S, Ohio State, 33, M.S, 34, Ph.D, 40. Hybridist, Good and Reese Co, Springfield, Ohio, 34–35; asst. hort, Ohio State, 35–38, exten. specialist *floricult*, 39–40; instr, *Pa. State Col*, 38–39, 40–41, *asst. prof, 41–* Soc. Hort. Sci; Genetic Asn. Photoperiodism; plant anatomy; plant nutrition.

Link, Prof. George K(onrad) K(arl), University of Chicago, Chicago, Ill. *Plant pathology.* Mt. Clemens, Mich, March 14, 88. B.S, Chicago, 10, Ph.D, 16; A.M, Nebraska, 12. Asst. bot, Kans. State Col, 10–11; adj. prof. agr. bot, Nebraska, 11–13, asst. prof, 13–14, assoc. prof, 14–17, prof. plant physiol, 17–19; pathologist, bur. plant indust, U. S. Dept. Agr, 17, specialist market path, 20–22; assoc. prof. *plant path, Chicago*, 24–29, *prof, 29–* A.A; Phytopath. Soc; Bot. Soc. Potato diseases; immunity; market and transit diseases; serology of phytopathogenic bacteria and fungi; galls; growth substances in plant tumors.

Link, Mrs. George K(onrad) K(arl) (Dr. Adeline DeSale), University of Chicago, Chicago, Ill. *Chemistry.* Omaha, Nebr, Jan. 4, 92. A.B, Vassar Col, 14; Ph.D, Chicago, 17. Asst. prof. *chem*, Lawrence Col, 17–21; instr, *Chicago*, 21–29, *asst. prof, 29–*, dean, 25–31, *col. adviser, 31–* Chem. Soc. Physico-organic chemistry; physiological chemistry; phytochemistry.

Link, Dr. Henry C(harles), Psychological Corp, 522 Fifth Ave, New York, N. Y. *Psychology.* Buffalo, N. Y, Aug. 27, 89. A.B, Yale, 13, A.M, 15, Ph.D, 16. Indust. psychologist and director educ, Winchester Repeating Arms Co, 17–19; director educ, U. S. Rubber Co, 19–23; asst. advertising manager, Lord and Taylor, 23–28; sales and merchandise manager, Gimbel Brothers, Pittsburgh, 29–31; *sec'y-treas, Psychol. Corp, 31–, v. pres, 40–* Psychol. Asn; Asn. Applied Psychol. Personality and vocational psychology; personality quotient test; psychological barometer; education and industry; employment psychology; the return to religion; the rediscovery of man; marketing advertising; public opinion.

Link, Prof. Karl Paul, University of Wisconsin, Madison, Wis. *Agricultural chemistry.* La Porte, Ind, Jan. 31, 01. B.S, Wisconsin, 22, fellow, 22–25, M.S, 23, Ph.D, 25. Int. Educ. Board fellow chem, St. Andrews, Scotland, 25–26; Graz, Austria, 26; Zurich, 26–27; from asst. prof. to *prof. biochem. Wisconsin, 27–* A.A. Organic chemistry; biochemistry; chemical technology of plant products.

Link, Dr. Theodore A(ugust), Imperial Oil, Ltd, Calgary, Alta, Can. *Geology.* La Porte, Ind, Jan. 19, 97. B.S, Chicago, 18, Ph.D, 27. *Geologist*, Imp. Oil, Ltd, 19–22; Trop. Oil Co, Colombia, S. Amer, 22–26; *in charge, Imp. Oil, Ltd, 27–, chief geologist Canol project.* Instr, Chicago. A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Alta. Soc. Petrol. Geol. (past pres). Structural geology.

Linker, Dr. Joe Burton, University of North Carolina, Chapel Hill, N. C. *Mathematics.* Rockwell, N. C, June 8, 97. A.B, North Carolina, 18, A.M, 20; Ph.D, Hopkins, 24. Instr. *math*, North Carolina, 19–22; asst, Hopkins, 22–24; asst. prof, *North Carolina*, 24–27, assoc. prof, 27–38, *prof, 39–; lieut. col, U. S. Army, 40–* Math. Soc; Math. Asn.

Linn, Dr. Carl Barnes, 362 Downing Road, Riverside, Ill. *Chemistry.* Auburn, Nebr, Feb. 18, 07. B.S, Nebraska, 29,

M.S, 30; Ph.D, Stanford, 34. Asst, Nebraska, 34–35; *research chemist, Universal Oil Products Co, Riverside, Ill, 35–* A.A; Chem. Soc. The Grignard reagent; sugar acids; pyrolysis of hydrocarbons; catalytic reactions of hydrocarbons and derivatives.

Linn, Prof. M(anson) B(ruce), University of Illinois, Urbana, Ill. *Plant pathology.* New Ross, Ind, June 15, 08. A.B, Wabash Col, 30; fellow, Cornell, 32–40, Ph.D, 40. Asst. bot, Wabash Col, 27–29, instr, 30–31; plant path, Cornell, 41; *asst. prof. veg. crops exten, Illinois, 42–* Phytopath. Soc. Diseases of canning crops and truck crops.

Linner, Dr. Edward R(obert), Vassar College, Poughkeepsie, N. Y. *Chemistry.* Buffalo, N. Y, Oct. 12, 99. B.S, Buffalo, 25; Ph.D, Minnesota, 34. Chemist, Acheson Graphite Co, Niagara Falls, N. Y, 20–24; asst. *chem,* Wisconsin, 25–28; instr, Lafayette, 28–31; Minnesota, 31–34; *Vassar Col,* 34–37, asst. prof, 37–43, *assoc. prof, 43–* Chem. Soc. Physical chemistry; colloids; relation of organic structure to adsorption; adsorption from solution.

Linsdale, Dr. Jean M(yron), University of California, Berkeley, Calif. *Vertebrate zoology.* Wellsville, Kans, May 20, 02. A.B, Kansas, 24, fellow, 24–25, A.M, 25; Ph.D, California, 27. Teaching fellow zool, California, 25–27, research asst, *museum vert. zool, California,* 27–28, *research assoc,* 28–Summers, biol. sta, Michigan, 24; junior biologist, bur. biol. surv, U. S. Dept. Agr, 25. Assoc. ed, 'The Condor,' 29–; 'Am. Midland Naturalist,' 42– A.A; Wildlife Soc; Soc. Study Speciation; Soc. Mammal; Ecol. Soc; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Variation in Passerella; birds of Kansas and Nevada; vertebrates of Monterey County and Lassen Peak region of California; herpetology of Lower California and Nevada; natural history of fur animals of California and of magpies.

Linsenmeyer, Prof. Francis J(ohn), University of Detroit, Detroit, Mich. *Mechanical engineering.* Baltimore, Md, Dec. 8, 97. B.M.E, Detroit, 22, M.E, 35; Michigan, 32– Apprentice tool-maker, Cadillac Motor Car Co, 15–17; prof. mech. eng, Detroit, 22–23; heat. and vent. eng, Richardson and Boynton Co, 23–24; exp. engineer, James Vernor Co, 24–26; *prof. mech. eng, Detroit, 26–* Ordnance Dept, U.S.A, 18. Mech. Eng. (exec. cmt, 33–); Soc. Automotive Eng. (student chairman, 29–33); Heat. and Vent. Eng. (exec. cmt, 35–37, v. chairman, 37). Automobile heaters; vacuum return pumps; colloidal graphited oils; air cleaners for automobiles; fuel gas; engine gaskets.

Linsley, Prof. Earle G(arfield), Chabot Observatory, 4917 Mountain Blvd, Oakland, Calif. *Astronomy.* Colo, June 19, 82. A.B, Colgate, 04; M.S, California, 08; Harvard, 11–12. Instr, Calif. Col, 04–08; geog, California, 08–11; asst, Harvard, 11–12; *prof.* geog. and geol, *Mills Col,* 12–20, *astron, 20–; director, Chabot Observatory, Oakland Pub. Schs, 23–* A.A; Meteorol. Soc; fel. Soc. Research Meteorites (councilor); Astron. Soc. Pacific; Calif. Acad; Royal Astron. Soc. Can; fel. Royal Astron. Soc; British Astron. Asn; Soc. astron. de France; Soc. belge d'Astron. Astronomy in education.

Linsley, Prof. E(arle) Gorton, Lafayette Orchards, Lafayette, Calif. *Entomology.* Oakland, Calif, May 1, 10. B.S, California, 32, M.S, 33, Ph.D, 38. Asst, div. entom. and parasitol, California, 33–35; teaching asst. agr, California at Los Angeles, 35–37; assoc. quarantine entomologist, bur. entom. and plant quarantine, State Dept. Agr, Calif, 38; instr. *entom, California,* 39–43, *asst. prof, 43–,* junior entomologist, *Exp. Sta,* 39–43, *asst. entomologist, 43–* Ed, 'Pan-Pacific Entomologist,' 42– Mem, Am. Cmn. Sci. Nomenclature in Entom, 42– A.A; Entom. Soc. Amer; Asn. Econ. Entom; Pacific Coast Entom. Soc. (sec'y, 34–38, 40–, pres, 38–40); Calif. Acad; South. Calif. Acad. Systematic entomology; biology and taxonomy of Coleoptera and Aculeata Hymenoptera; ecology; forest entomology; distribution; speciation; relations of flowers and insects; biology of solitary bees; entomophagous Coleoptera; insects affecting stored food products.

Linton, Dr. E(verett) P(ercival), Atlantic Fisheries Experimental Station, Halifax, N. S, Can. *Physical chemistry.* St. John West, N. B, Dec. 30, 06. B.Sc, Mt. Allison, 28; Nat. Research Council Can. bursar, McGill, 29, student, 30, M.Sc, 30, fellow, 31, Ph.D, 32. Instr. chem, Mt. Allison, 28–29; Royal Soc. Can. fellow, Munich, 32–33; chemist, Biol. Board Can, Halifax, N. S, 34–36; instr. chem, Acadia, 36–41; *asst. physical chemist, Fisheries Research Board, Halifax, 41–* Chem. Soc; fel. Can. Inst. Chem. Preparation of hydrogen peroxide; measurement of dielectric constants; interaction of neutral molecules; air drying of solids; smokes; colloidal chemistry; dipole moments of amine oxides.

Linton, Prof. Ralph, Columbia University, New York, N. Y. [*5] *Anthropology.* Philadelphia, Pa, Feb. 27, 93. A.B, Swarthmore Col, 15; A.M, Pennsylvania, 16; Ph.D, Harvard, 25. Ethnologist, Ill, 16–17; archeologist, Bishop Museum, Honolulu, 20–21; asst. curator, N. Am. ethnol, Field Museum Nat. Hist, 22–26, Oceanic and Malayan ethnol, 26–28; assoc. prof. *anthrop,* Wisconsin, 28–30, *prof,* 30–37; *Columbia, 37–* Asst, Chicago, 23, visiting prof, 42. Ed, 'Am. Anthropologist,' 38– Excavations, Sch. Am. Archeol, N. Mex, 13, Guatemala, 14; for univ. museum, Pennsylvania, in N. J, 15; for Ill, 16; Bur. Am. Ethnol, in Colo, 19; Bishop Museum exped, Marquesas, Tuamotus and Tahiti, 20–21; capt, Marshall Field exped, Madagascar, 26–27. Social Science Research Council, 29–35; Nat. Research Council, 42– F.A, U.S.A, 17–19. A.A. (v. pres, H, 36); Anthrop. Asn. (sec'y-treas, cent. sect, 23, councilor, 25, pres, 30, v. pres, 31); fel. Royal Anthrop. Inst. Gt. Britain. Ethnology; ethnology of Polynesia and Madagascar.

Linton, Dr. Richard W(arner), Biochemical Research Foundation, Newark, Del. *Bacteriology.* New Denver, B. C, Can, Feb. 11, 99. A.B, Harvard, 22; A.M, Columbia, 26, Ph.D, 29. Asst. bacter, col. physicians and surg, Columbia, 26–27, instr, 27–28, asst. prof, 28–31; officer in charge cholera inquiry, Indian Research Fund Asn, All-India Inst. Hygiene and Pub. Health, 31–38; asst. prof. path, med. col, Cornell, 39–41; *bacteriologist, Biochem. Research Foundation, 41–* Soc. Exp. Biol; Harvey Soc. Cellular immunity in streptococcic infections; chemical changes in blood during infections; chemical and physical studies of bacteria; field work on cholera; bacterial metabolism and nutrition.

Liotta, Dr. S(ilvester), College of the City of New York, New York, N. Y. *Physical chemistry.* Brooklyn, N. Y, Feb. 1, 11. B.S, Col. City of N. Y, 31; M.S, N. Y. Univ, 33; Ph.D, Columbia, 38. Teaching fellow, *Col. City of N. Y,* 32–38, tutor, 38–40, *instr, 40–, consultant, Associated Exp. Labs, Brooklyn, N. Y, 36–* Chem. Soc. Temperature coefficients of the base catalysed decomposition of nitramide in deuterium oxide.

Lipkin, Dr. David, University of California, Berkeley, Calif. *Organic chemistry.* Philadelphia, Pa, Jan. 30, 13. B.S, Pennsylvania, 34; Ph.D, California, 39. Petrol. research chemist, research and develop. dept, Atlantic Ref. Co, 34–36; *research fellow chem, California, 39–* Chem. Soc. The absorption and emission of light by organic molecules; abietic acid; aliphatic esters; isobutylethyl ether; reduction of beta-methylcinnamic acid; photochemical isomerization.

Lipman, Prof. C(harles) B(ernard), University of California, Berkeley, Calif. *Plant physiology.* Russia, Aug. 17, 83. B.S, Rutgers, 04, M.S, 09, hon. Sc.D, 34; M.S, Wisconsin, 09; Ph.D, California, 10. Instr. soil bacter, *California,* 09–10, asst. prof. soils, 10–12, assoc. prof, 12–13, *prof.* soil chem. and bacter, 13–21, plant nutrition, 21–25, *plant physiol, 25–, dean grad. div, 23–* Ed. advisory board, Guggenheim Mem. Foundation. Mem. and director, Belgian-Am. Educ. Foundation; pres, Calif. chap, Am-Scandinavian Foundation, 41; mem. cmt. adjustment for. students, U. S. State Dept, 41. Director, Int. House, Berkeley, Calif. Chairman cmt, Pacific Science Cong, 39. A.A; Soc. Plant Physiol; Soc. Bact; Chem. Soc; Soc. Exp. Biol; Soc. Research Meteorites; Calif. Bot. Soc; Calif. Acad. Physiology of the higher plants and bacteria; electrolytes in relation to living cells; nitrogen fixation by green plants; physiology of azotobacter; plant physiology in relation to colloidal chemistry and soil fertility; bacteria in the sea; calcium carbonate precipitation in the sea; mineral metabolism of higher plants; discovery of living bacteria in ancient rocks; resistance of bacteria to high and low temperatures.

Lipman, Dr. Eli A(llan), Ohio State University, Columbus, Ohio. *Psychology.* Chicago, Ill, June 10, 14. A.B, Illinois, 35, A.M, 37; Ph.D, Rochester, 40. Asst. learning and exp. psychol, Illinois, 36–38; *fellow* dept. psychol, Rochester; *Ohio State Research Fund, Ohio State.* A.A; Psychol. Asn; East. Psychol. Asn. Experimental, physiological and statistical psychology.

Lipman, Dr. Harry J(erome), 510 E. Crawford Ave, Connellsville, Pa. *Chemistry.* Johnstown, Pa, Aug. 4, 13. B.S, Pittsburgh, 34, M.S, 36, Ph.D, 39. Asst. biol, Pittsburgh, 34–39; bacteriologist, Hachmeister Inc, 39–40; chemist dry cleaning, Ideal Soap and Chem. Co, 40–43; *food technologist,*

closure div, Anchor Hocking Glass Corp, 43– Chem. Soc. Food chemistry.

Lipmann, Dr. Fritz (Albert), Massachusetts General Hospital, Boston, Mass. *Biochemistry.* Koenigsberg, Germany, June 12, 99. M.D, Berlin, 22, Ph.D, 27. Asst. to Prof. Otto Meyerhof, Kaiser Wilhelm Inst. Biol, Berlin and Heidelberg, 27-31; Rockefeller Foundation fellow, Rockefeller Inst, 31–32; research assoc, Biol. Inst. of Carlsberg Foundation, Copenhagen, 32–39; research assoc. biol, med. sch, Cornell, 39–41; *head biochem. research lab, Mass. Gen. Hosp, 41–* A.A; Soc. Biol. Chem; Harvey Soc. Mechanism of fermentation and glycolysis; the Pasteur reaction; phosphoproteins; biochemistry of pyruvic acid oxidation; interrelation between oxidation and phosphorylation.

Lippert, Dr. A(rnold) L(eroy), Joseph Bancroft and Sons, Wilmington, Del. *Chemistry.* Kewanee, Ill, Nov. 12, 10. B.S, Illinois, 31; Ph.D, Hopkins, 34. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, *Wilmington, Del,* 34; tech. asst. to gen. supt, *Joseph Bancroft and Sons Co,* 34–36, *chief chemist, 36–;* consultant dyes, *Office Production Management,* 41, *chief dyestuff sect, div. industries operation, 42–* Chem. Soc. Commercial chemistry.

Lippincott, Dr. Samuel B(udd), 505 Mountain Ave, Westfield, N. J. *Organic chemistry.* Niwot, Colo, April 7, 05. A.B, Union Col. (Nebr), 27; M.S, Purdue, 31, Ph.D, 37. Instr. chem. and physics, New Mexico, 30–35; *research chemist,* Commercial Solvents Corp, 36–42; *Standard Oil Develop. Co,* 42– Chem. Soc. Organic chemistry.

Lippincott, Dr. Stuart W(ellington), 3720 Upton St, N.W, Washington, D. C. *Pathology.* Worcester, Mass, Nov. 6, 07. A.B, Clark, 29; Mass. State Col, 29–30; M.D, McGill, 35. Asst. bacter. and physiol, Mass. State Col, 29–30; asst. demonstrator path, path. inst, McGill, 35–36; res. pathologist, univ. hosp, and asst. instr, Pennsylvania, 37–38; demonstrator path. and lecturer prosector, med. sch, McGill and Royal Victoria Hosp, Montreal, 38–39; research fellow, *nat. cancer inst, U. S. Pub. Health Service,* 40–42, *passed asst. surgeon, 42–* Capt, M.C, U.S.A. Asn. Path. and Bact; Asn. Cancer Research; Am. Med. Asn; Soc. Exp. Biol; Path. Soc. Wash; Int. Asn. Med. Museums. Experimental pathology; vitamin deficiencies in mice; metabolism of spontaneous mammary tumors in mice; ultra-violet irradiation in mice; dietary production of gastric and hepatic lesions in rats.

Lippy, Prof. Grace E(lizabeth), Hood College, Frederick, Md. *Zoology.* Westminster, Md, Aug. 5, 01. A.B, Wilson Col, 23; A.M, Hopkins, 26. Teacher, high sch, Md, 23–24; *asst. prof. zool,* Wittenberg Col, 26–31; *Hood Col, 31–* Mem. faculty, teachers col, Hopkins, 36–37. Summers, Hopkins, 26–38. A.A. Vascular systems of rodents; precaval veins in the squirrel, guinea pig, rabbit, muskrat and rat.

Lips, Prof. Julius E(rnst), 640 Riverside Drive, New York, N. Y. *Anthropology.* Saarbrücken, Germany, Sept. 8, 95. Paris; Ph.D, Leipzig, 19, I.U.D, 21. Privat-docent anthrop. and sociol, Cologne, 26, mem. senate, 29; director and curator in chief, Rautenstrauch-Joest-Museum, Cologne, 29–33; prof. ethnol. and sociol. and head dept. anthrop, Cologne, 30–33; visiting prof. anthrop, Columbia, 34–36; prof. and head dept, Howard, 37–39; *researcher primitive law, Oxon, 39–* A.A; Anthrop. Soc; Hudson's Bay Record Soc, London; Soc. des Americanistes, Paris. Social anthropology; primitive law and the development of legal thought among primitive peoples; acculturation; primitive technology; primitive art.

Lipschutz, Dr. Louis S(anderson), Eloise Hospital, Eloise, Mich. *Psychiatry, Neurology.* Russia, May 23, 04. A.B, Michigan, 26, M.D, 30. Res. neuropsychiat, Receiving Hosp, Detroit, 31–33, out-patient dept. neurologist, 33–35; *senior psychiatrist in charge female div, Eloise Hosp, 35–; instr. clin. neur. and psychol, med. sch. and grad. sch, Wayne, 37–; major, Med. Corps, U. S. Army,* 42– Consulting psychiatrist, Camp Nahelu, Ortonville, Mich, 33– A.A; Am. Med. Asn; fel. Psychiat. Asn; assoc. Col. Physicians; Mich. Soc. Neur. and Psychol. (sec'y-treas, 39–41). Pharmacological treatment of the psychoses and psychoneuroses; mental hospital administrative problems; treatment of neurosyphilis; indications for the use of sedative and hypnotic drugs.

Lipscomb, Prof. G(uy) F(leming), 825 Sumter St, Columbia, S. C. *Chemistry.* Demopolis, Ala, Feb. 4, 84. B.S, Ala. Polytech, 08; M.S, Ph.D, Princeton, 16. Asst. prof. *chem,* Clemson Col, 11–12, *prof,* 16–20; *South Carolina, 20–* Capt. C.W.S, 17–19. Chem. Soc. Agricultural and physical chemistry; calomel standard cell; double salts in standard cells; borax and moisture in fertilizer materials; sulfur in pyrite ore; the vitality, life and germination of the cotton seed; catalytic oxidation of organic compounds; electrochemistry.

Lipsett, Dr. James C(onley), South Mountain, Pa. *Anatomy.* Catasauqua, Pa, Dec. 13, 08. B.S, Lafayette Col, 31; Ph.D, Yale, 38. Instr. gross anat, sch. med, Maryland, 37–38, asst. prof, 38–40. Assoc. Soc. Zool. Correlative studies in embryology and genetics; species hybridization in amphibia.

Lipson, Dr. H(arry) Charles, 17587 Cherrylawn Ave, Detroit, Mich. *Engineering.* Philadelphia, Pa, July 19, 07. B.S, Muhlenberg Col, 30; Ph.D, N. Y. Univ, 35. Asst. physics, col. arts, N. Y. Univ, 30–35, instr, col. eng, 32–34; *exp. engineer in charge stress anal. lab, eng. div, Chrysler Corp, 36–* Stress analysis and fatigue failures; quenching of cadmium resonance radiation by foreign gases; methods of experimental stress analysis; fatigue failure of manufactured parts.

Lipton, Dr. Morris A(braham), University of Chicago, Chicago, Ill. *Biochemistry.* New York, N. Y, Dec. 27, 15. B.S, Col. City of N. Y, 35; Ph.M, Wisconsin, 37, Ph.D, 39. *Instr. physiol, Chicago, 42–* The role of vitamin B_1 in carbohydrate metabolism; nutrition; enzymes; mechanisms of calcification.

Lischer, Dr. B(enno) E(dward), 4559 Scott Ave, St. Louis, Mo. *Orthodontia.* Mascoutah, Ill, June 27, 76. D.M.D, Washington (St. Louis), 00. Lecturer orthodontics, Washington (St. Louis), 01–24; Michigan, 24–29; *prof,* California, 30–33; *orthopedics and dean sch. dentistry, Washington (St. Louis), 33–* Pres, Am. Asn. Dental Schs, 42. Chairman sect. orthodontics, Int. Dental Cong, 26. A.A; Soc. Orthodontists (pres, 13); fel. Col. Dentistry; Asn. Dental Editors (pres, 42). Principles and methods of orthodontics; dental anomalies.

Liska, Dr. John W(illiam), 158 Wetmore St, Stow, Ohio, *Physics.* Chicago, Ill, July 20, 04. B.S, Ripon Col, 28; Ph.D, Minnesota, 34. *Research physicist, Firestone Tire and Rubber Co, Akron,* 29–30, *34–* Physical Soc; assoc. Chem. Soc. Development of testing equipment; design of tires; dynamic studies of tire stresses; electrical properties of rubber compounds; physical properties of tire cord.

Lisse, Prof. M(artin) W(illiam), 712 McKee St, State College, Pa. *Biophysical chemistry.* Bridgeton, N. J, June 2, 91. B.S, Pa. State Col, 14, Ph.D, 29; M.S, Washington (Seattle), 16. Teaching fellow, Washington (Seattle), 14–16; instr, Northwestern, 16–17; asst. prof. chem. agr, *Pa. State Col,* 17–26, assoc. prof. *biophys. chem,* 26–29, *prof, 29–* Chem. Soc. Decay of wood; cataphoresis of bacteria; effect of ultra-violet, x-rays and heat on bacteria; stability of chocolate-containing milk drinks.

Lisser, Dr. H(ans), 204 Fitzhugh Bldg, San Francisco, Calif. *Internal medicine.* San Francisco, Calif, April 12, 88. A.B, California, 07; M.D, Hopkins, 11. Res. house officer, Hopkins Hosp, 11–12; med. clinics visitor, Japan, Italy, Ceylon, Switzerland, Germany and England, 12–13; asst. med, sch. med, Washington (St. Louis), and asst. res. and res. physician, hosp, 13–14; asst. *med, med. sch, California,* 14–17, instr, 17–20, asst. clin. prof, 20–27, assoc. clin. prof, 27–31, *clin. prof, 31–* Chief ductless gland clinic, out-patient dept, California, 20–30, ductless and metabolic clinics. 30– Mem. pub. board, 'Endocrinol.' Am. Med. Asn; Asn. Study Int. Secretions (councilor, 23–35, 1st v. pres, 22, pres, 27); Am. Med. Editors' Asn; Am. Physicians; Col. Physicians; Pacific Interurban Clin. Club; Calif. Acad. Med. (v. pres, 29, pres, 30); San Francisco County Med. Soc. (chairman, med. sect. and exec. cmt, 1st v. pres). Clinical phases of endocrinology.

List, Prof. E(lmer) E(dward), 3004 Edwards St, Alton, Ill. *Public health.* Cape Girardeau, Mo, Sept. 19, 84. B.S, Mo. Sch. Mines, 10, M.S, 20. *Prof. biol. and geol. and head dept, Shurtleff Col, 23–* A.A; Pub. Health Asn; Ill. Acad. Bacteriology.

List, Dr. Geo(rge) M(ilton), 1616 S. College Ave, Ft. Collins, Colo. *Entomology.* Southport, Ind, April 14, 85. B.S, Purdue, 09; M.S, Colo. Agr. Col, 25; Ph.D, Iowa State Col, 31. *Assoc. entomologist, Exp. Sta, Colo. State Col, 13–* Chairman, West. Plant Quarantine Board, 24–26; sec'y, Rocky Mt. Conf. Entomologists, 23– A.A; Entom. Soc; Asn. Econ. Entom; Colo-Wyo. Acad. (pres, 40). Economic entomology; Cimicidae.

Litchfield, Dr. John T(homas), Jr, Johns Hopkins University Medical School, Baltimore, Md. *Pharmacology, Experimental therapeutics.* Minneapolis, Minn, Aug. 29, 12. B.S, Minnesota, 35, M.B, 36, M.D, 37. Asst. *pharmacol, med. sch, Hopkins,* 37–39, instr, 39–42, *assoc, 42–.* Soc. Pharmacol. Chemotherapy.

Litkenhous, Prof. E(dward) E(arl), Westover Drive, Nashville, Tenn. *Chemical engineering.* Louisville, Ky, May 19, 07. B.S, Louisville, 30, M.S, 31; Ph.D, Minnesota, 34. Asst, Minnesota, 31–34; research dept, Goodyear Tire and Rubber Co, Akron, Ohio, 34–36; asst. prof. *chem. eng,* Louisville, 36–38, assoc. prof, 38–41; *assoc. prof. and head dept, Vanderbilt, 41–* Summer, col. training course, Goodyear Tire and Rubber Co, Akron, Ohio, 30. Chem. Soc. (chairman, Louisville sect, 41); Chem. Eng; Ky. Acad. Effect of hydrogen ion concentration on color of lead chromate pigments; physical properties of system acetone, butanol and water; hydrogenation of nickel carbonyl; the color of lead chromate pigments; the ternary system ethyl acetate, butanol, toluene; spectroscopic determination of the major mineral constituents of grain ash.

Littauer, Dr. Sebastian B(arkann), 240 King George St, Annapolis, Md. *Mathematics.* New York, N. Y, Aug. 2, 00. Ch.E, Rensselaer Polytech, 20; A.M, Columbia, 28; Sc.D, Mass. Inst. Tech, 30. Instr. math, Hunter Col, 26–28; asst. chem. eng. and instr. math, Mass. Inst. Tech, 28–30; nat. research fellow math, Harvard, 30–32; instr, U. S. Naval Acad, 35–40, asst. prof, 40–42; senior indust. specialist, chem. office civilian supply, War Production Board, 42–43; *design engineer in direction finding, Bendix Radio, 43–* Lecturer, grad. sch, U. S. Dept. Agr, 40, 42. Math. Soc; Math. Asn. (sec'y Md-D.C-Va. sect, 38–40). Fourier series; entire functions; calculus of variations.

Littell, Capt. Frank B(owers), 3704 Porter St, N. W, Washington, D. C. **3*Astronomy.* Scranton, Pa, Feb. 21, 69. Ph.B, Wesleyan, 91, hon. Sc.D, 19; A.M, George Washington, 94. Computer, U. S. Naval Observatory, 91–96; teacher, high sch, Pa, 96–97; computer, U. S. Naval Observatory, 97–98, asst. astron, 98–01; prof. math, U. S. Navy, 01–33; *retired.* Astron. ed, 'Webster's Int. Dictionary'; 'World Book Encyclopedia.' U. S. eclipse exped, Ga, 00, Sumatra, 01, 26, Spain, 05, Los Angeles, 25. Washington-Paris longitude by radio, 13–14, world longitude, San Diego, 26. A.A; Astron. Soc. (councilor, 28–31); Geophys. Union; Astron. Soc. Pacific; Wash. Acad; Philos. Soc. Wash; Royal Astron. Soc; Soc. astron. de France; Soc. Astron. de Mex; Int. Astron. Union. Transit circle observations of the sun, moon, planets and stars; vertical circle observations of declinations of standard stars; photographic zenith tube observations for variation of latitude and for time; transoceanic longitude by radio-signals.

Little, Dr. C(larence) C(ook), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. **4*Genetics.* Brookline, Mass, Oct. 6, 88. A.B, Harvard, 10, M.S, 12, Sc.D, 14; LL.D, New Hampshire, 24, Albion Col, 25, New Mexico, 29, Colby Col, 35; Litt.D, Maine, 32. Asst. genetics, Harvard, 10–13, research fellow biol, cancer cmn, 13–19; research assoc, sta. for exp. evolution, dept. genetics, Carnegie Institution, 19–22, asst. director, 21–22; pres, Maine, 22–25; Michigan, 25–29; *director, Roscoe B. Jackson Mem. Lab, 29–* Sec'y corp, Harvard Col, 10–12, asst. dean, 16–17, overseer, 42– Mem, Cancer Council, 37–40. Trustee, Mem. Hosp. Sec'y-gen. and chairman exec. cmt, Int. Cong. Eugenics, 21; mem. exec. cmt, World Popul. Conf, Geneva, 27; pres, Race Betterment Cong, 28–29; chairman exec. council and sect. genetics, Int. Cong. Genetics, 32. A.S, 17–18, major; lieut. col, special reserve, 28–37. A.A. (chairman prize cmt, 36); Soc. Nat; Soc. Zool; Eugenics Soc. (director, pres, 28); Eugenics Research Asn; Asn. Anat; Soc. Mammal; fel. Popul. Asn; Harvey Soc; Asn. Cancer Research (pres, 31, 40); Soc. Control Cancer (managing director, 29–); Soc. Exp. Biol; Social Hygiene Asn; Birth Control League (pres, 36–); Soc. Clin. Path; Genetics Soc; Am. Acad; Galton Soc; N. Y. Acad. Med; Mich. Acad. Heredity of color in mice; inheritance of susceptibility or non-susceptibility to cancer; modification of germ plasm.

Little, Dr. Edward M(ilton), Firing Control Laboratory, Frankford Arsenal, Philadelphia, Pa. *Physics.* Cincinnati, Ohio, Oct. 14, 97. B.S, Washington (Seattle), 18, M.S, 22; Ph.D, Illinois, 26. Asst. prof. physics, Montana, 26–29; research physicist, Bell Tel. Labs, 29–31; assoc. prof. physics, Montana, 31–40; dist. ground sch. supervisor, Civil Aeronautics Admin, 40–41; *assoc. physicist,* Ordnance Dept, War Dept, 41–42; *Frankford Arsenal, 42–* Operator, engineer and program director, Univ. Mont. radio sta, 27–29. Summers, asst. prof, California, 28, research physicist, U. S. Forest Service, 34. A.A; Physical Soc; Acoustical Soc; Optical Soc; Asn. Physics Teachers. Theoretical physics; acoustics measurements; visibility through haze.

Little, Dr. Elbert L(uther), Jr, P. O. Box 405, Tahlequah, Okla. *Botany.* Ft. Smith, Ark, Oct. 15, 07. A.B, Oklahoma, 27, B.S, 32; fellow, Chicago, 29, M.S, Ph.D, 29. Asst. prof. biol, Southwest. State Teachers Col, Okla, 30–33; asst. forest ecologist, *Southwest. Forest and Range Exp. Sta, U. S. Forest Service,* 34–39, *assoc. forest ecologist, 39–* Summer, State Forest Service, Okla, 30; prof, Omnibus Col, 33; instr, Ariz. State Teachers Col, Flagstaff, 41. A.A; Ecol. Soc; Soc. Foresters; Bot. Soc; Soc. Plant Taxon; Sullivant Moss Soc; Calif. Bot. Soc. Management of piñon-juniper woodlands; dendrology; flora and vegetation of southwestern areas; forest and range ecology; water use by vegetation; bryophytes.

Little, Dr. E(lbert) P(ayson), Phillips Exeter Academy, Exeter, N. H. *Physics.* Waterville, Maine, April 25, 12. A.B, Harvard, 34, M.S, 37, Ph.D, 41. *Instr.* physics, Harvard, 34–38; Radcliffe Col, 37–38; *science, Phillips Acad. (Exeter), 38–* Manager dept. sci. apparatus, Marine Biol. Lab, Woods Hole, 42– A.A; Asn. Physics Teachers; Optical Soc; Sci. Masters Asn; Biol. Photog. Asn; Physical Soc; New Eng. Asn. Physics Teachers. Optical properties of materials in the Schumann region.

Little, Prof. Ernest, New Jersey College of Pharmacy, Newark, N. J. *Chemistry.* Johnstown, N. Y, June 9, 88. B.S, Rochester, 11, M.S, 13; A.M, Columbia, 18, Ph.D, 24. Instr. chem, Rochester, 11–14; Pratt Inst, 14–18; *prof.* anal. chem, *Rutgers,* 18–26, *chem, 26–; N. J. Col. Pharmacy, 18–, dean, 26–* Chairman cmt. on test solutions and reagents and mem. subcmts, revision cmt, U. S. Pharmacopoeia, 30–40, trustee, 40–. A.A; Chem. Soc; Leather Chem. Asn; Pharmaceut. Asn. (mem, council, first pres, north. N. J. branch); Asn. Cols. Pharmacy (past pres, chairman, exec. cmt, 37–41); Foundation Pharmaceut. Educ. (pres, 42); N. J. Chem. Soc; N. J. Pharmaceut. Asn; New Brunswick Sci. Soc. (pres, 25). Analytical, pharmaceutical and leather chemistry.

Little, Dr. G(eorge) M(eldrum), Board of Health, Edmonton, Alta, Can. *Medicine.* Pilot Mound, Man, Can, Dec. 16, 95. M.D, Manitoba, 21; Dr.P.H, 33. *Med. officer,* health dist, Red Deer, *Alta, Can,* 30–37; *Edmonton, 37–; lecturer, Alberta.* Fel. Pub. Health Asn; Can. Pub. Health Asn. Undulant fever; scarlet fever immunization.

Little, Prof. H(omer) P(ayson), Clark University, Worcester, Mass. *Geology.* Columbia, Conn, Aug. 3, 84. A.B, Williams Col, 06; fellow, Hopkins, 09–10, Ph.D, 10. Instr. geol, Colby Col, 10–12, asst. prof, 12–14, assoc. prof, 14–15, prof, 15–20; exec. sec'y div. geol. and geog, Nat. Research Council, 20–22; *prof. geol. and dean col, Clark,* 22– Lecturer, Bangor Theol. Sem, 13, 16, 19; Worcester Polytech. Inst, 32–36. Summers, instr, Hopkins, 21; U. S. Geol. Surv, 07; Md. Geol. Surv, 08, 09, 10. A.A; Geol. Soc; Geol. Soc. Wash; Boston Geol. Soc; Worcester Nat. Hist. Soc. (pres, 34–41). Coastal plain of Maryland; Pleistocene of central Maine; peneplains of the Front Range; administration.

Little, Dr. J(ames) Maxwell, Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C. *Biochemistry, Physiology.* Commerce, Ga, Dec. 16, 10. A.B, Emory, 32, M.S, 33; Washington (St. Louis), 35–36; Ph.D, Vanderbilt, 41. Asst. physiol, Emory, 33–35; instr. biochem, Vanderbilt, 36–41; *asst. prof. physiol. and pharmacol, Bowman Gray sch. med, Wake Forest Col, 41–* Physiol. Soc. Lipid absorption and transportation; cholinesterase in relation to impulse transmission at the myo-neural junction.

Little, Dr. Julian R, General Laboratory, U. S. Rubber Co, Passaic, N. J. *Organic chemistry.* Crowley, La, Sept. 13, 08. B.S, Southwest. La. Inst, 31; M.S, Vanderbilt, 33; Ph.D, Illinois, 37. Instr. chem, Southwest. La. Inst, 31–32; *research chemist, gen. lab, U. S. Rubber Co, 37–* Chem. Soc. Rubber chemistry.

Little, Prof. Malcolm E(dgeworth), New York University, New York, N. Y. *Biology.* Louisville, Ga, Aug. 6, 93. A.M, Columbia, 25. Asst. zool, Columbia, 23–24; instr. biol, *N. Y. Univ,* 24–27, *asst. prof,* 27–30, *physical educ, 30–* A.A; Soc. Parasitol; N. Y. Acad. Experimental anatomy; tissue transplantation.

Little, Prof. Noel C(harlton), 8 College St, Brunswick, Maine. *Physics.* Brunswick, Maine, Dec. 25, 95. A.B, Bow-

doin Col, 17; A.M, Harvard, 20, Ph.D, 23. Instr. *physics, Bowdoin Col,* 19–21; asst. prof, 21–26, *prof, 26–; officer in charge, U. S. Naval Training Sch.* Guggenheim Mem. Foundation fellow, 28–29. Summer, instr, Harvard, 24. A.A; fel. Physical Soc; Asn. Physics Teachers; Soc. Rheol; Radio Eng; Deuts. Physik. Gesell. Electric oscillations; vacuum tubes; galvanomagnetic and thermomagnetic effects.

Little, Prof. V(an) A(llen), Agricultural and Mechanical College of Texas, College Station, Texas. *Entomology.* Harleton, Texas, Sept. 20, 98. A.B, Sam Houston Col, 22; M.S, Agr. and Mech. Col. Texas, 25, Ph.D, 43. Asst. prof. *entom, Agr. and Mech. Col. Texas,* 23–27, assoc. prof, 27–37, *prof, 37–* Asn. Econ. Entom; Texas Entom. Soc; Texas Acad. Taxonomy; insecticides; cotton insects; Orthoptera; Locustidae.

Littlefield, Edward W(inchester), State Conservation Department, Albany, N. Y. *Forestry.* Winchester, Mass, May 26, 97. Harvard, 17–18; B.S, Michigan, 21, M.S, 23. Asst. forest pathologist, *State Conservation Dept, N. Y,* 23–32, *supt. forest investigations, 32–* Soc. Foresters (chairman N. Y. sect, 38, 39). Ribes ecology; reforestation.

Littlefield, John B(artlett), 6015 S. Ashland Ave, La Grange, Ill. *Chemistry.* Philadelphia, Pa, Aug. 21, 05. A.B, Hopkins, 29. Junior chemist, U. S. Bur. Mines, 29–35, asst. chemist, 35–41; *indust. hygienist, Am. Brake Shoe and Foundry Co, 41–* Chem. Soc. Gas analysis; thermal decomposition of plastic insulators and of chlorinated hydrocarbons; gas detectors; gas masks and dust respirators; determination of atmospheric particulate matter.

Littleford, Dr. Robert A(nthony), University of Maryland, College Park, Md. *Zoology.* Washington, D. C, July 16, 10. B.S, Maryland, 33, M.S, 34, Ph.D, 38. Assoc. *zool,* Chesapeake Biol. Lab, 38–39; *instr,* Marquette, 39–42; *Maryland, 42–* Aquatic ecology; embryology of Coelenterata; histology.

Littler, Dr. H(arold) G(ilbert), 1519 Pine Ave, W, Montreal, Que, Can. *Inorganic and physical chemistry.* Liverpool, Eng, May 17, 01. B.Sc, Liverpool, 23, Ph.D, 26. Research chemist, Imp. Chem. Indust, Ltd, 28–35; manager research and develop, Canadian Indust, Ltd, 35–40; asst. gen. manager, Defense Industries, Ltd, 40–42; *gen. manager chem. group, Can. Industries, Ltd, 42–* Chem. Eng; fel. Can. Inst. Chem; Royal Econ. Soc; Soc. Chem. Indust. Solid carbon dioxide; separation of gases.

Littleton, Dr. Jesse T(albot), Corning Glass Works, Corning, N. Y. *Physics.* Belle Haven, Va, July 7, 87. A.B, Southern (Ala), 06; fellow, Tulane, 06–08, A.M, 08; Wisconsin, 08–09, Ph.D, 11. Asst. physics, Southern (Ala), 05–06; Wisconsin, 09–11; instr, Michigan, 11–13; chief physical lab, *Corning Glass Works,* 13–40, *asst. director research, 40–* A.A; fel. Physical Soc; Optical Soc; fel. Elec. Eng; fel. Ceramic Soc; fel. N. J. Soc. Glass Technol. Optical constants of metals, alloys and steels; mechanical and physical properties of glass; electrical conductivity of glass.

Littleton, Dr. Leonidas R(osser), 1611 N. Greenbrier St, Arlington, Va. *Chemistry.* Belle Haven, Va, Aug. 1, 89. A.B, Southern (Ala), 07, 07–08; A.M, Tulane, 10; fellow, Illinois, 10–12, Ph.D, 12. Asst. science, Southern (Ala), 07–08; teaching fellow math, Tulane, 08–10; instr. chem, Grinnell Col, 12–13; prof, Emory and Henry Col, 13–17; asst. chemist, Picatinny Arsenal, 17–18; chief chemist, Mathieson Alkali Works, 18–19; chemist, Nat. Aniline and Chem. Co, 19–22; prof. chem, Emory and Henry Col, 22–41; *prin. chemist explosives, Ordnance Dept, War Dept, 41–* Chairman chem. educ, Va. Senate, 25–28. A.A; Chem. Soc. (councilor, 33, chairman, northeast. Tenn. sect, 36); Va. Acad. Rearrangements in the camphor series; high explosives; filtration; application of physical chemistry to problems in analytical chemistry.

Littman, Dr. Joseph B(enjamin), Packard Electric Division of General Motors Corp, Warren, Ohio. *Organic chemistry.* Newark, N. J, Feb. 28, 04. B.S, Akron, 26; M.S, Ohio State, 28, fellow, 29, Ph.D, 30. Research chemist, A. O. Smith Corp, 30–32; *chief chemist, Packard elec. div, Gen. Motors Corp, 32–* Chem. Soc. Condensations of secondary amines with naphthols and aldehydes; resolution of asymmetric amines; contact catalysis; automotive cable.

Littmann, Dr. Edwin R(obert), Stanco, Inc, Standard Oil Co. of N. J, Linden, N. J. *Organic chemistry.* St. Louis, Mo, Dec. 1, 99. B.S, Illinois, 22, M.S, 23, Ph.D, 29. Research chemist, Commercial Solvents Corp, 24–27; Campbell Soup Co, 30–31; Hercules Powder Co, 29–30, 31–39; *mem. staff, Stanco, Inc, Standard Oil Co, N. J, 39–* Ring formation; synthetic resins; terpenes; polymerization; petroleum by-products.

Litzenberg, Dr. J(ennings) C(rawford), Nicollet Clinic, 1009 Nicollet Ave, Minneapolis, Minn. *Obstetrics, Gynecology.* Waubeek, Iowa, April 6, 70. B.S, Minnesota, 94, M.D, 99. Instr. obstet, *Minnesota,* 01–07, asst. prof, 07–10, assoc. prof. *gynec. and obstet,* 10–14, prof. and head dept, 14–38, *emer. prof, 38–,* chief, Univ. Hosp, 14–38. Asst. physical director, Minnesota, 97–08. Fel. Asn. Obstet, Gynec. and Abdom. Surg. (pres, 32); fel. Gynec. Soc. (v. pres. and councilor, 20, pres, 40); fel. Col. Surg; Am. Med. Asn; Minn. Acad. Med. (pres, 32); Hennepin County Med. Soc. (pres, 17). Ectopic gestation; sterility; pathology of interstitial pregnancy; basal metabolism in sterility; missed abortion.

Litzinger, Prof. Marie, Mt. Holyoke College, South Hadley, Mass. *Mathematics.* Bedford, Pa, 99. A.B, Bryn Mawr Col, 20, A.M, 22; Rome, 23–24; Ph.D, Chicago, 34. Teacher, Devon Manor, Pa, 20–22; Greenwich Acad, 24–25; instr. and asst. prof. *math, Mt. Holyoke Col,* 25–37, assoc. prof, 37–42, *prof, 42–, chairman dept, 37–* Math. Soc; Math. Asn; Asn. Teachers Math. New Eng. (pres, Conn. Valley sect, 40). Substitution quantics and residual polynomials for composite moduli.

Live, Dr. I(srael), 5703 Woodcrest Ave, Philadelphia, Pa. *Veterinary science.* Austria, April 26, 07. Vienna, 27–28; V.M.D, Pennsylvania, 34, A.M, 36, Ph.D, 40. Instr. *path, Pennsylvania,* 34–41, *assoc, 41–* Vet. Med. Asn; Soc. Bact; Keystone Vet. Med. Asn. Filariasis; blackleg-aggressin; brucellosis.

Lively, Prof. Chauncy C(linton), Waynesburg College, Waynesburg, Pa. *Education, Psychology.* Greene Co, Pa. Dec. 14, 83. B.S, Waynesburg Col, 09; A.M, Oskaloosa Col, 17; Ph.D, Central, 23; Pittsburgh; Chicago. Prin, high sch, Pa, 09–28; prof. educ, *Waynesburg Col,* 28–29, *head dept. psychol. and educ, 28–,* dean, 29–39, *director summer session, 30–* A.A; Soc. Adv. Educ; N. Y. Acad; Pa. Acad; British Inst. Philos; fel. Royal Soc. Arts. Effects of interest, praise, censure and mental fatigue upon learning; continuity of effort in typing during measured interval; factors affecting the variability of the intelligence quotient; synesthesia.

Livermore, Dr. Geo(rge) R(obertson), University of Tennessee, Memphis, Tenn. *Urology.* Memphis, Tenn, Sept. 20, 78. M.D, Virginia, 99. Asst. demonstrator histol, Virginia, 97–98, anat, 99–00; *prof.* genito-urinary diseases, col. physicians and surg, Memphis, 06–11; *urol, Tennessee, 11–* Consulting urologist, Baptist Mem, Memphis Gen. and St. Joseph's Hosps, Memphis. Urol. Asn. (pres, 32, southeast. branch, 37); Asn. Genito-Urinary Surg; Am. Med. Asn; fel. Col. Surg; Am. Med. Editors' Asn; Acad. Polit. Sci; South. Med. Asn. (chairman, urol. sect, 26); South. Surg. Asn; Tenn. Med. Asn. (v. pres, 17); Memphis Urol. Soc. (pres, 25); Memphis and Shelby County Med. Soc. (pres, 27); Int. Urol. Asn. Gonorrhea and kindred affections in the male; urological instruments; urological technique; surgery.

Livermore, Prof. J(osiah) R(andall), Cornell University, Ithaca, N. Y. *Plant breeding.* Watertown, Mass, Dec. 16, 90. B.S, Cornell, 13, Ph.D, 27. Exten. instr. *plant breeding, Cornell,* 22–28, research instr, 28–29, asst. prof, 29–39, *assoc. prof, 39–* A.A; Soc. Agron; Potato Asn. (pres, 31–33). Field plot technique; improvement of the potato by breeding.

Livermore, K(enneth) C(arter), Honeoye Falls, N. Y *Agriculture.* Watertown, Mass, Jan. 3, 86. B.S, Cornell, 09. Instr. farm crops, Cornell, 09–10, investigator, 10, asst. prof. farm management, 10–11, prof, 13–20; *pedigreed seed grower, 20–* Agricultural surveys; business analysis of successful farms.

Livesay, Prof. E(dward) A(lexander), West Virginia University, Morgantown, W. Va. *Animal husbandry.* Frankford, W. Va, Oct. 22, 89. B.S, Va. Polytech, 12, M.S, 16: A.M, Missouri, 17; M.S, Harvard, 25, Sc.D, 28. Instr, Va. Polytech, 14–16; asst. county agent leader, Missouri, 17–19; *prof. animal husbandry, West Virginia, 19–* Soc. Animal Production; Genetic Asn. Genetics and nutrition.

Livesay, Dean Thayne M(iller), University of Hawaii, Honolulu, Hawaii. *Psychology.* McCune, Kans, Sept. 29, 94. A.B, Pacific (Oregon), 17; A.M, Washington (Seattle), 21, Ph.D, 31; Stanford. Teacher, high schs, Oregon and Wash,

19–20; *prof.* educ. and psychol, *Hawaii*, 24–39, *psychol*, *39–*, director summer sessions, 27–39, admissions, 31–39, *dean col. arts and sciences, 39–* U.S.N, 17–19. A.A; Psychol. Asn; Hawaiian Acad. Educational measurement; individual differences.

Livingood, Dr. J(ohn) J(acob), Harvard University, Cambridge, Mass. *Physics.* Cincinnati, Ohio, March 7, 03. A.B, Princeton, 25, A.M, 27, Ph D, 29. Instr. *physics*, Palmer physical lab, Princeton, 29–32; research assoc, California, 32–38; *faculty instr. and tutor, Harvard, 38–* Physical Soc. Atomic spectra; nuclear physics.

Livingston, Prof. A(lfred) E(rwin), Temple University School of Medicine, Philadelphia, Pa. *Pharmacology.* Frost, Ohio, Dec. 6, 83. B.S, Ohio (Athens), 10, M.S, 11; Ph.D, Cornell, 14. Instr. physiol, Cornell, 11–14; junior pharmacologist, U. S. Dept. Agr, 14–16; assoc. physiol, col. med, Illinois, 16–18; passed asst. surgeon and assoc. pharmacologist, hygienic lab, U. S. Pub. Health Service, 18–21; *asst. prof. pharmacol, sch. med*, Pennsylvania, 21–29; *Temple, 29–* Soc. Pharmacol; Physiol. Soc. Internal secretions; oil of Chenopodium; benzyl-alcohol; mercury fulminate; tricresol; carvacrol; renal function; blood flow; morphine; verodigen; bronchi; ammonium iodides; local anesthetics.

Livingston, Prof. Burton E(dward), Riderwood, Md. *²*Plant physiology.* Grand Rapids, Mich, Feb. 9, 75. B.S, Michigan, 98; Ph.D, Chicago, 01. Asst. bot, Michigan, 95–98; instr, high sch, Ill, 98–99; asst. plant physiol, Chicago, 99–04, assoc, 04; soil expert, bur. soils, U. S. Dept. Agr, 05–06; mem. staff bot. research, desert lab, Carnegie Institution, 06–09; prof. *plant physiol, Hopkins*, 09–40, *emer. prof, 40–*, forest ecol, 30–40, director plant physiol. lab, 13–40. Field work, Mich. Geol. Surv, 01; collaborator, U. S. Forest Service, 02; Carnegie research asst, 04. Managing ed, 'Physiol. Researches,' 13–23; ed. in chief, 'Bot. Abstracts,' 18–20. Nat. Research Council, 17–18, cmt. on for. relations, 20–30. Walker prize, Boston Soc. Nat. Hist, 03. A.A. (v. pres, G, 18, permanent sec'y, 20–30, gen. sec'y, 31–34, chairman exec. cmt, 41–); Soc. Nat. (pres, 34); Soc. Plant Physiol. (v. pres, 25, pres, 35); Bot. Soc. (v. pres, 08); Ecol. Soc; Am. Acad; Philos. Soc. Physical aspects of plant physiology; chemical stimulation; plant distribution; relation of soils to plant growth; water relations of plants; salt nutrition of plants.

Livingston, D(ouglas) C(lermont), Comox, B. C, Can. *Geology.* London, Eng, June 12, 77. Stanford, 05; B.Sc, McGill, 06. Eng. and geol. work, 06–11; assoc. and prof. mining eng, Idaho, 11–14, prof. geol, 14–20; Oregon State Col, 20–29; Idaho, 30–31, prof. geol, 31–36; *consulting geologist, 36–* Field geologist, Bur. Mines and Geol, Idaho and Oregon. Geology and ore deposits of Idaho and eastern Oregon; structural geology of eastern Oregon, western Idaho and Oregon coast range; relief model of Rocky Mountains.

Livingston, Dr. Ernest M(acCrackan), Apt. 5A, 150 W. 80th St, New York, N. Y. *Physical chemistry.* Cassel, Germany, Sept. 21, 02. B.S, N. Y. Univ, 25, M.S, 26, Ph.D, 31. Teaching fellow, N. Y. Univ, 25–26; Zelco Products Co, 27–28; N. Y. Edison Co, 28–29; *instr. chem, Brooklyn Col, Col. City of N. Y, 29–* A.A; Chem. Soc; Soc. Chem. Indust. Gas reactions.

Livingston, Dr. H(erbert) K(lossner), 410 S. Clifton Ave, Sharon Hill, Pa. *Physical chemistry.* Brownsville, Texas, Aug. 21, 18. B.S, Texas, 37, Shell Oil fellow, 37–39, M.S, 39; du Pont fellow, Chicago, 39–40, Ph.D, 41. Asst. anal. chem, Chicago, 40–41; *research chemist, E. I. du Pont de Nemours and Co, 41–* Inst. Min. Eng; Chem. Soc. Surface chemistry of petroleum reservoirs; free energy of solid surfaces; adsorption isotherms; acetate rayon; neoprene latex.

Livingston, Dr. J(esse) E(lsmer), University of Nebraska, Lincoln, Nebr. *Plant pathology.* Weeping Water, Nebr, Aug. 3, 09. B.S, Nebraska, 33, A.M, 35; Ph.D, Missouri, 40. *Asst. plant pathologist and exten. plant pathologist, Nebraska, 39–* Phytopath. Soc. Cereal diseases.

Livingston, Prof. L(uzern) G(ould), Swarthmore College, Swarthmore, Pa. *Botany.* Randolph, Wis, April 1, 05. A.B, Lawrence Col, 29; Ph.D, Wisconsin, 33. Nat. research fellow, 33–34; instr. *bot*, Harvard, 34–38; *asst. prof, Swarthmore Col, 38–* Bot. Soc. Plant physiology; virus diseases of plants.

Livingston, Prof. M(ilton) Stanley, 11 Stella Road, Belmont, Mass. *⁶*Physics.* Brodhead, Wis, May 25, 05. A.B, Pomona Col, 26; A.M, Dartmouth Col, 28; Ph.D, California, 31. Instr. *physics*, Dartmouth Col, 28–29; California, 31–32, research assoc, 32–34; instr, Cornell, 34–36, *asst. prof*, 36–38; *Mass. Inst. Tech, 38–* Fel. Physical Soc. Research and development of the cyclotron; nuclear physics.

Livingston, Penn (Poore), U. S. Geological Survey, Washington, D. C. *Hydrology.* Elk Mound, Wis, Oct. 14, 99. B.S, Wisconsin, 22. From junior to *hydrol. engineer, div. ground water, U. S. Geol. Surv, 22–* Civil Eng; Asn. Eng; Geophys. Union; Asn. Mil. Eng. Hydraulics; hydrology; locating salt water leaks in water wells; ground water resources.

Livingston, Dr. Robert S(impson), 2319 College Ave, Berkeley, Calif. *Physics.* Calif, Sept. 20, 14. A.B, Pomona Col, 35; A.M, California, 41, Ph.D, 41. Teaching asst. *physics*, Pomona Col, 35–36; *California*, 36–39, asst, *radiation lab*, 39–41, *research fellow, 41–* Physical Soc. Artificial radio activity; disintegration products.

Livingston, Prof. Robert (Stanley), University of Minnesota, Minneapolis, Minn. *Physical chemistry.* San Francisco, Calif, Aug. 11, 98. B.S, California, 22, fellow, 22–23, M.S, 23, Ph.D, 25. Teaching fellow, California, 23–25; Bruce Howard Mem. fellow, Polytech. Inst, Copenhagen, 25–26; instr. chem, California, 26–27; asst. prof. *physical chem, Minnesota*, 27–37, *assoc. prof, 37–* Lalor Foundation fellow, Chicago, 38–39. Assoc. ed, 'Jour. Physical Chem,' 42– A.A; Chem. Soc; Minn. Acad. Reaction kinetics and photochemistry.

Livingston, Robert Teviot, The Oaks, Roslyn Estates, R.F.D, L.I, N. Y. *Engineering.* Indianapolis, Ind, July 7, 96. M.E, Rensselaer Polytech, 17. Instr. mech. eng, *Columbia*, 21–25, asst. prof, 25–33, *indust. eng*, 33–38, *assoc. prof, 39–* Asst. operating engineer, research engineer and director of research, E. L. Phillips and Co, 24–33; chief engineer and v. pres, Hudson Valley Gas Corp. and Walkill Valley Gas Co, 32–33; with L. I. Lighting Co, 35– Ensign, U.S.N, 17–19. Soc. Adv. Management (past v. pres); Mech. Eng; Am. Acad. Polit. and Social Sci; Acad. Polit. Sci. Mechanical engineering; utility company administration and economics.

Ljung, Prof. H(arvey) A(lbert), Guilford College, N. C. *Chemistry.* Greensboro, N. C, Oct. 26, 05. B.S, North Carolina, 27, M.S, 28, Ph.D, 31. *Prof. chem, Guilford Col, 31–* Chem. Soc; N. C. Acad. Analytical chemistry; a system of qualitative analysis for the anions; a volumetric determination for sodium and sulfites; a qualitative test for selenium.

Llewellyn, Dr. F(rederick) B(ritton), 44 Plymouth Road, Summit, N. J. *Physics.* New Orleans, La, Sept. 16, 97. M.E, Stevens Inst. Tech, 22; Ph.D, Columbia, 28. *Engineer, Bell Tel. Labs, 23–* Special lecturer, Stevens Inst. Tech, 39–40. Morris Liebmann prize, 35. A.A; fel. Physical Soc; fel. Radio Eng. (director, 38–). Radio telephony; vacuum tube and amplifier circuits; noise in vacuum tubes; thermionics at ultra-high frequencies; constant frequency oscillators; circuit research.

Lloyd, Dr. David P(ierce) C(aradoc), Yale University School of Medicine, New Haven, Conn. *Physiology.* Auburn, Ala, Sept. 22, 11. B.Sc, McGill, 32; Rhodes scholar, Oxford, 33, B.A, 35, Ph.D, 38. Demonstrator physiol, Oxford, 35–36; asst. med. research, Toronto, 36–38, assoc, 38–39; asst, Rockefeller Inst, 39–41, assoc, 41–43; *asst. prof. physiol, sch. med, Yale, 43–* Reeve prize, Toronto, 38. A.A; Physiol. Soc; N. Y. Acad. Synaptic transmission in sympathetic ganglia; conduction and synaptic transmission in spinal cord; the pyramidal tract; central inhibition kinetics of action in spinal reflexes.

Lloyd, E(dwin) Russell, Midland, Texas. *Geology.* Lloydsville, W. Va, Nov. 3, 82. A.B, Ohio Wesleyan, 05; Rhodes scholar, Oxford, 05–08, B.A, 08, Burdette Coutts scholar, 08–10; fellow, Chicago, 09–11. Junior geologist, U. S. Geol. Surv, 11–12, asst. geologist, 12–13, assoc. geologist, 13–18; chief geologist, Sinclair Wyoming Oil Co, 19–21; Mid-Kansas Oil and Gas Co, 21–23; Marine Oil Co, 23–24; N. Y. Oil Co, 24–25; consulting geologist, 26–27; dist. geologist, Roxana Petrol. Corp, 27–28; *consulting geologist, Midland, 28–* Geologist, Sinclair Cent. Am. Oil Corp, 17–18. V. chairman coal sect, Land Classification Board, 15–17. Geol. Soc; Asn. Petrol. Geol. Petroleum geology; stratigraphy.

Lloyd, Prof. Everton A, University of British Columbia, Vancouver, B. C, Can. *Poultry husbandry.* Aurora, Ont, 87. B.S.A, Saskatchewan, 13; M.S, State Col. Wash, 25. *Prof. poultry husbandry and head dept, British Columbia.* Poultry

Sci. Asn; Can. Soc. Tech. Agr. Feeding for egg production; poultry farm management; cost of egg production.

Lloyd, Prof. Francis E(rnest), Carmel, Calif. **1Botany.* Manchester, Eng, Oct. 4, 68. Lafayette Col, 87–89; A.B, Princeton, 91, A.M, 95; Munich, 98; Bonn, 01; hon. D.Sc, Wales, 33, Masaryk, 38. Instr. biol, Williams Col, 91–92; prof, Pacific, 92–97; adj. prof, Teachers Col, Columbia, 97–06; investigator, desert lab, Carnegie Institution, 06; cytologist, Exp. Sta, Arizona, 07; director dept. investigation, Continental-Mex. Rubber Co, 07–08; *special expert, U. S. Rubber Co,* 08, *18–;* prof. *bot,* Ala. Polytech, 08–12; MacDonald prof, *McGill,* 12–34, *emer. prof, 34–* Ed, 'Plant World,' 05–; assoc. ed, 'Am. Rev. Trop. Agr,' 09– Botanist, Lumholtz Mex. exped, 90. Hon. mem. Phila. Col. Pharmacy. A.A. (sec'y, G, 02–07, v. pres, 23); Bot. Soc; hon. life mem. Soc. Plant Physiol; Torrey Bot. Club (assoc. ed, 'Bul,' 98–02, treas, 02–06); fel. N. Y. Acad; fel. Royal Soc. Can. (v. pres, 31, pres, 32); fel. Linnean Soc. London; hon. fel. Bot. Soc. Edinburgh; cor. mem. Czechoslovak. Bot. Soc; cor. mem. Centro de Sciencias, Letras e Artes, Campinas, Brazil. Embryology; anatomy; morphology; transpiration and physiology of stomata; rubber culture; botanical pedagogics; general physiology; fluorescent pigments; reproduction in Spirogyra; Vampyrella; periodic precipitation; carnivorous plants; Utricularia.

Lloyd, Prof. Howard H(untley), Goucher College, Baltimore, Md. *Chemistry.* Baltimore, Md, Aug. 1, 92. A.B, Hopkins, 12, Ph.D, 15. Asst. *chem,* Hopkins, 15–16; instr, *Goucher Col,* 16–17, assoc. prof. and acting head dept, 17–19, *prof. and head dept, 19–, sec'y faculty, 32–* Lecturer, Hopkins, 16–17. A.A; Chem. Soc. Electrical conductance of alcoholic solutions.

Lloyd, Dr. J(ohn) T(homas), 6624 Kennedy Ave, Kennedy Heights, Cincinnati, Ohio. *Pharmacy.* Newport, Ky, April 30, 84. A.B, Cornell, 09, Ph.D, 20; Pharm.D, Cincinnati, 25. Instr. biol, Cornell, 09–11, limnol, 12–20; *pres, John T. Lloyd Labs, Inc.* A.A; Pharmaceut. Asn. Entomology; plant pharmacy.

Lloyd, Prof. J(ohn) W(illiam), University of Illinois, Urbana, Ill. *Horticulture, Agricultural economics.* St. Charles, Ill, Feb. 19, 76. B.S, Wheaton Col. (Ill), 97; B.S.A, Cornell, 99, M.S.A, 03; Ph.D, California, 17. Instr. hort, *Illinois,* 99–02, olericulture, 02–03, asst. prof, 03–09, assoc. prof, 09–11, prof, 11–39, prof. hort. and acting head dept, 39, *prof. fruit and veg. marketing, 37–,* asst. chief hort, *Exp. Sta,* 02–09, olericulture, 09–11, *chief,* 11–39, *fruit and veg. marketing, 30–,* hort, 39. Soc. Hort. Sci. (v. pres, 13); Pomol. Soc. Spraying, fertilizing and marketing of fruits and vegetables; culture of vegetables; cooperative marketing; foreign trade in fruits and vegetables.

Lloyd, Dr. Paul E(ugene), California Institute of Technology, Pasadena, Calif. *Physics.* Los Angeles, Calif, Aug. 22, 07. A.B, Stanford, 29; Ph.D, Calif. Inst. Tech, 37. Instr. *physics,* Oberlin Col, 38–39; *research fellow, Calif. Inst. Tech, 39–* Physical Soc. Pressure effects in spectral lines.

Lloyd, S(herman) C(oxe), Burnside Laboratory, E. I. du Pont de Nemours and Co, Penns Grove, N. J. *Engineering.* New York, N. Y, Sept. 27, 87. B.S, Swarthmore Col, 08; Eidgen. Polytech, Zurich, Switzerland, 09; K.T.H, Charlottenburg, Germany, 10. Metropolitan St. Ry. Co, New York, 10–12; asst. ballistic engineer, *E. I. du Pont de Nemours and Co,* 12–21, ballistic engineer, 21–25, asst. director sales, 25–27, *director Burnside lab, 27–*

Lloyd, Prof. Stewart J(oseph), University of Alabama, University, Ala. *Chemistry.* Hamilton, Ont, Can, Sept. 12, 81. B.Sc, Toronto, 04; M.Sc, McGill, 06; Ph.D, Chicago, 10; hon. Sc.D, Alabama, 38. Demonstrator *chem,* McGill, 04–06; asst, Chicago, 08–09; adj. prof, *Alabama,* 09–11, *prof. and director lab, 11–, dean sch. chem, metal. and ceramics, 29–,* acting prof. geol, 32–40; asst. state geologist, *Ala,* 27–39, *acting state geologist, 39–* Chem. Soc; Chem. Eng. (chairman Ala. cmt. membership, 35); Inst. Chem. (assoc. ed, 35); Ceramic Soc; Electrochem. Soc; Ala. Acad; Can. Inst. Chem; Soc. Chem. Indust. Gt. Britain. Physical and metallurgical chemistry; radioactivity; chemical engineering; geology.

Lloyd, Tom Cox, Robbins and Myers, Inc, Springfield, Ohio. *Electrical engineering.* Emporium, Pa, May 8, 01. B.S, Carnegie Inst. Tech, 23. Instr. elec. eng, W. Va, 23–25; Ohio State, 25–29; prof. in charge, Antioch Col, 29–36; develop. engineer, *Robbins and Myers, Inc,* Springfield, Ohio, 36–37, asst. chief engineer, 37–39, *chief engineer, 39–* Elec. engineer, Columbus, Ohio, 25–29; lecturer, Antioch Col, 27–29; design and develop. engineer, Robbins and Myers, Inc, 35–36. Elec. Eng. Alternating current machines; electrical equipment.

Lloyd, Prof. Trevor, Dartmouth College, Hanover, N. H. *Geography.* London, Eng, May 4, 06. B.S, Bristol (England), 29, Dipl.Educ, 31; London, 31; fellow, Clark, 38–40, Ph.D, 40. Geog. specialist, Winnipeg Sch. Board, 36–38, 40–41; *asst. prof. geog,* Carleton Col, 42; *Dartmouth Col, 42–* Summers, lecturer, Manitoba, 37, 38; Rochester, 39. Fel. Am. Geog. Soc; Can. Inst. Int. Affairs; fel. Royal Geog. Soc. Regional geography; development of the arctic and sub-arctic of North America; political geography of Europe.

Lloyd, William A(llison), 1372 National Press Bldg, Washington, D. C. *Agriculture.* Sparta, Ohio, Sept. 9, 70. B.S, 90; LL.B, Texas, 93. Ed, 'Victoria Advocate,' 94–96; lawyer, Texas, 94–01; farmer and stockman, Ohio, 01–09; experimentalist, Ohio Exp. Sta, 09–13; agriculturist in charge county agent work, north. and west. states, states relation service, U. S. Dept. Agr, 13–22, regional agent in charge exten. work, west. sect, 22–28; dean agr. exten. service, Hawaii, 28–29; prin. agriculturist in charge exten. service west. states, Alaska and Hawaii, U. S. Dept. Agr, 29–40; investigating adult educ, Peru, Chile, Argentina and Brazil, 40; *in charge Washington office, Asn. Land-Grant Cols. and Univs, 41–* Mem. cmt. devise land policy system for Am. Indians, Nat. Resources Board, 35; agr. adviser, Joint Preparatory Cmn. on P. I, 37. Ohio Archeol. and Hist. Asn. Finances, administration, organization and methods in extension work; history of Ohio agriculture; sweet clover; farm poultry; elements of successful farming.

Lloyd, Dr. William R(eese), Duquesne University, Pittsburgh, Pa. *Phytochemistry.* Pueblo, Colo, Sept. 26, 13. A.B, Colorado, 34, B.S, 36; M.S, North Carolina, 38; Ph.D, Minnesota, 41. Asst. *pharmacy,* North Carolina, 36–38; teaching asst, Minnesota, 38–41; *asst. prof, Georgia,* 41–42; *Duquesne, 42–* Chem. Soc; Pharmaceut. Asn. Phytochemical study of Kalmia angustifolia L. and Leptotaenia multifida Nuttall.

Lloyd-Jones, Dr. Orren, 1930 Wilshire Blvd, Los Angeles, Calif. *Medicine.* Hillside, Wis, 85. B.S, Wisconsin, 08, M.S, 11, Ph.D, 13; Chicago, 22, M.D, Rush, 27; Vienna, 28–29. Asst. exp. breeding, Wisconsin, 11–13; asst. prof. animal husbandry, Iowa State Col, 13–14, assoc. prof, 14–15; director, Sippy Farms, 18–22; *practising physician, 30–; lecturer pub. health, California at Los Angeles, 37–* Am. Med. Asn; Pub. Health Asn; Soc. Nat; Soc. Zool. Internal medicine; pigmentation inheritance in pigeons and swine; heredity in hybrid cattle; growth in children.

Lobeck, Prof. Armin Kohl, 251 Sunset Ave, Englewood, N. J. *Geology.* New York, N. Y, Aug. 16, 86. A.B, Columbia, 11, A.M, 13, Ph.D, 17. Instr. bot, Phila. Col. Pharmacy, 11–14; *geol,* Columbia, 16–18; asst. prof, Wisconsin, 19–23, assoc. prof, 23–29; *prof, Columbia, 29–* Physiographical study, P. R, 16–17; with Am. Geog. Soc, 17–18; Am. Cmn. to Negotiate Peace, Paris, 18–19. A.A; Geol. Soc; Asn. Geog; fel. N. Y. Acad. General physiography; physiography of Puerto Rico and the United States; physiography of state parks.

Locatcher-Khorazo, Dr. Devorah, 630 W. 168th St, New York, N. Y. *Bacteriology.* Astrakhan, Russia, Oct. 23, 01. M.D, Imp. Univ. Saratov, 23. *Asst. bacter, col. physicians and surg, Columbia,* 28–30, *33–;* res. bacteriologist, *Presb. Hosp,* 30–33, *asst. bacteriologist, eye service, Vanderbilt clinic, 33–* Asn. Immunol; Asn. Research Ophthal; Am. Russian Med. Soc; N. Y. Acad. Immunity and allergy; infection in relation to ophthalmology.

Locher, Dr. Gordon L(ee), Bartol Research Foundation, Swarthmore, Pa. *Physics.* Kansas City, Mo, Sept. 28, 04. A.B, Park Col, 25; fellow, Rice Inst, 25–28, 30–32, A.M, 27, Ph.D, 32. Asst. prof. physics, Miami (Ohio), 28–30; nat. research fellow, *Bartol Research Foundation,* 34, *Bartol research fellow, 34–* Fel. Physical Soc; Geophys. Union. Cosmic rays; x-rays; gamma rays; ultra-violet light; neutrons and nuclear disintegration; Geiger-Müller counters; Wilson cloud machines; disintegrations; transformation of quanta into positron-negative pairs.

Lochhead, Dr. A(lan) Grant, Central Experimental Farm, Ottawa, Ont, Can. *Bacteriology.* Galt, Ont, June 21, 90. B.A, McGill, 11, M.Sc, 12, Ph.D, 19. Lecturer bacter, Macdonald Col, McGill, 18–19; bacteriologist-chemist, Can. Milk

Products, Toronto, 19–21; Malt Products Co, 21–22; lecturer biochem, Alberta, 22–23; *Dom. agr. bacteriologist, cent. exp. farm and Science Service, Can. Dept. Agr, Ottawa, 23–* A.A; Soc. Bact; Can. Soc. Tech. Agr; Can. Pub. Health Asn; fel. Royal Soc. Can. Agricultural and food bacteriology; soil microbiology; dairying.

Lochhead, Dr. John H(utchison), University of Vermont, Burlington, Vt. *Zoology.* Montreal, Que, Can, Aug. 7, 09. M.A, St. Andrew's, 30; B.A, Cambridge, 32, Bachelor scholar, 33, Ph.D, 37. Cambridge Univ. Table, Marine Zool. Sta, Naples, 34, 35; sr. curator, museum zool, Cambridge, 35–38, instr. zool, univ, 36–38; fellow by courtesy, Hopkins, 40; assoc. biologist, Va. Fisheries Lab, and lecturer biol, Col. William and Mary, 41–42; *instr, Vermont, 42–* Aquatic biology; physiology of lower Crustacea.

Lochhead, Dr. Margaret S(zabó), University of Vermont, Burlington, Vt. *Zoology.* Pécs, Hungary, June 23, 06. Ph.D, Vienna, 33. Fellow, Int. House, Berkeley, Calif, 36–37; research fellow, California, 37–38; hon. fellow, Hopkins, 40; *research,* Col. of William and Mary, 41–42; *Vermont, 42–* Biology, histology and pathology of Mollusca and Crustacea.

Lochman, Dr. Christina, Woodbridge Terrace, South Hadley, Mass. *Paleontology.* Springfield, Ill, Oct. 8, 07. A.B, Smith Col, 29, A.M, 31; scholar, Hopkins, 31–32, Ph.D, 33. Asst. *geol,* Smith Col, 29–31; instr, *Mt. Holyoke Col,* 35–40, *asst. prof, 40–* A.A; Paleont. Soc; Geol. Soc. Cambrian paleontology and stratigraphy.

Lochte, Prof. H(arry) L(ouis), University of Texas, Austin, Texas. *Chemistry.* Fredericksburg, Texas, Oct. 18, 92. A.B, Texas, 18; fellow, Illinois, 21–22, Ph.D, 22. Teacher, high schs, 11–16; asst. and tutor, Texas and Illinois, 16–22; instr. *chem, Texas,* 22–23, adj. prof, 23–26, assoc. prof, 26–36, *prof, 36–* Chem. Soc. Organic and analytical chemistry; naphthenic acids; corrosion of iron; petroleum bases.

Locke, Dr. Arthur (Preston), Western Pennsylvania Hospital, Pittsburgh, Pa. *Chemistry, Immunology.* Mitchell, S. Dak, Dec. 12, 97. A.B, Morningside Col, 18; Ph.D, Chicago, 22. Asst. prof. chem, Morningside Col, 20–21; Carnegie fellow, Coastal Lab, 23–24; Coman fellow, Chicago, at St. Luke's Hosp, 24–34; *with inst. path, West. Pa. Hosp, 34–* Am. Med. Asn. grant, 32. A.A; Chem. Soc; Asn. Immunol. (ed. board, 'Jour,' 36–); Soc. Exp. Biol; Inst. Chem; Pub. Health Asn; Inst. Med. Chicago. Purification of immune serums; nature of bacterial toxins; copper and iron in cellular respiration and metabolism; non-specific factors in resistance to infection.

Locke, Dr. Augustus, 1275 San Mateo Drive, Menlo Park, Calif. *Geology.* North Adams, Mass, Aug. 22, 83. A.B, Harvard, 04, B.S, 05, M.E, 09, Sc.D, 13. Field worker, Secondary Enrichment Investigation, 13–15; *consulting mining geologist, 15–* A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. Mining geology; secondary enrichment of copper ores; leached outcrops as guides to copper ore; relations between ore and orogeny; structural control of ore.

Locke, Prof. Charles E, Massachusetts Institute of Technology, Cambridge, Mass. *Mining engineering.* Milton, N. H, Aug. 29, 74. B.S, Mass. Inst. Tech, 96. Engineer, Sweetwater Coal Mining Co, 96–97; private asst. to Prof. Robert H. Richards, 97–01; instr. mining eng. and metal, *Mass. Inst. Tech,* 01–05, asst. prof, 05–19, assoc. prof. *mining eng. and ore dressing,* 19–30, prof, 30–41, *emer. prof. and hon. lecturer, 41–* Min. and Metal. Eng. (past chairman, Boston sect); Eng. Educ; Eng. Soc. Boston; Can. Inst. Min. and Metal; Australasian Inst. Min. and Metal; hon. mem. Min. Soc. Japan. Ore dressing.

Locke, Prof. Edward G(ibson), Oregon State Agricultural College, Corvallis, Oregon. *Chemistry, Chemical engineering.* Portland, Oregon, Nov. 20, 04. B.S, Oregon State Col, 28; M.S, Ohio State, 30, Ph.D, 32. Asst. chem, Ohio State, 28–32; research chemist, Phila. and Reading Coal and Iron Co, 33–36; *asst. prof. chem. eng, Oregon State Col, 36–; chem. engineer, Bonneville Power Admin, U. S. Dept. Interior.* Electrochem. Soc; Chem. Soc; Chem. Eng. Fluoride refrigerants; combustion engineering; anthracite coal; food preservation and processing; wood charcoal; wood coke.

Locke, Dr. Edwin A(llen), Williams College, Williamstown, Mass. *Medicine.* Halifax, Mass, Oct. 15, 74. Ph.B, Brown, 96, A.M, 97; M.D, Harvard, 01. From asst. instr. to clin. prof. med, Harvard Med. Sch, 03–35; *director health and athletics, Williams Col, 35–* Chief 4th med. service, Boston City Hosp; chief staff, Boston Consumptives' Hosp; visiting physician, Sharon Sanatorium. A.A; fel. Am. Acad; assoc. Am. Physicians; Soc. Clin. Invest; Tuber. Asn; Clin. and Climat. Asn; Interurban Clin. Club; Int. Bur. for Tuber. Internal medicine.

Locke, Prof. J(ohn) F(lowers), Mississippi State College, State College, Miss. *Botany.* Winona, Miss, Nov. 21, 08. B.S, Miss. State Col, 30, M.S, 32; Ph.D, Chicago, 34. Instr. *bot, Miss. State Col,* 30–32, *assoc. prof, 34–* Cytology, microsporogenesis and cytokinesis in the pollen mother cells of Asimina triloba.

Locke, Prof. J(ohn) F(ranklin), Memphis State College, Memphis, Tenn. *Mathematics.* Moscow, Tenn, Nov. 28, 03. B.S, West Tenn. State Teachers Col, 27; A.M, Vanderbilt, 29; Ph.D, Illinois, 33. Teacher, high schs, Tenn, 23–24, 26–28; teaching fellow, Vanderbilt, 28–29; asst. *math,* Illinois, 29–32; *prof. and head dept, Memphis State Col, Tenn, 32–* Math. Asn; Tenn. Acad. Difference equations.

Locke, Dr. Norman M(alcolm), 60 E. 96th St, New York, N. Y. *Psychology.* New York, N. Y, July 20, 08. B.S, Col. City of N. Y, 33; A.M, Columbia, 34, Ph.D, 35. Reader psychol, Col. City of N. Y, 34–35; asst. comp. psychol, Columbia, 35–36; *instr. psychol, Hunter Col, 36–; personnel consultant, Social Security Board, 41–* Summers, instr, Col. City of N. Y, 34– A.A; assoc. Psychol. Asn. Memory; visual perception; intelligence; comparative and dynamic psychology.

Locke, S(amuel) B(arron), 643 Park Square Bldg, Boston, Mass. *Forestry.* Paris, Maine, Oct, 86. B.S, Maine, 08; Yale. From forest asst. to assoc. forester, U. S. Forest Service, 10–30, assoc. biologist, bur. biol. surv, U. S. Dept. Agr, 30–31; conservation director, Izaak Walton League Amer, 31–38; *regional director, fish and wildlife service, U. S. Dept. Interior, 38–* A.A; Soc. Foresters; Ecol. Soc; Soc. Ichthyol. and Herp; Fisheries Soc; Soc. Mammal; Cooper Ornith. Club; Wildlife Soc. Aquatic biology; game management; fish and game.

Locke, Prof. Seth Barton, University of Arkansas, Fayetteville, Ark. *Plant pathology.* Casselton, N. Dak, Aug. 11, 06. B.S, Oregon State Col, 33; M.S, Wisconsin, 35, Ph.D, 37. Research assoc. plant path, Wisconsin, 37–39; *asst. plant pathologist and asst. prof. plant path, Arkansas, 39–* Col-laborator, regional veg. breeding lab, U. S. Dept. Agr, Charleston, S. C. Phytopath. Soc. Spraying experiments for control of strawberry leaf-spotting diseases, tomato early blight and Septoria blight; breeding for resistance in tomatoes to early blight, Septoria blight and other diseases.

Lockhart, Dr. Ernest E(arl), Massachusetts Institute of Technology, Cambridge, Mass. *Biochemistry.* Boston, Mass, Sept. 10, 12. B.S, Mass. Inst. Tech, 34, M.S, 35, Ph.D, 38. Am-Scandinavian Foundation fellow enzyme chem, Biochem. Inst, Stockholm, 38–39; physiologist and biochemist, U. S. Antarctic Service, 39–41; *research assoc, Mass. Inst. Tech, 41–* Chem. Soc. Nutritional biochemistry and fat metabolism.

Lockrow, Dr. Laurice L(aird), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Akron, Ohio, Dec. 16, 96. B.S, Purdue, 18, E.E, 23; A.M, Rice Inst, 21; Ph.D, Michigan, 26. Union Switch and Signal Co, 25–27; develop. and research dept, Am. Tel. and Tel. Co, 27–34; protection develop. dept, *Bell Tel. Labs,* 34–36, *transmission develop. dept, 36–* Summers, West. Elec. Co; Linde Air Products Co. Physical Soc. Effect of oxygen and hydrogen on the emission of electrons from hot platinum; critical potentials and spectra of oxygen; telephone system protection development; broad band transmission systems.

Lockwood, Prof. H(arold) J(ohn), 3900 Greystone Ave, New York, N. Y. *Engineering.* New Rochelle, N. Y, Sept. 14, 90. E.E, Lafayette Col, 12, M.S, 16; A.M, Dartmouth Col, 24. Instr. physics, Lafayette Col, 12–18, asst. prof, 18–21; prof. power eng, Dartmouth Col, 21–31; consulting engineer, 31–33; state engineer, Pub. Works Admin, Maine, N. H. and Vt, 33–35, state director, N. H, 35–38; *prof. elec. eng. and head dept, Manhattan Col, 38–* Mem, New Eng. Planning Cmn. Power engineering; polarization of metals.

Lockwood, Dr. John S(alem), 3400 Spruce St, Philadelphia, Pa. *Surgery, Chemotherapy.* Shanghai, China, Oct. 2, 07. A.B, DePauw, 28; M.D, Harvard Med. Sch, 31; Sc.D, Columbia, 38. Intern, junior and senior fellow surg, Presbyterian Hosp, New York, 32–37; *fellow to asst. prof. surg. research and assoc. surg, Pennsylvania, 37–, acting director Harrison dept. surg. research.* Consultant infectious diseases

to Secretary of War, 41– Mem. cmt. chemotherapeutic agents and subcmt. surg. infections, Nat. Research Council, 40– Soc. Clin. Invest; Soc. Univ. Surgeons; Asn. Cancer Research; Surg. Asn. Mode of action and application to surgical infections of sulfonamide compounds.

Lockwood, Dr. Julia E, 24 High St, Buffalo, N. Y. *Physiology, Nutrition.* Dwaarkill, N. Y, June 29, 01. B.S, Cornell, 25, M.S, 26; Columbia, 27–29; Ph.D, Buffalo, 36. Teacher science, high sch, N. Y, 33–34; lab. technician, med. sch, *Buffalo,* 34–36, *instr. physiol. and nutrition, 36–* Soc. Adv. Ed. Human metabolism; vitamins; hormones.

Lockwood, Dr. Lewis B(yford), U. S. Department of Agriculture, Peoria, Ill. *Mycology, Bacteriology.* Ft. Branch, Ind, Oct. 8, 08. A.B, Indiana, 28, A.M, 29; Ph.D, Catholic Univ, 34. Asst. bot, Indiana, 28–29; Exp. Sta, Purdue, 29–31; junior mycologist and later asst. mycologist, div. indust. farm products research, bur. chem. and soils and later *assoc. microbiologist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 31–* Instr, Catholic Univ, 34, 36, 39, 40. Soc. Bact; Mycol. Soc; Bot. Soc. Wash. Fermentations; systematic mycology; physiology of fungi and bacteria.

Lockwood, Dr. William H(oward), 2320 W. 14th St, Wilmington, Del. *Chemistry.* Chattanooga, Tenn, March 10, 05. B.S, Tennessee, 26, M.S, 27; Ph.D, Hopkins, 33. Instr. chem, Tennessee, 27–31; night sch. tech. workers, Hopkins, 31–33; *research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 33–* Chem. Soc; Soc. Mil. Eng. Catalytic oxidation; detergents.

Loder, Dr. Donald J(ohn), 917 Overbrook Road, Westover Hills, Wilmington, Del. *Organic chemistry.* Lincoln, Nebr, May 31, 04. B.S, Nebraska, 26, M.S, 27; Ph.D, Northwestern, 31. *Research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 30–* Chem. Soc.

Lodewick, Dr. J(ohn) Elton, 424 U. S. Court House, Portland, Oregon. *Forestry.* Saratoga Springs, N. Y, Dec. 30, 96. B.S, Syracuse, 19, M.S, 20, Ph.D, 27. Instr. biol, Maine, 20–22; wood technol, N. Y. State Col. Forestry, Syracuse, 22–27, asst. prof, 27–28; prof, Va. Polytech, 28–31; *senior silviculturist in charge forest products sect, Pacific Northwest Forest Exp. Sta, U. S. Forest Service, 31–* A.A; Soc. Foresters. Seasonal growth in trees; structure of American woods; forest utilization.

Lodholz, Dr. Edward, University of Pennsylvania, Philadelphia, Pa. *Physiology.* Philadelphia, Pa, 75. M.D, Pennsylvania, 97; Göttingen, 03; Bonn, 10, 11, 12, 14. Asst. demonstrator *physiol, Pennsylvania,* 01–02, demonstrator, 03–12, asst. prof, 12–20, *prof, 20–* A.A; Physiol. Soc; Am. Med. Asn; Col. Physicians Phila. Psycho-physiology of the nervous system.

Lods, Prof. Emile A(lbert), Macdonald College, Que, Can. *Agronomy.* Montreal, Que, Nov. 13, 88. B.S.A, McGill, 12, M.S.A, 25. Agriculturist, German Potash Syndicate, 12–14; dist. agriculturist, *Macdonald Col, McGill,* 14–16, in charge root crop investigations, 16–18, exten. agronomist, 19–27, *in charge cereal crops breeding, 20–, asst. prof. agron, 27–* C.E.F, 18–19. Soc. Agron; Can. Soc. Tech. Agr; Corp. des Agron. de la Province de Que. Cereal breeding, especially oats.

Loeb, Dr. Edwin M(eyer), 1565 La Vereda, Berkeley, Calif. *Anthropology.* New York, N. Y, March 15, 94. Ph.B, Yale, 17, Ph.D, 22. *Lecturer anthrop, California, 24–* Guggenheim Mem. Foundation fellow, 29–30. A.A. Ethnography of Polynesia, Dutch East Indies and the California Indians.

Loeb, Dr. H(arold) G(ordon), 721 15th Ave, S.E, Minneapolis, Minn. *Biochemistry.* Boston, Mass, Aug. 14, 12. B.S, Harvard, 35; Ph.D, Minnesota, 40. Research fellow fat metabolism, *Minnesota,* 40–41, Rockefeller Foundation fellow, 41–42, *assoc. chemist, lab. physiol. hygiene, 42–* Chem. Soc. Composition of rats maintained on diets deficient in the essential fatty acids, with emphasis on the lipid component; effect of estrogens on fat metabolism in the rat; human nutrition.

Loeb, Dr. Leo, 40 Crestwood Drive, St. Louis, Mo. *[2]*Pathology.* Mayen, Germany, Sept. 21, 69. Heidelberg. Berlin, Zurich, Basle and Freiburg, 89–96; Staatsexamen, 96; M.D, Zurich, 97. Adj. prof. path, Illinois, 00–01; asst. demonstrator path, Pennsylvania, 03, asst. prof. exp. path, 04–10; director path. dept, St. Louis Skin and Cancer Hosp, 10–15; prof. comp. path, *Washington (St. Louis),* 15–24, *path,* 24–37, *emer. prof, 37–* Research fellow, McGill, 03. John Phillips mem. prize, Am. Col. Physicians, 35. Nat. Acad; A.A; Soc. Nat; Asn. Path. and Bact. (pres, 14); Soc. Exp. Path. (v. pres, 16–18); Physiol. Soc; Asn. Anat; Soc. Exp. Biol; Am. Physicians; Asn. Cancer Research (pres, 11); Am. Med. Asn. (chairman, sect. path. and physiol, 11); Philos. Soc; hon. mem. Asn. Study Goiter; Wash. Acad; for. mem. Zent. Kom. Erforsch. Krebskrankheit; hon. mem. French Soc. Endocrinol. Thrombosis and blood coagulation; tissue and tumor growth; experimental production of maternal placenta; physiology of sexual organs; venom of Heloderma; analysis of cell death; pathology of the circulatory organs, kidneys, stomach, thyroid gland and hypophysis; edema; homoiotoxins and individuality; experimental cell fibrin tissue; old age.

Loeb, Prof. Leonard B(enedict), University of California, Berkeley, Calif. *[4]*Physics.* Zurich, Switzerland, Sept. 16, 91. California, 10; Columbia, 11; B.S, Chicago, 12, Ph.D, 16. Asst. physics, Chicago, 14–16; asst. physicist, Bur. Standards, 16–17; asst, Manchester (England), 19; nat. research fellow, Chicago, 19–23; asst. prof. *physics, California,* 23–25, assoc. prof, 25–29, *prof, 29–;* commander, *U. S. Naval Res,* 41–43, *capt, 43–* Mem. subcmt. on physics, Nat. Research Council, 28– Cooperating expert, Int. Critical Tables, 25–26. Summer, lecturer, electronics inst, Michigan, 37. 2nd lieut, A.S, 17–19, lieut. commander, U.S.N.R. A.A. (exec. cmt, Pacific div, 26–31); fel. Physical Soc. (sec'y, Pacific Coast sect, 28–35); fel. Optical Soc; Franklin Inst; Naval Inst; Philos. Soc. Wash; N. Y. Acad; fel. Physical Soc. London; Deuts. Physik. Gesell; Soc. de Physique. Mobilities of gaseous ions; deflection of alpha particles by light atoms; formation of ions; electron mobilities; phosphorescence of zinc sulfides; surface catalysis; vane radiometer; ranges of alpha particles; kinetic theory of gases; recombination of ions; spark breakdown of gases; cloud condensation on ions; corona discharge; discharge in gases; frictional electrification; electrification by spraying liquids; mechanism of sparks.

Loeb, Dr. Robert F(rederick), Presbyterian Hospital, New York, N. Y. *[7]*Pathology, Internal medicine.* Chicago, Ill, March 14, 95. Chicago, 13–15; M.D, Harvard, 19. Intern, Mass. Gen. Hosp, Boston, 19–20; asst. res. physician and asst. med, Hopkins, 20–21; from asst. res. physician to assoc. attending physician, Presb. Hosp, 21–42; assoc. med. director, *Neur. Inst,* 38–42, *assoc. attending physician, 42–;* from instr. to *prof. med, Columbia, 21–* Eastman Mem. lecturer, Rochester, 39; Harvey Soc. lecturer, 41; physician in chief pro tem, Peter Bent Brigham Hosp, 41. Chairman subcmt. blood substitutes, Nat. Research Council, 41– Stevens Triennial prize, Columbia, 34. A.A; Soc. Exp. Biol; Soc. Clin. Invest; Am. Physicians; Harvey Soc; N. Y. Acad. Med. Electrolyte structure and electrolyte behavior in health and disease.

Loeb, Dr. Virgil, 3720 Washington Ave, St. Louis, Mo. *Stomatology.* Columbia, Mo, Feb. 28, 83. A.B, Missouri, 03; M.D, D.D.S, St. Louis, 06. Prof. oral surg, St. Louis, 08–21; *stomatol, sch. dentistry, Washington (St. Louis),* 21–34, *lecturer, sch. med, 26–* A.A; Am. Med. Asn. (chairman, stomatol. sect. 12); Am. Dental Asn. (cmt. on status of dental educ. in Amer, 35); Acad. Periodontology; Mo. State Dental Asn. (pres, 35); St. Louis Dental Soc. (pres, 16); St. Louis Soc. Dental Sci. Oral diagnosis; oral hygiene; diseases of the mouth.

Loeblich, Dr. Alfred R(ichard), Jr, Tulane University, New Orleans, La. *Invertebrate paleontology.* Birmingham, Ala, Aug. 15, 14. B.S, Oklahoma, 37, M.S, 38; fellow, Chicago, 38–40, Ph.D, 41. *Instr. geol, Tulane, 40–; lieut, U. S. Army, 42–* Paleont. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Invertebrate and micropaleontology.

Loefer, Prof. John B(enjamin), Berea College, Berea, Ky. *Biology.* Forest Junction, Wis, June 14, 08. A.B, Lawrence Col, 29; M.S, N. Y. Univ, 31, Ph.D, 33. Teaching fellow biol, N. Y. Univ, 29–33; asst, 33–35; *assoc. prof. biol. and chem, Berea Col, 35–* Summer, tutor, Col. City of N. Y, 35. Grant, Ky. Acad, 37, 39. A.A; Micros. Soc; Soc. Zool; Ornith. Union; Wilson Ornith. Club; Ky. Acad; Ky. Ornith. Soc; N. Y. Acad; Tenn. Ornith. Soc. Protozoology; cytology; sterile culture methods; hydrogen ion concentration and growth; the symbiotes of Paramecium bursaria; physiology; cytology of flagellates; nutrition of flagellates and ciliates; organic and inorganic growth-limiting factors; utilization of dextrose acclimatization of flagellates and ciliates to increased osmotic pressure.

Loeffel, Prof. W(illia)m J(ohn), 1401 N. 41st St, Lincoln, Nebr. *Animal husbandry.* St. Louis, Mo, Aug. 31, 94. B.S. (Agr), Missouri, 17; M.S, Nebraska, 29. Sci. asst, bur. animal indust, U. S. Dept. Agr, 17–19; *prof. animal husbandry, Nebraska, 19–* Soc. Animal Production. Swine; meat; anatomy and histology.

Loeffler, Dr. H(arold) J(ulius), Bureau of Agricultural and Industrial Chemistry, U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Grand Junction, Colo, Nov. 27, 09. B.S, California, 33, 35–36; Canned Salmon Indust. research fellow, Stanford, 36–39, Ph.D, 38. Junior research assoc, Stanford, 38–39; Glass Container Asn. research fellow, lab. fruit and veg. chem, *U. S. Dept. Agr, 39–41, assoc. chemist frozen foods, west. regional research lab, bur. agr. and indust. chem, 41–* Chem. Soc; Inst. Food Technol. (sec'y south. Calif. sect, 40). Detection of decomposition in canned salmon; processing of orange juice; determination of vitamin C; chemical changes during processing and storage of frozen and dehydrated fruits and vegetables.

Loehwing, Prof. Walter F(erdinand), University of Iowa, Iowa City, Iowa. **7Botany, Plant physiology.* Chicago, Ill, Nov. 25, 96. B.S, Chicago, 20, M.S, 21, Ph.D, 25. Prof. chem, head dept. and dean, Okla. State Sch. Mines, 20–23; asst. prof. plant physiol, *Iowa,* 25–28, assoc. prof. *bot,* 28–31, *prof, 31–,* head dept, 40. Sec'y ed. board, 'Jour. Plant Physiol.' Int. Bot. Cong, Amsterdam, 36. F.A, U.S.A, 18–19. A.A; Soc. Plant Physiol. (sec'y-treas, 35–37, v. pres, 37); Bot. Soc; Chem. Soc; Soc. Exp. Biol; Soc. Hort. Sci; Soc. Agron; Soc. Nat; Genetics Soc; Iowa Acad. (treas, 31–). Plant chemistry; soil fertility; plant nutrition.

Loel, Wayne, 808 Subway Terminal Bldg, Los Angeles, Calif. *Paleontology, Geology.* Los Angeles, Calif, Jan. 6, 88. A.B, Stanford, 16, A.M, 17. Asst. instr. miner, Stanford, 16, miner. and geol, 17; geologist, South. Pacific Ry. Co, Texas, 17–18; Gen. Petrol. Corp, Calif, 19–20; consulting geologist, Ralph Arnold, 20–24; *consulting geologist and engineer, 25–* Lieut, C.Eng, 18. Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Min. and Metal. Eng. Paleogeography; sedimentation; paleontology and stratigraphy and the Vaqueros formation of the lower Miocene of California.

Loemker, Dean K(enneth) K(arl), Marshall College, Huntington, W. Va. *Psychology.* Winslow, Ill, May 16, 06. Ph.B, Chicago, 27, A.M, 29, summers, 31, 33, fellow, 37–38, Ph.D, 41; Illinois, 28–30. Asst. *psychol,* Illinois, 28–30; asst. prof. and later *assoc. prof, Marshall Col, 30–, dean men, 38–; lieut, Adj. Gen. Dept, U. S. Army, 42–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Visual and kinesthetic factors in the visual perception of direction.

Loeppert, Dr. Richard H(enry), North Carolina State College, Raleigh, N. C. *Physical chemistry.* Chicago, Ill, March 13, 14. B.S, Northwestern, 35; Ph.D, Minnesota, 40. Research chemist, Richardson Co, 39–40; *instr. chem, N. C. State Col, 40–* A.A; Chem. Soc; N. C. Acad. Activation of gaseous reactions with ions; asphalt; colorimetric analytical determinations.

Loesch, Dr. J(ohn), Homer Folks Hospital, Oneonta, N. Y. *Medicine.* Unterdoerfles, Czechoslovakia, Oct. 24, 97. M.D, German Univ, Prague, 24. Instr. path, German Univ, Prague, 21–23, asst. instr. legal med, 23–24; teaching staff and research fellow, Psychiat. Inst, Morristown, N. J, 25–28; hematologist and assoc. pathologist, Buffalo City Hosp, 28–33; *pathologist, Homer Folks Hosp, 37–* Assoc. med, Buffalo, 28–33. Am. Med. Asn; Asn. Path. and Bact; Trudeau Soc; Tuber. Asn; Col. Chest Physicians; Buffalo Acad. Med. Arterial hypertension and nephritis; plasma proteins; calcium, potassium and cholesterol in the blood serum of dogs induced by varying kidney damage; leucemias; extirpation and exclusion of spleen; carcinoma of liver; culture method for tubercle bacilli in sputum examination.

Loesell, Prof. Clarence M(ichal), 1110 Sherman St, Ypsilanti, Mich. *Agriculture.* Reese, Mich, Oct 9, 92. B.S, Mich. State Col, 16; M.S, Cornell, 22; Ph.D, Mich. State Col, 36. Teacher, high sch, Mich, 16–18; N. J, 19–21, 22–25; asst, Cornell, 21–22; prof. agr, *Mich. State Nor. Col,* 25–40, *head dept. nat. science, 40–* Farm crops; length and width of bean plots.

Loew, Dr. Earl R(andall), Parke, Davis and Co, Detroit, Mich. *Physiology.* Allegan Co, Mich, Nov. 17, 07. B.S, Mich. State Col, 29; M.S, Wayne, 36; Porter fellow, 38–39; Ph.D, Northwestern, 39. Research bacteriologist, col. med, Wayne, 29–33; instr. physiol, 33–40, asst. prof, 40–41; *physiol. and pharmacol. research, Parke, Davis and Co, 41–* A.A; Physiol. Soc; Soc. Exp. Biol. Gastro-intestinal hormones; gastric secretion and motility; liver function; vitamin deficiencies.

Loew, Dean E(dgar) A(llan), 5201 16th Ave, N. E, Seattle, Wash. *Electrical engineering.* Colgate, Wis, Feb. 8, 82. Wis. State Teachers Col, Oshkosh, 01; B.S, Wisconsin, 06, E.E, 22. Instr. elec. eng, Wisconsin, 06–09; Washington (Seattle), 09–11, asst. prof, 11–17; gen. supt, Am. Nitrogen Products Co. 17–20; assoc. prof. *elec. eng, Washington (Seattle),* 20–23, *prof, 23–, dean col. eng, 35–* Consulting engineer, U. S. Eng. Office, 30–31; expert consultant, Bonneville Power Authority, 41, 42; consultant, field service, Office Production Management, 42. Fel. Elec. Eng. (sec'y, Seattle sect, 13–15, chairman, 25); Newcomen Soc. Electric power transmission; electric heating of residences; vector diagrams for long transmission lines; economics of transmission line design; line voltages and conductor sizes of transmission lines; direct and alternating currents.

Loew, Prof. Fred A(aron), 916 Himes St, Huntington, Ind. *Botany.* Burnips, Mich, March 8, 74. B.S, Huntington Col. (Ind), 02, hon. Sc.D, 42; B.S, Mich. State Col, 04; A.M, Michigan, 12; Chicago. Teacher, pub. schs, Mich; prof. science, Huntington Col. (Ind), 05–17; county agr. agent, Huntington, Ind, 17–22; prof. biol. and geol, *Huntington Col. (Ind), 22–25, prof. biol. and director arboretum and bot. garden, 32–* A.A; Ind. Acad; Mich. Acad. Flora of Huntington County, Indiana.

Loewe, Dr. (Walter) S(iegfried), 17 Cole Terrace, New Rochelle, N. Y. *Pharmacology.* Fuerth, Bavaria, Aug. 19, 84. Freiburg; Berlin; Munich; M.D, Strasbourg, 08; hon. prof, Heidelberg, 29. Research fellow biochem, Strasbourg, 05–10; head chem. lab, psychiat. clinic, Leipzig, 10–12; instr. and asst. prof. pharmacol, Göttingen, 12–13, asst. prof, 13–18, assoc. prof, 18–21, acting head dept, 15–19; prof. pharmacol. and head dept. pharmacol. and med. chem, Dorpat, 21–28; director dept. labs, Munic. Hosps, Mannheim, 28–33; prof. pharmacol, Heidelberg, 28–33; *research guest, dept. pharmacol, med. col, Cornell, 36–; mem. staff, lab. med. div, Montefiore Hosp, 36–* A.A; fel. Am. Med. Asn; Soc. Pharmacol; Soc. Exp. Biol; Kaiserl. Leopoldin. Akad, Halle. Biochemistry; biophysico-chemistry of lipids; theory of narcosis; bioassay; quantitative problems of pharmacology; sex hormones; fundamentals of drug synergism; laxatives; marihuana.

Loewen, Prof. S(olomon) L, Hillsboro, Kans. *Biology.* Hillsboro, Kans, Dec. 23, 98. A.B, Tabor Col, 23; Kansas, 23; A.M, Minnesota, 28. Instr, Tabor Col, 23–27; Minnesota, 27–29; *prof. biol. and head dept,* Tabor Col, 29–31; Sterling Col, 31–42; *Tabor Col, 42–* A.A; Soc. Parasitol; Micros. Soc; Kans. Acad. Parasitology.

Loewi, Prof. Otto, 155 E. 93rd St, New York, N. Y. *Pharmacology, Physiology.* Frankfurt, Germany, June 3, 73. M.D, Strassburg, 96. Asst. pharmacol, Marburg, 98–05; asst. prof, Vienna, 05–09; prof, Graz, 09–38; *research prof, col. med, N. Y. Univ, 40–* Dunham lecturer, Harvard, 33; Harvey lecturer, 33; Ferrier lecturer, Royal Soc, 35; Dohme lecturer, Hopkins, 41; Walker-Ames lecturer, Washington (Seattle), 42. Nobel prize, 36. Physiol. Soc; Pharmacol. Soc; Soc. Ital. Biol. sperim. Physiology and pharmacology of metabolism, heart, kidney and the nervous system.

Loewner, Dr. Charles, 125 W. Lee St, Louisville, Ky. *Mathematics.* Lány, Czechoslovakia, May 29, 93. Ph.D, Prague, 17. Asst. math, German Eng. Sch, Prague, 17–22; privatdocent, Berlin, 22–28; ausserordentlicher prof, Cologne, 28–30; Prague, 30–33, ordentlicher prof, 33–39; lecturer *math, Louisville,* 39–42, *asst. prof, 42–* Math. Soc; Jednota Ceskoslovenskych Matematikua Fysiku. Functions of a complex variable; matrix functions; Hilbert spaces.

Löf, Prof. George O(scar) G(age), University of Colorado, Boulder, Colo. *Chemical engineering.* Aspen, Colo, Dec. 13, 13. B.S, Denver, 35; Sc.D, Mass. Inst. Tech, 40. Asst. director Parlin sta, sch. chem. eng. practice, Mass. Inst. Tech, 38–39, asst, 39–40; asst. prof. *chem. eng, Colorado,* 40–43, *assoc. prof, 43–* Summer, mem. staff, Mass. Inst. Tech, 42. Chem. Soc; Chem. Eng. Lithium chloride from lepidolite; beet sugar manufacture.

Lofgren, Dr. Frederick V(alentine), 549 N. E. 106th St, Miami, Fla. *Pharmacology, Pharmacy.* Seattle, Wash, April 12, 97. B.S, Washington (Seattle), 24, Arthur A. Denny

fellow, 24–25, M.S, 25, Ph.D, 30. Teaching fellow, Washington (Seattle), 25–27, instr. pharmacy, 27–29; from asst. prof. to prof. pharmacy and pharmacol. and dean, Valparaiso, 29–39; head prof. pharmacol. and pharmacog, Florida, 39–40; asst. research director, *Hart Drug Corp*, 40–42, *research director*, *42–* Pharmaceut. Asn. Chemistry.

Loftin, U(lphian) C(arr), U. S Department of Agriculture, Washington, D. C. *Entomology.* Mt. Olive, N. C, July 2, 90. B.S, N. C. State Col, 10; M.S, Florida, 13. Asst. entomologist, Exp. Sta, Florida, 10–13; asst, bur. entom, U. S. Dept. Agr, 13–17, fed. hort. board, 18–21; entomologist and field manager, Tlahualilo Agr. Co, 21–28; chief entomologist, Cuba Sugar Club Exp. Sta, 29–30; *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–* A.A; Asn. Econ. Entom; Entom. Soc. Amer; Entom. Soc. Wash. Sugar-cane and cotton insects.

Lofton, Dr. W(illiam) M(ilford), Jr, Petrolia, Pa. *Chemistry.* Mendenhall, Miss, April 22, 04. A.B, Miss. Col, 25; A.M, North Carolina, 26, Ph.D, 28; Pittsburgh, 32–33. Asst. chem, North Carolina, 25–28; prof, Guilford Col, 28–31; chemist, Texas Co, 31–32; research chemist, Pa. Coal Products Co, 33–36, chief chemist, 36–37; research chemist, Va. Smelting Co, 37–38; *chief chemist, Pa. Coal Products Co, 38–* Teacher, Bennett Col, 30. Summer, prof, Miss. Col, 26. A.A; Chem. Soc. Service tests on lubricating oils; emulsification of road tars; refrigerants; synthetic organic chemistry.

Logan, Prof. Albert V(ictor), Oregon State System of Higher Education, La Grande, Oregon. *Chemistry.* Boise, Idaho, Sept. 20, 01. A.B, Willamette, 24; M.S, Mass. Inst. Tech, 28, Ph.D, 38. Instr, Franklin Union, Boston, 27–28; Milton Acad, 28–38; *asst. prof, Oregon State System Higher Educ, 38–; lieut, Chem. Warfare, U. S. Naval Res, 42–* Summers, research chemist, Oxford Paper Co, 27–28. Metal pyridine complex salts; volume changes during formation of complex salts of cyanates, thiocyanates and fatty acids.

Logan, Prof. J(ohn) F(remont), Queen's University, Kingston, Ont, Can. *Biochemistry.* Amherst, N. S, Dec. 12, 84. B.A, Acadia, 13, M.A, 14; A.M, Yale, 16; Ph.D, McGill, 23. Asst. prof. and later *assoc. prof. biochem*, McGill, 24–25; *Queen's (Can), 25–* Protein matter of bile; soluble proteins of the muscle tissue of the haddock.

Logan, K(irk) H(arold), 1845 47th Place, N. W, Washington, D. C. *Engineering.* Rice Co, Kans, 79. A.B, Kansas, 02; M.S, Kans. State Col, 12. Instr, Kans. State Col, 07–10; asst. physicist, *Bur. Standards*, 11–19, assoc. elec. engineer, 19–22, elec. engineer, 22–24, *chief underground corrosion sect, 26–* Elec. Eng. Electrolysis; underground corrosion; protective coatings; cathodic protection.

Logan, Dr. Milan A(lexander), 4916 Colerain Ave, Cincinnati, Ohio. *Biochemistry.* Brockton, Mass, July 15, 97. B.S, Harvard, 19, Ph.D, 28. Niagara Falls Mem. Hosp. Lab, 21–25; assoc. biochem, Harvard Med. Sch, 28–37, asst. prof, 37–40, chemist, Forsyth Dental Infirmary, 28–40; *Andrew Carnegie prof. biochem. and head dept, col. med, Cincinnati, 40–* A.A; Chem. Soc; Soc. Biol. Chem; Am. Dental Asn. (councilor, dental therapeut). Calcium metabolism methods; composition of cartilage and bone; solubility of bone salts; influence of the thyroid and parathyroid hormones on calcium and phosphate metabolism; influence of the thyrotropic hormone on the thyroids; bacterial nutrition and toxin formation.

Logan, Prof. Thomas S(windall), Davidson College, Davidson, N. C. *Chemistry.* Hogansville, Ga, April 13, 03. B.S, Emory, 24, M.S, 25; Ph.D, Hopkins, 31. Instr, Hopkins, 30–32; N. Ga. Col, 32–37; *assoc. prof. chem, Davidson Col, 37–* Chem. Soc; N. C. Acad. Inorganic and physical chemistry.

Logsdon, Prof. Mayme Irwin, University of Chicago, Chicago, Ill. *Mathematics.* Elizabethtown, Ky, Feb. 1, 81. B.S, Chicago, 13, A.M, 15, Ph.D, 21. Prof. math. and dean women, Hastings Col, 13–17; instr, Northwestern, 17–19; *Chicago*, 21–25, dean, 23–25, asst. prof. *math*, 25–30, *assoc. prof, 30–* Int. Educ. Board fellow, Rome, 25–26. A.A; Math. Soc; Math. Asn; Ill. Acad. Algebra; algebraic geometry; hermitian forms; plane cubics of genus one; elliptic functions.

Logue, Paul, Monsanto Chemical Co, St. Louis, Mo. *Chemistry.* Hampshire, Tenn, Aug. 12, 95. A.B, Tennessee, 16. Foreman, Fed. Dyestuff and Chem. Co, 16–17; dept. supervisor, Atlantic Dyestuff Co, 17–18; supt, Charleston Chem. Co, W. Va, 19–20; dept. supervisor, Atlantic Dyestuff Co, N. H, 20–21; inspection dept, Nat. Aniline and Chem. Co, Buffalo, 22–23; chief chemist, Provident Chem. Works, St. Louis, 24–30; chem. director, Swann Corp, 31–35, v. pres. in charge production, Swann and Co, 36–37; *sales develop. and tech. service, Monsanto Chem. Co, 38–* Chem. Soc; Chem. Eng; Asn. Cereal Chemists; Asn. Textile Chem. and Colorists. Chemical leavening.

Lohman, Kenneth E(lmo), U. S. Geological Survey, Washington, D. C. *Geology.* Los Angeles, Calif, Sept. 11, 97. B.S, Calif. Inst. Tech, 29, M.S, 31. Chemist, Certified Lab. Products, Inc, Calif, 24–31; asst. geologist, *U. S. Geol. Surv*, 31–34, assoc. geologist, 34–38, geologist, 38–43, *senior geologist, 43–* Asst, Calif. Inst. Tech, 29–30, teaching fellow, 30–31. A.A; Paleont. Soc; Geol. Soc; Geophys. Union; Geol. Soc. Wash; Paleont. Soc. Wash; fel. Royal Micros. Soc. Micropaleontology; diatoms; photomicrography.

Lohman, Dr. M(arion) L(ee), U. S. Department of Agriculture, Meridian, Miss. *Plant pathology, Botany.* Dayton, Ohio, Nov. 27, 03. A.B, Miami (Ohio), 24; M.S, Iowa, 26; Cole fellow, Michigan, 29–31, Ph.D, 31. Asst, Iowa, 24–26; instr. bot, Miami (Ohio), 26–27, asst. prof, 27–28; nat. research fellow, Harvard, 31–33; technician, U. S. Dept. Agr, 33–35, supervising, 34–35, assoc. mycologist, 35–36; asst. prof. bot, Indiana, 36–41; assoc. conservationist, *bur. plant indust, U. S. Dept. Agr*, 41–42, *assoc. bot. in cooperation with Agr. and Mech. Col. Texas, 42–* Summer, instr, Michigan, 29; assoc. conservationist, U. S. Dept. Agr, 37, 39. A.A; Phytopath. Soc; Bot. Soc; Mycol. Soc; Mich. Acad. Forest pathology and mycology; mycorrhizae; taxonomy of Atropellis and Nectria spp. in relation to canker; development and relationships in Septonema and Sporidesmium; biology of Hysteriaceae.

Lohman, Stanley W(illiam), U. S. Geological Survey, University of Kansas, Lawrence, Kans. *Geology.* Los Angeles, Calif, May 19, 07. B.S, Calif. Inst. Tech, 29, M.S, 38. Asst. miner, Calif. Inst. Tech, 29–30; junior geologist, *div. ground water, water resources branch, U. S. Geol. Surv*, 30–34, asst. geologist, 34–38, assoc. geologist, 38–41, *geologist, 41–, in charge ground-water investigations in Kans, 38–* Calif. Inst. Tech. and Carnegie Institution exped, east. Oregon and northwest. Nev, 29. Soc. Econ. Geol; Geophys. Union (chairman cmt. ground water, sect. hydrol); Geol. Soc. Wash. Geology and ground water hydrology.

Lohr, Edwin W(allace), U. S. Geological Survey, Washington, D. C. *Chemistry.* Madison, Va, March 31, 97. B.S, Col. of William and Mary, 24, 28–29. Teacher, high schs, Va, 22–25; junior chemist and later *chemist, U. S. Geol. Surv, 29–* Chem. Soc. Water chemistry.

Lohr, Dr. J(ames) M(artin), 33 Olyphant Drive, Morristown, N. J. *Metallurgy.* Clear Spring, Md, Oct. 22, 79. A.B, Franklin and Marshall Col, 05; Ph.D, Cornell, 13. Junior alloy chemist, U. S. Bur. Mines, 12–16; metallurgist, Hoskins Mfg. Co, Detroit, 16–21; supt. melting and hot rolling, Elec. Alloy Co, 22–25; plant metallurgist, *Driver-Harris Co, Harrison, N. J*, 25–29, *manager research lab, 29–* Electrochem. Soc. Development of electric furnaces and a pyrometer for brass melting; nickel chromium and copper; chromium, iron aluminum and similar alloys for high temperature applications; electric melting; base metal thermocouples.

Lohr, Prof. W(illia)m S(hannon), 624 Parsons St, Easton, Pa. *Civil engineering.* Centre Hall, Pa, Oct. 29, 87. B.S, Pennsylvania, 09, C.E, 24. Draftsman, Am. Bridge Co, Pa, 08; detailer, Lewis F. Shoemaker Co, 11; instr. civil eng, Pennsylvania, 09–12, 15–16; Lafayette Col, 12–15; concrete engineer, Austin Co, 17–19; engineer, John H. Wickersham, 16–17, 19–20; assoc. prof. *civil eng, Lafayette Col*, 20–30, *prof, 30–, head dept, 42–, director eng. defense training, 40–* Summers, bridge design engineer, State Highway Cmn, Maine, 26, 28, 29, 31. Civil Eng. (past pres, Lehigh Valley sect); Eng. Educ. (past pres, Lafayette branch); Soc. Test. Mat; Soc. Metals; Nat. Soc. Professional Eng. (past pres, Lehigh Valley sect); Pa. Soc. Professional Eng. (past pres, 40). Structural materials; strength of concrete columns; encased concrete columns; theory of rigid frames; glare reduction; high tensile strength cast-iron; beam deflections.

Lojkin, Dr. Mary, Boyce Thompson Institute for Plant Research, 1086 Broadway, Yonkers, N. Y. *Biochemistry.* Petrograd, Russia, Nov. 25, 02. B.S, Polytech. Inst, Petrograd, 21, M.S, 23; Ph.D, Columbia, 37. Exp. work, dept. nutrition, Teachers Col, Columbia, 24–27; asst. biochemist, Boyce

Thompson Inst, 27–37; asst. chemist, bur. home econ, U. S. Dept. Agr, 37–39; research asst. chemist, dept. pharmacol, col. physicians and surg, Columbia, 40–42; *assoc. chemist, Boyce Thompson Inst, 42–* Vitamins; effect of ulfra-violet rays on plants; yarovization; tobacco mosaic virus; ascorbic acid.

Lomanitz, Dr. S(ebastian), 233 Terminal Arcade Bldg, Oklahoma City, Okla. *Agricultural chemistry.* Lodz, Poland, Dec. 27, 82. B.S, Agr. and Mech. Col. Texas, 08, M.S, 22; fellow, Rutgers, 23–24, Ph.D, 24. Chemist, Cent. Agr. Sta, Mex, 11–15; director, State Sch. Agr, Yucatan, 16; asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 16–17, 18–22; *chemist,* Trop. Plant Research Foundation, 25–26; *Gen. Labs, 26–* Govt. cmn, Vera Cruz, Mex, to study system of agr. educ, U. S, 15. Chem. Soc. Plant physiology; soil microbiology.

Lombard, Prof. Charles F(rancis), University of Arkansas School of Medicine, Little Rock, Ark. *Pharmacology.* Cripple Creek, Colo, Aug. 17, 07. A.B, Southern California, 33; Ph.D, 39. Technician in med. research, med. sch, Southern California, 30–34, asst. pharmacol, 38–39, instr, 39–40; chief lab. technician, Los Angeles Co. Gen. Hosp, 34–35, pharmaceut. chemist, 35–38; chemist, Los Angeles Co. Health Dept, 28–40; asst. research surg, sch. med, Ohio State, 40–41; *asst. prof. pharmacol, sch. med, Arkansas, 41–; lieut, Sanit. Corps, U. S. Army Air Corps, Moffett Field, Calif, 41–* Oxygen therapy equipment; chronic nicotine poisoning; gas analysis; ultrafiltration studies on blood plasma; pharmacological action of vitamin P.

Lombard, P(erley) M(axwell), Beltsville, Md. *Horticulture.* Swanzey, N. H, Sept. 7, 85. B.S, Vermont. Asst. horticulturist, Exp. Sta, Vermont, 11–13; *assoc. horticulturist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 13–* Soc. Hort. Sci. Potatoes; effect of virus; effect of varying amounts of virus diseases in potato yield; testing and maintaining stocks of new potato introductions, important varieties and seedlings; fertility and sterility in the potato.

Lombard, Dr. Robert H(amilton), Norton Co, Worcester, Mass. *Chemistry.* Ashburnham, Mass, Dec. 3, 87. B.S, Mass. Inst. Tech, 10; Ph.D, Columbia, 15. Asst. physical chem, Mass. Inst. Tech, 10–11; chem, Columbia, 11–12, instr, 12–15; chemist, geophys. lab, Carnegie Institution, 15–27; *physical chemist, Norton Co, 27–* Manufacture of optical glass, W.I.B, 17–18. A.A; Chem. Soc; Wash. Acad. Conductivity of aqueous solutions; vapor density of ammonium and phosphorus halids; dissociation pressure and phase rule studies of copper and iron sulfides; optical glass; abrasive products.

London, Prof. F(ritz) W(olfgang), Duke University, Durham, N. C. *Physics.* Breslau, Germany, March 7, 00. Bonn; Frankfort; Göttingen; Ph.D, Munich, 21; Rockefeller fellow, Zurich, 27, Rome, 31–32; D.Sc, Paris, 37. Privat-docent theoret. physics, Berlin, 28–33; research worker, Imp. Chem. Industries, Oxford, 33–36; maître de recherche physics, Inst. Poincaré, Sorbonne, Paris, 36–38, directeur de recherche, 38–39; *prof. theoret. chem, Duke, 39–* Visiting prof, Physico-tech. Inst, Leningrad, 31, Duke, 38, 39. Physical Soc; Chem. Soc. Theoretical physics; quantum theory of atomic and molecular forces; chemical valence rules and rates of chemical reactions; low temperature physics; macroscopic theory of supraconductivity; structure and properties of liquid helium.

Long, Lieut. Col. Arthur P(aige), Surgeon General's Office, War Department, Washington, D. C. *Immunology.* Williamsburg, Iowa, July 21, 08. B.S, Iowa, 32, M.D, 34; M.P.H, Harvard, 37, Dr.P.H, 38. *Instr. applied immunol, sch. pub. health, Harvard, 38–; asst. director div. biol. labs, State Dept. Pub. Health, Mass, 38–; asst, div. prev. med, Surgeon Gen. Office, War Dept, 41–* A.A; Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; Mass. Pub. Health Asn. Infectious diseases.

Long, Bayard, 250 Ashbourne Road, Elkins Park, Pa. *Botany.* Philadelphia, Pa, Sept. 22, 85. B.S, Pennsylvania, 08. Assoc. curator *herbarium, Phila. Bot. Club,* 10–13, *curator, 14–; research assoc. bot, Acad. Nat. Sciences Phila.* A.A; Torrey Bot. Club; Fern Soc; New Eng. Bot. Club; Phila. Bot. Club. Phytogeography and taxonomy of flowering plants and ferns.

Long, Dr. Carleton C(urtis), 141 Walnut St, Beaver, Pa. *Chemical engineering.* Boulder, Colo, June 3, 09. B.S, Colorado, 31, scholar, 32–35, Ph.D, 35; Southern California, 31; A.M, Stanford, 32. Research chemist, *zinc smelting div, St. Joseph Lead Co, Josephtown, Pa,* 35–37, *director plant research dept, 37–* A.A; Chem. Soc; Chem. Eng; Soc. Metals; Min. and Metal. Eng. Theory of the latent photographic image; Herschel effect and photographic intermittency effect; surface chemistry; electrothermic winning of zinc metal and zinc oxide pigments; leaching and concentration of cadmium, lead and zinc containing residues; recovery of metallic zinc from lead blast furnace slag; electrothermic magnesium.

Long, C(arlos) P(ointon), 1283 Michigan Ave, Cincinnati, Ohio. *Chemistry.* Genesee Co, Mich, Sept. 2, 81. A.B, Michigan, 05, A.M, 06. Chemist, chief chemist and chem. director, Globe Soap Co, 06–28; *chemist, Procter and Gamble Co, Ivorydale, Ohio, 28–* Chem. Soc; Chem. Eng; Oil Chemists Soc. Standardization of methods of analysis of soaps and fats.

Long, Dr. C(yril) N(orman) H(ugh), Yale University School of Medicine, New Haven, Conn. *Biochemistry, Physiology.* Burton, Wiltshire, Eng, June 19, 01. B.Sc, Manchester, 21, M.Sc, 23, D.Sc, 32; M.D, McGill, 28; hon. A.M, Yale, 36. Lecturer med. research, McGill, 25–29, asst. prof, 29–32; med, Pennsylvania, and director Cox med. research inst, 32–36; prof. *physiol. chem, sch. med, Yale,* 36–38, *Sterling prof, 38–, chairman dept, 36–* Newbold lecturer, Col. Physicians Phila, 35; Hatfield lecturer, 39; Harvey lecturer, 37. Mem. cmt. research in endocrinol, Nat. Research Council. Am. Physicians; Diabetic Asn; Soc. Biol. Chem; Physiol. Soc; Soc. Clin. Invest; Soc. Exp. Biol; Biochem. Soc. Gt. Britain; Physiol. Soc. Gt. Britain; cor. mem. Argentine Soc. Biol. Lactic acid and oxygen consumption in man during exercise and in certain diseases; mechanism of recovery from exercise in the intact mammal; the hypothalamus and the sympathetic nervous system; endocrine control of metabolism.

Long, David D(aniel), 20 N. Wacker Drive, Chicago, Ill. *Soils.* Abbottstown, Pa, Dec. 6, 87. B.S.A, Pa. State Col, 09. Scientist, soil surv, U. S. Dept. Agr, 09–11; in charge soil surv, Ga. Col. Agr, 11–20; soil specialist, soil improv. cmt, South. Fertilizer Asn, 21–24; agronomist, Int. Agr. Corp, 24–43; *chief plant and animal nutrition research dept, Int. Minerals and Chem. Corp, 43–* A.A; Asn. Soil Surv. Workers; Soc. Agron; Soc. Plant Physiol; Asn. South. Agr. Workers (sec'y-treas, 37); Int. Soc. Soil Sci. Soil classification, fertility and adaptation; fertilizers; plant, animal and human nutrition.

Long, Prof. Earl A(lbert), University of Missouri, Columbia, Mo. *Physical chemistry.* Altoona, Pa, July 2, 09. A.B, Catawba Col, 30; M.S, Ohio State, 32, Charles A. Coffin fellow, 33–34, Ph.D, 34. Nat. research fellow *chem,* California, 34–36, instr, 36–37, fellow, Lalor foundation, 37–38; *asst. prof, Missouri, 38–* Chem. Soc. Thermodynamic properties of gases; low-temperature physics.

Long, Dr. Elbert M, U. S. Regional Salinity Laboratory, Riverside, Calif. *Plant physiology, Anatomy.* Kendrick, Idaho, May 21, 11. B.S, Idaho, 33, M.S, 34; Ph.D, Chicago, 39. Instr. bot, Idaho, 35–37; *agent, regional salinity lab, bur. plant indust, U. S. Dept. Agr,* 39–42, *div. rubber plant investigations, 43–*

Long, Dr. Eleanor Ruth, 8 Glenayr Road, Toronto, Ont, Can. *Clinical psychology.* Philadelphia, Pa, Feb. 18, 08. A.B, Mt. St. Vincent Col, 28; A.M, Columbia, 29; Ph.D, Toronto, 38. Lecturer, inst. child study, Toronto, 35–38; *staff psychologist, Infants' Homes, Toronto, Ont, 38–* Sec'y-treas, New Educ. Fellowship, Can, 37–40. Can. Psychol. Asn. Mental hygiene; personality adjustment; emotional development of infants.

Long, Dr. Ell H, 432 Woodward Ave, Buffalo, N. Y. *Therapeutics.* Clarence, N. Y, July 24, 60. M.D, Buffalo, 82; Pennsylvania, 82. *Chair* mat. med, sch. pharmacy, *Buffalo,* 88–99, mat. med. and therapeut, dept. med, 99–12, *toxicol, sch. pharmacy, 12–, dental mat. med. and therapeut, sch. dentistry, 93–* Consulting physician, Buffalo Gen. Hosp. Am. Med. Asn; Buffalo Acad. Med. Materia medica.

Long, Lieut. Col. Esmond R(ay), Office of the Surgeon General, U. S. War Department, Washington, D. C. **5Pathology.* Chicago, Ill, June 16, 90. A.B, Chicago, 11, Ph.D, 19, M.D, Rush, 26; Trudeau fellow, Saranac Lab, 17–18, 20. Asst. path, Chicago, 11–13; asst, desert lab, div. plant biol, Carnegie Institution, 14–15; instr. *path,* Chicago, 19–21, asst. prof, 21–23, assoc. prof, 23–28, *prof,* 28–32; *Pennsylvania, and director labs, Henry Phipps Inst, 32–, director, 35–; lieut. col, Med. Corps, U. S. Army, 42–* Special consultant on tuber, U. S. Indian Service, 35–; pres, Wistar Inst, 39–42. Ed. board, 'Am. Rev. Tuber.' Med. advisory board, Leonard Wood Mem. for

Eradication of Leprosy, 32–37, 39–; div. med. sciences, Nat. Research Council, 32–, chairman, 36–39; nat. advisory health council, U. S. Pub. Health Service, 38–42; traveling rep, Pan Am. Sanit. Bur, 41. Trudeau medal, Nat. Tuber. Asn, 32. A.A. (chairman, N, 37; mem. exec. cmt, 38–42); Asn. Path. and Bact. (pres, 37); fel. Pub. Health Asn; Soc. Exp. Path; Hist. Sci. Soc; Philos. Soc; Tuber. Asn. (pres, 36); Am. Physicians; Soc. Exp. Biol; Am. Med. Asn; hon. mem. Harvey Soc; Asn. Hist. Med. (pres, 40); Col. Physicians Phila; Path. Soc. Phila. (pres, 36); hon. mem. Ateneo de Hist. de la Med, Buenos Aires; Soc. de Hist. de la Med. La Plata; Soc. Colombiana de Tisiología; Med. Asn. Panama; Soc. de Tisiología de Venezuela. Tuberculosis; tuberculin; acid-fast bacteria; history of pathology.

Long, Prof. Florence, Earlham College, Richmond, Ind. *Mathematics.* Pierceton, Ind, Feb. 5, 89. B.S, Earlham Col, 13; scholar, Illinois, M.S, 18; scholar, Bryn Mawr Col. Asst. prof. and later *assoc. prof. math, Earlham Col, 14–* Math. Asn; Math. Asn. Ind.

Long, Dr. Frances (Louise), Carnegie Institution of Washington, 159 Las Encinas Road, Mission Canyon, Santa Barbara, Calif. *Botany.* Madison, Nebr. A.B, B.S, Nebraska; A.M, Ph.D, Minnesota. *Ecol. investigations,* lab. plant physiol. and later *ecol. lab, Carnegie Institution, 14–* Summers, Alpine lab, Carnegie Institution. A.A; Bot. Soc; Ecol. Soc; Chem. Soc. Plant ecology; experimental pollination; histology of laticiferous plants; photosynthesis; total energy relations; stomata; plant growth as affected by light and water relations; rubber content of plants in the western United States.

Long, Dr. F(ranklin) A, Cornell University, Ithaca, N. Y. *Physical chemistry.* Great Falls, Mont, July 27, 10. A.B, Montana, 31, A.M, 32; Ph.D, California, 35. Instr. *chem,* California, 35–36; Chicago, 36–37; *Cornell,* 37–40, *asst. prof, 40–* Rates and mechanisms of reactions in solution; surface chemistry.

Long, Dr. Henry Foltz, 107 Howard St, Ames, Iowa. *Bacteriology.* Hagerstown, Md, Aug. 29, 09. B.S, Maryland, 31; M.S, Iowa State Col, 33, Ph.D, 36. Junior bacteriologist, U. S. Dept. Agr, 31–32; *research asst. dairy bacter, Exp. Sta, Iowa State Col, 35–, asst. prof, col, 40–* Dairy Sci. Asn; Soc. Bact. Bacteriology of Swiss cheese; classification of the organisms found in dairy products; bacteriology of butter.

Long, Pres. H(enry) J(ohnson), Greenville College, Greenville, Ill. *Chemistry.* Cashion, Okla, Jan. 18, 97. A.B, Kansas, 20, A.M, 22, Ph.D, 27. Instr. math. and science, Cent. Acad, Kans, 20–21; prof. chem, Cent. Col. (Kans), 22–25, asst. instr, Kansas, 21–22, 25–27; prof, *Greenville Col,* 27–36, *pres, 36–* Chem. Soc; Ill. Acad. Synthesis and properties of the possible isomeric moniodo toluenes; organic dyes for testing metal ions.

Long, Dr. J(ames) S(cott), Devoe and Raynolds Co, Louisville, Ky. *Chemistry.* York, Pa, Aug. 11, 92. Ch.E, Lehigh, 14, M.S, 15; Ph.D, Hopkins, 22. Asst. chem, Lehigh, 14–15, instr, 15–17, asst. prof, 17–20, assoc. prof. inorg. chem, 20–27, prof, 27–34; *chem. director, Devoe and Raynolds Co, 34–* Consulting chemist, Chester Enameling Co, 14–; research director, Archer-Daniels-Midland Co. Chem. Soc. (chairman, Lehigh Valley sect, 25, paint and varnish div, 29). Chemical calculations; elementary experiments on non-metals; molecular weight changes in oils; drying oils.

Long, Dr. J(ennings) Harold, Christian College, Columbia, Mo. *Plant physiology.* Wellsville, Mo, June 24, 98. B.S.(Agr), Missouri, 25, B.S.(Educ), 30, A.M, 30, Ph.D, 36. *Instr. biol. sciences, Christian Col, 30–* Instr, Missouri, 30–33; honor fellow, Scripps inst. oceanog, California, 38; research, Chesapeake Biol. Lab, 39. Soc. Hort. Sci. Seasonal migration of carbohydrates and nitrogen in Fragaria; nutrition of diatoms; bacteria-free cultures of plankton; occurrence and characteristics of bacteria of Chesapeake Bay; time of differentiation of flowers in Fragaria in Missouri.

Long, Dr. John D(eHaven), 926 Irving Ave, Westfield, N. J. *Chemistry.* Lancaster, Pa, Feb. 13, 07. B.S, Franklin and Marshall Col, 28; M.S, Lehigh, 30; Ph.D, Pa. State Col, 32. Asst. chem, Pa. State Col, 31, research chemist, petrol. ref. lab, 33; Shell Petrol. Corp, Houston, 33–36; petrol. technologist, Calco Chem. Co, Bound Brook, N. J, 36; *process engineer, Standard Oil Develop. Co, Bayway, 36–* Chem. Soc. X-ray crystallography; chemical engineering; petroleum technology.

Long, Dr. John H(erpick), Hercules Powder Co, Wilmington, Del. *Chemistry.* Connellsville, Pa, Dec. 6, 07. Ph.D, Hopkins, 33. Instr. chem, Hopkins, 31–33; *with Hercules Powder Co, 33–* Crystal structure and activity of catalysts; catalytic hydrogenations; synthetic resins.

Long, Dr. John R(oyer), 177 Williamson Road, Stow, Ohio. *Organic chemistry.* Thomas, Okla, Nov. 15, 08. B.S, Kans. State Col, 33; Ph.D, Ohio State, 37. *Research chemist, Goodyear Tire and Rubber Co, 37–* Chem. Soc. Syntheses of polymerizable organic compounds which involve liquid and vapor phase halogenation, vapor and liquid phase catalytic dehydrohalogenation; catalytic hydrohalogenation; pyrolytic reactions; dehydrogenation.

Long, Prof. J(oseph) A(braham), University of California, Berkeley, Calif. *Zoology.* Lebanon, Pa, March 4, 79. B.S, Harvard, 04, A.M, 05, Ph.D, 08. Austin teaching fellow bot, Harvard, 04–05, asst. zool, 01–04, 05–07; instr, *California,* 08–14, asst. prof. *embryol,* 14–20, assoc. prof, 20–39, *prof, 39–* A.A; Soc. Zool; West. Soc. Nat; Calif. Acad. Maturation of the egg of the mouse; sexual physiology and embryology of the rat; stereoscopic atlas of the chick.

Long, Dr. Louis, College of the City of New York, New York, N. Y. *Psychology.* Atlanta, Texas, Aug. 25, 11. A.B, Tulane, 33, A.M, 34; Ph.D, Columbia, 37. Asst. psychol, Columbia, 36–37, pediatrics, 37–38, instr, 38–41, psychol, univ. exten, 39–41; *instr, student personnel bur, Col. City of N. Y, 41–* Instr, Hunter Col, 40–41. A.A; Psychol. Asn; Soc. Psychol. Study Social Issues; Soc. Research Child Develop; Asn. Applied Psychol; East. Psychol. Asn; N. Y. State Asn. Applied Psychol; N. Y. Acad. Judgment of auditory intensities; concept formation; reasoning; discrimination; psychophysics; child psychology; tests and measurements.

Long, Dr. Louis, Jr, Harvard University, Cambridge, Mass. *Organic chemistry.* New York, N. Y, Jan. 3, 03. B.S, Princeton, 23; M.S, Mass. Inst. Tech, 25; A.M, Harvard, 37, Ph.D, 39. Asst. chem, Harvard, 37–38; research assoc, Virginia, 39–42; *special research assoc, Harvard, 42–* A.A; Chem. Soc. Synthesis of carcinogenic compounds; ozonization; adrenal cortex hormones.

Long, Dr. Margaret E(leanor), University of Mississippi, University, Miss. *Histology.* Philadelphia, Pa, March 19, 03. B.S, Pennsylvania, 25, M.S, 28, Ph.D, 40. Research technician, Wistar Inst, 26–30; technician gen. zool. and histol, Duke, 30–32; asst. histol. and neur, Ohio State, 35–38; research assoc. nutrition, inst. exp. biol, California, 38–40; *instr. anat. and histol, Mississippi, 42–* A.A. Nuclear and cytoplasmic relation in Scyllina cyanipes; neurology; cytology of Orthoptera.

Long, Dr. Perrin H(amilton), Johns Hopkins Hospital, Baltimore, Md. *Medicine.* Bryan, Ohio, April 7, 99. B.S, M.D, Michigan, 24. Asst. and assoc, Rockefeller Inst, 27–29; assoc. and assoc. prof. med, *sch. med, Hopkins,* 29–40, *prof. prev. med. and head dept, 40–,* asst. physician and *assoc. physician, Hopkins Hosp, 29–; lieut. col, Med. Corps, U. S. Army, 42–* Consultant epidemic diseases to U. S. Sec'y War. Mem, Nat. Council Pharmacy and Chem; revision cmt, U. S. Pharmacopoeia; chemotherapeutic and other agents cmt, Nat. Research Council. Soc. Exp. Biol; Soc. Clin. Invest; Soc. Bact; Am. Physicians; Am. Med. Asn; South. Med. Asn; Harvey Soc; Medico-Chirurg. Faculty Md. Bacteriology; filterable viruses; chemotherapy.

Long, Dr. R(obert) S(idney), Sunrise Farm, Martinsville, N. J. *Organic chemistry.* Chicago, Ill, March 30, 16. B.S, St. Mary's Col. (Minn), 36; Minnesota, 36–37; Ph.D, Illinois, 40. Asst. inorg. chem, Illinois, 37–40; *research chemist, Calco chem. div, Am. Cyanamid Co, 40–* Sulfanilamide derivatives; alkaloids; dyes.

Long, Dr. Robert W(illiam), Union Oil Co, Wilmington, Calif. *Physical chemistry.* New Albany, Ind, March 14, 17. A.B, Ind. State Teachers Col, 38; Ph.D, California, 41. Lab. asst. physics, Ind. State Teachers Col, 35–38; teaching asst. chem, California, 38–41; *research chemist, Union Oil Co, Calif, 41–* Chem. Soc. Relative gaseous polymerizations of hydrogen and deuterium fluorides; cracking of petroleum hydrocarbons.

Long, Prof. Walter S, 1402 S. Santa Fe Ave, Salina, Kans. *Organic chemistry.* Tippecanoe City, Ohio, Oct. 16, 79. A.B, Ohio Wesleyan, 05, A.M, 08; Wisconsin, 10, 11–12; Illinois, 12–13; M.S, Kansas, 19, Ph.D, 30. Teacher science and math,

Sandy Valley Sem, Ky, 05–09; physics and chem, Manchester Col, 09–11; instr. chem, Wisconsin, 11–12; chief chemist, Ford Mfg. Co, Ill, 12–13; asst. prof. chem, in charge state food lab, Kansas, 13–21; city chemist, Kansas City, 21–24; *prof. chem. and head dept, Kans. Wesleyan, 24–* Chem. Soc; Kans. Acad. Chemistry of foods; starch in green fruits; commercial fruit extracts; tin and hydrogen in canned goods; adulteration of jams and jellies; determination of starch; composition of the seeds of Martynia louisiana; synthesis of 5-phenyl-4-pyrazole carboxylic acid; isomeric disubstituted isothiohydantoins; hypochlorite solutions.

Long, Prof. William F(ranklin), 612 Race Ave, Lancaster, Pa. *Astronomy.* Boyertown, Pa, April 18, 71. A.B, Franklin and Marshall Col, 97; Chicago; Pittsburgh. Prin, high schs, Pa, 97–18; *prof. astron. and math, Franklin and Marshall Col, 18–* Swarthmore eclipse exped, Mex, 23. Astron. Soc. Pacific. Double stars; variable stars; sun spots.

Long, Dr. W(illiam) H(enry), P. O. Box 1478, Albuquerque, N. Mex. *Forest pathology.* Navarro Co, Texas, March 7, 69. A.B, Baylor, 88; A.M, Texas, 00, Ph.D, 16; Cornell. Prof. nat. sciences, Baylor, 88–92; Burleson, 92–99; asst. bot, Texas, 00–01; prof, N. Texas State Nor. Col, 01–09; forest pathologist, bur. plant indust, U. S. Dept. Agr, 11–37; *retired.* Ed, 'Exp. Sta. Record,' 10–11. Phytopath. Soc; Ecol. Soc; Texas Acad; Bot. Soc. Wash. Agricultural botany; taxonomic mycology; plant pathology; deterioration in timber caused by fungi.

Longacre, Dr. Andrew, Phillips Exeter Academy, Exeter, N. H. *Physics.* Yonkers, N. Y, June 10, 04. B.S, Wesleyan, 26; A.M, Princeton, 29, Ph.D, 33. Asst, Bartol Research Foundation, 27–28; *instr. physics,* Princeton, 29–32; *Phillips Exeter Acad, 33–; mem. dept. elec. eng, Mass. Inst. Tech, 41–* Consultant test dept, Ingersoll-Rand, 29–30. A.A; Physical Soc; Asn. Physics Teachers; Sci. Masters Asn; New Eng. Asn. Physics Teachers. Scattering of positive ions; cosmic rays.

Longcope, Dr. Warfield T(heobald), Johns Hopkins Hospital, Baltimore, Md. *[2]*Medicine.* Baltimore, Md, March 29, 77. A.B, Hopkins, 97, M.D, 01; LL.D, St. John's Col. (Md), 34; Sc.D, Rochester, 41. Res. pathologist, Pa. Hosp, Phila, 01–04, director, Ayer clin. lab, 04–11; asst. prof. applied med, Pennsylvania, 09–11; assoc. prof. practise of med, Columbia, 11–14, Bard prof, 14–21; *prof. med, sch. med, Hopkins, and physician in chief, Hopkins Hosp, 22–* Assoc. attending physician, Presb. Hosp, 11–14, director med. service, 14–21; prof, Cornell, 22; visiting physician, second div, Bellevue Hosp, 22. Shared bronze medal, Am. Roentgen Ray Soc, 37. Nat. Acad; A.A; Am. Med. Asn; Am. Physicians (v. pres); fel. Col. Physicians; Soc. Clin. Invest. (pres, 19); Harvey Soc. (pres, 19, 20); Soc. Exp. Path; Soc. Exp. Biol; Soc. Pharmacol; Asn. Immunol. (pres, 35); fel. Am. Acad; Med. and Chirurg. Faculty Md; fel. N. Y. Acad. Med; N. Y. Clin. Soc; hon. fel. Royal Soc. Med. London; hon. mem. Soc. des Hôpitals Paris; hon. fellow Scandinavian Med. Soc. The lymph glands; bone marrow; blood autolysis; bacteriology of pneumococcus and parathyroid infections; aortic insufficiency; cardiac hypertrophy; chronic protein intoxication; serum disease; protein hypersensitiveness in man; nephritis; sarcoid; atypical pneumonia.

Longenecker, Prof. George William, University of Wisconsin, Madison, Wis. *Ecology, Plant breeding.* Neillsville, Wis, Aug. 19, 99. B.S, Wisconsin, 24, M.S, 29. With L. A. Stark Bros, 26–27; instr, Wisconsin, 27–28; with Badger State Finance Co, 28–29; *assoc. prof. hort, landscape architect, dept. buildings and grounds and exec. director arboretum, Wisconsin, 29–* Improvement of native shrubs; plant propagation.

Longenecker, Prof. Herbert E(ugene), 4255 Bryn Mawr Road, Pittsburgh, Pa. *Biochemistry.* Lititz, Pa, May 6, 12. B.S, Pa. State Col, 33, M.S, 34, Ph.D, 36. Asst. agr. and biochem, Pa. State Col, 33–35, instr, 35–36; nat. research fellow nat. sciences, Liverpool, 36–37; Cologne, 37–38, Queen's (Can), 38; senior research fellow and lecturer *chem, Pittsburgh,* 38–41, asst. prof, 41–42, assoc. prof, 42–43, *prof, 43–,* assoc. director research, 42–43, *director Buhl Foundation research project, 43–* Mem. food and nutrition board, Nat. Research Council, 43– Soc. Biol. Chem; Inst. Food Technol; Oil Chemists Soc; Chem. Soc; Biochem. Soc. Composition of natural fats; fat metabolism; nutritional significance of fat; enzymes; synthetic glycerides; physiological action of B vitamins; biological synthesis of vitamin C.

Longfellow, D(wight) W(ebster), Golden Beach, Hollywood, Fla. *Engineering.* Minneapolis, Minn, Dec. 15, 85. C.E, Minnesota, 08. Civil engineer, Bur. Pub. Works, P. I, 08–10; bridge engineer, State Highway Dept, Minn, 11–17; *pres, Elk River Concrete Products Co, 18–* A.A. Terrestrial magnetism and continental drift; eccentricity of magnetic poles; symmetry of continents and mountain systems.

Longley, Dr. A(lbert) E(dward), 636 25th St, S, Arlington, Va. *Botany.* Paradise, N. S, Can, March 12, 93. B.S, Acadia, 20; A.M, Harvard, 22, Ph.D, 23. Teacher, pub. and high schs, 12–16; asst. biol, Acadia, 17–20; Austin teaching fellow bot, Harvard, 20–23; asst, Radcliffe Col, 23; asst. cytologist, *bur. plant indust, U. S. Dept. Agr,* 23–24, asst. botanist, 24–27, *assoc. botanist,* 27– Bot. Soc; Bot. Soc. Wash; Wash. Acad. Cytology of Rubus, Crataegus, Zea and Citrus.

Longley, Prof. L(ewis) E(dward), 1475 N. Cleveland, St. Paul, Minn. *Horticulture.* Howard Co, Iowa, Nov. 21, 80. A.B, Coe Col, 04; M.S, State Col. Wash, 17; Ph.D, Cornell, 32. Instr. floricul, State Col. Wash, 11–13; sci. asst. plant breeding, U. S. Dept. Agr, 13–18; asst. horticulturist, Exp. Sta, Idaho, 18–28; instr. floricul, Cornell, 28–29; *asst. prof. hort, Minnesota, 29–* Soc. Hort. Sci. Floriculture and ornamental horticulture; vegetable seed growing; codling-moths; media for vegetative propagation of plants; lawn fertility; fertilizers; bulb plants.

Longley, Prof. W(illiam) R(aymond), Yale University, New Haven, Conn. *Mathematics.* Noblesville, Ind, Oct. 28, 80. A.B, Butler, 02; B.S, Chicago, 03, M.S, 05, Ph.D, 06; hon. A.M, Yale, 20. Acting prof. *math,* Butler, 03–04; instr, *Sheffield Sci. Sch, Yale,* 06–09, asst. prof, 09–20, prof, 20–28, Colgate prof, 28–37, *James E. English prof,* 37–, acting dean freshmen, 37–38. Math. Asn. rep, Nat. Research Council, 35–38. Math. Soc. (ed, 'Bul,' 26–37; trustee, 35–); Math. Asn; London Math. Soc. Periodic orbits; theory of implicit functions and applications; differential equations.

Longley, Prof. W(illiam) Warren, 935 11th St, Boulder, Colo. *Geology.* Paradise, N. S, Can, April 8, 09. B.Sc, Acadia, 31; M.S, and Ph.D, Minnesota, 37. Asst. geol, Acadia, 29–31; asst. and instr, Minnesota, 31–32, 33–35; instr, Dartmouth Col, 35–40; *asst. prof. econ. geol, Colorado, 40–; geologist, Que. Dept. Mines, 36–* Soc. Econ. Geol; Soc. Explor. Geophys; Min. and Metal. Eng; Can. Inst. Min. and Metal. Pre-Cambrian areas in Quebec.

Longnecker, Capt. Thomas C(hristopher), Reception Center, Ft. Snelling, Minn. *Agronomy, Plant physiology.* Union City, Ind, Aug. 6, 13. B.S, Purdue, 35; M.S, Rutgers, 37, Ph.D, 41. Asst. agron, N. J. Exp. Sta, 35–40, agronomist, 40–41; *capt, Field Artil, U. S. Army, 41–* Relationship between chlorophyll concentration, total chlorophyll and productive capacity in hybrid lines of corn; breeding and selection of turf grasses.

Longnecker, Prof. W(illiam) M(ayne), 3125 Bryn Mawr, Dallas, Texas. *Botany.* Lacey, Iowa, Sept. 12, 98. B.S, Iowa Wesleyan, 23; M.S, Iowa, 27; Ph.D, Chicago, 37. Sch. supt, Iowa, 24–27; asst. prof. *biol, South. Methodist,* 27–35, assoc. prof, 35–43, *prof, 43–* A.A; Soc. Plant Physiol; Limnol. Soc; Texas Acad. (v. pres, sect. 2, 33, treas, 35–37); N. Texas Biol. Soc. (pres, 36). Gastromycetes; wood anatomy; limnology.

Longrée, Prof. Karla, Hampton Institute, Hampton, Va. *Plant pathology.* Immekeppel, Germany, Sept. 7, 05. Dr. Agr, Berlin, 31. Asst. biol, Reichsanstalt für Land- und Forstwirtschaft, Berlin, 31–33; *plant path,* N. Y. State Col. Agr, Cornell, 34–40, instr, N. Y. State Col. Home Econ, 40–41; *assoc. prof, Hampton Inst, 41–* Phytopath. Soc. Varietal resistance of potatoes to scab; effect of temperature and humidity on powdery mildew of roses; black mold of rose grafts.

Longstaff, Prof. H(oward) P(orter), University of Minnesota, Minneapolis, Minn. *Psychology.* Nelsonville, Ohio, Aug. 10, 01. A.B, Ohio (Athens), 23, B.S, 25; A.M, Ohio State, 27; Ph.D, Minnesota, 31. Instr. and asst. prof, Ohio (Athens), 25–27; lecturer and asst. prof. *psychol, Minnesota,* 28–41, *assoc. prof, 41–* Psychol. Asn. General and applied psychology; advertising; personnel.

Longstreet, R(ubert) J(ames), 610 Braddock Ave, Daytona Beach, Fla. *Ornithology, Education.* Mt. Dora, Fla, Sept. 28, 92. B.S, J. B. Stetson, 16, LL.B, 17; Cambridge, 19; Pennsylvania, 26, 27; A.M, Duke, 32. Instr, high sch, *Fla,* 19–20; *supervising prin, pub. schs, Daytona Beach, 20–* Lecturer, J. B. Stetson, 35– Summers, instr, Fla. State Col. for Women, 24, 33; Duke, 35, 36; Florida, 41. Ed, 'Fla. Natural-

ist,' 27– Trustee, Fla. Teachers Retirement System. A.A; assoc. Ornith. Union; Soc. Study Educ; Fla. Audubon Soc. (chairman, exec. cmt, 27–29, pres, 30–36); Fla. Educ. Asn. (pres, 33); Fla. Acad. General ornithology of Florida; education.

Longsworth, Dr. L(ewis) G(ibson), Rockefeller Institute, New York, N. Y. *Physical chemistry.* Somerset, Ky, Nov. 16, 04. A.B, Southwestern Col. (Kans), 25; A.M, Kansas, 27, Ph.D, 28. Nat. research fellow chem, *Rockefeller Inst*, 28–30, asst. *physical chem*, 30–39, *assoc, 39–* Chem. Soc; Harvey Soc; N. Y. Acad. Transference phenomena in solutions of electrolytes; automatic hydrogen ion concentration control; electrophoresis of proteins.

Longtin, Prof. Bruce, 3300 S. Federal St, Chicago, Ill. *Physical chemistry, Thermodynamics.* North Fork, Calif, Aug. 23, 13. B.S, California, 35, M.S, 37, Ph.D. 38. Teaching asst. *chem*, California, 35–38, Shell research fellow, 38–39; instr, *Ill. Inst. Tech*, 39–41, *asst. prof, 41–* Chem. Soc. Thermodynamics of industrial processes; thermodynamic properties of solutions.

Longwell, Dr. Bernard B(arnes), University of Colorado School of Medicine, Denver, Colo. *Biochemistry.* Forseman, Ind, April 12, 04. A.B, Colo. Col, 28; M.S, Colorado, 31, Ph.D, 33. Instr. biochem, sch. med, Colorado, 33–38; Commonwealth Fund fellow biol. chem, col. physicians and surg, Columbia, 38–39; *asst. prof. biochem, sch. med, Colorado, 39–* Chem. Soc; Soc. Exp. Biol. Nutrition; carbohydrate metabolism; steroids and steroid metabolism.

Longwell, Prof. Chester R(ay), Yale University, New Haven, Conn. **Geology.* Spalding, Mo, Oct. 15, 87. A.B, Missouri, 15, A.M, 16, LL.D, 40; fellow, Yale, 19–20, Ph.D, 20. Instr. *geol*, Yale, 16–17, asst. prof, 20–26, assoc. prof, 26–29, *prof, 29–, chairman dept, 38–* From asst. geologist to geologist, U. S. Geol. Surv, 20– Capt, F.A, 17–19. Chairman div. geol. and geog, Nat. Research Council, 37–40. Nat. Acad; A.A; Geol. Soc. (councilor, 37–39; v. pres, 42); Seismol. Soc; Am. Geog. Soc; Geophys. Union. Mountain structure; the Muddy and Virgin Mountains and the Las Vegas quadrangle of Nevada; thrust structure in the Basin Ranges; the Triassic of Connecticut.

Longwell, Prof. S(amuel) E(arl), Hillcrest Ave, Middlebury, Vt. *Anatomy.* Lawrenceville, Pa, Oct. 14, 72. A.B, Bates Col, 02; Ph.D, Brown, 18. Asst. prof. *biol*, Clark Col, 18–19; prof, *Middlebury Col*, 19–43, *emer. prof, 43–*, chairman dept, 25–43. A.A. Muscles and nerves of the eye in the guinea pig; investigations of muscles and nerves; anatomy of the guinea pig.

Longyear, Prof. B(urton) O(range), 628 Elizabeth St, Ft. Collins, Colo. *Botany, Forestry.* Leslie, Mich, July 16, 68. Registered pharmacist, Mich; B.S, Mich. State Col, 03, M.F, 25. Instr. bot, Mich. State Col, 94–04, botanist, Exp. Sta, 03–04; asst. bot. and hort, *Colo. Agr. Col.* 04–08, assoc. prof. bot. and forestry, 08–10, prof, 10–14, assoc. prof. *forestry*, 15–36, *emer. prof, 36–, acting horticulturist, Exp. Sta, 09–* State forester, Colo, 10–14. Mich. Acad. (v. pres, 03); hon. mem. Detroit Mycol. Club. Evergreens, trees and shrubs of Colorado; wood technology; mineralogy.

Lonsdale, Prof. John T(ipton), Iowa State College, Ames, Iowa. *Geology.* Dale, Iowa, Nov. 8, 95. A.B, Iowa, 17, M.S, 21; Ph.D, Virginia, 24. Asst, Iowa, 20–21; asst. prof. geol, Virginia, 21–24; Oklahoma, 24–25; assoc. geologist, Bur. Econ. Geol, Texas, 25–27, geologist, 27–28; *prof. geol. and head dept*, Agr. and Mech. Col. Texas, 28–35; *Iowa State Col, 35–* Field asst, Iowa Geol. Surv, 14; Colo. Geol. Surv, 15; asst. geologist, Va. Geol. Surv, 21–24; temporary field geologist, Okla. Geol. Surv, 24–25. Lieut. col, O.R.C. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Miner. Soc; Iowa Acad. Mineralogy; petrology; economic geology.

Lonseth, Dr. Arvid T(urner), Iowa State College, Ames, Iowa. *Mathematics.* Bellingham, Wash, Dec. 25, 12. A.B, Stanford, 35; Ph.D, California, 39. Teaching asst, California, 36–39; *instr. math*, Armour, 39–40; *Iowa State Col, 40–* Math. Soc; Math. Asn. Partial differential equations; calculus of variations; theory of errors.

Lontz, Major John F(rank), 119 Elm Ave, Burlington, N. J. *Organic chemistry.* Bridgeport, Pa, Oct. 14, 09. B.S, Rutgers, 31; A.M, Temple, 33; univ. fellow, Yale, 35–36, Ph.D, 36. Research chemist, E. I. du Pont de Nemours and Co, 36–42; *major, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc. Plant hormones; bactericides; flotation chemicals.

Loofbourow, Prof. John R(obert), Massachusetts Institute of Technology, Cambridge, Mass. *Biophysics, Physics.* Cincinnati, Ohio, Nov. 1, 03. A.B, Cincinnati, 23, Baldwin fellow, 23–24; Columbia; Chicago; hon. Sc.D, Dayton, 36. Physicist, Crosley Radio Corp, 24–25; consultant, 25–33; instr. physics, Cincinnati, 25–29, research assoc. *biophys*, 29–35; prof, Dayton, 35–36; research prof, Inst. Divi Thomae, 35–40; *assoc. prof, Mass. Inst. Tech, 40–* Ed, 'Bul. Basic Science Research,' 31–35. A.A; fel. Physical Soc; Chem. Soc; Optical Soc; Asn. Physics Teachers; Acoustical Soc; Biochem. Soc; Soc. Motion Picture Eng; Faraday Soc; Chem. Soc. London; Physical Soc. London. Absorption spectroscopy; biological effects of radiant energy; cellular physiology; mechanism of tissue repair following injury; intercellular hormones.

Looker, Dr. C(loyd) D(elson), 436 Mitchell St, Ithaca, N. Y. *Chemistry.* Yatesville, Ohio, Aug. 19, 89. B.S, Ohio State, 18, M.S, 20, Ph.D, 23. Teacher, prin. and sch. supt, 08–15; instr. chem, Ohio State, 18–25, asst. prof, 25–28; *director research*, Baltimore Gas Eng. Corp, W. Va, 28–31; *Int. Salt Co, Inc, Ithaca, 31–* Mem. highway research board, Nat. Research Council, 35– Chem. Soc; fel. Inst. Chem; Soc. Test. Mat. The oxidation of organic compounds with neutral and alkaline potassium permanganate; photosynthesis in the presence of lights of different wave-lengths; paraffin hydrocarbons; utilization of common salt; use of sodium chloride in stabilization of roads and removal of ice from paved surfaces; salting hides and skins.

Loomis, Dr. A(lbert) G(eyer), Shell Development Co, Emeryville, Calif. *Chemistry.* Lexington, Mo, Feb. 17, 93. A.B, Missouri, 14, A.M, 15, fellow, 15–16; Ph.D, California, 19. Teaching fellow, California, 17–18; instr. chem, Illinois, 19–20; asst. prof, Missouri, 20; nat. research fellow, 21–22; physical chemist, cryogenic lab, helium div, U. S. Bur. Mines, 21–28, explosives div, exp. sta, Pittsburgh, 28–29; senior indust. fellow, Mellon Inst, and chief chemist, Gulf Research and Develop. Co, 29–35; *in charge petrol. production research, Shell Develop. Co, 35–*, asst. director, 38–42, *assoc. director, 42–* Lecturer, George Washington, 23–25; Pittsburgh, 31–34. Cooperating expert, Int. Critical Tables. A.A; Chem. Soc; Min. and Metal. Eng; Petrol. Inst; Inst. Petrol. Technol. Gt. Britain. Liquid ammonia systems; properties of matter at low temperatures; flame temperatures; explosives; reaction velocity; colloid physics; petroleum technology.

Loomis, Dr. Alfred L(ee), Tuxedo Park, N. Y. **5Physics.* New York, N. Y, Nov. 4, 87. A.B, Yale, 09, hon. M.S, 33; LL.B, Harvard, 12; hon. Sc.D, Wesleyan, 32; LL.D, California, 41. *Director, Loomis Lab, Tuxedo.* Trustee, Mass. Inst. Tech; Carnegie Institution. Major, U.S.A, 17–19, in charge exp. and develop. work, Aberdeen Proving Grounds. Wetherill medal, Franklin Inst, 34. Nat. Acad; A.A; Physical Soc. (councilor); Philos. Soc; Franklin Inst; Royal Astron. Soc. Physical and biological effects of high frequency sound waves; Aberdeen chronograph; precision measurement of time; electrical potentials of the brain.

Loomis, Dr. Charles Price, 4910 11th St, N, Arlington, Va. *Rural sociology.* Broomfield, Colo, Oct. 26, 05. B.S, N. Mex. Col, 28; M.S, N. C. State Col, 29; Ph.D, Harvard, 33. Instr. sociol, N. C. State Col, 31–32, asst. prof, 32–33; *senior social scientist, bur. agr. econ, U. S. Dept. Agr, 34–* Visiting lecturer, Harvard, 40–42. Farm Econ. Asn; Sociol. Soc. The growth of the farm family in relation to its activities; family composition and socio-economic activities of farmers; the modern settlement movement in Germany; fundamental concepts of sociology; culture of contemporary communities; social relationships and institutions in seven new rural communities.

Loomis, Dr. Dorothy (Mrs. A. L. Daniels), 335 Henry St, Brooklyn, N. Y. *Pathology.* New York, N. Y, Dec. 19, 94. A.B, Wisconsin, 18; M.D, Yale, 31. Bacteriologist, Ariz. State Lab, 19–20; asst. path. and bacter, Henry Phipps Inst, Pennsylvania, 20–23; Rockefeller Inst, 23–26; Van Cott fellow, *L. I. Col. Med*, 34, asst. *path*, 34–38, instr, 38–43, *asst. prof, 43–* N. Y. Path. Soc. Heredity and tuberculosis; allergic irritability; renal vascular disturbances; plastic studies of renal architecture.

Loomis, Prof. F(rancis) Wheeler, University of Illinois, Urbana, Ill. **5Physics.* Parkersburg, W. Va, Aug. 4, 89. A.B, Harvard, 10, A.M, 13, Ph.D, 17. Instr, Harvard, 13–

15; research physicist, Westinghouse Lamp Co, 17, 19–20; asst. prof. *physics*, N. Y. Univ, 20–22, assoc. prof, 22–29; *prof. and head dept, Illinois, 29–; assoc. director radiation lab, Mass. Inst. Tech, 41–* Guggenheim Mem. Foundation fellow, Göttingen and Zurich, 28–29. Ordnance Dept, 17–19, capt. A.A; Physical Soc. (ed. board, 'Physical Rev,' 30–32, councilor, 31–34); Optical Soc; Asn. Physics Teachers; Ill. Acad. Molecular spectra.

Loomis, H(arold) F(rederick), U. S. Plant Introduction Garden, Coconut Grove, Fla. *Agronomy.* Mertensia, N. Y, Dec. 23, 96. Canandaigua Acad, N. Y. Various positions to *senior agronomist in charge plant introd. garden, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 14–* Sci. expeds, China, Guatemala, British Honduras, Costa Rica, Panama, Nicaragua, Haiti, Trinidad, British Guiana and Dutch Guiana. A.A; Wash. Acad. Cotton, rubber and other tropical plants; systematic classification of Coleoptera and millipeds; diseases, culture and behavior of cotton; evolution; rubber culture.

Loomis, Dr. N(athaniel) Edw(ard), 26 Broadway, New York, N. Y. *Physical chemistry.* Grand Rapids, Wis, March 16, 88. B.S, Beloit Col, 08; M.S, Syracuse, 09; fellow, Hopkins, 10–11, Ph.D, 11. Asst. chem, Syracuse, 08–09; instr, Bowdoin Col, 11–12, asst. prof, 12–14; instr. physical chem, Purdue, 14–15, asst. prof, 15–18; chief chemist, Wood River Refinery, Standard Oil Co. of Ind, 18; Standard Oil Co. of N. J, 18–19, director exp. div, 19–27, manager tech. service div, 27–36, asst. to v. pres, 33–36; *manager tech. service depts, Standard Oil Develop. Co, 36–, director and v. pres, 37–* Expert chem, U. S. Dept. Agr, 09–10. Chem. Soc; Deuts. Chem. Gesell. Lead silicates; calomel and hydrogen electrodes; application of hydrogen electrodes to the study of organic compounds; petroleum technology.

Loomis, Dr. W(alter) E(arl), Iowa State College, Ames, Iowa. *Botany.* Makanda, Ill, June 12, 98. B.S, Illinois, 21; M.S, Cornell, 22, Ph.D, 24. Asst, Illinois, 21; Cornell, 21–24; nat. research fellow, 24–25; asst. prof. hort, Arkansas, 25–27; *assoc. prof. plant physiol, Iowa State Col, 27–* Agent, bur. plant indust, U. S. Dept. Agr, 38, bur. econ, 41. C.Eng, U.S.A, 17–19. A.A; Bot. Soc; Soc. Plant Physiol. (sec'y-treas, 39–41, v. pres, 41, pres, 42); Soc. Hort. Sci; Soc. Agron; Torrey Bot. Club; Iowa Acad. Plant chemistry; translocation and growth; absorption of energy by plants; physiology of rubber production.

Looney, Dr. Joseph M(ichael), Worcester State Hospital, Worcester, Mass. *Biochemistry.* Somerville, Mass, April 3, 96. A.B, Harvard, 16, M.D, 20. Instr. biochem, Harvard Med. Sch, 20–22; director research lab, Sheppard and Enoch Pratt Hosp, 22–26; asst. prof. physiol. chem, Jefferson Med. Col, and chem. pathologist, Jefferson Hosp, 26–30, acting prof, 30–31; director labs, Mem. Foundation Neuro-Endocrine Research, 31–42; *major, Med. Corps, U. S. Army, 42–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Am. Med. Asn; Asn. Study Int. Secretions; Mass. Soc. Research Psychiat; Boston Soc. Biol; Phila. Physiol. Soc. Tyrosine, tryptophane and cystine in proteins; flexible collodion membranes; cystine in urine; creatine content of the blood and muscle tension; undetermined nitrogen of blood and depressions; calcium level of blood and changes caused by parathyroid extracts; the chemistry of mental disorders; mercuric chloride poisoning; colloidal carbon solution; direct Nesslerization blood urea; hormones; methods for proteins in blood and spinal fluids.

Looney, Dr. W(illiam) W, Baylor University College of Medicine, Dallas, Texas. *Anatomy.* Dallas Co, Texas, Sept. 6, 91. Certificate, N. Texas State Teachers Col, 12; M.D, Baylor, 18, A.B, 26. *Prof. anat, col. med, Baylor, 18–* Am. Med. Asn. Nervous mechanism of bladder action; structure of urinary vesicle neck; the nervous system of man.

Looper, Dr. J(ames) B(urdine), University of Mississippi, University, Miss. *Histology, Embryology.* Easley, S. C, April 25, 00. B.S, Furman, 22; M.S, Virginia, 25, Ph.D, 27; M.D, Chicago, 37. Teacher, high sch, S. C, 22–23; instr. biol. and physics, Furman, 23–24; assoc. prof. *histol. and embryol, sch. med, Mississippi, 26–29, prof, 29–, asst. dean, 43–* Summer, instr, Virginia, 26; assoc. prof, col. med, Tennessee, 32. Walker prize, Boston Soc. Nat. Hist, 26. Asn. Anat; Miss. Acad. (sec'y, 30); Va. Acad. Zoology; food reactions of Actinophrys sol; cytoplasmic fusion; bantam caeca; reticulum of rat ovary; thymus of the alligator.

Loosanoff, Dr. Victor L, U. S. Bureau of Fisheries, Milford, Conn. *Fisheries.* Kiev, Russia, Oct. 3, 99. B.S, Washington, 27; Ph.D, Yale, 36. Asst. marine biologist, State Bur. Fisheries, Wash, 27–30; marine biologist, Cmn. Fisheries, Va, 31; *aquatic biologist, Bur. Fisheries, 32–, director biol. lab, 35–* Asst. to state sanit. engineer, Wash, 27–30. A.A. Aquatic biology; fish culture; pollution of water by industrial waste and its effect upon the fish; biology and physiology of oysters and starfish; chemistry of sea water; marine ecology; sex in clams.

Loosli, Dr. Clayton G, University of Chicago, Chicago, Ill. *Medicine.* Marysville, Idaho, March 18, 05. B.S, Idaho, 30; M.S, Chicago, 31, Ph.D, 34, M.D, 37. Asst. zool, Idaho, 30–31; anat, Chicago, 33–35; intern, Hopkins Hosp, 37–38; asst. *med, Chicago,* 38–39, instr, 40–42, *asst. prof, 42–* Consultant to U. S. Sec'y War on epidemic diseases; mem. cmn. pneumonia, influenza and cross infection, Board Epidemic Disease, U. S. Army, 41. Asn. Anat; Soc. Exp. Path; Cent. Soc. Clin. Research. Microscopic anatomy of the lungs; experimental pneumococcal pneumonia; experimental virus influenza infections; air sterilization; propylene glycol; treatment of experimental infections; sulfonamides; infectious disease; teaching internal medicine.

Loosli, Prof. J(ohn) K, R. D. 2, Ithaca, N. Y. *Animal nutrition.* Clarkston, Utah, May 16, 09. B.S, Utah State Col, 31; M.S, Colo. Col, 32; Ph.D, Cornell, 38. Instr. agr, branch, Utah Agr. Col, 33–35; asst. animal nutrition, Cornell, 35–38; agent, bur. biol. surv, U. S. Dept. Agr, 38–39; *asst. prof. animal nutrition, Cornell, 39–; collaborator, fish and wildlife service, U. S. Dept. Interior, 39–* A.A; Chem. Soc; Dairy Sci. Asn; Soc. Animal Production. Fat metabolism.

Lopatin, Prof. Ivan Alexis, University of Southern California, Los Angeles, Calif. *Anthropology.* Olochi, Russia, Jan. 17, 88. B.S, Kazan, 12; M.A, British Columbia, 29; Ph.D, Southern California, 35. Teacher, high schs, Russia, 12–17; director, Teachers Sem, Nikolaevsk on the Amur, 17–19; privat-docent, Far East. State Univ, 20–25; prof, Pedagog. Col, Harbin, China, 25–26; *asst. prof. anthrop, Southern California, 35–* Director, Teachers' Sem, Habarovsk, 20; Museum, Russian Geog. Soc, 20. Mem. anthrop. exped. to Lower Amur, Far East. Board Trade, Russia, 15–16; Summers, mem. anthrop. expeds. to Far East, Russian Imp. Geog. Soc, 13, 14; exped. to Orochee Tribe, Forestry Dept. Govt. Land Board, 24; exped. to Kitimat Indians of British Columbia, Nat. Museum Can, 30. Soc. Am. Archeol; Southwest Archeol. Asn; Russian Geog. Soc. The Goldi of the Amur; the Orochee Tribe, congeners of the Manchu; the extinct and near-extinct tribes of northeastern Asia as compared with the American Indian; fossil man in the vicinity of Los Angeles.

Lorah, Prof. James R(ichard), University of Missouri, Columbia, Mo. *Chemistry, Chemical engineering.* Chewelah, Wash, Aug. 25, 00. B.S, Washington (Seattle), 21, M.S, 24, Ph.D, 27. Asst. prof. and *assoc. prof. chem. eng, Missouri, 27–* Chem. Soc; Chem. Eng; Eng. Educ. Industrial chemistry; colloids; calcium phosphates; crystallization.

Lorand, Dr. E(ugene) J(enö), 1208 Lovering Ave, Wilmington, Del. *Chemistry.* Debreczen, Hungary, Oct. 8, 89. D.E, Tech. Univ, Budapest, 13. Instr, Tech. Univ, Budapest, 13–19; tech. director, Orion Tartaric Acid Mfg. Co, Hungary; instr, Pa. State Col, 26, asst. prof, 26–28; *research chemist, Hercules Powder Co, 28–* Chem. Soc; N. Y. Acad. The action of sulfur monochloride on petroleum hydrocarbons; the nature of coffee aroma; tartaric acid and its salts; production of acetylene from petroleum hydrocarbons and alcohols; higher fatty acid esters of cellulose and starch; cellulose ethers; surface active materials; synthesis of glycerine; oxidation of terpenes.

Lorch, Dr. Arthur E(dward), 2 Brook Road, Tenafly, N. J. *Physical chemistry, Electrochemistry, Catalysis.* Frankfort, May 16, 03. A.B, Columbia, 24, A.M, 25, Ph.D, 32. Instr. chem, Columbia, 28–41; *research chemist, Air Reduction Co, 41–* Lecturer, Hunter Col, 41. Electrochem. Soc. (sec'y-treas, div. theoret. electrochem, 38–41); Chem. Soc; N. Y. Acad. Electrochemical polarization; overvoltage; conductance; catalysis; kinetics of reactions; corrosion; pyrolysis.

Lorch, Prof. Edgar Raymond, 2 Brook Road, Tenafly, N. J. *Mathematics.* Switzerland, July 22, 07. A.B, Columbia, 28, Ph.D, 33. Instr. *math, Columbia,* 31–33, 35–41, *asst. prof, 41–* Nat. research fellow, Harvard, 33–34; Cutting traveling fellow, Univ. Szeged, 34–35. Linear analysis.

Lorch, Dr. Lee (Alexander), National Committee of Aeronautics, Box 2913, Langley Field, Va. *Mathematics.* New

York, N. Y, Sept. 20, 15. A.B, Cornell, 35; A.M, Cincinnati, 36, Ph.D, 41; Hopkins, 36–37. *Asst. mathematician, Nat. Advisory Cmt. Aeronautics, 42–* Math. Soc. Fourier series.

Lord, Dr. C(lifford) S(ymington), Geological Survey, Department of Mines and Resources, Ottawa, Ont, Can. *Field geology.* New Westminster, B. C, Aug. 24, 08. B.A, British Columbia, 29, M.A, 33; Ph.D, Mass. Inst. Tech, 37. *Asst. geologist, Geol. Surv. Can.* Can. Inst. Min. Geological mapping and investigations in Canada.

Lord, E(arll) L(eslie), Box 1386, De Soto City, Fla. *Pomology.* Otselic, N. Y, Nov. 7, 81. A.B, Cornell, 09; M.S, Florida, 29. Head dept. biol, La. Polytech, 11–20; asst. prof. bot. and hort, Florida, 21–25, prof. hort, 25–30, pomol, 30–33; *consulting horticulturist, 33–* Ed, 'Subtrop. Gardening,' 38– Bot. Soc; Soc. Hort. Sci; Fla. Grape Growers' Asn. (pres, 25–); Fla. Acad. Subtropical horticulture; citriculture; viticulture.

Lord, Dr. Edwin Chesley Estes, Cosmos Club, Washington, D. C. *Geology, Petrography.* Brooklyn, N. Y, May 7, 68. Ph.D, Heidelberg, 94; M.S, Harvard, 01. Asst. geologist, U. S. Geol. Surv, 95–97; prof. geol. and miner, Hamilton Col, 99–00; Austin teaching fellow miner. and petrog, Harvard, 00–01; *petrographer, U. S. Dept. Agr, 01–* Geol. Soc. Wash. Geology and petrography of Germany and the United States; relation of mineral composition and rock structure to the physical properties of rocks; disperse colloids in bituminous solutions; protection of concrete against alkali and salt water action.

Lord, Erskine D(aniel), 9 Pilgrim Road, Marblehead, Mass. *Chemistry, Engineering.* Lawrence, Mass, Aug. 4, 99. B.S, Mass. Inst. Tech, 20. Asst. and research assoc. chem, Mass. Inst. Tech, 20–25; chief chemist and asst. supt, *J. S. Barnet and Sons, Inc, Mass,* 25–39, *supt, 39–* A.A; fel. Inst. Chem; Chem. Soc. Tanning.

Lord, Dr. Frederic P(omeroy), 39 College St, Hanover, N. H. *Anatomy.* Hanover, N. H, Dec. 28, 76. A.B, Dartmouth Col, 98, M.D, 03. Demonstrator anat, Iowa, 04–09, instr, 09–11; *prof. anat, Dartmouth Med. Sch, 11–* Practising physician, 04–10. Med. director, Y.M.C.A, U.S.A, 18, 19. A.A; Asn. Anat; Am. Med. Asn; Ornith. Union; N. H. Med. Soc. (pres, 34). Joint of the human jaw; muscles of mastication.

Lord, Prof. G(eorge) Ross, University of Toronto, Toronto, Ont, Can. *Hydraulics, Mining engineering.* Peterborough, Ont, Feb. 2, 06. B.A.Sc, Toronto, 29, Ph.D, 39; M.S, Mass. Inst. Tech, 32; John R. Freeman fellow, Am. Soc. Mech. Eng, Europe, 32–33. Engineer, Gen. Motors of Can, 29–30; asst. to director, Tech. Service Council Can, 31–32; lecturer *mech. eng, Toronto,* 34–39, *asst. prof, 39–* Mech. Eng; Eng. Inst. Can. Turbines; pumps; water-power; river models; earth dams; mine ventilation; micro-projector for the counting of dust in the prevention of silicosis.

Lord, Dr. R(ichard) C(ollins), Jr, Johns Hopkins University, Baltimore, Md. *Physical chemistry.* Louisville, Ky, Oct. 10, 10. B.S, Kenyon Col, 31; Ph.D, Hopkins, 36. Nat. research fellow *chem,* Michigan, 36–37; Copenhagen, 37–38; *assoc, Hopkins, 38–* Board assoc. editors, 'Jour. Chem. Physics.' A.A; Chem. Soc. Molecular structure; molecular spectroscopy.

Loree, Prof. Robert Earl, R. F. D. 1, East Lansing, Mich. *Horticulture.* Fenwick, Mich, Oct. 25, 80. B.S, Mich. State Col, 13, M.S, 25. Instr. *hort, Mich. State Col,* 13–16, *asst. prof, 16–* Small fruits.

Lorente de Nó, Dr. R(afael), Rockefeller Institute, New York, N. Y. **Physiology.* Zaragoza, Spain, April 8, 02. M.D, Madrid, 23. Asst, Inst. Cajal, Madrid, 21–29; head dept. otolaryngol, Valdecilla Hosp, Santander, 29–31; neuroanatomist, Cent. Inst. for the Deaf, St. Louis, Mo, 31–36; assoc. *physiol, Rockefeller Inst,* 36–38, assoc. mem, 38–41, *mem, 41–* Lecturer, med. sch, Washington (St. Louis), 35–36. Anatomy of the central nervous system; physiology of the labyrinth; neurophysiology.

Lorenz, Dr. Egon (Karl Ferdinand), 3000 39th St, N.W, Washington, D. C. *Physics.* Breslau, Germany, Oct. 18, 91. Ph.D, Breslau, 21. Instr. physics, Breslau, 18–23; med. physics, Frankfurt, 23–28, privat-docent, 28; research fellow, Harvard, 28–30, lecturer, 29–30; biophysicist, *U. S. Pub. Health Service,* 30–39, *senior biophysicist, nat. cancer inst, 39–* Int. research fellow, Harvard, 27–28; cancer investigations and research fellow, Harvard Med. Sch, 30–39. Biophysics; radiations; mitogenic rays; spectroscopy; carcinogenic compounds.

Lorenz, Dr. F(rederick) W(harton), University of California College of Agriculture, Davis, Calif. *Poultry husbandry.* Berkeley, Calif, Dec. 30, 08. B.S, California, 31, Ph.D, 38. Analyst, *poultry husbandry div, California,* 31–35, instr, *col. agr,* 38–43, *asst. prof, 43–,* junior poultry husbandman and later *asst. poultry husbandman, Exp. Sta.* Chem. Soc; Poultry Sci. Asn; Cooper Ornith. Club. Avian physiology; physiology of reproduction; egg quality.

Lorenz, Dr. George A(lfred), 651 E. Vandalia, Edwardsville, Ill. *Chemical engineering.* Northbrook, Ill, Sept. 9, 09. B.S, Illinois, 31; Ph.D, Minnesota, 35. Teaching asst. inorg. chem, Minnesota, 31–35; research, *Shell Oil Co, Inc,* 35–36, head pilot plant research, 36–40, *senior technologist, 40–* Chem. Soc. Gasoline treatment; petroleum solvents; plant design.

Lorenz, Dr. O(scar) A(nthony), University of California College of Agriculture, Davis, Calif. *Truck crops, Plant nutrition.* Colorado Springs, Colo, Dec. 5, 14. B.S, Colo. State Col, 36; Ph.D, Cornell, 41. Asst. hort, Colo. State Col, 36–37; veg. crops, Cornell, 37–41; *instr. truck crops, California, 41–* Mem, Agr. Cmn. to Bermuda, 39. Soc. Hort. Sci. Mineral nutrition of vegetable crops; microelement nutrition; boron deficiency in table beets; soil and plant nutrient relationships; environmental factors affecting vegetable production.

Lorenz, Dr. Ralph W(illiam), University of Illinois, Urbana, Ill. *Forestry.* Waseca, Minn, Aug. 19, 07. B.S, Minnesota, 30, Ph.D, 38. Asst. plant physiol, sect. plant physiol, Minnesota, 30–33; junior forester, U. S. Forest Service, Duluth, Minn, 33–35; instr. *forestry,* univ. farm, Minnesota, 35–38; assoc, *Illinois,* 38–41, *asst. chief, 41–* Summers, field asst, Cloquet Forest Exp. Sta, Minn, 29, 30; Lake States Forest Exp. Sta, U. S. Forest Service, 31. A.A; Soc. Plant Physiol; Soc. Foresters; Ill. Acad. High temperature relationship of forest trees; silvics.

Lorenz, R(olland) C(arl), care of Mrs. W. C. Christianson, 535 Summit Ave, Red Wing, Minn. *Forestry.* Waseca, Minn, Aug. 19, 07. B.S, Minnesota, 30, M.S, 42. Instr. plant path. and bot, Minnesota, 30–31; asst, Firestone Plantations, Monrovia, Liberia, 31–33; tech. asst, div. forest path, bur. plant indust, *U. S. Dept. Agr,* 34–35, asst. forest pathologist, 35–40, forest pathologist div. rubber plant investigations, surv. in Cent. and S. Amer. and West Indies, 40–41, *forest pathologist, Latin Am. div, office for. agr. relations, 42–* A.A; Soc. Foresters. Forest pathology.

Lorenz, Dr. W(illiam) F(rederick), University of Wisconsin, Madison, Wis. *Neuropsychiatry.* New York, N. Y, Feb. 15, 82. A.B, N. Y. Univ, M.D, 03. Senior asst. physician, Manhattan State Hosp, N. Y, 07–10; clin. director, Wis. State Hosp, 10–13; special expert, U. S. Pub. Health Service, 13–15; *director, Wis. Psychiat. Inst, 15–;* assoc. prof. nervous and mental diseases, *Wisconsin,* 15–19, *prof. neuropsychiat, 19–* Pres, State Board Control, Wis, 24–25. D. S medal. Major, M.C, and commanding officer, Field Hosp. No. 127, 17–19. Psychiat. Soc; Am. Med. Asn; Cent. Psychiat. Asn; Milwaukee Neur. Soc. Mental diseases; therapy of neurosyphilis.

Lorge, Dr. Irving (Daniel Michael), Teachers College, Columbia University, New York, N. Y. *Psychology.* New York, N. Y, April 19, 05. Fellow, Col. City of N. Y, 25–27, B.S, 26; A.M, Columbia, 28, Ph.D, 30. Asst. psychol, *inst. educ. research, Teachers Col, Columbia,* 27–30, research assoc, 30–39, *exec. officer div. psychol, 39–, assoc. prof. educ, col, 38–, assoc. adult educ, 41–* Consulting statistician, N. Y. Sugar Trade Lab, 31–; collaborator, bur. agr. econ, U. S. Dept. Agr. for resurvey Am. agr. villages, 36–37; special consultant to U. S. Sec'y War, 41–; expert consultant to chief, Corps Engineers, U. S. Army, 41–; Army Specialized Training Div, 42– Consulting ed, 'Psychometrika'; mem. board rev, 'Jour. Parapsychol'; consulting ed, 'Jour. Applied Psychol.' Consulting statistician, Pres. Hoover's research cmt. on social trends, 31. A.A; Psychometric Soc. (chairman, membership cmt. and councilor, 36–; treas); Psychol. Asn; Statist. Asn; fel. Asn. Applied Psychol; Soc. Study Educ; Educational Research Asn; East. Psychol. Asn. (director); fel. N. Y. Acad. (chairman, sect. psychol, v. pres, 36). Learning; statistics; adult psychology.

Lorig, Dr. C(larence) H(erman), 505 King Ave, Columbus, Ohio. *Metallurgy.* St. Paul, Minn, Aug. 2, 00. B.S, Wisconsin, 24, M.S, 25, Ph.D, 28. Metallurgist, French Battery Co, 26–27; asst. prof. mech. eng, Drexel Inst, 29–30; *metallurgist, Battelle Mem. Inst, 30–* Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn; Soc. Test. Mat; British Foundryman Asn. Viscosity and electrical conductivity of blast furnace slags; cast iron; process and physical metallurgy; copper in steel and iron; phosphorus in steel.

Lorimer, Prof. Frank (William), 1901 F St, N.W, Washington, D. C. *Sociology.* Bradley, Maine, July 1, 94. A.B, Yale, 16; B.D, Union Theol. Sem, 24; Ph.D, Columbia, 29. Lecturer social theory, Wellesley Col, 28–29; research sec'y, Brooklyn Conf. Adult Educ, 29–30; research fellow, Eugenics Research Asn, 30–33; sec'y, Popul. Asn. Amer, 34–38; *prof. popul. studies, grad. sch, American Univ. (D. C), 38–* Sec'y cmt. on popul. problems, Nat. Resources Cmt, 36–37; consultant, State Planning Board, Va, 39–; research assoc, Princeton, 40–; consultant, Office Strategic Services, 42– Popul. Asn. Amer. del, Int. Popul. Cong, Paris, 37; del, Am. Council Learned Socs, 42– A.A; Sociol. Soc; Statist. Asn; Popul. Asn. Social science; demography.

Loring, Dr. Blake M(arshall), U. S. Naval Research Laboratory, Washington, D. C. *Physical metallurgy.* Belmont, N. H, March 21, 14. B.S, Mass. Inst. Tech, 37, Sc.D, 40. Teaching asst. x-ray metallog, Mass. Inst. Tech, 37–40; *asst. metallurgist, U. S. Naval Research Lab, 40–* Instr, grad. sch, U. S. Dept. Agr, 40–42. Min. and Metal. Eng; Soc. Metals. Measurement of stresses in metals by x-rays; metallography; special treatment steels.

Loring, Prof. Hubert S(cott), Stanford University, Calif. *Biochemistry.* Belize, British Honduras, Nov. 19, 08. A.B, Pomona Col, 29; M.S, Illinois, 30, Ph.D, 33. Asst. chem, Illinois, 29–32; biochem, med. sch, George Washington, 32–33, instr, 33–35; fellow, Rockefeller Inst, 35–36, asst, 36–39; asst. prof. *biochem, Stanford,* 39–42, *assoc. prof, 42–* Soc. Biol. Chem; Chem. Soc. Chemistry and metabolism of sulfuramino acids; chemistry of plant viruses; nucleic acid chemistry; purification of poliomyelitis virus.

Loring, John Alden, Owego, N. Y. *Ornithology.* Cleveland, Ohio, March 6, 71. Owego Free Acad. Bur. biol. surv, U. S. Dept. Agr, 91–97; curator animals, N. Y. Zool. Park, 97–01; Denver Zool. Park, 08–09; field naturalist, Roosevelt-Smithsonian exped, Africa, 09–10. Ornith. Union; Soc. Mammal. Oology; mammalogy.

Loring, Prof. Ralph A(lden), University of Louisville, Louisville, Ky. *Physics.* Hingham, Mass, June 16, 97. B.S, Dartmouth Col, 19; Whiting fellow, Harvard, 23–25, A.M, 24; univ. scholar, Ohio State, 31–32, Ph.D, 32. Instr. math, Dartmouth Col, 20–22; asst. physics, Harvard, 22–23, 25–26, instr, 26–27; Northwestern, 27–31; fellow, Ohio State, 32–34; asst. prof. *physics* and acting head dept, *Louisville,* 34–37, *assoc. prof. and head dept, 37–* A.A; Physical Soc. Zeeman effect; multiplet structure; hyperfine structure.

Loritsch, Dr. J(ohn) A(nton), 344 Glen Ave, Scotia, N. Y. *Organic chemistry.* Wheeling, W. Va, Dec. 30, 14. B.S, Notre Dame, 36, M.S, 37, Ph.D, 39. *Research chemist,* Rohm and Haas Co, 39–40; *Gen. Elec. Co, 40–* Chem. Soc. Resin chemistry; polymerization reactions; organoboron chemistry; acetylene chemistry.

Lorriman, Prof. Fred(erick) R(eginald), 40 College St, Toronto, Ont, Can. *Chemistry.* Thorold, Ont, Nov. 26, 98. B.A, Toronto, 21, M.A, 22, Ph.D, 24. Research chemist, E. I. du Pont de Nemours and Co, 24–28; lecturer *chem, Toronto,* 27–30, asst. prof, 30–35, *assoc. prof, 35–* Chem. Soc; Soc. Dyers and Colorists; Can. Inst. Chem. Friedel-Craft reaction; lead tetraethyl; vat dyes of the anthraquinone series.

Lortie, Prof. Léon, 5585 Gatineau Ave, Montreal, Que, Can. *Inorganic and analytical chemistry.* Montreal, Que, Aug. 31, 02. B.A, Montreal, 23, Lic. ès Sc, 27; D.Sc, Paris, 30. Res. doctor, Cornell, 30–31; asst. prof. chem, *Montreal,* 31–35, *assoc. prof. inorg. chem, 35–* Rockefeller Foundation fellow, 28–31. Fel. Can. Inst. Chem. (pres, 42); London Chem. Soc; Soc. de Physique et de Chim. de Montreal (pres, 32–34). Absorption of gases; chemistry of the rare earths; analytical reactions; history of Canadian chemistry; education.

Lory, Dr. Cha(rle)s A(lfred), Estes Park, Colo. *Physics.* Sardis, Ohio, Sept. 25, 72. B.S, Colorado, 01, M.S. 02. LL.D, 09; Sc.D, Denver, 14, Colo. State Col, 40; LL.D, Colo. Col, 24; D.Ed, Colo. State Col. Educ, 34. Prin, high sch, Colo, 02–04; acting prof. physics, Colorado, 04; prof, Colo. Agr. Col, 05–07, physics and elec. eng, 07–09, pres, 09–35, *Colo. State Col,* 35–40, *emer. pres, 40–* Pres, Colo. Conf. Social Workers, 23. Consultant, Nat. Resources Planning Board, 40–42. Colo. Council of Defense, 17–18, 41–42. A.A; Eng. Educ; Land Grant Col. Asn. (v. pres, 09, 17, 18, pres, 19, exec. cmt, 40); Asn. Adv. Agr. Teaching; Asn. West. Agr. Cols. (pres, 15); Colo. Educ. Asn. (pres, 25). College organization; irrigation.

Lorz, Prof. Albert P, Seton Hall College, South Orange, N. J. *Cytology, Genetics.* Meadville, Pa, Sept. 11, 07. A.B, Allegheny Col, 30; Blandy Exp. Farm fellow, Virginia, 31–35, Ph.D, 35. Asst. prof. *biol,* Canisius Col, 35–38; *prof. and head dept, Seton Hall Col, 38–* Genetics Soc. Cytogenetics of Spinacia; cytology of Chenopodiaceae.

Losh, Dr. Hazel Marie, University of Michigan, Ann Arbor, Mich. *Astronomy.* Blanchester, Ohio, Aug. 28, 98. A.B, Ohio Wesleyan, 20; fellow, Michigan, 21–24, A.M, 22, Ph.D, 24. Asst, Perkins Observatory, 20–21; instr. *astron,* Smith Col, 24–25; Mt. Wilson Observatory, Carnegie Institution, 25–27; instr, *Michigan,* 27–36, *asst. prof, 36–* A.A; Astron. Soc; Hist. Sci. Soc; Astron. Soc. Pacific; fel. Royal Astron. Soc. Astrophysics; solar astronomy.

Lossing, Dr. F(red) P(ettit), Apt. 7, 145 St. Marc St, Shawinigan Falls, Que, Can. *Physical chemistry.* Norwich, Ont, Can, Aug. 4, 15. B.A, Western Ontario, 38, M.A, 40; Nat. Research Council Can. student, McGill, 41–42, Ph.D, 42. Demonstrator, Western Ontario, 38–40; McGill, 40–41; *research chemist, Shawinigan Chem, Ltd, 42–* Vinyl plastics.

Lothrop, Prof. Alfred P(ierce), Oberlin College, Oberlin, Ohio. *Chemistry.* Leominster, Mass, June 25, 84. A.B, Oberlin Col, 06, A.M, 07; Ph.D, Columbia, 09. Asst. biochem, Columbia, 08–09, instr, 09–12, assoc, 12–14; asst. prof, Queen's (Can), 14–16, prof, 16–25; assoc. prof. *chem, Oberlin Col,* 25–26, *prof, 26–* Chem. Soc; Soc. Biol. Chem. Organic chemistry; biochemistry; nutrition.

Lothrop, Dr. Rex Elias, 7843 Eastern Ave, Chestnut Hill, Philadelphia, Pa. *Chemistry.* New Orleans, La, Dec. 21, 97. B.S, Tulane, 20; M.S, Washington (Seattle), 28; Ph.D, George Washington, 43. Chemist, Swift and Co, Oregon, 20–21; instr. agr. chem, Oregon State Col, 21–29; asst. chemist, bur. chem. and soils, *U. S. Dept. Agr,* 29–35, assoc. chemist, 35–38, chemist, 38–39, senior chemist, *east. regional research lab, bur. agr. and indust. chem,* 39–42, *prin. chemist, 42–* Chem. Soc. Colloid and agricultural chemistry; emulsions; chemistry of sugars and sugar products; industrial utilization of farm products.

Lothrop, Dr. S(amuel) K(irkland), 1061 Madison Ave, New York, N. Y. *[S]Anthropology.* Milton, Mass, July 6, 92. A.B, Harvard, 15, Ph.D, 21. Field work and exploration, Andover-Pecos exped, 15; Carnegie Institution exped, Tulum, 16, 22, Guatemala, 32, 33; Peabody Museum exped, Cent. Amer, 17, Panama, 33, Peru, 41; Museum Am. Indian Heye Foundation exped, Ketchipaun, 23; Cent. Am. exped, 24–26, 28; Tierra del Fuegan and La Plata expeds, 24–25; Chile exped, 29–30; *asst. curator Middle Am. archeol, Peabody Museum, Harvard, 35–* Second lieut, Mil. Intel, 17–19. A.A; Soc. Archeol; Anthrop. Asn; Archeol. Inst; Wash. Acad; Royal Anthrop. Inst; Soc. des Américanistes de Paris; Soc. de Hist. Nat. de Chile; Soc. Argentina de Anthropologia; Inst. Andean Research; Soc. Geog. de Lima. Middle American archeology and ethnology.

Lothrop, Dr. Warren C(raig), Trinity College, Hartford, Conn. *Organic chemistry.* Brookline, Mass, March 7, 12. A.B, Harvard, 33, A.M, 35, Ph.D, 37. Nat. Tuber. fellow, Yale, 37–38; *instr. chem, Trinity Col. (Conn), 38–* Chem. Soc. Aromatic hydrocarbons; Mills-Nixon effect; lipids of tubercle bacillus.

Lotka, Dr. Alfred J(ames), Beattie Park, Red Bank, N. J. *Mathematics.* Lemberg, Austria, March 2, 80. B.Sc, Birmingham (England), 01, D.Sc, 12; Leipzig, 01–02; A.M, Cornell, 09; Hopkins, 23–24. Asst. chemist, Gen. Chem. Co, 02–08; asst. physics, Cornell, 08–09; asst. examiner, U. S. Patent Office, 09–11; asst. physicist, Bur. Standards, 09–11; ed, 'Sci. Am. Supplement,' 11–14; chemist, Gen. Chem. Co, 14–19; supervisor math. research, *statist. bur, Metropolitan Life Ins. Co,* 24–34, *asst. statistician, 34–* De Lamar lecturer, Hopkins, 34. Sec'y, nat. cmt, Int. Union Sci. Investigation Popul. Problems, 31; Popul. Asn. Amer. del, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, Paris, 37. A.A; fel.

Statist. Asn. (v. pres, 38, pres, 42); Math. Soc; Pub. Health Asn; Ecol. Soc; Econometric Soc; fel. Inst. Math. Statist; Popul. Asn. (v. pres, 36, pres, 38); Wash. Acad; Royal Econ. Soc; Inter Am. Statist. Inst; Swiss Actuarial Soc; Int. Statist. Inst. Physical biology; population analysis.

Lott, William A(dolf), Squibb Institute for Medical Research, New Brunswick, N. J. *Chemistry.* Atlantic City, N. J, Feb. 9, 98. B.S, Rutgers, 21, Van der Poel fellow, 21–22, M.S, 22. Instr, Rutgers, 22–25; *research labs, E. R. Squibb and Sons, 25–*, head research group, 26–38, *head div. med. chem, Squibb Inst. Med. Research, 38–* Lieut, U.S.A, 18. Chem. Soc; fel. Inst. Chem; N. Y. Acad. Organic chemistry; anesthetics; hypnotics; modifiers of autonomic nervous system; germicides; correlation between chemical constitution and pharmacological action; chemotherapy.

Lott, Dr. Wreal Lester, Box 483, Clewiston, Fla. *Chemistry.* Lehi, Utah, May 13, 10. A.B, Brigham Young, 33; Am. Zinc and Chem. Co. fellow, Cornell, 35–38, Ph.D, 39. Asst. chemist, Utah-Idaho Sugar Co, 33; *soil technologist, U. S. Sugar Corp, 39–* Optical Soc. Aspects of zinc injury in agricultural crops.

Loucks, Dr. Charles M(alcolm), University of Tulsa, Tulsa, Okla. *Chemistry.* Russell, N. Y, Jan. 20, 06. B.S, St. Lawrence, 26; M.S, Illinois, 31; Ph.D, N. Y. Univ, 37. *Instr. physical chem, Tulsa, 37–* Chem. Soc; Farm Chemurgic Council; Engineers Club Tulsa. Phase rule studies of three and four component systems involving inorganic salts, water and aqueous ammonia solutions.

Loucks, Dr. Harold H(unsberger), Peiping Union Medical College, Peiping, China. *Surgery.* Alverton, Pa, March 2, 94. A.B, Findlay Col, 14; M.D, Western Reserve, 21. Intern, Lakeside Hosp, Cleveland, 21–22; *dept. surg, Peiping Union Med. Col, 22–30, prof. and head dept, 30–* A.A; Am. Med. Asn; Col. Surg; Chinese Med. Asn. Abdominal surgery; hydatid disease; vascular diseases.

Loucks, Dr. Roger Brown, School of Aviation Medicine, Randolph Field, Texas. *Psychology.* Toledo, Ohio, 03. B.S, Minnesota, 27, Ph.D, 30. Asst. psychol, Minnesota, 27–30; nat. research fellow, Phipps Psychiat. Clinic, Hopkins Hosp, 30–32, Rockefeller Foundation fellow, 32–33, asst. psychobiol, 33–36; instr. *psychol, Washington (Seattle),* 36–38, *asst. prof, 38–; senior psychologist, dept. psychol, Sch. Aviation Med, Randolph Field, 41–* Psychol. Asn. Conditioned reflexes; cerebral localization; neuromuscular physiology.

Louderback, Prof. Geo(rge) D(avis), University of California, Berkeley, Calif. **[3]*Geology.* San Francisco, Calif, April 6, 74. A.B, California, 96, Ph.D, 99. Asst. miner, California, 97–00; prof. geol. and physics, Nevada, 00–03, *geol,* 03–06; asst. prof, *California,* 06–07, assoc. prof, 07–17, *prof, 17–*, dean col. letters and science, 20–22, 30–39, faculty research lecturer, 40. Asst, Carnegie Institution, 03–05. Cmt. sedimentation, Nat. Research Council, 20–24. In charge Standard Oil geol. exped, China, 14–15, P. I, 16; Chinese Govt, 15–16. In charge cooperative war mineral investigations in Calif. for U. S. Bur. Mines, U. S. Geol. Surv. and State Council Defense, 18–19. A.A; fel. Geol. Soc. (sec'y, Cordilleran sect, 06–14, chairman, 19–22; v. pres, 36); Soc. Econ. Geol. (v. pres, 39); Asn. Petrol. Geol; Miner. Soc; Seismol. Soc. (sec'y, 06–10, pres, 14, 29–35, ed, 35–); Min. and Metal. Eng; Am. Geog. Soc; Geophys. Union; Pacific Oceanog. Soc; Calif. Acad; Wash. Acad. West coast stratigraphy; mineralogy; physiographic and structural geology; sedimentation; basin range structure; physical history of Pacific Coast, China and the Philippine Islands.

Lougee, Prof. F(lora) Marion, Keuka College, Keuka Park, N. Y. *Chemistry.* North Parsonfield, Maine, May 6, 92. A.B, Bates Col, 14; A.M, Illinois, 21, Ph.D, 24. Teacher, high sch, 14–18; instr. *chem,* Illinois, 19–24; *prof, Keuka Col, 24–* C.W.S, U.S.A, 18–19. A.A; Chem. Soc; Inst. Chem. Selenium compounds as spray materials.

Lougee, Prof. Richard J(ewett), 1 Essex Road, Waterville, Maine. *Geology.* Malden, Mass, Feb. 12, 05. B.S, Dartmouth Col, 27; A.M, Michigan, 29; fellow, Columbia, 32–33, Ph.D, 38. Instr. geol, Dartmouth Col, 27–28; special investigator, Am. Geog. Soc, 29–32; lecturer, Barnard Col, Columbia, 34; asst. prof. geol, Vermont, 35; asst. soil conservationist, U. S. Dept. Agr, 35–36; asst. prof. *geol, Colby Col, 36–37, chairman dept, 36–, assoc. prof, 37–* Geologist, State Flood Surv, N. H, 27; N. H. Gravel Surv, 30; N. H. Biol. Surv. of Conn. Watershed, 39. Int. Geol. Cong, U.S.S.R, 37. Maine Min. and Geol. Soc. (pres, 38–40); fel. Geol. Soc. Finland. Floods; glacial deposits; raised shore lines.

Lough, Dr. James E(dwin), Harbor Lane, New Rochelle, N. Y. *Psychology.* Eaton, Ohio, June 24, 71. A.B, Miami (Ohio), 91, A.M, 94, hon. D.Pd, 13; A.B, Harvard, 94, A.M, 95, Ph.D, 98. Teacher, pub. schs, Ohio, 91–93; instr. psychol, Radcliffe Col, 94–98; Harvard, 96–98; Wellesley Col, 97–98; prof, Wis. State Nor. Sch, Oshkosh, 98–01; physiol. and exp. psychol, sch. of pedag, N. Y. Univ, 01–27, sec'y, 02–16, director summer sch, 04–22, dean extra-mural div, 08–26; *pres, Univ. Travel Asn, and educ. director, Univ. World Cruise, 26–* Philos. Asn. Physiological basis of intensity of sensations; mental development of school children; habit formation and control.

Lough, Dr. Orpha Maust, State Teachers College, Fredonia, N. Y. *Child psychology, Mental hygiene.* Scott City, Kans. A.B, Kans. State Col, 22, fellow, 22–23, M.S, 23; univ. scholar, Stanford, 23–24; Columbia, 33–34; Ph.D, N. Y. Univ, 36. Registrar, Harriette Melissa Mills Sch, N. Y, 29–32, asst. prin, 32–35, prin, 35–41; asst. prof. educational psychol, sch. educ, N. Y. Univ, 41–42; *asst. prof. psychol. and assoc. head dept, N. Y. State Teachers Col, 42–* V. pres. and psychologist, Scudder Sch, N. Y, 35–40; lecturer, Adelphi Col, 39–42. Summers, instr, Kans. State Col, 23, 25–28. Trustee, Mills Sch, N. Y, 30–41, sec'y board of trustees, 39–41; v. pres, Scudder Sch, N. Y, 35–40. A.A; assoc. Psychol. Asn; Council Women Psychol; East. Psychol. Asn; N. Y. State Asn. Applied Psychol; N. Y. Acad. Effect of functional periodicity on the learning process; dextrality; mental tests as a means of raising standards of scholarship.

Lough, Dr. S(amuel) Allan, U. S. Public Health Service, Washington, D. C. *Venereal diseases.* Baldwin, Kans, Aug. 28, 00. A.B, Denver, 24; M.S, Michigan, 27, fellow, 31–32, Ph.D, 33. Asst. physiol. chem, Michigan, 24–25, 27; instr. chem, Nevada, 28–29, asst. prof, 29–33, assoc. prof, 33–39; biometrician, div. venereal diseases, U. S. Pub. Health Service, 40–42; *capt, Sanit. Corps, U. S. Army, 42–* Acting asst. prof, Michigan, 32–33. A.A; Chem. Soc. Metabolism of cystine synthesis of amino acid; massive dose therapy of syphilis.

Loughborough, Dr. Dwight L(ogan), B. F. Goodrich Co, Akron, Ohio. *Physics.* Mont, March 11, 12. A.B, Wisconsin, 33, A.M, 34, Ph.D, 36. Asst, U. S. Forest Products Lab, U. S. Forest Service, 34–36; *physicist, B. F. Goodrich Co, 36–* Summer, scholar, Gen. Elec. Co, 36. Chem. Soc; Physical Soc. Textile physics; test developments; tire construction.

Loughborough, W(illiam) Karl, 1 Langdon St, Madison, Wis. *Forest engineering.* Sterling, Nebr, Jan. 1, 84. Doane Col, 00–01. Forest ranger, *Forest Products Lab, U. S. Forest Service,* 10–18, from asst. engineer to engineer *forest products,* 18–35, *senior engineer, 35–* Exten. lecturer, Forest Products Lab, U. S. Forest Service. Soc. Foresters. Drying schedules for native species of wood; design of kiln equipment; liquid-wood relations; thermodynamics of swelling; mathematical theory of drying solids; lumber storage; seasoning timber with chemicals; methods of plasticizing wood; moulding sawdust; converting wood to a product having properties similar to sheet steel.

Loughlin, Dr. G(erald) F(rancis), U. S. Geological Survey, Washington, D. C. **[4]*Geology.* Hyde Park, Mass, Dec. 11, 80. B.S, Mass. Inst. Tech, 03; Ph.D, Yale, 06. Asst. geol, Mass. Inst. Tech, 03–04; Yale, 05–06; instr, Mass. Inst. Tech, 06–12; assoc. geologist, *U. S. Geol. Surv,* 12–17, geologist, 17–26, senior geologist *in charge sect. metalliferous deposits,* 26–35, *chief geologist, 35–* Instr, Tufts Col, 07–08; Boston, 08–09; field asst, U. S. Geol. Surv, 03; Conn. Nat. Hist. and Geog. Surv, 04–06. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Miner. Soc; Min. and Metal. Eng; Wash. Acad; Geol. Soc. Wash. Economic geology; metalliferous deposits; rock products.

Loughridge, Prof. Donald H(olt), University of Washington, Seattle, Wash. *Physics.* Lincoln, Nebr, Sept. 4, 99. B.S, Calif. Inst. Tech, 23, Ph.D, 27. Research physicist, U. S. Steel Corp, 28–29; consulting physicist, Pasadena, 29–30; asst. prof. *physics,* Southern California, 30–31; assoc. prof, *Washington (Seattle),* 31–41, *prof, 41–; prin. physicist, Nat. Defense Research Cmt, 41–* Traveling fellow from Calif. Inst. Tech, Europe, 23. Physical Soc; Chem. Soc; Elec. Eng. Direction of photoelectric emission; magnetic analysis of steel; photoelectric cells; ultra-violet radiation; cloud expansion tech-

nique applied to nuclear physics; x-ray spectroscopy; cosmic rays.

Loughridge, Dr. Gasper A, Goodland, Ind. *Plant morphology.* North Vernon, Ind, Nov. 7, 00. A.B, Indiana, 25; Ph.D, Rutgers, 31. Nursery manager, U. S. Forest Service and soil conservation service, U. S. Dept. Agr, 34–42; *med. div, Air Corps, U. S. Army, 42–* A.A; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club. Morphology of the pteridophytes; plant taxonomy and ecology.

Lounsbury, W(illiam) C(otton), 1424 Vermilion Road, Duluth, Minn. *Chemistry, Engineering.* Brooklyn, N. Y, Feb. 13, 80. B.S, Mass. Inst. Tech, 04. Asst. to Prof. L. P. Kinnicutt, Worcester Polytech, 04–05; sci. asst, U. S. Dept. Agr, 05; chemist and supt. water works, Superior, Wis, 06–12; gen. supt, Superior Water, Light and Power Co, 12–18, gen. manager, 18–23, manager, 23–35; *safety director, Minn. Power and Light Co, 35–, director personnel, 42–* A.A; fel. Pub. Health Asn; Duluth Eng. Club (v. pres, 30, 36). Iron removal from ground waters; water supply.

Lourie, Dr. R(eginald) S(pencer), New York State Psychiatric Institute and Hospital, 722 W. 168th St, New York, N. Y. *Child psychiatry.* Brooklyn, N. Y, Sept. 10, 08. B.S, Cornell, 30; M.D, L. I. Col. Med, 36; Sc.D, Columbia, 41. Asst. bacter, research labs, City Dept. Health, New York, 30–31; intern. and res. pediat. and psychiat, L. I. Col. Hosp, 36–38; Chas. V. Chapin Hosp, Providence, R. I, 38; N. Y. State Psychiat. Inst. and Hosp, 38–39; Bellevue Psychiat. Hosp, 39–40; *research fellow psychiat, Scottish Rite Fund and Markle Foundation, N. Y. State Psychiat. Inst. and Hosp, 40–; Bellevue Psychiat. Hosp, 40–; assoc. research psychiat, col. physicians and surg, Columbia, 42–; lieut, Med. Corps. V(S), U. S. Naval Res.* Asst. pediatrician, Vanderbilt Clinic, 41–; psychiatrist, N. Y. Asn. Jewish Children, 41–Soc. Research Child Develop; Psychiat. Asn; Orthopsychiat. Asn; N. Y. Soc. Child Psychiat. Autonomic nervous system development in children; psychopathology and psychophysiology of childhood; flight selection.

Loustalot, Dr. A(rnaud) J(oseph), U. S. Pecan Field Station, Brownwood, Texas. *Plant physiology.* New Orleans, La, July 14, 13. B.S, Louisiana, 35, M.S, 36; Ph.D, Cornell, 39. Asst, Louisiana, 35–36; Cornell, 36–39; *agent and asst. pomologist, nut investigations, bur. plant indust, U. S. Dept. Agr, 39–* Soc. Hort. Sci. Catalase activity; photosynthesis; transpiration; curing of pecan fruit; chemical composition of transplanted pecan trees as affected by treatment with indolebutyric acid.

Louttit, Prof. C(hauncey) M(cKinley), Indiana University, Bloomington, Ind. *Psychology.* Buffalo, N. Y, Oct. 9, 01. B.S, Hobart Col, 25; Ph.D, Yale, 28. Asst, Training Sch, Vineland, N. J, 25; inst. psychol, Yale, 25–28; research assoc, dept. educ. and psychol, and research psychologist, psychol. clinic, Hawaii, 28–30; asst. prof. psychol, Ohio (Athens), 30–31; *clin. psychol, Indiana,* 31–37, *assoc. prof, 37–, director psychol. clinic, 31–;* psychologist, Naval Med. Sch, 40–41, asst. chief psychol. div, 41–42; *lieut. commander, training div, bur. personnel, U. S. Naval Res, 42–* Psychologist, Kamehameha Schs, Honolulu, 29–30. Summer, Oregon, 37; Ohio State, 39. A.A; Psychol. Asn; Asn. Applied Psychol. (exec. sec'y, 40–42, pres, 43); Midwest. Psychol. Asn. Clinical psychology; reproductive behavior of guinea pigs; psychological bibliography; psychology of race difference.

Love, Charles H(ervey), C. K. Williams and Co, Easton, Pa. *Chemistry.* Easton, Pa, June 17, 05. B.S, Lafayette Col, 27, Ch.E, 35. Control and research chemist, E. I. du Pont de Nemours and Co, 27; chief research chemist, *C. K. Williams and Co,* 27–37, *director* tech. service, 37–39, *tech. sales, 39–* A.A; Chem. Soc; Soc. Rheol. Paints; pigments; polishing rouges; dispersion of pigments in rubber.

Love, Prof. Clyde E(lton), University of Michigan, Ann Arbor, Mich. *Mathematics.* Bancroft, Mich, Dec. 21, 82. A.B, Michigan, 05, A.M, 08, Ph.D, 13. Instr. *math, Michigan,* 05–13, asst. prof, 13–20, assoc. prof, 20–25, *prof, 25–* Math. Soc; Math. Asn. Integral, linear differential and linear difference equations.

Love, Prof. Harry H(ouser), 119 Oak Hill Road, Ithaca, N. Y. *Plant genetics.* Taylorville, Ill, March 19, 80. B.S, Ill. Wesleyan, 04, A.M, 06; Illinois, 06–07; Ph.D, Cornell, 09. Asst. chem, Illinois, 04–05, *plant breeding,* 05–07; *Cornell,* 08–09, asst. prof, 09–11, *prof, 11–* Visiting prof, Nanking, 25–29; organizing agr. work, Chinese govt, 31–34, hon. adviser, Nat. Agr. Research Bur. Summers, special adviser agr. research, Exp. Sta, Puerto Rico, 39, 40. A.A; Soc. Nat; Soc. Agron. Plant and cereal breeding; statistical methods.

Love, J(ames) L(ee), 610 Fountain Place, Burlington, N. C. *Mathematics.* Gaston Co, N. C, Dec. 30, 60. Ph.B, North Carolina, 84; Hopkins, 84–85; A.M, Harvard, 90. Asst. prof. math, North Carolina, 85–89; instr, Harvard, 90–01, asst. prof, 01–11; cotton mfg. and dyeing, 11–36; *retired.* Sec'y faculty, North Carolina, 87–89; instr, Radcliffe Col, 90–99. Mem. admin. board, Lawrence Sci. Sch, Harvard, 95–07, sec'y, 99–06, acting dean, 04, 06, exec. officer in charge summer sch, 00–09. Calculus.

Love, Dr. J(ohn) David, U. S. Geological Survey, Washington, D. C. *Geology.* Riverton, Wyo, April 17, 13. A.B, Wyoming, 33, A.M, 34; univ. fellow, Yale, 35–37, Howe fellow, 37–38, Ph.D, 38. Asst. geologist, Geol. Surv. Wyo, 33–37; field asst, U. S. Geol. Surv, 38; asst. geologist, Shell Oil Co, Inc, 38–40, geologist, 40–42; asst. geologist, *U. S. Geol. Surv,* 42–43, *assoc. geologist, 43–* Asn. Petrol. Geol; Paleont. Soc; N. Y. Acad. Stratigraphy and petroleum geology; tertiary stratigraphy and structure of the Rocky Mountains; petroleum geology of the Illinois Basin area.

Love, Prof. Lila Belle, Womans College, University of North Carolina, Greensboro, N. C. *Bacteriology.* Fremont, Nebr, July 8, 93. B.S, Miss. State Col, for Women, 16; M.S, Nebraska, 21; Hopkins, 25–26; Chicago, 30–31; N. Y. Post-Grad. Med. Sch, 35. Malaria microscopist, Rockefeller Foundation, 17–18; U. S. Pub. Health Service, 18–19; asst. bacteriologist, State Health Dept, Nebr, 22–23, director labs, 24–25; *assoc. prof. bacter, Woman's Col, North Carolina, 26–* Differential culture media for the isolation and identification of the colon-typhoid group; immunology.

Love, Prof. R(obert) Merton, University of California College of Agriculture, Davis, Calif. *Cytogenetics.* Tantallon, Sask, Can, Jan. 29, 09. B.Sc, Saskatchewan, 32, M.Sc, 33; Nat. Research Council Can. bursar, McGill, 34–35, Ph.D, 35. Instr, Saskatchewan, 30–32, asst, 32–33; McGill, 33–34; asst. agr. scientist, cereal div, cent. exp. farm, Can. Dept. Agr, 35–40; lecturer *agron, col. agr, California,* 40–41, *asst. prof, 41–,* junior agronomist, *Exp. Sta,* 40–41, *asst. agronomist, 41–* Special lecturer, McGill, 38. Can. Dept. Agr. official del, Int. Genetical Cong, Edinburgh, 39. Genetics Soc; Bot. Soc; Soc. Agron; Can. Soc. Tech. Agr. Cytology and genetics of grasses; improvement of native range grasses.

Love, S(amuel) Kenneth, U. S. Geological Survey, Washington, D. C. *Chemistry.* Erie, Pa, Jan. 4, 03. B.S, Florida, 27, M.S, 30. *Chemist, U. S. Geol. Surv, 28–* Chem. Soc; Geophys. Union. Chemistry of natural waters; character of surface and ground water in southeastern Florida; measurement of sediment loads in San Juan, Little Colorado and Boise Rivers and in several small streams.

Love, Dr. W(illiam) Wray, Dowell, Inc, Midland, Mich. *Petroleum geology.* Downingtown, Pa, Jan. 2, 96. A.B, Illinois, 28, M.S, 30, Ph.D, 35. Am. Petrol. Inst. asst, Illinois, 28–30; geologist, Apure-Venezuela Petrol. Corp, 30–32; *research engineer, Dowell, Inc, 35–* Min. and Metal. Eng. Origin of porosity in limestone oil-reservoir rocks; migration and accumulation of petroleum; petroleum production; relation of geology to the process of acidizing.

Lovejoy, Dr. A(rthur) O(ncken), Johns Hopkins University, Baltimore, Md. *Philosophy.* Berlin, Germany, Oct. 10, 73. A.B, California, 95, LL.D, 24; A.M, Harvard, 97; Paris, 98–99; D.Litt, Princeton, 40; L.H.D, Kenyon Col, 41. Asst. prof. philos, Stanford, 99–00, assoc. prof, 00–01; prof, Washington (St. Louis), 01–08; Missouri, 08–10; Hopkins, 10–38; *retired.* Lecturer, Columbia, 07–08; California, 22; London, 31; Carus lecturer, 27; lecturer, Harvard, 38, William James lecturer, 32. A.A; Philos. Asn. (pres, 15); Asn. Prof. (pres, 19); West. Philos. Asn. (pres, 08). Eighteenth century philosophy; history of the theory of evolution; meaning of the psycho-physical distinction; history of primitivism; analysis of cognitive phenomena.

Lovejoy, Ellis, 480 W. Sixth Ave, Columbus, Ohio. *Ceramics.* Columbus, Ohio, April 5, 60. E.M, Ohio State, 85. Field asst, Ohio Geol. Surv, 83, 85; chemist, Columbus Brick and Terra Cotta Co, Ohio, 86–87, supt, 87–03; manager, Imp. Clay Co, Ohio, 03–04; consulting engineer, Ceramic Industries, 04–06; pres-treas, Richardson-Lovejoy Eng. Co, Ohio, 06–16; consulting engineer ceramics, 16–28; *research director,* Orton Mem.

Lab, *Columbus*, 28-33, *Edward Orton Ceramic Foundation*, *33–* Treas, Scott Kiln Drying Co, 06-08. Benjamin G. Lamme medal, Ohio State, 37. Fel and hon. life mem. Ceramic Soc. (v. pres, 06, treas, 06–12, pres, 13); Min. and Metal. Eng; Ohio Ceramic Industries Asn. The Pomeroy coal field; scum and efflorescence; cause and prevention of scum; economics in brick yard construction and operation; drying and burning clay wares; fundamentals and economies in ceramic industries.

Lovelace, Dr. Floyd E(dward), 18 Broad St, Clifton Springs, N. Y. *Chemistry.* North Stockholm, N. Y, Aug. 27, 05. A.B, Cornell, 28, Ph.D, 35. Anal. chemist, Halcomb Steel Co, 25–26; asst. chem, Cornell, 28–30; N. Y. Exp. Sta, Geneva, 30–43; *chemist, Curtice Brothers Co, Rochester, 43–* Chem. Soc. Composition of feeds and fertilizers; orange seed globulin; optical rotation; rotatory dispersion of proteins; casein plastics; food processing.

Loveless, Dr. Mary Hewitt, New York Hospital, 525 E. 68th St, New York, N. Y. *Allergy, Immunology.* Clovis, Calif, April 28, 99. A.B, Stanford, 21, M.D, 25. Research fellow, dept. allergy, Roosevelt Hosp, New York, 35–38; instr. *med, med. col, Cornell*, 38–40, *research assoc, 40–*; asst. physician to outpatients, *dept. med, New York Hosp*, 38–40, *physician to outpatients, 40–* Soc. Study Asthma and Allied Conditions; Asn. Immunol; Am. Acad. Immunological studies of allergy.

Lovell, Prof. Alfred H(enry), 3000 Geddes Ave, Ann Arbor, Mich. *Electrical engineering.* Hamilton, Ont, Can, July 13, 84. B.S, Michigan, 09, M.S, 14. *Consulting engineer, 09–*; instr. *elec. eng, Michigan*, 10–13, asst. prof, 13–16, assoc. prof, 16–19, *prof, 19–* C.Eng, U.S.A, 17–19. Elec. Eng; Eng. Educ. Elements of electric traction; electrolysis; power plant and transmission design; rate structures.

Lovell, Dr. Constance (Dora), University of Southern California, Los Angeles, Calif. *Psychology.* Columbia, Mo, March 11, 14. A.B, Carleton Col, 36; A.M, Southern California, 39, Ph.D, 42. Asst, psychol. lab, *Southern California*, 37–42, *instr, 42–* Assoc. Psychol. Asn. Psychometrics; personal variation; factor analysis of tests of human ability.

Lovell, Dr. George D(oss), Grinnell College, Grinnell, Iowa. *Psychology.* Waco, Texas, Aug. 28, 16. A.B, Baylor, 38; A.M, Northwestern, 39, Ph.D, 41. *Instr. psychol, Grinnell Col, 41–* Summer, instr, Mich. State Col, 42. Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; Midwest. Psychol. Asn. Experimental, clinical and social psychology; vocabulary; monotony and relaxation; levels of aspiration.

Lovell, Prof. Harvey B(ulfinch), University of Louisville, Louisville, Ky. *Zoology.* Waldoboro, Maine, June 9, 04. A.B, Bowdoin Col, 24; A.M, Harvard, 27, Ph.D, 33. Teaching fellow, Harvard, 27–29; asst. prof. *zool, Louisville*, 29–36, *assoc. prof, 36–* Ecol. Soc; Soc. Zool; Soc. Mammal; Wilson Ornith. Club; Ky. Acad. (assoc. ed, 40–); Ky. Ornith. Soc. (pres, 41–). Pollination of flowers and insect visitors of flowers; experimental embryology; Apoidea; experimental embryology; ornithology.

Lovell, Wheeler G(lass), General Motors Research Bldg, Detroit. Mich. *Chemistry.* Mason City, Iowa, Oct. 1, 00. A.B, Harvard, 22; M.S, Mass. Inst. Tech, 24. Chemist, Nat. Aniline and Chem. Co, 24–25; *asst. head org. chem. dept, research div, Gen. Motors Corp, 25–* Chem. Soc; Soc. Automotive Eng; Eng. Soc. Detroit. Chemistry of petroleum and combustion in internal combustion engine.

Loveridge, Arthur, 27 Everett St, Cambridge, Mass. *Herpetology.* Penarth, South Wales, May 28, 91. Univ. South Wales. Asst, dept. bot, museum, Manchester Univ, 11; dept. zool, Nat. Museum, Wales, 11–14; curator, Nat. Hist. Museum, Nairobi, Kenya Colony, 14–20; asst. game warden, Tanganyika Territory, 21–23; asst. curator *herp, museum comp. zool, Harvard*, 24–32, assoc. curator, 32–34, *curator, 35–* Zool. exped, E. Africa, 26–27, 29–30, 33–34, 38–39. E. African Mounted Rifles, 15–18. Soc. Ichthyol. and Herp; Biol. Soc. Wash; cor. mem. Zool. Soc. London; cor. mem. Cardiff Naturalists' Soc; E. Africa and Uganda Nat. Hist. Soc. African herpetology and East African natural history.

Lovering, Prof. T(homas) S(eward), University of Michigan, Ann Arbor, Mich. *[6]*Economic geology.* St. Paul, Minn, May 12, 96. E.M, Minnesota, 22, M.S, 23, Ph.D, 24. Instr. geol, Minnesota, 22–24; Arizona, 24–25; junior geologist, *U. S. Geol. Surv*, 25–26, asst. geologist, 26–29, assoc. geologist, 29–38, *geologist, 38–*; assoc. prof. *econ. geol, Michigan*, 34–37, *prof, 37–* Yale exped, Newfoundland and Labrador, 20. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Asn. Petrol. Geol; Geophys. Union; Wash. Acad; Mich. Acad; Colo. Sci. Soc. Mining geology; heat conduction; metalliferous deposits; theory of failure of materials; physiography and Precambrian geology of the Rocky Mountains; strategic minerals.

Lovett, Dr. E(dgar) O(dell), Rice Institute, Houston, Texas. *[1]*Mathematics, Celestial mechanics.* Shreve, Ohio, April 14, 71. A.B, Bethany Col. (W. Va), 90, B.S, A.M, 92, LL.D, 34; A.M, Ph.D, Virginia, 95; Ph.D, Leipzig, 96; fellow by courtesy, Hopkins, 97; LL.D, Drake, 98, Tulane, 11, Baylor, 20, Bethany Col, 34; Sc.D, Colo. Col, 27. Instr. math, West. Ky. Col, 90–92; astron, Virginia, 92–95; lecturer, Chicago, 97; instr. math, Princeton, 97–98, asst. prof, 98–00, prof, 00–05, astron, 05–08; pres, *Rice Inst*, 08–41, *emer. pres, 41–* Trustee, Rice Inst; mem. Cmn. Relief Belgium Educ. Foundation. A.A. (v. pres, 08); Math. Soc. (assoc. ed, 'Bul,' 97–02); Astron. Soc; Philos. Soc; fel. Royal Astron. Soc; London Math. Soc; Soc. math. de France; Circolo Mat. di Palermo. The theories of Sophus Lie and celestial mechanics; applications of the theory of periodic orbits; integrals of the problem of n bodies.

Lovett, Prof. I(srael) Herrick, 1606 Rolla St, Rolla, Mo. *Electrical engineering.* Council Bluffs, Iowa, March 1, 90. B.S, Mass. Inst. Tech, 14; E.E, Missouri, 24; M.S.E, Michigan, 28. Chief elec. designer, New Eng. Power Construction Co, 16–20; instr. *elec. eng*, Worcester Polytech, 20–21; *prof, Mo. Sch. Mines, 21–* Elec. Eng; Eng. Educ. Fundamental principles of alternating currents; power transmission; networks problems.

Loving, Prof. R(obert) E(dward), University of Richmond, Richmond, Va. *Physics.* Wilmington, Va, April 20, 74. A.B, Richmond, 96, A.M, 98; fellow, Hopkins, 01–02, Ph.D, 05; Cornell, 19–20. Prof. *physics*, Cornell Col. (Iowa), 06–07; instr, Missouri, 07–08; *prof, Richmond, 08–* Acting prof, Cornell, 27–28. Assoc. physicist, Bur. Standards, 17. A.A; Physical Soc; Optical Soc; Va. Acad. (pres, 26); Asn. Physics Teachers. Electrical discharge.

Loving, Dr. Walker L(afayette), Oglethorpe University School of Medicine, Atlanta, Ga. *Bacteriology, Pathology.* Joplin, Mo, July 8, 03. B.S, Little Rock Col, 28; M.S, Emory, 31; Ph.D, Tulane, 40. Asst. bacteriologist, food and drug admin, U. S. Dept. Agr, 36–42, assoc. biochemist, south. regional research lab, bur. agr. chem. and eng, 42–43; *prof. bacter, sch. med, Oglethorpe, 43–* Biochemistry and microbiology of sweet potato starch and related products; infection of rabbits with the bacillus from human leprosy; retting of goldenrod leaves; yeast propagation.

Lovitt, Prof. W(illiam) V(ernon), 1927 Wood Ave, Colorado Springs, Colo. *Mathematics.* Whiting, Kans, Feb. 7, 81. A.B, Nebraska, 03; Ph.M, Chicago, 07, Ph.D, 14. Instr. *math*, Washington (Seattle), 07–12; Harvard, 12–13; Purdue, 13–15, asst. prof, 15–18; assoc. prof, *Colo. Col*, 18–21, *prof, 21–*, dean men, 28–38. Math. Soc; Math. Asn. Analysis; statistics; mathematics for students of agriculture and general science; mathematics of business; integral equations; theory of equations.

Lovvorn, Prof. Roy L(ee), North Carolina State College, Raleigh, N. C. *Agronomy.* Lamar, Ala, Jan. 24, 10. B.S, Ala. Polytech, 31; A.M, Missouri, 33; Ph.D, Wisconsin, 42. County agent, Mo. Agr. Exten. Service, 33–34; assoc. agronomist, soil conservation service, U. S. Dept. Agr, 35–36; asst. agronomist, Exp. Sta, *N. C. State Col*, 36–39, *assoc. prof. agron, 39–* A.A; Soc. Agron; Ecol. Soc. Effect of environmental factors on temporary and permanent pastures and hay crops; pasture and forage crops.

Low, Prof. Fletcher, Dartmouth College, Hanover, N. H. *Chemistry.* Essex, Mass, April 7, 93. B.S, Dartmouth Col, 15; A.M, Columbia, 17, Ph.D, 27. Instr. *chem, Dartmouth Col*, 17–24, asst. prof, 24–34, *prof, 34–* Chem. Soc; N. H. Acad. Analytical chemistry; inorganic colloids.

Low, Dr. Frank N(orman), University of North Carolina, Chapel Hill, N. C. *Anatomy.* Brooklyn, N. Y, Feb. 9, 11. A.B, Cornell, 32, Ph.D, 36. Charlton fellow *anat*, med. sch, Tufts, 36–37; instr, *North Carolina*, 37–39, *asst. prof, 39–* Asn. Anat. Thymus; anatomical notes; peripheral vision.

Low, Dr. George W(illiam), Jr, American Viscose Corp, Front Royal, Va. *Chemistry.* Woburn, Mass, June 5, 10. A.B, Princeton, 31, Ph.D, 35. Instr. chem, Amherst Col, 35–

39; *chemist, Am. Viscose Corp, 39–* A.A; Chem. Soc. Analytical chemistry.

Low, Dr. J(essop) B(udge), Field Laboratory, Illinois State Natural History Survey, Havana, Ill. *Wildlife.* Millville, Utah, March 30, 14. B.S, Utah State Col, 37; M.S, Iowa State Col, 39, Ph.D, 41. Asst, Iowa State Col, 37–41; *asst. game technician, Ill. State Nat. Hist. Surv, 41–* Waterfowl of Iowa.

Lowan, Prof. Arnold N, 312 Schenectady Ave, Brooklyn, N. Y. *Mathematics, Mathematical physics.* Jassy, Roumania, June 10, 98. Chem.E, Polytech. Inst. Bucharest, 24; M.S, N. Y. Univ, 29; Ph.D, Columbia, 34. Research physicist, Combustion Utilities Corp, Linden, N. J, 28–31; mem. Inst. Advanced Study, 33–34; assoc. prof. *physics, Yeshiva Col,* 34–42, *prof, 42–; tech. director math. tables project,* Works Progress Admin, 38–42; *Bur. Standards, 42–* Instr, Brooklyn Col, 35–40. A.A; Math. Soc; Physical Soc. Complete solution of problem of the cooling of the earth considered as a radioactive sphere; boundary value problems in heat conduction and wave motion; computation of mathematical tables.

Lowdermilk, Dr. W(alter) C(lay), U. S. Department of Agriculture, Washington, D. C. *Forestry, Agriculture.* Liberty, N. C, July 1, 88. B.A, Oxford, 14, B.S, 15, M.A, 21; Ph.D, California, 29. Forest ranger, U. S. Forest Service, 15–17, research officer, dist. 1, 19–22; research prof. forestry, Univ. Nanking, 22–27; senior silviculturist in charge erosion stream flow investigations, Calif. Forest Exp. Sta, U. S. Forest Service, 28–33; v. director soil erosion service, U. S. Dept. Interior, 33–35; chief div. research, *soil conservation service, U. S. Dept. Agr,* 35–39, *asst. chief, 39–* Mem. Belgium Relief Cmn, 14–15; counselor, Near East Foundation; adviser soil and forestry conservation and flood control, Chinese Govt. Mem. surv. land use of European, North Africa and Near East lands with special reference to soil erosion, soil and water conservation and flood control, U. S. Dept. Agr, 38–39. In charge sci. expeds, N. China, 23–27. Am. Soc. Foresters del, Pan-Pacific Science Cong, Tokyo, 26, Victoria, 33; del, Int. Cong. Soil Science, Oxford, Eng, 35. Medal, Belgium Relief Cmn. U.S.A, 17–19. A.A; Soc. Foresters; Ecol. Soc; fel. Am. Geog. Soc; Geophys. Union (pres, 41–); Pacific Sci. Asn. (chairman, cmt. land classification and utilization); fel. Royal Geog. Soc; Int. Soc. Soil Sci. Erosional phenomena; erosion and stream flow; influences of vegetation and land use on erosion, stream flow and water supply; hydrology; adjustment of human populations to land resources; agricultural archeology.

Lowe, Prof. Belle, Iowa State College, Ames, Iowa. *Foods.* Livingston Co, Mo, Feb. 7, 86. Ph.B, Chicago, 18, M.S, 34. Teacher, pub. schs, Mo, 12–15, supervisor and teacher, 15–18; *Iowa State Col, 18–, assoc. prof. foods and nutrition, 21–,* bur. home econ, 23–24.

Lowe, Prof. Charles W(illiam), University of Manitoba, Winnipeg, Man, Can. *Botany.* Birmingham, Eng, Jan. 2, 85. B.Sc, Birmingham, 14, scholar, 14, M.Sc, 15; Manitoba, 21. Lecturer *bot, Manitoba,* 16–31, asst. prof, 31–36, *assoc. prof, 37–* Research medal, Man. Nat. Hist. Soc, 23. A.A; Bot. Soc; Ecol. Soc; Man. Nat. Hist. Soc. (pres, 25); Winnipeg Sci. Club. Canadian fresh-water algae and marine diatoms; ecology.

Lowe, Dr. Clifton D(unkle), U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Tarlton, Ohio, Dec. 14, 83. D.V.M, Ohio State, 10. Instr. animal husbandry and veterinarian, Exp. Sta, Pa. State Col, 10–11; vet. inspector, bur. animal indust, U. S. Dept. Agr, 11–12; live stock develop. agent, South. Ry. Co, 12–14; beef cattle specialist, Univ. Tennessee and U. S. Dept. Agr, 14–17; field rep, Am. Aberdeen-Angus Breeders Asn, 17–21; state veterinarian, Tenn, 23; *senior exten. animal husbandman, bur. animal indust, U. S. Dept. Agr, 23–* Animal breeding; production of superior types of animals which use feeds efficiently and also provide products acceptable to consumers.

Lowe, Dr. E(dmund) W(aring), McHenry, Ill. *Chemistry.* Dover, Minn, July 28, 05. B.S, Hamline, 26; M.S, Chicago, 29, Ph.D, 30. Instr. chem, Hamline, 26–27; Julius Stieglitz fellow med. chem, Chicago, 30–34; *pres, Edwal Labs, 34–* Chem. Soc. Structure of salts of nitriles; hypnotics; photographic development; photo-sensitive papers; general industrial problems.

Lowe, Dr. James T(empleton), Wisconsin Alumni Research Foundation, Madison, Wis. *Biochemistry.* Templeton, Wis, Sept. 3, 08. B.S, Wisconsin, 30, M.S, 32, Ph.D, 35. Asst, Wisconsin, 32–36; *research assoc, Wisconsin Alumni Research Foundation, 36–* Cereals and rickets; relation of inorganic phosphorus and phytin phosphorus to rickets; availability of phytin phosphorus to the chick.

Lowe, Dr. Josiah L(incoln), New York State College of Forestry, Syracuse University, Syracuse, N. Y. *Mycology.* Hopewell, N. J, Feb. 13, 05. B.S, Syracuse, 27; Ph.D, Michigan, 38. *Instr. bot, N. Y. State Col. Forestry, Syracuse, 38–* Mycol. Soc. Lichens; Polyporaceae.

Lowe, Dr. W(esley) G(arner), 42 Grassmere Park, Rochester, N. Y. *Organic chemistry.* Waterville, Minn, Oct. 17, 10. B.S, Hamline, 32; M.S, Nebraska, 33, Ph.D, 35. *Research chemist, Eastman Kodak Co, 35–* Chem. Soc. Furan arsenicals; synthetic resins; photographic emulsions.

Lowell, Dr. Frances E(rma), Board of Education, Cleveland, Ohio. *Psychology.* Minneapolis, Minn, Oct. 12, 86. A.B, Minnesota, 15, A.M, 17, Ph.D, 19. Teacher, schs, Minn, 04–09. 15–16; asst, State Sch. for Feeble-Minded, 17–18; instr. psychol, Minnesota, 18–20; pub. sch. psychologist, Rochester, N. Y, 20–21; head dept. psychol, Indianapolis Nor. Sch, 21–22; assoc. prof, DePauw, 22–25; *clin. psychologist, Board Educ, Cleveland, 25–* Summer, psychopathologist, Fergus Falls Insane Hosp, 15. A.A; Psychol. Asn; Asn. Applied Psychol; Ohio Asn. Applied Psychol. Child psychology; anatomical and mental age; the intelligence of school children; school placement on the basis of mental age.

Lowell, Prof. Wayne Russell, Montana State University, Missoula, Mont. *Economic geology.* Palouse, Wash, March 21, 06. B.S, State Col. Wash, 36; M.S, Chicago, 39, fellow, 41–42, Ph.D, 42. Asst. geologist, State Dept. Geol. and Mineral Industries, 39–40; *asst. prof. geol, Montana, 42–* Min. and Metal. Eng. Paragenesis of some gold and copper ores of southwestern Oregon.

Lowen, Dr. Irving S(amuel), New York University, Washington Square East, New York, N. Y. *Physics.* New York, N. Y, Dec. 20, 10. B.S, Col. City of N. Y, 31; fellow, N. Y. Univ, 33–34, Ph.D, 34. Teaching fellow and tutor, Col. City of N. Y, 31–33; instr. and lecturer *physics, Wash. Sq. Col, N. Y. Univ,* 34–39, *asst. prof, 39–* Physical Soc. Quantum theory.

Löwenbach, Dr. Hans, Duke University Hospital, Durham, N. C. *Neuropsychiatry, Physiology.* Duisburg, Germany, Jan. 31, 05. M.D, Hamburg, 30. Asst, physiol. inst, Freiburg; med. clinic, Cologne; Kaiser Wilhelm Inst. für Hirnforschung, Berlin-Dahlem; Nansen Fund fellow, Oslo; ship's surgeon, whaling expeds, 36–38; asst. psychiat, Hopkins Hosp, 39, 40; *asst. prof. neuropsychiat. and physiol, sch. med, Duke, 40–* A.A; Asn. Research Nervous and Mental Disease; Asn. Mental Deficiency; Genetic Asn; League against Epilepsy. Neurophysiology; electroencephalography; psychiatry.

Lowenberg, Prof. Miriam E, 307 Ash Ave, Ames, Iowa. *Nutrition.* Ottumwa, Iowa. Ph.B, Chicago, 18; M.S, Iowa State Col, 29; Ph.D, Iowa, 43. *Asst. prof. foods and nutrition and child develop, Iowa State Col, 29–* The food habits of young children.

Lowenheim, Dr. Frederick A(dolph), 792 Fairacres Ave, Westfield, N. J. *Chemistry.* New Rochelle, N. Y, Oct. 6, 09. A.B, Columbia, 30, Ph.D, 34. Asst. chem, Columbia, 30–34; *chemist,* Comolite Corp, 34–36; *Metal and Thermit Corp, 36–* A.A; Chem. Soc; Electrochem. Soc; Electroplaters Soc; N. Y. Acad. Physical and inorganic chemistry; electro-chemistry; metallurgy.

Lowenstam, Dr. Heinz A(dolf), Illinois State Museum, Springfield, Ill. *Invertebrate paleontology, Paleoecology,* Siemianowitz, Germany, Oct. 9, 12. Frankfort, 32; Munich, 32–37; Ph.D, Chicago, 39. *Curator paleont, Ill. State Museum, 40–* Mem. exped. to Palestine, 35–36. A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Ecol. Soc; Soc. Study Speciation; Ill. Acad. Mid-Triassic echinoderms of central and southern Europe; geology of the eastern Nazareth Mountains; pelmatozoan roots; Silurian sponges and crinoids; ecology of Niagaran Reef and inter-reef biotopes; origin of chert.

Lowenstein, Prof. Lloyd L(incoln), Alfred University, Alfred, N. Y. *Mathematics.* New York, N. Y, Dec. 11, 02. A.B, Cornell, 26, Ph.D, 37. Instr. *math,* Cornell, 28–33, 36–37; asst. prof, *Alfred,* 37–40, *assoc. prof. and chairman dept, 40–* Math. Soc; Math. Asn. Linear equations with an infinity of unknowns.

Lower, Dr. William E(dgar), 12546 Cedar Road, Cleveland Heights, Cleveland, Ohio. *Surgery.* Canton, Ohio, May 6, 67. M.D, Western Reserve, 91. Assoc. prof, genito-urinary surg, Western Reserve, 10–31; *visiting surgeon, Lutheran Hosp, 98–* Assoc. surgeon, Lakeside Hosp, 10–31; director surg, Mt. Sinai Hosp, 16–24; surgeon, Cleveland Clinic Hosp; acting asst. surgeon, P. I, U.S.A, 00. Commanding major, M.R.C, and asst. surg. director, Lakeside Base Hosp. Unit 17, commanding officer, 17–18, lieut. col, 18. A.A; fel. Surg. Asn. (pres, 14); Soc. Clin. Surg; fel. Col. Surg; Asn. Genito-Urinary Surg. (pres, 22); Clin. Soc. Genito-Urinary Surg. (pres, 22); Urol. Asn. (pres, 14); Am. Med. Asn; Interurban Surg. Soc. (pres, 26); South. Surg. Asn; Ohio Med. Soc. (pres, 15); Cleveland Acad. Med. (pres, 09); Soc. int. de Chirurg. urol. Urology; anoci-association; surgical shock; the shockless operation through anoci-association; urography.

Lowie, Prof. Robert H(arry), University of California, Berkeley, Calif. *³*Anthropology.* Vienna, Austria, June 12, 83. A.B, Col. City of N. Y, 01; Ph.D, Columbia, 08; hon. Sc.D, Chicago, 41. Asst, dept. anthrop, Am. Museum Nat. Hist, 08–09, asst. curator, 09–13, assoc. curator, 13–21; assoc. prof. *anthrop, California,* 17–18, 21–25, *prof, 25–* Visiting prof, Yale, 37. Chairman div. anthrop. and psychol, Nat. Research Council, 31–32. Expeds, plains Indians, Great Basin, Lake Athabaska and southwest. U. S. Ed, 'Am. Anthropologist,' 24–33. Mem. jury of award, Loubat prize, Columbia, 38. V. pres, Int. Cong. Americanists, 24, 30. Nat. Acad; A.A; Anthrop. Asn. (pres, 35); Ethnol. Soc. (sec'y, 10–19); Folk-Lore Soc. (pres, 16); Philos. Soc; hon. fel. Royal Anthrop. Inst. Gt. Britain and Ireland; cor. mem. Soc. des Americanistes de Paris; cor. mem. Inst. do Ceará. Plains Indian ethnography; kinship terminology; social organization, religion and mythology of primitive tribes.

Lowrance, Dr. E(dward) W(alton), University of Nevada, Reno, Nev. *Biology.* Ogden, Utah, June 17, 08. A.B, Utah, 30, A.M, 32; Rosenberg fellow, Stanford, 36–37, Ph.D, 37. Teaching asst. zool, Utah, 30–32; Stanford, 32–34, Rockefeller asst. exp. embryol, Stanford, 34–36, 37–38; instr. *zool, Nevada,* 38–39, asst. prof, 39–43, *assoc. prof, 43–* A.A; assoc. Soc. Zool; West. Soc. Nat. Comparative and experimental embryology; developmental physiology; temperature gradients.

Lowrey, Dr. Lawson G(entry), 25 W. 54th St, New York 19, N. Y. *Psychiatry.* Centralia, Mo, Dec. 23, 90. A.B, Missouri, 09, A.M, 10; M.D, Harvard, 15. Asst. anat, Missouri, 09–10; prof. anat. and histol, Utah, 10–11; asst. prof. anat, Missouri, 11–12; teaching fellow histol. and embryol, Harvard, 12–14, fellow, 15–16, asst. neuropath, 16–18, instr. neuropath. and psychiat, 18–20; asst. director, Psychopathic Hosp, and asst. prof. psychiat, Iowa, 20–23; director child guidance clinic 2, Nat. Cmt. for Mental Hygiene, 23–27; Inst. Child Guidance, 27–33; attending physician, outpatient dept, Neur. Inst, 32–37; *director* mental hygiene research, Vocational Adjust. Bur, 37–39; *Brooklyn Child Guidance Centre, 40–* Pathologist, Danvers State Hosp, 14–17; chief med. officer, psychopathic dept, Boston State Hosp, 17–20; lecturer, Western Reserve, 24–26; Smith Col, 26–35; N. Y. Sch. of Social Work, 30–36; Hunter Col, 36; consultant, Grasslands Hosp, 30–; psychiatrist, New Rochelle Gen. Hosp, 33–; lecturer, clinic gifted children, N. Y. Univ, 34–36; psychiatrist, Brooklyn Hebrew Orphan Asylum, 37–; Travelers Aid Soc, 39–42. A.A; fel. Am. Med. Asn; Psychopath. Asn; Psychiat. Asn; Orthopsychiat. Asn. (pres, 28–30, ed, 30–); Asn. Anat; Acad. Polit. and Social Sci; N. Y. Neur. Soc; N. Y. Acad; N. Y. Acad. Med. Anatomy; neuropathology; behavior.

Lowrie, Dr. Donald C(harles), 2001 N. Clark St, Chicago, Ill. *Zoology.* Evanston, Ill, July 17, 10. B.S, Chicago, 32, Ph.D, 42. Entomologist, Field Museum Nat. Hist, 34–35; asst. zool, Chicago, 35–37; asst. curator, Chicago Acad. Sciences, 38–42; head dept. *biol,* Maine Township High Sch, Des Plaines, Ill, 42–43; *assoc. prof, East. Ill. State Teachers Col, 43–* Assoc. Soc. Zool; Ecol. Soc. Ecology, taxonomy and behavior of spiders.

Lowry, Dr. Charles Doak, Jr, 628 Foster St, Evanston, Ill. *Organic chemistry.* Chicago, Ill, June 16, 96. B.S, Northwestern, 17, M.S, 20; Ph.D, Harvard, 24. Instr. org. chem, Stanford, 22–24; *research chemist,* Inst. Am. Meat Packers, Chicago, 25–27; *Universal Oil Products Co, Chicago, 27–* Sheldon traveling fellow from Harvard, Munich, 24–25. A.A; Soc. Test. Mat; Chem. Soc. (sec'y, petrol. div, 30). Petroleum technology; organic arsenicals; enzymes.

Lowry, Prof. Curtis M(ilton), 510 W. Minnesota Ave, De Land, Fla. *Mechanical engineering.* Uniondale, Pa, Aug. 25, 00. B.S, Bucknell, 24, M.E, 33; A.M, J. B. Stetson, 27. *Prof. mech. eng, J. B. Stetson, 26–, head dept, 33–* Mech. Eng. (exec. cmt, Fla. sect, 35–). Photoelastic stresses in ferrous metals.

Lowry, E(arl) M(errick), Eastman Kodak Co, Rochester, N. Y. *Physics.* Saginaw, Mich, Nov. 15, 95. A.B, Ohio Wesleyan, 17; A.M, Syracuse, 23. Asst. chem, Ohio Wesleyan, 16–17; instr. physics, Pittsburgh, 19–20; Syracuse, 20–23; *physicist, research lab, Eastman Kodak Co, 23–* Optical Soc. Colorimetry; visual sensitometry; photometry.

Lowry, Dr. E(rwin) F(oster), 124 Greenwood Ave, Swampscott, Mass. *Physics.* Ridgeway, Mich, Jan. 22, 91. A.B, Ohio Wesleyan, 14, A.M, 16; Ph.D, Ohio State, 23. Instr. physics, Ohio Wesleyan, 14–16; Pittsburgh, 16–20; Ohio State, 20–23; research engineer, Armstrong Cork Co, Pa, 23–25; Westinghouse Elec. and Mfg. Co, 25–36; director research, Continental Elec. Co, 36–40; *fluorescent engineer, Sylvania Elec. Products, Inc, 40–* Physical Soc. Infra-red spectroscopy; thermionics; electronics.

Lowry, Dr. H(omer) H(iram), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Peking, China, Oct. 6, 98. A.B, Ohio Wesleyan, 18; du Pont fellow, Princeton, 18–20, A.M, 19, Ph.D, 20. Chem. research, West. Elec. Co, 20–25; Bell Tel. Labs, 25–30; *director coal research lab, Carnegie Inst. Tech, 30–; lieut. commander, U. S. Naval Res, 36–* Am. ed, 'Fuel in Science and Practice,' 40. Chairman cmt. chem. utilization coal, div. chem. and chem. technol, Nat. Research Council, 37. C.W.S, U.S.A, 18. A.A; Chem. Soc; Min. and Metal. Eng; Gas Asn; Am. Inst; fel. Inst. Fuel London. Gas adsorption; charcoal; carbon; theory of dielectrics; insulating materials; coal; fuel.

Lowry, M(arion) W(ayne), Soil Conservation Service, Spartanburg, S. C. *Soil chemistry.* Ravanna, Mo, Sept. 18, 88. B.S, Missouri, 12, A.M, 13. Instr. soil chem, Ga. State Col, Georgia, 13–15, adj. prof, 16–26, prof. soil chem. and soil specialist, 26–32, exten. agronomist, 32–34; chief soil expert, *soil conservation service, U. S. Dept Agr,* 34–35, *regional soil expert, region 2, 36–, head sect. erosion control practises, 37–, chief regional project planning div, 38–* Soil Sci. Soc; S. C. Acad; Int. Soc. Soil Sci. Soils.

Lowry, Dr. Oliver H, Public Health Research Institute, foot of E. 15th St, New York, N. Y. *Physiology.* Chicago, Ill, July 18, 10. B.S, Northwestern, 32; Ph.D, Chicago, 37, M.D, Rush, 37. *Mem.* dept. biol. chem, Harvard Med. Sch, 37–42; *div. physiol. and nutrition, Pub. Health Research Inst, New York, 42–* Tissue electrolytes; old age.

Lowry, Prof. W(elles) Norwood, Bucknell University, Lewisburg, Pa. *Physics.* Carbondale, Pa, Jan. 25, 00. B.S, Bucknell, 22, M.S, 23; Ph D, Cornell, 29 Consol. Telephone Co, Carbondale, 17–18; asst. *physics, Bucknell,* 20–22, teaching fellow, 22–23, instr, 23–29, asst. prof, 29–34, assoc. prof, 34–42, *prof, 42–, head dept, 42–* S.A.T.C, 18. A.A; Physical Soc; Asn. Physics Teachers. Location of the electromotive force in the photo-voltaic cell; laboratory manual of physics.

Lowsley, Dr. Oswald Swinney, 111 E. 71st St, New York, N. Y. *Surgery.* Santa Barbara, Calif, Sept. 4, 84. A.B, Stanford, 05; M.D, Hopkins, 12. *Practising urol. surgeon, 15–* Asst. visiting urologist, Bellevue Hosp, 17–; consulting urologist, Hosp. Ruptured and Crippled, 17–; Peekskill Hosp, 18–; Monmouth Mem. Hosp, 25–; Stamford Hosp, Conn, 29–; Jamaica Hosp, 30–; Stuyvesant Sq. Hosp; Nassau County Hosp; Bloomingdale Hosp; Fitkin Mem. Hosp; St. Agnes Hosp; Norwalk Hosp; N. Y. Infirmary; Kings Hosp; St. Luke's Hosp, Newburgh; Flushing Hosp; director dept. urol, James Buchanan Brady foundation, N. Y. Hosp. Lieut. surgeon, U.S.N, 17–18. A.A; Col. Surg; Am. Med. Asn; Urol. Asn; fel. N. Y. Acad. Med; cor. mem. Urol. Gesell; Deuts. Gesell für Urol; Asn. française d'Urol; Soc. Ital. d'Urol; Soc. Piemontese di Chirurg; Asn. Med. Peru; Asn. Urol. Peru; Türk Urol. Amiyeti; Soc. de Obstet, Ginec. et Urol, Rumania; Magyar Urol. Tarsasag. Urology; embryology, anatomy, morphology, pathology and surgery of the prostate gland; relief of impotence; conservation of kidney tissue in renal surgery.

Lowstuter, Dr. W(illiam) Robert, 7163 Georgian Road, West Oaklane, Philadelphia, Pa. *Chemistry.* Denver, Colo, June 16, 13. A.B, Allegheny Col, 36; Ph.D, Pittsburgh, 40. Research chemist, Am. Cyanamid Corp, 40; *research and*

develop. chemist, Abrasive Co, 40– Summer, control lab. technician, H. J. Heinz Co, 36. Chem. Soc. Application of synthetic resins to the abrasive industry, especially to grinding wheels.

Lowther, Prof. Florence de L(oiselle), 601 W. 115th St, New York, N. Y. *Zoology.* New York, N. Y, Sept. 23, 84. A.B, Barnard Col, Columbia, 12, A.M, 15, Ph.D, 26. Asst. *zool, Barnard Col, Columbia,* 12–16, instr. 16–26, asst. prof, 26–41, *assoc. prof, 41–* Summers, instr, Marine Biol. Lab, Woods Hole, 22, 23, 25. A.A; Soc. Women Geog; fel. N. Y. Acad. Cytoplasmic constituents of Protozoa; inheritance in Gastropoda; African lemuroids.

Lowther, Dr. G(eorge) K(enneth), 11003 85th Ave, Edmonton. Alta, Can. *Geology.* Edmonton, Alta, Jan. 24, 10. B.Sc, Alberta, 31, M.Sc, 33; Ph.D, McGill, 35. *Geologist,* Que. Bur. Mines, 35–36; *Hans Lundberg, Ltd, Montreal, Que, 36–* Summers, asst, Geol. Surv. Can, 31, 32, 33; senior asst, field party, Que. Bur. Mines, 34. Petrotectonics and aerial geology in Quebec.

Loy, Dr. Henry W(ilbert), Jr, Federal U. S. Food and Drug Administration, Washington, D. C. *Biochemistry.* Chanute, Kans, Sept. 9, 06. B.S, Kans. State Col, 30, M.S, 33; Ph.D, Georgetown, 41. Asst. chemist and chemist, Exp. Sta, Kans. State Col, 30–35; junior inspector, *food and drug admin,* U. S. Dept. Agr, 35–38, asst. biochemist, *vitamin div,* 38–41; *assoc. chemist, Fed. Security Agency, 41–* Mem, Vitamin Research Council. A.A; Chem. Soc; Poultry Sci. Asn; assoc. Soc. Exp. Biol. Nutrition; vitamins.

Loye, Edward S, University of Minnesota, Minneapolis, Minn. *Electrical engineering.* Eveleth, Minn, Aug. 14, 09. B.E.E, Minnesota, 31, B.S, 34, M.S, 33. Teaching asst. elec. eng, *Minnesota,* 31–34; critic teacher, univ. high sch, 34–36, *instr. math. and mech, inst. technol, 36–,* acting director placement service, 41–42. Elec. eng. consultant. Engineering education.

Lozier, Dr. W(illiam) Wallace, National Carbon Co, Fostoria, Ohio. *Physics.* Humboldt, Ill, Aug. 3, 06. A.B, DePauw, 28; Ph.D, Minnesota, 31. Nat. research fellow, Princeton, 31–33, asst, 33–35; instr. physics, Rensselaer Polytech, 35; asst. physical chem, Columbia, 35–36; *physicist, Nat. Carbon Co, 36–* Physical Soc; Optical Soc; Soc. Motion Picture Eng. Formation of negative ions; dissociation of gases by electron bombardment; isotopes of elements using the mass spectrograph; carbon arc as applied to motion picture photography and projection.

Lozinski, Dr. E(zra), 620 Grosvenor Ave, Westmount, Que, Can. *Pharmacology, Metabolism.* London, Eng, Dec. 28, 96. M.D, McGill, 20, M.Sc, 23. Asst. physiol, McGill, 20–21, pharmacol, 21–23; *director research and control labs, Chas. E. Frosst and Co, 23–* Soc. Chem. Indust; Can. Physiol. Soc; Montreal Medico-Chirurg. Soc. Heat regulation; pharmacology of cinchophen and derivatives; pharmacology of ergot and ergot alkaloids; iron and copper in anemia; clinical observations in diabetes mellitus.

Lozo, Dr. Frank E(dgar), Jr, Texas Christian University, Ft. Worth, Texas. *Paleontology, Geology.* Ft. Worth, Texas, Aug. 26, 14. B.S, Texas Christian, 35, M.S, 37; Ph.D, Princeton, 41. Instr. *biol. and geol, Texas Christian,* 39–41, *asst. prof, 41–* Summers, geologist, Gulf Oil Corp, 40, paleontologist, Shell Oil Corp, 41– Paleont. Soc; assoc. Asn. Petrol. Geol. Micropaleontology; subsurface geology; biostratigraphy of Lower Cretaceous and Jurassic.

Lu, Dr. Chia-Si, California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Amoy, Fukien, China, Oct. 26, 15. B.S, Amoy, 34; Sino-British Indemnity Fund scholar, 37–40; Ph.D, London, 39; Calif. Inst. Tech, 39–40. Instr. *chem,* Amoy, 34–37; *research fellow, Calif. Inst. Tech, 40–* Chem. Soc; London Chem. Soc. Artificial radioactivity applied to chemical problems; crystal structure.

Luáces, E(nrique) L(orenzo), P. O. Box 377, Dayton, Ohio. *Chemical engineering.* Camagüey, Cuba, Oct. 22, 05. Dipl.Sc.A, Academia Politécnica (Cuba), 23. From lab. asst. to chief chemist, research lab, Gen. Norit Co, Ltd, 24–29; mem. tech. staff, indust. chem. div, W. Va. Pulp and Paper Co, 29–33; *consulting chem. engineer, 33–* Special lecturer, West Virginia, 30; Pa. State Col, 31; Iowa, 31; State Dept. Health, W. Va, 31; consultant to for. govt. agencies, France, Russia and Can, 33–; sec'y, tech. director, mem. board directors and exec. cmt, Acticarbone Corp, 35–39; mem. board directors, Commonwealth Eng. Co, Ohio, 42–; mem. board directors and managing director, New Wrinkle, Inc, 42–; v. pres. and mem. board directors, Research and Develop. Corp, 42– Chem. Eng; Chem. Soc; fel. Inst. Chem; Nat. Soc. Professional Eng; assoc. Electroplaters Soc. Adsorption and catalytic processes using active carbons; powdered active carbon for water purification; recovering carbon disulfide in viscose production; automatic control of adsorption process; wrinkling oils by alkali isomerization; active carbon for gasmasks, solvent recovery and gas purification.

Lubben, Prof. R(enke) G(ustav), 3218 Clearview Drive, Austin, Texas. *Mathematics.* Gresham, Nebr, March 7, 98. A.B, Texas, 21, Ph.D, 25. Tutor, Texas, 21–22, instr. math, 22–26; nat. research fellow, Göttingen, 26–27; adj. prof. *math, Texas,* 27–35, *asst. prof, 35–* A.A; Math. Soc; Math. Asn. Foundations of geometry and abstract topology.

Lubin, Prof. C(larence) I(saac), 3612 Washington Ave, Cincinnati, Ohio. *Mathematics.* Albany, Ga, Oct. 15, 00. Chem.E, Cincinnati, 23; Ph.D, Harvard, 29. Instr. *math, col. eng, Cincinnati,* 23–26, *asst. prof,* 29–37, *assoc. prof, 37–* Math. Soc; Math. Asn. Differential equations.

Lubitz, Dr. Joseph A, 1421 S. Aberdeen St, Chicago, Ill. *Biochemistry, Food technology.* New Haven, Conn, Feb. 24, 17. B.S, Conn. Col. Pharmacy, 38; fellow, Mass. State Col, 39–41, M.S, 40, Ph.D, 41. Pharmacist, Professional Pharmacy, 38; *asst. marketing specialist in charge Chicago processed foods lab, food distribution admin, U. S. Dept. Agr, 41–* Chem. Soc; Pharmaceut. Asn; Inst. Food Technol. Factors affecting the toxicity of red squill; nutritive properties of crab meal.

Lubovich, Prof. Vladimir P(aul), University of Colorado, Boulder, Colo. *Physics.* Krotin, Russia, Sept. 10, 87. Diploma, Imp. Univ. St. Petersburg, Russia, 11; M.A, Toronto, 22; Ph.D, Colorado, 26. Instr. physics, Sch. Commerce, Yamburg, Russia, 11–14; Imp. Sch. Commerce, St. Petersburg, 14–18; director gym, Brovari, Russia, 18–19; demonstrator and asst, Toronto, 20–22; instr. *physics, Colorado,* 22–26, asst. prof, 26–31, *assoc. prof, 31–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Colo-Wyo. Acad. Spectroscopy of infra-red and ultra-violet; Raman effect; photography; wave mechanics.

Lubowe, Dr. N(athaniel) R(einhart), 760 Grand Concourse, Bronx, New York, N. Y. *Botany.* New York, N. Y, Feb. 23, 00. A.B, Col. City of N. Y, 22; Ph.G, Fordham, 26, Ph.D, 41; A.M, N. Y. Univ, 32. *Instr. biol. and gen. science, Thomas Knowlton Junior High Sch, New York, 30–* A.A; Asn. Biol. Teachers; Sci. Teachers Asn; Gen. Sci. Asn. N. Y; N. Y. Asn. Biol. Teachers; hon. mem. N. Y. State Pharmaceut. Asn. Chromosome numbers in Schizanthus.

Lubs, Dr. Herbert A(ugust), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Savannah, Ga, Dec. 20, 91. A.B, Newberry Col, 10; Ph.D, Hopkins, 14. Org. chemist, U. S Dept. Agr, 14–19; research chemist, *E. I. du Pont de Nemours and Co,* 19–31, assoc. director Jackson lab, 31–34, tech. lab, 34–38, *assoc. chem. director org. chem. dept, 38–* Asn. Textile Chem. and Colorists; Chem. Soc; Chem. Eng. Tautomerism; bacterial metabolism; indicators; coal-tar dyes and intermediates.

Luby, William A(rthur), 5411 Rockhill Road, Kansas City, Mo. *Astronomy.* Olathe, Kans, Nov. 10, 72. A.B, Kansas, 05, A.M, 19. Teacher, high sch, Mo, 97–14; math. and astron, Junior Col. of Kansas City, 15–33; *prof. math. and chairman dept, Univ. Kansas City, 33–* Astron. Soc; Math. Soc; Astron. Soc. Pacific. Mathematical astronomy; mean period and cause of the sun's spots; cause of Jupiter's belts; ocean currents; glaciation; planets and sun spots; long period variables; origin of novae; a tidal attack on the Cepheid problem, on the Sothic cycle.

Lucas, Prof. Alfred M(artin), Iowa State College, Ames, Iowa. *Cytology.* New Albany, Ind, Oct. 16, 00. A.B, Wabash Col, 24; Ph.D, Washington (St. Louis), 29. Instr. zool. col. arts and sciences, Washington (St. Louis), 24–25, zool. and histol, dental sch, 25–30, asst. prof. cytol, sch. med, 30–35; *assoc. prof. zool, Iowa State Col, 35–* A.A; Asn. Anat; Soc. Zool; Soc. Nat; Iowa Acad. Cytology and physiology of ciliated epithelia; cytology of virus diseases.

Lucas, Prof. Colin C(ameron), Banting Institute, Toronto, Ont, Can. *Biochemistry.* Winnipeg, Man, Dec. 15, 03 B.A.Sc. British Columbia, 25, M.A.Sc, 26; Ph.D, Toronto, 36.

Prof. chem, Brandon Col, 26–27, 29–34; asst. path. chem, *Toronto*, 27–29, *med. research, Banting inst*, 34–35, asst. prof, 35–38, *assoc. prof, 38–* Summers, chemist, Pacific biol. sta, Biol. Board Can, 25–29. Chem. Soc; Can. Physiol. Soc; Biochem. Soc. Gt. Britain. Oceanography; clinical micro-method for lead; cysteine and glutathione; silicosis; blood esterases; chemical composition of royal jelly; chemotherapy.

Lucas, Prof. D(arrell) B(laine), 41 Carolin Road, Upper Montclair, N. J. *Psychology.* Greene, Iowa, Sept. 26, 02. B.S, Iowa State Col, 22, M.S, 23; Rutgers, 26; Ph.D, N. Y. Univ, 28. Teaching fellow agr. eng, Iowa State Col, 22–23; asst. prof, Rutgers, 23–29; assoc. prof. psychol, Iowa State Col, 29–30; *prof. marketing, N. Y. Univ, 30–* Sec'y-treas, Market Research Council, New York, 41–43, pres, 43– Cmt. continuing study of mag. audiences, 'Life,' 38–41. Assoc. Psychol. Asn; Marketing Asn. Psychology of advertising; relative value of positive and negative advertising appeals; agricultural engineering advertising; controlled recognition method of measuring audiences of magazine advertisements.

Lucas, Prof. Elmer L(awrence), University of Oklahoma, Norman, Okla. *Economic geology, Petrography.* Owensville, Ind, March 22, 98. A.B, Indiana, 22, A.M, 24; Ph.D, Oklahoma, 34; Dipl, Yosemite Sch. Field Nat. Hist, 35. Teacher, high sch, Ind, 22–23; assoc. prof. geol. and math, Phillips (Okla), 24–29, prof. *geol*, 29, 33–41; *assoc. prof, Oklahoma, 41–, director sch. geol. eng, 42–* Summers, mem. staff, Ind. Geol. Surv, 21, 23; U. S. lecturer and ranger-naturalist, Yosemite Nat. Park, Calif, Nat. Park Service, 36–40; mem. teaching staff, Yosemite Sch. Field Natural Hist, 38, 39; prof, Okla. Agr. and Mech. Col, 41; lecturer and ranger-naturalist, Rocky Mountain Nat. Park, 42. U.S.A, 18. Soc. Econ. Paleont. and Miner; Okla. Acad. (v. pres, 36). Non-metallic mineral industries of Oklahoma.

Lucas, Dr. Francis (Ferdinand), 245 Rutledge Ave, East Orange, N. J. *Metallography, Microscopy.* Glens Falls, N. Y, Aug. 7, 84. Hon. Sc.D, Lehigh, 31. *Bell Tel. Labs, 02–, research microscopist, 25–* Consulting metallog. expert, War Dept, Watertown Arsenal, 28–36. Sci. advisory trustee, Int. Cancer Research Foundation, Philadelphia, 33– Henry Marion Howe medal, Soc. Steel Treat, 24; medal, Royal Photog. Soc, 26, 29; John Price Wetherill medal, Franklin Inst, 35. Del, Int. Cong. Test. Mat, Amsterdam, 27; Soc. Steel Treat. del, World's Eng. Cong, Tokyo, 29; U. S. Govt. and Soc. Test. Mat. del, New Int. Cong. Test. Mat, Zurich, 31. Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Chem. Soc; Franklin Inst; N. Y. State Hist. Soc; N. Y. Eng. Club. Metallurgy; materials engineering; high power and ultra-violet microscopy; optical sectioning of living cells; ultra-violet and high power microscopes; finger print detection methods and applications; fatigue of metals; application of motion pictures to study of colloids and living organisms.

Lucas, Prof. Geo(rge) H(erbert) W(illiam), University of Toronto, Toronto, Ont, Can. *Pharmacology.* Parkhill, Ont. Aug. 25, 94. B.A, Toronto, 21, Nat. Research Council Can. student, 21, M.A, 22, Ph.D, 23 Demonstrator chem, *Toronto*, 19–21, 22–24, lecturer chem. eng, 23–24, Banting chair med. research, 24–26, asst. prof. *pharmacol*, 26–30, *assoc. prof, 30–* Summers, research chemist, Board Health, Toronto, 20, 21; chemist, Ont. Fisheries Research Lab, 28–32. Sec'y, Can. Cmt. Pharmaceut. Standards.. Joint ed, 'Can. Formulary.' Soc. Pharmacol; Chem. Soc; Soc. Biol. Chem; Can. Chem. Soc. Activated sludge; growth promoting factors in yeast bios; blood and urine changes in desuprarenalized dogs; anesthesia; physiology and pharmacology of iron; mucous secretions; bismuth; isolation and identification of alkaloids.

Lucas, Prof. Howard J, California Institute of Technology, Pasadena, Calif. *[0]*Organic chemistry.* Marietta, Ohio, 85. A.B, Ohio State, 07, A.M, 08; fellow, Chicago, 09–10. Chemist, U. S. Dept. Agr, 10–13; instr. *chem, Calif. Inst. Tech*, 13–15, assoc. prof, 15–40, *prof, 40–* A.A; Chem. Soc. Halogenated phenols; electron theories; substitution in the benzene ring; oxidation of hydrocarbons; hydration and coordination of unsaturated compounds; Walden inversions.

Lucas, Prof. J(ames) B(urleigh), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Riner, Va, March 30, 88. B.S, Va. Polytech, 10, M.S, 13; M.S, Illinois, 31. Asst. chem, Va. Polytech, 11–14; Illinois, 14–15; prof. inorg. chem. and physics, Davis and Elkins Col, 15–16; instr. *chem, Va. Polytech*, 16–19, *assoc. prof, 19–* Div. supt, schs, Montgomery County, Va, 17–20. Contributing ed, 'Jour. Chem. Educ,' 31–39. Chem. Soc; Va. Acad. Qualitative analysis; organic chemistry.

Lucas, Dr. Miriam Scott (Mrs. Alfred M. Lucas), Iowa State College, Ames, Iowa. *Cytology.* Chester, Pa, Aug. 10, 02. B.S, Pennsylvania, 24, Bloomfield-Moore fellow, 24–27, Ph.D, 27. Asst. zool, Pennsylvania, 24–27; substitute embryol, Woman's Med. Col. of Pa, 28; instr. cytol, sch. med, Washington (St. Louis), 28–35. A.A; Soc. Zool; Asn. Anat; Soc. Parasitol. Protozoology; ciliates; physiology.

Lucas, William A(lbert), Standard Stoker Co, Inc, Erie, Pa. *Industrial chemistry.* Elizabeth, N. J, Aug. 5, 85. Ch.G, Cooper Union, 05, B.S, 08, Ch.E, 28. Sampler, chemist and technologist, Grasselli Chem. Co, N. J, 01–06; chief engineer, supt. and director, Butterworth-Judson Corp, N. J, 06–13, gen. supt. operations, N. J, Md. and Mass, 15–19; advisory engineer, Chile Explor. Co. and Braden Copper Co, S. Amer, 13–15; consulting engineer in charge plant design and surveys, L. L. Summers and Co, New York and Ill, 19–21; asst. to pres, Granton Chem. Co, New York, 21–27; consulting engineer, Marsden-Sewell Corp, 27–33; Peyton-Hunt Co, 33–39; *equipment engineer, Standard Stoker Co, 38–* Consultant in design large munitions mfg. plant for U. S. Govt, Brunswick, Ga, 16. Chem. Soc; Inst. Chem; Asn. Consulting Chem. and Chem. Eng; N. J. Soc. Professional Eng. Design, erection and operation of industrial plants for the manufacture of acids, heavy chemicals, explosives and dyestuffs; development of special tools and equipment.

Lucasse, Prof. Walter W(illiam), University of Pennsylvania, Philadelphia, Pa. *Physical chemistry.* Kalamazoo, Mich, March 9, 95. A.B, Kalamazoo Col, 17; A.M, Clark, 20, Ph.D, 21. Junior gas chemist, U. S. Bur Mines, 18; instr. *chem*, Worcester Polytech, 21–22; *Pennsylvania*, 22–27, asst prof, 27–36, *assoc. prof, 36–* A.A; Chem. Soc. Thermodynamics of electrolytic solutions; transition points of salt hydrates; conductance titration in non-aqueous solvents; mutual miscibility of liquids.

Luce, Prof. R(obert) H(arding), Rensselaer Polytechnic Institute, Troy, N. Y. *Zoology.* Minneapolis, Minn, Aug. 25, 00. A.B, Carleton Col, 22; A.M, Hopkins, 24, Ph.D, 27. Instr. biol, N. C. Col. for Women, 24–25; Bur. Fisheries, 28–29; asst. prof. *biol, Rensselaer Polytech*, 29–38, *assoc. prof, 38–* A.A; Soc. Bact; East. N. Y. Soc. Bact. Industrial microbiology.

Luce, Dr. Wilbur M(arshall), University of Illinois, Urbana, Ill. *Zoology, Genetics.* Readfield, Maine, Oct. 2, 96. B.S, Bates Col, 24; M.S, Illinois, 26, Ph.D, 29. Asst. *zool, Illinois*, 24–28, instr, 29–35, assoc, 35–40, *asst. prof, 40–* Summers, asst. zoologist, State Nat. Hist. Surv, Ill, 29, 30, 32. Soc. Zool; Genetic Asn; Ill. Acad. (sec'y, 35–38). Genetics of Drosophila; ichthyology.

Lucia, Prof. E(schscholtzia) L, University of California, Berkeley, Calif. *Hygiene.* San Francisco, Calif, June 28, 96. A.B, California, 17, Ph.D, 28. Bacteriologist, State Hygienic Lab, Calif, 18–21; assoc. pub. health admin, *dept. hygiene, California*, 22–28, asst. prof. *biometry*, 28–38, *assoc. prof, 38–*, chairman hygiene dept, 38–41. A.A; Statist. Asn; fel. Pub. Health Asn. Splenic enlargement among 1,263 Italian children; intradermal vaccination; differential blood count of the normal guinea-pig; vaccination against smallpox; diphtheria mortality; causes of mortality in the Philippine Islands; trends in the prevalence of diphtheria; public health vital statistics.

Lucia, Dr. Salvatore Pablo, University of California Medical School, San Francisco, Calif. *Internal medicine.* San Francisco, Calif, March 9, 01. A.B, California, 26, M.D, 30. Nat. research fellow *med*, 30–31; instr, *med. sch, California*, 31–35, asst. prof, 35–40, *assoc. prof, 40–* Assoc. visiting physician, univ. hosp, California; assoc. attending physician, San Francisco Communicable Diseases Hosp. Director, Arequipa Sanatorium; mem. exec. board, San Francisco Heart Cmn. Fel. Am. Med. Asn; Soc. Exp. Biol; Calif. Acad. Experimental hematology; splenomegaly; coagulation of the blood; suspension and stability of the erythrocytes; effects of antimony and bismuth on the blood; heparin; circulation time; potency of blood coagulating substances; sarcoidosis; vaccine virus; vitamin K; communicable diseases; transfusion reactions.

Lucian, Prof. A(rsène) N(ishan), University of Pennsylvania, Philadelphia, Pa. *Physics.* Armenia, March, 88. A.B, 08; Ph.B, Yale, 11, Ph.D, 14. Instr. physics, Pittsburgh, 14–16; physicist and consulting engineer, Air Service and Ord-

nance Depts, 19–21; *asst. prof. physics, Pennsylvania, 21–; consulting engineer; field supervisor eng, science and management war training, Drexel Inst.* Coordinator, Phila. area, eng, science and management war training program, U. S. Office Educ. A.S, U.S.A, 18. Radio Eng. X-ray; vacuum tube phenomena; vacuum tubes for radio reception and transmission; variable condensers used in radio and electrical apparatus; theory of quadrant electrometer and electrostatic voltmeters; fluorescence and phosphorescence phenomena.

Luck, Dr. David G(eorge) C(roft), RCA Laboratories, Princeton, N. J. *Physics.* Whittier, Calif, July 26, 06. B.S, Mass. Inst. Tech, 27, Swope fellow, 27–28, Malcolm Cotton Brown fellow, 28–29, Ph.D, 32. Research engineer, Thomas A. Edison, Inc, 29; asst. physics, Mass. Inst. Tech, 29–32; *research engineer,* RCA Victor Co, 32–34, Victor div, RCA Mfg. Co, 34–42, *RCA Labs, 42–* Physical Soc. Electrical instruments and measurements; radio navigation; electrical communication.

Luck, Prof. J(ames) Murray, Stanford University, Calif. *Biochemistry.* Paris, Ont, Can, Oct. 23, 99. B.A, Toronto, 22; 1851 Exhib. scholar, Cambridge, 22–25, Ph.D, 25. Demonstrator *biochem,* Toronto, 25–26; asst. prof, *Stanford,* 26–34, assoc. prof, 34–39, *prof, 39–* Fellow, Gen. Educ. Board, England and Denmark, 35. Ed, 'Annual Rev. Biochem'; 'Annual Rev. Physiol.' A.A. (sec'y, Pacific div, 29–); Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; London Biochem. Soc. Biology and medicine; chemistry and metabolism of amino acids and proteins; liver proteins; plasma proteins.

Lucké, Dr. Balduin, University of Pennsylvania, Philadelphia, Pa. *[7]*Pathology.* Hesse, Germany, Nov. 3, 89. M.D, Medico-Chirurg. Col. Phila, 12; Dr.P.H, Pennsylvania, 16. Res. physician, Phila. Gen. Hosp, 12–14; asst. instr. *path, Pennsylvania,* 14–19, instr, 19–20, asst. prof, 20–27, assoc. prof, 27–32, *prof, 32–* Asst. pathologist, Univ. and Phila. Gen. Hosp, 14–27, visiting pathologist, 27–; consulting pathologist, Zool. Soc. Phila; Guiteras lecturer, 40. Ed. neoplasms sect, 'Biol. Abstracts'; mem. ed. board, 'Cancer Research.' Mem. div. med. sciences, Nat. Research Council, 43– Lieut. col, M.C. A.A; Soc. Exp. Path. (pres, 42–); Asn. Path. and Bact; Soc. Exp. Biol; Path. Soc. Phila. (pres, 30–32); Physiol. Soc. Phila. (v. pres, 31–34, pres, 34–36). Pathology and bacteriology of influenza; vital staining; physiological and pathological swelling of cells; pathology of the diaphragm; kinetics of osmosis in living cells; permeability of living cells to water; phagocytosis; mechanism of bacteriotropin action; neoplasms in cold-blooded vertebrates; effect of temperature on neoplasms; manner of growth of cancer.

Lucke, Prof. Charles E(dward), 186 Riverside Drive, New York, N. Y. *Mechanical engineering.* New York, N. Y, June 20, 76. B.S, Col. City of N. Y, 95; M.S, N. Y. Univ, 98; Cornell, 01; Ph.D, Columbia, 02, Sc.D, 30. Asst. *mech. eng, Columbia,* 02–03, instr, 03–06, asst. prof, 06–07, prof, 07–28, Stevens prof, 28–41, *emer. prof, 41–,* head dept, 07–41; *consulting engineer, Pratt and Whitney Aircraft.* Mech. Eng; Soc. Refrig. Eng; Eng. Educ; Soc. Automotive Eng; Inst. Consulting Eng; Marine Eng. and Naval Archit; Heat. and Vent. Eng; Gas Asn; Franklin Inst. Fuels; thermodynamics; refrigeration; furnaces; steam power generation; internal combustion engines; heat transmission.

Lucke, Prof. John B(ecker), University of Connecticut, Storrs, Conn. *Geology.* New York, N. Y, Feb. 26, 08. B.S, Princeton, 29, A.M, 32, Ph.D, 33. Asst. geol, Princeton, 30–32; prof, John Marshall Col, 33–34; asst. dist. geologist, Texas Co, 34–35; asst. soil surveyor, soil conservation service, U. S. Dept. Agr, 35–36; asst. prof. geol, West Virginia, 36–40; *assoc. prof. geol. and geog. and head dept, Connecticut, 40–; lieut, U. S. Naval Res, 43–* Asst. geologist, Sloan and Zook Co, 30; State Geol. Surv, W. Va, 36–38. Summer, director univ. geol. camp, West Virginia, 39. Mem. mineral resources cmt, State Defense Council, Conn, 41– A.A; Asn. Petrol. Geol; Geophys. Union. Geomorphology; petroleum geology; West Virginia limestones; shorelines.

Lucker, John T(homas), 9 Sussex Road, Silver Spring, Md. *Parasitology.* Buffalo, N. Y, April 13, 01. B.S. Washington, 22; A.M, George Washington, 38. Junior zoologist, *bur. animal indust, U. S. Dept. Agr,* 30–36, asst. zoologist, 36–37, *assoc. zoologist, 37–* Soc. Parasitol; Wash. Acad; Helminth. Soc. Wash. (recording sec'y, 38, v. pres, 40, pres, 42). Morphology, taxonomy and host relationships of nematode parasites of animals; behavior, development and structure of larval nematodes; ecology and control of nematodes parasitic in domestic animals.

Luckett, J(ames) D(ouglass), New York Agricultural Experiment Station, Geneva, N. Y. *Agronomy.* Washington, D. C, Dec. 5, 91. B.S.A, Purdue, 16, M.S, 19. *Ed.* field crops sect, 'Exp. Sta. Record,' U. S. Dept. Agr, 16–20; *N. Y. State Exp. Sta, Geneva, 20–* Asst. ed. and business manager, 'Jour. of Agron,' 24–28, ed, 28– Soc. Agron; Soil Sci. Soc. (ed, 'Proc,' 38–); Asn. Agr. Col. Editors. Crop production and soils.

Luckey, Dr. Bertha M(usson), Board of Education Bldg, Cleveland, Ohio. *Psychology.* Ontario, Calif, Jan. 2, 90. A.B, Nebraska, 10, fellow, 11–12, A.M, 12, Ph.D, 16; Göttingen, 12–14. Asst. org. chem, Nebraska, 09–10; teacher and psychologist, pub. schs, Nebr, 16–17; chief examiner in charge psychol. clinic, *Board Educ, Cleveland,* 17–31, *div. supervisor psychol. and psychiat, visiting teachers, 31–* Mem. subcmt. services of women psychologists in the emergency, Emergency Cmt. Psychol. A.A; Psychol. Asn; Orthopsychiat. Asn; Soc. Study Educ; Asn. Applied Psychol; Ohio Asn. Applied Psychol. (pres, 40). Atypical children; the day nursery and the child; racial differences in mental ability; physical conditions of children referred to as problems in schools.

Luckey, George P(aul), Hamilton Watch Co, Lancaster, Pa. *Aeronautics, Physics.* Ontario, Calif, April 4, 91. A.B, Nebraska, 10, A.M, 12; Göttingen, 12–14. Staff, Mt. Wilson Observatory, Carnegie Institution, 15–16; Charles F. Brush fellow, Nela research lab, Gen. Elec. Co, 16–17; research engineer, research lab, Westinghouse Elec. and Mfg. Co, 17, 19; physicist, eng. div, A.S, McCook Field, 20–26, chief instrument and navig. branch and asst. chief equipment sect; head tachometer dept, *Hamilton Watch Co,* 27–30, director research and asst. gen. supt, 30–33, factory manager, 33–40, *v. pres. in charge mfg, 40–* Experimenter, Naval Exp. Sta, New London, and 2nd lieut, A.S, 18. A.A; Physical Soc. Aeronautical instruments and equipment; sun-spot phenomena; electric arcs; temperature measurement and electrical characteristics; quantitative spectroscopic determination of small amounts of lead in copper; physical factors involved in obtaining accurate time from watches and watch escapements.

Luckey, Dr. Robert R(uel) R(aphael), Houghton College, Houghton, N. Y. *Mathematics.* Houghton, N. Y, Nov. 19, 17. A.B. and B.S, Houghton Col, 37; A.M, N. Y. Univ, 39; Ph.D, Cornell, 42. Teacher *math,* high sch, N. Y, 37–39; *instr,* Cornell, 39–42; *Houghton Col, 42–* Applications of Fourier integrals; analysis in mathematics.

Luckhardt, Prof. Arno B(enedict), University of Chicago, Chicago, Ill. *[8]*Physiology.* Chicago, Ill, Aug. 26, 85. Conception Col, 97–03, LL.D, 33; B.S, Chicago, 06, fellow, 07–08, M.S, 08, Ph.D, 11, M.D, Rush, 12; Sc.D, Northwestern, 33. Asst. bacter, *Chicago,* 08–09, *physiol,* 09–11, assoc, 11–12, instr, 12–14, asst. prof, 14–19, assoc. prof, 19–23, *prof, 23–* Acting chairman physiol, Chicago, 17–19; alternate, advisory council child research, Mooseheart Lab, 32– Alpha Omega medal, 37. A.A. (councilor, N, 38); Physiol. Soc. (councilor, 23–25, 26–, sec'y, 30–32, pres, 32–34); Federation Societies for Exp. Biol. (pres, 34); Am. Med. Asn. (chairman, sect. physiol. and path, 22, cmt. visual educ); Gas Asn. (cmt. asphyxia and resuscitation); Am. Dental Asn. (councilor, dental therapeut); Hist. Sci. Soc. (councilor, 36–); hon. fel. Gorgas Med. Soc; Philos. Sci. Asn; Inst. Traumatic Surg; fel. Col. Dentists; Asn. Study Int. Secretions; Col. Chirurg; Ill. Acad; Chicago Soc. Med. Hist; hon. mem. Chicago Soc. Anesthetists; hon. mem, St. Louis Med. Soc; Asn. Anesthetists U. S. and Can; Kaiserliche Akad. der Naturforscher; hon. mem. Int. Asn. Dental Research; Int. Anesthesia Research Soc. (hon. pres, 33); fel. Int. Col. Anesthetists. Physiology of the stomach; gastrin and gastrin bodies; parathyroid physiology; pancreatic secretion; ethylene anesthesia; knee jerk; somatic and visceral reflexes; anesthetics; respiration; history of physiology.

Lucklesh, Dr. M(atthew), General Electric Co, Cleveland, Ohio. *[3]*Physics.* Maquoketa, Iowa, Sept. 14, 83. B.S, Purdue, 09, D.E, 35; M.S, Iowa, 11; E.E, Iowa State Col, 12, Sc.D, 26. Instr. physics, Iowa, 09–10; research physicist, Nela research lab, *Gen. Elec. Co,* 10–19, *director* applied science, 20–24, *lighting research lab, 24–* Chairman cmt. on camouflage, Nat. Research Council. Longstreth medal, Franklin Inst; gold medal, D.S. Foundation of Optometry. Physical Soc; Optical Soc; Elec. Eng; Illum. Eng. Soc. (pres, 25). Heterochromatic photometry; visual acuity in lights of differ-

ent spectral character; artificial daylight; phosphorescence; glare; visibility; fundamentals of light, color, lighting and vision; psychophysiologic optics; ultra-violet radiation; therapy; artificial sunlight; the science of seeing; visibility meter.

Lucy, Dr. F(rank) A(llen), 3427 W. Penn St, Philadelphia, Pa. *Chemistry.* Schoolcraft, Mich, July 22, 07. A.B, Stanford, 29, A.M, 30, Ph.D, 33. Asst. instr. chem, Stanford, 30–34; research and develop, Richards Chem. Works, Jersey City, 34–41; *develop, Pa. Salt Mfg. Co, 41–* Chem. Soc. Textile chemistry; applied optics; detergents.

Ludeman, Dr. Clifford G(eiger), The Texas Co, Port Arthur, Texas. *Organic chemistry.* El Campo, Texas, Jan. 19, 06. A.B, Oklahoma, 28; M.S, Northwestern, 29; Ph.D, Yale, 32. Nat. research fellow, Frankfurt, 32–33; chemist, *Texas Co,* 33–41, *director miscellaneous research dept, 41–* Chem. Soc. Mineral oil stability; naphthenic acids; motor fuels; petroleum chemistry.

Luden, Dr. Georgine (M), 1006 St. Charles St, Victoria, B. C, Can. *Pathology.* Amsterdam, Holland, 75. M.D, Munich, 12; Ph.D, Minnesota, 20 Cancer research, Mayo Clinic, 14–19; vol. fellow, Mayo Foundation, 19; first asst. path. research, Mayo Clinic, 20–21, cancer research, 21–23, assoc, 23–30; acting director path, St. Joseph's Hosp, 42. Am. Med. Asn; Asn. Cancer Research; Int. Asn. Med. Mus; Int. Asn. Med. Women. Cholesterol; biochemical aspects of malignant growth.

Luder, Prof. W(illiam) F(ay), Northeastern University, Boston, Mass. *Physical chemistry.* Caro, Mich, Oct. 19, 10. A.B, Kalamazoo Col, 33; Ph.D, Brown, 37. Instr. *chem, Northeastern,* 37–40, *asst. prof, 40–* Chem. Soc. Properties of electrolytic solutions; conductance; properties of acids and bases.

Ludewig, Dr. S(tephan), University of Virginia, Charlottesville, Va. *Physiological chemistry.* Berlin, Germany, Feb. 3, 01. Ph.D, Berlin, 25. Asst, Kaiser Wilhelm Inst. Leather Research, Dresden, 25–28; director, Plasma Aktiengesell. Plastic Masses, Munich, 28–29; consulting chemist in patent matters, Dr. A. Mestern, Berlin, 30–31; Sterling fellow, Yale, 31–32; asst. and fellow *biochem, Virginia,* 32–35, instr, 35–38, *asst. prof, 38–* Summer, consultant, div. chem, nat. inst. health, U. S. Pub. Health Service, 41. Soc. Biol. Chem. Organic chemistry; carbohydrates; physiological chemistry of kidney insufficiency; fat and protein metabolism; calcium protein relationship; ultracentrifuge.

Ludwig, Prof. D(aniel), New York University, University Heights, New York, N. Y. *Zoology.* Rahns, Pa, July 26, 02. A.B, Ursinus Col, 23; Ph.D, Pennsylvania, 28. Demonstrator histol, sch. med, Temple, 23–24; instr. zool, Pennsylvania, 24–28; asst. prof. entom, Okla. Agr. and Mech. Col, 28–29; *biol, N. Y. Univ,* 29–37, *assoc. prof, 37–* A.A; Soc. Zool; Entom. Soc; fel. N. Y. Acad. Insect physiology and morphology; physiology of insect metamorphosis; temperature and humidity in relation to insect development.

Ludy, Albert K(ienzle), U. S. Coast and Geodetic Survey, Washington, D. C. *Geomagnetism.* Philadelphia, Pa, Jan. 8, 82. B.S, Pennsylvania, 03. In charge magnetic observatories, Sitka, Alaska, and Tucson, Ariz, *U. S. Coast and Geod. Surv,* 21–35, Cheltenham, Md, 35–42, *chief sect. geomagnetism, 42–* A.A; Seismol. Soc; Geophys. Union; Philos. Soc. Wash. Seismology.

Ludy, Prof. L(lewellyn) V, Purdue University, Lafayette, Ind. *Mechanical engineering.* Millgrove, Ind, Jan. 26, 75. B.S, Purdue, 98, M.E, 00. Instr. eng, Purdue, 99–02, applied mech, 02–04, asst. prof. mech. eng, 04–06, assoc. prof, 06–11; *prof.* steam and gas eng, Wisconsin, 11–12; *exp. eng, Purdue, 12–* Summers, expert, Bur. Forestry, 00; mill inspector, Carnegie Steel Co, 01. Rep, U. S. Shipping Board, Emergency Fleet Corp, 17–19; in charge special training of soldiers, Purdue, 18. A.A; Mech. Eng; Eng. Educ; Ind. Eng. Council; Ind. Acad. Physical characteristics of cast iron; wind pressure on geometrical solids; strength of glued joints; automobiles; gas and steam engines; steam turbines and power plants; locomotive boilers and engines; valve gears; air brakes.

Luebbers, Capt. Ralph H(enry), Camp San Luis Obispo, Calif. *Chemical engineering.* Burlington, Iowa, March 24, 06. B.S, Iowa State Col, 27, M.S, 32, Ph.D, 35. Asst. prof. chem. eng, Missouri, 37–41; *Sanit. Corps, U. S. Army, 41–, capt.* Chem. Soc. (sec'y, Missouri sect, 35–); Water Works Asn; Mo. Acad. (chairman eng. sect, 41). Trickling filters in sewage treatment; mixing of dry solids.

Luebs, Prof. A(ugust) A, University of Nebraska, Lincoln, Nebr. *Mechanical engineering.* Wood River, Nebr, Feb. 28, 89. B.S, Nebraska, 15, M.S, 26. Sales engineer, Int. Harvester Co, 15–17; supt, Crawford plant, Intermountain Ry. Light and Power Co, 17–18; instr. *mech. eng, Nebraska,* 18–19, asst. prof, 19–27, *assoc. prof, 27–* Instr, S.A.T.C, 18, 40–Mech. Eng. (chairman, Nebr. sect); Eng. Educ; Nebr. Acad. (past chairman, eng. sect); Nebr. Eng. Soc; Lincoln Eng. Club (pres, sec'y and v. chairman). Air infiltration in building; oil combustion and oil burners for domestic furnaces; economic operation of small gasoline engines.

Lueck, R(oger) H(awks), 11th Ave. and St. Charles Road, Maywood, Ill. *Chemistry.* Fox Lake, Wis, Dec. 17, 96. B.S, Carroll Col, 19, Sc.D, 43; M.S, Wisconsin, 21. Instr. chem, Wisconsin, 19–22; chemist, *Am. Can Co,* 22–26, dist. manager research dept, San Francisco, 26–34, manager Hawaiian div, 34–35, gen. manager research dept, 35–41, *director research, 41–* A.A; Chem. Soc. (sec'y agr. food div, 41–); Inst. Chem; Inst. Food Technol; N. Y. Acad. Decomposition of nitrogen pentoxide; corrosion of tin plate; frothy fermentation of saccharine products; coatings for tin containers; discoloration of canned foods.

Luedde, Dr. W(illiam) H(enry), 316 Metropolitan Bldg, St. Louis, Mo. *Ophthalmology.* Warsaw, Ill, Aug. 13, 76. M.D, Washington (St. Louis), 00; Kiel, 04–05; Paris, 06. Clin. asst, Washington (St. Louis), 08–12; *prof. ophthal. and director dept, St. Louis, 22–* Chief ophthalmologist, St. Mary's Group of Hosps; consulting ophthalmologist, St. Louis City Hosp; St. John's Hosp; U. S. Veterans' Hosp. No. 92; St. Louis County Hosp; Trachoma Hosp, Rolla. Director for prevention of blindness, Mo. Cmn. for the Blind, 16–27. Oculist, Mo. Baptist Sanitarium and U. S. Marine Hosp. A.A; Acad. Ophthal. and Otolaryngol; Ophthal. Soc; Am. Med. Asn. (v. chairman, ophthal. sect, 31–); Col. Surg. (board governors, 23–); Nat. Soc. Prevention Blindness (advisory cmt); Asn. Mil. Surg; Mo. Acad; St. Louis Soc. Blind (director, 12–); St. Louis Acad; Heidelberg Ophthal. Gesell; Soc. française d'Ophthal. Bacteriology of conjunctiva; mechanism of accommodation; clinical use of electromagnets; microscopic study of conjunctival circulation; treatment and pathology of vernal conjunctivitis; etiology and treatment of ocular tuberculosis; development of vision in strabismus convergent; operative treatment of glaucoma; control of myopia; retinitis pigmentosa.

Lueth, Dr. Harold C(harles), 636 Church St, Evanston, Ill. *Physiology, Medicine.* Chicago, Ill, July 24, 04. B.S, Northwestern, 27, M.S, 28, B.M, 29, Ph.D, 30, M.D, 30. Asst. physiol, Northwestern, 26–28, instr, 28–30, clin. asst. *med,* 30–31, instr, 32–35; assoc, *Illinois,* 36–40, *asst. prof, 40–; Med. Corps, U. S. Army, 40–, lieut. col.* Intern, Cook County Hosp, 30. A.A; Cent. Soc. Clin. Research; Soc. Exp. Biol; Soc. Internal Med; Col. Physicians; Cent. Research Club; Inst. Med. Chicago. Secretin; cholecystokinin; cardiology.

Luetmer, Rev. Wendel H, St. John's University, Collegeville, Minn. *Embryology.* Meire Grove, Minn, Jan. 18, 89. A.B, St. John's (Minn), 13; M.S, Chicago, 22. *Prof. embryol, vert. anat, genetics and bacter. and head dept. biol, St. John's (Minn), 34–, manager, univ. farm, 42–* A.A; Micros. Soc; Entom. Soc. Amer; Minn. Acad. (pres, 37). Hydramoeba; internal and external parasites on freshwater hydra; treatments and fertilizers for soil maintenance and improvement; biodynamic activity of humus and its maintenance.

Lufkin, Dr. Harold M(arshall), 4506 Regent St, Philadelphia, Pa. *Statistics.* Portland, Maine, April 6, 87. S.T.B, Phila. Divinity Sch, 15; A.B, Cornell, 20, A.M, 22; Ph.D, Pennsylvania, 28. Instr. math, Cornell, 19–22; high sch, N. Y, 22–24; director educ. measurements, pub. schs, N. Y, 23–25; *instr. math, Pennsylvania, 25–,* lecturer anthropometry, 28–30. Summers, instr, Cornell, 20–22. Math. Soc; assoc. Psychol. Asn. Psychophysics; biometry.

Luginbill, Dr. Philip, Box 495, Federal Bldg, Lafayette, Ind. *Entomology.* Columbus Grove, Ohio, Oct. 16, 84. B.S.A, Ohio State, 10; A.M, South Carolina, 17; Ph.D, George Washington, 24. *Div. cereal and forage insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 10–, senior entomologist.* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ohio Acad; Ind. Acad; S. C. Acad. Life histories of cereal and forage insects; Phyllophaga.

Lugn, Prof. A(lvin) L(eonard), 1800 S. 24th St, Lincoln, Nebr. *Geology.* Mediapolis, Iowa, Nov. 22, 95. Par-

sons Col, 11–13; A.B, Augustana Col, 16; Columbia, 16–17; M.S, Iowa, 25, Ph.D, 27. Instr, Upsala Col, 16–17; prof. chem. and geol. and head dept, Lenoir-Rhyne Col, 19–23; geol. and biol, Midland Col, 26–27; from instr. to *prof. geol, Nebraska*, 27– Geologist, Iowa Geol. Surv, 24–25; Nebr. Geol. Surv, 28–; consulting geologist. Chemist, U.S.N, 17–19. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Soc. Vert. Paleont; Nebr. Acad. (past pres); fel. Iowa Acad. Stratigraphy; sedimentation; ground-water hydrology; Pleistocene geology; geology of Lucas County; sedimentation in the Mississippi River; geology, deep wells and ground-water resources of Nebraska; dust storms and the origin of loess; Tertiary classification; problems of Pleistocene stratigraphy; deep well irrigation in Nebraska; origin of Daemonelix.

Luhan, Dr. Joseph A(nton), 59 E. Madison St, Chicago, Ill. *Neurology.* Chicago, Ill, Feb. 7, 01. B.S, Northwestern, 27, M.D, 28, fellow, 30–32, M.S, 31, Ph.D, 34. Clin. asst. *neur*, Northwestern, 28–34, instr, 34–35, assoc, 35–41; *assoc. clin. prof, sch. med, Loyola (Ill), 41–* Attending neurologist and neuropathologist, Cook County Hosp, 40– A.A; Psychiat. Asn; fel. Am. Med. Asn; Chicago Neur. Soc. Experimental poliomyelitis; neuropathology; clinical neurology.

Luke, Prof. Charles D(aniel), Syracuse University, Syracuse, N. Y. *Chemical engineering.* Coin, Iowa, Oct. 4, 07. B.S, Iowa, 29; M.S, Mass. Inst. Tech, 31, Sc.D, 34. Chem. engineer, Standard Oil Co. of La, 33–35; de Florez Eng. Co, 35–37; asst. prof. *chem. eng, Syracuse*, 37–39, *prof. and head dept, 39–; lieut, Eng. Corps, U. S. Army.* Chem. Eng; Eng. Educ; Chem. Soc. Properties and refining of petroleum.

Luke, Prof. George L(eroy), 514 S. Howard St, Moscow, Idaho. *Physics.* Manti City, Utah, 81. A.B, Brigham Young, 08; A.M, Wisconsin, 14. Head dept. physics, Govt. Inst. Tech, Shanghai, 15–17; elec. engineer, Anderson Meyer Co, Shanghai and Tientsin, 17–20; *asst. prof. physics, Idaho, 20–*

Lukens, Dr. Francis D(ring) W(etherill), University of Pennsylvania Hospital, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Oct. 5, 99. A.B, Yale, 21; M.D, Pennsylvania, 25. Intern, Pa. Hosp, 25–27, med. res, 27–28; Jacques Loeb fellow *med*, Hopkins, 28–30; instr, *Pennsylvania*, 30–36, *asst. prof. and director Cox med. research inst, 36–* Soc. Clin. Invest; Soc. Exp. Biol; Physiol. Soc; Asn. Study Int. Secretions. Experimental nephritis; diabetes; metabolic aspects of pituitary and adrenal cortex.

Lukens, Dr. Herman T(yson), 102 E. Jacoby St, Norristown, Pa. *Pedagogy.* Philadelphia, Pa, Jan. 29, 65. A.B, Pennsylvania, 85, A.M, 88; Berlin, Halle, Leipzig, Paris and Jena, 88–91; Ph.D, Jena, 91. Teacher, high sch, Ill, 91–94; fellow and docent, Clark, 94–96, docent pedag, 96–98; head training teacher, Pa. State Nor. Sch, California, 98–07; teacher, Francis W. Parker Sch, Chicago, 07–34; *retired.* Lecturer, Bryn Mawr Col, 96–97. Summer, lecturer, Clark, 95. A.A; Soc. Sci. Educ. Children's drawings; early language development; course of study; sense impression; genealogy.

Lukens, Prof. Hiram S(tanhope), University of Pennsylvania, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Sept. 30, 85. B.S, Pennsylvania, 07, Ph.D, 13. Instr. *chem, Pennsylvania*, 07–13, asst. prof, 13–21, prof, 21–37, *Blanchard prof, 37–, director dept. chem. and chem. eng, 32–*, acting dean, Towne sci. sch, 37–38. Tech. director, Royal Electrotype Co, Phila, 18–32; tech. director and v. pres, Solidon Products, Inc, 23–32; consultant, Superior Zinc Corp, 29–31. Mem. div. chem. and chem. tech, Nat. Research Council, 34–37. A.A; Chem. Soc. (councilor, 26–, chairman, Phila. sect, 24, trustee, 33–; mem. cmt. licensing inquiry, 39–); Chem. Eng. (exec. cmt, Phila-Wilmington sect, 33–39, v. chairman sect, 38, chairman, 39; mem. cmt. papers, 36–); Inst. Chem; Electrochem. Soc. (chairman, electrodeposition div, 31, sec'y Phila. sect, 30, chairman, 31, exec. cmt, 31–; pres, 34, mem. exec. cmt. 35–39); Eng. Educ; hon. mem. Electroplaters Soc. (research cmt); Franklin Inst. (cmt. sci. and the arts, 37–); Pa. Chem. Soc; Phila. Inst. Consulting Chem. and Chem. Eng; Eng. Club Phila; Chemists' Club. Electrochemistry; electroanalysis of alkaline halides; electrodeposition of chromium, copper and cadmium; electrolytic reduction of nitrobenzene; mechanism of conductance; inorganic chemistry; magnesium oxychloride; vapor phase reactions of sulphur monochloride; silicic acid.

Lukes, Dr. R(obert) V(incent), 8 W. Sixth St, Corning, N. Y. *Chemical engineering.* Chicago, Ill, Oct. 6, 13. B.S, Illinois, 34; fellow, Mass. Inst. Tech, 36–37, Sc.D, 38. Teaching asst. chem. eng, Mass. Inst. Tech, 34–36, instr, 37–39; *chem. engineer, Corning Glass Works, 39–* Effect of pressure on enthalpy of benzene; development of ninety-six per cent. silica glass.

Lukesh, Lieut. Joseph S(tevens), 376 Long Branch Ave, Long Branch, N. J. *Crystallography.* Washington, D. C, Jan. 10, 15 B.S, Mass. Inst. Tech, 36, M.S, 38, 38–39. Research assoc. x-ray crystallog, Mass. Inst. Tech, 39–42; *lieut, Sig. Corps, U. S. Army, 42–* Miner. Soc; Soc. X-ray and Electron Diffraction; Crystallog. Soc. Crystal structure; crystalline and amorphous structure of solids.

Lulek, Dr. R(alph) N(orbert), P. O. Box 525, Wilmington, Del. *Chemistry.* Graz, Austria, Aug. 13, 01. Ph.D, Graz, 24. Consulting chemist, Graz, Austria, 23–25; *org. chem. dept,* Jackson lab, *E. I. du Pont de Nemours and Co*, 25–31, Carrollville research lab, 31–38, *Jackson lab, 38–, group leader, 37–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc; Asn. Textile Chem. and Colorists. Anthraquinone vat colors.

Lull, Dr. George F, care of Surgeon General, Washington, D. C. *Medicine.* Scranton, Pa, March 10, 87. M.D, Jefferson Med. Col, 09; Army Med. Sch, 12–13; C.P.H, Harvard, 21; Dr.P.H, Pennsylvania, 22. Instr. path, Jefferson Med. Col, 10–12; director dept. prev. med, Army Med. Sch, 22–26; med. adviser to Gov. Gen. P. I, and professorial lecturer epidemiol. and mil. hygiene, Philippines, 29–32; chief vital statist. div, Surgeon Gen. Office, 32–36; dept. sanit, Med. Field Service Sch, *U. S. Army*, 36–40; *col, Med. Corps, 40–* Col. Physicians; Col. Surg; Pub. Health Asn; Am. Med. Asn. Tropical aspects of preventive medicine.

Lull, Prof. Richard S(wann), Yale University, New Haven, Conn. **3*Paleontology, Zoology.* Annapolis, Md, Nov. 6, 67. B.S, Rutgers, 93, M.S, 96, hon. Sc.D, 18; Ph.D, Columbia, 03; hon. A.M, Yale, 11. Asst. prof. zool, Mass. Col, 94–02, assoc. prof, 02–06; asst. prof. vert. paleont, *Yale*, 06–11, prof, 11–23, *paleont*, 23–27, Sterling prof, 27–36, *emer. prof, 36–* Div. entom, U. S. Dept. Agr, 93; assoc. curator, Peabody Museum, 06–20, curator, 20–26, director, 22–38, emer. director, 38–, hon. curator vert. paleont, 32– Summers, lecturer, Auburn Theol. Sem, 15–18, 36; Theol. Sem. Reformed Church in Amer, 23–24; California, 25, 35, 37; Harvard, 39. Ed, 'Am. Jour. Sci,' 33– Elliot gold medal, Nat. Acad. Sciences, 33. Soc. Nat; Paleont. Soc. (treas, 11–24, pres, 25); Geol. Soc; Soc. Vert. Paleont; Am. Acad. Vertebrate paleontology; organic evolution; Dinosauria.

Lum, Dr. James H(enry), Monsanto Chemical Co, Dayton, Ohio. *Chemistry.* Whiting, Ind, July 27, 03. B.S, Pa. State Col, 25; Ph.D, Yale, 32. Asst. fuel technol, Pa. State Col, 32–33; *indust. chem. research, cent. research dept, Monsanto Chem. Co, 33–* Chem. Soc. Chemistry of coal, petroleum, phosphorus and synthetic resins.

Lumer, Dr. Hyman, 3232 E. 119th St, Cleveland, Ohio. *Zoology.* Brooklyn, N. Y, June 29, 09. A.B, Western Reserve, 30, A.M, 32, Ph.D, 35. Asst. *biol*, Western Reserve, 30–33; instr, *Fenn Col*, 33–37, asst. prof, 37–42, *assoc. prof, 42–* Summer, instr, Western Reserve, 34, 36. A.A; Soc. Zool. Physiology of Cladocera; cytology of Daphnia magna; mathematical analysis of relative growth.

Lumsden, David, 115 Glenbrook Road, Battery Park, Bethesda, Md. *Horticulture.* Bloxholm, Lincoln, Eng, June 21, 71. Veitchian Sch. of Hort. and Royal Bot. Gardens, London, 91–93. Landscape architect and decorator, Duke of Westminster, England, 93–96; landscape architect, N. S. Nursery Co, 96–99; Thos. F. Galvin Co, Boston, and W. W. Edgar Co, 99–06; instr. hort. and landscape art, New Hampshire, 07–14; prof. floricul, Cornell, 14–22; *horticulturist, bur. entom. and plant quarantine, U. S. Dept. Agr, 22–* Dist. deputy inspector and lecturer, State Grange, N. H, 12–13. Landscape architect and director of agr. rehabilitation, Walter Reed Gen. Hosp, Washington, D. C, 17–22. Silver cup, Am. Orchid Soc; silver medal, Mass. Hort. Soc. Soc. Hort. Sci; Rose Soc. (state v. pres); Orchid Soc. (sec'y, ed, 'bul'); Bot. Soc. Wash; Mass. Hort. Soc; fel. Royal Hort. Soc. Mendelism in melons; orchid breeding; fertilizers for carnations; the flower garden.

Lumsden, Dr. D(avid) Victor, 8700 Colesville Road, Silver Spring, Md. *Horticulture.* Halifax, N. S, Can, Oct. 2, 97. B.S, Cornell, 21; M.S, Maryland, 32, Ph.D, 35. Instr. floricul, U. S. Army Hosp, 21–22; junior plant introducer, *bur. plant indust, U. S. Dept. Agr*, 23, junior horticulturist, 24–35, *assoc. physiologist, 35–; capt, Air Corps, U. S. Army, 42–* A.A;

Soc. Hort. Sci; Hort. Soc. (sec'y, 26–30, v. pres, 41, pres, 42–); Bot. Soc. Wash. Anatomy and physiology of ornamental plants; culture of bulbous plants; response of plants to temperature changes; camouflage training.

Lumsden, George Q(uincey), 33 Ridgewod Terrace, Maplewood, N. J. *Wood preservation.* Brookline, Mass, Sept. 24, 01. B.S, Cornell, 22, M.F, 23. Inspection engineering timber products, West. Elec. Co, Inc, 23–27; *mem. tech. staff, Bell Tel. Labs, 27–* Soc. Foresters; Wood Preservers Asn. Preservation of wood and control of fungus and insect damage in outside plant materials; laboratory and field testing of wood preservatives; timber engineering.

Lumsden, Dr. L(eslie) L(eon), University of Texas Medical Branch, Galveston, Texas. *Public health.* Granite Springs, Va, June 14, 75. M.D, Virginia, 94. From asst. surgeon to med. director, U. S. Pub. Health Service, 98–43; *lecturer epidemiol, med. branch, Texas, 43–* Pub. Health Asn; Am. Med. Asn. Typhoid fever; epidemiology; rural health.

Lund, Dr. Charles C, 319 Longwood Ave, Boston, Mass. *Surgery.* Boston, Mass, April 15, 95. A.B, Harvard, 16, M.D, 20. Mem. faculty, *Harvard Med. Sch,* 22–34, *asst. prof. surg, 34–* Surgeon, Collis P. Huntington Mem. Hosp, 27–41; mem. staff, Boston City Hosp, 24–42, visiting surgeon, 42– Trustee, Boston State Hosp, 40– Surg. Asn; Soc. Clin. Surg. (sec'y, 39–); East. Surg. Soc. (pres, 39). Cancer; nutrition; human burns.

Lund, Prof. E(lmer) J(ullus), University of Texas, Austin, Texas. ***Zoology, Physiology.* Springfield, Minn, Dec. 13, 84. Ph.B, Hamline, 10; Bruce fellow, Hopkins, 11–14, Ph.D, 14, hon. D.Sc. Instr. zool, Pennsylvania, 14–15; asst. and assoc. prof, Minnesota, 15–26; *prof. physiol, Texas, 26–,* research lecturer, 31–32. Prof, Puget Sound Biol. Sta, 20–30. Ed, 'Biol. Abstracts.' A.A; Physiol. Soc; Soc. Zool; Soc. Exp. Biol. Biophysics; production of light by living organisms; general physiology of the Protozoa; organic polarity and the nature of cell correlation; origin and function of bioelectric currents.

Lund, Prof. Everett E(ugene), Alfred University, Alfred, N. Y. *Protozoology, Parasitology.* Alta, Iowa, Sept. 7, 07. B.S, Iowa State Col, 29; A.M, California, 30, Ph.D, 33. Teaching fellow, California, 29–32; adj. prof. *biol,* American Univ. Beirut, 32–35, assoc. prof. and chairman dept, 35–37; asst. prof, *Alfred,* 37–41, *assoc. prof, 41–* A.A; Soc. Zool; Soc. Parasitol; Soc. Trop. Med. Termite Protozoa; locomotor and feeding organelles of ciliate Protozoa; intestinal Protozoa and helminths of man; intestinal parasites of rodents.

Lund, Prof. Frederick H(ausen), Temple University, Philadelphia, Pa. *Psychology.* Kairanga, New Zealand, April 4, 94. A.B, Nebraska, 21, A.M, 23; Ph.D, Columbia, 25. Instr. *psychol,* Nebraska, 22–23; Columbia, 23–27; *prof,* Bucknell, 27–30; *Temple, 30–* Psychol. Asn. The emotional and volitional determinants of belief; confidence; the rôle of practise in speed of association; esthetic experience; physical asymmetries and disorientation.

Lund, Dr. Horace O(din), University of Georgia, Athens, Ga. *Entomology.* Minneapolis, Minn, May 16, 08. A.B, Minnesota, 31, M.S, 33, Ph.D, 36. Instr. *entom, Georgia,* 36–39, *asst. prof, 39–* Summer, field asst, U. S. Dept. Agr, 32; field biologist, State Dept. Pub. Health, Ga, 39–40; biologist, univ. field sta. malaria research, Emory, 41. A.A; Entom. Soc. Amer; Asn. Econ. Entom. Ecology; medical entomology; longevity and productivity in Trichogramma evanescens; filarial periodicity in the crow.

Lund, Dr. Richard J(acob), Social Security Bldg, Washington, D. C. *Geology.* Racine, Wis, April 25, 05. A.B, Wisconsin, 26, A.M, 28, Ph.D, 30. Geologist, W. C. McBride, Inc, 27–28; instr. geol, Wisconsin, 30–33; chief petrol. sect, minerals div, bur. foreign and domestic commerce, Dept. Commerce, 34, acting chief, 34–35; mineral economist, U. S. Bur. Mines, 35–37; ed, 'Jour,' Am. Mining Cong, 37–40; *mineral consultant, Office Production Management, 40–* Lecturer, grad. sch, American Univ, 35–36. Summers, mem. prospecting party to Northwest. coast Hudson Bay, Nipissing Mining Co, 28, 29. Economics of minerals, scrap and secondary metals; geology of Lake Superior region.

Lundberg, Dr. Walter O(scar Paul), University of Minnesota, Minneapolis, Minn. *Chemistry.* Minneapolis, Minn, Dec. 15, 10. Minnesota, 28–30; Hormel Foundation fellow, Hopkins, 30–34, Ph.D, 34. Instr. chem, Hopkins, 34–35; research chemist, research lab, U. S. Steel Corp, 35; *research chemist, Minnesota,* 38–39, *41–* Chem. Soc. Thermodynamics of electrode equilibria; low temperature calorimetry; heat capacities of organic compounds between one degree and one hundred degrees Kelvin; thermal excitation of electrons in rare earth salts at low temperatures; chemistry of surfaces; stereoisomerism of linoleic acid in vegetable oils; antioxidants, pro-oxidants and the mechanism of autoxidation in fats and oils.

Lundell, Dr. C(yrus) L(ongworth), University of Michigan, Ann Arbor, Mich. *Botany.* Austin, Texas, Nov. 5, 07. A.B, South. Methodist, 32; A.M, Michigan, 34, Ph.D, 36. Asst. physiologist, Trop. Plant Research Foundation, 28–30; bot. gardens, *Michigan,* 32–35, asst. curator *herbarium,* 35–39, *curator, 39–; research assoc, Carnegie Institution, 33–; research prof. bot, South. Methodist, 41–* Director and botanist, Michigan-Carnegie Institution exped, Guatemala, 33, Mex, 34, botanist, British Honduras, 36, Mex, 38; Michigan exped, Texas, 40; Michigan-Southern Methodist exped, 41. Soc. Plant Taxon; Torrey Bot. Club; Mich. Acad; W. Texas Hist. and Sci. Soc; Asn. Sudamericana de Fitotaxonomistas. Flora of Texas, Mexico and Central America; phytogeography of North America; environment of the pre-conquest Maya; flora of Texas; botany of the Maya area.

Lundell, Dr. Gustav Ernst Fredrick, National Bureau of Standards, Washington, D. C. ***Chemistry.* Brooklyn, N. Y, Jan. 11, 81. A.B, Cornell, 03, Ph.D, 09; Sc.D, Fordham, 41. Instr. chem, Northwestern, 03–06; instr. and asst. prof, Cornell, 06–17; chemist, *Bur. Standards,* 17–36, asst. chief chemist, 36–37, *chief chemist, 37–* Chairman, board editors and anal. ed, 'Indust. Eng. Chem,' 35– Hildebrand award, Chem. Soc. Wash, 32. Chem. Soc. (assoc. ed, 'Jour,' 32–42; councilor at large, 41–); fel. Ceramic Soc. (board ed, 36–); Soc. Test. Mat. (chairman, cmt. chem. analysis of metals, 35–; v. pres, 39–41, pres, 41–); Wash. Acad. Applied inorganic analysis; atomic weights of gallium and aluminum; methods for chemical analysis of rocks, ores, ceramic and metallurgical materials; preparation and standardization of standard samples for use in gravimetric, volumetric, colorimetric and potentiometric methods of analysis.

Lundgren, Dr. Harold P(almer), U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Minneapolis, Minn, March 22, 11. B.S, N. Dak. Col, 32; Ph.D, Minnesota, 35. Asst, N. Dak. Col, 31–32; teaching fellow physiol. chem, Minnesota, 32–35; research fellow, physical chem. inst, Uppsala, 35–37; research assoc. colloid chem, Wisconsin, 37–41; assoc. chemist, *west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr,* 41–42, *chemist, 42–* Chem. Soc. (sec'y-treas, Wis. sect, 39); Soc. Biol. Chem; N. Y. Acad. Physical chemistry of proteins and protein derivatives.

Lundgren, Dr. Leonard, 2895 Harrison St, San Francisco, Calif. *Engineering, Education.* Chicago, Ill, Dec. 3, 83. B.S, Northwestern, 04, C.E, 07; M.S, Iowa, 08; Cambridge, 19; Ph.D, Columbia, 23. Asst. physics, Northwestern, 01–04; ry. construction, 04–06; instr, Iowa, 06–08; project engineer, Philippine Govt, 08–12; acting prof, Stanford, 12–13; dist. engineer, U. S. Forest Service, 13–17; *director adult and vocational educ, pub. schs, San Francisco, 23–* Capt, C.Eng, 17–23. Civil Eng. City planning; water power; adult and vocational education.

Lundholm, Prof. (Oskar) Helge, 803 Second St, Durham, N. C. *Psychology.* Malmo, Sweden, May 15, 91. Fil. Kand, Stockholm, 15, Fil. Lic, 17, Ph.D, 19. Asst. path. psychol, McLean Hosp, Mass, 21–30; assoc. prof. *psychol, Duke,* 30–37, *prof, 37–* Am-Scandinavian Foundation fellow, 19–20; Stiftelsen Lars Hierta's Minne fellow, 24. Cmt. on indust. psychol and sec'y, Royal Swedish Inst. Indust. Sci. Research, 23–25. A.A; Psychol. Asn; New Eng. Soc. Psychiat; Soc. Adv. Scandinavian Study; Svenska Teknologforeningen; Svenska Konsthistoriska Sallskapet. Psychology of esthetics; abnormal and industrial psychology.

Lundin, C. A. Robert, 3207 Meadowbrook Blvd, Cleveland Heights, Ohio. *Optics.* Cambridge, Mass, July 6, 80. Alvan Clark and Sons Co, 96–16, manager, 16–29; private manufacturer telescopes, 29–33; *manager optical dept, Warner and Swasey Co, Cleveland, Ohio, 33–* A.A; Astron. Soc; fel. Royal Astron. Soc. Telescopes; design and construction of large refracting and reflecting telescopes and astrophotographic lenses; optical systems for submarine periscopes.

Lundin, Prof. Laura M(arie), Russell Sage College, Troy, N. Y. *Physics.* Cambridge, Mass. B.S, Mass. Inst. Tech, 03.

Teacher, high schs, 03–05; asst. physics and instr. physics and math, Simmons Col, 05–08; instr. and asst. prof. *physics and math*, Wheaton Col. (Mass), 08–18; asst. prof. and later *prof, Russell Sage Col, 18–* A.A; Asn. Physics Teachers; Physical Soc.

Lundquist, Prof. G(ottfred) R(udolph), 55 E. Washington St, Chicago, Ill. *Dental pathology.* Chicago, Ill, Oct. 11, 94. D.D.S, Northwestern, 17, M.S, 35. *Prof. dental path, Northwestern, 34–* A.A; Am. Dental Asn; fel. Col. Dentists; Int. Asn. Dental Research; Inst. Med. Chicago. Regeneration of the gingiva after surgical treatment of pyorrhea; pulpotomy in teeth of dogs; experimental gingival injuries in dogs; peridental membrane reattachment in healthy and pathologic tissues; connective tissue changes and occlusal stresses; the zero crevice in the management of periodontal involvements; roentgenographic and microscopic evidence and the pulpless tooth.

Lundquist, Dr. W(illiam) E(mil), Minnesota Mining and Mfg. Co, St. Paul, Minn. *Organic chemistry.* Kandiyohi, Minn, Oct. 9, 12. B.Ch.E, Minnesota, 34; M.S, Illinois, 36, Ph.D, 38. *Research chemist*, exp. sta, E. I. du Pont de Nemours and Co, 38–42; *Minn. Mining and Mfg. Co, 42–* Chem. Soc. Synthetic organic chemistry; polymer synthesis and evaluation.

Lundsted, Dr. Lester G(ordon), 20658 E. River Road, Grosse Ile, Mich. *Organic chemistry.* Hankinson, N. Dak, Sept. 12, 14. Ed.B, Wis. State Teachers Col, 35; Ph.M, Wisconsin, 40, Ph.D, 42. Asst, Forest Products Lab, U. S. Forest Service, 40; Wisconsin, 40–42; *org. chemist, Wyandotte Chem. Corp, 42–* Reactions of sodium with bromoacetal and ethyl ortho bromo-acetate; catalytic dehydrogenation of heterocyclic nitrogen compounds.

Lundstrom, Frank O(scar), 4616 Chase Ave, Bethesda, Md. *Chemistry.* Denver, Colo, June 21, 96. Denver, 15–18; A.B, George Washington, 21, M.S, 26, 26–35. Junior catalytical chemist, War Dept, 19–21; *asst. chemist*, fixed nitrogen research lab, *U. S. Dept. Agr*, 21–23, bur. chem. and soils, 23–40, *bur. plant indust, 40–* Chemist, nitrates div, Ordnance Dept, U.S.A, 18–19. Chairman cooperative cmt, Washington, D. C. area, Chemist Advisory Council, 40– Chem. Soc; Inst. Chem. (sec'y, Wash. sect, 34–36; pres, 38–40; nat. councilor, 41–). High pressure ammonia synthesis; gas reactions; preparation and improvement of fertilizers; development of new chemical processes; potassium nitrate and nitrosyl chloride; analytical methods and apparatus; chemical process patents; patent bibliography compilation; minor and secondary elements in fertilizers.

Lundy, Prof. H(oward) W(inston), State College of Washington, Pullman, Wash. *Bacteriology, Public health.* Spokane, Wash, Feb. 17, 10. B.S, State Col. Wash, 32; M.S, St. Louis, 34; Dr.P.H, Mass. Inst. Tech, 39. *Asst. prof. bacter. and pub. health, State Col. Wash, 39–* Fel. Pub. Health Asn; Nat. Asn. Sanitarians. The common cold; drinking glass sanitization; encephalitis.

Lundy, Dr. J(ohn) S(ilas), 614 Third St, S. W, Rochester, Minn. *Anatomy.* Inkster, N. Dak, July 6, 94. A.B, North Dakota, 17; M.D, Rush, Chicago, 20. Intern, Harper Hosp, Detroit, 19–20; private practise, Seattle, Wash, 20–24; *head sect. anesthesia, Mayo Clinic, 24–*; instr. *anesthesia, Mayo Foundation, Minnesota*, 24–28, asst. prof, 28–31, assoc. prof, 31–34, *prof, 34–* Past pres, Am. Board Anesthesiology; subcmt. anesthesia, Nat. Research Council; pres, City Board Pub. Health and Welfare, Rochester, Minn. Am. Med. Asn; fel. Soc. Anesthetists; Soc. Pharmacol; Minn. Med. Asn; Associated Anesthetists of U. S. and Can; Int. Anesthesia Research Soc. Anesthesia; blood transfusion; intravenous therapy; asphyxia; resuscitation.

Luneberg, Dr. Rudolf K(arl), Spencer Lens Co, 19 Doat St, Buffalo, N. Y. *Mathematical physics.* Volkersheim, Germany, June 30, 03. Ph.D, Göttingen, 30. Research assoc. math, Göttingen, 30–33; research fellow physics, Leiden, 34–35; research assoc. math, N. Y. Univ, 35–38; *mathematician, research dept, Spencer Lens Co, 38–* Math. Soc. Mathematical theory of probabilities; geometric and physical optics.

Lungren, E(rnest) A, Box 276, Ft. Collins, Colo. *Botany.* Denver, Colo, May 23, 99. B.S, Colo. Agr. Col, 21, M.S, 23. Field asst, *U. S. Dept. Agr*, 21–23, asst. plant pathologist, bur plant indust, 23–30, *assoc. pathologist*, 30–33, *bur. entom. and plant quarantine, 33–* Asst. instr, asst. prof. and lecturer, Colo. Agr. Col, 23–30. Phytopath. Soc; Colo-Wyo. Acad. Stem rust.

Lunn, Dr. A(rthur) C(onstant), University of Chicago, Chicago, Ill. **²Mathematics, Physics.* Racine, Wis, Feb. 19, 77. A.B, Lawrence Col, 98; fellow, Chicago, 99–01, A.M, 00, Ph.D, 04. Instr. math. and astron, Wesleyan, 01–02; assoc. *applied math, Chicago*, 02–03, instr, 03–10, asst. prof, 10–17, assoc. prof, 17–23, *prof, 23–* Physical Soc. (assoc. ed, 'Rev,' 18–20); Math. Soc; Math. Asn; Astron. Soc; Circolo Mat. di Palermo. Differential equations of dynamics; thermodynamics; electromagnetic theory; theory of relativity; geophysical theory; theory of optical instruments; relativity and the quantum problems.

Lunn, Cha(rle)s A(lbert), Consolidated Edison Co. of New York, 4 Irving Place, New York, N. Y. *Chemistry.* Ft. Collins, Colo, July 12, 89. B.Ch.E, Michigan, 11. *Process engineer, Consol. Edison Co. of N. Y, 20–* Chem. Soc; Chem. Eng; Soc. Chem. Indust; Soc. Test. Mat; Ceramic Soc; Gas Asn; Soc. Gas Lighting; Soc. Gas Eng. Manufactured gases and fuels; by-products of gas manufacture.

Lunt, Dr. Herbert A(rthur), 32 Norwood Ave, Hamden, Conn. *Agronomy.* Pittsburgh, Pa, March 17, 98. B.S, Oregon State Col, 22; M.S, State Col. Wash, 23; Ph.D, Illinois, 29. *Asst.* soil fertility, Illinois, 23–28; *forest soils research, Conn. Exp. Sta, 28–* Soc. Agron; Soil Sci. Soc. Chemical and physical properties of forest soils; nutrition of forest trees; biological relationships in forest soils.

Lunz, G(eorge) Robert, Jr, Charleston Museum, Charleston, S. C. *Marine biology.* Charleston, S. C, Feb. 27, 09. B.S, Col. of Charleston, 30, M.S, 32. Assoc. biol, *Charleston Museum*, 32–34, *curator Crustacea, 34–, mem. directing cmt, 43–* Consulting biologist, Corps Engineers, U. S. War Dept, 36; special investigator, bur. ships, Navy Dept, 38, 39; consulting biologist, Fla. Inland Navigation Dist, 40; State Planning Board, S. C, 43– S. C. Acad. Decapod and stomatopod Crustacea and oysters.

Lupher, Prof. R(alph) L(eonard), State College of Washington, Pullman, Wash. *Paleontology.* Emigrant, Mont, May 6, 04. A.B, Oregon, 26, A.M, 27; fellow, Calif. Inst. Tech, 27–30, Ph.D, 30. Asst, Oregon, 26–27; nat. research fellow, 30–31; instr. *paleont, State Col. Wash*, 31–34, asst. prof, 34–36, *assoc. prof, 36–* Paleont. Soc; Geol. Soc. Mesozoic and Cenozoic stratigraphy of Oregon and Washington; Jurassic paleontology.

Lurie, Dr. Max (Bernard), Henry Phipps Institute, Seventh and Lombard Sts, Philadelphia, Pa. *Pathology.* Telshee, Lithuania, Sept. 12, 93. A.B, Col. City of N. Y, 17; M.D, Cornell, 21. Asst, research dept, Nat. Jewish Hosp. for Consumptives, 22–26; fellow path, *Henry Phipps Inst, Pennsylvania*, 26–28, assoc. bacter, 28–33, *exp. path*, 33–37, *asst. prof, 37–* A.A; Asn. Path. and Bact; Asn. Immunol; Soc. Exp. Biol; Soc. Exp. Path. Pathogenesis; immunity; constitution; experimental epidemiology of tuberculosis.

Lusby, Dr. Oscar (William), Consolidated Gas, Electric Light and Power Co, Baltimore, Md. *Gas engineering.* New Castle, Va, Oct. 13, 00 A.B, Randolph-Macon Col, 22; Ph.D, Hopkins, 26. Asst. and research assoc. gas eng, Hopkins, 26–33; *research dept, Consol. Gas, Elec. Light and Power Co, 33–* High pressure hydrogenation; utilization and purification of manufactured gas.

Lush, Prof. Jay L(aurence), Iowa State College, Ames, Iowa. *Genetics, Animal husbandry.* Shambaugh, Iowa, Jan. 3, 96. B.S, Kans. State Col, 16, fellow, 17–18, M.S, 18; Ph.D, Wisconsin, 22. Asst. genetics, Wisconsin, 19–21; animal husbandman, Exp. Sta, Agr. and Mech. Col. Texas, 21–30; *prof. animal breeding, Iowa State Col, 30–* Genetic Asn. (advisory cmt); Soc. Animal Production. Mendelism among domestic animals; systems of breeding; the consequences of selection combined with inbreeding, especially in swine and cattle.

Lush, R(obert) H, National Fertilizer Asn, 616 Investment Bldg, Washington, D. C. *Dairying.* Shambaugh, Iowa, April 10, 99. B.S, Kans. State Col, 21; M.S, Minnesota, 23; fellow, Wisconsin, 28–29. Exten. dairyman, Kansas, 21–22, instr. and asst. prof. dairy husbandry, 23–29; research prof. dairy production, Louisiana, and dairy research, Exp. Sta, 29–39; *pasture specialist, Nat. Fertilizer Asn, 39–* A.A; Dairy Sci. Asn; Soc. Agron; Soc. Animal Production. Nutrition; pasture production and utilization; soils and fertilizers; genetics.

Lushbaugh, Dr. Clarence C(hancelum), University of Chicago, Chicago, Ill. *Pathology.* Covington, Ky, March 15,

16. B.S, Chicago, 38, fellow, 38–39, Ph.D, 42. Asst. *path, Chicago*, 39–41, 42, *instr, 42–, pathologist, toxicity lab, 41–* Pathology of experimental pneumococcus infection; pathology of experimental focal necrosis of the liver; pathology of sudden death from obstetrical shock; pathology of war gas poisoning in animals.

Lute, Anna M(aude), Colorado State College, Ft. Collins, Colo. *Botany.* Colo. A.B, B.S, Nebraska, 06, fellow, 07–10. Seed analyst, Colo. State Col; *retired, 41–* A.A; Bot. Soc; Asn. Seed Anal. (pres, 25). Seeds; grasses.

Luten, Dr. Daniel B(enjamin), Jr, 51 Stevenson Ave, Berkeley, Calif. *Organic chemistry.* Indianapolis, Ind, March 15, 08. A.B, Dartmouth Col, 29; Ph.D, California, 33. Instr. chem, Dartmouth Col, 30–31; California, 34–35; *research chemist,* Shell Oil Co, 35–36, *Shell Develop. Co, 36–* A.A; Chem. Soc. Physical properties of deuterium compounds; velocities of organic reactions; petroleum cresylic acids; petroleum by-products.

Luten, Dr. Drew, 3720 Washington Blvd, St. Louis, Mo. *Medicine.* Cayce, Ky, Aug. 15, 81. A.B, Kentucky, 01; M.D, Hopkins, 11. Asst. prof. and *assoc. prof. clin. med, sch. med, Washington (St. Louis).* Director heart sta, Barnes Hosp. and Deaconess Hosp, St. Louis, Mo. Am. Heart Asn; Cent. Soc. Clin. Research. Clinical cardiology.

Luteyn, Prof. Peter, 8223 Portland Ave, Wauwatosa, Wis. *Mathematics.* Holland, Nov. 16, 78. M.S, Iowa, 16. Prin, schs, Netherlands; instr. *math,* Netherlands Nor. Col; high sch, Iowa; acting head dept, Wheaton Col. (Ill), 14; instr, Iowa State Teachers Col, Cedar Falls, 16–17, asst. prof, 17–18, prof, 18–20; instr, high sch, Wis, 20–24; *asst. prof, Marquette, 25–* Math. Asn. College algebra.

Luther, Dean Chester F(rancis), Willamette University, Salem, Oregon. *Mathematics.* Auburn, Calif, Oct. 12, 06. A.B, Stanford, 28, A.M, 29, Ph.D, 32. Instr. *math,* Stanford, 29–36; assoc. prof, *Willamette,* 36–37, *prof, 37–, dean col. lib. arts, 40–* A.A; Math. Soc; Math. Asn. Theory of substitution groups.

Luther, Dr. William F(rancis), 162 Vermont Ave, Asheville, N. C. *Organic chemistry.* Wingo, Ky, Jan. 13, 15. B.S, Kentucky, 36; M.S, Iowa, 38, Ph.D, 40. Asst, Iowa, 37–40; prof. chem, Ark. Col, 40–41; *research chemist,* Sharples Chem. Corp, 41–42; *Am. Enka Corp, 42–* Chem. Soc. Reactions of diazohydrocarbons with Grignard reagents; catalysts for aliphatic amines and nitriles; cellulose.

Lutman, Prof. B(enjamin) F(ranklin), 111 N. Prospect St, Burlington, Vt. *Plant pathology.* Joplin, Mo, Sept. 26, 79. A.B, Missouri, 06; Ph.D, Wisconsin, 09. *Asst. plant path, Exp. Sta, Vermont, 09–, prof, univ, 10–* Phytopath. Soc; Soc. Plant Physiol; Bot. Soc. Senility in plants; potato diseases.

Luton, Dr. Frank H(arper), Vanderbilt University School of Medicine, Nashville, Tenn. *Psychiatry.* Decaturville, Tenn, Oct. 18, 98. B.S, George Peabody Col, 25; M.D, Vanderbilt, 27. Asst. *psychiat,* sch. med, Hopkins, 28–29, instr, 29–31; asst. prof, *sch. med, Vanderbilt,* 31–37, assoc. prof, 37–42, *prof, 42–* Lecturer, Vanderbilt, 28–30; res. psychiatrist, Phipps Psychiat. Clinic, Hopkins, 30–31; consultant, Cent. State Hosp. Am. Med. Asn; Psychiat. Asn; South. Med. Asn. (chairman sect. neur. and psychiat, 38); South. Psychiat. Asn; Cent. Neuropsychiat. Asn; Int. League Against Epilepsy. Mental hygiene in rural areas; monocytes in tuberculosis; psychoses in hyperthyroidism; rural psychiatry.

Luttermoser, Dr. George W(illiam), Institute of Inter-American Affairs, Apartado 74, Maracay, Venezuela, S. Amer. *Parasitology.* Detroit, Mich, Aug. 16, 12. A.B, Col. City of Detroit, 33; Sc.D, Hopkins, 37. Tech. and teaching asst. helminthol, sch. hygiene and pub. health, Hopkins, 35–37; junior parasitologist, zool. div, U. S. Dept. Agr, 37–40; Inter-Am. Cultural Exchange Program fellow from U. S. State Dept. to Venezuelan Ministry Health, 40–41, helminthologist, nat. inst. hygiene, 41–43; *mem. Venezuelan field party, health and sanit. div, Office Inst. Inter-Am. Affairs, 43–* Soc. Parasitol; Helminth. Soc. Wash; Soc. Venezolana de Ciencias Nat. Life cycles, host-parasite relationships; control of various helminths.

Luttrell, Dr. E(verett) S(tanley), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Mycology.* Richmond, Va, Jan. 10, 16. B.S, Richmond, 37; A.M, Duke, 39, Ph.D, 40. *Assoc. botanist, Exp. Sta, Georgia, 42–* Mycol. Soc. Morphology of the Ascomycetes.

Lutz, Prof. Brenton R(eid), 49 Laurel St, Melrose, Mass. *Physiology.* Woodlawn, N. S, Can, June 2, 90. B.S, Boston, 13, A.M, 14, fellow, 14–15, Ph.D, 17; Harvard, 14–16. Teaching fellow physiol, Harvard, 15–17; instr. biol, *Boston,* 14–22, exp. physiol, 19–21, asst. prof. physiol, 21–30, assoc. prof, 30–39, asst. prof. *biol,* 22–27, *prof, 27–* Physiologist, Sanit.C, U.S.A, 18–19, capt, Sanit.R.C, 25–30. A.A; Physiol. Soc; Soc. Zool; Am. Acad. Blood pressure; reflex thresholds; effects of low oxygen tension; vasomotor responses; blood alkali; respiration; cardiac reflexes; visceral innervation in elasmobranchs.

Lutz, Dr. Frank E(ugene), American Museum of Natural History, New York, N. Y. **²Zoology.* Bloomsburg, Pa, Sept. 15, 79. A.B, Haverford Col, 00; A.M, Chicago, 02, Ph.D, 07. Res. investigator, sta. for exp. evolution, dept. genetics, Carnegie Institution, 04–09; asst. curator, *Am. Museum Nat. Hist,* 09–16, assoc. curator, 16–21, *curator, 21–* Lecturer, Columbia, 37. Ed, 'Bul.' and 'Memoirs,' Am. Museum Nat. Hist, 17–29. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; fel. Entom. Soc. Amer. (pres, 27); fel. N. Y. Zool. Soc. Ecology; entomology; outdoor education.

Lutz, Dr. Garson A(lvin), 321 Hickok Ave, Syracuse, N. Y. *Organic chemistry.* Kempton, Pa, Jan. 28, 13. B.S, Franklin and Marshall Col, 33; Ph.D, Northwestern, 37. *Org. research chemist,* United Gas Improv. Co, 37; Blaw-Knox Co, 37–41; *Solvay Process Co, 41–* Some reactions of indene chloride and the cis and trans chlorohydrines mechanism of ketone formation; reaction of indene chloride with phenols; bright electro tin deposits; metal finishing.

Lutz, Prof. H(arold) J(ohn), Yale University, New Haven, Conn. *Forestry.* Saline, Mich, Aug. 11, 00. B.S, Mich. State Col, 24; M.F, Yale, 27, Ph.D, 33. Tech. asst, U. S. Forest Service, 24–26; asst. forester, Conn. Exp. Sta, 27–28; assoc. silviculturist, Allegheny Forest Exp. Sta, U. S. Forest Service, 28–29; asst. prof. *forestry,* Pa. State Col, 29–31; *Yale,* 33–39, *assoc. prof, 39–* A.A; Soc. Foresters; Ecol. Soc; Soc. Agron; Soil Sci. Soc. Forest ecology; forest soils.

Lutz, Dr. J(acob) M(artin), U. S. Department of Agriculture, Meridian, Miss. *Horticulture, Plant physiology.* Bloomington, Ill, March 24, 08. B.S, Mich. State Col, 28; Oregon State Col, 29; Ph.D, Maryland, 36. Junior physiologist, *bur. plant indust, U. S. Dept. Agr,* 29–36, asst. physiologist, 36–42, *assoc. physiologist, 42–* Soc. Hort. Sci. Handling, transportation and storage of horticultural products.

Lutz, Prof. J(ames) F(ulton), State College Station, Raleigh, N. C. *Soils.* Newton, N. C, Nov. 23, 07. B.S, N. C. State Col, 29; A.M, Missouri, 30, Ph.D, 34. Asst. *soils,* Missouri, 29–30; asst. prof, *N. C. State Col,* 31–34, assoc. prof, 34–41, *prof. and head dept, 41–* Soc. Agron; Soil Sci. Soc. (chairman soil physics sect, 40); Geophys. Union; Int. Soc. Soil Sci. Soil properties affecting erosion; soil development; soil organic matter.

Lutz, Dr. J(ohn) F(rancis), University of Maryland, Baltimore, Md. *Histology.* Annapolis, Md, Aug. 11, 89. A.B, St. Johns Col. (Md), 10; M.D, Maryland, 14. Intern, *sch. med, Maryland,* 14–17; asst. prof. clin. path, 20–22, assoc. prof. med, 22–23, instr. *histol,* 26–31, assoc, 31–38, *asst. prof, 38–* M.C, U.S.A, 17–19. Life cycle of the red blood cell.

Lutz, Prof. J(ohn) George, Hofstra College, Hempstead, N. Y. *Chemistry.* Brooklyn, N. Y, Nov. 13, 00. B.S, Polytech. Inst. Brooklyn, 22; A.M, Columbia, 24, Ph.D, 34. Instr. *chem,* Westminster Col, 24–27, asst. prof, 27–30; instr, Union (N. Y), 35–37, prof. and head dept, Albany Col. Pharmacy, 37–42; *prof. and chairman dept, Hofstra Col, 42–* Chem. Soc. Enzyme chemistry.

Lutz, Prof. Robert E(liot), University of Virginia, Charlottesville, Va. *Organic chemistry.* Boston, Mass, March 24, 00. A.B, Harvard, 21, A.M, 22, Ph.D, 25. Asst. chem, Harvard, 20–24, physiol, Harvard Med. Sch, 24–25; instr. *org. chem,* N. Y. Univ, 25–28; assoc. prof, *Virginia,* 28–40, *prof, 40–* Research assoc, drug addiction lab, Nat. Research Council, 29–37. S.A.T.C, 18. Chem. Soc; Va. Acad. Theoretical organic; organic reductions; microdetermination of zinc; tautomerism; stereochemistry; steric hindrance; diketones; triketones; ketonic acids; furans; hydroxyfuranones; morphine alkaloids.

Lu Valle, Dr. J(ames) E(llis), 100 Gibbs St, Rochester, N. Y. *Physical chemistry.* San Antonio, Texas, Nov. 10, 12. A.B, California at Los Angeles, 36, A.M, 37.; Julius Rosenwald fellow, Calif. Inst. Tech, 38–40, Ph.D, 40. Instr. chem, Fisk, 40–41; *research chemist, research labs, Eastman Kodak Co, 41–* Chem. Soc. Photochemistry; photolysis of crotonaldehyde; molecular structure; electron diffraction studies of gases.

Lux, Dr. Albert R(ichard), 1300 N. Harrison St, Wilmington, Del. *Organic chemistry.* St. Paul, Minn, June 26, 03. B.S, Minnesota, 26, M.S, 28; fellow, Pa. State Col, 29–32, Ph.D, 34. Research chemist, Dow Chem. Co, Midland, Mich, 28–29; chemist, Wm. S. Merrell Co, Cincinnati, 32–34; asst, Pa. State Col, 34–35; *research chemist, E. I. du Pont de Nemours and Co, 35–* Chem. Soc. Polymethylated benzenes; isobutyl Grignard.

Luxford, R(onald) F(loyd), U. S. Forest Service, Madison, Wis. *Forestry.* Manistee, Mich, May 13, 89. B.S, Minnesota, 17, C.E, 25; M.S, Wisconsin, 24. *Research engineer, Forest Products Lab, U. S. Forest Service, 18–* Soc. Foresters. Wood handbook; prefabricated houses; efficiency of modern metal connectors for joints in timber construction; strength and related properties of wood; factors affecting the strength of wood; building codes.

Luyet, Prof. B(asile) J(oseph), St. Louis University School of Medicine, St. Louis, Mo. *Biophysics.* Savièse, Switzerland, July 10, 97. B.A, Fribourg, 17; L.Sc, Geneva, 23, D.Sc. (Nat. Sci), 25, D.Sc. (Physics), 27; Paris, 26. Lecturer biol. and physics, Col. Florimont, Geneva, 21–29; privat-docent, Geneva, 27–29; research fellow biol, Yale, 29–30; *biophys,* Rockefeller Inst, 30–31; assoc. prof, *St. Louis,* 31–36, *prof, 36–* Ed, 'Cahiers Valaisans de Folklore,' 28–30; 'Biodynamica,' 34– A.A; Soc. Zool; Bot. Soc; Soc. Exp. Biol; Physiol. Soc; Physical Soc; Soc. Plant Physiol; Soc. Bot. de Genève; Soc. Linn. de Lyon; Soc. de chim. physique, Paris; Soc. Valais Sci. nat. Analysis of growth; mechanism of action of radiations; physical structure of living matter; physical properties of cellular constituents; mechanism of death; biological effects of low temperature and of high pressure; latent life in vitreous state at low temperatures; state of water in protoplasm.

Luyten, Prof. Willem J(acob), University of Minnesota, Minneapolis, Minn. *[6]*Astronomy.* Semarang, D.E.I, March 7, 99. Amsterdam; Ph.D, Leiden, 21. Asst, Observatory, Leiden, 20–21; fellow, Lick Observatory, California, 21–22, Martin Kellogg fellow, 21–23; astronomer, Harvard Observatory, 23–27, asst. prof. astron, Harvard, 27–30; Guggenheim Mem. Foundation fellow, 28–30, 37–38; asst. prof. *astron, Minnesota,* 31–34, assoc. prof, 34–37, *prof, 37–* Lick Observatory, California, eclipse exped, Ensenada, Baja Calif, 23; Hamburg Observatory eclipse exped, Jokkmokk, Lapland, 27. A.A; Astron. Soc; Asn. Variable Star Observers; Am. Acad; Royal Astron. Soc. Motion of stars; variable stars; double stars; stellar statistics.

Lyall, Dr. Harold W(illiam), State Department of Health, New Scotland Ave, Albany, N. Y. *Bacteriology.* Lawrence, Mass, March 23, 88. A.B, Brown, 08, A.M, 09, Ph.D, 14. Bacteriologist, State Board Health, R. I, 08–10; assoc, Hoagland Lab, Brooklyn, 10–13, asst. director, 13–14; bacteriologist, research lab, Dept. Health, New York, 14–18; State Dept. Health, N. Y, 19–20; director lab, Tuber. League, Pittsburgh, 20–25; asst. prof. bacter, sch. med, Pittsburgh, 22–25; research bacteriologist, J. N. Adam Mem. Hosp, 25–30; bacteriologist, *div. labs, State Dept. Health, N. Y,* 30–32, *asst. director, 32–* Bacteriologist, R. I. Shellfish Cmn, 09; L. I. Col. Hosp, 10–14. Summers, research, N. Y. State Hosp. for Incipient Tuber, 12–14. Sanit.C, U.S.A, 18–19. Soc. Bact; Asn. Path. and Bact; Pub. Health Asn. (chairman lab. sect, 40); Asn. Immunol. Blood cultures in pneumonia; typhoid meningitis; immunity reactions and secondary infections in tuberculosis; streptococci; chronic non-tuberculous lung infections; epidemiology of influenza; concentration and purification of immune sera; reactions after injection of tetanus antitoxin; globulin solution for modification or prevention of measles.

Lycan, Dr. W(illiam) H(iram), Pittsburgh Plate Glass Co, Milwaukee, Wis. *Chemistry.* Vermilion, Ill, July 15, 03. B.S, Illinois, 24, M.S, 26, Ph.D, 29. Instr. chem, Tennessee, 24–25; asst, Illinois, 25–29; research chemist, E. I. du Pont de Nemours and Co, Carrollville, Wis, 29–37; indust. fellow, Mellon Inst, 37–38; *director paint div. research, Pittsburgh Plate Glass Co, 38–* Chem. Soc. Protective coatings; film-forming materials.

Lyddane, R(ussell Hancock), U. S. Naval Proving Ground, Dahlgren, Va. *Physics.* Washington, D. C, Jan. 9, 13. Ph.D, Hopkins, 38. *Asst. prof. physics, North Carolina, 38–;* asst. physicist, *U. S. Naval Proving Ground,* 41–42. *assoc. physicist, 42–* Physical Soc. Theoretical physics.

Lyerly, Dr. P(aul) J(unior), Ysleta, Texas. *Agronomy.* Granite Quarry, N. C, Feb. 24, 18. B.S, N. C, State Col, 38; M.S, Iowa State Col, 40, Ph.D, 42. Teaching asst, Iowa State Col, 38–41, asst. corn investigations, 41–42; *agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 42–* Soc. Agron. Plant breeding; corn; cotton breeding and production.

Lyford, C(hauncey) A(llan), East Aurora, N. Y. *Chemistry.* Worcester, Mass, May 1, 80. B.S, Worcester Polytech, 03; fellow, Clark, 03–08, A.M, 06. Instr. chem, Clark, 08–11; asst. prof. geol, Middlebury Col, 11–16; chem, St. Lawrence, 16–17; Case, 17–18; chem. engineer and later *research chemist, Nat. Aniline and Chem. Co, 18–* A.A. Interaction of aldehyde and peroxides; dye intermediates; dyes.

Lyght, Dr. Charles E(verard), 1790 Broadway, New York 19, N. Y. *Tuberculosis.* Hamilton, Ont, Can, July 26, 01. M.D, Queen's (Can), 26. Asst. physician, dept. student health, Wisconsin, 27–32, acting chief physician, 32–36, director, 36, instr. to assoc. prof. clin. med, med. sch, 27–36; prof. health and physical educ, chairman div. and director col. health service, Carleton Col, 36–42; *director health educ, Nat. Tuber. Asn, 43–* A.A; Am. Med. Asn; Pub. Health Asn; Student Health Asn. (chairman tuber. cmt, 37–42; exec. councilor, 42–); fel. Col. Physicians; Col. Chest Physicians; N. Cent. Student Health Asn. (pres, 35; mem. exec. cmt, 36–); Minn. Acad. Methods and results of tuberculosis case finding among American college students.

Lykken, Dr. Louis, 787 Ensenada Ave, Berkeley, Calif. *Chemistry.* Beresford, S. Dak, Oct. 18, 05. B.S, S. Dak. Sch. Mines, 27; Ph.D, Iowa State Col, 33. Asst, Iowa State Col, 27–28, instr. chem, 29–37, asst. prof, 37–38; *chemist, Shell Develop. Co, 38–* City chemist, Water Dept, Ames, Iowa, 31–33; gen. consulting chemist, 33–38. Chemical technology; metallography of white cast iron; petroleum products as antifreeze; gas and fuel technology; development of methods for analysis of gases, carbon nitrogen and hydrogen in organic compounds; inorganic catalysts and residues and oxidized oils; potentiometric, photometric, polarographic, spectrographic and micro analysis.

Lyle, Aaron K(err), 21 Cumberland Road, West Hartford, Conn. *Chemistry.* Washington, Pa, Oct. 2, 02. A.B, Washington and Jefferson Col, 26, A.M, 28. Dept. chem, Washington and Jefferson Col, 29; chem. lab, Hazel-Atlas Glass Co, 29–34; chief chemist, Bailey and Sharpe Co, 34–37; *glass technologist, Hartford Empire Co, 37–* Fel. Ceramic Soc. (chairman glass div, 41). Glass technology; chemical analysis and testing of glass; composition, melting and chemical durability of glass; methods for routine testing.

Lyle, Prof. Clay, Mississippi State College, State College, Miss. *Entomology.* Lux, Miss, Jan. 25, 94. B.S, Miss. Agr. and Mech. Col, 17, M.S, 31; Ph.D, Iowa State Col, 37. Assoc. prof. *entom,* Miss. Agr. and Mech. Col, 28–31, *prof,* 31–32, *Miss. State Col, 32–;* gen. inspector, *State Plant Board, Miss,* 20–31, *exec. officer, 31–* Sec'y, Apiary Inspectors Amer, 37–41; South. Plant Board, 37–41; mem, Nat. Plant Board, 41–A.A; Entom. Soc. Amer; Asn. Econ. Entom. (v. pres. cotton states branch, 36). Zoology.

Lyle, Dr. Eldon W(ood), P. O. Box 414, Temple, Texas. *Plant pathology.* Corpus Christi, Texas, Dec. 5, 08. B.S, Oregon State Col, 30; N. Y. Florist Club fellow, Cornell, 36–37, Ph.D, 37. *Plant pathologist, Exp. Sta, Texas, 37–* Phytopath. Soc. Diseases of roses.

Lyle, S(amuel) P(atterson), U. S. Department of Agriculture, Washington, D. C. *Agricultural engineering.* Memphis, Mo, Feb. 12, 92 B.S, Kans. State Col, 21; M.S, Iowa State Col, 22. Instr, Kans. State Col, 21; teaching fellow, Iowa State Col, 21–22; head dept. agr. eng, Ark. Agr. and Mech. Col, 22–24; Georgia, 24–30; senior agr. engineer, exten. service, bur. agr. eng, *U. S. Dept. Agr,* 30–38, prin. agr. engineer in charge rural elec. div, bur. agr. chem. and eng, 38–39, *prin. scientist in charge agr. and home econ. sect, div. subject matter, exten. service, 39–* Pursuit pilot, A.S, 17–19. A.A; Agr. Eng. (chairman, south. sect, 26, chairman, col. div, 30, v. pres, 36, pres, 38). Structures; machinery and power; land improvement.

Lyman, Dr. Carl M(orris), 2000 S. College Road, Bryan, Texas. *Chemistry.* Oakland, Iowa, July 31, 03. B.S, Oregon, 31; A.M, Oregon State Col, 33; Ph.D, Pittsburgh, 37. Asst, Lasker Foundation Med. Research, Chicago, 36–40; *nutritionist, Exp. Sta, Agr. and Mech. Col. Texas, 40–* A.A; Chem. Soc; Soc. Biol. Chem. Amino acids and proteins; pantothenic acid; vitamin C; biological oxidations; nutrition; bacterial toxins.

Lyman, Lieut. Charles P(eirson), Altitude Training Unit, 7th A.F, APO, 953, care of Postmaster, San Francisco, Calif. *Biology.* Brookline, Mass, Sept. 23, 12. A.B, Harvard, 36, A.M, 39, Ph.D, 42. Asst. physiol, Harvard Med. Sch, 42; *lieut, Air Corps, U. S. Army, and director altitude training unit, 42–* Experimental biology; ecology.

Lyman, Dr. F(rederick) Earle, Tennessee Valley Authority, Norris, Tenn. *Limnology, Entomology.* Saginaw, Mich, July 25, 10. B.S, Alma Col, 32; M.S, Michigan, 33; Ph.D, 40; Louisiana, 33–34; W. K. Kellogg fellow, Mich. State Col, 34–36. Asst. zool, Louisiana, 33–34; Michigan, 36–38, teaching fellow, 38–40; instr, Grand Rapids Junior Col, 40–41; *asst. aquatic biologist, Tenn. Valley Authority, 41–* Limnol. Soc; Entom. Soc; Mich. Acad. Ephemeroptera in Douglas Lake, Michigan, with special reference to the distribution of immature stages; limnological investigations in relation to applied fisheries on reservoirs of the Tennessee valley.

Lyman, Prof. J(ohn) F(ranklin), Route 2, Westerville, Ohio. *Chemistry.* Mesopotamia, Ohio, 81. B.S, Mass. Col, 05; Ph.D, Yale, 09. Assoc. prof. *agr. chem, Ohio State,* 09–15, *prof, 15–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Nutrition; Inst. Food Technol. Agricultural chemistry; biochemistry; animal nutrition; metabolism of fats and purins.

Lyman, Dr. Richard S(herman), Duke University, Durham, N. C. *Neuropsychiatry.* Hartford, Conn, Jan. 29, 91. A.B, Yale, 13; M.D, Hopkins, 21. Fellow med, Hopkins Hosp, 22–23, asst. psychiat, 23–24, assoc, 24–25; assoc. prof. med, Rochester, 25–29; neuropsychiat, Nat. Cent. Univ, Shanghai, 31–32; Peiping Union Med. Col, 32–37; lecturer psychiat, Hopkins, 38–40; *prof. neuropsychiat, Duke, 40–* Clinical neurophysiology and psychology.

Lyman, Dr. Rufus A(shley), 1649 S. 21st St, Lincoln, Nebr. *Pharmacy.* Table Rock, Nebr, April 17, 75. A.B, Nebraska, 97, A.M, 99, M.D, 03. Prof. physiol. and pharmacol, col. med, *Nebraska,* 04–08, director sch. pharmacy, 08–13, *dean col. pharmacy, 13–, director dept. student health, 19–* Ed, 'Am. Jour. Pharmaceut. Educ,' 37. V. pres, U. S. Pharmacopoeial Convention, 30. A.A; Pharmaceut. Asn; Am. Med. Asn; Pub. Health Asn; Asn. Cols. Pharm. (pres, 17); Asn. Sch. Physicians; Student Health Asn; Nebr. Pharmaceut. Asn; Nebr. Acad. Parasitology; cestodes of American rabbits; pharmaceutical education.

Lyman, Dr. R(ufus) A(shley), Jr, 1649 S. 21st St, Lincoln, Nebr. *Animal physiology.* Lincoln, Nebr, Feb. 28, 16. B.S, Nebraska, 38, A.M, 39; Ph.D, Hopkins, 42. *Asst.* zool, Nebraska, 38–39; *biol, Hopkins, 39–* Soc. Mammal. Physiology of hibernation.

Lyman, Prof. Theodore, 105 Heath St, Brookline, Mass. **Physics.* Boston, Mass, Nov. 23, 74. A.B, Harvard, 97, A.M, 99, Ph.D, 00. Asst. *physics, Harvard,* 97–98, 99–01, instr, 02–07, asst. prof, 07–17, prof, 17–21, Hollis prof, 21–26, *emer. Hollis prof, 26–, director Jefferson physical lab, 10–* Rumford medal, Am. Acad, 18; Elliott Cresson medal, Am. Philos. Soc, 30; Frederick Ives Medal, Optical Soc, 31. Nat. Acad; A.A; Physical Soc; Philos. Soc; Am. Acad; fel. Royal Geog. Soc; hon. mem. Royal Inst. Phenomena connected with diffraction gratings; wave-lengths of extreme ultra-violet light discovered by Schumann; properties of light of extremely short wave-length.

Lynch, Prof. Cecil C(ameron), 1313 Gilpin Ave, Wilmington, Del. *Physical chemistry.* Wilmington, Del, Feb. 2, 04. B.S, Delaware, 26, M.S, 27; Ph.D, Columbia, 38. Instr. physics, *Delaware,* 27–29, *chem,* 33–38, *asst. prof, 38–* Chem. Soc. Potentiometric studies in low dielectric media.

Lynch, Dr. Clara J(ulia), Rockefeller Institute, New York, N. Y. *Zoology.* Canton, Ohio, March 6, 82. B.L, Smith Col, 03; A.M, Columbia, 12, Ph.D, 19; fellow, Rockefeller Inst, 18–19. Reader zool, Smith Col, 09–10, instr, 13–16; asst, *Rockefeller Inst,* 19–26, *assoc, 26–* A.A; Soc. Exp. Biol; Asn. Cancer Research; Soc. Zool; Genetics Soc; Harvey Soc. Genetics; cancer.

Lynch, Dr. Frank W(orthington), University of California Hospital, San Francisco, Calif. *Medicine.* Cleveland, Ohio, Nov. 5, 72. A.B, Western Reserve, 95; M.D, Hopkins, 99. Instr. and assoc. *med,* Hopkins, 00–04; instr. and asst. prof, Rush Med. Col, Chicago, 05–15; *prof, California, 15–* Am. Med. Asn. (chairman, gynec. and obstet. sect, 24); Col. Surg. (board governors, 13–, 1st. v. pres, 37); Gynec. Soc. (v. pres, 23–26, pres, 33); hon. mem. Cent. Asn. Obstet. and Gynec; Pacific Coast Obstet. and Gynec. Soc. (pres, 31); Pacific Coast Surg. Soc; Chicago Gynec. Soc. (ed, 08–11, v. pres, 12, pres, 13); San Francisco Obstet. Soc. (pres, 30). Obstetrics and gynecology; cancer of female genitalia.

Lynch, Prof. James E(ric), University of Washington, Seattle, Wash. *Zoology.* Chariton, Iowa, Dec. 7, 92. A.B, Nebraska, 17, A.M, 21; fellow, California, 25–27, Ph.D, 29. Asst. prof. *zool,* Okla. Agr. and Mech. Col, 29–30; Tulane, 30–31; assoc. prof, *sch. fisheries, Washington (Seattle),* 31–43, *prof, 43–* A.A. Protozoa; Trematoda; Acanthocephala; Phyllopoda.

Lynch, Rev. J(ohn) Joseph, S.J, Fordham University, New York, N. Y. *Physics, Seismology.* London, Eng, Dec. 6, 94. St. Ignatius Col, London; A.B, Woodstock Col. (Md), 19, A.M, 20; St. Ignatius Col, Holland; Ph.D, N. Y. Univ, 39. Instr. *physics, Fordham,* 20–22, 23, *prof. and director seismic observatory, 28–* A.A. (councilor, 29–32); Physical Soc; Seismol. Soc. (v. chairman, east. sect, 28, chairman, 29–30); Geophys. Union; fel. Am. Geog. Soc; Asn. Physics Teachers; Math. Soc; Franklin Inst; fel. N. Y. Acad; fel. Royal Astron. Soc. The effect of occluded hydrogen on the coefficient of rigidity of metals; palladium.

Lynch, Dr. Kenneth M(errill), 16 Lucas St, Charleston, S. C. *Pathology.* Hamilton, Texas, Nov. 27, 87. M.D, Texas, 10; LL.D, South Carolina, 31. Instr. *path,* Pennsylvania, 11–13; *prof, Med. Col. State of S. C,* 13–21, *26–, v. dean, 36–* Res. pathologist, Phila. Gen. Hosp, 11; asst. pathologist, Phila. Gen. Hosp. and Univ. Hosp, 11–13; pathologist, Roper Hosp, Charleston, 13–21, 26–, board commissioners, 18–21; regional mem, Nat. Board Med. Examiners, 36–; State Board Health, S.C, 36–, chairman, 40–; State Cancer Cmn, 37– Ed. board, 'Am. Jour. Trop. Med'; 'Am. Jour. Clin. Path'; 'Am. Jour. Digestive Diseases'; 'Approved Lab. Technic'; Am. ed, 'Green's Manual of Path.' First award, sci. exhibit, South. Med. Asn, 20, research medal, 21; gold medal, sci. exhibit, Am. Med. Asn, 21. Sec'y, Pan-Am. Med. Cong, 15. A.A; Soc. Clin. Path. (pres, 30, chairman, exec. cmt, 31); Asn. Path. and Bact; Soc. Parasitol; Soc. Trop. Med. (councilor, 22–27, v. pres, 28, pres, 29); Am. Med. Asn. (v. chairman, path. sect, 23, chairman, 24, v. pres, 36); Asn. Cancer Research; Col. Physicians (board governors, 26, 37–); South. Med. Asn. (sec'y, path. sect, 23, chairman, 24, sec'y, med. educ. sect, 28–31, chairman, 32, councilor, 36); S. C. Med. Asn. (pres, 30); Int. Fed. Societies Trop. Med. and Hygiene (int. councilor, 30). Protozoan parasitism of alimentary tract; intestinal Protozoa; pellagra; asbestosis; granuloma inguinale; blastocystis: filariasis; medical protozoology; diagnosis of neoplasms.

Lynch, Dr. Ruth (Jennings) Stocking (Mrs. Vernon Lynch), State Teachers College, Towson, Md. *Zoology.* Elyria, Ohio, March 31, 87. A.B, Goucher Col, 10; fellow, Bryn Mawr Col, 11–12; fellow, Hopkins, 12–13, 14–15, Ph.D, 15; fellow, Wellesley Col, 13–14. Prof. biol, Agnes Scott Col, 15–16; acting prof, Wells Col, 16–17; asst. prof, Carnegie Inst. Tech, 17–18; instr. protozool, sch. hygiene and pub. health, Hopkins, 18–19, asst. zool, 19–26, instr, 26–35; *in charge science dept, State Teachers Col, Towson, Md, 35–* Statist. dept, U. S. Fuel Admin, 18. A.A; Soc. Zool. Genetics.

Lynch, Prof. William A(loysius), Fordham University, New York, N. Y. *Physics, Seismology.* Brooklyn, N. Y, June 21, 92. A.B, N. Y. Univ, 14, M.S, 20, Ph.D, 23. Instr. *physics,* N. Y. Univ, 15–23, asst. prof, 23–30, assoc. prof, 30–37; *prof, Fordham, 37–* Prof, N. Y. Univ, 40–41, 42. A.A; Physical Soc; Seismol. Soc. (sec'y east. sect, 39–42, v. chairman, 42, chairman, 43–); Geophys. Union; N. Y. Acad. Dielectric constants; electrical oscillations; electrical discharges in gases; energy of earthquakes; deep-focus earthquakes.

Lynde, Prof. Carleton J(ohn), 701 Park St, N, St. Petersburg, Fla. *Physics.* Mitchell, Ont, Can, Sept. 1, 72. B.A, Toronto, 95; Ph.D, Chicago, 05. Science master, high sch, N. Y, 96–99; instr. *physics,* Univ. High Sch.

Chicago, 99–06; prof, Washington and Jefferson Col, 06–07; Macdonald Col, McGill, 07–24; *Teachers Col, Columbia*, 24–38, *emer. prof*, 38– A.A; Physical Soc. Household engineering.

Lyne, Prof. Everett, Hofstra College, Hempstead, N. Y. *Physiology.* Fall River, Mass, June 21, 06. B.S, N. Y. Univ, 29, M.S, 31, 31– Asst. biol, Wash. Sq. Col, N. Y. Univ, 28–30, instr. science, sch. educ, 30–36; *biol, Hofstra Col*, 36–39, *asst. prof*, 39– Fatigue, and its effect on the growth picture during early development.

Lyness, Prof. Arthur S(hireman), Central State Teachers College, Stevens Point, Wis. *Botany, Plant physiology.* Walnut, Kans, Feb. 25, 87. B.S, Kans. State Col, 16; M.S, Iowa, 32, Ph.D, 35. Prin, schs, Kans, 11–20; Okla, 20–23; supt, Ky, 23–24; prin, Iowa, 26–31; *prof, Cent. State Teachers Col*, 34– Summer, asst, Iowa, 32. Fern Soc; Soc. Exp. Biol; Soc. Plant Physiol. Biology; native fern distribution; plant nutrition.

Lynn, Prof. E(ldin) V(erne), Massachusetts College of Pharmacy, Boston, Mass. *Pharmaceutical chemistry.* Hawarden, Iowa, Feb. 8, 86. A.B, Washington (Seattle), 09; A.M, Wisconsin, 10, Ph.D, 18. Instr. physics, Adelphia Col, 07–09; asst. chem, Wisconsin, 10–11, instr, 11–13; research chemist, Exp. Sta, Wyoming, 13–14; instr. chem, Illinois, 14–15; asst. prof, Okla. Agr. and Mech. Col, 15–17; pharmaceut. chemist, bur. chem, U. S. Dept. Agr, 17; Wis. Pharmaceut. Exp. Sta, 17–18; research chemist, Parke, Davis and Co, 18–19; chemist, Consol. Chem. Products Co, 19–20; asst. prof. pharmacol. and chem, Washington (Seattle), 20–21, assoc. prof, 21–28, *prof*, 28–34; *chem, Mass. Col. Pharmacy*, 34– Chem. Soc; Pharmaceut. Asn. Organic and pharmaceutical chemistry.

Lynn, Dr. J(ohn) Edward, American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Chemistry.* Boston, Mass, Oct. 10, 14. B.S, Mass. Inst. Tech, 37, Sc.D, 40. Asst. chem. eng, Mass. Inst. Tech, 37–40; colloids, inst. paper chem, Lawrence Col, 40–41; research physical chemist, *Am. Cyanamid Co*, 41–43, *in charge textile chem. lab*, 43– Strong electrolytes and crystallization; colloid chemistry; chemical engineering; textile chemistry.

Lynn, Dr. W(illiam) Gardner, 5317 Seventh St, N.W, Washington, D. C. *Zoology.* Washington, D. C, Dec. 26, 05. A.B, Hopkins, 28, Ph.D, 31. Asst. *zool*, Hopkins, 28–30, instr, 31–39, assoc, 39–42; *assoc. prof, Catholic Univ*, 42– Rockefeller Foundation fellow, Yale, 39–40. Summers, mem. Hopkins exped. to Jamaica, 32, 36, 41. A.A; Soc. Zool; Soc. Ichthyol. and Herp. Morphology of reptiles, recent and fossil; endocrine function in amphibians; amphibian taxonomy; experimental embryology.

Lyon, Dr. C(hanning) B(ruce), Nutrition Laboratory, U. S. Department of Agriculture, Ithaca, N. Y. *Plant physiology, Genetics.* Elmgrove, N. Y, Feb. 14, 15. B.S, Nebraska, 38; M.S, Chicago, 39, Ph.D, 41; Calif. Inst. Tech, 39–40. Mem. staff, soil conservation service, *U. S. Dept. Agr*, Nebraska, 35–38, Cheyenne hort. field sta, *bur. plant indust*, 38–40, junior physiologist, regional salinity lab, 40–41, *assoc. plant physiologist, nutrition lab*, 41– Nutritive value of food plants.

Lyon, Prof. Charles J(ulius), Dartmouth College, Hanover, N. H. *Botany.* Grand Gorge, N. Y, Oct. 27, 96. B.S, Middlebury Col, 18; A.M, Harvard, 20, Ph.D, 26; A.M, Dartmouth, 34. Instr. chem, Middlebury Col, 18–19; math, Simmons Col, 19–20; *bot, Dartmouth Col*, 20–24, asst. prof, 24–34, *prof*, 34– Director, N. H. Nature Camp, 33–34. U.S.A, 18. Soc. Plant Physiol; Ecol. Soc. Plant respiration; osmotic relations of plants; climatic control of tree growth.

Lyon, Dr. Dean A(plin), 1821 P St, S.E, Washington, D. C. *Electrical engineering.* Leominster, Mass, Sept. 20, 06. E.E, Cornell, 27; Sc.D, Mass. Inst. Tech, 37. Elec. engineer, Phila. Suburban Counties, Gas and Elec. Co, Norristown, 27–29; research elec. engineer, Kerite Insulated Wire and Cable Co, Conn, 30–32; asst, Mass. Inst. Tech, 35–37; research elec. engineer, Anaconda Wire and Cable Co, 37–40; *physicist, Naval Gun Factory*, 41– Elec. Eng. Electrical properties of extremely thin insulating films; low reflecting films on optical surfaces.

Lyon, Dr. Donald W(ilkinson), 303 N. Maryland Ave, Richardson Park, Del. *Inorganic chemistry.* Manchester, Eng, Aug. 6, 16. A.B, Ohio Wesleyan, 37; Ph.D, Ohio State, 41. *Research chemist, pigments dept, E. I. du Pont de Nemours and Co*, 41– Chem. Soc. Reactions of tantalum pentabromide in liquid ammonia.

Lyon, Dr. D(orsey) A(lfred), 530 Harvard St, Palo Alto, Calif. *Metallurgy.* Bureau Co, Ill, July 17, 71. A.B, Stanford, 98; A.M, Harvard, 02; Sc.D, Utah, 22. Prof. mining and geol, Washington (Seattle), 98–01; asst. state geologist, Wash. Geol. Surv, 00–01; U. S. Smelting Co, 02–03; instr. and asst. prof. metal, Stanford, 03–08; manager, Noble Elec. Steel Co, 08–11; consulting metallurgist, Electro-Metals Co, London, Eng, 11–12; metallurgist, U. S. Bur. Mines, 12–17, supervisor exp. stations, 17–27, chief metallurgist, 19–27, asst. director, 23–26, supervising engineer, Intermountain Sta, 27–31, director eng. exp. sta, Utah, 27–35; *retired.* Min. and Metal. Eng; Min. Cong; Electrochem. Soc. Electrometallurgy; the mineral deposits in the state of Washington; use of electric furnace in the smelting of ores; smelting iron ores; crude petroleum as an agent in reducing iron ores.

Lyon, Prof. Eric R(oss), Box 806, Kansas State College, Manhattan, Kans. *Physics.* Greencastle, Ind, May 8, 93. A.B, Phillips, 11, M.S, 23. Instr. *physics, Kans. State Col*, 21–28, *assoc. prof*, 28– Instr, U. S. Naval Radio Sch, Harvard, 17–19. A.A; Physical Soc; Asn. Physics Teachers; Kans. Acad. Equilibrium group figures; electrical and nuclear theory.

Lyon, Dr. Harold L(loyd), Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Botany, Forestry.* Hastings, Minn, Oct. 14, 79. B.S, Minnesota, 00, M.S, 01, Ph.D, 03. Instr. bot, Minnesota, 00–05, asst. prof, 05–07; asst. pathologist, *Exp. Sta, Hawaiian Sugar Planters' Asn*, 07–09, pathologist, 09–18, in charge dept. bot. and forestry, 18–36, *director*, 36– A.A; Bot. Soc; Forestry Asn; Genetic Asn; Fern Soc; Orchid Soc; Torrey Bot. Club; Hawaiian Bot. Soc. (pres, 26); Hawaiian Acad. (pres, 31). Plant morphology, physiology, embryology and breeding; tropical botany, forestry and agriculture.

Lyon, Prof. J(ames) Adair, 1210 Broadway, New Orleans, La. *Physics.* York, Pa, May 4, 76. A.M, Southwest. Presb. Col, 95; fellow, Virginia, 97–00; Sc.D, Southwestern Col, 18. Instr. astron, Virginia, 97–00; *computer, U. S. Naval Observatory, 00–; prof. physics, Newcomb Col, Tulane, 00–* A.A; Physical Soc; New Orleans Acad. (pres); New Orleans Astron. Soc. (pres, 36). Astronomy; light.

Lyon, Dr. K(enneth) C(assingham), Armstrong Cork Co, Millville, N. J. *Ceramic engineering.* La Harpe, Ill, Jan. 22, 08. B.S, Illinois, 31, M.S, 33, fellow, 33–35, Ph.D, 36. Asst, eng. exp. sta, Illinois, 31–33; ceramic engineer, glass tech. lab, Gen. Elec. Co, 35–40; asst. chief chemist, *Armstrong Cork Co*, 40–42, *chief chemist*, 42– Ceramic Soc. Surface tension of glass; hardness of glass.

Lyon, Dr. Waldo (Kampmeier), U. S. Navy Radio and Sound Laboratory, San Diego, Calif. *Physics.* Los Angeles, Calif, May 19, 14. A.B, California at Los Angeles, 36, A.M, 37, Ph.D, 41. Asst. physics, California at Los Angeles, 40; *civilian in charge sound div, U. S. Navy Radio and Sound Lab*, 41– Physical Soc. Infrared spectroscopy of water molecule; underwater sound.

Lyon, Prof. Waldo V(inton), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Brooklyn, N. Y, Nov. 8, 81. B.S, Mass. Inst. Tech, 05. *Prof. elec. machinery, Mass. Inst. Tech*, 29– Fel. Elec. Eng. Theory of electric circuits and electrical machinery.

Lyons, Dr. Champ, Massachusetts General Hospital, Boston, Mass. *Surgery.* Lancaster, Pa, May 21, 07. A.B, Alabama, 27; James Jackson Cabot fellow, Harvard, 29–30, M.D, 31. Surg. house officer, *Mass. Gen. Hosp, Boston*, 31–33, asst. res. surgeon, 35, res. surgeon, 36, asst. surg, 37–39, *asst. surgeon, 40–*; nat. research fellow, *Harvard Med. Sch*, 33–34, asst. surg, 36–37, Moseley traveling fellow, London, 37, asst. bacter, 38–39, *instr.* surg, 38, *bacter, 40–, assoc. surg, 41–* Consulting surgeon, Mass. Eye and Ear Infirmary, Boston, 40– Mem. subcmt. surg. infections, Nat. Research Council, 40– Am. Med. Asn; Soc. Bact. Surgical infections.

Lyons, Dr. Don C(halmers), 420 W. Michigan Ave, Jackson, Mich. *Bacteriology.* Jackson, Mich, May 5, 99. D.D.S, Michigan, 21, M.S, 32; Mayo Foundation fellow, Minnesota, 21–23; Ph.D, Mich. State Col, 35. Research assoc, Michigan and Mich. State Col, 23–36; *director, Lyons Research Labs, 36–* Lecturer, Michigan; mem. staff, Mercy and W. A. Foote Hosp. Commander maxillo-facial surg. unit, Civilian Defense Base Hosp. A.A; Soc. Bact; fel. Pub. Health

Asn; Dental Asn; N. Y. Acad; Mich. Acad; Southwest. Mich. Triological Soc. Public health education; biochemistry; surgery; psychology of human responses to physical abnormalities.

Lyons, Dr. Edward, Parke, Davis and Co, Detroit, Mich. *Chemistry.* Russia, Oct. 24, 90. B.S, Washington and Lee, 12; Ph.D, Hopkins, 17. Washington and Lee, 14–15; U. S. Civil Service, 17–18; *chemist,* Hercules Powder Co, 18; Bogalusa Paper Co, 19; *Parke, Davis and Co, 19–* Organic chemistry.

Lyons, E(ugene) S(idney), U. S. Department of Agriculture, Scottsbluff, Nebr. *Soil technology.* Douglas Co, Kans, Dec. 30, 91. B.S. (Agr), Kans. State Col, 21, M.S. (Agr), 25; Cornell, 28–29. Instr. soils, Kans. State Col, 21–22, asst. prof, 22–28; *assoc. soil technologist, div. sugar plant investigations, U. S. Dept. Agr, 29–* Soc. Agron; Soil Sci. Soc. Soil fertility; effect of fertilizers on sugar beets.

Lyons, Prof. L(eonidas) J, Fayette, Iowa. *Botany.* Overbrook, Kans, Jan. 28, 00. B.S, Kans. State Teachers Col, 24; M.S, Chicago, 35; Sc.D, Dubuque, 37. With Billings Polytech, 24–26; *Alumni prof. biol. and head dept, Upper Iowa, 27–, curator museum and director field lab.* Iowa Acad. Ring growth in trees.

Lyons, Prof. Robert E(dward), Indiana University, Bloomington, Ind. *Chemistry, Bacteriology.* Bloomfield, Ind, Oct. 24, 69. A.B, Indiana, 89, A.M, 90; Ph.D, Heidelberg, 94; Fresenius' Lab, Wiesbaden, Munich, Berlin and Joergensen's Inst, Copenhagen, 92–95. Instr. chem, Indiana, 89–91, assoc. prof, 91–92; asst. to Prof. Krafft, Heidelberg, 95; prof. *chem.* and head dept, *col. arts and sciences, sch. med. and sch. dentistry, Indiana,* 95–38, *emer. prof, 38–* Chemist, State Dept. Geol. and Nat. Resources, Ind, 98–17; director biol. sta, Indiana, 00; prof, Col. Physicians and Surg, Indianapolis, 03–04; Med. Col. of Ind, 04–; special metallurgist, Guggenheim Explor. Co, Alaska, 11; Shasta Dredging Co, 12–14. Chairman div. chem, Ind. State Council of Defense, 17–19. A.A; Chem. Soc. (pres, Ind. sect, 07); fel. Inst. Chem; Sigma Xi (pres, 09); fel. Ind. Acad; Deuts. Chem. Gesell. Organic compounds of sulfur, selenium and tellurium; reduction of nitro compounds; selenium dioxide as oxidizing agent; molecular rearrangements; platinum recovery from black sand concentrate; amalgamating platinum and rusty gold; coloring oolitic limestone; oxidation of drying oils; improvements in mirror production.

Lyons, Dr. W(illiam) James, U. S. Department of Agriculture, New Orleans, La. *Physics.* Duluth, Minn, July 6, 04. Ph.B, Chicago, 30; M.S, St. Louis, 33, Ph.D, 35. Instr, high sch, Minn, 23–24; teaching fellow, St. Louis, 31–35; physicist, West. Cartridge Co, East Alton, Ill, 35–37; instr. physics, Loyola (La), 37–40; assoc. physicist, *south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr,* 40–42, *physicist, 42–* Summers, special lecturer, St. Louis, 33, 34. A.A; Physical Soc. Rheological and colloidal properties of matter.

Lyons, Dr. William R(eginald), University of California, Berkeley, Calif. *Anatomy.* Kingston, Ont, Can, Nov. 5, 01. B.A, Queen's (Can), 24; A.M, California, 29, Ph.D, 32. Asst. *anat, California,* 27–32, instr, 32–36, asst. prof, 36–42, *assoc. prof, 42–* Asn. Anat; Soc. Exp. Biol; N. Y. Acad. Immunology; anatomy and physiology of reproduction and lactation.

Lythgoe, Hermann C(harles), Room 524, State House, Boston, Mass. *Chemistry.* Boston, Mass, May 21, 74. B.S, Mass. Inst. Tech, 96. Asst. chemist, Revere Rubber Co, Chelsea, Mass, 96–97; asst. analyst, *State Board Health, Mass,* 97–07, *analyst, 07–, director food and drug div, 14–* A.A; Chem. Soc. (treas, N. E. sect, 06–23, 26–29, v. chairman, 23, chairman, 25); Agr. Chem. (pres, 20); fel. Inst. Chem; Dairy Sci. Asn; Asn. Food and Drug Officials (v. pres, 42, pres, 43); New Eng. Food Control Officials (chairman, 20–25). Chemical composition of pure and adulterated foods; relation of food industries to food control legislation.

Lytle, Dr. W(ilbert) Vernon, 521 Fifth Ave, New York, N. Y. *Psychology.* Hockingport, Ohio, April 7, 89. A.B, Bethany Col. (W. Va), 15; B.D, Yale, 19, Ph.D, 27; Columbia, 29. Sec'y for New Eng. Congregational Educ. Soc, Boston, 19–23; prof. educ. and psychol. and head dept. educ, Doane Col, 25–26; psychol, DePauw, 27–31, head dept, 28–31; pres, Defiance Col, 31–32; research fellow, Yale, 32–33; pres, Woman's Col. Conn, 33–39; *pub. relations counselor and lecturer, 39–* Fellow, Yale, 30–31; visiting lecturer, Junior Col. Conn, 30–31. A.A. Mental hygiene; developmental psychology; a psychological basis for ethics; abnormal psychology.

Lytle, W(illiam) Orland, Pittsburgh Plate Glass Co, Creighton, Pa. *Engineering.* Lawrence, Kans, April 18, 94. A.B, Kansas, 16, A.M, 17. Asst. physicist, Bur. Standards, 17–20; research engineer, Pittsburgh Plate Glass Co, 20–28; chief engineer and tech. director, Duplate Corp, 28–36; *sec'y, cent. research dept, Pittsburgh Plate Glass Co, 36–* Chem. Soc; Mech. Eng; Optical Soc. New materials and processes.

Lyttle, Dr. John D(ooley), Babies Hospital, 3975 Broadway, New York, N. Y. *Pediatrics.* New York, N. Y, Dec. 1, 89. A.B, Cornell, 13, M.D, 16. Instr. and later *asst. clin. prof, col. physicians and surg, Columbia, 21–* Adj. and asst. attending physician, pediat. div, Bellevue Hosp, 21–29; assoc. attending physician, Babies Hosp, 29–; attending physician, Willard Parker Hosp, 31– Pediat. Soc; Soc. Pediat. Research; Harvey Soc; N. Y. Acad. Med. Kidney diseases in children.

Lytton, Dr. M(arion) R(andolph), 1506 Delaware Ave, Wilmington, Del. *Chemistry.* Norristown, Pa, Jan. 15, 08. B.S, Pa. State Col, 29; Ph.D, Virginia, 34. Asst. chem, Virginia, 29–34; *research chemist,* B. K. Elliott Co, Pittsburgh, 35; *Viscose Co, Marcus Hook, Pa, 35–* Cellulose; synthetic resins.

M

Ma, Dr. Roberta M(ohling), New York Botanical Garden, Bronx Park, New York, N. Y. *Plant physiology.* Austin, Texas. A.B. and A.M, Texas, 27, Ph.D, 30. Lecturer, Yenching, 30–33; prof. biol. and chairman dept, Kwangsi Univ, 33–35; adviser, Dept. Educ, Kwangsi, 35–36; prof, Sun Yatsen Univ, 36–37; visiting prof, Lingnan, 37; pub. speaker, United States, 38–40; *research worker, New York Bot. Garden, 40–* Research fellow, Peiping Union Med. Col, 31–33. Torrey Bot. Club; Sci. Soc. China. Plant nutrition; vitamins and growth of fungi; growth substances.

Ma, Dr. T(su) S(heng), University of Chicago, Chicago, Ill. *Microchemistry.* Canton, China, Oct. 15, 11. B.S, Tsing Hua Univ, 31, D.Chem, 34; Ph.D, Chicago, 38. Asst. and later *instr. chem, Chicago.* Chem. Soc. Organic analysis; synthetic drugs.

Maas, Arthur R, 4570 Ardine St, South Gate, Calif. *Pharmacy.* St. Paul, Minn, Jan. 23, 84. Ph.C, California, 06; Pharm.M, Southern California, 09. *Pres, A. R. Maas Chem. Co.* Prof. pharmacy and toxicol, Southern California, 09–Chem. Soc. Toxicology.

Maas, Philip, Hahnemann Medical College and Hospital, Philadelphia, Pa. *Biochemistry.* Philadelphia, Pa, July 5, 72. B.S, Pennsylvania, 94. Instr. chem, Standard Evening High Sch, Phila, 00–15, head dept. sci. and math, 15–37; prof. science, Cent. High Sch, Phila, Pa, 94–40; *instr. biochem, Hahnemann Med. Col. and Hosp. (Pa), 40–* A.A; Chem. Soc. Determination of sulphur in sulphide ores; atomic weight of tungsten; new derivatives of diacetyl; synthesis of dimethyl racemic acid; oxidation of diacetyl; vanadium minerals from Leadville, Colorado.

Maass, Prof. O(tto), 32 Thornhill Ave, Westmount, Que, Can. *Chemistry.* New York, N. Y, July 8, 90. B.A, McGill, 11, M.Sc, 12; 1851 Exhib. scholar; Ph.D, Harvard, 19; LL.D, Manitoba. *MacDonald prof. physical chem. and head dept. chem, McGill, 17–* Mem, D.C.W. Dept. Nat. Defense; gen. director, Can. Pulp and Paper Research Inst; mem, Nat. Research Council Can. Chem. Soc; Soc. Chem. Indust. (chairman, Montreal sect, 32); fel. Can. Inst. Chem; fel. Royal Soc. Can; fel. Royal Soc. Physical chemistry; structure of liquid state; critical phenomena; viscosity and density of gases; equation of state; reaction velocity at low temperatures; calorimetry; physical structure of cellulose; pulp and paper.

Mabee, Prof. Fred C(arleton), 147 Wood St, Lewiston, Maine. *Chemistry.* Victoria, Ont, Can, Nov. 28, 83. B.A, McMaster, 04, M.A, 05; Harvard, 05–06, 07–09; Mass. Inst. Tech, 08–09, 17–18; Rockefeller Foundation fellow, Columbia, 24–25, A.M, 25, Ph.D, 27. Asst. physical chem, Mass. Inst. Tech, 06–07; Austin teaching fellow, Harvard, 08–09; *prof. chem,* Mt. Union Col, 09–10; Shanghai Col, China, 10–24; Va. State Teachers Col, Harrisonburg, 27–30; *Bates Col, 30–* A.A; Chem. Soc. (chairman Maine sect, 40). Colloid chemistry; properties of ferric oxide sols.

Mabee, W(illiam) B(ruce), Box 816, Elko, Nev. *Entomology.* Glasgow, Mont, Jan. 1, 97. B.S, Mont. State Col,

20. Exten. entomologist, N. C. State Col, 20–26; asst. prof. and exten. entomologist, Mont. State Col, asst. entomologist, Exp. Sta, and asst. state entomologist, Mont, 26–30; asst. exten. entomologist, Pa. State Col, 30–31; cattle rancher, Mont, 31–38; regional range examiner, *U. S. Dept. Agr*, 36–37, *field supervisor grasshopper and Mormon cricket control, bur. entom. and plant quarantine, 38–* Mormon cricket control; methods of insect control, particularly field of organization and mechanical equipment; insect damage to western livestock range.

Mabon, Dr. Thomas McC(ance), 5446 Kipling Road, Pittsburgh, Pa. *Medicine.* Pittsburgh, Pa, Aug. 11, 90. B.S, Princeton, 13; M.D, Harvard Med. Sch, 17. *Asst. prof.* hygiene and prev. med, *Pittsburgh*, 22–27, *med, 28–*, assoc. prof. hygiene, 27–33, *hygiene and prev. med*, 33–41, *prof, 41–* Fel. Am. Med. Asn; fel. Col. Physicians; fel. Pub. Health Asn. Blood dyscrasia; incipient heart disease.

Mac Adam, Dr. David L(ewis), Eastman Kodak Company, Rochester, N. Y. *Physics.* Philadelphia, Pa, July 1, 10. B.S, Lehigh, 32; Ph.D, Mass. Inst. Tech, 36. Teaching fellow physics, Mass. Inst. Tech, 32–36; *physicist, research labs, Eastman Kodak Co, 36–* Summer, vol. asst, Bartol Research Lab, Swarthmore, Pa, 32. Adolph Lomb medal, Optical Soc. Amer, 40. Optical Soc. (mem. colorimetry cmt, 36–, director-at-large, 41–; sec'y, Rochester sect, 39–41). Optics; colorimetry; color measurement; interferometric wave-length measurements in Schumann region; color tolerances; color vision tests; color photography; photoelectric spectrophotometry.

McAdam, Dr. D(unlap) J(amison), Jr, National Bureau of Standards, Washington, D. C. *Metallurgy.* Washington, Pa. A.B. and A.M, Washington and Jefferson Col, hon. Sc.D, 32; M.S, Pennsylvania, 06, Ph.D, 08. Instr. chem, Lehigh, 07–08, physical chem, 08–10; asst. prof. chem, Clemson Col, 10–11; scientist, soil lab. investigations, bur. soils, U. S. Dept. Agr, 11–13; *metallurgist*, eng. exp. sta, U. S. Navy, 13–30; *Bur. Standards, 30–* Fellow, Pennsylvania, 11. Charles B. Dudley medal, Am. Soc. Test. Mat, 27; Edward Longstreth medal, Franklin Inst, 33. A.A; Min. and Metal. Eng; Soc. Test. Mat; civil mem. Naval Eng; Wash. Acad; British Iron and Steel Inst; British Inst. Metals. The atomic weights of vanadium and fluorine; fatigue of metals; influence of stress on corrosion; oxidation of metals; influence of temperature on properties of metals; elastic properties and technical cohesive strength of metals.

McAdams, Prof. W(illiam) H(enry), Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering.* Cynthiana, Ky, March 15, 92. B.S, Kentucky, 13; M.S, Mass. Inst. Tech, 17. Asst. food chemist, Exp. Sta, Kentucky, 13; asst. anal. chem, Mass. Inst. Tech, 13–14; chem. engineer, Goodyear Tire and Rubber Co, 17; asst. prof. *chem. eng, Mass. Inst. Tech*, 19–23, assoc. prof, 23–27. *prof, 27–* Mem, Nat. Research Council. C.W.S, U.S.A, 18–19. Chem. Soc; Chem. Eng. Distillation; flow of heat; flow of viscous liquids; absorption.

McAdle, Alexander (George), 3533 Chesapeake Ave, Hampton, Va. *Meteorology, Climatology.* New York, N. Y, Aug. 4, 63. Col. City of N. Y, 76–81, A.M, 84; A.M, Harvard, 85; fellow, Clark, 90–91; hon. M.S, Santa Clara, 09. Prof. *meteorol*, U. S. Weather Bur, 03–13; Rotch prof, *Harvard*, 13–31, *emer. prof, 31–*, director, *Blue Hill Meteorol. Observatory*, 13–31, *emer. director, 31–* Hon. lecturer, California. Hodgkin medal, Smithsonian Institution, 95. Lieut. commander, U.S.N.R.F. Seismol. Soc. (v. pres, 07, pres, 10, chairman, east. div, 29–); Asn. Geog; Ecol. Soc; Am. Acad; Astron. Soc. Pacific (pres, 12); Wash. Acad; fel. Royal Meteorol. Soc. Aerography; atmospheric electricity; fog. (*Died Nov, 1943*)

McAfee, Dr. A(lmer) M(cDuffie), 2601 Evergreen Drive, Port Arthur, Texas. *Chemistry.* Corsicana, Texas, Sept. 24, 86. A.B, Texas, 08; fellow, Columbia, 10–11, Ph.D, 11. Tutor chem, Texas, 08–10; chemist, Texas Co, 11–13; *research chemist, Gulf Oil Corp, 13–* Mem. advisory council, Texas Research Corp. Chem. Soc; Chem. Eng. Aluminum chloride reactions with petroleum hydrocarbons; manufacture of gasoline, lubricating oils and aluminum chloride.

McAfee, Dr. Jerry, 210 Addison Road, Riverside, Ill. *Chemical engineering.* Port Arthur, Texas, Nov. 3, 16. B.S, Texas, 37; Tau Beta Pi fellow, 37–38; du Pont fellow, Mass. Inst. Tech, 39–40, Sc.D, 40. *Supervising research chem. engineer, Universal Oil Products Co, 40–* Chem. Soc. Catalytic cracking.

McAfee, W(illiam) Keith, Box 391, New Castle, Pa. *Engineering.* Pittsburgh, Pa, Jan. 26, 93. B.S, Pennsylvania, 15; hon. Cer.E, Alfred, 35; grad, Westinghouse Elec. and Mfg. Co. Design Sch. Design engineer, Westinghouse Elec. and Mfg. Co, 16–17, production manager, Shadyside Works, 17–19, traveling engineer, 19–20; enginehouse foreman, P. R. R, New York, 20–22; engineer, Universal Sanit. Mfg. Co, 22–27; v. pres. and gen. manager, Cambridge Sanit. Mfg. Co, Ohio, 23–30; *pres. and gen. manager, Universal Sanit. Mfg. Co, New Castle, 28–* Summers, in charge field surv, Rockview Penitentiary, Pa, 11–15. Mem, Am. Research Cmt. Elec. Grounding. A.A; Elec. Eng; Mech. Eng; fel. Ceramic Soc. (past pres, v. pres. and chairman, Pittsburgh sect); Sanit. Eng. (chairman, cmt. elec. grounding); Soc. Rheol; Army Ordnance Asn; Ceramic Asn. N. J; Ohio Ceramic Industries Asn. (past pres, trustee, sanit. pottery div); British Ceramic Soc. Ceramics; ceramic education; ceramic management.

McAlevy, Dr. Ambrose, 824 West St, Wilmington, Del. *Chemistry.* Pawtucket, R. I, Dec. 30, 07. B.S, Brown, 28; M.S, Catholic Univ, 30; Ph.D, Mass. Inst. Tech, 34. Asst. chem, Catholic Univ, 28–30; org. chem, Mass. Inst. Tech, 32–33; *chemist*, Ellis Labs, 34–35; *E. I. du Pont de Nemours and Co, 35–* Chem. Soc. Organic synthesis; chemistry of synthetic resins.

McAlister, Dr. Dean F(erdinand), Utah State Agricultural College, Logan, Utah. *Plant physiology.* Logan, Utah, Sept. 8, 10. B.S, Utah State Col, 31, M.S, 32; Ph.D, Wisconsin, 36. Field asst. agron, Exp. Sta, Utah State Col, 30–32; asst. plant physiol, Wisconsin, 32–36; *asst. physiologist, bur. plant indust, U. S. Dept. Agr, 36–* A.A; Bot. Soc; Soc. Plant Physiol; Utah Acad. Plant viruses; oxidation-reduction potentials in fungi; physiology of pasture and range grasses; drought resistance; mineral nutrition.

McAlister, Prof. E(dward) H(iram), Blue River, Oregon. *Physics.* Hillsboro, Oregon, Dec. 26, 66. A.B, Oregon, 90, A.M, 93, hon. Sc.D, 37. Tutor, Oregon, 91–95, faculty, 95–02, dean eng, 02–15, head dept. mech. and astron, 15–32; prof. *math, Oregon State Col*, 32–37, *emer. prof, 37–* In charge hydrog. surv, McKenzie River, 03; Santiam River, 04. Engineering physics; thrusts, moments and shears in elastic arches; strength of long-used Douglas fir timber.

McAlister, J(ohn) T(homas), 707 E. Main St, Spartanburg, S. C. *Agricultural engineering.* Stanford, Ky, May 4, 94. B.S, Miss. Agr. and Mech. Col, 16. Instr. agr. eng, Miss. Agr. and Mech. Col, 16–17, asst. prof, 20–22; assoc. prof, Clemson Col, 22–28, exten. agr. engineer, 28–33; S. C. State Forest Service, 33; chief agr. engineer, soil erosion service, *U. S. Dept. Agr*, 33–35, assoc. regional engineer, *soil conservation service*, 36–38, *head regional equipment sect, 38–* Agr. Eng. (chairman, south. sect, 28); S. C. Soc. Eng; Asn. South. Agr. Workers. Trench silos; farm machinery.

McAlister, L(awrence) C(layton), Jr, U. S. Department of Agriculture, Orlando, Fla. *Entomology.* Pendleton, S. C, May 31, 05. B.S, Clemson Col, 26. Asst. entomologist, Exp. Sta, Clemson Col, 26–27; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr*, N. J, 27–29, asst. entomologist, Maine, 29–32, Fla, 32–34, P. R, 34–35, *entomologist*, 35–39, Texas, 39–42, *Fla, 42–* A.A; Asn. Econ. Entom; Fla. Entom. Soc. Economic entomology with special reference to biology and control of fruit-flies of the genus Anastrepha; control of insects affecting the armed forces.

McAllister, Dr. A(ddams) S(tratton), National Bureau of Standards, Washington, D. C. *Electrical engineering.* Covington, Va, Feb. 24, 75. B.S, Pa. State Col, 98, E.E, 01; M.M.E, Cornell, 01, Ph.D, 05. Asst. and instr. physics, Cornell, 01–04, acting asst. prof. elec. eng, 04–05; assoc. ed, 'Elec. World,' 05–12, ed, 12–15; engineer physicist, *Bur. Standards*, 21–30, *chief div. codes and specifications and asst. director commercial standardization, 30–* Professorial lecturer, Pa. State Col, 09–14. Sec'y board army ordnance officers, 18. A.A; Elec. Eng. (manager, 14–, v. pres, 17); Illum. Eng. Soc. (pres, 14); Standards Asn. (councilor, 30–). Illuminating engineer; application of the law of conservation in illumination calculations; concepts of relations and methods applied and simplified in electromagnetic calculations.

McAllister, Prof. Frederick, University of Texas, Austin, Texas. *Botany.* Davison, Mich, Sept. 28, 74. A.B, Albion Col, 03; A.M, Beloit Col, 08; Ph.D, Wisconsin, 10. Instr. biol, Beloit Col, 04–09; asst. *bot*, Wisconsin, 09–10; instr,

Cornell, 10–12; *Texas*, 12–14, assoc. prof, 14–24, *prof, 24–* A.A; Bot. Soc. Cytology of plastids and allied cell structures.

McAllister, Prof. J. Gilbert, University of Texas, Austin, Texas. *Anthropology.* San Antonio, Texas, Jan. 26, 04. A.B, Texas, 28; A.M, Chicago, 33, Ph.D, 35. Asst. ethnologist, Bishop Museum, Honolulu, 29–31; fellow *anthrop*, Chicago, 32–33, research assoc, 33–34; asst. prof, *Texas*, 35–39, *assoc. prof, 39–, chairman dept, 38–* Summers, acting state archeologist and field director, Ind, 31. Mem, Smithsonian Institution-Chicago archeol. exped. on Indian mounds, Ill, 29; director, Works Progress Admin. and Univ. Texas state archeol. project, 38–41. A.A; Anthrop. Asn; fel. Soc. Archeol. Hawaiian archeology; Mississippi valley archeology; ethnography of the Kiowa-Apache Indians; peyote; social and administrative anthropology.

McAllister, Prof. Lawrence E(arl), Berry College, Mt. Berry, Ga. *Physics.* Bellaire, Ohio, Dec. 11, 92. A.B, Oberlin Col, 16; Ph.D, Chicago, 22. Asst. instr. *physics*, Chicago, 19–22; prof. and head dept, Shorter Col, 22–32; *prof, Berry Col, 32–* Research, U.S.A, 17–19. A.A; Physical Soc. Secondary electron emission from copper and copper oxide surfaces; electron theory; radio; magnetism.

McAllister, Dr. W(alter) G(inder), University of Illinois, Urbana, Ill. *Psychology.* Lancaster Co, Pa, Feb. 24, 97. A.B, Gettysburg Col, 23; Chicago; Ph.D, Minnesota, 29. Instr. *psychol*, Gettysburg Col, 23–25; Minnesota, 27–29; *Illinois*, 29–30, assoc, 30–41, *asst. prof, 41–* Assoc. Psychol. Asn. Animal behavior.

McAllister, Dr. W(alter) H(enry), Procter and Gamble Co, Cincinnati, Ohio. *Chemistry.* Sedalia, Mo, Feb. 10, 94. A.B, Kansas, 26, Ph.D, 29. *Soap research chemist, Procter and Gamble Co, 29–* Chem. Soc. Soap chemistry; solubility of acetates in acetic acid.

Macallum, Dr. A(lexander) Douglas, 279 Regent St, London, Ont, Can. *Organic chemistry.* Toronto, Ont, Can, 92. B.A, Toronto, 15; M.Sc, McGill, 22, Ph.D, 24. Research chemist, Synthetic Drug Co, Toronto, 15–21; acting prof. chem, Manitoba Agr. Col, 25; research chemist, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 25–38; *independent exp. work, 38–* Chem. Soc; fel. Can. Inst. Chem; London Chem. Soc. Organic chemistry of arsenic and antimony; organic and inorganic chemistry of sodium and derivatives; chemistry of rubber.

Macallum, Dr. (Archibald) Bruce, University of Western Ontario Medical School, London, Ont, Can. *Biochemistry.* Cornwall, Ont, July 8, 85. B.A, Toronto, 07, M.B, 09, M.D, 10, fellow, 15–16, Ph.D, 19; Beit Mem. fellow, London, 13–14. Austin teaching fellow, Harvard Med. Sch, 09–12; lecturer biochem, Toronto, 14–15; research chemist, Synthetic Drug Co, Toronto, 16–24; *prof. biochem, med. sch, Western Ontario, 24–*, dean faculty med, 27–34. Soc. Biol. Chem; fel. Royal Soc. Can; fel. Can. Inst. Chem; fel. London Chem. Soc; London Soc. Biol. Chem. Industrial chemistry; urine analysis; relation of vitamins to growth; spectroscopy of hemoglobin; duodenal hormones controlling carbohydrate metabolism.

MacAloney, Dr. H(arvey) J(ohn), Room 870, Madison Bldg, 623 N. Second St, Milwaukee, Wis. *Entomology.* Halifax, N. S, Can, Aug. 7, 96. B.S, Syracuse, 23, M.F, 25, Ph.D, 29. Asst. entomologist and later *entomologist, div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 25–* Asn. Econ. Entom; Soc. Foresters (sec'y, New Eng. sect, 31–36, chairman, 36–38). Forest entomology; forest insects.

McAlpine, Prof. James G(eorge), 1539 Raworth Road, Baltimore, Md. *Bacteriology.* Winsted, Conn, July 3, 93. A.B, Wesleyan, 16, A.M, 17; Ph.D, Yale, 24. Asst. bacteriologist, Storrs Exp. Sta, Conn. Agr. Col, 23–27, assoc. bacteriologist, 27–28, bacteriologist, 28–29; chief, Lab. de Aguas y Leches, Sanidad Nacional, Caracas, Venezuela, 29–31; assoc. bacteriologist, U. S. Pub. Health Service, Pasadena, Calif, 33; director bur. labs, State Dept. Health, Ala, 33–37; *assoc. prof. bacter, sch. med, Maryland, 38–* Animal diseases; infectious abortion in cattle; undulant fever; metabolism in Brucella group; preservation of complement; pullorum; blackhead in turkeys; infectious mastitis; endemic typhus fever; rabies; intestinal parasites; viruses.

Macalpine, Prof. J(ohn) Kenneth W(atson), 70 Grove St, Montclair, N. J. *Chemistry.* Port Glasgow, Scotland, Nov. 7, 98. B.S, Carnegie Inst. Tech, 21; A.M, Columbia, 22. Asst. *chem, N. Y. Univ*, 24–27, instr, 27–30, *asst. prof, 30–* Chem. Soc; Franklin Inst. Analytical and physical chemistry; indicators.

McAlpine, Prof. R(oy) K(enneth), 926 Sylvan Ave, Ann Arbor, Mich. *Chemistry.* Pierceton, Ind, Aug. 12, 84. A.B, Michigan, 06, Ph.D, 21. Instr. *anal. chem, Michigan*, 11–21, asst. prof, 21–42, *assoc. prof, 42–* Chem. Soc. Atomic weight of antimony, silver and potassium; molecular weight of potassium bromide.

Macalpine, Dr. William W(alter), 196 N. Oraton Parkway, East Orange, N. J. *Radio engineering.* Kilmacolm, Scotland, Sept. 2, 00. B.S, Carnegie Inst. Tech, 22; A.M, Columbia, 24, Adams fellow, 27–28, Ph.D, 30. Asst, Ernest Kempton Adams precision lab, Columbia, 24–27; *radio engineer*, Int. Communications Labs, New York, 29–31, Fed. Telegraph Co, *Newark*, 31–42; *Fed. Telephone and Radio Corp, 42–* Communications Patents, Inc, N. J, 31. A.A; Radio Eng; Elec. Eng; Physical Soc. Electric circuits in communication and allied fields; radio-frequency potentiometer; the resistance of bismuth in alternating magnetic fields; electrical impulse rate indicator and recorder; cardiotachometer.

McAmis, Dr. Ava Josephine, 202 E. Park Ave, San Antonio 2, Texas. *Physiological chemistry.* San Antonio, Texas, Jan. 9, 97. A.B, Randolph-Macon Woman's Col, 18; A.M, Texas, 21; Am. Asn. Univ. Women fellow, Yale, 28–29, Ph.D, 29. Chemist, E. R. Squibb and Sons, 18–19; tutor and instr, Texas, 19–24; asst. physiol. chem, Yale, 26–27, nat. research fellow med. sciences, 29–31, Nat. Tuber. Asn. fellow, 31–32; asst. prof. physiol. chem, Mt. Holyoke Col, 33–40; *head dept. chem, San Antonio Junior Col, 40–; lecturer biochem, Incarnate Word Col, 40–* Summer, asst. prof, N. Texas State Teachers Col, 36. A.A; Chem. Soc. Relation of diet in production of fat in the animal body.

MacAndrews, Prof. A(ubrey) H(unter), Syracuse University, Syracuse, N. Y. *Forestry.* St. John, N. B, Can, March 16, 97. New Brunswick, 19–20; Truro Agr. Col, 21–23; B.S, Syracuse, 25, M.S, 26; fellow, Minnesota, 26–27. Instr. *forest entom, Syracuse*, 27–28, asst. prof. and acting head dept, 29–37, *assoc. prof. and head dept, 37–* Summers, forest entom. research, U. S. Dept. Agr. and Can. Dept. Agr. Soc. Foresters; Entom. Soc. Amer; Asn. Econ. Entom; Can. Soc. Forest Eng; Ont. Entom. Soc. Forest entomology; spruce budworm; larch sawfly; pine cone beetle; cone moths; shade tree insects of the northeast; hemlock looper; scolytids; woodborers.

McArdle, Dr. Richard E(dwin), U. S. Forest Service, Asheville, N. C. *Forestry.* Lexington, Ky, Feb. 25, 99. B.S, Michigan, 23, M.S, 24, Ph.D, 30. Junior forester, U. S. Forest Service, 24–26, asst. silviculturist, 26–30, assoc. silviculturist, 30–34; dean sch. forestry, Idaho, 34–35; *director*, Rocky Mt. Forest and Range Exp. Sta, *U. S. Forest Service*, 35–38, *Appalachian Forest Exp. Sta, 38–* Charles Lathrop Pack prize, 24. Soc. Foresters. Forest research administration.

MacArthur, Prof. C(harles) G(eorge), 24 High St, Buffalo, N. Y. *Biochemistry, Pharmacology.* Buffalo, N. Y, May 3, 83. Oberlin Col; Pennsylvania; Chicago; Heidelberg. Instr. chem, Illinois, 12–15; prof. biochem, Southern California, 15–16; asst. prof. *pharmacol, dept. med, Buffalo*, 23–34, *assoc. prof, 34–* A.A; Chem. Soc. Chemistry of the brain.

McArthur, C(lifford) L(eslie), Frederick Stearns and Co, Detroit, Mich. *Chemistry.* Brewster, Kans, April 24, 88. B.S, Okla. Agr. and Mech. Col, 11; M.S, Idaho, 12. Asst. biochemist, Idaho, 11–13; asst. bacter. and path, col. agr, Arkansas, and Exp. Sta, 13–14, head dept, 15–18; research biochemist, bur. dairying, U. S. Dept. Agr, 18–21; tech. director, F. X. Baumert and Co, 21–27; consulting biochemist, Arthur D. Little, Inc, 27–34; consulting chemist, and later *asst. sec'y, Frederick Stearns and Co, 34–* Soc. Bact. Biochemistry; immunity; sanitation; biologicals; medicinals.

MacArthur, Prof. Edith H(elena), Skidmore College, Saratoga Springs, N. Y. *Nutrition.* Troy, N. Y, Feb. 2, 92. B.S, Cornell, 14; A.M, Columbia, 23, Ph.D, 26. Teacher, pub. schs, Pa, 14–18; Colo, 18–21; instr. home econ, Pa. State Col, 21–22; asst. food chem, Columbia, 23–26; asst. prof. home econ, Cornell, 26–30; prof. household science and head dept, Okla. Agr. and Mech. Col, 30–32; asst. prof, N. Y. Univ, 32–35; head dept. *home econ*, Keene Nor. Sch, 35–37; *prof. and director dept, Skidmore Col, 37–* A.A; Chem. Soc. Fat metabolism.

MacArthur, Prof. John W(ood), University of Toronto, Toronto, Ont, Can. *Zoology.* Buffalo, N. Y, Sept. 2, 89. A.B, Oberlin Col, 10; A.M, Wabash Col, 12; fellow, Chicago, 13–14, Ph.D, 21. Instr. geol. and zool, Wabash Col, 11–12; asst. zool, Chicago, 15, assoc, 15–16; instr. anat, col. med, Illinois, 17–18; exp. biol, *Toronto,* 19–23, from asst. prof. to prof. *genetics,* Ont. Agr. Col, 23–35, *assoc. prof, 35–* A.A; Soc. Zool; Genetic Asn; fel. Royal Soc. Can. Zoology; genetics of the tomato; size inheritance; heredity in man; multiple births.

Mac Arthur, Dr. Mary, Central Experimental Farm, Ottawa, Ont, Can. *Biology.* Glasgow, Scotland, Jan. 20, 04. B.Sc, Acadia, 33, Henry Burton DeWolfe bursar, 33; A.M, Radcliffe Col, 34, Ph.D, 37. Instr. biol, N. S. Dept. Educ. Sch. for Teachers, 33, 34; Elmira Col, 37; *agr. scientist histol. and morphol, Cent. Exp. Farm, 38–* Bot. Soc; Can. Soc. Tech. Agr. Dehydration of vegetables; developmental analyses of the apple fruit; developmental analyses of the lily; histology of frozen fruits and vegetables; histology of physiological disorders of the apple fruit.

McAtee, W(aldo) L(ee), U. S. Department of the Interior, Chicago, Ill. *[6]*Zoology, Ornithology, Entomology.* Jalapa, Ind, Jan. 21, 83. A.B, Indiana, 04, A.M, 06. Curator museum, Indiana, 01–04; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 04–16, in charge econ. ornith, 16–21, in charge div. food habits research, 21–34, *tech. adviser,* 34–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Acting custodian Hemiptera, U. S. Nat. Museum, 20–42; cmt. on land utilization, U. S. Dept. Agr, 22–30. Fel. Ornith. Union (treas, 20–38); Biol. Soc; Soc. Nat; Wildlife Soc. (ed, 'Jour. Wildlife Management,' 37–); Pacific Northwest Bird and Mammal Soc; Cooper Ornith. Club; Wilson Ornith. Club; New Eng. Bot. Club; Ind. Acad; Biol. Soc. Wash. (cor. sec'y, 14–20); Entom. Soc. Wash; Wash. Biol. Field Club (sec'y, 09–11, v. pres, 11–16); cor. mem. Royal Hungarian Inst. Ornith. Applied ornithology; systematic entomology; ichthyology; life histories of Urodela; classification of Hemiptera; local names of birds and plants; selection theories; conservation.

McAteer, Dr. J(ames) H(oward), 11 Romore Place, Cranford, N. J. *Physical chemistry.* Pittsburgh, Pa, March 25, 10. B.S, Carnegie Inst. Tech, 31, M.S, 32, Sc.D, 36. *Research chemist,* Gulf Research and Develop. Co, 36–42; *chem. div, Esso Labs, Standard Oil Develop. Co, 42–* Instr, evening sch, Carnegie Inst. Tech, 34–42. Chem. Soc. Thermodynamic properties of inter-metallic compounds; catalytic isomerization of paraffins and olefins; catalytic alkylation of paraffins and phenols; polymerization of unsaturated hydrocarbons.

McAuley, Dr. A(uley) A(nderson), Hamline University, St. Paul, Minn. *Histology.* Red Lion, Pa, Nov. 12, 12. A.B, DePauw, 34; Ph.D, California, 41. Teaching asst. zool, California, 34–37; instr. and acting head dept. *biol,* Monmouth Col, 40–41; *instr, Hamline, 41–* Histology of the integument of the damp wood termite of the Pacific Coast.

McAuliffe, Prof. G(eorge) B(irmingham), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Otology.* New York, N. Y, 64. A.B, Col. City of N. Y, 85; M.D, Columbia, 88. Asst. prof. *clin. surg, dept. otology, med. col, Cornell,* 23–36, *prof, 36–, acting head dept.* Otol. Soc; fel. Col. Surg; Linnaean Soc. N. Y. Eye; ear; nose; throat.

McAuliffe, Dr. Gervais Ward, 630 Park Ave, New York, N. Y. *Otolaryngology.* New York, N. Y, 96. M.D, L. I. Col. Hosp, 20. Asst. prof. and later *assoc. prof. clin. surg, dept. otolaryngol, med. col, Cornell, 30–* Attending otolaryngologist, New York Hosp; consultant otolaryngologist, Misericordia Hosp, Doctors Hosp, Southampton Hosp, State Reconstruction Hosp, West Haverstraw Hosp, Tonsil Hosp. and Long Home, Amityville. Fel. Col. Surg; fel. Am. Acad. Med; fel. Laryngol, Rhinol. and Otol. Soc; Am. Med. Asn; Soc. Plastic and Reconstructive Surg; Acad. Ophthal. and Otolaryngol. Laboratory analysis of the content of tonsil crypts as obtained by the wet suction technique.

McAvoy, Prof. Blanche, 108 W. Ash St, Normal, Ill. *Biology.* Mitchell, Ind, Sept. 11, 85. A.B, Cincinnati, 09; A.M, Ohio State, 12; Ph.D, Chicago, 30. Teacher, pub. sch, Ohio, 09–11; teaching fellow, Ohio State, 11–14; teacher, high sch, Ohio, 14–21; asst. prof. bot, Ind. State Nor. Col, Muncie, 21–25; teacher, Western Col, 25; *asst. prof. biol, Ill. State Nor. Univ, Normal, 26–* A.A; Bot. Soc; Ill. Acad; Ind. Acad; Ohio Acad. Cytology; ecology; taxonomy of Spermatophytes.

McBain, Prof. J(ames) W(illiam), 571 Foothill Road, Stanford University, Calif. *[5]*Chemistry.* Chatham, N. B, Can, March 22, 82. B.A, Toronto, 03, M.A, 04; Leipzig; Ph.D, Heidelberg, 08; hon. Sc.D, Brown, 23, Bristol, 28. Lecturer physical chem, Bristol, 06–19, Leverhulme prof, 19–26; *prof. chem, Stanford, 26–* Visiting prof, California, 26. Davy medal, 39. Capt, T.F, 11–19. A.A; Chem. Soc. (councilor, assoc. ed, 'Jour'; sec'y colloid div, 42, v. chairman, 43); fel. Soc. Rheol; Acad. Social Sci; Faraday Soc. (councilor, v. pres, 26–29); British Asn; fel. Royal Soc; London Chem. Soc; Asn. Univ. Teachers Gt. Britain (pres, 22); Bunsen Gesell. Physical and colloid chemistry.

McBain, Dr. M(ary) E(velyn) Laing, 571 Foothill Road, Stanford University, Calif. *Chemistry.* Alcester, Eng, Oct. 17, 91. B.Sc, Bristol, 17, M.Sc, 19, D.Sc, 24. Teacher English, Ecole nor. de Nantes, France, 11–12; science mistress, grammar sch, Horncastle, 15–17; research fellow, British Govt; research assoc, Bristol, 22–26; asst. prof. *chem, Stanford,* 27–29, *research assoc, 29–* Ellen K. Richards prize, 24. Formulation of electrokinetics; constitution of soap solutions; soap films; structure of jellies; colloids; electrical properties of soap solutions and their bearing upon the electrolytic theory.

McBee, Prof. E(arl) T(hurston), 506 Hays St, West Lafayette, Ind. *Chemistry.* Braymer, Mo, July 6, 06. A.B, William Jewell Col, 29; M.S, Purdue, 31, fellow, 30–35, Ph.D, 36. Asst. chem, William Jewell Col, 27–29; *Purdue,* 29–30, instr, 35–37, asst. prof. org. chem, 37–40, *assoc. prof. org. chem. and indust. consultant, 40–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Asn. Social Workers; Chem. Soc. (chairman-elect local sect, 41). Synthesis from natural gas hydrocarbons; preparation and properties of organic fluorides and chlorides; oxidations; preparation of pharmaceuticals and synthetic fibers.

McBride, Prof. George McCutchen, 710 Via de la Paz, Pacific Palisades, Calif. *Geography.* Benton, Kans, Oct. 11, 76. A.B, Park Col, 98; Ph.D, Yale, 21. Teacher, Chile and Bolivia, 01–15; instr. geog, Wesleyan, 15–17; asst. Spanish, Yale, 16–17; librarian, Am. Geog. Soc, and asst. ed, 'Geog. Rev,' 17–19; research assoc, Am. Geog. Soc, 20–22; from lecturer to *prof. geog, California at Los Angeles, 22–* Special lecturer, Clark, 22; Wisconsin, 23; Oklahoma, 23, 26; visiting prof, Carnegie Endowment for Int. Peace, S. Amer, 29–30, Cent. Amer, 38. Summer, instr, Columbia, 23. Asst. ed, 'Handbook Latin Am. Studies,' 40– A.A; Asn. Geog. (v. pres, 39); Am. Geog. Soc; Meteorol. Soc; Asn. Pacific Coast Geog. (pres, 37); cor. mem. Soc. Geog. de Lima. Latin-American geography; agrarian systems of Latin America.

McBride, Prof. James J(oseph), College of New Rochelle, New Rochelle, N. Y. *Biochemistry.* Jersey City, N. J, Dec. 11, 97. A.B, Columbia, 23, A.M, 25, Ph.D, 29. Lab. instr, Columbia, 25–27; *prof. chem, Col. New Rochelle, 27–* Research chemist, Pease Labs, 28–30; instr, col. physicians and surg, Columbia, 35–37. Chem. Soc; N. Y. Acad. Chemistry of polysaccharides; carbohydrate metabolism.

McBride, O(rville) C(lark), U. S. Bureau of Entomology and Plant Quarantine, Box 340, Honolulu, Hawaii. *Entomology.* Crane, Mo, June 29, 95. B.S, Missouri, 21, A.M, 22; Minnesota, 24–25, 28–29. Asst. entom. and deputy state nursery inspector, Missouri, 21–22, instr. entom, 22–24; asst. instr. entom. and econ. zool, Minnesota, 24–25; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 25–26, asst. entomologist, 26–28, assoc. entomologist, 29–30, *entomologist, 30–* A.A; Entom. Soc; Asn. Econ. Entom; Chem. Soc. (chairman Hawaiian sect, 42); Hawaiian Entom. Soc. (pres, 34); Hawaiian Meteorol. Soc. (pres, 35); Hawaiian Acad. Economic entomology; insecticides; biology of citrus insects; fruit treatment.

McBride, Dr. R(obert) E(dwin), U. S. Veterans Administration, Las Cruces, N. Mex. *Medicine.* Thibodaux, La, Feb. 21, 73. M.D, Tulane, 96. *Med. officer,* U. S. Veterans Bur, *Las Cruces,* 19–30, *U. S. Veterans Admin, 30–* Contract surgeon, U.S.A, 18. A.A; fel. Am. Med. Asn; fel. Col. Physicians. General medicine.

McBride, R(ussell) S(mith), 712 Jackson Place, Washington, D. C. *Chemical engineering.* Minneapolis, Minn, May 5, 87. B.S, Minnesota, 08; A.M, Wisconsin, 09. Asst. chemist, Bur. Standards, 09–14, assoc. chemist, 14–18, eng. chemist, 18–20; eng. rep, McGraw-Hill Co, 20–21; *consulting chem. en-*

gineer, 21– Asst. ed. and later consulting ed, 'Chem and Metal. Eng,' 21–; consulting ed, 'Am. Gas Jour,' 27–32; 'Food Industries,' 28– Chem. Eng; Chem. Soc; Gas Asn. Chemical and food engineering.

McBride, Prof. Wilbert G(eorge), McGill University, Montreal, Que, Can. *Mining engineering.* Inglewood, Ont, Feb. 8, 79. B.Sc, McGill, 02. Mining engineer, Copper Queen Mine, Ariz, 02, chief engineer, 03–07; supt, Sierra de Cobre Mines, Mex, 07–09; gen supt, Great West. Mines, Ariz, 09–16; asst. gen. manager, Detroit Copper Mines, 16–17; gen. manager, Old Dominion Co, Ariz, 17–27; *prof. mining, McGill, 27–* Min. and Metal. Eng; Can. Inst. Min. and Metal. (pres, 40); Inst. Min. and Metal. Gt. Britain. Flotation of minerals from ores; fine grinding of ores.

McBrien, Dr. Vincent O(wen), Hamilton College, Clinton, N. Y. *Mathematics.* Attleboro, Mass, April 21, 16. B.S, Providence Col, 37; Knights of Columbus fellow, Catholic Univ, 38, 40–42, M.S, 40, Ph.D, 42. Asst. physics, Providence Col, 37; engineer, Pub. Works Dept, Attleboro, Mass, 37–38; physicist, David Taylor Model Basin, U. S. Navy, 42; *instr. math, Hamilton Col, 43–* Math. Soc. Inversive geometry.

McBryde, Dr. Angus M(urdoch), Duke Hospital, Durham, N. C. *Pediatrics.* Red Springs, N. C, May 25, 02. B.S, Davidson Col, 24; M.D, Pennsylvania, 28. Intern, univ. hosp, Pennsylvania, 28–29, res. *pediat,* 29–30; asst. res, Hopkins Hosp, 30–31; instr, *med. sch, Duke,* 31–32, *asst. prof, 32–* Am. Med. Asn; Soc. Pediat. Research; South. Med. Asn; N. C. Pediat. Soc.

McBryde, Dr. Charles N(eil), P. O. Box 70, Ames, Iowa. *Bacteriology.* Albemarle Co, Va, Feb. 2, 72. B.S, South Carolina, 91; M.S, Va. Polytech, 92; M.D, Hopkins, 97; Ph.D, George Washington, 11. Bacteriologist, biochem. div, bur. animal indust, U. S. Dept. Agr, 01–42, in charge bacter. investigations of meat, 08–16, in charge field sta, Ames, 28–42; *retired.* Soc. Bact; assoc. fel. Am. Med. Asn; Pub. Health Asn; hon. mem. Vet. Med. Asn; U. S. Live Stock Sanit. Asn; hon. mem. Iowa Vet. Med. Asn; fel. Wash. Acad; fel. Iowa Acad. Animal diseases; food products.

McBryde, Dr. F(elix) Webster, Ohio State University, Columbus, Ohio. *Geography.* Lynchburg, Va, April 23, 08. A.B, Tulane, 30; Colorado, 29, fellow, 30–31; fellow, Clark, 31; field fellow, Clark-Carnegie Institution exped, Guatemala, 32; field fellow, Social Science Research Council, 35–36; Ph.D, California, 40. Geographer and photographer, archeol. exped, Cent. Amer, Tulane, 27–28, asst. geol, univ, 29–30, asst. geog, Middle Am. Research Inst, 32–33; teaching asst. *geog,* California, 33–35, 37; *instr, Ohio State, 37–; senior geographer, mil. intel. service, geog. branch, War. Dept, 42–* Nat. research fel, Guatemala, Mex. and California, 40–41; Pan Am. Airways travel fellow, Guatemala, 40–41; collaborator, U. S. Dept. Agr, 40–41. Summer, Univ. Utah-Smithsonian Archeol. exped, north. Utah, 31; instr, Latin Am. inst, California at Los Angeles, 40. Soc. Am. Archeol. Central American geography; ethno-geography of the ancient and modern Maya.

McBryde, Prof. James B, 615 W. Sycamore St, Denton, Texas. *Biology.* Waelder, Texas, June 21, 97. A.B, Southwest Texas State Teachers Col, 23; A.M, Texas, 27, Ph.D, 32. *Prof. biol, N. Texas State Teachers Col, Denton, 27–* A.A; Texas Acad; N. Texas Biol. Soc. (v. pres, 36, pres, 37). Botany; bacteriology; zoology; nutritive requirements for the bacterial deposition of iron hydroxide from ferric ammonium citrate; vegetation and habitat factors of the Carrizo sands.

McBurney, Dr. Dorman, 25 North St, Newburgh, N. Y. *Physical chemistry.* Cambridge, Ohio, Nov. 30, 99. B.S, Muskingum Col, 21; M.S, Ohio State, 22, Ph.D, 24. Mem. staff, dept. chem, Ohio State, 21–24; research chemist, asst. chem. supt. and *chem. supt, Fabrikoid div, E. I. du Pont de Nemours and Co, 24–* Chem. Soc; Asn. Textile Chem. and Colorists; Chem. Eng; Illum. Eng. Soc; Soc. Chem. Indust. Effect of protective colloids in electrolytic precipitation; pyroxylin and synthetic resin fabric coatings.

McBurney, J(ohn) W(hite), 414 Taylor St, Chevy Chase, Md. *Ceramics.* Sumner, Wash, May 30, 90. A.B, Ohio State, 13. Sanit. bacteriologist, U. S. Pub. Health Service, 13–18; chemist, Youngstown Sheet and Tube Co, 18–21; engineer of tests, Board Educ, Cleveland, 21–24; director tech. service dept, Standard Paint and Lead Works, 24–25; research assoc. for Common Brick Mfrs. Asn, *Bur. Standards,* 26–31, for Asphalt and Mastic Tile Asn, 32–34, liaison rep. of Am. Standards Asn, 34–35, *senior technologist ceramics, 35–, liaison, Nat. Inventors Council, 41–* A.A; fel. Ceramic Soc; Mech. Eng; Soc. Test. Mat. (sec'y, cmt. on brick, 26–32, chairman, 36; cmt. mortar, 37–); fel. Inst. Chem; Standards Asn. (sec'y cmt. masonry; cmt. plastering); Concrete Inst; Philos. Soc. Wash; Wash. Acad; British Ceramic Soc; Soc. Chem. Indust. Gt. Britain. Structural materials; strength of brick masonry; building bricks; weathering of bricks and masonry; adhesion of brick and mortar; thermoplastics.

Mc Burney, Dr. Lane F(ordyce), 51 N. Cannon Drive, Wilmington, Del. *Organic chemistry.* Pittsburgh, Pa, July 26, 13. B.S, Drexel Inst, 36; M.S, Pennsylvania, 40, Ph.D, 42. Asst. manager insulin mfg. dept, Sharp and Dohme, Inc, 36–37, research chemist, 37–41, manager synthetic chem. mfg. dept, 41–42; instr. org. chem, Pennsylvania, 42–43; *research chemist, Hercules Powder Co, 43–* A.A; Chem. Soc. Organic medicinals; sulfanilamides; antiseptics; sulfones; sulfoxides; sulfides; sulfenyl halides; sulfinyl halides.

McBurney, Dr. Ralph, University of Alabama, University, Ala. *Bacteriology, Pathology.* Alexandria, Va, Aug. 9, 83. B.S, Va. Polytech, 08; M.S, Okla. Agr. and Mech. Col, 16; M.D, Rush, Chicago, 30; M.P.H, Harvard, 31. Asst. chem, Va. Polytech, 08–09; chemist, Gen. Chem. Co, Baltimore, 09–10; instr. chem, Okla. Agr. and Mech. Col, 10–14; bacter, Oregon State Col, 14–17; assoc. prof, Missouri, 19–21; *bacter. and hygiene, sch. med, Alabama,* 21–28, *prof, 28–* Asst. director, State Health Lab, Mo, 19–21; intern, employees' hosp, Tenn. Co, Fairfield, Ala, 29–30. Summers, camp surgeon, Civilian Conservation Corps, 35, 36. 1st lieut. and capt, Sanit.C, 17–19, capt, M.R.C. Fel. Am. Med. Asn. (chairman cmt. postgrad. study); Ala. Acad; Tuscaloosa Med. Soc. (sec'y-treas, 31, pres, 32–34). Fungicides in otomycosis; typhoid carriers; food poisoning; bacteriostatic action of sausage seasoning; the cockroach as a typhoid carrier; thymol therapy in tuberculosis; detection of enterotoxic staphylococci; erythrocyte sedimentation rate; clinical pathology; bacteriological and serological methods.

McCabe, Prof. B(ritton) C(harles), International Y. M. C. A. College, Springfield, Mass. *Ichthyology.* Toronto, Ont, Can, Dec. 21, 02. B.S, Int. Y. M. C. A. College, 27; M.S, N. Y. Univ, 31; Ph.D, Cornell, 42. *Prof. biol, Int. Y. M. C. A. Col, 31–* A.A; Soc. Ichthyol. and Herp; Soc. Mammal. Distribution of fishes in Massachusetts.

McCabe, Dr. Louis C(ordell), Office of Chief of Engineers, Washington, D. C. *Geology.* Graphic, Ark, Feb. 5, 04. B.S, Illinois, 31, M.S, 33, Ph.D, 37. Asst. geol, Northwestern, 26–28; Ill. Geol. Surv, 27; geologist, Miss. Coal Corp, 28–30; asst. geologist, Ill. Geol. Surv, 30–37, assoc. geologist, 37–40, geologist, 40–41; chief heating and refrig. sect, Office Quartermaster Gen, 41; *chief utilities sect, Office Chief of Engineers, and lieut. col, C.Eng, U. S. Army, 41–* Asn. Mil. Eng; Min. and Metal. Eng; fel. Geol. Soc; Ill. Acad. Structural geology; lithology, preparation and utilization of coal; administration of utilities of Army posts and manufacturing plants.

McCabe, Dr. Luberta (Marie) (Mrs. Francis T. McCabe), 61 Lexington Ave, Cambridge, Mass. *Psychology.* Wheaton, Minn, Oct. 29, 00. A.B, State Col. Wash, 22; A.M, Clark, 26, Ph.D, 29. Asst. ed, Clark Univ. Press, 29–34; *consulting ed, 'Jour. Abnor. and Social Psychol,' 42–* Assoc. Psychol. Asn. Psychology of learning.

McCabe, Prof. Warren L(ee), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemical engineering.* Bay City, Mich, Aug. 7, 99. B.S, Michigan, 22, M.S, 23, Ph.D, 28. Instr. *chem. eng,* Mass. Inst. Tech, 23–25; Michigan, 25–28, asst. prof, 28–33, assoc. prof, 33–36; *prof, Carnegie Inst. Tech, 36–, head dept, 37–* Lecturer, Worcester Polytech, 25. Chem. Eng; Chem. Soc. Distillation; evaporation; crystallization; heat transfer; thermodynamics.

McCaffery, Prof. Richard S(tanislaus), 16 W. 94th St, New York, N. Y. *Metallurgy.* New York, N. Y, June 2, 74. E.M, Columbia, 96. Practising engineer, 96–09; *prof.* metal, Idaho, 09–14; *mining and metal, Wisconsin, 14–* A.A; Min. and Metal. Eng. (iron and steel cmt); Chem. Soc; Soc. Metals; Eng. Educ; Inst. Metals; Can. Inst Min. and Metal. Iron and steel metallurgy; slags.

McCall, Dr. A(rthur) G(illett), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Buena Vista, Ohio, Nov. 11, 74. B.S.A, Ohio State, 00; fellow by courtesy, Hopkins, 14–15, Ph.D, 16. Scientist, bur. soils, U. S. Dept. Agr, 01–04; prof. agron. and head dept, Ohio State, 04–16; prof.

geol. and soils, Maryland, and in charge soil investigations, Exp. Sta, 16–27; chief bur. soils, *U. S. Dept. Agr*, 27, *soil investigations*, bur. chem. and soils, 27–36, *soil conservation service*, *36–* Exec. sec'y, Int. Cong. Soil Sci, 27, del, 27, 35. Educ.C, U.S.A, 19, head dept. agron, A.E.F. Univ. Beaune, 19. A.A; fel. Soc. Agron. (pres, 28); Agr. Chem; Wash. Acad; Int. Soc. Soil Sci. (mem, gen. cmt); cor. mem. Czech. Acad. Physical properties of soils; broom corn culture; soil management; potassium of soils and green sands; adsorptive properties of soils; fertilizer requirements of soil types.

McCall, Prof. (Ernest) Ralph, Montana State College, Bozeman, Mont. *Animal nutrition.* Boulder, Mont, June 26, 08. B.S, Mont. State Col, 29; M.S, State Col. Wash, 32, fellow, 30–32. Instr. *animal husbandry*, State Col. Wash, 32–36; asst. prof, *Mont. State Col*, 36–38, *assoc. prof*, *38–* Metabolism of sheep on grasses and other feeds; cattle feeding.

McCall, Dr. John Opple, 422 E. 72nd St, New York, N. Y. *Dentistry.* Geneva, N. Y, Oct. 4, 79. A.B, Yale, 01; D.D.S, Buffalo, 04. Prof. metal, chem. and periodontia, Buffalo, 10–19; instr. periodontia and advanced classes dentistry, Columbia, 19–23; prof. periodontia, col. dentistry, N. Y. Univ, 23–31; *director, Murry and Leonie Guggenheim Dental Clinic, 31–* Dental consultant, New York Hosp. A.A; Dental Asn; fel. Col. Dentists; fel. Acad. Periodontol. (past pres); 1st Dist. N. Y. Dental Soc. (ed, 'Jour,' 26–35); N. Y. State Dental Soc; N. Y. Acad. Dentistry; Int. Asn. Dental Research. Focal infection; periodontia; dental x-ray.

McCall, Dr. M(ax) A(dams), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Jamestown, Kans, Oct. 20, 88. B.S, Oregon State Col, 10; M.S, State Col. Wash, 22; Ph.D, Wisconsin, 32. Instr, high sch, Wash, 10–11; Oregon, 12–14; agron, Oregon State Col, 11–12; county agr. agent, Klamath Falls, Oregon, 14; dry land specialist and supt, Adams branch exp. sta, Wash. Exp. Sta, 14–24; agronomist in charge cereal agron, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr*, 24–29, prin. agronomist and later *head agronomist in charge, 29–, asst. chief, bur. plant indust, soils and agr. eng, 35–* A.A; Soc. Agron. (4th v. pres, 31, pres, 32); Soc. Plant Physiol. (ed. board); Phytopath. Soc; Am. Geog. Soc; Agr. Hist. Soc; Genetic Asn; Bot. Soc. Wash; Wash. Acad. Dry farm soils; plant and crop physiology; plant anatomy and morphology.

McCall, T(homas) M(ontgomery), Northwest School of Agriculture, University of Minnesota, Crookston, Minn. *Horticulture.* McCallsburg, Iowa, Dec. 25, 87. B.S, Iowa State Col, 10, M.S, 30. Instr. hort, Iowa State Col, 10–11; horticulturist, *Northwest Sch. Agr. and Exp. Sta, Minnesota*, 11–37, field manager, 19–27, acting supt. 33–34, *supt, 37–, ed, 'Pubs.'* Soc. Hort. Sci; Potato Asn; Minn. Hort. Soc; Red River Valley Livestock Asn. (pres, 38–); Red River Valley Develop. Asn. (pres, 38–). Potato disease control; fertilization; cultural practises; root crops; garden and fruit crops; ornamentals; flowering plants.

McCall, Prof. W(illia)m A(nderson), Teachers College, Columbia University, New York, N. Y. *Education.* Wellsville, Tenn, Jan. 9, 91. B.S, Cumberland, 11; A.B, Lincoln Mem. Univ, 13, D.Litt, 41; A.M, Columbia, 14, Ph.D, 16. Instr. psychol, Lincoln Mem. Univ, 11–13; lecturer educ. psychol, *Teachers Col, Columbia*, 16–17, instr. *exp. educ*, 17–18, from asst. prof. to *prof, 19–* Summers, instr, North Carolina; George Peabody Col; Ala. Polytech; California. Contrib. ed, 'Jour. Educ. Research.' Psychol. investigator, State Cmn. on Ventilation, N. Y; State Cmn. on Literacy Tests for Voters, N. Y; director psychol. research, Nat. Asn. Advancement Educ, Peiping, China. A.A; Educ. Research Asn; Psychol. Asn; Child Health Asn. (director, sch. health inquiry); N. Y. Soc. Exp. Study Educ. (v. pres). Experimental education; educational and psychological measurements; statistical and experimental methods of research.

McCalla, Dr. A(rthur) G(ilbert), University of Alberta, Edmonton, Alta, Can. *Plant biochemistry and physiology.* St. Catharines, Ont. March 22, 06. B.Sc, Alberta, 29, M.Sc, 31; Ph.D, California, 33. Asst. plant biochem. *Alberta*, 29–31, assoc. cmt. on grain research, 32–41, *prof. field crops, 41–* Soc. Plant Physiol; Can. Soc. Tech. Agr. Biochemistry, physiology and quality of cereals, especially wheat.

McCalla, Dr. T(homas) M(ark), University of Nebraska, Lincoln, Nebr. *Bacteriology.* Corinth, Miss, Nov. 29, 09. B.S, Miss. State Col, 34; A.M, Missouri, 35, Ph.D, 37. Instr. bacter, Kans. State Col, 37–41; *assoc. bacteriologist, div. research, soil conservation service, U. S. Dept. Agr, 41–; assoc. prof. agron, Nebraska, 41–* A.A; Soc. Agron; Soc. Bact; Soil Sci. Soc. Soil bacteriology; adsorption of ions by bacteria; staining of bacteria; variant legume bacteria; microbiology of soil and moisture conservation methods.

McCallan, Dr. S(amuel) E(ugene) A(lan), Boyce Thompson Institute for Plant Research, Yonkers, N. Y. *Plant pathology.* St. George's, Bermuda, April 22, 02. B.S.A, Toronto, 23; Ph.D, Cornell, 29. Asst. plant path, Cornell, 23–27, instr, 28–29; *plant pathologist*, Frash fungicide and insecticide project, *Boyce Thompson Inst*, 29–39, *inst, 40–* A.A; Phytopath. Soc. Laboratory and greenhouse testing of fungicides; fungicidal action of copper sulfur and organic compounds; standardization of fungicidal tests.

McCallie, Dr. J(ames) P(ark), Chattanooga 4, Tenn. *Astronomy, Mathematics.* James Co, Tenn, Aug. 9, 79. A.B, A.M, Virginia, 00, Ph.D, 03; LL.D, Davidson Col, 33, King Col, 36. Asst. astron, Virginia, 01–02; instr. math, Culver Mil. Acad, 03–05; *headmaster, McCallie Sch, 05–* Instr, Tenn. State Inst, 03. Tenn. Acad. Perturbations of Jupiter and Saturn; the Bible in the public schools; character education.

McCallum, A(lan) W(ilfrid), Central Experimental Farm, Ottawa, Ont, Can. *Forestry.* Smith's Falls, Ont, Feb. 25, 93. B.Sc.F, Toronto, 17, M.A, 18. *Forest pathologist, cent. exp. farm, Can. Dept. Agr, Ottawa, 20–* Can. Soc. Forest Eng; Can. Phytopath. Soc. Forest pathology; decay in pulpwood; fume injury to trees; deterioration of killed timber.

MacCallum, Dr. D(aniel) B(artlett), University of Southern California, Los Angeles, Calif. *Anatomy.* Decatur, Ill, Jan. 13, 93. B.S, Chicago, 20, Ph.D, 23, M.D, 26 Asst. anat, Chicago, 20–21, assoc, 21–23; instr. med, med. sch, Wisconsin, 26–27; asst. prof. *anat, sch. med, Southern California*, 30–31, assoc. prof, 31–37, *prof, 37–, acting head dept, 39–; col, Med. Corps, U. S. Army, 40–* 2nd lieut, Inf, 18–19, Inf.R.C, 19–27, capt. Asn. Anat; Am. Med. Asn. Arterial blood supply of the mammalian kidney.

MacCallum, Dr. W(illiam) G(eorge), Johns Hopkins University, Baltimore, Md. *Pathology.* Dunnville, Ont, Can, April 18, 74. B.A, Toronto, 94, hon. D.Sc, 27; M.D, Hopkins, 97. Res. house officer, Hopkins Hosp, 97–98, asst. res. pathologist, 99–00, res. pathologist, 01–09, asst. path, Hopkins, 99–00, assoc prof, 02–08, prof. path. physiol. and lecturer forensic med, 08–09; *prof.* path, Columbia, 09–17; *path. and bacter, Hopkins, 17–* Pathologist, Presb. Hosp, New York, 10–17. Nat. Acad; A.A; Soc. Exp. Path; Am. Med. Asn; Am. Physicians; Harvey Soc. (pres, 14); Med. and Chirurg. Faculty Md; fel. N. Y. Acad. Med; hon. fel. Royal Soc. Med; hon. mem. Soc. Med. Sverana Stockholm; Int. Asn. Med. Mus. (v. pres, 08, pres, 09). Trematode parasites; malaria; pathological anatomy and bacteriology; anatomy of lymphatics; physiology of the thyroid and parathyroid; tetany; pancreas; diabetes; pathological physiology of the circulatory and respiratory systems; correlation of the organs of internal secretions; pneumonia; rheumatism; vaccinia; alastrim; nephritis; hypophyseal functions.

McCampbell, Dr. C(harles) W(ilbur), Kansas State College, Manhattan, Kans. *Animal husbandry.* Frankfort, Kans, Feb. 1, 82. B.S, Kans. State Col, 06, D.V.M, 10, B.S.A, 18. Asst. *animal husbandry, Kans. State Col*, 10–12, asst. prof, 12–16, assoc. prof, 16–18, *prof, 18–* Soc. Animal Production (pres, 31). Animal production.

McCane, Prof. C(harles) Anthony, 1307 Irving St, N.E, Washington, D. C. *Physics.* Jefferson, Texas, Oct. 24, 02. A.B, Wiley Col, 22; M.S, Northwestern, 31. Teacher science, Wiley Prep. Sch, 23–28; *prof. physics*, Wiley Col, 29–32; *Miner Teachers Col, 32–* Physical Soc; Math. Soc; Asn. Physics Teachers. Spectrum analysis; thermion cs.

McCann, Dr. D(uane) C(arroll), P. O. Box 2175, Houston, Texas. *Analytical chemistry, Geology.* West Liberty, Iowa, Oct. 27, 07. A.B, Iowa, 30, M.S, 31, Ph.D, 34. Asst, Iowa, 31–34; engineer, *Schlumberger Well Surveying Corp*, 35–41, *v. pres, 41–* Chem. Soc. Quantitative spectrographic analysis; absorption spectra; x-rays and crystal structure; geophysics; petroleum geology.

McCann, Dr. Gertrude F(isher), 112 Berkeley St, Rochester, N. Y. *Pathology.* Tewksbury, Mass, Feb. 8, 89. A.B, Wellesley Col, 09; M.D, Cornell, 15. Fellow, Rockefeller Inst, 16–17; instr. path, col. physicians and surg, Columbia,

20–21; *med. adviser*, col. women, Rochester; *med. center, Eastman Kodak Co.* Contract surgeon, U.S.A, 18–19. Am. Med. Asn. Biochemistry; nutritional diseases.

McCann, Dr. G(ilbert) D(onald), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Physics, Electricity.* Glendale, Calif, Jan. 12, 12. B.S, Calif. Inst. Tech, 34, M.S, 35, Ph.D, 39. Teaching fellow, Calif. Inst. Tech, 35–38; *cent. sta. engineer in charge lighting research program, Westinghouse Elec. and Mfg. Co, 38–* Westinghouse lecturer, Pittsburgh, 40– Elec. Eng. Lightning; natural lightning; surges produced by lightning on power systems.

McCann, Dr. J(ames) C(ole), 30 Waconoh Road, Worcester, Mass. *Surgery.* Bangor, Maine, Jan. 25, 98. A.B, Georgetown, 20; M.D, Harvard Med. Sch, 24; fellow, Mayo Clinic, 26–29; Ph.D, Minnesota, 29. Asst. anat, Harvard Med. Sch, 24–25; surg. intern, Carney Hosp, Boston, 25–27; *surgeon, St. Vincent Hosp, Worcester, 29–* Deputy med. director region III, State Office Civilian Defense, Mass, 41–42; pres, Mass. Med. Service, 42–; Med. Service Plan. Council of Amer, 43–Mass. Med. Soc. (chairman special cmt. prepaid med. care costs ins). Physiology; experimental pathology; fractional gastric analysis; control of acidity of gastric juice; emptying of the stomach; intravenous anesthetics; syphilis and sarcoma of the stomach; invaginated Meckel's diverticulum; surgical management of peptic ulcer; economic basis and financing of Massachusetts Medical Service Corporation; omental adhesions syndrome.

McCann, Dr. Lewis P(aul), U. S. Department of Agriculture, Washington, D.C. *Plant breeding, Cytogenetics.* Dayton, Ohio, Nov. 10, 11. A.B, Miami (Ohio), 34; Chicago, 37; Ph.D, Maryland, 38. Asst. plant geneticist, *bur. plant indust, U. S. Dept. Agr*, 38–42, *agriculturist, office for. agr. relations, div. Latin Am. agr*, 42– Summer, grant in aid, Marine Biol. Lab, Woods Hole, 38. Influence of ecological factors such as nitrogen level, photoperiod, topography on fruit-bud formation in the tung-oil tree; breeding and selection of cacao and rotenone-bearing plants in Ecuador.

McCann, Dr. William S(harp), Strong Memorial Hospital, Rochester, N. Y. *Medicine.* Cadiz, Ohio, July 6, 89. A.B, Ohio State, 11; M.D, Cornell, 15, hon. Sc.D, 34. Cabot fellow in charge lab. surg. research, Harvard Med. Sch, 16–17; instr. *med*, med. col, Cornell, 19–21; assoc. prof, sch. med, Hopkins, 21–24; *Dewey prof, sch. med. and dentistry, Rochester, 24–; U. S. Naval Res.* Research fellow, Russell Sage Inst, 19–21; adj. asst. visiting physician, Bellevue Hosp, 19–21; assoc. physician, Hopkins Hosp, 21–24; physician in chief, Strong Mem. Hosp, 24–; consulting physician, Rochester State Hosp; Iola Tuber. Sanitarium. Mem. Am. Board Int. Med. Capt, M.C, 17–19, commander, U.S.N.R. A.A; assoc. Am. Physicians; Soc. Clin. Invest. (v. pres, 24); Soc. Exp. Biol; Soc. Biol. Chem; Am. Heart Asn; Clin. and Climat. Asn; Col. Physicians; Harvey Soc; N. Y. Acad. Med; Soc. de Chim. biol. Disorders of metabolism; internal medicine; pathological physiology of silicosis; nephritis and hypertension; hepatic disease and scotopic vision.

McCann, Major Willis H(arrison), Box 469, Randolph Field, Texas. *Psychopathology, Psychology.* Richmond, Mo, March 16, 07. A.B, Missouri, 33; A.M, Cornell, 36; Wesleyan, 36–37; Ph.D, Indiana, 40. Instr. gen. psychol, Missouri, 39; res. consulting psychologist, State Hosp. No. 3, Nevada, Mo, 39–40; capt, U. S. Army and classification officer, Reception Center, Ft. Snelling, Minn, 40, Mil. Intel, Philippine Dept, 41; visiting assoc. prof. psychol, Philippines, 41; res. psychologist-psychopathologist, State Hosp. No. 2, St. Joseph, Mo, 41–42; personnel consultant, Army Air Forces, *Gulf Coast Training Center, 42–*, capt, 42, *major, 43–* A.A; assoc. Psychol. Asn; assoc. Asn. Applied Psychol; Midwest. Psychol. Asn; Mo-Kans. Neuropsychiat. Soc. Abnormal psychology; etiology, symptomatology and therapy of nostalgia.

McCapes, Dr. A(delbert) M(orten), California Polytechnic School, San Luis Obispo, Calif. *Veterinary medicine.* Idaho Springs, Colo, Dec. 4, 00. D.V.M, Colo. State Col, 27. Asst. veterinarian, Oregon State Col, 27–31; exten. veterinarian, Missouri, 31–34; supervising veterinarian, bur. animal indust, U. S. Dept. Agr, 34–36; *veterinarian, Calif. Polytech. Sch, 36–* Vet. Med. Asn; Calif. State Vet. Med. Asn. Bangs disease in cattle; salmon poisoning in dogs.

MacCardle, Dr. Ross C(layton), Washington University School of Medicine, St. Louis, Mo. *Anatomy, Cytology.* Lancaster, Pa, Nov. 30, 02. B.Sc, Michigan, 27; fellow, Brown, 30–32, Ph.D, 32. Asst. exp. zool, Brown, 27–28, cytol. and path, 29–30; instr. cytol, Temple, 28–29, 32–35; anat, *sch. med*, Columbia, 35–37; Duke, 37–39; *research assoc. and instr. anat, Washington (St. Louis), 39–; capt, Air Corps, U. S. Army.* Asn. Anat; Soc. Zool. Effect of temperature on mitochondria and Golgi apparatus in liver and nerve cells; effect of excess cholesterol on cellular fats and calcium; mineral changes in normal and pathological human skin shown by microincineration and spectrographic analysis; human magnesium deficiency disease; hypertrophy of parathyroid glands and calcification of arteries in magnesium deficiency.

McCarrell, Dr. Jane D(insmore), Burnsville Road, Claysville, Pa. *Physiology.* Washington, Pa, Oct. 22, 09. A.B, Mt. Holyoke Col, 32; A.M, Vassar Col, 34; Ph.D, Radcliffe Col, 40. Asst. *physiol*, Vassar Col, 32–35, instr, 35–37; asst, *sch. pub. health, Harvard*, 40–41, *instr, 42–; research fellow anesthesia, Mass. Gen. Hosp, 42–* Physiol. Soc. Physiology of the lymphatic system.

McCarter, Prof. Janet R(uth), 33 Lathrop St, Madison, Wis. *Bacteriology.* Duluth, Minn, March 4, 06. B.S, Wisconsin, 30, M.S, 31, Ph.D, 33. Asst. *agr. bacter, Wisconsin*, 29–37, research assoc. and instr, 37–41, *asst. prof, 41–* A.A; Soc. Bact. Agricultural bacteriology; acid-fast bacteria.

McCarter, Dr. John C(arroll), 426 N. Charter St, Madison, Wis. *Pathology, Neuropathology.* Duluth, Minn, May 19, 04. A.B, Wisconsin, 30, M.D, 32. Asst. gross anat, med. sch, *Wisconsin*, 33–34, *path*, 34–36, instr, 36–38, asst. prof, 38–41, *assoc. prof, 41–* Rockefeller Foundation fellow, Montreal Neur. Inst, McGill, 39. Asn. Path. and Bact; Am. Med. Asn. Vascular lesions in humans; staining methods for nervous tissue.

McCarthy, Prof. Dorothea (Agnes), Fordham University, New York, N. Y. *Psychology.* Minneapolis, Minn, March 4, 06. A.B, Minnesota, 25, Ph.D, 28. Asst, inst. child welfare, Minnesota, 26–28; nat. research fellow child develop, 28–29; clin. psychologist, Bur. Juvenile Research, Calif, 29–30; child psychologist, dept. child develop, Georgia, 30–31, director nursery sch, Ga. State Col, 31–32; *assoc. prof.* educ. psychol, *Fordham*, 32–41, *psychol, grad. sch, 41–* Psychologist, Westchester County Childrens Court, 39–40. A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol; fel. Soc. Research Child Develop; Council Women Psychol; East. Psychol. Asn; N. Y. State Asn. Applied Psychol. (sec'y, 38–42, v. pres, 42, pres, 43). Child development; language development of the preschool child; maze habit after cerebellar injury; children's language in different situations; the vocalizations of infants; measures of musical talent.

McCarthy, E(dward) F(lorence), New York State College of Forestry, Syracuse, N. Y. *Forestry.* McLean, N. Y, 85. Grad, Cortland State Nor. Sch, 05; B.S, Michigan, 11, M.S, 16. Prin, pub. schs, N. Y, 05–08; forest asst, Caribou Nat. Forest, 11; faculty, N. Y. State Col. Forestry, Syracuse, 11–20: research specialist, Dom. Can, 20–21; silviculturist, U. S. Forest Service, 21–27, director, Cent. States Forest Exp. Sta, 27–31; *head dept. silviculture, N. Y. State Col. Forestry, Syracuse, 31–* Soc. Foresters; Can. Soc. Forest Eng. Trees; yellow birch and poplar; northern oaks; fire damage in southern Appalachian forests; forest fire weather; regeneration of cut-over land in Algoma, Ontario; growth of red pine in plantation; climatic factors in relation to forest and biotic influence on forest composition.

McCarthy, Eugene F, Harvard Medical School, Boston, Mass. *Optics, Ophthalmology.* Somerville, Mass, Sept. 26, 94. A.B, Harvard, 21, A.M, 28. Asst. engineer, staff illum. eng, Gen. Elec. Co. Mass, 17–19; consulting illum. engineer, New York and Boston, 21–26; research psychophysiol. optics, Harvard, 26–32, research fellow ophthal, *Howe lab, Harvard Med. Sch*, 32–34, *assoc. ophthal. research, 34–* Staff psychologist, State Dept. Mental Diseases, Mass, 27–33; lecturer, Yale; Harvard; Smith Col; Emerson Col, 30–31. A.A; Asn. Research Ophthal; Optical Soc; Illum. Eng. Soc; Elec. Eng; assoc. Psychol. Asn. Psychophysiological optics; psychology of vision.

MacCarthy, Dr. Gerald R(aleigh), U. S. Bureau of Mines, 341 Custom House, Baltimore, Md. *Geology.* Ithaca, N. Y, Nov. 15, 97. Univ. Poitiers, 19; A.B, Cornell, 21; A.M, North Carolina, 24, Ph.D, 26. Instr. geol, Williams Col, 21–22; North Carolina, 22–26, asst. prof, 26–32, assoc. prof, 32–37; assoc. geophysicist, U. S. Geol. Surv, 37–40; prof. geol, North Carolina, 40–42; *geophysicist, U. S. Bur. Mines, 42–* Asst, N. C. Geol. Surv, 24, 41. Summers, instr, Cornell, 21;

Michigan, 26. A.A; Geol. Soc; Geophys. Union; Carolina Geol. Soc. Colors of soils and minerals; orogeny; sands; geophysics.

McCarthy, Dr. Joseph L(ePage), University of Washington, Seattle, Wash. *Organic chemistry.* Spokane, Wash, Oct. 19, 13. B.S, Washington (Seattle), 34; M.S, Idaho, 36; Ph.D, McGill, 38. Sessional lecturer and research fellow, McGill, 38–41; director research, Fraser Companies, Ltd, 40–41; research assoc. chem, *Washington (Seattle)*, 41–42, instr. *chem. eng*, 42–43, *asst. prof, 43–* A.A; Chem. Soc; Soc. Chem. Indust; Tech. Asn. Pulp and Paper Indust; Can. Pulp and Paper Asn. Cellulose; lignin; wood chemistry.

McCarthy, Sister Katharine, Villa Scholastica, Duluth, Minn. *Psychology.* Sunnidale, Ont, Can, Feb. 19, 76. Ph.D, Catholic Univ, 14; A.M, Columbia, 24; Sorbonne, Paris, 30–31. *Instr. psychol, Col. of St. Scholastica, 19–, head dept, 27–*, dean, 19–27. Instr, Diocesan Teachers Col, St. Paul, Minn, 28; consultant psychologist, Duluth Mental Hygiene Clinic, 38– Summers, instr, Catholic Univ, 14–17. Mem, State Testing Cmt, Minn. Mem, White House Conf. Children in a Democracy, 40– A.A; Psychol. Asn; Conf. Catholic Charities (chairman conf. relig, 25–40; mem. exec. board, 40–42); Minn. Mental Hygiene Soc. Relation of expressed and measured interests in college women; effect of comic reading on children; mental and educational survey of private schools of Duluth; child development and attitudes; child maladjustments as related to the home.

McCarthy, Dr. Miles D(uffield), 700 E. Ridley Ave, Ridley Park, Pa. *Zoology.* Camden, N. J, Oct. 12, 14. B.S, State Teachers Col, Pa, 36; Ph.D, Pennsylvania, 43. *Instr. gen. zool, Pennsylvania, 39–* A.A; Genetic Asn. Cytogenetics.

McCarthy, Rev. Raphael C(harles), S.J, Marquette University, Milwaukee, Wis. *Psychology.* Marquette, Mich, Jan. 20, 89. A.B, St. Louis, 11, A.M, 13; Ph.D, London, 25. Instr. biol. and math, Regis Col. (Colo), 13–17; assoc. prof. psychol, St. Louis, 25–28, prof. and director dept, 28–29, regent, schs. divinity, philos. and science, 29–36; *pres, Marquette, 36–* A.A; assoc. St. Louis Neur. Soc; British Psychol. Soc. Psychology of conation and emotions.

McCartney, Dr. Garnet C(hester), Defense Industries, Ltd, Nobel, Ont, Can. *Geology.* Emerson, Man, March 21, 06. B.A, Manitoba, 26, M.S, 28; Ph.D, Wisconsin, 31. Asst. geol, Wisconsin, 30–31; instr, Yale, 31–33; Lafayette Col, 33–34; geologist, Min. Corp. Can, 34–37; geologist and field scout, Oro Plata Mining Corp; *mem. staff, Defense Industries, Ltd.* Summers, field asst, Geol. Surv. Can, 26–28; geologist, Dept. Mines, Man, 29–30. Petrography of the Chester sandstones of Indiana; heavy minerals in sand horizons in Manitoba and eastern Saskatchewan.

McCartney, Dr. James S(hearer), Jr, University of Minnesota, Minneapolis, Minn. *Pathology.* Tarentum, Pa, July 21, 93. A.B, Washington and Jefferson Col, 13; M.D, Hopkins, 17. Instr. *path, Minnesota*, 20–21, asst. prof, 21–30, *assoc. prof, 30–* Asn. Path. and Bact. Pulmonary embolism; lymphoblastomas.

McCarty, Prof. Mark A(nthony), Mapleton, Minn. *Animal husbandry.* Minn, Jan. 2, 89. B.S, Minnesota, 18, M.S, 25. From asst. to asst. prof, Minnesota, 20–29; assoc. prof. animal husbandry, Pa. State Col, 29–43. Soc. Animal Production. Swine production; nutritive requirements of the young pig; pasture values in swine production.

MacCarty, Dr. William Carpenter, 820 Third St, S. W, Rochester, Minn. *Pathology.* Louisville, Ky, June 10, 80. B.S, Kentucky, 00, M.S. 09; M.D, Hopkins, 04. Asst. pathologist, Königin Augusta Hosp, Berlin, 04–06; *surg. pathologist, assoc. director labs. and clin. consultant, Mayo Clinic, 07–; prof. path, Mayo Foundation, Minnesota, 07–* Del, Int. Cancer Conf, London, 28. Asn Path. and Bact; Soc. Clin. Path. (pres, 23); Soc. Control Cancer; Am. Med. Asn; Gastro-Enterol. Asn; Asn. Cancer Research; fel. Col. Physicians; hon. mem. Radiol. Soc; Osler Med. Hist. Soc. (pres, 37); Minn. Med. Asn; hon. mem. Ky. Med. Asn; hon. mem. Miss. Valley Med. Soc; Minn. Path. Soc; Chicago Path. Soc; Chicago Med. Hist. Soc; Pan-Am. Med. Soc; Int. Soc. Gastro-enterol; hon. mem. Int. Col. Surg. Surgical pathology; histogenesis of neoplasmata; clinico-pathologic standardization; new terminology and classification of neoplasia and neoplasmata; diagnosis and prognosis of neoplasms; identification of cancer cells.

McCashin, C(larence) E(ugene), 442 Post Office Bldg, Chattanooga, Tenn. *Hydraulic engineering.* Austin, Texas, Oct. 27, 87. C.E, Texas, 11. Gen. civil and consulting eng. practise, 11–18; *hydraul. engineer, water resources branch, U. S. Geol. Surv, 18–* Civil Eng. (v. pres, Ala. sect, 34; Tenn. Valley sect, 36); Chattanooga Eng. Club (v. pres, 37, pres, 38). Water resources; flow of water in open channels.

McCaughan, Dr. J(ohn) M(ilton), 7345 Chamberlain Ave, St. Louis, Mo. *Surgery.* St. Louis, Mo, Nov. 1, 99. B.S, Washington (St. Louis), 24, M.D, 26; Ph.D, Minnesota, 31. Asst. *surg, med. sch, St. Louis*, 32–33, instr, 33–36, senior instr, 36–40, *asst. prof, 40–* Intern, Barnes Hosp, 26–37; asst, St. Mary's Group of Hosps, 33–; attending surgeon, St. Louis County Hosp. Am. Med. Asn; Col. Surg; West. Surg. Asn; St. Louis Surg. Soc. Surgery of the pancreas.

MacCaughey, Vaughan, 155 Sansome St, San Francisco, Calif. *Botany, Ecology.* Huron, S. Dak, July 7, 87. B.S.A, Cornell, 08; Chicago, 16. Asst. entom, Cornell, 05–08; head dept. nat. science, Territorial Nor. Sch, Hawaii, 08–10; prof. bot, Col. of Hawaii, 10–19; supt. pub. instruction, Hawaii, 19–23; *ed, 'Sierra Educ. News,' Calif. Teachers Asn, 23–* Summers, instructor, Cornell; California; director, Pacific Coast Surv. Race Relations. Del, 1st Pan-Pacific Sci. Conf; chairman exec, cmt, 1st Pan-Pacific Educ. Conf. A.A; Social Hygiene Asn. (nat. educ. cmt); Bot. Soc; Ecol. Soc; hon. mem. Calif. Acad; hon. mem. Calif. Audubon Soc. Hawaiian ecology and botany; educational journalism.

McCaughey, Prof. William J(ohn), 2375 Andover Road, Columbus, Ohio. *Mineralogy.* Philadelphia, Pa, June 21, 82. B.S, Pennsylvania, 06; Ph.D, George Washington, 12. Asst. assayer, Bur. of Mint, Washington, 06–08; scientist, soil lab, bur. soils, U. S. Dept. Agr, 08–11; asst. prof. *miner, Ohio State*, 11–16, *prof. and chairman dept, 16–* U. S. Assay Cmn, 09. A.A; fel. Miner. Soc. (councilor, 32–36, v. pres, 41); Chem. Soc; Min. and Metal. Eng; fel. Geol. Soc; Geophys. Union; Ohio Acad; Deuts. Miner. Gesell. Microscopical determination of soil-forming minerals; microscopic examination of refractories, slags and non-metallic mineral products; mineral technology.

McCauley, Rev. David V(incent), S.J, Georgetown University, Washington, D. C. *Biology, Psychology.* New York, N. Y, Feb. 13, 95. A.B, Woodstock Col. (Md), 19, A.M, 20, Ph.D, 28. Instr. biol, Canisius Col, 20–22; asst. prof, Fordham, 22–23; prof, Col. of Holy Cross, 23–24; prof. and head dept, Canisius Col, 28–30; prof. exp psychol, Woodstock (Md), 31–34; *regent med. and dental schs, Georgetown, 34–, dean med. sch, 35–* A.A; Asn. Jesuit Scientists; Am. Med. Asn; Asn. Hist. Med; South. Med. Asn; Biol. Soc. Wash. Cytology; genetics; experimental psychology.

McCauley, Dr. Geo(rge) V(est), Corning Glass Works, Corning, N. Y. *Physics.* Perryville, Mo, Nov. 5, 82 B.S, Northwestern, 08; Wisconsin, 08–09, A.M, 09, fellow, 09–11, Ph.D, 11. Instr. physics, Northwestern, 11–17; asst. physicist, Bur. Standards, 17–18; *with Corning Glass Works, 18–* Physical Soc; Ceramic Soc. Distribution of energy in the spectra of incandescent metals as a function of absolute temperature; wave-lengths of calcium arc in vacuo; engineering problems in manufacture of a two hundred inch glass telescope disk.

McCauley, Dr. Robert H(enry), Jr, Plainfield, Vt. *Herpetology, Entomology.* Hagerstown, Md, June 13, 13. A.B, Washington and Lee, 35; Ph.D, Cornell, 40. Instr. wildlife management and zool, Goddard Col, 40–42; *biologist, State Fish and Game Service, Vt, 42–* Soc. Ichthyol. and Herp; Fern Soc; Biol. Soc. Wash. Wildlife management; revision of the genus Microrhopala; distribution of the reptiles of Maryland.

McCaulley, Dr. Selinda, 2031 Locust St, Philadelphia, Pa. *Psychology.* Wilmington, Del. March 16, 94. B.S, Pennsylvania, 23, Ph.D, 27. Teacher special class, Board Educ, *Phila*, 15–20, demonstration sch, 20–22, supervisor mental examination, div. special educ, 22–43, *prin, J. S. Jenks Sch, 43–* Lecturer, Temple, 30–31. Summers, lecturer, Pa. State Col, 30, 31. A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol; Pa. Asn. Clin. Psychol.

McCawley, Dr. E(lton) L(eeman), Yale University School of Medicine, New Haven, Conn. *Pharmacology.* Long Beach, Calif, Nov. 1, 15. A.B, California, 38, M.S, 39, Wolf Foundation for Cancer Research fellow, 39–41, Ph.D, 42.

Asst. pharmacol, med. sch, California, 39–42, lecturer and research assoc, 42–43; *instr. pharmacol, sch. med, Yale, 43–* Int. Cancer Research Foundation fellow, 42– Chem. Soc. Estrogen induced breast cancers; morphine derivatives.

McCay, Prof. Clive Maine, Cornell University, Ithaca, N. Y. *Physiological chemistry.* Winamac, Ind, March 21, 98. A.B, Illinois, 20; M.S, Iowa State Col, 23; Stanford; Ph.D, California, 25; Oxford, 35–36. Instr. chem, Agr. and Mech. Col. Texas, 20–21; asst, Iowa State Col, 21–23; California, 23–25; nat. research fellow, Yale, 25–27; asst. prof. animal husbandry, *Cornell, 27–34, prof. nutrition, 34–* A.A. Chemical physiology and its application to growth of various animal species; physiology of lactation; nutrition and growth in relation to life span; biochemistry of fish.

McCay, Prof. Myron S(tanley), P. O. Box 339, Blacksburg, Va. *Physics.* Madison Co, Ga, Nov. 5, 11. A.B, Georgia, 32; A.M, North Carolina, 34; Ph.D, Ohio State, 37. Asst. *physics,* Georgia, 30–32; North Carolina, 32–33, teaching fellow, 33–34; asst, Ohio State, 34–37; instr, *Va. Polytech,* 37–39, asst. prof, 39–41, *assoc. prof, 41–* Physical Soc. Spectroscopy; temperature measurement from intensity distributions of the lines of band spectra; stability of thermocouples; methods in viscosimetry.

McChesney, Dr. E(van) W(illiam), 14 Alden Court, Delmar, N. Y. *Biochemistry.* Oconto Falls, Wis, Dec. 11, 04. B.S, Chicago, 26, M.S, 28; Ph.D, Northwestern, 31. Prof. math, West. Union Col, 26–27; asst. biochem, med. sch, Northwestern, 28–31; assoc. prof, sch. med, North Carolina, 31–37; col. med, Baylor, 37–38; *research chemist, Winthrop Chem. Co, 38–* Chem. Soc. Vitamin physiology; hormones.

McClain, Dr. H(erbert) K(enneth), Procter and Gamble Co, Ivorydale, Ohio. *Physical chemistry.* Marion, Ohio, April 1, 05. B.S, Oregon, 28; Ph.D, Washington (Seattle), 33. *Develop. chemist, Procter and Gamble Co, 33–* Chem. Soc. The oxygen electrode.

McClain, Dr. John A, Box 584, Villanova, Pa. *Biology.* Ridgway, Pa, July 25, 08. B.S, Villanova Col, 30; M.S, Pennsylvania, 34, Ph.D, 39. Instr. *biol, Villanova Col,* 30–35, *asst. prof, 35–* Summers, research, Wistar Inst, 36, 38. A.A. Vertebrate embryology.

McCleary, Dr. R(ay) L(eroy), 1216 Newport Pike, Forest Brook Glen, Wilmington, Del. *Chemistry.* Wyandot Co, Ohio, Aug. 13, 07. A.B, Ohio Northern, 29; A.M, Ohio State, 31, Ph.D, 33. Instr, high sch, Ohio, 29–30; grad. asst. chem, Ohio State, 32–33; *chemist, E. I. du Pont de Nemours and Co, 33–* Polysulfides, polyselenides and polytellurides of sodium; polysulfides and polyselenides of some organic bases.

McCleary, Dr. Rush F(ox), 62 Wilson St, Beacon, N. Y. *Organic chemistry.* Wyandot Co, Ohio, Dec. 10, 09. A.B, Ohio Northern, 31; M.S, Purdue, 33, fellow, 36–37, Ph.D, 37. Instr, Purdue, 31–36; *chemist,* Krebs Pigment and Color Corp, 34–35; Röhm and Haas Co, 37–40; *Texas Co, 40–* Chem. Soc. Organic synthesis; lubricating oils.

McClellan, Dr. Paul P(endleton), 12 Highview Ave, Old Greenwich, Conn. *Chemistry.* Youngstown, Ohio, Feb. 12, 05. B.S, Dayton, 27; Ph.D, Cornell, 33. Asst. chem, Cornell, 27–33; research microscopist, Firestone Tire and Rubber Co, Akron, Ohio, 33–37; *research, Am. Cyanamid Co, Stamford, 37–* Chem. Soc; fel. Inst. Chem. General organic research; process development.

McClellan, Dr. Walter S(tuart), c/o Saratoga Springs Commission, Saratoga Springs, N. Y. *Medicine.* Kortright, N. Y, Sept. 7, 95. A.B, Colgate, 16; M.D, Harvard, 23. Med. house officer, Mass. Gen Hosp, Boston, 23–25; med. res, 2nd med. div, Bellevue Hosp, 25–26; nat. research fellow med, 26–27; instr. med, med. col, Cornell, and research fellow, Russell Sage Inst, 27–31; lecturer *med, Albany Med. Col, Union (N. Y.),* 31–37, *assoc. prof, 37–; med. director, Saratoga Springs Reservation, 31–* Adj. asst. visiting physician, 2nd med. div. Bellevue Hosp, 27–31; assoc. attending physician, Albany Hosp, 37–; consultant med, Saratoga Hosp, 40– A.A; fel. Am. Med. Asn; Physiol. Soc; Soc. Clin. Invest; Clin. and Climat. Asn; Soc. Physical Therapy Physicians; Harvey Soc; Int. Soc. Med. Hydrol. Metabolism; nutrition; hydrotherapy; balneology; the metabolism of glucose and dihydroxyacetone; effect of prolonged meat diets on humans; influence of ketosis on metabolism; metabolism of the obese; physiological effect of naturally carbonated mineral water baths on the circulation; chemical changes following ingestion of the mineral waters.

McClellan, Dr. W(ilbur) D(wight), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* LaVerne, Calif, Jan. 24, 14. B.S, California, 36; fellow, Cornell, 37–40, Ph.D, 41. Instr. plant path, Maryland, 40–41; *asst. pathologist, hort. field sta, bur. plant indust, U. S. Dept. Agr, 41–* A.A; Phytopath. Soc; Wash. Bot. Soc. Diseases of ornamental and drug plants.

McClellan, Dr. W(illia)m, 315 N. 12th Blvd, St. Louis, Mo. *Physics.* Philadelphia, Pa, Nov. 5, 72. B.S, Pennsylvania, 00, Ph.D, 03, E.E, 14. Asst. eng, Swarthmore Col, 90–91; instr, high sch, Pa, 91–98; physics, Pennsylvania, 00–05; engineer, Westinghouse, Church, Kerr and Co, 05–07; director, Campion-McClellan Co, 07–15; mem. firm, Paine, McClellan and Campion, 15–22; McClellan and Junkersfeld, Inc, N. Y, 22–29; v. pres, Stone and Webster Eng. Corp, 29–33; pres, Wm. McClellan and Co, Ltd, 29–33; pres-director, Potomac Elec. Power Co, 33–39; *Wash. Ry. and Elec. Co,* 35–40, *chairman board, 40–;* pres-director, *Union Elec. Co. Mo,* 39–41, *chairman board, 42–* Phila. Rapid Transit Co, 00–05; chief engineer, N. Y. Pub. Service Cmn, 10–13, 25–29; dean, Wharton Sch, Pennsylvania, 16–19; v. pres, Cleveland Elec. Illum. Co, 19–21; director, Capital Transit Co; Riggs Nat. Bank; Potomac Elec. Power Co. Trustee, Pennsylvania, 28–; Lingnan Univ, 35– Pres. Coolidge's Muscle Shoals Cmn, 25. A.A; Elec. Eng. (pres, 21); Mech. Eng; Hist. Sci. Soc; Am. Eng. Council; Acad. Nat. Sci. Phila. Physical engineering.

McClellan, Dr. W(illiam) R(obert), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Toulon, Ill, Dec. 23, 13. B.S, Illinois, 36; Ph.D, Pennsylvania, 40. *Research chemist polymeric materials, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. High pressure hydrogenation of aryl esters; polymeric materials.

McClelland, Prof. C(halmer) K(irk), 527 Storer St, Fayetteville, Ark. *Agronomy.* Andover, Ohio, Sept. 12, 77. B.S. (Agr), Ohio State, 98; M.S, Cornell, 02. Asst. prof. agr, N. C. Agr. and Mech. Col, 02–06; asst, office farm management, U. S. Dept. Agr, 06–07, supt. branch sta, Hays, Kans, 07–10; agronomist, Exp. Sta, Hawaii, 11–14; Exp. Sta, Georgia, 14–19; asst. prof. *agron, Arkansas,* 21–40, assoc. prof. and prof, 40–43, *emer. prof, 43–,* asst. agronomist, Exp. Sta, 21–40, assoc. agronomist and agronomist, 40–43. Soc. Agron. Plot technique; production methods; fertilizer and small grains, corn, cotton and legume crops of the South; syrup sorghums and syrup making; grain sorghums.

McClelland, Dr. David C(larence), Wesleyan University, Middletown, Conn. *Psychology.* Mt. Vernon, N. Y, May 20, 17. A.B, Wesleyan, 38; A.M, Missouri, 39; Ph.D, Yale, 41. *Instr. psychol,* Conn. Col, 41–42; *Wesleyan, 42–* Assoc. Psychol. Asn. Learning theory.

McClelland, E(lwood) H(unter), Carnegie Library of Pittsburgh, Pittsburgh, Pa. *Engineering.* Rockdale Mills, Pa, May 23, 78. Ph.B, Lafayette Col, 05. Asst, technol. dept, *Carnegie Library, Pittsburgh,* 04–07, *technol. librarian, 08–* Ed, 'Proc. Engineers,' 17–; abstract ed, 'Fuels and Furnaces,' 23–24; 'Rolling Mill Jour,' 28–30; director, 'Tech. Book Review Index,' 17–28. A.A; Soc. Test. Mat; Eng. Educ; Foundrymen's Asn; Chem. Soc; Soc. Rheol; West. Pa. Bot. Soc; Pa. Acad; British Inst. Metals. Bibliography; metal corrosion; flood protection; smoke prevention; ophthalmia neonatorum; bearing power of soils; heat treatment; mica; lampblack; engineering ethics; literature of the coal industry; iron and steel literature.

McClelland, J(ames) F(arley), Phelps Dodge Corp, 40 Wall St, New York, N. Y. *Mining engineering.* Poughkeepsie, N. Y, March 3, 78. E.M, Columbia, 00; A.M, Yale, 10. Instr. geol. and mining, Wyoming, 00–01; mining, Columbia, 02–05; asst. prof, Stanford, 08, prof, 09–10; mining eng, Yale, 10–17; consulting engineer, Liberty Nat. Bank, 19–21; v. pres, Liberty Indust. Corp, 22; asst. v. pres, N. Y. Trust Co, 23–28, *v. pres,* 28–29; Chem. Bank and Trust Co. and Chem. Securities Corp, 29–31; *Phelps Dodge Corp, 31–* Lecturer, Yale, 09. Ed. in chief, specification sect, Sig.C, 17–18, chief production eng, Bur. Aircraft Production, 18–19. Min. and Metal. Eng.

McClenahan, Prof. F(rancis) M(itchell), Monmouth College, Monmouth, Ill. *Geology.* Winterset, Iowa, Jan. 27, 76. A.B, Tarkio Col, 96; A.B, Yale, 00, A.M, 01, 01–03,

05–06; summer, Chicago. Instr, high sch, Pa, 96–99; asst. instr. chem, Yale, 01–03; instr, Kans. State Col, 03–05; prof, Maryville Col, 06–10, 11–17; Tarkio Col, 10–11; fellow, Mellon Inst, 16–18; consulting chemist and private research, 19–24; *prof.* geol. and physics, *Monmouth Col*, 24–39, *geol*, 39– A.A; Ill. Acad. Water of crystallization; alumina from clays; deferrizing iron-containing clays; heat insulation and insulators; lipoids; silicas.

McClenahan, Dr. W(illiam) S(t. Clair), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Organic chemistry.* Brainerd, Minn, Sept. 24, 12. A.B, Carleton Col, 33; Ph.D, Mass. Inst. Tech, 38. Chemist, Northwest Paper Co, Minn, 33–35; research assoc, div. chem, nat. inst. health, U. S. Pub. Health Service, 38–40; *indust. fellow, Mellon Inst, 40–* Chem. Soc. Oxidation of glycosides with lead tetraacetate; starch; dextrins; chemistry of petrolatum.

McClendon, Prof. J(esse) F(rancis), Route 1, Norristown, Pa. *[3]*Physiology, Biochemistry.* Lanette, Ala, Dec. 21, 80. B.S, Texas, 03, fellow, 03–04, M.S, 04; fellow, Pennsylvania, 04–06, Ph.D, 06. Asst. zool, Texas, 00–03; prof. biol, Randolph-Macon Col, 06–07; instr. zool, Missouri, 07–09; asst. histol, med. col, Cornell, 09–11, instr. anat, 11–14; physiol, Minnesota, 14–16, asst. prof, 16–17, assoc. prof, 17–20, prof. physiol. chem, 20–39; *research prof. physiol, Hahnemann Med. Col. (Pa), 39–* Visiting prof, Inst. Biol, Sendai, Japan, 32; asst, Marine Biol. Lab, Woods Hole, 06–08; res. naturalist, San Diego Biol. Asn, 07. Lieut. col, O.R.C. A.A; Physiol. Soc; Soc. Biol. Chem; Am. Med. Asn; Soc. Exp. Biol; Chem. Soc; Soc. Study Int. Secretions; Inst. Nutrition; Asn. Anat; Physiol. Soc. Phila; Biochem. Soc. Gt. Britain. Experimental zoology and physiology; cytology; embryology; taxonomy; life history; animal behavior; hydrogen ion concentration; alkaline reserve; metabolism; vitamins; electric conductivity at high frequency; relation of iodine to goiter; iodine content of foods and blood; thyroid physiology; fluorine content of diet and dental caries.

McClenon, Prof. R(aymond) B(enedict), Grinnell College, Grinnell, Iowa. *Mathematics.* Yankton, S. Dak, Aug. 4, 83. A.B, Yankton Col, 02; Ph.D, Yale, 05; Munich, 10; Columbia, 18. Instr. *math, Grinnell Col*, 05–07, asst. prof, 07–10, assoc. prof, 10–18, *prof, 18–* Assoc. ed, 'Am. Math. Monthly,' 19–23. Math. Soc; Math. Asn; Hist. Sci. Soc; Iowa Acad. (pres, 39). History of mathematics; elementary functions.

McCleskey, Prof. C(harles) S(helton), Louisiana State University, Baton Rouge, La. *Bacteriology.* Erath Co, Texas, March 11, 97. B.S, Agr. and Mech. Col. Texas, 24; M.S, Iowa State Col, 26, Ph.D, 30. Assoc. prof. biol, John Tarleton Col, 24–27; instr. *bacter*, Iowa State Col, 27–37; *assoc. prof, Louisiana, 37–; major, U. S. Army.* Summer, prof, Louisiana, 37. A.A; Soc. Bact; Genetic Asn; Pub. Health Asn. General bacteriology.

McClintock, Dr. Barbara, Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *[2]*Botany, Cytology, Genetics.* Hartford, Conn, June 16, 02. B.S, Cornell, 23, A.M, 25, Ph.D, 27. Asst. bot, Cornell, 24–27, instr, 27–31; nat. research fellow, Calif. Inst. Tech. and Missouri, 31–33; Guggenheim Mem. Foundation fellow, 33–34; asst. plant breeding, Cornell, 34–36; asst. prof. bot, Missouri, 36–41; *investigator, dept. genetics, Carnegie Institution, 41–* A.A; Genetics Soc. (v. pres, 39); Soc. Nat; Bot. Soc. Cytogenetics of Zea mays.

McClintock, J(ames) A(lbertine), Purdue University, Lafayette, Ind. *Plant pathology, Horticulture.* Chicago, Ill, Oct. 31, 89. B.S, Mich. State Col, 13, 30, 31, 40; M.S, Wisconsin, 14; Purdue, 32–40. Agent, bur. plant indust, U. S. Dept. Agr, 13–14; plant pathologist, Va. Truck Exp. Sta, 15–18; botanist and plant pathologist, Exp. Sta, Georgia, 18–22; horticulturist and assoc. plant pathologist, Exp. Sta, Tennessee, 22–31; *research and teaching hort, Purdue, 31–* Summers, path. inspector, fed. hort. board, U. S. Dept. Agr, 15; exten. pathologist, Georgia, 18. A.A; Phytopath. Soc; Soc. Hort. Sci. Diseases of fruits, vegetables and drug plants; plant selection and breeding for insect and disease resistance.

McClintock, Prof. James A(lfred), Drew University, Madison, N. J. *Psychology.* Cherokee, Iowa, April 1, 03. A.B, Willamette, 27; B.D, Drew, 30, Ph.D, 34; A.M, N. Y. Univ, 30; Columbia, 33, 35. Teaching fellow *psychol. and philos, Brothers Col, Drew*, 30–31, instr, 31–32, asst. prof, 32–38, *assoc. prof, 38–* Assoc. Psychol. Asn; Col. Personnel Asn. (treas, 39–); Soc. Study Educ; East. Psychol. Asn; N. J. Asn. Psychol. (pres, 42). Personnel procedures in the secondary school; morale for civilian defense.

McClintock, Prof. Jno. (John) T(homas), 404 Park Road, Iowa City, Iowa. *Physiology.* Burlington, Iowa, June 7, 73. A.B, Parsons Col, 94, Sc.D, 25; M.D, Iowa, 98; Leipzig; Berlin. Demonstrator anat. and path, *Iowa*, 98–01, *prof. physiol, 02–*, junior dean col. med, 13–35. A.A; Am. Med. Asn; Soc. Exp. Biol. Biophysics; energy metabolism in children.

MacClintock, Prof. Paul, Princeton University, Princeton, N. J. *Geology.* Aurora, N. Y, Feb. 2, 91. B.S, Chicago, 12, Ph.D, 20. Instr. *geol*, Chicago, 20–26, asst. prof, 26–28; *prof, Princeton, 28–* A.A; Geol. Soc. Pleistocene and physiographic geology.

McClosky, William T(homas), 5120 Seventh St, N. W, Washington, D. C. *Pharmacology.* Washington, D. C, Sept. 22, 89. A.B, George Washington, 25. In charge clin. lab. for physician, 16–21; asst. pharmacologist, nat. inst. health, U. S. Pub. Health Service, 22–27; in charge pharmacol. lab, *food and drug admin, U. S. Dept. Agr*, 27–35, asst. pharmacologist, 27–28, assoc. pharmacologist, 28–29, pharmacologist, 29–30, *senior pharmacologist, 30–;* instr. and assoc, dept. zool, George Washington, 23–33. Soc. Pharmacol; Soc. Exp. Biol; Pharmaceut. Asn. Endocrinology; biological assay.

McCloy, Prof. C(harles) H(arold), Field House, Iowa City, Iowa. *Physical education.* Marietta, Ohio, March 30, 86. Ph.B, Marietta Col, 07, A.M, 10; Ph.D, Columbia, 32. Physical director and acting prof. biol, Marietta Col, 05–07; Yankton Col, 07–08; physical director, Y.M.C.A, Danville, Va, 08–11; physical dept, Nat. Cmt. Y.M.C.A, China, 13–21; organizer sch. physical educ, Nanking Teachers Col, 21–26; Detroit Teachers Col, 26–27; sec'y research in physical educ, Nat. Council, Y.M.C.A, 27–30; *prof. anthropometry and physical educ, Iowa, 30–* Instr, Pub. Athletic League, Baltimore, 11–13; lecturer, Teachers' Col, Columbia, 28–30. Asn. Health and Physical Educ. (sec'y, research sect, 29–32, pres, cent. dist, 33, v. pres, 35, pres, 37); Acad. Physical Educ. (sec'y-treas, 35, 41); Soc. Research Child Develop; Asn. Physical Anthrop. Anthropometry; tests and measurements in physical education.

McCloy, Prof. James H(arvey), 37 W. Broadway, Westerville, Ohio. *Physics.* Pittsburgh, Pa, Aug. 2, 89. B.S, Purdue, 13; M.S, Ohio State, 23. *Prof. physics and astron, Otterbein Col, 13–* A.A; Ohio Acad; Cent. Ohio Physics Club (sec'y, 25–30).

McCluer, W(ilbert) B(rooks), Resinous Products and Chemical Co, 5000 Richmond St, Philadelphia, Pa. *Chemistry.* Marshall, Ind, July 12, 04. A.B, DePauw, 26; M.S, Mass. Inst. Tech, 30. Instr. gen. chem, DePauw, 27–28; asst. research lab. applied chem, Mass. Inst. Tech, 28–31; petrol. ref. lab, Pa. State Col, 31–35; chief chemist, Kendall Ref. Co, 36–38, mfg. supt, 38–41, refinery supt, 41–43, director, 38–43; *develop. engineer, Resinous Products and Chem. Co, 43–* Chem. Soc; Chem. Eng; Petrol. Inst. Corrosion of cast iron pipe; thermal decomposition of propane; lubricating oil quality and methods for identification of Pennsylvania grade lube oils.

McClung, Prof. C(larence) E(rwin), University of Pennsylvania, Philadelphia, Pa. *[2]*Zoology.* Clayton, Calif, April 5, 70. Ph.G, Kansas, 92, A.B, 96, A.M, 98, Ph.D, 02; Sc.D, Pennsylvania, 40, Franklin and Marshall Col, 42. Asst. prof. zool, Kansas, 97–00, assoc. prof, 00–06, prof, 06–12, head dept. zool. and curator vert. paleont. collections, 02–12; prof. zool. and director lab, *Pennsylvania*, 12–40, *emer. prof. zool, 40–* Acting dean sch. med, Kansas, 02–06; mem. embryol. staff, Marine Biol. Lab, Woods Hole, 03, 12–, emer. trustee. Rockefeller visiting prof, med. sch, Keio Univ, 33. Advisory board, Wistar Inst. Chairman div. biol. and agr, Nat. Research Council, 19–21. Managing ed, 'Jour. Morphol'; 'Acta Zoologica'; 'Cytologia'; pres. board trustees and sect. ed, 'Biol. Abstracts.' Del, Int. Biol. Cong, Montevideo, 30. Nat. Acad; A.A. (v. pres, F, 26); Soc. Nat. (pres, 26); Soc. Zool. (sec'y-treas, pres, cent. sect, 10, pres, 14); Union Am. Biol. Societies (pres, 22–30); Asn. Anat; Philos. Soc; Sigma Xi (pres, 20); Kans. Acad; Wash. Acad; Acad. Nat. Sci. Phila; for. mem. Biol. Soc. Montevideo. Sex determination from a study of the germ cells of insects; spermatogenesis in insects; osteology of upper cretaceous fish of Kansas; correlation between body characters and cell organization; phylogeny of chromosomes; variation of chromosome numbers; specific behavior of chromosomes.

McClung, Prof. L(eland) S(wint), Indiana University, Bloomington, Ind. *Bacteriology.* Atlanta, Texas, Aug. 4, 10.

A.B, Texas, 31, A.M, 32; fellow, Wisconsin, 32–34, Ph.D, 34. Nat. research fellow biol. sciences, Wisconsin, 34; research bacteriologist, research div, Am. Can Co, 34–36; instr. fruit products and junior bacteriologist, col. agr, California, 36–37, research med, Hooper foundation, med. sch, 37–39; research fellow *bacter*, Harvard Med. Sch, 39–40; *asst. prof. in charge dept, Indiana, 40–* Guggenheim Mem. Foundation fellow, 39–40. A.A; Soc. Bact; fel. Pub. Health Asn; Soc. Exp. Biol; Inst. Food Technol; Ind. Acad. (chairman div. bact, 41). General and applied bacteriology; Clostridium; thermophilic bacteria; the immune reactions; thermal death time; yeasts.

McClung, Dr. R(obert) K(enning), 88 Chestnut St, Winnipeg, Man, Can. *Physics.* Elmira, Ont, Feb. 2, 74. B.A, McGill, 99, M.A, 01, D.Sc, 06; B.A, Cambridge, 03. Demonstrator physics, McGill, 99–01, senior demonstrator, 04–07; prof, Mt. Allison, 07–09; lecturer, Manitoba, 09–12, asst. prof, 12–29, assoc. prof, 29–37, prof, 37–40; *retired.* A.A; fel. Physical Soc; fel. Royal Soc. Can. Energy required to produce ions; recombination of ions; ionization by x-rays; ionization from radium C; conduction of electricity through gases; radioactivity.

McClure, Prof. C(harles) F(reeman) W(illiams), Princeton University, Princeton, N. J. *[1]*Comparative anatomy.* Cambridge, Mass, March 6, 65. A.B, Princeton, 88, fellow, 89, A.M, 92; Columbia, 90–01, hon. Sc.D, 08; Berlin, 93; Kiel, 95; Wurzburg, 97. Instr. biol, *Princeton,* 91–95, asst. prof, 95–01, prof. *comp. anat,* 01–34, *emer. prof, 35–* Peary relief exped, 99. A.A; Soc. Nat; Asn. Anat. (v. pres, 10, mem. exec. cmt, 12–16, pres, 20); Soc. Zool; Philos. Soc; Anat. Soc. Gt. Britain and Ireland; Anat. Gesell. Primitive vertebrate brain; nerve cells of Mollusca; anatomy and development of blood vascular and lymphatic systems; edema.

McClure, Dr. F(loyd) A(lonzo), Smithsonian Institution, Washington, D. C. *Botany.* Sidney, Ohio, Aug. 14, 97. A.B, Ohio State, 18, B.S. (Agr), 19, M.S, 28, Ph.D, 35. Instr. hort, Canton Christian Col. (Lingnan Univ), 19–23, asst. prof. bot, 23–28, assoc. prof, 28–31, prof, 31–43, curator herbarium, 24–31, curator econ. bot, 31–43; Guggenheim Mem. Foundation fellow, 42, 43. Agr. explorer, U. S. Dept. Agr, 23–27, senior botanist, bur. plant indust, 36. A.A; hon. fel. Ohio Acad; fel. Royal Geog. Soc; fel. Peiping Soc. Nat. Hist; fel. Royal Asiatic Soc. Economic botany; Chinese economic plants; bamboo; Chinese handmade paper.

McClure, Dr. F(rank) J(ames), U. S. Public Health Service, Washington, D. C. *Nutrition.* Lafayette, Ind, Dec. 30, 96. B.S, M.S, Purdue; Ph.D, Illinois, 30. Asst. prof. chem, N. Mex. Col, 20–22; asst, Purdue, 22–26; nutrition, Illinois, 26–30; assoc, Pa. State Col, 30–36; *with nat. inst. health, U. S. Pub. Health Service, 36–* A.A; Int. Asn. Dental Research. Animal nutrition; metabolism and requirements of minerals; fluorine and its physiological effects; dental caries.

McClure, Prof. George (Matthew), Ohio State University, Columbus, Ohio. *Soils.* Wooster, Ohio, Dec. 4, 88. A.B, Ohio State, 14, M.S, 16. *Asst. prof. soils, Ohio State, 24–* Movement of fertilizer salts in soils; effect of nitrogen on pastures.

McClure, H(arry) B(ell), 9 S. Court, Port Washington, N. Y. *Chemistry.* Philadelphia, Pa, April 6, 03. B.S, Pennsylvania, 24, M.S, 28. Instr. inorg. and physical chem, Pennsylvania, 24–28; mem. tech. div, *Carbide and Carbon Chem. Corp,* 28–37, *manager fine chems. div, 37–* Mem. chem. plant facilities indust. advisory cmt, War Production Board. Chem. Eng; Chem. Soc. (councilor, N. Y. sect, 42); fel. Inst. Chem; Inst. Textile Chem. and Colorists (program cmt, N. Y. sect, 42); Chemists Club (library cmt, 36–, chairman, 41, 42). Synthetic organic chemicals; solvents; plasticizers; resins.

McClure, Dr. H(owe) Elliott, 315 S. 17th, Ord, Nebr. *Ecology.* April 29, 10. B.S, Illinois, 33, M.S, 36; Ph.D, Iowa State Col, 41. Asst. entomologist, State Nat. Hist. Surv, Ill, 30–33; tree expert, Ill. Tree Service Co, 34–35, 36–37; asst, Iowa State Col, 38–41; *wildlife technician, State Game, Forestation and Parks Cmn, Nebr, 41–* Entom. Soc; Entom. Soc. Amer; Wildlife Soc; Nature Asn; Ornith. Union; Wilson Ornith. Club. Ecology and management of upland game birds; ecology and management of the mourning dove; population fluctuations in forest insects.

McClure, Prof. James, 2002 20th Ave, S, Nashville, Tenn. *Physics.* Union City, Tenn, Dec. 24, 71. A.B, Vanderbilt, 98, A.M, 99. Instr. math. and astron, Vanderbilt, 98–02, physics and astron, 02–05; prof. physics, Clemson Col, 05–06; instr, Vanderbilt, 06–14; asst. prof. math. and physics, Richmond Col, 17–18; instr. physics, math. and astron, *Vanderbilt,* 18–26, *asst. prof. math. and physics, 26–* A.A; Tenn Acad. Astronomy.

McClure, Prof. O(scar) E(arle), 182 N. Congress St, Athens, Ohio. *Physics, Electrical engineering.* Seaman, Ohio Feb. 17, 89 B.S, Ohio (Athens), 16; A.M, Ohio State, 26 Asst. prof. *physics and elec. eng, Ohio (Athens),* 18–29, *assoc prof, 29–* A.A; Asn. Physics Teachers; Physical Soc; Ohio Acad. Spectroscopy.

McClure, Prof. R(obert) E(lmer), Jr, 116 King St, Johnstown, Pa. *Chemistry.* Blairsville, Pa. May 9, 01. A.B, Westminster Col. (Pa), 22; Minnesota, 25; Ph.D, Pittsburgh, 28 Teacher, high sch, Pa, 22–23; asst, Pittsburgh, 23–25, 27–28; teacher, high sch, Minn, 25–27; instr. *chem, Johnstown Center, Pittsburgh,* 28–38, *asst. prof, 38–* Chemist, Washburn Crosby Co, 25. Chem. Soc. Preparation of phenylhydrazine and phenylmercuric halides.

McClure, Dr. Roy D(onaldson), 1490 Iroquois Ave, Detroit, Mich. *Surgery.* Bellebrook, Ohio, Jan. 17, 82. A.B, Ohio State, 04, Sc.D, 36; M.D, Hopkins, 08. Vol. asst. to Alexis Carrel, Rockefeller Inst, 08; res. surgeon, N. Y. Hosp, 09–11; instr. surg. and res. surgeon, Hopkins Hosp, 12–16; *surgeon in chief, Henry Ford Hosp, 16–* Extramural lecturer, Michigan. Ed. board, 'Annals of Surg'; 'Am. Jour. Surg.' Chairman, State Med. Advisory Board No. 3, Mich, 40–; mem. subcmt. surg. infections, Nat. Research Council. A.A; Col. Surg; Surg. Asn; South. Surg. Asn; Cent. Surg. Asn. (pres, 40); Detroit Acad. Med; Detroit Acad. Surg. (pres, 29–30); Soc. Int. de Chirurgie. Transfusions of blood; intestinal obstruction; reversal of intestine; thyroid disease and the prevention of colloid goiter; cancer clinic with statistical studies; tannic acid treatment of burns; thymus gland.

McClure, Prof. S(tandleigh) M(yron), Indiana Central College, Indianapolis, Ind. *Chemistry.* New Albany, Ind, 88. B.S, Drury Col, 14, M.S, 15. Asst. chem, Northwestern, 15–16; instr, Elgin Junior Col, 16–19; prof, McKendree Col, 19–34; asst. geol, Washington (St. Louis), 35–36; prof, McKendree Col, 36–41; instr. science, Ball State Teachers Col, 41–42; *prof. chem, Ind. Cent. Col, 42–* Summer, instr, Drury Col, 16. Chem. Soc. Chemical education.

McClusky, Prof. Howard Yale, University of Michigan, Ann Arbor, Mich. *Educational psychology.* Whitesboro, N. Y, Feb. 20, 00. A.B, Park Col, 21, LL.D, 41; fellow, Chicago, 23–24, Ph.D, 29; LL.D, Parsons Col, 41. Instr. English, Park Acad, 21–22; *Michigan,* 24–27, asst. prof. *educ. psychol,* 27–34, assoc. prof, 34–39, *prof, 39–, asst. to v. pres. in adult educ, 38–* Lecturer, Ft. Leavenworth, 26; assoc. director, Am. Youth Cmn, 40–42; civilian mobilization branch, Office Civilian Defense, 42, consultant, 42–; Office War Information, 42– Summer, asst. prof, Chicago, 28; prof, Northwestern, 37. Ist Int. Cong. Mental Hygiene. Soc. Study Educ; Psychol. Asn; Educational Research Asn. Visual and experimental education; mental hygiene, especially in adolescence; community organization; adult education.

MacColl, Dr. L(eRoy) A(rchibald), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Mathematics.* Leadville, Colo, March 25, 96. A.B, Colorado, 19; A.M, Columbia, 25, Ph.D, 34. *Research dept,* West. Elec. Co, 16–25; *Bell Tel. Labs, 25–* Math. Soc; Math. Asn; Physical Soc; N. Y. Acad; Edinburgh Math. Soc. Zeros of special analytic functions; Fourier integrals; geometric aspects of relativistic dynamics; mathematical physics.

McColley, Dr. Earl S, 856 Gephart Drive, Cumberland, Md. *Analytical chemistry.* Central City, Iowa, Aug. 16, 00. Ph.B, Brown, 21, A.M, 22; Ph.D, Boston, 41. Teacher, high sch, Mass, 22–26; R. I, 26–42, prin, 35–42; instr. chem, exten. div, Boston, 38–42; *chemist, Celanese Corp. Amer, 42–* Chem. Soc; New Eng. Asn. Chem. Teachers (chairman, south. div, 41). Effect of ammonium chloride wash solution in gravimetric determination of iron and lead-thorium-uranium ratio of uraninite.

McCollom, C(harles) R(olfe), 555 S. Flower St, Los Angeles, Calif. *Economic geology.* Dassell, Minn, March 25, 83. Minnesota, 02–04; B.S, Mich. Col. Mines, 05, E.M, 06. Asst. geologist, Calumet and Arizona Mining Co, 07; geologist, Spurr and Cox, Inc, 10–11, consulting geologist, 11–17; from geologist to chief geologist, Union Oil Co. of Calif, 20–28;

chief geologist and manager lands, Pacific West Oil Co, 28–32; *consulting geologist, 32–* Major, C.Eng, 17–19. Asn. Petrol. Geol. (v. pres, 27). Oil and mining economic geology; geology of California oil fields.

McCollum, Burton, 853 Esperson Bldg, Houston, Texas. *Electrical engineering.* Redfield, Kans, June 1, 80. B.S, Kansas, 03. Test. engineer, Gen. Elec. Co, 04; operating engineer, Pacific Elec. Ry. Co, 05–06; Seattle Elec. Co, 06–07; asst. prof. elec. eng, Kansas, 07–09; elec. engineer, Bur. Standards, 09–26; tech. director, *McCollum Geol. Explorations, Inc,* 25–32, *pres, 32–, McCollum Explor. Co, 29–, McCollum Labs, Inc, 32–; Pantano Petrol. Co, 35–; Lignol Chem. Co, 42–* A.A; Elec. Eng; Physical Soc; Wash. Acad; Philos. Soc. Wash. Electrolytic corrosion; alternating current machinery; absolute measurements in electricity; geophysical explorations of subsurface geology.

McCollum, Prof. E(lmer) V(erner), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *[*3]Nutrition.* Redfield, Kans, March 3, 79. A.B, Kansas, 03, A.M, 04; Loomis fellow, Yale, 05–06, Ph.D, 06; Sc.D, Cincinnati, 20; LL.D, Manitoba, 38. Asst. chem, Kansas, 03–04; Yale, 06–07; instr. agr. chem, Wisconsin, 07–08, asst. prof, 08–10, assoc. prof, 10–13, *prof,* 13–17; *biochem. and head dept, sch. hygiene and pub. health, Hopkins, 17–* Mem. Nat. Advisory Council; Permanent Nutrition Cmn, League of Nations, 35–, U. S. rep, Mixed Cmt. Health Sect, 37; mem. vitamin advisory board, U. S. Pharmacopoeia, 36– Howard N. Potts medal, Franklin Inst, 21; John Scott medal and purse, Phila, 24; Newell Sill Jenkins medal, Conn. State Dental Asn, 27; medal, Am. Inst, 34; Callahan medal, Ohio State Dental Soc, 35. U. S. del, Int. Dairy Cong, Copenhagen, 31; del. vitamin conf, League of Nations, London, 31. Nat. Acad; A.A; Chem. Soc; Inst. Nutrition (v. pres, 37, pres, 38); Soc. Biol. Chem. (pres, 27); Pub. Health Asn; hon. mem. Harvey Soc; hon. mem. Dietetic Asn; Acad. Polit. and Social Sci; hon. mem. Home Econ. Asn; Am. Inst; Halle Akad. der Naturforscher; Soc. de Chim. biol; cor. mem. Acad. royale de Méd. de Belg. Nutrition of animals with isolated and purified food substances; deficiency diseases; faulty diets.

McCollum, Prof. John P(aschal), 1118 W. John St, Champaign, Ill. *Horticulture.* Emerson, Ark, Jan. 11, 06. B.S, Okla. Agr. and Mech. Col, 27; Ph.D, Cornell, 32. Asst. veg. crops, Cornell, 27–29, in charge, L. I. Veg. Research Farm, 29–30; *asst. prof. olericult, Illinois, and asst. chief olericult, Exp. Sta, 31–* Soc. Hort. Sci. Effects of fruit development in Cucumis sativus.

McColm, Dr. E(ugene) M(iller), U. S. Rubber Co, N. Bergen Plant, New Brunswick, N. J. *Chemistry.* Bloomington, Ill, Aug. 28, 00. B.S, Illinois, 22, M.S, 23; Ph.D, Columbia, 27. *Research chemist,* B. F. Goodrich Co, 24–25; *U. S. Rubber Plantations, 27–* A.A; Chem. Soc. Synthetic drugs; rubber chemistry.

McComas, E(arl) W, U. S. Department of Agriculture, Beltsville, Md. *Animal husbandry.* Stockton, Calif, Oct. 11, 94. B.S, California, 16. Asst. animal husbandman, *animal husbandry div, bur. animal indust, U. S. Dept. Agr,* 20–28, assoc. animal husbandman, 28–34, *animal husbandman, 35–;* mem. animal indust. subcmt. special report technol. on farm, 39–40. Asst. regional engineer, Fed. Emergency Relief Admin, 34–35. Mem. land use planning tech. advisory subcmts. and live-stock disposition cmt, Fed. Emergency Relief Admin, 34. A.A; Soc. Animal Production; Genetic Asn. Beef-cattle production; organization and operation of live-stock farms and ranches.

McComas, Dr. H(enry) C(lay), 320 Hawthorne Road, Roland Park, Baltimore, Md. *Psychology.* Baltimore, Md, Dec. 21, 75. A.B, Hopkins, 97; A.M, Columbia, 98; Ph.D, Harvard, 10. Demonstrator *psychol,* Princeton, 09–12, asst. prof, 12–19, assoc. prof, 19–28; *lecturer, Hopkins, 28–,* lecturer, 28–36. Capt, Sanit.C, 18–19. A.A; Psychol. Asn. Applied psychology; types of attention; perception time; psychology of religion; physical condition and mental efficiency.

McComas, Dr. Wilbur H(arrison), Jr, 67 Paterson St, New Brunswick, N. J. *Analytical chemistry.* York, Pa, March 1, 16. A.B, Oberlin Col, 37; M.S, Rutgers, 39, Ph.D, 42. Asst. anal. chem, Rutgers, 37–42; *research chemist, Calco chem. div, Am. Cyanamid Co, 42–* Chem. Soc. Determination of calcium in the presence of magnesium, iron, aluminum, manganese, phosphorus, sodium and titanium.

McComb, Prof. A(ndrew) L(ogan), Iowa State College, Ames, Iowa. *Forestry.* Vandergrift, Pa, Jan. 1, 08. B.S, Pa. State Col, 32; M.S, Iowa State Col, 33, Ph.D, 41. Junior forester, Allegheny Forest Exp. Sta, U. S. Forest Service, 34; acting nursery director, Exp. Sta, Iowa State Col, and soil conservation service, U. S. Dept. Agr, 34–35; instr. *forestry, Iowa State Col,* 35–38, *asst. prof, 38–* Soc. Foresters (v. chairman, Iowa subsect, 40); Soc. Plant Physiol; Iowa Acad. Physiology and growth of forest trees; nutrition and growth of forest tree seedlings.

McComb, Dr. E(mily) E(dgar), Suffield, Conn. *Bacteriology.* Suffield, Conn. A.B, Smith Col, 21; Ph.D, Yale, 28. Technician, dept. internal med, sch. med, Yale, 21–26, asst. bacter, 26–28; asst. bacteriologist, John J. Abel fund, clin. research lab, Hopkins, 29–30. A.A. Pneumococci and streptococci; bacteriology of the common cold.

McComb, H(arold) E(dgar), U. S. Coast and Geodetic Survey, Washington, D. C. *Terrestrial magnetism, Seismology.* Wilsonville, Nebr, Nov. 25, 86. B.S, Nebraska, 07, A.M, 09. Asst. instr. physics, Nebraska, 07–09; magnetic observer, U. S. Coast and Geod. Surv, 09–11; instr. physics, Nebraska, 11–14; magnetic observer, *U. S. Coast and Geod. Surv,* 14–18, in charge Tucson Magnetic Observatory, 18, in charge Honolulu Magnetic Observatory, 19–27, *chief sect. observatories and equipment, 29–* Field magnetic observations, U. S, Island of Oahu, Hawaii; magnetic disturbances, south. Calif. Lieut, U.S.N.R, 18–19. A.A; Seismol. Soc. (treas, east. sect, 29–31, sec'y, 32–35, chairman, 38); Geophys. Union (sec'y, sect. seismol, 31–36, pres. sect, 41–); Philos. Soc. Wash. (recording sec'y, 37, pres, 41). Electric double refraction in liquids; development of seismological instruments; new designs of seismometers and accelerometers; terrestrial magnetism; design of instruments for use at magnetic observatories.

McConica, Dr. Thomas H, III, Dow Chemical Co, Midland, Mich. *Chemical engineering.* Saskatchewan, Sask, Can, Sept. 7, 15. B.E, Saskatchewan, 35; Sc.D, Mass. Inst. Tech, 39. *Research engineer, metal. dept, Dow Chem. Co, 39–* Chem. Soc; Chem. Eng. Magnesium production.

McConkey, Prof. O(swald) M(urray), Ontario Agricultural College, Guelph, Ont, Can. *Agronomy.* Arkwright, Ont, Nov. 16, 91. B.S.A, Toronto, 17; Oxford, 19; M.S, Illinois, 21; Sir George Parkins traveling scholar, 29–30; Ph.D, Cambridge, 30. Lecturer agron, plant breeding and ecol, *Ont. Agr. Col, Toronto,* 22–35, *prof. plant breeding and genetics, 35–; lieut. col, Royal Can. Artil, 40–* Lecturer, Alberta Dept. Agr, 20; plant collecting, Scandinavia and Russia, 29–30. Major, Royal Can. Artil. Soc. Agron; Genetic Asn; Can. Soc. Tech. Agr. (director, 36). Genetics; agrostology; ecology; crop production.

McConnell, Dr. Duncan, Bureau of Reclamation, Customhouse, Denver, Colo. *Mineralogy and economic geology.* Chicago, Ill, Jan. 30, 09. B.S, Washington and Lee, 31; fellow, Cornell, 31–32, M.S, 32; Ph.D, Minnesota, 37; Chicago, 32–33. Asst. geol, Washington and Lee, 30–31; teaching fellow miner, Stanford, 34–35; instr. geol, Minnesota, 36–37; instr. miner, Texas, 37–40; asst. mineral economist, U. S. Bur. Mines, 41; *assoc. chemist-petrographer, Bur. Reclamation, 41–* Fel. Geol. Soc; fel. Miner. Soc; Soc. X-Ray and Electron Diffraction. Structural and chemical mineralogy; mineralogy and petrography of phosphates; mineral economics of nonmetallics; mineralogy and petrography of concrete and hydrated portland cement.

McConnell, H(arold) S(loan), University of Maryland, College Park, Md. *Entomology.* Anderson, S C. B.S, Clemson Col, 16; M.S, Maryland, 32. Asst. entom, Maryland, 16–18; Clemson Col, 19–24; *assoc. entomologist, Exp. Sta, Maryland, 24–* Cotton boll-weevil; the oriental fruit moth; Coccidae.

McConnell, Prof. T(homas) R(aymond), University of Minnesota, Minneapolis, Minn. *Psychology.* Mediapolis, Iowa, May 25, 01. A.B, Cornell Col. (Iowa), 24; A.M, Iowa, 28, Ph.D, 33. Instr. English and journalism, Cornell Col. (Iowa), 25, educ. and psychol, 26–28, asst. prof. educ, 28–30, prof, 30; *prof.* educ. and psychol. and dean, Cornell Col. (Iowa), 32–36; *educ. psychol. and chairman cmt. educ. research, Minnesota, 36–, assoc. dean col. science, literature and the arts, 40–, acting dean, 42–* Summers, visiting lecturer, Iowa, 31–36. Psychology of learning; growth of intelligence; higher education; general nature of growth; general psychology.

McConnell, Prof. W(allace) R(obert), Miami University, Oxford, Ohio. *Geography.* Ill, Oct. 4, 81. A.B, Illinois, 12; A.M, Wisconsin, 17; Ph.D, Clark, 25. Asst. *geog,* Wis. State Teachers Col, Oshkosh, 13–14; head dept, Wis. State Teachers Col, Platteville, 15–18; *prof, Miami (Ohio), 18–* Summer, lecturer, Cornell, 30. A.A; Nat. Council Geog. Teachers (pres, 24); Cent. Asn. Sci. and Math. Teachers (chairman, geog. sect, 17). The United States in the modern world.

Macconochie, Prof. Arthur F(rancis), Box 1362, University, Va. *Engineering.* Edinburgh, Scotland, Nov. 8, 91. B.Sc, London, 16. Eng. lecturer, British Board Educ, 19–23; asst. prof. *mech. eng, Virginia,* 23–30, *prof, 30–, supervisor, eng. exten.* Official investigator, War Metal. Cmt; consultant, Office Chief of Ordnance. Consultant. Contributing ed, 'Steel.' Supervisor, Royal Ordnance Factories, Woolwich Arsenal, 16–19. Mech. Eng. (shell forging research cmt). Thermodynamics applied to engineering.

McCool, Dr. Merris M(ickey), Boyce Thompson Institute for Plant Research, 1086 N. Broadway, Yonkers, N. Y. *Soils.* Amity, Mo, Aug. 31, 83. B.S, Missouri, 08; M.S, Cornell, 11, Ph.D, 12. Asst. plant physiol, N. Y. State Col. Agr, Cornell, 08–12; asst. prof. soils, Oregon State Col, 12–14; prof. and head dept, Mich. State Col, 14–30; *Boyce Thompson Inst, 30–* Soil Sci. Soc. (pres, 27); Soc. Agron; Bot. Soc; Int. Soc. Soil Sci. (v. pres, chem. sect). Plant nutrition; land classification; soil physics; peat soils; the action of nutrient and non-nutrient bases; land utilization; soil colloids and moisture; heaving of plants; nitrate-nitrogen in plants; soils and freezing point lowerings of crops; utilization of waste organic materials.

McCord, Dr. Carey P(ratt), Fountain and Myrtle Streets, Glendale, Ohio. *Industrial hygiene.* Bibb Co, Ala, Sept. 25, 86. A.B, Howard Col. (Ala), 06, LL.D, 33; M.D, Michigan, 12. Director research, Mich. Home and Training Sch, 14–16; assoc. prof. prev. med, col. med, Cincinnati, 19–35; *med. director, Indust. Health Conservancy Labs, Detroit, 19–;* prof. indust. hygiene, Wayne, 37–40. Consultant and adviser, various indust. organizations; lecturer, col. eng, Cincinnati, 21–32; consultant on occupational diseases, Chrysler Corp, 34–; director bur. indust. hygiene, Dept. Pub. Health, Detroit, 36–39; director bur. indust. hygiene, State Dept. Health, Mich, 38–39; lecturer, Michigan, 41– Col, M.C, 26– Fel. Pub. Health Asn. (sec'y, indust. hygiene sect, 28–31, chairman, 33); fel. Am. Med. Asn. (toxic gas cmt, 29–, chairman, air conditioning cmt, 36–); Asn. Indust. Physicians and Surg. Occupational diseases; industrial hygiene.

McCord, Prof. (William) Fletcher, University of Kansas, Lawrence, Kans. *Psychology.* Augusta, Ga, Aug. 10, 02. A.B, Mercer, 29; Ph.D, Duke, 37. Instr. journalism, Eng. and psychol, Mercer, 29–31; teaching fellow, Duke, 33–36; *asst. prof. psychol, Kansas, 36–* Psychol. Asn; Kans. Acad. Comparative psychology; delayed reaction and memory in rats; perception; psychology of language; abnormal psychology; social psychology; learning.

McCord, Prof. William M(ellen), Louisiana State University School of Medicine, New Orleans, La. *Biochemistry.* Durban, Natal, S. Africa, Jan. 24, 07. A.B, Oberlin Col, 28; Ph.D, Yale, 31; M.B, Louisiana, 39, M.D, 40. Instr. *biochem, sch. med, Louisiana,* 31–35, asst. prof, 35–42, *assoc. prof, 42–; lieut, Med. Corps, U. S. Army, 42–* Intern, Charity Hosp, New Orleans, 39–40, visiting biochemist, 40– Chem. Soc. Aldehyde condensates; tissue respiration; clinical biochemistry; blood chemistry; pathological biochemistry.

McCorkle, Dr. Miles R(andolph), 720 E. 84th St, Chicago, Ill. *Organic chemistry.* Bedford, Iowa, Aug. 18, 09. B.S, Iowa State Col, 34, research fellow, 34–38, Ph.D, 38. Research chemist, *Armour and Co,* 38–41, *chemist in charge fat and oil research, 41–* Furan and derivatives; fatty acids and derivatives; napthoic acids.

McCorkle, Dr. Paul, State Teachers College, West Chester, Pa. *Physics.* Orangeville, Ohio, 90. A.B, Ohio State, 14; M.S, Cornell, 22, Ph.D, 24. Asst, Carnegie Inst. Tech, 14–20; Cornell, 20–24; asst. prof. *physics,* Western Reserve, 24–30; *teacher, Pa. State Teachers Col, West Chester, 30–, head dept. science.* Physical Soc; Asn. Physics Teachers. Magnetostriction; wave-length of soft x-rays.

McCorkle, Prof. W(illard) H(omer), College Station, Texas. *Physics.* Palo, Iowa, April 21, 02. A.B, Iowa, 24, M.S, 28, Ph.D, 35. Instr. *physics, Agr. and Mech. Col. Texas,* 24–28, asst. prof, 28–35, assoc. prof, 35–39, *prof, 39–,* soil investigation, Exp. Sta. A.A; Physical Soc; Texas Acad. Acoustical transmission; soil moisture measurements; polarization of impact radiation.

McCormack, Prof. Harry, 3300 Federal St, Chicago, Ill. *Chemistry.* Spencer, Iowa, Sept. 7, 76. B.S, Drake, 96; fellow, Illinois, 98–00, M.S, 99. Instr. chem, Drake, 94–96; teacher chem. and physics, Webb City Col, 00–02; high sch, Mo, 02–04; *chem. eng, Ill. Inst. Tech,* 04–07, *prof, 07–, director dept; consulting chem. engineer.* Ed, 'Chem. Engineer,' 06–11; tech. ed, 'Equipment Preview'; 'Food Equipment Preview.' Chem. Soc; Chem. Eng; Soc. Test. Mat. By-products recovery from thylox liquor; chemical treatment of vanadium and uranium ores; production of phenetole; design and construction of synthetic phenol plants in the United States; recovery of resorcinol; production of potassium permanganate; recovery of vanadium and uranium from ores.

McCormick, Prof. Clyde T(ruman), Ft. Hays Kansas State College, Hays, Kans. *Mathematical physics.* Oblong, Ill, March 6, 08. A.B, Illinois, 30, A.M, 32; Ph.D, Indiana, 37; Michigan, 38. Prof. math. and physics, Greenville Col, 37–38, asst. prof. *math, Ft. Hays Kans. State Col,* 38–41, *prof, 41–,* acting head dept, 41, *head dept, 41–* Math. Asn; Kans. Asn. Teachers Math; Ind. Acad; Kans. Acad. The square foot as the unit of sound absorption; variation of moments with distribution of masses and areas; two theorems on moments; navigation problems.

McCormick, Prof. Robert N(athaniel), Ball State Teachers College, Muncie, Ind. *Zoology.* Lexington, Va, Jan. 21, 96. A.B, Muskingum Col, 21; M.S, Ohio State, 22, Ph.D, 32. Asst. *zool,* Ohio State, 21–23; instr, Buffalo, 23–25; Ohio State, 25–27; Minnesota, 27–28; asst, Illinois, 28–30; asst. prof, *Ball State Teachers Col, Ind,* 30–36, *assoc. prof, 36–* Summer, asst, Ohio Fish Surv, 22. A.A; Pub. Health Asn; Ohio Acad; Ind. Acad. Parasitology; comparative anatomy; comparative parasitization of fresh-water snails; anomalous postcaval veins in a cat; atypical vertebrate blood-vessels; the large fresh-water shrimp.

McCormick, Prof. W(illiam) W(allace), 3406 Seventh Ave, Beaver Falls, Pa. *Physics.* Marissa, Ill, Aug. 30, 06. B.S, Geneva Col, 27; M.S, Michigan, 31, Ph.D, 38. Prin, high sch, Pa, 27–29; instr. *physics, Geneva Col,* 29–32, asst. prof, 32–39, *prof, 39–; research physicist, Michigan, 43–* Physical Soc; Asn. Physics Teachers. Spectroscopy; vacuum tubes.

McCormick, Prof. W(illie) F(orrest), Mississippi State College for Women, Columbus, Miss. *Chemistry.* Rose Hill, Miss, Feb. 3, 02. B.S, Millsaps Col, 25; M.S, Louisiana, 27; Ph.D, Pa. State Col, 32. Asst. chem, Louisiana, 26–28; instr. anal. chem, 28–29; asst. chem. and chem. eng, Pa. State Col, 29–32; *prof. chem. and head dept, Miss. State Col. Women, 32–* Chem. Soc. Energy requirements in paper drying; preparation and use of oxidized turpentine in lacquer formulation; conversion of sulfur dioxide to sulfur trioxide in the presence of vanadium catalysts.

MacCorquodale, Dr. D(onald) W(illiam), Abbott Laboratories, North Chicago, Ill. *Chemistry.* Chicago, Ill, June 30, 98. B.S, Illinois, 24; M.S, Wisconsin, 26, Ph.D, 28. Instr. *chem,* Tennessee, 24; asst, Wisconsin, 24–29, instr, 29–30; research fellow, Yale, 30–31; instr, sch. med, St. Louis, 31–38, asst. prof, 38–39; *head dept. biochem. research, Abbott Labs, 39–* A.A; Chem. Soc; Soc. Biol. Chem. Synthetic organic chemistry; sex hormones; vitamins K_1 and K_2.

McCosh, Prof. Gladys K(athryn), Wellesley College, Wellesley, Mass. *Zoology.* Manomet, Mass, July 26, 97. A.B, Mt. Holyoke Col, 20; M.S, Washington (St. Louis), 22; Ph.D, Cornell, 28. Asst, Washington (St. Louis), 20–22; instr, *Wellesley Col,* 22–26, 28–30, asst. prof. *zool,* 30–36, *assoc. prof, 36–* A.A; N. Y. Acad. Ecology; entomology.

McCotter, Prof. Rollo E(ugene), Lakewood, Ann Arbor, Mich. *Anatomy.* Vermontville, Mich, Jan. 23, 78. M.D, Michigan, 10. Instr. *anat,* Michigan, 09–13; *prof,* Vanderbilt, 13–14; *Michigan, 14–* A.A; Am. Med. Asn; Asn. Anat; Mich. Acad. Comparative anatomy.

McCouch, Prof. G(rayson) P(revost), University of Pennsylvania, Philadelphia, Pa. *Physiology.* Media, Pa, Sept. 9, 88. A.B, Harvard, 11; M.D, Pennsylvania, 15. Intern, univ. hosp, *Pennsylvania,* 15–17, instr. *physiol, sch. med,* 20–

28, *asst. prof, 28–* Neurologist, U.S.N. Base Hosp. No. 5, 17–18. A.A; Physiol. Soc; Physiol. Soc. Phila; Phila. Neur. Soc. Physiology of reflexes; spinal shock; electric potentials in the spinal cord.

MacCoull, Nell, Fishkill, N. Y. *Automotive engineering.* Chicago, Ill, March 14, 91. M.E, Columbia, 13. Tech. ed, 'Aerial Age Weekly,' 15; designer, Westinghouse Machine Co, 16–18; automotive engineer, *Texas Co, 19–35, research engineer, 35–* Naval Air Force, 18–19, lieut. commander, U.S.N.R, 29– Soc. Automotive Eng. (mem, research cmt, chairman, metropolitan sect, 24–25); Inst. Aeronaut. Sci; Inst. Automobile Eng. Application of fuels and lubricants to internal combustion engines.

McCown, Monroe, Purdue University, Lafayette, Ind. *Horticulture.* Proctorville, Ohio, May 16, 02. B.S. (Agr), Ohio State, 23, Ph.D, 38; M.S, Purdue, 28. Sec'y and field agent, Ind. Hort. Soc, 25–27; *exten. horticulturist fruits, Exp. Sta, Purdue, 27–* Soc. Hort. Sci. Control of fire blight in apples; apple pruning; peach production; strawberries; chemical and anatomical aspects of abscission of flowers and fruits of apple; harvest sprays to delay apple drop.

McCown, Dr. Theodore D(oney), 1611 Scenic Ave, Berkeley, Calif. *Physical anthropology, Prehistory.* Macomb, Ill, June 18, 08. A.B, California, 30, Taussig traveling fellow, 33–34, Amy Bowles Johnson traveling fellow, 34–35, Ph.D, 40; fellow, Am. Sch. Prehist. Res, 32, 35–37. Field asst, joint exped, Am. Sch. Prehist. Res. and British Sch. Archaeol. in Jerusalem, Mt. Carmel, Palestine, 30–31, field director, 32; instr. *anthrop, California, 38–41, asst. prof, 41–; U. S. Army, 42–* A.A; Anthrop. Asn. (councilor, 38–41); Prehist. Soc; fel. Soc. Am. Archeol; Asn. Physical Anthrop; fel. Royal Anthrop. Inst. Gt. Britain and Ireland. Fossil man; physical anthropology of the American Indian; prehistory of Palestine and the Near East; archeology of California and of Peru.

McCoy, Alex(ander) W(atts), 2794 S. Utica, Tulsa, Okla. *Geology.* Independence, Mo, Feb. 6, 89. C.E, Missouri, 12, A.M, 14. Asst, eng. exp. sta, Missouri, 12–13; instr. geol, Oklahoma, 14–16; field geologist, Mex. Eagle Oil Co, 16; geologist, Marland Oil Co, 16–17; research geologist, Empire Gas and Fuel Co, 17–20; consulting geologist, 20–24; first v. pres, Marland Oil Co. of Colo, 24–29; v. pres, E. W. Marland Co, Inc, 29–32; *consulting geologist, 32–* Manager land and geol, Deep Rock Oil Corp, 40–43, v. pres. in charge explor, 43– A.A; Geol. Soc; Asn. Petrol. Geol. (v. pres, 20, pres, 26); Min. and Metal. Eng; Petrol. Inst. Artesian waters of Missouri; effects of capillarity on oil accumulation; oil-water emulsions; relation of former shore lines to present oil fields; paleography of Mid-Continental oil district; oil accumulation; structural theory for oil accumulation.

MacCoy, Prof. Clinton V(iles), Massachusetts State College, Amherst, Mass. *Zoology.* Brookline, Mass, March 27, 05. A.B, Harvard, 28, A.M, 29, Ph.D, 34. Curator fishes and mammals, sec'y and ed, Boston Soc. Nat. Hist, 29–39; *asst. prof. zool, Mass. State Col, 39–* Asst. biologist, State Fish and Game Dept, N. H, 39. Soc. Mammal; Soc. Ichthyol. and Herp; Ornith. Union. New England vertebrates; the lizard Sceloporus.

McCoy, Prof. Dorothy, Belhaven College, Jackson, Miss. *Mathematics.* Waukomis, Okla, Aug. 9, 03. A.B, Baylor, 25; M.S, Iowa, 27, Ph.D, 29. Asst, Iowa, 28–29; *prof. math, Belhaven Col, 29–* Summer, visiting teacher, Baylor, 30. Ed, 'Nat. Math. Magazine.' Math. Soc; Math. Asn. Geometry; complete existential theory of eight fundamental properties of topological spaces.

McCoy, Prof. Elizabeth, University of Wisconsin, Madison, Wis. *Bacteriology.* Madison, Wis, Feb. 1, 03. B.S, Wisconsin, 25, M.S, 26, Ph.D, 29. Nat. research fellow, Rothamsted Exp. Sta, England, and Karlova Univ, Czechoslovakia, 29–30; asst. prof. *agr. bacter, Wisconsin, 30–39, assoc. prof, 39–* Research, Hooper Foundation, med. sch, California, 37–38. A.A; Soc. Bact; Pub. Health Asn; Wis. Acad. Physiology of anaerobes; serology; bacteria of fresh-water lakes.

McCoy, Dr. G(eorge) W(alter), Louisiana State University School of Medicine, New Orleans, La. **3 *Medicine.* Cumberland Valley, Pa, June 4, 76. M.D, Pennsylvania, 98; hon. Sc.D, Louisiana, 35. Res. med. officer, City Hosp, Newark, 98–00; asst. surgeon, U. S. Pub. Health Service, 00–05, passed asst. surgeon, 05–12, surgeon, 12–30, med. director, 30–40, director, U. S. Plague Lab, San Francisco, Calif, 08–11, U. S. Leprosy Investigations Sta, Hawaii, 11–15, hygienic lab, 15–30, nat. inst. health, 30–37; *prof. prev. med. and pub. health and head dept, sch. med, Louisiana, 38–* Craig lecturer, Am. Soc. Trop. Med, 37. Nat. Board Med. Examiners, 21–40; revision cmt. on biol. products, U. S. Pharmacopoeia; Bur. for Protection Med. Research. Sedgwick Mem. metal, 31. Am. Med. Asn. (chairman, sect. pharmacol. and therapeut, 19); Asn. Path. and Bact; Am. Physicians; Asn. Mil. Surg; Pub. Health Asn; Soc. Trop. Med; Calif. Acad. Med; Path. Soc. Phila. Prophylactic and curative serums and vaccines; plague; leprosy; influenza.

McCoy, Dr. Herbert N(ewby), 1226 Westchester Place, Los Angeles 6, Calif. **2 *Chemistry.* Richmond, Ind, June 29, 70. B.S, Purdue, 92, M.S, 93, hon. Sc.D, 38; fellow, Chicago, 96–98, Ph.D, 98. Tech. chemist, Chicago, 93–94; prof. chem. and physics, Fargo, 94–96; asst. chem, Chicago, 98–99; asst. prof, Utah, 99–01; instr, Chicago, 01–03, asst. prof, 03–08, assoc. prof, 08–11, prof, 11–17; *v. pres, Lindsay Light Co, 17–; private research lab, 34–* Willard Gibbs medal, 37. A.A; Chem. Soc; fel. Chem. Eng; Electrochem. Soc; fel. Physical Soc. Quinazolin derivatives; molecular weight apparatus; equilibrium in carbonate solutions; secondary ionization constants; affinity constants of indicators; rare earths; organic amalgams; radio-activity; europium; ytterbium.

McCoy, Dr. John S(palding), 51 Morton St, New York, N. Y. *Organic chemistry.* Kansas City, Mo, Oct. 5, 16. B.S, Loyola Col. (Md), 38; M.S, N. Y. Univ, 40, Ph.D, 42. Teaching fellow chem, N. Y. Univ, 38–41; instr, Marymount Col, 41–42; *research chemist, Ralph Evans Associates, 42–* A.A; Chem. Soc. Organic quantitative micro-analysis; phenol-aldehyde condensations.

McCoy, John T, Tide Water Associated Oil Co, Bayonne, N. J. *Chemical engineering.* Spokane, Wash, Jan. 22, 02. B.S, Mass. Inst. Tech, 24, M.S, 25. Asst. technologist, *Tide Water Associated Oil Co, 27–32,* chief develop. engineer, 33, *gen. supervisor research and develop, 34–* Chem. Soc; Chem. Eng; Soc. Test. Mat; Soc. Automotive Eng. Petroleum refining.

McCoy, Prof. Neal H(enry), 53 Ridgewood Terrace, Northampton, Mass. *Mathematics.* Waukomis, Okla, March 6, 05. A.B, Baylor, 25; M.S, Iowa, 27, Ph.D, 29. Nat. research fellow, Princeton, 29–31; asst. prof. *math, Smith Col,* 31–34, assoc. prof, 34–42, *prof, 42–* Math. Soc; Math. Asn. Theory of matrices; abstract algebra.

McCoy, Prof. O(liver) R(ufus), 260 Crittenden Blvd, Rochester, N. Y. *Parasitology.* St. Louis, Mo, Aug. 1, 05. A.B, Washington (St. Louis), 26, M.S, 27; Sc.D, Hopkins, 30; M.D, Rochester, 42. Asst. helminthol, sch. hygiene and pub. health, Hopkins, 28–29, instr, 29–30; *asst. prof. parasitol, sch. med. and dentistry, Rochester, 30–; major, Med. Corps, U. S. Army, 43–* Consultant, Gorgas Mem. Lab, 34; visiting prof, Nat. Med. Col, Shanghai, 36. Mem, State Trichinosis Cmn, N. Y, 40–42. A.A; Soc. Parasitol. (sec'y, 38–42); Soc. Exp. Biol; Soc. Trop. Med. Life history of trematodes; biology of the free-living stages of hookworm; immunity in helminth infections; trichiniasis; filariasis.

McCoy, Dr. Richard H(ugh), University of Pittsburgh. Pittsburgh, Pa. *Chemistry.* Wilmington, Ohio, Nov. 26, 08. A.B, Earlham Col, 29; A.M, Illinois, 31, Rockefeller Foundation fellow, 34–35, Ph.D, 35. Instr. chem, Earlham Col, 29–30; Rockefeller Foundation fellow, Chicago, 35–36; Wistar Inst, 36–40; *senior research fellow biochem, Pittsburgh, 40–* Chem. Soc. Amino acid requirements for growth; parathyroid hormone and calcification; optimum protein intake; bone marrow and blood cell formation.

McCrackan, Prof. Rob(ert) F(ranklin), Medical College of Virginia, Richmond, Va. *Chemistry.* Butler, S. C, April 30, 82. B.S, Mil. Col. of S. C, 03; A.M, Columbia, 10. Bur. Educ, P. I, 06–09; asst. chem, Columbia, 10–12; Bellevue Med. Col, 12; instr, *Med. Col. of Va,* 12–15, *assoc. prof.* biochem, 15–27, *chem, 27–* Summers, prof, Richmond, 24–27. A.A; Chem. Soc. (v. chairman, Va. sect, chairman, 28); fel. Inst. Chem; Va. Acad. Chemical apparatus; biochemical analysis.

McCracken, Prof. Earl C, 114 Morningside Drive, New York, N. Y. *Physics.* Mechanicsville, Iowa, June 27, 97. B.S, Drake, 18; M.S, Iowa State Col, 29; fellow, Minnesota, 33–34, Ph.D, 34. Teacher; high sch, Iowa, 18–19, 23–24; instr. *physics,* Iowa State Col, 19–20, 24–33, asst. prof, 34–38; *Teachers Col, Columbia,* 38–41, *assoc. prof, 41–* Summers, Mayo Foundation, Minnesota, 33–35. A.A; fel. Iowa Acad.

Physical properties of foodstuffs; determination of cleaning properties; circulation time of blood in dogs; biological osmotic pressure determinations; biophysics; household equipment; standardization.

McCracken, Dr. Elizabeth (Unger), University of Vermont, Burlington, Vt. *Cytogenetics.* Clearfield, Pa, Oct. 28, 08. A.B, Wellesley Col, 29, A.M, 32; Ph.D, California, 37. Asst. bot, Wellesley Col, 29–32; teaching asst, California, 32–35; asst, Kans. State Col, 38–39, *instr,* 39–42; bot. and zool, Ohio Wesleyan, 42–43; *bot, Vermont, 43–* A.A; Bot. Soc; Kans. Acad. Cytogenetics, especially botanical.

McCracken, Dr. (Mary) Isabel, Box 1545, Stanford University, Calif. *Entomology.* Alameda Co, Calif. A.B, Stanford, 04, A.M, 05, Ph.D, 08; Paris, 13–14. Teacher, pub. schs, Calif, 90–00; asst. physiol. and entom, *Stanford,* 03–04, instr. entom. and *bionomics,* 04–09, asst. prof, 09–18, assoc. prof, 18–30, prof, 30–31, *emer. prof, 31–; research assoc, Calif. Acad. Sciences, 31–* Summers, asst, Hopkins Biol. Lab, Pacific Grove, Calif, 02; Calif. asst. to U. S. entomologist, mosquito investigations, 03. Entom. Soc. Amer; West. Soc. Nat; Pacific Coast Entom. Soc; fel. Calif. Acad. Mosquitoes in California; inheritance in beetles and silkworms; reflexes in silkworms; bionomics of insects; heredity; Cynipidae; Aphididae; Apoidea.

McCracken, Dr. Roy, 377 Maple Ave, Waynesboro, Va. *Organic chemistry.* Kentucky, Aug. 19, 96. B.S, Kentucky, 21; M.S, Iowa State Col, 23, Ph.D, 26. Research chemist, *du Pont Rayon Co,* 27–28, *chief chemist, acele dept, 28–* Chem. Soc; Hist. Sci. Soc. Grignard reagent.

McCrady, Dr. Edward, Jr, University of the South, Sewanee, Tenn. *Zoology.* Canton, Miss, Sept. 19, 06. A.B, Col. of Charleston, 27; M.S, Pittsburgh, 30; Ph.D, Pennsylvania, 33. Asst. curator pub. instruction, Charleston Museum, S. C, 27–28; asst. zool, Pittsburgh, 28–30; research fellow, Wistar Inst, 30–36, assoc, 36–37; *prof. biol. and chairman dept, Univ. of the South, 37–* A.A; Asn. Anat. Genetics; marsupial embryology; anatomy; physiology of hearing.

McCrea, Dr. Adella, Roscommon, Mich. *Botany.* Roscommon, Mich, Jan. 30, 80. A.B, Michigan, 19, Ph.D, 30. Teacher, schs, Mich, 97–99, 04–19; research mycologist, Parke, Davis and Co, 19–42; *retired.* A.A; Bot. Soc; Mycol. Soc; Mich. Acad. Dermatophytic fungi; respiratory mycoses.

McCrea, Prof. F(orrest) D(raper), 1023 Demerius St, Durham, N. C. *Physiology, Pharmacology.* New Richmond, Ind, March 5, 97. B.S, Purdue, 18; M.S, Illinois, 23; Ph.D, Wisconsin, 27. Asst. physiol, Illinois, 20–23; instr, Wisconsin, 23–27; asst. prof. *physiol. and pharmacol,* Georgia, 27–29; instr, Western Reserve, 29–31; *assoc. prof, Duke, 31–* Physiol. Soc. Physiology of the cardiovascular system, including the spleen; action of selected drugs upon the cardiovascular and autonomic systems.

McCrea, Prof. M(arion) W(ilmer), 618 Hillcrest Road, Ridgewood, N. J. *Histology, Embryology.* Dunkirk, Ohio, Dec. 22, 10. D.D.S, Ohio State, 35; M.S, Rochester, 37. Rockefeller fellow dentistry, Rochester, 35–36, Carnegie fellow, 36–37; instr. *histol. and embryol, Maryland,* 37–39, *asst. prof. in charge dept, sch. dentistry, 39–* A.A; Dental Asn; Md. Biol. Soc. (treas, 39–41); Int. Asn. Dental Research. Calcification of the teeth; facial development; epithelial remnants and tooth development.

MacCreadie, Prof. W(illiam) T(homas), 104 S. 13th St, Lewisburg, Pa. *Mathematics.* Central Falls, R. I, July 8, 88. B.S, Mass. Inst. Tech, 11; A.M, Harvard, 24; Ph.D, Cornell, 27. Prof. *math,* Norwich, 13–19, 21–23; instr, Cornell, 24–27; asst. prof. and later *assoc. prof, Bucknell, 27–* Consultant engineer, Jones and Laughlin Steel Co, 42– Applied mathematics; stability of the motion of a viscous fluid.

McCready, Prof. D(onald) W(illiam), University of Michigan, Ann Arbor, Mich. *Chemical engineering.* Menasha, Wis, Feb. 25, 02. B.S, Mass. Inst. Tech, 24; Ph.D, Michigan, 33. Develop. engineer, West. Elec. Co, 24–25; research engineer, Universal Oil Products Co, 25–26; chief chemist, Gilbert Paper Co, 26–29; instr. *chem. eng, Michigan,* 29–33, asst. prof, 33–38, *assoc. prof, 38–* Chem. Soc; Eng. Educ; Chem. Eng; Tech. Asn. Pulp and Paper Indust.

McCready, Dr. Newton W(illoughby), 121 S. Third St, Philadelphia, Pa. *Physical chemistry.* Monterey, Calif, Feb. 2, 16. B.S, California, 37, Ph.D, 41. Teaching asst. chem, California, 38–40; *research chemist, Phila. Quartz Co, 41–* Univ. medal, California, 38. Chem. Soc; Franklin Inst. Thermodynamics of diaminomercuric chloride; sodium silicate.

McCreary, Dr. Otto C, University of Wyoming, Laramie, Wyo. *Chemistry.* Fishertown, Pa, Sept. 25, 79. B.S, Michigan, 07; Ph.D, Ohio State, 26. Asst. chemist, N. Y. Exp. Sta, Geneva, 07–20; Exp. Sta, State Col. Wash, 20–22; *assoc. research chemist, Exp. Sta, Wyoming, 26–* A.A; assoc. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Colo-Wyo. Acad. Wyoming forage plants and their chemical composition.

McCreary, Dr. R(alph) L(eroy), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Preble Co, Ohio, Dec. 23, 16. B.S, Miami (Ohio), 38; Ph.D, Rochester, 42. *Research assoc. elec. eng, Mass. Inst. Tech, 42–* Office of Sci. Research and Develop. adviser, England, 42–43. Physical Soc. Internal conversion of gamma rays; beta-ray activity of light nuclei in radioactive disintegrations.

McCrory, S(amuel) H(enry), 6811 Sixth St, N. W, Washington, D. C. *Agricultural engineering.* Iowa City, Iowa, May 5, 79. B.S, Iowa, 04, C.E, 08; A.E, Iowa State Col, 26. Practising engineer, Sioux City, 04–06; drainage engineer, office exp. stations, *U. S. Dept. Agr,* 07–12, engineer in charge drainage investigations, 12–13, chief, 13–21, div. agr. eng, bur. pub. roads, 21–31, bur. agr. eng, 31–39, asst. chief bur. agr. chem. and eng, 39–42; *director hemp div, commodity credit corp, 42–* Eng. Board Rev, Florida Everglades, 27; flood control, Newport, Ark, 29. Agr. Eng. (pres, 23); Civil Eng; Wash. Eng. Soc. Drainage; irrigation; farm structures and machinery.

McCrosky, Prof. Carl R(aymond), Syracuse University, Syracuse, N. Y. *Chemistry.* Rosewood, Ohio, March 16, 90. A.B, Ohio Wesleyan, 12; fellow, Ohio State, 13–15, A.M, 15, Ph.D, 18. Instr, high sch, Pa, 12–13; asst. instr. chem, Ohio State, 15–17; instr, Oregon State Col, 17–18; Col. City of N. Y, 18–19; assoc. prof. and *prof. anal. chem, Syracuse, 19–, head dept. chem, 39–* A.A; Chem. Soc. (chairman, Syracuse sect, 29); N. Y. Acad. Inorganic and analytical chemistry; selenium and its compounds; compounds of rare elements, selenium in particular; chemistry in non-aqueous media.

McCrudden, Dr. Francis H(enry), 19 Stoneleigh Road, West Newton, Mass. *Biochemistry, Internal medicine.* Boston, Mass, Jan. 5, 79. B.S, Mass. Inst. Tech, 00; M.D, Harvard, 08; Wurzburg, 08–10; Munich, 13. Asst. biochem, Harvard Med. Sch, 06–08; pharmacol, Wurzburg, 09–10; chief chem. lab, Rockefeller Inst. Hosp, 10–13; director labs, Robert Brigham Hosp, 13–20; asst. prof. applied therapeut, Tufts Col, 14–18, prof, 18–24; *asst. med. director, New Eng. Mutual Life Ins. Co, 24–* Chief med. service, U. S. Pub. Health Service Hosp. No. 36, 20–23; visiting physician, House of the Good Samaritan and physician to out-patients, Mass. Gen. Hosp, 23– Major, U.S.A.R. A.A; Soc. Biol. Chem; Soc. Exp. Biol; Am. Med. Asn; Harvey Soc. Pharmacology; metabolism in chronic diseases; effect of treatment on metabolism.

McCrumb, F(red) R(odgers), S. Rolling Road, Catonsville, Md. *Chemistry.* Pittsburgh, Pa, Nov. 15, 93. B.S, Westminster Col. (Pa), 17; M.S, Illinois, 20. Teaching fellow, Illinois, 19–20; research chemist, Chem. Warfare Service, 20–25; chief chemist, LaMotte Chem. Co, Baltimore, 25–30; *chem. director, W. A. Taylor and Co, Inc, Baltimore, 30–* Chem. Soc. Apparatus and methods for determination of hydrogen ion concentration, chlorine and phosphate and for water analysis; synthesis, purification and standardization of hydrogen ion concentration indicators.

McCubbin, Dr. R(obert) J(ohn), Minnesota Mining and Mfg. Co, St. Paul, Minn. *Organic chemistry.* Milton Junction, Wis, April 12, 03. B.S, Wisconsin, 25, M.S, 27, Ph.D, 29. Asst. chem, Wisconsin, 25–29, instr, 28–32, fellow, Alumni Research Foundation, 32–33; *chemist, Minn. Mining and Mfg. Co, 37–* Oxidation of di-isobutylene and tri-isobutylene by ozone; preparation and properties of di-tertiary aliphatic and aliphatic-aromatic ketones; synthetic resins; drying oils and waxes; synthetic elastomers.

McCubbin, W(alter) A(lexander), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Ont, Can, Jan. 2, 80. B.A, Toronto, 08, M.A, 09; Harvard, 10–11. Asst. bot, Toronto, 08–10, Ont. Agr. Col, 11, lecturer, 11–12;

asst. to Dom. botanist, in charge plant path. field lab, Ont, 12–19; plant pathologist and asst. director, State Bur. Plant Indust, Pa, 19–30; *senior plant pathologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–* A.A; Phytopath. Soc. Fruit diseases; plant quarantines.

McCue, Dr. J(ohn) J(oseph) G(erald), Hamilton College, Clinton, N. Y. *Physics.* South Orange, N. J, Dec. 25, 13. A.B, Harvard, 36; Ph.D, Cornell, 42. Tech. asst, Bell Tel. Labs, 30–32; asst. *physics,* Cornell, 36–41; *instr, Hamilton Col, 41–* A.A; Asn. Physics Teachers. X-ray absorption; inner shell ionization cross sections.

McCullagh, Dr. D(ouglas) Roy, Cleveland Clinic, 2040 E. 93rd St, Cleveland, Ohio. *Biochemistry.* Douglas, Man, Can, March 16, 03. B.A, Manitoba, 24, B.S, M.S, 25; 1851 Exhib. scholar, Cambridge, 28, Beit Mem. fellow, 28–29, Ph.D, 29. Asst. biochem, med. sch, Manitoba, 24–25, instr, 25–26; supervisor physiol, Cambridge, 27–29; *director biochem. research,* Cleveland Clinic, 30–41; *Ben Venue Labs, Inc, 41–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Study Int. Secretions; Cleveland Acad. Med; assoc. Inst. Chem. Gt. Britain and Ireland. Biochemistry of plant glucosides and muscle; endocrinology with special reference to the sex glands and the thyroid; desiccated human plasma and penicillin.

McCulloch, Dr. Ernest C(arr), State College of Washington, Pullman, Wash. *Pathology, Bacteriology.* Los Angeles, Calif, Oct. 24, 99. D.V.M, Kans. State Col, 24; A.M, Illinois, 28; indust. fellow, Wisconsin, 30–33, Ph.D, 32. Instr. animal path, Illinois, 26–28; prof. bacter, Ala. Polytech, 28–30; supervisor milk control, St. Louis, 33–35; biol. research, Pa. Salt Mfg. Co, 35–36; assoc. prof. *bacter. and parasitol, State Col. Wash,* 36–41, *prof, 41–, research veterinarian, Exp. Sta, 36–, prof. bacter, health research inst, 36–* A.A; Soc. Bact; Vet. Med. Asn; Int. Asn. Dairy and Milk Inspectors. Animal hygiene; germicidal and viricidal efficiencies of chemical and physical agents; disinfection; sterilization.

McCulloch, Dr. Hugh, 325 N. Euclid Ave, St. Louis, Mo. *Pediatrics.* Marianna, Ark, Aug. 20, 88. A.B, Arkansas, 08; M.D, Hopkins, 12. From asst. med. to asst. prof. *clin. pediat, Washington (St. Louis),* 12–37, *assoc. prof, 37–* Assoc. ed, 'Am. Heart Jour,' 26–; ed, 'Jour. Pediat,' 32– Director, Am. Board Pediat, 41– Pediat. Soc. (sec'y, 31–); Acad. Pediat; Heart Asn. (past director). Heart disease in children; growth and development.

McCulloch, Lucia, 1326 Euclid St, N. W, Washington, D. C. *Plant pathology.* Cincinnati, Ohio, Feb. 26, 73. B.S, Florida, 02. Asst. biol, Florida, 01–03; teacher, Fla. State Nor. Sch, 03–05; asst, sub-trop. lab, Miami, Fla, 05–06; teacher, high sch, Fla, 06–07; sci. asst, lab. plant path, bur. plant indust, U. S. Dept. Agr, 07–12, asst. pathologist, 12–27, assoc. pathologist, 27–41; *retired.* A.A; Phytopath. Soc. Diseases of plants.

McCulloch, Dr. Warren S(turgis), 133 N. Washington, Hinsdale, Ill. *Physiology.* Orange, N. J, Nov. 16, 98. A.B, Yale, 21; A.M, Columbia, 23, M.D, 27. Intern, Bellevue Hosp, New York, 27–28; instr. psychol, Seth Low Junior Col, Columbia, 30; physician, Rockland State Hosp, Orangeburg, N. J, 32–34; fellow, Yale, 34–35, Sterling fellow, 36–36, instr. neurophysiol, 36–40, asst. prof, 40–41; *assoc. prof. psychiat, col. med, Illinois, 41–* A.A; Physiol. Soc; Asn. Research Nervous and Mental Disease. Neurophysiology; functional organization of the central nervous system; experimental convulsions; physiology of cerebral cortex.

McCullough, Dr. A(lbert) W(illiam), University of Arkansas School of Medicine, Little Rock, Ark. *Histology, Embryology, Cytology.* Dearborn Co, Ind, July 19, 01. A.B. and B.S, Cent. Mo. State Teachers Col, 29; A.M. and Ph.D, Kansas, 37. Asst. instr. histol. and embryol, Kansas, 34–38; assoc. prof. zool. and comp. anat, Cent. Mo. State Teachers Col, 38–39; instr. *histol, embryol. and neuro-anat, sch. med, Arkansas,* 39–42, *asst. prof, 42–* Cell responses to physical environment, light in particular; histology and embryology of mesenchymal tissues.

McCullough, Dr. (Campbell) Rogers, Monsanto Chemical Co, Dayton, Ohio. *Chemistry, Chemical engineering.* Washington, D. C, April 12, 00. A.B, Swarthmore Col, 21; M.S, Mass. Inst. Tech, 22, du Pont fellow, 27–28, Ph.D, 28. Chemist, Hygrade Lamp Co, Mass, 22–26; *research chemist and chem. engineer,* Swann Research Inc, 28–41; *Monsanto Chem. Co,* Ala, 28–41, *cent. research div, 41–* Chem. Soc. (asst. ed, 'Nucleus,' 26–28). Preparation of alkyl bromides and diphenyl derivatives; physical properties of alkyl bromides; pilot plant fractionating column; spiral tube fractionating column; manufacture of phosphates; heat transmission; crystallization.

McCullough, Dr. C(onde) B(alcom), Oregon State Highway Department, Salem, Oregon. *Structural engineering.* Redfield, S. Dak, May 30, 87. B.S, Iowa State Col, 10, C.E, 16; LL.B, Willamette, 28; hon. D.Eng, Oregon State Col, 34. Designing engineer, State Highway Cmn, Iowa, 10–16; asst. prof. and prof. civil eng, Oregon State Col, 16–19; bridge engineer, *State Highway Dept, Oregon,* 19–32, *asst. chief engineer, 32–* Bur. pub. roads, U. S. Dept Agr, Cent. Amer, 35–37. Civil Eng; Concrete Inst; Northwest. Soc. Highway Eng. (pres, 24). Elastic arch bridges; economics of bridge design; bridge and building design; highway economics.

McCullough, E(rvin) W(esley), 3100 Harris, Independence, Mo. *Sanitary engineering.* St. Ansgar, Iowa, Sept. 11, 85. E.M, Met.E, Minnesota. Asst. prof. metal, Minnesota; director div. mining and metal, Republic Creosoting Co; consulting engineer, Sanit. Dist. of Indianapolis; prof. mining eng, Case; *consulting engineer.* Administrative board and assemblyman, Am. Eng. Council. Major, Sanit.R.C. Min. and Metal. Eng; Chem. Soc; Ind. Eng. Soc. (past pres, trustee). Garbage disposal; municipal wastes; utilization of waste products.

MacCullough, Prof. Gleason H(arvey), Worcester Polytechnic Institute, Worcester, Mass. *Engineering mechanics.* Sawyerville, Que, Can, Sept. 9, 95. B.S, Worcester Polytech, 18, M.S, 31; Sc.D, Michigan, 32. Instr. and *prof. mech. eng, Worcester Polytech, 18–* Eng. Educ; Mech. Eng. Strength of materials.

McCullough, Prof. J(ames) C(aldwell), Oberlin College, Oberlin, Ohio. *Chemistry, Metallography.* Mansfield, Ohio, Aug. 15, 84. B.S, Case, 06, M.S, 10. Chemist, Dow Chem. Co, Mich, 06–07; instr. *chem, Oberlin Col,* 07–11, assoc. prof, 11–26, *prof, 26–* A.A; Chem. Soc. Physical chemistry; metallography; photography.

McCullough, Dr. James D(ouglas), University of California at Los Angeles, Los Angeles, Calif. *Chemistry.* Oskaloosa, Iowa, May 17, 05. A.B, California, 32; Ph.D, Calif. Inst. Tech, 36. Assoc. *chem, California at Los Angeles,* 32–36, instr, 36–41, *asst. prof, 41–* Chem. Soc. Chemistry of selenium; crystal structure.

McCune, Joseph C(ondit), 420 Locust St, Edgewood, Pa. *Engineering.* Brilliant, Ohio, Jan. 9, 90. M.E, Cornell, 11. *Director research, Westinghouse Air Brake Co.* Mech. Eng; Soc. Automotive Eng; Welding Soc; Eng. Soc. West. Pa. Railway apparatus.

McCune, Dr. Robert F(ranklin), 31 Owen St, Hartford, Conn. *Physics.* Muncie, Ind, Aug. 23, 15. A.B, Manchester Col, 37; M.S, Illinois, 39, Ph.D, 41. Teaching asst. physics, Illinois, 37–41; *anal. engineer, Hamilton Standard Propellers, 41–* A.A; Physical Soc. A photochemical method for separating the oxygen isotopes.

McCune, Dr. Shannon (Boyd Bailey), Ohio State University, Columbus, Ohio. *Geography.* Syenchun, Korea, April 6, 13. A.B, Col. Wooster, 35; A.M, Syracuse, 37; Michigan, 37; Ph.D, Clark, 39. *Instr. geog, Ohio State, 39–* Summers, instr, Miami (Ohio), 38–40. Geography of Korea; climatic cycles; geography of Ohio.

MacCurdy, Dr. George Grant, Old Lyme, Conn. ***Anthropology.* Warrensburg, Mo, April 17, 63. A.B, Harvard, 93 A.M, 94; Vienna, 95–96; Paris, 96–97; Berlin, 97–98; Ph.D Yale, 05. Prin, pub. schs, Mo, 87–91; instr. prehist. anthrop *Yale,* 98–00, lecturer anthrop, 02–10, asst. prof, 10–23, researcl assoc, 23–31, curator *anthrop. collection,* 02–31, *emer. curator 31–; director, Am. Sch. Prehist. Research,* 21–22, *24–, trustee* Trustee, Lab. Anthrop, Santa Fe. Hon. collaborator, Smithsonian Institution. Del. from Paris Anthrop. Soc, Int. Cong Americanists, N. Y, 02; del. from Yale, City of Mex, 10; chair man, U. S. delegation, and Southwest Museum del. and v. pres Cong. Int. des Sciences préhist. et protohist, Oslo, 36. A.A (sec'y, H, 01, v. pres, 05); Anthrop. Asn. (sec'y, 03–16, pres 31); Archeol. Inst; fel. Ethnol. Soc; Philos. Soc; Galton Soc Soc. Arts and Sciences; Anthrop. Soc. Wash; Mo. Hist. Soc Numis. and Antiq. Soc. Phila; hon. cor. mem. Prehist. Soc Gt. Britain; Soc. d'Anthrop. de Paris; Schweiz. Anthrop Gesell; Soc. Ital. d'Anthrop. Rome; cor. mem. Portugues

Inst. Coïmbra. Prehistoric archeology; physical anthropology; eolithic problem; cranial characters of inhabitants of New Pomerania; skeletal remains from the highlands of Peru; human origins; coming of man; prehistoric man; Chiriquian antiquities; antiquity of man in Europe.

McCurdy, Ralph G(ordon), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Eureka, Calif, Jan. 29, 91. B.S, California, 13. Joint Cmt. on Inductive Interference, Calif, 13–16; Am. Tel. and Tel. Co, 16–34; *Bell Tel. Labs, 34–, director elec. apparatus develop.* Fel. Elec. Eng; Acoustical Soc; Radio Eng. Electrical communication.

McCurdy, Dr. T(homas), 306 N. 14th St, Omaha, Nebr. *Pathology.* Leigh, Nebr, Nov. 14, 01. Ph.G, Creighton, 23, B.S, 27, M.D, 29. Asst. path, *sch. med, Creighton,* 31–32, instr, 32–34, path. and bacter, 34–35, asst. prof. *path,* 35–42, *assoc. prof, 42–* Asst. attending pathologist, St. Joseph's Hosp, 35–42, assoc. attending pathologist, 42–; St. Catherine's Hosp, 34–42; Douglas Co. Hosp, 42– Fel. Am. Med. Asn; fel. Soc. Clin. Path; Omaha Mid-West. Clin. Soc. Clinical pathology; hematology.

McCurdy, Dr. W(illiam) H(arold), 53 Mountain Ave, Caldwell, N. J. *Physics.* Old Barns, N. S, Can, Aug. 1, 97. B.A, Dalhousie, 21, M.A, 22; 1851 Exhib. scholar, Princeton, 22–24, Ph.D, 25. Instr, Princeton, 24–25; nat. research fellow, 25–27; assoc. prof. physics, Washington (Seattle), 27–29; *Westinghouse Lamp Co, 29–* Fel. Physical Soc. Discharges in mercury vapor and helium; absorption, resonance and refractive index in excited helium.

McCusker, Dr. P(atrick) A(loysius), University of Notre Dame, Notre Dame, Ind. *Inorganic chemistry.* Niagara Falls, N. Y, Feb. 3, 05. A.B, Niagara, 26; Rochester, 28–29; M.S, Notre Dame, 30, Ph.D, 37; Texas, 32–33. Instr. *chem,* Carroll Col. (Mont), 30–31; St. Edward's, 31–36; *Notre Dame,* 37–40, asst. prof, 40–43, *assoc. prof, 43–* Summers, instr, exten, Pa. State Col, 41. Chem. Soc. Coordination compounds; reactions of boron fluoride.

McCuskey, Dr. S(idney) W(ilcox), Case School of Applied Science, Cleveland, Ohio. *Astronomy.* Cuyahoga Falls, Ohio, Feb. 28, 07. B.S, Case, 29; M.S, Mass. Inst. Tech, 30; Ph.D, Harvard, 36. Instr. math. and astron, Case, 30–34; asst. astron, Harvard, 34–36; instr. *math. and astron, Case,* 36–37, asst. prof, 37–42, *assoc. prof, 42–* A.A; Astron. Soc. Statistics of stellar distributions and motions.

McCutcheon, Prof. F(rederick) H(arold), North Carolina State College, Raleigh, N. C. *Zoology.* Abernethy, Sask, Can, Dec. 31, 07. B.S, N. Dak. Col, 32, M.S, 33; Ph.D, Duke, 36. Asst. *zool,* N. Dak. Col, 32–33; Duke, 33–35, instr, 35–36; asst. prof, *N. C. State Col,* 36–41, assoc. prof, 41–43. *prof, 43–* A.A; Soc. Zool; N. C. Acad. Hemoglobin function; respiration; blood.

McCutcheon, Dr. Morton, Alden Park Manor, Germantown, Pa. *Pathology.* Philadelphia, Pa, June 2, 88. A.B, Pennsylvania, 10, M.D, 17. Instr. *path, sch. med, Pennsylvania,* 19–26, asst. prof, 26–34, assoc. prof, 34–40, *prof, 40–* A.A; Soc. Exp. Path. (councilor, 36, v. pres, 37, pres, 38); Soc. Exp. Biol; Asn. Path. and Bact; Path. Soc. Phila. (v. pres, 32, pres, 34–36); Physiol. Soc. Phila. Locomotion and chemotaxis of leucocytes; permeability; osmosis; phagocytosis.

McCutcheon, Prof. Thomas P(otter), Jr, Downingtown, Pa. *Chemistry.* Philadelphia, Pa, July 27, 81. A.B, Pennsylvania, 03, Ph.D, 07. Instr. qualitative anal, *Pennsylvania,* 04–07, inorg. chem, 07–10, asst. prof. *chem,* 10–18, *prof, 18–* A.A; Chem. Soc. Electro-analysis; preparation of colloidal solution by electrolysis with mercury cathodes; platinum metals; preparation of optically active cobalt compounds; complex cobalt compounds.

McDaniel, A(llen) B(oyer), Waterford, Va. *Civil engineering.* Exeter, N. H, Sept. 5, 79. B.S, Mass. Inst. Tech, 01. Struct. engineer, Purdy and Henderson, 02–03; Ft. Pitt Bridge Works, 03–05; asst. engineer, East River div, Pa. Tunnels, 05–06; instr. civil eng, Case, 06–07; prof, South Dakota, 07–12; asst. prof, Illinois, 12–16; head dept. gen. eng, Union (N. Y), 16–18; acting prof. civil eng, George Washington, 18–20; expediting engineer, construction div, U. S. Army, 18–19, prin. engineer, 19–20, consultant, civilian advisory board, Gen. Staff, 20–24; *director, The Research Service, and consulting engineer, 24–* Pres, Mo. Valley Eng. Co, 09–11; consultant, Nat. Resources Cmt, 36–; professional lecturer, George Washington. Wason medal, Am. Concrete Inst, 16. A.A; Civil Eng; Eng. Educ; Eng. Asn. (v. pres, 20); Inst. Consulting Eng; D. C. Council Eng. and Archit. Soc. (chairman, 37–42); Wash. Soc. Eng. (v. pres, 31, pres, 32). Industrial research; structural and hydraulic engineering.

McDaniel, Dr. A(lonzo) S(impson), Woodward Bldg, Washington, D. C. *Chemistry.* White Lick, Ind, May 27, 82. A.B, Wabash Col, 04; A.M, Wisconsin, 05, Ph.D, 09. Asst. prof. chem, Bellevue Col, 05–06; instr, Wisconsin, 06–09; asst. chemist, Bur. Standards, 09–13; research chemist, Eastman Kodak Co, Rochester, 13–18; consulting chemist and patent attorney, Pennie, Davis, Marvin and Edwards, New York, 19–25; *director research and patent dept, Niagara Sprayer and Chem. Co, 25–* Consulting chemist and patent attorney, 30– Tech. director operations exp. plant, develop. div, C.W.S, 18–19. A.A; Chem. Soc; Electrochem. Soc; Phytopath. Soc. Potentials of peroxide electrodes; absorption of hydrocarbon gases in organic liquids; the silver voltameter; electrolytic assays of silver; thermodynamics of osmosis; electrolytic production of para-amino-phenol; colloidol bentonite.

McDaniel, Dr. Boyce D(awkins), University of California, Berkeley, Calif. *Nuclear physics.* Brevard, N. C, June 11, 17. A.B, Ohio Wesleyan, 38; M.S, Case, 40; Ph.D, Cornell, 43. Asst. physics, Case, 38–40; Cornell, 40–43; staff mem, radiation lab, Mass. Inst. Tech, 43; *physicist, California, 43–* Physical Soc. Slow neutron spectroscopy.

McDaniel, Prof. Eugenia (Inez), Michigan State College, East Lansing, Mich. *Entomology.* La Crosse, Kans, 84. A.B, Kansas, 08. Prin, high sch, Kans, 09–10; *Mich. State Col, 10–, assoc. prof. entom.* A.A. Control of household and greenhouse insects; Coccidae; insect life history; shade and forest tree insects.

McDaniel, Dr. Paul W(illiam), Alabama Polytechnic Institute, Auburn, Ala. *Nuclear physics.* Robards, Ky, Jan. 1, 16. B.S, West. Ky. State Teachers Col, 36; M.S, Indiana, 38, Ph.D, 41. Asst. *physics,* Indiana, 37–41; *instr, Ala. Polytech, 41–; capt, U. S. Army, 42–* Physical Soc. Coincidences between beta and gamma rays emitted by various radioactive substances.

McDaniels, Dr. H(erbert) E(li), 1800 W. Fillmore St, Chicago, Ill. *Bacteriology.* Chicago, Ill, July 3, 04. B.S, Chicago, 25; M.S, Illinois, 32, Ph.D, 37. *Coordinating bacteriologist, State Dept. Pub. Health, Ill, 37–; asst. prof. bacter. and pub. health, col. med, Illinois, 40–; capt, Sanit. Corps, U. S. Army.* A.A; fel. Pub. Health Asn. Infectious diseases.

MacDaniels, Prof. L(aurence) H(owland), 422 Chestnut St, Ithaca, N. Y. *Botany, Horticulture.* Fremont, Ohio, Oct. 21, 88. A.B, Oberlin Col, 12; Ph.D, Cornell, 17. Asst. farm course and bot, *Cornell,* 12–13, instr. bot, 13–17, asst. prof pomol, 20–23, prof, 23–40, *prof. hort. and head dept. floricul. and ornamental hort, 40–* Research assoc, Bishop Museum, Honolulu, 26–28. Relief exped, Armenia and Syria. Mem. bot. raw products cmt, Nat. Research Council, 17; Bur. Aircraft Production, 18. A.A; Bot. Soc; Soc. Hort. Sci. (pres, 40); Soc. Nat. Plant histology and anatomy; phloem development in ontogeny of woody angiosperms; pollination of fruits; plant propagation; botany; ornamental horticulture; floriculture.

McDermott, Elizabeth B(riggs), University Hospital, Ann Arbor, Mich. *Bacteriology.* Bourne, Mass, March 22, 02. Tufts Col, 21–23; Simmons Col, 23–25; Michigan, 32. Serologist, State Dept. Health, Mich, 26–28; *univ. hosp, Michigan,* 28–29, teaching and research assoc, 29–37, *serologist, 38–* Mich. Acad. Serum diagnosis of syphilis; tissue reactions in immunity.

McDermott, Frank A(lexander), 815 W. 32nd St, Wilmington, Del. *Chemistry.* Washington, D. C, Aug. 3, 85. B.S, Pittsburgh, 13, M.S, 14. Chem. div, hygienic lab, U. S. Pub. Health Service, 06–11; indust. fellow, Mellon Inst, 11–15; research chemist, Corby Co, 15–18; research chemist and bacteriologist, *E. I. du Pont de Nemours and Co,* 18–26, *chief chemist,* East. Alcohol Corp, and later *Deepwater Alcohol Plant, Penns Grove, N. J, 26–* A.A; Chem. Soc; Inst. Chem; Soc. Bact; Del. Soc. Nat. Hist; Soc. Chem. Indust. Gt. Britain. Utilization of cull citrus fruits; biophotogenesis; yeast and other fermentations.

McDermott, Dr. J(ohn) Joseph, Axton-Fisher Tobacco Co, Inc, Louisville, Ky. *Plant physiology.* Freehold, N. J, June 23, 16. B.S, Duke, 37, A.M, 39, Ph.D, 41; Rutgers, 37–38.

Instr. chem, Washington and Lee, 41–42; *asst. chemist, Axton-Fisher Tobacco Co, Inc, 42–* Chem. Soc; Soc. Plant Physiol; Bot. Soc. Respiration; biochemistry.

McDiarmid, Dr. R(ichard) J(ohn), Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* Fingal, Ont, Sept. 13, 85. B.A, Toronto, 10; fellow, Pittsburgh, 10–11, M.S, 11; fellow, Princeton, 12–15, Ph.D, 15. *Astronomer, Dom. Observatory,* 11–12, *15–* Gold medal, Royal Astron. Soc. Can, 10. A.A; fel. Royal Astron. Soc. Can. (sec'y, Ottawa cent, 20–22, pres, 22–24); fel. Royal Astron. Soc. Variable stars of the algol type; meridian circle observations.

McDill, Prof. R(obert) M(cKee), 129 E. Seventh St, Hastings, Nebr. *Mathematics.* Richland, Ind, March 25, 72. A.B, Indiana, 94, A.M, 98; Colorado. Teacher, pub. sch, Ind, 95–07; prof. *math,* Fremont Col, 07–19; *prof. and head dept, Hastings Col, 19–* A.A; Math. Asn. (chairman, Nebr. sect, 37); Nat. Council Teachers Math; Nebr. Acad. Transfer of mental training; geometry.

McDole, G(uy) R(aymond), Soil Conservation Service, Spokane, Wash. *Soils, Agronomy.* Evanston, Ill, April 16, 86. B.S, A.M, Nebraska, 11. Asst. agr. chem, Exp. Sta, Nebraska, 11–13; div. soils, Exp. Sta, Minnesota, 16–17, asst. soils chemist, 19–20, asst. prof. soil chem, univ, 19–20; assoc. prof. agron, Idaho, and soil technologist, Exp. Sta, 20–31, soil specialist, 31–34; soil erosion service, *U. S. Dept. Agr,* 34–35, soil conservationist and senior soil conservationist, *soil conservation service,* 35–42, *zone technician, 42–* U.S.A, 17–19. Soil physics and chemistry; glutaric acids; soil moisture; farming practises for the cut-over lands of northern Idaho.

MacDonald, Dr. A(ngus) D, Berwyn, Md. *Animal industry.* Bad Axe, Mich, July 5, 91. D.V.M, U. S. Col. Vet. Surgeons, 24. *Asst. veterinarian, biochem. div, bur. animal indust, U. S. Dept. Agr, 22–* Vet. Med. Asn; Soc. Bact. Pullorum antigen development; germicidal efficiency of orthophenylphenol against Mycobacterium tuberculosis.

McDonald, Dr. Charles A(nthony), 106 Waterman St, Providence, R. I. *Neurology.* Providence, R. I, June 4, 80. Ph.B, Brown, 03; M.D, Harvard, 07. *Asst. prof. health and neurologist, Brown; instr. neur, Harvard Med. Sch.* Neurologist, Mass. Gen. Hosp; Mass. Eye and Ear Hosp; St. Joseph's Hosp; R. I. Hosp. Trustee, R. I. State Col, 24–29. Neur. Asn; Asn. Research Nervous and Mental Disease; Psychiat. Asn; Psychopath. Asn. Clinical neurology.

McDonald, Dr. C(laude) H(arrison), 5309 T St, Little Rock, Ark. *Physiology.* Bethpage, Mo, Dec. 4, 91. B.S, Kans. State Teachers Col, 26; M.S, Iowa State Col, 27; fellow, Hopkins, 29–30, Sc.D, 31. Asst. prof. *physiol,* Kans. State Teachers Col, Pittsburg, 27–28, assoc. prof, 28–30; *prof. and head dept, sch. med, Arkansas, 30–* Physiol. Soc. Gaseous exchange in vitamin deficiencies; purification and administration of heparin; various cations and the rhythmicity of the heart; carotid sinus and hypertension; oxygen consumption, response to epinephrine and reserve of the hyperthyroid heart.

McDonald, Prof. Clinton C, University of Wichita, Wichita, Kans. *Botany, Bacteriology.* West Baden, Ind, Feb. 4, 93. A.B, Indiana, 22, A.M, 24, Ph.D, 26. Teacher, high sch, 17–20; instr, Indiana, 22–26; *prof. bot. and bacter. and director dept, Wichita, 26–, director health service to students.* A.A; Soc. Bact; Genetic Asn; Kans. Acad. Physiology.

McDonald, Dr. Ellice, Newark, Del. *Surgery.* Ft. Ellice, Can, Oct. 27, 76. B.A, McGill, 97, M.D, 01. Instr. surg, N. Y. Post-Grad. Med. Sch. and Hosp, 07–16; asst. prof. gynec, grad. sch. med, Pennsylvania, 22–35, director cancer research, 28–35; *director, Biochem. Research Foundation, Franklin Inst, 35–* Gold medal, Int. Faculty Sciences, 37. Can. Army Med. Service, 16–19. A.A; fel. Col. Surg; Am. Med. Asn; Chem. Soc; Electrochem. Soc; Physical Soc; Faraday Soc; Path. Soc. Phila; N. Y. Path. Soc; Biochem. Soc. Gt. Britain. Biochemistry of cancer; cellular studies, radiation and experimental therapeutics in cancer; wounds.

McDonald, Dr. Emma J(anet), 3726 Warren St, N.W, Washington, D. C. *Chemistry.* Portage, Wis, March 20, 03. A.B, Lawrence Col, 24; A.M, Illinois, 26; Ph.D, Maryland, 35. Chemist, Carborundum Co, 28–29; *asst. chemist, Bur. Standards, 29–* Chem. Soc. Constitution and hydrolysis of inulin; defructose anhydrides and their structure; partially methylated fructoses; sugar analysis.

McDonald, Dr. Francis G(uy), Mead Johnson and Co, Evansville, Ind. *Biochemistry.* Henderson, Ky, Aug. 9, 02. B.S, Purdue, 24; fellow, Rutgers, 27–29, M.S, 28, Ph.D, 29. Asst. biochemist, *Mead Johnson and Co,* 24–27, *research biochemist, 29–* A.A; Chem. Soc; Soc. Biol. Chem. Calcium metabolism; nutrition; vitamins; sterols; pyrazine compounds.

McDonald, Prof. F(rank) C(obb), Southern Methodist University, Dallas, Texas. *Physics.* Warrensburg, Mo, 98. B.S, Mo. State Teachers Col, 20; M.S, Chicago, 22, Ph.D, 26. Asst. prof. *physics,* Oberlin Col, 26–29; *prof, South. Methodist, 29–* A.A; Physical Soc; Asn. Physics Teachers. Spectroscopy; electrical measurements.

MacDonald, Prof. G(ilmour) B(yers), Iowa State College, Ames, Iowa. *Forestry.* Carleton, Nebr, March 9, 83. B.S, Nebraska, 07, M.F, 14. U. S. Forest Service, 07–10; *prof. forestry, Iowa State Col, 10–; state forester, Iowa, 35–* Soc. Foresters; Am. Acad. Forestry in Iowa.

Macdonald, Dr. Gordon A(ndrew), 333 Federal Bldg, Honolulu, Hawaii. *Petrography.* Boston, Mass, Oct. 15, 11. A.B, California at Los Angeles, 33, A.M, 34; Ph.D, California, 38. Teaching asst. geol. sciences, California, 36–38; asst. geologist, Shell Oil Co, 38–39; *U. S. Geol. Surv,* 39–41, *assoc. geologist, 41–* Miner. Soc. Volcanology; ground-water geology; petrography and petrology of Hawaiian volcanoes; geologic mapping and ground water investigations in Hawaii.

McDonald, Prof. Hugh J(oseph), Illinois Institute of Technology, Chicago, Ill. *Physical chemistry.* Glen Nevis, Ont, Can, July 27, 13. B.Sc, McGill, 35; Mining Advisory Board fellow, Carnegie Inst. Tech, 35–36, fellow, 35–39, M.S, 36, D.Sc, 39. Asst. *chem,* Carnegie Inst. Tech, 36–38, instr, 38–39; *Ill. Inst. Tech,* 39–41, asst. prof, 41–43, *assoc. prof, 43–* Summer, war research, Columbia, 43. A.A; Chem. Soc. Calorimetry; low temperature; kinetics; electrochemistry; solution properties.

Macdonald, Dr. Ian G(ibbs), 1407 S. Hope St, Los Angeles, Calif. *Oncology.* Calgary, Alta, Can, April 9, 03. M.D, McGill, 28. Intern and house surgeon, Montreal Gen. Hosp, 27, 28–30; res. pathologist, univ. hosp, Michigan, 31; instr. surg, Toronto, 32; surg. path, Southern California, 32–34; director, Ogden Mem. Tumor Clinic, 35–38; asst. clin. research, Am. Col. Surg, 38–41; *assoc, Los Angeles Tumor Inst, 41–; instr. surg, Southern California.* Res. surgeon, Toronto Gen. Hosp, 32. Pathology of bronchial asthma; histology of biliary ducts; cancer and allied diseases; bone sarcoma; mammary tumors.

MacDonald, Prof. J(ames) K(eene) L(orne), Cooper Union, New York, N. Y. *Applied mathematics.* Sydney, N. S, Can, Oct. 28, 05. B.Sc, McGill, 27, M.Sc, 28, Nat. Research Council Can. bursar, 28–29; 1851 Exhib. scholar and Emmanuel Col. student, Cambridge, 29–32, Ph.D, 32. Demonstrator physics, McGill, 27–28; demonstrator and lecturer math. physics, Toronto, 32–36; instr. *math, Cornell,* 36–38, *asst. prof, 38–* Stark effect in hydrogen theory of H and H_2; theory of variational and iteration methods for approximate solution of linear differential equations; two center wave equation; singular end points and expansion theorems for linear differential equations with applications.

McDonald, Prof. J(ohn) H(ector), University of California, Berkeley, Calif. *Mathematics.* Toronto, Ont, Can, Dec. 11, 74. B.A, Toronto, 95; Ph.D, Chicago, 00. From instr. to assoc. prof. *math, California,* 02–27, *prof,* 27– Abelian integrals; transformation of elliptic functions; differential equations of elliptic cycles; automorphic functions; abstract groups; forms of algebraic curves; invariants; Sturmian sequences.

MacDonald, Dr. Kenneth, 615 N. Dubuque St, Iowa City, Iowa. *Hygiene, Preventive medicine.* Fennimore, Wis, Nov. 3, 09. A.B, Park Col, 33; M.S, Iowa, 36, Ph.D, 39. *Instr. hygiene and prev. med, Iowa, 39–* A.A; Pub. Health Asn; Soc. Trop. Med. Air-borne infection; parasitic diseases.

MacDonald, Dr. Margaret B(axter), Citronelle, Ala. *Biochemistry.* Charlottesville, Va, Feb. 21, 70. Pa. State Col, 93–95; B.S, Mt. Holyoke, 98; Pennsylvania, 99–00; Ph.D, Bryn Mawr Col, 02; Hopkins, 19–20; Illinois, 24–25. Teacher, N. J. State Nor. Sch, Trenton, 02–04; Vassar Col, 04–05; asst. chem, Exp. Sta, Delaware, 05–07; asst. prof. agr. chem. and later prof. food and nutrition, Pa. State Col, 07–19; assoc. chem. hygiene, Hopkins, 20–24; biochemist, Exp. Sta, Tennessee,

24–32; *retired.* Visiting research fellow, Iowa State Col, 32–35. A.A; Chem. Soc. Organic chemistry; nutrition.

McDonald, Dr. Margaret R(itchie), Rockefeller Institute for Medical Research, Princeton, N. J. *Biochemistry.* Govan, Scotland, May 24, 10. B.S, Rutgers, 30, Ph.D, 40. Tech. asst. *gen. physiol, Rockefeller Inst,* 30–40, fellow, 40–41, *asst, 41–* Enzymes.

Macdonald, Dr. P(atrick) A(nderson), University of Manitoba, Winnipeg, Man, Can. *Biophysics.* Winnipeg, Man, Jan. 9, 03. B.Sc, Manitoba, 24, Nat. Research Council Can. bursar, 25–26, M.Sc, 27, Hudson Bay fellow, 28, Ph.D, 30. Asst, Nat. Research Council Can, 29; *physicist, Univ. Man, 30–; Man. Cancer Relief and Research Inst, 30–; Winnipeg Gen. Hosp, 30–* Research prize, Sci. Club Winnipeg, 31. Radiation therapy; absorption spectrophotometry.

Macdonald, R(obert), Jr, Lewiston, N. Y. *Chemistry.* Baird, Texas, Dec. 4, 93. B.S, Virginia, 16, M.S, 17. Chemist, Aluminum Co. of Amer, 17; chief chemist and metallurgist and later *asst. gen. manager, Gen. Abrasive Co, Inc, 17–* Chem. Soc. Artificial alumina abrasives.

McDonald, Dr. R(oland) D(odge), Varcum Chemical Corp, Niagara Falls, N. Y. *Chemistry.* Picton, Ont, Can, Feb. 17, 10. B.Sc, Queen's (Can), 31, M.Sc, 33; Ph.D, McGill, 35. Assoc, Can. Inst. Chem, 35–36; *research chemist, Varcum Chem. Corp, 36–* Kinetics of gas reactions; photochemistry.

Macdonald, Dr. Ronald T(om), 2632 Hillegass Ave, Berkeley, Calif. *Chemistry.* Avonmouth, Eng, March 26, 04. B.S, California, 28, Ph.D, 32. Teaching fellow, California, 28–31, research assoc, 32–35; *research chemist, Standard Oil Co. of Calif, 36–* Chem. Soc. Spectroscopy; isotope separations; heavy water; petroleum lubricants.

Macdonald, Prof. S(tewart) L(incoln), 424 W. Olive St, Ft. Collins, Colo. *Mathematics.* Roscoe, Ohio, July 23, 73. B.S, Chicago, 11; A.M, Columbia, 13. Teacher and prin, pub. schs, Ind. and Colo, 94–02; instr. math, *Colo. State Col,* 02–05, *head dept. math. and astron, 05–,* v. pres, 38–39. Exchange instr, Columbia, 12–13. A.A; Math. Asn; Eng. Educ; Astron. Soc. Pacific. Origin and uses of coordinate systems; engineering curricula; curve of the price of lumber with respect to the average of 50 other commodities from 1860 to 1920.

McDonald, W(illard) F(loyd), U. S. Weather Bureau, Washington, D. C. *Meteorology, Hydrology.* Elkhart Co, Ind, Dec. 11, 91. Grad, Elkhart High Sch, 10. Asst. observer, *U. S. Weather Bur,* Macon, Ga, 11–15, mem staff and later assoc. meteorologist, New Orleans, 15–31, meteorologist, chief marine div, Wash. D. C, 31–36, prin. meteorologist, in charge forecast dist, New Orleans, 36–39, *special asst. to bur. chief, 39–* Fel. Meteorol. Soc; Inst. Aeronaut. Sci; Geophys. Union (int. cmt, Raz de Maree); New Orleans Acad. Climatology; weather influences affecting sugar production in Louisiana; tropical hurricanes; marine climatology and oceanography; floods in the Lower Mississippi Valley.

McDonnell, Dr. C(urtis) C(riss), 122 Hesketh St, Chevy Chase, Md. *Chemistry.* Florence, Pa, Feb. 25, 75. B.S, Maryland, 95, Sc.D, 20. Asst. chemist, Clemson Col, 96–07; bur. chem, *U. S. Dept. Agr,* 07–11, chief insecticide and fungicide lab, 11–28, senior chemist, 24–28, prin. chemist and chief insecticide div, food and drug admin, 28–40, *chief insecticide div,* agr. marketing service, 40–42, *food distribution admin, 43–* Chairman tech. cmt. on insecticides, Fed. Specifications Board, 24–41. A.A; Chem. Soc; Agr. Chem; Asn. Econ. Entom; Wash. Acad. Manufacture of starch from sweet potatoes; rice plant and products; insecticides; arsenates of lead and calcium; hydrocyanic acid fumigation; fungicides; nicotine and nicotine soaps; bleaching powder; disinfectants; pyrethrum; administration of the federal insecticide act.

McDonnell, Dr. H(enry) B(arnett), University of Maryland, College Park, Md. *Chemistry.* Florence, Pa, Oct. 31, 63. B.S, Pa. State Col, 86, M.S, 09; M.D, Col. Physicians and Surg. Baltimore, 88; Hopkins, 91–92. Asst. chem, Pa. State Col, 84–85; Md. Col. Pharmacy, 87–88; Col. Physicians and Surg Baltimore, 87–88; asst. chemist, Exp. Sta, Pa. State Col, 88–91; prof. agr. chem, Maryland, 91–92, chem, 92–22, dean sch. science, 14–21, chemist, path. investigations, Exp. Sta, 22–29, prof. agr. chem, univ, 29–38; *retired.* State chemist, Md, 92–22. A.A; Chem. Soc; Agr. Chem. (pres, 29); Am. Med. Asn; Asn. Feed Control Officials (pres, 14).

McDonnell, Dr. John N(eumann), 43rd St. and Kingsessing Ave, Philadelphia, Pa. *Pharmacy, Pharmaceutical chemistry, Bacteriology.* Jenkintown, Pa, March 23, 10. B.S, Phila. Col. Pharmacy, 32, M.S, 33, Sc.D, 36; Pennsylvania, 34–36. Asst. business admin, *Phila. Col. Pharmacy,* 30–32, instr, 32–36, *asst. prof. pharmacy, 36–, asst. registrar, 35–, curator, 40–; chief* health supplies sect, statist. div, *War Production Board,* 41–42, *drug research, chem. div, 42–* Ed, 'Am. Professional Pharmacist,' 36–; format ed, 'Med. Times,' 36–; tech. ed, 'El Farmaceutico,' 41– A.A; fel. Inst. Chem; Pharmaceut. Asn; Soc. Bact; Am. Acad. Polit. and Social Sci. (pres); Chem. Soc; Pub. Health Asn; Acad. Polit. Sci. Bacteriology and hygiene; public health; preservation of medicinals and foodstuffs; sterilization of municipal water supplies.

McDonnell, Dr. M(ilton) E(arle), 910 Allegheny St, Hollidaysburg, Pa. *Bacteriology.* Florence, Pa, Feb. 26, 73. B.S, Pa. State Col, 93, M.S, 96; Ph.D, Kiel, 99. Asst. chemist and bacteriologist, Exp. Sta, Pa. State Col, 93–98; bacteriologist, *Pa. R. R. Co,* 99–15, asst. chief chemist, *Pa. system,* 15–21, *chief chemist, 21–* Special agent, State Dept. Agr, Pa, 97–98; mem, U. S. Tech. Cmt. Standardization of Petrol, 18–20. A.A; Chem. Soc; Pub. Health Asn; Soc. Test. Mat. Water examination and purification; disinfection; pathology; sanitation and chemistry applied to transportation

McDonnell, Dr. T(homas) F(rancis), 40 Glenview Place, Belleville, Ill. *Chemistry.* East St. Louis, Ill, Aug. 21, 07. B.S, Washington (St. Louis), 29, M.S, 30, Ph.D, 33. Rockefeller Foundation fellow, Washington (St. Louis), 33–34; metallurgist, Eagle Picher Lead Co, Joplin, Mo, 34–35; *research chemist, Geo. S. Mepham Corp, 35–* Organic synthesis.

McDonough, Dr. Donald L, 1205 Belfield Ave, Drexel Hill, Pa. *Mathematics.* Pine Grove, Pa, 95. A.B, Temple, 17; A.M, Pennsylvania, 22, Ph.D, 31. Teacher *math,* Friends Cent. Sch, Phila, 18–21; W. Phila. High Sch, 21–26; Overbrook High Sch, Phila, 26–42, *head dept, South Phila. High Sch. for Boys, 42–* Teacher, evening sch, Drexel Inst, 18– A.A; Math. Soc; Math. Asn. Arterial expansion; the expansion of a certain type of determinant.

McDonough, Prof. E(ugene) S(towell), 253 N. Pinecrest St, Milwaukee, Wis. *Botany, Genetics.* Abingdon, Ill, April 16, 05. B.S, Marquette, 28, M.S, 31; Ph.D, Iowa State Col, 36. Asst. *bot,* Marquette, 28–29; instr, Mich. State Col, 29–30; *Marquette,* 30–35, asst. prof, 36–40, *assoc. prof, 40–* A.A; Genetic Asn; Mycol. Soc; Phytopath. Soc; Bot. Soc; Genetics Soc; Wis. Acad. Mycology; phytopathology; cytology and host relations of Phycomycetes.

McDonough, F(rank) L(awrence), 107 Corbin Ave, Macon, Ga. *Entomology.* Millis, Mass, June 11, 88. B.S, Conn. Agr. Col, 11. Sci. asst, bur. entom, U. S. Dept. Agr, 13; *tech. director, Ansbacher-Siegle Corp, 33–* Entom. Soc; Soc. Indust. and Consulting Entom; Asn. Econ. Entom. Crop pest control; dusting.

McDonough, Sister M(ary) Rosa, St. Joseph College, West Hartford, Conn. *Psychology.* New Haven, Conn, Oct. 27, 84. A.B, Catholic Univ, 13, A.M, 18, Ph.D, 29. Teacher, St. Augustine Nor. Sch, 13–17, 23–26, 29–32; *head dept. psychol. and dean,* Mt. St. Joseph Col, 32–35, *St. Joseph Col. (Conn), 35–* A.A; assoc. Psychol. Asn; Col. Personnel Asn; Progressive Educ. Asn. Empirical analysis of character; character and body build in children; psychology of personality.

MacDougal, Dr. D(aniel) T(rembly), Route 170, Carmel, Calif. *[1]*Botany. Liberty, Ind, March 16, 65. B.S, DePauw, 90, A.M, 93, LL.D, 10; M.S, Purdue, 91, Ph.D, 97; Leipzig and Tübingen, 95–96; LL.D, Arizona, 16. Instr. biol, Purdue, 90–93; bot, Minnesota, 93–95, asst. prof, 95–99; first asst. and director labs, N. Y. Bot. Garden, 99–04, asst. director, 04–05; director lab. plant physiol, Carnegie Institution, 05–28, research assoc, 28–34. Special agent, U. S. Dept. Agr, bot. explorations, Ariz, 91, Idaho, 92. Ed, 'Jour. N. Y. Bot. Garden,' 99–05, manager, 20– Advisory board, desert bot. lab, Carnegie Institution, 02–05. Contributing ed, 'Sci. American.' A.A. (v. pres, G; gen. sec'y; v. pres, Pacific div, 16, 18; southwest div); Soc. Nat. (pres, 10); Bot. Soc. (sec'y, 01); Soc. Plant Physiol; Soc. Exp. Biol; Torrey Bot. Club; Philos. Soc; Calif. Acad; cor. mem. Acad. Nat. Sci. Phila; Bot. Soc. Edinburgh; Soc. d'Acclim. de France; for. mem. Hollandsche Maatschappe d. Wetenschappen; Bot. Soc. Czechoslovakia. General motor reactions of plants; influence of carbon monoxide; heredity and mutation; desert's revegetation of Salton Basin; alterations in heredity induced by chemical treatment; colloidal

arrangements showing activity of living matter; hydrostatics; pneumatics; cambial activity and growth in trees.

MacDougal, H(erbert) B(urland), South Dakota State College, Brookings, S. Dak. *Mathematics.* Toledo, Ohio, March 2, 05. A.B, Miami (Ohio), 27; M.S, Iowa, 29. Asst. *math,* Iowa, 27–29; from instr. to *prof, South Dakota, 29–* Math. Soc; Math. Asn. Series solutions of differential equations.

McDougall, Dr. A(lexander) H(iram), 582 Driveway, Ottawa, Ont, Can. *Mathematics, Education.* York Co, Ont, Sept. 6, 59. B.A, Toronto, 82; LL.D, Queen's (Can), 12. Teacher math, schs, 89–04; prin. and supervising prin, *Ottawa Collegiate Inst,* 04–31, *emer. prin, 31–* A.A. Geometry.

MacDougall, Dr. D(uncan) P(eck), Clark University, Worcester, Mass. *Physical chemistry.* College Station, Texas, April 13, 09. A.B, Pomona Col, 29; fellow, California, 30–31, 32–33, Ph.D, 33. Teaching fellow, California, 29–30, 31–32, instr. *chem,* 33–34; Harvard, 34–37; *asst. prof, Clark, 37–* Cryogenic investigations below one degree absolute; molecular vibrations.

MacDougall, Prof. F(rank) H(enry), University of Minnesota, Minneapolis, Minn. *Physical chemistry.* Maxville, Ont, Can, Oct. 24, 83. B.A, Queen's (Can), 02, M.A, 03; 1851 Exhib. scholar, Leipzig, 05–07, Ph.D, Leipzig, 07. Instr. and asst. prof. *chem,* Agr. and Mech. Col. Texas, 07–12; assoc. prof, Calgary, 12–15; instr, *Minnesota,* 15–17, asst. prof, 17–19, assoc. prof, 19–24, *prof, 24–* A.A; Chem. Soc. Reaction velocity; equation of state for gases; specific heat of gases; thermodynamics; electrical conductance of inhomogeneous systems; surface tension.

MacDougall, Prof. M(ary) S(tuart), Agnes Scott College, Decatur, Ga. *Zoology.* Laurinburg, N. C, Nov. 7, 85. A.B, Randolph-Macon Woman's Col, 12; M.S, Chicago, 16; Ph.D, Columbia, 25; D.Sc, Montpellier, 35. Head dept. science, Athens Col, 12–14; zool, Shorter Col, 14–17; Winthrop Col, 17–19; *prof. biol. and head dept, Agnes Scott Col, 19–* Asst, Barnard Col, Columbia, 22–23, Columbia, 23–24; research assoc, sch. hygiene, Hopkins, 26; Guggenheim Mem. Foundation fellow, Kaiser Wilhelm Inst, 31–32. Summers, Marine Biol. Lab, Woods Hole, 24– Soc. Zool; Ga. Acad. (pres, 29). Protozoology; cytology; diploid and tetraploid forms of Chilodon uncinatus; bird malaria; the neuromotor apparatus of Chlamydodon; inheritance of mutations in Chilodon uncinatus obtained by ultra-violet rays; the science of life.

McDougall, Dr. W(alter) B(yron), 113 Yellowstone Park, Wyo. *Botany.* Ypsilanti, Mich, Dec. 10, 83. A.B, Michigan, 11, Ph.D, 13. Instr. bot, Illinois, 13–17, assoc, 17–18, asst. prof, 18–28, assoc. prof, 28–29; prof, Southern California, 30–31; regional wildlife technician, Nat. Park Service, 35–40; regional biologist, nat. park wildlife sect, fish and wildlife service, U. S. Dept. Interior, 40–42; *asst. park naturalist,* Grand Canyon Nat. Park, 42–43; *Yellowstone Nat. Park, 43–* Summers, senior ranger naturalist, Nat. Park Service, 29–34. A.A; Bot. Soc; Ecol. Soc; Eugenics Soc; Wildlife Soc; Wildlife Inst; Ill. Acad. (treas, 24–27). Mycorrhizas; root growth of trees; mushrooms; symbiosis; ecology of forests; plant ecology; wildlife.

MacDowell, Dr. C(harles) H(enry), 1300 College Point, Winter Park, Fla. *Agricultural chemistry.* Lewistown, Ill, Oct. 21, 67. Hon. Sc.D, Pittsburgh, 21. Organizer fertilizer and by-products dept, Armour and Co, 87, dept. manager, 94, director and v. pres, 23–32, pres, Armour Fertilizer Works, 10–32; *retired.* Chairman chem. cmt, Chicago, 26; cmt. overseers, Harvard, 21–23. Mem, Nat. Research Council, 37– D.S. medal. Officier, Légion d'honneur; commander, Crown of Belgium; Knight of the Crown, Italy. Director chem. div, W. I. B, 17–18; assoc. econ. adviser, Am. Peace Cmn, Paris, 19; mem. advisory board, Chem. Warfare Service. A.A; Chem. Soc; Soc. Mil. Eng; West. Soc. Eng. (pres, 21); Ill. Acad; Chicago Acad; fel. Royal Soc. Arts; Newcomen Soc. Fertilizers, including potash mining and recovery; phosphates; nitrogen fixation; alumina; recovery and utilization of meat packing offal; vanadium catalyst for producing contact sulphuric acid; improvements in chamber sulphuric acid plants.

McDowell, Capt. C(lyde) S(tanley), U.S.N, California Institute of Technology, Pasadena, Calif. *Electricity.* Millersburg, Ohio, Oct. 29, 84. Grad, U. S. Naval Acad, 04; hon. Sc.D, Wisconsin, 21. *Naval officer, 00–,* in charge labs, N. Y. Navy Yard, 12–15; elec. officer, U. S. Submarine Forces, 15–17; in command, Naval Exp. Sta, New London, 17–18; sec'y, Navy Anti-Submarine Board, 17–18; staff commander in chief, U. S. Naval Forces in Europe, 18–19; inspector machinery, Gen. Elec. Co, 19–21; force engineer, U. S. Base Force, 22–24; engineer officer, Mare Island Navy Yard, 24–27; manager, Navy Yard, Pearl Harbor, Hawaii, 29–30; inspector naval material, San Francisco, 30–32; machinery, Westinghouse Elec. and Mfg. Co. and N. Y. Shipbuilding Co, 32–35; *supervising engineer 200-inch telescope, Calif. Inst. Tech, 35–* Navy Cross, World War; campaign medals, Cuban Pacification and World War. A.A; fel. Elec. Eng. (v. pres, 20); Radio Eng. Sound; naval research; electric heating; searchlights.

MacDowell, Dr. E(dwin) Carleton, Cold Spring Harbor, L. I, N. Y. *[5]Zoology.* New York, N. Y, Sept. 8, 87. A.B, Swarthmore Col, 09; M.S, Harvard, 11, Sc.D, 12. Instr. zool, Dartmouth Col, 12–13; biol, Yale, 13–14; *res. investigator, sta. for exp. evolution, dept. genetics, Carnegie Institution, 14–* A.A; Soc. Nat; Soc. Zool; Soc. Exp. Biol. Comparative myology of apes; size inheritance in rabbits; bristle inheritance in Drosophila; alcoholism in rats; influence of alcohol on prenatal mortality; sex ratio in mice; development, dwarfism and leukemia in mouse genetics.

McDowell, Dr. John C, 1416 Allison St, Washington, D. C. *Dairy husbandry.* Marquette Co, Wis, Dec. 25, 67. B.S.A, Wisconsin, 03; A.M, American Univ, 25, Ph.D, 27. Prin, sch, Wis, 94–98, high sch, 98–01; asst. prof. agr, N. Dak. Col, 03–04, prof. agron, 05–08; office farm management, U. S. Dept. Agr, 08–16, senior dairy husbandman and chief div. dairy herd improv. investigations, bur. dairy indust, 16–37; *retired.* Elements of agriculture; dairy enterprises; farm management.

MacDowell, Dr. L(ouis) G(ardner), 2208 Fairmount Ave, Lakeland, Fla. *Organic chemistry.* Asbury Park, N. J, July 29, 12. B.S, Florida, 33, Ph.D, 36. Research chemist, Carbide and Carbon Chem. Corp, 36–42; *research director citrus products, Fla. Citrus Cmn, 42–* A.A; Chem. Soc. Synthetic organic chemistry; citrus by-products and processing.

McDowell, Prof. Louise S(herwood), 28 Dover Road, Wellesley, Mass. *Physics.* Wayne, N. Y, Sept. 29, 76. A.B, Wellesley Col, 98; A.M, Cornell, 07, fellow, 08–09, Ph.D, 09. Teacher, Northfield Sem, 98–01; high sch, Ohio, 01–06; instr. *physics, Wellesley Col,* 09–10, assoc. prof, 10–13, *prof. and chairman dept, 13–* Asst. and assoc. physicist, Bur. Standards, 18–19. Assoc. ed, 'Am. Physics Teacher,' 33–37. A.A. (cmt, B, 20–23); fel. Physical Soc. (chairman, New Eng. sect, 37); Optical Soc; Radio Eng; Asn. Physics Teachers (exec. cmt, 39–). Power loss in dielectrics, especially glass.

McDowell, Dr. Maynard L(ee), 1224 Thurston St, Manhattan, Kans. *Chemistry.* Shelbyville, Mo, March 14, 02. A.B, Cent. Col. (Mo), 24; A.M, Missouri, 26; Ph.D, Iowa, 34. Asst. *chem,* Missouri, 25–26; *instr, Kans. State Col, 26–* Chem. Soc. Physical chemistry; activity coefficients and activity.

McDowell, S(amuel) J(ohn), 1606 Shady Circle, Chattanooga, Tenn. *Ceramic engineering.* Bloomingburg, Ohio, Sept. 4, 94. B.Cer.E, Ohio State, 17, Cer.E, 33. Ceramic engineer, Detroit Star Grinding Wheel Co, Mich, 17; AC Spark Plug Co, Flint, 17–25; Columbus sta, U. S. Bur. Mines, Ohio, 25–26; supt, Columbus branch, Bur. Standards, 26–27; Corning Terra Cotta Co, 27–32; ceramic consultant, Celo Mines, Inc, N. C, 32–33; ceramic engineer, AC Spark Plug Co, Flint, Mich, 33–35; *works manager,* Plant No. 3, Gen. Ceramics Co, Keasbey, N. J, 35–41; *Am. Lava Corp, 41–* A.A; fel. Ceramic Soc. (chairman, terra cotta div, 30); Ceramic Eng. Ceramics; whiteware; refractories.

MacDuffee, Prof. C(yrus) C(olton), University of Wisconsin, Madison, Wis. *[5]Mathematics.* Oneida, N. Y, June 29, 95. B.S, Colgate, 17; M.S, Chicago, 20, fellow, 20–21, Ph.D, 21. Instr. *math,* Colgate, 17–19; Princeton, 21–23, asst. prof, 23–24; Ohio State, 24–29, assoc. prof, 29–33, *prof,* 33–35; Wisconsin, 35–40; Hunter Col, 40–43; *Wisconsin, 43–* Summer, visiting asst. prof, Chicago, 29. Ed. board, 'Duke Math. Jour.' A.A; Math. Soc. (councilor, 31–34, ed. board, 'Trans,' 36–42, managing ed, 37–39; v. pres, 42–, acting pres, 43); Math. Asn. (second v. pres, 43, chairman, New York metrop. sect, 43). Algebra.

McDuffie, Prof. Roy O(liver), 914 Summit Ave, Cincinnati, Ohio. *Metallurgy.* Cincinnati, Ohio. A.B, Cornell, 18, Ch.B, 20, Ph.D, 29. Chemist, du Pont Co, Arlington, N. J, 20–21; asst. instr. physical chem, Cornell, 21–23, asst. to director re-

search, Sibley Col, 23–25; instr. *metal, Cincinnati,* 25–28, asst. prof, 28–34, *assoc. prof, 34–* Soc. Metals; Min. and Metal. Eng; Electrochem. Soc; Electroplaters Soc. Physical metallurgy; purification of brine.

McDunnough, Dr. J(ames) H(alliday), Department of Agriculture, Ottawa, Ont, Can. *Entomology.* Toronto, Ont, May 10, 77. M.A, Queen's (Can); Ph.D, Berlin, 09. Curator, Barnes' Lepidoptera Collection, Decatur, Ill, 10–19; *chief div. syst. entom, entom. branch, Can. Dept. Agr, 19–* Ed, 'Can. Entomologist,' 21–38. Fel. Entom. Soc. (v. pres, 34); fel. Royal Soc. Can. Taxonomic entomology; North American Lepidoptera and Ephemerida.

McEachern, Dr. Donald, McGill University, Montreal, Que, Can. *Neurology.* Toronto, Ont, Oct. 5, 04. M.D, Manitoba, 26. Intern, Winnipeg Gen. Hosp, 26–27; intern, asst. res. physician and Jacques Loeb fellow med, Hopkins Hosp, 27–31, instr, 33–34; nat. research fellow, Heidelberg, 31–32; Nat. Inst. Med. Research, London, 32–33; house physician, Nat. Hosp. Nervous Diseases, London, 34–35; *asst. prof. neur, McGill, and assoc. neur. and biochemist, Montreal neur. inst, 36–* Soc. Exp. Biol; Soc. Clin. Invest; Can. Physiol. Soc. Morbid anatomy of the heart in hyperthyroidism; metabolic and chemical changes in tissues in hyperthyroidism; pyruvic acid in muscle metabolism; mechanism of epilepsy; clinical hypertension; cerebral tumors; neuromuscular diseases.

McEachron, K(arl) B(oyer), 23 Waverly St, Pittsfield, Mass. *Electrical engineering.* Hoosick Falls, N. Y, Nov. 17, 89. E.E, M.E, Ohio Northern, 13, D.Eng, 38; M.S, Purdue, 20, Sc.D, 41. Instr. elec. eng, Ohio Northern, 14–18; Purdue, 18–22, asst. eng. exp. sta, 18–20, research assoc, 20–22; lightning arrester, eng. dept, *Gen. Elec. Co,* 22–23, *research engineer in charge high voltage eng. lab, designing engineer power transformer eng. dept. and director lightning lab, 33–* Mem, State Board Registration Professional Engineers and Land Surveyors, Mass; lightning hazards subcmt, Nat. Advisory Cmt. Aeronautics; chairman advisory cmt. protection against lightning and static, Ordnance Dept. Coffin award, 31; Edward Longstreth medal, Franklin Inst, 35. Elec. Eng. (director, 36, v. pres, 43); Ind. Acad. Nitrogen fixation; magnetic flux distribution in transformers; cathode-ray oscillograph; performance of transmission lines and protective equipment under artificial lightning conditions; thyrite; a resistance which decreases as approximately the third power of applied voltage; natural lightning; studies of lightning to the Empire State Building.

McElhinney, T(homas) R(obert), Valentine Sugars Co, Lockport, La. *Chemical engineering.* Dysart, Iowa, Feb. 10, 09. B.S, Iowa State Col, 31. Junior chem. engineer, agr. by-products lab, U. S. Dept. Agr, 31–39; *research director, Valentine Sugars Co, 39–* Chem. Soc. Agricultural waste utilization; synthetic resins and molding compounds from bagasse; destructive distillation; pulp and paper.

McElroy, Dr. W(illiam) S(windler), University of Pittsburgh School of Medicine, Pittsburgh, Pa. *Biochemistry.* Pittsburgh, Pa, Sept. 26, 93. B.S, Pittsburgh, 14, M.D, 16. Asst. physiol. and pharmacol, *sch. med, Pittsburgh,* 14–16, instr. *physiol. chem,* 16–19, asst. prof, 20–21, *prof, 21–,* acting dean *sch. med,* 38–39, *dean, 39–* Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Blood pigments; protein and iron metabolism; kidney functions; determination of reducing sugars; anemias; nutrition in pregnancy.

McElroy, Dr. C(larence) H(amilton), 1012 W. Fourth St, Stillwater, Okla. *Bacteriology, Veterinary medicine.* Tulsa, Okla, March 26, 86. B.S, Okla. Agr. and Mech. Col, 06; D.V.M, St. Joseph Vet. Col, 19 Instr. vet. med. and physiol, *Okla. Agr. and Mech. Col,* 09–12, asst. bacteriologist, 12–16, asst. prof bacter, 16–21, assoc. prof. *vet. med. and bacter,* 21–24, *prof. and head dept, 24–,* dean sch. science and lit, 25–35, *dean men, 28–* Vet. Med. Assn; Okla. Vet. Med. Assn. Hog cholera; the effect of protein ration on fertility of live stock; symptomatic anthrax.

McElroy, D(ennis) L(ee), West Virginia University, Morgantown, W. Va. *Mine transportation, Mechanized mining methods.* Moundsville, W. Va, Oct. 19, 04. B.S, West Virginia, 27, fellow, 28–30, M.S, 30. Asst. director mining exten, West Virginia, 30–38; prof. mining eng. and head dept, Va. Polytech, 38–39; *director sch. mines, West Virginia, 39–* Transportation in coal mines; mining coal by mechanical loading machinery.

McElroy, G(eorge) E(dward), 432 Kenmont Ave, Mt. Lebanon, Pittsburgh, Pa. *Mining engineering.* Pawtucket, R. I, Dec. 12, 89. E.M, Lafayette Col, 12. Miner, Thomas Iron Co, Mt. Hope, N. J, 12; junior mining engineer, U. S. Bur. Mines, Pittsburgh, 13–16; mining engineer, Empire Iron and Steel Co, Easton, Pa, 16–17; mining safety engineer, N. J. Zinc Co, Franklin, N. J, 17–18; *mining engineer,* field service in west. U. S, U. S. Pub. Health Service, 20–21; west. field service, *U. S. Bur. Mines,* 22–31, *east. field service, 31–* 1st lieut, C.W.S, 18–19. Min. and Metal. Eng. Mine ventilation and air conditioning; fan performance; anthracite mine fires.

McElroy, Dr. L(aird) W(ard), Box 39, Pearl River, N. Y. *Nutrition.* Calgary, Alta, Can, June 26, 11. B.Sc, Alberta, 33, M.Sc, 34; Ph.D, California, 40. Instr. physiol. chem, Yale, 40–41; *research asst, Lederle Labs, 41–* Vitamin synthesis in ruminants, water-soluble vitamins required by the chick.

McElroy, W(illiam) Proctor, 23 Northview Ave, Upper Montclair, N. J. *Psychology.* Mt. Sterling, Ky, April 26, 95. A.B, Southwestern Col, 11; B.D, Union Theol. Sem, 16; Harvard. Prof, Idaho, 22; psychologist, Boston Psychopathic Hosp, 24–25; div. for examining prisoners, Dept. Mental Diseases, Mass, 25–27; classification clinic, Sing Sing Prison, 27–30; consultant psychologist and chief dept. mental hygiene and psychol. research, West. Elec. Co, 30–32; consultant psychologist, Hartford house branch, Y.M.C.A, New York, 32–36; *consultant psychologist, 36–* Instr, Harvard, 23; lecturer, Emerson Sch. Oratory, Boston, 25; director personnel, Essex County, N. J, Emergency Relief Admin, 34–35; minister, Congregational Church, Grantwood, N. J, 36–41. Asn. Applied Psychol; Asn. Study Feeble-Minded; Orthopsychiat. Asn; N. Y. Acad. Nervous breakdowns in industry; religious concepts in the treatment of psychoneuroses.

McElvain, Prof. S(amuel) M(arion), 2017 Adams St, Madison, Wis. *°*Organic chemistry.* Duquoin, Ill, Dec. 9, 97. B S, Washington (St. Louis), 20; M.S, Illinois, 21, Ph.D, 23. Instr. *chem, Wisconsin,* 23–25, asst. prof, 25–28, assoc. prof, 28–33, *prof, 33–* A.A; Chem. Soc; London Chem. Soc. Synthetic drugs; ester condensations; relative reactivities of organic compounds; ketene acetals; reaction mechanisms; pyridine and piperidine derivatives; active constituents of natural drugs; volatile oils.

Macelwane, Rev. James B(ernard), S.J, St. Louis University, St. Louis, Mo. *°*Geology, Geophysics.* Near Port Clinton, Ohio, Sept. 28, 83. A.B, St. Louis, 10, A.M, 11, M.S, 12, 15–18, 19–21; Ph.D, California, 23. Teacher, high sch, Ohio, 07–08; instr. physics, St. Louis, 12–13, asst. prof, 13–15, 18–19; geol. and in charge seismog. stations, California, 23–25; *prof. geophys. and director dept, St. Louis, 25–,* dean grad sch, 27–33, *director inst. geophys, 37–* Summers, asst. prof, Creighton, 17; St. Louis, 19; prof, Campion Col, 20, 21, dean, 21, 25; lecturer, Lowell Inst, 35. A.A. (chairman, E, 34); Physical Soc; Seismol. Soc. (pres, 27–29); Geol. Soc; Min. and Metal. Eng; Geophys. Union (v. pres. sect. seismol, 35–38, pres, 38–41); Meteorol. Soc; Soc. Explor. Geophys; Am. Geog. Soc; St. Louis Acad. (v. pres, 35, pres, 37–39); Mo. Acad. (v. pres, 36, pres, 37); Soc. Seismol. Ital; Soc. Meteorol. Ital. Elastic waves; relation of certain earthquakes to faults; epicenters of earthquakes; structure of the earth; seismicity of the Mississippi Valley; tables of travel times of earthquake waves; nature and intensity of blast vibrations; geology of St. Louis and Canon City areas; geomagnetics; climate of St. Louis.

McEuen, Dr. C(harles) Stuart, Bank of Montreal, Peel St, Montreal, Que, Can. *Medicine.* London, Eng, Feb. 12, 87. M.D, McGill, 20. MacKenzie Inst. Clin. Research, 20–29; *research assoc, McGill, 32–* Cancer.

McEwan, Dr. Eula D(avis), 1223 H St, Lincoln, Nebr. *Geology.* Milford, Ill. A.B, Indiana, 13, A.M, 14, Ph.D, 18; Columbia, 16–17. Paleobotanist, Smithsonian Institution, 17–18; instr. *geol,* Northwestern, 18–19; head dept. Simpson Col. (Iowa), 20–22; *asst. prof, Nebraska, 22–* A.A; Paleont. Soc; Nebr. Acad. Foraminifera and Brachiopoda.

MacEwan, Prof. J(ohn) W(alter) G(rant), University of Saskatchewan, Saskatoon, Sask, Can. *Animal husbandry.* Brandon, Man, Aug. 12, 02. B S.A, Toronto, 26; M.S, Iowa State Col, 28. Live stock promoter, Dept. Agr, Sask, 26–27; *prof. animal husbandry, Saskatchewan, 28–, director sch. agr, 28–* Can. Soc. Tech. Agr; West. Can. Soc. Animal Production. Animal breeding and nutrition.

McEwen, Dr. Currier, 477 First Ave, New York, N. Y. *Medicine.* Newark, N. J, April 1, 02. B.S, Wesleyan, 23;

M.D, N. Y. Univ, 26. Intern, *Bellevue Hosp*, 26–28, asst. visiting physician, 32–36, assoc. visiting physician, 36–42, *visiting physician, 42–*; asst. res. physician, Rockefeller Inst. Hosp, 28–30, assoc. med, 30–32; asst. dean and sec'y, *col. med, N. Y. Univ*, 32–37, *dean, 37–*, instr. *med*, 32–33, asst. prof, 33–39, *assoc. prof, 39–*; *lieut. col, Med. Corps, U. S. Army, 43–* Guest investigator, pathological inst, Leipzig, 30; visiting physician, Welfare Hosp. Chronic Diseases, 39– Chairman board directors, Nat. Cmt. Maternal Health; mem, Nat. Board Med. Examiners. Col. Physicians; Am. Med. Asn; Rheumatism Asn; Soc. Clin. Invest; Soc. Exp. Biol; Interurban Clin. Club; Harvey Soc; N. Y. Acad. Med. (trustee). Rheumatic fever; chronic arthritis.

MacEwen, Prof. Ewen M(urchison), 315 Fairview Ave, Iowa City, Iowa. *Anatomy.* Greenwich, P. E. I, Can, Sept. 16, 85. B.S, Coe Col, 07; M.D, Iowa, 12, M.S, 15. Instr. *anat, Iowa*, 12–16, asst. prof, 16–20, *prof, 20–*, head dept, 31–40, *dean col. med, 35–* A.A; Asn. Anat; Asn. Physical Anthrop; Am. Med. Asn. Neuro-anatomy.

McEwen, Prof. G(eorge) F(rancis), Scripps Institution of Oceanography, La Jolla, Calif. *Physics, Mathematics.* Manchester, Iowa, June 16, 82. A.B, Stanford, 08, Ph.D, 11. Asst. physics, Stanford, 07–10, applied math, 08–10, instr, 10–11; math, Illinois, 11–12; physical oceanographer, *Scripps Institution, California*, 12–19, asst. prof, 19–23, assoc. prof. *physical oceanog*, 23–27, *prof, 28–* Physicist, Marine Biol. Sta, San Diego, 08–11; in charge tide sta, U. S. Coast and Geod. Surv, La Jolla, 24– Cmt. Pacific explor, Nat. Research Council, 19, subcmt, cmt. bulletins on the physics of the earth, 26–32, cmt. submarine configuration and oceanic circulation, 28–34; chairman, U. S. Nat. Subcmt. on Physical and Chem. Oceanog. of the Pacific, 27–34. Del. Pan-Pacific Science Cong, Honolulu, 20; Int. Math. Cong, Toronto, 24; Pan-Pacific Cong, Tokyo, 26. A.A; Physical Soc; Math. Soc; Math. Asn; Geophys. Union (chairman, subcmt. on evaporation, hydrol. sect, 31–35); Am. Geog. Soc; Statist. Asn; Meteorol. Soc. (councilor, 35–37, v. pres, 38); Am. Acad; San Diego Eng. Club (pres, 35). Applied mathematics; physical oceanography; statistical methods; measurement of viscosity; evaporation, rates of diffusion, temperature, salinity and circulation in the Pacific Ocean.

McEwen, Prof. H(arold) D(ouglas), 105 North Dakota St, Vermillion, S. Dak. *Biochemistry.* Ottawa, Ont, Can, April 19, 04. B.A, Queen's (Can), 26, M.A, 27; Ph.D, Rochester, 35. Instr. *biochem*, Rochester, 35–37; *South Dakota*, 37–39, *asst. prof, 39–* Chem. Soc; S. Dak. Acad. Biochemistry of the liver; nutrition.

McEwen, Prof. R(obert) S(tanley), Oberlin College, Oberlin, Ohio. *Zoology.* Cleveland, Ohio, Jan. 6, 88. A.B, Western Reserve, 11, A.M, 12; Ph.D, Columbia, 17. Asst. *zool*, Columbia, 16–17; instr, *Oberlin Col*, 17, asst. prof, 19–25, assoc. prof, 25–31, *prof, 31–, chairman dept, 41–* Summers, instr, Rutgers, 18; Marine Biol. Lab, Woods Hole, 22. Hosp. C, U.S.N.R, 17–18. A.A; Soc. Zool; Genetic Asn; Ohio Acad. (chairman, zool. sect, 35). Light and gravity reactions of Drosophila and its mutants; early development and determination of the embryonic axis and development of swim-bladder in Hemichromis bimaculata.

McEwen, Prof. William H(ayward), Mt. Allison University, Sackville, N. B, Can. *Mathematics.* Owen Sound, Ont, Feb. 7, 02. B.Sc, Saskatchewan, 21, M.Sc, 22; A.M, Minnesota, 24, Ph.D, 30. Instr, Regina Col. (Can), 25–29; asst. prof. *math, Mt. Allison*, 30–34, *prof, 34–* Math. Soc; Math. Asn. Trigonometric and polynomial approximations to the solutions of differential equations with boundary conditions.

McFadden, Prof. G(eorge) H(orace), 927 S. Main St, Ada, Ohio. *Chemistry.* New Athens, Ohio, Dec. 3, 00. B.S, Muskingum Col, 23; B.S, Ohio State, 26, M.S, 33, Ph.D, 37. Prin. and teacher, high sch, Ohio, 23–24, supt. and teacher, 26–29, coach, 29; instr. org. chem, Detroit Inst. Tech, 30–33; pharmacy, S. Dak. State Col, 36–37; asst. prof. chem, Kansas City Col. Pharmacy, 37–39; prof. pharmaceut. chem, *Ohio Northern*, 39–42, *prof. chem. and head dept. chem. and chem. eng, 42–* Chem. Soc; Pharmaceut. Asn. Organic chemistry; synthesis of cyclic olefines by methyl xanthate method; pharmaceutical chemistry; chemical investigation of Rhus glabra Linne.

MacFadyen, Dr. Douglas A(rchibald), Alfred I. du Pont Institute, Wilmington, Del. *Biochemistry.* Toronto, Ont, Can, Feb. 20, 05. B.Sc, Toronto, 26, fellow, 26–28, M.A, 27, M.D, 31. Asst. path, Rockefeller Inst, 31–36, chem, 36–40, assoc, 40; *chief biochem, Alfred I. du Pont Inst, 40–* Visiting asst. prof, Pennsylvania, 40– A.A; Asn. Cancer Research; Soc. Biol. Chem; Harvey Soc; fel. N. Y. Acad. Enzymes in relation to protein synthesis and nuclease activity; transplantable tumors, reactions of amino acids.

MacFall, Prof. C(laude) M(atthews), George Washington University School of Medicine, Washington, D. C. *Anatomy.* St. Bernice, Ind, May 23, 80. LL.B, Marion, Indiana, Law Sch, 12; A.B, Indiana, 14; Ph.D, Virginia, 26. Instr. physiol, N. Y. Homeop. Med. Col, 21–25; Austin fellow and instr. physiol, Harvard Med. Sch, 26–27; asst. prof. biol, California at Los Angeles, 27–28; Virginia, 28–33; prof. and head dept. *anat*, sch. med, South Dakota, 33–37; prof, sch. med, Creighton, 37–39; *prof. and head dept, George Washington, 39–* Mem, Bermuda Biol. Sta. Soc. Parasitol; Asn. Anat; Va. Acad. Parasitology; psychology; physiology; comparative histology; endocrinology.

McFarlan, Prof. Arthur C(rane), 1712 Fairway Drive, Lexington, Ky. *Geology.* Mansfield, Ohio, May 7, 97 A.B, Cincinnati, 19; Ph.D, Chicago, 24. Geologist, New Domain Oil and Gas Co, Lexington, 22–23; dept. geol, *Kentucky*, 23–27, *prof. geol. and head dept, 27–* Director and state geologist, State Bur. Miner. and Topog. Surv, Ky, 32–34. Summers, Ky. Geol. Surv; Tenn. Geol. Surv, 18, 19. A.A; fel. Paleont. Soc; fel. Geol. Soc; Asn. Petrol. Geol; Appalachian Geol. Soc; Ky. Geol. Soc. (pres, 40). Stratigraphic paleontology; Chester Bryozoa of Illinois and Kentucky; Ordovician stratigraphy of central Kentucky; paleontology of Kentucky Ordovician; county geologic maps of Kentucky; mineral resources of Kentucky; stratigraphy, paleontology and petroleum geology, particularly Kentucky geology.

McFarlan, Prof. L(ee) H(orace), University of Washington, Seattle, Wash. *Mathematics.* Parsons, Kans, Nov. 8, 95. B.S, Kans. State Teachers Col, 17; A.M, Missouri, 21, Ph.D, 24. Instr. *math*, Missouri, 22–25; nat. research fellow, Chicago, 25–27; asst. prof, *Washington (Seattle)*, 27–34, *assoc. prof, 34–* Calculus of variations; problems of Lagrange.

McFarlan, Dr. Ronald L(yman), United Drug Co, Boston, Mass. *Physics.* Cincinnati, Ohio, March 8, 05. A.B, Cincinnati, 26; Ph.D, Chicago, 30. Nat. research fellow physics, Harvard, 30–32, instr, 32–35; chief physicist, United Drug Co, 35–40; B. B. Chem. Co, 40–42; *director research, Bulova Watch Co, 42–* Chem. Soc; Physical Soc. X-ray liquid diffraction; ice polymorphism under pressure; physical methods of chemical analysis; adhesives; plastics; precision instruments.

McFarland, Prof. David F(ord), Pennsylvania State College, State College, Pa. *Chemistry, Metallurgy.* Mansfield, Ohio, Aug. 1, 78. A.B, Kansas, 00, A.M, 01; fellow, Yale, 02–03, M.S, 03, Ph.D, 09. Instr. chem, Kansas, 00–03, asst. prof, 03–10; Illinois, 10–16, assoc. prof. applied chem, 16–20; *prof. metal. and head dept, Pa. State Col, 20–*, acting dean sch. mines and metal, 22, 27–28. Asst, Yale, 08–09. Min. and Metal. Eng; Soc. Metals; British Inst. Metals. Reactions of organic acid esters and chlorides in liquid ammonia solutions; pyrimidines and amidines; composition of natural gas; alloys; metallurgical education.

McFarland, Prof. Dora, Faculty Exchange, Norman, Okla. *Mathematics.* Aledo, Ill, April 18, 95. A.B, Monmouth Col, 16; A.M, Oklahoma, 21; fellow, Chicago, 28–29, Ph.D, 36. Teacher, high sch, Iowa, 16–17; Ill, 17–20; instr. *math, Oklahoma*, 20–27, asst. prof, 27–38, *assoc. prof, 38–* Math. Soc; Math. Asn. Algebras defined by non-Abelian groups.

MacFarland, Prof. F(rank) M(ace), 775 Santa Ynez St, Stanford University, Calif. **Histology.* Centralia, Ill, June 10, 69. Ph.B, DePauw, 89; A.M, Stanford, 93; Wurzburg and Zurich, 94–96, Ph.D, Wurzburg, 96. Prof. biol. and geol, Olivet Col. (Mich), 89–92; instr. *histol, Stanford*, 92–94, asst. prof, 94–97, assoc. prof, 97–09, prof, 09–34, *emer. prof. 34–* Co-director, Hopkins Marine Sta, 15–17. A.A; Asn. Anat; West. Soc. Nat; fel. Calif. Acad. (cor. sec'y, 26–32, 1st v. pres, 32–34, acting director museum and Steinhart Aquarium, 34–38, pres, 34–). Cytology; opisthobranch Mollusca; invertebrate zoology; Pacific Coast Opisthobranchiata.

McFarland, Prof. Frank T(heodore), University of Kentucky, Lexington, Ky. *Botany.* Sunbury, Ohio, May 12, 86 B.S.A, Ohio State, 12; M.S, Michigan, 16; Ph.D, Wisconsin 21. Instr. *bot, Kentucky*, 12–13, asst. prof, 13–20, assoc. prof 20–22, prof. and head dept, 22–42, *research prof, 42–* Sum-

mers, asst, Michigan, 14, instr, 15. A.A; Bot. Soc; Phytopath. Soc; Ecol. Soc; Fern Soc; South. Appalachian Bot. Club (v. pres, 42); Ky. Acad. Fungi; ferns.

McFarland, Dr. Joseph, 542 W Hortter St, Philadelphia, Pa. *Pathology, Bacteriology.* Philadelphia, Pa, Feb. 9, 68. M.D, Pennsylvania, 89; hon. M.D, Medico-Chirurg. Col. Phila, 98; Sc.D, Ursinus Col, 14. Demonstrator path. histol. and lecturer bacter, Pennsylvania, 92–96; *prof.* path. and bacter, Medico-Chirurg. Col. Phila, 96–16; *path,* Pennsylvania, 16–40; *dental sch, Temple, 41–* Prof, Woman's Med. Col. of Pa, 12–15. Major, M.C, 17–20. Asn. Path. and Bact; Soc. Bact; Am. Med. Asn; Acad. Stomatol; hon. mem. Soc. Clin. Path; fel. Col. Physicians; fel. Col. Physicians Phila; Path. Soc. Phila. (pres, 08); Acad. Nat. Sci. Phila. Medical pathology; pathogenic bacteria and Protozoa; surgical pathology; general and medical biology; anomalies, diseases and treatment of the breast.

McFarland, Prof. Ross A(rmstrong), Harvard University, Boston, Mass. *Physiological psychology.* Denver, Colo, July 18, 02. A.B, Michigan, 23; fellow, Cambridge, 26–27; Ph.D, Harvard, 28. Instr. psychol, Columbia, 28–37; *asst. prof. indust. research, Harvard, 37–; lieut. commander, A-V(S), U. S. Naval Res, 40–* Consultant, Pan Am. Airways System, 35–; research consultant, U. S. Civil Aeronautics Authority, 37– Summers, lecturer and tutor, Geneva Sch. Int. Studies, Switzerland, 29–34; surv. science insts, U.S.S.R, 34. Exec. cmt. selection and training aircraft pilots, Nat. Research Council, 39–41; sci. cmt, Research Council Problems Alcohol; U. S. nat. cmn, Permanent Aeronautical Cmn, 41– Int. high altitude exped, Andes, 35. A.A; Psychol. Asn; fel. Am. Geog. Soc; Asn. Applied Psychol; hon. mem. Aero Med. Asn; Inst. Aeronaut. Sciences; Optical Soc; Council For. Relations; fel. N. Y. Acad. (v. pres, 35, 36); assoc. N. Y. Acad. Med. Anoxemia in relation to the impairment of psychological functions and adaptation to high altitudes; aviation medicine and the selection and training of aircraft pilots.

Mac Farland, Prof. W(illiam) E(llery), 710 S. Wolcott Ave, Chicago, Ill. *Microscopic anatomy.* Havelock, N. B, Can, March 24, 09. B.A, Acadia, 30; fellow, Yale, 33–34, Ph.D, 34. Asst. zool, Yale, 30–33; adj. prof, American Univ. Beirut, 36–39, chairman dept. zool. and lecturer embryol, med. sch, 37–39, assoc. prof, 39; visiting prof, med. sch, Northwestern, 39–41; *asst. prof. micros. anat, Chicago Med. Sch, 41–* A.A. The anatomy and physiology of the autonomic nervous system.

Macfarlane, Dr. Eileen W(hitehead) Erlanson, Institutum Divi Thomae, Madison Road, Cincinnati, Ohio. *Botany, Anthropology.* Kingston-on-Thames, Eng, 99. B.Sc, London, 19, D.Sc, 34; M.S, Michigan, 24, Emma J. Cole fellow, 25–26, Ph.D, 28. Instr. bot, Col. of William and Mary, 22; asst, Michigan, 23–25, 27–28, admin. asst, bot. garden, 26–27, nat. research fellow, 28–31; asst. prof. biol, Kent State Univ, 32–33; *collaborator in* Asiatic research, Michigan, 33–42; *biol, Institutum Divi Thomae, 43–* Reader, Madras, India, 35. A.A. Floras of Virginia and South India; cytology, distribution, breeding and taxonomy of North American wild roses; plant colonization; blood groups and physiological anthropology in India; genetics of racial differences.

Macfarlane, Prof. Jean Walker, 2739 Bancroft Way, Berkeley, Calif. *Psychology.* Selma, Calif, Jan. 1, 94. A.B, California, 17, Ph.D, 22. Field worker, U. S. Bur. Labor Statist, 17–18; asst. psychologist, dept. pediat, psychol. clinic, univ. hosp. and juvenile court, med. sch, California, 18–22; senior asst. psychologist, Boston Psychopath. Hosp, 22–24; instr. and asst. prof. psychol, dept. pediat, *California,* 24–29, assoc. prof. psychol, univ. and research assoc. in charge guidance study, inst. child welfare, 29–41, *prof. psychol, 41–* Psychologist, Children's Hosp, San Francisco, 17–18; lecturer, Wellesley Col, 23–24; psychologist, State Dept. Mental Diseases, Mass, 23–24; clin. psychologist, mental hygiene clinic, San Francisco Dept. Pub. Health, 24–32. A.A; Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn; Soc. Research Child Develop; Conf. Family Relations. Personality development.

McFarlane, Maynard L(eslie) D(eedes), 1392 Veteran Ave, Los Angeles 24, Calif. *Electrical engineering.* London, Eng, Aug. 12, 95. McGill Univ. Research elec. transmission of pictures, England, 20–23; Bartlane, New York, 24–35; with *Record-o-Tone,* 36–41, *pres, 41–; McFarlane Labs, 41–; staff mem, radiation lab, Mass. Inst. Tech, 42–* Capt, Middlesex Regiment and Royal Flying Corps, 14–19. A.A; Elec. Eng; assoc. Radio Eng; Franklin Inst; Eng. Inst. Can. Photoelectricity; electrical transmission of pictures.

Macfarlane, Dr. Wallace, 2430 Lorain Road, San Marino, Calif. *Agronomy.* Silver Reef, Utah, Dec. 18, 86. B.S, Utah, 10; fellow, Illinois, 12–15, M.S, 13, Ph.D, 15. Asst. chemist, Utah Col, 10–12; asst. prof. agron, Okla. Agr. and Mech. Col, 16–17; agronomist, Arizona, 17; chemist, Exp. Sta, Hawaii, 19–23; *v. pres. and manager Los Angeles div, Pacific Guano Co, 23–* A.A; West. Soc. Soil Sci; Hawaiian Chem. Asn. Soil fertility; pineapple wilt; papain.

McFarlane, Prof. W(illiam) D(ouglas), Macdonald College, Que, Can. *Agricultural chemistry.* Glasgow, Scotland, June 26, 00. B.S.A, Toronto, 25, M.A, 27, Ph.D, 32. Analyst and lecturer anal. chem, Ont. Agr. Col, 25–28; biochemist, British Empire Marketing Board, 28–30; asst. prof. biochem, Alberta, 30–36; *prof. chem. and head dept, Macdonald Col, McGill, 36–* Soc. Biol. Chem; Chem. Soc; Soc. Chem. Indust; Inst. Chem; Physiol. Soc. Can; Soc. Pub. Analysts Gt. Britain; Biochem. Soc. Gt. Britain. Nutrition and plant biochemistry.

McGavack, Dr. John, 144 Ames Ave, Leonia, N. J. *Chemistry.* Waterford, Va, Feb. 10, 93. A.B, Hampden-Sydney Col, 13; fellow, Hopkins, 19–20, Ph.D, 20. Asst. prin, high sch, W. Va, 13–16; asst. chem, Hopkins, 16–17, physical chem, 20; research chemist, *U. S. Rubber Co,* 20–32, *head dept. latex crude rubber, 32–* 2nd lieut, C.W.S, 18–19. Chem. Soc. Physical and colloidal chemistry; adsorption of sulfur dioxide by the gel of silicic acid; chlorine and the rubber molecule; hydrogen ion concentration of ammonia latex; alanine in rubber latex; properties of latex-insulated wire; hevea latex large particle size; hevea latex correlation of nitrogen and ash with total solids; latex theory and art; USF rubber, a new crude material.

McGavock, Prof. W(illia)m C(rews), University of San Antonio, Texas. *Physical chemistry.* Springfield, Ill, Dec. 20, 06. A.B, Missouri, 28, A.M, 29; Ph.D, California, 36. Chemist, Welsbach Mfg. Co, 28–29; teaching asst, Missouri, 29–30; California, 30–33; chemist, Shell Oil Co, 33–35; Great West. Electro-Chem. Co, 35–39; *prof. chem, San Antonio, 39–* Summer, chemist, Great West. div, Dow Chem. Co, 41. Radium refining; low temperature specific heats; metallurgy of chromium.

McGaw, Prof. Frederick M(ilton), 615 Sixth Ave, Mt. Vernon, Iowa. *Mathematics.* Danville, Pa, May 29, 70. A.B, Cent. High Sch. Phila, 88, A.M, 93; B.S, Wesleyan, 02. Head master, Bordentown Mil. Inst, N. J, 88–99; nat. science and prin, sch, Conn, 90–01; nat. science, Beaver Col, 02–06; *math,* high sch, Pa, 06–08; Beaver Col, 08–10; prof, *Cornell Col. (Iowa),* 10–41, *emer. prof, 41–* A.A; Math. Soc; Math. Asn; Iowa Acad. Geometry.

McGaw, Dr. W(ilbert) H(ersman), 10515 Carnegie Ave, Cleveland, Ohio. *Orthopedic surgery.* Etawah, U. P, British India, Dec. 7, 97. B.S, Col. of Wooster, 21; M.D, Western Reserve, 25. Director health service and instr. physical diagnosis, West Virginia, 28–32; fellow *orthop. surg,* univ. hosps, Cleveland, 32; demonstrator, *sch. med, Western Reserve,* 34–36, *clin. instr, 36–; major, Med. Corps, U. S. Army, 42–* Research grant, Am. Med. Asn, 36. Fel. Acad. Orthop. Surg; Cleveland Acad. Med. Function of bone marrow in the healing of fractures; osteogenetic bone grafting; lesions of the sacroiliac joint; sound transmission through bone in relation to long bone fractures.

MacGee, Dr. A(lfred) Ernest, Skelly Oil Co, Chicago, Ill. *Engineering.* Toledo, Texas, Oct. 17, 99. B.S, Louisiana, 21, M.S, 22; Ph.D, Ohio State, 25. Engineer and draftsman, Westcott Eng. Co, 19–20; asst. instr. chem, Louisiana, 20–22; Ohio State, 22–23; instr, Case, 23–24; research engineer, U. S. Bur. Mines, 25–29; gen. manager, Viking Gasoline Corp, 29–30; *manager solvents div, Skelly Oil Co, 30–* Summer, instr, Louisiana, 22. Chem. Soc. Chemical and ceramic engineering; vegetable decolorizing carbons; rare sugars, specific heats and thermal reactions; physical properties of abrasives; expansion and elasticity of ceramic products; air expansion apparatus; petroleum naphthas; lighter hydrocarbons.

McGee, H(arold) G(ilbert), Hudson, Ohio. *Engineering.* Ann Arbor, Mich, Dec. 8, 89. B.C.E, Michigan, 13. Asst. engineer, State Board Health, Ohio, 13–14; State Board Health, Mich, 15; city sanit. engineer, Jackson, Mich, 15–17; designing engineer and chemist, Lucas County Sanit. Eng. Dept, Toledo, 17–18; eng. practise, Des Moines, 19; asso. director and engineer, Akron Bur. Munic. Research, 19–22; *director, Munic. Research Bur, Akron Chamber of Commerce, 23–* Sanit.C, 18–19, capt. A.A; assoc. Civil Eng; fel.

Pub. Health Asn; Govt. Research Asn. Municipal government; economics of highway improvements; storm water drain design; transportation utility; typhoid fever; local taxation; budgets.

McGee, Dr. J(ohn) M(erritt), University of Oregon, Eugene, Oregon. *Physical chemistry.* St. Cloud, Minn, Jan. 30, 88. A.B, Washington (Seattle), 09, A.M, 11; A.M, Columbia, 14; Ph.D, California, 19. Teaching fellow, California, 16–19; staff mem, lab. plant physiol, Carnegie Institution, 19–24; research chemist, Standard Oil Co. of Ind, 24–38; *research assoc. chem, Oregon, 42–* Chem. Soc. Preparation and properties of sodium amide; plant respiration and photosynthesis; petroleum and its products; electro-chemistry of magnesium compounds.

McGee, Dr. Lemuel C(lyde), Hercules Powder Co, Wilmington, Del. *Biochemistry.* New Boston, Texas, Aug. 2, 02. A.B, Baylor, 24; Squibb and Sons fellow, Chicago, 26–27, Ph.D, 27, M.D, Rush, 30. Nat. research fellow, Chicago, 27–28; biochemist, Inst. Juvenile Research, Ill, 28–29; intern, Baylor Univ. Hosp, 29–30; Presb. Hosp, 31–32; instr. physiol, col. med, Baylor, 32–35; physician, Davis Mem. Hosp, 35–39; fellow med. and biol. chem, Peter Bent Brigham Hosp. and Harvard Med. Sch, 39–40; *med. director, Hercules Powder Co, 40–* Am. Med. Asn; fel. Col. Physicians. Biological activity of extracts of testicular tissue; chemistry of jejunal juice and gastro-intestinal function; industrial medicine and toxicology.

McGehee, Dr. William M, North Carolina State College, Raleigh, N. C. *Psychology.* Paris, Tenn, Jan. 6, 08. A.B, Univ. of the South, 25; North Carolina, 36–37; Duke, 37–38; A.M, Peabody Col, 36, Ph.D, 37. Teacher, high sch, Tenn, 29–31, asst. prin, high sch, Tenn, 31–36; instr. *psychol, N. C. State Col,* 36–39, asst. prof, 39–40, *assoc. and head dept, 40–* Psychologist, Wake Co. Mental Hygiene Clinic, N. C, 41–Summers, mem. staff, George Peabody Col, 36, 38, 41. Assoc. Psychol. Asn; South. Soc. Philos. and Psychol. Child psychology; measurements; industrial psychology; personality.

McGeorge, W(illiam) T(homas), University of Arizona, Tucson, Ariz. *Soil chemistry.* Rosedale, Kans, July 27, 86. B.S, Kansas; M.S, George Washington. Chemist, Swift and Co, 09; asst. chem, office exp. stations, U. S. Dept. Agr, 10–15, bur. chem, 15–19; assoc. chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, 20–25, 27–29; assoc. prof. agr. chem, *Arizona,* and assoc. chemist, *Exp. Sta,* 25–27, research chemist *soils,* 29–30, *chemist and head dept, 30–* A.A; Chem. Soc; Soc. Plant Physiol; Soc. Agron. Soil fertility; agricultural chemistry.

McGerrigle, Dr. H(arold) W(illiam), Bureau of Mines, Quebec, Que, Can. *Stratigraphical geology.* Ormstown, Que, Nov. 22, 04. B.A, McGill, 26; Ph.D, Princeton, 30. Instr. geol, Dartmouth Col, 30–36; *geologist, Bur. Mines, Que, 36–* Ozarkian-Canadian of southern Quebec; geology of Gaspé Peninsula.

McGhee, Prof. J(oseph) L(lewellyn), Emory University, Ga. *Biochemistry.* Philadelphia, Tenn, Sept. 6, 73. A.B, Emory and Henry Col, 03, LL.D, 42; fellow, Hopkins, 10–11, Ph.D, 11. Prof. chem. and head dept, Emory and Henry Col, 08–13; Southwestern (Texas), 13–17; Florida, 17–20; *biochem, Emory,* 20–42, *emer. prof, 42–* A.A. Osmosis; microscopic projections in the measurement of erythrocytes; metallized food in the regeneration of hemoglobin; magneto-optic minima of organic compounds.

McGibbon, Prof. W(illiam) H(enry), University of Wisconsin, Madison, Wis. *Genetics.* Moore's Mills, N. B, Can, March 29, 11. B.Sc. (Agr), McGill, 32; Ph.D, Wisconsin, 42. Asst. poultry supt, Dept. Agr, N. B, 34–38; asst, dept. genetics, *Wisconsin,* 38–41, instr. *poultry husbandry,* 41–42, *asst. prof, 42–* Poultry Sci. Asn; Genetic Asn. Poultry genetics; inheritance of antigenic characters in the red blood cells of domesticated birds.

McGill, Prof. J(ohn) T(homas), Vanderbilt University, Nashville, Tenn. *Chemistry.* Monroe Co, Tenn, Oct. 13, 51. B.S, Vanderbilt, 79, fellow, 79–81, Ph.D, 81, Ph.G, 82; Berlin, 85–86. Instr. chem, *Vanderbilt,* 81–86, adj. prof, 86–00, prof. *org. chem,* 00–19, *emer. prof, 19–,* dean dept. pharmacy, 00–19. Pres, Am. Conf. Pharmaceut. Faculties, 07. A.A; Chem. Soc; Tenn. Acad. (sec'y-treas, 25–39, hon. pres, 39–).

McGill, Dr. Russell, U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* North Lima, Ohio, Sept. 15, 02. B.S, Col. of Wooster, 25; fellow, N. Y. Univ, 25–28, Ph.D. 29. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 28–37, Parlin, N. J, lab, 37–38, Gen. Printing Ink Corp, 38–40; assoc. explosives chemist, *U. S. Bur. Mines,* 40–42, *explosives chemist, 42–* Sect. mem, Nat. Defense Research Cmt, 41– Chem. Soc. Cellulose as chemical raw material; nitrocellulose; synthesis, stabilization and stability testing of explosives; applications of sodium to organic syntheses; rotogravure printing inks and their ingredients.

MacGillivray, Prof. John H(enry), College of Agriculture, University of California, Davis, Calif. *Olericulture.* Ithaca, N. Y, Jan. 27, 99. B.S, Illinois, 21, M.S, 22; Ph.D, Wisconsin, 25. Asst. olericulture, Illinois, 21; veg. gardening, Cornell, 22–23; bot, Wisconsin, 24–25; hort, Exp. Sta, Purdue, 25–27, assoc. tomato quality studies, 27–28, research assoc. hort, 28–36; asst. prof. *truck crops, col. agr, California,* 36–43, *assoc. prof, 43–,* assoc. olericulturist, 36–43, *olericulturist, 43–* Collaborator, U. S. Dept. Agr, 29–32, 39– A.A; Soc. Hort. Sci; Soc. Plant Physiol. Truck crops; nutrition of the tomato plant; tomato color development and relation to canning; quality of truck crops; consistency of canned pumpkin; irrigation of truck crops.

McGillvray, Dr. Charles Duncan, Ontario Veterinary College, Guelph, Ont, Can. *Veterinary medicine.* Glasgow, Scotland, Oct. 25, 72. D.V.Sc, Toronto, 22; D.V.M, Montreal, 36. Chief inspector health of animals, Winnipeg, 05–18; *prin, Ont. Vet. Col, 18–* Lecturer, Man. Agr. Col, 12. Gold medal, Ont. Vet. Col. Vet. Med. Asn. (v. pres, 15–18); Man. Vet. Asn. Glanders in horses and man; bovine tuberculosis; rabies; Bang's disease; mastitis.

MacGinitie, Prof. G(eorge) E(ber), Corona Del Mar, Calif. *Zoology.* Sparta, Nebr, April 5, 89. A.B, Calif. State Teachers Col, 25; A.M, Stanford, 28. Instr. biol, Calif. State Teachers Col, Fresno, 25–28; zool, Hopkins Marine Sta, Stanford, 28–29, asst. prof, 29–32, acting director, 30, asst. to director, 30–32; *asst. prof. biol. in charge Kerckhoff marine lab, Calif. Inst. Tech, 32–* A.A; Soc. Exp. Biol; Pacific Oceanog. Soc; West. Soc. Naturalists (pres, 40). Ecology of marine bottom fauna, especially the littoral and mud flat associations; natural history of marine animals.

MacGinitie, Dr. Harry D(unlap), Humboldt State College, Arcata, Calif. *Paleobotany, Geology.* Lynch, Nebr, March 29, 99. A.B, Fresno State Col, 26; Ph.D, California, 36. *Teacher, Humboldt State Col, 27–; lieut, U. S. Army.* Geol. Soc; Paleont. Soc. Tertiary paleobotany; geology of Humboldt County, California.

McGinnes, Dr. G(oldsborough) Foard, State Department of Public Health, Nashville, Tenn. *Epidemiology.* Merry Point, Va, Oct. 24, 98. M.D, Virginia, 25; Dr.P.H, Hopkins. Director, Isle of Wight Health Unit, 25–26; assoc. epidemiol, Hopkins, 27–28; director bur. labs, State Dept. Health, Va, 28–31, bur. epidemiol, 31–39; *assoc. prof. prev. med,* Med. Col. of Va, 29–39; *sch. med, Tennessee, 39–; director venereal disease control service, State Dept. Pub. Health, Tenn, 39–* Am. Med. Asn; Pub. Health Asn. (sec'y, south. branch, 33–39, pres, 39); Richmond Acad. Typhoid fever; diarrhoea and dysentery; swine erysipelas; diphtheria; syphilis.

McGinnies, Dr. W(illiam) G(rovenor), Guayule Emergency Rubber Project, Los Angeles, Calif. *Ecology.* Steamboat Springs, Colo, Aug. 14, 99. B.S.A, Arizona, 22; Ph.D, Chicago, 32. Asst. range examiner, U. S. Forest Service, 24–26; asst. prof. animal husbandry, Arizona, and range specialist, Exp. Sta, 27–29, assoc. prof. and range ecologist, 30–32, acting head dept. bot, 32–35; manager and director land management, Navajo dist, soil conservation service, U. S. Dept. Agr, 35–38; chief div. range research, Southwest. Forest and Range Exp. Sta, U. S. Forest Service, 38–42; *prin. forest ecologist in charge surveys and investigations, Guayule Emergency Rubber Project 42–* Summer, prof, Agr. and Mech. Col. Texas, 40. A.A. (sec'y, southwest. div, 28–30); Soc. Plant Physiol; Soc. Agron; Ecol. Soc. Range ecology.

McGinnis, Prof. C(laude) S(tonecliffe), 129 Washington Lane, Wyncote, Pa. *Physics.* Indianapolis, Ind, Oct. 12, 81 B.S, Mass. Inst. Tech, 06; Ph.D, Pennsylvania, 11. Asst physics, Mass. Inst. Tech, 06–08; instr, Pennsylvania, 08–11; prof. physics and elec. eng, New Brunswick, 11–20; *prof physics and head dept, Temple, 20–* A.A; Asn. Physics Teachers; Acoustical Soc. Sound.

McGinnis, Prof. Esther, State Teachers College, Buffalo, N Y. *Psychology.* Columbus, Ohio, Nov. 27, 93. B.S, Ohio State, 15; M.S, Columbia, 23; Ph.D, Minnesota, 28. Asst

Ohio State, 15–16; instr, Maine, 16–17; Idaho, 17–18; asst. prof. and assoc. prof, Maine, 18–23, prof. and head dept, 23–26; nat. research fellow, 26–28; *prof.* in charge parent educ, inst. child welfare, Minnesota, 28–38; *family life, N. Y. State Teachers Col, 38–* A.A; assoc. Psychol. Asn; Soc. Research Child Develop; Home Econ. Asn. Home economics; child psychology; parent education.

McGinnis, Prof. John M(arshall), Hollins College, Va. *Psychology.* Worthington, Ohio, June 6, 03. A.B, Lake Forest Col, 24; A.M, Harvard, 25; Ph.D, Yale, 29. Instr. *psychol,* Maine, 25–27; asst. prof, *Hollins Col,* 29–30, assoc. prof, 30–31, *prof. and head dept, 31–* Va. Acad. Science grant, 32. A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol; Va. Acad. (chairman, psychol. sect, 34–36). Child psychology: experimental psychology.

McGinnis, Dr. R(ichard) A(dams), 128 Third St, Woodland, Calif. *Chemistry.* Douglas, Ariz, Dec. 20, 03. A.B, California, 25, Ph.D, 36. Chemist, dept. poultry husbandry, California, 35; West. Sugar Refinery, 35–39; *research chemist, Spreckels Sugar Co, 39–* Chem. Soc. Photolysis of uranyl oxalate; sugar colorimetry; sugar crystallization; sugar beet problems.

McGinty, Dr. Daniel A(rthur), 754 Grand Marais, Grosse Pointe Park, Mich. *Physiology.* Goltry, Okla, June 20, 96. A.B, Denver, 20, A.M, 21; Illinois, 21–22; Ph.D, Michigan, 24. Asst. chem, Denver, 19–21; physiol. chem, Illinois, 21–22; instr, Michigan, 22–24, physiol, med. sch, 24–26, asst. prof, 26–29; assoc. prof, Emory, 29–33; *research labs, Parke, Davis and Co, 33–* Summer, assoc. pharmacologist, bur. chem, U. S. Dept. Agr, 24. Am. Med. Asn. grant, 31–33. A.A; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions. Intermediary metabolism of amino acids; lipase activities; chemical regulation of respiration; coronary circulation; lactic acid metabolism of the brain; carbohydrate metabolism of the heart; endocrinology; blood coagulation.

McGinty, R(upert) A(lonzo), Clemson Agricultural College, Clemson, S. C. *Plant physiology.* West Point, Ga, May 2, 86. B.S, Ala. Polytech, 13; Lackland fellow, Mo. Bot. Garden, 18–19; A.M, Washington (St. Louis), 19; Cornell, 26–27. Instr. hort, Colo. Agr. Col, 13–14, asst. prof, 14–16, assoc. prof, 16–20; field manager, Colo. Packing Corp, 20–21; assoc. prof. hort, Colo. Agr. Col, 21–28; prof. and head dept, Clemson Col, 28–32; Okla. Agr. and Mech. Col, 32–34; acting dean and director col. and *Exp. Sta, Clemson Col,* 34–36, *v. director, 36–* Soc. Hort. Sci. (exec. cmt, 40–42). S. C. Acad. Diastase activity in potato tubers; tipburn of lettuce; breeding of okra; seasonal composition of asparagus crowns; vegetable crops.

McGlamery, Winnie, care of Alabama Geological Survey, University, Ala. *Paleontology.* Churchville, Va. A.B, Goucher Col, 19; Hopkins, 22–25. Mem. staff paleont, Am. Museum Nat. Hist, 25–26; micropaleont, Humble Oil and Ref. Co, Houston, Texas, 26–27; paleont, univ. museum, Rochester, 27–28; *paleontologist, Ala. Geol. Surv, 32–* Paleont. Soc; Malacol. Union; Miss. Geol. Soc; Ala. Acad. (sec'y, 40–). Coastal plain geology and paleontology.

McGlashan, H(arry) D(eyoe), Fifth Floor, 625 Market St, San Francisco, Calif. *Civil engineering.* Hensonville, N. Y, March 22, 79. C.E, Syracuse, 06. *Water resources branch, U. S. Geol. Surv, 06–, dist. engineer, Calif. dist, 12–* Summers, instrument man, Utica and Mohawk Valley Ry, 05, 06. Civil Eng; Geophys. Union. Water resources of California.

McGlumphy, Dr. James Harvey, 417 Rosehill Place, Elizabeth, N. J. *Chemistry.* Kingston, Mo, Feb. 11, 03. B.S, 25, M.S, 27; Ph.D, Iowa State Col, 30. Instr. and research chemist, Iowa State Col, 27–34; *research chemist, van Ameringen-Haebler, Inc, New York, 34–* Chemiluminescence in organic reactions; reactions of the ethylenic linkage and organomagnesium halides; alkyl magnesium bromide; commercial preparation of levulose; flavor research.

McGovern, Dr. John N(ellson), U. S. Forest Service, Madison, Wis. *Chemical engineering.* Milwaukee, Wis, Sept. 17, 07. B.S, Wisconsin, 29, M.S, 30, Ph.D, 36. Asst, *Forest Products Lab, U. S. Forest Service,* 29–30, junior technologist, pulp and paper sect, 30–35, asst. technologist, 35–42, *assoc. technologist, 42–* Tech. Asn. Pulp and Paper Indust. Pulp and paper technology; sulfite pulping; materials of construction.

McGovran, Dr. E(dward) R(awson), U. S. Department of Agriculture, Beltsville, Md. *Economic entomology.* South Milwaukee, Wis, Nov. 5, 02. B.S, West Virginia, 26; fellow, Rutgers, 27–28, M.S, 28; Ph.D, Iowa State Col, 33. Asst, Iowa State Col, 29–31; research entomologist, State Nat. Hist. Surv, Ill, and Exp. Sta, Illinois, 31–35; assoc. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* Ga, 35–37, *entomologist, Beltsville research center, 37–* Asn. Econ. Entom; Entom. Soc. Amer; Wash. Entom. Soc; Insecticide Soc. Wash. (chairman, 42). Toxicology of insecticides.

McGranahan, Dr. Donald V, 8422 Woodcliff Court, Silver Spring, Md. *Psychology.* Margaretsville, N. S, Can, June 24, 13. A.B, Harvard, 35, A.M, 37, Ph.D, 39. Instr. and tutor social psychol, Harvard and Radcliffe Col, 39–41; *senior social psychologist, For. Broadcast Monitoring Service, 41–* Psychol. Asn; Soc. Psychol. Study Social Issues. Psychology of language, thought and repression.

McGrath, Dr. J(ames) W(illiamson), Michigan State College, East Lansing, Mich. *Physics.* Kirkland, Ill, May 17, 12. A.B, Ft. Hays Kans. State Col, 33; A.M, Kansas, 34; Ph.D, Iowa, 39. Instr. and later *asst. prof. physics, Mich. State Col, 39–* Summer, staff lecturer, Iowa, 39. Physical Soc. X-rays; M edge absorption; dielectric constants of gases; ultrasonics.

McGrath, Rev. Joseph S(arto), University of Portland, Portland, Oregon. *Inorganic chemistry.* Hubbard, Oregon, Sept. 28, 03. A.B, Notre Dame, 32, Ph.D, 39; Catholic Univ, 32–36. Instr. *chem,* Notre Dame, 37; *prof. and head dept, Portland, 39–, dean col. science, 40–* A.A; Chem. Soc. (chairman, Oregon sect, 43); Soc. Metals; Ind. Chem. Soc; Soc. Chem. Indust. Gt. Britain; fel. London Chem. Soc; Deuts. Chem. Gesell. Dihydroxyfluoboric acid.

McGrath, Sister Mary, Marygrove College, Detroit, Mich. *Psychology.* Fitchburg, Mass, Aug. 24, 96. A.B, Michigan, 18; A.M, Pittsburgh, 20; Ph.D, Catholic Univ, 22. Teacher, high sch, Pa, 18–20; director student field work in sociol, Trinity Col. (D. C), 20–21; *prof.* psychol. and sociol, St. Mary's Col. (Mich), 22–25; *psychol, Marygrove Col, 26–* Child education; character training; moral and religious development of children.

McGraw, Dr. John, Jr, Concord College, Athens, W. Va. *Chemistry.* Point Pleasant, W. Va, Sept. 3, 01. B.S, W. Va. Wesleyan Col, 26; scholar, Hopkins, 26–27, 28–30, Ph.D, 30. Exp. eng. dept, du Pont Ammonia Corp, W. Va, 27–28; instr. *chem,* Tennessee, 30–33; *head dept, Concord Col, 34–* A.A; Chem. Soc. Thermal energy; heat capacity of nitrogen pentoxide at low temperatures.

McGraw, Dr. Myrtle B(yram) (Mrs. R. F. Mallina), 162 Villard Ave, Hastings-on-Hudson, N. Y. *Psychology.* Birmingham, Ala, Aug. 1, 99. A.B, Ohio Wesleyan, 23; A.M, Columbia, 25, fellow, 29–30, Ph.D, 31. Asst, inst. child develop, Teachers Col, Columbia, 25–27; asst. prof. psychol, Fla. State Col. for Women, 28–29; research psychologist and assoc. director, nor. child develop. study, Babies Hosp, 30–42. A.A; Psychol. Asn; Soc. Research Child Develop; Harvey Soc; N. Y. Acad. Med. Genetic psychology; reflexive and adaptive behavior in infants; growth.

McGreal, Prof. Martin E(dward), Hotel St. George, Brooklyn, N. Y. *Chemistry.* Somersworth, N. H, Nov. 12, 01. B.S, New Hampshire, 23; M.S, N. Y. Univ, 24, Ph.D, 28; Graz, 29. Asst, N. Y. Univ, 23–28, instr. *chem,* 28–29; Pittsburgh, 29–33; *prof, St. John's (N. Y), 33–* Summer, research chemist, Rohm and Haas, 28. Chem. Soc. Micro-organic analysis; condensation of unsaturated alcohols and phenolic bodies; invert soaps.

MacGregor, Prof. C(harles) W(inters), 23 Leicester Road, Belmont, Mass. *Mechanical engineering.* Dayton, Ohio, May 25, 08. B.S, Michigan, 29; M.S, Pittsburgh, 32, Ph.D, 34. Research engineer, Westinghouse Elec. and Mfg. Co, East Pittsburgh, Pa, 29–34; asst. engineer, U. S. Bur. Reclamation, 34; instr. *mech. eng, Mass. Inst. Tech,* 34–37, asst. prof, 37–38, assoc. prof, 38–41, *prof, 41–* Summer, asst. engineer, Gulf Research and Develop. Corp, 34. Levy medal, Franklin Inst, 41; Dudley medal, Am. Soc. Testing Materials, 41. A.A; Naval Res. Officers Asn; Min. and Metal. Eng; Mech. Eng; Soc. Test. Mat; Soc. Metals. Applied mechanics; theories of plasticity and elasticity; testing of materials.

MacGregor, Prof. Donald G(ordon), Mt. Allison University, Sackville, N. B, Can. *Physics.* Amherst, N. S, July 13, 95. B.A, Dalhousie, 18; Nat. Research Council Can. student,

McGill, 18–19; Rhodes scholar, Oxford, 19–22, B.A, 22, M.A, 30. *Prof. physics, Mt. Allison, 22–* Physical Soc; Asn. Physics Teachers. Electrical measurements; electron tube circuits.

McGregor, Prof. Douglas (Murray), Massachusetts Institute of Technology, Cambridge, Mass. *Psychology.* Detroit, Mich, Dec. 16, 06. A.B, Wayne, 32; A.M, Harvard, 33, Ph.D, 35. Instr. and tutor psychol, Harvard, 35–37; instr. and asst. prof, *Mass. Inst. Tech,* 37–42, *assoc. prof. indust. relations, 42–, assoc. director sect, 41–* Director indust. relations, Dewey and Almy Chem. Co. Psychol. Asn; Asn. Applied Psychol; Arbitration Asn. (panel arbitrators, 42–). Human relations in industry; union-management relations in industry.

McGregor, E(rnest) A(lexander), P. O. Box 70, Whittier, Calif. *Entomology.* Everett, Mass, Dec. 1, 80. A.B, Stanford, 08, A.M, 09. Asst. to curator of herbarium, Stanford, 06–09; asst. and *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 10–* Field asst. to sec'y, State Board Health, Calif. A.A; Entom. Soc; Asn. Econ. Entom; fel. Entom. Soc. Amer. Polyclads; Sierra spermatophytes; South Carolina plants; pests of the cotton plant; Mallophaga; Tetranychidae; Japanese Salmonidae; citrus pests; sulfur as an insecticide.

Macgregor, Dr. Gordon, U. S. Office of Indian Affairs, Denver, Colo. *Anthropology.* Haverhill, Mass, July 5, 02. A.B, Yale, 25, Yale fellow, Bishop Museum, Honolulu, 31–32; Ph.D, Harvard, 35. Archeol. asst, Harvard-Pennsylvania archeol. exped, Czechoslovakia, 30; asst. anthrop, Harvard, 30–31, 35; staff ethnologist, Bishop Museum, Honolulu, 33–34; archeologist, surveyor and photographer, Egypt Exploration Soc, London, England, 35–36; asst. anthropologist, *U. S. Office Indian Affairs,* 36–38, *assoc. supervisor Indian educ. and anthrop, 38–* Summer, lecturer, Oklahoma, 41. Mem. human dependency surv, soil conservation service, U. S. Dept. Agr, 37. Anthrop. Asn. Oceanic ethnology and physical anthropology; European archeology; applied anthropology; American Indian.

McGregor, Prof. J(ames) H(oward), Columbia University, New York, N. Y. **²Zoology.* Bellaire, Ohio, July 23, 72. B.S, Ohio State, 94; fellow, Columbia, 95–97, A.M, 96, Ph.D, 99. Asst. *zool,* Ohio State, 94–95; *Columbia,* 97–99, tutor, 99–04, lecturer, 04–06, instr, 06–07, adj. prof, 07–14, assoc. prof, 14–24, prof, 24–42, *emer. prof, 42–* Instr, Marine Biol. Lab, Woods Hole, 99–06; assoc, Am. Museum Nat. Hist, 16– A.A; Soc. Nat; Soc. Zool; Asn. Physical Anthrop; Paleont. Soc; Philos. Soc; Soc. Mammal; fel. N. Y. Zool. Soc. Vertebrate morphology; spermatogenesis; vertebrate paleontology; morphology and relationships of the Phytosauria; South American Proganosauria; evolution of vertebrates; Pleistocene races of man.

McGregor, John C(harles), State Teachers College, Flagstaff, Ariz. *Archeology.* Pontiac, Ill, Nov. 10, 05. A.B, Arizona, 31, A.M, 32; Chicago, 35, 38. Curator archeol. and dendrochronology, Museum North. Ariz, 32–42; *instr. social and physical sciences, Ariz. State Teachers Col, Flagstaff, 32–* Acting chief, Ill. State Museum, 42– Summer, Museum North. Ariz. and Ariz. State Teachers Col, Flagstaff, 30. Archeol. expeds, Ariz, 27– A.A. Dendrochronology; ethnography; ecology.

McGregor, Dr. Leone, Villagatan 10, Stockholm, Sweden. *Medicine, Pathology.* Carnduff, Sask, Can, Jan. 19, 00. M.D, Alberta, 25, fellow, 25–26; fellow, Minnesota, 26–29, M.S, 27, Ph.D, 29. Nat. research fellow path, Boston City Hosp, 29–30; Eppendorfer Krankenhaus, Hamburg, 30–31; *Radiumhemmet, Stockholm, Sweden, 31–* Asn. Path. and Bact. Finer histology of the kidney in health and disease, especially changes in the glomerulus in glomerulo nephritis and in essential hypertension.

McGregor, Dr. R(ob) R(oy), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Ottawa, Ont, Can, July 10, 92. B.A, McMaster, 16, M.A, 23; Ph.D, Illinois, 26. Dom. analyst, Dept. Health, Ottawa, 20–23; research chemist, Wm. Davies Co, 26–27; *fellow, Mellon Inst, 27–* A.A; Chem. Soc. Fats; unsaturated fatty acids; hatters' furs; glass.

McGregor, Dr. W(illiam) Grant, Central Experimental Farm, Ottawa, Ont, Can. *Agronomy.* Tiverton, Ont, April 5, 00. B.S.A, Toronto, 24; M.S, Minnesota, 29; Ph.D, Iowa State Col, 36. *Cerealist, cereal div, Dom. Exp. Farms, Can. Dept. Agr, 29–* Can. Soc. Tech. Agr. Genetics of flax, buckwheat and field beans.

McGrew, Dr. Frank C(lifton), 530 Marsh Road, North Hills, Wilmington, Del. *Organic chemistry.* Seward, Nebr, Jan. 28, 14. B.S, Nebraska, 34, M.S, 35; Chem. Foundation fellow, Illinois, 35–37, Ph.D, 37. Asst. org. chem, Nebraska, 34–35; *research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Synthetic and polymeric organic chemistry.

McGrew, Dr. Paul O(rman), Field Museum of Natural History, Chicago, Ill. *Vertebrate paleontology.* Ottumwa, Iowa, Aug. 27, 09. A.B, Nebraska, 33; A.M, California, 35; fellow, Chicago, 36–38, Ph.D, 42. Museum asst, Nebraska, 29–33; asst. *paleont, Field Museum Nat. Hist,* 38–39, *asst. curator, 40–* Mem. expeds, Great Plains, 29–37, 39–40; Honduras, 37–38, 41–42. Soc. Vert. Paleont. Fossil mammals; tertiary mammals of North and Central America.

McGrew, Prof. R(alph) V(incent), Pennsylvania State College, State College, Pa. *Chemistry.* Palmyra, Nebr, July 20, 01. B.S, Nebraska, 23, M.S, 24; Ph.D, Northwestern, 27. Instr. *chem,* Northwestern, 27; research fellow, Harvard, 27–29; research instr, *Pa. State Col,* 29–30, *asst. prof, 30–* Chemist, Rohm and Haas Co, Phila, 30. A.A; Chem. Soc. Organic chemistry; hemoglobin; organic arsenic compounds.

McGuigan, Dr. Hugh Alister, University of Illinois College of Medicine, Chicago, Ill. *Pharmacology, Physiology.* Lisburn, Ireland, March 29, 74. B.S, N. Dak. Col, 98; Michigan, 00–01; fellow, Chicago, 02–05, Ph.D, 05, M.D, Rush, 08; Heidelberg, 08–09. Asst. prof. chem, N. Dak. Col, 98–02; asst. biochem. and pharmacol, Chicago, 02–05; asst. prof. pharmacol, Washington (St. Louis), 06–08, acting prof. physiol. and pharmacol, 09–10; prof. pharmacol, Northwestern, 10–17; *pharmacol. and therapeut, col. med, Illinois,* 17–42, *emer. prof, 42–* Aid, bur. chem. and later bur. chem. and soils, U. S. Dept. Agr, 00– Soc. Pharmacol; Col. Physicians; Soc. Biol. Chem; Physiol. Soc; Chem. Soc; Am. Med. Asn; Inst. Med. Chicago. Oxidizing power of cupric acetate solutions; the condition of the sugar in the blood; glycolysis; site of the action of strychnine; action of the ultra-violet rays on nicotine; circulatory effects of potassium in relation to epinephrine.

McGuinn, Rev. Albert F(rancis), S.J, Boston College, Chestnut Hill, Mass. *Analytical chemistry.* Worcester, Mass, March 1, 01. B.S, Mass. State Col, 22; M.S, Rutgers, 23; A.B, Boston Col, 30, A.M, 31; Ph.D, Fordham, 33. Instr. *chem,* Weston Col, 29–31; *prof, Boston Col, 38–, chairman dept, 38–* Chem. Soc. Detoxication studies; analytical methods.

McGuinness, Charles L(ee), U. S. Geological Survey, Washington, D. C. *Geology.* Santa Fe, N. Mex, Sept. 16, 14. B.S, New Mexico, 34, fellow, 34–36, M.S, 36. Junior soil technologist, soil conservation service, U. S. Dept. Agr, 37–38; junior geologist, *U. S. Geol. Surv,* 38–40, *asst. geologist, 40–* Geophys. Union; Geol. Soc. Wash. Mineralogy; ground-water hydrology.

McGuinness, Dr. M(ichael) J(oseph), Jr, 1411 Meadow Road, Columbus, Ohio. *Chemistry.* Santa Fe, N. Mex, April 15, 13. B.S, New Mexico, 34; M.S, Syracuse, 38, Ph.D, 41. Asst. chem, Syracuse, 34–41; research assoc, *Battelle Mem. Inst,* 41–42, *research engineer, 42–* Chem. Soc. (local councillor and ed, 'Syracuse Chemist,' 39–41). Physical and organic chemistry; thermodynamics; fugacity of gaseous n-butyric acid; kinetics; radiochemistry; effect of strong electrical fields on the radio-chemical decomposition of gaseous ammonia; synthetic drying oils; olefins.

McGuire, Grace M(ary), The Wilson Apartments, Shelton Ave, Jamaica, L. I, N. Y. *Chemistry.* Brooklyn, N. Y, Dec. 8, 93. B.S, Syracuse, 15; A.M, Columbia, 22. Chemist, Harriman research lab, Roosevelt Hosp, 15–28; Harriman research fund, med. col, N. Y. Univ, 29–36, dept. bacter, 32–33, research fellow, dept. prev. med, 33–36; *director, Vitamin D Testing Lab, 35–; sec'y and chemist in charge chem. lab, Lab. Indust. Hygiene, Inc, 36–* Chemist, path. lab, Roosevelt Hosp, 16–17; N. Y. County Med. Milk Cmt, 32– A.A; Chem. Soc; N. Y. Acad. Creatinin; enzymes; meat spoilage; antibodies; bacterial metabolism; vitamins; typhoid immunization.

McGuire, Dr. J(ames) M(yrlin), 3145 N. Illinois St, Indianapolis, Ind. *Medical mycology.* DeWitt, Nebr, May 12, 09. A.B, Nebr. State Teachers Col, 30; M.S, Iowa, 38, Ph.D, 40. Prin, high sch, Nebr, 30–31, prin. and athletic coach, 31–36; *med. mycologist, Eli Lilly and Co, 40–* Mycol. Soc; Ind. Acad. Pharmacological utilization of fungi; immunology of fungus diseases; therapeutic agents for treating fungous diseases.

McGuire, James W(illiam), 251 11th St, S. E, Washington, D. C. *Geography.* Nashville, Ark, Nov. 4, 66. Booneville Acad; private col. courses, Ark. Topographic field and office work, C.Eng, U. S. Army, Ala. and Ark, 98–00; topographer, mil. headquarters Alaska at Seattle, 00; topog. draftsman, *U. S. Coast and Geod. Surv,* 00–17, cartographer, 17–23, *senior cartographic engineer,* 23–36, *42–*; retired, 36–42. Mem. U. S. Geog. Board, 19–26; cartographic asst, U. S. Tariff Cmn, 22. Ed. cartographic terms and physical geog, Webster's Int. Dictionary, 31–34. Staff asst, Cong. Joint Cmn. of Reclassification, 19–23. Capt, C.Eng, 17; chief cartographer and tech. adviser of inquiry cmn, advisory to Pres. Wilson, 17–18. A.A; Wash. Theosophical Soc. (pres, 22–). Cartography; phytogeography; zoogeography; ethnogeography; historical, linguistic and etymological elements of geographical names; physical hydrography and maritime exploration; submarine configuration; geographical dictionary of the Virgin Islands.

McGuire, Dr. Stuart, 2304 Monument Ave, Richmond, Va. *Surgery.* Staunton, Va, Sept. 16, 67. M.D, Virginia, 91; LL.D, Richmond, 16. Past pres, Med. Col. of Va. Surgeon, St. Luke's and other hosps; professorial lecturer, Yeshiva Col, 34. D.S. medal; French medal of honor. Lieut. col, M.C, 17–19. A.A; Surg. Asn; South. Med. Asn. (past pres). Principles of surgery.

McGuire, Prof. W(aldemar) S(tanwood), 360 Huntington Ave, Boston, Mass. *Analytical chemistry.* Boston, Mass, May 24, 95. B.S, Mass. Inst. Tech, 18; R. I. State Col, 21–24; Harvard, 23; A.M, Boston Univ, 30. Instr. physics and chem, Tufts Col, 20–21; chem, R. I. State Col, 21–24; asst. prof. chem. eng. and later *chem, Northeastern,* 24–43, *assoc. prof, 43–* Chem. Soc; Eng. Educ. Oxidation-reduction indicators; spot tests in qualitative analysis.

Machacek, Dr. J(ohn) E(mil), Dominion Rust Research Laboratory, Winnipeg, Man, Can. *Botany.* Bohemia, Czechoslovakia, June 18, 02. B.S.A, Saskatchewan, 24, Nat. Research Council Can. bursar, 24–25, M.S, 25; Ph.D, McGill, 28. Asst. plant path, Macdonald Col, McGill, 26–29, lecturer, 29–30; *asst. plant pathologist, Dom. Rust Research Lab, 30–* Phytopath. Soc; West. Soc. Agron; Can. Phytopath. Soc; Que. Soc. Protect. Plants; Man. Soc. Agron. Soil mycology; physiology of soil fungi; association of phytopathogens; effects of soil alkali and seed injury on root-rot; penicillium rot of gladioli; diseases of cereals and onions; development of new methods of testing seed for disease; reed-borne fungi; vegetable diseases.

McHargue, Dr. J(ames) S(pencer), R.F.D. 6, Lexington, Ky. *Chemistry.* Boreing, Ky, Jan. 29, 78. B.S, Kentucky, 06, M.S, 14; George Washington, 07–08; Ph.D, Cornell, 21; Sc.D, Clemson Col. Teacher, schs, Ky, 98–02; asst. chemist, Exp. Sta, Kentucky, 06; Bur. Standards, 06; hygienic lab, U. S. Pub. Health Service, 06–08; chemist, Ky. Geol. Surv, 08–12; *research chemist, Exp. Sta, Kentucky, 12–, head dept. chem, 27–* Prize, Am. Soc. Agron, 35. A.A; Chem. Soc; Soc. Biol. Chem; Agr. Chem; Soc. Agron; Ky. Acad; Royal Soc. Arts. Agricultural chemistry; elements necessary for the growth of plants; occurrence of manganese, copper, zinc, nickel, cobalt, boron and iodine in rocks, soils, plants and animals; agriculture.

McHatton, Prof. T(homas) H(ubbard), University of Georgia, Athens, Ga. *Horticulture.* Brooklyn, N. Y, Nov. 12, 83. B.S, Spring Hill Col, 03, Sc.D, 07; B.S, Mich. State Col, 07, M.Hort, 22; Cornell, 07; Iowa State Col, 10. *Prof. hort, Georgia, and horticulturist, Exp. Sta, 08–* Hort. ed, 'South. Ruralist,' 08–28. Col, C.W.S.R; capt. aviation production, 18. A.A. (councilor, 26); Soc. Hort. Sci. (v. pres, 23, 27, pres, 31); Pomol. Soc. (exec. cmt, 22); Asn. South. Agr. Workers (chairman, hort. sect, 27); Nat. Pecan Asn. (2nd v. pres, 26, pres, 29); Ga. Hort. Soc. (treas, 11, sec'y, 12, pres, 25); Ga. Acad. (pres, 28). Pomology; canning; education; economic entomology.

Machella, Dr. Thomas Emery, 3400 Spruce St, Philadelphia, Pa. *Medicine, Physiology.* Eckley, Pa, Jan. 28, 10. A.B, Pennsylvania, 31, M.D, 35. Asst. instr. physiol, *Pennsylvania,* 30–31, *med,* 38–41, *instr, 41–, Edward Bok fellow, 38–, instr. physiol, 39–, Justice M. Thompson fellow, 40–,* Arthur W. Thompson fellow, 41; *U. S. Army.* Commonwealth fellow, Mayo Foundation, Minnesota, 39–; research fellow, Phila. Gen. Hosp, 40–; physician gastro-intestinal sect, univ. hosp, Pennsylvania, 41– Am. Med. Asn; Soc. Clin. Invest; Federation Clin. Research; Phila. Physiol. Soc. Experimental surgery; physiology and pathology of liver and gastro-intestinal tract; vitamin deficiencies.

McHenry, Donald Edward, U. S. National Park Service, Washington, D. C. *Ecology.* Great Bend, Pa, Aug. 28, 95. A.B, Wyoming, 28; fellow, 28–29, A.M, 29. Asst, Wyoming, 27; asst. prof. bot, Okla. Agr. and Mech. Col, 29–32; junior park naturalist, Grand Canyon Nat Park, *U. S. Nat. Park Service,* 32–36, *park naturalist, Nat. Capital Parks, 36–* Summers, lecturer, Rocky Mt. Nat. Park, 28–31. A.A; Biol. Soc. Wash; Geol. Soc. Wash. Plant ecology; vegetation of Gregory Canyon, Colorado; plant life cycle chart showing alternation of generations; natural history of Grand Canyon National Park; nature trails of the National Capital Parks.

McHenry, Prof. E(arle) W(illard), 10 Forest Wood, Toronto, Ont, Can. *Biochemistry.* Streetsville, Ont, Jan. 25, 99. B.A, Toronto, 21, M.A, 23, Ph.D, 29. Lecturer chem, faculty dentistry, Toronto, 21–23; research lab, Dom. Canners, 23–25; biol. labs, E. R. Squibb and Sons, 25–27; asst. *physiol. hygiene, Toronto,* 27–29, lecturer, 29–35, asst. prof, 35–38, *assoc. prof, 38–,* head dept. nutrition, sch. hygiene, *41–,* research assoc, *Connaught Labs,* 28–41, *asst. director, 41–* Soc. Biol. Chem; Chem. Soc; Inst. Nutrition; Can. Chem. Asn; Can. Physiol. Soc. Biochem. Soc. Gt. Britain. Nutrition.

McHenry, Prof. M(artin) J(osiah), 1130 Clifton St, Conway, Ark. *Chemistry.* Jacksonville, Ark, Oct. 13, 88. A.B, Hendrix Col, 09; M.S, Chicago, 13; Ph.D, Iowa, 25. *Prof. chem,* Scarritt-Morrisville Col, 09–11; *Hendrix Col, 11–* Ark. Acad. (pres, 39). Analytical chemistry; electrometric titrations.

Machin, Dr. J(ames) S(tewart), Illinois Geological Survey, Urbana, Ill. *Chemistry.* St. Louis, Mo, Oct. 14, 93. A.B, Westminster Col. (Mo), 21; M.S, Illinois, 22; Ph.D, Chicago, 32. Asst. chem, Illinois, 22; instr, Westminster Col. (Mo), 22–24; prof. chem, Sioux Falls Col, 24–36; *chemist and head indust. minerals div, geochem. sect, Ill. Geol. Surv, 36–* Asst, Chicago, 32. Chem. Soc; Min. and Metal. Eng. Physical chemistry; industrial minerals.

Machle, Dr. Willard, Armored Medical Research Laboratory, Ft. Knox, Ky. *Physiology.* Cincinnati, Ohio, Aug. 21, 01. B.S, Cincinnati, 22, M.D, 25. Instr. physiol, *research assoc. applied physiol, col. med, and asst. director, Kettering lab. applied physiol, Cincinnati, 31–; col, Med. Corps, U. S. Army.* A.A; fel. Am. Med. Asn; fel. Pub. Health Asn; fel. Col. Physicians; Chem. Soc; Indust. Hygiene Asn; Cent. Soc. Clin. Research; fel. Ohio Acad; Cincinnati Acad. Med. Physiology of organometallic compounds; fluorine and fluorides; nitroparaffins; acid gases; industrial toxicology; internal medicine; physiology of extremes of temperature; physiology of vision; clinical investigation.

Machler, Dr. Raymond C(harles), 625 Vernon Road, Germantown, Pa. *Physics.* Evanston, Ill, Feb. 9, 06. B.S, Northwestern, 29, A.M, 33, Ph.D, 35. *Research engineer, Leeds and Northrup Co, 35–* Physical Soc. Industrial research; interferometry; optical pyrometry.

Machmer, Prof. William L(awson), 151 Amity St, Amherst, Mass. *Mathematics.* Moselem, Pa, Jan. 30, 83. A.B, Franklin and Marshall Col, 07, A M, 11; hon. Ed.D, Am. Int. Col, 36. Head dept. math, Franklin and Marshall Acad, 07–11; instr, Mass. Col, 11–13, asst. prof, 13–19, assoc. prof, 19–20, prof. and asst. dean, 20–26, *prof. math. and dean,* 26–31, *Mass. State Col, 31–* Mem. special staff, surv. land grant col. educ, U. S. Dept. Educ, 29. Sec'y, New Eng. Col. Ent. Certificate Board. With Fed. Bur. Markets, 18–19. East. Asn. Deans and Advisers Men (pres); Math. Asn. New Eng; New Eng. Asn. Col. and Prep. Schs. Curricular guidance; student assistance.

Macht, Dr. David I(srael), 3420 Auchentoroly Terrace, Baltimore, Md. *Pharmacology.* Moscow, Russia, Feb. 14, 82. A.B, Hopkins, 02, M.D, 06; Berlin, Munich and Vienna, 06–07; LL.B, Hamilton, 15; Harvard, 03, 04; hon. Phar.D, Maryland, 24; D.Litt, Yeshiva Col, 29. Instr. med. and asst. pharmacol, Hopkins, 08–18, lecturer pharmacol. and therapeut. and pharmacologist, Brady Inst, 18–25, lecturer clin. pharmacol, Hopkins, 25–32; *director pharmacol. research lab, Hynson, Westcott and Dunning, Inc, 25–;* prof. lecturer gen. physiol, Yeshiva Col, 33–40. A.A; Soc. Nat; Pharmaceut. Asn; Col. Physicians; Am. Med. Asn; Chem Soc; Physiol. Soc; Soc. Exp. Biol; Therapeut. Soc; Psychol. Asn; Optical Soc; Bot. Soc; Oriental Soc; Linguistic Soc; Soc. Pharmacol; Soc. Plant Physiol; Am. Acad; Inst. Physics; Deuts. Pharmakol.

Gesell; Physiol. Gesell; Verein Judischer Akad. Biophysics of ultra-violet and polarized light; phytopharmacology; psychopharmacology; micropharmacology; absorption; toxicology and history of drugs; toxins of pernicious anemia, leprosy, pemphigus, trachoma, snake venoms and virus sera; heparin; bone marrow; mercurials; fish poisons.

Macht, Dr. Martin B(enzyl), 14 E. Eager St, Baltimore, Md. *Physiological psychology, Neurophysiology.* Baltimore, Md, Aug. 31, 18. A.B, Hopkins, 39, Ph.D, 42, 42– Asst. instr. psychol, *Hopkins,* 39–42, *instr. physiol, med. sch,* 42– Assoc. Psychol. Asn. Neural basis of emotions; localization of function in the central nervous system; effects of drugs upon psychological functions; conditioned reflexes; decerebrate preparations in the chronic state.

Macht, Maurice L(eon), E. I. du Pont de Nemours and Co, Arlington, N. J. *Chemistry.* Mannington, W. Va, Dec. 23, 04. B.S, Virginia, 25; Columbia, 25–26. Anal. chemist, du Pont Viscoloid Co, 25–28, research chemist, 28–30; research chemist and plastics consultant, Du Plate Corp, Creighton, Pa, 30; research chemist and chem. engineer, *E. I. du Pont de Nemours and Co,* 30–35, *supervisor* molding powder research and develop, 35–42, *research and develop. on existing plastics,* 42– Soc. Test. Mat; N. Y. Acad. Cellulose esters; synthetic resins; polymerization; solvents and plasticizers; laminated safety glass; safety glass plastics; physical testing; plastics manufacturing processes; molding powders.

McHugh, Rev. Daniel J(oseph), 2244 N. Kenmore Ave, Chicago, Ill. *Astronomy.* Danville, Ill, Jan. 27, 77. St. Vincent's Col. (Calif), 01–06. Instr. astron, math. and Latin, St. Vincent's Col. (Calif), 01–06; philos, trigonometry and psychol, St. Vincent's Col. (Ill), 06–07; physiog. and astron, De Paul, 07–40; rector, Vincentian House of Studies, Washington, D. C, 40–41; *v. pres, De Paul,* 41– Lecturer, KYW, 24. Physical Soc; Astron. Soc. (cmt. standardization of pronunciation of constellation and star names, 41); fel. Royal Astron. Soc. Philosophical and psychological aspects of literature on relativity.

McHugh, Dr. Gelolo, Barnard College of Columbia University, New York, N. Y. *Psychology.* Union, S. C, June 19, 07. A.B, Presbyterian Col, 29; A.M, Columbia, 34, Ph.D, 42. Asst. biol. and psychol. foundations of education, Teachers Col, *Columbia,* 37–39, *instr. psychol, Barnard Col,* 39– Assoc. Psychol. Asn. Child psychology; mental testing; development of motor coordination at pre-school age; changes in intelligence quotient at the public school kindergarten level; reading speed and comprehension of college students.

Machwart, Prof. G(eorge) M(aurice), 4605 Queensbury Road, Riverdale, Md. *Chemistry, Chemical engineering.* Savannah, Ohio, April 6, 03. B.S, Wooster Col, 25, M.S, 26; fellow, Ohio State, 28–30, Ph.D, 30. Teacher, high sch, Ohio, 26–27; cooperative *asst. prof.* indust. chem, *Maryland,* 30–37, *chem. eng,* 37– Summers, acting assoc. prof, Ohio State, 38–42. Chem. Eng; Chem. Soc. Heating behavior of clays; inhibitors for asphaltene formation in lubricating oils; feldspar purification.

McIlvain, J(ohn) M(incer), 3144 Passyunk Ave, Philadelphia, Pa. *Physical chemistry.* Columbus, N. J, June 5, 00. B.S, Pennsylvania, 24. Chemist, *Atlantic Ref. Co,* 24–38, *admin. supervisor,* 38– Instr. chem, evening sch, Drexel Inst, 25–37. Chem. Soc; Inst. Chem. Physical chemistry of petroleum; specific heats of mineral oils; color scale for mineral oils; administration of industrial research.

McIlvaine, Dr. Harold (Ralph Clair), 722 Mahantongo St, Pottsville, Pa. *Botany.* Altoona, Pa, Dec. 4, 12. A.B, Pa. State Col, 33, M.Ed, 34, Ph.D, 39. Asst, *Pa. State Col,* 36–39, *instr. bot, zool. and psychol, undergrad. centers,* 39– Pa. Acad. Cytology of Digitalis and Salvia.

McIlvaine, Dr. T(heodore) C(linton), Lakin, W. Va. *Soils.* Paradise, Pa, 75. B.S, M.S, Pa. State Col, 17; Ph.D, Ohio State, 24. Asst. agronomist and *assoc. agronomist, Exp. Sta, West Virginia, 17–; agent, tobacco investigations, bur. plant indust, U. S. Dept. Agr, 18–* Buffer solution for colorimetric comparison; effect of reaction on plant growth and production; fertility.

McIlwain, Prof. Knox, Hazeltine Electronics Corp, Little Neck, N. Y. *Electrical engineering.* Philadelphia, Pa, Sept. 4, 97. B S, Princeton, 18; B.S, Pennsylvania, 21, E.E, 30. Bell. Tel. Co, 21–24; instr. elec. eng, Moore Sch. Elec. Eng, Pennsylvania, 24–28, asst. prof, 28–37, assoc. prof, 37–40, prof, 40–42; *U. S. Army research work on contracts, Hazeltine Service Corp, New York,* 42– U.S.N, 17–18. Assoc. ed. in chief, 'Elec. Engineers Handbook,' 36. Radio Eng. High frequency alternating currents; radio field strength survey of Philadelphia; the large manufacturer as consumer.

McIlwraith, Dr. Charles G(oldie), The Texas Co, Beacon, N. Y. *Physics.* New York, N. Y, March 1, 03. A.B, Reed Col, 25; M.S, N. Y. Univ, 26, Ph.D, 28. Asst. physicist and assoc. physicist, Bur. Standards, 28–32; senior elec. engineer, U. S. Coast and Geod. Surv, 32–38; *physicist, Texas Co,* 38–; *lieut, U. S. Naval Res,* 41– Tech. adviser, Tech. Radio Consulting Cmt, Copenhagen, 31. A.A; Physical Soc. Contact electrification; electron scattering and polarization; frequency standardization and time measurements; underwater acoustics; echo sounding and sound ranging; electronics; electron diffraction.

McIlwraith, Prof. T(homas) F(orsyth), University of Toronto, Toronto, Ont, Can. *Anthropology.* Hamilton, Ont, 99. B.A, Cambridge, 21, M.A, 24. Asst. ethnologist, Can. Dept. Mines, 22–24; asst, inst. psychol, Yale, 24–25; *keeper ethnol. collections, Royal Ont. Museum Archeol,* 25–, *asst. director,* 30–; lecturer *anthrop, Toronto,* 25–26, asst. prof, 26–29, assoc. prof, 29–36, *prof,* 36– Anthrop. Asn; Royal Anthrop. Inst. Gt. Britain and Ireland; fel. Royal Soc. Can; Royal Can. Inst. (v. pres, 41; pres, 42). Ethnology in British Columbia.

McIndoe, Dr. K(enneth) G(illies), Inspection Board of the United Kingdom and Canada, 15 Broad St, New York, N. Y. *Plant pathology.* Dunedin, New Zealand, July 30, 03. B.Agr, New Zealand, 25, B.Sc, 26, M.Sc, 28; Ph.D, Minnesota, 30. Director research dept, Firestone Plantations Co, W. Africa, 31–40; *inspecting officer, Inspection Board United Kingdom and Can,* 40– Plant breeding; genetics of maize; rubber cultivation.

McIndoo, Dr. N(orman) E(ugene), U. S. Department of Agriculture, Washington, D. C. *[7]Zoology, Entomology.* Lyons, Ind, April 11, 81. A.B, Indiana, 06, fellow, 08–09, A.M, 09; fellow, Pennsylvania, 09–11, Ph.D, 11. Asst, Indiana, 05–06; teacher, high sch, Wis, 06–08; *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr,* 11– Collector fish, Cuba and Ind, 05. Entom. Soc; Asn. Econ. Entom; Soc. Zool; Entom. Soc. Wash. Insect behavior; sense organs and histology of insects; physiological effects of insecticides; tropisms.

MacInnes, Dr. A(lexander) S(tewart), Inspection Board of the United Kingdom and Canada, Nitro, Que, Can. *Organic chemistry.* Vancouver, B. C, May 10, 16. B.A, British Columbia, 36; Ph.D, McGill, 41. *Asst. chief chemist, Inspection Board United Kingdom and Can,* 41– Lignin; smokeless powder analysis.

MacInnes, Dr. Duncan A(rthur), Rockefeller Institute, New York, N. Y. *[4]Physical chemistry.* Salt Lake City, Utah, March 31, 85. B.S, Utah, 07; M.S, Illinois, 09, Ph.D, 11. Instr. chem, Illinois, 11–14, assoc, 14–17; asst. prof. physical chem. research, Mass. Inst. Tech, 17–21, assoc. prof, 21–26; assoc. mem, *Rockefeller Inst,* 26–40, *mem,* 40– Nichols medal, 42. Nat. Acad; Chem. Soc; Electrochem. Soc. (pres, 35–37); Physical Soc; Harvey Soc; Am. Acad; N. Y. Acad; Royal Soc. Arts. Solutions of electrolytes; electrochemistry.

McInteer, Prof. B(erthus) B(oston), 134 University Ave, Lexington, Ky. *Botany.* East Fork, Ky, March 25, 87. B.S.A, Kentucky, 17, M.S, 26; Ph.D, Ohio State, 32. County farm agent, exten. div, *Kentucky,* 20–23, instr. *bot,* 24–25, asst. prof, 25–33, *assoc. prof,* 33– A.A; Limnol. Soc; Micros. Soc; Ecol. Soc; Taxon. Soc; South. Appalachian Bot. Club; Ky. Acad. Algae of Kentucky; woody plants of Kentucky.

McIntire, Dr. Floyd C(ottam), Abbott Laboratories, North Chicago, Ill. *Biochemistry.* Price, Utah, Sept. 10, 14. A.B, Brigham Young, 36, A.M, 37; Ph.D, Wisconsin, 40. Indust. research fellow biochem, Wisconsin, 40–41; asst. chemist agr. chem, Exp. Sta, N. Dak. State Col, 41–42; *research biochemist, Abbott Labs,* 42– A.A; Chem. Soc. Nutrition and metabolism of microorganisms; carbohydrates produced by microorganisms.

MacIntire, Prof. H(orace) J(ames), University of Illinois, Urbana, Ill. *Mechanical engineering.* Ft. Worth, Texas, May 3, 80. M.M.E, Harvard, 11. Asst. prof. *refrig, dept. mech. eng, Illinois,* 20–21, assoc. prof, 21–31, *prof,* 31– Mech. Eng; Soc. Refrig. Eng. (director, 32–34). Heat transfer; the flow of fluids.

MacIntire, Dr. W(alter) H(oge), University of Tennessee, Knoxville, Tenn. *Chemistry.* Wilmington, N. C, May 19, 85. B.S, N. C. State Col, 05; M.S, Pa. State Col, 09; Ph.D, Cornell, 16; Sc.D, Clemson Col, 37. Chemist, State Board Health, N. C, 05–07; asst. chemist, inst. animal nutrition, Pa. State Col, 07–08, asst. and assoc. agron, 08–12; soil chemist, *Exp. Sta, Tennessee,* 12–20, *head dept. and chemist, 20–;* from chemist to *prin. chemist, Tenn. Valley Authority, 33–* Wiley Mem. lecturer, Asn. Official Agr. Chemists, 35, general referee soils and liming materials. Assoc. ed, 'Soil Sci,' 18– Herty gold medal, Am. Chem. Soc, 36. Lieut. col, C.W.Res. A.A; Chem. Soc; Soc. Agron; Asn. Official Agr. Chemists (pres, 27); Crop Protection Inst. (board governors, 28–); Int. Soc. Soil Sci. (sec'y, soil chem. cmn, 27). Lysimeter studies as to reactions and outgo of nutrients; calcium and magnesium in soils and fertilizers in relation to potassium, phosphorus, sulfur, silicon dioxide, phosphorus pentoxide, fluorine and nitrogen; metaphosphates and calcium silicate slags.

McIntire, William C(ornelius), Highway 30, R.F.D, Lebanon, N. J. *Chemistry.* Cincinnati, Ohio, April 8, 98. A.B, Cincinnati, 19 Chemist, dye plant, Ault and Wiborg Co, Cincinnati, 19-21; dye and pigment color plant, Sherwin-Williams Co, Chicago, 21–23; chief chemist, Nat. Ultramarine Co, Cincinnati, 23–27; *research chemist,* N. J. Zinc Co, Palmerton, 27–32; *United Color and Pigment Co, Newark, 32–* A.A; Chem. Soc; fel. Inst. Chem. Chemistry of pigments and coloring materials; physical chemistry of pigment precipitation; organic pigment colors; preparation of ultramarine blue; precipitation of lithopone and zinc sulfide pigments.

McIntosh, Allen, U. S. Department of Agriculture, Beltsville, Md. *Zoology.* Ratliff, Miss, May 3, 93. B.S, Miss. Agr. and Mech. Col, 20; M.S, Minnesota, 27; Chicago, 22. Instr. and asst. prof. zool, Miss. Agr. and Mech. Col, 20–25; asst, Minnesota, 25–27; instr. zool, Wyoming, 27–29; asst. zoologist, *bur. animal indust, U. S. Dept. Agr,* 29–37, assoc. zoologist, 37–42, *zoologist 42–* Asst. prof. in charge dept. zool, Miami, 29–30. Summers, biol. sta, Michigan, 27–30. A.A; Soc. Parasitol; Helminth. Soc. Wash. (v. pres, 35, recording sec'y, 37, pres, 38); Micros. Soc; Wash. Acad. Taxonomy of trematodes and ticks.

McIntosh, Prof. Arthur C(lem), South Dakota State School of Mines, Rapid City, S. Dak. *Biology.* Paoli, Ind, Jan. 12, 01. A.B, Indiana, 21; fellow, Ohio Wesleyan, 21–22; A.M, Colorado, 23. Instr. *biol,* Colorado, 22–23; asst. prof. and later *assoc. prof. and head dept, S. Dak. Sch. Mines, 23–* Summers, biol. field work, Black Hills, 24–26; prof, Mo. State Teachers Col, Maryville, 27; Pa. State Teachers Col, Shippensburg, 28; Kent State Col, Ohio, 29. 31, 32; ranger naturalist, Yellowstone Nat. Park, 34; instr, Col. City of N. Y, 36, asst. prof, 37, 38; mem, Nat. Geog. Soc–S. Dak. Sch. Mines Badlands exped, 40; prof, Minn. State Teachers Col, St. Cloud, 41. Plant ecology and taxonomy of the Black Hills; regeneration in Planaria and Ambystoma.

McIntosh, Dr. George H(enry), American Maize Products, Roby, Ind. *Analytical chemistry.* Nevada, Iowa, Sept. 8, 05. A.B, Simpson Col, 28; Ph.D, Iowa State Col, 34. Instr. anal. chem, Iowa State Col, 30–36; *in charge control lab, Am. Maize Products, 36–, chief chemist, 37–* Chem. Soc. Effects of calcium chloride on Portland cement.

McIntosh, Dr. Jennie (Amabel), General Electric Co, Bridgeport, Conn. *Nutrition.* Bath, N. B, Can, April 21, 13. B.Sc, New Brunswick, 36; M.S, Maine, 38; Ph.D, Cornell, 41. Nutrition chemist, Exp. Sta, State Col. Wash, 40–43; *mem. staff, Gen. Elec. Co, 43–* Chem. Soc. Vitamin content of food.

McIntosh, Dr. J(ohn) F(orbes), McGill University, Montreal, Que, Can. *Medicine.* St. John, N. B, Can, Feb. 4, 97. B.A, New Brunswick, 18; M.D, McGill, 22. Asst, Rockefeller Inst, 24–28; assoc. prof. med, Peiping Union Med. Col, 28–32; *sec'y faculty med, McGill, 42–* Asst. physician, Royal Victoria Hosp, 38– Nephritis; renal function; urinary calculi.

McIntosh, Dr. R(obert) L(loyd), McGill University, Montreal, Que, Can. *Physical chemistry.* Montreal, Que, Feb. 16, 15. B.A, Dalhousie, 35, M.Sc, 36; 1851 Exhib. scholar, 39; Ph.D, McGill, 39. Research chemist, Shawinigan Chemicals, Ltd, 39–40; *asst. director extra-mural research in chem, Nat. Research Council Can, 41–* Transition region of liquid to gas; density and p-v-t relations in transition region; ethylene.

McIntosh, Dr. Rustin, 630 W. 168th St, New York, N. Y. *Pediatrics.* Omaha, Nebr, Sept. 29, 94. A.B, Harvard, 14, M.D, 18. Instr. and assoc. diseases of children, Columbia, 24–27; *pediat,* Hopkins, 27–30; *prof, Columbia, 30–* Director pediat. service, Babies Hosp; consultant, N. Y. Orthopaedic and Orange Mem. Hosps. A.A; Pediat. Soc. (councilor, 33–37); Soc. Exp. Biol; Soc. Pediat. Research (pres, 33–34); Soc. Clin. Invest. (councilor, 37–39); Soc. Research in Child Develop; Acad. Pediat; N. Y. Acad. Med. Diseases of children; dehydration.

McIntyre, Dr. (Archibald) Ross, University of Nebraska College of Medicine, Omaha, Nebr. *Physiology, Pharmacology.* London, Eng, Jan. 19, '02. Inst. Mech Eng, London; B.S, Chicago, 27, Ph.D, 30, M.D, 31. Instr, Chicago, 30–31; Michigan, 31–32; assoc. prof. *physiol. and pharmacol, col. med, Nebraska,* 32–33, *prof, 33–, chairman dept, 35–* Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Cent. Soc. Clin. Research. Urology; thyroid feeding and digitalis; toxicity of synthetic methanol; water and halides in the blood and urine during water-diuresis inhibition; potassium in cells and serum; copper-sulfate in serum and urine; renal excretion of cocain; pharmacology of local anesthetics; curare.

McIntyre, Arthur C(lifton), 1068 Louisa St, Williamsport, Pa. *Forestry.* Grayling, Mich, Nov. 14, 94. B.S, Mich. State Col, 24; M.S, Pa. State Col, 29. Junior forester, U. S. Forest Service, 24–27; instr. forest research, Pa. State Col, 27–34; chief forester and *regional forester, soil conservation service, U. S. Dept. Agr, 34–* Soc. Foresters. Forestry; ecology; silviculture; forest management.

McIntyre, Dr. G(lenn) H, Ferro Enamel Corporation, Cleveland, Ohio. *Chemistry.* San Francisco, Calif, Oct. 10, 02. A.B, Stanford, 24; Cushman fellow, Western Reserve, 25–28, A.M, 27, Ph.D, 39. Research engineer, Pike and West, 24–25; chief chemist, *Ferro Enamel Corp,* 28–34, *director research, 34–* Chem. Soc; Ceramic Soc. (chairman, program cmt, 36; enamel div, 37). Porcelain enamels; vapor pressure phosgene solutions; furnace atmospheres.

McIntyre, Prof. H(arry) J(ohn), 7704 First Ave, N. E, Seattle, Wash. *Mechanical engineering.* New Richmond, Wis, March 15, 91. B.S, Washington (Seattle), 15, M.B.A, 23. Mechanic, Ford Motor Co, Mich, 15–17; instr. *mech. eng, Washington (Seattle),* 19–26, asst. prof, 26–30, assoc. prof, 30–43, *prof, 43–* Inf, U.S.A, 17–19. Mech. Eng; Eng. Educ. Characteristic performance of centrifugal fans.

McIntyre, H(enry) L(ouis), State Department of Conservation, Albany, N. Y. *Entomology.* New Carlisle, Que, Can, Oct. 2, 81. Bur. entom, U. S. Dept. Agr, 06–23; *supervisor, in charge gipsy-moth scouting and extermination work, bur. forest pest control, State Dept. Conservation, N. Y, 23–* Asn. Econ. Entom; Soc. Foresters. Gipsy moth and its control; white pine blister rust and its control in New York.

McIver, Dr. Monroe A(nderson), Mary Imogene Bassett Hospital, Cooperstown, N. Y. *Surgery.* Gulf, N. C, Oct. 15, 90. A.B, North Carolina, 12; M.D, Harvard, 17. Asst. trop. med, Harvard Med. Sch, 19–20, asst. surg, 20–22, nat. research fellow physiol, 22–23, instr. surg, 23–28, asst. prof, 28–30; *surgeon in chief, Mary Imogene Bassett Hosp, 30–; assoc. surg, Albany Med. Col, Union (N. Y), 30–; major, Med. Corps, U. S. Army, 42–* Res. surgeon, Mass. Gen. Hosp, 20–22, assoc. surg, 23–27, asst. visiting surgeon, 27–30; consulting surgeon, Mass. Eye and Ear Hosp, 27–30. Wolbach-Todd Typhus Research Unit, Poland, 20. Lieut, M.C, 18–19. A.A; Col. Surg; Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest; Asn. Study Goiter; Gastro-Enterol. Asn; Halsted Club.

McJunkin, Dr. F(rank) A(dam), 1015 Lancaster Drive, Orlando, Fla. *Pathology.* Sedan, Ohio, Jan. 20, 82. M.D, Michigan, 06, A.M, 12. Instr. bacter, Michigan, 08–09; prof, Utah, 09–11; asst, path. lab, Boston City Hosp, 12–14; prof. *path,* Marquette, 14–20; assoc. prof, Washington (St. Louis), 20–27; prof. *sch. med, Loyola (Ill),* 27–40, *emer. prof, 40–* Attending pathologist, Cook County Hosp, 27–40. Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; fel. Col. Physicians; Asn. Med. Mus. Use of carbon suspensions for study of the reticulo-endothelial system; histiocytes and monocytes; Hodgkin's granuloma and Rous' chicken sarcoma; removal of acid-fastness of tubercle bacilli by oleic acid; mechanism of cell growth of normal and neoplastic tissue; parathyroid hormone effects.

Mack, Prof. A(lbert) J(ohn), Kansas State College, Manhattan, Kans. *Mechanical engineering.* Axtell, Kans, Dec. 19, 87. B.S, Kans. State Col, 12, M.E, 21. Instr, *Kans. State*

Col, 06–08, asst. prof. steam and gas eng, 19–21, assoc. prof. *mech. eng*, 21–28, *prof*, *28–* Mech. Eng. (v. chairman midcontinent sect, 36); Eng. Educ. (chairman program cmt, Kans-Nebr. sect, 29). Automatic ventilators; home cooling.

Mack, Prof. Clinton O, 217 E. Madison, Wheaton, Ill. *Zoology*. Upland, Ind, Sept. 29, 07. B.S, Ohio State, 28; A.M, Northwestern, 32; Kentucky, 37; Ph.D, Western Reserve, 42. Teacher, high sch, Ohio, 28–30; asst. chem, Northwestern, 30–32; prof, Lees Junior Col, Ky, 34–38; *biol*, Cleveland Bible Col, 38–40; assoc. prof, Asbury Col, 40–42; prof, Cascade Col, 42–43; *asst. prof, Wheaton Col. (Ill), 43–* A.A. The longevity, reproductivity and growth of Daphnia magna when individually reared on commercial yeast.

Mack, Prof. Edward, Jr, Ohio State University, Columbus, Ohio. · *Physical chemistry*. Goldsboro, N. C, May 10, 93. Centre Col, 09–11; A.B, Princeton, 13, A.M, 14, Ph.D, 16. Instr, West Virginia, 15–17; asst. prof, Ohio State, 19–25, prof. physical chem, 25–35; Smith prof. chem. and head dept, North Carolina, 35–39; in charge research educ, Battelle Mem. Inst, 39–41; *prof. chem. and chairman dept, Ohio State, 41–* Guggenheim Mem. Foundation fellow, 29. Mem. div. chem. and chem. technol, Nat. Research Council, 28–33; Westinghouse Sci. Advisory Board, 30–32. C.W.S, 17–19, major. A.A; Chem. Soc; fel. Physical Soc. Vapor pressure; diffusion coefficients; the size and shape of typical organic molecules; x-ray examination of crystals.

Mack, Dr. E(dward) L(awrence), Graphic Arts Research Corp, 420 Lexington Ave, New York, N. Y. *Chemistry*. Vergennes, Vt, Aug. 27, 90. B.S, Union (N. Y), 12; Ph.D, Cornell, 16. Asst. chem, Cornell, 12–16; asst. alloy chemist, Bur. Mines, 16–24; v. pres, Douglaston Labs, Inc, 24–29; Reynolds Research Corp, 29–40; *pres, Graphic Arts Research Corp, 40–* A.A; Chem. Soc; Electrochem. Soc; Min. and Metal. Eng. Electrochemistry; electrometallurgy; metallic foils.

Mack, Prof. Gulford L, N. Y. Agricultural Experiment Station, Geneva, N. Y. *Chemistry*. Bellefountaine, Oregon, Aug. 18, 05. B.S, Oregon State Col, 27; A.M, Rice Inst, 29; Ph.D, Michigan, 31. *Assoc. research, N. Y. Exp. Sta, Geneva, and asst. prof. agr. chem, Cornell, 31–* Asst, Michigan, 38–39. Surface chemistry; agricultural sprays and dusts.

Mack, Prof. James B(ryant), Wheaton College, Wheaton, Ill. *Zoology*. Wellsboro, Pa, Oct. 23, 75. A.B, Syracuse, 01; Chicago, 09; A.M, Kansas, 14; Ph.D, Ohio State, 29. Instr. math. and science, Dickinson Sem, 01–06; dean, Taylor, 06–10; prof. and dean, John Fletcher Col, 10–15; prof. zool. and director, Junior Col, Rochester, Minn, 15–20; prof. zool. and registrar, Marion Col, 20–27; *prof. zool. and head dept. biol, Wheaton Col. (Ill), 29–* A.A. Dimensions of chromosomes of somatic cells of Amblystoma; Bryozoa of Atlantic Coast of North America.

Mack, Prof. Julian Ellis, University of Wisconsin, Madison, Wis. *Physics*. La Porte, Ind, April 26, 03. A.B, Michigan, 24, A.M, 25, Ph.D, 28. Junior physicist, Bur. Standards, 25; instr. *physics*, Michigan, 25–28; nat. research fellow, 28–30; asst. prof, *Wisconsin*, 30–42, *assoc. prof, 42–* Visiting asst. prof, Princeton, 41–42. Fel. Physical Soc. Regularities in atomic spectra; ultra-violet spectroscopy.

Mack, Dean Margaret E(lizabeth), University of Nevada, Reno, Nev. *Biology*. Silver City, Nev, Aug. 24, 71. B.S, Nevada, 10; A.M, Columbia, 13. Teacher and prin, pub. schs, Nev, 89–02, 03–08; instr. math, Reno High Sch. and Univ. Nevada, 10–12, instr. *biol, Nevada*, 13–17, asst. prof, 17–22, *assoc. prof. and dean women, 22–* A.A. Nature study; hygiene.

Mack, Prof. Warren B(ryan), Pennsylvania State College, State College, Pa. *Horticulture*. Flicksville, Pa, Jan. 18, 96. Ph.B, Lafayette Col, 15; B.S, Pa. State Col, 21; M.S, Mass. Col, 24; Ph.D, Hopkins, 29. Teacher, high sch, N. J, 15–18; tester, N. Y. Edison Co, 19; instr. pomol, Mass. Col, 21–23; hort, *Pa. State Col*, 23–24, asst. prof. *veg. gardening*, 24–25, assoc. prof, 25–30, *prof, 30–, head dept. hort, 37–* U.S.A, 18. A.A; Soc. Hort. Sci; Soc. Plant Physiol; Bot. Soc. Culture and nutrition of vegetable crops; soil moisture.

McKaig, Nelson, Jr, Sandhill Experiment Station, Columbia, S. C. *Agricultural chemistry*. Wilmington, Del, Aug. 18, 00. A.B, Wyoming, 22; fellow, Arizona, 22–24, M.S, 24; Chicago, 27–28. Asst. chemist, service technique, Dept. Agr, Port au Prince, Haiti, 24–27; *assoc. soil technologist, soil fertility investigations, bur. plant indust, U. S. Dept. Agr, 28–; U. S. Army, 42–* With Southwest Cotton Co, Ariz, 24. O.R.C, U.S.A. A.A; Chem. Soc; Soil Sci. Soc. Soils of Haiti; alkaline chlorosis of sugar-cane; tensile strength of sisal fiber; fertilizers and green manure crops for sugar-cane; composition of sugar-cane juices; fertilization of soy-beans and cotton; decomposition of crop residues in the soil; lysimeter investigations.

Mackall, Prof. Colin M(ackenzie), George Washington University, Washington, D. C. *Chemistry*. Baltimore, Md, Dec. 26, 84. A.B, Virginia, 09, B.S.Ch, 10; M.S, George Washington, 13; fellow, Hopkins, 19–20, Ph.D, 20; Paris, 19; Am. Field Service fellow, Strasbourg, Toulouse and Col. de France, 20–22; Mass. Inst. Tech, 37. Asst. chemist, bur. chem, U. S. Dept. Agr, 10–11; prof. chem, Univ. of South, 11–16; chemist, Edgewood Arsenal, 22–23; *prof. chem*, St. John's Col. (Md), 23–25; *George Washington, 25–* Summer, chemist, Edgewood Arsenal, 24; visiting prof, North Carolina, 37; Southern California, 38. Del, Int. Union Pure and Applied Chem, 21, 26. Mem, Nat. Research Council, 37. Capt, C.A.C, 17, major, C.W.S, 18, chief, 2nd army, 18. Chem. Soc. Organic chemistry.

MacKavanagh, Prof. Thomas J, 1432 Newton St, N. E, Washington, D. C. *Electrical engineering*. Bellshill, Lanarkshire, Scotland, May 25, 82. B.S, N. S. Tech. Col, 14, J.D, M.P.L, 27, LL.M, 28, D.C.L, 30. Elec. engineer, Anglo Am. Telegraph Co, 04–12; Shawinigan Water and Power Co, 12–14; asst. prof. elec. eng, Michigan, 14–18; elec. engineer and asst. gen. supt, Potomac Elec. Power Co, 18–19; *prof. elec. eng. and head dept, Catholic Univ, 19–*, v. dean sch. eng, 30–34. Mem. bar, D. C. Fel. Elec. Eng. (v. chairman, Wash. sect, 31, chairman, 32). Submarine cable laying and repairing; electronic power converters; the Sherman act and the patent monopoly; applications of electricity.

Mackay, Dr. A(lbert) E(dward), 316 Medical Arts Bldg, Portland, Oregon. *Urology*. Hamilton, Ont, Can, June 15, 63. M.B, Toronto, 87; M.D, Trinity (Can), 87; hon. Sc.D, Oregon, 41. *Prof. urol, med. sch, Oregon, 90–* Urol. Asn; Am. Med. Asn; fel. Col. Surg; N. Pacific Surg. Asn; Portland Acad. Med.

Mackay, Prof. C(harles) A(lexander), University of Saskatchewan, Saskatoon, Sask, Can. Physics. Truro, N.S, 93. B.A, Dalhousie, 13, M.A, 21; 1851 Exhib. scholar, 22–24; Ph.D, Princeton, 25. Instr. *physics*, Princeton, 23–24; Harvard, 24–25; *prof, Saskatchewan, 25–* Physical Soc. London. Ionization potentials of gases; accommodation coefficient of water.

MacKay, Prof. Donald C(opeland) G(ibson), University of Connecticut, Storrs, Conn. *Zoology*. Barrie, Ont, Can, Dec. 5, 05. B.A, Queen's (Can), 29, M.A, 30; scholar, Stanford, 31–32, 33–34, Ph.D, 34. Tutor psychol. and asst. biol. Queen's (Can), 29–30; sci. asst, Biol. Board Can, Pacific Biol. Sta, Nanaimo, B. C, 30–31; asst. zool, Chicago, 32–33; biol, Stanford, 34; Royal Soc. Can. fellow *zool*, London, 34–35; instr, Conn. State Col, 35–38, asst. prof, *Connecticut*, 38–43, *assoc. prof, 43–* Visiting asst. prof, Hawaii, 41–42. Summers, insect pest inspector, entom. branch, Can. Dept. Agr, 26–28; asst. biol. survs, Ont. Dept. Fisheries, 29; seasonal investigator, Biol. Board Can, Pacific Biol. Sta, Nanaimo, B. C, 32–35; asst. prof, Stanford, 38. A.A; N. Y. Acad; fel. Royal Geog. Soc. London. Relative growth problems in arthropods; the growth and life history of Crustacea; growth of fish; comparative animal behavior.

Mackay, D(onald) K(enneth), 1459 Ingraham St, N.W, Washington, D. C. *Geology*. New York, N. Y, March 9, 94. B.S, Princeton, 20, M.S, 24. Field asst, Geol. Surv. Can, 20–21; geologist, Int. Petrol. Co. of Mex, 21–24; surveyor, U. S. Metals Ref. Co, N. J, 24; geologist, Sun Oil Co, Texas, 25–29; consulting geologist, 29–30; in charge field party, Skelly Oil Co, Kans, 30–31; develop. and research dept, Int. Nickel Co, New York, 33–35; assoc. geologist, Nat. Park Service, 35–38; mem. staff, Monmouth Mine, Ariz, 38; *consulting geologist, 39–* Min. and Metal. Eng; Paleont. Soc; Asn. Petrol. Geol; Texas Soc. Professional Eng. Texas and Louisiana oil fields; geology of the Clarno basin, Wasco and Wheeler Counties, Oregon; geology of the Klene structure in Arizona.

MacKay, Dr. Eaton M(acLeod), Scripps Metabolic Clinic, La Jolla, Calif. *Medicine*. Auburn, Calif, Nov. 30, 00. A.B, California, 21, A.M, 25; M.D, Stanford, 26. Asst. med. and asst. res. physician, Rockefeller Inst. Hosp, 26–28; instr. med. sch. med, Stanford, 28–29; *in charge research dept, Scripps Metabolic Clinic, 29–* A.A; Am. Med. Asn; Soc. Clin. Invest.

Col. Physicians; Physiol. Soc; Soc. Exp. Biol. Metabolism; nutrition; endocrinology; clinical physiology.

Mackay, Prof. Elizabeth L(inn), 633 Kossuth St, Lafayette, Ind. *Botany, Cytology.* Lafayette, Ind, Jan. 21, 12. B.S, Purdue, 33; A.M, Wisconsin, 35, Ph.D, 37. Instr. biol, *Purdue,* 37–41, *asst. prof. bot, 41–* A.A; Bot. Soc. Sex chromosomes.

McKay, Dr. Hazel H(ayden), 4815 Osage St, Berwyn, Md. *Botany.* Oregon, April 3, 03. B.S, Oregon, 25, M.S, 27; Ph.D, California, 32. Asst, Oregon, 25–27; teaching fellow, California, 27–32, research assoc, 32–34; asst, Exp. Sta, Utah, 34–36; *collaborator, div. fruit and veg. crop diseases, U. S. Dept. Agr, 40–* Cryptogamic botany; marine algae; fungus organisms in relation to strawberry root rot.

MacKay, Hector Hugh, 22 Rose Park Drive, Toronto, Ont, Can. *Biology.* Goderich, Ont. B.A, Toronto, 23, M.A, 24. Asst, Toronto, 22–23, biol. and demonstrator histol, 23–24, asst. embryol. and biol, 24–25, comp. anat, 25–26; biologist, *Can. Dept. Game and Fisheries, Toronto,* 26–29, *biologist and director fish culture branch, 29–* Fisheries Soc; Royal Can. Inst. Limnobiology; fish culture.

McKay, Prof. Hughina, Ohio State University, Columbus, Ohio. *Home economics, Nutrition.* Ont, Can, 82. B.S, N. Dak. Col, 11; Ph.B, Chicago, 20, A M, 22. Teacher, pub. schs, Minn, 01–07; supervisor *home econ,* N. Dak, 11–19; instr, Ill. State Nor. Univ, 20–21; asst. prof, *Ohio State,* 22–26, *prof, 26–; Ohio Exp. Sta,* 26–27, *assoc, 27–* Basal metabolism of women; food consumption; nutritional status of college women.

McKay, Dr. J(ohn) W(elborn), U. S. Department of Agriculture, Beltsville, Md. *Botany, Cytology.* Walnut Springs, Texas, Jan. 13, 02. A.B, A.M, Texas, 27; Ph.D, California, 32. Instr. biol, Texas Tech. Col, 27–28; teaching fellow and assoc. bot, California, 29–32, asst, bot. gardens, 32–34; asst. prof. bot, Utah State Col, 34–35; *assoc. cytologist, bur. plant indust, U. S. Dept. Agr, 35–* A.A. Cytology and genetics of melons; effect of x-rays on cotton; chromosome numbers in cucurbits; cytogenetics of nut species.

McKay, Dr. Kenneth G(ardiner), Field Station, Billings Bridge, Ont, Can. *Physics.* Montreal, Que, April 8, 17. B.Sc, McGill, 38, M.Sc, 39; Moyse scholar, Mass. Inst. Tech, 39–40, Sc.D, 41. Demonstrator physics, McGill, 38–39; *junior radio research engineer, Nat. Research Council Can, 41–* Physical Soc. Cyclotron ion sources; total secondary emission from thin layers of sodium on tungsten.

McKay, Dr. R(obert) W(illiam), 43 Queen's Park, Toronto, Ont, Can. *Physics.* Macao, S. China, Aug. 14, 07. B.A, Toronto, 29, M.A, 30, Nat. Research Council Can. student, 32–34, Ph.D, 34. Demonstrator physics, Toronto, 29–30, 31–32; with North. Elec. Co, Montreal, 30–31; Ont. Research Foundation, 34–40; *mem. dept. physics, Toronto, 40–* Electrolytes; textile chemistry.

Mackay, Prof. Scott, Rensselaer Polytechnic Institute, Troy, N. Y. *Metallurgy.* Troy, N. Y, March 30, 91. B.S, Rensselaer Polytech, 13; M.S, Wisconsin, 26. Eng. practise, 13–27; assoc. prof. metal, Wisconsin, 27–35; *prof. metal. eng, Rensselaer Polytech, 35–* Min. and Metal. Eng; Foundrymen's Asn; Soc. Metals; Eng. Educ. Ferrous metallurgy.

MacKay, Dr. T(homas) C(alvin), 155 St. James St, Buffalo, N. Y. *Physics.* Dartmouth, N. S, Can, Aug. 17, 72. B.A, Dalhousie, 93; A.M, Harvard, 99, Ph.D, 03. Austin teaching fellow, Harvard, 00–01; instr. physics, California, 04–09; demonstrator, Dalhousie, 09–10; prof, Mt. Allison, 10–11; physics and math, N. Mex. Sch. Mines, 11–17; research engineer, Westinghouse Elec. and Mfg. Co, 17–18; asst. prof. physics, Carnegie Inst. Tech, 18–23; mem. patent examining corps, U. S. Patent Office, 23–28; patent attorney, research lab, Carborundum Co, 28–42. Patent Office Soc. (educ. cmt, 25–28); N. Mex. Sci. Asn. (chairman, 13); N. Mex. Educ. Asn. (sec'y, sci. sect, 14, educ. councilor, 15). Conductivity of electrolytes; wireless telegraphy; Hall effect; change of specific inductive capacity with temperature; x-ray diffraction.

Mackaye, Prof. Ruth C(larke), Vassar College, Poughkeepsie, N. Y. *Anthropology.* Nashua, N. H, April 5, 97. A.B, Radcliffe Col, 18, A.M, 20. Laura Spelman Rockefeller asst. *anthrop,* Harvard, 26–28; instr, *Vassar Col,* 28–34, *asst. prof, 34–, chairman div.* State director garment sizing project, bur. home econ, U. S. Dept. Agr, N. Y. Anthrop. Asn. (councilor, 34–37); Asn. Physical Anthrop; N. Y. Acad. Body build of female insane.

McKeag, Prof. Anna Jane, Wellesley College, Wellesley, Mass. *Education.* West Finley, Pa, March 13, 64. A.B, Wilson Col, 98, Ed.D, 32; Ph.D, Pennsylvania, 00; hon. fellow, Clark, 03–04; LL.D, Lafayette Col, 12. Teacher, schs, 81–92; instr. philos, Wilson Col, 92–94, prof, 94–02; instr. educ, Wellesley Col, 02–03, assoc. prof, 03–09, prof, 09–12; pres, Wilson Col, 12–15; prof. *hist. and principles educ, Wellesley Col,* 15–32, *emer. prof, 32–* New Eng. Asn. Col. Teachers Educ. (pres, 11, 17, 26); New Eng. Asn. Cols. and Secondary Schs. (pres, 24). Educational psychology.

McKee, Prof. Clyde, Montana State College, Bozeman, Mont. *Agronomy.* Mission Creek, Nebr, June 8, 89. B.S, Kans. State Col, 10, M.S, 31. Sci. asst. agron, U. S. Dept. Agr, 11–13; asst. prof. farm crops, Iowa State Col, 13–17, assoc. prof, 17–21; prof. agron. and agronomist, *Mont. State Col,* 21–37, v. dean *agr,* 27–37, *dean, 37–,* acting director, *Exp. Sta,* 31, *director, 37–* Summer, acting prof, Iowa State Col, 21. A.A; Soc. Agron. (4th v. pres, 24, sec'y, west. branch, 23, pres, 24, 1st v. pres, 29); Soil Sci. Soc. Furrow drill for sowing winter wheat in central Montana; flax-wheat mixtures under irrigation; protein content of Montana wheat; pasture and range improvement.

McKee, Prof. Edd R(uthven), 42 Henderson Terrace, Burlington, Vt. *Electrical engineering.* Indianola, Iowa, March 9, 98. B.S, Iowa State Col, 20, M.S, 25, E.E, 26. Telephone engineer, Automatic Elec, Inc, 20–21; instr. *elec. eng,* Iowa State Col, 21–25, assoc. prof, 25–34; *prof. and head dept, Vermont, 34–* Summers, test engineer, Gen. Elec. Co, 19, asst. elec. engineer, Underwriters' Labs, 22, research engineer, Iowa State Col, 23, 24, maintenance engineer, Northwest. Bell Tel. Co, 29, 30, tech. adviser, Iowa State Planning Board, 34; consulting elec. engineer. Elec. Eng. (chairman, Iowa sect, 33); Eng. Educ; Vt. Soc. Eng. Transformers for rural distribution of electric power.

McKee, Edwin D(inwiddie), Flagstaff, Ariz. *Geology, Biology.* Washington, D. C, 06. A.B, Cornell, 28; California; Arizona; Yale; fellow, Calif. Inst. Tech, 36–37. Park naturalist, Grand Canyon Nat. Park, Nat. Park Service, 29–40; asst. director, *Museum North. Ariz, 41–; asst. prof. geol, Arizona, 42–* Research assoc, Carnegie Institution, 32– Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Grand Canyon Nat. Hist. Asn. Paleozoic sedimentation, stratigraphy and paleogeography of Arizona.

MacKee, Dr. George M(iller), 999 Fifth Ave, New York, N. Y. *Dermatology.* Jersey City, N. J, Sept. 19, 78. M.D, N. Y. Univ, 99 *Prof. dermat. and syphilol. and director skin and cancer unit, N. Y. Post-Grad. Med. Sch, Columbia.* A.A; Dermat. Asn. (past pres); Roentgen Ray Soc; Radium Soc; Col. Radiol; Radiol. Soc. N. Amer; Acad. Dermat. and Syphilol. (pres); fel. N. Y. Acad. Med; N. Y. Dermat. Soc. (past pres); N. Y. Roentgen Ray Soc. (past pres); Manhattan Dermat. Soc. (past pres); cor. mem. British Asn. Dermat. and Syphilol; hon. mem. Soc. dermat. de France; hon. mem. Cuban Dermat. Soc; hon. mem. Argentine Dermat. Soc; Int. Cong. Light, Copenhagen. Dermatology; syphilology.

McKee, Prof. J(ewel) C(hester), Mississippi State College, State College, Miss. *Botany.* Athens, La, June 14, 95. B.S, Miss. Agr. and Mech. Col, 17; M.S, Wisconsin, 24, Ph.D, 33; Ohio State. Instr. *bot,* Miss. Agr. and Mech. Col, 17–19, asst. prof, 19–20, assoc. prof, 20–29, *prof,* 29–32, *Miss. State Col, 32–* Marine Biol. Lab, Woods Hole. Bot. Soc; Phytopath. Soc. (sec'y, south. div, 35, 36). Plankton algae of Mississippi.

McKee, Prof. Mary C(larissa), Connecticut College for Women, New London, Conn. *Physiological chemistry.* Brownsville, Pa, 85. A.B, Pa. Col. for Women, 07, A.M, 08; scholar, Bryn Mawr Col, 07–08; Chicago, 16–17, 22; Sterling scholar, Yale, 24–25, Phi Mu fellow, 25–26, Ph.D, 26. Asst. chem, Mt. Holyoke Col, 09–11; head dept. chem. and physics, Northfield Sem, 11–16; prof. *chem,* Hollins Col, 17–18; asst. prof, *Conn. Col. for Women,* 18–26, assoc. prof, 26–27, *prof, 27–* A.A; Chem. Soc. Distribution of nitrogen in plant tissue.

McKee, Prof. Ralph H(arper), 635 Riverside Drive, New York, N. Y. **Chemical engineering.* Clinton, Mo, June 20, 74. A.B, Col. of Wooster, 95, A.M, 97, Sc.D, 29; fellow, Chicago, 99, Ph.D, 01; LL.D, Carthage Col, 24, Maine, 29; Dr. Nat. Philos, Tartu, 32. Asst. chem, Col. of Wooster, 94–95; prof. chem. and math, Carthage Col, 95–98; instr. chem, Lake Forest Col, 00–01, prof, 01–09; Maine, 09–16; assoc. chem. eng, Columbia, 17–18, prof, 18–39; *retired.* Perkin medal cmt, 06, 07, 20, 21. Director, U. S. Ordnance Sch. of Explosives

Mfg, 18–19. Commander's cross, Polonia Restituta Order, Poland, 34. A.A; Chem. Eng; Chem. Soc. (councilor and chairman, N. Y. sect, 20); Eng. Educ; Asn. Pulp and Paper Indust; N. Y. Soc. Professional Eng. (pres, N. Y. County chap, 30–32). Oxygen ethers of ureas; adsorbent carbons; sulfur dioxide; synthetic organic electrolytic processes; paper pulp; shale oil; explosives.

McKee, Dr. Ralph W(endell), 55 Shattuck St, Boston, Mass. *Biological chemistry.* Boynton, Okla, Nov. 13, 12. A.B, Kalamazoo Col, 34, Upjohn fellow, 34–35, M.S, 35; Ph.D, St. Louis, 40. Asst, St. Louis, 35–39, senior grad. asst, 39–40; *instr. indust. hygiene, Harvard Med. Sch, 40–, special research assoc, 41–* Chem. Soc; Indust. Hygiene Asn. Isolation and chemistry of vitamin K; physiology and toxicology of carbon disulfide.

McKee, Roland, U. S. Department of Agriculture, Washington, D. C. *Agronomy, Horticulture.* Marysville, Kans, Dec. 13, 80. B.S, Kans. State Col, 00, 04–05. Asst. hort. and pomol, Kans. State Col, 04–05; sci asst. hort, *bur. plant indust, U. S. Dept. Agr,* 06–13, asst. agrostologist, 13–19, agronomist, 19–24, horticulturist, 24–28, *senior agronomist, 28–* A.A; Soc. Agron; Genetic Asn; Agr. Hist. Soc; Bot. Soc. Wash. Orchard green manure crops; forage crops; foreign seed and plant introduction; legumes.

McKee, Prof. Roland C(layton), Syracuse University, Syracuse, N. Y. *Psychology.* Sioux Falls, S. Dak, Oct. 27, 99. A.B, Minnesota, 22, fellow, 22–23, A.M, 23; Michigan, 24–25, summers, 23, 24; Ph.D, Syracuse, 38. Nat. Research Council asst. *psychol,* Michigan, 23–25, asst, 24–25; instr, *Syracuse,* 25–38, *asst. prof, 38–* Psychol. Asn. Visual perception of motion.

McKeehan, Prof. L(ouis) W(illiams), Marlyn Apartments, 3000 39th St, N.W, Washington, D. C. ***Physics.* Minneapolis, Minn, March 31, 87. U. S. Naval Acad, 03–05; B.S, Minnesota, 08, M.S, 09, Ph.D, 11; Cambridge, 11–12; A.M, Yale, 27. Instr. physics, Minnesota, 09–15, asst. prof, 15–18, assoc. prof, 18–19; technicist, Bur. Ordnance, U. S. Navy, 19–21; research physicist, West. Elec. Co, 21–25; Bell Tel. Labs, 25–27; *prof. physics and director Sloane lab, Yale, 27–;* commander, *Bur. Ordnance, U. S. Naval Res,* 40–42, *capt, 42–, asst. naval attaché, London, England, 40–* Asst. physicist, Bur. Standards, 17–18. Cmt. on x-rays and radioactivity, Nat. Research Council, 23–31. Lieut, U.S.N.R, 18–22, lieut. commander, 25– A.A; fel. Physical Soc; Min. and Metal. Eng; Franklin Inst; Am. Acad; Asn. Physics Teachers; London Inst. Metals. Slow motion of spheres in gases; scattering of cathode and beta rays; radioactivity; submarine mines; x-rays and crystal structure of metals and alloys; ferromagnetism.

McKeeman, Prof. Clyde A(lexander), Case School of Applied Science, Cleveland, Ohio. *Mechanical engineering.* Calais, Maine, March 12, 01. B.S, Maine, 23; M.S, Harvard, 31. Combustion engineer, Westinghouse Elec. and Mfg. Co, 24–26; instr. *mech. eng, Case,* 26–30, asst. prof, 31–40, *assoc. prof, 40–,* asst. director *evening div,* 34–40, *chairman, 40–, director war training, 40–* Heat transfer by extended surfaces; fluid flow; air jets.

McKeen, Dr. C(olin) D(ouglas), University of Toronto, Toronto, Ont, Can. *Plant pathology.* Strathroy, Ont, June 23, 16. B.A, Western Ontario, 38; M.A, Toronto, 40, Ph.D, 42. *Class asst. bot, Toronto, 38–* Verticillium wilt in the Niagara Peninsula; bulb diseases.

Mackell, Prof. J(ames) F(rancis), Prairieton Road, Terre Haute, Ind. *Physics.* Montgomery, Ind, Jan. 24, 88. A.B, Ind. State Nor. Sch, 15; A.M, Minnesota, 21; Ph.D, Indiana, 32. *Prof. physics,* Ind. State Nor. Sch, Terre Haute, 24–29, *Ind. State Teachers Col, Terre Haute, 29–* A.A; fel. Ind. Acad. Influence of the earth's potential-gradient upon measurement of the mean ionic density of the atmosphere by the Ebert ion-counter; potential-gradient at high altitude; end correction, open organ pipes; spacing effect upon sound absorption coefficients; architectural acoustics.

McKellar, Dr. Andrew, Dominion Astrophysical Observatory, Victoria, B. C, Can. *Physics, Astrophysics.* Vancouver, B. C, Feb. 2, 10. B.A, British Columbia, 30; A.M, California, 32, Whiting fellow, 32–33, Ph.D, 33. Teaching fellow physics, California, 30–32; nat. research fellow, Mass. Inst. Tech, 33–35; *astronomer, Dom. Astrophys. Observatory, B. C, 35–* Lecturer, British Columbia, 41–42. Summer, asst, Dom. Astrophys. Observatory, 30, 31. Astron. Soc; Astron. Soc. Pacific; fel. Royal Soc. Can; Royal Astron. Soc. Can. Molecular spectra; spectra of late type stars and of comets.

McKelvey, Dr. J(ohn) B(ernard), 3021 Daytona Ave, Cincinnati, Ohio. *Chemistry.* Tyrone, Pa, June 23, 05. A.B, Oberlin Col, 27, A.M, 28; Ohio fellow, Western Reserve, 29–31, Ph.D, 31. *Research chemist,* Hercules Powder Co, 28–29; Vacuum Oil Co, 32; Indust. Rayon Corp, 32–40; J. B. Ford Co, 40–43; *Emery Industries, Inc, 43–* Colloidal chemistry; detergency; surface active agents; surface activity; textile finishes; colloidal organic.

McKelvey, Prof. J(oseph) V(ance), 2117 Graeber St, Ames, Iowa. *Mathematics.* Dover, Wis, July 23, 80. Ph.D, Cornell, 09. Instr. *math,* Cornell, 09–17; asst. prof, *Iowa State Col,* 19–20, assoc. prof, 20–34, *prof, 34–* U.S.A, 17–19, capt. A.A; Math. Soc; Math. Asn. Algebraic curves.

McKelvey, V(incent) E(lis), U. S. Geological Survey, Washington, D. C. *Geology.* Huntington, Pa, April 6, 16. A.B, Syracuse, 37; A.M, Wisconsin, 39. Junior geologist, soil conservation service, U. S. Dept. Agr, 38–40; asst. geol, Wisconsin, 37–41; junior geologist, *U. S. Geol. Surv,* 41–42, *asst. geologist, 42–* Lake sediments; beach sediments; flotation of sand in nature; a new hydrometerpipette for mechanical analysis of fine-grained materials.

McKenna, Philip M(owry), McKenna Metals Co, Latrobe, Pa. *Metallurgy.* Pittsburgh, Pa, June 16, 97. A.B, George Washington, 21. Anal. chemist, Chem. Products Co, 13–16, gen. manager, 16–25; chemist, Oakland, Calif, 27–28; research director, Vanadium Alloys Steel Co, 28–37; founder, *McKenna Metals Co,* 40, *gen. partner, 40–, pres, Kennametal of Can, Ltd, 40–* A.A; Chem. Soc; Soc. Metals; Mech. Eng; Soc. Terminal Eng; Eng. Soc. West. Pa. Hard carbides of tungsten, titanium, tantalum, columbium and zirconium; borides; intermetallic compounds; hard cemented carbide tool materials; tool design; metal-cutting engineering.

McKenney, Dr. Frank Donald, 5009 Marlboro Drive, San Diego, Calif. *Zoology.* Lamar, Colo, May 20, 05. D.V.M, Colo. Agr. Col, 28; fellow, Minnesota, 28–31, M.S, 31. Assoc. investigations of diseases of wild birds and animals, div. wildlife research, bur. biol. surv, U. S. Dept. Agr. and Dept. Interior, 31–41; *vet. pathologist in charge biol. research inst, Zool. Soc. San Diego, 41–* Incidence of goiter in dogs; diseases of fur-bearing and game animals and game birds; diseases of domestic rabbits; embryonal nephroma in, persistent right oviduct in, action of certain drugs on oviduct of, and other diseases of domestic fowl.

Mackensen, Dr. Otto, Louisiana State University, Baton Rouge, La. *Genetics.* San Antonio, Texas, July 30, 04 B.S, Agr. and Mech. Col. Texas, 28; A.M, Texas, 33, Ph.D, 35. Asst. apiary inspector, Texas, 28–30; junior apiculturist and later *asst. apiculturist, bee culture investigations, south. states bee culture field lab, U. S. Dept. Agr, Louisiana, 35–* Cytology and genetics of Drosophila; genetics and breeding of the honey-bee.

Mackenzie, Dean C(halmers) J(ack), National Research Council, Ottawa, Ont, Can. *Civil engineering.* St. Stephen, N. B, July 10, 88. B.E, Dalhousie, 09, LL.D, 41; M.C.E, Harvard, 14, D.Sc, 41. Consulting engineer, Edmonton, Alta, 10–13; *prof. civil eng, Saskatchewan, 15–, dean eng, 22–* Mem, Nat. Research Council Can, 35–, acting pres, 39– Companion, Order St. Michael and St. George, 43. Eng. Educ; Eng. Inst. Can. (v. pres, 29, pres, 41); fel. Royal Soc. Can. Effect of alkali on concrete; arch design; population; engineering education.

MacKenzie, Prof. Charles A(ugustus), University of Nevada, Reno, Nev. *Organic chemistry.* Philadelphia, Pa, Jan. 15, 10. B.S, Guilford Col, 35; M.S, Tennessee, 36; Ph.D, Rutgers, 39. *Asst. prof. chem, Nevada, 39–* Chem. Soc. Organic analysis.

Mackenzie, Dr. C(osmo) G(lenn), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Biochemistry.* Baltimore, Md, May 22, 07. A.B, Hopkins, 32, Sc.D, 36. Asst. chemist, U. S. Pub. Health Service, 36–39; research assoc. *biochem, sch. hygiene and pub. health, Hopkins,* 36–39, *assoc, 39–; lieut, Air Corps, U. S. Army, 42–* Nutrition; vitamin E and nutritional neuro-muscular disorders; thyroid-metabolic effect of thiourea and sulfonamides.

MacKenzie, Dr. Donald, 463 West St, New York, N. Y. *Physics.* Weatherford, Texas, Dec. 20, 87. A.B, Hopkins, 08, A.M, 11, Ph.D, 14. Asst. astron, Hopkins, 14–17; assoc. physicist, Bur. Standards, 18–20; research engineer, West. Elec. Co. 20–24; Bell Tel. Labs, 25–28; consulting engineer, Elec. Research Products, Inc, 29–35, develop. engineer, 36–37.

director eng, 37–41; *mem. patent staff, Bell Tel. Labs, 41–* Ensign, Nat. Naval Vols, 17–18. Physical Soc; Acoustical Soc; Motion Picture Eng. Engineering physics; internal combustion engines; velocity of flame propagation in gas engine cylinders; energy distribution in speech; sound motion pictures.

McKenzie, Prof. Fred(erick) F(rancis), Utah State Agricultural College, Logan, Utah. *Animal husbandry.* Near Vancouver, B. C, Can, May 31, 00. B.S.A, British Columbia, 21; A.M, Missouri, 23, Ph.D, 25; D.Agr, Catholic Univ. Chile, 41. Agent animal husbandry, *U. S. Dept. Agr,* 23–41, *Utah collaborator, west. sheep breeding lab, 41–;* instr, Missouri, 25–27; director agr, Int. Col, Turkey, 27–28; asst. prof, Missouri, 28–41; *prof. animal husbandry and head dept, Utah State Col, 41–* Consultant, Herndale Stock Farms, Mo, 40–; visiting prof, Univ. Chile, Catholic Univ. Chile and Univ. Concepcion, 41. Summer, prof, Agr. and Mech. Col. Texas, 40. Chairman investigations artificial insemination in livestock and allied research in U. S. and Can, 35–36; mem. staff investigate fertility of sheep at extreme altitudes, cmt. Inter-Am. artistic and intellectual relations, U. S. Dept. State in cooperation with Instituto Nacional de Biol. Andina and Junta Lanar, Peru, 41. Exec. mem. div. biol. and agr, Nat. Research Council, 39–42. World's Poultry Cong, Ottawa, 27; World's Dairy Cong, London, 28, Berlin, 37. Lieut, Royal Sch. Inf, B. C, 18; Royal Air Force, 18–19. A.A; Soc. Animal Production (chairman genetics sect, 35); Soc. Exp. Biol; Genetics Soc; Asn. Study Int. Secretions; Asn. Anat; Genetic Asn; Soc. française de Sexologie. Physiology of reproduction in livestock; estrual cycles; semen quality evaluation; artificial insemination; fertility in male and female.

Mackenzie, Dr. George M(iner), Cooperstown, N. Y. *Medicine.* Lawrenceville, N. J, Aug. 13, 85. A.B, Columbia, 07, M.D, 13. Assoc. path, Columbia, 16–17, instr. med, 19–21, assoc, 21–23, asst. prof, 23–26, assoc. prof, 26–27; *physician in chief, Mary Imogene Bassett Hosp, 27–; director, Otsego County Labs, 27–* Asst. visiting physician, Presb. Hosp, 22–27. Mem, State Board Med. Examiners, N. Y, 36–40; State Advisory Cmt. Pneumonia Control, 36– Lieut, M.C, U.S.N.R, 17–19. A.A; Soc. Exp. Biol; Asn. Path. and Bact; Asn. Immunol; Soc. Clin. Invest; Am. Physicians; Harvey Soc; Interurban Clin. Soc; N. Y. State Asn. Pub. Health Labs. Infectious diseases; immunity; allergy.

MacKenzie, Prof. G(raham) S(tewart), University of New Brunswick, Fredericton, N. B, Can. *Economic geology.* Toronto, Ont, Can, Jan. 12, 05. B.Sc, Manitoba, 29; M.A, Toronto, 30, Ph.D, 34. Asst, Toronto, 29–33; geologist, Que. Bur. Mines, 34–37; asst. prof. *geol. and miner, New Brunswick,* 37–42, *assoc. prof, 42–* Miner. Soc; Can. Inst. Min. and Metal. Canadian mineral deposits and geology.

McKenzie, Howard L(ester), Bureau of Entomology, State Department of Agriculture, State Office Bldg. No. 1, Sacramento, Calif. *Entomology.* Lenox, Iowa, May 25, 10. B.S, California, 32, M.S, 34. Lab. asst. entom, Citrus Exp. Sta, California, 32–37; asst. entomologist, div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 37–42; *asst. syst. entomologist, bur. entom, State Dept. Agr, Calif, 42–* Asn. Econ. Entom. Scale insects, particularly those attacking tropical and subtropical fruit trees; Coccoidea infesting pines; scale insect taxonomy; California avocado insects and mites; economic entomology.

Mackenzie, Dr. Julia B(uzz), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Biochemistry, Nutrition.* Colorado Springs, Colo, April 5, 11. A.B, Colo. Col, 32; Sc.D, Hopkins, 39. Acting assoc. and later *instr. biochem, sch. hygiene and pub. health, Hopkins.* Vitamin E; thyroid-metabolic effect of thiourea and sulfonamides.

Mackenzie, Kenneth G(erard), Texas Co, 135 E. 42nd St, New York, N. Y. *Chemistry.* New York, N. Y, Feb. 4, 87. Ph.B, Yale, 07, M.S, 09. Asst. instr. chem, Yale, 07–08; research chemist, N. Y. Test. Lab, 08–10; chemist, Nairn Linoleum Co, N. J, 10–11; consulting chemist, *Texas Co,* 11–37, *asst. to v. pres, 33–, v. pres, Texaco Develop. Corp, 39–* Chemist, Conn. Exp. Sta, 08. A.A; Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. (past pres); Min. and Metal. Eng; Soc. Automotive Eng. (lubricants div); Petrol. Technol; Gas Inst; Nat. Fire Protection Asn; Franklin Inst. (cmt. on science and the arts); Chemists' Club (past pres); fel. London Chem. Soc; Deuts. Chem. Gesell; Soc. de Chim. indust. Organic chemistry; pyrimidins; linseed oil; petroleum, asphalt and synthetic rubber.

McKenzie, Dr. Malcolm A(rthur), Massachusetts State College, Amherst, Mass. *Forest pathology.* Providence, R. I, April 21, 03. Ph.B, Brown, 26, A.M, 26, Ph.D, 35; Wisconsin, 26–27. Field asst. forest path, Forest Products Lab, U. S. Forest Service, 26–27; instr. biol, N. C. State Col, 27–29; agent forest path, bur. plant indust, U. S. Dept. Agr, and lecturer bot, Brown, 29–35; pathologist, shade tree disease control, *Mass. State Col,* 35–41, *research prof. bot, Exp. Sta, 41–* Summers, field asst, office forest path, U. S. Dept. Agr, 27, 28, U. S. Dutch Elm Disease Lab, Morristown, N. J, 34. R. I. Dutch Elm Disease Cmt, 34–35. A.A; Phytopath. Soc; Mycol. Soc. Diseases of forest, shade and ornamental trees.

Mackenzie, Dr. Neil M(itchill), 520 Winsor St, Bound Brook, N. J. *Organic chemistry.* Westport, Conn, Oct. 2, 11. A.B, Yale, 34, Ph.D, 37. Lab. asst. chem, Yale, 35–36; *research chemist, Calco chem. div, Am. Cyanamid Co, 37–* Azo dyestuffs and related intermediates.

McKenzie, Prof. R(aphael) Monroe, 706 N. Third St, Fairfield, Iowa. *Chemistry.* Jersey City, N. J, April 12, 67. B.S, N. Y. Univ, 90, M.S, 92; Ph.D, Hopkins, 96; Sc.D, Parsons Col, 39. Instr. chem, N. Y. Univ, 91–92; Cincinnati, 97–98, mfg. chem, 98–00; asst. prof. *chem,* Stevens Inst. Tech, 00–03; prof, *Parsons Col,* 03–37, *emer. prof, 37–* A.A; Chem. Soc. (past chairman, Iowa sect, and councilor); fel. Iowa Acad. (v. pres). Double chlorides; iron; aniline; toluidines; electrolytic production of iodoform from ethyl alcohol and acetone.

McKenzie, R(ussell) A(lderson), Atlantic Biological Station, St. Andrews, N. B, Can. *Ichthyology.* Galt, Ont, March 11, 02. M.A, Toronto, 27. Fellow, Ont. Agr. Col, 26–27; asst. biologist, provincial dept. game and fisheries, Ont, 27–29; mem. staff, *Biol. Board Can, Fed. Dept. Fisheries,* 29–32, sci. asst. biol. and cod investigator, 32–38, asst. biologist and cod haddock investigator, 38–41, *asst. biologist and smelt investigator, 41–* Mem. ground fish cmt, N. Amer. Council Investigation of the Sea. Fisheries Soc; Can. Physiol. Soc; N. S. Inst. Sci. (councilor). Canadian Atlantic smelt, haddock and cod fish and fisheries.

McKeown, Dr. Raymond M(eril), Marshfield, Oregon. *Obstetrics, Gynecology.* Hibbing, Minn, May 22, 02. A.B, Oregon, 25; Willamette, 25; M.D, Toronto, 29. Davis and Geck fellow surg. research, Yale, 29–31, asst. res. surg. gynec. and obstet, 31–33, res, 33–35; *practising physician.* Local chief examiner, Selective Service, 40– Am. Med. Asn; Col. Surg; N. Y. Acad; Oregon State Med. Soc. (v. pres, 41–). Growth and healing of bone; suture materials; breaking strength of bones as influenced by different diets; hormones and vitamins; repair and healing of wounds; inversion and subinvolution of the uterus.

Mackeown, Dr. S(amuel) S(tuart), California Institute of Technology, Pasadena, Calif. *Physics.* New York, N. Y, Dec. 3, 95. A.B, Cornell, 17, Ph.D, 23. Lab. asst, Bur. Standards, 17–18, asst. physicist, 19; with West. Elec. Co, 19–20; instr. physics, Cornell, 20–23; nat. research fellow, *Calif. Inst. Tech,* 23–26, asst. prof. *elec. eng,* 26–31, assoc. prof, 31–42, *prof, 42–* 2nd lieut, Sig.C, 18–19. A.A. Hall effect and specific resistance in cathodically deposited films of gold; electrical current from cold terminals in high vacuum due to intense electrical field; electric arcs.

McKern, W(ill) C, 3270 N. Cramer St, Milwaukee, Wis. *Social anthropology.* Medical Lake, Wash, July 6, 92. A.B, California, 17, Field fellow, 17, 19. Asst. instr. anthrop, Washington (Seattle), 19; mem, Bayard Dominick exped. to Polynesia, Bishop Museum, Honolulu, 19–20, research assoc. ethnol, 20–21; asst. archeologist, Bur. Am. Ethnol, 22; asst. curator *anthrop, Milwaukee Pub. Museum,* 25–27, assoc. curator, 28–29, *curator, 30–* Anthrop. Asn. (pres, cent. sect, 33); Soc. Am. Archeol. (ed, 'Am. Antiquity,' 35–39; pres, 40). Ethnology of the American Indians; ethnology and archeology of southwestern Polynesia; archeology of the Mississippi Valley.

Mackey, A(rthur) K(app), Texas Livestock Marketing Association, Ft. Worth, Texas. *Animal husbandry.* Logansport, Ind, Jan. 29, 95. B.S.A, Purdue, 21; M.S, Illinois, 23. Instr. and asst, sheep div, dept. animal husbandry, Illinois, 21–25; prof. animal husbandry, Agr. and Mech. Col. Texas, 25–40; sec'y, Texas Sheep and Goat Raisers Asn, 40–41; special adviser meats, Office Production Management, 41; *mem, Texas Livestock Marketing Asn, 41–* Lamb feeding; growth of mohair; effect of degree of fatness on tenderness and flavor of lamb.

Mackey, Dr. B(ill) H, Alabama Ordnance Works, Birmingham, Ala. *Chemistry, Physics.* Denver, Colo, May 8, 06. B.S, Denver, 27; Ph.D, Illinois, 29. Fellow, Illinois, 29–30; chem. engineer, du Pont Ammonia Corp, 30–32; research chemist-physicist, smokeless powder div, *E. I. du Pont de Nemours and Co*, 32–41, asst. tech. supt, Ind. ordnance works, 41–42, *gen. tech. supt, Ala. ordnance works, 42–* Chem. Soc. Interior ballistics; smokeless powder; specific heats of gases at high pressures.

Mackey, Prof. C(harles) Osborn, Cornell University, Ithaca, N. Y. *Mechanical engineering.* Ithaca, N. Y, Oct. 8, 03. M.E, Cornell, 26. Instr. exp. eng, *Cornell*, 24–27, *heat power eng*, 27–29, asst. prof, 29–36, *prof, 36–* Soc. Refrig. Eng. Heat power engineering; air conditioning; graphical solutions.

Mackey, Dr. George W(hitelaw), Harvard University, Cambridge, Mass. *Mathematics.* St. Louis, Mo, Feb. 1, 16. A.B, Rice Inst, 38; A.M, Harvard, 39, Sheldon traveling fellow at Calif. Inst. Tech. and Inst. Advanced Study, 41–42, Ph.D, Harvard, 42. Teaching fellow *math*, Harvard, 40–41; *instr*, Ill. Inst. Tech, 42–43; *Harvard, 43–* Summer, teacher, Harvard, 42. Math. Soc. Normed linear spaces.

McKhann, Dr. Charles Fremont, Parke, Davis and Co, Detroit, Mich. *Pediatrics:* Cincinnati, Ohio, Dec. 21, 98. A.B, Miami (Ohio), 18; B.S, Cincinnati, 20, A.M, 21, M.D, 23. Asst. and instr. pediat, Harvard Med. Sch, 23–30, asst. prof. pediat. and communicable diseases, 30–36, sch. pub. health, Harvard, 30–36, assoc. prof, Harvard Med. Sch. and sch. pub. health, 36–40; prof. and chairman dept, med. sch, Michigan, 40–43, prof. child hygiene, sch. pub. health, 41–43; *asst. to pres, Parke, Davis and Co, 43–* Visiting prof, Peiping Union Med. Col, 35–36. Mem. Am. Board Pediatrics. Am. Med. Asn; Pediat. Soc; Acad. Pediat; Soc. Pediat. Research (pres, 35); Soc. Clin. Invest; fel. Pub. Health Asn; Cent. Soc. Clin. Research. Communicable diseases.

McKibben, Prof. Eugene G(eorge), Michigan State College, East Lansing, Mich. *Agricultural engineering.* Almyra, Ark. B.S, Iowa State Col, 22, Ph.D, 36; M.S, California, 27. Asst. *agr. eng*, California, 23–25, instr, 25–27, asst. prof, 27–28; assoc. prof, Iowa State Col, 28–40, prof, 40–42; *prof. and head dept, Mich. State Col, 42–* Consultant farm machinery div, War Production Board, 43. Summer, assoc. prof, Pa. State Col, 30; agr. engineer nat. research project, Works Progress Admin, 36–37. Eng. Educ; Soc. Agr. Eng. Mechanics of farm tractors and farm machines; wind electric plants; pneumatic tires for farm machines; forage harvesting machines.

McKibbin, Dr. J(ohn) M(ead), Harvard Medical School, Boston, Mass. *Biochemistry.* Tucson, Ariz, Nov. 15, 15. B.S, Mich. State Col, 38; M.S, Wisconsin, 40, Ph.D, 42. *Instr. nutrition, Harvard Med. Sch. and sch. pub. health, Harvard, 42–* Water soluble vitamins in dog nutrition; hemorrhagic anemia in dogs; parenteral nutrition.

Mackie, D(avid) B(arclay), State Department of Agriculture, Sacramento, Calif. *Entomology.* Boston, Mass, May 22, 83. Pub. schs. Park Cmn, Mass, 03–06; aid zool, Smithsonian Institution, 06–08; agr. inspector, Philippine Service, 09–11, asst. entomologist, 11–13, entomologist, 13–18; field deputy, *State Dept. Agr, Calif*, 18–19, field entomologist, 19–20, chief quarantine officer, 20–21, entomologist, 21–28, senior entomologist, 28–31, supervisor entom, 31–39, *chief bur. entom. and plant quarantine, 39–* Collaborator, bur. entom, U. S. Dept. Agr, agent, plant quarantine and control admin, 30. A.A; Asn. Econ. Entom; Genetic Asn. Fumigation methods; mechanical devices in pest control; economic entomology.

Mackie, Prof. Ernest L(loyd), 702 Gimghoul Road, Chapel Hill, N. C. *Mathematics.* Yadkinville, N. C, Nov. 27, 93. A.B, North Carolina, 17; A.M, Harvard, 20; Ph.D, Chicago, 27. Instr. *math*, Clemson Col, 17–19; Harvard, 20–21; asst. prof, *North Carolina*, 21–26, assoc. prof, 26–34, *prof, 34–* Math. Soc; Math. Asn; N. C. Acad. Calculus of variations.

Mackie, Dr. G(eorge) C(arlyle), Wake Forest College, Wake Forest, N. C. *Physiology.* Yadkinville, N. C, Nov. 12, 02. A.B, Wake Forest Col, 24, B.S, 26; M.D, Pennsylvania, 28. Res. physician, Phila. Gen. Hosp, 28–30; assoc. prof. *physiol, sch. med, Wake Forest Col*, 30–31, *prof, 31–, col. physician, 41–* Assoc. Col. Physicians; Am. Med. Asn. Physiology of the nervous system; capillary tonus.

Mackie, Dr. Thomas T(urlay), 16 E. 90th St, New York, N. Y. *Clinical medicine, Bacteriology.* Great Barrington, Mass, May 10, 95. A.B, Harvard, 18; M.D, Columbia, 24; Dr.T.M. and H, London Sch. Trop. Med. and Hygiene, 31. Asst. med, Columbia, 26–29, instr, 30–33; research assoc. *pub. health and prev. med, med. col, Cornell*, 33–35, *assoc, 35–; asst. clin. prof. med, Columbia, 38–; lieut. col, Med. Corps, U. S. Army, 42–* Asst. physician, Presb. Hosp, New York, 29–33; asst. attending physician, Fifth Ave. Hosp, 32–35; asst. visiting physician trop. diseases, Beekman St. Hosp, 32, consulting physician; attending physician, Roosevelt Hosp, 36–; consulting physician, N. Y. Infirmary for Women and Children; Fairview Hosp, Great Barrington, Mass; trop. med. consultant to U. S. Sec'y War; mem. subcmt. trop. diseases, health cmt, office for. relief and rehabilitation, State Dept. Mem, Am. Board to Investigate and Control Influenza and Other Epidemic Diseases in the Army, 42. Mem. subcmt. trop. diseases and chairman subcmt. early nutritional failure, Nat. Research Council. Duncan medal, London Sch. Trop. Med. and Hygiene, 31. A.A; Clin. and Climat. Asn; Gastro-Enterol. Asn; Soc. Trop. Med. (pres, 41); Acad. Trop. Med. (councilor, 35–); fel. Am. Med. Asn; fel. Col. Physicians; fel. N. Y. Acad. Med; fel. Royal Soc. Trop. Med. and Hygiene. Deficiency disease; ulcerative colitis; bacillary dysentery; tropical medicine; nutrition.

McKiel, Dean H(arold) W(ilson), Mt. Allison University, Sackville, N. B, Can. *Engineering.* Gananoque, Ont, Sept. 4, 88. B.A, Queen's (Can), 08, B.Sc, 12. Chemist, Can. Cement Co, 11–12; res. assoc, Fed. Dept. Mines, Queen's (Can), 12; prof. mech. eng, *Mt. Allison*, 13–20, *Brookfield prof. eng, 20–, dean* faculty applied science, 34–37, *faculty science, 37–* Eng. Inst. Can. (councilor, 27, v. pres, 36–37, pres, 39); Can. Inst. Chem. (v. pres, 28); Asn. Professional Eng. N. B. (councilor, 24–27, v. pres, 28, pres, 29). Production and use of metallic cobalt.

McKim, Dr. V(erl) Calvon, 1735 Vagedes, Fresno, Calif. *Geology, Geography.* Clearwater, Nebr, June 12, 97. A.B, Nebr. State Teachers Col, 25; fellow, Nebraska, 29–30, A.M, 30, Ph.D, 34. Teacher Eng, North. Luzon Nor, P. I, 27–29; assoc. prof. agr. econ, Texas Agr. and Mech. Col, 30–32; prof. *geog. and geol*, Nebr. State Teachers Col, 34–42; *head dept, Fresno State Col, 42–* Summer, prof, Nebraska, 42. Nat. Council Geog. Teachers (state director, Nebr, 30–32) Nebr. Acad. (pres, 39). Geography of Ilocos Norte and of the Pine Ridge country of Nebraska.

Mackin, Prof. J(ohn) G(ilman), East Central State Teachers College, Ada, Okla. *Parasitology, Limnology.* Waxahachie, Texas, Feb. 20, 03. B.S, East Cent. State Teachers Col, Okla, 24; M.S, Illinois, 27, Ph.D, 33. Prin, high sch, Okla, 22–23; asst. manual arts, *E. Cent. State Teachers Col*, 23–24, *biol*, 24–25, instr, 25–26, assoc. prof, 26–27, *prof, 27–; teacher aerial navigation, U. S. Naval Res. Aviation Base Ground Sch, Dallas, Texas, 42–* Asst, Illinois, 29–30, 31–32. Soc. Parasitol; Micros. Soc; fel. Okla. Acad. (v. pres, sect. A, 35). Taxonomy of Oklahoma Crustacea.

Mackin, Prof. J(oseph) Hoover, University of Washington, Seattle, Wash. *Geology.* Oswego, N. Y, Nov. 16, 06. B.S, N. Y. Univ, 30; A.M, Columbia, 32, fellow, 33, Ph.D, 37. Asst. *geol*, N. Y. Univ, 28–31; Columbia, 31–32; asst. prof, *Washington (Seattle)*, 34–40, *assoc. prof, 40–; geologist, U. S. Geol. Surv.* Geol. Soc; Geophys. Union; Soc. Mil. Eng; N. Y. Acad. Physiography of the Piedmont region in Pennsylvania; Susquehanna River terraces; Tertiary history of the Big Horn Basin; glaciation of the Puget Sound region; geomorphology of the Cascade range.

McKinley, Dr. D(onald) W(illiam) R(obert), 211 Cobourg St, Ottawa, Ont, Can. *Radio engineering.* Shanghai, China, Sept. 22, 12. B.A, Toronto, 34, M.A, 35, Ph.D, 38. Demonstrator physics, Toronto, 35–38; research physicist, *Nat. Research Council Can*, 38–40, *head air force research sect, 41–* Assoc. Inst. Radio Eng. Radio research and development; direction finding; radar.

McKinley, Dr. G(eorge) M(urray), University of Pittsburgh, Pittsburgh, Pa. *Zoology.* Sharpsburg, Pa, Jan. 23, 93. M.S, Pittsburgh, 31, Ph.D, 33. Instr. *zool, Pittsburgh*, 31–39, *asst. prof, 39–* Biological effects of high frequency currents and short electric wave radiation.

McKinley, Dr. J(ohn) Charnley, 500 Harvard St, S.E, Minneapolis, Minn. *Neuropsychiatry.* Duluth, Minn, Nov. 8, 91. B.S, Minnesota, 15, A.M, 17, M.D, 19, Ph.D, 21. Asst. prof. neuropath, *med. sch, Minnesota*, 21–25, assoc. prof, 25–29, *prof. neur, 29–, head dept.* med, 34–43, *neuropsychiat, 43–* Guggenheim Mem. Foundation fellow, Germany, 28–29. Sec'y-

treas, State Board Examiners in Basic Sciences, Minn, 31– Director, Am. Board Psychiat. and Neurol. A.A; Neur. Asn; Am. Med. Asn. Fasciculation of the sciatic nerve; pathology of acute epidemic encephalitis and of postencephalitic paralysis agitans; experimental poliomyelitis; electromyography; development of Minnesota personality inventory and its application.

McKinley, Prof. Lloyd, 1634 N. Holyoke, Wichita, Kans. *Chemistry.* Bridgewater, Iowa, Feb. 4, 95. A.B, Iowa, 19, M.S, 24, Ph.D, 27. Head dept. science, high sch, S Dak, 19–23; *prof. chem. and head dept, Wichita, 27–* Chem. Soc; Kans. Acad. Heat adsorption of charcoal on certain organic vapors at 25 degrees; partial molal volumes of components in certain solutions; bibliography of some achievements in chemistry.

McKinney, Prof. A(sa) E(manuel), Hamilton College, Clinton, N. Y. *Chemistry.* Scircleville, Ind, Jan. 23, 87. A.B, Indiana, 14, A.M, 15; Ph.D, Cornell, 23. Asst. *chem,* Indiana, 14–15; Cornell, 15–17, instr, 19–26, asst. prof, 26–28; assoc. prof, *Hamilton Col,* 28–39, *prof, 39–* Ordnance sergt, E.O.C, 18–19. Chem. Soc. Electrodeposition of lead; anhydrous hydrazoic acid.

McKinney, Prof. D(avid) S(croggs), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Atwood, Pa, Aug. 16, 02. B.S, Carnegie Inst. Tech, 23, Sc.D, 38. Analyst, N. J. Zinc Co, 23; analyst to chief chemist, Duquesne Light Co, Pittsburgh, Pa, 24–34; teaching asst. *chem, Carnegie Inst. Tech,* 34–35, instr, 36–37, *asst. prof, 38–* Chem. Soc. Infrared spectra; equilibria in electrolytic solution; industrial water treatment.

McKinney, Dr. Fred, University of Missouri, Columbia, Mo. *Psychology.* New Orleans, La, April 4, 08. A.B, Tulane, 28, A.M, 29; Ph.D, Chicago, 31. Asst. *psychol,* Chicago, and instr, John Marshall Law Sch, 30–31; instr, *Missouri,* 31–35, asst. prof, 35–39, *assoc. prof, 39–, psychologist, student health service, 39–* Psychol. Asn; Midwest. Psychol. Asn. Personality adjustment; mental hygiene; clinical hygiene.

Mackinney, Dr. Gordon, University of California, Berkeley, Calif. *Plant physiology.* London, Eng, May 28, 05. B.S.A, Toronto, 26; fellow, California, 31–33, Ph.D, 33. Asst. soil chemist, United Fruit Co, Honduras, 27–30; nr . research fellow plant biol, Carnegie Institution, Stanford, 33–35; instr. *fruit technol, div. fruit products, California,* 36–39, *asst. prof, 39–* A.A; Chem. Soc; Soc. Plant Physiol. Biochemistry; plant pigments; food technology.

McKinney, H(arold) H(all), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Cherryvale, Kans, Feb. 2, 89. B.S.A, Mich. State Col, 18; fellow, Wisconsin, 18–19, M.S, 20; Hopkins, 24. Supt. fruit ranch, 10–14; *plant pathologist, bur. plant indust, U. S. Dept. Agr, 19–* Virus disease surv, Allison V. Armour exped, Canary Islands and W. Africa, 26–27. A.A; Soc. Plant Physiol; Phytopath. Soc; Bot. Soc; Bot. Soc. Wash. (sec'y, 37, v. pres, 38). Virus diseases; wheat physiology; foot-rot diseases of wheat.

Mackinney, Dr. Herbert W(illiam), Bakelite Corp, 230 Grove St, Bloomfield, N. J. *Chemistry.* London, Eng, Feb. 22, 07. Dipl. Ing. Chem, Eidgenossische Tech. Hochschule, Zurich, 28; M.Sc, McGill, 33, Ph.D, 35. Chemist, Lever Brothers, Ltd, Cheshire, Eng, 28–31; research chemist, Can. Int. Paper Co, Hawkesbury, Ont, 31–32; research assoc, Macdonald Col, McGill, 36; *research chemist,* Kendall Co, 36–39; Sylvania Indust. Corp, 39–40; *Bakelite Corp, 41–* Chem. Soc; Chemists Club. Cellulose and lignin; textiles; paper; plastics.

McKinney, Dr. J(ames) W(illard), 254 High St, Berlin, N. H. *Chemistry.* Maza, N. Dak, Nov. 9, 97. B.Sc, Alberta, 17; Nat. Research Council Can. student, McGill, 19–20, M Sc, 20, student, 20–21, fellow, 21–22, Ph.D, 23. Dept. Health, Ottawa, 24–25; Ethyl Gasoline Corp, New York, 26–27; *research chemist, Brown Co, Berlin, N. H, 28–* Fel. Can. Inst. Chem; Chem. Soc. Cellulose chemistry; cellulose acetate; the kerogen of oil shale; pectin.

McKinney, Leonard L(aurence), 201 S. Busby, Urbana, Ill. *Chemistry.* Siloam Springs, Ark, May 28, 08. B.S, Arkansas, 31; George Washington, 34–35; Illinois, 38–40. Chemist-operator, Texaco Salt Products Co, 31–34; junior seafood inspector, food and drug admin, *U. S. Dept. Agr,* 35–37, *chemist, bur. agr. chem. and eng, 37–; major, Chem. Warfare Service, U. S. Army.* Capt, Chem. Warfare Res. A.A; Chem. Soc. Polymers, plastics and resins; industrial uses of proteins in adhesives, plastics and synthetic fibers; reactions of functional groups of proteins.

McKinney, Dr. Paul V(incent), Neville Co, Pittsburgh, Pa. *Chemistry.* Erie, Mich, Jan. 9, 01. A.B, Wooster Col, 21, A.M, 23; Baker and Co. fellow, Princeton, 28–29, Ph.D, 31. Instr, high schs, Ohio, 21–23; chem, Col. of Wooster, 23–28; part-time asst, Princeton, 29–30, asst. instr. chem, 30–31; instr, Rutgers, 31–33; research chemist, Phillips Petrol. Co, 33–36; senior indust. fellow, Mellon Inst, 36–40; *director research, Neville Co, 40–* Chem. Soc. (chairman petrol. chem. group, Okla. sect, 36). Surface reactions; adsorption; catalysis; hydrogenation; polymerization in hydrocarbons; reactions of hydrocarbon gases; sulfur cements; sulfur chemistry and technology; resins and coal by-product chemicals.

McKinney, Dr. R(obert) M(yers), Wyckwood, Wilmington. Del. *Chemistry.* Woodbine, Md, 02. A.B, Blue Ridge Col, 24; Ph.D, Hopkins, 27. Research chemist, Standard Oil Co. of N. Y, 27–28; Commercial Pigments Corp, 28–31; Krebs Pigment and Color Corp, 31–35; *head research div, E. I. du Pont de Nemours and Co, 35–* Trustee, Blue Ridge Col. Chem. Soc. Direct measurement of the osmotic pressure of solutions of electrolytes; titanium compounds and pigments.

McKinney, Prof. R(oscoe) L(ewis), Howard University, Washington, D. C. *Anatomy.* Washington, D. C, Feb. 8, 00. B S, Bates Col, 21; Rockefeller fellow, Chicago, 28–30, Ph.D, 30. Instr. zool, Morehouse Col, 21–23; *Howard,* 23–28, *prof. anat. and head dept, sch. med, 30–, v. dean, 31–* Asn. Anat. Tissue culture; origin and development of various types of connective tissue in vitro.

McKinney, Dr. Ruth A(lden), Institute of Pathology, West Penn Hospital, Pittsburgh, Pa. *Bacteriology, Cytology.* Garnet, Kans, Feb. 8, 00. B.S, Chicago, Influenza Cmn. fellow, 29–31, Ph.D, 33. Lab. director, N. End Clinic, Detroit, 33–36; *research bacteriologist, inst. path, West. Pa. Hosp, 36–* A.A; Pub. Health Asn; Soc. Bact. Bacterial variation; microbic-cytologic response in host defense reactions.

McKinnis, Dr. Ronald B, Sunshine Foods, Inc, Winter Haven, Fla. *Biochemistry.* Summerville, Oregon, July 3, 03. A.B, Willamette, 26; fellow, State Col. Wash, 26–27, M.S, 28; Ph.D, Pittsburgh, 30. Asst, Pittsburgh, 27–29; indust. fellow, Mellon Inst, 29–37; consultant, 37–38; *manager and sec'y, Sunshine Foods, Inc, 38–* A.A; Chem. Soc; Inst. Food Technol. Canning technology and food preservation; food engineering.

MacKinnon, Prof. Donald W(allace), Bryn Mawr College, Bryn Mawr, Pa. *Psychology.* Augusta, Maine, Jan. 9, 03. A.B, Bowdoin Col, 25; A.M, Harvard, 26, Ph.D, 33, Frederick Sheldon traveling fellow, Berlin, 30–31. Instr. psychol, Maine, 27–28; abnor. and dynamic psychol, Harvard, 28–30, tutor div. philos, Harvard and Radcliffe Col, 31–33; assoc. *psychol, Bryn Mawr Col,* 33–35, asst. prof, 35–37, *assoc. prof,* 37– Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; East. Psychol. Asn. Experimental psychopathology; motivation; personality; social psychology.

McKinnon, Prof. N(eil) E, University of Toronto, Toronto, Ont, Can. *Hygiene.* Priceville, Ont, Jan. 12, 94. M.B, Toronto, 21. Asst. prof. and *assoc. prof. epidemiol. and biometrics, sch. hygiene, and asst. director, Connaught Labs, Toronto; major, Can. Army Med. Corps.* Pub. Health Asn; Can. Pub. Health Asn; Can. Med. Asn. Vaccine virus; diphtheria immunization; serum concentration.

McKinsey, Dr. J(ohn) C(harles) C(henoweth), New York University, New York, N. Y. *Mathematics.* Chicago, Ill, 10. B.S. N. Y. Univ, 33, M.S, 34; Ph.D, California, 36. Blumenthal fellow *math, N. Y. Univ,* 36–37, *instr, 37–* Consulting ed, 'Jour. Symbolic Logic,' 40, managing ed, 41– Math. Soc; Asn. Symbolic Logic (sec'y-treas, 41–). Mathematical logic.

McKinstry, Dr. D(onald) W(elcomer), West Virginia University, Morgantown, W. Va. *Organic chemistry, Bacteriology.* Middletown, Pa, Dec. 20, 10. B.S, Franklin and Marshall Col, 32; M.S, Pa. State Col, 37, Ph.D, 39. Instr, high sch, Pa, 32–35; research fellow pharmacol. of tobacco, Bloch Brothers Tobacco Co, 39–41; research bacteriologist and chemist, Upjohn Co, 41–42; *instr. biochem, col. med, West Virginia, 42–* Cancer; chemotherapy of bacterial and virus diseases.

McKinstry, Prof. H(ugh) E(xton), University of Wisconsin, Madison, Wis. *Economic geology.* West Chester, Pa, May 5, 96. B.S, Haverford Col, 17; M.S, Mass. Inst. Tech, 21; Ph.D, Harvard, 26. Instr. geol, Mass. Inst. Tech, 20–21; geol-

ogist, Cerro de Pasco Copper Corp, Peru, 21–24; instr, Harvard, 25–26; geologist on mine examinations, Mex, 26–29; special investigation of geol, Hollinger Mine, Ont, 29–32; mining geologist, Case, Pomeroy and Co, 33–40; *prof. geol, Wisconsin, 40–* Mine examinations, S. Africa, Australia and U. S, 33–40. Advisory council, dept. geol. eng, Princeton, 42– Soc. Econ. Geol. (chairman program cmt, 42). Miner. Soc; Min. and Metal. Eng. (aviation cmt, 36–; v. chairman cmt. min. geol, 41); Geophys. Union (cmt. geophys. and geol. study of continents). Microscopic determination of opaque minerals; structure of ore deposits.

Mackintosh, Prof. David L(eslie), 1425 Humboldt St, Manhattan, Kans. *Animal husbandry.* Peebles, Peebleshire, Scotland, 95. B.S, Minnesota, 20; M.S, Kans. State Col, 25. Instr. *animal husbandry, Kans. State Col,* 21–22, asst. prof, 22–35, *assoc. prof, 35–; capt, Sanit. Corps, U. S. Army, 42–* A.A; Soc. Animal Production. Meat; factors related to color of meat; influence of minerals upon the keeping quality; factors related to the storage of frozen foods.

Mackintosh, R(oger) S(herman), 2153 Doswell Ave, St. Paul, Minn. *Horticulture.* Lincoln, Mass, Feb 18, 72. Grad, Minn. Sch. Agr, 90; B.Agr, Minnesota, 02; M.S, Iowa State Col, 10. Asst. hort, Exp. Sta, Minnesota, 97–03; prof, Ala. Polytech, horticulturist, Exp. Sta, and state horticulturist, 03–10; asst. hort, Iowa State Col, 09–10; Pa. State Col, 10–11; instr, high sch, Minn, 11–13; specialist agr. exten, Minnesota, 13–40. Ed, 'Minn. Horticulturist.' Soc. Hort. Sci; Minn. State Hort. Soc. (pres, 18, sec'y, 20). New plants in Minnesota.

Macklin, Dr. C(harles) C(lifford), University of Western Ontario Medical School, London, Ont, Can. *Anatomy.* Toronto, Ont, Oct. 23, 83. James H. Richardson fellow, Toronto, 12–13, M.B, 14, M.D, 18, M.A, Ph.D, 23. Asst anat, Hopkins, 14–15, instr, 15–17, assoc, 17–18; assoc. prof, Pittsburgh, 18–19; assoc, Hopkins, 19–20, assoc. prof, 20–21; *prof. histol. and embryol, med. sch, Western Ontario, 21–* Summers, acting assoc. prof, Stanford, 20; Marine Biol. Lab, Woods Hole, 15– A.A; Asn. Anat. (exec. cmt, 28–32); fel. Royal Soc. Can; Can. Physiol. Soc; Anat. Soc. Gt. Britain and Ireland. Development and repair of bone; vital staining of phagocytes; amitotic cell division; tissue culture; calcification by vital dyes; bone grafts; brain repair; the lungs; the bronchi; x-ray of bronchial movements; bronchial muscle and elastic tissue; histological absorption phenomena; intestinal epithelium; glands.

Macklin, Dr. Madge Thurlow, University of Western Ontario Medical School, London, Ont, Can. *Embryology.* Philadelphia, Pa, Feb. 6, 93. A.B, Goucher Col, 14, LL.D, 38; fellow, Hopkins, 14–15, American Univ. fellow, 16–19, Dean Van Meter fellow, 18–19, M.D, 19. Instr. gross anat, Pittsburgh, 18; physiol, sch. hygiene and pub. health, Hopkins, 19–20; *histol. and embryol, faculty med, Western Ontario,* 21–29, *asst. prof, 29–* Catherine Milligan McLane lecturer. Goucher Col, 37. Summer, instr, Red Cross Training Camp for Nurses, Vassar Col. 18. A.A; Eugenics Soc; Can. Eugenics Soc. (exec. director, 32–34, director, 35–); Can. Physiol. Soc. Human inheritance; cancer; eye defects; hemophilia; peroneal atrophy; Mongolian idiocy; cancer; mitochondria in nerve cells; bone grafts; intestinal epithelium; gynandromorph fowl.

Macklin, Dr. Theodore, Buttis Oilfields, Inc, 1440 Broadway, Oakland, Calif. *Agricultural economics.* Nanking, China, Nov. 10, 89. B.S.A, Iowa State Col, 11; Ph.D, Wisconsin, 17. Exten. lecturer, Iowa State Col, 11–12; land specialist, Doheny Research Foundation, 17–18; from instr. to prof. agr. econ, Kans. State Col, 15–19; Wisconsin, 19–29; Fed. Farm Board, 30–31; chief div. markets, State Dept. Agr, Calif, 31–42; *asst. gen. manager, Buttis Oilfields, Inc, 42–* Marketing economics; marketing; cooperative business organization.

McKnight, Col. Charles, Office of Chief of Ordnance, Washington, D. C. *Metallurgy.* Sewickley, Pa, Sept. 16, 91. M.E, Met.E, Pittsburgh. Steel mills, 08–16; asst. open hearth supt, metallurgist and works manager, Carbon Steel Co, 19–22; develop. and research dept, Int. Nickel Co, 22–31, asst. sales manager, 31–41; *col, U. S. Army, 41–* Lieut. col, F.A, 16–19. Min. and Metal. Eng; Soc. Metals (past chairman, N. Y. chap); Soc. Test. Mat. (chairman, cmt. on ferro-alloys, 29–41). Alloy steels.

McKnight, Edwin T(hor), U. S. Geological Survey, Washington, D. C. *Geology.* Forsyth, Mo, Jan. 18, 02. B.S, Washington (Seattle), 23. Junior geologist, *U. S. Geol. Surv,* 24–27, asst. geologist, 27–29, assoc. geologist, 29–35, *geologist, 35–* Geol. Soc; Soc. Econ. Geol; Geophys. Union; Geol. Soc. Wash; Wash. Acad. Stratigraphy of southeastern Utah; stratigraphy and lead and zinc deposits of northern Arkansas, of Rico, Colorado, and of the Tri-State district.

MacKnight, Dr. F(ranklin) C(ollester), 2780 East Blvd, Cleveland, Ohio. *Paleobotany.* Louisville, Ky, June 30, 09. Ph.B, Chicago, 32, Ph.D, 38. Asst. geologist, Pure Oil Co, 37; Ill. State Geol. Surv, 39–40; asst. examiner physical sciences, board exams, Chicago, 40–41; asst. prof. geol, Mt. Union Col, 41–43; *asst. prof. geog. and head dept, Fenn Col, 43–* A.A; Bot. Soc; Ohio Acad. Pennsylvania impressions.

MacKnight, Dr. R(obert) H(arlan), University of North Carolina, Chapel Hill, N. C. *Biology.* Lima, Peru, Nov. 18, 15. A.B, Columbia, 36; Ph.D, Calif. Inst. Tech, 39. Teaching fellow biol, Calif. Inst. Tech, 36–39, asst, 41–42; instr. zool, Northwestern, 39–40; North Carolina, 40–41; *U. S. Naval Res, 42–* Summers, asst. to Dr. A. F. Blakeslee, 36; asst. to Dr. M. Demerec, 37; asst, Minnesota, 38; asst. to Prof. L. J. Stadler, 39; independent research, Marine Biol. Lab, Woods Hole, 40, 41; teacher, North Carolina, 41. Genetics Soc. Cytological basis of crossing over anomalies and the evolution of the sex-determining mechanism in Drosophila; constitution of chromosomes in relation to their action; sanitation.

McLachlan, C(harles) G(ordon), Noranda, Que, Can. *Metallurgy.* Vancouver, B. C, Nov. 6, 96. B.A.Sc, British Columbia, 24, Nat. Research Council Can. bursar, 24–25, M.A.Sc, 25. Research metallurgist, Britannia Mining Co, 25–26; metallurgist, The Moctezuma Copper Co, 26–28; *concentrator supt, Noranda Mines, Ltd, 28–* Leonard gold medal, Eng. Inst. Can, 31. Min. and Metal. Eng; Can. Inst. Min. and Metal. Ore dressing; ore flotation.

McLachlan, Dr. Dan, Jr, 3 Old Post Road, Old Greenwich, Conn. *Physics, Chemistry.* Arcola, Sask, Can, Dec. 5, 05. B.S, Kans. State Col, 30; M.S, Pa. State Col, 33, Ph.D, 36. Asst. chemist, Sinclair Ref. Co, 30–32; grad. asst, Pa. State Col, 33–36; physical chemist, Corning Glass Works, 36–41; *physicist, Am. Cyanamid Co, 41–* A.A; Physical Soc; Soc. X-ray and Electron Diffraction; Chem. Soc. Glass technology; x-ray diffraction.

MacLachlan, Prof. J(ohn) D(ouglas), Ontario Agricultural College, Guelph, Ont, Can. *Botany.* Burritt's Rapids, Ont, July 30, 06. B.A, Queen's (Can), 31; A.M, Harvard, 33, Ph.D, 35. Teacher, schs, Can, 26–28, high sch, 28–29; Sheldon traveling fellow from Harvard, Jamaica, B. W. I, 35–36; instr. *bot,* Clemson Col, 36–37, *asst. prof,* 37–39; *Ont. Agr. Col, 39–* Plant pathology; rusts; control of the Gymnosporangium rusts; biology and control of pimento rust in Jamaica; biology of the Fusarium wilt of cotton; cereal smuts; physiology; minor element nutrition in plants; manganese and boron.

MacLachlan, Dr. P(ercival) L(loyd), West Virginia University, Morgantown, W. Va. *Physiological chemistry.* Burritt's Rapids, Can, Aug. 3, 07. B.A, Queen's (Can), 31; Ph.D, Rochester, 35. Asst. *biochem,* sch. med. and dentistry, Rochester, 31–35; instr, *sch. med, West Virginia,* 36–38, asst. prof, 38–41, assoc. prof, 41–43, *prof, 43–,* acting head dept, 38–39, *head dept, 41–* A.A; Chem. Soc; W. Va. Acad. Fat metabolism in plants and animals.

McLachlan, Lieut. Robert W(illiam), Experimental Engineering Section, Army Air Force Material Command, Wright Field, Dayton, Ohio. *Chemistry.* Des Moines, Iowa, March 21, 96. A.B, Iowa, 23, M.S, 27, fellow, 30–31, Ph.D, 31. Prin. and teacher, high sch, Iowa, 23–27; prof. chem, Mo. Wesleyan Col, 27–28; instr, Ill. Col, 28–30; asst. prof. science, N. J. State Teachers Col. Montclair, 31–41, coordinator civil pilot training and ground sch. instr, 39–41; asst. director civilian protection, Montclair, N. J, 41–42; *lieut, Air Corps, U. S. Army, 42–* A.A; Chem. Soc. (past councilor); Inst. Chem; Asn. Sci. Teachers Middle States (pres, 39). Inorganic and analytical chemistry; solubilities of certain anhydrous salts in thionyl chloride; photometric determination of the solubility of silver chloride and of mercureus chloride; chemical education; spectrometry.

Maclachlan, Dr. W(illiam) W(att) G(raham), 527 Medical Arts Bldg, Pittsburgh, Pa. *Medicine.* Guelph, Ont, Can, June 2, 85. M.D, McGill, 07; Strassburg, 12. Intern, Montreal Gen. Hosp, 07–10; pathologist, Mercy Hosp, Pittsburgh, 10–16; lecturer path, *sch. med, Pittsburgh,* 10–12, asst. prof, 12–19, *med,* 18–30, *assoc. prof, 30–* Am. Med. Asn; Asn. Path. and Bact; assoc. Am. Physicians. Internal medicine; pathology.

McLain, Dr. Paul L(arimer), University of Pittsburgh School of Medicine, Pittsburgh, Pa. *Physiology, Pharmacology.* Pittsburgh, Pa, July 18, 08. B.S, Pittsburgh, 29, M.D, 32. Asst. physiol. and pharmacol, *sch. med, Pittsburgh,* 29–32, demonstrator obstet, 33–34, instr. *physiol. and pharmacol,* 34–39, *asst. prof, 39–; capt, Med. Res. Corps, U. S. Army.* A.A; Soc. Pharmacol. Physiology of blood, muscle, nerve and heart; blood in heat disorders; respiration; pharmacology of quinidine and strychnine.

McLain, Major Stuart, Headquarters Proving Center, Aberdeen Proving Ground, Md. *Chemical engineering.* Tecumseh, Mich, March 31, 05. B.S, Michigan, 29, M.S, 30. Ph.D, 33. Mem. develop. dept, U. S. Rubber Products, Inc, 33–36; asst. prof. chem. eng, Detroit, 36–38; Arkansas, 38–41; *major, U. S. Army, 41–* Chem. Soc; assoc. Chem. Eng; Eng. Educ. Development of mobile artillery weapons.

Mac Lane, Prof. Saunders, 7 Avon St, Cambridge, Mass. *[7]*Mathematics.* Norwich, Conn, Aug. 4, 09. Ph.B, Yale, 30; A.M, Chicago, 31; Sterling fellow, Yale, 33–34; Ph.D, Göttingen, 34. Instr. *math,* Harvard, 34–36; Cornell, 36–37; Chicago, 37–38; asst. prof, *Harvard,* 38–41, *assoc. prof, 41–* Summers, mem. faculty, Chicago, 40; Alexander Ziwet lecturer, Michigan, 41. Chauvenet prize, Math. Asn, 41. Math. Soc. (councilor, 40–42, ed, 'Bul,' 43–); Math. Asn. (governor, 43–). Abstract algebra, algebraic number theory; topology; symbolic logic.

McLaren, Dr. James, U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Long Eddy, N. Y, Jan. 31, 09. B.S, Syracuse, 30; Ph.D, Edinburgh, 33. *Asst. chemist,* Columbia, 34; *U. S. Dept. Agr, 35–, south. regional research lab, bur. agr. chem. and eng.* A.A; Chem. Soc; Electrochem. Soc; Faraday Soc. Electrochemistry; electrolytic separation of isotopes; electrolytic preparation of sodium chlorate; chemical finishing of textiles.

Maclaren, Prof. Malcolm, 16 Boudinot St, Princeton, N. J. *Electrical engineering.* Annapolis, Md, June 21, 69. A.B, Princeton, 90, E.E, 92, A.M, 93. Westinghouse Elec. and Mfg. Co, 93–98; Westinghouse Co, Ltd, London, 98–00; chief elec. engineer, British Westinghouse Elec. and Mfg. Co, 00–04; ry. eng. dept, Westinghouse Elec. Mfg. Co, 04–08; prof. *elec. eng, Princeton,* 08–37, *emer. prof, 37–* Col, Eng.R.C. Elec. Eng. Power generation and distribution; rise of the electrical industry during the nineteenth century.

McLarty, Dr. Duncan A(rchibald), R.R. 6, St. Thomas, Ont, Can. *Botany.* St. Thomas, Ont, Feb. 13, 13. B.A, Western Ontario, 34; Ph.D, Columbia, 40. Lab. asst, Western Ontario, 34–35; Columbia, 35–39; instr. bot, Dartmouth Col, 39–42; dept. transport, meteorol. div, Can. Civil Service, 42; civilian meteorol. officer, Royal Can. Air Force, 42–43; *instr. bot, Western Ontario, 43–* Cytology of the lower fungi; mycology; algology.

McLarty, Dr. H(arold) R(oss), Field Laboratory of Plant Pathology, Summerland, B. C, Can. *Plant pathology.* Ridgetown, Ont, Oct. 5, 91. B.A, McMaster, 16, Nat. Research Council Can. bursar, 19-20, M.A, 20; fellow, Illinois, 21, Ph.D, 32. Plant disease investigator, *Can. Dept. Agr,* 20–21, *pathologist in charge field lab. plant path, 21–* A.A; Soc. Plant Physiol; Can. Soc. Tech. Agr; Can. Phytopath. Soc. Diseases of fruit trees.

MacLauchlan, Dr. F. Edith, 105–19 192nd St, Hollis, L. I, N. Y. *Psychology.* Norwich, N. Y, Oct. 1, 95. A.B, Columbia, 16, A.M, 17, Ph.D, 20. Asst. and instr. psychol, Columbia, 18–21; *psychologist,* high sch, N. Y, 21–26; *Domestic Relations Court, Brooklyn, 22–* Assoc. Psychol. Asn; Council Women Psychol; N. Y. Asn. Applied Psychol. Mental tests; psychological examinations of college and high-school students.

McLaughlin, Dr. A(lan) J(oseph), U. S. Public Health Service, Washington, D. C. *Sanitation.* London, Ont, Can, June 26, 72. M.D, Detroit Med. Col, 96. Asst. surgeon, *U. S. Pub. Health Service,* 00–05, passed asst. surgeon, 05–12, surgeon, 12–18, asst. surgeon gen, 18–21, *med. director, 21–* State Commissioner Health, Mass, 15–17; professorial lecturer, Michigan, 37– Pub. Health Asn. (pres, 22); Am. Med. Asn; Asn. Mil. Surg. Asiatic cholera; infant mortality in the Philippines; water pollution and typhoid fever.

McLaughlin, Dr. Alvah R(ufus), 219 W. 74th St. Terrace, Kansas City, Mo. *Physiology, Pharmacology.* South Canaan, Pa, June 1, 86. Ph.B, Lafayette Col, 09; A.M, Princeton, 14; D.V.M, Mich. State Col, 26. Prof. zool, Presb. Col. (S. C), 14–18; asst. prof. physiol. and pharmacol, col. physicians and surg, Southern California, 18–19; physiol. and mat. med, State Col. Wash, 19–21; instr. physiol. and pharmacol, sch. med, Missouri, 21–22; pharmacol, med. sch, Michigan, 22–24; physiol, Mich. State Col, 25–28; pharmacologist, Exp. Sta, Wyoming, 29–30; *practising veterinarian, 30–* Rôle of the liver in controlling the distribution of the blood; zygadenas; astragalus; diseases of cats and dogs; hydrogen ion concentration of the alimentary tract; epidemiology of rabies.

McLaughlin, Prof. Dean B(enjamin), University of Michigan, Ann Arbor, Mich. *[5]*Astronomy, Geology.* Brooklyn, N. Y, Oct. 25, 01. A.B, Michigan, 23, M.S, 24, Ph.D, 27. Asst. astron, Michigan, 22–24; instr. astron. and math, Swarthmore Col, 24–27; asst. prof. *astron, Michigan,* 27–34, assoc. prof, 34–41; *prof, 41–; mem. staff, radiation lab, Mass. Inst. Tech, 43–* Sproul Observatory total solar eclipse exped, Sumatra, 26; Univ. Michigan total solar eclipse exped, Maine, 32. A.A; Astron. Soc. (councilor, 36–39, sec'y, 39–); Astron. Soc. Pacific; Mich. Acad; Pa. Acad; Int. Astron. Union. Spectroscopy and photometry of variable stars; spectra of novae and peculiar stars; orbits and rotation of eclipsing binaries; Triassic stratigraphy in eastern United States.

McLaughlin, Dr. Donald H(amilton), 31st Floor, 40 Wall St, New York, N. Y. *[6]*Geology, Mining engineering.* San Francisco, Calif, Dec. 15, 91. B.S, California, 14; A.M, Harvard, 15, Sheldon traveling fellow, 16, Ph.D, 17. Geologist, Secondary Enrichment Investigation, 15–17; Cerro de Pasco Copper Corp, Peru, 19–20, chief geologist, 20–25; prof. mining eng, Harvard, 24–35, mining geol, 35–41, chairman div. geol. sciences, 30–41, dept. geol. and geog, 31–41, Lowell lecturer, 38; prof. mining eng. and chairman dept. mining and metal, California, 41–43, dean col. mining, 41–42, col. eng, 42–43; *v. pres. and director, Cerro de Pasco Copper Corp, 43–* Consulting geologist, Homestake Mining Co, 26–, director, 43–; consulting geologist, San Luis Mining Co, 27–; Case, Pomeroy and Co, 32–37; Santa Eulatia Min. Co, 37–; Cia. Mexicana de Manganeso, 42– Del, 3rd Pan-Am. Cong. Licut, Inf, 17–19. A.A; Min. and Metal. Eng. (chairman, cmt. on geophys. methods of prospecting, 28–32; cmt. min. geol, 41, 43); fel. Geol. Soc. (councilor, 34–36); fel. Soc. Econ. Geol. (sec'y, 33, pres, 38); Geophys. Union; fel. Am. Acad. (councilor, 39–42); Miner. Soc; Seismol. Soc; hon. mem. Soc. Geol. del Peru. Bornite ores of copper; geology of Peruvian Cordillera; Precambrian gold ores; Tertiary gold-silver ores of Sierra Madre, Mexico.

McLaughlin, George D(unlap), 3429 N. Main St, Racine, Wis. *Chemistry.* Center Co, Pa, Aug. 23, 87. Hon. M.S, Cincinnati, 24. Chief chemist, Leas and McVitty, Inc, Pa, 07–11; Kullman, Salz and Co, 12–19; research assoc. physiol, Cincinnati, 19–20, prof. leather research and director research lab, Tanners Council, 20–30; *director, B. D. Eisendrath Mem. Lab, Racine, 31–* Fraser Muir Moffat gold medal, Am. Leather Chem. Asn, 37. A.A; Chem. Soc. (chairman, Cincinnati sect, 25); Leather Chem. Asn. (pres, 32); N. Y. Acad; Wis. Acad. Chemistry and bacteriology of animal skin; physical and physiological chemistry of proteins and animal fats; chemistry of tanning.

McLaughlin, Prof. H(enry) M(ax), Thiel College, Greenville, Pa. *Chemistry.* Wilkesville, Ohio, Oct. 28, 85. B.S, Ohio (Athens), 14; A.M, Ohio State, 15; Ph.D, Iowa State Col, 24. Asst. *chem,* Ohio State, 14–15; Iowa State Col, 15–17; Chicago, 17–18; instr, Iowa State Col, 18–26; *prof, Thiel Col, 27–* Chem. Soc. (sec'y, Ames sect, 23); Iowa Acad. Inorganic and physical chemistry; surface tension; catalysis; effect of pressure on and equilibrium in chemical reactions.

McLaughlin, Dr. Laura H(ill), 504 Walnut St, Ann Arbor, Mich. *Astronomy.* Philadelphia, Pa, Sept. 3, 93. A.B, Northwestern, 17, A.M, 22; Ph.D, Michigan, 29. Teacher, high schs, S. Dak, Ill. and N. J, 17–20; asst. astron, Northwestern, 20–23, instr, 23–24; Vassar Col, 24–27. A.A; Astron. Soc. Stellar parallax; spectrophotometry.

McLaughlin, Prof. Laura (Ida), P. O. Box 3423, Texas State College for Women, Denton, Texas. *Nutrition.* Toledo, Ohio, 83. A.B, Nebraska, 04; M.S, Chicago, 16, Ph.D, 23. Prof. chem, Ill. Woman's Col, 09–22; instr. home econ, Chicago, 23–24; nutrition chemist, bur. home econ, U. S. Dept. Agr, 24–27; assoc. prof. foods and nutrition, Iowa State Col, 27–30; research assoc. pediat, Chicago, 31–35; *assoc. prof. home econ, Texas State Col. for Women, 35–* A.A; Chem. Soc;

Home Econ. Asn; Dietetic Asn. Nutrition; feeding of children.

McLaughlin, Prof. R(obert) P(enfield), 628 Canyon Road, Logan, Utah. *Forestry.* Sedalia, Mo, Jan. 29, 98. B.S, Idaho, 25; M.F, Yale, 26, Ph.D, 32. Asst. prof. forestry, Mich. State Col, 27–28; Minnesota, 29; supt, Camp Roosevelt, Civilian Conservation Corps, Conn, 33–34; asst. prof. *forestry, Utah State Col,* 35, *assoc. prof, 36–* Soc. Foresters; Forestry Asn; Int. Asn. Wood Anat. Wood anatomy.

McLaughlin, Prof. R(oland) R(usk), University of Toronto, Toronto, Ont, Can. *Chemistry.* Toronto, Ont, March 16, 01. B.A.Sc, Toronto, 22, M.A.Sc, 23, M.A, 25, Ph.D, 26. Grocers' Co. scholar, Lister Inst, London, 30; asst. prof. *chem. eng, Toronto,* 31–39, assoc. prof, 39–43, *prof, 43–* Fel. Chem. Soc; fel. Can. Inst. Chem. Chemical engineering.

McLaughlin, Dr. Thad G(erald), 643 Tennessee, Lawrence, Kans. *Geology.* Valley Center, Kans, Oct. 16, 13. A.B, Wichita, 35; Ph.D, Kansas, 39. Geologist, Kans. Geol. Surv, 39–42; *asst. geologist, U. S. Geol. Surv, 42–* Ground-water geology.

McLaughlin, W(alter) W(esley), Box 180, Berkeley, Calif. *Engineering.* Nederland, Colo, Jan. 6, 76. B.S, Utah Col, 96; M.S, California, 24. Civil and mining engineer, Silver City, Utah, 99–01; asst. chemist, Exp. Sta, Utah Col, 01–03, asst. irrig. engineer, 03–14, prof. irrig. and drainage, col, 09–13; asst. irrig. engineer, *U. S. Dept. Agr,* 03–14, assoc. irrig. engineer, Calif, 14–16, irrig. engineer, 16–25, assoc. chief div. irrig, bur. pub. roads, 25–31, *chief div. irrig,* bur. agr. eng, 31–39, *soil conservation service, 39–* Construction engineer, Utah and Idaho Canal Companies, 08–14. U. S. del, Int. Snow Surv. Conf, Edinburgh, 36. Agr. Eng; Geophys. Union; Utah Soc. Eng; Int. Soil Cong. Soil moisture in its relation to crop production; irrigation and drainage; agricultural engineering.

McLaughlin, Dr. W(illard) T(homas), Soil Conservation Service, Chewelah, Wash. *Botany.* Helena, Mont, Jan. 26, 04. A.B, Dartmouth Col, 25, A.M, 29; Ph.D, Wisconsin, 31. Instr. bot, Northwestern, 31–35; pres, Rocky Mountain Alpine Nurseries, 35–37; *asst. range examiner, soil conservation service, U. S. Dept. Agr, 37–* Ecol. Soc; Wis. Acad. Taxonomy and ecology of American vascular alpine plants; range ecology; ecology of sand dunes.

MacLaurin, Dr. R(obert) D(awson), 13976 Clifton Blvd, Lakewood, Ohio. *Chemistry.* Vanleek Hill, Ont, Can, Feb. 6, 79. B.A, McMaster, 02, M.A, 03; Ph.D, Harvard, 06. Fellow, Rockefeller Inst, 06–07; research chemist, Exp. Sta, Mass. Col, 07–09; head dept. chem, Saskatchewan, 09–19; research chemist, Toronto Meat Packers, 19–24; city commissioner, trade waste, Cleveland, 24–32; *in charge dept. research, Indust. Rayon Corp, 32–* Chem. Soc; Pub. Health Asn; Can. Inst. Chem. Abatement of atmospheric pollution.

McLaury, Prof. H(oward) L(incoln), Box 1574, Rapid City, S. Dak. *Mathematics.* North Kortright, N. Y, July 5, 66. A.B, Oberlin Col, 93; A.M, Harvard, 95; Sc.D, S. Dak. Sch. Mines, 36. *Prof. math, S. Dak. Sch. Mines, 95–*

McLay, Prof. A(lexander) B(oyd), 130 Dalewood Crescent, Hamilton, Ont, Can. *Physics.* Toronto, Ont, March 7, 01. B.A, McMaster, 22; M.A, Toronto, 23, Ph.D, 27. *Research assoc, Toronto, 27–;* asst. prof. *physics, McMaster,* 30–34, *assoc. prof, 34–* Physical Soc; fel. Royal Soc. Can. Absorption spectra of metallic vapors; analysis of spectra; hyperfine structure and nuclear spin.

Maclay, Dr. W(illiam) Dayton, 656 Euclid Ave, Berkeley, Calif. *Chemistry.* Auburn, Nebr, June 22, 05. B.S, Nebraska, 28, M.S, 29, Parke, Davis and Co. fellow, 29–31, Ph.D, 31. Asst. to Emer. Chancellor S. Avery, Nebraska, 31–32; dean, Scottsbluff Junior Col, 32; asst. prof. and assoc. prof. chem, Munic. Univ. Omaha, 32–36, asst. chemist and assoc. chemist, nat. inst. health, U. S. Pub. Health Service, 36–40; chemist and *senior chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Chem. Soc. Organic arsenicals; carbohydrates; organic chemistry; pectin; hemicelluloses.

MacLean, Prof. Alexander, University of Toronto, Toronto, Ont, Can. *Geology.* London, Ont, Sept. 22, 83. B.A, Toronto, 08. Lecturer *geol, Toronto,* 10–20, asst. prof, 20–23, assoc. prof, 23–32, *prof, 32–* Geol. Surv. Can. Soc. Econ. Geol; Can. Inst. Min. and Metal. Lignite fields of Saskatchewan; Pleistocene of southern Ontario; Kirkland Lake gold fields.

MacLean, Dr. A(llison) R(eginald) M(urray), 4065 Gage Road, Montreal, Que, Can. *Biochemistry.* Woodstock, N. B, Aug. 7, 90. B.A, McGill, 11, M.Sc, 12, Ph.D, 16. Demonstrator chem, McGill, 11, asst. prof. consulting biochemist and bacteriologist, 19–27; *tech. director, East. Dairies, 27–* Instr, Montreal Tech. Inst, 19–27; analyst, Sask. Liquor Cmn, 20. Mem. assoc. cmt, Nat. Research Council Can, 25–28. Sci. service, Imp. Ministry of Munitions, 16–18. A.A; fel. Pub. Health Asn; Soc. Chem Indust. (chairman, Montreal sect, 21); Soc. Chem. Indust. Gt. Britain (chairman food and nutrition div, 38, 39); Int. Asn. Milk Dealers (chairman, lab. sect, 36, 37). Bacteriology.

MacLean, Dr. A(ngus) L(loyd), 1201 N. Calvert St, Baltimore, Md. *Ophthalmology.* N. S, Can, May 12, 99. M.D, Dalhousie. Assoc. *ophthal, Hopkins,* 25–29, *asst, 29–,* res, *Wilmer Inst,* 25–29, *asst. visiting ophthalmologist, Hopkins Hosp, 29–* Acad. Ophthal. and Otolaryngol; Am. Med. Asn; Col. Surg; Ophthal. Soc. Experimental iritis; ocular reactions in rabbits sensitized to Streptococcus viridans; congenital anophthalmos; treatment of retinal detachment and retrobulbar neuritis.

Maclean, Dr. Bernice L(ouise), Hunter College, New York, N. Y. *Zoology.* Waterbury, Conn, Nov. 20, 03. A.B, Mt. Holyoke Col, 26; Mary E. Woolley fellow from Mt. Holyoke Col, Columbia, 29–30, fellow, 30–31, Ph.D, 33. Asst. zool, Mt. Holyoke Col, 26–27, instr, 27–29; anat, col. physicians and surg, Columbia, 29–30, 31–32, asst, dept. ophthal, 32–33; instr. *zool, dept. biol. sciences, Hunter Col,* 33–37, *asst. prof, 37–, chairman dept, 41–* A.A; Asn. Anat. Experimental embryology; amphibian spinal cord; amphibian musculature; tooth development and transplantation.

McLean, David A(lexander), 141 Washington Ave, Chatham, N. J. *Physical chemistry.* Golden, Colo, July 15, 05. B.S, Colorado, 29. *Mem. tech. staff, Bell Tel. Labs, 29–* Chem. Soc; N. Y. Acad. Viscosity; plasticity; capillarity; base exchange in cellulosic materials; paper condensers; reactions in dielectrics under voltage stress.

McLean, Dr. Forman T(aylor), Vegetable Crops Laboratory, Bradenton, Fla. *Plant physiology.* Colts Neck, N. J, June 27, 85. Ph.B, Yale, 07, M.F, 08; Ph.D, Hopkins, 15. With U. S. Forest Service, 08–15; instr. bot, col. agr, Philippines, 15–17, asst. prof, 17–18, assoc. prof, 18–20, prof, 20–21; plant physiologist, Exp. Sta, R. I. State Col, 23–28; supervisor pub. educ, N. Y. Bot. Gardens, 28–37; research work, Boyce Thompson Inst; *mem. staff, Veg. Crops Lab.* A.A; Soc. Plant Physiol. Ecology; growth of plants in relation to habitats; photosynthesis; agricultural climatology; aluminum, iron and manganese in relation to soil acidity.

McLean, Dr. Franklin C(hambers), University of Chicago, Chicago, Ill. **Physiology, Medicine.* Maroa, Ill, Feb. 29, 88. B.S, Chicago, 07, M.S, 11, Ph.D, 15, M.D, Rush, 10. Prof. pharmacol, Oregon, 11–14; asst. res. physician, Rockefeller Inst. Hosp, 14–16; director, Peking Union Med. Col, 16–20, prof. med, 16–23; *Chicago,* 23–32, chairman dept, 27–29, director clinics, 29–32, *prof. path. physiol, 32–* Trustee, Julius Rosenwald Fund. A.A; Physiol. Soc; Am. Physicians; Soc. Biol. Chem; Soc. Pharmacol; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc. Calcification; physiology of bone.

McLean, Prof. Harry C(harles), 227 Lawrence Ave, Highland Park, N. J. *Soils.* Kans, Oct. 2, 85. B.S, Kans. State Col, 08; M.S, Rutgers, 16, Ph.D, 18. Asst. soil anal, Kans. State Col, 09–10; asst. soil chemist, *N. J. Exp. Sta,* 10–16, *chemist soil research, 16–, chief spray residue investigations, 28–, asst. prof. soils, Rutgers, 29–* Chem. Soc; Asn. Econ. Entom. Distribution of spray residues in the soil profile; spray residue removal from fruit and vegetables; relation of spray schedule to spray residue.

MacLean, Dr. J(ames) D(onald), U. S. Forest Service, Madison, Wis. *Engineering, Mathematics.* B.S, Wisconsin, 11, M.E, 16, M.S, 26, Ph.D, 29. Senior engineer, Forest Products Lab, U. S. Forest Service, 11–14; teacher, col. eng, Wisconsin, 14–20; *with Forest Products Lab, U. S. Forest Service, 20–, senior engineer.* Wood preservation; variables affecting penetration of liquids into wood; heat conductivity of wood; effect of heat on the properties and serviceability of wood.

McLean, Dr. John G(rim), 908 Laporte Ave, Ft. Collins, Colo. *Horticulture.* Fairbury, Nebr, July 8, 13. B.S, Nebraska, 36; Ph.D, Wisconsin, 40. Asst. plant path, Wisconsin, 36–39, in charge potato certification, 39–40; *assoc. prof. hort, Colo. State Col, 40–* Phytopath. Soc; Potato Asn.

Fusarium wilts and purple-top of potato; boron deficiency in vegetable crops; potato culture and production.

McLean, Dr. Margaret J(ean), 220 Park St, New Haven, Conn. *Organic chemistry.* Easthampton, Mass, May 14, 16. A.B, Mt. Holyoke Col, 37, A.M, 39; Ph.D, Yale, 41. Instr. chem, Conn. Col, 41–42; *Carnegie Foundation fellow, Yale, 42–* Chem. Soc. Sterols of marine invertebrates; hydantoins.

Maclean, Dr. Marion E(lsie), National Bureau of Standards, Washington, D. C. *Chemistry.* Waterbury, Conn, Oct. 31, 01. A.B, Mt. Holyoke Col, 24, A.M, 26, Alumnae fellow, 30–31; Julia C. G. Piatt Mem. fellow from Am. Asn. Univ. Women, 31–32; Ph.D, Illinois, 33. Asst. chem, Mt. Holyoke Col, 24–26; instr, Newcomb Col, Tulane, 26–28; Wellesley Col, 28–30; Wells Col, 32–33; Milwaukee-Downer Col, 33–34; Conn. Col, 34–37; indust. fellow, Mellon Inst, 37–41; *asst. chemist, Bur. Standards, 41–* A.A; Chem. Soc. Stereoisomerism of organic compounds; bibliographic research; ultra-violet absorption spectra of hydantoin derivatives; composition of tall oil; separation of natural fatty acids; spectrophotometry of indicators and dyes; measurement of acidity in non-aqueous solvents.

MacLean, Prof. N(eil) B(ruce), McGill University, Montreal, Que, Can. *Mathematics.* Burgoyne, Ont, April 14, 83. B.A, Toronto, 06, fellow, 06–07, M.A, 08; Ph.D, Chicago, 23. Staff Dom. Observatory, Ottawa, 06–07; lecturer math, Manitoba, 07–10, prof. and head dept. math. and astron, 10–27; staff, Sun Life Assurance Co. of Can, Montreal, 27–30; *prof. math. and joint chairman dept, McGill; 30–* D.S.O, 18. C.E.F, 15–19, lieut. col, C.O.T.C, 20–27. Astron. Soc; fel. Am. Inst. Actuaries; fel. Royal Astron. Soc. Can. Applied mathematics; projective differential geometry.

McLean, Richard A(lfred), Academy of Natural Sciences, 19th St. and the Parkway, Philadelphia, Pa. *Marine biology.* Boston, Mass, Sept. 8, 12. B.S, Iowa Wesleyan Col, 33; A.M, Harvard, 37, 37–39. Asst. entomologist, Boston Soc. Nat. Hist, 33; asst. *mollusks,* museum comp. zool, Harvard, 35–39; *asst. curator, Acad. Nat. Sciences, Phila, 39–* Summer, biol. assoc. U. S. Navy antifouling project, Oceanog. Inst, Woods Hole, 41. Malacol. Union; Shellfisheries Asn. Invertebrate taxonomy.

McLean, Stuart, Bishop Road, R. D. 1, South Euclid, Ohio. *Physics.* Manilla, Ont, Can, Nov. 3, 96. B.A, McMaster, 17; M.A, Toronto, 18, Nat. Research Council Can. student, 19–20. Asst, dept. physics, Toronto, 17–19; *exp. engineer, incandescent lamp dept, Gen. Elec. Co, Cleveland, 20–* Adsorption gases and density of adsorbing materials.

McLean, Prof. True, Cornell University, Ithaca, N. Y. *Electrical engineering, Communication.* New York, N. Y, Jan. 22, 99. E.E, Cornell, 22, 23–27. Engineer, West. Elec. Co, 22–23; instr. *elec. eng, Cornell,* 23–30, asst. prof, 30–43, *assoc. prof, 43–* Elec. Eng. (chairman Ithaca sect, 39). Communication circuits; acoustical instruments.

McLearn, Dr. F(rank) H(arris), Geological Survey, Ottawa, Ont, Can. *Geology.* Halifax, N. S, Feb. 27, 85. B.E, Dalhousie, 07; Ph.D, Yale, 17. Field asst, *Geol. Surv. Can,* 13, temporary asst. geologist, 14–20, assoc. invert paleontologist, 20–27, invert. paleontologist, 27–37, *geologist, 37–* Fel. Geol. Soc; fel. Royal Soc. Can. Stratigraphy; paleontology; Silurian of Arisaig, Nova Scotia; Triassic and Jurassic of Alberta and British Columbia; marine lower Cretaceous of northern Alberta; Cretaceous and Paleocene of Saskatchewan.

McLellan, Dr. C(rawford) R(eid), Louisiana College, Pineville, La. *Organic chemistry.* Lexington, Miss, Oct. 18, 06. A.B, Miss. Col, 29; A.M, North Carolina, 30; Ph.D, Louisiana, 41. *Prof. chem,* Agr. and Mech. Col. Ark, Monticello, 30–38; *Louisiana Col, 41–* Summer, instr, Eng. Defense Training Program, Pa. State Col, 41. 6-nitro-2-amino-p-cymene and derivatives; the preparation and properties of 1-alkyl-cyclopentanols and their derivatives.

McLellan, Dr. Roy D(avison), 24 Lillian Terrace, Woodbridge, N. J. *Geology, Petrography.* N. S, Can, Aug. 21, 92. A.B, Washington (Seattle), 15, B.S, 16, M.S, 22, scholar, 22–23, Loretta Denny fellow, 23–24, Ph.D, 28. Chemist, Can. Assay Office, Vancouver, 16–20; *geologist and petrographer, Am. Smelting and Ref. Co, New York, 25–* A.A; Miner. Soc; Optical Soc; Devonian orcas group of Washington; geology of the San Juan Islands; petrography of lead and copper furnace slags; refractometer with variable refracting angle; spectroscopy.

McLendon, C(larence) A(lbertis), U. S. Department of Agriculture, Atlanta, Ga. *Plant breeding.* Bishopville, S. C, May 3, 83. B.S, Clemson Col, 08; Cornell, 10. Asst. botanist and plant pathologist, Exp. Sta, Clemson Col, 08, field pathologist, 14–16; botanist and plant pathologist, Exp. Sta, Georgia, 08–13; expert cotton breeding, State Board Entom, Ga, 16–20; agronomist, soil improv. cmt, S. Fertilizer Asn, 20; branch manager, Humphrey-Coker Seed Co, 20; seedsman, 20–26; manager, Neely's Pedigreed Seed Co, 26–29; sales manager, Southeast, Lee Wilson and Co, 29–30; *agronomist cotton production, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Genetic Asn. Mendelian inheritance in cotton hybrids; maintaining purity of cotton varieties; cooperative cotton breeding; community cotton production.

McLendon, Dr. Verda Wirth, 7501 Hopkins Ave, College Park, Md. *Chemistry.* Elwood, Iowa, Dec. 1, 06. A.B, Iowa, 27, M.S, 30, Ph.D, 32. Teacher science, high sch, Minn, 27–29; asst. chem, Iowa, 29–32; head dept, Buena Vista Col, 32–35; asst, Tennessee, 36; visiting instr. physical science, Fla. State Col. Women, 40–41; *asst. physical chemist, U. S. Bur. Mines, 41–* Electrode potentials.

Maclennan, Dr. F(rancis) W(illiam), Miami Copper Co, Miami, Ariz. *Mining engineering.* Cornwall, Ont, Can, Oct. 14, 76. E.E, McGill, 98, E.M, 00, hon. LL.D, 31; Liége, 98–99. Engineer, Le Roi Mine, B. C, 00; Velvet Mine, B. C, 01–03; Cornucopia Mines, Oregon, 03; smelterman, Utah Consol. Smelter, Utah, 04; supt, Oro Denoro Mine, B. C, 04; engineer, Highland Boy Mine, Utah, 05; supt, Ely Witch Mine, Nev, 06; gen. supt. mines, Cerro de Pasco Copper Corp, Peru. 07–10; supt. mine examinations, S. Amer, Can. and U. S, 10–13; mine supt. and asst. manager, *Miami Copper Co, Ariz,* 13–19, gen. manager, 19–37, *v. pres. and consulting engineer, 37–* William Lawrence Saunders gold medal, Inst. Min. and Metal. Eng, 31. Min. and Metal. Eng; Min. and Metal. Soc; Min. Cong; Can. Inst. Min. and Metal. Methods of mining low-grade orebody.

Maclennan, Dr. J(ohn) Scott, 435 E. Union Ave, Bound Brook, N. J. *Chemistry.* Lindsay, Ont, Can, July 23, 06. Milton Hersey fellow, Queen's (Can), 28–29, B.Sc, 28, M.Sc, 29; Ph.D, N. Y. Univ, 32. *Research chemist, Calco Chem. Co, 32–* Summer, analyst, Int. Nickel Co, Port Colborne, Can, 27. Chem. Soc. Thio indigoid dyestuffs; dyestuff intermediates; rubber chemicals; pharmaceuticals.

MacLennan, Prof. R(onald) F(raser), Oberlin College, Oberlin, Ohio. *Zoology.* Oberlin, Ohio, Sept. 26, 06. A.B, Oberlin, 28; A.M, California, 30, Ph.D, 32. Instr. *zool,* State Col. Wash, 32–33, asst. prof, 33–36, assoc. prof, 36–40; *asst. prof, Oberlin Col, 40–* A.A; Micros. Soc; Soc. Zool. Protozoology; comparative anatomy.

Macleod, Dean Annie Louise, Syracuse University, Syracuse, N. Y. *Chemistry.* N. S, Can, 83. B.A, McGill, 04, M.Sc, 05, Ph.D, 10. Teacher chem, McGill, 05–08; Barnard Col, Columbia, 08–09; fellow, Bryn Mawr Col, 09–12, reader, 12–14; chem. staff, Vassar Col, 14–19, assoc. prof. chem, 19–24, prof. and director euthenics, 24–28; *dean col. home econ, Syracuse, 28–* A.A; Home Econ. Asn. Organic chemistry; euthenics; vital factors of food; chemistry and cookery.

Macleod, Dr. A(rchibald) Garrard, 216 Stuart Ave, Kalamazoo, Mich. *Medicine.* Leavettsburg, Ohio, April 10, 98. A.B, Western Reserve, 20, A.M, 22, M.D, 25. Instr. chem, sch. pharmacy, Western Reserve, 19–20; demonstrator biochem, 20–21, teaching fellow, 21–22; intern, Lakeside Hosp, Cleveland, 26; asst. cardiol, Michigan, 26–32, instr. med, 30–32; assoc, Rockefeller Inst, 32–39; *mem. med. dept, Upjohn Co, 39–* Soc. Clin. Invest; Cent. Soc. Clin. Research. Electrocardiography; uric acid in the human blood; the exposed human heart; electrical phenomena in cardiac muscle; pharmacology of pure strophanthin glucosides.

McLeod, Dr. Charlotte, 615 N. Wolfe St, Baltimore, Md. *Bacteriology.* Goodwater, Ala, Aug. 24, 05. B.S, Miami (Fla), 36; Sc.D, Hopkins, 39. *Research asst. bacter, sch. hygiene and pub. health, Hopkins, 39–* Meningococcus; spirochetes.

MacLeod, D(onald) J(ohn), Laboratory of Plant Pathology, Fredericton, N. B, Can. *Plant pathology.* Dunvegan, Ont, June 30, 94. B.A, Queen's (Can), 21, Nat. Research Council Can. bursar, 21–22, student, 22–24, M.A, 23. *Pathologist in chief, lab. plant path, Can. Dept. Agr, 24–* A.A; Can. Soc. Tech. Agr; Can. Phytopath. Soc; Can. Professional Inst; Asn. Econ. Biol. England. Virus diseases of potatoes.

MacLeod, Prof. Florence L(ouise), University of Tennessee, Knoxville, Tenn. *Nutrition.* Cambridge, Mass, Oct. 25, 96. B.S, Simmons Col, 19; A.M, Columbia, 21, Ph.D, 24. Asst. chem, Columbia, 19–31; assoc. prof. *nutrition, Tennessee,* 31–36, *prof, 36–* Nat. research fellow, 24–25. A.A; Inst. Nutrition; Chem. Soc; Soc. Biol. Chem. Minerals and vitamins in nutrition.

MacLeod, Prof. Grace, Teachers College, Columbia University, New York, N. Y. *Nutrition.* Rothesay, Scotland, Aug. 6, 78. B.S, Mass. Inst. Tech, 01; A.M, Columbia, 14, Ph.D, 24. Teacher, schs, Mass, 01–10; chem. and physics, Pratt Inst, 10–17; asst. ed, 'Jour. Indust. and Eng. Chem,' 17–19; from instr. to *prof. nutrition, Teachers Col, Columbia, 19–* Cooperating investigator, nutrition lab, Carnegie Institution, 22–28. Ed. board, 'Jour. Nutrition,' 36–39. A.A; Soc. Biol. Chem; Chem Soc; Soc. Exp. Biol; Inst. Nutrition; Home Econ. Asn; Dietetic Asn. (ed. board, 'Jour,' 40–). Utilization of calcium; efficiency of proteins; energy metabolism; availability of iron.

MacLeod, Dr. G(uy) F(ranklin), University of California, Berkeley, Calif. *Agricultural entomology.* Lowell, Mass, June 22, 97. B.S, Mass. Col, 20; Ph.D, Cornell, 30. Asst, N. Y. Exp. Sta, Geneva, 20–24; exten. entomologist, Pa. State Col, 24–29; entomologist, N. Y. State Col. Agr. and Exp. Sta, Cornell, 30–39, prof, 38–39; *entomologist, California, 39–* Asn. Econ. Entom. (chairman, east. branch, 39, sec'y exten. sect, 41); Entom. Soc. Amer; Pacific Coast Entom. Soc. Control of injurious insects on fruit and vegetables; insect physiology, especially the effects of radiant energy.

MacLeod, Prof. H(ector) J(ohn), University of British Columbia, Vancouver, B. C, Can. *Electrical engineering.* New London, P. E. I, May 6, 87. B.Sc, McGill, 14; M.Sc, Alberta, 16; A.M, Ph.D, Harvard, 21. Lecturer elec. eng, Alberta, 14–16, assoc. prof, 21–24, prof, 24–36; *prof. mech. and elec. eng. and head dept, British Columbia, 36–* Major, C.E.F, and Royal Artil, 16–19, lieut. col, R.O. Can. Elec. Eng; Radio Eng; Eng. Inst. Can. Losses in dielectrics.

McLeod, Dr. J(ames) A(rchie), University of Manitoba, Winnipeg, Man, Can. *Parasitology, Medical entomology.* Rosedale, Man, Sept. 1, 04. B.Sc, Manitoba, 31, M.Sc, 33, Ph.D, 39; Minnesota, 36–37. Demonstrator *zool, Manitoba,* 32–35, 36–37, *lecturer, 37–* Research prize, Sci. Club Winnipeg, 36. Parasitological survey of the genus Citellus in Manitoba; cercarial dermatitis.

Mac Leod, Dr. John, Cornell University Medical College, 1300 York Ave, New York, N. Y. *Physiology.* Edinburgh, Scotland, Nov. 29, 05. A.B, N. Y. Univ, 34, M.S, 37; Ph.D, Cornell, 41. Asst. physiol, *med. col, Cornell,* 38–39, *research assoc. anat, 41–* Physiol. Soc; Asn. Anat; Harvey Soc. Tissue metabolism; physiology of human spermatozoa.

McLeod, Dr. J(ohn) H(enry), Eastman Kodak Co, Rochester, N. Y. *Physics.* Esterhazy, Sask, Can, Jan. 23, 97. B.Sc, Saskatchewan, 24; M.A, Toronto, 26, Ph.D, 29. Instr. and tutor physics, Jefferson physical lab, Harvard, 29–34; research physicist, research lab, *Eastman Kodak Co,* 34–38, *physicist, Hawkeye works, 38–* A.A; Physical Soc; Optical Soc. The green spectral line of the aurora; the Raman effect in liquefied gases; the atomic spectrum of iodine; recording and reproducing of sound on film; methods of manufacture and testing of lenses and prisms.

McLeod, Dean L(aurence) S(purgeon), University of Tulsa, Tulsa, Okla. *Psychology.* Smithville, Ark, Sept. 9, 87. A.B, Arkansas, 12; A.M, Chicago, 17, Ph.D, 28. Teacher, pub. schs, Ark, Colo. and Okla, 12–17; *prof.* psychol. and educ. *and head dept, Tulsa,* 18–24, *psychol, 24–,* acting dean *col. arts and sciences,* 30–31, *dean,* 31–33, *35–,* acting dean and v. pres, univ, 34–35. Civilian psychologist, Army Induction Sta, 42. Assoc. Psychol. Asn; Okla. Acad. Relation of speed and accuracy; hypnotism; personality adjustments.

MacLeod, Prof. R(obert) B(rodie), Swarthmore College, Swarthmore, Pa. *Psychology.* Martintown, Ont, Can, Jan. 31, 07. B.A, McGill, 26, M.A, 27; Berlin; Frankfurt; Ph.D, Columbia, 31. Sessional lecturer, McGill, 27–28; instr. psychol, Cornell, 30–33; asst. prof. *psychol. and educ. and chairman dept, Swarthmore Col,* 33–37, *assoc. prof, 37–* A.A; Psychol. Asn; Ethnol. Soc; Optical Soc; Soc. Psychol. Study Social Issues; Can. Psychol. Asn. Perception; motivation; social psychology; psychology of language and thinking.

McLeod, Dr. W(illiam) M(ax), Kansas State College, Manhattan, Kans. *Anatomy, Physiology.* Williamsburg, Iowa, Feb. 23, 92. D.V.M, Iowa State Col, 17. From instr. to assoc. prof. *anat, div. vet. med, Kans. State Col,* 19–33, *prof, 33–* Vet. Med. Asn; Kans. Vet. Med. Asn. Anatomy of the domestic fowl.

McLester, Dr. James (Somerville), 930 S. 20th St, Birmingham, Ala. *Medicine.* Tuscaloosa, Ala, Jan. 25, 77. A.B, Alabama, 96; M.D, Virginia, 99; Göttingen; Freiburg; Berlin; Munich. Intern, Phila. Polyclinic Hosp, 99–01; *prof. med, Alabama, 20–* A.A; Am. Med. Asn. (pres, 35, sec'y, sect. practise of med, chairman, 20); Am. Physicians; Col. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn. Nutrition and diet in disease.

McLoud, E(lbert) S(axton), 422 Harvey Drive, Racine, Wis. *Chemistry.* Springfield, Ill, Aug. 20, 09. B.S, Wisconsin, 31, fellow, 35, M.S, 35; Cornell, 36. Asst. limnol, Wis. State Geol. Soc, 30–31; *research chemist, S. C. Johnson and Son, Inc, 31–* Wax refining and synthesis.

MacLulich, Dr. D(uncan) A(lexander), 144 Mavety St, Toronto, Ont, Can. *Wildlife management.* Toronto, Ont, July 2, 09. B.Sc.F, Toronto, 31, Ph.D, 37. Asst. biol, Toronto, 31–36; bacteriologist, Mountain Sanitarium, Hamilton, Ont, Can, 36–37; ranger, Algonquin Prov. Park, 38–40; *navigation instr. and flight lieut, Royal Can. Air Force, 40–* Demonstrator, Toronto, 36–37. Summers, asst, Ont. Forestry Branch, 28–31; mammalogist, Royal Ont. Museum Zool, 31; field mammalogist, Nat. Museum Can, 36. A.A; Soc. Bact; Soc. Parasitol; Soc. Foresters; Ornith. Union; Ecol. Soc; Soc. Mammal; Wildlife Soc; Can. Soc. Forest Eng; British Ecol. Soc. Wildlife population changes and control.

MacMahon, Dr. A(ndrew) M(erritt), 2501 Southmore Blvd, Houston, Texas. *Physics.* Marshalltown, Iowa, Dec. 3, 93. A.B, Iowa, 16, M.S, 17; Ph.D, Chicago, 27. Instr. physics, Wisconsin, 19; asst, Chicago, 19–21; instr, Rice Inst, 21–25; fellow, Chicago, 25–27; Göttingen, 27–28; curator div. physical sciences, Museum Science and Indust, 28–37; *consulting physicist, 37–* Mem. cmt. on exhibits, Nat. Research Council, 29–35. Consulting physicist, cmt. planning sci. exhibits of Golden Gate Int. Expos, California, 38. Century of Progress rep, Danish Sci. Cmn, 33. A.S, U.S.A, 18–19. A.A; Physical Soc; Optical Soc; Hist. Sci. Soc; Asn. Physics Teachers; Chicago Physics Club (pres, 34). Action of roentgen and gamma rays upon selenium crystals; conduction of electricity in solids; dispersion of x-rays; quantum theory; light-sensitiveness of selenium; scientific instruments; geophysics; economics.

McMahon, Dr. Edward M(errill), Tennessee Eastman Corp, Kingsport, Tenn. *Organic chemistry.* Georgetown, Ill, Aug. 5, 05. B.S, Ill. Wesleyan, 27; M.S, Illinois, 29, Ph.D, 32. Asst. chemist, sanit. dist, Decatur, Ill, 27–28; teaching asst, Illinois, 28–32; chemist, Bowey's, Inc, and E. A. Siebel and Co, Chicago, 33–34; *research and develop. chemist, Tenn. Eastman Corp, 34–* Esterification in the presence of bismuth trichloride; mercurated azo dyes derived from benzidine; stereochemistry of diphenyl derivatives; vapor phase catalytic reactions; plasticizers; organic syntheses; synthetic resins.

MacMahon, Dr. H(arold) Edward, 19 Hubbard Park, Cambridge, Mass. *Pathology, Bacteriology.* Aylmer, Ont. Can, March 30, 01. Hon. B.A, Western Ontario, 22, M.D, 25. Instr. path, Harvard Med. Sch, 28–29; *prof. path. and bacter, med. sch, Tufts Col, 30–* Pathologist, New Eng. Med. Centre. A.A; Asn. Path. and Bact; Royal Col. Physicians; Deuts. Path. Gesell. Pathology of the liver; pathology of kidney and blood vessels; pathology of electrocution; tuberculosis.

McMahon, Dr. Howard O(lford), 474 Commonwealth Ave, Boston, Mass. *Physical chemistry.* Killam, Alta, Can, Sept. 16, 14. B.A, British Columbia, 35, M.A, 37; Ph.D, Mass. Inst. Tech, 41. *Research assoc. physical chem, Mass. Inst. Tech, 41–; mem. research staff, Arthur D. Little, Inc, 43–* Flow calorimetry.

McMaster, Dr. LeRoy, Washington University, St. Louis, Mo. *Chemistry.* Mt. Pleasant, Md, March 26, 79. Ph.B, Dickinson Col, 01, A.M, 02, hon. Sc.D, 31; fellow, Hopkins, 05–06, Ph.D, 06. Instr. *chem,* Dickinson Col, 01–04; *Washington (St. Louis),* 06–10, asst. prof, 10–12, assoc. prof, 12–14, prof, 14–22, *Eliot prof, 22–, head dept, 14–* Asst. author, 'Carnegie Mem.' Chem. Soc; London Soc. Chem. Indust. Organic and physical chemistry; synthesis of organic compounds; salts of organic acids; conductivity and viscosity of salts in solution; gases; transformations of benzene compounds; solubility; industry; germicides; plastics.

McMaster, Dr. Philip D(uryée), Rockefeller Institute, New York, N. Y. *Physiology.* Philadelphia, Pa, Sept. 14, 91. B.S, Princeton, 14; M.D, Pennsylvania, 18. Fellow, *Rockefeller Inst,* 19–20, asst, 20–22, assoc, 22–26, *assoc. mem, 26–* A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Harvey Soc. (sec'y, 28); fel. N. Y. Acad. Med. Pathological physiology; physiology of the liver, of the minute lymphatics, blood capillaries and interstitial tissues; bile and blood pigment metabolism.

MacMasters, Dr. Majel M(argaret), 208 Parkside Drive, Peoria, Ill. *Chemistry.* Marathon, N. Y, Jan. 26, 05. B.S, Mass. Col, 26, M.S, 28, Ph.D, Mass. State Col, 34. Asst. *chem,* Mass. Col, 26–29; instr, Lindenwood Col, 29–31; asst, Mass. State Col, 32–35; asst, Illinois, 35–36, instr, 36–37, assoc, 37–40; assoc. chemist, *north. regional research lab,* bur. agr. chem. and eng, *U. S. Dept. Agr,* 40–42, *chemist, bur. agr. and indust. chem, 42–* Summer, instr, De Paul, 35. A.A; Chem. Soc; Asn. Cereal Chem; Inst. Chem; Soc. Plant Physiol. Plant nutrients; rhythmic crystallization; starch.

McMath, Dr. Robert R(aynolds), McMath-Hulbert Observatory, University of Michigan, Route 4, Pontiac, Mich. *†*Astronomy.* Detroit, Mich, May 11, 91. B.C.E, Michigan, 13, hon. A.M, 33; hon. Sc.D, Wayne, 38, Pa. Mil. Col, 41. Gen. manager, Biltmore Forest Estates Co, N. C, 20–22; *Motors Metal Mfg. Co, Detroit,* 22–24, pres. and director, 28–38, *chairman board directors, 39–; director, McMath-Hulbert Observatory, Michigan, 28–,* hon. curator univ. observatories, 29–39. Advisory cmt. astrophys. project, Calif. Inst. Tech. Director and chairman board, Cranbrook Sch, 40–; trustee, Cranbrook Inst. Sci, v. chairman, 36–; trustee, Wayne Univ. Foundation. John Price Wetherill medal, Franklin Inst, 33; medal, Rittenhouse Astron. Soc. Phila, 36; Jour. award, Soc. Motion Picture Engineers, 40. A.S, 17–19, major. A.A. (v. pres, D, 40); Astron. Soc. (v. pres, 34, mem. finance cmt, 38–); Philos. Soc; Wash. Acad; assoc. Royal Astron. Soc; Int. Astron. Union (cmn. 11). Solar astronomy; continuous records of celestial phenomena by motion picture method; design and construction of telescopes.

McMeekin, Dr. T(homas) L(e Roy), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Physiological chemistry.* Monticello, S. C, May 8, 00. B.S, Clemson Col, 21; M.S, Tulane, 22; Ph.D, Chicago, 25. Asst. prof. physiol. chem, Emory, 25–27; chemist, E. R. Squibb and Sons, 27–28; research fellow, Harvard Med. Sch, 28–40; *senior chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Chem. Soc. Enzyme chemistry; liver and the treatment of pernicious anemia; protein chemistry.

MacMillan, Dr. Daniel P(eter), 5553 Kenwood Ave, Chicago, Ill. *Psychology.* Antigonish, N. S, Can, July 3, 70. B.A, Acadia, 95; Cornell, 95–96; fellow, Chicago, 96–98, Ph.D, 00; M.D, Illinois, 09, Chicago Post-Grad. Med. Sch, 23. Asst, *dept. child study and pedag. investigation, pub. schs, Chicago,* 00–02, director, 02–35, *emer. director, 35–; practising physician.* Summers, lecturer, Chicago, 05–07. A.A; Psychol. Asn; fel. Am. Med. Asn; West. Philos. Asn. The psychology of normal and subnormal children; deaf children; types of learning in relation to types of intelligence; education and the manual arts; nervous and mental disorders of children and youth.

McMillan, Prof. D(aniel) R(ussell), Jr, 1319 Emory Circle, N.E, Atlanta, Ga. *Physics.* Bartow, Ga, June 25, 07. B.S, Ga. Tech, 31; M.S, Emory, 35; Ph.D, North Carolina, 40. Instr. *physics, Emory,* 33–40, asst. prof, 40–41, *assoc. prof. and chairman dept, 41–* Univ. Center Research Award, 42. Asn. Physics Teachers. Ultrasonic velocities in liquids.

Macmillan, Dr. Duncan, 914 Gale Ave, Peoria, Ill. *Chemistry.* Chicago, Ill, March 6, 09. B.S, Lewis Inst, 31; Ph.D, Chicago, 36. Chemist, Macmillan and Cleveland, 36–40; instr. chem, Ill. Inst. Tech, 40–42; *asst. chemist, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* A.A; Chem. Soc. Carbohydrates; lactones; liquid ammonia solutions.

McMillan, Dr. Edwin M(attison), University of California, Berkeley, Calif. *†*Physics.* Redondo Beach, Calif, Sept. 18, 07. B.S, Calif. Inst. Tech, 28, M.S, 29; Ph.D, Princeton, 32. Nat. research fellow, *California,* 32–34, research assoc, 34–35, instr. *physics,* 35–36, asst. prof, 36–41, *assoc. prof, 41–* Assoc. ed, 'Physical Rev,' 42– Fel. Physical Soc. Atomic and nuclear physics; nuclear reactions and artificial radioactivity.

McMillan, Dr. Frank M(atthew), 1866 Tacoma Ave, Berkeley, Calif. *Organic chemistry.* Ill, Jan. 14, 14. B.S, Monmouth Col, 34; Ph.D, Stanford, 37. *Research chemist, Shell Develop. Co, 37–* Chem. Soc. Contributions to the chemical constitution of chlorogenin; chemicals from petroleum.

McMillan, F(ranklin) R, Portland Cement Association, 33 W. Grand Ave, Chicago, Ill. *Engineering.* Worthington, Minn, Oct. 7, 82. C.E, Minnesota, 05. Asst. engineer, U. S. Bur. Reclamation, 07–09; instr. and asst. prof. struct. and exp. eng, Minnesota, 09–18; research engineer, U. S. Emergency Fleet Corp, 18–20; engineer, Turner Construction Co, New York, 20–21; with Adolph F. Meyer, Minneapolis, 21–24; assoc. engineer, *Portland Cement Asn,* 24–26, manager struct. and tech. bur, 26–27, *director research, 27–* Civil Eng. (mem, exec. cmt, struct. div, 30–35, chairman, struct. div, 33–35); Concrete Inst. (chairman, cmt. building regulations for reinforced concrete, 24–28, director, 30–, v. pres, 33–35, pres, 36). Shrinkage and time effects in reinforced concrete; applications of strainagraph to concrete ships; column tests data; factors affecting the durability of concrete; basic principles of concrete making; evaluation of admixtures.

McMillan, Prof. F(red) O(rville), Oregon State College, Corvallis, Oregon. *Electrical engineering.* Albia, Iowa, May 12, 90. B.S, Oregon State Col, 12; M.S, Union (N. Y), 19. Student engineer, Gen. Elec. Co, Schenectady, 12–13, asst. to supervisor exp. ry, 13–14, with ry. eng. dept, 14–20; asst. prof. *elec. eng, Oregon State Col,* 20–23, assoc. prof, 23–30, research prof, 30–37, *prof. and head dept, 37–* Consulting elec. engineer, Port of Portland, Oregon, 25; Bur. Fisheries, 28–31; Portland Gen. Elec. Co, 38–42; visiting prof, Chungking, China, 43–44. A.A; fel. Elec. Eng. (v. pres, 34–36); Eng. Educ; Radio Eng; Northwest. Elec. Light and Power Asn. Live line insulator testing; electric fish screen; high voltage gaseous conductor lamps; radio interference from high voltage transmission lines; conductor corona; influence of polarity on high voltage discharges; sphere-gap polarity characteristics.

McMillan, Dr. Graham W(atson), 730 S. Sixth St, Terre Haute, Ind. *Chemistry.* Monmouth, Ill, Sept. 25, 16. B.S, Monmouth Col, 37; Ph.D, Illinois, 41. *Research chemist, Commercial Solvents Corp, 40–* Chem. Soc. Physical and organic chemistry.

Mac Millan, Dr. H(oward) G(ove), 405 Hilgard Ave, Los Angeles, Calif. *Plant pathology.* Schaghticoke, N. Y, June 24, 90. Ph.B, Brown, 12; M.S, Wisconsin, 13, Ph.D, 19. *Bur. plant indust, U. S. Dept. Agr, 15–, senior plant pathologist.* U. S. Dept. Agr. exped, Peru and Chile, 32, Manchuria, 34. A.A; Phytopath. Soc; Meteorol. Soc; Soc. de Path. vég. et d'Entom. agr. Potato diseases; root-rots.

Macmillan, Dr. J(ohn) W(alker), University of Maryland, College Park, Md. *Psychology.* Toronto, Ont, Can, Aug. 29, 08. B.A, Toronto, 32; Ph.D, Cornell, 39. Asst, Cornell, 36–39; *instr. psychol, Maryland, 39–* A.A; Psychol. Asn. Remedial reading at the college level; tests and measurements.

McMillan, Wallace A(ngus), Glenham, N. Y. *Chemical engineering.* Goldfield, Nev, Oct. 31, 07. B.S, Calif. Inst. Tech, 29. Chemist, Signal Hill lab, *The Texas Co,* 29–31, research engineer, *Beacon research lab,* 31–38, *asst. supt. in charge research, 41–,* mem. tech. div, 39–40. A.A; Chem. Soc. (councilor, 43–); Calif. Nat. Gas Asn. (lab. cmt, 30). Analytical fractionation of hydrocarbon gases; analytical methods for analysis of gaseous olefins and used oils; physical constants of gases; absorption.

MacMillan, Prof. W(illiam) D(uncan), University of Chicago, Chicago, Ill. *³*Mathematics, Astronomy.* La Crosse, Wis, July 24, 71. A.B, Ft. Worth, 98; A.M, Chicago, 06, Ph.D, 08; Sc.D, Lake Forest Col, 30. Assoc. math. and astron, *Chicago,* 08–09, instr. *astron,* 09–12, asst. prof, 12–19, assoc. prof, 19–24, prof, 24–36, *emer. prof, 36–* Major, Ordnance Dept, 18– A.A; Math. Soc; Math. Asn; Astron. Soc; fel. Royal Astron. Soc; Soc. astron. de France. Elliptic functions; periodic orbits; real and implicit celestial mechanics; cosmology; statics and the dynamics of a particle; theory of the potential; dynamics of rigid bodies.

McMillen, Prof. E(lliott) L(ee), 424 McCartney St, Easton, Pa. *Chemical engineering.* Grinnell, Iowa, July 6, 02. B.S, Minnesota, 23, M.S, 27, Ph.D, 31. Asst. chem. eng, Minnesota, 23–25, physical chem, 25–27; instr. chem. eng, Lehigh, 27–28; investigator, research div, N. J. Zinc Co, 28–31; instr. *chem. eng,* Minnesota, 32–35; asst. prof, Iowa State Col, 35–38; *assoc. prof. and head dept, Lafayette Col, 38–* Chem. Soc; Chem. Eng; Eng. Educ. Leather chemistry; physical

chemistry; plasticity; thixotropy; paint chemistry; filtration; nomography.

McMillen, Prof. J(ames) Howard, 1130 Bertrand Ave, Manhattan, Kans: *Physics.* Ft. Wayne, Ind, April 24, 04. A.B, Oberlin Col, 26; M.S, Washington (St. Louis), 28, Ph.D, 30. Research assoc, Washington (St. Louis), 30–33; nat. research fellow, Princeton, 33–35; research assoc, sch. med, Washington (St. Louis), 35–37; assoc. prof. *physics, Kans. State Col,* 37–39, *prof, 39–* Electron scattering in gases; electrostatic analysis of electron velocities; spectrographic analysis in biology; applications of the electron microscope in biology; method for measuring settling velocities.

McMiller, Prof. Paul R, 715 Seventh St, S. E, Minneapolis, Minn. *Soils.* Unity, Wis, May 3, 87. B.S, Minnesota, 11, M.S, 15. Asst. prof. *soils, Minnesota,* 23–43, *assoc. prof, 43–,* asst. soils chemist, *Exp. Sta,* 12–43, *assoc. soils chemist, 43–* Soil Sci. Soc; Soc. Agron. Soil surveys; forest soils; soil fertility.

McMillin, Prof. Frederick A(nsten), 3101 N. 31st St, Tacoma, Wash. *Geology.* Palmyra, Mich, Jan. 23, 91. A.B, Willamette, 16, M.S, 17; Washington (Seattle), 20–23. Head dept. science, high sch, Wash, 19–20; instr. chem, Washington (Seattle), 20–23; prof, Idaho Tech. Inst, 23–24; assoc. prof. chem, *Col. Puget Sound,* 24–32, *prof. geol, 32–* Geologist, City Pub. Utility Dept, Tacoma, 39–; Second Nesqually Powder Develop. Chemist, U.S.N, 17–18. Geology; structural geology as applied to mining.

McMillin, Prof. Harvey C(lay), Seattle Pacific College, Seattle, Wash. *Marine biology.* Kent, Wash, April 7, 97. B.S, Washington (Seattle), 23; A.M, Stanford, 26, Ph.D, 36. Special investigator, Office Supervisor Fisheries, Wash, 23–24; sci. asst, office commissioner, U. S. Bur. Fisheries, 24–26; prof. sciences, Los Angeles Pacific Junior Col, 26–27; junior aquatic biologist, U. S. Bur. Fisheries, Nat. Hist. Museum, Stanford, 27–34; *prof.* biol. sciences, Los Angeles Pacific Col, 35–36; *zool. and physiol, Seattle Pacific Col, 36–* Senior sci. research, State Fish and Game Cmn, Calif; biologist, Nat. Canners Asn, 36– Physiology of marine invertebrates, especially oyster; growth rate of bivalves.

McMillion, Prof. T(heodore) M(iller), Geneva College, Beaver Falls, Pa. *Zoology.* Williamsburg, W. Va, Oct. 5, 03. A.B, West Virginia, 27, A.M, 29; Ph.D, Pittsburgh, 41. Instr. *biol, Geneva Col,* 26–28, asst. prof, 28–32, assoc. prof, 33–35, *prof, 35–* A.A; Pa. Acad. Chromosome morphology and spermatogenesis in the rabbit; finer anatomy of the nervous system; neurological technique.

McMinn, Prof. Bryan T(owne), University of Washington, Seattle, Wash. *Mechanical engineering.* Duluth, Minn, 96. B.S, Oregon State Col, 18; M.S, Washington (Seattle), 26, M.E, 31. Asst. prof. *mech. eng, Washington (Seattle),* 20–33, assoc. prof, 33–39, *prof, 39–* Mech. Eng; Eng. Educ. Celluloid as a medium for photoelastic investigation; Bakelite.

McMinn, Prof. H(oward) E, Mills College, Calif. *Botany.* Richmond, Ind, Aug. 19, 92. A.B, Earlham Col, 14; A.M, California, 16. *Prof.* biol, Pacific (Oregon), 14–15; Whittier Col, 17–18; *bot, Mills Col, 18–* Summers, instr, California, 16–20; hay-fever investigation, Los Angeles, 22–30; botanist, East Bay Regional Parks. A.A; Calif. Bot. Soc. (v. pres, 28–34, pres, 38–40). Ceanothus; hay-fever plants and native shrubs of California; trees of the Pacific Coast; ornamental shrubs and woody vines of the Pacific Coast.

McMullen, Dr. Donald B(ard), 2534 N. W. 19th, Oklahoma City, Okla. *Parasitology.* Tarkio, Mo, Nov. 20, 03. B.S, Tarkio Col, 25; M.S, Washington (St. Louis), 28; Sc.D, Hopkins, 35. Asst. zool, Washington (St. Louis), 25–28; prof. biol. and head dept, Monmouth Col, 28–38; asst. prof. bacter, *sch. med, Oklahoma,* 38–40, *assoc. prof. hygiene and pub. health and acting head dept, 40–* A.A; Soc. Trop. Med; Micros. Soc; Soc. Parasitol; Okla. Acad. Life cycles of Xiphidiocercariae; classification of trematodes; excretory system of trematodes; epidemiology and control of schistosome dermatitis; survey of intestinal parasites in Oklahoma.

McMullen, Prof. Eleanor C(lara), Wells College, Aurora, N. Y. *Zoology.* Buffalo, N. Y, May 19, 98. A.B, Cornell, 20, A.M, 22, Ph.D, 35. Asst. zool, Cornell, 18–20, instr, 20–35; *biol, Wells Col,* 35–36, asst. prof, 36–40, *assoc. prof, 40–* Vertebrate morphology; the morphology of the cardiobranchial in Squalus acanthias; larval, metamorphosic and adult estate of the aortic arches in plethodontid salamanders.

McMullen, Pres. Lynn B(anks), Eastern Montana Normal School, Billings, Mont. *Physics, Chemistry, Education.* Arcadia, Ind, Jan. 28, 75. B.S, DePauw, 97; Chicago, 08; A.M, Columbia, 19, Ph.D, 27. Teacher, high sch, Ind, 97–08; head dept. physics and chem, N. Dak. State Nor. Sch, Valley City, 08–19; director training sch, Colo. State Teachers Col, 19–20; pres, North. Ariz. Nor. Sch, 20–25; prof. elementary educ, Kentucky, 25–27; *pres, East. Mont. Nor. Sch,* 27– Lecturer, Nor. Sch. of N. Am. Gym. Union; assoc, Teachers Col, Columbia, 24–25. N. Dak. Acad. (sec'y and v. pres); Ind. Acad. (sec'y); Ind. Sci. Teachers Asn. (pres); N. Dak. Sci. Teachers Asn. (pres). Practical applications of physics and the science curriculum in the grades.

McMullen, Dr. Tho(ma)s C(reighton), Albert College, Belleville, Ont, Can. *Organic chemistry.* London, Ont, March 16, 91. B.A, Toronto, 16, M.A, 21, Nat. Research Council Can. fellow, 21–22, Ph.D, 22. Asst. chem, Toronto, 19–21; teacher science, *Albert Col. (Can),* 16–19, *dean, 22–* Fel. Can. Inst. Chem. Friedel-Craft reaction.

MacMullin, R(obert) B(urns), 8249 Troy Ave, Niagara Falls, N. Y. *Chemistry, Chemical engineering.* Philadelphia, Pa, 98. Bowdoin Col; B.S, Mass. Inst. Tech, 19. Surveyor, U. S. Coast and Geod. Surv, 16; research chemist, Edison Lamp Works, Harrison; shift chemist, du Pont Deepwater Dye Works; production chemist, Transatlantic Chem. Co, N. J; *asst. director research and develop, Mathieson Alkali Works, Inc, 20–* C.W.S, U.S.A, 18. A.A; Chem. Soc. (chairman, west. N. Y. sect, 29, councilor, 30); Chem. Eng. (chairman west. N. Y. sect, 40); Electrochem. Soc; Chemists' Club; Buffalo Soc. Nat. Sci. (pres. geol. sect, 41); Soc. chim. de Belg. Chemistry of positive chlorine; chloramines; organic and inorganic hypochlorites; heterogeneous equilibria; chemistry of ammonia soda; quantitative process diagrams; probability in grinding; theory of continuous reaction systems; chemistry and manufacture of chlorites; electrolytic amalgam cells; electrolytic magnesium cells; magnesium alloys; plastics; synthetic rubber; geology and recovery of natural salts.

McMunn, Prof. Richard L(acey), University of Illinois, Urbana, Ill. *Pomology.* Neoga, Ill, March 10, 98. B.S, Illinois, 25, M.S, 29. Asst. *pomol, col. agr, Illinois,* 25–27, instr, 27–28, assoc, 28–37, *asst. prof, 37–* D.S. cross; Croix de Guerre. 2nd lieut, U.S.A, 17–19. A.A; Soc. Hort. Sci. General pomology.

McMurchy, Dr. R(obert) C(onnell), Box 598, Noranda, Que, Can. *Geology.* Arden, Man, Sept. 15, 02. B.S, Manitoba, 30; Ph.D, Minnesota, 34. Lecturer geol, Manitoba, 34–35; asst. geologist, Geol. Surv. Can, 35–39; *geologist, Powell-Ronyn Gold Mines, Ltd, 39–* Unmapped areas of Canadian Precambrian shield; crystal structures of minerals.

McMurdie, Howard F(rancis), National Bureau of Standards, Washington, D. C. *Crystal chemistry.* Detroit, Mich, Feb, 5, 05. B.S, Northwestern, 28. Junior chemist, *Bur. Standards,* Washington, D. C, 28–33, Riverside, Calif, 33–35, junior petrographer, *Washington, D. C,* 35–37, asst. petrographer, 37–41, *assoc. petrographer, 41–* Phase equilibria in Portland cement clinker; x-ray studies of ceramic materials; electron microscopic investigation of clay minerals.

McMurphy, Prof. James (Ira Wilson), 144 Melville Ave, Palo Alto, Calif. *Botany.* Ill, 71. A.B, Stanford, 08, A.M, 09. Instr. and asst. prof. *bot, Stanford,* 12–26, assoc. prof, 26–35, prof, 35–36, *emer. prof, 36–* A.A; Phytopath. Soc. Phytopathology; mycology.

McMurray, Dr. R(obert) L(aughlin), Toronto, Ohio. *Pharmacy.* Steubenville, Ohio, May 12, 02. B.S, Ohio State, 26; M.S, Wisconsin, 31, Ph.D, 33. Chemist, Parke, Davis and Co, 27; instr, N. Dak. Col, 27–29; asst. pharmacy, Wisconsin, 29–32; instr, sch. pharmacy, State Col. Wash, 33–35; asst. prof. pharmacy, col. pharmacy, Ohio State, 35–40; assoc. prof, State Col. Wash, 40–42. Manager, Commercial Drug Farm, 41– Board questions cmt, Am. Asn. Cols. Pharmacy, 39, chairman dist. 4, 40, sec'y pharmacog, pharmacol. sect, 41, v. chairman, 42. Pharmaceut. Asn; Nat. Conf. Pharmaceut. Research. Pharmacognostical investigations of medicinal plants.

McMurry, Prof. K(enneth) C(harles), University of Michigan, Ann Arbor, Mich. *Geography.* Normal, Ill, Oct. 18, 94. A.B, Wisconsin, 15; Ph.D, Chicago, 22. Field asst, U. S. Geol. Surv, 17–18; instr, Chicago, 18–19; geographer, Tenn. Geol. Surv, 19–20; instr. *geog, Michigan,* 20–21, asst. prof, 21–25, assoc. prof, 25–29, *prof, 29–, head dept, 25–*

Collaborator, agr. adjust. admin, U. S. Dept. Agr, 34; Resettlement Admin, 34–36; Nat. Park Service, 35. Asn. Geog; Mich. Acad. (chairman, cmt. on conservation, 25–). Regional and economic geography of North America.

McMurtrey, Dr. J(ames) E(dward), Jr, 220 E St, N. E, Washington, D. C. *Plant physiology, Nutrition.* Burkesville, Ky, June 24, 93. B.S. (Agr), Kentucky, 17; M.S, Maryland, 28, Ph.D, 31. Asst. *tobacco investigation, bur. plant indust, U. S. Dept. Agr,* 17–22, junior physiologist, 22–23, asst. physiologist, 23–28, assoc. physiologist, 28–35, *senior physiologist, 35–* Summers, field asst, bur. entom, U. S. Dept. Agr, 14–17. A.A; Soc. Plant Physiol. Physiology and nutrition of plants, especially the tobacco plant.

Macnab, Prof. Ja(me)s A(rthur), 1019 S. Davis St, McMinnville, Oregon. *Biology.* Harding, S. Dak, May 7, 99. A.B, Albany Col, 21; A.M, Nebraska, 31. Teacher, high sch, Nebr, 21–23; asst, Nebraska, 23–24; *prof. biol. and geol, Linfield Col, 24–* Summers, asst, Nebraska, 27; Puget Sound Biol. Sta, 28, 29; instr, Nebraska, 38–40. Basic science examiner, Oregon State Board Higher Educ, 34– A.A; Ecol. Soc; Genetic Asn; Wildlife Soc; Pacific Northwest Bird and Mammal Soc; Cooper Ornith. Club; West. Bird Banding Asn. Ecology of the fauna in the coast range forests of northwestern Oregon; the California red-backed mouse in the Oregon coast range; contributions of bio-ecology to human ecology; banding nestling western robins in Oregon.

McNabb, Prof. Wallace M(organ), 24 Sycamore Road, Manoa, Delaware Co, Pa. *Chemistry.* Belleville, Pa, Oct. 6, 94. B.S, Gettysburg Col, 18; M.S, Pennsylvania, 20, Ph.D, 26. Research dept, du Pont Dye Co, 18–20; instr. *chem, Pennsylvania,* 20–29, asst. prof, 29–39, *assoc. prof, 39–* A.A; Chem. Soc. Analytical chemistry.

McNabney, Dr. Ralph, 332 Oak St, Wyandotte, Mich. *Inorganic chemistry.* Seattle, Wash, May 4, 10. B.S, Washington, 33, M.S, 35; Ph.D, Western Reserve, 42. Lab. asst, Harshaw Chem. Co, 35–41; *mem. staff, develop. sect, research dept, J. B. Ford Co, 41–* Teaching fellow, Washington (Seattle), 34, 35. Chem. Soc. Detergents.

McNair, Prof. A(ndrew) H(amilton), Dartmouth College, Hanover, N. H. *Geology.* Victor, Mont, May 29, 09. A.B, Montana, 31, A.M, 33; fellow, Michigan, 34–35, Ph.D, 35. Asst. *geol,* Montana, 31–33; instr, *Dartmouth Col,* 35–37, *asst. prof, 37–, chairman dept, 39–* Geologist, U. S. Geol. Surv, 42– Summers, asst. geologist, Mont. Bur. Mines and Geol, 31–33. Mem. mineral resources surv, State Planning and Develop. Cmn, N. H. A.A; Paleont. Soc; Mich. Acad; N. H. Acad. Paleozoic Bryozoa; Devonian stratigraphy; diatomaceous earth; mica and beryl bearing pegmatites.

McNair, James B(irtley), 818 S. Ardmore Ave, Los Angeles, Calif. *Phytochemistry.* Hazleton, Pa, March 18, 89. Pomona Col, 12–13; A.B, California, 16, A.M, 17; Pennsylvania, 18; Chicago, 22–25; Southern California, 34. Asst. research chemist, Exp. Sta, Nevada, 17; asst. chemist, bur. chem, U. S. Dept. Agr, 19; chemist in charge, Chem. Econ. Co, 20; chemist, dairy div, bur. animal indust, U. S. Dept. Agr, 20–21; asst, fishery food lab, Bur. Fisheries, 21–22; asst. chemist, bur. internal revenue, U. S. Treasury Dept, 22; assoc. econ. bot, Field Museum Nat. Hist, 25–26, asst. curator, 26–32; *chief information intel. sect, gen. office, office of chief, Chem. Warfare Service, 35–* Consultant ethnobot, Southwest. Museum Los Angeles, 29– Certificate of Merit, Inst. Am. Genealogy, 39. M.R.C, U.S.A, 18–19, lieut, Q.M.O.R.C, 19, capt, C.W.S.R, 23, major, 28. A.A; Chem. Warfare Asn. (exec. cmt, Chicago chap, 30–32); Chem. Soc; Bot. Soc; Torrey Bot. Club; Calif. Bot. Soc. Economic botany; plant products; analysis of biological products and acids; poisonous plants; citrus by-products; interrelation between chemical substances in plants; taxonomic and climatic distribution of chemical products in plants; chemical products in relation to plant and animal evolution; plant forms; plant habits; plant habitats; law of mass action and the production of alkaloids; cyanogenetic and organic sulphur compounds.

MacNair, Dr. Walter A(rcher), 463 West St, New York, N. Y. *Physics.* Houghton, Mich, April 29, 01. B.S, Colgate, 20; A.M, Hopkins, 24, Ph.D, 25. Asst. physicist, Bur. Standards, 21–22; instr. math. and physics, Mich. Col. Mines, 22–23; nat. research fellow physics, Hopkins, 25–26; Bur. Standards, 26–27; research dept, Victor Talking Machine Co, 28–29; *tech. staff, Bell Tel. Labs, 29–* A.A; Physical Soc; Acoustical Soc; Franklin Inst. Resonance radiation; fine structure of spectrum lines; acoustics.

McNairn, Dr. W(illiam) Harvey, Dundas, Ont, Can. *Geology.* Toronto, Ont, Sept. 3, 74. B.A, Toronto, 99, M.A, 00, Ph.D, 16; M.A, McMaster, 10. Asst. geol. and miner, Toronto, 00–02; lecturer, McMaster, 09–19, prof, 19–41; *retired.* Can. Inst. Physical crystallography; origin of etch figures.

McNall, Prof. Preston Essex, Nakoma, Madison, Wis. *Agricultural economics.* Kans, Feb. 1, 88. A.B, Kans. State Col, 09, B.S, 14, M.S, 15; Ph.D, Wisconsin, 32. Asst. prof. *agr. econ,* Kans. State Col, 15–19; *prof, Wisconsin, 20–* Econ. Asn; Farm Econ. Asn. Farm organization and management; input-output relationship of the farm.

McNally, Dr. E(dmund) H(ouston), U. S. Department of Agriculture, Beltsville, Md. *Physiology.* Butte, Mont, Feb. 14, 02. B.S, George Washington, 30, A.M, 34; Ph.D, Maryland, 40. Junior biologist, *bur. animal indust, U. S. Dept. Agr,* 30–36, asst. biologist, 36–42, *assoc. biologist, 42–* Chem. Soc; Poultry Sci. Asn. Chemical embryology; chemistry of eggs and egg products.

McNally, Rev. Paul A(loysius), S.J, Georgetown College Observatory, Washington, D. C. *Astronomy.* Philadelphia, Pa, Oct. 14, 90. A.B, Woodstock Col. (Md), 15, A.M, 17; Ph.D, Fordham, 21; S.T.D, Gregorian, 25; Sc.D, St. Joseph's Col. (Pa), 40. Prof. math, Boston Col, 14–19; math. and philos, Fordham, 19–21; asst. astronomer, *Georgetown Col. Observatory,* 25–28, *director, 28–* Hon. fellow, Lick Observatory, California, 28. Director Georgetown total solar eclipse exped, Fryeburg, Maine, 32; Georgetown-Nat. Geog. Soc. total solar eclipse exped, Kustanai, U.S.S.R, 36; assoc, U.S. Navy-Nat. Geog. Soc. total solar eclipse exped, Canton Island, 37; assoc, Nat. Geog. Soc-Bur. Standards total solar eclipse exped, Patos, Brazil, 40. A.A; Astron. Soc; Math. Soc; Astron. Soc. Pacific; fel. Royal Astron. Soc. Can; fel. Royal Astron. Soc. Nebulous areas of the sky; Barnard dark spots; variable stars; occultations by the moon; calendar reform; total solar eclipses.

McNally, Dr. W(illia)m D, 3734 N. Harding Ave, Chicago, Ill. *Chemistry.* Saginaw, Mich, July 8, 82. A.B, Michigan, 05; M.D, Rush, Chicago, 20. Instr. chem, Illinois, 05–06; chemist, Armour and Co, 06–10; chief chemist, Health Dept, Chicago, Ill, 10–13; *chief chemist and toxicologist, Cook County Coroner,* 13–29, *41–*; asst. prof. *med, Rush Med. Col, Chicago,* 23–32, *assoc. prof, 32–* Chem. Soc; Am. Med. Asn; Chicago Chem. Soc. Toxicology; poisons.

McNally, Dr. W(illiam) J(ames), 1509 Sherbrooke St, W, Montreal, Que, Can. *Otolaryngology.* Bryson, Que, Dec. 27, 97. B.A, Dalhousie, 21, M.D, 22; Cooper scholar, McGill, 24–25, M.Sc, 25, D.Sc, 34; Travers Allen traveling fellow from Royal Victoria Hosp, Europe, 25–26. Assoc. *otolaryngol, Royal Victoria Hosp,* 26–35, *asst, 35–; clin. asst, Alexandra Hosp. for Infectious Diseases,* 26–35, *consulting aurist, 35–*; demonstrator *otolaryngol, McGill,* 26–37, *lecturer, 37–* Dept. otolaryngol, Children's Mem. Hosp, 26–28, St. Mary's Hosp, 26–35; consulting aurist, MacKay Inst. Protestant Deaf Mutes, 32– Research fellow, Am. Acad. Ophthal. and Otolaryngol, 28–36. Fel. Acad. Ophthal. and Otolaryngol; Laryngol. Asn; Otol. Soc; Can. Med. Asn; Royal Col. Surg. Can; Montreal Medico-Chirurg. Soc; Montreal Neur. Soc; Montreal Physiol. Soc; British Med. Asn; Royal Soc. Med. Internal ear; physiology of the labyrinth; etiology of tinnitus.

McNamara, Prof. Francis T(homas), 322 Thornton St, Hamden, Conn. *Electrical engineering.* Clinton, Mass, July 6, 96. Ph.B, Yale, 21, E.E, 24. Student engineer, Gen. Elec. Co, 22; distribution engineer, Phila. Elec. Co, 23; asst. prof. elec. eng, Yale, 24–39, assoc. prof, 39–42; *deputy director communications div, War Production Board, 42–* Summers, research dept, Brooklyn Edison Co, 25–29. Elec. Eng; Radio Eng; Eng. Educ. Electrical measurements; radio.

McNamara, Homer C(harles), U. S. Department of Agriculture, Stoneville, Miss. *Plant breeding.* Nortonville, Kans, June 7, 90. B.S, Kans. State Col, 14, 16; George Washington, 18–19. Supt, Lamao Exp. Sta, P. I, 14–15; La Carlota Exp. Sta, P. I, 15–16; land classification board, U. S. Geol. Surv, 17–19; supt. cotton breeding field sta, bur. plant indust, *U. S. Dept. Agr,* 19–37, *senior agronomist and supt, Delta Exp. Sta, 37–* Phytopath. Soc; Soc. Agron; Asn. South. Agr. Workers; Texas Geog. Soc. Morphology and growth rates of the cotton plant; fiber analysis; seed density; cotton abnormalities; cotton diseases; cotton breeding; field plot technique; legumes and fertilizers; forest management.

McNamee, Dr. Ray(mond) W(ilson), 418 Forest Circle, South Charleston, W. Va. *Organic chemistry.* Bellaire, Ohio, Nov. 27, 07. B.S, Akron, 29; M.S, Northwestern, 31, Ph.D, 33. *Research chemist, Carbide and Carbon Chem. Corp, 33–* Chem. Soc. Decomposition of tetramethyl lead; rearrangement of alkylated phenols.

McNary, Dr. Robert R(eed), University of Cincinnati, Cincinnati, Ohio. *Biochemistry.* Dayton, Ohio, Oct. 9, 03. Chem.E, Cincinnati, 26, Ph.D, 36; A.M, Antioch Col, 33. *Research chemist,* Thomas and Hochwalt Labs, 26–28; Frigidaire Corp, 28–32; *Kettering lab, col. med, Cincinnati, 36–* Chem. Soc. Lead metabolism in the human body; air-borne dusts and fumes and their effect on industrial personnel and the general public.

McNatt, Dr. E(ugene) M(elton), 2515 S. Delaware Place, Tulsa, Okla. *Physics.* Aurora, Mo, Aug. 3, 13. A.B, Colorado, 35; M.S, Washington (St. Louis), 37, Ph.D, 39. Asst. physics, Washington (St. Louis), 35–39; *junior research geophysicist, Carter Oil Co, 39–* Physical Soc; Soc. Explor. Geophysicists. Diffuse scattering of x-rays; petroleum geophysics.

McNaught, Dr. James B(ernard), Stanford University School of Medicine, San Francisco, Calif. *Pathology.* Girard, Kans, July 11, 94. A.B, Kansas, 16, A.M, 17; M.D, Stanford, 31. Instr. bacter, Kansas, 19–21; bacteriologist, Grant Hosp, Columbus, 22–23; director lab, Burnett Sanitarium, Fresno, Calif, 23–27; asst. *path,* sch. med, Stanford, 30, instr, 31–34; exchange instr, Rochester, 34–35; asst. prof, *sch. med, Stanford,* 35–40, *assoc. prof, 40–* Consulting clin. pathologist, French Hosp, San Francisco, 34–37; visiting pathologist, San Francisco Hosp, 31–; Laguna Honda Home, 31–; pathologist, bur. chem. and soils, U. S. Dept. Agr, 35–37; director lab, Palo Alto Hosp. and Pub. Health Dept, 37– Soc. Exp. Path; Asn. Path. and Bact; Am. Med. Asn; Soc. Trop. Med; Soc. Parasitol; Soc. Exp. Biol; Soc. Clin. Path. (board registry, 40–); Federation Am. Societies Exp. Biol; Calif. Acad; Path. Soc. San Francisco. Cerebrospinal fluid and blood plasma proteins; pancreatic anomalies; trichinosis; general pathology.

MacNaughton, Prof. E(dgar), 61 Ravine Road, West Medford, Mass. *Mechanical engineering.* Argyle, N. Y, May 4, 87. M.E, Cornell, 11. Student engineer, Gen. Elec. Co, 11–14; designer, Boston Elevated Co, 15; instr. *mech. eng,* Tufts Col, 14, 16–18; assoc, Illinois, 18–19; asst. prof, *Tufts Col,* 19–22, *prof, 22–* Mech. Eng. (chairman Boston sect, 39); Eng. Educ. (chairman machine design sect, 38). Steam power plant engineering.

McNeal, Prof. M(arshall) J(efferson), Randolph-Macon College, Lynchburg, Va. *Mathematics.* New Market, Va, Oct. 23, 01. B.S, Randolph-Macon Col, 30; A.M, Michigan, 35. Prin, high sch, Va, 23–26, asst. prin, 26–29; instr. *math. and physics, Randolph-Macon Col,* 30–36, asst. prof, 36–40, *assoc. prof, 40–* Va. Acad.

MacNeal, Dr. W(ard) J, Apt. 13–H, 301 E. 21st St, New York, N. Y. *Bacteriology.* Fenton, Mich, Feb. 17, 81. A.B, Michigan, 01, Ph.D, 04, Rockefeller fellow, 03–04, 05–06, M.D, 05, hon. Sc.D, 39. Asst. bacter, Michigan, 01–03, instr. histol, 05–06; anat. and bacter, West Virginia, 06–07; asst. chief bacter, Exp. Sta, Illinois, 07–11, asst. prof, univ, 08–11; lecturer path. and bacter, *N. Y. Post-Grad. Med. Sch, Columbia,* 11–12, *prof,* 12–39, *bacter, 39–,* asst. director labs, 12–15, *director,* 15–39, *bacter, 39–* Trustee, N. Y. Post-Grad. Med. Sch, Columbia, 20–24, v. chairman med. board, 24–29. State Pellagra Cmn, Ill, 09–12; Robert M. Thompson Pellagra Cmn, 12–17; Am. Trench Fever Cmn, 18. Lieut. col, M.R.C, 17–19, col, 24. A.A; Soc. Bact. (councilor, 13); Asn. Path. and Bact. (councilor, 28–35, v. pres, 30, pres, 31); Soc. Exp. Biol. (councilor, 25–27); Am. Med. Asn; Tuber. Asn; Soc. Parasitol; Soc. Exp. Path; Soc. Trop. Med; Pub. Health Asn; Asn. Cancer Research (councilor, 25–32, v. pres, 33, pres, 34); Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc. (pres, 22–24, trustee, 24–27, 33–36, 39–). Trypanosomes; Romanowsky stain; polychrome methylene blue; intestinal bacteria; coccidioidal granuloma; contagious abortion; tuberculosis of cattle; influence of saltpeter upon health; pellagra; trench fever; influenza; cancer; abdominal inflammations; syphilis; spleen structure; bacteriophages; specific bacteriotherapy; experimental endocarditis; inactivation of viruses.

McNeely, John K(nox), 218 N. St. Andrews Place, Los Angeles, Calif. *Electrical engineering.* Elmira, N. Y, Feb. 19, 85. B.S, California, 08; A.M, Southern California, 17; E.E, Illinois, 23. Student course, Allis Chalmers Co, 08–10, eng. dept, 10–12; construction supt, Calumet and Ariz. Mining Co, 12–13; asst. prof. eng. drawing, Illinois, 20–23; elec. eng, Washington (St. Louis), 23–25; prof, Iowa State Col, 25–31; consulting elec. engineer, 31–41; *elec. engineer, Lockheed Airplane Corp, 41–* A.A; fel. Elec. Eng. (research cmt, 30–32, sec'y-treas, Iowa sect, 29, chairman, 30); Eng. Educ. Radio interference; transient phenomena in electric circuits.

McNeight, Dr. S(amuel) A(rnold), 2022 Whirlpool St, Niagara Falls, N. Y. *Physical chemistry.* St. Mary's, Ont, Can, May 28, 11. B.Sc, Queen's (Can), 31, Milton Hersey fellow, 31–32, M.Sc, 32, Nat. Research Council Can. bursar, 32–33; Ph.D, Princeton, 38. *Chemist, E. I. du Pont de Nemours and Co, 36–* Fusibility of coal ash in relation to its composition; molecular rotation in crystalline solids; properties, production and uses of peroxygen compounds; production of chlorinated hydrocarbons.

McNeil, Dr. Arthur L(ouis), S.J, Gonzaga University, Spokane, Wash. *Analytical chemistry.* Waubaushene, Ont, Can, Nov. 6, 05. A.B, Gonzaga, 31, A.M, 32; Ph.D, Catholic University, 36. *Prof. chem. and chairman dept, Gonzaga, 40–* Chem. Soc; Northwest Sci. Asn. Protein and amino acid content of serum used in allergy inoculation; variation of the hydrogen ion concentration of allergy inoculation serums with age.

MacNeil, Dr. Donald J(onathan), St. Francis Xavier University, Antigonish, N. S, Can. *Geology.* Sydney, N. S, April 20, 03. B.Sc, St. Francis Xavier, 30; Ph.D, Princeton, 35. Practicing geologist, 33–36; petrol. geologist, Shell Oil Co, 36–40; Texas Co, Can. and Ill, 40–43; *prof. geol, St. Francis Xavier, 43–* Asn. Petrol. Geol; Ill. Geol. Soc; Professional Eng. Soc. Alta. Stratigraphy and structure of the Hillcrest coalbasin, Alberta; stratigraphy and structure of Moose Mountain area, Alberta.

McNeil, Dr. Ethel, University of California, Davis, Calif. *Veterinary science.* South Pasadena, Calif, May 21, 04. A.B, Pomona Col, 24; certificate, Univ. Lausanne, 25; Ph.D, California, 31. Asst, *California,* 28–31, research assoc. zool, 31–38, *junior animal pathologist, dept. vet. science, col. agr, 38–* Parasitic protozoa; tissue culture; hexamitiasis of turkeys and game birds; salmonellosis of birds.

McNeill, Prof. E(lis) Meade, Concord State College, Athens, W. Va. *Botany.* Buckeye, W. Va, Dec. 2, 01. A.B, Concord State Col, 28; M.S, West Virginia, 30; Mt. Lake Biol. Sta, 35. Prof. *bot,* Concord State Col, 28–36; asst, Duke, 36–37; *prof, Concord State Col, W. Va, 37–* A.A; Bot. Soc; Soc. Plant Taxon; South. Appalachian Bot. Club; W. Va. Acad. Algae of southern West Virginia; taxonomy; ecology.

MacNeille, Dr. H(olbrook) M(ann), Kenyon College, Gambier, Ohio. *Mathematics.* New York, N. Y, May 11, 07. A.B, Swarthmore, 28; Rhodes scholar, Oxford, 28–30, B.A, 30; Ph.D, Harvard, 35. Asst. engineer, West. Elec. Co, 30–31; instr. math, Swarthmore Col, 31–33; partner, David Richardson Lab, 33–38; instr. *math,* Harvard, 36–38; assoc. prof, *Kenyon Col,* 38–41, *prof, 41–* Sterling fellow, Yale, 35–36. A.A; Math. Soc; Math. Asn; Econometric Soc; Asn. Symbolic Logic. Partially ordered sets; integration.

MacNeille, Dr. S(tephen) M(ann), 48 Penfield Road, Rochester, N. Y. *Physics.* Newark, N. J, Jan. 26, 12. A.B, Swarthmore Col, 33; Ph.D, Mass. Inst. Tech, 37. *Physicist, Eastman Kodak Co, 37–* Optics and electronics.

MacNeish, Prof. H(arris) F(ranklin), 48 Taunton Road, Scarsdale, N. Y. *Mathematics.* Roberts, Ill, Sept. 8, 79. B.S, Chicago, 02, M.S, 04, fellow, 05–06, Ph.D, 09. Instr. *math,* Univ. High Sch, Chicago, 02–08; Princeton, 08–10; Yale, 10–16; high sch, N. Y, 16–18; *Col. City of N. Y, 18–31, prof. and head dept, Brooklyn Col, 31–* A.A; Math. Soc; Math. Asn. Calculus of variations; projective geometry; certain dual configurations in *n*-space; hyperspace geometry; Euler squares; ballistics; aerodynamics.

McNelly, Prof. W(alter) C, 115 S. Beech St, Oxford, Ohio. *Physiology.* Brookville, Ohio, March 2, 98. B.S, Miami (Ohio), 21; M.S, Ohio State, 27, Ph.D, 34. Teacher, high sch, Ohio, 21–23; McGuffey high sch, *Miami Univ. (Ohio),* 23–25, instr. biol, univ, 25–27, asst. prof. *physiol,* 28–29, assoc. prof, 30–40, *prof, 40–,* acting head dept, 37–39, *head dept, 39–* A.A; Ohio Acad. Physiology of exercise; muscular efficiency and gaseous exchange during exercise; metabolism of twins.

McNemar, Prof. Quinn, Stanford University, Calif. *Psychology.* Greenland, W. Va, Feb. 20, 00. A.B, Juniata Col,

25; Ph.D, Stanford, 32. Teacher, high sch, W. Va, 25-27; asst. psychol, Stanford, 28-31, instr, 31-34, 34-35, asst. prof, 35-37; Social Science Research Council fellow, Chicago, Columbia and Michigan, 33-34; assoc. prof. educ, Fordham, 37-38; *assoc. prof. psychol. and educ, Stanford, 38-* Mem. staff, Social Sci. Research Council, 41- A.A; Psychol. Asn. Inheritance of skills; theory of mental measurement; organization of mental traits; mathematical and statistical applications in psychology.

MacNevin, Dr. W(illiam) M(arshall), Ohio State University, Columbus, Ohio. *Chemistry.* Chelsea, Mass, Sept. 20, 06. B.S, Mt. Allison, 27; A.M, Harvard, 30; Ph.D, Minnesota, 36. Instr. *chem,* Mt. Allison, 27-28; Harvard, 31-32; *Ohio State,* 36-39, *asst. prof, 39-* Chem. Soc. Organic and analytical chemistry; atomic weight of potassium; microchemistry.

McNew, Dr. George L(ee), N. Y. Agricultural Experiment Station, Geneva, N. Y. *Plant pathology.* Alamogordo, N. Mex, Aug. 22, 08. B.S, N. Mex. Col, 30; fellow, Iowa State Col, 30-31, M.S, 31, Ph.D, 35. Asst, Exp. Sta, Iowa State Col, 31-35; fellow, Rockefeller Inst, 35-39; *assoc. research, N. Y. Exp. Sta, Geneva, 39-* Phytopath. Soc. Dry-rot of corn; nursery diseases; physiological specialization in cedar-apple rust; pathogenicity of phytopathogenic bacteria; fungi associated with tree cankers in the Midwest; development of fungicides; vegetable seed treatments; pathogenicity of soil-inhabiting parasites of vegetable crops.

McNew, Prof. J(ohn) T(homas) L(amar), Agricultural and Mechanical College of Texas, College Station, Texas. *Civil engineering.* Belcherville, Texas, Jan. 20, 95. B.S, Agr. and Mech. Col. Texas, 20, M.S, 26; C.E, Iowa State Col, 25. *Civil eng. dept, Agr. and Mech. Col. Texas, 29-,* prof. highway eng, 25-40, *prof. and head dept. civil eng, 40-*

MacNider, Dr. William de B(erniere), University of North Carolina, Chapel Hill, N. C. ****Pathology, Pharmacology.* Chapel Hill, N. C, June 25, 81. M.D, North Carolina, 03; Sc.D, Med. Col. of Va, 33; LL.D, Davidson Col, 34; Chicago; Western Reserve. Asst. biol, *North Carolina,* 99-00, anat, 00-02, clin. diagnosis, 02-05, prof. *pharmacol,* 05-18, Kenan prof, 18-24, *Kenan research prof, 24-,* dean med. sch, 37-40. Lecturer, Harvey Soc, 23-29. Exec. cmt. med. div, Nat. Research Council. Nat. Board Med. Examiners. Gibbs prize, N. Y. Acad. Med, 30; medal, South. Med. Asn, 33; Kober medal award, Asn. Am. Physicians, 41. Nat. Acad; A.A; Soc. Pharmacol. (assoc. ed, 'Jour,' treas. and councilor, pres, 32); fel. Am. Med. Asn. (chairman, sect. on pharmacol, 27); fel. Col. Physicians; Am. Physicians; Asn. Path. and Bact; Soc. Exp. Path; Physiol. Soc; Soc. Exp. Biol. (ed. board; pres, 41); Soc. Biol. Chem; Asn. Anesthetists; Nat. Anesthesia Research Soc. (research cmt); Philos. Soc; Asn. Nat; for. assoc. mem. Physiol. Soc; fel. Am. Acad; N. Y. Acad; hon. mem. Harvey Soc; Elisha Mitchell Sci. Soc. (pres); N. C. Med. Soc. (pres, 25); N. C. Acad; Path. Soc. Gt. Britain and Ireland; Int. Anesthesia Research Soc. (hon. pres, 34); Club Research Ageing (chairman, Am. div). Pharmacology of the kidney; experimental nephritis; acid-base equilibrium of the blood in liver degeneration and repair, in nephritis and in pregnancy; toxicity of uranium; toxic effect of general anesthetics; nephropathy in the dog; the development of acquired resistance of fixed tissue cells after injury on the part of the liver and kidney.

McNiff, Prof. William T(homas), 100 Halstead Ave, Yonkers, N. Y. *Physics.* Worcester, Mass, Dec. 19, 00. A.B, Col. of Holy Cross, 23; A.M, Fordham, 27, certificate, clin. micros, 32. Instr. physics and math, prep. sch, Fordham, 23-27, assoc. prof. *physics, Fordham,* 27-28, *prof,* 28-, *col. pharmacy,* 27-, *teachers col. and grad. sch,* 27- A.A; Asn. Physics Teachers; East. Seismol. Asn. Mechanics, sound, heat, light and electricity; individuating secondary education; electrical counter-shock in treatment of electrical shock.

McNish, A(lvin) G(reene), 311 Essex Ave, Somerset, Chevy Chase, Md. *Geophysics.* Washington, D. C, Jan. 18, 03. A.B, George Washington, 24, M.S, 31. Teacher, pub. schs, D. C, 25-30; *magnetician, dept. terrestrial magnetism, Carnegie Institution, 30-* Geophys. Union; Philos. Soc. Wash. Terrestrial magnetism and electricity; meteorology; cosmic radiation; application of statistical methods; ionosphere.

McNitt, Robert J(oseph), 47 Lewis St, Perth Amboy, N. J. *Electrochemistry.* Logansport, Ind, Sept. 16, 79. A.B, Cornell, 02, E.E, 04. Asst, Cooper Hewitt Elec. Co, 04-05; instr, Cornell, 05; electrometallurgist, Acker Process Co, 06; chief engineer and asst. tech. director, Roessler and Hasslacher Chem. Co, 07-19; *investigator and consultant vacuum tubes and electrochem. engineer, 19-* Electrochem. Soc; Elec. Eng. Electrolysis of molten salts.

McNulty, Dr. G(eorge) M(ervin), Standard Oil Development Co, Elizabeth, N. J. *Chemistry.* Tarkio, Mo. A.B, Iowa, 27, M.S, 29, Ph.D, 30. Asst. chem, Iowa, 27-30; chem. lab, Standard Oil Co. of Ind, 30-36, *with Standard Oil Develop. Co, 36-* Chem. Soc. Petroleum specialty products; greases and extreme pressure lubricants.

McNutt, Dr. C(larence) Wallace, School of Aviation Medicine, Randolph Field, Texas. *Physiology.* Ozan, Ark, Aug. 5, 13. A.B, Henderson State Teachers Col, 35; M.S, Louisiana, 38; fellow, Brown, 41, Ph.D, 41. Asst. zool, Louisiana, 31-35; biol, Brown, 35-40; Muellhaupt scholar, Ohio State, 42; *aviation physiologist, U. S. Army, Randolph Field, Texas, 42-* Inheritance of morphological variations in rabbits and mice; endocrine relationship of corpus luteum and implantation of the embryo in the rabbit; physiological reactions induced by high altitudes in laboratory animals and man.

McNutt, Dr. S(amuel) H(ezekiah), Iowa State College, Ames, Iowa. *Veterinary medicine.* Algona, Iowa, July 15, 92. D.V.M, Iowa State Col, 17. Asst. vet. path, *Iowa State Col,* 17, asst. prof. *vet. research,* 18-32, *assoc. prof, 32-* A.A; Vet. Med. Asn. Brucellosis; pathology of the reproductive organs of cattle; trichomoniasis; encephalitis of food producing animals.

Macomber, Dr. Donald, Harvard Medical School, Boston, Mass. *Medicine, Physiology.* Boston, Mass, Jan. 26, 85. A.B, Harvard, 06, M.D, 09. Asst. *obstet, Harvard Med. Sch,* 13, *research fellow, 26-* Fel. Am. Med. Asn; fel. Col. Surg; fel. Boston Obstet. Soc; fel. Boston Surg. Soc. Physiology of reproduction; sterility; fertility.

Macormac, Prof. Alfred R(idner), Alabama Polytechnic Institute, Auburn, Ala. *Chemistry.* Greenridge, N. Y, Sept. 14, 94. B.S, Col. City of N. Y, 24; A.M, Columbia, 33; Ph.D, North Carolina, 36. Dyer and color-matcher, Noil Chem. and Color Co, New York, 23; dyer, Heminway Silk Co, Conn, 24-25; textile chemist, Adams Mfg. Co, 25-29; bleacher, Lowell Bleachery, Ga, 29; prof. textile chem, Clemson Col, 29-33; chief chemist, Textile Chem. Products Co, N. C, 34; research fellow, North Carolina, 34-36, asst. prof. chem, 36; *assoc. prof. textile chem, Ala. Polytech, 36-* Expert textile consultant, research and develop. branch, Office Quartermaster Gen, U. S. Army, 42. A.A; Chem. Soc; Soc. Dyers and Colorists; Asn. Textile Chem. and Colorists; Textile Inst. Dyeing and textile chemistry; synthetic products; printing; bleaching; sulfonated oils; starches; quality control in textiles; cellulose pulp; colloids; phase rule; American cotton.

McPeek, Dr. Clayton, 19 W. Fifth Ave, Columbus, Ohio. *Applied physiology.* Van Wert, Ohio, June 25, 88. M.D, Ohio State, 10, A.B, 13. Asst. prof. physiol, Starling-Ohio Med. Col, 10-14; Ohio State, 14-36; *practising physician.* A.A; Am. Med. Asn; Soc. Study Int. Secretions. Adrenals; photoelectricity.

MacPhail, Prof. Andrew H(amilton), 172 Congdon St, Providence, R. I. *Educational psychology.* Lawrence, Mass, Aug. 16, 91. Ph.B, Brown, 13, A.M, 14, Ph.D, 23. Prin, high schs, Mass, 14-20; asst. prof. psychol, Ind. State Nor. Sch, Terre Haute, 20-21; asst. *educ. psychol, Brown,* 21-23, from instr. to *assoc. prof, 23-* Psychol. Asn. Mental and educational measurement at high school and college levels; effect of tonsils and adenoids in the school child; classification of freshmen; test for nurses.

McPhail, M(iyauoto), Box 340, Honolulu, Hawaii. *Entomology.* Townville, S. C, June 10, 03. B.S, Clemson Col, 25; Iowa State Col, 26. Entomologist, Substa. 15, Exp. Sta, Texas, 27; asst. entomologist and later *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 28-* Asn. Econ. Entom. Economic entomology.

Macphail, Dr. M(oray) S(t. John), Acadia University, Wolfville, N. S, Can. *Mathematics.* Kingston, Ont, May 27, 12. B.A, Queen's (Can), 33; M.A, McGill, 34; Ph.D, Oxon, 36. Instr. *math, Acadia,* 37-39, *asst. prof, 39-* Instr, Princeton, 41-42. Math. Soc; Math. Asn. Analysis.

McPhail, Prof. M(urchie) K(ilburn), Dalhousie University, Halifax, N. S, Can. *Pharmacology.* Kilburn, N. B, Jan. 26, 07. B.A, British Columbia, 29; Nat. Research Council Can. bursar, McGill, 29-30, student, 30-32, Ph.D, 32. 1851

Science Research scholar, London and Leipzig, 32–34; asst. prof. physiol. and pharmacol, Alberta, 34–38; assoc. prof. *pharmacol, Dalhousie,* 38–40, *prof, 40–* Soc. Pharmacol; Physiol. Soc; Biochem. Soc. Gt. Britain. Endocrinology; the physiology of reproduction.

MacPhee, E(arle) D(ouglas), Dent, Allcroft and Co, Ltd, 97 Wood St, London, E. C. 2, Eng. *Psychology.* Millstream, N. B, Can. M.A, Edinburgh, 19, B.Ed, 20. Lecturer psychol, Acadia, 20–21; asst. prof, Alberta, 21–24; Toronto, 24–29; comptroller, Woods Underwear Co, 29–37; v. pres, J. D. Woods and Co, 32–37; *managing director, Dent, Allcroft and Co, 37–* Research, Can. Nat. Cmt. Mental Hygiene. A.A. Educational psychology; intelligence; mental hygiene.

MacPhee, Prof. Halsey M(yron), Bucknell University, Lewisburg, Pa. *Psychology.* Canton, N. Y, Sept. 28, 06. B.S, St. Lawrence, 30, A.M, 32; Ph.D, North Carolina, 40. Instr. psychol, St. Lawrence, 32–36; North Carolina, 37–39, business psychol, 39–40, *asst. prof,* 40–41; *psychol, Bucknell, 41–* A.A; assoc. Psychol. Asn. Human and animal learning; intelligence; perception.

McPhee, Dr. Hugh C(urtis), U. S. Department of Agriculture, Washington, D. C. *Genetics.* Hastings, Maine, Dec. 5, 96. B.S, Maine, 18, M.S, 21; M.S, Harvard, 22, Sc.D, 23. Sci. aid, Exp. Sta, Maine, 19–21; assoc. animal husbandman genetics, *bur. animal indust, U. S. Dept. Agr,* 23–26, animal husbandman and senior animal husbandman, 26–35, chief animal husbandry div, 35–42, *asst. chief bur, 42–* A.A; Genetic Asn; Soc. Animal Production; Wash. Acad. Animal genetics; inbreeding in animals; livestock production.

McPhee, Dr. Warren D(ouglas), University of Rochester, Rochester, N. Y. *Organic chemistry.* Belmont, Mass, April 23, 14. B.S, Boston Univ, 37; Ph.D, Northwestern, 40. Asst, Illinois, 40–41; *instr. org. chem, Rochester, 41–* Chem. Soc. Chemistry of marihuana and acetylenic alcohols.

McPherson, Prof. Archibald N(ewton), Vanderbilt University, Nashville, Tenn. *Mathematics.* Baltimore, Md, Nov. 29, 00. A.B, Hopkins, 24; A.M, Cornell, 32. Instr. *math,* Drexel, 24–25; *Vanderbilt,* 25–41, *asst. prof, 41–* Finite Euclidean geometry.

McPherson, Dr. A(rchibald) T(urner), National Bureau of Standards, Washington, D. C. *Chemistry.* Marceline, Mo, Feb. 22, 95. A.B, Trinity, 14; A.M, Texas, 16; Ph.D, Chicago, 23. Prof chem, Ewing Christian Col, India, 19–21; assoc. chemist and later *chief rubber sect, Bur. Standards, 23–* Chem. Soc; Wash. Acad. Organic chemistry; electrical, optical and thermodynamic properties of rubber; rubber technology.

MacPherson, Prof. D(aniel) A(llan), Box 350, Chapel Hill, N. C. *Bacteriology, Immunology.* Providence, R. I, 96. Ph.B, Brown, 19, M.S, 20; Ph.D, Chicago, 29. Teaching fellow, Chicago, 20, assoc. instr, 21; Rockefeller Inst, 22; assoc. prof. *bacter, North Carolina,* 23–29, *prof, 29–* Soc. Bact; Pub. Health Asn. Classification of Streptococci; biology of the Spirochetae.

McPherson, Dr. D(onald) C(arman), 75 Simpson Ave, Toronto, Ont, Can. *Plant ecology.* Toronto, Ont, Nov. 26, 10. B.A, Toronto, 33, M.A, 35, Ph.D, 38; Ont. Col. Educ, 38–39. *Instr. science, West. Tech. Sch, 39–* Elizabeth Ann Wintercorbyn award, Toronto, 38. Cortical air spaces in the roots of Zea mays.

Mac Pherson, Dr. H(erbert) G(renfell), 1625 Belle Ave, Lakewood, Ohio. *Physics.* Victorville, Calif, Nov. 2, 11. A.B, California, 32, Ph.D, 37. Junior meteorologist, U. S. Dept. Agr, 36–37; *research physicist, Nat. Carbon Co, 37–* Physical Soc; Optical Soc. Carbon arc; cosmic ray; magneto-optic effect.

McPherson, Dr. Margaret W(illcox), 19 Cleveland St, Kensington, Md. *Organic chemistry.* Chicago, Ill, March 21, 98. A.B, Mt. Holyoke Col, 19; Ph.D, Chicago, 24. Asst. prof. chem, Okla. Col. for Women, 22–23; nat. science dept, Nat. Park Col, 40–42; *assoc. chem, George Washington, 42–* Synthetic drugs; derivatives of alpha-phenyl butyric acid.

Macpherson, Pres. W(alter) E(verett), 312 N. Boyle Ave, Los Angeles, Calif. *Internal medicine.* Wadsworth, Nev, Dec. 19, 99. A.B, Pacific Union Col, 22; M.D, Col. Med. Evangelists, 24. From instr. to prof. physiol, *Col. Med. Evangelists,* 26–36, assoc. prof. *int. med,* 36–40, *prof, 40–, pres, 42–,* dean Loma Linda div, 35–36, Los Angeles div, 36–42. Trustee, Col. Med. Evangelists. Fel. Am. Med. Asn; assoc. Col. Physicians; Los Angeles Co. Med. Soc. (sec'y int. med. sect, 39, v. chairman, 40, chairman, 41). Epidemiology of pneumonias.

McPherson, Prof. William, Ohio State University, Columbus, Ohio. *[1]*Chemistry.* Xenia, Ohio, July 2, 64. B.S, Ohio State, 87, M.S, 90, Sc.D, 95, LL.D, 40; Ph.D, Chicago, 99; LL.D, Wittenberg Col, 27. Instr, high sch, Ohio, 87–92; asst. prof. *chem, Ohio State,* 93–95, assoc. prof, 95–97, prof, 97–37, *emer. prof, 37–,* dean grad. sch, 11–37, acting pres, 38–40. Chief chemist, Ohio Dairy and Food Cmn, 07–12; collaborating chemist, bur. chem, U. S. Dept. Agr, 08–17. Chem. Soc. rep, exec. cmt, Nat. Research Council. C.W.S, 17–18, lieut. col. A.A. (sec'y, C, 01, v. pres, 09, 15); Chem. Soc. (v. pres, 09–11, councilor-at-large, 23–26, exec. cmt, pres, 30); hon. mem. Inst. Chem; Ohio Acad; Deuts. Chem. Gesell. Hydroxyazo compounds; constitution of organic compounds.

MacPhillamy, Dr. H(arold) B(elding), Squibb Institute for Medical Research, New Brunswick, N. J. *Organic chemistry.* New York, N. Y, Sept. 7, 10. Ch.B, Cornell, 32, Ch.M, 33; Ph.D, Columbia, 39. *Assoc, div. org. chem, Squibb Inst. Med. Research, 38–* Chem. Soc. Isolation and synthesis of vitamins and sterols; bacteriocidal substances from microorganisms.

McQuarrie, Dr. Irvine, University of Minnesota, Minneapolis, Minn. *Pediatrics.* Utah, 91. A.B, Utah, 15; Thompson scholar, California, 16–18, Ph.D, 19, fellow, Hooper Foundation, 18; M.D, Hopkins, 21. Asst. path, California, 18–19; res. house officer, Henry Ford Hosp, 21–22, physician in charge nutrition clinic, 22–24, pediatrician in chief, 25–26; instr. *pediat,* Yale, 24; asst. prof. and assoc. prof, sch. med, Rochester, 26–30; *prof. and head dept, Minnesota, 30–* Visiting prof, Peiping Union Med. Col, 39–40. Mem. Pediat. Research Council. Ed. board, 'Jour. of Pediat.' A.A; Pediat. Soc; Acad. Pediat; fel. Am. Med. Asn. (mem. council foods and nutrition); hon. mem. Col. Dentists; Soc. Pediat. Research; Soc. Exp. Biol; Soc. Exp. Path; Soc. Clin. Invest; Inst. Nutrition; Northwest. Pediat. Soc; Minn. Path. Soc; Minn. Acad. Med; Int. League against Epilepsy. Kidney disease; Roentgen ray intoxication; intestinal obstructions; serum proteins; blood volume; isoagglutination in the newborn; hydrogen ion concentration in blood and spinal fluid; hemophilia; mineral and water metabolism; epilepsy; edema; lipid metabolism; rickets; carbohydrate metabolism; endocrinology; anoxia; hereditary periodic paralysis.

McQuarrie, Prof. W(illiam) C(aven Hunter), Lafayette College, Easton, Pa. *Physics.* Halton Co, Ont, Can, Aug. 24, 95. B.A, Toronto, 20, M.A, 21, Nat. Research Council Can student, 21–23, Ph.D, 27. Asst. demonstrator, Toronto, 20–21; instr. *physics, Lafayette Col,* 23–27, asst. prof, 27–32, *assoc. prof, 32–* Summer, instr, Pottsville undergrad. center, Pa. State Col, 42. Physical Soc; Optical Soc; Asn. Physics Teachers. Alpha-ray tracks; spectra of silicon and aluminum; auroral green line.

McQueen, Dr. David M(alcolm), Pleasant Hill Road, R. D. 3, Newark, Del. *Chemistry.* Elora, Ont, Can, Nov. 19, 06. B.A, Western Ontario, 30; fellow, Wisconsin, 33, Ph.D, 33. *Research chemist, E. I. du Pont de Nemours and Co, 34–* Colloid chemistry; textile assistants; leather chemistry; dye intermediates.

McQueen, H(enry) S(illiman), Missouri Geological Survey, Rolla, Mo. *Geology.* Clarksville, Mo, May 31, 00. A.B, Missouri, 22, A.M, 23. Geologist, *Bur. Geol. and Mines, Mo,* 23–27, *asst. state geologist,* 27– Min. and Metal. Eng; Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol. Clay resources of Missouri; ground water; insoluble residues as a guide to stratigraphy; ground water hydrology; stratigraphic geology.

MacQueen, Prof. M(arion) L(ee), Southwestern, Memphis, Tenn. *Mathematics.* Anniston, Ala, Aug. 23, 96. A.B, Southwestern (Tenn), 19; A.M, Wisconsin, 23; Ph.D, Chicago, 33. Instr. *math,* Wisconsin, 20–23; asst. prof, *Southwestern (Tenn),* 23–26, *prof, 26–* Tenn. Acad. Projective differential geometry.

McQuilkin, Dr. W(illiam) E(verett), U. S. Forest Service, Laurel, Md. *Botany.* David City, Nebr, Feb. 11, 02. A.B, Doane Col, 25; A.M, Nebraska, 32; Morris fellow, Pennsylvania, 33–34, Ph.D, 35. Asst. instr. bot, Nebraska, 30–32; N. Y. State Col. Forestry, Syracuse, 32–33; Pennsylvania, 34–35; junior agrostologist, Resettlement Admin, 35–37; asst. forest ecologist, *Appalachian Forest Exp. Sta, U. S. Forest Service,* 37–42, *assoc. silviculturist, 42–* Summer, field asst,

Allegheny Forest Exp. Sta, U. S. Forest Service, 34. Ecol. Soc. Plant ecology; root relations; grass agronomy.

McQuitty, Dr. Louis L(aforce), University of Illinois, Urbana, Ill. *Psychology.* Curran, Ill, Jan. 29, 10. B.S.E, Florida, 33; A.M, Toronto, 34, Ph.D, 37. Instr. psychol. and counselor vocational guidance and mental hygiene, Florida, 35–36; clin. psychologist and social worker, Protestant Children's Homes, Toronto, 36–37; instr. and later *assoc. in psychol, Illinois, 37–, counselor, personnel bur, 39–; classification officer, Engineer Replacement Training Center, Ft. Belvoir, Va, 41–* Psychol. Asn; Midwest. Psychol. Asn. Mental test construction in relation to the problems of maladjustment.

McRae, Dr. D(aniel) Brent, 18 Commodore Parkway, Rochester, N. Y. *Physics.* Salt Lake City, Utah, June 27, 02. B.S, Utah, 26; Ph.D, Calif. Inst. Tech, 30. Chemist, Am. Potash and Chem. Corp, 27–28; asst. physical chem, Calif. Inst. Tech, 28–30; *physicist, Eastman Kodak Co, 30–* Summers, photo finisher, Haynes Picture Shops, Yellowstone Park, 25, 26, 28. Draftsman, Board Educ, Salt Lake City, 21–22. Optical Soc. Equivalence of mechanically oscillated electric charge to an alternating current; transmission and reflection of light by unexposed photographic plates; alteration of reflectivity of glass by coating with thin films of dielectrics or metals; electro-optical and mechanical devices for testing optical instruments; measurement of transmission and contrast in optical instruments.

MacRae, Dr. Duncan, Edgewood Arsenal, Edgewood, Md. *Physical chemistry.* Fayetteville, N. C, March 7, 91. B.S, North Carolina, 09, 09–10; Summer Sch. of South, 10; Columbia, 11; Ph.D, Mass. Inst. Tech, 17. Asst. chem, North Carolina, 08–10; teacher science, Richmond Co. Acad, Ga, 10–12; asst. theoret. chem, Mass. Inst. Tech, 12–13, instr. inorg. chem, 13–15; chief chemist, eng. dept, Westinghouse Lamp Co, 17–18, research chemist, research lab, 19–25; manager research labs, Guggenheim Bros, 25–29; *chief chemist, Chem. Warfare Service, 29–* Capt, C.W.S, 18–19. Chem. Soc. (reporter, N. C. sect, 10; v. chairman, Md. sect, 31, 32, chairman, 33; councilor, 40–); Electrochem. Soc. (director, 25–27, v. pres, 27–29, chairman, N. Y. sect, 26, v. pres, 32–37). Specific heat of organic liquids; vapor pressure of yellow phosphorus; tungsten filament lamps; radio tubes.

McRae, Prof. J(ohn) A(lexander), Queen's University, Kingston, Ont, Can. *Organic chemistry.* Beaverton, Ont, Jan. 24, 90. M.A, Queen's (Can), 09, fellow, 09–11; Ph.D, Manchester, 21. Asst, Toronto, 11–12; lecturer *chem, Queen's (Can),* 12–15, asst. prof, 15–22, assoc. prof, 22–26, *prof, 26–, head dept, 41–* Fel. Inst. Chem. Gt. Britain and Ireland; fel. Royal Soc. Can. Hydrogen cyanide addition to unsaturated compounds; alkyl and aryl-succinic acids; rearrangements of diarylsuccinamides to diarylacetic acids.

MacRae, N(orman) A(lexander), Central Experimental Farm, Ottawa, Ont, Can. *Genetics, Cytology.* Dunvegan, Ont, 00. B.A, Queen's (Can), 28; M.Sc, McGill, 30; Ph.D, California, 39. *Agr. scientist, tobacco div, Cent. Exp. Farm, Dom. Dept. Agr, 30–* Plant genetics.

Macrae, Dr. Ruth, Central Experimental Farm, Ottawa, Ont, Can. *Botany.* Westmount, Que, Can, April 1, 03. B.A, McGill, 24, M.Sc, 26; Ph.D, Toronto, 41. Demonstrator bot, McGill, 25–27; asst. to Dr. Buller, Manitoba, 27–30; *asst. plant pathologist, div. bot. and plant path, Cent. Exp. Farm, 31–* Mycol. Soc. Taxonomy and sexuality of Basidiomycetes; forest pathology.

Mc Reynolds, Prof. J(ames) P(eyton), Ohio State University, Columbus, Ohio. *Inorganic chemistry.* Dahlgren, Ill, April 5, 09. A.B, James Millikin, 29; Ph.D, Illinois, 38. Prin. and teacher, high sch, Ill, 32–35; asst. *chem,* Illinois, 35–38; instr, Lehigh, 38–40; *asst. prof, Ohio State, 40–* Chem. Soc. Inorganic complex compounds; isomerism.

McReynolds, Dean L(indley) Ward, Kokomo Junior College, Kokomo, Ind. *Biology.* Sharpsville, Ind, Jan. 28, 92. A.B, Defiance Col, 15; A.M, Michigan, 16. Prof. biol, Defiance Col, 16–36, dean; exp. agr. biologist, Tipton County, 36–38; *prof. biol. and dean, Kokomo Junior Col, 38–* A.A. Zoology.

McRostie, Prof. G(ordon) P(eter), Ontario Agricultural College, Guelph, Ont, Can. *Agronomy.* Metcalfe, Ont, April 23, 87. B.S.A, Toronto, 12; M.S, Cornell, 18, Ph.D, 20. Dist. rep, Dept. Agr, Ont, 12–13; plant breeder, State Bean Investigations, N. Y, 17–20; assoc. prof. cereal husbandry, Macdonald Col, McGill, 20–22; Dom. agrostologist, cent. exp. farm, Can. Dept. Agr, 22–29; prof. agron, Man. Agr. Col, Manitoba, 29–36; *prof. and head dept. field husbandry, Ont. Agr. Col, Toronto, 36–* Can. Soc. Tech. Agr; Can. Geog. Soc; West. Can. Soc. Agron. Inheritance of disease resistance; forage crops; cold resistance; weed control; crop production.

McShan, Prof. (William) Hartford, University of Wisconsin, Madison, Wis. *Biochemistry, Endocrinology.* Lonoke, Ark, May 4, 08. B.S, Ark. State Teachers Col, 28; A.M, Missouri, 33, Ph.D, 36. Asst, Missouri, 33–36; research assoc, *Wisconsin,* 36–41, *asst. prof. zoochem, dept. zool, 41–* Purification and chemistry of the gonadotropins.

McShane, Prof. E(dward) J(ames), University of Virginia, Charlottesville, Va. ***Mathematics.* New Orleans, La, May 10, 04. B.E, B.S, Tulane, 25, M.S, 27; Ph.D, Chicago, 30. Instr, Tulane, 25–27; asst. prof. math, Wichita, 28–29; nat. research fellow, Chicago, Princeton, Ohio State and Harvard, 30–32; instr. *math,* Princeton, 33–34, asst. prof, 34–35; *prof, Virginia, 35–* Math. Soc. (councilor, 38–41); Math. Asn. (governor, 40–42); Asn. Symbolic Logic; Va. Acad. Calculus of variations; analysis; ballistics.

McSweeney, Dr. E(llsworth) E(dward), Battelle Memorial Institute, Columbus, Ohio. *Chemistry.* Jersey City, N. J, March 19, 14. A.B, Oberlin Col, 34; Ph.D, Rochester, 38. Asst, Rochester, 34–38; research assoc, *Battelle Mem. Inst,* 38–39, *research engineer, 39–* Chem. Soc. Kinetics of reactions in solution; organo-metallic compounds; paint, varnishes and drying oils.

MacTavish, Prof. W(illiam) C(aruth), 32 Waverly Place, New York, N. Y. *Chemistry.* New York, N. Y, June 13, 93. B.S, N. Y. Univ, 24; A.M, Columbia, 26. Asst. *chem,* Univ. and Bellevue Hosp. Med. Col, *N. Y. Univ,* 12–17, instr, 17–26, asst. prof, 26–30, instr, *Wash. Sq. Col,* 19–24, asst. prof, 24–26, assoc. prof, 26–28, *prof, 28–* A.A; Chem. Soc. (chairman, New York sect, 37–); Hist. Sci. Soc; assoc. fel. Am. Med. Asn; London Chem. Soc; Deuts. Chem. Gesell; Asn. Haliana di Chim. Thiazoles and derivatives.

McTeer, Dr. Wilson, Wayne University, Detroit, Mich. *Psychology.* Maryville, Tenn, July 25, 05. A.B, Maryville Col, 25; fellow, Chicago, 29, Ph.D, 30. Instr. *psychol,* Maryville Col, 25–27; asst, Chicago, 29–30; instr, Col. City of Detroit, 30–33, *Wayne,* 33–36, *asst. prof, 36–* A.A; Psychol. Asn; Midwest. Psychol. Asn. Motivation in human behavior.

McVaugh, Dr. Rogers, Bureau of Plant Industry, U. S. Department of Agriculture, Beltsville, Md. *Botany.* Brooklyn, N. Y, May 30, 09. A.B, Swarthmore Col, 31; Ph.D, Pennsylvania, 35. Asst. instr. bot, Pennsylvania, 33–35; instr, Georgia, 35–36, asst. prof, 36–38; *assoc. botanist, div. plant explor. and introd, bur. plant indust, U. S. Dept. Agr, 38–* Summers, botanist, N. Y. State Museum, 35–37; State Biol. Surv, N. Y, 37. Soc. Plant Taxon. Taxonomy of Rosaceae, Campanulaceae; Lobeliaceae; economic botany.

McVay, Dr. Jean A. (Mrs. James O. Lawrence), 416 Capitol St, Yankton, S. Dak. *Physiological zoology.* Kans, July 15, 14. A.B, Yankton Col, 36; A.M, Wellesley Col, 37; Ph.D, Northwestern, 42. *Indust. research, Bauer and Black, 42–* A physiological study of neurosecretion among invertebrates.

McVay, Prof. T(homas) N(ewkirk), University of Alabama, University, Ala *Ceramics.* Hawkins, Pa, 91. B.S, Illinois, 14, M.S, 26, Ph.D, 36. Ceramic engineer, Clinton Paving Brick Co, Ind, Streator Brick Co, Ill, Basic Products Co, W. Va, and Lacon Clay and Coal Co, Ill, 14–22; instr. ceramic eng, Illinois, 22–26, assoc, 26–28; *prof. ceramics and miner, Alabama, 28–* Fel. Ceramic Soc; Miner. Soc; Soc. Glass Technol; British Ceramic Soc. Raw materials; refractories; glazes; ceramic petrography.

McVeigh, Dr. Ilda, Yale University, New Haven, Conn. *Botany.* Fulton, Mo, Feb. 12, 05. B.S, Missouri, 31, A.M, 33, Ph.D, 37. Asst. *bot,* Missouri, 31–37, 39–40, instr, 37–39; asst. prof, Northwest. State Col, Okla, 40–41; *research asst, Yale, 41–* Mo. Acad. Morphology; plant physiology; regeneration in ferns and Crassulaceae; vitamins.

McVey, Dr. Warren C(ampbell), 4402 40th St, Brentwood, Md. *Organic chemistry.* Miltonvale, Kans, July 17, 06. A.B, Col. of Emporia, 29; M.S, Maryland, 34, Ph.D, 38. Junior meat inspection chemist, *U. S. Dept. Agr,* 29–38, asst. meat inspection chemist, 38–42, *assoc. meat inspection chemist, 42–*

Chem. Soc; Agr. Chem. Synthesis of picene and similar polycyclic compounds.

McVicar, Dr. G(eorge) A(rchibald), 21 Relmar Road, Toronto, Ont, Can. *Biochemistry.* London, Ont, Jan. 20, 09. B.A, Toronto, 29, M.A, 30, junior fellow, 31–34, Ph.D, 34. Asst. chem, *Toronto,* 29–31, biochem, 31–34, fellow med, 34–36, asst, *Connaught Labs,* 36–43, *research assoc, 43–* Summer, asst, Nat. Research Council Can. Can. Chem. Asn; Toronto Biochem. Soc. Partial pressures in binary systems; synthetic action of phosphatase; function of the adrenal cortex.

McWhorter, Dr. Frank P(aden), Oregon State Agricultural College, Corvallis, Oregon. *Plant pathology.* Nashville, Tenn, April 20, 96. B.S, Vanderbilt, 17; fellow, Chicago, 18–20, M.S, 20; Ph.D, Cornell, 28. Field asst, plant disease surv, 18; assoc. prof. bot, Philippines, 20–21, acting head dept. plant path, 21–22; plant pathologist, Va. Truck Exp. Sta, 23–29; assoc. plant pathologist and *plant pathologist, Oregon State Col, 30–, agent, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Phytopath. Soc. Ecology of cryptogams; protozoan diseases of plants; parasitic phanerogams; vegetable pathology; diseases of ornamental plants and truck crops; diseases of tomatoes; tropical fruits; virus diseases of plants.

Mac Williams, Lieut. Walter H(ixon), Jr, Bureau of Ordnance, Navy Department, Washington, D. C. *Electrical engineering.* Portsmouth, Va, Sept. 1, 16. B.E, Hopkins, 36, trustee's scholar, 36–41, D.E, 41. Instr, Hopkins, 37–41; *asst. for antiaircraft directors and computers, fire control sect, research and develop. div, bur. ordnance, Navy Dept, 41–* A.A; assoc. Elec. Eng. Temperature and electric stress in impregnated-paper insulation.

MacWood, Dr. George E(ugene), Ohio State University, Columbus, Ohio. New York, N. Y, Feb. 16, 08. A.B, Columbia, 30, B.S, 32, Ch.E, 33, Ph.D, 36. Cutting traveling fellow, Columbia, 36–38; nat. research fellow, 37–38; instr. *chem, Ohio State,* 38–42, *asst. prof, 42–* Physical Soc; Chem. Soc. Cryogenics; thermodynamics.

Macy, Prof. Harold, 2243 Folwell St, St. Paul, Minn. *Bacteriology.* Hudson, N. Y, Jan. 23, 95. B.S, Cornell, 17; fellow, Iowa State Col, 27–28, Ph.D, 29. Bacteriologist, N. Y. Exp. Sta, Geneva, 17; asst. prof. *dairy bacter, Minnesota,* 19–29, assoc. prof, 29–35, *prof, 35–* Bacteriologist and chief sanit. inspector, Red Cross, 17–18; M.C, U.S.A, 18–19, capt, Sanit. R.C, 26–37, major, 37– A.A; Soc. Bact; Dairy Sci. Asn; Inst. Food Technol. Dairy bacteriology and mycology; milk; dry milk; butter; cheese.

Macy, Dr. Paul F(ranklin), Indiana Ordnance Works, Charlestown, Ind. *Plant chemistry.* Danville, Ill, Dec. 11, 09. B.S, Purdue, 31; Ph.D, Cornell, 35. Asst. agron, Cornell, 31–35; agronomist, soil conservation service, U. S. Dept. Agr, 35–36; asst. chemist, Exp. Sta, Agr. and Mech. Col, Texas, 36–39; Exp. Sta, Kentucky, 39–40; instr. agr. and anal. chem, N. C. State Col, 40–41; *asst. chief chemist, inspection lab, Indiana Ordnance Works, U. S. War Dept, 41–* Chem. Soc; Soc. Plant Physiol. Plant nutrition; soil fertility; explosives.

Macy, Prof. Ralph W, Reed College, Portland, Oregon. *Zoology.* McMinnville, Oregon, July 6, 05. A.B, Linfield Col, 29; A.M, Minnesota, 31, Ph.D, 34. Asst. zool, Minnesota, 29–34; asst. prof, Col. of St. Thomas, 34–35, *prof,* 35–42; *Reed Col, 42–* Puget Sound Biol. Sta, 28–29, A.A; Micros. Soc; Soc. Parasitol. Parasitology; helminthology; entomology; Lepidoptera; animal ecology.

Macy, Dr. Rudolph, Edgewood Arsenal, Md. *Chemistry.* New York, N. Y, April 20, 98. B.S, N. Y. Univ, 20, M.S, 21, Ph.D, 23. Instr. chem, Maine, 23–25, asst. prof, 25–27; assoc. chemist, *Chem. Warfare Service,* 27–35, chemist, 35–43, *senior chemist, 43–* A.A; Chem. Soc. (sec'y, Maine sect, 24–26). Phase rule; charcoal adsorption; refractometer; surface tension.

Macy-Hoobler, Dr. Icie G(ertrude), Children's Fund of Michigan, 660 Frederick St, Detroit, Mich. *Chemistry.* Gallatin, Mo, July 23, 92. A.B, Cent. Col. for Women, 14; B.S, Chicago, 16; A.M, Colorado, 18; Pi Beta Phi fellow, 18–19; Susan Rhoda Cutler fellow, 19–20; Ph.D, Yale, 20. Asst. chem, Colorado, 16–17, physiol. chem, sch. med, 17–18; asst. biochemist, West. Pa. Hosp, Pittsburgh, 20–21; instr, California, 21–23; in charge nutrition research, Merrill-Palmer Sch, 23–31; *director research lab, Children's Fund, Mich, 31–* Cmt. food and nutrition, Nat. Research Council, 41– Norlin medal, Colorado, 38; Borden award, Am. Home Econ. Asn, 39. A.A; Chem. Soc. (sec'y, div. biochem, 29, chairman, 30); Soc. Biol. Chem; Soc. Research Pediat; Inst. Nutrition (sec'y, 34–38). Physiological chemistry and nutrition; mineral metabolism in human pregnancy, lactation and growth; human milk secretion; chemistry of red blood cell in health and disease; nutrition and chemical growth in childhood.

Madden, Dr. Sidney C(larence), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Pathology.* Fresno, Calif, Oct. 27, 07. A.B, Stanford, 30, M.D, 34. Intern med, Hopkins Hosp, 33–34; asst. *path, sch. med. and dentistry, Rochester,* 34–37, instr, 37–40, *asst. prof, 40–* Asst. pathologist, Strong Mem. Hosp, 34– Theobald Smith award, Am. Asn. Adv. Science, 42. Soc. Exp. Path; Asn. Path. and Bact. The blood plasma proteins.

Maddigan, Dr. S(tephen) E(dward), 215 Mt. Vernon Ave, Waterbury, Conn. *Physics, Electrochemistry.* Winnipeg, Man, Can, Jan. 17, 10. B.A, British Columbia, 30; M.S, Purdue, 33, Ph.D, Purdue, 36. Asst. physics, Purdue, 30–36; *research physicist, Chase Brass and Copper Co, 36–* Inst. Metals div. award, Am. Inst. Mining and Metal. Engineers, 41. Physical Soc; Soc. X-ray and Electron Diffraction; Min. and Metal. Eng. Long-time annealing of copper alloys; electrodeposition of copper; x-ray studies of copper alloys; electron diffraction of metal surfaces; microradiography; deposition of polymorphous materials from the vapor phase; creep of copper alloys.

Maddison, Miss Isabel, Martin's Dam, Wayne, Pa. *Mathematics.* Reading, Eng. Girton, Cambridge, 89–92, math. tripos (wrangler), 92; Bryn Mawr Col, 92–93, fellow, 93–94, Ph.D, 96; B.Sc, London, 93; Göttingen, 94–95; B.A, Trinity (Dublin), 05. Asst. sec'y to pres, *Bryn Mawr Col,* 95–96, sec'y, 96–04, reader in math, 96–04, assoc, 04–10, *asst. to pres, 04–,* recording dean, 10–26. Math. Soc; London Math. Soc. Theory of singular solutions of differential equations of the first order.

Maddock, Dr. Walter G(rierson), University of Michigan Hospital, Ann Arbor, Mich. *Surgery.* Toronto, Ont, Can, Nov. 26, 01. A.B, Michigan, 24, M.D, 27, M.S, 34. Instr. *surgery, med. sch, Michigan,* 29–32, asst. prof, 32–36, *assoc. prof, 36–; lieut. col, Med. Corps, and unit director gen. hosp. no. 298 and chief surg. service, U. S. Army, 42–* Mem. Am. Board Surg; Surg. Asn; Am. Med. Asn; Federation Clin. Research; Soc. Clin. Surg; fel. Col. Surg; Cent. Surg. Asn; West. Surg. Asn. Water and electrolyte balance in surgical patients; peripheral vascular disease.

Mader, Dr. E(rich) O(tto), Doylestown, Ohio. *Plant pathology.* Neumark, Pommern, Germany, March 21, 05. B.S, Geisenheim, 26; Ph.D, Cornell, 36. Asst. plant path, chamber agr, Berlin-Dahlem, 26–27; Cornell, 29–36, research instr, 36–37; sci. adviser, Butler County Mushroom Farms, West Winfield, Pa, 37–38; *Yoder Bros, Ohio,* 37–38, *research director, 38–* A.A; Soc. Plant Physiol; Phytopath. Soc; Potato Asn. Pathology; nutrition of fungi; plant nutrition; greenhouse crops.

Madigan, Dr. G(eorge) F(rancis), 201 Washington Ave, Laurel, Md. *Agronomy, Soils.* Washington, D. C, Dec. 1, 06. B.S, Maryland, 30, M.S, 33, Ph.D, 38. Asst. *soil tech, Maryland,* 30–37, instr, 37–40, *asst. prof, 40–* Soil chemistry with special reference to fertility, genesis and morphology; soil organic matter; hydrology of soil moisture conservation and soil fertility.

Madison, Harold L(ester), 205 Grotto Ave, Providence, R. I. *Biology.* Warwick, R. I, Sept. 23, 78. Ph.B, Brown, 01, A.M, 02. Instr. biol, Brown, 05; prof, Union (Tenn), 05–08; director, Park Museum, R. I, 08–21; curator educ, Cleveland Museum Nat. Hist, 21–28, acting director, 28–31, director, 31–38; *retired.* A.A; Soc. Mammal; assoc. Ornith. Union; Asn. Mus. (sec'y, 18–22); Audubon Soc. R. I. (field exec, 41–). Rhode Island wild flowers; trees of Ohio; mound-builders; Indian homes; Florida fishes; wild flowers of Ohio.

Madison, Dr. Kenneth M(enefee), Schenley Research Institute, Inc, Brown and Kansas Sts, Lawrenceburg, Ind. *Physiology.* Albert Lea, Minn, April 5, 15. A.B, George Washington, 37, A.M, 38; Minnesota, 34–35; Ph.D, Hopkins, 42. With U. S. Treasury Dept, 36–41; research physiologist, Joseph E. Seagram and Sons, Inc, 41–43; *senior chemist vitamin research, Schenley Research Inst, Inc, 43–* Soc. Bact. Role of the interkinetic nucleus; vitamins; fermentation; enzymes.

Madison, Prof. Orin E, Wayne University, Detroit, Mich. *Chemistry.* Roscommon, Mich, 92. A.B, Albion Col, 13; Ph.D, Michigan, 19. Instr, Michigan, 18–19; director, Ann Arbor Chem. Research Lab, 20–21; from instr. to *assoc. prof. chem,* Col. City of Detroit, 21–33, *Wayne, 33–* Pres, State Basic Science Board, Mich. Chem. Soc. (senate chem. educ). Physical and colloid chemistry; osmosis with animal membranes; artificial marble; oils and gasoline; consumer quality standards; addition agents and compounded lubricating oils.

Madison, Dr. Ryland (Randolph), 610 Brewer Drive, San Mateo, Calif. *Bacteriology.* Los Angeles, Calif, Oct. 29, 08. A.B, Stanford, 30, A.M, 31, Ph.D, 36. Asst. *bacter, Stanford,* 31–35, *research assoc, 35–; lieut, Sanit. Corps, U. S. Army.* A.A; Soc. Bact. Medical bacteriology; immunology.

Madorsky, Dr. Samuel L(eo), National Bureau of Standards, Washington, D. C. *Chemistry.* Novo-Buikhov, Russia, Feb. 28, 91. B.S, Chicago, 19, Ph.D, 23. Gathmys Research Corp, 23–28; du Pont fellow, Chicago, 28–29; assoc. chemist, fixed nitrogen research lab, U. S. Dept. Agr, 29–42; *chemist, Bur. Standards, 42–* Chem. Soc. Separation of isotopes; gaseous reduction of iron ores in molten state; acid extraction of potash mineral; potassium phosphate fertilizers.

Madow, Dr. William G, 1445 Ogden St, N. W, Washington, D. C. *Statistics, Economics.* New York, N. Y, Feb. 22, 11. A.B, Columbia, 32, A.M, 33, Ph.D, 38. Carnegie Corp. New York grant in aid asst. theoret. statist, Columbia, 34–37; asst. math. adviser, popul. div, Bur. Census, 40–42; acting chief statist. sect, div. health and disability studies, bur. research and statist, Social Security Board, 42; *chief consumer requirements sect, consumer income and demand branch, div. research, Office Price Admin, 42–, acting chief rationing anal. and rev. branch, 43–* Statist. Asn; Econometric Soc; Inst. Math. Statist; Math. Soc. Theory of statistics, health and medical insurance; levels of living of different segments of the population.

Madsen, Dr. D(avid) E(dward), 687 Canyon Road, Logan, Utah. *Animal pathology.* Alta, Iowa, Jan. 22, 01. D.V.M, Colo. Agr. Col, 28; M.S, Cornell, 41. Asst. vet. investigations, State Dept. Agr, Pa, 28–29; *animal pathologist, Exp. Sta, Utah State Col, 29–, prof. vet. science and head dept, 32–* Vet. Med. Asn; Intermountain Livestock Sanit. Asn. (sec'y-treas, 32). Diseases of domestic animals.

Madsen, Dr. Louis L(inden), U. S. Department of Agriculture, Beltsville, Md. *Animal nutrition.* Salt Lake City, Utah, Sept. 29, 07. B.S, Utah State Col, 30; Ph.D, Cornell, 34. Asst. animal nutrition, Cornell, 30–34; nat. research fellow and asst. path, Columbia, 34–35; chem, Exp. Sta, Mich. State Col, 36–37; assoc. animal nutrition, *bur. animal indust, U. S. Dept. Agr,* 37–39, *nutritionist, 39–* A.A; Chem. Soc; Soc. Animal Production; Soc. Exp. Biol; Inst. Nutrition. Pathology and biochemistry of nutritional diseases of farm animals.

Madson, Prof. B(en) A(dolph), College of Agriculture, University of California, Davis, Calif. *Agronomy.* Jewell Junction, Iowa, March 19, 87. B.S.A, Iowa State Col, 07; Illinois, 10; Chicago, 25–26. Asst. chemist, Exp. Sta, Iowa State Col, 07–10; asst. prof. and assoc. prof. *agron, col. agr, California,* 10–34, *chief div, 27–, prof, 34–, agronomist, Exp. Sta, 27–* A.A; Soc. Agron; Soc. Plant Physiol. Plant physiology; organic nutrition of plants; legumes and grasses.

Madson, Dr. W(illard) H(egland), E. I. du Pont de Nemours and Co, Baltimore, Md. *Chemistry.* Canton, Minn, March 22, 04. A.B, St. Olaf Col, 26; M.S, Wisconsin, 27, Ph.D, 31. Asst. instr. chem, Wisconsin, 26–27, 30–31, instr, exten. div, Milwaukee, 27–30; inorg. chem, Illinois, 31–33; *research div. head, pigment dept, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Inorganic and colloidal chemistry; colloidal beryllium oxide; titanium; compounds and pigments.

Maeblus, Jed B(arnes), Box 811, Saginaw, Mich. *Geology.* Charlevoix, Pa, Dec. 3, 07. B.S, Michigan, 32, M.S, 35. Asst. geologist, *Gulf Ref. Co,* 35–38, *dist. geologist, 38–* Asn. Petrol. Geol; Mich. Geol. Soc. (pres, 41). Lithology of the traverse group of central Michigan.

Maeder, Dr. LeRoy M(ichael) A(lois), Chancellor Hall, 206 S. 13th St, Philadelphia 7, Pa. *Medicine, Psychiatry, Psychoanalysis.* Minneapolis, Minn, May 30, 98. B.S, Minnesota, 20, A.M, 21, M.B, 21, M.D, 22; LL.B, Pennsylvania, 27; Vienna, 30–32. Physician, int. health board, Rockefeller Foundation, 24; psychiatrist, Phila. Hosp. Mental Diseases, 24–25; med. director, Pa. mental hygiene cmt, Pub. Charities Asn. Pa, 25–35; *psychiatric consultant, Family Soc. of Phila, 35–; mem. faculty, Phila. Psychoanal. Inst, 39–* Lecturer, Pittsburgh, 36–41; Smith Col, 36–41; Bryn Mawr Col, 41–A.A; Psychoanal. Asn. (v. pres, 41); Psychiat. Asn. (councilor, 40–43); Orthopsychiat. Asn; Am. Med. Asn; Soc. Research in Psychosomatic Problems; Pa. Psychiat. Soc. (sec'y-treas, 39–); Phila. Psychoanal. Soc. (sec'y-treas, 38–). Changes in the mammary gland; respiratory organs; mental deficiency in Pennsylvania; diagnostic criteria; generic aspects of the intake interview.

Maes, Dr. J(ulian) P(eter), Dartmouth Medical School, Hanover, N. H. *Physiology.* Malines, Belgium, June 5, 11. M.D, Brussels, 35. Belgian Am. Educational Foundation fellow, Harvard and Hopkins, 36–38; instr. physiopathology, med. sch, Brussels, 38–40; col. physicians and surg, Columbia, 41–42; instr. physiol, col. med, Vermont, 42–43; *asst. prof. pharmacol, Dartmouth Med. Sch, 43–* A.A; Physiol. Soc; Soc. de Chim. biol; Soc. belge de Biol. Adrenal glands; autonomic nervous system and circulation; sexual behavior.

Maes, Dr. Urban, 1718 Palmer Ave, New Orleans, La. *Surgery.* New Orleans, La, Oct. 12, 78. M.D, Tulane, 00; Sc.D, Louisiana, 38. Asst. prof. and prof. clin. surg, sch. med. and post-grad. sch. med, Tulane, 13–32; *prof. surg. and director dept, sch. med, Louisiana, 32–* Senior visiting surgeon, Charity Hosp, 17–; senior assoc. surg, Touro Infirmary, 17–Col, M.R.C, retired. Surg. Asn; fel. Col. Surg; Am. Med. Asn. (sec'y, surg. sect, 21–24, chairman, 24); Soc. Clin. Surg; Asn. Thoracic Surg; Soc. Study Goiter; South. Surg. Asn. (treas, 22–27, v. pres, 30); West. Surg. Asn; Orleans Parish Med. Soc. (pres, 25); Int. Soc. Surg. General surgery.

Maeser, Dr. Sherwin, Utah State Agricultural College, Logan, Utah. *Chemistry.* Beaver, Utah, Aug. 7, 88. A.B, Brigham Young, 09; Ph.D, California, 21. *Prof. chem, Utah State Col, 21–* Chem. Soc. Chemistry of nitrogen compounds.

Magaret, Dr. (Gretchen) Ann, Stanford University, California. *Psychology.* Jan. 25, 16. A.B, Carleton Col, 36; Whitney scholar, Radcliffe Col, 37–38, A.M, 38; Ph.D, Stanford, 41. Asst. psychol, Carleton Col, 36–37; neuropsychiat, Stanford Univ. Hosps, 39–41, acting instr. *psychol, Stanford,* 41–43, *asst. prof, 43–* A.A; assoc. Psychol. Asn. Abnormal, clinical and personality psychology.

Magat, Dr. Michael, Princeton University, Princeton, N. J. *Physical chemistry.* Kharkov, Russia, Oct. 28, 08. Ph.D, Berlin, 32; D.Sc, Paris, 36. Charge de recherches, Cent. Nat. de la Recherche Scientifique, Paris, 36–41; *research assoc, Princeton, 42–* Summer, prof, Ecole Libre des Hautes Etudes, New Sch. Social Research, 43. Chem. Soc. Molecular structure; properties and constitution of liquids.

Magath, Dr. Thomas Byrd, Mayo Clinic, Rochester, Minn. *Pathology, Parasitology.* Oxford, Ga, Jan. 28, 95. Ph.B, Emory, 13; fellow, James Millikin, 13–14, M.S, 14; fellow, Illinois, 16–17, Ph.D, 17, M.D, 19. Asst. zool, Illinois, 14–16, instr. anat, col. med, 17–19; asst. and assoc. prof. clin. bacter. and parasitol, *Minnesota,* 20–35, *prof. path. and parasitol, 35–; consulting physician and head sect. bacter. and parasitol, Mayo Clinic, 19–* Sci. investigator, Bur. Fisheries, 17; health officer, Rochester, Minn, 37–41. Summer, teacher, Ill. State Nor. Univ, 14. Ed. and later assoc. ed, 'Am. Jour. Clin. Path'; assoc. ed, 'Jour. Lab. and Clin. Med'; 'Am. Jour. Digestive Diseases and Nutrition.' V. pres, State Board Health, Minn, 38– Formerly capt, M.R.C, commander, M.C, U.S.N.R. A.A; Soc. Parasitol; Asn. Anat; fel. Col. Physicians; fel. Am. Med. Asn; Soc. Clin. Path. (pres, 37); Soc. Exp. Biol; Soc. Zool; Micros. Soc; Soc. Trop. Med; Physiol. Soc; Soc. Bact; Pub. Health Asn; Wilson Ornith. Club; Minn. Med. Soc; S. Minn. Med. Asn; Minn. Acad. (pres, 34). Clinical pathology.

Magee, Prof. G(ordon) R(ichey), 427 William St, London, Ont, Can. *Mathematics.* London, Ont, May 23, 02. B.A, Western Ontario, 25; M.S, Chicago, 26, Ph.D, 33. Teaching fellow, Chicago, 28–29; instr, *Western Ontario,* 27–33, asst. prof. *math,* 33–39, *assoc. prof, 39–* Royal Astron. Soc. Can. (sec'y, London center, 31–33, 35, pres, 43–). Projective differential geometry.

Magee, Dr. John L(afayette), Box 2107, Goodrich St. Station, Akron, Ohio. *Physical chemistry.* Franklinton, La, Oct. 28, 14. A.B, Miss. Col, 35; M.S, Vanderbilt, 36; Ph.D, Wisconsin, 39. Nat. research fellow, Princeton, 39–40; *research chemist, B. F. Goodrich Co, 41–* Reaction kinetics; photochemistry; synthetic rubber; plastics.

Magee, Dr. J(oseph) William, 209 N. Piedmont St, Arlington, Va. *Chemistry.* Braxton, Miss, Nov. 25, 12. A.B, Mississippi, 34, M.S, 35; Ph.D, Texas, 38. Asst. instr, Texas, 35–38; *special agent and prin. anal. chemist, Fed. Bur. Investigation, 39–* Chem. Soc. Phenanthraquinone and the azine reaction; disubstituted aminoacetones and related hydantoins; development of new methods in the scientific detection of crime; chemistry in crime detection.

Magel, Dr. Theodore T(ellmann), University of Chicago, Chicago, Ill. *Physical chemistry.* Central City, Nebr, Nov. 16, 18. B.S, Iowa State Col, 38; Abraham Rosenberg fellow, California, 40–41, Ph.D, 41. Teaching asst. chem, California, 38–40; Nat. Defense Research Council asst, Illinois, 41–42; *research assoc, metal. lab, Chicago, 42–* Chem. Soc; Optical Soc. Spectroscopy of fluorescent and phosphorescent organic molecules in rigid media.

Magers, Prof. Elizabeth J. (Mrs. E. A. Robinson), Vassar College, Poughkeepsie, N. Y. *Physiology, Nutrition.* Houston, Texas, Oct. 24, 97. A.B, Illinois, 19; M.S, Iowa, 24, Ph.D, 27. Dietitian, metabolism dept, Hahnemann Hosp, Rochester, N. Y; Children's Hosp, Univ. Iowa; dietitian in charge, House for Diabetics, Iowa City; research dietitian, Univ. Hosp, Iowa City; asst. prof. *physiol, Vassar Col,* 27–38, *assoc. prof, 38–* Consultant nutrition, summer inst. euthenics, Vassar Col, 30–33, faculty research fellow, Univ. Col, London, 36–37. A.A. Nutrition in constipation and diabetes; carbohydrate metabolism; metabolism in poliomyelitis; hypothermia.

Magid, Dr. Louis, Wm. S. Merrell Co, Cincinnati, Ohio. *Chemistry.* Montreal, Que, Can, Feb. 10, 11. Ph.G, Florida, 30, B.S, 31, Fairchild scholar, 32, M.S, 32, Pharmaceut. Asn. fellow, 32–34, Ph.D, 34. Asst, Florida, 27–30, 31–32; *research chemist, Wm. S. Merrell Co, 34–* Pharmaceut. Asn. Stabilization of hydriodic acid; drug extraction; pharmaceutical manufacturing.

Magle, Dr. Robert O(gden), New York Agricultural Experiment Station, Geneva, N. Y. *Plant pathology.* Madison, N. J, July 30, 06. B.S, Rutgers, 29; M.S, Wisconsin, 30, Ph.D, 34. Asst. plant path, Wisconsin, 29–35; agent, Dutch elm disease investigation, bur. plant indust, U. S. Dept. Agr, 35; investigator, Crop Protection Inst, *N. Y. Exp. Sta, Geneva,* 35–36, *assoc. research, 36–* Phytopath. Soc. Plant disease control; disease of hops.

Magill, Dr. Mary A(nnetta), 153 E. Lane Ave, Columbus, Ohio. *Organic chemistry.* Washington, Pa, Sept. 7, 09. A.B, Ohio State, 30, A.M, 31, Ph.D, 33. Asst. chem, Ohio State, 30–33; 'Chem. Abstracts,' 33–34; asst, Biochem. Research Foundation, Franklin Inst, 34–36; with *'Chem. Abstracts,'* 36–39, *assoc. ed, 39–* A.A; Chem. Soc. Spectroscopy; color reactions of vitamin A and unsaturated hydrocarbons; ultra-violet and cathode ray action on spectra of amino acid and derivatives; degradation of amino acids and derivatives.

Magill, Dr. Thomas P(eines), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Medicine.* Philadelphia, Pa, May 24, 03. A.B, Hopkins, 25, M.D, 30. Asst. and instr. med, Hopkins, 32–35; asst, Rockefeller Inst, 35–36; mem. staff, Rockefeller Foundation, 36–38; *asst. prof. bacter. and immunol, med. col, Cornell, 38–* Bacteriology and immunology; infectious diseases; filterable viruses.

Magistad, Dr. O(scar) C(onrad), U. S. Department of Agriculture, Riverside, Calif. *Chemistry, Soils.* Forestville, Wis, Sept. 8, 00. B.S, Wisconsin, 22, Nat. Fertilizer Asn. fellow, 22–24, M.S, 23, Ph.D, 24. Soil chemist, United Fruit Co, 24–27; assoc. prof. agr. chem, Arizona, 27–30; chemist, Exp. Sta, Pineapple Producers Cooperative Asn, Hawaii, 30–35, director, Exp. Sta, 35–38; *director regional salinity lab, bur. plant indust, U. S. Dept. Agr,* 38–40, *41–,* asst. chief bur, 40–41. Summers, Wis. Soil Surv, 19; bur. soils, U. S. Dept. Agr, 20. A.A; Chem. Soc; Soc. Agron; Soc. Plant Physiol; Int. Soc. Soil Sci. Tropical soils; banana and pineapple soil relationships; fertilizers; saline soils; western agriculture.

Magner, Dr. William, St. Michael's Hospital, Toronto, Ont, Can. *Pathology, Bacteriology.* Cork, Ireland, May 6, 87. M.B, B.Ch, B.A.O, Nat. Univ. Ireland, 09, D.P.H, 11, M.D, 21. Demonstrator path. and bacter, Univ. Col. Cork, 10–15, lecturer, 17–21; pathologist, N. Infirmary, Cork, 10–21; lecturer *path, Toronto,* 21–37, *asst. prof, 37–; pathologist, St. Michael's Hosp, 21–* Lieut, R.A.M.C, 15–17. Asn. Path. and Bact; Can. Med. Asn; Ont. Med. Asn; Acad. Med. Toronto (chairman, sect. path, 23, sect. med, 29; pres, 40). Bacteriology and production of cholecystitis; haematology.

Magness, Dr. J(ohn) R(obert), U. S. Department of Agriculture, Beltsville, Md. *Plant physiology.* Amity, Oregon, 93. B.S, Oregon State Col, 14, M.S, 16; Ph.D, Chicago, 23. Asst. hort. research, Oregon State Col, 14–17; physiologist, Marble Lab, Inc, Pa, 21–22; bur. plant indust, U. S. Dept. Agr, 22–27; head dept. hort, State Col. Wash, 27–29; prin. pomologist, *bur. plant indust, U. S. Dept. Agr,* 29–41, *head horticulturist in charge div. fruit and veg. crops and diseases, 41–* A.A; Soc. Hort. Sci. (pres, 34). Physiological aspects of fruit production and storage.

Magnus-Levy, Prof. A(dolf), Yale University, New Haven, Conn. *Internal medicine.* Berlin, Germany, Sept. 9, 65. Berlin; Tübingen; Leipzig; Freiburg; M.D, Heidelberg, 90; Ph.D, Erlangen, 93. Directing int. physician, hosp, Berlin, Germany, 10–21; prof, Berlin, 20–33; *research assoc. physiol, Yale, 41–* Biological chemistry; physiology of metabolism; diabetes; multiple myeloma; history of metabolism; basal metabolism; thyroid gland.

Magnusson, Prof. J(ohn) P(eter), 2829 11½ Ave, Rock Island, Ill. *Physical chemistry.* Sweden, Dec. 12, 72. A.B, Gustavus Adolphus Col, 98; A.M, Minnesota, 03; fellow, Wisconsin, 03–04; Ph.D, Cornell, 06. Instr, high schs, Minn and Mich, 98–03; physical chem, Cornell, 05–06; *Augustana Col, 06–, Oscar II prof. chem, 07–* Chem. Soc; Physical Soc; Ill. Acad. Measurement of vapor pressures; equilibria in gaseous system; purification of rare earths; colloids; organic catalysts.

Magnusson, Dr. Philip C(ooper), 5200 16th Ave, N.E, Seattle, Wash. *Electrical engineering.* Seattle, Wash, Jan 18, 17. B.S, Washington, 37; M.S, California, 38; Coffin fellow, Mass. Inst. Tech, 39–40, Sc.D, 41. Lab. asst. elec. eng, California, 37–38; contract employee, Naval Ordnance Lab, 41–42, asst. elec. eng, 42–43; *ensign, ordnance sect, U. S. Naval Res, 43–* Summer, asst, gen. eng. lab, Gen. Elec. Co, 39. Second lieut, C.A.C. Res, 38–41, lieut, 41–42. A.A; Elec. Eng; assoc. Radio Eng; Wash. Soc. Eng. Integral equations in electrical engineering.

Magoffin, Dr. James Edward, Tennessee Eastman Corp, Kingsport, Tenn. *Chemistry.* Buffalo, N. Y, Dec. 31, 10. B.Chem, Cornell, 32, Ph.D, 36. Asst. prof. chem, North Carolina, 36–38, assoc. prof, 38–40; director research, Thompson and Co, 40–41; mem. staff, *Tenn. Eastman Corp,* 41–42, *chief chemist, hydroquinone div, 42–* Sr. investigator, Textile Foundation, 36–40. Chem. Soc; Elisha Mitchell Sci. Soc; Colloids; electrokinetics; high molecular weight polymers; protective coatings; catalysis; inhibitors.

Magoon, Dr. C(harles) A(lden), U. S. Department of Agriculture, Beltsville, Md. *Pomology.* St. Albans, Maine, Oct. 14, 83. A.B, Bates Col, 10; Mass. Inst. Tech, 10–11; Shevlin fellow, Minnesota, 15–16; Ph.D, American Univ, 24. Asst. bacteriologist and chemist, Boston Biochem. Lab, 11–13; assoc. prof. bot, State Col. Wash, and asst. bacteriologist Exp. Sta, 13–15, assoc. prof. bacter. and bacteriologist, 16–18; *div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 18–, senior pomologist, 41–* A.A; Soc. Bact; Phytopath. Soc; Soc. Hort. Sci. Horticulture.

Magos, J(ohn) P(eter), The Crane Co, 836 S. Michigan Ave, Chicago, Ill. *Engineering, Applied physics.* Sparta, Greece, Oct. 27, 03. Armour Inst. Tech, 23–28; B.S, Chicago, 37. *Directing engineer research and develop. labs, Crane Co, 23–* A.A; Mech. Eng; Soc. Test. Mat. Applied mechanics; photoelasticity; x-ray crystal analysis and physical metallurgy.

Magoun, Dr. H(orace) W(inchell), 303 E. Chicago Ave, Chicago, Ill. *Neurology.* Philadelphia, Pa, June 23, 07. B.S, R. I. State Col, 29; M.S, Syracuse, 31; Ph.D, Northwestern, 34. Asst. neur, *med. sch, Northwestern,* 34–37, asst. prof, 37–40, assoc. prof, 40–43, *prof. microanat, 43–* Physiol. Soc; Asn. Anat. Hypothalamus; pupillary light reflex; cerebral function.

Magrane, Dr. J(ohn) K, Jr, 229 Harrison Ave, Highland Park, N. J. *Organic chemistry.* Holyoke, Mass, April 5, 13. A.B, Amherst Col, 34; M.S, Rutgers, 36, Ph.D, 39. Asst, Rutgers, 34–37, instr, 37–40; research chemist, *Catalin Corp Amer,* 40–41, *director research, 41–* Chem. Soc. Organo magnesium compounds; synthetic resins.

Magruder, E(gbert) W(atson), F. S. Royster Guano Co, Norfolk, Va. *Chemistry.* Keswick Va, Oct. 25, 68. A.B

Hampden-Sydney Col, 91; grad, Virginia, 92; Hopkins, 92–97. Asst. chemist, Miss. Agr. and Mech. Col, 97–00; *chief chemist*, State Dept. Agr, Va, 00–15; *F. S. Royster Guano Co, 15–* State chemist, Va, 10–15; lecturer and asst. prof, Med. Col. of Va, 12–15. Chemist, Va. Oyster Cmn, 13–14; board visitors, Va. Polytech, 19–22. A.A; Soc. Agron; Chem. Soc. (chairman, fertilizer sect, 27–39); Agr. Chem; Va. Chemists Club (pres, 07, 13); Va. Asn. Adv. Sci; Hampton Roads Chemists Club (pres, 21–23). Fertilizer chemistry.

Magruder, Dr. Roy, U. S. Department of Agriculture, Beltsville, Md. *Agriculture.* Jeffersonville, Ind, Feb. 11, 00. B.S.A, Purdue, 22; Ph.D, Cornell, 31. Asst. horticulturist, Ohio Exp. Sta, 23–31; olericulturist, *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr*, 31–41, *senior olericulturist, 41–* Soc. Hort. Sci; Bot. Soc. Wash. Olericulture; plant breeding technique in Beta vulgaris and Phaseolus lunatus; photoperiodic response of vegetable varieties; principal American varieties of vegetables.

Magruder, Prof. Samuel R(ossington), Tufts College Medical School, Boston, Mass. *Anatomy.* Kevil, Ky, June 10, 06. B.S, Kentucky, 30; A.M, Cincinnati, 31, Ph.D, 34. Asst. paleont, Kentucky, 29–30; zool, Cincinnati, 30–34, lab. instr, 34–35, research assoc, 35–36; asst. *anat*, med. col, Cornell, 36–38; instr, *med. sch, Tufts Col*, 38–41, *asst. prof, 41–* Summers, asst, research div, bur. entom, U. S. Dept. Agr, 30; research, Marine Biol. Lab, Woods Hole, 30–38. Mem. corp, Marine Biol. Lab, Woods Hole. Asn. Anat; Soc. Zool. A.A. Experimental vertebrate embryology; vertebrate histology; molluscan life history and anatomy; microscopical technique.

Maguire, Dr. Bassett, New York Botanical Garden, New York, N. Y. *Botany.* Alabama City, Ala, Aug. 4, 04. B.S, Georgia, 26; Ph.D, Cornell, 38. Instr. *bot*, Georgia, 27–29; asst, Cornell, 29–31; asst. prof, *Utah State Col*, 31–38, assoc. prof, 38–43, *non-res. prof, 43–; curator*, Intermountain Herbarium, 32–43; *N. Y. Bot. Garden, 43–* Range examiner, soil conservation service, U. S. Dept. Agr, 35. Summers, botanist, N. Y. Biol. Surv, 29–31; asst. aquatic biologist, U. S. Bur. Fisheries, 32, 34. Univ. Pittsburgh Lepidoptera exped, British Guiana, 25. Taxonomy of vascular plants; flora of intermountain region; taxonomy of Arnica and Carophyllaceae.

Mahan, Dr. Archie Irvin, 3824 V St, S.E, Washington, D. C. *Physics.* Sept. 1, 09. A.B, Friends, 31; Kansas, 31–32; Ph.D, Hopkins, 40. Jr. instr. physics, Kansas, 31–32; Hopkins, 32–38; instr, Georgetown, 38–41; physicist, Naval Ordnance Lab, 41–42; *assoc. physicist, optical design lab, Ordnance Dept, U. S. Army, 42–* A.A; Physical Soc; Optical Soc. Dispersion and absorption of some related compounds in the infra-red.

Mahan, Dr. John E(lmer), University of Illinois, Urbana, Ill. *Organic chemistry.* Cortland, Ohio, Aug. 1, 15. B.S, Ohio (Athens), 37; Am. Petrol. Inst. fellow, Ohio State, 41, Ph.D, 41. *Fellow, Illinois, 41–* Chem. Soc. Determination of structure of naturally occurring organic compounds.

Mahan, Dr. R(aymond) I(saac), 3644 Lewis Ave, Long Beach, Calif. *Organic chemistry.* Sulphur Springs, Texas, Dec. 25, 10. A.B, Texas, 34, A.M, 35, Ph.D, 38. *Research chemist, Union Oil Co, Calif, 38–* Chem. Soc; Soc. Automotive Eng. Petroleum chemistry; isolation and identification of petroleum nitrogenous compounds; the components of asphalt.

Maharam, Dr. Dorothy (Mrs. A(rthur) H(arold) Stone), Institute for Advanced Study, Princeton, N. J. *Mathematics.* Parkersburg, W. Va, July 1, 17. B.S, Carnegie Inst. Tech, 37; Ph.D, Bryn Mawr Col, 40; Inst. Advanced Study, 40–42. *Am. Asn. Univ. Women fellow, Inst. Advanced Study, 42–* Math. Soc. Abstract measure theory.

Maher, Dr. Chauncey C(arter), 6 N. Michigan Blvd, Chicago, Ill. *Medicine.* Payson, Ill, Oct. 26, 97. B.S, Illinois, 21, M.D, 23. Intern, Cook County Hosp, 23–25; instr. *med, med. sch, Northwestern*, 28–30, assoc, 30–32, asst. prof, 32–42, *assoc. prof, 42–* Prof, Cook County Grad. Sch. Med; chairman dept. int. med, Cook County Hosp. Col. Physicians; Am. Med. Asn; Am. Heart Asn; Cent. Soc. Clin. Research. Heart disease; electrocardiography.

Maher, Dr. Frank T(homas), 1118 Harrison St, Oak Park, Ill. *Pharmacology.* East St. Louis, Ill, Sept. 23, 09. B.S, Illinois, 37, M.S, 38, Ph.D, 41. Asst. instr. mat. med. and bot, *col. pharmacy, Illinois*, 37–41, *instr. pharmacol. and pharmacog, 41–* Experimental chemotherapy; sulfonamides.

Maher, John C(harles), U. S. Geological Survey, Box 8315, University Station, Baton Rouge, La. *Geology, Hydrology.* Lincoln, Nebr, March 24, 14. A.B, Nebraska, 35, M.S, 37; Louisiana, 39–40. Field geologist, Nebr. Geol. Surv, 36; research geologist, Shell Petrol. Corp, 37–38; *geologist in charge ground-water investigations in La, U. S. Geol. Surv, 38–* Geophys. Union; Asn. Petrol. Geol. Ground-water hydrology and geology.

Maheux, Prof. Georges, 100 Lamontagne Ave, Quebec, Que, Can. *Economic entomology.* Ste-Julie de Mégantic, Que, Dec. 8, 89. B.A, Laval, 11, M.F, 14, M.A, 21; M.Sc.A, Montreal, 30, D.Sc, 37. Assoc. prof. forest protection, *Laval*, 14–21, *prof. forest entom, 21–, curator entom, 32–*; provincial entomologist, *Dept. Agr, Que*, 16–29, *chief bur. plant protection*, 29–43, *director agr. information and research, 43–* Asst. engineer, Que. Develop. Co, 14. Del, Int. Cong. Entom, Ithaca, 28. Ed, 'Naturaliste Canadien,' 28–32. Trustee, Provancher Museum. Coronation medal, 37; Commandeur Order Merit Agr, 41; Order Merit Diocese Que, 41; Jury Science Competition Que. Fel. Asn. Econ. Entom; Entom. Soc; Can. Soc. Tech. Agr. (ed. board, 29–42); Can. Conservation Asn. (v. pres, 41–); Asn. can-française pour l'Avanc. des Sci. (v. pres, 34–36, pres, 36); Entom. Soc. Ont. (director, 28–34, pres, 38–40); Que. Soc. Protection Plants (pres, 30–32); Que. Pomol. Soc. (pres, 24–27); Soc. Linnaean Que. (pres, 32); Soc. Agr. Que. (pres, 28); hon. mem. Asn. Ing. forestiers Que. (sec'y, 30–39); hon. mem. Que. Zool. Soc. (pres, 39–); Soc. entom. de France. Agricultural entomology; white grubs; corn borer; orchard insects; game and soil conservation.

Mahin, Prof. E(dward) G, University of Notre Dame, Notre Dame, Ind. *Chemistry, Metallurgy.* Lafayette, Ind, Aug. 16, 76. B.S, Purdue, 01, M.S, 03; fellow, Hopkins, 07, Ph.D, 08. Asst. chem, Purdue, 01–03, instr, 03–06, assoc. prof, 08–14, *prof.* anal. chem, 14–25; anal. chem. and metal, *Notre Dame*, 25–32, *metal. and head dept, 32–* Consulting chem. engineer, Mich. Smelting and Ref. Co. Contrib. ed, 'Jour. Chem. Educ,' 25– Summers, metallographist, U. S. Naval Eng. Exp. Sta, 17–19. Min. and Metal. Eng; Soc. Metals (chairman cmt. constitution and by-laws, 38; mem. cmt. publications, 41–); Foundrymen's Asn; Eng. Educ; Ind. Acad; British Iron and Steel Inst; British Inst. Metals. London purple; conductivity and viscosity of organic solutions; aluminates; non-metallic inclusions in iron and steel; sulfur trioxide; failure of metals under stress; modified carburization of steel; endurance limit of malleable iron; physical nature of hardness.

Mahncke, Dr. Henry E(lmore), 6 Granite St, Gloucester, Mass. *Chemistry.* Puyallup, Wash, Jan. 9, 11. B.S, State Col. Wash, 31, M.S, 32; Ph.D, Brown, 36. With Calco Chem. Co, N. J, 36–37; *with Birdseye Elec. Co, 37–* Chem. Soc. Absorption spectra; photochemistry; organic pigments; silver plating.

Mahon, Dr. Eleanor C(onway), Iron River, Mich. *Anatomy.* Milwaukee, Wis, Oct. 20, 03. A.B, Wisconsin, 25; Ph.D, Chicago, 36. Asst. anat, Chicago, 36–37, research assoc, 37–38, instr, 38–40. Histology; blood formation; tissue culture.

Mahoney, Prof. Cha(rle)s H(arold), University of Maryland, College Park, Md.. *Horticulture.* Grand Junction, Colo, Jan. 6, 01. B.S, Arizona, 23; M.S, Agr. and Mech. Col. Texas, 25; Ph.D, Mich. State Col, 31. Asst. plant breeder, Exp. Sta, Agr. and Mech. Col. Texas, 23–25; assoc. prof. hort. and genetics, Texas Tech. Col, 25–27, prof. and head dept, 27–31; research assoc. hort, Exp. Sta, Mich. State Col, 31–38; prof. olericulture, *Maryland*, 38–41, *prof. hort. and head dept, 41–* Soc. Hort. Sci; Genetic Asn. Genetics; breeding disease-resistant vegetable crops; horticultural physiology; food processing.

Mahoney, Prof. J(erry) J(oseph), 1635 Pratt Blvd, Chicago, Ill. *Physics.* Seelyville, Ind, Dec. 10, 98. A.B, Ind. State Teachers Col, 22; A.M, California, 26, Ph.D, 28. Instr. physics, Col. of Asheville, 28–29; assoc. prof, Clemson Col, 29–32; *asst. prof. math, Loyola (Ill), 32–* Physical Soc. Ion mobilities.

Mahoney, Dr. John F(rancis), 414 Lawrence Ave, Westfield, N. J. *Organic chemistry.* Lynn, Mass, Oct. 31, 17. B.S, Mass. Inst. Tech, 38, Ph.D, 41. *Senior chemist, research and develop. div, Merck and Co, 41–* A.A; fel. Chem. Soc. Vitamins; carbohydrates.

Mahoney, Lieut. John J(oseph), Station Hospital, S.C.U. 1962, Fort Ord, Calif. *Biochemistry, Endocrinology.* Boone,

Iowa, Nov. 19, 16. A.B, Iowa, 37, M.S, 39, Ph.D, 41. Research assoc. zool, Iowa, 41; *lieut, Sanit. Corps, U. S. Army, 42–* Biological and biochemical investigations in endocrinology.

Mahony, Dr. Kenneth L(ees), University of Kansas City, Kansas City, Mo. *Botany, Bacteriology.* Mazomanie, Wis, 07. Ph.B, Wisconsin, 29, Ph.M, 31, Ph.D, 33. Asst. bot, Wisconsin, 29–34; *assoc. prof. biol. in charge bot. and bacter, Univ. Kansas City, 34–; lieut, Sanit. Corps, U. S. Army.* Bot. Soc; Soc. Bact. Cytology; morphology.

Mahood, Dr. S(amuel) A(rthur), 2824 Fillmore St, Denver, Colo. *Chemistry.* Platte Co, Nebr, May 18, 84. B.S, Nebraska, 10, A.M, 11; Ph.D, Cornell, 17. Asst. chem, Nebraska, 08–10; head dept. chem, high sch, Nebr, 10–11; instr, Lawrence Col, 11–12; asst, Cornell, 12–13, instr. org. chem, 13–17; senior research chemist, Forest Products Lab, U. S. Forest Service, and lecturer forest products, Wisconsin, 17–20; assoc. prof. chem, Tulane, 20–31; counselor in chem, 31–32; *research director, Intermountain Consumers' Service, Inc, 32–* Fellow, Yale, 30–31. Organic chemistry; cellulose; essential oils; halogen derivatives of phenolphthalein; chemistry of furfural; narcotics; reduction of nitro-compounds; consumers' goods.

Mahorner, Dr. Howard R(aymond), Tulane University School of Medicine, New Orleans, La. *Surgery.* Mobile, Ala, Feb. 11, 03. A.B, Spring Hill Col, 21; M.D, Pennsylvania, 25; M.S, Minnesota. Fellow surg, Mayo Clinic, 26–30, first asst, div. surg, 29–30; instr. surg, *sch. med, Tulane,* 31–37, *asst. prof. clin. surg, 37–* Col. Surg; Am. Med. Asn; South. Med. Asn; South. Surg. Asn; New Orleans Acad. Research and clinical surgery; vascular diseases, particularly thrombo-angiitis obliterans; phlebitis; varicose veins; clinical and experimental goiter; cancer of the small bowel; fractures; hemolytic icterus; osteomyelitis; appendicitis.

Mahr, H(ermann) W(illiam), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Cleveland, Ohio, May 22, 85. Fellow, Mass. Inst. Tech, 07–08, B.S. Chemist, Haffenreffer and Co, 08–11; chief eng. chemist, cent. testing lab, Board Estimate and Apportionment, New York, 11–16; night supt, Monsanto Chem. Works, Mo, 16–18; supervisor processes, production and indigo and dye intermediates, *E. I. du Pont de Nemours and Co,* 18–24, supt. lead tetraethyl manufacture, 24–25, asst. to production manager, dyestuffs div, 25–26, gen. supt. indigo, heavy chemicals, chlorine products, ethyl chloride and camphor manufacture, 26–43, *production manager, fine chemicals div, 43–* Chem. Soc. (sec'y-treas, S. Jersey sect, 22, chairman, 23, councilor, 24, sec'y, Del. sect, 27); Chem. Eng. Organic chemistry; dyestuffs and intermediates; testing of greases, asphalt and building brick; elimination of odor and dust from garbage reduction plants.

Maier, Cha(rle)s G(eorge), Battelle Memorial Institute, Columbus, Ohio. *Metallurgy.* Sharon, Pa, Dec. 19, 93. B.S, Mass. Inst. Tech, 14; M.S, Utah, 22. Asst. metal. engineer, Carborundum Co, 14–16; asst. consulting chemist, Phelps Dodge Corp, 16–21; assoc. prof. and asst. director research, Utah, 22–23; assoc. metallurgist, U. S. Bur. Mines, 23–25, metallurgist, 25–28, supervising engineer, Pacific Exp. Sta, 28–42; *in charge fundamental research, Battelle Mem. Inst, 42–* Min. and Metal. Eng; Chem. Soc; Electrochem. Soc. Copper smelter slags; vapor pressures of metallic chlorides; reduction equilibria of metallic oxides; zinc smelting; metallurgical uses of natural gas; applications of thermodynamics to metallurgy.

Maier, C(urtis) E(ugene), Continental Can Co, Inc, 4633 W. Grand Ave, Chicago, Ill. *Manufacturing.* Allentown, Pa, June 10, 06. Ch.E, Lehigh, 28. Chem. engineer, Hazel-Atlas Glass Co, 28–37; consultant, Wheeling Stamping Co, 30–41; manager mfg. div. and later *director container research div, research dept, Continental Can Co, Inc, 37–* A.A; Chem. Soc; Inst. Food Technol. Metal and paper containers and closures and materials for their manufacture.

Maier, Dr. Martin S(tanbery), Battelle Memorial Institute, Columbus, Ohio. *Physics.* Eagleport, Ohio, Oct. 8, 10. A.B, Muskingum Col, 30; M.S, Purdue, 31; Ph.D, Ohio State, 40. Prof. physics, Sterling Col, 33–40; *research physicist, Battelle Mem. Inst, 40–* Physical Soc. The cyclotron; applications of radioactive tracers.

Maier, Prof. N(orman) R(aymond) F(rederick), 1303 Brooklyn Ave, Ann Arbor, Mich. *Psychology.* Sebewaing, Mich, Nov. 27, 00. A.B, Michigan, 23, A.M, 25, Ph.D, 28; Berlin, 26–27. Prin, high sch, W. Va, 23–24; asst. prof. *psychol,* Long Island, 28–29; nat. research fellow, Chicago, 29–31; instr, *Michigan,* 31–35, asst. prof, 35–39, *assoc. prof, 39–* Am. Asn. Advancement Science award, 38; Henry Russel award, Michigan, 39. A.A; Psychol. Asn. (rep, Nat. Research Council, 41–); Soc. Study Social Issues; Midwest. Psychol. Asn. (councilor, 40–42); Mich. Acad. Animal behavior; cortical function in behavior; reasoning; learning; psychological aspects of literary criticism; experimental neuroses.

Mail, G(eorge) Allen, Reichel Laboratories, Kimberton, Pa. *Entomology.* Langholm, Scotland, Oct. 28, 94. B.Sc, Alberta, 25; M.S, Minnesota, 28. Asst, Dom. Entom. Branch, 24; univ. farm, Minnesota, 26–28; asst. prof. entom, Mont. State Col, 28–37; entomologist in charge, Dom. Livestock Insect Lab, 37–43; *mem. staff, Reichel Labs, 43–* A.A; Asn. Econ. Entom; Entom. Soc. Soil temperature in relation to subterranean insect survival; bionomics, ecology and control of mosquitoes; medical and veterinary entomology; tick paralysis; disease transmission by arthropods.

Malley, R(oyal) D(avis), Lamp Development Laboratory 39, General Electric Co, Cleveland, Ohio. *Electrical engineering.* Lynn, Mass, 80. B.S, Mass. Inst. Tech, 04. Assoc. physical chem, Mass. Inst. Tech, 04–14; *chief engineer,* Cooper Hewitt Elec. Co, later *Gen. Elec. Vapor Lamp Co, 16–, factory manager, 20–, v. pres, 29–* Elec. Eng; Physical Soc; Chem. Soc. Thermodynamics; electrical conduction in gas and vapors.

Mallliard, Joseph, 1815 Vallejo St, San Francisco, Calif. *Ornithology, Mammalogy.* Bordentown, N. J, Dec. 30, 57. California, 68, 79. Curator *birds and mammals, Calif. Acad. Sciences,* 19–27, *emer. curator, 27–* A.A; fel. Ornith. Union; hon. mem. Cooper Ornith. Club (pres, 05–07, 15); Soc. Mammal; Fisheries Soc; Biol. Soc. Wash; fel. Calif. Acad. Geographic distribution and habits of birds.

Main, Dr. Edna R(uth), Western Pennsylvania Hospital, Pittsburgh, Pa. *Biochemistry.* Blair, Nebr. B.S, Nebr. Wesleyan; M.S, Chicago, 24, Ph.D, 36; Schweppe fellow, St. Lukes Hosp, Chicago, Ill, 24–32. *Research assoc, inst. path, West. Pa. Hosp, 37–* AA.; Chem. Soc. Mode of action of sulfonamides; non-specific factors in resistance; carbonic anhydrase.

Main, Dr. Rolland J(ohn), Medical College of Virginia, Richmond, Va. *Physiology, Pharmacology.* Perth Amboy, N. J, Sept. 24, 05. B.S, Rutgers, 27; Ph.D, Oregon, 30. Asst, Rutgers, 26–27; teaching fellow, Oregon, 27–28, 29–30, demonstrator, 28–29; assoc. physiol. and pharmacol, *Med. Col. of Va,* 30–32, asst. prof, 32–36, assoc. prof, 36–39, *prof. physiol, 39–* A.A; Physiol. Soc; Soc. Study Int. Secretions; Soc. Exp. Biol; Va. Acad. Alveolar carbon dioxide; gonadotropin.

Mainland, Prof. Donald, Dalhousie University, Halifax, N. S, Can. *Anatomy.* Darwen, Eng, April 5, 02. M.B, Ch.B, Edinburgh, 25, D.Sc, 31. Demonstrator *anat,* Edinburgh, 25–27; asst. prof, Manitoba, 27–30; *prof, Dalhousie, 30–* A.A; Asn. Anat; Soc. Research Child Develop; fel. Royal Soc. Edinburgh; fel. Royal Soc. Can; N. S. Inst; Anat. Soc. Gt. Britain and Ireland; British Med. Asn. Mammalian embryology; histology of the mammalian reproductive system; hematology; biological and medical statistics; radiological anatomy.

Mainland, Dr. Gordon B(each), University of Texas, Austin, Texas. *Zoology, Genetics.* Parker, Ariz, June 9, 13. A.B, Stanford, 37; A.M, Hawaii, 39; Ph.D, Texas, 42. Asst. biol, Stanford, 36; teaching fellow *zool,* Hawaii, 37–39; tutor, *Texas,* 39–42, *instr, 42–* Summers, tech. asst, Texas, 40, 41, collector, 42– A.A; Genetics Soc; Genetic Asn; Texas Acad. Cytology; comparative genetics and speciation of Drosophila; taxonomy of Drosophilidae.

Mains, Prof. E(dwin) B(utterworth), University of Michigan, Ann Arbor, Mich. *⁶*Botany.* Coldwater, Mich, March 31, 90. A.B, Michigan, 13, fellow, 15, Ph.D, 16. Asst. botanist, Exp. Sta, Purdue, 16–17, assoc. botanist, 17–30, assoc. prof, univ, 25–30; *prof. bot, Michigan, 30–,* acting director *herbarium,* 30–31, *director, 31–* Agent cereal investigations, bur. plant indust, U. S. Dept. Agr, 18–30. Assoc. ed, 'Mycologia,' 33–37. Mem, Michigan-Carnegie Institution exped, British Honduras, 36. Trustee, Cranbrook Inst. Science. A.A; Mycol. Soc. (v. pres, 38, pres, 42); Biol. Photog. Asn; Soc. Nat; Bot. Soc; Phytopath. Soc; Torrey Bot. Club; Sullivant Moss Soc; Bot. Soc. Calif; Mich. Acad; Ind. Acad. Mycology; physiology and taxonomy of Uredinales; rust resistance.

Mair, Dr. Beveridge James, National Bureau of Standards, Washington, D. C. *Physical chemistry.* Colombo, Ceylon, March 27, 02. B.Sc, Alberta, 23; Ph.D, Harvard, 28. Lecturer chem, Bryn Mawr Col, 28–29; *research assoc, Bur. Stand-*

ards, 29– Chem. Soc; Wash. Acad. Thermochemistry of solutions; compressibility of metals and alloys; chemical constitution of petroleum; adsorption; distillation; extraction processes.

Mairs, Tho(ma)s I(salah), 336 Frazier St, State College, Pa. *Agriculture.* Browning, Mo, April 16, 71. B.Agr, Missouri, 96, B.S. (Agr), M.S, 00; Mich. State Col; Illinois, 96–97. Asst. agr, Missouri, 98–01; prof. in charge *correspondence courses agr, Pa. State Col,* 02–42, *emer. prof. in charge,* 42–, prof. agr. educ, 08–18. Supt. field experiments, Illinois, 06–07. Animal husbandry; agricultural education.

Mais, Prof. Walter H(enry), Bedford Ave. and Ave. H, Brooklyn, N. Y. *Physics.* New York, N. Y, Feb. 22, 07. B.S, Col. City of N. Y, 28; A.M, Columbia, 29, Ph.D, 34. Tutor, *Brooklyn Col, Col. City of N. Y,* 28–34, instr. *physics,* 34–37, *asst. prof,* 37– A.A; Physical Soc; N. Y. Acad. Scattering of molecular beams.

Maison, Dr. George L(ouis), 1512 St. Antoine St, Detroit, Mich. *Physiology.* Frankfort, Ky, Oct. 13, 11. A.B, Northwestern, 30, M.S, 34, M.D, 35. Intern, Lutheran Deaconess Hosp, Chicago, Ill, 34–35; instr. *physiol,* Wisconsin, 35–37; senior instr, sch. med, St. Louis, 37–40; *asst. prof, col. med, Wayne, 40–; lieut. and project officer aero-med. research lab, Wright Field, Ohio, U. S. Army,* 42– A.A; Physiol. Soc; Soc. Exp. Biol; Asn. Indust. Physicians and Surg; assoc. Am. Med. Asn. Relation of intercellular hydrogen ion concentration change in working muscle to pain production; training pattern of human muscle; influence of drugs on fatigue of muscle; relation of stomach to pernicious anemia.

Maizel, Dr. B(enjamin) L(eo), 5434 Ridgwood Court, Chicago, Ill. *Organic chemistry.* Riga, Latvia, Dec. 21, 07. B.S, Chicago, 28, Ph.D, 32. *Research chemist,* Kimberly Clark Co, Kimberly, Wis, 28–30; Pacini Labs, Chicago, Ill. 32–34; *in charge research and treas, Vico Products, 34–* Chem. Soc. Bleaching of sulfite pulp; mechanism of bromination of acetoacetic ester; activation of ergosterol by electrical discharges; commercial extraction of vitamin B complex from yeast.

Maizlish, Dr. I(srael) Paul, 320½ N. Kingsley Drive, Los Angeles, Calif. *Physics, Mathematics.* B.S, M.S, Mass. Inst. Tech, 19; Iowa, 19–20; Ph.D, Minnesota, 23. Asst. instr, Mass. Inst. Tech, 18–19; Iowa, 19–20; instr, Reed Col, 20–21; Minnesota, 21–23; Lehigh, 23–24; prof. physics and math. and head dept. physics, Centenary Col, 25–35; *director pub. relations, Tanner Motor Tours, 35–* Assoc. ed, 'Nat. Math. Magazine,' 34–36. A.A; Physical Soc; Math. Soc; Math. Asn; Astron. Soc; Franklin Inst; Asn. Physics Teachers; South. Intercol. Math. Asn. (pres, 33–35, sec'y, 34); La. Acad. (pres, 27–29, ed, 30–32). Scattering of x-rays; projective covariance; Lorentzian electron; Maxwell's distribution law; evaporation; conical pendulum.

Majewski, Dr. Frank M(ichael), Crestmont Farms, Philadelphia, Pa. *Chemistry.* New York, N. Y, Aug. 15, 05. A.B, Columbia, 27, B.S, 28, Ch.E, 29; Sc.D, Mass. Inst. Tech, 34. Develop. engineer, Atlantic Ref. Co, Phila, 29–31; supervisor semi-works develop, *Rohm and Haas Co,* 34–36, *in charge develop, Bristol, 36–* Consulting chemist. Chem. Soc; Chem. Eng. Lubricating oil treatment; iso-propyl alcohol; distillation; thermodynamics; plant management.

Major, Dr. C(oleman) J(oseph), 2252 15th St, Wyandotte, Mich. *Chemical engineering.* Detroit, Mich, Sept. 7, 15. B.S, Illinois, 37; Ph.D, Cornell, 41. *Chem. engineer, Sharples Chem, Inc, 41–* Chem. Eng. Extraction of acetic acid with ethyl ether in a perforated plate column.

Major, Dr. Ralph Hermon, University of Kansas, Kansas City, Kans. *Internal medicine.* Liberty, Mo, Aug. 24, 84. A.B, William Jewell Col, 02; Leipzig, Munich, Heidelberg and Chicago, 03–06; M.D, Hopkins, 10; Munich, 12–13 Asst. med, Hopkins, 11–13; instr. path, Stanford, 13–14; *prof, Kansas,* 14–18, *med, 21–* Lecturer, Scripps Metabolic Clinic, 35. Am. Med. Asn; Am. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn; Kansas City Acad. Med. Diabetes; hypertension; sulfonamides.

Major, Dr. Randolph T(homas), Coles Ave, Mountainside, Westfield, N. J. **7*Chemistry.* Columbus, Ohio, Dec. 23, 01. A.B, Nebraska, 22, M.S, 24; fellow, Princeton, 25–26, Ph.D, 27; Pasteur Inst, Paris, 26–27. Teacher, high sch, Nebr, 22–23; asst. chem, Nebraska, 23–24; Princeton, 24–25, instr. and research assoc, 27–30; *director* pure research, *Merck and Co,* 30–36, *research and develop, 36–* A.A; Chem. Soc. (chairman north Jersey sect, 40); Soc. Biol. Chem; Chemists' Club (v. pres, 34); N. Y. Acad. Medicinal chemistry; alkyl derivatives of hydroxylamines and oximes; sulfur ethers; derivatives of choline; organic arsenicals; vitamins.

Major, T(homas) G(rant), Department of Trade and Commerce, Ottawa, Ont, Can. *Plant pathology.* Cannington, Ont, May 8, 98. Khaki Univ. Can, England, 19; B.S.A, McGill, 21, M.Sc, 22. Asst. bot, McGill, 22–23; tobacco specialist, Cent Exp. Farm, 23–35; *chief agr. and fisheries exports div, commercial intel. service, Dept. Trade and Commerce, Can, 35–* Mem, Special Products Board, 41–; Food Requirements Cmt, 42–; Exec. Subcmt. Export Control, 43– Can. Phytopath. Soc. (sec'y-treas, 29–34); Can. Soc. Tech. Agr. (ed. board, 'Sci. Agr,' 25–40); Can. Polit. Sci. Asn; Royal Econ. Soc; Can. Soc. Agr. Econ. Export marketing; development of export trade in products of agricultural origin.

Makemson, Prof. Maud W(orcester), Vassar College, Poughkeepsie, N. Y. *Astronomy.* Center Harbor, N. H, Sept. 16, 91. A.B, California, 25, A.M, 27, Ph.D, 30. Asst. astron, California, 26–30, instr, 30–31; asst. prof. astron. and math, Rollins Col, 31–32; *assoc. prof. astron, Vassar Col, 32–, director observatory, 36–* Alexander F. Morrison fellow, Lick Observatory, California, 30; Guggenheim Mem. Foundation fellow, 41–42. Astron. Soc; fel. Am. Geog. Soc. Orbits of minor planets; comets; double stars; history of astronomy; Polynesian astronomy; Maya astronomy.

Makens, Prof. R(oyal) F, Michigan College of Mining and Technology, Houghton, Mich. *Chemistry.* Minneapolis, Minn, March 8, 01. B.S, Minnesota, 26; res. fellow, Mich. Col. Mines, 29–30, M.S, 30; Ph.D, Iowa, 38. Instr, schs, Minn, 26–28; instr. chem, *Mich. Col. Min. and Tech,* 30–36, asst. prof. *org. chem,* 38–42, *assoc. prof, 42–* Chem. Soc. Xanthates; kinetics of organic reactions; potato starch; dithiophosphates.

Maker, Dr. P(hilip) T(illotson), Duke University, Durham, N. C. *Mathematics.* Barre, Vt, Oct. 25, 07. A.B, Brown, 29, A.M, 32; Ph.D, Illinois, 38. Instr. *math,* Rutgers, 38–42; *asst. prof, Duke, 42–* Mathematical analysis.

Maki, T(enho) Ewald, R. 2, Laurel, Md. *Forestry, Plant physiology, Soils.* New York Mills, Minn, March 29, 07. B.S, Minnesota, 30, M.S, 31, Caleb Dorr fellow, 32–34. Technician, Inter-mountain Forest and Range Exp. Sta, *U. S. Forest Service,* 34, asst. forester and assoc. forester, 36–40, junior forester, South. Forest Exp. Sta, 34–36, forester and *senior forester, Allegheny Forest Exp. Sta, 40–* Soc. Foresters. Forest management; drought hardiness and nutrition of trees; wound healing in trees.

Makower, Dr. Benjamin, U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Warsaw, Poland, Oct. 15, 06. B.S, California, 28, Ph.D, 32. Teaching fellow chem, California, 28–31, instr, 31–35; chemist, Bur. Standards, 35–36; bur. chem. and soils, *U. S. Dept. Agr,* 36–40, *assoc. chemist, div. physicochem. and anal. research, west. regional research lab, bur. agr. chem. and eng, 40–* Chem. Soc. Kinetics and mechanism of reactions in aqueous solutions; low temperature gas adsorption on surfaces of soils and soil colloids; synthesis of alkyd resins; sorption of vapors.

Malamud, Prof. W(illia)m, Worcester State Hospital, Worcester, Mass. *Psychiatry.* Kishinev, Russia, May 5, 96. M.D. McGill, 21. Clin. director, Foxboro State Hosp, 26–29; assoc. prof. psychiat, Iowa, 29–31, prof, 31–39; *clin. director, Worcester State Hosp, 39–; clin. prof. psychiatry, med. sch, Tufts Col, 40–; sch. med, Boston, 41–* A.A; Psychiat. Asn. (program cmt, 29–); Psychol. Asn; Am. Med. Asn; Soc. Exp Biol; Neur. Asn. Abnormal psychology; psychoanalysis: neuropathology; mental hygiene; the blood cerebrospinal fluid barrier; special sense function and space perception; treatment of mental diseases; reality sense; psychosomatic medicine; geriatrics.

Malcolm, C(harles) W(esley), 6026 N. Winthrop Ave, Chicago, Ill. *Engineering.* Roseville, Ill, Oct. 13, 79. B.S, Illinois, 02, C.E, 06. Instr. civil eng, Illinois, 02–06, assoc, 06–07, asst. prof. struct. eng, 07–13; pres, Geyser Elec. Co, 13–27; *consulting engineer, 27–* Civil Eng; Eng. Educ. Graphic statics; structural engineering.

Malcolm, Prof. William Lindsay, Cornell University. Ithaca, N. Y. *Civil engineering.* Mitchell, Ont, Feb. 2, 84. M.A, Queen's (Can), 05, B.Sc, 07; M.C.E, Cornell, 34, Ph.D. 37. City engineer, Stratford, Ont, Can, 07, asst. city engineer. Guelph, 08–11; asst. prof. civil eng, Queen's (Can), 10–14,

prof. munic. eng, 14–38; *prof. civil eng. and director sch. civil eng, Cornell, 38–* Soc. Civil Eng; Soc. Prom. Eng. Ed; Water Works Asn; N. Y. State Sewage Works Asn. (exec. cmt, 41); Eng. Inst. Can. (councilor); Can. Inst. Sewage and Sanit. Digestion of sewage solids and garbage.

Male, Prof. Charles T(homas), Niskayuna, N. Y. *Mathematics.* Niskayuna, N. Y, March 8, 89. B.E, Union (N. Y), 13, M.C.E, 14. Sanit. inspector and fortifications engineer, Panama Canal, 14–16; construction engineer, Am. Locomotive Co, 19; from instr. to *assoc. prof. math, Union (N. Y),* 19–C.Eng. and Sanit. C, 17–19, capt. Math. Soc; Math. Asn. Water supply; real estate fundamentals.

Maleev, Prof. V(ladimir) L(eonidas), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Engineering.* Tiflis, Russia, Feb. 20, 79. M.E. Imp. Tech. Col. Moscow, 02, Dr.A.M, 12. Instr. mech. eng, Polytech. Inst, St. Petersburg, 02–05; assoc. prof, Tech. Inst. Tomsk, 06–13, prof, 13–17; prof. and pres, State Polytech. Inst, Omsk, 17–19; designer, consulting and chief engineer, West. Enterprise Engine Co, Los Angeles, 20–30; *research prof. mech. eng, Okla. Agr. and Mech. Col, 30–* Mech. Eng. (v. pres. mid-continent sect, 32); Eng. Educ; Soc. Automotive Eng; Soc. Russian Eng. of Los Angeles (pres, 24–27). Thermodynamics; two-stroke-cycle oil engines; heat entropy; entropy diagrams for internal combustion engines; testing steam turbines; high speed oil engines; internal combustion engines; refrigeration; machine design.

Malina, Dr. Frank J(oseph), 800 S. Hudson Ave, Pasadena 5, Calif. *Aeronautics.* Brenham, Texas, Oct. 2, 12. B.S, Agr. and Mech. Col. Texas, 34; M.S. (M.E), Calif. Inst. Tech, 35, M.S. (A.E), 36, Ph.D, 40. Asst. and teaching fellow, *Calif. Inst. Tech,* 36–39, res. asst, 39–40, research fellow, 40–42, *asst. prof, 42–; cooperative agent wind erosion, soil conservation service, U. S. Dept. Agr, 39–* Consultant, div. three, Nat. Defense Research Cmt; director, sec'y, treas. and eng. consultant, Aerojet Eng. Corp, 42– A.A; Inst. Aeronaut. Sci; Geophys. Union. Aerodynamics; rocket flight; jet propulsion; transport of soil by wind.

Malisoff, Dr. W(illiam) M(arias), 51 W. 86th St, New York, N. Y. *Physical and bio-chemistry.* Ekaterinoslav, Russia, March 14, 95. B.S, 15; Chem.E, Columbia, 18, A.M, 19, Alumni fellow; Ph.D, N. Y. Univ, 25. Instr, Columbia, 16–18; N. Y. Univ, 24–25; *consultant and private research lab, New York,* 19–24, 25–29, *38–; director org. research, Atlantic Ref. Co, 29–34; prof. philos. of science, Pennsylvania, 34–36; with New Sch. for Social Research, 36–38; prof. biochem, Polytech. Inst. Brooklyn, 38–* Macy Foundation fellow, Montefiore Hosp, 35–37. Ed, 'Philos. of Science,' 34– A.A; Chem. Soc; Am. Inst. Theory of solubility; methane; ethylene; mutual solubility; mercaptan chemistry; thermal decomposition; organic chlorine; short electric waves; sound waves; the study of analogy; quantum theory; foundations of science; prevention of arteriosclerosis; sterol chemistry; hormones.

Malkemus, Dr. J(ohn) David, 210 Brookside Ave, Allendale, N. J. *Organic chemistry.* Louisville, Ky, Sept. 6, 13. B.S, De Paul, 34, M.S, 36; Ph.D, Northwestern, 39. Fellow, Northwestern, 39–40; *research chemist, Colgate-Palmolive-Peet Co, 40–* Identification of some of the constituents of a polymer gasoline; sulfonation of isobutylene.

Mallah, Dr. G(aafar) S(aleh Helmi El), 314 Hilgard Hall, University of California, Berkeley, Calif. *Genetics.* Cairo, Egypt, Jan. 1, 11. Dipl, Col. Agr, Giza, 34; B.S, California, 37, fellow, 37–42, Ph.D, 42. Instr, *Col. Agr, Giza,* 34–36, *geneticist, 36–; California, 42–* Cytogenetics in Nicotiana tabacum.

Malleis, O(tto) O(scar), Transportation Bldg, Cincinnati, Ohio. *Chemistry.* Halstead, Kans, July 9, 89. A.B, Kansas, 12, M.S, 13. Asst, Kans. State Water Surv. Lab, 12; chemist, St. Louis, Iron Mt. and South. Ry, 13–16; The Koppers Co, Mellon Inst, 16–17, fellow, 17–21, asst. chief chemist, 21–25, chief chemist, 25–30; asst. to pres, The Koppers Research Corp, 30–32, chief chemist and senior fellow, Mellon Inst, 32–33; manager inspection div, *Appalachian Coals, Inc,* 34–37, *director inspection and tech. service, bituminous coal producers board, dist. no. 8, 37–* Chem. Soc. (sec'y, gas and fuel div, 24–33, chairman, 36); Gas Asn; Soc. Test. Mat; East. States Blast Furnace and Coke Oven Asn; Min. and Metal. Eng. Coal carbonization and combustion; coke; gas; by-products.

Maller, Dr. Julius B(ernard), 411 N. George Mason Drive, Arlington, Va. *Sociology, Educational psychology.* Vobolniki, Lithuania, April 15, 01. A.B, Washington, 25; A.M, Columbia, 26, Ph.D, 29; D.H.L, Jewish Theol. Sem, 27. Asst. psychol, Teachers Col, Columbia, 27–29; director educ. research, Union Am. Hebrew Congregations, 29–35; mem, State Regents Inquiry of Pub. Educ, N. Y, 36–38; *chief social research, Fed. Pub. Housing Authority, 40–* Mem, character educ. inquiry, Columbia, 27–29. A.A. Cooperation and competition; character education and measurement; social research.

Mallery, Dr. T(homas) D(wight), U. S. Department of Agriculture, Washington, D. C. *Botany.* Slippery Rock, Pa, Sept. 12, 01. B.S, Oregon State Col, 26; Washington (St. Louis) fellow, Mo. Bot. Garden, 26–27; Ph.D, Wisconsin, 32. Field asst, blister rust control, bur. plant indust, U. S. Dept. Agr, 22–28; asst. plant physiol, Wisconsin, 27–29; asst, desert lab, div. plant biol, Carnegie Institution, 29–40; *ecologist, div. rubber plant investigation, bur. plant indust, U. S. Dept. Agr, 40–* A.A; Ecol. Soc. Plant physiology; ecology; osmotic pressure of plants under natural conditions; long-period desert rainfall records; ecological survey of Sonoran Desert; hevea rubber plantation development surveys and nursery establishment in Central America and Brazil; guayule rubber culture in the southwest.

Mallinckrodt, E(dward), Jr, Mallinckrodt Chemical Works, St. Louis, Mo. *Chemistry.* St. Louis, Mo, Nov. 17, 78. A.B, Harvard, 00, A.M, 01. Chemist, *Mallinckrodt Chem. Works,* 01–05, v. pres, 05–28, *chairman board, 28–* Overseer, Harvard, 27–33; trustee, Washington (St. Louis), 28–42. A.A; Chem. Soc; Franklin Inst.

Mallmann, Prof. W(alter) L(eRoy), Michigan State College, East Lansing, Mich. *Bacteriology.* Chicago, Ill, Oct. 29, 95. B.S, Mich. State Col, 18, M.S, 24; Ph.D, Chicago, 31. Asst. prof. bacter, *Mich. State Col,* 18–30, assoc. prof, 30–40, *prof. sanit. bacter, 40–,* asst, *Exp. Sta,* 18–32, research assoc, 32–41, *research prof, 41–, bacteriologist, eng. exp. sta, 24–* A.A; Soc. Bact; Soc. Exp. Biol; Water Works Asn; Pub. Health Asn. (chairman cmt. standard method water, 40–); Fed. Sewage Asn; Inst. Food Technol; Refrig. Warehouse Asn. (research council, 41–); Mich. Pub. Health Asn; Mich. Acad. Water and sewage; disinfection; foods; refrigeration.

Malloch, Dr. J(ohn) G(ordon), National Research Council, Ottawa, Ont, Can. *Chemistry.* Edinburgh, Scotland, 00. B.Sc, Alberta, 24, M.Sc, 26; Ph.D, Minnesota, 28. Asst. and assoc. cmt. grain research, *Nat. Research Council Can,* 28–32, *asst. research biologist, 32–* Asn. Cereal Chem; Can. Soc. Tech. Agr. Cereal chemistry; milling and baking quality of wheat.

Malloch, Dr. Walter Scott, 756 Coventry Road, Berkeley, Calif. *Cytogenetics.* Nov. 12, 97. B.S, California, 19, M.S, 20, Ph.G, 25, Ph.D, 40. Asst. prof. hort, Agr. and Mech. Col. Texas, 20; assoc. plant breeding, Illinois, 21–22; asst. genetics, California, 22–23; independent research, 23–36; asst. *bot, California,* 36–42, *assoc, 43–* Breeding nematode-resistant plants; asexual propagation as an aid to the breeding of rootstocks; association of different alterations in self-fertile x-rayed derivatives of Neurospora tetrasperma; inheritance of induced mutations in Neurospora tetrasperma; effect of fast neutrons on chromosomes in meiosis and its bearing on pachytene pairing; species crosses in Nicotiana.

Mallon, Prof. Marguerite G(enevieve), University of California at Los Angeles, Los Angeles, Calif. *Nutrition.* Bloomington, Ill, Jan. 1, 93. B.S, Lewis Inst. (Ill), 15; M.S, Chicago, 16, Ph.D, 26. Instr, Miss. State Col. for Women, 16–17, prof. home econ. and head dept, 17–18; instr. nutrition, Purdue, 18–20, asst. prof, 20–34, assoc. prof, 34–36; *asst. prof. home econ, California at Los Angeles, 36–* Lecturer, St. Elizabeth Hosp, 26–36. A.A; Chem. Soc; Home Econ. Asn; Dietetic Asn. Fats; calcium metabolism.

Mallonee, Dr. James E(dgar), Jr, Y. M. C. A, Wilmington, Del. *Organic chemistry.* Frederick, Md, June 20, 15. B.S, Col. of William and Mary, 35; Ph.D, Virginia, 40. *Research chemist, Jackson lab, E. I. du Pont de Nemours and Co, Inc, 40–* Chem. Soc. Morphine alkaloids; neoprene intermediates.

Mallory, Prof. A(rthur) E(rnest), Colorado State College of Education, Greeley, Colo. *Mathematics.* Ottawa, Kans, April 5, 86. A.B, Kansas, 12, A.M, 23; Ph.D, George Peabody Col, 32. Sci. asst, bur. entom, U. S. Dept. Agr, 18; instr. *math,* Colo. State Teachers Col, Greeley, 19–27, *prof,* 27–35, *Colo. State Col. Educ, 35–* Math. Asn; Council Teachers Math. Plane geometry.

Mallory, Col. Francis, Virginia Military Institute, Lexington, Va. *Physics.* Norfolk, Va, Aug. 15, 68. C.E, Va. Mil. Inst, 89; Hopkins; Sc.D, Washington and Lee, 39. Teacher and commandant, Fishburne Mil. Sch, 89–92; asst. prof. math, Va. Mil. Inst, 92–94; Hopkins, 94–97; asst. *physics, Va. Mil. Inst,* 97–99, *prof,* 99– A.A; Eng. Educ; Asn. Physics Teachers; Va. Acad.

Mallory, Dr. G(eorge) Kenneth, 88 Laurel Road, Chestnut Hill, Mass. *Pathology.* Boston, Mass, Feb. 14, 00. A.B, Harvard, 22, M.D, 26. *Instr. path, Harvard Med. Sch, 28–;* asst. prof, *sch. med, Boston,* 32–41, *assoc. prof, 41–* Asst. pathologist, Boston City Hosp, 33– A.A; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Path; Int. Asn. Med. Mus. Lacerations of stomach; myocardial infarction; experimental pyelonephritis; tissue reactions to streptococcus hemolyticus infection.

Mallory, Dr. L(ester) D(eWitt), American Embassy, Mexico, D.F, Mex. *Foreign agriculture.* Houlton, Maine, April 21, 04. B.S.A, British Columbia, 27, M.S.A, 29; Ph.D, California, 35. Asst. hort, British Columbia, 27–29; agr. econ, California, 29–31; asst, agr. cmn, U. S. Dept. Agr, Marseilles, France, 31–33, assoc. agr. economist, 33–34; asst. agr. attaché, Paris, 34–38, *agr. attaché,* 38–39, *Mex, 39–* A.A; Soc. Plant Taxon; Farm Econ. Asn; Soc. Statist. de Paris. Production, domestic and foreign trade of agricultural products in Mexico.

Mallory, Dr. Tracy B(urr), Massachusetts General Hospital, Boston, Mass. *Pathology.* Boston, Mass, Oct. 26, 96. M.D, Harvard, 21. *Chief dept. path. and bacter, Mass. Gen. Hosp, 26–;* instr. *path, Harvard Med. Sch,* 26–37, *asst. prof,* 37– Prof, med. sch, Tufts Col, 28–29. Asst. ed, 'Am. Jour. Path,' 40– Soc. Exp. Path; Asn. Path. and Bact; Int. Asn. Med. Mus. (pres, 41). Local immunity; chronic typhoid cholecystitis; pathology of bronchial asthma; histology of hypersensitive reactions; leiomyomata of the stomach; pathology of parathyroid glands; benzol poisoning; carcinoma in situ of the stomach.

Mallory, Mrs. Tracy B(urr) (Edith Brandt), 8 Wiswall Circle, Wellesley, Mass. *Psychology.* Philadelphia, Pa, Nov. 28, 01. A.B, Wellesley Col, 23; A.M, Columbia, 24, Ph.D, 25. Asst. *psychol, Wellesley Col,* 27–28, instr, 28–33, asst. prof, 33–41, *assoc. prof, 41–* A.A; Psychol. Asn. Tests; attitudes; test scores of college women; personality; educational psychology.

Mallory, Prof. Virgil S(ampson), 351 Springdale Ave, East Orange, N. J. *Mathematics.* Union Hill, N. J, Aug. 14, 88. A.B, Columbia, 14, A.M, 19, Ph.D, 39. Asst. prin, high sch, N. J, 14–18, instr, 18–28; assoc. prof, *N. J. State Teachers Col, Montclair,* 28–34, *prof. math. and head dept, 34–* Instr, univ. exten, Columbia, 18–27, lecturer, 18–29. Council, Educational Surv. Cmt, high schs, N. J, 24. A.A; Math. Soc; Math. Asn; Nat. Council Teachers Math. (director, 36–42); Cent. Asn. Sci. and Math. Teachers; N. J. Math. Teachers (pres, 32); British Math. Asn. Clebsch-Aronhold symbolic notation; mathematics for average and slow high-school pupils; elementary and high school texts.

Mallory, Prof. W(alter) F(rank), 915 15th St, Boulder, Colo. *Mechanical engineering.* Streator, Ill, 84. B.S, Colorado, 14, M.E, 21. Asst, *Colorado,* 11–14, instr. *mech. eng,* 14–18, asst. prof, 18–22, assoc. prof, 22–30, *prof, 30–* Gen. Elec. Conf, 29. Mech Eng. Internal combustion engines; heat treatment of steel; metallography.

Malm, Carl J(ohan), Eastman Kodak Co, Kodak Park Works, Rochester, N. Y. *Chemistry.* Willmanstrand, Finland, April 14, 99. Ch.E, Swedish Univ. of Abo, Finland. *Chemist, Eastman Kodak Co, 23–* Chem. Soc. Cellulose chemistry; cellulose esters.

Malm, Prof. Lloyd E(phraim), University of Utah, Salt Lake City, Utah. *Chemistry.* Lindsborg, Kans, May 8, 06. B.S, Bethany Col. (Kans), 28; A.M, Kansas, 30, Ph.D, 32. Head dept. sci, Okmulgee Jr. Col, 32–37; *assoc. prof. chem,* Utah State Agr. Col, 37–42; *Utah, 42–* Chem. Soc. Colloid chemistry of various gums; colloid chemistry of non-aqueous dispersions; electrical conductivity of gel systems; lyotropic series of cations and anions.

Malmberg, Dr. C(onstantine) F(rithiof), Illinois State Normal University, Normal, Ill. *Psychology.* DeKalb, Ill, Aug. 13, 84. A.B, Bethany Col, 03; Columbia, 06–07; Yale, 07–08; fellow, Iowa, 11–13, Ph.D, 14. Instr. educ. and English, Gustavus Adolphus Col, 08–11, prof. educ. psychol, 13–15; head dept. psychol. and educ, Thiel, 15–18; educ. director mental cases, Fed. Board for Vocational Educ, 19–22; head dept. psychol. and director bur. research, North. Nor. and Indust. Sch, 22–26; Gettysburg Col, 26–28; *assoc. prof. psychol. and educ, Ill. State Nor. Univ, 28–* Mem. board representatives, Council Guidance and Personnel Asns, 38–41; mem. council cooperation in teacher educ, Am. Council Educ, 42– Asn. Teachers Educational Measurements (director, 40–); Sanit.C, U. S. A, 18. Psychol. Asn; Am. Research Asn; Teachers Col. Personnel Asn. (sec'y, pres, 37–41). Psychology of musical sounds; Lincolniana; educational tests.

Malone, Dr. Edward F(all), University of Cincinnati, Cincinnati, Ohio. *Anatomy.* Nashville, Tenn, April 4, 80. A.B, Vanderbilt, 03; M.D, Hopkins, 07; Berlin, 07–10. Asst. prof. anat, *Cincinnati,* 10–15, assoc. prof, 15–18, *prof.* histol, 18–25, *anat, 25–* A.A; Asn. Anat. (exec. cmt, 31–34). Distribution, histology and function of mammalian brain cells; nervous anatomy.

Malone, Dr. G(eorge) B(ascomb), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Villa Rica, Ga, Oct. 20, 05. B.S, Emory, 26; Ph.D, Hopkins, 29. *Exp. Sta, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Organic chemistry; synthetic resins.

Malone, Prof. J(ohn) M(ilton), Birmingham-Southern College, Birmingham, Ala. *Mathematics.* Wilcox Co, Ala, Dec. 1, 88. B.S, Birmingham-Southern Col, 09, A.M, 22; Chicago, 13, 34; Ph.D, Peabody Col, 41. Director demonstration sch, *Birmingham-Southern Col,* 19–32, *prof. math, 32–* Ala. Acad. Prognostic testing in mathematics; homogeneous grouping in freshman mathematics classes.

Maloney, Prof. A(rnold) H(amilton), Howard University School of Medicine, Washington, D. C. *Pharmacology.* San Fernando, Trinidad, B. W. I, July 4, 88. Naparima, 09; A.M, Columbia, 10; Syracuse, 15; M.D, Indiana, 29; Gen. Educ. Board fellow, Wisconsin, 29–31, scholar, 30–31, Ph.D, 31; LL.D, Wilberforce, 37. Prof. psychol, Wilberforce, 22–25; *prof. pharmacol. and head dept, sch. med, Howard, 31–* Lecturer, sch. teachers, Bermuda, 24. A.A; Soc. Exp. Biol; Soc. Pharmacol; N. Y. Acad. Effects of morphine on the respiratory center; picrotoxin as an antidote in acute poisoning from barbiturates; evipal in prolonged anesthesia; contradictory actions of caffeine, coramine and metrazol; tissue changes in chronic barbitalism; dehydration and convulsant action; newer diuretics.

Malott, Prof. Clyde A(rnett), 708 Woodlawn Ave, Bloomington, Ind. *Geology, Physiography.* Atlanta, Ind, Sept. 10, 87. A.B, Indiana, 13, A.M, 15, Ph.D, 19. Instr, high sch, Ind, 15; tutor *geol, Indiana,* 15–16, instr, 16–17, asst. prof, 18–20, assoc. prof, 20–23, *prof, 23–, acting chairman dept. geol. and geog, 42–* Waterman assoc, Indiana, 26, 28–29; acting prof, Williams Col, 29–30. Summers, field asst, Okla. Geol. Surv, 16; staff, Ind. Geol. Surv, 19–25; Ill. Geol. Surv, 30. A.A; Geol. Soc; Ind. Acad. (v. pres, 37). Geomorphology; physiography of Indiana; glacial geology; subterranean drainage and karst; stratigraphy of the Mississippian and Pennsylvanian in Indiana; glacial boundary and drainage; regional geologic structure.

Maltaner, Dr. Frank, 388 New Scotland Ave, Albany, N. Y. *Medicine.* Cincinnati, Ohio, Jan. 21, 88. A.B, Stanford, 12, A.M, 13; Ph.D, Columbia, 34. Bacteriologist, Dept. Health, Cincinnati, 13–16; assoc. prof. bacter. and pub. health, col. med, Tennessee, 16–17; *bacteriologist and research chemist, div. labs. State Dept. Health, N. Y, 17–* A.A; Chem. Soc; Soc. Exp. Biol; Asn. Immunol; N. Y. Lab. Asn. Bacteriology; immunity; biochemistry.

Maltby, Dr. Margaret E(liza), 501 W. 113th St, New York, N. Y. **1Physics, Physical chemistry.* Bristolville, Ohio, Dec. 10, 60. A.B, Oberlin Col, 82, A.M, 91; B.S, Mass. Inst. Tech, 91, fellow, 93–95; Ph.D, Göttingen, 95; Asn. Col. Alumnae fellow, 95–96; Clark, 99–00. Instr. physics, Wellesley Col, 89–93, in charge dept, 96; instr. physics and math. Lake Erie Col, 97–98; asst. to pres, Physik. Tech. Reichsanstalt, Charlottenburg, 98–99; instr. chem, Barnard Col, Columbia, 00–03, adj. prof. physics, 03–10, assoc. prof, 10–31; *retired.* A.A; fel. Physical Soc. Electricity; measurement of high electrolytic resistances; measurement of periods of rapid electrical oscillations; conductivity of very dilute solutions of certain salts; radioactivity; sound.

Malter, Dr. Louis, Radio Corporation of America, Lancaster, Pa. *Physics.* New York, N. Y, April 28, 07. B.S, Col. City of N. Y, 26; White fellow, Cornell, 30–31, A.M, 31, Gage fel-

low, 31–32, Ph.D, 36. Tutor, Col. City of N. Y, 26–28; physicist, Dictograph Products Co, 32; Heckscher asst, Cornell, 32–33; physicist, *Radio Corp. Amer*, 28–30, 31, 33–43, *supervisor develop. lab, Victor div*, 43– Radio Eng; fel. Physical Soc. Acoustics; secondary electron emission; electron multipliers; high frequency phenomena and devices.

Malti, Prof. Michel G(eorge), Cornell University, Ithaca, N. Y. *Electrical engineering, Physics.* Deir-ul-Kamar, Lebanon, Syria, Nov. 7, 95. A.B, American Univ. Beirut, 15; B.S, Ga. Tech, 22; M.E.E, Cornell, 24, Ph.D, 27. Instr. *elec. eng, Cornell*, 23–30, asst. prof, 30–41, assoc. prof, 41–43, *prof, 43–; mem. tech. staff, U. S. Navy, 42–* Consulting engineer, Elliott Co, Ridgway, Pa, 27–30, 34, 37– Elec. Eng. Solid dielectrics; magnetic circuit analysis; electric circuit analysis; Heaviside's operational analysis.

Maluf, Dr. N(oble) S(uydam) R(ustum), Georgetown University School of Medicine, Washington, D. C. *Physiology.* Cairo, Egypt, Nov. 29, 13. B.S, American Univ. Cairo, 33; M.S, Cornell, 34, Ph.D, 36; univ. fellow, Chicago, 34–35. Sterling fellow zool, Yale, 36–37, hon. fellow, 37–38, physiol, sch. med, 38–39; Johnston scholar zool, Hopkins, 39–40; *instr.* trop. med, *sch. med*, Tulane, 40–41; *physiol, Georgetown, 41–* Wm. T. Porter fellow, Am. Physiol. Soc, 39. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Soc. Trop. Med; Soc. Parasitol; Royal Entom. Soc. Egypt. Zoophysiology; insect head and thorax; muscular contraction and skeletal form of insects; gaseous exchange in aquatic invertebrates; physiology of arthropods; osmoregulation in earthworm and crayfish; renal function; history of physiology.

Malzberg, Dr. Benjamin, New York State Department of Mental Hygiene, Albany, N. Y. *Statistics.* New York, N. Y, Dec. 2, 93. B.S, Col. City of N. Y, 15; A.M, Columbia, 17, Ph.D, 34. Am. Field Service fellow sociol, Paris, 19–21; statistician, State Dept. Social Welfare, N. Y, 23–28; *asst. director, bur. statistics, State Dept. Mental Hygiene, N. Y, 28–* A.A; Statist. Asn; Inst. Math. Statist; Popul. Asn; Psychometric Soc; N. Y. Acad; assoc. fel. N. Y. Acad. Med. Statistics; vital statistics of the insane; mental hygiene; racial aspects of mental disease; inheritance of mental disease.

Man, Dr. Evelyn B(rower), 179 Linden St, New Haven, Conn. *Biochemistry.* Lawrence, L. I, N. Y, Oct. 7, 04. A.B, Wellesley Col, 25; Ph.D, Yale, 32. Instr. chem, Conn. Col, 25–27; technician, sch. med, *Yale*, 28–29, asst, 29–30, 32–33, Mary Pemberton Nourse Mem. fellow, 33–34, asst. *psychiat*, 34–35, instr, 35–41, *asst. prof, 41–* A.A; Soc. Biol. Chem; Chem. Soc. Metabolism of fat in relation to lipemia, diabetic acidosis, diabetes and malnutrition; blood iodine in relation to thyroid function.

Manace, G(ordon), 41 Nina Ave, Toronto, Ont, Can. *Pediatrics.* Toronto, Ont, Nov. 23, 02. M.B, Toronto, 26. Instr. pediat, sch. med, Georgetown and George Washington, 27–28; pediat. and infectious diseases, Michigan, 28–29, senior instr, 29–30, lecturer, post-grad. sch, 30; *chief dept. pediat, Mt. Sinai Hosp, Toronto, 31–; flight lieut, Royal Can. Air Force, 41–* Fel. Acad. Pediat. Lobar pneumonia in children; evaluation of Kahn reaction in children; treatment of erysipelas with antiserum.

Mance, Dr. G(rover) C(leveland), 302 Aiken Ave, Rock Hill, S. C. *Geography, Geology.* Pine Bush, N. Y, Feb. 5, 86. B.S, Colgate, 06, 11–12; fellow, Indiana, 13–15, A.M, 14, Ph.D, 15. Prof. chem, Rochester Col. (Ind), 06–08; teacher, high sch, Ill, 08–11; prin. Ky, 15–16; prof. geol, St. Lawrence, 16–22; geog. and geol, Winthrop Col, 22–34; *consulting geologist, 34–* Summer, Syracuse, 21. S. C. Acad. (founder, pres, 23–25, permanent sec'y, 25–). Economic geology; quarrying.

Manchester, Dean Raymond E, Kent State University, Kent, Ohio. *Mathematics.* Battle Creek, Mich, March 6, 84. A.B, Michigan, 09, A.M, 11. Teacher, high sch, 09–10; math, Wis. State Teachers Col, Oshkosh, 10–19; N. Y. Teachers Col, Potsdam, 19–20; *dean men and head dept. math, Kent State, 20–* Teaching of mathematics; brief course in algebra; the home and school idea in education.

Manchey, Dr. L. L(avan), 2431 Park Ave, Easton, Pa. *Chemistry.* Glen Rock, Pa, Feb. 25, 06. B.S, Maryland, 29, M.S, 31, Ph.D, 35. Asst. chem, Maryland, 29–36; *chief chemist, tech. develop. div, Vick Chem. Co, 36–* A.A; Chem. Soc; Pharmaceut. Asn. (abstractor, 'Pharmaceut. Abstracts'). Phytochemistry; synthetic anthelmintics; pharmaceutical chemistry.

Mancill, Prof. Julian D(ossy), University of Alabama, University, Ala. *Mathematics.* Dixie, Ala, Jan. 21, 04. A.B, Alabama, 26, A.M, 27; Ph.D, Chicago, 34. Instr. *math, Alabama*, 27–32, asst. prof, 32–39, *assoc. prof, 39–* Math. Soc; Math. Asn. Calculus of variations.

Mandelbaum, Dr. David G(oodman), University of Minnesota, Minneapolis, Minn. *Anthropology.* Chicago, Ill, Aug. 22, 11. A.B, Northwestern, 32; fellow, Lab. Anthrop, 33; Ph.D, Yale, 36. Nat. research fellow, 37; instr. and later *asst. prof. anthrop, Minnesota, 38–; mem. staff, Office Strategic Services.* Cross-disciplinary grant, Carnegie Corp, 41. Anthrop. Asn; Oriental Soc. Peoples of India; American Indians; the interplay between culture and personality.

Mandelbaum, Dr. M(alvin) R(obert), Peekskill Hollow Road, Putnam Valley, N. Y. *Chemistry.* Brooklyn, N. Y, Jan. 26, 00. A.B, Columbia, 18, Ch.E, 21, Ph.D, 23, LL.B, 42. Chemist, Gray Indust. Labs, 23–26; Gray Processes Corp, 23–25, chief chemist, 25–33, v. pres, 33–40; consultant, 40–42; *chief process sect, ref. div, Petrol. Admin. for War, 42–* A.A; Chem. Soc; Min. and Metal. Eng; fel. Inst. Petrol; Chemists' Club. Petroleum refining.

Mandelbrojt, Prof. S(olem), Rice Institute, Houston, Texas. *Mathematics.* Warsaw, Poland, Jan. 20, 99. Sc.D, Paris, 23. Rockefeller Foundation fellow, 24–26; lecturer *math*, Rice Inst, 26–27; Lille, 28–29; *prof*, Univ. Clermont-Ferrand, 29–38; *Col. de France, 38–; visiting prof, Rice Inst, 40–* Mem. Conseil Superieur de la Recherche Scientifique, Paris, 39– Nat. Acad. des Sciences, Paris, prizes, 28, 33, 38. Math. Soc; Soc. math. de France. Analytic functions; functions of a real variable; Taylor and Dirichlet series; quasi-analytic functions.

Mandels, Dr. Gabriel R(aphael), Cornell University, Ithaca, N. Y. *Plant physiology.* Schenectady, N. Y, March 18, 15. B.S, Cornell, 37, Ph.D, 41. Asst. bot, Cornell, 37–41, instr, 41–42; *Chem. Warfare Service, U. S. Army, 42–, lieut.* Photosynthesis and mineral nutrition in Chlorella.

Manderfield, Prof. N(icholas) H(ubert), Michigan College of Mining and Technology, Houghton, Mich. *Metallurgy.* Hubbell, Mich, March 25, 00. B.S, Mich. Col. Mines, 21, Met.E, 25. Research engineer, Anaconda Copper Co, 23–24; assoc. prof. *metal. and ore dressing, Mich. Col. Min. and Tech*, 25–36, *prof. and head dept, 36–* Min. and Metal. Eng; Eng. Educ; Lake States Min. Inst. Iron ore; low grade of Michigan iron districts; native copper-ore dressing.

Mandy, Dr. Joseph T, British Columbia Department of Mines, 305 Federal Bldg, Vancouver, B. C, Can. *Economic geology.* South Africa, Aug. 5, 83. Ph.D, Freiburg, 06. Examining engineer, Nipissing Mining Co, Ltd, 07–08, supt. sampling and valuation, 08–10, ore and bullion valuation, 10–12, metal. and research chemist, 12–14; field explor. engineer, U. S. Smelting, Ref. and Mining Exploration Co, 19–21; consulting mining engineer, 22–28; field mining engineer, Granby Consol. Mining and Smelting Co, 29; *dist. res. mining engineer, B. C. Dept. Mines, 29–* Consulting engineer, Cobalt Labs, 12–14. Can. Army, 15–19. Director, Museum North. British Columbia, 34– Can. Inst. Min. and Metal. (councilor, 32); Asn. Professional Eng. B. C. (chairman advisory board, north. B. C, 34–39, mem. advisory board, 39–). Mineral deposits; economic geology of central and northern British Columbia.

Manery, Dr. Jeanne F(orest), University of Toronto, Toronto, Ont, Can. *Physiology, Biochemistry.* Chesley, Ont, Can, July 6, 08. B.A, Toronto, 32, M.A, 33, fellow, 32–35, Ph.D, 35. Asst. physiol, sch. med. and dentistry, Rochester, 35–36, instr, 37–39; nat. research fellow biol. sciences, dept. biol. chem, Harvard Med. Sch, 36–37; *demonstrator biochem, Toronto, 39–* A.A; Physiol. Soc. Chemical embryology; electrolytes and water; shock; electrolytes in embryonic growth, in adult tissues and in clinical conditions.

Maneval, Prof. W(illis) E(dgar), University of Missouri, Columbia, Mo. *Botany.* Liberty, Pa, Feb. 5, 77. Ph.B, Bucknell, 02, M.S, 03; fellow, Hopkins, 11–12, Ph.D, 12. Acting prof. biol, Roanoke Col, 07–10; Randolph-Macon Col, 12–14; instr. *bot*, Virginia, 14–15; *Missouri*, 15–17, asst. prof, 17–40, *assoc. prof, 40–* Staff, biol. lab, Cold Spring Harbor, 12–14; collaborator, bur. plant indust, U. S. Dept. Agr. A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc; Mo. Acad. Distribution of parasitic fungi; spores of fungi, especially rusts; staining of bacteria and fungi.

Maney, Prof. G(eorge) A(lfred), 2958 Simpson, Evanston, Ill. *Engineering.* Minneapolis, Minn, Dec. 9, 88. C.E, Minnesota, 11; M.S, Illinois, 14. From instr. to assoc. prof, Minnesota, 15–27; *prof. struct. eng, Northwestern, 27–,* admin. chairman, *sch. eng,* 37–38, *acting dean, 38–, admin. chairman, sch. eng, 38–* Wason award, Am. Concrete Inst, 36. Civil Eng; Concrete Inst; West. Soc. Eng. Mechanics; slope deflection method for structural analysis of rigid frames; wind stresses; deflection of reinforced concrete members; secondary bridge stresses; statistically indeterminate stresses.

Maney, Thomas J(oseph), Iowa State College, Ames, Iowa. *Horticulture.* Geneva, N. Y, April 24, 88. B.S, Iowa State Col, 12; Chicago, 25. Asst, *pomol. sect, Exp. Sta, Iowa State Col,* 12–15, asst. chief, 15–17, *chief, 17–* Soc. Hort. Sci; Pomol. Soc. Pomology; potato culture; effect of chemicals on potato tubers; grape pruning and distribution; orchard stocks; orchard soil culture; cold storage of apples; strawberry culture and variety.

Mangan, J(ohn) W(illiam), U. S. Geological Survey, 490 Education Bldg, Harrisburg, Pa. *Hydraulic engineering.* Middletown, N. Y, April 17, 97. B.S, Michigan, 21. Engineer, Interstate Commerce Cmn, 21–22; *dist. engineer, water resources investigations, U. S. Geol. Surv, 22–* Civil Eng; Geophys. Union. Water resources and their utilization.

Mangelsdorf, Dr. A(lbert) J(ohn), Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Genetics.* Atchison, Kans, April 29, 96. B.S, Kans. State Col, 16; M.S, Harvard, 25, Sc.D, 27. Asst, Harvard, 22–26; *geneticist, Exp. Sta, Hawaiian Sugar Planters' Asn, 26–* A.A. Crop improvement; sugar-cane agriculture.

Mangelsdorf, Prof. P(aul) C(hristoph), Harvard University, Cambridge, Mass. **Economic botany, Genetics.* Atchison, Kans, July 20, 99. B.S, Kans. State Col, 21; M.S, Harvard, 23, Sc.D, 25. Asst. geneticist, Conn. Exp. Sta, 21–27; agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 27–36, asst. director, 36–40; *prof. bot. and asst. director bot. museum, Harvard, 40–* Mem, Rockefeller Agr. Cmn, Mex, 41. Mem, Nat. Research Council, 43– A.A; Soc. Nat; Genetics Soc; Genetic Asn; Soc. Agron; Bot. Soc; Am. Acad. Genetics and cytology of maize and its relatives.

Manger, Dr. G(eorge) Edward, P. O. Drawer 2100, Houston, Texas. *Geology.* Baltimore, Md, Aug. 17, 02. A.B, Hopkins, 23, Ph.D, 29. Teacher, pub. schs, Md, 23–25; paleontologist and sedimentary petrographer, Creole Petrol. Corp. Venezuela, 30–31; J. A. Manger and Co, 32–34; subsurface geologist, Venezuela Gulf Oil Co, Maracaibo, 35; asst. geologist, Mene Grande Oil Co, 35–43; *geologist, Gulf Oil Corp, 43–* Summers, asst, U. S. Geol. Surv, 26, 27. Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Econ. Paleont. Orogeny in eastern Venezuela; mineral analysis; sands; geology of San Quintin Bay; micro paleontology; sedimentary petrology; stratigraphy; core analysis.

Manges, Dr. Morris, 1185 Park Ave, New York, N. Y. *Medicine.* New York, N. Y, May 10, 65. A.B, Col. City of N. Y, 84, A.M, 87; M.D, Columbia, 87; Berlin and Vienna, 88–89. Prof. clin. med, N. Y. Polyclinic Med. Sch, 98–08; Univ. and Bellevue Hosp. Med. Col, 11–22; visiting physician, *Mt. Sinai Hosp,* 98–22, *consulting physician, 22–* A.A; Am. Med. Asn; Clin. and Climat. Asn; Gastro-Enterol. Asn; Harvey Soc; fel. N. Y. Acad. Med; N. Y. Path. Soc. Clinical medicine.

Manis, Dr. H(ubert) C(lyde), University of Idaho, Moscow, Idaho. *Economic entomology.* Bozeman, Mont, July 18, 09. B.S, Mont. State Col, 33; M.S, Kans. State Col, 36; Ph.D, Iowa State Col, 41. Lab. asst. entom, Mont. State Col, 30–33; Kans. State Col, 34–37; asst, Iowa State Col, 37–40; *asst. entomologist, Idaho, 40–* Asn. Econ. Entom; Entom. Soc. Amer; Kans. Entom. Soc. Toxicology and economic entomology; control of truck crop and garden insects.

Manley, Dr. John H(enry), University of Illinois, Urbana, Ill. *Physics.* Harvard, Ill, July 21, 07. B.S, Illinois, 29; Ph.D, Michigan, 34. With Gen. Elec. Co, 30–31; instr. *physics,* Michigan, 31–33; lecturer, Columbia, 34–37; assoc, *Illinois,* 37–41, *asst. prof, 41–* Physical Soc. Electronics; molecular rays; nuclear physics.

Manley, Dr. Ralph Hogan, General Mills, Inc, Minneapolis, Minn. *Organic chemistry.* Harvard, Ill, Nov. 16, 03. B.S, Beloit Col, 26; M.S, Illinois, 28; Ph.D, Iowa, 35. Instr. chem, Illinois, 26–28; head dept, Burlington Junior Col, Iowa, 28–35; instr, Armour Inst. Tech, 36–37, asst. prof. org. chem, 37, indust. research assoc. prof, 38, asst. director research foundation, 38–41; chief oil and protein div, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–43; *head oil and protein research, Gen. Mills, Inc, 43–* Chem. Soc. (treas, Chicago sect, 37–40; chairman, Peoria sect, 43–). Vegetable oils; vegetable proteins; synthetic resins.

Manly, Dr. Richard S(amuel), 428 Springfield Pike, Wyoming, Ohio. *Biochemistry.* Malta, Ohio, May 31, 11. B.S, Antioch Col, 33; A.M, Oberlin Col, 34; fellow, Rochester, 34–35, 35–38, Ph.D, 38. Instr. biochem. and dental research, Rochester, 38–39, Wisconsin Alumni research fellow, 39; *research chemist, Procter and Gamble Co, 39–* Morris L. Chaim prize, 37. Chem. Soc; Int. Asn. Dental Research. Vitamin purification; nutrition; physical measurements on teeth; chemistry of caries; abrasion of teeth; dentifrices.

Mann, Dr. A(lbert) R(ussell), 49 W. 49th St, New York, N. Y. *Agriculture, Education.* Hawkins, Pa, Dec. 26, 80. B.S.A, Cornell, 04; A.M, Chicago, 16; hon. Sc.D, Syracuse, 28; D.Agr, R. I. State Col, 29, Sofia, 39; LL.D, California, 30, Wisconsin, 34. Sec'y on preparation 'Bailey's Cyclopedia Am. Agr,' 05–08; asst. prof. dairy indust, Cornell, 08; sec'y, registrar and ed, N. Y. State Col. Agr, Cornell, 09–15, prof. rural social organization, 15–16, acting dean, 16–17, dean, 17–31, N. Y. Exp. Sta, Geneva, 23–31, dean, N. Y. State Col. Home Econ, 25–31, director, Exp. Sta, Ithaca, 28–31, provost, univ, 31–37; *v. pres. and director, Gen. Educ. Board, 37–* European director agr. educ, Int. Educ. Board, 24–26; Nat. Land Use Planning Cmt, 32–34; v. pres, Agr. Missions Foundation, 30–37; State Food Cmn, N. Y, 17–18, chairman, State Planning Council, 34–36, State Flood Control Cmn, 36–; chairman cmt. farm and village housing, President's Conf. on Home Bldg. and Home Ownership, 31–32; mem, President's Cmn. Farm Tenancy, 36–37. Trustee, Hampton Inst, 32–37; Colgate-Rochester Divinity Sch, 33–37; Farm Foundation, 33–43; Cornell, 42– Cross of Commander II, Order White Rose, Finland, 38; agr. decoration 1st class, Belgium, 27; officer, Order White Lion Czechoslovakia, 31. A.A. (v. pres, O, 33); hon. mem. Asn. Land-Grant Cols. and Univs. (exec. cmt, 18–24, 32–37, chairman, 35–37); Country Life Asn. (director, 15–22, 30–33, v. pres, 18–19, pres, 32). Beginnings in agriculture; agricultural education.

Mann, Prof. Cecil W(illiam), Louisiana State University, Baton Rouge, La. *Psychology.* Sydney, Australia, Oct. 13, 95. B.A, Sydney, 28, M.A, 30; Carnegie res. fellow, Fiji Islands, 35; D.Ed, Stanford, 37. *Assoc. prof. psychol,* Teachers' Col. Sydney, 28–38; Claremont Cols, 39; Denver, 39–42; *Louisiana, 42–* Summer, prof, California at Los Angeles, 40, 42. Chairman cmn. investigation, Fiji Islands, 34. Psychol. Asn. Psychology of learning; race psychology; experimental psychology.

Mann, Prof. Charles A(ugust), University of Minnesota, Minneapolis, Minn. *Chemical engineering.* Milwaukee, Wis, June 5, 86. B.S, Wisconsin, 09, M.S, 11, Ph.D, 15. Instr. chem. eng, Wisconsin, 11–16; *prof,* Iowa State Col, 16–19; *chem. eng. and chief div, Minnesota, 19–* Consulting chem. engineer. A.A; Chem. Eng; Chem. Soc. (chairman, Ames sect, 18, Minn. sect, 22, 39); Electrochem. Soc; Eng. Educ; Inst. Food Technol; Asn. Sci. Workers; Wis. Acad; Minn. Acad. Electrolytic lead from sulfate residues; plating iron with tungsten; electrochemical oxidation of toluene; mechanism of lithopone formation; development of Dakota lignite; electrolysis of perchlorates in non-aqueous solvents; organic inhibitors of corrosion; sulfite turpentine; electrolytic reduction of nitroparacymene; pressure drop and liquid holdup in a packed tower; aerodynamics of a trickling filter; experimental drying of foodstuffs.

Mann, C(harles) W(illiam), 209 Federal Bldg, Pomona, Calif. *Pomology.* Pittsburgh, Pa, Jan. 4, 79. Pittsburgh, 02; B.S.A, Cornell, 06, 10. Soil investigations, bur. soils, *U. S. Dept. Agr,* 06–10, fruit handling and storage investigations, bur. plant indust, 10–17, bur. markets, 17–22, pomologist in charge fruit transportation div, 19–22, *senior pomologist, div. fruit and veg. crops and diseases, bur. plant indust, 22–* A.A; Pomol. Soc; Soc. Refrig. Eng; Soc. Hort. Sci. Fruit handling, transportation and storage; precooling and ocean transportation of citrus fruits; treatments to control organisms of decay of fruits and vegetables; process and application of refrigeration.

Mann, Prof. Clair V(ictor), 210 E. Eighth St, Rolla, Mo. *Engineering.* Frankfort, Kans, June 3, 84. B.S, Colorado, 14. C.E, 21; Ph.D, Iowa, 29. Various eng. positions, Colo,

Calif. and Nev, 03–08; Boulder, Colo, 08–14; head dept science and math, high sch, Mo, 14–15; mine eng, Colo, 15–18, irrig. and hydro-elec. eng, 18–20; asst. prof. *eng. drawing and head dept, Mo. Sch. Mines,* 20–22, assoc. prof, 22–23, *prof, 23–* Civil Eng; Eng. Educ. (councilor, 25–28). Engineering education; objective type tests in engineering education; design of mechanical scoring machines for objective tests; determination of aptitudes for engineering involving construction of many original psychological tests.

Mann, David W(hitcher), Lincoln, Mass. *Mechanical engineering.* Medford, Mass, Sept. 17, 87. Physical lab, Dartmouth Col, 10–14; astron. lab, *Harvard,* 14–19, *Jefferson physical lab, 19–* Physical Soc; Optical Soc; Acoustical Soc; Geophys. Union; Soc. Photogrammetry; Newcomen Soc. Eng. Research and precision measuring apparatus; precision screws; grating ruling engines.

Mann, Dr. Frank Charles, Mayo Foundation, Rochester, Minn. ***Physiology, Surgery.* Decatur, Ind, 87. A.B, Indiana, 11, M.D, 13, A.M, 14; Sc.D, Georgetown Col, 37, LL.D, 38. Teaching fellow physiol, Indiana, 09–12, instr. surg, 13–14; *director div. exp. surg. and path, Mayo Clinic,* 14–17, *21–*; assoc. prof, *Mayo Foundation, Minnesota,* 17–21, *prof, 21–* Harvey lecturer, 27; McArthur lecturer, 28; Hogden lecturer, 33; McGuire lecturer, Virginia, 34; Judd lecturer, 36; Mellon lecturer, 36. Gerhard medal, Path. Soc. Phila, 32. A.A; Physiol. Soc. (sec'y, 32–35, pres, 36, 37); Soc. Exp. Path; Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Assn; Am. Physicians; Gastro-Enterol. Asn; West. Surg. Asn; Minn. Path. Soc; Argentine Soc. Biol. Experimental surgery, physiology and pathology; surgical shock; peptic ulcer; physiology of the spleen and liver; physiology and pathology of the gall bladder; formation of bile pigment; pathology of the liver; flow of blood; physiology of digestion; intestinal activity.

Mann, Dr. H(arvey) B(lount), American Potash Institute, Inc, Mortgage Guarantee Bldg, Atlanta, Ga. *Agronomy.* Lake Landing, N. C, Aug. 29, 98. B.S. (Agr), N. C. State Col, 20, M.S, 25; Ph.D, Cornell, 29. Asst. soil agronomist, Exp. Sta, N. C. State Col, 20–27, soil agronomist, 27–36; asst. manager *south. territory, Am. Potash Inst,* 36, *manager, 36–* A.A; Soc. Agron; Soil Sci. Soc; Nat. Fertilizer Asn. (plant-food research cmt); N. C. Acad. Importance of rare elements in coastal plain soils; concentrated fertilizer.

Mann, Dr. Hubert, 1150 Fifth Ave, New York, N. Y. *Cardiography.* Albany, N. Y, Oct. 15, 91. A.B, Union (N. Y), 13; M.D, Hopkins, 17. Asst. med, *Mt. Sinai Hosp, New York,* 20–29, *assoc. cardiographer, 30–* Consulting cardiologist, U. S. Veterans' Hosp. No. 81, 22–24; cardiologist, Brooklyn Hosp, 25; assoc. cardiologist, Beth Israel Hosp, 42–43; attending cardiologist, Beth David Hosp, 43. Cardiovascular board, Camp Grant, 19. A.A; Physical Soc; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med. The heart; circulation reactions to exercise; x-ray tubes; diseases and pharmacology of the circulation; improvements in electrocardiographs; instruments for cardiovascular examinations.

Mann, Dr. Louis K(imball), University of California College of Agriculture, Davis, Calif. *Botany.* Boise, Idaho, April 21, 15. B.S, Idaho, 37; Ph.D, Chicago, 40. Agr. agent, hort. field sta, U. S. Dept. Agr, 40; visiting lecturer bot, Ohio (Athens), 40–41; *instr. truck crops and junior olericulturist, col. agr, California, 42–* Plant morphology and physiology; photoperiodism; morphology of garlic.

Mann, Dr. Mary Lee, 142–41 Franklin Ave, Flushing, N. Y. *Plant physiology.* Cazenovia, N. Y, Aug. 22, 82. B.S, Barnard Col, Columbia, 14, A.M, Columbia, 17, Ph.D, 32. *Teacher biol, high schs, New York, 14–* A.A; Jamestown Garden Club (sec'y, 31–34, pres, 34–37). Relation of certain elements to the growth of fungi.

Mann, P(aul) B(lakeslee), 441 W. 21st St, New York, N. Y. *Biology.* Potsdam, N. Y, 76. A.B, Cornell, 02, A.M, 03. Head dept. science, high sch, N. Y, 99–01; asst. zool, Cornell, 02–03; teacher *biol,* Hill Sch, Pa, 03–04; instr, Morris High Sch. New York, 04–14; head dept, Evander Childs High Sch, 14–41; chairman, Standing Cmt. on Science and Science Council, New York, 36–38; supervisor science, Senior High Schs, 37; assoc. educ, Am. Museum Nat. Hist, 28–38. Reader bot, Col. Ent. Exam. Board, 11, zool, 12–22, biol, 17, examiner zool, 14–16, 18–35; naturalist, Sea Pines Camp, 20–37; lecturer, Am. Museum Nat. Hist; mem. faculty, Col. City of New York, 27–34. Summers, asst. prof, Cornell, 08–10. Mem. cmts. hygiene, visual educ. and science, Board Educ, New York; motion picture cmt, Nat. Educ. Asn. Del, Int. Cong. Educ. Motion Pictures, Rome, 34; chairman steering cmt. Nat. Wartime Conf. A.A; Am. Inst. (manager, 32, 36); Soc. Study Educ; Asn. Biol. Teachers (v. pres); N. Y. Acad; N. Y. Biol. Teachers Asn. (pres, 12, 30–32). Spiracular cleft in ganoid fishes; respiration in Rana; mental hygiene; clouds and the weather; American weeds; visual education; vitamins; modern science. (*Died Oct. 1943*)

Mann, Dr. William M, National Zoological Park, Washington, D. C. ***Entomology.* Helena, Mont, July 1, 86. A.B, Stanford, 11; Sc.D, Harvard, 15. Sheldon traveling fellow, 15–16; specialist in ants, bur. entom. and plant quarantine, U. S. Dept. Agr, 17–25; *director, Nat. Zool. Park, 25–* Hon. curator Hymenoptera, U. S. Nat. Museum. Entomologist, Stanford Univ. exped, Brazil, 11; expeds, Cuba and Haiti, 12; Mex, 13; Turkey in Asia, 14; South Sea Islands, 15–16; Smithsonian Institution-Chrysler exped, Africa, 26; Europe, 29; Cent. Amer, 30; British Guiana, 31; director, Nat. Geog. Soc-Smithsonian Inst. exped, E. Indies, 37; mem, Firestone Smithsonian exped, Liberia, 40. Soc. Nat; Entom. Soc; Soc. Mammal; Soc. Parasitol; Soc. Ichthyol. and Herp; Ornith. Union; Pacific Coast Entom. Soc; Entom. Soc. Wash; Biol. Soc. Wash; Cambridge Entom. Club (sec'y, 11–14); hon. fel. N. Y. Zool. Soc. Classification, behavior and geographical distribution of ants; tropical insect life; ant guests; zoological parks and gardens; live animals in captivity.

Mannes, Leopold D(amrosch), 157 E. 74th St, New York, N. Y. *Photography.* New York, N. Y, Dec. 26, 99. A.B, Harvard, 20. Teacher, inst. musical art, Juilliard Sch, N. Y, 27–31; research chemist, Eastman Kodak Co, 30–39; *assoc. director, David Mannes Music Sch, 39–* David Mannes Music Sch, 24–31; consultant, Eastman Kodak Co. Edward Longstreth medal, Franklin Inst, 40. Physical Soc; assoc. Photog. Soc; Royal Photog. Soc. Photographic chemistry; photographic research; color photography.

Mannhardt, L(eonhard) Alfred, 1206 Sussex Road, West Englewood, N. J. *Zoology.* Crete, Nebr, May 28, 93. Ph.B, Yale, 15; M.S, N. Y. Univ, 21. Asst. zool, Yale, 15–16; instr, N. Y. Univ, 17–19, asst. prof. in charge biol, Wash. Sq. Col, 19–25, assoc. prof. and chairman dept, 25–27; exec. dept, Encyclop. Britannica, 29–30; *director nat. science dept, Clay Adams Co, 30–* Asst. director col. med, col. dentistry and evening div, N. Y. Univ, 22–24. Nicaragua exped, Am. Museum Nat. Hist, 16; N. Y. Univ. paleont. exped, S. Dak, 23; Nebr-Wyo, 27–28. A.A; Explorers Club; fel. N. Y. Acad. Stratigraphy in South Dakota; vertebrate paleontology; anatomical models.

Manninen, Dr. T(homas) H(erman), 41 Magee Ave, Stamford, Conn. *Chemistry.* Finland, May 13, 06. B.S, Antioch Col, 28; Ph.D, Columbia, 38. Chemist, Solvay Process Co, 29–33; *research chemist, U. S. Indust. Chem, Inc, 36–* Chem. Soc. Phytochemistry; hydrogen chloride; chlorine; glycol.

Manning, Dr. Eugene R(eynolds), Denbigh Hall, 14th and Broome Sts, Wilmington, Del. *Chemical engineering.* Wilmington, Del, July 30, 90. B.S. (C.E), Delaware, 12, B.S. (Chem.E), 15; Mass. Inst. Tech, 18; Ph.D, Pennsylvania, 27. Research chemist and develop. engineer, textiles and dyestuffs, exp. sta, E. I. du Pont de Nemours and Co, 16–17, 18–22; asst. prof. civil eng, Pa. Mil. Col, 22–24; research chemist and develop. engineer, du Pont Rayon Co, Buffalo, 27–29; chem. engineer, Meigs, Bassett and Slaughter, Phila, 29–30; State Water Cmn, Conn, Yale Univ, 30–32; head dept. chem. and dyeing, Clemson Col, 32–36; develop. engineer, E. F. Houghton and Co, 36–38; *tech. rep. in charge textile oils, Sun Oil Co, 38–* Asn. Textile Chem. and Colorists; Chem. Soc. Organic chemistry; hydrolysis; relation of spinning tension to the physical properties of rayon; rayon and acetate sizes; textile processing and lubricating oils; textile chemistry and engineering.

Manning, Prof. Frank L(eroy), 68 Sixth Ave, Collegeville, Pa. *Mathematics.* Otisville, N. Y, March 4, 98. B.S, Cornell, 19, Ph.D, 35; fellow, Rutgers, 23–24, M.S, 24. Instr, high sch, 24–26, prin, 26–28; instr. *math,* Clarkson Col. Tech, 28–30; asst. prof, *Ursinus Col,* 30–35, *assoc. prof, 35–* Math. Asn. Use of curvilinear correlation for prognostic value of certain standardized intelligence and achievement tests with respect to grades obtained in college subjects.

Manning, Prof. Henry P(arker), Brown University, Providence, R. I. ***Mathematics.* Woodstock, Conn, Oct. 3, 59. A.B, Brown, 83, A.M, 86; fellow, Hopkins, 90–91, Ph.D, 91.

Teacher, 83–89; instr. math, *Brown*, 91–95, asst. prof. *pure math*, 95–06, assoc. prof, 06–20, *emer. assoc. prof, 30–* Assoc. ed, 'Am. Math. Monthly,' 19–22. A.A; Math. Soc; Math. Asn; Circolo Mat. di Palermo. Geometry of four dimensions; relativity; Egyptian mathematics.

Manning, Dr. I(saac) H(all), P. O. Box 809, Chapel Hill, N. C. *Physiology.* Pittsboro, N. C, Sept. 14, 66. North Carolina; M.D, L. I. Col. Hosp, 97. Intern, L. I. Col. Hosp, 97–98; surgeon, Atlantic Coast Lines, 99–01; *prof. physiol, sch. med, North Carolina, 01–*, dean, 05–33. A.A; Col. Physicians; N. C. Med. Soc. (pres, 32). Physiological chemistry.

Manning, Dr. J(oseph) F(rancis), 17 Washburn Ave, Auburndale, Mass. *Organic chemistry.* Newton, Mass, April 24, 16. B.S, Tufts Col, 37; M.S, Holy Cross Col, 38; Ph.D, Boston, 41. Teaching fellow, Holy Cross Col, 37–38; Boston, 38–41, instr, exten. sch, 42–43; *research chemist, B. B. Chem. Co, 40–* Instr, Plastics Inst, Boston, Mass. Chem. Soc. (membership cmt). Formation of solid derivatives of monoalkyl ethers of ethylene glycol and diethylene glycol; industrial application of plastics.

Manning, Dr. Kenneth V(erne), 825 W. Beaver Ave, State College, Pa. *Physics.* Seward, Nebr, Nov. 24, 99. A.B, Park Col, 22; M.S, Iowa, 24; Ph.D, Cornell, 34. Asst. physics, Iowa, 22–25; instr, Williams Col, 25–29; Cornell, 30–35; physics and math, Wichita, 35–36, asst. prof, 36–41; *asst. supervisor physics, eng, science and management defense training, Pa. State Col, 41–* Physical Soc. X-rays.

Manning, Dr. Paul D(e) V(ries), 874 Bluff St, Glencoe, Ill. and 20 N. Wacker Drive, Chicago, Ill. *Engineering.* Omaha, Nebr, May 4, 93. A.B, Stanford, 16; M.S, Calif. Inst. Tech, 17, fellow, 17–18; Brigham fellow, Columbia, 24, Ph.D, 27. Teaching fellow, Calif. Inst. Tech, 16–17; research engineer, Chile Explor. Co, New York, 19–20; Int. Coal Products Corp, and Bregeat Corp. of Amer, New York, 20–23; teaching staff, dept. chem. eng, Columbia, 24–25; consulting chem. engineer, New York, 24–25; supt. research and develop, Inyo Chem. Co, Cartago and Los Angeles, asst. plant manager, Cartago, 25–26; consulting chem. engineer, 26–41; *director research, Int. Mining and Chem. Corp, 41–* V. pres, West. Condensing Co, San Francisco, 36–41; director research, Golden State Co, Ltd, 39–41. Asst. ed, 'Chem. and Metal. Eng,' 26–41. Research chemist, nitrate div, Ordnance Dept, U.S.A, 18–19. A.A; Chem. Eng; Chem. Soc. Fixation of nitrogen; origin of petroleum and oil shale; absorption; evaporation; drying; dye intermediates and electrochemistry; alkalies; magnesia; magnesium; nutrition; food and milk products; vitamins; fertilizers.

Manning, Dr. Rhoda, Oregon State College, Corvallis, Oregon. *Mathematics.* Palo Alto, Calif, July 2, 12. A.B, Stanford, 35, A.M, 37, Ph.D, 41. Teaching asst, Stanford, 37–41; *instr. math, Oregon State Col, 41–* Math. Soc. Derivatives of the sections of bounded power series; limit of the degree of simply transitive primitive groups of class eighteen; exterior transformations.

Manning, Prof. Wayne E(yer), 14 Adare Place, Northampton, Mass. *Botany.* Toledo, Ohio, April 12, 99. A.B, Oberlin Col, 20; Ph.D, Cornell, 26. Asst. bot, Cornell, 21–24, instr, 24–27; Illinois, 27–28; asst. prof, Smith Col, 28–36, assoc. prof, 36–42. A.A; Bot. Soc. Morphology of flowers of the Juglandaceae; flora of the Connecticut Valley in Massachusetts.

Manning, Prof. W(illiam) A(lbert), Stanford University, Calif. **Mathematics.* Salem, Oregon, Dec. 5, 76. A.B, Willamette, 00; A.M, Stanford, 02, Ph.D, 04; Paris, 04-05. Asst. math, *Stanford*, 00-02, instr. applied math, 02-04, asst. prof, 04–13, assoc. prof, 13–21, prof, 21–25, *math*, 25–42, *emer. prof, 42–* Math. Soc. Groups of permutations.

Manning, Dr. Winston M(arvel), Carnegie Institution, Stanford University, Calif. *Plant physiology, Chemistry.* Washington, D. C, March 26, 09. A.B, American Univ 30; M.S, Brown, 31, Ph.D, 33. Research fellow, Brown, 31–34; asst. chem. and bot, Wisconsin, 34–36, research assoc. limnol, 36–41; *mem. staff cent. lab, div. plant biol, Carnegie Institution, 41–* A.A; Bot. Soc; Limnol. Soc. Photochemistry; photosynthesis; plant productivity of inland lakes; diatom physiology; plant pigments.

Manns, Marshall M(cDowell), Rohm and Haas Co, Bristol, Pa. *Plant pathology.* San Fernando, P. I, July 17, 05. B.S, Delaware, 27, M.S, 28. Research pathologist, United Fruit Co, Tela, Honduras, 29–33; research fellow plant path, Delaware, 34, 36–37; junior planter, Firestone Plantation Co, Liberia, 35; *plant pathologist and horticulturist, Rohm and Haas Co, 37–* Soil bacteriology; diseases of bananas; rubber; virus diseases of the Prunus group.

Manns, Prof. T(homas) F(ranklin), 57 Park Place, Newark, Del. *Plant pathology.* Logan, Ont, Can, Nov. 7, 76. B.S, N. Dak. Col, 01, M.S, 03; Ph.D, Pennsylvania, 13. Asst. bot, N. Dak. Col, 01–04; teacher and prin, high schs, P. I, 04–07; asst. bot, Ohio Exp. Sta, 07–10, soil bacteriologist, 10–12; *prof. plant path. and soil bacter, Delaware, 12–, plant pathologist and soil bacteriologist, Exp. Sta, 12–* Plant pathologist, State Dept. Agr, Del, 37–39. A.A; Phytopath. Soc; Bot. Soc; Peninsula Hort. Soc. (sec'y, 37–); Int. Soc. Soil Sci. Soil bacteriology; plant physiology; diseases of flax, cereals, potatoes, fruits and truck crops; virus diseases; factors influencing nitrogen fixation; role of copper in the soil.

Manov, Dr. George G(regory), National Bureau of Standards, Washington, D. C. *Chemistry.* San Francisco, Calif, April 13, 09. B.S, California, 33, M.S, 34, Ph.D, 37. Mem. staff, Calif. Chem. Corp, 31–32; teaching asst. chem. and chem. eng, California, 34–37; junior chemist, *Bur. Standards, 37–40, asst. chemist, 40–* Chem. Soc; Chem. Eng; Soc. Test. Mat; Wash. Acad. Free energy heterogeneous systems; low temperature heat capacity; microchemistry; separation of deuterium; properties of solutions and activity of ions; hydrogen ion concentration standardization.

Manresa, Dr. Miguel, University of the Philippines, Los Baños, Laguna, P. I. *Animal husbandry.* Romblon, Romblon, May 8, 91. D.V.M, Philippines, 21; Univ. Philippines fellow, Wisconsin, 25–28, Ph.D, 28. Asst. clin. diagnostics, *Philippines*, 20–21, instr. vet. anat, 21–22, vet. med. and res. clinician, Vet. Hosp, 22–25, instr. *animal husbandry, col. agr*, 28–29, *asst. prof*, 29– Veterinarian, Philippine Bur. Agr, 21. Mem, P. I. Nat. Research Council. A.A; Soc. Animal Production; Genetic Asn; Genetics Soc; P. I. Soc. Advancement Research (v. pres, 33, 35, pres, 36); Los Baños Biol. Club (sec'y, 25, pres, 33). Veterinary science; animal genetics; interspecies ovarian transplantation; physiology of reproduction in the ox and carabao; hematology; resistance and susceptibility of oxen and water buffaloes to surra.

Mansfield, Dr. G(eorge) R(ogers), U. S. Geological Survey, Washington, D. C. **Geology.* Gloucester, Mass, Aug. 30, 75. B.S, Amherst Col, 97, A.M, 01; A.M, Harvard, 04, Ph.D, 06. Teacher, high sch, Ohio, 97–03; Austin teaching fellow, Harvard, 04–06, instr. geol, 06–09; asst. prof, Northwestern, 09–13; junior geologist, *U. S. Geol. Surv*, 10–12, assoc. geologist, 12–13, geologist, 13–41, *in charge* sect. non-metals, 22–27, *sect. areal and non-metalliferous geol, 27–, prin. geologist and ed, 'Geol. Maps,' 41–* Summers, instr, Harvard, 06, in charge, Harvard geol. course in Mont, 07–09; in charge Harvard Seismog. Sta, 08–09. Assoc. ed, 'Am. Jour. Science,' 38– Chairman cmt. on tectonics, Nat. Research Council, 25–34; advisory cmt. metals and minerals, Nat. Acad. Science and Nat. Research Council, 41– A.A. (sec'y, E, 25–28, chairman, 36); Geol. Soc. (councilor, 27–30); Soc. Econ. Geol. (councilor, 36–39); Min. and Metal. Eng; Asn. Geog. (councilor, 22–25); Geophys. Union; Wash. Acad. (v. pres, 31); Geol. Soc. Wash. (treas, 20–22, pres, 30). Conglomerates; physiography; phosphates in Idaho and Wyoming; nitrates in Idaho, Oregon, California and Texas; coal and mineral resources in southeastern Idaho; sulfur in New Mexico; green sands in New Jersey; potash in the United States; stratigraphy and structure of the northern Rocky Mountains; dam sites in Puerto Rico, Idaho and Wyoming

Mansfield, Dr. J(oseph) Victor, 5528 Hyde Park Blvd, Chicago, Ill. *Photographic chemistry, Organic chemistry.* Chicago, Ill, March 9, 07. B.S, Iowa State Col, 31; Ph.D, Chicago, 42. Pres. and research director, Mansfield Photo Research Labs, 35–42; chief specialist in photog, air center, photog. sch, *U. S. Navy*, Pensacola, Fla. 42–43, *chief photog. mate, photo science lab, Norfolk, Va, 43–* Chem. Soc; Photog. Soc; Royal Photog. Soc Gt. Britain. Cis-trans isomers; finegrain developers; Mansfield single solution toners; fixing solutions, wetting agents and photo-tints for film.

Mansfield, Ralph, Chicago Teachers College, Chicago, Ill. *Mathematics.* Chicago, Ill, Aug. 21, 12. B.S, Chicago, 35, M.S, 37. Statistician, cost of living surv, U. S. Dept. Commerce, 36; instr. *math*, Armour Inst. Tech, 37–40; *teacher, Chicago Teachers Col, 39–* Instr, Ill. Inst. Tech, 41– Summers, instr, Lewis Inst, 36, 37. A.A; Math. Soc; Math. Asn;

Inst. Math. Statist; British Math. Asn. Differential systems involving k-point boundary conditions; population analysis.

Mansfield, Major Robert D(ouglas), 117 Park Ave, S.W, Canton, Ohio. *Anatomy, Surgery.* Hamilton, Ohio, April 22, 08. B.S, Kenyon Col, 30; M.D, Western Reserve, 34. Lakeside Hosp, Cleveland, Ohio, 34–35; instr. bact, Western Reserve, 35; asst. surgeon, U. S. Marine Hosp. Corps, U. S. Pub. Health Service, 36–39, passed asst. surgeon, 39, *chief of surg, U. S. Marine Hosp, Louisville, Ky, 39–; major, U. S. Army, 42–* Instr, Louisville, 39– Am. Med. Asn; Col. Surg. Mesenteric vascular occlusion; oblique fractures of the leg; normal bone metabolism; terminal ileitis; urinary calculi and recumbency; fractures of the femoral neck; transverse abdominal incisions.

Manske, Dr. Richard H(elmuth Fred), National Research Council, Ottawa, Ont, Can. *Chemistry.* Berlin, Germany, Sept. 14, 01. B.Sc, Queen's (Can), 23, Nat. Research Council Can. bursar, 23–24, M.Sc, 24; 1851 Exhib. scholar, Manchester, 24–26, Ph.D, 26, Sc.D, 37. Research chemist, Gen. Motors Corp, 26–27; Eli Lilly research fellow, Yale, 27–29, Sterling fellow, 29–30; *assoc. research chemist, Nat. Research Council Can, 30–* Chem. Soc. (assoc. ed, 39–); fel. Royal Soc. Can; fel. London Chem. Soc. Synthesis, constitution and degradation of alkaloids; isolation of alkaloids and other plant products; synthesis of phyto-hormones; indol compounds; quinolines.

Manson, Prof. E(dmund) S(ewall), Ohio State University, Columbus, Ohio. *Astronomy.* Scituate, Mass, Dec. 1, 75. B.S, Mass. Inst. Tech, 97, M.S, 98. Computer, Lowell Observatory, 99–01; asst, Harvard Observatory, 02–07; instr. *astron, Ohio State,* 07–08, asst. prof, 08–09, assoc. prof, 09–23, *prof, 23–* A.A; Astron. Soc; Math. Asn; fel. Royal Astron. Soc. Systematic and preferential motions of stars, making use of proper motions, parallaxes and radial velocities; galactic rotation.

Manson, Prof. Grace E(velyn), 2525 Eastwood Ave, Evanston, Ill. *Psychology.* Baltimore, Md, July 15, 93. A.B, Goucher Col, 15; A.M, Columbia, 19; Ph.D, Carnegie Inst. Tech, 23. Teacher, high sch, Va. and W. Va, 16–18; instr. psychol, Salem Col, 19–21; Nat. Research Council asst. human migrations, Michigan, 23–26, research assoc, 26–30; *assoc. prof. psychol, Northwestern, 30–,* asst. to administrator, 30–41. Mem. cmt. on col. personnel problems, Am. Council Educ, 27–30. Psychol. Asn; Acad. Polit. and Social Sci. Personnel research; vocational and differential psychology; selection techniques; application blanks; rating scales; interest analysis forms; occupations of women; relation of personnel history data to success.

Manson, Dr. Melville Husted, 17 W. Tenth St, New York, N. Y. *Surgery, Bacteriology.* Worthington, Minn, Aug. 4, 02. B.S, Minnesota, 26, B.M, 28, M.D, 29, M.S, 32, Ph.D, 34. Instr. surg, Minnesota, 33–37; special rep, Am. Col. Surgeons, 37–38; assoc. director div. rural hosps, Commonwealth Fund, 38–40; *med. director,* Bell Tel. Labs, 40–42; N. Y. Tel. Co, 42–43; *Am. Tel. and Tel. Co, 43–* Fel. Col. Surg; Minn. Acad. Gas gangrene; tetanus.

Manson, Dr. Ray H(erbert), 373 Beresford Road, Rochester, N. Y. *Electrical engineering.* Bath, Maine, Aug. 25, 77. E.E, Maine, 01, D.E, 33. Exp. lab, West. Elec. Co, Chicago, 99–01; engineer, Kellogg Switchboard and Supply Co, Chicago, 00–04; engineer, sec'y and chief engineer, Dean Elec. Co. and Garford Mfg. Co, Ohio, 04–16; *gen. manager and v. pres, Stromberg-Carlson Telephone Mfg. Co, Rochester, 16–* Elec. Eng; fel. Radio Eng. (pres, 31); Acoustical Soc.

Mantell, Dr. Charles L(etnam), 601 W. 26th St, New York, N. Y. *Chemical engineering.* New York, N. Y, Dec. 9, 97. A.B, B.S, Col. City of N. Y, 18; A.M, Columbia, 24, Ph.D, 28. Chem. engineer, Aluminum Co. of Amer, 18–21; Celluloid Corp, 21–22; prof. chem. eng, Pratt Inst, 22–37; *consulting engineer, 24–* Director research, Am. Gum Importers Asn, 34–40; Nederlandsch Ind. Vereen. vor den Handel in Gommen, 36–; tech. director, Wilbur B. Driver Co, Newark, N. J, 36–39; United Merchants and Mfrs. Management Corp, 40–Lieut, Royal Flying C, 17–18. Chem. Eng; Min. and Metal. Eng; Chem. Soc; Electrochem. Soc. (v. pres, 41–); Soc. Test. Mat. Electrochemistry; chemical economics; industrial and activated carbon; tin, aluminum and non-ferrous metallurgy.

Manter, Dr. H(arold) W(infred), University of Nebraska, Lincoln, Nebr. *Parasitology.* Anson, Maine, June 18, 98. A.B, Bates Col, 22; A.M, Illinois, 23, Ph.D, 25. Asst. zool, Illinois, 23–24; instr. parasitol, Louisiana, 25–26; asst. prof. and assoc. prof. *zool, Nebraska,* 26–35, *prof, 35–* Mem, 3rd Hancock exped, Galapagos. A.A; Soc. Parasitol; Soc. Zool; Micros. Soc. (v. pres, 39). Helminthology; trematodes, especially of fish.

Manter, Prof. J(erauld) A(rmington), University of Connecticut, Storrs, Conn. *Entomology.* Londonderry, N. H, Dec. 30, 89. B.S, New Hampshire, 12. Instr. *entom,* Conn. Agr. Col, 12–25, asst. prof, 25–27, *assoc. prof,* 27–33, Conn. State Col, 33–39, *Connecticut, 39–* A.A; Entom. Soc; Asn. Econ. Entom. Poultry lice; bean weevil; insect pests; nature education and conservation.

Manter, Dr. John T(inkham), 217 Willow St, Vermillion, S. Dak. *Anatomy.* Anson, Maine, July 14, 10. A.B, Bates Col, 31; Ph.D, Columbia, 37. Lecturer zool, Columbia, 35–37; *asst. prof. anat, sch. med, South Dakota, 37–* Asn. Anat. Mechanics of the locomotor apparatus.

Manuel, Dr. C(anuto) G(uevarra), Bureau of Science, Manila, P. I. *Ornithology.* Pasay, Rizal, P. I, Jan. 19, 02. B. Agr, Philippines, 24, B.S.A, 25; M.S, Michigan, 29, fellow, 29–30, Sc.D, 32. Asst. entom, Philippines, 24–28; asst. curator birds, Michigan, 28–29, asst, 30–32; *ornithologist, Bur. Science, P. I, 32–* Mich. Acad; Philippine Sci. Soc; Philippine Soc. Adv. Research. Economic and systematic ornithology.

Manuel, Prof. Herschel T(hurman), University of Texas, Austin, Texas. *Educational psychology.* Ind, Dec. 24, 87. A.B, DePauw, 09; A.M, Chicago, 14, 14–15; Clark, 15–16; Ph.D, Illinois, 17. Prin. and sch. supt, 09–13; director educ. research, State Nor. Sch, Gunnison, Colo, 19–23, West. State Col, Colo, 23–25; assoc. prof. *educ. psychol, Texas,* 25–27, *prof, 27–* Director research, State Cmn. Coordination in Educ, Texas, 35– Mem. inter-Am. test project, cmt. mod. languages, Am. Council Educ, 41– Del, Pan-Am. Child Cong, 35. Psychol. examiner, U.S.A, 17–19. A.A; Soc. Study Educ; Educ. Research Asn; Psychol. Asn; Texas Soc. Mental Hygiene (ed, 'Yearbook,' 36–42). Education; talent in drawing; education of Spanish-speaking children; individual differences.

Manuel, Prof. W(illiam) A(sbury), Ohio Wesleyan University, Delaware, Ohio. *Chemistry.* Freetown, Ind, Jan. 18, 91. A.B, DePauw, 12; M.S, Illinois, 15; Sc.D, Colo. Sch. Mines, 28. Instr. chem, Northwestern, 15; fellow, eng. exp. sta, Illinois, 15–16; ranch sec'y, Trinchera Ranch Co, Ft. Garland, Colo, 17–21; prof. *chem,* State Nor. Sch, Gunnison, Colo, 21–23, West. State Col, Colo, 23–29; *prof, Ohio Wesleyan, 29–, head dept, 30–* Summers, research chemist, Inst. Paper Chem, Lawrence Col, 39, 40. A.A; Chem. Soc. (chairman, Columbus sect, 34); fel. Ohio Acad. Analyses and properties of Colorado coals; student guidance; how to study chemistry; sodium sulfide as a source of sulfide ions in qualitative analysis; laboratory experiments in general chemistry.

Manville, Dr. Ira A(lbert), University of Oregon Medical School, Portland, Oregon. *Physiology.* O'Neil, Nebr, July 15, 89. A.B, Oregon, 13, A.M, 22, M.D, 23, Ph.D, 34. Instr. embryol, *Oregon,* 12–13, physiol, 21–24, assoc, 24–34, assoc. prof, 34–36, *clin. asst. prof. med. and director nutritional research, 36–* Am. Med. Asn. grant, 37. A.A; Soc. Exp. Biol; Physiol. Soc; Pub. Health Asn; Am. Med. Asn; Inst. Food Technol. Physiological and pathological action of vitamins A and B; nutritional requirements for growth and reproduction; gastric secretory and motor control; detoxication mechanisms; physiological and pathological actions of vitamins A, B and E; action of vitamin E in muscle metabolism.

Manwaring, Dr. Wilfred H(amilton), Stanford University, Calif. **Experimental pathology.* Ashland, Va, Sept. 14, 71. B.S, Michigan, 95; M.D, Hopkins, 04; fellow, Chicago, 04–05; traveling fellow from Rockefeller Inst, Berlin, 07–08; Frankfurt, 08–09; Lister Inst, London, 09–10. Asst. path, Chicago, 04–06; assoc. prof. path. and bacter, Indiana, 05–07; asst, Rockefeller Inst, 10–13; prof. *bacter. and exp. path, Stanford,* 13–37, *emer. prof, 37–* Lecturer, sch. med, Washington (St. Louis), 20–21. A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Bact; Soc. Exp. Biol; Soc. Immunol. (pres, 26). Theoretical immunology.

Manweiler, Dr. J(ack), Soil Conservation Service, Baudette, Minn. *Biology.* Ft. Collins, Colo, May 22, 08. B.S, Colo. State Col, 32, M.S, 33; Minnesota, 34–35. Asst. instr, Colo. State Col, 32; mem. staff, U. S. Indian Service, 33–34; asst. instr, Minnesota, 34–35; biologist, Beltrami-Pine Island project, Minn, U. S. Dept. Agr, 35–37, manager, 37–38; regional biologist, Farm Security Admin, Wis, Mich. and Minn, 38; *manager,* Beltrami-Pine Island Project, 39–42; *Shafter F.L.S.C, Farm Security Admin, 42–* Wildlife Soc; Soc.

Mammal; Ecol. Soc; Wilson Ornith. Soc; Minn. Asn. Adv. Sci. Upland game birds; big game, especially deer and woodland caribou; snowshoe hare.

Manwell, Prof. Reginald D(ickinson), 124 Buckingham Ave, Syracuse, N. Y. *Zoology.* Harford, Pa, Dec. 24, 97. A.B, Amherst Col, 19, A.M, 26; Rockefeller fellow, Hopkins, 26–28, Sc.D, 28. Asst, Amherst Col, 19–20, 24–26; prin, sch, N. Y, 21–24; prof. biol. and head dept, W. Va. Wesleyan Col, 28–29; instr. protozool, sch. hygiene and pub. health, Hopkins, 29–30; asst. prof. *zool, Syracuse,* 30–37, assoc. prof, 37–38, *prof, 38–; lieut, Sanit. Corps, U. S. Army, 43–* Summers, instr, Rocky Mt. Biol. Sta, Colo, 28, 32. Mem. ed, board, 'Jour. Parasitol'; 'Riv. d. Malariologia.' Mem. corp, Marine Biol. Lab, Woods Hole. Grants-in-aid, Nat. Research Council, A.A.A.S, Am. Philos. Soc. and Sigma Xi. A.A; Soc. Zool; Soc. Parasitol; Soc. Trop. Med; Soc. Exp. Biol. Chemotherapy of malaria; cytology and life-cycles of free-living Protozoa; bird malaria; toxoplasma; malaria.

Many, Prof. Anna E(stelle), Tulane University, New Orleans, La. *Mathematics.* Brooklyn, N. Y, 86. A.B, Tulane, 07, A.M, 13. Asst. prof. *math, Newcomb Col, Tulane,* 21–37, assoc. prof, 37–40, *prof, 40–, counselor to women, 21–* Math. Soc; Math. Asn.

Manzer, Dr. Charles W(est), New York University, Washington Square, New York, N. Y. *Psychology.* Fredericton, N. B, Can, Nov. 29, 96. A.B, Dartmouth Col, 16; A.M, Columbia, 17, Ph.D, 27. Teacher *psychol,* N. Y. State Nor. Sch, Fredonia, 24–30; *instr, Wash. Sq. Col, N. Y. Univ, 30–* Summers, instr, Columbia, 24–28. A.A; assoc. Psychol. Asn; Asn. Applied Psychol. (sec'y, 32–). Experimental psychology; tests.

Marbaker, Dr. Edward E(llsworth), 5562 Hobart St, Pittsburgh, Pa. *Chemistry.* Trenton, N. J, June 28, 88. B.S, Cent. High Sch. Phila, 06; B.S, Pennsylvania, 10, Ph.D, 14, Chem.E, 30. Asst. chemist, Westinghouse Lamp Co, 10–12, chief chemist, 14–17; Alexander Bros, 17–19, chief engineer, 19–20; chief chemist, wire div, Nat. Lamp Works, Gen. Elec. Co, Cleveland, 20–21; indust. fellow, Mellon Inst, 21–23, senior indust. fellow, 23–29; v. pres, Indust. Research and Eng. Co, 29–35; *indust. fellow, Mellon Inst, 35–* Chem. Soc; Chem. Eng; Ceramic Soc; Franklin Inst. Tungsten; molybdenum; argon; leather chemistry; matches; zinc refractories; cast iron; dental specialties; artificial stone; vitreous enamels.

Marberg, Dr. C(arl) M(auritz), 5101 39th Ave, Long Island City 4, N. Y. *Organic chemistry.* Chicago, Ill, Jan. 7, 02. B.S, Chicago, 27, Ph.D, 30. Asst, lab, Sherwin-Williams Co, Chicago, 17–20; technician, Armour Soap Works, 22–23; asst. supt, Van Ess Labs, 23–24; research chemist, Sprague Mem. Inst. and dept. path, Univ. Chicago, 27–28, 30–34, research instr, dept. chem, 34–35, asst. prof, Sprague Mem. Inst. and depts. med. and biochem, 35–39; *research chemist, Interchem. Corp, 39–* A.A; Chem. Soc. Metallo-nitriles; lipides; hormones; chemistry of brain and nervous tissue; drugs; synthetic resins; dyes and pigments.

Marble, Prof. Dean R(ichmond), Pennsylvania State College, State College, Pa. *Poultry husbandry.* West Bloomfield, N. Y, Sept. 27, 02. B.S, Cornell, 26, M.S, 28, Ph.D, 30. Instr. *poultry husbandry,* Cornell, 26–30; asst. prof, *Pa. State Col,* 30–33, assoc. prof, 34–38, *prof, 39–* Ed, 'Poultry Science.' Molt as a factor in judging birds for egg production; factors affecting egg weight; relationship of head measurements to egg production; inheritance of egg shape; breeding viable strains of poultry.

Marble, Dr. Guita, Woman's College, University of North Carolina, Greensboro, N. C. *Chemistry.* Troy, Kans, Sept. 11, 05. A.B, Kansas, 30, A.M, 32, Ph.D, 35. Asst. instr. *chem,* Kansas, 30–35; instr, Louisville, 35–40; *Woman's Col, North Carolina,* 40–43, *asst. prof, 43–* Chem. Soc. (treas, Louisville sect, 37, 38). Electroanalysis of copper; electrodeposition of copper in the presence of addition agents.

Marble, Dr. John Putnam, 37 E. Bradley Lane, Chevy Chase, Md. *Geochemistry.* Worcester, Mass, May 30, 97. A.B, Williams Col, 18; Clark, 19; A.M, Harvard, 28, Ph.D, 32. Asst. chem, Williams Col, 18; in drysaltery business, 18–26; asst. chem, Harvard, 30–31; research assoc, *cmt. geol. time, div. geol. and geog, Nat. Research Council,* 31–37, *v. chairman, 37–* C.W.S, 18–19. A.A; Chem. Soc; Electrochem. Soc; Miner. Soc; Soc. Research Meteorites; Geophys. Union; Wash. Acad. Atomic weights; geologic time; mineral analysis; analytical methods; meteorites.

Marburg, Prof. Otto, 225 Central Park West, New York, N. Y. *Neurology.* Roemerstadt, Germany, May 25, 74. M.D, Vienna, 99. Prof. neur. and director neur. inst, Vienna; *clin. prof. neur, Columbia, 38–; res. neuropathologist, Montefiore Hosp, New York, 38–* Neuropath. Soc; hon. mem. Neur. Soc; hon. mem. Asn. Neuropathologists; hon. mem. N. Y. Neur. Soc; hon. mem. Phila. Neur. Soc. Microscopic topographic atlas of the human central nervous system; acute multiple sclerosis; epilepsy; brain tumors; hydrocephalus; injuries of the nervous system; normal and pathological anatomy; function of the pineal gland.

Marburger, Prof. Walter G(eorge), 2308 Oakland Drive, Kalamazoo, Mich. *Physics.* Callery, Pa, Aug. 3, 92. A.B, Michigan, 15, M.S, 24; Harvard, 31–32. Teacher math. and physics, schs, Mich, 15–25; *prof. physics, West. Mich. Col. Educ, 25–; technicist-physicist, Naval Ordnance Lab, 42–* Physical Soc; Amateur Radio Relay League. Radio communication.

Marcellus, Prof. F(rancis) N(athan), Ontario Agricultural College, Guelph, Ont, Can. *Poultry husbandry.* Morewood, Ont, Aug. 25, 85. B.S.A, Toronto, 11, B.V.Sc, 25. Lecturer poultry, Iowa State Col, 11–12; director poultry exten, *Ont. Agr. Col,* 12–19, *prof. poultry, 22–,* acting head dept. animal nutrition, 41. Poultry Sci. Asn. (director, 22–, pres, 35); Can. Soc. Tech. Agr; World's Poultry Sci. Asn. (director, 33–). Poultry nutrition; serological work in poultry pathology; animal nutrition.

March, Prof. H(erman) W(illiam), 1825 Summit Ave, Madison, Wis. *Mathematics.* Ocheyedan, Iowa, Dec. 14, 78. A.B, Michigan, 04, A.M, 05; Ph.D, Munich, 11. Asst. astron, Michigan, 02–05; instr. physics, Princeton, 05–06; *math, Wisconsin,* 06–09, asst. prof, 11–20, assoc. prof, 20–29, *prof, 29–; consulting mathematician, Forest Products Lab, U. S. Forest Service, 28–* A.A; Math. Soc. Diffraction of waves of wireless telegraphy; integral representation of arbitrary functions; elasticity.

Marchant, Dr. Cosmo, St. Hilaire, Que, Can. *Organic chemistry.* Hull, Eng, Feb. 3, 13. B.A, Toronto, 35, M.A, 36, Ph.D, 41. Asst. chem, Toronto, 35–38, Banting and Best dept. med. research, 38–41; lecturer chem, Queen's (Can), 41–42; *research chemist, research and develop. dept, Can. Industries, Ltd, 42–* Lecturer, dept. univ. exten, Toronto, 38–39, 41–42. Chem. Soc; assoc. Can. Inst. Chem. Bios; sulphanilamide derivatives.

Marchetti, Prof. Andrew A(nthony), 525 E. 68th St, New York, N. Y. *Obstetrics, Gynecology, Pathology.* Richmond, Va, July 2, 01. A.B, Richmond, 24; M.D, Hopkins, 28. Instr. obstet. and gynecol, med. sch, Hopkins, 28–29; res, sch. med. and dentistry, Rochester, 29–31; asst. res. surg, Cincinnati Gen. Hosp, 31–32; from res. to *assoc. prof. obstet. and gynecol, med. col, Cornell, 32–* Attending obstetrician and gynecologist, New York Hosp, 43. Mem. Am. Board Obstet. and Gynec. Am. Med. Asn; Col. Surg; N. Y. Obstet. Soc. Pathology of ovary, tube and placenta; fetal mortality; physiology and pathology of human vaginal smears; quinine and physiology of labor; embryology of early implanted human ovum.

Marchi, Dr. Louis E(ugene), Indiana University, Bloomington, Ind. *Inorganic chemistry.* Chicago, Ill, Nov. 10, 16. B.S, Northwestern, 38; Julius Stone fellow, Ohio State, 40, M.S, 40, Ph.D, 42. Asst, Ohio State, 38–42; *instr.* gen. chem, Ga. Sch. Tech, 42–43; *gen. and inorg. chem, Indiana, 43–* Chem. Soc. Stereochemistry of coordination number eight; coordination compounds.

Marckworth, Prof. Gordon D(otter), University of Washington, Seattle, Wash. *Forestry.* Cincinnati, Ohio, Jan. 31, 95. B.S, Ohio State, 16; M.F, Yale, 17; Edinburgh, 19; Georgia, 32. Asst. state forester, Va, 17; Texas, 20–21; chief patrolman, Tenn, 21–23; private work, 23–24; asst. forester, Maryland, 24–25; assoc. prof. forestry, Louisiana, 25–30, head dept, 28–31, prof, 30–31; prof. and head div, Georgia, 31–35, director *sch. forestry,* 35–39; *prof. forest management, Washington (Seattle), 39–* Mem. advisory council, South. Forest Exp. Sta, U. S. Forest Service; mem, State Forestry Board, La, 28–31. Eng.C, U.S.A, 17–19. Soc. Foresters (v. chairman, Gulf States sect, 29, chairman, 30, southeast. sect, 34); Ga. Forestry Asn. (exec. cmt, 35–39, v. pres, 37); Md. Forestry Asn. Farm forestry; forest fire prevention; naval stores.

Marckworth, O(tto) S(tanley), D. L. Auld Co, Fifth Ave. and Fifth St, Columbus, Ohio. *Chemistry.* Clifton, Cincin-

nati, Ohio, Dec. 30, 79. Cincinnati; B.S, Ohio State, 01. Asst. chemist, Carnegie Steel Co, 01-02; N. Y. Underground Ry. Co, 02; director, Ohio Testing Lab, 02; state chemist, Ohio, 03–14; *director research and develop, D. L. Auld Co, 14–* Managing assoc, Vitrocell Co. Chem. Soc; Soc. Chem. Indust; Agr. Chem. Agricultural chemistry; food products; adhesives.

Marco, Dr. Herbert F(rancis), 627 Whitney Ave, New Haven, Conn. *Forestry.* Auburn, N. Y, March 27, 07. B.S, Cornell, 29; M.S, N. Y. State Col. Forestry, Syracuse, 32; Charles Boughton Wood fellow, Yale, 33–34, Ph.D, 35. Forest engineer, Cady Lumber Corp, 29–31; junior forester, Northeast. Forest Exp. Sta, U. S. Forest Service, 35–38; *mem, Conn. Geodetic Surv, 38–; lieut, Air Corps, U. S. Army.* Research, N. Y. Bot. Garden, 37. Soc. Foresters; Cong. Surv. and Mapping; Conn. Acad; Int. Asn. Wood Anatomists. Plant and systematic wood anatomy; coniferous leaf structure; relationship between basal scorching of trees by fire and cambial wounding; wood technology.

Marcovitch, Dr. S(imon), University of Tennessee, Knoxville, Tenn. *Entomology.* Russia, Dec. 12, 90. B.S, Cornell, 14; M.S, Minnesota, 16, Ph.D, 27. Asst. entomologist, Minnesota, 14–17; biologist, Nat. Farm Sch, Pa, 17–19; asst. entomologist, *Exp. Sta, Tennessee, 19–24, entomologist, 24–* A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc. Strawberry insects; plant lice and light exposure; insecticides; fluosilicates; seed-infesting chalcis-flies; weed-attacking insects.

Marcus, Prof. Alexander, College of the City of New York, New York, N. Y. *Physics.* Russia, 88. B.S, Col. City of N. Y, 10; Columbia, 12–15. Asst. physicist, Bur. Standards, 11–14; instr. *physics, Col. City of N. Y,* 14–25, asst. prof, 25–31, *assoc. prof, 31–* A.A; Physical Soc. Theoretical and experimental electrophysics.

Marcus, Dr. J(oseph) K(eats), Paulel Co, 114 E. 32nd St, New York, N. Y. *Chemistry.* New York, N. Y, Jan. 28, 94. A.B, Col. City of N. Y, 14; Ph.D, Columbia, 18. Instr. chem, Columbia, 16–18; research chemist, hygienic lab, U. S. Pub. Health Service, 18–19; Org. Salt and Acid Co, Newark, 19–20; *sci. director,* Int. Vitamin Corp, 29–40; *Paulel Co, 40–* A.A; Chem. Soc. Vitamin research; large scale plant production of vitamin products; organic chemical syntheses.

Marcuse, Dr. F(red) L(awrence), Cornell University, Ithaca, N. Y. *Psychology.* Montreal, Que, Can, Dec. 5, 16. B.A, Queen's (Can), 38, Milligan fellow, 39–40, M.A, 40; Sage fellow, Cornell, 40–41, Ph.D, 42. Asst. *psychol, Cornell,* 41–43, *instr, 43–* Assoc. Psychol. Asn; Can. Psychol. Asn. Factors influencing susceptibility of rats to convulsive seizures; physiological patterns in normal and abnormal animal behavior; heart rate development in the rat; heart rate in tamed and untamed rats.

Marcy, Dr. D(ora) Elizabeth (Mrs. Karl K. Darrow), Hunter College, 68th St. and Park Ave, New York, N. Y. *Plant pathology, Genetics.* Newton Upper Falls, Mass, Feb. 8, 07. A.B, Wellesley Col, 28; A.M, Columbia, 33, Ph.D, 37. Instr. hort, Brooklyn Bot. Garden, 28–30, asst. plant path. and genetics, dept. plant path, 30–41; *instr. bot, biol. and hort, evening session, Hunter Col, 38–,* bot, day session, 41. Summers, asst, Carnegie Institution, Cold Spring Harbor, 40; instr, Hunter Col, 41–42. Torrey Bot. Club (recording sec'y, 37). Genetics of disease resistance in cereal grains; influence of environmental conditions upon smut infection.

Marcy, Dr. Henry O(rlando), III, 56 Fairview Ave, Belmont, Mass. *Biophysics.* Oct. 27, 15. A.B, Harvard, 37, A.M, 39, Ph.D, 42. *Staff mem, radiation lab, Mass. Inst. Tech, 42–* Anomalous dispersion of dipolar ions; dielectric studies on muscle hemoglobin.

Marcy, Lawson F(rancis), North Dakota Agricultural College, Fargo, N. Dak. *Chemistry.* Mandan, N. Dak, Jan. 29, 02. A.B, Evansville Col, 24; A.M, Columbia, 26; Ohio State, 36–37. Instr. *chem,* Kans. State Col, 24–25, 27–29; asst. prof, Parsons Col, 29–31; *instr, N. Dak. Col, 31–* Inst. animal nutrition, Pa. State Col, 37–38. Chem. Soc. Inorganic and agricultural chemistry.

Marden, Dr. J(ohn) W(esley), 232 W. Woodruff Ave, Columbus, Ohio. *Chemistry.* Saginaw, Mich, May 11, 87. B.S, Ill. Wesleyan, 09; fellow, N. Y. Univ, 10–12, M.S, 11, Sc.D, 12. Asst. chem, Ill. Wesleyan, 07–09; Illinois, 09–10; instr, Minnesota, 12–13; analyst, State Food and Drug Dept, S. Dak, 13–14; instr. chem, Missouri, 14–16, asst. prof, 16–18, assoc. prof, 19–20; metallurgist, U. S. Bur. Mines, 18–19; *research chemist, lamp div, Westinghouse Elec. and Mfg. Co, 20–, asst. director research.* A.A; Elec. Eng; Chem. Soc. (chairman, Mo. sect, 16–18, councilor, 18); Electrochem. Soc. Physical and analytical chemistry; equilibrium in cobalt-amines; extractions by immiscible solutions; thermal value of fats and oils; drying agents; zirconium; thorium; vanadium; mercury arc lamps.

Marden, Prof. Morris, 403 E. Carlisle Ave, Milwaukee, Wis. *Mathematics.* Boston, Mass, Feb. 12, 05. A.B, Harvard, 25, A.M, 27, Ph.D, 28. Instr. *math,* Harvard, 25–27; nat. research fellow, Wisconsin, Princeton, Zurich and Paris, 28–30; asst. prof, *Univ. Wis. in Milwaukee,* 30–39, *assoc. prof, 39–,* lecturer, Madison, 41–42. Fellow, sch. math. mech, Brown, 43. A.A; Math. Soc. (asst. ed, 'Bul,' 42–); Math. Asn. Distributions of the zeros of various functions.

Marek, L(eroy) F(rank), 30 Charles River Road, Cambridge, Mass. *Chemistry, Chemical engineering.* Brenham, Texas, Jan. 18, 01. A.B, B.S, Texas, 25; M.S, Mass. Inst. Tech, 30. Tutor chem, Texas, 23–25; research chemist, Miller Rubber Co, Akron, 25–27; asst, Mass. Inst. Tech, 27–28, assoc, 28–29, asst. prof. chem. eng, 29–34, asst. director research lab. applied chem, 29–31, director, 31–34; *chem. engineer, Arthur D. Little, Inc, 34–* Cmt. research contact catalysis, Nat. Research Council, 37– Chem. Soc; Chem. Eng. Hydrocarbon gases; high pressure synthesis; physical properties of materials under pressure; colloids; oxidation organic compounds; petroleum cracking; applied inorganic chemistry.

Maresh, Dr. Charles, 337 Melrose Ave, Bound Brook, N. J. *Chemistry.* Cleveland, Ohio, Dec. 4, 13. A.B, Western Reserve, 35, scholar, 35–36, M.S, 38; scholar, Pa. State Col, 36–39, Ph.D, 40. *Chem. microscopist anal. chem, Calco chem. div, Am. Cyanamid Co, 39–* Chem. Soc; Metrop. Microchem. Soc. Chemical and textile microscopy; relationship of optical and crystallographic properties to chemical structure; analysis of closely related isomers by microscopic methods; photoelectrometric particle-concentration analysis.

Margenau, Prof. Henry, Yale University, New Haven, Conn. **7Physics.* Bielefeld, Germany, April 30, 01. A.B, Midland Col, 24; M.S, Nebraska, 26; Ph.D, Yale, 29. Instr. *physics,* Nebraska, 26–27; *Yale,* 28–29, 30–31, Sterling traveling fellow, 29–30, asst. prof, 31–40, *assoc. prof, 40–* Fel. Physical Soc; Philos. Sci. Asn. (ed. board). Spectroscopy; intermolecular and nuclear forces; philosophical foundations of physics.

Margolis, Dr. Otto S(chwarz), 6605 Woodwell St, Pittsburgh, Pa. *Biology.* Constantinople, Turkey, July 12, 07. A.B, Western Reserve, 29, A.M, 30; Ph.D, N. Y. Univ, 34. Asst, Western Reserve, 29–30; teaching fellow, Wash. Sq. Col, N. Y. Univ, 30–34, lecturer biol, 34–36; instr. *bacter. and path,* Cleveland Col. Embalming, 36–39; *head dept, Pittsburgh Sch. Embalming, 39–* Private research, biol. lab, Western Reserve, 36–39. Summer, lecturer, Wash. Sq. Col, N. Y. Univ, 34. Genetics Soc; Soc. Zool. Genetics; experimental embryology.

Marick, Dr. L(ouis), 6600 E. Jefferson Ave, Detroit, Mich. *Physics.* Butte, Mont, May 16, 03. E.M, Mont. Sch. Mines, 25; M.S, Washington (Seattle), 27; Ph.D, Wisconsin, 34. Teaching fellow, Washington (Seattle), 25–27, assoc, 27–29; asst. physicist, Air Corps, U. S. Army, Wright Field, Dayton, Ohio, 29–30; asst, Wisconsin, 30–34; *research physicist, develop. div, U. S. Rubber Co, 34–* Physical Soc. Radiography of light metal alloys; x-rays and crystal structure; transformation points of metals at elevated temperatures; photoelectric emission; physical properties of rubber and textiles; tire physics; electrically conducting rubber.

Marie-Victorin, Prof. Fr, University of Montreal, Montreal, Que, Can. *Botany.* Kingsey Falls, Que, April 3, 85. D.Sc, Montreal, 22. *Prof. bot. and director bot. inst, Montreal, 20–* Mem, Biol. Board Can, 28–; director, Jardin bot. de Montreal, 36– Sci. exped, north. and east. Que; south. and east. Africa, 29, Cuba, 39–43. Gandoger prize, Soc. bot. de France, 32; Coincy prize, Acad. Sci. Paris, 35. A.A; Bot. Soc; New Eng. Bot. Club; Royal Soc. Can; Linnean Soc. London; Soc. bot. de France. Systematic botany; phytogeography; phanerogams; ecology; flora of Quebec and the West Indies.

Marin, Prof. J(oseph), Pennsylvania State College, State College, Pa. *Engineering mechanics.* New York, N. Y, June 7, 05. B.A, British Columbia, 28; M.S, Illinois, 30; Ph.D, Michigan, 36. Instr. surveying, British Columbia, 28; asst. civil eng, Illinois, 28–30; instr, Rutgers, 30–34, asst. prof. eng. materials, 34–39; assoc. prof. civil eng, Ill. Inst. Tech, 39–42;

prof. eng. mech, Pa. State Col, 42– Exp. and anal. research, Chicago Bridge and Iron Works, 28–30; mech. testing and consultant, 30– Summers, junior and senior asst. and asst. chief topog. survs, topog. div, Geol. Surv. Can, 25–29; struct. designer, Byllesby Eng. and Management Corp, Chicago, 29; research and develop, turbine div, Westinghouse Elec. and Mfg. Co, Philadelphia, 37. Civil Eng; Mech. Eng; Soc. Test. Mat; Soc. Metals; Eng. Educ; Welding Soc; Concrete Inst; Army Ordnance Asn. Mechanical properties of materials; stress analysis.

Marine, Dr. David, Montefiore Hospital, New York, N. Y. *²*Experimental medicine.* Whitelysburg, Md, 80. A.B, West. Maryland Col, 00, A.M, 06; M.D, Hopkins, 05; Sc.D, Western Reserve, 31. Pathologist, Lakeside Hosp, Cleveland, 05–06; from demonstrator to assoc. prof. exp. med, Western Reserve, 06–20; *director lab, Montefiore Hosp, 20–* Asst. prof, Columbia, 20–38. N. Y. Acad. Med. medal, 31. A.A; Asn. Path. and Bact; Soc. Exp. Path; Physiol. Soc; Soc. Exp. Biol; N. Y. Path. Soc. (trustee). Physiology and pathology of the ductless glands.

Maring, Rev. K(arl) A(loysius), S.J, Loyola University, New Orleans, La. *Physics.* Witten, Westphalia, Germany, June 18, 93. A.B, Woodstock Col. (Md), 15, A.M, 16; Ph.D, St. Louis, 31. *Prof. physics and math. and head dept, Loyola (La), 31–* A.A; South. Soc. Physicists; New Orleans Acad. (v. pres, 36). The effect of pressure on photochemical action of the silver halides, especially in the region of solarization.

Marion, Dr. Leo (Edmond), National Research Laboratories, Ottawa, Ont, Can. *Organic chemistry.* Ottawa, Ont, March 22, 99. B.Sc, Queen's (Can), 26, Nat. Research Council Can. bursar, 26–27, M.Sc, 27; student, McGill, 27–29, Ph.D, 29; Vienna, 34–35. Analyst, Gen. Elec. Testing Lab, Schenectady, 26; *research chemist, Nat. Research Labs, Can, 29–* Chem. Soc; fel. Royal Soc. Can; Soc. Chem. Indust. Gt. Britain. Lignin; glucosides; alkaloids; condensation reactions.

Marion, Prof. S(imon) J(asper), Lenoir-Rhyne College, Hickory, N. C. *Chemistry.* Sullivan Co, Tenn, Nov. 16, 88. A.B, Roanoke Col, 13; A.M, Columbia, 22, Ph.D, 32. Instr. chem, N. C. State Col, 18–21; asst. chemist, Exp. Sta, Ala. Polytech, 22–23; *prof. chem. and head dept, Lenoir-Rhyne Col, 23–* Chem. Soc; N. C. Acad. Chemistry of plant products, especially fixed and volatile oils.

Maris, Dr. H(arry) B(oyd), 4711 Riverdale Road, Riverdale, Md. *Physics.* Osborn Co, Kans, Dec. 4, 85. Kansas, 04–06; A.B, Michigan, 08, M.S, 10; Ph.D, Hopkins, 27. Prof. physics, Birmingham-Southern Col, 22–23; Emory and Henry Col, 23–25; *U. S. Naval Research Lab, 25–* In charge research, Williams Portar exped. A.A; Physical Soc; Wash. Philos. Soc. Photoelasticity; upper atmosphere; magnetic storms.

Marisic, Dr. Milton M(ichael), 430 S. Jackson St, Woodbury, N. J. *Physical chemistry.* Harrisburg, Pa, Dec. 16, 11. A.B, Hopkins, 35, Ph.D, 40. *Chemist,* U. S. Indust. Chemicals, Inc, 35–37; *research and develop. div, Socony-Vacuum Oil Co, 40–* Chem. Soc. Catalysis; catalytic oxidation of hydrocarbons; catalytic hydrogenations; catalytic cracking of hydrocarbons.

Marjerison, Prof. H(oward) M(itchell), 808 S. Wood St, Chicago, Ill. *Dentistry.* Lawrence, Mass, Nov. 19, 95. D.M.D, Tufts Col, 16, hon. Sc.D, 42. Instr. prosthetic dentistry, dental sch, Tufts Col, 17–23, asst. prof, 23–29, assoc. prof, 29–39, prof, 39–40, head dept. partial prosthodontics, 29–33, acting dean, 33–34, dean, 34–40; *prof. dentistry and dean col. dentistry, Illinois, 40–* Emer. trustee and emer. mem. corp, Forsyth Dental Infirmary for Children. Mem, Nat. Board Dental Examiners. A.A; Acad. Dental Sci. (past cor. sec'y; mem. exec. cmt); Dental Asn; Int. Asn. Dental Research (v. pres, Boston sect).

Mark, Clara G(ould), 270 S. State St, Westerville, Ohio. *Geology.* Franklin Furnace, Ohio, Jan. 23, 82. A.B, Ohio State, 06, A.M, 10, fellow, 11–13. Instr. geol, Mt. Holyoke Col, 10–11; Ohio State, 13–17; Ohio Wesleyan, 20–21. A.A; Fern Soc; Sullivant Moss Soc; Ohio Archeol. Soc; Ohio Acad. Botany; Ohio Carboniferous paleontology; Ohio mosses and pteridophytes; physiography of southern Ohio.

Mark, Prof. E(dward) L(aurens), 109 Irving St, Cambridge, Mass. *¹*Zoology.* Hamlet, N. Y, May 30, 47. A.B, Michigan, 71, LL.D, 96; Ph.D, Leipzig, 76; LL.D, Wisconsin, 04. Instr. math, Michigan, 71–72; asst. astronomer, North. Boundary Surv, 72–73; instr. zool, *Harvard,* 77–83, asst. prof. 83–86, prof. *anat,* 85–21, *emer. prof, 21–,* director zool. lab, 00–21, Bermuda Biol. Sta, 03–31. Ed, 'Contrib. Zool. Lab,' Harvard, 83–21; 'Contrib. Bermuda Biol. Sta,' 03– Del, Int. Cong. Zool, Cambridge, 98, Graz, 10. Nat. Acad; A.A. (v. pres, 02, 04); Soc. Nat. (pres, 04); Soc. Zool. (pres, 96); Asn. Anat; Philos. Soc; Am. Acad. (chairman, pub. cmt, 02–09); corp. mem. Boston Soc. Nat. Hist; fel. London Soc. Biol. Chem; Deuts. Zool. Gesell; Anat. Gesell; for. mem. Bohemian Royal Soc. Sci; Soc. royale zool. et malacol. de Belg; hon. mem. Inst. int. d'Embryol. Utrecht; Cuban Nat. Hist. Soc. Anatomy and histology of arthropods; maturation and fertilization of mollusks; trichinae in swine; development and embryology of Lepidosteus; cytology in heredity.

Mark, Prof. H(erman) F(rancis), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *⁷*Physical chemistry.* Vienna, Austria, May 3, 95. Ph.D, Vienna, 21. Res. manager, Tech. Gymnasium, Germany, 26–32; prof. chem, Vienna, 32–38; res. manager, C. I. P. Co, Hawkesbury, Can, 38–40; *prof. org. chem, Polytech. Inst. Brooklyn, 40–* A.A; Chem. Soc; Soc. Rheol; hon. mem. Chem. Soc. Madrid; hon. mem. Chem. Soc. Bucharest. Chemistry of high polymers, particularly cellulose, rubber and plastics.

Mark, Dr. J(acob) G(reenwood), 111 Walnut Hill Road, Brookline, Mass. *Organic chemistry.* Springfield, Mass, March 24, 08. B.S, Mass. Inst. Tech, 29, Ph.D, 34. Chemist, synthetic resin div, John D. Lewis, Inc, Providence, R. I, 29–31, in charge, 31–32; *exec. research chemist, Dewey and Almy Chem. Co, 34–* Chem. Soc. Catalysis in organic reactions; cement and concrete; colloidal chemistry; organic chemicals; dispersing agents; adhesives; chemical purification of methyl alcohol; chemical manufacturing; chemical product and process patents; high molecular weight polymers.

Mark, Prof. J(esse) J(arue), Kentucky State Industrial College, Frankfort, Ky. *Plant physiology.* Apple Springs, Texas, Sept. 24, 06. B.S, Prairie View State Col, Texas, 29; M.S, Iowa State Col, 31, Ph.D, 35. Teacher, high sch, Ky, 29–30, *assoc. prof. science and agr, Ky. State Indust. Col,* 31–33, *35–* Soc. Plant Physiol; Forestry Asn; Soc. Agron. Agricultural bulletins.

Mark, Dr. Kenneth L(amartine), 200 Riverway, Boston, Mass. *Physical chemistry.* Leipzig, Germany, Aug. 27, 74. A.B, Harvard, 98, A.M, 00, Ph.D, 03. Asst. *chem,* Harvard, 97, 99–03; instr, *Simmons Col. (Mass),* 03–06, asst. prof, 06–14, assoc. prof, 14–16, prof, 16–41, *emer. prof, 41–* Capt, Sanit.C, 18. Chem. Soc. (sec'y, northeast. sect, 08, pres, 26); Am. Acad. Expansion of gases by heat.

Markee, Prof. J(oseph) Eldridge, Stanford University, Calif. *Anatomy.* Neponset, Ill, May 22, 04. B.S, Chicago, 25, Ph.D, 29. Instr. *anat, Stanford,* 29–30, asst. prof, 30–36, *assoc. prof, 36–* Gen. Educ. Board fellow, dept. embryol, Carnegie Institution, 35–36. Asn. Anat. Rhythmic vascular uterine changes; cyclic uterine bleeding; ovulation; migration of ova; uterine growth.

Markell, Dr. Edward K(ingsmill), Bureau of Naval Personnel, Washington, D. C. *Zoology.* Brooklyn, N. Y, April 14, 18. A.B, Pomona Col, 38; Ph.D, California, 42. Teaching asst. zool, California, 38–41; *helminthologist, U. S. Naval Res, 42–* A.A; Micros. Soc; Soc. Parasitol. Parasitology; gorgoderid trematodes.

Marker, Prof. R(ussell) E(arl), 521 E. Prospect Ave, State College, Pa. *Organic chemistry. Pa. State Col.* Sapogenins.

Markham, Dr. Edwin C(arlyle), University of North Carolina, Chapel Hill, N. C. *Chemistry.* Durham, N. C, Dec. 24, 02. A.B, Trinity Col. (N. C), 23; Ph.D, Virginia, 27. Instr. *chem,* Trinity Col. (N. C), 24–25; asst. prof, Virginia, 27–30, research assoc, 30–33; instr, Delaware, 33–34; asst. prof, *North Carolina,* 34–37, assoc. prof, 37–41, *prof, 41–* Chem. Soc; N. C. Acad. Heterogeneous reaction rates; adsorption of gas mixtures by metals and metallic oxides; adsorption of gases at high pressures; use of organic reagents in analytical chemistry.

Markham, Prof. F(loyd) S(tephen), Ohio State University, Columbus, Ohio. *Bacteriology.* Cadillac, Mich, Dec. 29, 04. B.S, Mich. State Col, 30; Ph.D, Chicago, 35. Asst. prof. *bacter, Ohio State,* 35–42, *assoc. prof, 42–* Research fellow, Barnard Free Skin and Cancer Hosp, St. Louis, Mo, 38–39; in charge labs, Typhus Cmn, Rockefeller Foundation, N. Africa, 43– Ricketts prize, Univ. Chicago. Soc. Bact; Royal Soc. Trop. Med. and Hygiene. Filterable viruses.

Markle, Prof. E(llas) W(ard), Agricultural and Mechanical College of Texas, College Station, Texas. *Electrical engineering.* Hublersburg, Pa, Sept. 4, 88. B.S, Pa. State Col, 13; M.S, Agr. and Mech. Col. Texas, 30. Student, transformer eng. dept, Westinghouse Elec. and Mfg. Co, 13–15, prin, high sch, Pa, 15–18; instr. *elec. eng,* Kans. State Col, 18–20; head dept, Camp Funston, 20–21; *prof, Agr. and Mech. Col. Texas, 21–* Eng. Educ; assoc. Elec. Eng.

Markle, Prof. M(illard) S, 528 National Road, W, Richmond, Ind. *Botany.* Hagerstown, Ind, Nov. 26, 83. B.S, Earlham Col, 10; M.S, Chicago, 13, fellow, 14–15, Ph.D, 15. Asst. biol, *Earlham Col,* 09–10, instr, 10–12, asst. prof, 12–15, *prof.* bot, 15–18, *biol, 18–* Summers, asst. prof, Cornell, 20–22. A.A; fel. Ind. Acad. Ecology; plant reproduction; peat bogs; plant associations; microtechnique.

Markley, Prof. Alton L(eFevre), Skidmore College, Saratoga Springs, N. Y. *Chemistry.* Bellingham, Wash, July 19, 96. B.S, State Col. Wash, 19; M.S, Cornell, 21, Ph.D, 23. Asst. food and agr. chem, Cornell, 19–23; *prof. and head dept. chem, Skidmore Col, 23–* A.A; Chem. Soc. Food chemistry; presence of lipase in milk; physicochemistry of milk; preservation of cider; freezing point diagram of the system phenol–water; cooling by evaporation.

Markley, Dr. K(lare) S(tephen), U. S. Department of Agriculture, New Orleans, La. *Biochemistry.* Philadelphia, Pa, Dec. 16, 95. B.S, George Washington, 24, M.S, 25; Ph.D, Hopkins, 29. Chemist, Bethlehem Steel Co, 16–17; Wharton Steel Co, 17–19; chief chemist, Valley Mould and Iron Corp, 20–21; asst. biochemist, bur. chem, U. S. Dept. Agr, 21–27; assoc. chemist, Bur. Standards, 27–28; assoc. biochemist, bur. plant indust, *U. S. Dept. Agr,* 28–35, bur. chem. and soils, 35–37, senior chemist, regional soy-bean lab, 37–39, *prin. chemist, south. regional research lab, bur. agr. and indust. chem, 39–* Del, Int. Cong. Microbiol, London, 36. A.A; Chem. Soc. (sec'y, Wash. sect, 35–38); fel. Inst. Chem; Oil Chem. Soc. (v. pres, 41–43). Mosaic disease of spinach and cabbage; polypeptides and free amino acids in cereals; boric acid for the absorption of ammonia; preparation of substituted thiazoles and their condensation with aldehydes; chemical composition of fruit and seed coatings; sterol from oil palm; melting point apparatus; chemistry and industrial processing of vegetable fats and oils.

Markley, Dr. Max C, 1486 Hythe St, St. Paul, Minn, *Chemistry.* Chadwick, Ill, June 24, 00. B.S, Kansas, 22, Chem.E, 29; Ph.D, Minnesota, 34. Shift chemist, Aunt Jemima Mills Co, Mo, 22; Larabee Flour Mills Corp, Mo, 22–23; analyst, Ismert-Hincke Milling Co, Kans, 23–24, first asst. chemist, 25–28; chief chemist, Keystone Milling Co, Kans, 24–25; Slater Mill and Elevator Co, Mo, 28–29; instr. agr. biochem, Minnesota, and exp. miller and baker, Exp. Sta, 29–37; *chief chemist and director research, Cargill, Inc, 37–* Chief chemist, Thomas Page Mill Co, Kans, 29. A.A; fel. Am. Geog. Soc; Chem. Soc; Asn. Cereal Chemists. Cereal chemistry; plant breeding; milling and baking technology; archeology.

Markowitz, Dr. J(acob), University of Toronto, Toronto, Ont, Can. *Physiology.* Bucharest, Roumania, Sept. 17, 01. M.D, Toronto, 23, Ph.D, 26; M.S, Minnesota, 30. Demonstrator physiol, Toronto, 23–26; asst, inst. exp. med, Minnesota, 27–30; prof. *physiol,* sch. med, Georgetown, 30–32; *research assoc, Toronto, 32–* Physiol. Soc; Soc. Exp. Biol. Carbohydrate metabolism; experimental surgery; physiology of circulation.

Markowitz, Dr. W(illiam), U. S. Naval Observatory, Washington, D. C. *Mathematical astronomy.* Poland, Feb. 8, 07. B.S, Chicago, 27, M.S, 29, Ph.D, 31. Instr. math, Pa. State Col, 31–32; junior astronomer, *U. S. Naval Observatory,* 36–41, *asst. astronomer, 41–* Astron. Soc. Time; variation of latitude.

Marks, Dr. Barnard M(itchel), E. I. du Pont de Nemours and Co, Arlington, N. J. *Chemistry.* Kansas City, Mo, July 28, 05. B.S, Missouri, 26, Chem.E, 27; Ph.D, Minnesota, 29. Asst, Missouri, 25–27; Minnesota, 27–29; Am. Petrol. Inst, 29; *research chemist,* du Pont Ammonia Co, 29–30; du Pont Viscoloid Co, 30–36, *E. I. du Pont de Nemours and Co, 36–* Summers, chemist, Southwest. Milling Co, 24, 25. Chem. Soc. Physical and organic chemistry; catalysis; radioactivity; cathode rays; cellulose plastics; synthetic resins.

Marks, Dr. Eli S(amplin), Fisk University, Nashville, Tenn. *Psychology.* New York, N. Y, Dec. 15, 11. A.B, Columbia, 32, A.M, 33, Ph.D, 35. Asst, Columbia, 33–35; instr. psychol. and *asst. prof. statist. and psychol, Fisk, 35–* Assoc. Psychol. Asn; Statist. Asn; Soc. Psychol. Study Social Issues. Characteristics of work curves; perception of space areas; statistical methods applicable to personality analysis; individual differences and personality types; statistical analysis of bimodal curves; attitude and personality tests; Negro education; ecology of southern counties.

Marks, Dr. E(rnest) M(elson), 651 Clinton Ave, Haddonfield, N. J. *Organic chemistry.* Wilmington, Del, Aug. 1, 96. B.S, Delaware, 18; Ph.D, Hopkins, 28. With Nat. Aniline and Chem. Co, 19–23; research chemist, Atlantic Ref. Co, Phila, 23–25, asst, Hopkins, 25–27; *research chemist,* Atlantic Ref. Co, Phila, 28–41; *Kind and Knox Gelatin Co, Camden, 41–* Summers, U. S. Indust. Chem. Co, Baltimore, 25–28. Chem. Soc. Organic sulfur compounds; aromatic hydrocarbons; petroleum refining; catalysis in organic chemistry; gelatin; phosphates.

Marks, Dr. Graham W(allace), U. S. Bureau of Mines, Salt Lake City, Utah. *Chemistry.* London, Eng, June 10, 05. A.B, Stanford, 26, Chem.E, 27, Ph.D, 31. Teaching fellow chem, Washington (Seattle), 27–28; research assoc. oceanog, California, 32–35; asst. physical chemist *metal, U. S. Bur. Mines,* 35–42, *assoc. physicist, 42–* Biochemical enzymes; certain metals in metabolism; thermodynamics; analytical spectroscopy; crystal structure of alloys.

Marks, Dr. Lewis H(art), Sugartown, Paoli, Pa. *Chemistry.* New Orleans, La, July 14, 83. M.D, Tulane, 06; Hopkins; Harvard. Supt, Emergency Hosp, New Orleans, 05–07; vol. asst, Royal Inst. for Exp. Therapeut, Frankfurt, 07–08, asst, 08–10, mem, 10–12; director, Inst. for Med. Research, Frankfurt, 12–17; founder and director pharmaceut. labs, Nat. Aniline and Chem. Co, 20–26; exec. sec'y, Indust. Alcohol Inst, Inc, New York, 26–33; *pres, Am. Hyalsol Corp, 32–; Am. Hydronaphthene Corp;* Continental Distilling Corp, Phila, 33–39; *exec. v. pres, Publicker Commercial Alcohol Co, 40–* Officer, Order of Mil. Merit, 1st Class, Spain; Red Cross Medallion, 1st Class, Germany; Red Cross Officer Cross, Austria. A.A; Chem. Soc; Soc. Bact; Chemists' Club (pres, 33–35); London Soc. Chem. Indust; hon. mem. Gesell. Hist. Med. Industrial chemistry; pharmaceutics.

Marks, Prof. Lionel S(imeon), 19 Garden St, Cambridge, Mass. *Mechanical engineering.* Birmingham, Eng, Sept. 8, 71. Diploma, Mason Col, England, 91; B.S, London, 92; M.M.E, Cornell, 94. Instr. *mech. eng, Harvard,* 94–00, asst. prof, 00–09, prof, 09–40, *emer. prof, 40–* Chairman motive power sect, Nat. Research Council, 18. Consulting engineer, Bur. Aircraft Production, 18. A.A; Mech. Eng; Am. Acad. Steam engines; gas engines; properties of coal; explosions of gaseous mixtures; new gas engine cycles; fuels; mechanical refrigeration; centrifugal blowers; air flow in ducts; axial-flow fans; heat transfer from extended surfaces.

Marks, Dr. Louis W(endell), 76 Whittier Ave, Pittsfield, Mass. *Electrical engineering.* Baltimore, Md, June 23, 08. B.E, Hopkins, 30, D.E, 33. Asst. engineer, works lab, *Gen. Elec. Co,* 34–40, *designing engineer power transformer eng. dept, 40–* Instr, Pittsfield Apprentice Sch. Elec. Eng. Alternating current bridge measurements; transformer development and design; radio noise; control of electrostatic stress distribution.

Markson, A(lfred) A(ugustus), Hagan Bldg, Pittsburgh, Pa. *Mechanical engineering.* N. Y, 04. Chem.E, Rensselaer Polytech, 24. Asst. research engineer, N. Y. Steam Corp, New York, 24–37; research engineer, Consol. Edison Co, New York, 37–42; *develop. engineer, Hagan Corp, 42–* Mech. Eng. Boiler water chemistry; steam power plant research and design; boiler heat transfer; automatic control apparatus.

Markunas, Dr. P(eter) C(harles), 919 Barton Ave, Terre Haute, Ind. *Analytical chemistry.* Chicago, Ill, Nov. 5, 11. B.S, Shurtleff Col, 34; M.S, Illinois, 37, Ph.D, 40. *Research chemist,* Nat. Distiller Products Corp, 40–41; *Commercial Solvents Corp, 41–* Chem. Soc. Complex cations in microanalysis.

Markus, Henry C, Museum of Arts and Sciences, Edgerton Park, Rochester, N. Y. *Zoology.* Metropolis, Ill, Aug. 23, 02. Ed.B, South. Ill. Nor. Univ, 28; M.S, Illinois, 29; Puget Sound Biol. Sta, 30. Asst, Illinois, 29–31; div. inquiry, Bur. Fisheries, Fairport, Iowa, 31–32, in charge cooperative fish propagation, Bur. Fisheries and Monroe County, N. Y, 32–41; regional supervisor fish culture and later *asst. aquatic*

biologist, fish and wildlife service, U. S. Dept. Interior, 41– A.A; Soc. Ichthyol. and Herp; Fisheries Soc; Soc. Zool; Ecol. Soc; Micros. Soc; Ill. Acad. Fish culture; life history of forage fish.

Markwardt, L(orraine) J(oseph), 12 Lathrop St, Madison, Wis. *Engineering.* Lansing, Iowa, Nov. 26, 89. B.S, Wisconsin, 12, C.E, 22. Asst. city engineer, Madison, 12; asst. engineer, Forest Products Lab, U. S. Forest Service, 13–14; instr. drawing and descriptive geometry, Wisconsin, 15–17; *asst.* in charge *div. timber mech, Forest Products Lab, U. S. Forest Service,* 17–37, *in charge,* 37– A.A; Soc. Foresters; Standards Asn. (chairman, sectional cmt. on methods of testing wood); Soc. Test. Mat; Wis. Eng. Soc. Timber mechanics; mechanical properties of wood and plywood; structural design, joints and fastenings; the distribution and mechanical properties of Alaskan woods; properties, selection and characteristics of aircraft woods; strength of woods grown in the United States.

Markwood, Louis N(ewman), 5420 Connecticut Ave, Washington, D. C. *Chemistry.* New York, N. Y, Feb. 7, 96. B.S, Case, 17. Junior chemist, *U. S. Dept. Agr,* 19–25, asst. chemist, 25–29, assoc. chemist, 33–39, chemist, 39–42; *chem. indust. analyst, U. S. Dept. Commerce, 42–* Chem. consultant, 29–31; special chem. expert, U. S. Tariff Cmn, 31–33. C.W.S, 17–19. Inst. Chem. (pres, Wash. chap, 36). Nicotine; insecticides; tobacco; nornicotine; alkaloids.

Marlatt, Dr. C(harles) L(ester), Seal Harbor, Maine. **Entomology.* Atchison, Kans, Sept. 26, 63. B.S, Kans. State Col, 84, M.S, 86, Sc.D, 22. Asst. entom, Kans. State Col, 87–88; asst. entomologist, bur. entom, U. S. Dept. Agr, 89–94, first asst. and asst. chief entomologist, 94–25, assoc. chief entomologist, 25–27, chief entomologist, 27–33, chairman fed. hort. board, 12–27, chief plant quarantine and control admin, 28–29. Ed, 'Jour. Agr. Research,' 13–27. Entom. explorations, China, Japan and Java, 01–02. A.A. (sec'y, F, 99); Asn. Econ. Entom. (past sec'y, pres, 99); Entom. Soc. Wash. (past sec'y, pres, 97); Biol. Soc. Wash; Wash. Acad; Kans. Acad. Economic entomology; plant quarantine; subtropical insects; Coccidae; introduction of foreign beneficial insects.

Marley, Samuel Philip, 3307 211th St, Bayside, L. I, N. Y. *Engineering.* Pittsburgh, Pa, Aug. 29, 95. B.S, Pittsburgh, 22. Indust. fellow, Mellon Inst. 22–32; *research dept, Socony-Vacuum Oil Co,* Paulsboro, N. J, 32–34, *New York, 34–* Soc. Automotive Eng; Soc. Test. Mat. Petroleum technology; carbon depositing tendencies of petroleum oils; chemical composition of gasolines or motor fuels and their relation to detonation; gum-forming constituents of gasolines; Diesel fuels; industrial lubricants.

Marlies, Dr. Charles A, College of the City of New York, New York, N. Y. *Chemical engineering.* New York, N. Y, Sept. 20, 05. B.S, Col. City of N. Y, 24, fellow, 25–28, Chem. E, 26; A.M, Columbia, 28, Ph.D, 35. Tutor, *Col. City of N. Y,* 28–34, instr. chem, 35–37, *asst. prof. chem. eng, 37–* Chairman cmt. symbols and abbreviations in chem. and chem. technol, Nat. Research Council. A.A; Chem. Soc. (councilor, 37–39); fel. Inst. Chem. (councilor, 39); Electrochem. Soc. (sec'y-treas, New York sect, 37, chairman, 38); Soc. Test. Mat; Eng. Educ; N. Y. Acad. Physical chemistry; reaction velocity; electrochemistry; lubrication; technical analysis.

Marlow, Prof. H(ubert) W(hatley), 1442 Laramie St, Manhattan, Kans. *Chemistry.* Purdon, Texas, July 8, 94. B.S, N. Texas State Teachers Col, 24; M.S, Chicago, 28, Ph.D, 31. Teacher, pub. schs, Texas, 13–25; *Kans. State Col, 25–, asst. prof. chem, 32–* Biochemistry; the relation of sex hormones to blood calcium and phosphorus; effects of extracts of residual ovaries upon laboratory animals.

Marlowe, Ralph H(enry), P. O. Box 2777, Honolulu, Hawaii. *Entomology.* Calhoun Co, W. Va, Feb. 13, 05. B.S, Rollins Col, 28; M.S, Hawaii, 34; California, 39. Chemist, State Citrus Fruit Inspection, Fla, 28; *bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–30, senior sci. aid entom, 30–36, junior entomologist, 36–40, *asst. entomologist, 40–* A.A; Asn. Econ. Entom; Chem. Soc; Hawaiian Entom. Soc. (pres, 40); Hawaiian Acad. Economic entomology; insecticides; internal morphology of fruitflies; bee keeping.

Marmer, H(arry) A(aron), U. S. Coast and Geodetic Survey, Washington, D. C. *Oceanography.* Proskurof, Ukraine, June 21, 85. B.S, Rutgers, 07, M.S, 31. Tidal computer, *U. S. Coast and Geod. Surv,* 07–20, *asst. chief div. tides and currents, 20–, chief tidal mathematician, 24–* A.A; Geophys. Union (sec'y, sect. oceanog, 29–32, chairman, 34); Asn. Geog; Civil Eng; Philos. Soc. Wash. (rec. sec'y, 25); Acad. Nac. de Ciencias, Peru; Int. Geod. and Geophys. Union (cmt. on tides). Tides; physical oceanography; mean sea level; tidal datum planes; relation of current to wind.

Marmorston, Dr. Jessie, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Bacteriology, Internal medicine.* Kiev, Russia, Sept. 16, 99. M.D, Buffalo, 24. House staff, Montefiore Hosp, 24, research fellow path. and bacteriologist, 25–31; *asst.* exp. path, *Cornell,* 31–35, *bacter, 35–* Int. Cong. Microbiol, Paris, 30. A.A; Soc. Exp. Biol; Asn. Path. and Bact; Am. Med. Asn; Asn. Immunol; N. Y. Path. Soc; fel. N. Y. Acad. Med. The regeneration of thymus and lymph node transplants; the endocrine glands; the relation of the spleen to acute, chronic and protozoan infections; the basis of natural resistance in health and disease.

Maron, Prof. Samuel H(erbert), Case School of Applied Science, Cleveland, Ohio. *Physical chemistry.* Warsaw, Poland, May 28, 08. B.S, Case, 31, M.S, 33; Western Reserve, 31–35; univ. scholar, Columbia, 37–38, Ph.D, 38. Instr. chem, *Case,* 31–37, asst. prof. *physical chem,* 37–42, *assoc. prof, 42–* A.A; Chem. Soc. Chemical thermodynamics; chemical kinetics; phase rule; electrochemistry.

Maroney, Dr. William, 273 Green, San Francisco, Calif. *Chemistry.* Fargo, N. Dak, June 9, 08. B.S, N. Dak. Col, 29; Ph.D, California, 33. Chemist, Commercial Solvents Corp, 29–30; teaching fellow and instr. *chem,* California, 30–35; head dept, Col. of St. Teresa, 35–36; *instr, San Francisco, 36–* Lacquer technology; photochemistry.

Marquardt, J(ulius) C(harles), New York Agricultural Experiment Station, Geneva, N. Y. *Dairying.* La Crosse, Wis, Jan. 4, 94. B.S, Wisconsin, 17; M.S, Cornell, 26; Stanford, 31–32; Kiel, 36. Asst. *dairying,* California, 17–20, assoc, 20–21; asst. research, *N. Y. Exp. Sta, Geneva,* 21–31, *assoc. research, 31–* Cornell travel grant, Germany, 36. Ed. board, 'Chem. Formulary,' 33– Mem, State Food Cmn, N. Y, 43. Del, World's Dairy Cong, 23, mem. for. organization cmt, Berlin, 37. Dairy Sci. Asn. (ed. board, 'Jour'); Calif. Dairy Indust. Asn. The chemistry, physics and bacteriology of milk and its products; clarification and filtration; creaming of milk; dry milk utilization in foods; heat transfer relationship in processing foods; cow and goat milk correlations; dry heat sterilization; curd strength and character; homogenized milk; pathogens in dairy products.

Marquette, Dr. W(illiam George), Pleasantville, N. Y. *Botany.* Watertown, Wis, Feb. 4, 82. Ph.G, Northwestern, 99; B.S, Wisconsin, 03, Ph.D, 07. Asst. prof. bot, Wisconsin; assoc. prof, Columbia, 11–18; sci. manager, Carl Zeiss, Inc, 20–35; *with W. M. Grosvenor Labs, Inc, 35–* A.A; Wis. Acad. Cellular physiology; optics.

Marquis, Prof. Donald G(eorge), 333 Cedar St, New Haven, Conn. *[7]*Physiological psychology.* Two Harbors, Minn, June 22, 08. A.B, Stanford, 28, fellow, 28–30; Knight fellow, Yale, 30–32, Ph.D, 32. Asst. neuroanat, Stanford, 29–30; nat. research fellow neurophysiol, Yale, 32–33, instr. psychol, 33–35; Rockefeller Foundation fellow, Oxford, 35–36; asst. prof. *psychol, Yale,* 36–38, *assoc. prof, 38–, chairman dept, 41–* A.A; Psychol. Asn. The cerebral mechanism of vision; neural mechanism of the conditioned response; neurophysiology of emotion.

Marquis, Dr. Dorothy Postle (Mrs. Donald G. Marquis), Yale University, New Haven, Conn. *Psychology.* Columbus, Ohio, July 18, 05. A.B, B.S, Ohio State, 24, A.M, 27, Payne fellow, 30, Ph.D, 30. Teacher, high sch, Ohio, 24–26; asst. psychol, Ohio State, 26–28; instr, Missouri, 29; nat. research fellow, Yale, 30–31; psychologist, Conn. Mental Hygiene Soc, 31–33; Payne Whitney psychiat. clinic, New York Hosp, 34–36; from asst. to *asst. prof. psychol, dept. psychol. and pediat, med. sch, Yale, 36–* Psychol. Asn. Genetic and child psychology; infant behavior; early learning and sleep activity.

Marquis, Prof. F(ranklin) W(ales), Ohio State University, Columbus, Ohio. *Mechanical engineering.* Bloomington, Ill, May 27, 83. B.S, Illinois, 05, M.E, 09. Draftsman and designer, Kerr Turbine Co, 05–07; asst. and later assoc. ry. eng, eng. exp. sta, Illinois, 07–13; *prof.* steam eng, *Ohio State,* 13–29, *mech. eng. and chairman dept, 29–; prin. specialist in eng. educ, eng, science and management war training program, U. S. Office Educ, 42–* Develop. engineer, B. F. Goodrich Co, 27–28. Statistician and asst. to manager fuel conservation

sect, div. operation, U. S. R. R. Admin, 18–19. A.A; Mech. Eng. (chairman, Columbus sect, 34); Eng. Educ. Thermodynamics; steam power plants; tonnage rating; train resistance; steam locomotive performance; uniflow steam engines; steam boiler performance.

Marquis, J(ohn) Clyde, Orange, Va. *Agricultural economics.* Madison, Ind, July 9, 81. B.S, Purdue, 04, M.S, 09. Assoc. ed, 'Am. Agriculturist,' 04–08; agr. ed. and instr. agr. journalism, col. agr, Wisconsin, 08–11; ed, 'Country Gentleman,' 11–12, assoc. ed. and Washington rep, 12–21; economist, 'Washington Herald,' 21; director econ. information, bur. agr. econ, U. S. Dept. Agr, 22–35; Am. del, Int. Inst. Agr, Rome, 35–41; adviser for. agr, U. S. Dept. Agr, 41–43; *writer world agr, 43–* Special agent, bur. plant indust, U. S. Dept. Agr, 04. Del, Am. Cmn. on Cooperation and Rural Credit in Europe, 13; sec'y, Nat. Agr. Conf, 22; mem, Am. Cmn. on German Agr, 28; Int. Inst. Agr, Rome, 38. Farm Econ. Asn; Agr. Hist. Soc; Phila. Soc. Promoting Agr. Agricultural history of New England previous to 1840; consumer demand studies; world agricultural history.

Marquis, Prof. R(obert) H(oughton), Ohio University, Athens, Ohio. *Mathematics.* Kingston, Mo, Jan. 31, 02. A.B, Missouri, 22; fellow, Chicago, 25–26, Ph.D, 29; Kansas; Michigan; Wisconsin. Asst. *math,* Wisconsin, 21–22; instr, Pa. State Col, 22–24; Kansas, 24–25; Michigan, 26–28; asst. prof, *Ohio (Athens),* 28–35, assoc. prof, 35–38, *prof, 38–* A.A; Math. Soc. Theory of numbers.

Marr, Dr. Eleanor B, Hunter College, 68th St. and Park Ave, New York, N. Y. *Organic chemistry.* Walden, Colo, June 29, 99. A.B, Denver, 22, A.M, 23; Ferguson fellow, Columbia, 32–34, Ph.D, 35. Teacher sch, high sch, 23–28; *instr. chem,* Wilson Col, 29–32; *Hunter Col, 35–* Chem. Soc. Synthetic organic chemistry.

Marr, Dr. John W(inton), Arctic Section ADTIC, Army Air Forces Proving Ground Command, 315 Northrop, University of Minnesota, Minneapolis, Minn. *Botany.* Lamesa, Texas, May 16, 14. B.S, Texas Tech. Col, 36; Northwestern; Ph.D, Minnesota, 42. Asst, Texas Tech. Col, 34–36; Northwestern, 36–37; teaching asst, Minnesota, 37–41, asst, 41–42; *Arctic region specialist, Air Forces, U. S. Army, 42–* A.A; Ecol. Soc. Ecology; glacial geology; ecology of trees, particularly in ecotones; use of the internal growth pattern of trees in interpreting the current and past environmental relations of trees.

Marrazzi, Dr. Amedeo S, Loyola University School of Medicine, Chicago, Ill. *Pharmacology.* New York, N. Y, Feb. 6, 05. M.D, N. Y. Univ, 28. Instr. biol, Col. City of N. Y, 28, comp. anat, 28; intern, Bellevue Hosp, 28–30; Christian A. Herter fellow pharmacol, Univ. and Bellevue Hosp. Med. Col, 31, instr. pharmacol. and therapeut, 31–35, *pharmacol,* col. med, N. Y. Univ, 35–38, asst. prof, 39–43; *prof. and head dept, sch. med, Loyola (Ill), 43–* Visiting investigator, Rockefeller Inst, 42. A.A; Soc. Pharmacol; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med. Use of action potentials in the localization and quantitative study of drug action, correlating it with chemical structure; physiology and pharmacology of the autonomic nervous system; interaction of adjacent nerve cells and fibers; drugs affecting brain potentials.

Marrero, Dr. J(oaquin) F, Soil Conservation Service, Mayaguez, P. R. *Soils.* Sanchez, Dominican Republic, Sept. 17, 05. B.S, Pa. State Col, 29; M.S, Rutgers, 30, Ph.D, 34. *Asst. agron,* Exp. Sta, Rutgers, 29–34; *soil conservation service, U. S. Dept. Agr, 35–* Soc. Agron. The effect of various sources of organic matter on the properties of soils.

Marriott, R(obert) H(enry), 1470 E. 18th St, Brooklyn, N. Y. *Physics.* Richwood, Ohio, Feb. 19, 79. B.S, Ohio State, 01. Radio engineer, indust. institutions, 01–12; radio inspector, U. S. Dept. Commerce, 12–15; expert radio aid, Navy Dept, 15–25; *consulting engineer, 25–;* consulting engineer and chief examiner, U. S-British Civilian Tech. Corps, 41– Elec. Eng. advisory board, Washington (Seattle), 16– Consulting engineer, Fed. Radio Cmn, 28–29. Fel. Radio Eng. (pres, 12, board direction, 12–); Wireless Inst. (pres, 09–12); fel. Elec. Eng. (board examiners, 30). Radio range variation.

Marriott, Prof. Ross W, 213 Lafayette Ave, Swarthmore, Pa. *Mathematics, Astronomy.* Paxton, Ill, Dec. 30, 82. A.B, Indiana, 06; A.M, Swarthmore Col, 07; Ph.D, Pennsylvania, 11. Instr. math, *Swarthmore Col,* 07–10, asst. prof, 10–22, assoc. prof, 22–27, *prof. math. and astron, 27–* Research ballistician, exp. sta, E. I. du Pont de Nemours and Co, 18. Swarthmore Col. eclipse expeds, 23, 25, 26, 29, 32; U. S. Naval Observatory eclipse exped, 30. A.A; Math. Soc; Math. Asn; Astron. Soc; fel. Royal Astron. Soc. Comets; the Hartmann test; the orders of the group of isomorphisms of the group of order p^4; photographic measures of double stars and of the diameter and position of the moon; solar corona.

Marrison, Warren A(lvin), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering, Physics.* Inverary, Ont, Can, May 21, 96. B.S, Queen's (Can), 20; A.M, Harvard, 21. *Engineer, Bell Tel. Labs, 21–* A.A; Elec. Eng; Radio Eng; Franklin Inst; Physical Soc; N. Y. Elec. Soc. Electrical measurements; development of high precision frequency standards and methods for time and frequency measurement.

Marron, Dr. T(homas) U(rban), 70 E. Oakwood Place, Buffalo, N. Y. *Analytical chemistry.* Pueblo, Colo, Sept. 6, 14. B.S, St. Ambrose Col, 36; M.S, Iowa, 37, Ph.D, 42. Supervisor, parenteral solutions labs, univ. hosps, Iowa City, Iowa, 38; *chemist,* dept. path, Iowa Lutheran Hosp, Des Moines, Iowa, 38–41; *nat. aniline div, Allied Chem. and Dye Corp, 42–* Chem. Soc; fel. Iowa Acad. Enzyme activity and surface tension; physics and chemistry of powdered wool; clinical methods; vitamins; blood alcohol determinations; intoxication and traffic laws; analytical applications.

Marschner, Dr. Robert F(rederic), 18427 Stewart Ave, Homewood, Ill. *Organic chemistry.* Wilkinsburg, Pa, Aug. 17, 08. Ph.B, Brown, 28, M.S, 29; Ph.D, Pa. State Col, 36. *Research chemist,* Dow Chem. Co, Midland, Mich, 29–31; *Standard Oil Co. of Ind, Whiting, 34–* Chem. Soc. Pyrolysis; polymerization.

Marsden, Dr. James, General Electric Co, Schenectady, N. Y. *Physical chemistry.* N. S, Can, Nov. 11, 11. B.Sc, Mt. Allison, 32; Ph.D, McGill, 36. Research chemist, Can. Industries, Ltd, 36; 1851 Exhib. scholar, Cambridge, 36–38; *research chemist, Gen. Elec. Co, 38–* Nat. Research Council Can. scholar. Chem. Soc. The critical temperature region; physical properties of monomolecular films; colloid chemistry; resin chemistry.

Marsden, R(oger) D(earborn), U. S. Department of Agriculture, Chevy Chase, Md. *Agricultural engineering.* St. Charles, Ill, Feb. 22, 81. B.S, Illinois, 08. From asst. office engineer to drainage engineer, office exp. sta, bur. pub. roads, U. S. Dept. Agr, 08–19; special agent for drainage, bur. census, U. S. Dept. Commerce, 19–22; senior drainage engineer, bur. pub. roads, *U. S. Dept. Agr,* 22–31, chief ed. and information div, bur. agr. eng, 31–37, senior drainage engineer, 37–39, *prin. drainage engineer, soil conservation service, 39–* Soc. Agr. Eng. Land drainage.

Marsden, Stanley J, Box 286, Beltsville, Md. *Poultry husbandry.* Hinckley, N. Y, Nov. 20, 97. B.S, Mich. State Col, 21; M.S, Nebraska, 30. Instr. poultry husbandry, Nebraska, 21–29; assoc. poultry husbandman, range livestock exp. sta, bur. animal indust, U. S. Dept. Agr, 29–35, Beltsville research center, 35–38, poultry husbandman, 38–42; *Air Forces, U. S. Army, 42–* Poultry Sci. Asn. Genetics and nutrition of turkeys.

Marsh, Prof. Albert W(illiam), Oregon State College, Corvallis, Ore. *Irrigation.* Crookston, Minn, July 29, 13. B.Ch.E, Minnesota, 35; M.S, Minnesota, 38; Ph.D, Oregon State Col, 42. Asst. soils, Minnesota, 37–38; junior soil surveyor, soil conservation service, U. S. Dept. Agr, 38–40; asst. soils, *Oregon State Col,* 40–42, *asst. prof. irrigation, 42–* Soil Sci. Soc; Soc. Agron. Relation of manganese to plant nutrition; atmospheric contribution of sulfur to soils; effect of irrigation practices on soil erosion.

Marsh, Dr. David Fielding, University of Georgia School of Medicine, Augusta, Ga. *Pharmacology, Organic chemistry.* Kokomo, Ind, June 8, 19. A.B, West Virginia, 39; M.S, Purdue, 40; Merck fellow, California, 41, Shell Develop. fellow, 42, Ph.D, 42. *Asst. prof. pharmacol, sch. med, Georgia, 42–* Chem. Soc. Anesthesiology; biochemorphology; muscarine; war gas.

Marsh, Prof. Frank L(ewis), Union College, Lincoln, Nebr. *Ecology.* Aledo, Ill, Oct. 18, 99. A.B, Emmanuel Missionary Col, 27, B.S, 29; Chicago, 29–31; M.S, Northwestern, 35; Ph.D, Nebraska, 40. Instr. science and math, Hinsdale Acad, Ill, 29–34; asst. zool, Northwestern, 34–35; instr. *biol, Union Col. (Nebr),* 35–37, asst. prof, 37–39, assoc. prof, 39–41, *prof, 41–* A.A; Ecol. Soc; Soc. Study Speciation; Nebr. Acad.

Animal and plant ecology; fundamentals of biology; biology of cecropia and associated ichneumon, tachina and chalcid parasites and hyperparasites; water content and osmotic pressure of prairie plants.

Marsh, Franklin W(inter), 5711 Colorado Ave, N. W, Washington, D. C. *Bacteriology.* Cambridge, Mass, June 27, 92. B.S, Mass. Col, 15. Chemist and *bacteriologist, U. S. Dept. Agr, 16–* A.A; Chem. Soc. Carbon dioxide production of soils; soil dispersoids; ability of cultures to produce nodules on legumes.

Marsh, Dr. Gordon, University of Iowa, Iowa City, Iowa. *Physiology, Biophysics.* Cleveland, Ohio, July 17, 02. A.B, Texas, 26, A.M, 27, Louis Lipsitz fellow, 27–28, Malcolm Hiram Reed fellow, 28–29, Ph.D, 30. Instr. *zool,* Texas, 29–30; assoc, *Iowa,* 30–37, *asst. prof, 37–* A.A; Soc. Plant. Physiol; Soc. Zool; Soc. Exp. Biol; Soc. Nat. Bioelectricity and cell oxidations; nature and significance of cellular electromotive force.

Marsh, Dr. Hadleigh, Montana State College, Bozeman, Mont. *Veterinary pathology.* Ripon, Wis, Nov. 21, 88. B.S, Chicago, 09; D.V.M, George Washington, 12. Asst, poisonous plant investigations, bur. plant indust, U. S. Dept. Agr, 08–12, vet. inspector, bur. animal indust, 13–17; bacteriologist, Live-stock Sanit. Board, Mont, 19–29; *vet. pathologist, vet. research lab, Exp. Sta, Mont. State Col, 29–* Vet. C, U.S.A, 17–19. A.A; Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Mont. Vet. Med. Asn. Poisonous plants; diseases of sheep and cattle.

Marsh, Prof. H(erbert) E(ugene), 940 Campus Ave, Redlands, Calif. *Physics.* Hillsdale, Mich, July 25, 74. B.S, Mich. State Col, 08; A.M, California, 25; LL.D, Redlands, 42. Instr. physics, Mich. State Col, 09–10, eng, 10–12; *prof. physics and eng, Redlands, 12–,* head dept, 42–43, acting pres, 37, academic dean, 38–42. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers. Theory of the radiometer.

Marsh, Prof. Homer F(loyd), University of Oklahoma School of Medicine, Oklahoma City, Okla. *Bacteriology, Immunology.* Terre Haute, Ind, Feb. 26, 09. B.S, Ind. State Teachers Col, 30; M.S, Purdue, 32; Ph.D, Ohio State, 41. Teaching asst. *bacter,* Purdue, 32–34; instr, Ohio State, 40–41; *asst. prof, Oklahoma, 41–* Adsorption of bismuth in experimental animals; bile and diet and intestinal flora; dysentery in infants.

Marsh, Prof. H(oward) D(aniel), 103 Overlook Terrace, Leonia, N. J. *Psychology.* Bloomington, Ill, March 30, 71. A.B, Ohio Wesleyan, 01, A.M, 02; Ph.D, Columbia, 05. Instr. *philos. and psychol,* Ohio Wesleyan, 05–06; *Col. City of N. Y,* 07–17, asst. prof, 17–32, *assoc. prof, 32–* Traveling fellow, Ohio Wesleyan, 06–07. A.A; Psychol. Asn; Philos. Asn. The diurnal course of efficiency; psychology of work; sex differences brought out by fasting; standardization of the grading of laboratory reports.

Marsh, Dr. M(ary) Elizabeth, Killian Research Laboratories, Inc, 49 W. 45th St, New York, N. Y. *Physiology.* Bliss, N. Y, Dec. 12, 95. B.S, Rochester, 16, M.S, 23, Ph.D, 27. Asst. physiol, Rochester, 21–23, instr. physiol. and pub. health, 23–28; research fellow, Trudeau Foundation, 30–31; asst. physiol, sch. med. and dentistry, Rochester, 31–33, instr, 33–35, asst. prof, 35–37; *asst. director, Killian Research Labs, 37–* Physiol. Soc; Inst. Nutrition; N. Y. Acad. Energy metabolism of infants and in muscular work; respiratory functions in tuberculous subjects; tissue respiration.

Marsh, Prof. Ray Stanley, University of West Virginia, Morgantown, W. Va. *Pomology.* Morgan Co, Ind, Dec. 17, 94. B.S. (Agr), Missouri, 21, A.M, 22. Prof. agr, Bethany Col. (W. Va), 23–24; asst. plant physiol, Chicago, 24–25; assoc. prof. *hort,* Illinois, 25–36; *prof. and head dept, West Virginia, 36–* Soc. Hort. Sci. Nutrition; sulfur and nitrogen; breeding plants.

Marsh, R(aymond) E(ugene), U. S. Forest Service, Washington, D. C. *Forestry.* Westport, N. H, Jan. 27, 85. B.S, Dartmouth Col, 08; M.F, Yale, 10. Forest asst, *U. S. Forest Service,* N. Mex. and Ariz, 10–13, forest supervisor in charge, Carson Nat. Forest, N. Mex, 14–17, Coconino Nat. Forest, Ariz, 18–19, asst. dist. forester in charge forest management, N. Mex. and Ariz, 20–25, asst. chief branch research and chief div. forest econ, 25–39, *asst. chief service, 39–* Advisory cmt. on agr, Social Science Research Council, 31–39, chairman cmt. to survey research in forest econ, 31–39. Soc. Foresters (sec'y, 29); Forestry Asn. Forest economics; policy and programs.

Marsh, Dr. Robert P(rice), Cobleskill, N. Y. *Biology.* N. J, March 20, 89. B.S, N. Y. Univ, 21; M.S, Rutgers, 23, Ph.D, 24. Head dept. biol, Gettysburg Col, 24–39; research assoc. plant physiol, Rutgers, 39–42; War Dept. service, 42–43; *soil conservation service, U. S. Dept. Agr, 43–* Plant nutrition; trace elements; soil science.

Marshak, Dr. Alfred (George), Radiation Laboratory, University of California, Berkeley, Calif. *Cytology, Physiology.* New York, N. Y, June 2, 07. B.S, Cornell, 30; Ph.D, Harvard, 34. Instr. physiol, Harvard, 34; Radcliffe Col, 35; Eli Lilly Co. fellow, lab. path, Deaconess Hosp, 35–38; Guggenheim Mem. Foundation fellow, 38–40; Finney Howell fellow, 40–42; *research assoc, radiation lab, California.* A.A; Genetics Soc; Physiol. Soc; Soc. Exp. Biol; N. Y. Acad. Chromosome structure; physiology of chromosome and cell division; the effect of x-rays on normal and malignant cells; genetics and growth of mice; metabolism of nuclei.

Marshak, Dr. R(obert) E(ugene), University of Rochester, Rochester, N. Y. *Theoretical physics.* New York, N. Y, Oct. 11, 16. A.B, Columbia Col, 36, 36–37; Ph.D, Cornell, 39. *Instr. physics, Rochester, 39–* Summer, lecturer, Harvard Observatory, 40. A. Cressy Morrison prize, N. Y. Acad. Sciences, 40. Physical Soc. Energy sources in stars; internal constitution of stars; theory of atomic nuclei.

Marshall, Dr. A(braham) L(incoln), 1430 Dean St, Schenectady, N. Y. *Physical chemistry.* Victoria, B. C, Can, Oct. 11, 96. B.A, British Columbia, 18; M.A, Toronto, 20; 1851 Exhib. scholar, London, 20–22, Ph.D, 22. Instr. physical chem, Princeton, 22–26; chemist, *research lab, Gen. Elec. Co,* 26–33, *head chem. sect, 33–* Chem. Soc. Electrochemistry of solutions; mechanism of gaseous reactions; photochemistry; thermochemistry; chemistry of macromolecules.

Marshall, Albert E(dward), 730 Elmgrove Ave, Providence, R. I. *Chemical engineering.* Liverpool, Eng, May 18, 84. Liverpool Univ. Chemist and operation supervisor, United Alkali Co; asst. manager, Thermal Syndicate, England, gen. manager, N. Y, 12–15; works manager, Davison Chem. Co, Baltimore, 15–21; consulting chem. engineer, Baltimore, 21–29, New York, 29–38; *pres, Rumford Chem. Works, 38–;* v. pres, Amino Products Co, Ohio, 37–42; *pres, New Eng. Indust. Research Foundation, 42–* Mem. corp, Northeastern. A.A; Chem. Eng. (past pres); Chem. Soc; Soc. Chem. Indust. (past chairman); Ceramic Soc; Min. and Metal. Eng; Inst. Food Technol; Chemists' Club; Royal Soc. Arts. Synthetic resins; process economics; chemical plant design; early history of technologic arts; alchemy and early chemistry; amino acids; history of photography.

Marshall, Dr. (Alice) Berry C(arroll), 419 Hawthorne Road, Baltimore, Md. *Psychiatry.* Columbus, Ohio, May 30, 89. B.S, Ohio State, 11; M.D, Hopkins, 17. *Asst. dispensary physician,* dept. psychiat. and neur, Barnes Hosp, med. sch, Washington (St. Louis), 21–23; *dept. psychiat, Hopkins Hosp, 27–, instr, med. sch, Hopkins, 28–; psychiatrist, Baltimore Juvenile Court, 29–* Fel. Psychiat. Asn.

Marshall, Prof. Anne C(orinne), 902 Seventh St, Menomonie, Wis. *Entomology.* Zanesville, Ohio, Oct. 8, 04. B.S, Denison, 25; A.M, Ohio State, 28, Ph.D, 39. Instr. zool, McCook Junior Col, 29–32; Louisiana, 32–35; Ohio State, 35–39; *assoc. prof. biol, Stout Inst, 39–* Trichoptera.

Marshall, Dr. C(harles) Edmund, University of Missouri, Columbia, Mo. *Colloid chemistry.* Bredbury, Eng, Jan. 9, 03. B.Sc, Manchester, 24, Mercer research scholar, 24–25, M.S, 25; Ph.D, London, 27; Zurich, 27–28; Ministry of Agr. research scholar, 25–28. Asst. lecturer agr. chem, Leeds, 28–36; visiting assoc. prof. *soils, Missouri,* 36–37, assoc. prof, 37–42, *prof, 42–* Chem. Soc; Soil Sci. Soc. (chairman sect. II, 41); Int. Soc. Soil Sci. Coagulation of colloids; mineralogy of soils; electrochemistry of membranes.

Marshall, Dr. Clyde (Slocomb), 25 Beech St, Halifax, N. S, Can. *Medicine.* Halifax, N. S, Feb. 4, 02. M.D, Dalhousie, 24. Intern, Victoria Gen. Hosp, 23–24; fellow neur. and psychiat, Rockefeller Foundation, 25–27; asst, Boston Psychopathic Hosp, 25–26; res. neurologist, Mass. Gen. Hosp, 26–27; provincial psychiatrist, N. S, 27–30; lecturer psychiat. and demonstrator clin. med, Dalhousie, 27–30; med. director, Nova Scotia Training Sch, 30; instr. anat, sch. med. Yale, 30–36, asst. prof, 36–41; *instr. med, sch. med, Dalhousie, 41–* Practising physician, 41– A.A; Psychiat. Asn; Asn. Anat. Neuroanatomy; functions of pyramidal tract and motor cortex; human anatomy; clinical neurology.

Marshall, Dr. Edward E(ugene), 601 Ridge Ave, New Kensington, Pa. *Chemistry.* St. Louis, Mo, Sept. 21, 14. B.S, St. Louis, 37, fellow, 37–41, M.S, 39, Ph.D, 42. *Research chemist, Aluminum Research Labs, 41–* Chem. Soc. Inorganic and physical chemistry; development of metallurgical processes in the field of light metals and alloys.

Marshall, Dr. E(li) K(ennerly), Jr, Johns Hopkins University School of Medicine, Baltimore, Md. **³Physiology, Pharmacology.* Charleston, S. C, May 2, 89. B.S, Col. of Charleston, 08, LL.D, 41; Ph.D, Hopkins, 11, M.D, 17. Asst. physiol. chem, Hopkins, 11–13, assoc, 13–14, pharmacol, 14–17, assoc. prof, 17–19; *prof,* Washington (St. Louis), 19–21; physiol, *sch. med, Hopkins,* 21–32, *pharmacol. and exp. therapeut, 32–* Ed, 'Jour. Pharmacol. and Exp. Therapeut,' 32–37. Nat. Acad; A.A; Soc. Pharmacol; Physiol. Soc; Chem. Soc; Soc. Biol. Chem; Am. Physicians. Physiological chemistry; urea determinations; kidney function; urinary secretion; the heart and circulation; respiratory stimulants; bacterial chemotherapy; malarial chemotherapy.

Marshall, G(eorge) Edw(ard), Box 53, Orleans, Ind. *Entomology.* Bonner Springs, Kans, Sept. 3, 04. B.S, Kans. State Col, 28, M.S, 29; fellow, Ohio State, 40–41, Ph.D, 41. Field asst, Exp. Sta, Kans. State Col, 28–29; junior entomologist, bur. entom. and plant quarantine and control admin, U. S. Dept. Agr, Orlando, Fla, 29–30; *assoc. entom, Purdue, 30–* Control of codling moth by sanitary measures, spraying and light traps; taxonomy of Microlepidoptera of deciduous fruits; Oriental fruit moth control investigation; leafhoppers as affecting photosynthesis, transpiration and the internal structure of leaves.

Marshall, Dr. H(arry) Borden, 43 Queens Park, Toronto, Ont, Can. *Organic chemistry.* Listowel, Ont, July 15, 09. B.A, British Columbia, 29, M.A, 31; Nat. Research Council Can. bursar, 31–32, student, 32–33, fellow, 33–34; Howard Smith Paper Mills fellow, 34; Ph.D, McGill, 34. Demonstrator, British Columbia, 29–31; research chemist, Dow Chem. Co, 35–37; *research fellow, Ont. Research Foundation, 37–* Summers, chemist, Dom. Lab. Plant Path, Can, 29, Pacific Biol. Sta, Nanaimo, B. C, Can, 30. Chem. Soc; Can. Inst. Chem; Can. Chem. Asn. Lignin; cellulose chemistry; plastics.

Marshall, H(ousden) L(ane), Agricultural Experiment Station, Knoxville 16, Tenn. *Chemistry.* Cleveland, Ohio, March 20, 02. B.S, Maryland, 25, M.S, 26. Asst. chemist, Exp. Sta, Florida, 27–30; phosphate sect, fertilizer investigations, bur. plant indust, U. S. Dept. Agr, 30–42; *assoc. chemist, cooperative chem. research lab, Tenn. Valley Authority, 42–* Chemical composition of phosphate rock; production of double superphosphate; calcination of phosphate rock; deflourination phosphates; minerals utilization for agricultural purposes.

Marshall, James, Dominion Entomological Laboratory, P. O. Box 308, Court House, Vernon, B. C, Can. *Entomology.* Strathblane, Scotland, June 1, 03. B.S.A, Toronto, 25; M.S, State Col. Wash, 29; Ph.D, McGill, 38. Asst. provincial entomologist, Ont, Can, 25–28; asst. entomologist, Dom. Entom. Branch, Can, 29–32; in charge insecticide investigations, Exp. Sta, State Col. Wash, 32–39; *in charge Dom. Entom. Lab, Can. Dept. Agr, 39–* Insecticides; fungicides.

Marshall, John, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry,* Huntington, W. Va, May 12, 91. Chem. E, Virginia, 13. Explosives chemist, east. lab, *E. I. du Pont de Nemours and Co,* N. J, 13–26, director Phila. lab, paint and varnish dept, 27–33, asst. chem. director *finishes div,* 34–36, *chem. director, 36–* Chem. Soc. Explosives technology; paints; synthetic resins.

Marshall, Dr. J(ohn) Stewart, 225 Kent St, Ottawa, Ont, Can. *Physics.* Welland, Ont, July 18, 11. B.A, Queen's (Can), 31, M.A, 33; 1851 Exhib. scholar, 35–38; Royal Soc. Can. fellow, Cambridge, 38–39, Ph.D, 40. *Junior research physicist, Ottawa labs, Nat. Research Council Can, 39–* Beta-ray scattering; beta-ray spectra; thermionics.

Marshall, Dr. Lauriston C(alvert), University of California, Berkeley, Calif. *Electrical engineering.* Canton, China, June 27, 02. A.B, Park Col, 23; Whiting fellow, California, 27–28, Ph.D, 29. Collaborator, bur. plant indust, U. S. Dept. Agr, 28–31, physicist, 31–37; *assoc. prof. elec. eng, California, 37–* Nat. research fellow, Princeton, 29–31. A.A; Physical Soc; Elec. Eng. Kinetic theory of gases, mobilities of ions and electrons and recombination of ions in gases; plant reproduction and growth; relationship of radiation to physiological processes; mechanism of corona, sparking and other high tension phenomena.

Marshall, Prof. Madison L(incoln), Texas State College for Women, Denton, Texas. *Colloid chemistry.* Dayton, Pa, Feb. 18, 06. B.S, Grove City Col, 29; fellow, Washington and Jefferson Col, 29–30, M.S, 32; Ph.D, Ohio State, 37. Teacher, high sch, Ohio, 30–34; student asst. *chem,* Ohio State, 34–35, asst, 35–37; asst. prof, *Texas State Col. Women,* 37–42, *assoc. prof, 42–* Chem. Soc. Construction of an air driven ultracentrifuge; absorption of water by various humectants used in cosmetics.

Marshall, Dr. Maud A(lice), Wheaton College, Norton, Mass. *Chemistry.* East Lansing, Mich, July 15, 07. A.B, Radcliffe Col, 28; Ph.D, Oxford, 33. Asst, Boston City Hosp, 28–29; chemist, Robert Brigham Hosp, 29–31; asst, Exp. Sta, Mass. State Col, 33–34; from instr. to *assoc. prof. chem, Wheaton Col. (Mass), 34–* Chem. Soc. Alkaloids.

Marshall, Prof. M(ax) S(kidmore), University of California Medical School, San Francisco, Calif. *Bacteriology.* Lansing, Mich, Dec. 20, 97. B.S, Mass. Col, 20; A.M, Michigan, 22, Ph.D, 25. Asst. bacter, Michigan, 20–23; research bacteriologist, bur. labs, State Dept. Health, Mich, 23–27; asst. prof. *bacter, med. sch. and col. dentistry,* and lecturer, col. pharmacy, *California,* 27–30, *assoc. prof, 30–* Consultant, div. lab, city and county of San Francisco, 36– 2nd lieut, U.S.A, 17–19. A.A; Soc. Bact; Soc. Exp. Biol; Pasteur Soc. Cent. Calif. (sec'y-treas, 28, v. pres, 30, pres, 32). Milk; bacteriophage; surface tension; scarlet fever; undulant fever; dissociation; intestinal flora; disinfectants.

Marshall, Prof. M(elville) J(ohnston), University of British Columbia, Vancouver, B. C, Can. *Chemistry.* Kingston, Ont, Oct. 18, 91. B.Sc, McGill, 14, M.Sc, 16; du Pont fellow, Mass. Inst. Tech, 19–20, Ph.D, 21. Demonstrator chem, McGill, 14–17; research chemist, Can. Electro-Products Co, and acting chief chemist, Shawinigan Labs, 17–19; asst. prof. *chem, British Columbia,* 21–27, *assoc. prof, 27–* A.A; Chem. Soc; fel. Royal Soc. Can. Chemical composition of adipocere; adsorption of gases in solids; diffusion of gases through solids; decomposition of formaldehyde; distillation; contact resistance; effects of the conduction of electricity through gases.

Marshall, Prof. Milton, Box 294, Provo, Utah. *Physics.* Vernal, Utah, May 10, 95. A.B, Brigham Young, 18; Ph.D, Chicago, 24. Instr. *physics, Brigham Young,* 19–21, asst. prof, 24–27, assoc. prof, 27–30, *prof, 30–* A.A; Physical Soc; Optical Soc. Optics; metastable states in low voltage mercury arcs; discharge of electricity through gases.

Marshall, Prof. Roy E(dgar), Michigan State College, East Lansing, Mich. *Pomology.* Arlington, Nebr, Feb. 28, 90. B.S, Nebraska, 13; M.S, Oregon State Col, 15; Ph.D, Minnesota, 31. Instr. hort, Nebraska, 13; teaching fellow, Oregon State Col, 13–15, instr. pomol, 15–16; asst. horticulturist, Va. Polytech, 16–17, horticulturist, 17–20; assoc. prof. hort. and research assoc, *Mich. State Col,* 20–34, prof. pomol. and research assoc, 34–42, *prof. and research prof. hort, 42–* Exchange assoc. prof, Minnesota, 28–29; prof. and acting head dept. hort, State Col. Wash, 35–36. Ed, 'Fruits and Gardens,' 27–31. A.A; Soc. Hort. Sci. (asst. sec'y, 20–24). Handling and storage of fruits and vegetables; orchard nutrition and pollination; pruning fruit trees; processing fruits and vegetables.

Marshall, Dr. Roy K(enneth), Franklin Institute, Philadelphia, Pa. *Astronomy.* Glen Carbon, Ill, Aug. 21, 07. A.B, Ohio Wesleyan, 29; A.M, Michigan, 30, fellow, 30–32, Ph.D, 32. Perkins Observatory, Ohio Wesleyan, 26–28; asst. astron, Michigan, 29–30; research, Yerkes Observatory, Chicago, and Harvard Observatory, 34–35; instr. astron. and math, Wilson Col, 35–37, asst. prof, 37–39; *asst. director, Fels Planetarium, Franklin Inst, 39–; astronomer, Cook Observatory, Pennsylvania, 40–* Summers, asst, Michigan, 30, 31. Lecturer, Adler, Fels and Hayden Planetaria, 32–38. A.A; Astron. Soc; Royal Astron. Soc. Can; British Astron. Asn; fel. Royal Astron. Soc. Astrophysics; spectroscopy; class B stellar spectra.

Marshall, Dr. Rush P(orter), Yale University, New Haven, Conn. *Plant pathology, Botany.* Philadelphia, Pa, Nov. 14, 91. B.S, Pa. State Col, 14; M.S, Wisconsin, 24; Ph.D, Yale, 29. *Bur. plant indust, U. S. Dept. Agr, 14–, pathologist, div. forest path; research assoc, Osborn bot. lab, Yale.* Nat. Shade Tree Conf. (sec'y-treas, 29–33, v. pres, 33, pres, 35). N. J. Federation Shade Tree Cmns. U.S.A, 17–19. A.A; Phytopath. Soc; Mycol. Soc; Bot. Soc. Conn; Conn. Tree Protec-

tive Asn. (treas, 36–41); Conn. Acad. Shade tree diseases; forest pathology.

Marshall, Prof. Ruth, Wisconsin Dells, Wis. *Zoology.* Big Spring, Wis, Dec. 24, 69. B.S, Wisconsin, 92, M.S, 00; fellow, Nebraska; 06–07, Ph.D, 07. Teacher, high schs, Wis, 92–09; head dept. biol, Rockford Col, 09–14; Lane Tech. Sch, Chicago, 16–20; head dept. biol. and prof. *zool, Rockford Col,* 20–36, *emer. prof, 36–* A.A; Soc. Zool; Micros. Soc; Ill. Acad; Wis. Acad. Systematic zoology; Hydracarina.

Marshall, Stewart M(cCulloch), 1915 Mills Tower, San Francisco, Calif. *Engineering, Metallurgy.* Centralia, Pa, June 13, 79. B.S, Pennsylvania, 00, M.E, 10; M.S, Columbia, 32. Instr, Pennsylvania, 00–02; with Cambria Steel Co, Pa, 02–14; chief engineer, Southwark Foundry and Machine Co, Pa, 15–16; partner and consulting engineer, Perin and Marshall, New York, 16–30; *consulting engineer, 30–* A.A; Soc. Metals; Iron and Steel Elec. Eng; Mech. Eng; Min. and Metal. Eng; Am. Iron and Steel Inst; San Francisco Eng. Club; British Iron and Steel Inst. Beneficiation of coals and iron ores; problems of the steel industry.

Marshall, Lieut. Col. T(heodore) H(enry), 2127 Barker Ave, Lawrence, Kans. *Chemical engineering.* Guthrie Center, Iowa, June 22, 02. B.S, Iowa State Col, 27, Ch.E, 36; R. K. Laros Silk Co. research fellow, Lehigh, 28–30, M.S, 30. Asst. chemist, eng. exp. sta, Iowa State Col, 25–27; State Highway Cmn, Iowa, 27–28; instr. chem. eng, Case, 30–35; asst. prof, Kansas, 35–36, assoc. prof, 36–39, acting head dept, 37–39, prof. and head dept, 39–41; capt, *Chem. Warfare Service, U. S. Army,* 41–42, major, 42, *lieut. col, 42–* Chem. Eng. Corrosion; process development and research; design of plants.

Marshall, Dr. Wade H(ampton), Johns Hopkins University Medical School, Baltimore, Md. *Physiology.* Pittsburgh, Pa, Dec. 17, 07. A.B, Beloit Col, 30; M.S, Chicago, 31, Ph.D, 34. Asst. physiol, Chicago, 31–34; instr, med. sch, George Washington, 34–36; nat. research fellow, *med. sch, Hopkins,* 36–38, *assoc. physiol. optics, Wilmer ophthal. inst, 38–* Physiol. Soc; Soc. Exp. Biol. Neurophysiology.

Marshall, Dr. William, Route 9, Lafayette, Ind. *Mathematics.* Southfield, Mich, April 5, 69. B.S, Michigan, 97, M.S, 98; Göttingen, 06–07; Ph.D, Zurich, 08. Instr. *math,* Michigan, 00–08; asst. prof, *Purdue,* 08–10, assoc. prof, 10–17, prof, 17–21, head dept, 21–41, *emer. head dept, 41–* Math. Soc; Math. Asn; Eng. Educ; Edinburgh Math. Soc. Cylinder functions.

Marshall, W(illia)m B(lanchard), 1818 17th St, S. E, Washington, D. C. *Zoology.* Philadelphia, Pa, Jan. 21, 65. B.S, Lafayette Col, 85, M.S, 88. Jessup student and asst, conchol. sect, Acad. Nat. Sciences Phila, 85–87; asst. zoologist, N. Y. State Museum, Albany, 87–94; aid, div. mollusks, U. S. Nat. Museum, 95–96; curator, Phila. Commercial Museum, 96–01; aid, div. mollusks, *U. S. Nat. Museum,* 03–14, asst. curator, 14–34, *hon. assoc. zool, 34–* Mollusca; conchology; economics; education.

Marshall, Prof. W(illia)m S(tanley), 139 E. Gilman St, Madison, Wis. *Entomology.* Milwaukee, Wis, Dec. 14, 66. B.S, Swarthmore Col, 88; Pennsylvania, 88–89; Ph.D, Leipzig, 92. Instr. biol, *Wisconsin,* 93–98, asst. prof. zool, 98–05. assoc. prof. *entom,* 05–33, prof, 33–37, *emer. prof, 37–* A.A; Entom. Soc; Soc. Zool; Wis. Acad. Anatomy and embryology of insects.

Marsland, Prof. Douglas (Alfred), New York University, Washington Square, New York, N. Y. *Physiology.* Brooklyn, N. Y, Feb. 17, 99. B.S, N. Y. Univ, 22, Ph.D, 34; A.M, Columbia, 28. Instr. *biol, Wash. Sq. Col, N. Y. Univ,* 24–27, asst. prof, 27–42, *assoc. prof, 42–* Prize award, Am. Asn. Advancement Science, 41. A.A; Soc. Cellular Biol; Harvey Soc; Soc. Zool. Cellular physiology; cell membranes; narcosis; protoplasmic effect of hydrostatic pressure; amoeboid movement; sol-gel equilibria; cleavage; cyclosis; bioluminescence.

Marsteller, Dr. R(oss) P(erry), Administration Bldg, 225, 228, College Station, Texas. *Veterinary medicine.* West Lodi, Ohio, July 27, 82. D.V.M, Ohio State, 05; Michigan, summers, 06, 11. Instr. vet. science, *Agr. and Mech. Col. Texas,* 05–08, asst. prof, 08–09, assoc. prof, 09–14, prof, 14–37, head dept. vet. med. and surg, 16–37, asst. veterinarian, Exp. Sta, 05–09, *dean sch. vet. med, 37–* A.A; Vet. Med. Asn; Pub. Health Asn; Horse and Mule Asn. Amer; Research Workers in Animal Diseases in N. Amer; Texas Vet. Med. Asn; Texas Acad. Infectious anemia of the horse; hog cholera and its prevention; diseases of livestock.

Marsters, V(ernon) F(reeman), Rushville, Ind. *Geology, Geography.* B.A, Acadia, 86; Cornell, 88–89; A.M, Harvard, 98; Columbia, 03–05. Instr. geol, Cornell, 89–91; prof. geol. and geog, Indiana, 91–03; geologist, Republic of Peru, 05–11; consulting and mining geologist, N. Y. and Honduras Mining Co, 11–17; consulting geologist, 17–41. Min. and Metal. Eng; Boston Soc. Nat. Hist; fel. Geol. Soc. London; Soc. de Ing. Lima. Petrography; economic geology; geology of nonmetallic deposits; petroleum deposits of southern Peru; petroleum geology; mid-continental and Rocky Mountain provinces of the United States.

Marston, Dr. Alice T(weed), 80 E. Concord St. Boston, Mass. *Bacteriology.* Wilmington, Del, May 6, 02. B.S, Kans. State Col, 24; M.S, Pennsylvania, 25, Ph.D, 27. Bacteriologist, Lederle Antitoxin Labs, 27–28; instr. *bacter. and immunol, sch. med, Boston,* 28–35, *asst. prof, 35–* Bacteriologist, Mass. Mem. Hosps, 31–40; mem. faculty, Boston Sch. Occupational Therapy. Soc. Bact. Effect of temperature upon the ingestion of bacteria by the clam; textbook of medical bacteriology.

Marston, Dr. A(nson), Iowa State College, Ames, Iowa. *Civil engineering.* Seward, Ill, May 31, 64. Berea Col, 84; C.E, Cornell, 89; D.E, Nebraska, 25, Mich. State Col, 27. Ry. and bridge engineer, 89–92; prof. civil eng, *Iowa State Col,* 92–19, col. engineer, 98–12, dean *eng. div,* 04–32, senior dean, 32–37, *emer. dean, 37–, research engineer, eng. exp. sta, 32–; consulting engineer, 92–* State highway commissioner, Iowa, 04–27, chairman, 13–15. Inter-Oceanic Canal Board, Nicaragua and Panama, 29–; Mississippi River Eng. Board of Rev, 32– Am. Eng. Council, 30. C.Eng, 17–18, lieut. col; col, O.R.C, 24– Civil Eng. (pres, 29–); Eng. Educ; Soc. Test. Mat. (pres, 15); Asn. Land-Grant Cols. (pres, 28–); West. Soc. Civil Eng; Iowa Eng. Soc. (pres, 00); Iowa Acad. Stresses by polarized light; tests of brick and stone; fire streams; sewage purification; water-towers; statistics of public roads and water works; ground-water flow; drains; theory of loads on pipes in ditches and culverts; testing drain pipes and sewer tile; history of engineering; theory of depreciation of industrial property; highway economics.

Marston, Frank A(lwyn), Metcalf and Eddy, Statler Bldg, Boston, Mass. *Civil engineering.* Worcester, Mass, Sept. 21, 85. B.S, C.E, Worcester Polytech, 07. Res. engineer, L. D. Thorpe, Boston, 07; asst. engineer and designing engineer, *Metcalf and Eddy,* 07–20, *partner, 20–* Clerk, Affiliated Tech. Soc, Boston, 23–24, 28–29. Civil Eng; Water Works Asn; Pub. Works Asn; New Eng. Water Works Asn; Boston Soc. Civil Eng. (director, 22, v. pres, 24, pres, 27). Sewerage; sewage disposal; rainfall; water works construction and operation.

Marston, H(enry) W(hite), U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Wilmington, Del, July 29, 98. B.S.A, Delaware, 19; M.S, Kans. State Col, 21. Instr, Kans. State Col, 21–27; assoc. animal husbandman, *U. S. Dept. Agr,* 27–36, senior animal husbandman, 36–42, *research coordinator, 42–* Animal nutrition.

Marston, Bishop Leslie Ray, 311 N. Prairie St, Greenville, Ill. *Psychology.* Maple Ridge, Mich, Sept. 24, 94. A.B, Greenville Col, 16, D.D, 42; A.M, Illinois, 17; Ph.D, Iowa, 25; LL.D, Houghton Col, 39. Dean and prof. psychol. and educ, Greenville Col, 20–26; exec. sec'y, cmt. on child develop, Nat. Research Council, 26–28; pres, Greenville Col, 27–36; *bishop, Free Methodist Church, 35–, pres. cmn. Christian educ, 39–* Summers, instr, Illinois; Iowa; Michigan. A.A; Soc. Research Child Develop; Midwest. Psychol. Asn; Ill. Acad. Child psychology; emotional development in childhood; child development.

Marston, Dr. William M(oulton), 27 W. 44th St, New York, N. Y. *Psychology.* Cliftondale, Mass, May 9, 93. A.B, Harvard, 15, LL.B, 18, Ph.D, 21. Asst. psychol, Radcliffe Col, 15; prof. legal psychol, American Univ, 22–23; psychologist, Staten Island Sch. Surv, Texas Penitentiaries Surv. and Nat. Cmt. Mental Hygiene, 24; asst. prof. psychol. and director student clinic, Tufts Col, 25–26; lecturer, Columbia and N. Y. Univ, 27–29; director pub. service, Universal Pictures, West Coast Studios, 29–30; visiting prof. and head dept. psychol, Long Island, 31–32; *consulting psychologist.* Lecturer, Southern California, 29–30. 2nd lieut, psychol. div, U.S.A, 18–19. A.A; Psychol. Asn; Asn. Criminal Law and Criminol. Blood pressure and reaction time symptoms of deception; legal psychology; systolic blood pressure emotional studies; theory of

emotions and of consciousness; sex differences; clinical analysis of normal emotions; integrative theory of general psychology; applied psychology; motion pictures and advertising.

Martel, Prof. R(omeo) R(aoul), California Institute of Technology, Pasadena, Calif. *Civil engineering.* Iberville, Que, Can, March 4, 90. B.S, Brown, 12. Instr. civil eng, R. I. State Col, 13-14; Mechanics Inst, 14-15; with Sayles Finishing Plants, Saylesville, R. I, 15-18; instr. *civil eng, Calif. Inst. Tech,* 18-20, asst. prof, 20-21, assoc. prof, 21-30, *prof, 30-* With Atchison, Topeka and Santa Fe Ry, Texas, 18; consulting engineer, bridge construction, Pasadena, 21-25. Summer, res. engineer, Calif. Highway Cmn, 21. Civil Eng. Earthquake-resisting structures.

Martell, Prof. A(rthur) E(arl), Clark University, Worcester, Mass. *Organic chemistry.* Natick, Mass, Oct. 18, 16. B.S, Worcester Polytech, 38; univ. fellow, N. Y. Univ, 40-41, Ph.D, 41. Asst, N. Y. Univ, 38-40; instr. *chem,* Worcester Polytech, 41-42; *asst. prof, Clark, 42-* Chem. Soc. Condensations of amides with carbonyl compounds; synthetic organic chemistry.

Martell, Prof. E(ldred) R(oland), Purdue University, Lafayette, Ind. *Forestry.* Romeo, Mich, Sept. 4, 01. B.S, Michigan, 25, M.S. 26, Ph.D, 32. With U. S. Forest Service, 26-29; junior instr. forestry, Michigan, 30-32; instr, Pa. State Col, 33-35; prof. forest management, sch. forestry, Idaho, 35-40, asst. dean, 38-40; *prof. forestry and head dept, Purdue, and head dept. forestry and conservation, Exp. Sta, 40-* Soc. Foresters. Silvics; forest soils; forest management.

Marten, Prof. Eldor A, 509 Junior Ave, Morgantown, W. Va. *Bacteriology.* Oshkosh, Wis, Jan. 5, 01. B.S, Wisconsin, 25, M.S. 26, Ph.D, 28. Assoc. prof. *bacter,* Purdue, 29-30; Wichita, 30-36; asst. prof. *West Virginia,* 36-41, *assoc. prof, 41-, assoc. bacteriologist, Exp. Sta, 41-* Soc. Bact. Fermentation of pentose sugars; forest soil formation.

Martenis, Prof. J(ohn) V(ansickle), 4800 Bloomington Ave, Minneapolis, Minn. *Mechanical engineering.* Danville, N. J, Nov. 18, 72. M.E, Lehigh, 94. In industry, 94-06; instr. mech. eng, *Minnesota,* 06-08, asst. prof, 08-18, assoc. prof. *machine design and mech. eng,* 19-41, *emer. assoc. prof, 41-* Mech. Eng. (chairman, Minn. sect); Heat. and Vent. Eng. (pres, Minn. sect); Eng. Educ; hon. mem. Nat. Asn. Power Eng. (educ. director); hon. mem. Minn. Acad. Machine design.

Martens, Dr. J(acob) L(ouis), Piedmont College, Demorest, Ga. *Plant morphology.* Anchor, Ill, April 18, 09. A.B, Ind. Cent. Col, 30; A.M, Indiana, 32, Ph.D, 38. Asst. and tutor bot, Indiana, 30-38; *head dept. biol, Piedmont Col, 38-* Summers, instr, Louisville, 35; Ind. Cent. Col, 38. Bot. Soc; Biol. Southeast. U. S; Ind. Acad; Ga. Acad. Gasteromycetes of Monroe County, Indiana; sexual dimorphism in Carex picta.

Martens, Prof. James H(art) C(urry), West Virginia University, Morgantown, W. Va. *Petrography, Mineralogy.* Brooklyn, N. Y, Jan. 2, 01. C.E, Cornell, 21, M.S, 23, Ph.D, 26. Asst. geol, Cornell, 21-24, instr, 24-27; asst. geologist, Fla. Geol. Surv, 27-29; asst. prof. *geol, West Virginia,* 29-35, *assoc. prof, 35-* Summers, Tenn. Geol. Surv, 23, 25; N. Y. State Museum, 23; cooperating geologist, W. Va. Geol. Surv, 30. Geologist, Rawson-MacMillan sub-Arctic exped, Field Museum Nat. Hist, 26. Miner. Soc; Geol. Soc; Am. Geog. Soc. Glacial boulders and igneous rocks in New York; sand and gravel deposits and beaches of Florida; mineral composition of beach sands; mineral composition of sandstones of northern West Virginia; Oriskany sandstone in West Virginia; subsurface stratigraphy of Appalachian oil and gas region.

Martens, Dr. Ted F(rank), 8603 Lindbergh Ave, Niagara Falls, N. Y. *Organic chemistry.* Davenport, Iowa, Nov. 14, 16. B.S, St. Ambrose Col, 38; Monsanto fellow, Iowa, 39-41, M.S. 40, fellow, 41-42, Ph.D, 42. Asst, Iowa, 38-39; *research chemist, electrochemicals dept, E. I. du Pont de Nemours and Co, 42-* Chem. Soc. Heterocyclic nitrogen compounds; emulsion polymerizations.

Marteny, Dr. William W(esley), 208 Chestnut St, Cloquet, Minn. *Chemistry.* Tucson, Ariz, March 12, 14. B.S, Arizona, 36, M.S, 37; Ph.D, Lawrence Col, 41. *Asst. manager tech. service dept, Northwest Paper Co, 41-* Tech. Asn. Pulp and Paper Indust. Organic chemistry; pulp and paper chemistry; pectins in wood after chlorination; fluorescence of wood and wood extracts

Marth, Dr. Paul C(harles), Bureau of Plant Industry Station, Beltsville, Md. *Horticulture, Plant physiology.* Easton, Md, June 7, 09. B.S, Maryland, 30, M.S, 33, Ph.D, 42. Asst. pomologist, exp. sta, Maryland, 30-33; junior pomologist, div. hort. crops and diseases, *bur. plant indust, U. S. Dept. Agr,* 34-36, asst. physiologist, *div. fruit and veg. crops and diseases,* 36-42, *assoc. physiologist, 42-* Soc. Hort. Sci. Nitrogen fertilization, root distribution and rootstock selection for apple trees; effects of growth substances on rooting of cuttings, parthenocarpy, abscission of flowers and fruits and dormancy in stored nursery stock.

Martin, Dr. (Abram) Venable, 5738 Drexel Ave, Chicago, Ill. *Mathematics.* Clinton, S. C, April 20, 12. A.B, Presbyterian Col, 36; Ph.D, Duke, 40. Instr. math, Duke, 39-40; Michigan, 40-41; *govt. and mil. service, 41-* A.A; Math. Soc. Topology.

Martin, A(lexander) C(ampbell), Laurel, Md. *Botany.* Hadjin, Turkey, Dec. 15, 97. A.B, Oberlin Col, 20; M.S, N. C. State Col, 24. Instr. and asst. prof. bot, N. C. State Col, 21-25; asst, Burbank Exp. Farms, 26-28; junior biologist, bur. biol. surv, U. S. Dept. Agr, 29-35, asst. biologist, 35-36, assoc. biologist, 36-42, *biologist, fish and wildlife service, U. S. Dept. Interior, 42-* Seed identification.

Martin, Prof. Allan E(rnest), University of Minnesota, Minneapolis, Minn. *Metallurgy.* Minneapolis, Minn, May 29, 13. B.Ch, Minnesota, 35; Ph.D, 40; Pa. State Col, 35-37. Asst. ceramics, Pa. State Col, 35-37; junior physical chemist, U. S. Bur. Mines, 37-40; instr. *metal,* Carnegie Inst. Tech, 40-42; *asst. prof, Minnesota, 42-* Soc. Metals; Min. and Metal. Eng. Physical chemistry of steelmaking; kinetics of reactions between sodium carbonate and the various forms of silica at high temperatures; form of sulfur occurrence in blast furnace slags; electrical conductivity of molten slags as evidence of their ionization.

Martin, Dr. Alonzo W(ilbur), University of Idaho, Moscow, Idaho. *Physical chemistry.* Ind, April 26, 00. B.S, Idaho, 22, M.S, 29; Ph.D, Washington (Seattle), 40. Asst. instr. *chem, Idaho,* 25-29, instr, 29-42, *asst. prof, 42-* Teaching fellow, Washington (Seattle), 35-36. Ionization constant of lactic acid; electrochemistry.

Martin, Dr. Arthur F(rancis), 618 E. Poythress St, Hopewell, Va. *Cellulose chemistry.* Elkins, W. Va, Feb. 5, 18. A.B, Ursinus Col, 38; du Pont fellow, Mass. Inst. Tech, 40-41, Ph.D, 42. Research chemist, Exp. Sta, *Hercules Powder Co,* Del, 41-42, *senior chemist, Va, 43-* Chem. Soc. Ethyl cellulose development.

Martin, Prof. Arthur W(esley), 3209 15th St, Tacoma, Wash. *Chemistry.* Mankato, Minn, March 28, 79. A.B, Hamline, 99; B.S, Minnesota, 01; fellow, Chicago, 13-14, Ph.D, 14. Instr, high sch, Minn, 01-03; assoc. prof. science, Simpson Col, 03-05; head dept. chem, Univ. Nanking, 05-17; prin, Conf. Acad, Nanking, China, 15-17; director educ, Methodist Episcopal Church, S. Anhwei Dist, China, 17-25, dist. supt, 19-25; *prof. math, Col. Puget Sound, 25-* Instr, high sch, Univ. Chicago, 12-13. A.A. Conductivity and viscosity of formates and of hydrogen chloride in anhydrous formic acid; apparent agreement of strong electrolytes with the mass law.

Martin, Prof. A(rthur) W(esley), Jr, University of Washington, Seattle, Wash. *Physiology.* Nanking, China, Dec. 13, 10. B.S, Col. Puget Sound, 31; Ph.D, Stanford, 36. Asst. physiol, Stanford, 34-35, asst. microbiol, 35-36, instr. *physiol,* 36-37; *Washington (Seattle),* 37-38, *asst. prof, 38-* Cellular metabolism; metabolic stimulants; summated tissue respiration.

Martin, Dr. Bertha E(dith), Shorter College, Rome, Ga. *Zoology.* North Hatfield, Mass, Feb. 3, 87. A.B, Mt. Holyoke Col, 09; Ph.D, Chicago, 15. Asst. prof. zool, Wheaton Col, 15-21; assoc. prof, Mt. Holyoke Col, 21-22; *prof. biol,* Lindenwood Col, 22-27; *Shorter Col, 27-* A.A. Vertebrate embryology; comparative anatomy.

Martin, Prof. C(ecil) P(ercy), McGill University, Montreal, Que, Can. *Anthropology, Anatomy.* Dublin, Ireland, May 9, 92. B.A, Dublin, 27, M.B, 28, M.Sc, 30, M.A, D.Sc, 35. Chief demonstrator anat, Trinity Col, Dublin, 28, univ. anatomist, 30; *Robert Reford prof. anat, McGill, 36-* A.A; Anat. Soc. Gt. Britain and Ireland; Royal Irish Acad. Physical anthropology; prehistoric man.

Martin, Dr. C(harles) F(erdinand), 3504 Mountain St, W. Montreal, Que Can. *Medicine.* Montreal, Que, Oct. 14, 68.

B.A, McGill, 88. M.D, 92; Göttingen, 93; Prague and Paris, 94; LL.D, Queen's (Can), 27, Harvard, 34, McGill, 36; D.C.L, Lennoxville, 35. . Res. physician, Montreal Gen. Hosp, 92-93; demonstrator path, *McGill*, 94–96, lecturer, 97–98, med, 98–99, asst. prof. *med. and clin. med*, 99–07, prof, 07–36, *emer. prof, 36–*, dean med. faculty, 23–36. Physician, Royal Victoria Hosp, Montreal, 06–34, consulting physician, 34–; med. director, Standard Life Assurance Co; pres, Alexandra Hosp, Montreal, 39– Am. Physicians (past pres); Col. Physicians (master and past pres); Asn. Med. Cols. (past pres). Diseases of the stomach; blood; metabolism; medical education; prognosis on life insurance.

Martin, Dr. Charles H(erbert), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Aline, Okla, March 23, 01. A.B, A.M, Kansas, 27; Ph.D, Cornell, 39. Asst. entomologist, bur. entom, U. S. Dept. Agr, 27–35; asst. entom, Cornell, 35–38; *asst. entomologist, Ohio Exp. Sta, 38–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Ecology; entomophagous insects; taxonomy of Asilidae, Tachinidae; Gelastocoridae; ecology and control of garden symphylid.

Martin, Dr. Charles L(ouis), 3501 Gaston Ave, Dallas, Texas. *Radiology.* Massey, Texas, Dec. 2, 93. E.E, Texas, 14; M.D, Harvard, 19. Res. physician *radiol*, Mass. Gen. Hosp, 19–20; assoc. prof. and *prof, Baylor, and radiologist, hosp, 20–* Roentgen Ray Soc. (2nd v. pres, 23, sec'y, 25–27, chairman, exec. council; v. pres, 40); Radium Soc. (v. pres, 36, treas, 39–42, pres, 43); fel. Col. Radiol; Am. Med. Asn; South. Med. Asn; Texas Radiol. Soc. (pres, 26); Dallas Tech. Club (pres, 31). Clinical and experimental radiology; radiotherapy; effects of short wave-length on living tissue.

Martin, Prof. Clare S, 331 N. Church St, Bowling Green, Ohio. *Chemistry.* Loogootee, Ind, 88. B.S, Ohio State, 11, M.S, 20, Ph D, 23. *Prof. chem. and physics and head dept, Bowling Green State Univ, 23–* A.A; Chem. Soc; Ohio Acad. The composition of ground-waters in relation to public health.

Martin, Dr. Clement L(eon), 55 E. Washington St, Chicago, Ill. *Medicine.* Omaha, Nebr, March 9, 91. A.B, Creighton, 11, M.D, 16; fellow, Mayo Clinic, 18–20. Gen. practice surg, Lynch, Nebr, 20–23; asst. prof. applied anat, sch. med, Creighton, 23–26; assoc. *proctol*, Mayo Clinic, 26–27; *clin. prof, sch. med, Loyola (Ill), 27–* Res. surgeon, Sacred Heart Hosp, Lynch, Nebr, 20–23; mem. surg. staff, St. Josephs Hosp, Omaha, 23–26; senior attending proctologist, Mercy Hosp, Chicago, 27–; consulting proctologist, City of Chicago Munic. Tuber. Sanitarium, 27–; Columbus Hosp, 27–; Hines Veterans Hosp, 33–; Oak Park Hosp, 34–; director proctol. div, Loyola-Mercy Clinics, 39– Assoc. ed, dept. surg. of lower colon and rectum, 'Am. Jour. Digestive Diseases.' Mem. Am. Board Proctology. Am. Med. Asn; fel. Col. Surg; Proctol. Soc. (v. pres, 38); hon. mem. Miss. Valley Med. Soc; hon. mem. Adams Co. (Ill) Med. Soc. Colonic and ano-rectal diseases; relationship of mycobacteria tuberculosis to tuberculous enterocolitis; wound repair of tuberculous peri-anal infections; gonococcic proctitis.

Martin, Prof. D(onald) C(layton), Southeastern Louisiana College, Hammond, La. *Experimental physics.* Feb. 15, 08. B.S, Louisiana, 29, M.S, 31; Ph.D, Cornell, 36. Instr. physics, Louisiana, 29–31, 34–36; *assoc. prof. science, Southeast. La. Col, 37–* Asn. Physics Teachers. Analysis of the spectrum of selenium II.

Martin, Dr. Donald R(ay), University of Illinois, Urbana, Ill. *Inorganic chemistry.* Marion, Ohio, Oct. 21, 15. A.B, Otterbein Col, 37; M.S, Western Reserve, 40, Ph.D, 41. Lecturer chem, Cleveland Col, Western Reserve, 40–42; research chemist, E. I. du Pont de Nemours and Co, 41; lab. manager, U. S. Naval Research Lab, Western Reserve, 41–43; *instr. chem, Illinois, 43–* A.A; Chem. Soc. Thermal analysis of liquefied gases; gaseous nonpolar halides.

Martin, Dr. Donald S(tover), Duke University Hospital, Durham, N. C. *Bacteriology.* Johnstown, Pa, Aug. 1, 04. A.B, Hopkins, 25; M.D, Rochester, 30. Asst. physiol, Rochester, 26–27, bacter, 31–32, intern, Strong Mem. Hosp, 30–31; instr. med. and bacter, *Duke*, 32–34, *assoc*, 34–36, *med, 36–*, asst. prof. *bacter*, 36–39, *assoc. prof, 39–* Research assoc, Columbia Sch. Trop. Med, Puerto Rico. Soc. Bact; Soc. Trop. Med; Soc. Exp. Path. Medical bacteriology and mycology.

Martin, Prof. Earl A(lbert), Brooklyn College, 80 Willoughby St, Brooklyn, N. Y. *Zoology.* Bethany, Mo, Nov. 11, 90. A.B, Missouri, 14, A.M, 16; Ph.D, Cornell, 34. Instr. Goucher Col, 16–18; Kans. State Col, 19; asst. prof, *Col. City of N. Y*, 19–30, *biol, Brooklyn Col*, 30–35, *prof, 35–, chairman dept, 31–* Summers, instr, Marine Biol. Lab, Woods Hole, 26–28, mem. corp. A.A; N. Y. Acad. Regeneration in annelids.

Martin, Dr. Edgar, Hettinger, N. Dak. *Animal breeding.* Siloam Springs, Ark, Dec. 3, 89. B.S, Kans. State Col, 19, Ph.D, 42; M.S, Wisconsin, 25. Teacher, high sch, Kans, 19–22; asst, Wisconsin, 22–23; asst. prof, Arkansas, 23–37, instr, 41–42; asst. prof, Kans. State Col, 39–40; *assoc. animal husbandman, Exp. Sta, and supt. Hettinger substa, North Dakota, 43–* Applied nutrition; animal nutrition.

Martin, Dr. E(dwin) D(udley), 7000 S. Shore Drive, Chicago, Ill. *Metallurgy.* New York, N. Y, April 19, 97. Cornell; Boston; B.S, Mass. Inst. Tech, 22; Ecole supérieure de la Métal. et de l'Indust. des Mines, Nancy, France; D.Sc, Univ. Nancy, 25. Research chemist and metal. engineer, N. J. Zinc Co; asst. to pres, Edison Portland Cement Co, 26–29; v. pres. and gen. manager, Emark Battery Corp, 29–35; v. pres. Thomas A. Edison, Inc, 34–37; *develop. engineer, Inland Steel Co, 37–* V. pres. and director, Calibron Products, Inc, 34–; director, Edison Bldg. and Loan Asn, 34–37. Chairman eng. cmt, Thomas A. Edison Industries, 35; Nat. Code Authority for Battery Indust, 33–35. U.S.A, 15–19, 2nd lieut. A.A; Min. and Metal. Eng; Electrochem. Soc; Nat. Battery Mfrs. Asn. (director, pres, 32–35). Engineering; high temperature gaseous reactions; coating of metals with metals; metallography; mining methods; factory organization; production methods; political economy; industrial cooperation; relationship of government and business.

Martin, Dr. Ella May, Hood College, Frederick, Md. *Botany.* Milwaukee, Wis, May 4, 92. A.B, Lawrence Col, 15; A.M, Wisconsin, 20, Ph.D, 24. Asst. bot, Wisconsin, 18–21, 23–24; prof. biol, Kans. Wesleyan, 21–23; asst. prof. biol, Ill. Wesleyan, 24–26; prof, Greensboro Col, 26–32; asst. prof, Newcomb Col, Tulane, 32–34; bot. research, Chicago, and prof. bot, De Paul, 35–37; instr. bot, exten. div, Wisconsin, 37–38, research, 38–41; instr. biol, Western Maryland Col, 41–42; *asst. prof. bot. and bacter, Hood Col, 42–* Bot. Soc; Mycol. Soc. Cytology and morphology of Taphrina, Urnula and Peziza; yeasts.

Martin, Dr. Emmett V(irgil), Carnegie Institution, Stanford University, Calif. *Ecology.* Kirwin, Kans, Oct. 4, 04. A.B, Colo. Col, 27; Ph.D, California, 32. Asst. ecol, lab, *Carnegie Institution*, 32–42, *mem. staff, div. plant biol, 42–* Soc. Plant Physiol; Physical Soc. Influence of environment on function and growth of plants.

Martin, Prof. F(rank) D(ayton), 722 Vine St, West Lafayette, Ind. *Chemistry.* May 4, 01. B.S, Purdue, 23, M.S, 25, Ph.D, 31. Asst. *chem, Purdue*, 23–25, instr, 25–31, asst. prof, 31–38, assoc. prof, 38–42, *prof, 42–* Ed, 'Cooperative Gen. Chem. Test,' 42–43. Chem. Soc. Spectrophotometry of solutions; potentials of cells involving moving boundaries; construction and validation of standard tests.

Martin, Dr. F(rank) S(tephen), 549 Academy Ave, Providence, R. I. *Chemistry.* Salem, Ind, Oct. 8, 10. B.S, Kans. State Col, 33; Ph.D, Iowa State Col, 38. Instr. biophysical chem, Iowa State Col, 35–38; physical chem, Fordham, 38–39; *develop. chemist, U. S. Rubber Co, 39–* Chem. Soc. Raman spectra of organo-mercury compounds; compounding and processing of rubber, synthetic rubbers and resins.

Martin, Dr. Frederic T(hurman), University of Maine, Orono, Maine. *Chemistry.* Harrisburg, Pa, Jan. 23, 04. Ch.E, Lehigh, 25; Ph.D, Hopkins, 29; Kaiser Wilhelm Inst. Berlin, 30–31. Harry C. Jones fellow, Hopkins, 28–30; Gen. Elec. Co, 31–34; *instr. chem, Maine, 34–* A.A; Chem. Soc. (sec'y, Maine sect, 35–37, chairman, 40). Physical and capillary chemistry.

Martin, Dr. F(rederick) H(enry), 285 Payson Road, Belmont, Mass. *Chemistry.* York, Maine, Jan. 29, 87. A.B, Bates Col, 10; A.M, Princeton, 15, Ph.D, 16. Research chemist, B. F. Goodrich Co, 16–18, develop. engineer, 18–22, asst. supt. footwear div, 22–28, supt, 28–30; *div. supt, Hood Rubber Co, 30–* The occlusion of electrolytic hydrogen by palladium.

Martin, G(eorge) Hamilton, 2d, 1418 35th St, N. W, Washington, D. C. *Botany.* Burlington, Iowa. B.S.F, Washington (Seattle), 13; M.S, State Col. Wash, 16; Harvard, 16–17. Instr. bot, State Col. Wash, 14–16; asst, Harvard, 17; teach-

ing fellow, Washington (Seattle), 17–18; asst. pathologist, plant disease surv, bur. plant indust, U. S. Dept. Agr, 18–31; *retired.* Phytopath. Soc; West. Soc. Nat; Bot. Soc. Wash. Parasitic fungi and their hosts; underground stems; diseases of forest and shade trees; ornamental and miscellaneous plants; rose diseases.

Martin, Prof. George W(illard), 1685 Ridge Road, Iowa City, Iowa. **7Botany.* Brooklyn, N. Y, Oct. 27, 86. Litt.B, Rutgers, 12, M.S, 15; Ph.D, Chicago, 22; Paris, 19. Instr. *bot,* Mass. Col, 16–17; asst. prof, Rutgers, 19–23; *Iowa,* 23–26, assoc. prof, 26–29, *prof, 29–,* director, Iowa Lakeside Lab, 28–34. Lieut, Inf, 17–19. A.A. (sec'y, G, 41); Bot. Soc; Micros. Soc; Mycol. Soc; Soc. Nat; Wash. Acad. Mycology.

Martin, Dr. Gustav J(ulius), Warner Institute for Therapeutic Research, 113 W. 18th St, New York, N. Y. *Biochemistry.* Hartline, Wash, Dec. 5, 10. B.S, Washington (Seattle), 32; Sc.D, Hopkins, 35. Mem, Sprague Inst, Chicago, 35; fellow, Trudeau Foundation, N. Y, 36; prof. chem. and head dept. and director research, Col. of St. Teresa and St. Mary's Hosp, 36–37; *head dept. biochem, Warner Inst. Therapeut. Research, 38–* A.A; Chem. Soc; N. Y. Acad. Vitamins and tuberculosis; fat soluble vitamins; sulfhydryl compounds; therapeutic and prophylactic detoxication; B complex factors.

Martin, Dr. H(arry) M(athias), University of Pennsylvania, Philadelphia, Pa. *Animal pathology, Parasitology.* York Co, Pa, March 26, 92. D.V.M, Pennsylvania, 16; A.M, Nebraska, 23, Ph.D, 27. Instr. vet. science and asst. animal diseases, Wyoming, 17–18; asst. prof. animal path. and hygiene, Nebraska, 18–28, assoc. prof, 28–30, asst. veterinarian, Exp. Sta, 18–30; parasitologist, bur. animal indust, State Dept. Agr, Pa, 30–31; asst. prof. vet. path. and parasitol, *Pennsylvania,* 31–34, assoc. prof, 34–42, *prof. parasitol, 42–* A.A; Soc. Parasitol; Vet. Med. Asn; U. S. Livestock Sanit. Asn; Soc. Research Workers Animal Diseases in N. Amer; Path. Soc. Phila; Int. Asn. Med. Mus. Hemorrhagic septicemia; tuberculosis; Ascaris lumbricoides; poisonous plants; intestinal coccidia; poultry diseases.

Martin, Helen M(andeville), 905 W. Allegan, Lansing, Mich. *Geology.* Fargo, N. Dak, Nov. 20, 89. A.B, Michigan, 08, M.S, 17. Teacher physiog. geol, high sch, Mich, 08–16; geologist and ed, Mich. Geol. Surv, 17–23; ed. geologist, Roxana Petrol. Co, 23–24; subsurface geologist, Carter Oil Co, 24–32; *research geologist, cartographer and ed, geol. surv. div, State Dept. Conservation, Mich, 32–* A.A; Asn. Petrol. Geol; Mich. Geol. Soc; Mich. Acad. Subsurface geology of Paleozoic geology in Michigan; development of the mineral resources of Michigan.

Martin, Prof. Hermon W(ilker), Emory University, Ga. *Experimental psychology.* Columbus, Ga, Dec. 18, 92. A.B, Emory Col, 18; A.M, North Carolina, 24, Ph.D, 38. Prin, high sch, Eastman, Ga, 19–20; instr. science, Ga. Mil. Col, 20–21, commandant and v. pres, 21–22; teaching fellow, North Carolina, 23–25; instr. *psychol, Emory,* 25–27, asst. prof, 28–37, *assoc. prof, 38–* A.A; Psychol. Asn; Asn. Applied Psychol; South. Soc. Philos. and Psychol; Ga. Acad. Effects of practice on judging various traits of individuals.

Martin, Prof. Howard H(anna), University of Washington, Seattle, Wash. *Geography.* Little York, Ill, March 17, 92. B.S, Pennsylvania, 22; Chicago, 22; A.M, George Washington, 23, Ph.D, 29; Columbia, 24–25; hon. Sc.D, Monmouth Col, 37. Lecturer geog, Columbia, 24–25; asst. prof, Cincinnati, 25–27, 28–30; lecturer commerce, George Washington, 27–28; assoc. prof. *geog, Washington (Seattle),* 30–40, *prof, 40–, chairman dept, 35–* Geographer, City of Cincinnati Resource Surv, 25–27; Inst. World Affairs, 35–37; consultant, Columbia Basin Irrigation Project. Mem, Puget Sound Regional Planning Cmn. Int. Geog. Cong, Paris, 31. C.Eng, U.S.A, 17; U. S. Bur. Mines, 18; for. service, Am. Legation, The Hague, 18; Am. Embassy, Paris, 18–19. A.A; Geophys. Union; Am. Geog. Soc; Inst. Pacific Relations; Asn. Pacific Coast Geog. (pres, 36); Explorers Club. Economic regional and political geography; the Far East; the Pacific Northwest.

Martin, Dr. Hugh E(lis), 1145 W. 31st St, Indianapolis, Ind. *Pharmacology.* Shelburn, Ind, March 22, 02. A.B, Indiana, 28, A.M, 30, M.D, 34. Instr. physiol, Indiana, 29–31, Landon fellow med. research, 34–38, instr. pharmacol, 38–40, asst. prof, 40–42; *director pharmacol. research, Pitman-Moore Co, 42–* Chem. Soc. The use of insects for biological assay.

Martin, J(ames) B(laine), U. S. Department of Agriculture, Beltsville, Md. *Soils.* Eureka, Kans, Feb. 1, 91. A.B, Fairmount Col, 15; M.S, George Washington, 23. Meat inspector, 18–24; fertilizer investigator, 24–28; *asst. chemist, biochem. investigations soils and fertilizers,* bur. chem. and soils and *bur. plant indust, U. S. Dept. Agr, 28–* Chem. Soc; Inst. Chem. Fats and oils; fertilizers; soil fertility.

Martin, James C(harles), University of California, Berkeley, Calif. *Chemistry.* St. Andrews, Que, Can, May 7, 92. B.S, California, 15. Chemist, Arthur Lachman Co, 16–17; asst. agr. chem, *California,* 17–18, instr, 18–22, plant nutrition, 22–25, asst. chemist, *Exp. Sta,* 25–31, *assoc. chemist, 31–* A.A; West. Soc. Soil Sci. (sec'y-treas, 29, 38). Plant nutrition; soil solution; potassium fixation by soils.

Martin, Dr. J(ames) F(rancis), 7504 14th St, N. W, Washington, D. C. *Entomology.* Amherst, Mass, Nov. 17, 88. B.S, Mass. Col, 12, M.S, 14, Ph.D, 15. Asst. entom. and zool, Mass. Col, 13–15; agent, collaborator and field asst, bur. plant indust, *U. S. Dept. Agr,* 16–18, forest pathologist, 18–22, pathologist, 23–28, senior pathologist, 28–42, *prin. plant quarantine administrator and chief div. plant disease control, bur. entom. and plant quarantine, 42–* Summers, field asst, U. S. Dept. Agr, 13; deputy nursery inspector, State Dept. Agr, Mass, 12, 14, 15. A.A; Asn. Econ. Entom; Soc. Foresters; Forestry Asn. Plant pathology; histopathology of the intestines of young chicks infected with Bacterium pullorum; thoracic and cervical sclerites of insects; white pine blister rust; treatment of white pine infected with blister rust.

Martin, Dr. James P(axman), University of Idaho, Moscow, Idaho. *Soil microbiology.* Cowley, Wyo, Sept. 21, 14. B.S, Brigham Young, 38; Ph.D, Rutgers, 41. Asst. soil microbiol, N. J. Exp. Sta, 38–41; cooperative agent, soil conservation service, U. S. Dept. Agr. and N. J. Exp. Sta, 41–43; *asst. prof. bacter, Idaho, and asst. soil microbiologist, Exp. Sta, 43–* Soc. Bact. Production of artificial organic manures or composts and the effect of these materials on the susceptibility of the soil to erosion.

Martin, Prof. J(ames) R(oyal), 688 Boylston St, Boston, Mass. *Geology.* Mankato, Minn, Feb. 8, 81. Ph.B, Hamline, 02; A.M, Harvard, 20. Instr. *geol, Boston,* 18–28, asst. prof, 28–33, *prof, 33–* History of geology; geology of New England.

Martin, James Wellford, care of Sanderson and Porter, Pine Bluff Arsenal, Pine Bluff, Ark. *Chemistry.* Richmond, Va, Dec. 1, 92. Virginia, 11. Chemist and asst. supt. high explosives, du Pont Co, 11–15; asst. supt. TNT plant, Tenn. Copper Corp, 15–17; research chemist, Union Carbide Corp, 19–23; head indust. eng. dept, Aliquippa works, Jones and Laughlin Steel Corp, 23–25; chief engineer, Dry Ice Corp, 25–29; consulting engineer, 29–42; *engineering manager, Sanderson and Porter, Pine Bluff Arsenal.* Capt, Ordnance Dept, 17–19. Chem. Eng; Refrig. Eng; Ordnance Soc; Soc. Mil. Eng. Refrigeration; organic, inorganic and industrial chemistry; carbon and inorganic carbon compounds and refrigeration.

Martin, Dr. J(erome), 506 Osborne St, Terre Haute, Ind. *Chemistry.* Bisbee, Ariz, Jan. 12, 02. B.S, Colorado, 24; Ph.D, California, 27. Research chemist, *Commercial Solvents Corp,* 27–39, *research director, 39–* A.A; Chem. Soc; Math. Asn. Catalysis; organic chemistry.

Martin, Dr. John H(olmes), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Petersburg, N. Dak, June 10, 93. B.S, Oregon State Col, 14; M.S, Maryland, 21; S. Dak. State Col; Ph.D, Minnesota, 26; George Washington. Asst, Exp. Sta, Oregon State Col, 14; sci. asst, office cereal investigations, *bur. plant indust, U. S. Dept. Agr,* 14–19, asst. agronomist, assoc. agronomist and agronomist, western wheat investigations, 19–25, agronomist and *senior agronomist, in charge sorghum and broom-corn investigations, 25–* U. S. Seed Stocks Cmt, 34–35. A.A; Soc. Agron; Agr. Hist. Soc; Genetic Asn. Classification, taxonomy, adaptation, physiology and disease resistance of wheat and sorghums.

Martin, Prof. J(ohn) N(athan), Iowa State College, Ames, Iowa. *Botany.* Bowling Green, Ind, 75. A.B, Indiana, 07; Ph.D, Chicago, 13. Head dept. biol, Manchester, 07–09; *prof. plant morphol. and cytol, Iowa State Col, 11–* A.A; Iowa Acad. Plant morphology and physiology; physiology of pollen and seed setting; comparative morphology of Leguminosae.

Martin, Prof. John R(ichard), 868 Montford Road, Cleveland, Ohio. *Physics.* Jacksonville, Ill, June 16, 97. B.S,

Ill. Col, 20; M.S, Case, 26. Instr, *Case*, 20–26, asst. prof. physics, 26–35, *assoc. prof. elec. communications, 35–* Eng. Educ; Elec. Eng; Radio Eng. Magnetic properties at high frequencies; musical sound; acoustics; high frequencies; noise measurements; psychological effects of noise.

Martin, J(ohn) Stanley, 803 State St, Madison, Wis. *Chemical engineering.* Biddeford, Maine, Dec. 22, 01. B.S, Maine, 24, Ch.E, 28. Chemist, Oxford Paper Co, 24–28; research chem. engineer, York Haven Paper Co, 28–29; asst. engineer, *Forest Products Lab, U. S. Forest Service*, 29–35, *assoc. engineer, 35–* Chem. Soc; Asn. Pulp and Paper Indust. Pulp and paper; alkaline pulping variables; pulpwood utilization.

Martin, Prof. J(oseph) Holmes, Purdue University, Lafayette, Ind. *Poultry husbandry, Genetics.* Chicago, Ill, June 25, 95. B.S, Purdue, 17; M.S, Kentucky, 24; fellow, Wisconsin, 25–26, Ph.D, 29. Asst. poultry, Kentucky, 17–20, asst. prof, 20–22, assoc. prof, 22–26, prof, 26–38, in charge poultry husbandry, 22–38, head dept. genetics, 37–38; director, U. S. Regional Research Lab, Mich. State Col, 39–40, research prof, col, 39–40; *prof. poultry and head dept, Purdue and Exp. Sta, 40–* Collaborator, bur. animal indust, U. S. Dept. Agr, 38– Chairman tech. cmt, Poultry and Egg Nat. Board. Assoc. ed, 'South. Agriculturist,' 20–31; ed, 'Sickle and Sheaf,' 29–36; 'Poultry Science,' 31–35. A.A; Poultry Sci. Asn; Genetics Soc; Ind. Acad. Disease resistance and inheritance in poultry; incubation and embryology in fowl and turkey; sanitation.

Martin, J(oseph) P(olkinghorne), Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Plant pathology.* Nevada City, Calif, Oct. 3, 96. B.S, California, 21; M.S, Hawaii, 27. Asst. plant path, California, 22–23; asst. pathologist, *Exp. Sta, Hawaiian Sugar Planters' Asn, Honolulu*, 23–28, *pathologist, 29–* Hawaiian Bot. Soc. (pres, 33); Hawaiian Acad; Hawaiian Sugar Technol. (pres, 39). Sugarcane diseases in Formosa, Philippines, Java and Australia; diseases, malformations, blemishes and markings on sugarcane in Hawaii; sugar-cane diseases; nutritional deficiency symptoms of sugar-cane.

Martin, Dr. Kenneth E(dward), 555 Broadview Road, Upper Darby, Pa. *Organic chemistry.* New Haven, Conn, Feb. 2, 06. B.S, Yale, 27; M.S, Northwestern, 28; A.M, Princeton, 29, Ph.D, 35. Research chemist, Resinous Products and Chem. Co, 30–41; *mem. staff, Rohm and Haas Co, 41–* Chem. Soc. Pyrolysis; catalytic effect of aluminum chloride on alkyl halides; synthetic resins and their uses.

Martin, Dr. Laura H, 3215 R St, N. W, Washington, D. C. *Geology.* Chicago, Ill, 84. A.B, Vassar Col, 06; M.S, Chicago, 11, Ph.D, 16; Bryn Mawr Col. fellow, 12–13. Teacher, high sch, Ill, 08–10; instr. geol, Wellesley Col, 11–12; exten. lecturer, Columbia, and asst, Barnard Col, 14–16; instr, Smith Col, 16–18, asst. prof, 19–22; asst. to geographer, Inst. Politics, 23–27, leader confs. on Arctic and Antarctic, 30. Summers, instr, Oregon, 17; Conn. Geol. and Nat. Hist. Surv, 14–22. Geol. exped, Alaska, 13. Int. Geol. Cong, Toronto, 13; del, Pan-Am. Inst. Geog. and Hist, 35. Canteen work, Y.M.C.A, 18–19. A.A; fel. Am. Geog. Soc; Soc. Woman Geog. Geography; physiography; geographic factors in agriculture; marine terraces; glaciers of Mount Jefferson; geology of Stonington, Connecticut, area; League of Nations map; maps showing political claims in Arctic and Antarctic regions; dust storms; geopolitics.

Martin, Col. Lawrence, Library of Congress, Washington, D. C. *[3]*Geology, Geography.* Stockbridge, Mass, Feb. 14, 80. A.B, Cornell, 04, Ph.D, 13; A.M, Harvard, 06. Asst. geol, Cornell, 04–05; Wisconsin, 06–07, instr, 07–08, asst. prof, 08–13, assoc. prof, 13–17; lieut, N.A, 17, capt, 18, major, 18–20, gen. staff corps, 18–20, lieut. col, M.I, O.R.C, U.S. Army, 21–36, instr. topog, Ft. Sheridan, 17–18, map expert, Army War Col. and gen. headquarters, 18; Cmn. to Negotiate Peace, 18–19; on duty, mil. intel. div, War Dept, 20; drafting officer and geographer, State Dept, 20–24; *chief div. maps, Library of Congress, 24–, chair geog, 33–* Gilman Mem. lecturer, Hopkins, 20–21; lecturer, Georgetown, 21–23; Clark, 22–23; For. Service Sch, State Dept, 25; California, 28. Field asst, U. S. Geol. Surv, 03–05, geol. aid, 06–07, junior geologist, 08–24; geologist, Wis. Geol. Surv, 08–17; geographer, inst. politics, Williams Col, 21–27. Past assoc. ed, 'Jour. Geog.' and 'Bul. Am. Geog. Soc'; contrib. ed, 'Geog. Rev,' 22; 'Econ. Geog,' 25– Am. Geog. Soc. exped, Alaska, 05; Nat. Geog. Soc. exped, 09, 10, 11; guide, Int. Geol. Cong. excursions, 13; mem, Harbord Mission, 19. U. S. Board Geog. Names, 21–; U. S. Board Surveys and Maps, 27– Chief, U. S. delegation, Pan-Am. Inst. Geog. and Hist, Mexico City, 29; Cmn. int. des Glaciers; Cmn. int. de l'Atlas des Formes du Relief terrestre. Gold medal and Malte-Brun prize, Soc. de Géog. de Paris, 18; officer, Order of the Crown of Italy, 22. Geol. Soc; Asn. Geog. (pres, 29); hon. cor. mem. Am. Geog. Soc; Geophys. Union; Geol. Soc. Wash; Geog. Soc. Phila; Wis. Acad; Geog. Gesell. Wien; Geog. Soc. of Hungary. Glacial geology; seismology; physiography and regional geography of the Lake Superior region and Wisconsin; glaciers of Alaska; geography of international affairs; boundaries; cartography.

Martin, Dr. Lawrence F(orstall), U. S. Department of Agriculture, New Orleans, La. *Chemical engineering, Organic chemistry.* New Orleans, La, Nov. 13, 03. B.S, Tulane, 24, B.E. (Ch.E), M.S, 25; Ph.D, Illinois, 27. Instr. org. chem, Tulane, 24–25; asst, Illinois, 25–27; research chemist, Dow Chem. Co, 27–33; asst, Tulane, 33–36, assoc. chemist, bur. chem. and soils, *U. S. Dept. Agr*, 36–39, *senior chem. engineer, south. regional research lab, bur. agr. and indust. chem, 39–* Chem. Soc. (sec'y, Midland sect, 29–31, chairman, 31–33). Applied organic chemistry, especially pharmacological applications; acids related to chaulmoogric acid; applications and kinetics of Friedel-Craft reaction; alkyldinitrophenols; chemistry of cannabis; chemical investigations of plant viruses; enzyme chemistry; development of processes for utilization of agricultural products; rubber from domestic plants.

Martin, Dr. Lay, 1201 N. Calvert St, Baltimore, Md. *Medicine.* Baltimore, Md, Nov. 12, 92. B.S, Princeton, 15; M.D, Hopkins, 20 Intern, Kula Sanatorium, Hawaii, 20–22; asst. physician, Loomis Sanatorium, 22–23; res. physician, Union Mem. Hosp, 23–24; asst. clin. med, *Hopkins*, 25–27, instr, 27–33, *assoc. med, 33–, dispensary physician and asst. visiting physician, Hopkins Hosp, 25–* Am. Med. Asn. grant, 37. A.A; Soc. Clin. Invest; Clin. and Climat. Asn; Am. Med. Asn; Col. Physicians; Gastro-Enterol. Asn; South. Med. Asn. (v. chairman, med. div, 30). Pancreatic enzymes; allergy, electrolytes and organic constituents of gastric juice; pathogenesis of jaundice; pathogenesis and treatment of arthritis; gastric diverticulae; foreign protein treatment of duodenal ulcers; acid-base studies of gastric secretion.

Martin, Prof. Lena (Emerson), Georgia State College for Women, Milledgeville, Ga. *Chemistry.* Newnan, Ga, July 11, 99. A.B, Tennessee Col, 21; M.S, Emory, 25; Cornell; North Carolina; Virginia; Ohio State, 37–38. Teacher, Lucy Cobb Inst, 21–24; high sch, Ga, 24–26; head dept. *chem*, Columbia Col. (S. C), 26–29; *assoc. prof, Ga. State Col. for Women, 29–* A.A; Chem. Soc; Ga. Acad.

Martin, Dr. Lewis C, 7225 S. E. 32nd Ave, Portland, Oregon. *Psychology.* The Dalles, Oregon, 00. A.B, Oregon, 24; Ph.D, Vienna, 30. Instr. psychol. and sociol, American Col, Sofia, Bulgaria, 24–26; Am. Collegiate Inst, Turkey, 28–29; *lecturer psychol. and educ, Reed Col, 30–; psychologist, psychiat. clinic, med. sch, Oregon, 30–, instr. educ, univ. exten, 30–* Director child study and special educ. and psychologist, schs, Portland, Oregon, 35– Mem, State Cmt. Northwest Coordinated Studies, Oregon; pres, State Educational Research Council. Int. Council Exceptional Children (director, 37–40). Child behavior.

Martin, Lois T(icknor), 772 Santa Ynez St, Stanford University, Calif. *Economic geology.* Austin, Minn, Aug. 3, 07. A.B, Stanford, 30, A.M, 32. Research assoc, Cushman Lab. for Foraminifera Research, 35; microscopist, Union Oil Co, 36–39; research assoc. geol, Stanford, 39–42; lab. aide, Gage lab, Ordnance Div, U. S. War Dept, 42; *micropaleontologist, Shell Oil Co, 42–* Consultant micropaleontologist, Jergins Oil Co, 40–41; Honolulu Oil Co, 41. Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. (treas, Pacific div, 38); Paleont. Soc. Micropaleontology, particularly Eocene and Cretaceous.

Martin, Dr. M(abel) F(lorence), Richmond Professional Institute, 901 W. Franklin St, Richmond, Va. *Psychology.* Los Angeles, Calif, Sept. 16, 96. A.B, Mt. Holyoke Col, 18, fellow, 18–19; scholar, Cornell, 19–20, Ph.D, 22, 22–23; Chicago, 24; Hopkins, 25–26; Psychol. Inst, Vienna, 32. Asst. human physiol, med. col, Cornell, 21–23; docent psychol, Mt. Holyoke Col, 23–24; prof. philos. and psychol, Hood Col, 24–25; asst. state psychologist, N. J, 27–28; ed, G. and C. Merriam Co, 29–34; *special editor psychol, Funk and Wagnalls New Int. Year Book, 36–; assoc. prof. clin. psychol. and mental hygiene, Richmond Professional Inst, Col. William and Mary, 41–* Psychologist, Springfield Child Guidance Clinic,

37; psychometrist, Northampton State Hosp, 39–41. Summer, prof, Bethel Col, 26. Psychol. testing, various schs. for the blind. A.A; Psychol. Asn; Acad. Polit. and Social Sci. Color perception; social psychology; film, surface and bulky colors and their intermediates; conscientiousness in adolescents; esthetic judgments of preschool children; terminology.

Martin, Prof. Miles J(ay), University Club, Evanston, Ill. *Physics.* Somerton, Ohio, Nov. 24, 97. B.S, Col. of Wooster, 21; M.S, Wisconsin, 27, Ph.D, 30. Prof. *physics,* Hastings Col, 21–25; asst. prof, *Milwaukee exten. center, Wisconsin,* 28–30, assoc. prof, 30–37, *prof, 37–, chairman, 28–* A.A. Photoelectric and thermionic properties of molybdenum; the photographic process.

Martin, Prof. Monroe H(arnish), University of Maryland, College Park, Md. *Mathematics.* Lancaster, Pa, Feb. 7, 07. B.S, Lebanon Valley Col, 28; Ph.D, Hopkins, 32. Nat. research fellow, Harvard, 32–33; instr. *math,* Trinity Col, 33–36; asst. prof, *Maryland,* 36–39, *assoc. prof, 39–* Math. Soc. Aerodynamics; the problem of three bodies; matrices; ergodic theory.

Martin, Dr. Paul E(dmond), 166 Ferncroft Road, Mineola, N. Y. *Physics.* Franklin, Nebr, May 14, 99. A.B, Nebr. Wesleyan Univ, 22; M.S, Cornell, 24; Ph.D, Michigan, 31. Asst. physicist, Bur. Standards, 24; instr, Maine, 24–26; prof. physics and head dept, Muskingum Col, 26–42; *mem. sci. staff, airborne instruments lab, div. war research, Columbia, 42–* Physical Soc. (chairman, 40); Optical Soc. Infra-red absorption spectrum of carbon dioxide gas.

Martin, Dr. Paul S(idney), Field Museum of Natural History, Chicago, Ill. *Anthropology.* Chicago, Ill, Nov. 20, 99. Ph.B, Chicago, 23, Ph.D, 29. Asst. anthrop, Pub. Museum, Milwaukee, 25; archeologist, Carnegie Institution, 27–28; curator archeol, State Museum, Denver, 28–29; asst. curator, N. Amer. archeol, *Field Museum Nat. Hist,* 29–34, *chief curator dept. anthrop, 34–* Summers, field work, Pub. Museum, Milwaukee, 25; field director archeol. work, Chicago, 26, 27; State Museum, Colo, 28, 29; Field Museum Nat. Hist. expeds, Am. Southwest, 29–41. Anthrop. Asn. Archeology of North America, especially the southwestern United States.

Martin, Prof. Phyllis C(ook), Pennsylvania College for Women, Pittsburgh, Pa. *Morphology, Botany.* Eastbourne, Eng, June 27, 08. B.S, Pittsburgh, 34, M.S, 36; fellow, Illinois, 37–39, Ph.D, 39. Asst. bot, Pittsburgh, 34–35; instr. biol, Pa. Col. for Women, 35–37; asst. genetics, Pennsylvania, 40; asst. prof. *biol, Pa. Col. for Women,* 40–42, *assoc. prof, 42–, acting head dept, 40–* Instr, Winchester Sch, Pittsburgh, Pa, 36–37. Conifer embryology.

Martin, Prof. R(obert) Earl, Hanover, Ind. *Physics.* Monroe Co, Ind, Aug. 18, 94. A.B, Indiana, 17; M.S, Lehigh, 21; Ph.D, Indiana, 25. Instr. *physics,* Lehigh, 18–21, asst. prof, 21–29; *prof, Hanover Col, 29–* A.A; Physical Soc; Ind. Acad. The luminous intensity of an electric spark as a function of the chemical composition of electrodes; effect of light on the thermal conductivity of selenium; depth of light action in selenium; acoustical factors in non-symmetrical auditoriums; minimum stopping distance for automobiles.

Martin, Dr. S(amuel) M(aner), Jr, Thiokol Corp, Trenton, N. J. *Chemistry.* Clemson, S. C, May 7, 02. B.S, Clemson Col, 22; fellow, North Carolina, 28–29, M.S, 29; fellow, Mellon Inst, 29–32; Ph.D, Pittsburgh, 32. Asst, U. S. Rubber Co, 22–23; Goodyear Tire and Rubber Co, 23–26; chemist, McClaren Rubber Co, 26–28; research chemist, *Thiokol Corp,* 32–37, *develop. manager, 37–* Chem. Soc. Organic chemistry; petroleum refining; rubber and organic sulfur chemistry; chemical manufacturing.

Martin, Dr. S(amuel) W(illiam), Care of Breslove, 28 N. Waller Ave, Chicago, Ill. *Chemistry.* Pittsfield, Mass, Nov. 18, 10. A.B, Williams Col, 32; Ph.D, Yale, 35. *Physical chemist, titanium div, Nat. Lead Co, 35–* Physical and colloidal chemistry of titanium dioxide pigments; determination of subsieve particle size distributions by sedimentation methods; retention of fillers.

Martin, Dr. Stevens J(ohn), Viroqua, Wis. *Physiology, Pharmacology.* New York, N. Y, July 4, 06. A.B, Wisconsin, 27, A.M, 28, Ph.D, 30, M.D, 35. Asst. zool, Wisconsin, 26–28, biol, 28–29, zool, 29–30, physiol, 30–31, instr, 31–34, asst. prof. and assoc. prof. physiol. and pharmacol, Albany Med. Col, 36–39; mem. anesthesia dept, col. med, N. Y. Univ. and Bellevue Hosp, 39–41; *major, Med. Corps, U. S. Army and chief sect. anesthesiol. and operating pavilion, resuscitation and oxygen therapy, Tilton Gen. Hosp, Ft. Dix, 41–* Endocrinology; cardio-vascular physiology and pharmacology; anesthesiology.

Martin, Dr. S(tuart) T(hompson), Jr, 22 Lawrence Ave, West Orange, N. J. *Physics.* Brooklyn, N. Y, Aug. 4, 13. B.S, Mass. Inst. Tech, 34, Charles A. Coffin Foundation fellow, 37–38, Sc.D, 38; Duke, 34–36. Instr. physics and math, Clark Univ, 38–39, asst. prof, 39–41; *research engineer, RCA Mfg. Co, 41–; U. S. Army, 42–* Thermionic emission; electronic phenomena.

Martin, Prof. Thomas L(ysons), Brigham Young University, Provo, Utah. *Agronomy.* Lancashire, Eng, Nov. 21, 85. A.B, Brigham Young, 12; Ph.D, Cornell, 19. Prin. schs, Wyo. and Utah, 12, 17, 19–20; asst. soils, Cornell, 17–19; soil investigator, Utah-Idaho Sugar Co, 20–21; *prof. agron, Brigham Young, 21–, dean col. applied science, 37–* West. Soc. Soil Sci. (pres, 42–); Utah Acad. (v. pres. and acting pres, 25, pres, 26). Soil technology; decomposition of green manures and wheatstraw; soil flora; nature of organic matter decomposition; soil aggregation.

Martin, Prof. Wallace H(ope), 327 N. 29th St, Corvallis, Oregon. *Mechanical engineering.* Kandiyohi Co, Minn, April 19, 85. M.E, Minnesota, 10; fellow, Iowa State Col, 28, 29, 30, M.S, 30. Instr. mech. eng, Minnesota, 11–17; asst. prof. and assoc. prof, Pa. State Col, 17–20; *prof. heat eng, Oregon State Col, 20–* Mech. Eng. (chairman, Oregon sect, 33); Eng. Educ. Refrigeration; heat transfer in boiling refrigerants.

Martin, Prof. W(alter) E(dwin), DePauw University, Greencastle, Ind. *Parasitology, Zoology.* De Kalb, Ill, Jan. 14, 08. B.Educ, North. Ill. State Teachers Col, 30; M.S, Purdue, 32, Ph.D, 37. Asst. *biol,* Purdue, 30–33, instr, 34–37; asst. prof, *DePauw,* 37–40, *assoc. prof, 40–* Summers, instr, North. Ill. State Teachers Col, De Kalb, 30, 31; sci. exped, Honduras, 33; mem. staff, Marine Biol. Lab, Woods Hole, 38– 'Collecting Net' scholar, Marine Biol. Lab, Woods Hole, 36. A.A; Soc. Parasitol; Soc. Zool; Ind. Acad. Morphology, taxonomy and life cycles of trematodes.

Martin, Dr. Walton, 228 E. 49th St, New York, N. Y. *Anatomy, Surgery.* Staten Island, N. Y, Feb. 4, 69. Ph.B, Yale, 89; M.D, Columbia, 92. Demonstrator anat, *col. physicians and surg, Columbia,* 97–02, instr. surg, 01–10, assoc, 10, prof. clin. surg, 10–18, *assoc. prof. surg, 18–* Consulting surgeon, St. Luke's Hosp. Asn. Anat; Surg. Asn; Col. Surg; Asn. Thoracic Surg; N. Y. Surg. Soc; N. Y. Acad. Med; Int. Soc. Surg. Factors influencing infection; bone cavities; chronic empyema; Staphylococcus; bacteria in the blood stream; control of infection in war wounds; foreign bodies in the tissues; fibroepithelial tumors of the lips; form and relation of the spleen; gall bladder surgery; septicemia.

Martin, Prof. Willard Hungate, Kansas State College, Manhattan, Kans. *Dairy husbandry.* Salem, Ind, June 28, 94. B.S, Purdue, 18; M.S, Pa. State Col, 22. Asst. prof. *dairy mfg,* Pa. State Col, 20–24, assoc. prof, 24–25; *Kans. State Col, 25–28, prof, 28–* Dairy Sci. Asn. Dairy products; ice cream; butter; cheese.

Martin, Dr. William E, Tingo Maria Experiment Station, Care of American Embassy, Lima, Peru. *Horticulture.* Adams, Mass, July 26, 07. A.B, Cornell, 29; B.S, Oregon State Col, 33, M.S, 35; Ph.D, Chicago, 37. Assoc. prof. hort, Arizona, and assoc. horticulturist, Exp. Sta; *senior agriculturist, office for. agr. relations, U. S. Dept. Agr, Peru, 43–* A.A; Soc. Hort. Sci; Soc. Plant Physiology. Storage investigations on grapefruit; physiology of fruiting of grapefruit.

Martin, William H(ennick), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Telephone engineering.* Baltimore, Md, Sept. 27, 89. A.B, Hopkins, 09; B.S, Mass. Inst. Tech, 11. Eng. dept, Am. Tel. and Tel. Co, 11–19, dept. develop. and research, 19–34; *Bell Tel. Labs, 34–* Fel. Elec. Eng; fel. Acoustical Soc. Telephone apparatus development.

Martin, Dr. William H(ope), New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Plant pathology.* Carlisle, Pa, June 3, 90. A.B, Maine, 15; M.S, Rutgers, 17, Ph.D, 18. Asst, Rutgers, 15–18, assoc. plant pathologist, *N. J. Exp. Sta,* 19–23, *plant pathologist, 23–,* acting director, 34–35, *director research, 35–, prof. plant path, Rutgers, 26–, dean col. agr, 39–; consultant agr. chem, War Production Board, 42–* 2nd lieut, A.S, 17–19. A.A; Phytopath. Soc;

Potato Asn. (pres, 22, sec'y-treas. and ed, 33–). Fruit and sweet potato disease; potato diseases and fertilizers.

Martin, Prof. W(illiam) H(oward), University of Toronto, Toronto, Ont, Can. *Physical chemistry.* St. Mary's, Ont, Dec. 16, 89. B.A, Toronto, 13, Ph.D, 22. Lecturer *chem, Toronto,* 19–22, asst. prof, 22–29, assoc. prof, 29–39, *prof, 39–* Fel. Royal Soc. Can. The scattering of light, principally in liquids; Raman effect in liquids.

Martin, Dr. W(illiam) McK(inley), 1439 Franklin Ave, River Forest, Ill. *Biochemistry.* Sylvatus, Va, Sept. 14, 96. B.S.A, Alberta, 24, Nat. Research Council Can. scholar, 24–26, fellow, 26–27, M.Sc, 26; Caleb Dorr fellow, Minnesota, 28–29, Ph.D, 29. Asst. agr. biochem, Minnesota, 27–28; asst. chemist, Exp. Sta, Mont. State Col, 29–30, asst. prof. chem, 30–32, assoc. prof, 32–34; chemist, research dept, *Am. Can Co, 34–37, supervisor special investigations, 37–* Summers, field asst, J. Arthur Harris's desert expeds, 27–30. Chem. Soc; Inst. Food Technol. Physicochemical nature of drought resistance in plants; zeta potentials; interfacial electrical phenomena; physiological effects of oil sprays on plant tissue; electrokinetic properties of proteins; canning technology; short high-temperature sterilization methods; tinplate corrosion; technology of plastics in container and packaging problems.

Martin, Prof. W(illiam) P(axman), University of Arizona, Tucson, Ariz. *Soil microbiology.* American Fork, Utah, July 15, 12. A.B, Brigham Young, 34; M.S, Iowa State Col, 36, res. fellow, 34–37, Ph.D, 37. Instr. *soil microbiol, Arizona,* 37–40, *asst. prof, 40–, asst. soil microbiologist, Exp. Sta, 37–* Soil Sci. Soc; West. Soc. Soil Sci. (sec'y-treas, 40–). Factors affecting occurrence and distribution of azotobacter in soils; influence of the decomposition of organic materials on soil properties; microbiological characteristics of great soil groups distributed vertically on mountain ranges.

Martin, Dr. William Ted, Syracuse University, Syracuse, N. Y. *Mathematics.* Springdale, Ark, June 4, 11. A.B, Arkansas, 30; scholar, Illinois, 30–31, A.M, 31, fellow, 31–32, 33–34, Ph.D, 34. Asst. math, Illinois, 32–33; nat. research fellow *math,* Princeton, and sch. math, Inst. Advanced Study, 34–36; instr, Mass. Inst. Tech, 36–38, asst. prof, 38–43; *head dept, Syracuse, 43–* Math. Soc. (councilor, 42–). Difference equations; analytic functions of several complex variables; integral functions.

Martin, Prof. W(illiam) W(oodrow), 204 Tate St, Greensboro, N. C. *Psychology.* Tazewell Co, Ill, 74. Ph.B, Chicago, 04, A.M, 22. Prof. educ. and director training sch, Southeast Mo. State Teachers Col, 05–11, 13–21; *prof. psychol, Woman's Col, North Carolina, 22–* S. Soc. Philos. and Psychol. Educational psychology; psychological implications underlying the selection and organization of the school curriculum; consciousness as an organismic physiological function; psychological implication of the concept of organism.

Martinelli, Dr. R(aymond) C(onstantine), University of California, Berkeley, Calif. *Mechanical engineering.* Lucca, Tuscany, Italy, April 27, 14. B.S, California, 36, M.S, 38, Ph.D, 41. Teaching asst. mech. eng, California, 36–38; research engineer, Shell Oil Co, Calif, 38–39; instr. *mech. eng, California,* 39–43, *asst. prof, 43–* Summers, junior engineer, Associated Oil Co, Calif, 41; research engineer, California, 42. Mech. Eng; Soc. Automotive Eng. Heat transfer; fluid mechanics.

Martini, Mary L, 1207 Delafield Place, N. W, Washington, D. C. *Botany.* Greenville, Ohio, 95. Maine, 13–16; B.S, Fla. State Col. for Women, 18. Statistician, U. S. Food Admin, 18; Amer. Relief Admin. and U. S. Grain Corp, 19; Washington 'Herald,' 20–21; *asst. botanist, bur. plant indust, U. S. Dept. Agr, 21–* Cereal crops and diseases; studies in barley breeding and physiology.

Marton, Prof. L(adislaus) L(aszlo), Stanford University, Calif. *Physics.* Budapest, Hungary, Aug. 15, 01. Ph.D, Zurich, 24. Research assoc, Zurich, 24–25; physicochemist, research lab, Tungsram Co, 25–28; from research assoc. to asst. prof, Brussels, 28–38; lecturer, Pennsylvania, 38–39; research physicist, RCA Mfg. Co, 38–41; *assoc. prof. electron optics, Stanford, 41–* Research fellow, Institut Int. de Physique Solvay, 35–38. Summer, special lecturer, Michigan, 41. Sec'y subcmt. physical photometry, Belgian Nat. Cmt. Illum, 35–38. A.A; fel. Physical Soc; Belgian Physical Soc. Infra-red; photoelectricity and physical photometry; electron optics and electron microscopy.

Marts, Ralph O(rtman), U. S. Forest Service, Madison, Wis. *Forestry.* Ottawa, Kans, 00. B.S, Ottawa (Kans), 24; M.S, Iowa, 27. Asst. bot, Iowa, 26–29; asst. physiol. plant anatomist and *assoc. physiol. plant anatomist, Forest Products Lab, U. S. Forest Service, 29–; lieut, Air Forces, U. S. Army, 42–* A.A; Iowa Acad; Forestry Asn. Wood structure and growth conditions; taxonomy.

Martzloff, Dr. Karl H(enry), 3440 S. E. Crystal Springs Blvd, Portland, Oregon. *Surgery, Gynecology.* Portland, Oregon, Oct. 30, 90. A.B, Oregon, 13; M.D, Hopkins, 17. Asst. path, sch. med, Hopkins, and asst. res. and res. house officer, Hopkins Hosp, 18–20, asst. res. and res. surgeon gynec, 20–23, instr, sch. med, Hopkins, 22–23; *assoc. surg, med. sch, Oregon; practising surgeon.* Fel. Col. Surg; fel. Gynec. Soc; Am. Med. Asn; N. Pacific Surg. Asn; Oregon State Med. Soc. (pres). Cancer and leukoplakia of the cervix uteri; eserin and strychnin in post-operative abdominal distention; hyperplasia of the uterine endometrium; the closed intestinal loop; intestinal anastomosis; gastro-intestinal wound healing.

Marvel, Prof. Carl S(hipp), University of Illinois, Urbana, Ill. *[15]Organic chemistry.* Near Waynesville, Ill, Sept. 11, 94. A.B, Ill. Wesleyan, 15; Ph.D, Illinois, 20. Instr. chem, *Illinois,* 20–21, assoc, 21–23, asst. prof, 23–27, assoc. prof, 27–30, *prof. org. chem, 30–* Ed. board, 'Org. Synthesis,' 23–31; 'Jour. Org. Chem'; 'Org. Chem.' Nat. Acad; A.A; Chem. Soc. (councilor at large, 41–); Soc. suisse de Chim. Identification of organic compounds; polyynes; organo-metallic compounds; free radicals; rearrangements; polymerization; natural products; hydrogen bonding.

Marvin, Charles F(rederick), Jr, 6005 34th Place, N. W, Washington, D. C. *Engineering.* Washington, D. C, June 26, 96. B.M.E, Ohio State, 22. Automotive research, Bur. Standards; *retired.* Soc. Automotive Eng. Automotive engineering; motor vehicle taxes; highway safety; combustion in engines; gaseous explosions.

Marvin, Dr. George G(lover), 10 Seneca Road, Winchester, Mass. *Chemistry.* Jacksonville, Fla, Aug 3, 99. B.S, Mass. Inst. Tech, 23, M.S, 29, Ph.D, 36. Chemist, Pa. R. R, 24–25; asst. anal. chem, *Mass. Inst. Tech,* 25–27, instr, 27–36, *asst. prof. chem, 36–, in charge anal. div; lecturer chem. and in charge science dept, Suffolk.* A.A; Chem. Soc. Analytical chemistry and methods; corrosion; determination of small quantities of selenium in sulfur and in 18–8 type stainless steels.

Marvin, Dr. H(arold) M(yers), 303 Whitney Ave, New Haven, Conn. *Internal medicine.* Jacksonville, Fla, Aug. 11, 93. A.B, Davidson Col, 14; M.D, Harvard, 18. Intern, Peter Bent Brigham Hosp, Boston, 18–19; dist. physician, Near East Relief, Alexandropol, Armenia, 19–20; asst. *med,* Mass. Gen. Hosp. and Harvard Med. Sch, 20–21; instr, *Yale,* 21–23, asst. prof, 23–28, asst. clin. prof, 28–32, *assoc. clin. prof, 32–* Soc. Clin. Invest; Am. Physicians; Am. Heart Asn. (chairman, exec. cmt, acting exec. sec'y). Heart disease.

Marvin, Prof. H(enry) H(oward), University of Nebraska, Lincoln, Nebr. *Physics.* Grinnell, Iowa, Aug. 14, 84. B.S, Grinnell Col, 06; fellow, Columbia, 09–11, Ph.D, 12. Instr, high sch, Iowa, 06–08; *physics,* Mass. Inst. Tech, 11–12; asst. prof, Tufts Col, 12–17, head dept, 17–19; *prof, Nebraska, 19–, head dept, 22–* Lecturer, Minnesota, 41–42. A.A; Physical Soc; Asn. Physics Teachers; Nebr. Acad. (pres, 30). Absorption and dispersion in infra-red; Raman effect; Zeeman effect; electron coupling.

Marvin, Dr. Horace N(ewell), University of Arkansas, Little Rock, Ark. *Anatomy, Endocrinology.* Camden, Del, April 20, 15. A.B, Morningside Col, 36; scholar, Wisconsin, 36, A.M, 38, Ph.D, 41. Asst. zool, Wisconsin, 36–41; dept. genetics, Carnegie Institution, 41–42; *instr. anat, med. sch, Arkansas, 41–* A.A; Soc. Zool. Developmental anatomy; antigonadotropic hormones; gonado-pituitary relationships in the male and female.

Marvin, Dr. James W(allace), University of Vermont, Burlington, Vt. *Botany.* Norwalk, Conn, April 22, 09. B.S, Vermont, 32, research scholar, 32–33, M.S, 33; Ph.D, Columbia, 39. Lab. asst, Columbia, 33–39; instr. *bot, Vermont,* 39–42, *asst. prof, 42–* A.A; Bot. Soc; Soc. Plant Physiol; Torrey Bot. Club. Morphology; physiology.

Marvin, Dean W(alter) T(aylor), Rutgers University, New Brunswick, N. J. *Psychology, Philosophy.* New York, N. Y, April 28, 72. A.B, Columbia, 93, 95–97; Jena, 93–94; Halle;

Ph.D, Bonn, 98, Litt.D, Columbia, 29; Rutgers, 42. Asst. philos, Columbia, 98–99; instr. and asst. prof. *philos. and psychol*, Western Reserve, 99–05; asst. prof, Princeton, 05–10; *prof, Rutgers, 10–, dean col. arts and sciences, 25–* Rutgers rep, Col. Ent. Exam. Board. A.A; Psychol. Asn; Philos. Asn. Theory of knowledge; educational psychology.

Marx, Dr. Edmund P(eter), 4121 S. 39th Ave, Omaha, Nebr. *Psychology*. Spencer, Nebr, March 11, 09. B.S, Kans. State Col, 35, M.S, 37; Ph.D, Ohio State, 40. Instr. and athletic coach, schs, Nebr, 35–36; psychol. asst, instr. and counsellor, Ohio State, 37–40; occupational analyst, U. S. Employment Service, 40–42; prof. educ. and head dept. educ. and psychol, Stout Inst, 42; *psychometrist and research director, Glen L. Martin-Nebr. Co, 42–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Comparative value of demonstration in child and adult learning in problem situations; application of methods of curricular research to educational psychology; construction and standardization of trade tests and aptitude tests; personnel research in the aircraft industry.

Marx, Prof. Erich A, Trinity University, San Antonio, Texas. *Physics*. Berlin, Germany, March 13, 74. Ph.D, Göttingen, 98. Asst, Kiel, 99–00; Stockholm, 00–01; privat-docent, Leipzig, 03–07, prof, 07–20, director radiol. inst, 20–33; mem. staff, private inst. radiophysics and patents, 33–37; *research prof. physics, Trinity (Texas), 41–* Conduction of electricity through gases; flamegases; radioactivity; electrical waves; x-ray propagation; photoelectricity amplifier; radiology.

Marx, Dr. Lawrence Norbert, Stout Institute, Menomonie, Wis. *Psychology*. Spencer, Nebr, Aug. 8, 07. B.S, Kans. State Col, 32, M.S, 33; Columbia, summers, 34, 35; Ph.D, Ohio State, 39. Teacher and coach, high sch, Nebr, 33–34, prin. and coach, 34–36; teaching asst, Ohio State, 36–39; prof. psychol. and chairman dept. educ. and psychol, Stout Inst, 39–43; *coordinator of training, Curtiss Wright Corp, 42–* Summer, instr, Kans. State Teachers Col, Emporia, 38. 2nd lieut, C.A.C, 33. Assoc. Psychol. Asn; Vocational Asn; Am. Acad. Electrophysiology; visual and kinaesthetic perception; self scoring devices in testing; electrical apparatus for high amplification; mathematical procedures for translating curvilinear dimensions.

Marx, Dr. Lore, University Hospital, Ann Arbor, Mich. *Obstetrics, Gynecology*. Karlsruhe, Germany, 99. Ph.D, Heidelberg, 28. Fellow biol, Kaiser Wilhelm Inst, 28–30; asst. pharmacol, City Hosp, Mannheim, 30–31; Inst. Gen. Path, Copenhagen, 34–36; exp. biol, Am. Museum Nat. Hist, 36–37; *research asst. obstet. and gynec, univ. hosp, Michigan, 37–* A.A. Endocrine glands.

Marx, Dr. Walter, Institute of Experimental Biology, University of California, Berkeley, Calif. *Biochemistry*. Karlsruhe, Germany, June 26, 07. Dipl.Ing, Tech. Hochschule, Karlsruhe, 31, D.Ing, 33. Instr, Inst. für physikal. Chem, Tech. Hochschule, Karlsruhe, 30–33; research fellow, Kaiser Wilhelm-Inst. für med. Forschung, Heidelberg, 33–34; Mt. Sinai Hosp, 34–37; *research assoc.* biochem. and exp. surg, sch. med, Duke, 37–39; *inst. exp. biol, California, 39–* A.A. Proteins; pituitary hormones; animal viruses; snake venom.

Maryott, Dr. Arthur Allen, National Bureau of Standards, Washington, D. C. *Physical chemistry*. Augusta, Ga, Nov. 8, 17. A.B, Duke, 37, Ph.D, 40. Ethyl-Dow fellow, 40–41; *asst. chemist, Bur. Standards, 41–* Chem. Soc. Dielectric constants; dipole moments; association of carboxylic acids.

Maryott, Prof. Carlton H(oward), University of Georgia School of Medicine, Augusta, Ga. *Chemistry*. Berlin, N. Y, June 11, 81. A.B, Brown, 04; Ph.D, Yale, 11. Instr. *chem*, Yale, 06–09; *prof*, Baylor, 11–14; *sch. med, Georgia, 14–* A.A; Chem. Soc. Protein chemistry; quantitative separation of amino acids.

Marzke, Dr. Oscar T(heodore), 1520 N. Jackson St, Waukegan, Ill. *Metallurgy*. Lansing, Mich, Nov. 7, 07. B.S, Mich. State Col, 29; Sc.D, Mass. Inst. Tech, 32. Asst, Naval Research Lab, 30–31; asst. director, research lab, *Am. Steel and Wire Co*, Worcester, Mass, 34–38, asst. dist. metallurgist, 38–40, *works metallurgist*, north works, 40–42, *Waukegan works, 42–* Min. and Metal. Eng; Soc. Metals. Precipitation structures in copper-zinc and copper-aluminum alloys.

Marzolf, Dr. Stanley S(mith), Illinois State Normal University, Normal, Ill. *Psychology*. Aurora, Ill, Oct. 18, 04. A.B, Wittenberg Col, 26; A.M, Ohio State, 30, Ph.D, 37. Teacher, high sch, Ohio, 26–30; psychologist, State Dept. Pub. Welfare, Ohio, 30–35; asst, Ohio State, 35–37; asst. prof. *psychol, Ill. State Nor. Univ*, 37–43, *assoc. prof, 42–* Summer, instr, N. Y. State Sch, Rome, 30. Consultant guidance workshop, South. Asn. Cols. and Secondary Schs, 38. Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Midwest. Psychol. Asn; Ill. Asn. Applied Psychol. Prediction of scholastic success.

Masius, Dr. Morton, 52 Fruit St, Worcester, Mass. *Physics*. Egg Harbor City, N. J, Oct. 6, 83. Ph.D, Leipzig, 08; fellow, Harvard, 08–09. Instr. *physics, Worcester Polytech*, 09–15, asst. prof, 15–19, *prof, 19–* A.A; fel. Physical Soc; Asn. Physics Teachers. Adsorption; thermodynamics; radiation; galvanometers; refractometry; kinetic theory.

Masket, Dr. A(lbert) Victor (Hugo), Naval Research Laboratory, Anacostia Station, Washington, D. C. *Physics*. New York, N. Y, Nov. 22, 14. B.S, N. Y. Univ, 35; M.S, Virginia, 36, Ph.D, 38. Asst. *physics, Virginia*, 38–41, *assoc, 41–; mem. staff, Naval Research Lab*. A.A; Physical Soc. Separation of isotopes; ultracentrifuges; calcium-protein equilibrium in serum.

Mason, Arnold C(averly), Illinois Geological Survey, Urbana, Ill. *Geology, Physiography*. Mt. Vernon, N. Y, May 2, 06. B.S, Yale, 28; Columbia; Washington (St. Louis); Wisconsin; Illinois. Asst, Wisconsin, 37–39; asst. prof, Kentucky, 39–41; asst. geologist, *Ill. Geol. Surv*, 41–43, *assoc. geologist, 43–* A.A; Wis. Acad; Ky. Acad; Ky. Geol. Soc; Ill. Acad; Ill. Geol. Soc. Ground water.

Mason, Arthur C(harles), P. O. Box 150, Moorestown, N. J. *Entomology*. Warren, Mich, March 12, 91. B.S, Mich. State Col, 13; M.S, Florida, 15. *Asst. entomologist*, Exp. Sta, Florida, 13–15; State Plant Board, Fla, 15–17; *bur. entom. and plant quarantine, U. S. Dept. Agr, 17–, assoc. entomologist*. A.A; Entom. Soc; Asn. Econ. Entom; Fla. Entom. Soc; Hawaiian Entom. Soc. Thysanoptera; citrus insects; camphor thrips; fruit-flies.

Mason, Prof. Carol Y(oung), Northwest Missouri State Teachers College, Maryville, Mo. *Geography*. Watertown, Mass, Jan. 17, 02. A.B, Wellesley Col, 24; scholar, Clark, 24–25, A.M, 25, fellow, 34–35, Ph.D, 36. Asst. geog, Illinois, 25–27; instr. and later asst. prof. geog. and geol. and curator Greene Mem. Museum, Milwaukee-Downer Col, 28–38; *prof. geog, Northwest Mo. State Teachers Col, 38–* A.A; fel. Am. Geog. Soc; Meteorol. Soc. The cranberry industry in Massachusetts; the geography of Allegany State Park; municipal water supplies of New England; geography and Pan-Americanism; water and northwest Missouri.

Mason, Dr. Charles M(organ), 507 Cleveland Ave, Florence, Ala. *Physical chemistry*. Kenora, Ont, Can, July 7, 06. B.S, Arizona, 28, M.S, 29; Garland scholar and fellow, Yale, 31–32, Ph.D, 32. Teaching fellow, Arizona, 28–29; asst, Yale, 29–31; asst. prof. physical chem, New Hampshire, 32–37, assoc. prof, 37–41; assoc. physical chemist, U. S. Bur. Mines, 41–43; *chemist, Tenn. Valley Authority, 43–* Chem. Soc; Physical Soc. Thermodynamics of solutions; magnetochemistry; physical properties of rare earths; development of nonmetallic minerals; alumina.

Mason, Dr. Clarence T(yler), Dillard University, New Orleans, La. *Chemistry*. Chicago, Ill, April 21, 08. B.S, Northwestern, 31; M.Sc, McGill, 33, Ph.D, 35. *Director dept. chem, Dillard, 35–* Chem. Soc. Oxidation of organic compounds; physical chemistry of mixtures of organic compounds; orientation courses in colleges; halogenated alkyl ethers.

Mason, Prof. C(lyde) W(alter), Cornell University, Ithaca, N. Y. *Microscopy*. Watertown, S. Dak, June 17, 98. A.B, Oregon, 19; Ph.D, Cornell, 24. Asst. chem, Oregon, 17–20; *chem. micros. and metal, Cornell*, 20–23, instr, 23–27, asst. prof, 27–33, *prof, 33–* Chem. Soc; Soc. Metals; Min. and Metal. Eng; Soc. Test. Mat. Chemical microscopy and metallography; structural colors; microscopic qualitative analysis; microscopical and metallographic methods.

Mason, Prof. Earl G(eorge), Oregon State Agricultural College, Corvallis, Oregon. *Forestry*. Mulvane, Kans, Aug. 25, 97. B.S, Oregon State Col, 20; M.F, Yale, 23; D.Ed, Oregon, 43. Instr. *forestry, Oregon State Col*, 20–22, 23–24, asst. prof, 24–32, assoc. prof, 32–34, *prof, 34–, asst. to dean, 35–*, acting dean, 41. Soc. Foresters. Forest economics.

Mason, Prof. Edward C(harles), University of Oklahoma School of Medicine, Oklahoma City, Okla. *Physiology*. Baltimore, Md, Oct. 30, 91. A.B, Drury Col, 14; M.D, Cincinnati, 20, Ph.D, 21. Teaching fellow org. chem, St. Louis, 15–17; assoc. pharmacol. and physiol, Chicago, 17–19; asst.

prof. pharmacol, Cincinnati, 19-21; fellow med, Mayo Clinic, 21-22, med. staff, 22-23; clin. lab. and med. research, Henry Ford Hosp, 23-24; *prof. physiol, sch. med, Oklahoma, 28–* Fel. Col. Physicians; fel. Soc. Clin. Path; Physiol. Soc. Hemolysis of red blood corpuscles; coagulation of blood; pharmacological action of lead in organic combinations and of benzylbenzoate; autolysis in vivo; thrombosis and embolism; action of insulin; water excretion; absorption from normal and burned tissues; human conduct and related physiology.

Mason, Dr. E(dward) H(alton), 1509 Sherbrooke St, W, Montreal, Que, Can. *Medicine.* Providence, R. I, Sept. 10, 88. Ph.B, Brown, 10; M.D, McGill, 14. Lecturer *med, McGill,* 19-25, asst. prof, 25-38, *assoc. prof, 38–* Asst. physician in charge dept. metabolism, Royal Victoria Hosp, 21-34, asst. director univ. clinic, 24-28, physician, 34– Col. Physicians; Asn. Physicians; Soc. Clin. Invest; Royal Col. Physicians and Surg. Can. Internal medicine; metabolism.

Mason, Prof. Eleanor D(ewey), Women's Christian College, Cathedral P. O, Madras, India. *Physiology.* Tura, Assam, India, March 18, 98. A.B, Mt. Holyoke Col, 19; A.M, Wellesley Col, 21; A.M, Radcliffe Col, 28, Ph.D, 34. Asst. genetics, Carnegie Institution, 19-20; zool, Wellesley, 20-21; *prof. zool. and physiol, Women's Christian Col, India, 21–* Vital capacity of Indian women; basal metabolism in south India; effect of tropical climate and change of climate on metabolism; food intake and absorption in south India.

Mason, Dr. Harold L(awrence), Mayo Foundation, Rochester, Minn. *Chemistry.* Compton, Calif, April 17, 01. A.B, Southern California, 23, A.M, 24; Ph.D, Chicago, 27. Instr. chem, Northwestern, 27-28; *physiol. chem, Mayo Foundation, Minnesota, 28–, assoc. prof.* A.A; Chem. Soc; Soc. Biol. Chem. Chemical properties and biological relations of glutathione; isolation and chemistry of suprarenal cortex hormone; vitamins; porphyrins; urinary steroids; bone marrow.

Mason, Dr. H(enry) L(ea), Clover Hills Drive, Rochester, N. Y. *Mechanical engineering.* Trenton, N. J, Aug. 22, 00. B.S, Rutgers, 21, M.E, 26; Bridgham fellow, Columbia, 34; Sc.D, Michigan, 34. Asst. engineer, Westinghouse Elec. and Mfg. Co, 22-25; instr. and asst. prof. mech. eng, Rutgers, 25-31; asst. prof, Columbia, 31-34; research engineer, *Taylor Instrument Companies,* 34-38, *director research, 38–* Mech. Eng. Beam impact; pressure and temperature instruments.

Mason, Prof. Herbert L(ouis), 1190 Sterling Ave, Berkeley, Calif. *Botany.* Fond du Lac, Wis, Jan. 3, 96. A.B, Stanford, 22; A.M, California, 23, Ph.D, 32. Instr. Mills Col, 23-25; assoc. *bot, California,* 25-31, instr, 31-35, asst. prof, 35-38, *assoc. prof, 38–,* assoc. curator *herbarium,* 35-38, *curator, 38–* Botanist, Calif. Acad. exped, Revillagigedos Islands, 25. Chairman ed. board, 'Madrono,' 35– Mem. cmt. paleobot, Nat. Research Council, 35-40. Bot. Soc; Paleont. Soc; Calif. Bot. Soc. (v. pres, 30); Calif. Acad. Systematic botany; paleobotany; plant geography.

Mason, Prof. H(erman) C, University of North Carolina, Chapel Hill, N. C. *Bacteriology, Immunology.* Chicago, Ill, Sept. 26, 10. B.S, Chicago, 32, 32-34; M.S, Illinois, 37, Ph.D, 39. Fellow by courtesy, dept. immunol. and viruses, sch. hygiene and pub. health, Hopkins; instr. in charge lab. med, dental and grad. students, dept. bacter. and pub. health, col. med, Illinois, 35-39; fellow by courtesy, Hopkins, 39-40; bacteriologist, venereal diseases, Health Dept, Chicago, Ill, 40-41; asst. prof. bacter, State Col. Wash, 41-42; *assoc. prof. bacter. and immunol, sch. med, North Carolina, 42–* Special lecturer, Cook County Sch. Nursing, 38; Grinnell Col, 41. A.A; Pub. Health Asn; Soc. Bact; Elisha Mitchell Sci. Soc. Blood; venereal diseases; filtrable viruses.

Mason, Lieut. Col. Horatio C(lyde), 298 Blenheim Road, Columbus, Ohio. *Entomology.* Coal Run, Ohio, Aug. 7, 05. B.S, Ohio State, 28, M.S, 29. Mem. staff, bur. entom. and plant quarantine, U. S. Dept. Agr, 29-31, asst. entomologist, 31-40, assoc. entomologist, 40-41; capt, *Inf, U. S. Army,* 41, major, 41-42, *lieut. col, 42–* Asn. Econ. Entom; Entom. Soc. Amer; Ohio Acad. Truck crop insects.

Mason, Dr. H(oward) S(tanley), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Organic chemistry.* Melrose, Mass, Aug. 20, 14. B.S, Mass. Inst. Tech, 35, M.S, 36, Ph.D, 39. Instr. chem, Ruston Acad, Cuba, 36-37; fellow chem, Harvard, 39-41; *assoc. chemist, nat. inst. health, U. S. Pub. Health Service, 41–* Chem. Soc; Hist. Sci. Soc. Chemistry of allergy; mechanism of organic reactions; organic peroxides.

Mason, Prof. H(oward) W(ard), 1414 North Ave, N. E, Atlanta, Ga. *Engineering.* Leonardville, Kans, Oct 10, 90. B.S, Idaho, 14, M.E, 31; M.S, Ga. Tech, 25. Eng. dept, Gen. Elec. Co, 15-17; teacher, Texas, 17; assoc. prof. exp. eng, *Ga. Tech,* 20-25, *prof.* and head dept, 25-32, *mech. eng, 32–, supt. maintenance dept, 32–* Ordnance engineer, U. S. Civil Service, 18-19. Determination of heat transfer coefficients for extended surfaces.

Mason, Prof. J(esse) W(ilford), Georgia School of Technology, Atlanta, Ga. *Chemical engineering.* Louisville, Ky, April 16, 09. B.S, Louisville, 30; Ph.D, Yale, 35. Asst. instr. chem. eng, Yale, 30-33; research chem. engineer, Palmer Asbestos and Rubber Corp, 33-35; asst. prof. *chem. eng,* Florida, 35-38; asst. prof, *Ga. Tech,* 38-40, assoc. prof, 40-41, *prof. and acting head dept, 41–* Summers, State Water Cmn, Conn, 32; Girdler Corp, 36. Chem. Eng; Eng. Educ. Absorption of gases by solutions of amines; humidification; fluid flow.

Mason, Dr. J(ohn) Alden, University Museum, Philadelphia, Pa. *Anthropology.* Germantown, Pa, Jan. 14, 85. A.B, Pennsylvania, 07; Ph.D, California, 11. Asst. curator Mex. and S. Am. archeol, Field Museum Nat. Hist, 17-24; Mex. and Cent. Am. archeol, Am. Museum Nat. Hist, 24-25; *curator Am. sect, univ. museum, Pennsylvania, 26–* Pa. rep, Int. Sch. Mex. Archeol. exped, Jalisco, 11-13; investigator, Geol. Surv. Can. exped, Great Slave Lake, 13; mem, P. R. Insular Surv, 14-15; research fellow, California exped, Salinan Indians, 16; investigator, Southwest. Soc. exped, Papago Indians, 18; Field Museum exped, Colombia, 22-23; leader, Univ. Museum exped, Texas, N. Mex, Ariz. and Pa, 29; Mex. and Guatemala, 30; Eldridge R. Johnson exped, Piedras Negras, Guatemala, 31-32, Panamá, 40; Am. Philos. Soc. exped, Durango, Mex, 36. Mem, Nat. Research Council, 40-42. A.A; Anthrop. Asn. (councilor); Ethnol. Soc. (treas, 25); Folk-Lore Soc. (councilor); Soc. Archeol. (v. pres, 38); Soc. Pa. Archeol. (pres, 29, 30); Archeol. Soc. Del. (director); hon. mem. Archeol. Soc. N. J; Anthrop. Soc. Phila. (councilor, pres, 27); Soc. des Américanistes de Paris; Soc. Geografia e Historia de Guatemala. Archeology, ethnology, linguistics and folk-lore of Latin America.

Mason, Dr. John F(rederick), Apartado 44, Barcelona, Venezuela, S. Amer. *Geology.* Hollywood, Calif, Nov. 25, 13. A.B, Southern California, 34, A.M, 35; Ph.D, Princeton, 41. Field geologist, Socony-Vacuum Oil Co, 37-40; instr. earth sciences, Pennsylvania, 41-42; *field geologist, Venezuelan Atlantic Ref. Co, 42–* Field geologist, Pa. Geol. and Topog. Surv, 41– Asn. Petrol. Geol. Cambrian stratigraphy and paleontology in Great Basin; structural geology of Death Valley area, California.

Mason, Prof. J(ohn) Philip, 688 Boylston St, Boston, Mass. *Chemistry.* South Hadley Falls, Mass, Jan. 3, 01. B.S, Boston, 22; A.M, Princeton, 23, Ph.D, 27. Instr. *chem,* George Washington, 25-28; *Boston,* 28-30, asst. prof, 30-35, *prof, 35–* Chem. Soc. Organic chemistry.

Mason, Prof. Karl E(rnest), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Anatomy.* Kingston Village, N. S, Can, May 30, 00. B.A, Acadia, 21; Ph.D, Yale, 25. Asst. zool, Yale, 21-25; nat. research fellow, 25-26; instr. *anat,* sch. med, Vanderbilt, 27-29, asst. prof, 29-30, assoc. prof, 30-40; *prof, sch. med. and dentistry, Rochester, 40–* A.A; Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; Inst. Nutrition; N. Y. Acad. Testicular infection and degeneration in tuberculosis; nutritional deficiencies and sterility; vitamin E; bio-assay; physiology; histopathology.

Mason, Dr. Leo S(umner), University of Pittsburgh, Pittsburgh, Pa. *Physical chemistry.* Radcliffe, Iowa, Oct. 18, 09. A.B, St. Olaf Col, 30; Ph.D, Nebraska, 34. Prof. chem, N. Texas Agr. Col, 34-36, 37-43; Nebr. State Teachers Col, Chadron, 36-37; *senior research fellow, Pittsburgh, 43–* Calorimetry of solutions.

Mason, Dr. Lucile R(oush), Mills College, Calif. *Botany.* Palo Alto, Calif, Nov. 11, 96. A.B, Stanford, 18; A.M, California, 21, Ph.D, 33. Instr, Wellesley Col, 18-20; assoc. *bot,* California, 21-33, *instr,* col. pharmacy, 33-38; *Mills Col, 38–* Red algae.

Mason, Dr. Max, 1505 Circle Drive, Pasadena, Calif. **Z *Mathematics.* Madison, Wis, Oct. 26, 77. B.L, Wisconsin, 98, LL.D, 26; LL.D, Yale, 26, Dartmouth Col, 27, Pomona Col, 37; Ph.D, Göttingen, 03; Sc.D, Columbia, 26. Instr. math, Mass. Inst. Tech, 03-04; asst. prof, Sheffield Sci. Sch, Yale,

04–08; assoc. prof, Wisconsin, 08–10, prof. math. physics, 10–25; pres, Chicago, 25–28; director nat. sciences, Rockefeller Foundation, 28–29, pres, 30–36; *v. chairman observatory council and mem. exec. council, Calif. Inst. Tech, 36–* Colloquium lecturer, Am. Math. Soc, 06; lecturer, Harvard, 11–12. Div. physical sciences, Nat. Research Council, 18–, submarine cmt, 17–19. Research staff, U.S.N. Exp. Sta, 17–19. Nat. Acad; A.A. (v. pres, B, 20); Math. Soc. (assoc. ed, 'Trans,' 11–17); Physical Soc; Deuts. Math. Verein. Differential equations; calculus of variations; electromagnetic theory; submarine detection devices; acoustical compensators.

Mason, Mayne S(eguine), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Buda, Ill, June 3, 90. B.S, Illinois, 11, fellow, 11–13, M.S, 13. Student engineer, Gen. Elec. Co, 13–15; instr. elec. eng. and physics, Rutgers, 15–17, acting prof. physics, 17; fellow, Mellon Inst, 19; Westinghouse Elec. Int. Co, 20–21. dept. develop. and research, Am. Tel. and Tel. Co, 21–34; protection develop. dept, *Bell Tel. Labs,* 34–39, *personnel dept, 39–* Lieut, A.S, 17–18. Elec. Eng. Power and telephone plant coordination; technical personnel administration.

Mason, Dr. Michael L(ivingood), 54 E. Erie St, Chicago, Ill. *Surgery.* Rossville, Ill, April 23, 95. B.S, Northwestern, 16, fellow, 16–17, A.M, 17, M.D, 24, Ph.D, 31. Asst. anat, *med. sch, Northwestern,* 19–23, assoc, 24–26, clin. asst. *surg,* 27–29, assoc, 29–31, asst. prof, 31–36, *assoc. prof, 36–, director lab. exp. surg, 31–; Med. Corps, U. S. Army, 43–* Ed, 'Int. Abstracts Surg,' 31– Mem. Am. Board Surg; Am. Board Plastic Surg. A.A; Am. Med. Asn; Col. Surg; Surg. Asn; Cent. Surg. Asn; West. Surg. Asn; Chicago Surg. Soc. Surgery of the hand; dead tendon grafts; skin grafts; methods in tendon suture; degeneration of the vagus nerve in the lung of the rabbit; the first thoracic white ramus communicans in man; tendon healing.

Mason, Dr. Morton F(reeman), Vanderbilt Hospital, Nashville, Tenn. *Biochemistry.* Pasadena, Calif, Nov. 12, 02 B.S, Oregon State Col, 25; Ph.D, Duke, 34. Asst. chem, Exp Sta, Mich. State Col, 26–30; *biochem,* sch. med, Duke, 31–34; instr, *sch. med, Vanderbilt,* 34–37, asst. prof, 37–41, *assoc. prof, 41–* Soc. Biol. Chem; Human Serum Asn. Experimental uremia and hypertension; renal and hepatic blood flow; foetal physiology; shock.

Mason, Dr. P(reston) W(alter), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Warren, Mich, April 12, 89. B.S, Mich. State Col, 12; M.S, Purdue, 17; Ph.D, George Washington, 25. Asst. entom, Mich. State Col, 09–12; Purdue, 12–17, asst. prof, 17–18; *bur. entom. and plant quarantine, U. S. Dept. Agr, 18–* Entom. Soc. Wash. Aphidae.

Mason, Dr. Ralph B(ryant), 1025 Parkview Ave, New Kensington, Pa. *Physical chemistry.* Woodhull, Ill, Aug. 25, 92. A.B, William and Vashti, 14; A.M, Wisconsin, 20, Ph.D, 24. Instr. gen. chem, Wisconsin, 19–25; *physical chemist, Aluminum Research Labs, 25–* 2nd lieut, Sanit. C, 18–19. Chem. Soc; Electrochem. Soc. Alumina and physical chemistry of aluminum; electrochemistry; thermal insulation; magnetic analysis; photochemistry.

Mason, Dr. R(uric) C(oin), 22 Roxbury Road, Forest Hills, Wilkinsburg, Pa. *Physics, Electrical engineering.* Bentonville, Ark, Sept. 6, 03. B.E.E, Arkansas, 24; A.M, Princeton, 29, Ph.D, 36; Utrecht, 37–38. *Westinghouse Elec. and Mfg. Co,* 24–37, *39–, research labs,* 29–37, *39–* A.A; Physical Soc; Elec. Eng. Conduction of electricity in gases; cathode of arc; high pressure positive column; reactions at mercury surface; adsorption.

Mason, Dr. Shirley L(owell), Box 3092, Houston, Texas. *Geology.* Gloucester, Mass, July 4, 93. A.B, Harvard, 15, Ph.D, 32; M.S, Pittsburgh, 19; D.I.C, London, 23. Geologist, Johnson, Huntley and Somers, Bolivia, S. Amer; field geologist, Imp. Oil Co, Colombia; subsurface geologist, Rycade Oil Corp, Houston; geologist, Iraq Petrol. Co, Ltd; consulting geologist and partner, Huntley and Huntley, Pittsburgh; geologist, Sinclair Oil Co, Portuguese W. Africa; senior geologist, Stanolind Oil and Gas Co. Asn. Petrol. Geol. Effects of structure upon oil and gas production in the Osage; Rumanian oil fields; geology of prospective oil territory in Republic of Turkey; Colombian oil fields; barite pisolites from Batson and Saratoga oil fields.

Mason, Dr. S(tanley) G(eorge), Experimental Station, Suffield, Alta, Can. *Physical chemistry.* Montreal, Que, March 20, 14. B.E, McGill, 36, Ph.D, 39. Instr. physical chem, Trinity Col. (Conn), 39–41; *research chemist, Dept. Nat. Defence, Can, 41–* Chem. Soc. Transition phenomena in the critical temperature region.

Mason, Prof. Thomas W(illiam), 135 W. Prospect Ave, State College, Pa. *Chemistry.* Wilkes-Barre, Pa, Jan. 30, 84. B.S, Pa. State Col, 08, M.S, 12. Instr. chem, Mich. State Col, 08–09; prof, St. Olaf Col, 09–10; *assoc. prof. anal. chem, Pa. State Col, 11–* Consulting and anal. chemist. Chem. Soc; fel. Inst. Chem. Analytical chemistry.

Mason, Dr. W(arren) P(erry), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Colorado Springs, Colo, Sept. 28, 00. B.S, Kansas, 21; A.M, Columbia, 24, Ph.D, 28. *Physicist, Bell Tel. Labs, 21–* Fel. Physical Soc; fel. Acoustical Soc; fel. Radio Eng; Math. Soc; N. Y. Acad. Propagation of sound in acoustic filters and other structures; propagation of electric waves through electrical networks; use of piezoelectric crystals in electrical networks; properties of Rochelle salt and other piezoelectric crystals.

Massengale, Dr. O(liver) N, Mead Johnson and Co, Evansville, Ind. *Chemistry.* Deatsville, Ala, Jan. 12, 98. B.S, Ala. Polytech, 18; M.S, Iowa State Col, 24; Ph.D, Rutgers, 28. Asst. chem, Exp. Sta, Ala. Polytech, 20–22; instr, Kans. State Col, 24–26; poultry nutrition specialist, N. J. Exp. Sta, 28–29; *research chemist, Mead Johnson and Co, 29–* Chem. Soc; Soc. Biol. Chem. Vitamins B and D; carbohydrates.

Masserman, Dr. Jules H(omen), University of Chicago, Chicago, Ill. *Psychoanalysis, Neurophysiology.* Russia, March 10, 05. M.D, Wayne, 31. Res. neur, Stanford, 31–32; asst. psychiatrist, Hopkins, 32–35; res. *psychiat, Chicago,* 35–36, *asst. prof. and research assoc, Sprague Mem. Inst, 36–* Fel. Psychiat. Soc; Psychoanal. Soc; Soc. Research Nervous and Mental Disease; Chicago Soc. Personality Study (sec'y-treas, 38–). Cerebrospinal hydrodynamics; experimental neuroses.

Massey, Prof. A(rthur) B(allard), Virginia Polytechnic Institute, Blacksburg, Va. *Botany, Ecology.* Miller's School, Va, Jan. 10, 89. B.S, N. C. State Col, 09; Chicago, 13; M.S, Va. Polytech, 28. Instr. bot, Clemson Col, 10–13; asst. prof, Ala. Polytech. and Exp. Sta, 13–18; mem. staff, Exp. Sta, *Va. Polytech,* 18–35, *assoc. prof.* plant path. and bacter, 25–35, *biol, 35–, botanist, wildlife unit.* Mem. board, Mt. Lake Biol. Sta, 30– A.A; Bot. Soc; Soc. Plant Taxon; Va. Acad. (chairman cmt. Va. flora). Taxonomy and ecology.

Massey, Prof. L(ouis) M(elville), Cornell University, Ithaca, N. Y. *Plant pathology.* West Point, Iowa, Aug. 25, 90. A.B, Wabash Col, 12; Ph.D, Cornell, 16. Asst. *plant path, Cornell,* 12–14, instr, 14–16, asst. prof, 16–18, 19–22, *prof. and head dept, 22–* Plant pathologist, U. S. Dept. Agr, 18–19; Boyce Thompson Inst, 25; research assoc, California, 32–33. A.A; Phytopath. Soc. (v. pres, 31); Soc. Plant Physiol; Bot. Soc; Mycol. Soc; Rose Soc. (pres, 40, 41); Can. Phytopath. Soc. Diseases of florists' crops; disease resistance.

Massler, Dr. Maury, 808 S. Wood St, Chicago, Ill. *Dentistry.* New York, N. Y, March 24, 12. B.S, N. Y. Univ, 32; D.D.S, Illinois, 39, M.S, 41. Instr. histol. and in children's clin, *col. dentistry, Illinois,* 39–41, *assoc. histol, 41–, director child research clin, 40–* Lecturer and consultant, col. med, Illinois, 41– Dental Asn; Int. Asn. Dental Research. Dental pediatrics; physical growth and development of the child; normal and abnormal growth of the cranium, the facial skeleton, the jaws and the dentitions.

Masson, Prof. H(enry) J(ames), New York University, New York, N. Y. *Chemical engineering.* New York, N. Y, Dec. 24, 91. Ch.E, Columbia, 14, A.M, 16; M.S, N. Y. Univ, 15, Ph.D, 18. Instr. *chem. eng,* Columbia, 15–17; asst. prof, *N. Y. Univ,* 17–28, assoc. prof, 28–32, *prof, 32–, chairman dept, 34–, director grad. div, col. eng, 40–, eng. div,* 41–42, *asst. dean, 42–* Chem. Soc; Chem. Eng. Carbon black; printing ink; artificial silk; rubber; dust collection; thermal decomposition; petroleum.

Masson, Dr. James C(arruthers), 102–110 Second Ave, S. W, Rochester, Minn. *Surgery.* Owen Sound, Ont, Can, Aug. 27, 81. M.B, Toronto, 06, M.D, 28. Intern, Hosp. Sick Children, Toronto, 06–07; Toronto Gen. Hosp, 07–08; intern and res, Manhattan Maternity and Dispensary, New York, 08–09; private practise, Dunville, Ont, 09–12; *surgeon, Mayo Clinic, 12–, head sect. surg, 15–, chief surg. staff, 36–* Asst. prof, Mayo Foundation, Minnesota, 18–27, assoc. prof, 27–36, prof, 36– Mem, Am. Board Surg. Major, M.C, 17–18. Fel. Col. Surg; Gynec. Soc; Am. Med. Asn; Surg. Asn; Gynec.

Club; Asn. Ry. Surg; Cong. Obstet. and Gynec; Cent. Asn. Obstet. and Gynec; West. Surg. Asn; Interurban Surg. Soc; Minn. Soc. Obstet. and Gynec; South. Minn. Med. Asn. Gynecology.

Mast, Prof. S(amuel) O(ttmar), Johns Hopkins University, Baltimore, Md. **2Biology.* Washtenaw Co, Mich, Oct. 5, 71. B.S, Michigan, 99, Sc.D, 41; Ph.D, Harvard, 06; M.Pd, Mich. Nor. Col, 10. Prof. biol, Hope Col, 99–08; assoc. prof. biol. and prof. bot, Goucher Col, 08–11; assoc. prof. and *prof. zool, Hopkins, 11–* Johnston research scholar, Hopkins, 07–08, special lecturer, 08–09; McBride lecturer, 31. Cartwright prize, Columbia, 09. A.A; Soc. Nat; Soc. Zool. (pres, 26); Bot. Soc; Physiol. Soc; Acad. Nat. Sci. Phila. General physiology; synthesis of protoplasm and motor response in lower organisms; animal behavior.

Master, Dr. Arthur M, 125 E. 72nd St, New York, N. Y. *Internal medicine.* New York, N. Y, Dec. 1, 95. B.S, Col. City of N. Y, 16; M.D, Cornell, 21. Intern, Mt. Sinai Hosp, New York, 21–23, admitting physician, 23–24; Cornell traveling fellow, Univ. Col. Hosp. Med. Sch, London, 24–25; vol, cardiographic dept, *Mt. Sinai Hosp, New York,* 26–31, asst. cardiographer, 31–33, adj. physician, 28–34, cardiographer, 33, *assoc. med, 34–, chief cardiographic lab. and cardiac clinic, 34–,* cardiologist, 42; electrocardiographer, clinic, med. col, Cornell, 27–32; assoc. med, *Columbia,* 36–41, *asst. prof. clin. med, 41–; Med. Corps, U. S. Naval Res, 42–, commander* and consultant cardiologist, Nat. Naval Med. Center, Bethesda, Md. Cardiac consultant, U. S. Veterans' Hosp, No. 81, 27–28; cardiologist, Joint Disease Hosp, 27–30; chief cardiac clinic, N. Y. Hosp, 28, asst. cardiographer, 27–32, physician, outpatient dept, 33–; cardiologist, Gouverneur Hosp, 37; consultant cardiologist, Rockaway Beach Hosp, 37– A.A; Am. Med. Asn; fel. Col. Physicians; Soc. Exp. Biol; Heart Asn; Asn. Adv. Indust. Med. and Surg; Pub. Health Asn; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc; N. Y. Heart Asn. Experimental and clinical cardiology; gastric cancer; obesity; cardiac functional test; A-V conduction; fatty heart; electrocardiogram in hypertension; pneumonia; arthritis; coronary artery thrombosis; undernutrition; cardiac output; coronary insufficiency; nomenclature of coronary heart disease; hypertension; electrocardiogram and x-ray configuration of the heart.

Masters, F(rank) M(ilton), State Street Bldg, Harrisburg, Pa. *Engineering.* Meyersdale, Pa, June 18, 83. Cornell; Carnegie Inst. Tech. Engineer, Ralph Modjeski, 04–16; consulting engineer, 19–30; *mem. firm, Modjeski and Masters, 30–* Major, Ordnance Dept, 17–19. Civil Eng; Soc. Test. Mat; Inst. Consulting Eng; Concrete Inst; Ry. Eng; Franklin Inst; hon. mem. Eng. and Architects, Louisville, Ky. Design and construction of bridges; examination and valuation of structures.

Masure, M(ortimer) P(hilip), U. S. Department of Agriculture, Albany, Calif. *Chemistry, Physiology.* Chicago, Ill, March 16, 08. B.S, Chicago, 29, M.S, 30. Junior physiologist, bur. plant indust, *U. S. Dept. Agr,* 30–41, *asst. chemist, west. regional research lab, bur. agr. chem. and eng, 41–* Chem. Soc; Soc. Hort. Sci; Inst. Food Technol. Food processing; physiology and biochemistry of freezing preservation of fruits and vegetables; variety studies; storage temperature, handling, vitamins, enzymes and transportation of food.

Matas, Dr. Rudolph, Tulane University School of Medicine, New Orleans, La. *Surgery.* Bonnet Carré, La, Sept. 12, 60. M.D, Tulane, 80, LL.D, 29; LL.D, Washington (St. Louis), 15, Alabama, 26; hon. Sc.D, Pennsylvania, 25, Princeton, 28. Demonstrator anat, *Tulane,* 85–94, prof. *surg,* 94–27, *emer. prof, sch. med. and grad. sch. med, 28–* Emer. prof, New Orleans Polyclinic, 95; visiting surgeon, Charity Hosp, 81–28, consultant, 28; chief surg. div, Touro Infirmary, 04–35, hon. chief, 36–; lecturer, Post-Grad. Med. Sch, Chicago, 93; Jerome Cochran lecturer, Ala. State Med. Soc, 11; Mutter lecturer, Phila. Col. Physicians and Surg, 16; John Thompson Hodgen lecturer, St. Louis Surg. Soc, 21; Donald C. Balfour lecturer, Toronto, 32. Hon. pres, Pan-Am. Med. Cong, Washington, D. C, 95, v. pres. for La, 96; rapporteur on vascular surg, Int. Med. Cong, London, 13. Henry Bigelow medalist, Boston Surg. Soc, 26. A.A; Surg. Asn. (pres, 09); fel. Col. Surg. (pres, 25); Soc. Clin. Surg. (v. pres, 08–10); Asn. Thoracic Surg. (pres, 20); fel. Asn. Anat; fel. Am. Med. Asn. (chairman, surg. sect, 08); Soc. Exp. Biol; Asn. Cancer Research; Asn. Control Cancer; Tuber. Asn; South. Surg. Asn. (pres, 11); La. Med. Soc. (pres, 94); New Orleans Med. Surg. Asn. (pres, 86); hon. mem. N. Y. Acad. Med; Boston Surg. Soc; hon. mem. Phila. Acad. Surg; fel. New Orleans Acad; hon. fel. Royal Col. Surg; assoc. mem. Acad. de Chirurg. de Paris; hon. mem. Royal Acad. Rome; hon. mem. Med. Soc. Copenhagen; hon. mem. Surg. Soc. Poland; hon. mem. Acad. Med. Barcelona; hon. fel. Acad. Med. Madrid; Acad. Med. Havana; Soc. Int. Chirurg. (pres, 36–38). Anatomical, experimental, statistical and clinical studies in surgery; surgical diseases of the vascular system; the cure of aneurism.

Matchett, Dr. John R(ush), 800 Buchanan St, Albany, Calif. *Organic chemistry.* Pierceton, Ind, Aug. 26, 04. B.S, Earlham Col, 25; M.S, Purdue, 27; Ph.D, Chicago, 31. *Chemist,* U. S. Treasury Dept, 27–30, 31–34, 36–41; *U. S. Dept. Agr, 41–* Chem. Soc; Wash. Acad. Utilization of agricultural by-products.

Mateer, Dr. Florence (Edna), Merryheart Schools, Columbus, Ohio. *Psychology.* Lancaster, Pa, Dec. 6, 87. Pennsylvania, 12–13; A.M, Clark, 14, Ph.D, 16. Teacher, pub. schs, 06–10; research asst, psychol. lab, N. J. Training Sch. for Feeble-Minded Boys and Girls, 11–13; psychologist, Mass. Sch. for Feeble Minded, 16–18; psycho-clinician, Ohio Bur. Juvenile Research, 18–21; Lab. Sch, Columbus, and clin. practise, 21–27; *director and consulting psychol-clinician prev. and corrective educ, Merryheart Schs, 27–* Psychologist, Que. Immigration Sta, 14; Peterboro Sch, 18; lecturer, Worcester Special Schs, Mass, 17–18. Summers, lecturer, British Columbia, 38; B. C. Dept. Educ, Can, 40, 42. A.A; Psychol. Asn; Asn. Clin. Psychol; Asn. Social Hygiene; fel. Ohio Acad. Clinical psychology; conditioned reflexes; differential diagnosis; preventive and corrective education.

Matejczyk, Prof. John F(rederick), 626 Forrest Ave, Zanesville, Ohio. *Physical chemistry.* Hastings, Pa, April 4, 06. B.S, Duquesne, 28, M.S, 32; Pittsburgh. Instr. *chem, Duquesne,* 28–33, asst. prof, 33–41, *assoc. prof, 41–* Asst. ed, 'The Science Counselor.' Sci. Teachers Asn; Pa. Chem. Soc. Flowing mercury electrode; chemical kinetics; determination of halogens with potassium iodide using ceric sulfate and starch as indicator.

Matheny, Dr. W(illiam) A(lderman), Ohio University, Athens, Ohio. *Biology.* Athens Co, Ohio, Feb. 20, 82. Ph.B, Ohio (Athens), 08; A.M, Clark, 09, Ph.D, 11. Asst. bot, Clark, 08–11; prof. civic biol. and bot, *Ohio (Athens),* 11–34, *prof. bot. and curator museum, 34–* Lecturer. A.A; Ohio Acad. Civic biology; hygiene of the drinking cup; biology of the house fly; plant pathology; physiological effects of alcohol; the biology of Oncideres; seed dispersal.

Mather, Prof. Irving A(llen), 1040 N. Milpas St, Santa Barbara, Calif. *General science, Education, Mathematics.* Dryden, N. Y, Jan. 3, 99. B.S, Oregon State Col, 20; fellow, Oregon, 29–32, M.S, 30, Ph.D, 33. Asst. chemist, Kennicott Copper Co, Tacoma, Wash; asst. head melter, Iron Foundry, Richmond, Ind, 20–21; instr, high sch, Oregon, 21–23, instr. and prin, 23–26, sch. supt, 26–29; instr, Univ. Oregon, 29–32; head science dept, high sch, Calif, 32–37; asst. prof. science, *Santa Barbara State Col,* 37–39, assoc. prof. *educ,* 39–40, *prof, 40–* Chem. Soc. Science; integrated foundation courses in science and mathematics in secondary schools; project and practical methods for teaching general science to secondary school pupils.

Mather, Prof. Kirtley F(letcher), Harvard University, Cambridge, Mass. **4Geology, Physiography.* Chicago, Ill, Feb. 13, 88. B.S, Denison, 09, Sc.D, 29; Ph.D, Chicago, 15. Instr. and asst. prof. geol, Arkansas, 11–14; assoc. prof, Queen's (Can), 15–17, prof. paleont, 17–18; geol, Denison, 18–24; assoc. prof. physiog, *Harvard,* 24–27, *prof. geol, 27–* From junior geologist to geologist, U. S. Geol. Surv, 11–; petrol. geologist, Bolivia and Argentina, 19–20. Director summer sch, Harvard, 34–42. Chairman ed. cmt, Sci. Book Club. Trustee, Children's Museum, Boston. D. S. medal, Chicago. A.A. (sec'y, E, 29–37, chairman, 37); Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Seismol. Soc; Min. and Metal. Eng; Geophys. Union; Asn. Geog; Asn. Sci. Workers (pres, 42); Am. Acad; Ohio Acad. (pres, 23); fel. Royal Geog. Soc. Quaternary geology of San Juan Mountains, Colorado; geology of the Alaska peninsula; oil and gas resources of Oklahoma, Kentucky, Colorado, the Maritime Provinces and Bolivia; the physiography of North and South America; geophysical methods in geologic mapping; earthquakes in New England; glacial geology of southern New England; strategic minerals in war and peace.

Mather, Dr. T(homas) H(erbert), 506 Marine Bldg, Vancouver, B. C, Can. *Soil chemistry.* Bancroft, Ont, Dec. 18,

96. B.S.A, Alberta, 22, M.Sc, 25; Ph.D, Minnesota, 28. Asst. prof. soils, Alberta, 28–29; soils chemist, *Consol. Mining and Smelting Co, Ltd, Trail, B. C*, 29–36, prairie sales manager fertilizers, 36–39, *asst. manager fertilizer and chem. sales, 39–* Can. Soc. Tech. Agr. Fertilizers and chemicals.

Mathers, Prof. Frank C(urry), Indiana University, Bloomington, Ind. *Chemistry.* Bloomington, Ind, Feb. 11, 81. A.B, Indiana, 03, A.M, 05; fellow, Cornell, 06–07, Ph.D, 07. Instr. *chem, Indiana,* 03–07, asst. prof, 07–13, assoc. prof, 13–23, *prof, 23–* Chem. Soc; Electrochem. Soc. (pres, 40). The electrodeposition of metals from perchlorate baths and of aluminum from non-aqueous solutions; effect of addition agents in the electrodeposition of various metals; electrolytic preparation of fluorine gas; conditions of formation and treatment and properties of lime; rarer elements.

Mathes, R(obert) C(arl), 463 West St, New York, N. Y. *Electrical engineering.* New Ulm, Minn, April 19, 91. B.S, Minnesota, 12, E.E, 13. Engineer and supervisor telephonic research, West. Elec. Co. and later *Bell Tel. Labs, 13–, engineer circuit research.* A.A; Elec. Eng; Acoustical Soc; Physical Soc; Radio Eng. Communication transmission.

Mathesius, Dr. Walther (E. L), 166 N. Dithridge St, Pittsburgh, Pa. *Engineering.* Hoerde, Germany, Aug. 20, 86. M.Met, Inst. Technol, Berlin, 10, D.E, 11. Asst. prof, Inst. Technol, Berlin, 10–11; physical and research lab, Am. Steel and Wire Co, Mass, 11; asst. supt. blast furnaces, 1-E, south works, Ill. Steel Co, Chicago, 12–15, asst. supt. blast furnaces, 15–17, supt, 17–25, asst. gen. supt, 25–35, gen. supt, 35; manager of operations, Chicago dist, Carnegie-Ill. Steel Corp, 35–38; *director, U. S. Steel Corp. of Del, 37–, v. pres. operations, 38–* Min. and Metal. Eng. (iron and steel cmt); Am. Iron and Steel Inst; Soc. Metals. Metallurgy of iron and steel; raw materials; blast furnace practice; special, alloy and stainless steels.

Matheson, Dr. G(eorge) L(aurence), 400 Putnam Road, Union, N. J. *Chemical engineering.* Ottawa, Ont, Can, June 3, 00. B.Sc, McGill, 24, M.Sc, 26, Ph.D, 28. Research lab. applied chem, Mass. Inst. Tech, 27–29; *chem. engineer, Standard Oil Develop. Co, 29–* Chem. Soc. Hydrogen peroxide; distillation of hydrocarbons.

Matheson, H(oward) W(atson), Shawinigan Chemicals, Ltd, Montreal, Que, Can. *Chemistry.* Pictou Co, N. S, Dec. 5, 86. M.Sc, McGill; LL.D, Dalhousie, 39. Research chemist, E. I. du Pont de Nemours and Co, 11–15; chief chemist, asst. gen. manager, gen. manager and v. pres. in charge research, Can. Electro Products Co, of Shawinigan Water and Power Co. and later *v. pres. in charge research and develop, Shawinigan Chemicals, Ltd, 15–* Howard N. Potts gold medal, Franklin Inst, 26. Chem. Soc; Electrochem. Soc; Chem. Eng; Soc. Chem. Indust. (chairman, Montreal branch, 21); Can. Inst. Chem; hon. mem. British Soc. Chem. Indust. Synthetic organic chemistry.

Matheson, Prof. J(ohn), Queen's University, Kingston, Ont, Can. *Mathematics.* Kincardine, Ont, Jan. 2, 73. M.A, Queen's (Can), 01; Chicago, summers, 02–10. Lecturer *math, Queen's (Can),* 02–08, asst. prof, 08–10, assoc. prof, 10–11, *prof. and head dept, 11–, dean faculty arts, 24–* Math. Soc; Math. Asn; Royal Astron. Soc. Can.

Matheson, Dr. L(orne) A(lexander), Dow Chemical Co, Midland, Mich. *Physics.* London, Ont, Can, Dec. 17, 05. B.A, Western Ontario, 26, M.A, 27; Nat. Research Council Can. bursar, Toronto, 27–28; fellow, Michigan, 29–31, Ph.D, 31. Instr, Michigan, 28–29; *physicist, Dow Chem. Co, 31–* Summer, geophysicist, 29. Physical Soc; Electrochem. Soc; Soc. Test. Mat; Chem. Soc; Optical Soc. Amplification of small direct currents with vacuum tubes; photoelectric effect at low temperatures; electrical prospecting; intensities of infra-red absorption bands; air dehumidification; electrochemistry; electrical measurements; manufacture, physical properties and fabrication of plastics and synthetic rubbers.

Matheson, Prof. Robert, 204 The Parkway, Ithaca, N. Y. *Entomology.* West River, N. S, Can, Dec. 20, 81. B.S.A, Cornell, 06, M.S, 07, Ph.D, 11. Instr. entom, S. Dak. State Col, 07–08, prof, 08–09; asst. biol, Cornell, 09–10, instr, 10–12, asst. prof, 12; prof. zool. and entom, N. S. Agr. Col, 12–13; asst. prof. *entom.* and asst. entomologist, *Cornell,* 14–23, *prof, 23–* State entomologist, S. Dak, 08–09; provincial entomologist, N. S, 12–13. Ed. board, 'Jour. Parasitol.' A.A; fel. Entom. Soc; Asn. Econ. Entom; Soc. Parasitol; Soc. Trop. Med; Soc. Nat; Ont. Entom. Soc; N. S. Inst; cor. mem. Soc. Venezolana de Cienc. Nat; Acad. Chilena de Cienc. Nat. Parasitic Arthropoda; insects in relation to disease and as vectors of pathogenic organisms; ecology; taxonomy of insects; medical entomology; parasitology.

Mathews, Prof. A(lbert) P(rescott), Woods Hole, Mass. *[1]Physiology, Biochemistry.* Chicago, Ill, Nov. 26, 71. B.S, Mass. Inst. Tech, 92; Cambridge, 95; Naples; Marburg, 95–97; Ph.D, Columbia, 98; hon. Sc.D, Inst. Divi Thomae, 39. Asst. biol, Mass. Inst. Tech, 92–93; physiol, Harvard Med. Sch, 98–99; instr, med. sch, Tufts Col, 98–99, asst. prof, 99–00; instr, Harvard, 00–01; asst. prof. physiol. chem, Chicago, 01–03, assoc. prof, 04–05, prof, 05–19, chairman dept. physiol, 07–14, physiol. chem, 14–18; Andrew Carnegie prof. *biochem.* and head dept, col. med, *Cincinnati,* 19–39, *emer. prof, 39–* Head dept. physiol, Marine Biol. Lab, Woods Hole, 04–16, trustee. A.A; Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Biochem. Soc. Gt. Britain; Soc. Exp. Biol. Gt. Britain; Soc. de Chim. biol; for. mem. Acad. dei Lincei; Swiss Chem. Soc; German Chem. Soc. Morphology of fertilization processes; physiology of secretion; chemistry of spermatozoa; chemical relations of nerves; relation between potential of ions and pharmacological action; nature of toxic and antitoxic action; the nature of stimulation in nerves; changes in protoplasm by mechanical shock; protoplasmic respiration; molecular cohesion; nature of enzymatic action; artificial enzymes; coagulation of blood; physiological chemistry.

Mathews, Prof. Edward B(ennett), Johns Hopkins University, Baltimore, Md. *[2]Petrography.* Portland, Maine, Aug. 16, 69. A.B, Colby Col, 91, hon. Sc.D, 28; fellow, Hopkins, 93–94, Ph.D, 94. Instr. *miner. and petrog, Hopkins,* 94–95, assoc, 95–99, assoc. prof, 99–04, prof, 04–39, chairman geol. dept, 17–39, *emer. prof, 39–* Field asst, U. S. Geol. Surv, 91–94; asst. state geologist, Md, 98–17, state geologist, 17–41; director, State Weather Service, Md, 17–41; exec. officer, State Board Forestry, Md, 17–25. Chairman div. geol. and geog, Nat. Research Council, 19–22; advisory council, U. S. Board Surveys and Maps; Asn. Am. State Geologists rep, 37; mem, State Develop. Cmn, Md; Water Resource Cmn, Md; Coal Cmn, Md; Md-Va. Boundary Cmn; dir. dept. geol, min. and water resources, Board Nat. Resources, 41– A.A; Geol. Soc. (treas, 17–); Soc. Econ. Geol; Min. and Metal. Eng; Am. Acad; Geol. Soc. Wash; Wash. Acad; Md. Hist. Soc. Igneous and metamorphic rocks, especially of the Piedmont Plateau; crystalline rocks of northern and central Maryland.

Mathews, Dr. Joseph A(nthony), 1619 35th St, N. W, Washington, D. C. *Analytical chemistry.* St. Louis, Mo, April 7, 05. A.B, Regis Col. (Colo), 26; fellow, Col. of Holy Cross, 26–27, M.S, 27; fellow, Catholic Univ, 27–29; Ph.D, Georgetown, 33. Asst. chemist, Bur. Standards, 29–33; junior pharmacologist, *food and drug admin, Fed. Security Agency,* 34–35, junior chemist, 35–37, asst. chemist, 37–42, *assoc. chemist, 42–; examiner, U. S. Civil Service, 42–; senior indust. specialist, vitamin unit, War Production Board, 43–* Asn. Official Agr. Chem. (assoc. referee dairy products, 39–42, oils and fats, 40); Chem. Soc. Analysis of sugar products; toxicity of rotenone and derris; analytical methods for selenium; composition of and analytical methods for fruits and dairy products; isolation and detection of saponins; immunological reactions of protein-sterol complexes; food standards.

Mathews, Prof. J(oseph) Howard, University of Wisconsin, Madison, Wis. *[4]Chemistry.* Auroraville, Wis, Oct. 15, 81. B.S, Wisconsin, 03, A.M, 05; A.M, Harvard, 06, Ph.D, 08. Asst. physical chem, Wisconsin, 05; instr. physical and indust. chem, Case, 06–07; *physical chem, Wisconsin,* 08–10, asst. prof, 11–17, assoc. prof, 17–19, *prof, 19–, chairman dept. chem. and director course, 19–* Capt, Ordnance R.C, major, Ordnance Dept, 18, lieut. col, C.W.R.S, 26–31. A.A; Chem. Soc; Wis. Acad. Compressibility and other properties of organic liquids; heats of vaporization; viscosity and lubrication; osmosis; phase rule; photochemistry; thermal chemistry of colloids; thermodynamical behavior of mixed solvents; application of science in crime detection.

Mathews, Julia, 1325 W. Adams Blvd, Los Angeles, Calif. *Psychology.* Peoria, Ill, 74. A.B, Stanford, 01; A.M, Columbia, 18. Asst. psychologist, Bur. Juvenile Research, Calif, 20–23; *psychologist, Child Guidance Clinic, Los Angeles and Pasadena, 25–* Trustee, Ventura Sch. for Girls. Assoc. Psychol. Asn; assoc. Asn. Applied Psychol. Tests; clinical psychology; mental hygiene.

Mathews, O(scar) R(oland), U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Willow Lakes, S. Dak,

April 15, 90. B.S, S. Dak. State Col, 08, M.S, 09. From expert to *senior agronomist, div. dry land agr, U. S. Dept. Agr, 09–* Crop production in the Great Plains.

Mathews, W(illiam) C(arlton), 1355½ Goodyear Blvd, Akron, Ohio. *Chemistry.* Marlette, Mich, Sept. 8, 05. B.S, Michigan, 30. Research investigator, N. J. Zinc Co, 30–43; *research chemist, Goodyear Tire and Rubber Co, 43–* Chem. Soc. Banbury mixing of rubber pigments; flexing and reinforcement of rubber compounds; stress-strain properties of paint films and their relationship to paint durability; accelerated testing of the tint retention properties of paint films; protective coatings for fabrics; paper coatings; inert pigments for use in rubber.

Mathewson, Prof. C(hampion) H(erbert), Yale University, New Haven, Conn. *Metallurgy.* Essex, Conn, Oct. 7, 81. Ph.B, Yale, 02; Ph.D, Göttingen, 06. Asst. chem, Mass. Inst. Tech, 02–04, instr, 06–07; chem. and metallog, *Yale,* 07–11, asst. prof. metal, 11–19, *prof. metal. and metallog, 19–* James Douglas gold medal, Inst. Min. and Metal. Eng, 32. A.A; Min. and Metal. Eng. (chairman, inst. metals div, 32; pres, 43); Chem. Soc; Soc. Test. Mat; Soc. Metals; Eng. Educ; Conn. Acad; London Inst. Metals. Physical metallurgy; x-rays; metallography; crystallography; constitution in the field of metals and alloys; mechanical properties, principally in relation to constitution; structural changes occurring in metals broken down under stresses.

Mathewson, Dr. E(dward) P(ayson), University of Arizona, Tucson, Ariz. *Metallurgy.* Montreal, Que, Can, Oct. 16, 64. B.A.Sc, McGill, 85, hon. LL.D, 22; Sc.D, Colo. Sch. Mines, 20. Instrument man and geologist, Geol. Surv. Can, 85–86; assayer, chemist, asst. supt. and supt, Pueblo Smelting and Ref. Co, Colo, 86–89, supt. and metallurgist, 89–97; tech. staff, M. Guggenheim's Sons, U. S, Mex. and Chile, 97–02; manager, Washoe Reduction Works, Anaconda Copper Mining Co, Mont, 02–16; gen. manager, British Am. Nickel Corp, Toronto, 16–18; director and consulting metallurgist, Am. Smelting and Ref. Co, 18–19; consulting metallurgist, New York, 19–26; *prof. admin. mining indust, Arizona, and consulting metallurgist, 26–* Manager, Int. Smelting and Ref. Co, Utah and Ind, 10–13. Gold medal, Inst. Min. and Metal, London, 11; Min. and Metal. Soc. Amer, 17. A.A; Min. and Metal. Eng. (pres, 23); Asn. Eng. (pres, Tucson sect, 31); Tucson Eng. Club (pres, 31); London Soc. Chem. Indust. Non-ferrous metallurgy; blast furnaces and reverberatories for smelting lead and copper ores.

Mathewson, J(ames) S(tanley), 2301 Rugby Row, Madison, Wis. *Forestry.* Cincinnati, Ohio, March 11, 89. M.E, Cincinnati, 12. Deputy smoke inspector, Cincinnati, 12–13; instr, David Ranken, Jr, Sch. of Mech. Trades, St. Louis, 13–14; Akron, 14–17; from engineer to *asst. in charge div. timber physics, Forest Products Lab, U. S. Forest Service, 17–* Mech. Eng. Timber physics; fire protection devices for mechanical equipment in forest regions; air seasoning and kiln drying of wood; lumber storage and handling; wood-element hygrostat; fuel consumption and temperature relations in frame dwellings.

Mathewson, Prof. L(ouis) C(lark), Dartmouth College, Hanover, N. H. *Mathematics.* Mendon, Mich. A.B, Albion Col, 10; A.M, Illinois, 11, Ph.D, 14; A.M, Dartmouth, 34. Instr, high sch, Iowa, 11; *math, Dartmouth Col,* 14–17, asst. prof. and *prof, 18–* A.A; Math. Soc; Math. Asn. The group of isomorphisms in the theory of finite groups; elementary finite groups.

Mathias, Harry R(oy), 123 E. Evers Ave, Bowling Green, Ohio. *Mathematics.* Rochester, Ind, Jan. 25, 01. A.B, Ind. Cent. Col, 23; A.M, Indiana, 25. Acting instr, Indiana, 25; prof. *math,* Ind. Cent. Col, 25–31; instr, *Bowling Green State Univ,* 31–37, *asst. prof, 37–* Math. Asn; Ind. Acad. Integral equations; statistics.

Mathias, Prof. H(enry) E(dwin), Colorado College, Colorado Springs, Colo. *Geology.* Moberly, Mo, June 8, 01. A.B, Missouri, 23, A.M, 24. Instr. *geol,* Missouri, 24–27; asst. prof, *Colo. Col,* 27–31, *assoc. prof, 31–,* acting head dept, 31–32, *head dept, 33–,* director, Lennox House, 37–42, acting director admission and dean freshmen, 42. Asn. Petrol. Geol. Origin of concretions and pyrite.

Mathias, Dr. Mildred E(sther), 280 Terrace St, Altadena, Calif. *Botany.* St. Louis Co, Mo, Sept. 19, 06. A.B, Washington (St. Louis), 26, M.S, 27, Jessie R. Barr fellow, 27–29, Ph.D, 29. Asst, Mo. Bot. Garden, 29–30; research assoc, N. Y. Bot. Garden, 32–35; California, 37–42. A.A; Bot. Soc; Soc. Plant Taxon; Calif. Bot. Soc. Systematic botany; taxonomy of Umbelliferae; plants of the western United States.

Mathiesen, Prof. A(nna), Goucher College, Baltimore, Md. *Psychology.* Harlan, Iowa, 93. A.B, Wellesley Col, 23, A.M, 26; Ph.D, Iowa, 29. Asst. *psychol,* Wellesley Col, 23–26, Iowa, 26–29; instr, *Goucher Col,* 29–32, asst. prof, 32–36, *assoc. prof, 36–, acting chairman dept, 37–* Visiting lecturer, Wellesley Col, 33–34. Assoc. Psychol. Asn; South. Psychol. Asn. Auditory perception; indirect vision.

Matlack, Dr. M(arion) B(rooks), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Sorrento, Fla, April 2, 98. B.S, Florida, 21, fellow, 25–27; M.S, George Washington, 23; Ph.D, Wisconsin, 28. Asst. chemist, Bur. Standards, 21–24; instr, Ga. Tech, 24–25; research chemist, Gen. Foods Corp, 28–30; assoc. chemist, bur. chem. and soils, and later chemist, bur. agr. chem. and eng, *U. S. Dept. Agr,* 30–43, *nutritionist, civilian food requirements branch, Food Distribution Admin, 43–* A.A; Chem. Soc. Chemistry of citrus; plant pigments; enzymes.

Matlock, Prof. Robert L(aVern), University of Arizona, Tucson, Ariz. *Agronomy.* Yorkville, Ill, May 27, 01. B.S, Illinois, 24, M.S, 28, fellow, 30–31, Ph.D, 31. Instr, high sch, Ill, 24–27; asst. agron, div. crop production, Illinois, 27–30; asst. prof, Arizona, 31–37, assoc. prof, 37, asst. agronomist, Exp. Sta, 31–37, assoc. agronomist, 37; assoc. prof. agron, Agr. and Mech. Col. Texas, 37–38; *exten. agronomist, agr. exten. service, Arizona, 38–* Resistance of dent corn grain to artificially produced low temperatures applied at various stages of maturity; cultural practises influencing the quality of cotton lint produced under irrigation; cotton and grain crops.

Matsen, Prof. F(rederick) A(lbert), University of Texas, Austin, Texas. *Chemistry.* Racine, Wis, July 26, 14. B.S, Wisconsin, 37; Ph.D, Princeton, 40. Instr. physical and anal. chem, Bucknell, 40–42; *physical chem, Texas,* 42–43, *asst. prof, 43–* Chem. Soc; Physical Soc. Solid solutions; statistical mechanics; spectroscopy.

Matson, Dr. Edward J(ohn), Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* Chicago, Ill, Nov. 16, 11. B.S. and A.B, Wheaton Col. (Ill), 33; M.S, Illinois, 36, fellow, 38–39, Ph.D, 39. Instr. math, Columbian Prep. Sch, Washington, D. C, 33–34; chemist, Pfanstiehl Chem. Co, Ill, 34–35; asst. chem, Illinois, 35–38; *research chemist, Abbott Labs, 39–* Chem. Soc. Isoflavones; synthetic estrogens; antimalarials.

Matson, Dr. Frederick R(ognald), 4016 Museums Bldg, Ann Arbor, Mich. *Ceramic archeology.* Chicago, Ill, July 29, 12. B.S, Illinois, 33; Carnegie Inst. Tech, 33–34; A.M, Michigan, 36, Rackham fellow, 38–39, Ph.D, 39. Field archeologist, univ. exped. to Iraq, *Michigan,* 36–37, asst, *museum anthrop,* 37–38, research assoc, 39–40, *asst. curator ceramics, 40–; asst. ceramic engineer, Bur. Standards, 42–* Ceramic Soc; Soc. Am. Archeol. Ancient pottery, glass and plaster of the Near East, the Mediterranean Basin and the eastern United States; optical glass manufacture.

Matson, Prof. G(ustave) Albin, University of Utah School of Medicine, Salt Lake City, Utah. *Bacteriology, Immunology.* Rexburg, Idaho, June 24, 99. A.B, Utah, 27; A.M, Kansas, 29; Ph.D, Washington (St. Louis), 35. Prof. bacter. and chem, Snow Col, 29–30; asst. prof. biol, Montana, 30–36, assoc. prof. bacter, 36–37; *asst. prof. bacter. and path, sch. med, Utah, 37–; officer, Sanit. Corps, U. S. Army, 41–* A.A.A.S. grant, 36; Northwest Sci. Asn. grant, 36, 37; Am. Med. Asn. grant, 37. A.A; fel. Pub. Health Asn; Soc. Bact; Northwest. Sci. Asn. Blood grouping among the American Indians; blood grouping in mummies; chlorination of milk.

Matthes, François E(mile), U. S. Geological Survey, Washington, D. C. **2*Geology, Geomorphology.* Amsterdam, Holland, March 16, 74. B.S, Mass. Inst. Tech, 95. Draftsman, city engineer's office, Rutland, Vt, 95–96; field asst, *U. S. Geol. Surv,* 96–98, asst. topographer, 98–99, topographer, 99–07, topog. inspector, 07–13, assoc. geologist, 13–17, geologist, 17–28, *senior geologist, 28–* Austin teaching fellow, Harvard, 04–05; lecturer, Michigan, 11. Field investigations, State Earthquake Investigation Cmn, Calif, 06; sec'y, Int. Cmn. Snow and Glaciers. Chevalier, Order Leopold II, 19. A.A; Geol. Soc; Asn. Geog. (treas, 13–20, pres, 33); Civil Eng; Geophys. Union (chairman, cmt. on glaciers, 31–); Geol. Soc. Wash. (sec'y, 09–11, pres, 32); Wash. Acad. (v. pres, 33). Glacial geology; geomorphology and glaciology of Yosemite Valley

region, and central Sierra Nevada, California; topographic delineation; geomorphology of central Mississippi Valley; American glaciers.

Matthes, G(erard) H(endrik), U. S. Waterways Experiment Station, Vicksburg, Miss. *Hydraulics.* Amsterdam, Holland, March 16, 74. B.S, Mass. Inst. Tech, 95. Div. engineer, Pa. Water Supply Cmn, 14–15; engineer, Miami Conservancy Dist, 15–20; U. S. asst. engineer in charge, Tenn. River Surv, 20–23; consulting engineer, Fairchild Aerial Surveys, Inc, 23–25; private practise, 25–29; chief hydraul. div, U. S. Engineer Office, War Dept, Norfolk, Va, 29–32; prin. engineer, office of pres, Miss. River Cmn, 32–42; *director, U. S. Waterways Exp. Sta, 42–* Cmt. on dynamics of streams. Nat. Research Council, 32– Mass. Inst. Tech. astron. exped, Sumatra, 01. Civil Eng. (chairman, cmt. on floods, 34–, cmt. on flood control, 37–40); Min. and Metal. Eng; Soc. Mil. Eng; Geophys. Union. Inland navigation; flood control; irrigation; water power; aerial surveys.

Matthews, Prof. D(onald) M(axwell), 2109 Copley Ave, Ann Arbor, Mich. *Forestry.* Orange, N. J, June 29, 86. A.B, Michigan, 08, M.S.F, 09. Forester, Bur. Forestry, P. I, 09–14, chief div. of investigation, 13–14; conservator of forests, British N. Borneo, 15–20; manager, British Borneo Timber Co, Ltd, 20–25; forester, Trop. Plant Research Foundation, 26–32; *prof. forest management, Michigan, 27–* Adviser forest service, Brazil Govt, 29; consulting forester, United Fruit Co. and Compañía Cubana, 26–32. Exped, Govt. of British N. Borneo, 14–15. Soc. Foresters. Forest management and economics; tropical forest exploration; rubber and sugar plantation management; logging cost analysis and cost control.

Matthews, Donald N(avarre), U. S. Forest Service, Portland, Oregon. *Forestry.* Salem, Oregon, Feb. 27, 98. B.S.F, Oregon, 20, F.E, 39; M.F, Yale, 25. With Umpqua Nat. Forest, *U. S. Forest Service,* 25–29, *Pacific Northwest Forest Exp. Sta, 30–, in charge fire studies.* A.A; Soc. Foresters. Forest fire studies.

Matthews, Dr. Earle D(wight), University of Arkansas, Fayetteville, Ark. *Agronomy.* Driscoll, N. Dak, March 3, 10. B.S.A, Florida, 31; M.S, Maryland, 32, Ph.D, 35. Junior soil surveyor, soil conservation service, U. S Dept. Agr, Hagerstown, Md, 35–36; asst. agronomist, Exp. Sta, Georgia, 36–37, assoc. agronomist, 37–43; *assoc. prof. agron, Arkansas, 43–* Brown root-rot of tobacco; fertilizer investigations; cotton; peanuts; micro- and bio-chemical plant and soil analyses; soils investigations; biometrics; plant nutrition.

Matthews, Fred E(lwood), 216 Leonia Ave, Leonia, N. J. *Engineering.* Templeton, Mass, March 11, 75. B.S, Kansas, 99, E.E, 08. Refrig. engineer, Swift Packing Co, 00–06; advertising manager, De La Vergne Machine Co, New York, 06–08; gen. manager, Automatic Refrig. Co, Hartford, 08–10; consulting indust. engineer, New York and Paris, 10–14; director research work, mech. refrig, 15–17; consulting refrig. engineer, 19–27; *retired.* Past mem. eng. div, Nat. Research Council. Asst, cold storage methods, U.S.A. and subcmt, Naval Consulting Board, 17–19. Mech. Eng; Soc. Refrig. Eng. (past director, pres, 20); N. J. Soc. Eng. The technology of mechanical refrigeration; refrigerating apparatus; fluid pressure apparatus.

Matthews, Dr. Fred(erick) W(hite), Lennoxville, Que, Can. *Chemistry.* Carbonear, Newfoundland, Nov. 27, 15. B.Sc, Mt. Allison, 36; Nat. Research Council Can. fellow, McGill, 40–41, Ph.D, 41. *Research chemist, research and develop. dept, Can. Industries, Ltd.* Physical chemistry; x-ray diffraction.

Matthews, Glenn E(arl), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Ortonville, Minn, Aug. 22, 97. B.S, Minnesota, 20, Shevlin fellow, 20–21, M.S, 21. Research chemist, *Eastman Kodak Co,* 21–26, *tech. ed, 26–* Chem. Soc; fel. Photog. Soc; fel. Motion Picture Eng; fel. Royal Photog. Soc. Applied and scientific photography; corrosion of metals in photographic solutions; markings on motion picture films; color photography; photographic chemicals and solutions.

Matthews, Dr. Jason E(rnest), Jr, Penn Tobacco Co, Wilkes-Barre, Pa. *Biochemistry.* Mahned, Miss, July 19, 07. B.S, Maryland, 35; M.S, Pa. State Col, 39, Ph.D, 41. Anal. chemist, Ashland Oil and Ref. Co, 35–37; research tobacco chemist, Pa. State Col, 39–41; *chief chemist, Penn Tobacco Co, 41–* Chem. Soc. Enzymes; tobacco leaf; cigarette and tobacco smoke; tobacco flavors.

Matthews, Dr. Norman L(amokin), Emory University, Ga. *Organic chemistry, Biochemistry.* Redan, Ga, Oct. 30, 13. B.S, Chicago, 33; M.S, Ohio State, 37, Ph.D, 40. Asst. med. and surg. research, Ohio State, 34–36; *instr. biochem, Emory, 39–* Chemistry of fatty acids; separation of components of unsaponifiable fraction.

Matthews, Dr. Norris W(ilson), 6 E. Read St, Baltimore 2, Md. *Chemistry.* Baltimore, Md, Sept. 10, 98. B.Ch, 25; Sc.D, 34. Chemist, Davison Chem. Co, Md, 17–20; gold, platinum and palladium refiner, Baltimore Copper Works, 20–22; *chemist,* Am. Sugar Ref. Co, 22–28; M. S. Levy and Sons, Inc, 28–30; Burroughs Brothers Mfg. Co, 30–38; South. Ry. Test Dept, 38–39; Meredyne Corp, 39–41; *Petrol. Chemicals, Inc, 41–* Chem. Soc; fel. Inst. Chem; hon. mem. Am. Int. Acad. (trustee); Md. Acad. Sugar and pharmaceutical analysis; straw bleaching and dyeing; gases.

Matthews, Prof. Samuel A(rthur), Williams College, Williamstown, Mass. *Zoology.* Grand Lake Stream, Maine, Aug. 4, 02. B.S, Boston, 23, A.M, 24; A.M, Harvard, 25, Ph.D, 28. Instr. biol, Boston, 25–28; anat, Pennsylvania, 28–32, assoc, 32–37; asst. prof. *biol, Williams Col,* 37–43, *prof, 43–* Instr. and tutor, Harvard, 27–28. Instr, Marine Biol. Lab, Woods Hole, 32–40, mem. corp. Ed. board, 'Jour. Morphol. and Physiol,' 39–41. A.A; Soc. Zool; Asn. Anat. Molluscan nervous system; prolonged chloretone treatment of amphibian larvae; teleost melanophores; teleost retina; hypophysectomy in teleosts; structure and development of teleost pituitary gland; endocrine and sex cycles in teleosts.

Matthews, Dr. Velma D(are), Coker College, Hartsville, S. C. *Botany.* Burlington, N. C, Aug. 3, 04. A.B, N. C. Col. for Women, 25; A.M, North Carolina, 27, Ph.D, 30. Asst. bot, North Carolina, 27–30; head dept. biol, Ark. State Agr. and Mech. Col, Monticello, 30–31; research, North Carolina, 31–34; assoc. prof. *biol, Coker Col,* 34–35, *prof, 35–* A.A; Bot. Soc; Mycol. Soc; Fern Soc; Torrey Bot. Club; S. C. Acad; N. C. Acad. Mycology; taxonomy of the lower fungi; Pythium; South Carolina pteridophytes.

Matthews, Dr. Warren B(ond), Grady Hospital, Atlanta, Ga. *Surgery, Pathology.* Lithonia, Ga, June 11, 02. A.B, Emory, 23, M.S, 24; M.D, Rush, Chicago, 29, Ph.D, Chicago, 34. Instr. biochem, Emory, 23–27; asst. surg, Chicago, 30–34; instr. *path,* med. sch, Northwestern, 34–36; *assoc. prof, Emory, 36–* Pathologist, Grady Hosp, 36– Joseph Capps prize, 32. Etiology of the gastric and duodenal ulcer.

Matthias, Lynn H(erman), 1849 E. Fox, Milwaukee, Wis. *Electrical engineering.* Antigo, Wis, July 11, 04. B.S, Wisconsin, 26, 27. Radio engineer, *Allen Bradley Co,* 28–30, *director research, 30–* Radio Eng; Astron. Soc. Electronic devices; electrical arcs and contacts.

Mattice, Prof. Marjorie R(ubena) (Mrs. W. Ritchie Almond), 86 Marble Hill Ave, New York, N. Y. *Biochemistry.* Brockville, Ont, Can, July 13, 01. A.B, Hunter Col, 23; M.S, N. Y. Univ, 32. Asst. biochem, *N. Y. Post-Grad. Med. Sch, Columbia,* 23–24, instr, 24–26, assoc, 26–30, *asst. prof,* 30–34, clin. path, univ, 34–38, *pathol. chem, dept. med, 38–* Consulting chemist, City Dept. Correction Hosps, New York, 38– A.A; Chem. Soc; N. Y. Acad; N. Y. Micros. Soc. Arsenic excretion; blood pigments; chemical procedures for clinical laboratories; food and beverage analyses; acid-base factors in nutrition.

Mattick, Dr. W(alter) L(ester), 113 High St, Buffalo, N. Y. *Radiology.* Buffalo, N. Y, Oct. 25, 85. A.B, Cornell, 08, M.D, 11. Med. director and supt, Deerwood Sanatorium, Deerwood, Minn, 18–21; Muirdale Sanatorium, Milwaukee, 22–23; asst. prof. clin med, Marquette, 22–23; visiting physician, Buffalo City Hosp, *Buffalo,* 23–25; radiologist, *State Inst. for the Study of Malignant Diseases, N. Y,* 23–38, *oto-rhino-laryngologist, 38–* Mem, Board Radiol. Am. Med. Asn; Soc. Cancer Research; Buffalo Radiol. Soc. Oncology.

Mattikow, Dr. Morris, Refining, Inc, 2130 N. Tryon St, Charlotte, N. C. *Chemistry.* Russia, Jan. 27, 03. B.S, Col. City of N. Y, 21; A.M, Columbia, 23, Ph.D, 25. Consulting chemist, Nat. Asn. Fur Indust, 27–29; Borden's, 30–38; *chief chemist, Refining, Inc, 38–* Chem. Soc. Eggs; oils and soaps; fur dyeing; carotin; colloid chemistry; oil refining; high temperature soap processes; phosphatides.

Mattil, Dr. Karl F(rederick), University of Pittsburgh, Pittsburgh, Pa. *Biochemistry.* Williamsport, Pa, March 4, 15. B.S, Pa. State Col, 35, Ph.D, 41. *Research fellow bio-*

chem, Pittsburgh, 41– Chem. Soc. Autoxidation of fats; fat analysis methods; glyceride structure; nutrition of fats.

Mattill, Dr. Helen I(sham), 358 Lexington Ave, Iowa City, Iowa. *Chemistry.* Titusville, Pa, July 14, 81. A.B, Cornell, 03, fellow, 05–06, Ph.D, 06. Asst. chem, Columbia, 03–04; lab. asst, Bur. Standards, 06–07; instr, Illinois, 07–11, assoc, 11–12; instr. nutrition, California, 18–19. Inorganic chemistry; hydronitric acid; steel analysis.

Mattill, Prof. Henry A(lbright), University of Iowa, Iowa City, Iowa. **[7]Physiology, Biochemistry.* Glasgow, Mo, Nov. 28, 83. A.B, Western Reserve, 06, A.M, 07; fellow, Illinois, 08–10, Ph.D, 10. Asst. chem, Illinois, 06–08; asst. prof. physiol. and physiol. chem, Utah, 10–11, assoc. prof, 11–12, prof, 12–15; asst. prof. nutrition, California, 15–19; *prof. biochem,* Rochester, 19–27; *Iowa, 27–* Assoc. ed, 'Jour. Nutrition'; 'Biol. Abstracts.' Major, Sanit. C. A.A; Soc. Biol. Chem. (sec'y, 33–38); Physiol. Soc; Chem. Soc; Soc. Exp. Biol. Influence of fasting and bathing on metabolism; nutrition; diet and reproduction; auto-oxidation and anti-oxidants; vitamin E.

Mattimore, H(oratio) S(eymour), Pennsylvania State Department of Highways, Harrisburg, Pa. *Engineering.* Albany, N. Y. High sch. Asst, N. Y. Geol. Surv, 00–04; *material engineer,* State Highway Cmn, N. Y, 07–19; *State Dept. Highways, Pa, 19–* Chairman cmt. on character and use of road material, and exec. cmt, highway research board, Nat. Research Council; cmts. on standardization of road materials, Am. Eng. Standards Cmt. Civil Eng; Soc. Test. Mat. (chairman, cmt. on road materials, 24–26); Asn. State Highway Officials (chairman, cmt. on tests and investigations); Pa. Acad. Concrete materials; highway materials.

Mattin, Harry E, 153 Waverly Place, New York, N. Y. *Chemistry.* Port Chester, N. Y, Feb. 27, 96. B.S, Cornell, 18. Chemist, Dyes and Chem, Inc, 21–28; *chem. director,* Jos. Meyer Bros, 28–32; *Mearl Corp, 32–* Chem. Soc. Anthraquinone dyes; production of guanine and amino acids from fish scales.

Mattingly, Prof. M(arie) B(yrd) Dees-, Tulane University, New Orleans, La. *Anatomy.* Crystal Springs, Miss, Oct. 1, 96. A.B, Miss. State Col. for Women, 16; B.S, Mississippi, 17; M.D, Tulane, 21. Instr. *anat, sch. med, Tulane,* 21–25, asst. prof, 25–32, *assoc. prof, 32–* Summer, malarial microscopist, U. S. Govt, 17. A.A; Am. Med. Asn; Asn. Anat; Med. Women's Nat. Asn. Histology of fenestrated membranes of Henle and adipose tissues; placenta.

Mattis, Dr. Paul A(lvin), Sharp and Dohme, Inc, Glenolden, Pa. *Pharmacology.* Royersford, Pa, March 3, 09. B.S, Ursinus Col, 30; Jefferson Med. Col, 30–32; Pennsylvania, 32–34; Sc.D, Phila. Col. Pharmacy, 36. Teaching fellow, Phila. Col. Pharmacy, 34–36; *pharmacologist, dept. pharmacol, med. research div, Sharp and Dohme, Inc, 36–, asst. dept. manager, 43–* A.A; Physiol. Soc. Phila. Nerve growth in a transparent chamber in the ear of rabbits; pharmacology of sulfonamide derivatives, barbiturates, hypertensives and vasomotor substances; microscopy of endocrine products; insulin assay.

Mattison, Dr. E(dwin) L(orenzo), 48 K St, Carneys Point, N. J. *Chemistry.* Kingston, Kans, Aug. 11, 04. A.B, Southwestern Col. (Kans), 26; scholar, Nebraska, 26–28, fellow, 28–29, Ph.D, 29. *Chemist, Jackson lab, E. I. du Pont de Nemours and Co, 29–* Organic chemistry.

Mattox, Dr. N(orman) T(homas), Miami University, Oxford, Ohio. *Zoology.* Cincinnati, Ohio, Oct. 22, 10. A.B, Miami (Ohio), 33; M.S, Illinois, 34, Ph.D, 37. Asst. *zool,* Illinois, 33–37; instr, Purdue, 37–38; *Miami (Ohio),* 38–41, *asst. prof, 41–* Summers, instr, Marine Biol. Lab, Woods Hole, 39– A.A; Soc. Zool; Malacol. Union; Micros. Soc; Ohio Acad. Invertebrate morphology; Crustacea; Mollusca; reproduction and life history.

Mattox, Dr. W(illiam) J(udson), 622 N. Spring Ave, La Grange Park, Ill. *Chemistry.* Verona, Miss, Jan. 16, 07. A.B, Miss. Col, 28; A.M, North Carolina, 29, Ph.D, 31. Asst. chem, Miss. Col, 27–28; North Carolina, 28–31; *research chemist, Universal Oil Products Co, 31–* Chem. Soc. Carbithioic acid studies; dihydroxynaphthalene studies; petroleum research; methods for the analysis of hydrocarbon gases; catalytic reforming, hydrogenation and dehydrogenation.

Mattson, Prof. Harold, North Dakota Agricultural College, Fargo, N. Dak. *Horticulture.* Roseau, Minn, June 29, 07. B.S, Minnesota, 32, 34–37. Asst. hort, Exp. Sta, Minnesota, 36–37; *assoc. prof. hort. and forestry and head dept, N. Dak. Col, 38–, horticulturist, Exp. Sta, 38–* Agent, div. fruit and vegetable crops and diseases, bur. plant indust, U. S. Dept. Agr, 34–36, collaborator, 38– A.A; Potato Asn; Soc. Hort. Sci. (sec'y, north. Great Plains sect, 41, pres, 42); N. Dak. Acad; N. Dak. State Hort. Soc. Plant breeding in potatoes, tomatoes and fruits.

Mattson, Prof. Sante (Emil), College of Agriculture, Uppsala, Sweden. *Pedology.* Sweden, July 6, 86. A.B, California, 15; Ph.D, Breslau, 21. Bur. soils, U. S. Dept. Agr, 22–26; assoc. prof soil chem, Rutgers, 28–32, prof, 32–33, assoc. soil chemist, N. J. Exp. Sta, 28–33; *Col. of Agr, Uppsala, Sweden,* 33–35, *prof. pedology, 35–* Int. Soc. Soil Sci. Colloid chemistry; laws of soil colloidal behavior.

Matuszak, Dr. Maryan P(iotr), 307 W. Sixth St, Bartlesville, Okla. *Physical chemistry.* Pittsburgh, Pa, Oct. 19, 02. A.B, Lebanon Valley Col, 24; A.M, Ohio State, 27, Ph.D, 29. Instr. chem, Carleton Col, 29; asst. prof, Wittenberg Col, 29–30; assoc. physical chemist, U. S. Bur. Mines, 30–33; director develop, Fisher Sci. Co, 33–34; *research chemist, Phillips Petrol. Co, 34–* Chem. Soc. Gas reactions; tetra-alkyls; carbon disulfide; copper xanthate; hydrocarbon synthesis; phosgene; gas and olefin analysis; fractional distillation; azeotropic mixtures; catalytic hydrogenation and dehydrogenation; catalytic alkylation.

Matz, Dr. Charles H(enderson), 730 Main St, Cambridge, Mass. *Physics.* Chicago, Ill, Dec. 13, 95. A.B, Williams Col, 19; M.S, Harvard, 31, Sc.D, 36. Independent research, Harvard, 36–39; *research physicist, Polaroid Corp, 39–* A.A; Physical Soc. War research.

Matz, Julius, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Russia, 86. B.S, Mass. Col, 13; Ph.D, Hopkins, 32. Asst. plant path, Exp. Sta, Florida, 13–18; chief dept. bot. and plant path, Insular Exp. Sta, P. R, 18–22; agr. research, Ingenio Porvenir, San Pedro de Marcoris, Dominican Republic, 22–24; sugar cane path. and agr. investigation, Guanica Centrale and Cent. Aguirre, P. R, 24–30; *pathologist, sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 30–* Agent, bur. plant indust, U. S. Dept. Agr, 18. A.A; Phytopath. Soc. Diseases of pecans, figs, sugar-cane and citrus fruits.

Matzke, Prof. Edwin B, Columbia University, New York, N. Y. *Botany.* Aug. 2, 02. Ph.D, Columbia, 30. Instr. *bot, Columbia,* 29–33, asst. prof, 33–43, *assoc. prof, 43–* A.A; Bot. Soc; Torrey Bot. Club (treas, 36, v. pres, 41, cor. sec'y, 42–); Sullivant Moss Soc. Morphology; ecology.

Mauch, Dr. Margaret E(velyn), Carleton College, Northfield, Minn. *Mathematics.* DeSmet, S. Dak, June 1, 97. B.S, Huron Col, 19; M.S, Chicago, 23, Ph.D, 38. Instr. and asst. prof. *math,* Randolph-Macon Woman's Col, 24–29; teacher, high sch, S. Dak, 34–42; *instr, Carleton Col, 42–* Motion of a certain rotating bar; extensions of Waring's theorem on seventh powers.

Mauchly, Prof. John W(illiam), University of Pennsylvania, Philadelphia, Pa. *Electrical engineering, Physics.* Cincinnati, Ohio, Aug. 30, 07. Ph.D, Hopkins, 32. Asst. physics, Hopkins, 28–30, junior instr, 30–32, asst, 32–33; assoc. prof, Ursinus Col, 33–41; instr. *elec. eng, Moore sch. elec. eng, Pennsylvania,* 41–43, *asst. prof, 43–* Summers, Bur. Standards, 28–30; dept. terrestrial magnetism, Carnegie Institution, 36–38; elec. eng. defense training, Pennsylvania, 41. Physical Soc; Asn. Physics Teachers; Radio Eng; Geophys. Union; Meteorol. Soc; Inst. Math. Statist; Franklin Inst. Computing devices; statistical studies in geophysics.

Maude, Aylmer H(enry), 9349 Rivershore Drive, Niagara Falls, N. Y. *Chemistry.* Moscow, Russia, Aug. 8, 90. Finsbury Tech. Col, London. Chemist, Can. Explosives, Ltd, 15–19; Shawinigan Chem, Ltd, 20–23; Westinghouse Elec. and Mfg. Co, 23–25; chem. engineer, Rubber Service Labs, Inc, 25–32; Atmospheric Nitrogen Corp, 32–34; *research chemist, Hooker Electro-Chem. Co, 35–* Chem. Soc; Chem. Eng; fel. Inst. Chem. Gt. Britain. Chemical technology; acetic acid and anhydride; chlorine and hydrochloric acid; aluminum chloride.

Maugh, Prof. L(awrence) C(arnahan), 318 Virginia Ave, Ann Arbor, Mich. *Structural engineering.* Wyoming, Ont, Can, April 3, 01. M.S, S. Dak. State Col; B.S, Michigan, Ph.D, 34. Instr. civil eng, S. Dak. State Col, 21–24; bridge designer, Ind. State Highway Cmn, 24–25; instr. *civil eng,*

Michigan, 25–31, asst. prof, 31– Assoc. Civil Eng. Analysis and design of rigid frame structures; analysis of Vierendeel trusses.

Maughan, Prof. William, Duke University, Durham, N. C. *Forestry.* Spokane, Wash, July 21, 00. B.S, Minnesota, 25; M.F, Yale, 29 Instr. forest eng, N. Y. State Col. Forestry, Syracuse, 25–28; applied forestry, Yale, 29–31; asst. prof. *forestry, Duke,* 31–35, *assoc. prof, 35–, asst. director, Duke Forest, 31–,* acting dean sch. forestry, 42. Field asst, Yale South. Forestry Camp, La, 29; technician, Appalachian Forest Exp. Sta, U. S. Forest Service, 34; soil conservationist, U. S. Dept. Agr, 36; consulting forester, 40– Soc. Foresters (v. chairman, Appalachian sect, 34, sec'y, 35, chairman, 36, exec. cmt, 37, 41); N. C. Forestry Asn. Forest management; applied silviculture; demonstration forests; control of the white pine weevil; forest records; volume tables.

Maulbetsch, Dr. John L(ouis), 8 Alden Lane, Port Washington, N. Y. *Engineering mechanics.* Geneva, Switzerland, June 14, 07. Dipl. Ing, Swiss Inst. Tech, Zurich, 29; Ph.D, Michigan, 35. Engineer, 29–36; research engineer, Michigan and Asn. Am. Railroads, 36–37; *v. pres, Kollmorgen Optical Corp, Brooklyn, 38–* Mech. Eng. Design and production of optical instruments; theory of elasticity; strength of materials.

Maurer, Dr. F(rank) W, Harvard University School of Public Health, Boston, Mass. *Physiology.* Punxsutawney, Pa, July 11, 11. Pittsburgh, 33; Michigan, 33–34; A.B, Antioch Col, 34; Ph.D, Rochester, 38. Teaching fellow physiol, sch. med. and dentistry, Rochester, 34–38; instr. pharmacol, med. and dental schs, Georgetown, 38–39; fellow, Harvard Med. Sch, 39–40, instr. *physiol, sch. pub. health, Harvard,* 39–40, assoc, 40–42, *asst. prof, 42–* Special adviser, Nat. Defense Res. Cmt, 41. Physiol. Soc. Body fluids; extracellular muscle fluid; lymph; pericardial and peritoneal fluids; high altitude physiology; respiration in high altitude military aviation.

Maurer, Capt. Fred D(ry), Veterinary Research Laboratory, Front Royal Quartermaster Depot, Va. *Veterinary pathology.* Moscow, Idaho, May 4, 09. B.S, Idaho, 34; B.S. and D.V.M, State Col. Wash, 37; Cornell, 38–41. Jr. veterinarian, disease control, bur. animal indust, U. S. Dept. Agr, 37; asst. prof, Idaho, and asst. bacteriologist, Exp. Sta, 37–38; instr. path. and bact, Cornell, 38–41; *Vet. Corps, U. S. Army, 41–, capt.* Vet. Med. Asn. Veterinary bacteriology; equine influenza; equine periodic ophthalmia.

Maurer, Dr. George, 39 Briar Lane, Pennsgrove. N. J. *Chemistry.* Vienna, Austria, 88. Ph.D, Vienna, 11. Research chemist, pharmaceut. works, Austria, 11–12; chemist, acid plant, Mexico City, 13–14; asst. supt. acid plant, Mex. Eagle Oil Co, Vera Cruz, 15–17; research and plant chemist, Nat. Aniline and Chem. Co, Buffalo, 17–27; *research chemist, org. chem. dept, E. I. du Pont de Nemours and Co, 28–* A A; Chem. Soc. Manufacture of azo dyestuffs; constitution of quinine.

Maurer, Prof. Robert J(oseph), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Rochester, N. Y, March 26, 13. B.S, Rochester, 34, Charles A. Coffin fellow, 37–39, Ph.D, 39. Research assoc, Mass. Inst. Tech, 39–42; instr. *physics,* Pennsylvania, 42; *asst. prof, Carnegie Inst. Tech, 42–* Physical Soc. Solubility of silver in mercury; photoelectric and optical properties of metals; electrical properties of insulators and semi-conductors.

Maurer, Dr. Siegfried, 8 S. Michigan Ave, Chicago, Ill. *Pathology.* Pilotpoint, Texas, Oct. 13, 90. B.S, Oregon State Col, 10; M.D, Rush, Chicago, 23. Asst. prof. and assoc. prof. path. and mem, Sprague Mem. Inst, Chicago, 28–40; *practising physician, 41–* Lieut, Inf, 17–19. A.A; Am. Med. Asn. Geriatrics and the effect of hyper-vitaminosis on maze learning of rats.

Maurice, Prof. Charles Stewart, College of William and Mary, Williamsburg, Va. *Geology.* New York, N. Y, Aug. 8, 02. A.B, Princeton, 26; A.M, North Carolina, 31; Ph.D, Hopkins, 36. Teaching fellow, North Carolina, 31; instr. *geol,* Tennessee, 36–37, *asst. prof,* 37–42; Dartmouth, 42–43; *Col. of William and Mary, 43–* Miner. Soc; Carolina Geol. Soc. Physical geology; mineralogy; pegmatites.

Maurmeyer, Dr. Robert, 102–27 93rd Ave, Richmond Hill, N. Y. *Chemistry.* Hannover, Germany, April 30, 02. B.S, Col. City of N. Y, 28; A.M, Columbia, 32; Ph.D, N. Y. Univ, 39. Tutor *chem, Brooklyn Col,* 29–36, *instr,* 37– A.A; Chem. Soc. Organic and analytical chemistry; condensation of reducing monosaccharides with phenols.

Maury, Antonia C(aetana de P. P), 381 Broadway, Hastings-upon-Hudson, N. Y. *Astrophysics.* Cold Spring, N. Y, March 21, 66. A.B, Vassar Col, 87. Asst, Harvard Observatory, 89–96, 18–35; teacher physical sciences and astron. and lecturer, 96–18; custodian, Draper Park Observatory Museum, 35–38. Astron. Soc. Classification of stellar spectra; spectroscopic binaries; spectral changes of beta Lyrae; variable intensity of hydrogen and helium satellites in the spectra of beta Lyrae and upsilon Sagittarii.

Maveety, D(onald) J(ohn), 449 W. 14th St, New York, N. Y. *Chemistry.* Hillsdale, Mich, Aug. 23, 94. B.S, Purdue, 17, Chem.E, 22; Yale, 17–18. Metal. research, Utah Copper Co, 17–19; *chief chemist and production engineer, Nat. Biscuit Co, 19–* Chemist, Bur. Aircraft Production, 18–19. A.A; Inst. Food Technol; Chem. Soc; Asn. Cereal Chemists. Food and baking technology.

Maver, Dr. Mary E(ugenie), 4617 Reno Road, N.W, Washington, D. C. *Biochemistry.* Detroit, Mich. B.S, Chicago, 14, Ph.D, 26. Asst, Sprague Mem. Inst, Chicago, 14–24, research assoc. bacter, univ, 26–30; *senior biochemist, nat. inst. health, U. S. Pub. Health Service, 30–* A.A; Chem. Soc; Soc. Exp. Biol. Calcium and silica therapy in tuberculosis; citric acid in urine; physical chemistry of toxins and antitoxins; diphtheria toxin produced in synthetic media; chemotherapy of cancer; enzymes of cancer tissue.

Maverick, Dr. Geo(rge) M(adison), Standard Oil Development Co, 26 Broadway, New York, N. Y. *Chemistry.* San Antonio, Texas, Dec. 11, 93. B.S, Mass. Inst. Tech, 16, Sc.D, Geneva, 22. Chemist, The Angus Co, Ltd, India, 19–21; research assoc, Mass. Inst. Tech, 22–23; *with Standard Oil Co. of N. J, 23–,* director research labs, *Standard Oil Develop. Co,* 28–34, *asst. manager, research and develop. dept, 34–* Lieut, Ordnance Dept, 17–19. Chem. Soc. (v. chairman, N. J. sect, 30, chairman, 31). Petroleum.

Mavis, Prof. F(rederic) T(heodore), Pennsylvania State College, State College, Pa. *Hydraulic engineering.* Crocketts Bluff, Ark, Feb. 7, 01. B.S, Illinois, 22, M.S, 26, C.E, 32, Ph.D, 35; Am. Soc. Civil Eng. Freeman traveling fellow, Danzig, Karlsruhe and Berlin, 27–28. Asst. engineer, Kelker, DeLeuw and Co, Chicago, 22–25, office engineer in charge design, 26–27; asst, cmt. concrete and reinforced concrete arches, Am. Soc. Civil Eng, 25–26; asst. prof. mech. and hydraul, Iowa, 28–30, assoc. prof, 30–35, prof, 35–39, acting head dept, 34–36, head dept, 36–39, assoc. director in charge lab, inst. hydraul. research, 33–37, consultant, 37–39; *prof. civil eng. and head dept, Pa. State Col, 39–* A.A; Civil Eng; Mech. Eng; Eng. Educ; Soc. Mil. Eng; Water Works Asn; Geophys. Union. Structural analysis; theoretical and applied mechanics; hydraulics and hydrology.

Mavity, Dr. Julian M(aris), 323 Hampton Place, Hinsdale, Ill. *Organic chemistry.* Paoli, Ind, Sept. 27, 08. A.B, Earlham Col, 28; M.S, Ohio State, 30, Ph.D, 31. *Research chemist, Universal Oil Products Co, 31–* Chem. Soc. Synthesis and reactions of hydrocarbons; organoaluminum compounds.

Mavor, Prof. James W(att), Union University, Schenectady, N. Y. *[5]Zoology.* Glasgow, Scotland, Dec. 13, 83. B.A, Cambridge, 05; A.M, Harvard, 10, Ph.D, 13. Lecturer science and math, King's Col. (Can), 06–07; instr. zool, Syracuse, 10–11; teaching fellow, Harvard, 12–13; instr, Wisconsin, 13–16; asst. prof. *biol, Union (N. Y),* 16–21, assoc. prof, 21–24, *prof, 24–* Sci. investigator, Biol. Board Can, Dept. Naval Service; curator biol. sta, Georgian Bay, 13; marine biol. sta, St. Andrews, 14. Can. fisheries exped, Gulf of St. Lawrence and Atlantic waters of Can, 15. A.A; Soc. Zool; Physiol. Soc; Genetics Soc; Asn. Anat; Marine Biol. Asn. Protozoology; embryology; economic fishes; Myxosporidia; hemoflagellates; corals; growth of fishes; oceanography; x-rays; genetics; general biology.

Maw, Prof. Arthur J(ohn) G(oodall), Iowa State College, Ames, Iowa. *Poultry breeding.* Quebec, Que, Can, March 4, 01. B.S.A, McGill, 23; M.S, Wisconsin, 27, Ph.D, 35. Instr. poultry husbandry, Saskatchewan, 23–26; grad. asst. genetics, Wisconsin, 28–29; lecturer *poultry husbandry,* McGill, 29–39; asst. prof. and later *assoc. prof, Iowa State Col, 39–* Poultry Sci. Asn. Inheritance of skeletal dimensions in the domestic fowl.

Maw, Prof. Charles E(dward), 245 N. University Ave, Provo, Utah. *Chemistry.* Plain City, Utah, Nov. 21, 75. A.B, Stanford, 03, Ph.D, 24; M.S, Chicago, 16. *Prof. chem, Brigham Young, 03–* Chem. Soc. (chairman, Utah sect, 25, mem,

senate chem. educ). Catalysis; analytical methods; catalytic influences in oxidation; factors that influence the Gutzeit test for arsenic; sulfur compounds in a crude oil.

Maw, Prof. W(illiam) A(lfred), Macdonald College, Que, Can. *Poultry husbandry.* Chicago, Ill, Nov. 29, 93. B.S.A, McGill, 20, M.S.A, 25. Lecturer *poultry husbandry, Macdonald Col, McGill,* 20–23, asst. prof, 41–42, *assoc. prof, 42–, head dept, 23–* Genetic Asn; Poultry Sci. Asn. (sec'y-treas, 30–). Economics of poultry meat production; nutrition.

Mawdsley, Dr. J(ames) B(uckland), University of Saskatchewan, Saskatoon, Sask, Can. *Geology.* Sienna, Italy, July 22, 94. B.Sc, McGill, 21; Ph.D, Princeton, 24. Asst. geologist, Geol. Surv. Can, 24–25, assoc. geologist, 25–29; *prof. geol, Saskatchewan, 29–* Fel. Geol. Soc; fel. Royal Soc. Can; Can. Inst. Min. and Metal. Precambrian, igneous and economic geology.

Max, Prof. L(ouis) William, 675 West End Ave, New York, N. Y. *Physiological psychology.* Baltimore, Md, Nov. 28, 01. A.B, Hopkins, 23, Ph.D, 27; Columbia, 23–24. Asst. psychol, Hopkins, 26–27; nat. research fellow biol, 27–29; instr. *psychol, N. Y. Univ,* 29–30, asst. prof, 30–35, *assoc. prof, 35–* Director electroencephalographic service, pneumonia div, Harlem Hosp, 41– A.A; Psychol. Asn; Asn. Applied Psychol; East. Psychol. Asn. (chairman program cmt). Time relations between mechano- and electro-cardiogram; metallic ions of blood and origin of cardiac impulse; action-current studies of dreaming and thinking; psycho-physiological and electronic apparatus; deaf-mutism; electroencephalography.

Maxcy, Dr. Kenneth F(uller), School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md. *Epidemiology.* Saco, Maine, July 27, 89. A.B, George Washington, 11; M.D, Hopkins, 15, fellow, 19–21, Dr.P.H, 21. Res. house officer, Hopkins Hosp, 15–16, asst. res. pediatrician, 16–17; asst. internal med, Henry Ford Hosp, 17; from asst. surgeon to surgeon, U. S. Pub. Health Service, 21–29; prof. prev. med. and bacter, Virginia, 29–36; prev. med. and pub. health and head dept, Minnesota, 36–37; *sci. director, int. health div, Rockefeller Foundation,* 37–40, *42–; prof.* bacter, *sch. hygiene and pub. health, Hopkins,* 37–38, *epidemiol, 38–; consultant to U. S. Sec'y War, board investigation epidemic diseases, U. S. Army, 41–* Ed. board, 'Am. Jour. Hygiene'; 'Am. Jour. Pub. Health.' U. S. Pub. Health Service rep, malaria cmn, League of Nations, 28. Mem, Nat. Advisory Health Council, 42– M.C, 17–19, capt. Epidemiol. Soc; Pub. Health Asn; Am. Med. Asn. Infectious diseases and public health; malaria and typhus epidemiology; quinine in the treatment of malaria; endemic typhus in the southern United States.

Maxfield, Dr. Francis N(orton), Ohio State University, Columbus, Ohio. *Psychology.* Sandwich, Mass, Aug. 29, 77. A.B, Haverford Col, 97; Ph.D, Pennsylvania, 12. Teacher, schs, 97–01; head master, Oakwood Sem, N. Y, 01–03; teacher science and math, Germantown Friends' Sch, Pa, 03–12, v. prin, 07–12; instr. psychol, Pennsylvania, 12–13, asst. prof, 13–18, asst. director psychol. clinic, 13–18; psychologist, pub. sch. clinic, Newark, N. J, 18–20; director special educ, State Dept. Pub. Instruction, Pa, 20–25; *prof. clin. psychol, Ohio State, 25–* Psychologist, Children's Hosp, Columbus, 28– Nat. Conf. Social Work. A.A; fel. Asn. Applied Psychol; Genetic Asn; Soc. Study Educ; Psychol. Asn; fel. Asn. Mental Deficiency; Social Hygiene Asn; Progressive Educ. Asn; fel. Ohio Acad. | Clinical psychology; mental hygiene; child psychology.

Maxfield, Dr. Frederick A(ustin), 5006 Ventnor Road, Friendship P. O, Washington 16, D. C. *Electrical engineering.* Milwaukee, Wis, April 4, 08. B.S, Wisconsin, 29, Ph.D, 38; M.S, Pittsburgh, 34. Research engineer, Westinghouse Research Labs, 29–34; *instr. elec. eng, Wisconsin, 34–; physicist, Naval Ordnance Lab, 41–* Physical Soc; Elec. Eng. (sec'y Madison sect, 40, chairman, 41). Theory of gaseous conduction and electronics; glow to arc transition in mercury vapor; experimental ignitron rectifier; use of thorium as a tracer; x-ray levels of radioactive elements.

Maxfield, J(oseph) P(ease), 2122 Myrtle Drive, Durham, N. C. *Acoustics.* San Francisco, Calif, Dec. 28, 87. B.S, Mass. Inst. Tech, 10. Instr. electrochem. and physics, Mass. Inst. Tech, 10–14; physicist, research dept, West. Elec. Co, 14–19, head dept, West. Elec. Co. and Bell Tel. Labs, 19–25; manager eng. and research, Victor Talking Machine Co, Camden, 26–29; consulting engineer, Elec. Research Products, Inc, New York, 29–36, director commercial eng, 36–42; *director div. physical war research, Duke, 42–* A.A; fel. Acoustical Soc; fel. Elec. Eng; fel. Physical Soc; Am. Geog. Soc; Soc. Motion Picture Eng; Inst. Physics. Radio broadcasting; electrical recording; talking pictures; electrical transmission of music and speech; recording and reproducing of sound; acoustics of recording for motion pictures.

Maxfield, Dr. Kathryn E, 603 W. 111th St, New York, N. Y. *Psychology.* Binghamton, N. Y, Dec. 28, 95. A.B, Mt. Holyoke Col, 18; A.M, Columbia, 23, Ph.D, 36. Actuarial dept, Mass. Mutual Life Ins. Co, 18–19; res. psychologist, Perkins Institution for the Blind, Mass, 19–24; supervisor educ. research, Am. Foundation for the Blind, New York, 24–32; *director* personnel and research, Perkins Institution for the Blind, 32–34; Arthur Sunshine Home and Nursery Sch. for the Blind, 34–38; *Research Council for Blind Children, 39–; private consulting psychologist, 40–* Former ed, 'Teachers Forum for Instructors of Blind Children.' A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol; fel. Council Women Psychol; Asn. Mental Deficiency; fel. N. Y. Acad. Reading methods and techniques for the blind; adaptation of tests and other techniques for use with the visually-handicapped; development of preschool visually handicapped children.

Maxfield, Dr. M(ary) E(vans), Syracuse University, Syracuse, N. Y. *Physiology.* Trenton, N. J, July 2, 08. A.B, Mt. Holyoke Col, 31; A.M, Pennsylvania, 35, Ph.D, 41. Asst. physics, Mt. Holyoke Col, 31–32; biol, Women's Col, Delaware, 34–36; instr. physiol, Pennsylvania, 36–41; research fellow neurophysiol, Inst. Pa. Hosp. Mental and Nervous Diseases, 41–42; *instr. pharmacol,* Pennsylvania, 42–43; *Syracuse, 43–* Cardiac output and blood volume determinations.

Maxon, Dr. William R(alph), U. S. National Museum, Washington, D. C. *[3]*Botany.* Oneida, N. Y, Feb. 27, 77. Ph.B, Syracuse, 98, Sc.D, 22. Aid crypt. bot, *div. plants, U. S. Nat. Museum,* 99–05, asst. curator, 05–14, assoc. curator, 14–37, *curator, 37–* Del, Int. Bot. Cong, Cambridge, 30. A.A; Bot. Soc; Fern Soc. (pres, 00, 01, 19–33); fel. Am. Acad; Wash. Acad; Bot. Soc. Wash. Taxonomy of Pteridophyta, especially of tropical America.

Maxson, Prof. George R(ockwell), 223 E. Frank St, Norman, Okla. *Engineering.* Locust, N. J, July 31, 93. B.S, Rutgers, 14. Teaching fellow eng, Pa. State Col, 14–15; instr. math and civil eng, Heffley Inst, 15–17; asst. prof. civil eng, *Oklahoma,* 19–23, assoc. prof. *eng. drawing,* 23–43, *prof, 43–, chairman dept, 23–* 2nd lieut, C.Eng, 17–19.

Maxson, Dr. John H(aviland), California Institute of Technology. Pasadena, Calif. *Geology.* Chicago, Ill, July 18, 06. B.S, Calif. Inst. Tech, 27, M.S, 28, Ph.D, 31. Teaching fellow geol. and paleont, *Calif. Inst. Tech,* 28–31, instr. *geol,* 31–36, *asst. prof, 38–; Air Corps, U. S. Army, and mem. air staff, gen. staff, U. S. War Dept, 41–, major.* M.T.A. Enstitüsü, Petrol Arama Grubu, Turkey, 36–37. Physiography; structural geology; geologic and military interpretation of aerial photographs; military intelligence.

Maxson, Prof. Ralph N(elson), University of Kentucky, Lexington, Ky. *Chemistry.* Westerly, R. I, Dec. 2, 79. B.S, R. I. State Col, 02; Ph.D, Yale, 05. Asst. chem, Yale, 04–05; instr. gen. chem, Pa. State Col, 05–06; asst. prof, *Kentucky,* 06–08, *prof. inorg. chem, 08–,* head dept, 34–42. Chem. Soc; fel. Inst. Chem. Inorganic and colloid chemistry.

Maxstadt, Prof. F(rancis) W(illiam), 1626 N. Grand Oaks, Pasadena, Calif. *Electrical engineering.* Chicago, Ill, Oct. 26, 92. M.E, Cornell, 16; M.S, Calif. Inst. Tech, 25, Ph.D, 31. Designer, Otis Elevator Co, N. Y, 16–17; asst. engineer, Interborough Rapid Transit Co, N. Y, 17–19; experimenter, Thomas A. Edison Lab, 19–20; instr. mech. eng, *Calif. Inst. Tech,* 19–22, *elec. eng,* 22–34, *asst. prof, 34–, in charge lab.* Elec. Eng. Thermionic rectifier; special alternating current generator; high voltage rectification and insulation; high resistance measurements.

Maxwell, Prof. Allan D(ouglas), University of Michigan, Ann Arbor, Mich. *Astronomy.* Woodland, Calif, Jan. 31, 01. A.B, California, 23, Ph.D, 27. James M. Goewey fellow *astron,* California, 26–27; instr, *Michigan,* 27–29, asst. prof, 29–37, *assoc. prof, 37–* A.A; Astron. Soc; Astron. Soc. Pacific; Mich. Acad; fel. Royal Astron. Soc; Int. Astron. Union. Orbits of minor planets and comets.

Maxwell, Prof. Fred(erick) R(ichard), Jr, 1609 Dearing Place, Tuscaloosa, Ala. *Electrical engineering.* Tuscaloosa,

Ala, June 15, 89. B.S, Alabama, 11, M.E, 12, E.E, 23. Commercial manager, Tuscaloosa Ry. and Utilities Co, 14–17, asst. gen. manager, 19–20; assoc. prof. physics and elec. eng, *Alabama*, 20–21, *elec. eng*, 21–35, *prof*, *35–*; *U. S. Naval Res*, *41–*, *commander*. U.S.N.R.F, 17–19, lieut. Elec. Eng. (v. pres. dist. four, 39–41; director, 41–). Non-arching metals for alternating current motor starter and circuit breaker contacts; high voltage surges and arc-over by use of the klydonograph; armature reaction for shunt generator regulation.

Maxwell, Prof. George M(ichael), St. Peter's College, Jersey City, N. J. *Anatomy*. Taunton, Mass, Feb 5, 04. A.B, Col. of Holy Cross, 27; M.S, Fordham, 29, Ph.D, 35. *Prof. biol, St. Peter's Col, 35–* Topographical anatomy of mammals.

Maxwell, Prof. Geo(rge) W(illard), Kansas State College, Manhattan, Kans. *Physics*. Walled Lake, Mich, 89. M.S, Michigan, 20. Teacher, high sch, Mich, 13; *asst. prof. physics, Kans. State Col, 26–* Kans. Acad. Radiation genetics.

Maxwell, Dr. H(arold) L(ee), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry*. Cottage Hill, Iowa, Feb. 3, 92. B.S, Cornell Col. (Iowa), 16, A.M, 17; Ph.D, Iowa State Col, 24. Instr. chem, Cornell Col. (Iowa), 16–17; Iowa State Col, 18–26; assoc. prof. chem. eng, Purdue, 26–30; metallurgist, *ammonia dept, E. I. du Pont de Nemours and Co*, 30–33, *chief metallurgist, 33–* Base Hosp. Lab, U.S.A, 17–18. Chem. Soc; Soc. Test. Mat; Soc. Metals; fel. Iowa Acad; Ind. Acad. Physical chemistry; metallography; paints; paint films; corrosion; chemical engineering; physical metallurgy.

Maxwell, Prof. Howard N(icholas), Kalamazoo College, Kalamazoo, Mich. *Physics*. Zanesville, Ohio, Dec. 5, 09. B.S, Carnegie Inst. Tech, 32; univ. scholar, Harvard, 32–33, A.M, 33; univ. scholar, Ohio State, 36, Ph.D, 37. Asst. physics, Ohio State, 33–35; instr. physics and math, Hood Col, 36–40; *asst. prof. physics, Kalamazoo Col, 40–* Physical Soc. Zeeman effect of gold and of singly ionized nitrogen.

Maxwell, Dr. Louis R(igby), 416 E. Leland St, Chevy Chase, Md. *Physics*. Waterloo, Iowa, May 28, 00 A.B, Cornell Col. (Iowa), 23; Ph.D, Minnesota, 27. Asst, Minnesota, 23–27; nat. research fellow physics, Bartol Research Foundation, 27–29, Bartol Research fellow, 29–31; assoc. physicist, fertilizer research div, bur. chem. and soils, U. S. Dept. Agr, 31–38, *physicist*, fertilizer investigations, bur. agr. chem. and eng. and bur. plant indust, 38–42; *bur. ships, U. S. Navy Dept, 42–* Fel. Physical Soc; Optical Soc; Philos. Soc. Wash.. Mean free path of electrons in mercury vapor; average life of excited states for ionized mercury and helium; diffraction of electrons by gas molecules; biological effect of x-rays.

Maxwell, L(oyal) C(lark), Frederick Stearns and Co, Detroit, Mich *Chemistry*. Flat Rock, Ill, Aug. 9, 93. B.S, Illinois, 17. Junior chemist, Bur. Standards, 17–19; *chemist*, Cottage Hosp, 23–27, 28–35; Standard Oil Co. of Calif, 27–28; *Frederick Stearns and Co, 35–* Chem. Soc; N. Y. Acad. Carbon in steel; insulin; solubility and toxicity of lead compounds; chemotherapy and hormones in cancer; pituitary gonadotropic hormone; retardation of resorption of hormones; enzymes.

Maxwell, Dr. Robert W(illiam), 19 Martin Farms, Seaford, Del. *Chemistry*. Ulysses, Nebr, Aug. 16, 04. B.S, Nebraska, 25, M.S, 26; Ph.D, Illinois, 30. Standard Oil Co. of Ind, 26–28; *chemist, E. I. du Pont de Nemours and Co, 30–* Metal salts of benzyl cyanide; stereochemistry of diphenyl; asphalt; cellulose; nylon.

Maxwell, Dr. Ross A(llan), 452 Camino Del Monte Sol, Santa Fe, N. Mex. *Geology*. Sparks, Okla, June 9, 04. B.S, Oklahoma, 29, M.S, 31; Ph.D, Northwestern, 36. Instr, Northwestern, 31–36; junior geologist, *Nat. Park Service*, 36–40, regional geologist, 40–42, *asst. supt, Southwest. Nat. Monuments, 42–* A.A; Asn. Petrol. Geol. Stratigraphy of the Hunton Formation, Arbuckle Mountains, Oklahoma; geology of the Chisos Mountains, Texas.

Maxwell, Prof. Roy D(onald), Ball State Teachers College, Muncie, Ind. *Chemistry*. Oklahoma City, Okla, Dec. 19, 07. A.B, Okla. City Univ, 30; M.S, Iowa, 31, Ph.D, 33. Asst, Iowa, 30–33; asst. prof. chem, Okla. City Univ, 33–36, assoc. prof, 36–38, dean men, 36–38; *asst. prof. science and director Frank Elliott Ball Residence Hall, Ball State Teachers Col, 38–* Chem. Soc. The reaction of potassium amide in liquid ammonia with chloroethenes.

Maxwell, Prof. U(cecil) S(eymour), 617 Marshall St, Jefferson City, Mo. *Biochemistry*. Ft. Scott, Kans, Feb. 18, 96. A.B, Colorado, 21, Ph.D, 43; M.S, Chicago, 28. Prof. *chem*, Philander Smith Col, 22–25; instr, Fisk, 26; *prof*, Ark. State Col, 28; *Lincoln (Mo), 28–* Chem. Soc. The oxidation of phenacylsulfide; the basal metabolic rates of normal Negro women.

May, Prof. Albert, Naval Ordnance Laboratory, Washington, D. C. *Physics*. Washington, D. C, Oct. 15, 99. A.B, Georgetown, 21; B.S, Catholic Univ, 24, A.M, 30; Ph.D, Hopkins, 37. Transmission engineer, Chesapeake and Potomac Telephone Co, 24–29; instr. physics, Catholic Univ, 30–38, asst. prof, 39–42; *mem. staff, Naval Ordnance Lab, 42–* Assoc. Physical Soc. Theory of crystal lattice; latent image.

May, Dr. Albert E, 416 68th St, Kenosha, Wis. *Mathematics*. Chicago, Ill, April 27, 09. B.S, Northwestern, 29, A.M, 30; Ph.D, Wisconsin, 36. *Instr. math, exten. div, Wisconsin, 36–* Math. Soc.

May, Dr. Charles H(enry), 70 E. 66th St, New York, N. Y *Ophthalmology*. Baltimore, Md, Aug. 7, 61. Col. City of N. Y, 75–77; M.D, Columbia, 83. Lecturer ophthal, N. Y. Polyclinic, 87–90; asst. surgeon, N. Y. Ophthal. and Aural Inst, 87–94; chief eye clinic and instr. ophthal, Columbia, 92–03. Ophthal. surgeon, hosps. Co-editor, 'Annals of Ophthal,' 92–04; 'Ophthalmology,' 04; 'Am. Jour. Ophthal,' 15–23; ed, 17th edition, 'Manual Diseases of the Eye.' Ophthal. Soc; Am. Acad. Ophthal; Col. Surg; Am. Med. Asn; fel N. Y. Acad. Med. Operations and diseases of the eye; relining of the socket; ophthalmoscope; illumination for self-luminous ophthalmoscope.

May, Prof. C(larence) E(arl), Indiana University, Bloomington, Ind. *Chemistry*. Bloomington, Ind, March 3, 84. A.B, Indiana, 04, A.M, 05; fellow, Columbia, 07–08, Ph.D, 08. Asst. *chem, Indiana*, 03–05, instr, 05–08, asst. prof, 08–12, assoc. prof, 14–26, *prof, 26–* Asst. ed, 'Chem. Abstracts,' 07. Chem. Soc; Soc. Chem. Indust. Organic chemistry; biochemistry.

May, Dr. Curtis, Dutch Elm Disease Laboratory, 8 Whippany Road, Morristown, N. J. *Plant pathology*. Reynoldsburg, Ohio, Aug. 8, 98. A.B, Ohio State, 24, Ph.D, 35. Asst. pathologist and assoc. pathologist, Ohio Exp. Sta, 24–35; *senior pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 35–* Phytopath. Soc; Mycol. Soc. Forest pathology; disease resistance.

May, Dr. Donald Curtis, Jr, 3410 B St, S.E, Washington, D. C. *Mathematics*. Ann Arbor, Mich, May 31, 17. A.B, Michigan, 38; A.M, Princeton, 40, J.S.K. fellow, 40–41, Ph.D, 41. Instr. math, Princeton, 39–40; *with Bur. Ordnance, Navy Dept, 41–* Functions of complex variables; magnetic mines.

May, Dr. E(rnest) M(ax), 164 Blackburn Road, Summit, N. J. *Organic chemistry*. Newark, N. J, July 24, 13. A.B, Princeton, 34, A.M, 35; Ph.D, Chicago, 38. *Research director, Otto B. May, Inc, 38–* Chem. Soc; Chem. Eng. Free radical reactions in solution; azo and vat dyestuffs.

May, Dr. Everette L(ee), 7037 Strathmore St, Chevy Chase, Md. *Organic chemistry*. Timberville, Va, Aug. 1, 14. A.B, Bridgewater Col, 35; Mallinckrodt fellow, Virginia, 37–38, Squibb fellow, 38–39, Ph.D, 39. Du Pont teaching fellow, Virginia, 36–37; research chemist, Nat. Oil Products Co, 39–41; *assoc. chemist, U. S. Pub. Health Service, 41–* Chem. Soc; Metrop. Microchem. Soc. Synthetic pharmaceuticals.

May, Dr. Florence Simonds, Maryland State Teachers College, Salisbury, Md. *Mycology*. Washington, D. C, Aug. 22, 05. B.S, Maryland, 28, fellow, 28–29, M.S, 29, Ph.D, 34. Asst. bot, Maryland, 29–35; *prof. bot. and zool, Md. State Teachers Col, 35–* Bot. Soc; Torrey Bot. Club. Penetration and host relationships of some of the imperfect fungi.

May, Franklin H(insdell), U. S. Department of the Interior, Washington, D. C. *Ornithology, Herpetology*. Syracuse, N. Y, Oct. 19, 97. B.S, Syracuse, 21, 21–22. Teacher, 22–31; biol. research and tech. editing, bur. biol. surv, U. S. Dept. Agr, 31–39; *tech. editing*, bur. biol. surv. and fish and wildlife service, *U. S. Dept. Interior*, 39–42, *geol. surv, 42–* A.A; Ornith. Union. Microscopic structure of feathers; paleontology.

May, Prof. Mark Arthur, Yale University, New Haven, Conn. **5Educational psychology.* Jonesboro, Tenn, Aug. 12, 91. A.B, Maryville Col, 11; Ph.B, Chicago, 12; A.M, Columbia, 15, Ph.D, 17; Prof. psychol, Syracuse, 19–24; research assoc, Teachers Col, Columbia, 24–27; *prof. educ. psychol, Yale, 27–* Exec. sec'y, Inst. Human Relations, Yale, 29, director, 35– State Board Educ, Conn. Lieut, Sanit. C, 18–19. A.A; Psychol. Asn. Personality and character tests; statistics; social psychology; educational adjustments.

May, Dr. Orville E(dward), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* New Albin, Iowa, Aug. 22, 01. A.B, George Washington, 24, M.S, 26, Ph.D, 29. Chemist, bur. chem. and soils, *U. S. Dept. Agr,* 23–36, director, Regional Soy-bean Indust. Products Lab, Urbana, 36–39, north. regional research lab, bur. agr. chem. and eng, 39–42, *research coordinator, agr. research admin, 42–* Oil Chem. Soc; Chem. Soc. (treas, Wash. sect, 32, sec'y, 34); Inst. Chem. Vapor pressures of industrial organic intermediates; mold metabolism; acid formation by molds; mold fermentation mechanisms; effect of increased air pressure on oxidative mold fermentations; industrial utilization of agricultural products.

Mayall, Dr. N(icholas) U(lrich), Lick Observatory, University of California, Mt. Hamilton, Calif. **7Astronomy.* Moline, Ill, May 9, 06. A.B, California, 28, Martin Kellogg fellow, 31–33, Ph.D, 33. Computer, Mt. Wilson Observatory, Carnegie Institution, 29–31; *asst. astronomer, Lick Observatory, California, 35–* Astron. Soc; Astron. Soc. Pacific (ed. cmt, 41–). Radial velocities of the extra-galactic nebulae and globular star clusters.

Mayberry, Dr. Marshall W, 1725 Illinois St, Lawrence, Kans. *Botany.* Chase, Kans, Oct. 6, 03. A.B, Washburn Col, 26; A.M, Kansas, 29, Ph.D, 35. Instr. and technician *bot, Kansas,* 30–39, *asst. prof, 39–* Bot. Soc. Anatomy of the genera Lonicera and Compositae; morphology of angiosperms.

Mayberry, Dr. M(llo) Glenn, Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Sharon, Pa, Sept. 15, 08. A.B, Oberlin Col, 30; M.S, Pa. State Col, 32, Ph.D, 37. Indust. fellow, *Mellon Inst,* 35–39, *sr. indust. fellow, 39–* Chem. Soc; Pa. Chem. Soc. Vapor pressures of ketones; action of ethyl nitrite on ketones in presence of various catalysts; organic compounds of sulfur.

Maycock, Dr. Russel L(eslie), 2437 July St, Baton Rouge, La. *Industrial chemistry.* Springville, Utah, Oct. 13, 12. B.S, California, 35; Ph.D, Illinois, 41. Chemist, Shell Develop. Co, 35–38; asst, Illinois, 38–41; *chemist, Ethyl Corp, 41–* Chem. Soc. Industrial research on processes leading to the manufacture of tetra ethyl lead.

Mayer, Dr. Dennis T(homas), University of Missouri, Columbia, Mo. *Physiological chemistry.* Lexington, Mo, Jan. 3, 01. A.B, Missouri, 31, A.M, 33, Ph.D, 38. Asst. biochem, *Missouri,* 31–37, instr. *agr. chem,* 37–41, *asst. prof, 41–* Agent, bur. animal industry, U. S. Dept. Agr, 37–42. Rats' milk and physiology of suckling rats; proteins of cellular nuclei; pregnancy tests in farm animals; nutrition; biochemistry and physiology of reproduction in farm animals; hormones.

Mayer, Dr. Edgar, Hotel Ritztower, Park Ave. at 57th St, New York, N. Y. *Medicine.* New York, N. Y, Sept. 29, 89. A.B, Col. City of N. Y, 09; M.D, Columbia, 13. Res. physician, Mt. Sinai Hosp, 14–15; *Trudeau Sanatorium, Saranac Lake, N. Y,* 16–17, *tuber. specialist, 16–; mem. faculty, Trudeau Sch. Tuber, 21–;* N. Y. Post-Grad. Med. Sch, Columbia, 31–33; *asst. prof. clin. med, med. sch, Cornell, 33–* Med. consultant, Monmouth Mem. Hosp; med. director, Northwoods Sanatorium; Farmingdale Preventorium, N. J; asst. attending physician, N. Y. Hosp. Director med. board, Nat. Hosp. for Tuber, Denver. Commander, Order of Carlos Finlay and Manuel des Cespedes. Fel. Am. Med. Asn; fel. Col. Physicians; Tuber. Asn; Am. Sanit. Asn; Clin. and Climat. Asn; Cuba Acad. Clinical application of sunlight; curative value of light.

Mayer, Prof. J(ohn) K(ing), Tulane University, New Orleans, La. *Experimental engineering.* Amite, La, Dec. 2, 07. B.E, Tulane, 30, M.E, 37. Jr. engineer, Standard Oil Co, N. J, 31; Smith and Kanzler, Inc, 31; instr. *exp. eng, Tulane,* 32–38, asst. prof, 42, *assoc. prof, 42–, head dept, 38–* Soc. Mech. Eng. (mem. board, 38, 42; chairman junior group, 39); La. Eng. Soc. (sec'y-treas, 41). Hydraulics; soil mechanics; hydraulic losses at pipe entrance; pile foundations.

Mayer, Dr. Joseph E(dward), Columbia University, New York, N. Y. **7Physical chemistry.* New York, N. Y, Feb. 5, 04. B.S, Calif. Inst. Tech, 24; Ph.D, California, 27. Asst, California, 27–28; int. research fellow, Göttingen, 29–30; assoc. *chem,* Hopkins, 30–35, *assoc. prof,* 35–39; *Columbia, 39–* Assoc. ed, 'Jour. Chem. Physics,' 36–38, asst. ed, 40, ed, 41– Cmt. structure of liquids, Nat. Research Council. Chem. Soc; N. Y. Acad. Reaction velocities; electron affinity of the halides; lattice energies of ionic crystals; statistical mechanics; theory of imperfect gases and critical region.

Mayer, Ludwig Stolz, 230 Rhode Island Ave, N.E, Washington, D. C. *Plant breeding.* Albany, N. Y, 79. B.S, Cornell, 18; M.S, Tennessee, 25. Asst. instr. plant breeding, Cornell, 17; instr. farm crops, N. Y. Inst. Applied Agr, 18; sci. asst. corn investigations, U. S. Dept. Agr, 18; asst. agronomist, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 18–22, Exp. Sta, Tennessee, 22–41, *asst. to prin. agronomist, 41–* A.A; Soc. Agron. Corn breeding; biometrical studies of varieties; genetics.

Mayer, Dr. Maria Goeppert, 144 Paulin Blvd, Leonia, N. J. *Physics, Chemistry.* Kattowitz, Germany, June 28, 06. Ph.D, Göttingen, 30. Asst. physics, Hopkins, 30–32, assoc, 32–36, research assoc, 36–39; *lecturer chem, Columbia, 40–* Fel. Physical Soc. Quantum mechanics; theory of crystal lattices; statistical mechanics.

Mayer, Prof. Walther, Institute for Advanced Study, Princeton, N. J. *Mathematics.* Graz, Austria, March 11, 87. Ph.D, Vienna, 13. Privat-docent math, Vienna, 26–30, prof, 30–37; *assoc, sch. math, Inst. Advanced Study, 33–* Deuts. Math. Verein. Differential geometry; theory of relativity; topology; group theory; integral equations; variation calculus.

Mayers, Martin A(ugustus), Elliott Co, Jeannette, Pa. *Mechanical engineering.* New York, N. Y, Jan. 27, 06. B.S, Yale, 27, M.S, 30. Junior engineer, Brooklyn Edison Co, 27–29; engineer, Prat-Daniel Corp, New York, 29; asst, Yale, 29–30; engineer, Sargent and Lundy, Inc, 30; mem. staff, coal research lab, Carnegie Inst. Tech, 31–42; *develop. engineer, Elliott Co, 42–* Mech. Eng. (assoc. mem. exec. cmt. fuels div, 41–); Min. and Metal. Eng. (v. chairman papers and programs cmt, coal div, 41); Soc. Test. Mat. (consulting mem. subcmt. ignitibility, cmt. coal and coke); Chem. Soc; East. States Blast Furnace and Coke Oven Asn. Combustion of solid fuels; reactivity of cokes; combined diffusion and convection; rates of heterogeneous reactions; blast furnace coke.

Mayerson, Prof. H(ymen) S(amuel), Tulane University School of Medicine, New Orleans, La. *Physiology.* Providence, R. I, Sept. 10, 00. A.B, Brown, 22; Ph.D, Yale, 25. Asst. biol, Brown, 21–22; *physiol,* Yale, 22–25, instr, sch. med, 25–26; *Tulane,* 26–30, asst. prof, 30–33, *assoc. prof, 33–* Physiol. Soc; Soc. Exp. Biol. Physiological effects of radiant energy; blood; circulation.

Mayfield, Prof. George R(adford), Vanderbilt University, Nashville, Tenn. *Ornithology.* Lawrenceville, Ga, March 21, 77. A.B, Emory, 00; A.M, Vanderbilt, 04, Ph.D, 15. Teacher, sch, Ga, 00–03; *prof. German, Vanderbilt, 05–, head dept, 43–* Summer, instr, Emory, 00. Chairman, State Conservation Cmn, Tenn, 39– Director educ. work, France and Germany, 18–19. A.A; Ornith. Union; Wilson Ornith. Club; Tenn. Ornith. Soc. (pres, 35–37); Tenn. Acad. (ed, 'Jour,' 26–29). Songs of birds, especially imitations of the mocking-bird; habits, migrations and songs of warblers of Tennessee.

Mayfield, Prof. Samuel M(artin), 225 Thurston Ave, Bowling Green, Ohio. *Geology, Geography.* Houston, Mo, March 23, 88. B.S, Berea Col, 14, A.B, 24; Ph.D, Chicago, 32. Head div. science, Berea Col. Nor. Sch, 22–28, 29–30; instr. gen. geol, Chicago, 28–29; assoc. prof. *geol. and geog,* Berea Col, 30–32; prof, Intermountain Union Col, 32–34; assoc. prof, Linfield Col, 34–36; *prof, Bowling Green State Univ, 36–* Geologist, Ky. Geol. Surv, 23–32; junior topographic engineer, U. S. Geol. Surv, 34–35. Asn. Pacific Coast Geog; Ky. Acad. Stratigraphic areal and economic geology and geography of Kentucky, Ohio, northern Rocky Mountains, Cascade Mountains, Coast Ranges and the Willamette Valley of Oregon.

Mayhall, Dr. Mildred P, University of Texas, Austin, Texas. *Anthropology.* Austin, Texas, Dec. 20, 02. A.B, Texas, 24, A.M, 26, Ph.D, 39; summers, Chicago, 29, 30, 33. *Instr. anthrop, Texas, 27–* Anthrop. Asn; Texas State Hist. Asn; Texas Acad. Ethnography, ethnology and history of the Indians of Texas.

Mayhew, Prof. Roy L(ewis), Louisiana State University, University, La. *Biology.* Washington, Iowa, July 3, 90. B.S, Iowa Wesleyan Col, 14; A.M, James Millikin, 17; Ph.D, Illinois, 24. Prof. biol. and head dept, Cent. Wesleyan Col, 17–20; prof. zool. and head dept. biol, Des Moines, 24–26; *asst. prof. animal path, Louisiana, 26–, research parasitol, Exp. Sta, 28–* Soc. Parasitol; assoc. Soc. Zool. Parasitology.

Maynard, Dr. James E, Syracuse University, Syracuse, N. Y. *Geology.* Deloraine, Man, Can, Sept. 2, 98. B.A, Manitoba, 23, Nat. Research Council Can. bursar, 23–24, B.Sc, 24, student, 24–25, M.Sc, 25; fellow, Toronto, 27–28, Ph.D, 28. Asst. petrol, Manitoba, 24–25; econ. geol, Toronto, 25–26, research assoc, 26–27; Ont. Dept. Mines, 27–28; consulting geologist, Newmont Mines, Newfoundland, 29; instr, Macdonald Col, McGill, 29–30; from instr. to *assoc. prof. geol, Syracuse, 30–* Field work, Geol. Surv. Can, 23–28; geologist, Wells Long Lac Mines, Ont, 34. Fel. Geol. Soc; fel. Miner. Soc. Clays of the Lake Agassiz Basin; origin of the Precambrian banded iron formations; the solution, transportation and deposition of iron and silica; the Oba map area; quartz-bearing plutonites; petrography of Vermont rocks.

Maynard, Prof. J(ullan) Lewis, University of Minnesota, Minneapolis, Minn. *Organic chemistry.* Cincinnati, Ohio, April 9, 96. Charlotte Elizabeth Procter fellow, Princeton, 22; A.B, Cincinnati, 23; M.S, Minnesota, 31, Ph.D, 38. Asst. chem, Cincinnati, 16–17; Minnesota, 18–20; chief chemist, intermediate lab, Pub. Health Inst, Chicago, 23; asst. *chem,* Princeton, 21–22; instr, *Minnesota,* 23–38, *asst. prof, 38–* Research chemist, C.W.S, U.S.A, 18. A.A; Chem. Soc. Organic compounds of mercury; qualitative analysis of the metals.

Maynard, Dr. L(eonard) A(mby), 201 Cayuga Heights Road, Ithaca, N. Y. *Biochemistry.* Hartford, N. Y, Nov. 8, 87. A.B, Wesleyan, 11; fellow, Cornell, 14–15, Ph.D, 15. Asst. chem, Exp. Sta, Iowa State Col, 11–12; Exp. Sta, R. I. State Col, 12–13; asst. prof. *animal nutrition, N. Y. State Col. Agr, Cornell,* 15–19, *prof, 20–, director sch. nutrition, 41–; U. S. Nutrition Lab, 39–* Consultant, Nanking, 34. U.S.A, 17–19, major. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Soc. Animal Production (v. pres, 41, pres, 42); Inst. Nutrition (sec'y, 38–41, v. pres, 41); Dairy Sci. Asn. Animal and human nutrition; fat metabolism.

Maynard, Dr. Poole, 26 Cain St, N. W, Atlanta, Ga. *Geology.* Baltimore, Md, Feb. 15, 83. A.B, Hopkins, 05, Ph.D, 09. Asst. econ. geol, Hopkins, 05–08; asst. state geologist, Ga. Geol. Surv, 09–12; *consulting geologist and indust. engineer, 12–;* consulting geologist, Cent. Ga. Ry, 12–24; *consulting indust. geologist, Atlanta, Birmingham and Coast Ry, 25–; Atlantic Coast Line R.R, 38–* Mem, Md. Geol. Surv. and Va. Geol. Surv, 05–09; with U. S. Geol. Surv, 07; pres, Ga. Potash and Chem. Co; Houston Kaolin Co; acting prof, Ga. Tech, 35; Oglethorpe, 36; non-metals adviser, U. S. Bur. Mines. Fel. Geol. Soc; Paleont. Soc; Inst. Min. Eng; Tech. Asn. Pulp and Paper Indust. Manufacture of roofing granules by precipitation of soluble salts; vitrified ceramic products; cement resources of Georgia; potash from slates; concentration of bauxites; kaolins; fullers' earths; bentonites.

Mayo, Dr. Evans B(lakemore), Cotopaxi Exploration Co, Casilla 655, Guayaquil, Ecuador. *Geology.* DeKalb, Ill, Nov. 16, 02. A.B, South Dakota, 27; A.M, Stanford, 29; Ph.D, Cornell, 32. Instr. geol, Cornell, 31–36; *research* struct. geol, 36–37; *min. geol, 37–* A.A; Geol. Soc. Structural geology of the Sierra Nevada, California.

Mayo, Dr. Frank R(ea), U. S. Rubber Co, Passaic, N. J. *Organic chemistry.* Chicago, Ill, June 23, 08. B.S, Chicago, 29, Ph.D, 31. Eli Lilly fellow, Chicago, 31–32; research chemist, E. I. du Pont de Nemours and Co, 33–35; instr. org. chem, Chicago, 36–42; *research chemist, U. S. Rubber Co,* 42– Chem. Soc. Hydrocarbons; halides; ethers; metallo-organic compounds; polymerization.

Mayo, Prof. M(arion) J(acob), Harris Teachers College, St. Louis, Mo. *Psychology.* Prestonsburg, Ky, March 1, 71. A.B, Nat. Nor. Univ, 94; fellow, N. Y. Univ, 01–03, A.M, Pd.D, 04; Ph.D, Columbia, 13. Prof. math, E. Texas Nor. Col, 94–01; teacher psychol, Pa. State Nor. Sch, Stroudsburg, 03–04; high schs, N. Y, 05–16; *prof. psychol, Harris Teachers Col, Mo, 16–* A.A; Psychol. Asn; Midwest. Psychol. Asn; S. Soc. Philos. and Psychol; St. Louis Acad. Race psychology; educational psychology.

Mayo, Dr. Velma Knox (Mrs. Evans B. Mayo), Apartado 655, Guayaquil, Ecuador, S. Amer. *Entomology.* Des Moines, Iowa, Jan. 14, 08. A.B, Redlands, 30; A.M, Cornell, 31, Ph.D, 34. Librarian, Comstock Mem. Library, Cornell, 34–38. Insect morphology; thoracic sclerites and musculature of the Ephemerida; taxonomy of Ephemerida in western North America and in Ecuador.

Mayor, Dr. John R(oberts), 706 W. Cherry St, Carbondale, Ill. *Mathematics.* La Harpe, Ill, July 9, 06. B.S, Knox Col, 28; A.M, Illinois, 29; fellow, Wisconsin, 31–32, Ph.D, 33. Instr. *math,* Wisconsin, 29–31, 32–35, Milwaukee exten. div, 35; *prof. and chairman dept, South. Ill. State Nor. Univ, 35–* Math. Soc; Math. Asn; Nat. Council Teachers Math. Mapping rational varieties; multiple correspondences in space and hyperspace.

Mayr, Dr. Ernst, American Museum of Natural History, New York, N. Y. **7Zoology.* Kempten, Germany, July 5, 04. Ph.D, Berlin, 26. Asst. curator zool, museum, Berlin, 26–32; *assoc. curator, Whitney-Rothschild collection, Am. Museum Nat. Hist, 32–* Jesup lecturer, Columbia, 41. Expeds, Dutch New Guinea, 28, Mandate Territory, New Guinea, 29, Solomon Islands, 29–30. Fel. Ornith. Union; Soc. Zool; Wilson Ornith. Club; Cooper Ornith. Club; fel. Linnaean Soc. N. Y. (ed, 33–41); fel. N. Y. Acad; cor. mem. Royal Australian Ornith. Union; hon. fel. German Ornith. Union; German Soc. Zool; German Soc. Mammal; Saxon Soc. Ornith. Taxonomy and zoogeography of birds; speciation.

Mazia, Dr. Daniel, University of Missouri, Columbia, Mo. *Zoology.* Scranton, Pa, Dec. 18, 12. A.B, Pennsylvania, 33, Harrison fellow, 35–36, Ph.D, 37. Instr. *zool,* Pennsylvania, 34–35; nat. research fellow, Princeton and Marine Biol. Lab, Woods Hole, 37–38; asst. prof, *Missouri,* 38–41, *assoc. prof, 41–; lieut, Air Forces, U. S. Army, 42–* Soc. Zool. Ionic changes in stimulation; colloidally bound ions; electrolyte absorption; chemistry of chromosomes; enzyme chemistry; physiological genetics; aviation physiology.

Mazur, Dr. Abraham, 140th St. and Convent Ave, New York, N. Y. *Biochemistry.* New York, N. Y, Oct. 8, 11. B.S, Col. City of N. Y, 32, fellow, 32–36, A.M, 34; Ph.D, Columbia, 38. Tutor, *Col. City of N. Y,* 36–38, *instr. chem, 38–* Carnegie Corp. grant research assoc, Col. Physicians and Surg, Columbia, 38–39; *research assoc.* to Prof. H. T. Clarke, Columbia, 39–41; *med. col, Cornell, 41–; lieut, Sanit. Corps, U. S. Army, 43–* Research fellow, Harlem Hosp, 40–41. A.A; Chem. Soc. Comparative biochemistry of rudimentary organisms; sterols; amino acids; lipins; detoxication mechanisms.

Meacham, Prof. E(dgar) D, University of Oklahoma, Norman, Okla. *Mathematics.* Smithfield, Texas, Aug. 22, 88. A.B, Oklahoma, 14; A.M, Harvard, 17; fellow, Chicago, 21–22, Ph.D, 22. Instr. *math, Oklahoma,* 14–19, asst. prof, 19–22, assoc. prof, 22–26, *prof, 26–,* asst. dean, *col. arts and sciences,* 28–40, *dean, 40–* Math. Soc; Math. Asn. Projective differential geometry.

Meacham, Prof. F(rank) B(arnard), 2716 Everett Ave, Raleigh, N. C. *Zoology, Entomology.* Biltmore, N. C, Oct. 20, 97. B.S, N. C. State Col, 22, M.S, 25. Instr. zool. and entom, *N. C. State Col,* 22–27, *asst. prof. zool, 27–* Asn. Econ. Entom; N. C. Acad. Apiculture; wintering honey-bees; honey plants of North Carolina.

Mead, Dr. A(lbert) D(avis), 283 Wayland Ave, Providence, R. I. **1Zoology, Comparative anatomy.* Swanton, Vt, April 15, 69. A.B, Middlebury Col, 90, Sc.D, 16; A.M, Brown, 91, LL.D, 39; Clark, 91–92; Ph.D, Chicago, 95; Sc.D, Pittsburgh, 12, R. I. State Col, 27. Instr. comp. anat, *Brown,* 95–96, assoc. prof, 96–00, prof, 00–09, biol, 09–36, v. pres, 26–36, acting pres, 31–32. State Cmn. Inland Fisheries, R. I; Biol. Board, 08– Trustee, R. I. Hosp, 01–34, pres, 34–40; R. I. Sch. Design, 23–39; Middlebury Col, 33–; Wellesley Col, 34– Prizes, Int. Fishery Cong, 08. A.A; Soc. Nat. (sec'y, 00, 01); Soc. Zool; Am. Acad; cor. mem. Seefischerei Verein. Embryology; fertilization and cleavage of eggs; natural history of marine invertebrates; rate of growth of marine invertebrates; artificial culture of marine food animals.

Mead, Dr. Albert R(aymond), 1035 Franklin St, Santa Clara, Calif. *Invertebrate zoology.* San Jose, Calif, July 17, 15. B.S, California, 38, 40–41; Scaife scholar, Cornell, 38–39, John Henry Comstock scholar, 38–39, scholar, 39–40, Ph.D, 42; Marine Biol. Lab, Woods Hole, 41. Teaching asst. zool, col. agr, California, 40–41; Cornell, 41–42; *2nd lieut, Med. Admin. Corps, U. S. Army, 42–* A.A; Entom. Soc; Entom. Soc. Amer; Soc. Study Speciation; Pacific Coast Entom. Soc; Calif. Acad. Genital physiology of the invertebrates; speciation and taxonomy of Coleoptera and Mollusca.

Mead, Brian, Standard Française des Petroles Port Jerome Refinery, Seine Inférieure, France. *Chemistry.* Totnes, Eng, Aug. 31, 96. Am. fellow, Imp. Col. Science, 21; M.S, Mass. Inst. Tech, 22. Research assoc. applied chem, Mass. Inst. Tech, 23–26, instr. applied colloid chem, 24–26; Humble Oil and Ref. Co, 26–36; *with Standard Française des Petroles, 36–* Chem. Soc. Colloid chemistry; oxidation of oils, rubber and benzaldehyde; autoxidation; emulsion.

Mead, Dr. Darwin J(ames), 115 First St, Scotia, N. Y. *Chemistry.* Dowagiac, Mich, June 27, 10. A.B, Kalamazoo Col, 32; M.S, Brown, 33, Ph.D, 36. Instr. chem, Colby Col, 36–38; *mem. research lab, Gen. Elec. Co, 38–* Summer, research lab, Gen. Elec. Co, 37. Chem. Soc; N. Y. Acad. Conductance in non-aqueous solutions; properties of high polymers.

Mead, Prof. H(arold) T(upper), Flora Macdonald College, Red Springs, N. C. *Zoology.* Bakersfield, Vt, Nov. 1, 81. A.B, Yale, 07; M.S, Chicago, 13; Ph.D, Columbia, 32. Prof. biol. and geol, Dakota Wesleyan, 13–16; instr. micros. anat, Colorado, 17–18; prof. zool, Tulane, 18–25; asst, Yale, 25–26; prof. biol, Hartwick Col, 28–32; dean, Bernarr Macfadden Inst, 35–36; *prof.* biol, Limestone Col, 36–41; *zool, Flora Macdonald Col, 42–* Asn. Anat; Micros. Soc; S. Dak. Acad; S. C. Acad; La. Entom. Asn; New Orleans Acad; New Orleans Zool. Asn. (director, 19–25). The intestine of amphibians; Arthropoda; interstitial glands of mammals; teaching hygiene in New England colleges; natural history of sand crab.

Mead, Dr. H(oward) W(illiam), Dominion Laboratory of Plant Pathology, Saskatoon, Sask, Can. *Plant pathology.* June 5, 99. B.Sc, Saskatchewan, 26, M.Sc, 30; Ph.D, Toronto, 42. *Asst. plant pathologist, Dom. Lab. Plant Path, 30–* Can. Soc. Tech. Agr; Can. Phytopath. Soc. Seed-borne diseases of cereals.

Mead, Dr. James F(ranklyn), California Institute of Technology, Pasadena, Calif. *Organic chemistry.* Evanston, Ill, Oct. 24, 16. A.B, Princeton, 38; Ph.D, Calif. Inst. Tech, 42. Teaching fellow, *Calif. Inst. Tech,* 38–42, *research asst, 42–* Sphingosine; amino acids; sugars.

Mead, Dr. Leonard C, Tufts College, Medford, Mass. *Psychology.* Milford, Mass, Dec. 28, 13. A.B, Dartmouth Col, 36; A.M, Rochester, 37, fellow, 38–39, Ph.D, 39. Asst. psychol, Rochester, 36–38; intern, Psychol. Corp, 39; *instr. psychol, Tufts Col, 39–, asst. director lab. sensory psychol. and physiol, 43–* A.A; Psychol. Asn. Experimental physiological psychology; neural basis of vision.

Mead, Miss Margaret, American Museum of Natural History, New York, N. Y. *Anthropology.* Philadelphia, Pa, Dec. 16, 01. A.B, Columbia, 23, A.M, 24, Ph.D, 29; Nat. Research fellow, Bishop Museum, Honolulu, 25–26; Social Science Research Council fellow, 28–29; Sc.D, Wilson Col, 40; LL.D, Rutgers, 41. Asst. curator ethnol, Am. Museum Nat. Hist, 26–42; *assoc. curator anthrop, Am. Museum Nat. Hist, 42–; exec. sec'y cmt. food habits, Nat. Research Council 42–* Visiting lecturer, Vassar Col, 39–42; Sarah Lawrence Col, 40–41. Am. Museum Nat. Hist. exped, Samoa, 25–29, Manus Tribe, Admiralty Islands, New Guinea, 28–29, Am. Indian Tribe, 30, New Guinea, 31–33, 38, Bali, 36–38, 39. Anthrop. Asn; Ethnol. Soc; East and West Asn; East Indies Inst. (v. pres). Polynesian and Melanesian ethnology; the child in primitive cultures; sex and temperament in primitive societies; the changing culture of an Indian tribe; cooperation and competition among primitive peoples; relationship between character structure and social forms; Balinese character.

Mead, Dr. Morris W, 665 E. Passaic Ave, Bloomfield, N. J. *Biochemistry.* Pittsburgh, Pa, Oct. 18, 00. B.S, Haverford Col, 24; Ph.D, Pittsburgh, 28. Research chemist, U. S. Rubber Co, 28–31; research in nutrition, Columbia, 31–32; fellow, Mellon Inst, 32–35; research chemist, *Nat. Grain Yeast Corp, Belleville,* 35–40, *director labs, 41–* A.A; Chem. Soc; Asn. Cereal Chem. Nutrition; vitamins; chemistry of microorganisms; yeast production and manufacture; fermentation.

Mead, Mrs. Sallie P(ero), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Telephone engineering.* New York, N. Y. A.B, Barnard Col, Columbia, 13, A.M, Columbia, 14. Eng. dept, Am. Tel. and Tel. Co, 15–19, dept. develop. and research, 19–34; *tech. staff, Bell Tel. Labs, 34–* A.A; Math. Soc; Math. Asn; Elec. Eng; Radio Eng; Franklin Inst. Telephone transmission; distortion corrective networks; wave propagation in cylindrical conductors.

Mead, Prof. W(arren) J(udson), Massachusetts Institute of Technology, Cambridge, Mass. **4*Geology.* Plymouth, Wis, Aug. 5, 83. B.S, Wisconsin, 06, A.M, 08, Ph.D, 26. From asst. to prof. *geol,* Wisconsin, 06–34; *prof. and head dept, Mass. Inst. Tech, 35–* Nat. Acad; A.A; Geol. Soc. (councilor, 30); Soc. Econ. Geol. (pres, 42); Min. and Metal. Eng; Civil Eng; Am. Acad. Economic, structural and engineering geology.

Meade, Prof. DeVoe, University of Maryland, College Park, Md. *Agriculture.* Clyde, N. Y, Aug. 26, 86. B.S, Pa. State Col, 11; Ph.D, Cornell, 18. Agriculturist, high sch, Minn, 11–12; in charge dairy and animal husbandry depts, N. Y. State Sch. Agr, Alfred, 12–14; instr. animal husbandry, Cornell, 14–18; prof. and head dept, *Maryland,* 18–25, dairy and animal husbandry, 25–36, *prof. animal husbandry, 36–* Soc. Animal Production. Breeding; genetics; nutrition; farm management.

Meade, George P(eterkin), Colonial Sugars Co, Gramercy, La. *Chemical engineering.* Cumberland, Md, Dec. 26, 83. B.S, N. Y. Univ, 05, Chem.E, 21. Chief chemist, Nat. Sugar Refinery, 06–09; chief chemist and asst. supt, Colonial Sugars Co, 09–13; supt, Cardenas Refinery, and director control lab, Cuban-Am. Sugar Co, 13–22, manager, 22–23; gen. supt, *Colonial Sugars Co,* 23–28, *manager, 28–* Sugar cmt, 8th Int. Cong. Applied Chem. Int. Cmn. Uniform Methods Sugar Analysis. A.A; Chem. Eng; Chem. Soc; fel. Inst. Chem; Soc. Ichthyol. and Herp; Chemists' Club; Asn. Tech. Azucareros de Cuba; Int. Asn. Cane Sugar Technol. Cane sugar manufacture and refining; sugar analysis; action of disinfectants on sugar solutions; Hess-Ives tintphotometer; youthful achievement of great scientists; mathematical aspects of athletic records; habits of non-poisonous snakes.

Meade, Prof. Grayson E(ichelberger), Texas Technological College, Lubbock, Texas. *Vertebrate paleontology.* Palacios, Texas, April 8, 12. A.B, Nebraska, 35, A.M, 37; Chicago, 38–39. Instr, *Texas Tech. Col,* 41–42, *assoc. prof. geol. and petrol. eng, 42–; curator vert. paleont. W. Texas Museum, 41–* A.A; Paleont. Soc. The Pliocene and Pleistocene geology and their vertebrate fossils in west Texas.

Meader, Dr. F(red) M(arlin), Kalamazoo State Hosp, Kalamazoo, Mich. *Preventive medicine.* North Haverhill, N. H, Jan. 28, 76. B.S, Wesleyan, 02, M.S, 05; M.D, Hopkins, 09. Instr. path. and bacter, Syracuse, 09–10, asst. prof, 10–11, assoc. prof, 11–12, prev. med. and hygiene, 12–14; director div. communicable diseases, State Dept. Health, N. Y, 14–20; assoc. epidemiol, sch. hygiene and pub. health, Hopkins, 20; director med. services, Dept. Health, Detroit, 20–41; *res. physician, Kalamazoo State Hosp, 42–* Major, M. C, 17–19. A.A; Am. Med. Asn; Soc. Bact; Pub. Health Asn. Public health; carriers of disease; bactericidal properties of sunlight; prophylactic properties of human blood serum; virus of measles.

Meader, Dr. Ralph G(ibson), Yale University School of Medicine, New Haven, Conn. *Anatomy.* Eaton Rapids, Mich, Sept. 6, 04. A.B, Ohio Wesleyan, 25; A.M, Hamilton Col, 27; Blossom fellow, Yale, 29–31, Ph.D, 32. Instr. biol, Hamilton Col, 25–27, asst. prof, 27–28; instr, Wesleyan, 28–29; *anat, sch. med, Yale,* 31–37, *asst. prof, 37–* Asst. to director, board sci. advisers, Jane Coffin Childs Mem. Fund Med. Research, 42–43, asst. director, 43– Biologist, State Biol. Surv, N. Y, 29, 30. Mem. corp, Bermuda Biol. Sta, 32– A.A; Asn. Anat; N. Y. Acad. Comparative anatomy of nervous system; neuroanatomy of teleosts; electrical characteristics of living organisms; history of medicine; sequence of nerve degeneration.

Meadors, Dr. Victor G(erald), 39 Highland Ave, Naugatuck, Conn. *Physical chemistry.* Princeton, Ky, Oct. 24, 12. B.S, Illinois, 35, Ph.D, 39. *Develop. chemist, U. S. Rubber Co, 39–* A.A; Chem. Soc. Resin and rubber technology.

Meadow, Prof. J(acob) R(obert), Southwestern, Memphis, Tenn. *Chemistry.* Shaw, Miss, Dec. 11, 03. A.B, Ark. Col, 25; A.M, Arkansas, 27; N. Y. Univ, 29–30; Ph.D, Hopkins, 33. Instr. chem, Arkansas, 26–27; asst. prof, Ark. Col, 27–28, acting head dept, 28–29, head dept, 30–31; teaching fellow, N. Y. Univ, 29–30; asst, Hopkins, 31–33; research chemist, exp. sta, E. I. du Pont de Nemours and Co, Wilmington, 33–35; assoc. prof. *chem, Southwestern (Tenn),* 35–36, *prof, 36–* Summers, instr, Arkansas, 26, 28, 29. Chem. Soc. Water purification; micro-analytical technique; organic sulfur compounds.

Meadows, Dr. C(harles) M(ilton), Box 1242, Waco, Texas. *Entomology.* Merryville, La, Nov. 8, 12. A.B, La.

State Nor. Col, 36; M.S, Louisiana, 38; Ph.D, Ohio State, 42. Asst, research project, *Sherwin-Williams Co*, 39–42, *in charge cotton insect research investigation, 42–* Asn. Econ. Entom; La. Entom. Soc; Texas Entom. Soc. Cotton insects.

Meadows, Dr. J(ames) L(awson), 3937 Fourth St, Port Arthur, Texas. *Organic chemistry.* Denton, Texas, Aug. 5, 07. A.B, A.M, Texas, 30, Union Oil Co. fellow, 36–37, Ph.D, 37. Instr. chem, Texas; *research chemist, Texas Co.* Chem. Soc. Isolation and identification of nitrogen bases from California petroleum distillates; production of synthetic fatty acids from petroleum products.

Meahl, Prof. Robert P(eter), Pennsylvania State College, State College, Pa. *Horticulture.* Vallonia, Ind, Nov. 18, 06. B.S.A, Purdue, 29, M.S.A, 31. Asst. hort, Purdue, 29–31; instr. *nursery indust, Pa. State Col*, 31–38, *asst. prof, 38–* Soc. Hort. Sci; Shade Tree Conf. Ornamental horticulture; asexual propagation of woody plants; soil factors influencing the market value and production of the rose; variety tests of ornamental plants.

Meakins, Prof. J(onathan) C(ampbell), Royal Victoria Hospital, Montreal, Que, Can. *Medicine.* Hamilton, Ont, May 16, 82. M.D, McGill, 04; LL.D, Edinburgh, 27. Asst. med, Hopkins, 06–07; res. pathologist, Presb. Hosp, 07–10; asst. physician, Royal Victoria Hosp, 10–11; lecturer med. and path, McGill, 11–19, director exp. med, 13–19; Christison prof. therapeut, Edinburgh, 19–24; *prof. med. and director dept, McGill, physician in chief, Royal Victoria Hosp, and director univ. clinic, 24–, dean faculty med, 40–; brig, Med. Corps, Royal Can. Army and deputy, D.G.M.S.* Am. Physicians (pres, 34); Soc. Clin. Invest. (pres, 28–); Can. Med. Asn. (pres, 35); fel. Royal Soc. Can; fel. Royal Col. Physicians and Surg. Can. (pres, 29–31); fel. Royal Soc. Med; British Physiol. Soc; hon. fel. Edinburgh Royal Col. Surg; fel. Edinburgh Royal Col. Physicians; fel. Royal Soc. Edinburgh. Clinical medicine.

Meals, Dr. R(obert) N(elson), 347 Summit Ave, Schenectady, N. Y. *Organic chemistry.* Trenton, N. J, Dec. 20, 12. B.A, McMaster, 34; M.A, Toronto, 36; Ph.D, Iowa State Col, 42. Asst. chem, Toronto, 35–37; Iowa State Col, 40–42; *research chemist, Gen. Elec. Co, 42–* Chem. Soc. Organometallic compounds; isomerization in the Friedel-Craft reaction.

Means, A(lan) H(ay), 1283 E. S. Temple, Salt Lake City, Utah. *Geology, Mining engineering.* Peru, Ill, Jan. 22, 90. B.S, Mass. Inst. Tech, 13, M.S, 14. Asst. to Dr. W. Lindgren, 15; geologist, Tonapah Co, 17; Am. Smelting and Ref. Co, 15–16, 19–21; Int. R. R. C. A, 22–23; Premier Gold Mining Co, Ltd, 23–24; Abangarez Gold Fields, Costa Rica, 24–25; chief geologist, North. Peru Mining and Smelting Co, 25–26; Am. Smelting and Ref. Co, Newfoundland, 26–28, manager west. mining dept, 28–33; *practising engineer, 33–*; lieut. col, *U. S. Army*, 40–42, *col, 42–* Min. and Metal. Eng; Min. and Metal. Soc. Economic geology; mineralogy; tourmaline bearing gold quartz veins of Michipicoten district, Ontario; ore deposits of Red Cliff, Colorado; mineral occurrences of the Tintic district, Utah.

Means, Prof. J(ames) H(oratio), Tillotson College, Austin, Texas. *Mathematics.* Pine Bluff, Ark, July 16, 10. B.S, Ark. State Col, 33; Gen. Educ. Board fellow, scholar, Iowa, 36–37, M.S, 37; Michigan, summers, 39, 41. Instr. math. and science, practice high sch, Agr, Mech. and Nor. Col, 33–36; head dept. math, West Ky. State Vocational Training Sch, 37–38; from instr. physics to *assoc. prof. math. and physics and head dept. math, Tillotson Col, 38–* Accuracy of interpolation in annuity tables.

Means, Dr. J(ames) H(oward), 56 Mt. Vernon St, Boston, Mass. *[7]*Pathology, Medicine.* Dorchester, Mass, June 24, 85. A.B, Harvard, 07, M.D, 11. H. P. Walcott fellow, Harvard, 13–16, teaching fellow med, *Harvard Med. Sch*, 16–18, instr, 19–21, asst. prof, 21–24, *Jackson prof. clin. med, 24–*; assoc. med, *Mass. Gen. Hosp*, 17–24, *chief med. services, 24–* M.C, 17–19, major. A.A; Am. Med. Asn; Am. Physicians (pres, 42); Col. Physicians (regent, 28–, pres, 37); Soc. Clin. Invest; Tuber. Asn; Gorgas Mem. Inst. Trop. and Prev. Med. Diseases of the thyroid gland.

Means, Dr. John A(ugust), 80 Cranberry St, Apt. 9D, Brooklyn, N. Y. *Analytical chemistry.* Macomb, Ill, May 17, 15. B.S, Illinois, 37; M.S, Iowa, 39, Ph.D, 41. Asst. anal. chem, Iowa, 37–41; *research analyst, Chas. Pfizer and Co, Inc, 41–* Chem. Soc. Spectrographic analysis.

Means, Prof. Karl S(tone), Butler University, Indianapolis, Ind. *Chemistry.* Morristown, Ind, Jan. 2, 92. A.B, Butler, 14; fellow, Indiana, 14–15, A.M, 15; Ph.D, Chicago, 24. Instr. *chem*, high sch, Ind, 16–17; asst. prof, Butler, 17–20; asst, Chicago, 20–22; asst. prof, Mich. Col. Mines, 22–26; prof, Milligan Col, 26–28; assoc. prof, *Butler*, 28–39, *prof, 39–* Chem. Soc. Electrodeposition of antimony; saponification of ethyl formate.

Means, Dr. Marie Hackl (Mrs. Guy Goffe Means), Grafton, W. Va. *Psychology.* Trenton, Tenn, March 19, 92. A.B, Tennessee, 12; fellow, Kansas, A.M, 13; Ph.D, George Peabody Col, 19. Teacher, high sch, Texas, 13–14; nor. sch, W. Va, 16–17; special teaching, pub. and high schs, Ga, Minn. and W. Va, 19–27; assoc. prof. psychol, Ala. Col, 27–33; substitute prof. psychol. and educ, Keuka Col, 35; *consulting psychologist, 35–*; visitor, City Dept. Pub. Assistance, Grafton, W. Va, 37; head teacher, Grafton Nursery Sch, 40–42; *visitor, City Dept. Pub. Assistance, Grafton, W. Va, 42–* Psychol. Corp. Fears of one thousand college women; work decrement in successive study hall periods; tentative standardization of a hard opposites test.

Means, Philip Ainsworth, Pomfret, Conn. *Anthropology.* Boston, Mass, April 3, 92. A.B, Harvard, 15, A.M, 17. Asst, Yale exped, Peru, 14–15; hon. collaborator archeol, U. S. Nat. Museum, 16–24; special investigator, Wonalancet Cotton Co, Peru, 19–20; director, Nat. Museum Archeol, Lima, Peru, 20–21; assoc. anthrop, Peabody Museum, Harvard, 21–24, 32–33. Official, Order of the Sun, Peru. A.A; Antiq. Soc; Anthrop. Asn; Soc. Archeol; Archeol. Inst; Mediaeval Acad; Conn. Acad; R. I. Hist. Soc; Andean Inst; cor. mem. Acad. Nacional de Hist. Ecuador; Lima Geog. Soc. History, anthropology and sociology of the Hispanic-American countries; races in Peru; history of European-American cultural contacts.

Mears, Dr. Brainerd, Williams College, Williamstown, Mass. *Chemistry.* Amherst, Mass, Jan. 17, 81. A.B, Williams Col, 03, A.M, 05; fellow, Hopkins, 07–08, Ph.D, 08. Asst. *chem*, Williams Col, 03–06; instr, Illinois, 08–09; *Williams Col*, 09–10, asst. prof, 10–17, *prof, 17–* A.A; Chem. Soc. Osmotic pressure.

Mears, Prof. Eliot G(rinnell), 593 Gerona Road, Stanford University, Calif. *Geography, Economics.* Worcester, Mass, Feb. 1, 89. A.B, Harvard, 10, M.B.A, 12; LL.D, Grinnell Col, 32. Sec'y and instr. pub. utilities operation, grad. sch. business admin, Harvard, 12–16; div. chief and trade commissioner abroad, U. S. Dept. Commerce, 16–20; acting prof. econ. and lecturer, *Stanford*, 21–25, *prof. geog. and int. trade, grad. sch. business, 25–, director summer quarter, 31–* Visiting prof, Post-Grad. Inst. Int. Studies, Geneva, 29–30; Carnegie prof, Near East, Austria, Scotland, 29–30. Expert mem, Harbord Mission, 19. A.A; Am. Geog. Soc; fel. Econ. Asn; Econometric Soc; Asn. Geog; Geophys. Union; N. Y. Acad; Calif. Acad; fel. Royal Soc. Arts. Physical and economic resources of the Pacific Basin; geographic influences in economic science.

Mears, Prof. Florence M(arie), George Washington University, Washington, D. C. *Mathematics.* Baltimore, Md, May 18, 96. A.B, Goucher Col, 17; A.M, Cornell, 24, Ph.D, 27. Head dept. *math*, Ala. Col, 27–28; acting asst. prof, Pa. State Col, 28–29; asst. prof, *George Washington*, 29–36, *assoc. prof, 36–* A.A; Math. Soc; Math. Asn. Summation of series.

Mears, Dr. Robert B(ruce), Aluminum Co. of America, New Kensington, Pa. *Electrochemistry, Metallurgy.* Scranton, Pa, Jan. 28, 07. B.S, Pa. State Col, 28; Polytech. Inst. Brooklyn, 29–30; Carnegie scholar, British Iron and Steel Inst, 34–35; Ph.D, Cambridge, 35. Mem. tech. staff, Bell Tel. Labs, 28–32; research chemist in charge and later *chief chem. metal. group, metal. div, aluminum research labs, Aluminum Co. Amer, 35–* Instr, Carnegie Inst. Tech, 40–41. Research grant, British Non-Ferrous Metals Research Inst, 34. A.A. (v. chairman Gibson Island conf. on corrosion, 42, chairman, 43); Electrochem. Soc. (manager, 38–41; chairman publication cmt, 41–; v. pres, 42–); Soc. Refrig. Eng. (chairman program cmt, Pittsburgh sect, 42); Automotive Eng. (leader, materials group, aircraft fuels div, coop. fuels research, 38–42); Soc. Test. Mat. (mem. cmt. soaps and other detergents); Chem. Soc; Petrol. Inst; Chem. Eng; Soc. Indust. Quality Statist; Sci. of Metals Club (steering cmt, 38–42; pres, 42). Electrodeposition; materials selection; corrosion; cathodic protection.

Mears, Whitney H(arris), 540 W. 123rd St, New York, N. Y. *Chemistry.* Williamstown, Mass, June 8, 12. A.B,

Williams Col, 33; A.M, Harvard, 35, Ph.D, 37. Rockefeller grant, Mt. Sinai Hosp, 37–38; Am. Philos. Soc. grant, Pennsylvania, 38–39; *research chemist*, Interchem. Co, 40; *Gen. Chem. Co, 41–* Chem. Soc. Inorganic and physical chemistry.

Measamer, Dr. S(chubert) G(ernt), 536 Bloomfield Ave, Nutley, N. J. *Chemical engineering.* Wilder, Tenn, Aug. 7, 13. B.S, Tenn. Polytech, 35; M.S, Iowa State Col, 37, Ph.D, 41. Instr, chem. eng. unit operations lab, Iowa State Col, 38–41; *research chem. engineer, plastics dept, E. I. du Pont de Nemours and Co, 41–* Summer, instr, chem. eng. unit operations lab, Purdue, 40. Extraction of oil from soybeans using a mixture of trichloroethylene and ethyl alcohol as a solvent; development of plastic products.

Mease, R(alph) T(heodore), 1010 Sigsbee Place, N. E, Washington, D. C. *Chemistry.* Onset, Pa, Jan. 31, 95. A.B, 20. Asst. chemist, *div. chem, Bur. Standards*, 24–27, assoc. chemist, 27–36, *chemist, 36–* Chem. Soc; Asn. Textile Chem. and Colorists. Rubber and asbestos materials; dyes and textiles; chemistry of fibers and textile finishes.

Mebane, Prof. W(illiam) N(elson), Jr, Davidson College, Davidson, N. C. *Mathematics.* Dublin, Va, Oct. 3, 96. B.S, Davidson Col, 18; A.M, Cornell, 28. Asst. prof. physics, *Davidson Col, 23–25, math, 25–29, assoc. prof, 30–*

Meckstroth, G(ustav) A(dolph), U. S. Department of Agriculture, Orlando, Fla. *Plant pathology.* New Knoxville, Ohio, Aug. 10, 89. A.B, Ohio State, 14, A.M, 15. Asst. bot, Pa. State Col, 16–17; sci. asst. plant path, bur. plant indust, U. S. Dept. Agr, 17–20, asst. pathologist, 20–25; pathologist, State Dept. Agr, Ill, 25–29; asst. state pathologist, S. C. State Crop Pest Cmn, Clemson Col, 29–30; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Phytopath. Soc. Fusarium disease of potatoes and wilt of watermelons; diseases of strawberries and other small fruits; storage diseases of citrus fruits.

Mecredy, J(ames) R(oderick), Davison Chemical Corp, 20 Hopkins Place, Baltimore, Md. *Industrial chemistry.* Roanoke, Va, Sept. 3, 88. B.S, Va. Mil. Inst, 11. Teacher, Augusta Mil. Acad, 11–13; lab. and asst. supt. leaching plant, Am. Smelting and Ref. Co, 13–15; asst. supt, Electrolytic Zinc Co, 15–18; lab. investigations, *Davison Chem. Corp*, 18–20, chem. supervisor, 21–40, *chem. director, 40–* Chem. Eng. Conditioning and granulating superphosphate and fertilizer; control of manufacturing of phosphoric acid by a patented wet process; sulphuric acid manufacture.

Medalia, Dr. Leon S(amuel), 78 Bay State Road, Boston, Mass. *Pathology, Bacteriology.* Palestine, Dec. 5, 81. M.D, Tufts Col, 05. Instr. path. and bacter, Tufts Col, 05–10; *lieut. col, Med. Corps, U. S. Army, and chief lab. service, sta. hosp, Ft. Devens, 41–* Major, M.C, and chief lab. and infectious disease service, 17–19, lieut. col, M.R.C. Soc. Bact; Am. Med. Asn; Pub. Health Asn. Hemolytic streptococcus and puerperal septicemia; therapeutic immunization; tubercle bacillus; pyorrhea; influenza; meningitis; pneumonia; hydrogen ion concentration; culture media and carriers of diphtheria; eczema; hay fever; cancer.

Medcof, Dr. J(ohn) C(arl), Atlantic Biological Station, St. Andrews, N. B, Can. *Marine biology.* Ruthven, Ont, Jan. 7, 11. B.A, Toronto, 34; A.M, Western Ontario, 36; Ph.D, Illinois, 38. Asst. biol, Toronto, 33–34; demonstrator zool, Western Ontario, 34–36; asst, Illinois, 36–38; *sci. asst. biol, Fisheries Research Board, Can, 38–* Temporary asst, Fisheries Research Board, Can, 38–38. A.A; Can. Conservation Asn; Atlantic Fisheries Biol; N. S. Inst. Sci. Oysters.

Meder, Prof. Albert E(ugene), Jr, New Jersey College for Women, New Brunswick, N. J. *Mathematics.* New York, N. Y, March 19, 03. A B, Columbia, 22, A.M, 23. Asst. *math*, Columbia, 22–25, instr, 25–26; *Rutgers*, 26–29, asst. prof, *N. J. Col. for Women*, 29–32, assoc. prof, 32–43, *prof, 43–*, acting dean, 32–34. Medal, Rutgers, 34. A.A; Math. Soc; Math. Asn; Asn. Symbolic Logic. Analysis.

Medes, Prof. Grace, Lankenau Hospital Research Institute, Philadelphia, Pa. *Physiological chemistry.* Keokuk, Iowa, 87. A.B, Kansas, 04, A.M, 13; A.M, Ph.D, Bryn Mawr Col, 16. Instr. zool, Vassar Col, 16–19, asst. prof. physiol, 19–22; assoc. prof, Wellesley Col, 22–24; asst. prof. physiol. chem, med. sch, Minnesota, 24–26, *research chemist*, dept. med, 26–34; *Lankenau Hosp. Research Inst, 34–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Biochem; Asn. Cancer Research. Metabolism of amino acids; amino acid oxidases.

Medlar, Dr. E(dgar) M(atthias), Mt. McGregor, N. Y. *Pathology.* Ohiowa, Nebr, March 9, 87. B.S, Doane Col, 08; fellow, Nebraska, 09–11, A.M, 11; M.D, Harvard, 13. Asst. path. Boston City Hosp, 13–17; pathologist, Univ. Hosp, Iowa, 19–22; director, Hegeman Mem. Research Lab, N. Y, 22–24; assoc. prof. path, Wisconsin, 24–26, prof, 26–27; *director, Hegeman Mem. Research Lab, 27–* M.C, U.S.A, 17–19. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; Tuber. Asn. Measles; tuberculosis; Hodgkin's disease; experimental nephritis; hematopoietic tissues in experimental animals.

Medler, Dr. John T(homas), Yard Dispensary, Mare Island, Calif. *Entomology.* Las Cruces, N. Mex, May 28, 14. B.S, New Mex. State Col, 36, A.M, 37; Ph.D, Minnesota, 40. Asst. entom, Minnesota, 37–40; research fellow, Exp. Sta, N. Mex. Col. in cooperation with Texas Gulf Sulfur Co, 41; *Guggenheim Mem. Foundation fellow, California, 42–; H-V(S), U. S. Naval Res.* Asn. Econ. Entom; Entom. Soc. Amer. Analysis of attrahent factors in fermenting baits used for codling moth; trees of New Mexico; stored-food-products insects; control of thrips on seedling cotton; cage for confining insects to plants.

Medlin, Dr. William V(irgil), Shell Oil Co, San Francisco, Calif. *Chemistry.* Stockton, Calif, Feb. 14, 11. B.S, California, 32; Ph.D, Calif. Inst. Tech, 35. Teaching fellow, Calif. Inst. Tech, 32–35; *technologist, Shell Oil Co, 35–* Crystal structure; petroleum technology.

Medlock, Olin C(ampbell), 368 Payne St, Auburn, Ala. *Horticulture.* Albertville, Ala, May 23, 99. B.S, Ala. Polytech, 24; M.S, Mich. State Col, 27. Teacher, schs, Ala, 24–25; asst. prof. hort, Ala. Polytech, 27–34; forester, *soil conservation service, U. S. Dept. Agr*, 34–35, project manager, 35–36, state coordinator and senior soil conservationist, 36–42, *state conservationist, 42–* Vitamin A content of leaf and head lettuce; storage of pecans; variety tests with grapes; soil conservation.

Medsger, Prof. Oliver P(erry), Pennsylvania State College, State College, Pa. *Botany.* Jacob's Creek, Pa, Nov. 1, 70. B.S, Ohio Northern, 98; Columbia, 05–06. Head dept. science, high sch, N. J, 05–31, v. prin, 05–09, asst. prin, 32–33; prof. *nature educ, Pa. State Col, 34–38, emer. prof, 38–* Teacher, Rutgers, 30–33; summers, Pa. State Col, 28–35. Mem. bot. surv, San Jacinto Mt, Calif, 01. Mem, N. J. Syllabus Cmt. John Burroughs medal, 32. A.A; Torrey Bot. Club; John Burroughs Mem. Asn. (pres, 42–44); Sci. Teachers Asn. N. J. (chairman, biol. sect, 27–29); N. J. Sci. Teachers Asn. (pres, 29–31); Amateur Astron. Asn. N. Y. (v. pres). Wild vegetable foods; nature photography; visual and other sensory aids to education.

Meehan, Dr. E(dward) J(oseph), University of Minnesota, Minneapolis, Minn. *Physical chemistry.* Oakland, Calif, July 21, 12. B.S, California, 33, Ph.D, 36; Calif. Inst. Tech, 33–34. *Instr.* chem, California, 36–39; *anal. chem, Minnesota, 39–* Chem. Soc; Optical Soc. Absorption spectroscopy; colorimetric analysis.

Meehean, Dr. O(tis) Lloyd), U. S. Fish and Wildlife Service, Welaka, Fla. *Aquiculture.* Iron River, Mich, Nov. 22, 02. B.S, Minnesota, 27, M.S, 32; fellow, Ohio State, 36–37, Ph.D, 40. Biologist, State Fish and Game Cmn, Minn, 27; instr, high sch, Minn, 27–28; in charge stream pollution surv, St. Louis River, Minn, 28–30; instr, high sch, S. Dak, 30; *assoc. aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 30–* Gold medal, La. Acad, 35. Micros. Soc; Fla. Acad; Fla. Wildlife Federation. Pond ecology; life history of fishes and crustaceans; parasitic crustaceans; pond fertilization in fish culture; lake management.

Meek, Dr. Lois Hayden (Mrs. Herbert R. Stolz), 2714 Mountain Blvd, Oakland, Calif. *Education.* Washington, D. C, Oct. 19, 94. A.B, George Washington, 21; A.M, Columbia, 22, fellow, 22–23, Grace Dodge fellow, Ph.D, 24. Teacher, pub. schs, Washington, D. C, 12–17, demonstration teacher and supervisor, 17–21; asst. educ, Teachers Col, Columbia, 22–23; educ. sec'y, Am. Asn. Univ. Women, 24–29; assoc. prof. educ, Teachers Col, Columbia, and assoc. director child develop. inst, 29–30, prof, 30–40, director, 30–37, chairman div. individual develop. and guidance, 37–39; *research assoc, inst. child welfare, California, 40–* Assoc, cmn. child develop, Am. Council Educ, 39–40. Lecturer, San Francisco State Col, 41–; state coordinator care of children in wartime, Calif, 42. Summers, instr, Virginia, 17–23; Pa. State Col, 27; Iowa, 28; Mills Col, 38; Reed Col, 39; Claremont Col, 40, 41. Mem, Nat. Advisory Cmt. on Educ, 29–31. A.A; Soc. Study

Educ. (chairman, 28th yearbook cmt); assoc. Psychol. Asn; Soc. Research Child Develop; Progressive Asn. (chairman research cmt. personal-social develop, 38–40). Child development; child guidance and education.

Meek, Prof. Walter J(oseph), 2015 Chadbourne Ave, Madison, Wis. *³*Physiology.* Dillon, Kans, Aug. 15, 78. A.B, Kansas, 02; A.M, Penn Col. (Iowa), 07; Ph.D, Chicago, 09. Prof. biol, Penn Col. (Iowa), 03–08; instr. *physiol, Wisconsin,* 08–10, asst. prof, 10–12, assoc. prof, 12–18, *prof, 18–,* assoc. dean *med. sch,* 20–42, *acting dean, 42–* Major, C.W.S, 18–19. A.A; Physiol. Soc. (councilor, 15, sec'y, 23–29, pres, 29–32; chairman pub. trustees); Soc. Exp. Biol; Soc. Nat. The peripheral nervous system; fibrinogen; cardiac physiology; blood volume; x-ray studies of circulation; intestinal obstruction; anesthesia.

Meeker, Dr. George H(erbert), University of Pennsylvania, Philadelphia, Pa. *Physics, Chemistry.* Phillipsburg, N. J, Aug. 13, 71. B.S, Lafayette Col, 93, M.S, 95, Ph.D, 98, LL.D, 25; LL.D, Ursinus Col, 05; Phar.D, Medico-Chirurg. Col. Phila, 06, D.D.S, 07; Munich, 09–10; Sc.D, Villanova Col, 13, Pennsylvania, 40. Chemist and manager chem. industries, 93–02; consulting toxicologist, 97–10; prof. chem, Medico-Chirurg. Col. Phila, 97–16, dean dept. pharmaceut. chem, 07–16; prof. chem. and biochem, sch. med, *Pennsylvania,* 16–40, dean, *grad. sch. med,* 18–41, *emer. dean, 41–; consulting biochemist, Phila. Gen. Hosp.* Medal, Franklin Inst, 06. A.A; Chem. Soc; fel. Inst. Chem; hon. mem. Am. Med. Asn; Franklin Inst. Molecular physics; applied electricity; analytical chemistry; molecular constitution of liquids; chemical technology; development of graduate medical education.

Meen, Dr. V(ictor) B(en), University of Toronto, Toronto, Ont, Can. *Mineralogy.* Toronto, Ont, July 1, 10. B.A, Toronto, 32, M.A, 33, Ph.D, 36. *Lecturer miner. and petrog, Toronto, 36–;* sci. asst, *Royal Ont. Museum Miner,* 36–41, *asst. director, 41–* Summers, field geologist, Ont. Dept. Mines, 36, 39, 40, 41. Fel. Miner. Soc; Miner. Soc. Gt. Britain. Chemistry of the sulpho-salts; petrography; mineral analysis.

Meenes, Prof. Max, Howard University, Washington, D. C. *Psychology.* Worcester, Mass, May 24, 01. A.B, Clark, 21, Ph.D, 26; A.M, Princeton, 24. Asst, Princeton, 22–24; instr, Lehigh, 26–29, asst. prof, 29–30; assoc. prof. *psychol, Howard,* 30–39, *prof, 39–* A.A; Psychol. Asn. Experimental and abnormal psychology.

Mees, Dr. C(harles) E(dward) Kenneth, Eastman Kodak Co, Rochester, N. Y. *³*Photography.* Wellingborough, Eng, May 26, 82. B.S, London, 03, D.Sc, 06; hon. Sc.D, Rochester, 21. Managing director, Wratten and Wainwright, Ltd, England, 06–12; *director research lab, Eastman Kodak Co, 12–, research and develop, 18–, director, Eastman Kodak Co, 23–, v. pres, 34–* Christmas lecturer, Royal Inst. London, 35–36. Progress medal, Royal Photog. Soc, 13, Hurter and Driffield medal, 24; John Scott award, 21; Janssen medal, 24; silver medal, Royal Soc. Arts, 34; Progress medal, Soc. Motion Picture Eng, 36; Henry Draper medal, Nat. Acad. Sciences, 37. A.A. (chairman, C, 28); Optical Soc; Physical Soc; Astron. Soc; Chem. Soc; fel. Motion Picture Eng; Philos. Soc; hon. fel. Photog. Soc. Amer; Chem. Eng; fel. Am. Acad; fel. Royal Soc; hon. fel. Royal Photog. Soc; Royal Astron. Soc; fel. London Chem. Soc; hon. mem. Soc. de Photog. Photographic theory.

Megathlin, Dr. Gerrard R(itchie), State Teachers College, Geneseo, N. Y. *Geology, Geography.* Quincy, Mass, Nov. 3, 02. A.B, Amherst Col, 25; M.S, Cornell, 28, Ph.D, 33. Asst. *geol,* Cornell, 26–27, instr, 27–28; Montana, 28–29; Cornell, 29–36; *N. Y. State Teachers Col,* 36–43, *asst. prof, 43–* Structural and economic geology; mineralogy.

Megee, Prof. Clive R(aymond), 464 Rosewood Ave, East Lansing, Mich. *Agriculture.* Nelson, Mo, Oct. 24, 90. B.S. (Agr), Missouri, 14, A.M, 16; Ph.D, Mich. State Col, 35. From instr. to *prof. farm crops, Mich. State Col, 17–, research farm crops, exp. sta.* Soc. Agron. Forage crops; winter hardiness in alfalfa.

Meggers, Dr. William F(rederick), 2904 Brandywine St, Washington 8, D. C. *³*Physics.* Clintonville, Wis, July 13, 88. A.B, Ripon Col, 10; A.M, Wisconsin, 16; Ph.D, Hopkins, 17. Instr. physics, Ripon Col, 10–11; Wisconsin, 11–12; Carnegie Inst. Tech, 12–14; *physicist; Bur. Standards, 14–, chief spectros. sect, 20–* A.A; Physical Soc; Optical Soc; Astron. Soc; Philos. Soc. Wash; Wash. Acad; Int. Astron. Union (pres, cmt. standard wave-lengths, 35–38). Spectroscopy; astrophysics; photography; measurements of standard wavelengths; description of spectra and analysis of spectral structures; spectrochemical analysis.

Meginnis, H(arold) G(lenn), Federal Office Bldg, New Orleans, La. *Forestry.* Keokuk, Iowa, March 26, 03. B.S, Iowa State Col, 28, M.S, 29. Teaching fellow, dept. forestry, Iowa State Col, 28–29; *senior silviculturist, South. Forest Exp. Sta, U. S. Forest Service, 29–* Soil Sci. Soc; Geophys. Union; Soc. Foresters; New Orleans Bot. Soc; New Orleans Acad. Forest influences; flood control.

Meglitsch, Dr. Paul A(llen), Herzl Junior College, Chicago, Ill. *Protozoology.* Harvel, Ill, March 3, 14. B.S, Illinois, 35, M.S, 36, Ph.D, 38. *Instr. biol,* Wright Junior Col, 39–42, *Herzl Junior Col, 42–* Soc. Zool. Cytology and physiology of protozoa, especially parasitic forms.

Mehl, Prof. John W(ilbur), University of Southern California, Los Angeles, Calif. *Biochemistry.* Upland, Calif, July 8, 10. B.S, Calif. Inst. Tech, 31; A.M, California, 33, Ph.D, 36. Teaching asst, California, 33–35, res. asst, 35–36; instr. and tutor biochem. sci, Harvard, 36–40, res. assoc, Harvard Med. Sch, 38–40; *asst. prof. biochem, sch. med, Southern California, 40–* Chem. Soc; Soc. Exp. Biol; N. Y. Acad. Diffusion of amino acids and proteins; viscosity and double refraction of proteins; muscle proteins.

Mehl, Prof. Maurice G(oldsmith), University of Missouri, Columbia, Mo. *Paleontology, Geology.* Burlingame, Kans, Dec. 25, 87. B.S, Chicago, 11, fellow, 12–13, Ph.D, 14. Instr. paleont, Chicago, 12–13; paleont. and geol, Wisconsin, 13–15; prof. *geol,* Oklahoma, 15–17; acting prof, Denison, 18–19; instr, *Missouri,* 19–20, asst. prof, 20–24, *assoc. prof, 24–* A.A; Paleont. Soc; Geol. Soc. Petroleum geology; fossil Reptilia and Amphibia; conodonts.

Mehl, Dr. Robert F(ranklin), Carnegie Institute of Technology, Pittsburgh, Pa. *Metallurgy, Chemistry.* Lancaster, Pa, March 30, 98. B.S, Franklin and Marshall Col, 19, hon. Sc.D, 38; Procter fellow, Princeton, 22–23, Ph.D, 24. Prof. chem, Juniata Col, 23–25; nat. research fellow, Harvard, 25–27; supt. div. physical metal, Naval Research Lab, 27–31; asst. director research, Am. Rolling Mill Co, 31–32; *director metals research lab, Carnegie Inst. Tech, 32–, head dept. metal, 35–* Lecturer, Inst. Metals, 36; Priestley lecturer, Pa. State Col, 38; Campbell Mem. lecturer, Am. Soc. Metals, 41. Inst. Metals award, 34, 39; John Scott medal, 34; Howe medal, Am. Soc. Metals, 39; medal, Am. Indust. Radium and X-ray Soc, 43. A.A; Chem. Soc; Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Inst. Metals (chairman, 38); British Inst. Metals; Iron and Steel Inst. Gt. Britain; Verein Deuts. Eisenhüttenleute. Physical chemistry of metal systems; compressibility; crystal structure and plasticity of metals and alloys; Widmanstätten structures; radiography by the use of gamma rays; aging; pure metals and alloys; diffusion; reactions in the solid state; general physical metallurgy; heat-treatment of steel; nucleation and growth processes; oxidation.

Mehlenbacher, Virgil C(laude), 112 S. LaGrange Road, LaGrange, Ill. *Chemistry.* Kensington, Minn, March 31, 01. M.S, Southern California, 36. *Chemist, Swift and Co, 23–* Chem. Soc; Oil Chemists Soc; Chem Soc; Inst. Food Technol. Methods of analysis, composition and characteristics of fats and oils; fats and oils; analytical methods.

Mehlig, Prof. J(oseph) P(arke), 835 S. 11th St, Corvallis, Oregon. *Analytical chemistry.* Tipton, Ind, June 26, 85. B.S, Purdue, 08, M.S, 10, Ph.D, 31. Asst. chemist, bur. chem, U. S. Dept. Agr, 10–12, U. S. Forest Service, Wis, 12–13; instr, high sch, Colo, 15–17; head dept. chem, high sch, Utah, 17–20; instr. anal. and gen. chem, *Oregon State Col,* 20–24, asst. prof. *anal. chem,* 24–34, *assoc. prof, 34–* Chem. Soc. (sec'y, Oregon sect, 33). Spectrophotometry of solutions.

Mehlin, Prof. Theodore G(refe), Williams College, Williamstown, Mass. *Astronomy.* Des Moines, Iowa, June 13, 06. A.B, Drake, 27, A.M, 30; Chicago, 30, 31; Ph.D, Yale, 35. Instr. *astron,* Drake, 27–30, asst. prof, 30–31; asst, Amherst Col, 31–32; Yale, 35–36; asst. prof, Drake, 36–38, assoc. prof, 38–40, prof, 40–42; *assoc. prof, Williams Col, 42–* Astron. Soc. Photoelectric photometry.

Mehlquist, Dr. Gustav A(rthur) L(eonard), University of California at Los Angeles, Los Angeles, Calif. *Floriculture.* Eskilstuna, Sweden, April 13, 06. B.S, Connecticut, 36; Ph.D, California, 39. Research asst, California, 36–38, assoc, 38–39; *instr. floricult, California at Los Angeles, 39–, jr. floricultur-*

ist, Exp. Sta. Soc. Hort. Sci. Genetics of garden plants; interspecific hybridization; inheritance of disease resistance.

Mehrhof, Prof. N(orman) R(ipley), University of Florida, Gainesville, Fla. *Poultry husbandry.* Ridgefield Park, N. J, Dec. 13, 99. B.S, Rutgers, 21; M.Agr, N. C. State Col, 25. Exten. poultryman, Clemson Col, 21–23; asst. prof. poultry husbandry, Rutgers, 23–24; exten. poultryman, *Florida,* 24–35, *prof. poultry husbandry and head div. poultry, 35–* Sec'y, Fla. Poultry Council, 37. Poultry Sci. Asn; Poultry Asn; Asn. South. Agr. Workers. Poultry raising in South Carolina; care and management of baby chicks; poultry houses and equipment; culling for egg production; growing healthy chicks and pullets; shark liver oil; citrus meal; calcareous materials.

Mehring, Arnon L(ewis), 4510 Longfellow St, Hyattsville, Md. *Chemistry.* Littlestown, Pa, April 11, 92. A.B, George Washington, 22. Chem. laboratorian, bur. animal indust, *U. S. Dept. Agr,* 20–22, junior chemist and assoc. chemist, bur. chem. and soils, 22–40, assoc. chemist and *chemist, bur. plant indust, 40–,* consultant, office agr. war relations, 41–43. Trustee, Hyattsville Library, 35– Chem. Soc; fel. Inst. Chem. (sec'y, Wash. chap, 29, 30, pres, 32); Agr. Chem. Ash content of spices; iodine number of fats and oils; volatilization of phosphoric acid and potash; electric resistance furnaces; flow of comminuted solids; segregation of mixtures; fertilizer technology.

Mehrlich, Dr. F(erdinand) P(aul), P. O. Box 3380, Honolulu, Hawaii. *Plant pathology, Plant physiology.* Cincinnati, Ohio, 05. A.B, Butler, 27; Ph D, Wisconsin, 30. Teaching fellow bot, California, 27–28; asst. plant physiol, Wisconsin, 28–30; path, Exp. Sta, Asn. Hawaiian Pineapple Canners, 30–35; sci. adviser, *Hawaiian Pineapple Co,* 35–43, *director research, 43–* Summer, instr, Butler, 28. A.A; Phytopath. Soc; Soc. Plant Physiol. Food technology; product improvement and development; agricultural research and planning; diseases of pineapple plants.

Mel, Prof. Alexis I(talo), S.J, University of San Francisco, San Francisco, Calif. *Seismology.* San Francisco, Calif, Aug. 8, 98. A.M, Gonzaga, 23; S.T.D, Gregorian, 30; Ph.D, California, 42. Instr. physics, high sch, Calif, 24–26; *asst. prof. ethics, San Francisco,* 31–33, *physics, 41–* Physical Soc; Seismol. Soc; Geophys. Union. Ratio of the amplitudes of reflected seismic waves to those of direct waves as a possible means of distinguishing between the geological structure under the Pacific Ocean and that in other regions of the earth's crust.

Meier, Dr. A(lbert) H(enry), 2212 Sherman Ave, Evanston, Ill. *Entomology.* Nashville, Ill, March 4, 03. A.B, Ill. Col, 27; M.S, Northwestern, 29, M.D, 36; Ph.D, Ohio State, 32. Instr. biol, Col. of Wooster, 28–29; zool, Ohio State, 29–31; supt, North Shore Mosquito Abatement Dist, Glencoe, Ill, 31–38; *practicing physician, 38–; instr. med, med. sch, Northwestern, 38–* Mem. attending staff, Wesley Mem. Hosp, Chicago, Ill. Am. Med. Asn. Mosquito control; larvicides.

Meier, Dr. Dorothy, Hunter College, New York, N. Y. *Botany.* Griggsville, Ill, Jan. 15, 04. A.B, Wellesley Col, 26; A.M, Columbia, 30, Ph.D, 34. Teacher, *dept. biol,* high sch, Mass, 26–29; instr, *Hunter Col,* 30–40, *asst. prof, 40–* Summer, asst, Columbia, 30. A.A; Asn. Biol. Teachers; Torrey Bot. Club. Zoology.

Meier, Prof. Henry F(rederick) A(ugust), Syracuse University, Syracuse, N. Y. *Botany.* Edwardsport, Ind, Jan. 7, 81. A.B, Indiana, 12, A.M, 13; Ph.D, Columbia, 20. Teacher, secondary schs, 04–11; teaching fellow, Indiana, 11–12; assoc. prof. and *prof.* bot, *Syracuse,* 12–29, *forest bot. and head dept. forest bot. and path, N. Y. State Col. Forestry, 29–* Asst, Columbia, 15–16; prof, Puerto Rico, 27–28. Summers, instr, Indiana, 11–13. A.A; Bot. Soc; Soc. Plant Physiol. Tree physiology; cellular physiology; inorganic salt requirements.

Meier, Dr. J(ohann) H(ans), 1006 Emerson Ave, South Milwaukee, Wis. *Engineering.* Zurich, Switzerland, Oct. 9, 13. B.A, Zurich State Col, 32; M.S, Swiss Fed. Inst. Tech, 36; M.S, Mass. Inst. Tech, 38, Sc.D, 39. Asst. civil eng, Mass. Inst. Tech, 38–39; *research engineering, Bucyrus-Erie Co, 41–* Mathematics; civil and mechanical engineering; measuring and recording static and dynamic strains; mathematical analysis of machinery stress; vibration recording; determination of efficiency of machinery.

Meier, Dr. J(ohn) W(arren), 14 Chapin Parkway, Buffalo, N. Y. *Organic chemistry.* Madison, Wis, Jan. 26, 16. B.S, Wisconsin, 38; Ph.D, Illinois, 42. Asst. chem, Illinois, 34–38; *research chemist, rayon dept, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Vinyl polymers; polyamides; dissociation of triarylethanes.

Meier, Prof. Norman C(harles), University of Iowa, Iowa City, Iowa. *Psychology.* Carrollton, Mo, Feb. 22, 93. Ph.B, Chicago, 21, A.M, 22; Ph.D, Iowa, 26. Asst. *psychol, Iowa,* 22–23, instr, 23–25, assoc, 25–27, asst. prof, 27–29, *assoc. prof, 29–* Tech. adviser, Am. Inst. Pub. Opinion. A.A; Psychol. Asn; Iowa Acad. Social, political, advertising and genetic studies in the psychology of art; genetic and experimental studies in the nature and measurement of artistic capacity; art judgment test; public opinion measurement; propaganda; collective thinking; social development of ideas and policies.

Meier, Dr. W(illiam) H(erman) D(iedrich), R. D. 1, Upper Ferry Road, Trenton, N. J. *Biology.* Bluffs, Ill, March 24, 68. Diploma, Ill. State Nor. Univ, 96; A.M, Harvard, 12, Ph.D, 19. Teacher, rural schs, Ill, 86–91; sch. supt, Ill, 96–09; instr, Harvard, 10–11; head dept. biol, Mass. State Teachers Col, Framingham, 11–39; *retired.* Botany; zoology.

Meighan, Dr. M(erl) H(arold), 2532 Washington St, Allentown, Pa. *Chemical engineering.* Britt, Iowa, March 28, 95. B.S, 17, A.M, 20; Ph.D, Columbia, 24. Junior physical chemist, U. S. Bur. Mines, 17–19; chem. engineer, West. Elec. Co, Chicago, 24–26; research chemist, Abitibi Power and Paper Co, Ont, 26–28; chem. engineer, research div, Lehigh Portland Cement Co, Allentown, 28–32; research director, Metals Disintegrating Co, 32–35; *chief chemist, Whitehall Cement Mfg. Co, 35–* Chem. Soc. (chairman, Lehigh Valley sect, 32). Sodium pyrogallate as an absorbent for oxygen; analysis of methyl chloride; chlorination of natural gas; caustic soda process of extracting low temperature phenols.

Meigs, Dr. Frederick M(adison), 277 Park Ave, New York, N. Y. *Chemistry.* Quincy, Ill, April 26, 06. B.S, Chicago, 27, Ph.D, 30. *Chemist, E. I. du Pont de Nemours and Co, 30–* Chem. Soc.

Meigs, Prof. Peveril, 3rd, 246 W. Fifth Ave, Chico, Calif. *Geography, Anthropology.* Flushing, N. Y, May 5, 03. A.B, California, 25, Ph.D, 32. Teaching fellow, California, 25–28; instr, Calif. State Teachers Col, San Francisco, 29; asst. prof. *geog, Chico State Col, Calif,* 29–32, assoc. prof, 32–41, *prof, 41–; mem. staff, Office Strategic Services, 42–* Visiting prof, Louisiana, 38–39. Summers, expeds, Baja Calif, Mex, 25–29, 36; Social Sci. Research Council grant, exped, east. and south. U. S, 39. A.A; fel. Am. Geog. Soc; Asn. Geog; Asn. Sci. Workers; Asn. Pacific Coast Geog. (sec'y, 38, pres, 39). Historico-regional geography; cultural anthropology; agricultural geography.

Meikle, G(eorge) Stanley, Purdue University, Lafayette, Ind. *Engineering.* Milton Mills, N. H, May 30, 86. Worcester Polytech, 06–09; B.E, M.C.S, Union (N. Y), 13. Dist. manager's staff, safety eng, and asst. dist. mech. engineer, U. S. Steel Corp, 09–12; research engineer, research lab, Gen. Elec. Co, Schenectady, 12–17; consulting research engineer with G. S. Meikle Co, New York, for U.S.A. and Gen. Elec. Co, 19–25; research consultant, Honeywell Heating Specialties Co, 26–28; *director research relations with indust, Purdue, 28–, research director, research foundation, 30–* C.W.S, 17–19. A.A. Flow of heat through furnace walls; hot cathode mercury and inert gas filled rectifiers; rare gases; nitrogen filled lamps; oil burning devices; submarine detection devices; gas masks; combustion devices.

Meiler, Dr. John G(eorge), 136 Eau Claire Blvd, Wausau, Wis. *Chemistry.* Chicago, Ill, Jan. 8, 04. B.S, Chicago, 25, Ph.D, 29. Instr. chem, Nebraska, 28–30; *research chemist,* A. O. Smith Corp, Milwaukee, 30–33; *Marathon Paper Mills Co, Rothschild, Wis, 33–* Photochemical and electronic decomposition of potassium chlorate.

Mein, William Wallace, 315 Montgomery St, San Francisco, Calif. *Mining engineering.* Nevada City, Calif, July 19, 73. B.S, California, 00. Mine manager, S. Africa, and consulting engineer, London, 00–10; director, Int. Nickel Corp, and consulting engineer, 11–12; *pres, Bishop Oil Co; Calaveras Cement Co, 25–; v. pres. and director, N. Am. Investment Corp; director, Mariposa Commercial and Mining Co, 22–; Bank of Amer; Occidental Life Ins. Co.* Asst. sec'y to U. S. Sec'y Agr, 18. Min. and Metal. Eng; Min. and Metal. Soc; Can. Inst. Min. and Metal; S. African Inst. Eng.

Meinecke, Dr. E(milio) P(epe) Michael, U. S. Forest Service, 446 Phelan Bldg, San Francisco, Calif. *Forestry.* Alameda, Calif, July 26, 69. Ph.D, Heidelberg, 93. Asst, Bot. Inst, Heidelberg, 94; Royal Forestry Exp. Sta, Munich, 98–02; prof, Univ. and Museum La Plata; prin. pathologist, bur. plant indust, U. S. Dept. Agr; *retired.* A.A; Bot. Soc; Phytopath. Soc; Soc. Nat; Mycol. Soc; Soc. Foresters; West. Soc. Nat; Calif. Acad. (councilor, 2nd v. pres, 38); Soc. mycol. de France; Soc. de Path. vég. et d'Entom. agr; Soc. Etudes océan. Tahiti. Forest pathology; anatomy and pathology of plants; physiology of fermentation; general phytopathology; physiological plant diseases.

Meiners, Dr. Henry C(ito), 814 Santa Fe Ave, Albany 6, Calif. *Chemical engineering.* Pendleton, Oregon, Feb. 11, 16. B.S, Oregon State Col, 38; Sc.D, Mass. Inst. Tech, 42. Asst, Mass. Inst. Tech, 38–42; *process supervisor Oleum ref, Union Oil Co, Calif, 42–* Chem. Eng; Chem. Soc. Solubility of ethylene in cuprous salt solutions.

Meinert, Dr. Richard N(orman), 564 Sherwood Parkway, Westfield, N. J. *Chemistry.* Winona Co, Minn, March 28, 06. B.S, Franklin and Marshall Col, 27; M.S, Northwestern, 28, Ph.D, 30. Instr. chem, Brown, 30–36; *research chemist, Esso labs, Standard Oil Develop. Co, 36–* Chem. Soc. Thermal decompositions of hydrocarbons; petroleum chemistry.

Meinzer, Dr. O(scar) E(dward), 2923 South Dakota Ave, N. E, Washington 18, D. C. ***Geology.* Near Davis, Ill, Nov. 28, 76. A.B, Beloit Col, 01; fellow, Chicago, 06–07, Ph.D, 22. Prin, pub. sch, S. Dak, 01–03; prof. physical sciences, Lenox Col, 03 05; *U. S. Geol. Surv, 06–, in charge div. ground water, 12–* Instr, correspondence sch, Chicago, 06–08. Bowie medal, Am. Geophys. Union, 43. Capt, C.Eng, 18. A.A; Geol. Soc; Soc. Econ. Geol. (v. pres, 43); Water Works Asn; Geophys. Union (chairman, sect. hydrol, 30–33); Geol. Soc. Wash. (pres, 30); Wash. Acad. (pres, 36); Int. Union Geod. and Geophys. (pres, int. cmn. subterranean water, 36–). Hydrology, especially relating to ground water.

Meisel, Max, 4444 Post Ave, Miami Beach, Fla. *Bibliography.* Brooklyn, N. Y, Dec. 25, 92. B.S, Col. City of N. Y, 14; B.L.S, N. Y. State Library Sch, 16. Asst, science div, N. Y. Pub. Library, 16–17; *v. pres, Hall-Mark Elec. Supply Co, 21–* Librarian, Am. Library Asn, War Service, 18–20. Oberly prize, Am. Library Asn, 24. A.A; Hist. Sci. Soc. Bibliography of American natural history.

Meister, Dr. Morris, 315 Riverside Drive, New York, N. Y. *Education, Science.* Poland, Oct. 20, 95. B.S, Col. City of N. Y, 16; A.M, Columbia, 17, Ph.D, 21. Instr, Teachers Col, Columbia, 18–22; head dept. science, New York Teacher Training Col, 22–33; instr, sch. educ, Col. City of N. Y, 22–40; head dept. science, Haaren High Sch, *New York,* 33–36, director, junior high schs, 36–38; *prin, High Sch. of Science, 38–* Ed, 'Sci. Classroom.' A.A; Nat. Asn. Research Sci. Teaching; Am. Inst. (trustee, board managers); Sci. Teachers Asn. (director, 37, pres, 42); N. Y. Acad; N. Y. Physics Club (pres, 21). Elementary science; retardation; values of science clubs.

Meister, Walter F(rederick), 41 Georgian Court, Elizabeth, N. J. *Chemistry.* St. Louis, Mo, Sept. 25, 91. B.S, Washington (St. Louis), 16. Control chemist, Eagle-Picher Lead Co, Joplin, Mo, 16–19; chief chemist, St. Louis Lithopone Co, Collinsville, Ill, 23–27; *research chemist,* United Color and Pigment Co, Newark, *N. J,* 27–37; *titanium div, Nat. Lead Co, South Amboy, 37–* Chem. Soc. Pigments; lead; zinc; cadmium; selenium and titanium.

Melter, Dr. Edward G(eorge), Employers Mutual Liability Insurance Co, Milwaukee, Wis. *Chemistry.* Salem, Ohio, June 11, 98. B.S, Mt. Union Col, 20; M.S, Ohio State, 21, Ph.D, 23. Asst. chem, Ohio State, 20–23; asst. physical chemist, U. S. Bur. Mines, 23–28, assoc. chemist, 28–32; *director indust. hygiene lab, Employers Mutual Liability Ins. Co, 32–* A.A; Chem. Soc; Pub. Health Asn; Inst. Chem; Indust. Hygiene Asn; Soc. Safety Eng; N. Y. Acad. Industrial hygiene; industrial gases; adsorption of gases; atmospheric pollution; suspensoids in air; ventilation; gas masks; dust respirators; safety engineering; dust problem in industry; health hazards in industry.

Mekeel, Dr. A(my) Grace, R. D. 3, Trumansburg, N. Y. *Zoology.* Jacksonville, N. Y, Nov. 15, 85. A.B, Cornell, 10, A.M, 19, Ph.D, 30. Asst. instr. *zool, Cornell,* 17–19, *instr, 19–* Pulmonary vestiges in the lungless salamander.

Mekeel, Dr. (Haviland) Scudder, University of Wisconsin, Madison, Wis. *Anthropology.* St. Louis, Mo, April 30, 02. Calif. Inst. Tech, 20–21; Princeton, 21–24; Strasbourg, 25–26; B.S, Harvard, 28; A.M, Chicago, 29; Ph.D, Yale, 32. Asst. anthrop, Inst. Human Relations, and mem. faculty, Yale, 29–33; research fellow psychol, psychol. clinic, Harvard, 33–35; field rep. of commissioner of Indian affairs and in charge applied anthrop, bur. Indian affairs, U. S. Dept. Interior, 35–37; director, Lab. Anthrop, 38–41; *assoc. prof. sociol. and anthrop, Wisconsin, 40–* Social Science Research Council fellow, 32–34; acting director socio-econ. staff, soil conservation service, U. S. Dept. Agr, 36; lecturer, New Mexico, 38–39; consultant, Julius Rosenwald Fund, 43–44. Summer, fellow ethnol. sect, Lab. Anthrop, Santa Fe, 29. A.A; Anthrop. Asn; Sociol. Soc; Asn. Mus; Folklore Soc; Inst. Pacific Relations. Social and applied anthropology; culture change and human adjustment to culture; psychoanalytic approach to culture; psychology of race prejudice.

Melampy, Dr. R(obert) M(aurice), University Station, Baton Rouge, La. *Physiology.* Lebanon, Ohio, April 1, 09. B.S, Wilmington Col, 30; fellow, Haverford Col, 30–31, A.M, 31; Ph.D, Cornell, 35. Asst. animal nutrition, Cornell, 31–35; asst. physiologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 36–41; asst. prof. *zool, Louisiana,* 41–42, *assoc. prof, 42–; Sanit. Corps, U. S. Army.* A.A; Soc. Zool; Soc. Exp. Biol; Chem. Soc; La. Acad. Analytical chemistry; animal nutrition; experimental zoology.

Melander, Dr. A(xel) L(eonard), 4670 Rubidoux Drive, Riverside, Calif. **5*Biology.* Chicago, Ill, June 3, 78. B.S, Texas, 01, fellow, 01–02, M.S, 02; fellow, Chicago, 02–04; Sc.D, Harvard, 14. Asst. zool, Texas, 00–01; instr. entom, State Col. Wash, 04–06, prof, 06–26, head dept. zool, 07–26, asst. entomologist, Exp. Sta, 04–06, entomologist, 06–26; prof. *biol.* and head dept, *Col. City of N. Y,* 26–43, *emer. prof, 43–* Staff, Marine Biol. Lab, Woods Hole, 02; Puget Sound Marine Sta, 09; Cold Spring Harbor, 13, 27; research assoc, California, 34–35, 43– A.A; Entom. Soc. (pres, 38); Soc. Zool; Soc. Nat; Asn. Econ. Entom; Am. Acad; N. Y. Entom. Soc. (pres, 34); N. Y. Acad; Brooklyn Entom. Soc. Taxonomy of insects; Diptera; Empididae; economic entomology; insecticides; fossil insects.

Melander, Dr. Leonard W(illiam), 1439 Hythe St, St. Paul, Minn. *Pathology.* Red Wing, Minn, Oct. 21, 93. B.S, Minnesota, 21, M.S, 24, Ph.D, 30. *Assoc. pathologist and state leader barberry eradication, Minn, bur. entom. and plant quarantine, U. S. Dept. Agr, 20–* Phytopath. Soc. Stem rust of grains; Puccinia graminis.

Melass, Dr. V(ivian) H, Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Johannesburg, S. Africa, Sept. 11, 10. Dipl, Potchefstroom Sch. Agr. (S. Africa), 30; B.S, Cornell, 35, Ph.D, 38; M.S, Kans. State Col, 36. Asst. poultryman, Potchefstroom Sch. Agr. (S. Africa), 30–31; asst. animal husbandry, Cornell, 37–38; instr, *Agr. and Mech. Col. Texas,* 38–41, *poultry husbandman, Exp. Sta, 41–* Physiology; experimental fattening of cattle; nutrition of the stiff lamb disease.

Melaven, Prof. A(rthur) D(avid), University Station, Knoxville, Tenn. *Inorganic chemistry.* Rapid City, S. Dak, Feb. 10, 07. B.S, S. Dak. Sch. Mines, 29; M.S, Pa. State Col, 32, Ph.D, 35. Anal. chemist, research labs, Aluminum Co. Amer, 29–31; *asst. prof. chem, Tennessee, 35–* A.A; Chem. Soc. The sorption of acids and bases by hide substance; extraction of rhenium from a domestic molybdenite roaster flue dust; chemistry of rhenium.

Melaven, Dr. Ralph M(ichael), 8922 Kennedy Ave, Highland, Ind. *Physical chemistry.* Rapid City, S. Dak, Dec. 8, 05. B.S, S. Dak. Sch. Mines, 28; M.S, Ohio State, 30, Ph.D, 31. Asst. chem, Ohio State, 28–30, physical chem, 30–31; asst. prof, Mont. State Col, 31–34; mem. research lab. staff, *Standard Oil Co. of Ind,* 34–41, *foreman* asphalt dept, 41–43, *heavy oils dept, 43–* Chem. Soc. Extraction of alumina from clay; viscosity of gases and the determination of the size and shape of hydrocarbon molecules; diffusion of ions through glasses; ammonium ions; seasonal balancing of gasolines; manufacture of gasoline; manufacture and recovery of H_2SO_4; production and refining of lubricating oils and medicinal oils.

Melcher, Arthur C(larke), 58 Bowen St, Newton Center, Mass. *Chemistry.* Newton Center, Mass, June 26, 80. B.S, Mass. Inst. Tech, 00. Asst, *Mass. Inst. Tech,* 00–04, research assoc, 04–14, purchasing agent, 14–22, *manager div. lab. sup-*

plies, 22– A.A; Chem. Soc; Soc. Chem. Indust. Apparatus and chemicals.

Melchers, Prof. L(eo) E(dward), Kansas State College, Manhattan, Kans. *Botany.* Toledo, Ohio, Aug. 1, 87. B.S, Ohio State, 12, M.S, 13. Asst. botanist, Ohio Exp. Sta, 13; asst. bot, *Kans. State Col,* 13, instr, 14–19, *prof. and head dept. bot. and plant path, 19–,* acting plant pathologist, *Exp. Sta,* 14–19, *plant pathologist, 19–* Botanist, State Board Agr, Kans; chief mycologist, Ministry of Agr, Egypt, 27–29. A.A; Bot. Soc; Phytopath. Soc. Plant pathology; diseases of cereals, forage crops and vegetables.

Meldrum, Prof. W(illiam) Buell, Haverford College, Haverford, Pa. *Chemistry.* Hull, Que, Can, Dec. 18, 87. B.A, McGill, 09, M.Sc, 10, 1851 Exhib. scholar, 12–14; Ph.D, Harvard, 14. Demonstrator chem, McGill, 09–11; instr, Montreal Tech. Inst, 10–11; Austin teaching fellow, Harvard, 11–12; instr. *chem,* Vassar Col, 14–16, asst. prof, 16–17; *Haverford Col,* 17–26, *John Farnum prof, 26–* Geophys. lab, Carnegie Institution, 19. Summers, chemist, mines branch, Can. Civil Service, 09, 13, irrig. branch, 15. C.W.S, U. S. A, 18–19, price sect, W.T.B, 19. A.A; Chem. Soc. (chairman, Phila. sect, 37–); Franklin Inst. (assoc. ed, 'Jour'); Asn. Sci. Teachers Middle States (pres, 24); Pa. Acad; Asn. Harvard Chemists. Electrochemistry; theoretical and qualitative chemistry; analytical and physical chemistry; phase rule; melting points of salts; analytical methods.

Meleney, Prof. Frank L(amont), 180 Ft. Washington Ave, New York, N. Y. *Surgery.* Somerville, Mass, Sept. 25, 89. A.B, Dartmouth Col, 10; M.D, Columbia, 16. Instr. surg, Columbia, 19–20; assoc, Peking Union Med. Col, 20–24, assoc. prof, 24–25; assoc, *Columbia,* 25–28, asst. prof, 28–38, *assoc. prof. clin. surg, 38–* Assoc. visiting surgeon, Presb. Hosp, New York. A.A; Soc. Clin. Surg; Surg. Asn; Col. Surg. Bacteriology in surgery; surgical infections.

Meleney, Prof. Henry E(dmund), 477 First Ave, New York, N. Y. *Public health.* Paterson, N. J, Sept. 3, 87. A.B, Dartmouth Col, 09; M.D, Columbia, 15. Res. pathologist, Presb. Hosp, New York, 19–20; assoc. path, Peking Union Med. Col, 20–22, med, 22–24, assoc. prof, 24–27; prev. med. and pub. health, Vanderbilt, 27–41; *prof. prev. med, N. Y. Univ, 41–* Assoc. epidemiologist, State Dept. Pub. Health, Tenn, 28–34; consultant trop. diseases to U. S. Sec'y War, 42– Chairman subcmt. trop. diseases, Nat. Research Council, 41– M.C, 17–19, capt. A.A; Soc. Trop. Med. (sec'y-treas, 31–34, pres, 35, councilor, 38–41); Acad. Trop. Med; Soc. Parasitol. (councilor, 33–36, v. pres, 39, pres, 42, 43); Am. Med. Asn; Malaria Soc; Pub. Health Asn; South. Med. Asn; N. Y. Acad. Med; Harvey Soc; fel. Royal Soc. Trop. Med. and Hygiene; cor. mem. Soc. de Path. exot. Tropical medicine; parasitology; schistosomiasis; kala-azar; relapsing fever; malaria; amoebiasis; typhus; histoplasmosis; pathological anatomy; public health.

Melhus, Prof. Irving E, Iowa State College, Ames, Iowa. **Plant pathology.* Creston, Ill, April 2, 81. B.S, Iowa State Col, 06; Ph.D, Wisconsin, 12. Teacher, high sch, Iowa, 07–08; asst. bot, Wisconsin, 08–09, plant path, 09–10, instr, 10–11; plant pathologist, bur. plant indust, U. S. Dept. Agr, 12–16; assoc. prof. *plant path, Iowa State Col,* 16–17, *prof, 17–,* chief, 16–30, *head dept. bot, 30–, head sect. bot. and plant path, 30–; state botanist, Iowa, 37–* Assoc. ed, 'Phytopath,' 18–20. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc. (v. pres, 19, councilor, 22–27, pres, 26); Crop Protection Inst. (mem. board governors, 26–28, 33–35); Upper Miss. Valley Plant Path. (chairman war service cmt, 41–). Plant diseases caused by Phycomycetes; phenomena of parasitism.

Melick, Dr. C(lark) O(wen), 2376 E. 71st St, Chicago, Ill. *Medicine.* Mt. Perry, Ohio, April 25, 86. B.S, Ohio, 10; fellow, Chicago, 15–17, Ph.D, 22, M.D, Rush, 22. Prof. biol, Mo. Wesleyan Col, 11–14; instr. *prev. med, Chicago,* 17–23, *asst. prof, 23–* Intern, Presb. Hosp, Chicago, 22–23; assoc. attending physician, S. Shore Hosp, 27–; Ill. Cent. Hosp, 31–; St. Luke's Hosp, 32– Am. Med. Asn; Pub. Health Asn. Typhoid infection through vegetables; preparation of bacterial antigens; serological diagnosis of tuberculosis.

Mellan, Ibert, 6851 S. Chappel Ave, Chicago, Ill. *Chemistry.* Philadelphia, Pa, July 4, 01. Ph.G, Phila. Col. Pharmacy, 23, B.S, 26, M.S, 27; Temple. *Research chemist,* John Wyeth and Brother, 36–42; *Armour Research Foundation, 42–* Chem. Soc; Pharmaceut. Asn. Organic and inorganic chemistry; industrial solvents; organic reagents.

Mellenbruch, Prof. Parl L(eslie), 302 Bishop St, Oxford, Ohio. *Psychology.* Fairview, Kans, 96. A.B, Midland Col, 17; A.M, Kansas, 20; fellow, Nebraska, 21–23, Ph.D, 24. *Prof.* educ. and psychol, *Wittenberg Col,* 23–27, psychol, 27–32, director psychol. clinic, 27–32; court psychol. adviser, 23–42; *prof. psychol, Miami (Ohio), 42–; personnelist, Air Service Command, Wright Field, Dayton, Ohio.* Psychol. Asn. Clinical psychology; abnormal psychology; statistics.

Mellencamp, Dr. F(rank) J(ohn), State Teachers College, Milwaukee, Wis. *Electrochemistry.* Grass Lake, Mich, April 20, 71. A.B, Michigan, 03, A.M, 06, Ph.D, 09. Instr. physics, Mich. State Nor. Col, 03–04; asst, Michigan, 04–07, instr, 07–13; *head dept. physics and math, Milwaukee State Teachers College, 13–,* acting pres, 22–23. Assoc. Physical Soc. Concentration cells.

Mellish, Dr. Charles H(enry), Lincoln Laboratories, Inc, 113 S. Oakland Ave, Decatur, Ill. *Physiology, Pharmacology.* Denver, Colo, April 9, 09. A.B, Denver, 32; M.S, Oklahoma, 34, Ph.D, Wisconsin, 37. Asst. zool, Oklahoma, 32–34; instr, Wisconsin, 34–37, research fellow anesthesia and physiol, med. sch, Wisconsin, 37–38; director pharmacol, Lakeside Labs, Inc, Milwaukee, Wis, 37–42; *v. pres. and director labs, Lincoln Labs, Inc, 43–* Asn. Study Int. Secretions. Endocrinology; physiology of reproduction; gonad stimulating substances; anti-hormones; estrogens; progestin; adrenal cortical hormones; sympathomimetic amines and antagonists; anesthetics; salicylates; mercury diuretics.

Mellon, Prof. M(elvin) G(ay), Purdue University, Lafayette, Ind. *Chemistry.* Conneaut Lake, Pa, Oct. 25, 93. B.S, Allegheny Col, 15, Sc.D, 40; M.S, Ohio State, 17, Ph.D, 19. Asst. instr. chem, Ohio State, 15–18, instr, 18–19; asst. prof. quant. anal, *Purdue,* 19–25, assoc. prof. *anal. chem,* 25–31, *prof, 31–* A.A; Chem. Soc; Soc. Test. Mat; Optical Soc; Inter-Soc. Color Council; Ind. Acad. (pres, 42). Analytical chemistry; colorimetric measurements; analytical methods; spectrophotometry; chemical literature.

Mellon, Dr. Ralph R(obertson), 6055 Bunker Hill Drive, Pittsburgh, Pa. *Bacteriology, Pathology.* Pittsburgh, Pa, Feb. 1, 83. B.S, Grove City Col, 01, hon. Sc.D, 36; M.D, Michigan, 09, M.S, 12; Dr.P.H, Harvard, 16. Instr. physical diagnosis and director lab. clin. path, Michigan, 09–13, asst. prof, 13–14; *director* dept. labs, Highland Hosp, Rochester, 16–27; *inst. path, West. Pa. Hosp; infectious disease researches, Mellon Inst, 27–* A.A; Soc. Bact. (councilor, 32); Asn. Path. and Bact; Asn. Immunol; Soc. Exp. Biol. Microbic heredity and microbic variability; wound healing and burns; chemotherapy against infectious diseases; pneumonia and streptococcal infections.

Mellors, Dr. Robert C(harles), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Physiological chemistry.* Dayton, Ohio, June 18, 16. A.B, Western Reserve, 37, A.M, 38, Ph.D, 40; M.D, Hopkins, 43. Teaching fellow biochem, sch, med, Western Reserve, 37–40, instr, 40–42; *research, dept. epidemiol, sch. hygiene and pub. health, Hopkins, 42–* Research, John and Mary R. Markle Foundation, New York, 40–42. Mem, Nat. Foundation Infantile Paralysis Research, 43– Experimental surgery; pre- and post-operative care of surgical patients; production and study of surgical conditions in experimental animals; virus diseases of the nervous system; poliomyelitis.

Melnick, Dr. Daniel, Food Research Laboratories, Inc, 48-14 33rd St, Long Island City, N. Y. *Biochemistry.* Boston, Mass, Jan. 4, 10. Ph.B, Yale, 31, Ph.D, 36. Coxe fellow, Yale, 36–37; research assoc. vitamin res, Michigan, 37–40; *chief chemist, Food Res. Labs, Inc, 40–* Chem. Soc; Inst. Chem; Soc. Biol. Chem; Inst. Nutrition; Asn. Cereal Chemists. Serum protein formation; protein metabolism; blood transfusions; methods for chemical determination of vitamins; vitamin metabolism in normal and pathological subjects; nutrition; foods.

Melnick, Dr. Joseph L(ewis), Yale University School of Medicine, New Haven, Conn. *Biochemistry.* Boston, Mass, Oct. 9, 14. A.B, Wesleyan, 36; univ. scholar, Yale, 38–39, Ph.D, 39. Asst. physiol. chem, sch. med, *Yale,* 37–39, Finney-Howell Research Foundation fellow, 39–41, nat. research fellow, 41–42, *instr. prev. med, sch. med, 42–* Enzyme chemistry; protein chemistry; biological oxidations; chemistry of viruses.

Melnick, Dr. Perry J(ulius), Chief of Laboratory Service, Station Hospital, Pasadena, Calif. *Pathology.* Lublin, Po-

land, May 6, 01. B.S, Illinois, 27, M.S, 29, M.D, 30, Ph.D, 36. Instr. *path, col. med, Illinois,* 30–34, *assoc, 34–; major, Med. Corps, U. S. Army.* Res. surgical pathologist, Cook County Hosp, 31–34, chief res. pathologist, 34–35; instr, Cook County Grad. Sch. Med, 31–35; clin. fellow, Nat. Cancer Inst, 38; pathologist, Ill. Masonic Hosp; St. Therese's Hosp; cancer control div, State Health Dept, Ill, 40–42. Third award, Int. Cong. Radiol, 37. A.A; Asn. Path. and Bact; Soc. Clin. Path; Am. Med. Asn; Col. Physicians; Ill. Soc. Path. (v. pres, 40); Chicago Path. Soc. Tumor morphology; radiation therapy; histogenesis of malignant tumors; relation of hormones to ovarian tumors; hemorrhagic diatheses; cancer; histologic changes in irradiated tumors; time factor in irradiation of tumors; preoperative irradiation in breast cancer.

Meloche, Prof. C(lifford) C(yrille), 3060 Dover Road, Ann Arbor, Mich. *Chemistry.* Port Huron, Mich, July 21, 86. A.B, Wisconsin, 10, A.M, 11, Ph.D, 14. Asst. quant. anal, Wisconsin, 11–14; instr. chem, Pa. State Col, 15; *anal. chem, Michigan,* 15–19, *asst. prof, 19–* Consulting chemist, Ordnance Dept, U.S.A, 18. Chem. Soc. Inorganic and analytical chemistry; compounds of cerium and cesium; quantitative determination of zinc, cerium, bromine and dissolved gases.

Meloche, Prof. V(illiers) W(illson), 2146 Fox Ave, Madison, Wis. *Chemistry.* Port Huron, Mich, Dec. 31, 95. B.S, Wisconsin, 21, M.S, 23, Ph.D, 25. Chemist. Ill. Steel Co, 17–20; asst. *chem, Wisconsin,* 21–25, instr, 25–28, asst. prof, 28–36, assoc. prof, 36–39, *prof, 39–* Limnol. investigations, Wis. Geol. and Nat. Hist. Surv, 28– A.A; Chem. Soc. (sec'y, Madison sect, 28, chairman, Wis. sect, 36); Wis. Acad. Analytical and inorganic chemistry; chemistry of tellurium; selenium; selenic acid; selenates; quantitative determination of fluorine; microanalysis, particularly hydro-chemistry; precise analysis; polarography; spectrography.

Meloy, Dr. Carl R(idge), 47 Middlesex Road, Glenbrook, Conn. *Organic chemistry.* Detroit, Mich, Sept. 21, 12. B.S, Michigan, 32, M.S, 34; Ph.D, Mich. State Col, 42. Instr, Highland Park Junior Col, Mich, 34–42; *research chemist, Stamford research lab, Air Reduction Co, 42–* A.A; Chem. Soc. Condensation of methyl dipropyl carbinols with phenol; high pressure hydrogenation.

Melton, Major Arthur W(eever), Research Section, School of Aviation Medicine, Randolph Field, Texas. *Psychology.* Fayetteville, Ark, Aug. 13, 06. A.B, Washington (St. Louis), 28; A.M, Yale, 29, Ph.D, 32. Research assoc, Am. Asn. Museums, 30–32; asst, Inst. Human Relations, Yale, 32–34, instr. *psychol,* 34–35; assoc. prof, *Missouri,* 35–37, chairman dept, 35–41, *prof, 37–; major, U. S. Army, 41–* A.A. (sec'y, I, 41); Psychol. Asn. (cooperating ed, 'Bul,' 37–; consulting ed, 'Jour. Exp. Psychol,' 39–); Midwest. Psychol. Asn; Asn. Applied Psychol; South. Soc. Philos. and Psychol. Behavior studies of museum visitors; methodology of experimental studies of human learning and retention; inhibition in learning and forgetting; psychomotor tests in the selection and classification of aviation cadets.

Melton, Dr. F(rank) A(rmon), University of Oklahoma, Norman, Okla. *Geology.* Cuba, Kans, July 6, 96. B.S, Okla. Agr. and Mech. Col, 15; Missouri; Ph.D, Chicago, 24. Asst. *geol,* Columbia, 24–26; assoc. prof, *Oklahoma,* 26–39, *prof, 39–* Collaborator, soil conservation service, U. S. Dept. Agr, 35–36, soil conservationist, 36– A.A; fel. Geol. Soc. Geomorphology; ancestral Rocky Mountains; isostasy; jointing and tectonics of continental interior; use of aerial photographs in geologic exploration, mapping and teaching.

Melton, Romie L(ee), Carborundum Co, Niagara Falls, N. Y. *Electrical engineering.* Bessemer City, N. C, June 29, 04. B.S, N. C. State Col, 25, E.E, 35. Student engineer, Gen. Elec. Co, 25–27; sales service, Bailey Meter Co, 27–28; research engineer, Carborundum Co, 28–42; *capt, U. S. Army, 42–* Elec. Eng; Electrochem. Soc. Abrasives; coating methods and apparatus; adhesives; embedding cements; electrical furnaces; patents.

Meltzer, Dr. H(yman), Psychological Service Center, 4510 Maryland Ave, St. Louis, Mo. *Psychology, Education.* Russia, Sept. 1, 98. B.S, Illinois, 17; A.M, Columbia, 23, Ph.D, 25. Instr. psychol. Oregon State Col, 25–26, asst. prof, 26–27; psychologist, Psychiat. Clinic, St. Louis, 27–33; *lecturer psychol, Washington (St. Louis), 28–; director, Psychol. Service Center, St. Louis, 33–* Lecturer, Bayonne Hosp, 28. Summers, lecturer, Washington (St. Louis), 28–34; psychologist, Psychiat. Clinic, St. Louis, 25. Ed, 'Mental Health Observer,' 33–38. A.A; Psychol. Asn; Orthopsychiat. Asn. (v. pres, 34); Asn. Applied Psychol; Soc. Adv. Educ; Soc. Psychol. Study Social Issues; Nat. Cmt. Mental Hygiene; Midwest. Psychol. Asn; Mo. Asn. Mental Hygiene. Clinical, child guidance and personality problems; social and personnel psychology.

Melville, Prof. Carey E(yster), Clark University, Worcester, Mass. *Mathematics.* Baltimore, Md, April 4, 78. A.B, Northwestern, 01. Registrar, *Clark,* 14–32, assoc. prof. *math,* 18–43, *prof, 43–* A.A; Math. Asn.

Melville, Dr. Donald B(urton), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Biochemistry.* Netherton, Eng, Jan. 30, 14. B.S, Illinois, 36, M.S, 37, univ. fellow, 38–39, Ph.D, 39. Asst. *biochem,* Illinois, 36–38; *research asst, med. col, Cornell, 39–* Chem. Soc. Determination of structure and study of biological effects of biotin.

Melville, Dr. K(enneth) I(van), McGill University, Montreal, Que, Can. *Pharmacology.* Kingston, Jamaica, B. W. I, July 5, 02. B.Sc, M.D, McGill, 26, fellow, 26–28, M.Sc, 30. Nat. research fellow med, Univ. Paris and Inst. Pasteur, Paris, 28–30; lecturer *pharmacol, McGill,* 30–33, *asst. prof, 33–* Soc. Pharmacol. Pharmacology and toxicology of mercury; pharmacology of pituitary hormones.

Melvin, Dr. E(ugene) H(arold), U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Humeston, Iowa, Jan. 31, 06. B.S, California, 27, Ph.D, 30. Asst. chemist and assoc. chemist, bur. chem. and soils, and later *senior chemist, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 30–* Physical Soc; Optical Soc. Photochemistry; extreme ultraviolet spectroscopy; spectrochemical analysis.

Melvin, Dr. G(eorge) Spencer, 127 King St, W, Kingston, Ont, Can. *Physiology.* Montrose, Scotland, Oct. 7, 87. Ch.B, Aberdeen, 09, M.D, 12. Asst. exp. physiol, Aberdeen, 09–12, lecturer *physiol,* 12–14; *prof, Queen's (Can), 19–* British Army, 14–18. Physiol. Soc; British Med. Asn; Physiol. Soc. Gt. Britain. Blood pressure.

Melvin, John H(arper), 1560 Barr Ave, Crafton, Pittsburgh, Pa. *Geology.* Chillicothe, Ohio, Dec. 11, 06. A.B, Ohio Wesleyan, 31; A.M, Ohio State, 33; Iowa, 33–34. Asst. geol, Ohio State, 31–33; Iowa, 33–34; inspector core boring, U. S. Engineer Office, Zanesville, Ohio, 34, research geologist, Norfork Dam, Little Rock, Ark, 39–40; party chief, field eng. dept, Muskingum Watershed Conservancy Dist, Ohio, 34–39; geologist and foundation engineer, *Pa. Drilling Co,* 40–42, *treas, 42–* A.A; Am. Geog. Soc; Min. and Metal. Eng; assoc. Civil Eng; Pa. Acad. Engineering and economic geology; subsurface exploration; mineral prospecting; foundation geology; ground-water hydrology; silting of reservoirs; geology of dam sites in limestone areas.

Menaker, Dr. M(ortimer Harold), 5542 Raleigh St, Pittsburgh, Pa. *Biochemistry.* Wilkes-Barre, Pa, July 15, 14. B.S, Pa. State Col, 35, scholar, 35–36, stipend scholar, 36–39, M.S, 38, Ph.D, 41. Instr. physiol. chem, Pa. State Col, 40; *mem. staff develop. lab, Fisher Sci. Co, 41–* Chem. Soc. Dietary factors with the ascorbic acid excreted in the urine of the rat; use of solvent extraction for the separation of the component glycerides of coconut oil.

Menard, Dr. David F(ox), Wheeling Stamping Co, Wheeling, W. Va. *Organic chemistry.* Springfield, Mass, Feb. 10, 07. B.S, Dartmouth Col, 28; M.S, Pa. State Col, 31, Ph.D, 34. Research and control chemist, E. L. Patch Co, Boston, Mass, 28–30; research chemist, Fiberloid Corp, Indian Orchard, 34–36; E. R. Squibb and Sons, 37–38; *indust. fellow, Mellon Inst, 38–* Chem. Soc. Organic nitrogen compounds; nonferrous metallurgy; plastics.

Mencher, Prof. Ely, Ave. San Martin 369, Caracas, Venezuela, S. Amer. *Geology.* New York, N. Y, Dec. 14, 13. B.S, Col. City of N. Y, 34; Ph.D, Mass. Inst. Tech, 38. *Prof. geol, Univ. Cent. de Venezuela, 38–* Hon. curator paleont. y Conquiliologia, Museo de Hist. Nat, Caracas, 41– Miner. Soc; junior mem. Paleont. Soc; Soc. Venezolana de Ciencias Nat. Stratigraphy and geology of Venezuela.

Mendel, Dr. C(lifford) W(illiam), University of Illinois, Urbana, Ill. *Mathematics.* St. Louis, Mo, Sept. 16, 07. B.S, Chicago, 27, M.S, 28, Ph.D, 30. Instr. math, Chicago, 30–31; nat. research fellow, 31–33; instr. *math,* Cincinnati, 33–37; *assoc, Illinois, 37–* Math. Soc. Projective differential geometry.

Mendelsohn, Dr. Nathan Saul, Proof and Development Establishment, Valcartier, Que, Can. *Mathematics.* Brook-

lyn, N. Y, April 14, 17. B.A, Toronto, 39, fellow, 39–42, M.A, 40, Ph.D, 42. Supervisor, munitions gauge lab, Nat. Research Council, 42; *scientist, Proof and Develop. Estab, 42–* Math. Soc. Abstract algebra; a group-theoretic characterization of the general projective collineation group; ballistics.

Mendenhall, Dr. Elwyn E(ugene), 1269 Lincoln Ave, St. Paul, Minn. *Physical chemistry.* Grove City, Pa, June 11, 16. B.S, Grove City Col, 37; A.M, Western Reserve, 38, Ph.D, 40. Fellow urol, Cleveland Clinic Foundation; *research chemist, Econ. Lab, Inc.* Lecturer, Minnesota, 43– Chem. Soc; Minn. Indust. Chemists Forum. Physico-chemistry of the etiology of renal calculi; development of conductometric apparatus and its application to titration; measurement of detergency; development of detergents.

Mendenhall, Dr. H(allam) E(vans), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Spokane, Wash, March 20, 00. B.S, Whitman Col, 21; Ph.D, Calif. Inst. Tech, 27. Asst. prof. elec. eng, Utah, 27–28; *eng. research, Bell Tel. Labs, 28–* Elec. Eng; Radio Eng; Physical Soc. Vacuum tube switch; vacuum tube development for Bell system applications.

Mendenhall, Prof. H(arrison) S(hepler), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Astronomy.* Dayton, Ohio, Feb. 2, 03. A.B, Miami (Ohio), 24; Lick Observatory fellow, California, 24–27, Ph.D, 29. Instr. *math,* Mont. State Col, 29–33, asst. prof, 33–37; *assoc. prof, Okla. Agr. and Mech. Col, 37–; lieut, Air Forces, U. S. Army, 42–* Okla. Acad. Astrophysics; spectroscopy; spectrographic study of beta Cephei.

Mendenhall, W(alter) C(urran), 9 E. Lenox St, Chevy Chase, Md. **2*Geology.* Marlboro, Ohio, Feb. 20, 71. B.S, Ohio Nor. Univ, 93; Harvard, 96–97; Heidelberg, 99–00; Sc.D, Colo. Sch. Mines, 28, Wisconsin, 32. Asst. geologist, U. S. Geol. Surv, 94–01, geologist, 01–22, in charge ground water investigations, 08–12, chief land classification board, 12–22, chief geologist, 22–30, acting director, 30–31, director, 31–43; *retired.* Nat. Acad; A.A. (v. pres, E, 24); Geol. Soc. (councilor, 30, pres, 36); Min. and Metal. Eng; Geol. Soc. Wash. (pres, 17); Wash. Soc. Eng; Wash. Acad. General geology; stratigraphy; physiography; geography and mineral resources of parts of Alaska; geology, physiography and hydrology of southern California, Oregon, Utah, Texas and Hawaii; classification of public lands.

Mendenhall, Dr. Walter L(eslie), Boston University School of Medicine, Boston, Mass. *Pharmacology, Physiology.* Garfield, Ill, Nov. 13, 81. M.D, Drake, 06, B.S, 09. From lecturer to prof. physiol, Drake, 08–13; teaching fellow, Harvard Med. Sch, 13–15; asst. prof. pharmacol, Dartmouth Col, 15–18, prof, 18–19; physiol. and pharmacol, Southern California, 19–20; asst. prof. *pharmacol,* Pennsylvania, 20–21; *prof, sch. med, Boston, 21–* Instr, Sargent Sch. Physical Educ, 14–15, 29–; physiologist, U. S. Pub. Health Service, 18; research mem, staff, Evans Mem. Hosp, 21–; pharmacologist, Mass. Mem. Hosps, 21– Scroll of merit, Int. Anesthesia Research Soc, 25. A.A; Physiol. Soc; Soc. Pharmacol; Associated Anesthetists of U. S. and Can; Int. Anesthesia Research Soc; Int. Col. Anesthetists. Blood coagulation; heart irritability; impurities in anesthetics; bile flow; tobacco; ciliary studies; thoracic window.

Mendenhall, Pres. W(illiam) O(rville), Whittier College, Whittier, Calif. *Mathematics.* Ridge Farm, Ill, May 10, 79. A.B, Penn Col. (Iowa), 00, A.M, 01; A.B, Haverford Col, 01; Ph.D, Michigan, 11; LL.D, Munic. Univ. Wichita, 32; L.H.D, Col. Osteopathic Physicians and Surg, Los Angeles, 41. Prof. math, Wilmington Col, 02–04; instr, Stanford, 06–07; prof, Earlham Col, 07–18; *pres,* Friends, 18–34; *Whittier Col, 34–* Math. Asn; Statist. Asn.

Mendiola, Prof. N(emesio) B(lanco), Los Baños, Laguna, P. I. *Genetics.* Rizal, P. I, Dec. 19, 90. B.S. Philippines, 14, M.S, 16; fellow, Cornell, 16–18, Ph.D, 18. Prin, intermediate sch, Pasay, P. I, 09–10; instr, Malabon, 10–11; asst. *agron, col. agr, Philippines,* 11–14, asst. instr, 14–16, instr, 18–19, asst. prof, 19–20, assoc. prof, 21–29, *prof,* 29–, *head dept,* 28– Consulting plant breeder, Bur. Agr, P. I, 20–30. Int. Educ. Board, 26. Philippine Soc. Advancement Research (pres, 30); Los Baños Biol. Club (pres, 25). Plant breeding; agronomy; new varieties of economic plants; plant improvement based on use of hidden heritable bud and traumatic variations; plant breeding for the tropics.

Mendoza, Prof. Guillermo, Northwestern University, Chicago, Ill. *Embryology, Histology.* Mexico City, D. F, July 5, 09. B.S, Northwestern, 32, M.S, 34, Ph.D, 37. Instr. *zool, univ. col, Northwestern,* 37–41, *asst. prof, 41–* A.A. Viviparity in the Goodeidae, a family of teleost fishes from the Mexican Plateau.

Menefee, Prof. F(erdinand) N(orthrup), University of Michigan, Ann Arbor, Mich. *Engineering.* Columbus, Kans, Jan. 7, 86. B.S, Nebraska, 08, hon. C.E, 32; C.E, Cornell, 10; D.Eng, Lawrence Inst. Tech, 37. Asst. city engineer, South Omaha, Nebr, 09; instr. civil eng, Cornell, 10; descriptive geometry and drawing, *Michigan,* 10–11, drawing, 11–13, asst. prof, 13–14, *eng. mech,* 14–16, *prof, 19–* Court consultant. Summer, engineer, U. S. Reclamation Service, 10; Cent. Oregon Irrig. Co, 11; designer, Chicago, Milwaukee and St. Paul Ry, 12; field engineer, Père Marquette Appraisal, 14; designer, Fargo Eng. Co, 15, 16–17. Sec'y, United Eng. Corp, Detroit and Ann Arbor, 19–20. v. pres, 20– Ordnance Dept, 17–19, major. Civil Eng; Soc. Test. Mat; Concrete Inst. (chairman cmt. 711). The strength of materials; earth; steel; concrete; St. Lawrence seaway; structural members and connections.

Menéndez-Ramos, Dean R(afael), College of Agricultural and Mechanical Arts, Mayaguez, P. R. *Agriculture.* Caguas, P. R, Dec. 28, 93. B.S, Pa. State Col, 15, M.S, 16. Chemist, Central Boca-Chica, Ponce, P. R, 16–17, supt. fabrication, 17–18, gen. supt, 18–20, manager, 20–21; director, Insular Exp. Sta, Rio Piedras, P. R, 21–25; agr. dept, Cuban Dominican Sugar Corp, Central Palma, Oriente, Cuba, 25–33; dean, Col. Agr. and Mech. Arts, Mayaguez, P. R, 33; commissioner agr. and commerce, P. R, 33–38; *dean, Col. Agr. and Mech. Arts, Mayaguez, P. R, 38–* Consulting agriculturist, Gen. Sugar Co. and Atlantic Fruit and Sugar Co, Cuba, 26–33; acting governor, P. R, 37, 38; acting chancellor, Puerto Rico, 41–42. Mem, P. R. Policy Cmn, 34; trustee, Univ. Puerto Rico; mem. exec. council, governor of P. R; mem, Land Authority; mem. cmt. Nat. Rivers and Harbors Cong. A.A; Asn. Agr. Sciences; Soc. Agron; Agr. Chem; Asn. Sugar Cane Technol. P. R. (pres, 33–35); hon. mem. Asn. P. R. Chemists; Asn. Sugar Technol. Cuba (v. pres, 30); Int. Asn. Sugar Cane Technol. Tropical crops; culture and disease of sugar-cane varieties; soils; agriculture in Puerto Rico.

Menge, Dr. Walter O(tto), 4522 Beaver Ave, Ft. Wayne, Ind. *Mathematics.* Buffalo, N. Y, Sept. 11, 04. A.B, Michigan, 25, A.M, 26, Ph.D, 31. Actuary, Grange Life Ins. Co, 26–28; instr. math, Michigan, 28–31, asst. prof, 31–35, assoc. prof, 35–37; assoc. actuary, *Lincoln Nat. Life Ins. Co,* 37–43, *second v. pres, 43–* Consulting actuary, Mich. Teachers Retirement Fund, 30–31. Director and consulting actuary, Am. Annuity Savings Asn, 28– Math. Soc; fel. Actuarial Soc; fel. Am. Inst. Actuaries (asst. ed, 'Record,' 37–); Mich. Actuarial Club (v. pres, 34–35, pres, 35). Actuarial science; insurance and finance.

Menger, Prof. Karl, 1421 E. La Salle St, South Bend, Ind. **7*Mathematics.* Vienna, Austria, Jan. 13, 02. Ph.D, Vienna, 24. Docent, Amsterdam, 25–27; *prof. math,* Vienna, 27–37; *Notre Dame, 37–* Visiting lecturer, Harvard and Rice Inst, 30, 31; California, 38. Ed, 'Reports of a Math. Colloquium.' V. pres, Int. Math. Cong, 36. A.A; Math. Soc; Math. Asn. Theory of dimension; theory of curves; metric geometry with applications to various branches of geometry and to calculus of variations; algebra of geometry; mathematical theory of human relations; projective and non-Euclidean geometry.

Menges, T(heodore) C(harles), 246 Western Ave, Waterloo, Iowa. *Engineering.* Prairie du Chien, Wis, May 2, 72. M.E, Cornell, 94. Exp. engineer, Otto Gas Engine Works, Phila, 94–96; Fairbanks, Morse and Co, 96–97; *chief engineer, Associated Mfrs. Co, Waterloo, 98–* Mech. Eng; Soc. Automotive Eng. (v. pres, 22); Nat. Gas Engine Asn. (v. pres, 17). Gas and gasoline engines; carbureters; governors; igniters; starters; pulleys.

Menkin, Dr. V(aly), Harvard Medical School, Boston, Mass. *Pathology.* Moscow, Russia, Feb. 26, 01. B.S, Col. City of N. Y, 22; A.M, Columbia, 23; M.D, Harvard, 28; Berlin, 32. Teaching fellow physiol, Harvard Med. Sch, 27–28; nat. research fellow med, Pennsylvania, 28–30; instr. *path, Harvard Med. Sch,* 30–40, *asst. prof, 40–* Int. Cancer Foundation grant, 37– Am. Soc. Exp. Path. fellow, Int. Physiol. Cong, Rome, 32. A.A; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Physiol. Soc; Asn. Immunol; Am. Med. Asn; Asn. Cancer Research; Asn. Anat; Asn. Immunol; Asn. Int. Secretions. Sym-

pathetic system; splenic contraction and leucocyte level; leucocytes in hyperthyroidism; experimental tuberculosis; iron pigments; inflammation in relation to immunity; capillary permeability in injury; mechanisms of inflammation; leukotaxine and leukocytosis-promoting factor; adrenal cortex and capillary permeability; diabetes and inflammation; necrosin.

Menne, Prof. Frank R(aymond), 9712 S. W. Pacific Highway, Portland, Oregon. *Pathology.* Fond du Lac, Wis, March 20, 88. B.S, Wisconsin, 13; M.D, Rush, Chicago, 15. Asst. path, Rush Med. Col, Chicago, 14–15; intern, Presb. Hosp, 15–16; asst. prof. *path, med. sch, Oregon,* 16–19, assoc. prof, 19–20, *prof, 20–, head dept,* 29– Attending pathologist, Multnomah County Hosp; Doernbecher Hosp, Portland; coroner's physician, Multnomah County, Oregon. Assoc. ed, 'Archives of Pathol.' Mem, Am. Board Path. A.A; Asn. Path. and Bact; Am. Med. Asn; Northwest Soc. Path; Int. Asn. Geog. Path; Int. Law Enforcement Asn. Gumma of the hypophysis; Wassermann reaction; immunology of blood platelets and leucocytes; thyroid disorders; hyperthyroidism; soluble streptotoxins and the thyroid gland of rabbits; occlusions of the Fallopian tube; anomalies of the heart; bronchogenic carcinoma; arteriosclerosis; hematogenous jaundice; tumors.

Mennie, Prof. J(ohn) H(amilton), 26 Perreault Ave, Ste. Anne de Bellevue, Que, Can. *Chemistry.* Toronto, Ont, Sept. 3, 98. B.A, British Columbia, 17, Nat. Research Council Can. bursar, 19–20, M.A, 20; Rhodes scholar, Oxford, 20–23, B.Sc, 23; Nat. Research Council Can. student, McGill, 23–24, fellow, 24–25, Ph.D, 25. Lecturer chem, Western Ontario, 25–26; prof. chem. and physics, Mem. Univ. Col, St. John's, Newfoundland, 26–29; assoc. prof. chem, dept. fisheries, Dalhousie, and physical chemist, Fisheries Exp. Sta, 29–30; asst. prof. *chem, McGill,* 30–39, *assoc. prof, 39–* Chemist, Imp. Ministry of Munitions, 17–19. Radioactivity; gas laws; freezing of fish; gels.

Menninger, Dr. Karl A(ugustus), Menninger Clinic, Topeka, Kans. *Psychiatry.* Topeka, Kans, July 22, 93. A.B, Wisconsin, 14, M.S, 15; M.D, Harvard, 17. Instr. neuropath, Harvard, 18–20; Tufts Col, 19; *prof. mental hygiene, criminol. and abnormal psychol, Washburn Col, 20–,* counselor mental health, 25–31; *chief staff and ed, 'Bul,' Menninger Clinic.* Lecturer, Chicago Inst. Psychoanal, 32–; research assoc, Wash. Sch. Psychiat, 36– Collaborator, 'Psychoanal. Rev,' 37– Mem, Am. Board Psychiat. and Neur. Lieut, U.S.N.R, 17–19. A.A; fel. Psychiat. Asn; Psychoanal. Asn. (past pres); fel. Am. Med. Asn; Nat. Cmt. Mental Hygiene; Asn. Research Nervous and Mental Disease; Nat. Asn. Study Epilepsy; Cent. Neuropsychiat. Asn. (past sec'y, past pres, past councilor); Mo-Kans. Neuropsychiat. Asn; Kans. Psychiat. Asn; N. Y. Neur. Soc; Int. Psychoanal. Asn. Psychoanalysis; influenza and mental diseases; psychological factors in somatic disease; suicide; hypertension; industrial psychiatry; military psychiatry; psychiatric education.

Menotti, Dr. Amel R(omeo), Cheplin Biological Laboratories, Syracuse, N. Y. *Chemistry.* Carrara, Italy, Oct. 7, 13. B.S, Antioch Col, 37; Ph.D, Ohio State, 40. Fellow, C. F. Kettering Foundation, 37–40; microchemist, Am. Med. Asn, 40–43; *director labs, Cheplin Biol. Labs, 43–* A.A; Chem. Soc. Organic and micro chemistry; synthetic porphyrins; chlorophyll; photosynthesis; pharmaceuticals.

Menten, Dr. Maud Lenore, University of Pittsburgh, Pittsburgh, Pa. *Pathology.* Port Lambton, Ont, Can, March 20, 79. B.A, Toronto, 04, M.B, 07, M.D, 11; Ph.D, Chicago, 16. Asst, Western Reserve, 10–12, 13–14; pathologist, Elizabeth Steele Magee Hosp, 16–18; instr. *path, Pittsburgh,* 18–21, asst. prof, 21–26, *assoc. prof, 26–* Pathologist, Children's Hosp, Pittsburgh, Pa, 26– A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Physiol. Soc; Asn. Cancer Research; Int. Asn. Med. Mus. Chemical pathology; oxidase in tumor cells; surface tension; toxins of Bacillus paratyphosus; pneumonia; toxins of Streptococcus scarlatinae.

Menusan, Dr. H(enry), Jr, Pennsylvania State College, State College, Pa. *Economic entomology.* Grenoble, France, Dec. 25, 02. B.S, Polytech. Inst. Brooklyn, 30; fellow, Boyce Thompson Inst, 30–31; Ph.D, Cornell, 36. Asst. entom, Cornell, 31–37; entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 37–39; research fellow *entom,* Rutgers, 39–43; *asst. prof, agr. exten, Pa. State Col, 42–* Asn. Econ. Entom; Entom. Soc. Amer. Economic entomology and ecology; chemistry; insecticides; correlations of chemical structure with toxicity to plants and insects; insect physiology.

Menville, Prof. R(aoul) L(ouis), Louisiana State University, Baton Rouge, La. *Chemistry.* Napoleonville, La, Nov. 23, 85. B.S, Louisiana, 05, M.S, 12; Ph.D, Ohio State, 29. Asst. chemist, Exp. Sta, *Louisiana,* 05–06, instr. chem, 06–12, asst. prof, 12–20, assoc. prof, 20–27, prof, 27–37, *head dept. chem. and dean col. chem. and physics, 37–* A.A; Chem. Soc; La. Acad. Inorganic and analytical chemistry; catalytic oxidation of carbon; ion exchange between strontium and lead sulfate.

Menzel, Dr. Arthur E(dward) O(scar), Buena Vista Heights, Suffern, N. Y. *Chemistry.* Munich, Germany, Dec. 23, 99. Munich, 19–23; Ph.D, Erlangen, 25. Asst, govt. chem. lab, Munich, Germany, 25–27; Kaiser Wilhelm Inst, 27–28; asst. chemist, research lab, Chas. Pfizer Co, 29; tech. asst, Rockefeller Inst, 30; Nat. Tuber. Asn. fellow and instr. biochem, Columbia, 30–38; *assoc, Squibb Inst. Med. Research, 38–* A.A; Asn. Immunol; Chem. Soc; N. Y. Acad. Luminography; formaldehyde; immuno-chemistry of proteins and carbohydrates of tubercle bacilli; immuno-chemistry of meningococcus; anti-bacterial agents elaborated by molds.

Menzel, Dr. Donald H(oward), Harvard University, Cambridge, Mass. *[5]Astronomy.* Florence, Colo, April 11, 01. A.B, Denver, 20, A.M, 21; fellow, Princeton, 21–23, A.M, 23, Procter fellow, 23–24, Ph.D, 24. Field scout exec, Denver, 20; instr. math, Denver, 20–21; high schs, Colo, 21; astron, Iowa, 24–25; asst. prof, Ohio State, 25–26; asst. astronomer, Lick Observatory, California, 26–32; asst. prof. astron, *Harvard,* 32–35, assoc. prof. *astrophys,* 35–38, *prof, 38–; lieut. commander, U. S. Naval Res, 43–* Exchange prof, California, 28, 31. Mem, Crocker eclipse exped, Calif, 30; Maine, 32; director, Harvard-Mass. Inst. Tech. eclipse exped, Siberia, 36. A. Cressy Morrison prize, N. Y. Acad, 26, 28. A.A; Astron. Soc. (councilor, 38–41); Asn. Variable Star Observers; Philos. Soc; Am. Acad; Astron. Soc. Pacific. Solar chromosphere; planetary temperatures, atmospheres and spectra; stellar, solar and nebular spectra; theory of emission and absorption spectra; wave mechanics.

Menzel, Prof. R(alph) E(dgar), Michigan College of Mining and Technology, Houghton, Mich. *Chemistry.* Hazleton, Iowa, Sept. 19, 96. A.B, Upper Iowa, 20; Ph.D, Iowa State Col, 36. Instr. *chem,* high schs, Iowa, 20–29; asst, Iowa State Col, 29–32, instr, 32–37; prof. and head dept, Westminster Col. (Utah), 37–38; assoc. prof. and head dept, Phillips, 38–40; *asst. prof, Mich. Col. Min. and Tech, 40–* Okla. Acad. Catalytic hydrogenation of furfural at various temperatures and pressures.

Menzies, Prof. Alan W(ilfrid) C(ranbrook), Princeton University, Princeton, N. J. *[3]Chemistry.* Edinburgh, Scotland, July 31, 77. M.A, Edinburgh, 97, B.S, 98; Leipzig, 98; Aberdeen, 02–03; Ph.D, Chicago, 10. Asst. prof. chem, Heriot-Watt Col, Edinburgh, 98–01; prof, St. Mungo's Col, Glasgow, 02–08, sec'y med. faculty, 07–08; from research assoc. to asst. prof. *chem,* Chicago, 08–12; prof. and head dept, Oberlin Col, 12–14; prof, *Princeton,* 14–37, *Russell Wellman Moore prof, 37–* Vans Dunlop scholar, Edinburgh, 98–01, research fellow, Davy-Faraday lab, 01–02; organizer and director summer courses for science teachers, Dept. Agr. and Tech. Instruction for Ireland, 05–08; assoc. chemist, Bur. Standards, 18–19. A.A; Chem. Soc; Soc. Chem. Indust; London Chem. Soc; fel. Royal Soc. Edinburgh. Vapor pressure and density; molecular weights; removal of traces of water; equilibria in various binary and ternary systems; critical temperature of mercury; arsenic acid; arsenious oxid in acidimetry; ebullioscopy; hygrometry; differential thermometer; dissociation pressure of salt hydrates; meteoritic chlorine; crystal orientation; intensive desiccation; equilibria involving deuterium water.

Menzies, Dr. J(ames) D(avid), Experiment Station, State College of Washington, Prosser, Wash. *Plant pathology.* Vancouver, B. C, Can, Jan. 19, 15. B.S.A, British Columbia, 35, M.S.A, 39; Ph.D, State Col. Wash, 42. Asst. timber path, Forest Products Labs, Vancouver, B. C, Can, 35–36; lab. asst, British Columbia, 36–38; inspector plant diseases, Dom. Seed Potato Certification Service, 38–39; asst. plant path, *State Col. Wash,* 39–42, *asst. plant pathologist, 42–* Summers, plant disease investigator, Dom. Seed Certification Service, 36, 37. Phytopath. Soc. Diseases of alfalfa; virus diseases; non-parasitic diseases of tree fruits.

Menzies, Dr. P(ercival) K(eith), 511 Medical Arts Bldg, Syracuse, N. Y. *Surgery.* Ailsa Craig, Ont, Can, June 18, 86. B.A, Toronto, 08, M.B, 10, fellow, 10–11, M.D, 29. Asst.

surg, Toronto, 14–20; instr, *Syracuse*, 23–26, asst. prof, 26–30, assoc. prof, 30–42, *prof. clin. surg, 42–* Attending surgeon, Mem. Gen. and City Hosps. Am. Board Surg. Can. Army M.C, 14–20, lieut. col. Fel. Col. Surg; Am. Med. Asn. General surgery.

Menzies, Dr. Roderick, Sarah Lawrence College, Bronxville, N. Y. *Experimental psychology.* Roslyn, Wash, Aug. 24, 02. A.B, Col. Puget Sound, 32; Ph.D, Wisconsin, 36. Asst. psychol, Wisconsin, 32–36, instr, 36–37; *psychologist, Sarah Lawrence Col, 37–* Learning and memory; conditioned responses; bodily changes in emotion.

Mera, Dr. H(arry) P(ercivale), Laboratory of Anthropology, Santa Fe, N. Mex. *Archeology.* Pottsville, Pa, Oct. 16, 75. M.D, Cleveland Med. Col, 98. *Staff archeologist, Lab. Anthrop, 29–* Chairman, Indian Arts Fund, Inc, 23–36. A.A. (pres, southwest. div, 43); Anthrop. Asn; fel. Soc. Archeol. Archeology of the southwestern United States.

Meranze, Dr. David R(aymond), 1031 Lakeside Ave, Philadelphia, Pa. *Bacteriology.* Philadelphia, Pa, Dec. 25, 00. B.S, Pennsylvania, 21, A.M, 30; M.D, Jefferson Med. Col, 27. Instr. biochem, grad. sch. med, Pennsylvania, 28–30; asst. demonstrator *bacter, Jefferson Med. Col,* 34–37, instr, 37–43, *demonstrator, 43–* Director labs. and pathologist, Mt. Sinai Hosp. A.A; Soc. Bact; Soc. Clin. Path; Soc. Path. and Bact; Path. Soc. Phila; Physiol. Soc. Phila. Pathology; toxic granulations of the white blood cell; phosphatase content of the blood in jaundice; syphilis and tuberculosis in rabbits; role of liver in metabolism of estrogens; galactose tolerance test.

Mercer, Prof. Charles F(ranklin), University of South Carolina, Columbia, S. C. *Physics.* Kansas City, Mo, Sept. 20, 94. B.S, Illinois, 18; A.M, South Carolina, 26. Assoc. prof. and *prof. physics, South Carolina, 19–* Sch. orientation and topog, F.A, U.S.A, 18. Physical Soc; Mech. Eng; Heat and Vent. Eng; Optical Soc.

Merchant, Dr. Charles H, University of Maine, Orono, Maine. *Agricultural economics.* West Monroe, N. Y, March 28, 97. B.S, Cornell, 20, M.S, 22, Ph.D, 28. Asst. marketing, Cornell, 20–21, instr, 22–23; acting prof. *agr. econ. and farm management* and acting head dept, Utah Col, 23–24; *prof. and head dept, col. agr, Maine, 24–, agr. economist and head dept, Exp. Sta, 25–* Asn. Marketing Officials; Statist. Asn. Statistics of Maine agriculture; apple industry; apple farms; electricity on farms; blueberry farms; local market requirements; prices of farm products and price trends; farm property taxation; agricultural credit; marketing potatoes.

Merchant, Dr. I(val) A(rthur), 2332 Donald St, Ames, Iowa. *Veterinary bacteriology.* Paonia, Colo, Feb. 9, 98. D.V.M, Colo. Agr. Col, 24; M.S, Iowa State Col, 28; Ph.D, 33; C.P.H, Yale, 34. Instr. path, *Iowa State Col,* 25–28, asst. prof. vet. bacter, 28–34, assoc. prof. *vet. hygiene,* 34–43, *prof, 43–* Vet. Med. Asn; Pub. Health Asn; Int. Asn. Milk Sanitarians. Food hygiene; live-stock sanitation; veterinary bacteriology.

Meredith, Dr. Florence (Lyndon), 74 Russell Ave, Watertown, Mass. *Hygiene, Medicine.* Boston, Mass, Aug. 20, 88. B.S, Temple; M.D, Tufts Col, 16; Radcliffe Col; Boston; Oxford; Tufts Col; Harvard, 16–17, 20. Instr. surg, Tufts Col, 16–20; physician for women, Hood Rubber Co, 16–18; director, N. Y. Health Center for Women and Girls, 19–20; prof. hygiene and prev. med. and col. physician, Woman's Med. Col. of Pa, 20–23; prof. hygiene, chairman dept. and col. physician, Smith Col, 23–27; *prof. hygiene, Tufts Col, 27–* Regional consultant, U. S. Pub. Health Service, 19–21; lecturer, Sch. for Social Work, N. Y, 21–22; Pa, 22–23; Smith Col, 21–26; lecturer, Simmons Col, 27–36. Surgeon General's Women's Advisory Cmt, 21–23; board directors, Phila. Health Council, 23. Lecturer, War Dept, 18–19. Mem. staff, Boston Psychopathic Hosp, 26–27. A.A; Am. Med. Asn; Pub. Health Asn; Nat. Cmt. Mental Hygiene; Asn. Women in Pub. Health (pres, 22–25); Nat. Asn. Med. Women (director, 24); Psychiat. Asn. Methods of teaching physical and mental hygiene.

Meredith, Prof. Howard V(oas), State University of Iowa, Iowa City, Iowa. *Physical growth.* Birmingham, Eng, Nov. 5, 03. A.A, Graceland Col, 29; A.B, Iowa, 31, A.M, 32, Ph.D, 35. Asst, *child welfare research sta, Iowa,* 31–35, research assoc. *physical growth,* 36–39, asst. prof, 39–42, *assoc. prof, 42–* Asn. Physical Anthrop; Soc. Research Child Develop. Physical growth of the child.

Meredith, W(illiam) O(gilvie) S(winton), Grain Research Laboratory, Winnipeg, Man, Can. *Plant biochemistry.* Leven, Scotland, May 14, 11. B.S.A, Ont. Agr. Col, 34; M.Sc, Manitoba, 39. Asst. pasture studies, Cent. Exp. Farm, Ottawa, Can, 31–35; biochem, Nat. Research Council Can, 35–37; biochemist in charge malting lab, Manitoba, 37–42, hon. lecturer plant science, 40–42; *asst. chemist, Grain Research Lab, 42–* A.A; Asn. Cereal Chemists; fel. Can. Inst. Chem; Can. Soc. Tech. Agr. Cereal chemistry; macaroni making qualities of durum wheat.

Mergendahl, Prof. T(itus) E(ugene), 128 Professors Row, Tufts College, Mass. *Mathematics.* Kingston, N. Y, March 2, 85. B.S, Tufts Col, 07, M.S, 13. Instr. *math,* Ripon Col, 07–09, asst. prof, 09–11; prof. and head dept, Col. of Emporia, 11–18; asst. prof, *Tufts Col,* 19–35, *prof, 35–* Math. Asn; Asn. Teachers Math. New Eng.

Merica, Dr. Paul D(yer), Millwood, N. Y. *Metallurgy.* Warsaw, Ind, 89. A.B, DePauw, Wisconsin, 08; Ph.D, Berlin, 14. Prof. chem, Chekiang Prov. Col, Hangchow, China, 09–11; special investigator, eng. exp. sta, Illinois, 14; physicist and metallurgist, Bur. Standards, 14–19; physical metallurgist and supt. research, *Int. Nickel Co,* 19–22, director research, 22–28, asst. to pres, 31–36, *v. pres. and director, 36–* James Douglas medal, 29; John Fritz medal, 38; medal, Inst. Metals Gt. Britain, 40. A.A; Min. and Metal. Eng. (v. pres. and director, 32–); Chem. Soc; Electrochem. Soc; Soc. Test. Mat; Soc. Metals; Physical Soc; Iron and Steel Inst; Min. and Metal. Soc; Can. Inst. Min. and Metal; Inst. Metals Eng; Iron and Steel Inst. Gt. Britain. Magnetic mechanical properties of steel; railway materials; failure of brass; constitution, manufacture and applications of light alloys of aluminum; heat treatment of cast aluminum alloys; precipitation theory of hardening of metals; nickel and nickel alloys.

Merideth, Dr. George T(homas), 901 19th St, Golden, Colo. *Physics.* Colorado Springs, Colo, March 22, 08. A.B, Colo. Col, 30; A.M, Colorado, 33, Ph.D, 38. Asst. *physics,* Colorado, 30–31, instr, 31–39; *Colo. Sch. Mines,* 40–41, *asst. prof, 41–* Summers, ecological research, Carnegie Institution, 30–37; Gen. Elec. Co, 39; eng. science defense training, Denver, 41. Physical Soc. Ionization in gases at high pressures.

Merigold, Prof. B(enjamin) S(hores), Clark University, Worcester, Mass. *Chemistry.* Taunton, Mass, July 24, 73. A.B, Harvard, 96, A.M, 97, Ph.D, 01; hon. Sc.D, Clark, 41. Instr. *chem,* Worcester Polytech, 00–03; asst. prof, *Clark,* 03–08, *prof, 08–* A.A; Chem. Soc. Analytical and physico-chemical methods.

Merilh, Prof. Edmond Louis, 2219 Pine St, New Orleans, La. *Bacteriology.* New Orleans, La, March 6, 98. B.S, Spring Hill Col, 17; Tulane, 17–19; M.S, Loyola (La), 23. Instr. biol, *Loyola (La),* 19–22, assoc. prof. *biol. and bacter,* 22–43, *prof, 43–* Mem. board, Eye, Ear, Nose and Throat Hosp, 25–A.A; Pharmaceut. Asn; Micros. Soc; Catholic Educ. Asn; La. Acad. Staining modifications; modified cultural and mold mounts; Chromobacter violatium in regard to toxicity of its pigment; hemolytic effects of streptococcus mucosus encapsulatus under various CO_2 tension; Lactobacillus acidophilus 'Y'; control of dental caries with sodium fluoride.

Merino, Dr. Gonzalo F(lor de Liza), 751 Vito Cruz, Manila, P. I. *Entomology.* Cuyo, Palawan, P. I, Jan. 10, 90. A.B, Philippines, 14; B.S, California, 25, M.S, 26; Ph.D, Ohio State, 33. Teacher, pub. schs, P. I, 08–09, 14–15; plant quarantine inspector, *Bur. Agr, Manila,* 16–18, *chief* pest control, 19–29, *plant sanit. div, 30–* Sec'y, Plant Quarantine Board, P. I, 19–; Insular Locust Board, 21; mem. Insular Fish and Game Cmn, 30. Del, P. I. Dept. Agr. and Nat. Resources, Int. Entom. Conf, Paris, 32; chairman pest control, Nat. Research Council P. I, 34– Soc. Econ. Entom; Entom. Soc; Philippine Soc. Tech. Agr. Field tests of sweet potatoes; plant quarantine in the Philippines; Philippine Cicadellidae; coconut bud-rot; introduction of the giant toad, Bufo marinus, into the Philippines.

Merker, Harvey M(ilton), Parke, Davis and Co, Detroit, Mich. *Chemical engineering.* Detroit, Mich, Feb. 24, 88. B.S, Michigan, 09, hon. M.Eng, 40; hon. Dr.Chem, Wayne, 43. *Supt. mfr, Parke, Davis and Co.* Chem. Soc. (pres, Detroit sect, 30, 40); Chem. Eng. (pres, Mich. sect, 30–42); Eng. Soc., Detroit (pres, 41). Pepsin versus rennet in cheese making; chemical changes in the purification of pepsin; requirements of the pharmaceutical industry; the chemical engineer in pharmaceutical industry; comparison of desiccated and normal hog gallbladder bile; evaluating filter aids.

Merkle, Prof. Fred(erick) G, Pennsylvania State College, State College, Pa. *Soil technology.* Detroit, Mich, March 25, 92. B.S, Mass. Col, 14, M.S, 17; Ph.D, Cornell, 33. Instr. agron, Mass. Col, 14–19; asst. prof. and assoc prof. *soil technol, Pa. State Col,* 19–32, *prof, 32–* A.A; Soc. Agron; Soil Sci. Soc. Intertillage; base exchange in soils; soil colloids; microchemical tests; physical properties.

Merkus, Dr. P(eter) J(erome), 1 Bronxville Road, Bronxville, New York, N. Y. *Chemical engineering.* Rotterdam, The Netherlands, Dec, 07. B.S.E, Michigan, 30, M.S.E, 31, Mich. Gas Asn. fellow, 32–34, Ph.D, 33. *Chem. eng, Shell Oil Co, Inc, New York, 34–* Chem. Soc. Chromium plating; artificial gas; petroleum technology.

Merling, Dr. Ruth E(velyn), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Blue Rapids, Kans, Aug 14, 95. B.S, Washington (Seattle), 16, M.S, 17; fellow, Illinois, 19–20, Ph.D, 20. Teaching fellow chem, Washington (Seattle), 16–17; asst, Illinois, 17–19; research chemist, B. F. Goodrich Rubber Co, 20–21; instr. chem, Ill. Woman's Col, 21; Kansas, 21–22; *chemist,* intel. div, exp. sta, E. I. du Pont de Nemours and Co, 23–30; *patent dept, Eastman Kodak Co, 31–, patent attorney.* Summer, prof, Col. of St. Teresa, 21. Chem. Soc. Organic chemistry.

Merlis, Capt. Jerome K, A.P.O. 870, Care of Postmaster, New York, N. Y. *Physiology.* New York, N. Y, Feb. 24, 14. B.S, Louisville, 33, M.D, 37, M.S, 38. Asst. physiol, sch. med, Louisville, 37–38, instr, 38–42; lieut, *Med. Corps,* 42–43, *capt, 43–* Seymour Coman fellow, Chicago, 39; Commonwealth Fund fellow, Yale, 40–41. Neurophysiology; spinal reflexes; cerebrospinal fluid; corticovestibular interrelationships; cerebellar mechanisms.

Merlub-Sobel, Dr. M(enahem), Carteret, N. J. *Chemical engineering, Metallurgy.* Brooklyn, N. Y, Aug. 12, 00. A.B, Columbia, 22, A.M, Chem.E, 24; N. Y. Univ, 24–25; Cleveland Law Sch, 25; Ph.D, Western Reserve, 30. Warner Chem. Co, 22, 24; chem. engineer, Beryllium Corp. of Amer, 25–26; Kemet Labs. Co, 26–31; Beryllium Develop. Corp, 31–32; head dept. chem. mfg. and research, Addressograph-Multigraph Corp, 32–40; *manager research dept, Va-Carolina Chem. Co, 40–* Instr, Fenn Col, 36. A.A; Chem. Eng; Min. and Metal. Eng; Chem. Soc; Electrochem. Soc. Metallurgy of rare elements; non-aqueous electrodeposition; graphic arts; heavy inorganic chemicals.

Merrell, Dr. Margaret, 615 N. Wolfe St, Baltimore, Md. *Biostatistics.* LaGrange, Ill, Dec. 3, 00. A.B, Wellesley Col, 22; Sc.D, Hopkins, 30. Teacher, private sch, 22–25; asst. *biostatist, sch. hygiene and pub. health, Hopkins,* 25–26, instr, 26–31, assoc, 31–42, *assoc. prof, 42–, lecturer prev. med, sch. med, 41–* A.A; Pub. Health Asn; Statist. Asn; Inst. Math. Statist; Population Asn. Vital statistics; statistical methods.

Merrell, Dr. W(illia)m Dayton, University of Rochester, Rochester, N. Y. *Biology.* Brooklyn, N. Y, Aug. 21, 69. A.B, Rochester, 91; fellow, Chicago, 97–98, Ph.D, 98. Instr. sciences, Wayland Acad, Wis, 91–94; Western Mil. Acad, Ill, 94–95; asst. bot, Chicago, 96–99; instr. biol, *Rochester,* 99–05, asst. prof, 05–15, prof, 15–33, *bot,* 33–42, *emer. prof, 42–* A.A; Bot. Soc; Rochester Acad. Silphium.

Merriam, Carroll F(uller), Pennsylvania Water and Power Co, Lexington Bldg, Baltimore, Md. *Hydraulics.* Framingham, Mass, Feb. 25, 92. B.S, Harvard, 14; B.S. (M.E), Worcester Polytech, 16. Instr, Worcester Polytech, 16–17, 21–24; power supervisor, Strathmore Paper Co, 19; *with Pa. Water and Power Co, 24–* Collaborator, U. S. Coast and Geod. Surv, 42– Sergt, C.Eng, 17–19. Edison Elec. Inst; Geophys. Union; Mech. Eng; fel. Md. Acad; Pa. Elec. Asn. Hydroelectricity; hydrology; runoff; rainfall; groundwater; control surveys.

Merriam, Dr. C(harles) W(arren), Cornell University, Ithaca, N. Y. *Geology, Paleontology.* Berkeley, Calif, July 6, 05. A.B, California, 28, Ph.D, 32; LeConte mem. fellow, Europe, 30–31. Instr. paleont, California, 32–33; *geol, Cornell,* 35–39, *asst. prof, 39–* A.A; fel. Geol. Soc; fel. Paleont. Soc. Tertiary stratigraphy and paleontology of California; Paleozoic stratigraphy and paleontology of western North America.

Merriam, Dr. E(dmund) S(awyer), 231 Fourth St, Marietta, Ohio. *Chemistry.* Easthampton, Mass, May 4, 80. A.B, Trinity Col. (Conn), 02, A.M, 05, hon. Sc.D, 23; Ph.D, Göttingen, 05. Prof. chem, Marietta Col, 06–20; chief chemist, Safe-Cabinet Co, 20–23; consulting chemist, 23–27; research and develop, Int. Coal Carbonization Co, New York, 27–31; *consulting chemist, 31–* A.A; Chem. Soc; Chemists' Club. Natural gas and gasoline recovery; low temperature carbonization; development of abrasive products.

Merriam, Dr. John C(ampbell), Department of Geological Sciences, Carnegie Institution, Pasadena, Calif. *[2]*Paleontology, Geology.* Hopkinton, Iowa, Oct. 20, 69. B.S, Lenox Col, 87; Ph.D, Munich, 93; hon. Sc.D, Columbia, 21, Princeton and Yale, 22, Univ. State of N. Y, 37; LL.D, Wesleyan, 22, California, 24, N. Y. Univ, 26, Michigan, 33, Harvard, 35, Pennsylvania, 36, Univ. State N. Y, 37, George Washington, 37, Oregon, 39, Oregon State Col, 39. Instr. paleont, California, 94–99, asst. prof, 99–05, assoc. prof, 05–12, prof, 12–20, dean faculties, 20; pres, *Carnegie Institution,* 20–38, *emer. pres, 39–* Chairman, Nat. Research Council, 19; regent, Smithsonian Institution, 28– Chairman research cmt. State Council Defense, Calif, 17–20. Nat. Acad. (councilor, v. pres); A.A. (pres, Pacific div, 19); Soc. Nat. (pres, 35); Paleont. Soc. (pres, 19, Pacific Coast div, 13, 15); Geol. Soc. (pres, 19); Forestry Asn. (director); Galton Soc; Philos. Soc; Am. Acad; West. Soc. Nat; Calif. Acad; cor. mem. Acad. Nat. Sci. Phila; cor. mem. Zool. Soc. London; hon. mem. Soc. de Geog. e Hist. de Guatemala; Acad. Nacional Cient. Ant. Alz. de Mex; Pan-Am. Inst. Geog. and Hist. (pres. exec. cmt, 35–). Ichthyopterygia and Pythonomorpha of western North America; Tertiary geology and vertebrate paleontology of eastern Oregon and California; Triassic Vertebrata of California and Nevada; fossil Mammalia of eastern Oregon; Tertiary and Quaternary Carnivora of California; Miocene Mammalia of northern Nevada; research and education.

Merrill, Prof. A(rchibald) S(hepard), 541 Beckwith Ave, Missoula, Mont. *Mathematics.* Merrill, N. Y, Aug. 24, 87. A.B, Colgate, 11, A.M, 14; Ph.D, Chicago, 16. Asst, Colgate, 11–14; asst. prof. *math, Montana,* 16–18, 19–20, assoc. prof, 20–23, *prof, 23–, chairman div. physical sciences, 36–,* v. pres, 41. U.S.N, 18–19. A.A; Math. Soc; Math. Asn; Edinburgh Math. Soc. An isoperimetric problem with variable endpoints; the 'danger-area' curve; distribution of y/x.

Merrill, Charles W(ashington), Hobart Bldg, 582 Market St, San Francisco, Calif. *Metallurgy.* Concord, N. H, Dec. 21, 69. B.S, California, 91, M.E, 22. *Pres, Merrill Co; Merco Centrifugal Co; The Alloys Co.* Regent, California, 24–25. Chairman, State Mining Board, Calif, 30. James Douglas int. gold medal, Inst. Min. and Metal. Eng, 24; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chief div. collateral commodities, Food Admin, 17–18. Min. and Metal. Eng. (v. pres, 24); Min. and Metal. Soc. London; Chem. Metal. and Min. Soc. S. Africa. Cyanid process in the treatment of precious metal ores.

Merrill, Dr. D(avid) R(obert), 347 E. Main St, Moorestown, N. J. *Organic chemistry.* Berkeley, Calif, March 30, 95. A.B, B.S, California, 17, M.S, 18; Ph.D, Harvard, 20; Mass. Inst. Tech, 20–21. Research assoc. applied chem, Mass. Inst. Tech, 20–21; assoc. chemist, Union Oil Co. of Calif, 21–26, asst. manager research and develop, 26–30, manager research, 30–39; *chem. engineer, develop. dept. Rohm and Haas Co, Inc, 40–* 2nd lieut, C.W.S, 18–19. Chem. Soc; Chem. Eng; Mech. Eng. Petroleum refining technology; catalytic oxidation; synthetic organic chemistry; cyclo-propane derivatives; lubrication; plastics; chemical engineering.

Merrill, Prof. Elmer D(rew), Arnold Arboretum, Jamaica Plain, Mass. *[3]*Botany.* East Auburn, Maine, Oct. 15, 76. B.S, Maine, 98, M.S, 04, Sc.D, 26; George Washington, 00–01; Sc.D, Harvard, 36; LL.D, California, 36. Asst. nat. science, Maine, 98–99; asst. agrostologist, U. S. Dept. Agr, 99–02, botanist, Bur. Agr. and Bur. Forestry, Manila, P. I, 02–03, bur. govt. labs, 03–05; Bur. Science, 06–19, acting director, 19, director, 19–23; assoc. prof. bot. and head dept, Philippines, 12–17, prof, 17–19, professorial lecturer, 19–23; prof. agr. and dean col. agr, California, and director, Exp. Sta, 24–29; director, Calif. Bot. Garden, 27–29; N. Y. Bot. Garden, 30–35; prof. bot, Columbia, 30–35; *prof. bot. and administrator bot. collection, Harvard, and director, Arnold Arboretum, 35–* Ed, 'Philippine Jour. Science,' 06–23; 'Hilgardia,' 25–29; 'Brittonia,' 31–35. Director, East India Inst. Amer; mem. board, N. Y. Bot. Garden. Medal, Linnean Soc. London, 39; Soc. Acclim. de France, 39. Rep, Pacific Cong, Victoria and Vancouver, 33; v. pres, Int. Bot. Cong, Cambridge, 30, pres, nomenclature sect, Amsterdam, 35. Nat. Acad; A.A. (chairman, G, 31); Soc. Nat; Bot. Soc. (pres, 34); Torrey Bot.

Club; Philos. Soc; Am. Acad; New Eng. Bot. Club; Calif. Acad; Mich. Acad; Wash. Acad; cor. mem. Acad. Nat. Sci. Phila; hon. mem. Pa. Hort. Soc; Mass. Hort. Soc. (trustee); hon. mem. British Royal Hort. Soc; for. mem. Linnean Soc. London; hon. mem. Deuts. Bot. Gesell; cor. mem. Inst. Genevois; hon. mem. Netherlands Bot. Soc; hon. mem. Royal Netherlands Geog. Soc; hon. mem. Royal Agr. Hort. Soc. India; hon. mem. Soc. bot. neerlandaise; hon. mem. Malay branch, Royal Asiatic Soc; hon. mem. Bot. Soc. Japan; Int. Union Biol. Sciences (pres, 35). Systematic botany of China, Indo-Malaysia, the Philippine Islands and Polynesia.

Merrill, Prof. E(rnest) J(oseph), 409 E. High St, Mt. Pleasant, Mich. *Chemistry.* Flint, Mich, Nov. 28, 89. A.B, Albion Col, 13; M.S, Michigan, 28, Ph.D, 29. Teacher and prin, high sch, 13–18; chemist and metallurgist, 18–20; instr. and *prof. chem, Cent. State Teachers Col, Mich, 20–* Indust. fellow, Am. Petrol. Inst, 27–29. Chem. Soc; Mich. Col. Teachers Chem. Asn. (sec'y, 31). Colloid chemistry; physical and chemical properties of surface and interfacial films.

Merrill, G(eorge) B(ates), State Plant Board, Gainesville, Fla. *Entomology.* Abington, Mass, Oct. 15, 86. Mass. Col; B.S.A, Florida, 33. Gipsy and brown-tail moth work, Mass, 04–10; gipsy moth parasite lab, bur. entom, U. S. Dept. Agr, 10–13; asst. entomologist, horn-fly and tobacco investigations, Insular Exp. Sta, P. R, 13–15; *dept. port and ry. inspection, State Plant Board, Fla,* 16–18, asst. entomologist, 18–22, assoc. entomologist, 22–43, *entomologist, 43–* Investigation sugar-cane insects, Santo Domingo, 14. Entom. Soc. Amer; Asn. Econ. Entom; Fla. Entom. Soc. (pres, 20, 23, 24). Coccidae; Aleyrodidae; Trypetidae.

Merrill, Prof. Helen A(bbot), Wellesley College, Wellesley, Mass. *Mathematics.* Orange, N. J, March 30, 64. A.B, Wellesley Col, 86; Chicago, 96–97; Göttingen, 01–02; Ph.D, Yale, 03. Teacher, private schs, 86–89, 91–93; instr. *math, Wellesley Col,* 93–01, assoc. prof, 01–15, prof, 15–32, *emer. prof, 32–* A.A; Math. Soc; Math. Asn. (councilor, 17–20, v. pres, 20); Deuts. Math. Verein. Differential equations; analysis.

Merrill, Dr. Henry B(aldwin), 1922 E. Beverly Road, Milwaukee, Wis. *Chemistry.* St. Paul, Minn, July 22, 94. B.S, Wisconsin, 16, M.S, 17, Ph.D, 21. Asst. chem, California, 19–20; Wisconsin, 20–21; prof, Carroll Col, 21–22; research chemist and later *chief chemist, A. F. Gallun and Sons Co, 22–;* major, *Chem. Warfare Service, U. S. Army,* 41–42, *lieut. col, 42–* Asst. chemist, Navy Dept, 17–18, private, C.W.S, 18–19. Chem. Soc. (chairman, Milwaukee sect, 25, leather div, 31); Leather Chem. Asn. (pres, 38–40). Inorganic chemistry; reactions of constituents of animal skin; enzyme action; silicon; fluorine; selenium; leather chemistry.

Merrill, Dr. John E(llsworth), Hunter College, 68th St. and Park Ave, New York, N. Y. *Astronomy.* Parsonsfield, Maine, May 10, 02. A.B, Boston, 23; M.S, Case, 27; A.M, Princeton, 29, Ph.D, 31. Instr. math, Case, 24–28; Cleveland Col, 25–28; Princeton, 29–30; asst. prof. *astron,* Illinois, 31–32; curator, Buffalo Museum Science, 32–36; asst, Princeton, 36–37; instr, *Hunter Col,* 37–38, *asst. prof, 38–* A.A; Astron. Soc; N. Y. Acad. Photometry; eclipsing variables.

Merrill, Dr. Joseph F(rancis), 1324 E. First South St, Salt Lake City, Utah. *Electrophysics.* Richmond, Utah, Aug. 24, 68. B.S, Michigan, 93; fellow, Hopkins, 98–99, Ph.D, 99; Cornell, 93, 02; Chicago, 94, 96, 97; hon. Sc.D, Utah, 20. Asst. prof. chem, Utah, 93–95, prof. physics and physical chem, 97–98, director state sch. mines, 98–15, sch. mines and engineering, 15–28, prof. physics and elec. eng, 99–27, electrophysics, 27–28; commissioner educ, *Latter Day Saints Church,* 28–33, *mem. council of twelve, 31–* Sec'y, State Conservation Cmn, Utah, 09–14. A.A; Physical Soc; Elec. Eng; Eng. Educ; Utah Soc. Eng. (pres, 07–10); Utah Acad. Effect of dielectric on electrical resistance; effect of temperature and pressure on electrolysis of silver nitrate; reliability and durability of commercial electric integrating meters; electric air heating; electrical measurements.

Merrill, Dr. Joseph H(enry), Raynham, Mass. *Entomology.* Danvers, Mass, Nov. 12, 81. B.S, Dartmouth Col, 05; Ph.D, Mass. Col, 14. Gipsy and brown-tail moth suppression work, Danvers, Mass, 05–09; deputy state nursery inspector, Mass. Col, 10–11, lecturer plant path, 11; assoc. prof apicult, Kans. State Col, and asst. apiculturist, Exp. Sta, 12–27; *apiurist and lecturer.* State apiarist, Kans, 18. Asn. Econ. Entom; fel. Apis Club; hon. mem. Am. Honey Producers' League. Fruit and shade tree insects; apiculture.

Merrill, L(eon) K(enneth), 12 English Village, Cranford, N. J. *Chemical engineering.* Cleveland, Ohio, Oct. 10, 97. Baldwin-Wallace Col; B.S, Case, 19. Research labs, Nat. Carbon Co, 20–26, carbon production, 26–29, process eng. labs, 28–32, new product lab, Cleveland, 32–42; *supt. vinylite div, Bakelite Corp, 42–* Min. and Metal. Eng. Carbon industry; plastics.

Merrill, Prof. Lynn L, 1577 Tibbits Ave, Troy, N. Y. *Mathematics.* Erin, N. Y, Oct. 19, 02. B.S, Clarkson Col. Tech, 24, M.S, 27; Cornell, 24; Ph.D, Rensselaer Polytech, 36. Instr. and asst. prof. math, Clarkson Col. Tech, 24–29; engineer, Gen. Elec. Co, 29–32; from instr. to *assoc. prof. math, Rensselaer Polytech, 32–* Summers, mem. staff geodetic surv, Rochester, N. Y, 25–26, St. Lawrence Valley Power Corp, 27–28. Math. Asn. Direct determination of a function knowing the sum of its successive integrals; theoretical determination of build-up of current in an iron-clad circuit; calculation of cooling rates associated with arc welding.

Merrill, Dr. Malcolm H(endricks), State Department of Public Health, Berkeley, Calif. *Bacteriology, Immunology, Public health.* Richmond, Utah, June 28, 03. B.S, Utah State Col, 25; M.S, St. Louis, 27, M.D, 32. Asst. bacter, St. Louis, 25–32; Rockefeller Inst, Princeton, 32–35; intern med, univ. hosp, California, 35–36; asst. dermat. and res. med, 36–37; chief bur. venereal diseases, *State Dept. Pub. Health, Calif,* 37–41, *director div. labs, 41–* Pub. Health Asn. Virus diseases; bacterial metabolism; immunological reactions; venereal disease control.

Merrill, Prof. Maud A(manda), Stanford University, Calif. *Psychology.* Owatonna, Minn, April 30, 88. A.B, Oberlin Col, 11; A.M, Stanford, 20, Ph.D, 23. Asst, Minn. Bur. Research, 12–19; instr. *psychol, Stanford,* 20–24, asst. prof, 24–31, *assoc. prof, 31–* A.A; Psychol. Asn; West. Psychol. Asn. Individual and clinical psychology; tests; mental defectives; delinquents.

Merrill, Dr. M(elvin) C(larence), U. S. Department of Agriculture, Washington, D. C. *Horticulture, Botany.* Richmond, Utah, April 6, 84. B.S, Utah Col, 05; Cornell, 10–11; M.S, Chicago, 12; A.M, Harvard, 13; Ph.D, Washington (St. Louis), 15. Teacher, high sch, Utah, 05–06; agr. inspector, Bur. Agr, P. I, 06–08, supt, Baguio Exp. Sta, 08–10; asst, Mo. Bot. Garden, 13–15; director dept. agr, Idaho Tech. Inst, 15–17; prof. hort, Utah Col, 17–22; dean and horticulturist, col. applied science, Brigham Young, 22–24; director forestry publications, U. S. Forest Service, 24, ed. chief publications, *U. S. Dept. Agr,* 25–28, *ed. supervisor, 'Jour. Agr. Research,' 25–, chief publications dept, 28–* A.A; Bot. Soc; Bot. Soc. Wash. (v. pres, 27, pres, 40); Wash. Acad. (v. pres, 41). Distilled water and growing plants; exosmosis from plant tissues; tomato breeding; canning crops.

Merrill, Dr. O(scar) C(harles), 9 W. Melrose St, Chevy Chase, Md. *Civil engineering.* Manchester, Maine, July 30, 74. A.B, Bates Col, 99, Sc.D, 25; B.S, Mass. Inst. Tech, 05. Instr. civil eng, California, 05–06; water power investigator, Wash, Oregon and Calif, 06–08; dist. engineer, U. S. Forest Service, 09–13, chief engineer, 14–20; exec. sec'y, Fed. Power Cmn, 20–29; chairman Am. cmt, World Power Conf, 24–35, director, 36, v. chairman, int. exec. council, 36–39; engineer-economist, U. S-Mex. Oil Cmn, 42; prin. engineer, Engineer Board, U. S. Army, 42. Civil Eng; Mech. Eng; Elec. Eng; Wash. Acad. Power development and administration; engineering economic studies.

Merrill, Dr. Paul W(illard), Mt. Wilson Observatory, Pasadena, Calif. **[2] *Astronomy.* Minneapolis, Minn, Aug. 15, 87. A.B, Stanford, 08; Ph.D, California, 13. Asst. and fellow, Lick Observatory, California, 09–13; instr. astron, Michigan, 13–16; asst. physicist and assoc. physicist, Bur. Standards, 16–18; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 19–* Nat. Acad; A.A. (chairman, D, 33); Astron. Soc. (councilor, 30); Asn. Variable Star Observers; Physical Soc; Philos. Soc; Astron. Soc. Pacific (pres, 27); Royal Astron. Soc. Wave-lengths of spectrum lines; stellar spectroscopy.

Merrill, Dr. Robert A(bel), U. S. Rubber Co, 6600 E. Jefferson, Detroit, Mich. *Physics.* Craig, Colo, Dec. 20, 09. A.B, Colorado, 31; Ph.D, Wisconsin, 35. *Physicist tire develop. div, U. S. Rubber Co, 35–* Physical properties of rubber and plastics.

Merrill, T(hais) A(bia), New York Experiment Station, Fredonia, N. Y. *Horticulture.* Richmond, Utah, March 8, 08. B.S, Utah State Col, 31; M.S, Mich. State Col, 33. Exten. specialist and asst, Exp. Sta, Mich. State Col, 35–41, *assoc.*

research in charge vineyard lab, N. Y. Exp. Sta, Fredonia, 41– Summer, acting supt, South Haven hort. exp. sta, Mich. State Col, 34. Pollination and acid tolerance of the high-bush blueberry.

Merrill, Dr. Warner J(ay), 2123 Linden St, Wilmington, Del. *Chemistry.* Andover, Ohio, June 26, 96 Col. of Wooster, 14–17; B.S, Carnegie Inst. Tech, 21; M.S, Ohio State, 27, Ph.D, 30. Chemist, U. S. Bur. Mines, 19–20; State Div. Highways, Ill, 21–25; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–; capt, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Industrial chemistry.

Merriman, Dr. Curtis, 1936 Commonwealth Ave, Madison, Wis. *Psychology.* Warren, Ind, March 7, 75. A.B, Indiana, 02; A.M, Columbia, 16; Ph.D, Stanford, 22. Teacher and prin, high schs, Ind, 02–08; dept. educ, Wash. State Nor. Sch, Cheney, 09–23; prof, *Wisconsin,* 23–36, *registrar, 36–* A.A; assoc. Psychol. Asn. Educational psychology; intellectual resemblance of twins; effects of coaching for mental tests; study habits of university students.

Merriman, Dr. Daniel, Yale University, New Haven, Conn. *Zoology.* Cambridge, Mass, Sept. 17, 08. B.S, Washington (Seattle), 33, M.S, 34; Ph.D, Yale, 39. Temporary investigator, U. S. Bur. Fisheries, 31–32, 37–38; aquatic biologist, State Board Fish and Game, Conn, and Am. Wildlife Inst, 36–37; instr. *biol, Yale,* 38–42, *asst. prof, 42–, director, Bingham oceanog. lab, 42–* Trustee, Mem. Hosp, North Conway, N. H. Soc. Zool; Asn. Anat; Soc. Ichthyol. and Herpetol; Conn. Acad. Experimental zoology and morphology; ichthyology.

Merriman, Prof. Gaylord M(alsh), 356 Thrall Ave, Cincinnati, Ohio. *Mathematics.* Elmwood Place, Ohio, July 24, 01. A.B, Cincinnati, 23, A.M, 24, Ph.D, 26. Nat. research fellow *math,* Harvard, 26–28; asst. prof, Grinnell Col, 28–29; *Cincinnati,* 29–38, *assoc. prof, 38–* Math. Soc; Math. Asn. Summability of infinite series; expansion of functions in terms of polynomials; orthogonal polynomials.

Merriman, Prof. Mabel L, Northfield, Mass. *Botany, Cytology.* Hinsdale, N. H. Chicago, 95–96; B.S, Smith Col, 94; A.M, Radcliffe Col, 01; Columbia, 24–25. Instr, high schs, Ill. and Mass, 97–99, 03–07; from instr. to assoc. prof. bot, Hunter Col, 07–29; Brooklyn Col, 29–41; *retired.* A.A; Bot. Soc; Torrey Bot. Club; N. Y. Acad. Algology; cell division in Allium, Zygnema, Spirogyra crassa and Spirogyra bellis; conjugation in Spirogyra ternata; zygospores; germination.

Merritt, Prof. C(lifford) A(ddison), University of Oklahoma, Norman, Okla. *Mineralogy, Economic geology.* Copetown, Ont, Can, Aug. 18, 99. B.Sc, Manitoba, 22, M.Sc, 24; fellow, Chicago, 24–26, Ph.D, 28. Asst. prof. *geol, Oklahoma,* 26–35, assoc. prof, 35–39, *prof, 39–* Summers, asst. geologist, Geol. Surv. Can, 20–25; geologist, Okla. Geol. Surv, 26–30, 35–42. Sedimentary petrography of Oklahoma rocks; origin of ores.

Merritt, Prof. Ernest (George), 1 Grove Place, Ithaca, N. Y. **Physics.* Indianapolis, Ind, April 28, 65. Purdue, 81–82; M.E, Cornell, 86; Berlin, 93–94. Instr. *physics, Cornell,* 89–92, asst. prof, 92–03, prof, 03–35, *emer. prof, 35–,* head dept, 19–35, dean grad. sch, 09–14. Assoc. ed, 'Physical Rev.' Mem. sci. staff, Naval Exp. Sta, New London, 17–18. Nat. Acad; A.A. (sec'y, B, 95, v. pres, 00); Physical Soc. (sec'y, 99–12, ed, 'Bul,' v. pres, 13, pres, 14, 15); Am. Acad. Efficiency of glow lamps; infra-red dichroism; photography of manometric flame; conduction in arc gases; reflected cathode rays; photoelectric rays; luminescence; propagation of radio waves.

Merritt, Eugene, U. S. Department of Agriculture, Washington, D. C. *Agriculture.* Millbrook, N. Y, Jan. 18, 80. A.B, Cornell, 03. Sci. asst, bur. statist, U. S. Dept. Agr, 05–08; asst, div. special investigations, Interstate Commerce Cmn, 08–11; sci. asst, bur. statist, *U. S. Dept. Agr,* 11–14, admin. asst, states relations service, and asst. ed. agr. econ, 'Exp. Sta. Record,' 14–24, *senior agriculturist, exten. service, bur. agr. econ, 24–* Extension service; foreign trade and production; agricultural products; extension teaching methods; economic problems of young farm people; standards of living in relation to systems of farming.

Merritt, George E(rnest), 114 Davis St, Elmira, S.I, N. Y. *Physics.* Indianapolis, Ind, June 23, 90. A.B, Pomona Col, 13. Bur. Standards, 17–20; special research, Nat. Terra Cotta Soc, 20–21; Bur. Standards, 21–33; with U. S. Coast and Geod. Surv, 33–37; *with Bendix Aviation Corp, 37–* A.A; Geophys. Union; Philos. Soc. Wash. Index of refraction of striae; application of the interferometer to the measurement of ceramic materials; thermal expansion of glazes and of fused quartz at high temperatures; interferometric tiltmeter.

Merritt, Dr. H(iram) Houston, Boston City Hospital, Boston, Mass. *Neurology.* Wilmington, N. C, Jan. 12, 02. A.B, Vanderbilt, 22; M.D, Hopkins, 26; A.M, Harvard, 42. Asst. med, Yale, 27–28; neuropath, Harvard, 28–30; nat. research fellow, Deuts. Forschungs-Anstalt für Psychiat, Munich, 30–31; instr. neuropath, *Harvard,* 31–34, assoc, 34–37, asst. prof. *neur,* 37–41, *assoc. prof, 41–,* asst. visiting neurologist, *Boston City Hosp,* 31–37, *visiting neurologist, 37–* Am. Med. Asn; Asn. Research Nervous and Mental Disease; Soc. Clin. Invest; Neur. Asn; Boston Soc. Psychiat. and Neur. (sec'y-treas, 35–). Cerebro-spinal fluid; circulation of brain; convulsive disorders; syphilis of the nervous system.

Merritt, Dr. Lynne L(ionel), Jr, 16554 Blackstone Ave, Detroit, Mich. *Analytical chemistry.* Alba, Pa, Sept. 10, 15. B.S, Wayne, 36, M.S, 37; Ph.D, Michigan, 40. Teaching fellow, Michigan, 37–39; *instr. chem, Wayne, 39–* Chem. Soc. Ozone as an analytical reagent.

Merritt, M(elvin) L, 3017 N. E. 28th Ave, Portland, Oregon. *Forestry.* West Union, Iowa, Oct. 19, 79. B.S.A, Iowa State Col, 04, M.S, 10. Instr. hort, Iowa State Col, 05; forester, Bur. Forestry, P. I, 05–09; from forest asst. to asst. regional forester, N. Pacific dist, U. S. Forest Service, 09–43. A.A; Soc. Foresters. Preliminary working plan for public forest tract, Mindoro; forests of Mindoro; flora of Mount Pulag.

Merritt, Prof. Paul P(rowers), University Farm, St. Paul, Minn. *Cereal chemistry.* Lamar, Colo, May 1, 96. B.S, Kansas, 21; Am. Asn. Cereal Chemists research fellow, Nebraska, 30–32; Minnesota, 37–41. Bakeries service chief, Larabee Flour Mills, 24–30; chief chemist, Stanard-Tilton Flour Mills, Dallas, Texas, 32–37; *asst. prof. agr. biochem, Minnesota, and asst. biochemist, Exp. Sta, 37–* Asn. Cereal Chem. Standardization of the experimental baking test; absorption-mobility relationship; testing the physical properties of doughs.

Merritt, Dr. Phillip L(eonidas), American Cyanamid Co, 30 Rockefeller Plaza, New York, N. Y, *Mineralogy.* Duluth, Minn, Feb. 8, 06. A.B, Minnesota, 28; A.M, Columbia, 30, Ph.D, 34. Geologist, Rhodesian Selection Trust, Ltd, 28–29; geologist and petrographer, Colombia, S. Amer, 34–35; *mineralogist, Am. Cyanamid Co, New York, 36–* Miner. Soc; Soc. Econ. Geol. Precambrian geology; engineering geology; geology of Colombia; mineralogy of ores.

Merry, Dr. Frieda Kiefer (Mrs. Ralph V. Merry), 15 Sherwood Apts, Charleston, W. Va. *Psychology, Education.* Dayton, Ohio, July 20, 97. A.B, Ohio State, 21, fellow, 26–27, Ph.D, 27; A.M, Michigan, 23; Columbia, 23; Washington (Seattle), 23–24; Harvard, 27–28. Asst. exp. educ, Michigan, 21–23; psychol. examiner, child study lab, pub. schs, Seattle, 23–24; asst. prof. educ. and research asst. to pres, Wittenberg Col, 24–25, asst. prof. psychol. and director, Wittenberg-Springfield Child Study Dept, 25–26; supervisor special studies, Am. Foundation for the Blind, Inc, Perkins Institution and Mass. Sch. for the Blind, 27–32; consultant in child guidance, 32–33; prof. psychol. and dean women, Alfred Holbrook Col, 33–34; *prof. psychol. and educ, Morris Harvey Col, 34–* Summers, asst, Michigan, 22; Columbia, 23; lecturer, Ill. Sch. for the Blind, 31; Pa. State Col, 33. A.A; assoc. Psychol. Asn; Soc. Study Educ. Education of the blind; spelling ability of college students; manual motor correlation in superior children; psychology of childhood.

Merry, Dr. (William) James, Barnard College, Columbia University, New York, N. Y. *Botany.* Pontiac, Mich, June 6, 14. B.S, Michigan, 36, M.S, 37, Ph.D, 40. Instr. biol, Denison, 40–42; asst, Arnold Arboretum, Harvard, 42–43; *instr. bot, Barnard Col, Columbia, 43–* Bot. Soc; Sullivant Moss Soc; Torrey Bot. Club. Experimental embryology.

Merrymon, Prof. W(illia)m Walter, College of William and Mary, Williamsburg, Va. *Physics.* Carbondale, Ill, March 16, 89. Grad, South. Ill. Teachers Col, 09; A.B, Missouri, 12; A.M, Illinois, 17; Ph.D, Chicago, 25. Asst. physics, Illinois, 18–19; instr, Western Reserve, 20–21; research physicist, Westinghouse Lamp Co, 25–27; *assoc. prof. physics, Col. of William and Mary, 27–* Magnetic observer, U. S. Coast and Geod. Surv, 13–23. A.A; Physical Soc; Optical Soc; Seismol. Soc; Va. Acad. Terrestrial magnetism; atmospheric

electricity; residual ionization in gases; electric discharges in rare gases.

Mershon, Dr. Ralph D(avenport), 2000 Tiger Tail Ave, Miami 33, Fla. *Electrical engineering.* Zanesville, Ohio, July 14, 68. M.E, Ohio State, 90, D.E, 36; Sc.D, Tufts Col, 18. Asst. physics, Ohio State, 90, elec. eng, 90–91; engineer and designer, Westinghouse Elec. and Mfg. Co, Pa. and N. Y, 91–97, 98–00; chief engineer, Colo. Elec. Power Co, 97–98; consulting elec. and mech. eng, 00–42. Engineer, Victoria Falls Power Co, S. Africa, 06–07. John Scott medal, Franklin Inst; Lamme medal, Ohio State, 32. C.Eng, 17–19, lieut. col. A.A; fel. Elec. Eng. (v. pres, 02–05, pres, 12); Mech. Eng; Civil Eng; Electrochem. Soc; Franklin Inst; Can. Soc. Civil Eng; British Inst. Elec. Eng. Air losses occurring on transmission lines at high voltages; electrolytic condenser.

Mersman, Dr. W(illiam) A(lvin), Route 1, Box 123B, Davis, Calif. *Mathematics.* Saskatoon, Sask, Can, April 3, 14. B.S, Calif. Inst. Tech, 33, M.S, 34, Ph.D, 36. *Instr. math, col. agr, California, 37–* Math. Soc. Mathematical theory of heat conduction in solids.

Mertie, Dr. J(ohn) B(eaver), Jr, 110 Park Crest Drive, Silver Spring, Md. **7Geology.* Baltimore, Md, Jan. 22, 88. Baltimore City Col, 01–05; A.B, Hopkins, 08, Ph.D, 11. Geologist and *senior geologist, U. S. Geol. Surv, 11–* A.A; Geol. Soc; Soc. Econ. Geol; Miner. Soc; Geophys. Union; Math. Asn; Geol. Soc. Wash. (pres, 39); Wash. Acad. (v. pres, 40). Geology and mineral resources of Alaska; petrology; economic geology.

Mertz, Dr. E(dwin) T(heodore), 9 S. Cannon Drive, Edge Moor Gardens, Wilmington 261, Del. *Chemistry.* Missoula, Mont, Dec. 6, 09. A.B, Montana, 31; M.S, Illinois, 33, fellow, 34–35, Ph.D, 35. Asst. chemist, Illinois, 31–35; physiol. chemist, Armour and Co, 35–37; instr. biochem, Illinois, 37–38; research assoc. path, Iowa, 38–40; instr. agr. chem, Missouri, 40–43; *research chemist, exp. sta, Hercules Powder Co, 43–* Chem. Soc. Chemistry and metabolism of the amino acids; development and utilization of by-products of the packing industry; purification and reactions of the blood clotting proteins; diagnosis and study of an inherited bleeding disease in swine; synthetic organic chemistry.

Mertz, Dr. John C(lewell), Newington, Conn. *Metallurgy.* Allentown, Pa, July 20, 10. B.S, Lehigh, 31; scholar, Yale, 34–35, Ph.D, 36. Asst, Yale, 31–32; instr. chem, Lehigh, 36–41, asst. prof, 41; Connecticut, 41–42; *metal. supervisor, Pratt and Whitney Aircraft, 42–* Soc. Metals; Min. and Metal. Eng. Physical metallurgy; analytical chemistry.

Mertz, Dr. Pierre, 8829 249th St, Bellerose, N. Y. *Physics.* Paris, France, April 2, 97. A.B, Cornell, 18, Ph.D, 26. Am. Tel. and Tel. Co, 26–34; *Bell Tel. Labs, 34–* Physical Soc. X-rays; industrial physics; telephony and allied forms of communication.

Mervine, E(rnest) M(uchmore), Colorado State College, Ft. Collins, Colo. *Agricultural engineering.* Milton, Pa, March 30, 87. M.E, Lehigh, 09. Exp. dept, Deere and Co, Moline, 09–12; from asst. prof. to prof. agr. eng, Iowa State Col, 12–30; *agr. engineer, bur. agr. chem. and eng, U. S. Dept. Agr, 30–* Agr. Eng. Sugar beet machinery; farm machinery development.

Merwin, Dr. H(erbert) E(ugene), Carnegie Institution, Geophysical Laboratory, 2801 Upton St, N.W, Washington 8, D.C. **5Geology.* Newton, Kans, Feb. 20, 78. B.S, Harvard, 08, Ph.D, 11. Asst. physiog. and teaching fellow miner. and petrol, Harvard, 07–09; asst. petrologist, *geophys. lab, Carnegie Institution, 09–17, petrologist, 17–* Consulting chemist, Ordnance Dept, U.S.A, 18. Geol. Soc. (v. pres, 30); Physical Soc; Miner. Soc. (pres, 30); Geophys. Union; Geol. Soc. Wash; Philos. Soc. Wash; Wash. Acad. Optical crystallography; experimental mineralogy and petrology; rock alteration and sedimentation.

Merz, Dr. Albert R(onald), 5116 Chevy Chase Parkway, Washington, D. C. *Chemistry.* Lynchburg, Va, Jan. 14, 87. B.S, Virginia, 09, M.S, 11; Ph.D, George Washington, 23. Chemist, Raymond Mining Co, 06; asst. chemist, Exp. Sta, Pa. State Col, 07; asst. chem, Virginia, 08–09, instr, 09–10; asst. chemist, South. Cotton Oil Co, 10–11; scientist, bur. soils, U. S. Dept. Agr, 11–27, assoc. chemist, bur. chem. and soils, 27–29, chemist, 29–39, bur. plant indust, 39–42, senior chemist, 42; senior commodity specialist, *U. S. Tariff Cmn,* 42–43, *prin. commodity specialist, 43–* Abstractor, 'Chem. Abstracts,' 18– A.A; Chem. Soc. (treas, Wash. sect, 34); Inst. Chem. (pres, Wash. chap, 28); Wash. Acad. Giant kelps; potash from cement mills and blast furnaces; collection of phosphoric acid; Russia's platinum; fertilizers and fertilizer materials.

Merz, August, 333 Harrison St, East Orange, N. J. *Chemistry.* New York, N. Y, Nov. 7, 73. Col. City of N. Y; B.S, Cornell, 93, 93–95; Heidelberg, 95–97; Mulhouse, 97; hon. Sc.D, Rutgers, 34. Chemist and gen. manager, Heller and Merz Co, 97–30; v. pres, Calco Chem. Co, 30–39, *advisory exec, Calco chem. div, Am. Cyanamid Co, 39–* A.A; Chem. Soc; Chem. Eng; Synthetic Org. Chem. Mfrs. Asn. (pres, 28–); Deuts. Chem. Gesell. Coal tar dyes and intermediates.

Meschter, Dr. Emery, 191 N. Main St, Milltown, N. J. *Physics.* Philadelphia, Pa, April 26, 10. A.B, Amherst Col, 30; Ph.D, Cornell, 37. Asst. physics, Cornell, 30–35, instr, 35–37; *physicist, Redpath lab, photo products dept, E. I. du Pont de Nemours and Co, 37–* Physical Soc. Photographic materials, particularly x-ray films and processes.

Meserve, Prof. Frank G, Macalester College, St. Paul, Minn. *Zoology.* Firth, Nebr, Aug. 23, 96. A.B, Nebraska, 21, scholar, 34, Ph.D, 35; A.M, Northwestern, 28; Chicago. Prof. *biol,* Grand Island Col, 21–26; instr, Northwestern, 26–30, asst. prof, 30–34; prof. and head dept, Sioux Falls Col, 35–37; *assoc. prof, Macalester Col, 37–; capt, Air Forces, U. S. Army.* Summer, asst, Chicago, 29. Soc. Parasitol. Ectoparasitic trematodes from South Pacific; effects of x-rays on Planaria; Bison occidentalis in Nebraska; Turbellaria in Bermuda; Necrophorus in Colorado; Sphaerites in British Columbia; Silphidae and Cicindelidae of Nebraska.

Meserve, Dr. Wilbur E(rnest), Cornell University, Ithaca, N. Y. *Electrical engineering.* Gorham, Maine, Jan. 4, 01. B.S, Maine, 23, M.S, 26; M.E.E, Cornell, 29, Ph.D, 33. Develop. engineer, Bell Tel. Labs, 23–24; instr. *elec. eng,* Maine, 24–26; *Cornell,* 26–39, *asst. prof, 39–* Develop. engineer, Am. Brown Boveri Corp, Camden, 28, 29; RCA Victor Corp, 30; Gen. Elec. Co, 39. Elec. Eng. (sec'y, Ithaca sect, 29–31, chairman, 31–33); Eng. Educ. Electronics; photoelectricity; aluminum electrolytic rectifier; photoelectrolytic effects with copper oxide; stroboscope; measurements of light flicker.

Meservey, Prof. A(rthur) B(ond), Dartmouth College, Hanover, N. H. *Physics.* New Hampton, N. H, Nov. 17, 84. A.B, Dartmouth Col, 06; B.Sc, Oxford, 11. Asst. *physics,* Dartmouth Col, 07–08; demonstrator, Oxford, 10–11; instr, *Dartmouth Col,* 11–16, asst. prof, 16–28, *prof, 28–* A.A; assoc. Physical Soc. Sparking potentials at low pressures; electromotive force due to moving magnets; electrical response of the eye to light; depth effects in roentgenograms.

Mesick, Col. B(enjamin) S(chultz), 1437 44th St, N.W, Washington, D. C. *Mechanical engineering.* Claverack, N. Y, Dec. 9, 01. B.S, U. S. Mil. Acad, 24; B.S. (M.E), Mass. Inst. Tech, 31, M.S, 33, Sc.D, 38. Second lieut, C.A.C, *U. S. Army,* 24–28, lieut, 28–29, *Ordnance Dept,* 29–35, capt, 35–41, major, 41–42, lieut. col, 42, *col, 42–* Instr, U. S. Mil. Acad, 34–38; asst. prof, Lehigh, 39–40. Mech. Eng; Army Ordnance Asn; Newcomen Soc. Eng. Plasticity of metals in coldworked thick hollow cylinders; measurement of residual stresses by x-ray radiography.

Messenger, Dr. Harry K(nowles), 313 Commonwealth Ave, Boston, Mass. *Ophthalmology.* Westfield, Mass, Jan. 16, 91. A.B, Williams Col, 11; A.M, Harvard, 20, Ph.D, 25, M.D, 32. Instr. Greek and Latin, Harvard and Radcliffe Col, 22–25, asst. *ophthal, Harvard Med. Sch,* 27–41, *instr, 41–,* ophthal. research, 32–40. Am. Med. Asn; Acad. Ophthal. and Otolaryngol; New Eng. Ophthal. Soc. Physiological optics; refraction.

Messenger, Prof. Helen A(lthea), 720 West End Ave, New York, N. Y. *Physics.* New York, N. Y, 85. A.B, Hunter Col, 05; A.M, Columbia, 13, Ph.D, 26. Instr. *physics, Hunter Col,* 05–24, asst. prof, 24–27, assoc. prof, 27–37, *prof, 37–,* acting head dept, 35–37, head dept, 37–41. A.A; fel. Physical Soc; Asn. Physics Teachers. Physical science; atomic structure; critical potentials of mercury; life of certain mercury radiations; metastable mercury atoms.

Messenger, Prof. J(ames) Franklin, University of Idaho, Moscow, Idaho. *Psychology.* Benton Co, Iowa, Jan. 30, 72. A.B, Kansas, 95; A.M, Harvard, 01; fellow, Columbia, 01–02, Ph.D, 03. Instr. psychol, New Mexico, 99–00; asst, Harvard, 00–01; instr, Minn. State Nor. Sch, 03–04; prof.

psychol, Va. State Nor. Sch, Farmville, 05–09; *educ*, Vermont, 09–20; *prof. and dean sch. educ, Idaho, 20–* Director summer sch, Vermont, 09–20. A.A; Nat. Asn. Col. Teachers Educ. Perception of number; interpretative history of education; the art of going to college.

Messer, Dr. Frederick (Charles), Albany Medical College, Albany, N. Y. *Biochemistry.* Syracuse, N. Y, April 15, 98. B.S, Syracuse, 22; Yale, 22–24, 26–29; Ph.D, Western Reserve, 39. Asst. physiol. chem, Yale, 23–24, 26–29; instr, Syracuse, 24–26; biochem, sch. med, Southern California, 29–31; research director, John C. Oliver Mem. Research Lab, Pittsburgh, Pa, 31–38; mem. research staff, biol. and research labs, Winthrop Chem. Co, N. Y, 39–41; *instr. biochem, Albany Med. Col, 41–* Nitrogenous extractives of plants and invertebrates; toxicoses of pregnancy; male sterility; influence of blow-fly maggots on the healing of chronic lesions; metabolic drugs.

Messer, Prof. H(arold) M(adison), Long Island University, Brooklyn, N. Y. *Anatomy.* Newbury, N. H, July 23, 93. Ph.B, Brown, 16; A.M, Columbia, 25. Asst, sch. med, Emory, 20–21; instr, N. Y. Univ, 23–27; *asst. prof. biol, Long Island, 27–* A.A; Soc. Mammal; N. Y. Acad. Vertebrate anatomy.

Messer, Dr. W(illiam) Earl, Ridgeview Road, Cheshire, Conn. *Chemistry.* Barre, Vt, Oct. 13, 01. B.S, Mass. Inst. Tech, 24, Ph.D, 28. Instr, Mass. Inst. Tech, 24–28; *research chemist, Naugatuck Chem. Co, 28–* Petrol. research, Arthur D. Little, Inc, 26–27. Ordnance research, U.S.A, 24–25. A.A; Chem. Soc. Organic and colloid chemistry; high molecular weight olefines; accelerators and antioxidants for rubber; rubber dispersions.

Messerly, Dr. G(eorge) H(enry), U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Physical chemistry.* Beech Creek, Pa, Nov. 17, 11. B.S, Pa. State Col, 33, Ph.D, 38. Asst, Pa. State Col, 38–39, instr. chem, 39–40; *assoc. chemist, U. S. Bur. Mines, 40–* Chem. Soc. Cryogenic research; gas liquefaction; thermometry; third law measurements; reaction rate measurements.

Messick, Prof. C(harles) A(rthur), Oakland City College, Oakland City, Ind. *Mathematics.* Wilson, Kans, Jan. 7, 96. B.S, Kans. State Teachers Col, 18; A.M, Kansas, 25; Ph.D, Chicago, 30. Asst. instr. math, Kansas, 23–35; Iowa, 25–27; asst. prof, Florida, 27–31; prof. and head dept, Lincoln Mem. Univ, 31–33; computer, Topog. Mapping Surv, Fla, 33–35; *prof. math. and head dept,* Bethel Col, 36–38; *Oakland City Col, 38–* Math. Asn; Fla. Eng. Soc. Infinite series and products; symmetric functions of infinitely many elements; method of determining Bernoulli's numbers.

Messick, Prof. J(ohn) F(rederick), Emory University, Ga. *Mathematics.* Allen, Md, Sept. 2, 75. A.B, Randolph-Macon Col, 99; Ph.D, Hopkins, 06. Instr. *math,* Williams Col, 06–07; adj. prof, Randolph-Macon Col, 07–10; assoc. prof, Ala. Polytech, 10–13, *prof,* 13–20; *Emory, 20–* Math. Asn. (chairman, southeast. sect, 30). Higher plane curves.

Messina, Angelina R(ose), American Museum of Natural History, Central Park West and 79th St, New York, N. Y. *Micropaleontology.* New York, N. Y, April 23, 10. A.B, N. Y. Univ, 32; A.M, Columbia, 35. Asst. geol, N. Y. Univ, 32–33; instr, Brooklyn Col, 33–34; tech. adviser, 'Catalogue Foraminifera,' *Am. Museum Nat. Hist,* 34–41, *assoc. curator dept. micropaleont, 41–* Paleont. Soc; N. Y. Acad.

Metcalf, Prof. C(lell) L(ee), University of Illinois, Urbana, Ill. *Entomology.* Lakeville, Ohio, March 26, 88. A.B, Ohio State, 11, A.M, 12; Sc.D, Harvard, 19. Asst. zool. and entom, Ohio State, 11–12; asst. entomologist, State Dept. Agr, N. C, 12–14; asst. prof. *entom,* Ohio State, 14–20, prof, 20–21; *prof. and head dept, Illinois, 21–,* chairman *div. biol. sciences,* 37–39, *sec'y, 39–* Summers, consulting entomologist, Exp. Sta, Maine, 15–17; teacher, Cornell, 18–20; field entomologist, N. Y. State Museum, 29. A.A; fel. Entom. Soc. (sec'y, 20–25, v. pres, 26, pres, 34); Asn. Econ. Entom. (v. pres, 40); Ill. Acad. Economic entomology; Syrphidae; human and animal parasites.

Metcalf, Dr. E(dward) A(lbert), Westminster College, New Wilmington, Pa. *Organic chemistry.* Marietta, Ohio, July 22, 14. A.B, Marietta Col, 35; res. scholar, Columbia, 35–36, A.M, 37; Ph.D, Ohio State, 39. Teaching asst. chem, Ohio State, 36–39, du Pont fellow, 39–40; *prof. chem, Westminster Col. (Pa), 40–* Summer, hon. fellow, Ohio State, 41. Chem. Soc. Carbohydrates and cellulose derivatives.

Metcalf, Capt. F(ranklin) P(ost), P. O. Box 431, Harrisburg, Pa. *Botany.* Oberlin, Ohio, June 10, 92. A.B, Oberlin Col, 13; Ph.D, Cornell, 31; fellow, Lingnan Univ, 30–31. Asst. ornith, Oberlin Col, 12–13; bot, Cornell, 13–16, instr, 16–17; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 17, 19–23; prof. bot, Fukien Christian Univ, 23–29; staff, Arnold Arboretum, Harvard, 29–30; prof. bot, Lingnan Univ, 32–40, curator herbarium, Lingnan Nat. Hist. Surv. and Museum, 32–40; Guggenheim Mem. Foundation fellow, 40–41; fellow and research assoc, Harvard, 41–42; *capt, Air Corps, U. S. Army, 42–* China Med. Board fellow, Rockefeller Foundation, 28–29. A.A; Wilson Ornith. Club; fel. Peiping Soc. Nat. Hist. Systematic botany; flora of southeastern China, especially Fukien.

Metcalf, Prof. Isaac S(tevens) H(alstead), The Citadel, Charleston, S. C. *Zoology.* Cleveland, Ohio, Aug. 17, 12. A.B, Oberlin Col, 34; A.M, Columbia, 36; North Carolina, 36–37; Ph.D, Western Reserve, 40. Asst. zool, Columbia, 34–36; North Carolina, 36–37; *asst. prof. chem. and biol, The Citadel, 37–* A.A. Hydrobiology; the attraction of fishes by disposal plant effluent in a fresh water lake; ecology of protozoa; life in aquaria.

Metcalf, Prof. Jessie L(overing), Wayne University, Detroit, Mich. *Zoology.* Detroit, Mich, Oct. 2, 98. A.B, Michigan, 20, A.M, 28. Instr. *zool, Wayne,* 20–36, *asst. prof, 36–* A.A; Mich. Acad. Vertebrate zoology; amphibia; biological literature available in the Detroit area.

Metcalf, Prof. John T(rumbull), University of Vermont, Burlington, Vt. *Psychology.* New Haven, Conn, March 21, 89. A.B, Yale, 10, A.M, 11, Ph.D, 13; Berlin and Munich, 13–14. Instr. psychol, Princeton, 14–16; Smith Col, 16–18, asst. prof, 18–19; psychologist, dept. pub. welfare, Ill. Div. Criminol, 19–20; asst. prof. *psychol,* George Washington, 20–21; assoc. prof, *Vermont,* 21–37, *prof, 37–, head dept.* Assoc. ed, 'Psychol. Bul.' Chairman subcmt. psychiat. services and the feebleminded, State Cmn. Family and Welfare Legislation, Vt, 41–43. Lieut, Sanit. C, 17–19. A.A; Psychol. Asn; Eugenics Research Asn; Vt. Soc. Mental Hygiene (pres, 42–); Vt. Childrens Aid Soc. (advisor mental testing, 21–). Experimental psychology.

Metcalf, Dr. Richard P(utnam), 5011 42nd Ave, Hyattsville, Md. *Physical chemistry.* Elyria, Ohio, Nov. 18, 09. A.B, Oberlin Col, 30, 31–32; fellow, Chicago, 34–36, Gustavus F. Swift fellow, 37–38, Ph.D, 39. Asst. *chem,* Princeton, 30–31; asst, Chicago, 36–37; *instr,* Ohio State, 39–40; *Western Maryland Col, 40–* Chem. Soc; Physical Soc. Magnetic susceptibility of sodium in liquid ammonia; effect of resonance on reaction velocity.

Metcalf, Dr. Ruth Clark (Mrs. John T(rumbull) Metcalf), 35 Kingsland Terrace, Burlington, Vt. *Psychology.* Holyoke, Mass, Oct. 8, 87. A.B, Smith Col, 09, A.M, 13; Smith Col. fellow, Columbia, 16–17, Ph.D, 19. Teacher, high sch, 09–11; reader, dept. philos. and psychol, Smith Col, 11–13, asst, 13–16, instr, 17–19; psychologist, Bur. Vocational Service for Juniors, New York, 19–23. Summers, instr, training sch. for social workers, Smith Col, 18–20. Psychol. Asn; Vocational Guidance Asn. (trustee, 21); N. Y. Asn. Consulting Psychol. (exec. cmt, 21–23). Group tests given to public school children; history of the theories of feeling and emotion.

Metcalf, Prof. Z(eno) P(ayne), State College Station, Raleigh, N. C. *Entomology.* Lakeville, Ohio, May 1, 85. A.B, Ohio State, 07; Sc.D, Harvard, 25. Instr. entom, Mich. State Col, and asst. entomologist, Exp. Sta, 07–08; asst. entomologist, State Dept. Agr, N. C, 08–12; *prof. zool. and entom, N. C. State Col, and entomologist, Exp. Sta, 12–, director instructions, sch. agr, 23–, assoc. dean grad. sch, 40–* Staff, lake lab, Ohio, 16, 18; Mich. Biol. Lab, 21; visiting prof, Duke, 35–36. Ed. board, 'Catalog Hemiptera of World'; sect. ed, 'Biol. Abstracts,' 26–; ed, 'Ecology,' 35–37. A.A; Entom. Soc; Asn. Econ. Entom; Micros. Soc. (v. pres, 22, pres, 27); Ecol. Soc; Soc. Mammal; Soc. Ichthyol. and Herp; Limnol. Soc; Ornith. Union; Wilson Ornith. Club; N. C. Acad. (v. pres, 14, pres, 21); Ohio Acad. Economic entomology; morphology of Homoptera; classification of the Homoptera of the world; zoology of North Carolina.

Metfessel, Prof. Milton, University of Southern California, Los Angeles, Calif. *Psychology.* Waterloo, Ont, Can, Sept. 6, 01. A.B, Iowa State Teachers Col, 21; A.M, Iowa, 24, fellow, 24–25, Ph.D, 25. Nat. research fellow psychol, Iowa,

25–28, assoc. prof. psychol. and speech, 28–29; *prof. psychol, Southern California, 29–, chairman dept, 30–, chairman div. social studies, 37–; major, Air Corps, U. S. Army, 42–* A.A; Psychol. Asn; Acoustical Soc; Anthrop. Asn; Int. Soc. Exp. Phonetics. Psychology of music and speech.

Metropolis, Dr. N(icholas) C(onstantine), University of Chicago, Chicago, Ill. *Physics.* Chicago, Ill, June 11, 15. B.S, Chicago, 36, Ph.D, 41. *Research assoc,* Chicago, 41; Columbia, 42; *Ryerson physical lab, Chicago, 42–* Physical Soc. Spectroscopic studies of di- and tri-atomic molecules.

Metschl, Dr. John, Mellon Institute, Pittsburgh, Pa. *Chemistry.* Milwaukee, Wis, March 7, 92. A.B, Wisconsin, 18, A.M, 20, Ph.D, 23. Asst. anthrop, Pub. Museum, Milwaukee, 14–16, asst. curator, 23–26; *fellow, Mellon Inst; head tech. information service, Gulf Research and Develop. Co.* Lecture asst, Wisconsin, 20–21. Summers, asst, Pub. Museum, Milwaukee, 17, 19, 20–23. Private, Sig.C, 18–19. Chem. Soc. Setting of plaster of Paris; supersaturation of gases in liquids; firearms; petroleum; sugar; waxes; classification of petroleum literature.

Mettler, Prof. Stacy R(aymond), University of California Hospital, San Francisco, Calif. *Internal medicine.* Los Angeles, Calif, July 22, 97. A.B, California, 25, M.D, 26. Instr. path, med. sch, California, 27–28; asst. *med,* Harvard Med. Sch, 28–30; asst. prof, *med. sch, California,* 30–38, *assoc. prof, 38–* Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest; Col. Physicians. Anemia; vitamin C deficiency; leukopenia; circulation of the heart valves.

Mettler, Prof. Fred(erick) A(lbert), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Neurology.* New York, N. Y, June 13, 07. A.B, Clark, 29; M.A, Cornell, 31, Ph.D, 33; M.D, Georgia, 37. Asst. anat, med. col, Cornell, 30–31, instr, 31–33; physiol, med. col, St. Louis, 33–34; asst. prof. *anat,* sch. med, Georgia, 34–36, assoc. prof, 36–38, prof, 38–42; *assoc. prof, col. physicians and surgeons, Columbia, 41–* Summers, asst, research lab, Health Dept, New York, 28, 29; guest investigator, Illinois, 31–38; neur. service, Harvard, 35; Rochester, 38–40. Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Asn. Research Nervous and Mental Disease (cmn, 40); Neur. Asn; Harvey Soc; N. Y. Acad; Ga. State Med. Asn. (co-chairman sci. cmt, 37–42). Anatomy, physiology and diseases of the nervous system.

Metz, Sister Aloysius Marie, Trinity College, Washington, D. C. *Physics.* Dayton, Ohio, Sept. 2, 79. B.S, Trinity Col. (D. C), 15, M.S, 20; Bowdoin Col; Catholic Univ. Teacher math, science and Latin, Notre Dame Acad, 04–13; instr. *physics, Trinity Col. (D. C),* 15–20, *head dept, 20–* A.A; Physical Soc. Polarized light; electron physics.

Metz, Prof. Charles F(ranklin), Colorado State College of Agriculture and Mechanic Arts, Ft. Collins, Colo. *Physical chemistry.* Randolph Co, Ind, Sept. 23, 04. B.S, S. Dak. Sch. Mines, 26; M.S, Colorado, 28, Ph.D, 36. Instr. *chem,* S. Dak. Sch. Mines, 26–27; asst, Colorado, 27–28; instr, Park Col, 28–30, assoc. prof, 30–35; instr, *Colo. State Col,* 36–37, asst. prof, 37–42, *assoc. prof, 42–* Chem. Soc. The phase diagram of the system silver iodide-lead iodide; effect of concentration on the magnetic double refraction of solutions of organic salts.

Metz, Dr. C(harles) W(illiam), University of Pennsylvania, Philadelphia, Pa. **4Zoology.* Sundance, Wyo, Feb. 17, 89. A.B, Pomona Col, 11; fellow, Columbia, 12–13, Ph.D, 16. Res. investigator, sta. for exp. evolution, dept. genetics, Carnegie Institution, Cold Spring Harbor, 14–30, mem. staff, dept. embryol, 30–40; *prof. zool. and director zool. lab, Pennsylvania, 40–* Visiting prof, Hopkins, 30–37. A.A; Soc. Nat; Soc. Zool; Genetics Soc; Philos. Soc. Cytology and genetics of Diptera.

Metz, Sister Mary Clare, Our Lady of the Lake College, San Antonio, Texas. *Botany.* Perry, Okla, Jan. 27, 07. A.B, Our Lady of the Lake Col, 28; A.M, Catholic Univ, 31, Ph.D, 34. *Prof. biol, Our Lady of the Lake Col, 33–* Bot. Soc; Texas Acad. Taxonomy of seed plants; chromosome numbers in seed plants of Bexar County, Texas.

Metzger, C(arl) H(enry), Colorado State College, Ft. Collins, Colo. *Horticulture.* Denver, Colo, Dec. 24, 01. B.S, Colo. Agr. Col, 24, M.S, 25. Asst. horticulturist, Colo. Agr. Col. 25–29, *assoc. horticulturist,* 29–35, *Colo. State Col, 35–* Soc. Hort. Sci; Potato Asn. High altitude horticulture; potato investigations.

Metzger, Dr. F(loyd) J(ay), 60 E. 42nd St, New York, N. Y. *Chemistry.* Akron, Ohio, Aug. 30, 77. Ph.B, Buchtel Col, 99; Ph.D, Columbia, 02. Tutor chem, Columbia, 05–07, instr, 07–11, asst. prof, 11–16, assoc. prof, 16–17; *v. pres. in charge research and develop, Air Reduction Co, 17–; director research and director, U. S. Indust. Chemicals, Inc, 30–* Chem. indust. medal, 34. Chem. Soc; Electrochem. Soc; Chem. Eng; Soc. Chem. Indust; Chemists' Club (pres, 23, 24). Industrial gases and chemicals.

Metzger, Dr. H(erbert) J(ohn), Rutgers University, New Brunswick, N. J. *Bacteriology.* Groton, N. Y, May 18, 93. D.V.M, Cornell, 18. Prof, exten, Cornell, 22–29; asst. pathologist, Kentucky, 35–37; *asst. prof. agr. biochem, Rutgers,* 37–A.A; Vet. Med. Asn. Bacteriology in relation to the control of Bangs disease in dairy cattle.

Metzner, Dr. Charles A(lfred), 3346 C St, S.E, Washington 19, D. C. *Psychology.* Milwaukee, Wis. A.B, Wisconsin, 37, A.M, 38, Ph.D, 42. *Asst. psychologist, U. S. Bur. Census, 42–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Errors of response in the inquiry.

Meull, Dr. Lloyd J(oseph), 4514 Jefferson Ave, Midland, Mich. *Plant pathology.* Wis, Feb. 5, 10. B.S, Wisconsin, 32, M.S, 33, Ph.D, 40; Minnesota, 37–38. Plant physiologist, U. S. Forest Service, St. Paul, Minn, 34–38; *plant pathologist, biochem. research lab, Dow Chem. Co, 40–* Phytopath. Soc. Diseases of ornamentals; drought and cold resistance of forest trees; organic fungicide development.

Meuly, Dr. Walter C, E. I. du Pont de Nemours and Co, Inc, New Brunswick, N. J. *Organic chemistry.* Langenthal, Switzerland, Nov. 5, 98. M.S, Swiss Fed. Inst. Tech, 21, Ph.D, 23. Research chemist, Newport Co, Wis, 24–30; area supt, fine chemicals div, *New Brunswick works, E. I. du Pont de Nemours and Co, Inc,* 30–41, *production manager, 41–* Chem. Soc. Synthetic dyestuffs; perfume chemicals; pharmaceuticals.

Meunier, Dr. Alfred C(harles), 115 Hamilton St, Bound Brook, N. J. *Organic chemistry.* Indianapolis, Ind, June 5, 15. B.S, Butler, 36; M.S, Pa. State Col, 39, Ph.D, 41. *Research chemist, Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Halogenated methanes; hydrogen fluoride as a condensing agent; preparation of sulfonamide drugs.

Meunier, Dr. Vincent C, 264 Bickley Road, Glenside, Pa. *Chemistry.* Indianapolis, Ind, June 29, 12. B.S, Butler, 34; Ph.D, Pa. State Col, 40. *Research chemist,* Columbia chemicals div, Pittsburgh Plate Glass Co, 39–42; *Marco Chem, 42–* Chem. Soc. Synthetic resins.

Mewborn, Prof. A(laduke) Boyd, Box 4425, University Station, Tucson, Ariz. *Geometry.* New York, N. Y, April 9, 04. B.S, Arizona, 27, M.S, 33; Chicago, summers, 35, 36, 37; Ph.D, Calif. Inst. Tech, 40. Instr. math, *Arizona,* 31–33, math. and physical science, 33–37, *asst. prof,* 37–39, *math, 39–; lieut, A–V(S), U. S. Naval Res, 42–* Asst, Calif. Inst. Tech, 39–40. A.A; Math. Soc; Math. Asn. Modern differential geometry; differential geometry of paths.

Meyer, Dr. Adolf, Johns Hopkins Hospital, Baltimore, Md. **3Psychiatry, Neurology.* Niederweningen, near Zurich, Switzerland, Sept. 13, 66. Staatsexamen, Zurich, 90, M.D, 92; Paris, Edinburgh, London, Vienna and Berlin, 90–92; LL.D, Glasgow, 01, Clark, 09; Sc.D, Yale, 34. Hon. fellow, Chicago, 92–93, docent neur, 93–95; pathologist, Ill. East. Hosp, 93–95; pathologist and later director clin. and lab. work, Worcester Insane Hosp, 95–02; docent psychiat, Clark, 95–02; director, Path. Inst. of State Hosps. of N. Y, 02–10; prof. *psychiat,* med. col, Cornell, 04–09; *Hopkins,* 10–41, *emer. prof, 41–,* psychiatrist in chief, Hopkins Hosp, 10–41. Salmon lecturer, N. Y. Acad. Med, 32, Maudsley lecturer, 33. Hon. pres, Nat. Cmn. Mental Hygiene; pres, Int. Cmn. Mental Hygiene. A.A; Neur. Asn. (pres, 22); Psychiat. Asn. (pres, 27); Psychol. Asn; Psychopath. Asn. (pres, 12, 16); Asn. Path. and Bact; Asn. Anat; Asn. Research Nervous and Mental Disease; Orthopsychiat. Asn; Am. Physicians; Harvey Soc; Inst. Criminal Law and Criminol; New Eng. Soc. Psychiat; N. Y. Psychiat. Soc. (pres, 05–07); hon. mem. N. Y. Psychoanalytic Inst; fel. N. Y. Acad. (v. pres, 08); hon. mem. Boston Soc. Psychiat. and Neur; Royal Medico-Psychol. Asn; Halle Akad. der Naturforscher; cor. mem. Soc. médico-psychol. de Paris; cor. mem. Soc. de Neur. de Paris; cor. mem. Soc. de Psychol. de Paris; cor. mem. Soc. Neur. y Psiquiat. Buenos Aires. Comparative anatomy of forebrain, chiefly of reptiles; pathological anatomy of the nervous system; psychopathology;

normal and pathological anatomy of the cerebrum; aphasia; habit disorganizations; formulation of psychobiology and psychopathology as objective sciences; status and methodology of psychology and psychiatry; psychobiology or ergasiology.

Meyer, Adolph F(rederick), 284 Baker Bldg, Minneapolis, Minn. *Engineering.* Cedarburg, Wis, Feb. 28, 80. B.S, Wisconsin, 05, C.E, 09. Engineer, U.S.A, 05–12; consulting engineer, Int. Joint Cmn, 12–17; assoc. prof. hydraul. eng, Minnesota, 14–19; *consulting hydraul. engineer, 12–* Prof, Iowa, 34–35. Civil Eng; Mech. Eng; Minneapolis Eng. Club. Hydrology; hydraulics; manufacture of groundwood.

Meyer, Dr. Albert W(illiam), 518 Prospect St, Nutley, N. J. *Physical chemistry.* Schenectady, N. Y, Nov. 29, 06. B.S, Chicago, 27, Ph.D, 30. *Research chemist,* du Pont Ammonia Corp, 30–31; A. O. Smith Corp, 31–34; *U. S. Rubber Co, 34–* Chem. Soc. Properties of solutions of alkali metals in liquid ammonia; catalysis; synthetic resins; lacquers; rubber.

Meyer, Prof. Alfred H(erman), Valparaiso University, Valparaiso, Ind. *Geography, Geology.* Venedy, Ill, Feb. 27, 93. A.B, Illinois, 21, A.M, 23; Chicago, 24, 26; Northwestern, 27; Ph.D, Michigan, 34. Instr, Luther Inst, Chicago, 25–26; *Valparaiso, 26–, prof. and head dept. geog. and geol.* A.A; Nat. Council Geog. Teachers (chairman cmt. standards of certification of high sch. teachers of geog); Am. Acad. Polit. and Social Sci; Ind. Acad; Mich. Acad.

Meyer, Prof. Alfred W(esley), 1941 Eighth Ave, S.E, Cedar Rapids, Iowa. *Physics.* Bartlett, Ill, Sept. 29, 98. B.S, Coe Col, 24; scholar, Iowa, 24–25, M.S, 25, fellow, 28, Ph.D, 30. Asst. prof. *physics, Coe Col,* 25–30, *assoc. prof, 30–* Physical Soc; Asn. Physics Teachers. Optics; x-rays in liquids.

Meyer, Dr. Arthur E(rnest), 32-03 162nd St, Flushing, N. Y. *Chemistry.* Esslingen, Germany, Oct. 7, 87. Ph.D, Berlin, 12. Bayer Dye Manufactory, Elberfeld, Germany, 13–15; bacteriologist, Hygienic Inst, Koenigsberg, DeHaen, Hanover, 15–22; prof. medicinal chem, Mexico, 22–27; *director research,* Chappel Foundation Organotherapeut. Research and Chappel Labs, 27–36; *Maltine Co, Brooklyn, N. Y, 36–* A.A; Chem. Soc; Asn. Study Int. Secretions; Soc. Exp. Biol. Biological and medicinal chemistry; bacteriology of milk nutrition; liver extracts and anemia problems; endocrinology; pituitary and thyroid gland; estrogens.

Meyer, Dr. A(rthur) W(illiam), 121 Waverley St, Palo Alto, Calif. *²*Anatomy.* Cedarburg, Wis, Aug. 18, 73. B.S, Wisconsin, 98; M.D, Hopkins, 05. Instr. physics, St. John's Mil. Acad, 98–01; asst. anat, Hopkins, 05–06, instr, 06–07; asst. prof, Minnesota, 07–08; prof, Northwestern, 08–09; *human anat, Stanford,* 09–38, *emer. prof, 38–* Research assoc, Carnegie Institution, 17–18. A.A; Asn. Anat. (exec. cmt, v. pres); Soc. Zool; Soc. Exp. Biol; Asn. Physical Anthrop; Hist. of Sci. Soc; Asn. Hist. Med; West. Soc. Nat. Development; technique; growth; variations; ante-natal pathology; lymphatics; physiology; pathology; education and social relations of science; history of science.

Meyer, Prof. Bernard S(andler), Ohio State University, Columbus, Ohio. *Botany.* Nantucket, Mass, July 20, 01. A.B, Ohio State, 21, A.M, 23, Ph.D, 26; England and Germany, 30. Instr. bot, Ohio State, 23–27; assoc. forest ecologist, Cent. States Forest Exp. Sta, U. S. Forest Service, 27–28; asst. prof. *bot, Ohio State,* 28–34, assoc. prof, 34–40, *prof, 40–* Summers, field asst, U. S. Dept. Agr, 22, 23; staff, desert lab, div. plant biol, Carnegie Institution, 29; mem. staff, Franz Theodore Stone Lab, Ohio State, 37–41. Business manager, 'Ohio Jour. Science,' 30–41. A.A; Bot. Soc. (chairman physiol. sect, 41); Soc. Plant Physiol. (v. pres, 40); Ecol. Soc; Ohio Acad. (v. pres, 33). Plant physiology and ecology.

Meyer, Dr. Charles F(erdinand), 1137 Fair Oaks Parkway, Ann Arbor, Mich. *Physics.* Baltimore, Md, Jan. 15, 87. A.B, Hopkins, 06, fellow, 10–11, Ph.D, 12. Asst. applied elec, Hopkins, 11–12; instr. *physics,* Washington (St. Louis), 12–13, acting asst. prof, 13–14; lecturer, Hopkins, 14–15; instr, *Michigan,* 15–17, 19–21, asst. prof, 21–30, *assoc. prof, 30–* Lieut, M.T.C, 17–19. A.A; fel. Physical Soc; Optical Soc. Vibration of telephone diaphragms; spectroscopy; infra-red; diffraction.

Meyer, Dr. Curtis E(rdmund), Upjohn Co, Kalamazoo, Mich. *Biochemistry.* Petoskey, Mich, June 14, 09. B.S, Illinois, 31, M.S, 32, Ph.D, 35. Asst. biochem, Illinois, 35–37; asst. prof. research, Oregon State Col, 37–38; research assoc, med. sch, Wayne, 38–40; *chemist,* Thomas Henry Simpson mem. inst. med. research, Michigan, 40–42; *Upjohn Co, 42–* Chem. Soc. Chemistry and metabolism of amino acids; metabolism of citric acid; pernicious anemia.

Meyer, Dr. Erwin E(mil) A(lbert) G(eorge), 1099 Van Dyke, Detroit, Mich. *Chemistry.* Hanover, Germany, Oct. 1, 73. Erlangen, 94–95; Ph.D, Berlin, 00; Tech. Hochschule, Hanover, 00–01. Chief chemist, St. Helen's Cable Co, Warrington, England, 02–05; consulting chemist, The Rubber Goods Mfg. Co, 06–08; Morgan and Wright Co, 08–10; U. S. Rubber Co, 10–27; owner, Organ-Oxide Products Co. and Meyer Chem. Eng. Co, 27–31; pres, Oroxo Grinding Wheel Co, 31–40; *consulting chemist, Roxoloy Grinding Wheel Co, rubber div, Swedish Crucible Steel Co. and Abrasive Dressing Tool Co, 40–* Chem. Soc; Detroit Chem. Soc; Deuts. Chem. Gesell. Organic chemistry; rubber latex.

Meyer, Garson, 55 Chadbourne Road, Rochester, N. Y. *Industrial chemistry.* Rochester, N. Y, Nov. 22, 96. Cornell; B.S, Rochester, 19. Chemist, research labs, *Eastman Kodak Co,* 19–20, *chief chemist, camera works, 20–* In charge offensive and defensive confidential reports, C.W.S, 18. A.A; Chem. Soc; Leather Chem. Asn; Soc. Test. Mat. Chemical induction and photographic development; industrial chemical development.

Meyer, Dr. George, University of Michigan, Ann Arbor, Mich. *Psychology.* San Francisco, Calif, Nov. 24, 06. A.B, California, 27, A.M, 28; Ph.D, Michigan, 34. Instr. *psychol, Michigan,* 30–39, *asst. prof, 39–* Summers, mem. faculty, California, 38; West. Mich. State Teachers Col, 40; Cent. Mich. State Teachers Col, 41. Psychol. Asn; Mich. Psychol. Asn. Memory; tests and measurements; abnormal psychology.

Meyer, Dr. Glen E(rnest), 46 Prospect St, Waterbury, Conn. *Chemistry.* Albany, Oregon, Feb. 10, 13. A.B, Albany Col. (Oregon), 35; Ph.D, Hopkins, 39, 39–40. Junior chemist, Edgewood Arsenal, Md, 40–41; *research chemist,* plantations div, U. S. Rubber Co, Sumatra, Netherlands East Indies, 41–42; *aromatics div, Naugatuck Chem. Co, 42–* Chem. Soc. Preparation and properties of aluminum oxide ultra-gel.

Meyer, Dr. Gustave M(orris), Saranac Lake, N. Y. *Chemistry.* New York, N. Y, Dec. 16, 75. B.S, C.E, N. Y. Univ, 96; D.Sc, Geneva, 01. Tutor biochem, col. physicians and surg, Columbia, 07–08; assoc. prof, col. med, Syracuse, 08–09; asst. chem, Rockefeller Inst, 09–13, assoc, 13–41; *retired.* Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Harvey Soc. Biochemistry; carbohydrates; tissue chemistry.

Meyer, Prof. H(ans) Arthur, Pennsylvania State College, State College, Pa. *Forestry.* Interlaken, Switzerland. F.Eng, Fed. Inst. Tech, 30; Dr.Tech.Sci, Switzerland, 34. Asst. agr. chem, Fed. Inst. Tech, 31–32, forestry, 33–34; special inspector, Mexican Forest Service, 35–37; instr. *forestry, Pa. State Col,* 37–39, *asst. prof, 39–* Collaborator, U. S. Dept. Agr, 35. Soc. Foresters; Soc. Forestry Switzerland; Soc. de Hist. Nat, Mex. Forest management; mensuration; statistical methods as applied in forestry and related fields.

Meyer, Prof. H(enry), University of Tennessee, Knoxville, Tenn. *Zoology.* Grand Rapids, Mich, June 28, 08. A.B, Calvin Col, 30; M.S, Michigan, 31, Ph.D, 35. Asst. and teaching fellow zool, Michigan, 30–35; instr. biol, Lawrence Col, 35–37; *asst. prof. zool, Tennessee, 37–* Summer, instr, Michigan, 37–41. A.A; Wilson Ornith. Club; Tenn. Ornith. Soc; Tenn. Acad. Cytology; embryology; ornithology; reproductive behavior of Mollienisia and their hybrids; nesting habits of the eastern nighthawk.

Meyer, Prof. Herbert A(lbert), Hanover College, Hanover, Ind. *Mathematics.* Lamont, Iowa, Nov. 4, 05. B.S, Des Moines, 26; M.S, Iowa, 27, Ph.D, 29. *Prof. math, Hanover Col, 29–* A.A; Math. Soc; Math. Asn; Ind. Acad. Inequalities; actuarial science.

Meyer, Dr. Jane Dick, 413 W. Third St, Greensburg, Pa. *Chemistry.* Greensburg, Pa. A.B, Wilson Col, 28; Ph.D, Hopkins, 32. Asst. prof. chem, Wilson Col, 35–36; library research, 39–42; chem. research, 40. A.A; Chem. Soc. Polymorphism and alternation in melting points; derivatives of fatty acids and higher alcohols.

Meyer, Dr. J(ohn) Franklin, 3727 Jocelyn St, Washington, D. C. *Physics.* Penn Hall, Pa, March 11, 75. A.B, Franklin and Marshall Col, 94, A.M, 97, Sc.D, 18; Hopkins, 97–99; Ph.D, Pennsylvania, 04. Prin, high sch, Pa, 94–96; instr. math. and physics, Franklin and Marshall Acad, 96–97; prof,

high sch, 00–02; instr. and asst. prof. physics, Pennsylvania, 02–07; prof, Pa. State Col, 07–09; director physical research, Westinghouse Lamp Co, 09–13; assoc. physicist, Bur. Standards, 13–18, physicist, 18–41; *retired*. Trustee, Catawba Col. Physical Soc; Elec. Eng. (chairman, standard cmt, 26); Illum. Eng. Soc; Philos. Soc. Wash; Wash. Acad. (ed, 'Jour,' 18–21). Electrical convection; thermoelectromotive forces; tungsten lamps; standards for electric service and street lighting; photometry.

Meyer, Dr. Karl, 642 Wyndham Road, Teaneck, N. J. *Biochemistry*. Kerpen, Germany, Sept. 4, 99. M.D, Cologne, 24; Ph.D, Berlin, 28. Asst. prof. exp. biol, California, 31–33; asst. prof. and later *assoc. prof. biochem, col. physicians and surg, Columbia, 33–* Chemist, Presb. Hosp, New York, 33–Soc. Biol. Chem; Soc. Exp. Biol. Glycolytic ferment; catalytic oxidation; hormones of anterior hypophysis; lysozyine; mucoids.

Meyer, Prof. K(arl) F(riederich), Hooper Foundation, San Francisco, Calif. *[5]Pathology, Bacteriology*. Basle, Switzerland, May 19, 84. A.B, Zurich, 05, D.V.M, 09, Ph.D, 24, hon. M.D, 37; Munich, 05–06; Bern, 08; hon. M.D, Col. Med. Evangelists, 36. Pathologist, Transvaal Dept. Agr, 08–10; asst. prof. path. and bacter, sch. vet. med, Pennsylvania, 10–11, prof, 11–13; director lab. and exp. farm, Pa. Livestock Sanit. Board, Phila, 11–13; assoc. prof. bacter. and protozool, *California*, 13–14, prof, 14–15, assoc. prof. trop. med, *Hooper Foundation*, 15–21, *prof.* research med. and acting director, 21–24, *bacter. and director, 24–; director research lab, Nat. Canners Asn, San Francisco, 26–* Consultant, State Dept. Pub. Health, Calif, 26–; director, Pub. Health Curricula, 36–39. Ludvig Hektoen lecturer, Inst. Med. Chicago, 31; Cutter lecturer, Harvard, 31; Gehrmann lecturer, col. med, Illinois, 33; Smith-Reed-Russell lecturer, 35; faculty research lecturer, California, 37; Harvey lecturer, Columbia, 39; visiting lecturer, Harvard, 41; DeLamar lecturer, Hopkins, 41; Craig lecturer, Am. Soc. Trop. Med, 41. Nat. Acad; A.A; Soc. Exp. Path; Asn. Path. and Bact; assoc. fel. Acad. Pediat; Soc. Bact. (v. pres, 34, pres, 35); Asn. Immunol. (pres, 40); Soc. Trop. Med. (v. pres, 18–37); Soc. Exp. Biol; Pub. Health Asn. (pres, west. branch); fel. Am. Acad; Calif. Acad. Med; fel. Calif. Acad; Path. Soc. Phila; N. Y. Acad; Soc. helvétique des Sci. nat. Comparative pathology and bacteriology; protozoology; experimental typhoid infections; fecal flora of children; immunity; cutaneous hypersensitiveness; Malta fever; undulant fever; anaerobes; canning technology; botulism; symbiosis in invertebrates; plague and focal infections; neurotropic viruses; psittacosis; sylvatic plague; leptospirosis.

Meyer, Dr. Martin, 1572 E. 28th St, Brooklyn, N. Y. *Chemistry*. St. Louis, Mo, April 15, 99. B.S, Col City of N. Y, 18; A.M, Columbia, 20, Ph.D, 21. Prof. *chem*, Antioch Col, 22; instr, *Col. City of N. Y*, 19–21, 23–27, asst. prof, 27–35, assoc. prof, 35–37, *prof, 37–*, acting chairman, *Brooklyn Col*, 35–37, 38, 41–43, *chairman, 43–* Consulting chemist, New York, 23–; administrator, A.W.S, New York, 43. 2nd lieut, Inf, 18. A.A; Chem. Soc; fel. Inst. Chem; Soc. Mil. Eng. Physical chemistry; organic sulfur compounds; lead tetraethyl; industrial toxicology; dehydrothiotoluidin; elementary chemical calculations; perfumes; chemical education; philosophy of science; catalysis; science of explosives.

Meyer, Dr. Marvin C(linton), New Jersey College for Women, Rutgers University, New Brunswick, N. J. *Zoology*. Jackson, Mo, Dec. 20, 07. B.S, Mo. State Col, 32; A.M, Ohio State, 36; Ph.D, Illinois, 39. Asst. biol, Mo. State Col, 30–32; prin, high sch, Mo, 32–36; asst. *zool*, Illinois, 36–39; instr, Kentucky, 39–41; *adj. prof. and acting head dept, N. J. Col. Women, Rutgers, 41–* Summers, instr, Col. City of N. Y, 38; marine biol. lab, Carnegie Institution, 40; Chesapeake Biol. Lab, Md, 41–42. Micros. Soc; Soc. Parasitol; Limnol. Soc; Ky. Acad. Parasitology; morphology and classification of Hirudinea; invertebrate morphology; faunistic zoology.

Meyer, Prof. Max F(rederick), University of Miami, Coral Gables, Fla. *[1]Psychology*. Danzig, Germany, June 15, 73. Ph.D, Berlin, 96. Asst, Berlin, 96–98; prof. exp. psychol, *Missouri*, 00–30, *research prof. psychol, 30–* Hon. fellow, Clark, 99; exchange prof, Chile, 29; in charge research, Cent. Inst. Deaf, St. Louis, 29, 30; visiting prof. psychol, Miami (Fla), 32– A.A; Psychol. Asn; Acoustical Soc; Speech Correction Asn; South. Soc. Philos. and Psychol. (pres, 30); Midwest. Psychol. Asn. (pres, 30); fel. Fla. Acad. Physiological acoustics; theory of music; psychology of painting, sculpture and language; rhythmical activities; comparative psychology; individual differences; educational problems of the congenitally deaf.

Meyer, Dr. Ovid O(tto), State of Wisconsin General Hospital, Madison, Wis. *Medicine*. Stevens Point, Wis, Dec. 17, 00. B.S, Wisconsin, 24; M.D, Columbia, 26. Intern, Wisconsin Gen. Hosp, 26–27, res, 27–29; asst. physician, Huntington Mem. Hosp, Boston, 29–32; research fellow, Harvard Med. Sch, 29–30, asst. *med*, 30–32; asst. prof, *Wisconsin*, 32–37, *assoc. prof, 37–* Asst. physician, Thorndike lab, Boston City Hosp, 32. Am. Med. Asn; Soc. Clin. Invest; Cent. Soc. Clin. Research. Bronchiectasis; venous pressure; cancer; hematology.

Meyer, Dr. Roland K(enneth), University of Wisconsin, Madison, Wis. *Zoology*. Fond du Lac, Wis, May 4, 04. A.B, Milton Col, 26; A.M, Wisconsin, 28, Ph.D, 30. Asst. zool, Milton Col, 25–26; Wisconsin, 26–30; nat. research fellow biol, sch. med. and dentistry, Rochester, 30–32, special fellow anat, 33; biol. research staff, Upjohn Co, 34–35; asst. prof. *zool, Wisconsin*, 35–38, *prof, 38–* A.A; Soc. Zool; Asn. Anat; Asn. Study Int. Secretions; Soc. Exp. Biol; N. Y. Acad. Endocrinology of reproduction; embryology.

Meyer, Dr. Ronald E(dgar), Socony-Vacuum Oil Co, Paulsboro, N. J. *Organic chemistry*. Lemont, Pa, March 13, 11. B.S, Pa. State Col, 32, M.S, 39, Ph.D, 41. *Research chemist, Socony-Vacuum Oil Co, 40–* Chem. Soc. Addition agents for the improvement of petroleum oils.

Meyer, Prof. Samuel L(ewis), 11 Forest Court, Knoxville, Tenn. *Botany*. Steinmetz, Mo, Nov. 9, 06. A.B, Central Col, 30; M.S, Vanderbilt, 32; Cornell, 32; Gen. Educ. Board scholar, Virginia, summers, 34–39, Philip Francis DuPont fellow, 36–37, Ph.D, 40. Asst. biol, Central Col, 27–30, instr, 30–31; teaching fellow, Vanderbilt, 31–32, instr, 32–36; Virginia, 37–40; *asst. prof. bot, Tennessee, 40–* Summers, asst, Mountain Lake Biol. Sta, Virginia, 38; mem. faculty, Tennessee, 40–42; Gen. Educ. Board fellow, 43. A.A; Bot. Soc; Soc. Plant Physiol; Mycol. Soc; Sullivant Moss Soc; Asn. Southeast. Biol. (exec. cmt, 42–); Tenn. Acad. Bryophyte physiology; taxonomy and genetics of Ascomycetes.

Meyer, Dr. Walter H(uber), Yale University, New Haven, Conn. *Forestry*. New Haven, Conn, Oct. 13, 96. A.B, Yale, 19, M.F, 22, Ph.D, 29; Royal Inst. Forestry, Stockholm, 23. Forest asst, U. S. Forest Service, 23–25, asst. silviculturist, 25–28, assoc. silviculturist, 28–34, silviculturist, 34–35; prof. forest management, col. forestry, Washington (Seattle), 36–39; *assoc. prof. forestry, sch. forestry, Yale, 39–* Soc. Foresters. Forest mensuration; forest management; growth and yield of various coniferous tree species in the Northeast and Northwest.

Meyer, William C(arter), Lilyacres, Fairhope, Ala. *Botany*. Outagamie Co, Wis, Aug. 7, 04. A.B, Lawrence Col, 27; A.M, Iowa, 29. Asst. plant physiologist, trop. plant research foundation, Columbia, 30–32; instr, high sch, Ala, 33–34; *proprietor, Lilyacres, 34–* Asst. plant physiologist, expeds, British Honduras, 30–32. The relationship of fertilizer and cultural methods to growth of Lilium.

Meyer, Prof. W(illiam) F(erdinand), Students' Observatory, Berkeley, Calif. *Astronomy*. Peru, Ill, Dec. 2, 80. B.S, Drake, 07; Ph.D, California, 19. Asst. astron, Drake, 06–07; California, 08–10, instr, 10–12; astronomer-in-charge, Int. Latitude Observatory, 12–18; Kellogg fellow, Lick Observatory, *California*, 18–19, asst. prof. *astron*, 19–23, assoc. prof, 23–29, *prof, 29–* A.A; Astron. Soc; Astron. Soc. Pacific (pres, 30). Orbits of new comets and satellites; polarigraphic studies of nebulae; radial velocities of stars; orbits of spectroscopic binaries.

Meyer, Prof. W(illia)m H(enry), N. Y. Post-Graduate Medical School and Hospital, 303 E. 20th St, New York, N. Y, or Tuckahoe, N. Y. *Roentgenology*. Brooklyn, N. Y, Dec. 17, 79. M.D, Columbia, 02. Roentgenologist, Bellevue and allied hosps, 12–14; director dept. roentgenol, *N. Y. Post-Grad. Med. Sch. and Hosp, 16–, prof. radiol, Columbia, 32–* Radiol. Soc. N. Amer; Am. Med. Asn; N. Y. Roentgen Ray Soc; fel. N. Y. Acad. Med. Roentgen diagnosis and therapy; qualitative and quantitative dosimetry; clinical roentgen pathology of thoracic and abdominal lesions.

Meyerding, Dr. Henry W(illiam), 525 Ninth Ave, S.W, Rochester, Minn. *Medicine*. St. Paul, Minn, Sept. 5, 84. B.S, Minnesota, 07, M.D, 09, M.S, 18; St. Mary's Hosp, 10–11. Intern, St. Peter State Hosp, Minn, 08; County and City Hosp, St. Paul, 09–10; house surgeon, *Mayo Clinic*, 11–12, attending

physician, 12–14, asst. orthopedist, 14–15, assoc. orthop. surgeon, 15, *surgeon, 15–*; instr. *orthop. surg, grad. sch. med, and Mayo Foundation, Minnesota*, 18–20, asst. prof, 20–22, assoc. prof, 22–37, *prof, 37–*; *col, Med. Corps, U. S. Army, 40–* Orthop. surgeon, Colonial and St. Mary's Hosps, 15–; lecturer, St. Mary's Training Sch. for Nurses, 24–; Kahler Sch. Nursing, 24–; surgeon, Chicago Great West. Ry. Co; dist. surgeon, Chicago and Northwest. Ry. Co. Mem. Am. Board Orthop. Surg. Gold medal, Am. Cong. Physical Therapy, 39. Instr, Officers Sch. Surg. No. 1, 18; major, M.R.C, 22–34, lieut. col, 34–40. A.A; Am. Med. Asn; Orthop. Asn; Acad. Orthop. Surg; fel. Col. Surg; Asn. Mil. Surg; Asn. Indust. Surg; Clin. Orthop. Soc; Genetic Asn; Am. Med. Editors' Asn; West. Surg. Asn; Minn-Dak. Orthop. Club; Minn. Acad; N. Y. Acad; South. Minn. Med. Asn; Pan Am. Med. Asn; Soc. française d'Orthop; cor. for. mem. Soc. Argentina de Cirugia Ortopedica; Int. Orthop. Soc. Bone and joint surgery; bone tumors; roentgen ray treatment of bone tumors; osteogenic sarcoma; sarcomas; fractures and dislocations; spondylolisthesis; Volkmann's ischemic contracture associated with supracondylar fracture; Dupuytren's contracture.

Meyerhof, Dr. Otto, University of Pennsylvania School of Medicine, Philadelphia, Pa. *Biochemistry.* Hannover, Germany, April 12, 84. M.D, Heidelberg, 09; LL.D, Edinburgh, 26. Lecturer physiol, Kiel, 13–18, prof, 18–24; mem. inst. biol, Kaiser Wilhelm Inst, Berlin, 24–29; director inst. physiol, Heidelberg, 29–38; Paris, 38–40; *research prof. biochem, sch. med, Pennsylvania, 40–* Nobel prize med, 22. Hon. mem. Harvey Soc; for. mem. Royal Soc. London. Muscle metabolism; tissue respiration; enzyme chemistry; intermediary reactions of fermentation; phosphorylation.

Meyerhoff, Prof. Howard A(ugustus), 7 Hampton Terrace, Northampton, Mass. *Geology.* New York, N. Y, May 27, 99. A.B, Illinois, 20; A.M, Columbia, 22, Ph.D, 35. Curator paleont, Columbia, 21–24; asst. prof. *geol. and geog, Smith Col,* 24–28, assoc. prof, 28–34, *prof, 34–; visiting prof, Yale, 43–; consultant mineral affairs, Dominican Govt, 43–* Geologist, sci. surv, P. R. and Virgin Islands, 24–; asst. geologist, Vt. Geol. Surv, 28; visiting prof, Puerto Rico, 31–32; geologist, Cmn. on Mineral Resources, P. R, 32–35; consulting geologist, P. R. Bur. Mines, 35–; geologist, Springfield Subsurface Surv, 40–42; mediator, Nat. War Labor Board. Walker prize, Boston Soc. Nat. Hist, 36. A.A. (sec'y, E, 37–40); Geol. Soc; Am. Geog. Soc; Paleont. Soc; Min. and Metal. Eng; Asn. Geog; Eng. Soc. New Eng; N. Y. Acad. West Indian geology and paleontology; physiography; Paleozoic stratigraphy of the Black Hills.

Meyerhoff, Louis, 236 First St, Perth Amboy, N. J. *Electrical engineering.* Poltava, Russia, Dec. 8, 96. B.S, Hopkins, 17; LL.B, Maryland, 24. Asst, Standard Underground Cable Co, 17, 18–19; teacher elec, Baltimore Polytech. Inst, 18; asst. engineer, Crown Cork and Seal Co, 20–23; lawyer, 23–29; *research engineer and asst. director high voltage labs, Gen. Cable Corp, 29–* Sig.C, U. S. Army, 18. Elec. Eng. Electrical power cables and accessories.

Meyers, Charles H(arold), 234 Norwalk Ave, Buffalo, N. Y. *Chemistry.* Lisbon, Iowa, Oct. 25, 94. B.S, Iowa State Col, 21, M.S, 22. Research chemist, Union Oil Co, 27–28; du Pont Rayon Co, 28–32; *chemist,* Comstock and Westcott, 36–38; *J. H. Williams and Co, 41–* A.A. Organic and physical chemistry.

Meyers, Dr. H. Russell, Long Island College of Medicine, Brooklyn, N. Y. *Neurophysiology, Neurosurgery.* Brooklyn, N. Y, Feb. 25, 04. A.B, Brown, 27, M.S, 29; M.D, Cornell, 32. Instr. psychol, N. Y. Univ, 29–32, lecturer, 36–39; *instr. neur, L. I. Col. Med, 38–, physiol, 39–* Asst, med. col, Cornell, 31–32; lecturer, Columbia, 39. Lucien prize, N. Y. State Med. Asn, 41. Am. Med. Asn; Asn. Research Nervous and Mental Disease; fel. Col. Surgeons. Intraventricular pressure; aphasia and thinking processes; epileptic electrophysiology of cortex; surgical therapy of extrapyramidal diseases; physiology of premotor cortex.

Meyers, H(erbert) H(enry), Virginia-Carolina Chemical Corp, Richmond, Va. *Industrial chemistry.* Philadelphia, Pa, March 16, 91. B.S, Pennsylvania, 12. Research chemist, Am. Smelting and Ref. Co, 12–16; *director chem. research,* Armour Fertilizer Works, 16–32; The Barrett Co, 33–36; *Va-Carolina Chem. Corp, 36–; mem. chem. branch, Office Production Management, 41–* Indust. fellow, Mellon Inst, 16–32. A.A; Chem. Soc; Chem. Eng. Chemical engineering; commercial production of fertilizers.

Meyers, Prof. T(heodore) R(alph), 11 Madbury Road, Durham, N. H. *Geology.* Cincinnati, Ohio, Dec. 21, 02. A.B, Ohio State, 26, A.M, 29; Chicago, 29. Asst. prof. *geol, New Hampshire,* 27–41, *assoc. prof, 41–, acting head dept.* Austin teaching fellow, Harvard, 31–32. Summers, Ohio Geol. Surv, 25–28; geologist, State Highway Dept, N. H, 35–36. Mineralogy of New Hampshire; petrography of southeastern New Hampshire.

Meylan, Dr. George L(ouis), Casco, Maine. *Anthropometry, Physiology.* Brassus, Switzerland, July 22, 73. M.D, N. Y. Univ, 96; B.S, Harvard, 02; A.M, Columbia, 04; hon. M.P.E, 19. Prof. physical educ. and med. director, Columbia, 03–29; *retired.* Summers, lecturer, Harvard, 99–03; instr, Sargent Nor. Sch, 02–03. Physical Educ. Asn. (pres, 07–11). Physiology of exercise; anthropometry; physical education.

M'Gonigle, Dr. R(owland) H(illary), Atlantic Biological Station, St. Andrews, N. B, Can. *Pathology.* Tower, Minn, March 27, 96. B.A, Toronto, 23, B.M, 26, M.A, M.D, 30. Investigator, pile-borer investigation, Nat. Research Council Can, 23–25; intern, St Michael's Hosp, Toronto, 26–27; res fellow pharmacol, Toronto, 27–29; *pathologist, Atlantic Biol. Sta, 29–*, asst. director, 31–34, acting director, 34; *Royal Can. Army Med. Corps, 41–, major.* Fisheries Soc; Limnol. Soc; Can. Physiol. Soc; N. S. Inst. Pituitary diuresis; marine pile-borers; fresh-water fish ecology and physiology with special reference to temperature; fish pathology; aquiculture.

Micell, Dr. A(ngelo) S(ylvestro), United States Rubber Co, Detroit, Mich. *Chemistry.* New York, N. Y, Dec. 24, 13. B.S, Wayne, 34, M.S, 36; Ph.D, Michigan, 42. Asst, Wayne, 34–36, instr. chem, 36–42; *product and process control and develop, U. S. Rubber Co, 42–* Chem. Soc. Chemical kinetics; rubber technology; mechanism of thermal and photochemical isotopic exchange reactions; mechanism of adhesion of rubber to metal.

Michael, Louis G, American Legation, Belgrade, Yugoslavia. *Agriculture.* Hastings, Mich, Aug. 3, 78. B.S, Mich. Agr. Col, 03; M.S, Wisconsin, 18; hon. D.Agr, Mich. State Col. *Agr. attaché, for. service, bur. agr. econ, U. S. Dept. Agr.* Agricultural survey of Europe.

Michael, Prof. Lyle J(ordan), 67 S. Grove St, Westerville, Ohio. *Inorganic chemistry.* Phillips, Wis, Feb. 1, 95. B.S, Otterbein Col, 19; M.S, Ohio State, 20, Ph.D, 29. Chemist, Aetna Explosives Co, 18; research chemist, Norton Co, 20–21; *prof. chem,* Ind. Cent. Col, 21–37; *Otterbein Col, 37–* Chem. Soc; Ohio Acad. Solubilities; catalysis.

Michael, Dr. Viola M(ae), 307 S. Orchard St, Urbana, Ill. *Bacteriology.* Olney, Ill, Feb. 3, 99. A.B, Illinois, 25, Ph.D, 34. Teacher, pub. schs, Ill, 17–20, high sch, 25–28; mem. research staff, lab. animal path. and hygiene, Illinois, 29–36; parasitologist, *State Dept. Pub. Health, Ill,* 36–41, *senior bacteriologist, 41–* A.A; Pub. Health Asn; Soc. Bact; Soc. Ill. Bact. Microbiology of canned corn; incubator fumigation; brucellosis in animals; poisonous plants in Illinois; food poisoning.

Michaelis, Dr. L(eonor), Rockefeller Institute, New York, N. Y. *[5]Physical chemistry.* Berlin, Germany, Jan. 16, 75. M.D, Berlin, 96. Asst, State Inst. Serum Research, Berlin, 98–99; intern asst, Munic. Hosp, 99–02; asst, med. clinic, dept. for cancer research, privat-docent, 02, prof, 03–07, director biol. lab, Munic. Hosp, 07–22; prof. biochem, Med. Sch, Nagoya, Japan, 22–26; res. lecturer research med, Hopkins, 26–29; mem, *Rockefeller Inst,* 29–41, *emer. mem, 41–* Prof, Berlin, 05, prof. and lecturer, 20. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; fel. N. Y. Acad. Physical chemistry applied to medicine and biology.

Michaels, Dr. A(dal) E(ldon), University of Tennessee, Knoxville, Tenn. *Physical chemistry.* Alma, Wis, Nov. 22, 13. B.S, Wisconsin, 35; Ph.D, Ohio State, 40. Asst, Ohio State, 35–39; *instr. chem, Tennessee, 40–* Chem. Soc. Theoretical and experimental atomic scattering factors; x-ray diffraction.

Michaels, Dr. Walter H(erman), 2028 N. 55th, Omaha, Nebr. *Plant physiology.* Watertown, S. Dak, Oct. 18, 01. B.S, S. Dak. State Col, 23, M.S, 25; fellow, Illinois, 28–29, Ph.D, 29. Asst. olericulture, Illinois, 29–33; appraiser, *Fed. Land Bank of Omaha,* 33–37, state supervisor, 37–42, *asst. regional manager, 42–* A.A; Soc. Plant Physiol. Canning crops; plant respiration and nutrition; farm credit.

Michal, Prof. A(ristotle) D, California Institute of Technology, Pasadena, Calif. *[6]Mathematics.* Smyrna, Asia Minor,

May 1, 99. A.B, Clark, 20, fellow, 20–21, A M, 21; Ph.D, Rice Inst, 24. Asst. math. and physics, Clark, 18–20; teaching fellow math, Rice Inst, 21–23, instr. math, 23–25; nat. research fellow, Chicago, Harvard, Rice Inst, Princeton, 25–27; asst. prof, Ohio State, 27–29; assoc. prof. *math, Calif. Inst. Tech, 29–38, prof, 38–* A.A; Math. Soc; Math. Asn. Integral, differential and integro-differential equations; continuous groups; tensor analysis; differential and integral invariants; functionals; infinitely many dimensional differential geometries; foundations of differential geometry; abstract spaces; topological algebra; general analysis; general differential calculus; general differential geometry with linear topological coordinates; applications of mathematics to aeronautical subjects.

Michalek, Dr. J(ohn) C(larke), 8702 Pershing Ave, Niagara Falls, N. Y. *Physical chemistry.* Chicago Heights, Ill, Oct. 13, 02. B.S, Illinois, M.S, 24, Ph.D, 27. Asst. chem, Illinois, 23–26; *research chemist, Mathieson Alkali Works, 27–* Chem. Soc. Vapor pressure and vapor density of dry ammonium chloride; specific heats of metals; electrode potentials; heavy chemicals; synthetic organics.

Michalski, Dr. Joseph Vitold, 225 Smith St, Newark, N. J. *Physiology.* Washington, D. C, May 27, 14. A.B, Hopkins, 36; A.M, Princeton, 40, Ph.D, 42. Aviation physiologist, sch. aviation med, Randolph Field, Texas, *Air Forces, U. S. Army, 42, director* unit oxygen officers course, navigation sch, Hondo, Texas, *42, altitude training unit, March Field, Calif, 43–* Chromosomal aberrations in salamanders.

Michel, Dr. H(arry) O(scar), 212 Homewood Terrace, Baltimore, Md. *Biochemistry.* Oakland, Calif, May 15, 10. B.S, California, 33; Ph.D, Duke, 38. Asst. biochem, Duke, 34–38; ophthal, Hopkins, 38–40; research biochemist, Edgewood Arsenal, Md, 40–42; *lieut, Air Forces, U. S. Army, 42–* A.A. Hemoglobin and derivatives; sulfanilamide; ascorbic acid; adrenalin; acetanilide.

Michelbacher, Dr. A(be) E(zra), University of California, Berkeley, Calif. *Entomology.* Riverside, Calif, April 12, 99. B.S, California, 27, M.S, 31, Ph.D, 35. Asst. plant physiol, Citrus Exp. Sta, California, 21–24; asst. agriculturist, Am. Beet Sugar Co, 27–30; asst. entom, *Exp. Sta, California,* 31–35, junior entomologist, 35–43, *asst. entomologist, 43–* A.A; Asn. Econ. Entom; Entom. Soc. Amer; West. Soc. Nat; Pacific Coast Entom. Soc; Calif. Entom. Club (v. pres, 41, pres, 42). Economic entomology; Symphyla; alfalfa insects; pests of tomatoes; deciduous fruits; stored products pests.

Michell, Dr. John H(umfrey), Beloeil, Que, Can. *Organic chemistry.* England, July 30, 15. B.A, Toronto, 37, M.A, 38; Sc.D, Mass. Inst. Tech, 41. Demonstrator, Toronto, 37–38; teaching fellow, Mass. Inst. Tech, 38–40; *research chemist, Can. Industries, Ltd, 41–* Assoc. Can. Inst. Chem. Chemistry of starch; microanalytical methods.

Michell, Dr. Wilson D(oe), Desert Silver, Inc, Nivloc, Nev. *Economic geology.* Madison, Wis, March 23, 14. A.B. and A.M, Wisconsin, 35; A.M, Harvard, 37, Ph.D, 41. *Geologist,* Wis. Geol. Surv, 35–40; *Desert Silver, Inc, 41–* Asst, Harvard, 38–40. Summer, in charge geol. investigations, Ramshorn Mine, Idaho, 38. Silver ore deposits.

Michels, Dr. Lloyd R, U. S. Bureau of Mines, Pullman, Wash. *Chemical engineering.* San Francisco, Calif, Aug. 2, 16. B.S, California, 38; M.S, Illinois, 40, Ph.D, 41. Teaching asst. chem, Illinois, 39–41; research chem. engineer and metallurgist, Permanente Metals Corp, 41–42; *asst. chem. engineer, U. S. Bur. Mines, 42–* A.A; Chem. Soc. Catalytic oxidations and decompositions; carbothermic magnesium process.

Michels, Dr. N(icholas) A(loysius), Jefferson Medical College, Philadelphia, Pa. *Anatomy.* St. Paul, Minn, Oct. 1, 91. A.B, St. Thomas Col, 14; A.M, Minnesota, 20; D.Sc, Louvain, Belgium, 22; Friday Harbor, 21; Naples, 23; Paris, 23; Siena, 23; Chicago, 25. Asst. prof. biol. and histol, sch. med, St. Louis, 26–27; *assoc. prof. anat,* sch. med, Creighton, 27–29; *Daniel Baugh inst, Jefferson Med. Col, 29–* Libman fellowship fund grant, Univ. and Bellevue Hosp. Med. Col. and Mt. Sinai Hosp, 26, Am. Med. Asn. fund grant, 28. A.A; Soc. Exp. Biol; Asn. Anat; Genetic Asn; Physiol. Soc. Phila; Soc. sci. de Bruxelles; Soc. d'Anthrop. de Bruxelles. Mast and plasma cells; erythrocytes; erythropoiesis; embryonic blood; perivascular infiltrations in disease; Rouget cells and capillary structure; peritoneal absorption in teleosts; plexus omentalis and capillary innervation; effect of x-rays on blood-forming organs; variational anatomy of the celiac axis; splenic artery and spleen; hepatic and cystic arteries.

Michels, Prof. Walter C(hristian), Navy Department, Washington, D. C. *Physics.* Utica, N. Y, June 14, 06. E.E, Rensselaer Polytech, 27; Ph.D, Calif. Inst. Tech, 30. Relay and test engineer, Utica Gas and Elec. Co, 26–27; asst. *physics,* Calif. Inst. Tech, 27–29, teaching fellow, 29–30; nat. research fellow, Palmer physical lab, Princeton, 30–32; assoc, *Bryn Mawr Col,* 32–34, *assoc. prof, 34–; mem. staff, U. S. Navy Dept, 41–* Physical Soc; Asn. Physics Teachers; Franklin Inst; N. Y. Acad. Intensity measurements in line spectra; excitation of atoms by electron impact; electrical measurements; surface energy transfer and electrical and thermal properties of the solid state; special relativity.

Michelson, Dr. Henry E(rnest), University of Minnesota, Minneapolis, Minn. *Dermatology.* N. Dak, Sept. 22, 88. B.S, Minnesota, 10, M.D, 12. From asst. to *prof. dermatol, Minnesota, 18–* Dermatol. Asn; cor. mem. French Dermatol. Soc; cor. mem. Vienna Dermatol. Soc. Tuberculosis of the skin.

Michelson, Dr. I(sreal) D(avid), University of Tennessee, Memphis, Tenn. *Pathology.* Baltimore, Md, July 8, 97. A.B, Hopkins, 18, M.D, 22. Intern, Sinai Hosp, Baltimore, 22–23; from instr. to *assoc. prof. path. and bacter, path. inst, Tennessee, 23–* Prize, South. Med. Asn. exhibit, 27. A.A; Asn. Path. and Bact; Soc. Bact; Tenn. Acad. Bacteriology; blastomycosis; torula; agranulocytic angina; puerperal infections due to Clostridium welchii.

Michener, Dr. Charles D(uncan), American Museum of Natural History, New York, N. Y. *Systematic entomology, Insect morphology.* Pasadena, Calif, Sept. 22, 18. B.S, California, 39, Ph.D, 41. Tech. asst. entom, California, 39–42; *asst. curator Lepidoptera, Am. Museum Nat. Hist, 42–* Entom. Soc. Amer; Pacific Coast Entom. Soc. Systematic and distributional studies in the Lepidoptera and Hymenoptera.

Michener, Dr. Charles E(dward), Copper Cliff, Ont, Can. *Geology.* Red Deer, Alta, Jan. 4, 07. B.A, Toronto, 31, Ph.D, 40; M.S, Cornell, 32. Exploration geologist, 32–35; *geologist, Int. Nickel Co. Can, Ltd, 35–* Can. Inst. Min. and Metal. Mining geology.

Michener, Dr. H(arold) David, U. S. Department of Agriculture, Albany, Calif. *Biochemistry.* Pasadena, Calif, Dec. 21, 12. B.S, Calif. Inst. Tech, 34, Ph.D, 37. Teaching fellow, Calif. Inst. Tech, 34–37; asst, Scripps Inst. Oceanog, California, 37–38; junior pomologist, Exp. Sta, Hawaii, 38–40; asst, Calif. Inst. Tech, 40–42; junior chemist, *west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr,* 42–43, *asst. chemist, 43–* Chem. Soc; Bot. Soc; Soc. Hort. Sci. Effect of ethylene on plants; plant hormones; nutrition of marine bacteria; dormancy in potato tubers; plant breeding; culture of plant embryos; microbiological production of ergot on artificial media.

Michener, Prof. W(illiam) H(enry), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Waynesville, Ohio, July 31, 96. A.B, Amherst Col, 19; M.S, Pittsburgh, 29. Instr. *physics,* Lafayette Col, 19–20; instr. and later *asst. prof, Carnegie Inst. Tech, 20–* Asn. Physics Teachers; Acoustical Soc. Electric and magnetic units; Hall effect.

Michie, Prof. J(ames) N(ewton), 2304 17th St, Lubbock, Texas. *Mathematics.* Albemarle Co, Va, July 28, 79. B.S, Virginia, 08; A.M, Michigan, 19. From instr. to assoc. prof. math, Agr. and Mech. Col. Texas, 09–18, 19–20; adj. prof. Texas, 20–25; *prof. math. and astron. and head dept, Texas Tech. Col, 25–* Summers, Virginia, 05–29. A.A; Math. Soc; Math. Asn; fel. Texas Acad. Mathematical analysis; differential geometry; differential equations; vector analysis.

Micka, Dr. Jan, 2408 Oak Park Ave, Berwyn, Ill. *Food chemistry.* Czechoslovakia, June 6, 99. Ch.E, Tech Univ, Brno, Czechoslovakia, 22, D.Sc, 23. Asst. prof. chem. eng, Tech. Univ, Brno, Czechoslovakia, 22–25; asst. chief chemist, Hecker Jones Jewell Milling Co, New York, 25–27; chief cereal lab. and instr, Ont. Agr. Col, 27–30; *director research, United Biscuit Co. of Amer, 30–* A.A; Chem. Soc; Asn. Cereal Chem; Oil Chemists Soc; Asn. Bakery Eng; Am. Asn. Czechoslovak Eng. (pres, 35); Czechoslovak Chem. Soc; Czechoslovak Eng. Soc. Nutrition; wholesale production of bread, cakes, crackers, cookies and biscuits; cereals and cereal products; shortenings; egg products; flavoring materials.

Mickel, Dr. Clarence E(ugene), University Farm, St. Paul, Minn. *Entomology.* Lincoln, Nebr, Feb. 29, 92. B.S, Nebraska, 17; M.S, Minnesota, 23, Ph.D, 25. Exten. entomologist, Nebr, 17–20; research entomologist, Am. Beet Sugar Co, Colo, 20–22; exten. entomologist, *Minnesota,* 22–25, asst. prof. *zool. and entom,* 25–31, assoc. prof, 31–41, *prof, 41–* Guggenheim Mem. Foundation fellow, 30–31. A.A; Entom. Soc; Entom. Soc. Amer. (sec'y-treas, 36–); Asn. Econ. Entom; Royal Entom. Soc. London. Hymenoptera; taxonomy and biology of the Mutillidae.

Mickelsen, Prof. Antone O, 3705 N. E. Sandy Blvd, Portland, Oregon, *Pharmacy, Dentistry.* Lago, Idaho, July 3, 90. Ph.G, N. Pacific Col, 21, D.M.D, 38; Ph.C, California, 22; M.S, Utah, 24; Northwestern Col. Law. *Prof. physiol. chem, N. Pacific Col. of Oregon, 27–,* pharmacy, 25–41, *bacter, 28–,* dean sch. pharmacy, 29–41. Practising dentist, 38– Chairman, U. S. Pharmacopoeia educational exhibit, Am. Med. Asn, Portland, Oregon, 28. First certificate of merit, Am. Med. Asn, 28. Pharmaceut. Asn. (v. pres, 38, pres, N. Pacific branch, 33–36); Dental Asn. Dental pharmacy, bacteriology and sterilization; use of germicides in modern aseptic technique.

Mickelsen, Dr. Olaf, University of Minnesota Hospitals, Minneapolis, Minn. *Biochemistry.* Perth Amboy, N. J, July 29, 12. B.S, Rutgers, 35; indust. fellow, Wisconsin, 36–39, M.S, 37, Ph.D, 39. *Chemist, univ. hosps, Minnesota, 39–* Vitamins in human nutrition; laboratory techniques.

Mickelson, Dr. Earl L(ewis), Fox Construction Co, 515 W. 12th St, Silver City, N. Mex. *Mathematics.* Ashby, Minn, Sept. 12, 00. A.B, Minnesota, 23, A.M, 24, Ph.D, 29. Instr, Hamline, 23–25; Wisconsin, 25–28; asst, Minnesota, 28–29; prof, N. Mex. State Teachers Col, 29–33; actuary and mem. exec. board, West. Underwriters Corp, 35–40; mem. advisory board, 33–34; *with Fox Construction Co, 35–; lieut. col, Coast Artil. Corps, U. S. Army, 42–* Capt, C. A. R, 33–35, major, 35–42. Math. Soc; Math. Asn; N. Mex. Asn. Adv. Sci. Approximation theory; foundations for elementary arithmetic.

Mickelson, Dr. M(ilo) N(orval), University of Michigan, Ann Arbor, Mich. *Physiological bacteriology.* Iowa Co, Wis, Feb. 27, 11. B.S, Wisconsin, 35; Ph.D, Iowa State Col, 39. Research bacteriologist, Commercial Solvents Corp, 39–40; *instr. bacter, Michigan, 40–* Summer, research bacteriologist, Inst. Am. Meat Packers, 37. Soc. Bact. Metabolism of bacteria.

Mickey, Prof. Clark Edwin, University of Nebraska, Lincoln, Nebr. *Civil engineering.* Saltsburg, Pa, March 9, 83. B.S. (M.E) and B.S. (C.E), Nebraska, 08. Instr. and asst. prof. applied mech, *Nebraska,* 08–20, *prof. civil eng. and chairman dept, 20–* Consulting engineer, State Dept. Pub. Works and State Capitol Cmn, Nebr, 20–23; heavy foundation tests for Nebraska state capitol, 22; tech. adviser, cmt. flood control, U. S. House of Representatives, 28–29; consulting engineer, U. S. Army Engineers, 28; engineer in charge special surv, Dept. Pub. Works, Nebr, 29–32; state engineer, Nebr, Fed. Reconstruction Finance Corp, 32–33; consulting and chief engineer, Cent. Nebr. Pub. Power and Irrig. Dist, 33–34; Imp. Pub. Power and Irrigation Dist, 33–37; Republican River Pub. Power and Irrigation Dist, 33–37. Civil Eng. Flood and drought control in the Missouri River basin; irrigation and hydro-power.

Mickey, Dr. George H(enry), Louisiana State University, Baton Rouge, La. *Zoology, Cytogenetics.* Claude, Texas, Jan. 26, 10. A.B, Baylor, 31; M.S, Oklahoma, 34; Ph.D, Texas, 38. Teaching fellow bot, Baylor, 31–32; grad. asst. zool, Oklahoma, 32–34; asst. genetics, Texas, 34–35, instr. *zool,* 35–38; *Louisiana,* 38–42, *asst. prof, 42–* Summer, agent, south. bee lab, bur. entom. and plant quarantine, U. S. Dept. Agr, 41. A.A; Soc. Zool; Genetics Soc; La. Acad. Cytology of germ cells; chromosome aberrations; crossing over; polyploidy.

Mickle, Prof. Frank A(lexander), 1053 Olivia Ave, Ann Arbor, Mich. *Mechanical engineering.* Springfield, Ohio, June 28, 90. M.E, Ohio State. Designer, Buckeye Steel Castings Co, Columbus, 12–14; instr. descriptive geometry and drawing, *Michigan,* 14–17, asst. prof. *mech. eng,* 18–31, *assoc. prof, 31–; design consultant, cotton compress, Economy Baler Co, 30–* Lieut, U.S.A, 17–18, O.R.C, 22–, lieut. col. Mech. Eng. (cmt. standardization herringbone gears). Machine design; stress condition in gear teeth.

Mickle, Friend Lee, 21 Lincoln Road, Wethersfield, Conn. *Public health.* Garland, Pa, Jan. 11, 89. A.B, Allegheny Col, 11, Sc.D, 36; M.S, Illinois, 17. Asst. bacteriologist, State Bacter. Lab, Middletown, Conn, 11–12, asst. chemist, 12–13; asst. to state chemist, Hartford, Conn, 13–14; chemist and bacteriologist, Henry Souther Eng. Co, and asst. chemist, Board Water Commissioners, City of Hartford, 14–15; chemist and librarian, Ill. Water Surv, 15–17; bacteriologist, State Dept. Health labs, New Haven, Conn, 17–20; director, Munic. Lab, Atlantic City, N. J, 20–22; asst. bacteriologist, N. Y. State Agr. Exp. Sta, Geneva, 23–24; *director bur. labs, State Dept. Health, Hartford, Conn, 24–* Mem, Int. Cong. Microbiol. A.A; fel. Pub. Health Asn. (sect. councilor, mem. exec. board); Conf. State and Provincial Pub. Health Lab. Directors; Soc. Bact; Chem. Soc; Conn. Pub. Health Asn; assoc. Conn. State Med. Soc; Conn. Pub. Health and Clin. Labs. Asn; Int. Asn. Milk Sanit. Quantitative analysis; air diffusion; dairy technique; brucella infection; typhoid and paratyphoid fever; paradysentery; milk-borne scarlet fever; Shigella group; carriers among food handlers; pleo-antigenicity of Proteus; infectious mononucleosis.

Middlekauff, Dr. Woodrow W(ilson), 126 E. John Calvin Ave, College Park, Ga. *Entomology.* Hagerstown, Md, Feb. 11, 13. B.S, Juniata Col, 35; M.S, Cornell, 36, Ph.D, 41. Asst. lab. instr. *econ. entom, Cornell,* 36–39, *instr, 40–; capt, Fourth Service Command, U. S. Army.* Summers, asst. insect toxicologist, Cornell, 38–41. Asn. Econ. Entom. Insect toxicology; taxonomy of the Chalastogastra.

Middleton, Prof. A(rthur) R(enwick), 705 Russell St, West Lafayette, Ind. *Chemistry.* Webster, N. Y, May 8, 69. A.B, Rochester, 91; Ph.D, Cornell, 04. Instr, high sch, Mo, 04–06; asst. prof, *Purdue,* 06–14, assoc. prof, 14–18, prof. *inorg. chem,* 18–39, *emer. prof, 39–,* acting head dept, 25–26, 30, chairman dept, 31–36. Asst. ed, 'Chem. Abstracts,' 23–32. Int. Cmt. on Nomenclature in Inorg. Chem. Chem. Soc; fel. Ind. Acad. Higher order compounds and their applications to analysis.

Middleton, Prof. Austin R(alph), University of Louisville, Louisville, Ky. *Zoology.* Baltimore, Md, April 14, 81. A.B, Hopkins, 10, fellow, 14–15, Ph.D, 15, fellow by courtesy, 15–16. Asst. nat. hist, Hopkins, 10–12; assoc. prof. *biol, Louisville,* 16–17, *director dept, 16–, prof. zool, 17–* Hopkins sci. exped, Jamaica, 10; exped, Tela, Honduras, 33, 34. Cmt. of one hundred, 6th Int. Cong. Genetics; 3rd Int. Cong. Eugenics. A.A. (councilor); Soc. Zool; Soc. Mammal; Soc. Parasitol; Ecol. Soc; Ky. Acad. (v. pres, 23, pres, 25); fel. Royal Soc. Arts. Heredity of the fission rate in Protozoa.

Middleton, Dr. Edmund B(urrus), Parlin, N. J. *Chemistry.* Seymour, Ill. Oct. 20, 97. Fellow, Rice Inst, A.B, 18, M.S, 20; fellow, Northwestern, 20–22, Ph.D, 22. Nat. research fellow chem. and research fellow, Harvard, 22–24; *research chemist,* E. I. du Pont de Nemours and Co, 24–25, *du Pont Film Mfg. Corp, 25–,* asst. director and later *director research, photo products lab,* 27– Chem. Soc. Organic compounds of mercury; photography.

Middleton, Dr. Gordon K(ennedy), State College Station, Raleigh, N. C. *Agronomy.* Warsaw, N. C, Oct. 28, 95. B.S, North Carolina, 17; fellow, Cornell, 17–18, M.S, 20, Ph.D, 30. Agr. missionary, Kaifeng, Honan Province, China, 20–26; teacher vocational agr, N. C, 27–29, seed improv. specialist, exten. service, *North Carolina,* 29–35, *plant breeding agronomist, Exp. Sta, 36–* Summer, asst, Exp. Sta, North Carolina, 17. U.S.A, 18–19. Soc. Agron. Genetics and breeding studies with corn and small grain crops.

Middleton, Dr. H(oward) E, Falls Church, Va. *Soils.* Lohrville, Iowa, Sept. 20, 94. B.S, Iowa State Col, 16, M.S, 18; Ph.D, American Univ, 24. Junior drainage engineer, bur. pub. roads, *U. S. Dept. Agr,* 17, scientist, soil physical investigations, bur. soils, 17–24, asst. physicist, 24–29, assoc. physicist, bur. chem. and soils, 29–35, senior soil conservationist, *soil conservation service,* 35–40, *asst. chief research, 40–* A.A; Soil Sci. Soc; Wash. Acad. Soil physics; erosional characteristics of soils; soil erosion.

Middleton, Dr. John F(irth), Foster Wheeler Corp, 165 Broadway, New York, N. Y. *Chemical engineering.* Caleta Buena, Chile, S. Amer, Sept. 17, 99. B.S, Michigan, 30, M.S, 32, Sc.D, 35. Chemist, Int. Petrol. Co, Peru, 17–27; instr. chem. eng, N. Y. Univ, 35–37; *with petrol. refinery div, Foster Wheeler Corp, 37–* Eng. research, Michigan, 35. Chem. Soc; Chem. Eng. Vapor-liquid equilibria of methane in hydrocarbon solutions.

Middleton, Dr. John T(ylor), 2040 Arroyo Drive, Riverside, Calif. *Plant pathology.* Chicago, Ill, Sept. 15, 13. B.S,

California, 35; Ph.D, Missouri, 40. Asst. bot, Missouri, 36-39; junior plant pathologist, *Exp. Sta, California*, 39–43, *asst. plant pathologist, 43–* Vegetable diseases in southern California; peronosporales; taxonomy, geographic distribution and host range of the genus Pythium; taxonomy of the Albuginaceae and Peronosporaceae.

Middleton, Prof. Warren Candler, 2 E. Hanna St, Greencastle, Ind. *Psychology.* Mokane, Mo, March 13, 01. A.B, Cent. Col. (Mo), 23; A.M, Vanderbilt, 24; Ph.D, Yale, 29. From asst. prof. to *prof. psychol, DePauw, 28–* A.A; Psychol. Asn; Midwest. Psychol. Asn; Ind. Acad. Abnormal and educational psychology.

Middleton, William, U. S. Department of Agriculture, East Orange, N. J. *Entomology.* Washington, D. C, Nov. 28, 93. A.B, George Washington, 25, A.M, 28; *Entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 09–* Lecturer, George Washington, 26–31. A.A; Entom. Soc. Wash; Biol. Soc. Wash; Wash. Biol. Field Club. Shade tree, hardy shrub and forest insects; biology, morphology and taxonomy of Chalastogastra.

Middleton, W(illiam) E(dgar) Knowles, Meteorological Office, Toronto, Ont, Can. *Meteorology.* Walsall, Eng, June 23, 02. B.Sc, Saskatchewan, 27, Nat. Research Council Can. bursar, 28–29, M.Sc, 29. Research physicist, Gypsum, Lime and Alabastine, Ltd, 29–30; *meteorologist, Meteorol. Service, Can, 30–; lecturer physics, Toronto, 33–* Meteorol. Soc; Royal Soc. Can; Royal Meteorol. Soc. Effects of surface films on exploring electrodes in gas discharges; measurement of visibility at night; atmospheric absorption and scattering; vibrations of transmission lines; colors of distant objects; aviation climatology; theory of visibility; meteorological instrument design; history of hygrometry.

Middleton, Dr. W(illia)m S(hainline), 2114 Adams St, Madison, Wis. *Medicine.* Norristown, Pa, Jan. 7, 90. M.D, Pennsylvania, 11. Instr. clin. med, *med. sch, Wisconsin*, 12–15, asst. prof, 15–23, assoc. prof, 23–25, *med*, 25–33, *prof, 33–, dean, 35–* M.O.R C, 17–19, capt. A.A; Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest; Asn. Hist. Med. (pres, 36); Am. Physicians; Cent. Soc. Clin. Research (pres, 34); Col. Physicians Phila. Blood and cardio-respiratory diseases.

Mider, Dr. G(eorge) Burroughs, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Pathology.* Windsor, N. Y, Aug. 9, 07. A.B, Cornell, 30, M.D, 33. Intern, Albany Hosp, N. Y, 33–34, asst. res. surg, 34–35, res. surgeon, 35–36; asst. surg, Rochester, 36–37, fellow, 37–38, instr, 38–39; research fellow, nat. cancer inst, U. S. Pub. Health Service, 37–41; instr. *path, med. Col, Cornell*, 41–42, *asst. prof, 42–* Soc. Exp. Path; Asn. Cancer Research; Harvey Soc. Neoplastic and related diseases.

Midgley, Dr. A(lvin) R(ees), University Terrace, Burlington, Vt. *Agronomy.* Wales, Utah, May 13, 00. B.S, Utah State Col, 24, M.S, 26; Ph.D, Wisconsin, 29. Prin. junior high sch, Idaho, 25–26; asst. agron, Wisconsin, 26–29; *research agronomist, Vermont, 29–* Soc. Agron; Soil Sci. Soc. Toxicity from overliming acid soils; movement and fixation of phosphates; effect of superphosphates in conserving nitrogen in manure; available potash and phosphorus in Vermont pastures; borax for fly control in manure; erosion on permanent pastures; effect of lime on manure; need of borax for alfalfa.

Midgley, Thomas, Jr, Worthington, Ohio. **5Chemistry.* Beaver Falls, Pa, May 18, 89. M.E, Cornell, 11; hon. Sc.D, Col. of Wooster, 36. Chief fuel sect, Gen. Motors Research Corp, 19–24; *v. pres, Ethyl Gasoline Corp, 24–; Kinetic Chemicals, Inc, 30–* Consultant, Nat. Defense Research Cmt, 40. Nichols medal; Longstreth medal; Perkin medal, 37; Priestley medal, 41; Willard Gibbs medal, 42. Del. Int. Cong. Chem, Rome, 38. A.A; Chem. Soc. (director, 30–, chairman, 34–, pres-elect, 43); Chem. Eng; Soc. Automotive Eng; Soc. Mil. Eng; Pub. Health Asn; Math. Soc; Soc. Test. Mat; Nat. Inventor Council (v. chairman, 40). Gaseous detonation in automotive engines and its chemical control; organic fluorides as refrigerants; chemistry of rubber.

Midlo, Dr. Charles, Tulane University School of Medicine, New Orleans, La. *Anatomy.* Sosnovice, Poland, Feb. 27, 01. M.D, Tulane, 28. Asst. anat, Tulane, 24–26; res. and admitting physician, State Charity Hosp, 28–29; nat. research fellow, Hopkins, 29–30; instr, Tulane, 30–31; Louisiana, 31–33, asst. prof. *anat*, 33–43; *assoc. prof, sch. med, Tulane, 43–* Am. Med. Asn; Asn. Anat; Asn. Physical Anthrop; La. Acad. Physical anthropology; comparative dermatoglyphics.

Mielenz, Dr. Richard C(hilds), Petrographic Laboratory, Bureau of Reclamation, Denver, Colo. *Engineering geology and petrography.* Burlingame, Calif, Dec. 18, 13. A.A, Marin Junior Col, 33; A.B, California, 36, Ph.D, 40. Teaching asst. geol. sciences, California, 36–39; geologist, Standard Oil Co. of Calif, 39–41; *asst. petrologist, Bur. Reclamation, 41–* Petrography of concrete; application of laboratory techniques to problems of engineering geology and petrography; disintegration of concrete; concrete fabrication; new aggregates; rock and earth materials.

Mielke, J(ames) L(eroy), 310 Post Office Bldg, Albuquerque, N. Mex. *Forest pathology.* Ottertail Co, Minn, March 26, 99. B.S, Oregon State Col, 25, M.S, 33; Ph.D, Yale, 41. Field asst, *div. forest path, bur. plant indust, U. S. Dept. Agr*, Portland, Oregon, 24–25, junior pathologist, 26–30, asst. pathologist, 30–40, *assoc. pathologist, 41–* Phytopath. Soc; Soc. Foresters. White pine blister rust in the west; general forest pathology.

Mighton, Dr. Charles J(oseph), 8 Haslet Way, Westhaven, Wilmington, Del. *Organic chemistry.* Saskatoon, Sask, Can, Oct. 13, 13. B.Sc, Saskatchewan, 33, M.Sc, 35; Eli Lilly fellow, Chicago, 35, Ph.D, 37. *Research chemist,* Inst. Am. Meat Packers, 36; *exp. sta, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Raman spectra of deuterium compounds; synthetic rubber; vinyl polymers.

Mihm, Clifford H(enry), St. Edward's University, Austin, Texas. *Organic chemistry.* Superior, Wis, April 18, 14. B.Ed, Wis. State Teachers Col, 36; M.S, Notre Dame, 37; St. Edward's. Asst, chem. library, Notre Dame, 36–37; *prof. chem. and head dept, St. Edward's 37–* Chem. Soc; Texas Acad. Oxidation of amyl acetylene with nitric acid.

Mikesell, Prof. W(illiam) H(enry), University of Wichita, Wichita, Kans. *Psychology.* Westminster, Md. A.B, Western Maryland Col, 09; B.D, Westminster Theol. Sem, 12; A.M, Harvard, 14; Ph.D, Illinois, 26. Instr. psychol. of pub. speaking, Texas, 16–18; Kentucky, 20–22; director dramatics, Missouri, 23; asst. English, Illinois, 23–26; dean col. lib. arts, *Wichita*, 26–29, *prof. psychol. and head dept. and director personnel bur, 30–* Educ. director, forts, Brooklyn, and Camp Brest, France, 17–18; mem. speakers bur, Adult Educ. Council, Chicago. Assoc. Psychol. Asn. Liberal arts curriculum.

Mikeska, Dr. Louis A, 440 Topping Hill Road, Westfield, N. J. *Chemistry.* Caldwell, Texas, Sept. 29, 89. A.B, Texas, 13, A.M, 14; Ph.D, Yale, 17. Instr. chem, Yale, 17; asst. prof. org. chem, Tulane, 18; assoc. chemist, bur. chem, U. S. Dept. Agr, 19–20; assoc. chemist and later assoc. mem, Rockefeller Inst, 20–29; *research chemist, Standard Oil Co. of N. J, 29–* Chem. Soc. Photosensitizing dyes and dye intermediates. stereoisomerism of aliphatic diazo compounds; Walden's inversion; chemical structure of lubricating oils.

Milam, Dr. D(aniel) F(ranklin), Box 637, Chapel Hill, N. C. *Public health.* Leesburg, Fla, May 12, 94. A.B, Vanderbilt, 16; M.D, Chicago, 24; M.P.H, Hopkins, 29. *Mem. field staff, int. health div, Rockefeller Foundation, 24–; research prof. nutrition, North Carolina, 39–; assoc. prof. pub. health, sch. med, Duke, 39–* Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med. Epidemiology; nutrition.

Milbrath, D(avid) G(allus), State Department of Agriculture, Sacramento, Calif. *Plant pathology.* Milwaukee, Wis, April 26, 80. A.B, Wisconsin, 04. Teacher, high sch, Wis, and Fargo Col, 04–10; research, Exp. Sta, N. Dak. Col, 10–16; bur. plant indust, U. S. Dept. Agr, 16–21; *plant pathologist and chief bur. plant path, State Dept. Agr, Calif, 21–* A.A; Bot. Soc. Principles of epiphytotics; plant disease control.

Milbrath, Dr. J(ohn) A, Route 2, Corvallis, Oregon. *Plant pathology.* Marlin, Wash, Sept. 23, 09. B.S, State Col. Wash, 34; Ph.D, Oregon State Col, 38. Asst. bot, *Oregon State Col*, 34–37, plant pathol, *Exp. Sta*, 37–40, *asst. plant pathologist, 40–* Diseases of ornamental nursery stock; horticultural problems related to growing ornamentals.

Milby, Prof. T(homas) T(heodore), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Poultry husbandry.* Buffalo, Ky, Oct. 31, 11. B.S, Kentucky, 31; fellow, Iowa State Col, 31–34, M.S, 32, Ph.D, 34. Instr. *poultry husbandry*, Iowa State Col, 35–37; *asst. prof, Okla. Agr. and Mech. Col, 37–* Poultry Sci. Asn; Okla. Acad. Mineral metabolism of growing chicks; comparative growth rates of various species of fowl; turkey production.

Miles, Prof. Aaron J(efferson), Missouri School of Mines. Rolla, Mo. *Engineering mechanics.* Crouthersville, Mo, Dec. 28, 01. B.S, Mo. Sch. Mines, 30, M.S, 31; Sc.D, Michigan, 35. Instr. math, Mo. Sch. Mines, 30–32; Albion Col, 34–35; prof. math. and physics, Shurtleff Col, 35–37; asst. prof. *math, Mo. Sch. Mines, 37–39, assoc. prof, 39–, chairman dept. mech. eng, 42–* Summers, research engineer, Stanolind Oil and Gas Co, 36– Applied elasticity and photoelasticity.

Miles, Dr. Catharine Cox (Mrs. Walter R(ichard) Miles), Yale University, 333 Cedar St, New Haven, Conn. *Psychology.* San Jose, Calif, May 20, 90. A.B, Stanford, 12, A.M, 13, fellow, 23–24, Ph.D, 25; California, 12; Jena, 13–14; Berlin, 14. Asst. physical educ, Stanford, 12–13; asst. prof. German, Col. of Pacific, 14–15, prof, 15–20; instr, Stanford, 20–23; director, Calif. Bur. Juvenile Research, Whittier, 24–25; psychologist, Cent. Mental Hygiene Clinic, Cincinnati, 25–27; research assoc. psychol, Stanford, 27–30; research assoc. prof. psychiat. and psychol, inst. human relations, *Yale,* 30–31, *clin. prof. psychol, 31–* Attending psychologist, New Haven Hosp. and New Haven Dispensary, 32–; asst. attending psychologist, Gen. Hosp, Cincinnati, 25–27; psychologist, Children's Hosp, 26–27; U. S. Vet. Bur. Diagnostic Center No. 1, 26–27. A.A; Psychol. Asn; Asn. Consulting Psychol. Psychology of genius; sex differences; personality measurement; behavior deviations and therapy.

Miles, Dr. E(dward) R(oy) C(ecil), 1509 West St, Annapolis, Md. *Mathematical physics.* Birmingham, Ala, Dec. 23, 96. B.S, Ga. Tech, 17; A.M, Harvard, 25; Ph.D, Rice Inst, 29. Instr. math, Georgia, 19–20; U. S. Naval Acad, 20–22; Ga. Tech, 22–23; Harvard, 23–25; Rice Inst, 25–29; asst. prof, Duke, 29–41; *ordnance engineer, U. S. War Dept, 41–* Math. Soc. Vibrations in automatic cannon.

Miles, Prof. Egbert J, 87 Marvel Road, New Haven, Conn. *Mathematics.* Bethlehem, Ind, Jan. 9, 86. A.B, Indiana, 06; A.M, Swarthmore Col, 07; fellow, Chicago, 07–10, Ph.D, 10. Asst. *math,* Swarthmore Col, 06–07; instr, Cornell, 10–11; *Yale,* 11–16, asst. prof, 16–25, *assoc. prof, 25–* A.A; Math. Soc; Math. Asn. Calculus of variations.

Miles, Dr. Francis T(urquand), 825 E. 11th St, Anniston, Ala. *Inorganic chemistry.* Princeton, N. J, July 10, 09. A.B, Princeton, 31, A.M, 32, Ph.D, 36; Basel. *Research chemist, Monsanto Chem. Co, 36–* Chem. Soc. Phosphate titrations; vapor pressure slide rule.

Miles, Dr. Henry J(arvis), University of Illinois, Urbana, Ill. *Mathematics.* St. George, Utah, Jan. 1, 00. A.B, California, 25, A.M, 26, Ph.D, 29. Instr. *math, Illinois,* 29–37. *assoc, 37–* Math. Soc; Math. Asn. Generalization of Plücker's surface.

Miles, Dr. I(van) E, Soil Testing Division, State Department of Agriculture, Raleigh, N. C. *Agronomy.* Collinsville, Miss, Oct. 3, 04. B.S, Miss. State Col, 30; M.S.A, Florida, 31; Ph.D, Maryland, 37. Head dept. agron, Polytech. Inst. P. R, 31–33; asst. agronomist, U. S. Dept. Agr, 34–35; assoc. prof. soils, Miss. State Col, 35–39; *director soil testing, State Dept. Agr, N. C, 39–* Soc. Agron; Soil Sci. Soc. (sec'y south. sect. plant physiol, 42–). The place of legumes in a well-managed soil and their effect upon fertility; soil testing under southern conditions; application of soil testing to farm conditions.

Miles, Dr. John B(lanchard), Jr, E. I. du Pont de Nemours and Co, Wilmington, Del. *Physics.* St. Davids, Pa, Oct. 25, 02. A.B, Princeton, 24, Ph.D, 29. Instr. physics, Princeton, 25–26; research physicist, chem. dept, *E. I. du Pont de Nemours and Co,* 29–38, rayon dept, 38–39, research supervisor, 40–41, *manager mil. products develop, nylon div, 42–* Cmt. elec. insulation, Nat. Research Council. Soc. Test. Mat. Dielectrics; mechanical properties of solids; textile physics.

Miles, Dr. Walter R(ichard), Yale University, New Haven, Conn. ***Psychology, Physiology.* Silverleaf, N. Dak, March 29, 85. B.S, Pacific Col, 06; A.B, Earlham Col, 08; fellow, Iowa, 10–13, A.M, 10, Ph.D, 13; hon. A.M, Yale, 31. Prof. psychol. and educ, Penn Col. (Iowa), 08–10; asst. psychol, Iowa, 10–13; assoc. prof, Wesleyan, 13–14; research psychologist, nutrition lab, Carnegie Institution, 14–22; *prof.* exp. psychol, Stanford, 22–32; *psychol, Yale, 31–, fellow, Jonathan Edwards Col, 35–* Attending psychologist, New Haven Hosp. and New Haven Dispensary, 32–; research assoc, Inst. Human Relations, Yale, 30–31. Mem, Nat. Research Council, 29–32, exec. cmt, 42–, cmt. aviation med, cmt. selection and training aircraft pilots. Pres, Psychol. Corp, New York, 39–; mem. board sci. advisers, Aeronautical Research Lab. Nat. Acad; A.A; Psychol. Asn. (pres, 32); Soc. Exp. Psychol; Physiol. Soc; Optical Soc; Inst. Aeronaut. Sci. Psychology of vision; effects of alcohol and of undernutrition; motor coordinations; eye movements; later maturity and old age; personality measurements; abnormal states; aviation physiology and psychology.

Miley, Dr. George (Petrie), Hahnemann Medical College and Hospital, Philadelphia, Pa. *Pharmacology, Experimental medicine.* Chicago, Ill, Jan. 26, 07. A.B, Yale, 27; M.D, Northwestern, 33; Vienna, 33–34; Sc.D, Hahnemann Med. Col. (Pa), 41. Instr. *pharmacol, Hahnemann Med. Col. and Hosp. (Pa),* 37–38, assoc. prof, 38–40, *clin. prof, 40–, director blood irradiation clinic, 38–* Mem. board managers, Hahnemann Research Foundation, 39–43. A.A; Am. Med. Asn; fel. Nat. Gastro-Enterol. Asn. The ultra-violet irradiation of blood and its effects on disease states in humans.

Miley, Prof. Henry Artis, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Physics.* Klein, Miss, April 29, 02. A.B, Miss. Col, 24, A.M, 25; fellow, Colorado, 26–27, 28–29, M.S, 27, Ph.D, 29; Chicago, 28; Carnegie research scholar, Cambridge, 35–37, Ph.D, 37. Prin, high sch, Miss, 22–23; asst. physics, Miss. Col, 24; head dept. sciences, Clarke Mem. Col, 24–26, v. pres. and head dept, 27–28; prof. physics and head dept. physical sciences, Lincoln Mem. Univ, 29–36, chairman faculty, 30–31, dean univ. and director summer sch, 31–36; *assoc. prof. physics, Okla. Agr. and Mech. Col, 37–* Summer, instr, Miss. Col, 25. A.A; Asn. Physics Teachers. Mathematics; metallurgy and physical chemistry of lead, tin, zinc and bismuth; electrical resistivity and temperature coefficients of metals in the solid and liquid states; oxidation and tarnishing of metals; supercooling and resistivity lag; surface films of liquid wires; oxide films on iron and copper.

Miley, Dr. Hugh H(oward), 8710 W. Davison Ave, Detroit, Mich. *Physiology.* Wauseon, Ohio, April 24, 02. A.B, Ohio State, 24, M.S, 25, Ph.D, 27; B.M, Wayne, 34, M.D, 35. Instr. zool, Miami, 24–25; Ohio State, 25–27; physiol, Detroit Col. Med, 27–32; *practising physician.* Mich. Acad; Ohio Acad. Morphology, life history and physiology of a polydesmid millipede; endocrinology.

Milham, Prof. Willis I(sbister), Williams College, Williamstown, Mass. *Astronomy, Meteorology.* Kinderhook, N. Y, Feb. 11, 74. A.B, Williams Col, 94, A.M, 95; Ph.D, Strassburg, 01. Asst. physics, *Williams Col,* 95–96, instr. math. and physics, 96–98, asst. prof. math. sciences, 98–99, 01–02, *prof. astron, 02–* A.A; Astron. Soc; Meteorol. Soc. (pres, 24–26); Physical Soc; Royal Astron. Soc; Soc. belge d'Astron; Soc. astron. de France. Accuracy of timekeepers; long range weather forecasting.

Milhorat, Dr. A(de) T(homas), 525 E. 68th St, New York, N. Y. *Medicine.* Hoboken, N. J, Jan. 12, 99. A.B, Columbia, 24; M.D, Cornell, 28. Asst. physiol, med. col, Cornell, 27–28; intern, Presb. Hosp, New York, 28–30; nat. research fellow med, Physiol-Chem. Inst, Leipzig, 30–32; *research fellow, Russell Sage inst. path, med. col, Cornell, 32–,* instr. *med, med. col,* 34–37, asst. prof, 37–42, *assoc. prof, 42–,* instr. pharmacol, 37–39; asst. attending physician, *New York Hosp,* 35–43, *assoc. attending physician, 43–* Fellow pharmacol, Cornell, 32–33, med, 32–34. A.A; Soc. Clin. Invest; Chem. Soc; Miner. Soc; Soc. Exp. Biol. and Med; Physiol. Soc; Inst. Nutrition; Soc. Pharmacol; Harvey Soc; Deuts. Pharmakol. Gesell. Carbohydrate and protein metabolism; calorimetry; metabolism of creatine; diseases of muscle; somatic changes in psychiatric disorders.

Militzer, Dr. W(alter) E, University of Nebraska, Lincoln, Nebr. *Biochemistry, Organic chemistry.* Aug. 20, 06. B.S, Wisconsin, 33, Ph.D, 36. Instr. *biochem, Nebraska,* 36–39, *asst. prof, 39–* Carbohydrates; growth factors.

Milks, Dr. H(oward) J(ay), 113 College Ave, Ithaca, N. Y. *Veterinary medicine.* Candor, N. Y, June 25, 79. Grad, N. Y. State Vet. Col, 04. Asst. physiol, N. Y. State Vet. Col, 03–05; pathologist, Exp. Sta, Louisiana, 06–08; *prof. therapeut. and director small animal clinic, N. Y. State Vet. Col, 09–* A.A; Vet. Med. Asn; N. Y. State Vet. Med. Soc. (sec'y, 09–14, pres, 34–). Veterinary pharmacology; diseases of small animals.

Millar, Prof. A(dam) V(ause), 1011 Grant St, Madison, Wis. *Mathematics.* Mattoon, Ill, Sept. 18, 73. B.S, Illinois, 97, M.S, 01. Instr, Illinois, 01–02; *drawing and descriptive geometry, Wisconsin,* 02–08, asst. prof, 08–20, assoc. prof, 20–23, *prof, 23–, asst. dean col. eng, 21–* Eng. Educ; Eng.

Soc. Wis; Madison Tech. Club (pres, 32). Drawing; descriptive geometry.

Millar, Prof. C(harles) Ernest, Michigan State College, East Lansing, Mich. *Soil science.* Coles Co, Ill, June 23, 85. B.S, Illinois, 09, M.S, 11; B.S, Kans. State Col, 15; Ph.D, Wisconsin, 23. Asst, Illinois, 09–10; chem, Kans. State Col, 10–13, agron, 13–14, instr, 14–15; asst. prof. *soils, Mich. State Col,* 15–18, assoc. prof, 18–25, *prof, 25–, head dept, 30–* Fel. Soc. Agron. (chairman, soil sect, 35). Soil fertility.

Millar, Prof. Charles J(ames), 1009 Rolla St, Rolla, Mo. *Bacteriology.* Warrensburg, Mo, Feb. 21, 98. B.S, Mo. Sch. Mines, 21, M.S, 23. Asst. prof. *biol. and head dept, Mo. Sch. Mines,* 31–32, *assoc. prof, 32–*

Millar, Dr. Harvey C(lifford), 4453 Johnson Ave, Western Springs, Ill. *Chemistry.* American Fork, Utah, Nov. 24, 07. B.S, Brigham Young, 31; fellow, Iowa State Col, 33–36, M.S, 34, Ph.D, 36. Teaching asst, Brigham Young, 31–32; asst, Iowa State Col, 32–33; *research dept, Quaker Oats Co, 36–* Chem. Soc; Soc. Agron; Soil Sci. Soc. Decomposition and base exchange capacity of organic matter; diagnosis of phosphorus deficiencies and measurement of carbon dioxide in soil; fertilizers from agricultural wastes; carbon dioxide as a soil amendment; industrial utilization of agricultural waste materials; stream pollution; ammoniation of dried sugar beet and citrus pulp; furfural production; use of ammoniated citrus and beet pulps as nitrogenous food for ruminants.

Millar, Prof. J(ohn) W(alter), University of California Medical School, San Francisco, Calif. *Toxicology.* Oakland, Calif, Dec. 1, 78. B.S, California, 98, M.S, 99, Ph.G, 25; Mass. Inst. Tech, 99–00. Chemist, Judson Dynamite and Powder Co, 00–03; supt, Great West. Sugar Co, 03–06; Kilby Mfg. Co, 06–12; manager sugar plantations, Cuba, Philippines and Indo-China, 12–23; *prof. chem, col. pharmacy, California, 25–* Rep, Cong. Beet Sugar Chemists, Brussels, 13. Chem. Soc; Pharmaceut. Asn. Cinchona alkaloids; drug and food analysis.

Millar, Preston S(trong), 80th St. and East End Ave, New York, N. Y. *Physics.* Andover, N. J, March 9, 80. Gen. manager and sec'y and later *pres, Elec. Testing Labs; sec'y, Asn. Edison Illuminating Companies.* A.A; fel. Physical Soc; Optical Soc; Illum. Eng. Soc. (pres, 13); Elec. Eng; Nat. Soc. Prevention Blindness (director). Illumination; testing.

Millar, Dr. Russell W(ard), 2435 Prospect St, Berkeley, Calif. *Physical chemistry.* Mattoon, Ill, March 15, 95. B.S, Illinois, 16, M.S, 20; Ph.D, California, 22. Instr. chem, California at Los Angeles, 22–25; assoc. physical chemist, U. S. Bur. Mines, 25–28; *research chemist, Shell Develop. Co, 28–* Chem. Soc. Specific heats of gases and metal oxides at low temperatures; vapor pressure of liquid and solid metals and of amalgams; aluminum oxide; reaction of zinc with carbon monoxide; acetylene, isopropyl alcohol; toluene and butadiene from petroleum; hydrocyanic acid from natural gas and ammonia; distillation; azeotropic distillation; extractive distillation.

Millard, Prof. E(arl) B(owman), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Central City, Nebr, July 17, 88. A.B, Colorado, 10; A.M, Wisconsin, 11; Ph.D, Illinois, 14. Asst. chem, Wisconsin, 10–11; Illinois, 11–14; instr, *Mass. Inst. Tech,* 14–16, asst. prof. *physical chem,* 16–22, assoc. prof, 22–28, *prof, 28–* Chem. Soc. Wool structure; wool processing.

Millberry, Dr. Guy Stillman, Route 2, Box 181, Los Gatos, Calif. *Dental education.* Menominee, Mich, Nov. 3, 72. D.D.S, California, 01. Asst. metal, col. dentistry, California, 04–07, instr, 07–08, metal. and chem, 08–09, prof, 09–40, supt. dental infirmary, 06–14, dean, 14–39; *retired.* A.A; Pub. Health Asn; Am. Dental Asn; Acad. Polit. and Social Sci; Int. Asn. Dental Research. Dental health education; public health.

Miller, Dr. Aaron, 57 Forest Ave, Riverside, Ill. *Organic chemistry.* Portland, Oregon, July 6, 15. B.S, Oregon State Col, 38; Oregon, 33–35; Corn Products Ref. Co. fellow, Iowa, 39–42, Ph.D, 42. Asst, Iowa, 38–39; *research chemist, Corn Products Ref. Co, 42–* Chem. Soc. Carbohydrates; chromatographic adsorption separation of sugars; composition of hydrol; proteins from corn.

Miller, Dr. Albert, Tulane University School of Medicine, New Orleans, La. *Entomology.* Brooklyn, N. Y, March 18, 11. B.S, Cornell, 33, M.S, 34, Ph.D, 38. Asst. entom. and parasitol, Cornell, 34–35, instr, 35–38; entom. and plant path, Arkansas, 38–40; guest investigator genetics, Carnegie Institution, 40–41; *instr. med. entom, sch. med, Tulane, 41–* A.A; Entom. Soc; Soc. Trop. Med. Insect embryology and morphology; medical entomology.

Miller, Prof. Alden H(olmes), University of California, Berkeley, Calif. *Zoology.* Los Angeles, Calif, Feb. 4, 06. A.B, California, 27, A.M, 28, Ph.D, 30. Teaching fellow *zool, California,* 27–28, asst, 28–30, assoc, 30, instr, 31–34, asst. prof, 34–39, *assoc. prof, 39–,* asst. dean col. letters and science, 39–40, curator birds, 39–40, *director museum vert. zool, 40–* Assoc. ed, 'Condor,' 32–39, ed, 39– A.A; Soc. Zool; Soc. Mammal; Cooper Ornith. Club (director, 35–, pres, north. div, 35, sec'y board governors, 38–); Wilson Ornith. Club; Soc. Ichthyol. and Herp; Wildlife Soc; fel. Ornith. Union (councilor, 39–42); West. Soc. Nat; fel. Calif. Acad; cor. mem. Zool. Soc. London. Geographic variation and distribution of birds; life history, ecology, taxonomy and anatomy of birds; avian paleontology; vertebrate morphology; evolution.

Miller, Dr. Alton L(ombard), 25 Clinton Road, Brookline, Mass. *Mathematics.* Somerville, Mass, April 10, 90. A.B, Harvard, 11, A.M, 13, Ph.D, 16; Turin, 15–16. Instr. math, Harvard, 11–13; Michigan, 13–17; Harvard, 17–19; *treas. and gen. manager, Charles N. Miller Co.* Trustee and chairman exec. cmt, Wheelock Col; Middlesex; trustee, Andover-Newton Theol. Sem. Pres, North. Baptist Conv, 29. A.A; Math. Soc. Projective differential geometry.

Miller, A(ndrew) H(oward), Dominion Observatory, Ottawa, Ont, Can. *Geophysics.* Teulon, Man, Can, June 13, 86. B.A, Manitoba, 06; Rhodes scholar, Oxford, 07–10, B.A, 10, M.A, 19. Asst. physics, Wisconsin, 11–13; tech. clerk, Can. Dept. Interior, 13–15; gravity specialist, *Dom. Observatory,* 20–28, *astronomer, 28–* Sub-cmt. gravity, cmt. fundamental constants, Nat. Research Council. Lieut, Can. Artil, C.E.F, 15–19. Fel. Royal Soc. Can; Royal Astron. Soc. Can. (sec'y, Ottawa center, 23–25, pres, 35–37). Applied geophysics; gravity; isostasy; geophysical prospecting.

Miller, Dr. A(nna) Kathrine, 903½ Allen St, Allentown, Pa. *Bacteriology.* East Orange, N. J, June 8, 13. A.B, Moravian Col. for Women, 34; M.S, Columbia, 36; Ph.D, Cornell, 42. Asst. director physical educ, Moravian Col. for Women, 34–35, assoc. prof. biol, 36–41; substitute, dept. biol, Wells Col, 42–43; *bacteriologist, dept. nutrition, med. research div, Sharp and Dohme, Inc, 43–* A.A; Soc. Bact. Nutrition of bacteria.

Miller, Prof. A(nthony) Jerome, St. Bonaventure College, St. Bonaventure, N. Y. *Chemistry.* Rochester, N. Y, April 1, 13. B.S, St. Bonaventure Col, 35, M.S, 37. Asst, *St. Bonaventure Col,* 35–37, instr, 37–39, *asst. prof. chem,* 39– A.A; Chem. Soc. Physical and chemical properties of oils found in ethanolic extract of Cannabis indica.

Miller, Dr. Arthur, 179 Kent St, Brookline, Mass. *Electrical engineering.* Cambridge, Mass, July 25, 12. B.S, Mass. Inst. Tech, 34, Sc.D, 38. *Research and develop. engineer, Sanborn Co, Cambridge, 36–* Physicist, Carnegie Institution, 41; research assoc, Mass. Inst. Tech, 41–42. A.A. Electrocardiographs; electrical instruments for physiological research; war research.

Miller, Prof. A(rthur) K, University of Iowa, Iowa City, Iowa. *Geology, Invertebrate paleontology.* Kahoka, Mo, Sept. 27, 02. A.B, Missouri, 24, A.M, 25; Ph.D, Yale, 30. Instr. *geol,* Missouri, 27–29; Yale, 29–31; asst. prof, *Iowa,* 31–35, assoc. prof, 35–40, *prof, 40–* Research assoc, Am. Museum Nat. Hist, 43– A.A; fel. Paleont. Soc. (v. pres, 42); Asn. Petrol. Geol; fel. Geol. Soc; Soc. Econ. Paleont. and Miner; Conn. Acad; Iowa Acad; Soc. Geol. Mexicana; Paleont. Soc. Japan; Soc. géol. suisse. Fossil cephalopods.

Miller, A(rthur) L(ouis), 1508 Park Bldg, Pittsburgh, Pa. *Chemistry.* South Bend, Ind, Aug. 31, 92. B.S, Purdue, 14. Asst. to asst. director, radium research lab, Standard Chem. Co, 14–15, mines chemist, 15–16, in charge carnotite concentration mill, hydroelec. power plant and mines lab, 16–17, acting chief physicist in charge radium measurements, 17–19, chief radon dept, 19–29; *field rep, Phoenix Mutual Life Ins. Co, 29–; consulting chemist, 29–* Lecturer, Radium Chem. Co; consultant, Rosanoff Process Co, 21–24. Radium; radon; luminous zinc sulfid; petroleum fractionation.

Miller, Arthur M(erkel), House 113, Village 1, Sheffield, Ala. *Chemical manufacturing.* Rochester, N. Y, March 7, 94.

B.S, Mass. Inst. Tech, 17, Harvard, 17. Draftsman, J. F. Ancona, 19–20; draftsman and engineer in charge, Tenn. Eastman Corp, 20–27; engineer and first asst. director operations, Gen. Chem. Co, 27–32; consulting engineer, 32–33; *director dept. chem. eng, Tenn. Valley Authority, Muscle Shoals, Ala, 33–* F.A, U.S.A, 17–19, lieut. Phosphates; process developments at Tennessee Valley Authority phosphoric acid plant; phosphate smelting.

Miller, Dr. A(rthur) W, 6833 Piney Branch Road, Takoma Park, Washington, D. C. *Veterinary medicine.* Manchester, N. H, Sept. 27, 76. D.V.S, Kansas City Vet. Col, 01. Inspector in charge field stations, *bur. animal indust, U. S. Dept. Agr,* 07–17, chief field inspection div, 17–27, *asst. chief, 27–* A.A; Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Genetic Asn.

Miller, Dr. August E(dward), 442 N. Market St, Wooster, Ohio. *Entomology.* Zanesville, Ohio, May 3, 99. B.S, Ohio State, 21, M.S, 22, Ph.D, 25. Asst. entomologist in charge truck crop insect lab, Ohio Exp. Sta, Chillicothe, 22–26; research entomologist, Ill. Nat. Hist. Surv, 26–28; owner and operator, Miller Floral Co, Zanesville, 28–35; chief nursery div, region 3, soil conservation service, U. S. Dept. Agr, 35–42; *div. manager, Caya dist. nursery, Société Haitiano-Américaina de Developpement Agricole, Haiti, 42–* Summer, asst, Ohio Exp. Sta, 20; European corn borer scout, Ohio, 21. Asst. botanist, Katmai exped, Nat. Geog. Soc, Alaska, 19. Biology, morphology and taxonomy of the Acarina; termites; house infesting ants; horticulture.

Miller, Dr. A(ugustus) T(aylor), University of North Carolina School of Medicine, Chapel Hill, N. C. *Physiology.* Arlington, Texas, April 14, 10. B.S, Emory, 31, M.S, 33; Squibb research fellow, Michigan, 35–36, Ph.D, 39. Asst. physiol, Emory, 31–33; demonstrator, Michigan, 33–35; research physiologist, W. H. Maybury Sanatorium, Northville, Mich, 36–39; instr. *physiol, sch. med, North Carolina,* 39–41, *asst. prof, 41–* N. C. Acad. Respiration; acid-base balance; carbon monoxide asphyxia; lactic acid metabolism of heart muscle.

Miller, Prof. A(ura) James, 101 W. Chestnut St, Louisville, Ky. *Pathology.* Farmington, Iowa, July 20, 90. Iowa State Teachers Col; M.D, Iowa, 21. Intern, Univ. Hosp, Iowa City, 22; asst. path, col. med, Iowa, 23; nat. research fellow, Harvard, 24; assoc. prof. clin. path, col. med, Nebraska, 25–27, *prof,* 27–28; *path, sch. med, Louisville, 28–* Asn. Path. and Bact; Am. Med. Asn; Asn. Study Neoplastic Diseases; Cent. Soc. Clin. Research; South. Med. Asn; Int. Asn. Med. Museums. Effect of high protein diet on the kidney; congenital heart disease; effect of circulatory deficiency on blood pressure; tuberculosis.

Miller, Dr. Benjamin F(rank), 950 E. 59th St, Chicago, Ill. *Medicine.* Fitchburg, Mass, 07. B.S, Mass. Inst. Tech, 28; Harvard Col, 29; John Ware Mem. fellow, Harvard, 31–33, M.D, 33. Asst. physiol. chem, Harvard, 30–33; intern, N. Y. Hosp, 33–34; nat. research fellow med, 34–36; asst. res. physician, Rockefeller Inst. Hosp, 36–37; asst. physician, N. Y. Hosp, 36; *asst. prof. med, Chicago, 37–* Soc. Biol. Chem; Soc. Clin. Invest; Soc. Exp. Biol; Cent. Soc. Clin. Research. Internal medicine; renal physiology; biochemistry of creatinine; biochemistry of dental caries.

Miller, Prof. Benj(amin) L(eRoy), Lehigh University, Bethlehem, Pa. *Geology.* Sabetha, Kans, April 13, 74. A.B, Kansas, 97; A.M, Penn Col. (Iowa), 98; fellow, Hopkins, 01–03, Ph.D, 03; hon. Sc.D, Moravian Col, 41. Prof. biol. and chem, Penn. Col. (Iowa), 97–00; assoc. *geol,* Bryn Mawr Col, 03–07; *prof, Lehigh, 07–* Asst, Univ. Kans. Geol. Surv, 96; Iowa Geol. Surv, 99; Md. Geol. Surv, 00–02, geologist, 02–11; field asst, U. S. Geol. Surv, 04–07, asst. geologist, 07–13; cooperating geologist, Pa. Geol. Surv, 19– Acad. Nat. Sci. Phila. del, Int. Geol. Cong, Moscow, 37. A.A; Geol. Soc; Min. and Metal. Eng; Miner. Soc; Pa. Acad. (pres, 25); Iowa Acad; Geol. Soc. London. Areal and economic geology; mineral resources of South America; geology of limestones and cement; geology of Pennsylvania.

Miller, Dr. B(ernard) L(ewis), 5115 Connecticut Ave, Washington, D. C. *Mechanics.* Philadelphia, Pa, June 14, 12. B.S, Pennsylvania, 33, Moore honor fellow, 34–35, M.S, 35, Frazier fellow, 36–38, Ph.D, 40. Junior elec. engineer, Phila. Navy Yard, 38–39; asst. physicist and later *assoc. physicist, Taylor Model Basin, Navy Dept, 39–* Applied mechanics; testing and mathematical analysis of the behavior of mechanical systems and structures when subjected to impact loads.

Miller, Dr. B(uford) Maxwell, The Texas Co, Tulsa, Okla. *Geology.* Louisville, Ky, Nov. 17, 05. A.B, Wyoming, 30; A.M, Columbia, 31, James Furman Kemp fellow, 34–35, Ph.D, 36. Asst, Columbia, 32–34; instr. geol, John Marshall Col. Law, 33–35; asst. geologist, *Texas Co,* Houston, 35, *geologist, 35–* Asn. Petrol. Geol; Paleont. Soc. Cambrian stratigraphy and paleontology of Wyoming; subsurface stratigraphy, structure and petroleum geology of Pennsylvania, West Virginia, Ohio, Indiana, Kentucky, Illinois, Kansas and Oklahoma.

Miller, Prof. Carey D(unlap), University of Hawaii, Honolulu, Hawaii. *Nutrition.* Boise, Idaho, May 3, 95. A.B, California, 17; M.S, Columbia, 22; Yale, 28–29. Instr. home econ, State Col. Wash, 17–18; household science, California, 18–19; home econ, Idaho, 20–21; asst. prof. *foods and nutrition, Hawaii,* 22–28, assoc. prof, 28–37, *prof, 37–, in charge nutrition research, Exp. Sta, 29–* A.A; Home Econ. Asn; Inst. Pacific Relations (Hawaii sect); Bot. Soc. Honolulu; Hawaiian Acad. (v. pres, 41, 42, pres, 43). Composition and nutritive value of foods; basal metabolism.

Miller, Dr. Carl D(anforth), 327 Salem St, North Andover, Mass. *Physics.* Minneapolis, Minn, Jan. 30, 88. B.S, Richmond, 10; Ph.D, Chicago, 16. Instr. physics, Chicago, 14–16; physicist, Westinghouse Elec. and Mfg. Co, 16–17; tech. adviser, Wm. Gaertner and Co, 19–20; asst. prof. physics, Manitoba, 20–24; assoc. agr. engineer, Ala. Polytech, 25–26; prof. physics, Washington Col. (Md), 26–30; independent worker on viscometry and oil, 30–35; *retired.* Lieut, Ordnance Dept, 17–19. Soc. Rheol. Viscometry.

Miller, Prof. C(arl) W(allace), 32 Balton Road, Providence, R. I. *Physics.* Somerville, Mass, March 28, 93. A.B, Harvard, 15, A.M, 21, Ph.D, 23. Instr. *physics,* N. Y. Univ, 22–24; asst. prof, *Brown,* 24–29, *assoc. prof, 29–* A.A; fel. Physical Soc; fel. Royal Photog. Soc. Electric oscillations; instrument design; photography; color.

Miller, Prof. C(arman) E(dgar), University of New Brunswick, Fredericton, N. B, Can. *Mathematics.* Milliken, Ont, Oct. 11, 07. B.A, Toronto, 30, fellow, 30–31, M.A, 31, fellow, 32–34, Ph.D, 40; Davis exchange fellow, Göttingen, 31–32. Teacher, high sch, Ont, 35–41; asst. prof. *math, New Brunswick,* 41–43, *prof, 43–* Math. Soc. Finite collineation groups of a given degree; algebra.

Miller, Prof. Charles Addison, 233 Kensington Road, East Lansing, Mich. *Civil engineering.* Mt. Vernon, Ohio, 82. C.E, Ohio State, 07. Asst. div. engineer, Chicago and Northwestern Ry, 07–12; prof. and dean col. eng, Ohio Northern, 12–22; *asst. prof. civil eng, Mich. State Col, and mem. staff, eng. exp. sta, 22–* Summers, bridge designer, State Highway Dept, Mich, 24–34. Assoc. Civil Eng; Eng. Educ; Lansing Eng. Soc. Reinforcement in stucco; reinforced concrete railway ties.

Miller, Dr. Charles J(udson), Jr, Silverside and Riverview Aves, Little Silver, N. J. *Electrical engineering.* Cedar Rapids, Iowa, Feb. 4, 08. John W. Mackay fellow, California, 31–32, B.S, 31, M.S, 32, LeConte Mem. fellow, 33–34, E.E, 33, Ph.D, 35. Elec. engineer, Ohio Brass Co, 35–42; *capt, Sig. Corps, U. S. Army, 42–* Elec. Eng. Radio interference associated with high voltage transmission lines; high voltage, low current arcs; flash-over characteristics of high voltage insulation under impulse waves.

Miller, Dr. C(harles) Phillip, University of Chicago, Chicago, Ill. *Medicine.* Oak Park, Ill, Aug. 29, 94. B.S, Chicago, 16, M.D, Rush, 19; M.S, Michigan, 20. Vol. asst. path, Michigan, 19–20; asst. res. physician, Rockefeller Inst. Hosp, 20–24, asst, Rockefeller Inst, 24–25; asst. prof. *med, Chicago,* 25–30, assoc. prof, 30–41, *prof, 41–* Vol. asst, Preussisches Inst. für Infectionskrankheiten 'Robert Koch,' Berlin, 26. A.A; Soc. Exp. Path. (sec'y-treas, 30–34, v. pres, 36, pres, 37–); Asn. Immunol; Soc. Exp. Biol; Soc. Clin. Invest. (v. pres, 39); Am. Physicians; Hist. Sci. Soc; Harvey Soc; Am. Med. Asn; Soc. Bact; Chicago Soc. Int. Med; Inst. Med. Chicago. Bacteriology; immunology; infectious diseases.

Miller, Dr. Clark O(ber), Case School of Applied Science, Cleveland, Ohio. *Chemical engineering.* Bays, Ohio, April 27, 10. B.S, Tulane, 31, B.E, 32, Chem.E, 33; A.M, Princeton, 35, Ph.D, 36. Asst, Tulane, 31–33; Princeton, 35–36; instr. *chem. eng, Case,* 36–39, asst. prof, 39–42, *assoc. prof, 42–* Chem. Soc; Chem. Eng; Eng. Educ. Drying; fluid mechanics; electrode potentials.

Miller, Clarke C(ordis), 519 Tipton Ave, Wood River, Ill. *Chemical engineering, Petroleum.* Racine, Wis, June 22, 00. B.S, Mass. Inst. Tech, 23. Exp. dept, Sinclair Ref. Co, 23–24; research chemist, *Standard Oil Co. of Ind*, 24–27, 29–30, director research, 31–38, *chief chemist, 38–* A. O. Smith Corp, 28. Gull and tern banding expeds, bur. biol. surv, U. S. Dept. Agr. Chem. Soc; Chem. Eng. Sulfur equilibrium in open hearth furnaces; petroleum technology; process patents; refining economics.

Miller, Dr. C(lemmy) O(lin), 4830 N. Oakland Ave, Milwaukee, Wis. *Physiological chemistry.* Henry Co, Ind, Dec. 27, 96. A.B, Manchester Col, 20; Johns Hopkins, 20–21; Ph.D, Chicago, 26. Prof. chem, Blue Ridge Col, 20–21; curator and instr, Chicago, 24–28; asst. prof. physiol. chem, med. sch, Northwestern, 28–36; tech. director, Hosp. Liquids, 36–38; *tech. director and v. pres, Lakeside Labs, Inc, 38–* Consultant, Lord and Thomas, 34–37. A.A; Chem. Soc. Chemistry of proteins and carbohydrates and liquid ammonia; synthetic drugs; metabolism of mucin; vitamin C content of adrenals.

Miller, Dalton G(iles), University Farm, University of Minnesota, St. Paul, Minn. *Agricultural engineering.* Guthrie Center, Iowa, May 7, 80. B.S, Iowa, 05, C.E, 24. *Senior drainage engineer, U. S. Dept. Agr, 07–* Soc. Test. Mat. (cmt. cement and chairman working cmt. sulfate resistance); Soc. Agr. Eng; Concrete Inst; Minn. Acad. Drainage of agricultural lands; effect of soil alkalies, soil acids and weathering on drain tile and preventative measures.

Miller, Dr. David, U. S. Department of Agriculture, Beltsville, Md. *Biochemistry, Nutrition.* New York, N. Y, June 19, 03. B.S, Trinity Col. (Conn), 26, M.S, 33; A.M, Columbia, 27; Sc.D, Hopkins, 42. Junior chemist, *bur. animal indust, U. S. Dept. Agr*, 28–37, *asst. biochemist, 37–* Chem. Soc; Poultry Sci. Asn. Nutritive studies of milk; physiology of digestion in the domestic fowl.

Miller, Prof. D(avid) F(ranklin), Ohio State University, Columbus, Ohio. *Zoology, Entomology.* Greenfield, Ohio, Oct. 25, 92. A.B, Wittenberg Col, 17; A.M, Ohio State, 24, Ph.D, 28. High sch, Ohio, 17–19; prof. nat. sciences, Kingfisher Col, 19–22; instr. zool, *Ohio State*, 23–29, asst. prof. *zool. and entom*, 29–31, assoc. prof, 31–43, *prof, 43–* Summers, field asst, bur. entom, U. S. Dept. Agr, 28–31. A.A; Entom. Soc. Amer; Entom. Workers of Ohio (v. pres, 30, pres, 33, 34); Ohio Acad. (v. pres, 36). Insect reactions and physiology; educational methods.

Miller, Dr. David K(imball), Buffalo City Hospital, Buffalo, N. Y. *Medicine.* Bloomington, Ill, April 26, 05. B.S, Ill. Wesleyan, 25; M.D, Harvard, 29. Boston City Hosp, 29–31; asst. med. and asst. res. physician, Rockefeller Inst. Hosp, 31–37; instr. *med, Buffalo*, 37–39, *prof, 39–* Director labs, Buffalo City Hosp, 37; Edward J. Meyer Mem. Hosp, 37–, head dept. med, 39– Harvey Soc. Anemia; deficiency diseases; experimental production of syndrome resembling sprue and pernicious anemia.

Miller, Dr. Donald E(lbert), 16 Mann Ave, Muncie, Ind. *Zoology.* Germano, Ohio, April 6, 06. A.B, Thiel Col, 25; M.S, Michigan, 29, Ph.D, 35. Teacher, high schs, Pa, 25–28, 30–31; asst. zool, Michigan, 29–30, teaching fellow, 34–35; instr. biol, Gustavus Adolphus Col, 31–33; zool, Idaho, 35–36; asst. prof. *science, Ball State Teachers Col*, 36–39, *assoc. prof, 39–* Summer, asst, biol. sta, Michigan, 34; leader, lake surv. party, Mich. Inst. Fisheries Research, 36. A.A; Micros. Soc; Limnol. Soc; Ind. Acad. Relation of environmental factors in nature to fresh-water animals; physical, chemical and biological characteristics of lakes and streams; taxonomy of hydras and sponges.

Miller, Dr. Donald S(mith), Yale University, New Haven, Conn. *Mathematics.* Toronto, Ont, Can, March 22, 14. B.A, McMaster, 37; A.M, Cornell, 38, Ph.D, 41. *Instr. math*, Cornell, 37–41; Acadia, 41–42; *Yale, 42–* Measure theory; non-absolutely convergent integrals; linear operators.

Miller, Prof. Dorothea Starbuck (Mrs. Ray S. Miller), Connecticut College, New London, Conn. *Zoology.* Iowa City, Iowa, Nov. 12, 08. A.B, Iowa, 28, M.S, 34, Ph.D, 38; Chicago, 38. Asst. *zool*, Iowa, 33–38; *asst. prof, Conn Col, 39–* A.A; Iowa Acad. Endocrinology; experimental embryology; thyroid and pituitary glands of birds in relation to plumage and metabolism; lack of refractoriness in birds.

Miller, Prof. E(arle) B(renneman), Illinois College, Jacksonville, Ill. *Mathematics.* Philadelphia, Pa, Nov. 8, 91. A.B, Colorado, 14; A.M, Chicago, 16, fellow, 20–21. Instr. *math*, Kansas, 16–18; acting asst. prof, Swarthmore Col, 18–19; instr, Wisconsin, 21–27; *prof. and head dept, Ill. Col*, 27– Instr, Michigan, 30–31. Math. Asn. (chairman, Ill. sect, 34). Analysis.

Miller, Dr. E(dgar) C(alvin) L(eRoy), 2915 Seminary Ave, Richmond, Va. *Bacteriology.* Pelham, Mass, Aug. 24, 67. Oberlin Col, 88–90; M.D, Michigan, 94. Bacteriologist, research labs, Parke, Davis and Co, 00–10; prof. bacter. and physiol. chem, *Med. Col. of Va*, 11–29, dean, 20–23, *directing librarian, 30–* A.A; Chem. Soc; Asn. Immunol; Hist. Sci. Soc; Soc. Chem. Indust; Am. Med. Asn; Va. Acad. (sec'y, 23–); London Chem. Soc. Immunity; bacterial vaccines; opsonins; agglutination; tuberculin; keeping quality of antidiphtheritic serum; administration of diphtheria toxin in collodion sac; accuracy and capacity of the platinum loop.

Miller, Prof. Edgar G(rim), Jr, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* Gettysburg, Pa, Feb. 22, 93. B.S, Gettysburg Col, 11; Ph.D, Columbia, 13; Cambridge, 28–29. Asst. biochem, Columbia, 11–13; path. chem, Bellevue Hosp, 12–13; acting biochemist, Beth Israel Hosp, 13; instr. physiol. chem, col. med, Illinois, 13–14; assoc. *biochem, Columbia*, 14–21, asst. prof, 21–24, assoc. prof, 24–35, *prof, 35–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Harvey Soc; assoc. fel. N. Y. Acad. Med; fel. N. Y. Acad; Int. Asn. Dental Research. Pathological and physiological chemistry.

Miller, Dr. E(dward) E(rnest), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Omaha, Nebr, Oct. 22, 15. B.S, Missouri, 37; Ph.D, Wisconsin, 41. *Staff mem, radiation lab, Mass. Inst. Tech, 41–* Precise measurement of pressures to two hundred atmospheres and Joule-Thomson effect; rheology; applied physics.

Miller, Prof. E(dward) H(ughes), Chosen Christian College, Seoul, Korea. *Chemistry.* Rouseville, Pa, July 18, 73. A.B, Occidental Col, 98; San Francisco Theol. Sem, 98–01, B.D, 19; California, 16–18; A.M, Columbia, 26, Ph.D, 27. Prin, J. D. Wells Sch, Seoul, 01–14; *prof.* science, Union Christian Col, Pyengyang, 15–16; *chem, Chosen Christian Col, 16–* Teacher, high sch. and junior col, Calif, 17–18; instr, Columbia, 26–27. Chem. Soc. Chemistry of nutrition.

Miller, Dr. Edwin Cyrus, Kansas State College, Manhattan, Kans. *Plant physiology.* Baltimore, Ohio, Dec. 16, 78. A.B, Lebanon, 06; A.B, Yale, 07, Ph.D, 10. Instr. *bot, Kans. State Col*, 10–14, asst. prof, 15–18, assoc. prof, 18–20, *prof, 20–*, asst. plant physiologist, *Exp. Sta*, 11–20, *plant physiologist, 20–* A.A; Bot. Soc; Soc. Plant Physiol. Chemistry and water relations of plants.

Miller, Prof. E(dwin) D(eWitt), Madison College, Harrisonburg, Va. *Zoology.* Bridgewater, Va, Oct. 17, 94. A.B, Bridgewater Col, 20; A.M, Virginia, 30, Ph.D, 34. Teacher, high sch, W. Va, 20–29; instr, Virginia, 30–34, research fellow, 34–39; *assoc. prof. biol, Madison Col, 39–* A.A; Soc. Zool; Va. Acad. Cytoplasmic inclusions of plants and animals; physiology of adrenal gland and blood cell formation.

Miller, Prof. E(dwin) L(ynn), Lawrence College, Appleton, Wis. *Zoology.* North English, Iowa, June 22, 06. B.S, Iowa Wesleyan Col, 28; Theta Kappa Nu scholar, 28–29; M.S, Illinois, 30, fellow, 31–32, Ph.D, 34. Asst. biol, Iowa Wesleyan Col, 26–28; *zool*, Illinois, 28–31; instr, Louisiana, 32–34, asst. prof, 34–38, *assoc. prof*, 38–42; *Lawrence Col, 42–* A.A; Soc. Ichthyol. and Herp; Soc. Parasitol; Soc. Zool; Helminth. Soc. Wash; Iowa Acad; La. Acad. Adult and larval trematode morphology; trematode life history; vertebrate fauna of Louisiana.

Miller, Dr. Edwin M(orton), 700 N. Michigan Ave, Chicago, Ill. *Surgery.* Ida Grove, Iowa, June 10, 88. A.B, Illinois, 10; Senn fellow, Rush, Chicago, M.D, 13. Asst. instr. surg, *Rush Med. Col, Chicago*, 15–17, instr, 17–25, asst. prof. clin. surg, 25–29, assoc. prof, 29–37, *clin. prof. surg, 37–* Surg. Asn; Am. Board Surg; Am. Med. Asn; West. Surg. Asn; Chicago Surg. Soc. Surgery of bones and nerves; goiter.

Miller, Prof. Eleanor Olmstead, 1252 W. College Ave, Jacksonville, Ill. *Education, Psychology.* Chicago, Ill, 96. B.S, Northwestern, 19, A.M, 20; Ph.D, Wisconsin, 28. Wisconsin, 24–27; from instr. to *prof. psychol. and educ, Ill. Col, 27–* A.A; assoc. Psychol. Asn. Guidance and personnel; general psychology.

Miller, Dr. Ellis, Sharp and Dohme, Inc, Philadelphia, Pa. *Chemistry.* Raleigh, N. C, Sept. 9, 90. A.B, Hopkins, 12, Ph.D, 15. Instr. chem, Hopkins, 15–17, assoc, 17–19; research chemist, E. I. du Pont de Nemours and Co, 19–23; dept. supt, *Sharp and Dohme, Inc,* 24–40, *asst. director research, 40–* Lecturer, Temple. A.A; Chem. Soc. Synthetic medicinals.

Miller, Dr. E(lroy) J(ohn), 262 Cedar St, East Lansing, Mich. *Chemistry.* West Toledo, Ohio, July 27, 91. B.S, Michigan, 14, M.S, 15, Ph.D, 23. Asst. chem, *Exp. Sta, Mich. State Col,* 15–19, research assoc, 20–30, *chemist, 31–* Lieut, C.W.S, 17–18. A.A; Chem. Soc. Adsorption by activated sugar charcoal; hydrolytic adsorption; adsorption and soil acidity; purification of adsorbent charcoals; negative adsorption; non-inversion of sucrose by adsorbed acids; colloids; emulsions; agricultural chemistry; industrial utilization of agricultural products.

Miller, Prof. E(lwood) Morton, University of Miami, Miami, Fla. *Zoology.* Barnesville, Ohio, July 15, 07. B.S, Bethany Col, 29; M.S, Chicago, 30, Ph.D, 41. Instr. *zool, Miami (Fla),* 30–33, asst. prof, 33–40, *assoc. prof, 41–* A.A; Fla. Acad. (treas, 38). Social insects; caste differentiation in termites.

Miller, Dr. E(mery) P(arker), 311 Waldron St, West Lafayette, Ind. *Physics.* Duncansville, Pa, March 23, 08. A.B, Lafayette Col, 29, A.M, 30; Ph.D, Purdue, 36. Asst. *physics, Purdue,* 30–35, *instr, 35–* Asn. Physics Teachers. X-ray determination of the structure of liquids and glasses.

Miller, Eric R(exford), U. S. Weather Bureau, Madison, Wis. *Meteorology.* Mount Pleasant, Mich, June 19, 78. B.S, Arizona, 21; M.S, Wisconsin, 21. Observer, *U. S. Weather Bur,* 01–05, research observer, 06–08, local forecaster, 08–17, *meteorologist, 18–* Lecturer, Wisconsin, 08– A.A; Meteorol. Soc. (councilor, 38–40); Geophys. Union; Wis. Acad. Climate of Wisconsin; history of American weather services; systematic errors in meteorological observations; correlation of weather with fuel consumption; microclimatology of airports.

Miller, Dr. Erston V(inton), U. S. Department of Agriculture, Orlando, Fla. *Plant physiology.* Hagerstown, Md, Aug. 8, 98. B.S, Maryland Col, 19; M.S, Maryland, 21; Ph.D, Mich. State Col, 26. Asst, Exp. Sta, Maryland, 19–21; instr. science, Shanghai Am. Sch, China, 21–24; asst, Mich. State Col, 25–26; asst. physiologist and later *physiologist, bur. plant indust, U. S. Dept. Agr, 28–* A.A; Soc. Plant Physiol. Biochemistry; biochemistry of fruits and vegetables in storage and in transportation.

Miller, Dr. F(loyd) L(averne), 910 Highland Ave, Westfield, N. J. *Chemistry.* Arbela, Mich, April 12, 05. A.B, Mich. State Nor. Col, 26; M.S, Michigan, 27, Am. Petrol. Inst. fellow, 27–29, Ph.D, 29. Instr. gen. chem, Mich. State Nor. Col, Ypsilanti, 26–27; research chemist, *Standard Oil Develop. Co,* 30–37, *asst. director, Esso labs, 37–* Chairman, subcmt. chem, insulation cmt, Nat. Research Council, 38–39. Chem. Soc; Soc. Automotive Eng. (governing board, Metropolitan sect, 36). Physical, colloid and petroleum chemistry; wetting and surface chemistry; lubricants and lubrication.

Miller, Dr. Foll A(llan), University of Minnesota, Minneapolis, Minn. *Physical chemistry.* Aurora, Ill, Jan. 18, 16. B.S, Hamline, 37; Nebraska, 37–38; Ph.D, Hopkins, 42. *Nat. research fellow, Minnesota, 42–* Chem. Soc. Vibrational spectra.

Miller, Prof. Forrest W(illiam), 19 Ford Ave, Oneonta, N. Y. *Biology.* Annville, Pa, July 9, 08. B.S, Lebanon Valley Col, 29; M.S, Pittsburgh, 31, Ph.D, 33. Asst. zool, Pittsburgh, 29–34, lecturer, 34–35; instr. *biol,* Amherst Col, 34–35; assoc. prof, Parsons Col, 35–36; *prof. and head dept, Hartwick Col, 36–* Lecturer, Carnegie Museum, 34–35. Entom. Soc. Amer; Asn. Econ. Entom; Pa. Acad. Entomology; taxonomy, morphology, physiology and genetics of insects.

Miller, Dr. Franklin, Jr, Rutgers University, New Brunswick, N. J. *Physics.* St. Louis, Mo, Sept. 8, 12. A.B, Swarthmore Col, 33; Ph.D, Chicago, 39. Asst. *physics,* Chicago, 35–37; instr, *Rutgers,* 37–42, *asst. prof, 42–* Physical Soc. X-ray diffraction; radioactive tracer elements and applications to biology.

Miller, Dr. Franklin R(ush), Woodmont Road, Conshohocken, Pa. *Medicine.* Bloomington, Ill, Aug. 24, 02. B.S, Ill. Wesleyan, 23; M.D, Harvard, 27. Asst. path. and bacter, Rockefeller Inst, 29–31; demonstrator *med,* sch. med, Western Reserve, 31–33, instr, 33–34, senior instr, 35–36, asst. prof, 36–39; *Jefferson Med. Col,* 39–41, *assoc. prof, 41–, asst. director hematol, 39–* A.A; Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Soc. Exp. Path. Bacteriology of tuberculosis; hematology.

Miller, Dr. F(ranklin) S(tuart), Mining Division, War Production Board, Washington, D. C. *Geology.* Columbus, Ohio, June 3, 06. A.B, Williams Col, 28; A.M, Harvard, 31, Ph.D, 34. Geologist, West. Mining Corp, Kalgoorlie, West. Australia, 34–36; instr. geol, Illinois, 36–37; consulting geologist, Timmins, Ont, and San Francisco, 37–38; instr. miner, California, 38–39; field supt, Roseville Gold Dredging Co, 39–40; consulting geologist, Toronto, Ont, Can, 40–41; *asst. director mining div, War Production Board, 41–* Field supt, Roaring River Gold Dredging Co, 39–40. The Rosiwal method and the modal determination of rocks; anorthite from California; petrology of the San Marcos gabbro, Southern California; hornblendes and primary structures of the San Marcos gabbro; Kalgoorlie geology reinterpreted.

Miller, Fred A, 307 N. East St, Greenfield, Ind. *Botany.* Brooklyn, Ind, Sept. 5, 78. B.S, Purdue, 08, M.S, 12. *Production supt, biol. dept, Eli Lilly and Co, 08–* Soc. Bact; Ind. Acad. Medicinal plants with special reference to their commercial production.

Miller, Fred E, North Carolina State College, Raleigh, N. C. *Horticulture.* Anna, Ill, Jan. 1, 90. B.S, Missouri, 12. Gardener, Missouri, 09–12; asst. horticulturist, Va. Truck Exp. Sta, 12–15; U. S. Dept. Agr, 15–17, horticulturist, 19–20; asst. director and director branch exp. stations, *State Dept. Agr, N. C, and Exp. Sta, N. C. State Col, 20–, director test farms, 37–* Lieut, U.S.A, 18–19. Asn. South. Agr. Workers (sec'y-treas, 39–42). Growing and storage of sweet potatoes; planning and administration of experiment stations.

Miller, Dr. Fred M(athias), 1601 Argonne Place, N. W, Washington, D. C. *Organic chemistry.* Birdseye, Ind, March 30, 05. A.B, Indiana, 29, A.M, 33, Ph.D, 35. Research chemist, Procter and Gamble Co, 29–31; Sherwin-Williams Co, 35; *technician, fed. bur. investigation, U. S. Dept. Justice, 35–* Chemistry of tryptophane.

Miller, Dr. Fred W, 224 Fremont St, Whitewater, Wis. *Veterinary medicine.* Girard, Ohio, Jan. 9, 92. D.V.M, Ohio State, 16; fellow, Oregon State Col, 16–17, M.S.A, 21. From instr. to assoc. prof, Oregon State Col, 19–25; senior veterinarian and physiologist, bur. dairy indust, U. S. Dept. Agr, 25–37; *practising veterinarian, 37–* Vet. Med. Asn; Helminth. Soc. Wash; Wash. Biol. Soc. Abortion disease in cattle; physiology of production and reproduction in dairy cattle.

Miller, Prof. F(rederic) H(owell), Cooper Union, New York, N. Y. *Mathematics.* New York, N. Y, June 17, 03. B.S, Cooper Union, 26; M.S, Cornell, 27; Ph.D, Columbia, 32. Instr. *math,* Cooper Union, 27–29; Columbia, 29–32; asst. prof, *Cooper Union,* 32–42, assoc. prof, 42–43, *prof. and head dept, 43–* Eng. Educ; Math. Soc; Math. Asn. Applied mathematics text-books.

Miller, Prof. Frederick R(obert), University of Western Ontario, London, Ont, Can. *Physiology.* Toronto, Ont. B.A, Toronto, 03, M.B, 07, M.A, 10; M.D, Munich, 11; Strasbourg, 11; Liverpool, 11; Oxford, 14. Asst. *physiol,* Cornell, 03–05; asst. demonstrator, Toronto, 05–07, demonstrator, 07–10; lecturer, McGill, 12–14; *prof, faculty med, Western Ontario, 14–* Examiner, Can. Med. Council, 16–18. Physiol. Soc; Soc. Exp. Biol; Can. Physiol. Soc. (pres, 38); fel. Royal Soc. Can; fel. Royal Col. Physicians Can; Physiol. Soc. Gt. Britain; fel. Royal Soc. London. Muscle-nerve physiology; stomach; salivary reflexes; deglutition; cardio-inhibitory and mastication centers; cerebellum; visceromotor and other reflexes; electro-physiology.

Miller, Dr. Frederick W(illiam), Jr, E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* New York, N. Y, June 29, 98. B.S, N. Y. Univ, 18, Inman fellow, 18–19, M.S, 19, Ph.D, 23. Instr. chem, N. Y. Univ, 19–27, asst. prof, 27–30; *research chemist, E. I. du Pont de Nemours and Co, 30–* Solution chemistry; phase rule; the ternary system silver perchlorate–toluene–water; the system sodium carbonate–potassium carbonate–water; urea synthesis; high pressure nitrogen chemistry; mycology of food; development of chemicals for the food industry.

Miller, Prof. Freeman D(evold), U.S.S. Kane (235) care of Postmaster, Seattle, Wash. *Astronomy.* Somerville, Mass,

Jan. 4, 09. B.S, Harvard, 30, A.M, 32, Ph.D, 34. Asst, Harvard, 31–33; instr. *astron, Denison,* 34–35, asst. prof, 35–39, *assoc. prof, 39–, director, Swasey Observatory.* Astron. Soc; Astron. Soc. Pacific; Ohio Acad. Stellar statistics.

Miller, Dr. Gail L(orenz), Rockefeller Institute, Princeton, N. J. *Biochemistry.* Pleasant Valley, Iowa, Nov. 3, 13. A.B, Illinois, 33, A.M, 34; Ph.D, George Washington, 37. Instr. biochem, med. sch, George Washington, 37–38; asst, med. col, Cornell, 38–39; Rockefeller fellow, inst. physical chem, Uppsala, 39–40; *research asst. plant path, Rockefeller Inst, 40–* A.A; Chem. Soc; Harvey Soc; N. Y. Acad. Synthetic peptide chemistry; chemistry of insulin; chemistry of viruses.

Miller, Prof. G(eorge) A(bram), 1203 W. Illinois St, Urbana, Ill. **[1]Mathematics.* Lynnville, Pa, July 31, 63. A.B, Muhlenberg Col, 87, A.M, 90, LL.D, 37; Ph.D, Cumberland, 93; Leipzig and Paris, 95–97. Prin, schs, Kans, 87–88; prof. *math,* Eureka Col, 88–93; instr, Michigan, 93–95; Cornell, 97–01; asst. prof, Stanford, 01–03, assoc. prof, 03–06; *Illinois,* 06–07, prof, 07–31, *emer. prof, 31–* Summers, instr, Chicago, 98, prof, 12; California, 13. Int. math. prize, 00. Nat. Acad; A.A. (sec'y, A, 01, 07–12); Math. Soc. (sec'y, San Francisco sect, 02–06, v. pres, 08, chairman, Chicago sect, 07–09); hon. mem. Math. Asn. (v. pres, 16, pres, 21); Am. Acad; London Math. Soc; Deuts. Math. Verein; hon. mem. Indian Math. Soc; cor. mem. Spanish Math. Soc. Theory of groups of finite order; history of mathematics.

Miller, Dr. G(eorge) E(dgar), Technical Command, Edgewood Arsenal, Edgewood, Md. *Chemistry.* Abbottstown, Pa, Nov. 13, 91. B.S, Gettysburg Col, 14; Pennsylvania; Ph.D, Hopkins, 20. Work on smokeless powder, E. I. du Pont de Nemours and Co, 17–18; research chemist, org. dept, *Chem. Warfare Service, Edgewood Arsenal,* 20–24, chief org. dept, 24–30, research div, 30–43, *tech. asst. to commanding gen, Tech. Command, 43–* Chem. Soc; Chem. Eng. Organic chemistry.

Miller, Dr. George F(rederick), 11 Milmarson Place, Washington, D. C. *Psychology.* Farmington, Mo, May 10, 80. B.S, Missouri, 12; Ph.D, Columbia, 16; Pennsylvania, 16–18. Teacher, elementary and high schs, 02–13; prof. educ, Temple, 15–18; asst. to director, sch. board service div, Bur. Educ, 18–19; asst. prof. and assoc. prof. educ. and psychol, Oklahoma, 20–28; fed. supervisor, Indian schs, 28–33; *manager, The Daylion Co, 33–* Summer, lecturer, West Virginia, 19; George Washington, 26. Intelligence tests; formulas for scoring tests; objective tests.

Miller, Dr. George H(enry), American University of Beirut, Beirut, Lebanese Republic. *Internal medicine.* Beallsville, Ohio, Aug. 1, 87. A.B, Col. of Wooster, 10, A.M, 15; M.D, Pennsylvania, 17. Instr. biol, Beirut Univ, 10–13; asst. prof. pharmacol, Chicago Med. Sch, 19–21; assoc. prof, Iowa, 21–24, internal med, 24–32; *dean med. sch, American Univ. Beirut, 32–* Research fellow, Nelson Morris Inst. for Med. Research, Chicago, Ill, 21–22. A.A; Soc. Exp. Biol; Soc. Pharmacol. and Exp. Therapeut; Cent. Soc. Clin. Research. Coronary circulation; conditions affecting the motor function of the gastro-intestinal tract.

Miller, Prof. George J, 103 Parsons St, Mankato, Minn. *Geography.* Sturgis, Mich, Feb. 7, 80. B.S, Chicago, 07, M.S, 09, 09–13. Instr. *geog,* Chicago, 08–13; *prof. and head dept, Minn. State Teachers Col, Mankato, 13–* Visiting prof, Cornell, 21; Chicago, 22; Mich. Nor. Col. 29; London, 31; Northwestern, 32, 33; Teachers Col, Columbia, 38; Wisconsin, 39. Ed, 'Jour. of Geog.' D.S. award, 38. A.A; Asn. Geog; Nat. Council Geog. Teachers (sec'y, 14–29, pres, 33); Soc. Study Educ. Lake Superior iron ores; settlement and population of Michigan; boundaries of Michigan; education; geography of Minnesota and of North America; geography as a social science; geography in English and American schools.

Miller, Prof. George R(eich), 1 West St, Gettysburg, Pa. *Physics.* Harrisburg, Pa, May 20, 95. B.S, Gettysburg Col, 19, M.S, 21; fellow, Michigan, 30–31, Ph.D, 31. Instr, *Gettysburg Col,* 19–23, asst. prof, 23–29, assoc. prof. *physics,* 31–33, *prof, 33–, head dept, 34–* Physical Soc. Spectroscopy; the first spark spectra of rubidium and caesium.

Miller, George W(illis), P. O. Box 1609, Salinas, Calif. *Chemistry.* Irwin, Pa, Feb. 3, 00. B.S, Pittsburgh, 25. Research chemist, Firestone Tire and Rubber Co, 25–28; asst. chief chemist, Xylos Rubber Co, 28–33, chief chemist, Xylos Rubber Co. of Calif, 33–42; *chem. eng. consultant, Guayule emergency rubber project, U. S. Dept. Agr, 42–* Rate of cure of reclaimed rubber; effect of repeated reclaiming of rubber; drying temperature for reclaimed rubber scrap; rubber chemistry and technology.

Miller, Gerrit S(mith), Jr, U. S. National Museum, Washington, D. C. **[2]Zoology.* Peterboro, N. Y, Dec. 6, 69. A.B, Harvard, 94. Asst. curator, *div. mammals, U. S. Nat. Museum,* 98–09, curator, 09–40, *assoc. biol, 41–* Joseph Leidy medal, Acad. Nat. Sci. Phila, 34. A.A; Philos. Soc; Am. Acad; cor. mem. Acad. Nat. Sci. Phila; Zool. Soc. London. Taxonomy and geographical distribution of mammals.

Miller, Prof. Glen R(ussel), 1619 S. Ninth St, Goshen, Ind. *Organic chemistry.* Wellman, Iowa, May 6, 02. A.B, Hesston Col, 24; M.S, Iowa, 25, Ph.D, 30. Instr. physical science, *Goshen Col,* 25–28, 30–34, *prof. chem, 34–* Chem. Soc. Behavior of mixed halogenated phenols toward nitrating agents.

Miller, Prof. Glen T(reat), 601 Dodge St, West Lafayette, Ind. *Mathematics.* York, Nebr, Nov. 2, 00. B.S, Des Moines, 26; M.S, Iowa State Col, 28; Ph.D, Purdue, 41. Asst. math, Iowa State Col, 26–28; instr, *Purdue,* 28–41, *asst. prof, 41–* Math. Soc; Math. Asn. Analytic continuation of functions defined by factorial series.

Miller, Glennard E(arl), 940 Grand Concourse, New York, N. Y. *Chemistry.* Converse, Ind, Aug. 2, 94. U. S. Naval Radio Sch, 18; B.S, Purdue, 21; Columbia, 31. Junior chemist, bur. chem, U. S. Dept. Agr, 21–23; *chemist, Fleischmann labs, Standard Brands, Inc, 23–* Inspector, Marmon Co, 20. Radio electrician, U. S. Navy, 18–19. A.A; Chem. Soc; Asn. Cereal Chemists; Am. Inst. Oxidation of white arsenic; vitamin D; enzymes; foods.

Miller, Prof. Harlan C(ross), Texas State College for Women, Denton, Texas. *Mathematics.* Waxahachie, Texas, March 13, 96. A.B, Wellesley Col, 16; M.A, Columbia, 30; Ph.D, Texas, 41. Teacher, high sch, Texas, 16–18; teacher *math,* Hockaday Sch. and Jr. Col, 20–21, 22–36; instr, Texas, 37–41; Winthrop Col, 41–42; *assoc. prof,* N. Texas State Teachers Col, 42–43; *Texas State Col. Women, 43–* Statistical clerk, U. S. Shipping Board, 18. Math. Soc. Foundations of mathematics; point sets.

Miller, H(arold) C(arl), 506 Custom House, San Francisco, Calif. *Petroleum engineering.* Saginaw, Mich, May 22, 89. B.S, E.M, Mich. Col. Mines, 11. *Senior petrol. engineer, petrol. and natural gas div, U. S. Bur. Mines, 23–* Min. and Metal. Eng; Petrol. Inst Conservation of natural gas in the production of oil; fluid-energy relations in oil reservoirs; thermodynamics of flow of oil and gas through reservoir sands; oil and gas well spacing.

Miller, Harold E(dward), 344 Mahoning St, Milton, Pa. *Botany.* Union Co, Pa. B.S, Bucknell, 20, M.S, 21; Chicago, 24–29, 40–42. Teacher, rural sch, Pa, 15–16; asst. biol, Bucknell, 18–23; instr, high sch, Pa, 23–26; biol, Urbana Junior Col, Ohio, 26–28; Morris Harvey Col, 28–29; asst. prof, Muhlenberg Col, 29–40; grad. asst. bot, Chicago, 41–42. A.A; Genetic Asn; Pa. Acad. Plant morphology.

Miller, Dr. Harold J(ames), Pennsylvania State College, State College, Pa. *Plant pathology.* Rudolph, Ohio, April 17, 11. A.B, Ohio State, 33; Cornell, 34–37; Ph.D, Pa. State Col, 42. *Instr. plant path, Pa. State Col, 37–* Phytopath. Soc. Fruit disease control.

Miller, Dr. H(arry) F(ullerton), 32 Jason St, Pittsfield, Mass. *Chemistry.* Michigan City, Ind, 09. A.B, Ohio State, 32, M.S, 33, Ph.D, 35. Asst. chem, Ohio State, 35; nat. research fellow, 35–36; chemist, *Gen. Elec. Co,* 36–41, *head chem. sect, 41–* Chem. Soc; N. Y. Acad. Organic electrical insulation; resins; paper; cork; synthetic rubber.

Miller, Dr. Harry G, Procter and Gamble Co, Ivorydale, Ohio. *Biochemistry.* Cambria, Wis, June 4, 90. B.S, Wisconsin, 12, M.S, 14, Ph.D, 22. Asst. chem, Wisconsin, 12–16; chemist, Exp. Sta, Oregon State Col, 16–26; *biochemist, Procter and Gamble Co, 26–* A.A; Chem. Soc. (chairman, Oregon sect, 23–25). Nutrition; relation of sulfur to plant nutrition; potassium in animal nutrition; mineral metabolism in dairy cattle; fat metabolism; vitamins.

Miller, Dr. Harry M(ilton), Jr, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Zoology.* Baltimore, Md, June 3, 95. B.S, Ohio Wesleyan, 17; Ph.D, Illinois, 23. Instr.

zool, Washington (St. Louis), 23–25, asst. prof, 25–28, assoc. prof, 28–32; fellowship administrator *nat. sciences, Rockefeller Foundation, Paris,* 32–34, *asst. director, 34–* Lecturer, sch. med, Washington (St. Louis), 29–32. Summers, in charge marine biol. course, Puget Sound Biol. Sta, 28, 30. A.A; Soc. Zool; Soc. Parasitol; Soc. Exp. Biol. Parasitology; artificial and acquired immunity to metazoan parasites.

Miller, Dr. Henry K(eppele), Jr, 280 Bronxville Road, Bronxville, N. Y. *Chemistry.* Wilmington, Del, Feb. 15, 99. B.S, Princeton, 20; A.M, Columbia, 21, Ph.D, 22. Asst. chem, Columbia, 20–22; instr, Princeton, 22–26; asst. prof, Duke, 26–28; instr, sch. med, Pennsylvania, 28–31; research assoc, Columbia, 31–32; *prof. chem, Sarah Lawrence Col, 32–* Chem. Soc. Inorganic chemistry; phase rule; ionization; colloids; amino-acids.

Miller, Col. H(enry) W(illard), University of Michigan, Ann Arbor, Mich. *Engineering.* Hagerstown, Md, July 12, 84. B.S, Washington and Lee, 07, M.E, 10. C. A. Miller Construction Co, Md, 07–09; asst. prof. eng, Illinois, 09–11, prof. and head dept. and asst. to dean col. eng, 12–17; chief engineer, Baltimore Copper Smelting and Rolling Co, 20–21; *prof. mechanism and eng. drawing, Michigan, 21–* Chevalier, Légion d'honneur. Major, Ordnance Dept, 17–19, lieut. col, 19–20, col, Ordnance R.C. Mech. Eng; Eng. Educ; Army Ordnance Asn. Descriptive geometry; mechanical drafting; railway artillery; American seacoast artillery; mobile artillery; the Paris gun.

Miller, Hugh, 2222 Que St, N.W, Washington, D. C. *Civil engineering.* Roselle, N. J, Feb. 1, 81. C.E, Princeton, 01; Harvard, summers, 10–12. Centennial Copper Mining Co. and Bright, Sears and Co, 03–09; prof. civil eng, Clarkson Tech, 09–15; lecturer, Rice Inst, 15–17; prof, George Washington, 21–26, dean col. eng, 22–26; prof, Union (N. Y), 26–33; state engineer, Pub. Works Admin, Mo, 33–35, chief engineer, West Va, 35–37; pres, Hugh Miller Associates, Inc, 37–40; *asst. renegotiator, construction div, office chief of engineers, U. S. War Dept, 40–* Am. Council Educ, 23–26. Capt, C.Eng, 17–21, lieut. col, U.S. Res, 26– Civil Eng; Soc. Mil. Eng; Eng. Educ; Wash. Acad. Economics of engineering; engineering problems.

Miller, Prof. James, Queen's University, Kingston, Ont, Can. *Pathology.* Edinburgh, Scotland, 75. B.Sc, Edinburgh, 97, M.B, Ch.B, 99, M.D, 04; D.Sc, Birmingham, 06. Lecturer, Birmingham, 02–09; sch. med, Royal Col, Edinburgh, 09–20; *prof. path, Queen's (Can), 20–* Consulting pathologist, Dept. Health, Ont. Fel. Roval Soc. Can; fel. Royal Col. Physicians Can; fel. Royal Col. Physicians, Edinburgh. Tumors.

Miller, Dr. James A(lbert), University of Michigan Medical School, Ann Arbor, Mich. *Anatomy.* Peitaiho, China, June 21, 07. A.B, Col. of Wooster, 28; fellow, Chicago, 31–32, Ph.D, 37. Instr, Assiut Col. (Egypt), 28–31; asst. zool, Chicago, 32–35; instr, Ohio (Athens), 35–37; *instr. anat, med. sch, Michigan, 37–* A.A; Asn. Anat; Soc. Zool; Soc. Study Develop. and Growth; Mich. Acad. Regeneration and transplantation; embryology.

Miller, Dr. James Alex(ander), 133 E. 64th St, New York, N. Y. *Medicine.* Roselle, N. J, March 27, 74. A.B, Princeton, 93, A.M, 94, Sc.D, 36; M.D, Columbia, 99, Sc.D, 30; Dr.P.H, N. Y. Univ, 37. *Prof. clin. med, Columbia.* Consulting physician, Bellevue Hosp; N. Y. Post-Grad. Hosp; Trudeau Sanatorium. Am. Physicians; fel. Col. Physicians (pres, 35); Clin. and Climat. Asn. (pres, 14); Tuber. Asn. (pres, 23); N. Y. Acad. Med. (pres, 37); N. Y. Tuber. and Health Asn. (pres, 20–29). Internal medicine; tuberculosis.

Miller, Prof. J(ames) C(arlton), Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Jackson, Mo, Sept. 20, 01. B.S.A, Missouri, 28, A.M, 29, Ph.D, 37. Assoc. prof. *animal husbandry,* Berea Col, 29–37; asst. prof, Louisiana, 37–40; *prof, Agr. and Mech. Col. Texas, 40–* A.A; Soc. Animal Production. Quality and palatability of meat; physiology of reproduction in farm animals; sheep breeding and feeding; angora goat production.

Miller, Dr. James F(ranklin), 406 Evergreen St, West Lafayette, Ind. *Analytical chemistry.* Lancaster, Pa. July 18, 12. B.S, Franklin and Marshall Col, 35; M.S, Pa. State Col, 37, Ph.D, 39. Instr. chem, Altoona undergrad. center, Pa. State Col, 39–42; *research fellow, Purdue research foundation, Purdue, 43–* Chem. Soc. Use of phosphomolybdic acid as a reagent for the determination of thallium; substituted phenylarsonic acids as reagents for cerium; use of arsanilic acid in the detection of cerium.

Miller, Dr. J(ames) Roscoe, 303 E. Chicago Ave, Chicago, Ill. *Internal medicine.* Murray, Utah, Oct. 26, 05. A.B, Utah, 25; M.D, Northwestern, 30, M.S, 31. *Attending physician, Wesley and Passavant Mem. Hosps, 32–; consultant, Veterans Admin, Hines, Ill, 38–;* asst. prof. *med, Northwestern,* 39–41, *assoc. prof, 41–, dean med. sch, 41–* Trustee, Wesley Hosp; Menninger Foundation. Lieut. col, Med. Res. Corps, U.S.A. A.A; Am. Med. Asn; fel. Col. Physicians; Heart Asn; Cent. Soc. Clin. Research; Chicago Soc. Int. Med; Inst. Med. Chicago. Cardiology.

Miller, Prof. James S(hannon), Emory and Henry College, Emory, Va. *Mathematics.* Pulaski Co, Va, Dec. 3, 65. B.S, C.E, Virginia, 89, Sc.D, 93; Göttingen, 91–92; LL.D, Emory and Henry Col, 38. Instr, Virginia, 87–91; *prof. math,* Emory and Henry Col, 93–19; Hampden-Sydney Col, 19–22; *Emory and Henry Col, 22–* A.A; Math. Asn; Va. Acad. Projective geometry.

Miller, Prof. James S(hannon), Jr, University of Virginia, Charlottesville, Va. *Electrical engineering.* Pulaski, Va, Oct. 5, 98. A.B, B.S, Emory and Henry Col, 18; E.E, Virginia, 20. Asst. prof. exp. eng, *Virginia,* 20–23, *elec. eng,* 23–28, assoc. prof, 28–38, *prof, 38–* Instr, Mass. Inst. Tech, 24–25; consulting engineer. Summers, mem. staff, Westinghouse Elec. and Mfg. Co, 20; Hercules Powder Co, 41. Elec. Eng. (past sec'y and past chairman, Va. sect. and sec'y dist. 4); Nat. Soc. Professional Eng; Va. Soc. Professional Eng. (past sec'y); Cent. Va. Eng. Club.

Miller, Prof. Joe Jones, Oklahoma College for Women, Chickasha, Okla. *Mathematics.* Eggar, Ark, July 31, 88. A.B, Ouachita Col, 09; A.M, Oklahoma, 21. *Prof. math,* Southeast. State Teachers Col, Okla, 15–22; *Okla. Col. for Women, 22–* Summers, prof, Cent. State Teachers Col, Okla, 27–31. Elementary algebra

Miller, Prof. John A(llen), Ohio State University, Columbus, Ohio. *Zoology.* Ashland, Ohio, Oct. 18, 05. A.B, Ashland Col, 26; M.S, Ohio State, 27, Ph.D, 32. Teacher, high sch, Ohio, 27–28; asst. *Ohio State,* 26–27, 28–29, instr, 29–33, *asst. prof. zool, 33–* Business manager, 'Ohio Jour. Sci,' 41–A.A; Soc. Zool; Ohio Acad. Systematic studies on the Hirudinidea; animal behavior; cooperative educational research.

Miller, John A(nderson), 12 Summit St, Glen Ridge, N. J. *Engineering.* Newark, N. J, Sept. 20, 95. Ph.B, Yale, 15. Cadet engineer, Pub. Service Ry, Newark, 15–17, asst. to traffic engineer, 19–23; assoc. ed, 'Elec. Ry. Jour,' later 'Transit Jour,' 23–28, managing ed, 29–30, ed, 30–42. Prize, Soc. Mil. Eng, 21; Arthur M. Wellington prize, Soc. Civil Eng, 27. Lieut, C.Eng, 17–19, capt, C.Eng.R. Civil Eng; Soc. Mil. Eng; Transit Asn. Transportation in the advanced zone; effects of bridges on transit conditions; increasing the efficiency of passenger transportation in city streets; effect of synchronized traffic control lights on electric railway operation; trends in city transit; master builders of sixty centuries.

Miller, Prof. John A(nthony), Swarthmore College, Swarthmore, Pa. **3*Astronomy.* Greensburg, Ind, Dec. 16, 59. A.B, Indiana, 90, LL.D, 29; A.M, Stanford, 93; Ph.D, Chicago, 99. Instr. math, Indiana, 90; sch. supt, Ind, 90–91; instr. math, Stanford, 91–94, asst. prof, 94–95; prof. mech. and astron, Indiana, 95–06; math. and astron, *Swarthmore Col,* 06–29, research prof. *astron,* 29–36, *emer. research prof, 36–,* v. pres, 13–29, director, Sproul Observatory, 11–36. Chief solar eclipse exped, Spain, 05; Brandon, Colo, 18; Mex, 23; New Haven, Conn, 25; Sumatra, 26, 29; Vermont, 32. A.A; Astron. Soc; Math. Soc; Philos. Soc. (sec'y); fel. Am. Acad; fel. Ind. Acad; fel. Royal Astron. Soc. Stellar parallax; solar corona; measures of double stars; elliptic modular functions of square rank.

Miller, Dr. J(ohn) Charles, 3242 Interior Bldg, N, Washington, D. C. *Engineering.* St. Louis, Mo, Feb. 4, 93. B.S, Missouri, 16, E.M, 21; A.M, George Washington, 28, Ph.D, 33. Petrol. geologist, 16–18, 19–21; petrol. engineer, 21–24; *petrol. eng. and geol. work, U. S. Geol. Surv, 24–,* petrol. engineer, mineral leasing div, 24–31, chief *mineral classification div,* 31–36, *senior geologist, 36–* Min. and Metal. Eng; Asn. Petrol. Geol; Wash. Acad. Metalliferous and non-metalliferous geology.

Miller, Dr. John G(eorge), 333 Shadeland Ave, Drexel Hill, Pa. *Chemistry.* Philadelphia, Pa, Oct. 18, 08. A.B, Penn-

sylvania, 29, scholar, 29–30, M.S, 30, Ph.D, 32. Research chemist, Dermatological Research Labs, Phila, 29–30; asst. *chem, Pennsylvania,* 30–31, asst. instr, 31–32, instr, 32–40, *asst. prof, 40–* Chem. Soc. Organic and physical chemistry.

Miller, Prof. J(ohn) I(van), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Animal husbandry.* Prescott, Kans, Oct. 16, 11. B.S, Kans. State Col, 33; M.S, Cornell, 34, Ph.D, 36. Instr. *animal husbandry, N. Y. State Col. Agr, Cornell,* 36–38, asst. prof, 38–42, *assoc. prof, 42–;* asst. animal husbandman, N. Y. Exp. Sta, Geneva, 38–42. Soc. Animal Production. Nutritive value for farm animals of the protein in common feeds.

Miller, Prof. J(ohn) J(aimerson), 2818 Wooldridge Drive, Austin, Texas. *Physics.* Cumby, Texas, May 26, 02. A.B, Texas, 24, A.M, 27, Ph.D, 36. Instr. *physics, Texas,* 28–41, *asst. prof, 41–* Summers, instr, N. Texas State Teachers Col, 30–38. Physical Soc. Crystal structure.

Miller, John M(artin), 341 Giannini Hall, University of California, Berkeley, Calif. *Entomology.* Fresno Co, Calif, Aug. 31, 82. B.S, Stanford, 08, 08–09. Ranger, U. S. Forest Service; 09–11, entom. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 11–20, from entomologist to senior entomologist, 20–28, *senior entomologist in charge forest insect lab, Berkeley, 28–* A.A. Forest insects; interrelations of bark-beetles and forest fires; lethal temperatures affecting the western pine beetle; barkbeetle hazards affecting ponderosa pine forests.

Miller, J(ohn) Strother, 1084 Bryant St, Rahway, N. J. *Chemical and highway engineering.* Washington, D. C, Nov. 14, 76. Cornell, 98–00. Asst. chemist, supervising architect's office, U. S. Treasury Dept, 02–08; technol. branch, U. S. Geol. Surv, 08–09; prin. asst. chemist, Barber Asphalt Paving Co, 09–17, chief chemist, 17–26, director tech. bur, 26–36, tech. adviser, 36–42; *private consultant asphalt technol, 42–* Chem. Eng; Chem. Soc; Soc. Test. Mat; Asn. Asphalt Paving Technologists (pres, 37). Chemistry, physics and engineering as related to asphaltic hydrocarbons; refining, compounding and use of asphaltic materials.

Miller, Dr. John Wesley, 7050 Belclare Road, Dundalk, Md. *Chemistry, Metallurgy.* Hoytville, Mich, Aug. 12, 06. B.S, Simpson Col, 29; M.S, Mass. Inst. Tech, 31, Sc.D, 33. *Metallurgist,* Westinghouse Elec. and Mfg. Co, East Pittsburgh, Pa, 33–34; *Reid-Avery Co, 34–* Soc. Metals; Welding Soc. Nitrogen in metallic arc weld metals.

Miller, Dr. Joseph N(elson), Ohio State University, Columbus, Ohio. *Parasitology.* Hillsboro, Ohio, July 25, 03. A.B, Miami, 25; A.M, Ohio State, 26, Ph.D, 35. Asst. *zool, Ohio State,* 25–27, *instr, 27–* Soc. Parasitol; Ohio Acad. Parasitology.

Miller, Prof. Julian C(reighton), Louisiana State University, Baton Rouge, La. *Horticulture.* Lexington, S. C, Nov. 29, 95. B.S, Clemson Col, 21; M.S, Cornell, 26, Ph.D, 28. Instr. hort, N. C. State Col, 21–23; county agr. agent, S. C, 23–25; asst, Cornell, 25–28; assoc. prof. hort. and research, Okla. Agr. and Mech. Col, 28–29; *prof. hort. and head dept, Louisiana, 29–* Collaborator, Regional Veg. Breeding Sta, U. S. Dept. Agr, Charleston, S. C. A.A; Soc. Hort. Sci. (pres, 42); Genetic Asn. (exec. cmt, 35); Potato Asn. (pres, 36). Cabbage breeding; resistance to premature seeding and cold injury; inducing the sweet potato to bloom and set seed; breeding of sweet and Irish potatoes for local adaptability and higher food values; effect of photoperiod and temperature upon the character of growth of some vegetable crops.

Miller, Prof. Julian H(owell), University of Georgia, Athens, Ga. *Mycology.* Washington, D. C, July 16, 90. B.S.A, Georgia, 11, M.S, 24; Ph.D, Cornell, 28. Adj. prof. hort, *col. agr, Georgia,* 19–20, assoc. prof, 20–23, bot, 23–33, *plant path,* 33–36, *head dept, 33–, prof, 36–* Assoc. ed, 'Mycologia,' 41– Lieut, U.S.A, 17–19, capt, R.C. Bot. Soc. (pres, south. sect, 41); Phytopath. Soc; Mycol. Soc; Ga. Acad; N. Y. Acad; British Mycol. Soc. Pyrenomycetes.

Miller, Dean Karl G(reenwood), University of Pennsylvania, Philadelphia, Pa. *Psychology.* Salem, Va, May 25, 93. A.B, Pennsylvania, 15, A.M, 18, Ph.D, 21. Instr. *psychol, Pennsylvania,* 15–21, asst. prof, 21–27, *prof, 27–,* director admissions, 26–36, *dean col. liberal arts for women, 36–* Chairman, Col. Ent. Exam. Board. Trustee, Episcopal Acad; White-Williams Foundation. Sec'y, Middle States Asn. Cols. and Sec. Schs. Psychol. Asn. Clinical psychology.

Miller, Dr. K(nox) E(merson), Office of Chief of Medical Branch, Eighth Service Command, Dallas, Texas. *Public health.* Norton, Kans, Nov. 26, 86. A.B, William Jewell Col, 08; M.D, Hopkins, 12. Commissioned officer, *U. S. Pub. Health Service, 14–, medical director.* A.A. Prevalence and control of hookworm disease; epidemiology and sanitary control of typhoid fever and other excreta-borne diseases; rural health administration.

Miller, Dr. Lawrence P(eter), Boyce Thompson Institute for Plant Research, 1086 Broadway, Yonkers, N. Y. *Biochemistry.* Old Zionsville, Pa, April 17, 01. B.S, Pa. State Col, 23; M.S, Wisconsin, 25; Ph.D, Purdue, 33. Asst. chemist, W. Va. Pulp and Paper Co, 23–24; asst, Wisconsin, 24–25; asst. chemist, Exp. Sta, Purdue, 26–29; asst. biochemist, *Boyce Thompson Inst,* 25–26, 29–38, *biochemist, 38–* A.A; Chem. Soc; Soc. Plant Physiol; Bot. Soc; fel. Inst. Chem; Am. Inst. Manganese and plant growth; enzymes; effect of stimulative chemicals on plant constituents; rest period in plants; induced formation of glycosides in plants; synthesis of glycosides.

Miller, Prof. Lawrence W(illiam), 1120 S. Gilpin St, Denver, Colo. *Psychology.* Niles, Mich, June 26, 97. B.S, Mich. State Col, 19; A.M, Chicago, 21; Ph.D, Iowa, 29. Assoc. prof. educ. and psychol, Kent State Col, Ohio, 22–27; asst. prof. *psychol,* Iowa, 28–29; *prof. and head dept, Denver, 30–* Assoc. Psychol. Asn; Soc. Study Educ; fel. Asn. Applied Psychol; Midwest. Psychol. Asn; Colo-Wyo. Acad. Tests and measurements; psychology of reading disability; college aptitude tests.

Miller, Prof. L(ee) W(allace), Illinois State Normal University, Normal, Ill. *Botany.* Wellman, Iowa, March 11, 04. A.B, Goshen Col, 27; M.S, Iowa, 28, Ph.D, 33. Teacher, Iowa, 28–29; instr. bot. and geol, Arkansas, 29–31; research assoc, Iowa, 33–34; teacher, Ill, 34–35; asst. prof. *biol, Ill. State Nor. Univ,* 35–42, *assoc. prof, 42–* A.A; Mycol. Soc; Bot. Soc. Mycology; taxonomy of Hydnaceae.

Miller, Dr. Leonard C(harles), 2915 Connecticut Ave, N.W, Washington, D. C. *Physics.* Benton Harbor, Mich, Feb. 12, 14. B.S, Chicago, 36, M.S, 38, Ph.D, 40. Junior physicist, *Nat. Bur. Standards,* 40–42, asst. physicist, 42–43, *assoc. physicist, 43–* Physical Soc. Properties of high voltage x-rays; production and measurement of neutron beams.

Miller, Dr. Lewis Benjamin, 245 Forrest Ave, Ambler, Pa. *Physical chemistry.* Parkersburg, Iowa, June 24, 96. A.B, Iowa, 19, M.S, 20; Ph.D, Columbia, 22. Instr. chem, Iowa, 17–20; Columbia, 20–22; assoc. chemist, U. S. Pub. Health Service, 23–25; research chemist and petrographer, Universal Portland Cement Co, Chicago, 25–30; research and develop. engineer, Johns Manville Corp, 30–36; chem. engineer in charge inspection, control and develop. work, Ruberoid Co, 36–38; chem. engineer in charge investigations on heat insulations, magnesia products and asbestos paper, Keasbey and Mattison Co, 38–42; *chem. engineer, consulting div, W. H. and L. D. Betz, 42–* A.A; Chem. Soc; Physical Soc; Faraday Soc; Soc. Test. Mat. (insulations and refractories cmt); Micros. Soc; Army Ordnance Asn; Tech. Asn. Pulp and Paper Indust. (chairman water cmt, 38–); Faraday Soc; fel. Iowa Acad. Colloid chemistry; soil colloids; Bredig gold colloids; alum process of water purification; Portland cement and concrete, thermal insulations and building materials; industrial wastes recovery and treatment; boiler feed water and process water treatment; sewage disposal.

Miller, Prof. Lewis E(arl), Nebraska Wesleyan University, Lincoln, Nebr. *Organic and physical chemistry.* Carrollton, Ohio, May 4, 90. A.B, Ohio State, 17, M.S, 25; Ph.D, Pittsburgh, 28. Instr. and head dept. science, high sch, Ohio, 19–25; asst, Pittsburgh, 25–28; prof, Col. of Wooster, 28–29; chem, West. Ill. State Teachers Col, 29–30; org. chem, Ill. Wesleyan, 30–31; prof. and head dept. chem, Ark. State Agr. and Mech. Col, 31–32; prof. *chem,* Kans. State Col, 34–35; Ohio Northern, 35–42; *prof. and head dept, Nebr. Wesleyan, 42–* Summer, research chemist, Goodyear Tire and Rubber Co, Akron, 29. M.C, U.S.A, 17–19. Chem. Soc. Catalytic oxidation of carbon monoxide; effect of light on the stability of rubber soles.

Miller, Dr. Lila, University of Michigan Medical School, Ann Arbor, Mich. *Biochemistry.* Cape Girardeau, Mo, Feb. 11, 02. B.S, Wisconsin, 26, M.S, 27; Ph.D, Michigan, 36. Instr. chem, Miss. State Col. for Women, 27–28; asst, nutrition lab, Battle Creek Sanitarium, Mich, 28–31; instr. *biochem, med. sch, Michigan,* 31–43, *asst. prof, 43–* Rackham fellow, Michi-

gan, Carlsberg Labs, Copenhagen, Denmark, 36–37. A.A; Chem. Soc. Inorganic elements in nutrition; chemistry and enzymatic degradation of proteins; pancreatic secretion.

Miller, Dr. Lloyd C(uster), Winthrop Chemical Co, Rensselaer, N. Y. *Pharmacology.* Streator, Ill, July 2, 07. A.B, Pomona Col, 29; Ph.D, Rochester, 33. Asst. pharmacol, sch. med. and dentistry, Rochester, 29–33; fellow, Upjohn Co, 33–35; asst. pharmacologist, food and drug admin, U. S. Dept. Agr, 35–37, pharmacologist, 37–39; *senior pharmacologist,* Fed. Security Agency, 39–43; *biol. and research labs, Winthrop Chem. Co, 43–* Ebert medal, Am. Pharmaceut. Asn, 40. Pharmaceut. Asn; Soc. Pharmacol. and Exp. Therapeut. Blood lipids; sex hormones; posterior pituitary hormones; assay of parathyroid hormone; assay of digitalis.

Miller, Prof. Lorin G(eorge), Michigan State College, East Lansing, Mich. *Mechanical engineering.* Ankeny, Iowa, Feb. 20, 89. B.S, Des Moines, 10, B.S. (E.E), 11. Asst. prof. mech. eng, Wisconsin, 19–23; dean col. eng, Des Moines, 23–29, acting pres, 25; *prof. mech. eng. and head dept, Mich. State Col, 29–* Eng. Educ. (chairman Mich. sect); Soc. Heat. and Vent. Eng. (pres, west. Mich. chap, 36; councilor, 42). Fatigue in industry; air movements in dead air spaces; exchange of moisture through standard building construction with varying vapor pressures and diffusion temperatures.

Miller, Prof. L(ouallen) F(rederick), 1531 E. River Road, Minneapolis, Minn. *Physics.* Aurora, Ill, Sept. 23, 75. A.B, Michigan, 99, fellow, 99–00, M.S, 00; fellow, Wisconsin, 00–01; Ph.D, Chicago, 21. Instr, Wisconsin, 01–07; prof, Colo. Sch. Mines, 07–16; asst. prof. *physics, Minnesota,* 17–20, assoc. prof, 20–27, *prof, 27–* Sigma Xi grant, 37. A.A; Physical Soc; Meteorol. Soc; Asn. Physics Teachers. Current and voltage characteristics in Wehnelt interrupter; pressure shift in calcium arc; magnetostriction; effect of humidity on heat transmission in insulating materials; solar radiation by spherical absorber; solar radiation.

Miller, Prof. Loye Holmes, University of California at Los Angeles, Los Angeles, Calif. *Biology.* Minden, La, Oct. 13, 74. B.S, California, 98, M.S, 04, Ph.D, 12. Instr. nat. science, Oahu Col, Honolulu, 99–03; asst. zool, California, 03–04; head dept. science, Calif. State Nor. Sch, Los Angeles, 04–19, asst. prof. *biol,* 19–20; assoc. prof, *California at Los Angeles,* 20–23, prof, 23–43, *emer. prof, 43–* Summers, asst, California, 08, 11, 13, instr, 10; assoc. prof, Col. Physicians and Surg, Los Angeles. Asst, U. S. Fish Cmn, 03; U. S. Biol. Surv, 07. A.A; fel. Ornith. Union; Ecol. Soc; Cooper Ornith. Club; Paleont. Soc. Zoology; paleontology; land vertebrates; fossil birds of the Pacific Coast; methods and curricula in biology.

Miller, Dr. Mary Lucy, 4366 Maryland Ave, St. Louis, Mo. *Chemistry.* Deansboro, N. Y, 04. A.B, Syracuse, 27; A.M, Columbia, 29, Ph.D, 34. Instr. chem, St. Mary's Junior Col, Raleigh, N. C, 31–32; Rockefeller Inst, 34–38; *mem. faculty, sch. med, Washington (St. Louis), 38–* A.A; Chem. Soc. Reaction velocities; steroid hormones; vitamins.

Miller, Dr. Max J(oseph), Macdonald College, Que, Can. *Parasitology.* Saskatoon, Sask, Can, Feb. 10, 15. B.Sc, Saskatchewan, 34; M.Sc, McGill, 36; Ph.D, Tulane, 36. *Research asst. parasitol, inst. parasitol, Macdonald Col, McGill, 39–* Epidemiology of pinworm infections; taxonomy of fish trematodes; life history of Trichocephalus vulpis.

Miller, Prof. M(eredith) R(aines), University of Nevada, Reno, Nev. *Agricultural chemistry.* Vacaville, Calif, June 23, 86. B.S, California, 12; M.S, Nevada, 27. Asst. chemist, Alameda Sugar Co, 09–10; insecticide and fungicide lab, California, 12–18; *chemist, Exp. Sta, Nevada, 18–, assoc. research prof. agr. chem, univ, 22–* A.A; Chem. Soc; Inst. Chem. Poisonous range plants.

Miller, Prof. M(erritt) F(inley), 309 Westmount Ave, Columbia, Mo. *Soils.* Grove City, Ohio, July 7, 75. B.S.A, Ohio State, 00, Sc.D, 39; M.S.A, Cornell, 01; Sc.D, Kans. State Col, 38. Asst, Fed. Soil Surv, 01–02; instr. agron, Ohio State, 02–03, asst. prof, 03–04; *prof, Missouri,* 04–12, *soils, 12–,* asst. dean *col. agr,* 29–38, *dean, 38–* A.A; Soc. Agron. (pres, 23); Soil Sci. Soc. Soil fertility and erosion; field classification of soils; factors affecting the nitrogen and carbon level in soils.

Miller, Dr. Mike A(nthony), Aluminum Co. of America, New Kensington, Pa. *Chemistry, Metallurgy.* Pellston, Mich, Nov. 28, 08. A.B, Cent. State Teachers Col, Mich, 32; State Col. fellow, Michigan, 32–33, fellow, 33–34, Albert B. Prescott scholar, 34–35, Ph.D, 36. Asst. chem, Cent. Mich. State Teachers Col, Mt. Pleasant, 30–32; colloid chem, Michigan, 32; physical chemist, research labs, *Aluminum Co. of Amer,* 36–40, asst. chief physical chem, 40–41, *research metallurgist, research labs, 41–* A.A; Soc. Metals; Min. and Metal. Eng; Chem. Soc; Welding Soc. Colloid chemistry; structure of crystals in gels; chromatic gels; metallic couples; alumina hydrosols; wetting phenomena; fluxes; welding; brazing; soldering; free surface energy of solids.

Miller, Dr. Milton A(lbert), Naval Biological Laboratory, San Diego, Calif. *Zoology.* Pittsburg, Mo, Dec. 2, 07. A.B, Illinois, 29; Ph.D, California, 34. Teaching fellow zool, California, 29–32, asst, 33, assoc, 34, instr, 34–35, exten. div, 35; Hawaii, 35–37, asst. prof, 37–41; *marine biologist, Naval Biol. Lab, 41–* Instr, Golden Gate Junior Col, 35; San Diego State Col, Calif, 42. Summer, prof, California, 37, 40. A.A; Genetic Asn; Hawaiian Acad. Isopod Crustacea; systematics; ecology; differential growth; human heredity; fouling organisms.

Miller, Dr. Neal E(lgar), Yale University, New Haven, Conn. *Experimental psychology.* Milwaukee, Wis, Aug. 3, 09. B.S, Washington (Seattle), 31; A.M, Stanford, 32; Ph.D, Yale, 35. Asst. psychol, inst. human relations, Yale, 32–35; Social Sci. Research Council traveling fellow, 35–36; instr. *psychol, inst. human relations, Yale,* 36–40, *res. asst, 40–* Psychol. Asn; Soc. Psychol. Study Social Issues. Freudian social learning and conflict.

Miller, Dr. Neville F(rederick), New Jersey Zinc Co, Palmerton, Pa. *Physical chemistry.* Port Allegheny, Pa, Sept. 27, 03. B.S, Michigan, 27, M.S, 33, scholar, 35–37, Sc.D, 37. Anal. chemist, Bryant Paper Co, 27–28; research chemist, St. Joseph Lead Co, 28–30; asst. eng. research, Michigan, 30–33; anal. chemist, U. S. Tire and Rubber Co, 33–35; *research chemist, N. J. Zinc Co, 37–* A.A; Chem. Soc. Reaction kinetics; surface chemistry of solids and of solid-liquid interfaces; wetting of solids by solutions; dynamics and equilibria of liquid lens-film systems; luminescence of solids.

Miller, Dr. Newton, Porterville, Calif. *Medicine.* Sharptown, Ind, March 20, 79. A.B, Indiana, 05, A.M, 06; Ph.D, Clark, 08; M.D, Rush, Chicago, 24. Instr. zool. and morphol, Clark, 08–11, asst. prof, 11–12; prof. biol, Wheaton Col. (Mass), 12–15; zool, Utah, 15–20, micros. anat, 20–26; *practising physician and surgeon, 26–* Collector fish, Guatemala, Univ. Ind, 04. A.A; Am. Med. Asn. Systematic zoology; dynamic biology; fishes and toads; activity and rate of reproduction of the brown rat; handling of chick embryos; heredity of white fore-lock; gummas of the base of the heart; trichinosis; anastamosis of arteries and veins.

Miller, Dr. Nicholas, National Research Council, P. O. Box 159, Station H, Montreal, Que, Can. *Chemistry.* Liverpool, Eng, July 4, 16. B.Sc, London, 37, Neil Arnott student, 37–38, research student, 38–39, Ph.D, 39. Commonwealth Fund fellow, California, 39–40, Calif. Inst. Tech, 40–41; *research chemist, Canadian Govt, 41–* Royal Col. Science, London (ed, 'Sci. Jour,' 39). Inorganic and physical chemistry; volatile hydrides of silicon; thermodynamic properties of the hydrocarbons.

Miller, Prof. Norman, Queen's University, Kingston, Ont, Can. *Mathematics.* Aylmer, Ont, Nov. 1, 89. M.A, Queen's (Can), 10; Ph.D, Harvard, 16. Master math, Seaforth Collegiate Inst, 11–13; lecturer, *Queen's (Can),* 19, asst. prof. *math,* 20–21, assoc. prof, 21–28, *prof, 28–* A.A; Math. Soc; Math. Asn. Theory of functions of real and complex variables.

Miller, O(sborn) M(aitland), American Geographical Society, 156th St. and Broadway, New York, N. Y. *Surveying, Cartography.* Perth, Scotland, 97. Royal Mil. Acad, Woolwich, England, 15. *Am. Geog. Soc, 22–* Am. Geog. Soc. exped. to Peru, 27–28; Forbes-Grenfell exped. to Labrador, 31; Louise A. Boyd exped. to East Greenland, 33. A.A; Asn. Geog; Optical Soc; Soc. Photogrammetry (2nd v. pres, 38); Math. Soc. Methods and instruments in aerial surveying; aerial navigation and navigation maps; reconnaissance surveying; map projections.

Miller, Dr. Otto N(eil), 418 Concord St, El Segundo, Calif. *Petroleum engineering.* Harlan, Iowa, Jan. 20, 09. B.S, Iowa State Col, 30; Ph.D, Michigan, 34. Engineer, du Pont Ammonia Corp, 30–31; asst. eng. research, Michigan, 31–32, chem. eng, 32–33; *engineer, Standard Oil Co. of Calif, 34–* Heats of solutions of hydrocarbon vapors.

Miller, Prof. Park H(ays), Jr, University of Pennsylvania, Philadelphia, Pa. *Physics.* Philadelphia, Pa, Jan. 22, 16. B.S, Haverford Col, 36; Ph.D, Calif. Inst. Tech, 40. Asst, Calif. Inst. Tech, 36–39; instr. *physics, Pennsylvania,* 39–42, *asst. prof, 42–* Physical Soc. X-ray measurements of lattice constants; electrical properties of semiconductors; self-diffusion in metals; measurements of stress and strain.

Miller, Paul C(hristian), University of Chicago, Chicago, Ill. *Vertebrate paleontology.* Nyköbing, Jutland, Denmark, Sept. 2, 76. Field and lab. asst, Am. Museum Nat. Hist, 01–07; asst. curator *vert. paleont, Walker Museum, Chicago,* 07–20, assoc. curator, 20–35, *curator, 35–* Univ. Chicago exped, Karroo, S. Africa, 29, Honduras, 37–38. Knight of Danebrog, Denmark, 27. Paleont. Soc. American and African Permian reptiles; Bridger and later Tertiary faunas; museum installations and practise.

Miller, Dr. Paul G(ilbert), Clemson Agricultural College, Clemson, S. C. *Dairy science.* St. George, W. Va, Sept. 8, 10. B.S, West Virginia, 34; M.S, Minnesota, 36; univ. fellow, Wisconsin, 36–37, Ph.D, 38. Teaching asst, dairy div, Minnesota, 34–36; asst. dairy industry, Wisconsin, 37–38; *assoc. dairyman, Clemson Agr. Col. and Exp. Sta, South Carolina, 38–* Dairy Sci. Asn. Effects of feeding cottonseed and its products on the physical, chemical and manufacturing properties of milk and milk products; use of stumphouse mountain tunnel for curing blue mold cheese; methods of measuring lipolysis.

Miller, Dr. Paul R, U. S. Department of Agriculture, Knoxville, Tenn. *Plant pathology.* Rockport, Ind, April 30, 05. B.S, Indiana, 29; M.S, Purdue, 31; Ph.D, George Washington, 38. Teacher science, Burritt Col, 25–26; high sch, Ark, 26–28; asst. bot, Exp. Sta, Purdue, 29–31; junior pathologist, *bur. plant indust, U. S. Dept. Agr,* 31–35, asst. pathologist, 35–38, *assoc. pathologist, 38–* Phytopath. Soc; Ind. Acad; Bot. Soc. Wash. Cotton diseases; apple rust; plant disease surveys.

Miller, Dr. Paul T(heodore), State Teachers College, Superior, Wis. *Geology.* Conway, Iowa, Dec. 31, 05. B.S, Simpson Col, 27; M.S, Iowa, 30, Ph.D, 32. Asst, Iowa, 27–32, assoc, 32–35; Amerada Petrol. Corp, 35; *prof. geol. and geog,* N. Dak. State Teachers Col, Minot, 35–36; *Wis. State Teachers Col, 36–* Summers, geologist, Iowa Geol. Surv, 28–34. Iowa Acad. Sedimentation; Pleistocene deposits and Cenozoic clays.

Miller, Dr. Paul W(illiam), Oregon State Agricultural College, Corvallis, Oregon. *Plant pathology.* Mt. Vernon, Ind, May 2, 01. B.S.A, Kentucky, 23, M.S, 24; Ph.D, Wisconsin, 29. Instr. plant path, Wisconsin, 27–29; agent, *bur. plant indust, U. S. Dept. Agr,* 29–30, *assoc. pathologist, 30–* Phytopath. Soc. Agriculture; fire blight disease of apples; perennial canker disease of apples; walnut blight caused by Pseudomonas juglandis; filbert blight caused by Phytomonas corylina; prune russet; vegetable seed diseases.

Miller, Dr. Pharis, 3 Bayberry Lane, Mountainside, N. J. *Petroleum chemistry.* Des Moines, Iowa, July 11, 08. B.S, Des Moines, 29; Ph.D, Iowa State Col, 34. Teaching fellow and grad. asst, Iowa State Col, 29–35; *research chemist, Standard Oil Develop. Co, 35–* Chem. Soc; Inst. Chem. Thermodynamics; synthetic organic chemistry.

Miller, Pierre A(lphonse), University of California at Los Angeles, Los Angeles, Calif. *Plant pathology.* Vancouver, Wash, April 21, 97. B.S, Oregon State Col, 24; M.S, Kans. State Col, 25. Asst. bot, Kans. State Col, 24–25; asst. prof. biol, Agr. and Mech. Col. Texas, 25–26; asst. and research assoc. *plant path, California,* 26–36, asst. prof, 36–43, *assoc. prof, 43–,* asst. plant pathologist, *Exp. Sta,* 36–43, *assoc. plant pathologist, 43–* A.A; Phytopath. Soc; Mycol. Soc; Bot. Soc. Diseases of subtropical and ornamental plants.

Miller, Dean P(leasant) T(homas), Laramie, Wyo. *Chemistry.* Texas, 75. A.B, A.M, Texas, 18; Chicago. Prof. physical sciences, Southwest. Texas State Teachers Col, 06–17; instr, Texas, 17–18; *prof. chem, Wyoming, 18–, dean col. lib. arts, 29–* A.A; Chem. Soc; Colo-Wyo. Acad. Electrolytic reduction of nitric acid; electromerism of bromine chloride; character of double bond in organic compounds.

Miller, Dr. R(alph) E(nglish), 9 Downing Road, Hanover, N. H. *Pathology.* Tustin, Mich, Jan. 13, 99. B.S, Dartmouth Col, 24, 24–26; M.D, Harvard, 28; M.S, Minnesota, 31. Instr. comp. anat. and embryol, Dartmouth Col, 25–26; intern, Mary Hitchcock Mem. Hosp, Hanover, N. H, 28–29; asst. prof. *path, Dartmouth Med. Sch,* 31–36, assoc. prof, 36–41, *prof, 41–, asst. dean, 36–* Med. referee, Grafton County, N. H, 34– A.A; Asn. Path. and Bact; Am. Med. Asn; Soc. Control Cancer; Soc. Clin. Path. Physiology and pathology of lymphatic tissue.

Miller, Dr. Ralph L(eRoy), Columbia University, New York, N. Y. *Geology.* Fountain Hill, Pa, Jan. 28, 09. B.S, Haverford Col, 29; Ph.D, Columbia, 37. Asst. *geol, Columbia,* 32–34, lecturer, 34–37, *instr, 37–;* asst. geologist, *U. S. Geol. Surv,* 38–42, *assoc. geologist, 42–* Geol. Soc; Min. and Metal. Eng; Paleont. Soc; N. Y. Acad. (sec'y sect. geol, 39); Pa. Acad. Paleozoic and Mesozoic stratigraphy; geology of manganese.

Miller, Dr. Ralph L(ester), Florida Agricultural Supply Co, Orlando, Fla. *Entomology.* Cincinnati, Ohio, May 29, 02. B.S.A, Ohio State, Sherwin-Williams Co. fellow, M.S, 25, fellow, 27–28, Grasselli Chem. Co. fellow, 28, Ph.D, 28. Asst. entomologist, State Plant Board, Fla, and Exp. Sta, Florida, 26–27, 28–30; assoc. entomologist, div. trop. and sub-trop. and ornamental plant insects, bur. entom, U. S. Dept. Agr, 30–34; *entomologist,* Freeport Sulphur Co, 34–36; *Fla. Agr. Supply Co, 36–* A.A; Asn. Econ. Entom; Chem. Soc; Fla. Entom. Soc; Fla. Hort. Soc. Citrus insects and insecticides; the effect of insecticides on codling-moth and on Mediterranean fruit-fly; development and use of insecticides.

Miller, Prof. R(aymond) F(oster), Baker University, Baldwin, Kans. *Physics.* Lyon Co, Kans, Feb. 11, 87. A.B, Col. of Emporia, 09; A.M, Kansas, 12; Ph.D, Iowa, 23. Teacher, high sch, Kans, 09–13; *prof. physics,* Col. of Emporia, 13–41; *Baker, 41–* Radio inspector, Navy Yard, 18. A.A; Physical Soc; Asn. Physics Teachers; Kans. Acad. Optical constants of crystals of selenium and tellurium; telescoptics.

Miller, Dr. Richard A(very), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Endocrinology.* Erie, Pa, June 23, 11. A.B, Pittsburgh, 32; M.S, Iowa, 34, Ph.D, 37. *Cytologist, sta. for exp. evolution, dept. genetics, Carnegie Institution, 37–* Soc. Zool. Adrenal cortex; islets of Langerhans; hormonal control of growth.

Miller, Dr. Richard B(irnie), University of Alberta, Edmonton, Alta, Can. *Zoology.* Weyburn, Sask, March 29, 15. B.A, Toronto, 36, M.A, 37, Ph.D, 39; fellow, Alberta, 37–39. Demonstrator zool, Toronto, 36, 39; *lecturer zool, Alberta, 40–* Fisheries Soc; Limnol. Soc. General limnology; bottom dwelling lake animals; fisheries biology.

Miller, Dr. R(ichard) F(ranklin), U. S. Steel Corp, Kearny, N. J. *Metallurgy.* Auburndale, Mass, Aug. 18, 08. A.B, Williams Col, 30; Sc.D, Mass. Inst. Tech, 34. Instr. metal, Yale, 34–36; *research lab, U. S. Steel Corp, 36–* Princeton sci. exped, 31. Min. and Metal. Eng; Soc. Metals; British Inst. Metals; Iron and Steel Inst. Gt. Britain. Physical metallurgy; deformation and creep of metal single crystals and of steel.

Miller, Dr. Richard F(roman), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Argenta, Ill, April 17, 11. A.B, Illinois, 33, Ph.D, 37. Asst. chem, Illinois, 34–37; *supervisor production of safety film base for x-ray, aero and cine films, Eastman Kodak Co, 37–* Stereochemistry; natural products.

Miller, Dr. Richard H(enry), 264 Beacon St, Boston, Mass. *Surgery.* Fitchburg, Mass, Oct. 11, 84. A.B, Harvard, 05, M.D, 10. Asst. prof. *surg, Harvard Med. Sch,* 28–36, *clin. prof, 36–* Asst. visiting surgeon and assoc. visiting surgeon, Mass. Gen. Hosp, 28–35, visiting surgeon, 35– A.A; Surg. Asn; fel. Col. Surg; Am. Med. Asn. Tuberculosis of the lymphatic system.

Miller, Dr. Robert C(unningham), California Academy of Sciences, San Francisco, Calif. *Zoology.* Blairsville, Pa, July 3, 99. A.B, Greenville Col, 20; A.M, California, 21, Ph.D, 23. Asst. zool, California, 20–21, research assoc, 23–24; asst. prof, Washington (Seattle), 24–30, assoc. prof, 30–36, prof, 36–38, staff oceanog. labs, 31–38; *director, Calif. Acad. Sciences, 38–* Summer, acting asst. prof, Hopkins Marine Sta, 26. Visiting prof, Lingnan Univ, China, 29–31. Assoc. biologist, San Francisco Bay Marine Piling Surv, 21–24; collaborator, marine piling investigations cmt, Nat. Research Council, 23–24. A.A; Soc. Zool; Soc. Mammal; Soc. Ichthyol. and Herp; Ornith. Union; Cooper Ornith. Club (pres, 43); West. Soc. Nat. (pres, 36); Oceanog. Soc. Pacific (pres, 41); fel. Calif. Acad; Wilson Ornith. Club; Marine Biol. Asn.

China; fel. Peiping Soc. Nat. Hist. Bird behavior and flight; biology of marine wood-boring organisms; biological and general oceanography; photobiology.

Miller, Prof. Robert Frederick, Eighth and B Sts, Davis, Calif. *Animal husbandry.* New Ulm, Texas, Aug. 20, 89. B.S, Agr. and Mech. Col. Texas, 09; M.S, Iowa State Col, 12. Asst. prof. *animal husbandry,* Mont. State Col, 10–14; California, 14–18; prof, Agr. and Mech. Col. Texas, 18–20; assoc. prof, *California,* 20–40, *prof, 40–* Soc. Animal Production. Animal nutrition and breeding.

Miller, Dr. Robert J(ohn), 1736 Highland Place, Berkeley, Calif. *Organic chemistry.* Chicago, Ill, Sept. 23, 15. B.S, Northwestern, 36; univ. fellow, California, 37–38, Ph.D, 38. *Research chemist, research and develop. dept, Standard Oil Co. of Calif, 38–* Chem. Soc. Recovery, purification and synthesis of organic compounds.

Miller, Robert R(ush), University Museums, Ann Arbor, Mich. *Vertebrate zoology.* Colorado Springs, Colo, April 23, 16. A.B, California, 38; Pomona Col, 34–36; Michigan, 39– Asst. ichthyol. surv. of Nev, *Michigan,* 38, *mem. univ. expeds, 38–,* Mex, 39, *asst. div. fishes, museum zool, 39–* Soc. Ichthyol. and Herp; Mich. Acad. Ichthyology; taxonomy, distribution, variation, hybridization, ecology, life history and evolution of fishes with particular reference to the fish fauna of the arid American West.

Miller, Dr. Robert Talbott, Jr, Mountain Lake, Lake Wales, Fla. *Surgery.* Covington, Ky, April 20, 78. A.B, Amherst Col, 99, Sc.D, 25; M.D, Hopkins, 03. Instr. surg, Hopkins, 08–09; assoc. prof, Pittsburgh, 09–15, prof, 15–21; assoc. prof, Hopkins, 22–25, clin. surg, 25–36; *retired.* Asst. visiting surgeon, Hopkins Hosp, 25–36; lecturer, Hopkins, 42– Surg. Asn; Am. Med. Asn; Asn. Thoracic Surg; South. Surg. Asn. Tetanus; histogenesis of mesenteric cysts; cancer of the colon.

Miller, Dr. Roland E(lmer), Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C. *Anatomy.* Platea, Pa, Nov. 29, 10. B.S, Pittsburgh, 33, M.S, 35; Ph.D, Missouri, 38. Instr. zool, Missouri, 34–38; *asst. prof. anat, Bowman Gray sch. med, Wake Forest Col, 38–* Asn. Anat; assoc. Soc. Zool. Experimental morphology; wound healing; reproductive cycles.

Miller, Dr. Rolla W(oods), 545 William Penn Way, Box 1798, Pittsburgh, Pa. *Chemistry.* Aurora, Ind, Oct. 2, 92. A.B, Wabash Col, 13; M.S, Kans. State Col, 15; Ph.D, Pittsburgh, 17. Instr. chem, Kans. State Col, 13–15; asst, Mellon Inst, 15–17, fellow, 19–21, research chemist, *Hope Nat. Gas and Affiliated Companies,* 21–33, *director research, 33–, in charge sales, Hope Construction and Ref. Co, 36–* Senior fellow, Mellon Inst, 40– Director, Utility Surv. Cmn, 40– Capt, C.W.S, 17–19. Chem. Soc; Am. Gas Asn. Natural gas; gasoline; oil; liquefied petroleum gases.

Miller, Rudolph P(hilip), 101 Park Ave, New York, N. Y. *Civil engineering.* New York, N. Y, July 5, 66. B.S, Col. City of N. Y, 85; C.E, Columbia, 88, hon. M.S, 14. Asst. engineer, Bur. Buildings, New York, 02–06; consulting engineer, 06–09; supt. buildings, New York, 10–15, 20–21, chairman board appeals, 16–18; *consulting engineer,* 18–19, 22– Civil Eng; Inst. Consulting Eng; Soc. Test. Mat; Fire Protection Asn. (pres, 24–26); Standards Asn. (chairman, bldg. code correlating cmt). Properties of building materials; fireproofing; zoning and building laws.

Miller, Dr. R(ussell) C(ooper), 330 S. Patterson St, State College, Pa. *Biochemistry.* Tower City, Pa. Feb. 2, 01. B.S, Pa. State Col, 22; Ph.D, Cornell, 25. Asst. animal indust, Ohio Exp. Sta, 22–23; analyst, dept. animal husbandry, Cornell, 23–26; assoc, inst. animal nutrition, *Pa. State Col,* 26–33, asst. prof. *agr. and biol. chem,* 33–43, *assoc. prof, 43–* Chem. Soc. (sec'y cent. Pa. sect, 37, chairman, 40); Soc. Animal Production; Inst. Nutrition; Pa. Chem. Soc. (governor, 38–). Nutrition; meat; wool.

Miller, Prof. Ruth Alexander, College of Physicians and Surgeons, Columbia University, New York, N. Y. *Anatomy.* Wheeling, W. Va, July 10, 04. A.B, Randolph-Macon Col, 25; A.M, Bryn Mawr Col, 27; Ph.D, Columbia, 32. Instr. *anat, Columbia,* 32–42, *asst. prof, col. physicians and surg, 42–* Asn. Anat; N. Y. Acad. Comparative anatomy of various primate species.

Miller, Dr. Ruth E(mma), 333 Shadeland Ave, Drexel Hill, Pa. *Bacteriology.* Philadelphia, Pa, Oct. 17, 05. B.S, Phila. Col. Pharmacy, 28, M.S, 30; Ph.D, Pennsylvania, 34. Instr. *bacter, Woman's Med. Col. of Pa,* 34–38, asst. prof, 38–39, assoc. prof, 39–42, *prof, 42–, acting head dept, 39–* Soc. Bact; Pub. Health Asn. (lab. sect); assoc. N. Y. Acad. Testing of antiseptics, especially iodine solutions, triphenylmethane dyes, mercurials and sulphonamides.

Miller, Dr. Ruth N(aomi), 7703 W. Chester Pike, Upper Darby, Pa. *Anatomy.* Allentown, Pa, Jan. 27, 97. A.B, Temple, 18; M.D, Woman's Med. Col. Pa, 22. *Assoc. prof. anat, Woman's Med. Col. of Pa, 25–* Am. Med. Asn; Asn. Anat; Am. Med. Women's Asn. Comparative neuroanatomy.

Miller, Prof. S(amuel) Porter, Parsons College, Fairfield, Iowa. *Biochemistry.* Paotingfu, China, Nov. 17, 99. B.S, Wooster Col, 24, M.S, 28, 33; Ph.D, Iowa, 36; Chicago, 27. Instr. science, Assiut Col, 24–27; assoc. prof. chem, American Univ, 28–33; asst, Iowa, 33–36; teacher science, Tabor Col, 36–37; *prof. chem,* Buena Vista Col, 37–40; *Parsons Col, 40–* A.A; Iowa Acad. Determination and metabolism of uric acid.

Miller, Prof. Shirley P(utnam), University of Minnesota, Minneapolis, Minn. *Anatomy.* Rockwell, Iowa, June 17, 78. B.S, S. Dak. Col, 03; A.M, Minnesota, 04, fellow, 20–21, Ph.D, 22; Berlin and Munich, 08–11; fellow, Chicago, 16. Asst. zool, S. Dak. Col, 05–08; demonstrator anat, Biol. Inst, Berlin, 09; prof. zool. and rural hygiene, S. Dak. State Col, 11–20; instr. and *asst. prof. anat, Minnesota, 21–* Pan-Pacific Sci. Cong, 24. A.A; Asn. Anat; Soc. Mammal. Histogenesis of muscle; mitochondria effects of inanition on glands; morphology of Hawaiian fishes.

Miller, Dr. Sidney E(dward), 2300 Doswell Ave, St. Paul, Minn. *Organic chemistry.* Horton, Kans, Feb. 15, 05. B.S, Oklahoma, 28, M.S, 30; Ph.D, Minnesota, 34. Teaching asst, Oklahoma, 28–30; Minnesota, 30–34; *research chemist, Gen. Mills, Inc, 34–* A.A; Chem. Soc; assoc. Inst. Chem; London Chem. Soc. Vitamin D and sterols; structure of hydroxyazo compounds; chemistry of foodstuffs.

Miller, Dr. Spencer, South Orange, N. J. and Laguna Beach, Calif. *Engineering.* Waukegan, Ill, April 25, 59. B.S, Worcester Polytech, 79, D.E, 28. Inventor and engineer, Lidgerwood Mfg. Co, New York, 90–27; *retired.* Naval Consulting Board. A.A; Mech. Eng; Civil Eng; Naval Archit. and Marine Eng. Cableways used in building Gatun locks in the Panama Canal and in Boulder Dam, Nevada; apparatus for life-saving at sea; fueling warships in a sea-way; elastic towing.

Miller, Dr. Sydney R(obotham), 1115 St. Paul St, Baltimore, Md. *Medicine.* Newark, N. J, Aug. 9, 84. B.S, N. Y. Univ, 05; M.D, Hopkins, 10. Asst. med, *Hopkins,* 11–15, instr. *clin. med,* 15–22, *assoc, 22–* Director lab. internal med, Phipps Psychiat. Clinic, Hopkins Hosp, 13–15, assoc, 15–, asst. attending physician, hosp. Am. Med. Asn; fel. Col. Physicians (pres, 30); Clin. and Climat. Asn; South. Med. Asn. Clinical medicine and pathology.

Miller, Dr. T(homas) Grier, 318 University Hospital, Philadelphia, Pa. *Medicine.* Statesville, N. C, Sept. 18, 86. A.B, North Carolina, 06, LL.D, 43; M.D, Pennsylvania, 11. Assoc. med, *Pennsylvania,* 16–28, asst. prof, 28–34, *prof. clin. med, 34–, director, Kinsey-Thomas Foundation, 37–* Ward physician, univ. hosp, Pennsylvania, 14–, chief gastro-intestinal sect, 28–, asst. chief med. clinic, 34–; consulting physician, Friends Hosp, 22–; Abington Mem. Hosp, 30–; Chestnut Hill Hosp, 34– A.A; Soc. Clin. Invest; Am. Physicians; Gastro-Enterol. Asn; Clin. and Climat. Asn; Path. Soc. Phila; Physiol. Soc. Phila; Col. Physicians Phila. (treas, 37–40); Interurban Clin. Club. Gastroenterology; nutrition.

Miller, Dr. Thomas R(obert), 3610 Staunton Ave, Charleston, W. Va. *Organic chemistry.* Huntingdon, Pa, May 22, 14. B.S, Juniata Col, 36; du Pont fellow, Pennsylvania, 39–40, Ph.D, 40. Asst. instr, Pennsylvania, 36–39; *chemist, Carbide and Carbon Chem. Corp, 40–* Chem. Soc. Synthetic organic chemicals.

Miller, Dr. Vernon L(emont), Bowdoin College, Brunswick, Maine. *Psychology.* Troy, Ohio, July 12, 03. A.B, Ohio State, 25, A.M, 26, Payne Fund fellow, 30–31, Ph.D, 31. *Instr. psychol,* Pittsburgh, 28–29; Long Island, 29–30; Ohio State, 30–31; *Bowdoin Col, 32–* A.A; assoc. Psychol. Asn; Ohio Acad. Experimental psychology; children's sleep.

Miller, Prof. Walter McK(inley), Massachusetts State College, Amherst, Mass. *Mathematics.* Hazleton, Pa, Oct. 8, 96.

Ph.B, Lafayette Col, 18; A.M, Pa. State Col, 23; Ph.D, Illinois, 27. Instr. *math*, Pa. State Col, 20–23; asst. instr, Illinois, 24–27; *asst. prof*, Bowdoin Col, 27–29; Marquette, 29–31; Tufts Col, 31–35; *Mass. State Col, 35–* Math. Asn. Mathematical statistics.

Miller, Prof. Ward L, 921 Fifth St, Brookings, S. Dak. *Plant morphology.* Hutchinson, Kans, Dec. 17, 92. A.B, Southwestern Col. (Kans), 16; M.S, Chicago, 19. Ph.D, 28. Teacher, high sch, Kans, 16–17; asst. prof. biol, Grove City Col, 19–21, *prof*, 21–27; *bot, S. Dak. State Col, 28–* A.A; Bot. Soc; S. Dak. Acad. (pres, 38). Stem and floral anatomy; polyxylic stem of Cycas media; staminate flower of Echinocystis lobata; stamen-carpel reversal in the tomato.

Miller, Dr. Wilbur H(obart), American Cyanamid Co, Stamford, Conn. *Organic chemistry.* Boston, Mass, Feb. 15, 15. B.S, New Hampshire, 36, M.S, 38; univ. fellow, Columbia, 40–41, Ph.D, 41. Asst. and instr, New Hampshire, 36–38; asst, Columbia, 38–40; *research chemist, Am. Cyanamid Co, 41–* Chem. Soc. Rearrangements; plant oxidases; laccase and tyrosinase; chemotherapy.

Miller, Prof. W(ilford) S(tanton), University of Minnesota, Minneapolis, Minn. *Psychology.* A.B, Indiana, 10, A.M, 11; Ph.D, Illinois, 17. Teacher, prin., and supt, pub. schs, Ind, 00–07; instr. educ. psychol, Indiana, 10–11; sec'y sch. educ, Illinois, 11–16; prin. univ. high sch. and asst. prof. educ, *Minnesota*, 16–18, assoc. prof, 18–20, *prof. educ. psychol, 20–*, acting dean grad. sch, 37–40. Asst, Illinois, 11–12. Chief psychol. examiner, Camp Dodge, 18–19. A.A; Psychol. Asn; Nat. Soc. Study Educ; Educ. Research Asn. Educational psychology; mental tests.

Miller, Dr. W(illia)m A(rthur), W. E. Long Co, 155 N. Clark St, Chicago, Ill. *Bacteriology.* Beaver Dam, Ky, Dec. 19, 07. B.S, Illinois, 29, Ph.D, 35; M.S, Pennsylvania, 31; Colorado, 32–33. Inspector perishable products, Baltimore and Ohio R.R, 29–31; asst. bacter, Illinois, 31–32; diagnostic bacteriologist, Urbana branch lab, State Dept. Pub. Health, Ill, 33–36; bacteriologist, Pabst Brewing Co, 36–40; *mem. staff, W. E. Long Co, 40–; lieut, Sanit. Corps, U. S. Army, 43–* Soc. Bact; Inst. Food Technol. Fermentations; microbiology of brewing, malting and malt syrups; chemical and microbiological determination on cereals and bread of B-complex vitamins.

Miller, Prof. William D(ykstra), North Carolina State College, Raleigh, N. C. *Forestry.* Portland, Oregon, Sept. 26, 97. A.B, Reed Col, 23; M.F, Yale, 30, Ph.D, 32. Instr. forestry, Idaho, 32–33, 34–35; technician, U. S. Forest Service, Flagstaff, Ariz, 33–34; asst. prof. *forestry, N. C. State Col*, 35–36, *assoc. prof, 36–* A.A; Ecol. Soc; Soc. Foresters. Silviculture; effects of weeding on survival and growth of white and red pine.

Miller, Prof. William I(rving), Bucknell University, Lewisburg, Pa. *Mathematics.* Sewickley, Pa, July 7, 02. A.B, A.M, Bucknell, 26; Ph.D, Pittsburgh, 33. Instr. *math*, Pittsburgh, 26–34, *asst. prof*, 34–36; *Bucknell, 36–* Math. Soc; Math. Asn. Collineation groups.

Miller, Prof. W(illia)m J(asper), University of Alabama, University, Ala. *Engineering.* Bee Co, Texas, 93. E.E, Texas, 15; M.S, Mass. Inst. Tech, 22. Apprentice engineer, Gen. Elec. Co, 15–17; instr. and asst. prof. elec. eng, Texas, 17–20; instr, Mass. Inst. Tech, 20–21; prof. in charge dept, Okla. Agr. and Mech. Col, 21–23; research engineer in charge, eng. exp. sta, Arkansas, 23–25; dean eng, Texas Tech. Col, 25–31; prof. elec. eng. and head dept, North Carolina, 31–36, acting dean, 33–36; *prof. elec. eng. and head dept, Alabama, 36–* Elec. Eng. (chairman, Okla. sect, 23; Ala. sect, 41–); Eng. Educ. Transformer harmonics.

Miller, Prof. W(illiam) Schuyler, Randolph-Macon College, Ashland, Va. *Chemistry.* East Orange, N. J, March 15, 10. B.S, Lehigh, 30, M.S, 32; Ph.D, Syracuse, 36. Asst. quantitative anal, Lehigh, 30–32; gen. chem, Syracuse, 32–36; instr. *chem*, Bethany Col, 36–40; *asst. prof, Randolph-Macon Col, 40–* Summers, instr, Syracuse, 35, 37, 39, 40, 41. Chem. Soc. X-ray crystal structure.

Miller, Dr. William (T), Jr, Cornell University, Ithaca, N. Y. *Organic chemistry.* Winston-Salem, N. C, Aug. 24, 11. A.B, Duke, 32, fellow, 34–35, Ph.D, 35. Junior research assoc. chem. and Eli Lilly fellow, Stanford, 35–36; instr. *org. chem, Cornell*, 36–41, *asst. prof, 41–* Chem. Soc. (sec'y and treas, 39–). The action of elementary fluorine upon organic compounds; chemical behavior of organic fluorine compounds; synthetic organic chemistry.

Miller, Dr. W(illiam) T(aylor), 4707 Connecticut Ave, Washington, D. C. *Veterinary science.* Pittsburgh, Pa, Oct. 26, 96. D.V.M, Kans. State Col, 24; M.S, Cornell, 29, Ph.D, 31. Asst. prof. animal indust, N. Y. State Vet. Col, Cornell, 30–31; *veterinarian, bur. animal indust, U. S. Dept. Agr, 31–* Vet. Med. Asn. Bovine diseases.

Miller, Dr. Willis H(amilton), 2782 Land Park Drive, Sacramento, Calif. *Geography.* Utica, N. Y, Dec. 31, 06. A.B, California at Los Angeles, 29; scholar and fellow, Chicago, 30–33, M.S, 31, Ph.D, 33. Asst. geog, California at Los Angeles, 29–30; asst. research technician, Nat. Resources Board, 34–35; instr. geog, Los Angeles Junior Col, 35–37; *chief planning technician, State Planning Board, Calif, 37–* Assoc. consultant, Nat. Resources Cmt, 37. Soc. Planning Officials; Inst. Planners; Asn. Pacific Coast Geog. (sec'y-treas, 41); Calif. Planners Inst. Economic geography; geography of California; national planning; state planning.

Miller, Dr. Zelma Baker, 6045 University Ave, Chicago, Ill. *Biochemistry.* Pittsburgh, Pa, Aug. 23, 10. B.S, Pittsburgh, 30, Ph.D, 34. Asst. chem, Pittsburgh, 31–34; biochemist, Biochem. Research Foundation, Franklin Inst, 34–37; asst, Albany Med. Col, 37–38; *Chicago*, 38–39, *research assoc, Zoller dental clinic, 39–, dept. med, 42–* Enzyme kinetics; tissue respiration; biological action of synthetic detergents.

Milles, Dr. George, 1853 W. Polk St, Chicago, Ill. *Internal medicine, Pathology.* Chicago, Ill, May 14, 02. Ph.G, Illinois, 21, B.S, 25, M.D, 29, M.S, 34. Instr. *path, col. med, Illinois*, 30–34, *asst. prof, 34–; U. S. Navy.* Am. Med. Asn; Chicago Path. Soc. Effects of renal denervation; intracranial pressure; utilization of parenterally injected protein split products; potassium-calcium ratio; Parkinson's disease and peptic ulcer; pathological morphology.

Millet, Dr. John A(lfred) P(arsons), 770 Park Ave, New York, N. Y. *Psychiatry.* Broadway, Eng, July 8, 88. Marlborough Col, England, 02–06; A.B, Harvard, 10, M.D, 14. Intern, Peter Bent Brigham Hosp, Boston, 14–16; internist, State Inst. for the Study of Malignant Diseases, N. Y, 16–20; asst. attending physician, Buffalo Gen. Hosp, 16–23; asst. to the chief, Med. Service Dept. of Hosps. and Dispensaries, Buffalo, 22–23; assoc. med, Univ. Buffalo, 22–23; physician, Austen Riggs Foundation, Mass, 23–30; instr. psychiat, Columbia, and asst. attending psychiatrist, Vanderbilt Clinic, 31–33; fellow psychiat, med. col, Cornell, 33–36; *practising physician; assoc. med, col. physicians and surg, Columbia, 38–* Lecturer, Miss Hall's Sch, Mass, 29–32. Psychiat. adviser, Indian Mountain Sch, 28–30, trustee, 29–; visiting psychiatrist, Sarah Lawrence Col, N. Y, 28–29; asst. attending physician, Presbyterian Hosp, 38– Med. director, Silver Hill, New Canaan, Conn, 31–37. Trustee, Neighborhood Music Sch, New York, 30– Officier d'Acad, France. M.C, 17–19, capt. A.A; fel. Psychiat. Asn; Soc. Exp. Biol; fel. Am. Med. Asn; Psychoanal. Asn; Soc. Clin. Psychiat; Psychopath. Asn; Soc. Psychotherapy and Psychopath; Harvey Soc; fel. N. Y. Acad. Med. Personality in musically gifted children; diffuse sub-dural lipomatosis of the spinal cord; the effect of radium on the haematopoietic organs; tests for determining hyperthyroidism; hydrogen ion content of normal saliva; fatal alcoholism; psychogenic aspects of skin disorders; classification and treatment of alcoholism.

Milligan, Dr. Charles H, 842 Cedar Terrace, Westfield, N. J. *Organic chemistry.* Sevierville, Tenn, Oct. 4, 88. A.B, Carson and Newman Col, 12; B.S, Chicago, 15, Swift fellow, 17–18, Ph.D, 19. Grafflin fellow, Hopkins, 19–21; research chemist, Procter and Gamble Co, 21–26; Champion Coated Paper Co, 26–29; *Am. Agr. Chem. Co*, Newark, 29–35, *research and chem. develop, New York, 36–* A.A; Chem. Soc; N. Y. Acad. Composition and hydrogenation of oils; phosphorus and its compounds.

Milligan, Dr. John G(ordon), 96 N. Walnut St, East Orange, N. J. *Chemistry.* Manchester, N. H, Sept. 13, 07. A.B, Dartmouth Col, 29, A.M, 31; Ph.D, Brown, 34. Instr. chem, Dartmouth Col, 29–31; chemist, Amoskeag Mfg. Co, 34–35; *research chemist*, Calco Chem. Co, 35–38; *Nat. Oil Products Co, 38–* Chem. Soc. Organic germanium compounds; dyes; surface-active compounds.

Milligan, Dr. Lowell H(aines), 1 Howatson Way, Worcester, Mass. *Physical chemistry.* Columbus, Ohio, Aug. 5, 94. B.Ch.E, Ohio State, 16, M.S, 17, Ch.E, 40; fellow, Mellon Inst, 17; fellow, Cornell, 21–23, Ph.D, 23. Junior gas chemist,

U. S. Bur. Mines, 17–18, consulting chemist, 19–22; research chemist, *Norton Co*, 23–40, *asst. director research, 40–* Research chemist, Aluminum Co. of Amer, 19–20. Lieut, C.W.S, 18. A.A; Chem. Soc; Ceramic Soc. Alumina; field methods of gas analysis; phosgene; oxidation and reduction products of nitric acid; grinding wheels; sound; glass; abrasives; abrasive products and their uses.

Milligan, Dr. W(infred) O(liver), Rice Institute, Houston, Texas. *Chemistry.* Coulterville, Ill, Nov. 5, 08. A.B, Ill. Col, 30; fellow, Rice Inst, 30–34, A.M, 32, Ph.D, 34. *Research asst. chem, Rice Inst, 34–* Cmt. x-ray and electron diffraction, Nat. Research Council, 38– A.A; Chem. Soc. (sec'y-treas, 41; v. chairman colloid div, 42, chairman, 43); Soc. X-ray and Electron Diffraction; fel. Inst. Chem; Texas Acad. Physical chemistry of colloids; x-ray and electron diffraction studies of sols and gels; hydrous oxides; sulfides; zeolites; theory of formation of colloids; dehydration of hydrous oxides and hydrates.

Millikan, Prof. Clark B(lanchard), California Institute of Technology, Pasadena, Calif. *Aeronautics.* Chicago, Ill, Aug. 23, 03. Ph.B, Yale, 24; Ph.D, Calif. Inst. Tech, 28. Teaching fellow, *Calif. Inst. Tech*, 26–28, asst. prof. *aeronautics*, 28–34, assoc. prof, 34–40, *prof, 40–* Consultant, Nat. Defense Research Cmt. A.A; fel. Inst. Aeronaut. Sci. (v. pres, 34, pres, 37). Fluid mechanics; aerodynamics.

Millikan, Dr. G(lenn) A(llan), University of Pennsylvania, Philadelphia, Pa. *Physiology.* Chicago, Ill, May 23, 06. B.S, Harvard, 27; Ph.D, Cambridge, 33. Research fellow, Trinity Col, *Cambridge*, 33–37, *univ. lecturer physiol, 37–;* asst. prof, med. col, Cornell, 40–42; *fellow, Johnson Foundation, Pennsylvania*, 39–40, *42–* Physiol. Soc; Soc. Exp. Biol. England; Physiol. Soc. England. Respiratory pigments; nature of muscular contraction.

Millikan, Dr. Robert A(ndrews), California Institute of Technology, Pasadena, Calif. **²Physics.* Morrison, Ill, March 22, 68. A.B, Oberlin Col, 91, A.M, 93, hon. Sc.D, 11; fellow, Columbia, 93, Ph D, 95, hon. Sc.D, 17; Berlin and Göttingen, 95–96; hon. Sc.D, Northwestern, 13, Pennsylvania, 15, Amherst Col, 17, Dublin, 24, Yale, 25, Leeds, 27, Princeton, 28, N. Y. Univ, 29, Harvard, 32, Rochester, 34, Melbourne, 39; LL.D, California, 24, Colorado, 27, Michigan, 29, Southern California, 31, Mills Col, 35, Loyola, 38, Chicago, 41; Ph.D, King John Casimir Univ, Poland, 26, Ghent, 27, Liége, 30, Paris, 39. Asst. physics, Chicago, 96–97, assoc, 97–99, instr, 99–02, asst. prof, 02–07, assoc. prof, 07–10, prof, 10–21; *director Norman Bridge lab. physics and chairman exec. council, Calif. Inst. Tech, 21–* Hitchcock lecturer, California, 17; Clark lecturer, Amherst Col, 17; exchange prof, Belgium, 22; Am-Scandinavian Foundation lecturer, Sweden and Denmark, 37; hon. fellow, Stanford, 41. Joint ed, 'Univ. Chicago Science Series,' 15–21. V. chairman, Nat. Research Council, 17; Am. rep, cmt. intellectual cooperation, League of Nations, 22–32; Conseil de Physique Solvay, Brussels, 21. Comstock prize, Nat. Acad, 13; Edison medal, Inst. Elec. Eng, 22; Nobel prize, Royal Swedish Acad, 23; Hughes medal, Royal Soc, 23; Faraday medal, London Chem. Soc, 24; Matteucci medal, 25; gold medal, Inst. Mech. Eng, 26; Messel medal, British Soc. Chem. Indust, 28; gold medal, Soc. Arts and Sciences, 29; gold medal, Holland Soc; gold medal, Radiol. Soc. N. Amer, 30; Roosevelt medal, 32; Franklin medal, Franklin Inst, 37; chevalier, Légion d'honneur, 31, commandeur, 37; Joy Kissen Moorkerjee gold medal, Indian Asn. Cultivation of Science, 39; Oersted medal, Am. Asn. Physics Teachers, 40; Order of Jade, China, 40. Lieut. col. and chief science and research div, Sig.C, 17–19. Nat. Acad. (chairman physical sci. div, 17, 34; ed, 'Proc,' 21–; for. sec'y, 22–37; mem. exec. cmt. board, 27–); A.A. (v. pres, B, 11, pres, 32); Physical Soc. (pres, 16–18, assoc. ed, 'Rev,' 03–16); Philos. Soc. (v. pres); Am. Acad; hon. mem. Franklin Inst; hon. mem. Royal Inst; hon. mem. Royal Irish Acad; Göttingen Gesell. Wissensch; Kaiserlich Deuts. Akad. der Naturforscher; Bayerische Akad. der Wissenschaften Munich; cor. mem. Inst. de France; Pontificia Accad. delle Scienze; Acad. des Sciences; Asn. des Ing. de Liége; R. Accad. delle Scienze dell' Instituto di Bologna; Soc. hollandaise; Soc. batave de Philos. exp. á Rotterdam; assoc. Acad. royale des Sciences de Belg; Michelsen Inst. Sci. and Intellectual Freedom, Bergen; cor. mem. Acad. des Sci. de Russie. Polarization of light from incandescent surfaces; variation of dielectric constants with frequencies; effect of temperature on photoelectric discharge; the charge on the negative ion in gases; absorption of x-rays; isolation of an ion and a direct study of its properties; discharge potentials in high vacua; velocities of electrons discharged from metals under the influence of ultra-violet light; photoelectric determination of Planck's 'h'; exact values of e, n and related constants; Brownian movement in gases; viscosity coefficients of gases; constant electromotive force; valency in gaseous ionization; extension of ultra-violet spectrum; laws of reflection of gas molecules; x-rays from light atoms; stripped atom; pulling electrons from metals by electric fields; cosmic rays.

Milliken, Dr. Lorenzo F(remont), 1900 Spruce St. Philadelphia, Pa. *Urology.* Delphene, Pa, Dec. 25, 77. Waynesburg Col; M.D, Jefferson Med. Col, 05; M.S, Pennsylvania, 23, Sc.D, 24. Assoc. *urol*, sch. med, *Pennsylvania*, 24–30, asst. prof, 30–32, *assoc. prof, grad. sch. med, 32–* Assoc, Temple, 29–31; assoc. urologist, St. Mary's Hosp, Phila, 23–26; urologist, Northwest. Gen. Hosp, 26–; consulting urologist, St. Joseph's Hosp, 29– Urol. Asn; Am. Med. Asn; Phila. Urol. Soc. (sec'y-treas, 26–30, v. pres, 30, pres, 31). Renal sympathectomy; effect of ether anesthesia, morphine and atropine on kidney function; phenolsulfonephthalein and kidney functions.

Millington, Prof. Paul E, 623 W. State St, Milwaukee, Wis. *Chemistry.* Waverly, Iowa, May 29, 97. A.B, Minnesota, 24; Ph.D, Wisconsin, 28. Instr, Lawrence Col, 27; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 28–30; *assoc. prof. chem, Milwaukee exten. div, Wisconsin, 30–* Chem. Soc. Organic and physical chemistry; catalysis in organic reactions; photochemical and thermochemical oxidations of hydrocarbons.

Mills, Col. John, U.S.A. (retired), 3250 Euclid Ave, Cleveland, Ohio. *Physics, Engineering, Geology.* Wheatland, Mich, Dec. 31, 58. Grad, U. S. Mil. Acad, 81. All grades from 2nd lieut. to col, C.Eng, 81–22; *retired.* Board examiners, Elec. Expos, Phila, 84; U. S. Lighthouse Board, 94–98. Nat. del, Congs. Navig, Elec. and Physics, Paris, 00. A.A; Civil Eng; Astron. Soc. Cosmology; gravitation and general physical theory; illumination; geology of the glacial period; river and harbor works; origin of the solar system; constructional history of the earth; safe construction for earthquake and tornado regions; astronomy.

Millis, Pres. John S(choff), 204 S. Willard St, Burlington, Vt. *Physics.* Palo Alto, Calif, Nov. 22, 03. B.S, Chicago, 24, M.S, 27, fellow, 29–30, Ph.D, 31. Master, Howe Sch, 24–26; instr. physics, Lawrence Col, 27–29, prof, 30–41, dean, 37–41, research assoc, Inst. Paper Chem, 31–37; *pres, Vermont, 41–* Physical Soc. Zeeman effect of line and band spectra.

Millman, Dr. J(acob), College of the City of New York, New York, N. Y. *Electrical engineering.* Russia, May 17, 11. B.S, Mass. Inst. Tech, 32, fellow, 33–35, Ph.D, 35; Mass. Inst. Tech. fellow, Munich, 32–33. Asst. physics, Mass. Inst. Tech, 35–36; instr. *elec. eng, Col. City of N. Y*, 36–42, *asst. prof, 42–; mem. radiation lab, Mass. Inst. Tech, 42–* A.A; Physical Soc; Radio Eng; Elec. Eng. Electronics; mathematics of engineering.

Millman, Dr. Peter M(ackenzie), David Dunlap Observatory, Richmond Hill, Ont, Can. *Astronomy.* Toronto, Ont, Aug. 10, 06. B.A, Toronto, 29; A.M, Harvard, 31, Agassiz fellow, 29–31, Ph.D, 32. Asst. astron, Toronto, 28–29; Harvard, 29–31, Royal Soc. Can. fellow, 32–33; demonstrator *astron, Toronto*, 33–34, *lecturer, 34–; navig. instr, Royal Can. Air Force.* Summers, Dom. Astrophys. Observatory, Victoria, 27–29. Gold medal, Royal Astron. Soc. Can, 29. Astron. Soc; Asn. Variable Star Observers; Royal Astron. Soc. Can. (librarian, 36–); Soc. astron. de France. Radial velocities; meteoric astronomy.

Millman, Dr. S(idney), 826 Crown St, Brooklyn, N. Y. *Physics.* Poland, March 15, 08. B.S, Col. City of N. Y, 31; A.M, Columbia, 32, Ph.D, 35. Asst. physics, Columbia, 33–35, John Tyndall fellow, 35–36, Barnard fellow, 36–37; *instr. physics*, Col. City of N. Y, 39–41; *Queens Col. (N. Y), 41–* Summers, tutor, Brooklyn Col, 33, 35. Fel. Physical Soc. The molecular beam branch of nuclear physics.

Mills, Dr. C(larence) A(lonzo), 5046 Oberlin Blvd, Cincinnati, Ohio. *Medicine.* Miami, Ind, Dec. 9, 91. A.B, South Dakota, 17; Ph.D, Cincinnati, 20, M.D, 22. Asst. physiol, South Dakota, 17; instr, Kansas, 17–18; sch. med, Marquette, 18–19; biochem, *Cincinnati*, 19–22, internal med, 22–23, asst. prof, 23–25, *director labs. exp. med, 25–, Heady prof. exp. med, 30–* Asst. attending physician, Cincinnati Gen. Hosp, 23–, director diabetic clinic, 25–; Peking Union Med. Col, 26–28. A.A; Am. Med. Asn; Physiol. Soc; Soc. Biol.

Chem; Soc. Trop. Med; Meteorol. Soc; Cent. Soc. Clin. Research; Int. Leprosy Asn. Blood coagulation and control of hemorrhage; metabolic diseases; vitamin requirements; climatic and weather influences in health and disease.

Mills, Prof. C(lifford) N(ewton), Illinois State Normal University, Normal, Ill. *Mathematics.* Carlos City, Ind, Aug, 86. B.S, Franklin Col, 10; A.M, Indiana, 14; Ph.D, Wisconsin, 39. Prof. *math,* Highland Col, 10–13; asst. prof, S. Dak. State Col, 14–19; *prof,* Heidelberg Col. (Ohio), 19–23; North. Nor. and Indust. Sch, S. Dak, 23–25; *Ill. State Nor. Univ, 25–* Math. Soc. Applied mechanics; the teaching of mathematics.

Mills, Prof. Frederick C(ecil), 492 Engle St, Englewood, N. J. *Economics.* Santa Rosa, Calif, March 24, 92. B.L, California, 14, A.M, 16; Ph.D, Columbia, 17. Asst. econ, California, 15–16; instr, *Columbia,* 19–20, asst. prof. business admin, 20–23, assoc. prof. business statist, 23–27, *prof.* statist, 27–31, *econ. and statist, 31–* Special agent, U. S. Cmn. on Indust. Relations, 14; statistician, Joint Cmt. on Taxation and Retrenchment, N. Y, 22; mem. research staff, Nat. Bur. Econ. Research, 24– A.A; fel. Am. Acad; Econ. Asn. (pres, 40); fel. Statist. Asn. (pres, 34); Acad. Polit. Sci; fel. Econometric Soc; fel. Royal Econ. Soc. Prices; quantitative economics; statistical methods; business cycles.

Mills, Dr. G(eorge) Alexander, 110 Delaware Ave, Ridley Park, Pa. *Physical chemistry.* Saskatoon, Sask, Can, March 20, 14. B.Sc, Saskatchewan, 34, M.Sc, 36; grad. residence scholar, Columbia, 36, Ph.D, 40. Asst. chem, Columbia, 36–39; instr, Dartmouth Col, 39–40; *research chemist, Catalytic Develop. Co, 40–* Chem. Soc. Active hydrogen; separation of isotopes; reaction kinetics; exchange reactions with oxygen isotopes; petroleum refining; catalysis.

Mills, Prof. George H(amilton), 240 E. 320 St, Willoughby, Ohio. *Electrical engineering.* Cadiz, Ohio, Feb. 11, 93. B.S, Case, 15; M.S, Pa. State Col, 19. Instr. *elec. eng,* Pa. State Col, 16; *Case,* 19–30, *asst. prof, 30–* Assoc. Elec. Eng; Eng. Educ. Special circuit arrangement for grid controlled mercury vapor tubes.

Mills, Dr. Gordon F(rederick), 327 Emerson St, Palo Alto, Calif. *Physical chemistry, Organic chemistry.* Cleveland, Ohio, Sept. 21, 11. A.B, Oberlin Col, 33; A.M, Syracuse, 35; Lever Brothers Soap fellow, Stanford, 36–37, Ph.D, 39. *Research director, Chem. Process Co, 38–* Chem. Soc. Quantitative study of electrodialysis; measurement of adsorption at the solution air interface and quantitative test of the Gibbs adsorption theorem; sugar refining; preparation of organic resin ion-exchange adsorbents.

Mills, Dr. Harlow B(urgess), Montana State College, Bozeman, Mont. *Entomology.* Legrand, Iowa, Aug. 20, 06. B.S, Iowa State Col, 29, M.S, 30, Ph.D, 34. Asst. prof. entom, Agr. and Mech. Col. Texas, 30–31, asst. entomologist, Exp. Sta, 33; wildlife technician, Yellowstone Nat. Park, 34–35; asst. state entomologist, *Mont,* 35–37, *state entomologist and head entom. exp. sta, 37–* Bur. entom, U. S. Dept. Agr. Exp. Sta, Iowa State Col, 28–29, Tallulah, La, 30–31. Entom. Soc; Asn. Econ. Entom; Mont. Acad. Taxonomy of apterygote insects.

Mills, Prof. J(ames) E(dward), Sonoco Products Co, Hartsville, S. C. **²Chemistry.* Winnsboro, S. C, April 30, 76. A.B, Davidson Col, 96, A.M, 00; Ph.D, North Carolina, 01; hon. Sc.D, South Carolina, 35. Asst. chem, North Carolina, 00–01, instr, 01–03, assoc. prof, 04–10; lecturer, South Carolina, 10–13, prof, 13–21; tech. director, Chem. Warfare Service, 21–24, chief chem. div, 24–29; chairman div. chem. and chem. technol, Nat. Research Council, 29–30; prof. chem, South Carolina, 30–34; *chief chemist, Sonoco Products Co, 34–* Capt, C.Eng, 17, C.W.S, 18, major, 18, lieut. col, O.R.C. A.A; Chem. Soc; Electrochem. Soc; S. C. Acad. (pres, 37). Molecular attraction; heats of vaporization of liquids; specific heats; relationship of physical properties and of chemical constitution to physiological action; boll weevil investigation.

Mills, John, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Chicago, Ill, April 13, 80. A.B, Chicago, 01, fellow, 02–03; fellow, Nebraska, 03–04, A.M, 04; B.S, Mass. Inst. Tech, 09. Instr. physics, Western Reserve, 03–07; drawing, Mass. Inst. Tech, 07–09; prof. physics and elec. eng, Colo. Col, 09–11; eng. dept, Am. Tel. and Tel. Co, 11–15; research dept, West. Elec. Co, 16–22, personnel dept, 22–25; *director publication, Bell Tel. Labs, 25–* Fel. Elec. Eng; fel. Radio Eng; fel. Physical Soc; Eng. Educ.

Mills, Dr. J(oseph) W(illiam), Con Mine, Yellowknife, N.W.T, Can. *Economic geology.* Toronto, Ont, June 9, 17. B.A, Toronto, 39; Ph.D, Mass. Inst. Tech, 42. Mem. surv. parties, Ont. Dept. Mines, 38–40; teaching fellow geol, Mass. Inst. Tech, 39–42; *geologist, Consol. Mining and Smelting Co, Can, 42–* Spectrographic study of the wall rock alteration of the silver ores, Pachuca, Mexico.

Mills, Prof. Marian E, University of New Hampshire, Durham, N. H. *Botany.* Port Byron, N. Y, Aug. 18, 87. B.S, Columbia, 17, A.M, 20. Teacher, secondary sch, Md, 12–15; N. J, 15–22; Kent State Col, Ohio, 22–27; *asst. prof. bot, New Hampshire, 27–* Field botany; farm chemurgy.

Mills, Dr. Moore A(nderson), 16 E. 90th St, New York, N. Y. *Medicine.* Sedro-Woolley, Wash, Feb. 6, 10. B.S. and M.S, Washington (Seattle), 31; Ph.D, Northwestern, 36, M.D, 39. Asst. bacter, med. sch, Northwestern, 36–38; intern and asst. res, Hopkins Hosp, 38–41; clin. asst, Roosevelt Hosp, New York, 42; *practising physician, 42–* Gray fellow, Roosevelt Hosp, New York, 39–40. Ulcerative colitis; chemotherapy; nutrition.

Mills, Dr. Ralph G(arfield), 314 Standard Office Bldg, Decatur, Ill. *Allergy, Internal medicine.* Lincoln, Ill, March 4, 81. A.B, Illinois, 03; M.D, Northwestern, 07; Chicago, 12–13, 24–25. Intern, St. Luke's Hosp, Chicago, 07–08; builder and in charge, Kennedy Hosp, Korea, 08–12; prof. path. and bacter. and in charge clin. labs. and research dept, Severance Union Med. Col, Korea, 13–18; prof. path. and head dept, Peking Union Med. Col, 18–24; sch. med, Colorado, 25–26; Mayo Foundation, Minnesota, and assoc, Mayo Clinic, 26–30; Wiley-Smith Clinic, 30–38; *mem. staff, Decatur and Macon County Hosp. and St. Mary's Hosp, 38–* Asst. res, Hopkins Hosp, 18–19, instr, Hopkins, 19–20. Mem, Selective Service Board, Decatur, Ill. A.A; Asn. Study Allergy; Am. Med. Asn; Chicago Soc. Allergy; China Med. Missionary Asn; hon. mem. Korea Med. Missionary Asn. Insect and plant allergens; local tissue immunity.

Mills, Ronald Van Auken, Continental Oil Co, Ponca City, Okla. *Mining engineering.* Washington, D. C, Aug. 2, 81. E.M, Columbia, 06. Engineer, U. S, Mex. and Can, 06–10; prof. mining and geol. and in charge govt. sch. mines, Pei Yang Univ, Tientsin, China, 10–12; assoc. geologist, U. S. Geol. Surv, 12–18; petrol. technologist and engineer, U. S. Bur. Mines, San Francisco, Calif, and Bartlesville, Okla, 18–23; oil and gas valuation engineer, Bur. Int. Revenue, Washington, D. C, 23–26; petrol. engineer, U. S. Bur. Mines, Bartlesville, Okla, 20–28, in charge oil recovery investigations, 28; petrol. eng. ed, 'Oil and Gas Jour,' 28–29; v. pres. and gen. manager, Hudson's Bay Oil and Gas Co, Ltd, 29–33; *chief petrol. engineer, Continental Oil Co, 33–* Technologist, Navy Dept, Naval Ordnance Plant, S. Charleston, W. Va, 17–19, Okla, 26– Min. and Metal. Eng; Asn. Petrol. Geol. Petroleum engineering; oil field waters; induced migration; segregation; accumulation of oil; underground movements of oil, gas and water through reservoir sands; paraffin problem in oil wells; oil and gas conservation; corrosion of oil gas field equipment; drilling and production; the pipeline's place in the oil industry.

Mills, Dr. R(oscoe) H(arlan), 908 N. Highland, Atlanta, Ga. *Aeronautics.* Sheridan, Mo, May 6, 06. A.B, Pomona Col, 28; Ph.D, Calif. Inst. Tech, 35. Instr. aeronaut. eng, Ga. Tech, 35–37, asst. prof, 37–39; *aeronautical engineer, material div, Air Corps, U. S. Army, Wright Field, 39–* Boundary layer for some axial symmetric flows.

Mills, Prof. W(ilford) R(ichard), Pennsylvania State College, State College, Pa. *Plant pathology.* Fillmore, N. Y, Jan. 15, 09. B.S, Cornell, 31, Ph.D, 39. Asst. plant path, Cornell, 31–35, 37–41; geneticist and head dept. genetics, Instituto de Pesquisas Agronomicas Recife, Pernambuco, Brazil, 35–37; *asst. prof. plant path, Pa. State Col, 41–* A.A; Phytopath. Soc; Potato Asn. Breeding potatoes for disease resistance.

Mills, Prof. W(ilfred) D(ouglas), Cornell University, Ithaca, N. Y. *Plant pathology.* Tecumseh, Mich, Jan. 29, 95. B.S, Mich. State Col, 20, M.S, 22; Ph.D, Cornell, 30. Asst, Mich. State Col, 20–22; *Cornell,* 22–26, instr. *plant path, exten. service,* 26–30, *asst. prof, 30–* Fruit disease; seed disinfection.

Mills, Dr. William W(histler), E. I. du Pont de Nemours and Co, Wilmington, Del. *Analytical chemistry.* Pontiac, Kans, May 8, 92. B.S, Franklin Col, 14; M.S, Ohio State, 21, Ph.D, 25. Chemist, Pittsburgh Crucible Steel Co, Midland, Pa, 14–17, asst. chief chemist, 17–19; instr. chem, Col. of Wooster, 21–22; asst, Ohio State, 22–25; analyst, Mellon Inst,

25–41; plant supt, Thermal Products Corp, 41–42; *patent investigator, tech. div, rayon dept, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Iodine as a standard substance in chemical measurements; stability of thiosulfate standard solutions; oxidation of glycols.

Milne, Dr. David (Tuttle), 918 Mortimer Ave, Fredericksburg, Va. *Cellulose chemistry.* Butler, Pa, June 27, 07. A.B, North Carolina, 28, Ph.D, 38. *Research chemist, Sylvania Indust. Corp, 38–* Chem. Soc; Inst. Chem. Cotton plant; viscose; films; lacquers; cellulose ethers.

Milne, Dr. H(enry) Bayard, 525 N. 21st St, Corvallis, Oregon. *Organic chemistry.* Walla Walla, Wash, Aug. 15, 15. B.S, Oregon State Col, 37; M.S, Northwestern, 39, Ph.D, 41. Instr. chem, Idaho, 41–42; *lieut, Inf, U. S. Army, 42–* Chem. Soc. Reactions of indene derivatives.

Milne, Dr. Lindsay Stephen, 1132 Professional Bldg, Kansas City, Mo. *Medicine.* Montrose, Scotland, May 8, 83. M.B, Ch.B, Edinburgh, 04, M.D, 08. Asst. prof. path, Edinburgh, 05–08; pathologist, Russell Sage Inst, 08–11; prof. med, Kansas, 11–20; *practising physician.* Attending physician, hosps, Kansas City. Lieut. col, M.C, 17–19. Am. Med. Asn; Asn. Path. and Bact; fel. Col. Physicians; N. Y. Acad. Med; Harvey Soc; British Med. Asn; British Path. and Bact. Soc; Edinburgh Royal Col. Physicians. Internal medicine; syphilis; liver diseases; anemia; diabetes; disorders in internal gland secretions.

Milne, Prof. Lorus J(ohnson), University of Pennsylvania, Philadelphia 4, Pa. *Zoology.* Toronto, Ont, Can, Sept. 12, 10. B.A, Toronto, 33; A.M, Harvard, 34, fellow, 34–36, Ph.D, 36. Demonstrator biol, Toronto, 31–32; prof. biol. and geol. and head dept, Southwestern (Texas), 36–37; adj. prof. *biol, Randolph-Macon Woman's Col, 37–39, assoc. prof, 39–; war research aviation med, Johnson Foundation, Pennsylvania, 42–* Summers, asst, entom. branch, Can. Dept. Agr, 29–32; instr, Col. City of N. Y, 37. A.A; Soc. Zool; Limnol. Soc; Entom. Soc. Amer; Soc. Study Speciation; Biol. Photog. Asn; Asn. Southeast. Biol; Va. Acad. Invertebrate zoology and ecology; taxonomy of Trichoptera; physiology of aquatic organisms; biophotography; biophysics.

Milne, Prof. Margery J(oan Greene), 214 Highland Ave, Jenkintown, Pa. *Zoology, Biology.* New York, N. Y, Jan. 18, 14. A.B, Hunter Col, 33; A.M, Columbia, 34; summers, Michigan, 33, Marine Biol. Lab, Woods Hole, 34, 41, Virginia, 38, 40; A.M, Radcliffe Col, 37, Ph.D, 39. Instr. zool, Maine, 36–37; biol, Randolph-Macon Woman's Col, 39; Robert E. Lee Sch, Lynchburg, Va, 40–41; *asst. prof.* biol. and bacter, Richmond div, Col. of William and Mary, 41–43; *biol, Beaver Col, 43–* Insect ecology; field biology; physiology of aquatic respiration; protozoology.

Milne, Prof. W(illiam) E(dmund), Oregon State College, Corvallis, Oregon. *Mathematics.* Pendleton, Oregon, Jan. 19, 90. A.B, Whitman Col, 12, Sc.D, 42; A.M, Harvard, 13, Ph.D, 15. Asst. *math,* Harvard, 13–15; Bowdoin Col, 15–16, asst. prof, 16–18; prof, Oregon, 19–32; *prof. and head dept, Oregon State Col, 32–* Acting prof, Stanford, 28–29. Lieut, Ordnance Dept, 18–19. Math. Soc; Math. Asn. Approximation; expansion problems; damped vibrations.

Milner, Pres. Clyde A, Guilford College, N. C. *Psychology.* Unitia, Tenn, Aug. 2, 99. Woodbrooke Col, England, 19–20; A.B, Wilmington Col, 21; A.M, Haverford Col, 22; B.D, Hartford Theol. Sem, 24, Ph.D, 34; Univ. Marburg, Germany, 27–28; Geneva, 28. Dean men, Earlham Col, 24–30, asst. prof. psychol, 24–27, prof, 27–30; *prof. psychol, Guilford Col, 30–,* dean, 30–34, *pres, 34–* John S. Welles fellow from Hartford Sem, Germany and Switzerland. Psychology of George Fox; the dean of the small college.

Milner, Prof. Ernestine Cookson, Guilford College, N. C. *Psychology.* New Straitsville, Ohio, Sept. 25, 96. A.B, Miami, 18, B.S, 19; A.M, Wellesley Col, 26; Ohio State; Columbia. Dean women and asst. prof. psychol, Parsons Col, 24–26; Earlham Col, 26–30; *director personnel and assoc. prof. psychol, Guilford Col, 30–* Assoc. Psychol. Asn. Mental health and vocations of college women.

Milner, Dr. Reid T(hompson), U. S. Department of Agriculture, Peoria, Ill. *Physical and analytical chemistry.* Carbondale, Ill, Aug. 13, 03. B.S, Illinois, 24, M.S, 25; Ph.D, California, 28. Chemist, U. S. Bur. Mines, 28–30; *U. S. Dept. Agr,* 30–36, regional soy-bean indust. products lab, *bur. agr. chem. and eng,* 36–39, director, 39–41, *div. chief, north. regional research lab, 41–* A.A; Chem. Soc; Inst. Chem. Specific heats at low temperatures; organic microanalysis; soybean analysis; analysis of agricultural products.

Milone, Dr. C(harles) R(obert), 91 Wills Ave, Akron, Ohio. *Organic chemistry.* Uhrichsville, Ohio, Feb. 13, 13. B.S, Mass. Inst. Tech, 36, Ph.D, 39. Teaching fellow, Mass. Inst. Tech, 36–38; *research chemist, Goodyear Tire and Rubber Co, 39–* Chem. Soc. Sterols; polymerizable compounds for synthetic rubber and plastics.

Milone, Prof. Henry S(averius), Georgetown University School of Medicine, Washington, D. C. *Physiological chemistry.* New Haven, Conn, Dec. 31, 07. B.S, Yale, 29, M.S, 31; Ph.D, Georgetown, 36. Instr. *physiol. chem, sch. med, Georgetown,* 31–36, *prof. and director dept, 36–* A.A; Chem. Soc; Soc. Exp. Biol. Estimation of tryptophane; colorimetric procedures for the estimation of sex hormones in blood and urine.

Milstead, Harley P(orter), New Jersey State Teachers College, Upper Montclair, N. J. *Geography.* Virginia, Ill, May 12, 95. A.M, Clark, 26, Ph.D, 33. Teacher, high sch, Ill, 23–25; acting head dept. *geog,* N. J. State Nor. Sch, *Montclair,* 26–27, *assoc. prof. and head dept, N. J. State Teachers Col, 28–* Summers, acting head dept, Ill. State Nor. Sch, Normal, 26; Pa. State Nor. Sch, Indiana, 27. Am. Geog. Soc. Economic geography; regional geography of Island of Grenada, British West Indies.

Milstead, Dr. Kenneth L, 6651 Murray Ave, Cincinnati, Ohio. *Organic chemistry.* Brashear, Mo, Jan. 10, 09. B.S, Northeast Mo. State Teachers Col, 29; A.M, Cincinnati, 31, Twitchell fellow, 32–33, Ph.D, 33. Instr. chem, Northeast Mo. State Teachers Col, Kirksville, 33–34; Coe Col, 34–35; junior chemist and later *chemist, food and drug admin, Fed. Security Agency, 35–* Biochemistry; oxidation of organic compounds with hydrogen peroxide; amino acids.

Milton, Dr. Charles, U. S. Geological Survey, Washington, D. C. *Geology.* New York, N. Y, April 25, 96. Ph.D, Hopkins, 29. Geologist, Sinclair Explor. Co; *geochemist, U. S. Geol. Surv, 31–* Economic geology; petrography.

Milton, Pres. Hugh Meglone, II, New Mexico College, State College, N. Mex. *Mechanical engineering.* Lexington, Ky, March 23, 97. B.S, Kentucky, 19, M.E, 22. Asst. prof. mech. eng, Agr. and Mech. Col. Texas, 19–24; prof. and head dept. and later dean eng, *N. Mex. Col,* 24–38, *pres, 38–; col, Chem. Warfare Service, U. S. Army, 42–* Eng. dept, Magnolia Petrol. Co, 20; Texas Corp, 24; consulting engineer. Col, C.W.S, 18. Mech. Eng; Asn. Eng. Power producing qualities of various gasolines; practical qualities of various gasolines; practical metallurgy; heat coefficients of adobes.

Milum, Prof. V(ern) G, 104 Vivarium Bldg, Champaign, Ill. *Entomology.* Viola, Wis, Feb. 6, 94. B.S, Wisconsin, 21, M.S, 23, Ph.D, 27. Instr. econ. entom, Wisconsin, 21–25; *entom, Illinois,* 25–27, *asst. prof, 27–* Entom. Soc. Amer; Asn. Econ. Entom; Honey Producers League (sec'y-treas, 31–35); Honey Inst. (director); Ill. Beekeepers' Asn. (sec'y, 27–31, pres, 35); Ill. Acad. Economic entomology and apiculture; winter reactions and relations of the honey-bee colony; granulation and discoloration of honey; moths infesting bee combs.

Milward, Prof. J(ames) G(arfield), University of Wisconsin, Madison, Wis. *Horticulture.* Madison, Wis, April 5, 81. B.S, Wisconsin, 07, M.S, 09. *Prof. hort, Wisconsin, 17–* Soc. Hort. Sci; Wis. Potato Growers Asn. (sec'y, 12–). Standard varieties of potatoes for Wisconsin; potato growing in Wisconsin.

Milzer, Dr. Albert, Serum Center, Michael Reese Hospital, Chicago, Ill. *Bacteriology, Immunology.* Denver, Colo, Nov. 29, 15. A.B, Colorado, 37, fellow, 37–38, M.S, 38; Ph.D, Chicago, 41. Asst. bacter, Colorado, 36–37; *research bacteriologist, Deutsch serum center, Michael Reese Hosp, 38–* Mem. staff office sci. research and develop, Nat. Research Council, 42– A.A; Soc. Bact; Pub. Health Asn; Soc. Ill. Bact. Experimental poliomyelitis; lymphocytic choriomeningitis; neurotropic viruses; arthropod vectors of animal virus diseases; bacterial allergy; antigenicity of antibacterial and antiviral ultra-violet vaccines; human serum and plasma as blood substitutes and in therapy of infectious diseases.

Mimmack, Dr. Edward F(arrington), 266 Bryant St, Buffalo, N. Y. *Therapeutics.* Buffalo, N. Y, Oct. 30, 99. D.D.S, Buffalo, 21. Instr. crown and bridge, dental sch, *Buffalo,* 21–24, mat. med, 24–28, assoc. prof. *mat. med. and therapeut,*

28–35, *prof, 35–* Fel. Col. Dentists; 8th N. Y. Dist. Dental Soc. (pres, 31); Buffalo Dental Asn. Soft tissue pathology and treatments in dental practise.

Mimno, Prof. Harry Rowe, Harvard University, Cambridge, Mass. *Physics.* Chicago, Ill, May 8, 00. E.E, Rensselaer Polytech, 21; A.M, Harvard, 26, Ph.D, 32. Instr. elec. eng, Rensselaer Polytech, 21–28, asst. prof. physics and elec. eng, 28–29; instr. *physics and communication eng, Harvard,* 29–32, *asst. prof, 32–,* acting chairman dept. physics, 36, div. eng. sciences, 36–37, acting dean grad. sch. eng, 36–37. A.A; fel. Physical Soc; fel. Am. Acad; Elec. Eng; Radio Eng; Acoustical Soc; Eng. Educ; Int. Sci. Radio Union. Radio wave propagation; electronics; atmospheric physics.

Minard, Dr. David, 1853 W. Polk St, Chicago, Ill. *Physiology.* Fargo, N. Dak, May 23, 13. B.S, Chicago, 35, Ph.D, 37, M.D, 42. Instr. *physiol,* med. sch, Louisville, 37–38; *col. med, Illinois,* 38–40, *assoc, 41–* A.A. Physiology of histamine in blood and tissues; mechanism of pain sensation.

Minarik, Dr. Charles E(dwin), Substation No. Four, Agricultural and Mechanical College of Texas, Beaumont, Texas. *Plant physiology.* Westfield, Mass, Nov. 20, 11. B.S, Mass. State Col, 33, M.S, 35; Ph.D, Rutgers, 39. Asst. plant physiol, Rutgers, 35–39; *plant physiologist, substa. no. four, Exp. Sta, Agr. and Mech. Col. Texas, 39–; lieut, cavalry, U. S. Army, 42–* Soc. Plant Physiol. Plant nutrition.

Minarik, Dr. R(udolf) G(lenn), Syracuse University, Syracuse, N. Y. *Mechanical engineering.* Cleveland, Ohio, July 20, 07. B.S, Case, 30, M.E, 34; M.S, Yale, 31; Ph.D, California, 34. Consultant, Columbia Axle Co, 30–31; develop. and research engineer, Vlchek Tool Co, 31, chief engineer, 37–39; assoc. mech. eng, California, 31–33, instr, 33–37; asst. prof, Armour Inst, 39–40; consultant mech. design, Kimberly-Clark Corp, 40–41, chief designer, 41–43; *prof. mech. eng, Syracuse, 43–* Lecturer, exten. div, California, 34–37. A.A; Mech. Eng; Eng. Educ. Applied mechanics; engineering education; photoelasticity; metal processing; paper manufacture.

Minckler, Dr. Jeff, 1402 S. Grand Blvd, St. Louis, Mo. *Anatomy.* Knox, N. Dak, June 4, 12. A.B, Montana, 37; A.M. and Ph.D, Minnesota, 39. Teaching asst, Minnesota, 37–39; instr, med. sch, Creighton, 39–41, asst. prof, 41; *instr. anat, sch. med, St. Louis, 41–* A.A; Asn. Anat. Neuroanatomy; synapse morphology and pathology.

Minckler, Dr. Leon S(herwood), U. S. Forest Service, Asheville, N. C. *Plant physiology.* New Milford, N. Y, May 7, 06. B.S, Syracuse, 28, Ph.D, 36. Junior forester in charge shelterbelt influences research for Okla. and Texas, Lake States Forest Exp. Sta, *U. S. Forest Service,* 35–36, *assoc. silviculturist in charge planting investigations, Appalachian Forest Exp. Sta, 36–* Soc. Foresters; Soil Sci. Soc. Quantitative transpiration of trees; water relations of trees in the plains area; forest regeneration; soil-site characteristics in relation to plantation success; forest genetics; artificial regeneration of deforested lands.

Mindlin, Dr. Raymond D(avid), Columbia University, New York, N. Y. *Engineering.* New York, N. Y, Sept. 17, 06. A.B, Columbia, 28, B.S, 31, C.E, 32, Bridgham fellow, 34–35, Ph.D, 36. Asst. *civil eng, Columbia,* 32–36, instr, 37–39, *asst, prof, 39–* Consultant physicist, dept. terrestrial magnetism, Carnegie Institution, 40–42; Nat. Defense Research Cmt, 41–42; sect. T, Office Sci. Research and Develop, 42–; consultant, Bell Tel. Labs, 43– A.A; Physical Soc; Civil Eng. (sec'y cmt. applied mech, 40–42, chairman, 42–); Soc. Stress Anal. (exec. cmt, 43–); Mech. Eng; East. Photoelasticity Conf. (exec. cmt, 38–41). Theory of elasticity; photoelasticity; applied mechanics.

Miner, Carl S(helley), 9 S. Clinton St, Chicago, Ill. ***Chemistry.* State Center, Iowa, Aug. 5, 78. B.S, Chicago, 03. Research chemist, Corn Products Co, 03–06; *proprietor and director, Miner Labs, 06–* Consulting chemist. A.A; Chem. Soc. (chairman, Chicago sect, 22, councilor, 23–26). Industrial chemistry; manufacture of furfural and derivatives.

Miner, Dr. C(arl) S(helley), Jr, 9 S. Clinton St, Chicago, Ill. *Organic chemistry.* Evanston, Ill, May 7, 15. B.S, Northwestern, 37; Ph.D, Pa. State Col, 40. *Research chemist, Miner Labs, 40–* Chem. Soc. Oxidation of triisobutylene; utilization of agricultural and forest by-products.

Miner, Prof. Douglas F(uller), Carnegie Institute of Technology, Pittsburgh, Pa. *Dielectrics.* Hazardville, Conn, Sept. 13, 92. A.B, Clark, 12; B.S, Worcester Polytech, 15, E.E, 17; D.Eng, Pittsburgh, 40. Manager material and process eng. dept, *Westinghouse Elec. and Mfg. Co,* 27–36, eng. labs. and standards dept, 36–38, *consulting engineer, 38–; George Westinghouse prof. eng, Carnegie Inst. Tech, 38–* Westinghouse grad. lecturer, Pittsburgh, 26–36. Inst. Elec. Eng; Soc. Prom. Eng. Educ. Insulation of electrical apparatus; moisture in insulation; surge breakdown of air.

Miner, Dr. Ernest L(avon), Weber College, Ogden, Utah. *Paleobotany.* Fairview, Utah, April 18, 00. A.B, Utah, 27, A.M, 29; Ph.D, Michigan, 34. Teaching fellow, Utah, 27–29; asst. bot, Michigan, 29–34, teaching fellow, 34–35; *head dept. bot, Weber Col, 35–* Plant remains in Cretaceous and Tertiary coal of North America; Paleozoic wood; Cretaceous ferns; fossil flora of Utah.

Miner, Prof. J(ames) B(urt), University of Kentucky, Lexington, Ky. *Psychology.* Berlin, Wis, Oct. 6, 73. B.S, Minnesota, 97, LL.B, 99, M.S, 01; fellow, Columbia, 02–03, Ph.D, 03. Instr. psychol, Illinois, 03–04; Iowa, 04–05, asst. prof. philos, 05–06; *psychol,* Minnesota, 06–15; Carnegie Inst. Tech, 15–18, assoc. prof, 18–21; *prof. and head dept, Kentucky, 21–, director personnel bur, 30–* Exec. sec'y, Research Bur. Retail Training, 18–20; director, Psychol. Corp, 33–37. Collaborator, 'Jour. Educ. Psychol,' 10–20; cooperating ed, 'Psychol. Exchange,' 32–36. A.A; Psychol. Asn. (chairman, clin. sect, 31); fel. Asn. Applied Psychol. (councilor clin. sect, 37–); S. Soc. Philos. and Psychol. (pres, 25, councilor, 38); Ky. Acad. (pub. cmt, 32). Deficiency and delinquency; personnel; rhythm.

Miner, Dr. John R(ice), 619 Seventh Ave, S.W, Rochester, Minn. *Biometry.* Chicago, Ill, April 10, 92. A.B, Michigan, 13; Sc.D, Hopkins, 22. Asst. math, Michigan, 12–13; computer, Exp. Sta, Maine, 13–17; biometrician, Food Admin, 17–19; assoc. biometry and vital statist, sch. hygiene and pub. health, Hopkins, 19–24, assoc. prof, 24–25, assoc. mem, inst. biol. research, 24–30, assoc. prof. biol, 30–36; tech. analyst, occupational morbidity and mortality study, U. S. Pub. Health Service, 36–37, biometrician, div. venereal diseases, 37–38; *assoc. ed, Mayo Clinic, 38–* Asst. ed, 'Quarterly Rev. Biol. and Human Biol,' 27–36. Mem. Surgeon Gen's. cmt. on prevalence, incidence and trend of venereal diseases, 36. A.A; Statist. Asn. (cmt. fellows, 40–); Inst. Math. Statist; Pub. Health Asn. Vital statistics; curve fitting; milk production; suicide; industrial hygiene; venereal diseases.

Miner, Dean Leroy M(atthew) S(impson), Harvard University Dental School, Boston, Mass. *Dentistry.* Chicago, Ill, April 13, 82. D.M.D, Harvard, 04; M.D, Boston, 07; hon. Sc.D, Pennsylvania, 33; hon. Dr.P.H, Temple, 38. Assoc. prof. *stomatol, sch. med, Boston,* 18–35, *prof, 35–; clin. oral surg, dental sch, Harvard, 22–, dean, 24–* Trustee, Forsyth Dental Infirmary for Children. Alpha Omega medallion, 36. A.A; Dental Asn. (pres, 37); fel. Col. Surg; Am. Acad; Int. Asn. Dental Research (pres, 28). Dental research; oral pathology, medicine and surgery.

Miner, Prof. Neil A(lden), Cornell College, Mt. Vernon, Iowa. *Geology.* Saranac Lake, N. Y, Sept. 9, 98. A.B, Syracuse, 32, A.M, 34; Ph.D, Iowa, 37. Director nat. science museum, Syracuse, 31–34; asst. *geol,* Iowa, 34–37; instr, *Cornell Col. (Iowa),* 37–38, asst. prof, 38–41, *prof. and head dept, 41–* Geologist, Syracuse-Gaspé, exped, 33. A.A. Pleistocene biology; sedimentation.

Miner, Dr. Roy Waldo, American Museum of Natural History, New York, N. Y. *Zoology.* North Adams, Mass, Feb. 24, 75. A.B, Williams Col, 97, hon. Sc.D, 27; grad, Gen. Theol. Sem, 00; Ph.D, Columbia, 23. Instr. Latin and biol, Berkeley Sch, New York, 00–04; assoc. head master and instr, Kelvin Sch, 04–05; asst. curator invert. zool, *Am. Museum Nat. Hist,* 05–17, assoc. curator, 17–21, curator *living invertebrates,* 22–43, *emer. curator, 43–* Marine explorations, New Eng. coast and Bay of Fundy, 09–22; exped, Lesser Antilles, 11, 14; biol. exped, P. R, 14, 15; leader submarine exped, Bahamas, 23, 24, 26, 30, 33; mem. int. exped, Andros, 30; Crocker exped, S. Pacific, 36; sponging beds, west coast Fla, 38, 39, 41, 42. N. Y. cmt. marine piling investigations, Nat. Research Council, 22–24; chairman popular publications, Am. Museum Nat. Hist. Asn. Mus. (councilor, 17–20, chairman, sci. sect, 30–32); Ecol. Soc; fel. N. Y. Acad. (asst. sec'y, 05, sec'y, sect. biol, 07, councilor, 24–26, recording sec'y, 26–37; pres, 40, 41). Invertebrate morphology and ecology; Myriapoda; phylogeny and homologies of limb muscles; corals; oceanography; sponge and pearl fisheries.

Ming, Prof. Frederick W, 99 Livingston St, Brooklyn, N. Y. *Mechanical engineering.* Oakland, Calif, May 31, 94. Cornell, 14–17; Sc.B, A.M, N. Y. Univ, 36. Production engineer, Ithaca Gun Co, 15–17; special tool designer, Standard Steel Car Co, 17; mech. engineer, Interstate Commerce Cmn; instr. *mech. eng, Polytech. Inst. Brooklyn,* 18–31, *asst. prof, 31–* Investigator, Nat. Standardization Machine Drafting. Chief tool engineer, U. S. Govt. War Plant, 17–18; supervisor, Nat. Production Eng. War Training. Mech. Eng; Eng. Educ. Applied science; machine drafting standards; industrial engineering; engineering education; economics of engineering; machinery design.

Minges, Dr. P(hilip) A(dams), University of California College of Agriculture, Davis, Calif. *Truck crops.* Battle Creek, Mich, Jan. 10, 13. B.S, Mich. State Col, 34; M.S, Iowa State Col, 37, Ph.D, 41. Asst. pomol, Iowa State Col, 35–37, veg. crops, 38–40; instr. truck crops and junior olericulturist, *col. agr, California,* 41–42, *exten. specialist truck crops, 42–* Soc. Hort. Sci. Nutrition of vegetable crops; physiology of truck crops.

Mingins, Dr. Charles R(obert), Green Mountain Junior College, Poultney, Vt. *Physics.* Lawrence, Mass, 99. A.B, Wesleyan, 25; Ph.D, Cornell, 35. Asst, Wesleyan, 23–25; teacher, high sch, Mass, 25–28; asst, Cornell, 28–29, teaching asst, 29, instr, 29–35; physics, N. Y. State Col. for Teachers, 35–37; *prof. physics and math, Green Mountain Junior Col, 37–* Radio Eng. Electric waves and oscillations; electromagnetics; machine tool gauges.

Minkowski, Dr. R(udolph Leo Bernhard), 813 Santa Barbara St, Pasadena, Calif. *[*7]Astronomy, Physics.* Strasbourg, Alsace, May 25, 95. Ph.D, Breslau, 21. Asst, Physikalisches Staatsinstitut, Hamburg, 22; privat-docent, Hamburg, 26–31, prof, 31–35; *mem. staff, Mt. Wilson Observatory, Carnegie Institution, 35–* Astron. Soc. Spectroscopy; spectrophotometry; stellar and nebular spectroscopy.

Minné, Dr. N(els), State Teachers College, Winona, Minn. *Organic chemistry.* Catawba, Wis, Dec. 6, 01. A.B, St. Olaf Col, 24; M.S, Wisconsin, 30, fellow, 31–32, Ph.D, 32. Teacher, high sch, Minn, 24–25; Ind, 25–26; instr. chem. and math, St. Olaf Col, 26–30; asst. chem, Wisconsin, 30–31; *teacher physical sciences, State Teachers Col, 32–, co-chairman science and math. div. and director summer session, 39–* A.A; fel. Inst. Chem; Chem. Soc; Minn. Acad. Structure of reactants and extent of acetal formation; elementary science teaching problems.

Minneman, Dr. P(aul) G(eorge), U. S. Department of State, Washington, D. C. *Agricultural economics.* July 9, 02. A.B, Ohio State, 24, M.S, 26, Ph.D, 29; Int. Inst. Educ. fellow, Breslau. Asst, Ohio State, 27–29; economist, bur. agr. econ, U. S. Dept. Agr, 29–34, senior economist, agr. adjust. admin, 34–36, for. service, London, 36–39; mem. staff, *U. S. Dept. State,* 39–42, *agr. attaché, Habana, Cuba, 42–* Farm Econ. Asn. Management of large farms; farm management, organization and practises; foreign trade; agriculture of Cuba.

Minnich, Prof. D(wight) E(lmer), University of Minnesota, Minneapolis, Minn. *[*5]Zoology.* Hutchinson, Kans, Jan. 28, 90. A.B, Miami, 10; fellow, Harvard, 16–17, Ph.D, 17. Traveling fellow, Harvard, 17–18; instr. *zool,* Syracuse, 19–20; *Minnesota,* 20–21,. asst. prof, 21–25, assoc. prof, 25–28, *prof, 28–, chairman dept, 30–* Guggenheim Mem. Foundation fellow, 27–28. Trustee and v. pres, Mt. Desert Island Biol. Lab, 36– Am. Soc. Zool. rep, div. biol. and agr, Nat. Research Council, 41– A.A; Soc. Nat; Soc. Zool. (sec'y, 25–30, v. pres, 31); fel. Entom. Soc. General physiology; sensory physiology and behavior of animals; light reactions of animals; physiology of the chemical and mechanical senses of invertebrates and lower vertebrates.

Minnis, Dr. Wesley, 174 Admiral Road, Buffalo, N. Y. *Chemistry.* Cheney, Kans, June 5, 95. B.S, M.S, Washington (Seattle), 16; Nat. Aniline and Chem. Co. fellow, Michigan, 20–22, Ph.D, 22. Asst. chem, Michigan, 16–18; research chemist, Nat. Aniline and Chem. Co, Pa, 18–20; Semet-Solvay Co, N. Y, 22–23; research and develop. chemist, *Nat. Aniline and Chem. Co,* 23–32, *asst. director research and develop, 32–* Chem. Soc. Triarylmethyls containing sulfur; chemistry of thiophene and derivatives; dye intermediates.

Minor, Dr. Edward E(sau), 2500 Taney Road, Baltimore, Md. *Electrical engineering.* Baltimore, Md, Feb. 18, 07. B.E, Hopkins, 30, D.E, 34. Research, Hopkins, 30–35; research asst, div. standards and research, U. S. Dept. Labor, 35–37; *consulting electrical engineer, Glenn L. Martin Co, 37–* Mem, div. eng. and indust. research, cmt. on elec. insulation, Nat. Research Council. Physical Soc; assoc. Elec. Eng. Dielectrics.

Minor, Dr. Jessie E(lizabeth), Hurlbut Paper Co, South Lee, Mass. *Chemistry.* Belleville, Ill, April 17, 80. B.S, Drury Col, 04; fellow, Pennsylvania, 08–10; Ph.D, Bryn Mawr Col, 17. Substitute prof. chem, Drury Col, 06–08; prof, Huguenot, S. Africa, 10–14; assoc. prof, Goucher Col, 17–18; chief chemist, Hamersley Mfg. Co, 18–20; head pulp and paper dept, Emerson Lab, 20–22; chief chemist, Collins Mfg. Co, 22–28; director research, Rag Content Paper Mfrs, 28–32; consulting chemist, Paper Indust, 32–41; *lab. director, Hurlbut Paper Co, 41–* Chem. Soc; Tech. Asn. Pulp and Paper Indust; London Soc. Chem. Indust. Equilibrium reactions; cellulose; beater consistency changes; beater acidities; paper testing; pulp weight factors; chemical testing for paper-mill control; paper permanence.

Minor, Dr. Ralph S(mith), University of California, Berkeley, Calif. *Physics.* Deposit, N. Y, April 29, 76. A.B, Hamilton Col, 98, Root fellow, 98, A.M, 01; Freiburg, 98–99; Ph.D, Göttingen, 02. Teacher, high sch, N. Y, 02–03; instr. *physics,* California, 03–06; assoc. prof, Nevada, 06, prof, 07–09; assoc. prof, *California,* 09–19, *prof, 19–, director sch. optometry, 42–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers. Absorption and refraction of ultra-violet radiation.

Minot, Dr. A(nnie) S(tone), Vanderbilt University Hospital, Nashville, Tenn. *Physiology, Chemistry.* Bath, N. H, April 25, 94. A.B, Smith Col, 15; Ph.D, Radcliffe Col, 23. Lab. asst, Mass. Gen. Hosp, 15–20; research worker, Harvard Med. Sch, 23–26; instr. physiol, Wellesley Col, 25–26; research assoc. pharmacol, sch. med, Vanderbilt, 26–30, *research pediat, Vanderbilt Univ. Hosp, 30–,* asst. prof. and later *assoc. prof. pediat, univ.* Physiol. Soc; Pub. Health Asn. Toxicology of manganese, lead and guanidine poisoning; nutritional studies; general pediatric problems emphasizing management of severe diarrhea; myasthenia gravis and muscular dystrophy.

Minot, Dr. George R(ichards), Thorndike Memorial Laboratory, Boston City Hospital, Boston, Mass. *[*5]Pathology, Medicine.* Boston, Mass, Dec. 2, 85. A.B, Harvard, 08, M.D, 12, hon. Sc.D, 28. Med. house officer, Mass. Gen. Hosp, 12; asst. res. physician, Hopkins Hosp, 13–14, asst. *med,* Hopkins, 14–15; *Harvard Med. Sch,* 15–18, asst. prof, 18–27, clin. prof, 27–28, *prof, 28–; director Thorndike mem. lab. and visiting physician, Boston City Hosp, 28–* Asst, Harvard, 15–16; Mass. Gen. Hosp, 15–18, assoc, 18–23, physician to special clinic, 23–25, special consultant, 25–28, mem. board consultation, 28–; physician, Huntington Mem. Hosp, 17–28, chief med. labs, 23–28; assoc, Peter Bent Brigham Hosp, 25–28, consulting physician, 28–; Beth Israel Hosp, 28–; Charles Mickle fellow, Toronto, 28; Thayer lecturer, Hopkins Hosp, 29; Gordon Wilson lecturer, Am. Clin. and Climat. Asn, 39. Mem, Am. Cmt. Control Rheumatism; cancer cmn, Harvard, 26–40. Kober medal, Asn. Am. Physicians, 29; Nat. Inst. Social Sciences gold medal, 30; shared 'Popular Science Monthly' award, 30; Cameron prize, Edinburgh, 30; Moxon medal, Royal Col. Physicians London, 33; John Scott medal, Phila, 33; shared Nobel prize, 34; gold medal, Humane Soc. Mass, 35; Associated Grocery Mfrs. Asn. of Amer. award, 36. Nat. Acad; A.A; Am. Med. Asn. (chairman sect. practice med, 35); Am. Physicians (pres, 38); Soc. Clin. Invest; Clin. and Climat. Asn. (pres, 33); Tuber. Asn; Soc. Control Cancer; Soc. Exp. Biol; Harvey Soc; Asn. Cancer Research; Philos. Soc; fel. Am. Acad; Interstate Post Grad. Med. Asn. N. Amer. (pres, 42); hon. fel. N. Y. Acad. Med; hon. fel. Inst. Med. Chicago; hon. fel. Royal Soc. Med; hon. fel. Royal Col. Physicians Edinburgh; Leopold-Carol Deuts. Akad. für Naturforscher; for. cor. hon. mem. Belg. Acad. Med; Finnish Soc. Int. Med; hon. mem. Soc. Biol. Chem, India. Clinical medicine; blood diseases; conditions of the blood; liver and pernicious anemia.

Minshall, Dr. W(illiam) H(arold), Central Experimental Farm, Ottawa, Ont, Can. *Plant physiology.* Brantford, Ont, Can, Dec. 6, 11. B.S.A, Ont. Agr. Col, 33; M.Sc, McGill, 38, Ph.D, 41. Asst. bot, *Dom. Dept. Agr, Ottawa,* 33–37, 38–41; *agr. scientist, div. bot, 41–* Can. Soc. Tech. Agr. Effect of herbicides on the physiology of plants; petroleum oils as herbicides; soil hydrogen ion concentration as a weed control factor.

Minton, David C(arson), Jr, National Research Council, 2101 Constitution Ave, Washington, D. C. *Metallurgy.* Okla-

homa City, Okla, May 10, 07. B.S, Arizona, 30, M.S, 31. Manager, Minas Las Animas, Noria, Sonora, Mex, 32–33; develop. engineer and research assoc, Titanium Alloy Mfg. Co, Niagara Falls, N. Y, 34–37; instr. metal, Arizona, 37–38; prof, Philippines, 38–40; research engineer, Battelle Mem. Inst, 40–41; *admin. officer, war metal. cmt, Nat. Acad. Sciences-Nat. Research Council, 42–* Min. and Metal. Eng. (sec'y-treas, Philippine sect, 39). Ore dressing; process metallurgy; hydrometallurgy.

Minton, Dr. John Preston, P. O. Box 900, Magnolia Petroleum Co, Dallas, Texas. *Physics.* Wapulla, Ill, Nov. 7, 89. B.S, Mass. Inst. Tech, 12; Ph.D, Chicago, 21. Physicist, Gen. Elec. Co, 12–15; Bell Tel. Labs, 15–19; nat. research fellow, Chicago, 21–22; chief acoustic div, research dept, Radio Corp. Amer, 22–26; consulting engineer, New York, 26–34; director geophys. research, geol. dept, *Magnolia Petrol. Co,* 36–42, *assoc. director field research dept. and in charge physics div, 42–* A.A; fel. Physical Soc; fel. Radio Eng; Soc. Explor. Geophys. Acoustics; radio communication; exploration geophysics; petroleum physics.

Mintz, Dr. Esther U(ress), 124 Hance Road, Fair Haven, N. J. *Physics.* New York, N. Y, May 18, 07. A.B, Hunter Col, 28; A.M, Columbia, 31; Ph.D, N. Y. Univ, 36. Tutor physics, Hunter Col, 28–31, temporary instr, 32–33, instr, exten. div, 34–37; asst. biophys, *Columbia,* 37–39, *instr. exten. div, 39–; temporary instr. physics,* Hunter Col, 41–42; *Eatontown Sig. Lab, Sig. Corps Ground Sig. Service, 42–* Physical Soc. Spectroscopy, chiefly hyperfine structure.

Mirabelli, Prof. Eugene, Massachusetts Institute of Technology, Cambridge, Mass. *Civil engineering.* Boston, Mass, July 29, 98. B.S, Mass. Inst. Tech, 18. Asst. engineer, McClintic-Marshall Co, Pittsburgh, 19–20; instr. civil eng, *Mass. Inst. Tech,* 20–28, asst. prof. *struct. design,* 28–38, *assoc. prof, 38–* Construction engineer, City of Boston, 22–24; engineer, Fay, Spofford and Thorndike, Boston, 22–31; research on building codes and cost of building material, 25–26; consulting engineer, 27– Civil Eng; Eng. Educ; Concrete Inst; Boston Soc. Civil Eng. Structural design.

Miron, Dr. Simon, 404 Hardy Ave, El Dorado, Ark. *Organic chemistry.* Long Island City, N. Y, Sept. 4, 15. A.B, Rice Inst, 36, Hohenthal scholar, 35–36, fellow, 37–38, A.M, 38; Ph.D, Pittsburgh, 41. Asst. chem, Rice Inst, 36–37; Pittsburgh, 38–41; *org. research chemist, Lion Oil Ref. Co, 41–* Chem. Soc. Reaction between 2-pentene and chlorosulfonic acid; preparation of bis-(substituted aryloxy) methanes.

Mirov, Dr. N(icholas) T(iho), U. S. Forest Service, Berkeley, Calif. *Forestry.* Siberia, Jan. 11, 93. M.S, California, 31, 32–34, Ph.D, 36. Asst. silviculturist, South. Forest Exp. Sta, U. S. Forest Service, 29; manager, Calif. Timber Products, Inc, 29–30; forester, Calif. Chem. Corp, 30–32; asst. silviculturist, *Calif. Forest Exp. Sta, U. S. Forest Service,* 34–36, *silviculturist, 36–* Biochemical investigation of forest trees; physiology of germination.

Miroylannis, Prof. Stanley Demetrius, Northeastern University, Boston, Mass. *Biology.* Metelin, Greece, Nov. 24, 03. B.S, Northwest Nazarene Col, 27; Mass. State Col; A.M, Boston, 29, Ph.D, 39. Asst. *biol,* Boston, 29–31, teaching fellow, 31–36, instr, col. and exten, 34–36; consultant, *Northeastern,* 35–36, asst. prof, 36–39, assoc. prof, 39–40, *prof. and head dept, 40–, director summer sch, 40–* Lecturer, New Eng. Inst, 33–43. Summers, lecturer, Boston, 33–36; Lincoln schs, 36–40. A.A; Entom. Soc; Soc. Mammal; Asn. Biol. Teachers; assoc. N. Y. Acad. Comparative anatomy and histology of the seminal vesicles of rodents and other mammals.

Mirsky, Dr. Alfred E(zra), Rockefeller Institute, New York, N. Y. *Biochemistry.* Flushing, L. I, N. Y, Oct. 17, 00. A.B, Harvard, 22, 25–26; Ph.D, Cambridge, 25. Nat. research fellow, 24–26; asst. chem. med, *Rockefeller Inst. Hosp,* 27–29, assoc, 29–40, *assoc. mem, 40–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Genetics Soc; Harvey Soc. Hemoglobin; proteins; nucleoproteins; chromatin.

Mirsky, Dr. I(sadore) Arthur, May Institute for Medical Research, Jewish Hospital, Cincinnati, Ohio. *Experimental medicine.* Montreal, Que, Can, March 28, 07. B.Sc, McGill, 27, M.Sc, 29, M.D, 31. Oliver Rhea fellow, N. Y. Post-Grad. Hosp, 31–32; Richard Morton Koster fellow, Crown Heights Hosp, Brooklyn, N. Y, 32–33; asst. director dept. metabolic research, Nelson Morris inst, Michael Reese Hosp, Chicago, Ill, 33–35; *director, May inst. med. research, Jewish Hosp, Cincinnati, Ohio, 35–; asst. prof. biochem, Cincinnati, 40–* A.A; Am. Med. Asn; Physiol. Soc; Asn. Study Int. Secretions; Soc. Exp. Biol; Diabetes Asn. Carbohydrate and fat metabolism; endocrinology.

Misbach, Dr. Lorenz, University of Kansas City, Kansas City, Mo. *Psychology.* LeRoy, Kans, March 13, 01. A.B, Baker, 29; A.M, Northwestern, 30, fellow, 31–32, Ph.D, 33. Asst. psychol, Northwestern, 33, lecturer and asst. *psychol,* 35; nat. research fellow, Hopkins, 34–35; instr, *Univ. Kansas City,* 35–38, *asst. prof, 39–, chairman dept, 41–* Assoc. Psychol. Asn. Reciprocal inhibitory and facilitatory effects of concomitant reactions.

Misener, Dr. A(ustin) D(onald), University of Toronto, Toronto, Ont, Can. *Physics.* Toronto, Ont, Jan. 19, 11. B.A. and M.A, Toronto, 34; 1851 Exhib. scholar, Cambridge, 36–38, Ph.D, 38. Research fellow, Bristol, 38–39; *lecturer and demonstrator physics, Toronto, 39–* Fel. Physical Soc. London. Superconductivity and properties of liquid helium.

Miser, Hugh D(insmore), U. S. Geological Survey, Washington, D. C. (It is requested that biographical data be not printed.)

Miser, Dr. Wilson L(ee), Vanderbilt University, Nashville, Tenn. *Mathematics.* Pea Ridge, Ark, June 26, 86. A.B, Arkansas, 08; A.M, Yale, 11; fellow, Chicago, 12–13, Ph.D, 13. Prin, high sch, Ark, 08–10; instr. *math,* Minnesota, 13–15; asst. prof, Arkansas, 15–19; assoc. prof, Armour Inst. Tech, 19–25; *prof, Vanderbilt, 25–* A.A; Math. Soc; Math. Asn. Linear differential equations.

Mises, Dr. Richard (Edler) von, Harvard University, Cambridge, Mass. **†Mathematics.* Austria, April 19, 83. Dr.Tech, Vienna, 08; hon. Dr, Brussels; 35. Lecturer applied math, Brno German Tech. High Sch, 08–09; assoc. prof, Strassburg, 09–18; prof, Tech. Univ. Dresden, 18–20; prof. applied math. and director inst. applied math, Berlin, 20–33; prof. *pure and* applied math, Istanbul, 33–39; *lecturer applied mech, Harvard, 39–; fluid mech, Mass. Inst. Tech, 40–* Fel. Inst. Aeronaut. Sciences; fel. Inst. Math. Statist. Applied mathematics and mechanics; theory of probability and statistics; aeronautical and mechanical engineering; philosophy of science.

Mishulow, L(ucy), 235 E. 22nd St, New York, N. Y. *Bacteriology.* Russia, Sept. 25, 86. A.B, Nor. Col, New York, 11. Asst. bacteriologist, *Dept. Health, N. Y,* 16–19, bacteriologist, 20–38, *senior bacteriologist, 38–; instr. bacter. and immunol,* Univ. and Bellevue Hosp. Med. Col, 18–35, *lecturer, col. med, N. Y. Univ, 35–* Examiner, Nat. Board Med. Examiners, 28. A.A; Soc. Bact; Pub. Health Asn. Hemolytic streptococci; pertussis classifications; preparation, agglutinin stimulation, storage and potency of vaccines; meningococcus mouse protection; bacillus Calmette Guérin virulence; isolation and differentiation of Bacillus tuberculosis; cultural diagnosis of tuberculosis versus guinea pig inoculation; protective and other antibodies after pertussis infection and after vaccination.

Misner, Prof. E(dward) G(ardner), 221 Cornell St, Ithaca, N. Y. *Agriculture.* Dairyland, N. Y, Jan. 23, 91. B.S, Cornell, 13, Ph.D, 18. Asst. prof. *farm management, Cornell,* 18–20, *prof, 20–* Farm management.

Mitchell, Prof. Alfred K(ing), Trinity College, Hartford, Conn. *Mathematics.* Washington, D. C, Nov. 3, 03. A.B, Hopkins, 25, A.M, 27, Ph.D, 29. Junior instr. *math,* Hopkins, 25–29; instr, Yale, 29–31; *asst. prof, Trinity Col. (Conn), 31–* A.A; Math. Soc; Math. Asn. Tensor analysis; matrix theory.

Mitchell, Prof. A(llan) C(harles) G(ray), Indiana University, Bloomington, Ind. **†Physics.* Houston, Texas, Oct. 1, 02. B.S, Virginia, 23, M.S, 24; Ph.D, Calif. Inst. Tech, 27; Göttingen, Munich, 27–28. Teaching fellow chem, Virginia, 23–24; Calif. Inst. Tech, 24–27; fellow, Bartol Research Foundation, 28–31; asst. prof. *physics,* N. Y. Univ, 31–34, assoc. prof. and chairman dept, 34–38; *prof. and head dept, Indiana, 38–,* official investigator, Office Sci. Research and Develop, 42–43. Research assoc, Mass. Inst. Tech, 40; Chicago, 42. Assoc. ed, 'Jour. Chem. Physics,' 32–34; 'Physical Rev,' 40–43. A.A; fel. Physical Soc. (v. pres, Metropolitan sect, 35). Resonance radiation; statistical mechanics; nuclear physics.

Mitchell, C(harles) L(yman), 1340 Jefferson St, N. W, Washington, D. C. *Meteorology.* Dunningsville, Pa, March 25, 83. Grad, Pa. State Nor. Sch, California, 01. Teacher, schs, Pa, 01–04; asst. observer and observer, *U. S. Weather*

Bur, 04–15, asst. dist. forecaster, Chicago, 15–20, *dist. forecaster, Washington, D. C, 20–* A.A; Meteorol. Soc; Inst. Aeronaut. Sci; Philos. Soc. Wash. West Indian hurricanes and other tropical cyclones of the north Atlantic Ocean; cyclones and anticyclones of the northern hemisphere.

Mitchell, Dr. C(laude) W(illiam), Silver Spring, Md. *Zoology, Medicine.* Hiawatha, Kans, May 27, 89. A.B, Nebraska, 10, fellow, 10–13, A.M, 11, Ph.D, 13; M.D, Rush, Chicago, 16; Dr.P H, Hopkins, 25. Instr. physiol. and pharmacol, Nebraska, 13–14; pharmacologist, bur. chem, U. S. Dept. Agr, 14–15; prof. physiol. and pharmacol, Alabama, 16–17; asst. surgeon, *U. S. Pub. Health Service*, 17–21, passed asst. surgeon, 21–25, *physician and surgeon, 25–* A.A; Am. Med. Asn. Pharmacology; heredity in rotifers; action of chemicals on the peristaltic movements of the intestines; Vincent's angina; carbon monoxide and hydrogen sulfide poisoning; diphtheria.

Mitchell, Dr. Dana P(aul), 334 Langdon Ave, Mt. Vernon, N. Y. *Physics.* Fowler, Ind, May 2, 99. B.S, Tri-State Col, 18; Ph.D, Columbia, 36. Prof, Tri-State Col, 18–21; asst. *physics, Columbia*, 21–24, instr, 24–37, *asst. prof, 37–, in charge purchases and lab. service, 24–; mem. staff, Nat. Defense Research Cmt, 40–* Fel. Physical Soc. X-ray spectrography; neutron interactions; nuclear research.

Mitchell, Dr. David, 106 E. 81st, New York, N. Y. *Psychology.* Aldershot, Ont, Can, Oct. 13, 84. B.A, Toronto, 10; A.M, Pennsylvania, 11, fellow, 12–14, Ph.D, 13. Instr. psychol, Pennsylvania, 14–17; director psychol. research, Bur. Educ. Experiments, 17–19; *consulting psychologist, New York, 19–* Lecturer, Teachers Col, Columbia, 23–24; visiting prof, Ohio State, 31–32. Summers, assoc. prof, Rutgers, 21–27; N. Y. Univ, 28. A.A; Psychol. Asn. Psychophysics; the influence of distraction in lifted weight experiments; the constant time error; exceptional children; clinical psychology; the preschool child.

Mitchell, Prof. David R(ay), Pennsylvania State College, State College, Pa. *Mining.* Bells Landing, Pa, June 12, 98. B.S, Pa. State Col, 24, M.S, 27; E.M, Illinois, 30. Jr. engineer, Bethlehem Mines Corp, 24–26; instr, Illinois, 27–29, assoc, 29–30, asst. prof. min. and metal. eng, 30–37, assoc. prof, 37–38; *prof. mining eng. and head dept. mining, Pa. State Col, 38–* Assoc. ed, 'Mechanization.' Inst. Min. and Metal. Eng. (sec'y coal div, 37–); Coal Mining Inst; Mining Cong; Ill. Mining Inst. Mineral dressing; coal utilization; coal preparation.

Mitchell, Prof. F(erdinand) H, University of Alabama, University, Ala. *Physics.* Mobile, Ala, Sept. 11, 08. B.S, Alabama, 32, A.M, 37; du Pont senior fellow, Virginia, 39–40, du Pont research fellow, 40–41, Ph.D, 41. Instr. physics and astron, *Alabama*, 35–42, *asst. prof. physics, 42–* Physical Soc. Conduction of electricity through gases; high speed cathode ray oscillography.

Mitchell, Dr. Graham John, 444 Pittock Block, Portland, Oregon. *Mining geology.* San Francisco, Calif, Sept. 4, 87. B.S, Oregon, 12; A.M, Columbia, 13, Ph.D, 18. Instr. geol, Oregon, 13–14, geologist, State Bur. Mines and Geol, Oregon, 13–16, asst. prof, 14–16; asst, Columbia, 16–18; geologist, Calumet and Ariz. Mining Co, 18–21; private geol. examinations, 21–22; chief geologist, Cananea Consol. Copper Co, 22–27; private geol. examinations, 27–29; in charge S. African office, Raymond Brooks, 29–32; consulting geologist, 32–42; *senior engineer, Reconstruction Finance Corp, 42–* Geologist, N. Y. Acad, P. R. Surv, 17. Min. and Metal. Eng; hon. mem. Condon Geol. Soc.

Mitchell, Prof. H(arold) H(anson), University of Illinois, Urbana, Ill. *Nutrition.* Evanston, Ill, Jan. 22, 86. A.B, Illinois, 09, M.S, 13, Ph.D, 15. Asst. chem, *Exp. Sta, Illinois*, 11–13, assoc. *animal nutrition*, 13–18, asst. prof, 18–20, assoc. prof, 20–25, *prof, 25–* A.A; Soc. Biol. Chem; Soc. Animal Production; Inst. Nutrition; Soc. Exp. Biol. Animal nutrition; nutritive value of proteins; protein, energy and mineral requirements of farm animals; protein and energy values of farm feeds; utilization of calcium and phosphorus in foods; calcium and protein requirements of man.

Mitchell, Harold L(oren), Southern Forest Experiment Station, Lake City, Fla. *Forestry.* Paw Paw, Mich, Feb. 4, 07. B.S, Minnesota, 30; fellow, Harvard, 31–32, M.F, 32. Instr. bot, Minnesota, 29–30; field asst. silviculture, Lake States Forest Exp. Sta, U. S. Forest Service, 30–31; asst, Harvard Forest, 31–33; Black Rock Forest, 32–33, asst. director, 33–39; assoc. silviculturist, Allegheny Forest Exp. Sta, *U. S. Forest Service*, 39–40, in charge flood control surv, New Eng. region, 40–41, silviculturist, *South. Forest Exp. Sta*, 41–42, *senior silviculturist in charge naval stores research, 42–* Soc. Foresters; Soc. Plant Physiol; Soil Sci. Soc. Tree physiology; nutrition and light requirements; naval stores production; genetics; forest soils.

Mitchell, H(arold) S(enior), Swift and Co, Chicago, Ill. *Chemistry.* Little Falls, N. Y, Nov. 12, 90. B.S, Syracuse, 12. Anal. chemist, *Swift and Co*, 12–20, research chemist and sales service, 20–39, asst. chief chemist, 39–41, *chief chemist, 41–* Chem. Soc; Oil Chemists Soc. (pres, 42); Asn. Cereal Chem; Soc. Bakery Eng. Fats and oils; shortenings; soap and glycerine; meat and meat products.

Mitchell, Dr. Helen S(wift), Massachusetts State College, Amherst, Mass. *Nutrition.* Bridgeport, Conn, Sept. 21, 95. A.B, Mt. Holyoke Col, 17; Ph.D, Yale, 21. Instr, high sch, N. Y, 17–18; prof. nutrition, Battle Creek Col, 21–32, physiol. and nutrition, 32–35; *research prof. nutrition, home econ. div, Mass. State Col, 35–; chief nutritionist, supply and transport div, Office For. Relief and Rehabilitation Operations, 43–* Director nutrition research, Battle Creek Sanitarium, 21–32; prin. nutritionist, nutriton div, Office Defense Health and Welfare, 41–43. Inst. Nutrition (councilor, 38); Dietetics Asn; Soc. Biol. Chem; Soc. Exp. Biol; Home Econ. Asn. Nutritional anemia; cataract in rats.

Mitchell, Henry Bedinger, Chapel Farm, Riverdale-on-Hudson, New York, N. Y. *Mathematics, Philosophy.* Long Island, N. Y, Aug. 12, 74. Columbia, 91–92, E.E, 98, A.M, 00. Asst. math, Columbia, 98–00, tutor, 00–05, adj. prof, 05–08, prof, 08–25; *chairman board, Griscom-Russell Co, New York.* Sec'y faculty, Columbia, 07–09, chairman cmt. on admissions, 08–09, cmt. on instruction, 09–10, univ. council, 24–25. A.A; Math. Soc. Polynomial equations; geometrical approximations; loci included in singular solutions of differential equations; philosophy of the infinite.

Mitchell, Prof. H(enry) Rees, The Citadel, Charleston, S. C. *Physics.* New London, Conn, Oct. 13, 08. B.S, Trinity Col. (Conn), 31; Ph.D, Hopkins, 38. Instr. math, Gettysburg Col, 37–38; *asst. prof. physics, The Citadel, 38–* Physical Soc. Electrical behavior of thin metallic films condensed at low temperatures.

Mitchell, Hugh C(hester), 3038 Newark St, Washington, D. C. *Geodesy, Astronomy.* Jackson Co, Texas, April 15, 77. C.E, Notre Dame, 95, B.S, 98. Computer and mathematician, *U. S. Coast and Geod. Surv*, 03–11, senior mathematician, 21–40, *prin. mathematician, 41–, chairman cmt. preparing definitions of surveying and mapping terms, 38–* Catholic Univ, 26–35. Engineer in charge, Topog. Surv, Cincinnati, 12–13. A.A. Triangulation; use of triangulation in city surveys; use of state plane coordinate systems for engineering and cadastral surveys; Peary's North Pole observations; Byrd's North Pole and South Pole observations.

Mitchell, Prof. J(ack) H(arris), Clemson Agricultural College, Clemson, S. C. *Chemistry.* Zebulon, Ga, Sept. 23, 81. B.S, Ala. Polytech, 03, M.S, 04; M.S, Illinois, 11. Asst. chemist, Ala. Polytech, 04–05; fertilizer div, *Clemson Col*, 05–10, asst. prof. *chem*, 11–14, assoc. prof, 14–19, *prof, 19–, chemist, Exp. Sta, 27–* Chem. Soc; S. C. Acad. Mineral elements in cattle feeds; oil content of cotton seed; organic and mineral content of pasture grasses; carotene; iodine in plants, soils and rocks; organic composition of asparagus crowns; pasture fertilizers; mineral balance in live stock; mineral and vitamin composition of vegetables; nutritional studies on sweet potatoes; hemoglobin studies on rural school children; cobalt in plants and soils.

Mitchell, Dr. Jack H(arris), Jr, Purdue University, Lafayette, Ind. *Organic chemistry.* Auburn, Ala, Sept. 15, 11. B.S, Clemson Agr. Col, 33; Columbia, 36–37; Ph.D, Purdue, 41. Asst. chemist, State Lab, S. C, 33–36; asst, Columbia, 36–37; Purdue, 38–40, asst. chemist, agr. chem. dept, 40–41; research chemist, Am. Meat Inst, 41–42; *lieut, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Absorption spectra of blown and heat bodied linseed oils; improvement of vegetable oils by catalysis bleaching agents on absorption spectra of fatty acids; quantitative analysis for fatty acids of fat based on the absorption spectra.

Mitchell, Dr. J(ames) A(lbert), 306 Crosby Ave, Kenmore, N. Y. *Chemistry.* Baltimore, Md, June 10, 06. B.S, Hopkins, 27, Ph.D, 30. Instr. chem, Hopkins, 30–31; *research*

chemist, E. I. du Pont de Nemours and Co, 31– Chem. Soc. Organic and catalytic chemistry.

Mitchell, Dr. J(ames) B(oswell), Jr, Porterdale, Ga. *Pharmacology.* Macon, Miss, Feb. 13, 02. B.S, M.S, Emory, 23; Ph.D, Chicago, 28; M.D, Tennessee, 37. Instr. zool, Emory, 23–26; Northwestern, 26–27; asst, Chicago, 27–28; assoc. prof, Georgia, 28–30; instr. pharmacol, sch. med, St. Louis, 30–33; asst. prof, col. med, Tennessee, 33–39; *practising physician, 39–* Action of drugs on smooth muscle and viscera.

Mitchell, Prof. J(ohn), University of Saskatchewan, Saskatoon, Sask, Can. *Soils.* Bradwardine, Man, March 7, 97. B.S.A, Saskatchewan, 24; scholar, Wisconsin, 27–29, M.S, 29, fellow, 30–31, Ph.D, 31. Asst. *soils, Saskatchewan,* 24–30, asst. prof, 30–36, *prof. and head dept, 36–* Summers, field husbandman, Can. Govt, 28, 29. Mem, Land Utilization Board, Sask. Soc. Agron; Soil Sci. Soc; Can. Soc. Tech. Agr; Int. Cong. Soils. Soil survey; available phosphorus in Saskatchewan soils; base exchange properties of soil organic matter.

Mitchell, J(ohn) Alfred, U. S. Forest Service, University Farm, St. Paul, Minn. *Forestry.* Detroit, Mich, April 1, 86. B.S, Mich. State Col, 09, M.F, 25. Forest asst, *U. S. Forest Service,* 09–13, forest examiner, 13–18, in charge silvical investigations, 11–14, Feather River Exp. Sta, 14–18, inspector state cooperation, 18–23, *silviculturist, Lake States Forest Exp. Sta, 23–* Soc. Foresters. Slash disposal; incense cedar; forest fires in the Lake States.

Mitchell, Dr. John J(acob), 40 North St, Beacon, N. Y. *Chemical physics.* Schenectady, N. Y, March 4, 17. Ph.D, Hopkins, 41. Lab. asst. chem, Hopkins, 40–41; *chemist, physical research dept, Texas Co, 41–* A.A; Chem. Soc. Application of mass spectroscopy to gas analysis.

Mitchell, Prof. J(ohn) Pearce, Stanford University, Calif. *Chemistry.* Providence, R. I, June 4, 80. A.B, Stanford, 03, A.M, 04, Ph.D, 09; Leipzig, 04–05. Asst. *chem, Stanford,* 01–04, instr, 05–09, asst. prof, 09–16, assoc. prof, 16–20, *prof, 20–, registrar, 25–* A.A; Chem. Soc; Chem. Eng. Physical chemistry; methods and standards for water analysis; smoke damage to vegetation.

Mitchell, Dr. John W(illiam), 9007 Flower Ave, Silver Spring, Md. *Plant physiology.* Hornell, N. Y, Sept. 16, 06. B.S, Idaho, 28, M.S, 29; Ph.D, Chicago, 32. Asst. plant physiol, Chicago, 31–38; physiologist, *bur. plant indust, U. S. Dept. Agr,* 38–42, *in charge guayule research, 42–* Plant hormones and growth-regulating substances.

Mitchell, Prof. Lane, Georgia School of Technology, Atlanta, Ga. *Ceramic engineering.* Atlanta, Ga, July 14, 07. B.S, Ga. Tech, 29; M.S, Illinois, 31; Rutgers, 31–32; Emory, 33; Edward Orton, Jr, fellow, Pa. State Col, 40–41, Ph.D, 41. Teacher, high sch, Ga, 32–34; asst. state geologist, Ga. Geol. Surv, 34–36; asst. prof. *ceramic eng, Ga. Tech,* 36–38, assoc. prof, 38–40, *prof. and head dept, 41–; lieut, U. S. Naval Res, 43–* Ceramic Soc. (sec'y educ. council, 40); Inst. Ceramic Eng; Ga. Acad; Ga. Miner. Soc. (sec'y, 35–38). The nature of clays; ceramic processes; Georgia kaolins; electronics.

Mitchell, Prof. Louis, 205 Berkeley Drive, Syracuse, N. Y. *Civil engineering.* Tippecanoe City, Ohio, Feb. 12, 85. B.S, Earlham Col, 09; B.S, Purdue, 10; M.S, Mass. Inst. Tech, 15, Harvard, 15. Instr. *civil eng, Syracuse,* 10–12, asst. prof, 12–15, assoc. prof, 15–19, *prof, 19–, dean,* 22– Consulting engineer. Mem, Syracuse Grade Crossing Cmn, 25–30. A.A; Civil Eng; Eng. Educ; Soc. Test. Mat. Hydraulics.

Mitchell, Dr. Mildred B(essie), Bureau for Psychological Services, Globe Bldg, St. Paul, Minn. *Psychology.* Rockford, Ill, Dec. 25, 03. A.B, Rockford Col, 24; A.M, Radcliffe Col, 27, 28–29; fellow, Yale, 30–31, Ph.D, 31. Prof. educ. and math, Lees Col, 27–28; reader psychol, Yale, 30–31; psychologist, George Sch, 31–33; N. H. State Hosp, 33–36; vocational director, Nat. Youth Admin, 36–37; Bellevue Hosp, 37–38; chief psychometrist, Psychopath. Hosp, Iowa, 38–39; *psychologist,* Mt. Pleasant and Independence State Hosps, 39–41; *State Bur. Psychol. Services, Minn, 41–* A.A; Psychol. Asn; Asn. Applied Psychol. Experimental and abnormal psychology; memory; waking suggestion; hypnosis; tests.

Mitchell, Prof. O(liver) W(endell) H(olmes), Syracuse University, Syracuse, N. Y. *Public health.* Lancaster, Mo, Aug. 17, 86. M.D, Missouri, 08; Rush, Chicago, 09, Chicago, 10; Harvard, 13–15. Asst. path. and bacter, Missouri, 06–08, asst. path. and anesthetist to hosp, 09–10, instr. path. and bacter, 10–12, asst. prof, 12–13, assoc. prof, 13–14; bacter, *Syracuse,* 14–15, *prof.* bacter. and pub. health, 16–43, *pub. health, 43–* City bacteriologist, Syracuse, 14–18. A.A; Soc. Bact; Asn. Path. and Bact; Soc. Exp. Biol; Am. Med. Asn. Skin disinfection; pneumonitis of rodents; viability of Bacillus typhosus; pneumococcus; Staphylococcus aureus; gas gangrene.

Mitchell, Prof. Philip H(enry), Brown University, Providence, R. I. *Physiology.* Southbury, Conn, Dec. 13, 83. Ph.B, Yale, 04, Ph.D, 07. Instr. *physiol, Brown,* 07–11, asst. prof, 11–20, assoc. prof, 20–26, *prof, 26–* Director biol. sta, Bur. Fisheries, Marine Biol. Lab, Woods Hole, 14–20; asst. prof, R. I. Col. Pharmacy. A.A; Soc. Biol. Chem. Utilization of carbohydrates; enzymes concerned with carbohydrate metabolism in the embryo; purin metabolism in the embryo; distribution of purin enzymes; nutrition of oysters; oxygen requirements of shellfish; selective absorption of potassium by animal cells.

Mitchell, R(alph) W(aldo), Bishop College, Marshall, Texas. *Chemistry.* Gatesville, N. C, Oct. 22, 95. B.S, Shaw, 23; A.M, Cornell, 28. Instr, high sch, N. C, 23–25; high sch. sciences, Va. State Col, 27–28; prof. chem. and head dept, Claflin Col, 28–30; Tuskegee Inst, 30–32; head dept. science, Fla. Agr. and Mech. Col, 32–33; prof. chem, Morehouse Col, 33–34; *director* dept. sci, Jackson Col, 34–37; N. C. Col. for Negroes; *dept. chem, Bishop Col.* Consulting chemist, Chem. Specialty Co. A.A; Chem. Soc; Va. Acad. Oxidation processes with mono- and di-deelectronators; oils of the cotton plant seedling.

Mitchell, Dr. R(aymond) L(uther), 601 W. Olin Ave, Madison, Wis. *Chemistry.* Killeen, Texas, July 27, 06. A.B, Hardin-Simmons, 26, A.M, 27; Washington (Seattle), 27–29; Ph.D, Wisconsin, 33. From junior chemist to *research chemist, Forest Products Lab, U. S. Forest Service, 30–* Chem. Soc. Chemistry of the lignin and carbohydrates of woods.

Mitchell, Prof. Robert H(amilton), 19 S. Liberty St, New Concord, Ohio. *Geology.* Philadelphia, Pa, April 3, 03. A.B, Muskingum Col, 25; A.M, Ohio State, 29; Chicago, 28. Asst, Ohio State, 27–29; instr. *geol, Muskingum Col,* 29–30, *asst. prof, 30–* Summers, instr, Muskingum, 24; mem. staff, State Conservation Lab, Ohio, 41; N. Dak. Geol. Surv, 42. A.A; Ohio Acad. Insoluble limestone residues; Pennsylvanian amphibians; geologic structures, especially mountains; stratigraphy of Pennsylvanian system; fossil footprints; laboratory studies of mountain structures; sedimentation in lakes; mass movements.

Mitchell, Dr. R(obert) W(atkeys), Lawrence Ave, Westfield, N. J. *Chemistry.* B.S, Mass. Inst. Tech, 15, M.S, 24, Ph.D, 26. Research chemist, Benzol Production Co, 15–16; asst. manager, Commercial Electrolytic Corp, 19–21; instr. chem, Mass. Inst. Tech, 21–29; *v. pres. and tech. director, Magnus Chem. Co, Garwood, 26–* U.S.A, 17–19. Chem. Soc; Electrochem. Soc. Electrochemical oxidation of toluene; castile soap; industrial cleaning; detergents; the cleaning of metal; tumbling and barrel burnishing.

Mitchell, Dr. Roland B(urnell), 603 N. Locust, Denton, Texas. *Bacteriology.* Denton, Texas, March 24, 10. B.S, N. Texas State Teachers Col, 32; A.M, Texas, 37, Ph.D, 39. Supervisor science teacher training, Southwest Texas Teachers Col, 35–37; bacteriologist, bur. plant indust, U. S. Dept. Agr, 37–42; regional lab. director, State Pub. Health Lab, Texas, 42; *asst. to chief lab. service, Sta. Hosp, Santa Ana U. S. Army Air Base, 42–* Soc. Bact; Texas Acad. Relation of soil microbial activities to the elimination of root-rot parasites from soil; cytology of Bacterium globiforme and soil Mycobacteriaceae; physiological investigations of the Neisseria group of organisms; soils and public health.

Mitchell, Prof. S(amuel) A(lfred), University, Va. **²*Astronomy.* Kingston, Ont, Can, April 29, 74. M.A, Queen's (Can), 94, LL.D, 24; Ph.D, Hopkins, 98; LL.D, Western Ontario, 40. Asst, Yerkes Observatory, Chicago, 98–99; tutor *astron,* Columbia, 99–06, instr, 06–08, adj. prof, 08–13; *prof, Virginia, and director, McCormick Observatory, 13–* Observer total solar eclipses, Ga, 00, Sumatra, 01, Spain, 05, Oregon, 18, Calif, 23, Conn, 25, Norway, 27, Niuafoou, 30, Que, 32, Canton, 37; astronomer, Yerkes Observatory, Chicago, 07, 09, 10–13; Ernest Kempton Adams research fellow, Columbia, 14–21. Nat. Acad. (councilor, 40–); A.A. (chairman, D, 21); Astron. Soc. (v. pres, 25–27); Asn. Variable Star Observers; Philos. Soc; Am. Acad; Asn. Univ. Prof. (pres, 34, 35); fel. and for.

assoc. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; Int. Astron. Union (pres, cmt. on eclipses). Stellar parallaxes; variable stars; proper motions; eclipse spectra.

Mitchell, Prof. T(heodore) B(ertis), 1007 W. Peace St, Raleigh, N. C. *Entomology.* Cambridge, Mass, Oct. 26, 90. B.S, Mass. Col, 20; M.S, N. C. State Col, 24; Sc.D, Harvard, 28. Nursery inspector, State Dept. Agr, N. C, 20–25; asst. prof. *zool. and entom, N. C. State Col,* 25–30, assoc. prof, 30–38, *prof, 38–* A.A; assoc. Entom. Soc; Asn. Econ. Entom; N. C. Acad. Systematic entomology; Apoidea; Megachilinae.

Mitchell, Thomas J(oseph), Pickens, S. C. *Geodesy.* Carsonville, Mich, Oct. 8, 88. B.C.E, Michigan, 12. Surveyman, U. S. Lake Surv, 12–13, junior engineer, 13–20; asst. prof. geod. and surv, Michigan, 20–34; asst. geod. engineer, U. S. Coast and Geod. Surv, 34–37; C.Eng, 37–39; *works manager, Poinsett Library and Mfg. Co. and gen. manager, Pickens R.R. Co, 39–* Consulting engineer, Univ. Mich. exped, Greenland, 26–29. Civil Eng; Mich. Eng. Soc. Management.

Mitchell, Dr. Walter M(ann), 1915 E. Market St, York, Pa. *Metallurgy.* Philadelphia, Pa, April 5, 80. B.S, Pennsylvania, 02; Ph.D, Princeton, 05. Asst, Allegheny Observatory, Pittsburgh, 06; director observatory, Haverford Col, 07–09; asst. prof. astron, Michigan, 10–13; metal. engineer, Midvale Steel Co, 15–18; supt. metal. and testing lab, Standard Roller Bearing Co, 19–20; metal. engineer, E. I. du Pont de Nemours and Co, Del, 23–26; asst. sales manager, Cent. Alloy Steel Corp, 26–30; Republic Steel Corp, 30–32; metal. engineer, U. S. Steel Corp. Subsidiaries; *mem. staff, York Safe and Lock Co.* Aeronaut. mech. engineer in charge inspection, Bur. Aircraft Production, 18–19. Soc. Metals; Welding Soc; Franklin Inst. Solar spectroscopy; history of solar observations; alloy steels; heat and corrosion resisting alloys.

Mitchell, Prof. Wesley C(lair), 2 Horatio St, New York, N. Y. *Economics.* Rushville, Ill, Aug. 5, 74. A.B, Chicago, 96, Ph.D, 99, LL.D, 29; LL.D, Columbia, 29, California, 36, Princeton, 41; M.A, Oxford, 30; D.Litt, Harvard, 36; Sc.D, Pennsylvania, 40. Instr. econ, Chicago, 00–02; asst. prof. commerce, California, 02–08, prof. polit. econ, 09–12; lecturer *econ, Columbia,* 13–14, *prof,* 14–19, *22–; director research, Nat. Bur. Econ. Research, New York, 19–* Lecturer, Harvard, 08–09; New Sch. for Social Research, 19–21; George Eastman visiting prof, Oxford, 30–31; Kennedy prof, California, 34; Messenger lecturer, Cornell, 35. Chairman, Social Sci. Research Council, 27–30; President Hoover's Research Cmt. on Social Trends, 29–33; mem. Nat. Planning Board, Pub. Works Admin, 33–34, Nat. Resources Board, 34–35, Nat. Resources Cmt, 35. Chief price sect, W.I.B, U.S.A, 18–19. A.A. (chairman, K, 33, pres, 38); Statist. Asn. (past pres); Econometric Soc. (pres); Econ. Asn. (past pres); Philos. Soc; Am. Acad; Acad. Polit. Sci; hon. fel. Royal Statist. Soc; fel. Royal Econ. Soc; fel. Manchester (Eng) Statist. Soc; Int. Inst. Statist. Statistical economics; effects of inconvertible monetary standards; foundations of economic theory; business cycles; national planning.

Mitchell, Dr. W(illia)m Hinckley, Jr, Rutgers University, New Brunswick, N. J. *Physiology.* East Orange, N. J, June 5, 03. B.S, Rutgers, 25; A.M, Harvard, 26, Ph.D, 29. Asst. zool, Radcliffe Col, 28–29; agent, physiol. research, bur. entom, U. S. Dept. Agr, Orlando, Fla, 29–30, Honolulu, 30–33; instr. zool, *Rutgers,* 33–35, *library asst, 35–* General physiology; tropisms; classification.

Mitchener, Prof. A(lvin) V(alentine), University of Manitoba, Winnipeg, Man, Can. *Entomology.* Port Rowan, Ont, Feb. 14, 88. B.A, McMaster, 14; B.S.A, Toronto, 18; M.Sc, Manitoba, 27. Lecturer *entom, Manitoba,* 18–20, asst. prof, 21–30, *prof, 30–, dean faculty agr. and home econ, 38–* Asn. Econ. Entom; Can. Soc. Tech. Agr; Ont. Entom. Soc. Economic entomology; apiculture.

Mitke, Cha(rle)s A, care of L. C. Grant, 1550 W. Washington St, Los Angeles, Calif. *Mining.* Dorrance, Pa, Aug. 14, 81. A.B, Yale, 08, Ph.B, 10. Mining engineer, Phelps Dodge and Co, 10–16; *consulting mining engineer, 16–; Masbate Consol. Gold Mining Co, Manila, P. I, 36–; Metals Reserve Co, Office U. S. High Commissioner, 41–* Min. and Metal. Eng; Min. Cong; Chem. Eng; London Inst. Min. and Metal. Mine ventilation; mining methods.

Mitman, Carl W(eaver), 2831 49th St, N. W, Washington, D. C. *Engineering.* Newburg, Pa, April 27, 89. A.B, Lehigh, 09, E.M, 11; Princeton, 12. Eng. corps, Lehigh Portland Cement Co, 07–10; instr. chem. and miner, Lehigh, 11–12; asst. miner, Princeton, 12; works foreman, N J. Zinc Co, Pa, 12–14; aid mineral technol, U. S. Nat. Museum, 14–17; quarry technologist, U. S. Dept. Agr, 17–19; curator div. mineral and mech. technol, *U. S. Nat. Museum,* 19–31, div. eng, 31–32, *head curator dept. eng. and indust, 32–* Acting director, Museum Science and Indust, New York, 26; chairman war cmt, Smithsonian Institution, 42– A.A; Horol. Inst; Newcomen Soc, England. Industrial and engineering history; land and water transport; horology.

Mix, Prof. A(rthur) J(ackson), University of Kansas, Lawrence, Kans. *Plant pathology.* Bolivar, N. Y, Sept. 30, 88. A.B, Hamilton Col, 10; fellow, Cornell, 11–15, Ph.D, 16. Asst. botanist, N. Y. Exp. Sta, Geneva, 15–16; instr. plant path, *Kansas,* 16–18, assoc. prof. *bot,* 19–24, *prof, 24–, chairman dept, 31–* Bot. Soc; Phytopath. Soc; Mycol. Soc; Kans. Acad; Soc. linn. de Lyon. Non-parasitic plant diseases; peach leaf curl; privet anthracnose; apple blotch; Taphrinales.

Mixter, Dr. Charles Galloupe, 319 Longwood Ave, Boston, Mass. *Surgery.* Boston, Mass, May 1, 82. B.S, Mass. Inst. Tech, 02; M.D, Harvard, 06. *Practising surgeon, 07–; clin. prof. surg, Harvard, 30–* Surgeon in chief, Beth Israel Hosp; consulting surgeon, Leonard Morse, Jordan, Cable, Cape Cod, Boston Floating, Children's and Morton Hosps. and Boston Dispensary, Mass. U.S.A, 17–18. Fel. Col. Surg; Soc. Clin. Surg; Surg. Asn; Am. Med. Asn; Urol. Soc; South. Surg. Asn; New Eng. Surg. Asn; Boston Surg. Soc; Int. Surg. Soc. General surgery.

Mixter, Prof. Russell, 1006 N. President St, Wheaton, Ill. *Histology.* Williamston, Mich, Aug. 7, 06. A.B, Wheaton Col. (Ill), 28; M.S, Mich. State Col, 30; Ph.D, Illinois, 39. From instr. to *assoc. prof. zool, Wheaton Col. (Ill), 28–* Instr, col. med, Illinois, 35–36. Inland Bird Banding Asn. Bird banding; anemia in flexed tailed mice; macrophagal foci.

Mixter, Dr. William Jason, 180 Clyde St, Brookline, Mass. *Surgery.* Vienna, Austria, Dec. 5, 80. B.S, Mass. Inst. Tech, 02; M.D, Harvard, 06. *Practising surgeon, 07–* Mem. board consultation, Mass. Gen. Hosp; lecturer, Harvard Med. Sch; consulting surgeon, Mass. Eye and Ear Infirmary, Anna Jacques, Leonard Morse and Cape Cod Hosps, Mass. M.C, U.S.A, 17–19. A.A; Surg. Asn; Soc. Neur. Surg; Am. Med. Asn; Neur. Soc; Asn. Research Nervous and Mental Disease; Col. Surg; New Eng. Surg. Soc; Boston Surg. Soc; Boston Soc. Psychiat. and Neur; Int. Surg. Soc. Surgery of the nervous system.

Mizelle, Prof. John D(ary), 1321 Vassar Ave, South Bend, Ind. *Zoology.* Violin, La, Jan. 18, 05. B.S, Louisiana, 32, A.M, 33; Ph.D, Illinois, 36. Asst. zoologist, State Conservation Cmn, La, 32–33; asst. zool, Illinois, 33–36; asst. parasitologist, div. animal path, Illinois and State Dept. Agr, Ill, 36–37; instr. *zool,* Okla. Agr. and Mech. Col, 37–38, asst. prof, 38–40; *Notre Dame,* 40–43, *assoc. prof, 43–* Micros. Soc; Soc. Parasitol; Ind. Acad. Life history of the Louisiana muskrat; monogenetic trematodes of fishes.

Moberg, Prof. Erik G(ustaf), Scripps Institution of Oceanography, La Jolla, Calif. *Oceanography, Chemistry.* Grolanda, Sweden, April 22, 91. B.S, North Dakota, 16, M.S, 17; Ph.D, California, 25. Assoc. *chem. oceanog, Scripps Institution, California,* 24–25, instr, 25–28, *asst. prof, 28–* Research assoc, Carnegie Institution, 30–31. U.S.A, 17–18. Chem. Soc; Geophys. Union; West. Soc. Nat. (sec'y, 30–). Chemistry of sea water and of marine plankton.

Mobley, Willard M, Alabama By-Products Corp, Birmingham, Ala. *Industrial chemistry.* Birmingham, Ala, March 27, 98. B.S, Ala. Polytech, 19; Mass. Inst. Tech, 19–20. *Chief chemist, Ala. By-Products Corp, 24–, director research, 40–* Chem. Soc. (chairman, Ala. sect, 34); Foundrymen's Asn; Gas Asn; South. Asn. Sci. and Indust; Ala. Acad. (pres, 42). Preparation and cleaning of coking coals; coking and blending qualities of coals and resultant coke formation; recovery and purification of recovered by-products.

Mockmore, Prof. C(harles) A(rthur), 962 Van Buren St, Corvallis, Oregon. *Civil engineering.* Platte Center, Nebr, Nov. 7, 91. B.E, Iowa, 20, C.E, 26, M.S, 32, Ph.D, 35. Research assoc, Iowa, 32–33; instr. *civil eng, Oregon State Col,* 21–25, asst. prof, 26–28, assoc. prof, 29–31, 33–34; *prof. and head dept, 34–* Mem, State Board Eng. Examiners, Oregon, 41. J. James R. Croes medal, Am. Soc. Civil Eng, 39. Eng. Educ; Civil Eng. (v. pres, Portland sect, 37, pres, 38; cooperating mem, cmt. hydraulic research). Hydraulic research; flow characteristics in elbow draft tubes.

Mode, Prof. Elmer B(eneken), 688 Boylston St, Boston, Mass. *Mathematics.* Pawtucket, R. I, Oct. 27, 92. B.S, Boston, 15; A.M, Harvard, 24. Asst. prof. *math, col. lib. arts, Boston,* 25–29, *prof,* 29– Math. Soc; Math. Asn; Statist. Asn; Inst. Math. Statist. Statistics.

Modlin, Dr. L(uther) R(oland), Jr, B. F. Goodrich Co, 500 S. Main St, Akron, Ohio. *Organic chemistry.* Kelford, N. C, July 11, 17. B.S, Wake Forest Col, 37; Ph.D, Virginia, 41. Asst. chemist, nat. inst. health, U. S. Pub. Health Service, 41–42; *research chemist, B. F. Goodrich Co, 42–* Chem. Soc. Petroleum bases; 2, 3, 8-trimethylquinoline.

Moe, Prof. Chesney R(udolph), 4625 El Cerrito Drive, San Diego, Calif. *Physics.* Rainy River, Ont, Can, Oct. 6, 08. A.B, Stanford, 29, A.M, 31; Ph.D, Southern California, 41. Asst. *physics, San Diego State Col,* 29–30, instr, 31–35, asst. prof, 35–39, *assoc. prof, 39–; lieut, U. S. Naval Res, 42–* Summer, Scripps Inst. Oceanog, California, 36. Physical Soc; Acoustical Soc; Geophys. Union. Spectral intensities; physiological acoustics.

Moe, Prof. G(eorge) G(ordon), University of British Columbia, Vancouver, B. C, Can. *Agronomy.* Franklin Centre, Que, Oct. 16, 89. B.S.A, McGill, 14, M.Sc, 21; Int. Educ. Board fellow, 27–28; Ph.D, Cornell, 28. Chief asst. to Dom. cerealist, 14–19; asst. prof. *agron, British Columbia,* 19–22, assoc. prof, 22–29, *prof. and head dept, 29–* A.A; Genetic Asn; Can. Soc. Tech. Agr. Alfalfa, clover and grass breeding; genetics of alfalfa and red clover.

Moe, Dr. G(ordon) K(enneth), Harvard Medical School, Boston, Mass. *Physiology, Pharmacology.* Fairchild, Wis, May 30, 15. B.S, Minnesota, 37, M.S, 39, Ph.D, 40. Asst. physiol, Minnesota, 36–39, instr, 39–40; Porter fellow, Western Reserve, 40–41; *instr. pharmacol, Harvard Med. Sch, 41–* Effects of digitalis glucosides on isolated heart; coronary blood flow; ventricular fibrillation.

Moe, Dr. Lewis H, 1736 W. Third Ave, Stillwater, Okla. *Veterinary medicine.* Superior, Wis, Jan. 26, 01. D.V.M, Ohio State, 27, M.S, 38. Asst, Ohio State, 27–28; asst. prof. bacter. and vet. med, Okla. Agr. and Mech. Col, 28–38, assoc. prof, 38–41; *major, Vet. Corps, U. S. Army, 41–* A.A; Vet. Med. Asn. Anaplasmosis; parasitic diseases of poultry; mastitis; pink eye; vitamin deficiencies in animals.

Moehlman, Dr. Robert S(tevens), 1407 Patrick Ave, Reno, Nev. *Geology.* Rochester, N. Y, Feb. 23, 10. A.B, Rochester, 31; A.M, Harvard, 32, Ph.D, 35. Asst. introductory geol, Harvard, 32–33, instr. mineragraphy, 33–35; field asst, U. S. Geol. Surv, 35; mine geologist, *Anaconda Copper Mining Co,* Butte, Mont, 36–38, *explor. geologist,* Ariz, 38–40, *Nev. and Calif, 40–* Summers, consulting geologist, Can, Mex. and Colo, 28–34. Min. and Metal. Eng. Factors controlling ore deposition; paragenesis of ore minerals; mineralogy and petrography; structural relations of ore deposits.

Moeller, Dr. (George) Therald, University of Illinois, Urbana, Ill. *Chemistry.* North Bend, Oregon, April 3, 13. B.S, Oregon State Col, 34; du Pont fellow, Wisconsin, 37–38, Ph.D, 38. Asst. gen. chem, Wisconsin, 34–37; instr. chem, Mich. State Col, 38–40; *inorg. chem, Illinois,* 40–42, assoc, 42–43, *asst. prof, 43–* Chem. Soc; Ill. Acad. Colloid chemistry of lanthanum hydroxide; chemistry of indium and indium compounds; electrometric studies on precipitation of metal hydroxides; rare earth chemistry; colorimetry.

Moen, Dr. Johannes K(nute), 751 Medical Arts Bldg, Minneapolis, Minn. *Medicine.* Windom, Minn, April 27, 03. B.S, Minnesota, 25, M.D, 28. Teaching fellow med, Minnesota, 30–32; asst, Rockefeller Inst, 32–37; *asst. clin. prof. med, med. sch, Minnesota, 37–; practising physician, 37–* Harvey Soc. Immunology; tissue culture studies on bacterial hypersensitivity; rheumatic fever.

Moenkhaus, Prof. W(illiam) J, Indiana University School of Medicine, Bloomington, Ind. ***Zoology, Physiology.* Huntingburg, Ind, Jan. 6, 71. A.B, Indiana, 94, A.M, 95; Harvard, 96–98; Ph.D, Chicago, 03. Instr. zool, Indiana, 95–96; asst. director, State Museum, São Paulo, Brazil, 98–99; asst. prof. zool, sch. med, Indiana, 01–04, assoc. prof. physiol, 04–05, junior prof, 05–08, prof, 08–41; *retired.* Instr, Williams Col, 99; Rush Med. Col, Chicago, 00. Soc. Nat. (sec'y, 03–08); Soc. Zool; fel. Ind. Acad. (treas, 10, pres, 16). Variations of North American fishes; hybrids between Fundulus heteroclitus and Menidia notata with especial reference to the behavior of the maternal and paternal chromatin; fertilization and cross-fertilization of fishes; effects of inbreeding and selection on fertility and sex ratio; some factors influencing longevity; effects of thyroid feeding.

Moerk, Prof. Frank X(avier), 43rd St. and Kingsessing Ave, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, July 3, 63. Ph.G, Phila. Col. Pharmacy, 84, Ph.M, 05. Asst. chem, *Phila. Col. Pharmacy,* 84–92, theoret. chem, 86–99, prof. *anal. chem,* 99–35, *emer. prof, 35–* Chem. Soc; Pharmaceut. Asn. Analytical and pharmaceutical chemistry; quantitative methods in pharmaceutical chemistry.

Moerke, Dr. Georgine A, 375 Lake St, Northville, Mich. *Chemistry.* Mosinee, Wis, March 24, 02. B.S, Chicago, 22, M.S, 26, Ph.D, 27. Chemist, St. Luke's Hosp, Chicago, Ill, 22–24; asst, dept. chem, Chicago, 24–27; *research chemist, Maybury Sanatorium, 28–* Chem. Soc; Biol. Photog. Asn; Biochem. Soc. Gt. Britain. Colored products from biuret reactions; composition of pleural effusions relative to blood after pneumothorax; composition of animal bloods in tuberculosis; enzymes of tubercle bacillus; applications of photography; black and brown pigments of diseased lung and other tissues.

Moersch, Dr. F(rederick) P(aul), Mayo Clinic, 102–110 Second Ave, S.W, Rochester, Minn. *Neurology.* St. Paul, Minn, March 28, 89. B.S, Minnesota, 11, M.D, 13. *Consultant neurol, Mayo Clinic, 20–; assoc. prof, Mayo Foundation, Minnesota, 20–* Am. Med. Asn; Neur. Asn; Psychiat. Asn; Cent. Neuropsychiat. Asn; Minn. Soc. Neur. and Psychiat; South. Minn. Med. Asn. Muscular dystrophies and muscular atrophies.

Moersch, Dr. George (William), West Virginia Pulp and Paper Co, Charleston, S. C. *Organic chemistry.* Escanaba, Mich, July 23, 15. A.B, Lawrence Col, 37; M.S, Pa. State Col, 40, Ph.D, 42. Instr. org. chem, Idaho, 40–41; *research chemist, develop. dept, W. Va. Pulp and Paper Co, 42–* Chem. Soc. Organic chemistry of aliphatic and alicyclic hydrocarbons; organic chemistry of pulp mill by-products; terpenes; turpentine.

Moersch, Dr. Herman J(ohn), Mayo Clinic, Rochester, Minn. *Medicine.* St. Paul, Minn, March 14, 95. B.S, Minnesota, 18, M.D, 21, M.S, 25. Instr. *med, Minnesota,* 25–28, asst. prof, 28–33, *assoc. prof, 33–* Am. Med. Asn; Asn. Thoracic Surg; Col. Physicians; Gastroscopic Soc; Broncho-Esophagological Asn. Diseases of the esophagus and chest.

Moffett, Ernest C(utter), 118 Prospect St, Woodbridge, N. J. *Chemistry.* Fords, N. J, Nov. 17, 88. B.S, Rutgers, 10, M.S, 31. Chemist, U. S. Metals Ref. Co, 10–11; eng. chemist, New York, 11–16; sec'y-treas. and director lab, Stillwell Lab, Inc, 16–20; consulting chemist, 20–22; in charge exp. lab, *Am. Cyanamid Co,* 22–26, asst. to chief technologist, 26–33, *asst. to v. pres. in charge develop. work, 33–* Chem. Soc. Liquid cyanide baths for case hardening steel.

Moffett, Dr. James W(illiam), Stanford University, Calif. *Limnology, Fisheries biology.* American Fork, Utah, Aug. 3, 08. A.B, Utah, 33, A.M, 35; Ph.D, Michigan, 39. Asst. aquatic biologist, Bur. Fisheries, 34–35; teaching fellow, Michigan, 36–39, *asst. aquatic biologist,* inst. fisheries research, State Dept. Conservation, 39–41; *fish and wildlife service, U. S. Dept. Interior, 41–* Ecol. Soc; Limnol. Soc; Micros. Soc; Wis. Acad; Mich. Acad. Stream and lake bottom fauna and ecological factors affecting them; fisheries management and research in the field of limnology as applied to fish production.

Moffett, Dr. Robert Bruce, George A. Breon and Co, Kansas City, Mo. *Organic chemistry.* Madison, Ind, June 8, 14. A.B, Hanover Col, 37; A.M, Illinois, 39, fellow, 39–41, Ph.D, 41. Asst, Illinois, 37–39; research assoc, Northwestern, 41–43; *senior research chemist, George A. Breon and Co, 43–* Summer, org. chem. mfrs, Illinois, 39. Chem. Soc. Benzopyrylium salts; steroids; chemiluminescence.

Moffett, Dr. Sam(uel) M(cKee), Alma College, Alma, Mich. *Organic chemistry.* Madison, Ind, Jan. 23, 16. A.B, Hanover Col, 38; Ph.D, Ohio State, 42. Asst. gen. chem, Ohio State, 38–42; *instr. org. chem, Alma Col, 42–* Chem. Soc. Oxidative degradation of osajin and pomiferin.

Moffie, Prof. D(annie) J(oseph), North Carolina State College, Raleigh, N. C. *Psychology.* New Alexandria, Pa, Sept. 11, 14. B.S, Pa. State Col, 36, M.S, 37, Ph.D, 40. Asst, Pa. State Col, 37–40; instr. *psychol, N. C. State Col,* 40–42, *asst. prof, 42–* Assoc. Psychol. Asn. Personnel, clinical, test and industrial psychology.

Moffit, Fred H(oward), U. S. Geological Survey, Washington, D. C. *Geology.* Princeville, Ill, April 2, 74. A.B, Williams Col, 95; A.M, Lafayette Col, 99; fellow, Columbia, 02–03. Instr. math. and graphics, Lafayette Col, 99–02; asst. geologist, *U. S. Geol. Surv,* 01–10, *geologist, 10–* A.A; Geol. Soc; Min. and Metal. Eng; Soc. Econ. Geol; Geol. Soc. Wash; Wash. Soc. Eng; Wash. Acad. Geology and mineral resources of Alaska; aero-photographic mapping.

Moffitt, Dr. G(eorge) W(ilber), 472 Alpine Terrace, Ridgewood, N. J. *Physics, Astronomy.* Pleasantville, Iowa, March 28, 87. A.B, Iowa, 10; Ph.D, Stanford, 13. Asst. physics, Stanford, 10–13; instr, Washington (St. Louis), 13–15, asst. prof, 15–17; research physicist, Eastman Kodak Co, 17–22; Ordnance Dept, U.S.A, 22–26; research assoc, Yerkes Observatory, Chicago, 26–37; *consultant, 37–* Asst, Lick Observatory, California, 11. Physical Soc; Optical Soc; Astron. Soc. Contact potential of liquids; refractometry; spherometry; photographic objectives; projection; wide aperture lenses for stellar spectrographs; determination of star distances; optics of color motion pictures; astronomical instruments and equipment; military optical instruments.

Moffitt, Dr. Herbert C(harles), 1818 Broadway, San Francisco, Calif. *Medicine.* San Francisco, Calif, Dec. 9, 67. B.S, California, 89, LL.D, 19; M.D, Harvard, 94, Sc.D, 21. Prof. and later clin. prof. *med, California,* 00–37, *emer. prof, 37–* A.A; Am. Physicians. Internal medicine.

Mogendorff, Dr. Nicholas, University of Toledo, Toledo, Ohio. *Botany, Chemistry.* Groenlo, Holland, July 24, 99. B.S, Agr. Col, Wageningen, Holland, 21, M.S, 22; M.S, Rutgers, 25; Ph.D, Wisconsin, 29. Asst. prof. *nat. sciences, Toledo,* 29–34, assoc. prof, 34–41, *prof, 42–* A.A; Chem. Soc; Ohio Acad; Mich. Acad. Arsenical injury of foliage; virus diseases of tomatoes, tobacco and potatoes.

Mogford, Prof. Joseph Sayers, Agricultural and Mechanical College of Texas, College Station, Texas. *Agriculture.* Streeter, Texas, Oct. 15, 93. B.S, Agr. and Mech. Col. Texas, 16, M.S, 20. Breeder in charge, Mebane Cotton Breeding Asn, 20–25; assoc. prof. *agron, Agr. and Mech. Col. Texas,* 25–37, *prof, 37–* Summers, inspector seed breeding farms, State Seed and Plant Board, State Dept. Agr, Texas. Soc. Agron; Genetic Asn. Crops; cotton production and breeding.

Mohler, Dr. Fred L(oomis), National Bureau of Standards, Washington, D. C. ***Physics.* Wilbraham, Mass, Aug. 23, 93. A.B, Dickinson Col, 14; Ph.D, Hopkins, 17. Instr. physics, Hopkins, 14–17; *physicist, Bur. Standards, 17–, head atomic physics sect, 28–* A.A; Physical Soc; Optical Soc; Wash. Acad. Electrical and spectroscopic studies of electron currents in gases and vapors; photoelectric ionization; recombination spectra; radiation from metals bombarded by electrons; atmospheric ozone; temperatures of electric discharges.

Mohler, Dr. John R(obbins), 1620 Hobart St, N. W, Washington, D. C. *Pathology, Bacteriology.* Philadelphia, Pa, May 9, 75. A.B, Temple, 93; D.V.M, Pennsylvania, 96, hon. Sc.D, 25; Milwaukee Med. Col, 99; hon. Sc.D, Iowa State Col, 20, Maryland, 28. Asst. inspector, bur. animal indust, U. S. Dept. Agr, 97–99, vet. inspector, 99–01, zoologist, 01–02, chief path. div, 02–14, asst. chief bur, 14–17, chief bur, 17–43; *retired.* Advisory board, nat. inst. health, U. S. Pub. Health Service. Prize, 12th Int. Vet. Cong; Kober Foundation award; medal of merit, Phila. Soc. Prom. Agr. Pres, Int. Vet. Cong, New York, 34, v. pres. permanent cmn. Remount board, U.S.A; V.C, U.S.A. Soc. Bact; Soc. Exp. Biol; Vet. Med. Asn. (pres, 13); Soc. Animal Production; U. S. Live Stock Sanit. Asn. (pres, 37); Pub. Health Asn; D. C. Vet. Med. Asn; Wash. Acad; Wash. Acad. Med; Royal Soc. Med. Tuberculosis; anthrax, rabies and other diseases of animals communicable to man; comparative pathology of the pancreas; comparative study of tubercle bacilli; meat inspection.

Mohler, Prof. Nora M(ay), Smith College, Northampton, Mass. *Physics.* Carlisle, Pa, Aug. 15, 97. A.B, Dickinson Col, 17, A.M, 21; Ph.D, Smith Col, 34. Demonstrator *physics,* Bryn Mawr Col, 18–19; teacher, Choate Sch, Brookline, Mass, 20–26; instr. and asst. prof, *Smith Col,* 27–37, *assoc. prof, 37–* A.A; fel. Physical Soc; Asn. Physics Teachers; Optical Soc. Ultra-violet absorption spectra of varieties of colored quartz; photographic penetration of haze; history of physics.

Mohler, Dr. Orren (Cuthbert), McMath-Hulbert Observatory, University of Michigan, Route 4, Pontiac, Mich. *Astronomy.* Indianapolis, Ind, July 29, 08. A.B, Mich. State Nor. Col, 29; Mich. State Col. fellow, Michigan, 30, A.M, 30, Lawton fellow, 31–33, Ph.D, 33. Instr. astron, Swarthmore Col, and astronomer, Cook Observatory, 33–40; *asst. astronomer, McMath-Hulbert Observatory, Michigan, 40–* Observer, McMath-Hulbert Observatory, Michigan, 33, 39; asst. astronomer, Cranbrook Inst, 40. Astron. Soc. Stellar spectroscopy; solar astronomy; astronomical motion pictures.

Mohler, Dr. R(obert) E(llsworth), McPherson College, McPherson, Kans. *Biology.* Red Cloud, Nebr, March 13, 86. A.B, Mt. Morris Col, 12; M.S, Kans. State Col, 16; Wisconsin, 24–25; Sc.D, LaVerne Col, 41. *Prof. biol,* Mt. Morris Col, 12–13; *McPherson Col, 13–,* dean, 25–31, *asst. to pres.* Summers, instr, Kans. State Nor. Sch, 18; Kansas, 28, 32; Nat. Univ. Mex, 29. A.A; Genetic Asn; Kans. Acad. Plant breeding.

Mohlman, Dr. F(loyd) W(illiam), Sanitary District of Chicago, Chicago, Ill. *Chemistry.* Beardstown, Ill, March 6, 90. B.S, Illinois, 12, M.S, 14, Ph.D, 16. Asst. chemist, Ill. State Water Surv, 12–15, chemist and bacteriologist, 15–16; instr. sanit. chem, Illinois, 16–17; chemist and engineer, New Haven Sewage Exp. Sta, 17–18; State Dept. Health, Conn, 18–19; chief chemist and later *director labs, Sanit. Dist, Chicago, 19–; prof. sanit. chem, col. eng, Armour, 38–* Consultant. Ed, 'Sewage Works Jour,' 28– Chem. Soc; Chem. Eng; Pub. Health Asn; Water Works Asn. Sanitary chemistry; sewage treatment; industrial wastes; stream pollution.

Mohr, Dr. Carl O(tto), Illinois Natural History Survey, Urbana, Ill. *Mammalogy, Ecology.* Rapidan, Minn, Nov. 20, 02. A.B, Minnesota, 26; A.M, Illinois, 28, Ph.D, 34. Asst. entom, Illinois, 26–28, 29–30; asst. entomologist, *Ill. Nat. Hist. Surv,* 28–29, *assoc. entomologist and artist, 31–* Soc. Mammal; Ecol. Soc; Wilson Ornith. Club; Wildlife Soc; Ecol. Soc. Entomology.

Mohr, Charles E(dward), 9 Hawthorne Lane, Rosemont, Pa. *Biology, Education.* Reading, Pa, June 3, 07. A.B, Bucknell, 30, A.M, 31. Naturalist, Reading Pub. Museum, 31–33; teacher, high sch, Pa, 33–37; Rockefeller fellow, Buffalo Museum Science, 37–38; *director educ, Acad. Nat. Sci. Phila, 39–* Summers, naturalist, Reading Pub. Museum, 34–37. A.A; Soc. Mammal; Soc. Ichthyol. and Herp; Ornith. Union; Speleological Soc; Pa. Acad. (pres, 43). Cave fauna; bat tagging; amphibia; nature photography; museum education.

Moinat, Dr. Arthur D(avid), Ft. Lewis Branch, Colorado State College, Hesperus, Colo. *Botany.* Pueblo, Colo, Oct. 24, 01. B.S, Colo. State Col, 24; M.S, Oregon State Col, 25; fellow, Illinois, 29–30, Ph.D, 30. Asst. hort. Colo. State Col, 25–27; *bot,* Illinois, 27–29, *instr,* 30–32; *Ft. Lewis branch, Colo. State Col, 34–* A.A; Bot. Soc; Soc. Plant Physiol. Plant physiology; water relations of plants; plant nutrition.

Moir, William W(hitmore) G(oodale), P. O. Box 2298, Honolulu, Hawaii. *Soils.* Papaikou, Hawaii, March 17, 96. B.S, Cornell, 19. Asst. agriculturist, Exp. Sta, Hawaiian Sugar Planters' Asn, 19–22; field overseer, Pioneer Mills Co, Lahaina, Maui, 23–24; *agr. technologist, Am. Factors, Ltd, 25–* Del, Int. Soc. Sugar Cane Technologists, Hawaii, 24, Havana, 27, Java, 29, San Juan, P. R, 32, La, 38; del, Cong. Int. Soc. Soil Science, Washington, D. C, 27. Soc. Agron; Soc. Plant Physiol; Soil Sci. Soc; Hawaiian Sugar Planters' Asn; Hawaiian Sugar Technol; Int. Soc. Sugar Cane Technol; Int. Soc. Soil Sci. Fertilizers; field problems; varieties of cane.

Moisseiff, Leon S, 99 Wall St, New York, N. Y. *Engineering.* Riga, Latvia, Nov. 10, 72. Baltic Polytech. Inst, 88–90; C.E, Columbia, 95. Private eng. firms, 95–97; engineer design, Dept. Bridges, New York, 97–15; Del. River bridge, 20–26; consulting engineer, Port of New York Authority, 27–31; *consulting engineer, 31–* Ambassador Bridge, Detroit; Maumee River Bridge, Toledo; Golden Gate Bridge, San Francisco; San Francisco-Oakland Bay Bridge; Triborough Bridge, N. Y; Bronx-Whitestone, George Washington, Bayonne and East River Bridges, New York; Tacoma; Mackinac Straits. A Century of Progress Expos, Chicago. Chairman struct. steel welding cmt. and mem. joint cmt. on reinforced concrete, Am. Bur. Welding. Gold medal, Franklin Inst, 33; Norman medal, Am. Soc. Civil Eng, 34, Laurie prize, 38; Egleston medal, Columbia, 39; Mod. Pioneer award, Nat. Asn. Mfrs, 40. Civil Eng. (cmt. design struct. mems; cmt. design light weight alloys; cmt. surv. struct. research); Soc. Test. Mat; Welding Soc. (director, 37–41; exec. cmt; bridge welding cmt); Inst. Steel Construction (advisory research cmt); Ry. Eng. Asn. Bridges; structures; deflection

theory of design of suspension bridges; reinforced concrete; towers; cables; stiffening trusses; cold drawn bridge wire; suspension bridges under action of lateral forces; evolution of high strength steels in structural engineering; theory of elastic stability applied to structural designs; design of special bridges and structures of aluminum.

Molby, Prof. Fred A, West Virginia University, Morgantown, W. Va. *Physics.* Linn, Kans, Jan. 5, 78. A.B, Baker, 04; A.M, Cornell, 08, Ph.D, 10. Asst. *physics,* Baker, 02–04; Cornell. 06–08, instr, 08–12; asst. prof, Indiana, 12–18; Cincinnati, 18–20; assoc. prof, *West Virginia,* 20–21, *prof, 21–* Summers, magnetic observer, U. S. Coast and Geod. Surv, 06–10. A.A; Physical Soc; Optical Soc; W. Va. Acad. Rotary powers of optically active substances at low temperatures; refractive indices.

Moldenke, Dr. Harold N(orman), New York Botanical Garden, New York, N. Y. *Botany.* Watchung, N. J, March 11, 09. B.S, Susquehanna, 29; scholar, N. Y. Bot. Garden, 29; A.M, Columbia, 32, Ph.D, 34. Asst. biol, Susquehanna, 26–29; asst. curator, *N. Y. Bot. Garden,* 32–37, *assoc. curator, 37–* Nat. research fellow, Royal Bot. Garden, England, and British Museum Nat. Hist, 35–36. Ed. and publisher, 'Phytologia,' 33–; collaborator taxon. index, 'Biol. Abstracts'; cor. ed, 'Chronica Botanica.' A.A; Bot. Soc; Soc. Study Speciation; Asn. Biol. Teachers; Soc. Plant Taxon; fel. Am. Geog. Soc; Torrey Bot. Club (treas, 37–41); Susquehanna Nat. Sci. Club (sec'y-treas, 25, v. pres, 26, pres, 27); fel. N. Y. Acad; N. Y. Mycol. Soc; Asn. Sudam. Plant Taxon. Buenos Aires; Soc. Amig. Flora Bras, São Paulo. Taxonomic botany; flora of the White Mountains and Watchung Mountains; botanical tautonyms; general botanical taxonomy and nomenclature, especially of Verbenaceae and Avicenniaceae; plants of extra-tropical South America; evolution.

Molina, Edward C(harles Dixon), 172 Fulton St, New York, N. Y. *Engineering, Mathematics.* New York, N. Y, Dec. 13, 77. High sch. Eng. asst, Bell Tel. Co, 01–05, with circuits design dept, 05–19; telephone engineer, develop. and research dept, Am. Tel. and Tel. Co, 19–34; switching theory engineer, Bell Tel. Labs, 34–42; *mem. sci. staff, div. war research, Columbia, 43–* A.A; Elec. Eng; Acoustical Soc; Math. Soc; Math. Asn; Astron. Soc; fel. Inst. Math. Statist. (v. pres, 42); Statist. Asn; Econometric Soc; fel. Royal Econ. Soc. The theory of probability applied to engineering problems; telephone switching systems.

Molitor, Dr. Hans, 141 Lincoln Ave, Rahway, N. J. *Pharmacology, Therapeutics.* Maffersdorf, Austria, Aug. 10, 95. M.D, Vienna, 22. Asst. prof. pharmacol, Vienna, 23–26, privat-docent, 27, assoc. prof. pharmacol. and therapeut, 27–32; *director, Merck Inst. Therapeut. Research, 33–* Rockefeller fellow, Edinburgh and London, 24. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Trop. Med; Pharmacol. Soc; Deuts. Pharmakol. Gesell; Gesell. der Ärzte Wien; Oesterr. Balneol. Gesell. (treas, 30–32); Wiener Biol. Gesell; Oesterr. Gesell. Socialversich. Medizin; Int. Anesthesia Research Soc. Nervous and hormonal regulation of water metabolism; physiology and pharmacology of sleep; liver hormones; pre-anesthetic medication; vitamin B; bioassay techniques; chemotherapy; malaria.

Mollari, Dr. Mario, 4527 45th St, N.W, Washington, D. C. *Bacteriology, Immunology.* Pieve di Livinalongo, Italy, April 2, 92. M.D, Graz, 22; D.T.M, Paris, 24. Instr. bacter. and path, *sch. med, Georgetown,* 25–26, asst. prof, 26–29, assoc. prof, 29–30, *prof. bacter. and immunol. and chairman dept, 31–,* curator Am. type culture collection, 37. Cor. mem. Soc. de Méd. et Hygiène trop; Pan-Am. Med. Asn; Int. Med. Club. Mycology; hematology.

Mollett, Prof. Cha(rle)s E(dwin Francis), 436 Keith Ave, Missoula, Mont. *Pharmacology.* Erie, Kans, Jan. 21, 79. Ph.C, Kansas, 04, M.S, 27; A.B, Montana, 20; fellow. Florida, 31–32. Registered pharmacist, W. D. Webb Drug Co. and C. D. Smith Wholesale Drug Co, 04–07; *prof. pharmacy and dean sch. pharmacy, Montana, 07–* A.A; Pharmaceut. Asn; Asn. Cols. Pharm. (v. pres, 27). Pharmaceutical chemistry and botany of drug plants; pharmaceutical education.

Molloy, Dr. Daniel M(urrah), 8 Orchard Parkway, White Plains, N. Y. *Public health.* Molloy, Ala, Feb. 19, 82. M.D, Nashville, 08; Dr.P.H, Hopkins, 23. Med. inspector, Bur. Health, P. I, 09–13; special expert, malaria investigations, U. S. Pub. Health Service, 14; mem. field staff, int. health div, *Rockefeller Foundation,* 14–40, field director, Cent. Amer, 29–40, *retired, 40–* A.A; Pub. Health Asn; Soc. Parasitol; Am. Med. Asn. Parasitology; medical entomology; health organization.

Molnar, Dr. George W(illiam), Rhode Island State College, Kingston, R. I. *Physiology.* Detroit, Mich, Feb. 14, 14. A.B, Oberlin Col, 36; Ph.D, Yale, 40. Asst. biol, Yale, 36–39; instr. *zool,* Miami (Ohio), 40–42; *asst. prof, R. I. State Col, 42–* A.A. Permeability; bio-electric phenomena; osmosis.

Moloy, Dr. H(oward) C(arman), Sloane Hospital for Women, 168th St. and Broadway, New York, N. Y. *Obstetrics, Gynecology.* Thedford, Ont, Can, Jan. 3, 03. M.D, Western Ontario, 27, M.Sc, 28. Instr. path, Western Ontario, 27–29; intern and asst. res, *Sloane Hosp,* 29–35, *asst. attending obstetrician and gynecologist, 35–* Assoc. attending obstetrician and gynecologist, Vanderbilt Clinic, 35– Anatomical variations of the pelvic architecture; mechanism of labor; precision stereoscope for visualization of structures.

Molstad, Prof. Melvin C(arl), University of Pennsylvania, Philadelphia, Pa. *Chemical engineering.* Spring Valley, Minn, Nov. 18, 98. A.B, Carleton Col, 20; B.S, Mass. Inst. Tech, 23; Ph.D, Yale, 30. Junior chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20–21, asst. chemist, 23–26; instr. chem. eng, Yale, 26–29; chem. engineer, du Pont Ammonia Corp, 29–31; asst. prof. *chem. eng,* Yale, 31–39; assoc. prof. and later *prof. in charge, Pennsylvania, 39–* Eng. Educ; Chem. Soc; Chem. Eng. Properties of gases at high pressures; gas absorption; crystallization.

Moltzau, Dr. (Daniel) Romund, 206 S. Memorial Drive, Appleton, Wis. *Physical and analytical chemistry.* Strum, Wis, Nov. 1, 09. A.B, Montana, 31; Ph.D, Minnesota, 35. Asst, Minnesota, 31–35; *research asst, Inst. Paper Chem, Lawrence Col, 35–* Chem. Soc. (sec'y-treas, northeast Wis. sect, 36–, chairman, 38; mem. sub. cmt. methods of testing, cellulose div). Induced precipitation phenomena as related to heavy metal sulfides; properties of heavy metal sulfides; analysis of pulping liquors.

Molz, Prof. Francis (John), University of Dayton, Dayton, Ohio. *Plant physiology.* Baltimore, Md, Oct. 19, 90. B.Sc; M.Sc, Fribourg, 21, Ph.D, 23. *Prof. biol, head dept. and assoc. to dean col. arts and sciences, Dayton, 24–* A.A; Bot. Soc. Ascent of sap; osmosis; effect of external factors and habitat upon suction tension.

Moment, Prof. G(airdner) B(ostwick), Goucher College, Baltimore, Md. *Zoology.* New York, N. Y, May 4, 05. A.B, Princeton, 28; Ph.D, Yale, 32. Asst, Yale, 28–30; instr. *biol, Goucher Col,* 32–37, asst. prof, 37–42, *assoc. prof, 42–* Lecturer, Mt. Desert Biol. Lab, 38, 39. A.A; Soc. Zool. Growth of rats and urodeles; early development of marine ova; Ascidian blood cells; cell behavior in vitro; general biology.

Monahan, W(illia)m C(ollins), Monahan Poultry Service, Framingham, Mass. *Poultry husbandry.* Framingham, Mass, April 26, 89. B.S, Maine, 14; A.M, Amherst Col, 33. Exten. specialist, Maine, 14–17; specialist poultry and egg handling, U. S. Dept. Agr, 17–18; exten. prof, Mass. Col, 18–35; *director, Monahan Poultry Service, 35–* Head poultry dept, Elmore Milling Co. Trustee, Mass. State Col. Exec. cmt, Nat. Poultry Council, 25. Ed, 'New Eng. Homestead'; 'New Eng. Poultryman,' 25–32. A.A; Poultry Sci. Asn; World Poultry Sci. Asn; Mass. Fed. Poultry Asn. Profitable poultry keeping.

Moneymaker, Berlen C(lifford), 510–A Union Bldg, Knoxville, Tenn. *Geology.* Knoxville, Tenn, Sept. 15, 04. B.S, Tennessee, 28, fellow, 28–29, M.S, 29. Instr. geol. and geog, Tennessee, 29–30; asst, Yale, 30–32, fellow, 32–33; asst. geologist, *Tenn. Valley Authority,* 33–34, assoc. geologist, 35–37, geologist, 37–39, senior geologist, 39–41, *chief geologist, 41–,* asst. chief, 37–41. Min. Eng; Civil Eng; Miner. Soc; Seismol. Soc; Carolina Geol. Soc; N. Y. Acad; N. C. Acad; Tenn. Acad. Origin of caves; caves of eastern Tennessee; dam sites on Upper Tennessee and Hiwassee Rivers; economic geology of Cherokee County, North Carolina; character of the Great Smoky Formation in the Murphy, North Carolina, quadrangle; deep solution in the Tennessee Valley area.

Mongan, Dr. C(harles) E(dward), Jr, Hartford Empire Co, Hartford, Conn. *Physics.* B.S, Mass. Inst. Tech, 23, M.S, 25; D.Sc, Swiss Fed. Inst. Tech, Zurich, 34. Consultant, 34–37; *physicist, research and develop. dept, Hartford Empire Co, 37–* Physical Soc. Electron diffraction of magnesium oxide, graphite and ice.

Monk, Prof. Cecil R(ay), Willamette University, Salem, Oregon. *Biology, Zoology.* Osceola, Nebr, Nov. 24, 02. A.B,

Nebr. Wesleyan, 26; A.M, Illinois, 27; Ph.D, California at Los Angeles, 42. Asst. zool, Illinois, 26–27; asst. prof. *biol, Willamette*, 27–35, assoc. prof, 35–42, *prof, 42–* Asst, Scripps Institution, California, 37–38. Micros. Soc. Anatomy and life history of a fresh-water mollusk of the genus Sphaerium; marine harpacticoid copepods from California.

Monk, Prof. George S(pencer), University of Chicago, Chicago, Ill. *Physics.* London, Eng, June 18, 84. B.S, Chicago, 14, Ph.D, 23. Asst, Mt. Wilson Observatory, Carnegie Institution, 13–16; Yerkes Observatory, Chicago, 16–17; instr. *physics*, Oregon State Col, 18–19; asst. prof, Oregon, 19–20; asst, *Chicago*, 20–23, research instr, 23–26, *asst. prof, 26–* Physical Soc; Optical Soc. Optics and spectroscopy.

Monnett, Dr. Victor E(lvert), 811 S. Ponca Ave, Norman, Okla. *Geology.* Hale, Mo, Dec. 1, 89. A.B, Oklahoma, 12; Michigan, 12–13; Ph.D, Cornell, 22. Teacher *geol*, Oklahoma and Cornell, 13–23; *head dept, Oklahoma, and director sch. geol. eng, 23–* Geol. Soc; Asn. Petrol. Geol; Okla. Acad. Glacial, structural and economic geology.

Monrad, Dr. Carl C(orydon), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemical engineering.* Buffalo, N. Y, Jan. 15, 05. B.S.E, Michigan, 27, M.S.E, 28, Ph.D, 30. Asst, Michigan, 27–30; chem. engineer, Standard Oil Co. of Ind, 30–37; assoc. prof. *chem. eng, Carnegie Inst. Tech*, 37–42, *prof, 42–* Consultant, nat. defense advisory cmt, Office Production Management, War Production Board, 40– Chem. Eng; Chem. Soc. Heat transmission from condensing vapors and in furnaces; vapor pressures.

Monroe, C(harles) F(rederic), Ohio Experiment Station, Wooster, Ohio. *Dairy industry.* Summit Station, Ohio, July 31, 96. B.S, Ohio State, 20, M.S, 23. Asst. *dairy indust, Ohio Exp. Sta*, 20–30, *assoc, 30–* Dairy Sci. Asn. Nutrition of dairy animals.

Monroe, Prof. C(larence) J(ohn), Missouri School of Mines, Rolla, Mo. *Physical chemistry.* B.S, Chicago, 17, fellow, 19–20, Ph.D, 21. Asst. prof. *chem, Mo. Sch. Mines*, 21–31, *assoc. prof, 31–* A.A; Chem. Soc. Sorption by charcoal; atomic structure; emulsions.

Monroe, Dr. E(zra), 515 E. Larkin St, Midland, Mich. *Pharmaceutical chemistry.* Soda Springs, Idaho, Jan. 21, 10. B.S, Idaho, 33; M.S, Michigan, 34, Frederick Stearns and Co. fellow, 34–36, Ph.D, 36. *Chemist, Dow Chem. Co, 36–* Chem. Soc. Organo-arsenic compounds; antispasmodics; fertilizers; organic process development; antimalarials.

Monroe, Dr. L(awrence) A(lexander), 2244 Cathedral Ave, N.W, Washington, D.C. *Chemical engineering.* Peoria, Ill, Aug. 10, 12. B.S, Illinois, 32; M.S, Mass. Inst. Tech, 34, Sc.D, 36. Asst. prof. chem. eng, Mass. Inst. Tech, 36–40; chem. engineer, Barrett Co, 40–42; *exec. sec'y chem. referee board, office production research and develop, War Production Board, 42–* Chem. Soc; Chem. Eng. Applied chemistry; distillation; unit operations.

Monroe, Dr. Marion, Pittsburgh Board of Education, Administration Bldg, Pittsburgh, Pa. *Psychology.* Mt. Vernon, Ind, Feb. 4, 98. A.B, Oklahoma, 19; A.M, Chicago, 24, Ph.D, 29. Research psychologist, Psychopathic Hosp, Iowa, 25–27; instr, Chicago, 28–29; research psychologist, behavior research fund, Inst. Juvenile Research, 29–32; chief psychologist, Child Guidance Center, 32–36; *specialist remedial instruction, Board Educ, Pittsburgh, 36–* A.A; Psychol. Asn; fel. Am. Speech Correction Asn. Special disabilities; reading disability; methods for diagnosis and treatment of reading disability; clinical psychology; reading readiness.

Monroe, Prof. Walter S(cott), 607 Michigan Ave, Urbana, Ill. *Education.* Chase, Kans, Aug. 14, 82. A.B, Missouri, 05, B.S, 07, A.M, 11; Ph.D, Chicago, 15. Prin, high sch, and sch. supt, Mo, 05–09; asst. math, Missouri, 09–11; prof. educ. admin, Kans. State Teachers Col, 12–18; assoc. prof. educ. and director bur. cooperative research, Indiana, 18–19; assoc. prof. *educ, Illinois*, 19–21, *prof, 21–*, asst. director, *bur. educ. research*, 19–21, *director, 21–*, acting dean col. educ, 30–31. Summers, Mont. State Nor. Sch, 15; Pa. State Col, 23; California, 25. A.A; Educ. Research Asn. (pres, 17); Soc. Col. Teachers Educ. (pres, 26); Soc. Study Educ; Statist. Asn. Educational tests.

Monroe, Watson H(iner), U. S. Geological Survey, Washington, D. C. *Geology.* Parkersburg, W. Va, Dec. 1, 07. George Washington, 25–28; Hopkins, 28–30. Junior geologist, *U. S. Geol. Surv*, 30–34, asst. geologist, 34–39, assoc. geologist, 39–42, *geologist, 42–* Geol. Soc; Asn. Petrol. Geol; Geol. Soc. Miss; Geol. Soc. Wash. Geology and mineral resources of the Atlantic and Gulf coastal plain.

Monsch, Prof. Helen, R. D. 4, Ithaca, N. Y. *Nutrition.* Louisville, Ky. B.S, Kans. State Col, 04, Chicago, 09; A.M, Columbia, 16; Child Welfare Research Sta, Iowa, 23; Rush, Chicago, and Illinois, 25–26. Asst. foods and nutrition, Kans. State Col, 04–05; instr, sch. domestic arts and science, Chicago, 07–09; head dept. foods and nutrition, pub. sch, Ind, 09–13; instr, Simmons Col, 13–14; *prof. foods and nutrition and head dept*, Iowa State Col, 15–18; *Cornell, 18–* Summers, Chicago, 09–12. Home Econ. Asn; Dietetics Soc. Chemistry; child nutrition; infant feeding; feeding babies and mothers of babies; feeding the pre-school child.

Monsma, Prof. Edwin Y(pe), 719 Fuller Ave, S.E, Grand Rapids, Mich. *Botany, Mycology.* Berlikum, Holland, Dec. 23, 94. A.B, Calvin Col, 25; M.S, Illinois, 27; Ph.D, Mich. State Col, 35. Asst. zool, Illinois, 25–27; instr. *biol, Calvin Col*, 27–35, assoc. prof, 35–42, *prof, 42–* Asst, Mich. State Col, 31–32. Water molds of fish hatchery.

Monson, Prof. O(lof) W(ilford), 618 S. Seventh Ave, Bozeman, Mont. *Irrigation.* Pleasant Grove, Utah, Oct. 24, 90. B.S, Utah Col, 26, M.S, 28. Asst, Utah Col, 27–28; instr, *Mont. State Col*, 28–30, asst. prof. agr. eng, 30–33, *prof. irrig. and drainage, 33–, head rural eng. dept, 41–* Agr. Eng. Irrigation development on the Sevier River, Utah; small storage reservoirs, contour dikes and ditches; irrigation of peas to overcome pathological effects; the water supply and irrigation in Montana.

Montagu, Prof. M(ontague) F(rancis) Ashley, 235 N. 15th St, Philadelphia, Pa. *Anatomy.* London, Eng, June 28, 05. Cambridge, 22–24, London, 22–25, Columbia, 34–37. Research, dept. vert. paleont, Am. Museum Nat. Hist, 27–28; Ist. Reale di Ethnol. e Antrop, Florence, 28–29; curator physical anthrop, Wellcome Hist. Med. Museum, London, 29–30; lecturer, New Sch. for Social Research, 31–32; anthropologist, col. dentistry, N. Y. Univ, 31–33, asst. prof. anat, 31–38, lecturer physical anthrop. and anat, grad. sch, 34–38; *assoc. prof. anat, Hahnemann Med. Col. and Hosp, 38–* Hon. research assoc, British Museum Nat. Hist, London, 25–26. Assoc. ed, 'Isis,' 36– Morris Chaim prize, 34. A.A; Asn. Anat; Genetic Asn; Soc. Study Child Growth and Develop; Anthrop. Asn; Asn. Physical Anthrop; Hist. Sci. Soc. (chairman publications cmt; councilor); fel. Royal Anthrop. Inst. Gt. Britain and Ireland; cor. mem. Soc. Ital. d'Antrop. e di Etnol. Physical and cultural anthropology; growth; morphology; comparative anatomy of primates; reproduction; comparative psychology; genetics of variation in man; race; history of science.

Montague, Dr. Harriet F(rances), 81 Princeton Blvd, Kenmore, N. Y. *Mathematics.* Buffalo, N. Y, June 9, 05. B.S, Buffalo, 27, A.M, 29; scholar, Cornell, 35, Ph.D, 35. Instr. *math, Buffalo*, 29–34, 35–38, *asst. prof, 38–* Math. Soc; Math. Asn; Council Teachers Math. Geometry.

Montague, Prof. W(illam) P(epperell), Barnard College, Columbia University, New York, N. Y. *Philosophy.* Chelsea, Mass, Nov. 24, 73. A.B, Harvard, 96, A.M, 97, Ph.D, 98. Docent *philos*, Harvard, 98–99; instr, California, 99–03; lecturer, *Barnard Col, Columbia*, 03–04, tutor, 04–05, instr, 05–07, adj. prof, 07–10, assoc. prof, 10–20, prof, 20–41, *Johnsonian prof, 41–* Huxley lecturer, Hopkins, 18, visiting prof, 22; Howison lecturer, California, 26, Mills lecturer, 28; Terry lecturer, Yale, 30; Ingersoll lecturer, Harvard, 32; Paul Carus lecturer, 33; Carnegie visiting prof, Japan, Italy and Czechoslovakia. A.A; Philos. Asn. (v. pres, 08, pres, 23). Time-perception; verification of Fechner's law; energistic theory of consciousness; realism; basic conceptions of physics.

Montalban, Heraclio R(osa), Bureau of Science, Manila, P. I. *Ichthyology.* Iloilo, Iloilo, P. I, Oct. 22, 95. A.B, Stanford, 21, A.M, 23. Teacher, high sch, P. I, 21–22; sci. asst, *Bur. Science, P. I*, 22–25, ichthyologist, 25–27, *asst. chief div. fisheries, 27–* P. I. del, Pan-Pacific Food Conservation Conf, Honolulu, 24. Zoology; fisheries; fish culture; fish preservation; fishery methods.

Monteith, Dr. John, Jr, U. S. War Department, Washington, D. C. *Agronomy.* Chatham, N. J, Dec. 24, 93. B.S, Rutgers, 16, M.S, 17; Ph.D, Wisconsin, 23. Asst. pathologist, U. S. Dept. Agr, 17–19; Wisconsin, 19–23; U. S. Dept. Agr, 23–28; green sect, U. S. Golf Asn, 28–42; *mem, Eng. Corps,*

U. S. War Dept, 42– A.A; Phytopath. Soc; Soc. Agron. Culture of turf grasses.

Montermoso, Dr. Juan C(argado), 2418 Bancroft Way, Berkeley, Calif. *Plant physiology.* Manila, P. I, Aug. 26, 09. A.B, California, 35, M.S, 37, Ph.D, 42. Research chemist, Works Progress Admin, 37–40; tech. asst, bot. dept, California, 40–42; *asst. rubber technologist, rubber lab, Mare Island Navy Yard, 42–* A.A; Soc. Plant Physiol; Chem. Soc; Calif. Bot. Soc; North. Calif. Rubber Group. Transpiration in plants; properties of various synthetic rubbers.

Montgomery, Prof. B(asil) Elwood, Purdue University, Lafayette, Ind. *Entomology.* Cynthiana, Ind, Oct. 10, 99. B.S, Oakland City Col, 22; M.S, Purdue, 25; Iowa; Michigan; Ph.D, Iowa State Col, 36. Teacher, high sch, Ind, 22–28; asst. entom. and zool, Iowa State Col, 28–29; instr. *entom, Purdue,* 29–36, asst. prof, 36–42, *assoc. prof, 42–* Summers, field asst, bur. entom, U. S. Dept. Agr, and asst, Exp. Sta, Purdue, 24–41. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ind. Acad. (chairman, biol. surv. cmt, 37; zool. sect, 36). Taxonomy and distribution of Odonata; insect morphology; insect fauna of Indiana.

Montgomery, Dr. C(arol) G(ray), Yale University, New Haven, Conn. *Physics.* Denver, Colo, July 23, 09. B.S, Calif. Inst. Tech, 27, M.S, 28; Ph.D, Yale, 30. Sterling fellow, Sloane physics lab, Yale, 30–32; fellow, Bartol Research Foundation, 32–40; *asst. prof. physics, Yale, 40–* Geophys. Union; Physical Soc. Magnetic properties of metals; cosmic rays.

Montgomery, Prof. Charles Edgar, 512 College Ave, DeKalb, Ill. *Biology.* Danville, Ind, Jan. 17, 84. B.S, Chicago, 13, Ph.D, 30; M.S, Purdue, 18. Teacher, high sch, Ind, 10–16; asst, Purdue, 16–17; teacher *biol, North. Ill. State Teachers Col, DeKalb,* 18–20, *prof. and head dept, 20–* A.A; Ill. Acad. Mosses and lichens; the teaching of biology.

Montgomery, Dr. C(harles) W(oodward), 602 Tenth St, Oakmont, Pa. *Physical chemistry.* Aspinwall, Pa, June 17, 10. B.S, Pa. State Col, 30, M.S, 31; Ph.D, California, 33. *Research chemist, Gulf Research and Develop. Corp, 34–* Indust. fellow, Mellon Inst, 34–35. Chem. Soc. Activity coefficients; kinetics of photochemical reactions; thermodynamics of gases; explosion limits; hydrocarbon reactions.

Montgomery, Prof. Deane, Smith College, Northampton, Mass. **Mathematics.* Weaver, Minn, Sept. 2, 09. A.B, Hamline, 29; M.S, Iowa, 30, Ph.D, 33. Nat. research fellow, Harvard, 33–34; Inst. Advanced Study, 34–35; asst. prof. *math, Smith Col,* 35–38, assoc. prof, 38–42, *prof, 42–* Guggenheim Mem. Foundation fellow, Inst. for Advanced Study, 41–42. Math. Soc. Topology and topological groups.

Montgomery, Dorothy D(urfee) (Mrs. Carol G. Montgomery), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Rochester, N. Y, May 3, 09. A.B, Vassar Col, 30; M.S, Yale, 32. Asst. physics, Yale, 31–32; research assoc, inst. optics, Rochester, 32–33; fellow, Bartol Research Foundation, 34–40; research, Yale, 40–41; *mem. staff, radiation lab, Mass. Inst. Tech, 42–* Spectroscopy; cosmic radiation.

Montgomery, E(dward) G(errard), 24 W. Kirke St, Chevy Chase, Md. *Agronomy.* Milan, Mo, May 10, 78. B.S, Nebraska, 06, A.M, 08. Adj. prof. agron, Nebraska, 06–10, prof, 10–11; Cornell, 11–20; in charge for. market sect, U. S. Dept. Agr, 20–21; chief foodstuffs div, U. S. Dept. Commerce, 21–34; consultant, 35–40; *licensing officer export control, Econ. Warfare Board, 41–* Soc. Agron. (treas, 07, v. pres, 14). Plant breeding; crop culture; corn crops; examining and grading grain; economics; statistics; promotion of foreign trade.

Montgomery, Dr. Hamilton, 102 Second Ave, S.W, Minneapolis, Minn. *Dermatology.* Chicago, Ill, May 21, 98. A.B, Harvard, 18, M.D, 22; Mayo Foundation fellow, Minnesota, 25, M.S, 27. First asst. dermat, *Mayo Clinic,* 27–29, Hyde Mem. fellow, Rush, Chicago, 24–25; *consulting physician, 29–;* instr. dermat, grad. sch, Minnesota, 29–32, asst. prof, *Mayo Foundation and grad. sch,* 32–35, *assoc. prof. dermat.* and *syphilol, 35–* Bronx medal, Am. Med. Asn, 36. Dermat. Asn; Acad. Dermat. and Syphil; Am. Med. Asn; Soc. Invest. Dermat. (v. pres, 39); Minn. Dermat. Soc. (pres, 35); Chicago Dermat. Soc. (pres, 38); Pan Am. Med. Asn; Asn. Argentina de Dermat. y Sifilol, Buenos Aires; Soc. Française de Dermat. et de Syphilig, Paris; cor. mem. Soc. Dermat. Hungarica, Budapest. Diseases of the skin; dermal pathology; cancer of the skin; mycosis fungoides; lupus erythematosus.

Montgomery, Prof. Jack P(ercival), University of Alabama, University, Ala. *Chemistry.* Columbus, Miss, July 18, 77. A.B, Southwest. Presb, 99, hon. A.M, 04; Ph.D, Virginia, 03. Instr, high sch, Ala, 01–02; asst. state chemist, Miss, 02–05; assoc. prof. chem, Miss. Agr. and Mech. Col, 05–11, instr. dyeing, 08–11; *prof. org. chem, Alabama, 11–* Summers, prof, Virginia, 26, 27. Chem. Soc; Inst. Chem; Agr. Chem; Ala. Acad; British Chem. Soc. Chemical education and history; colloid and cellulose chemistry; xyloseaniline and glucose-aniline resins; furfural and turpentine plastics and oxidation products; explosive mixtures of sulfates.

Montgomery, Dr. James B(raxtol), 1606 W. 13th St, Wilmington, Del. *Physical chemistry.* Ark, Oct. 7, 13. B.S, Ark. State Col, 34; M.S, Purdue, 40, fellow, 41–42, Ph.D, 42. Instr. eng, Ark. State Col, 36–38; teaching asst, Purdue, 38–41; *research chemist, Exp. Sta, Hercules Powder Co, 42–* Chem. Soc. Heat capacity of organic vapors; solubility of inorganic salts in acetamide.

Montgomery, Prof. M(elville) Laurence, University of California Hospital, San Francisco, Calif. *Physiology.* Simi, Calif, Dec. 5, 95. A.B, California, 20, A.M, 22, M.D, 24; fellow, Chicago, 29–30, Ph.D, 31. Asst. anat, California, 20–21; instr. *surg,* Chicago, 30–31; asst. prof, *California,* 31–39, *assoc. clin. prof, 39–* Factors influencing secretion of the digestive juices; acute intestinal obstruction; blood volume flow; physiology and pathology of the peripheral vascular system; influence of pancreatic juice on liver lipids; role of pancreas and liver in lipid metabolism; secretion of certain radioactive isotopes by pancreas and liver.

Montgomery, Prof. R(aymond) B(raislin), Woods Hole, Mass. *Meteorology, Oceanography.* Philadelphia, Pa, May 5, 10. A.B, Harvard, 32; M.S, Mass. Inst. Tech, 34, Sc.D, 38, nat. research fellow, 38–39. Asst. meteorol, Mass. Inst. Tech, 35–36; junior meteorol. statistician, bur. agr. econ, U. S. Dept. Agr, 36–37; junior oceanographer, Oceanog. Inst, Woods Hole, 38–40, physical oceanographer, 40–42; asst. prof. *meteorol, N. Y. Univ,* 40–42, *assoc. prof, 42–* Lecturer, N. Y. Univ, 40, 41; meteorologist, gen. develop. lab, Sig. Corps, U. S. Army, 42. Meteorol. Soc; Geophys. Union; Am. Geog. Soc; N. Y. Acad. Turbulence in atmospheric and oceanic boundary layers; evaporation; analysis of atmospheric and oceanic flow patterns; configuration of sea level.

Montgomery, Capt. Robert D(udley), Co. K, 300th Inf, Ft. Benning, Ga. *Wildlife management.* St. Paul, Minn, Aug. 9, 14. B.S, Minnesota, 36; Maine, 38–39. Lab. asst. econ. zool, Minnesota, 34–36; asst. project game manager and acting project game manager, Beltrami-Pine Island project, Fed. Security Agency and soil conservation service, U. S. Dept. Agr, 36–38; asst. wildlife research, Maine, 38–40; game research mammalogist, game div, State Dept. Conservation, Mich, 40–41, game biologist and Detroit dist. supervisor, 41; *capt,* operations office, *Inf, U. S. Army,* 41–42, *co. commander, 42–* Wildlife Soc; Soc. Mammal; Fisheries Soc. Factors affecting reproduction of northern white cedar; life history and management of the fox squirrel in southern Michigan.

Montgomery, Prof. Robert J(oseph), University of Toronto, Toronto, Ont, Can. *Metallurgy.* Gallipolis, Ohio, 86. B.S, Ohio State, 11, Cer.E, 28. Ceramic research, Pittsburgh Plate Glass Co, 11–15; H. Koppers Co. fellow, Mellon Inst, 16–17; optical glass, Bausch and Lomb Optical Co, 18–25; asst. prof. and *assoc. prof. ceramics and head div, dept. metal, Toronto, 25–* Summers, geol. surveys, Ont. Dept. Mines, 26, 28, 29. Fel. Ceramic Soc; Soc. Glass Technol; Can. Ceramic Soc. (pres, 32–34); British Ceramic Soc. Glass and refractories.

Montgomery, Wallace, 40 Hanover Ave, Morris Plains, N. J. *Industrial engineering.* New Orleans, La, Dec. 25, 89. Tulane. Asst. and supt, United Sugar Co, Mex, 13–19; Cuba Cane Sugar Co, Cuba, 21–22; supt. eng, Warner Sugar Co, 23–25, gen. supt, 25–27; engineer and consultant, P. R. and Santo Domingo, 27; *gen. consulting practise, 27–* V. pres, Robert Sayre Kent, Inc. A.A; Mech. Eng; Elec. Eng; Chem. Soc; Chem. Eng; Soc. Refrig. Eng; Inst. Mech. Eng. London. Sugar manufacture process and equipment; coffee manufacture processes; food products.

Montillon, Prof. G(eorge) H(amilton), University of Minnesota, Minneapolis, Minn. *Chemical engineering.* Cedar Rapids, Iowa, Nov. 1, 88. B.S, Iowa State Col, 12, M.S, 18; Ph.D, Michigan, 26. Instr. *chem. eng,* Wisconsin, 19–20;

asst. prof, *Minnesota*, 20–26, assoc. prof, 26–31, *prof, 31–* Chem. Soc; Electrochem. Soc; Eng. Educ. Heat transfer; continuous crystallization; metal plating; extraction; crushing-grinding.

Montonna, Prof. Ralph E(ugene), University of Minnesota, Minneapolis, Minn. *Chemistry, Chemical engineering.* Cape Vincent, N. Y, Oct. 13, 94. B.S, Syracuse, 16; Ph.D, Yale, 24. Chemist, Merrell-Soule Co, 16–18; research chemist, Solvay Process Co, 18–19; supt. and research chemist, U. S. Color and Chem. Co, 19–20; asst. director org. research. Semet-Solvay Co, 20–22; asst. instr. *chem. eng*, Yale, 22–24; asst. prof, *Minnesota*, 24–29, assoc. prof, 29–36, *prof, 36–* Lecturer, Birmingham, 37–38. Chem. Soc; Chem. Eng. Filtration; distillation; drying; absorption; cellulose esters; effect of light on cellulose and derivatives; use of agricultural wastes.

Montroll, Dr. E(lliott) W(aters), Princeton University, Princeton, N. J. *Physical chemistry, Mathematical physics.* Pittsburgh, Pa, May 4, 16. B.S, Pittsburgh, 37, Ph.D, 40. Asst. math, Pittsburgh, 37–39; res. doctor, chem. dept, Columbia, 39–40; Sterling research fellow, Yale, 40–41; research assoc, Cornell, 41–43; *instr. physics, Princeton, 43–* Chem. Soc; Math. Soc. Statistical mechanics; high polymers.

Moody, Dr. Agnes M(ary Claypole), 2826 Garber St, Berkeley, Calif. *[1]Zoology, Geology, Anthropology.* Bristol, Eng, 70. Ph.B, Buchtel, 92; M.S, Cornell, 94; Ph.D, Chicago, 96. Instr. zool, Wellesley Col, 96–98; asst. histol. and embryol, Cornell, 98–00; zool. and geol, Throop, 00–01, instr, 01–03; lecturer sociol, Mills Col, 18–23. 'Jour. Applied Micros.' A.A. Social anthropology; histology of Cayuga Lake lamprey; embryology of Anurida maritima.

Moody, C(larence) L(emuel), Ohio Oil Co, Shreveport, La. *Geology.* Compton, Calif, Oct. 26, 88. A.B, California, 16. Teaching fellow, California, 16; consulting geologist, Casper, Wyo, 17–18; *geologist, Ohio Oil Co, 18–* Asn. Petrol. Geol. (regional ed); Paleont. Soc. Stratigraphy and structure of the Rocky Mountain and Gulf Coast areas.

Moody, Prof. H(erbert) R(aymond), College of the City of New York, New York, N. Y. *Chemistry.* Chelsea, Mass, Nov. 19, 69. B.S, Mass. Inst. Tech, 92; A.M, Columbia, 00, Ph.D, 01. Asst. chem, Mass. Inst. Tech, 92–94, instr. anal. chem, 94–95; science, Gilbert Sch, Conn, 95–99; prof. chem, Hobart Col, 01–05; asst. prof. anal. and applied chem. *Col. City of N. Y*, 05–06, assoc. prof. and prof. chem. eng, 06–22, prof. *chem.* and director dept, 22–38, *emer. prof, 38–* Chairman div. chem. and chem. tech, Nat. Research Council, 36–41, mem. div, 41– Chief tech. expert, chem. div, W.I.B, 17–18. Chem. Soc. (chairman, N. Y. sect, 14); fel. Inst. Chem; fel. Chem. Eng; London Soc. Chem. Indust; London Chem. Soc; Soc. de Chim. indust. Fixation of nitrogen; electric furnace products; special petroleum purifications; aluminum sulfate; bread and other food products; technical fibers and straws.

Moody, Prof. H(oward) W(ilson), 405 Elmhurst Ave, Valparaiso, Ind. *Physics.* Garrison, Iowa, Oct. 24, 77. A.B, Cornell Col. (Iowa), 02; Chicago, 08–10, fellow, 10–12, Ph.D, 12. Instr. physics, Lafayette Col, 12–13; instr and acting head dept, Williams Col, 13–14; prof. and head dept, Miss. Agr. and Mech. Col, 14–30, dean sch. eng, 25–30; *prof.* physics and eng, *Valparaiso*, 30–35, civil eng, 35–40, *eng, 40–*, dean col. eng, 31–41. Physical Soc; Optical Soc; Eng. Educ; Asn. Physics Teachers; West. Soc. Eng. Thermodynamics; the ratio of the specific heats for air and carbon dioxide.

Moody, Dr. Julia E(leanor), 125 Brook St, Wellesley, Mass. *Zoology.* Canton, N. Y. B.S, Mt. Holyoke Col, 94, A.M, 09; Ph.D, Columbia, 12. Instr. *zool*, Mt. Holyoke Col, 05–11; *Wellesley Col*, 13–16, assoc. prof, 16–24, prof, 24–37, *emer. prof, 37–* A.A; Soc. Zool. Genetics; comparative anatomy.

Moody, Prof. Lewis F(erry), 146 Hodge Road, Princeton, N. J. *Hydraulic engineering.* Philadelphia, Pa, Jan. 5, 80. B.S, Pennsylvania, 01, M.S, 02. Instr. mech. eng, Pennsylvania, 02–04; asst. prof mech. eng. and prof. hydraul. eng, Rensselaer Polytech, 08–16; engineer, I. P. Morris dept, William Cramp and Sons Ship and Engine Bldg. Co, 04–08; consulting engineer, 11–30; *prof. hydraul. eng, Princeton, 30–* Consulting engineer, Baldwin Locomotive Works, Phila; Worthington Pump and Machinery Corp, N. J. Advisory cmt, Nat. Hydraul. Lab, 30–31. A.A; Mech. Eng. (chairman, Phila. sect, 18, hydraul. div, 30); Eng. Educ; Franklin Inst. Mechanical engineering; hydraulic machinery; machine design.

Moody, Prof. Paul A(mos), University of Vermont, Burlington, Vt. *Zoology.* Randolph Center, Vt, Jan. 13, 03. A.B, Morningside Col, 24; fellow, Michigan, 26–27, Ph.D, 27. Asst. *zool*, Michigan, 24–26; asst. prof, *Vermont*, 27–31, *assoc. prof, 31–, director grad. study, 42–* Grant in aid, Am. Philos. Soc, 41. A.A; Soc. Mammal. Serological relationships; mammalogy.

Moody, Dr. Robert Orton, University of California, Berkeley, Calif. *Anatomy.* Buffalo, N. Y, Oct. 18, 64. B.S, Cornell, 91; M.D, Yale, 94. Instr. histol, Yale, 91–93, asst. path, 96–00; *anat*, Cornell, 00–01; *California*, 01–05, instr, 05–06, asst. prof, 06–14, assoc. prof, 14–32, prof, 32–35, *emer. prof, 35–* A.A; Asn. Anat; Micros. Soc. The muscular tunic of the large and small intestine in man and in the cat; histogenesis of the thyroid gland of pigs; the diaphragm; position of the stomach, large intestine, liver, spleen and kidneys in man.

Moody, Prof. W(illia)m A(lbion), 60 Federal St, Brunswick, Maine. *Mathematics.* Kennebunkport, Maine, July 31, 60. A.B, Bowdoin Col, 82, A.M, 85, Sc.D, 22; Harvard, 90–91. Teacher, secondary schs, 80–84; instr. *math, Bowdoin Col*, 84–87, prof, 87–26, *emer. prof, 26–*, acting pres, 24. A.A; Math. Soc; Math. Asn.

Mooers, C(harles) A(nsel), University of Tennessee, Knoxville, Tenn. *Chemistry, Agronomy.* Solon, Maine, Dec. 8, 69. B.S, Tennessee, 93. Asst. chemist, Exp. Sta, Tennessee, 93–98; chemist, La. Exp. Sta, 98–99; *Exp. Sta, Tennessee*, 99–05, *chemist and agronomist, 05–*, prof. agron, 07–11, v. director, 19–23, *director, 23–* A.A. (chairman, O, 29); Soc. Agron. (v. pres, 11, pres, 21); Asn. South. Agr. Workers (sec'y, 19, pres, 22). Soil nitrogen; change in content; lysimeter experiments; farm crops; soil fertility.

Mook, Dr. Charles C(raig), 231 Chestnut Ave, Metuchen, N. J. *Geology.* Metuchen, N. J, May 7, 87. B.S, Columbia, 12, A.M, 14, Ph.D, 15. Lecturer and instr, Barnard Col, Columbia, 15–22; asst. to H. F. Osborn, *Am. Museum Nat. Hist*, 12–22, *assoc. curator vert. paleont, 22–*; asst. prof, Hunter Col, 26–27; N. Y. Univ, 27–30, assoc. prof. *geol*, 30–32; lecturer and asst. prof, *Brooklyn Col, Col. City of N. Y*, 32–34, assoc. prof, 34–36, *prof, 36–, head dept, 32–* Acting prof, Rutgers, 21–22. Summers, instr, Rutgers, 15–17. Fel. Geol. Soc; fel. Paleont. Soc; fel. N. Y. Acad. (sec'y, sect. geol. and miner, 18–20). Mesozoic stratigraphy; sauropod dinosaurs; fossil crocodiles and proboscideans.

Mook, Paul V(incent), U. S. Department of Agriculture, 8 Whippany Road, Morristown, N. J. *Forest pathology.* Saegertown, Pa, March 5, 01. B.S, Allegheny Col, 23; M.S, Maryland, 26. Asst. biol, Allegheny Col, 23; zool, Maryland, 24–26, bot, 27–28, 30–31; instr, George Washington, 28–30; from technician to *agent, Dutch elm disease lab, U. S. Dept. Agr, 33–* Summers, asst. zoologist, State Dept. Conservation, Md, 24–25; field asst, U. S. Dept. Agr, 26–32. Phytopath. Soc; Torrey Bot. Club. Invertebrate zoology; transportation diseases of fruits; small fruit diseases.

Moomaw, Dr. W(illiam) A(lbert), 301 E. Franklin St, Richmond, Va. *Chemistry.* Rocky Point, Va, July 10, 07. B.S, Virginia, 29; M.S, Cincinnati, 32, Ph.D, 33. Asst. chem, Virginia, 29–30; Cincinnati, 30–33; prof, Shenandoah Col, 33–34; director research, Wm. P. Poythress and Co, 34–39; *manager, Dominion Labs, 39–; instr. chem, Med. Col. Va, 41–* Instr, Va. Mech. Inst, 39–42. Fel. Inst. Chem; Chem. Soc. Synthesis of organic compounds by condensation; synthesis and resolution of asymmetric compounds; compounds exerting germicidal and antiseptic action; control of toxins in the human organism.

Moon, Hubert H(ill), 6335 19th St, N, Arlington, Va. *Pomology.* Gaithersburg, Md, June 13, 93. B.S, Cornell, 18. Junior pomologist, *bur. plant indust, U. S. Dept. Agr*, 27–36, asst. pomologist, 36–41, *assoc. pomologist, 41–* Fruit and vegetable utilization; plant nutrition; plant breeding.

Moon, J(oseph) W(orley), U. S. Department of Agriculture, Washington, D. C. *Soils.* Bowman, Ga, Oct. 8, 91. B.S, Georgia, 22. Assoc. soil scientist, *bur. plant indust, soils and agr. eng, U. S. Dept. Agr*, 22–37, senior soil scientist, 37–42, *prin. soil scientist, 42–* Am. Geog. Soc; Soil Sci. Soc; Soc. Agron; Int. Soc. Soil Sci. Soil classification and mapping.

Moon, Prof. M'Della, 221 Spring St, Bluffton, Ohio. *Botany.* Seven Mile, Ohio, Sept. 9, 90. A.B, Miami, 21; A.M, Ohio State, 27, 30–31, 40–41. Teacher, pub. schs, Ohio and Ky, 13–21; instr. *biol, Bluffton Col,* 21–25, asst. prof, 25–28, *prof, 28–,* acting director material sciences, 41. Chairman, Program Cmt. of Conservation in Northwest. Ohio. A.A; Genetic Asn; N. Y. Acad; fel. Ohio Acad. Economic botany; plant ecology; natural history; plant morphology.

Moon, Prof. Merl P, University of Missouri, Columbia, Mo. *Bacteriology.* Beaver Falls, Pa, March 4, 91. A.B, Cornell, 15, M.S, 20, Ph.D, 23. Instr. bacter, Cornell, 16–17, 19–25; asst. prof. *prev. med. and med. bacter, Missouri,* 25–31, *assoc. prof, 31–; capt, Sanit. Corps, U. S. Army, 42–* A.A; Soc. Bact; fel. Pub. Health Asn; Mo. Pub. Health Asn. (pres, 38); Mo. Asn. Mental Hygiene; Mo. Acad. Nutrient bouillon; preservation of hemolytic amboceptor; bacteriology of mussels and clams; effect of freshwater mussels on the bacterial content of water.

Moon, Prof. Parry, 292 Harvard St, Cambridge, Mass. *Electrical engineering.* Beaver Dam, Wis, Feb. 14, 98. B.S, Wisconsin, 22; M.S, Mass. Inst. Tech, 27. Design engineer, Westinghouse Elec. and Mfg. Co, 22–24; asst, *Mass. Inst. Tech,* 24–26, asst. prof. *elec. eng,* 26–37, *assoc. prof, 37–* Elec. Eng; Illum. Eng. Soc; Physical Soc; Optical Soc; Math. Soc; Franklin Inst. Illuminating engineering; vision; color.

Moon, Dr. Robert J(ames), University of Chicago, Chicago, Ill. *Physical chemistry.* Springfield, Mo, Feb. 14, 11. A.B, Southwest Mo. State Teachers Col, 30; Ph.D, Chicago, 36. Asst. chem, *Chicago,* 36–37, *instr,* 37–39, *physics, 39–* Diffraction of slow electrons; nuclear chemistry with aid of cyclotron.

Moon, Dr. V(irgil) H(olland), Jefferson Medical College, Philadelphia, Pa. *Pathology.* Craig, Ind, July 31, 79. A.B, Kansas, 10, M.S, 11; M.D, Rush, Chicago, 13. Research pathologist, McCormick Inst, Chicago, 11–14; assoc. prof. and prof. path. and bacter, sch. med, Indiana, 14–27; *prof. path, Jefferson Med. Col, 27–* Fellow, Rush Med. Col, Chicago, 13–14. U. S. rep, Int. Asn. Geog. Path, 29– A.A; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Col. Physicians Phila; Path. Soc. Phila. (pres, 32–34); Physiol. Soc. Phila. Experimental immunity in typhoid; hydrophobia; immune reactions; cirrhosis; chronic infections; shock and related capillary phenomena; inflammation; leukocytosis; edema.

Mooney, Dr. Melvin, U. S. Rubber Products, Inc, Market and South Sts, Passaic, N. J. *Physics.* Kansas City, Mo, July 1, 93. A.B, Missouri, 17; Ph.D, Chicago, 23. Chemist, Morris and Co, 17–18; physicist, F. E. Simpson Radium Inst, 21–23; West. Elec. Co, 23–24; nat. research fellow, 24–27; West. Elec. Co, 28–29; *physicist, gen. labs, U. S. Rubber Products, Inc, 29–* Physical Soc; Chem. Soc; Soc. Rheol. (pres, 36). Colloidal physics; rheology.

Mooney, Prof. Robert L(ee), Georgetown University, Washington, D. C. *Physics.* Chadbourn, N. C, Nov. 10, 11. B.S, Furman, 33; M.S, Syracuse, 36; Ph.D, Brown, 38. Instr. physics, Furman, 33–34; *math. physics, Georgetown,* 38–40, *asst. prof, 40–, acting chairman dept. physics, 42–* Summer, mem. staff, Naval Ordnance Lab, 41. Physical Soc. A self-consistent field for doubly ionized chromium; elastic scattering in helium at 15° C.

Mooney, Prof. R(ose) C(amille) L(eDieu), 1101 Broadway, New Orleans, La. *Physics.* New Orleans, La, Oct. 23, 02. B.S, Tulane, 26, M.S, 29; fellow, Chicago, 31–32, Ph.D, 32. Instr. *physics, Newcomb Col, Tulane,* 26–30, asst. prof, 33–35, assoc. prof, 35–41, *prof. and head dept, 41–* Guggenheim Mem. Foundation fellow, 39–40. Asn. Physics Teachers; fel. Physical Soc. X-rays and crystal structure; structure of groups in crystals; fiber structure.

Moor, Prof. H(iram) D(unlap), 2821 N. W. 18th St, Oklahoma City, Okla. *Bacteriology.* Plymouth, Vt, July 9, 86. A.B, Middlebury Col, 11; B.S, Vermont, 18, M.S, 19; B.S, Oklahoma, 25; M.D, Rush, Chicago, 29. Asst. prof. *bacter, sch. med, Oklahoma,* 20–28, *prof. 29–,* exec. asst. to dean, 31–35. Am. Med. Asn; South. Med. Asn; Okla. Acad. Immunology; ketogenic diets.

Moore, Dr. Alexander M(azyck), Socony-Vacuum Oil Co, Paulsboro, N. J. *Organic chemistry.* Charleston, S. C, Nov. 6, 17. B.S, Col. of Charleston, 38; Ph.D, Hopkins, 42. Lab. asst. biol, Col. of Charleston, 36–38; chem, Hopkins, 38–42; *research chemist, Socony-Vacuum Oil Co, Inc, 42–* Summers, mem. staff, veg. breeding lab, U. S. Dept. Agr, 40, 41. Chem. Soc. Determination of minerals and vitamins in plant tissue; synthesis of heterocyclic compounds from hydrazine; petroleum chemistry.

Moore, Alfred F(inley), Smithsonian Institution Observatory, Swartout, Calif. *Solar physics.* Albany, Texas, April 15, 84. B.S, California, 08. *Field director, solar radiation stations, Smithsonian Institution,* N. C, 17–18, Chile, 18–20, Ariz, 21–25, *Calif, 25–* Asst, Flint Island eclipse exped, 08, director Smithsonian Institution expeds, Australia, 23, Africa and Sinai Peninsula, 31–32. Seismol. Soc. Solar radiation; eastern hemisphere site for solar radiation station.

Moore, Prof. A(rthur) D(earth), University of Michigan, Ann Arbor, Mich. *Electrical engineering.* Fairchance, Pa, Jan. 7, 95. B.S, Carnegie Inst. Tech, 15; M.S, Michigan, 22. Student training course, Westinghouse Elec. and Mfg. Co, 15–16; from instr. to *prof. elec. eng, Michigan, 16–* Elec. Eng; Eng. Educ. Fundamentals of electrical design; magnetic field mapping; equalizer connections; light court theory; heat radiation; mean ordinate of curves; calculators for heat work and other types of diffusion.

Moore, Prof. A(rthur) R(ussell), University of Oregon, Eugene, Oregon. *General physiology.* Furnas Co, Nebr, Nov. 10, 82. A.B, Nebraska, 04; Ph.D, California, 11. Asst. prof. physiol, California, 11–13; assoc. prof, Bryn Mawr Col, 13–16; *prof. and head dept,* Rutgers, 16–26; *gen. physiol, Oregon, 26–* Instr, Marine Biol. Lab, Woods Hole, 16–20; acting prof, Stanford, 26; lecturer, Hopkins Marine Sta, Stanford, 26–; Cmn. Relief Belgium Educ. Foundation fellow, 30–31; Rockefeller Foundation visiting prof, Tohoku Imp. Univ, Sendai, Japan, 33–34. A.A; Physiol. Soc; Soc. Exp. Biol; Psychol. Asn; West. Soc. Nat; Calif. Acad. Tropisms; nerve-physiology of invertebrates; cytoplasmic structure and the early embryo; protoplasmic reactions; comparative psychology.

Moore, Barrington, 340 W. 23rd St, New York, N. Y. *Forestry.* Ossining, N. Y, Sept. 25, 83. A.B, Yale, 06, M.F, 08. Forest asst, U. S. Forest Service, N. Mex, 09–11; examiner, Washington, D. C, 11–14; assoc. curator woods and forestry, Am. Museum Nat. Hist, 17, research assoc. forestry, 19. Ed board, 'Jour. Forestry,' 13–23; ed, 'Ecology,' 20–31. Sec'y, Council Nat. Parks, Forests and Wild Life, 22–35. C.Eng, 17–18, major. A.A; Soc. Foresters; Bot. Soc; Ecol. Soc. (pres, 19); Torrey Bot. Club; fel. N. Y. Acad. (councilor, 24–27); Finland Soc. Forestry (cor. sec'y). Forest management; silviculture; forest ecology.

Moore, Dr. Bernard N(ettleton), Care of Cia Consolidada de Petroleo Maturin, Monagas, Venezuela, S. Amer. *Geology.* East St. Louis, Ill, June 23, 06. B.S, Calif. Inst. Tech, 27, Ph.D, 30. Teaching fellow, Calif. Inst. Tech, 27–30; junior geologist, U. S. Geol. Surv, 30–34, asst. geologist, 34–37; *geologist, Consol. Oil Corp, 37–* Min. and Metal. Eng; Asn. Petrol. Geol; Miner. Soc; Geol. Soc. Wash. Areal geology in western United States; industrial minerals.

Moore, Prof. B(ruce) V(ictor), 325 W. Park Ave, State College, Pa. *Psychology.* Kokomo, Ind, Sept. 9, 91. A.B, Indiana, 14, A.M, 17; Columbia, 17–18; fellow, Carnegie Inst. Tech, 19–20, Ph.D, 21. Asst. prof. *psychol, Pa. State Col,* 20–23, assoc. prof, 24–28, *prof. and head dept, 28–* Psychologist, U.S.A, 18–19. Psychol. Asn. Industrial psychology; personnel selection of graduate engineers; how to interview; readings in industrial psychology.

Moore, Dr. Carl A(lphin), Carter Oil Co, Box 1151, Seminole, Okla. *Geology.* Doniphan, Mo, May 23, 11. B.S, Tulsa, 36; M.S, Iowa, 38, Ph.D, 40. Research geologist, Standard Oil Co. of N. J, 39–42; *geologist, Carter Oil Co, 42–* Summers, field geologist, Okla. Geol. Surv, 38, 39. Asn. Petrol. Geol; assoc. Paleont. Soc. Paleontology; stratigraphy; techniques in presenting data.

Moore, Prof. Carl R(ichard), University of Chicago, Chicago, Ill. ***'Zoology.** Brookline, Mo, Dec. 5, 92. B.S, Drury Col, 13, A.M, 14; fellow, Chicago, 14–15, Ph.D, 16. Teaching fellow, Drury Col, 13–14; asst. *zool, Chicago,* 15–16, assoc, 16–18, instr, 18–22, asst. prof, 22–26, assoc, prof, 26–28, *prof, 28–, chairman dept, 34–* Ed. staff, 'Biol. Bul,' 26–; 'Physiol. Zool.' Francis Amory award, Am. Acad. Arts and Sciences, 40. Int. Cong. Sex Research, London, 30. A.A. (v. pres, F, 43); Soc. Nat; Soc. Zool. (v. pres, 25); Soc. Exp. Biol; Asn. Anat; Asn. Study Int. Secretions; Inst. Med. Chicago. Fer-

tilization; modification of sexual conditions; internal secretions of gonads.

Moore, Dr. Carl V(ernon), Washington University School of Medicine, St. Louis, Mo. *Medicine.* St. Louis, Mo, Aug. 21, 08. A.B, Washington (St. Louis), 28, M.D, 32. Asst. path, Washington (St. Louis), 32–33; intern, Barnes Hosp, St. Louis, 33–34; nat. research fellow med, Ohio State, 34–35, research instr, dept. med. and surg. research, 35–36, asst. prof. *med,* 36–38; *sch. med, Washington (St. Louis),* 38–42, *assoc. prof, 42–* Asst. ed, 'Nutrition Revs,' 42– Fel. Am. Med. Asn; Soc. Clin. Invest; fel. Col. Physicians; Inst. Nutrition; Cent. Soc. Clin. Research (sec'y-treas, 39–). Hematology; metabolism of blood leucocytes in relation to leukemia and other blood dyscrasias; iron transportation and metabolism.

Moore, Dr. Charles H(enkel), Jr, Pennsylvania State College, State College, Pa. *Petrography.* New Market, Va, Oct. 25, 15. B.S, Virginia, 36, M.S, 37; Ph.D, Cornell, 40. Lab. asst. geol, Virginia, 35–37; asst. instr. gen. geol, Cornell, 37–38, instr. miner. and petrog, 38–40; research engineer and second in charge optics dept, research lab, Carborundum Co, 40–43; *asst. prof. miner, sch. mineral industries, Pa. State Col, 43–* Summers, field geologist, Va. Geol. Surv, 36, 38, 39. Min. and Metal. Eng. High temperature physical chemistry; geologic history, mineral resources and structural relations of areas in Patrick and Henry Counties, Virginia; physical and optical properties of natural and artificial refractories and abrasives.

Moore, Prof. Charles J(ames), Hunter College, New York, N. Y. *Inorganic chemistry.* Flint Hill, Va, Aug. 9, 75. B.S, Va. Mil. Inst, 95; Ph.D, Virginia, 01; A.M, Harvard, 09. Instr. math, Hornor Sch, N. C, 96–98; prof. chem. and geol, Western Maryland Col, 01–02; instr, Georgia, 02–04, adj. prof, 04–07; Austin teaching fellow, Harvard, 08–12; instr. chem, N. Y. Univ, 12–14; asst. prof, Hunter Col, 14–17, assoc. prof, 17–20; chief chemist, bur. soils, U. S. Dept. Agr, 20–21; *prof. chem, Hunter Col, 21–* Jackson-Hope medal. A.A; Chem. Soc; Boylston Chem. Club (pres, 09–11). Interaction of primary aliphatic amines and the salts of certain metals; revisions of the atomic weight of phosphorus; the amount of colloidal material in soils; liquid hydrogen sulfide; logarithmic reduction tables for analytical chemistry; purification of quicksilver.

Moore, Prof. Charles N(apoleon), University of Cincinnati, Cincinnati, Ohio. *§*Mathematics.* Cincinnati, Ohio, Nov. 14, 82. A.B, Cincinnati, 03; M.S, George Washington, 05, hon. Sc.D, 32; Ph.D, Harvard, 08; Paris, 11–12. Computer, U. S. Naval Observatory, 03–05; instr. *math, Cincinnati,* 08–09, asst. prof, 09–17, assoc. prof, 17–24, *prof, 24–, director grad. studies in math, 37–* Summer, faculty, Chicago, 14. Del, Int. Cong. Math, Zurich, 32. A.A. (sec'y, A, 28–33, v. pres, 33); Math. Soc. (assoc. ed, 'Trans,' 17–35, councilor, 19–22, v. pres, 26); Math. Asn. (cmt. on math. requirements, v. pres, 31); Deuts. Math. Verein; Soc. math. de France. Divergent series and integrals; developments in Bessel's functions; Fourier's series; generalized limits.

Moore, Dr. Charlotte E(mma) (Mrs. Bancroft W. Sitterly), 14 Prospect Ave, Princeton, N. J. *§*Astronomy, Astrophysics.* Ercildoun, Pa, Sept. 24, 98. A.B, Swarthmore Col, 20; Ph.D, California, 31. Computer, Princeton Observatory, 20–25; Mt. Wilson Observatory, Carnegie Institution, 25–28; *Princeton,* 28–29, asst. *spectros,* 31–36, *research assoc, 36–* A.A; Astron. Soc. Spectroscopy; revision of Rowland's table of solar spectrum wave-lengths; atomic lines in the sun spot spectrum; physical conditions existing in sun spots; multiplet tables; infra-red solar spectrum; dynamical parallaxes of double stars.

Moore, C(hester) N(ewell), General Electric Co, Schenectady, N. Y. *Physics.* Amity, Mo, April 25, 83. B.S, Dartmouth Col; Leipzig. *Research engineer, Gen. Elec. Co, 07–* X-ray tubes, cathode ray tubes and apparatus; genetic effects of radiations and electrons; surface chemistry; selenium rectifiers.

Moore, Dr. Clarence E(ugene), 439 Patterson St, Memphis, Tenn. *Cytology, Genetics.* Walla Walla, Wash, Feb. 6, 86. A.B, Montana, 22; Illinois, 23–25; Ph.D, Columbia, 28. Prin, pub. schs, Calif, 05–08; Mont, 08–17, high sch, 17–18; geneticist, United Fruit Co, Almirante, Panama, 26–27; *head dept. biol. sciences, Memphis State Col, 28–* Summer, instr, Pa. State Teachers Col, Indiana, 28. A.A; Torrey Bot. Club; Tenn. Acad; Tenn. Ornith. Soc. Plant breeding.

Moore, Dr. Dan H(ouston), 630 W. 168th St, New York, N. Y. *Physical chemistry.* Elk Creek, Va, April 7, 09. A.B, Duke, 32, A.M, 33; Ph.D, Virginia, 36. Asst, Columbia, 36–38; research assoc, Lederle Labs, 38–39; *assoc. anat, Columbia, 39–* Physical Soc. Biophysics; electrophoresis; ultracentrifugation.

Moore, Dr. Dunlop, Box 5083, Metropolitan Station, Los Angeles, Calif. *Medicine.* Vienna, Austria, June 3, 71. A.B, Princeton, 90; M.D, Pennsylvania, 93. *Med. director, U. S. Pub. Health Service.* Am. Med. Asn. Hematology; parasitology.

Moore, Prof. Dwight M(unson), University of Arkansas, Fayetteville, Ark. *Plant physiology.* Zanesville, Ohio, Dec. 10, 91. B.S, Denison, 14, M.S, 21; Montpellier, France, 19; Ph.D, Ohio State, 24. Prin. and instr, high schs, Ohio, 14–17, 19–20; instr. biol, Denison, 20–23; *bot,* Ohio State, 23–24; asst. prof, *Arkansas,* 24–26, *prof. and head dept, 26–* Bot. surv, Bass Islands, Lake Erie. A.A; Soc. Plant Physiol; Bot. Soc; Ecol. Soc; Ark. Acad. (pres, 32–34); Ohio Acad. Botanical survey of parts of Licking County, Ohio; the dormancy of bulbs; effects of low temperature on bulbs; flora and pteridophytes of Arkansas.

Moore, Dr. Edmond E(ugene), Abbott Laboratories, North Chicago, Ill. *Chemistry.* Ware, Mass, Aug. 14, 96. B.S, Worcester Polytech, 18; M.S, Iowa State Col, 24, Ph.D, 28. Instr, State Col. Wash, 20–22; asst, Iowa State Col, 22–24, 26–28; prof. chem, Hedding Col, 24–26; chief chemist, Swan-Myers Co, Indianapolis, 29–31; *research chemist, Abbott Labs, 31–* Asst, Idaho; chemist, Atlas Powder Co; People's Gas Light and Coke Co. A.A; Chem. Soc; Ill. Acad. Medicinal chemistry.

Moore, Dean Edward J(ames), University of Buffalo, Buffalo, N. Y. *Physics.* Chili, N. Y, June 13, 73. A.B, Oberlin Col, 03, A.M, 06; fellow, Chicago, 09–10, Ph.D, 13. Tutor math, Oberlin Acad, 03–07, instr, 07–08, assoc. prof. physics and astron, Oberlin Col, 10–19; *prof. physics, Buffalo, 19–, dean grad. sch. arts and science, 39–* Instr. exten. div, Chicago, 10–14, asst. prof, 14–19. Summers, instr, Colorado, 14; Chicago, 15. A.A; assoc. Physical Soc; Ohio Acad. X-rays; discharge of electricity from points in gases; specific heats; effects of magnetism on the period of a pendulum; focal lengths of lenses.

Moore, Prof. Edward W(arren), Harvard University, Cambridge, Mass. *Sanitary chemistry.* Middleboro, Mass, Dec. 5, 06. A.B, Harvard, 29, A.M, 31. Asst. *sanit. chem, grad. sch. eng, Harvard,* 29–32, instr, 32–38, asst. prof, 38–41, *assoc. prof, 41–* Chem. Eng; Chem. Soc; Water Works Asn. Water purification; sewage treatment.

Moore, Dr. Edwin Lewis, U. S. Department of Agriculture, Winter Haven, Fla. *Food chemistry.* Springfield, Mass, May 26, 16. B.S, Mass. State Col, 38, M.S, 40, Glass Container Asn. fellow, 41–42, Ph.D, 42; Rutgers, 40–41. Asst. chem, Mass. State Col, 38–39, teaching fellow, 39–40; asst. agr. biochem, Rutgers, 40–41; *research fellow, Fla. Citrus Cmn. and collaborator, agr. chem. research div, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Chem. Soc; Soc. Bact; Inst. Food Technol. Cataractogenic action of galactose; fat requirements and metabolism of the chicken; causes of deterioration of packaged orange juice; dehydration of citrus products; citrus juice concentrates; citrus canning.

Moore, Prof. E(lwood) S, University of Toronto, Toronto, Ont, Can. *Geology.* Heathcote, Ont, Aug. 3, 78. B.A, Toronto, 04, M.A, 08; fellow, Chicago, 07–09, Ph.D, 09; Paris, 15. Science and house master, Pickering Col, 04–05; science master, Collingwood Collegiate Inst, 06; prof. geol. and miner, Pa. State Col, 09–22, acting dean sch. mines, 17–19, dean, 19–22; *prof.* econ. geol, *Toronto,* 22–37, *geol. and head dept, 37–* Field asst, Ont. Dept. Mines, 04–05, field geologist, 06–10, 22–37; Geol. Surv. Can, 12; Pa. Topog. and Geol. Surv, 18–22; director, Royal Ont. Museum Geol, 22– Econ. geologist, exped, Hudson Bay, 16, Cuba, 17. A.A. (sec'y, E, 21–24); Geol. Soc. (councilor, 29–31, 1st v. pres, 33, 2nd v. pres, 39); Soc. Econ. Geol. (councilor, 32–34, pres, 39); Miner. Soc; Min. and Metal. Eng; Coal Min. Inst. (exec. board, 20); fel. Royal Soc. Can. (pres, sect. IV, 37); Can. Inst. Min. and Metal; British Asn. Precambrian, metamorphic and economic geology; coal and iron deposits.

Moore, Dr. Emmeline, Conservation Department, Albany, N. Y. *Biology.* Batavia, N. Y, April 29, 72. A.B, Cornell, 05, Ph.D, 14; A.M, Wellesley Col, 06; hon. Sc.D, Hobart Col,

29. Teacher, pub. schs, 95–03; instr. biol, nor. sch, 06–10; substitute prof. bot, Huguenot, S. Africa, 11; teaching fellow, Cornell, 12–14; instr. and asst. prof, Vassar Col, 14–19; research biologist and later *chief aquatic biologist and director biol. surv, N. Y. Conservation Dept, 19–* Teaching fellow, Wellesley Col, 05–06; hon. fellow, Wisconsin, 19–20. Summers, investigator, Bur. Fisheries, 17–19. Walker prize, Boston Soc. Nat. Hist, 09, 15. Fisheries Soc. (v. pres, div. biol, 23, fish culture, 24, pres, 28); Wild Life Inst. Fish foods; fish pathology; pollution of waters.

Moore, Prof. F(rancis) B(ertram), 116 N. University, Enid, Okla. *Physical chemistry.* Des Moines, Iowa, July 31, 05. A.B, Des Moines, 26; Ph.D, Iowa State Col, 40. Asst. coach and science instr, high sch, Iowa, 26–27, prin. and coach, 27–29, asst. coach and science instr, 29–32; grad. instr. *chem,* Iowa State Col, 33–40; *assoc. prof. and head dept, Phillips, 40–* Summers, testing lab, supervisor, Fairmont Canning Co, 38, 40–42. Chem. Soc; Okla. Acad. (v. pres, 42). Electron sharing ability of organic radicals as indicated by the condensation of mercaptans with chloral in the gaseous phase; qualitative separation of copper from cadmium in alkaline solution by aluminum.

Moore, Dr. George A(ndrew), Battelle Memorial Institute, Columbus, Ohio. *Metallurgy, Chemistry.* New York, N. Y, Feb. 14, 13. B.S, Union Col, 34; M.S, Harvard, 35; Ph.D, Princeton, 39. Instr. metal, Princeton, 39–40; *research engineer, Battelle Mem. Inst, 40–* Min. and Metal. Eng; Electrochem. Soc. Lithium hydride; occlusion hydrogen in iron; nickel; cobalt; palladium.

Moore, Prof. G(eorge) A(zro), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Zoology.* Fairmont, Minn, Sept. 12, 99. B.S, Okla. Agr. and Mech. Col, 23; M.S, Oklahoma, 30; Ph.D, Michigan, 42. Instr. *zool, Okla. Agr. and Mech. Col,* 23–30, asst. prof, 30–41, *assoc. prof, 41–* Micros. Soc; Fisheries Soc; Soc. Ichthyol. and Herp; Wilson Ornith. Soc; Okla. Acad. Cytology; ichthyology; herpetology.

Moore, Dr. George C(linton), 116 Hubbell St, Canandaigua, N. Y. *Agronomy.* Geneva, N. Y, Nov. 18, 09. B.S, Cornell, 31, Ph.D, 35. Asst. veg. crops, N. Y. State Col. Agr, Cornell, 31–35; special agent, div. fruit and veg. crops and diseases, *U. S. Dept. Agr,* 33–35, asst. agronomist, *soil conservation service,* 35, assoc. agronomist, 35–37, agronomist, 37–40, manager Bath project, 36–39, conservation operations, west. N. Y, 39–40, asst. manager, *N. Y,* 40–42, *dist. conservationist, 42–* Soil and plant response to potato cultivation; potato storage; soil hydrogen ion concentration and potato yields; potato strain tests; potato growth; photometric determination of leaf areas.

Moore, Dr. George M(itchell), College of William and Mary, Williamsburg, Va. *Limnology, Zoology.* Shelby Co, Ohio, Aug. 5, 06. A.S, Toledo, 26; B.S, Otterbein Col, 28; M.S, Michigan, 32, Ph.D, 38. Teacher, high sch, Ohio, 28–31; instr. biol, Virginia Jr. Col, Minn, 32–37; teaching fellow zool, Michigan, 37–38; asst. prof. biol, Bowling Green State Univ, 38–42; *assoc. biologist, Va. fisheries lab, Col. of William and Mary, 42–* Summers, aquatic biologist, Inst. Fisheries Research, Michigan, 38; State Div. Game and Fish, Minn, 41. A.A; Limnol. Soc; Ecol. Soc; Micros. Soc. Microscopic bottom fauna.

Moore, Dr. Geo(rge) R(aymond), 2105 Melrose Ave, Ann Arbor, Mich. *Orthodontics.* Gibsonburg, Ohio, Dec. 24, 99. D.D.S, Michigan, 23, M.S, 24. Instr. *orthodontics, sch. dentistry, Michigan,* 24–28, asst. prof, 28–35, assoc. prof, 35–37, *prof, 37–, research assoc. child develop, sch. educ, 31–* Ed. orthodontic sect, 'Year Book of Dentistry,' 39– A.A; Dental Asn; Soc. Orthodontists (research cmt, 33–37); Asn. Dental Schs; fel. Col. Dentists; Great Lakes Asn. Orthodontists (pres, 29, board censors, 30–33, 36); Int. Asn. Dental Research. Oral and facial development in the human; measurement of forces applied to mouth tissues through the teeth in orthodontic treatment; orthodontic therapy; orthodontics education; heredity in relation to dento-facial development.

Moore, Dr. George T(homas), Missouri Botanical Garden, St. Louis, Mo. *[1]Botany.* Indianapolis, Ind, Feb. 23, 71. B.S, Wabash Col, 94; A.B, Harvard, 95, A.M, 96, Ph.D, 00. Asst, crypt. lab, Harvard, 97–99, instr, Radcliffe Col, 98–99; in charge dept. bot, Dartmouth Col, 99–01; physiologist and algologist, bur. plant indust, U. S. Dept. Agr, 01–02, in charge lab. plant physiol, 02–05; prof. plant physiol. and applied bot, *Washington (St. Louis),* 09–12, *Engelmann prof. bot, 12–, director Henry Shaw sch. bot, 37–, Mo. Bot. Garden, 12–* Instr, Marine Biol. Lab, Woods Hole, 96–07, 13, head dept. bot, 07–19; lecturer, Thayer Sch. Eng, 00–02, Dartmouth Col, 01–02. Pres, Board Commissioners of Parks, St. Louis; pres. board trustees, St. Louis County Day Sch. George Robert White Medal of Honor, 39. A.A; Soc. Nat; Bot. Soc. (sec'y, 10–14, v. pres, 16); Soc. Bact; Philos. Soc; Wash. Acad; Mo. Acad. (cmt. conservation, 37–); St. Louis Acad. (pres, 12–27). Terrestrial and subterranian forms of algae; plant products and their practical application in industry.

Moore, Dr. H(enry) F(rank), Linville Falls, N. C. *Zoology.* Philadelphia, Pa, June 4, 67. A.B, Cent. High Sch. Phila, 85; Ph.D, Pennsylvania, 95. Asst. biol, Pennsylvania, 92–95; lecturer, Hahnemann Med. Col, 93–06; chief naturalist, 'Albatross,' 97–02; sci. asst, Bur. Fisheries, 02–11, asst. in charge div. sci. inquiry, 11–14, deputy commissioner, 14–23. Naturalist, Int. Fish Cmn, 93–96. Two awards, Int. Fishery Cong, 08, U. S. rep. and v. pres, at Rome, 11; medal, Oester. Fischerei Gesell, 08. A.A; Geophys. Union; N. C. Forestry Asn; Acad. Nat. Sci. Phila; hon. mem. Oester. Fischerei Gesell. Invertebrate zoology; zoology applied to the fisheries, especially mollusks and sponges; Oligochaeta; Isopoda.

Moore, Dr. Henry Thomas, Skidmore College, Saratoga Springs, N. Y. *Psychology.* Ansonville, N. C, June 27, 86. A.B, Missouri, 03; Ph D, Harvard, 14; LL.D, Russell Sage Col, 35, Skidmore, 37, Dartmouth Col, 40. Asst. prof. psychol, Dartmouth Col, 15–17; Minnesota, 17–19; prof, Dartmouth Col, 19–25; educ. psychol, Michigan, 25; *pres, Skidmore Col, 25–* Co-editor, 'Jour. Abnor. and Social Psychol,' 25–30, ed, 30–37. Mem, Social Science Research Council, 27–30. Mem, State Examinations Board, N. Y. A.A; Psychol. Asn; N. H. Acad. Psychology of music; instinct; emotion.

Moore, Dr. H(erbert), Stevenson-Kellogg, Ltd, Toronto, Ont, Can. *Psychology.* Blackhead, Newfoundland, Jan. 18, 94. B.A, Toronto, 24; A.M, Harvard, 26, Ph.D, 31. Instr. educ, Mt. Holyoke Col, 26–27, asst. prof. psychol, 27–31, assoc. prof, 31–39; *personnel consultant,* Business Research Corp, 39–43; *Stevenson-Kellogg Ltd, 43–* Lecturer, Am. Int. Col, 27–36; instr, div. univ. exten, State Dept. Educ, Mass, 27; lecturer, Springfield div, Northeastern Univ, 30–38. Psychol. Asn; Personnel Research Federation; Nat. Inst. Indust. Psychol, London. Mental tests; psychology of personality; business psychology.

Moore, Dr. H(erbert) Carlton, 145 Beaumont Ave, Newtonville, Mass. *Engineering.* Milford, Mass, April 3, 03. B.S, Mass. Inst. Tech, 24, M.S, 33, Sc.D, 41. Asst. prof. mech. eng, Mass. Inst. Tech, 36–41; *engineer, Shreve, Lamb and Harmon, 41–; Fay, Spofford and Thorndike, 41–* Soc. Heat. and Vent. Eng. Engineering thermodynamics of mixtures; heating and air conditioning.

Moore, Prof. H(erbert) F(isher), University of Illinois, Urbana, Ill. *Mechanical engineering.* Penacook, N. H, July 10, 75. B.S, New Hampshire, 98, hon. Sc.D, 22; M.E, Cornell, 99, M.M.E, 03. Teacher science and math, Colby Acad, N. H, 99–00; instr. machine design, Cornell, 00–03; mech. engineer, Riehle Bros. Test. Machine Co, Pa, 03–04; instr. and asst. prof. mech, Wisconsin, 04–07; asst. prof. theoret. and applied mech, *Illinois,* 07–14, *prof. eng. materials, 14–* A.A. (v. pres, M, 29); Mech. Eng; Soc. Test. Mat. (past pres); Eng. Educ; British Inst. Metals. Engineering materials; lubrication of bearings; appliances and machines for testing materials; strength of built-up structures and of materials; fatigue of metal under repeated stress; strength and wear of railroad rails.

Moore, Dr. Howard R(oswald), U. S. Navy Yard, Philadelphia, Pa. *Chemistry.* Chicago, Ill, Oct. 4, 01. B.S, Chicago, 21, M.S, 22, Ph.D, 24. Grafflin research fellow, Hopkins, 24–25; physical chemist, Eastman Kodak Co, 25–27; Bur. Standards, 27–30; Celanese Corp. of Amer, 30–33; org. chemist, Nat. Aniline and Chem. Co, 34; Selden div, Am. Cyanamid Co, 35–36; paint chemist, Ault and Wiborg Corp, 36–37; Devoe and Raynolds Co, Inc, 37–38; *paint technologist, U. S. Navy Yard, Phila, 38–* Fel. Inst. Chem. Photochemistry; rayon; detergents; synthetic resins; industrial finishes; marine paints.

Moore, Prof. James G(arfield), 2125 W. Lawn Ave, Madison, Wis. *Horticulture.* Shepherd, Mich, Oct. 22, 81. B.S, Mich. State Col, 03, M.S, 05, M.Hort, 07. Instr. *hort, Wisconsin,* 05–07, asst. prof, 07–10, assoc. prof, 10–15, *prof, 15–* A.A; Soc. Hort. Sci. Vegetable production; pomology.

Moore, Prof. J(ared) S(parks), Western Reserve University, Cleveland, Ohio. *Philosophy.* Cambridge, Mass, Sept. 29, 79. A.B, Hopkins, 00; A.M, Harvard, 03, Ph.D, 05. Instr. psychol. and philos, *Western Reserve,* 07–13, asst. prof, 13–19, assoc. prof, 19–25, *prof. philos, 25–* A.A; Philos. Asn. Rifts in the universe; foundations of psychology.

Moore, Dr. Jerry H(amilton), North Carolina State College, Raleigh, N. C. *Plant breeding.* Ansonville, N. C, Sept. 29, 95. B.S, Clemson Col, 17; fellow, N. C. State Col, 24–25, M.S, 25; Cornell, 35–37; Ph.D, Duke, 39. Teacher, high schs, N. C, 21–24; asst. prof. agron, Arkansas, 25–26; cotton breeder, J. M. Littlefield, Okla, 26; *cotton technologist, Exp. Sta, N. C. State Col, 27–* U.S.A, 17–18. A.A; Soc. Agron; Genetic Asn. Cotton genetics and breeding; relation of the physical properties of cotton fibers to cotton breeding and manufacture; fiber structure; statistical analysis of fiber and yarn data; distribution of physical fiber properties on the cotton seed.

Moore, Dr. Jim K(ingensmith), Experiment Station, Hercules Powder Co, Wilmington, Del. *Physical chemistry.* Du Bois, Pa, July 9, 15. B.S, Michigan, 37; univ. fellow, Western Reserve, 37–40, Ph.D, 41. *Research chemist,* Westvaco Chlorine Products Corp, 40–41; *Hercules Powder Co, 41–* Chem. Soc. Kinetics of polymerization.

Moore, Prof. John Adam, Northern Montana College, Havre, Mont. *Botany.* Cambridge, Mass, March 3, 08. B.S, Butler, 28; M.S, State Col. Wash, 30; Rufus J. Lackland research fellow, Washington (St. Louis), 30–32, Ph.D, 34. Teaching fellow bot, State Col. Wash, 28–30; asst, Washington (St. Louis), 34–36; prof. *biol,* Huron Col, 36–38; instr, Nebr. State Teachers Col, Wayne, 38–42; *asst. prof, North. Mont. Col, 42–* Summers, instr, Washington (St. Louis), 38. A.A; Bot. Soc. Systematic floral anatomy; taxonomy of lichens; evolution of cormophytes; nature study.

Moore, Dr. John A(lexander), Barnard College, Columbia University, New York, N. Y. *Experimental embryology.* Charles Town, W. Va, June 27, 15. A.B, Columbia, 36, A.M, 39, Ph.D, 40. Asst. zool, Columbia, 36–39; tutor biol, Brooklyn Col, 39–41; instr. biol, Queens Col. (N. Y), 41–43; *asst. prof. zool, Barnard Col, Columbia, 43–* Newberry prize, Columbia, 39. Soc. Zool; Soc. Study Speciation; Ecol. Soc; Soc. Ichthyol. and Herp. Role of temperature in evolution; hybridization of frogs.

Moore, Prof. J(ohn) Percy, Media, Pa. *[1]Zoology.* Williamsport, Pa, May 17, 69. A.B, Cent. High Sch. Phila, 86; B.S, Pennsylvania, 92, Ph.D, 96. Asst. instr. *zool, Pennsylvania,* 90–92, instr, 92–07, asst. prof, 07–12, prof, 12–39, *emer. prof, 39–*; asst. curator and cor. sec'y, Acad. Nat. Sciences Phila, 02–40. Sci. asst, U. S. Bur. Fisheries, intermittently, 90–18; instr, Hahnemann Med. Col, 96–98; Marine Biol. Lab, Woods Hole, 01–02; lecturer, Ludwick Inst, 92– Ed, 'Jour. Morphol,' 37–40. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; Soc. Parasitol; Philos. Soc; Limnol. Soc; Acad. Nat. Sci. Phila. (trustee, 42); Soc. zool. de France. Systematic morphology of annelids and vertebrates; economic biology of fishes; polychaete fauna of New England, Japan and Alaska; Polychaeta of North Pacific; life histories, habits and adaptations of annelids; biological factors in the control of mosquitoes and leeches; leeches of Indo-Malayan and Oriental regions; bionomics of land leeches.

Moore, Dean John Walker, Upper River Road, Louisville, Ky. *Medicine.* McConnellsville, S. C, Jan. 29, 84. B.S, Davidson Col, 06, hon. Sc.D, 40; M.D, Pennsylvania, 12. Intern, Episcopal Hosp, Phila, 12–15; instr. path. and bacter, *sch. med, Louisville,* 15–16, med, 19–20, *prof.* research med, 20–23, *med, 23–, dean, 29–* Director div. med. and staff exec, Louisville City Hosp, 23– Lab. officer, Hosp. Center, Nantes, France, 17–19. Am. Med. Asn; Col. Physicians; Am. Physicians; Clin. and Climat. Asn; Cent. Soc. Clin. Research. Circulation; cardiac output methods; sulphon derivatives in treatment of pneumonia.

Moore, Dr. John W(illiam), University of Minnesota, Minneapolis, Minn. *Botany.* Near Jud, N. Dak, June 23, 01. B.S, S. Dak. State Col, 24; M.S, Minnesota, 26, Shevlin fellow, 28–29, Ph.D, 33; Bishop Museum, Honolulu, fellow from Yale, 26–27. Asst. gen. bot, S. Dak. State Col, 22–23, gen. zool, 24–25; bot, Minnesota, 25–32, emergency fellow, grad. sch, 33–34; instr. biol, Cent. State Teachers Col, Wis, 35; herbarium asst, *Minnesota,* 35–37, asst, 37–38, junior botanist, 38–40, *assoc. botanist, 40–* Summers, asst, exp. substa, U. S. Dept. Agr, Edgeley, N. Dak, 20, field asst, 22, 23, Utah, 26, 27, 28; State Insect Pest Surv, S. Dak, 24; instr. bot, Iowa, 34; Minnesota, 37, 38, assoc. botanist, 42. Assoc, Bishop Museum, Honolulu, 26–27, research assoc, 27–32. Bot. exped, Island of Raiatea, French Society Islands. A.A; Bot. Soc; Soc. Plant Taxon; Am. Geog. Soc; Minn. Acad. (sec'y-treas, 42–). Flora of North America; flora of Polynesia.

Moore, Dr. Joseph B, Box 638, Pagosa Springs, Colo. *Economic entomology.* Potchefstroom, S. Africa, Dec. 17, 10. B.S, Cornell, 33, M.S, 35, Ph.D, 37. Asst. research in entom, N. Y. Exp. Sta, Geneva, 34–39; entomologist, Wash. State Col, Wenatchee, 39; *research entomologist, McLaughlin Gormley King Co, 39–, v. pres, 40–* Asn. Econ. Entom; Entom. Soc. Amer. Insecticides and culture of pyrethrum.

Moore, Dr. Joseph Earle, 804 Medical Arts Bldg, Baltimore, Md. *Internal medicine.* Philadelphia, Pa, July 9, 92. A.B, Kansas, 14; M.D, Hopkins, 16. Assoc. *clin. med, Hopkins, 22–40, assoc. prof, 40–* Am. Med. Asn; Soc. Clin. Invest; Am. Physicians; Med. and Chirurg. Faculty Md. Syphilis.

Moore, Prof. Joseph E(rnest), Stanford Drive, Nashville, Tenn. *Applied psychology.* Globe, N. C, June 27, 05. B.S, N. C. State Col, 29, M.S, 31; summers, North Carolina, 32, George Washington, 33; Ph.D, Peabody Col, 35. Assoc. sec'y, Y.M.C.A, N. C. State Col, 29–30, instr. psychol. and sociol, 31–34; teaching fellow *psychol, Peabody Col,* 34–35, *prof, 35–* Assoc. Psychol. Asn; Educ. Research Asn; South. Soc. Philos. and Psychol. Racial differences; learning; tests and measurements.

Moore, Dr. J(oseph) H(aines), Lick Observatory, University of California, Mt. Hamilton, Calif. *[2][3]Astronomy, Astrophysics.* Wilmington, Ohio, Sept. 7, 78. A.B, Wilmington Col, 97; Ph.D, Hopkins, 03. Asst. spectros, *Lick Observatory, California,* 03–06, asst. astronomer, 06–09, acting astronomer in charge D. O. Mills exped, Chile, 09–13, asst. astronomer, 13–18, assoc. astronomer, 18–23, *astronomer, 23–,* asst. director, 36–42, *director, 42–* Eclipse expeds, 18, 22, 23, 30, 32. Nat. Acad; A.A. (v. pres, D, 31); Astron. Soc. (v. pres, 42); Astron. Soc. Pacific (pres, 20, 28); Calif. Acad; fel. Royal Astron. Soc; Int. Astron. Union (cmn, 30). Spectroscopy; absorption and fluorescent spectrum of sodium vapor; spectra of Nova Aquilae No. 2 and No. 3; orbits of two cepheid variables; spectroscopic binaries; radial velocities of stars of Secchi's fourth type; radial velocities and internal motions of gaseous nebulae; spectrographic determination of rotation of planetary nebulae; spectrum of the solar corona; motion in solar corona; spectrographic determination of the rotation periods of Uranus and Neptune; stellar radical velocities; solar motion.

Moore, Prof. J(oseph) S, Mississippi State College, State College, Miss. *Dairy husbandry.* Durant, Miss, March 13, 74. B.S, Miss. Agr. and Mech. Col, 94, M.S, 97. Asst, Exp. Sta, Miss. Agr. and Mech. Col, 94–99, acting prof. *dairy husbandry,* 00–04, *prof,* 05–32, *Miss. State Col, 32–* Dairy Sci. Asn. (pres, south. div, 27). Feed, care and management of the dairy cow.

Moore, Prof. L(ane) A, University of Maryland, College Park, Md. *Dairy husbandry.* Hillsboro, Ohio, Oct. 6, 02. B.S, Iowa State Col, 26; M.S, Mich. State Col, 29, Ph.D, 39. Asst. *dairy husbandry,* Exp. Sta, Mich. State Col, 29–41; assoc. prof, *Maryland,* 41–43, *prof, 43–* Borden award, Am. Dairy Science Asn, 43. Soc. Animal Production; Inst. Nutrition; Dairy Sci. Asn. Vitamin A requirements of dairy cattle; vitamin A and magnesium deficiency in calves; vitamin A and carotene methods; pathology concerned with the feeding of deficient diets.

Moore, Dr. L(eonard) P(atrick), American Cyanamid Co, 30 Rockefeller Plaza, New York, N. Y. *Chemistry.* Eagle Bend, Minn, March 24, 08. B.Ch.E, Minnesota, 29; fellow, McGill, 29–30, M.S, 30, Ph.D, 33. Demonstrator, McGill, 30–33, Fraser Co. Indust. fellow, pulp and paper research inst, 33–34; research chemist, *Am. Cyanamid Co,* Elizabeth, N. J, 34–36, *head paint, varnish and org. chem. div, tech. service labs,* Stamford, Conn, 36–39, *New York, 40–* Chem. Soc; Inst, Chem; Chem. Eng. Organic chemistry; properties of polyethylene glycols and derivatives; viscosity characteristics of cellulose; properties of rayon pulps; lacquers of alkyd and urea resins; nitrogen compounds; general organic raw materials.

Moore, Lewis E(ugene), 113 Beaumont Ave, Newtonville, Mass. *Civil engineering.* Amboy, Ill, Jan. 24, 80. B.S, Wisconsin, 00, C.E, 06; Mass. Inst. Tech, 01–02. Master mechanic, Champion Iron Mine, 00–01; draftsman, Phoenix Bridge Co,

02–03; instr. struct. drawing and mech, Wisconsin, 03–04; theoret. and applied mech, Illinois, 04–07; asst. prof. civil eng, Mass. Inst. Tech, 07–13, assoc. prof, 13–14; *consulting engineer, 07–; col, Eng. Corps, U. S. Army.* Bridge engineer, Mass. Ry. Commissioners, 07–21; consulting engineer on rebuilding Harvard Bridge. C.Eng, 17–18, major. Civil Eng; Soc. Mil. Eng; Boston Soc. Civil Eng. (pres, 30). Strength of materials; strength of chain links; design of plate girders.

Moore, Prof. L(ucius) T(errell), 205 Hicks St, Brooklyn, N. Y. *Mathematics.* Culverton, Ga, June 5, 02. B.S, Emory, 21; Ph.D, Hopkins, 25. Instr. *math,* Yale, 25–28, asst. prof, 28–31; *Brooklyn Col, Col. City of N. Y,* 31–36, *assoc. prof, 36–* Math. Soc. Algebra; algebraic geometry.

Moore, Dr. Marjorie B(arr), Abbott Laboratories, North Chicago, Ill. *Chemistry.* Kansas, Ill, Aug. 12, 96. B.S, Purdue, 19; Ph.D, Iowa State Col, 28. Chemist, Eli Lilly and Co, 20–21; instr, Iowa State Col, 22–24, 26–28; assoc. prof, Hedding Col, 24–25; *research chemist,* Swan-Myers Co, Indianapolis, 29–31; *Abbott Labs, 31–* Chem. Soc. (nat. women's service cmt, 31–35); Pharmaceut. Asn. Medicinal and pharmaceutical chemistry.

Moore, Dr. Mary Mitchell (Mrs. Arthur Russell Moore), Eugene, Oregon. *Physiology.* Raleigh, N. C, May 1, 92. A.B, Bryn Mawr Col, 15; fellow, Pennsylvania, 15–16; Ph.D, Rutgers, 18. Instr. chem, N. J. Col. for Women, Rutgers, 18–19, research fellow physiol, Rutgers, 24–26; research assoc, *Oregon,* 26–42, *instr. physics, 42–* Am. Woman's table, Naples Zool. Sta, 25, 31. Summers, asst. to Jacques Loeb, Marine Biol. Lab, Woods Hole, 15–18. Soc. Exp. Biol. Temperature coefficient; tropistic responses of Cerianthus; reactions of Cerianthus to light.

Moore, Dr. Maurice L(ee), Frederick Stearns and Co, Detroit, Mich. *Chemistry.* Laurel Hill, Fla, Sept. 11, 09. B.S, Florida, 30, M.S, 31; Ph.D, Northwestern, 34. Asst. chem, Florida, 27–31; asst. instr. gen. chem, dental sch, Northwestern, 31–34; A. Homer Smith research fellow org. chem, Yale, 34–36; research chemist, Sharp and Dohme, Inc, Glenolden, Pa, 36–43; *director org. research, Frederick Stearns and Co, 43–* Summers, analyst, soil surv, Exp. Sta, Florida, 29; chemist, Int. Agr. Corp, 30. Lieut, C.W.Res. A.A; Chem. Soc. Organic and pharmaceutical chemistry; acyl derivatives of o-aminophenol; bactericides; aromatic amino-sulfides; organic molecular rearrangements; chemotherapy.

Moore, Dr. Morris, Barnard Free Skin and Cancer Hospital, 3427 Washington Blvd, St. Louis, Mo. *Mycology, Dermatology.* Natick, Mass, Feb. 14, 08. B.S, Boston, 28; A.M, Harvard, 29, 30–31; Rufus J. Lackland fellow, Washington (St. Louis), 31–33, Ph.D, 33. Research assoc. mycol, *Washington (St. Louis),* 33–34, *mycologist, dept. dermat, 36–; mycologist, Barnard Free Skin and Cancer Hosp, 34–; Barnes Hosp, 36–* Guggenheim Mem. Foundation fellow, S. Amer, 35–36. Grant, cmt. med. research, Nat. Tuber. Asn, 41– Collaborator, 'Mycopathologia,' 38– Bronze medal, Am. Med. Asn, 39. A.A; Mycol. Soc; Soc. Trop. Med; Soc. Investigative Dermat; Torrey Bot. Club; cor. mem. Asn. Argentina de Dermat. y Sifilol; cor. mem. Soc. de Biol. de São Paulo. Experimental dermatology; medical mycology with special reference to clinical and laboratory diagnosis; mycoses; scaly dermatoses.

Moore, Dr. Norman H(allam), 852 Belmont St, Watertown, Mass. *Physics.* Oberlin, Ohio, Feb. 3, 18. A.B, Oberlin Col, 38; Bolles fellow, Mass. Inst. Tech, 40–41, Ph.D, 41. Teaching fellow physics, *Mass. Inst. Tech,* 38–40, instr, 41–42, *research assoc, radiation lab, 42–* Physical Soc. Field emission from tungsten as a function of crystallographic direction.

Moore, Dr. Norton B(artlett), 89 Yorktown Road, Snyder, N. Y. *Aeronautical engineering.* Oakland, Calif, Sept. 29, 09. A.B, California, 29; M.S, Purdue, 31; Ph.D, Calif. Inst. Tech, 34. Asst. physics, Purdue, 29–31; teaching fellow math. and aeronaut, Calif. Inst. Tech, 31–33, research fellow, 33–35; chief aerodynamicist, Northrop Corp, 34–36; aerodynamics, Douglas Aircraft Co, Santa Monica, 36–38; asst. prof. mech. eng. in charge aeronautics, California, 38–40; chief research engineer, St. Louis plant, *Curtiss-Wright Corp,* 40–42, *director aerodynamical research, airplane div, 42–* Automotive Eng; Inst. Aeronaut. Sci; Royal Aeronaut. Soc. Theoretical and applied aerodynamics.

Moore, Prof. Paul J(oquin), West Virginia State College, Institute, W. Va. *Organic chemistry.* Pasadena, Calif, May 18, 01. Ph.C, Southern California, 23, B.S, 25, M.S, 26; Chicago, 39. Practicing pharmacist, 22–26; instr. chem. and physics, Va. State Col, 26–27; assoc. prof. *chem, W. Va. State Col, 27–43, prof, 43–, head dept, 32–* Chem. Soc. Hormones; petroleum products.

Moore, Dr. Ralph G(ower) D(avies), 843 East St, Dedham, Mass. *Organic chemistry.* Charlottetown, P. E. I, Can, March 30, 11. B.A, British Columbia, 32, M.A, 34; Nat. Research Council Can. scholar, McGill, 34–36, Ph.D, 36. Lab. asst. chem, British Columbia, 33–34; fellow, McGill, 36–37; *research chemist and consultant, Arthur D. Little, Inc, 38–* Structure of lignin; synthesis of chemotherapeuticals; industrial organic chemistry in the medicinal dyestuff and rubber fields.

Moore, Prof. Raymond C(ecil), University of Kansas, Lawrence, Kans. **5Geology, Paleontology.* Roslyn, Wash, Feb. 20, 92. A.B, Denison, 13, Sc.D, 35; Ph.D, Chicago, 16. Instr. geol, Chicago, 16; asst. prof. *geol. and paleont, Kansas,* 16–18, assoc. prof, 18–19, *prof, 19–* Summer, asst. prof, Chicago, 17. Asst. geologist, U. S. Geol. Surv, 13–20, geologist, 20–; Mo. Bur. Geol. and Mines; state geologist, Kans, 17–Ed, 'Jour. Paleont,' 29–39. Mem, Nat. Research Council, 31–33. Geol. Soc. (councilor, 33, v. pres, 41); Asn. Petrol. Geol. (ed, 'Bul,' 20–26); Asn. State Geol. (sec'y, 37, pres, 41); Paleont. Soc; Soc. Econ. Paleont. and Miner. (pres, 28). Historical geology; stratigraphy of Mississippian of Missouri; oil and gas of Kansas; geology of the Colorado plateau; geologic exploration of Grand Canyon of the Colorado River; stratigraphy and paleontology of Carboniferous and Permian rocks of the United States.

Moore, Robert, 110 W. Market St, Danville, Pa. *Forestry.* Danville, Pa, Sept. 29, 00. B.S, Pa. State Col, 22. Private forestry, 22–28; exten. forester, Louisiana, 28–34; senior agr. economist, U. S. Dept. Agr, 34; forester, Northeast. Lumber Mfrs. Asn, 34–35; chief div. forest management, State Dept. Forests and Waters, Pa, 35–39; *consulting forester, 39–* Soc. Foresters. Extension methods in forestry; state forest administration; private forest management and economics; economics of watershed management; management of privately owned forests and watersheds; planting and regeneration of forests.

Moore, Dr. Robert A(lan), Washington University School of Medicine, St. Louis, Mo. *Pathology.* Chicago, Ill, July 12, 01. A.B, Ohio State, 21, M.S, 27, M.D, 28; Hanna fellow, Western Reserve, 28–30, Ph.D, 30. Asst. bacter, Ohio State, 21–23, instr. *path,* 25–28; Western Reserve, 30–33; asst. prof, med. col, Cornell, 33–38, assoc. prof, 38–39; *prof, sch. med, Washington (St. Louis), 39–* Nat. research fellow, Vienna, 31–32. Soc. Exp. Path; Asn. Path. and Bact. (asst. sec'y, 29–33); Harvey Soc; Int. Asn. Med. Mus. (councilor, 31–39, ed, 37–); Int. Asn. Geog. Path. Number of glomeruli in the normal and pathological kidney; morphology of the prostate gland.

Moore, Robert J(erome), Bakelite Corp, Bloomfield, N. J. *Chemistry, Chemical engineering.* Hoboken, N. J, June 4, 92. B.S, Cooper Inst, 15; A.M, Columbia, 16, 16–19. Asst. and instr. chem, Columbia, 11–20; director, Fraser Labs, New York, 20–23; research chemist, Pratt and Lambert Inc, 24–30; develop. manager, varnish resin div, *Bakelite Corp,* 30–40, *manager sales develop. labs, 40–; adviser, Ordnance Dept, U. S. Army, 41–* Trustee, Polytech. Inst. Brooklyn, 41– A.A; fel. Chem. Eng. (cmt. civil and indust. protection); Chem. Soc. (v. pres, 33; exec. cmt, west. N. Y. sect, 26–30; v. chairman, Buffalo, 29; chairman, paint, varnish and plastics div, 33; councilor, north Jersey sect, 34, 40–, chairman, 39); fel. Inst. Chem. (v. pres, 36–38, nat. councilor, 36–, pres, 38–40); Soc. Mil. Eng; Soc. Test. Mat. (cmt. research, 42–); Chemist Advisory Council (exec. cmt, 39–42); Synthetic Resin Manufacturers Asn; Chemists' Club (sub. v. pres, 36–39, 40); N. Y. Paint and Varnish Production Club (chairman, tech. cmt, 31–); hon. mem. N. Y. Acad; Soc. Chem. Indust. Gt. Britain (exec. cmt, Am. sect, 32, chairman, 34–36, Perkin medal and Chem. Indust. medal cmt, 34–36, Chem. Eng. catalog cmt, 34–36, Am. rep, plastics group, 37–); hon. mem. Chem, Min. and Metal. Soc. S. Africa. Chemistry of hydrocarbons; protective coatings; phenolic resins; corrosion; plastics.

Moore, Prof. Robert Lee, University of Texas, Austin, Texas. **3Mathematics.* Dallas, Texas, Nov. 14, 82. B.S, A.M, Texas, 01, fellow, 01–02; Chicago, 03–05, Ph.D, 05. Asst. prof. *math,* Tennessee, 05–06; instr, Princeton, 06–08; Northwestern, 08–11; Pennsylvania, 11–16, asst. prof, 16–20; assoc. prof, *Texas,* 20–23, *prof, 23–* Nat. Acad; A.A; Math. Soc. (assoc.

ed, 'Trans,' 13–26, councilor, 17–19, v. pres, 23, ed. colloquium publications, 28–36, visiting lecturer, 31, pres, 37–39); Math. Asn; Polish Math. Soc. Foundations of mathematics; analysis situs; point sets; functions of real variables.

Moore, Dr. Robert M(axwell), Madison St, Oxford, Miss. *Pathology.* Blackwell, Okla, April 10, 06. Oklahoma, 24–27; Tulsa, summer, 26; M.D, Tennessee, 31. Intern, Baptist Mem. Hosp, Memphis, Tenn, 31–32; asst. instr. path, Tennessee, 32–33, instr, 33–34, path. and bacter, 34–35; asst. prof. *path, Missouri, 35–37; prof. and chairman dept. and clin. lab. diagnosis, Mississippi, 37–,* acting prof. bacter, 38–41. Asst. res. pathologist, Memphis Gen. Hosp, 32–33, res. pathologist, 33–34. Am. Med. Asn; Soc. Control Cancer (Miss. exec. cmt). Incidence and relation of active tuberculosis and malignant tumors in the same individual.

Moore, Prof. Robert M(llo), University of Texas School of Medicine, Galveston, Texas. *Surgery.* Olathe, Kans, Nov. 18, 02. M.D, Washington (St. Louis), 26. Intern surg, Barnes Hosp, St. Louis, 26–27; nat. research fellow physiol, Harvard Med. Sch, 27–29; asst. res. surgeon, Barnes Hosp, St. Louis, 29–30; *assoc. prof. surg. sch. med, Texas, 30–, director exp. lab, 41–; lieut. col, Med. Corps, U. S. Army, 42–* Award, Path. Soc. Texas, 35. A.A; fel. Col. Surg; Physiol. Soc; fel. Surg. Asn; Surg. Investigative Soc. South; Surg. Soc. Texas. Visceral and sympathetic nerves; visceral pain; pathways of pain-fibers; experimental embolism; experimental peritonitis.

Moore, Dr. R(obert) P(arker), North Carolina State College, Raleigh, N. C. *Agronomy.* Blackburn, Okla, Jan. 30, 12. B.S, Okla. Agr. and Mech. Col, 34; fellow, Iowa State Col, 34–35, M.S, 35; Ph.D, Ohio State, 40. Instr. agron, Okla. Agr. and Mech. Col, 35–37; Ohio Crop Improv. Asn. asst, Ohio State, 37–39, teaching asst. *agron,* 38–39; asst. prof, Tennessee, 39–43; *assoc, Exp. Sta, N. C. State Col, 43–* Soc. Agron. Field crops; seedling emergence studies of small seeded legumes and grasses.

Moore, Robert Thomas, Borestone Mountain, Onawa, Maine or 1201 E. California St, Pasadena, Calif. *Zoology.* Haddonfield, N. J, June 24, 82. A.B, Pennsylvania, 03; A.M, Harvard, 04. Ed, 'Cassinia,' 11–16; *owner, Borestone Mt. Foxes and Big Bear Fox Ranching Co, Inc; assoc. vert. zool, Calif. Inst. Tech, 38–* Director indust. institutions; Empire Lumber Co; Guanajuato Reduction and Mines Co. Mem, Am. Cmn. Int. Wildlife Protection. A.A; Ornith. Union; Forestry Asn; Cooper Ornith. Club; fel. Am. Geog. Soc; fel. Royal Geog. Soc. Ornithology; exploration.

Moore, Dr. R(ufus) H(enry), U. S. Department of Agriculture, Mayaguez, P. R. *Plant physiology.* Schuyler, Nebr, Jan. 4, 00. B.S. (Agr), Nebraska, 27; M.S, Oklahoma, 29; Ph.D, Chicago, 36. Asst. plant physiologist, European Corn Borer Lab, Oak Harbor, Ohio, 27; instr. bot, Oklahoma, 29–32; asst, Chicago, 32–35; *assoc. plant physiologist, P. R. Exp. Sta, U. S. Dept. Agr, 35–* A.A; Bot. Soc; Soc. Plant Physiol. Cell specialization in epidermis of Zea mays; plant nutrition; physiology of rotenone-producing plants.

Moore, Dr. Ruth Ella, Howard University, Washington, D. C. *Bacteriology.* Columbus, Ohio, May 19, 03. A B, Ohio State, 26, A.M, 27, Ph.D, 33. Tenn. State Col, 27–30; instr. and later *asst. prof. bacter, sch. med, Howard, 33–* Pub. Health Asn.

Moore, Dr. Sherwood, 510 S. Kingshighway, St. Louis, Mo. *Radiology.* Lynchburg, Va, Oct. 28, 80. Virginia, 00–01; M.D, Washington (St. Louis), 05. Intern, St. Louis City Hosp, 05–06; senior res. obstet, Wash. Univ. Hosp. (St. Louis), 06–07, instr, 07–09; asst. surg, St. Louis Children's Hosp, 10–13; travel and study, 13–16; house physician, x-ray dept, Mass. Gen. Hosp, 16–17; asst. surg. and in charge actinographic lab, *sch. med, Washington (St. Louis),* 17–20, assoc. surg, 20–26, assoc. prof, 26–27, *prof. radiol,* 27– Director, Edward Mallinckrodt Inst. Radiol, 30; roentgenologist in charge lab, Barnes Hosp, St. Louis, 17–25, roentgenologist, 24–; St. Louis Children's Hosp, 24–; assoc. surg. and roentgenologist, St. Louis Maternity Hosp, 27–; Shriners Hosp. for Crippled Children. Radiol. Soc. N. Amer; Roentgen Ray Soc. (pres-elect, 42); Am. Med. Asn; Col. Radiol. (v. pres, 39); South. Med. Asn. Medical radiology.

Moore, Dr. Stanford, Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Biochemistry.* Chicago, Ill, Sept. 4, 13. A.B, Vanderbilt, 35; fellow, Wisconsin, 35–39, Ph.D, 38. *Asst. chem, Rockefeller Inst, 39–* A.A; Chem. Soc. Chemistry of carbohydrates and proteins.

Moore, Thomas E(arl), 2412 Barrington Drive, Toledo, Ohio. *Chemistry.* Jewett, Ohio, April 19, 89. A.B, Mt. Union Col, 10; fellow, Iowa, 12–13, M.S, 13. Instr. chem, Charles City Col, 10–12; Ohio State, 13–14; high sch, Ohio, 14–18; chemist, *Ransom and Randolph Co,* 18–22, *director research,* 22– Chem. Soc. Physical chemistry; dental research.

Moore, Prof. Thomas V(erner), Catholic University of America, Washington, D. C. *Psychology, Psychiatry.* Louisville, Ky, Oct. 22, 77. Ph.D, Catholic Univ, 03; Leipzig, 04–05; California, 06–09, fellow, 09; Georgetown, 10–13; Munich, 13–14; M.D, Hopkins, 15. Lecturer *psychol,* inst. pedag, *Catholic Univ,* 03–04, instr, 10–16, assoc. prof, 16–22, *prof, 22–, head dept, 39–* Lecturer, Trinity Col. (D.C), 12–13 M.C, 18–19, major. A.A; Psychol. Asn; Psychiat. Asn; Ortho psychiat. Asn; Asn. Research Nervous and Mental Disease. Experimental psychology and psychiatry; reaction time; sensibility of the skin; imagery and concept; memory; ethics: pathology of memory and perception; multiple and partial correlation; empirical analysis of the psychoses; dynamic psychology; cognitive psychology.

Moore, Prof. Thomas W(alker), 13 Thompson St, Annapolis, Md. *Mathematics.* Washington, Pa, Nov. 5, 02. B.S Washington and Jefferson Col, 22; Ph.D, Yale, 27. Asst. and instr. math, Yale, 22–27; nat. research fellow, Hopkins, Cornell, Illinois, Princeton and Chicago, 27–29; research assoc Princeton, 29–30; asst. prof, Indiana, 30–33; instr, *U. S. Naval Acad,* 35–40, *asst. prof, 40–* Math. Soc; Math. Asn. Invariant algebra; algebraic geometry.

Moore, Dr. Walter G(uy), Loyola University, New Orleans, La. *Biology, Ecology.* Detroit, Mich, June 21, 13. A.B, Wayne, 34; A.M, Minnesota, 38, Ph.D, 40. Instr, Wayne, 34–35; asst, Minnesota, 35–40; instr. *biol. and physiol, Loyola (La),* 40–41, *asst. prof, 41–* Summers, asst. biologist, U. S. Forest Service, 36, State Conservation Dept, Minn, 38–40 A.A; Ecol. Soc; Limnol. Soc; Micros. Soc; Soc. Ichthyol. and Herp; Minn. Acad. Limnology; aquatic biology; feeding habits; growth rates and oxygen requirements of fresh-water fishes.

Moore, Dr. Walter J(ohn), Jr, Catholic University of America, Washington, D. C. *Physical chemistry.* New York, N. Y, March 25, 18. Edinburgh, 35–36; B.S, N. Y. Univ, 37; fellow, Princeton, 37–40, Ph.D, 40. Nat. research fellow *Calif. Inst. Tech,* 40–41, *instr. chem, 41–* Chem. Soc; Faraday Soc. Reaction kinetics; photochemistry.

Moore, Prof. Walter L(ee), Box 428, R.F.D. 1, Coral Ridge, Ky. *Mathematics.* Mesick, Mich, April 19, 98 A.B, Albion Col, 24; A.M, Illinois, 25, Ph.D, 28. Instr, Illinois, 28–29; asst. prof. *math, Louisville,* 29–31, *assoc. prof, 31–* A.A; Math. Soc; Math. Asn. Geometry.

Moore, Dr. Warren, Bon Air, Va. *Biology.* Philadelphia, Pa, March 19, 93. B.S, Wisconsin, 15; M.S, Arizona, 16; Ph.D, Rutgers, 32. Asst, Exp. Sta, Arizona, 15–16; county agr. agent, Maryland, 19–22; sales work 22–26; asst. entom. Rutgers, 26–32; research biologist, Tobacco By-Products and Chem. Corp, Richmond, Va, 32–36; *consulting entomologist, 36–* A.A; Asn. Econ. Entom; Entom. Soc. Amer. Insecticides.

Moore, Prof. W(esley) A(dolphus), 722 Eighth Court W, Birmingham, Ala. *Mathematics, Astronomy.* Wilcox Co, Ala. Jan. 14, 82. A.B, Birmingham-Southern Col, 05; A.M, Chicago, 17; LL.D, Asbury Col, 34. Teacher math. and physics, Barnes Sch, Ala, 05–20, *math. and astron, Birmingham-Southern Col, 20–* Math. Asn; Ala. Acad. (v. pres; chairman math. physics sect, 40–42).

Moore, Dr. William, American Cyanamid Co, Stamford, Conn. *Entomology.* Phoenixville, Pa, Jan. 29, 87. A B, Ursinus Col 07; Ph.D, Cornell, 20. Lecturer entom. and zool, Potchefstroom Agr. Sch, S. Africa, 10–13; asst. prof. entom, Minnesota, 13–17, assoc. prof, 17–21; Japanese beetle lab, bur. entom, U. S. Dept. Agr, 21–23; *research entomologist, Am. Cyanamid Co, 23–* A.A; Chem. Soc; Asn. Econ. Entom; N. Y. Entom. Soc. (pres, 38); fel. N. Y. Acad. Insecticides.

Moore, Dr. William C(abler), 41 McGee St, Stamford, Conn. *Physical chemistry.* Nashville, Tenn, Feb. 10, 84. B.S, Nashville, 03; fellow, Chicago, 07–09, Ph.D, 10. Asst. and instr chem. and physics, Nashville, 01–06; instr. chem, Columbia, 09–13; research chemist, Nat. Carbon Co, 13–19; assoc. im-

munol, sch. hygiene and pub. health, Hopkins, 19–20; *research chemist, U. S. Indust. Alcohol Co, 20–; consultant indust. chem, War Production Board, 43–* Summers, instr, Nashville, 02–09; Chicago, 11. Chem. Soc. (chairman, Cleveland sect, 15, exec. cmt, Md. sect, 24–31, sec'y-treas, 26, 31, sec'y, west. Conn. sect, 36–); Physical Soc; Electrochem. Soc. (v. pres, 31–33, sec'y, N. Y. sect, 33–35, chairman, 35–, manager, 41–). Organic amalgams; aqua regia; carbon; flame arc; immunology; industrial applications of physical chemistry and electrochemistry.

Moore, Dr. W(illiam) D(ewey), Coastal Plain Experiment Station of the University of Georgia, Tifton, Ga. *Plant pathology.* Seneca, S. C, Dec. 2, 97. B.S, Clemson Col, 20, Sc.D, 37; M.S, Rutgers, 22, Ph.D, 23. Plant pathologist, S. C. Exten. Div, 23–27; agr. dept, Bayer-Semesan Co, 27–31; assoc. plant pathologist, bur. plant indust, *U. S. Dept. Agr,* 31–37, *pathologist, Coastal Plain Exp. Sta, Georgia, 37–* A.A; Phytopath. Soc. Truck crop diseases.

Moore, Dr. W(illiam) G(rady), 1741 Walnut St, Abilene, Texas. *Genetics.* Antelope, Texas, Dec. 31, 99. A.A, Wesley Col. (Texas), 22; A.B, Texas, 28, A.M, 29, Ph.D, 33. Asst. zool, Texas, 26–28, tech. asst. genetic research, 28–33, instr. genetics, 33–36; zool, Lee Junior Col; *prof. biol, McMurry Col,* Sterility produced by irradiations; mutation; human inheritance.

Moore, Mrs. William Harrison (Nina M(ay) Alderton), West Liberty State College, West Liberty, W. Va. *Mathematics.* Berkeley Springs, W. Va, Aug. 19, 90. A.B, Mt. Holyoke Col, 14; A.M, Columbia, 15; Ph.D, California, 21; Yale. Teacher, Mt. Hermon Boys' Sch, 15–18; x-ray work, Bur. Standards, 18–19; teaching fellow math, California, 19–21; assoc. prof, Mills Col, 21–34; in business, 34–39; teacher, John Drew Sch, Calif, 40–42; *prof.* math, John Brown, 42–43; *math. and physics, W. Liberty State Col, W. Va, 43–* Geometry of hyperspace.

Moorhead, Prof. J(ohn) G(erald), Westminster College, New Wilmington, Pa. *Physics.* Remington, Ind, May 24, 95. A.B, Indiana, 21, A.M, 24; Purdue, 22–26; Chicago, 25, 26; Ph.D, Northwestern, 31. Asst. and instr. *physics,* Purdue, 22–26; instr, Northwestern, 26–28; asst. prof, *Westminster Col. (Pa),* 28–33, *assoc. prof, 33–* A.A; Physical Soc; Asn. Physics Teachers. Infra-red absorption spectra of methane and its halogen derivatives.

Moorhouse, Prof. V(ictor) H(enry) K(ingsley), University of Manitoba, Winnipeg, Man, Can. *Physiology.* Toronto, Ont, 86. B.A, Toronto, 08, M.B, 10, M.D, 30; Beit Mem. research fellow, London, 13–14. Lecturer pharmacol, Toronto, 10–11; demonstrator *physiol. and pharmacol,* Washington (St. Louis), 11–13; *prof, med. col, Manitoba, 21–* Captain, C.A.M.C, 15–19. Physiol. Soc; Soc. Exp. Biol. Physiology of the pancreas; parathyroids; the nervous system.

Moorman, Dr. Albert E(dgar), Conway, Mo. *Zoology.* Cameron, Mo, April 2, 12. A.B, Nebr. Wesleyan, 34; A.M, Northwestern, 36, Ph.D, 39. Asst. zool, Northwestern, 34–39; assoc. prof. biol, Kans. Wesleyan, 39–41; acting head dept, Union Col. (Ky), 41–42; head dept. science, Nat. Training Sch. Christian Workers, Mo, 42–43. Instr, De Paul, 37–38. A.A; Kans. Acad. Parasitic survey of birds in zoo; morphology of salivary gland chromosomes of Lucilia sericata larvae.

Moorman, Dean James B(olling), Sherman, Texas. *Biology.* Rustburg, Va, Oct. 7, 92. A.B, Randolph-Macon Col, 20; Hopkins, 20–21; A.M, Texas, 30. Prof. biol, Austin Col, 21–25; asst. prof, Southwestern (Texas), 26–28; prof, *Austin Col,* 28–36, *dean, 36–*

Moorman, Prof. R(ichard) H(erbert), Tennessee Polytechnic Institute, Cookeville, Tenn. *Mathematics.* Roanoke, Va, May 30, 12. B.S, Roanoke Col, 33; A.M, Vanderbilt, 34; Harvard, 39; Ph.D, Peabody Col, 40. Teaching fellow *math,* Vanderbilt, 33–34; instr, Wallace Univ. Sch, 34–38; teaching fellow, Peabody Col, 38–40; *asst. prof, Tenn. Polytech, 40–* Summer, instr, Northeast Mo. Teachers Col, 40–41. Math. Asn; Council Teachers Math; Tenn. Acad. Influence of mathematics on the philosophy of Leibniz.

Moorman, Prof. Robert B(urrus) B(uckner), University of Missouri, Columbia, Mo. *Structural engineering.* St. Louis, Mo, Nov. 12, 04. B.S, Illinois, 29, M.S, 31, 31–32; Ph.D, Iowa State Col, 37. Research asst. civil eng, Illinois, 29–31, special research asst. theoret. and applied mech, 31; asst. prof. *civil eng,* Mississippi, 32–35; *Missouri,* 35–39, *assoc. prof, 39–* Summers, structural designer, Sverdrup and Parcel, St. Louis, Mo, 39; bur. yards and docks, Navy Dept, 40. Mem. highway research board, Nat. Research Council. Civil Eng; Concrete Inst. Stresses in a curved beam under loads normal to the plane of its axis.

Moos, Dr. Gilbert E(llsworth), 28 John St, Spring Valley, N. Y. *Plastics.* Hasbrouck Heights, N. J, May 1, 15. B.S, St. Lawrence, 36; M.S, Mass. Inst. Tech, 37, Ph.D, 39. Instr. chem, Rollins Col, 39–40; research assoc. vitamins, Mass. Inst. Tech, 40; *research chemist,* Am. Oak Leather Co, 41–42; *plastics div, Celanese Corp. Amer, 42–* A.A; Chem. Soc. Research and development of plastics.

Moose, Dr. Carleton A(llen), Milne High School, Albany, N. Y. *Plant physiology.* Dansville, N. Y, Jan. 26, 04. B.S, N. Y. State Col. for Teachers, 26; M.S, Cornell, 31, Ph.D, 36. Teacher science, high sch, N. Y, 26–29; *supervisor science teaching, N. Y. State Col. for Teachers, 29–* Chemical and spectroscopic analysis of phloem exudate and parenchyma sap from several species of plants.

Moose, Dr. J(oe) E(ugene), 1111 Glenwood Terrace, Anniston, Ala. *Chemistry.* Poolville, Texas, May 28, 96. A.B, South. Methodist, 17; M.S, Illinois, 22, Ph.D, 24. Asst. prof. chem, Oklahoma, 24–26, assoc. prof. chem. eng, 26–29; research chemist, Swann Research Corp, 29–34; *chem. engineer, Monsanto Chem. Works, 34–* Chem. Soc; Okla. Acad. Heats of oxidation of metals; pyrolysis of hydrocarbons; electric smelting; chlorination; manufacture of heavy chemicals and blacks; process patents.

Moose, Prof. M(anuel) F(oster), 607 S. Graham St, Memphis, Tenn. *Chemistry.* Brighton, Tenn, Dec. 24, 04. B.S, Memphis State Col, 27; A.M, Columbia, 31, Ph.D, 35. Asst, Columbia, 29–34; *prof. physical science,* Little Rock Junior Col, 35–41; *Memphis State Col, 41–* Chem. Soc. Preparation of diammonium dihydrogen pyrophosphite; properties of pyrophosphites.

Moots, Prof. Elmer E(arl), Cornell College, Mt. Vernon, Iowa. *Mathematics, Engineering.* Kirksville, Mo, Jan. 31, 82. B.C.E, Des Moines, 06; M.S, Maine, 08; C.E, Wisconsin, 11; Ph.D, Iowa, 27. Instr. math, Maine, 06–09; Wisconsin, 09–11; prof. applied math, Whitman Col, 11–14; asst. prof. civil eng, Arizona, 15–16; irrig. engineer, Tucson, Ariz, 16–18; *prof. math. and eng, Cornell Col. (Iowa), 18–; assoc. director research on sound control, Harvard, 42–* Summers, honorariums, Iowa, 23–25, 32. A.A; Math. Soc; Math. Asn; Civil Eng; Geophys. Union. Flood waves and the moving hydraulic jump.

Morales, Dr. M(anuel) F(rank), Western Reserve University, Cleveland, Ohio. *Biophysics.* San Pedro, Honduras, Cent. Amer, July 23, 19. A.B, California, 39, Ph.D, 42; Whiting fellow, Harvard, 40–41, A.M, 41. Teaching fellow physiol, California, 41–42; *instr. physics, Western Reserve, 42–; U. S. Naval Res.* Membrane equilibria; thermodynamic treatments; theoretical growth curves of colonies; reaction kinetics of certain blood variables; thermal analysis; theory of temperature coefficient.

Morales-Otero, Dr. P(ablo), Fernandez Juncos Ave. 7, Santurce, P. R. *Bacteriology.* Rio Piedras, P. R, Sept. 28, 96. M.D, Maryland, 19; C.T.M, Puerto Rico, 28. Bacteriologist, Dept. Health, San Juan, 20–23, director biol. lab, 23–29; assoc. bacter, *Columbia Sch. Trop. Med, Puerto Rico,* 29–30, Rockefeller Foundation fellow, 30–31, asst. prof. *bacter,* 31–33, *assoc. prof, 33–,* acting director, 41–42, *director, 42–* Soc. Bact; Asn. Path. and Bact; Soc. Trop. Med; Pub. Health Asn; P. R. Med. Asn. Serology and chemistry of the blood in leprosy; infections of the Brucella group of organisms; effect of ultra-violet radiation on bacteria and its products; streptococcus problems in the tropics.

Moran, Dr. Charles W(illiam), 2950 Jarlath St, Chicago, Ill. *Mathematics.* Chicago, Ill, June 15, 07. B.S, Lewis Inst, 33; A.M, Loyola (Ill), 36; Chicago, 34–39; Ph.D, Illinois, 40; Washington (Seattle), 40. *Teacher math, Lane Tech. Sch, 31–* Lecturer, Loyola (Ill), 36–37. Math. Soc; Math. Asn. Asymptotic theory of linear differential equations singular in several parameters.

Moran, Dr. Clarence Sylvester, Creighton University School of Medicine, Omaha, Nebr. *Pathology.* Armour, S. Dak, June 13, 04. B.S, Creighton, 26, M.D, 28; Hopkins, 33–34. Intern, St. Joseph's Hosp, Omaha, Nebr, 28–29; asst.

surg, *sch. med, Creighton*, 29–31, asst. *path*, 31–33, instr, 33–35, *asst. prof, 35–; lieut. col, Med. Res. Corps.* Investigator, dept. genetics, Carnegie Institution, 34–36. Mem. Am. Board Path. Capt, M.R.C. Fel. Am. Med. Asn; fel. Soc. Clin. Path; Asn. Study Neoplastic Diseases; Asn. Study Int. Secretions. Endocrines and tumors.

Moran, Prof. W(alter) H(arrison), University of North Dakota, Grand Forks, N. Dak. *Chemistry.* Fairmont, W. Va, Feb. 4, 89. A.B, West Virginia, 20; M.S, Ohio State, 21, Ph.D, 23. Asst. prof. chem, Kans. State Col, 23–24; physiol. chem, col. med, Baylor, 24–26, assoc. prof, 26–30; *chem, North Dakota*, 30–40, *prof, 40–* Chem. Soc. Biological, organic and physical chemistry.

Moravets, F(loyd) L(ester), 424 U. S. Court House, Portland, Oregon. *Forestry.* Ogden, Iowa, March 16, 99. B.S, Iowa State Col, 22. Junior forester, U. S. Forest Service, 22–24, 28–29; Standard Oil Co. of Calif, 24–28; *Pacific Northwest Forest Exp. Sta, U. S. Forest Service*, 29–33, asst. timber expert, 34–35, *assoc. forester, 35–* Soc. Foresters. Forest economics; land use.

Moraw, H(arry) O(rville), U. S. Food and Drug Administration, Post Office Bldg, Chicago, Ill. *Chemistry.* Hannibal, Mo, June 25, 88. A.B, Missouri, 14. Teacher, sch, Mo, 14–15; Monroe Drug Co, Ill, 15–16; food and drug regulatory work, bur. chem, U. S. Dept. Agr, 18–27; pharmaceut. mfg, Swan-Myers Co, Indianapolis, 27–29; special agent econ. chem, chem. div, bur. for. and domestic commerce, U. S. Dept. Commerce, 29–34; asst. chemist and later *assoc. chemist, food and drug admin, Fed. Security Agency*, New York and *Chicago, 34–* Industrial, pharmaceutical and economic chemistry; methods of examination of pharmaceutical products.

Morbeck, George Chester, U. S. Forest Service, Madison, Wis. *Forestry.* Ingalls, Mich, Nov. 8, 83. B.S, Mich. State Col, 04, M.F, 15. Assoc. prof. forestry, Iowa State Col, 12–22; *mem. sci. staff, Forest Products Lab, U. S. Forest Service, 22–* Soc. Foresters. Forest and wood products.

Mordoff, Prof. Richard A(lan), Cornell University, Ithaca, N. Y. *Meteorology, Climatology.* Scottsville, N. Y, June 23, 86. B.S, Cornell, 11, A.M, 18, Ph.D, 20. Asst. physical geog, *Cornell*, 12–13, instr. *meteorol*, 16–20, asst. prof, 20–24, *prof, 24–* Meteorol. Soc. The climate of New York State and its relation to agriculture; weather and crops.

More, Prof. Charles C(hurch), University of Washington, Seattle, Wash. *Civil engineering.* Rock Island, Ill, Jan. 21, 75. C.E, Lafayette Col, 98, M.S, 01; M.C.E, Cornell, 99. Acting prof. civil eng, Washington (Seattle), 00–01; engineer, Am. Bridge Co. and other companies, 01–04; asst. prof. civil eng, *Washington (Seattle)*, 04–06, assoc. prof, 07–11, *prof*, 12–25, *struct. eng, 25–*, head dept. civil eng, 17–25. Capt, C.Eng, O.R.C, 17, major, Ordnance Dept, 18. A.A; Civil Eng; Eng. Educ. (councilor, 19–22). Structural engineering.

More, Dr. Kenneth R(iddell), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Vancouver, B. C, Can, Jan. 9, 10. B.A, British Columbia, 29, M.A, 31; Ph.D, California, 34. Asst. *physics*, British Columbia, 29–31; California, 31–34, fellow, 34–35; Royal Soc. Can. fellow, Mass. Inst. Tech, 35–36; Sterling fellow, Yale, 36–38; *instr, Ohio State, 38–; research assoc. elec. eng, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Hyperfine structure and nuclear moments; vacuum spectroscopy; excitation of spectra; cyclotron; electrostatic generator.

More, Prof. Louis T(renchard), University of Cincinnati, Cincinnati, Ohio. *[1]*Physics.* St. Louis, Mo, April 9, 70. B.S, Washington (St. Louis), 92; fellow, Hopkins, 94–95, Ph.D, 95; L.H.D, Kenyon Col, 41. Instr. *physics*, Worcester Polytech, 96; demonstrator and asst. prof, Nebraska, 96–00; prof, *Cincinnati*, 00–41, *emer. prof, 41–*, dean col. lib. arts, 10–13, *grad. sch*, 16–41, *emer. dean, 41–, fellow.* Vanuxem lecturer, Princeton, 25; William Vaughn Moody lecturer, Chicago; Taft Mem. lecturer, Cincinnati, 41. Sachs prize. A.A; Physical Soc; Hist. Sci. Soc; Philos. Asn; Ohio Acad. (v. pres, 16); Soc. de Physique. Electrical stress in ether; double refraction of light; binaural audition; discharge of electricity through gases; physical theory; magnetic effect of currents in gases; limitations of science; the dogma of evolution; the life of Isaac Newton; philosophy of science.

Morehead, Prof. J(ames) C(addall), Carnegie Institute of Technology, Pittsburgh, Pa. *Mathematics.* Pulaski Co. Va, March 25, 77. A.B, Roanoke Col, 98, A.M, 99; M.S, Princeton, 00, fellow, 00–03; Ph.D, Yale, 05. Instr. math, Northwestern, 05–09, asst. prof, 09–12; instr. math. and descriptive geometry, *Carnegie Inst. Tech*, 15–16, asst. prof, 16–26, assoc. prof. and curator, 26–28, *prof. archit, 28–* A.A; Math. Soc. Theory of numbers; differential geometry; higher algebra; analytic mechanics.

Morehouse, Dr. Alanson D(avid), 1526 O St, N. W, Washington, D. C. *Engineering.* Vineland, N. J, Jan. 1, 71. M.E, Cornell, 93; Ph.D, George Washington, 20. Supt, Alumbrado Elec. de Quezaltenango, Guatemala, 90–91, acting manager, 93; mem. firm, Morehouse Hermanos, 93–95; joint owner and business manager, DeSoto Brick and Tile Works, Iowa, 96–99; asst. engineer, eng. dept, N. Y. Tel. Co, 00–01; joint owner and manager, Melbourn Brick and Tile Co, Iowa, 02–05; mech. engineer, Gorgona shops, C. Z, and gen. foreman construction, 06–07; heat. and vent. engineer, U. S. Treasury Dept, 08; office engineer and asst. chief drainage investigations, U. S. Dept. Agr, 09–18; engineer, U. S. Reclamation Service, 18–19; hydraul. engineer, water resources branch, U. S. Geol. Surv, 20–21; assoc. ed. and managing ed, 'The Constructor,' 21–23; mech. eng, div. building and housing, U. S. Dept. Commerce, 24–29; chief construction sect, Bur. Census, 29–33; statistician, Brookings Institution, 33; chief statistician, Real Property Inventory, U. S. Dept. Commerce, 34; chief social and econ. research, housing div, Fed. Admin. Pub. Works, 34–36; engineer, Nat. Resources Cmt, 37; chief statistician, Nat. Park Service, 38–39; hydraul. engineer, drainage div, soil conservation service, U. S. Dept. Agr, 39–40; *pres, Restlawn, Inc, 40–* Engineer, Belzoni drainage dist, Miss, 12; United Fruit Co, Honduras, 25–26. A.A; Asn. Eng; Wash. Soc. Eng. Reclamation; construction statistics; housing.

Morehouse, L(yman) F(oote), American Telephone and Telegraph Co, 172 Fulton St, New York, N. Y. *Electrical engineering.* Big Rapids, Mich, Oct. 21, 74. B.S, Michigan, 97, A.M, 04, hon. D.E, 34. Asst. prof. physics, Washington (St. Louis), 01; instr, Michigan, 02–04, instr. and asst. prof. elec. eng, 04–06; transmission engineer, West. Elec. Co, Europe, 06–09; equipment engineer, Am. Tel. and Tel. Co, New York, 09–19, equipment develop. engineer, 19–35, tech. rep. in Europe, Am. Tel. and Tel. Co. and Bell Tel. Labs, 35–40; *senior tech. aide, sect. 6.1, Nat. Defense Research Cmt, 41–* Mem. assembly, Am. Eng. Council, 22–26; mem. exec. board, 22–26; mem, U. S. Cmt, Int. Electrotech. Cmns, 21–24; mem, State Board Educ, N. J, 29–36. Fel. Elec. Eng. (manager, 20–24, v. pres, 24–26). Telephone engineering and equipment.

Morehouse, Dr. Margaret G(ulick), University of Southern California School of Medicine, Los Angeles, Calif. *Biochemistry.* Champaign, Ill, Aug. 22, 04. A.B, California, 27; Ph.D, Southern California, 39. Asst. *biochem, sch. med, Southern California*, 29–33, 36–40, *instr, 40–* Ketolytic action of sugar; sexual differences in carbohydrate metabolism; beta oxidation; deuterium as an indicator in study of oxidation of fat.

Morehouse, Dr. W(alter) B(ertram), 16 Ware Road, Auburndale, Mass. *Physics.* Sandy Cove, N. S, Can, Sept. 12, 96. B.Sc, Kings Col, 22, M.Sc, 23; Yale, 22–23; Ph.D, Cornell, 26. Teacher, high sch, N. S, Can, 15–19; instr, King's Col, 21–22; asst. physics, Yale, 22–23; instr, Cornell, 23–26; vacuum tube develop. engineer, Westinghouse Lamp Co, 26–29; physicist, Eastman Kodak Co, 29; research engineer, Bell Tel. Labs, 29–32; in charge vacuum tube develop. and production, Int. Tel. and Tel. Co, 32–34; *director, Eagle Oil and Supply Co, 32–;* consulting engineer and v. pres, United Electronics Co; pres, Thoron Power Tubes, Inc, 34–36; in charge transmitting tube develop. and production, Raytheon Corp, 36–38; *consulting engineer and director, Morehouse Labs, 38–* A.A; Physical Soc; Radio Eng; Acoustical Soc; fel. Radio Club; Soc. Glass Technol. X-rays; vacuum tubes; x-ray photography; sound recording and reproduction; quartz crystals as applied to electric wave filters; radio; ultraviolet bactericidal lamps; ultra-violet radiation; sterilumilites.

Moreland, Prof. C(harles) F(red), Louisiana State University, Baton Rouge, La. *Plant physiology.* Homer, La, Aug. 6, 88. B.S, Louisiana, 14, M.S, 17; Ph.D, Cornell, 33. Instr. *bot, Louisiana*, 17–20, asst. prof, 20–25, assoc. prof, 25–33, *prof, 33–* Asst, Cornell, 28–29; bur. entom, U. S. Dept. Agr, 18. Bot. Soc; Soc. Plant Physiol. Correlation and regeneration in plants.

Moreland, Dean Edward L(eyburn), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.*

Lexington, Va, July 1, 85. A.B, Hopkins, 05; M.S. Mass. Inst. Tech, 08. Engineer, D. C. and Wm. B. Jackson, Boston, 08-12, manager, 12-16, *partner*, 16-18; *Jackson and Moreland, 19–*; prof. elec. eng. and head dept, *Mass. Inst. Tech*, 35–38, *dean eng, 38–; regional adviser eng, science and management defense training, region I, U. S. Office Educ, 40–; mem. labor supply cmt, Office Production Management, 41–* C.Eng, U.S.A, 18-19, capt. and major. A.A; fel. Elec. Eng; Mech. Eng; Civil Eng; Eng. Educ; fel. Am. Acad; Eng. Societies New Eng. Railroad electrification; development and utilization of steam, hydraulic and electric power; power transmission.

Moreland, Dr. Ferrin B(ates), University of Iowa, Iowa City, Iowa. *Biochemistry.* Portland, Oregon, Aug. 12, 09. B.S, Oregon State Col, 30; fellow, Rice Inst, 30–32, A.M, 32; Ph.D, Vanderbilt, 36; Sch. Aviation Med, 42. Asst. biochem, Vanderbilt, 32–36; instr, Tulane, 36; chemist-bacteriologist, sanit. eng. div, State Dept. Pub. Health, Tenn, 36; instr. biochem, Iowa, 36–42; *lieut, Air Corps, U. S. Army, 42–* Marine Biol. Lab, Woods Hole, 32–35. A.A; Chem. Soc. (sec'y-treas, Iowa sect, 40, 41); fel. Iowa Acad. (chairman sect. org. and biol. chem, 43). Setting of cements; metabolism and blood chemistry in anoxia; detoxication of ricin; enzyme action.

Moreland, Prof. Geo(rge) E(dward), Houghton College, Houghton, N. Y. *Zoology.* Brooklyn, N. Y, July 10, 95. B.S, Greenville Col, 21; M.S, Michigan, 29; Ph.D, Cornell, 38. Prof. biol. and chairman div. biol. sciences, Greenville Col, 22–41; *prof. zool. and chairman div. sciences and math, Houghton Col, 41–* Soc. Zool; Micros. Soc: Soc. Parasitol; Ornith. Union; Ill. Acad. Helminthology; trematodes.

Morell, Dr. S(amuel) A(llan), 134 N. Eleanor, Peoria, Ill. *Organic chemistry.* Worcester, Mass, Feb. 5, 09. A.B, Wisconsin, 30, fellow, 30–34, M.S, 31, Ph.D, 34. Research fellow biochem, Wisconsin, 34–36; Eli Lilly fellow immunochem, Mt. Sinai Hosp, New York, 36–38; asst. org. chem, Calif. Inst. Tech, 38–39; assoc. biochemist, bur. plant indust, *U. S. Dept. Agr*, 39–40, assoc. chemist, *div. agr. residues, north. regional research lab, bur. agr. and indust. chem*, 41–42, *chemist, 42–* Chem. Soc. Chemistry of carbohydrates and bacterial toxins; immunochemistry; chemistry of plant products; lignin; conversion of butylene glycol to butadiene.

Moreman, Dr. W(alter) L(afayette), Magnolia Petroleum Co, Oklahoma City, Okla. *Paleontology.* Memphis, Texas, Feb. 12, 03. A.B, Texas Christian, 25, M.S, 26; fellow, Kansas, 29, Ph.D, 31. Instr, Texas Christian, 26–27; asst. instr, Kansas, 28; asst. prof. biol, Texas Christian, 30–33; *paleontologist, Magnolia Petrol. Co, 33–* Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol. Paleontology of the Eagle Ford formation, Texas; Foraminifera of lower Paleozoic in Oklahoma.

Morenus, Prof. Eugenie M(aria), Sweet Briar College, Sweet Briar, Va. *Mathematics.* Cleveland, N. Y, Feb. 21, 81. A.B, Vassar Col, 04, A.M, 05, Vassar Alumnae fellow, 18–19; Ph.D, Columbia, 22. Teacher, high sch, N. Y, 06–07, 08–09; substitute *math*, Vassar Col, 07–08; instr, *Sweet Briar Col*, 09–16, assoc. prof, 16–18, *prof, 18–* A.A; Math. Soc; Math. Asn. Curves connected with a system of similar conics; geometric properties completely characterizing the set of all the curves of constant pressure in a field of force.

Moresi, Cyril K(illan), Carondelet Bldg, New Orleans, La. *Geology.* Jeanerette, La, July 22, 07. B.S, Louisiana, 31, M.S, 32. Geologist, div. minerals, State Dept. Conservation, La, 31–34; state geologist, dept. conservation, La. Geol. Surv, 34–40; *consulting geologist, 40–* Petrol. Inst; Asn. Petrol. Geol; Min. and Metal. Eng; Am. State Geologists. Geology and mineral resources of Louisiana and conservation of these resources.

Morey, Prof. C(arroll) A(ndrew), 325 Howard St, Findlay, Ohio. *Geology, Chemistry.* Denver, Colo, Oct. 25, 88. A.B, Oberlin Col, 16; Chicago; M.S, Colorado, 27. Teacher, Ward Acad, S. Dak, 16–18; high schs, Ill, 18–21; *prof. chem. and geol. and head dept, Findlay Col*, 21–25, *26–, dean, 31–* Summers, Michigan, 34, 35. A.A; Chem. Soc. (pres, Ohio North. chap, 30); Am. Geog. Soc; Ohio Acad. Mineralogy; glaciation in the Arapahoe and Albion Valleys, Colorado.

Morey, Dr. D(onald) R(oger), Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Physics.* Buffalo, N. Y, March 29, 07. B.S, Buffalo, 27; Ph.D, Cornell, 31. Heckscher research asst, Cornell, 31–32. Textile Foundation senior fellow, 32–35; *research physicist, Eastman Kodak Co, 35–* Optical Soc; Textile Inst. Fluorescence; dichroism; structure and physical properties of natural and synthetic textile fibers.

Morey, George W(ashington), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. ***Physical chemistry.* Minneapolis, Minn, Jan. 9, 88. B.S, Minnesota, 09; hon. Sc.D, Alfred, 39. Asst. chem, Minnesota, 07–09; asst. chemist, Bur. Standards, 09–12; asst. physical chemist and *physical chemist, geophys. lab, Carnegie Institution, 12–* Baker lecturer, Cornell, 32; gen. manager Parkersburg div, Corning Glass Works, 42–43. Gen. manager optical glass plant, Spencer Lens Co, 18–20. Mem. exec. cmt, div. chem. and chem. tech, Nat. Research Council. Manufacturer optical glass, W.I.B, 17–18. Hillebrand prize, Chem. Soc. Wash, 27. Chem. Soc; Chem. Eng; fel. Geol. Soc; fel. Ceramic Soc. (chairman, glass div, 31); Soc. Test. Mat. (chairman, cmt. glass and glass products); Geophys. Union; Orchid Soc; Chem. Soc. Wash. (treas, 26–28, pres, 28); Wash. Acad; fel. British Soc. Glass Technol. Acidimetric, alkalimetric and calorimetric standards; gas at low temperatures; physics and chemistry of high temperatures and pressures; hydrothermal silicate synthesis; optical glass; general silicate chemistry; geophysics.

Morey, Dr. Glen H, Commercial Solvents Corp, Terre Haute, Ind. *Chemistry.* Alma, Mich, 02. B.S, Chicago, 29, M.S, 30, Ph.D, 32. Instr. chem, Carnegie Inst. Tech, 30; Chicago, 30–32; in charge develop. chem. exhibits, A Century of Progress Expos, Chicago, 32–33; *research chemist*, Phillips Petrol. Co, 34–36; *Commercial Solvents Corp, 36–* A.A; Chem. Soc. Thermodynamics of hydrocarbon reactions; chemical equilibria; organic synthesis; chemical manufacture.

Morgal, Dr. Paul W(alter), Michigan State College, East Lansing, Mich. *Industrial chemistry.* Council Bluffs, Iowa, Dec. 10, 11. B.S, Iowa State Col, 33, M.S, 35, Ph.D, 37. Anal. chemist, du Pont Rayon Co, 33–34; *research chemist*, Gen. Chem. Co, 37–38; *exp. sta. chem, Mich. State Col, 38–* Chem. Soc; Chem. Eng. Process development work on inorganic salts; extraction and isolation of alfalfa-leaf protein; isolation of carotene, xanthophyll, sterols and chlorophyll from green plant tissue by a simplified procedure.

Morgan, Prof. Agnes Fay, University of California, Berkeley, Calif. *Chemistry.* Peoria, Ill, May 4, 84. B.S, Chicago, 04, M.S, 05, Ph.D, 14. Instr. chem, Washington (Seattle), 10–13; asst. prof. nutrition, *California*, 15–16, household science, 16–19, assoc. prof, 19–23, *prof. home econ. and chairman dept, 38–; biochemist, Agr. Exp. Sta.* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Chemistry of food and nutrition; vitamin occurrence and function; vitamin D and parathyroid glands; vitamin B_2 factors; effect of heat on proteins.

Morgan, Prof. Ann Haven, Mt. Holyoke College, South Hadley, Mass. ***Zoology.* Waterford, Conn, May 6, 82. A.B, Cornell, 06, fellow, 11–12, Ph.D, 12. Asst. *zool*, Mt. Holyoke Col, 06–07, instr, 07–09; asst. and instr, Cornell, 09–11; assoc. prof, *Mt. Holyoke Col*, 12–13, *prof, 14–* Staff, Marine Biol. Lab, Woods Hole; U. S. Eugenics Cmt. A.A; Soc. Nat; Soc. Zool; Entom. Soc; Social Hygiene Asn. Fresh-water biology; respiration and ecology of aquatic insects; biology of Mayflies; winter conditions of aquatic insects; habits and conditions of hibernating animals.

Morgan, Dr. Arthur E(rnest), Yellow Springs, Ohio. *Hydraulics.* Cincinnati, Ohio, June 20, 78. Hon. Sc.D, Colorado, 23, North Carolina, 37; hon. D.E, Case, 32. *Consulting engineer, 02–; pres, Dayton Morgan Eng. Co, 09–; Community Service, Inc, 40–* Supervising engineer, U. S. Dept. Agr, 07–09; pres, Morgan Eng. Co, 09–15; chief engineer, Conservancy Dist, Miami, 15–21; pres, Antioch Col, 20–36; chief engineer, Conservancy Dist, Pueblo, 21–25; chairman board, Tenn. Valley Authority, 33–38. A.A; Civil Eng. (v. pres, 27–29); Acad. Polit. and Social Sci. Flood prevention; community design and development.

Morgan, Dr. Arthur M(itchell), 1811 Cheyenne Place, Cheyenne, Wyo. *Geology.* Sheridan, Wyo, Nov. 17, 08. A.B, Wyoming, 31; A.M, Columbia, 32, Ph.D, 41. Asst. geologist, Geol. Surv. Wyo, 35–36; junior geologist, *U. S. Geol. Surv*, 36–39, *asst. geologist, 39–* Geophys. Union. Ground-water geology.

Morgan, Dr. Banner Bill, University of Wisconsin, Madison, Wis. *Parasitology.* Bandon, Oregon, Nov. 18, 15. A.A, Modesto Junior Col, 35; B.S, Oregon State Col, 37, M.S, 38; Iowa State Col, 38–39; univ. fellow, Wisconsin, 39–40, Ph.D, 41.

Asst. biol, Oregon State Col, 37–38; asst. instr. vet. path, Iowa State Col, 38–39; asst. zool, Wisconsin, 40–41; asst. prof. biol, Adams State Teachers Col, Colo, 41; instr. *vet. science, Wisconsin*, 41–43, *asst. prof, 43–, parasitologist, 41–* A.A; Ornith. Union; Soc. Mammal; Soc. Parasitol; Micros. Soc; Soc. Trop. Med; Conf. Research Workers in Animal Diseases in N. Amer; Helminth. Soc. Wash; Wis. Acad; Wis. Ornith. Soc. Physalopteridae; parasites of mammals and birds of North America; parasitological and ecological relationships; bovine trichomoniasis.

Morgan, Cha(rle)s Gill, 196 Arlington Village, Arlington, Va. *Geology.* Dallas, Texas, June 22, 06. B.S, South. Methodist, 28. Asst. geol. and physics, South. Methodist, 27–28; seismologist, Geophys. Research Corp, 28–30; research, Harvard, 31; instr. geol, South. Methodist, 31–32; chief geologist and geophysicist, Byrd Antarctic exped, 33–35; geophysicist, Seismograph Service Corp, 35–36; v. pres. and geophysicist, United Geophys. Co, 36–40; *lieut. col, Air Corps, U. S. Army, 41–* A.A; Soc. Explor. Geophys; Asn. Petrol. Geol; Seismol. Soc; Inst. Min. Eng; Soc. Econ. Paleont. and Miner. Petroleum geophysics; seismology; geology and geophysics of polar regions; glaciology.

Morgan, Prof. C(harles) L(ee), Clemson Agricultural College, Clemson, S. C. *Poultry husbandry.* Sirocco, Ky, Jan. 23, 95. B.S.A, Kentucky, 18, M.S, 27; Iowa State Col, 24; Wisconsin, 31–32, 34. Asst. prof. animal husbandry, *Clemson Col*, 19–22, assoc. prof, 22–26, *prof. poultry husbandry, 26–* A.A; Poultry Sci. Asn. Animal nutrition; poultry feeding experiments; calcium and phosphorus balance of laying hens; egg quality; cottonseed meal in chick starting rations.

Morgan, Prof. Clellen L(eo), Purdue University, Lafayette, Ind. *Psychology.* Lakeville, Ohio, Aug. 9, 03. A.B, Denver, 29; A.M, Iowa, 30, Ph.D, 31. Asst, Iowa, 29–31; instr. *psychol, Purdue*, 31–35, asst. prof, 35–37, *assoc. prof, 37–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Experimental psychology; psychology of learning.

Morgan, Dr. Clifford T(homas), Johns Hopkins University, Baltimore, Md. *Psychology.* Minotola, N. J, July 21, 15. A.B, Maryville Col, 36; A.M, Rochester, 37, fellow, 38–39, Ph.D, 39. Asst. psychol, Rochester, 36–38; research assoc, Psychol. Corp, 37–39; instr. and tutor *psychol*, Harvard and Radcliffe Col, 39–42, faculty instr. and tutor, 42–43; *assoc, Hopkins, 43–* A.A; Psychol. Asn; Physiol. Soc. Physiological psychology.

Morgan, Dr. D(avid) P(ercy), 1518 34th St, Washington, D. C. *Chemistry.* Lenox, Mass, Sept. 4, 94. A.B, Harvard, 16; Ph.D, Columbia, 23. Nat. research fellow, 23–24; consulting chemist, Loomis, Stump and Banks, 25–28; Scudder, Stevens and Clark, 29–40; consultant, chem. branch, *War Production Board*, 40–42, *director chem. div, 42–* Sec'y-treas, Chem. Industries Tercentenary. A.A; Chem. Soc. (sec'y-treas, N. Y. sect, 30–35, v. chairman, 36, chairman, 37); Inst. Chem. (treas, 32–34). Chemical economics.

Morgan, Dr. Frank, Gulf Research and Development Co, Pittsburgh, Pa. *Physics.* Continental, Ohio, April 16, 02. B.S, Ohio, 28; M.S, Purdue, 31; Ph.D, Ohio State, 36. Asst, Purdue, 28–32; Ohio State, 33–36; *with Gulf Research and Develop. Co, 36–* Physical Soc. Band spectra; lubrication.

Morgan, Dr. F(rank) M(illett), The Clark School, Hanover, N. H. *Mathematics.* New York, N. Y, Oct. 6, 86. A.B, Cornell, 09, A.M, 10, Ph.D, 12. Instr. math, Sturgis Prep. Sch, 07–12; asst. instr, Cornell, 11–12; instr, Dartmouth Col, 12–15, asst. prof, 15–21; asst. director, *Clark Sch*, 21–29, *director, 30–* Math. Soc; Math. Asn. Transformations; mathematical analysis; plane, solid and analytic geometry; trigonometry; mathematics of everyday life.

Morgan, Prof. George D(avid), Burg St, Granville, Ohio. *Zoology.* Glamorganshire, South Wales, Jan. 8, 93. B.S, Denison, 24; M.S, Pittsburgh, 26; Ph.D, Ohio State, 36. Head dept. *zool*, Broaddus Col, 26–27; *prof, Denison, 27–* Sci. exped, to jungles of British Guiana, 25. A.A; Ohio Acad. Entomology; embryology; comparative anatomy.

Morgan, Dr. Herbert R(ollo), U. S. Naval Observatory, Washington, D. C. *[5]Astronomy, Mathematics.* Medford, Minn, March 21, 75. Fellow, Virginia, A.B, 99, Ph.D, 01. Prof. math, Pantops Acad, Va, 00–01; computer, Naval Observatory, 01–05; prof. astron. and higher math, Pritchett, and director, Morrison Observatory, 05–07; asst. astronomer, *U. S. Naval Observatory*, 07–24, astronomer, 24–29, *prin. astronomer, 29–* Nat. Research Council. A.A. (v. chairman, D, 35); Astron. Soc. (v. pres, 40–42); Geophys. Union; Wash. Acad; Int. Astron. Union (pres, cmn. meridian astron, 38–43). Satellites of Saturn; comet orbits; transit circle observations; fundamental astronomy.

Morgan, Howard W(aldron), Box 375, Munising, Mich. *Chemistry.* New Milford, Pa, Jan. 26, 02. B.S, Syracuse, 26, M.S, 28. Teaching fellow, N. Y. State Col. Forestry, Syracuse, 27–28; research chem. engineer, Oxford Paper Co, 28–32; asst. prof. pulp and paper mfg, N. Y. State Col. Forestry, Syracuse, 32–34; research assoc, Inst. Paper Chem, Lawrence Col; *manager, Munising Paper Mill.* Tech. Asn. Pulp and Paper Indust. (chairman, pulp testing cmt, 33–36, testing div, 36–). Paper manufacture; pulp refining; paper evaluation.

Morgan, Brig. Gen. Hugh J(ackson), Surgeon General's Office, U. S. War Department, Washington, D. C. *Medicine.* Nashville, Tenn, Jan. 25, 93. B.S, Vanderbilt, 14; M.D, Hopkins, 18. Res. house officer, Hopkins Hosp, 19–20, asst. res. physician and instr. med, sch. med, Hopkins, 20–21; asst. and res. physician, Rockefeller Inst, 22–24; assoc. prof. med, *sch. med, Vanderbilt*, 24–28, *prof.* clin. med, 28–35, *med, 35–*; col, *Med. Corps, U. S. Army*, 42, *brig. gen, 42–* Lieut, M.C, 18–19. A.A; Am. Med. Asn; Soc. Bact; Am. Heart Asn; Soc. Clin. Invest; Am. Physicians; Clin. and Climat. Asn; Harvey Soc; South. Med. Asn. Infectious diseases.

Morgan, Dr. Isabel M(errick), Rockefeller Institute for Medical Research, York Ave. and 66th St, New York, N. Y. *Bacteriology.* New Bedford, Mass, Aug. 20, 11. A.B, Stanford, 32; A.M, Cornell, 36; Ph.D, Pennsylvania, 38. Asst. and later *assoc, Rockefeller Inst, 38–* Soc. Bact; Harvey Soc. Immunity in virus diseases; virology.

Morgan, Lieut. J(asper) E(ugene), Experimental Diving Unit, U. S. Navy Yard, Washington, D. C. *Physics, Biophysics.* Waynesville, N. C, June 5, 11. B.S, Wake Forest Col, 31; A.M, Duke, 32, Ph.D, 36; Michigan, 32. Assoc. physics, Duke, 32–36, instr. physiol, univ, and consulting physicist, univ. hosp, 36–41; *lieut, H-V Specialist Corps, U. S. Navy, 41–* Physical Soc. Cosmic rays; atmospheric hygiene.

Morgan, Prof. Jerome J(ohn), 67 Salter Place, Maplewood, N. J. *Chemical engineering.* Russell, Pa, April 22, 80. B.S, Pa. State Col, 05, M.S, 10; Ph.D, Columbia, 19. Asst. chem, Md. Col, 05–06, asst. prof, 06–08; asst. chemist, bur chem, U. S. Dept. Agr, 08; prof. chem, Col. of Hawaii, 08–09; instr, Stevens Inst. Tech, 09–11, asst. prof, 11–19; *chem. eng, Columbia*, 19–27, assoc. prof, 27–37, *prof, 37–* Cmt. chem. utilization of coal, Nat. Research Council, 39–A.A; Chem. Eng; Chem. Soc; Gas Asn. (chairman chem. cmt, 37); Eng. Educ. Industrial chemical analysis; vapor pressures at high temperatures; volatilization of potash; low-temperature coal tars; phenols; coal carbonization; manufacture and utilization of gaseous fuels; thermal decomposition; oxidation of hydrocarbons; asphalts and petroleum.

Morgan, Dr. J(erome) Perry, 47 Kendall Ave, Maplewood, N. J. *Chemical engineering.* Maplewood, N. J, Aug. 6, 11. B.S, Pa. State Col, 34; M.S, Columbia, 36, Ph.D, 42. Instr. chem, Stevens Inst. Tech, 38–41, asst. prof, 41–42; *chem. engineer, develop. div, Standard Oil Develop. Co, 42–* Chem. Soc; Chem. Eng. Separation of vanadium pentoxide from phosphoric acid mixtures.

Morgan, Col. John Davis, Highhickory, Wyoming Ave, South Orange, N. J. *Engineering.* Atlanta, Ga, June 6, 84. C.E, Yale; Carnegie Inst. Tech; M.E, Royal Engineers Sch. Command and Gen. Staff Sch; *consulting engineer, 22–* Director, Rider-Ericsson Engine Corp, 05–20; v. pres, pres. and chairman board, Rider Engine Co, 22–; v. pres, Superno Superheater Co. Int. Eng. Cong. Mil. Order World War; Mil. Order For. Wars. Lieut. col, C.Eng. Mech. Eng; Elec. Eng; Soc. Mil. Eng; U. S. Naval Inst; Soc. Professional Eng. Economic research; refractories; internal combustion engines; electro-chemical gas analysis; combustion regulation; instruments; industrial management; combustion problems.

Morgan, Dr. (John) H(arcourt) A(lexander), Tennessee Valley Authority, Knoxville, Tenn. *Zoology, Entomology.* Kerwood, Ont, Can, Aug. 31, 67. B.S.A, Toronto, 89; Cornell, 91–98; Marine Biol. Lab, Woods Hole, 95; LL.D, Emory and Henry, Southwestern, 20, Western Ontario, 39; Sc.D, Clemson Col, 37. Entomologist and horticulturist, Louisiana, 89–94, prof. entom. and zool, 94–04, entomologist and horticulturist, Exp. Sta, 89–94, zoologist and entomologist, 94–04, entomologist and crop pest commissioner, 04–05; prof. zool

and entom, Tennessee, and director, Exp. Sta, 05–19, dean col. agr, 13–19, pres, 19–33; *director, Tenn. Valley Authority, 33–*, chairman, 38–41. Director, Gulf Biol. Sta, 00–05; special field agent, bur. entom, U. S. Dept. Agr, 04; state entomologist, Tenn, 05–19; asst. commissioner for La, Atlanta Expos, 95; entomologist and sec'y, La. Crop Pest Cmn, 04–05; state entomologist, Tenn, 05–19. Mem. Am. Cmt. Study Rural Credits and Cooperation, 13; chairman, Sec'y of Agr. cmt. scientists to investigate and advise concerning control Mediterranean fruit fly in Fla, 29; mem. Nat. Land-Use Planning Cmt. Trustee, Berry Schs. Pres, Asn. Land-Grant Cols. and Univs, 27. Mem. cmt. on Capper award, 30–31. Award, Am. Farm Bur. Federation, 37. Administrator for Tenn, Food Admin, 17. A.A. (pres, entom. sect, 05); Soc. Prom. Agr. Sci; Asn. Econ. Entom. (pres, 07); Entom. Soc. Amer; Fisheries Soc; Country Life Asn; Tenn. Acad; La. Nat. Soc. (pres, 00); Entom. Soc. Wash. Louisiana and Tennessee insects; American ioxids.

Morgan, Prof. John J(acob) B(rooke), Northwestern University, Evanston, Ill. *Psychology.* Norristown, Pa, Aug. 23, 88. A.B, Taylor, 11; A.M, Columbia, 13, Ph.D, 16; B.D, Drew Sem, 14. Asst. psychol, Columbia, 14–16; Cutting traveling fellow from Columbia, Hopkins, 16–17; instr, Princeton, 17; asst. prof, Minnesota, 19–21; director psychol. clinic, Iowa, 21–25; assoc. prof. and *prof. psychol, Northwestern, 25–* Sanit.C, U.S.A, 18–19, grading and testing specialist, educ. dept, 20–21. A.A; Psychol. Asn; Midwest. Psychol. Asn. (pres, 34). Attention; movement; memory; perception; psychopathology.

Morgan, Prof. Joseph, Texas Christian University, Ft. Worth, Texas. *Physics.* Russia, March 4, 09. A.B, Temple, 31, fellow, 31–33, A.M, 33; fellow, Mass. Inst. Tech, 36–37, Ph.D, 37. Asst, Temple, 29–31; supervisor wave length project, Mass. Inst. Tech, 37–38; instr. physics, Agr. and Mech. Col. Texas, 38–41, asst. prof, 41; *asst. prof. physics and in educational charge eng, scienee and management defense training courses, Texas Christian, 41–* Summer, instr, North Texas State Teachers Col, 41. Physical Soc; Asn. Physics Teachers; Soc. X-ray and Electron Diffraction; Texas Acad. X-rays; x-ray study of structure of liquids, crystals and glasses; Geiger point counter; spectroscopy; wave-length determination; radio communications; engineering electronics.

Morgan, J(oseph) Holloway, 14 Post Office Annex, Elm St, Urbana, Ill. *Hydrology.* New York, N. Y, July 19, 89. C.E, Cornell, 13. Deck office, U. S. Coast and Geod. Surv, 13–14; from junior engineer to asst. engineer, surface waters div, water resources branch, U. S. Geol. Surv, 14–17; Stone and Webster Eng. Co, Boston, 17–18; statist. expert, Ordnance Dept, Washington, 18–20; salesman, 20–23; *engineer to dist. engineer, surface waters div, water resources branch, U. S. Geol. Surv, 23–* Basin cmt, Nat. Resources Planning Board, chairman dept. int. representatives, 36– A.A; Soc. Professional Eng. (director, 38–, v. pres, 42); Geophys. Union; Ill. Soc. Eng. (drainage sect. cmt, 34–, chairman, 36; director, 37–). Water resources; stream flow.

Morgan, Prof. J(oseph) W(ayland), Wittenberg College, Springfield, Ohio. *Chemistry.* Walkerton, Ont, Can, 90. B.A, Toronto, 17; Ph.D, Chicago, 25. Lecturer, Bishop's Col. (Can), 19–22; asst. prof. *chem, Wittenberg Col, 27–36, assoc. prof, 36–* A.A; Chem. Soc. Physical chemistry.

Morgan, Dr. Karl Z(iegler), University of Chicago, Chicago, Ill. *Physics.* Enochsville, N. C, Sept. 27, 07. Lenoir-Rhyne Col, 25–27; A.B, North Carolina, 29, A.M, 30; Westinghouse Grad. Sch, 30–31; Pittsburgh, 30–31; Ph.D, Duke, 34. Prof. physics and head dept, Lenoir-Rhyne Col, 34–43; *research physicist, Chicago, 43–* A.A; Physical Soc; Elisha Mitchell Sci. Soc; South. Physical Soc; N. C. Acad. Backward scattering of cosmic rays; cosmic ray shower production under thick layers of various materials.

Morgan, Prof. Lawrence O(nis), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Neurology, Anatomy.* Turon, Kans, May 22, 00. A.B, Southwestern Col. (Kans), 22; A.M, Indiana, 23; Ph.D, Cornell, 26. Asst. embryol, Indiana, 22–23; instr. anat. and neur, Cornell, 23–26; histol. and neur, col. med, Illinois, 26–29; asst. prof. *anat, col. med, Cincinnati, 29–34, assoc. prof, 34–* Asn. Anat. Histology, physiology and pathology of the diencephalon and corpus striatum; pathologic changes in the hypothalamus in epilepsy; the psychoses; mental deficiency; diabetes mellitus; heat stroke.

Morgan, Sister M. Sylvia, Marywood College, Scranton, Pa. *Chemistry.* Glamorganshire, S. Wales, Nov. 3, 89. B.S, Col. of New Rochelle, 16; Notre Dame, 18; M.S, Fordham, 20; Sc.D, American Univ, 25; Columbia, 28. *Director science and prof. chem, Marywood Col, 16–* A.A; Chem. Soc; Pub. Health Asn; Pa. Acad; N. Y. Acad; British Acad. Physiological chemistry; surface tension in detoxication products; analysis of various types of oranges; vitamins.

Morgan, Dr. Meredith W(alter), Jr, 911 Macdonald Ave, Richmond, Calif. *Physiological optics.* Kingman, Ariz, March 22, 12. A.B, California, 34, A.M, 39, Ph.D, 41. *Research assoc. physiol, California, 42–, instr. optometry, 42–* A.A. Accommodation and convergence.

Morgan, Dr. M(ont) Francis, 3286 Whitney Ave, Mt. Carmel, New Haven, Conn. *Soils.* New Martinsville, W. Va, Sept. 28, 95. B.S, West Virginia, 20; M.S, Ohio State, 22, Ph.D, 35. Instr. soils, West Virginia, 20–21; asst. prof, Ohio State, 22–23; *chief agronomist, Conn. Exp. Sta, 24–; lieut. col, Inf, U. S. Army, 42–* Assoc. research prof, forest sch, Yale, 28–33. A.A. (sec'y, O, 36–); Soc. Agron; Soil Sci. Soc. (pres, 33); Int. Soc. Soil Sci. Soil acidity; soil classification; lysimeter investigations; micro-chemical soil tests; nutrient intake of plants.

Morgan, Dr. O(liver) M(oorehouse), National Aniline Division, Allied Chemical and Dye Corp, Buffalo, N. Y. *Physical chemistry.* Ripley, Ont, Can, July 24, 06. B.A, Western Ontario, 27, Nat. Research Council Can. bursar, 27–28, M.A, 28; student, McGill, 28–29, fellow, 29–30, Ph.D, 30. *Chemist* in charge laundry and textile research, Nat. Research Council Can, 30–34; *in charge detergent application research, Nat. Aniline div, Allied Chem. and Dye Corp, 34–* Asn. Textile Chem. and Colorists; Chem. Soc. Development of an equation of state; equilibria in gaseous-aqueous systems forming electrolytes; laboratory and power laundry comparisons of alkaline soap builders; oil damage to cotton tenting materials; effect of atmospheric sulfur dioxide on cotton; surface active agents in the degumming of silk hosiery; the Canuas disc wetting test; biological advantages of a wetting agent in bottle washing.

Morgan, Prof. O(ra) S(herman), Columbia University, New York, N. Y. *Agricultural economics.* Hampshire, Ill, Aug. 11, 77. A.B, Illinois, 05; M.S.A, Cornell, 07, Ph.D, 09. Director, N. Y. State Sch. Agr, Alfred, 08–12; prof. agr, Columbia, 11–43; *retired.* Agr. adviser and agr. Levantine surveyor, Near East Relief, 26, 27; collaborator agr. surv. middle east, Board Econ. Warfare and Near East Foundation, 42–43; mem. board directors, Near East Foundation. Del, Int. Cong. Agr, Prague, 31. A.A; Farm Econ. Asn; Econ. Asn; Acad. Polit. Sci; Acad. Polit. and Social Sci. Land utilization; foreign agricultural economic policy of middle European states, middle east and of Latin America.

Morgan, Prof. Raymond, University of Pennsylvania, Philadelphia, Pa. *Physics.* Centerville, Ind, June 5, 93. A.B, Indiana, 16, A.M, 17; Ph.D, Pennsylvania, 22. Bur. Standards, 18–19; instr. *physics, Pennsylvania,* 19–24, *asst. prof, 24–; senior physicist, Bur. Standards, 41–* Engineer, Victor Talking Machine Co, 27; consulting physicist, Chase and Waring, Engineers, N. Y, 29–33. Physical Soc; Franklin Inst; Physics Club Phila. Optical constants of sodium-potassium alloys; camera for electron diffraction; corrosion of wrought iron and steel; x-ray and electron diffraction studies of grain boundaries in metals; theoretical and experimental studies of the semicircular canals.

Morgan, Prof. S(tanley) C(hapin), University of British Columbia, Vancouver, B. C, Can. *Electrical engineering.* Elgin, Ont, Can, March 12, 91. B.Sc, Queen's (Can), 16; M.Sc, Alberta, 23; M.S, Calif. Inst. Tech, 28. Draughtsman and calculator, Can. Pacific Ry, 16–18; instr. physics and math, Queen's (Can), 19–20; lecturer physics and elec. eng, Alberta, 20–27; asst. prof. *elec. eng,* Queen's (Can), 28–37; *assoc. prof, British Columbia, 37–* Assoc. Elec. Eng; assoc. Illum. Eng. Soc. Problems of ultra-sonic waves; high tension; resistance of high tension porcelain insulators.

Morgan, Dr. S(tanley) O(wen), 463 West St, New York, N. Y. *Chemistry.* Granville, N. Y, Oct. 3, 00. B.S, Union (N. Y), 22; A.M, Princeton, 25, Ph.D, 28. Eng. dept, West. Elec. Co, 22–24; *dielectric research chemist, Bell Tel. Labs, 27–* V. chairman conf. insulation, Nat. Research Council. Chem. Soc; N. Y. Acad. Absorption of gases by carbon; dipole moments and molecular structure; dielectric; ceramics; semi-conductors.

Morgan, Theodore H(arding), 2800 Woodley Road, N.W, Washington, D. C. *Electrical engineering.* Fredericton Junc-

tion, N. B, Can, Sept. 23, 92. British Columbia, 13–16; A.B, Stanford, 20, E.E, 29. Supt, Foundation Co, B. C, 17–19; testing engineer, Inspiration Consol. Copper Co, Ariz, 20–21; engineer, Great West. Power Co, San Francisco, 21–22; instr. *elec. eng*, Stanford, 22–26, asst. prof. and asst. to exec. head dept, 27–31; *prof. and head dept, Worcester Polytech, 31–; prin. specialist eng. educ, U. S. Office Educ, 42–* A.A. (councilor, 41); fel. Elec. Eng. (chairman, Worcester sect, 34, mem, educ. cmt, 34–, induction machine cmt, 34–); Eng. Educ. (councilor, 35–38). Electrical machinery and transmission of power; determination of performance and losses in induction machines.

Morgan, Dr. T(homas) H(unt), California Institute of Technology, Pasadena, Calif. **1Biology.* Lexington, Ky, Sept. 25, 66. B.S, Kentucky, 86, M.S, 88, LL.D, 16; Ph.D, Hopkins, 90, Bruce fellow, 90–91, LL.D, 15; LL.D, McGill, 21, California, 30; D.Sc, Edinburgh, 22; Sc.D, Michigan, 24, Harvard, 34; Ph.D, Heidelberg, 31; hon. M.D, Zurich, 33; hon. Dr, Paris, 35. Prof. biol, Bryn Mawr Col, 91–04; exp. zool, Columbia, 04–28; *prof. biol. and director, Wm. G. Kerckhoff labs, Calif. Inst. Tech, 28–* Jesup lecturer, Columbia, 12; Vanuxem lecturer, Princeton, 16; Hitchcock lecturer, California, 16; Mellon lecturer, Pittsburgh, 23; Silliman lecturer, Yale, 25; Messenger lecturer, Cornell, 31. Consulting board cancer research, Columbia, 37. Nobel laureate, 33. Pres, Int. Cong. Genetics, 32. Nat. Acad. (pres, v. chairman, exec. board, 27–31); A.A. (pres, 30); Soc. Nat. (pres, 09); Soc. Zool; Soc. Exp. Biol. (pres); Philos. Soc; Acad. Nat. Sci. Phila; for. mem. Royal Soc; Linnean Soc. London; hon. mem. Royal Irish Acad; Soc. biol. de France; cor. mem. Paris Acad. Sci; Belgian Soc. Zool. and Malacol; Soc. des Sci. méd. et nat. de Bruxelles; Royal Soc. Sci. Uppsala; for. cor. mem. Vienna Acad. Sci; Zool. Societies of Norway, Denmark, Finland, Moscow, St. Petersburg and Munich. Experimental embryology and regeneration; experimental zoology; heredity and sex; the physical basis of heredity; the theory of the gene; genetics of Drosophila; theory of evolution; scientific basis of evolution; embryology and genetics.

Morgan, Willard L(eroy), Prolamine Products Corp, 1975 Arlington Ave, Columbus, Ohio. *Chemistry.* Wilmington, Del, Jan. 10, 02. B.S, Mass. Inst. Tech, 24; M.S, California, 26. Asst, exp. sta, E. I. du Pont de Nemours and Co, 18–22; teaching fellow org. chem, California, 24–26; research chemist, gen. lab, U. S. Rubber Co, N. Y, 27, in charge latex develop, Detroit, 28; tech. director, Triplex Safety Glass Co, Clifton, N. J, 28–32; tech. asst. to pres, Sylvania Indust. Corp, N. Y, 32–36; asst. research director, Am. Maize Products Co, Roby, Ind, 36–37; *research director and org. plant manager,* Arnold Hoffman and Co, 37–42; *Prolamine Products Corp, 42–; manager protein research, A. E. Staley Mfg. Co, 42–; Am. Maize Products Co, 42–* V. pres. and manager, Carlin Products Co, 34–40; consultant, Terry Candy Co, East Orange, N. J, 35; Liberty Mirror Works, Pittsburgh, 36–; Celluloid Corp, Newark, N. J, 37–40; research assoc, Ohio State, 42–43. Chem. Soc; Ceramic Soc; fel. Inst. Chem; Chem. Eng; Asn. Textile Chem. and Colorists; Inst. Food Technol; Chemists' Club; Soc. Chem. Indust. Gt. Britain. Emulsification; safety glass; Cellophane; rancidity; starches; sugars; proteins; automotive mirrors; plastics; lacquers; textile chemicals; cellulose materials; synthetic organics and drugs.

Morgan, Prof. W(illia)m Gerry, 1006 16th St, N. W, Washington, D. C. *Medicine.* Newport, N. H, May 2, 68. A.B, Dartmouth Col, 90; M.D, Pennsylvania, 93, hon. LL.D, Sc.D. Chief res, Reading Hosp, 93–94; *practising physician,* Conn, 94–99; *Washington, D. C, 99–; Georgetown, 04–, prof. diseases alimentary tract, emer. dean sch. med. and regent univ.* Assoc. ed, 'Tice's Practise of Med'; 'Lippincott's Am. System Med'; 'Principles and Practise Physical Therapy.' Lieut, M.R.C, U.S.N, 22; major, M.R C, U.S.A. Am. Med. Asn. (pres, 30); Soc. Clin. Path. (pres, 19); fel. Col. Physicians (past mem, board regents, board governors, sec'y gen, 31–37, v. pres, 37); Therapeut. Soc; Gastro-Enterol. Asn. (pres, 13); Archeol. Asn; Asn. Mil. Surg; Cong. Int. Med. (pres, 24); South. Med. Asn. (councilor, 28–34); N. Y. Acad. Med; D. C. Med. Soc. (pres, 19); Wash. Acad. (v. pres, 19); Int. Med. Club (pres, 30). Diseases of the digestive system.

Morgan, Prof. W(illiam) M(cLennan), 1169 Kingsway, Alliance, Ohio. *Chemistry.* Cincinnati, Ohio, Oct. 1, 98. B.S, Illinois, 21; scholar, Ohio State, 21–22, M.S, 22, Ph.D, 32. Asst. prof. chem, *Mt. Union Col,* 22–27, assoc. prof, 27–32, *prof. org. chem, 32–,* acting dean, 35–36. A.A; Chem. Soc. Electrolytic oxidations; hemi-acetals of aldehydrogalactose penta-acetate and their optical properties; carbohydrates.

Morgan, Prof. W(illiam) P(itt), R.R. 6, Box 414, Indianapolis, Ind. *Zoology, Genetics.* Indianapolis, Ind, Nov. 17, 93. A.B, Ind. Cent. Col, 19; A.M, Indiana, 22, fellow, 25–26, Ph.D, 26. *Prof. biol, Ind. Cent. Col, 19–* Exten. lecturer, Indiana, 27– Summers, instr, Ind. Biol. Sta, 20–26. Soc. Zool; Genetics Soc; Genetic Asn; Entom. Soc. Amer; fel. Ind. Acad. (treas, 35–); fel. Royal Hort. Soc. Cytology of earwigs; insect behavior; plant breeding; genetics and cytology of Freesias and related irids.

Morgan, Dr. W(illiam) W(ilson), Yerkes Observatory, University of Chicago, Williams Bay, Wis. **7Astronomy.* Bethesda, Tenn, Jan. 3, 06. B.S, Chicago, 27, fellow, 29–30, Ph.D, 31. Asst. *astron, Yerkes Observatory, Chicago,* 26–29, 30–32, instr, 32–36, asst. prof, 36–43, *assoc. prof, 43–* Astron. Soc. Stellar spectroscopy; photometry.

Morgana, Dr. Morley, 357 Notre Dame Ave, Grosse Pointe 30, Mich. *Organic chemistry.* Detroit, Mich, Jan. 22, 18. A.B, Harvard, 39, A.M, 40, Ph.D, 42. Private asst. to Dr. W. P. Campbell, Harvard, 41, Prof. Louis F. Fieser, 41–42; *research chemist, Ethyl Corp, 42–* Chem. Soc. Substitution products of dehydroabietic acid.

Morgareidge, Dr. Kenneth (Goodrich), Nopco Vitamin Laboratories, Harrison, N. J. *Biochemistry.* Sheridan, Wyo, Sept. 21, 07. A.B, Pomona Col, 30; A.M, Claremont Cols, 31; Ph.D, Rochester, 35. Research fellow optics and biochem, Rochester, 36–40; metabolic chemist, Phila. Gen. Hosp, 35–36; head biophys. lab, *Nopco Vitamin Labs, Nat. Oil Products Co,* 40–41, *assoc. head biol. assay labs, 41–* Vitamin D milks; sterol color reactions; vitamin assay methods.

Morgen, Prof. Ralph A(lexander), University of Florida, Gainesville, Fla. *Chemical engineering.* Sacramento, Calif, June 6, 03. B.S, California, 23, Ph.D, 25. Research chemist, Pacific Gas and Elec. Co, 24–25; develop. engineer, West. Elec. Co; manager dry cleaning div, Black, Sivalls and Bryson Mfg. Co; consulting chem. engineer; *prof. chem. eng, Florida.* Chem. Soc; Chem. Eng; Eng. Educ. The free energy of hydrofluoric acid; metallurgy; corrosion; dry cleaning and laundry processes; detergents; thermodynamics.

Morgulis, Prof. Sergius, University of Nebraska College of Medicine, Omaha, Nebr. *Biochemistry.* Balta, Russia, July 6, 85. A.B, Ananieff, Russia, 04; A.M, Columbia, 07; Ph.D, Harvard, 10. Austin teaching fellow, Harvard, 09, traveling fellow, 10–12; assoc. animal metabolism, nutrition lab, Carnegie Institution, 12–13; instr. and assoc. biochem, Columbia, 13–16; *prof.* biochem. and physiol, Creighton, 16–22; *chairman dept. biochem, col. med, Nebraska,* 22– Bowdoin prize and medal, Harvard, 11; prize, Fisheries Soc, 18. A.A; Soc. Biol. Chem; Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Fisheries Soc; Biochem. Soc. Gt. Britain; Soc. de Chim. biol. Regeneration; inanition; metabolism; chemistry of bone and blood; enzymes; hormones; nutrition; muscle dystrophy.

Morison, Dr. Robert S(wain), Harvard Medical School, Boston, Mass. *Anatomy.* Milwaukee, Wis, Nov. 25, 06. A.B, Harvard, 30, M.D, 35. Res. physician, Collis P. Huntington Mem. Hosp, Boston, 34–35; Austin teaching fellow, *Harvard Med. Sch,* 35–36, instr. physiol, 36–38, assoc. *anat,* 38–41, *asst. prof, 41–* Physiol. Soc; Asn. Anat. Autonomic nervous systems; nerve muscle; central nervous system.

Moritz, Dr. Alan R(ichards), Harvard Medical School, Boston, Mass. *Pathology.* Hastings, Nebr, Dec. 25, 99. B.S, Nebraska, 20, A.M, 21, M.D, 23. Intern, Lakeside Hosp, Cleveland, 23–24; Hanna research fellow path, Western Reserve, 24–26, from instr. to assoc. prof, sch. med, 29–37, pathologist in charge hosps, 30–37; *prof. legal med, Harvard Med. Sch,* 37– Externe, City Hosp, Vienna, Austria, 26–27; res. pathologist, Lakeside Hosp, Cleveland, 27–29; pathologist, State Dept. Pub. Safety, Mass, 40–; consulting pathologist, State Dept. Mental Health, 41–; lecturer, med. sch, Tufts Col, 41–; col. med, Boston, 41– A.A; Asn. Path. and Bact. (asst. sec'y, 36, treas, 40–); Am. Med. Asn; Asn. Cancer Research; Soc. Exp. Path; Soc. Exp. Biol; Am. Acad; New Eng. Path. Soc. (pres, 43); Interurban Path. Club; Mass. Medico-Legal Soc; Int. Asn. Med. Mus. Legal medicine; pathology of trauma; descriptive and experimental pathology; forensic pathology.

Moritz, Dr. C(harles) E(dgar), University of Idaho, Moscow, Idaho. *Zoology.* Denver, Colo, April 10, 10. A.B, Dartmouth Col, 32; Ph.D, California, 36. *Instr. zool, Idaho, 36–* A.A. Molluscan embryology.

Mork, Harry S(olomon), 40 Broad St, Boston, Mass. *Chemistry.* Boston, Mass, April 10, 18. B.S, Mass. Inst. Tech, 99.

Chemist, City Wastes Disposal Co, 99; State Board Health, Mass, 99–00; Cellulose Products Co, 00–01; with Little and Walker and Arthur D. Little, Inc, 01–19; sec'y and treas, Chem. Products Co, 02–30; v. pres, Lustron Co, 19–28; Special Yarns Corp, 25–28; Franklin Rayon Corp, 28–30; *consultant, 30–* A.A; Chem. Soc; Asn. Textile Chem. and Colorists. Cellulose chemistry; artificial silk.

Morley, Dr. L(eland) C(urtis), U. S. Department of the Interior, Bowie, Md. *Wildlife research.* Blanchard, Iowa, Feb. 21, 08. D.V.M, Iowa State Col, 30; fellow, Va. Polytech, 30–31, M.S, 32. Instr, Va. Polytech, 31–32; assoc. veterinarian, div. wildlife research, bur. biol. surv, U. S. Dept. Agr, 32–36; *supt. Patuxent research refuge, div. wildlife research, fish and wildlife service, U. S. Dept. Interior, 36–* Research grant, Va. Acad, 33. Va. Acad. Bovine coccidiosis; upland game bird diseases; wildlife management; etiology of ulcerative enteritis of quail and grouse.

Morley, Prof. Raymond K(urtz), Worcester Polytechnic Institute, Worcester, Mass. *Mathematics.* Templeton, Mass, Oct. 28, 82. A.B, A.M, Tufts Col, 04; Ph.D, Clark, 10. Instr. *math,* Maine, 04–07; Worcester Polytech, 10–11; Illinois, 11–12; asst. prof, *Worcester Polytech,* 12–17, prof, 17–21, *John E. Sinclair prof, 21–, head dept.* Math. Soc; Math. Asn; Eng. Educ. Algebraic invariants; calculations for the Maya calendar.

Morley, Dr. Sylvanus G(riswold), Division of Historical Research, Carnegie Institution, 10 Frisbie Place, Cambridge, Mass. ****Anthropology.* Chester, Pa, June 7, 83. C.E, Pa. Mil. Col, 04, hon. Ph.D, 21; A.B, Harvard, 07, A.M, 08, fellow, 08. Fellow Cent. Amer. archeol, Archeol. Inst. of Amer, 09–14; *assoc. Am. archeol, Carnegie Institution, 14–* Field expeds, Mex, Guatemala, Honduras, British Honduras, Nicaragua, Salvador, Costa Rica and Panama. American archeology; Maya archeology; Maya hieroglyphic writing.

Morlock, Dr. Carl G, Mayo Clinic, Rochester, Minn. *Medicine.* Crediton, Ont, Can, Sept. 11, 06. B.A, Western Ontario, 29, M.D, 32; M.S, Minnesota, 37. Intern, Victoria Hosp, London, Ont, Can, 32–33, res. physician, 33–34; fellow *med, Mayo Foundation, Minnesota,* 34–37, *instr, 39–; consultant, Mayo Clinic, 39–* Fel. Col. Physicians; Am. Med. Asn; Minn. State Med. Soc; South. Minn. Med. Asn. Peptic ulcer and its complications; gastric carcinoma; anorexia nervosa; regional enteritis; arteriolar pathology of hypertension; blood pressure in renal tumors; liver disease; hemochromatosis; suprarenal insufficiency.

Morofsky, Prof. W(alter) F, Michigan State College, East Lansing, Mich. *Entomology.* Lansing, Mich, Jan. 18, 99. B.S, Mich. State Col, 27, M.S, 30. Instr. *entom, Mich. State Col,* 27–36, *asst. prof. and research asst, 36–* Asn. Econ. Entom. Aquatic insects; insects serving as a food for Michigan trout; June beetles of Michigan.

Morral, Dr. F(acundo) R(olf), 1232 Denniston Ave, Pittsburgh, Pa. *Metallurgy.* Chemnitz, Saxony, June 19, 07. B.S, Mass. Inst. Tech, 32; Metalografiska Inst. Stockholm, 32–34; Barcelona, 34–36; fellow, Purdue, 37–38, Ph.D, 40. Manager textile mill, Martin Morral, Sabadell, Spain, 34–36; research metallurgist, Continental Steel Corp, 38–41; asst. prof. metal, Pa. State Col, 41–43, instr, night sch, 40, 41, junior col, 40, eng. defense training courses, 41; *indust. fellow, Mellon Inst, 43–* Asst. ed. and business manager, 'Metalúrgia y Construcción Mecánica,' Spain, 35–36. Min. and Metal. Eng; Soc. Metals; Electrochem. Soc; Soc. X-ray and Electron Diffraction; British Iron and Steel Inst; British Inst. Metals; Instituto de la Metalúrgia de la Construcción Mecánica (asst. sec'y, 35). X-ray diffraction and crystal analysis of metals and alloys; coatings on steel by electrodeposition and hot dipping; corrosion and corrosion resistance of zinc coatings; inhibitors in pickling; metallurgical engineering.

Morrel, Prof. J(ohn) S(mylie), 1614 19th Ave, S, Nashville, Tenn. *Mathematics.* Milford, Texas, June 12, 01. A.B, Southwestern (Texas), 20; A.M, Illinois, 25, Ph.D, 27. Instr. *math,* Tennessee, 22–23; asst, Illinois, 23–27; *asst. prof, Vanderbilt, 27–; lieut, U. S. Naval Res, 43–* Math. Asn; Tenn. Acad. Theory of functions; exterior ballistics; relativity; mathematics of Mendelian inheritance; analysis.

Morrell, Dr. Clarence A(llison), Department of National Health, Ottawa, Ont, Can. *Biochemistry.* Rochester, N. Y, March 15, 99. B.A, Toronto, 24, fellow, 24–25, M.A, 25; Yale, 29; Ph.D, Harvard, 30. Teaching fellow biochem, Harvard, 25–28, 30; W. African yellow fever cmn, int. health div, Rockefeller Foundation, Lagos, Nigeria, 28–29; from chemist to *senior pharmacologist, lab. hygiene, Dept. Nat. Health, Ottawa, 30–* Royal Soc. Can. traveling fellow, London, 32–33. Pharmaceut. Asn. (cmt. physiol. testing, 31–); Soc. Pharmacol. and Exp. Therapeut; Can. Physiol. Soc. (councilor, 40–42). Enzyme activities; chemistry of yellow fever and blackwater fever; uric acid metabolism; biological assays.

Morrell, Dr. J(acque) C(yrus), 222 N. Grove Ave, Oak Park, Ill. *Chemistry, Chemical engineering.* Savannah, Ga, Jan. 18, 93. B.S, Cooper Union, 16; A.M, Columbia, 18, Ph.D, 21. Lecture demonstrator and instr. chem, Columbia, 14–18, instr, 19–21; *assoc. research director and head patent dept, process develop. oil technol, Universal Oil Products Co, 21–* Summers, prof, Ill. Inst. Tech; Armour Inst, 40, adj. prof, 41. Mod. Pioneer award, Nat. Asn. Mfrs, 40. C.W.S, U.S.A, 18–19, lieut. col, C.W.Res. A.A; Chem. Soc. (past chairman, petrol. div, v. chairman, Chicago sect, code div, director, councilor and trustee); Chem. Eng; fel. Inst. Chem; Petrol. Inst. The chemistry, physical properties, pyrolysis and technology of hydrocarbons; petroleum refining; inversion of sucrose; suspensions and emulsions; activated charcoal; inorganic and organic catalysis.

Morrell, Dr. J(oseph) A(lan), Calle 26 No. 29, Miramar, Habana, Cuba. *Physiological chemistry.* Harriston, Ont, Can, Nov. 9, 97. B.A, Toronto, 21, fellow, 21–24, M.A, 22, Ph.D, 24. Research and biol. labs, E. R. Squibb and Sons, 24–41; *Labs. Lex, S. A, 42–* Asn. Study Int. Secretions; Soc. Exp. Biol. Enzymes; chemistry of insulin; chemistry and physiology of the oestrus, corpus luteal, anterior pituitary sex and growth hormones; synthetic estrogens; androgens; adrenal cortical hormones; antianemic factors and vitamins.

Morrell, Dr. William E(gbert), University of Illinois, Urbana, Ill. *Chemistry.* Logan, Utah, July 30, 09. B.S, Utah State Col, 33; Ph.D, California, 38. Teaching asst. *chem,* Utah State Col, 32–33; California, 36–38; instr, Chicago City Col, 38–42; *Illinois,* 42–43, *asst. prof, 43–* Chem. Soc. Structure of liquids; polymerization of gaseous hydrogen fluoride; solubility of fatty acids in organic solvents.

Morrey, Dr. Cha(rle)s B(radfield), South Miami, Fla. *Bacteriology.* Chesterhill, Ohio, Nov. 5, 69. A.B, Ohio State, 90; M.D, Starling Med. Col, 96; Vienna and Pasteur Inst, Paris, 97–99. Asst. Latin, *Ohio State,* 90, Latin and physiol, 91–92, physiol, 92–97, asst. prof, 99–02, assoc. prof, 02–03, *bacter,* 03–04, prof, 04–35, *emer. prof, 35–* Lecturer, Starling Med. Col, 99–03, prof, 04–07, acting prof, 96–97. A.A; Soc. Bact; Ohio Acad. Fundamentals of bacteriology; accuracy of the glance and localization on the periphery of the retina; bacterial enzymes; nitrogen nutrition of green plants; vaccination in colds and in hay fever.

Morrey, Prof. Cha(rle)s B(radfield), Jr, University of California, Berkeley, Calif. *Mathematics.* Columbus, Ohio, July 23, 07. A.B, Ohio State, 27, A.M, 28; Ph.D, Harvard, 31. Asst, Ohio State, 27–28; instr. *math,* Harvard, 29–31, tutor, 30–31; nat. research fellow, Princeton, 31–32; Rice Inst, 32–33; instr, *California,* 33–35, asst. prof, 35–38, *assoc. prof, 38–; mem. staff, ballistic research lab, Aberdeen Proving Ground, 42–* Inst. Adv. Study, 37–38. Summers, Chicago, 32, 33. Math. Soc. The area of surfaces; calculus of variations; elliptic partial differential equations; multiple Denjoy integrals.

Morrical, Dr. Keron C(aldwell), RCA Manufacturing Co, Inc, Indianapolis, Ind. *Physics, Electrical engineering.* Farmer City, Ill, May 28, 08. B.S, Illinois, 29, M.S, 33, Ph.D, 36. Engineer, Pub. Service Co. of North. Ill, 29–30; acoustical engineer, U. S. Gypsum Co, 30–32; asst, eng. exp. sta, Illinois, 32–34, instr. physics, univ, 34–36; *research and develop. engineer, RCA Mfg. Co, Inc, 36–; mem. staff, underwater sound lab, Harvard, 42–* Acoustical consultant. Fel. Acoustical Soc; Soc. Motion Picture Eng. Absorption of sound by materials; methods for determination of sound absorptivity of small specimens; acoustics of rooms for sound reproduction.

Morrill, Dr. A(ustin) W(infield), 1505 Winchester Ave, Glendale, Calif. *Entomology.* Tewksbury, Mass, Sept. 11, 80. B.S, Mass. Col. and Boston, 00, Ph.D. Mass. Col, 03. Field agent, bur. entom, U. S. Dept. Agr, 03–06, in charge white fly investigations, 06–09; state entomologist, Ariz, and consulting entomologist, Exp. Sta, 09–19; *consulting entomologist, 20–;* agr. economist and entomologist, Mex. West. Coast Veg. Asn, 23–30; entomologist, South. Pacific Ry. of Mex, 21–31; pres, Calif. Insectaries, Inc, 30–40; *manager,*

Calif. Biol. Service, 40– Hon. consulting entomologist, Mex. Dept. Agr. and Develop. A.A; Entom. Soc; Asn. Econ. Entom. (v. pres. and chairman, Pacific Slope branch, 17). Greenhouse, citrus and strawberry white flies; fumigation of citrus trees; insects injurious to cotton and truck crops.

Morrill, Dr. C(harles) V, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Anatomy.* New York, N. Y, March 9, 84. A.B, Col. City of N. Y, 03; A.M, Columbia, 06, Ph.D, 10. Asst. zool, Columbia, 06–08; lecturer histol. and embryol, col. med, Syracuse, 08–10; instr. *anat,* Univ. and Bellevue Hosp. Med. Col, 10–15; *med. col, Cornell,* 15–19, asst. prof, 19–23, *assoc. prof, 23–* A.A; Asn. Anat; Soc. Zool. Regeneration in fish and Amphibia; sex determination of insects; development of the mammalian heart; symmetry in monsters; feeding experiments with Amphibia; internal hydrocephalus in dogs.

Morrill, Prof. W(alter) J(ean), Colorado State College, Ft. Collins, Colo. *Forestry.* Madison, Maine, April 17, 75. B.S, Maine, 99; M.F, Yale, 05. Forest inspector and supervisor, U. S. Forest Service, 05–12; prof. forestry, Nebraska, 13–15; Colo. State Col, 15–40; *retired.* Soc. Foresters. Farm forestry in Colorado; trees for eastern Colorado; fence post preservation.

Morrill, Dr. William Kelso, 534 Stevenson Lane, Towson, Md. *Mathematics.* Baltimore, Md, Dec. 15, 03. A.B, Hopkins, 25, A.M, 27, Ph.D, 29. Junior instr. *math, Hopkins,* 26–29, instr, 30–40, *assoc, 40–* Asst, Maryland, 36–37. Elliptic functions; theory of groups; point set theory; plane trigonometry.

Morris, Dr. Bert M(iller), 3205 Lancaster Ave, Wilmington, Del. *Physical chemistry.* San Jose, Calif, March 24, 16. B.S, California, 37; A.M, Harvard, 39, Ph.D, 41. *Research chemist, exp. sta, Hercules Powder Co, 41–* Chem. Soc. Rate of the thermal decomposition of iso-propyl bromide and chloride and n-propyl bromide.

Morris, Dr. Charles L(awrence), 36 Hundley Court, Stamford, Conn. *Organic chemistry.* Denison, Texas, Aug. 30, 15. A.B, Baylor, 36; Ph.D, Brown, 41. *Research chemist,* Nat. Defense Research Cmt, Brown, 41; *Am. Cyanamid Co, 41–* Chem. Soc. Catalytic polymerization of ethylene at low temperatures; mining chemicals.

Morris, Prof. Charles S(tephen), Manchester College, North Manchester, Ind. *Physics.* Hutchinson, Kans, Aug. 5, 92. A.B, Manchester Col, 13; A.M, Ohio State, 15, scholar, 29–30, Ph.D, 30. Prof. physical science, Blue Ridge Col, 13–14; asst. physics, Ohio State, 14–15; head dept. math. and physics, Mt. Morris Col, 15–17; McPherson Col, 17–26; *prof. physics and head dept, Manchester Col, 26–* A.A; Asn. Physics Teachers; Ind. Acad. Raman effect in organic liquids.

Morris, Prof. Clyde T(ucker), 1790 Cambridge Blvd, Columbus, Ohio. *Engineering.* Morrow Co, Ohio, April 19, 77. C.E, Ohio State, 98. New Columbus Bridge Co, 98–99; draftsman, Youngstown Bridge Co, 99–01; King Bridge Co, 01–02; prin. asst. engineer, Puget Sound Bridge and Dredging Co, 02–04; asst. engineer, King Bridge Co, 04–06; assoc. prof. *struct. eng, Ohio State,* 06–08, *prof, 08–* Deputy commissioner in charge bur. bridges, State Highway Cmn, Ohio, 11–12. Civil Eng; Eng. Educ. Steel structures; stresses; reinforced concrete.

Morris, Dr. Daniel Luzon, Putney, Vt. *Biochemistry, Mathematics.* Newtown, Conn, July 29, 07. A.B, Yale, 29, fellow, 32–33, Ph.D, 34. Field director speed surv, State Highway Dept, Conn, 33–34; fellow physiol, med. sch, Yale, 34–35; *teacher math. and chem, Putney Sch, 35–* A.A; Chem. Soc. Properties of cholesterol; traffic speeds in Connecticut; effect of colloids on crystallization; four-dimensional descriptive geometry; polysaccharides.

Morris, Dr. David E(ugene), Second and Mallinckrodt Sts, St. Louis, Mo. *Organic chemistry.* Kansas City, Mo, Nov. 22, 09. B.S, Illinois, 30; nat. research fellow, 30–33; M.S, Virginia, 32, Ph.D, 33. Mallinckrodt fellow alkaloid chem, Virginia, 33–34; *research chemist, Mallinckrodt Chem. Works, St. Louis, 34–* Chem. Soc.

Morris, E(arl) H(alstead), P. O. Box 500, Boulder, Colo. *Archeology.* Chama, N. Mex, Oct. 24, 89. A.B, Colorado, 14, A.M, 15, Sc.D, 42. Field archeologist, Am. Museum Nat. Hist, 16–24; *research assoc, Carnegie Institution, 24–* Archeol. Inst. Amer. expeds, Guatemala; Carnegie Institution exped, Yucatan; Univ. Colo, Am. Museum Nat. Hist. and Carnegie Institution expeds, southwest. U. S; explor. of Aztec ruin for Am. Museum Nat. Hist. Norlin medal, 31. A.A; Anthrop. Asn; N. Y. Acad. American archeology; archeology of southwestern United States.

Morris, Dr. Elizabeth H(unt), New York State College for Teachers, Albany, N. Y. *Psychology.* Richmond, Ind, March 2, 92. Earlham Col; Dartmouth Col; A.B, Wellesley Col, 13, A.M, 18; Ph.D, Columbia, 29. Teacher, pub. schs, Ind, 13–16; asst. philos. and psychol. Wellesley Col, 17–18; instr, N. J. State Nor. Sch, Montclair, 18–23; asst. prof. psychol, *N. Y. State Col. Teachers, Albany,* 23–35, *prof. educ, 35–, consulting psychologist, 39–* A.A; assoc. Psychol. Asn. Analysis and measurement of personal traits; personality, especially as related to teaching; adolescents.

Morris, Dr. Frank E(dward), Connecticut College, New London, Conn. *Psychology.* New Brunswick, N. J, June 23, 89. A.B, Yale, 13, Ph.D, 16. Instr. psychol, Texas, 16–17, *philos. and psychol, Conn. Col,* 17–21, asst. prof, 21–24, *prof, 24–* Director psycho-educ. clinic, New London Pub. Sch. System, 19–; psychologist, Conn. State Farm for Women, 23–26. Assoc. Psychol. Asn; Philos. Asn; Conn. Soc. Mental Hygiene (board directors, 29–36). Clinical psychology.

Morris, Dr. F(rank) R(ay), Fresno State College, Fresno, Calif. *Mathematics.* Pekin, Ind, June 18, 85. B.S, Valparaiso, 07, B.Pd, 08; A.B, Indiana, 12, A.M, 13; Ph.D, California, 18. Asst, commercial dept, Valparaiso, 07–08; teaching fellow math, Indiana, 12–13; California, 16–18, instr, 18–21; assoc. prof. and *prof. and head dept. math. and eng, Fresno State Col, 21–* A.A; Math. Soc; Math. Asn; Asn. Eng. Perpetual calendars; geometry of space; theory of finance.

Morris, Prof. Frederick K(uhne), 420 Memorial Drive, Cambridge, Mass. *Geology.* Salt Lake City, Utah, Feb. 11, 85. B.S, Col. City of N. Y, 04; A.M, Columbia, 10, Ph.D, 36. Asst. geol, Columbia, 14–15, lecturer, 15–16, instr, 16–20; first prof, Pei Yang Univ. Tientsin, 20–22; assoc. curator geol. and geog, Am. Museum Nat. Hist, 23–28; asst. prof. *struct. geol, Mass. Inst. Tech,* 27–28, assoc. prof, 28–31, *prof, 31–* Marine Biol. Lab, Woods Hole, 02; lecturer, Columbia, 24; geographer, U. S. Dept. State, 20. Summers, Columbia, 26–29. V. pres. and trustee, Children's Museum, Boston, 30– Exec. cmt, Conf. on Surv. Nat. Resources, Mass, 31– Preparator landscape maps, Nat. Research Council, 17–18. Geologist, Am. Museum Nat. Hist. 3rd Asiatic exped, 22; field studies, China, 20–22, Mongolia, 22, 23, 25. Instr. topog, U. S. Air Service Radio Sch, 17–19, topog. and map reading, S.A.T.C, 18. A.A; Geol. Soc; Min. and Metal. Eng; Am. Acad; Explorers Club; Geol. Soc. Boston (pres, 31); Geol. Soc. China. Engineering geology; structural and physiographical geology; map reading and interpretation; the old rock floor, the great bathylith, the basin structures, the peneplains and the geology of Mongolia; pediments in Arizona; amygdules and pseudo-amygdules; pediments of the Gobi region; metamorphism; geology of the Hudson valley.

Morris, Harley J(ackson), 718 Park Ave, Meadville, Pa. *Chemistry.* Elizabeth, W. Va, May 9, 97. B.S, Allegheny Col, 21, M.S, 23; Harvard, 26–27. Head dept. science, high sch, Pa, 21–22; chemist, Monongahela Iron and Steel Co, 22–26; instr. chem, Allegheny Col, 23–29, asst. prof, 29–36; research chemist, *Viscose Co,* 36–41, *asst. chief plant chemist, 41–* A.A; Chem. Soc; Pub. Health Asn; Soc. Metals. Analytical chemistry.

Morris, Dr. H(arold) H(ulett), R.F.D. 3, Shipley Road, Wilmington, Del *Chemistry.* Racine, Wis, March 12, 89. A.B, Wisconsin, 11, A.M, 16, Ph.D, 17. Instr. chem, Mich. Agr. Col, 11–12; asst. chemist, Exp. Sta, Mont. State Col, 12–14; asst. chem, Wisconsin, 14–17; research chemist, Nat. Carbon Co, 17–18; exec. chemist, *E. I. du Pont de Nemours and Co,* 18–31, *manager tech. service white pigments, pigments dept, 31–* A.A. Selenic acid; gold; heavy chemicals; lithopone; lithopone paints; titanium dioxide and dry colors.

Morris, Dr. Harold P(aul), National Cancer Institute, U. S. Public Health Service, Washington, D. C. *Nutrition.* Salem, Ind, May 8, 00. B.S, Minnesota, 25, Ph.D, 30; M.S, Kans. State Col, 26. Asst. animal nutrition, Illinois, 26–28; biochem, Minnesota, 28–30; nat. research fellow biol, 30–31; research assoc, Bur. Fisheries, 31–33; junior food chemist, bur. home econ, U. S. Dept. Agr, 33–34, assoc. pharmacologist, food and drug admin, 34–38; nutrition chemist, nat. inst. health, *U. S. Pub. Health Service,* 38–41, *senior nutrition chemist, nat.*

cancer inst, 41– A.A; Chem. Soc; Soc. Exp. Biol; Asn. Cancer Research; Inst. Nutrition. Animal nutrition; efficiency of food utilization in the rat; chronic toxicity; effect of methionine, pantothenic acid, riboflavin, pyridoxine, thiamin on normal and tumor growth in mice.

Morris, H(arry) E(lwood), Montana State College, Bozeman, Mont. *Botany, Bacteriology.* Virginia City, Mont, April 17, 86. B.S, Montana, 09; M.S, Wisconsin, 17. Asst. botanist and bacteriologist, *Exp. Sta, Mont. State Col,* 09–22, assoc. botanist and bacteriologist, 22–25, *botanist and bacteriologist, 25–* Agent, barberry eradication, bur. entom. and plant quarantine, U. S. Dept. Agr, 30– A.A; Phytopath. Soc; Soc. Plant Physiol; Mont. Hort. Soc. Plant pathology and physiology.

Morris, H(arry) F(orrest), Texas Agricultural Experiment Station, Nacogdoches, Texas. *Horticulture.* Forreston, Texas, Nov. 30, 99. B.S, Agr. and Mech. Col. Texas, 24, M.S, 25. *Supt. substa. No. 11, Exp. Sta, Agr. and Mech. Col. Texas, 25–* Soc. Hort. Sci; Soc. Agron; Genetic Asn; Texas Acad. Agronomy; cotton; corn; blackberries; peaches.

Morris, Dr. Henrietta, Oregon State College, Corvallis, Oregon. *Chemistry.* Charleston, W. Va, Nov. 26, 02. A.B, Goucher Col, 23; Sc.D, Hopkins, 27. Teacher, schs, N. J, 28–29; director health education, Oregon Tuber. Asn, 29–35; *assoc. prof. hygiene, Oregon State Col, 35–* A.A; Pub. Health Asn. Modification of the chemical composition of proteins by diet.

Morris, Dr. Herbert E(dmund), Monsanto Chemical Company, Texas City, Texas. *Chemistry.* Edmonton, Alta, Can, Oct. 17, 08. B.Sc, Alberta, 29, M.Sc, 31; Nat. Research Council Can. scholar, McGill, 33–34, Ph.D, 34. Demonstrator, Alberta, 28–29; asst, Research Council, Alta, 29–32; Nat. Research Council Can, 31–32; chemist, Turner Valley Gas Conservation Board, 32; asst, McGill, 32–33; develop. chemist, Can. Industries, Ltd, 34–35; research chemist, Thomas and Hochwalt labs, *Monsanto Chem. Co,* 35–42, *chief chemist, 42–* A.A; Chem. Soc. Catalytic oxidation; high pressure synthesis; natural gas; coal; properties of compounds at critical temperature and pressure; reactions of unsaturated hydrocarbons; organic reactions with aluminum chloride.

Morris, Herman J(ackson), U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Ark, Nov. 28, 07. B.S, George Washington, 34, A.M, 38. Mem. staff, *U. S. Dept. Agr,* 28–34, junior pharmacologist, food and drug admin, 34–39, asst. pharmacologist, 39–40, *assoc. chemist, div. biochem. research, west. regional research lab, bur. agr, chem. and eng, 40–* Chem. Soc. Nitrogen fixation by microorganisms; toxicity of arsenic, selenium, ergot, food, drugs and cosmetics, colors and glycols and related compounds; enzyme investigation of farm commodities.

Morris, Prof. J(ohn) Carrell, Worcester Polytechnic Institute, Worcester, Mass. *Chemistry.* Philadelphia, Pa, May 30, 14. B.S, Rutgers, 34; A.M, Princeton, 35, Ph.D, 38. Instr. *chem,* Harvard, 38–41; *asst. prof,* Bucknell, 41–42; *Worcester Polytech, 42–* A.A; Chem. Soc. Reaction kinetics; molecular spectra.

Morris, Prof. J(oseph) C(handler), Tulane University, New Orleans, La. *Physics.* New Orleans, La, May 29, 02. B.S, Tulane, 21, M.S, 23; fellow, Princeton, 25–26, A.M, 26, Ph.D, 28. Instr, Tulane, 21–23; Princeton, 23–25, 26–28, asst. prof. *physics,* 28–38; *prof, Tulane, 39–* Director office sci. personnel, Nat. Research Council, 41– A.A; Physical Soc. Ionization in gases.

Morris, Prof. Kelso B(ronson), Wiley College, Marshall, Texas. *Chemistry.* Beaumont, Texas, Feb. 6, 09. B.S, Wiley Col, 30; M.S, Cornell, 37, Ph.D, 40. Instr. chem. and math, *Wiley Col,* 30–37, assoc. prof. *chem,* 37–39, *prof, 39–* A.A; Chem. Soc. Action of the complex delectronator, potassium permanganate, upon hydroxylamine in sulfuric acid solution.

Morris, Dr. Leonard Leslie, University of California College of Agriculture, Davis, Calif. *Truck crops.* Terre Haute, Ind, Aug. 5, 14. B.S, Purdue, 37; M.S, Cornell, 39, Ph.D, 41. Asst. veg. crops, Cornell, 37–41; *instr. truck crops, California, and junior olericulturist, Exp. Sta, 41–* Soc. Hort. Sci. Physiological aspects of the handling, transportation and storage of vegetables.

Morris, Prof. L(loyd) Tarver, 608 W. Jefferson St, Waxahachie, Texas. *Physics.* Dallas, Texas, Feb. 25, 17. B.S, Trinity (Texas), 38; M.S, Louisiana, 40. Teaching fellow, Louisiana, 38–40; *assoc. prof. physics, Trinity (Texas), 40–* Physical Soc. Atomic physics; electronics; design, construction and operation of a Wilson cloud chamber.

Morris, Dr. Lloyd W(allace), Louisiana State University, Baton Rouge, La. *Physics.* Dallas Center, Iowa, Dec. 20, 98. A.B, Lawrence Col, 22; A.M, Wisconsin, 24, Ph.D, 31. Asst. *physics,* Wisconsin, 22–24, 29–31; instr, Case, 24–28; asst. prof, *Louisiana,* 31–34, *assoc. prof, 34–* Physical Soc; Asn. Teachers Physics. Photoelectricity.

Morris, Dr. Marion Claire, Vassar College, Poughkeepsie, N. Y. *Bacteriology, Immunology.* Holyoke, Mass, Sept. 2, 02. A.B, Smith Col, 23; M.S, Washington (St. Louis), 31, Ph.D, 35. Asst. bacter, State Dept. Health, N. Y, 23–27; Rockefeller Inst, 27–28; *applied bacter. and immunol,* sch. med, Washington (St. Louis), 28–37, instr, 37–42, asst. prof, 42–43; *assoc. prof, dept. plant science, Vassar Col, 43–* Etiology of trachoma; hypersensitiveness; mechanism of antigen-antibody reactions.

Morris, Prof. M(ax), 2637 Charney Road, Cleveland, Ohio. *Mathematics.* Russia, Feb. 1, 90. B.S, Akron, 13; A.M, Harvard, 14; Ph.D, Chicago, 29. Instr. *math,* Akron, 14–17, asst. prof, 17–20; instr, *Case,* 20–25, asst. prof, 25–33, *assoc. prof, 33–* A.A; Math. Soc; Math. Asn. Geometry.

Morris, Prof. O(scar) M(atison), State College of Washington, Pullman, Wash. *Horticulture.* Highland, Kans, June 26, 74. B.S, Okla. Agr. and Mech. Col, 96; Cornell, 97–98; M.S, State Col. Wash, 15. Asst. *hort,* Okla. Agr. and Mech. Col, 98–03, prof, 03–10; prof. and head dept, *State Col. Wash,* 11–27, *prof, 27–* Pomol. Soc. Fruit growing and storage; propagation.

Morris, Prof. Richard, Rutgers University, New Brunswick, N. J. *Mathematics.* Keyport, N. J, Nov. 9, 68. B.S, Rutgers, 99, M.S, 02, Sc.D, 29; Ph.D, Cornell, 07. Instr. *math. and graphics, Rutgers,* 99–05, assoc. prof, 05–09, *prof, 09–* Board Educ, New Brunswick, N. J. A.A; Math. Soc; Math. Asn; Council Math. Teachers. Automorphic functions.

Morris, Dr. Robert T(uttle), Stamford, Conn. *Botany.* Seymour, Conn, May 14, 57. Cornell, 80; M.D, Columbia, 82; hon. A.M, Centre Col, 89. From instr. to prof. *surg, N. Y. Post-Grad. Med. Sch, Columbia,* 89–18, *emer. prof, 18–* Trustee, Cornell, 05–15; mem. corp, N. Y. Bot. Garden. A.A; Am. Breeders Asn; Audubon Soc; Linnaean Soc. N. Y. Tree propagation; horticulture; surgery.

Morris, R(oss) E(lliott), 19 El Camino Real, Vallejo, Calif. *Chemistry.* Los Angeles, Calif, July 17, 10. B.S, Calif. Inst. Tech, 31, M.S, 32, fellow, Akron, 32–33. Tech. asst. org. chem, Calif. Inst. Tech, 31–32; research dept, Goodyear Tire and Rubber Co, 32–33, tire compounder, 33–38; chief chemist, Kelly Springfield Tire Co, 38–39; *senior rubber technologist, U. S. Navy Yard, Mare Island, 39–* Chem. Soc. Rubber chemistry; chemistry of the vulcanization of rubber.

Morris, Prof. Samuel, U. S. Public Health Service, Marine Hospital, Savannah, Ga. *Zoology.* Philadelphia, Pa, June 12, 96. B.S, Pa. State Col, 22; A.M, Pennsylvania, 29, Ph.D, 35. Instr. zool, Pennsylvania, 29–32; biol, Temple, 32–37; *asst. prof. biol. and head dept, Scranton-Keystone Junior Col, 37–* Research assoc, vet. sch, Pennsylvania, 37. A.A; Soc. Zool; Soc. Parasitol; Phila. Micros. Soc. Protozoan parasites of insects, especially Amoebae.

Morris, Dean Samuel B(rooks), Stanford University, Calif. *Civil engineering.* Los Angeles, Calif, 90. A.B, Stanford, 11. Engineer, N. Pasadena Land and Water Co, 11; from asst. engineer to chief engineer and gen. manager, Pasadena Water Dept, 12–35; *prof. civil eng, Stanford, 35–, dean sch. eng, 36–; regional adviser, eng, science and management war training, U. S. Office Educ, 39–* Consulting engineer; builder, Morris Dam, 33. Mem, Board Pub. Works, Palo Alto, Calif, 36–, chairman, 37– John M. Diven medal, 33. A.A; Civil Eng. (pres, Los Angeles sect, 25, San Francisco sect, 43); Concrete Inst; Pub. Health Asn; Eng. Educ; Water Works Asn. (director, 30–33, pres, Calif. sect, 27; pres, 43); Seismol. Soc. (director, 36–41); Eng. Educ; Col. Research Asn. (director eng); Newcomen Soc. Eng. Hydraulic engineering; cross connections; mass concrete; design and construction of dams; earthquake stresses; engineering education.

Morris, Prof. S(amuel) J(ohn), West Virginia University, Morgantown, W. Va. *Anatomy.* Morgantown, W. Va, Aug. 3, 87. M.D, Maryland, 12; West Virginia, 12. Asst. prof.

anat, *West Virginia,* 12–18, assoc. prof, 18–20, *prof,* 20–36, *physical educ,* 36– Fel. Col. Physicians; Asn. Study Int. Secretions; W. Va. Med. Soc. Persistent thymus gland.

Morris, Dr. Sarah I, Henry Ave. and Abbottsford Road, Philadelphia, Pa. *Medicine.* Pittston, Pa, April 25, 79. M.D, Woman's Med. Col. Pa, 10; Wisconsin; Hopkins; Pittsburgh. From instr. to assoc. prof, Wisconsin, 11–31; *prof. prev. med, Woman's Med. Col. of Pa, 31–* Am. Med. Asn; fel. Col. Physicians; Pub. Health Asn; Asn. Indust. Physicians and Surg. Preventive medicine; tuberculosis; industrial medicine.

Morris, Dr. S(eth) M(abry), Lamarque, Texas. *Chemistry.* Austin, Texas, June 15, 67. B.S, Texas, 88; M.D, Columbia, 91. Prof. chem. and toxicol, sch. med, Texas, 91–08, prof. ophthal, 08–42; *retired.* Am. Med. Asn; fel. Col. Surg.

Morris, Dr. Steward G(eorge), 813 Glendalough Road, Chestnut Hill, Philadelphia, Pa. *Chemistry.* Woodsfield, Ohio, Nov. 26, 99. A.B, Ohio State, 24, M.S, 29; Ph.D, Columbia, 35. Anal. chemist, State Dept. Health, Ohio, 24–27; asst, Teachers Col, Columbia, 29–36; asst. chemist, bur. dairy indust, *U. S. Dept. Agr,* 36–40, *assoc. chemist, east. regional research lab, bur. agr. and indust. chem, 40–* A.A; Chem. Soc. Vitamins; starches; fats.

Morris, Dr. Vincent H(armon), Ohio Agricultural Experiment Station, Wooster, Ohio. *Biochemistry.* Ashtabula, Ohio, Nov. 19, 98. A.B, Oberlin Col, 20; A.M, Ohio State, 23, Ph.D, 30. Asst. and assoc, *Ohio Exp. Sta,* 21–39, *chemist in charge fed. soft wheat lab, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 39–* Chemist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr. Asn. Cereal Chem. Plant biochemistry; carbohydrate relations in crop plants; application of optical microscopy to biochemical problems; physiology and biochemistry of corn; quality characterization of soft winter wheat.

Morris, Dr. V(ion) N, 811 Abbott St, Highland Park, N. J. *Chemistry.* Colorado Springs, Colo, April 1, 01. B.S, Purdue, 22, M.S, 24; du Pont fellow, Minnesota, 25–26, Ph.D, 26; Mass. Inst. Tech, 28. Teacher, Purdue, 22–24; Minnesota, 24–25; fixed nitrogen research lab, U. S. Dept. Agr, 26–27; research, Firestone Tire and Rubber Co, 27–35; research supervisor, Resinous Products and Chem. Co, 35–39; research, Nat. Aniline and Chem. Co, 39–40; chief chemist and later *director labs, Indust. Tape Corp, 40–* Chem. Soc; Inst. Chem; Chem. Eng. Hydrogen ion measurements; colloids; catalytic hydrogenations and oxidations; nitrogen oxides; concentrated fertilizers; permeability of rubber to gases; dispersion of pigments in rubber; rubber latex technology; fluorescence under ultra-violet light; synthetic resins; emulsions; vat dyestuffs; pressure-sensitive adhesives.

Morrison, B(enjamin) Y(oe), 7320 Piney Branch, Takoma Park, Washington, D. C. *Horticulture.* Atlanta, Ga, Nov. 25, 91. B.S, California, 13; M.L.A, Harvard, 15, Sheldon traveling fellow, China, Japan and Korea, 15–16. *U. S. Dept. Agr, 19–, prin. horticulturist in charge div. plant explor. and introd, bur. plant indust, 34–,* acting director, Nat. Arboretum, 37. Ed, 'Nat. Hort. Magazine,' 26– A.A; Wash. Acad. Ornamental horticulture; botany; foreign plant introduction; narcissus; iris; rhododendron; berberis; allium; hemerocallis.

Morrison, Dr. Beulah M(ay), 1242 Louisiana St, Lawrence, Kans. *Psychology.* Sanger, Calif, Oct. 2, 96. A.B, California, 19, A.M, 20, Ph.D, 23. Asst. *psychol,* California, 19–23; instr, *Kansas,* 24–26, asst. prof, 26–30, assoc. prof, 30–34, *prof, 34–* Summer, instr, California, 24. A.A; assoc. Psychol. Asn. Child, clinical and history of psychology.

Morrison, Dr. Charles E(dward), 1 Magnolia Drive, Great Neck, N. Y. *Engineering.* New York, N. Y, 77. C.E, Columbia, 01, Ph.D, 08. Civil eng, Columbia, 05–10; *pub. utilities, 10–; v. pres. and gen. manager, Utilities Mutual Ins. Co, 17–* A.A. Highway engineering; high masonry dam design.

Morrison, Sister Charles Mary, Nazareth College, Louisville, Ky. *Mathematics.* Boston, Mass, July 19, 95. A.B, Fordham, 22, A.M, 25; Ph.D, Catholic Univ, 31. Teacher math, Presentation Acad, Ky, 18–21; *prof. math, Nazareth Col,* 25–28, *31–,* registrar, 26–43, *dean, 43–* Math. Asn; Council Teachers Math; Asn. Collegiate Registrars (pres, Ky. asn, 34). The triangles in-and-circumscribed to the rational biflecnodal quartic.

Morrison, Dr. Dempsie B, 875 Monroe Ave, Memphis. Tenn. *Biochemistry.* Cordell, Okla, Feb. 11, 99. B.S, Oklahoma, 21, M.S, 23; Calumet fellow, Iowa, 26–28, Ph.D, 28. Instr, Oklahoma, 21–26; asst. prof. and *assoc. prof. chem, col. med, Tennessee, 28–* Soc. Biol. Chem; Chem. Soc. Biological effects of aluminum; copper content of infant livers; inorganic embryonic metabolism; hemoglobin and its derivatives; chemical studies on malaria.

Morrison, Dr. D(onald) M(ackay), Montreal Refinery, Shell Oil Co. of Canada, Montreal, Que, Can. *Physical chemistry.* N. S, May 29, 97. B.Sc, British Columbia, 21; M.Sc, McGill, 22, Nat. Research Council Can. student, 22–23, fellow, 23–24, Ph.D, 24, Sterry Hunt fellow, 24–25; Ramsey mem. fellow, Cambridge, 25–27, Ph.D, 27. Demonstrator, McGill, 21–25; trainee, Shell Petrol. Corp, 28–29, chief technologist, Arkansas City Refinery, 29–32, special technologist, Wood River Refinery, 32, asst. manager, *Montreal Refinery, Shell Oil Co. of Can, 33, manager, 34–* Advisory cmt, chem. dept, McGill. A.A; Chem. Soc; Soc. Chem. Indust. Can. Forces of molecular attraction; chemical activity of helium.

Morrison, Prof. F(rank) B(arron), Cornell University, Ithaca, N. Y. *Animal husbandry.* Ft. Atkinson, Wis, May 19, 87. B.S, Wisconsin, 11. Asst. and instr. agr. chem, Wisconsin, 11–13, asst. prof. animal husbandry, 13–17, assoc. prof, 17–19, prof, 19–27, asst. director, Exp. Sta, 15–27, acting dean col. agr. and acting director, Exp. Sta, 25–26; director, N. Y. Exp. Sta, Geneva, and Exp. Sta, Cornell, 27–28, *prof. animal husbandry and nutrition and head dept, Cornell, 28–* Conductor surv. live stock indust, Philippine Govt, 37. A.A; Soc. Animal Production (sec'y, 15–17, pres, 19); Dairy Sci. Asn; Chem. Soc. Animal feeding and nutrition.

Morrison, Dr. Frank O(rville), Macdonald College, Que, Can. *Entomology.* Wetaskiwin, Alta, May 23, 10. B.A, Alberta, 34, B.Sc.Agr, 36, M.Sc, 38; Ph.D, McGill, 39. Field asst, Rocky Mountain spotted fever surv, Dept. Health, Alta, 39; *lecturer econ. entom, Macdonald Col, McGill, 39–* President Wallace gold medal, Alberta, 36. Ont. Entom. Soc. Taxonomy of Tachinidae; toxicity of contact insecticides; soil treatments for fruit-fly pupae.

Morrison, Dr. Harold, U. S. Department of Agriculture, Washington, D. C. *Entomology.* McCordsville, Ind, May 24, 90. A.B, Cornell, 14; A.M, Stanford, 15; Sc.D, Harvard, 27. Asst, office state entomologist, Ind, 11–15; inspector, fed. hort. board, *U. S. Dept. Agr,* 16–17, entom. explorer, *bur. entom. and plant quarantine,* 17–20, asst. entomologist, 20–24, assoc. entomologist, 24–25, entomologist, 25–28, *senior entomologist, 28–,* in charge taxon. investigations, 28–35. A.A; Entom. Soc. (2nd v. pres, 31); Asn. Econ. Entom; Entom. Soc. Wash; Biol. Soc. Wash; Wash. Acad. (v. pres, 31); Ind. Acad; Cambridge Entom. Club. Insect taxonomy; Coccidae.

Morrison, H(arley) J(ames), 3495 Brookline Ave, Cincinnati, Ohio. *Chemistry.* Cincinnati, Ohio, Feb. 15, 66. Ph.B, Yale, 87. *Procter and Gamble Co, 87–* Chem. Soc; Soc. Chem. Indust; Oil Chemists Soc. (past pres); Chem. Eng. Fats and oils; soaps; glycerin.

Morrison, Dr. Harriet Barthelmess, Board of Education, 110 Livingston St, New York, N. Y. *Psychology, Education.* Boston, Mass, Nov. 3, 92. Boston, 13–15; B.S, Columbia, 21, A.M, 22, Ph.D, 31. Teacher, pub. schs, Mass, 11–16, asst, dept. measurement, 16–21; Teachers Col, Columbia, 21–22, instr. elementary educ, 22–23; educ. measurements and psychol, N. J. State Teachers Col, Trenton, 23–27; special asst. to director research, Board Pub. Educ, Phila, 27–37; *asst. to director research, New York City Board Educ, 37–* Lecturer, Bryn Mawr Col, 28. Summer, instr, N. Y. State Col. for Teachers, 23. Mem, White House Conf, 30. A.A; Educ. Research Asn; Progressive Educ. Asn. Educational and psychological measurement; statistical and experimental methods of research; standardized tests; text-books.

Morrison, Dr. Henry B(artlett), Jr, University of Kentucky, Lexington, Ky. *Dairy bacteriology.* St. Paul, Minn, June 28, 01. B.S, Minnesota, 27, M.S, 30; Ph.D, Iowa State Col, 40. Asst. dairy mfr, Minnesota, 27–29, instr, 29–30; *dairying, Kentucky,* 30–36, asst. prof, 36–41, *assoc. prof, 41–* Dairy Sci. Asn; Soc. Bact. Mastitis; quality of dairy products.

Morrison, Dr. Hyman, 483 Beacon St, Boston, Mass. *Clinical medicine.* Wilna, Poland, Oct. 1, 81. A.B, Harvard, 05, M.D, 08. Asst. med, Harvard Med. Sch, 18–28; assoc. prof. clin. med. *med. sch, Tufts Col,* 28–34, *clin. prof. med,* 35– Trustee, Boston Med. Library; Hebrew Teachers Col. Am. Med. Asn; Asn. Hist. Med; Mass. Med. Soc. (supervising censor, 42–). Medical history; digitalis; diabetes mellitus.

exophthalmic goitre; spontaneous pneumothorax; dorsalis pedis and posterior tibial arteries; trichinosis; lung abscess; subacuate bacterial endocarditis; early Jewish physicians in America; biologic interpretation of Jewish survival.

Morrison, Dr. James L(eRoy), Emory University School of Medicine, Emory, Ga. *Pharmacology.* Bakersfield, Calif, Nov. 11, 12. A.B, California, 36, A.M, 38, Ph.D, 41. Asst. *pharmacol,* med. sch, California, 37–40; instr, *sch. med,* West Virginia, 40–42; *Emory,* 42, *asst. prof, 42–* A.A; Soc. Trop. Med; W. Va. Acad. Mechanism of action of halogenated fatty acids; fatty acids and halogenated aliphatic compounds; anoxia; biochemorphology of halogenated compounds.

Morrison, Dr. J(ohn) L(ewis), University of Alberta, Edmonton, Alta, Can. *Physical chemistry.* Saskatoon, Sask, Can, Nov. 26, 12. B.Sc, Saskatchewan, 33, M.Sc, 35; Ph.D, McGill, 37; 1851 Exhib. scholar, Cambridge, 37–39, Ph.D, 39. *Lecturer chem, Alberta, 39–* Adsorption of liquids and solutions on cellulose; adsorption of gases on metal surfaces.

Morrison, Montford, 176 Wildwood Ave, Upper Montclair, N. J. *Physics.* Bainbridge, Ga, Dec. 11, 89. France, Germany and Italy. Research worker, Ga. Tech. and private lab, 05–14; *consulting engineer,* Scheidel-West. X-Ray Corp, 14–17; Victor Elec. Corp, 17–21; Int. X-Ray Corp, 21–23; *Acme Int. X-Ray Corp, 23–; Morrison Eng. Corp, 21–; Am. X-Ray Corp, 29–; Westinghouse X-Ray Co, 30–* Physical Soc; Math. Soc; Elec. Eng; Mech. Eng; Radio Eng; Chem. Eng; Optical Soc; Min. and Metal. Eng; Illum. Eng. Soc; Chem. Soc; Electrochem. Soc. Electricity; magnetism; electric and magnetic fields; mathematical interpretation of x-ray theory; radio theory; electronic tube design; electronic apparatus, instruments and communication systems; radiotelegraphic printing systems; facsimile systems; electro-sensitive recording and self-developing photo-sensitive papers.

Morrison, Prof. Paul C(ross), Michigan State College, East Lansing, Mich. *Economic geography.* Racine, Ohio, Aug. 26, 06. B.S, Ohio State, 28, A.M, 33; fellow, Clark, 37–38, Ph.D, 41. Instr. *geog,* Ohio State, 30–31; *Mich. State Col,* 31–39, *asst. prof, 39–* Council Geog. Teachers; Mich. Acad. Industrial, commercial and agriculture goegraphy of the Great Lake region; viticulture in Ohio; the Michigan limestone industry.

Morrison, Dr. Philip, University of Illinois, Urbana, Ill. *Physics.* Somerville, N. J, Nov. 7, 15. B.S, Carnegie Inst. Tech, 36; Ph.D, California, 40. *Instr. physics,* San Francisco State Col, Calif, 41; *Illinois, 41–* Physical Soc. Quantum mechanics; nuclear physics.

Morrison, Prof. R(oger) L(eroy), 1928 Lorraine Place, Ann Arbor, Mich. *Highway engineering.* Winnetka, Ill, Aug. 28, 83. A.B, Illinois, 11, B.S, 12, C.E, 17; A.M, Columbia, 14. Ry. construction, South. Pacific and West. Pacific Rys, 05–09; instr. civil eng, Tennessee, 11–12; junior engineer, State Highway Cmn, Ill, 12–13; highway engineer, United Gas Improv. Co, 13–14; prof. highway eng, Agr. and Mech. Col. Texas, 14–19; engineer of tests, Pittsburgh Test. Lab, Birmingham, Ala, 19–21; treas. and gen. manager, Concrete Products Co, 21–24; assoc. prof. *highway eng. and highway transport, Michigan,* 24–28, *prof,* 28– Director, Mich. State Highway Lab, 24–27. Chairman cmt. on rail steel for reinforcement, Highway Research Board, 30–31, highway transportation economics, 32– Civil Eng; Eng. Educ; Asn. Asphalt Paving Technol. (director, 30–, v. pres, 32, pres, 33, chairman, present practise cmt, 30–35); Inst. Traffic Eng. (director, 31–, chairman, cmt. on professional curriculum, 31, v. pres, 34–36, pres, 36); Mich. Eng. Soc; Int. Asn. Road Congs. Traffic control.

Morrissey, Dr. Richard V(incent), Dickinson Junior College, Williamsport, Pa. *Botany.* Wilmerding, Pa, June 22, 04. B.S, Pittsburgh, 27, M.S, 29, Ph.D, 34. Asst. bot, Pittsburgh, 27–35; substitute teacher, pub. schs, Pa, 35–38; asst. botanist, hill-culture div, soil conservation service, U. S. Dept. Agr, 38; *head dept. biol, Dickinson Junior Col, 38–* Summers, asst, Johnstown Center, Pittsburgh, 27, Erie Center, lake lab, Presque Isle, 28–32, asst, 34. Bot. Soc; Pa. Acad. Morphology; ecology.

Morrissey, Prof. R(obert) B(urns), Manhattanville College of the Sacred Heart, New York, N. Y. *Physics.* Lowell, Mass, Oct. 16, 03. B.S, Mass. Inst. Tech, 26, M.S, 31; Columbia, 33– Asst. *physics,* Mass. Inst. Tech, 26–28, instr, 28–31; *prof, Manhattanville Col. Sacred Heart, 32–* Instr, evening session, Col. City of N. Y, 36–; lecturer, Immaculate Conception Sem, 37–; visiting prof, Barnard Col, Columbia, 43– Electrochem. Soc; Physical Soc; Asn. Physics Teachers. Electrochemistry; chemical physics; electrothermic production of ferro-aluminum; electrochemical potentials.

Morrow, A. L(yndon), Magnolia Petroleum Co, Wichita, Kans. *Geology.* Garfield, Kans, Jan. 24, 08. B.S, Kansas, 29, M.S, 31; Yale, 31–33. Storrow fellow, Nat. Research Council, 31; *micropaleontologist, Magnolia Petrol. Co, 34–* Summers, field investigations, Kans. Geol. Surv, 29, 30, 31. Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Kans. Geol. Soc. Upper Cretaceous paleontology and stratigraphy of western Kansas.

Morrow, Prof. D(avid) C(larence), 13925 Woodmont Road, Detroit, Mich. *Mathematics.* La Riviere, Man, Can, Jan. 12, 00. B.A, Manitoba, 24; fellow, Toronto, 24–26, M.A, 25; fellow, Chicago, 26–28, Ph.D, 28. Instr, Northwestern, 28–29; *math,* Col. City of Detroit, 29–30, asst. prof, 30–33, *Wayne,* 33–36, *assoc. prof, 36–* Math. Soc. Representation of positive integers by quaternary quadratic forms.

Morrow, Prof. K(enneth) S(inclair), University of New Hampshire, Durham, N. H. *Dairy husbandry.* Mankato, Minn, April 7, 97. B.S, Minnesota, 18, M.S, 25. Assoc. dairy husbandman, Clemson Agr. Col, 25–28; assoc. prof. dairy husbandry, West Virginia, 28–31; assoc. dairy specialist, N. J. Exp. Sta, 31–34; *prof. dairy husbandry, New Hampshire, 34–* Dairy Sci. Asn. Calf feeding; relation of fat to solids not fat in milk; dairy cattle breeding.

Morrow, Dr. Marie B(etzner), University of Texas, Austin, Texas. *Botany, Bacteriology.* Bunker Hill, Ind, Aug. 22, 99. A.B, Texas, 26, A.M, 27, Ph.D, 32. Instr. *bot. and bacter, Texas,* 27–39, *asst. prof, 39–* Agent, div. microbiol, bur. plant indust, U. S. Dept. Agr, 34–41. Mycol. Soc; Bot. Soc; Texas Acad. Mycology; soil and vegetation relations; soil microbiology; molds in the etiology of hay fever and asthma; antagonistic relationships of soil microorganisms.

Morrow, Prof. Roger M(oberly), 613 E. Cass St, Albion, Mich. *Physics.* Kearney, Mo, Sept. 1, 00. A.B, Park Col, 23; M.S, Iowa, 25, fellow, 26–27, Ph.D, 27. Asst, Iowa, 23–24, 25–26; instr, Park Col, 24–25; Carleton Col, 27–30; asst. prof. physics, Miami (Ohio), 30–32; head dept. physics and math, Polytech. Inst, P. R, 32–33; research fellow, Carnegie Inst. Tech, 33–34; asst. prof. *physics,* Iowa Wesleyan Col, 34–36, prof, 36–42; *assoc. prof, Albion Col, 42–* Summers, instr, Ball State Teachers Col, 37; West. Ill. State Teachers Col, 38– Iowa Acad. Diffraction of x-rays in liquids.

Morse, Prof. Anthony P(erry), 18 Oak Vale, Berkeley, Calif. *Mathematics.* Ithaca, N. Y, Aug. 21, 11. A.B, Cornell, 33; Ph.D, Brown, 37. Instr, Brown, 36–37; Princeton, 37–38; *math, California,* 39–41, *asst. prof, 41–* Fellow, Inst. Advanced Study, 37–39. Math. Soc. Analysis; real function theory.

Morse, Dr. Arthur H(enry), New Haven Hospital, New Haven, Conn. *Obstetrics, Gynecology.* Salem, Mass, Dec. 13, 80. A.B, Tufts Col, 02; M.D, Hopkins, 06; hon. A.M, Yale, 21. Instr. obstet, med. dept, Hopkins, and res. obstetrician, Hopkins Hosp, 10–11; *obstet. and gynec,* med. sch, California, 13–15; asst. prof, *sch. med, Yale,* 15–20, *prof, 21–;* asst. obstetrician and gynecologist, New Haven Hosp, 15–20, *obstetrician and gynecologist in chief, New Haven Hosp. and Dispensary, 20–* A.A; Gynec. Soc; Am. Med. Asn; Col. Surg; Soc. Exp. Biol; New Eng. Surg. Soc. Mechanism and pathology of labor; creatin metabolism in pregnancy; physiology of reproduction.

Morse, Prof. David S(herman), Union College, Schenectady, N. Y. *Mathematics.* Roxbury, N. Y, Sept. 16, 92. A.B, Pd.M, N. Y. Univ, 17; A.M, Harvard, 18; Ph.D, Cornell, 23. Instr. *math,* Union (N. Y), 18–20; Cornell, 20–24; asst. prof, *Union (N. Y),* 24–27, assoc. prof, 27–31, *prof, 31–, chairman div. science, 43–* Summers, instr, Cornell, 20–24; prof, Syracuse, 27. A.A; Math. Soc; Math. Asn. Analysis; divergent series.

Morse, Dr. E(rwin) Emerson, Spreckels Sugar Co, Woodland, Calif. *Chemistry.* Willimantic, Conn, Oct. 6, 15. B.S, Bowdoin Col, 36; Ph.D, California, 39. *Research chemist, Spreckels Sugar Co, 40–* Chem. Soc. Physical and inorganic chemistry; sugar chemistry.

Morse, Prof. Fred W(inslow), Massachusetts State College, Amherst, Mass. *Chemistry.* Berlin, Mass, Dec. 6, 65. B.S, Worcester Polytech, 87, M.S, 00. Asst. chem, Exp. Sta, Mass.

Col, 87–88; Exp. Sta, New Hampshire, 88–89, chemist, 89–90, v. director, 96–09; from instr. to prof. org. chem, New Hampshire, 89–09; research chemist, Exp. Sta, Mass. Col, 10–31, *Mass. State Col*, 31–36, acting director, 12–13, 18–20, research prof. *chem, col*, 20–36, *emer. research prof*, 36– A.A; Chem. Soc. Agricultural chemistry; effect of cold storage on fruits; respiration of fruits; availability of soil potash; temperature and plant growth; sulfate of ammonia and soils; calcium carbonate in soil; fixation of nitrogen in soil; chemistry of cranberries.

Morse, Dr. Fred W(inslow), Jr, 11 Fells Road, Wellesley, Mass. *Dental bacteriology*. Durham, N. H, July 21, 96. B.S, Dartmouth Col, 18; M.D, Harvard, 24, M.P.H, 40. *Instr. bacter, Harvard Med. Sch, 25–; asst. prof. oral med, dental sch, Harvard, 36–* Am. Med. Asn; Pub. Health Asn; Int. Asn. Dental Research (pres, Boston sect, 32, sec'y, 34–). Bacteriology of dental infection; bacteriological control of dental root canal therapy; bacteria associated with dental caries.

Morse, Dr. (Harold) Marston, Institute for Advanced Study, Princeton, N. J. **[4]*Mathematics*. Waterville, Maine, March 24, 92. A.B, Colby Col, 14, hon. Sc.D, 35; A.M, Harvard, 15, Sheldon traveling fellow, 17, Ph.D, 17. Benjamin Peirce instr. *math*, Harvard, 19–20; instr, Cornell, 20–21, asst. prof, 21–25; assoc. prof, Brown, 25–26; asst. prof, Harvard, 26–28, assoc. prof, 28–30, *prof*, 30–35; *Inst. Advanced Study, 35–* Colloquium lecturer, Am. Math. Soc, 31; lecturer, Int. Math. Cong, 32; lecturer, Sorbonne and Institut Henri Poincaré, 38; consultant, office chief of ordnance, U. S. Coast and Geod. Surv. and Nat. Defense Research Cmt. Ed, 'Compositio Mathematica'; 'Princeton Math. Series,' 38. Trustee, Colby Col. Joint winner, Bócher prize, 33; Croix de Guerre. Chairman war preparedness cmt, Am. Math. Soc. and Math. Asn. Amer, 40–42; chairman cmt. math, Nat. Acad. Science and Nat. Research Council. 2nd lieut, C.A.C, 19–24. Nat. Acad. (chairman sect. math, 40–42); A.A. (v. pres, A, 39); Math. Soc. (v. pres, 33–35, pres, 40–42); Math. Asn; Philos. Soc; fel. Am. Acad; Circolo Mat. di Palermo. Dynamics; calculus of variations; topology; analysis.

Morse, Dr. H(erbert) Howe, Soil Conservation Service, Milwaukee, Wis. *Soils*. Kirtland, Ohio, March 26, 00. B.S. (Agr), Ohio State, 30; Ph.D, Michigan, 34. Assoc. soil scientist and *soil scientist, soil conservation service, U. S. Dept. Agr, 34–* Soil Sci. Soc. Soil science; toxic influence of fluorine in phosphatic fertilizers on germination of corn.

Morse, Prof. Josiah, University of South Carolina, Columbia, S. C. *Psychology*. Richmond, Va, Feb. 17, 79. A.M, Richmond Col, 00; Ph.D, Clark, 04. Lecturer and instr. psychol, Clark, 04–05; psychol. and educ, Texas, 05–06; asst. to Pres. G. Stanley Hall, Clark, 06–07; *prof.* philos. and educ, George Peabody Col, 08–11; *psychol. and philos, South Carolina, 11–* Summers, prof, Kans. State Nor. Sch; Davis and Elkins Col; Summer Sch. of South; Cornell. A.A; Psychol. Asn; S. Soc. Philos. and Psychol. (v. pres, 14, pres, 28). Race and religious psychology.

Morse, Prof. Leighton B, 206 Christie Heights, Leonia, N. J. *Physics*. Iowa Co, Iowa, Jan. 14, 82. Ph.B, Grinnell Col, 03; Ph.D, Columbia, 08. Instr. *physics*, Grinnell Col, 02–03; teaching fellow, Nebraska, 03–05; instr, Columbia, 06–08, lecturer, 08–09, instr, 09–18; asst. prof, *Col. City of N. Y*, 18–37, *assoc. prof, 37–* Exchange prof, Coe Col, 12; Lake Forest Col, 16–17. A.A; fel. Physical Soc; Asn. Physics Teachers. Electric double refraction in carbon disulfid at a temperature near the boiling point; test of Kerr's law; the selective reflection of bivalent carbonates in the infra-red spectrum; the infra-red selective reflection of salts of oxygen acids.

Morse, Prof. Mary L(ouise), Mississippi State College for Women, Columbus, Miss. *Organic chemistry*. St. Louis, Mo, Dec. 3, 95. B.S, Michigan, 19, M.S, 20; Shevlin fellow, Minnesota, 25–26, Ph.D, 29. Demonstrator *chem*, Bryn Mawr Col, 20–22; asst, Minnesota, 22–25, 26–28; instr, Nebraska, 29–33; Duchesne Col, 33, *assoc. prof*, 34–37; Nebr. State Teachers Col, Kearney, 37–42; *Miss. State Col. for Women, 42–* Asst, nitrate div, U. S. Govt, 18–19. A.A; Chem. Soc. (sec'y-treas, Nebr. sect, 30–32, v. chairman, Omaha sect, 36, sec'y, org. chem. group, midwest regional meeting, Omaha, 37). Oxidation of tri-iodophenol; catalytic properties of cellulose.

Morse, Dr. (Max) Withrow, 30 Rockefeller Plaza, New York 20, N. Y. *Biochemistry*. Dayton, Ohio, May 7, 80. B.S, Ohio State, 03, fellow, 03–05, A.M, 04; fellow, Columbia, 05, Ph.D, 10. Instr. biochem, med. col, Cornell, 06–07; physiol, Col. City of N. Y, 07–10; Morgan prof, Trinity Col. (Conn), 10–13; instr. biochem, Wisconsin, 13–16; assoc. prof, col. med, Nebraska, 16–17; chem. path. and director chem. research, Michael Reese Hosp, 17–19; prof. biochem, sch. med, West Virginia, 19–23; biochem. and toxicol, Jefferson Med. Col, 23–30; investigator and consultant, Rohm and Haas Co, Phila, 30–33; dept. chem, N. Y. State Psychiat. Inst, 32–34; Lederle Co, 34; *consultant, Kalak Co, New York, 34–* Summers, asst, lake lab, Ohio State, 02–04; sci. asst, Bur. Fisheries, Woods Hole oceanographic surv, 04–07; instr, Marine Biol. Lab, Woods Hole, 07–09, Harpswell Lab, 08–10. Soc. Biol. Chem; Biochem. Soc. Gt. Britain. Experimental morphology and cytology; enzymes; atrophy; chemistry of the integument; reaction of tissues; proteins, especially collagen; clinical chemistry; transfusion substitutes.

Morse, Dr. Minerva, 5525 Kimbark Ave, Chicago, Ill. *Organic chemistry*. Minneapolis, Minn, April 6, 93. A.B, Minnesota, 15, M.S, 20, Ph.D, 25. Asst. chem, Minnesota, 18–22; instr. med. chem, Constantinople Woman's Col, 23–24; asst, dept. pediat, Minnesota, 24–25; instr. chem, Smith Col, 25–29; *research assoc. pediat, Chicago, 30–* A.A; Chem. Soc; Soc. Biol. Chem. Oxidation of phenols; fatigue.

Morse, Prof. Philip M(cCord), Massachusetts Institute of Technology, Cambridge, Mass. **[5]*Physics*. Shreveport, La, Aug. 6, 03. B.S, Case, 26, hon. Sc.D, 40; fellow, Princeton, 26–28, A.M, 27, Porter Ogden Jacobus fellow, 28–29, Ph.D, 29. Instr. *physics*, Princeton, 29–30; nat. research fellow, 30–31; asst. prof, *Mass. Inst. Tech*, 31–34, assoc. prof, 34–38, *prof, 38–* Summers, research assoc, Michigan, 28; Bell Tel. Labs, 29; lecturer, Michigan, 30. A.A; fel. Acoustical Soc; fel. Physical Soc. (sec'y-treas, N. E. sect, 32–37); fel. Am. Acad; fel. London Physical Soc. Theoretical physics; quantum mechanics; quantum mechanics of nuclear processes; acoustics; electromagnetic theory.

Morse, Prof. Reed F(ranklin), 922 Bertrand, Manhattan, Kans. *Civil engineering*. Fredericksburg, Iowa, April 26, 98. A.B, Cornell Col, 21; B.S, Iowa State Col, 23; M.S, Kans. State Col, 33; Ph.D, Cornell, 41. Instr. civil eng, Kans. State Col, 23–26; res. engineer, State Highway Cmn, Kans, 26–27, asst. div. engineer, 27–29; instr. *civil eng, Kans. State Col*, 29–34, asst. prof, 34–42, *assoc. prof, 42–* Assoc. Civil Eng; Eng. Educ; Kans. Eng. Soc. Effect of alternate wetting and drying on compacted soil.

Morse, Dr. Roy R(obert), Shell Petroleum Corp, Shell Bldg, Houston, Texas. *Geology*. Jennings, La, Oct. 7, 90. B.S, California, 13, Ph.D, 22. Teaching fellow geol, California, 13–17, instr, 20–23, asst. prof, 23–25; asst. chief geologist, Shell Oil Co, 24–35, *explor. manager, Shell Petrol. Corp, 35–* Geol. explorations, China and Philippines, 14–16, Alaska, 22; Mex, 23. War minerals investigation, U. S. Bur. Mines, U. S. Geol. Surv. and Calif. Council for Defense, 18–20. A.A. Mining engineering; structural geology; stratigraphy; petroleum accumulation.

Morse, Stanley F(letcher), Wadmalaw Island, S. C. *Agriculture*. Watertown, Mass, Sept. 15, 84. Mass. Col, 02–03; B.S.A, Harvard, 06. Agr. work, Mex. and east. U. S, 06–08; consulting agriculturist, 08–10; agriculturist, Nat. Rys, Mex, 10–11; consulting agriculturist and lecturer, Farmers' Inst, 11–13; prof. agr, Arizona, 13–15, director agr. exten, 14–16; state county agent leader, Ariz, U. S. Dept. Agr, 15–16; *consulting agr. engineer and agriculturist, U. S, Europe and Latin Amer, 16–* Asst. managing ed, 'Country Gentleman,' 08–10. A.A; Agr. Eng. (pres, south. sect, 20, chairman, div. consulting agr. engineers, 28); Farm Econ. Asn; Soc. Agron; Farmers' Independence Council (exec. v. pres, 35). Agronomy; business farm management; sugar cane agronomy; tropical agriculture; rural community development; national agricultural policy.

Morse, Prof. Stanley W(allace), 208 Escobita Ave, Palo Alto, Calif. *Biochemistry*. Philadelphia, Pa, June 21, 98. A.B, Hanover Col, 20; A.M, Stanford, 26, Ph.D, 32. High schs, 20–25; asst. chem, Stanford, 25–26; *prof. physical science, San Francisco State Col, 26–* Asst, Stanford, 31. A.A. Blood proteins; hormones; the teaching of science.

Morse, Prof. W(illam) C(lifford), University of Mississippi, University, Miss. *Geology*. Starr, Ohio, Oct. 28, 74. A.B, Ohio State, 06, fellow, 06–08, A.M, 08; Chicago, 11, 13–14; Ph.D, Mass. Inst. Tech, 27. Asst. *geol*, Ohio State, 07–08, instr, 08–13; Washington (St. Louis), 14–16, asst. prof, 16–18; *prof*, Miss. State Col, 18–34; *Mississippi, 34–; director, Miss.*

Geol. Surv, 34– Visiting prof, North Carolina, 30–31; asst. geologist, Ohio Geol. Surv, 07, 09; Ill. Geol. Surv, 14–15; Ky. Geol. Surv, 08, 19; geologist, State Highway Dept, Ohio, 12–13; oil geologist, 16–34; asst. geologist, Miss, 20–21, 26. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Ohio Acad. Stratigraphic and general geology; paleontology; oil and gas.

Morse, W(illiam) J(oseph), 6809 Fifth St, N. W, Washington, D. C. *Agronomy.* Lowville, N. Y, May 10, 84. B.S, Cornell, 07. Asst. agrostologist, *bur. plant indust, U. S. Dept. Agr,* 07–08, agronomist, 08–26, senior agronomist, 26–29, agr. explorer, Japan, Korea, Manchuria and China, 29–31, *senior agronomist, div. forage crops and diseases, 31–* Mem. div. milk, meat and legumes, Nat. Defense Research Cmt. Soc. Agron; Am. Soy-Bean Asn. (pres, 23, 25, 32). Soybeans; cowpeas; velvet beans; pigeon peas; oriental legumes.

Morsh, Edith S(ymmes), University Hill, Vancouver, B. C, Can. *Psychology.* Boston, Mass, Sept. 12, 98. A.B, Wheaton Col. (Mass), 20; Ed.M, Harvard, 25; Columbia, 27–30. Psychologist, Foxboro State Hosp, Mass, 23–24; Boston Psychopathic Hosp, 24–26; nat. research fellow, Yale, 26–27; psychologist, Inst. Child Guidance, New York, 27–32; Wash. Child Guidance Clinic, 32–35. Lecturer, Teachers Col, Columbia, 30–31, summer, 30. Assoc. Psychol. Asn; Orthopsychiat. Asn. Esthetic preferences; children's toys; infant testing.

Morsh, Dr. J(oseph) E(ugene), University of British Columbia, Vancouver, B. C, Can. *Psychology.* Florence, Colo, Aug. 30, 00. B.A, British Columbia, 29; for. scholar, Hopkins, 29–30, Ph.D, 32. Asst, Hopkins, 30–32; nat. research fellow *psychol,* Gallaudet Col, 32–34; lecturer, *British Columbia,* 34–37, asst. prof, 37–43, *assoc. prof, 43–* Summers, prof, California at Los Angeles, 39, 40; Alberta, 41. Assoc. Psychol. Asn; West. Psychol. Asn; South. Soc. Philos. and Psychol; Can. Psychol. Asn; B. C. Acad; B. C. Psychol. Asn. (pres, 38–40). Psychology of the deaf; perception.

Mortensen, E(rnest), Winter Haven, Texas. *Horticulture.* Chocolate Bayou, Texas, Jan. 11, 02. B.S, Agr. and Mech. Col. Texas, 21. Asst. entomologist, prickly-pear investigations for Commonwealth of Australia, Uvalde, Texas, 21–29; county agr. agent, Pearsall, Texas, 29–30; *supt. substa. No. 19, Exp. Sta, Agr. and Mech. Col. Texas, 30–* A.A; Soc. Hort. Sci; Genetic Asn; Texas Acad. Pomology; general agriculture.

Mortensen, Prof. M(artin), Iowa State College, Ames, Iowa. *Dairying.* Sindal, Denmark, May 29, 72. B.S.A, Iowa State Col, 09; LL.D, Kans. State Col, 34. Supt. mfg, Manford Hazelwood Cream Co, Iowa, 99–04, manager, Oregon, 04–08; *prof. dairy indust. and head dept, Iowa State Col, 09–* Hon. rep, U. S. Dept. Agr, Europe, 00, Iowa State Col. rep, 14; U. S. rep, Int. Dairy Cong, Copenhagen, 31. Dairy Sci. Asn. (sec'y-treas, 17–19, v. pres, 19, pres, 20); Royal Agr. Soc. Denmark. The influence of acidity on the flavor and keeping quality of butter; ice cream; organization and construction of creameries; cost of manufacturing in Iowa dairy plants; standardization of Iowa creamery butter; method for determining losses of butter fat in the creamery.

Mortensen, Prof. Otto A(xel), University of Wisconsin, Madison, Wis. *Anatomy.* Milwaukee, Wis, June 4, 02. B.S, Wisconsin, 27, M.S, 28, M.D, 29. Instr. *anat, Wisconsin,* 30–31, asst. prof, 31–37, *assoc. prof, 37–* Asn. Anat. Human anatomy; relation of cerebrospinal fluid to tissue fluids and lymph; reticulo-endothelial system.

Mortensen, Prof. R(aymond) A(rchie), Loma Linda, Calif. *Chemistry.* Monitor, Oregon, Sept. 17, 96. A.B, Pacific Union Col, 19; M.S, Southern California, 25; Ph.D, Stanford, 32. Instr. physics and chem, Pacific Union Col, 19–24, *prof.* chem, 25–37; *biochem, Col. Med. Evangelists, 38–* Chem. Soc. Photochemical reactions; radioactive indicators; behavior of lead in the animal body; separation and determination of serum proteins.

Mortenson, Prof. W(illiam) P(eter), University of Wisconsin, Madison, Wis. *Agricultural economics.* June 6, 96. Ph.D, Minnesota, 31. Asst. prof. and *assoc. prof. agr. econ, Wisconsin; prin. agr. economist, U. S. Dept. Agr.* Econ. Asn; Statist. Asn; Farm Econ. Asn; Econometric Soc. Marketing fluid milk; trends in agricultural production; history of farm prices; economics of dairying; milk diet as a public utility.

Mortimer, Dr. Bernard, 104 S. Michigan Ave, Chicago, Ill. *Chemistry, Physiology.* Chicago, Ill, Nov. 21, 01. B.S, Chicago, 22, Ph.D, 26; M.D, Northwestern, 34. Asst. chem, Chicago, 21–26; chemist, Stein, Hall Mfg. Co, 27–28; fellow physiol. Northwestern, 28–33; director research, Siren Mills Corp, 35–38; *practising physician and specialist obstet. and gynecol, 38–* Referee on short wave diathermy, Am. Med. Asn, 34–35. Physiol. Soc; Chicago Med. Soc. Separation of isotopes; preparation of secretin; fat metabolism; tissue heating by short-wave diathermy; human thoracopagus monsters.

Mortimer, Prof. F(ranklin) S(pencer), 1406 Franklin Ave, Bloomington, Ill. *Chemistry.* Wonewoc, Wis, May 20, 91. B.S, Penn Col. (Iowa), 14; Ph.D, Iowa, 17. Prof. chem, Penn Col. (Iowa), 17–18; assoc, Iowa, 18–20; research chemist, Nat. Aniline and Chem. Co, 20–21; *prof. chem, Ill. Wesleyan, 21–* Cooperating expert, Int. Critical Tables. Chem. Soc. Solubilities in concentrated solutions; vapor pressures of pure substances.

Morton, Dr. Allan R(eid), 2 Brenton Place, Halifax, N. S, Can. *Medicine.* Bedford, N. S, Dec. 4, 01. M.D, Dalhousie, 25; M.P.H, Hopkins, 40. Asst. med. supt, N. S. Hosp, 27–34; city med. officer, *Halifax,* 38–41, *commissioner health, Office Pub. Health and Welfare, 41–* Lecturer, Dalhousie, 30–40, asst. prof, 40. Public health administration; epidemiological studies of communicable diseases.

Morton, Prof. Avery (Adrian), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* St. Lawrence, S. Dak, Nov. 27, 92. A.B, Cotner Col, 13; Ph.D, Mass. Inst. Tech, 24. Instr, *Mass. Inst. Tech,* 20–25, asst. prof, 25–33, assoc. prof. *org. chem. research,* 33–40, *prof, 40–* Chem. Soc. (sec'y, northeast. sect, 25–27); Am. Acad. Organic chemistry; condensations with sodium; the Wurtz reaction; triaryl carbinols; colors of carbonium salts; microfractionation of a drop; flask design and high speed stirring; laboratory technique in organic chemistry.

Morton, Dr. Charles Bruce, II, University of Virginia Hospital, Charlottesville, Va. *Surgery.* Tappahannock, Va, Jan. 10, 00. B.S, Virginia, 20, M.D, 22. House officer, St. Luke's Hosp, New York, 22–24; fellow surg, Mayo Clinic, 24–27; asst. prof. surg. and gynecol, *Virginia,* 27–36, *prof. clin. surg. and gynecol, 36–* First asst, Mayo Clinic, 25–26; fellow, Mayo Foundation, Minnesota. John Horsley Mem. prize, Virginia, 27, Pres. and Board of Visitors prize, 28. Am. Med. Asn; South. Surg. Asn; South. Soc. Clin. Surg. (v. pres, 41, pres, 42); East. Surg. Soc. Experimentally produced peptic ulcer.

Morton, C(onrad) V(ernon), Smithsonian Institution, Washington, D. C. *Systematic botany.* Fresno, Calif, Oct. 24, 05. A.B, California, 28. Aid, *div. plants, U. S. Nat. Museum,* 28–38, *asst. curator, 38–* Bot. Soc; Fern Soc; Soc. Plant Taxon; Biol. Soc. Wash; Wash. Acad. Flowering plants and ferns of North America, including the West Indies.

Morton, Dr. Dudley J(oy), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Surgery, Anatomy.* Baltimore, Md, March 27, 84. M.D, Hahnemann Med. Col, 07. Intern, Nat. and Children's Homeop. Hosps, Phila, 07–09; asst. surg. path, sch. med, Hopkins, 09–10; clin. chief and instr. *orthop. surg,* Hahnemann Med. Col, 10–20; instr, Yale, 24–27, asst. prof, 27–28; *assoc. prof, col. physicians and surg, Columbia, 28–* Visiting orthopedist, Children's Homeop. Hosp, Phila, 14–20; assoc. surgeon, New Haven Hosp, 25–28; research assoc, Am. Museum Nat. Hist, 25– Lieut, M.C, 18–19. Asn. Anat; Asn. Physical Anthrop. Evolutionary development of the human foot; human and primate feet; mechanism of the normal foot and its disorders; evolution of the erect posture; evolutionary development of vertebrate limb-structure; analysis of mechanics of terrestrial locomotion; ontogenous and evolutionary development of body-form; anatomical pedagogy.

Morton, Dr. G(eorge) A(shmun), 200 Library Place, Princeton, N. J. *Physics.* New Hartford, N. Y, March 24, 03. B.S, Mass. Inst. Tech, 26, M.S, 28, Ph.D, 32. Research lab, Gen. Elec. Co, 26–27; research assoc. and instr, Mass. Inst. Tech, 27–33; *RCA Labs, Radio Corp. of Amer, 33–* Radio Eng. Electron physics; secondary emission; electron optics; television.

Morton, Dr. H(arold) A(rthur), Harrison and Morton Laboratories, Inc, 1745 Front St, Cuyahoga Falls, Ohio. *Chemistry.* Worcester, Mass, Dec. 25, 90. A.B, Clark, 12, A.M, 13; Ph.D, Pittsburgh, 15. Fellow, Mellon Inst, 15–19; director research, Miller Rubber Co, 20–39; *sec'y and treas, Harrison and Morton Labs, Inc, Chemico, Inc, and Rubber Latex Products, Inc, 40–* A.A; Chem. Soc. Organic chemistry; rubber chemistry.

Morton, Prof. Harry E, 4114 School Lane, Drexel Hill, Pa. *Bacteriology.* Wayne, Mich, Aug. 4, 06. B.S, Michigan, 30,

M.S, 31, Sc.D, 36. Instr. *bacter, sch. med, Pennsylvania,* 31–35, assoc, 35–37, asst. prof, 37–42, *assoc. prof, 42–* A.A; Soc. Bact. (sec'y-treas, east. Pa. chap, 37–; councilor, 42); Chem. Soc; Soc. Bact. (chairman cmt. materials for visual instruction in microbiol, 42–); Electron Micros. Soc; N. Y. Acad; Pa. Acad; Physiol. Soc. Phila. Bacterial variation; variation of diphtheria bacillus; electronmicroscopy; anaerobic microorganisms; disinfection.

Morton, Dr. John J(amieson), Jr, 108 Sandringham Road, Rochester, N. Y. *Surgery.* Holyoke, Mass, May 19, 86. A.B, Amherst Col, 07; M.D, Hopkins, 13. Asst. path, Rockefeller Inst, 15–16; asst. prof. *surg,* Yale, 21–24; *prof, Rochester, 24–* Surg. Asn; fel. Col. Surg; Soc. Clin. Surg; Soc. Exp. Path; Soc. Exp. Biol; fel. Am. Med. Asn; Asn. Cancer Research; Soc. Clin. Invest; Robert Jones Orthop. Soc; Surg. Asn; South. Surg. Asn; Soc. int. de Chir. Experimental cancer; radiant energy; intestinal obstruction; circulatory disorders of the extremities; the sympathetic nervous system; diseases of bone.

Morton, Dr. J(ohn) M(acleod), 52 Quinpool Road, Halifax, N. S, Can. *Physical chemistry.* Bedford, N. S, Jan. 8, 06. B.Sc, Dalhousie, 27, M.Sc, 29; Am. Petrol. Inst. fellow, Princeton, 29–31, A.M, 31, Ph.D, 33. Teacher, high sch, P. E. I, 33–35; Halifax Acad, 35–36; lecturer chem. and physics, McMaster, 36–39; instr. chem, Delaware, 39–40; *flying officer, Royal Can. Air Force, 40–,* instr. air navigation, 40–42, *mem. research staff, Exp. Sta, 42–* Kinetics of homogeneous gas reactions; biochemistry of sea water; complex inorganic compounds.

Morton, Prof. J(oshua) R(omine), Ohio University, Athens, Ohio. *Chemistry.* Point Rock, Ohio, Oct. 18, 77. Rio Grande Col, 99–00; B.S, Ohio (Athens), 05, M.S, 12. Teacher, pub. schs, 96–99; prin, Wilkesville Acad, 00–01; head dept. science, high sch, Ohio, 06–09; instr. *chem, Ohio (Athens),* 04–06, 10–12, asst. prof, 12–14, assoc. prof, 14–17, *prof, 17–, chairman dept, 36–* A.A; Chem. Soc. Chemical qualitative analysis; absorption of the barium ion in qualitative analysis; water of crystallization in cobalt chlorides; eutectic mixtures of sodium phosphates and ammonium nitrate.

Morton, Prof. N(elson) W(hitman), McGill University, Montreal, Que, Can. *Psychology.* Prince Albert, Sask, Can, May 14, 10. Ph.D, McGill, 33. Lecturer *psychol, McGill,* 31–39, *asst. prof, 39–* Prince of Wales gold medal, McGill, 30. Assoc. Psychol. Asn; Can. Psychol. Asn. Psychological tests; perception.

Morton, Prof. R(obert) L(ee), Ohio University, Athens, Ohio. *Education.* Brownsville, Ohio, Nov. 25, 89. B.S, Ohio (Athens), 13; A.M, Ohio State, 18, Ph.D, 25. Teacher and sch. supt, Ohio, 07–09, 13–18; prof. educ, *Ohio (Athens),* 18–20, director exten. dept, 20–21, *prof.* teaching of math, 21–36, *educ, 36–* Summers, prof, Ohio State, 27–30; Washington (Seattle), 31. A.A; Soc. Study Educ; Educ. Research Asn; Statist. Asn; Nat. Council Teachers Math. Educational administration and supervision; educational tests; analysis of errors in learning; statistical technique.

Morton, Prof. Roscoe W(illiam), 3492 Forest Glen Drive, Knoxville, Tenn. *Mechanical engineering.* Chicago, Ill, Sept. 10, 00. B.S, Illinois, 23; M.S, Colorado, 32, M.E, 33. Engineer, Leavitt Mfg. Co, Urbana, Ill, 22–25; instr. *mech. eng,* Colo. Sch. Mines, 25–27, asst. prof, 27–29, assoc. prof. and acting head dept, 29–30, *prof. and head dept,* 30–38; *Tennessee, 38–* Consulting engineer, Knoxville, Tenn; engineer, Great West. Sugar Co, Denver; Denver Equipment Co; S. Power Warren, consulting mining engineer, Golden; engineer, Foote Brothers Gear and Machinery Co, Chicago. Res. officer, U.S.A. Mech. Eng. (chairman, Colo. sect, 36–38; veg. oil cmt, process industries profession div; manager, council, 42–); Eng. Educ. (councilor, 36–39); Tech. Soc. Knoxville (treas, 42). Power plants; machine design; vegetable oils.

Morton, Prof. Thomas H(arlow), Niagara University, N. Y. *Histology.* Plymouth, Mass, April 29, 06. B.S, Vermont, 29; M.S, Niagara, 36, Ph.D, 38. Instr. math. and chem, *Niagara,* 29–34, *biol,* 34–37, *asst. prof, 37–* A.A; Asn. Anat; Biol. Photog. Asn. Histological staining; bile capillary wall structure.

Mory, A(ustin) V(an) H(oesen), 3 Kendrick Place, Amherst, Mass. *Chemistry.* Near Masonville, Iowa, Nov. 15, 69. Col. of Wooster, 88–90; B.S, Rose Polytech, 94, Chem.E, 14. Analyst, Ill. Steel Co, 95; asst. chem, Armour and Co, 96–01; in charge chem. dept, Armour Packing Co, Kansas City, 01–07; in charge, U. S. Lab. Food and Drug Inspection, Kansas City, 07–10, chief, 10–11; director tech. lab, Sears, Roebuck and Co, 11–20; exec. head chem. div, Procter and Gamble Co, 20–21; director tech. bur, Biscuit and Cracker Mfrs. Asn, 22–24; assoc. research director, Bakelite Corp, 24–34; director research and develop, Gen. Printing Ink Corp, 34–37; *consulting chemist, 37–* A.A; Chem. Soc. (sec'y, Kansas City sect, 04–07, chairman, Chicago sect, 16, advisory board, 'Jour. Indust. and Eng. Chem,' 18–37, councilor, 20–, chairman, cmt. on progress in society procedure, 23, sec'y-treas, endowment cmt, 25, treas, N. J. sect, 27–30); Chemists' Club; Chicago Chemists' Club (pres, 23). Synthetic resins, oils and coatings.

Mosby, Dr. Henry S(ackett), 220 Madison St, Lynchburg, Va. *Wildlife, Forestry.* Lynchburg, Va, Oct. 28, 13. B.S, Hampden-Sydney Col, 35; B.S. and M.F, Michigan, 37, Ph.D, 41. Asst, Va. Cooperative Wildlife Research Unit, 38–39; field biologist, *Va. Cmn. Game and Inland Fisheries,* 38–42, *acting supt. game, 42–* Wildlife Soc; assoc. Ornith. Union; Soc. Foresters; assoc. Soc. Mammal; Va. Council Wildlife Technicians (sec'y, 41–). The wild turkey, especially in Virginia.

Moschcowitz, Dr. E(li), 25 W. 68th St, New York, N. Y. *Medicine.* Hungary, Aug. 2, 79. A.B, Col. City of N. Y, 96; M.D, Columbia, 00; Vienna and Berlin, 04. Assoc. visiting physician and later *physician, Mt. Sinai Hosp, 17–; asst. prof. clin. med, Columbia, 36–* A.A; Am. Med. Asn; Asn. Path. and Bact; N. Y. Path. Soc. (pres, 17–19); N. Y. Acad. Med. Pathological and internal medicine; anaphylaxis; hypertension and nephritis; adrenal and organic diseases; appendicitis; calcification and ossification; cysts of the liver; cancerous infiltration of nerves; medical history; phlebosclerosis; arteriosclerosis; amyloid and Graves' disease.

Moseley, Prof. A(lbert) G(raham), Marshall College, Huntington, W. Va. *Organic chemistry.* Evergreen, Ala, Sept. 12, 05. A.B, Howard Col, 26; M.S, Nebraska, 28. Instr. *chem,* Spearfish Nor. Sch, N. Dak, 28; Howard Col, 28–29; asst. prof, *Marshall Col,* 31–40, *assoc. prof, 40–* Specific heats of sugar solutions.

Moseley, E(dwin) L(incoln), Bowling Green State University, Bowling Green, Ohio. *Zoology, Botany, Physiography.* Union City, Mich, March 29, 65. A.M, Michigan, 35; L.H.D, Bowling Green State Univ, 43. Teacher, high sch, Mich. and Ohio, 85–87, 89–14; head dept. *biol, Bowling Green State Univ,* 14–36, *emer. prof, 36–, curator univ. museum, 36–* Steere zool. exped, P. I, 87–88. Hon. mention, bur. biol. surv, U. S. Dept. Agr. A.A; Ohio Acad. (sec'y, 95–03, pres, 04). Changes in the level of Lake Erie; formation of Sandusky Bay and Cedar Point; flora of northern Ohio; cause of trembles and milk-sickness; ninety-year precipitation cycle; sunspots and tree rings.

Moseley, Dr. R(ussell) L(eRoy), 801 E. 13th St, Oklahoma City, Okla. *Neuroanatomy.* Evansville, Ind, March 30, 13. A.B, Wabash Col, 34; M.S, St. Louis, 36; Ph.D, Minnesota, 39. Asst. microanat, St. Louis, 34–36; teaching fellow anat, Minnesota, 36–38; instr, West Virginia, 38–39; research fellow, inst. neur, sch. med, Northwestern, 39–40; *asst. prof. anat, sch. med, Oklahoma, 40–* Innervation of the urinary bladder; innervation of the pancreas.

Mosenthal, Prof. Herman O(tto), 889 Lexington Ave, New York, N. Y. *Medicine.* New York, N. Y, July 8, 78. A.B, Columbia, 99, M.D, 03. Asst. biochem, Columbia, 08–09, instr, 09–12, assoc, 12–14, asst. *med,* 09–10, instr, 10–14; assoc. prof, Hopkins, 14–18; assoc, *Columbia,* 19–20, assoc. prof, *N. Y. Post-Grad. Med. Sch,* 20–22, *prof, 22–* Am. Med. Asn; Am. Physicians; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Clin. Invest; fel. Col. Physicians; Diabetes Asn. (pres, 41); N. Y. Acad. Med. Diseases of metabolism.

Moser, Dr. C(harles) E(dwin), Monell Place, Beacon, N. Y. *Chemistry.* Farmville, Va, Feb. 15, 13. B.S, Idaho, 33, M.S, 35; Ph.D, Northwestern, 39. Teaching asst, Idaho, 33–35; Northwestern, 35–38; chemist, Coleman Elec. Co, Ill, 38; *research chemist, Texas Co, 39–* Chem. Soc. Physical and petroleum chemistry; densities of aqueous solutions of urea, glycolamide and glycine at twenty-five degrees; temperature coefficient of the dielectric constant of water.

Moser, Dr. Frank, Box 1258, Clemson, S. C. *Agronomy.* Dallas Center, Iowa, Feb. 12, 01. B.S, Iowa State Col, 27; M.S, Purdue, 29; Ph.D, Cornell, 32. Asst. agron, Purdue, 27–29; director agr. and science, N. Dak. State Teachers Col,

Dickinson, 29–30; asst. agron, Cornell, 30–33, res. doctor, 32–33; supervisor special real estate, Northwest. Mutual Life Ins. Co, Wis, 34–36; *assoc. agronomist, Clemson Agr. Col, 36–* Soc. Agron. Nutritional requirements of soil conservation crops and the effect on soils.

Moser, Dr. Frank H(ans), 633 S. Terrace, Huntington, W. Va. *Organic chemistry.* Chicago, Ill, Aug. 4, 07. A.B, Hope Col, 28, M.S, 29; Ph.D, Michigan, 31. Asst. Michigan, 28–31, dept. eng. research, 31–32; research and develop. chemist, Nat. Aniline and Chem. Co, Buffalo, 32–38; *supt. intermediate dept, Standard Ultramarine Co, 38–* Chem. Soc; fel. Inst. Chem. Migratory aptitudes of aryl groups; molecular rearrangements; developments in dyes and intermediates.

Moses, Prof. Ben (Duncan), 401 Second St, Davis, Calif. *Mechanics.* Silver City, N. Mex, Nov. 22, 82. B.S, California, 09. Assembly shops, Holt Mfg. Co, 09–10; teacher sciences, N. Mex. Nor. Sch, Silver City, 10–11; asst. mech. eng, California, 11–15; Yuba Mfg. Co, 15–22; asst. prof. *agr. eng, California,* 22–25, *assoc. prof, 25–,* assoc. agr. engineer, *col. agr,* 25–38, *agr. engineer, 38–* Director, Calif. Cmt. on Relations of Elec. to Agr. The uses of electricity in California agriculture.

Moses, Prof. C(larence) F(lavel), Muskingum College, New Concord, Ohio. *Geology, Geography.* Powell, Ohio, Oct. 4, 88. B.S, Ohio State, 21, A.M, 22, 30–31, 33; Clark, 26. Asst. *geol,* Ohio State, 21–22; assoc. prof, *Muskingum Col,* 22–23, *prof, 23–* Summers, Ohio Geol. Surv, 21–25; mem. staff, conservation lab, Ohio State, 40, 41. Acting instr. map reading and drawing, Camp Gordon, 18. A.A; Am. Geog. Soc; Ohio Acad. Geology of the Bellefontaine outlier; glacial material beyond drift border in eastern Ohio; old erosion surfaces in eastern Ohio and their relation to bed rock; Clarion sandstone; conservation.

Moses, C(layton) S(mall), Forest Products Laboratory, U. S. Department of Agriculture, Madison, Wis. *Forest pathology.* Reading, Mass, April 18, 02. B.S, Dartmouth Col, 24; M.S, Pa. State Col, 30. Asst. bot, Pa. State Col, 30–31; agent, *div. forest path, bur. plant indust, U. S. Dept. Agr,* 31–33, technician, 33–34, field asst, 34–37, asst. pathologist, 37–42, *assoc. pathologist, 42–* Phytopath. Soc. Forest and shade tree diseases; Dutch elm disease; oak wilt.

Moses, Dr. John H(errick), La Oroya, Peru, South America. *Mining geology.* New York, N. Y, Feb. 1, 09. B.S, Harvard, 31, A.M, 32, Ph.D, 36. Asst. instr. econ. geol, Harvard, 33–35; geologist, *Cerro de Pasco Copper Corp, Peru,* 35–41, *asst. chief geologist, 41–* Identification of opaque minerals by their reflecting power as measured photoelectrically.

Mosesman, Dr. Max A(be), 1605 Sanger Ave, Dallas, Texas. *Physical chemistry.* Dallas, Texas, June 9, 15. B.S, Agr. and Mech. Col. Texas, 36, M.S, 38; Ph.D, California, 41. Teaching asst, Agr. and Mech. Col. Texas, 36–38; *U. S. Army, 41–* Use of the dielectric constant in volumetric analysis; thermodynamic properties of the crystalline forms of silica.

Mosettig, Dr. E(rich), University of Virginia, University, Va. *Chemistry.* Vienna, Austria, June 26, 98. Ph.D, Vienna, 23. Asst. chem, Vienna, 22–29; *research assoc. prof. alkaloid chem, Cobb chem. lab, Virginia, 29–* Chem. Soc; Deuts. Chem. Gesell. Alkaloid chemistry; systematic organic chemistry; synthesis of new pharmaceuticals; morphine substitutes.

Mosher, Dr. Edna, Route 1, Newport, N. S, Can. *Entomology.* Kempt Shore, N. S, Can. B.S, Cornell, 08; M.S, Illinois, 13, Ph.D, 15. Teacher, schs, N. S, 02–05; supervisor nature study and sch. gardens, Hampton, Va, 08–10; instr, Gary, Ind, 10–12; entom, Illinois, 15–18; Ohio State, 18–19; prof. biol, New Mexico, 19–23, dean women, 20–23; prof. biol, Adelphi Col, 23–40. Summers, instr, Va. State Nor. Inst, 09, 11; lake lab, Ohio State, 19; research specialist, Exp. Sta, Maine, 15. Governor-general's medal, 00. A.A; fel. Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Soc. Zool; Ohio Acad; N. Y. Acad; Ont. Entom. Soc. Morphology and taxonomy of immature stages of insects, especially Lepidoptera; Gramineae, especially of Illinois.

Mosher, Dr. Harry S(tone), 105 Pond Laboratories, State College, Pa. *Organic chemistry.* Salem, Oregon, Aug. 31, 15. A.B, Willamette, 37; M.S, Oregon State Col, 39; Ph.D, Pa. State Col, 42. Asst. prof, Willamette, 39–40; *instr. research, Pa. State Col, 43–* Chem. Soc. Synthesis of drugs for the treatment of malaria.

Mosher, Prof. M(artin) L(uther), 905 S. Busey Ave, Urbana, Ill. *Agricultural economics.* West Liberty, Iowa, April 12, 82. B.S.A, Iowa State Col, 05, M.Agr, 15. Asst. farm crops, Iowa State Col, 05, exten. specialist, 06–08; specialist corn production, private estates, Mex, 08–09; exten. specialist farm crops, Iowa State Col, 09–12; county agr. agent, Clinton County, Iowa, 12–16; Woodford County, Ill, 16–23; asst. prof. and *prof. farm management exten. and chief farm management, Illinois, 23–* Farm Econ. Asn; Soc. Agron; Genetic Asn; Nat. Asn. County Agr. Agents (pres, 21–23); Ill. State Asn. Farm Advisers (pres, 20). Farm organization and management; seed corn development and selection.

Mosher, Dr. Raymond Mylar, 189 S. 11th St, San Jose, Calif. *Psychology.* Palo Alto, Calif, May 9, 94. A.B, Stanford, 19, A.M, 23; Ph.D, Columbia, 26. Instr. music, Calif. State Teachers Col, San Jose, 14–19; head dept, Calif. State Teachers Col, Santa Barbara, 19–22; director exp. educ, Conn. State Nor. Sch, New Haven, 24–28; *prof. psychol,* Idaho, 28–31; *San Jose State Col, 31–* Lecturer, Yale, 25–28. Summers, lecturer, Northwestern, 25; Idaho, 28, 30; Missouri, 29, 36–; instr, Yale, 26, 27; Southern California, 31. A.A; assoc. Psychol. Asn; Educ. Research Asn. Group method of measurement of sight singing; the phonetic versus the look-and-say method of teaching beginners to read; reliability of reading tests; making the most of high school; the San Jose plan for improving college instruction.

Mosher, Dr. William A(llison), 3208 W. Second St, Wilmington, Del. *Organic chemistry.* Salem, Oregon, Dec. 26, 12. A.B, Willamette, 35; Kingery fellow, Oregon State Col, 35–36, M.S, 36; Michigan, 37; Eastman Kodak Co. fellow, Pa. State Col, 39–40, Ph.D, 40. Standard Brands asst. chem, Oregon State Col, 36–37; asst. prof. chem, Willamette, 37–38; research chemist, *Hercules Powder Co,* 40–41, *asst. to director research, 41–* Chem. Soc. Terpenes; molecular rearrangements; alicyclic compounds; polymerization and depolymerization.

Mosier, Dr. Charles I(saac), 2032 Belmont Road, N. W, Washington, D. C. *Psychology.* Miami, Fla, June 11, 10. A.B, Florida, 32; Ph.D, Chicago, 37. Instr. and later asst. prof. psychol, Florida, 33–38, acting univ. examiner, 38–39, asst. prof. psychol, 39–40, asst. examiner, Sloan project, 40–41; *senior personnel research technician, Social Security Board, 41–* Mem. ed. board, 'Psychometrika,' 40– Mem. South. regional cmt, Social Science Research Council, 41–42. Psychol. Asn; Psychometric Soc. Mental test theory; measurement of personality; quantitative social psychology; multiple factor analysis.

Moskey, Dr. H(enry) E(ugene), 924 28th St, S, Oakcrest, Arlington, Va. *Veterinary medicine.* Hyattsville, Md, Aug. 14, 92. D.V.M, Pennsylvania, 20; George Washington; Maryland; U. S. Dept. Agr. *Veterinarian,* bur. animal indust, *U. S. Dept. Agr,* 20–27, *in charge vet. sect, drug div, food and drug admin, 27–* Asst. instr, vet. sch, Pennsylvania; U. S. Col. Vet. Surg. Vet. Med. Asn; Asn. Research Workers in Animal Diseases of N. Amer; Live Stock Sanit. Asn; D. C. Vet. Med. Asn. Tuberculin; diseases of swine; morphological changes of bacteria; immunity studies; therapeutic limitations of drugs; critical tests and studies of proprietary anthelmintics for animals.

Moskovitz, Prof. David, Carnegie Institute of Technology, Pittsburgh, Pa. *Mathematics.* Ungvar, Austria-Hungary, April 1, 03. B.S, Carnegie Inst. Tech, 25, M.S, 27; fellow, Brown, 29–32, Ph.D, 32. Instr, *Carnegie Inst. Tech,* 25–29, *asst. prof. math, 32–* Math. Soc; Math. Asn. (sec'y Allegheny mountain sect, 38–41). Difference equations; nomograms; convexity in linear spaces.

Moskowitz, Dr. Samuel, N. Y. State Department of Labor, 80 Centre St, New York, N. Y. *Industrial hygiene.* New York, N. Y, Aug. 26, 05. B.S, N. Y. Univ, 26, Inman fellow, 26–27, M.S, 27, Ph.D, 30, Ch.E, 38. Teaching fellow, N. Y. Univ, 26–30, instr, 34; director pediat. research lab, Jewish Hosp. of Brooklyn, 31–33; *chemist, State Dept. Labor, N. Y, 34–* Instr, L. I. Col. Med, 31–33. Indust. Hygiene Asn; Microchem. Soc. Control of dust and fume hazards in industry.

Moss, Prof. Albert E(rnest), University of Connecticut, Storrs, Conn. *Forestry.* Cheshire, Conn, May 4, 85. Conn. Agr. Col, 05; Yale, 11. Bur. forestry, U. S. Dept. Agr, 11–12; Conn. Exp. Sta, 12–21; *prof. forestry,* Conn. Agr. Col, 14–33, Conn. State Col, 33–38, *Connecticut, 38–* Soc. Foresters. Relationships between silvicultural practises and the occurrence of wildlife; the effect of pruning on the second growth hardwoods of Connecticut; effect of wind-driven saltwater on forests; growth and food value of skunk cabbage.

Moss, Dr. A(lbert) E(rnest), 110 Clarence Ave, N, Saskatoon, Sask, Can. *Economic geology.* Strasbourg, Sask, Nov. 30, 13. B.Sc, Saskatchewan, 36; M.Sc, McGill, 37, Siscoe scholar, 38, 39, Ph.D, 39. *Field geologist, Hollinger Explor. Co.* Geology of the Siscoe Gold Mine.

Moss, Dr. E(mma) S(adler), Charity Hospital, New Orleans, La. *Bacteriology.* Pearlington, Miss. B.S, Miss. State Col. for Women, 19; M.B, Louisiana, 34, M.D, 35. Asst. bacter, U. S. Veterans' Hosp, 20–25, 26–30; chief tech. asst, dept. trop. med, Tulane, 25–26; teaching fellow path. and bacter, sch. med, Louisiana, 34–35, asst, 35–39, instr, 39–41; intern, *Charity Hosp, La,* 34–35, asst. res, 35–36, junior res, 36–39, acting director, 39–40, *director dept. path, 40–,* med. lecturer, sch. nursing, 35–41. Soc. Clin. Path; Soc. Parasitol; Soc. Trop. Med; assoc. Col. Physicians; fel. Am. Med. Asn; Am. Med. Women's Asn; South. Med. Asn; La. Asn. Path. Parasitology; tissue staining technique; vaccine therapy in certain chronic conditions; molds and fungi found in normal upper respiratory tract; organisms of genus Pasteurella; staphylococci.

Moss, E(ugene) G(rissom), Oxford, N. C. *Agriculture.* Creedmore, N. C, Nov. 8, 77. B.S, North Carolina, 02. Chemist, Tenn. Coal, Iron and Ry. Co, 02–07; supt, Warner Iron Co, Tenn, 07–09; tobacco farmer, 09–11; tobacco specialist, *U. S. Dept. Agr,* 11–14, agronomist and *senior agronomist and director tobacco exp. sta, Oxford, N. C, 14–* Mem, Tobacco Research Cmt. Southeast. Tobacco Growing States; Lab. Advisory Cmt. for N. C. Medallion, South. Agr. Workers Asn, 40. A.A; Tri-State Tobacco Growers Asn. (director and mem. exec. cmt, 22); N. C. Tobacco Growers Asn. (sec'y-treas, 20–22). Tobacco culture and curing; harvesting tobacco; control of tobacco wilt; diseases of flue-cured tobacco; fertilizer tests with tobacco; sand-down; nutritional problems of bright tobacco; culture of flue-cured tobacco in North Carolina; production, curing and fermentation of aromatic tobaccos.

Moss, Prof. E(zra) H(enry), University of Alberta, Edmonton, Alta, Can. *Botany.* Thorndale, Ont, April 11, 92. B.A, Toronto, 16, M.A, 20, Ph.D, 25. Asst. *bot,* Toronto, 19–21; lecturer, *Alberta,* 21–26, asst. prof, 26–34, assoc. prof, 34–38, *prof. and head dept, 38–* A.A; Bot. Soc; Phytopath. Soc; Ecol. Soc; Mycol. Soc; fel. Royal Soc. Can. Development in Agaricaceae; poplar cankers; morphology and life histories of coniferous rusts; parasitism in Comandra and Cuscuta; plant associations of Alberta; interxylary cork; longevity of poplar seed; flora of western Canada.

Moss, Dr. F(red) A(ugust), 1835 Eye St, N. W, Washington, D. C. *Psychology, Physiology.* Hayesville, N. C, Aug. 31, 93. A.B, Mercer, 13; A.M, Columbia, 20; Ph.D, George Washington, 23, M.D, 27. Sch. supt, 13–17; prof. English, S. Ga. State Teachers Col, 17–19; asst. prof. psychol, George Washington, 21–24, assoc. prof, 24–29, prof, 29–36; *physician in charge, Moss Sanitarium, Alexandria, Va, 36–* Sec'y, Hoover Cmt. Cause of Accidents; director use of aptitude tests, Asn. Am. Med. Cols. Director standards and tests, U.S.A, 19–20. Psychol. Asn; Am. Med. Asn. Applied and abnormal psychology; physiology of fatigue; aptitude tests in selecting medical students; measurement of social intelligence.

Moss, Dr. L(amar) A(llison), Whiting-Plover Paper Co, Stevens Point, Wis. *Chemistry.* Clyde, N. C, Jan. 1, 13. B.S, N. C. State Col, 33; M.S, Lawrence Col, 35, Ph.D, 37. Asst. chemist, Gilbert Paper Co, Wis, 37–38; chief chemist and tech. director, *Whiting-Plover Paper Co,* 38–42, *asst. supt. and tech. director,* 42– Summers, asst. chemist, Gilbert Paper Co, 34, 35, 36. Pitch troubles in the manufacture and use of sulphite pulp; motion of fibers and water in flowing fiber suspensions.

Moss, Dr. M(elvin) L(ane), 1410 Hamilton St, Wilmington, Del. *Analytical chemistry.* Deerfield, Ohio, July 3, 15. B.S, Mt. Union Col, 38; M.S, Purdue, 40, fellow, 41–42, Ph.D, 42. Asst. instr. chem, Purdue, 38–41; *research chemist, Hercules Powder Co, 42–* Chem. Soc. Analytical methods; spectrophotometry; organic reagents.

Moss, Dr. Rycroft G(leason), Phillips Petroleum Co, 610 Ellis-Singleton Bldg, Wichita, Kans. *Geology.* Sheridan, Wyo, July 9, 04. B.S, Kansas, 27, M.S, 31; Ph.D, Cornell, 33. Asst. geologist, Midwest Ref. Co, 27–29; Kans. Geol. Surv, 29–33; *geologist, Phillips Petrol. Co, 33–* Asn. Petrol. Geol. Geology of Kansas; structure of buried Precambrian surface; petroleum geology.

Moss, Dr. Sanford A(lexander), 36 Sachem St, Lynn, Mass. *Engineering.* San Francisco, Calif, Aug. 23, 72. B.S, California, 96, M.S, 00, LL.D, 43; Ph.D, Cornell, 03. Instr. mech. eng, California, 97–98; Cornell, 01–03; engineer, Gen. Elec. Co, 37; *consulting engineer, 38–* Coffin Foundation award, Gen. Elec. Co, 33; Collier trophy, 41. A.S, U.S.A, 17–19. Standards Asn. (officer, project symbols used in equations); fel. Mech. Eng. Mathematical engineering; engineering thermodynamics.

Moss, Dr. Sanford A(lexander), Jr, 415 Chestnut St, Ridley Park, Pa. *Chemistry.* Lynn, Mass, March 13, 08. B.S, Mass. Inst. Tech, 30, M.S, 31; Ph.D, Cambridge, 35. Student operator, du Pont Cellophane Co, 31; junior engineer, Nat. Aniline and Chem. Co, 32–33; *research chemist, Viscose Co, 33–* Procter traveling fellow, Cambridge. Chem. Soc. Colloid chemistry; unimolecular films; structure of physiological substances.

Moss, Dr. William L(orenzo), P. O. Box 231, Athens, Ga. *Medicine.* Athens, Ga, Aug. 23, 76. B.S, Georgia, 01, Sc.D, 28; M.D, Hopkins, 05; Berlin, 07. Res. house officer, Hopkins Hosp, 05–06, asst. physician, 06–07, instr. med, Hopkins, 08–10, assoc, 10–14, asst. res. physician, Hopkins Hosp, 10–14; internist, State Inst. Study Malignant Diseases, Buffalo, 14–15; asst. prof, dept. health, Yale, 17; prev. med. and hygiene, Harvard Med. Sch, 19–21, bacter. and immunol, 24–29; prof. prev. med. and dean med. dept, Georgia, 31–34. Acting dean and asst. dean sch. pub. health, Harvard, 26–27. Mem. sci. exped, Cent. Amer, 14; in charge Harvard exped, Peru, 16; mem. sci. exped, Santo Domingo, 20, 25; Crane Pacific exped, 28–29; Crane-Peabody Museum exped, New Guinea, 37–38. Officier d'Acad, France; Order Univ. Palms. M.C, 17–19, lieut. col, col, M.O.R.C, 24– A.A; Am. Med. Asn; Asn. Path. and Bact; Soc. Clin. Invest; Soc. Trop. Med; Tuber. Asn; assoc. Am. Physicians; Am. Acad. Immunity; anaphylaxis; tuberculosis; hemorrhagic diseases; blood transfusion; diphtheria; influenza; pneumonia; framboesia tropica; opsonins; blood groups; paroxysmal hemoglobinuria; undulant fever.

Mossman, Prof. D(onald) D(avis), 440 Riverside Drive, New York, N. Y. *Chemistry.* Montreal, Que, Can, Jan. 9, 98. B.Sc, McGill, 23; Nat. Research Council Can. bursar, Toronto, 23–24, student, 24–25, M.A, 24; Am. Mfrs. of Toilet Articles fellow, Columbia, 28–31, Ph.D, 33. Demonstrator chem. eng, Toronto, 25–28; instr. *chem, Hunter Col,* 30–42, *asst. prof, 42–; capt, U. S. Army.* Chemist, Barrett Co, 23; research, Dom. Food and Drugs Lab, Ottawa, 27; research assoc, Columbia, 42. Chem. Soc; N. Y. Acad; fel. Can. Inst. Chem. Maple products; dyes; bergamot oil; qualitative analysis; general chemistry; water supply and purification.

Mossman, Prof. Dorothea R(oberta Block), 440 Riverside Drive, New York, N. Y. *Chemistry.* New York, N. Y, May 12, 03. A.B, Hunter Col, 24; A.M, Columbia, 26, Ph.D, 30. Instr. *chem,* Hunter Col, 26–30; *Brooklyn Col, Col. City of N. Y,* 30–32, *asst. prof, 32–* A.A; Chem. Soc; N. Y. Acad; Metrop. Microchem. Soc. Analytical chemistry.

Mossman, Prof. Harland W(infield), 2902 Columbia Road, Madison, Wis. *Embryology, Anatomy.* Portland, N. Y, May 7, 98. B.S, Allegheny Col, 20; M.S, Wisconsin, 22, Ph.D, 24. Asst. zool, *Wisconsin,* 20–24, instr. *anat,* 24–27, asst. prof, 27–37, *assoc. prof, 37–* A.A; Asn. Anat; Soc. Zool; Soc. Mammal; N. Y. Acad; Wis. Acad. Male and female reproductive tracts; fetal membranes; phylogeny of mammals.

Mossom, (Donald) Stuart, Magnolia Petroleum Co, San Antonio, Texas. *Geology.* Red Bank, N. J, Nov. 3, 99. A.B, Hopkins, 21, 21–23. Asst. state geologist, Fla, 24–27; geologist, Ohio Oil Co, 27–30; consulting geologist, 30–34; *with Magnolia Petrol. Co, 34–* Summers, asst, Md. Geol. Surv, 22; field asst, U. S. Geol. Surv, 23. Asn. Petrol. Geol. Economic geology and stratigraphy of Florida; stratigraphy and petroleum of the gulf coastal plain.

Moston, Dean Lester T(urner), 498 Second Ave, Waynesburg, Pa. *Mathematics.* Albany, N. Y, June 2, 06. A.B, Union (N. Y), 27; A.M, Harvard, 29, Ph.D, 33. Instr. *math,* Union (N. Y), 27–28; Harvard, 29–33; *prof, Waynesburg Col, 33–, dean, 39–* Math. Asn. Invariant methods in the differential geometry of surfaces.

Mote, Prof. Don C(arlos), Oregon State Agricultural College, Corvallis, Oregon. *Entomology.* Greenville, Ohio, Jan. 13, 87. Michigan, 06–07; Chicago, 09; B.S, Ohio State, 11, M.S, 12, Ph.D, 28. Econ. zoologist, Ohio Exp. Sta, 12–19; state entomologist, Ariz, 19–23; assoc. prof. *entom, Oregon State Col,* 23–24, *prof. and head dept, 24–,* assoc. entomologist, *Exp. Sta,* 23–24, *entomologist in charge, 24–* A.A; Entom. Soc; Asn.

Econ. Entom. (v. pres, 30). Arthropods affecting man, animals, farm, garden, fruit and truck crops.

Mote, Prof. F(rederick) A(lbert), Jr, Box 30, Storrs, Conn. *Psychology,* Memphis, Tenn, Aug. 12, 07. A.B, Southern Methodist, 34, A.M, 35; Clark, 35–36; Ph.D, Brown, 39. Instr. *psychol,* Brown, 39–40; *Connecticut,* 40–42, *asst. prof, 42–* Psychol. Asn. Animal psychology; vision; learning and conditioning; sensory psychology.

Motley, Prof. E(mery) T(yler), 711 Bull St, Columbia, S. C. *Pharmacy.* Ala, June 20, 89. B.S, Ala. Polytech, 13, M.S, 16; Iowa State Col, 21–22; Wisconsin, 22–24. Instr. pharmacy and chem, Ala. Polytech, 16–17; prof. chem, sch. pharmacy, Western Reserve, 17–21; asst, Iowa State Col, 21–22; instr. *pharmacy,* Wisconsin, 22–24; *prof. and dean sch. pharmacy, South Carolina, 24–* Pharmaceut. Asn; S. C. Pharmaceut. Asn; fel. S. C. Acad. Pharmaceutical chemistry.

Motley, Dr. Hurley L(ee), University of Missouri, Columbia, Mo. *Physiology, Pharmacology.* Silex, Mo, July 23, 04. A.B, Missouri, 30, B.S, A.M, 32, Ph.D, 34; M.D, Harvard, 36. Asst. zool, *Missouri,* 28–30, physiol, 30–34, *asst. prof. physiol. and pharmacol,* 36–40, *assoc. prof, 40–, electrocardiographer, univ. hosp, 41–* Summers, junior biologist, Bur. Fisheries, 34, 35, 36. A.A; fel. Am. Med. Asn. Physiology of freshwater mussel heart; physiology of the spleen and shock; cardiology; selenium.

Motock, G(eorge) Th(omas), Republic Steel Corp, 3100 E. 45th St, Cleveland, Ohio. *Metallurgy.* Bucharest, Roumania, Dec. 1, 01. B.S, Carnegie Inst. Tech, 28; M.S, Ohio State, 33, Met.E, 40. Research chemist, Colorizing Co, Wilkinsburg, Pa, 27–28; metallurgist, U. S. Bur. Mines, 28–30; asst. research metallurgist, Battelle Mem. Inst, 30–33; research metallurgist, *Republic Steel Corp,* Massillon and *Cleveland,* 33–41, *director research and develop, 41–* A.A; Soc. Metals; Electrochem. Soc. (councilor, 29); Min. and Metal. Eng; British Iron and Steel Inst; Faraday Soc; Asn. Tech. Fonderie. Theoretical metallurgy; physical chemistry of steel making; research and development.

Mott, Prof. Carlin P(rimm), Wayne University College of Medicine, Detroit, Mich. *Physiological chemistry.* Ashland, Ill, Nov. 30, 92. B.S, Adrian Col, 15; M.D, Detroit Col. Med. and Surg, 21. Asst. prof. *physiol. chem,* Detroit Col. Med. and Surg, 22–24, *prof,* 24–34, *col. med, Wayne, 34–* Chem. Soc; Am. Med. Asn. Diabetes; epilepsy.

Mott, Dr. Gerald O, Purdue University, Lafayette, Ind. *Agronomy.* Hastings, Nebr, March 31, 12. B.S, Nebraska, 34; Ph.D, Cornell, 40. Agent and junior agronomist, soil conservation service, U. S. Dept. Agr, 34–36; asst, Cornell, 36–39; *assoc. pasture research, Exp. Sta, Purdue, 39–* Soc. Agron. Pasture research.

Mott, William E(lton), 315 Wood St, Burlington, N. J. *Engineering.* Burlington, N. J, Jan. 24, 68. Pennsylvania, 84–85; B.S, Mass. Inst. Tech, 89. Asst, Mass. Inst. Tech, 89–90; practising civil engineer, 90–92; instr. civil eng, Cornell, 92–01, asst. prof, 01–05; assoc. prof. hydraul. eng, Mass. Inst. Tech, 05–09; prof. and head dept. civil eng, Carnegie Inst. Tech, 09–17, dean sch. applied science, 17–19, director col. eng, 19–32; *retired.* A.A; assoc. Civil Eng; Eng. Educ; Forestry Asn. Science and engineering.

Mottern, Hugh H, U. S. Department of Agriculture, Wyndmoor, Pa. *Chemistry.* Jonesboro, Tenn, Dec. 19, 03. B.S, Tennessee, 26; A.M, George Washington, 31. Junior chemist, food and drug admin, *U. S. Dept. Agr,* 26–29, asst. chemist and assoc. chemist, food research div, bur. chem. and soils, 29–35, *chemist,* fruit and veg. by-products lab. and later *east. regional research lab, bur. agr. and indust. chem, 35–* Chem. Soc. Acids in foods; fruit and vegetable products; chemistry of citrus and citrus products.

Mottley, Dr. C(harles) McC(ammon), Cornell University, Ithaca, N. Y. *Biology.* Bowling Green, Ky, Feb. 8, 05. B.A, British Columbia, 27; M.A, Toronto, 28, fellow, 28–29, Ph.D, 34. Sci. asst. biol, Biol. Board Can, 30–36; instr. limnol, *Cornell,* 37–38, asst. prof. biol, 38–39, *assoc. prof. limnol. and fisheries, 39–, fish culturist, Exp. Sta, 39–; lieut, U. S. Naval Res, 42–* Fisheries Soc; Limnol. Soc; Wildlife Soc; Soc. Ichthyol. and Herp. Limnology; fishery biology; fishery management; biometry.

Mott-Smith, Dr. L(ewis) M(orton), 1012 Shadder Way, Houston, Texas. *Physics.* New York, N. Y, July 10, 02. B.S, Calif. Inst. Tech, 23, Ph.D, 26. Asst. physics, Calif. Inst. Tech, 23–26; instr, Rice Inst, 26–38; pres, Mott-Smith Corp, 35–41; *physicist, Carnegie Institution, 41–* A.A; Physical Soc; Soc. Explor. Geophys; Geophys. Union. Exploration geophysics; mass of electric carrier in metals; cosmic rays; nuclear physics.

Mott-Smith, Dr. M(orton) C(hurchill), Science Service, Inc, 1719 N St, N.W, Washington, D. C. *Physics.* Honolulu, Hawaii, Nov. 26, 77. B.S, Mass. Inst. Tech, 00; Ph.D, Halle, 06. Asst. prof. physics, Colby Col; George Washington; geophysicist, Independent Explor. Co; *staff writer physics and chem, Science Service, Inc.* A.A; Soc. Explor. Geophys. Geophysics; popularization of science.

Motz, Dr. Lloyd, 815 W. 181st St, New York, N. Y. *Physics.* Susquehanna, Pa, June 5, 10. B.S, Col. City of N. Y, 30; fellow, Columbia, 33–34, Ph.D, 36. Instr. physics, Col. City of N. Y, 34–41; research physicist, Optical and Film Supply Co, 41–42; Tech. Research Labs, 42–43; *director research, Sci. Enterprises Inc, 43–* Instr, exten. and summer sessions, Columbia, 35– Physical Soc. Theoretical physics; astrophysics; structure of the atom; neutron disintegration; space quantization; perturbation theory; nuclear structure; transmission of light through optical systems; nature of polished glass surfaces.

Moulton, Dr. C(harles) Robert, 5712 S. Kenwood Ave, Chicago, Ill. *Chemistry, Nutrition.* Clifton, Pa, Sept. 16, 84. B.S, Illinois, 07, fellow, 07; M.S.A, Missouri, 09, Ph.D, 11. Asst. agr. chem, Missouri and Exp. Sta, 07–10, instr, 10–12, asst. prof, 12–18, prof. and head dept, 18–23; director dept. nutrition, Inst. Am. Meat Packers, 23–33; lecturer, Northwestern 33–37; curator dept. chem, Museum Science and Indust, 37–40; consulting ed, 'Nat. Provisioner,' 40–43; lecturer, Ill. Inst. Tech, 41–42; *research assoc, Chicago, 42–* Asst, Pa. State Col, 17–18; lecturer, Chicago, 25–31; consultant, Miner Labs, Chicago, 35–36; consulting chemist, 35– Managing ed, 'Meat Magazine,' 34–35, ed, 36–40. A.A; Chem. Soc; Soc. Animal Production; Pub. Health Asn; Inst. Nutrition; Inst. Food Technol. Agricultural chemistry; animal nutrition; nitrogenous bodies in meat and meat extracts; timothy hay and wheat; composition, maintenance, growth and energy metabolism of beef animals; chemistry, analysis and technology of meat and meat products; general science.

Moulton, D(onald) A(lonzo), 401 N. Main St, Winchester, Ill. *Ceramic engineering.* Ironton, Ohio, March 31, 85. Cer.E, Ohio State, 08. Osborn Eng. Co, 08–09; South. Clay Mfg. Co, Ala, 10–12; construction engineer, Credit Forks Brick and Tile Co, Can, 13–14; research engineer, McLain Fire Brick Co, Pa; supt. Dixie plant, Peebles Paving Brick Co, Portsmouth, Ohio; assoc. prof. ceramic eng, Iowa State Col; with Standard Brick and Tile Co; *consulting engineer.* Ceramic Soc. (chairman, struct. clay products div, 37). Paving brick; refractories.

Moulton, Dudley, Redwood City, Calif. *Entomology.* San Jose, Calif, Dec. 29, 79. A.B, Stanford, 03, A.M, 06. County entomologist, Santa Clara, Calif, 04–06; agent and expert, bur. entom, U. S. Dept. Agr, 06–09; deputy commissioner, State Cmn. Hort, Calif, 09–11; agr. commissioner, San Francisco City and County, 15–31; director agr, State Dept. Agr, Calif, 31–33. Scale insects; Thysanoptera; insects affecting California deciduous fruits; agricultural quarantine.

Moulton, Prof. E(lton) J(ames), 1114 Colfax St, Evanston, Ill. *Mathematics.* LeRoy, Mich, Aug. 4, 87. B.S, Chicago, 07, Ph.D, 13; A.M, Wisconsin, 10; Harvard, 10–11. Prof. *math,* Pritchett, 08–09; instr, Wisconsin, 09–10; Harvard, 10–11; *Northwestern,* 12–13, asst. prof, 13–17, assoc. prof, 17–21, *prof, 21–,* chairman, 35–42, dean grad. sch, 31–33. Ed. in chief, 'Am. Math. Monthly,' 37–41. A.A. (councilor); Math. Soc; Math. Asn. (v. pres); Astron. Soc. Rotating fluid bodies; mathematical analysis; trigonometry; analytic geometry.

Moulton, Dr. F(orest) R(ay), American Association for the Advancement of Science, Smithsonian Institution Bldg, Washington, D. C. **[1]Mathematics, Celestial mechanics.* Le Roy, Mich, April 29, 72. A.B, Albion Col, 94, Sc.D, 23; Ph.D, Chicago, 99; LL.D, Drake, 39; Sc.D, Case, 40. Instr. astron, Albion Col, 92–94; asst, Chicago, 96–98, assoc, 98–00, instr, 00–03, asst. prof, 03–08, assoc. prof, 08–12, prof, 12–26; director, Utilities Power and Light Corp, 26–37; *permanent sec'y, Am. Asn. Adv. Sci, 37–* Trustee, A Century of Progress Expos, Chicago, 30–36. Del. British Asn. Adv. Sci, 37. Major, Ordnance Dept, 18–19. Nat. Acad; A.A; Math. Soc. (assoc. ed, 'Trans,' 08–); Astron. Soc; Philos.

Soc; Am. Acad; Sigma Xi (past pres, exec. councilor); hon. cor. mem. British Asn; fel. Royal Astron. Soc; Circolo Mat. di Palermo. Resistance to comets passing through sun's corona; criteria of temporary stability of satellite motion; problem of four bodies; problem of *n* bodies; determination of orbits from spectroscopic observations; nebular hypothesis; general methods of determining orbits; foundations of geometry; periodic solutions of problem of three bodies; convergency of series used in celestial mechanics; ballistics; differential equations; theory of functions of infinitely many variables; descriptive astronomy; periodic orbits.

Moulton, Gail F(rancis), Lawrenceville, L. I, N. Y. *Petroleum, Geology.* Chicago, Ill, July 31, 98. B.S, Chicago, 20, M.S, 22. Field asst, Roxana Petrol. Co, 18, Imp. Oil Co, 19; asst. geologist, U. S. Geol. Surv, 20, assoc. geologist, 21–22; asst. prof. geol, South Dakota, 22–24; petrol. geologist, Ill. Geol. Surv, 24–29; United Gas Corp, 29–31; Elec. Bond and Share Co, 31–37; v. pres, Ralph E. Davis, Inc, 37–40; *consulting geologist, 40–* A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. Stratigraphic and structural geology in the Rocky Mountain region; petroleum geology in Illinois; gas reserves; oil and gas field valuations.

Moulton, Pres. Harold G, Brookings Institution, Washington, D. C. *Economics.* Le Roy, Mich, Nov. 7, 83. Albion Col; Ph.B, Chicago, 07, Ph.D, 14; LL.D, Washington (St. Louis), 33, N. Y. Univ, 33, Pittsburgh, 34, George Washington, 34, Syracuse, 36, Oberlin Col, 36, Chicago, 37, Northeastern, 41. From instr. to prof, Chicago, 11–22; director, Inst. Econ, 22–28; *pres, Brookings Institution, 28–* A.A. (chairman, K, 36); Econ. Asn. International finance; money and banking; transportation; economic theory.

Moulton, Dr. James Edward, University of Missouri, Columbia, Mo. *Plant pathology.* Evanston, Ill, April 6, 13. B.S, Northwestern, 36; Wisconsin, 36–37; Ph.D, Chicago, 41. *Instr. bot, Missouri, 42–* Relationship of auxins to the growth of tumors in plants.

Moulton, Dr. R(alph) W(ells), University of Washington, Seattle, Wash. *Industrial chemistry.* Seattle, Wash, June 14, 12. B.S, Washington (Seattle), 32, M.S, 34, Ph.D, 38. Process engineer, Union Oil Co, 37–41; *asst. prof. chem. eng. and indust. chem, Washington (Seattle), 41–* Manganese metallurgy; azeotropic distillation of paraffin-aromatic mixtures.

Moultrop, I(rving) E(dwin), 28 Adams St, Belmont, Mass. *Engineering.* Marlboro, Mass, July 24, 65. Apprentice, Whittier Machine Co, Mass, 83–86, chief draftsman, 86–92; Boston Edison Co, 92–97, mech. engineer, 97–13, asst. supt. construction bur, 13–26, chief engineer, Edison Elec. Illum. Co, Boston, 26–35, asst. supt. construction bur, 26–32, supt, 32–35; *retired.* Rep, advisory council, U. S. Board of Surv. and Maps, 21–30; Am. Eng. Standards Cmn, 20–28. Trustee, Northeastern. A.A; Elec. Eng. (power generation cmt, 24–, director, 26–30, v. pres, 30–32); Mech. Eng. (manager, 08–11, v. pres, 13, boiler code cmt, 15–, power test codes cmt, 29–).

Mounce, Dr. Irene, Dominion Laboratory of Plant Pathology, Saanichton, B. C, Can. *Botany.* Cumberland, B. C, Aug. 31, 94. B.A, British Columbia, 18, M.A, 20; M.Sc, Manitoba, 22; Ph.D, Toronto, 29. Asst. plant pathologist, *cent. exp. farm, Can. Dept. Agr, Ottawa, 24–38, assoc. plant pathologist, 38–* Mycol. Soc; Can. Phytopath. Soc. Sexuality in Basidiomycetes; forest pathology; seed-borne diseases.

Mount, Dr. Geo(rge) H(aines), 714 S. New Hampshire St, Los Angeles, Calif. *Psychology.* Fairfield, Iowa, May 1, 79. A.B, Parsons Col, 03; M.Di, Iowa State Teachers Col, 05; A.M, Iowa, 08, Ph.D, 10. Instr. and prin, schs, Iowa, 03–07; asst. educ, Iowa, 08–10; prof. psychol. and educ, North. State Nor. Sch, Mich, 10–11; psychol, Iowa State Teachers Col, Cedar Falls, 11–21; Dubuque, 21–24; Duke, 24–25; Southern California, 25–32; pres, Univ. Psychol. Research, 36–42; *civilian psychologist, Santa Ana Army Air Base, 42–* Consulting psychologist. Summer, asst, Iowa, 09. Psychol. Asn; West. Psychol. Asn. (v. pres, 30–); Calif. Psychopath. Asn. Musical talent and training; pitch discrimination; mental images.

Mountcastle, Prof. H(arry) W(illiam), Western Reserve University, Cleveland, Ohio. *Physics.* Pittsburgh, Pa, Feb. 5, 75. B.S, Case, 97, M.S, 00; Paris, 98; A.M, Western Reserve, 01; Ph.D, Hopkins, 04. Instr. physics, Case, 97–02; assoc, Bryn Mawr Col, 04–06; asst, N. Y. Tel. Co, 06–07; asst. prof, *Western Reserve,* 07–11, assoc. prof, 11–14, *prof,* 14–18, *physics and astron. and director physical lab, 18–* Physical Soc; Acoustical Soc; Astron. Soc; Optical Soc; fel. Royal Astron. Soc. Thermal conductivity of glass; the magnetic rotatory dispersion of sodium vapor; waves along wires; high frequency oscillations; optical behavior of metals.

Monquin, Prof. H(enri), New York University, Washington Square E, New York, N. Y. *Chemistry.* N. J, 97. B.Sc, McGill, 19; A.M, Columbia, 20; Dr.Sc, Paris, 24; Cambridge, 25–27. Instr. *chem, Wash. Sq. Col, N. Y. Univ,* 27–29, asst. prof, 29–38, *assoc. prof, 38–* Soc. de Chim. indust. (v. pres, Am. sect, 32). Colloids; physical chemistry of interfaces; color photography; Brownian movement.

Mourane, Prof. J(oseph) H(arley), High Point College, High Point, N. C. *Chemistry.* Amsterdam, N. Y, Nov. 20, 99. B.S, North Carolina, 22, M.S, 24; Cornell, 23. *Prof. chem. and head dept, High Point Col, 24–* Chem. Soc; fel. Inst. Chem; N. C. Acad. The action of arsenic chloride on diethylaniline; absorption of iodine by plants.

Mouromtseff, I(lia) E(mmanuel), 219 Montclair Ave, Montclair, N. J. *Radio engineering.* St. Petersburg, Russia, Dec. 9, 81. Mil.E, Nicholas Eng. Acad, St. Petersburg, 06; E.E, Inst. Tech, Darmstadt, Germany, 10. Dean sch. elec. eng, Sig. Corps, St. Petersburg, 10–14; mem. div. supplies, Russian Embassy, Washington, D. C, 17–23; research engineer, research labs. and later *sect. engineer electronics dept, Westinghouse Elec. and Mfg. Co, 23–* Lecturer, sch. elec. eng, Eng. Acad, Aviation Sch. and Aeronaut. Sch, St. Petersburg, 10–17. Officer's Cross, Légion d'honneur. In charge radio communications, war dept, Russia, 14–17. Elec. Eng; assoc. Physical Soc. Transmitting vacuum tubes and circuits; electronic tubes.

Moursund, Prof. A(ndrew) F(leming), University of Oregon, Eugene, Oregon. *Mathematics.* Fredericksburg, Texas, Dec. 4, 01. A.B, Texas, 23, A.M, 27; Ph.D, Brown, 32. Instr. *math,* Texas Tech. Col, 27–28; *Oregon,* 31–34, asst. prof, 34–36, assoc. prof, 36–43, *prof, 43–, head dept, 39–* Math. Soc. Convergence and summability of series, in particular Fourier, conjugate Fourier and derived series.

Moursund, Dr. W(alter) H(enrik), 714 N. Beacon St, Dallas, Texas. *Bacteriology, Hygiene.* Fredericksburg, Texas, Aug. 13, 84. M.D, Texas, 06. Asst. path. and bacter, *Baylor,* 11–12, prof. physiol, 12–13, path. and bacter, 13–14, sec'y and registrar, 14–15, prof. path, 14–17, bacter. and clin. path, 20–21, acting dean, 20–21, 22–23, *prof.* clin. path, 20–27, bacter. and hygiene, 24–38, *hygiene and prev. med, 38–, dean, 23–* Am. Med. Asn; South. Med. Soc. Medical education; public health; preventive medicine.

Mousson, (Jean) Marcus, 2nd, 1 E. University Parkway, Baltimore, Md. *Hydraulic engineering.* Herisau, Switzerland, Feb. 26, 04. Dipl. C.E, Swiss Federal Inst. Tech, Zurich, 26. Designing hydraul. engineer, Pa. Water and Power Co, 28; Elec. Bond and Share Co, 28–29; *hydraul. engineer, Pa. Water and Power Co. and Safe Harbor Water Corp, 29–; project engineer, Rustless Iron and Steel Corp, 42–* McGraw award, Edison Elec. Inst, 37, 41; award, Lincoln Arc Welding Foundation, 38. Civil Eng; Mech. Eng. Continuous flow recording and totalizing apparatus; development of efficiency indicating and recording apparatus for hydraulic turbine driven generating units and overall plant efficiency; apparatus for plant operating efficiency improvement.

Mouzon, Prof. E(dwin) D(uBose), Jr, Southern Methodist University, Dallas, Texas. *Mathematics.* Ft. Worth, Texas, April 28, 01. A.B, South. Methodist, 20; fellow, Illinois, 27–28, Ph.D, 29. Instr. math. and science, Henderson-Brown Col, 21; *math,* South. Methodist, 22–24; asst, Illinois, 24–28; assoc. prof, *South. Methodist,* 29–34, *prof. and head dept, 34–* Consulting statistician, Texas Fund, 38– Math. Asn. (v. chairman, Texas sect, 38, chairman, 39); Inst. Math. Statist; South. Intercollegiate Math. Asn. (v. pres, 37–39, pres, 39–41). Mathematical and economic statistics; coefficient of correlation as applied to economic data; determination of secular trend of time sequences; frequency curves; biometry.

Mouzon, Prof. J(ames) C(arlisle), Duke University, Durham, N. C. *Physics.* San Antonio, Texas, Jan. 8, 07. A.B, South. Methodist, 27; Ph.D, Calif. Inst. Tech, 32. Instr. science, Wesley Col. (Texas), 27–28; *physics, Duke,* 32–37, asst. prof, 37–42, *assoc. prof, 42–* Mem. staff, Naval Ordnance

Lab, 41–42. Fel. Physical Soc; Southeast. Asn. Physicists; N. C. Acad. Ionization of gases by positive ion bombardment; multiply charged ions of magnesium; electronics; nuclear physics.

Movius, Dr. Hallam L(eonard), Jr, Harvard University, Cambridge, Mass. *Archeology.* Newtown, Mass, Nov. 28, 07. B.S, Harvard, 30, A.M, 32, Ph.D, 37. Instr, *Harvard*, 30–31, 32–33, 34–35, 36, *asst. curator, Peabody Museum, 37–* Prehist. Soc; Anthrop. Asn. (councilor, 36–). Stone age archeology in the Old World.

Mowat, Edwin L(ouis), U. S. Forest Service, Ogden, Utah. *Forestry.* Ashland, Oregon, April 16, 00. B.S, Oregon State Col, 24; M.F, Yale, 27; California, 31–32. Instr. forestry, Oregon State Col, 24–26; junior forester, Lake States Forest Exp. Sta, *U. S. Forest Service*, 27–31, *Intermountain Forest and Range Exp. Sta*, 32–35, *asst. silviculturist, 35–* Soc. Foresters; Forestry Asn. Management of northern hardwood forests; methods of cutting and natural reproduction of ponderosa pine forests.

Mowat, Dr. John H(alley), Lederle Laboratories, Pearl River, N. Y. *Organic chemistry.* Houlton, Maine, May 20, 10. B.S, Maine, 32, M.S, 33; Ph.D, McGill, 42. *Research chemist, Lederle Labs, 41–* Highly branched chain ketones; vitamin synthesis.

Mowbray, Prof. A(lbert) H(enry), University of California, Berkeley, Calif. *Statistics.* San Francisco, Calif, March 30, 81. A.B, California, 04. Actuary, N. C. Ins. Dept, 07–08; Calif. Ins. Dept, 08–10; actuary, sec'y and v. pres, Liberty Mutual Ins. Co, Boston, 13–18; actuary, N. Y. Indust. Cmn, 18–20; Nat. Council Compensation Insurance, 20–23; assoc. prof. *insurance, California*, 23–27, *prof, 27–* Consulting actuarial work, 23– A.A; fel. Statist. Asn; fel. Actuarial Soc; fel. Casualty Actuarial Soc. (pres, 20–22); Math. Asn. Insurance; unity of principles rather than diversity of application; validity of statistical inference and actuarial and statistical problems of casualty and social insurance.

Mowery, Dr. D(wight) F(ay), Jr, 2905 Baynard Blvd, Wilmington, Del. *Organic chemistry.* Moorhead, Minn, May 1, 15. A.B, Harvard, 37; Ph.D, Mass. Inst. Tech, 40. *Research chemist,* E. I. du Pont de Nemours and Co, 40–42; *Hercules Powder Co, 42–* Chem. Soc. Carbohydrate and cellulose chemistry.

Mowrer, Dr. O(rval) H(obart), Harvard University, Cambridge, Mass. *Psychology.* Unionville, Mo, Jan. 23, 07. A.B, Missouri, 29; Ph.D, Hopkins, 32. Nat. research fellow, Northwestern, 32–33, Princeton, 33–34; Sterling fellow, Inst. Human Relations, Yale, 34–36, asst. and instr. *psychol*, 36–37, asst. prof. and asst, 37–40; asst. prof, *grad. sch. educ, Harvard*, 40–43, *assoc. prof, 43–* Vestibular physiology; motivation; emotion; learning; conflict; personality.

Mowry, Dr. David T(homas), Monsanto Chemical Co, Dayton, Ohio. *Organic chemistry.* Pyengyang, Korea, March 11, 17. A.B, Col. of Wooster, 38; M.S, Ohio State, 40, Ph.D, 41. Research chemist, Ohio Exp. Sta, 38; teaching asst, Ohio State, 38–41; *research chemist, Monsanto Chem. Co, 41–* Chem. Soc. Ultraviolet absorption spectroscopy; structure of arachidonic acid; synthesis of unsaturated nitriles.

Mowry, Harold, University of Florida, Gainesville, Fla. *Horticulture.* Valley Falls, Kans, March 26, 94. B.S.A, Florida, 29, M.S.A, 34. Nursery and quarantine inspector, State Plant Board, Fla, 16–22; asst. horticulturist, *Exp. Sta, Florida*, 22–30, assoc. horticulturist, 30–32, horticulturist, 32–33, asst. director, 33–42, *assoc. director, 42–* A.A; Soc. Hort. Sci; Bot. Soc; Fla. Hort. Soc; Fla. Acad. Subtropical agriculture.

Mowry, Prof. Helen A(xtell), Skidmore College, Saratoga Springs, N. Y. *Biology.* Millville, Mass, July 22, 96. A.B, Brown, 18, A.M, 20; Ph.D, Iowa State Col, 30. Lab. asst. forest path, bur. plant indust, U. S. Dept. Agr, 18–20; assoc. prof. *biol, Skidmore Col*, 20–43, *prof, 43–* Teaching fellow, Iowa State Col, 29–30. Summer, asst, Colorado, 27. A.A; Micros. Soc. Protozoology.

Moxley, Stephen Dewey, American Cast Iron Pipe Co, Birmingham, Ala. *Engineering.* Arnot, Pa, June 3, 98. B.S, Alabama, 21, M.S, 22, M.E, 32. Apprentice draftsman, Tenn. Coal, Iron and R. R. Co, 13–18, draftsman, 22–23; mem. faculty, Alabama, 18–22; draftsman, *Am. Cast Iron Pipe Co*, 23–26, *chief engineer, 26–* Summers, draftsman, Otis Steel Co, 20; asst. to city engineer, Tuscaloosa, Ala, 21. Mech. Eng. (past chairman, Birmingham sect); Foundrymen's Asn. Dust collection in the foundry; the engineer in industry; selection of cupola blowers; apprentice training programs and national defense.

Moxon, Dr. Alvin L(loyd), College Station, Brookings, S. Dak. *Chemistry.* Flandreau, S. Dak, July 25, 09. B.S, S. Dak. State Col, 34, M.S, 37; Ph.D, Wisconsin, 41. Analyst, dept. chem, *Exp. Sta, S. Dak. State Col*, 34–37, acting sta. chemist, 37–40, *sta. chemist and head dept, 40–* Consultant, U. S. Pub. Health Service, 37. 2nd lieut, C.W.S.Res, 38. A.A; Chem. Soc. (councilor, Sioux Valley sect, 41); fel. Inst. Chem; S. Dak. Acad. (2nd v. pres, 38, pres, 41). Fermentation; pharmacology and toxicology of selenium; nutritional aspects of selenium poisoning; methods of counteracting selenium poisoning in livestock; selenium in soils and absorption by plants; nitrogen metabolism of plants; nitrate poisoning in livestock.

Moyer, Amos F(ranklin), 235 S. Eighth Ave, La Grange, Ill. *Engineering.* Montevideo, Minn, July 2, 85. M.E, Minnesota, 10. Research and instruction, internal combustion engines and automotive eng, Minnesota, 16–19; design engineer, Toro Mfg. Co, *Minneapolis*, 19–20, 22–40; *sec'y and chief engineer, Precision Balancing Machine Co, 20–; research engineer, Chicago Tractor Works, Int. Harvester Co, 40–* A.A; Mech. Eng. (chairman, Minneapolis sect, 29); Soc. Automotive Eng. (chairman, Minneapolis sect, 24); Soc. Metals (chairman, northwest. chap, 31). Mechanical and automotive engineering; tractor wheels in soft soil; tractor equilibrium; dynamic balancing of rotative bodies; inherent balance of multiple cylinder engines; gang lawn mowers; cast alloy crankshafts; tractor transmission design.

Moyer, Dr. Andrew J(ackson), U. S. Department of Agriculture, Peoria, Ill. *Mycology.* Star City, Ind, Nov. 30, 99. A.B, Wabash Col, 22; Wisconsin, 22–23; M.S, N. Dak. Col, 25; Ph.D, Maryland, 29. Mycologist, bur. chem. and soils, and later *microbiologist, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 29–* Bot. Soc. Physiology of fungi; mold fermentations; gluconic, lactic, kojic, glauconic, citric and itaconic acids from glucose; penicillin production; industrial fermentations.

Moyer, Dr. A(rden) W(esley), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Biochemistry.* Frederick, Ill, Jan. 16, 09. A.B, Illinois, 37, M.S, 38; Ph.D, Cornell, 42. Asst. *biochem, med. col, Cornell*, 38–42, *instr, 42–* Chem. Soc. Biochemistry of choline and betaine and derivatives.

Moyer, Prof. Harvey V(ernon), 151 W. Beaumont Road, Columbus, Ohio. *Chemistry.* Salina, Kans, Feb. 13, 94. A.B, Kansas, 23, A.M, 25, Ph.D, 27. Nat. research fellow, Yale, 27–29; asst. prof. *chem, Ohio State*, 29–34, assoc. prof, 34–38, *prof, 38–* A.A; Chem. Soc. Chemistry of bacteria; coagulating agents in chemical analysis; organic analytical reagents.

Moyer, Prof. J(acob), Seattle Pacific College, Seattle, Wash. *Chemistry.* Clay City, Ind, April 4, 76. A.B, Greenville Col, 01; Indiana, 02; A.M, Michigan, 07; Washington (Seattle). Prof. chem. and dean faculty, Greenville Col, 07–17; teacher, high sch, N. Dak, 17–19; mem. faculty, N. Dak. State Col, and chemist, State Food Cmn, N. Dak, 19–25; *prof. chem, Seattle Pacific Col, 25–, dean men.* Chem. Soc. Crystallization of salts.

Moyer, James Ambrose, State House, Boston, Mass. *Engineering.* Cedars, Pa, Sept. 13, 75. B.E, Pa. State Nor. Sch, 93; B.S, Harvard, 99, A.M, 04. Austin teaching fellow, Harvard, 00–01; draftsman for Commander Roy C. Smith, 99; instr. descriptive geom. and eng, Harvard, 01–04; engineer, turbine dept, and chief computer, research lab, Gen. Elec. Co, 05–07; statist. engineer, Westinghouse, Church, Kerr and Co, New York, 07–08; prof. mech. eng. in charge mech. and hydrog. labs, Michigan, 08–12; prof. mech. eng, Pa. State Col, 12–15; *director div. univ. exten, State Dept. Educ, Mass, 15–* Chairman congressional cmn. on war invention, 17–19; mem. visiting cmt, Harvard, 20–; advisory cmn. on educ, U.S.N, 19– A.A; Mech. Eng; Elec. Eng; Soc. Automotive Eng. (councilor, 28–31); Eng. Educ; Univ. Exten. Asn. (sec'y and treas, 21–27, pres, 27); Nat. Educ. Asn. (pres, nat. cmn. on enrichment of adult life, 30–); Franklin Inst; Boston Math. and Physical Club; Royal Soc. Arts; Verein Deuts. Ingenieure; Inst. int. du Froid. Explosive mixtures in gas engine cylinders; continuous engine indicators; superheated steam; steam turbines; turbine air compressors; aspirators; air conditioning; stresses in disks; heat

transmission as affected by velocities; earth pressures; mercury vapor turbines; adult education; university extension.

Moyer, Dr. James C(harles), New York State Agricultural Experiment Station, Geneva, N. Y. *Biochemistry.* Guelph, Ont, Can, Feb. 24, 14. B.S.A, Ont. Agr. Col, 36; M.S.A, Toronto, 38; Frosted Foods fellow, Cornell, 38–42, Ph.D, 42. Asst. hort, Ont. Agr. Col, 36–38; *asst. prof, N. Y. Exp. Sta, Geneva, 42–* Chem. Soc. Vitamin content of fresh, frozen and dehydrated foods.

Moyer, Dr. Mary Mann (Page Kirk) (Mrs. James C. Moyer), 20 William St, Geneva, N. Y. *Nutrition.* D. C, Sept. 9, 15. A.B, Elmira Col, 36; Ph.D, Cornell, 40. Asst. nutrition, N. Y. State Exp. Sta, Geneva, 38–40; Illinois, 40–41; asst. chemist, bur. home econ, U. S. Dept. Agr, 42; *investigator chem. and nutrition, N. Y. State Exp. Sta, Geneva, 42–* A.A; Chem. Soc. Vitamin content of foods.

Moyer, Prof. R(alph) A(lton), Iowa State College, Ames, Iowa. *Highway engineering.* Topton, Pa, May 2, 97. B.S, Lafayette Col, 20; M.S, Iowa State Col, 25, C.E, 34. Engineer, Pa. R.R, 20–21; *prof. civil eng, Iowa State Col, 21–, assoc. engineer highway research, eng. exp. sta, 31–* Engineer, State Highway Dept, Pa, 25–26. Mem, Highway Research Board. Assoc. Civil Eng; Soc. Test. Mat; Iowa Eng. Soc. Transportation; highway design and construction; skidding characteristics of road surfaces; braking power of motor vehicles and stopping distances; behavior and handling of motor vehicles on curves; highway safety.

Moyer, Dr. Raymond T(yson), 3818 Van Ness St, N.W, Washington, D. C. *Agronomy.* Lansdale, Pa, Aug. 20, 99. A.B, Oberlin Col, 21; Colo. State Col, 25–26; M.S.A, Cornell, 27, Ph.D, 41. Teacher Eng, Oberlin in Shansi (China), 21–23, head agr. dept, 27–43; student sec'y, Y.M.C.A, Philadelphia, Pa, 23–25; *senior agriculturist, office for. agr. relations, U. S. Dept. Agr, 43–* Soc. Agron; Soil Sci. Soc; Am. Geog. Soc. Soils and agronomic practices in North China; nonsymbiotic nitrogen fixation.

Moyer, Dr. T(heodore) R(oosevelt), Cooperative Fertilizer Research Bureau, 2101 E. Fort Ave, Baltimore, Md. *Soils.* Chalfont, Pa, Jan. 30, 06. B.S, Pa. State Col, 28; Ph.D, Rutgers, 34. Agronomist, Cooperative G. L. F. Soil Bldg. Service, Inc, 33–40; *director, Cooperative Fertilizer Research Bur, 40–; consultant chem. div, office agr. war relations, U. S. Dept. Agr, 42–* Soc. Agron; Chem. Soc. Soil fertility; fertilizers; plant pathology.

Moyer, Dr. Wendell W(illiam), A. E. Staley Mfg. Co, Decatur, Ill. *Organic chemistry.* Glidden, Iowa, July 19, 03. B.S, Findlay Col, 24; A.B, Illinois, 26, M.S, 27, Ph.D, 29. Asst, Harvard, 29–30; nat. research fellow, Munich, 30–31; research assoc. chem, Princeton, 31–33; research chemist, Solvay Process Co, Syracuse, N. Y, 33–37; *research director, A. E. Staley Mfg. Co, 37–* A.A; Chem. Soc. Optical isomerism of diphenyl compounds; chlorophyl structure; strychnus alkaloids; chemiluminescence; products from corn and soybeans; levulinic acid.

Moyle, Dr. Clarence L(lewellyn), Dow Chemical Co, Midland, Mich. *Chemistry.* Hibbing, Minn, April 26, 09. B.S, Minnesota, 30, M.S, 32, Shevlin fellow, 33–34, research fellow, 35, Ph.D, 35. Asst. chem, Minnesota, 32–33, 34–35; anal. chemist, U. S. Steel Corp; 34; senior chemist, State Highway Dept, Minn, 35; *research chemist, Dow Chem. Co, 35–* Chem. Soc. Polymethylbenzenes; insecticides; fungicides; germicides; lubricant addition agents; plasticizers; synthetic chemistry; organic silicon derivatives.

Mozley, Dr. (Walter) Alan, Public Health Laboratory, Salisbury, Southern Rhodesia, Africa. *Biology.* Chingford, Essex, Eng, June 20, 04. B.Sc, Manitoba, 28; Walter Rathbone Bacon scholar, Smithsonian Institution, 32–34; Ph.D, Edinburgh, 34. Instr. zool, North Carolina, 29–30; asst, Hopkins, 30–31; nat. research fellow, European museums and Hopkins, 35–36; lecturer zool, Hopkins, 36–38; *research work, Pub. Health Lab, Africa, 38–* Field investigator, Can. Dept. Marine and Fisheries, 27, 28. Biol. Board Can. expeds, Jasper Park Lakes, 25, 26. Fel. Royal Soc. Edinburgh. Fresh water and terrestrial Mollusca; evolution; variation; geographical distribution.

Moznette, George Franklin, U. S. Bureau of Entomology and Plant Quarantine, Albany, Ga. *Entomology.* St. Paul, Minn, Dec. 21, 89. B.S, Oregon State Col, 13; California, 15. Asst. entomologist and asst. prof. entom, Oregon State Col, 14–17; *entomologist, div. fruit insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 17–* Asn. Econ. Entom. Deciduous fruit tree insects; tropical and subtropical fruit insects.

Mrak, Prof. E(mil) M(arcel), 339 Hilgard Hall, University of California, Berkeley, Calif. *Mycology, Zymology.* San Francisco, Calif, Oct. 27, 01. B.S, California, 26, M.S, 28, Ph.D, 36. Asst, *California,* 26–36, instr. *fruit technol,* 36–41, *asst. prof, 41–,* jr. mycologist, *Exp. Sta,* 41–43, *assoc. mycologist, 43–* Morphology, taxonomy and ecology of yeast and yeast-like organisms.

Mrgudich, Dr. J(ohn) N(eil), Burgess Battery Co, Freeport, Ill. *Physics, Chemistry.* Lead, S. Dak, Jan. 30, 07. B.S, Arizona, 29, M.S, 30; Ph.D, Illinois, 33. Special lecturer physics, Marquette, 33–34; research assoc, Illinois, 34–40; *research director, Burgess Battery Co, 40–* Applied x-rays; spectroscopy; microscopy; dry cells; instrumental analysis; storage batteries.

Mrozowski, Dr. Stanislaw (Wojciech), University of Chicago, Chicago, Ill. *Physics.* Warsaw, Poland, Feb. 9, 02. Ph.D, Warsaw, 29. Research fellow physics, Ministry Educ, Poland, 29–33; docent exp. physics, Warsaw, 33–39, adjunct, inst. theoret. physics, 37–39; research fellow *physics,* California, 39–40; *Chicago,* 40–43, *research assoc, 43–; assoc. prof, George Williams Col, 43–* Kernbaum prize, Soc. Sciences and Letters, Warsaw, 31. Fel. Physical Soc; Polish Physical Soc. (gen. sec'y, 34–38, pres, Warsaw sect, 37–39); Polish Institute Arts and Sciences in Amer. Atomic and molecular spectra; fluorescence and resonance; hyperfine structure; isotope shift; forbidden lines.

Muckenfuss, Dr. Ralph S(tewart), Bureau of Laboratories, New York Department of Health, foot of E. 15th St, New York, N. Y *Bacteriology.* Jackson, Miss, Feb. 3, 99. B.S, Emory, 19, M.D, 21. Intern, Phila. Gen. Hosp, 21–23; asst. path. and bacter, Rockefeller Inst, 25–28, asst. res. physician, Rockefeller Inst. Hosp, 28–29; asst. prof. med, sch. med, Washington (St. Louis), 29–35; assoc. director *bur. labs, Dept. Health, New York,* 35–37, *director, 37–* A.A; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Bact; Pub. Health Asn; Harvey Soc. Bacteriophage; filterable viruses.

Muckenhirn, Prof. Robert J(ohn), University of Wisconsin, Madison, Wis. *Soil technology.* Minn, Aug. 24, 10. Ph.D, Wisconsin, 36. *Instr. soils, Wisconsin, 36–* Assoc, Illinois, 38. Soil Sci. Soc; Soc. Agron; Wis. Acad; Int. Soc. Soil Sci. Soil survey; soil conservation; moisture relations of soils.

Muckenhoupt, Prof. Carl F(rederick), Northeastern University, Boston, Mass. *Engineering.* Poughkeepsie, N. Y, Nov. 7, 01. A.B, Williams Col, 22; B.S, Mass. Inst. Tech, 24, Ph.D, 29. West. Elec. Co, 22; Westinghouse Elec. and Mfg. Co, 24–26; asst. prof. *elec. eng, Northeastern,* 29–35, *prof. physics and chairman dept, 35–* Gen. Elec. Co, 29–30. Summers, special instr, Mass. Inst. Tech, 27, 28. Lieut. commander, U.S.N.R. A.A; Eng. Educ; Physical Soc; Astron. Soc. Pacific. Electrical and mechanical engineering; almost periodic functions and vibrating systems; vibration in large foundations; electronics; non-linear electrical circuits; radio.

Muckleston, Major H(ugh) B(urritt), 1154 Gilford St, Vancouver, B. C, Can. *Civil engineering.* Kingston, Ont, July 1, 73. Grad, Royal Mil. Col, Can, 94. Asst. engineer, Kingston Light, Heat and Power Co, 94–95; student, Westinghouse Elec. and Mfg. Co, Pa, 94–96; asst. engineer, Can. Pacific Ry, B. C, 97–98, 99–02; asst. chief eng, Can. Dept. Nat. Resources, 03–16; asst. chief engineer, Can. Pacific Ry, 19; chief engineer, Lethbridge North. Irrig. Dist, 19–23; *consulting engineer, 24–* C.E.F, 16–19. Civil Eng; Eng. Inst. Can. (v. pres, 31). Hydraulics; structural engineering.

Mudd, Dr. Stuart, Millbrook Lane, Haverford, Pa. *[6]*Pathology, Medicine.* St. Louis, Mo, Sept. 23, 93. B.S, Princeton, 16; A.M, Washington (St. Louis), 18; M.D, Harvard, 20. Research fellow, Harvard, 20–23; assoc, Rockefeller Inst, 23–25; assoc. path, Henry Phipps Inst, and asst. prof. exp. path, *sch. med, Pennsylvania,* 25–31, assoc. prof. *bacter,* 31–34, *prof, 34–* Chairman cmt. biol. applications of electron microscope, Nat. Research Council. A.A; Am. Med. Asn. (council pharmacy and chem); fel. Pub. Health Asn; Human Serum Asn. (pres, 40); Physiol. Soc; Asn. Path. and Bact; Soc. Bact; Asn. Immunol; Soc. Exp. Path; Soc. Exp. Biol; Harvey Soc; fel. Col. Physicians Phila. Effects of chilling the body surface; bacterial filtration; electro-endosmosis; surface composition of

normal and sensitized cells; phagocytosis; hemolytic streptococci; electron microscopy.

Mudge, Prof. C(ourtland) S(awin), College of Agriculture, University of California, Davis, Calif. *Bacteriology.* Providence, R. I., May 12, 88. Ph.B, Brown, 11, Ph.D, 15. Research bacteriologist, Nat. Canners Asn, 15–16; dairy div, U. S. Dept. Agr, 16–22; assoc. prof. and later *prof. dairy indust, California, 22–*, assoc. dairy bacteriologist and later *dairy bacteriologist, Exp. Sta, 22–* Soc. Bact. (chairman, west branch, 37); Soc. Exp. Biol. Dairy bacteriology.

Mudge, Prof. E(vlyn) Leigh, State Teachers College, Edinboro, Pa. *Psychology.* Pulteney, N. Y, July 27, 79. A.B, North Dakota and Wesley Col. (N. Dak), 07; A.M, North Dakota, 14; Ph.D, Iowa, 16. Instr. psychol, Ohio State, 16–17; prof. educ, Washburn Col, 17–20; head dept, Pa. State Nor. Sch, Edinboro, 20–21; educ. ed, Methodist Episcopal Church, 21–30; lecturer *psychol*, Boston, 30–31; *prof, Pa. State Teachers Col, 31–* Psychology of religion; childhood and early and late adolescence; adolescent experience.

Mudge, Dr. W(illiam) A(lvin), International Nickel Co, 67 Wall St, New York, N. Y. *Metallurgy.* Schenectady, N. Y, Nov. 18, 92. B.S, Union (N. Y), 14; A.M, Columbia, 15, Ph.D, 20. Research chemist, Gen. Elec. Co, 15–16; prof. chem, Albright Col, 16–17; *metallurgist, Int. Nickel Co, 20–* Indust. rep. from W. Va. to senate of chem. educ, Chem. Soc, 26. Capt, Inf, 17–19; lieut. commander, U.S.N.R. Electrochem. Soc; Soc. Metals; Soc. Automotive Eng; British Inst. Metals; British Iron and Steel Inst. The metallurgy of nickel and nickel alloys.

Muegel, Dr. Harry R(aymond), University of Cincinnati, Cincinnati, Ohio. *Botany.* Cincinnati, Ohio, Dec. 12, 96. A.B, Cincinnati, 27, A.M, 29; Chicago, 29; Ph.D, Yale, 41. *Instr. bot, Cincinnati, 30–* A.A; Bot. Soc; Sullivant Moss Soc. Wood anatomy; anatomy of tropical woods.

Muehlberger, Dr. C(larence) W(einert), State Health Department Laboratories, Lansing, Mich. *Toxicology.* Chicago, Ill, July 16, 96. B.S, Armour Inst. Tech, 20; M.S, Wisconsin, 22, Ph.D, 23. Asst. chem, Wisconsin, 20–23, asst. prof. pharmacol. and toxicol, 25–30; assoc. prof, med. sch, Northwestern, 30–35, asst. director sci. crime detection lab, 30–35; lecturer, 35–41; *state toxicologist and director crime lab, Mich, 41–* State toxicologist, Wis, 23–30; coroner's toxicologist, Cook County, Ill, 30–41; lecturer, med. sch, Illinois, 32–41; professorial lecturer, med. sch, Chicago, 34–39, assoc. prof, 39–41; professorial lecturer, med. sch, Illinois, 32–41; lecturer, Loyola (Ill), 39–41; Michigan, 41– C.W.S, U.S.A, 18–19. A.A; Chem. Soc; Soc. Pharmacol; Soc. Exp. Biol; fel. Am. Med. Asn; Indust. Hygiene Asn. (director); Pub. Health Asn; Inst. Med. Chicago. Forensic and industrial toxicology; forensic chemistry and microscopy; toxicology of alcohol and selenium; explosives and explosions.

Mueller, Dr. Charles W(illiam), RCA Laboratories, Princeton, N. J. *Electronics.* New Athens, Ill, Feb. 12, 12. B.S, Notre Dame, 34; M.S, Mass. Inst. Tech, 36, Sc.D, 42. Mem. staff, Raytheon Production Corp, 36–38; asst, Office Sci. Research and Develop, Mass. Inst. Tech, 40–41; *research physicist, RCA Labs, 42–* Physical Soc; assoc. Radio Eng. Secondary emission; gaseous discharge devices; high frequency tubes.

Mueller, Dr. Edward, Burton Hall, Dana St, Cambridge, Mass. *Chemistry.* South Bend, Ind, Oct. 16, 83. B.S, Purdue, 02; A.M, Harvard, 05, Ph.D, 07; Heidelberg, 08 Anal. chemist, Norfolk and West. Ry. Co, 02–04; asst. chem, Harvard, 05–07; instr, sch. med, Washington (St. Louis), 07–10; Tufts Col, 10–11; Mass. Inst. Tech, 11–13, asst. prof, 13–20, assoc. prof, 20–29; *chem. consultant, 29–; in charge chem, Franklin Tech. Inst, 42–* A.A; Chem. Soc; Am. Acad. Adsorption; atomic weights; aromatic character; hydrocarbon oils; ammoniates; biochemistry.

Mueller, E(ugene) F, 3914 Huntington St, N. W. Washington, D. C. *Physics.* Denison, Iowa, Jan. 8, 83. A.B, Iowa, 02, 04–05; Harvard, 08–09. From lab. asst. to *physicist, Bur. Standards, 05–* Chem. Soc; Philos. Soc. Wash; Wash. Acad. Pre-atomic physics; thermometry; resistance thermometry; heat measurements.

Mueller, Dr. George J(efferis), Picatinny Arsenal, Dover, N. J. *Physics, Electrical engineering.* Milwaukee, Wis, Sept. 1, 06. B.S, Wisconsin, 28; Ph.D, Cornell, 33 Asst. physics, Cornell, 29–31, instr, 31–32, research physicist, 33–35; asst. physicist, *physical lab, Picatinny Arsenal, Ordnance Dept, U. S. Army,* 35–39, assoc. physicist, 39–41, *physicist, 41–* Physical Soc. Electronics; integrating x-ray photometer for x-ray crystal analysis; high power and high frequency vacuum tube generators; interior ballistics; design of equipment for the testing of explosives and pyrotechnics.

Mueller, Prof. Hans, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Amriswil, Switzerland, Oct. 27, 00. Diploma math, Eidgenoessische Tech. Hochschule, Zurich, 23, D.Sc, 27. Asst, Eidgenoessische Tech. Hochschule, Zurich, 23–25; research assoc. *physics, Mass. Inst. Tech,* 25–27, asst. prof, 28–35, assoc. prof, 35–42, *prof, 42–* Fellow, Guggenheim Mem. Foundation, 37. A.A; Physical Soc; Optical Soc; N. Y. Acad. Electrical, optical and elastic properties of crystals, liquids and colloids.

Mueller, Dr. Irene Marian, State Teachers College, Platteville, Wis. *Botany.* St. Libory, Nebr, July 12, 04. A.B, Nebr. Cent. Col, 27; A.M, Nebraska, 37, Ph.D, 40. Teacher, high schs, Nebr, 27–35; *instr. biol. sciences, Wis. State Teachers Col, 40–* A.A; Ecol. Soc; Wis. Acad. Plant ecology; rhizomes of prairie plants; drought resistance of prairie grasses.

Mueller, Prof. J(ohn) Howard, 2176 Centre St, West Roxbury, Mass. *[7]*Pathology.* Sheffield, Mass, June 13, 91. B.S, Ill. Wesleyan, 12; M.S, Louisville, 14; Ph.D, Columbia, 16. Asst. path, Columbia, 16–17, instr. bacter, 19–20, asst. prof, 20–22, assoc. prof, 22–23; asst. prof. *bacter. and immunol, Harvard Med. Sch,* 23–30, assoc. prof, 30–42, *prof, 42–* A.A; Soc. Path; Pub. Health Asn; Soc. Bact; Soc. Exp. Biol; Soc. Immunol; Soc. Biol. Chem; Halle Akad. der Naturforscher. Chemistry of bacterial cultural requirements; chemistry of bacterial antigenic substances; bacterial toxins; bacteriology; immunology.

Mueller, Prof. Justus F(rederick), N. Y. State College of Forestry, Syracuse, N. Y. *Zoology.* Baltimore, Md, Nov. 20, 02. A.B, Hopkins, 23; A.M, Illinois, 26, Ph.D, 28. Sci. asst, Bur. Fisheries, 23–24; asst. *zool,* Illinois, 24–28; instr, *N. Y. State Col. Forestry, Syracuse,* 28–29, asst. prof, 29–38, *assoc. prof, 38–,* lecturer *parasitol, col. med,* 30–42, *assoc. prof, 42–* Field naturalist, Roosevelt Wild Life Forest Exp. Sta, 28–35. Summers, sci. asst, Bur. Fisheries, 20, 21; parasitologist, N. Y. State Biol. Surv, 37, 39; State Dept. Conservation, N. H, 40. Ed. board, 'Jour. Parasitol,' 40– Soc. Parasitol; Micros. Soc. Parasitology; parasites of fresh-water fishes; North American Gyrodactylidae; sparganosis; scientific illustrating; the Mueller-Ward models for teaching zoology.

Mueller, Dean Kate Hevner, Indiana University, Bloomington, Ind. *Psychology.* Pa, Nov. 1, 98. A.B, Wilson Col, 20; A.M, Columbia, 23; fellow, Chicago, 26–28, Ph.D, 28. Instr. psychol, Wilson Col, 23–26; asst. prof, Minnesota, 28–35; lecturer, univ. exten. div, *Indiana,* 36–38, *dean women, 38–* Summers, research assoc, Carnegie Foundation, Oregon, 31, 32. Psychol. Asn; Col. Personnel Asn; Music Teachers Nat. Asn; Asn. Deans Women. Psychophysical methods; attitude scales for music and poetry; appreciation of music and tests for appreciation; elements of expressiveness in music; trends in musical taste, a sociological-historical study.

Mueller, Dr. M(anfred) E(rnst), 1045 Cole St, San Francisco, Calif. *Physical chemistry.* Orange, Calif, March 4, 11. A.B, California, 33, A.M, 35, Ph.D, 37. *Instr. chem, San Francisco Junior Col, 35–* Chem. Soc. Compressibility of CO_2: N_2O mixtures; 25 to 1000 atmospheres.

Mueller, Dr. William A(nthony), Southeast Missouri State Teachers College, Cape Girardeau, Mo. *Physical chemistry.* Dortmund, Germany, Feb. 27, 11. B.S, Wisconsin, 33, Ph.D, 38. *Assoc. prof. science, Southeast Mo. State Teachers Col, 38–* A.A; Chem. Soc; Mo. Acad. Elctrochemistry of nonaqueous solutions.

Mueller, Prof. W(illiam) S(amuel), Massachusetts State College, Amherst, Mass. *Dairy industry.* Union, Mo, May 24, 01. B.S, Illinois, 27; fellow, Rutgers, 27–28, M.S, 28; fellow, Wisconsin, 28–29; Edible Gelatin Manufacturers' Research Soc. fellow, Mass. State Col, 29–31, Ph.D, 39. *Asst. research prof. dairy indust, Mass. State Col, 31–* Dairy Sci. Asn. Dairy chemistry; ice cream; whipping cream; gelatin in dairy products; physico-chemical studies of gelatin; nutritive value of chocolate milk; improving flavor and keeping properties of dairy products; antioxidants for butterfat; vanilla sugars.

Muench, Dr. H(ugo), 49 W. 49th St, New York, N. Y. *Public health.* St. Louis, Mo, Oct. 17, 94. A.B, Cornell, 15;

M.D, Washington (St. Louis), 18; Dr.P.H, Hopkins, 32. *Mem. field staff, int. health div, Rockefeller Foundation, 21–* A.A; Pub. Health Asn; Statist. Asn. Biostatistics.

Muench, Prof. O(scar) B(rauer), 826 Fifth St. Las Vegas, N. Mex. *Chemistry.* Washington, Mo, April 5, 91. A.B, Missouri, 13, A.M, 15; scholar, Colorado, 27–28. Ph D, 28. Special anal. chemist, Cambria branch of Bethlehem Steel Co, Pa, 16–20; teacher science, Cent. Junior Col, Mo, 20–24; asst. anal chem, Colorado, 24–27; *prof. chem. and physics and head dept, N. Mex. Highlands Univ, 28–* Summer, hon. fellow, Missouri, 30, 35, 37. A.A. (sec'y, N. Mex. sect, 29, 36, v. pres, 37, pres, 38; sec'y, physical sci. sect, southwest. div, 40–43, chairman, 43–); Chem. Soc. Physical and analytical chemistry; determination of vapor pressure and water of hydration of solid compounds; properties of the platinocyanides; the hydrates of lithium platinocyanide; nickel in steel; analysis of a hafniferous and Bedford cyrtolite for lead and uranium; analysis of a Canadian cyrtolite; monazite from West Portland Township, Quebec; sulfur and its indication of galena in cyrtolites; lead-uranium ratio of Henvey cyrtolite; determination of uranium, thorium and lead in thucholite; Glorieta monazite; Pied des Monts uraninite; pre-cambrian monazite from Huron claim; tertiary pitchblende from Colorado; monazite from Las Vegas, New Mexico; euxenite from Colorado.

Muenscher, Prof. Walter C(onrad Leopold), Cornell University, Ithaca, N. Y. *7*Botany.* Fischbach, Germany, May 30, 91. A.B, State Col. Wash, 14; A.M, Nebraska, 15; Ph.D, Cornell, 21. Instr, high sch, S. Dak, 15–16; *bot, N. Y. State Col. Agr, Cornell,* 16–23, asst. prof, 23–37, *prof,* 37– Field asst. cereal investigations, bur. plant indust, U. S. Dept. Agr, 17. Summers, asst. instr, Puget Sound Marine Sta, 15, 16; botanist, bur. plant indust, U. S. Dept. Agr, 23, assoc. botanist, 24; asst. prof, Cornell, 24–36; botanist, N. Y. Biol. Surv, 26–38. U.S.A, 18–19. A.A; Bot. Soc; Soc. Plant Taxon; Soc. Plant Physiol; Limnol. Soc; Torrey Bot. Club; Calif. Bot. Soc. Plant physiology; weed control; aquatic plants; algae; slime molds; taxonomy.

Muenzen, Rev. J(oseph) B(ernard), S.J, Fordham University, New York, N. Y. *Chemistry.* Meadville, Pa, March 14, 93. A.B, Woodstock Col, 20, A.M, 21; Ph.D, Fordham, 30. *Head dept. chem,* St. Joseph's Col. (Phila), 30–31; *Fordham, 31–* A.A. Physiological chemistry; detoxication in the animal organism.

Muenzinger, Prof. K(arl) F(riedrich), University of Colorado, Boulder, Colo *Psychology.* Speyer, Germany, April 28, 85. A.B, Texas, 08; Ph.D, Chicago, 18. Asst. prof, Texas, 12–16; indust. engineer, Lakeside Press, Chicago, 18–20; from asst. prof. to *prof. psychol, Colorado, 24–* A.A; Psychol. Asn. (director, 39). Psychology of learning.

Muesebeck, C(arl) F(rederick) W(illiam), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Medina, N. Y, Sept. 24, 94. B.S, Cornell, 16. Bur. entom, U. S. Dept. Agr, 16–18; instr. parasitol, Cornell, 18–21; entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 21–35, *in charge div. insect identification, 35–* A.A; Entom. Soc; Asn. Econ. Entom; Biol. Soc. Wash; Entom. Soc. Wash. (pres, 40); Wash. Acad. Taxonomy of parasitic Hymenoptera.

Mugrage, Prof. E(dward) R(osseter), 4200 E. Ninth Ave, Denver, Colo *Pathology.* Leadville, Colo, April 12, 85. A.B, Denver, 07, A.M, 08; M.D, Colorado, 13. Assoc. prof. clin. path. and acting head dept, *sch. med, Colorado,* 24–27, *prof,* 27–41, *pub. health and lab. diagnosis, 41–* Fel. Soc. Clin. Path; Soc. Parasitol; fel. Am. Med. Asn; Pub. Health Asn. Rabies; human parasitology; hematology.

Muhleman, Dr. Geo(rge) W, North Dakota Agricultural College, Fargo, N. Dak. *Physiological chemistry, Biochemistry.* Hannibal, Ohio, April 26, 71. B.S, Northwestern, 99; M.S, Iowa, 12; D.Sc, Geneva, 27. Teacher, prin. and supt. schs, Wis. and Ill, 99–10; instr. chem, Iowa Teachers Col, Cedar Falls, 10–11; prof, Okla. Methodist, 14–16; Mt. Union Col, 16–18; Hamline, 18–41; Alma Col, 41–42; *head dept. inorg. chem, N. Dak. Col, 42–* Prof, Harvard, 18. Summers, mem. faculty, Chicago, 12–15; Asheville Nor. Sch, N. C, 28, 29. Merit award, Northwestern, 41. A.A; Chem. Soc; Swiss Chem. Soc. Qualitative and general chemistry; digestive enzymes; pectinase of Sclerotinia; methyl ester of benzoylated amino-acids; comparative study of catalysts; gadgets in a chemical laboratory; chemical education; chemical history.

Mullenburg, Prof. Garrett A, 2 Vienna Road, Rolla, Mo. *Geology, Mineralogy.* Orange City, Iowa, Sept. 17, 89. A.B, Iowa, 12, M.S, 13; E.M, Mo. Sch. Mines, 25; Ph.D, Columbia, 25. Asst, eng. exp. sta, Missouri, 13–14; instr. geol, Colo. Sch. Mines, 14–16; *Mo. Sch. Mines,* 16–17, asst. prof, 17–20, assoc. prof, 20–30, *prof.* econ. geol, 30–37, *geol,* 37– Consulting geologist; geologist, Mo. Geol. Surv; Colo. Geol. Surv. Min. and Metal. Eng; fel. Geol. Soc; Asn. Petrol. Geol. Ore deposits.

Muir, Dr. Robert D(onald), 1402 S. Grand Blvd, St. Louis, Mo. *Bacteriology.* Sharon, Pa, June 27, 14. A.B, Allegheny Col, 36; Ph.D, Yale, 42. *Instr. bacter, med. sch, St. Louis, 39–* Antibiosis.

Muir, Roy C(ummings), General Electric Co, Schenectady, N. Y. *Electrical engineering.* Arcadia, Wis, Dec. 30, 81. B.S, Wisconsin, 05. Indust. engineer, Gen. Elec. Co, 05–19; engineer, Int. Gen. Elec. Co, 19–22; asst. engineer, indust. dept, *Gen. Elec. Co,* 22–30, asst. to v. pres, 30–33, manager eng. dept, 33–34, *v. pres. in charge eng, 34–* Elec. Eng; Mech. Eng. Materials and manufacturing processes concerning development, design and operation of electrical and mechanical apparatus and appliances.

Mulaik, Stanley (B), University of Utah, Salt Lake City, Utah. *Zoology.* Pittsburgh, Pa, Sept. 30, 02. B.S, Pa. State Teachers Col, 28; M.S, Cornell, 31; Michigan, 29; Pittsburgh, 23–24. Instr, high sch, Pa, 28–30; supervisor nature educ, Edinburg Junior Col, Texas, 32–39; *instr. biol, Utah, 39–* A.A; Soc. Ichthyol. and Herp; Nature Study Soc. (v. pres, 38); fel. Texas Acad. Arachnids of the Southwest; isopods of Texas; snakes of Texas; western phalangids.

Mulay, Dr. A(mbadas) S(hrihari), University of California Medical School. San Francisco. Calif. *Plant physiology.* Nagpur, India, Aug. 28, 02. L.Agr, Nagpur Agr. Col, 18; B.S, California, 23, M.S, 25, Ph.D, 30. Asst. plant path, *California,* 30–33, *pediat, med. sch,* 34–41, *research assoc, 41–, lecturer, 40–* N. Y. Acad. Nitrogen metabolism of pear trees; endocrine disorders; medical chemistry.

Mulder, Prof. A(rthur) G(eorge), 875 Monroe Ave, Memphis, Tenn. *Physiology.* Spring Lake, Mich, Jan. 19, 96. A.B, Hope Col, 23; Ph.D, Minnesota, 26. Teaching fellow, Minnesota, 23–26; asst. prof. physiol. chem, sch. med, Alabama, 26–27; *assoc. prof. physiol, col. med, Tennessee, 27–* Physiol. Soc. Carbohydrate metabolism of the heart; effects of high temperatures; hemoglobin-Ringer; dried plasma.

Mulders, Elizabeth Sternberg (Mrs. Gerard F. W. Mulders), Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. *Astronomy.* Glendale, Calif. A.B, California at Los Angeles, 26, A.M, California, 28. Teaching fellow astron, California, 26–28; *computer, Mt. Wilson Observatory, Carnegie Institution, 28–* Astron. Soc. Pacific. Orbits of comets; solar astronomy; sunspots.

Mulders, Prof. Gerard F(rancis) W(illiam), Occidental College, Los Angeles, Calif. *Astrophysics.* Nymegen, Holland, May 30, 08. B.A, Utrecht, 29, A.M, 33, Ph.D, 34. Special Dutch fellow astrophysical research, Mt. Wilson Observatory, Carnegie Institution, 35–38; acting instr. math, Stanford, 38–40; *asst. prof. physics,* Redlands, 41–42; *Occidental Col, 42–* A.A; Astron. Soc; Astron. Soc. Pacific; Natuurkundig Gezelschap, Utrecht; Int. Astron. Union. Photometry of the solar spectrum; curve of growth for Fraunhofer lines; distribution of energy in the continuous spectra of the sun and the corona.

Muldoon, Dean Hugh C(ornelius), William Penn Hotel, Pittsburgh, Pa. *Chemistry, Pharmacy.* Truxton, N. Y. Ph.G, Albany Col. Pharmacy, Union (N. Y), 12; B.S, Valparaiso, 20, Sc.D, 25; Boston; Mass. Col. Pharmacy; Harvard; Indiana; Duquesne. Instr. chem, Mass. Col. Pharmacy, 12–18; prof, Albany Col. Pharmacy, Union (N. Y), 18–20, acting dean, 18–19; *prof. chem. and dean sch. pharmacy,* Valparaiso, 20–25; *Duquesne, 25–* Mem. revision cmt, U. S. Pharmacopoeia, 30– Ed, 'Science Counselor.' A.A; Chem. Soc; Pharmaceut. Asn; Asn. Cols. Pharm. (pres, 37); Sci. Teachers Asn; Pa. Pharmaceut. Asn; Pa. Acad. Organic chemistry for students of the medical sciences; pharmaceutical Latin; pharmaceutical education.

Mulford, Dr. D(wight) J(ames), 306 Riverway Drive, Boston, Mass. *Biological chemistry.* Greenville, Ill, Feb. 09, 11. B.S, Greenville Col, 33; Ph.D, St. Louis, 42. *Special research assoc. physical chem, Harvard, 42–, tutor biochem. sciences, 42–* Chem. Soc. Choline metabolism; fractionation of plasma proteins.

Mulford, Prof. Walter, University of California, Berkeley, Calif. *Forestry.* Millville, N. J, Sept. 16, 77. B.S.A, Cornell, 99, F.E, 01; hon. Sc.D, Michigan, 38. State forester, Conn, and forester, Exp. Sta, 01–04; forest agent, U. S. Forest Service, 04–05; asst. prof. *forestry,* Michigan, 05–07, junior prof, 07–11; *prof. and head dept,* Cornell, 11–14; *California, 14–,* director res. instruction, col. agr, 19–21, acting dean, 20–21. Asst, forest sch, Yale, 02, 03; pres. board trustees, Inst. Forest Genetics, 32. Summers, forest agent and expert, U. S. Forest Service. Board editors, 'Forestry Quarterly,' 02–04, 09; consulting ed, 'Am. Forestry Series,' 31– State Board Forestry, Calif, 28–30. V. pres, World Forestry Cong, Rome, 26. A.A; fel. Soc. Foresters (pres, 24). Forest economics; forest policy in California.

Mulinos, Prof. M(ichael) G(eorge), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Pharmacology, Physiology.* Cairo, Egypt, Nov. 24, 98. A.B, Columbia, 21, A.M, 22, M.D, 24, fellow, 25, Ph.D, 29. Intern, St. Vincent's Hosp, 24–25; instr. pediat, Minnesota, 25–26; *pharmacol, col. physicians and surg, Columbia,* 27–29, asst. prof, 29–35, *assoc. prof, 35–* Visiting asst, Chicago, 26; asst, Inst. Child Guidance, Minneapolis, 26. A.A; Soc. Exp. Biol; Soc. Pharmacol; Harvey Soc. Physiology of the gastro-intestinal tract; pharmacology of amytal and nicotine; carbohydrate metabolism; pharmacology of the cerebral hemisphere and of learning; pharmacology of the autonomic nervous system; irritation by cigarette smoke.

Mull, Prof. Helen K(atharine), Sweet Briar College, Sweet Briar, Va. *Psychology.* Reading, Pa, March 26, 97. A.B, Vassar Col, 18; Cornell, 21, 22; A.M, Radcliffe Col, 24, Ph.D, 25. Asst. *psychol,* Vassar Col, 19–22, instr, 22–23, asst. prof, 25–27; *assoc. prof, Sweet Briar Col, 27–* Summer, asst, Red Cross Training Camp for Nurses, Vassar Col, 18. A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol; Va. Acad. Absolute pitch; esthetics; personality.

Mull, Dr. James W(illiam), 2510 Lee Road, Cleveland Heights, Ohio. *Biochemistry.* Clayton, Ill, Oct. 22, 96. B.S, Knox Col, 18; A.M, Harvard, 23; fellow, Iowa, 26–27, Ph.D, 27. Austin teaching fellow, Harvard, 19–21; instr. chem, Ga. Tech, 21–25; asst, Iowa, 25–26; research fellow biochem, *Western Reserve,* 27–30, *senior instr. biochem. research in obstet, sch. med, 30–, in charge biochem. research and obstet, Maternity Hosp.* A.A; Soc. Exp. Biol; Soc. Biol. Chem; Cleveland Acad. Med. Aluminum in animal tissue and effect of its accumulation on the organism; effect of anesthetics at delivery on oxygen content of blood; alterations in plasma proteins, calcium and phosphorus during pregnancy; chemical test for pregnancy; morphine in blood; blood findings in late pregnancy; vitamin K to relieve hemorrhagic disease of the newborn; stored blood.

Mullan, Dr. Eugene H(agan), U. S. Public Health Service, Montreal, Que, Can. *Psychology.* Oakland, Calif, July 18, 79. B.S, St. John's Col. (Md), 99; M.D, Maryland, 03. Asst. surgeon, *U. S. Pub. Health Service,* 05–09, passed asst. surgeon, 09–17, surgeon, 17–30, *senior surgeon, 30–, med. director, 31–, in charge hosp. for mental diseases, 19–* Mental hygiene; mental deficiency; mentality of arriving aliens; epilepsy; pupil conditions in aliens.

Mullemeister, Prof. H(ermance), University of Washington, Seattle, Wash. *Mathematics.* Apeldoorn, Holland, April 21, 85. Phil.D, Utrecht, Holland, 12, Ph.D, 13. Washington (Seattle), 16; instr. *math,* British Columbia, 16–17; assoc, *Washington (Seattle),* 18–23, instr, 23–27, *asst. prof, 27–* Math. Soc; Math. Asn. Projective geometry.

Mullen, Dr. Frances A(ndrews), 11201 Longwood Drive, Chicago, Ill. *Educational psychology.* Chicago, Ill, Nov. 25, 02. Ph.B, Chicago, 23, A.M, 27, Ph.D, 39. Instr, high sch, Ill, 26–39; psychol, Ill. Inst. Tech, 39–41; *psychologist, Bur. Child Study, Board Educ, Chicago, Ill, 39–* Consulting psychologist, 43– Asn. Applied Psychol; Psychol. Asn; Ill. Asn. Applied Psychol. (ed, 'Monthly Newsletter'). Factor analysis; mental measurement; vocational guidance.

Mullen, Prof. James A(quinas), 135 Siwanoy Blvd, Tuckahoe, N. Y. *Zoology.* Wappingers Falls, N. Y, March 3, 02. B.S, Fordham, 27, M.S, 28, Ph.D, 30. Instr. *biol,* St. John's Col, *Fordham,* 27–30, asst. prof, 31–34, *assoc. prof, 34–, lecturer, Teachers Col, 32–* A.A; Entom. Soc; Asn. Biol. Teachers; N. Y. Acad. Eutermes processionarius Schmitz; termites; anatomy.

Mullen, Dr. James W, II, 4909 Cary Street Road, Richmond, Va. *Organic chemistry.* Richmond, Va, Oct. 23, 17. A.B, Princeton, 39, Ph.D, 42. *Research chemist,* Monsanto Chem. Co, 42; *Bell Tel. Labs, 42–* Chem. Soc. Natural products.

Mullen, Dr. Lowell A(rthur), U. S. Department of Agriculture, Portland, Oregon. *Plant ecology.* Sheridan, Ind, Feb. 16, 04. B.S, Butler, 26; M.S, State Col. Wash, 28, Ph.D, 33. Teaching fellow bot, State Col. Wash, 26–28, 30–34; prof. biol, Indianapolis Col. Pharmacy, 29; instr. bot, Idaho, 34–35; *assoc. botanist, soil conservation service, U. S. Dept. Agr, 36–* Summers, instr, State Col. Wash, 28, 30–31, 32; assoc. botanist, U. S. Dept. Agr, 34–35. Ind. Acad. Range management.

Mullendore, Dr. Naomi, Franklin College, Franklin, Ind. *Botany.* Franklin, Ind, Dec. 13, 97. A.B, Franklin Col, 21; M.S, Chicago, 28, Ph.D, 34. Instr. and asst. prof. *biol, Franklin Col,* 22–34, assoc. prof, 34–38, *prof, 38–* A.A; Bot. Soc; Ind. Acad. Anatomy of the seedling of Asparagus officinalis.

Mullenix, Dr. Ralph B(ernard), 424 San Elijo St, San Diego, Calif. *Urology.* Wheaton, Ill, Dec. 23, 03. A.B, Columbia, 25; M.S, Northwestern, 30, Ph.D, 32, M.B, 32, M.D, 33. Instr. zool, Lawrence Col, 25–27; asst. physiol. and pharmacol, Northwestern, 29–32; urol, col. med, Iowa, 34–36, instr, 36–37; *practising physician, 37–* Hematology; pharmacology.

Mullenix, Prof. R(ollin) C(larke), Lawrence College, Appleton, Wis. *Zoology.* La Valle, Wis, Nov. 26, 69. A.B, Wheaton Col. (Ill), 95, A.M, 97; Chicago, 95, 96, 01; Ph.D, Harvard, 08. Instr. chem. and biol, Wheaton Col. (Ill), 95–97, prof, 97–05; biol, Yankton Col, 08–11; *zool, Lawrence Col,* 11–35, *emer. prof, 35–* Writer and lecturer; columnist, 'San Diego Sunday Union,' 41– Bowdoin prize and bronze medal, Harvard, 09. Nerve terminations in the ears of fishes.

Muller, Dr. Cornelius H(erman), 1312 Dover Lane, Santa Barbara, Calif. *Plant ecology.* Collinsville, Ill, July 22, 09. A.B, Texas, 32, A.M, 33; Ph.D, Illinois, 38. Asst. bot, Texas, 29–33; Illinois, 34–38; ecologist, Ill. State Nat. Hist. Surv, 38; asst. botanist, div. plant explor. and introd, *bur. plant indust, U. S. Dept. Agr,* 38–42, rubber plant investigations, 42, *assoc. botanist, special guayule research project, 42–,* instr. plant ecol, grad. sch, 41–42. Summers, collector Mexican plants, Arnold Arboretum, 34, 35. Ecol. Soc; Soc. Plant Taxon. Plant taxonomy; ecology and plant geography of southwestern United States and Mexico; plant indicators of climate; taxonomy of American Quercus; flora of southwestern United States and Mexico; ecology of guayule culture.

Muller, Dr. George P(aul), Jefferson Medical College, Philadelphia, Pa. *Surgery.* Philadelphia, Pa, June 29, 77. A.B, Cent. High Sch. Phila, 95; M.D, Pennsylvania, 99; M.S, Villanova Col, 16; B.S, Muhlenberg Col, 37. *Prof. surg, Jefferson Med. Col, 36–* Surg. Asn; Soc. Clin. Surg; Col. Surg. (regent, past pres); Am. Med. Asn; Phila. County Med. Soc. (past pres); Col. Physicians Phila. (pres, 37). Clinical surgery.

Muller, Dr. Gulli Lindh, 4 St. John's Road, Cambridge, Mass. *Medicine.* Sweden, April 17, 88. A.B, Columbia, 17, M.D, 21. Intern, Presb. Hosp, New York, 21–23; asst. physician, Thorndike Mem. Lab, Boston City Hosp, 23–33; pathologist and chief lab, Rutland State Sanatorium, Rutland, Mass, 33–38; *pathologist and chief lab, New Eng. Hosp. for Women and Children, Boston, Mass, 38–* Am. Med. Asn; Soc. Exp. Biol. Experimental bone marrow reactions with especial reference to the mechanism of the action of the principle effective in pernicious anemia; cholesterol metabolism, especially in anemias; reaction of the blood and hematopoietic organs to tuberculosis.

Muller, Prof. H(ermann) J(oseph), Amherst College, Amherst, Mass. **[4]** *Biology, Genetics.* New York, N. Y, Dec. 21, 90. A.B, Columbia, 10, A.M, 11, Ph.D, 15; D.Sc, Edinburgh, 40. Asst. physiol, Cornell, 11–12; zool, Columbia, 12–15; instr. biol, Rice Inst, 15–18, in charge dept, 16–18; instr. zool, Columbia, 18–20; assoc. prof, Texas, 20–25, prof, 25–33; senior geneticist, Inst. Genetics, Acad. Sci. Moscow, 33–37; guest, inst. animal genetics, Edinburgh, 37–38, lecturer, 38–41; research assoc. *biol, Amherst Col,* 40–42, *prof, 42–* Guggenheim Mem. Foundation fellow, 32–33. Summer, assoc. prof, Chicago, 25. A.A.A.S. prize, 27. Nat. Acad; A.A. (chairman, F-G4, 28); Soc. Nat. (v. pres, 32, pres, 43); Genetics Soc; Soc. Exp. Biol; Soc. Zool; Am. Acad; British Genetical Soc. Linkage and crossing over; multiple factor analysis; lethal factors; evolution; theory of the gene; gene mutation and

chromosome change and their artificial production; biological effects of radiation; speciation; human heredity.

Muller, Dr. J(ulius) F(rederick), 1119 Gary Ave, Catonsville, Md. *Chemistry.* Brooklyn, N. Y, Sept. 5, 00. B.S, Rutgers, 22, M.S, 28, Ph.D, 30. Research chemist, Walker-Gordon Lab. Co, 30–31; consulting chemist, 31–32; chemist-bacteriologist, Nat. Oil Products Co, Harrison, N. J, 32–35; *director,* Muller Labs, Baltimore, 35–41; *allergy research, Borden Co, New York, 41–* Research chemist, Agr. Exp. Sta, Rutgers, 30–31. A.A; fel. Inst. Chem; Chem. Soc. Soil fertility; organic fertilizers; dehydration of agricultural products; colloidal chemistry; industrial bacteriology; development of soybean products; allergy.

Muller, Dr. Max (Manfred), 623 Ave G, Boulder City, Nev. *Ceramic engineering.* Schaffhausen, Switzerland, Nov. 5, 11. Dipl.Mech.Eng, Swiss Fed. Sch. Polytech, 35; Ph.D, Ohio State, 39. Maintenance and process engineer, Swiss Grinding Wheel Works, 36; lab. asst. and later research engineer, Basic Dolomite, Inc, 37–39; mem. research lab, A. C. Spark Plug div, Gen. Motors Corp, 39–41; *staff engineer, tech. service, Basic Magnesium, Inc, 41–* Ceramic Soc; Miner. Soc; Physical Soc. Ceramic mineralogy; boro-silicates as ceramic bonds; spark plug insulator bodies; construction work for defense.

Müller, Dr. Otto H(einrich), Cornell University Medical College, New York, N. Y. *Physical chemistry.* Esslingen, Germany, Sept. 20, 08. A.B, Stanford, 33; R.N.Dr, Charles Univ. (Prague), 35. Asst. physiol, Stanford, 35–37, research assoc. chem. and Upjohn fellow, 37–38; research assoc. surg. and asst. physiol, *med. col, Cornell,* 38–40, *research assoc. anat, 40–* Chem. Soc; Harvey Soc; N. Y. Acad; Deuts. Bunsen Gesell. Passivity; overvoltage; application of polarography in inorganic chemistry, biochemistry and medicine.

Müller, Prof. Ralph H(olcombe), New York University, Washington Square, New York, N. Y. *Physical chemistry.* Philadelphia, Pa, Jan. 25, 00. B.S. Pennsylvania, 22; A.M, Columbia, 23, Ph.D, 25; Göttingen, 27. Asst. *chem,* Columbia, 23–25; *N. Y. Univ,* 24–25, instr, 25–28, asst. prof, 28–29, assoc. prof, 29–40, *prof, 40–; research assoc, radiation lab, Mass. Inst. Tech, 42–* Special lecturer, Chicago, 39. Silver medal, Am. Med. Asn, 31. Chem. Soc. (councilor, New York sect, 34, director, 39, 40, chairman, 41); Electrochem. Soc. (chairman, Metrop. sect, 39); Physical Soc; Optical Soc; Franklin Inst. Radiation; photochemistry; photoelectric photometry; electronics; design of scientific and industrial instruments.

Muller, Prof. Siemon W(illia)m, Box 655, Stanford University, Calif. *Paleontology, Geology.* Blagovestchensk, Russia, May 9, 00. A.B, Oregon, 27; A.M, Stanford, 29, Ph.D, 30. Instr. *geol, Stanford,* 28–30, asst. prof, 30–36, assoc. prof, 36–41, *prof, 41–* Lecturer, California, 42; geologist, U. S. Geol. Surv. Geol. Soc; Paleont. Soc. Mesozoic stratigraphy and invertebrate paleontology.

Mulligan, Prof. Richard M(ichael), 4200 E. Ninth Ave, Denver, Colo. *Pathology.* Sherburne, N. Y, July 1, 12. A.B, Cornell, 33; M.D, Rochester, 37. Intern path. and pediat, Colo. Gen. Hosp, 37–38; teaching fellow *path,* med. sch, Dartmouth Col, 38–39; instr, *sch. med. and univ. hosps, Colorado,* 39–41, *asst. prof, 41–* Assoc. Soc. Exp. Biol; Asn. Path. and Bact. Hematopoiesis; oncology; endocrinology.

Mulliken, Prof. Robert S(anderson), University of Chicago, Chicago, Ill. *[1]*[2]*Physics, Chemistry.* Newburyport, Mass, June 7, 96. B.S, Mass. Inst. Tech, 17; Loewenthal fellow, Chicago, 19–21, Ph.D, 21; hon. Sc.D, Columbia, 39. Junior chem. engineer, U. S. Bur. Mines, 17–18; asst, N. J. Zinc Co, 19; nat. research fellow, Chicago, 21–23; Harvard, 23–25; asst. prof. *physics,* Wash. Sq. Col, N. Y. Univ, 26–28; assoc. prof, *Ryerson physical lab, Chicago,* 28–31, *prof, 31–* Guggenheim Mem. Foundation fellow, 30, 32. Ed. board, 'Physical Rev,' 'Jour. Chem. Physics.' C.W.S, U.S.A, 18. Nat. Acad; A.A; fel. Physical Soc; Chem. Soc; Philos. Soc. The separation of isotopes; isotope effect and interpretation of band spectra; band spectra; molecular structure and valence.

Mullikin, Dr. H(arwood) F(ranklin), 509 W. 155th St, New York, N. Y. *Mechanical engineering.* Baltimore, Md, June 27, 08. B.E, Hopkins, 30; Am. Soc. Mech. Eng. fellow, Yale, 30–34, M.S, 31, M.E, 32, Ph.D, 34. Test engineer, Gen. Elec. Co, 35; anal. engineer, Babcock and Wilcox Co, New York, 36–42; *instr, Col. City of N. Y, 42–* Consulting mech. engineer. Mech. Eng. Heat transfer in boiler furnaces and steam boilers; combustion and heat transfer; power plants; thermodynamics and heat transfer.

Mullikin, Dr. Richard N(icholas), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Baltimore, Md, July 15, 88. A.B, Hopkins, 12, Ph.D, 15. Fellow, Mellon Inst, 15–16; chemist, British Am. Chem. Co, 16–17; special asst. to manager, production div, *org. chem. dept, E. I. du Pont de Nemours and Co,* 17–25, *manager control div, 25–* Chem. Eng. Manufacture of dyestuffs, intermediates, heavy chemicals and pharmaceutical products; inventory and production control; cost efficiencies; permanent investment projects.

Mullin, Dr. Cha(rle)s E(arl), Huntingdon, Pa. *Chemistry.* Hyndman, Pa, April 13, 90. Juniata Col, 12; M.S, 21; D.Sc, Nancy, 29. Consulting chemist, 21–27; prof. textile chem, Clemson Col, 27–28, chem. rayon and dyeing and head div. textile chem, 28–33; *consulting chemist, 33–* Chem. Soc; Soc. Chem. Indust; Asn. Textile Chem. and Colorists; fel. Inst. Chem; Soc. Dyers and Colorists; fel. S. C. Acad; fel. London Chem. Soc; fel. Textile Inst. England; fel. Int. Acad. Sciences England. Chemistry of fibers; dyestuffs and detergents; acetate silk and its dyes; unshrinkable wool processes; depainting wool and noils; textile and related patents.

Mullings, Prof. Marcus E(vans), Abilene Christian College, Station A, Abilene, Texas. *Mathematics.* Gorman, Texas, July 15, 04. A.B, Texas, 24, A.M, 26; Ph.D, Cincinnati, 31. Instr. *math,* Texas, 24–26; Cincinnati, 26–31, asst. prof, 31–34; assoc. prof, *Abilene Christian Col,* 35–36, *prof. and head dept, 36–* A.A; Math. Soc; Math. Asn. Vector analysis; Fourier's series.

Mullinix, Prof. R(aymond) D(avid), Rockford College, Rockford, Ill. *Chemistry.* Boone, Iowa, July 27, 82. B.S, Chicago, 13, Ph.D, 18. Assoc. chem, Chicago, 13–18; chemist for private firms, 18–19; *prof. chem, Rockford Col, 19–* Summers, chemist, Exp. Sta, Delaware, 18; prof, Chicago, 20–24. Chem. Soc. Analysis without hydrogen sulfide; action of ethylene on starch; formation of citric acid from sugars; improvement in yield of potassium permanganate.

Mullins, Dr. George M(artin), 2534 Madison, Kansas City, Mo. *Chemistry:* Beemer, Nebr, Jan. 7, 05. A.B, South Dakota, 24; M.S, Iowa, 25, Ph.D, 28. Prof. English, W. Texas State Teachers Col, 28–29; chem, Cent. State Teachers Col, 29–30; research chemist, *Skelly Oil Co,* El Dorado, Kans, 30–32, *highway materials technologist and in charge road and asphalt dept, 32–, manager asphalt dept, 35–* Lieut, C.W.Res. Asn. Asphalt Paving Tech. Asphalt and asphalt roads.

Mullins, Dr. G(eorge) W(alker), Barnard College, Columbia University, New York, N. Y. *Mathematics.* Fayetteville, Ark, Feb. 11, 81. A.B. Arkansas, 04, LL.D, 35; A.M, Columbia, 12, Ph.D, 17. Prof. *math,* Simmons Col. (Texas), 05–12; instr, *Barnard Col, Columbia,* 12–19, asst. prof, 19–23, assoc. prof, 23–28, *prof, 28–,* acting dean, 29–31. Exec. sec'y, Col. Ent. Exam. Board, 36– Math. Soc. (treas, 29–34, trustee, 30–); Math. Asn.

Mullins, Dr. Lorin J(ohn), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Physiology.* San Francisco, Calif, Sept. 23, 17. B.S, California, 37, Ph.D, 40. Asst. *physiol, sch. med. and dentistry, Rochester,* 40–41, *instr, 41–* A.A; Chem. Soc; Soc. Exp. Biol. Permeability of cells to radioactive isotopes; radiation effects from radioactive isotopes; potassium equilibria in muscle and red cells.

Mulrennan, John A, State Board of Health, P. O. Box 210, Jacksonville, Fla. *Entomology.* Bloomingdale, Fla, Nov. 17, 06. B.S.A, Florida, 32. Entomologist, L. Maxcy, Inc, 32–33; entom. technician, Rockefeller Foundation, 33–35; asst. malariologist, State Health Dept, Texas, 35–36, malariologist, 36–37; entomologist, Escambia County Health Dept, *Fla,* 38–41; *chief entomologist, State Board Health, 41–* Malaria Soc; Entom. Soc. Amer; Asn. Econ. Entom; Newell Entom. Soc; Fla. Entom. Soc; Fla. Pub. Health Asn; Fla. Anti-Mosquito Asn. Malaria control.

Mulsow, Dr. F(rederick) W(illiam), St. Luke's Hospital, Cedar Rapids, Iowa. *Pathology, Bacteriology.* Baldwin City, Kans, Oct. 6, 82. A.B, Baker, 11; fellow, Kans, 13–14, A.M, 15; fellow, Chicago, 18–19, Ph.D, 19, M.D, Rush, 20. Asst. prin, high sch, Kans, 11–13; asst. state food bacteriologist, Kans, 14–15; asst. prof. bacter, State Col. Wash, 15–16; asst, Chicago, 17–18; asst. prof. bacter. and path, col. med, Iowa, 21–22, assoc. prof. and acting head dept, 22–25; *pathologist and director clin. lab, St. Luke's Hosp, 25–, practising physician and surgeon, Cedar Rapids, 25–* Attending pathologist, Mercy

Hosp; chairman, Linn County Tumor Clinic. A.A; Asn. Path. and Bact; fel. Soc. Clin. Path; Soc. Control Cancer (physician chairman, Linn Co, Iowa); Am. Med. Asn; fel. Col. Physicians; Pub. Health Asn; Iowa Clin. Med. Soc; Iowa Acad. Clinical pathology; internal medicine.

Mulvania, Prof. Maurice, Southern College, Lakeland, Fla. *Botany, Bacteriology.* Princeton, Mo, Oct. 4, 78. B.S, West. Col. (Iowa), 06; M.S, Tennessee, 12; Ph.D, Wisconsin, 25. Prof. biol, West. Col. (Iowa), 02–06; instr. bacter, Tennessee, 08–15, asst. prof, 15–18, assoc. prof, 18–23; instr. hort, Wisconsin, 23–25; *prof. biol, Southern Col. (Fla), 25–* Plant pathology, taxonomy and ecology.

Mumford, A(lbert) R(ussell), 107 Palisade Ave, Bogota, N. J. *Mechanical engineering.* Boston, Mass, July 13, 95. B.S, Mass. Inst. Tech, 18. Junior engineer, U. S. Shipping Board, 18–19; asst. fuel engineer, U. S. Bur. Mines, 19–23; research and design engineer, N. Y. Steam Corp, 23–38; assoc. director research, Consolidated Edison Co, 38–42; *develop. engineer, Combustion Eng. Co, 42–* U.S.N, 18. A.A; Mech. Eng. Combustion of fuel; power plant design; water treatment; corrosion.

Mumford, E(dward) P(hilpot), Stanford University, Calif. *Biology.* Chorlton, Eng, March 7, 02. Scholar, Cambridge, 24–26; B.Sc, Victoria, 24, M.Sc, 29; Commonwealth Fund fellow, California, 26–28, A.M, 28. Director, Pacific Entom. Surv, 28–38; mem. staff, Columbia, 38–39; *research assoc. biol, Stanford, 39–* Visiting Leverhulme research fellow, Oxford, 35–37. London Zool. Soc; fel. Royal Entom. Soc; Hawaiian Entom. Soc. Faunal distribution with particular reference to oceanic islands; Pacific islands.

Mumford, Dr. F(rederick) B(lackmar), 1094 S. Orange Ave, Sarasota, Fla. *Agriculture.* Moscow, Mich, May 28, 68. B.S, Mich. State Col, 91, M.S, 93, D.Agr, 27; Leipzig, 00; Zurich, 01; D.Agr, Nebraska, 27. Asst, Exp. Sta, Mich. State Col, 91–95, asst. prof. agr, 93–95; prof, *Missouri,* 95–04, acting dean col. agr. and acting director, Exp. Sta, 03–05, prof. *animal husbandry,* 05–38, *emer. prof, 38–,* dean *col. agr,* 09–38, *emer. dean, 38–,* director, Exp. Sta, 09–38. Chairman, Council Defense, Food Admin, Mo, 17–19; State Planning Board, 34–35. A.A. (councilor, 16); Asn. Land-Grant Cols. and Univs. (exec. cmt, 20–); Soc. Animal Production; Mo. Acad. Animal husbandry.

Munch, Dr. James C(lyde), 52 E. Greenwood Ave, Lansdowne, Pa. *Pharmacology.* Farmer City, Ill, Feb. 20, 96. B.S, Ill. Wesleyan, 15, M.S, 16; Ph.D, George Washington, 24. Instr. biochem. and toxicol, Ill. Wesleyan, 14–16; med. dept, Louisville, 16–17; chemist and pharmacologist, bur. chem, U. S. Dept. Agr, 17–18, 19–27, mem. and later director pharmacol. lab, 21–28, *senior pharmacologist,* bur. biol. surv, 28–40; *fish and wildlife service, U. S. Dept. Interior, 40–; prof. physiol. and pharmacol, col. pharmacy, Temple, 32–* Pharmacologist, Sharp and Dohme, 28–36; John Wyeth, 36–38; consultant pharmacologist, 38– Auxiliary mem. revision cmt, U. S. Pharmacopoeia, 20–40; Nat. Formulary VI, Recipe Book II and III. Kiwanis medal of honor. Chairman cmt. on pharmacol. and bioassays, Nat. Conf. on Pharmaceut. Research; mem, Int. Physiol. Cong, 29, 32, 35. U.S.A, 18–19. A.A; Pharmaceut. Asn. (2nd v. pres, 36, chairman, cmt. on pharmacol. and bioassays, 28–39, pres, Phila. branch, 31); Chem. Soc; Electrochem. Soc; Asn. Study Int. Secretions; Asn. Mil. Surg; Statist. Asn; Franklin Inst; Pa. Acad; Pa. Pharmaceut. Asn. (chairman, sect. queries and papers); Physiol. Soc. Phila; Md. Pharmaceut. Asn; Md. Acad; Del. Pharmaceut. Soc. Bioassays; mydriatics and miotics; aconite; digitalis group; ergot; propadrin; acylaniline anesthetics; capsicums; anthelmintics; saliva tests; morphine; heroin; opium; alcohols and esters; pituitary extract; vitamins; rodenticides; thallium; quinine; strychnine; red squill; acetanilid; viburnum; statistical methods; vaponefrin; antidotes.

Munch, Dr. Ralph H(oward), 303 Planthurst Road, Webster Groves, Mo. *Physical chemistry.* Lafayette, Ind, May 5, 11. B.S, North Carolina, 31, M.S, 32; Ph.D, Northwestern, 36. In charge chem. sect, A Century of Progress, 35; asst, Rockefeller Foundation, Chicago, 35–37; *research chemist, Monsanto Chem. Co, St. Louis, 37–* Chem. Soc. Nature of calomel vapor; high intensity hydrogen discharge tubes; absorption spectra of biologically important compounds.

Muncie, Dr. J(esse) H(oward), 656 Sunset Lane, East Lansing, Mich. *Plant pathology.* Middlebury, Ind, July 3, 90. A.B, Wabash Col, 12; A.M, Cornell, 16; Ph.D, Iowa State Col, 25. Asst. botanist, Ohio Exp. Sta, 13; asst. and res. asst, Exp. Sta, Mich. State Col, 13–17; path. inspector, plant disease surv, bur. plant indust, U. S. Dept. Agr, 17–18; asst. prof. plant path, Pa. State Col, 18–21; asst. pathologist, barberry eradication, U. S. Dept. Agr, 22–24; investigator, Crop Protection Inst, 24–25; agent, U. S. Dept. Agr, 25–29; *res. prof. and exten. plant pathologist, Mich. State Col, 29–* Phytopath. Soc; Potato Asn. Diseases of nursery stock; potatoes; cereals; beans; tomatoes; crown gall.

Muncie, Dr. Wendell (Stanley), Phipps Psychiatric Clinic, Johns Hopkins University, Baltimore, Md. *Psychiatry, Neurology.* Paris, Ill, Dec. 7, 97. B.S, Illinois, 21; M.D, Hopkins, 27. Intern, Henry Ford Hosp, Detroit, 27–28; Am. Hosp, Paris, 28–29; asst. and assoc. psychiat, *Phipps Psychiat. Clinic, Hopkins,* 29–36, *assoc. prof, 36–* Rockefeller fellow, Europe, 34–35. Fel. Psychiat. Asn; Col. Physicians; Psychopath. Asn; assoc. Psychol. Asn; Nat. Cmt. Mental Hygiene; N. Y. Acad; Md. Psychiat. Asn; hon. mem. Omaha Mid-West Clin. Soc. Neuroanatomy and neuropathology; clinical psychiatry; psychiatric education.

Munday, Dr. J(ohn) C(lingman), 304 Maple Place, Cranford, N. J. *Chemistry.* Keithville, La, June 17, 07. B.S, Centenary Col, 27; M.S, Syracuse, 29; Ph.D, Columbia, 34. Teacher, high sch, La, 27–28; instr. chem, Syracuse, 28–29; asst, Columbia, 29–30; chemist, State Motor Fuel Lab, La, 35; *chem. engineer,* Standard Oil Co. of La, 35–40; *Standard Oil Develop. Co, 40–* Chem. Soc. Catalytic petroleum processes.

Mundel, Prof. Marvin Everett, 422 Harrison St, West Lafayette, Ind. *Engineering.* New York, N. Y, April 20, 16. B.S, N. Y. Univ, 36; M.S, Iowa, 38, Ph.D, 39. Asst. mech. eng, Iowa, 36–39, research engineer and instr. indust. eng, 39; indust. eng, Tung-Sol Lamp Works, Newark, N. J, 39–40; *asst. prof.* gen. eng, Bradley Polytech, 40–42; *indust. eng, Purdue, 42–* Motion and time study; testing for skill; hand motions and rhythm in factory work.

Mundie, Prof. J(oseph) R(yland), King College, Bristol, Tenn. *Biology.* King and Queen Co, Va, Nov. 8, 99. B.S, M.S, Virginia, 25, Ph.D, 27. Instr. biol, Virginia, 24–27; prof, Okla. Baptist Univ, 27–37; special instr. *bot,* Oklahoma, 37–38; *prof, King Col, 38–* Summers, instr, Col. of William and Mary, 27–29. A.A. Botany; zoology.

Mundinger, F(rederick) G(eorge), 505 Washington St, Geneva, N. Y. *Entomology.* Utica, N. Y, April 7, 91. B.S, Syracuse, 14, M.S, 22. Instr, N. Y. State Col. Forestry, Syracuse, 21–22, zool, univ, 22–23; asst. *in research, N. Y. Exp. Sta, Geneva,* 23, *assoc, 23–* Economic entomology.

Munger, Prof. H(enry) M(artin), Cornell University, Ithaca, N. Y. *Vegetable breeding.* Ames, Iowa, May 10, 16. B.S, Cornell, 36, Ph.D, 41; M.S, Ohio State, 37. Instr. and asst. prof. hort, Wisconsin, 41–42; *asst. prof. plant breeding and veg. crops, Cornell, 42–* A.A; Soc. Hort. Sci; Soc. Agron.

Munger, Thornton T(aft), U. S. Forest Service, Portland, Oregon. *Forestry.* North Adams, Mass, Oct. 3, 83. A.B, Yale, 05, M.F, 08; hon. Sc.D, Oregon State Col, 38. Forest asst, forest examiner and silviculturist, *U. S. Forest Service,* 08–24, director, *Pacific Northwest Forest Exp. Sta,* 24–38, *prin. silviculturist, 38–* Lecturer, forest sch, Yale, 16; Washington (Seattle); Oregon State Col. A.A; Soc. Foresters; Ecol. Soc. Silviculture; forest economics; forest mensuration.

Munier, Dr. J(ohn) H(ammond), 43 W. Fifth St, Corning, N. Y. *Physics.* San Diego, Calif, June 19, 08. A.B, California at Los Angeles, 34; Ph.D, Hopkins, 40. *Research physicist, Corning Glass Works, 39–* Acoustics; absorption of sound in gases; x-rays; principal emission lines of M series of tungsten; K absorption edges of aluminum and magnesium.

Munn, Prof. Lottie E, Lake Erie College, Painesville, Ohio. *Chemistry.* North Eaton, Ohio, June 15, 97. A.B, Baldwin-Wallace Col, 17; M.S, Illinois, 22; fellow, 23–24, Ph.D, 24. Instr. *chem,* Baldwin-Wallace Col, 17–20; asst, Illinois, 20–23; *prof, Lake Erie Col, 24–* A.A; Chem. Soc; Inst. Chem; Ohio Acad. Bacteriology; tellurium compounds.

Munn, Prof. M(ancel) T(hornton), New York Agricultural Experiment Station, Geneva, N. Y. *Botany.* Plainwell, Mich, Jan. 31, 87. B.S, Mich. State Col, 12, fellow, 15–16, M.S, 17. Asst. in research, *N. Y. Exp. Sta, Geneva,* 12–18, asst. *bot,* 18–29, assoc, 29–36, *prof, 36–, head div. seed investigations.* A.A; Phytopath. Soc; Asn. Seed Anal. (pres, 20). Phytopathology; seed analysis; germination.

Munn, Prof. Norman L(eslie), Vanderbilt University, Nashville, Tenn. *Psychology.* Adelaide, S. Australia, Nov. 12, 02. B.S, Springfield, 27; A.M, Clark, 28, fellow, 28–29, Ph.D, 30. Asst. *psychol,* Clark, 28–29; asst. prof, Pittsburgh, 29–36; *prof,* George Peabody Col, 36–38; *Vanderbilt, 38–* A.A; Psychol. Asn; Genetic Asn; Midwest. Psychol. Asn; South. Soc. Philos. and Psychol. (sec'y-treas, 40–42); Australasian Soc. Psychol. and Philos. Experimental and social psychology; animal behavior; learning and discrimination.

Munn, Prof. W(illiam) C(hester), Agricultural and Mechanical College, Magnolia, Ark. *Biology.* Prescott, Ark, Nov. 30, 93. A.B, Ouachita Col, 16; M.S, Iowa, 31. Head dept. science, Ark. Col, 19–20; *head dept. biol,* Ouachita Col, 20–26; *Ark. State Agr. and Mech. Col, 26–* A.A; Ark. Acad. (pres, 37). Taxonomy.

Munn, W(illiam) Faltoute, 75 Walker Road, West Orange, N. J. *Chemistry, Microscopy.* East Orange, N. J, Jan. 20, 91. Columbia, 12–13. Chemist, W. Va. Pulp and Paper Co, 14–16; chief chem. and elec. engineer, Elec. Alloy Co, 17; chemist, Gen. Chem. Co, 18; Lederle Labs, 18–19; chief chemist, Colura Pictures Corp, 20; *research chemist, private lab, 21–* A.A; Radio Club; fel. N. Y. Micros. Soc. (v. pres); N. Y. Acad; fel. Royal Micros. Soc. Photomicrography.

Munns, E(dward) N(orfolk), U. S. Forest Service, Washington, D. C. *Forestry.* St. Louis, Mo, Jan. 13, 89. M.S, Michigan. Director, Converse Exp. Sta, U. S. Forest Service, 12–18, forest examiner, 18–21; asst. state forester, Calif, 21–23; *chief* office forest exp. stations, *U. S. Forest Service,* 23–37, *div. forest influences, 37–* Flood coordinating cmt, U. S. Dept. Agr, 37–43. A.A; Soc. Foresters; Ecol. Soc; West. Soc. Nat; Int. Union Forest Research Organizations (v. pres, 29–35, exec. council, 35–) Meteorology; forest ecology; silvics; biology; geology; hydrology.

Munro, Dr. F(erdinand) L(utz), Jefferson Medical College, Philadelphia, Pa. *Biochemistry, Hematology.* London, Eng, May 9, 07. B.A, British Columbia, 28, M.A, 30; Ph.D, McGill, 32. Chemist, div. bot, Can. Dept. Agr, 32–34; clin. research chemist, Hendry-Connell Research Foundation, 36–37; chemist, Sharp and Dohme, 37–38; biochemist, S. S. Fels Fund, med. research lab, 38–41; *research chemist, div. hematol, Charlotte Drake Cardeza Foundation, Jefferson Med. Col, 41–* Blood coagulation; shock therapy.

Munro, Dr. George C(olin), Kansas State College, Manhattan, Kans. *Mathematics.* Wolfville, N. S, Can, July 20, 07. B.S, Acadia, 27; Ph.D, Michigan, 30. Instr. *math,* Michigan, 27–30; Buffalo, 30–32; Jordan Col, 32–35; Wentworth Mil. Acad, 35–37; from instr. to *assoc. prof, Kans. State Col, 37–* Differential and difference equations.

Munro, Prof. George W(esley), 202 Waldron St, West Lafayette, Ind. *Engineering.* Grand Rapids, Mich, Feb. 15, 72. B.S, Purdue, 97, E.E, 98. Mech. eng. sch, Purdue, 06–42, prof. thermodyn, 21–42; *retired.* A.A; Mech. Eng. Teaching methods in engineering subjects.

Munro, Dr. J(onathan) Alex(ander), North Dakota Agricultural College, Fargo, N. Dak. *Economic entomology.* Embro, Ont, Can, Jan. 10, 96. B.S.A, Ont. Agr. Col, 22; M.S, Kans. State Col, 25; Ph.D, Cornell, 42. Instr. beekeeping and hort. entom, Kans. State Col, 23–25; N. Dak. state entomologist, 26; acting head instr, *N. Dak. Col,* 26–28, assoc. prof. *econ. entom,* 29–35, *prof, 35–, head dept, 28–* Sec'y, Am. Honey Producers' League, 29–31; director, Am. Honey Inst, 30–31; collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 27– Ed, 'Am. Honey Producers,' 29. Asn. Econ. Entom; Entom. Soc; N. Dak. Beekeepers Asn. (sec'y, 26–). Insect pests of trees and garden; tillage as related to grasshopper control; viscosity and thixotropy of honey.

Munro, Prof. L(loyd) A(lexander), Queen's University, Kingston, Ont, Can. *Chemistry.* Pictou Co, N. S, Jan. 10, 99. B.A, Dalhousie, 21, M.A, 22; Ph.D, McGill, 25. Asst. prof. *chem,* Manitoba, 25–29; *Queen's (Can),* 29–38, *assoc. prof, 38–* Research chemist, Hendry-Connell Research Foundation. Fel. Can. Inst. Chem. (councilor); N. S. Inst. Sci. Colloid and analytical chemistry; hydrous oxides; adsorption; catalysis; cancer research.

Munro, Dr. Muriel (Estelle) P(latt), Jefferson Medical College, Philadelphia, Pa. *Biochemistry.* Tamaroa, Ill, Aug. 30, 05. A.B, Smith Col, 28; M.Sc, McGill, 29, Ph.D, 32. Research chemist, Biochem. Research Foundation, Franklin Inst, 32–36; biochemist, Hendry-Connell Research Foundation, 36–37; *research chemist,* Biochem. Research Foundation, Franklin Inst, 37–42; *div. hematol, Charlotte Drake Cardeza Foundation, Jefferson Med. Col, 42–* Carbohydrate metabolism; chemistry of cancer; fat metabolism.

Munro, Dr. Wendell P(hilip), Bound Brook, N. J. *Chemistry.* Marshalltown, Iowa, March 25, 08. B.S, Iowa, 29, M.S, 30; A.M, Princeton, 32, du Pont fellow, 32–33, Ph.D, 33. Research chemist, Calco Chem. Co, 33–42; lieut, *Chem. Warfare Service, U. S. Army,* 39–42, *capt, 42–* Summers, asst, Am. Petrol. Inst, 31; hydraul. research, C.Eng, 30. Chem. Eng; Chem. Soc; fel. Inst. Chem. Adsorptive charcoals; catalysis; kinetics of hydrocarbon oxidation; dye intermediates.

Munroe, Prof. A(lexander) R(ussell), University Hospital, Edmonton, Alta, Can. *Surgery.* Woodstock, Ont, April 25, 79. M.D, McGill, 06. Instr. *surg, Alberta,* 22–24, asst. prof, 24–29, prof. and head dept, 29–39, *emer. prof, 39–* Fel. Col. Surg; fel. Royal Col. Surg. Can; Can. Med. Asn; Alta. Med. Asn; Edmonton Acad. Med.

Munsell, Dr. Hazel E, School of Tropical Medicine, San Juan, P. R. *Chemistry.* Monson, Mass, April 9, 91. A.B, Mt. Holyoke Col, 14; A.M, Columbia, 21, Ph.D, 24. Instr, high sch, N. Y, 14–17; lab. asst, Mt. Holyoke Col, 17–18; chem. and physics, Pratt Inst, 18–20; research chemist, Columbia, and N. Y. Asn. Improving Condition of Poor, 20–24; in charge nutrition studies sect, bur. home econ, U. S. Dept. Agr, 24–38, nutrition chemist, 38–42; *assoc. chem, Columbia Sch. Trop. Med, Puerto Rico, 42–* A.A; Dietetic Asn; Chem. Soc; Home Econ. Asn; Inst. Nutrition. Vitamins; chemistry of nutrition.

Munshower, Prof. C(arl) W(allace), Colgate University, Hamilton, N. Y. *Mathematics.* Bridgeport, Pa, May 22, 02. B.S, Gettysburg Col, 24, M.S, 26; Ph.D, N. Y. Univ, 38. Instr. *math,* Gettysburg Col, 24–26; Buffalo, 26–28; *Colgate,* 28–30, *asst. prof, 30–* Summers, lecturer, N. Y. Univ. Math. Soc; Math. Asn. (sec'y, N. Y. sect, 40–); Council Teachers Math. Function theory.

Munson, Brig. Gen. Edward L, 631 Whitney Ave, New Haven, Conn. *Hygiene.* New Haven, Conn, Dec. 27, 68. A.B, Yale, 90, M.D, 92, A.M, 93. Asst. to surgeon gen, U. S. Army, 99–02; acting director health, P. I, 02–04; adviser health, Philippine govt, 13–14, 22–24; instr. hygiene, Army Med. Sch, 01–02; Army Service Sch, 08–12; prof. hygiene, George Washington, 15–16; asst. to surgeon gen, U. S. Army, 16–18, in charge all training of med. dept. personnel, 17–18, chief morale branch, gen. staff, 18, commander, Camp Greenleaf, Ga, 18; in charge med. service, U. S. Relief Cmn, Japan earthquake, 23; all grades med. dept, *U. S. Army,* to *brig. gen, retired;* prof. *prev. med, med. sch, California,* 32–40, *emer. prof, 40–* D.S. medal. Companion Order of the Bath; Order of the Red Cross, Japan. Am. Med. Asn; Asn. Mil. Surg; fel. Col. Surg. General and military hygiene; medico-military organization and tactics.

Munson, Dr. Grace E(sther), 228 LaSalle St, Chicago, Ill. *Psychology.* Orleans, Nebr, Oct. 17, 83. A.B, Nebr. State Nor. Sch, Peru, 05, Nebraska, 11; A.M, Wellesley Col, 12, Wellesley Alumnae fellow, 12; Ph.D, Nebraska, 16. Teacher, rural schs, Nebr, 99–03; teacher, asst. prin. and prin, high sch, Nebr, 05–09; instr, dept. educ, Nebraska, 12–18; clin. psychologist, bur. child study, Board Educ, *Chicago, Ill,* 18–31, prin. exp. sch, 31, 32, 34; instr, Chicago Nor. Col, 33–34; *director bur. child study, Board Educ, 35–* A.A; assoc. Psychol. Asn; fel. Asn. Mental Deficiency; fel. Asn. Applied Psychol; Midwest. Psychol. Asn; Ill. Asn. Applied Psychol; Chicago Psychol. Club (pres, 30). Clinical psychology; experimental education; interpretation of Rousseau's 'Emile' in the light of modern child study; educational adjustment and guidance; administration of individual techniques in learning; manual for self appraisal and careers course.

Munson, L(ewis) S(torms), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Corey, Mich, March 9, 73. B.S, Mich. State Col, 97. Asst. chem, Exp. Sta, Mich. State Col, 97–99; chief contracts lab, bur. chem, U. S. Dept. Agr, 99–06, chief ink-making div, bur. engraving and printing, 06–07; chemist, Ault and Wiborg Co, 07–18; supt. production, dye works, E. I. du Pont de Nemours and Co, 18–29, asst. manager, 29–30, manager, 30–41, adviser, dyestuffs div, org. chem. dept, 41–43; *retired.* Chem. Soc; Chem. Eng. Composition and adulteration of foods.

Munson, Prof. T(hurmond) A(rmour), Agricultural and Mechanical College of Texas, College Station, Texas. *Civil engineering.* Columbus, Texas, June 15, 89. B.S, Agr. and Mech. Col. Texas, 10; C.E, Iowa State Col, 24, M.S, 25. Consulting civil engineer, Texas, 10–20; asst. prof. and assoc. prof. civil eng. and *prof. hydraul. eng, dept. civil eng, Agr. and Mech. Col. Texas, 20–* Design and consulting field engineer, 20– Civil Eng. Hydraulic engineering; engineering economics and finance.

Muntwyler, Prof. E(dward), Western Reserve University School of Medicine, Cleveland, Ohio. *Biochemistry.* Denver, Colo, July 18, 03. A.B, Denver, 24; M.S, Iowa, 27, Ph.D, 28. Asst. biochem, Iowa, 24–27; demonstrator, *sch. med, Western Reserve,* 27–28, instr, 28–29, senior instr, 29–33, asst. prof, 33–35, assoc. prof, 35–43, *prof. exp. biochem, 43–* Soc. Biol. Chem; Soc. Exp. Biol. Hydrogen ion concentration of blood; acid-base balance of blood in normal and pathological conditions; electrolyte and water equilibria of blood and tissues.

Munyan, Prof. Arthur C(laude), Emory University, Ga. *Economic geology, Paleontology.* Lexington, Ky, May 31, 08. B.S, Kentucky, 30; A.M, Cincinnati, 31; Chicago, 41. Junior geologist, U. S. Geol. Surv, 34–36; asst. state geologist, Ky, 36–37; Ga, 37–41; *asst. prof. geol, Emory, 41–* Asn. Petrol. Geol; Min. and Metal. Eng. Coals of Pike County, Kentucky; clays of southeastern United States; sedimentary kaolins of Georgia; stratigraphy of Georgia coastal plain; stratigraphy of Tuscaloosa formation; stratigraphy of the Georgia Ordovician.

Munz, Prof. Philip A(lexander), Pomona College, Claremont, Calif. **Botany.* Saratoga, Wyo, April 1, 92. A.B, Denver, 13, A.M, 14; Ph.D, Cornell, 17. Asst. biol, Denver, 13–14; Cornell, 14–15, *bot,* 16–17; asst. prof, *Pomona Col,* 17–23, assoc. prof, 23–26, *prof, 26–* Board councilors, Rancho Santa Ana Bot. Garden. Guggenheim Mem. Foundation fellow, 38–39. Summer, Cornell biol. exped, Southwest, 17. A.A; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club; Fern Soc; New Eng. Bot. Club. Venation of Zygoptera; Anura; taxonomy of various groups of western plants, especially Onagraceae; Nemacladus; Antirrhinum of the new world; monographic treatment of Oenothera and Onagraceae of New World; plants of Southern California.

Murata, K(iguma) J(ack), U. S. Geological Survey, Washington, D. C. *Geochemistry.* Marysville, Calif, Dec. 29, 09. B.S, George Washington, 36, 37–38. Junior sci. aide paleobot, U. S. Nat. Museum, 31–35; junior chemist, *chem. lab, U. S. Geol. Surv,* 36–40, *asst. chemist, 40–* Chem. Soc; Miner. Soc; Geol. Soc. Wash. (treas, 42–). Exchangeable cations in river and ocean muds; alteration of volcanic ash; geochemistry of western hot springs; internal structure and chemical properties of silicates.

Murch, Prof. Leslie F(erguson), Dartmouth College, Hanover, N. H. *Physics.* Hampden, Maine, March 18, 93. A.B, Colby Col, 15; A.M, Dartmouth Col, 22. Instr. *physics, Dartmouth Col,* 19–24, asst. prof, 24–35, *prof, 35–* Alumni trustee, Colby Col, 39– Asn. Physics Teachers; Physical Soc. Elementary college physics.

Murchison, Lieut. Col. John T(aynton), Baytown Ordnance Works, Baytown, Texas. *Organic chemistry.* Ft. Niagara, N. Y, Feb. 7, 06. A.B, Nebraska, 27; A.M, Texas, 30, Ph.D, 33. Asst. *chem,* Nebraska, 27–28; tutor, Texas, 28–33; *head dept, N. Texas Agr. Col, 33–;* major, *Ordnance Dept, U. S. Army,* 41–42, *lieut. col, 42–* A.A; Chem. Soc; Inst. Chem. Derivatives of halogenated ethers.

Murdoch, Prof. Joseph, University of California at Los Angeles, Los Angeles, Calif. *Geology.* Washington, D. C, Feb. 19, 90. A.B, Harvard, 11, M.S, 12, Ph.D, 15. Asst, secondary enrichment investigation, 13–15; Russell and Co, 15–28; instr. *geol, California at Los Angeles,* 28–31, asst. prof, 31–39, *assoc. prof, 39–* Fel. Geol. Soc; fel. Miner. Soc. Microscopical determination of opaque minerals; crystallography.

Murdoch, Dr. Katharine, 61 W. Ninth St, New York 11, N. Y. *Educational psychology.* Pittsburgh, Pa, Jan. 15, 89. B.S, Columbia, 12, A.M, 13, Ph.D, 18. Asst. educ. psychol, Teachers Col, Columbia, 12–13; instr. psychol. and educ, Carnegie Inst. Tech, 13–16; psychol, N. Y. Sch. Social Work, 18–20; race research, schs, Honolulu, 20–24; psychologist, Vocational Service for Juniors, 25–27; *consulting psychologist, 27–* Instr, exten. dept, Columbia, 17–20, asst, 25, lecturer, Teachers Col, 19; Nurses Training Schs, New York, 17–20; psychologist, Friends Sch, Brooklyn, 26–27. Summer, psychologist, Nat. Cmt. Mental Hygiene, Texas Hygiene Surv, 24. A.A; Psychol. Asn; Asn. Applied Psychol. Race psychology; scientific measurement in sewing; achievement quotients; correlation of mental and physical measures; mental hygiene; attitudes regarding the war.

Murdoch, Dr. L(ester) H(ughes), 1101 S. West End Ave, Oklahoma City, Okla. *Meteorology, Medicine.* Peoria, Ill, Jan. 19, 69. Kans. State Nor. Sch, 87–90; M.D, George Washington, 06. Sect. director, U. S. Weather Bur, Salt Lake City, 99–02; Galveston, 03–04; *practising physician, 08–* Am. Med. Asn. Meteorology; fluctuations in water level of Great Salt Lake; precipitation cycles.

Murdock, Dr. B(ennet) B(ronson), 24 Collinwood Road, Maplewood, N. J. *Statistics.* Meriden, Conn, Jan. 15, 01. A.B, Yale, 23, A.M, 31, Ph.D, 34. Mem. statistical research dept. and later *asst. mathematician, Prudential Life Ins. Co, 34–* Assoc. Actuarial Soc; assoc. Inst. Actuaries. Mathematical statistics; curve fitting.

Murdock, Prof. Carleton C(hase), 319 Wait Ave, Ithaca, N. Y. *Physics.* Cooperstown, N. Y, July 29, 84. B.S, Colgate, 07; A.M, Cornell, 10, Pres. White fellow, 13–14, Ph.D, 19. Tutor *physics,* Maine, 07–08; instr, *Cornell,* 09–13, 14–19, asst. prof, 19–32, *prof, 32–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; N. Y. Acad. Photoactive electrolytic cells; electrolytic polarization; x-ray diffraction by crystals; resolving power of colloidal crystals for x-rays.

Murdock, Prof. George Peter, 960 Ridge Road, Hamden, Conn. *Anthropology.* Meriden, Conn, May 11, 97. A.B, Yale, 19, Ph.D, 25; Harvard, 19–20. Instr. sociol, Maryland, 25–27; asst. prof, *Yale,* 28–34, assoc. prof. ethnol, 34–39, *prof. anthrop, 39–* Am. Anthrop. Asn. rep, Nat. Research Council, 42– A.A; Anthrop. Asn. (councilor); fel. Am. Geog. Soc; Sociol. Soc. Ethnology; sociology; social organization; culture and personality.

Murdock, Harold R(ussell), 192 Lakeshore Drive, Asheville, N. C. *Chemistry.* Taunton, Mass, Aug. 30, 90. B.S, Vermont, 12. Chemist, Gen. Chem. Co, 12–13; instr. chem, Vermont, 13–14; research director, Rubber Regenerating Co, 14–17; Standard Aniline Products, 18; chief chemist, Am. Lead Pencil Co, 18–28; *director research, pulp div, Champion Paper and Fibre Co, 28–; v. pres. and gen. manager, Hamilton Labs, 42–* Chemist, U. S. Rubber Co, 14–17. C.W.S, U.S.A, 18. Chem. Eng; Asn. Pulp and Paper Indust. (v. pres); Chem. Soc; Can. Pulp and Paper Indust; Paper Makers Asn. Gt. Britain and Ireland. Pulp and paper industry.

Murdock, H(arvey) E(llison), 404 N. Seventh Ave, Bozeman, Mont. *Agricultural engineering.* Carroll, Ohio, Oct. 3, 79. B.S, Colorado, 06, M.E, 08, C.E, 11. Instr. theoret. and applied mech, Illinois, 06–12; irrig. engineer, U. S. Dept. Agr, 13–14; agr. engineer and prof. agr. eng, Mont. State Col, 14–41. Summers, levelman, Rocky Mt. Ry, 06; maintenance of way, South. Pacific Ry, 07; eng. exp. sta, Illinois, 08, 09. Agr. Eng. (1st v. pres, 17). Strength of materials; irrigation; drainage; sewage disposal; timber treatment; tillage; farm power.

Murdough, Prof. J(ames) H(arold), Texas Technological College, Lubbock, Texas. *Civil engineering.* Boston, Mass, July 28, 93. B.S, Mass. Inst. Tech, 16; M.S.E, Michigan, 30. *Prof. civil eng. and head dept, Texas Tech. Col.* Civil Eng; Eng. Educ. Structural analysis.

Murer, H(arvey) K(enneth), General Foods Corp, 11th and Hudson St, Hoboken, N. J. *Chemistry.* Tacoma, Wash, May 23, 11. B.S, State Col. Wash, 33; Harvard, 36–37; Northwestern, 39. *Research chemist,* dept. dairy husbandry, State Col. Wash, 34–39; *food technol. div, Gen. Foods Corp, 39–* Chem. Soc. Nutritive value and digestibility of forage crops; vitamin D dairy products; vitamin A and carotene content of feeds and dairy products; artificial dehydration of forage crops; foods products.

Murie, Dr. Adolph, Jackson, Wyo. *Mammalogy.* Moorhead, Minn, 99. A.B, Concordia Col, 25; M.S, Michigan, 28, Ph.D, 29. Field asst, bur. biol. surv, U. S. Dept. Agr, 22–23; instr, high sch, Mont, 25–26; asst. curator mammals, museum zool, Michigan, 29–34; field investigator, wildlife div, Nat. Park Service, 34–39; *field biologist, fish and wildlife service, U. S. Dept. Interior, 39–* Summer, field asst, bur. biol. surv, U. S. Dept. Agr, 28. Soc. Mammal; Ecol. Soc. Life histories and distribution of birds and mammals.

Murie, O(laus) J(ohan), U. S. Fish and Wildlife Service, Jackson, Wyo. *Biology.* Moorhead, Minn, March 1, 89. A.B, Pacific, 12; M.S, Michigan, 27. Field asst, Oregon Game Cmn, 12–14; field naturalist, Hudson Bay, Carnegie Museum, 14–15, curator mammals, 15–16; field naturalist, Labrador, 17; *biologist, fish and wildlife service, U. S. Dept. Interior, 20–* 2nd lieut, A.S, 17–19. Soc. Mammal; Ecol. Soc; Ornith. Union; Forestry Asn; Wildlife Soc; Cooper Ornith. Club; Biol. Soc. Wash; N. Y. Zool. Soc. Mammalogy; ornithology; life histories of large game animals including caribou of Alaska and elk of Wyoming.

Murlin, Prof. J(ohn) R(aymond), University of Rochester, Rochester, N. Y. ***²***Physiology, Nutrition.* Auglaize Co, Ohio, April 30, 74. B.S, Ohio Wesleyan, 97, A.M, 99, hon. Sc.D, 18; fellow, Pennsylvania, 99–01, Ph.D, 01; hon. Sc.D, Ursinus Col, 28. Prof. biol, Ursinus Col, 01–03; instr. physiol, Univ. and Bellevue Hosp. Med. Col, 03–06, asst. prof, 06–09; med. col, Cornell, 09–17; *prof. physiol. and director dept. vital econ, Rochester, 17–* Chairman cmt. on food and nutrition, Nat. Research Council, 19–22, mem, 41– Ed, 'Jour. Nutrition,' 28–39. Mem, White House Conf. Child Health and Develop, 32; int. conf. nutrition, health div, League of Nations, Berlin, 32. Lieut. col, Sanit.C, and director div. food and nutrition, med. dept, U.S.A, 17–19, col, Sanit.R.C, 19–29. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Asn. Study Int. Secretions; Chem. Soc; Harvey Soc. (lecturer, 17); Inst. Nutrition (pres, 34–36); Philos. Soc. Metabolism of pregnancy, of mother and child before and after birth; metabolism after pancreatectomy; influence of fat on heat production; food consumption in training camps; energy metabolism in newborn infants; physiological action of insulin; absorption of insulin from the alimentary tract; specific dynamic action of foods and muscular efficiency; gluconeogenesis from fat; human calorimetry; humoral control of intestinal secretion; biological value of food proteins.

Murnaghan, Prof. Francis D(ominic), Johns Hopkins University, Baltimore, Md. ***⁴***Mathematics.* County Tyrone, Ireland, Aug. 4, 93. B.A, National Univ, Ireland, 13, M.A, 14, D.Sc, 40; Ph.D, Hopkins, 16. Instr. math, Rice Inst, 16–18; assoc. *applied math, Hopkins,* 18–21, assoc. prof, 21–28, *prof, 28–* Nat. Acad; A.A. (asst. sec'y, 24–26); Math. Soc; Math. Asn; Philos. Soc; Physical Soc; London Math. Soc; Royal Irish Acad; Edinburgh Math. Soc. Applied mathematics; aerodynamics; group theory; elasticity.

Murneek, Prof. A(ndrew) E(dward), University of Missouri, Columbia, Mo. *Plant physiology.* Talsen, Latvia, May 21, 88. B.S, Oregon State Col, 17; fellow, Iowa State Col, 17–18, M.S, 18; Ph.D, Wisconsin, 25. Asst. *hort. research,* Oregon State Col, 18–19, asst. prof, 19–23; research assoc, Wisconsin, 23–25; *assoc. prof, Missouri, 25–* A.A. (v. pres. and chairman, O, 42); Soc. Plant Physiol. (v. pres, 27, sec'y-treas, 33–35, pres, 35); Soc. Hort. Sci. (chairman sectional groups, 31); Soc. Nat; Bot. Soc; Mo. Acad. Nutrition; physiology of reproduction of plants; photoperiodism; fruit pollination and sterility; chemical methods; biennial fruiting; plant hormones.

Murphree, E(ger) V(aughan), 1 Crest Acres Court, Summit, N. J. *Petroleum engineering.* Bayonne, N. J, Nov. 3, 98. B.S, Kentucky, 20, M.S, 21. Instr, Mass. Inst. Tech, 22–24; chem engineer, Solvay Process Co, 24–30; Standard Oil Develop. Co, 30–32; director research, Standard Oil Co. of La, 32–34; *v. pres. in charge research and develop, Standard Oil Develop. Co, 34–* Chem. Soc. Petroleum refining; thermodynamics; distillation; heat transfer.

Murphy, Dr. Donald W(illiam), Bethlehem Steel Co, Bethlehem, Pa. *Metallurgy.* Chicago, Ill, Feb. 13, 06. B.S, Detroit, 28, M.S, 29; Am. Gas Asn. fellow, Michigan, 28–31, Sc.D, 32. Research assoc. eng. research, Michigan; *research engineer, Bethlehem Steel Co.* Min. and Metal. Eng; Soc. Metals. Scaling of steel; steel making.

Murphy, Dr. Edgar J(ackson), 70 Linn Ave, Yonkers, N. Y. *Physics.* Luthersville, Ga, Nov. 25, 01. B.S, Iowa State Col, 27, M.S, 28; Ph.D, N. Y. Univ, 34. Asst. *physics,* Iowa State Col, 27–28; *instr,* Ala. Polytech, 29–30; N. Y. Univ, 30–40; *Col. City of N. Y, 40–; U. S. Army, 41–* Physical Soc. Polarization of mercury resonance radiation; scattering of neutrons by metals.

Murphy, Dr. Francis D(aniel), 536 W. Wisconsin Ave, Milwaukee, Wis. *Internal medicine.* New Diggings, Wis, Nov. 7, 95. B.S, Marquette, 18, M.D, 20; M.S, Pennsylvania, 24. *Clin. director, Milwaukee Co. Hosp, 24–; head dept. med, med. sch, Marquette, 28–; chief of staff, St. Joseph's Hosp, 36–* A.A; Am. Med. Asn; fel. Col. Physicians; Therapeut. Soc; Heart Asn; Cent. Soc. Clin. Research; Wis. Hist. Soc. Diseases of the kidney; hypertension.

Murphy, Dr. Fred T(owsley), Penobscot Bldg, Detroit, Mich. *Surgery.* Detroit, Mich, Oct. 23, 72. A.B, Yale, 97, hon. A.M, 14; M.D, Harvard, 01. Asst. anat, Harvard Med. Sch, 03–04, surg, 10–11; prof, Washington (St. Louis), 11–19; surgeon in chief, Barnes and St. Louis Children's Hosps, 11–19. Trustee, Phillips Acad, 08–; mem. corp, Yale, 19–40. A.A; Surg. Asn; Soc. Clin. Surg; Am. Med. Asn. (sec'y, surg. sect, 11). Intestinal obstruction; peritonitis.

Murphy, Prof. Gardner, College of the City of New York, New York, N. Y. ***⁷***Psychology.* Chillicothe, Ohio, July 8, 95. A.B, Yale, 16; A.M, Harvard, 17; Ph.D, Columbia, 23. Research fellow *psychol,* Harvard, 22–25; lecturer, *Columbia,* 21–25, instr, 25–29, asst. prof, 29–40; *prof, Col. City of N. Y, 40–* A.A; Psychol. Asn. (councilor, 37–40); Soc. Psychol. Study Social Issues (chairman, 38); East. Psychol. Asn. (pres, 42). Psychology of personality; psychical research; social psychology.

Murphy, Dr. George M(oseley), Yale University, New Haven, Conn. *Chemistry.* Wilmington, N. C, June 1, 03. B.S, North Carolina, 24, M.S, 25; John Harrison fellow, Pennsylvania, 27–28; univ. fellow, Yale, 28–30, Ph.D, 30. Asst. prof. *chem,* Clemson Col, 25–27; asst, Columbia, 30–32, instr, 32–36; *Yale,* 36–38, asst. prof, 38–43, *assoc. prof, 43–* Chem. Soc; Physical Soc. Physics; reaction rates; spectra of polyatomic molecules; isotopes; deuterium.

Murphy, Prof. Glenn, Iowa State College, Ames, Iowa. *Theoretical and applied mechanics.* Boulder, Colo, Jan. 17, 08. B.S, Colorado, 29, M.S, 30, C.E, 37; M.S, Illinois, 32; Ph.D, Iowa State Col, 35. Instr. civil eng, Colorado, 29–30; asst, Illinois, 30–32; instr. *theoret. and applied mech, Iowa State Col,* 32–34, asst. prof, 34–38, assoc. prof, 38–41, *prof, 41–* A.A; Civil Eng; Concrete Inst; Eng. Educ; Soc. Test. Mat; Instituto Argentino de Racionalización de Materiales. Elastic plates; engineering materials.

Murphy, Prof. H(enry) F(red), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Soils.* Kellogg, Iowa, Dec. 3, 97. B.S, Okla. Agr. and Mech. Col, 18, M.S, 23; Ph.D, California, 38. Instr. soils, *Okla. Agr. and Mech. Col,* 20–21, asst. prof, 21–23, assoc. prof, 23–40, *prof. agron. and head dept, 40–* Okla. Acad. Phosphate fixation and availability; fertilizers and the composition of the plant.

Murphy, Dr. H(ickman) C(harles), Iowa State College, Ames, Iowa. *Plant pathology.* Montrose, W. Va, June 23, 02. B.S, West Virginia, 26; fellow, Iowa State Col, 26–28, M.S, 27, Ph.D, 30. Agent, *bur. plant indust, U. S. Dept. Agr,* 28–29, asst. pathologist, 29–35, assoc. pathologist, 36–38, *pathologist, 39–* Soc. Agron; Phytopath. Soc; Iowa Acad. Inheritance of disease resistance in oats; physiologic specialization in crown rust of oats; breeding disease resistant oats; barley and wheat; plant breeding.

Murphy, Dr. James B(umgardner), Rockefeller Institute, New York, N. Y. ***³***Pathology.* Morganton, N. C, Aug. 4, 84. B.S, North Carolina, 05, Sc.D, 27; M.D, Hopkins, 09; hon. M.D, Louvain, Belgium, 27; Sc.D, Oglethorpe, 38. Asst, Path. Inst, Ward's Island, N. Y, 09–10; *Rockefeller Inst,* 10–12, assoc, 12–15, assoc. mem, 15–23, *mem. in charge cancer research, 23–* Commissioner, State Board Charities, N. Y, 22–30; mem, Cancer Council, 37– Del, Int. Cong. Med, London, 13; Pan-Am. Sci. Cong, 15; Cong. de Cancer, Strasbourg, 23; Int. Conf. Cancer, London, 28. Nat. Acad; A.A; Soc. Exp. Path; Am. Physicians; Soc. Exp. Biol; Asn. Cancer Research (councilor, 16–23, v. pres, 21, pres, 22); Soc. Control Cancer (board and exec. cmt, 25); Soc. Clin. Invest; Harvey Soc. (councilor, 36); fel. N. Y. Acad. Med; Leeuwenhoek-Vereen; Asn. de l'Étude de Cancer. Tissue grafting; cancer; tissue inhibitor for cancer growth; tuberculosis; function of the lymphoid tissue; biological action of physical agents; cell metabolism; nature of the causative agent of fowl tumor group; induction and transmission of leukemia.

Murphy, Dr. Lois B(arclay), Sarah Lawrence College, Bronxville, N. Y. *Psychology.* Lisbon, Iowa, March 23, 02. A.B, Vassar Col, 23; B.D, Union Theol. Sem, 28; Ph.D, Columbia, 37; Chicago; Hopkins. Asst. to the director, Psychol. Lab, Cincinnati, Ohio, 23–24; instr, Presbyterian Grad. Sch. Relig. Ed, 25–26; *teacher psychol, Sarah Lawrence Col,* 28–29,

30– Rorschach Inst; Progressive Ed. Asn; Asn. Nursery Ed. (chairman research cmt, 37–). Social behavior and child personality; personality in young children; projective methods.

Murphy, Louis S(utliffe), 103 E. Bradley Lane, Chevy Chase, Md. *Forestry.* Boston, Mass, Aug. 10, 76. B.S, Tufts Col, 01; Mass. Inst. Tech, 02–03; M.F, Yale, 07. Chemist, North Packing and Provision Co, 02–05; from forest asst. to senior forest economist, U. S. Forest Service, 06–43. A.A; Soc. Foresters (treas, 14, 15, acting sec'y, 15). Forest management; forest economics, especially taxation.

Murphy, Sister Mary Thomas, Chestnut Hill College, Philadelphia, Pa. *Organic chemistry.* Hanover, Pa, Sept. 2, 04. Ph.D, Hopkins, 38. *Instr. chem, Chestnut Hill Col, 38–* Chem. Soc. Thermal reactions of organic compounds.

Murphy, Prof. Miles (Sheldon), University of Pennsylvania, Philadelphia, Pa. *Psychology.* Rummel, Pa, Dec. 12, 00. A.B, Juniata Col, 23; Ph.D, Pennsylvania, 27. Instr. *psychol, Pennsylvania,* 25–29, asst. prof, 29–36, *assoc. prof, 36–* Psychol. Asn; Asn. Applied Psychol. Clinical psychology.

Murphy, Prof. Nelson F(rancis), Syracuse University, Syracuse, N. Y. *Physical chemistry, Chemical engineering.* Erie, Pa, Jan. 30, 06. Ch.E, Cincinnati, 29; Ph.D, Cornell, 34. Research chemist, Gen. Chem. Co, 34–39; *asst. prof. chem. eng, Syracuse, 39–* Chem. Soc. (treas, Syracuse sect, 41); Chem. Eng; Electroplaters Soc. (chairman Syracuse sect, 43). Oxidation and reduction with hydrogen peroxide; inorganic chemical processes; sulfur removal from crude oil; oxidation of carbohydrates with nitric acid; extraction of nicotine.

Murphy, Prof. P(aul) G(hormley), 305 E. Ford, Pittsburg, Kans. *Psychology.* Hutchinson, Kans, March 26, 06. A.B, Col. of Emporia, 29; A.M, Iowa, 30, Ph.D, 32. Asst, Iowa, 30–32; *prof. psychol, Kans. State Teachers Col, 32–* Assoc. Psychol. Asn; assoc. Asn. Applied Psychol. Psychology of reading and motor skills.

Murphy, Dr. Ray V, 315 Hudson Ave, Clarendon Hills, Ill. *Physical chemistry.* Bloomington, Ill, Dec. 2, 85. B.S, Ill. Wesleyan, 12; M.S, Wisconsin, 16, hon. fellow, 19–20, Ph.D, 22. Instr. chem, Kans. State Col, 13–16; asst, Mellon Inst, 16–17; teaching fellow, Wisconsin, 20–21; assoc. prof, Ill. Wesleyan, 21–22; instr. physical chem, Carnegie Inst. Tech, 22–24; research physical chemist, West. Elec. Co, 24–28; research chemist, Mariner and Hoskins, Inc, 28–31; chem. director, Ditto, Inc, 31–33; consultant and mfg. chemist and tech. director, Autocopy, Inc, Chicago, 33–37; v. pres. and director chem. div, Maylon Tech. Associates, 37–39; *chem. consultant and manufacturer, Chicago, Ill, 39–* C.W.S, U.S.A, 17–19. Chem. Soc. Colloids; vapor pressure; commercial bleaches; liquefied gases; duplicating processes and materials.

Murphy, Prof. Raymond E(dward), Lemont, Pa. *Geography.* Apple River, Ill, July 24, 98. B.S, Mo. Sch. Mines, 23; M.S, Wisconsin, 26, Ph.D, 30. Instr. geol, Kentucky, 26–28; head dept. geog. and geol, Concord State Teachers Col, W. Va, 30–31; asst. prof. *geog, Pa. State Col,* 31–37, assoc. prof, 37–43, *prof, 43–* Summers, Eau Claire State Teachers Col, Wis, 30, West Virginia, 31, Washington (Seattle), 38. Nat. Council Geog. Teachers; Asn. Geog. Regional geography, especially of Pennsylvania; urban geography; geography of mining regions.

Murphy, Dr. Robert Cushman, American Museum of Natural History, New York, N. Y. *[*]Zoology, Ornithology.* Brooklyn, N. Y, April 29, 87. Ph.B, Brown, 11, Sc.D, 41; A.M, Columbia, 18; D.Sc, San Marcos, Peru, 25. Asst, Am. Museum Nat. Hist, 06–07; curator mammals and birds, Brooklyn Museum, 11–17, dept. nat. science, 17–20; assoc. curator birds, *Am. Museum Nat. Hist,* 21–26, asst. director, 24–26, curator oceanic birds, 27–42, *chairman dept. birds, 42–* Conductor exped, trop. and subantarctic Atlantic, 12–13; Lower California, 15; Peru, 19–20; Ecuador and Peru, 24–25; Mediterranean, 26; Pacific coast of Colombia, 37, 41. Brewster medal, Am. Ornith. Union, 37; bronze medal, John Burroughs Asn, 38; Cullum medal, Am. Geog. Soc, 40; Hutchinson Conservation medal, Garden Club of Amer, 41; Daniel Giraud Elliot medal, Nat. Acad. Sciences, 43. Del, Pan-Am. Sci. Cong, 24, 41; Int. Ornith. Cong, 26. A.A; fel. Ornith. Union; Nat. Audubon Soc. (past pres, hon. pres); Asn. Geog; fel. Am. Geog. Soc; Geophys. Union; fel. N. Y. Zool. Soc; fel. N. Y. Acad. (v. pres, 24); L. I. Biol. Asn. (director, 37, pres, 40–); cor. fel. Deuts. Ornith. Gesell; cor. fel. Soc. Ornitol. del Plata; cor. fel. Royal Australian Ornith. Union; hon. mem. Royal Hungarian Inst. Zoogeography; factors of geographic distribution; marine and insular ornithology; physical oceanography; conservation.

Murphy, Prof. Royse P(eak), Montana State College, Bozeman, Mont. *Plant breeding, Plant genetics.* Norton, Kans, May 2, 14. B.S, Kans. State Col, 36; M.S, Minnesota, 38, Ph.D, 41. Asst. pasture management, div. agron. and plant genetics, Minnesota, 36–37; instr. corn and grass breeding, 37–41, asst. prof. corn breeding, 41–42; *assoc. prof. corn, oats, flax and alfalfa improv, Mont. State Col, 42–; geneticist, guayule emergency rubber project, U. S. Dept. Agr, Texas.* Genetics Soc; Soc. Agron. Disease resistance; agronomy.

Murphy, Walter R(obert), U. S. Bureau of Mines, Laramie, Wyo. *Petroleum.* Butte, Mont, Dec. 27, 07. B.S, Mont. State Col, 30. Junior chemist, U. S. Bur. Mines, 30–33; asphalt chemist, White Eagle div, Socony Vacuum Oil Co, 33–35; asst. petrol. chemist, *U. S. Bur. Mines,* 35–41, *assoc. chemist, 41–* Analyses and methods of refining high-sulfur crude oils.

Murphy, Dr. William P(arry), 311 Beacon St, Boston, Mass. *Medicine.* Stoughton, Wis, Feb. 6, 92. A.B, Oregon, 14; M.D, Harvard, 20. House officer, R. I. Hosp, Providence, 20–22; asst. res. physician, *Peter Bent Brigham Hosp,* 22–23, junior assoc. med, 23–28, assoc, 28–35, *senior assoc, 35–;* asst, *Harvard Med. Sch,* 23–28, instr, 28–35, *assoc, 35–* Practising physician, 28–; consultant hematologist, Melrose Hosp; Mitchell Mem. Hosp, Epping, N. H; Quincy Hosp, Mass. Cameron prize, Edinburgh, 30; bronze medal, Am. Med. Asn, 34; Nobel prize, 34; commander, First Rank, Order of White Rose, Finland, 34; gold medal, Mass. Humane Soc. A.A; fel. Am. Med. Asn; Am. Physicians; Inst. Social Sci; Soc. Arts and Sciences; Soc. Clin. Invest; Am. Acad; hon. mem. Kaiserlich Deuts. Akad. Naturforscher; Soc. Finnish Physicians Int. Diseases. Clinical medicine; diabetes mellitus and insulin; pernicious anemia.

Murray, Prof. A(lbert) N(elson), 1211 S. College Ave, Tulsa, Okla. *Geology.* Madison, Conn, Sept. 25, 94. A.B, Colorado, 22, M.S, 24; Ph.D, Illinois, 28. Instr, Colorado, 24–25; asst, Illinois, 25–27; asst. research fellow, Am. Petrol. Inst, 27–28; *prof. geol, Tulsa, 28–* Summers, geologist, Colo. Geol. Surv, 22–23; Midwest Ref. Co, 24; Okla. Geol. Surv, 36. A.A; Miner. Soc; Geophys. Union; Asn. Petrol. Geol; fel. Okla. Acad. (v. pres, geol. sect, 31); Ill. Acad. Development of porosity in limestones and dolomites; organic acids produced by bacterial decomposition of vegetable material; unconformities in the Mid-Continent field; Oklahoma Pennsylvanian stratigraphy.

Murray, A(lexander) G(rantland), U. S. Department of Agriculture, Washington, D. C. *Drug control.* Griffin, Ga, Feb. 22, 77. A.B, Emory. Acting in charge drug control, U. S. Dept. Agr, 25–27, *senior chemist,* chem. sect, drug div, *food and drug admin,* 27–39; *Fed. Security Agency, 39–* Analytical drug chemistry.

Murray, Prof. Cha(rle)s, Iowa State College, Ames, Iowa. *Veterinary science.* Greenfield, Ohio, 76. B.Pd, Drake, 06; B.S, Iowa State Col, 10, D.V.M, 12. Supt, pub. schs, 93–08; instr. bacter, *Iowa State Col,* 08–12, assoc. prof. vet. bacter, 12–16, *prof. vet. investigation, 16–,* dean *div. vet. med,* 36–43, *emer. dean, 43–* Vet. Med. Asn; U. S. Live Stock Sanit. Asn. Animal diseases; bronchopneumonia, enteritis and infectious abortion of swine; diseases of poultry.

Murray, Dr. Elsie, Ithaca, N. Y. *Psychology.* Athens, Pa, Sept. 17, 78. A.B, Cornell, 04, fellow, 06–07, Ph.D, 07; Columbia, 14–15. Asst, Vassar Col, 07–09; prof. psychol. and philos, Wilson Col, 09–19; Sweet Briar Col, 19–22; acting prof, Wells Col, 22–23; sec'y dept. music, Cornell, 26–27; assoc, Illinois, 27–28; instr, *Cornell,* 29–30, *research optics, 30–,* lecturer, 32. Director, Tioga Point Museum, 35– A.A; Psychol. Asn; Soc. Pa. Archeol. (director, 38–41). Organic and tactual sensation; imagery; experimental esthetics; individual and vocational tests; color-blindness.

Murray, Prof. Elwood, 2391 S. Clayton, Denver, Colo. *Speech.* Macomb, Ill, Feb. 3, 97. A.B, Hastings Col, 22; A.M, Iowa, 24, Ph.D, 31. Instr. speech, Purdue, 27–29; *prof. speech and dramatic arts and chairman dept. speech, Denver, 31–* Speech Correction Asn; Asn. Teachers Speech (2nd v. pres, 41); Asn. Applied Psychol; West. Asn. Teachers Speech (v. pres, 34–36, pres, 36). Breathing and eye-movements in stutterers during silent reading and reasoning; photographic analyses of pitch, intensity and duration factors of

speaking voices; speech and personality; the speech personality.

Murray, Prof. E(veritt) G(eorge) D(unne), McGill University, Montreal, Que, Can. *Bacteriology, Immunology.* Johannesburg, S. Africa, July 21, 90. B.A, Cambridge, 12, M.A, 18; Licentiate, Soc. Apothecaries, London, 16. Senior demonstrator path, St. Bartholomew's Hosp, London, 19; research bacteriologist, Med. Research Council, England, 20; lecturer path, Cambridge, 26–30; *prof. bacter, McGill, 30–* Fellow, Christ's Col, Cambridge, 23–30. Recorder, bacter. sect, 5th Int. Bot. Cong. Officer, Order British Empire. Capt, R.A.M.C; research staff, R.A.M. Col, 15, 17–19. A.A; Soc. Bact; Asn. Path. and Bact; Asn. Immunol; Biol. Photog. Asn; Royal Soc. Can; Can. Med. Asn; Can. Pub. Health Asn; Montreal Physiol. Soc; Montreal Medico-Chirurg. Soc; Path. Soc. Gt. Britain and Ireland (councilor, 30); Cambridge Philos. Soc. General biology and pathological action of the meningococcus and of the dysentery bacilli; bacterial endotoxins; agglutination reaction; protective immunization; virulence of bacteria.

Murray, Dr. F(orrest) H(amilton), 5412 Kimbark Ave, Chicago, Ill. *Mathematics.* Mazon, Ill, March 28, 92. A.B, Illinois, 15; A.M, Harvard, 17, Ph.D, 23; Paris, 20–22. Dept. math, West Virginia, 22–23; asst. prof, Dalhousie, 23–26; with Am. Tel. and Tel. Co, New York, 27–30. A.A; Math. Soc; assoc. Radio Eng; Physical Soc. Differential equations; partial differential equations of mathematical physics.

Murray, Prof. F(rancis) J(oseph), Columbia University, New York, N. Y. *Mathematics.* New York, N. Y, Feb. 3, 11. A.B, Columbia, 32, A.M, 33, Ph.D, 35. Nat. research fellow, 34–36; instr. *math, Columbia, 36–38, asst. prof, 38–* Asst. ed, 'Duke Math. Jour,' 38– Math. Soc. Partial differential equations; linear spaces; rings of operators.

Murray, Prof. Harold R(obert), Macdonald College, Que, Can. *Horticulture.* Blackburn, Ont, Oct. 23, 00. B.Sc, Toronto, 23; M.S, Cornell, 29. Asst. horticulturist, Can. Dept. Agr, Ottawa, 23–26; asst. veg. breeding, dept. genetics, Conn. Agr. Exp. Sta, 26–30; asst. prof. hort. in charge veg. crops, *Macdonald Col, McGill,* 30–40, *chairman dept. hort, 40–* Summer, senior seed analyst, Can. Dept. Agr, Ottawa, 30. Can. Soc. Tech. Agr. Vegetable crops; physiology and genetics of vegetable crop plants.

Murray, Prof. H(enry) A(lexander), Jr, 158 Mt. Vernon St, Boston, Mass. *Physiology, Psychology.* New York, N. Y, 93. A.B, Harvard, 15; M.D, Columbia, 19, Abraham du Bois fellow, 19–20, A.M, 20; Ph.D, Cambridge, 28. Instr. physiol. chem, Harvard, 20; intern, Presb. Hosp, New York, 20–22; asst, Rockefeller Inst, 22–24, assoc, 25–26; research fellow *psychol, Harvard,* 26–28, asst. prof, 28–37, *assoc. prof, 37–* A.A. Blood chemistry; physiological ontogeny and senescence; correlations between growth, differentiation, metabolism and chemical constitution; hypnotism; drives and the effect of drives upon imaginal processes; fantasies; emotional complexes; development of personality.

Murray, Dr. H(erbert) C(harles), Upjohn Co, Kalamazoo, Mich. *Bacteriology.* Indianapolis, Ind, Aug. 4, 12. B.S, Purdue, 38, M.S, 40, Ph.D, 42. Asst. bacter, Purdue, 38–42; *bacteriologist, Upjohn Co, 42–* Soc. Bact; Ind. Acad. Fermentation of cellulose; production of antibacterial substances by molds.

Murray, Dr. J(ames) V(incent), Carbide and Carbon Chemicals Corp, Charleston, W. Va. *Organic chemistry.* Albany, N. Y, June 7, 13. Chem.E, Rensselaer Polytech, 34, M.S, 35, Ph.D, 37. William Weightman Walker instr. org. chem, Rensselaer Polytech, 37–41; *research chemist, Carbide and Carbon Chemicals Corp, 41–* Chem. Soc. Syntheses and reactions of nitriles; heterocyclic nitrogen derivatives; catalytic alkylation and dealkylation of hydrocarbons; distillation; high pressure syntheses.

Murray, Dr. J(ohn) Alden, Plaskon Division, Libbey-Owens-Ford Glass Co, 2112 Sylvan Ave, Toledo, Ohio. *Chemistry.* Emporia, Kans, Oct. 30, 03. A.B, Baker, 26; fellow, Kansas, 26–27, A.M, 30, Ph.D, 33. Asst. chem, Kansas, 28–31, instr, 32–33; *research chemist, Plaskon div, Libbey-Owens-Ford Glass Co, 33–* Chem. Soc. Ureas, thioureas and guanidines; synthetic resins.

Murray, Prof. John W(olcott), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Flushing, N. Y, Jan. 9, 09. A.B, Colgate, 30; Ph.D, Hopkins, 33. Asst. chem. Hopkins, 32–33, instr, 33–34; asst, Rockefeller Inst, 34–39; chief chemist, Thomasville Stone and Lime Co, 39–42; *asst. prof. chem, Va. Polytech, 42–* Chem. Soc. Raman spectra; mechanical molecular models; dissociation of phenol derivatives; models of plant cells.

Murray, Dean Joseph M(agee), 68 Main St, Orono, Maine. *Anatomy.* St. Stephen. N. B, Can, March 12, 01. A.B, Maine, 25; A.M, Michigan, 27, Ph.D, 29. Asst. biol, Maine, 24–25; anat, Michigan, 25–27, instr, 27–30; assoc. cancer research, Roscoe B. Jackson Mem. Lab, 30–34; *prof. zool, Maine, 34–, dean col. arts and sciences, 41–; U. S. Army, 42–* Soc. Mammal; Asn. Cancer Research; Mich. Acad. Biological effects of ultra-violet and Roentgen radiations; point mutations in mammals.

Murray, Dr. Leo T(ildon), Baylor University, Waco, Texas. *Biology.* Eastland Co, Texas, May 4, 02. A.B, Sul Ross State Teachers Col, Texas, 27; M.S, Cornell, 31, Ph.D, 35. Asst. prof. *biol,* Ball State Teachers Col, 35–36; *assoc. prof. and director museum, Baylor, 36–* A.A; Soc. Mammal; Soc. Ichthyol. and Herp; Ecol. Soc; Limnol. Soc; Wildlife Soc; Soc. Mammal. (cmt. preservation land mammals); Ind. Acad; Texas Acad. (asst. sec'y, 39–41, sec'y, 42); Texas Herp. Soc. (pres, 42); N. Texas Biol. Soc. (v. pres, 40, pres, 42). Ecology; herpetology; mammalogy; systematic botany.

Murray, Dr. Linwood A(sa), Jr, 124 Westervelt Place, Passaic, N. J. *Physical chemistry.* Syracuse, N. Y, July 11, 08. A.B, Augustana Col, 29; Ph.D, Illinois, 34. *Chemist, U. S. Rubber Co, 34–* Rubber chemistry; dipole moments of the alkali halides.

Murray, Dr. Margaret R(ansone) (Mrs. Burton LeDoux), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Zoology, Medicine.* Mathews Co, Va, Nov. 16, 01. A.B, Goucher Col, 22; M.S, Washington (St. Louis), 24; Ph.D, Chicago, 26. Nat. research fellow, 26–28; assoc. prof. biol. and physiol, Fla. State Col. for Women, 28–29; *instr. and research asst. surg, col. physicians and surg, Columbia, 29–* A.A; Soc. Zool; Soc. Growth and Develop; Soc. Cancer Research. Physiological zoology; tissue culture; regeneration in Planaria; fracture healing in mammals; cultivation of human tumors.

Murray, Prof. M(aurice) J(ackson), Illinois Institute of Technology, Chicago, Ill. *Chemistry.* Moran, Ind, Aug. 2, 04. A.B, DePauw, 25; Ph.D, Cornell, 29. Instr, Cornell, 28–30; prof. *chem.* and head dept, Lynchburg Col, 30–39; asst. prof, Armour Inst. Tech, 39–40; assoc. prof, *Ill. Inst. Tech,* 40–43, *prof, 43–,* acting head dept, 41. Research grant, Am. Asn. Advancement of Science, 35; Va. Acad. Science, 36, 38; Sigma Xi grant, 37. Award, Va. Acad. Science, 39. A.A; Chem. Soc. Physical chemistry; osmotic pressure; qualitative analysis; Raman effect; molecular structure.

Murray, Dr. Merritt J(oseph), Cornell University. Ithaca, N. Y. *Genetics.* Lawrenceville, Ill, April 3, 08. B.S, Indiana, 30, A.M, 34; Ph.D, Cornell, 38. *Instr. plant breeding, Cornell.* A.A; Genetics Soc. Inheritance of sex, polyploidy and cytogenetics as they relate to plant improvement.

Murray, Dr. Peter Marshall, 2588 Seventh Ave, New York, N. Y. *Gynecology.* June 9, 88. A.B, New Orleans, 10, hon. Sc.D, 35; M.D, Howard, 14. Med. inspector, pub. schs, Wash, D. C, 15–20; *courtesy surgeon, Sydenham Hosp, New York, and Beth Israel Hosp, Newark, N. J, 30–* Asst. surgeon in chief, Freedmen's Hosp, Wash, D. C, 17–18; guest lecturer, St. Philip Hosp. Clinic, Med. Col. of Va, 35–36; visiting gynecologist, Harlem Hosp, New York. Trustee, Howard. Am. Med. Asn; Nat. Med. Asn. (pres, 30–31); N. Y. Acad. Med. Gynecological surgery; pelvic inflammation and infection; uterine fibroids complicating pregnancy; milk injection; hospital provisions for Negroes.

Murray, Dr. Raymond G(orbold), 6206 Ingleside Ave, Chicago, Ill. *Histology.* Tokyo, Japan, May 12, 16. B.S, Monmouth Col, 37; Ph.D, Chicago, 42. Asst. histol, *Chicago,* 42, *research assoc. anat, 43–* Tissue culture of the thymus gland.

Murray, Dr. Robert T(aylor) K(eys), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Physics.* Howard Co, Md, Oct. 4, 08. Ph.D, Hopkins, 34. *Instr. physics,* Hopkins, 34–37; *Polytech. Inst. Brooklyn, 37–; physicist, labs, Sig. Corps, U. S. Army, 42–* A.A; Physical Soc. Field electron emission.

Murray, Prof. Thomas J(efferson), Rutgers University, New Brunswick, N. J. *Bacteriology.* Nyack, N. Y, Oct. 13, 91. B.S, Col. City of N. Y, 13; M.S, Purdue, 15. Asst. bacter, Purdue, 13–15; assoc. prof, Va. Polytech, and assoc. bacteriologist, Exp. Sta, 15–18; assoc. prof. bacter, State Col. Wash, and bacteriologist, Exp. Sta, 18–20; bacter. and hygiene, sch. med, West Virginia, 20–21; *bacter, Rutgers, 21–23, prof, 23–* A.A; Soc. Bact; Soc. Exp. Biol; fel. Pub. Health Asn. Bacterial metabolism.

Murray, Dr. Wallace J(ennings), 11 Laurel Lane, Dedham, Mass. *Chemical engineering.* Boston, Mass, Aug. 24, 90. B.S, Mass. Inst. Tech, 12, Swett fellow, Leeds, 14–15, Moore fellow, Geneva, 15–16, D.Sc, 16. Asst. org. chem, Mass. Inst. Tech, 12–13, instr. anal. chem, 13–14; Northwestern, 16–17; *research chemist and chem. engineer,* Nat. Aniline and Chem. Co, 17–18; Conn. Metal and Chem. Co, 19–20; *Arthur D. Little, Inc, 20–* Lieut, C.W.S, 18–19, C.W.S.R, 19–29. Chem. Eng; Chem. Soc; Asn. Textile Chem. and Colorists; Petrol. Inst. Determination of atomic weight of bromine; fastness of dyes and dyed fabrics; properties of tertiary alcohols; compression of rich gases; orientation of nitro-compounds; synthetic products from petroleum.

Murray, Prof. W(alter) Rue, 1015 Woods Ave, Lancaster, Pa. *Mathematics.* Havre de Grace, Md, July 15, 05. B.S, Colgate, 29; M.S, Cornell, 32, 38–40. Instr. *math, Franklin and Marshall Col,* 29–36, asst. prof, 36–40, *assoc. prof, 40–* Math. Soc; Math. Asn. Algebraic geometry; proofs for known theorems concerning linear systems of plane curves.

Murray, Prof. W(illiam) A(rthur), Virginia Polytechnic Institute, Blacksburg, Va. *Electrical engineering.* Helena, Mont, July 18, 89. B.S, Idaho, 14; E.E, Mont. State Col, 27; M.S, Michigan, 33. Instr. *elec. eng,* Idaho, 19–23; asst. prof. and assoc. prof, Mont. State Col, 23–29; assoc. prof, Mich. State Col, 29–35; *prof. and head dept, Va. Polytech, 36–* Elec. Eng; assoc. Radio Eng; Eng. Educ; Va. Acad. Electronics; electric power meter for steam and gas engines; ultra high frequency drying of clays.

Murray, Dr. W(illiam) D(onald), State Teachers College, Bemidji, Minn. *Entomology.* Shadyside, Ohio, Aug. 9, 13. A.B, Ohio State, 34, M.S, 35; Ph.D, Minnesota, 40. *Instr.* bot. and zool, Eveleth Junior Col, 41–42; *biol, Minn. State Teachers Col, 42–* Entom. Soc. Amer; Soc. Study Speciation. Sphecoid Hymenoptera.

Murray, Prof. W(illiam) M(acGregor), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering.* Montreal, Que, Can, April 24, 10. B.E, McGill, 32; M.S, Mass. Inst. Tech, 33, Sc.D, 36. Instr. *mech. eng, Mass. Inst. Tech,* 35–40, *asst. prof, 40–* Mech. Eng; Soc. Test. Mat; East. Photoelasticity Conf. (chairman exec. cmt, 41); Eng. Inst. Can; Corp. Professional Eng. Que. Photoelasticity; stress analysis; testing materials; properties of materials.

Murray, Dr. William S(mith), New York State Institute for the Study of Malignant Disease, Springville, N. Y. *Genetics.* St. Stephen, N. B, Can, June 1, 99. A.B, Maine, 21, M.S, 25; Sc.D, Michigan, 28. Asst, Michigan, 25–30, instr. anat, 28–29; research assoc, Roscoe B. Jackson Mem. Lab, 30–35; *biologist, N. Y. State Inst. Study Malignant Disease, 36–* Asn. Cancer Research; Soc. Exp. Biol; Asn. Anat; Mich. Acad. Endocrinology; spontaneous cancer in mice; inheritance of susceptibility to cancer; effects of ovarian hormones on cancer; extra-chromosomal inheritance of mammary cancer; effects of ovariectomy upon cancer incidence; inheritance of morphological anomalies; degeneration in the spinal cord; characteristics of cancer stimulating substance in mother's milk; biology of cancer.

Murray, William S(tanley), 1530 Sunset Ave, Utica, N. Y. *Chemical engineering.* Warren Co, Pa, March 4, 87. B.S, Colgate, 10, Sc.D, 39. Chemist, Utica Pipe Foundry Co, 10–14; consulting chemist, 14–18; res. chem. engineer, Oneida Community, Ltd, 18–22; *consulting and anal. chemist, 22–* Pres, Indium Corp. Amer, 34. Trustee, Colgate. Chem. Soc; Electrochem. Soc. Alloys of indium.

Murrill, Dr. Paul I(ngold), R. T. Vanderbilt Co, 33 Winfield St, East Norwalk, Conn. *Chemistry.* Hickory, N. C, July 11, 74. B.S, Kentucky, 95, M.S, 96; Ph.D, Michigan, 99. Fellow, Michigan, 99–00, acting prof. chem, Ala. Polytech, 00–01; asst. chemist, nutrition investigations, U. S. Dept. Agr, 02–03; with E. I. du Pont de Nemours Powder Co, 03–13; U. S. Rubber Co, 13–15; Tenn. Copper Co, 15–16; Fed. Dye and Chem. Co, 16–17; *chem. engineer and consulting chemist, 17–; with R. T. Vanderbilt Co, Inc, 20–* Chem. Soc; Chem. Eng; Soc. Chem. Indust; Chemists' Club. Accelerators of the vulcanization of rubber; antioxidants for rubber.

Murrill, Dr. W(illiam) A(lphonso), New York Botanical Garden, Bronx Park, New York, N. Y. *[2]*Mycology.* Campbell Co, Va, Oct. 13, 69. B.S, Va. Polytech, 87; B.S, Randolph-Macon Col, 89, A.B, 90, A.M, 91; Ph.D, Cornell, 00. Prof. nat. science, Bowling Green Female Sem, Va, 91–93; Wesleyan Female Inst, Va, 93–97; asst. bot, Cornell, 98–99, asst. crypt. botanist, 99–00; instr, De Witt Clinton High Sch, New York, 00–04; asst. curator, N. Y. Bot. Garden, 04–05, first asst, 06–07, asst. director, 09–19, curator pub. instruction, 19–24; *explorer and writer, 24–* Ed, 'Mycologia'; assoc. ed, 'North Am. Flora.' Phytopath. Soc; Bot. Soc; Torrey Bot. Club. Cytology; taxonomy of the Basidiomycetes; shade trees in cities; edible and poisonous mushrooms; nature and character books for children; natural history of Florida; fungi of Florida; the hawthorns and other groups of flowering plants; ecology of violets.

Murrill, Dr. William A(lphonso, 2nd), 26 Harvard Place, Ann Arbor, Mich. *Biological chemistry.* Winchester, Va, Jan. 9, 06. B.S, Morris Harvey Col, 32; fellow, Michigan, 34–42, M.S, 38, Ph.D, 40, M.D, 42. Intern, Henry Ford Hosp, Detroit, Mich, 42–43; *instr. and research assoc. pediat. and communicable diseases, med. sch, Michigan, 43–* Chem. Soc. Human nutrition and metabolism; chemistry of serum proteins; clinical investigation.

Muscarl, Pietro J. C, 105 Dudley Ave, Marietta, Ohio. *Engineering.* Tioga, W. Va, June 24, 04. A.B, Marietta Col, 27; Loomis Eng. Col, 21; Ohio (Athens). Radio engineer, Standard Oil Co. of N. J, 22–24; instr. radio and telegraphy, Marietta Commercial Col, 24–26; ensign, U. S. N. Res, 30–34; *research engineer and director research, Radio Research Labs, 34–; lieut, Sig. Corps, U. S. Army.* Assoc. Radio Eng. Neon and allied engineering; radio interference; new rod microphone; frequency effect on color of gas; animation of neon tubes; effect of resistance on inert gases; inert gases color level.

Muschenheim, Dr. Carl, New York Hospital, 525 E. 68th St, New York, N. Y. *Medicine.* New York, N. Y, Feb. 4, 05. A.B, Columbia, 28, M.D, 31. Instr. *med, med. col, Cornell,* 38–42, *asst. prof, 42–* Trudeau Soc; Federation Clin. Research; Harvey Soc. Clinical medicine.

Musgrave, Geo(rge) W(allace), U. S. Department of Agriculture, Washington, D. C. *Soils.* Scranton, Pa, Aug. 25, 91. B.S, M.S, Cornell, 15. Teacher, high sch, 16–17; scientist, bur. soils, U. S. Dept. Agr, 17–18; from asst. to prof. agron. and head dept, Rutgers and N. J. Exp. Sta, 18–26; chief agronomist, Am. Cyanamid Co, 26–28; director research, Chipman Chem. Eng. Co, 28–29; supt. soil erosion, exp. sta, bur. chem. and soils, *U. S. Dept. Agr,* 29–36, *prin. conservationist, soil conservation service, 36–* A.A; Soc. Agron; Geophys. Union; Soil Sci. Soc; Wash. Acad; Int. Soil Cong. Soil characteristics; soil classification; hydrology of soils.

Musgrave, Prof. Ray S(igler), Millsaps College, Jackson, Miss. *Psychology.* Mountain Lake Park, Md, Feb. 3, 11. A.B, Bethany Col. (W. Va), 33; A.M, Ohio Wesleyan, 35; Ph.D, Syracuse, 37. Instr. psychol, Syracuse, 34–37; acting head dept. psychol, Birmingham-South. Col, 37–38; instr, Russell Sage Col, 38–39; *prof. psychol, director summer session and evening div, Millsaps Col, 39–* Summer, asst. and clinician, Mooseheart Lab. Child Research, 34. Assoc. Psychol. Asn; South. Soc. Philos. and Psychol. Description and nature of behavior; personality; teleonomic description in the study of behavior.

Musgrave, Prof. R(obert) B(urns), 119 Linden Ave, Ithaca, N. Y.. *Agronomy.* Hutsonville, Ill, April 15, 13. B.S, Illinois, 36, M.S, 38, Ph.D, 40. Asst. agron, Illinois, 36–40; *asst. prof. field crops and asst. agronomist, Cornell, 40–* Crop ecology.

Musil, Albina F(rances), U. S. Department of Agriculture, Washington, D. C. *Botany.* Irving, Kans, Dec. 25, 94. B.S, Nebraska, 27. *Asst. botanist,* div. seed investigations, *bur. plant indust, U. S. Dept. Agr,* 27–39, *div. forage crops and diseases, 39–* A.A; Soc. Agron; Bot. Soc. Wash. Seed investigations.

Muskat, Dr. Dorothy R(uth) Gaston (Mrs. Irving E. Muskat), 950 Hillside Ave, Plainfield, N. J. *Chemistry.*

Monongah, W. Va. B.S, Washington (Seattle), 23, M.S, 25; Ph.D, Chicago, 30. Asst. prof, S. Dak. State Col, 25–27; asst, dept. med, Chicago, 29–33. Quantitative clinical chemistry.

Muskat, Dr. Irving E(lkin), 950 Hillside Ave, Plainfield, N. J. *Chemistry.* Dec. 25, 05. A.B, Marietta Col, 24; M.S, Chicago, 25, Ph.D, 27. Research chemist, Mariner and Hoskins, 27–28; instr. chem, Chicago, 28–30, research assoc, 30–33; nat. research fellow, Rockefeller Inst, 33–34; Gulf Research Corp, 34–36; research director, Columbia chem. div, Pittsburgh Plate Glass Co, Barberton, Ohio, 36–42; *pres, Marco Chemicals, Inc, 42–; director research, Vulcan Definning Co, 42–* Chem. director, A Century of Progress Expos, Chicago, 30–33. A.A; Chem. Soc; Ill. Acad. Addition reactions of unsaturated compounds; electronic theories of organic reactions; conjugated systems; chemistry of petroleum, alkalies and chlorine; synthetic resins and plastics; pigments; chlorination of ores; tin.

Muskat, Dr. Morris, Gulf Research and Development Corp, Pittsburgh, Pa. *Physics.* Autz, Latvia, April 21, 07. A.B, A.M, Ohio State, 26; fellow, Calif. Inst. Tech, 27–29, Ph.D, 29. Instr. physics and chem, Bowling Green State Nor. Col, Ohio, 26–27; theoret. physicist, *Gulf Research and Develop. Corp,* 29–35, *chief physics div, 35–* Assoc. ed, 'Jour. Applied Physics,' 41, 42, 43. A.A; fel. Physical Soc; Petrol. Inst; Min. and Metal. Eng; Soc. Explor. Geophys; Pittsburgh Physical Soc. (pres, 40). Theoretical physics; quantum theory; hydrodynamics; potential theory; flow of liquids and gases through sands; theoretical geophysics; lubrication; flow of homogeneous fluids through porous media.

Mussehl, Prof. Frank E(dward), University of Nebraska, Lincoln, Nebr. *Poultry husbandry.* Jefferson, Wis, Dec. 3, 91. B.S, Wisconsin, 15. Asst. poultry husbandman, Kans. State Col, 15–16; instr, Wisconsin, 16–17; *prof. poultry husbandry, Nebraska, 17–* Assoc. ed, 'Poultry Science,' 34– A.A; Poultry Sci. Asn. (director, 34–36). Poultry nutrition; calcium and protein utilization by growing chicks; vitamin requirements of chicks.

Musselman, Dr. Amos S(entman), Standard Oil Co, Whiting, Ind. *Chemistry.* Gettysburg, Pa, Oct. 15, 92. B.S, Gettysburg Col, 12; Ph.D, Hopkins, 15. Research chemist, Richards and Co, 15–16; Texas Co, 16–17; *Standard Oil Co. of Ind,* 17–24, asst. head dept. chem, 24–27, asst. departmental supt, 27–29, departmental supt, 29–31, supt. heavy oils div, 31–43, *asst. gen. supt, Whiting Refinery, 43–*

Musselman, Prof. Harry H(ayes), Michigan State College, East Lansing, Mich. *Agricultural engineering.* Sherwood, Ohio, Sept. 13, 80. B.S, Mich. State Col, 08. Struct. steel, Whitehead and Kales, Detroit, 09; *prof. agr. eng. and head dept, Mich. State Col, 09–* Develop. specialist, automotive instruction, Camp Grant, 19–20. Agr. Eng. Marl; septic tank; small farm equipment.

Musselman, Prof. J(ohn) Rogers, Western Reserve University, Cleveland, Ohio. *Mathematics.* Gettysburg, Pa, Dec. 1, 90. A.B, Gettysburg Col, 10, A.M, 13; Ph.D, Hopkins, 16. Instr. *math,* Illinois, 16–18; Washington (St. Louis), 19–20; assoc, Hopkins, 20–25, assoc. prof, 25–28; *prof, Western Reserve, 28–, chairman div, 36–* Statistician, Food Admin, 18; lieut, Gen. Staff, 18–19. A.A; Math. Soc; Math. Asn. (assoc. ed, 'Math. Monthly,' 29–43). Geometry; statistics.

Musselman, Prof. Luther K(yner), 215 Whitney Ave, New Haven, Conn. *Obstetrics, Gynecology.* Gettysburg, Pa, June 18, 95. B.S, Gettysburg Col, 15; M.D, Hopkins, 19; Ph.D, Yale, 23. Instr. *obstet. and gynec, Yale,* 22–24, asst. prof, 24–25, asst. clin. prof, 25–31, *assoc. clin. prof, 31–* Attending obstetrician and gynecologist, New Haven Hosp, 23–; attending gynecologist, Fairfield State Hosp, 37– A.A; Am. Med. Asn; fel. Col. Surg. Natural immunity in the newborn; serological properties of blood sera of sexes; malformations of the embryo; operative obstetrics; bioelectrical phenomena in menstruation and ovulation; non-operative gynecological procedures and therapy.

Mussen, Dr. Aubrey T(homas), Matin Hill, Strasburg, Va. *Neurology.* Montreal, Que, Can, Dec. 21, 74. M.D, McGill, 00; London, Paris, Zurich, Munich, Vienna and Berlin, 09–14. Practising physician, 00–06; asst. neur, Montreal Gen. Hosp, 07; clin. asst, Nat. Hosp. for the Paralyzed and Epileptics, London, 08; neuropathologist, med. research cmt, London, 15–16; assoc. exp. neur, Hopkins, and asst. psychiat, Hopkins Hosp, 16–17, 21–33, assoc. neuropath, 20; *retired.* Research assoc, Carnegie Institution, 31–; med. officer, Civilian Defense Hosp, Strasburg, Va. Int. Neur. Cong, Switzerland, 31. Major, C.A.M.C, 17–19. Neur. Asn; Asn. Research Nervous and Mental Disease. Tongue movements; the effect of bullet wounds on the spinal cord; atlas of brain stem of Macacus rhesus; lesions in red nuclei; posterior column nuclei and spino-cerebellar tracts; the cerebellum; cortical reactions; homology of lobes in the cat, monkey and man; comparison of symptoms following lesion of lobes with reactions of same lobes to stimulation.

Musser, Prof. A(lbert) M(yers), Clemson Agricultural College, Clemson, S. C. *Agriculture.* Hartleton, Pa, Oct. 18, 92. B.S.A, Florida, 18. County agent, S. C, 19–20, exten. horticulturist, 20–21; assoc. horticulturist, *Exp. Sta, Clemson Col,* 21–26, acting head hort. div, 26–28, assoc. horticulturist, 28–32, *prof. hort, 32–,* acting head div, 32–34, *head div, 34–* U.S.N.R.F, 18–19. A.A; Soc. Hort. Sci; Genetic Asn; Soc. Plant Physiol. Horticulture; peach stock variations; food preservation; grape breeding.

Musser, Dr. David M, Pacific Mills, 214 Church St, New York, N. Y. *Organic chemistry.* Bowmansville, Pa, April 30, 09. B.S, Pa. State Col, 31; M.S, Ga. Sch. Tech, 33; Ph.D, Wisconsin, 37. Indust. fellow, Mellon Inst, 37–42; *research chemist, Pacific Mills, 42–* Chem. Soc; Asn. Textile Chem. and Colorists. Cellulose.

Musser, Prof. H(oward) B(urton), Pennsylvania State College, State College, Pa. *Agronomy.* Williamsport, Pa, Sept. 9, 93. A.B, Bucknell, 14; B.S, Pa. State Col, 17. Sci. asst, bur. agr. econ, U. S. Dept. Agr, 17–22; asst. prof. agron. exten, *Pa. State Col,* 23–28, assoc. prof. *agron. research,* 28–38, *prof, 38–* Soc. Agron. Plant breeding; genetics.

Musser, Dr. John H(err), 1430 Tulane Ave, New Orleans, La. *Medicine.* Philadelphia, Pa, June 9, 83. B.S, Pennsylvania, 05, M.D, 08. Physician, Phila. Gen. Hosp, 14–25; assoc. *med,* Pennsylvania, 15–20, asst. prof, 20–25; *prof, Tulane, 25–; physician, Charity Hosp, 25–* Pres, State Dept. Health, La, 40–42. Ed, 'New Orleans Med. and Surg. Jour.' Col, M.C.Res. A.A; Am. Physicians; Col. Physicians (pres, 28); Soc. Clin. Invest; Soc. Exp. Biol; Clin. and Climat. Asn; Col. Physicians Phila. Internal medicine.

Mustard, Dr. H(arry) S(toll), 600 W. 168th St, New York, N. Y. *Public health.* Charleston, S. C, Oct. 10, 88. B.S, Col. of Charleston, 14, LL.D, 38; M.D, Med. Col. State of S. C, 11. Sci. asst. to asst. surgeon, U. S. Pub. Health Service, 16–20; director child health demonstration, Rutherford Co, Tenn, 24–28, asst. state commissioner health, 30–32; assoc. prof. pub. health admin, Hopkins, 32–37; prof. prev. med, col. med, N. Y. Univ, 36–40; *director, DeLamar Inst. Pub. Health and prof. pub. health practice, col. physicians and surg, Columbia, 40–* Ed, 'Am. Jour. Pub. Health.' Mem. board sci. directors, int. health div, Rockefeller Foundation; cmt. health activities, Commonwealth Fund. Medical education; graduate public health education; public health administration.

Mutch, Dr. W(illiam) W(arren), Knox College, Galesburg, Ill. *Physics.* New Haven, Conn, April 29, 04. A.B, Ripon Col, 24; A.M, Wisconsin, 27; Ph.D, Yale, 36. Asst. physics, Wisconsin, 25–27; mem. tech. staff, Bell Tel. Labs, 27–32; asst. physics, Yale, 33–35; instr. *physics,* Pa. Col. for Women, 35–38; *assoc. prof,* Jamestown Col, 38–41; *Knox Col, 41–* Asn. Physics Teachers; Physical Soc. X-rays; high frequency; x-ray absorption spectra.

Muus, Prof. Jytte (Marie), Mt. Holyoke College, South Hadley, Mass. *Biochemistry.* Copenhagen, Denmark, Sept. 21, 04. M.S, Copenhagen, 30. Asst, Copenhagen, 30–36; asst. and research fellow, Harvard Med. Sch, 36–40; *asst. prof. physiol, Mt. Holyoke Col, 40–* Chem. Soc; Danish Chem. Soc. Complex calcium compounds; tissue metabolism; thyroid activity.

Muyskens, Prof. John H(enry), 230 Wildwood Ave, Ann Arbor, Mich. *Biolinguistics.* Orange City, Iowa, Sept. 3, 87. A.B, Michigan, 13, M.S, 20, Sc.D, 25. Sch. supt, Mich, 13; instr. French and German, Calvin Col, 14–17; assoc. prof. phonetics, Kennedy Sch. Missions, Hartford Theol. Sem. Foundation, 19; asst. psychol, *Michigan,* 20–21, French, 21–22, physiol, 22–23, French and Latin, 23–25, asst. prof. gen. linguistics, Latin dept, 25–28, phonetics in Latin and speech and director lab. speech and gen. linguistics, 28–33, *assoc. prof. phonetics and director lab. speech and gen. linguistics, 33–* Summers, lecturer, Wisconsin, Southern California and Wayne.

U.S.A, 17–19. A.A; Mod. Lang. Asn; Mich. Acad. The genesis of specificity of the developing speech process.

Myer, Dr. J(ames) Edson, 4855 Reservoir Road, N.W, Washington, D. C. *Forestry.* Milford, Pa, Dec. 21, 97. B.S, Syracuse, 20, M.S, 21, Ph.D, 26. Forest engineer, J. D. Lacey and Co, New York, intermittently, 20–28; *wood technologist in charge research, Nat. Lumber Mfrs. Asn, 28–* Soc. Foresters. Wood technology; wood ray volume of the commercial woods of the United States; the structure and strength of North American wood as influenced by range, habitat and position of the wood in the tree.

Myers, Dr. Burton D(orr), Indiana University, Bloomington, Ind. *[1]*Histology.* Attica, Ohio, March 30, 70. Ph.B, Buchtel, 93; A.M, Cornell, 00; M.D, Leipzig, 02. Sch. supt, Ohio, 93–97; asst. physiol, Cornell, 98–00; *anat,* Hopkins, 02–03, instr, 03; assoc. prof. and head dept, *Indiana,* 03–05, junior prof, 05–06, *prof, 06–,* asst. dean, 20–27, *dean at Bloomington, 27–* A.A; Asn. Anat; Micros. Soc. (exec. cmt, 99); Am. Med. Asn; Am. Council Educ; Asn. Med. Cols. (pres, 29). Anatomy; embryology; optic chiasma; commissures on floor of third ventricle; the position of the normal stomach and observations on the movement of the diaphragm; histological changes in testes following vasectomy; development of certain features of the cerebellum.

Myers, Prof. C(harles) E(mory), 304 W. Fairmount Ave, State College, Pa. *Horticulture.* Tivoli, Pa, Feb. 23, 82. B.S, Pa. State Col, 08; M.S, Cornell, 11, Ph.D, 22. Asst. hort, *Pa. State Col,* 08–11, asst. prof, 11–18, assoc. prof. *plant breeding,* 18–20, *prof, 20–* A.A; Genetic Asn. Vegetable gardening; plant breeding.

Myers, Dr. C(harles) S(noddy), U. S. Food and Drug Administration, Washington, D. C. *Physiological and organic chemistry.* Williamsport, Pa, Nov. 3, 06. B.S, Pa. State Col, 28; Mayo Foundation fellow, Minnesota, 28–32, Ph.D, 32. Asst. biochem, Mayo Clinic, 32–36; *assoc. chemist, food and drug admin, Fed. Security Agency, 36–* Chem. Soc. Chemistry of suprarenal cortex and thyroid; food decomposition.

Myers, Dr. C(hester) N(ewton), Columbia University, New York, N. Y. *Chemistry.* Schaghticoke, N. Y, Nov. 7, 84. A.B, Williams Col, 06, hon. Sc.D, 32; scholar, Hopkins, 08–09, fellow by courtesy, 09–10, Ph.D, 10. Assoc, Carnegie Institution, 10–14; org. chem, Hopkins, 10–14; org. chemist, U. S. Pub. Health Service, 14–19, passed asst. surgeon, Reserve, 19; org. chemist and biochemist, H. A. Metz Labs, 19, director chem. and clin. research, 19–35; *assoc. dermat. and syphilol, Columbia.* Consultant, U. S. Pub. Health Service, 19–; research chemist, Vanderbilt Clinic; director chemotherapy, N. Y. Skin and Cancer Hosp, 35; asst. pathologist, Neur. Inst. A.A; Soc. Biol. Chem; Soc. Exp. Biol; assoc. fel. N. Y. Acad. Med. Chemotherapy; therapeutic action of drugs by intradermal injections; local action of insulin; arsenic in legal medicine; action of arsenic in experimental animals; toxemias following heavy meals; eczema; varicose ulcer; acne; chemical constitution of arsenicals in therapy; trypanosomes; cancer; allergy; skin diseases; syphilology.

Myers, Dr. C(lovis) D, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Bloomington, Ind, March 17, 14. A.B, Simpson Col, 34; M.S, Iowa, 35, Ph.D, 37. Instr. chem, Park Col, 37–39; Col. of Emporia, 39–40; Boise Junior Col, 40–41; *research chemist, rayon dept, tech. div, Exp. Sta, E. I. du Pont de Nemours and Co, 41–* High molecular weight polymers used in the preparation of synthetic fibers.

Myers, Prof. C(lyde) H(adley), Wyckoff Road, Ithaca, N. Y. *Plant genetics.* Randolph, Ill, Feb. 6, 83. B.S, Ill. Wesleyan, 07; M.S, Illinois, 10; Ph.D, Cornell, 12. Asst. *plant breeding,* Illinois, 07–10; instr, *Cornell,* 11–12, asst. prof, 12–13, *prof, 13–* A.A; Genetic Asn; Soc. Agron. Bud variation; effect of environment; hybridization of cabbage and related plants.

Myers, David Moffat, 21 E. 40th St, New York, N. Y. *Engineering.* Owasco, N. Y, Jan. 8, 79. M.E, Columbia, 01. Steam and power investigations, U. S. Leather Co, 01–06; *consulting engineer, 06–* Consulting engineer, bur. yards and docks, U. S. Navy. Advisory cmt, Nat. Power Expos. Advisory engineer, U. S. Fuel Admin, chief fuel eng, div, 17–19. A.A; fel. Mech. Eng. (chairman, meetings and papers cmt). Industrial power economics; engineering; power plants; cost cutting for industrial power plants; surveys, designs and rehabilitation of industrial power plants; reducing industrial power costs.

Myers, Dr. D(onald) R(oyal), Battelle Memorial Institute, Columbus, Ohio. *Organic chemistry.* Cleveland, Ohio, Dec. 18, 13. B.S, Ohio State, 35, Ph.D, 40. Asst, Ohio State, 35–39; *research engineer, Battelle Mem. Inst, 41–* Cellulose chemistry.

Myers, Dr. Earl H(amlet), Scripps Institution of Oceanography, La Jolla, Calif. *Oceanography.* Joliet, Ill, 98. B.S, State Col. Wash, 21; Ph.D, California, 34. Instr, high sch, Wash, 21–25; teaching fellow zool, *California,* 25–26, tech. asst, 26–30, asst, *Scripps Institution,* 30–34, *research assoc, 34–* Lecturer, exten. div, California; Guggenheim Mem. Foundation fellow, 38–40; Rhumphius fellow, Treub Labs, Netherlands East Indies, 40–41; Penrose grant, Geol. Soc. Amer, 41–42; research assoc, Stanford, Joseph Henry Fund grant, Nat. Acad. Sciences, 38. A.A; Soc. Zool; fel. N. Y. Acad; fel. Nat. Hist. Soc. San Diego. Foraminifera; cytology of life histories; rate of reproduction; dissemination and distribution; marine invertebrates.

Myers, Dr. E(ulice) M(arcus), 3129 Harrison St, Oakland, Calif. *Chemical engineering.* Polkville, Miss, Oct. 20, 09. A.B, Miss. Col, 38; M.S, Iowa, 41, Ph.D, 42. Asst. power plant and water clarification, Iowa, 39–42; *chemist, Shell Develop. Co, 42–* Electrical conductivity applications in power plant control; clarification of water with bentonite with special application of Burton-Bishop rule.

Myers, Dr. Frank E(vans), New York University, New York, N. Y. *Physics.* Portland, Oregon, Dec. 31, 06. A.B, Reed Col, 27; M.S, N. Y. Univ, 30, Ph.D, 34. Teaching fellow, *N. Y. Univ,* 28–30, instr. *physics,* 30–37, *asst. prof, 37–; ballistics research, Frankford Arsenal, 41–* Research assoc, Mass. Inst. Tech, 40–41. Physical Soc. Electron scattering and diffraction as a search for polarization; production and application of high voltage to vacuum tubes; nuclear physics; ballistics.

Myers, Frank J(acob), 15 S. Cornwall Place, Ventnor, N. J. *Invertebrate zoology.* Bethlehem, Pa, April 2, 74. Lehigh, 98. *Research assoc. rotatoria, Am. Museum Nat. Hist, 21–* A.A; Micros. Soc; N. Y. Micros. Soc; Acad. Nat. Sci. Phila; fel. Royal Micros. Soc. Rotatoria; fresh-water invertebrate zoology.

Myers, Dr. Garry C(leveland), Children's Activities, 1018 S. Wabash Ave, Chicago, Ill. *Psychology.* Sylvan, Pa, July 15, 84. A.B, Ursinus Col, 09; Ph.D, Columbia, 13. Prin, pub. schs, Pa, 05–06; Ursinus Acad, 09–10; prof. social sciences and psychol, Juniata Col, 12–14; Brooklyn Training Sch. for Teachers, 14–20; head dept. psychol, Cleveland Sch. Educ, 20–27; head dept. parent educ, Cleveland Col, Western Reserve, 27–40; *ed. in chief, 'Children's Activities,' 34–* Ed. in chief, Weedon's Modern Encyclop; ed, 'Mothers' Activities.' Psychol. Corp. A.A; Psychol. Asn; Asn. Applied Psychol; Soc. Study Educ; Educ. Research Asn; fel. Ohio Acad. Genetic psychology; incidental memory; recognition and recall; association and perception; intelligence tests; learning.

Myers, Prof. George S(prague), Stanford University, Calif. *Zoology.* Jersey City, N. J, Feb. 2, 05. Indiana, 24–26; A.B, Stanford, 30, A.M, 31, Ph.D, 33. Asst. in charge fishes, Indiana, 24–26; asst, museum, Stanford, 26–32, comp. anat. and gen. zool, 30–32; asst. curator in charge div. fishes, U. S. Nat. Museum, 33–36; assoc. prof. *biol, Stanford,* 36–38, *prof, 38–, curator zool. collections, 36–* Collaborator ichthyol. and herp, Am. Museum Nat. Hist, 22–24; exped, Mex. border, 29, Death Valley, 30; ichthyologist, Hancock Pacific exped, Panama, Colombia, Ecuador, Peru and Galapagos Islands, 38; leader, Crocker-Stanford deep sea exped, 38; ichthyol. consultant and lecturer, Museu Nacional do Brasil, 42–43. Silver medal, Soc. Nat. d'Acclimatation de France, 36. A.A; Soc. Ichthyol. and Herp. (v. pres, 33, sec'y-treas, west. div, 29–32); Fisheries Soc; Wildlife Soc; fel. Am. Geog. Soc; Soc. Study Speciation; Grinnell Nat. Soc; West. Soc. Nat; fel. Calif. Acad; Ind. Acad; Biol. Soc. Wash; Wash. Biol. Field Club; hon. mem. Fish Culturists Md; hon. mem. Hudson County Aquarium Soc. (sec'y, 22, v. pres, 23); San Francisco Aquarium Soc. (pres, 29); Soc. Bibliog. Nat. Hist. London; Sociedade de Biologia do Brasil; Soc. zool. de France. Taxonomy, morphology, habits, phylogeny and geographical distribution of lower vertebrates, especially fishes; taxonomic principles and methods; geography; aquaria and aquarium management.

Myers, Prof. H(arold) E(dwin), Kansas State College, Manhattan, Kans. *Agronomy.* Netawaka, Kans, Feb. 12, 07.

B.S, Kans. State Col, 28; M.S, Illinois, 29; Gregory fellow, Missouri, 36–37, Ph.D, 37. Asst, Illinois, 28–29; instr. *agron, Kans. State Col,* 29–31, asst. prof, 31–37, assoc. prof, 37–42, *prof,* 42– A.A; Soc. Agron; Soil Sci. Soc; Kans. Acad. Soil fertility; soil nitrogen; factors influencing soil aggregation.

Myers, Prof. H(enry) C(offinberry), R. F. D. 1, Box 120, Palm City, Calif. *Chemistry.* Findlay, Ohio, Aug. 28, 64. Case, 85–86, hon. M.S, 30; Göttingen, 87–88; Lausanne, 89; Ph.D, Strassburg, 91; Stanford, 94–96. Prof. chem. and dean sch. pharmacy, Washington (Seattle), and state chemist, Wash, 96–99; chief chemist, Amalgamated Sugar Co, Utah and Colo, 99–04; consulting chemist, Honolulu Plantation Co, 04–05; manager hydraul. and quartz mining projects, Oregon, Calif. and Idaho, 06–20; Vulcan Mining Co, 20–24; *prof. chem, Pacific (Oregon), 24–* Hon. fellow, California, 99–04; manager, Argus Mining Co, 24– Chem. Soc; Soc. Chem. Indust; fel. London Chem. Soc. Organic, inorganic and industrial chemistry; reclaiming of arid and alkali lands of the Interior Basin through sugar beet culture.

Myers, Dr. Hugh I(rvin), University of Richmond, Richmond, Va. *Biology.* Dobson, Miss, Nov. 7, 10. A.B, Miss. Col, 30; A.M, Richmond, 32; Arnold fellow, Brown, 34–35, Ph.D, 35. Asst. biol, Richmond, 30–32; Brown, 32–34; *asst. prof. zool, Richmond, 35–* A.A; Soc. Zool; Va. Acad. Physiology of reproduction.

Myers, Prof. Jack (Edgar), University of Texas, Austin, Texas. *Physiology.* Boyds Mills, Pa, July 10, 13. B.S, Juniata Col, 34; M.S, Mont. State Col, 35; Ph.D, Minnesota, 39. Nat. research fellow, Smithsonian Institution, 39–41; *asst. prof. physiol, Texas, 41–* Soc. Plant Physiol. Photosynthesis; the plant pigments; biological effects of radiation; taxonomy of the Spirillaceae.

Myers, Dr. J(ay) A(rthur), University of Minnesota, Minneapolis, Minn. *Anatomy, Medicine.* Croton, Ohio, Nov. 25, 88. B.S, Ohio (Athens), 12, M.S, 13; Ph.D, Cornell, 14; M.D, Minnesota, 20. Instr. anat, Missouri, 13–14; *Minnesota,* 14–18, internal med, 20–23, asst. prof. med, 23–26, assoc. prof. *prev. med,* 26–31, *prof, 31–* Private practice, 20–; chief tuber. service, Minneapolis Gen. Hosp; chief med. staff, Minneapolis Pub. Health Center; chief chest clinic, Minnesota. Chairman ed. board, 'Jour-Lancet.' Chairman thoracic sect, Pan-Am. Med. Asn. Cong, 38. A.A; fel. Am. Med. Asn; fel. Col. Physicians; Sch. Health Asn; Col. Chest Physicians (pres. elect, 41); Tuber. Asn. (director, 26–42, pres, 37); Asn. Anat; Pub. Health Asn; Student Health Asn; Sch. Health Asn. (chairman cmt. tuber, 34–); Minn. State Med. Asn. (chairman cmt. tuber, 35–); Minn. Pub. Health Asn. (pres, 27–33, mem. exec. cmt, 24–). Tuberculosis and diseases of the chest.

Myers, Dr. John T(ennyson), Bendiner and Schlesinger Laboratories, Third Ave. and Tenth St, New York, N. Y. *Bacteriology, Immunology.* Wyman, Iowa, Oct. 6, 84. A.B, Washburn Col, 11; fellow, Kansas, 11–12, M.S, 12; Logan fellow, Chicago, 24, Ph.D, 24; M.D, Nebraska, 29. Asst. chem, Washburn Col, 10–11; chemist, Dept. Health, Chicago, 13; asst. quantitative analysis, 13–14; hygiene and bacter, Chicago, 15; instr. path. and bacter, col. med, Nebraska, 16–17, asst. prof, 17–24, assoc. prof, 24–30, prof. bacter. and pub. health and director dispensary, 30–35; assoc. director and later *director, Bendiner and Schlesinger Labs, 35–* Cmt. Standardization of Biol. Stains. A.A; Soc. Bact; Am. Med. Asn; Chem. Soc; Soc. Clin. Path; Pub. Health Asn. The reactions of the formamidines; production of hydrogen sulfide by bacteria; relationship of hard water to health; bacteriophage.

Myers, Dr. L(atimer) D(uffield), Emery Industries, Inc, 4300 Carew Tower, Cincinnati, Ohio. *Chemistry.* New Kensington, Pa, March 10, 03. Ch.B, Pittsburgh, 23, Ph.D, 27. Asst, Pittsburgh, 23–27; research chemist, Twitchell Process Co, 27–30, *tech. director,* Twitchell Process Co. and later *Emery Industries, Inc, 31–* Chem. Soc; Oil Chem. Soc. Paraffin wax; mineral oils; fatty acids; emulsions; sulfonated mineral oils.

Myers, Lawrence, 230 Prospect St, Chevy Chase, Md. *Agricultural economics.* Humboldt, Iowa, July 14, 98. B.S, Minnesota, 22; fellow, Iowa State Col, 22–23, M.S, 23. Asst, Minnesota, 21–22, asst. and instr. agr. econ, 23–27; assoc. agr. economist, bur. agr. econ, *U. S. Dept. Agr,* 27–28, agr. economist, 28–29, senior agr. economist, 29–33, prin. agr. economist and econ. adviser to agr. adjust. admin, 33–35, head agr. economist and chief cotton marketing sect, 35–36, chief marketing sect, 36–39, *director gen. crops div, Commodity Credit Corp, 39–* Farm Econ. Asn; Statist. Asn. Demand for commercial fertilizers; prices, supply and demand for cotton and wool; competition between cotton and other commodities; processing taxes; subsidies on cotton and cotton products; new uses for farm products; marketing agreements; export subsidies; market stabilization programs; commodity purchase and loan.

Myers, Dr. Mabel A(delaide), 617 W. Center St, Anaheim, Calif. *Histology, Zoology.* Indianapolis, Ind, Oct. 8, 00. A.B, Pomona Col, 21, A.M, 22; Ph.D, Cornell, 26. Asst. in charge physiol. lab, Pomona Col, 20–21; teacher, high sch, Calif, 22–24; asst. *histol. and embryol,* Cornell, 25–26; *instr,* high sch, Calif, 26–28; *Fullerton Junior Col, 28–* A.A; Audubon Soc; Cooper Ornith. Club; West. Soc. Nat. Experimental zoology; observations of habits and life history of the moth Lophoptilus eloisella; tonsillar developments in the lingual region of anurans; life history of western batrachoseps; effect of thyroid extract upon development of lymphoid tissue in amphibians.

Myers, P(hilip) B(liss), Sardik Laboratories, 305 45th St, New York, N. Y. *Chemistry.* Hudson, Ohio, Dec. 14, 92. Western Reserve; B.S, Case, 17. Research chemist, E. I. du Pont de Nemours and Co, 17–20; chief chemist, anal. lab, Grasselli Chem. Co, 20–24; Exp. Sta, Delaware, 24–33; *chemist in charge research, Sardik Labs, New York, 33–* V. pres. and gen. manager, Universal Colloid, Inc, 40. Chem. Soc. Soils; mechanism of buffer action in soils; foods; fruit jellies; extraction of pectin.

Myers, Dr. Ralph E(merson), 257 Midland Ave, East Orange, N. J. *Chemistry.* Wooster, Ohio, June 13, 79. B.S, Buchtel, 01, M.S, 02; Ph.D, Pennsylvania, 04; Pa. State Col, 04–09. In charge electrochem. eng, Pa. State Col, 04–09; chem. engineer in charge chem. research and tungsten filament manufacture, Westinghouse Lamp Co, Bloomfield, N. J, 09–15, chief engineer in charge research and develop, 15–29; v. pres. in charge manufacture and eng, Nat. Union Radio Corp, Newark, 29–35; investigations and consulting electronic field, 38–42; *radar rep. in charge eng. liaison, Sig. Corps, U. S. Army, Research Enterprises, Ltd, Can, 42–* Treas, Rare Metal Products Co, Belleville, N. J, 14–35; develop. and consulting work, 35–42. Chem. Soc; Chem. Eng; Elec. Eng. Electrochemistry; chemical engineering and manufacture; incandescent lamps; vacuum tubes.

Myers, Dr. Ralph E(merson), 1122 N. E. 13th St, Oklahoma City, Okla. *Radiology.* Buskirk, N. Y, Jan. 28, 88. A.B, Yale, 09, A.M, 10; M.D, Cornell, 18. Chief chemist, Battle Creek Sanitarium, 10–11; teaching fellow physiol, Harvard Med. Sch, 11–12; lecturer pharmacol. and physiol, Albany Med. Col, Union (N. Y.), 12–13, adj. prof, 13–14; prof. pharmacol, sch. med, Maryland, 19–20; pharmacol. and physiol. chem, med. sch, George Washington, 20–22; director labs, St. Anthony's Hosp, Oklahoma City, 22–29; *practising physician, 29–* U.S.A, 18–19. A.A; fel. Am. Med. Asn; Radium Soc; Soc. Clin. Path; fel. Col. Radiol; Radiol. Soc. N. Amer; South. Med. Asn. Roentgen diagnosis and radiation treatment.

Myers, Prof. R(aymond) J, 10 University Ave, Hamilton, N. Y. *Zoology.* Bellevue, Ohio, Dec. 5, 03. A.B, Heidelberg Col. (Ohio), 27; Indiana, 27–30; Ph.D, Pennsylvania, 33. Asst, Indiana, 27–30; instr, Pennsylvania, 30–34; *zool, Colgate,* 34–42, *asst. prof, 42–* Summers, biol. sta, Indiana, 28–31. A.A; Soc. Zool; Ind. Acad. Reproduction in Hirudinea; limnology.

Myers, Dr. Robert J(ames), Rohm and Haas Co, Philadelphia, Pa. *Chemistry.* Omaha, Nebr, Aug. 22, 09. B.S, Creighton, 31; Cudahy Packing Co. fellow, Hopkins, 31–35, Ph.D, 35. Asst. pediat. and chem, Hopkins, 34–35; research assoc. chem, Chicago, 35–36, research instr, 36–37; *chemist, Rohm and Haas Co, 37–* Chem. Soc. Emulsions; fat metabolism; surface films; contact potentials; wetting agents; detergents; synthetic resins; paints; base exchange phenomena; water purification; synthetic rubber; resins in paper field; plywood and paper laminates.

Myers, Dr. R(obert) P(age), 1403 Eutaw Place, Baltimore, Md. *Bacteriology.* Glasgow, Ky, July 3, 00. B.S, California, 23; M.S, Cornell, 26, Ph.D, 28. Instr. dairy indust, Cornell, 25–28; bacteriologist, Mead Johnson and Co, Ind, 28–29; *bacteriologist, Sealtest, Inc, 29–* A.A; Soc. Bact; Dairy Sci. Asn; Pub. Health Asn. Germicidal properties of alkaline washing solutions and chlorine sterilizers; dairy bacteriology.

Myers, Dr. Rollin Gulzot, P. O. Box 86, Cavite, P. I. *Chemistry.* Shelby, Ohio, Sept. 14, 77. B.S, Case, 01, M.S, 09;

Berlin; Chicago; fellow, Stanford, 19, Ph.D, 20. Chemist, U. S. Referee Board, Chicago, Ill, 09–10; instr. chem, col. pharmacy, Northwestern, 10–11; instr. and demonstrator, Tulane, 11–14, asst. prof, 14–18; instr. Stanford, 18; *assoc. chemist, U. S. Civil Service Cmn, 19–;* chemist in charge testing lab, Q.M.C, U. S. Army, Ft. Mason, San Francisco, 19–25; asst. chemist, Mare Island, Calif, 29; *chemist, U. S. Navy Yard, Cavite, P. I, 29–* Chemist, Pacific Gas and Elec. Co, 26. A.A; Chem. Soc. Vulcanized fiber; potassium persulfate for nitrogen determination in urine; stability of salivary amylase; composition of blood in invertebrate animals and whales; relation of chemical constitution to taste; use of petroleum ether in paint separations; organic matter in accumulator sulfuric acid; determination of antimony in rich-lead mixtures or alloys.

Myers, Dr. (Roy) Maurice, Denison University, Granville, Ohio. *Botany.* Scottdale, Pa, Sept. 24, 11. B.S, Ohio State, 34, A.M, 37, Ph.D, 39; Northwestern, 38–40. Teacher, high sch, Ohio, 34–35; asst. bot, Ohio State, 35–38; Northwestern, 38–40; *instr,* Boise Junior Col, 40–42; *biol, Denison, 42–* Summers, field agent, U. S. Dept. Agr, 38; instr, Northwestern, 40; field asst, U. S. Forest Service, 41. A.A; Bot. Soc; Soc. Plant Physiol; Ill. Acad; Ohio Acad. Physiology and anatomical changes in abscission of leaves and fruits; relation of phytohormones to abscission; Idaho flora.

Myers, Dr. S(umner) B(yron), University of Michigan, Ann Arbor, Mich. *Mathematics.* Boston, Mass, Feb. 19, 10. A.B, Harvard, 29, A.M, 31, Ph.D, 32. Instr. math, Harvard, 29–32, Rogers traveling fellow, 32–33, instr. math, 33–34; nat. research fellow, Princeton and Inst. Advanced Study, 34–36; instr. *math, Michigan,* 36–38, asst. prof, 38–43, *assoc. prof, 43–* Summer, lecturer, Chicago, 41. Assoc. ed, 'Duke Math. Jour,' 38–41; assoc. ed, 'Am. Jour. Math,' 41– Math. Soc. Calculus of variations; differential geometry and topology.

Myers, Prof. Victor C(aryl), Western Reserve University, Cleveland, Ohio. *Biochemistry.* Buskirk Bridge, N. Y, April 13, 83. A.B, Wesleyan, 05, A.M, 07, hon. Sc.D, 30; fellow, Yale, 07–09, Ph.D, 09. Adj. prof. physiol. chem. and director dept. physiol. chem. and exp. physiol, Albany Med. Col, Union (N. Y), 09–11; lecturer chem. path, N. Y. Post-Grad. Med. Sch. and Hosp, 11–12, prof. path. chem, 12–22, biochem. and director dept, 22–24; head dept, Iowa, and path. chemist, Univ. Hosp, 24–27; *prof. biochem. and director dept, sch. med, Western Reserve, 27–, sch. dentistry, 29–, sec'y med. faculty, 29–* Assoc. ed, 'Jour. Lab. and Clin. Med.' Major, Sanit.C, 24–34. A.A; Soc. Biol. Chem. (sec'y, 19–23, councilor, 24); Chem. Soc; Fed. Societies Exp. Biol. (exec. sec'y, 22); Physiol. Soc; Soc. Exp. Biol. (councilor, 21–23, sec'y-treas, 24, chairman, Iowa branch, 25–27); assoc. fel. Am. Med. Asn; Gastro-Enterol. Asn; Harvey Soc; Am. Dental Asn. (council dental therapeut, 30–); Inst. Nutrition; assoc. fel. N. Y. Acad. Med; Soc. de Chim. biol; Int. Asn. Dental Research. Metabolism of creatine, creatinine and pyrimidines; chemistry of blood in health and disease; biological studies on aluminum; clinical studies on enzymes; chemistry of heart muscle.

Myers, Dr. Ward R(olston), 2402 Cedar St, Roselle, Wilmington, Del. *Metallurgy.* Harrisonburg, Va, Nov. 28, 07. A.B, Bridgewater Col, 29; M.S, Vanderbilt, 32, Ph.D, 37. Metallurgist, Youngstown Sheet and Tube Co, 29–31; instr, Vanderbilt, 35–37; *metallurgist, E. I. du Pont de Nemours and Co, Inc,* 37– Soc. Metals. Carbides of manganese; precious metal alloys; silver alloys; corrosion resistant materials.

Myers, Dr. W(illia)m G(raydon), 2724 Wexford Road, Columbus, Ohio. *Physical chemistry.* Toledo, Ohio. Aug. 7, 08. A.B, Ohio State, 33, M.S, 37, Ph.D, 39, M.D, 41. Asst. chem, *Ohio State,* 33–37, Comly asst. med. research, 39–42, *research assoc, univ. research foundation, 42–* Chem. Soc. Chemistry of proteins; gelation; immunochemistry; nutritional aspects and industrial applications.

Myers, Dr. W(illiam) H(arold), Hercules Powder Co, Wilmington, Del. *Cellulose chemistry.* Burlington, Vt, Feb. 25, 14. B.S, Vermont, 35; Ph.D, Univ. St. Andrews, 39. Chemist, Standard Oil Co, N. J, Aruba, 35–37; *research chemist, Hercules Powder Co, 40–* Cellulose and cellulose derivatives.

Myers, Prof. W(illiam) H(oward), San Jose State College, San Jose, Calif. *Mathematics.* Dodge Co, Nebr, Nov. 17, 08. A.B, Stanford, 34, Ph.D, 39; A.M, California, 35. Asst. *math,* Stanford, 35–36, instr, 36–39; Utah, 39–40; asst. prof, *San Jose State Col,* 40–43, *assoc. prof, 43–, acting head dept, 43–* Second lieut, Ordnance Res, 38–42. A.A; Math. Soc; Math. Asn. Linear homogeneous substitution groups; navigation; the teaching of mathematics.

Myers, Dr. W(illiam) I(rving), Cornell University, Ithaca, N. Y. *Agriculture.* Lowman, N. Y, Dec. 18, 91. B.S, Cornell, 14, Ph.D, 18. Instr. farm management, *N. Y. State Col. Agr, Cornell,* 14–18, asst. prof, 18–20, *prof. farm finance, 20–, head dept. agr. econ. and farm management, 38–, dean, 43–* Int. Educ. Board fellow, 26; asst. to chairman, Fed. Farm Board, 33, deputy governor, Farm Credit Admin, 33, governor, 33–38. Chairman land cmt, Nat. Resources Planning Board, 38–43. Trustee and mem. exec. cmt, Rockefeller Foundation; Gen. Educ. Board; faculty rep, board trustees, Cornell, 39–; trustee, Twentieth Century Fund. Award, Am. Farm. Bur. Federation, 38; Hon. Am. Farmer, Future Farmers of Amer. Bankers Asn. (advisory councilor, agr. cmn); Farm Econ. Asn. (sec'y-treas, 27–31, pres, 34); Agr. Econ. Asn. England. Farm finance; farm management; cooperative marketing.

Myers, Prof. W(illiam) M(arsh), 218 Adams Ave, State College, Pa. *Mineralogy, Geology.* Clinton, N. Y, Nov. 22, 92. B.S, Syracuse, 14; M.S, Michigan, 23, Ph.D, 33. Crucible Steel Co, 14–15; Kalem Co, Inc, 15–17; Cerro de Pasco Copper Corp, 17–18; New Cornelia Copper Co, 19–20; Homestead Iron Dyke Mines, 20–21; assoc. mineral technologist, U. S. Bur. Mines, 21–27; U. S. Gypsum Co, 27–32; H. B. Earhart, Inc, 34–38; asst. prof. *mineral econ. and technol, sch. mineral indust, Pa. State Col,* 38–42, *assoc. prof, 42–* Fel. Miner. Soc; Min. and Metal. Eng. Non-metallic minerals; gold; economics of mineral industries.

Myers, Dr. William S(hields), 'Stonehenge,' Bainbridge, N. Y. *Chemistry, Ceramics, Sanitation.* Albany, N. Y, Dec. 15, 66. B.S, Rutgers, 89, M.S, 94, Sc.D, 08; Munich, Berlin and London, 90–92. Asst. chemist, N. J. Exp. Sta, 88–89; chemist, Lister Chem. Works, 92–93; instr. and assoc. prof. chem, Rutgers, 93–01; director, Chilean Nitrate of Soda Educ. Bur. for U. S. and N. Amer, 01–27. N. J. Geol. Surv, 93–01; mayor, New Brunswick, 04–06; special consul for Chile, in U. S, 18– Trustee, Rutgers, 02–37, managing cmt, N. J. State Col. Agr, 20–; trustee, Okolona Indust. Sch. Jury awards, Jamestown Expos, 07. A.A; Chem. Soc; Chemists' Club; Soc. Chem. Indust. Gt. Britain; fel. London Chem. Soc. Ceramics; sanitation; waters, soils and clays of New Jersey; effects of nitrogen upon crops; yields.

Myerson, Dr. Abraham, 475 Commonwealth Ave, Boston, Mass. *Neurology, Psychiatry.* Yanova, Russia, Nov. 23, 81. M.D, Tufts Col, 08. Instr. neuropath, St. Louis, 12–13; assoc, Harvard Med. Sch, 13–17; asst. prof. and prof. *neur, med. sch, Tufts Col,* 17–35, *emer. prof, 35–; clin. prof. psychiat, Harvard Med. Sch, 35–* Director research, Boston State Hosp; visiting neurologist, Boston City Hosp; consultant neurologist, Beth Israel and Boston Psychopathic Hosps. A.A; Neur. Asn. (chairman, cmt. investigating sterilization; 2nd v. pres); Psychopath. Asn; Am. Med. Asn; Asn. Path. and Bact; Mass. Psychiat. Asn. (past pres); Boston Soc. Psychiat. and Neur. (past pres). Reflexes; syphilis; pathology and pharmacology of the sympathetic nervous system; inheritance of mental diseases; personality tests; biochemistry of brain blood; x-ray studies of blood vessels of brain; intracranial dynamics; psychology of mental disorders.

Myklestad, Prof. N(ils) O(tto), 13046 Bloomfield St, Los Angeles, Calif. *Applied mechanics.* Williston, N. Dak, March 24, 09. Royal Tech. Col. Copenhagen, 26–32; California, 37–38; Ph.D, Cornell, 40. Mech. engineer, Westinghouse Elec. and Mfg. Co, 32–34; Fairbanks, Morse and Co, 34–35; draftsman, Atlas Imp. Diesel Eng. Co, 35–36; mech. engineer, Standard Oil Co, Calif, 36–37; teaching asst. mech. eng, California, 37–38; instr. mech, Cornell, 38–40; *asst. prof. mech. eng, Ill. Inst. Tech, 40–* Thermal stress.

Mylks, Dr. G(ordon) W(right), 122 Wellington St, Kingston, Ont, Can. *Gynecology, Obstetrics.* Algonquin, Ont, Aug. 14, 74. M.D, Queen's (Can). Demonstrator path, *Queen's (Can),* 99–02, anat, 02–04, prof, 04–11, gynec, 11–28, *gynec. and obstet,* 28–39, *emer. prof, 39–* Governor, Kingston Gen. Hosp, 15–, consultant dept. obstet. and gynec. Fel. Col. Surg; fel. Royal Col. Physicians and Surg. Can; Can. Med. Asn; Ont. Med. Soc; Frontenac Med. and Surg. Soc. Blood changes associated with pregnancy toxemias.

Mylon, Dr. Ernst, 309 Central Ave, New Haven, Conn. *Experimental medicine.* Germany, Jan. 20, 95. M.D, Berlin, 21. Asst. prof. path. chem, Berlin, 21–28, int. med, 28–31,

assoc. prof, 31–33; hon. prof, Belgrade, 33–38; *research asst. path, sch. med, Yale, 38–* Biochemistry; cardio-vascular and kidney diseases; traumatic shock.

Mylrea, Prof. T(homas) D(ouglas), University of Delaware, Newark, Del. *Civil engineering.* Liverpool, Eng, Jan. 17, 86. B.S, Illinois, 09, hon. C.E, 22. Civil engineer, 09–22; asst. prof. and assoc. prof. civil eng, Illinois, 22–27; *prof.* bldg. construction, Carnegie Inst. Tech, 27–34; *civil eng, Delaware, 34–* Civil Eng; Eng. Educ; Concrete Inst. Structural engineering; reinforced concrete.

Myrick, Dr. R(aymond) T(hompson), 1932 W. Park Ave, Whiting, Ind. *Chemistry.* Richmond, Ind, Nov. 16, 88. B.S, Earlham Col, 12; Ph.D, Hopkins, 16. Instr. chem, Earlham Col, 12–13; Hopkins, 15–16; *with Standard Oil Co. of Ind, 16–* Chem. Soc. Physical chemistry; colloidal phenomena; petroleum.

Mysels, Dr. Karol J(oseph), Stanford University, Calif. *Physical chemistry.* Krakow, Poland, April 14, 14. Licencies-Sciences, Lyon, 37; Ph.D, Harvard, 41. Mem. patent dept, Shell Develop. Co, Calif, 40–42, eng. dept, 42; Chem. Warfare Service, U. S. Army, 42–43; asst, *Stanford,* 41–42, *research assoc. chem, 42–* Chem. Soc; assoc. Leather Chem. Asn. Structure of cobalt complexes; conductivimetry; surface conductivity; polarizability of unsymmetrical ions.

N

Nabours, Prof. Robert K(irkland), Kansas State College, Manhattan, Kans. ***Zoology.* Many, La, Nov. 5, 75. B.E, Chicago, 05, Ph.D, 11. Teacher nat. hist. and asst. curator museum, Chicago, 05–09, asst. *zool,* 09–10; instr, *Kans. State Col,* 10–11, asst. prof, 11–13, *prof. and head dept, curator nat. hist. museum and zoologist, Exp. Sta, 13–* Assoc, Carnegie Institution, 29–30. Bokhara sheep investigation exped, Cent. Asia, 14; round-the-world exped, reopening Cent. Asia fur trade, 19–20; grouse locust exped, south. Mex, 37. A.A; Soc. Nat; Soc. Zool; Kans. Acad. (pres, 19). Animal genetics; inheritance in Orthoptera.

Nabrit, Prof. S(amuel) Milton, Morehouse College, Atlanta, Ga. *Morphology, Physiology.* Macon, Ga, Feb. 21, 05. B.S, Morehouse Col, 25; M.S, Brown, 28, Ph.D, 32. Instr. *biol, Morehouse Col,* 25–27, *prof, 28–* Exchange prof, Atlanta, 30, prof, 32. A.A; assoc. Soc. Zool; Soc. Study Growth and Develop; N. Y. Acad. Rôle of fin rays and basal plate of the tail in the regeneration of tail-fins of fishes; regeneration in central nervous systems of fishes.

Nachlas, Dr. (Israel) William, 1814 Eutaw Place, Baltimore, Md. *Medicine.* Baltimore, Md, Oct. 2, 94. A.B, Hopkins, 14, M.D, 18. Asst. orthop. surg, *sch. med, Hopkins,* 19–23, instr, 23–29, *assoc, 29–; major, Med. Corps, U. S. Army.* Res. house officer, Hopkins Hosp, 18–19, orthop. res, 19–20, asst. dispensary orthop. surgeon, 20–23, dispensary orthop. surgeon, 23–, asst. visiting orthop. surgeon, 27–; adj. orthop. surg, Sinai Hosp, 20–21, attending orthop. surgeon, 21–; orthop. surgeon, Children's Hosp. Sch. and Robert Garrett Hosp; consulting orthop. surgeon, Provident Hosp. and Mt. Pleasant Home for Consumptives; orthop. surgeon, visiting staff, Union Mem. Hosp; Women's Hosp. and W. Baltimore Gen. Hosp, 20– A.A; Am. Med. Asn; Orthop. Asn; Acad. Orthop. Surg; South. Med. Asn. Orthopedic surgery.

Nachod, Dr. Frederick C(onstantine), Oxmead Road, Mt. Holly, N. J. *Physical chemistry.* Leipzig, Germany, Oct. 4, 13. Sorbonne, 31; B.S, Freiburg, 32; A.M, Leipzig; Sc.D, Utrecht, 38. Res. assoc, Royal Dutch Univ, Utrecht, 38–39; res. fellow, Columbia, 39; res. chemist, Baker and Co, Inc, Newark, N. J, 39; instr. chem, Col. City N. Y, 39–40; *res. chemist, Permutit Co, Birmingham, N. J, 40–* Collaborator, 'Chem. Abstracts' and 'Encyclopedia of Chem. Reactions.' A.A; Chem. Soc; N. Y. Acad; Franklin Inst. Heavy water; temperature coefficient of conductance and dissociation constants; precious metals; ion exchange and adsorption phenomena.

Nachod, Dr. George, 4 Lexington St, Newark, N. J. *Inorganic chemistry.* Leipzig, Germany, April 30, 89. Ph.D, Leipzig, 21. Assoc. ed, 'Gmelin's Handbook Inorg. Chem,' German Chem. Soc, 26–37; *research chemist, Merck and Co, 40–* Chem. Soc. Mineralogic synthesis.

Nadai, Dr. A, 136 Cherry Valley Road, Forest Hills, Wilkinsburg, Pa. *Mechanics.* Budapest, Hungary, April 3, 83. M.E, Zurich, 06; D.Ing, Berlin, 12. On staff, Göttingen, 19–26, prof. applied mech, 26–29; *research labs, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 29–* Lecturer, Illinois, 28; Michigan, 30; Edgar Marburg lecturer, Soc. Test. Mat, Chicago, 31; lecturer, Pittsburgh, 40. Summer, lecturer, Mass. Inst. Tech, 37. Ed. board, 'Applied Mechanics.' Officer, World War, 15–18. Mech. Eng. (chairman, rolling mill research cmt; mem. research cmt. shell forging); Soc. Test. Mat; Geophys. Union; Soc. Rheol. Plasticity; applied and theoretical mechanics; applied elasticity and mechanics of the plastic state of metals; testing of materials; creep of metals at high temperatures.

Nadeau, Dr. Gale F(rancis), 88 Pinecrest Drive, Rochester, N. Y. *Chemistry.* South Bend, Ind, March 3, 05. B.S, Toledo, 27, M.S, 28; Ph.D, Ohio State, 31. Research chemist, *Eastman Kodak Co,* 31–35, *supervisor develop, roll coating dept, 35–* Chem. Soc. (v. chairman, exec. cmt, Rochester sect, 34, chairman, 35); Photog. Soc. Amer. (Rochester tech. sect); N. Y. Acad. Carbohydrate chemistry; simple sugars; acid base equilibria in non-aqueous solvents; gelatine; plant and process development in the manufacture of photographic film.

Nadler, Dr. J(acob) Ernest, 3138 90th St, Jackson Heights, N. Y. *Pharmacology.* New York, N. Y, Sept. 5, 99. A.B, Clark, 23; A.M, Hopkins, 25; fellow, Pennsylvania, 27–30, M.D, 30; M.D.Sc, N. Y. Univ, 38. Instr. biol. and embryol, Hopkins, 23–25; physiol. and pharmacol, *med. sch,* Georgia, 25–27; asst. *med, N. Y. Univ,* 33–38, *instr, 38–; lieut. commander, U. S. Naval Res.* Soc. Pharmacol; Soc. Exp. Biol; Heart Asn; Am. Med. Asn; Therapeut. Soc. Experimental therapeutics.

Nadler, Dr. S(amuel) B(ernard), Ochsner Clinic, Aline and Prytania St, New Orleans, La. *Biochemistry.* Quebec, Que, Can, Aug. 12, 05. B.A, McGill, 26; A.M, Harvard, 29, Ph.D, 31; M.D, Tulane, 36. Teaching fellow, Harvard Med. Sch, 27–30; instr. biochem, *sch. med, Tulane,* 30–36, *instr.* and *asst. prof. clin. med, 36–* Director Joseph Hume research lab, Touro Infirmary, 37– Assoc. Col. Physicians; La. Med. Soc. Muscle phosphorus; thyroid and derivatives.

Nadler, Dr. Walter H(erman), 8 S. Michigan Ave, Chicago, Ill. *Medicine.* Peru, Ill, April 30, 89. B.S, Northwestern, 10, M.D, 13. Asst. prof. *med, Northwestern,* 25–32, *assoc. prof, 32–* Attending physician, Passavant Mem. Hosp. Consultant, U. S. Veterans' Admin, Hines, Ill. A.A; Am. Med. Asn; Cent. Soc. Clin. Research; Inst. Med. Chicago; Chicago Int. Med. Soc; Chicago Path. Soc. Diseases of metabolism, especially diabetes.

Naeser, Prof. C(harles) R(udolph), George Washington University, Washington, D. C. *Chemistry.* Mineral Point, Wis, Nov. 13, 10. B.S, Wisconsin, 31; Illinium fellow, Illinois, 31–32, M.S, 33, Ph.D, 35. Asst. gen. chem, Illinois, 32–35; instr. *inorg. chem, George Washington,* 35–37, *asst. prof, 37–* A.A; Chem. Soc; Electrochem. Soc; Ornith. Union. Rarer elements and rare earths; rhenium; neodymium; gadolinium; ytterbium.

Naeter, Prof. A(lbrecht), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Electrical engineering.* New Baden, Texas, March 21, 94. B.S, Texas, 17; M.S, Cornell, 23. Instr. elec. eng, Cornell, 19–23; assoc. prof, North Carolina, 23–24; in charge of dynamo lab, Pratt Inst, 24–25; assoc. prof. *elec. eng,* Mich. State Col, 25–29; *prof. and head dept, Okla. Agr. and Mech. Col, 29–* Summers, test dept, N. Y. Edison Co, 20–23, 25; relay sect, operation dept, Detroit Edison Co, 26–28. Gen. Elec. Teachers Conf, 30. Machine gun instr, Aviation Sect, U.S.A, 18–19. Elec. Eng. (chairman, Okla. City sect, 34); Eng. Educ. (chairman, elec. eng. div, 37). Rural electrification; development of college engineering curricula.

Nafe, Prof. John P(aul), Washington University, St. Louis, Mo. *Psychology.* Valley, Nebr, June 2, 88. A.B, Colorado, 11; Ph.D, Cornell, 24. Instr. *psychol,* Cornell, 21–24; asst. prof, Clark, 24–25, assoc. prof, 25–27, prof, 27–31; *prof. and head dept, Washington (St. Louis), 31–* Guggenheim Mem. Foundation fellow, 29–30. Summers, Colorado, 24–26. A.A; Psychol. Asn. Cutaneous sensations; general sensibility; affective processes.

Naffziger, Prof. Howard C(hristian), University of California Hospital, San Francisco, Calif. *Surgery.* Nevada City Calif, May 6, 84. B.S, California, 07, M.S, 08, M.D, 09 Various positions to *prof. surg, med. sch, California, 29–; surgeon in chief, univ. hosp.* Chairman subcmt. neur. surg, surg. cmt, Nat. Research Council. Lieut. col, U.S.A, col, R.C

A.A; Surg. Asn; Soc. Neur. Surg. (pres, 29); Neur. Asn. (v. pres, 33); Asn. Research Nervous and Mental Disease; Am. Med. Asn; Cent. Neuropsychiat. Asn; Col. Surg. (regent, 33–; pres, 38); West. Surg. Asn. (v. pres, 36); Pacific Coast Surg. Soc; Calif. Acad. Med. (pres, 30); San Francisco Co. Med. Soc. (pres, 28); San Francisco Neur. Soc; San Francisco Path. Soc; Int. Surg. Asn. Diagnosis, pathology and treatment of surgical diseases of the nervous system.

Naffziger, Dr. Theodore Roosevelt, Martha St, Peoria, Ill. *Chemical engineering.* New Sharon, Iowa, Nov. 6, 04. B.S, Iowa State Col, 27, M.S. 28, Ph.D, 31. Junior chem. engineer, eng. exp. sta, Iowa State Col. and Bur. Standards, 28–34; research chemist, Hercules Powder Co, 34–38; asst. chem. engineer and chem. engineer, research div, bur. agr. chem. and eng, *U. S. Dept. Agr,* 38–40, assoc. chem. engineer, *north. regional research lab,* 40–42, *chem. engineer, bur. agr. and indust. chem, 42–* Chem. Eng. Production of thermosetting plastics and production of a low cost wall board from agricultural residues.

Naftel, Dr. James A(rchibald), Alabama Polytechnic Institute, Auburn, Ala. *Chemistry.* Naftel, Ala, Oct. 9, 05. B.S, Ala. Polytech, 26, M.S. 30; Ph.D, Ohio State, 32. Asst. research chemist, Brown Co, Portland, Maine, 26–28; asst. chemist, Exp. Sta, Florida, 28; asst, Ohio State, 30–32; *asst. chemist, Exp. Sta, Ala. Polytech, 32–* Soc. Agron; Ala. Acad; Int. Soc. Soil Sci. Soil reaction with glass electrode; the effect of lime on physicochemical properties of soils.

Nagel, Dr. C(latus) M(artin), Iowa State College, Ames, Iowa. *Plant pathology.* Sheldon, N. Dak, Nov. 10, 06. B.S, N. Dak. State Col, 29; M.S, Iowa State Col, 32, fellow, 32–34, Ph.D, 38. Asst. plant path, Exp. Sta, *Iowa State Col,* 34–38, *agent, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 41–* Phytopath. Soc. Host range, biology and control of Cercospora leaf spot of sugar beets; the role of micro-organisms in the spoilage of stored grains and their control.

Nagel, C(onrad) F(rederick), Jr, Aluminum Co. of America, 801 Gulf Bldg, Pittsburgh, Pa. *Metallurgy.* New York, N. Y, Aug. 19, 91. A.B, Cornell, 14, Ch.B, 15. Metallurgist, *Aluminum Co. of Amer,* 15–23, asst. tech. director, 23–28, *chief metallurgist, fabricating div, 28–* Min. and Metal. Eng; Inst. Aeronaut. Sci; Aeronaut. Asn; British Inst. Metals. Development and fabrication of aluminum alloys and products; application of aluminum to aircraft.

Nagel, Ray H(amilton), 720 Spruce St, Berkeley, Calif. *Chemistry.* Meadows, Idaho, July 30, 00. A.B, Whittier Col, 29; A.M, George Washington, 35. Junior chemist, *bur. agr. chem. and eng, U. S. Dept. Agr,* 29–31, asst. chemist, 31–36, assoc. chemist, 36–38, chemist, 38, *senior chemist, 38–, tech. asst. to director, west. regional research lab.* Chem. Soc; Inst. Food Technol. Food dye analysis; Friedel-Craft reaction; soybean proteins; utilization of agricultural products.

Nagel, Dr. Richard H(erbert), 147 Stiles St, Elizabeth, N. J. *Petroleum chemistry.* Germany, May 26, 14. A.B, Harvard, 35; M.S, N. Y. Univ, 38, Ph.D, 41. Asst. chem, N. Y. Univ, 37–41; *research chemist, Standard Oil Co. of N. J, 41–* Chem. Soc. Reaction of diketones with phenols; spirochromans; organic microanalysis without microbalance; petroleum sulfonates.

Nagelvoort, Adriaan, 418 Wardman Road, Kenmore, N. Y. *Chemistry.* Sherman Co, Nebr, May 16, 83. A.B, Michigan, 04. Chem. engineer; asst. to pres, Mathieson Alkali Works, 19–22; chem. engineer and consulting chem. engineer, Nitrogen Corp, 19–25; Del. Chem. Eng. Co, Wilmington, 27–32, v. pres, Del. Chem. Eng. and Develop. Co, 32–35; Stevens Products Co, 35–37; *consulting chemist, 37–* Organizer and co-manager, Nat. Expos. Chem. Industries, New York, 15. Commanding officer, Niagara Falls branch, Edgewood Arsenal, 17–19, major, C.W.S, 18–19. Chemists' Club. Nitrogen fixation; ore concentration; acoustics.

Nagge, Prof. Joseph W(illiam), Kansas State Teachers College, Emporia, Kans. *Psychology.* Buffalo, N. Y, Sept. 29, 05. A.B, Denver, 27, A.M, 28; fellow, Clark, 28–29; Ph.D, Chicago, 34. Asst. *psychol,* Chicago, 34–35; asst. prof. and *assoc. prof, Kans. State Teachers Col, 35–* Assoc. Psychol. Asn; Kans. Acad; N. Y. Acad. Learning; personality; child psychology; psychology of the child.

Naghski, Dr. Joseph, U. S. Department of Agriculture, Chestnut Hill, Philadelphia, Pa. *Bacteriology.* Jersey City, N. J, July 11, 15. B.S, Cornell, 36; M.S, New Hampshire, 38; Ph.D, Pa. State Col, 41. Junior bacteriologist, *div. anal. and physicochem. research, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr,* 41–42, *asst. chemist, 42–* Chem. Soc. A serological study of some lophotrichic members of the green fluorescent bacteria.

Nagle, Dr. W(esley) M(ichael), E. I. du Pont de Nemours and Co, Gibbstown, N. J. *Chemical engineering.* Bryan, Texas, Jan. 12, 05. A.B, Stanford, 29; Berlin, 29; Tech. Hochschule, Munich, 30; M.S, Mass. Inst. Tech, 32, Sc.D, 35. Asst. chem. eng, Mass. Inst. Tech, 31–32; chem. engineer, east. lab, *E. I. du Pont de Nemours and Co,* 34–39, head *eng. sect,* 40–42, *asst. director, 43–* Chem. Soc; Chem. Eng. Heat transmission, especially dropwise condensation; nitric acid; explosives.

Nagler, F(orrest), 7428 Oakhill, Wauwatosa, Wis. *Hydraulics, Engineering.* Freeport, Mich, April 21, 85. B.S, Michigan, 06. Mech. and hydraul. eng, Allis-Chalmers Mfg. Co, 06–29; A. O. Smith Corp, 29–32; chief engineer, Can. Allis-Chalmers, Ltd, 33–42; *chief mech. engineer, Allis-Chalmers Mfg. Co, 42–* Mech. Eng; Civil Eng. Hydraulic turbine design; hydraulic turbine runner; steel welding; testing firearms.

Nahiklan, Prof. Howard M(ovess), 3207 Hillsboro St, Raleigh, N. C. *Mathematics.* Asheville, N. C, June 9, 10. A.B, North Carolina, 33, A.M, 34, Ph.D, 39. Teaching fellow *math,* North Carolina, 33–34, asst. instr, 34–35; instr, *N. C. State Col,* 35–40, *asst. prof, 40–; lieut (jg), U. S. Naval Reserve.* Math. Soc; N. C. Acad. Modern algebra; the idempotent and nilpotent elements of a matrix.

Nahin, Dr. Paul G(ilbert), 5917 Haverhill Road, Detroit, Mich. *Chemistry.* St. Paul, Minn, July 7, 16. A.B, Minnesota, 39; Ph.D, California, 42. Teaching fellow chem, California, 39–42; *group leader synthetic rubber research, U. S. Rubber Co, 42–* Physical-organic chemistry; tracer studies with radioactive isotopes; synthesis and oxidation of radioactive propionic and beta-hydroxypropionic acids; selected organic and inorganic exchange reactions; synthesis of synthetic rubber of butadiene type; theory of rubber.

Nahm, Dr. Laura J(ulia), Flat River, Mo. *Zoology.* Augusta, Mo, Nov. 13, 02. B.S, Missouri, 26, A.B, 27, A.M, 29, Gregory fellow, 30–31, Ph.D, 31. Asst. zool, Missouri, 24–27; *prof. biol, Junior Col. of Flat River,* 27–30, *31–* Summers, asst, Missouri, 32, 34. A.A; Genetic Asn; assoc. Soc. Zool; Mo. Acad. Cytology; Golgi elements; cytoplasmic structure of endocrine glands.

Nahum, Prof. Louis H(erman), 85 Loomis Place, New Haven, Conn. *Physiology.* Russia, Aug. 16, 92. Ph.B, Yale, 12, M.D, 16. Fellow *physiol, Yale,* 28–33, asst. prof, *sch. med,* 33–40, *assoc. prof, 40–* A.A; Physiol. Soc; New Haven Med. Asn. (pres, 34). Internal medicine; cardiology; nature of the electrocardiogram.

Naiman, Dr. Barnet, 18 W. 70th St, New York, N. Y. *Organic chemistry.* Baltimore, Md, March 21, 00. B.S, North Carolina, 21, Le Doux fellow, 21–22, M.S, 22; Ph.D, Columbia, 34. Asst. chemist, State Dept. Agr, N. C, 22–24; instr. *chem, Col. City of N. Y,* 25–38, *asst. prof, 38–* A.A; Chem. Soc. Quantitative analysis; bromojuglones; okra seed oil; male hormone; benzothiazoles; organic reagents in quantitative analysis.

Nair, John H(enry), 1500 Hudson St, Hoboken, N. J. *Chemistry.* Chicago, Ill, Feb. 20, 93. B S, Beloit Col, 15. Teacher, high sch. 15–16; teaching fellow, Syracuse, 16–17; research chemist, Merrell-Soule Co, 19–28; Borden Co, 28–30, *asst. director* research lab, 30–42; *research, Continental Foods, 42–* Chem. Soc. (councilor, 30–35, sec'y, Syracuse sect, 24, chairman, 26, sec'y, agr. and food div, 31–34, chairman, 35–); Inst. Food Technol. Food chemistry; dairy technology; chemistry of milk products; lecithin; desiccation of food materials.

Nakahara, Dr. Waro, 1141 Mejiro, Tokyo, Japan. *Pathology.* Tokyo, Japan, Sept. 14, 94. A.M, Cornell, 17, Schuyler fellow, 17–18, Ph D, 18; hon. M.D, Kyoto Imp. Univ, Japan, 23. Fellow path, Rockefeller Inst, 18–19, asst, 19–25; *assoc. mem, Govt. Inst. for Infectious Diseases, Tokyo Imp. Univ, 25–;* assoc. mem, *Inst. Physical and Chem. Research,* 25–31, *mem, 31–; head div. path, Labs. Japanese Foundation for Cancer Research, 34–, councilor, 38–* Japan Cancer Soc. prize, 27. Del, Int. Physiol. Cong, Boston, 29. A.A; Asn. Cancer Research. X-ray effects; tissue grafting; cancer immunity by fatty acids; function of macrophage; etiology of

chicken sarcoma; nutrition and tumor growth; specific dietary factor for lactation.

Nalbandov, Dr. A(ndrew) V(ladimir), University of Illinois, Urbana, Ill. *Genetics.* Simferopol, Russia, July 4, 12. Dipl.Ing.Agr, Munich, 33; M.S, Okla. Agr. and Mech. Col, 36; Ph.D, Wisconsin, 40. Asst. genetics, Wisconsin, 37–40; *assoc. animal physiol, Illinois, 40–* Genetic Asn; Soc. Animal Production; Poultry Sci. Asn. Physiology of reproduction of poultry and domestic mammals; endocrine relations in poultry.

Naldrett, Dr. S(tanley) N(orman), National Research Council Bldg, Ottawa, Ont, Can. *Physical chemistry.* Elko, B. C, Sept. 20, 16. B.Sc, Alberta, 37, M.Sc, 38; Ph.D, McGill, 40. Research chemist, dept. nat. defense, Nat. Research Council Can, 40–42; *scientist, Chem. Warfare Labs, Canadian Army, 42–, major.* Chem. Soc. Physical properties and reactions of hydrocarbons at high pressures; structure of liquids; chemical warfare agents.

Nance, Nellie W(ard), Bureau of Plant Industry, Soils and Agricultural Engineering, U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Leesville, Va, Dec. 16, 93. A.B, George Washington, 31, A.M, 38. Personnel work, *bur. plant indust, soils and agr. eng, U. S. Dept. Agr,* 22–30, senior sci. aid, 30–36, *junior pathologist, plant disease surv, div. mycol. and disease surv, 36–* Phytopath. Soc; Bot. Soc. Wash. Mycology and phytopathology.

Nanz, Prof. Ralph S(impson), 301 McCall St, Waukesha, Wis. *Botany.* New York, N. Y, April 27, 89. B.S, Cornell, 12, Ph.D, 23. Instr. *biol,* Cornell, 16–23; *prof, Carroll Col, 25–, dean men, 40–* A.A; Wis. Acad. Plant physiology; bryology.

Naples, Dr. F(elix) John, 2020 Summer St, Youngstown, Ohio. *Organic chemistry.* Quadrelle, Italy, July 7, 12. A.B, Youngstown Col, 33; M.S, Vermont, 34; Ph.D, Indiana, 36. Instr. chem. and physics, Youngstown Col, 36–37; head dept. chem, Springfield Jr. Col, 37–40; *assoc. prof, Youngstown Col, 40–* A.A; Chem. Soc; Ohio Acad. The improved syntheses of para allyl phenol.

Naps, Dr. Marguerite, 5400 S. Greenwood Ave, Chicago, Ill. *Organic chemistry.* Milwaukee, Wis, June 27, 13. A.B, Milwaukee-Downer Col, 33; A.M, Wellesley Col, 35, Fannie Bullock Workman fellow, 36–37; fellow, Iowa State Col, 35–38, Ph.D, 39. Asst. chem, Wellesley Col, 33–35; instr, Wells Col, 38–39; chemist and bibliographer, Pittsburgh Plate Glass Co, 39–42; *research chemist, Bauer and Black, 42–* Chem. Soc. Optical activity and chemical constitution; ultraviolet absorption; rotatory dispersion; synthetic resins and synthetic rubber; sponge rubber made from substitutes; oxidation of vegetable oils; pressure sensitive adhesives.

Naragon, Dr. Ernest A(shley), Texas Co, Beacon, N. Y. *Physical chemistry, Organic chemistry.* Hanoverton, Ohio, Jan. 7, 13. B.S, Mt. Union Col, 36; fellow, Western Reserve, 36–40, Ph.D, 40. Lab. asst, Mt. Union Col, 34–36; *research chemist, Texas Co, 40–* Chem. Soc. Synthesis and polymerization of butadiene.

Naramore, C(hester), 91 Ellison Ave, Bronxville, N. Y. *Geology.* Winnemucca, Nev, Oct. 6, 79. A.B, Stanford. Field asst, State Mining Bur, San Francisco, 03–06; statistician, U. S. Geol. Surv, Denver, 06–08; San Francisco, 09; field geologist and oil lease supt, Consol. Oil Lands Co, 09–14; supt, Montebello Oil Co, Calif, 14; manager, Calgary Petrol. Products, Ltd, Can, 14–15; deputy state oil and gas supervisor, Taft, Calif, 15–16; chief petrol. technologist, U. S. Bur. Mines, 17–19; export manager, Union Petrol. Co, Pa, 19; for. explor. work for petrol, Sinclair Consol. Oil Corp, 20–29; consulting petrol. engineer, 29–38; *exec. sec'y petrol. div, Am. Inst. Min. and Metal. Engineers, 38–* Inter-allied Petrol. Conf, London and Paris, 18. Asn. Petrol. Geol; Min. and Metal. Eng. Mineral and petroleum resources.

Narbutovskih, Dr. P(aul), R. D. 2, Sharon, Pa. *Electrical engineering.* Tiumen, Russia, July 29, 02. A.B, Stanford, 29, E.E, 31, Ph.D, 37. Asst. instr. elec. eng, Stanford, 31–36; instr. math. and eng, San Jose State Col, 37–40; *research and develop. engineer, Westinghouse Elec. Co, 40–* Westinghouse lecturer, Pittsburgh. Assoc. Elec. Eng. Stray load losses in induction motors; transient heating of transformers; surge characteristics and internal oscillations in transformer windings.

Nash, Prof. Bert A(llen), 725 Ohio St, Lawrence, Kans. *Psychology.* Topeka, Kans, Oct. 28, 98. A.B, Washburn Col, 21; Kansas, 22–23; Ph.D, Ohio State, 28. Teacher and prin, high sch, Kans, 21–22; instr. educational psychol, Ohio State, 26–28; asst. prof. psychol, Kans. State Teachers Col, Emporia, 23–26, prof, 28–30; assoc. prof. *educ, Kansas,* 30–36, *prof, 36–, director educ. clinic.* Psychol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn; Kans. Mental Hygiene Soc. (pres, 33–38; ed, 'Bul'); Kans. Psychol. Asn. (pres, 34). Educational and clinical psychology.

Nash, Prof. Carroll B(lue), Pennsylvania Military College, Chester, Pa. *Zoology.* Louisville, Ky, Jan. 29, 14. B.S, George Washington, 34; M.S, Maryland, 37, Ph.D, 39. Asst, dept. water products, Exp. Sta, Maryland, 36–37, zool, univ, 38–39; instr, Arizona, 39–41; asst. prof. *biol, Pa. Mil. Col,* 41–43, *assoc. prof, 43–* Summer, asst, Chesapeake Biol. Lab, 36. Estuarine hydrobiology; growth and starvation.

Nash, Prof. Harold Siegrist, 3976 Clifton Ave, Cincinnati, Ohio. *Ceramics.* Buffalo, N. Y, Nov. 8, 94. B.S, Alfred, 19. Asst. manager, Marblehead Potteries, Mass, 19–21; owner, Round Lake Pottery, N. Y, 21–23; asst. manager, Foskett Co, Inc, N. Y, 23–27; *prof. ceramics, Cincinnati, 27–* Charles F. Binns medal, 42. Fel. Ceramic Soc. Design of objects of ceramic materials, based on modern industrial practise and processes; technique of the Greek black glaze.

Nash, Dr. John P(urcell), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Bisbee, Ariz, Jan. 17, 15. A.B, California, 36; A.M, Rice Inst, 38, Ph.D, 40. *Instr. math, Notre Dame, 40–; mem. staff, radiation lab, Mass. Inst. Tech, 42–* Real variables; a class of continuous functions and convergence criteria for their Fourier series.

Nash, Pres. P(hilip) C(urtis), University of Toledo, Toledo, Ohio. *Engineering.* Hingham, Mass, Aug. 28, 90. A.B, Harvard, 11, M.C.E, 12; D.E, Case, 37; LL.D, Northeastern, 38. Prof. civil eng, Northeastern, 19–21; prof. civil eng. and dean col, Antioch Col, 21–29; *pres, Toledo, 33–* Mem, Cmn. to Study Organization of Peace. Eng. Educ. International relations; engineering education.

Nash, Prof. T(homas) P(almer), Jr, 875 Monroe Ave, Memphis, Tenn. *Biochemistry.* Elizabeth City, N. C, June 15, 90. A.B, North Carolina, 10, A.M, 11; Ph.D, Cornell, 22. Instr. *chem,* North Carolina, 10–11; col. med, Tennessee, 15–17, acting prof, 17–19; instr, med. col, Cornell, 19–22; *prof, cols. med. and dentistry, schs. pharmacy and nursing, Tennessee, 22–, chief* div. chem. and physiol, 28–42, *div. chem. and pharmacol, 42–, dean sch. biol. sciences, 28–* Consultant, Memphis Gen. Hosp, 22– Assoc. ed, 'Memphis Med. Jour,' 35– Soc. Biol. Chem; Chem. Soc; Federation Am. Societies Exp. Biol. (sec'y Memphis cmt, 37). Ammonia metabolism; mechanism of phlorhizin diabetes and of insulin action; oral administration of insulin; antienzymes; carbohydrate metabolism.

Nash, Dean W(illiam) G, College Station, Murray, Ky. *Physics.* Pleasureville, Ky, Aug. 13, 99. A.B, Georgetown Col, 19; fellow, Washington, 24–25, M.S, 25; Ph.D, Kentucky, 40. Instr. physics, Georgetown Col, 19–24, prof, 25–40; *dean, Murray State Teachers Col, Ky, 40–* Director, Ky. Asn. Cols. and Sec. Schs. Physical Soc; Ky. Acad. Ionization and spectrum intensities.

Nason, Prof. Edith H(olloway), Syracuse University, Syracuse, N. Y. *Chemistry.* Salem, Mass, 95. A.B, Vassar Col, 17; Vassar Alumnae fellow, Yale, 20–21, Ph.D, 21. Asst chem, Vassar Col, 17–19; instr, Illinois, 21–25; asst. prof home econ, Cornell, 25–28; *prof. foods and nutrition, col. home econ, Syracuse, 28–* Chem. Soc; Home Econ. Asn. Chemistry of foods; the science of cookery.

Nason, H(oward) K(ing), Monsanto Chemical Co, Springfield, Mass. *Industrial chemistry.* Kansas City, Mo, July 12, 13. A.A, Kansas City Junior Col, 32; A.B, Kansas, 34; Washington (St. Louis), 38. Chief chemist, Anderson-Stolz Corp, 34–36; research chemist, org. div, *Monsanto Chem. Co,* 36–39, *asst. director research, plastics div, 39–* Chem. Soc; Soc. Rheol; Soc. Test. Mat. (v. chairman cmt. plastics). Plastics; plasticizers; microbicides; microbiology of circulating industrial waters; feedwater treatment; industrial application of chemicals.

Nassau, Prof. J(ason) J(ohn), Case School of Applied Science, Cleveland, Ohio. *Astronomy.* Smyrna, Asia Minor, March 29, 93. Columbia, 13, 14; C.E, M.S, Syracuse, 15, Ph.D, 20, hon. Sc.D, 40; Edinburgh, 18–19; Cambridge, 27–28. Teaching fellow, Syracuse, 16–17, instr, 19–21; asst. prof. math. and astron, *Case,* 21–24, assoc. prof, 24–29, *prof. astron, 29–,* chairman grad. div, 36–40, *director, Warner and Swasey*

Observatory, 24–; lieut. commander, U. S. Coast Guard Res, 42– Mem. visiting cmt, Perkins Observatory, Ohio Wesleyan, 36– A.A; Math. Soc; Math. Asn; Astron. Soc. (councilor, 43–); Cleveland Astron. Soc. (pres, 22, 34–); fel. Royal Astron. Soc; Edinburgh Math. Soc. Astronomical statistics; variable stars; star clusters.

Nasset, Prof. E(dmund) S(igurd), 260 Crittenden Blvd, Rochester, N. Y. *Physiology.* Willmar, Minn, Feb. 24, 00. A.B, St. Olaf Col, 25; M.S, Pa. State Col, 27; Ph.D, Rochester, 31. Asst. biochem, Pa. State Col; California, 27–28; *physiol, Rochester,* 29–31, instr, 31–34, asst. prof, 34–39, *assoc. prof, 39–; major, Sanit. Corps, U. S. Army, 41–* Inst. Nutrition; Physiol. Soc; assoc. Soc. Exp. Biol. Hydrolysis of casein by acids; effect of yeast ingestion on protein metabolism; physiological effects of high frequency current; intestinal transplants and secretory hormone; humoral control of intestinal secretion; effect of diet on intestinal secretion; enterocrinin; role of vitamin B complex in digestion.

Natelson, Dr. Samuel, 840 Lafayette Ave, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, Feb. 27, 09. B.S, Col. City of N. Y, 28; M.S, N. Y. Univ, 30, Ph.D, 31. Instr. chem, N. Y. Univ, 28–31; chief org. chemist in charge, N. Y. Testing Lab, 31–33; *research chemist in pediat, Brooklyn Jewish Hosp, 33–* A.A; Chem. Soc. Mechanism for condensation of phenols with ethylene linkage; rearrangement of alkyl phenyl ethers; di-isobutyl phenols; surface tension; micro-chemistry; plasticizers; styrene and resins; sterols; vitamin D; benzyl isoquinoline alkaloids; synthetic organic chemistry.

Nathan, Dr. David S(olomon), 3525 Perry Ave, New York, N. Y. *Mathematics.* Cincinnati, Ohio, Oct. 25, 00. A.B, Cincinnati, 22, fellow, 30–33, Ph.D, 33. Nat. research fellow *math,* Harvard, 33–34; Inst. Advanced Study and Princeton, 34–35; tutor, *Col. City of N. Y,* 36–39, *instr, 39–* Functional analysis; transformation groups in linear spaces.

Nathanson, Dr. I(ra) T(heodore), Massachusetts General Hospital, Boston, Mass. *Medicine.* Virginia, Minn, July 20, 04. B.S, Northwestern, 29, M.D, 30, M.S, 34; Lucius N. Littauer fellow, Harvard, 35–37. Intern and res, Michael Reese Hosp, Chicago, Ill, 29–33; res. surgeon, Pondville Hosp, Wrentham, Mass, 34–35; asst. surgeon, Huntington Mem. Hosp, Boston, 37–42; asst. *surg, Harvard Med. Sch,* 40–41, *instr, 41–* Asst. surgeon, Beth Israel Hosp, Boston, 40–; Pondville Hosp, Wrentham, 41–; asst. surg, Mass. Gen. Hosp, Boston, 42– A.A; Soc. Exp. Biol; Soc. Study Int. Secretions; fel. Col. Surg; Physiol. Soc; New Eng. Cancer Soc; Mass. Med. Soc. Endocrine aspects of cancer.

Nathanson, Dr. M(orris) H(enry), 658 S. Bonnie Brae Ave, Los Angeles, Calif. *Medicine.* Minneapolis, Minn, Sept. 5, 92. B.S, Minnesota, 16, M.D, 18. Asst. *med,* Minnesota, 20–24, instr, 24–30, asst. prof, 30–35, assoc. prof, 36; *assoc. clin. prof, sch. med, Southern California, 36–* Am. Med. Asn; Soc. Exp. Biol; Cent. Soc. Clin. Research; fel. Col. Physicians; Minn. Path. Soc. Clinical and experimental investigations, chiefly on cardiac disease; pharmacological studies on adrenalin and related substances.

Nathanson, Lieut. Col. Yale S(amuel), Adjutant General's Office, Ft. Washington, Md. *Psychology.* Philadelphia, Pa, March 25, 95. B.S, Pennsylvania, 23, scholar, 23–24, A.M, 24, Ph.D, 30. Teacher, pub. schs, Pa, 14–16; asst. city ed, 'Phila. Press,' 19–21; asst, dept. psychol, Pennsylvania, 24–27, instr, 27–37; asst. prof. *psychol,* Pa. State Col. Optometry, 28–30, prof, 30–35; *asst. prof, sch. med, Temple, 41–; lieut. col, U. S. Army.* Lecturer, Soc. Automotive Eng; univ. exten. lecturer, Pennsylvania and State Dept. Educ, Mass; chief clinic, St. Christopher's Hosp. for Children; Pa. pub. sch. psychologist and psychol. examiner. Capt, U.S.A, 17–19, U.S.A.R, 19– A.A; fel. Am. Speech Correction Asn; Psychol. Asn; Asn. Clin. Psychol; Asn. Applied Psychol; Nat. Asn. Teachers Speech; Pa. Acad. Conceptual basis of habit modification; anthropology; orthenics; learning process; secondary subjects; functional laterality; speech.

Natland, M(anley) L(eonard), 4155 Chestnut Ave, Long Beach, Calif. *Micropaleontology.* Hawley, Minn, Dec. 4, 06. A.B, Pomona Col, 28. Asst. micropaleontologist, Shell Oil Co, Calif, 28–37; *head micropaleont. dept, Richfield Oil Corp, 37–* Instr, Pomona Col. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. Ecology; geology.

Nau, Dr. Carl A(ugust), University of Texas School of Medicine, Galveston, Texas. *Physiology.* Yorktown, Texas, June 25, 03. A.B, Texas, 23, A.M, 24; M.D, Rush, Chicago, 35. Asst. zool, Texas, 22, chem, 23, tutor, 24–25, asst. prof, 25–27, physiol, sch. med, 27–29; sch. med, Oklahoma, 29–32; assoc. prof, 33–36; director div. indust. hygiene, State Dept. Health, Texas, 36–41; *prof.* physiol, prev. med. and pub. health, *sch. med, Texas, 41–43, prev. med. and pub. health, 43–* Chairman, Conf. Governmental Indust. Hygienists, 41. A.A; Pub. Health Asn; South. Med. Asn; Texas Pub. Health Asn; Texas Med. Asn. Pregnancy hormones; industrial hygiene; environmental sanitation; pneumoconioses.

Naudain, Dr. G(lenn) G(arnet), Winthrop College, Rock Hill, S. C. *Chemistry, Physics.* Algona, Iowa, Oct. 31, 94. Occidental Col, 15–16; B.S, Iowa State Col, 17, M.S, 22, Ph.D, 23; B.Ed, Kans. State Teachers Col, 26; summers, Columbia, 36, Peabody Col, 40, Harvard, 41; France and Germany, 37; A.M, N. Y. Univ, 39. Teacher, high sch, Iowa, 17–18; instr, Iowa State Col, 19–23; fellow, Mellon Inst, 23–25; prof. *chem,* Kans. State Teachers Col, 25–26; *head dept, Winthrop Col, 26–; lieut. col, Chem. Warfare Service, U. S. Army, and mem. staff, med. research lab, Edgewood Arsenal, 42–* Mem, Nat. Defense Council. Lieut. col, O.R.C, C.W.S. A.A; Chem. Soc. (past pres, S. C. sect); S. C. Acad. (director, past v. pres, pres, sec'y-treas); fel. Royal Soc. Arts London. Organic chemistry; food and physiological chemistry; corn; a vitamin summary; flour; chemical warfare; chlorine production; chemical education in South Carolina; chemical warfare agents and food supplies.

Naumburg, Elsie M(argaret) B(inger), 121 E. 64th St, New York, N. Y. *Ornithology.* New York, N. Y, July 7, 80. Senckenbergische Nat. Gesell, Frankfurt, Germany; Zool. Inst. des Bayr. Staats, Munich; asst, *Am. Museum Nat. Hist,* 16–23, *research assoc, 23–* A.A; Ornith. Union; Am. Geog. Soc; Soc. Woman Geog; Audubon Soc. (nat. director); Linnaean Soc. N. Y; N. Y. Acad. Birds of Brazil and Paraguay.

Naumburg, Robert E(lkan), 608 N. Forest Drive, West Englewood, N. J. *Mechanical engineering.* New York, N. Y, March 22, 92. A.B, Williams Col, 13; B.S, Mass. Inst. Tech, 16. Consulting engineer, New York, 19–21; head research dept, Saco-Lowell Shops, 21–26; pres, Ren Mfg. Co, Winchester, Mass, 26–30; *Visagraph Inst. for the Blind, New York, 31–; Jonas and Naumburg Corp, 35–* Inventor, Visagraph. Wetherill medal, Franklin Inst, 35. 2nd lieut, A.S, 17–19. A.A; Mech. Eng; Asn. Workers for the Blind; Soc. Professional Eng; Soc. Mil. Eng; N. Y. Elec. Soc; N. Y. Acad; N. Y. State Soc. Professional Eng; Newcomen Soc, London. Evolution of the spinning frame; the printing visagraph; amount of moisture in cotton; American textile pioneers.

Nauss, Dr. R(alph) W(elty), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Public health.* New Cumberland, Pa, Sept. 26, 76. B.S, Ohio State, 01; M.D, Northwestern, 05; D.T.M. and H, Liverpool, 10; Dr.P.H, Pennsylvania, 15, Hopkins, 21. Intern, hosps, 05–07; asst. chemist and chemist, board health, Isthmian Canal Cmn, 07–09; asst, trop. research lab, Liverpool, 10–11; med. practise and pub. health, Belgian Congo, 12–15; asst. epidemiologist and dist. health officer, State Board Health, Calif, 16–19; asst. epidemiologist, State Dept. Health, Ill, 21–24; *staff, dept. pub. health and prev. med, med. col, Cornell, 26–* A.A; fel. Pub. Health Asn; fel. N. Y. Micros. Soc. Parasitology; epidemiology; pathology; preventive medicine.

Navez, Dr. Albert E(douard), Milton Academy, Milton, Mass. *Physiology, Botany.* Brussels, Belgium, Dec. 20, 98. D.Sc, Brussels, 22. Instr, Univ. Brussels, 20–24, in charge plant physiol, bot. inst, 24; lecturer gen. physiol, Harvard, 27–35; visiting lecturer, Cmn. Relief Belgium Educ. Foundation, *Milton Acad, 36, prof. in charge tutorial system, science dept, 36–* Mem. and sec'y, Belgo-Brasilian biol. exped, 22–23; Cmn. Relief Belgium Educ. Foundation fellow, 26–27. A.A. Tropisms and respiration of plants; plant hormones and enzymes; muscular contraction.

Navias, Dr. Louis, General Electric Co, Schenectady, N. Y. *Chemistry.* Grodno, Russia, Sept. 9, 97. B.S, Col. City of N. Y, 18; fellow, Illinois, 20–22, M.S, 21, Ph.D, 23. Chemist, glass plant, Bausch and Lomb Optical Co, 18–20; ceramic expert, U. S. Tariff Cmn, 23; *ceramic chemist, research lab, Gen. Elec. Co, 24–* A.A; Chem. Soc. (sec'y, east. N. Y. sect, 29, chairman, 30); fel. Ceramic Soc. (chairman, white wares div, 33, pub. cmt, 33–35); Soc. Test. Mat. (sec'y cmt. glass and glass products, 38–). Ceramic chemistry; silica; clays; mullite; porcelain; refractories for vacuum tubes; glass.

Naylor, Dr. Aubrey W(illard), University of Chicago, Chicago, Ill. *Botany.* Union City, Tenn, Feb. 5, 15. B.S, Chi-

cago, 37, Swift fellow, 37, univ. fellow, 38, M.S, 38, Ph.D, 40. Rockefeller asst, Chicago, 38; mem. staff, bur. plant indust, U. S. Dept. Agr, 38–40; *instr. bot, Chicago, 40–* A.A; Bot. Soc; Soc. Plant Physiol. Photoperiodism; plant nutrition; plant propagation.

Naylor, Prof. Charles A(ugust), Jr, Harris Teachers College, St. Louis, Mo. *Chemistry.* St. Louis, Mo, Feb. 20, 05. B.S, Washington (St. Louis), 25, M.S, 27, Ph.D, 31. Instr. *chem,* Washington (St. Louis), 27–30; *prof, Harris Teachers Col, Mo, 31–* Chem. Soc. Organic chemistry; chrysophanic acid anthrones.

Naylor, Dr. E(rnst) E, University of Missouri, Columbia, Mo. *Morphology of plants, Regeneration.* Shelbina, Mo, Jan. 3, 99. B.S. (Agr), Missouri, 22, A.M, 24, Ph.D, 31. Asst. prof. bot, Missouri, 31–42; *tech. asst, New York Bot. Garden, 42–* A.A; Bot. Soc; Torrey Bot. Club. Histology of regeneration in plants.

Naylor, Prof. Nellie May, Iowa State College, Ames, Iowa. *Chemistry.* Clear Lake, Iowa, March 20, 85. A.B, Iowa, 08; M.S, Iowa State Col, 18; Carnegie research grant, Columbia, 22–23, Ph.D, 23. Asst. *chem, Iowa State Col,* 09–12, instr, 12–20, asst. prof, 23–28, *assoc. prof, 28–* Chem. Soc. Enzymes; general chemistry for home economics students.

Neal, Dr. D(avid) C(arleton), Louisiana State University, Baton Rouge, La. *Plant pathology.* Sturgis, Miss, July 23, 90. B.S, Miss. Agr. and Mech. Col, 09, fellow, 09–11; Chicago, 15; Rufus J. Lackland fellow, Mo. Bot. Garden, 16–17, 25–26; Nat. Fertilizer Asn. fellow, 26–27; A.M, Washington (St. Louis), 16, Ph.D, 27. Asst. plant pathologist, Exp. Sta, W. Va, 11–14; pathologist, bur. plant indust, U. S. Dept. Agr, 17–18; State Board Entom, Ga, 18–20; Exp. Sta, Miss. State Col, 20–28; *senior pathologist, div. cotton and other fiber crops and diseases, bur. plant indust, U. S. Dept. Agr,* Texas, 28–35, *Exp. Sta, Louisiana, 35–* Phytopath. Soc. Cotton diseases; cotton root rot; occurrence of viable sclerotia in nature; toxic effect of ammonia on the fungus; cotton wilt-effect of balanced fertilization on the disease; varietal resistance; wilt infection technique; crinkle leaf of cotton-correlation with manganese toxicity; cotton seed treatment for stand improvement; effects of dust treatments; delinting.

Neal, Prof. J(esse) H(arold), Alabama Polytechnic Institute, Auburn, Ala. *Agricultural engineering.* Melvern, Kans, Dec. 10, 98. B.S, Kans. State Col, 24; M.S, Minnesota, 29, Agr.E, 34; Ph.D, Missouri, 38. Instr. *agr. eng,* Minnesota, 24–31, asst. prof, 31–39; *head prof, Ala. Polytech, 39–* Tile drainage; soil conservation; soil physics.

Neal, Prof. Joseph L(ouis), Jr, 867 Sumner Ave, Syracuse, N. Y. *Analytical chemistry.* Syracuse, N. Y, Feb. 17, 01. B.S, Syracuse, 22, M.S, 32, Ph.D, 38; Carnegie Inst. Tech, 28–31. Anal. chemist, Am. Magnesium Corp, 22–27; research chemist, Atmospheric Nitrogen Corp, 27; anal. and research chemist, Aluminum Co. Amer, 27–31; asst. *chem, Syracuse,* 32–37, instr, 37–41, *asst. prof, 41–* A.A; Chem. Soc. (sec'y, Syracuse sect, 42–). Analytical chemistry of light metal industry; analytical chemistry of selenium.

Neal, Dr. Josephine B(icknell), 60 Gramercy Park, New York, N. Y. *Neurology.* Belmont, Maine, Oct. 10, 80. A.B, Bates Col, 01, hon. Sc.D, 26; hon. Sc.D, Russell Sage Col, 37; M.D, Cornell, 10. *Meningitis div, research lab, Dept. Health, New York, 10–, in charge div, 14–, assoc. director bur. labs; clin. prof. neur, Columbia, 30–,* consultant in *infectious diseases of cent. nervous system, neur. inst,* 31–36, *director dept, 36–* Exec. sec'y, W. J. Matheson Cmn, 27–; consultant in neur, N. Y. Infirmary for Women and Children, 28– Sec'y, Int. Cmt. Study Infantile Paralysis. Asn. Research Nervous and Mental Disease; fel. Col. Physicians; Am. Med. Asn; Pub. Health Asn; N. Y. Acad. Med. Acute infections of the central nervous system; meningitis; encephalitis; poliomyelitis.

Neal, Prof. M(arcus) Pinson, University of Missouri, Columbia, Mo. *Pathology.* Heflin, Ala, Sept. 23, 87. Alabama; M.D, Med. Col. of Va, 12. Instr. clin. path, Med. Col. of Va, 12–13; asst, Von Ruck Research Lab. for Tuber, 13–16, asst. director, 15–16; clin. pathologist, Winyah Sanatorium, N. C, 13–16; instr. path. and clin. path, med. sch, Northwestern, 16–20, assoc, 20; asst. prof. path. and bacter, schs. med. and dentistry, Iowa, 20–22; *prof. path, sch. med, Missouri, 22–, head dept. path, bacter. and prev. med, 38–* Pathologist, Univ. Hosps. and Boone County Hosp, Mo; consultant pathologist, State Eleemosynary Institutions, Mo; Ellis Fischel State Cancer Hosp. Summer, visiting prof. and acting director path. inst, col. med, Tennessee, 32, 34. Distinguished Service award, 40. M.R.C, 17–19, major. Soc. Clin. Path; Am. Med. Asn; Soc. Control Cancer; South. Med. Asn. (sec'y, sect. on path, 30, v. chairman, 31, chairman, 32, councilor from Mo, 31–36, chairman council, 36; sect. med. educ. and hosp. training, 39; pres, 42); Miss. Valley Med. Soc. (councilor, 35–37, mem, ed. board, v. pres, 37, pres, 38; trustee, 39–); Mo. Med. Asn. (pres, council, 37); Mo. Acad. Tuberculosis; vascular changes in the kidney; epilepsy; diphtheria; strongyloides intestinal infection; experimental fat necrosis; malignant tumors; diseases of the male breast; diseases of mesenteric lymph nodes; leukemias; pneumonia.

Neal, Marie C(atharine), Bishop Museum, Honolulu, Hawaii. *Botany.* Southington, Conn, Dec. 7, 89. A.B, Smith Col, 12; M.S, Yale, 25. Asst. malacol, *Bishop Museum, Honolulu,* 20–30, *botanist in charge herbarium, 30–* Hawaiian Bot. Soc; Hawaiian Acad. Polynesian land shells; plants cultivated in Hawaii; Hawaiian marine algae.

Neal, Dr. Norman P(ercy), University of Wisconsin, Madison, Wis. *Genetics.* New Zealand, May 13, 97. B.Agr, New Zealand, 20, B.Sc, 22; M.S, Wisconsin, 27, Ph.D, 35. Agr. master, St. Andrew's Col. and Christ Church Tech. Col, New Zealand, 21; lecturer biol. and plant breeder, Canterbury Agr. Col, New Zealand, 22; science and agr. master, St. Andrew's Col, New Zealand, 23–26; asst. genetics and agron, *Wisconsin,* 28–32, instr. genetics, agron. and plant path, 32–36, asst. prof. *agron. and genetics,* 36–41, assoc. prof, 41–43, *prof, 43–* External examiner agr, New Zealand, 23. N. Z. Exped. Forces, 18, major, defense corps inf, 19–26. A.A; Genetics Soc; Soc. Agron. Agronomy; plant breeding; sheep farming in New Zealand; lime content of New Zealand soil; hybrid corn breeding.

Neal, Dr. O(ren) R(obert), Rutgers University College of Agriculture, New Brunswick, N. J. *Agronomy.* Lebanon, Ind, Aug. 3, 07. B.S.A, Purdue, 30; M.S, Iowa State Col, 32, fellow, 32–35, Ph.D, 35. Operations div, *soil conservation service, U. S. Dept. Agr,* 35–36, *research div, 36–* A.A; Soc. Agron; Soil Sci. Soc; Geophys. Union. Soil fertility and bacteriology; soil and water conservation.

Neal, Dr. Paul A(rdeen), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Industrial hygiene.* West Point, Tenn, June 25, 01. M.D, Vanderbilt, 27. *Officer, U. S. Pub. Health Service, 28–, in charge indust. hygiene lab, nat. inst. health, 36–* A.A; Am. Med. Asn; Pub. Health Asn; Asn. Mil. Surg; Indust. Physicians and Surg. Industrial hygiene toxicology and other environmental factors in relation to health and occupation.

Neal, Prof. Raymond E(lwood), Simmons College, Boston, Mass. *Chemistry.* Lynn, Mass, Oct. 21, 96. B.S, Harvard, 20. Instr. *chem, Simmons Col,* 20–24, *asst. prof, 24–* Sig.C, U.S.A, 17–19. Chem. Soc; New Eng. Asn. Chem. Teachers. General chemistry; inorganic chemistry; qualitative analysis.

Neal, Prof. R(oland), Drury College, Springfield, Mo. *Chemistry.* Clearfield, Iowa, Oct. 10, 83. A.B, Cornell Col. (Iowa), 04, A.M, 07; Ph.D, Stanford, 15. *Prof.* science, Dakota Wesleyan, 07–09; chem. and geol, Pacific (Calif), 10–20; *chem, Drury Col, 20–* A.A; Chem. Soc. Colloids; colloidal copper sulfide.

Neal, Dr. W(ayne) M(iller), Forest Heights Drive, Knoxville, Tenn. *Animal nutrition.* Volant, Pa, June 4, 05. Westminster Col. (Pa), 21–22; B.S, Pa. State Col, 22–25, John W. White fellow, 25–26; M.S, Minnesota, 26, Ph.D, 29. Asst. biochem, Minnesota, 26–29; animal nutrition, Exp. Sta, Florida, 29–42; *chief chemist, Security Mills, 42–* Chem. Soc; Dairy Sci. Asn; Fla. Acad. The mineral requirements of cattle, especially calcium, phosphorus, iron, cobalt and copper; feed preservation by drying; vitamin requirements of poultry.

Nebel, Dr. B(ernhard) R. (G), 57 Raleigh St, Rochester, N. Y. *Cytology.* Durban, S. Africa, Aug. 10, 01. Staatsexamen, Halle, 25, Dr.sc.nat, 26; Rochester, 42– Asst, Halle, 24–26; Int. Educ. Board fellow, U. S, 27–28; asst, Kaiser Wilhelm Inst, 28–29; assoc, div. pomol, N. Y. Exp. Sta, Geneva, 29–42. A.A; Bot. Soc; Soc. Hort. Sci; Soc. Nat. Physiology of sugar beet nematodes; mataxenia in apples; cytogenetics in cultivated fruits; chromosome structure; methods of inducing mutations; polyploidy; x-ray action on chromosomes.

Nebel, Dr. W(alter), E. I. du Pont de Nemours and Co, Parlin, N. J. *Chemistry.* Milwaukee, Wis, Sept. 3, 85. B.S, Wisconsin, 09, M.S, 11, Ph.D, 17. Asst. chem, Wisconsin, 09–

10, instr, 10–18, asst. prof, 18; chem. director, Gen. Mfg. Co, 19–23; *research chemist, E. I. du Pont de Nemours and Co, 23–* Chem. Soc. (sec'y, 18). Organic chemistry; alkaloids; cellulose acetate; plastics; lacquers.

Necheles, Dr. H(einrich), 2900 Ellis Ave, Chicago, Ill. *Physiology.* Hamburg, Germany, July 8, 97. M.D, Hamburg, 23, Ph.D, 24. Assoc. prof. *physiol,* Peiping Union Med. Col, 25–32; asst. prof. and later *prof, Chicago, 32–; director gastro-intestinal research, Michael Reese Hosp, 32–* Physiol. Soc; Soc. Exp. Biol; Gastro-Enterol. Asn; Soc. Int. Med; Physiol. Soc. China. Clinical gastro-intestinal physiology.

Necker, Walter L(udwig), Field Museum of Natural History, Chicago, Ill. *Zoology.* Hamburg, Germany, Dec. 27, 12. Chicago. Herpetologist, Chicago Acad. Sciences, 31–41, librarian, 34–41; *curator, Micros. Soc. Ill, 33–* Co-founder and ed, 'Herpetologica.' A.A; Soc. Ichthyol. and Herp. (director, 39–; historian, 39–); Soc. Mammal; Ind. Acad; Ill. Acad; Micros. Soc. Ill. (treas, 39–41); Chicago Acad. Reptiles and amphibians; taxonomy; ecology; zoogeography; bibliography of herpetology.

Neckers, Prof. J(ames) W, Southern Illinois State Normal University, Carbondale, Ill. *Inorganic chemistry.* Clymer, N. Y, April 16, 02. A.B, Hope Col, 23; M.S, Illinois, 25, fellow, 26–27, Ph.D, 27. Asst, Illinois, 23–26; mem. dept. chem, *South. Ill. State Nor. Univ,* 27–29, *prof. chem. and head dept, 29–* A.A; Chem. Soc; Ill. Acad. Chemical education.

Neddermeyer, Dr. Seth H(enry), California Institute of Technology, Pasadena, Calif. **7Physics.* Richmond, Mich, Sept. 16, 07. A.B, Stanford, 29; Ph.D, Calif. Inst. Tech, 35. *Research fellow physics, Calif. Inst. Tech, 35–; research assoc, Nat. Defense Research Cmt, 41–* Cosmic rays.

Nedelsky, Prof. Leo, University of Chicago, Chicago, Ill. *Theoretical physics.* Russia, Oct. 28, 03. B.S, Washington (Seattle), 28; M.S, California, 31, Ph.D, 32. Instr. physics, California, 32–35; Hunter Col, 35–40; Gen. Educ. Board fellow, 40–41; *asst. prof. physical sciences and examiner, Chicago, 41–* Physical Soc. Radiation from slow electrons; internal conversion by pair production; quantum theory of radiation; stability of dense stars; nuclear structure.

Nedrow, Dr. W(arren) W(esley), Arkansas State College, Jonesboro, Ark. *Botany.* Stella, Nebr, Oct. 13, 06. A.B, Nebr. State Teachers Col, 28; A.M, Denver, 33; Ph.D, Nebraska, 36. Sch. supt, Colo, 27–32; asst. bot, Denver, 32–33; *head dept. biol, Ark. State Col, 36–* A.A; Genetic Asn; Ecol. Soc. Root systems of ornamental bulbous plants; ecology of root systems.

Nedzel, Prof. A(lexander) J(ohn), 1853 N. Polk St, Chicago, Ill. *Pathology, Bacteriology, Public health.* Lubomirka, Kherson Dist, Russia, Feb. 14, 88. M.D, Imp. New Russian Univ, 13; M.S, Illinois, 31. Instr, Imp. New Russian Univ, 13–18, asst. prof, 18–20; pathologist, St. Nicholas Hosp, Constantinople, 20–23; instr, *Illinois,* 29–30, assoc, 30–32, asst. prof, 32–33, *assoc. prof.* bacter. and pub. health, 33–36, *path, 36–* Pathologist, Quarantine Sta, Odessa, Russia, 18–20, coroner's physician, 19–20. Major physician, Russian Imp. Army, 14–17. Fel. Am. Med. Asn; Soc. Exp. Biol; Soc. Path. and Bact; Ill. Soc. Bact. Localization of bacteria; dissociation; climate and disease; vascular spasm.

Needham, Dr. C(laude) E(rvin), 6540 Maple Ave, Chevy Chase, Md. *Geology.* Newton, Ill, Sept. 10, 94. Cent. Nor. Col, 11–16; Iowa State Col, 16–17; B.S, Miss. State Col, 24, M.S, 25; fellow, Northwestern, 30–31, Ph.D, 32. Chemist, St. Louis, Mo, 18–21; asst. geol, Miss. State Col, 23–25, asst. prof, 26–27; sch. supt, Colo, 25–26; instr, Northwestern, 27–30; asst. prof. geol. and miner, N. Mex. Sch. Mines, 31–35, assoc. prof, 35–38, prof, 38–39; pres. and director, N. Mex. Bur. Mines and Mineral Resources, 39–42; *senior econ. analyst, U. S. Bur. Mines, 42–* Summers, instr, Northwestern, 28; asst. geologist, Ill. Geol. Surv, 29, 30; N. Mex. Bur. Mines, 33, 34; Mississippi and Miss. Geol. Surv, 35, 36. A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Geol. Soc; Ill. Acad; N. Mex. Asn. Adv. Sci. (pres, 41). Stratigraphy and paleontology of New Mexico and Mississippi; sedimentology; mineral economics.

Needham, Prof. James G(eorge), Cornell University, Ithaca, N. Y. **1Biology.* Cass Co, Ill, March 18, 68. B.S. Knox Col, 91, M.S, 93, Litt.D, 21; Hopkins, 93–94; Goldwin Smith fellow, Cornell, 96, Ph.D, 98; Sc.D, Lake Forest Col, 29. Instr, high sch, Ill, 91–93; biol, Knox Col, 94–96; prof, Lake Forest Col, 98–07; prof. *entom. and limnol, Cornell,* 07–36, *emer. prof, 36–* Assoc. ed, 'Psyche.' King Senior Mem. gold medal, Peiping Soc. Nat. Hist, 30. A.A; Ecol. Soc; Soc. Nat; Entom. Soc. (pres, 19); Fisheries Soc; Limnol. Soc. (pres, 37); Okefinokee Soc. (pres, 20); N. Y. Entom. Soc; Acad. Nat. Sci. Phila; hon. mem. Entom. Soc. China. Freshwater biology; life histories of aquatic insects; systematic study of Odonata.

Needham, Dr. J(oseph) Garton, Simmons College, Boston, Mass. *Psychology.* Brandon, Vt, Nov. 22, 08. A.B, Boston, 30; A.M, Harvard, 32, Ph.D, 33. Nat. research fellow, Princeton, 33–34; staff psychologist, State Colony, N. J, 34–36; instr. *psychol, Simmons Col,* 36–39, *asst. prof, 39–* Lecturer, Boston, 39– Assoc. Psychol. Asn; Mass. Asn. Occupational Therapy (manager). Experimental, clinical, social and educational psychology.

Needham, Dr. Paul R(obert), Department of the Interior, Stanford University, Calif. *Fisheries biology.* Lake Forest, Ill, Jan. 14, 02. B.S, Cornell, 24, M.S, 26, Ph.D, 28. Asst, Cornell, 26–27, instr, 27–28; animal ecol. and biol, Rochester, 29–31; *aquatic biologist,* Bur. Fisheries, 31–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Summers, instr, Rochester, 26; biologist, N. Y. Conservation Dept, 27–30; field assoc, Cold Spring Harbor, 30. Fisheries Soc; Wildlife Soc. (pres, 42); Wildlife Inst; Soc. Ichthyol. and Herp. Stream bottom organisms; survival of trout following planting; stream ecology; stream and lake management; salvage of salmon runs blocked by high dams.

Needler, Dr. A(lfred) W(alker) H(ollinshead), Atlantic Biological Station, St. Andrews, N. B, Can. *Marine biology.* Huntsville, Ont, Aug. 14, 06. B.A, Toronto, 26, M.A, 27, Nat. Research Council Can. bursar, 27–28, student, 28–29, Ph.D, 30. Asst. bot, Toronto, 24–25, embryol, 25–26, syst. zool, 26–27; vol. investigator, *Fisheries Research Board Can,* 26–29, sci. asst. marine biol, 29–30, asst. biologist, 31–37, assoc. biologist, 37–39, chief biologist, 39–41, in charge Atlantic oyster investigations and P. E. I. Biol. Sta, 30–41, *in charge oyster culture, dept. fisheries, Can. Dept. Fisheries, 30–, director, Atlantic Biol. Sta, 41–* Summers, statistician, Fisheries Research Board Can, 24–25. Cmt. fishery statist, N. Amer. Council Fishery Investigations, 28–; advisory council, Int. Passamaquoddy Fisheries Cmn, 31–34. Soc. Ichthyol. and Herp; Royal Inst. Can. Oceanography; life history, migrations and ecology of haddock; biological study of fishery statistics; ecology of the oyster of Canadian Atlantic waters; oyster culture; fisheries biology.

Needler, Dr. Alfreda (Alice) B(erkeley), Atlantic Biological Station, St. Andrews, N. B, Can. *Marine biology.* Mosheri, India, 03. B.A, British Columbia, 26; fellow, Toronto, 26–27, M.A, 27, Nat. Research Council Can. bursar, 28–29, student, 29–30, Ph.D, 30. *Vol. investigator, Fisheries Biol. Board Can, 24–* Asst, Toronto, 27–28. Classification of ophiurans near Nanaimo, British Columbia; anatomy and life history of British Columbian pandalids; rate of growth and sex change in Ostrea virginica; sex reversal of Ostrea virginica; Canadian food fishes; larval development of Canadian shrimps; taxonomy of Canadian Atlantic Pycnogonids.

Needy, Dean John A(lfred), 417 N. Gilbert St, Ada, Ohio. *Mechanical engineering.* Louisville, Ky, Aug. 28, 89. B.S, Kentucky, 11, M.E, 29; M.S, Purdue, 22; Ohio State; E.E, Int. Correspondence Sch, Scranton, Pa, 19. Draftsman, Mengel Box Co, 11–13; instr. manual training, Witherspoon Col, 13–16; inspector, Murphy Iron Works, Detroit, 16; prof. mech. eng, Ohio Northern, 16–20; instr, Purdue, 20–22, asst. prof, 22–26; *dean eng, Ohio Northern, 26–, coordinator, Civilian Pilot Training, rep, eng, science and management war training.* Mech. Eng; Eng. Educ. Design, maintenance and efficient operation of Diesel engine plants for municipal purposes.

Neel, Dr. J(ames) V(an Gundia), Dartmouth College, Hanover, N. H. *Genetics.* Middletown, Ohio, March 22, 15. A.B, Col. Wooster, 35; Ph.D. Rochester, 39. Instr. zool, Dartmouth Col, 39–43; nat. research fellow, Columbia, 41–43; *U. S. Army, 43–* Genetics Soc. Physiological genetics.

Neelands, Dr. Lewis J(ames), Apt. 24, 20 Ware St, Cambridge, Mass. *Physics.* St. Johns, Mich, May 31, 16. A.B, Kalamazoo Col, 38; M.S, Brown, 40, Ph.D, 42. *Staff mem, radiation lab, Mass. Inst. Tech, 42–* Electronics.

Neeley, Dr. A(rthur) H(ouse), Glenvale Ave, Glenbrook, Conn. *Organic chemistry.* Utah, July 30, 01. B.S, Utah

State Col, 31; M.S, Mich. State Col, 33, Ph.D, 35. Chemist, State Dept. Agr, Mich, 35–37; *research chemist, Air Reduction Co, 37–* Chem. Soc. Industrial catalysis; catalytic gaseous oxidation; hydrogenation; catalytic hydrolysis of aromatic and aliphatic halogen compounds; solvent preparation and purification.

Neelley, Prof. J(ohn) H(aven), 300 Broadmoor Ave, Mt. Lebanon, Pittsburgh, Pa. *Mathematics.* Columbia, Tenn, Oct. 30, 92. B.S, Vanderbilt, 16, A.M, 20; Ph.D, Yale, 27. Instr. *math,* Vanderbilt, 20–21; Yale, 24–26; assoc. prof, *Carnegie Inst. Tech,* 27–30, *prof, 30–* Math. Soc; Math. Asn. Rational space cubic curve; rational plane quartic curve and quintic curve; new analytics; calculus; rational plane cubic; a mathematical dictionary.

Neely, Dr. J(ames) Winston, U. S. Department of Agriculture, Stoneville, Miss. *Genetics.* Cotton Plant, Ark, Feb. 4, 06. B.S, Arkansas, 28; Ph.D, Cornell, 35. Tech. asst. plant breeding, Arkansas, 28–30; asst. agron, Cornell, 30–34; asst. agronomist, Soil Erosion Service, 34–35; assoc. geneticist, *div. cotton and other fiber crops and diseases, bur. plant indust, U. S. Dept. Agr,* 35–40, *geneticist, 40–* A.A; Soc. Agron; Genetic Asn. Inheritance and linkage relations of characters in cotton; improvement of cotton by breeding.

Neet, Prof. Claude C(assell), Massachusetts State College, Amherst, Mass. *Psychology.* Glendora, Calif, Feb. 9, 05. A.B, California at Los Angeles, 30; A.M, Clark, 32, Ph.D, 35. Instr. psychol, Nevada, 34–35; educ. and psychol, *Mass. State Col,* 35–36, asst. prof. *psychol,* 36–42, *prof, 42–* Summers, lecturer, Inst. Fed. Emergency Educ, Providence, R. I, 35; Mass. State Col, 36– Psychol. Asn. Visual pattern discrimination; sensitivity of discrimination methods determined by auditory threshold techniques; abnormal behavior; mental hygiene.

Neff, Dr. Andrew (McNally), 555 S. Orange Grove Ave, Pasadena, Calif. *Chemistry.* Altadena, Calif, Nov. 9, 93. A.B, California, 20; M.S, Chicago, 21, Ph.D, 25. Indust. fellow, Mellon Inst, 25–28; *with Neff Potteries, 28–; major, Chem. Warfare Service, U. S. Army, and asst. mil. attaché, U. S. Embassy, London, England, 43–* A.A; Chem. Soc; Calif. Acad; Pa. Acad. Organic and food chemistry; ceramics.

Neff, Carroll F(orsythe), Ironized Yeast Co, Inc, Atlanta, Ga. *Nutrition.* Pigeon, Mich, Jan. 10, 08. A.B, Washington (St. Louis), 29; A.M, California, 30. Research lab, Ralston Purina Co, St. Louis, Mo, 26–28, 30–31; teaching fellow, California, 29–30; head biol. lab, Anheuser-Busch, Inc, 31–38; *manager plant and labs, Ironized Yeast Co, Inc, 38–* Vitamin B advisory cmt, U. S. Pharmacopoeia, 34– A.A. Concentration and assay of vitamins in yeast; nutritional value of beers; diet and immunity.

Neff, Prof. I(saac) F(ranklin), Drake University, Des Moines, Iowa. *Mathematics.* Near Earlham, Iowa, June 8, 74. B.S, Drake, 02, M.S, 04; M.S, Chicago, 05. Asst. prof. *math,* Drake, 02–04; *prof,* Bethany Col, 05–08; *Drake, 08–* Math. Soc; Math. Asn; fel. Iowa Acad. Modern geometry.

Neff, Johnson A(ndrew), U. S. Department of the Interior, 546 Customhouse, Denver, Colo. *Biology.* Marionville, Mo, Oct. 29, 00. B.S. (Agr), Missouri, 24; M.S, Oregon State Col, 26. Teaching fellow, Oregon State Col, 24–26; ranch manager, Neff Orchards, Mo, 26–30; *asst. biologist, div. food habits research,* bur. biol. surv, U. S. Dept. Agr, 30–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Wildlife Soc; Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Inland Bird Banding Asn. (councilor, Mo, 28–30); West. Bird Banding Asn. Ornithology; the economic status of the common woodpecker in relation to Oregon horticulture; band-tailed pigeons; white-winged doves; prevention and control of depredations by birds.

Negus, Dr. Sidney S(tevens), Medical College of Virginia, Richmond, Va. *Chemistry.* Dudley, Mass, Jan. 31, 92. Europe, 11–12; A.B, Clark, 13; A.M, Harvard, 17; Ph.D, Hopkins, 23. Instr, Mercersburg Acad, Pa, 13–15, head dept. chem, 17–21; asst. org. chem, Harvard, 16–17; anal. chem, Hopkins, 22–23; assoc. prof. chem, Richmond, 23–26, prof. org. chem, 26–27; *prof. biochem. and head dept. chem, Med. Col. of Va, 27–* A.A. (director press service); Chem. Soc. (chairman, 27); hon. mem. Asn. Sci. Writers; Va. Acad. (asst. sec'y). Vapor pressure; speed of organic reactions; odor and chemical constitution; biochemistry; nutrition.

Neher, Dr. C(larence) M(arcellus), Box 341, Ethyl Corp, Baton Rouge, La. *Organic chemistry.* Twin Falls, Idaho, May 14, 16. A.B, Manchester Col, 37; M.S, Purdue, 39, fellow, 40–41, Ph.D, 41. Asst, Purdue, 37–40; *research chemist, Ethyl Corp, 41–* Chem. Soc. Chlorination of methane and ethane.

Neher, Dr. Harry T(rainor), 817 Radcliffe St, Bristol, Pa. *Organic chemistry.* Nappanee, Ind, March 30, 01. B.S, Northwestern, 24, M.S, 25, Ph.D, 30. Prof. chem, Simpson Col, 25–26; instr, Mich. State Col, 26–28; asst, Northwestern, 28–30; *research chemist, Rohm and Haas Co, Phila, 30–* Summer, instr, Northwestern, 28. Chem. Soc. Carbohydrate chemistry; synthetic resins.

Neher, Dr. H(enry) Victor, California Institute of Technology, Pasadena, Calif. ****Physics.* Kans, Nov. 4, 04. A.B, Pomona Col, 26; Ph.D, Calif. Inst. Tech, 31. Asst. *physics, Calif. Inst. Tech,* 26–29, teaching fellow, 29–31, research fellow, 31–33, instr, 33–37, asst. prof, 37–40, *assoc. prof, 40–* A.A; Physical Soc. Scattering of high velocity electrons; reflection of electrons from solid surfaces; cosmic radiation; electron tubes.

Neher, Prof. O(scar) W(arner), Manchester College, North Manchester, Ind. *Botany, Plant pathology.* Petroleum, Ind, 87. A.B, Mt. Morris Col, 16; B.S, Iowa State Col, 20; M.S, Chicago, 30. Teacher and prin. high sch, Iowa, 16–20; prof. biol, Mt. Morris Col, 24–32, acting pres, 28–29; *prof. biol, Manchester Col, 32–* Immunizing seedlings against disease; seed treatment compounds and technique to increase root production.

Neifert, Prof. Ira E(dward), 755 N. Kellogg St, Galesburg, Ill. *Chemistry.* Galesburg, Ill, June 21, 91. B.S, Knox Col, 15, M.S, 16; Chicago; Colorado; Cornell; Ph.D, Iowa, 39. Instr. chem, Knox Col, 17; junior chemist, U. S. Dept. Agr, 19–20, toxic gas expert, 22; prof. *chem, Knox Col,* 20–34, *Herbert Griffith prof, 34–, chairman dept, 33–* A.A; Chem. Soc; Ill. Acad. Insecticides; creatine and creatinine; poison gases; hexahydroxybenzene.

Neikirk, Prof. L(ewis) I(rving), University of Washington, Seattle, Wash. *Mathematics.* Central City, Colo, Dec. 10, 73. B.S, Colorado, 98, M.S, 01; Harrison fellow, Pennsylvania, 01–03, Ph.D, 03. Research fellow, Pennsylvania, 03–05; instr. *math,* Illinois, 05–11; *Washington (Seattle),* 11–14, *asst. prof, 14–* Math. Soc; Math. Asn. Algebra; calculus; calculus of variations; abstract groups; functions of infinite number of variables; functional variable.

Neill, Prof. Alma J(essie), 918 S. Lahoma St, Norman, Okla. *Physiology.* Chillicothe, Ill, Feb. 21, 85. A.B, Illinois, 13, A.M, 15, Ph.D, 20; Chicago, 21. Teacher, schs, 02–09; asst. *physiol,* Illinois, 13–20; asst. prof, *Oklahoma,* 20–23, assoc. prof, 23–38, *prof, 38–, animal biol, 42–,* chairman dept. physiol, 29–42. Research, sch. med, Paris, 26–27; instr, Ill. State Nor. Sch, 16–18; Am. Asn. Univ. Women fellow, 26–27. A.A; Okla. Acad; Royal Soc. Arts. Enzymes; absorptions; rhythms of muscle tissue; puerperal infection; ductless glands; sleeping sickness.

Neill, Prof. James M(affett), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Bacteriology, Immunology.* Clarion, Pa, July 6, 94. B.S, Allegheny Col, 17, Sc.D, 40; Ph.D, Mass. Col, 21. Asst, Rockefeller Inst, 21–25, assoc. prof. *bacter. and immunol,* 25–26; *prof,* sch. med, Vanderbilt, 27–31; *med. col, Cornell, 31–* Gen. Educ. Board traveling fellow, 24–25. Asn. Immunol; Asn. Path. and Bact; Soc. Bact; Pub. Health Asn; Soc. Exp. Biol; Harvey Soc. Lactic acid fermentation; oxidation and reduction of blood pigments and immunological substances; hypersensitiveness to diphtheria bacterial products; anaphylaxis to diphtheria toxin; the individual as a factor in immunity; natural immunity of man and other animals to diphtheria bacteria and pneumococci; serologically reactive substances in sugar and other foods; serological properties of dextrans and levans of microbial origin.

Nellson, Dr. Cha(rle)s Hugh, St. Louis University, St. Louis, Mo. *Internal medicine.* Ohio, July 19, 71. A.B, Ohio Wesleyan, 94, A.M, 97; fellow, Chicago, 00, Ph.D, 03, M.D, Rush, 05. Asst. physiol, Ohio Wesleyan, 94; Chicago, 01–02; assoc, *St. Louis,* 02–04, assoc. prof. physiol. chem, 04–07, *prof,* 07–11, *int. med, 11–,* director dept. med, 11–24, *dean, 28–* Asst. city pathologist, St. Louis, 06; mem. staff, St. Mary's Infirmary, 07–08, 12, sec'y exec. council, 38–; chief staff, Alexian Brothers' Hosp, 09–21; physician, St. Louis City Hosp, 12–35; physician in chief, St. John's Hosp, 24–; physician, St. Mary's Group of Hosps, 33– A.A; Am. Med. Asn; Therapeut.

Soc; Col. Physicians; Soc. Biol. Chem; South. Med. Asn. (v. chairman sect. med. educ); Mo. State Med. Soc. (chairman post-grad. instruction); St. Louis Med. Soc. (pres, 38). Chemistry in its relation to medicine; medical education; hospital management; clinical medicine, particularly as a study of blood pressure, its physiology and its clinical manifestations.

Neilson, Dr. Clarence A(lbert), Box 1637, Baltimore, Md. *Physical chemistry.* Boulder, Colo, July 21, 07. B.S, Colorado, 29, M.S, 33, Ph.D, 35. Research chemist, Continental Oil Co, 36–41; *chief chemist, Petrol. Chems, Inc, 41–* Chem. Soc. Chemicals from petroleum.

Neiman, Dr. Irwin S(amuel), 710 S. Wolcott St, Chicago, Ill. *Bacteriology.* Toronto, Ont, Can, April 10, 11. B.S, Chicago, 33, Ph.D, 36, M.D, Rush Med. Col, 38. *Instr. bacter. and pub. health, Illinois, 39–* Soc. Bact; Soc. Ill. Bact. Vaccination against tuberculosis with Bilie Calmette Guérin.

Neish, Prof. Arthur C, Queen's University, Kingston, Ont, Can. *Chemistry.* Kingston, Ont, Nov. 5, 76. B.A, Queen's (Can), 98; A.M, Columbia, 00, Ph.D, 04. Asst. qualitative anal, Columbia, 00–02, tutor *chem,* 03–09, instr, 10–14, asst. prof, 14–19, assoc. prof, 19; prof. and head dept, *Queen's (Can),* 19–41, *emer. prof, 41–* Instr, evening high schs, N. Y, 04–08; lecturer, Dept. Educ, New York. Fel. Can. Inst. Chem. (pres, 24). Rare earths; thorium; cerium; precipitation of rare earths; milkweed; fluorine.

Neiswander, Dr. C(laud) R(evere), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Rawson, Ohio, March 6, 93. A.B, Ohio State, 22, M.S, 23, Ph.D, 26. Asst. entomologist and *assoc. entomologist, Ohio Exp. Sta, 23–* Summer, asst, Ohio State, 22. A.A; Entom. Soc; Asn. Econ. Entom; Ohio Acad. Corn insects.

Neiswander, Dr. R(alph) B(losser), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Williamstown, Ohio, June 30, 98. B.S, Ohio State, 27, M.S, 28, Ph.D, 34. *Asst. entomologist, Ohio Exp. Sta, 28–, in charge Oriental fruit moth project, 30–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ohio Acad. Oriental fruit moth; lesser peach borer; apple flea weevil.

Neitzert, Prof. Carl, 610 River St, Hoboken, N. J. *Electrical engineering.* Syracuse, Mo, July 15, 07. B.S, Missouri, 28, A.M, 29; Sc.D, Mass. Inst. Tech, 36. Instr. *elec. eng,* Mass. Inst. Tech, 28–32, asst, 32–34, instr, 34–40; *asst. prof, Stevens Inst, 40–* Elec. Eng; Radio Eng; Eng. Educ. High gain amplifiers and statistical voltages; network synthesis.

Neivert, Dr. Harry, 555 Park Ave, New York, N. Y. *Anatomy.* New York, N. Y, Aug. 7, 89. Rochester, 07–09; M.D, Buffalo, 13; Pennsylvania, 22–23. Nat. research fellow, Jefferson Med. Col, 23–24, instr. anat, 24; *col. physicians and surg, Columbia,* 24–42, *asst. prof. otolaryngol. and director pharyngol. research lab, 42–, instr. anat, dental sch, 31–* Prosector, Buffalo; surgeon, Manhattan Eye, Ear, Nose and Throat Hosp; Presb. Hosp; Vanderbilt Clinic, Columbia. Am. Med. Asn; fel. Col. Surg; N. Y. Acad. Med. Anatomy of paranasal sinuses.

Neller, Dr. J(oseph) R(obert), Everglades Experiment Station, Belle Glade, Fla. *Agricultural chemistry.* Ashby, Minn, Nov. 13, 91. B.S, Macalester Col, 13; M.S, Minnesota, 15; Ph.D, Rutgers, 21. Teacher, high sch, 13–14; research chemist, Texas Co, 20–21; asst. chemist, Exp. Sta, State Col. Wash, 22–26, assoc. chemist, 27–30; assoc. biochemist, *Everglades Exp. Sta, Florida,* 30–31, *biochemist, 32–, in charge,* 37– A.A; Soc. Agron; Soil Sci. Soc; Fla. Soil Sci. Soc. (pres, 41). Biochemical, biophysical and enzymatic relations in plant nutrition; physiological effects of sprays and fertilizers; soil biology; conservation of organic soils.

Nelles, Dr. Maurice, 3713 Laurel Canyon, North Hollywood, Calif. *Engineering.* Madison, S. Dak, Oct. 19, 06. A.B, South Dakota, 27, A.M, 28; fellow, Harvard, 31, Coffin fellow, 32, George H. Emerson scholar, 32, Ph.D, 34. Instr. physical chem, South Dakota, 29–30; research and develop. chemist, Nat. Aniline and Chem. Co, 32–34; research chemist, Union Oil Co, 34–36; Riverside Portland Cement Co, 37–39; *senior research engineer, Lockheed Aircraft Corp, 40–* Mem, Nat. Advisory Cmt. Aeronautics. U.S.N, 36–41. Welding Soc. (fusion welding cmt; resistance welding cmt); Chem. Soc. Catalysis; resistance welding; production machines and processes.

Nelms, Prof. W(illiam) S(tockton), 136 Wilton Drive, Decatur, Ga. *Physics.* Cleburne, Texas, Feb. 28, 83. A.B, Southwestern, 03, A.M, 04; fellow, Columbia, 12–13, Ph.D, 13. Prof. *physics,* John Tarleton, 05–06; asst, Columbia, 08–12; asst. prof, Ga. Tech, 13–16; assoc. prof, Southwestern, 16–17; Ga. Tech, 17–18; *Emory,* 19–20, prof, 20–41, in charge dept, 19–41, *emer. prof, 41–* Lieut, Ordnance Dept, 18– A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Southeast. Soc. Physicists (treas, 35–); Ga. Acad. (pres, 24). Resonators for short electric waves.

Nelsen, Prof. Olin E(verett), 407 E. Ridley Ave, Ridley Park, Pa. *Anatomy, Embryology.* South Lancaster, Mass, Nov. 30, 98. A.B, Clark, 22; A.M, Brown, 23; Ph.D, Pennsylvania, 29. Instr. zool, Toledo, 24–26; Pennsylvania, 26–29; nat. research fellow, 29–30; instr. *zool, Pennsylvania,* 30–35, *asst. prof, 35–* Summers, instr, Marine Biol. Lab, Woods Hole, 29–36. Soc. Zool. Comparative vertebrate anatomy and embryology; germ cell history and general embryology in the grasshopper, Melanoplus differentialis; metamorphosis in Amphibia; development of the opossum ovary; ovulation in the opossum and related phenomena of reproduction.

Nelson, Prof. Alfred C(larence), 1021 S. Clayton Way, Denver, Colo. *Chemistry.* Salt Lake City, Utah, Nov. 14, 98. B.S, Denver, 20, A.M, 21; Illinois, 21–23; Ph.D, Iowa, 26. Instr. *chem, Denver,* 23–27, asst. prof, 27–29, assoc. prof, 29–30, *prof, 30–,* registrar, 29–37, *dean grad sch. and director summer sch, 37–* A.A; Chem. Soc; fel. Inst. Chem; Nat. Educ. Asn; Colo. Educ. Asn. Effect of solvent on photochemical decomposition of trichloracetic acid; industrial and physical chemistry.

Nelson, Prof. Alfred L(ewis), 16765 Sunderland Road, Detroit, Mich. *Mathematics.* Moray, Kans, Feb. 8, 91. A.B, Midland Col, 11; A.M, Kansas, 13; Ph.D, Chicago, 15. Instr. *math,* Kansas, 12; Michigan, 15–20, asst. prof, 20–25; *prof. and head dept,* Col. City of Detroit, 25–33, *Wayne, 33–* A.A; Math. Soc; Math. Asn; Mich. Acad; Circolo Mat. di Palermo. Projective differential geometry.

Nelson, Dr. A(lgot) R(eginald), 226 Metz Bldg, Grand Rapids, Mich. *Bacteriology, Pediatrics.* Providence, R. I, March 23, 02. A.B, Olivet Col, 23; Ph.D, Yale, 26, M.D, 28. Asst, dept. bacter. and immunol, Yale, 23–26, tuber. clinic, dept. pediat, sch. med, 27–28; res. house officer, dept. pediat, Strong Mem. Hosp. and Rochester Munic. Hosp, N. Y, 28–29; chief res. house physician, Buffalo Children's Hosp, 29–30; Butterworth Hosp, Mich, 29–30; *attending pediatrician, St. Mary's Hosp, 30–; practising pediatrician, 30–; major, Med. Corps, U. S. Army, 42–* Bacteriologist, New Haven Hosp, 23–28. Fel. Col. Physicians; fel. Am. Med. Asn. Bacteriophage; cellular immunity.

Nelson, A(rnold) L(ars), U. S. Department of the Interior, Washington, D. C. *Biology.* Ironwood, Mich, Feb. 11, 07. B.S, Michigan, 28. Instr, high sch, Mich, 28–31; junior biologist, bur. biol. surv, U. S. Dept. Agr, 31–35, asst. biologist, 35–37, assoc. biologist, 37–40; *biologist, fish and wildlife service, U. S. Dept. Interior, 40–* Soc. Mammal; Ornith. Union; Wildlife Soc; Cooper Ornith. Club; Wilson Ornith. Club; Biol. Soc. Wash; Wash. Biol. Field Club (sec'y, 35–). Economic ornithology and mammalogy; predator-prey relationships.

Nelson, Dr. Arthur A(lfred), U. S. Food and Drug Administration, Washington, D. C. *Pathology.* Duluth, Minn, July 19, 05. M.D. and M.S, Minnesota, 35, fellow, 35–38, Ph.D, 38. Intern, Minneapolis Gen. Hosp, 34–35; assoc. med. pathologist, U. S. Pub. Health Service, 38–39; *senior pathologist, food and drug admin, Fed. Security Agency, 39–* Asn. Path. and Bact; Soc. Exp. Path; D. C. Med. Soc. Human and animal pathology; tumors of brain and pituitary; pathology of human endocrine glands; toxicity of sulfanilamide; influenza virus; ergot and glycols; spontaneous pathology of laboratory animals; rat tumors.

Nelson, Dr. Arthur F(rederick), 16 Franklin St, Oneonta, N. Y. *Physical chemistry.* Shennington, Wis, May 19, 01. A.B, St. Olaf Col, 28; scholar, Iowa, 30–31, M.S, 31, fellow, 31–32, Ph.D, 32. Instr. chem, St. Olaf Col, 28–29; prof, Am. Int. Col, 33–35; Dana Col. (Nebr), 29–30; asst. photochem, Harvard, 32–33, 35–37; asst. chief chemist, Lever Brothers Co, Cambridge, 37–39, research chemist, 39–42; *prof. chem, Hartwick Col, 42–* Summer, research engineer, scintilla magneto div, Bendix Aviation Corp, 43. Chem. Soc. Vapor pressures and activity coefficients of aqueous solutions of some alkali salts and perchloric acid; photoiodination of the ethylenic bonds; glycerol determination.

Nelson, Prof. Aven, University of Wyoming, Laramie, Wyo. **Botany.* Keokuk, Iowa, March 24, 59. A.B, M.S.D, Mo. State Nor. Sch, 83; M.S, Drury Col, 90; A.M, Harvard, 92; Ph.D, Denver, 04; hon. Sc.D, Colorado, 26. Instr. English and biol, Drury Col, 83–85; prin, schs, Mo, 85–87; *prof.* biol, *Wyoming*, 87–15, *bot, 15–*, pres, 17–22, *emer. pres, 22–* In charge lab, Columbian Expos, 93; La. Purchase Expos, 04; bot. explorer, 94– Sec'y-treas, State Board Hort, Wyo, 05–21. Del, Int. Bot. Cong, Amsterdam, 35. A.A; Soc. Nat; Bot. Soc. (pres, 35); Soc. Plant Physiol; Soc. Hort. Sci; Torrey Bot. Club; Soc. Plant Taxon. (pres, 36); fel. Colo-Wyo. Acad. (past pres); Biol. Soc. Wash. Systematic, physiological and economic botany; taxonomy; flora of western America; the flora of the Rocky Mountains; the spring flora of the intermountain states.

Nelson, Prof. Bernard A(ndrew), 118 N. President, Wheaton, Ill. *Organic chemistry.* Chicago, Ill, Jan. 10, 10. B.S, Wheaton Col. (Ill), 31; M.S, Northwestern, 38, Ph.D, 42. Asst. *chem*, Wheaton Col. (Ill), 28–31; instr, Maine Township Junior Col, Ill, 39–42; *asst. prof*, Baylor, 42–43; *Wheaton Col. (Ill), 43–* Chem. Soc. Reaction between phenylmagnesium bromide and cyclic acetals.

Nelson, Prof. C(arl) Ferdinand, University of Kansas, Lawrence, Kans. *Physiological chemistry.* Mörlunda, Sweden, May 25, 82. A.B, Wisconsin, 08, A.M, 10, fellow, 11–12, Ph.D, 12; M.D, Rush, Chicago, 17. Instr. chem, Iowa, 08–11; Illinois, 12–13; asst. prof. *physiol. chem, Kansas*, 13–14, assoc. prof, 14–19, *prof. and head dept, 19–* Chem. Soc; Soc. Biol. Chem; Am. Med. Asn; Kans. Acad. Osmosis; metabolism in muscular tissue; calcium metabolism; anoxemia; compressed air; hemoglobin.

Nelson, Prof. Casper I(rving), 1358 12th St, N, Fargo, N. Dak. *Bacteriology.* River Falls, Wis, June 16, 86. River Falls State Nor. Sch, Wis, 05; A.B, Wisconsin, 12; Logan fellow, Chicago, 25, Ph.D, 26. Instr. bacter. and pub. health, Wisconsin, 11–12; *prof. bacter, N. Dak. Col, 14–* Protein specificity of flax proteins; globulins from bacteria and their specificity; differentiation of variety by serological means; the intracellular globulin and toxin of Clostridium botulinum; phytoserology; intimate bacteriology.

Nelson, Dr. Channing C(larke), Standard Oil Development Co, Elizabeth, N. J. *Chemical engineering.* Erie, Pa, July 18, 13. Ch.B, Cornell, 35, Sage fellow, 37–38, Ph.D, 38. Asst. chem. eng, Cornell, 35–37; develop. engineer, Tide Water Associated Oil Co, 38–39; *process design engineer, Standard Oil Develop. Co, 39–* Chem. Soc. Gas absorption.

Nelson, Prof. Cyril A(rthur), Rutgers University, New Brunswick, N. J. *Mathematics.* Troy, Kans, Oct. 19, 93. A.B, Midland Col, 14; A.M, Kansas, 16; fellow, Chicago, 18–19, Ph.D, 19. Instr. *math*, Kansas, 19–20; Western Reserve, 20–21; assoc, Hopkins, 21–27; assoc. prof, *Rutgers*, 27–43, *prof, 43–* A.A; Math. Soc; Math. Asn; Circolo Mat. di Palermo. Projective differential geometry.

Nelson, Dr. D(aniel) H(ans), 157 Division St, Madison, Wis. *Bacteriology.* Minkcreek, Idaho, Feb. 25, 94. B.S, Utah Col, 22, A.M, 24; Ph.D, Iowa State Col, 28. Asst. bacter, Utah Col, 22–25, instr, 24–25; high sch, Utah, 25–27; asst. soil bacter, Iowa State Col, 27–28; nat. research fellow, Wisconsin, 28–30; *in charge lab, Oscar Mayer and Co, 30–* A.A; Soc. Bact; Inst. Meat Packers (research cmt). Soil bacteriology; isolation and characterization of nitrifying organisms; meat curing, meat canning and sausage manufacture; industrial wastes.

Nelson, Dr. D(aniel) H(orace), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Dairy chemistry.* Franconia, N. H, Oct. 14, 98. B.S, New Hampshire, 20; M.S, Missouri, 22; Ph.D, Pa. State Col, 39. Asst. dairy mfrs, Missouri, 22–24; instr. dairy indust, California, 24–37; instr. and later *asst. prof. dairy husbandry, N. Mex. Col, 41–* Dairy manufactures.

Nelson, Prof. D(elmar) W(ood), University of Wisconsin, Madison, Wis. *Mechanical engineering.* Peshtigo, Wis, July 30, 96. B.S, Wisconsin, 20, M.E, 21, M.S, 32. Instr. *mech. eng, Wisconsin*, 23–27, asst. prof, 27–37, *assoc. prof, 37–* Heat. and Vent. Eng. (pres. and governor Wis. chap); Mech. Eng. (exec. cmt, Rock River Valley sect); Eng. Educ. (sec'y heat power cmt, mech. eng. div, '41). Head transfer, fluid flow and air distribution as applied to mechanical engineering.

Nelson, Prof. D(otson) M(cGinnis), Mississippi College, Clinton, Miss. *Physics.* Charleston, Miss, Dec. 18, 80. B.S, Miss. Col, 07; A.M, Indiana, 19, Ph.D, 25. Asst. prof. chem, Miss. Col, 11–13, prof. physics, 13–20; exec. sec'y, Miss. Baptist Educ. Cmn, 20–25; *prof. physics, Miss. Col, 25–, pres, 32–* A.A; Optical Soc; Asn. Physics Teachers; Asn. Miss. Universities and Colleges (pres, 33). Light.

Nelson, Dr. E(arl) W(illiam), Horse Head Inn, Palmerton, Pa. *Physical chemistry.* Minn, May 27, 15. A.B, St. Olaf Col, 36; Research Foundation fellow, Purdue, 38–40, M.S, 39, Ph.D, 40. Teaching asst, Purdue, 36–38; *research investigator, N. J. Zinc Co, 40–* Chem. Soc. Heat capacity of glucose glass in connection with the third law of thermodynamics.

Nelson, Edwin F(urol), 2120 Straus Bldg, Chicago, Ill. *Chemical engineering.* Superior, Wis, March 7, 00. B.S, Wisconsin, 24. Engineer, Bell Tel. Labs, 24–26; *with Universal Oil Products Co, 26–* Chem. Eng; Chem. Soc. Petroleum refining.

Nelson, Dr. Eldred C(arlyle), University of California, Berkeley, Calif. *Physics.* Starbuck, Minn, Aug. 14, 17. A.B, St. Olaf Col, 38; univ. fellow, California, 40–41, Whiting fellow, 41–42, Ph.D, 42. Teaching asst. *physics, California*, 38–40, *instr, 42–* Theoretical physics; mesotrons and nuclear forces; isomeric silver and the Weiszäcker theory; internal conversion of x-rays in the L shell; pseudoscalar mesotron theory of B-decay; mesotron pair theories; military physics.

Nelson, Dr. E(lmer) M(artin), U. S. Food and Drug Administration, Washington, D. C. *Chemistry.* Clark, S. Dak, July 5, 92. B.S, Wisconsin, 18, M.S, 19, Ph.D, 23. Instr. agr. chem, Wisconsin, 20–23, indust. fellow, 23–25; director nutrition, Soft Wheat Millers' Asn, Tenn, 25–26; assoc. chemist, lab. protein investigation, bur. chem, U. S. Dept. Agr, 26–28, chemist, bur. chem. and soils, 28, senior chemist, 28–35, *chief vitamin div, food and drug admin*, 35–39; *Fed. Security Admin, 39–* U. S. del, Int. Conf. Vitamin Standardization, London, 34. U. S. Pharmacopoeia Vitamin Advisory Board; Council on Pharmacy and Chem, Am. Med. Asn; Int. Vitamin Conf. A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; Soc. Exp. Biol; Wash. Acad. Pub. Health Asn. Nutrition; vitamins.

Nelson, Dr. E(lven) Clifford, State Inland Fisheries and Game Department, Gray, Maine. *Parasitology.* Boulder, Colo, Aug. 18, 07. A.B, Colorado, 29, A.M, 30; Sc.D, Hopkins, 33. Instr. biol, Col. City of N. Y, 33; asst. protozool, Hopkins, 30–33; instr. zool, Maine, 33–37, asst. prof, 37–40; *parasitologist, State Inland Fisheries and Game Dept, Maine, 40–* Summers, asst, Rocky Mt. Biol. Sta, Crested Butte, Colo, 29; Bur. Plant Indust, Colo, 30; tech. asst, Cold Spring Harbor, 31. Univ. Colorado exped, 28. A.A; Wildlife Soc; Soc. Parasitol. Parasitic ciliates; life-cycles; cross-infection; fish and game parasites; cultivation; control.

Nelson, Dr. Erland N. P, Carthage College, Carthage, Ill. *Psychology.* Ruskin, Nebr, July 28, 97. A.B, Nebr. State Teachers Col, 27; A.M, Nebraska, 30, Ph.D, 37; summers, Chicago, 31–33, Minnesota, 35. Head dept. commerce, Dana Col, 26–29, pres, 29–36; head dept. psychol, Newberry Col, 36–43; *pres, Carthage Col, 43–* Chairman research cmt, Nat. Lutheran Educational Conf, 31–36, mem, 36–, pres. conf, 33–34; Nebr. Asn. Church Cols, 33–34. Assoc. Psychol. Asn; Midwest. Psychol. Asn; S. C. Soc. Psychol. and Philos. (pres, 39–41). Social attitudes of college and university students; student attitudes toward religion; the measurement of orientation work in college.

Nelson, Dr. E(rwin) E(llis), Burroughs Wellcome and Co, Inc, Tuckahoe, N. Y. *Pharmacology.* Springfield, Mo, June 11, 91. B.S, Drury Col, 14; A.B, Missouri, 14, A.M, 16, fellow, 16–18, Ph.D, 20; M.D, Michigan, 26. Asst. zool, Missouri, 13–16; asst. prof. pharmacol, Michigan, 19–27, assoc. prof. and prof, 27–37; prof. and head dept, sch. med, Tulane, 37–43; *director research, exp. research labs, Burroughs Wellcome and Co, Inc, 43–* Consultant, food and drug admin, U. S. Dept. Agr, 31–34, chief div. pharmacol, 35–36; consultant, food and drug admin, Fed. Security Agency, 36–Summers, sci. asst, Bur. Fisheries, Iowa, 17–18; Marine Biol. Lab, Woods Hole, 19; pharmacologist, U. S. Dept. Agr, 23–24, 27. Mem. revision cmt, U. S. Pharmacopoeia, 30– Ed. pharmacol. sect, 'Biol. Abstracts,' 30–41. Soc. Pharmacol. (treas, 39–); assoc. fel. Am. Med. Asn. (chairman sect. pharmacol. and therapeut, 39); Physiol. Soc; Soc. Exp. Biol. Bio-assay of drugs; mechanism of drug action.

Nelson, Prof. F(rank) Eugene, Iowa State College, Ames, Iowa. *Dairy bacteriology.* Harlan, Iowa, Dec. 5, 09. B.S,

Minnesota, 32, Shevlin fellow, 33–34, M.S, 34; Iowa State Brand Creameries fellow, Iowa State Col, 34–36, Ph.D, 36. Instr. dairy bacter, Minnesota, 36–37; asst. prof, Kans. State Col, 37–42, assoc. prof, 42–43; *prof. dairy indust, Iowa State Col. and research prof, Exp. Sta, 43–* Soc. Bact; Dairy Sci. Asn. Bacteriophage active against Streptococcus lactis; methods of enumeration of bacteria in dairy products; factors affecting resistance to heat.

Nelson, G(ussie) H(arry), 124 N. University, Peoria, Ill. *Sanitary chemistry, Chemical engineering.* Clear Lake, Iowa, Jan. 15, 00. B.S, Iowa, 23, M.S, 24. In charge exp. sewage purification plant, Am. Beet Sugar Co, Mason City, Iowa, 24–29; junior chem. engineer sanit. chem, eng. exp. sta, Iowa State Col, 29, 31, from cooperative agent to asst. chem. engineer, agr. by-products lab, bur. chem. and soils, *U. S. Dept. Agr,* 31–41, *asst. chem. engineer and assoc. chemist, north. regional research lab, bur. agr. and indust. chem, 41–* Beet sugar waste purification; creamery waste; sludge digestion; fermentation with gas production of agricultural wastes; utilization of lignin for water treatment; agricultural chemistry; pulp and paper chemistry.

Nelson, Dr. Harlan W(illis), Pennsylvania State College, State College, Pa. *Chemistry.* Crookston, Minn, May 16, 06. B.S, North Dakota, 29; M.S, Illinois, 30, Ph.D, 33. Asst, Illinois, 29–32, chem. eng, 32–33; *fuel technol, Pa. State Col,* 33–34, instr, 34–37, *asst. prof, 37–* Summer, Blandin Paper Co, Grand Rapids, Minn, 29. Electrodeposition from non-aqueous solvents; oxidation of pyritic sulfur in coal; mineral matter in coal; fuel technology.

Nelson, Harley A(rthur), Palmerton, Pa. *Chemistry.* Herington, Kans, Aug. 1, 90. A.B, McPherson Col, 16; A.B, Kansas, 16, A.M, 18. Research chemist, Bur. Standards, 17–19; research div, *N. J. Zinc Co, 19–, chief paint and ceramic research div, 31–, asst. to gen. manager tech. dept, 37–* A.A; Chem. Soc. (chairman, paint and varnish div, 32); Soc. Test. Mat. (cmt. D-1, chairman, subcmt. VII); Inst. Chem; Chemists' Club. Pigments; paints; lacquers; oils; resins.

Nelson, Dr. H(arold) R(aymond), 505 King Ave, Columbus, Ohio. *Physics.* Brattleboro, Vt, Dec. 4, 04. A.B, Amherst Col, 26; Ph.D, Cornell, 34. Asst. physics, Cornell, 27–29, instr, 29–34; *research physicist, Battelle Mem. Inst, 34–* Physical Soc. Electron diffraction of surfaces; crystal structure.

Nelson, Dr. James A(lexander), Cazenovia Junior College, Cazenovia, N. Y. *Anatomy.* Arnot, Pa, Oct. 26, 94. Pd.B, Pa. State Nor. Sch, 09; B.S, Pa. State Col, 20; M.S, Columbia, 25, Ph.D, 27. Prof. biol, Hahnemann Col. Science, 27–30, asst. prof. anat, Hahnemann Med. Col, 30–31; *head science dept,* Brown Prep. Sch, Phila, 31–42; *Cazenovia Junior Col, 42–* Cancer investigator, Emory Lab. Cancer Research, Phila, 31– Pa. Acad. Chromosome number in Drosophila melanogaster; factors involved in static disorders of foot; cancer; projection of continuous protoplasmic movement.

Nelson, Prof. J(ohn) A(lbert), Montana State College, Bozeman, Mont. *Dairy industry.* Cottage Hill, Iowa, Nov. 2, 90. B.S, Iowa State Col, 22, M.S, 23, Ph.D, 32. Instr. *dairy indust, Mont. State Col,* 22–24, asst. prof, 24–27, assoc. prof, 27–29, *prof. and head dept, 29–* A.A; Dairy Sci. Asn. Dairy bacteriology; dairy industry; chemistry, bacteriology and keeping quality of butter.

Nelson, Dr. John B(rockway), Rockefeller Institute, Princeton, N. J. *Bacteriology.* Newburyport, Mass, Dec. 9, 94. B.S, Mass. Col, 17; A.M, Harvard, 23; Ph.D, Missouri, 24. Asst. bacteriologist, pub. service labs, Kentucky, 19–22; instr. microbiol, Mass. Col, 24; asst. *animal path, Rockefeller Inst,* 25–29, assoc, 29–38, *assoc. mem, 38–* A.A; Soc. Exp. Path; Soc. Bact. Respiratory diseases of animals; biology of the coccobacilliform bodies; behavior of pox viruses in the nasal tract.

Nelson, Prof. J(ohn) M(aurice), Columbia University, New York, N. Y. *Organic chemistry.* West Point, Nebr, Oct. 19, 76. B.S, Nebraska, 01; Ph.D, Columbia, 07. Chemist, Nebr. Food Cmn, 01–03; instr. *chem,* Rose Polytech, 03–05; Rensselaer Polytech, 07–08; *Columbia,* 08, *prof, 20–* William H. Nichols medal, New York sect, Am. Chem. Soc, 40. A.A; Chem. Soc; Soc. Biol. Chem. Enzymes and carbohydrates.

Nelson, Dr. J(ohn) Wesley, Cargill, Inc, 116 Corn Exchange, Minneapolis, Minn. *Nutrition.* Mankato, Minn, Feb. 10, 04. B.S, Minnesota, 25, M.S, 31, Ph.D, 38. Assoc. chemist, Exp. Sta, Minnesota; *research chemist, Cargill, Inc.* Mineral requirements of farm animals; vitamin E requirement of cattle.

Nelson, Dr. J(oseph) F(rederick), 436 Cherry St, Elizabeth, N. J. *Organic chemistry.* Custer, S. Dak, Oct. 23, 99. B.S, Black Hills Teachers Col, 27; A.M, South Dakota, 33; fellow, Iowa State Col, 33–37, Ph.D, 37. Teacher, high sch, S. Dak, 27–29, supt, 29–31; teaching fellow, South Dakota, 31–33; *research chemist, Standard Oil Develop. Co, 37–* Chem. Soc. Organic metallic compounds; oxidation inhibitors; oxidation of organic compounds; synthetic rubber.

Nelson, Prof. Martin, University of Arkansas, Fayetteville, Ark. *Agriculture.* Seneca, Wis, Sept. 12, 71. B.S.A, Wisconsin, 05, M.S, 06. Field asst, dept. soils, Wisconsin, 06; adj. prof. field crops and soils, Nebraska, 06–07, assoc. prof. field crops, 07–08; *prof. agron, Arkansas and Exp. Sta, 08–, head dept. and v. dean col. agr, 21–* Soc. Agr. Sci; Soc. Agron. Agronomy; acidity of soils and its influence upon farm crops and upon ammonification and nitrification; cross inoculation of legumes; the physical and chemical requirements of southern soils; the control of rice blight; breeding grains and cotton adapted to Arkansas conditions.

Nelson, Martin E(mil), U. S. Engineer Office, St. Paul, Minn. *Hydraulic engineering.* Grantsburg, Wis, Jan. 20, 98. B.S, Minnesota, 24. Asst. engineer, South. Calif. Edison Co, 24–27; Am-Scandinavian Foundation fellow, Tech. Inst. Stockholm, 27–28; assoc. engineer and later engineer in charge hydraul. research sect, hydraul. lab, U. S. Engineer Dept, Iowa, 29–42; *senior engineer in charge hydraul. sect, U. S. Engineer Office, 43–* Geophys. Union; Civil Eng; Int. Asn. Navig. Cong. Analysis of hydraulic structures by means of scale models; flood control; operation of Mississippi River navigation dams.

Nelson, Dr. M(ilton) E(phraim), 310 S. Stone Ave, La Grange, Ill. *Bacteriology.* Brigham City, Utah, April 2, 09. Weber Col, 26–28; B.S, Utah State Col, 31; Rockefeller fellow, Iowa State Col, 31–33, M.S, 33, Indust. Science fellow, 33–36, Ph.D, 36. Bacteriologist, Campbell-Taggart Bakeries, 36–43; *biochemist, Armour Research Foundation, 43–* Physiological bacteriology; dissimilation of carbohydrates by micro-organisms.

Nelson, Prof. Milton N(els), 444 N. 35th St, Corvallis, Oregon. *Economics.* Chicago, Ill, July 7, 91. A.B, Illinois, 15, A.M, 17, Ph.D, 21. Instr. marketing, Minnesota, 21–22; econ, Illinois, 22–23; asst. prof. business organization, Ohio State, 23–26; *prof. econ. and head dept, Oregon State Col, 26–* Open price associations; corporation finance.

Nelson, N(els) C(hristian), American Museum of Natural History, New York, N. Y. **Anthropology.* Denmark, April 9, 75. B.L, California, 07, M.L, 08. Asst. curator museum anthrop, California, 09–12, instr. anthrop, 10–12; asst. curator, *Am. Museum Nat. Hist,* 12–21, assoc. curator N. Am. archeol, 21–29, curator *prehist. archeol,* 29–43, *emer. curator, 43–* Field asst, U. S. Geol. Surv, 08; lecturer, Archeol. Inst, 11. Archeol. expeds, San Francisco bay region and southwest. U. S, 12–17; Ky, Fla, west. Europe, Mongolia and China. Trustee, Lab. Anthrop, Santa Fe, 29– Del, Int. Cong. Prehist. and Protohist. Sciences, London, 32. A.A. (chairman, H, 35); Anthrop. Asn. (councilor, 14–, v. pres, 36, pres, 37); Ethnol. Soc. (treas, 24, pres, 29); Am. Geog. Soc; Soc. Applied Anthrop. (pres, 42); N. Y. Acad. (publication cmt); Int. Cong. Americanists (sec'y, 28). The archeology of the San Francisco Bay region, southwestern United States, Kentucky, Florida, Montana, Mongolia and China.

Nelson, Mrs. Norton A. (Dr. Rose S. Cohen), 101 Mantle Ave, Elizabethtown, Ky. *Endocrinology.* Cincinnati, Ohio, Oct. 5, 09. A.B, Cincinnati, 30, A.M, 31, Ph.D, 34. Asst. zool, Cincinnati, 30–35; Children's Hosp. Research Foundation, 35–41, assoc. fellow research, 41–42; instr. pediat. research, Cincinnati, 41–42. A.A; Asn. Anat; N. Y. Acad. Lactation; endocrines and nutrition.

Nelson, Dr. O(le) A(nker), Battelle Memorial Institute, Columbus, Ohio. *Physical chemistry.* Ft. Ransom, N. Dak, April 12, 92. B.S, N. Dak. Col, 18; M.S, Princeton, 19; Ph.D, Maryland, 36. Asst, N. Dak. Col, 16–18; Princeton, 18–20; research chemist, junior chemist, color lab, assoc. physical chemist and physical chemist, insecticide and fungicide labs, bur. chem, U. S. Dept. Agr, 20–27, bur. chem. and soils, 27–34, chemist, inorg. insecticides sect, div. insecticide investigations, bur. entom. and plant quarantine, 34–42; *asst. supervisor tech. staff, Battelle Mem. Inst, 42–* Vapor pressure;

insecticidal and fungicidal properties and preparation of certain copper compounds; phase rule investigation of and insecticidal properties of calcium arsenates.

Nelson, Prof. Oran M(ilton), 250 28th St, Corvallis, Oregon. *Animal husbandry.* La Crosse, Wis, Nov. 29, 88. B.S, Wisconsin, 13, M.S, 30. Instr. *animal husbandry, Oregon State Col,* 13–17, asst. prof, 17–18, assoc. prof, 18–21, *prof, 21–* Costs of producing sheep and wool; economic survey of the Angora goat industry of Oregon; pastures.

Nelson, Prof. Peter, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agricultural economics.* Engelholm, Proesto Amt, Denmark, April 19, 87. B.S, Utah Col, 20, A.M, 24; Ph.D, Illinois, 30. Farm supt, Exp, Sta, Utah Col, 20–26; asst. farm organization and management, Illinois, 26–29; exten. economist, *Okla. Agr. and Mech. Col,* 29–34, assoc. prof. *agr. econ,* 34–35, *prof, 35–, head dept, 39–* Farm Econ. Asn; Econ. Asn; Am. Acad. Polit. and Social Sci; Southwest Social Sci. Asn. History of agriculture and types of farming in Illinois; lessons from Oklahoma farm accounts; systems of farming in Oklahoma; types of farming areas in Oklahoma; farm management.

Nelson, Prof. P(reclous) Mabel, 2334 Baker St, Ames, Iowa. *Physiological chemistry.* Brookston, Ind, Nov. 9, 87. B.S, California, 15, M.S, 16; Currier fellow, Yale, 19–20, Ph.D, 23. Teacher, schs, 07–09, 12–14; instr. home econ, Calif. State Teachers Col, Santa Barbara, 16–19; asst. physiol. chem, Yale, 20–23; assoc. prof. foods and nutrition and in charge grad. and research work, dept. *foods and nutrition, Iowa State Col,* 23–25, acting head dept, 26–27, *prof. and head dept,* 27– Chairman, State Nutrition Cmt, Iowa, 40– Chem. Soc. Dietary studies; experimental cookery; diet and lactation; meat in nutrition; vitamin content of vegetables; meat cookery; home canning of meats and vegetables; heat penetration and indices of spoilage; unidentified food essentials; vitamin techniques; nutritional status of college women.

Nelson, Dr. Ralph M(elvin), Federal Bldg, Asheville, N. C. *Forestry.* Climax, Minn, Dec. 18, 98. B.S, Minnesota, 22, M.S, 24, Ph.D, 30. Asst. and instr. forest path, Minnesota, 22–26; asst. pathologist, div. forest path, *Appalachian Forest Exp. Sta, U. S. Forest Service,* 26–31, silviculturist, 31–37, senior silviculturist, 37–39, *asst. director, 39–* Soc. Foresters. Forest protection; forest research administration.

Nelson, Dr. Ray, Michigan State College, East Lansing, Mich. *Plant pathology.* Taylorsville, N. C, Sept. 17, 93. B.S, Mich. State Col, 16, M.S, 26; Ph.D, Michigan, 31. Asst. *plant path, Mich. State Col,* 19–29, research assoc, 30–43, *research prof, 43–* Phytopath. Soc. Virus diseases; diseases of muck crops; diseases of ornamental plants.

Nelson, R(euben) A(ndrew), 411 Windsor St, Silver Spring, Md. *Physics, Chemical physics.* Upland, Calif, Aug. 14, 04. B.S, George Washington, 30. Sci. aide, fixed nitrogen research lab, *U. S. Dept. Agr,* 24–30, junior physicist, fertilizer research div, bur. chem. and soils, 30–38, *asst. physicist, soils and fertilizer investigations div, bur. plant indust, 38–* Physical Soc. Surface adsorption on clays and soil colloids; catalytic ammonia decomposition; low temperature specific heats; vapor pressure of P_2O_5; thermal analysis of clays and soils.

Nelson, Dr. Richard B(urton), 111 Jackson Ave, Schenectady, N. Y. *Physics.* Powell, Wyo, Dec. 10, 11. B.S, Calif. Inst. Tech, 35; Ph.D, Mass. Inst. Tech, 38. Mem. electron optics lab, RCA Mfg. Co, 38–40; asst. research physicist, Nat. Research Council Can, 41–42; *mem. research lab, Gen. Elec. Co, 42–* Physical Soc. Electronics.

Nelson, Dr. Richard C(arl), 905 S. Second St, Stillwater, Minn. *Plant physiology, Biochemistry.* Stillwater, Minn, May 1, 15. A.B, Minnesota, 35, Caleb Dorr fellow, 36–37, Ph.D, 38. Agent tung research, U. S. Dept. Agr, 39; research fellow plant physiol, Minnesota, 40–42; *biochemist, Armour and Co, 42–* Soc. Plant Physiol. (exec. cmt, 41). Storage and ripening of fruits and vegetables; spectroscopic analysis; meat pigments.

Nelson, R(obert) H(ale), 151 W. 11th Ave, Columbus, Ohio. *Economic entomology.* Bristow, Nebr, June 13, 03. B.S, Nebraska, 29, M.S, 30; Iowa State Col, 30–31; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–38, asst. entomologist, 38–41, *assoc. entomologist, 41–* Summers, asst, Exp. Sta, Nebraska, 29, 30. Asn. Econ. Entom; Entom. Workers in Ohio Institutions (sec'y-treas, 41); Ohio Acad; Entom. Soc. Wash. Control of gladiolus thrips; tartar emetic as a thripicide; field testing of new insecticidal materials against truck crop insects.

Nelson, Prof. R(oy) A(ndrew), Cornell College, Mt. Vernon, Iowa. *Physics.* Joy, Ill, Feb. 15, 96. B.S, Knox Col, 16; M.S, Illinois, 20, Ph.D, 23. Asst. *physics,* Illinois, 16–17, 19–23, instr, 23–25; *prof, Cornell Col. (Iowa), 25–* A.A; Physical Soc; Asn. Physics Teachers; Iowa Acad. (pres, 41). Convection and conduction of heat and humidity.

Nelson, Rudolph Stokes, 5 Bayard St, Larchmont, N. Y. *Chemistry.* Rockford, Ill, 97. B.S, Illinois, 20, M.S, 21; fellow, Rice Inst, 25–27; LL.B, Cleveland Law Sch, 35. Prof. chem, Tenn. Col, 22–25; asst. prof, Macalester Col, 27–28; research engineer in charge refrig. lab, The Hoover Co, 28–36; *attorney, patent dept, Union Carbide and Carbon Corp, New York, 36–* A.A; fel. Inst. Chem. Refrigeration.

Nelson, Prof. Sara L(ouise), 512 N. Columbia St, Milledgeville, Ga. *Mathematics.* Oglethorpe, Ga, Jan. 17, 03. B.S, Ga. State Col. Women, 26; M.S, Cornell, 30, Erastus Brooks fellow, 38–39, Ph.D, 39. Instr. *math, Ga. State Col. Women,* 30–32, asst. prof, 32–39, assoc. prof, 39–42, *prof, 42–* Math. Soc; Math. Asn; Ga. Acad. Cremona transformations belonging to a family of cubic curves.

Nelson, Dr. Theodora, 315 E. 68th St, New York, N. Y. *Ornithology.* New Brunswick, N. J, Jan. 4, 94. A.B, Wisconsin, 17; A.M, Michigan, 24, Ph.D, 39. Asst. zool, Michigan, 23–24, 25–26; *asst. prof. zool, Hunter Col,* 27– Summers, asst, Mich. Biol. Sta, 25–36, 38–41. Assoc. Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp; Wilson Ornith. Club. The biology of the spotted sandpiper.

Nelson, Prof. Thurlow C(hristian), 77 Adelaide Ave, New Brunswick, N. J. *[*]Zoology.* New Brunswick, N. J, Sept. 22, 90. B.S, Rutgers, 13, hon. Sc.D, 39; Ph.D, Wisconsin, 17. Asst, oyster research lab, *N. J. Exp. Sta,* 09–14, asst. biologist, 16–19, *biologist, 19–,* asst. prof. *zool, Rutgers,* 19–22, assoc. prof, 22–26, *prof, 26–, head dept, 25–* Asst, Bur. Fisheries, 14–; biologist, N. J. Board Shellfisheries, 20–; research, England, 31. Mem, State Water Policy Cmn, N. J, 29– Lieut, Sanit.C, 18–19. Soc. Zool. (treas, 39–41); Ecol. Soc; Soc. Parasitol; Micros. Soc. (v. pres, 41); Soc. Exp. Biol; Limnol. Soc; Nat. Shellfisheries Asn. (pres, 31). Oyster and Teredo investigations; physiology of lamellibranch mollusks; parasitology; limnology.

Nelson, Prof. Victor E(manuel), Iowa State College, Ames, Iowa. *Chemistry.* Eau Claire, Wis, Jan. 21, 88. B.S, Wisconsin, 12, M.S, 14. Asst. agr. chem, Wisconsin, 12–14, instr, 14–17; assoc, Hopkins, 17–19; asst. prof. *physiol. chem, Iowa State Col,* 19–23, *prof, 23–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Animal nutrition.

Nelson, Dr. Virginia L(afayette), Antioch College, Yellow Springs, Ohio. *Child psychology.* Halifax Co, Va, Oct. 26, 87. B.S, Columbia, 19; Ph.D, Hopkins, 31. Asst, Hopkins, 27–31; instr. *psychol, Antioch Col,* 31, asst. prof, 32–41, *research assoc, Samuel S. Fels research inst, 31–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn; fel. Soc. Research Child Develop; Asn. Nursery Educ.

Nelson, Prof. Virginia (Stevens), Washington Missionary College, Takoma Park, Md. *Mathematics.* Buffalo, N. Y, May 19, 08. A.B, Union Col. (Nebr), 35; A.M, Nebraska, 36. Instr. *math,* Union Col. (Nebr), 36–37; *asst. prof, Washington Missionary Col, 42–* Algebra; reducibility of polynomials.

Nelson, Dr. W(aldo) E(merson), Temple University Medical School, Philadelphia, Pa. *Pediatrics.* McClure, Ohio, Aug. 17, 98. A.B, Wittenberg Col, 22; M.D, Cincinnati, 26. Instr. *pediat,* col. med, Cincinnati, 29–32, asst. prof. and assoc. prof, 32–40, *prof, med. sch, Temple, 40–* Am. Med. Asn; Acad. Pediat; Pediat. Soc; Soc. Pediat. Research; Cent. Soc. Clin. Research. Tuberculin; kidney function in children; diabetes in children.

Nelson, Dr. W(alter) K(enneth), 155 Maple Ave, Metuchen, N. J. *Chemistry.* Providence, R. I, Aug. 15, 04. Ph.B, Brown, 25, M.S, 27, Ph.D, 30. *Research chemist, Titanium div, Nat. Lead Co, South Amboy, N. J, 30–* Chem. Soc; Inst. Chem. Reactions of organo-silicon compounds in liquid ammonia and ethyl amine; titanium pigments.

Nelson, Dr. Walter L(udwig), Cornell University, Ithaca, N. Y. *Nutrition, Biochemistry.* Norwich, N. Y, May 27, 11. B.S, Phila. Col. Pharmacy and Science, 33, M.S, 34; Ph.D, Cornell, 41. Chemist, Norwich Pharmacal Co, 34–38; asst,

Cornell, 38–41; head biol. lab, Schenley Research Inst, 41–43; *biochemist, U. S. Plant, Soil and Nutrition Lab, 43–* Chem. Soc. Food supply.

Nelson, Prof. Warren O(tto), Wayne University, Detroit, Mich. *Anatomy.* Moline, Ill, April 16, 06. A.B, Augustana Col, 28; M.S, Iowa, 29; Ph.D, N. Y. Univ, 31. Asst. zool, Augustana Col, 25–28; Iowa, 28–29; instr, N. Y. Univ, 29–31; nat. research fellow, Chicago, 31–33; asst. prof. *anat,* Missouri, 33–35; sch. med, Yale, 35–36; *prof. and head dept, Wayne, 36–, chairman div. basic med. sciences, 37–* Examiner anat. and path, State Board Basic Sciences, Mich, 38– Grant, cmt. sci. research, Am. Med. Asn, 38. A.A; Soc. Zool; Asn. Study Int. Secretions (v. pres, 34, exec. council, 35–38, publications board, 38–41); Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Mich. Acad. (chairman, 41); Detroit Physiol. Soc. (sec'y, 37–40, pres, 41). Anatomy and physiology of endocrine glands; atypical growths; control of lactation; neuro-endocrine relations.

Nelson, Prof. Wilbur A(rmistead), University of Virginia, Charlottesville, Va. *Economic geology.* Nashville, Tenn, Feb. 14, 89. B.S, Vanderbilt, 10; A.M, Stanford, 15. Asst. chem, Vanderbilt, 08–10; chemist, Tenn. Packing Co, 10–11; asst. geologist, Tenn. Geol. Surv, 11–14; econ. geologist, Nashville, Chattanooga and St. Louis Ry, 14–16; mining geologist, Paga Mining Co, 16–18; state geologist, Tenn, 18–25; *Corcoran prof. and head Corcoran and Rogers schs. geol, Virginia, 25–; administrator mining branch, War Production Board, 42–* State geologist, Va, 25–28. Summer, asst. geologist, Va. Geol. Surv, 12. Asst. ed, 'Resources of Tenn,' 12–14. State Highway Cmn, Tenn, 18; chairman advisory council, U. S. Board Surveys and Maps, 25, 26, 27; emergency fuel distributor, Tenn, 22; exec. cmt. states relations div, Nat. Research Council, 25–29, chairman cmt. conservation drilling results, 25–35; sec'y, Va. Water Power and Develop. Cmn, 26. Va. commissioner, Va-Md. Boundary Cmn, 28–30. Chairman exec. cmt, South Appalachian Water Power Conf, 22–23; exec. cmt, Nat. Conf. State Parks, 25–28. A.A; Soc. Econ. Geol; Geol. Soc; Asn. State Geol. (past pres); Seismol. Soc; Min. and Metal. Soc; Va. Acad; Tenn. Acad. (pres, 24); Nashville Eng. Asn. (v. pres, 22). Non-metallic minerals; dam foundations; mining.

Nelson, Prof. W(ilbur) L(undine), 1916 E. 38th St, Tulsa, Okla. *Petroleum engineering.* Chanute, Kans, Oct. 1, 04. B.S, Michigan, 27, M.S, 28. Design engineer, Smith Eng. Co, 28–30; *prof. petrol. ref, Tulsa, 30–; consultant.* Metal. ed, 'Oil and Gas Jour,' 36– Chem. Soc; Chem. Eng; Eng. Educ. Refinery equipment design; laboratory evaluation methods; fractionation of mixtures; lubricants by vacuum decomposition; design of commercial pyrolysis equipment; use of metals by the petroleum industry; petroleum refinery engineering.

Nelson, Dr. William L(ionel), Johnson and Johnson Co, New Brunswick, N. J. *Organic chemistry.* Torrington, Conn, Feb. 3, 96. B.S, Trinity Col. (Conn), 20; Ph.D, Pittsburgh, 26. Supt, Crucible Steel Co, Pittsburgh, 20–22; instr. chem, Pittsburgh, 22–26; fellow, Mellon Inst, 26–42; *mem. staff, Johnson and Johnson Co, 42–* 2nd lieut, A.E.F, 18–19. A.A; Chem. Soc. General organic chemistry; hypnotics; carbohydrates; organic chemistry of marine algae; chemotherapeutic cinchona alkaloids; plastics; cosmetics; adhesives; rubber.

Nergaard, Dr. Leon S(everin), 7 Rolling Mead, Princeton, N. J. *Radio engineering.* Battle Lake, Minn, Sept. 2, 05. B.S, Minnesota, 27, Ph.D, 35; M.S, Union (N. Y), 30. Research engineer, lab, Gen. Elec. Co, 27–30; teaching asst, Minnesota, 30–33; *research engineer,* RCA Mfg. Co, Harrison, *N. J,* 33–42, *RCA Labs, Princeton, 42–* Radio Eng; Physical Soc. Radio; electrical measurement of ultra-high frequencies; ultra-high frequency generation.

Neros, Dr. Clifford A(rchibald), American Can Co, 11th Ave. and St. Charles Road, Maywood, Ill. *Physical chemistry.* Grand Forks, N. Dak, Dec. 22, 10. A.B, North Dakota, 32, M.S, 34; Ph.D, Iowa, 38. Asst, Iowa, 35–38; chemist, Spyco Smelting and Ref. Co, Minn, 39–41; *research chemist, Am. Can Co, 41–* Chem. Soc. Surface tension of aqueous perchloric acid; organic coatings.

Nesbit, Dr. Reed Miller, University Hospital, Ann Arbor, Mich. *Medicine, Surgery.* Concord, Calif, Dec. 8, 98. A.B, Stanford, 21, M.D, 25. Instr. *surg, Michigan,* 27–29, asst. prof, 29–32, assoc. prof, 32–43, *prof, 43–, chief dept. urol, 32–* Fel. Am. Med. Asn; fel. Col. Surg; Urol. Soc; Asn. Genito-Urinary Surg; Urol. Asn; Clin. Soc. Genito-Urinary Surg; Int. Soc. Urol.

Nesbit, Robert A(lexander), P. O. Box 394, College Park, Md. *Marine biology.* Tekamah, Nebr, Oct. 29, 96. A.B, Nebraska, 19; A.M, Harvard, 30. *Assoc. aquatic biologist, Bur. Fisheries, 26–, in charge middle and South Atlantic fishery investigations, 37–* A.A; Fisheries Soc. Life histories of shore fishes of the middle Atlantic states.

Nesbitt, Dr. Cecil J(ames), University of Michigan, Ann Arbor, Mich. *Algebra, Actuarial mathematics.* Ft. William, Ont, Can, Oct. 10, 12. Ph.D, Toronto, 37. Mem. Inst. Advanced Study, Princeton, 37–38; instr. *math, Michigan,* 38–41, *asst. prof, 41–* British Asn. Advancement Science medal, Toronto, 34. Math. Soc; Inst. Math. Statist; Actuarial Soc. Representation theory of groups and algebras.

Nesbitt, Prof. Paul H, Beloit College, Beloit, Wis. *Anthropology.* Savanna, Ill. A.B, Beloit Col, 26; A.M, Chicago, 28, Ph.D, 38. Asst. prof. *anthrop, Beloit Col,* 30–35, assoc. prof, 35–37, *prof, 37–, curator, Logan Museum, 32–* Archeologist, N. Africa exped, Logan Museum, Beloit Col, 27–28. A.A; fel. Soc. Am. Archeol; Anthrop. Asn. (sec'y and treas, 41). The Pueblo Indian.

Nesbitt, Robert H(enry), U. S. Engineer Office, Mobile, Ala. *Engineering geology.* Pathankot, India, Dec. 19, 06. A.B, Muskingum Col, 28; A.M, Ohio State, 30; Chicago, 29. Instr. geol. and acting head dept, Allegheny Col, 30–32; instr. science, high sch, Mass, 32–34; inspector test borings, *U. S. Engineer Office,* Zanesville, Ohio, 34–37; soil inspector and asst. dist. geologist, Pittsburgh, Pa, 37–38, asst. geologist, 38–39, *assoc. geologist,* 39–42, *Mobile, Ala, 42–* Geology of the Cumberland, Ohio, district; geology of the proposed Cheat River power development project and the Youghiogheny Dam project; geology of the Allatoona Dam project; geology of the proposed power, navigation and flood control development at Alabama, Tombigbee and Apalachicola Rivers.

Nesom, Prof. Geo(rge) H(enry), University Farm, St. Paul, Minn. *Soils.* Yorkshire, Eng, March, 74. A.B. Hamline, 00; B.S. Minnesota, 16. Prin, schs, Minn, 01–04; sch. supt, Minn, 04–14; instr. and asst. prof. *soils, Minnesota,* 16–42, *emer. asst. prof, 42–* Soc. Agron. Sandy soils; peat soils.

Ness, Dr. Arthur T(homas), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Organic chemistry.* Tacoma, Wash, Jan. 5, 09. B.S, Washington (Seattle), 31, Ph.D, 37. Junior chemist, U. S. Geol. Surv, 37–39; asst. chemist, Bur. Mines, 39–40; *nat. inst. health, U. S. Pub. Health Service,* 40–42, *assoc. chemist, 42–* Chem. Soc. Physical chemistry; thermodynamics of concentrated solutions of strong electrolytes; structures and properties of natural and synthetic carbohydrate substances and their derivatives.

Nesset, Dr. N(aurice) M, 820 Chatham Road, Glenview, Ill. *Chemistry.* St. Ansgar, Iowa, Oct. 29, 09. A.B, St. Olaf Col, 31; A.M, Wisconsin, 33, Ph.D, 35. Teaching asst, St. Olaf Col, 30–31; Wisconsin, 31–35; *v. pres, manager and director research, Baxter Labs, Inc, 35–* Chem. Soc. Inorganic and organic chemistry; pure zirconium tetrachloride and electrodeposition of zirconium alloys from molten baths; parenteral feeding and containers and accessories therefor; equipment and accessories for blood transfusion, plasma and serum preparation and storage.

Nester, Prof. Henry G(eorge), 2832 N. Capitol Ave, Indianapolis, Ind. *Physiology.* Indianapolis, Ind, Aug. 20, 03. A.B, Butler, 25; fellow, Indiana, 28, A.M, 28, Ph.D, 30. Asst. *zool,* Indiana, 25–28; Illinois, 29; instr, *Butler,* 29–30, asst. prof, 30–38, assoc. prof, 38–40, *prof. physiol. and health and head dept, 40–, chairman men's council, 38–; aviation physiologist and lieut, Air Corps, U. S. Army, 42–* Summer, Waterman Inst. grant, 28. Abstractor, 'Biol. Abstracts,' 27–37. A.A; Soc. Zool; fel. Ind. Acad. (chairman zool. sect, 38); Ind. Student Health Asn. (sec'y, 33–35, v. pres, 36, pres, 40). Cytology; cytoplasmic structures in the male reproductive cells of a pseudoscorpion; physiology; Golgi material in parathyroid gland cells of vitamin D deficient albino rats.

Nestler, Ralph Bernard, U. S. Department of the Interior, Bowie, Md. *Poultry science.* Washington, D. C, 06. B.S, Maryland, 29. Junior biologist, animal husbandry div, bur. animal indust, U. S. Dept. Agr, 30–37, asst. biologist, animal nutrition div, 37–38, *assoc. biologist,* wildlife research div, bur. biol. surv, 38–41; *fish and wildlife service, U. S. Dept. Interior, 41–* Wildlife Inst; Poultry Sci. Asn. Nutrition requirements of bobwhite quail and other game species; nutritive value of wild foodstuffs.

Nesty, Dr. Glenn Albert, Solvay Process Co, Syracuse, N. Y. *Organic chemistry.* Muncie, Ind, Dec. 23, 11. A.B, DePauw,

34; Chem. Foundation fellow, Illinois, 35–37, Ph.D, 37. *Research, Solvay Process Co, 37–* A.A; Chem. Soc. Vegetable oils; cyclization reactions; sterols.

Neter, Dr. Erwin, Children's Hospital, Buffalo, N. Y. *Bacteriology, Immunology.* Mannheim, Germany, May 26, 09. M.D, Heidelberg, 33. *Assoc. bacter. and immunol, sch. med, Buffalo, 36–; bacteriologist, Children's Hosp, 36–* A.A; Soc. Bact; Soc. Exp. Biol; Asn. Immunol. Chemotherapy and bacteriology; sulfonamides; antimicrobial agents of biological origin; genus Shigella.

Netting, M(orris) Graham, 5920 Elwood St, Pittsburgh, Pa. *Herpetology.* Wilkinsburg, Pa, Oct. 3, 04. B.S, Pittsburgh, 26; Hinsdale fellow, Michigan, 28–29, A.M, 29. Asst. *herp, Carnegie Museum,* 25–28, asst. curator, 28–31, *curator, 31–* Conservation lecturer, Pa. Game Cmn, 26–28; lecturer, Pittsburgh, 36– Leader, Carnegie Museum exped, Venezuela, 29–30. A.A; Soc. Ichthyol. and Herp. (v. pres, 30, sec'y, 31–); Soc. Mammal; Ecol. Soc; Am. Geog. Soc; Biol. Photog. Asn; Reptile Study Soc. (hon. pres, 35); Pa. Acad; W. Va. Acad. Herpetology; zoogeography; geography.

Nettleton, Dr. L(ewis) L(omax), Gulf Research and Development Corp, Pittsburgh, Pa. *Physics.* Nampa, Idaho, June 24, 96. B.S, Idaho, 18; M.S, Wisconsin, 21, Ph.D, 23. Asst. physics, Wisconsin, 19–23; physicist, research dept, Union Switch and Signal Co, Pittsburgh, 23–28; *geophysicist, research lab, Gulf Oil Co, Pittsburgh, 28–; advisory prof. physics, Pittsburgh, 37–* Instr, night sch, Carnegie Inst. Tech, 25–28; lecturer, Pittsburgh, 28–33; indust. fellow, Mellon Inst, 28. A.A; Physical Soc; Asn. Petrol. Geol; Soc. Explor. Geophys; Geophys. Union; Physical Soc. Pittsburgh (sec'y-treas, 29, pres, 32). High frequency oscillation at low gas pressures; radii of gas molecules; automatic train control; sound transmission in brake pipes; geophysical prospecting, especially gravitational methods and their interpretation; mechanics of formation of salt domes; isostasy and mountain building; geophysical prospecting for oil.

Netz, Prof. Charles V(all), University of Minnesota, Minneapolis, Minn. *Pharmaceutical chemistry, Pharmacy.* Owatonna, Minn, Oct. 13, 97. Ph.C, Minnesota, 20, B.S, 21, M.S, 23, Ph.D, 40. Teaching asst, *Minnesota,* 19–23, instr, 23–40, *asst. prof. pharmacy, 40–* Chem. Soc; Pharmaceut. Asn. Phytochemical and histological study of Purshia tridentata (Pursh).

Neubauer, Dr. Ferdinand John, Lick Observatory, University of California, Mt. Hamilton, Calif. *Astronomy.* Marienbad, Bohemia, May 30, 86. A.B, Oregon, 10, A.M, 12; Ph.D, California, 17. Instr. astron, California, 17; astronomer in charge, Int. Latitude Observatory, U. S. Coast and Geod. Surv, 18–22; *asst. astronomer, Lick Observatory, California,* 22–23, 29–39, *assoc. astronomer and librarian, 39–,* acting astronomer in charge Chile sta, 23–29. U. S. Shipping Board, 17–18. Astron. Soc. Variation of latitude; radial motions of stars; spectroscopic binary stars.

Neubauer, Prof. L(oren) W(enzel), University Farm, Davis, Calif. *Agricultural engineering.* St. James, Minn, June 23, 04. B.S, Minnesota, 26, M.S, 32. Instr. math. and mech, col. eng, Minnesota, 26–28, agr. eng, 29–40; *asst. prof. agr. eng, California, and asst. agr. engineer, Exp. Sta, 40–* Surveyman, U. S. Engineer Office, St. Paul, Minn, 29. Soc. Agr. Eng. Farm structures; sawdust-concrete; earth stabilization; durability of fence posts; preservatives for wood; grain bin designs; corrosion of wire and fencing.

Neuberg, Prof. Carl A(lexander), New York University, Washington Square East, New York, N. Y. *Biochemistry.* Hannover, Germany, July 29, 79. Berlin; Wurzburg. Lecturer, Berlin, 03–16, extraordinary prof, 16–21, prof, 21–38; *emer. prof, Berlin Agr. High Sch; research prof. chem, Wash. Sq. Col, N. Y. Univ, 41–* Director, Kaiser Wilhelm Inst. Exp. Therapy, Berlin, 13–24; Kaiser Wilhelm Inst. Biochem, Berlin, 25–38. Director, 'Biochem. Zeitschrift.' Emil Fischer medal; Delbruck medal; Pasteur medal; Leblanc medal; Berzelius medal; Scheele medal. Hon. mem. Fihero-Kovakiar Akad. Agr; hon. mem. Italian Med. Acad; hon. mem. Spanish Med. Acad. Processes of fermentations; new phosphatases, sulfatases and of other enzymes; intermediates of rubber manufacture; biochemistry of carbohydrates and tobacco; resolution of racemic compounds; optical activity of petrol; simple photocatalytical and electrolytical processes; phytochemical reductions.

Neuberger, Dr. Hans (H), Pennsylvania State College, State College, Pa. *Meteorology.* Mannheim, Germany, Feb. 17, 10. Heidelberg, 29–30; D.Sc, Hamburg, 36. Research asst. to Dr. Christian Jensen, Hamburg, Germany, 36–37; instr. *geophysics, Pa. State Col,* 37–41, *asst. prof, 41–* A.A; Geophys. Union; Meteorol. Soc; Seismol. Soc. Atmospheric optics; seismology.

Neubert, Dr. A(lfred) M(ax), College Station, Box 8, Pullman, Wash. *Biochemistry.* Cowiche, Wash, Oct. 10, 12. B.S, State Col. Wash, 35, Ph.D, 41. Chemist, Yakima Chem. Lab, 35; asst. state chemist, Wash, 35–37; agent, *fruit and veg. products lab, bur. agr. and indust. chem, U. S. Dept. Agr,* 37–41, *assoc. chem. technologist, 41–* Chem. Soc. Food chemistry.

Neuberger, Dr. Karl T, 4200 E. Ninth Ave, Denver, Colo. *Pathology.* Frankfurt, Germany, March 5, 90. M.D, Munich, 14. Docent *path,* Munich, 31–36; *asst. prof, Colorado, 38–* Neuropathology.

Neufeld, Dr. A(bram) H(erman), McGill University, Montreal, Que, Can. *Biochemistry.* Ukraine, Russia, April 26, 07. B.S, Manitoba, 34, M.S, 35, Ph.D, 37; McGill, 36–37. Demonstrator *biochem,* Manitoba, 35–36; *McGill,* 36–37, asst, 37–39, *lecturer, 39–* Research prize, Manitoba, 36. Can. Inst. Chem; Can. Physiol. Soc. Metabolism of bromine; the relation of the hormones to the intermediate metabolism of carbohydrates, proteins and fats.

Neugebauer, Prof. O(tto Eduard), Brown University, Providence, R. I. **7Mathematics, History of science.* Innsbruck, Austria, May 26, 99. Graz; Munich; Göttingen; Ph.D; LL.D, St. Andrews. *Prof,* Göttingen, 30–34; Copenhagen, 34–38; *math, Brown, 39–* Math. Soc; Oriental Soc; Hist. Sci. Soc. History of mathematics and astronomy.

Neuhaus, Dr. Albert, University of Nebraska, Lincoln, Nebr. *Mathematics.* Cambrai, France, May 31, 14. Hamburg, 34–37; Ph.D, Chicago, 40. Fellow, Chicago, 38–39; teaching asst. *math,* Tulane, 39–41; *instr,* Alabama, 41–42; *Nebraska, 42–* Math. Soc. Algebra.

Neuman, Prof. E(dward) W(illiam), Carroll College, Helena, Mont. *Chemistry.* Chelsea, Iowa, Oct. 5, 04. A.B, Iowa, 27, M.S, 28, J. T. Baker fellow, 28–29, Ph.D, 30. Asst, Iowa, 29–30; nat. research fellow chem, Calif. Inst. Tech, 30–32, research fellow, 32–33; *prof. chem. and head science dept, Carroll Col. (Mont), 33–* Summer, Iowa, 30. A.A; Chem. Soc. Solutions of strong electrolytes; microscopic examination of precipitates in chemical analysis; crystal structure; chemical bond.

Neumann, Frank, U. S. Coast and Geodetic Survey, Washington, D. C. *Seismology.* Baltimore, Md, Feb. 11, 92. Baltimore Polytech, 10. Magnetic observer, *U. S. Coast and Geod. Surv,* 11–20, *mathematician, 20–, chief sect. seismol, div. terrestrial magnetism and seismol, 25–* Seismol. Soc; Geophys. Union; Civil Eng; Wash. Soc. Eng; Philos. Soc. Wash; Wash. Acad. Terrestrial magnetism; geophysics.

Neumann, Dr. Fred R(obert), 1008 W. Myrtle Ave, Visalia, Calif. *Geology.* Chicago, Ill, June 3, 00. B.S, Chicago, 21, M.S, 23; Ph.D, Cornell, 26. Instr. geol, South Carolina, 24–25; geologist, Shell Petrol. Corp, 27–28; prof. geol, Ill. Wesleyan, 28–31; asst. prof. geog, Bowling Green State Col, Ohio, 32–35; *instr.* geol. and geog, Drury Col, 35–36; geol, Eveleth Junior Col, 36–42; *chem. and geol, Visalia Junior Col, 42–* A.A; Asn. Petrol Geol. Origin of clays; sedimentation.

Neumann, Prof. G(eorg) K(arl), Indiana University, Bloomington, Ind. *Physical anthropology.* Hamburg, Germany, June 6, 07. Ph.B, Chicago, 30, fellow, 33–34, A.M, 36, Ph.D, 43; fellow, Western Reserve, 31–32. In charge archeol. project, Works Project Admin, Tennessee, 35–36; research assoc. physical anthrop, museum anthrop, Michigan, 37–42; *asst. prof. anthrop, Indiana, 42–* Summers, field instr, archeol. surv. Ill, Chicago, 30–35. Asn. Physical Anthrop; Anthrop. Asn; Soc. Am. Archeol. Racial history of the American Indian; comparative and human anatomy; American archeology.

Neumann, Prof. J(ohn) v(on), Institute for Advanced Study, Princeton, N. J. **6Mathematics, Physics.* Budapest, Hungary, Dec. 28, 03. Ph.D, Budapest, 26; Ing. chem, Zurich, 26. Privat-docent, Berlin, 27, Lehrauftrag, 27–30; lecturer, Princeton, 30; *prof.* math. physics, Princeton, 30–33; *math, Inst. Advanced Study, 33–* Nat. Acad; Philos. Soc. Theory of sets; mathematical logics; quantum theory; theory of functional operators.

Neurath, Prof. Hans, Duke University, Durham, N. C. *Biochemistry, Physical chemistry.* Vienna, Austria, Oct. 29, 09.

Ph.D, Vienna, 33. Res. fellow, Univ. Col, London, 34–35; biochem, Minnesota, 35–36; instr. and George Fisher Baker res. fellow chem, Cornell, 36–38; *asst. prof. biochem, Duke, 38–* A.A; Chem. Soc; Soc. Biol. Chem; N. Y. Acad. Chemistry of proteins; physical chemistry of biological materials.

Neuss, Dr. Jacob D(avid), 215 Eaglecroft Road, Westfield, N. J. *Chemistry.* Newark, N. J, June 6, 07. B.S, Rutgers, 29, M.S, 31, Ph.D, 34. Chief chemist, Essex Specialty Co, Berkeley Heights, N. J, 35–40; *research chemist, Merck and Co, Inc, 40–* Analytical chemistry; physical chemistry.

Neuwirth, Prof. Isaac, New York University College of Dentistry, New York, N. Y. *Biochemistry, Pharmacology.* New York, N. Y, Dec. 15, 94. B.S, Cornell, 14, Ph.D, 27. Instr. biochem. and lecturer pub. health and hygiene, N. Y. Homeop. Med. Col, and asst. consulting chemist, Flower Hosp, 20–24; instr. physiol. and pharmacol, med. dept, Louisville, 24–25; pharmacol, *sch. dentistry, N. Y. Univ,* 25–26, asst. prof, 26–32, *assoc. prof. pharmacol. and therapeut, 32–,* asst. prof. prev. dentistry, 31–32, assoc. prof, 32–38. Sanit.C, U.S.A, 17–19. A.A; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Pharmacol; Chem. Soc; Harvey Soc; assoc. fel. N. Y. Acad. Med; Int. Asn. Dental Research (sec'y-treas, 36–). Sugar in normal urine; carbohydrate metabolism; magnesium narcosis; dental caries.

Nevens, Prof. W(illiam) B(arbour), University of Illinois, Urbana, Ill. *Dairy husbandry.* Winnebago, Ill, Nov. 27, 85. B.S, Wisconsin, 14; M.S, Illinois, 17, Ph.D, 21. Asst. *dairy husbandry,* Illinois, 14–17; asst. prof, Nebraska, 17–19; *Illinois,* 21–28, assoc. prof, 29–36, *prof, 36–* A.A; Dairy Sci. Asn; Soc. Animal Production; Ill. Acad. Nutrition of dairy cattle; nutritive value of milk.

Neville, Prof. Harvey A(lexander), Lehigh University, Bethlehem, Pa. *Chemistry.* Millwood, Va, Feb. 18, 98. A.B, Randolph-Macon Col, 18; A.M, Princeton, 20, Ph.D, 21. Instr. chem, Princeton, 18–20; Illinois, 21–27; assoc. prof, *Lehigh,* 27–38, *prof. chem. and head dept. chem. and chem. eng, 38–* Summer, instr, Middlebury Col, 25. Mem. research cmn. on chem. of wool, Am. Asn. Textile Chemists and Colorists; on warp sizing, U. S. Inst. Textile Research. A.A; Chem. Soc. (sec'y, Ill. sect, 24, chairman, Lehigh Valley sect, 29). Catalysis in oxidation; colloidal setting of cements; hydration of colloids; adsorption; wetting; textiles.

Neville, Prof. William R(ust), Jr, University of Texas, Austin, Texas. *Pharmacy.* Baltimore, Md, Aug. 19, 81. Ph.G, Texas, 02. *Assoc. prof. pharmacy, Texas, 24–* Mem. auxiliary cmt, revision cmt, U. S. Pharmacopoeia. A.A; Pharmaceut. Asn; Chem. Soc. Synthetic remedies.

Nevin, Prof. Charles Merrick, 203 E. Upland Road, Ithaca, N. Y. *Geology.* Helton, Pa, Sept. 12, 92. B.S, Pa. State Col, 16; M.S, Cornell, 22, Ph.D, 25. Asst, *Cornell,* 21–22, instr, 22–25, asst. prof. struct. and oil geol, 25–36, *prof. geol, 36–* A.A. Structural and petroleum geology.

Nevin, Dr. F(loyd) Reese, 623 Highland Road, Ithaca, N. Y. *Biology.* Long Eddy, N. Y, Feb. 24, 04. A.B, Temple, 27; A.M, Pennsylvania, 29; Ph.D, Cornell, 34. Asst, Temple, 27–29; instr. biol, Ursinus Col, 29–30; asst. and *instr. biol, dept. entom, Cornell, 30–* A.A; Entom. Soc. Amer; Limnol. Soc. Medical entomology; parasitology; anatomy of parasitic mites; larval development of Odonata; quantitative studies of aquatic invertebrates; taxonomy of oribatid mites.

Nevins, Prof. Beatrice I(rene), Georgia State Womans College, Valdosta, Ga. *Botany.* Oshkosh, Wis, May 4, 00. Ph.B, Wisconsin, 25, Ph.M, 26, Ph.D, 30. Asst. bot, Wisconsin, 25–27, asst. instr, 27–30; assoc. prof. *biol,* Ga. State Col. for Women, 30–36; *prof, Ga. State Womans Col, 36–* A.A; Bot. Soc; Wis. Acad; Ga. Acad. Plant morphology; cytology of the antheridia of Sphaerocarpos donnellii.

Nevyas, Dr. Jacob, 5803 Spruce St, Philadelphia, Pa. *Biochemistry.* Philadelphia, Pa, Oct. 31, 97. A.B, Swarthmore Col, 19; A.M, Illinois, 22; Chicago, 21; Ph.D, Pittsburgh, 26. Pharmaceut. chemist, Zemmer Co, Pittsburgh, Pa, 25–26; research chemist, Fels and Co, 27–29; Elec. Storage Battery Co, 29–32; *prof. chem, Pa. State Col. Optometry, 32–* Teacher, high sch, Pa, 36– Chem. Soc. Electrochemical reduction and oxidation of organic compounds; electrochemical properties of storage batteries; electrochemical processes; electrochemical measurements.

New, Dr. Gordon B(algarnie), Mayo Clinic, Rochester, Minn. *Laryngology.* Hamilton, Ont, Can, Nov. 6, 85. D.D.S, Toronto, 06, M.B, 09, M.D, 15. *Head sect. laryngol, oral and plastic surg, Mayo Clinic, 11–; prof, Mayo Foundation, Minnesota, 21–* Acad. Ophthal. and Otolaryngol; Asn. Oral and Plastic Surg; Am. Med. Asn; Col. Surg; Laryngol, Rhinol. and Otol. Soc; Minn. Acad. Ophthal. and Otolaryngol; North. Minn. Med. Asn. Oral and plastic surgery.

Newburger, Dr. Sylvan H(enry), 205 S. Broadway, Baltimore, Md. *Physical chemistry.* Baltimore, Md, June 23, 10. A.B, Hopkins, 31, Ph.D, 37. Junior chemist, *food and drug admin, Fed. Security Agency,* 39–41, *asst. chemist, 41–* A.A; Chem. Soc; Asn. Official Agr. Chem. Dielectric constants; spectrophotometric research in natural and coal-tar colors; quantitative analysis of coal-tar colors.

Newburgh, Prof. L(ouis) H(arry), University Hospital, Ann Arbor, Mich. *Medicine.* Cincinnati, Ohio, June 17, 83. A.B, Harvard, 04, M.D, 08. Asst. internal med, Harvard Med. Sch, 12–16; asst. visiting physician, Mass. Gen. Hosp, 12–16; asst. prof. internal med, *Michigan,* 16–18, assoc. prof, 18–22, acting head dept, 17–22, *prof. clin. investigation, 22–* A.A; Am. Med. Asn; Am. Physicians; Soc. Clin. Invest. Experimental medicine; use of strychnin in cardiovascular disturbances; pneumonia; Bright's disease; diabetes mellitus; water metabolism; energy exchange in man.

Newby, Prof. W(illiam) W(allace), University of Utah, Salt Lake City, Utah. *Zoology.* Dayton, Ohio, Sept. 17, 02. A.B, Kansas, 26; A.M, Iowa State Col, 27; Ph.D, Stanford, 39. Instr. *zool, Utah,* 27–32, asst. prof, 32–39, *assoc. prof, 39–* Invertebrate embryology; Echiuroidea.

Newcomb, Pres. J(ohn) L(loyd), University of Virginia, Charlottesville, Va. *Civil engineering.* Gloucester Co, Va, Dec. 18, 81. A.B, Col. of William and Mary, 00, LL.D, 35; C.E, Virginia, 03; hon. Sc.D, Washington and Lee, 33; LL.D, George Washington, 34, Duke, 35. Asst. engineer, Norfolk and South. Ry. Co, 03–04, div. engineer, 04–05; adj. prof. civil eng, *Virginia,* 05–07, assoc. prof, 07–10, prof, 10–33, dean dept. eng, 25–33, asst. to pres, 26–31, acting pres, 31–33, *pres, 33–* Consulting engineer, 05–24. Mem. Special Cmt. Aeronaut. Research in Educ. Institutions; wartime cmn, U. S. Office Educ, divisional cmt. higher educ, divisional cmt. state and local sch. admin. Trustee, Carnegie Foundation for Advancement of Teaching; mem. board visitors, U. S. Naval Acad. Supervisor, S.A.T.C, Virginia, 18. Eng. Educ.

Newcomb, R(alph) V(ernon), 1622 N. Harrison St, Arlington, Va. *Civil engineering.* Corning, Iowa, July 21, 94. B.S, Iowa State Col, 17, C.E, 27. Rodman to div. engineer, Chicago, Burlington and Quincy R.R, 12–18; dist. engineer, State Highway Dept, Wyo; consulting engineer, Big Piney, Wyo; acting prof. railroad eng, Iowa State Col, 21–23; prof. highway eng, South Dakota, 23–27, civil eng, 27–33, chairman div. aeronaut, 29–33, director motion picture activities, 30–33; tech. engineer, Television Pictures, Inc, Hollywood, 33–34; engineer, Fed. Land Bank, Omaha, 34–35; assoc. engineer appraiser, Farm Credit Admin, 35–41; senior examiner in charge *eng. unit, U. S. Civil Service Cmn,* 41–42, *prin. examiner in charge, 42–* C.Eng, U.S.A, 17–19. Television, municipal and highway engineering; pump irrigation; land drainage; land valuation with special regard to river overflow and erosion hazards; engineering personnel qualifications and use.

Newcomb, Prof. Theodore (Mead), University of Michigan, Ann Arbor, Mich. *Psychology.* Rock Creek, Ohio, July 24, 03. A.B, Oberlin Col, 24; Ph.D, Columbia, 29. Asst. educ. psychol, Columbia, 28–29; asst. prof, Lehigh, 29–30; psychol, Cleveland Col, 30–34; teacher, Bennington Col, 34–41; *assoc. prof. sociol, Michigan, 41–; mem. for. broadcast monitoring service, Fed. Communications Cmn, 42–* Psychologist, Cleveland Child Guidance Clinic, 30, 34. Psychol. Asn; Sociol. Soc; Soc. Psychol. Study Social Issues (sec'y). Personality; social attitudes; propaganda; public opinion.

Newcombe, Prof. Curtis L(akeman), College of William and Mary, Williamsburg, Va. *Zoology.* Port Williams, N. S, Can, March 23, 05. B.A, Acadia, 26, M.A, 27; M.S, West Virginia, 29; Illinois, 29–30; Nat. Research Council Can. bursar, Toronto, 30–31, Ph.D, 33. Asst, West Virginia, 27–29; zool, Illinois, 29–30; Toronto, 31–32; invertebrate zool, Hopkins, 32–33; instr. and asst. prof. zool, Maryland, 33–40; *assoc. prof. zool, Col. William and Mary, and director, Va. Fisheries Lab, 40–* Summers, sci. asst, Atlantic Biol. Sta, 29–33; Puget Sound Biol. Sta, 30; instr. in charge research, Chesapeake Biol. Lab, 33–39; zoologist, Univ. W. Va. biol. exped, 28. Mem. Chesapeake Bay Fisheries Cmn. A.A; Limnol. Soc; Fisheries Soc; Wilderness Soc; Nat. Shellfisheries Asn; Nat. Parks Asn. (trustee, 39–); Ecol. Soc. (chairman cmt. preservation nat.

conditions, 40–); Va. Acad. Biotic communities; growth and respiration of marine gastropods and pelecypods; marine ecology; fishery biology; hydrobiology; life history and growth of shellfish and crabs.

Newcombe, Prof. J. A, 10 Bowmore Road, Toronto, Ont, Can. *Metallurgy.* B.Sc, London; assoc, Royal Sch. Mines. Asst. metallurgist, Royal Arsenal, Woolwich, England; lecturer, Liverpool; assoc. prof. metal. and later *prof. metal. eng, Toronto.* Soc. Metals; British Inst. Metals.

Newcombe, Dr. Robert (John) B(urgoyne), 1806 Pleasant Ave, Highland Park, Ill. *Geology.* Havana, Cuba, July 14, 01. B.S, Michigan, 23, M.S, 25, Ph.D, 31; Eleanor Tatum Long scholar, Cornell, 25–26. Geologist, E. Ohio Gas Co, Cleveland, 23–25; asst, Michigan, 26–27; petrol. geologist, Mich. Geol. Surv, 27–35; v. pres. and geologist, Associated Petrol. Co, 35–38; consulting geologist, 38–41; *mem. production div, Petrol. Admin. for War, 41–* Asn. Petrol. Geol. (assoc. ed, north cent. states); Geol. Soc; Min. and Metal. Eng; Mich. Acad. (chairman, geol. and miner. sect, 31, v. pres, 32); Mich. Geol. Soc. (pres, 37). Structural geology and stratigraphy; oil and gas development, geological structure, salt-bearing rocks, middle Devonian unconformity and natural gas fields in Michigan; acid treatment for increasing oil and gas production; relation of glaciation to structure and deposition of the Michigan synclinal basin.

Newcomer, Prof. Earl H(olland), University of North Carolina, Chapel Hill, N. C. *Botany, Genetics.* Bradford, Pa, Aug. 24, 02. A.B, Columbia, 32; A.M, California, 35; Ph.D, Pa. State Col, 38. Instr. bot. and asst. cytogenetics, Mich. State Col, 38–41; *asst. prof. bot, North Carolina, 41–* A.A; Genetic Asn; Bot. Soc. Cytology; cytogenetics; physiology; mitochondria in plants; cytogenetics of Vaccinium; colchicine induced polyploidy and its morphological and physiological consequences; forest genetics; cytological technique.

Newcomer, E(rval) J(ackson), Box 1291, Yakima, Wash. *Entomology.* Oregon, Ill, May 5, 90. A.B, Stanford, 11. Asst, State Cmn. Hort, Calif, 11–12; acting instr, Stanford, 13–14; assoc. entomologist and *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 14–* A.A; Entom. Soc; Asn. Econ. Entom. (v. pres, Pacific Slope branch, 37); Pacific Coast Entom. Soc. Insect pests of deciduous fruits.

Newcomer, Dr. H(arry) Sidney, 46 W. 55th St, New York, N. Y. *Medicine.* Willets Point, N. Y, Oct. 16, 87. A.B, Wisconsin, 09, A.M, 10, fellow, 10–11, 11–12; Freiburg, 12–13; M.D, Hopkins, 15; Tübingen, 14; Paris, 23–24; Upsala, 24. Res. pathologist, Pa. Hosp, Phila, 15–17, sci. director dept. mental and nervous diseases, 19–21, chief syphilis clinic, 20–22; asst, Henry Phipps Inst, Pennsylvania, 17–18, 21–22; *biophysicist, 22–* Chief officer physiol. chem, Naval Med. Sch, 18–19. Optical Soc; Am. Geog. Soc; Polar Soc; N. Y. Acad; N. Y. Acad. Med; Soc. d'Ophthal. Hemoglobin spectra and measurement; x-ray fluorescence; physiological optics; refraction in asymmetrical systems; anamorphosing systems; motion picture images; optical instrument design; polishing of optical surfaces; subsea and subsurface location and exploration.

Newell, Dr. Franklin S(pilman), 925 Boylston St, Boston, Mass. *Medicine.* Roxbury, Mass, April 30, 71. A.B, Harvard, M.D, 96. Asst. prof. obstet. and gynec, *Harvard Med. Sch,* prof. *clin. obstet,* 18–32, *emer. prof, 32–* Hon. surgeon, Mass. Gen. Hosp; consulting obstetrician, Boston Lying-in Hosp; past visiting surgeon, Boston City Hosp. Am. Med. Asn; Gynec. Soc. (v. pres, 25, pres, 26); Gynec. Club; Col. Surg. Obstetrics.

Newell, Dr. Homer E(dward), Jr, University of Maryland, College Park, Md. *Mathematics.* Holyoke, Mass, March 11, 15. A.B, Harvard, 36, A.M, 37; fellow, Wisconsin, 39–40, Ph.D, 40. Asst. *math,* Wisconsin, 37–39; *instr, Maryland, 40–, ground instr. navig, civilian aeronaut. admin. sch, 42–* Math. Soc. Differential equations.

Newell, Dr. John M(ackintosh), 50 Louder's Lane, Jamaica Plain, Mass. *Nutrition, Immunology.* Washington, D. C, April 20, 04. A.B, Cornell, 27; Sc.D, Hopkins, 32. Asst. biochem, Boyce Thompson Inst, 27–29; chemist, asthma and hay fever clinic, N. Y. Post-Grad. Hosp, 33–37; Biochem. Research Foundation, Franklin Inst, 36–39; research fellow, Harvard Med. Sch, 39–41; *chemist, State Antitoxin Lab, Mass, 41–* A.A; Chem. Soc. Effect of light on plants; hay fever; proteins.

Newell, Prof. Joseph S(hipley), Trapelo Road, Lincoln, Mass. *Engineering.* Springfield, Mass, Aug. 10, 97. B.S, Mass. Inst. Tech, 19, Harvard, 19. Draftsman, Frigorifico Armour, La Plata, Argentina, 19–20; asst. civil eng, Mass. Inst. Tech, 20–21; asst. engineer, airplane sect, structures unit, McCook Field, Dayton, 22–26; from instr. to *prof. aeronaut. struct. eng, Mass. Inst. Tech, 27–* Chief eng. sect, aeronaut. branch, U. S. Dept. Commerce, summer, 27, consultant, 27– Fel. Inst. Aeronaut. Sci; Eng. Club Dayton. Airplane structural analysis and design.

Newell, Prof. Norman D(ennis), University of Wisconsin, Madison, Wis. *Geology.* Chicago, Ill, Jan. 27, 09. B.S, Kansas, 29, A.M, 31; Ph.D, Yale, 33. Asst. geologist, Kans. Geol. Surv, 29–33, geologist, 35–37; instr. *geol,* Kansas, 29–31, 35–36, asst. prof, 36–37; *Wisconsin,* 37–41, *assoc. prof, 41–* Sterling fellow, Yale, 33–34. Co-editor, 'Jour. Paleont,' 38– Official del, Int. Geol. Cong, Moscow, 37. Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner. Invertebrate paleontology; stratigraphy; Pennsylvanian rocks of Kansas and Oklahoma; Permian rocks and fossils of Oklahoma, Texas, Wyoming and Mexico; Triassic rocks and fossils of Wyoming and Idaho; upper Paleozoic pelecypods.

Newell, Prof. R(obert) R(eld), 2361 Clay St, San Francisco, Calif. *Radiology.* Stockton, Calif, Jan. 21, 92. M.D, California, 16. Asst. *med,* California, 17–18; instr, *sch. med, Stanford,* 20–31, *prof, 31–* A.A; Am. Med. Asn; Roentgen Ray Soc; Optical Soc; Radiol. Soc. N. Amer. Roentgen diagnosis; roentgen and radium therapy.

Newell, Thomas R(alph), 429 Federal Bldg, Boise, Idaho. *Hydrology.* Columbus Junction, Iowa, Oct. 27, 88. B.S, Iowa State Col, 12. Eng. projects, Iowa, Idaho and China, 12–16; with *water resources branch, U. S. Geol. Surv,* Idaho and Wash, 17–23, investigating engineer, water dist. 36, Wyo. and Idaho, 24–28, Idaho and Wash, D. C, 29–30, *dist. engineer, Idaho, 31–* Mem, governor's emergency drought cmt, Idaho, 34. Assoc. Civil Eng; Geophys. Union. Flood protection, municipal and power projects; reservoir bank return; backwater and ground water; stream-flow; surface water-supply.

Newell, Prof. Walter Stephen, Coe College, Cedar Rapids, Iowa. *Psychology.* Glenwood, Iowa, July 30, 71. A.B, Columbia, 95; Ph.D, Boston, 98; Harvard, 07. Prin, high sch, Conn, 97–06; prof. *philos. and psychol, Coe Col,* 09–41, *emer. prof, 41–* A.A; Psychol. Asn; Iowa Acad. Urticaria factitia.

Newell, Dr. Wilmon, University of Florida, Gainesville, Fla. *Entomology.* Hull, Iowa, March 4, 78. B.S, Iowa State Col, 97, M.S, 99, Sc.D, 20, Clemson Col, 37. Asst. entomologist, Exp. Sta, Iowa State Col, 97–99; Ohio Exp. Sta, 99–02; asst. entomologist and apiarist, Exp. Sta, Agr. and Mech. Col. Texas, 02; state entomologist, Ga, 03–04; entomologist, La. Exp. Stations, and sec'y and entomologist, State Crop Pest Cmn, La, 05–09; prof. entom, Exp. Sta, Agr. and Mech. Col. Texas, and state entomologist, 10–15; *plant commissioner, State Plant Board, Fla, 15–;* dean col. agr, *Florida,* 21–38, *director, Exp. Sta. and agr. exten, 21–, agr. provost, 38–* Chairman advisory cmt. agr, State Defense Council, Fla. A.A; Entom. Soc. Amer; Asn. Econ. Entom. (pres, 20); Soil Sci. Soc; Asn. South. Agr. Workers (pres, 29). Agriculture; apiculture, horticultural quarantine; eradication of insects and plant diseases; soil conservation.

Newey, Dr. H(erbert) A(lfred), 22 Glenbrook Road, Stamford, Conn. *Organic chemistry.* Logan, Utah, June 11, 16. B.S, Utah State Col, 38; Moore fellow, Mass. Inst. Tech, 40–41, Ph.D, 41. Teaching fellow chem, Mass. Inst. Tech, 38–40; *research chemist, Am. Cyanamid Co, 41–* Organosodium compounds; unsaturated aliphatic derivatives.

Newhall, Prof. A(llan) G(oodrich), 234 Valley Road, Ithaca, N. Y. *Plant pathology.* Germantown, Pa, July 20, 94. B.S, Minnesota, 18; fellow, Cornell, 20–22, 24–25, Ph.D, 29. Field asst, U. S. Dept. Agr, 18, 19; asst. plant path, Minnesota, 19; instr. bot, Grinnell Col, 19–20; asst. plant path, Cornell, 22–23; asst. pathologist, Ohio Exp. Sta, 25–29; asst. prof. *plant path, Cornell,* 29–38, *assoc. prof, 38–* Assoc, California, 36. A.A; Phytopath. Soc. Diseases of vegetables.

Newhall, Dr. Herbert F(rank), Cornell University, Ithaca, N. Y. *Physics.* Santa Fe, N. Mex, June 13, 16. A.B, Colo. Col, 37; Ph.D, Cornell, 42. Asst. *physics, Cornell,* 33–36, *instr, 36–* Physical Soc; Asn. Physics Teachers. Collision processes of slow electrons in molecules.

Newhall, Dr. S(idney) M(erritt), Foxboro Co, Foxboro, Mass. *Psychology.* Wilbraham, Mass, May 21, 96. B.S, Wesleyan, 19, A.M, 21; fellow, Columbia, 22–23, Ph.D, 23.

Asst. psychol, Wesleyan, 19–22; instr, Yale, 23–27, asst. prof, 27–35; lecturer, Hopkins, 35–36, fellow, 36–37, assoc, 37–42; supervisor mental tests in recruiting stations, Adj. Gen's. Dept, U. S. Army, 42–43; *fire control research*, science bur, Bausch and Lomb Optical Co. and Armored Force Board, Ft. Knox, Ky, 43; *research dept, Foxboro Co, 43–* Sterling fellow, Yale, 34–35; statistical analyst, Am. Youth Cmn, 36–37. Summer, asst, Boston Psychopathic Hosp, 21. Nat. Research Council grant in aid, 35. Director, Munsell Color Co. Psychol. Asn. (pres, Wash-Baltimore branch, 39); Optical Soc. (chairman subcmt, colorimetry cmt, 37–43); Inter-Soc. Color Council (exec. cmt, 39–41); East. Psychol. Asn. Physiological optics; color solid; visual thresholds; psychophysical method; colorimetry of blue arcs and after-images; simultaneous visual contrast; control of eye-movements; child training in reading; projection tachistoscopy; responses to subliminal stimuli; various perceptual anomalies.

Newhouse, Prof. W(alter) H(arry), Massachusetts Institute of Technology, Cambridge, Mass. *[*7]Economic geology.* Fisher, Pa, Dec. 13, 97. B.S, Pa. State Col, 21; M.S, Mass. Inst. Tech, 23, Ph.D, 26. Instr. *econ. geol, Mass. Inst. Tech,* 23–27, asst. prof, 27–30, *assoc. prof, 30–* Soc. Econ. Geol; Geol. Soc; Am. Acad; Min. and Metal. Eng; Miner. Soc. Geology and structural relations of ore deposits.

Newins, Prof. Harold S(tephenson), University of Florida, Gainesville, Fla. *Forestry.* Patchogue, N. Y, Nov. 30, 87. Ph.B, Lafayette Col, 09; M.F, Yale, 11. From instr. to prof. forestry, Oregon State Col, 11–18, 19–22; east. manager, dry kiln dept, Cutler Desk Co, N. Y, 22–24; prof. wood utilization, Pa. State Col, 24–29; state forester, W. Va, 29–31; assoc. prof. *forestry,* Mich. State Col, 31–35; *prof. and director sch, Florida, 35–* Airplane wood inspector, A.S, U.S.A, 18–19. A.A; Soc. Foresters. Wood technology.

Newkirk, Dr. Burt L(eroy), 17 Rosa Road, Schenectady, N. Y. *Mechanics.* Ellenville, N. Y, May 1, 76. A.B, Minnesota, 97, A.M, 99; Ph.D, Munich, 02. Asst. astron, Minnesota, 98–00; Watson asst, California, 03–04, instr. math, 04–06, asst, Lick Observatory, 06–07; asst. prof. math. and mech, Minnesota, 07–20, assoc. prof, 20–21; research engineer, research lab, Gen. Elec. Co, 21–36, in charge sect. mech. investigations, 28–33; *consulting engineer; prof. and lecturer vibration theory and practise, Rensselaer Polytech, 38–* A.A; Mech. Eng; Astron. Gesell. Vibrations; parallax of ring nebula in Lyra; orbits of Watson asteroids; tables for reduction of photographic measures; the Repsold measuring apparatus of the Student's Observatory of the University of California; gyroscopic effects; dynamic balance; vibrations of heavy machinery; shaft behavior; critical speeds of shafts; shaft whipping; bearings; lubrication.

Newkirk, W(illiam) B(entley), Corn Products Refining Co, Argo, Ill. *Chemistry.* Fall City, Nebr, Nov. 9, 88. A.B, Southern California, 10. Supt, Fed. Chem. Co, 10–14; research chemist, Am. Beet Sugar Co, 14–18; sugar technologist, Bur. Standards, 18–19; research chemist, *Corn Products Ref. Co,* 19–32, director patents, 32–42, *asst. to v. pres. in charge research, process develop. and eng. develop,* 42– Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. Viscous materials; rare sugars; sugar manufacture; development of corn products.

Newland, Dr. David H(ale), 94 Menand Road, Albany, N. Y. *Geology.* Vienna, N. Y, April 7, 72. A.B, Hamilton Col, 94, Sc.D, 83; Munich, 94; Heidelberg, 95–96; Columbia, 96–97. Temporary field asst, N. Y. Geol. Surv, 97–98; lit. and sci. work, 98–03; assoc. ed, 'Eng. and Mining Jour,' 04; asst. state geologist, N. Y, 05–20; practising econ. geologist, 20–27; state geologist, N. Y, 27–41; *retired.* Gold medal, Pan-Pacific Expos. A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. Geology of magnetic iron ores of the Adirondacks; iron ores of the Clinton formation; geology of rare mineral, salt and gypsum deposits; quarry investigations; geology and petrology of the Precambrian.

Newlander, Prof. John A(lvin), University of Vermont, Burlington, Vt. *Dairy husbandry.* Penn Yan, N. Y, Jan. 18, 91. B.S, Cornell, 19, Ph.D, 39; M.S, Vermont, 21. Instr. *animal and dairy husbandry, Vermont,* 19–30, asst. prof, 30–39, *assoc. prof, 39–, assoc. animal and dairy husbandman, 19–* Butter moisture; mineral metal; nutrient conservation in roughages; carotene and vitamin D requirements of dairy cattle; testing dairy products.

Newlands, James A(ndrew), 11 Laurel St, Hartford, Conn. *Chemistry, Bacteriology.* Edinburgh, Scotland, April 23, 77. A.B, Beloit Col, 03; Chicago, 03–04; Mass. Inst. Tech, 04–05. Asst. chemist, sanit. lab, Beloit Col, 03–04; sanit. engineer, Mass. Inst. Tech, 04–05; chemist, Souther Eng. Co, Conn, 05; chemist and bacteriologist, State Board Health, Conn, 05–07, chemist, 07–13; sec'y, *Henry Souther Eng. Co,* 13–16, *pres, 16–; state chemist, Conn, 13–* State Health Council, Conn, 17–, sec'y, 29– State Indust. Waste Board, Conn, 18–21; v. chairman, Conn. div, Tri-State Treaty Cmn. on Stream Pollution, N. Y, N. J. and Conn, 31–40; mem, Interstate Waterway Compact Cmn, N. H, Vt, Mass. and Conn, 35; State Flood Control and Water Policy Cmn, Conn, 39– A.A; Chem. Soc; Pub. Health Asn; Water Works Asn. (cmt. on indust. wastes); Health League; New Eng. Water Works Asn; Conn. Soc. Civil Eng; Middletown Sci. Asn. (sec'y, 06–08). The determination of nitrates in water; water purification; explosive mixtures in kerosene lamps; disposal of sewage and trade wastes; water-borne typhoid epidemics; pollution of oyster growing areas.

Newlin, Dr. Harrison E(isenbrey), 28 Gates Ave, Montclair, N. J. *Biochemistry.* Haverford, Pa, Nov. 22, 13. A.B, Williams Col, 36; Ph.D, Cornell, 41. *Research chemist, biochem. dept, cent. labs, Gen. Foods Corp, 41–* A.A; Chem. Soc. Utilization of corn and other food waste products in food manufacture; foods and nutrition.

Newlin, Dr. Mildred R(atliff), Connecticut College, New London, Conn. *Organic chemistry.* Richmond, Ind, Sept. 8, 04. A.B, Earlham Col, 25; M.S, Ohio State, 30, Ph.D, 32. Instr. chem, Earlham Col, 27–28; research assoc. with Wm. Lloyd Evans, Ohio State, 33; prof. sci. and math, Rio Grande Col, 33–34; instr. *chem,* Hunter Col, 35–43; *asst. prof, Conn. Col, 43–* Summer, instr, Earlham Col, 25. Synthesis of aldehydo-sugar acetates.

Newlon, Dr. Homer T(homas), 700 N. Sheridan Ave, Pittsburgh, Pa. *Chemistry.* New London, Mo, May 20, 90. A.B, Missouri, 13, A.M, 17; Ph.D, N. Y. Univ, 27. Missouri, 14–17; Great West. Sugar Co. and West. Chem. Co, Denver, 17–18; Syracuse, 18–19; consulting chemist, Syracuse, N. Y, 19–23; Col. City of N. Y, 23–25; N. Y. Univ, 25–28; asst. prof. chem, Pittsburgh, 28–31; *teacher, Board Pub. Educ, Pittsburgh, Pa, 31–* A.A; Chem. Soc; Pa. Chem. Soc; Pa. Acad. Deposition of metallic films upon smooth surfaces; reduction of metallic ions to the free state.

Newman, Prof. Albert B(roadus), College of the City of New York, New York, N. Y. *Chemical engineering.* Toronto, Ont, Can, May 3, 88. A.B, Michigan, 10, B.Ch.E, 11, M.S, 26, fellow, 26–27, Ph.D, 28. Chemist, Corn Products Ref. Co, 11; instr, Pa. State Col, 12–13; chem. engineer, Nat. Zinc Co, 13–15; supt. chem. mfg, Am. Metal Co, 15–17; works manager, Monsanto Chem. Works, St. Louis, 18–19; gen. manager, Thermo Chem. Co, 20–25; chem. engineer, research div, Gen. Chem. Co, 27–28; prof. *chem. eng.* and in charge dept, Cooper Union, 28–38; *prof. and chairman dept, Col. City of N. Y, 38–, dean sch. tech, 41–; lecturer chem. eng, grad. div, N. Y. Univ, 41–* Consultant, Northwestern, 39–41; regional adviser, eng, science and management war training, U. S. Office Educ, 41–; regional labor supply cmt, War Production Board, 41– Chairman board, Defense Training Inst, Eng. Cols. Greater New York, 41– Mem. cmt. professional training, Engineers Council for Professional Develop, 35–37, chairman cmt. ways and means, 37, mem. cmt. eng. schs, 38–41. Chairman sect. heat exchange, Chem. Eng. Cong, World Power Conf, London, 36. A.A; Chem. Eng. (director, 36–38, 40–42; chairman cmt. chem. eng. educ); Chem. Soc; Eng. Educ; Chemists' Club (trustee, 41–). Chemical engineering design; chemical engineering thermodynamics; mathematical theory of heat conduction; theory of drying porous solids; chemical engineering education.

Newman, Prof. Charles Carter, Clemson Agricultural College, Clemson, S. C. *Horticulture.* Sparta, Ga, Sept. 6, 74. B.S, Clemson Col, 96. Asst. horticulturist, Clemson Col. and Exp. Sta, 97–99, assoc. prof. *hort, Clemson Col,* 99–02, *prof. and chief div. grounds and landscapes, 02–, mem, Kress research project, col. arboretum.* Soc. Hort. Sci; Pomol. Soc; Asn. South. Agr. Workers; S. C. Hort. Soc; S. C. Soc. Eng; Ga. Hort. Soc. Plant propagation and general horticulture; olericulture; pomology; highway landscape engineering.

Newman, Dr. Edwin B(roomell), Swarthmore College, Swarthmore, Pa. *Psychology.* Baltimore, Md, July 10, 08. A.B, Kansas, 28, A.M, 30; Am-German exchange fellow, 30–31; Ph.D, Harvard, 34. Asst. instr. *psychol,* Kansas, 28–30; reader and demonstrator, Bryn Mawr Col, 30–31; nat. research fellow,

Harvard and Columbia, 34–35; instr, *Swarthmore Col*, 35–38, *asst. prof, 38–* Psychol. Asn; Acoustical Soc. Visual perception; learning; cerebral action potentials; audition.

Newman, Prof. George Burgess, 246 E. Hamilton Ave, State College, Pa. *Zoology, Entomology.* Brooklyn, N. Y, Nov. 30, 90. A.B, Maine, 14; A.M, Cornell, 15. Instr. zool, Pa. State Col, 15–18; asst. entom, Purdue, 19–20; from asst. to *assoc. prof. zool, Pa. State Col, 20–* A.A; Entom. Soc. Amer. Effect of arsenic poisoning on tissues of the potato beetle.

Newman, Prof. H(oratio) H(ackett), University of Chicago, Chicago, Ill. **Zoology.* Near Seale, Ala, March 19, 75. B.A, McMaster, 96, D.Sc, 33; fellow, Chicago, 98–00, 04–05, Ph.D, 05. Instr. biol. and chem, Culver Mil. Acad, Ind, 00–04; *zool*, Mich, 05–08, asst. prof. elec, 08; prof. and head dept, Texas, 08–11; assoc. prof, *Chicago*, 11–17, prof, 17–40, *emer. prof, 40–*, dean cols. science, 15–22. Instr, Marine Biol. Lab, Woods Hole, 06, 09. A.A; Soc. Nat; Soc. Zool; Genetics Soc. General physiology; experimental evolution; animal behavior; phylogeny of the chelonian carapace; respiration of the heart; heredity in fish hybrids; hermaphroditism in fish; behavior of tortoises, fish and Texas lizards; variation, heredity, oogenesis and development in armadillo; teleost hybridology and teratology; echinoderm hybridology; the heredity-environment problem in human twins; organic symmetry; symmetry reversal; dermatoglyphics and handedness; human twins and multiple births.

Newman, Dr. Leonard Harold, Central Experimental Farm, Ottawa, Ont, Can. *Plant breeding.* Merrickville, Ont, Aug. 31, 81. B.S.A, Toronto, 03; Sweden; D.Sc, New Brunswick, 36. Sec'y, Can. Seed Growers Asn, 05–23; *Dom. cerealist, plant breeding and cereal crops investigations, cent. exp. farm, Can. Dept. Agr, Ottawa, 23–* Chairman sci. sect, Mussolini's Wheat Cong, Rome, 27. Soc. Agron; Genetics Soc; Can. Soc. Tech. Agr. (hon. sec'y, 10–32, v. pres, 32); Asn. française pour l'Avanc. des Sci; Sveriges Utsadesförening, Svalöf, Sweden; Asn. int. des Sélectionneurs de Plantes. Cereal crop improvement.

Newman, Dr. M(elvin) S(pencer), Ohio State University, Columbus, Ohio. *Organic chemistry.* New York, N. Y, March 10, 08. B.S, Yale, 29, Ph.D, 32. Nat. Tuber. Asn. fellow, Yale, 32–33; nat. research fellow chem, col. physicians and surg, Columbia, 33–34; asst. to Dr. L. F. Fieser, Harvard, 34–36; instr. chem, *Ohio State*, 36–39, Elizabeth Clay Howald scholar, 39–40, *asst. prof. chem, 40–* Chem. Soc. (sec'y Columbus sect, 41). Chemistry of bacteria and molds; synthetic organic chemistry.

Newman, Dr. P(aul) E(ugene), Beacon Milling Co, Inc, Cayuga, N. Y. *Dairying.* Culver, Ind, May 14, 10. B.S, Purdue, 32; M.S, Wisconsin, 34; fellow, Cornell, Ph.D, 37. Asst. animal husbandry, Wisconsin, 32–34; teacher, high sch, Ind, 35; *dairy specialist, Beacon Milling Co, 37–* Dairy feeding and management.

Newman, Dr. W(illiam) R(oy), 342 College Ave, Winnipeg, Man, Can. *Economic geology.* Winnipeg, Man, Dec. 18, 08. B.A, Manitoba, 28, B.Sc, 29; M.A, Toronto, 30, Ph.D, 34. Asst, Toronto, 30–33; geologist, Sierra Leone, Gold Coast, W. Africa, 35–39; war work, Can. and Newfoundland, 41; *Royal Can. Engineers, 42–, capt.* Summers, asst, Geol. Surv. Can, 29–33; mining geol, north. Ont, 28, 35, 40; asst. geologist, Ont. Dept. Mines, 34. Can. Inst. Min. and Metal. Microscopy of Canadian coals; gold deposits in Ashanti, Gold Coast.

Newmark, Dr. Nathan M(ortimore), University of Illinois, Urbana, Ill. *Civil engineering.* Plainfield, N. J, Sept. 22, 10. B.S, Rutgers, 30; M.S, Illinois, 32, Ph.D, 34. Asst. *civil eng, Illinois*, 30–32, asst, 34–36, assoc, 36–37, research asst. prof, 37–43, *research prof, 43–* Concrete Inst; Civil Eng. Structural engineering; arch bridges; applied mechanics; theory of elasticity; highway bridge slabs.

Newsom, Prof. Carroll V(incent), University of New Mexico, Albuquerque, N. Mex. *Mathematics.* Chicago, Ill, Feb. 23, 04. A.B, Col. of Emporia, 24; A.M, Michigan, 28, Ph.D, 31; Chicago, 28. Instr. *math*, Col. of Emporia, 24; Michigan, 27–28; *New Mexico*, 28–29, asst. prof, 29–30, assoc. prof, 31–32, *prof, 32–* Instr. and research worker, Michigan, 30–31. Summer, prof, Kans. State Teachers Col, 29, 32. A.A. (v. pres. southwest div, 39, pres, 40); Math. Soc; Math. Asn. (governor, 40–42); Asn. Symbolic Logic. Asymptotic representation of entire functions; foundations of mathematics.

Newsom, Prof. I(saac) E(rnest), Colorado State College, Ft. Collins, Colo. *Veterinary pathology.* Colorado City, Texas, April 13, 83. B.S, Colo. Agr. Col, 04; D.V.S, San Francisco Vet. Col, 06, Kansas City Vet. Col, 09; Chicago, 13; Sc.D, Colorado, 41. Asst. veterinarian, Colo. Agr. Col, 06; state meat inspector, Colo, 07; prof. vet. anat, *Colo. State Col*, 08–12, vet. path, 12–39, pathologist, Exp. Sta, 12–39, acting director, 39–41, *dean vet. med, 34–, v. pres, 39–, dean grad. sch, 41–* Vet. Med. Asn. (chairman exec. board, 36–41); Colo. Vet. Med. Asn. Brisket disease in cattle; Bang's disease; sheep diseases.

Newsom, Dr. W(ill) Roy, 264 W. Whittier Blvd, Pico, Calif. *Analytical chemistry.* Rivera, Calif, Jan. 12, 12. A.B, Whittier Col, 34; A.M, Southern California, 35, Ph.D, 39. Teaching fellow, Southern California, 35–39; instr. *chem, Whittier Col*, 39–40, *prof, 41–* Analytical chemistry of beryllium.

Newsome, Dr. James W(ilfred), 19 Glenview Drive, Belleville, Ill. *Physical chemistry.* South English, Iowa, Nov. 22, 08. B.S, Iowa, 30, M.S, 31, Ph.D, 34. Research chemist, Aluminum Research Labs, New Kensington, Pa, 34–41; *senior research chemist, Aluminum Ore Co, East St. Louis, Ill, 41–* A.A; Chem. Soc. Preparation and properties of alumina.

Newsome, Dr. Philip T(hompson), Eastman Kodak Co, Rochester, N. Y. *Physical chemistry.* South English, Iowa, Nov. 4, 01. B.S, Iowa, 22, M.S, 23; Ph.D, Wisconsin, 26. *Research chemist, Eastman Kodak Co, 26–* Chem. Soc. Physical chemical properties of cellulose materials.

Newson, Mrs. H. B. (Dr. Mary W(inston)), Lake Dalecarlia, Lowell, Ind. *Mathematics.* Forreston, Ill, Aug. 7, 69. A.B, Wisconsin, 89; fellow, Bryn Mawr Col, 91–92; fellow by courtesy, Chicago, 92–93; Asn. Col. Alumnae fellow, 95; Ph.D, Göttingen, 96. Instr. math, Fox Lake, Wis, 89–91; high sch, Mo, 96–97; prof. math, Kans. State Col, 97–00; asst. prof, Washburn Col, 13–21; prof, Eureka Col, 21–42, chairman div. science and math, 34–39; *retired.* Math. Soc; Math. Asn. Hermite's form of Lamé's differential equation; Riemann's theory of differential equations.

Newson, Dr. Henry W(inston), 4501 Oakenwald Ave, Chicago, Ill. *Physics.* Lawrence, Kans, Nov. 26, 09. B.S, Illinois, 31; Ph.D, Chicago, 34. Research fellow physics, California, 34–36; *instr.* chem, *Chicago*, 36–39, *physics, 39–* Physical Soc. Physical chemistry; nuclear physics; induced radioactivity; transmutation energies; Newton.

Newton, Prof. Abba V(erbeck), Hartwick College, Oneonta, N. Y. *Geometry.* Ballston Spa, N. Y, Feb. 19, 08. A.B, Mt. Holyoke Col, 29; A.M, Chicago, 31, Ph.D, 33. Teacher *math*, Science Hill Sch, Ky, 29–30; instr, Am. Int. Col, 34–38; *prof, Hartwick Col, 38–* Math. Soc; Math. Asn. Projective differential geometry; consecutive covariant configurations at a point of a space curve.

Newton, Prof. Catherine L(owrance), 892 Prince Ave, Athens, Ga. *Nutrition.* Athens, Ga, April 19, 99. B.S, Georgia, 21; A.M, Columbia, 24. Instr. home econ, McPhaul Inst, Ga, 21–23; *assoc. prof. foods and nutrition, Georgia, 24–*, research, Exp. Sta, 25–34. Ga. Home Econ. Asn. (pres, 29); Ga. Dietetic Asn. (v. pres, 34, pres, 39); Ga. Acad. Vitamins.

Newton, E(dwin) B(ohannon), P. O. Box 173, Kuala Lumpur, Federated Malay States. *Chemistry.* Boonville, Ind, June 18, 01. A.B, Missouri, 23, A.M, 25. Research chemist, *B. F. Goodrich Co*, 25–34, *res. director, Malayan research labs, 34–* Insulin; rubber.

Newton, Dr. Francis C(handler), 319 Longwood Ave, Boston, Mass. *Surgery.* Winchester, Mass, June 30, 93. A.B, Amherst Col, 15; M.D, Harvard, 19. Moseley traveling fellow, Harvard, 23–24, faculty instr. surg, *Harvard Med. Sch*, 24–35, director surg. lab, 24–32, assoc. *surg*, 35–38, *asst. prof, 39–* Senior assoc. surgeon, Peter Bent Brigham Hosp, Boston, 24–39, surgeon, 40–, acting surgeon in chief, 43– Faculty council, Harvard Med. Sch, 35–38. A.A; fel. Col. Surg; Am. Med. Asn; Surg. Asn; East. Surg. Soc. (sec'y, 29); New Eng. Surg. Soc; Boston Surg. Soc; Boylston Med. Soc. (pres, 29); Int. Surg. Soc. Clinical surgery; sympathetic innervation and warmth production in skeletal muscles; excitability of the central nervous system after thyroidectomy and thymectomy.

Newton, Prof. Geo(rge) A(lexander), 2206 Cincinnati St, San Antonio, Texas. *Mathematics.* Jacksonville, Texas, Nov. 23, 70. A.B, Trinity (Texas), 92. A.M, 95, LL.D; Chicago, Sch. supt, Texas, 03–07; *prof. math. and head dept, Trinity (Texas), 08–* A.A; Math. Soc. Complex variations.

Newton, Harry P(aul), U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Iredell, Texas, March 10, 96. A.B, Baylor, 18, A.M, 19. Instr. chem, Baylor, 20; prof, Georgetown Col. (Ky), 20–24; tech. chemist, Col. Inn Food Products Co, 25–27; assoc. chemist, bur. chem. and soils, and later *tech. asst. to director, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 27–; col, Coast Artil, U. S. Army.* Industrial utilization of farm crops; vat dyes; intermediates; Friedel-Craft synthesis; ammonolysis; synthetic plastics; fermentations.

Newton, Dean Howard C(hamberlain), 179 Longwood Ave, Boston, Mass. *Pharmacy.* Southboro, Mass, Sept. 16, 92. Ph.G, Mass. Col. Pharmacy, 14, Pharm.D, 40; B.S, Creighton, 30, Ph.B, 33, A.M, 34. Instr. pharmacy, Creighton, 14, asst. prof, 14–16, prof. pharmacy and dean, 16–35; assoc. prof. *pharmacy, Mass. Col. Pharmacy,* 35–37, *prof, 37–,* asst. dean, 35–37, *dean, 37–* Pres, Am. Asn. Cols. Pharmacy, 42. Curriculum construction; pharmaceutical education.

Newton, Prof. H(oward) D(ouglas), University of Connecticut, Storrs, Conn. *Chemistry.* Stockbridge, Mass, Jan. 14, 81. B.S, Boston, 04; Ph.D, Yale, 08. Asst. *chem,* Yale, 05–08; instr, *Connecticut,* 09–11, assoc. prof, 11–12, *prof, 12–,* dean col. arts and sciences, 32–40, *acting dean univ, 40–* A.A; Chem. Soc; New Eng. Asn. Chem. Teachers. Iron, titanium, vanadium and uranium in analysis.

Newton, Prof. J(ohn) D(awson), University of Alberta, Edmonton, Alta, Can. *Soils.* Plaisance, Que, Dec. 14, 94. B.S.A, McGill, 17; Ph.D, California, 22. Asst. agron, British Columbia, 18–20; assoc. prof. *soils, Alberta,* 22–33, *prof, 33–* Can. Soc. Tech. Agr; West. Can. Soc. Agron. Plant nutrition; soil surveys.

Newton, Dr. J(ohn) Marshall, 248½ N. Sixth St, Clinton, Iowa. *Chemistry.* Popejoy, Iowa, May 20, 13. B.S, Iowa State Col, 36, fellow, 36–41, Ph.D, 41. Research chemist, *Clinton Co,* 41–42, *asst. research supervisor, 42–* Chem. Soc. Carbohydrate and enzyme chemistry; concentration, characterization and properties of soybean amylase.

Newton, Dr. L(awrence) W(oodford), 686 Forest Circle, South Charleston, W. Va. *Chemistry.* Newton, Kans, Aug. 13, 16. A.B, Munic. Univ. Wichita, 38; M.S. and Ph.D, Harvard, 41. *Research chemist, Carbide and Carbon Chem. Corp.* Organic syntheses.

Newton, Dr. M(argaret), Dominion Laboratory of Plant Pathology, Winnipeg, Man, Can. *Plant pathology.* Montreal, Que. B.S.A, McGill, 18, M.Sc, 19; Nat. Research Council Can. scholar, 18–20; fellow, Minnesota, 20–21, Ph.D, 22. Seasonal plant disease investigator, Can. Dept. Agr, 18–21; assoc. prof, Saskatchewan, 21–25; *senior plant pathologist, Dom. Lab. Plant Path, 25–* Phytopath. Soc; Can. Soc. Tech. Agr; fel. Royal Soc. Can; Can. Phytopath. Soc. Physiologic races of cereal rusts; genetics of stem rust; carotenoid pigments in rust spores; nature of resistance; losses from cereal rusts; beet rust; physiologic races of flax rust; losses from flax rust.

Newton, Prof. Myron Wallace, Box 14, Angwin, Calif. *Mathematics, Astronomy.* Freeport, Ill, June 21, 66. B.S, Battle Creek Col, 91; M.S, Union Col. (Nebr); Nebraska; California. *Math. and astron,* Union Col. (Nebr), 91–05; West. Nor. Inst, Calif, 09–10; *prof, Pacific Union Col, 10–; director, Newton Observatory, Angwin, Calif.* Astron. Soc. Pacific.

Newton, Richard C(arl), U. S. Department of Agriculture, Bozeman, Mont. *Entomology.* Middletown, Conn, Aug. 19, 04. B.S, Conn. Agr. Col, 28; M.S, Mass. Col, 30. Asst, Mass. Col, 28–30; *junior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–,* alfalfa weevil research, 31–38. Asn. Econ. Entom; Entom. Soc. Amer. Range grasshoppers.

Newton, Dr. R(obert), University of Alberta, Edmonton, Alta, Can. *Biology, Plant biochemistry.* Montreal, Que, Feb. 7, 89. B.S.A, McGill, 12; M.S, Minnesota, 21, Ph.D, 23; D.Sc, Alberta, 33. Dist. agriculturist, McGill, 12–13; asst. Dom. cerealist, Can. Exp. Farms, 13–14; director agr. instruction, New Brunswick, 14–15; prof. plant biochem, Alberta, 19–32; director div. biol. and agr, Nat. Research Council Can, 32–40; *dean faculty agr, Alberta, 40–; pres, 41–* C.A, 15–19. A.A; Can. Soc. Tech. Agr; Can. Geog. Soc; fel. Royal Soc. Can; West. Can. Soc. Agron. Plant growth factors.

Newton, Dr. Robert C(ollier), University of Vermont, Burlington, Vt. *Analytical chemistry.* Seattle, Wash, May 19, 12. A.B, Wesleyan, 34, A.M, 35; Ph.D, Princeton, 39. Research chemist, Gen. Chem. Co, 39–41; instr. *chem, Vermont,* 41–42, *asst. prof, 43–* Chem. Soc. Physical chemistry.

Newton, Dr. Roy C(hester), Swift and Co, Chicago, Ill. *Chemistry.* El Reno, Okla, May 8, 96. B.S, Okla. Agr. and Mech. Col, 21; Ph.D, Chicago, 24. Asst. chem, Okla. Agr. and Mech. Col, 19–21; instr, Purdue, 23–24; research chemist, *Swift and Co,* 24–32, chief chemist and chem. engineer, 32–41, *v. pres. in charge research, 41–* A.A; Chem. Soc; Chem. Eng; London Chem. Soc. Interhalogen replacement in halogenoacetones; colloid chemistry; emulsions; fats and oils; meat products.

Newton, Prof. Roy F(rederick), 1415 Ravinia Road, West Lafayette, Ind. *Physical chemistry.* Chicago, Ill, June 22, 96. B.S, Northwestern, 16; Ph.D, California, 20. Instr. *physical chem,* California, 20–21; prof, Antioch Col, 21–22; instr, California, 22–23; assoc. prof, Utah, 23–26; asst. prof, *Purdue,* 26–30, assoc. prof, 30–35, *prof, 35–* A.A; Chem. Soc. (chairman, Purdue sect, 30–); Ind. Acad. Leaching of oxidized zinc ores; refining of Utah ozocerite; electrode potentials; free energy determinations; vapor pressure and specific heat measurements.

Newton, Dr. William, Dominion Laboratory of Plant Pathology, Saanichton, B. C, Can. *Botany.* Montreal, Que, April 25, 93. B.Sc, McGill, 14; M.S, California, 20, Ph.D, 23. Chief soil and crop branch, Dept. Agr, Victoria, B. C, 15–20; prof. bot, Pomona Col, 23–24; sci. asst, coastal lab, Carnegie Institution, 24–26; asst. prof, California at Los Angeles, 26–28; *plant pathologist, Dom. Lab. Plant Path, 28–* Chem. Soc. Dormancy in potato tubers; nitrogen metabolism in potato tubers; carbon dioxide absorption in green leaves; physiology of fungi; plant disease control.

Ney, Dr. William O(scar), Jr, 400 High St, Easton, Pa. *Organic chemistry.* Michigan City, Miss, May 20, 17. B.S, Tennessee, 38; Ph.D, Texas, 42. Tutor chem, Texas, 39–40, instr, 40–42; *research chemist, Gen. Aniline and Film Co,* 42– Chem. Soc. Isolation and identification of acids from California petroleum.

Neyman, Prof. J(erzy), 954 Euclid Ave, Berkeley, Calif. *Statistics.* Bendery, Roumania, April 16, 94. Kharkov, 12–16; Ph.D, Warsaw, 23; London, 25–26; Paris, 26–27. Lecturer, Inst. Tech, Kharkov, 17–21; statistician, Inst. Agr, Bydgoszcz, Poland, 21–23; head biometric lab, Nencki Inst, Warsaw, 23–34; special lecturer, Univ. Col, London, 34–36, reader statistics, 35–38; *prof. math, California, 38–,* in charge *statist. lab,* 38–41, *director, 41–* Head statist. lab, Cent. Col. Agr, Warsaw, 23–34; special lecturer, Warsaw, 28–34, Paris, 36. Math. Soc; Statist. Asn; Inst. Statist; Econ. Soc; Royal Statist. Soc; French Math. Soc; Polish Math. Soc. Theory of statistical estimation based on the classical theory of probability; a new class of contagious distributions, applicable in entomology and bacteriology.

Nice, Prof. L(eonard) B(laine), 5708 Kenwood Ave, Chicago, Ill. *Physiology.* Marshfield, Ohio, May 1, 82. Ph.B, Ohio (Athens), 08; fellow, Clark, 09–11, Ph.D, 11. Asst. *physiol,* Clark, 08–11; instr, Harvard, 11–12; *prof,* Oklahoma, 13–27; Ohio State, 27–36; *Chicago Med. Sch, 36–* A.A; Soc. Nat; Physiol. Soc; Soc. Exp. Biol; Okla. Hist. Soc; Ill. Acad; fel. Okla. Acad. (sec'y, 17–24). Effects of alcohol, nicotine and caffeine on mice; book disinfection; complement deficient guinea-pigs; semicircular canals; adrenal transplants and premature sex development; thrombocytes and leucocytes after adrenalectomy; reticulocytes; multiple ovaries and oestrus; avian erythrocytes and hemoglobin; changes in blood during emotion; shock.

Nice, Margaret Morse (Mrs. L(eonard) B(laine) Nice), 5708 Kenwood Ave, Chicago, Ill. *Ornithology, Psychology.* Amherst, Mass, Dec. 6, 83. A.B, Mt. Holyoke Col, 06; fellow, Clark, 07–09, A.M, 15. *Asst. ed, 'Bird-Banding' and 'Wilson Bul.'* Brewster medal, Am. Ornith. Union, 42. Fel. Ornith. Union; Wilson Ornith. Club (pres, 37–39); Cooper Ornith. Club; Inland Bird Banding Asn; fel. Okla. Acad; Chicago Ornith. Soc. (pres, 40–42); hon. mem. Deuts. Ornith. Gesell; cor. mem. Hungarian Ornith. Soc. Speech development of children; birds of Oklahoma; nesting habits; weights and territory of birds; migratory habits; survival and population problems of the song sparrow; behavior of passerines.

Nicholas, Dr. Henry O(scar), Rice Institute, Houston, Texas. *Chemistry.* Cleveland, Ohio, Aug. 23, 97. A.B, Ober-

lin Col, 19; Ph.D, Yale, 23. Instr. anal. chem. and chem. and later *asst. prof. chem, Rice Inst, 20–* Biochemistry.

Nicholas, Prof. John E(dward), 722 Holmes St, State College, Pa. *Agricultural engineering.* Eckley, Pa, June 20, 93. M.E, Lehigh, 15; M.S, Mass. Inst. Tech, 26. Bethlehem Steel Corp, 15–21; asst, Illinois, 22–23; instr. mech. eng, Rice Inst, 23–24; asst. instr, Mass. Inst. Tech, 24–26; instr. mech. eng, Minnesota, 26–29; assoc. prof. *agr. eng, Pa. State Col,* 29–36, *prof, 36–* Agr. Eng; Soc. Refrig. Eng. Refrigeration and freezing of agricultural products; electro-agriculture.

Nicholas, Prof. J(ohn) S(pangler), Yale University, New Haven, Conn. ***Zoology, Experimental embryology.* Pittsburgh, Pa, March 10, 95. B.S, Gettysburg Col, 16, M.S, 17; Currier fellow, Yale, 20–21, Ph.D, 21. Asst. biol, Yale, 17–18, 19–20; instr. anat, sch. med, Pittsburgh, 21–22, asst. prof, 22–26; biol, *Yale,* 26–32, assoc. prof. comp. anat, 32–35, Bronson prof, 35–39, *Sterling prof. biol, 39–, fellow, Trumbull Col, 33–; consultant, War Manpower Cmn, 43–* Assoc. ed, 'Jour. Morphol. and Physiol,' 33–36; ed. vert. embryol, 'Biol. Abstracts,' 38–, zool. rep, 39; co-editor, 'Anat. Mem,' 40– Trustee, Sheffield Sci. Sch, sec'y, 41; mem. sci. advisory board, biol. lab, Cold Spring Harbor, 33; Wistar Inst, 39; New York Zool. Soc, 40. Consultant, Nat. Resources Planning Board, 40–43. Rep. on Nat. Roster, Nat. Research Council, 40. A.A; Asn. Anat; Soc. Exp. Biol; Soc. Zool; Physiol. Soc; Hist. Sci. Soc; Biol. Photog. Soc; Cancer Asn; Biol. Soc; Conn. Acad. Morphogenesis, regeneration and behavior of the nervous system; experimental analysis of mammalian development; modifications of development by transplantation and explantation methods.

Nicholas, Dr. Warren W(hittier), 7609 34th Ave, Jackson Heights, New York, N. Y. *Chemistry, Physics.* Doon, Iowa, Jan. 11, 02. A.B, Stanford, 23, A.M, 24, fellow, 25–26, Ph.D, 26. Asst, Stanford, 23–25; nat. research fellow, Cornell, 26–28, acting asst. prof, 27–28; physicist, Bur. Standards, 28–33; *research chemist, Gen. Chem. Co, Laurel Hill, L. I, 33–* Instr, educ. courses, Bur. Standards, 30–31. Summers, investigator, Marine Biol. Lab, Woods Hole, 30, 31, 34. Cooperating expert, Int. Critical Tables. Physical Soc; Chem. Soc; Optical Soc; Soc. X-ray and Electron Diffraction. X-ray emission; biological assays; chemical research and development.

Nicholls, Dr. A(lbert) G(eorge), 2174 Sherbrooke St, W, Montreal, Que, Can. *Pathology, Internal medicine.* Shotley Bridge, Durham, Eng, April 16, 70. B.A, McGill, 90, M.A, 93, M.D, 94, D.Sc, 09; Erlangen, Prague and Vienna, 96–97. Lecturer path, McGill, 99–04, asst. prof, 04–14, consulting lecturer med, 07–14; prof. path. and bacter, Dalhousie, 14–27; *ed, 'Can. Med. Asn. Jour,' 30–* King George V Semi-Jubilee medal; King George VI Coronation medal. Hon. mem. Can. Med. Asn; fel. Royal Col. Physicians Can; fel. Royal Soc. Can; Montreal Medico-Chirurg. Soc; British Med. Asn; fel. Royal Inst. Pub. Health. Chronic Bright's disease; multiple progressive hyaloserositis; curative effect of various normal and antitoxic sera on tuberculosis; hemorrhagic typhoid fever; 'dust-bodies' of the blood; paths of infection.

Nicholls, Dr. Edith E(velyn) (Mrs. W. J. Stainsby), Geisinger Memorial Hospital, Danville, Pa. *Medicine.* Cleveland, Ohio, Sept. 29, 97. A.B, Smith Col, 19; Sc.D, Hopkins, 22, A.M, 23; M.D, Yale, 26. Asst, sch. med, Yale, 26–27; research fellow med, med. col, Cornell, 27–31, instr, 31–38, asst. physician, Cornell Clinic, 30–32, physician, N. Y. Hosp, 32–38; *chief arthritis clinic, Geisinger Mem. Hosp, 40–, director pediat. dept, 43–* Asst, Children's Bur, Washington, D. C, 23–34; clin. asst. visiting physician. Bellevue Hosp, 30–37. Soc. Bact; Soc. Exp. Biol; Soc. Control Rheumatism; fel. Am. Med. Asn; N. Y. Acad. Med. Bacteriology; arthritis; pediatrics.

Nicholls, Prof. R(obert) V(an) V(liet), McGill University, Montreal, Que, Can. *Organic chemistry.* Montreal, Que, Feb. 18, 13. B.Sc, McGill, 33, M.Sc, 35, Ph.D, 36. Sessional lecturer *chem, McGill,* 36–39, lecturer, 39–40, *asst. prof, 40–* Chem. Soc; Soc. Chem. Indust. (mem. exec, Montreal sect, 40–); fel. Can. Inst. Chem. Organic synthesis; high polymers; gas-phase reactions.

Nicholls, Prof. W(illiam) D(urrett), 126 University Ave, Lexington, Ky. *Agricultural economics.* Bloomfield, Ky, Feb. 6, 85. B.S, Kentucky, 07, M.S, 15; Ph.D, Cornell, 26. Asst. prof. animal husbandry, *Kentucky,* 12–15, *prof. farm management, col. agr. and Exp. Sta, 15–, head dept. farm econ, 16–* Contributing ed, 'South. Agriculturist.' Econ. Asn; Farm Econ. Asn; Ky. Acad. Farm life problems.

Nichols, Dr. Edson H, 322 W. Anderson St, Hackensack, N. J. *Chemistry.* Camden, N. J, July 12, 86. A.B, Cornell, 08, Ph.D, 11. Instr. chem, Cornell, 09–11; chief chemist, *Maywood Chem. Works,* 13–35, *treas, 35–* Chem. Soc. Industrial chemistry.

Nichols, Henry W(indsor), 7020 Jeffrey Ave, Chicago, Ill. *Geology.* Cohasset, Mass, Dec. 7, 66. B.S, Mass. Inst. Tech, 93. Asst. geol, Mass. Inst. Tech, 94; curator econ. geol, *Field Museum Nat. Hist,* 95–97, asst. curator *geol,* 97–24, assoc. curator, 24–35, curator, 35–37, *chief curator, 37–* Agent, Am. cmn, Paris Expos, 00. A.A; Miner. Soc; Min. and Metal. Eng; Asn. Research on Meteorites; Asn. Mus; West. Soc. Eng. Meteorites; genesis of claystones; testing for chlorine with the blowpipe; absence of lead and copper from deep-sea deposits; nitrates in cave earths; microfossils; Inca relics; new forms of concretions; ores of Colombia; early geological history of Chicago.

Nichols, Capt. Hubert B, 72 Woodlawn Ave, Needham, Mass. *Biology.* South Norwalk, Conn, Oct. 21, 07. B.S, Harvard, 32. Regimental supply sergeant, Inf, U. S. Army, 23–26; *science ed, 'Christian Science Monitor,' 30–;* battery officer, Field Artil, *U. S. Army,* 32–39, *capt,* 40–42, *first special service force, 42–* A.A; Mass. Hort. Soc; Vt. Bot. Club. Xerophytes in relation to varying habitat; planetary satellites.

Nichols, Prof. Irby C(oghill), Louisiana State University, Baton Rouge, La. *Mathematics.* Eudora, Miss, Nov. 11, 82. B.S, Mississippi, 06, A.M, 08; M.S, Illinois, 12; Ph.D, Michigan, 17. Teaching fellow math, Mississippi, 04–06, instr, 06–08; instr. and asst. prof, Agr. and Mech. Col. Texas, 09–17; assoc. prof, *Louisiana,* 17–19, *prof. applied math, 19–* Ed. board, 'Nat. Math. Magazine.' Math. Asn. (past sec'y and past pres, La. and Miss. sect); La. Acad. (ed. pubs, 33–38). Introduction into Europe of the Hindu art of reckoning with fractions; history of reconstruction of De Soto County, Mississippi; finance; statistics.

Nichols, Dr. J(ames) B(urton), 1505 River Road, Wilmington, Del. *Chemistry.* Danbury, Conn, Feb. 25, 02. Ch.B, Cornell, 23; M.S, Wisconsin, 24, Ph.D, 27; Am-Scandinavian Foundation fellow, Upsala, 25–26, Int. Educ. Board fellow, 26–27. Research chemist, *exp. sta, E. I. du Pont de Nemours and Co, Wilmington,* 28–42, *head physics sect, 42–* Optical Soc; Physical Soc; Soc. X-ray Research and Develop; Soc. Electron Micros; Chem. Soc. Colloid chemistry; ultracentrifugal determination of distribution of particle size of colloidal material; protein molecular weights; complex dyes; cellulose derivatives.

Nichols, John Treadwell, American Museum of Natural History, New York, N. Y. *Zoology.* Jamaica Plain, Mass, June 11, 83. A.B, Harvard, 05. Asst, *dept. ichthyol, Am. Museum Nat. Hist,* 09–13, asst. curator, 13–19, assoc. curator *recent fishes,* 19–28, *curator, 28–* A.A; Soc. Ichthyol. and Herp. (hon. pres, 37); Soc. Mammal; Ornith. Union; Cooper Ornith. Club; Nuttall Ornith. Club; Biol. Soc. Wash; Linnaean Soc. N. Y. Systematic ichthyology and ornithology.

Nichols, Prof. L(awrence) H(oward), University of Alberta, Edmonton, Alta, Can. *Physics.* Montreal, Que, March 16, 91. B.A, McGill, 19; M.Sc, Alberta, 25. Demonstrator *physics,* McGill, 19–22; lecturer, *Alberta,* 22–27, asst. prof, 27–43, *assoc. prof, 43–* Fel. Royal Meteorol. Soc. Meteorology; physics applied to forest protection; upper air investigation on temperature inversions near the Rocky Mountains.

Nichols, Dr. M(ark) L(ovel), 3764 Benton St, Washington, D. C. *Agricultural engineering.* Weavers Corners, Ohio, Jan. 24, 88. B.S, Ohio State, 12; M.S, Delaware, 16; Sc.D, Clemson Col, 37. Farmer, 12–15; prof, T. N. Vail Agr. Sch, 15; asst. prof, Delaware, 15–16; exten. agr. engineer, Va. Polytech, 17–18; prof. agr. eng, Ala. Polytech, and head dept. and research engineer, Exp. Sta, 19–37; *asst. chief div. research, soil conservation service, U. S. Dept. Agr, 37–* Regional engineer, soil conservation service, U. S. Dept. Agr, 36– Agr. Eng. (councilor, 15–19, chairman, research cmt, 17–18, south. sect, 20, soil dynamics cmt). Mechanics of soil as related to tillage.

Nichols, Dr. M(ary) Louise, Rosemont, Pa. *Zoology, Psychology.* Brookville, Pa, Feb. 19, 73. Ph.D, Pennsylvania, 01. Teacher zool, Phila. Nor. Sch, 93–02, zool. and geog, 02–16; head dept. science, South Phila. High Sch. for Girls, 16–35; *retired.* Marine Biol. Lab, Woods Hole, 95–97, 00. A.A; Genetic Asn; Eugenics Soc. Spermatogenesis of Oniscus

asellus and Euchroma gigantua; chromosome relations in the spermatocyte of Oniscus; development of the pollen of Sarracenia; comparative studies in crustacean spermatogenesis; habits of the mining bee; high school student and scientific method; adaptation of tests.

Nichols, Prof. M(elvin) L(orrel), Cornell University, Ithaca, N. Y. *Chemistry.* Dayton, Ohio, Nov. 30, 94. Ch.B, Cornell, 18, Ph.D, 22. Instr, *Cornell*, 18–22, asst. prof. *anal. chem*, 22–35, *prof*, *35–* Guggenheim Mem. Foundation fellow, Leipzig, Graz and Rostock, 29–30. Chem. Soc. Physical and analytical chemistry.

Nichols, Prof. M(erle) Starr, 2110 University Ave, Madison, Wis. *Sanitary chemistry.* Fairmont, Mo, June 29, 87. Ph.G, Des Moines, 06; B.S, Wisconsin, 16, M.S, 18, Ph.D, 26. Asst, *State Lab. Hygiene, Wis*, 13–16, *chemist and asst. bacteriologist*, 16–18, *19–*; asst. prof. *sanit. chem, Wisconsin*, 26–38, assoc. prof, 38–40, *prof, 40–; lecturer hydraulic and sanit. eng. and chemist, State Lab. of Hygiene, Wis, 40–* 2nd lieut, U.S.A, 18–19. Chem. Soc; fel. Inst. Chem; fel. Pub. Health Asn; Soc. Exp. Biol; Water Works Asn; Sewage Works Asn; Wis. Acad. Water and sewage chemistry and bacteriology; swimming pool sanitation; activated sludge oxidation; biochemical oxygen demand; van den Bergh reaction; iodine and trout thyroids; iodized salt; public water supplies; fluorides in water.

Nichols, Dr. Myron H(iram), Palmer Physical Laboratory, Princeton, N. J. *Physics.* Nelson, Ohio, Jan. 26, 15. A.B, Oberlin Col, 36; Ph.D, Mass. Inst. Tech, 39. Nat. research fellow, *Princeton*, 39–41, instr. *physics*, 41–42, *asst. prof, 42–* Physical Soc. Dependence of thermionic properties upon crystallographic direction.

Nichols, N(orris) N(ewman), Christiansted, St. Croix, Virgin Islands. *Animal husbandry.* Delmar, Md, July 3, 02. B.S, Maryland, 24, M.S, 25. Asst. plant manager creamery, Orland, Calif, 25–26; dairy inspector, bur. dairy control, Tulare, Calif, 26; field man and supervisor by-products plants, cooling stations and research lab, West. Md. Dairy Corp, Baltimore, 27–31; assoc. animal husbandman and dairyman, exp. sta, bur. animal indust, U. S. Dept. Agr, *Virgin Islands*, 31–32; agr. exten. agent in charge, exp. sta, *U. S. Dept. Interior*, St. Thomas and St. John, 32–35, *director exp. sta. and vocational sch, 35–, acting homestead administrator.* Soc. Animal Production; St. Croix Livestock Asn. (pres). Agricultural education and extension.

Nichols, Dr. Peter L, Jr, Apt. C, 6619 Blakemore St, Philadelphia, Pa. *Organic chemistry.* San Antonio, Texas, July 20, 17. A.B, Texas Christian, 38; Ph.D, Calif. Inst. Tech, 42. Asst. chem, Calif. Inst. Tech, 39–40, teaching fellow, 40–42; *asst. chemist, east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Structure of sphingosine; resolution of amino acids; starch.

Nichols, Prof. Ray J(anney), University, Miss. *Zoology.* Hernando, Miss, Feb. 7, 06. A.B, Miss. Col, 26; Ph.D, Illinois, 34. Asst. zool, Yale, 26–28; instr. biol, Union (N. Y), 28–29; prof. and head dept, Miss. Col, 29–32; asst. zool, Illinois, 33–34; asst. prof. *biol, Mississippi*, 34–38, *assoc. prof, 38–* Gen. Educ. Board fellow and examiner, Chicago, 39–40. A.A; Ecol. Soc; Soc. Ichthyol. and Herp; Miss. Acad. (chairman biol. sciences div, 42). Mouthparts of larval Anura; faunistic and ecological studies of Amphibia and reptiles; population and migration studies on toads; experiments on hybridization of Anura.

Nichols, Prof. Robert L(eslie), Tufts College, Medford, Mass. *Geology.* Boston, Mass, June 10, 04. B.S, Tufts Col, 26; A.M, Harvard, 30, Ph.D, 40. Master, Montpelier Sem, 26–27; Milton Acad, 27–28; asst. *geol*, Harvard, 28–30; instr, *Tufts Col*, 29–36. *asst. prof, 36–*, acting head dept, 36–40, *head dept, 40–* Educ. work, Nat. Park Service, 30–32; asst. geologist, U. S. Geol. Surv, 40–; research assoc, Museum North. Ariz, 40–41. A.A; Geophys. Union; N. Y. Acad; Boston Geol. Soc. (v. pres, 40, pres, 41); hon. mem. Deschutes Geol. Club. Physiography; vulcanology; basaltic lava flows; shore line geomorphology; geochemistry of the atmosphere.

Nicholson, Dr. A(rnold) J(oseph), State Game, Fish and Oyster Commission, Austin, Texas. *Biology, Mammalogy.* Spokane, Wash, May 24, 12. B.S, Mich. State Col, 34; Ph.D, Michigan, 38. Asst, Michigan, 34–38; *game manager, State Game, Fish and Oyster Cmn, Texas, 38–* Soc. Mammal; Wildlife Soc. Ecology of small mammals and game manegement.

Nicholson, Dr. Daniel, University of Manitoba Medical College, Winnipeg, Man, Can. *Pathology.* Montague, P.E.I, May 9, 94. M.D, Manitoba, 19. Lecturer *path, Manitoba*, 20–22, asst. prof, 22–37, *prof, 37–* Asst. pathologist, Winnipeg Gen. Hosp, 20–37, pathologist, 37– A.A; Royal Col. Physicians. Laboratory medicine.

Nicholson, Dr. Douglas G(illison), University of Illinois, Urbana, Ill. *Inorganic chemistry.* Joliet, Ill, Dec. 29, 08. B.S, Illinois, 30, M.S, 31, Ph.D, 34. With E. I. du Pont de Nemours and Co, 34–35; instr. *chem, Illinois*, 35–37, *assoc, 37–* White pigments; titanium compounds.

Nicholson, Dr. Eugene H(aines), 5232 Lansdowne Ave, St. Louis, Mo. *Mathematics, Physics.* St. Louis, Mo, Nov. 10, 07. B.S, Washington (St. Louis), 31, M.S, 37, Ph.D, 41. *Elec. engineer, Union Elec. Co, Mo.* Probability and statistics; engineering applications of analytical mechanics.

Nicholson, Frank Lee, 512 Graydon Park, Norfolk, Va. *Civil engineering.* Portsmouth, Va, Aug. 12, 68. Private educ; Suffolk Mil. Acad. Rodman, chainman, levelman and office asst. to chief engineer, Atlantic and Danville R. R, 87–89; levelman and later res. engineer, Wilmington, Newbern and Norfolk R. R, 89–90; asst. engineer, maintenance of way, *Norfolk South. R. R*, 90–92, acting engineer, 92–98, engineer, 98–09, *chief engineer, 09–, in charge valuation, 14–* Chief engineer, Raleigh, Charlotte and South. R. R; consulting engineer, Va. Ry, 18, chief engineer, 18–19. Civil Eng. (director, 29–31, v. pres, Va. sect, 25, pres, 26); Ry. Eng. (chairman, cmt. XX, 32–37; director, 37–40); Ry. Asn. (director); Soc. Mil. Eng. Railroad construction; valuation and maintenance.

Nicholson, Dr. F(rederic) M(ax), 3215 W. North Ave, Chicago, Ill. *Pathology, Neurology, Anatomy.* Clinton, Iowa, Aug. 8, 89. Fremont Col, 09; Lewis Inst. Chicago, 15; B.S, Chicago, 18, Ph.D, 21, M.D, Rush, 26. Asst. anat, Chicago, 19–20, assoc, 20–21; asst. path, Rockefeller Inst, 21–23, assoc, 23–24; night surgeon, Inland Steel Co, 25; *practising physician and surgeon.* Mem. staff, Norwegian-Am. Hosp. A.A; Am. Med. Asn; Harvey Soc; N. Y. Acad; Ill. Acad; fel. Royal Micros. Soc. London. Microchemical and pathological cytology; rickettsia in Rocky Mountain spotted fever; iron-containing proteins of the nerve cells; the thyroid gland; meningoencephalitic lesions and protozoa-like parasites; the central nervous system in botulinus poisoning.

Nicholson, Prof. G(eorge) Hubert, 328 North Ave, Burlington, Vt. *Mathematics.* Crapaud, P. E. I, Can, March 12, 98. Prince of Wales Col; B.A, Mt. Allison, 22; A.M, Harvard, 23. Instr. *math, Vermont*, 23–29, *asst. prof, 29–*

Nicholson, Prof. Geo(rge) W(ilson), University of Mississippi, University, Miss. *Mathematics.* Camden, S. C, July 28, 97. B.S, The Citadel, 19; A.M, LL.B, South Carolina, 22; Cornell, 27–31; Ph.D, North Carolina, 33. Instr. math, Ga. Sch. Tech, 24–26; Clemson Col, 26–27; asst. prof, West. Tenn. State Teachers Col, 27–28; head dept, Miss. Woman's Col, 28–29; assoc. prof, Univ. of the South, 29–31; head dept. math. and physics, Brenau Col, 34–37; asst. prof. *math, Mississippi*, 36–38, *assoc. prof, 38–*

Nicholson, Prof. Hayden C(oler), 311 Pine Ridge, Ann Arbor, Mich. *Physiology.* Redwood Falls, Minn, Feb. 4, 04. A.B, Michigan, 25, M.S, 27, M.D, 29. Asst. *physiol, Michigan*, 25–29, instr, 29–31, asst. prof, 31–40, *assoc. prof, 40–; capt, Air Corps, U. S. Army.* A.A; Physiol. Soc; Soc. Exp. Biol. Cerebrospinal fluid; chemical regulation of respiration; localization and mode of action of the respiratory center as studied by local cooling, local chemical applications and sectioning; continuous determinations of buoyancy as a method of recording respiration; reflex variations in bronchial calibre; the adrenal cortex.

Nicholson, Capt. K(enneth) C, Rocky Mountain Arsenal, Denver, Colo. *Chemistry.* Monongahela, Pa, April 10, 94. B.S, Carnegie Inst. Tech, 14. Chemist, Standard Chem. Co, Canonsburg, Pa, 14–18, chief chemist, 18–24; chief analyst, *The Carborundum Co, Niagara Falls*, 24–42; *capt, Chem. Warfare Service, U. S. Army, and chief anal. branch, chem. warfare inspection office, Rocky Mountain Arsenal, 42–* Chemist, Carnotite Mines, southwest. Colo, 16–17. A.A; Soc. Mil. Eng. Abrasive products; grinding wheels; abrasive paper and cloth; testing diffuser plates for sewage aeration; industrial hygiene; chemical warfare materials.

Nicholson, Rev. P(atrick) J(oseph), St. Francis Xavier College, Antigonish, N. S, Can. *Physics.* Beaver Cove, N. S, Sept. 8, 87. B.A, St. Francis Xavier Col, 09; A.M, Hopkins, 11, fellow, 11–12, Ph.D, 13; theol. studies, 13–16. *Prof.*

physics, St. Francis Xavier Col, 12–, dean studies, 36– A.A; Physical Soc. Selenium.

Nicholson, Dr. Seth B(arnes), 1785 Pepper Drive, Altadena, Calif. ***¹***Astronomy.* Springfield, Ill, Nov. 12, 91. B.S, Drake, 12; Ph.D, California, 15. Instr. astron, California, 13–15; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 15–* Nat. Acad; A.A; Astron. Soc; Geophys. Union; Astron. Soc. Pacific (pres, 35). Solar astronomy; heat radiation of stars and planets; orbits of comets and asteroids; Jupiter's ninth, tenth and eleventh satellites.

Nicholson, Dr. T(homas) Frederick, Highland Creek, Ont, Can. *Pathological chemistry.* Toronto, Ont, Jan. 14, 02. M.B, Toronto, 26, fellow, 27, B.Sc, 28, fellow, 28, Ph.D, 34. Lecturer *path. chem, Toronto,* 29–30, asst. prof, 30–36, *assoc. prof, 36–* Asn. Path. and Bact; Path. Soc. Gt. Britain and Ireland; Biochem. Soc. Gt. Britain. Micro-organisms; sugar analysis.

Nicholson, Dr. W(illiam) M(cNeal), Duke University, Durham, N. C. *Internal medicine.* Bath, N. C, Sept. 27, 05. A.B, Duke, 27; M.D, Hopkins, 31. Res. house officer, Hopkins Hosp, 31–32, asst. path, med. sch, Hopkins, 32–33, med, 33–35; asst. physician, *univ. hosp, Duke,* 35–36, *assoc. med, 36–,* instr, *univ,* 35–36, assoc. med. and biochem, 36–42, *asst. prof. med, 42–* Am. Med. Asn; Clin. and Climat. Asn. Physiology; diseases of metabolism and of internal secretions.

Nickel, Dr. Allen (Arthur) C(larence), Caylor-Nickel Clinic, Bluffton, Ind. *Internal medicine, Clinical pathology.* Jefferson, Wis, Dec. 12, 94. B.S, Northwestern, 15; B.D, Theol. Sem, Ill, 17; M.D, Rush, Chicago, 23. Instr, Mayo Clinic, 25–31; *internist and clin. pathologist, Caylor-Nickel Clinic, 31–* Am. Med. Asn; Soc. Clin. Path; Soc. Bact; Col. Physicians. Experimental medicine and bacteriology; focal infection.

Nickell, Dr. F(rank) A(ndrew), 116 Berkeley Way, Whittier, Calif. *Geology.* Beatrice, Nebr, March 1, 06. B.S, Calif. Inst. Tech, 27, M.S, 28, Ph.D, 31. Teaching fellow, Calif. Inst. Tech, 27–31; asst. geologist, U. S. Reclamation Service, Denver, 31–34, assoc. geologist, 34–36, geologist, 36–39, head geologist, 39–43; *consulting engineer and geologist, Mex, 43–* Min. and Metal. Eng. Geology of the Soledad Quadrangle, central California; Boulder Dam; Shasta Dam; dams and reservoirs in western United States; geology applied to engineering projects.

Nickels, C(larence) B(obo), U. S. Bureau of Entomology, Brownwood, Texas. *Entomology.* Steens, Miss, July 18, 98. B.S, Miss. Agr. and Mech. Col, 17; M.S, Maryland, 20. Asst. entomologist, Exp. Sta, Clemson Col, 20–26; *bur. entom. and plant quarantine, U. S. Dept. Agr,* Maine, 26–29, *assoc. entomologist, Brownwood, 29–* A.A; Entom. Soc; Asn. Econ. Entom. Economic entomology; the cotton boll-weevil; the blueberry maggot; the parasites of the pecan nut casebearer; control of the nut casebearer with insecticides; biology and control of borers on pecan trees.

Nickelsen, Prof. J(ohn) M, University of Michigan, Ann Arbor, Mich. *Mechanical engineering.* Mediapolis, Iowa, Feb. 13, 92. B.S, Illinois, 14. Teacher, high sch, Minn, 14–16; instr. descriptive geometry and mech. drawing, Michigan, 16–17; engineer, Buick Motor Co, 19–20; asst. prof. *mech. eng, Michigan,* 20–28, assoc. prof, 28–41, *prof, 41–* Lieut, Sanit.C, 17–18. Soc. Automotive Eng. Automobile design; shock absorbers and front wheel alignment.

Nickerson, Dorothy, U. S. Department of Agriculture, Washington, D. C. *Physics.* Boston, Mass, Aug. 5, 00. Asst, Munsell Research Lab, and asst. manager, Munsell Color Co, 21–26; *color technologist,* bur. agr. econ. and later *agr. marketing service, U. S. Dept. Agr,* 27– A.A; Optical Soc; Inter-Soc. Color Council (sec'y, 38–); Wash. Acad. Psycho-physics; color; grade and standardization in agriculture; determination of the color of agricultural products; disc mixture colorimeter; psychological terms in color measurements; grading of agricultural products by color measurements; artificial daylighting in color grading.

Nickerson, Prof. J(ohn) L(ester), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Physiology.* Halifax, N. S, Can, Oct. 8, 03. B.A, Dalhousie, 25, MacGregor fellow, 26–27, Nat. Research Council Can. bursar, 27–28, M.A, 28; Princeton, 30–31, Ph.D, 35. Substitute prof. physics and chem, Newfoundland Mem. Col, 25–26; instr. physics, Princeton, 28–30; asst. prof, Mt. Allison, 31–38, prof, 38–39, assoc. dean men, 36–39; *asst. prof. physiol, col. physicians and surgeons, Columbia, 39–* Consulting physicist, Enamel and Heating Ltd, 37–39. Physical Soc. Radioactivity; vacuum spectroscopy; gas discharges; efficiency of wood burning furnaces and electric stoves; spectrophotometry; acclimatization.

Nickerson, Dr. Mortimer H(enderson), 247 Washington St, Winchester, Mass. *Organic chemistry.* Chelsea, Mass, July 22, 15. B.S, Mass. Inst. Tech, 37, Ph.D, 40. Process develop. chemist, Carbide and Carbon Chem. Corp, 40–41; research and develop. chemist, Dewey and Almy Chem. Co, 41–42; *lieut, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Synthetic polymers.

Nickerson, Dr. Ralph F(rancis), Firestone Tire and Rubber Co, Akron, Ohio. *Chemistry, Physiology.* Attleboro, Mass, May 15, 06. B.S, Mass. Col, 30, M.S, Mass. State Col, 32, Ph.D, 34. Biophysical chemist, Worcester State Hosp, 34–37; Cotton Research Foundation indust. fellow, Mellon Inst, 37–41, senior fellow, 41–43; *mem. staff, Firestone Tire and Rubber Co, 43–* A.A; Chem. Soc. Biophysical chemistry; tissue, protein and enzyme chemistry; physiology of human heat production and skin temperature; cottonseed protein isolation and technology; cotton fiber structure, properties and technology; cellulose chemistry; paper technology; tire fabrics.

Nickerson, Dr. Walter J(ohn), Wheaton College, Norton, Mass. *Plant physiology, Microbiology.* Plainfield, N. J, Aug. 6, 15. B.S, West Chester Col, 37; A.M, Harvard, 40, Ph.D, 42. Teaching fellow plant physiol, Harvard, 41–42, cryptogamic bot, 41; *instr. bot. and bacter, Wheaton Col. (Mass), 42–, head bot. sect, biol. dept, 43–; Air Force, U. S. Army, 43–* A.A; Soc. Bact; Bot. Soc; Mycol. Soc; Torrey Bot. Club; Pa. Acad. Physiology of reproduction in fungi; physiology and taxonomy of yeasts.

Nickerson, Dr. W(infield) S(cott), Faribault, Minn. ***¹***Zoology, Medicine.* Cotuit, Mass, Nov. 2, 64. B.S, Harvard, 90, Sc.D, 94; M.D, Minnesota, 05. Acting prof. biol, Colorado, 94–95; instr, Northwestern, 95–96; histol. and embryol, Minnesota, 97–99, asst. prof, 99–11; *practising physician, 11–; pathologist, St. Lucas Hosp, 28–* Capt, M.R.C. Morphology of Vermes; morphology of several trematodes; human helminthology.

Nickle, Dr. A(lexander) Gordon, National Research Council, Ottawa, Ont, Can. *Physical chemistry.* Kingston, Ont, Feb. 18, 16. B.A, Queen's (Can), 38; Ph.D, Harvard, 42. Research chemist, Imp. Oil Ltd, 41–42; *junior research chemist, Nat. Research Council Can, 42–* War research.

Nickol, Prof. John P(eter), Box 837, Maxwell Road, Newtonville, N. Y. *Physics.* Baltimore, Md, Sept. 6, 88. B.S, St. Mary Col. (Ohio), 15; M.S, Fribourg, 22, Ph.D, 23. Asst. prof, Fribourg, 22; prof, Dayton, 23–29; physics, St. Bonaventure Col, 29–39; *head dept. physics, dean science and coordinator war training sch, Civilian Aeronautics Admin, Siena Col, 39–* Math. Soc; Physical Soc. High frequency currents; absorption.

Nickolls, Prof. Charles L(eslie), 135 Orchard Lane, Stillwater, Okla. *Chemistry, Chemical engineering.* Henry, Ill, May 17, 95. B.S, Dakota Wesleyan, 17; M.S, Okla. Agr. and Mech. Col, 21; Columbia, 24; Asn. Nat. Gas Mfrs. of Amer. fellow, Michigan, 28–29, Ph.D, 35. Civil engineer, Dak. Eng. Co, S. Dak, 20; asst, *Okla. Agr. and Mech. Col,* 20–21, asst. prof, 21–23, assoc. prof. *chem. and chem. eng,* 23–36, *prof, 36–* Summers, instr, Okla. Agr. and Mech. Col, 21–; chem. engineer, Phillips Petrol. Co, 36–37. Lieut, U.S.A, 17–19. Chem. Soc. (chairman, Okla. sect, 32, v. chairman, 37); Electrochem. Soc; Okla. Acad. Motor fuel volatility; relation between atmospheric temperature, fuel volatility and engine performance; natural gas.

Nicolaysen, Dr. H(oward) F(rederic), Agricultural and Mechanical College of Texas, College Station, Texas. *Chemistry.* Clinton, Iowa, March 29, 13. A.B, Wartburg Col, 34; Ph.D, Iowa State Col, 41. Teaching scholar chem, Iowa State Col, 36–37, asst, 37–42; *instr. inorg. chem, Agr. and Mech. Col. Texas, 42–* Chem. Soc. Inorganic analytical chemistry; oxidimetric determination of cobalt and nickel in the presence of each other and of iron as in steels; quantitative volumetric titration of heavy metals.

Nicolet, Dr. Ben H(arry), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Kansas City, Mo, July 30, 90.

A.B, Kansas, 10; Ph.D, Yale, 13. Fellow, Mellon Inst, 13–17; asst. prof. chem, Chicago, 19–28; chemist, *bur. dairy indust, U. S. Dept. Agr*, 28–29, *senior chemist, 29–* Chief org. div, Paris lab, C.W.S, U.S.A, 18. A.A; Chem. Soc. (pres, Wash. sect, 37); Soc. Biol. Chem; Wash. Acad. Hydantoins; higher fatty acids; the nature of halogens attached to carbon; amino-acids; sulfur compounds; use of periodic acid in the analysis of proteins.

Nicoll, Dr. Homer K(ing), 122 S. Michigan Ave, Chicago, Ill. *Internal medicine.* Clarence, Iowa, June 20, 83. A.B, Tarkio Col, 04; M.D, Rush, Chicago, 09. Fellow, *Rush Med. Col, Chicago*, 11–13, instr. path, 14–20, *asst. prof. clin. med, 24–* Res. pathologist, Presb. Hosp, Chicago, 14–20. Soc. Int. Med; Am. Med. Assn; Inst. Med. Chicago; Chicago Path. Soc. Antistreptococcus serums in chronic arthritis; chronic carbon monoxide poisoning.

Nicoll, Dr. Paul A(ndrew), Indiana University School of Medicine, Bloomington, Ind. *Physiology.* Rawal Pindi Punjab, India, Jan. 20, 08. A.B, Tarkio Col, 30; Ph.D, Washington (St. Louis), 36. *Instr. physiol*, Chicago, 37–40; *Indiana, 40–* Nat. research fellow, 37–38. Physiology of smooth muscle; anaphylaxis.

Nicoll, Dr. W(illiam) D(ickson), 2130 Linden St, Wilmington, Del. *Organic chemistry.* Murree, India, June 18, 02. B.S, Tarkio Col, 24; M.S, Ohio State, 25, Ph.D, 27. *Chemist, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Carbohydrates; cellulose chemistry.

Niedercorn, J(oseph) G(eorge), P. O. Box 198, Riverside, Conn. *Chemistry.* Kenosha, Wis, July 21, 02. A.B, Wisconsin, 26. *Chemist*, A. F. Gallun and Sons Corp, 26–30; *Am. Cyanamid Co, 30–* Chem. Soc; Leather Chem. Asn; Int. Verein der Lederindustrie-Chem. Fat-liquoring of leather; molybdenum tannage; proteolytic enzymes and bating; hydrolysis of chrome leather.

Niederhauser, Dr. W(endell) S(herman), 5 W. Oak Ave, Moorestown, N. J. *Chemistry.* Canton, Ohio, Nov. 8, 00. A.B, Oberlin Col, 24, A.M, 26; fellow, Princeton, 27–28, Ph.D, 28. Asst. chem, Oberlin Col, 24–26; Princeton, 26–27; instr, Brown, 28–29; acting asst. prof, Oberlin Col, 29–30; instr, Williams Col, 30–36, asst. prof, 36–39; *research chemist, Resinous Products and Chem. Co, Phila, 39–* A.A; Chem. Soc. Standard cells; synthetic resins.

Niederl, Prof. Joseph B(erthold), New York University, Washington Square, New York, N. Y. *Chemistry.* Graz, Austria, Aug. 14, 99. Ph.D, Graz, 25. Instr. *chem, Wash. Sq. Col, N. Y. Univ*, 25–28, asst. prof, 28–33, *assoc. prof, 33–* A.A; Chem. Soc; fel. Inst. Chem; N. Y. Acad; London Chem. Soc. Organic microchemistry; organic chemical syntheses; phenol condensations; rearrangement of phenolic ethers; heterocylic phenols; arylmalonic acid syntheses; invert soaps.

Nield, Dr. Cyril H(owlden), 65 Lufberry Ave, New Brunswick, N. J. *Organic chemistry.* Liverpool, Eng, Feb. 6, 16. B.S, Rutgers, 38, M.S, 40, Ph.D, 42. Asst. biochem, N. J. Exp. Sta, 38–42; *research and develop. chemist, Calco Chem. div, Am. Cyanamid Co, 42–* Chem. Soc; Inst. Chem. Determination and isolation of vitamin D with the aid of spectrophotometry and chromatographic absorption; heterocyclic sulfanilamide derivatives.

Nielsen, Dr. Alvin H(erborg), University of Tennessee, Knoxville, Tenn. *Physics.* Menominee, Mich, May 30, 10. A.B, Michigan, 31, M.S, 32, Ph.D, 34. Teaching asst. *physics*, Michigan, 31–34; instr, *Tennessee*, 35–37, asst. prof, 37–43, *assoc. prof, 43–* Hon. fellow, Ohio State. Fel. Physical Soc; Asn. Physicists; Tenn. Acad. Infra-red spectra of polyatomic molecules.

Nielsen, Carl, Meadowood Farm, Lake Villa, Ill. *Pharmacology.* Copenhagen, Denmark, Feb. 22, 80. Ph.G, Copenhagen, 03, 09. Pharmacist, for. countries, 05–09; chem. and bacter. research on Agave Americana, Mex, 09–12; director, Lab. de la Co. Expendedora de Pulque, Mex, 11–12; asst, *Abbott Labs*, Chicago, Ill, 13, *director pharmaceut. and nutritional research, North Chicago, 13–* Mem. vitamin advisory cmt, U. S. Pharmacopoeia, 32; subcmt. vitamin standardization, Am. Drug Mfrs. Asn, 30–, subcmt. digitalis standardization, 31–; subcmt. hypnotics, Nat. Research Council. Assoc. ed, 'Jour. Chemotherapy.' Chem. Soc; Soc. Exp. Biol; Pharmaceut. Asn. Pharmacology of chloramines; alkaloids; alkaloidal phosphotungstates; benzyl esters; local anesthetics; hypnotics of the barbituric acid series; occurrence of ephedra species; ephedrine; irradiated ergosterol; vitamin studies of mammalian tissues, grains, vegetables and fish oils.

Nielsen, Dr. Carl E(by), University of California, Berkeley, Calif. *Physics.* Los Angeles, Calif, Jan. 22, 15. A.B, California, 34, A.M, 40, Ph.D, 41. *Instr. physics, California, 41–* Condensation upon ions in the Wilson cloud chamber; measurement of ionization by counting droplets in the cloud chamber; cloud chamber study of cosmic rays on Mt. Evans.

Nielsen, Dr. Chester S(ophus), 6033 Irving Park Road, Chicago, Ill. *Botany.* Chicago, Ill, June 24, 11. B.S, Chicago, 32, Ph.D, 41; M.S, Northwestern, 37. Instr. biol, De Paul, 38–40; *hosp. corps, U. S. Navy.* A.A; Bot. Soc; Sullivant Moss Soc; Ill. Acad. Cytological effect of photoperiod.

Nielsen, Dr. Edward, 126 Jones Ave, New Brunswick, N. J. *Biochemistry.* Daysland, Alta, Can, Oct. 9, 11. B.Sc, Alberta, 35; M.S, Wisconsin, 40, Ph.D, 42. *Mem. staff, E. R. Squibb and Sons.* Vitamin B complex.

Nielsen, Dr. Etlar L(ester), University of Wisconsin, Madison, Wis. *Agronomy.* Tyler, Minn, June 30, 05. B.S, Minnesota, 28, Ph.D, 36. Asst. bot, Minnesota, 32–36; asst. prof. agron, Arkansas, 36–41; agent, *bur. plant indust, U. S. Dept. Agr*, 41–42, *assoc. agronomist, 42–* Junior botanist, U. S. Dept. Agr, 35. A.A; Bot. Soc. Interglacial peat deposits; taxonomy of genus Amelanchier; ecology of grasslands; improvement of meadow and pasture plants; embryology of grasses.

Nielsen, Prof. Harald H(erborg), 199 Rustic Place, Columbus, Ohio. *Physics.* Menominee, Mich, Jan. 25, 03. St. Olaf Col, 23–25; B.S, Michigan, 26, A.M, 27, fellow, 27–29, Ph.D, 29. Asst, Michigan, 26–27; Am-Scandinavian Foundation fellow, Copenhagen, 29–30; instr. *physics, Mendenhall lab, Ohio State*, 30–33, asst. prof, 33–36, assoc. prof, 36–43, *prof, 43–* Fel. Physical Soc. Infra-red absorption spectra of polyatomic molecules; hindered rotation in molecules; vibration-rotation energies of polyatomic molecules.

Nielsen, Prof. J(ens) Rud, University of Oklahoma, Norman, Okla. *Physics.* Copenhagen, Denmark, Sept. 22, 94. Copenhagen, 13–19; London, Cambridge, Oxford, Manchester, 20; Am-Scandinavian Foundation fellow, 22–23; Ph.D, Calif. Inst. Tech, 24. Asst. *physics*, Copenhagen, 16–20; instr, Royal Tech. Col, Copenhagen, 20–22; prof, Humboldt State Teachers Col, Calif, 23–24; asst. prof, *Oklahoma*, 24–26, assoc. prof, 26–30, *prof, 30–* Guggenheim Mem. Foundation fellow, Copenhagen, 31–32, Rask-Oersted fellow, 32–33. A.A; Physical Soc; Asn. Physics Teachers; Okla. Acad. Photoelectricity; resonance radiation; spectrographs; Raman and infra-red spectra; molecular structure; spectrographic analysis.

Nielsen, Dr. John P(arkinson), 1107 Evelyn Ave, Albany, Calif. *Food chemistry.* Logan, Utah, July 29, 12. B.S, Utah State Col, 34; Ph.D, Stanford, 39. Chemist, Am. Smelting Ref. Co, 35–38; Trail Smelter Arbitral Tribunal, 38; research chemist, Nat. Canners Asn, 38–41; *assoc. chemist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Inst. Food Technol. Technology and improvement of quality of frozen foods.

Nielsen, Dr. Kaj Leo, 3341 Blaine Ave, Detroit, Mich. *Mathematics.* Denmark, Dec. 3, 14. A.B, Michigan, 36; A.M, Syracuse, 37; Ph.D, Illinois, 40. Asst. *math*, Syracuse, 36–37; Illinois, 37–40, *instr*, 40–41; Brown, 41–42; *Louisiana, 42–* Summer, math. research engineer, Pratt and Whitney Aircraft, 42. Math. Soc. Differential equations of all types; motion of the spinning shell.

Nielsen, Dr. Morris L(owell), Monsanto Chemical Co, Anniston, Ala. *General chemistry.* Mission Hill, S. Dak, June 22, 14. A.B, Yankton Col, 34; A.M, South Dakota, 35; univ. scholar, Wisconsin, 38–41, Ph.D, 41. Asst. instr. chem, Yankton Col, 32–34; Wisconsin, 38–40; *research chemist, Monsanto Chem. Co, 41–* Chem. Soc; Electrochem. Soc. The co-deposition of tungsten and nickel from an acid plating bath.

Nielsen, Prof. Ralph F(rederick), Pennsylvania State College, State College, Pa. *Chemistry.* Blair, Nebr, Sept. 14, 01. B.S, Nebraska, 24, Ph.D, 27; M.S, California, 25. Research chemist, Int. Combustion Eng. Corp, 27–28; U. S. Rubber Co, 28–30; instr. chem, Kans. State Col, 30–33; research, Copenhagen, 33–35; prof, St. Benedict's Col, 35–37; research engineer, Stanolind Oil and Gas Co, 37–40; *asst. prof. petrol. and nat. gas, Pa. State Col, 40–* Chem. Soc. Electrode potentials; free energy; activity coefficients; petroleum production; thermodynamics; solutions.

Nielsen, Dr. Russell A(nton), 1435 Elm St, Wilkinsburg, Pa. *Physics.* Portland, Oregon, Jan. 19, 12. A.B, Stanford, 33, A.M, 34, fellow, 36, Ph.D, 37. Teaching asst. physics, Stanford, 34–36; *research engineer, Westinghouse Research Labs, 37–* Physical Soc. Conduction of electricity in gases; air cleaning, electrostatic method.

Nielsen, Prof. Walter M, Duke University, Durham, N. C. *Physics.* Tyler, Minn, Dec. 18, 00. B.S, Minnesota, 22, Ph.D, 25. Teaching fellow, Minnesota, 22–25; instr. *physics, Duke,* 25–28, asst. prof, 28–37, *prof, 37–, chairman dept, 38–* Nat. research fellow, 29–30. Physical Soc. Negative ion formation and band spectrum of mercury vapor; nature of atomic impacts; secondary effects of cosmic rays.

Nielson, Dr. Paul E(lls), Washington University, St. Louis, Mo. *Anatomy.* Ephraim, Utah, March 26, 15. A.B, Utah, 36, A.M, 38; Ph.D, Wisconsin, 41. Teaching asst. biol, Utah, 35–38; asst. *anat,* Wisconsin, 38–40, teaching fellow, 40–41; *asst, Washington (St. Louis), 41–* Physiology and anatomy of the placenta; aging.

Niemann, Prof. Carl (George), California Institute of Technology, Pasadena, Calif. *Organic chemistry.* St. Louis, Mo, July 6, 08. B.S, Wisconsin, 31, Ph.D, 34. Research assoc, Wisconsin, 34–35; fellow, Gen. Educ. Board, 35–36; asst. chem, Rockefeller Inst, 36–37; asst. prof. *org. chem, Calif. Inst. Tech,* 37–43, *assoc. prof, 43–* Rockefeller Foundation fellow, 37–38. A.A; Chem. Soc; Soc. Biol. Chem. Carbohydrate chemistry; chemistry of the amino acids and proteins; chemistry of the lipids; synthetic organic chemistry.

Nier, Prof. Alfred O(tto Carl), University of Minnesota, Minneapolis, Minn. **7Physics.* St. Paul, Minn, May 28, 11. B.E, Minnesota, 31, M.S, 33, Ph.D, 36. Nat. research fellow, Harvard, 36–38; asst. prof. *physics, Minnesota,* 38–40, *assoc. prof, 40–* Fel. Physical Soc. Separation of and measurement of relative abundances of isotopes.

Nierman, Prof. John L(ewis), Texas College of Arts and Industries, Kingsville, Texas. *Chemistry.* Howell, Mo, Feb. 11, 87. B.S, Missouri, 18, A.M, 19, fellow, 23–24, Ph.D, 24. Head dept. chem, Sweet Briar Col, 19–23; *prof. chem. and director science research, Texas Col. Arts and Indust, 23–* Radioactivity; agricultural chemistry.

Nigg, Dr. Clara, 25 Palmer Square, Princeton, N. J. *Bacteriology, Virology.* Waco, Nebr, June 13, 97. A.B, Kansas, 21, A.M, 26, Ph.D, 29. Instr. bacter, Kansas, 23–26, 27–29; serologist, Queens Hosp, Honolulu, 26–27; mem. research staff, Rockefeller Inst, 29–37; director influenza research lab, State Dept. Health, Minn, 37–41; *in charge virus div, E. R. Squibb and Sons, 41–* Clin. instr, med. sch, Minnesota, 38–41. A.A; Asn. Immunol; Harvey Soc. Virus studies; influenza; lymphogranuloma venereum; typhus.

Nightingale, Dr. Dorothy V(irginia), 607 Ann St, Columbia, Mo. *Organic chemistry.* Ft. Collins, Colo, Feb. 21, 02. A.B, Missouri, 22, A.M, 23; fellow, Chicago, 24–25, 26–27, Ph.D, 28. Instr. *chem, Missouri,* 23–39, *asst. prof, 39–* Hon. fellow, Minnesota, 38. Chem. Soc. (v. pres, Mo. sect, 36). Chemiluminescence of organomagnesium halides; barbituric acids; action of aluminum chloride on alkylbenzenes.

Nightingale, Dr. Gordon T(hayer), 4066 Black Point Road, Honolulu, Hawaii. *Biochemistry.* Northville, Mich, April 6, 97. B.S, New Hampshire, 19, M.S, 21; Ph.D, Wisconsin, 25. Asst, Exp. Sta, New Hampshire, 19–20; Exp. Sta, West Virginia, 20–21; instr, Wisconsin, 21–25; biochemist, dept. hort, N. J. Exp. Sta, 25–35; plant physiologist, grad. sch. trop. agr, Hawaii, and biochemist in charge dept. physiol. and soils, Exp. Sta, Pineapple Producers Cooperative Asn, 35–38; *physiologist, Hawaiian Pineapple Co, 38–* Plant nutrition as related to ecological factors and modification of plant responses by hormone treatment.

Nightingale, Mrs. Gordon T(hayer) (Alice Allen Bailey), 4066 Black Point Road, Honolulu, Hawaii. *Plant pathology.* Omaha, Nebr, Oct. 8, 96. B.S, Nebraska, 20; M.S, Chicago, 21, Ph.D, 32. Teacher, pub. schs, Chicago, 21; lab. aid, market path. lab, bur. plant indust, U. S. Dept. Agr, Chicago, 22, junior pathologist, 22–26, asst. pathologist, 26–35, collaborator, 35–36. Ill. Acad.. Diseases of market vegetables; fusarium diseases of onions; transit and storage diseases of tomatoes; ultra-violet and fungi; botrytis rot of the artichoke; disease in plants compared with human disease.

Nightingale, Harold Watson, 5262 18th N.E, Seattle, Wash. *Sanitation.* Boston, Mass, Dec. 31, 91. B.S, Mass. Inst. Tech, 14; M.S, Washington (Seattle), 25. Sci. asst, Bur. Fisheries, 14–16; sanit. engineer and chemist, Panama Canal Zone, 16–18; consultant, New York and Boston, 20–24; instr. fisheries, Washington (Seattle), 24–25; state sanit. engineer, State Board Health, Wash, 26–34; *sci. consultant, trade waste investigations, Rayonier, Inc, 34–* Crown Zellerbach Corp. Lecturer, Mass. Inst. Tech, 20–24. Naturalist, Int. Ice Patrol oceanog. exped, 14–15. Sanit.C, U.S.A, 18–19, lieut. Pub. Health Asn. Sanitation; fisheries; waste disposal with reference to protection of fish life and to public health.

Nightingale, W(illiam) T(homas), Rock Springs, Wyo. *Geology.* Carbonado, Wash, July 6, 97. B.S, Washington (Seattle), 19, M.S, 24; scholar, Columbia, 19. Geologist, Wash. Geol. Surv, 19; Whitehall Petrol. Corp, Ltd, England and British India, 20–23; consulting geologist, west. Wash. and Oregon, 24; geologist, N. Y. Oil Co, Wyo. and Wash, 24–26; Ohio Oil Co, Mont, Wyo, Colo, Nebr, Utah, N. Mex, Wash. and Oregon, 26–29; *v. pres. and chief geologist, Mountain Fuel Supply Co, Wyo, 29–* Discovery geologist, Powder Wash Gas and Oil Field, Colo, 30; develop. geologist, Clay Basin Oil and Gas Field, Utah; North, Middle and South Baxter Basin Fields, Wyo, Hiawatha Gas and Oil Fields, Colo. and Wyo, 29–42. A.A; fel. Geol. Soc; fel. Am. Geog. Soc; Asn. Petrol. Geol; Petrol. Inst; Min. and Metal. Eng. Sedimentary geology; petroleum and natural gas in non-marine sediments of Powder Wash Field, northwest Colorado; geology of Vermilion Creek gas area in northwest Colorado and southwest Wyoming and of Hiawatha Gas Fields and Baxter Basin Gas Fields; petroleum in non-marine sediments of Eocene Wasatch formation; stratigraphy of southwest Wyoming.

Nigrelli, Dr. Ross F(ranco), New York Aquarium, Bronx Zoo, New York, N. Y. *Parasitology.* Pittston, Pa, Dec. 12, 02. B.S, Pa. State Col, 27; M.S, N. Y. Univ, 29, Ph.D, 36. Teaching fellow, N. Y. Univ, 27–31; N. Y. Zool. Soc. fellow, *N. Y. Aquarium,* 31–32, parasitologist, 32–39, *pathologist, 40–* Field asst, U. S. Dept. Agr, 27; instr, evening and summer sessions, Col. City of N. Y, 39–; sci. consultant, Bingham oceanog. lab, Yale, 43–; consultant, fish and wildlife service, U. S. Dept. Interior, 43– Soc. Parasitol; Soc. Zool; Micros. Soc; fel. N. Y. Acad; fel. N. Y. Zool. Soc. Protozoology and helminthology; animal pathology; aquatic biology.

Nikiforoff, Prof. C(onstantin) C(onstantinovich), U S. Department of Agriculture, Washington, D. C. *Soils.* Pskov, Russia, Aug. 3, 86. Zurich, 05–07; Ph.D, St. Petersburg, 12. Soil expert, Dept. Agr. and Land Improv, Russia, 12–14; instr. soils, Minnesota, 27–29, asst. prof, 30–31; soil technologist, bur. chem. and soils, *U. S. Dept. Agr,* 31–36, *soil scientist, bur. plant indust, 36–* Expeds, Siberia, 09–14. Dockouchaev's soil cmt, Russia, 12–17. A.A; Soil. Sci. Soc; Soc. Agron; fel. Am. Geog. Soc; Asn. Geog; N. Y. Acad; Wash. Acad; Int. Soc. Soil Sci. Soil morphology, genesis, classification and geography.

Nikitin, Dr. A(lexander) A, Tennessee Copper Co, Copperhill, Tenn. *Colloid chemistry.* Moscow, Russia, June 15, 94. Ch.E, Moscow Imp. Tech. Inst, 15; B.S, Mass. Inst. Tech, 20; Crop Protection Inst. fellow, Delaware, 32–37; Ph.D, Columbia, 37. Research chemist, U. S. Rubber Co, New York, 22–28, Passaic, N. J, 28–31; *mem. research dept, Tenn. Copper Co, 37–; major, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc; Phytopath. Soc; Tenn. Acad. Development of new copper fungicides from the standpoint of physical and chemical properties; catalysts used in rubber industry; correction of the rarer element deficiencies.

Nile, Dr. S(tephen) W(aters), Princeton University, Princeton, N. J. *Physics.* Camborne, Cornwall, Eng, Sept. 11, 03. A.B, Reed Col, 27; Ph.D, N. Y. Univ, 31. Teaching fellow physics, N. Y. Univ, 27–28, *instr,* 28–31, math, 31–32; *physics,* Hamilton Col, 32–41; *Princeton, 41–* Physical Soc; Asn. Physics Teachers. Band spectra; quantum mechanics.

Niles, Prof. Alfred S(alem), Stanford University, Calif. *Aeronautics.* Baltimore, Md, Oct. 11, 94. A.B, Hopkins, 15; B.S, Mass. Inst. Tech, 17, Harvard, 17. Struct. engineer in charge structures unit, airplane sect, material div, McCook Field, Ohio, A.C, U.S.A, 20–27; *prof. aeronaut. eng, Stanford, 27–* Visiting prof, Mass. Inst. Tech, 41. Summer, struct. engineer, Consol. Aircraft Co, Ohio, 27. Fel. Inst. Aeronaut. Sci; assoc. Civil Eng; Mech. Eng; Newcomen Soc, London. Structural strength of airplanes; stress analysis of airplane structures; determination of loads on an airplane in flight; comparison of various types of metal airplane wing spars.

Nilson, Prof. E(dwin) N(orman), 31 Woodbridge St, South Hadley, Mass. *Mathematics.* Wethersfield, Conn, Feb. 13, 17. B.S, Trinity Col. (Conn), 37; Mary Terry fellow from Trinity Col. (Conn), Harvard, 37–38, A.M, 38, Ph.D, 41. Instr. and tutor *math,* Harvard, 39–41; instr, Maryland, 41–42; *asst. prof, Mt. Holyoke Col, 42–* Summer, asst. statistician, Air Corps, U. S. Army, 42. Math. Soc. Analysis.

Nilson, Dr. Hugo W(aldemar), Fisheries Technological Laboratory, College Park, Md. *Biochemistry.* Minneapolis, Minn, April 1, 01. B.S, Minnesota, 24, Ph.D, 34; M.S, Iowa State Col, 27. Asst, Iowa State Col, 28; chemist, Swann Chem. Co, 28–31; asst, Minnesota, 34, nat. research fellow biol. sciences, Mayo Foundation, 35–37; *assoc. pharmacologist, fish and wildlife service, U. S. Dept. Interior, 37–* A.A; Chem. Soc. Vitamin and mineral metabolism; biochemistry of proteins and fats; nutrition.

Nimmo, Dr. Charles C(olvin), 319 Carmel Ave, El Cerrito, Calif. *Chemistry.* Los Angeles, Calif, Oct. 18, 14. A.B, Stanford, 36, A.M, 37, Ph.D, 42. Asst. liver protein research, Stanford, 38–40; chemist, Hyland Labs, 41–42; *asst. chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc. Organic and biological chemistry; recovery of tartaric acid from winery wastes; liver proteins and serum proteins and relation between them.

Nims, Prof. A(lbert) A(rmstrong), 120 Ashland Ave, Bloomfield, N. J. *Electrical engineering.* Montague, Mass, Aug. 1, 86. B.S, Worcester Polytech, 08, E.E, 11. Instr. physics, Worcester Polytech, 09–11; draftsman and tester, Murphy Elec. Rectifier Co, N. Y, 11–12; elec. designer, Crocker Wheeler Co, N. J, 12–19; engineer, Siemund Wenzel Elec. Welding Co, New York, 19–22; from instr. to *prof. elec. eng, Newark Col. Eng, 22–* Instr, evening sch, Cooper Union, 17–18; Newark Tech. Sch, 18–35. Elec. Eng; Eng. Educ. Electrical machinery.

Nims, Dr. L(eslie) F(rederick), 333 Cedar St, New Haven, Conn. *Physical chemistry.* Salt Lake City, Utah, June 15, 06. B.S, Utah, 27, A.M, 28; fellow, Yale, 30–31, Ph.D, 31. Asst. chem, *Yale,* 28–30, asst. *physiol,* 31–33, instr, 33–38, *asst. prof, 38–* Physiol. Soc; Chem. Soc. Electrophysiology; ionization constants of weak acids; hydrogen ion concentration measurements in living systems.

Nininger, H(arvey) H(arlow), 635 Fillmore St, Denver, Colo. *Meteoritics, Natural history.* Conway Springs, Kans, Jan. 17, 87. A.B, McPherson Col, 14, hon. Sc.D, 37; A.M, Pomona Col, 16. Prof. biol, La Verne Col, 14–18; field agent, bur. entom, U. S. Dept. Agr, 18–19; prof. biol, Southwestern Col. (Kans), 19–20; McPherson Col, 20–30; *curator meteorites, Colo. Museum Nat. Hist, 30–* Lecturer, Pomona Col, 16; instr, Denver. Director, Nininger Lab. Meteoritic Research, 30–Summers, field agent, Kans. Entom. Cmn, 19; director, Rocky Mt. Summer Sch, 22–30; field rep, Smithsonian Institution, 32. McPherson Col. biol. exped, Great Basin, 21, director nat. hist. trek, 27–28, nat. hist. exped, Mex, 29; conductor meteorite surv, 23– A.A; Soc. Research Meteorites (sec'y, co-editor, 'Contributions'; pres, 36–41); Ornith. Union; Nat. Asn. Audubon Societies; Kans. Audubon Societies (v. pres); Kans. Acad. (pres, 25). Meteorites of the world; meteorite craters.

Nisbet, J(ohn) M, Cities Service Oil Co, 705 Masonic Empire Bldg, Bartlesville, Okla. *Geology.* Virginia, Ill, April 6, 94. A.B, Stanford, 16. Geologist, Empire Companies, 16–25, asst. chief geologist, 26–28, chief geologist, 29–37, manager land and geol. div, 33–37; consulting geologist, 37–39; *manager land and geol. div, Cities Service Oil Co, 39–, v. pres, 43–* Asn. Petrol. Geol; Min. and Metal. Eng. Petroleum geology.

Nissen, Bryn H, 5875 Walsh St, St. Louis, Mo. *Chemistry.* Cathlamet, Wash, April 25, 96. B.S, Wisconsin, 22, M.S, 23. Research chemist, Blue Valley Creamery Co, Chicago, 23–31; *chief chemist brewery div, Anheuser-Busch, 31–* Chem. Soc; Soc. Brewing Chemists. Catalysis; corrosion resistance of metals; lactose solubility in dairy products; butter salts; relationship of hydrogen ion concentration to titratable acidity; malt and beer collaborative analyses; composition of beer foam; behavior of dextrin in beer; color and turbidity.

Nissen, Prof. Henry W(ieghorst), Yerkes Laboratories of Primate Biology, Orange Park, Fla. *Psychology.* Chicago, Ill, Feb. 5, 01. A.B, Illinois, 23; A.M, Columbia, 27, fellow, 28–29, Ph.D, 29. Asst. psychol, Barnard Col, Columbia, 27–28; research assoc. comp. psychol, *Yale,* 29–33, asst. prof. *psychobiol,* 33–39, *assoc. prof, 39–, asst. director labs. primate biol, 39–* Instr, exten, Columbia, 27. Exped, French Guinea, Africa, 30. A.A; Psychol. Asn; Soc. Exp. Psychol; Soc. Nat; East. Psychol. Asn; fel. N. Y. Acad; Fla. Acad. Comparative psychobiology, especially of chimpanzee; perception; learning; social behavior; motivation; development.

Nisson, Dr. P(hilip) S(amuel), Pure Oil Co, 35 E. Wacker Drive, Chicago, Ill. *Chemistry.* Boston, Mass, Oct. 19, 00. A.B, Harvard, 20; Ph.D, Columbia, 24. Instr, Columbia, 20–22; *chemist,* Gray Indust. Labs, 24–31; Gray Process Corp, 31–33; *Pure Oil Co, 33–* Chem. Soc. Petroleum.

Nitardy, F(erdinand) W, E. R. Squibb and Sons, 25 Columbia Heights, Brooklyn, N. Y. *Chemistry.* Triebsees, Germany, July 25, 84. Ph.G, Northwestern, 07, Ph.C, 08. Chief chemist, Scholtz Drug Co, Denver, 08–17; chief pharmaceut. mfg. div, *E. R. Squibb and Sons,* 17–18, supt, Brooklyn plant, 18–19, gen. supt, New Brunswick chem. plants and Brooklyn plants and labs, 19–30, v. pres. in charge mfg, 30–43, *v. pres, 43–; tech. director and v. pres, Inter-Am. Corp, 43–* Mem. revision cmt, U. S. Pharmacopoeia, 20–30. A.A; Chem. Soc; Pharmaceut. Asn. (v. pres, 18, councilor, sect. officer). Pharmacy.

Nitchie, Charles C(arter), 138 Dorchester Road, Rochester, N. Y. *Chemistry.* Evanston, Ill, Nov. 29, 81. A.B, Cornell, 05. Chemist, Mineral Point Zinc Co, 05–21; research investigator, N. J. Zinc Co, 21–30; *indust. sales, Bausch and Lomb Optical Co, 30–* Cmt. application of spectroscopy to chem, Nat. Research Council. Chem. Soc. (chairman, Lehigh Valley sect, 26, councilor, 27); Optical Soc. (pres, Rochester sect, 35–36); Soc. Metals; Soc. Test. Mat. (sec'y, cmt. spectrographic anal, 32–38). Applied spectroscopy and optics; metallurgical chemical analysis; quantitative spectrographic analysis.

Nitz, Dr. Otto W(illiam) J(ulius), 523 Sixth Ave, Havre, Mont. *Organic chemistry.* Sigourney, Iowa, June 25, 05. B.S, Elmhurst Col, 29; M.S, Iowa, 33, Ph.D, 36. Instr, Elmhurst Col, 29–32; asst, Iowa, 33–36; asst. prof. chem, Parsons Col, 36–40, head dept, 37–40; *instr, North. Mont. Col, 40–* Chem. Soc; Mont. Acad. Steric hindrance in vanillin derivatives; isomeric forms of vanillin oximes.

Niven, Dr. C(harles) D(avid), National Research Council, Ottawa, Ont. Can. *Physics.* Scotland, July 16, 97. B.Sc, Aberdeen, 18; Ph.D, Toronto, 28. Dept. manager, Aberdeen Comb Works Co, Ltd, 19–24; research, Toronto, 24–28; asst. research physicist and later *assoc. research physicist, Nat. Research Council Can, 29–* Conductivity of metals at very low temperatures; heat conductivity; vibration in transmission lines; temperature standardization; temperature control in heated refrigerator cars.

Niven, Prof. Ivan (Morton), Purdue University, Lafayette, Ind. *Mathematics.* Vancouver, Can, Oct. 25, 15. B.A, British Columbia, 34, M.A, 36; Ph.D, Chicago, 38. Harrison fellow *math,* Pennsylvania, 38–39; instr, Illinois, 39–42; *Purdue,* 42–43, *asst. prof, 43–* Math. Soc; Math. Asn. Theory of numbers; quaternions.

Nix, Dr. Foster C(ary), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Sanford, Ala, Oct. 28, 05. B.S, Alabama, 24; M.S, Mo. Sch. Mines, 25; Ph.D, Berlin, 29. Research metallurgist, West. Elec. Co, 25–26; *research physicist, Bell Tel. Labs, 29–* Physical Soc. Photoconductivity; metallic equilibria; x-ray crystal structure; semiconductors.

Nix, Dr. James T(homas), 1407 S. Carrollton Ave, New Orleans, La. *Medicine.* Greenville, S. C, May 31, 87. B.S, Tulane, 06, M.D, 10; A.M, Loyola (La), 18, LL.D, 24. Asst. surg. staff, Tulane, 11–15; *prof.* surg, post-grad. med. sch, *Loyola (La),* 16–18, *gen. surg, sch. dentistry, 26–; prof. surg. and head dept, grad. sch, Louisiana, 31–, prof. surg, undergrad. sch, 31–,* director grad. sch. med, 36, dean, 37–40. Senior surg. staff, Hotel Dieu, New Orleans, 11–, pres. staff, 29; senior surg. staff, Charity Hosp, 31–, director tumor clinic, 33–; J. T. Nix Clinic, 18– Knight St. Gregory, 29; Knight commander Holy Sepulchre, 30. Fel. Southeast. Surg. Cong. A.A; fel. Col. Surg; Am. Med. Asn; Catholic Hosp. Asn. (med. adviser, 33–); South. Med. Asn; La. Med. Soc. (2nd v. pres, 31, v. pres, 32); cor. fel. Inst. Coimbra, Portugal. Cancer; intestinal anastomoses; the unborn.

Nixon, Dr. Alan C(harles), Shell Development Co, Emeryville, Calif. *Organic chemistry.* Workington, Eng, Oct. 10, 08. B.Sc, Saskatchewan, 29, M.Sc, 31; Ph.D, California, 34. Instr. chem, California, 34–36, research fellow, 36–37; *research chem-*

ist, Shell Develop. Co, 37– Chem. Soc. Alcoholyses of organic chlorides; mercaptan extraction; hydrocarbon isomerization.

Nixon, Prof. H(oward) K(enneth), Columbia University, New York, N. Y. *Psychology.* Portland, Ind, 95. A.B, Earlham Col, 17; Ph.D, Columbia, 25. Instr, *Columbia,* 23, *asst. prof. applied psychol, 28–* Psychol. Asn. Applied psychology; application of psychology in writing and advertising.

Nixon, Roy W(esley), U. S. Date Garden, Indio, Calif. *Horticulture.* Dade City, Fla, Aug. 15, 95. B.S.A, Arizona, 22. Nursery work, Fla, Ariz. and Calif, 16–17, 19–23; *date investigations, bur. plant indust, U. S. Dept. Agr, 23–, assoc. horticulturist.* Studied date varieties and culture, U. S. Dept. Agr, Iraq and West Persia, 28–29. U.S.N.R, 17–19. A.A; Soc. Hort. Sci. Subtropical horticulture; dates; metaxenia.

Noback, Dr. Charles R(obert), University of Georgia School of Medicine, Augusta, Ga. *Anatomy.* New York, N. Y, Feb. 15, 16. B.S, Cornell, 36; Columbia, 36–38; M.S, N. Y. Univ, 38; Ph.D, Minnesota, 42. Teaching fellow, N. Y. Univ, 36–39; Minnesota, 40–41; *asst. prof. anat, sch. med, Georgia, 41–* Soc. Vert. Paleont; N. Y. Acad. Sex cycle in the gorilla; developmental anatomy of the skeleton.

Noback, Prof. G(ustave) J(oseph), 11 Groton St, Forest Hills, New York, N. Y. *Anatomy.* New York, N. Y, May 29, 90. B.S, Cornell, 16; A.M, Minnesota, 20, Ph.D, 23. Asst. histol. and embryol, Cornell, 14–16; instr. *anat,* Minnesota, 18–21; assoc. prof, Med. Col. of Va, 21–22, prof, 22–24; asst. prof, *N. Y. Univ,* 24–26, assoc. prof, 26–30, *prof, 30–, head dept. anat. and chairman biol. sciences, grad. sch, 30–* Asn. Anat; Asn. Physical Anthrop; Soc. Research Child Develop; Soc. Med. Jurisprudence (pres); Harvey Soc; N. Y. Acad. Med. Human anatomy; anthropometry; growth; development and growth of the respiratory system; prenatal and postnatal thymus; growth and topography of organs in fetal and infant life; age changes in organs and tissues.

Noble, Prof. Alden E(arl), College of the Pacific, Stockton, Calif. *Zoology.* Korea, Feb. 27, 99. A.B, Ohio Wesleyan, 23; M.S, Ohio State, 24; Hopkins Marine Sta, Stanford, 28; Ph.D, California, 31. Asst. zool, Ohio State, 24–25; *prof.* biol, Chosen Christian Col, Korea, 26–27; asst. *zool,* California, 27–29; asst. prof, *Col. of Pacific,* 29–30, assoc. prof, 30–31, *prof, 31–* Grant in aid, Am. Acad. Arts and Sciences, 36. A.A; Micros. Soc; Soc. Parasitol; Soc. Zool; Soc. Trop. Med. Protozoology; parasitology.

Noble, Dr. Andrewa R, 1495 Seventh Ave, San Francisco, Calif. *Mathematics.* Oregon City, Oregon, March 28, 08. A.B, Pacific, 29; A.M, California, 34, Ph.D, 35. *Instr. math, San Francisco Junior Col, 40–* Math. Soc. Theory of numbers; enumeration of uniform squares.

Noble, Dr. Charles Albert, 2224 Piedmont Ave, Berkeley, Calif. *Mathematics.* Soquel, Calif, Aug. 14, 67. B.S, California, 89, fellow, 96–97; Ph.D, Göttingen, 01. Teacher *math,* high schs, Calif, 89–93; instr, *California,* 97–00, 01–03, asst. prof, 03–11, assoc. prof, 11–19, prof, 19–37, *emer. prof, 37–* A.A; Math. Soc. Partial differential equations; calculus of variations.

Noble, Dr. C(larence) V(ernon), 1460 N. Grove St, Gainesville, Fla. *Agricultural economics.* Federalsburg, Md, Sept. 5, 85. B.S, Cornell, 16, Ph.D, 20. Instr. farm management, Cornell, 16–20, asst. prof, 20–26; *chief dept. agr. econ, Exp. Sta, Florida, 26–* A.A; Econ. Asn; Farm Econ. Asn; Asn. South. Agr. Workers; Fla. Hort. Soc; Fla. Acad. The farm as a home for persons otherwise employed; farm cost accounting; farm management surveys; truck crop competition; types of farming; land utilization; farm prices.

Noble, Prof. Elmer R(ay), Santa Barbara State College, Santa Barbara, Calif. *Zoology.* Pyeng Yang, Korea, Jan. 16, 09. A.B, California, 31, A.M, 33, Ph.D, 36. Instr. *biol, Santa Barbara State Col, Calif,* 36–38, asst. prof, 38–43, *assoc. prof, 43–* A.A; Micros. Soc; Soc. Parasitol; Soc. Zool. Protozoology; parasitology.

Noble, Dr. Glenn A(rthur), San Francisco Junior College, San Francisco, Calif. *Zoology.* Pyeng Yang, Korea, Jan. 16, 09. A.B, California, 31, A.M, 33; Ph.D, Stanford, 40. Asst. zool, Col. of Pacific, 33–35; *instr. biol, San Francisco Junior Col, 35–, chairman dept, 39–* Soc. Parasitol; Soc. Zool. Protozoology; parasitology; anatomy of the turtle; anatomy and physiology of the frog; Accacladium nematulum; Trichodina urechi.

Noble, Dr. John F(ranklin), N. Hamline and Eldridge, St. Paul 8, Minn. *Pathology.* Pittsburgh, Pa, Jan. 27, 94. Pa. State Col; M.D, Pittsburgh, 19. Pathologist, Univ. Hosp, Minneapolis, Minn, 22–24; *assoc. prof. path, Minnesota, 22–* Pathologist, Ancker Hosp, St. Paul, Minn, 24–; St. John's Hosp, 30–; St. Luke's Hosp, 35– Am. Med. Asn; Asn. Path. and Bact; Asn. Cancer Research; Soc. Clin. Path; Minn. Acad. Med. Anatomic pathology; clinical pathology.

Noble, Dr. L(evi) F, Valyermo, Calif. *Geology.* Auburn, N. Y, Nov. 13, 82. A.B, Yale, 05, A.M, 07, Ph.D, 09. Junior geologist, *U. S. Geol. Surv,* 09–12, asst. geologist, 12–17, assoc. geologist, 17–19, geologist, 19–39, *senior geologist, 39–* A.A; Geol. Soc; Seismol. Soc. Geology of the Grand Canyon, Arizona; geology of the Death Valley region and the San Andreas Rift, California; saline deposits in the desert regions of southeastern California and southern Nevada.

Noble, Sister M(ary) Alfred, Fontbonne College, St. Louis, Mo. *Psychology.* St. Louis, Mo, Nov. 20, 06. A.B, Fontbonne Col, 30; A.M, St. Louis, 32; Ph.D, Catholic Univ, 40. Instr. *psychol, Fontbonne Col,* 31–37, *prof. and director dept, 40–* Psychol. Asn; Soc. Research Child Develop; Midwest. Psychol. Asn. Statistics.

Noble, Dr. M(ax) V(ernon), 12 Klauder Road, Kenmore, N. Y. *Physical chemistry.* New Concord, Ohio, Sept. 12, 15. B.S, Muskingum Col, 37; Ph.D, Ohio State, 41. *Research chemist Cellophane research, rayon dept, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Thermodynamics and physical chemistry of solutions; cellulose sponges; cellulose tubing.

Noble, Ralph E(dwin), 10140 Rhodes Ave, Chicago, Ill. *Bacteriology.* Enfield Center, N. Y, Sept. 3, 95. B.S, Cornell, 21. Junior bacteriologist, stream pollution investigations, U. S. Pub. Health Service, 21–24; senior bacteriologist, *bur. labs, Board Health, Chicago,* 26–29, *prin. bacteriologist, 29–* Soc. Bact; fel. Pub. Health Asn; Water Works Asn; Soc. Ill. Bact. (sec'y-treas, 40). Direct plating culture media and productivity measurements of fermentation media for growing coli-aerogenes organisms from water and sewage.

Noble, Dr. R(obert) L(aing), McGill University, Montreal, Que, Can. *Physiology.* Toronto, Ont, Feb. 3, 10. M.D, Toronto, 34, Ellen Mickle fellow, 34–35; Leverhulme fellow, Royal Col. Physicians, London, 35–38, Ph.D, 37. *Royal Soc. London Allen Johnson and Lawrence fellow, Courtauld Inst. Biochem, Middlesex Hosp, London, England, 39–; research asst, McGill, 39–* Asst. ed, 'Jour. Endocrinol,' 39. David Dunlap prize, Toronto, 34. Physiol. Soc; Can. Physiol. Soc; Physiol. Soc. England; Royal Soc. Med. Physiology of endocrine glands and related subjects; endocrinology.

Noble, W(illis) B(ernard), Box 1857, Sacramento, Calif. *Entomology.* Auglaize Co, Ohio, March 23, 98. B.S. (Agr), Ohio State, 22. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 22–26, asst. entomologist, 26–38, *assoc. entomologist, 38–* A.A; Asn. Econ. Entom; Entom. Soc. Amer. Cereal and forage insects.

Noble, Dr. W(illis) C(larke), Jr, 1 Madison Ave, New York, N. Y. *Bacteriology, Hygiene.* Peking, China, May 19, 85. Ph.B, Yale, 06, Ph.D, 13; M.D, N. Y. Univ, 25. Instr. bacter, Univ. and Bellevue Hosp. Med. Col, 14, lecturer, 14–17, asst. prof. hygiene, 17–20, bacter, 20–28; director bacter. lab, Metropolitan Life Ins. Co, 25–34; *clin. asst. visiting physician, third med. div, Bellevue Hosp, New York, 34–; clin. asst. attending physician, col. med, N. Y. Univ, 40–* Bacteriologist, Dept. Health, New York, 13–14; in charge branch lab, State Dept. Health, N. Y, 14–25; State Cmn. on Ventilation, N. Y, 13–16. A.A; Soc. Bact; Asn. Immunol; Soc. Exp. Biol; Harvey Soc. Public health bacteriology; tetanus; diphtheria; etiology of acute respiratory infections; disinfection; influence of external temperatures on the formation of immune bodies; immunization with single and multiple strain vaccines; bacterial flora of the upper respiratory tract; filterable viruses; rheumatic fever; rheumatic heart disease.

Nobles, Dr. Mildred K(atharine), Central Experimental Farm, Ottawa, Ont, Can. *Mycology.* Ont, Can, June 7, 03. Hon. B.A, Queen's (Can), 29; M.A, Toronto, 31, Ph.D, 35. Asst, div. bot. and plant path, science service, *Dom. Dept. Agr,* 35–40, *junior plant pathologist, 40–* Mycol. Soc. Wood-inhabiting fungi.

Noecker, Dr. Norbert L(lewellyn), Box 126, Notre Dame, Ind. *Plant physiology and pathology.* Hesper, Iowa, Aug. 6, 06. A.B, Iowa State Teachers Col, 30; M.S, Iowa State Col, 32; Ph.D, Wisconsin, 37. Technician forest path, U. S. Dept. Agr, 33–34, asst. pathologist, bur. plant indust, 34, tech. foreman forestry, 35, agent forest path, 37–38; asst. bot, Wisconsin, 35–37; instr. *biol, Notre Dame,* 39–42, *asst. prof, 42–* A.A; Bot. Soc; Soc. Plant Physiol; Mycol. Soc; Phytopath. Soc; Ind. Acad. Nutrition of fungi; vitamins; herbicides in connection with lawn improvement; role and the biosynthesis of vitamins in various kinds of plants from the microorganisms to the higher green plants.

Noehren, Dr. Alfred H(enry), 88 Morris Ave, Buffalo, N. Y. *Medicine.* Menomonee Falls, Wis, July 13, 79. A.B, Col. City of N. Y, 00; M.D, Columbia, 05. Instr. anat, *med. sch, Buffalo,* 08–12, assoc. *surg,* 12–34, *asst. prof, 34–* Surgeon, Deaconess Hosp, 10–; Buffalo City Hosp, 20– Am. Med. Asn; fel. Col. Surg; Asn. Study Goiter; N. Y. State Med. Soc. (chairman sect. surg); Erie County Med. Soc. (treas, 27–30); Buffalo Acad. Med; Buffalo Surg. Soc; Buffalo Soc. Nat. Sci. Surgery of the thyroid gland.

Noel, Edward B(ernard), Lamp Development Laboratory, Nela Park, Cleveland, Ohio. *Electrical engineering.* St. Louis, Mo, May 17, 07. B.S, Illinois, 28, fellow, 28–29, M.S, 29, E.E, 40. *Mem.* eng. gen. dept, *Gen. Elec. Co,* 29–33, *lamp develop. lab, 33–* Electric discharge lamps with special emphasis upon high pressure mercury arcs; applied physics.

Noer, Dr. Rudolf J(uul), 1512 St. Antoine St, Detroit, Mich. *Surgery.* Menominee, Mich, April 25, 04. A.B, Wisconsin, 24; M.D, Pennsylvania, 27. Asst. anat, Wisconsin, 32–34, res. surg, 34–37, instr, 36–37; fellow surg. research, *col. med, Wayne,* 37–38, instr. and *asst. prof. surg, 38–* Res, Wis. Gen. Hosp, 34–37. Am. Med. Asn; fel. Col. Surg; Cent. Surg. Asn. Intestinal obstruction and its treatment; x-ray localization in the diagnosis of intestinal obstruction; intestinal circulation in man and laboratory animals.

Nolan, Dr. Philip, Lawrence College, Appleton, Wis. *Physics.* Los Angeles, Calif, July 20, 08. A.B, California at Los Angeles, 29; A.M, California, 31, Ph.D, 34. Asst. physics, California, 29–33; *research and teaching asst, Inst. Paper Chem, Lawrence Col, 34–* Photographic and photoelectric spectrophotometry.

Nolan, Dr. Thomas B(rennan), U. S. Geological Survey, Washington, D. C. *[*5]Geology.* Greenfield, Mass, May 21, 01. Ph.B, Yale, 21, Ph.D, 24. Junior geologist, *U. S. Geol. Surv,* 24–26, asst. geologist, 26–29, assoc. geologist, 29–34, geologist, 34–39, senior geologist, 39–43, *prin. geologist, 43–* Spendiaroff prize, Int. Geol. Cong, 33. Geol. Soc; Soc. Econ. Geol. (councilor, 39–41); Miner. Soc; Geophys. Union; Geol. Soc. Wash. Economic geology; geology of the Great Basin; tungsten deposits.

Nolan, W(illis) J(ames), U. S. Department of Agriculture, Beltsville, Md. *Apiculture.* Cleveland, Ohio, April 11, 91. A.B, Western Reserve, 14; A.M, Illinois, 17. Asst. biol, Western Reserve, 14–16; asst. apiculturist and *senior apiculturist, bur. entom. and plant quarantine, U. S. Dept. Agr, 21–* U.S.A, 17–19. Asn. Econ. Entom. (chairman, apicultural sect, 36); fel. Apis Club. Bee behavior; bee breeding.

Noland, Prof. Lowell E(van), 1723 Summit Ave, Madison, Wis. *Protozoology.* Lee, Ind, July 15, 96. A.B, DePauw, 17; A.M, Wisconsin, 21, Ph.D, 24. Teacher, high sch, Ind, 17–18, 19–20; asst. *zool, Wisconsin,* 20–21, instr, 21–25, asst. prof, 25–31, assoc. prof, 31–35, *prof, 35–* A.A; Soc. Zool; Ecol. Soc; Soc. Parasitol; Micros. Soc. (pres, 39); Soc. Nat; Limnol. Soc; Entom. Soc. Amer; Wis. Acad. (sec'y-treas, 30–33). Invertebrate zoology.

Nold, Prof. H(arry) E(llsworth), 248 Oakland Park Ave, Columbus, Ohio. *Mining.* Leetonia, Ohio, Nov. 4, 83. E.M, Ohio State, 10. Superintendent, Starr Hocking Coal Co, 11–12; chief engineer, Jasper Park Collieries Co, 12–15; metal. dept, Ill. Steel Co, Gary, Ind, 15–16; asst. prof. *mine eng, Ohio State,* 16–21, *prof. and chairman dept, 21–* Min. and Metal. Eng. (sec'y, coal div, 35–; Ohio sect, 34, chairman, 36); Ohio Acad. Coal; clay; clay mining problems; mining hazards.

Nolf, Dr. L(uther) O(wen), University of Iowa, Iowa City, Iowa. *Parasitology.* Solomon, Kans, July 16, 02. B.S, Kans. State Col, 26, M.S, 29; Sc.D, Hopkins, 31. Asst. parasitol, Kans. State Col, 27–29; helminthol, Hopkins, 29–31; assoc. zool, Iowa, 31–37, asst. prof, 37–41; assoc. director, Iowa Lakeside Lab, 34–41. Helminthology; medical entomology.

Noll, Prof. Charles F(ranklin), Pennsylvania State College, State College, Pa. *Agronomy.* Green Park, Pa, 78. B.S, Pa. State Col, 06; M.S, Cornell, 11, Ph.D, 23. Special field asst, div. zool, State Dept. Agr, Pa, 06–07; *proj.* exp. agron, *Pa. State Col,* 08–39, *agron, 39–, head dept, 39–* Soc. Agron. Field tests with fertilizers and lime; strains and varieties of field crops; breeding of oats and wheat; plant genetics.

Noll, Dr. C(larence) I(rwin), Pond Chemical Laboratory, State College, Pa. *Organic chemistry.* Palmyra, Pa, Feb. 29, 08. B.S, Lebanon Valley Col, 30; M.S, Trinity Col. (Conn), 32; Mallinckrodt fellow, Pa. State Col, 36–37, Ph.D, 38. Asst. chem, Trinity Col. (Conn), 30–33; Pa. State Col, 34–36; research chemist, Borden Co, 37–41; *instr. org. research, Pa. State Col, 41–* Summer, asst, Pa. State Col, 34. Chem. Soc. Hydrolysis of nitriles; organic synthesis; chemistry of dairy products; explosives.

Noll, Prof. (Frederick Henry) Waldemar, Berea College, Berea, Ky. *Physics.* Lansing, Iowa, June 26, 93. A.B, Iowa, 17, Ph.D, 33; M.S, Ohio State, 22. Instr. science and math, Graceland Col, 17–18; asst. prof. physics, The Citadel, 20–21; instr. science and math, Red Oak Junior Col, Iowa, 22–24; *head dept. physics, Berea Col, 24–, prof, 27–* Summer, instr, Bradley Polytech, 22. U.S.A, 18–20. Physical Soc; Asn. Physics Teachers; Ky. Asn. Physics Teachers; Ky. Acad. X-ray diffraction in liquids.

Noll, Dr. V(ictor) H(erbert), Michigan State College, East Lansing, Mich. *Psychology.* Pittsburgh, Pa, Oct. 1, 00. B.S, Pa. State Col, 22; A.M, Minnesota, 27, Ph.D, 29. Teacher, high sch, Pa, 22–25; chemist and inspector, Pittsburgh Testing Lab, 25–26; instr, univ. high sch, Minnesota, 26–27, asst. and instr. educ. psychol, univ, 29–30; educ. specialist, Nat. Surv. Secondary Educ, 30–32; assoc. research, inst. sch. exp, Teachers Col, Columbia, 32–34; prof. educ. and psychol. and head dept, R. I. State Col, 34–38; assoc. prof. *educ, Mich. State Col,* 38–39, *prof. and head dept, 39–; lieut, U. S. Naval Res, 43–* Staff mem, Surv. Higher Educ, Oregon, 30. Summer, visiting prof, George Washington, 31; Syracuse, 33; West Virginia, 34–38. A.A; Psychol. Asn; Nat. Asn. Research Sci. Teaching. Psychology of learning; measurement of social attitudes; mental tests; aptitude and achievement testing in natural sciences.

Noll, Prof. W(illiam) C(larence), 648 E. 11th St, York, Nebr. *Biology.* Ord, Nebr, 92. A.B, York Col, 11; A.M, Nebraska, 15, Ph.D, 43. *Prof. biol,* Leander Clark Col, 16–18; York Col, 18–28; Col. of Emporia, 28–33; *York Col, 36–* Micros. Soc. Parasitology; plant ecology.

Nolla, Dr. J(osé) A(ntonio) B(ernabé), University of Puerto Rico, Rio Piedras, P. R. *Plant pathology, Genetics, Agriculture.* Camuy, P. R, May 22, 02. B.S.A, Puerto Rico, 23; M.S, Cornell, 26, Ph.D, 32. Exten. service, Insular Dept. Agr, P. R, 23–24; asst. plant pathologist, Insular Exp. Sta, 24–30; dept. plant path, Cornell, 30–32; Guggenheim Mem. Foundation fellow, Cornell and Wisconsin, 32–33; asst. commissioner agr, P. R, 33–38; director, Tobacco Inst. of P. R, 36–38; *director, Exp. Sta, Puerto Rico, 38–* Special adviser to ministry agr, Venezuela, 36. Mem. agr. mission, Colombia, S. Amer, 29. A.A; Genetic Asn; Phytopath. Soc; Bot. Soc; Agr. Hist. Soc; Soc. Agr. Sci; Torrey Bot. Club; Britton-Stahl Bot. Club; Real Soc. Española de Hist. Nat. Diseases of tobacco and vegetables; tobacco breeding; disease resistance of tobacco and eggplant; genetics of Nicotiana; Latin-American agriculture.

Nollau, E(dgar) H(ugo), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* St. Louis, Mo, Aug. 25, 91. B.S, Kentucky, 14. Asst. to research chemist, Exp. Sta, Kentucky, 14–15; asst. ed, 'Exp. Sta. Record,' U. S. Dept. Agr, 15–16; research chemist and div. head, *E. I. du Pont de Nemours and Co,* Wilmington, 17–23, chem. supt, Newburgh, N. Y, 23–33, *staff asst, Wilmington office, 33–* Chem. Soc; fel. Inst. Chem; Ky. Acad. Biochemistry; colloids relative to sol-gel system as applied to certain phases of industrial work; cellulose ester dispersions; dispersing media; synthetic resins.

Noller, Prof. Carl Robert, Stanford University, Calif. *[*7]Organic chemistry.* St. Louis, Mo, Nov. 10, 00. B.S, Washington (St. Louis), 22, M.S, 23; Ph.D, Illinois, 26. Instr. chem, Illinois, 26; Northwestern, 26–27; research chemist, Eastman Kodak Co, 27–29; from asst. prof. to *prof. chem, Stanford, 29–* Guggenheim Mem. Foundation fellow, 33; visiting lecturer,

Harvard, 38–39. Asst. ed, 'Annual Rev. Biochem,' 38. Mem. board of eds, 'Org. Syntheses.' A.A; Chem. Soc. Synthetic organic chemistry; Grignard reaction; saponins; alkaloids.

Nonidez, Prof. José F(ernandez), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Anatomy.* Madrid, Spain, Feb. 22, 92. M.S, Madrid, 13, D.Sc, 14. Asst. zool, Columbia, 18–19; research assoc, Carnegie Institution, 19–20; from instr. to asst. prof. *anat, med. col, Cornell,* 20–37, *prof, 37–* Traveling scholar, Spanish Govt, 17–19. Marine Biol. Lab, Woods Hole. A.A; Asn. Anat; Harvey Soc; Acad. Sci. Madrid. Cytology of insects; avian gonads; avian rickets; innervation of the thyroid and supracardial paraganglia; critique of the theory of the nervous terminal reticulum; pressoreceptor areas of the aorta and large veins; innervation of the heart; arterio-venous anastomoses in sympathetic ganglia.

Norcross, T(heodore) W(hite), U. S. Forest Service, Washington, D. C. *Engineering.* Medford, Mass, Jan. 25, 83. B.S, Tufts Col, 04, hon. M.S, 35. Field asst. and hydrographic aid, U. S. Geol. Surv, 04–07, dist. engineer, 09–10; chief office and asst. res. engineer, water dept, Springfield, Mass, 07–09; dist. engineer, *U. S. Forest Service,* Denver, Colo, 10–13, asst. chief engineer, 13–20, *chief div. eng, 20–* Soc. Photogrammetry; Civil Eng; Soc. Foresters; Forestry Asn.

Nord, Prof. F(riedrich) F(ranz), Fordham University, New York 58, N. Y. *Biochemistry, Organic chemistry.* Budapest, Hungary, Aug. 9, 89. Tech. Hochschule, Berlin; Tech. Hochschule, Karlsruhe; Sc.D, Berlin, 14. Instr, Inst. Tech, Karlsruhe, 12–13; research assoc, Kaiser Wilhelm Inst, Berlin-Dahlem, 14–20; Berlin, 21–38; Gen. Ed. Board traveling fellow, U. S, 25–27; chief of research, Germany, 33–38; *prof. chem, Fordham, 38–* Visiting prof, Japan and India, 27. Founder and ed, 'Ergebnisse der Enzymforschung,' 32–39; ed, 'Advances in Enzymology,' 40–; 'Archives of Biochem,' 42– Mem. German Cmn. Food Research, 33–39. Lieut, U. S. Army, and consultant, U. S. War Dept, 14–18. A.A; Chem. Soc; Soc. Biol. Chem; N. Y. Acad; Biochem. Soc. Gt. Britain; Bunsen Gesell; Deuts. Chem. Gesell; Verein Deuts. Chemiker. Catalysis; cryolysis; enzymology; fermentation; effects of low temperature on colloids; organic reaction mechanisms.

Nordberg, Dr. Martin E, 244 Chemung St, Corning, N. Y. *Chemistry.* Boone, Iowa, April 17, 02. B.S, Iowa State Col, 24, M.S, 25; Ph.D, Calif. Inst. Tech, 28. Teaching fellow, Iowa State Col, 24–25; Calif. Inst. Tech, 25–28, asst, 28–29; *chemist, Corning Glass Works, 30–* Chemist, R. C. Burt Sci. Labs, 28–29. Chem. Soc. Reaction velocities; glass.

Nordblom, Dr. George F(rederick), 4719 Oakland St, Philadelphia, Pa. *Physical chemistry.* Toronto, Ont, Can, Nov. 19, 13. B.S, Pittsburgh, 36; Potlatch Forest fellow, Idaho, 36–37, M.S, 37; Ph.D, Cincinnati, 41. Asst, Cincinnati, 37–41; *asst. chemist, Frankford Arsenal, 42–* Chem. Soc. Surface tension and electromotive force in amalgam concentration cells.

Nordby, J(ulius) E(dward), U. S. Department of Agriculture, Dubois, Idaho. *Animal husbandry.* Soldier, Iowa, April 27, 87. B.S, Idaho, 15; M.S, Illinois, 16. Instr. animal husbandry, Idaho, 16–17, asst, 19, assoc, 22–38; *director west. sheep breeding lab. and sheep exp. sta, bur. animal indust, U. S. Dept. Agr, 38–* A.S, U.S.A, 18. Soc. Animal Production. Animal breeding and production.

Nordgaard, Prof. Martin A(ndrew), Upsala College, East Orange, N. J. *Mathematics.* Northwood, Iowa, Jan. 29, 82. A.B, St. Olaf Col, 03; Chicago, 12–13; A.M, Maine, 14; Pennsylvania, 17–18; Ph.D, Columbia, 22. Teacher, secondary schs, 03–12; instr. math, Maine, 13–16; Grinnell Col, 18–19, asst. prof, 19–21; lecturer, Columbia, 21–22; prof. and head dept, Antioch Col, 22–24; St. Olaf Col, 24–29; mem. staff, Hunter Col, 29–31; *prof. math. and head dept, Upsala Col, 32–* Math. Asn. (chairman, Minn. sect, 25). Nat. Council Teachers Math. History of mathematics; algebraic methods; prognostic tests; mathematical tests in college.

Nordheim, Prof. L(othar) W(olfgang), Duke University, Durham, N. C. ***Theoretical physics.* Munich, Germany, Nov. 7, 99. Ph.D, Göttingen, 23. Rockefeller research fellow, 27; lecturer, Göttingen, 28–33; Paris, 34; visiting prof. *physics,* Purdue, 35–37; *prof, Duke, 37–* Visiting prof, Ohio State, 30; Univ. Moscow, 32; Lorentz research fellow, Holland, 34. Physical Soc; N. C. Acad. Quantum theory of matter; structure of metals; cosmic radiation.

Nordlander, Birger W, 1137 Ardsley Road, Schenectady, N. Y. *Organic chemistry.* Stöde, Sweden, Sept. 23, 96. Ch.E, Royal Inst. Tech, Stockholm, 22; M.S, Union Col. (N. Y), 27. *Research chemist, research lab, Gen. Elec. Co, 23–* Chem. Soc. (treas, local sect); N. Y. Acad. Chemistry of synthetic resins and high molecular compounds and their application in the electrical industry.

Nordsieck, Dr. Arnold (Theodore), Columbia University, New York, N. Y. *Theoretical physics.* Marysville, Ohio, Jan. 5, 11. A.B, Ohio State, 31, M.S, 33; Ph.D, California, 35. Nat. research fellow theoretical physics, Leipzig and Stanford, 35–37; *instr. physics, Columbia, 37–* Physical Soc. Relativistic quantum theory; nuclear physics.

Nordsieck, Dr. H(erbert) (Henry), Procter and Gamble Co, Cincinnati, Ohio. *Physical chemistry.* Hamilton, Ohio, Jan. 22, 13. B.S, Butler, 34; M.S, Agr. and Mech. Col. Texas, 36; Procter and Gamble fellow, Cornell, 38–39, Ph.D, 39. Asst. chem, Agr. and Mech. Col. Texas, 34–36; Cornell, 36–38; *mem. chem. div, Procter and Gamble Co, 39–* Chem. Soc; Soc. X-Ray and Electron Diffraction. Atomic and molecular structure of matter; physical properties of soaps.

Norgorden, Dr. Oscar, Naval Research Laboratory, Washington, D. C. *Physics.* LeRoy, Minn, Jan. 2, 09. B.E.E, Minnesota, 31, Ph.D, 36. Junior radio engineer, *Naval Research Lab,* 36–38, asst. radio engineer, 38–40, assoc. radio engineer, 40–41, *physicist, 41–* Physical Soc; Philos. Soc. Wash. Radio; antennas; transmission lines; propagation of radio waves.

Norlie, Dr. Olaf Morgan, St. Olaf College, Northfield, Minn. *Psychology.* Sioux City, Iowa, Jan. 11, 76. B.S, M.Accts, Dixon Col, 97, D.Pd, 10; A.B, St. Olaf Col, 98; Wis. State Nor. Sch, Milwaukee, 99; A.M, Wisconsin, 01; C. T, United Church Sem, 07; Ph.D, Minnesota, 08; C.S.T, Augustana Sem, 15, S.T.D, 17; Litt.D, Wittenberg Col, 17; D.Mus, Chicago Col. Music, 32. Book ed, Augsburg Publishing House, Minneapolis, 15–19; prof. psychol. and biol, Luther Col, 19–28; religion and dean, Hartwick Col, 28–32; director grad. sch, Hartwick Sem, 32–33; prof. psychol, Luther Col, 33–41; *classifier, St. Olaf Col, 41–* A.A; Psychol. Asn; Statist. Asn; Math. Soc; Linguistic Soc; Philol. Asn; Library Asn; Iowa Acad. Statistics; mathematics; sociology; history of the Norwegian people; religious education; religious psychology; Bible translations; semantics; semantic psychology.

Norman, Prof. A(rthur) G(eoffrey), Iowa State College, Ames, Iowa. *Soil microbiology.* Birmingham, Eng, Nov. 26, 05. B.Sc, Birmingham, 25, Ph.D, 28; Rockefeller fellow, Wisconsin, 30–31, M.S, 32; D.Sc, London, 33. Biochemist in charge biochem. sect, Rothamsted Exp. Sta, England, 32–37; *prof. soils, Iowa State Col, and research prof, Exp. Sta, 37–* Biochem. Soc; Soil Sci. Soc. (chairman sect. III, 42); Soc. Agron; Soc. Plant Physiol; Soc. Bact; Iowa Acad; Royal Inst. Chem. Gt. Britain and Ireland. Biological decomposition of plant materials; biochemistry of structural cell wall constituents of plants; composition of forage crops; plant biochemistry.

Norman, Prof. C(arl) A(dolph), 129 Tibet Road, Columbus, Ohio. *Mechanical engineering.* Borga, Finland, Jan 12, 79. M.E, Royal Tech. Inst, Stockholm, 00; Munich; California; Chicago; Royal Tech. Inst, Charlottenburg. Indust engineer, Russia, Gen. Elec. Co. and Int. Harvester Co, 02–20; *prof. machine design, Ohio State, 17–* Consulting engineer, Dayton Rubber Mfg. Co, 28–33. Mech. Eng; Eng. Educ; Nat. Soc. Professional Eng. Gas turbines; thermodynamics; machine elements; economic utilization of liquid fuel; entropy chart for gases; carburetion temperature of oil mixtures; belt transmission; principles of machine design; social aspects of engineering; science and religion; engineers and social management; fundamentals of machine design.

Norman, George M, Fairville, Pa. *Chemistry.* Wallingford, Pa, 77. Pa. State Col, 99; Wisconsin, 03–05. *Director, Hercules Powder Co, Wilmington, Del.* Chem. Soc; Chem. Eng; London Soc. Chem. Indust. Explosives; protective coatings; pigments.

Normand, Dr. C(harles) E(rnest), Texas State College for Women, Denton, Texas. *Physics.* Belton, Texas, Jan. 23, 97. A.B, A.M, Texas, 20; Ph.D, California, 30. Asst. physics, Texas, 17–19, instr, 21–23; prof, Sam Houston State Teachers Col, Texas, 23–24; instr. physics and math, Kemper Mil. Sch, Mo, 24–25; math, Arkansas, 25–27; teaching fellow, California, 27–30; prof, Va. State Teachers Col, Harrisonburg, 30–37;

director physics, Texas State Col. for Women, 37– Absorption coefficient for slow electrons in gases.

Norris, Dr. Anna C(hurch), University of Washington, Seattle, Wash. *Physiological chemistry.* Tacoma, Wash, Feb. 11, 03. B.S, Washington (Seattle), 24, M.S, 27, Fleischmann fellow, 30–31, Ph.D, 31. Teacher science, Annie Wright Sem, Wash, 24–26; teaching fellow, Washington (Seattle), 26–30; instr. home econ, Arkansas, 31–32; chem. and home econ, Alabama, 32–34, asst. prof, 35–38; *research assoc. oceanog, Washington (Seattle), 38–* Chem. Soc. Antimony trichloride colorimetric assay for vitamin A; toxic effect of fish liver oils; blood lipids in relation to vitamin deficiencies; carotenoids in marine invertebrates.

Norris, C(arrol) Boyd, 915 Chestnut St, Waban, Mass. *Electrical engineering.* Hubbard, Texas, Sept. 28, 08. B.S, Texas, 29, M.S, 34. Tutor, Texas, 29–30; instr. and asst. prof. elec. eng, Tulane; *teacher, Officers' training sch, Mass. Inst. Tech.* Elec. Eng. (pres, Univ. Texas chap, 29–31). Electronics; engineering applications of electron tubes.

Norris, Charles B(razer), 1832 Summit Ave, Madison, Wis. *Mechanical engineering.* Milwaukee, Wis, 94. B.S, 17. Asst. engineer, Forest Products Lab, U. S. Forest Service, 17–20; mech. engineer in charge eng. and research, Haskelite Mfg. Corp, 20–36; consulting engineer, Am. Boxboard Corp, 36–38; tech. director, Lauxite Inc. and Merritt Eng. and Sales Co, 38–42; *prin. engineer in charge plywood strength and design, Forest Products Lab, U. S. Forest Service, 42–* Mech. Eng. Airplane structural design; wood; plywood; paper board.

Norris, Prof. Charles H(amilton), University of Colorado, Boulder, Colo. *Physiology.* Cornwall, Ont, Can, Oct. 10, 14. B.S, Hamilton Col, 36; Ph.D, Princeton, 39. Instr. *biol, Colorado,* 39–41, *asst. prof, 41–* Soc. Exp. Biol; assoc. Soc. Zool; Colo-Wyo. Acad. Physical properties of cytoplasm and cell surface.

Norris, Prof. Earl R(alph), University of Washington, Seattle, Wash. *Biochemistry.* Minot, N. Dak, Feb. 12, 95. B.S, Mont. State Col, 19; Ph.D, Columbia, 24. Instr. *biochem,* Iowa, 24–27; asst. prof, *Washington (Seattle),* 27–34, assoc. prof, 34–40, *prof, 40–* A.A; Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem. Hydrolysis and precipitation proteins; applications of colloid chemistry to biochemical problems; nutrition; applications of biochemistry to marine life.

Norris, Dean Earle B(ertram), Virginia Polytechnic Institute, Blacksburg, Va. *Mechanical engineering.* Jamestown, N. Y, Sept. 17, 82. B.S, Pa. State Col, 04, M.E, 08. Draftsman and cost clerk, E. Bement's Sons, Mich, 04; asst. supt, Cent. Implement Co, Mich, 05; instr. mech. eng, Pa. State Col, 06–08; asst. prof, Wisconsin, 08–12, assoc. prof, 12–16, prof, 16; indust. commissioner, Asn. Commerce, St. Paul, 16–17; *dean eng,* Mont. State Col, 19–28; *Va. Polytech, 28–, director eng. exp. sta, pres. research foundation, 35–* Research on design of cold-worked cannon, Watertown Arsenal, Mass, 26. Citation by Gen. Pershing, 19. Ordnance Dept, 17–19, major; chief engineer, Rock Island Arsenal, U.S.A, 19; lieut. col, Ordnance R.C, 25–40. Mech. Eng; Eng. Educ; Army Ordnance Asn; Newcomen Soc; Va. Acad. Overstrain of metals; combined stresses; shop arithmetic; advanced shop mathematics; gas and ignition engineering; heat power; plastic flow of metals.

Norris, Dr. E(dgar) H(ughes), 607 Lakepointe Road, Grosse Pointe, Mich. *Pathology.* La Grange, Ind, Oct. 19, 93. B.S, Minnesota, 15, A.M, 16, M.B, 18, M.D, 19. Instr. anat, Minnesota, 15–16, path, 17–18; intern, Minneapolis Gen. Hosp, 18; surgeon, St. Joseph's Hosp, St. Paul, Minn, 19–31; fellow *path,* sch. med, Minneapolis, 35–38; *prof, col. med, Wayne, 38–, head dept, 39–, dean, 39–* Surgeon, St. Luke's and Children's Hosps, St. Paul, Minn, 24–30; pathologist, St. Luke's Hosp, 23–25; med. director, Anchor Casualty Co, 26–30. Fel. Col. Surg; Am. Med. Asn; Asn. Cancer Research; Asn. Path. and Bact; Soc. Endocrinol; Asn. Am. Med. Cols. General and experimental morphology; histogenesis of thyroid; fetal blood passages and vascular anomalies; jaundice; histogenesis of parathyroids; thymomas of myasthenia gravis; reticuloendotheliosis; arrhenoblastoma and granulosa cell carcinoma, histogenesis of the thymus; the medical science center.

Norris, Dr. Frank A(rthur), General Mills, Inc, 2010 E. Hennepin Ave, Minneapolis, Minn. *Biochemistry.* Pittsburgh, Pa, July 2, 13. B.S, Pittsburgh, 35, Ph.D, 40; Rockefeller fellow, Minnesota, 39–41. Asst. chem, Pittsburgh, 36–39; *research chemist, Gen. Mills, Inc, 41–* A.A; Chem. Soc. Synthetic glycerides; vitamin C; fractional distillation; chemistry of the unsaturated fatty acids; polymerization of oils; absorption spectroscopy; analytical methods for lipids.

Norris, Prof. G(eorge) W(illiam), Dimock, Pa. *Medicine.* Philadelphia, Pa, Jan. 1, 75. A.B, Pennsylvania, 95, M.D, 99. Prof. clin. med, Pennsylvania, 12–31. A.A; Am. Med. Asn; Am. Physicians; Philos. Soc; Path. Soc. Phila; fel. Col. Physicians Phila; Acad. Nat. Sci. Phila. Cardiac and pulmonary pathology and diagnosis.

Norris, Prof. H(arry) W(aldo), Grinnell, Iowa. *Zoology.* Pittsfield, N. H, Sept. 11, 62. A.B, Grinnell Col, 86, hon. A.M, 89, Sc.D, 24; fellow, Cornell, 88–90; Nebraska, 90–91; Freiburg, 01–02. Instr. biol, *Grinnell Col,* 88, prof, 91–03, *zool,* 03–31, research prof, 31–42, *emer. prof, 42–* A.A; Soc. Nat; Micros. Soc; Asn. Anat; Iowa Acad. Development of the amphibian ear; cranial nerves of Amphiuma, Siren, the cecilians, the dogfish and ganoid fishes; the elasmobranch hypophysis.

Norris, Prof. L(eo) C(handler), Cornell University, Ithaca, N. Y. *Nutrition, Biochemistry.* Canaseraga, N. Y, March, 93. B.S, Cornell, 20, Ph.D, 24. Instr. animal husbandry, *Cornell,* 20–23, from instr. to *prof. nutrition, 23–, sec'y sch. nutrition, 41–* Borden award, Poultry Science Asn, 39. A.A; Chem. Soc; Poultry Sci. Asn; Inst. Nutrition; Soc. Exp. Biol; Dairy Sci. Asn; Soc. Biol. Chem. Role of manganese in nutrition; chemical methods for determining riboflavin; riboflavin content of foodstuffs, protein, mineral and vitamin requirements of chickens.

Norris, Ralph Forbush, 2024 Chadbourne Ave, Madison, Wis. *Acoustics.* Milwaukee, Wis, March 9, 92. B.S. Gen. manager, Bakewell Zinc Oxide Co, 16; *research engineer, C. F. Burgess Labs, Inc, 18–* Fel. Acoustical Soc. Electricity; thermal conduction; architectural acoustics; automotive acoustics and ventilation; air filtration.

Norris, Dr. R(obert) S(tewart), 433 N. Branciforte Ave, Santa Cruz, Calif. *Chemistry.* Belleville, Wis, Jan. 19, 69. B.S, California, 92; Ph.D, Hopkins, 97. Food expert, U. S. Dept. Agr, 97–98; instr. chem, California, 98–99; chemist and supt, Union Sugar Co, 99–07; chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, 07–13, sugar technologist, 13–20; *retired.* A.A. Sugar technology.

Norris, Dr. Theodore, Wiscasset Road, Friendship Station, Washington, D. C. *Physiology, Anatomy.* Scandia, Kans, May 27, 11. B.S, New Mexico, 37, fellow, 37–38, M.S, 39; Ph.D, Hopkins, 40. Asst, Hopkins, 38–40, instr. bot, 40–41; Biol. and bacter, American Univ. (D. C), 41–43; *assoc. physiologist, U. S. Pub. Health Service, 43–* Bot. Soc. Aviation medicine; high altitude flying.

Norris, Dr. Thomas H(ughes), Chemistry Department, University of California, Berkeley, Calif. *Chemistry.* Princeton, N. J, Feb. 8, 16. A.B, Princeton, 38; Ph.D, California, 42. Asst. chemist, Gen. Elec. Co, 42; *research assoc, Nat. Defense Research Cmt, California, 43–* Rate of exchange oxygens between carbon monoxide and carbon dioxide; photoactivation of chlorophyll in photosynthesis studied by exchange experiments with H^2; studies in physical and biological chemistry with radioactive tracers.

Norris, Prof. Will V(ictor), University of Oregon, Eugene, Oregon. *Physics.* Albion, Mich, April 19, 94. A.B, William Jewell Col, 18; M.S, Texas Christian, 20; E.M, Colo. Sch. Mines, 21, Sc.D, 22. Asst. prof. chem. and physics, Texas Christian, 19–20; assoc. prof. chem, Colo. Sch. Mines, 20–26; consulting engineer, 26–29; assoc. prof. *physics,* Mont. Sch. Mines, 29–30; asst. prof, *Oregon,* 30–31, assoc. prof, 31–34, *prof, 34–* Oil Shale Conf, Washington, D. C, 25. A.A; Physical Soc; Chem. Soc; Asn. Physics Teachers. Atomic structure; infra-red absorption bands.

North, Dr. Dwight O(lcott), RCA Manufacturing Co, Harrison, N. J. *Physics.* Hartford, Conn, Sept. 28, 09. B.S, Wesleyan, 30; Ph.D, Calif. Inst. Tech, 33. Asst, Wesleyan, 33–34; *research physicist, RCA Radiotron div, RCA Mfg. Co, 34–* Physical Soc; Radio Eng. Electron transit time problems in vacuum tubes; shot effect and allied problems.

North, Prof. Edward O(scar), Lake Forest College, Lake Forest, Ill. *Analytical chemistry.* Rockford, Ill, Oct. 29, 95. B.S, Beloit Col, 18; M.S, Illinois, 22, Ph.D, 25. Instr. *chem,* Beloit Col, 18–20; Knox Col, 24–26; prof, Ouachita

Col, 26–29; assoc. prof. and prof, North Dakota, 29–41; *prof, Lake Forest Col, 41–* Chem. Soc. The preparation, properties and uses of silicoduodecitungstic acid; heteropoly acids of tungsten and molybdenum.

North, Dr. Gerald Charles, Beatrice Creamery Co, 1526 S. State St, Chicago, Ill. *Dairy industry.* El Paso, Ill, June 16, 05. B.S, Illinois, 27; M.S, Wisconsin, 29, Ph.D, 31. Asst, dairy dept, Wisconsin, 29–34, research assoc, alumni research foundation, 34–36; *director research, Beatrice Creamery Co, 36–* Dairy Sci. Asn. Dairy chemistry; relation of electrokinetic phenomena to dairy manufacturing; manufacture of Swiss cheese.

North, Dr. H(enry) B(riggs), North Metal and Chemical Co, York, Pa. *Chemistry.* Janesville, Wis, Jan. 14, 79. Ph.G, Wisconsin, 02, B.S, 04, A.M, 06; Zurich; D.Sc, Paris, 09. Instr. chem, Wisconsin, 04–07; assoc. prof, Rutgers, 10–17; research chemist, York Metal and Alloy Co, 17–21; *pres. and treas, North Metal and Chem. Co, 21–* Pres, York Bleachery and Dye Works. Chem. Soc. Reactions of thionyl and sulfuryl chlorids; tungsten and molybdenum compounds; rare elements.

North, William R(ichard), Jr, 312 Ethan Allen Ave, Takoma Park, Md. *Bacteriology.* Thomaston, Conn, Jan. 21, 90. B.S, Cornell, 13; fellow, Pennsylvania, 21–22. Bacteriologist, Pa. R. R. Co, 13–15; bur. chem, U. S. Dept. Agr, 15–17, 19–21; private lab. practise, 22–28; *bacteriologist, food and drug admin, Fed. Security Agency, 28–* Dairy industry; dairy microbiology; food poisoning.

Northcott, Prof. John A(rthur), 137 Glenwood Ave, Leonia, N. J. *Mathematics.* Belleville, Ont, Can, June 20, 83. B.A, Toronto, 04, M.A, 05. Asst. master, St. Andrew's Col, 04–07; instr. *math,* Cheshire Sch, Conn, 07–09; Syracuse, 09–12, asst. prof, 12–13; instr, Columbia, 13–14; assoc. prof, Syracuse, 14–20, prof, 20–21; assoc, *Columbia,* 21–22, asst. prof, 22–28, *assoc. prof, 28–,* asst. to director *univ. exten,* 25–27, *assoc. director, 27–* Math. Soc. Differential geometry.

Northen, Dr. Henry T, University of Wyoming, Laramie, Wyo. *Botany.* Butte, Mont, April 12, 08. B.S, State Col. Wash, 32, M.S, 34; Ph.D, California, 36. Teaching fellow, State Col. Wash, 32–34; California, 34–36; instr. *bot, Wyoming,* 36–39, *asst. prof, 39–* A.A; Bot. Soc; Soc. Plant Physiol. Protoplasmic structure; relationship of dissociation-association reactions of cellular proteins to physiological processes.

Northey, Dr. E(lmore) H(athaway), Shepherd Ave, Bound Brook, N. J. *Organic chemistry.* Stillwater, Minn, July 31, 05. A.B, Minnesota, 27, du Pont fellow, 29–30, Ph.D, 30. Asst, Minnesota, 27–29; research chemist, east. lab, E. I. du Pont de Nemours and Co, 30–32; *divisional chemist, Calco Chem. Co, Bound Brook, N. J, 32–* Chem. Soc; Inst. Chem. (chairman, N. Y. chap, 42). Absorption spectra of organic compounds; explosives; dyes; pharmaceuticals; sulfanilamide derivatives.

Northrop, Prof. B(urdette) K(ibbe), 129 Blair St, Ithaca, N. Y. *Electrical engineering.* West Danby, N. Y, June 23, 93. E.E, Cornell, 18. Asst. physics, Cornell, 17–18, instr. elec. eng, 18–23; assoc. prof. physics, Colgate, 23–29; asst. prof. *elec. eng, Cornell,* 29–43, *assoc. prof, 43–* Electronics.

Northrop, Dr. Eugene P(urdy), University of Chicago, Chicago, Ill. *Mathematics.* Danbury, Conn, July 12, 08. Robert Col, Istanbul, 26–28; B.S, Yale, 30, A.M, 32, Ph.D, 34. Asst. *math,* Yale, 30–32, instr, 32–35; master, Hotchkiss Sch, 35–43; *asst. prof, Chicago, 43–* Math. Soc; Math. Asn. Analysis.

Northrop, Prof. F(ilmer) S(tuart) C(uckow), Yale Station, New Haven, Conn. *Philosophy of science.* Janesville, Wis, Nov. 27, 93. A.B, Beloit Col, 15; A.M, Yale, 19; A.M, Harvard, 22, Ph.D, 24; Freiburg, 22; fellow, Cambridge and London, 22–23. Instr. *philos, Yale,* 23–26, asst. prof, 26–29, assoc. prof, 29–32, *prof, 32–, master, Silliman col, 40–* Deems lecturer, N. Y. Univ, 29, visiting prof, Virginia, 31–32, 34, Guggenheim Mem. Foundation fellow, 32–33. Summer, lecturer, Iowa, 26, Michigan, 31. A.A. (councilor and cmt. mem, L); Asn. Symbolic Logic; Asn. Study Growth and Develop; Philos. Asn. (sec'y-treas, east. div, 31, v. pres, 34). Logic.

Northrop, John D(eWolf), U. S. Geological Survey, Washington, D. C. *Economic geology.* Troupsburg, N. Y, Nov. 5, 86. B.S, Syracuse, 10, 10–11. Asst. classifier, U. S. Geol. Surv, 11–14, asst. geologist, 14, assoc. geologist, 14–16, geologist, 16–19; Roxana Petrol. Corp, U. S, Peru and Ecuador, 19–21; geologist, *U. S. Geol. Surv,* 21–24, *prin. geologist and asst. chief conservation branch, 24–* A.A; Soc. Econ. Geol; Geol. Soc. Wash. Mineral economics.

Northrop, Dr. John H(oward), Rockefeller Institute, Princeton, N. J. **Biochemistry, Biology.* Yonkers, N. Y, July, 91. B.S, Columbia, 12, A.M, 13, Ph.D, 15, fellow, 15–16, Sc.D, 37; Sc.D, Harvard, 36, Yale, 37, Princeton, 40, Rutgers, 41; LL.D, California, 39. Asst, *Rockefeller Inst,* 16, assoc, 17–20, assoc. mem, 20–24, *mem, 24–* Jesup lecturer, Columbia, 38; Hitchcock lecturer, California, 39; Thayer lecturer, Hopkins, 40. Ed. board, 'Jour. Gen. Physiol'; 'Exp. Biol. Monographs.' Trustee, Marine Biol. Lab, Woods Hole. Stevens prize, col. physicians and surg, Columbia, 31; Charles Frederick Chandler medal, Columbia, 36. Nat. Acad; A.A; Chem. Soc; Soc. Exp. Biol; Philos. Soc; Soc. Biol. Chem; Harvey Soc; Soc. Philomathique, Paris; Halle Akad. der Naturforscher. Starch; effect of temperature on insects; fermentation; agglutination of bacteria; proteolytic enzymes; bacteriophage.

Northrop, Prof. Paul A(llen), Vassar College, Poughkeepsie, N. Y. *Physics.* Mehoopany, Pa, Sept. 9, 96. B.S, J. B. Stetson, 16; Ph.D, Cornell, 26. Teacher, high sch, Fla, 16–18; instr. *physics,* Cornell, 19–24; asst. prof, *Vassar Col,* 24–26, assoc. prof, 26–33, *prof, 33–* Physical Soc; Radio Eng. Cathodoluminescence in the ultra-violet; radio; tone analysis of organ pipes.

Northrop, Prof. Stuart A(lvord), University of New Mexico, Albuquerque, N. Mex. *Geology.* Danbury, Conn, March 14, 04. Robert Col, Constantinople, 21–23; B.S, Yale, 25, Ph.D, 29. Asst. prof. *geol, New Mexico,* 28–29, assoc. prof, 29–30, *prof. and head dept, 30–, curator geol. museum, 40–* N. Mex. collaborator, U. S. Coast and Geod. Surv, 41–Geol. Soc; Paleont. Soc; N. Mex. Acad. (pres, 42). Silurian, Pennsylvanian and Cretaceous paleontology and stratigraphy; minerals of New Mexico.

Northrup, H(arry) B(enedict), Pennsylvania State College, State College, Pa. *Metallurgy.* Akron, Ohio, Aug. 27, 86. E.M, Ohio State, 11. Dept. metal, Pa. State Col, 11–20; chief metallurgist, Diamond Chain and Mfg. Co, Indianapolis, 20–25; commercial consultant, 25–31; *director mineral industries exten, Pa. State Col, 31–* Metallurgist, Ordnance Dept, 18–19. Soc. Metals (chairman, Indianapolis sect, 24). Heat treatment of metals, especially steel; nitriding; cyanide baths.

Northup, Prof. David W(ilmarth), West Virginia School of Medicine, Morgantown, W. Va. *Physiology.* The Dalles, Oregon, April 4, 06. A.B, Reed Col, 30; A.M, Oregon, 32; Ph.D, Illinois, 35. Asst, Oregon, 30–32; *physiol,* col. med, Illinois, 32–35; asst. prof, *sch. med, West Virginia,* 35–38, *assoc. prof, 38–* Absorption from the intestine; anoxia.

Northway, Dr. Mary L(ouise), University of Toronto, Toronto, Ont, Can. *Psychology.* Toronto, Ont, May 28, 10. B.A, Toronto, 33, M.A, 34, Ph.D, 37; Cambridge, 35–36. Reader *psychol, Toronto,* 33–35, research fellow, 37–39, instr. and research fellow, 39–41, *lecturer, 41–, special lecturer, inst. child study, 39–* Can. Psychol. Asn; Can. Camping Asn. (director research, 40–). Human learning; social development; educational aspects of summer camps.

Norton, Prof. Bayes M(arshall), Kenyon College, Gambier, Ohio. *Chemistry.* Vineyard Haven, Mass, Sept. 23, 03. B.S, Yale, 26, Ph.D, 34; B.Sc, Oxford, 29. Purchasing dept. and junior exec, E. R. Squibb and Sons, 27–28; instr. chem, Yale, 30–36; chem, physics and physical science, St. Mark's Sch, 36–37; *assoc. prof. chem, Kenyon Col, 37–* Davenport Col. fellow, Yale, 33–36. Chem. Soc. Photochemistry.

Norton, Dr. Curtis E(lliott), Route 1, Box 101, Hales Corners, Wis. *Chemistry.* Pleasantville, N. Y, Nov. 30, 95. B.S, Syracuse, 20; A.M, Harvard, 24, Ph.D, 26. Research chemist, Semet-Solvay Co, 20–21; instr. chem, Syracuse, 21–22; Austin teaching fellow, Harvard, 22–24, instr, 25; research chemist, Johnson and Johnson, 26–28; Skinner, Sherman and Esselen, 28–30; director research, Chas. A. Krause Milling Co, 30–39; expert, research dept, Corn Products Ref. Co, 39–41; *director research, Chas. A. Krause Milling Co, 41–* Summers, Semet-Solvay Co, 16, 17; research chemist, U. S. Smelting, Mining and Ref. Co, 23. Chem. Soc. (chairman, Milwaukee sect, 35–36). Oxidation potentials; free quaternary ammonium radicals and alkali metals; liquid ammonia; mill-

ing of corn; manufacture of malt adjuncts for brewers; cellulose; cellulose esters and starch; gelatinized starches; core binders; food products; drum driers.

Norton, Edward L(awry), 463 West St, New York, N. Y. *Physics.* Rockland, Maine, July 29, 98. B.S, Mass. Inst. Tech, 22; A.M, Columbia, 25. *Tech. staff, Bell Tel. Labs, 22–* Physical Soc; fel. Acoustical Soc. Telephone transmission.

Norton, Dr. Francis J(ames), 1133 Eastern Ave, Schenectady, N. Y. *Physical chemistry.* Ft. Plain, N. Y, Aug. 11, 99. A.B, Yale, 21, Ph.D, 24. *Research chemist,* Solvay Process Co, 24–30; *research lab, Gen. Elec. Co, 30–* Chem. Soc. (chairman, east. N. Y. sect, 41). Solubility and vapor pressure of salt hydrates; solubility and diffusion of gases in metals; surface chemistry; electrical characteristics of surfaces.

Norton, Prof. F(rederick) H(arwood), 90 Revere St, Gloucester, Mass. *Physics.* Manchester, Mass, Oct. 23, 96. B.S, Mass. Inst. Tech, 18. Chief physicist, Nat. Advisory Cmt. for Aeronautics, 18–22; research assoc, *Mass. Inst. Tech,* 22–29, asst. prof. and assoc. prof. *ceramics, 29–42, prof, 42–* Fel. Physical Soc; Ceramic Soc. Aeronautics; ceramics.

Norton, Dr. F(rederick) H(enry), Dow Chemical Co, Freeport, Texas. *Organic chemistry.* Denver, Colo, Jan. 2, 09. A.B, Grinnell Col, 31; M.S, Purdue, 33, Ph.D, 36. Asst. chem, Purdue, 31–36; chemist, *Dow Chem. Co,* Mich, 36–41, *head org. labs, Texas, 41–* Preparation of beta-phenethyl alcohol; action of diethyl magnesium on the methyl substituted derivatives of ethylene oxide; preservatives; plastics; organic synthesis.

Norton, Dr. Gardner A(therton), 114 Fletcher Road, Belmont, Mass. *Physics.* Cambridge, Mass, June 14, 05. A.B, Harvard, 26, A.M, 28, Sc.D, 34. Asst. physics, Harvard, 27–29; Raytheon plant, Nat. Carbon Co, 29–31; engineer and physicist, Arthur D. Little, Inc, 33–39; sales engineer, Dewey and Almy Chem. Co, 39–41; *lieut, E-V(S), U. S. Naval Res, 41–* Asst, Cancer Cmn, Harvard, 29. Inst. Radio Eng. Vacuum tube engineering; x-rays and radium deep therapy; high frequency sound; chemical effects of vibration at high power levels; radiant energy distribution; applications of industrial physics.

Norton, Dr. Horace W(akeman), III, 3118 N. First Road, Arlington, Va. *Mathematical statistics.* Lansing, Mich, Jan. 17, 14. B.S, Wisconsin, 35; M.S, Iowa State Col, 37; Ph.D, London, 40. Asst. lecturer eugenics, univ. col, London, 37–40; research assoc. physics, Chicago, 40–42; *senior meteorologist and math. statistician, U. S. Weather Bur, 42–* Agent, agr. marketing service, U. S. Dept. Agr, 40–42. Probability; harmonic analysis; time series.

Norton, Dr. James A(llan), University of Colorado, Boulder, Colo. *Organic chemistry.* Mantorville, Minn, Jan. 31, 17. A.S, Flint Junior Col, 34; scholar, Chicago, 34–35, B.S, 36, fellow, 38–39, Ph.D, 39. Research chemist, E. I. du Pont de Nemours and Co, Inc, 39–43; *asst. prof. org. chem, Colorado, 43–* Analytical chemistry.

Norton, Prof. J(ohn) B(itting) S(mith), University of Maryland, College Park, Md. *Botany, Phytopathology.* Cocke Co, Tenn, April 7, 72. B.S, Kans. State Col, 96, M.S, 00; hon. Sc.D, Maryland, 23. Asst. bot, Exp. Sta, Kans. State Col, 94–96; bot. asst, Mo. Bot. Garden, 96–01; prof. bot. and plant path, *Maryland,* 01–19, mycol, 20–42, *emer. prof. bot, 42–, plant pathologist and botanist, Exp. Sta, 01–* A.A; Phytopath. Soc. (councilor, 26); Mycol. Soc; Hort. Soc; Amaryllis Soc; Bot. Soc. Wash. (pres, 32). Flora of southwestern United States; Ustilagineae; North American Euphorbiaceae; plant diseases; Dahlia; nomenclature of cultivated plants; plant identification methods; flora of Maryland; Hemerocallis variations

Norton, Dr. John F(oote), The Upjohn Co, Kalamazoo, Mich. *Bacteriology.* Natick, Mass, June 23, 85. B.S, Mass. Inst. Tech, 06; Ph.D, Chicago, 11. Asst. org. chem, Mass. Inst. Tech, 06–07, indust. chem, 07–08; assoc. chem, univ. high sch, Chicago, 08–10, asst. bacter, univ, 10–11; instr. sanit. chem, Mass. Inst. Tech, 11–14, asst. prof, 14–17; bacter, Chicago, 17–21, assoc. prof, 21–28; director bur. labs, Dept. Health, Detroit, 28–33; bacteriologist, *Upjohn Co,* 33–41, *head bacter. dept, research div, 41–* A.A; Soc. Bact; Soc. Exp. Biol; assoc. fel. Am. Med. Asn; Pub. Health Asn; Water Works Asn; Tuber. Asn. Hygiene; disinfection; water examination; vaccines; chemotherapy.

Norton, J(ohn) H(enry), 4748 15th Ave, Sacramento, Calif. *Chemistry.* Scotland Co, Mo, July 9, 73. B.Agr, Missouri, 97, B.S, 99, M.S, 07. Teacher, high sch, Mo, 99–01; asst. chemist, bur. chem, U. S. Dept. Agr, 01–03; instr. chem, N. Dak. Col, 03–04; prof. agr. chem. and chemist, Exp. Sta, Arkansas, 04–08; asst. prof. agr. chem. in charge, Citrus Exp. Sta, California, 08–12; consulting chemist, 12–13; teacher, high sch, Calif, 13–17; instr. chem, univ. farm, California, 17–20; Sacramento Junior Col, 20–39; *retired; inspector powder and explosives, San Francisco Ordnance Dist, War Dept, 42–* Chem. Soc. (sec'y-treas, Sacramento sect, 22–27, chairman, 31; emer. chemist). Agricultural chemistry; soils; nutrition.

Norton, Dr. John Pease, 461 Ocean Ave, West Haven, Conn. *Statistics.* Suffield, Conn, July 28, 77. Ph.D, Yale, 01. Instr. and asst. prof. statist. social science and corporations, Yale, 02–10; exec. sec'y, Cmt. of One Hundred on Nat. Health, 10–11; expert ry. credit for west. states in ry. rate cases, 15–18; statist. expert, oil div, U. S. Fuel Admin, 18, 20; *investigator private labs.* A.A. (past chairman, K). Statistics of industries and finance and of the New York money market.

Norton, Prof. John T(orrey), Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy.* Medford, Mass, Nov. 13, 98. B.S, Mass. Inst. Tech, 18, Sc.D, 33. Instr. physics, *Mass. Inst. Tech,* 20–26, asst. prof, 26–29, assoc. prof. *metal,* 30–40, *prof, 41–* Min. and Metal. Eng; Physical Soc; Soc. Metals; Soc. Test. Mat; British Inst. Metals. Physical metallurgy; x-ray metallography; physics of metals.

Norton, Karl B(enton), 203 Hillair Circle, White Plains, N. Y. *Chemistry.* Adams, N. Y, Dec. 27, 90. B.S, Syracuse, 12. Chemist, J. Hungerford Smith Co, Rochester, 12–14; Zinsser and Co, Hastings, N. Y, 14–15; Solvay Process Co, Syracuse, 16–18; research and operating chemist, Nat. Aniline and Chem. Co, Brooklyn, 18–20; asst. to chief chemist, Semet-Solvay Co, Syracuse, 20–21; operating chemist, Nat. Aniline and Chem. Co, Buffalo, 21–23; chemist and asst. supt, J. Hungerford Smith Co, Rochester, 23–30; research chemist, Gen. Seafoods Corp, Gloucester, later *production chemist, Frosted Foods Sales Corp, Boston, 30–, supt. field operations, New York.* Chem. Soc. (sec'y, Syracuse sect, 20). Freezing and storing of fruits and vegetables.

Norton, Prof. Leland B(ernard), New York State Agricultural Experiment Station, Geneva, N. Y. *Agricultural chemistry.* Inlet, N. Y, Jan. 29, 10. B.S, Hamilton Col, 28; Ph.D, Cornell, 34. Lab. and recitation asst. *chem, Cornell,* 28–34, *asst. prof, dept. entom, 37–,* asst. in research in chem, *N. Y. Exp. Sta, Geneva,* 34–37, *assoc. in research in chem, 37–* Chem. Soc; Asn. Econ. Entom. Chemistry of insecticides; development of non-poisonous sprays for fruit trees; nicotine.

Norton, L(eland) D(avis), 129 Chelsea St, Fairfield, Conn. *Acoustics.* Kenesaw, Nebr, March 7, 94. B.S, Nebraska, 16. Mem. power service surv, Omaha Elec. Light and Power Co, Nebr, 16; test engineer, Gen. Elec. Co, 16–18, lab. asst, 18–19, application engineer sugar mills and rubber processing, 19–21; asst. supt. transmission, Pa. Power and Light Co, 21–23, transmission line protection engineer, 23–26, supt. communications, 26–29; *director research, Dictaphone Corp, 29–* Pole line appraisal, Adirondack Power Co, 21. Acoustical Soc. Rapid melting of ice on power transmission lines; interconnection of communication facilities, telephone, radio and carrier current; recording and reproduction of sound.

Norton, Dr. Newell A(twood), 244 S. Burrowes St, State College, Pa. *Forestry.* Madison, Conn, Feb. 5, 03. Ph.B, Brown, 25; M.F, Yale, 28; Ph.D, Michigan, 32. Junior instr. forestry, Michigan, 28–32; field aid, div. forest path, bur. plant indust, U. S. Dept. Agr, 32–33, technician, 33–34; asst. technologist, Forest Products Lab, U. S. Forest Service, 34–37; consulting wood technologist, 37–39; assoc. conservationist, div. forest path, bur. plant indust, U. S. Dept. Agr, 40; wood technologist, Beech Aircraft Corp, Kans, 40–41; *asst. prof. forest products, Pa. State Col, 41–* Soc. Foresters; Mich. Acad. Wood technology and utilization; forest pathology.

Norton, Prof. Paul T(hornley), Jr, Virginia Polytechnic Institute, Blacksburg, Va. *Industrial engineering.* Elizabeth, N. J, April 11, 89. B.S, Wisconsin, 17, C.E, 31. Case Crane and Eng. Co, Columbus, 19–26, chief engineer, 20–26, v. pres, 23–26; instr. mech, Wisconsin, 27–28, asst. prof, 28–29; *prof. indust. eng. and head dept, Va. Polytech, 29–* 2nd lieut, A.S, 17–19. Mech. Eng; Soc. Adv. Management; Eng. Educ. (councilor, 34–37). Engineering economics; industrial management.

Norton, Richard D, The Texas Co, Box 252, New Orleans, La. *Paleontology.* Torrington, Conn, Dec. 16, 95. A.B, Yale, 19; Colorado, 23–24; A.M, California, 27. Paleontologist and mineralogist, Standard Oil Co. of Calif, 26–27; *paleontologist and geologist, The Texas Co, 27–* Research, Scripps Institution, California, 26. Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; New Orleans Geol. Soc. Micropaleontology; ecology; ecologic relations of some Foraminifera; stratigraphy.

Norton, Dr. Robert D(ill), Stratford Court, Lansdowne, Pa. *Chemistry.* Midway, Ala, Nov. 2, 96. B.S, Emory, 20, M.S, 26; Ph.D, North Carolina, 29. Head dept. science, high sch, Ga, 20–21, chem, 21–25; teaching fellow chem, Emory, 25–26; North Carolina, 26–27; asst, Rockefeller fund, North Carolina, 27–28, chem, 28–29; asst. prof, Syracuse, 29–32; research chemist, U. S. Naval Research Lab, 32–34; asst. chemist, *U. S. Govt, 34–42, assoc. chemist, 42–* Chem. Soc. The reaction between 4-phenylsemicarbazide and acetylacetone; Grignard reactions in the paracymene series; identification of mercaptans; fuel oils.

Norton, Prof. W(illiam) H(armon), Cornell College, Mt. Vernon, Iowa. *Geology.* Willoughby, Ohio, April 3, 56. A.B, Cornell Col. (Iowa), 75, A.M, 78; LL.D, Iowa, 11. Instr. Latin and Greek, *Cornell Col. (Iowa),* 75–77, adj. prof, 77–81, prof. Greek and geol, 81–90, *geol, 90–42, emer. prof, 42–* Special asst, Iowa Geol. Surv, 93–32; asst, U. S. Geol. Surv, 03–12. Trustee, Cornell Col. (Iowa), 21–39. Geol. Soc; Iowa Acad. (pres, 00). Iowa deep wells; glacial geology.

Notestein, Dr. Frank W(allace), 20 Nassau St, Princeton, N. J. *Economics.* Alma, Mich, Aug. 16, 02. B.S, Col. of Wooster, 23; Ph.D, Cornell, 27. Instr. econ, Cornell, 26–27; Social Science Research Council fellow, 27–28; research assoc, Milbank Mem. Fund, 28–29, tech. staff, 29–36; lecturer, sch. pub. affairs, *Princeton,* 36–41, *director, office popul. research, sch. pub. and int. affairs, 41–* Director, Nat. Cmt. Maternal Health, 37– Co-editor, 'Popul. Index.' A.A; Sociol. Soc; fel. Statist. Asn. (v. pres, 41); Eugenics Soc; Popul. Asn. (director, 33–). Demography; differential fertility; international demographic problems.

Notman, Arthur, 40 Wall St, New York, N. Y. *Engineering.* Brooklyn, N. Y, April 28, 83. B.S, Harvard, 03, E.M, 08; Columbia, 05–07. Mining engineer, Phelps Dodge Corp, Ariz, 08; geol. dept, Copper Queen Branch, Ariz, 09, chief geologist 10–14; chief geologist and acting gen. manager, Old Dom. Co, Ariz, 15; chief efficiency engineer, Copper Queen Branch, 15–16; from engineer to gen. supt, Phelps Dodge Corp, 16–22; *consulting engineer, 23–* Director, Copper Canyon Mining Co; Macleod Cockshutt Gold Mines Ltd; Chromite Ltd. Chairman, ed. cmt, 'Copper Resources of the World,' Int. Geol. Cong, 35. A.A; Min. and Metal. Eng. (past pres); Min. and Metal. Soc; Soc. Econ. Geol; Acad. Polit. and Social Sci; N. Y. Acad. Polit. Sci; N. Y. Acad; Can. Inst. Min. and Metal. Copper; economics of the copper industry.

Notman, Howard, Circle Road, Dongan Hills, Staten Island, N. Y. *Entomology.* Brooklyn, N. Y, April 20, 81. Polytech. Inst. Brooklyn; B.S, Harvard, 03, Harvard Law Sch. Del. to council, N. Y. Acad. from Brooklyn Entom. Soc, 20–24. A.A; Entom. Soc; N. Y. Entom. Soc. (ed, 'Jour,' 20–24); Brooklyn Entom. Soc. (cor. sec'y, 23–25); fel. N. Y. Acad; Soc. linn. de Lyon. Coleopterological taxonomy.

Nottingham, Prof. Wayne B(uckles), Massachusetts Institute of Technology, Cambridge, Mass. *[*7]Physics.* Tipton, Ind, April 17, 99. B.S, Purdue, 20, E.E, 29; Am-Scandinavian Foundation fellow, Upsala, 20–21; A.M, Princeton, 26, Ph.D, 29. West. Elec. Co. and Bell Tel. Labs, 21–25; fellow, Bartol Research Foundation, 26–31; asst. prof. *physics, Mass. Inst. Tech,* 31–37, assoc. prof, 37–42, *prof, 42–* Fel. Physical Soc; Franklin Inst. Electric arc discharges; photoelectric and thermionic emission of electrons; vacuum tube amplifiers for direct current; small thyratrons; intensity of doublet in copper arc spectrum; electrical and luminescence properties of cathode ray tube phosphors.

Novak, Dr. Emil, 26 E. Preston St, Baltimore, Md. *Medicine.* Baltimore, Md, March 8, 83. M.D, Maryland, 04; A.B, Loyola Col. (Md), 12. Res. surgeon, Md. Gen. Hosp, 04–05; assoc. gynec, Baltimore Med. Col, 05–08; assoc. prof, Col. Physicians and Surg, Baltimore, 09–14, obstet, 14–19; instr. *clin. gynec, Hopkins,* 15–22, *assoc, 22–* Am. Med. Asn; fel. Gynec. Soc. (v. pres); fel. Asn. Obstet, Gynec. and Abdom. Surg; Col. Surg; South. Surg. Asn; Baltimore City Med. Soc. (sec'y, 11–19). Physiology and pathology of menstruation; menstrual histology of endometrium; corpus luteum; gynecological pathology.

Novak, Prof. J(osef), 1150 Fifth Ave, New York, N. Y. *Gynecology, Obstetrics.* Hostomice, Bohemia, Feb. 28, 79. M.D, Prague, 03. Prof. *obstet. and gynec,* Vienna, 24–38; *clin. prof, Columbia, 39–* Gynecological and obstetrical pathology; endocrinology; bloodsugar; acetonemia; acidosis; glycosuria in pregnancy; relationship between female sexual organs and other organs.

Novak, Prof. Milan (Vaclav), 1853 Polk St, Chicago, Ill. *Public health, Bacteriology.* Cobb, Wis, Dec. 24, 07. A.B, Macalester Col, 29; M.S, Minnesota, 30, Ph.D, 32, B.S, 36, M.B, M.D, 38. Asst. prof. bacter, Tennessee, 32–33; instr, Minnesota, 35–40; assoc. prof. *bacter. and pub. health, col. med, dentistry and pharmacy, Illinois,* 40–43, *prof. and acting head dept, 43–* A.A; Soc. Exp. Biol; Ill. Soc. Bact. Morphology of bacteria; medical bacteriology; blood and plasma banks; sulfonamide derivatives; surgical bacteriology and antiseptics.

Novel, Dr. Ruth Sullivan, 48 Young Ave, North Pelham, N. Y. *Physiological chemistry.* New York, N. Y, July 14, 01. A.B, Hunter Col, 22; A.M, Fordham, 24, Ph.D, 28. Instr. and asst. biochem, Post-Grad. Hosp, New York, 22–23; physiol. research chemist, dept. diseases of children, col. physicians and surg, Columbia, 23–31, instr, 28–30, assoc, 30–31; physiol. research chemist, St. Vincent's Hosp, 31–35; *instr. physiol, Hunter Col, 35–* Carbohydrate metabolism; adrenal glands.

Novello, Prof. N(unzio) Jean, Hunter College, 68th St. and Park Ave, New York, N. Y. *Physiological chemistry.* Bari, Italy, Jan. 9, 99. A.B, Hunter Col, 22; A.M, Fordham, 24, Ph.D, 25. Instr. *chem, Hunter Col, 24–29, asst. prof, 29–* N. Y. Acad. Quantitative determination of intestinal putrefaction; detoxication of heterocyclic compounds and picric and picramic acids in the animal body.

Novikoff, Dr. Alex B(enjamin), Brooklyn College, Brooklyn, N. Y. *Experimental embryology.* Russia, Feb. 28, 13. B.S, Columbia, 31, A.M, 33, Ph.D, 38; fellow, Brooklyn Col, 31–35. Tutor, *dept. biol, Brooklyn Col,* 35–40, *instr, 40–* A.A; Soc. Zool. Experimental analysis of annelid development; surface changes in marine ova after insemination.

Novotny, Emil E, Frankford Station P. O, Philadelphia, Pa. *Chemistry.* Wis, Jan. 12, 82. With Ill. Leather Co, 00–04; Griffin Wheel Co, 04–05; head develop. div, West. Elec. Co, 05–15; *v. pres. and director research, Durite Plastics, 15–* Chem. Soc. Production of furfural resins and other synthetic resins.

Novy, Dr. F(rederick) G(eorge), 721 Forest Ave, Ann Arbor, Mich. *[*1]Bacteriology.* Chicago, Ill, Dec. 9, 64. B.S, Michigan, 86, M.S, 87, Sc.D, 90, M.D, 91, LL.D, 36; Hygienic Inst, Berlin, 88; Path. Inst, Prague, 94; Pasteur Inst, Paris, 97; LL.D, Cincinnati, 20. Asst. org. chem, *Michigan,* 86–87, instr. hygiene and physiol. chem, 87–91, asst. prof, 91–93, junior prof, 93–02, prof. *bacter.* and head dept, 02–35, *emer. prof, 35–,* director hygienic lab, 09–35, exec. preclin. med. and chairman exec. cmt, *med. sch,* 30–35, dean, 33–35, *emer. dean, 35–* Russel lecturer, Michigan, 27; Kober lecturer, Georgetown, 31. Past mem, State Board Health, Mich; U. S. Cmn. to Investigate Bubonic Plague, Calif, 01. Chevalier, Légion d'honneur; Order White Lion of Czechoslovakia; Am. Med. Asn. medal, Detroit, 30; hon. mention, Mich. Legislature, 31; Bausch and Lomb microscope award, A.A.A.S, 36. V. pres, Int. Cong. Microbiol, London, 36. hon. pres, New York, 39. Nat. Acad; A.A. (chairman, K, 10); hon. mem. Soc. Bact. (pres, 04); Philos. Soc; emer. mem. Am. Physicians; Am. Med. Asn. (council pharmacol. and chem, 04–29); Soc. Exp. Biol; hon. mem. Asn. Immunol. (pres, 24); Acad. Trop. Med; hon. mem. Soc. Trop. Med; hon. mem. Harvey Soc; hon. fel. N. Y. Acad. Med; hon. mem. Mich. Acad. (pres, 10); Mich. Med. Soc. (v. pres, 98); hon. mem. Wayne Co. Med. Soc; hon. mem. Detroit Acad. Med; hon. mem. Path. Soc. Phila; hon. mem. Soc. de Path. exot; cor. mem. Soc. biol. de Paris; assoc. mem. Soc. royale des Sci. méd. et nat. Bruxelles; Int. Med. Cong. (hon. pres, sect. hygiene); Int. Cong. Tuber. (v. pres, sect. path); Int. Cong. Hygiene (v. pres, sect. trop. med). Chemistry of bacteria; the cultivation of anaerobes; new anaerobic bacillus; immunizing action of non-bacterial products; etiology of diphtheria, yellow fever and plague; formaldehyde and sulfur disinfection; organic peroxides; cultivation of trypanosomes; trypanosomes and hematozoa of birds; mosquito flagellates; relapsing fever spirochetes; Leishman-Donovan bodies; filterable virus; anaphylatoxin and anaphylaxis; microbic respiration.

Nowlan, Prof. F(rederick) S(tanley), University of British Columbia, Vancouver, B. C, Can. *Mathematics.* Havelock, N. S, Aug. 2, 86. B.A, Acadia, 08; A.M, Harvard, 09; Ph.D, Chicago, 25. Adj. prof. *math,* Ga. Tech, 09–10; instr, Horace Mann Sch, Columbia, 10–11, asst, Columbia, 11–12, exten. instr, 12; asst. prof, Bowdoin Col, 18–21; Manitoba, 21–26; *prof, British Columbia, 26–* Linear algebras; number theory.

Nowlan, Dr. J(ames) P(arker), P. O. Box 566, Brownsburg, Que, Can. *Mining geology.* N. S, March 26, 10. B.Sc, Acadia, 28; M.A, Toronto, 30, Ph.D, 35. Geologist, Rhokana Corp, North. Rhodesia, 30–32; Oro Plata Mining Corp, Can. and Brazil, 33–35; geologist and geophysicist, Hans Lundberg, Ltd, 36; consulting geologist and engineer, 37–39; manager, Yana Gold Mines Ltd, 40–42; *supervisor ammunition div, Can. Industries, Ltd, 42–* Can. Inst. Min. and Metal. Silurian stratigraphy of Niagaran escarpment of Ontario.

Nowlis, Dr. Helen Howard (Mrs. Vincent Nowlis), University of Connecticut, Storrs, Conn. *Psychology.* Cranston, R. I, Sept. 22, 13. A.B, Brown, 34, A.M, 36; Ph.D, Yale, 39. Asst. *psychol,* Brown, 34–35; clinic child develop, Yale, 35–36, inst. human relations, 36–39; instr, Smith Col, 39–40; Connecticut, 42–43. Psychol. Asn. Child psychology; personality; motivation.

Nowlis, Dr. Vincent, University of Connecticut, Storrs, Conn. *Psychology.* Wilkes-Barre, Pa, Sept. 13, 13. A.B, Bowdoin Col, 35; Galen C. Moses scholar, Yale, 35–38, univ. scholar, 35–36, 38–39, Ph.D, 39. Asst. psychobiol, sch. med, Yale, 36–39; instr. univ. and labs. primate biol, 39–42; *psychol, Connecticut,* 42–43, *asst. prof, 43–* Assoc. Psychol. Asn. Social behavior; learning; motivation; personality.

Noyce, Prof. William K(night), University of Omaha, Omaha, Nebr. *Organic chemistry.* Irvington, Nebr, April 20, 11. A.B, Doane Col, 33; M.S, Nebraska, 35, Ph.D, 38. Asst. prof. *chem, Omaha,* 37–41, *assoc. prof, 41–* A.A; Chem. Soc. (chairman, Omaha sect, 42); Nebr. Acad. (chairman chem. sect, 41). The action of barium hydroxide on sugar acids; carbohydrates.

Noyes, Dr. Bradford, Jr, Faichney Instrument Corp, Watertown, N. Y. *Physics.* Charleston, W. Va, 95. B.S, West Virginia, 20; M.S, Cornell, 22, Ph.D, 24. Instr. physics, Cornell, 20–24; physicist, Taylor Instrument Companies, 24–43; *director research, Faichney Instrument Corp, 43–* A.A; Physical Soc; Optical Soc; Ceramic Soc. Heat; thermometry; aging of glass.

Noyes, G(eorge) Harold, U. S. Weather Bureau, Boston, Mass. *Meteorology.* Georgetown, Mass, Oct. 12, 75. A.B, Harvard, 97. Aerial observer and observer, *U. S. Weather Bur,* 98–06, local forecaster and assoc. meteorologist, 06–28, *senior meteorologist,* Cleveland, 28–33, *in charge Boston office and airport office, New Eng. climat. sect, 33–* Board visitors, Blue Hill Meteorol. Observatory, Harvard. Meteorol. Soc. The upper air; West Indian hurricanes.

Noyes, Dr. Harold J(udd), 55 E. Washington, Chicago, Ill. *Orthodontics.* Chicago, Ill, Aug. 11, 98. Ph.B, Chicago, 23, M.D, Rush, 33; B.S. and D.D.S, Illinois, 28. Clin. asst. pediat, Rush Med. Col, Chicago, 33–34, clin. assoc, 34–35, clin. instr, 35–40; *prof. orthodontics, dental sch, Northwestern, 40–* Research assoc, Zoller mem. dental clinic, Chicago, 37–40; mem. attending staff, Wesley Mem. Hosp, 42; dental consultant, Children's Mem. Hosp, 42. A.A; Dental Asn; Am. Med. Asn; Asn. Orthodontists (pres, cent. sect, 39–41); fel. Col. Dentists; Soc. Research Child Develop; Ill. State Dental Soc; Chicago Dental Soc. (dental relief cmn, 39–42); Int. Asn. Dental Research. Microscopic anatomy of premaxillae; dental caries; facial growth and development.

Noyes, H(arry) A(lfred), 367 Woodward St, Waban, Mass. *Chemistry, Bacteriology.* Marlborough, Mass, July 7, 90. B.S, Mass. Col, 12, M.S, 14; Purdue; Pittsburgh. Asst. chem, Mass. Col, 10–13; hort. chem. and bacter, Exp. Sta, Purdue, 13–17, research assoc, 17–18; fellow fruit beverages, Mellon Inst, 18–22; research chemist, State Dept. Agr, Mich, 22; cereal chemist, Exp. Sta, Mich. State Col, 22–23; research chemist and food technologist, New Rochelle Research Lab, 23–32; chemist, several small concerns, 33; managing director, Applied Sugar Labs, New York, 34–35; *consultant and food technologist, Arthur D. Little, Inc, 35–* Director research, Welch Grape Juice Co, 19–22; consulting and research chemist, Texas Gulf Sulphur Co, 23–32, consultant, 32. A.A; Chem. Soc. (chairman, agr. and food div, 22-23); Ind. Acad. Food technology; carbonic acid gas in relation to soil acidity, plant composition and soil biology; bacteriological technique; bacterial nutrition; fruit beverages; sugar spray contact freezing processes for comestibles.

Noyes, Helen Miller, Carthage, Ill. *Chemistry.* Carthage, Ill, Feb. 27, 82. B.S, Carthage Col, 02; A.M, Columbia, 22. Instr. math, Iberia Acad, Mo, 04–05; Synodical Col, 05–07; Ferry Hall, Ill, 07–15; chemist, Harriman research lab, Roosevelt Hosp, New York, 19–28; asst. orthop, col. med, Illinois, 36–40. A.A; Chem. Soc; Asn. Cancer Research; Ill. Acad; N. Y. Acad. Colorimetry; hydrogen ions; enzymes in tumors and normal tissues; metabolism in muscular dystrophy.

Noyes, Dr. Richard M(acy), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Champaign, Ill, April 6, 19. A.B, Harvard, 39; Ph.D, Calif. Inst. Tech, 42. Shaw traveling fellow, Harvard, 39; *instr. chem, Calif. Inst. Tech, 42–* Chem. Soc. Mechanism of iodine atom catalysis of cis-trans isomerism in non-polar solvents; isomerization of 1, 2-diiodoethylene and its exchange with iodine as indicated by radioactive tracers.

Noyes, Prof. W(illiam) Albert, Jr, University of Rochester, Rochester, N. Y. **Chemistry.* Terre Haute, Ind, April 18, 98. A.B, Grinnell Col, 19; Dr.Sc, Paris, 20. Teaching fellow, California, 20–21, instr. chem, 21–22; Chicago, 22–23, asst. prof, 23–29; assoc. prof, Brown, 29–35, *prof,* 35–38; *physical chem, Rochester, 38–, chairman dept, 39–* Sect. chairman, Nat. Defense Research Cmt, 40–42, div. chief, 42–; mem. staff, chief tech. div, Chem. Warfare Service, 42– 2nd lieut, Sig.C, 18–19. Nat. Acad; A.A; Chem. Soc. (councilor, 28, ed, 'Bul,' 28, asst. ed, 'Abstracts,' 30–38, chairman, div. physical inorg. chem, 33; ed, 'Chem. Revs,' 39–); Physical Soc; Am. Acad; Ill. Acad; N. Y. Acad; Soc. de Chim. physique. Electrochemistry; discharge through gases; vapor pressures; thermal reactions; photochemistry.

Nuckolls, A(sa) H(opkins), Underwriters' Laboratories, 207 E. Ohio St, Chicago, Ill. *Chemistry.* Springfield, Tenn, Dec. 12, 80. A.B, Ouachita Col, 00; Mass. Inst. Tech, 04–05. Chemist, Ill. Steel Co, 05–07; *chem. engineer in charge dept. chem. and high explosive sta, Underwriters' Labs, 07–* Chem. Soc; Nat. Fire Protection Asn. (chairman, cmt. on hazardous chemicals and explosives); Soc. Test. Mat. (chairman, subcmt. on autogenous ignition of petrol. products). Propagation of flame in pipes and effectiveness of arrestors; carbon tetrachloride extinguisher liquids; comparative life, fire and explosion hazards of common refrigerants; explosion-proof electrical equipment; arrest of dust explosions in conveyor systems by chokes.

Nuckols, S(amuel) B(enton), U. S. Department of Agriculture, Scottsbluff, Nebr. *Agronomy.* Savannah, Mo, July 20, 87. B.S, Missouri, 11, A.M, 12. Instr. agron, West Virginia, 12–13; Colo. Agr. Col, 13–14; *assoc. agronomist, bur. plant indust, U. S. Dept. Agr, 14–* A.A; Soc. Agron. Sugar plants; cost of production of sugar beets and related crops; sugar beet agronomy.

Nugent, David Bertram, Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* Millbrook, Ont, Dec. 28, 81. B.A, Toronto, 06, M.A, 07. Asst. physics, Toronto, 07; asst. astronomer, *Dom. Observatory,* 12–19, astronomer, 19–38, *in charge meridian astron. and time service, 39–* Royal Astron. Soc. Can. (treas, Ottawa center, 12–22). Physics; fundamental stars; time service.

Nugent, Dr. Laurence, Jr, Box 1270, Midland, Texas. *Geology.* Lancaster, Minn, Sept. 23, 12. A.B, Minnesota, 33; M.S, West Virginia, 36; Ph.D, Cornell, 41. Engineer, State Dept. Highways, N. Dak, 33–35; instr. geol, Pittsburgh, 36–37; geophysicist, Gulf Research and Develop. Co, 37–39; geologist, Texas Co, 41–42; *lieut, A.V(S), U. S. Naval Res, 42–* Structural geology; geomorphology; stratigraphy.

Nugent, Dr. Robert G(reene), 202 S. Pitt St, Alexandria, Va. *Physics.* Alexandria, Va, June 17, 10. B.S, Col. of William and Mary, 34; M.S, Catholic Univ, 36, Ph.D, 41. Asst. physics, Catholic Univ, 34–37, math, 38–41; *asst. physicist, Naval Ordnance Lab, 41–* Physical Soc. Ultrasonics; velocity of sound in water at frequencies up to 22.5 megacycles.

Nugent, Prof. Robert Logan, University of Arizona, Tucson, Ariz. *Chemistry.* Syracuse, N. Y, Feb. 9, 02. B.S, Arizona, 23, U. S. Bur. Mines fellow, 24–25, M.S, 25; Rhodes scholar, Oxford, 23–24, 25–26, B.A, 27; Ph.D, Cornell, 28. Heckscher asst, Cornell, 27–28; physical chemist, Gladwyne Research Lab, Pa, 28–32; asst. prof. *chem, Arizona,* 32–35,

assoc. prof, 35–40, *prof, 40–, dean grad. col, 40–* Instr, grad. sch. med, Pennsylvania, 30–32. Summer, junior chemist, U. S. Bur. Mines, 25. Sec'y-treas, State Board Examiners in Basic Sciences, Ariz, 33–40, mem, 40– A.A; Chem. Soc. Colloid and analytical chemistry; magnetite in copper slags; concentration effects with membranes; blood serum as a colloidal system; the chylomicron emulsion; agglutination; biochemistry of mental diseases; protective protein films.

Null, Prof. F(ay) E(dison), 565 Morse Ave, Ridgefield, N. J. *Physics.* Colchester, Ill, Nov. 12, 97. B.S, Illinois, 23, M.S, 24, Ph.D, 26. Engineer, West. Union Tel. Co, 26–27; asst. prof. *physics,* Ga. Tech, 28–29; instr, *Col. City of N. Y,* 29–35, *asst. prof, 35–* Physical Soc; Elec. Eng. Photoelectricity; dielectrics; discharge through gases; ultra-violet sources.

Nulsen, Prof. W(illia)m B(owen), Mill Road, Durham, N. H. *Electrical engineering.* Port Angeles, Wash, Dec. 11, 97. B.S, Calif. Inst. Tech, 18; M.S, New Hampshire, 30. Eng. dept, Gen. Elec. Co, 18–26; asst. prof. and later *assoc. prof. elec. eng, New Hampshire, 26–* Elec. Eng. High voltage air circuit breakers.

Nunan, Prof. J(ames) Kneeland, University of Southern California, Los Angeles, Calif. *Electrical engineering.* New York, N. Y, Feb. 10, 10. B.S, Southern California, 36; M.S, Calif. Inst. Tech, 38. *Asst. to dean, col. eng, and asst. prof. elec. eng, Southern California, 38–; mem. div. war research, Columbia.* Electronics.

Nungester, Prof. Walter J(ames), University of Michigan Medical School, Ann Arbor, Mich. *Bacteriology.* Lima, Ohio, Feb. 22, 01. B.S, Michigan, 23, M.S, 24, Sc.D, 28, M.D, 34. Instr. *bacter,* med. sch, Northwestern, 28–33, asst. prof, 33–35; *assoc. prof, med. sch, Michigan, 35–* A.A; Soc. Bact; Soc. Exp. Biol; Asn. Path. and Bact. Bacterial variation, metabolism and virulence; experimental pneumonia; immunology; skin disinfection.

Nunnemacher, Prof. Rudolph Fink, Clark University, Worcester, Mass. *Histology.* Milwaukee, Wis, March 21, 12. B.S, Kenyon Col, 34; A.M, Harvard, 35, Ph.D, 38; fellow, Oceanog. Inst, Woods Hole, 37. Asst. histol, Radcliffe Col, 35–38; instr. histol. and embryol, med. sch, Oklahoma, 38–39; *asst. prof. biol, Clark, 39–* Asst, Harvard, 36–38. Soc. Zool. Skeletal growth; vertical migration of bathypelagic plankton.

Nurnberger, Prof. Carl E(lroy), Alexander Blain Hospital, Detroit, Mich. *Biophysics.* Atherton, Ind, Sept. 11, 00. A.B, Wabash Col, 23; fellow, Minnesota, 23–25, A.M, 25, Ph.D, 32. Asst. physics, Wabash Col, 22–23; assoc. prof, Ripon Col, 25; asst, cancer inst, Minnesota, 26–32, instr. biophys. sect. of physiol, 32–35; *asst. prof.* radiol, Peiping Union Med. Col, 36–39; *biophysics, col. med, Wayne, 40–; major, Sanit. Corps, U. S. Army, and director testing and research, Army Sch. Roentgenol, Memphis, Tenn, 42–* Lecturer, Yenching Univ, 37–38; radiation physicist, Detroit Receiving Hosp, 40–; St. Mary's Hosp, 40–; Alexander Blain Hosp, 40–Councilor, Detroit Inst. Cancer Research. A.A; Radiol. Soc; Mich. Asn. Roentgenol; Wayne Co. Med. Soc; Detroit Roentgen Ray Soc. Biophysical investigation of cancer.

Nusbaum, Dr. C(harles) J(oseph), Edisto Experiment Station, Blackville, S. C. *Plant pathology.* Salem, Oregon, Aug. 24, 06. B.S, Oregon State Col, 29; M.S, Wisconsin, 31. fellow, 32–34, Ph.D, 34. Field asst. forest path, U. S. Dept. Agr, 27, 34, agent, 28–30; asst. plant path, Wisconsin, 30–32, 34–36; asst. pathologist, Exp. Sta, Clemson Col, 36–41; *assoc. pathologist, Edisto Exp. Sta, 42–* A.A; Phytopath. Soc; S. C. Acad. Fruit diseases; cucurbit crop diseases; cantaloup breeding; fungicides.

Nusbaum, Prof. C(hristian), 1580 Rydalmount Road, Cleveland Heights, Ohio. *Physics.* Columbus Grove, Ohio, Oct. 1, 82. A.B, Ohio State, 08, A.M, 10; fellow, Harvard, 11–13, Ph.D, 15. Asst. physics, Ohio State, 08–11; Harvard, 13–15, instr, 15–18; assoc. physicist, Bur. Standards, 18–20; research assoc, Mass. Inst. Tech, 20–22; asst. prof. *physics, Case,* 22–34, *assoc. prof, 34–* Fel. Physical Soc; Soc. Metals; Cleveland Eng. Soc. Hysteresis and eddy-current losses in iron at high frequencies; magnetic analysis; magnetic susceptibilities; x-rays and applications; stresses in metals.

Nusbaum, Jesse L(ogan), Mesa Verde National Park, Mesa Verde, Colo. *Archeology.* Greeley, Colo, Sept. 3, 87. B.Pd, Colo. State Nor. Sch, 07; Colorado and George Washington, 12–13. Instr. science and manual arts, N. Mex. Nor. Univ, 07–09; archeologist and supt. construction, Museum of N. Mex. and Sch. Am. Research, 09–13, 15–17; archeologist and preparator, Museum Am. Indian, 18–21; supt, Mesa Verde Nat. Park, Colo, 21–31, 36–39; *consulting archeologist, Nat. Park Service and U. S. Dept. Interior, 27–,* director, Lab. Anthrop, Santa Fe, 30–35. Trustee, Lab. Anthrop, Santa Fe, 27–, Indian Arts Fund, 28–, Nat. Asn. Indian Affairs, 31–; hon. life mem, Museum of N. Mex, v. pres. board regents, 32–35. Director and mem. expeds, Colo, Utah, N. Mex, Honduras, Guatemala and Mex, 06– A.A. (chairman, social sci. sect, southwest. div, 33, chairman, H, 35, v. pres, 36); Anthrop. Asn; Asn. Mus. (councilor, 33–38); Soc. Archeol. American archeology; preservation of archeological and other scientific resources.

Nusbaum, Dr. R(alph) E(merson), General Motors Corp, Detroit, Mich. *Physics.* Middlebury, Ind, Jan. 4, 04. A.B, DePauw, 26; M.S, Illinois, 29, Ph.D, 32. *Research physicist, research div, Gen. Motors Corp, 32–* Physical Soc. Spectroscopy.

Nusim, M(elach) J(oseph), 416 Cattell St, Easton, Pa. *Mechanical engineering.* Vaslui, Roumania, Sept. 21, 81. A.B, Lycée real, Braila, Roumania, 00; M.E, Columbia, 05. Asst. engineer, Gen. Elec. Co, Mass, 05–10, in charge eng. calculations and exp. steam tests, 11–14; with Westinghouse Machine Co, 14; turbine engineer, Southwark Foundry and Machine Co, 15–18; consulting engineer, Ingersoll-Rand Co, 18–31; *consulting engineer, 32–* Assoc, Columbia, 19–20. A.A; Mech. Eng. Steam turbines and centrifugal air compressors.

Nutting, Dr. George C(ook), U. S. Department of Agriculture, Chestnut Hill, Philadelphia, Pa. *Physical chemistry.* Fitchburg, Mass, Aug. 24, 08. B.S, Brown, 30; Ph.D, California, 34. Instr. chem, California, 34–36; Chicago, 36–38; George Fisher Baker research fellow, Cornell, 38–41; assoc. chemist, *east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr,* 41–42, *chemist, 42–* Chem. Soc. Spectroscopy of solids; surface chemistry; ultrasonics.

Nutting, Dr. Howard S(terling), 1608 Crane Court, Midland, Mich. *Organic chemistry.* Leominster, Mass, Jan. 21, 01. B.S, Worcester Polytech, 23, M.S, 26; Ph.D, Brown, 28. Instr, Worcester Polytech, 24–26; *research chemist, Dow Chem. Co, 28–* Chem. Soc. Organic germanium derivatives; reactions in liquid ammonia; oxidation of olefins; alkyl halides.

Nutting, Dr. Lee, 2441 Russell St, Berkeley, Calif. *Food chemistry.* Berkeley, Calif, Sept. 4, 09. B.S, California, 31; A.M, Stanford, 32, Ph.D, 34. Teaching asst, Stanford, 32–34; research chemist, Hills Bros, Inc, San Francisco, 34–40; lieut, Ordnance Dept, *U. S. Army,* 40, *chief chemist, Indiana Ordnance Works, 41–* Inst. Food Technol; Chem. Soc. Concentrated aqueous mixtures of electrolytes; chemistry of coffee; smokeless powder.

Nutting, Dr. P(erley) G(ilman), U. S. Geological Survey, Washington, D. C. **Optics, Geophysics.* Randolph, Wis, Aug. 22, 73. A.B, Stanford, 97; M.S, California, 99, Whiting fellow, Göttingen, 01–02; Pres. White fellow, Cornell, 02–03, Ph.D, 03. Asst. physics, Stanford, 97–98; California, 98–01; asst. physicist, Bur. Standards, 03–09, assoc. physicist, 09–12; asst. prof. physics, George Washington, 07–09; physicist, research lab, and optical engineer, Eastman Kodak Co, 12–16; in charge sci. research, Westinghouse Elec. and Mfg. Co, 16–20; consulting engineer, 20–25; geophysicist, U. S. Geol. Surv, 25–43; *retired.* A.A; Physical Soc; Astron. Soc; Optical Soc. (pres, 17); Chem. Soc; Wash. Acad. Spectroscopy; lens testing; visual sensitometry; colorimetry; photographic sensitometry; industrial research; motion picture engineering; adsorption; bleaching clays; chemical potentials in mineral solutions.

Nutting, Dr. Robert D, 304 Price St, West Chester, Pa. *Chemistry.* Macon, Ga, June 22, 07. B.S, Yale, 28; M.S, Mass. Inst. Tech, 30, Sc.D, 33. Senior fellow, Textile Foundation, 33–35; *chemist, pigment dept, E. I. du Pont de Nemours and Co, Baltimore, 35–* Chem. Soc; Federation Paint and Varnish Production Clubs; Electrochem. Soc. Rubber chemistry; textile dyeing; color measurement and spectrophotometry; printing inks; pigment manufacture.

Nuttycombe, Prof. J(ohn) W(illiam), 611 Milledge Circle, Athens, Ga. *Zoology.* Charlottesville, Va, July 16, 00. B.S, Va. Polytech, 25; Ph.D, Virginia, 28. Instr. *zool,* Tennessee, 28–29, asst. prof, 29–30; assoc. prof, *Georgia,* 30–38, *prof, 38–* Summer, invert. zoologist, Mt. Lake Biol. Sta, Vir-

ginia, 30. A.A; Soc. Zool; Ga. Acad. Non-parasitic flatworms; insects.

Nuzum, Dr. Frank R, Cottage Hospital, Santa Barbara, Calif. *Medicine.* Wis, 88. B.S, Wisconsin, 11; M.D, Rush, Chicago, 13. Asst. to Dr. J. B. Herrick, 14–16; to Dr. A. J. Ochsner, 16–17; *practising physician, 18–; director cardiovascular research, Santa Barbara Cottage Hosp, 21–* Am. Med. Asn; Asn. Path. and Bact; fel. Col. Physicians; Am. Heart Asn. (director). Internal medicine; pathology; changes in the His' bundle; hypertension; cardiac diseases.

Nuzum, Dr. J(ohn) W(eston), 2051 Sedgwick St, Chicago, Ill. *Surgery.* Broadhead, Wis, June 16, 90. B.S, Wisconsin, 12; M.D, Rush, Chicago, 14. Intern, Cook County Hosp, 15–16, pathologist, 16–19; instr. hygiene and prev. med. and *assoc. path. and anat, col. med, Illinois.* Director surg. lab. and staff surgeon, Augustana Hosp, Chicago. A.A; fel. Col. Surg; Am. Med. Asn. Surgical pathology and bacteriology.

Nyboer, Dr. Jan, Connecticut Mutual Life Insurance Co, 140 Garden St, Hartford, Conn. *Internal medicine.* Holland, Mich, April 21, 06. A.B, Michigan, 28, M.S, 29, Sc.D, 32, M.D, 35. Asst. biol, Hope Col, 25–27; mammal, Michigan, 28, asst. and demonstrator physiol, 28–34; asst. electrocardiol, Univ. Hosp, 34–35; intern, St. Louis Maternity and Barnes Hosps, Washington (St. Louis), 35–36; Harvard Med. Service, Boston City Hosp, 36–37, fellow med, N. Y. Post-Grad. Med. Sch, Columbia, 37–41; *asst. med. director, Conn. Mutual Life Ins. Co, 41–; clin. instr. med, sch. med, Yale, 42–* Asst. attending physician, N. Y. Post-Grad. Hosp. and Clinic, 37– Asn. Life Ins. Med. Directors; N. Y. Heart Asn. (criteria cmt, 40, acting chairman, 42). Physiology; electrocardiography; regulation of cardiac and respiratory rhythm and reflexes; statistics of normal electrocardiograms; esophageal electrograms in myocardial infarction, fibrillation and bundle branch block; experimental atherosclerosis; heart sounds in experimental endocarditis; electrical impedance pulsations in animal and man.

Nye, Prof. Arthur W(ickes), 3551 University Ave, Los Angeles, Calif. *Physics.* Canton, Ohio, Jan. 28, 82. B.S, Case, 04, M.E, 07; Chicago, 16; Ph.D, California, 35. Morgan Eng. Co, 04; Gen. Elec. Co, 04–05; *prof. physics, Southern California, 07–* Summer, instr, California, 17. Director, West. Inst. Light and Vision. Ordnance Dept, U.S.A, 18–19. A.A; Physical Soc; Asn. Physics Teachers; assoc. Acoustical Soc; Illum. Eng. Soc. (chairman, south. Calif. sect, 30); Elec. Eng. (sec'y, La. sect, 17). Illuminating engineering; phenomena at total internal reflection of electromagnetic waves; sound; light; cosmic radiation.

Nye, Dr. H(erbert) A(rnold), University of Illinois, Urbana, Ill. *Physics.* Sharon, Pa, June 19, 14. A.B, Allegheny Col, 36; A.M, Illinois, 38, Ph.D, 41. Asst. *physics, Illinois,* 32–41, *instr, 41–* Physical Soc. Theoretical investigation in cosmic rays.

Nye, Dr. Robert N(ason), 32 Lawrence Road, Chestnut Hill, Mass. *Bacteriology.* Springfield, Mass, June 3, 92. A.B, Harvard, 14, M.D, 18. Asst, Mass. Gen. Hosp, 19–20; asst. pathologist, Boston City Hosp, 20–21; asst. director antitoxin and vaccine lab, Mass. Dept. Pub. Health, 22–23; asst. physician, Thorndike Mem. Lab, *Boston City Hosp,* 23–29, assoc, 29–32, *asst. pathologist, 33–;* instr. *bacter, Harvard Med. Sch,* 23–41, *asst. prof, 42–* Mem. cmt. information procurement and assignment service, War Manpower Cmn, 41– Ed, 'New Eng. Jour. Med,' 36– Mem. cmt. information, div. med. sciences, Nat. Research Council, 40– A.A; Asn. Path. and Bact; Asn. Immunol; Soc. Clin. Invest; Am. Med. Asn.

Nygaard, Dr. Edwin M(arcus), 104 S. Drexel St, Woodbury, N. J. *Chemistry.* Minneapolis, Minn, Feb. 24, 98. B.S, Minnesota, 21; A.M, Harvard, 29, Ph.D, 31. Asst. chem, Minnesota, 21–22, asst. chemist, mines exp. sta, 22–27; private asst. to Prof. Kohler, Harvard, 30–31; *research chemist, Vacuum Oil Co, 31–* Chem. Soc. Grignard reagent; petroleum.

Nygard, Dr. Iver J(ohn), U. S. Department of Agriculture, Faribault, Minn. *Soils.* Iron Belt, Wis, July 24, 03. B.S, Minnesota, 24, M.S, 26, Ph.D, 33. Asst. soils, Minnesota, 24–29; asst. chemist, Exp. Sta, Mont. State Col, 30–33; soil surveyor, Exp. Sta, Minnesota, 34; asst. soil surveyor, *soil conservation service, U. S. Dept. Agr,* 35–39, *assoc. soil scientist, 39–* A.A; Int. Soc. Soil Sci. Chemistry; peat soil; phosphorus deficiency in soils; soil erosion.

Nyiri, Dr. W(illiam), 863 S. 12th St, Newark, N. J. *Pathology, Pharmacology.* Vienna, Austria, March 3, 93. M.D, Vienna, 16. Assoc. attending physician, Wieden Hosp, Vienna, 18–26; *research fellow, col. pharmacy, Rutgers, 26–, prof. exp. path, 28–* Asst. prof, Vienna, 25–26. Attending physician, St. Michael's Hosp, Newark, N. J; chief metabolic service, Newark City Hosp; attending physician, St. Mary's Hosp, Orange. Kidney function and diseases; cancer; insulin; digitalis; iodine.

Nyquist, Dr. H(arry), 29 Marion Ave, Millburn, N. J. *Engineering.* Nilsby, Sweden, Feb. 7, 89. A.B, B.S, North Dakota, 14, M.S, 15; Ph.D, Yale, 17. *Telephone engineer,* Am. Tel. and Tel. Co, 17–34; *Bell Tel. Labs, New York, 34–* A.A; Elec. Eng. (cmt. electrophysics, 29–); Physical Soc. Stark effect; telegraphy; thermal agitation of electricity.

Nystrom, Prof. Paul H(enry), North Hackensack, N. J. *Economics.* Maiden Rock, Wis, Jan. 25, 78. Ph.B, Wisconsin, 09, A.M, 10, Ph.D, 14. Asst. prof. polit. econ, Wisconsin, 09–14; assoc. prof. econ, Minnesota, 14–15; director marketing research, U. S. Rubber Co, 15–17; sales manager, Int. Magazine Co, 17–21; director, Retail Research Asn. and Associated Merchandising Corp, 21–27; *prof. marketing, sch. business, Columbia, 26–; pres, Limited Price Variety Stores Asn, 33–* Mem. and past chairman, Fed. Advisory Board Vocational Educ, 37– Ed, 'Am. Marketing Jour,' 35–36. A.A; Econ. Asn; Marketing Soc. (past pres); Sociol. Soc; Management Asn; Statist. Asn; Inst. Distribution (chairman, board, 35–37); Vocational Asn. (v. pres. in charge business educ, 38–). Economics of consumption, fashion and retailing; problems of distribution; vocational education in the business field.

Nyswander, Dr. Dorothy Bird, Federal Works Agency, 101 Park Ave, New York, N. Y. *Psychology.* Reno, Nev, Sept. 29, 95. A.B, A.M, Nevada, 15; fellow, California, 24–25, Ph.D, 26. Asst, California, 23–24, instr. educ. statist, 24, statistician, dept. psychol, 24–25; assoc. prof. educ. psychol, Utah, 26–29, prof, 29–36; *director* sch. health study, Cmt. Neighborhood Health Develop, *New York,* 36–40, *health educ. demonstration, City Health Dept, 40–; regional supervisor war pub. service projects, Fed. Works Agency, 42–* Research fellow, Stanford, 26–27; Nat. Youth Admin. and Works Progress Admin, 35–36. Summer, instr, Brigham Young, 24. Assoc. Psychol. Asn; Statist. Asn; Acad. Polit. and Social Sci; Pub. Health Asn. Animal behavior; reliability of experimental apparatus for use with human and lower animals; reliability and validity of character education tests and health service; health education procedures; psychological factors in public health education and administration.

Nyswander, Prof. J(ames) A(ndrew), University of Michigan, Ann Arbor, Mich. *Mathematics.* Napoleon, Ohio, April 23, 91. B.S, California, 13; Ph.D, Chicago, 24. Instr. *math,* Nevada, 14–16, asst. prof, 16–18, assoc. prof, 18–21; asst. prof, Swarthmore Col, 24–26; *Michigan,* 26–31, *assoc. prof, 31–* Math. Soc; Math. Asn. Differential and difference equations.

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Oakes, Dr. B(yron) J(ohn), National Synthetic Rubber Corp, Louisville, Ky. *Physical chemistry.* Marlette, Mich, April 1, 94. A.B, Mich. State Nor. Col, 21; Ph.D, Columbia, 24. Research chemist, Valentine and Co, 24–26; Sherwin-Williams Co, 27–28; chief chemist, Minn. Mining and Mfg. Co, 28–43; *exec. v. pres. and gen. manager, Nat. Synthetic Rubber Corp, 43–* Dry Milk Inst. fellow, 26–27. Chem. Soc. Lacquers; flocculent precipitates; analytical methods; adhesives; colors.

Oakes, Dr. Mervin E(lijah), 65–30 Kissena Blvd, Flushing, N. Y. *Biology.* Lecompton, Kans, July 23, 92. A.B, Southern California, 15; A.M, Columbia, 24, Ph.D, 40. Instr. English, Clemson Agr. Col, 20–23; instr. biol, Wash. Sq. Col, N. Y. Univ, 23–27; teacher, high sch, New York, 27–28; instr. nat. science, Teachers Col, Columbia, 28–31; head dept. science, N. Y. State Nor. Sch, Fredonia, 31–35; instr. English, Mars Hill Col, 35–36; prin, high sch, N. C, 36–37; *instr. biol, Queens Col. (N. Y.), 37–* A.A; Sci. Teachers Asn; Nat. Cmt. Sci. Teaching; Council Sci. Teachers; Asn. Biol. Teachers; Genetic Asn; N. Y. State Sci. Teachers Asn; N. Y. Asn. Biol. Teachers. Teaching of science; children's explanations of natural phenomena.

Oakeshott, Dr. Gordon B, Compton Junior College, Compton, Calif. *Geology.* B.S, California, 28, M.S, 29; Ph.D, Southern California, 36. Teaching fellow geol. sciences, Cali-

fornia, 29; field geologist, Shell Oil Co, 29–30; *instr. earth sciences, Compton Junior Col, 30–, coordinator war training service, Civil Aeronaut. Admin, 42–* A.A; Asn. Pacific Coast Geog. Geology and mineral deposits of the western San Gabriel Mountains, California.

Oakley, Prof. C(arroll) F(rank), Milton College, Milton, Wis. *Physics.* Milton, Wis, Feb. 21, 99. A.B, Milton Col; A.M, Michigan. Instr. physics, *Milton Col,* 22–23, *prof,* 23–29, *physics and math, 30–* Spectral intensities of mercury-arc; ultra-violet spectrum; energy distribution curves of infra-red radiators.

Oakley, Prof. C(letus) O(dia), Haverford College, Haverford, Pa. *Mathematics.* Ranger, Texas, July 9, 99. B.S, Texas, 23; M.S, Brown, 26; Ph.D, Illinois, 29. Engineer, West. Elec. Co, 23–24; instr. *math,* Brown, 24–26; Illinois, 26–29; fellow, Brown, 29–30, asst. prof, 30–34; asst. prof. and later assoc. prof, *Haverford Col,* 34–42, *prof, 42–, head dept.* U.S.N, 18–19. Statist. Asn; Inst. Math. Statist; Math. Soc; Math. Asn. Linear and non-linear differential equations; non-linear operations and integral equations; semi-linear equations.

Oakwood, Dr. T(homas) S(aylor), Pennsylvania State College, State College, Pa. *Organic chemistry.* Oakwood, Ill, Oct. 6, 09. B.S, Illinois, 30; M.S, Pa. State Col, 31, Ph.D, 37. Research chemist, Pa. State Col, 35–38; instr. chem, Vassar Col, 38; instr. and later *asst. prof. org. chem, Pa. State Col, 39–* Chem. Soc. Sterols; amines.

Oartel, Dr. J(ohn) S(heldon), University of Pittsburgh, Pittsburgh, Pa. *Bacteriology.* N. Braddock, Pa, Feb. 11, 01. D.D.S, Pittsburgh, 23, M.S, 33. Instr. operative dentistry and histol, *sch. dentistry, Pittsburgh,* 23–26, *bacter. and histol,* 26–35, asst. prof, 35–41, *assoc. prof, 41–* Dental Asn; fel. Col. Dentists; Odontol. Soc. West. Pa. (pres, 41); Int. Asn. Dental Research. Effects of short-electric waves upon bacteria.

Oathout, Dr. C(harles) H(ubert), 1025 W. Adams St, Macomb, Ill. *Agriculture.* Loda, Ill, July 4, 75. B.S, Illinois, 07, M.S, 25, Ph.D, 27. Asst. soils, Exp. Sta, Illinois, 07–08; manager farm, 08–13; county agent, Champaign County, Ill, 13–23; *prof. agr. and head dept, West. Ill. State Teachers Col, 27–*

O'Bannon, Prof. Lester S(everance), 123 State St, Lexington, Ky. *Mechanical engineering.* Stanford, Ky, May 5, 94. B.M.E, Kentucky, 15, M.E, 39. Steam eng. dept, Ill. Steel Co, Chicago, 15–18; efficiency expert, coke plant dept, Nat. Tube Co, Ohio, 19–20; asst. prof. steam eng, *Kentucky,* 20–27, prof. heat eng, 27–36, head dept. mech. eng, 35–36, *research engineer, Exp. Sta,* 36– Sergt, F.A, 18–19. Mech. Eng; Heat. and Vent. Eng; Ky. Acad; Ky. Soc. Professional Eng. Air conditioning.

Obear, Dr. G(eorge) B(arrows), P. O. Box 2297, Manila, P. I. *Physics.* Lynn, Mass, July 27, 79. B.S, Mass. Inst. Tech, 03; M.S, Brown, 05, Ph.D, 11. Instr. math. and elec. eng, Lowell Textile Sch, 03–04; asst. instr. math, Brown, 05–07; physics, Colby Col, 11–16; Case, 16–18; head dept. physics, Philippines, 25–34; *agr. economist, agr. adjust. admin, U. S. Dept. Agr, Manila, 34–* Capt. and head dept. physics and eng, Med. Research Lab, A.S, 18–20. Mem. Nat. Research Council P. I. A.A; Asn. Teachers Physics; P. I. Sci. Soc. Standard cells; nucleation and ionization; hygrometry of gelatinous media; electric conditions in animal tissue; oxygen and aviation; dermography.

Obenchain, Dr. Jeannette B(rown), 6040 Dorchester Ave, Jackson Park Station, Chicago, Ill. *Anatomy.* Dallas, Texas, Aug. 22, 76. Ph.B, Chicago, 06, Ph.D, 24. Asst. *anat, Chicago,* 10–26, assoc, 26–31, *research assoc, 31–* A.A; Asn. Anat; Ill. Acad. Brain of cyclostome Ichthyomyzon; brains of the South American marsupials, Caenolestes and Orolestes.

Obenshain, Dr. S(amuel) S(hockley), Virginia Polytechnic Institute, Blacksburg, Va. *Agronomy.* Buchanan, Va, June 12, 04. B.S, Va. Polytech, 27; M.S, Agr. and Mech. Col. Texas, 28; Ph.D, Iowa State Col, 32. Assoc. prof. agron, John Tarleton Col, 28–30; asst. prof, Agr. and Mech. Col. Texas, 30–31; asst. soils, Iowa State Col, 32–33; asst. agronomist and later *assoc. agronomist in charge soil surv, Exp. Sta, Va. Polytech, 33–* Summer, Mich. Land Econ. Surv, 29; tech. foreman erosion control work, Iowa, 33. Soc. Agron; Soil Sci. Soc. (chairman sect. V, 39); Asn. South. Agr. Workers (sec'y agron. sect, 41); Va. Acad. Soil survey and fertility.

Ober, Dr. Frank (Roberts), Harvard University Medical School, Boston, Mass. *Orthopedic surgery.* Mt. Desert, Maine, June 1, 81. M.D, Tufts Col, 05, hon. Sc.D, 43. Clin. prof. orthop. surg, Harvard Med. Sch, 31–37, asst. dean grad. courses, 31–37; *John Ball and Buckminster Brown clin. prof, Harvard Med. Sch, 37–, asst. dean in charge grad. courses, 37–* Surgeon in chief, New Eng. Peabody Home for Crippled Children, 29–; chief orthop. dept, Children's Hosp, Boston, 31–; surgeon, state dept. infantile paralysis, Vt, 24–; consulting orthop. surgeon, Peter Bent Brigham Hosp. Ed, 'Lovett's Scoliosis'; co-editor, Jones and Lovett's 'Orthop. Surg.' Lieut-col, M.C. A.A; Am. Med. Asn; Orthop. Asn; fel. Col. Surg; Acad. Orthop. Surg; Acad. Physical Med; Tuber. Asn; New Eng. Surg. Soc; Int. Soc. Orthop. Surg. Operation for club feet; arthrotomy of hip joints; tendon transplantation in poliomyelitis; backache.

Ober, Prof. Shatswell, 22 Oakland Ave, Arlington, Mass. *Aeronautical engineering.* Beverly, Mass, June 26, 94. B.S, Mass. Inst. Tech, 16. Hull draftsman, Bath Iron Works, 16–17; estimator, Union Shipbuilding Co, 19–22; res. assoc, *Mass. Inst. Tech,* 22–29, *assoc. prof. aeronaut. eng, 29–* Aeronaut. engineer, A.C, 17–19. Inst. Aeronaut. Sci. Airplane design and testing.

Oberfell, Charles R(aymond), 301 Elmwood Ave, Lynchburg, Va. *Chemistry.* Williamsport, Pa, Feb. 4, 84. B.S, Pa. State Col, 06, M.S, 10. Asst. chemist, Yocum-Eachus Lab, Newark, N. J, 06–08; chief chemist, England, Walton and Co, Phila, 08–17; chem. director, J. H. Heald and Co, Inc, and Imp. Dyewood Corp, Lynchburg, 17–30; *manager tannin extract div, Mead Corp, 30–* Chem. Soc; Chem. Eng; Leather Chem. Asn. (pres, 16–17). Leather.

Oberg, Dr. A(aron) G(ustaf), Texas Technological College, Lubbock, Texas. *Chemistry.* Denver, Colo, Jan. 1, 08. B.S, Colorado, 29, M.S, 33, Ph.D, 35. Ammonia div, E. I. du Pont de Nemours and Co, 29–30; asst. chem, Colorado, 30–35, instr. *chem. and chem. eng,* 35–36; *Texas Tech. Col,* 36–39, *asst. prof, 39–* Chem. Soc; Chem. Eng. Industrial chemistry and chemical engineering.

Oberg, Dr. E(dwin) N(athaniel), 1519 Muscatine Ave, Iowa City, Iowa. *Mathematics, Physics.* Strathcona, Minn, Feb. 4, 06. A.B, Minnesota, 29, A.M, 32, Ph.D, 35. Asst. *math,* Minnesota, 30–33; *instr,* Dakota Wesleyan, 33–34; Wis. State Teachers Col, Superior, 34–35; Rochester Junior Col, 35–37; *Iowa, 37–* Math. Soc; Math. Asn. Approximate solutions of integral equations; linear functionals.

Oberholser, Prof. Harry C(hurch), Cleveland Museum of Natural History, Cleveland, Ohio. *Ornithology.* Brooklyn, N. Y, June 25, 70. Private schs. Asst. ornithologist and ornithologist, bur. biol. surv, U. S. Dept. Agr, 95–14, asst. biologist, 15–23, biologist, 24–28, senior biologist, 28–41; consulting prof. zool, American Univ, 20–41; *curator ornith, Cleveland Museum Nat. Hist, 41–; mem. staff, fish and wildlife service, U. S. Dept. Interior, 42–* A.A; fel. Ornith. Union; Ecol. Soc; Cooper Ornith. Club; Wilson Ornith. Club; Biol. Soc. Wash; cor. mem. Linnaean Soc. N. Y; For. Bird Club; British Ornith. Union; Australasian Ornith. Union; S. African Ornith. Union; Bombay Soc. Nat. Hist. General systematic ornithology; geographical distribution; troglodytes; Otocoris; Bleda and its allies; birds of South America, Africa and Asia; great horned owls; the birds of Texas.

Oberle, Dr. Geo(rge) D(avid), New York State Agricultural Experiment Station, Geneva, N. Y. *Horticultural genetics, Plant breeding.* Carbondale, Kans, Nov. 6, 07. B.S. (Agr), Kans. State Col, 31, M.S. (Agr), 36; Ph.D, Cornell, 38. Asst, Kans. State Col, 35; assoc. prof. agr, Ark. State Teachers Col, 36; asst. in research, N. Y. Exp. Sta, Geneva, 37; agent, U. S. Dept. Agr, 38–39; *assoc. in research, N. Y. Exp. Sta, Geneva, and asst. prof. pomol, Cornell, 39–* Capper award, 31; Kans. State Chap. Sigma Xi award, 36. Soc. Hort. Sci; Genetics Soc. Breeding new sorts of fruits and vegetables which are resistant to diseases, insects and other adverse agencies.

Oberlin, Dr. Kermit W(illiam), University of Delaware, Newark, Del. *Psychology.* Butler, Ind, Aug. 18, 02. A.B, Wittenberg Col, 27; A.M, Harvard, 30, Ph.D, 35. Asst. *psychol,* Harvard, 27–29, Austin teaching fellow, 29–30; instr, *Delaware,* 30–39, *asst. prof, 39–* A.A; Psychol. Asn. A.A.U.P. (sec'y-treas, Del, 38–); East. Psychol. Asn. Psychophysics; learning; motivation.

Oberly, Prof. H(enry) S(herman), University of Pennsylvania, Philadelphia, Pa. *Psychology.* Decatur, Ill, April 2,

98. A.B, Muhlenberg Col, 20; A.M, Pennsylvania, 22, Ph.D, 24. Asst. instr. *psychol, Pennsylvania,* 20–21, instr, 21–27, asst. prof, 27–36, *assoc. prof, 36–,* assoc. director *admissions,* 36–39, director, 39–43, *dean, 43–* Psychol. Asn. Experimental psychology.

Oberndorf, Dr. C(larence) P(aul), 40 W. 59th St, New York, N. Y. *Psychiatry.* New York, N. Y, Feb. 16, 82. A.B, Cornell, 04, M.D, 06. Instr. neur, med. sch, Cornell, 14–20; adj. neurologist, Bellevue Hosp, 15–20; assoc. psychiatrist, Mt. Sinai Hosp, 25–39; *clin. prof. psychiatry, Columbia, 36–* Psychiatrist, med. advisory board, Selective Service System. Psychoanal. Asn. (pres, 24, 36); N. Y. Acad. Med. (chairman sect. neur. and psychiatry, 33); N. Y. Soc. Clin. Psychiatry (pres, 38); N. Y. Neur. Soc. (pres, 43). Psychoanalytic and psychiatric problems; out-patient work in psychiatry; psychiatry among children in institutions; depersonalization; psychoanalytic studies of Holmes and Hawthorne; psychiatric novels of Oliver Wendell Holmes.

Oberst, Dr. Fred W(illiam), U. S. Public Health Service Hospital, Lexington, Ky. *Biochemistry.* Falls City, Nebr, July 7, 04. A.B, West. Texas State Teachers Col, 27; scholar, Iowa, 27–28, M.S, 28, fellow, 29–30, Ph.D, 30. Instr. org. chem. and biochem, Iowa, 28–29, research assoc. obstet. and gynec, col. med, 30–35; *biochemist, U. S. Pub. Health Service, 35–* Chem. Soc. (sec'y-treas, Lexington sect, 37–39, chairman, 39, councilor, 40); Soc. Biol. Chem. Chemistry of pregnancy and toxemias of pregnancy and the nature of drug addiction; excretion of opium alkaloids; metabolism; nutrition; blood changes in morphine addiction.

Oblad, Dr. Alex G(olden), 2406 Anniels Drive, Dallas, Texas. *Physical chemistry.* Salt Lake City, Utah, Nov. 26, 09. A.B, Utah, 33, A.M, 34; Ph.D, Purdue, 37. Teaching fellow, Utah, 33–34; teaching asst, Purdue, 34–37; research physical chemist, Standard Oil Co, 37–42; *group leader chem. research sect, Magnolia Petrol. Co, 42–* Chem. Soc. Heat capacities of glasses; thermodynamics of hydrocarbons; optical methods of analysis; catalysis.

Obold, Prof. Walter Lord, 547 Kathmere Road, Brookline, Pa. *Bacteriology.* Alexandria, Pa, June 29, 03. B.S, Franklin and Marshall Col, 28; M.S, Pennsylvania, 30, Ph.D, 34. Research assoc. for Marine Underwriters, Bur. Standards and bur. chem. and soils, U. S. Dept. Agr, 28–30; asst. prof. *biol, Drexel Inst,* 30–37, assoc. prof, 37–43, *prof, 43–* Pub. Health Asn; Soc. Bact; Inst. Chem; Inst. Food Technol. Biochemistry; microbiology; spontaneous heating; utilization of bacteria, yeasts and molds in industry.

Oboukhoff, Prof. Nicholas M(ikhallovich), 402 Jefferson St, Stillwater, Okla. *Engineering.* Novocherkassk, Russia, July 8, 75. M.S, Univ. Moscow, Russia, 95; M.E, Inst. Tech. Kharkov, Russia, 04; E.E, Ecole Supérieure d'Electricité, Paris, 09; Ph.D, Calif. Inst. Tech, 29. Research eng, Siemens and Halske Co. and others, Petersburg, Russia, 13–18; commissioner labor, Prov. Govt, Siberia, 18–19; asst. prof. physics, Univ. Irkutsk and Inst. Tech, Siberia, 20–21; prof. elec. eng, theoret. mech. and hydraulics and dean electromech. div, Polytech. Inst, Harbin, Manchuria, 21–30; assoc. prof. *elec. eng, Okla. Agr. and Mech. Col,* 29–30, *research prof, 30–, prof. math. physics, 36–* A.A; fel. Am. Geog. Soc; fel. Elec. Eng. (cmt. research, 38–40); fel. Okla. Acad. (v. pres. sci. sect, 40). Electrical machinery; transmission lines; theory of broad crested weirs; time-space distribution of temperature within heated bodies; optimum wave-length and optimum antenna height in radio communication; logic and epistemology of engineering.

Obreshkove, Prof. Vasil, Bard College, Annandale-on-Hudson, N. Y. *Physiology.* Shoumla, Bulgaria, May 11, 90. B.S, Syracuse, 15, M.S, 16; Thayer fellow, Harvard, 19–20, Ph.D, 20. Asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 16–17; asst. zool, Harvard, 17–18, 19–20; instr, Syracuse, 20–22, asst. prof, 22–24, assoc. prof, 24–25; *head dept. biol,* St. Stephen's Col, *Columbia,* 25–35, *prof,* 30–35, *Bard Col, 35–,* director studies, 36–37. A.A; Soc. Zool; Soc. Exp. Biol. Respiratory metabolism in Cladocera; x-ray and metabolism; action of acetylcholine as a transmitter of nervous impulses.

O'Brien, Dr. Albert S(tephen), 1406 W. John St, Champaign, Ill. *Analytical chemistry.* Duluth, Minn, Nov. 11, 09. B.S, Wheaton Col. (Ill), 33; Ph.D, Minnesota, 38. Asst, Minnesota, 35–38; instr. chem, Wheaton Col. (Ill), 38–43; *mem. War Production Board synthetic rubber program, Minnesota, 43–* Summers, protein chemist, Gen. Mills, 36–38. Chem. Soc. Aging of precipitates.

O'Brien, Prof. Brian, University of Rochester, Rochester, N. Y. **Physics.* Denver, Colo, Jan. 2, 98. Ph.B, Yale, 18, Ph.D, 22. Research engineer, Westinghouse Elec. and Mfg. Co, 22–23; research physicist, Buffalo Tuber. Asn, 23–30; *prof. physiol. optics, Rochester, 30–, director inst. optics, 38–* A.A; Physical Soc; Optical Soc; Elec. Eng. Optical constants of metals; action of light on living organisms; energy distribution in arc emission spectra; photographic spectrophotometry; photochemical effects of sunlight; photographic intermittency and reciprocity defects; solar ultra-violet spectrum and atmospheric ozone; flicker phenomena in binocular vision; aircraft optical instruments.

O'Brien, Dr. Daniel P(atrick), Rockefeller Foundation, 20 Rue de la Baume, Paris, France. *Medicine.* Torrington, Conn, Feb. 25, 94. Ph.B, Yale, 15; M.D, Hopkins, 20. Res. house officer, Hopkins Hosp, 20–21; for. asst, Paris, 21–23; Jacques Loeb fellow med, Hopkins Hosp, 23–26; asst, div. med. educ, *Rockefeller Foundation,* 26–29, *asst. director med. sciences, 29–* Director, Hopkins Hosp. Med. Unit, Grenfell Hosp, Labrador, 20. Med. officer, Byrd north polar exped, 26. Medical sciences and education.

O'Brien, Dr. E(dward) J(ames), 307 David Whitney Bldg, Detroit, Mich. *Surgery.* Hatley, Wis, April 28, 87. M.D, Detroit Col. Med, 09. *Chief surgeon, Herman Kiefer Hosp, 20–; thoracic surgeon, Detroit and Northville Tuber. Sanatorium, Board of Health, 26–; head div. chest surg, Harper Hosp, 28–; prof. clin. surg, Wayne, 33–* Consulting thoracic surgeon, Am. Legion Hosp, Battle Creek, 26–; St. Joseph's Mercy Hosp, 30–; Saginaw County Contagious Hosp, 35– Pres, State Sanatorium Cmn, Mich, 25. Col. Chest Physicians; Asn. Thoracic Surg. (councilor, 39); fel. Col. Surg; Am. Med. Asn; Cent. Surg. Soc; Acad. Surg. Detroit. Thoracic surgery; tuberculosis.

O'Brien, Dr. Frank J(ohn), 110 Livingston St, Brooklyn, N. Y. *Psychiatry.* Worcester, Mass, Aug. 9, 91. A.B, Col. of Holy Cross, 12; A.M, Clark, 13, Ph.D, 16; Harvard, 18–20; M.D, Louisville, 27. Asst. research exp. psychol, Clark, 14–16; psychol. intern, Psychopathic Hosp, Boston, 16–18; psychologist, Mass. Reformatory for Boys, 20–21; director, Louisville Psychol. Clinic, 22–31; asst. director and chief psychiatrist, bur. child guidance, *Board Educ, New York,* 31–37, director bur, 37–41, *assoc. supt. schs, 41–* Instr, sch. med, Louisville, 27–31; in charge mental work, Somerville Police Court, Mass, 17–20; asst. director mental hygiene surveys, Nat. Cmt, 20–22; mem, State Child Welfare Cmn, Mass; mental hygiene div, Am. Asn. Social Workers; Nat. Conf. Social Work; director cmt. on mental hygiene, Ky. Cong. Parents and Teachers, 26–31. Psychiat. Asn; Orthopsychiat. Asn; Am. Med. Asn; Am. Prison Asn. Psychology; mental hygiene; community relationships of child guidance clinics.

O'Brien, Dr. John A(loysius), Jr, Catholic University of America, Washington, D. C. *Botany.* Philadelphia, Pa, July 24, 12. A.B, La Salle Col, 35; Harrison scholar, Pennsylvania, 37–38, Harrison fellow, 38–39, Ph.D, 39. *Instr. biol, Catholic Univ, 39–* A.A; Bot. Soc; Biol. Soc. Wash. Cytology; plant gland cells; mitochondria.

O'Brien, Dr. John Patrick, 2312 Kenmore Ave, Chicago, Ill. *Zoology.* Chicago, Ill, Oct. 1, 10. B.S, Illinois, 34; Ph.D, Hopkins, 41. John De Witt Sterry fellow biol, Princeton, 41–42; *chairman dept. zool, De Paul, 42–* Soc. Zool. Regeneration in vertebrates and invertebrates; biological effects of x-rays.

O'Brien, Dr. Lyal (John), State University of Iowa, Iowa City, Iowa. *Physiology, Medicine.* Lynxville, Wis, Nov. 16, 09. A.B, Col. of St. Thomas (Minn), 32; Ph.D, Minnesota, 36, M.B. and M.D, 40. Instr. biol, Col. of St. Thomas (Minn), 32–34, asst. prof, 35–36, prof, 37–40; intern, hosps, St. Louis Univ, 40–41; *asst. res. surg, hosps, Iowa, 41–* The effects of fat, protein and carbohydrates on various blood constituents; diabetic gangrene.

O'Brien, Dean Morrough P(arker), 135 Hearst Mining Bldg, University of California, Berkeley, Calif. *Engineering.* Hammond, Ind, Sept. 21, 02. B.S, Mass. Inst. Tech, 25. Engineer, Hudson River Regulating Dist, 25; asst, Purdue, 25–27; Freeman scholar, Am. Soc. Civil Eng, 27–28; asst, Royal Col. Eng, Stockholm, 27–28; from asst. to *prof. mech. eng, California, 28–,* chairman dept, 37–43, *dean col. eng, 43–* Civil Eng; Mech. Eng; Asn. Mil. Eng; Geophys. Union; Eng. Educ. Transportation of sediment by streams; oscillatory waves; hydraulic machinery; beach erosion; underwater

sound; hydraulic models; fluid mechanics; shoreline processes; hydrology.

O'Brien, Ruth, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Taylorville, Ill, Sept. 19, 92. B.S, Nebraska, 14, A.M, 15; LL.B, George Washington, 31. Instr. textile chem, Iowa State Col, 17, asst. prof, 17–21, assoc. prof, 21–23; *chief div. textiles and clothing, bur. home econ, U. S. Dept. Agr, 24–* Advisory ed, 'Jour. Home Econ.' Chem. Soc; Soc. Test. Mat; Asn. Textile Chem. and Colorists; Home Econ. Asn; Inst. Textile Research. Textile chemistry.

O'Brien, Dr. Thomas Doran, Barrett Division, Allied Chemical and Dye Co, Edgewater, N. J. *Inorganic chemistry.* Washington, D. C, March 31, 10. B.S, George Washington, 35, M.S, 38; Ph.D, Illinois, 40. *Research chemist,* U. S. Naval Research Lab, 40–42; *Barrett div, Allied Chem. and Dye Co, 42–* Chem. Soc. Stereochemistry of inorganic coordination compounds and vapor phase catalysis.

Obrist, Sister (Mary) Jeanette, Mt. St. Scholastica College, Atchison, Kans. *Mathematics.* Steinauer, Nebr, Sept. 25, 01. A.B, St. Benedict's Col, 30; A.M, Catholic Univ, 32; Ph.D, 41; Kans. State Col, summers, 34–35. *Instr.* bot. and math, *Mt. St. Scholastica Col, 32–38, physics and math, 40–* Asn. Physics Teachers; Math. Asn. A problem arising from the special symmetric correspondence, C_2, set up by the rational quartic curve with two cusps.

O'Bryan, Dr. H(enry) M(iles), Georgetown University, Washington, D. C. *Physics.* Chetopa, Kans, Aug. 28, 05. A.B, Clark, 26; Elizabeth J. Ward fellow, Northwestern, 26–27, A.M, 27; Ph.D, Hopkins, 30. Instr. physics, Hopkins, 30–31; Mass. Inst. Tech, 31–34; Harvard, 34–36; research div, N. J. Zinc Co, 36–37; mem. faculty, Bristol, 37–38; *assoc. prof. physics, Georgetown, 38–;* mem. staff, Naval Ordnance Lab, 40–41. Summers, Cornell, 34; research div, N. J. Zinc Co, 36. Physical Soc; Optical Soc; Philos. Soc. Wash; Wash. Acad. Experimental physics; use of diffraction gratings; optical properties of metal surfaces; soft x-ray emission; absorption of solids; magnetic instruments.

Ocfemia, Prof. G(erardo) O(ffimaria), College of Agriculture, Los Baños, P. I. *Plant pathology.* Guinobatan, P. I, April 23, 91. B.Agr, Philippines, 15, M.S, 20; fellow from Philippines, Wisconsin, 20–23, Ph.D, 23. Asst. agron, *Philippines,* 15–17, plant physiol, 17–18, *plant path,* 19–20, instr, 20, asst. prof, 24–32, *assoc. prof, 32–,* acting head dept, 28–33, *head dept, 33–* Nat. Research Council, P. I, 33. A.A; Bot. Soc; Phytopath. Soc; Philippine Soc. Adv. Research (pres, 33); Los Baños Biol. Club (sec'y, 29, pres, 30). Helminthosporium disease of rice; bunchy-top of abacá; Fiji disease of sugar-cane; virus diseases of plants.

Ochoa, Dr. Severo, New York University Medical College, New York, N. Y. *Medicine.* Luarca, Spain, Sept. 24, 05. B.A, Málaga High Sch. (Spain), 22; M.D, Madrid, 29. Instr. physiol. and biochem, univ. med. sch, Madrid, 29–33, asst. prof, 34–35, head physiol. dept, inst. med. research, 36; Nuffield asst. and demonstrator biochem, Oxford, 38–40; *research assoc.* pharmacol, sch. med, Washington (St. Louis), 41; *med, med. sch, N. Y. Univ, 41–* A.A; Biol. Soc. Chem; N. Y. Acad; Biochem. Soc. Gt. Britain. Biochemistry of muscles; glycolysis in heart and brain; transphosphorylations in yeast fermentation; pyruvic acid oxidation in brain and role of vitamin B_1.

Ochsner, Dr. Edward H, 2155 Cleveland Ave, Chicago, Ill. *Medicine.* Sauk Co, Wis, Jan, 68. B.S, Wisconsin, 91; M.D, Rush, Chicago, 94; Vienna, Leipzig and Hamburg, 96–97. Intern, Cook County Hosp, 94–95; junior surgeon and attending surgeon, Augustana Hosp, and attending surgeon, St. Mary's of Nazareth Hosp, 99–04; adj. prof. clin. surg, Illinois, 99–10; pres, Ill. State Charities Cmn, 13–17; attending surgeon, *Augustana Hosp,* 04–31, *consulting surgeon, 31–* A.A; Am. Med. Asn; fel. Col. Surg; South. Surg. Asn; Ill. Med. Soc. (past pres). Chronic fatigue intoxication; functions of the corpus luteum; biochemistry of tropical applications; the treatment of potential and acquired static flatfoot; temporary ventrosuspension of the uterus; the prognosis of congenital dislocation of the hip; appendicitis; goiter; developments in the non-operative treatment of cancer; physical exercises for invalids and convalescents; social security; personal hygiene.

Ochsner, Dr. (Edward William) Alton, Tulane University School of Medicine, New Orleans, La. *Surgery.* Kimball, S. Dak, May 4, 96. A.B, South Dakota, 18; M.D, Washington (St. Louis), 20. Med. intern and asst. res, Barnes Hosp, St. Louis, 20–21; surg. intern, Augustana Hosp, Chicago, Ill, 21–22; exchange surg. asst, Zurich, 22–23; Frankfurt, 23–24; practising surgeon and instr. surg. and surg. path, Northwestern, 25–26; asst. prof. surg, med. sch, Wisconsin; and asst. surgeon, Wis. Gen. Hosp, Madison, 26–27; *prof. surg. and head dept, sch. med, Tulane, 27–; director sect. surg, Ochsner Clinic.* Senior visiting surgeon and director, Tulane Surg. Unit, Charity Hosp; senior surgeon, Touro Infirmary; consulting surgeon, Ill. Cent. Hosp; consultant in thoracic surg, Eye, Ear, Nose and Throat Hosp; attending specialist chest surg, Marine Hosp. Ed. board, 'Int. Surg. Digest,' 'Archives of Surg,' 'Jour. Digestive Diseases and Nutrition'; co-editor, 'Lewis's Practice of Surg'; 'Surg'; asst. ed, 'Surg. of the Emergency.' Mem. surg. cmt, Nat. Research Council. Surg. Asn; Col. Surg. (regent); Asn. Thoracic Surg; Am. Med. Asn. (chairman, sect. surg, sci. exhibits, 34–36; sec'y sect. surg); Soc. Clin. Surg; Soc. Exp. Biol; South. Surg. Asn. (sec'y, 35–); Southeast. Surg. Asn. (pres, 42). Diseases of the respiratory tract, thorax, intestines and vascular system; serious membrane adhesions.

Ockerblad, Dr. Nelse F(rederick), 1103 Grand Ave, Kansas City, Mo. *Urologic surgery.* Staten Island, N. Y, Nov. 27, 81. B.S, Hanover Col, 14; M.D, Kansas, 16. *Head dept. urol, sch. med, Kansas, 20–, prof. clin. urol, 36–* Consultant, Federal Penitentiary, Leavenworth, 30. Attending urologist, St. Luke's Hosp, Kansas City; Univ. Hosps, Kansas. Fel. Am. Med. Asn. (v. chairman, sect. urol, 36); fel. Col. Surg; Urol. Asn. (mem, exec. cmt, 36, pres, southwest. branch, 27); South. Med. Soc. (chairman, sect. urol, 34); Neisserian Soc; Photog. Soc; Royal Photog. Soc. Experimental work on the ureter; effect of morphine on human ureter; use of ephedrine in spinal ani; mapping pain distribution of human ureter; kidney pedicle clamp; Ockerblad kidney rest; ureteral stone dislodger; suprapubic puncture instrument; suprapubic bladder evacuator.

Ockerman, Dr. John William, 325 E. Wisconsin Ave, Tomahawk, Wis. *Geology.* Toledo, Ohio, April 29, 00. A.B, Lawrence Col, 23, A.M, 24; Ph.D, Wisconsin, 29. Head dept. geol, Lawrence Col, 24–25; geologist, Roxana Petrol. Corp, Dallas, 25–27; Kans. Geol. Surv, 29–33; *prin. topographer, State Dept. Conservation, Wis, 33–* Sedimentation; paleontology.

O'Connell, Prof. C(harles) Leonard, 101 W. Steuben St, Pittsburgh, Pa. *Pharmacy.* Pittsburgh, Pa, April 24, 90. Pharm.G, Pittsburgh, 12, A.B, 16, Pharm.D, 29; hon. Pharm.M, Phila. Col. Pharmacy, 32. Instr. chem, *Pittsburgh,* 22–25, asst. prof, 25–26, *prof. pharmacy and director courses pharmaceut. econ, 26–,* assoc. dean, 30–32, *dean, 32–* Mem. cmt. revision, U. S. Pharmacopoeia, 40– A.A; Pharmaceut. Asn; Pa. Pharmaceut. Asn. (pres, 29–31, mem, exec. cmt, 31–34); Pa. Acad; hon. mem. Conn. Pharmaceut. Asn; Am. cor. Fed. int. pharmaceut. Pharmaceutic education, legislation and technique.

O'Connell, Prof. Daniel T(rugott), College of the City of New York, New York, N. Y. *Geology, Mineralogy.* Elizabeth, N. J, Nov. 29, 01. B.S, Col. City of N. Y, 24, M.S, 26; Columbia, 25–28; M.S, N. Y. Univ, 30, Ph.D, 32. Tutor *geol, Col. City of N. Y,* 25–32, instr, 33–35, *asst. prof, 35–, chairman dept, 42–* Geologist, Rainbow Bridge-Monument Valley exped, 34, 35, 36. Sec'y, New Eng. Intercollegiate Geol. Conf, New York, 37. A.A; Miner. Soc; Geophys. Union; Min. and Metal. Eng; N. Y. Miner. Club (sec'y, 31–36); fel. N. Y. Acad; Newark Miner. Soc. (v. pres, 27, pres, 29). New type tests in geology; geology of Bronx County, New York; plesiosaur bones in Arizona; seismotectonic lines of New York City.

O'Connor, J(ohn) L(awrence), Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* Ottawa, Ont, Jan. 26, 98. Ottawa Collegiate Inst, 13–15. Computer, *Dom. Observatory,* 15–16, asst. solar physics, 19–29, *astronomer, 29–* Astron. Soc; Royal Astron. Soc. Can. Solar rotation; sunspot spectra; sunspots; climatic cycles; tree-growth.

O'Connor, Johnson, Stevens Institute of Technology, Hoboken, N. J. *Psychology.* Chicago, Ill, Jan. 22, 91. A.B, Harvard, 13, A.M, 14. Astron. math. research with Percival Lowell, 11–18; metal. research, Am. Steel and Wire Co, Worcester, Mass, 18–20; elec. eng, Gen. Elec. Co, West Lynn, Mass, 20–22, organizer human eng. lab, 22; lecturer *psychol, Stevens Inst. Tech,* 28–31, *assoc. prof. and director psychol. studies, 31–,* organizer *human eng. lab,* 30, *director, 30–* Lecturer, Mass. Inst. Tech, 28–31. Wertheim fellow, 27. Elec.

Eng; Eng. Educ; fel. Am. Acad. Measurement of isolated aptitudes and specialized knowledge requisite for success in various professions and occupations.

O'Connor, Sister M(ary) Crescentia, College Misericordia, Dallas, Pa. *Chemistry.* Mildred, Pa, Sept. 13, 96. A.B, Fordham, 26; M.S, Columbia, 34; Winthrop fellow, Catholic Univ, 35–37, Ph.D, 38. Instr. nurses, Mercy Hosp, Scranton, Pa, 28–30; prof. chem, Col. Misericordia, 30–34; instr. nutrition, Catholic Univ, 35–37; *prof. chem, Col. Misericordia, 38–* A.A; Chem. Soc; Nurses Asn; Genetic Asn; Red Cross Nursing Asn; Pa. Acad. Analytical chemistry; effect of emulsification on the utilization of vitamin A; the determination of aldose sugars by alkaline iodine.

O'Connor, Dr. Michael Gerald, Health Department, Springfield, Mass. *Food technology.* Springfield, Mass, Aug. 27, 07. B.S, St. Lawrence, 30; fellow, Mass. State Col, 31–33, M.S, 33, Ph.D, 42. Chemist, Gen. Foods Corp, 30–31; chemist, H. Porter Distilling Co, 34–35; inspector, food and drug admin, U. S. Dept. Agr, 35–36; *supervising milk inspector and food chemist, Springfield Health Dept, 35–* A.A; Pub. Health Asn; Mass. Milk Inspectors Asn. Red squill; benzoic acid and its salts.

O'Connor, Rev. R(obert) Eric, S.J, Loyola College, Montreal, Que, Can. *Mathematics.* Halifax, N. S, March 29, 07. B.A, St. Mary's Col. (Can), 26; Jesuit Sem, Toronto, 33; M.A, Toronto, 35; L.S.T, Weston Col, 40; Ph.D, Harvard, 41. *Prof.* physics, *Loyola Col. (Can), 34–36, math, 42–* Math. Soc; Royal Astron. Soc. Can. Theory of numbers; quaternion congruence; quadratic and linear congruence; power products of two real numbers.

O'Connor, Prof. William F(rancis), P. O. Box 92, Monaca, Pa. *Chemical engineering.* Yonkers, N. Y, Jan. 29, 10. B.S, Manhattan Col, 31, M.S, 32; A.M, Columbia, 33, Ph.D, 35. Instr. chem, Manhattan Col, 31–33, asst. prof, 33–35, prof. and chairman dept, 35–43; *director employee training, fire and safety, butadiene div, Koppers United Co, 43–* Consulting chemist, Hudson Valley Labs, 40–; Fire Dept, Yonkers, N. Y, 41–; Westchester County. Chem. Soc. (chairman membership cmt, N. Y. sect, 39–41; nat. councilor, 41–); Electrochem. Soc; Pub. Health Asn; N. Y. State Sewage Works Asn. Stream pollution; industrial waste treatment.

O'Conor, Rev. John S(tanislaus), S.J, St. Joseph's College, Philadelphia, Pa. *Physics, Seismology.* New York, N. Y, March 6, 98. A.B, Woodstock Col. (Md), 22, A.M, 23; M.S, Mass. Inst. Tech, 36. Director seismol. observatory, Fordham, 24–26, assoc. prof. physics, 23–26; acting director seismol. observatory, Georgetown, 31–32, assoc. prof. *physics,* Woodstock Col. (Md), 35–43; *prof, St. Joseph's Col. (Pa), 43–* A.A; Asn. Physics Teachers; Physical Soc; Asn. Am. Jesuit Sci; Philos. Soc. Wash. Nuclear physics; philosophy of science.

O'Day, Prof. David W(illiam), 1315 Cascade Ave, Boulder, Colo. *Pharmacy, Chemistry.* Lafayette, Colo, April 23, 01. Ph.C, Colorado, 25, B.S, 26, M.S, 28; summers, Michigan, 30; Chicago, 35, 36; Ph.D, Iowa, 39. Instr. *pharmacy, Colorado,* 26–29, asst. prof, 29–39, *assoc. prof, 39–* Lehn and Fink medal, 26. Pharmaceut. Asn. (local sec'y plant sci. seminar sect); Colo. Pharmacal Asn. Mandelin's test for strychnine; soft soap and soapy preparations made by a cold process; variations in the glutamic acid content of Steffen's waste from Colorado and other beet sugar producing areas; toxicology; medicinal soaps.

O'Day, Prof. M(arcus) D(river), 3605 Woodstock Ave, Portland, Oregon. *Physics.* Shenandoah, Iowa. A.B, Oregon, 19, A.M, 21; Whiting fellow, California, 22, Ph.D, 22. Instr. *physics,* California, 22–26; asst. prof, *Reed Col, 26–38, prof, 38–; mem. staff, radiation lab, Mass. Inst. Tech, 42–* Research, United Air Lines and Civil Aeronautics Admin. Thermal conductivity; Thomson effect; specific heat of metals; acoustics and high frequency measurements.

Odbert, Prof. Henry S(ebastian), Hanover, N. H. *Psychology.* Cleveland, Ohio, June 3, 09. A.B, Dartmouth Col, 30; Ph.D, Harvard, 34. Instr. *psychol, Dartmouth Col,* 34–38, *asst. prof, 38–* Social Science Research Council fellow, 40–41; ed. asst. cmt. selection and training of aircraft pilots, Nat. Research Council, 42– Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues. Personality; language.

Oddy, Prof. Harold G(rant), University of Toledo, Toledo, Ohio. *Chemistry.* St. Marys, Ont, Can, Aug. 15, 99. B.A, McMaster, 20, M.A, 21; M.A, Toronto, 22, Ph.D, 23. Lecturer, Alberta, 23–25; asst. prof. *chem,* Florida, 25–26; Oregon State Col, 26–28; *Toledo,* 28–34, assoc. prof, 34–42, *prof,* 42– Chem. Soc. (chairman, Toledo sect, 32–34). Phases of the Friedel-Craft reaction; thiodiacetic acid derivatives.

Odell, Dr. A(rthur) D(uston), 5550 Isabella Ave, Montreal, Que, Can. *Biochemistry.* St. Andrews, N. B, Oct. 26, 13. B.Sc, New Brunswick, 34; fellow, Toronto, 35–38, Ph.D, 38. *Research chemist, Charles E. Frosst and Co, 39–* Summer, research grant, Banting Foundation, 38. Assoc. Can. Inst. Chem; Montreal Physiol. Soc. (exec, 42–); Soc. Chem. Indust. Gt. Britain (chairman food and nutrition div, 42). Intermediary metabolism of steroid hormones; synthesis of sex hormones and vitamins; sulphonamides.

Odell, Dr. C(larence) B(urt), University of Missouri, Columbia, Mo. *Geography.* Normal, Ill, Sept. 3, 07. B.Ed, Ill. State Nor. Univ, 30; A.M, Illinois, 31; Nebraska, 31–32; scholar, Chicago, 32–34, univ. fellow, 34–36, Ph.D, 37. Teaching fellow geog, Nebraska, 31–32; instr. geol. and geog, Oak Park Jr. Col, 36–37; assoc. prof. *geog,* Stephen F. Austin State Teachers Col, Texas, 37–39; instr, *Missouri,* 39–43, *asst. prof, 43–; mem. staff, office of geographer, Dept. State, 42–* Summer, mem. faculty, State Teachers Col, Memphis, Tenn, 37. Economic geography; cartography; the functional pattern of villages in the corn belt; population problems; conservation of natural resources.

Odell, Prof. Theodore T(ellefsen), 403 Pulteney St, Geneva, N. Y. *Ecology.* Buffalo, N. Y, Dec. 4, 96. B.S, Hobart Col, 20; M.S, Cornell, 26, Ph.D, 34. Instr, sch, 20–21; *biol, Hobart Col,* 21–26, asst. prof, 26–35, *prof, 35–* A.A; Ecol. Soc; Fisheries Soc; Soc. Ichthyol. and Herp; Limnol. Soc. Ecology of fresh-water fishes; food of orchard birds, especially pear Psylla; bottom fauna of Seneca Lake; life history of the alewife.

Oderkirk, G(alen) C(lair), U. S. Department of the Interior, Purdue University, Lafayette, Ind. *Biology.* Kent, Minn, July 16, 00. B.S, N. Dak. Col, 25. *Assoc. biologist in charge predator and rodent control, north cent. region, fish and wildlife service, U. S. Dept. Interior, 25–* Wildlife Soc. Control of injurious rodents and predators of the north central states.

Odlorne, Dr. Joseph M(ilton), Georgetown University School of Medicine, Washington, D. C. *Anatomy, Zoology.* Pittston, Maine, Aug. 2, 04. B.S, Bowdoin Col, 25; Jeffries Wyman scholar, Harvard, 25–26, A.M, 31, Ph.D, 34. Instr. biol, Western Reserve, 26–30; Austin teaching fellow zool, Harvard, 30–33, asst, 33–34; teaching fellow biol, Bowdoin Col, 34–36; instr, Colby Col, 36–39; *anat, sch. med, Georgetown,* 39–42, *asst. prof, 42–* A.A; Asn. Anat; Soc. Zool; Genetic Asn. Color changes in fishes; physiology of chromatophores; human genetics.

Odland, Prof. T(heodore) E(ugene), Rhode Island State College, Kingston, R. I. *Agronomy.* Rutland, N. Dak, Jan. 11, 92. B.S, Minnesota, 17, M.S, 20; Ph.D, Cornell, 26. Instr. agron, Minnesota, 17–18, 19–20, asst. prof. and asst. agronomist, 20–21; West Virginia, 21–24, assoc. prof. agron. and assoc. agronomist, 24–29; *agronomist, Exp. Sta, R. I. State Col, 29–; lieut. col, U. S. Army, 42–* A.S, U.S.N, 18–19. A.A; Soc. Agron; Hort. Soc; Minn. Crop Improv. Asn. (sec'y, 20). Crop production; plant breeding and nutrition; soil fertility.

Odlaug, Prof. Theron O(swald), State Teachers College, Peru, Nebr. *Parasitology.* Stanley, Wis, Feb. 23, 11. A.B, Luther Col, 33; M.S, N. Y. Univ, 35, Ph.D, 40. Teaching fellow *biol,* N. Y. Univ, 33–38; *prof,* Billings Polytech, 38–39; *Peru State Teachers Col, Nebr, 39–* Summers, instr, Col. City of N. Y, 37, 38. Micros. Soc. Life history studies on amphibian trematodes; embryology of cuticular appendages.

Odle, Prof. John W(illiam), 103 E. Hamilton Ave, State College, Pa. *Mathematics.* Tipton, Ind, July 23, 14. B.S, Michigan, 37, M.S, 38, Ph.D, 40. Instr. *math,* Wisconsin, 40–42; *asst. prof, Pa. State Col, 42–* Summers, research mathematician, U. S. Rubber Co, 42. Topology.

Odom, Prof. C(harles) L(eonard), Southwestern Louisiana Institute, Lafayette, La. *Psychology.* La, Aug. 31, 94. B.S, Centenary Col, 25; A.M, Chicago, 27, 33; Columbia, 38–39; fellow, N. Y. Univ, 39–40, Ph.D, 40. Instr. psychol, Centenary Col, 25–27, asst. prof, 27–28, assoc. prof, 28–38, head dept, 30–38, director psychol. and vocational guidance center, 37–38; lecturer educ, N. Y. Univ, 40; *assoc. prof. psychol, Southwest. La. Inst, 41–* Research assoc, Psychol. Corp, 32– Assoc.

Psychol. Asn; Asn. Applied Psychol; Col. Personnel Asn; Vocational Guidance Asn; Soc. Philos. and Psychol. Mental development; mental tests; selection of freshmen; achievement differentials; safety education; guidance and personnel.

O'Donnell, Prof. David C(harles), 469 Webster St, Needham Heights, Mass. *Chemistry.* Upper Sandusky, Ohio, May 19, 01. A.B, Miami (Ohio), 23; M.S, Ohio State, 25, Ph.D, 27. Asst. *chem,* Ohio State, 23–27, instr, 27–28; *prof, Boston Col, 28–* Chem. Soc. Carbohydrates.

O'Donnell, Rev. George A(nthony), S.J, Boston College, Chestnut Hill, Mass. *Seismology.* South Boston, Mass, Nov. 22, 99. A.B, Boston Col, 23; A.M, Woodstock Col. (Md), 24; Ph.D, St. Louis, 35. Instr. *math,* Georgetown, 24–26; *prof, Boston Col, 35–, director seismol. sta, Weston Col, 35–* Math. Soc; Math. Asn; Seismol. Soc; Jesuit Sci. Asn; Asn. Teachers Math. New Eng; London Math. Soc. Seismic waves.

O'Donovan, Dr. Charles, 5 E. Read St, Baltimore, Md. *Therapeutics, Clinical medicine.* Baltimore, Md, Feb. 7, 60. Loyola Col. (Md); A.B, Georgetown, 78, A.M, 88; M.D, Maryland, 81. *Prof.* diseases of children, Women's Med. Col, Baltimore, 94–98; *Baltimore Med. Col,* 99–07, *therapeut. and diseases of children, 08–* Am. Med. Asn; Med. and Chirurg. Faculty Md. (past pres). The action of certain heart stimulants in the early stages of pneumonia.

O'Driscoll, Dr. W(illiam) Cyril, 31 Savage St, Charleston, S. C. *Anatomy.* Charleston, S. C, May 4, 81. B.S, Mil. Col. of S. C, 01; M.D, Med. Col. State of S. C, 05; Indiana; Brooklyn Inst. Biol. Asst. demonstrator *anat, Med. Col. State of S. C,* 06–12, *asst. prof, 12–* Lecturer, Med. Col. State of S. C, 14; Mil. Col. of S. C, 21–22; quarantine officer, Charleston, 07. Board governors, St. Francis Infirmary, Charleston, 24–25. Major, M.C, 17–19, A.E.F, 18–19, instr, Dist. Sch. Res. Officers, U.S.A, 33–37, lieut-col, M.R.C, 29–, official med. examiner, O.R.C, 23– A.A; fel. S. C. Acad; hon. fel. Med. Soc. S. C. (sec'y, 12, librarian, 25–); hon. fel. S. C. Med. Asn; hon. fel. S. C. Acad; Medico-Chirurg. Soc. S. C. (pres, 12, 14, censor, 37). Military hygiene; trusses of foot; smallpox inoculation; surgical anatomy; civic activities.

Odum, Dr. Eugene P(leasants), University of Georgia, Athens, Ga. *Ornithology, Ecology, Physiology.* Lake Sunapee, N. H, Sept. 17, 13. A.B, North Carolina, 34, A.M, 36; Western Reserve, 36–37; Ph.D, Illinois, 39. Asst. and teaching fellow, North Carolina, 34–36; instr, Western Reserve, 36–37; asst, Illinois, 37–39; res. naturalist, Edmund Niles Huyck Preserve, Rensselaerville, N. Y, 39–40; instr. *zool, Georgia,* 40–43, *asst. prof, 43–* Summers, asst, Baldwin Bird Research Lab, Ohio, 36–39; fellow, Edmund Niles Huyck Preserve, 41; instr, Mountain Lake Biol. Sta, 41, research fellow, 42. A.A; Ornith. Union; Ecol. Soc; Wilson Ornith. Club (councilor, 42–); East. Bird Banding Asn; Ga. Ornith. Soc. (pres, 42–). Heart rate of birds; development of cardiovibrometer; physiological ecology of birds and mammals; life history of the Paridae; bird distribution; vertebrate ecology; relation of heart rate, muscle tremors and metabolism to development of temperature regulation.

Oehler, Irving A(rthur), American Welding and Mfg. Co, Warren, Ohio. *Electrometallurgy.* Buffalo, N. Y, July 11, 11. E.E, Rensselaer Polytech, 32, M.E.E, 33, fellow, 34–35, D.E.E, 35. *Metallurgist,* Republic Steel Co; *Am. Welding and Mfg. Co.* Summers, U. S. Engineers, 32–35. Soc. Metals. Open hearth slags; photoelectric temperature measurements; magnetic inspection of ferrous materials; anodic films on aluminum.

Oehser, Paul H(enry), U. S. National Museum, Washington, D. C. *Biology.* Cherry Creek, N. Y, March 27, 04. Iowa, 24; A.B, Greenville Col, 25; American Univ, 25–30. Asst. ed, bur. biol. surv, U. S. Dept. Agr, 25–31; *ed, U. S. Nat. Museum, 31–* Ed, 'Proceedings,' Eighth Am. Sci. Cong. Ed. exec, 'Jour,' Wash. Acad. Science, 39– Ornith. Union; Wilderness Soc; Biol. Soc. Wash. Biological editing and bibliography; homonyms and nomenclators; orthography of common names of birds; American naturalists.

Oelke, Dr. W(illiam) C, Grinnell College, Grinnell, Iowa. *Physical chemistry.* Corwith, Iowa, Oct. 11, 06. A.B, Grinnell Col, 28; M.S, Col. of Holy Cross, 29; Ph.D, Iowa, 35. Instr, Col. of Holy Cross, 29–30, lecturer, 30–31; instr. *chem, Grinnell Col,* 31–41, *asst. prof, 41–* Asst, Iowa, 34–35. Summer, mem. staff, Inst. Paper Chem, Lawrence Col, 42; instr, STAR unit, U. S. Army, 43. Chem. Soc; Iowa Acad. (sect. chairman, 36, exec. cmt, 38–41). Solubilities and activity coefficients of lanthanum iodate in concentrated salt solutions; rate of bromination of cinnamic acid; refractive indices of alcohol water mixtures; polarography.

Oenslager, Dr. George, 85 N. Wheaton Road, Akron, Ohio. *Chemistry.* Harrisburg, Pa, Sept. 25, 73. A.B, Harvard, 94, A.M, 95; hon. Sc.D, Akron, 39. Research chemist, S. D. Warren and Co, 96–06; Diamond Rubber Co, 06–12; tech. adviser, Yokohama Rubber Co, Japan, 20–22; B. F. Goodrich Co, 12–19, 22–42; *owner, private lab, 42–* Perkin medal, 33. A.A; Chem. Soc; Chem. Eng; fel. India Rubber Inst. Gt. Britain. Rubber; materials used in the rubber industry.

Oerlein, Prof. Karl F(erdinand), 828 Fifth St, California, Pa. *Science education.* Philadelphia, Pa, Sept. 20, 00. B.S, Pennsylvania, 25, A.M, 30, Ph.D, 36. Instr, high sch, Pa, 26–35; prof. physics, *Pa. State Teachers Col,* Indiana, 35–38; *chairman div. science, math. and geog, California, 38–; mem. staff, Naval Training Sch. Radar, Harvard.* Supervisor defense training courses, exten, Pa. State Col. Science Club ed, 'The Science Teacher.' A.A; Asn. Physics Teachers; Asn. Sci. Teachers; Franklin Inst; Pa. Acad. (gen. chairman, junior acad). Physics; radio in education.

Oertel, Dr. E(verett), Southern States Bee Culture Field Station, University Station, Baton Rouge, La. *Apiculture.* Prairie du Sac, Wis, May 30, 97. B.S, Wisconsin, 24; Ph.D, Cornell, 28. Asst. apiculturist and *assoc. apiculturist, div. bee culture, bur. entom. and plant quarantine, U. S. Dept. Agr, 28–* Pollen and honey plants in the South; bee activity and meteorological conditions.

Oertel, Dr. Horst, Devonshire Club, London, Eng. *Pathology.* Oberlössnitz, Saxony, Jan. 25, 73. M.D, Yale, 94; Leipzig, Wurzburg and Berlin, 94–98; Guy's Hosp, London, 13–14. Instr. clin. path, Univ. and Bellevue Hosp. Med. Col, 99–03; pathologist, City Hosp, New York, and director, Strecker Mem. Lab, 03–07, director, Russell Sage Inst. Path, City Hosp, 07–13; assoc. prof. path, McGill, 14–19, Strathcona prof. path. and director path. inst, 19–38; pathologist, Royal Victoria Hosp, 14–19, pathologist in chief, 19–38. Asn. Path. and Bact; Soc. Exp. Biol; N. Y. Path. Soc; Harvey Soc; N. Y. Acad. Med; Path. Soc. Gt. Britain; Deuts. Path. Gesell. Histogenesis and innervation of tumors, especially cancer; structure of the pancreas in relation to diabetes; age periods and disease; anatomic-histogenetic changes in venous congestion in the liver and kidney; neurovascular basis of renal necrosis in eclampsia.

Oesper, Dr. Peter, University of Maryland, College Park, Md. *Physical chemistry.* Cincinnati, Ohio, Sept. 25, 17. A.B, Swarthmore Col, 38; M.S, Princeton, 40, Ph.D, 41. Instr. *physical chem, Maryland,* 41–42, *asst. prof, 42–* Chem. Soc. Dipole moments.

Oesper, Prof. R(alph) E(dward), University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Cincinnati, Ohio, June 14, 86. A.B, Cincinnati, 08, A.M, 09, Ph.D, 14. Asst. *chem,* Cincinnati, 07–10; instr, high sch, Wash, 10–12; asst. prof, Ohio Mech. Inst, 12–13; asst, Cincinnati, 13–14; instr, N. Y. Univ, 14–17; asst. prof, Smith Col, 17–18; assoc. prof, *Cincinnati,* 18–39, *prof, 39–* A.A; Chem. Soc. (sec'y hist. of chem. div, 39–). Organic and analytical chemistry; colloids; emulsion; history of chemistry.

Oesterle, Prof. Joseph Frances, University of Wisconsin, Madison, Wis. *Metallurgy.* Philadelphia, Pa, Oct. 18, 88. A.B, Wisconsin, 13, M.S, 26, Ph.D, 29. Chemist, Pa. R.R. Co, 09–11, 13–16; metallurgist, Ill. Steel Co, Ind, 16–17; assoc. physicist, Bur. Standards, 18–21; asst. prof. *metal, col. mech. and eng, Wisconsin,* 21–37, assoc. prof, 37–41, *prof, 41–* Consultant physical metal. Sulfur solubility; constitution; composition; viscosity; blast furnace slag minerals; heat treatment of ferrous and non-ferrous metals.

Oesterling, Dr. J(ames) Fred(erick), Pennsylvania State College, State College, Pa. *Textile chemistry.* Butler, Pa, April 6, 05. B.S, Pa. State Col, 28, M.S, 35, Louise Carnegie scholar, Ph.D, 41. Chemist, Weller-Krouse Co, Pa, 28–31; *Pa. Laundryowners Asn. research fellow, Pa. State Col, 31–* Chem. Soc. Effect of sodium hypochlorite on the physical and chemical properties of cotton fibers; physical and chemical properties of aqueous soap and alkali solutions and their relationship to practical detergency tests.

Oesting, Dr. Ralph B(eck), 7855 S. Shore Drive, Chicago, Ill. *Biochemistry.* Evanston, Ill, May 18, 10. A.B, Earlham Col, 31; Ph.D, Chicago, 35. Asst, Chicago, 31–35; fellow to Inst. Am. Meat Packers and Corn Products Founda-

tion. Chicago, 35–36; fellow, Gen. Educ. Board and med. col, Cornell, 36–39; director nutrition research, Swift and Co, 39–42; *chief chemist, Oscar Mayer and Co, 42–* Chem. Soc. Growth hormones; proteins; meat curing; sugars; sex hormones; child development at puberty; general physiology; nutrition.

Oestlund, Dr. Oscar W(illiam), 2542 37th Ave, S, Minneapolis, Minn. *Entomology.* Attica, Ind, Sept. 27, 57. A.B, Augustana Col, 79, A.M, 87, Ph.D, 00; Minnesota, 80–82. Asst. and entomologist, Minn. Geol. and Nat. Hist. Surv, 85–90; entomologist and instr. biol, *Minnesota,* 91–06, asst. prof. *animal biol,* 06–26, *emer. prof, 26–* Entomologist, Minn. Hort. Soc, 87–90. A.A. Aphididae; principles of taxonomy as applied to Insecta.

Oetteking, Dr. Bruno, Museum of the American Indian, New York, N. Y. *Anthropology.* Hamburg, Germany, April 2, 71. Ph.D, Zurich, 08; Leipzig; Heidelberg. Curator dept. physical anthrop, Royal Museum, Dresden, 07–10; asst, anat. inst, Heidelberg, 10–11; Univ. Nacional, Buenos Aires, 12–13; Am. Museum Nat. Hist, 13–20; lecturer dept. anthrop, Columbia, 20–38; *curator, Museum Am. Indian, Heye Foundation, New York.* A.A; Asn. Physical Anthrop. Physical anthropology.

Oexemann, Dr. Stanley W(illiam), Carleton College, Northfield, Minn. *Plant physiology.* Nashville, Ill, March 4, 12. A.B, McKendree Col, 37; M.S, Illinois, 39, fellow, 40–41, Ph.D, 41. Asst. biol, McKendree Col, 35–36; bot, Illinois, 39–40; *instr. bot. and head greenhouses, Carleton Col, 41–* Bot. Soc; Ill. Acad; Minn. Acad. Developmental plant physiology; ornamental plants.

Offner, Dr. Franklin F(aller), 5320 N. Kedzie Ave, Chicago, Ill. *Electronics.* Chicago, Ill, April 8, 11. B.Chem, Cornell, 33; B.S, Calif. Inst. Tech, 34; Ph.D, Chicago, 38. Asst. physiol, Chicago, 35–38; *pres, Offner Electronics, Inc, 39–* Nerve research.

Offord, H(arold) R(eginald), 231 Giannini Hall, University of California, Berkeley, Calif. *Pathology.* Toronto, Ont, Can, April 13, 03. B.A, British Columbia, 24, M.A, 25. Bur. plant indust, *U. S. Dept. Agr,* 25–33, *pathologist in charge investigations, blister rust control, bur. entom. and plant quarantine, 33–* A.A; Chem. Soc; Forestry Asn. Plant chemistry; physiological chemistry; tannins; alkaloids; starches; toxic action of chemicals on plant life.

Offutt, Dr. Edward P(reble), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Bacteriology, Parasitology.* Arlington, Mass, July 7, 13. A.B, Dartmouth Col, 35; fellow, Rice Inst, 35–39, Ph.D, 39. Asst. *bacter, sch. med. and dentistry, Rochester,* 39–42, *instr, 42–* Soc. Parasitol. Oligodynamic action of silver; immunity mechanisms in trichinosis; intestinal protozoal surveys.

O'Flaherty, Dr. Fred, University of Cincinnati, Cincinnati, Ohio. *Pathology.* Jan. 20, 93. D.V.M, Cincinnati, 18. Asst. prof. biol, Cincinnati Dental Col, 20–26; research assoc. histologist, *Cincinnati,* 25–30, *director dept. leather research, 31–* Prof, Eclectic Med. Col, 24–27; lecturer, col. med, Cincinnati, 28–31; director research lab, Tanners' Council of Amer, 31–A.A; Leather Chem. Asn. (pres, 34–37). Zoopathology; skin histopathology; leather.

Ogburn, Prof. John H(utcheson), 625 Center St, Bethlehem, Pa. *Astronomy.* Springfield, Tenn, Dec. 22, 68. C.E, Vanderbilt, 92, fellow, 92–93. Asst. astronomer, Dudley Observatory, Union (N. Y), 93–95; instr. *math. and astron, Lehigh,* 95–06, asst. prof, 06–10, assoc. prof, 10–12, prof, 12–40, *emer. prof, 40–* Math. Soc. Position and orbits of minor planets; definitive orbit of minor planet 387; determination of aberration constant and the variation of latitude by zenith telescope method.

Ogburn, Dr. S(ihon) C(icero), Jr, 1316 Medford Road, Wynnewood, Pa. *Chemical engineering.* Winston-Salem, N. C, Oct. 8, 00. B.S, North Carolina, 21, Ph.D, 26; M.S, Washington and Lee, 23. Instr. chem, Washington and Lee, 21–23, asst. prof, 23–26; prof. and head dept. chem. eng, Bucknell, 26–36, chairman eng. div, 33–36; research manager, Gen. Chem. Co, New York, 36–38, project engineer, 38–40, tech. supervisor, 40–43; *manager research and develop. dept, Pa. Salt Mfg. Co, 43–* Indust. consultant, 26–36. Summers, chemist, P. H. Hanes Knitting Co. N. C, 19–21, mfg. dept, R. J. Reynolds Tobacco Co, 17–19. A.A; Chem. Soc. (v. pres, cent. Pa. sect, 35); assoc. Chem. Eng; Eng. Educ. (councilor, 35–38, chairman, eng. lab. conf, 35); Va. Acad; London Chem. Soc. Alunite utilization; engineering education; platinum metals; chemical process development; market research; research administration.

Ogburn, Prof. William F(ielding), University of Chicago, Chicago, Ill. *Sociology.* Butler, Ga, June 29, 86. B.S, Mercer, 05, LL.D, 32; A.M, Columbia, 09, Ph.D, 12. Instr. econ, politics and hist, Princeton, 11–12; *prof.* econ. and sociol, Reed Col, 12–17; *sociol,* Washington (Seattle), 17–18; Columbia, 19–27; *Chicago, 27–* Special investigator, U. S. Bur. Labor Statist, 19; director research, President's Research Cmt. on Social Trends, 30–33; director consumers advisory cmt, Nat. Indust. Recovery Admin, 33; science advisory cmt, Nat. Research Cmt, 35–43; chairman, Census Advisory Cmt, 41– Chairman, Social Science Research Council, 33–36. Director cost of living research, Nat. War Labor Board, 18. A.A. (v. pres, K, 32); Sociol. Soc. (pres, 29); fel. Statist. Asn. (ed, 'Jour,' 20–24, pres, 31); Popul. Asn; Int. Statist. Inst. Statistics; wages; cost of living; politics; population; the family; culture; social change.

Ogden, Dr. E(dwin) B(urman), Union College, Lincoln, Nebr. *Mathematical physics.* Battle Creek, Mich, May 5, 00. A.B, Union Col. (Nebr), 22; scholar, Nebraska, 24–25, A.M, 25; Ph.D, Boston, 36. Teacher, Intermountain Acad, 22–24; Enterprise Acad, 25–26; prof. math, Union Col. (Nebr), 26–33; sch. supt, Nebr, 33–34; prof. math. and physics and head dept, Atlantic Union Col, 34–38; *prof. math. and head dept, Union Col. (Nebr), 38–* Math. Soc; Math. Asn. Relativity; advanced plane geometry for colleges; construction of triangles.

Ogden, Prof. Eric, University of Texas Medical Branch, Galveston, Texas. *Physiology.* London, Eng, Jan. 26, 03. B.Sc, London, 25, L.R.C.P, 28, Sharpey scholar, 28–29. Asst. physiol, univ. col, London, 25–29; instr, med. sch, California, 29–31, asst. prof, 31–41, assoc. prof, 41–43, cols. dentistry and pharmacy, physiol. consultant, and asst. visiting physician, outpatient dept, univ. hosp; *prof. physiol, med. branch, Texas, 43–* Clin. physiologist, John Sealy Hosp, 43– A.A; Soc. Exp. Biol; Physiol. Soc; Am. Heart Asn; Royal Col. Surg; Royal Col. Physicians London. Cardiovascular physiology; physiology of muscular exercise; hypertension; eclampsia.

Ogden, Dr. E(ugene) C(ecil), University of Maine, Orono, Maine. *Botany.* Cheboygan Co, Mich, Jan. 3, 05. B.S, Mich. State Col, 32; fellow, Maine, 32–34, M.S, 34; A.M, Harvard, 36, Ph.D, 38. Asst, Gray Herbarium, Harvard, 34–37, asst. biol, univ, 37–38; *instr. bot, Maine, 38–* Asst, Radcliffe Col, 37–38. Bot. Soc; Josselyn Bot. Soc; New Eng. Bot. Club. Systematic botany; aquatic flowering plants; Potamogeton; flora of Maine.

Ogden, Prof. H(enry) N(eely), 416 Hanshaw Road, Ithaca, N. Y. *Civil engineering.* Dexter, Maine, April 30, 68. C.E, Cornell, 89. Instr. civil eng, *Cornell,* 89–92, 94–96, asst. prof, 96–08, prof. *sanit. eng,* 08–40, *emer. prof, 40–* N. Y. State Pub. Health Council, 13– Civil Eng. Sewer flushing; septic tanks.

Ogden, Prof. R(obert) M(orris), Cornell University, Ithaca, N. Y. **3Psychology, Education.* Binghamton, N. Y, July 6, 77. B.S, Cornell, 01; Ph.D, Wuerzburg, 03. Asst. psychol, Missouri, 03–05; asst. prof. philos. and psychol, Tennessee, 05–07, assoc. prof, 07–09, *prof,* 09–14; psychol, Kansas, 14–16; educ, *Cornell,* 16–39, *psychol, 39–, dean col. arts and sciences, 23–* A.A. (v. pres, I, 35); Psychol. Asn. (sec'y-treas, 14–16, councilor, 18–20); S. Soc. Philos. and Psychol. (sec'y-treas, 10, pres, 12). Memory and the rapidity of learning; esthetics; experimental investigation of the thought processes; audition; educational psychology.

Ogg, Dr. Clyde L(esile), 7809 Elm Ave, Wyndmoor, Philadelphia, Pa. *Soil chemistry.* Bennett, Nebr, Jan. 5, 12. B.S, Iowa Wesleyan, 34; N. Y. Univ, 35; Ph.D, Iowa State Col, 41. *Asst. chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Base exchange equations; determination of soil carbon; salt distribution in butter.

Ogg, Dr. Earl F(rancis), Wilson Dam, Ala. *Physical chemistry.* Wykoff, Minn, Sept. 21, 01. A.B, Carleton Col, 23; A.M, Wisconsin, 27; Ph.D, Minnesota, 30. Teacher, high sch, Minn, 23–26; prof. physical science and head dept, Union Col. (Ky), 30–32; *research chemist, fertilizer works, Tenn. Valley Authority, 34–* Chem. Soc; Inst. Chem; Ky. Acad. Chemical effects of alpha rays from radon; chemistry of phosphorus.

Ogg, Prof. F(rank) C(happell), Bowling Green State University, Bowling Green, Ohio. *Mathematics.* Richmond, Va, Feb. 3, 99. A.B, New Mexico, 22; A.M, Illinois, 24, fellow, 26–27, Ph.D, 27. Asst, New Mexico, 20–22; *math,* Illinois, 22–26, instr, 27–31; assoc. prof, *Bowling Green State Univ,* 31–42, *prof, 42–* Math. Soc. Analytic projective geometry; Cremona transformations.

Ogg, Dr. R(ichard) A(ndrew), Jr, Walsh Road, Atherton, Calif. *Chemistry.* Victor, Colo, Feb. 11, 09. A.B, Stanford, 29, A.M, 30, Ph.D, 32. Nat. research fellow *chem,* Harvard, 32–33; Manchester (Eng), 33–34; instr, *Stanford,* 34–37, asst. prof, 37–42, *assoc. prof, 42–* Chem. Soc. Reaction kinetics.

Ogilvie, Prof. Albert E.d'A, Allegheny College, Meadville, Pa. *Zoology.* Dundee, Scotland, July 6, 02. A.B, Lawrence Col, 25; A.M, Columbia, 27; summers, St. Andrews Med. Col, 24, 26, 30, Sorbonne, Paris, 24, 26, Chicago, 28, 29, Edinburgh, 33, Columbia, 36–42. Instr. anat. and chem, Drury Col, 27–28; *zool,* Lawrence Col, 28–32; *Allegheny Col,* 32–40, *asst. prof, 40–* A.A; Col. Health Asn; Soc. Exp. Biol; Social Hygiene Soc. Experimental embryology; endocrines; induced ovulation by injection of antuitrin S; relation of the physical status of the draftees to the health of students and the health program in education.

Ogilvie, Prof. I(da) H(elen), Barnard College, Columbia University, New York, N. Y. *Geology.* New York, N. Y, Feb. 12, 74. A.B, Bryn Mawr Col, 00; Chicago, 01; Ph.D, Columbia, 03. Lecturer *geol, Barnard Col, Columbia,* 03–05, tutor, 05–10, instr, 10–12, asst. prof, 12–16, assoc. prof, 16–38, prof, 38–41, *emer. prof, 42–* Director, Women's Agr. Camp, 17–20. A.A; Geol. Soc; Ecol. Soc; N. Y. Acad. (v. pres, 38). Glaciology of the Adirondacks, British Columbia and Maine; geology of the Ortiz Mountains, New Mexico.

Ogilvie, Dr. James D(euchars) B(oyd), Welland Chemical Works, Niagara Falls, Ont, Can. *Physical chemistry.* Calgary, Alta, May 29, 18. B.Eng, McGill, 39, M.Sc, 40, Nat. Research Council Can. student, 41–42, Ph.D, 42. Demonstrator chem, McGill, 39–41; *research chemist, Welland Chem. Works, 42–* Eng. Inst. Can. War research projects.

Ogle, Prof. Kenneth N(eil), Dartmouth College, Hanover, N. H. *Physics.* Lake City, Colo, Nov. 27, 02. A.B, Colo. Col, 25; A.M, Dartmouth Col, 27, Ph.D, 30; Minnesota, 27–28. Asst. physics, Dartmouth Col, 25–27; teaching fellow, Minnesota, 27–28; research fellow *physiol. optics, Dartmouth Col,* 30–34, *asst. prof, 34–* Optical Soc; Asn. Research Ophthal. Physiological optics; depth of focus of the human eye; resolving power of the human eye; analytical treatment of the longitudinal horopter and application to ocular phenomena; size and shape of ocular images; ophthalmic lens theory; induced size effect; aniseikonia; binocular space perception.

Oglesby, Prof. E(arnest) J(ackson), University of Virginia, Charlottesville, Va. *Mathematics.* Wythe Co, Va, Sept. 11, 91. A.B, Emory and Henry Col, 11; A.M, Virginia, 14. Instr. math, Virginia, 12–16; prof, Col. of William and Mary, 16–19; asst. prof, N. Y. Univ, 19–24, assoc. prof, 24–26, *prof,* 26–31; *eng. math, Virginia, 31–* Administrative chairman, dept. math, Wash. Sq. Col, N. Y. Univ. U.S.A, 17–18. Math. Soc; Math. Asn; Statist. Asn. Trigonometry; finite differences.

Oglesby, Dr. N(icholas) E(wing), Behr-Manning Corp, Troy, N. Y. *Chemistry.* Wythe Co, Va, May 25, 92. A.B, Virginia, 13, A.M, 17, Ph.D, 29. Teacher, high sch, 13–15; asst. chem, Virginia, 15–17; junior chem. engineer, Aluminum Co. of Amer, 17–18; teaching fellow, Virginia, 19–20; research chemist, Glamorgan Pipe and Foundry Co, 20; chief munitions dept, chem. div, Chem. Warfare Service, 20–24, asst. chief chem. div, 24–29; *tech. director, Behr-Manning Corp,* 29– Ordnance Dept. and C.W.S, 18–19, 2nd lieut. A.A; Chem. Soc; Chem. Eng. Alkalis; toxic gases; smokes; adhesives; paper.

Oglesby, Dr. W(illiam) T(homas), Louisiana State University, Baton Rouge, La. *Animal pathology.* Clarksville, Mo, Sept. 3, 03. B.S, Oregon State Col, 28; D.V.M, M.S, Iowa State Col, 31. Teaching fellow, Iowa State Col, 28–31, instr. vet. physiol. and anat, 31–32; physiol. and pharmacol, Mich. State Col, 32–34; asst. animal pathologist, *Louisiana,* 34–36, *assoc. animal pathologist in charge vet. work, 36–, prof. vet. science and head dept, 37–; Vet. Corps, U. S. Army.* Vet. Med. Asn; Conf. Research Workers in Animal Diseases of N. Amer; La. Vet. Med. Asn; Int. Asn. Med. Mus. Blood morphology of normal and cholera infected swine; transmission and treatment of anaplasmosis of bovines.

O'Hanlon, Sister Mary Ellen, Rosary College, River Forest, Ill. *Botany.* Iowa City, Iowa, Nov. 5, 82. B.S, St. Clara Col, 17; M.S, Wisconsin, 19; Notre Dame, 22; Ph.D, Chicago, 25. Teacher, pub. schs, Iowa, 00–11; instr. biol. and chem, St. Clara Acad, Wis, 13–18; biol, St. Clara Col, 18–22; *prof.* bot. *and head dept, Rosary Col,* 22–28, *biol, 28–* A.A; Bot. Soc; Ill. Acad. Morphology of Marchantiaceae and Chlorophyceae; algae; ferns; leaf structure; plant morphology.

O'Hara, Dr. Dwight, 306 Lexington St, Waltham, Mass. *Medicine.* Waltham, Mass, 92. B.S, Dartmouth Col, 15; M.D, Harvard, 19. *Prof. prev. med, med. sch, Tufts Col, 31–, acting dean, 42–* Physician in chief, Waltham Hosp, Mass, 40–; visiting physician, Boston City Hosp, 41– Am. Med. Asn. Decline of air-borne infection.

O'Hara, Prof. Leon P, Talladega College, Talladega, Ala. *Physiology, Physiological chemistry.* Louisville, Ky, April 24, 88. A.B, Fisk, 11; A.B, Yale, 12, M.S, 15; Chicago. Head dept. science, Cheyney Training Sch. for Teachers, Pa, 15–16; Langston State Univ, 16–19; head div, Tuskegee Nor. and Indust. Inst, 19–23; *prof. biol, Talladega Col, 23–* Fel. Am. Geog. Soc. Chemistry of silk proteins; chemistry of seed proteins; effect of experimental thyroidism upon pancreatic secretion; visceral sensory nervous system; action of epinephrin and related drugs on pulmonary vagus in the toad and alligator.

O'Hare, Dr. George A(lfred), 7 Meadowbrook Village, Plainfield, N. J. *Chemistry.* Salem, Mass, Oct. 9, 12. A.B, Harvard, 34; Ph.D, Pennsylvania, 39. Instr. chem, Pennsylvania, 34–39; *research chemist, Congoleum-Nairn, Inc, 39–* Chem. Soc. Physical and organic chemistry; drying and semi-drying oils; vegetable oils and their application to protective coating industry.

O'Hare, Dr. James P(atrick), 520 Commonwealth Ave, Boston, Mass. *Medicine.* Charlestown, Mass, March 17, 86. A.B, Harvard, 08, M.D, 11. Fellow *med, Harvard Med. Sch,* 14–15, asst, 16–18, instr, 18–30, *asst. prof, 30–* Asst. physician, Carney Hosp, 13–15; Boston City Hosp, 15–16; assoc. med, Peter Bent Brigham Hosp, 16–17, 19–28, senior assoc, 28–, acting physician, 17–19, physician, 42– Am. Med. Asn; Am. Physicians; Soc. Exp. Path; Soc. Clin. Invest. Nephritis; hypertensive disease.

Ohern, Dr. D(aniel) W(ebster), 2813 First National Bank Bldg, Oklahoma City, Okla. *Geology.* Maquon, Ill, June 2, 70. A.B, Drake, 98; A.M, West Virginia, 99; Ph.D, Hopkins, 07. Asst. Greek, West Virginia, 98–03; assoc. prof. geol, Bryn Mawr Col, 07–08; prof. miner. and director sch. mines, Oklahoma, 08–11; director, Okla. Geol. Surv, 11–13; *consulting geologist, 13–* Field asst, U. S. Geol. Surv; Md. Geol. Surv; Okla. Geol. Surv. Fel. Geol. Soc; Okla. Acad; Wash. Acad. Structure, stratigraphy and paleontology of the upper Carboniferous of Oklahoma.

Ohlmacher, Dr. Joseph C, University of South Dakota, Vermillion, S. Dak. *Pathology.* Sycamore, Ill, Oct. 27, 74. M.D, Rush, Chicago, 01. Instr. path, Northwestern, 01–02; clin. director and pathologist, Independence State Hosp, Iowa, 02–10; pathologist and asst. supt, Clarinda State Hosp, 13–18; *prof. path. and bacter, sch. med, South Dakota, 18–, dean, 34–* Director, State Health Lab, S. Dak, 18– Am. Med. Asn; Pub. Health Asn; S. Dak. Acad; S. Dak. State Med. Asn. (pres, 43); Southwest. Iowa Med. Asn. (past pres); Sioux Valley Med. Asn. (past pres). Bacteriology; serology.

Ohlson, Prof. Margaret A(lexander), Iowa State College, Ames, Iowa. *Nutrition.* Chicago, Ill, May 5, 01. A.B, State Col. Wash, 23; M.S, Iowa, 30, Ph.D, 34. Dietitian, Sacred Heart Hosp, Spokane, Wash, 27–29; instr, Indiana, 29–32; asst. prof. home econ, Mich. State Col, 34–35; *assoc. prof. foods and nutrition, Iowa State Col, 35–* Iron and copper metabolism; nutritional status of young women.

Ohmann, Prof. O(liver) A(rthur), Western Reserve University, Cleveland, Ohio. *Psychology.* Hope, Mo, July 25, 99. A.B, Dubuque, 22; A.M, Iowa, 24, fellow, 24–26, Ph.D, 26. Assoc. prof. *psychol, Cleveland Col, Western Reserve,* 26–36, *prof, 36–, head dept, 27–* Summers, instr, Iowa, 24–26, 28; lecturer, Southern California, 29. Psychol. Asn; Management Asn; Asn. Applied Psychol; Ohio Asn. Applied Psychol. (pres, 41); Ohio Acad. Emotional and social adjustment; employment tests in industry; personality problems; vocational guidance.

Ohsol, Dr. Ernest O(sborne), 412 Casino Ave, Cranford, N. J. *Chemical engineering, Physical chemistry.* Wash-

ington, D. C, May 28, 16. B.Ch.E, Col. City of N. Y, 36; Arthur D. Little fellow, Mass. Inst. Tech, 37–38, Sc.D, 39. *Chem. engineer, develop. div, Esso labs, Standard Oil Develop. Co.* Chem. Soc. Isomer distribution and reaction rate in the mononitration of toluene.

Ojemann, Prof. Ralph H(enry), University of Iowa, Iowa City, Iowa. *Educational psychology.* Peoria, Ill, Aug, 01. B.S, Illinois, 23, M.S, 24; fellow, Chicago, 28–29, Ph.D, 29. Asst. educ. psychol, Illinois, 25–28; asst. prof, Kansas, 29–30; research assoc. *child welfare, child welfare research sta, Iowa,* 30–31, asst. prof, 31–39, *assoc. prof, 39–* A.A; Psychol. Asn; Educ. Research Asn; Soc. Research Child Develop; Soc. Study Educ; Council Parent Educ. (governing board). Social change; handedness in children and its relation to speech; development and learning at upper age levels; adolescent psychology; mental hygiene.

O'Kane, Prof. Walter C(ollins), University of New Hampshire, Durham, N. H. *Entomology.* Columbus, Ohio, Nov. 10, 77. A.B, Ohio State, 97, A.M, 09, hon. Sc.D, 32. *Prof. econ. entom, New Hampshire, and entomologist, Exp. Sta, 10–; state nursery inspector, N. H, 12–, deputy commissioner agr, 14–* V. chairman, N. H. Food Admin, 18; chairman, Fed. Fruit-Fly Board, 30; chairman, Nat. Plant Board, 30. A.A; fel. Entom. Soc; Asn. Econ. Entom. (pres, 19); Crop Protection Inst. (chairman, board governors); N. H. Acad. (sec'y, 19, pres, 24). Chemistry and physiology of contact insecticides and ovicides.

O'Keefe, Prof. John A(loysius), Brenau College, Gainesville, Ga. *Astronomy.* Lynn, Mass, Oct. 13, 16. A.B, Harvard, 37, 37–38; Ph.D, Chicago, 41. *Prof. math. and physics, Brenau Col, 41–* Astron. Soc. R Coronae Borealis stars; reddened B stars.

O'Kelly, Dr. Arlie Adrian, Socony-Vacuum Oil Co, Inc, Paulsboro, N. J. *Organic chemistry.* Havana, Ark, Aug. 30, 04. A.B, Arkansas, 26; Ph.D, Colorado, 29. Prof. chem, Union Col, 29–30; Middle Tenn. State Col, 30–35; *research chemist, R. and D. labs, Socony-Vacuum Oil Co, 35–* Chem. Soc. (sec'y-treas, South Jersey sect, 42). Synthetic hydrocarbons of high octane number.

Okey, Prof. Frank M(orris), Colorado College, Colorado Springs, Colo. *Civil engineering.* Corning, Iowa, June 5, 80. B.C.E, Iowa State Col, 04, C.E, 29. Supt, Herrick Contracting Co, Iowa, 04–05; asst. engineer, Kimball Eng. Co, Iowa, 05–06; inspector and draftsman, Union Pacific R. R, Nebr, 06–07; asst. engineer, eng. exp. sta, Iowa State Col, 07–10; field engineer, Morgan Eng. Co, Tenn, 10–11; instr. struct. eng, Illinois, 11–12; construction engineer, Gen. Cement Gun Co, Chicago, 12; *prof. civil eng. and head dept, Colo. Col, 14–* Assoc. Civil Eng; Soc. Test. Mat; Colo. Soc. Eng; Colorado Springs Eng. Club (past pres). Concrete and its constituent materials; mechanical analysis of earth for reservoir embankments.

Okey, Prof. Ruth E(liza), University of California, Berkeley, Calif. *Physiological chemistry.* Woodsfield, Ohio, Sept. 13, 93. B.S, Monmouth Col, 14; M.S, Illinois, 15, fellow, 17–18, Ph.D, 18. Instr. physiol. chem, Illinois, 18–19; asst. prof. *household science, California,* 19–26, *assoc. prof, 26–, assoc. biochemist, Exp. Sta.* Asst. prof, Iowa, 21–22. Soc. Biol. Chem; Inst. Nutrition; Dietetics Asn; Home Econ. Asn; Chem. Soc; Soc. Exp. Biol. Nutrition; emodin containing drugs; inulin in the animal body; effect of menstrual cycle on blood composition and metabolism; nutritional anemias; cholesterol metabolism; lipids in blood and tissue; adequate nutrition at low cost.

Okkelberg, Prof. Peter, University of Michigan, Ann Arbor, Mich. **Zoology.* Goodhue, Minn, Nov. 12, 80. A.B, Minnesota, 06, A.M, 09; Ph.D, Michigan, 18. Asst. *zool,* Minnesota, 08–10; instr, *Michigan,* 10–18, asst. prof, 18–27, assoc. prof, 27–31, *prof, 31–,* exec. sec'y dept, 29–33, *asst. dean grad. sch, 35–* A.A; Soc. Zool; Soc. Mammal; Mich. Acad. (ed, 25–33). Embryology; cytology; fertilization and development of germ cells.

Okulitch, Dr. Vladimir J(oseph), University of Toronto, Toronto, 5, Ont, Can. *Invertebrate paleontology, Stratigraphy.* St. Petersburg, Russia, June 18, 06. Russo-Serbian Lyceum, Belgrade, Jugoslavia, 27; R. W. Brock scholar, British Columbia, 31–32, B.A.Sc, 31, M.A.Sc, 32; F. D. Adams scholar, McGill, 33–34, Ph.D, 34. Asst. geol, British Columbia, 31–32; McGill, 33–34; Royal Soc. Can. fellow, museum comp. zool, Harvard, 34–36; instr, *Toronto,* 36–39, lecturer gen. and hist. geol, 39–42, *asst. prof. geol, 42–* Surveyor, Atlin Ruffner Mines, 29, geologist, 30, 31; senior asst, Que. Geol. Surv, 33, 34; asst. geologist, Geol. Surv. Can, 36; geologist, Shawinigan Chem. Ltd, 37. Summers, lecturer, Toronto, 38, 40, 41. Fel. Geol. Soc; fel. Paleont. Soc; Royal Can. Inst; Asn. Professional Eng. Ont. Paleontology and stratigraphy of Ordovician system; development of early Paleozoic corals; North American Pleospongia.

Olcott, Dr. H(arold) S(aft), U. S. Department of Agriculture, Albany, Calif. *Biochemistry.* Denver, Colo, July 24, 09. B.S, Denver, 28, M.S, 29; Ph.D, Iowa, 31. Nat. research fellow med, Yale, 31–32; research assoc. biochem, Iowa, 32–37; indust. fellow, Mellon Inst, 37–41; *senior chemist west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Eli Lilly and Co. prize and bronze medal, Am. Chem. Soc, 37. Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Vitamin E; antioxidants and autoxidation in fats; cottonseed; proteins; nutrition.

Old, Lieut. Bruce S(cott), Office of Coordinator of Research and Development, Office of Secretary of Navy, Navy Department, Washington, D. C. *Metallurgy.* Norfolk, Va, Oct. 21, 13. B.S, North Carolina, 35; fellow, Mass. Inst. Tech, 37–38, Sc.D, 38. Research engineer, Bethlehem Steel Co, 38–41; *lieut, U. S. Navy, 41–* Min. and Metal. Eng; Soc. Metals. Age hardening; open hearth steel processing.

Old, Prof. M(arcus) C(alvin), Hofstra College, Hempstead, L. I, N. Y. *Biology.* Allentown, Pa, Dec. 21, 97. A.B, Lehigh, 23, A.M, 25; fellow, Michigan, 29–30, Ph.D, 30. Instr, Lehigh, 23–25; prof, Olivet Col, 25–26; asst. *zool,* Michigan, 26–29; asst. prof, Ursinus Col, 30–39; asst. prof, *Hofstra Col,* 39–40, assoc. prof, 40–42, *prof, 42–* Summers, research, Chesapeake Biol. Lab, 35– A.A; Micros. Soc; Soc. Zool; N. Y. Acad. Taxonomy, distribution and ecology of freshwater and marine sponges.

Oldach, Dr. Carl S, 1401 Broom St, Wilmington, Del. *Chemical engineering.* Calif, Nov. 28, 14. B.Ch.E. Yale, 37; D.Sc, Mass. Inst. Tech, 40. *Chem. engineer, E. I. du Pont de Nemours and Co, 40–* Corrosion of binary alloys; chemical engineering design of new plant processes.

Oldberg, Dr. Eric, 558 Hawthorne Place, Chicago, Ill. *Physiology.* Evanston, Ill, Nov. 7, 01. B.S, Northwestern, 23, M.S, 26, Elizabeth J. Ward fellow, 27–28, M.D, 27, Ph.D, 28. Asst. physiol. and pharmacol, med. sch, Northwestern, 25–26, instr. physiol, 27–28; surg. house officer, Peter Bent Brigham Hosp, Boston, 28–29, asst. res. surgeon, 29–30, res. neurosurgeon, 30–31; asst. prof. surg, *col. med, Illinois,* 31–34, assoc. prof. and acting head dept, 34–36, *prof. and head dept. neur. and neur. surg, 36–* G. Gorham Peters fellow from Harvard, Europe, 30–31. Director div. neur. and neur. surg, Ill. Neuropsychiat. Inst; attending neur. surgeon, St. Luke's Hosp, Chicago, Ill; Research and Educational Hosp; consulting neur. surgeon, St. Joseph's Hosp; Augustana Hosp; Mt. Sinai Hosp; Ill. Cent. Hosp; U. S. Marine Hosp; Grant Hosp; Chicago Mem. Hosp; Delnor Hosp, St. Charles, Ill. Mem. med. advisory cmt, div. services for crippled children, Am. Board Neur. Surg, 42–43. Assoc. ed, 'Jour. Neuropath.' A.A; Am. Med. Asn; Neur. Asn; Soc. Neur. Surg; Asn. Ry. Surg; Col. Surg; Surg. Asn; Soc. Exp. Biol; Asn. Research Nervous and Mental Disease; West. Surg. Asn; Cent. Neuro-Psychiat. Asn; Chicago Neur. Soc. (v. pres, 41); Inst. Med. Chicago (governor, 36–). Physiology of the gall-bladder, pancreas, parathyroids, adrenals and of the nervous system.

Oldenberg, Prof. Otto, Harvard University, Cambridge, Mass. *$Physics.* Berlin Schoeneberg, Germany, Nov. 2, 88. Ph.D, Göttingen, 13. Asst. physics, Göttingen, 13, 19–21; privatdocent, Rostock, 23; Göttingen, 23–26, lecturer, 26–30; *prof. physics, Harvard, 30–* Lecturer, Harvard, 29–30. A.A; Physical Soc. Spectroscopy; kinetics of gas reactions.

Oldenburger, Prof. R(ufus), Illinois Institute of Technology, Chicago, Ill. *Mathematics.* Grand Rapids, Mich, July 6, 08. A.B, Chicago, 28, M.S, 30, Ph.D, 34; Michigan, 30–31. Instr. *math,* Michigan, 30–31; Case, 31–33; Armour Inst. Tech, 34–36, asst. prof, 36–39, assoc. prof, 39–42, *prof, Ill. Inst. Tech, 42–* Mem. Inst. Advanced Study, 37–38; math. consultant, Askania Regulator Co, 42–; Woodward Governor Co, 42– Eng. Educ; Math. Soc; Math. Asn. Theory of generalized matrices and forms; higher dimensional determinants; symbolic dynamics; applied mathematics; applied mechanics; groups.

Older, Clifford, 1026 Elmwood Ave, Wilmette, Ill. *Engineering.* Adams Co, Wis, Nov. 17, 76. B.S, Wisconsin, 00

Transitman, Pa. R. R, 00–02; div. engineer, C. and A. Ry, 02–06; bridge engineer, State Highway Dept, Ill, 06–17, chief highway engineer, 17–24; pres, Consoer, Older and Quinlan, Inc, Chicago, 24–30; chief engineer, State Highway Audit Cmn, Ark, 31–32; *consulting engineer, 32–* Design cmt, highway advisory board, Nat. Research Council. Civil Eng. Highway research in Illinois; pavement design.

Oldham, Dr. Wilbur N(ull), 46 Rockmere Ave, Old Greenwich, Conn. *Organic chemistry.* Thayer, Mo, June 12, 12. A.B, Kans. State Teachers Col, 35, M.S, 36; fellow, Iowa State Col, 36–39, Ph.D, 39. *Research chemist, Stamford research labs, Am. Cyanamid Co, 39–* A.A; Chem. Soc. Organic nitrogen compounds; nitrogen heterocyclics.

Olds, Prof. Edwin G(lenn), 953 La Clair Ave, Pittsburgh, Pa. *Mathematics.* Buffalo, N. Y, April 20, 98. A.B, Cornell, 18; A.M, Pittsburgh, 25, Ph.D, 31. Asst. prof. and *assoc. prof. math, Carnegie Inst. Tech, 22–* A.A; Math. Soc; Math. Asn; Inst. Math. Statist. (sec'y-treas, 41–43); Nat. Council Teachers Math. (2nd v. pres, 43–). Theory of probability; mathematical statistics; teaching of mathematics; industrial quality control.

O'Leary, Dr. A(ustin) J(ohn), College of the City of New York, New York, N. Y. *Physics.* Can, Dec. 28, 06. B.Sc, Queen's (Can), 28, Nat. Research Council Can. bursar, 28–29, M.Sc, 29; univ. fellow, Columbia, 29–30, Ph.D, 32. Asst, Columbia, 30–31; from tutor to *asst. prof. physics, Col. City of N. Y, 31–* Internal absorption of gamma-rays; gamma and cosmic rays; interaction of x-rays with bound electrons; scattering of beta-rays; radio tube demonstration; a simple stroboscope.

O'Leary, Dr. (Daniel) Keith, Kennett Square, R. D. 2, Pa. *Microbiology.* Seattle, Wash, Aug. 27, 08. B.S, Washington (Seattle), 29; fellow, Boyce Thompson Inst, 31–37; Ph.D, Cornell, 38. *Microbiologist, chem. div, ammonia dept, E. I. du Pont de Nemours and Co, Inc, 37–* A.A; Phytopath. Soc. Microbiology of foods; chemical control of plant diseases.

O'Leary, Prof. James L(ee), Washington University School of Medicine, St. Louis, Mo. *Anatomy.* Tomahawk, Wis, Dec. 8, 04. B.S, Chicago, 25, Ph.D, 28, M.D, 31. Instr. *anat,* Chicago, 27–28; asst. prof, *sch. med, Washington (St. Louis), 28–34, assoc. prof, 34–* A.A; Asn. Anat. Human menstrual cycle; central nervous system.

O'Leary, Sister Mary Adeline, Nazareth College, Louisville, Ky. *Chemistry.* Ph.D, Fordham, 25. *Prof. chem, Nazareth Col. (Ky), 20–* Chem. Soc. Glycuronic acid; amino acids.

O'Leary, Dr. Paul A(rthur), Mayo Clinic, Rochester, Minn. *Dermatology, Syphilology.* Brooklyn, N. Y, Nov. 11, 91. M.D, L. I. Col. Med, 15. *Assoc. sect. dermat. and syphilol, Mayo Clinic, 17–, head sect, 24–; prof, Mayo Foundation, Minnesota, 28–* Mem, Nat. Advisory Health Council; mem. Am. Board Dermat. and Syphilol. U. S. del, Int. Cong. Dermat. and Syphilol, 35, sec'y-gen, 40. A.A; fel. Col. Physicians; Dermat. Asn; Am. Med. Asn. (chairman sect. dermat. and syphilol, 36, 37); Soc. Investigative Dermat; Acad. Dermat. and Syphilol. (pres, 38); Minn. Acad; Pan-Am. Med. Asn; British Asn. Dermat. and Syphilol; cor. mem. Soc. française de Dermat. et de Syphilig; cor. mem. Soc. Italiana di Dermat. e Sifilografia; cor. mem. Soc. Dermat. Hungarica; hon. mem. Hellenic Antivenereal Soc; cor. mem. Greek Union Dermat. and Venereology; cor. mem. Asn. Argentina de Dermat. y Sifilologia. Fever therapy of syphilis; visceral syphilis.

O'Leary, Dr. W(illia)m J(oseph), Linde Air Products Co, Tonawanda, N. Y. *Chemistry, Petrography.* Montreal, Que, Can, Dec. 22, 02. B.A, Laval, 23; A.M, Cornell, 30, Ph.D, 33. Chemist, Star Research Labs, Dayton, Ohio, 25–29; asst. chem, Cornell, 30–34; *chemist-petrographer,* Norton Co, 34–43; *Linde Air Products Co, 43–* A.A; Chem. Soc; Miner. Soc; Optical Soc; Can. Chem. Asn. Optical chemistry; mineralogy; color of gems and minerals; chemical composition of minerals; development of abrasives; improvements in chemical analysis; allotropy of aluminum oxide.

Oleson, Dr. N(orman) L(ee), U. S. Coast Guard Academy, New London, Conn. *Physics.* Detroit, Mich, Aug. 19, 12. B.S, Michigan, 35, univ. scholar, 35–37, M.S, 37, Ph.D, 40. *Instr. physics, U. S. Coast Guard Acad, 40–* Physical Soc. The multiple scattering of fast electrons.

Olewine, Prof. J(ames) H(arris), 711 McKee St, State College, Pa. *Chemistry.* Bellefonte, Pa, Oct. 1, 93. B.S, Pa. State Col, 15, Ph.D, 36; M.S, Illinois, 17. From instr. to assoc. prof. chem, *Pa. State Col, 17–35, prof. org. chem, 35–* Chem. Soc. Optically active compounds; fractional distillation.

Olin, Prof. H(ubert) L(eonard), 321 Blackhawk St, Iowa City, Iowa. *Chemical engineering.* Marcus, Iowa, May 10, 80. A.B, Iowa, 08; M.S, Illinois, 11, Ph.D, 14. Instr. *chem,* Vassar Col, 13–14; Illinois, 14–16; asst. prof, Ohio State, 16–18; assoc. prof, *Iowa, 19–29, prof, 29–* Tech. adviser, State Planning Board, Iowa; mem, Governor's Coal Cmt. Capt, C.W.S, 18–19, major, C.W.S.R. Chem. Soc; Chem. Eng; Eng. Educ; Water Works Asn; Iowa Coal Inst. (director); fel. Royal Soc. Arts. Gas and coal technology; manufacture and use of activated carbons; industrial filtration; fuel gas purification; clay colloids; water purification.

Oliphant, Dr. J(oseph) F(rederick), Stanford University, Calif. *Physiology.* Farmersburg, Ind, July 31, 06. A.B, Wabash Col, 28; Ph.D, Hopkins, 35. Asst. *biol,* Hopkins, 28–29, 32–35; instr, Union Col. (N. Y), 29–32; *Stanford, 35–38, asst. prof, 38–* Fellow, Hopkins, 42. West. Soc. Nat. Physiology of gametes; reversal in ciliary action; starch and fat metabolism in protozoa.

Olitsky, Dr. Peter K(osciusko), Rockefeller Institute, New York, N. Y. *[7]Pathology, Bacteriology.* New York, N. Y, Aug. 20, 86. M.D, Cornell, 09. Asst. *path. and bacter, Rockefeller Inst,* 17–18, assoc, 18–23, assoc. mem, 23–30, *mem, 30–* Consultant, Greenwich Hosp; collaborator, bur. animal indust, U. S. Dept. Agr, 25–27. A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Bact; Pub. Health Asn; Soc. Exp. Biol; Asn. Immunol; Harvey Soc; Nat. Soc. Prevention Blindness (advisory cmt); N. Y. Acad. Med; N. Y. Acad. Viruses.

Olive, Dr. Edgar W(illiam), 528 Chamber of Commerce Bldg, Indianapolis, Ind. *[2]Botany.* Lebanon, Ind, April 1, 70. B.S, Wabash Col, 93, M.S, 95; A.M, Harvard, 97, Ph.D, 02. Instr. bot, Wabash Col, 93–95; high sch, Ind, 95–96; bot, Harvard and Radcliffe Col, 97–03; asst, Carnegie Institution, Bonn, 03–04; Wisconsin, and res. lecturer bot, 04–06; prof, S. Dak. State Col, and state botanist, S. Dak, 07–12; curator, Brooklyn Bot. Garden, 12–20; *office manager, George S. Olive and Co.* A.A; Bot. Soc. (v. pres, 17); Phytopath. Soc. Acrasiaceae; mitotic division of the nuclei of the Cyanophyceae; morphology of Monascus purpureus; Entomophthoraceae; Empusa; slime molds; sexual fusions in rusts.

Olive, Dr. Lindsay S(hepherd), University of North Carolina, Chapel Hill, N. C. *Botany.* Florence, S. C, April 30, 17. A.B, North Carolina, 38, A.M, 40, Ph.D, 42. Lab. asst. gen. bot, *North Carolina,* 38–40, teaching fellow *bot,* 40–42, *instr, 42–* Elisha Mitchell Sci. Soc; N. C. Acad. Cytology, morphology and parasitology of the Uredinales.

Olive, Theodore R(istine), McGraw-Hill Publishing Co, 330 W. 42nd St, New York, N. Y. *Chemical engineering.* Cambridge, Mass, Sept. 19, 01. A.B, Harvard, 23, 23–24. Engineer, Nat. Ceramic and Chem. Co, Ind, 24; field engineer, Nat. Aniline and Chem. Co, N. Y, 25; asst. supt, Durez Co, 25; engineer, mech. exp. div, du Pont Rayon Co, 26; asst. ed, *'Chem. and Metal. Eng,'* 27–34, *assoc. ed, 34–* Mech. Eng. (sec'y process industries div, 34–). Industrial instruments and control.

Oliver, Prof. A(lfred) Russell, University of North Dakota, Grand Forks, N. Dak. *Geography.* Enderlin, N. Dak, Dec. 11, 97. A.B, Nebraska, 24, A.M, 31; Ph.D, Clark, 37. Teacher, high sch, Nebr, 24–27; prin, Gothenburg, 27–30; from instr. to *assoc. prof. geog, North Dakota, 33–, head dept. geol. and geog, 41–* Summers, instr, Northwest Mo. State Teachers Col, 31; lecturer, Ohio (Athens), 39; ranger-naturalist, Yellowstone Nat. Park, 37; instr, Tours, Kansas City, Mo, 38. A.A; Meteorol. Soc; N. Dak. Acad. Land utilization.

Oliver, Dr. Anne Rebecca, Connecticut College, New London, Conn. *Physics.* Cumberland, Md, Dec. 1, 12. A.B, Goucher Col, 34; A.M, Smith Col, 35; Ph.D, Cornell, 42. Asst. physics, Goucher Col, 38–40; junior physical science aide, Bur. Standards, 40; asst. *physics,* Wilson Col, 40–41; *instr, Conn. Col, 41–* Physical Soc. Electron diffraction; structure of thin films.

Oliver, Prof. Clarence P(aul), 101 Melbourne Ave, S. E, Minneapolis, Minn. *Genetics.* Union City, Tenn, Nov. 8, 98. A.B, Texas, 25, A.M, 30, Ph.D, 31. Asst. prof. *zool,* Washington (St. Louis), 30–32; *Minnesota, 32–39, assoc. prof, 39–, director, Dight Inst. Human Heredity, 41–* A.A; Genetics Soc; Soc. Zool; Genetic Asn. Genetic effects with variations of x-ray treatment; chromosomal aberrations; human genetics.

Oliver, Dr. Douglas L(lewellyn), Harvard University, Cambridge, Mass. *Anthropology.* Ruston, La, Feb. 10, 13. A.B, Harvard, 34, 35-36; Ph.D, Vienna, 35. Research assoc. anthrop, Peabody Museum, Harvard, 36-41; instr. anthrop, Brooklyn Col, Col. City of N. Y, 41; *Social Science Research Council fellow, 41–* Anthrop. Asn; Soc. Physical Anthrop; Soc. Applied Anthrop. Social anthropology of the Melanesian and African fields.

Oliver, Edwin Letts, 60 King Ave, Piedmont, Calif. *Engineering.* San Francisco, Calif, Nov. 9, 78. California, 00. Surveyor, North Star Mines, 03-06, metallurgist, 06-10; *pres,* Oliver Continuous Filter Co, 10-28; *Oliver United Filters, Inc, 28–; Idaho Md. Mines Corp, 25–; Letts-Oliver Investment Co, 30–; v. pres, Calif. Cap Co, 25–* Min. and Metal. Eng; Chem, Metal. and Min. Soc. S. Africa. Filtration as applied to the manufacture of paper, cane and beet sugar; heavy chemicals, soda, salt, starch, dewatering of sewage, cyanidation of gold and silver ores; flotation concentrates; oils; synthetic rubber.

Oliver, Dr. E(verard) Lawrence, 20 Fairfield St, Boston, Mass. *Dermatology, Syphilology.* Boston, Mass, Jan. 11, 76. M.D, Harvard, 04. Clin. prof. *dermat. and syphilol, Harvard Med. Sch,* 29-36, *emer. clin. prof, 36–* Chief dept. dermat. and syphilol, Mass. Gen. Hosp, 29-36, mem. board consultation, 36–; consulting dermatologist, Children's, Boston Lying-in, Peter Bent Brigham and Beth Israel Hosps; Mass. Charitable Eye and Ear Infirmary; L. I. Hosp, Boston Harbor; Faulkner Hosp, Jamaica Plain; Cable Mem. Hosp, Ipswich; consulting dermatologist, Salem Hosp; Elliot Community Hosp, N. H. Major, M.C, 18. Dermat. Asn; Am. Med. Asn; New Eng. Dermat. Soc. (pres, 20-22).

Oliver, Dr. James A(rthur), American Museum of Natural History, New York, N. Y. *Zoology.* Caruthersville, Mo, Jan. 1, 14. A.B, Michigan, 36, A.M, 37, univ. fellow, 38-40, Hinsdale scholar, 40-41, Ph.D, 42. Instr. biol, North. Mich. Col. Educ, 41-42; *asst. curator dept. amphibians and reptiles, Am. Museum Nat. Hist, 42–* Soc. Ichthyol. and Herp. Taxonomy and natural history of reptiles and amphibians.

Oliver, Prof. Jean (Redman), 335 Henry St, Brooklyn, N. Y. *Pathology.* Watsonville, Calif, Aug. 19, 90. A.B, Stanford, 11, M.D, 14. Instr. path, Stanford, 14-16; asst. path. and bacter, Rockefeller Inst, 16-18, assoc, 19; assoc. prof. *path,* Stanford, 19-24, *prof,* 24-29; *L. I. Col. Med, 29–* Major, M.C, 17-18, lieut. col, M.O.R.C, 18-35. A.A; Soc. Exp. Path; Physiol. Soc; Soc. Exp. Biol. Mammalian spermatogenesis; experimental nephritis and hemochromatosis; nephrolysins; precipitins; antibody production; agglutination; arsphenamine; renal morphology.

Oliver, Dr. Wade W(right), Long Island College of Medicine, Brooklyn, N. Y. *Bacteriology.* Cincinnati, Ohio, Aug. 30, 90. A.B, Michigan, 12; M.D, Cincinnati, 15. Asst. bacter, Cincinnati, 11-15; with int. health div, Rockefeller Foundation, 16; *prof. bacter, L. I. Col. Med, 17–,* acting dean, 35-37. Visiting prof, Chicago, 23; sch. hygiene and pub. health, Philippines, 30-31. A.A; Soc. Bact; Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn; Pub. Health Asn. Immunology.

Oliver-González, Dr. J(osé), School of Tropical Medicine, San Juan, P. R. *Parasitology.* Lares, P. R, Aug. 21, 12. A.B, Puerto Rico, 39; M.S, Chicago, 40, Ph.D, 41. Research assoc. bacter. and parasitol, Chicago, 41-42; *assoc. med. zool, Columbia Sch. Trop. Med, Puerto Rico, 42–* Howard T. Ricketts prize, 42. A.A; Soc. Parasitol. Immunity to helminth infections.

Olivier, Prof. Charles P(ollard), Flower Observatory, Upper Darby, Pa. **Astronomy.* Charlottesville, Va, April 10, 84. A.B, Virginia, 05, Vanderbilt fellow, 05-09, A.M, 08, Ph.D, 11; Lick Observatory fellow, California, 09-10. Instr, Virginia, 05-09; asst, Lick Observatory, California, 10; prof. astron. and physics, Agnes Scott Col, 11-14; adj. prof. *astron,* Virginia, 14-23, assoc. prof, 23-28; *prof, Pennsylvania, and director, Flower Observatory, 28–, Cook Observatory, 40–* Summer, vol. observer, Yerkes Observatory, Chicago, 13. Vol. observer, U. S. Naval eclipse exped, Spain, 05. Pres. Cmn. des étoiles filantes, 25-35; mem. cmn. des étoiles doubles, Int. Astron. Union, 25- Master computer, Ordnance Dept, 18-19. A.A; Astron. Soc; Meteor. Soc. (pres); Asn. Variable Star Observers; Philos. Soc; Pa. Acad; Va. Acad; fel. Royal Astron. Soc; Soc. astron. de France; Soc. astron. d'Anvers. Double stars; meteors; stellar parallax; variable stars.

Olivier, Dr. Louis (John), Bureau of Animal Industry, U. S. Department of Agriculture, Beltsville, Md. *Helminthology.* Grand Rapids, Mich, Nov. 3, 13. B.S, Michigan, 36; M.S, N. Y. Univ, 38, Ph.D, 40. Asst. biol, N. Y. Univ, 36-41; *junior zoologist, zool. div, bur. animal indust, U. S. Dept. Agr. 41–* Micros. Soc; Soc. Parasitol; Helminth. Soc. Wash. Morphology and life history of strigeid trematodes; ecology of larval trematodes; helminths of poultry.

Ollmann, Prof. L(oyal) F(rank), Hofstra College, Hempstead, L. I, N. Y. *Physics, Mathematics.* Shawano, Wis, Aug. 28, 05. A.B, Ripon Col, 26; A.M, Wisconsin, 28; M.S, Michigan, 37, Ph.D, 39. Asst. physics, Wisconsin, 26-27; prof, Wentworth Junior Col, Mo, 27-29; physics and math, Elmhurst Col, 29-36; instr, Michigan, 36-39; instr, Texas Tech. Col, 39-40; asst. prof, Col. of Wooster, 40-41; *assoc. prof. math. and head dept, Hofstra Col, 41–* A.A; Math. Soc; Math. Asn. Ionization effect through gauzes; joining finite subsets of planar peono spaces by simple closed curves; solution of a problem of Ayres; finite graphs; topology.

Olmo, Dr. H(arold) P(aul), College of Agriculture, University of California, Davis, Calif. *Viticulture.* San Francisco, Calif, July 31, 09. B.S, California, 31, Ph.D, 34. Asst, div. viticulture and fruit products, *col. agr, California,* 31-33, assoc, *Exp. Sta,* 33-34, junior viticulturist, 35-38, *asst. prof. viticulture and asst. viticulturist, 39–; mem. staff, Office Inter-Am. Affairs, U. S. Board Educ. and Brazilian Govt, 43–* Breeding and cytology of the European grape; seedlessness; bud mutation.

Olmstead, Dr. L(ewis) B(ertie), Kansas State College, Manhattan, Kans. *Physics.* Cambridge, Nebr, Feb. 26, 84. B.S, Nebraska, 09, A.M, 11; Ph.D, American Univ, 33. Asst. physics, Nebraska, 09-11; assoc. prof. math, Nebr. State Nor. Sch, Peru, 11; asst, Bur. Standards, 11-12; *soil physicist,* bur. soils, *U. S. Dept. Agr,* 12-27, bur. chem. and soils, 27-38, *bur. plant indust, soils and agr. eng, 38–* A.A; Geophys. Union; Soil Sci. Soc; Soc. Agron. Optics; fixed nitrogen; soil physics.

Olmstead, Dr. P(aul) S(mith), Essex Fells, N. J. *Physics.* Wilton, Conn, Aug. 10, 97. B.S, Princeton, 19, Queen fellow, 20-22, Ph.D, 23. *Research physicist and statistician,* West. Elec. Co, 20, 22-24, *Bell Tel. Labs, 25–* Lecturer, grad. sch, Stevens Inst. Tech, 39, 41. Ballistic computer, Ordnance Dept, U.S.A, 18-19. A.A; fel. Physical Soc; Statist. Asn; Math. Soc; Inst. Math. Statist. (membership cmt, 41–); Econ. Asn. Ionization and radiation potentials; adsorption by carbon; statistics.

Olmsted, Dr. Charles E(dward), University of Chicago, Chicago, Ill. *Plant ecology.* Holyoke, Colo, April 23, 08. A.B, Nebraska, 29; M.S, Oklahoma, 31; Yale, 31-33, Sterling fellow, 32-33, Ph.D, 36; Coulter fellow, Chicago, 33-34. Asst, Oklahoma, 29-31; Yale, 31-32; instr. *bot, Chicago,* 34-41, *asst. prof, 41–* Summer, instr, Wyoming, 41. Bot. ed, 'Ecol,' 42–; assoc. ed, 'Bot. Gazette,' 42– A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Ill. Acad. Ecology of grasses and grassland; factors controlling structure of forests; vegetation of southeastern Oklahoma; vegetation and soil interrelationships in Connecticut sand plains.

Olmsted, Dr. Charles M(organ), 183 Bryant St, Buffalo, N. Y. *Physics.* Le Roy, N. Y, Jan. 19, 81. A.B, Harvard, 03, A.M, 04; Ph.D, Bonn, 06. Asst, Mt. Wilson Observatory, Carnegie Institution, 06-09; pres, C.M.O. Physical Lab, Inc, Buffalo, 09-23; *consulting physicist, Buffalo, 23–;* research assoc. physics, Univ. Buffalo, 32-35. Physical Soc. Spectroscopy; astrophysics; aerodynamics.

Olmsted, Prof. James Montrose Duncan, University of California, Berkeley, Calif. *Physiology.* Lake City, Iowa, May 21, 86. A.B, Middlebury Col, 07, Sc.D, 42; Rhodes scholar, Oxford, 08-11, B.A, 11, M.A, 14; A.M, Harvard, 18, Ph.D, 20. V. prin, high sch, N. Y, 07-08; prof. biol, Shorter Col, 11-12; assoc. prof, Richmond, 12-15; asst. zool, Harvard, 15-18, 19-20; assoc. *physiol,* col. med, Illinois, 20; asst. prof, Toronto, 20-24, assoc. prof, 24-27; *prof, California, 27–* Cmn. Relief Belgium Educ. Foundation fellow, Brussels, 31. A.A; Physiol. Soc; Soc. Zool. Physiology of the nervous system; muscle transplantation; special senses.

Olmsted, Dr. W(illiam) H(arwood), 3720 Washington Blvd, St. Louis, Mo. *Medicine.* Cedar Rapids, Iowa, Dec. 20, 87. B.S, Coe Col, 09; M.D, Hopkins, 13. *Assoc. prof. clin. med, sch. med, Washington (St. Louis).* A.A; Am. Med. Asn; Soc. Exp. Biol; Am. Physicians; Cent. Soc. Clin. Research. Diabetes mellitus; nutrition.

Olney, Prof. A(lbert) J(ackson), 240 Tahoma Road, Lexington, Ky. *Horticulture.* Fremont, Mich, April 15, 88. B.S,

Mich. State Col, 13, M.Hort, 20; M.S, Chicago, 25. Horticulturist, Vail Agr. Sch, 14–16; *prof. hort. and asst. horticulturist, Kentucky, 16–, head dept, 30–* A.A; Soc. Hort. Sci. Pomology.

Olney, Prof. L(ouis) A(twell), Lowell Textile Institute, Lowell, Mass. *Chemistry.* Providence, R. I, April 21, 74. B.S, Lehigh, 96, M.S, 08, Sc.D, 26. Instr. chem, Brown, 96–97; *prof. chem. and head dept. textile chem. and dyeing, Lowell Textile Inst, 97–; pres, Wannalomcit Textile Co, 36–* Chemist, Board Health, Machine Shop and Gas Light Co, Lowell; pres. and treas, Stirling Mills, 12–41; director, Houes Publishing Co. Contributor, 'Century Dict'; director ed, 'Am. Dyestuff Reporter,' 19– A.A; Chem. Soc. (past pres, New Eng. sect, assoc. ed, 'Abstracts,' chairman, cooperative cmt); Soc. Chem. Indust; Chem. Eng; Asn. Textile Chem. and Colorists (pres, emer. pres. and chairman, research cmt, 21–); Inst. Chem; Nat. Asn. Wool Mfrs; Soc. Dyers and Colorists; Inst. Textile Research (research cmt, v. pres. and director, acting pres, 40). Petroleum; distillation of coal and coal tar; wool scouring; textile coloring; textile fibers; physics of color; theory of textile coloring; artificial silk; fastness of dyes; chemical technology of fibers.

Olney, Raymond, 2224 Mt. Curve Ave, St. Joseph, Mich. *Agricultural engineering.* Monroe Co, N. Y, Dec. 29, 85. M.E, Cornell, 10; A.E, Iowa State Col, 20. Specialist power farming, M. Rumely Co, Ind, 12–13; ed, 'Farm Eng,' 13–14; 'Power Farming,' 15–25; *sec'y-treas, Am. Soc. Agr. Engineers, and ed, 'Agr. Eng,' 21–* Agr. Eng. (pres, 19).

Olpin, Dr. A(lbert) R(ay), 2045 Wickford Road, Columbus, Ohio. *Physics.* Pleasant Grove, Utah, June 1, 98. A.B, Brigham Young, 23; Ph.D, Columbia, 30. Instr. physics and math, Brigham Young, 23–24; asst. physics, Columbia, 24–25; research staff, Bell Tel. Labs, 25–33; director research, Kendall Mills, Charlotte, 33–39; *director research, field director, eng. exp. sta, and exec. director univ. research foundation, Ohio State, 39–* Lecturer, Polytech. Inst. Brooklyn, 31–33. Assoc. ed, 'Jour. Applied Physics,' 37–38; 'Rev. Sci. Instruments,' 41–42. Chairman research cmt, Ohio Chemurgic Cmn, 40– A.A; Chem. Soc; Nat. Asn. Mfrs. (chairman, research advisory group, 42–); Farm Chemurg. Council; fel. Physical Soc. Photoelectric phenomena and cells; cotton fibers and processing; statistics in textile industry; industrial research in university laboratories.

Olsen, Dr. Aksel G(ilkrog), 20 Hickory Road, Summit, N. J. *Biochemistry.* Sindal, Denmark, Oct. 26, 93. Toulouse, 19; A.B, Nebr. Wesleyan, 22; Fleischmann fellow, Minnesota, 22–23, M.S, 23, Ph.D, 28. Research chemist, Postum Co, 23–29; Gen. Foods Corp, 29–34, director research, Walter Baker Chocolate Co, Mass, 34–36, research chemist, *Gen. Foods Corp,* 36–41, *director sect. food technol, cent. lab, 41–, asst. manager, 43–* A.A; Asn. Cereal Chemists; Chem. Soc. Cereal chemistry; bios requirements and proteolytic enzymes of yeast; relation of temperature and acidity to the activity of malt diastase; colloids and digestive processes; gelatin; pectin; emulsions; cocoa and chocolate; food technology.

Olsen, Dr. Allen L, Kansas State College, Manhattan, Kans. *Physical chemistry.* Hartington, Nebr, Oct. 9, 07. A.B, St. Olaf Col, 29; M.S, Nebraska, 31, Ph.D, 34. Teaching asst, Nebraska, 29–35; *instr. chem, Kans. State Col, 35–* Chem. Soc. Physico-chemical measurements of the phenomena of solubilities in inorganic and organic chemistry.

Olsen, Carl F(rederick), 837 Gravier St, New Orleans, La. *Silviculture.* Brooklyn, N. Y, Feb. 10, 07. B.S, Cornell, 29, M.F, 30. Junior forester, *South. Forest Exp. Sta, U. S. Forest Service,* 30–34, *asst. silviculturist, 34–* Soc. Foresters; New Orleans Bot. Soc. Forest management.

Olsen, Fred, Western Cartridge Co, East Alton, Ill. *Chemistry.* Newcastle-on-Tyne, Eng, Feb. 28, 91. M.A, Toronto, 16. Chief chem. research, Aetna Explosives Co, 17–19; chem. adviser, Picatinny Arsenal, Ordnance Dept, U. S. Army, 19–28; *tech. director, West. Cartridge Co, 29–* Tech. director, Cellulose Research Corp. A.A; Chem. Soc; Chem. Eng; Physical Soc; Army Ordnance Asn. Manufacturing of explosives; nitrocellulose and propellant powders; extraction of cellulose from wood for paper pulp and high grade cellulose.

Olsen, Prof. J(ohn) C(harles), 316 Argyle Road, Brooklyn, N. Y. *²*Chemistry.* Galesburg, Ill, July 22, 69. A.B, Knox Col, 90, A.M, 93, Sc.D, 25; Hopkins, 94, fellow, 99–00, Ph.D, 00; Chicago, 97. Teacher, high sch, Ill, 90–98; prof. anal. chem, Polytech. Inst. Brooklyn, 00–14; prof. chem. and head dept, Cooper Union, 14–18; *prof. chem. eng, Polytech. Inst. Brooklyn, 18–* Lecturer, Brooklyn Inst. Arts and Sciences, 00–; Pratt Inst, 00–06. Chem. Soc; Chem. Eng. (sec'y, 08–26, v. pres, 29, 30, pres, 31); Eng. Educ; Chemists' Club. Compounds of manganese; analytical methods; vapor tension of crystals; preparation of pure standard salts; case hardening of steel with gases; corrosion of metals; drying of linseed oil; toxic gases; catalysts.

Olsen, Prof. Leonard O, Case School of Applied Science, Cleveland, Ohio. *Physics.* Cedar Falls, Iowa, Nov. 1, 10. A.B, Iowa State Teachers Col, 32; M.S, Iowa, 34, Ph.D, 37. Asst. *physics,* Iowa, 34–37; instr, *Case,* 37–41, *asst. prof, 41–* Summers, lecturer, Iowa, 38; instr, Northwest Mo. State Teachers Col, 39. A.A; Physical Soc; Asn. Physics Teachers. Mechanism of formation of HgH and CdH; quenching and depolarization of resonance radiation by collisions with foreign gas atoms.

Olsen, M(arlow) W(illiam), 30 W. Chicago Ave, Chicago, Ill. *Poultry husbandry.* Cylinder, Iowa, Oct. 10, 06. B.S, Iowa State Col, 29, M.S, 30; Ph.D, Maryland, 41. Junior biologist, *bur. animal husbandry, U. S. Dept. Agr,* 30–35, *asst. poultry husbandman, 35–; U. S. Army, 42–* Poultry Sci. Asn. Avian embryology and physiology of development.

Olsen, Dr. O(liver) Wilford, U. S. Department of Agriculture, Angleton, Texas. *Parasitology, Entomology.* Brigham, Utah, Aug. 4, 01. A.B, Brigham Young, 29; A.M, Minnesota, 31, Ph.D, 36; Hawaii, 31–32; Harvard, 32–33. Teaching asst, Minnesota, 29–31, 33–36, instr. entom. and econ. zool, 36–39; instr. entom, Hawaii, 31–32; teaching fellow, Harvard, 32–33; asst. parasitologist and later *assoc. parasitologist, bur. animal indust, U. S. Dept. Agr, 39–* Soc. Parasitol; Micros. Soc. Parasites of domestic and game animals; the common liver fluke of domestic ruminants.

Olsen, Dr. Richard E(llsworth), 461 W. Huron St, Pontiac, Mich. *Pathology.* Caterham Valley, Surrey, Eng, June 30, 06. Ohio State; B.S, Michigan, 27, M.S, 29, Sc.D, 31, M.D, 32. Asst. anat, Michigan, 27–28, path, 28–32; surg. intern, Henry Ford Hosp, Detroit, 32–33; *pathologist, St. Joseph's Mercy and Pontiac State Hosps, 35–; Pontiac Gen. Hosp. and Oakland County Tuber. Sanatorium, 37–; instr. path, col. med, Wayne; lieut. commander, Med. Corps, U. S. Naval Res.* Am. Med. Asn; Ornith. Union; Col. Physicians. Comparative anatomy and pathology; pathology of syphilis.

Olshen, Dr. A(braham) C(harles), 4868 Chevy Chase Blvd, Chevy Chase, Md. *Mathematical statistics.* Portland, Oregon, April 20, 13. A.B, Reed Col, 33; M.S, Iowa, 35, Ph.D, 37. Asst. math, Iowa, 34–37, biometrical work, med. center, 36–37; actuary and chief examiner, Oregon Ins. Dept, 37–42; *research statistician, Nat. Defense Research Cmt, war research group M, Columbia, 42–* Math. Soc; Inst. Math. Statist; Asn. Ins. Commissioners (blanks cmt, 42–). Mathematics; actuarial science.

Olshevsky, Dr. Dimitry E(ugene), Aero Research Co, Farmingdale, L. I, N. Y. *Physics.* Lodz, Poland, Nov. 10, 00. M.E, Prague Inst. Tech, 26; Cand.Dr.Sc, Charles Univ, Prague, 26; Ph.D, Pittsburgh, 28. Asst. physics, Pittsburgh, 27–28; Sterling fellow, Yale, 28–30, hon. fellow, 30–31; research dept, Goodyear-Zeppelin Corp, Akron, Ohio, 31–33; Pioneer Instrument Co, 33–35; Eclipse Aviation Corp, 35–39; *chief engineer, Aero Research Co, 39–;* Sikorsky Aviation Corp, 30–31; chief engineer and gen. manager, Helicopter Corp. of Amer, 40–43. Fel. Physical Soc; Inst. Aeronaut. Sci. Crystals; aeronautics; x-rays; synthetic resins; aeronautical instruments.

Olson, Prof. A(xel) R(agnar), University of California, Berkeley, Calif. *⁶*Chemistry.* Helsingborg, Sweden, Feb. 6, 89. B.S, Chicago, 15; Ph.D, California, 17. Nat. research fellow, 19–21; asst. prof. *chem, California,* 21–26, assoc. prof, 26–30, *prof, 30–* Guggenheim Mem. Foundation fellow, California, 29–30. A.A: Chem. Soc.

Olson, Dr. Carl, Jr, 11 Cottage St, Amherst, Mass. *Comparative pathology.* Sac City, Iowa, Sept. 15, 10. D.V.M, Iowa State Col, 31; fellow, Minnesota, 31–35, M.S, 34, Ph.D, 35. Acting asst. prof. comp. path, N. Y. State Vet. Col, Cornell, 35–36, asst. prof, 36–37; *prof. vet. science, Mass. State Col, 37–; capt, Vet. Corps, U. S. Army, 42–* Vet. Med. Asn; Soc. Exp. Path. Brucellosis; poultry pathology.

Olson, Prof. David, 127 Linden Road, Kent, Ohio. *Geography, Geology.* Pepin, Wis. A.B, Michigan; M.S, Wisconsin, 09; Ph.D, Western Reserve. Prof. *geog.* and head dept.

Wis. State Teachers Col, Stevens Point, 03–13; *prof. and head dept,* Kent State Col, Ohio, 13–35, *Kent State Univ, 35–* A.A.

Olson, Dr. Everett C(laire), University of Chicago, Chicago, Ill. *Vertebrate paleontology.* Waupaca, Wis, Nov. 6, 10. B.S, Chicago, 32, M.S, 33, Ph.D, 35. *Instr. vert. paleont, Walker museum, Chicago, 35–* Soc. Vert. Paleont; fel. Geol. Soc. Permian tetrapods of North America; reptiles of the Karoo, South Africa; morphology of reptiles and amphibians from late Paleozoic of North America and South Africa; origin of mammals.

Olson, Dr. Floyd C(arleton), West Virginia University, Morgantown, W. Va. *Agricultural chemistry.* Pelican Rapids, Minn, May 13, 08. A.B, St. Olaf Col, 29; M.S, Minnesota, 35, Ph.D, 38; fellow, Ohio State, 37–38. Instr. chem, St. Olaf Col, 30–33; asst. nutrition, Minnesota, 34–37, assoc. chemist, bacter. dept, 38–41; *asst. chemist, West Virginia, 41–* Chem. Soc. Animal nutrition; meat packing; dairying.

Olson, Dr. Frank R, Purdue University, Lafayette, Ind. *Biochemistry.* Huyley, Wis, July 17, 10. A.B, Wisconsin, 31, M.S, 36, Ph.D, 41. *Biochemist agron. and bot, Purdue, 38–; lieut, Chem. Warfare Service, U. S. Army, 42–* Effect of mineral fertilizers on symbiotic and non-symbiotic nitrogen fixation.

Olson, Geo(rge) A(lfred), 211 Belleplaine Ave, Park Ridge, Ill. *Chemistry.* Chicago, Ill, Dec. 11, 74. B.S.A, Wisconsin, 02, M.S, 08. Asst. chemist, Exp. Sta, Wisconsin, 02–08, instr. agr. chem, 03–08; asst. chemist, Exp. Sta, Wash. State Col, 08–10, chemist, 10–12, head div. agr. chem, 12–21; agr. director, Gypsum Industries, 21–28; *retired.* State chemist, Wash, 16–21; fed. collaborating chemist, 16–21. A.A; Chem. Soc. (chairman, sec'y and councilor, intermountain sect); Agr. Chem; Soc. Agron; Asn. Food Chemists; Soc. Milling and Baking Tech; Inst. Inventors. Fertilizers; insecticides; fungicides; preservatives; antiseptics; soils; dust explosions; enzymes; wheat; flour; mineral nutriments; milk; cheese; gluten; vegetable and animal proteins; plant changes.

Olson, Prof. H(arold) C(ecil), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Dairy bacteriology.* Brookings, S. Dak, Nov. 18, 05. B.S, S. Dak. State Col, 28; M.S, West Virginia, 30; fellow, Iowa State Col, 30–32, Ph.D, 32. Teaching fellow, West Virginia, 28–30; asst, Exp. Sta, Iowa State Col, 32–34, instr. dairy bacter, 34–37; asst. prof, 37–40; *prof. dairy mfg, Okla. Agr. and Mech. Col, 40–* Pub. Health Asn; Dairy Sci. Asn. Butter cultures; cheese manufacture; rancidity in milk; dairy manufacturing.

Olson, Dr. Harry F(erdinand), RCA Laboratories, Princeton, N. J. *Acoustics.* Mt. Pleasant, Iowa, Dec. 28, 02. B.E, Iowa, 24, M.S, 25, Ph.D, 28, E.E, 34. Asst. physics, Iowa, 26–28; research lab, Radio Corp. Amer, 28–30, eng. dept, RCA Photophone, New York, 30–32; acoustic research director, RCA Mfg. Co, 32–42; *acoustic research director, RCA Labs, 42–* Lecturer, Columbia. Acoustical Soc; Physical Soc. Microphones and loud speakers.

Olson, Prof. Henry W(illiam), 3600 Albemarle St, N. W, Washington, D. C. *Biology.* Canton, Ohio, 02. A.B, Otterbein Col, 23, B.S, 24; A.M, Ohio State, 26, Ph.D, 28. Prof. biol, Findlay Col, 24–25; Southeast Mo. State Teachers Col, 28–32; prof. biol. and dean men, Pa. State Teachers Col, 33–37; *asst. prof. biol. sciences, James Ormond Wilson Teachers Col, 37–* Nat. Tuber. Asn. grant, 40–42. Summers, marine biol. lab, New Hampshire, 37; Chesapeake Biol. Sta, 38, 39; Nat. Tuber. Asn. research grant, 40. Taxonomic work, biol. surys. in S. Amer, Smithsonian Institution, U. S. Dept. Agr. and British museums. Mem, Nat. Cmt. Revision Instructors Red Cross Manual; nat. cmt. construction biol. tests, cooperative test service, Am. Council Educ. A.A; N. Y. Acad; Biol. Soc. Wash. Earthworms of Ohio, Missouri, New York and Marquesas Island; distribution of earthworms in relation to hydrogen ion concentration, moisture and organic content of soils; fate of the acid-fast bacilli in the earthworm; an artificial method for feeding earthworms for experimental purposes.

Olson, Dr. Horace L(undh), 1017 College St, Georgetown, Texas. *Mathematics.* Chicago, Ill, May 26, 93. B.S, Chicago, 17, M.S, 18, Ph.D, 23. Instr. math, Heidelberg Col. (Ohio), 18; New Hampshire, 18–19; Wisconsin, 19–20; Michigan, 20–24; asst. prof, Mich. State Col, 24–36; instr. math. and physics, Itasca Junior Col, 40–41; *asst. prof. math, astron. and meteorol, Southwestern (Texas), 42–* Math. Soc; Math. Asn.

Olson, Dr. L(awrence) C(arroll), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Soil chemistry.* Rock Island, Ill, July 3, 10. A.B, Augustana Col, 34; A.M, Illinois, 36, Ph.D, 40. *Assoc. agronomist, Exp. Sta, Georgia.* A.A; Soil Sci. Soc. Seasonal variation in the nutrient supply in Georgia soils; methods of analysis for determining the fertilizer requirements for soils of Georgia.

Olson, Lois, 3217 Aberfoyle Place, N. W, Washington, D. C. *Geography.* Chicago, Ill, Sept. 25, 99. B.S, Chicago, 21, A.M, 26; London Sch. Econ, 33–34. Teacher, high sch, Ohio, 21–26; research, Am. Geog. Soc, 27–31; geog. ed, 'Social Science Abstracts,' 31–33; textile work assignment board, U. S. Dept. Labor, 34–35; *head erosion hist. sect, climat. and physiog. div, soil conservation service, U. S. Dept. Agr, 35–* Fel. Am. Geog. Soc; Soc. Woman Geog; Agr. Hist. Soc; Biol. Soc. Wash. Soil conservation; geographical aspects of soil erosion.

Olson, Dr. M(agnus) D, 2213 Locust St, Minneapolis, Minn. *Zoology.* Norway, June 29, 09. A.B, St. Olaf Col, 32; A.M, Minnesota, 34, Sigerfoos fellow, 36, Ph.D, 36. Teaching asst. zool, *Minnesota,* 32–36, asst, cmt. ed. research, 36–37, *instr.* educ. and zool, 37–38, *zool, 38–; lieut, U. S. Army.* A.A; Soc. Zool; Minn. Acad. Histology; ovogenesis in the Mammalia; histology of invertebrate muscle.

Olson, Prof. P(eter) J(ohn), University of Manitoba, Winnipeg, Man, Can. *Agronomy.* Grafton, N. Dak, Oct. 12, 87. B.S, N. Dak. Col, 10; M.S, Illinois, 13; Ph.D, Nebraska, 37. Asst. prof. agron, Minnesota, 13–18; asst. agronomist, Exp. Sta, N. Dak. Col, 24–34, asst. dean and director, div. agr. and Exp. Sta, 34–37; *prof. plant science, Manitoba, 37–* A.A; Soc. Agron; Can. Soc. Tech. Agr. Plant breeding.

Olson, Prof. Ronald L(eRoy), University of California, Berkeley, Calif. *Anthropology.* Mankato, Minn, Dec. 8, 95. A.B, Washington (Seattle), 25, A.M, 26; Ph.D, California, 29. Asst. curator S. Am. archeol, Am. Museum Nat. Hist, 29–31, research assoc, 31–35; *assoc. prof. anthrop, California, 31–* Ethnograph. expeds, Quinault Indians, Wash, 25–27; Tlingit Indians, Alaska, 33–34; N. Kwakiutl, British Columbia, 35–; archeol. expeds, Santa Barbara, Calif, 27–28, Peru, 30. A.A; fel. Ethnol. Soc. Ethnology of the North Pacific Coast; archeology of California; archeology and ethnology of South America; social organization.

Olson, Prof. Theodore A(lexander), University of Minnesota Medical School, Minneapolis, Minn. *Public health biology.* Oakes, N. Dak, Sept. 12, 04. B.S, Minnesota, 26, 26–36; A.M, Harvard, 38. Instr. econ. zool, farm sch, Minnesota, 26–28; pub. health biologist, div. sanit, Dept. Health, Minn, 28–36, 37–38; *asst. prof. med. and pub. health, med. sch, Minnesota, 38–; major, Sanit. Corps, U. S. Army, and entomologist, seventh corps area lab, Ft. Omaha, Nebr, 42–* Summer, asst. entomologist, Sturgeon Bay Exp. Sta, Wisconsin, 26. Pub. Health Asn. (referee standard methods); Micros. Soc; Limnol. Soc; Fisheries Soc; Minn. Acad. Stream and lake pollution biology; toxic algae in relation to limnology and public health; entomology in relation to public health.

Olson, Prof. Thomas M, South Dakota State College, Brookings, S. Dak. *Dairy husbandry.* Sawyer, Wis, Oct. 27, 84. B.S, Wisconsin, 15; M.S, Iowa State Col, 20; Minnesota. County agr. agent, 15–19; teacher and supt. rural and high schs, 06–12; *prof. dairy husbandry, S. Dak. State Col, 20–* Dairy Sci. Asn; S. Dak. Acad. Feeding; nutrition.

Olson, Prof. Willard C(lifford), University of Michigan, Ann Arbor, Mich. *Psychology.* Annandale, Minn, Oct. 8, 99. A.B, Minnesota, 20, A.M, 24, Ph.D, 26. Prin. and supt. schs, Minn, 20–23; from asst. to asst. prof. educ. psychol, Minnesota, 23–26, 27–29; nat. research fellow biol, 26–27; assoc. prof. *educ, Michigan,* 29–35, *prof, 35–, director research child develop, 29–* A.A; Psychol. Asn. (sec'y, 37–); Orthopsychiat. Asn. (v. pres, 35); Educ. Research Asn. Measurement of nervous habits and problem tendencies in children; longitudinal studies of child growth; time-sampling techniques.

Oman, P(aul) W(ilson), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Garnett, Kans, Feb. 22, 08. A.B, Kansas, 30, A.M, 35; Ph.D, George Washington, 41. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30–34, asst. entomologist, 34–37, assoc. entomologist, 37–40, *entomologist, 40–* Entom. Soc. Amer; Kans. Entom. Soc; Biol. Soc. Wash; Entom. Soc. Wash. Taxonomy of auchenorrhynchus Homoptera, Cicadellidae and Fulgoridae.

Omansky, Morris, 9 Babcock St, Brookline, Mass. *Chemistry.* Kieff, Russia, Dec. 24, 89. B.S, Mass. Inst. Tech, 11. Chem-

ist, Boston Woven Hose and Rubber Co, 11–17; chief chemist, Plymouth Rubber Co, 17–20, 22–24; *consultant, 20–; in charge rubber research and develop, Arthur D. Little, Inc, 20–* Chief chemist, Needham Tire Co, 22–24; director, Parabond Corp. Amer. A.A; Chem. Soc; Chem. Eng. Technology of rubber; rubber competitive materials and substitutes; compounding ingredients and allied substances; plastic materials.

O'Mara, Dr. Joseph G, Guayule Research Project, Edinburg, Texas. *Cytology, Genetics.* Boston, Mass, Sept. 7, 11. B.S, Mass. State Col, 33; A.M, Harvard, 34, Ph.D, 36. Research assoc, Missouri, 36–43; *mem. staff guayule research project, U. S. Dept. Agr, 43–* Chromosome structure; nuclear division.

O'Meara, R(obert) G(ibson), 1400 Elm St, Rolla, Mo. *Metallurgical engineering.* Cedar Rapids, Iowa, April 14, 01. B.S, S. Dak. Sch. Mines, 24; M.S, Mo. Sch. Mines, 26, Met. E, 29. Junior chemist, Miss. Valley exp. sta, Rolla, Mo, *Bur. Mines,* 26–27, junior metallurgist, 27–30, asst. metallurgist, south. exp. sta, Tuscaloosa, Ala, 30–37, assoc. metallurgist, 37–42, nonmetals engineer, nonmetals div, 42, *senior metallurgist, cent. region, 42–* Ore dressing and flotation of nonmetallic minerals and ceramic raw materials, including clays.

Omohundro, Dr. A(llen) L(lewellyn), McKesson and Robbins, Inc, Bridgeport, Conn. *Chemistry.* Norfolk, Va, March 25, 03. B.S, Pennsylvania, 25; M.S, Paris, 26, Ph.D, 28; hon. Ph.D, Conn. Col. Pharmacy, 40. Asst. to pres. and in charge labs. and mfg, Frederick Stearns Co, 28–34; *v. pres. and director plant and labs, McKesson and Robbins, Inc, 34–* Trustee, Conn. Col. Pharmacy. Fel. Inst. Chem. Biochemistry; organic chemistry; insulin and methods of producing it; sympathomimetic amines; dispersion of colloidal metals and mineral oils; organic mercury antiseptics; purification and identification of mineral oils; parasiticides; improvements in dentifrices; vitamins; hormones; enzymes; biologicals and pharmaceuticals.

Omwake, Prof. Katharine T(ait), 1854 Ontario Place, N. W, Washington, D. C. *Psychology.* Washington, D. C, Nov. 5, 02. A.B, George Washington, 24, A.M, 25, fellow, 26–28, Ph.D, 28. Asst. psychologist, Bur. Pub. Personnel Admin, 24–25; asst. prof. *psychol,* Agnes Scott Col, 28–29; lecturer, George Washington, 29–30; asst. prof, *Agnes Scott Col,* 30–43, *assoc. prof, 43–* A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol; Ga. Acad. Tests; applied psychology.

Oncley, Dr. J(ohn) L(awrence), Harvard Medical School, Boston, Mass. **[7]Chemistry.* Wheaton, Ill, Feb. 14, 10. A.B, Southwestern Col. (Kans), 29; Charles A. Coffin fellow, Wisconsin, 31–32, Ph.D, 32. Asst. *chem,* Wisconsin, 29–31; nat. research fellow, Mass. Inst. Tech, 32–34; instr, Wisconsin, 34–35; Mass. Inst. Tech, 35–43; research assoc, *Harvard Med. Sch,* 39–41, assoc, 41–43, *asst. prof, 43–* Summer, research lab, Gen. Elec. Co, 35. Award, Am. Chem. Soc, 42. Mem. cmt. on elec. insulation, Nat. Research Council. Chem. Soc. Dielectric properties of gases, liquids and proteins; physical and colloid chemistry, especially related to protein systems.

Oncley, Prof. L(awrence), 1615 Ames Ave, Winfield, Kans. *Organic chemistry.* Hopkinsville, Ky, Aug. 16, 77. A.B, DePauw, 07; M.S, Chicago, 13; Kansas. Teacher, high sch, Ind, 07–09; *prof. chem,* Wheaton Col. (Ill), 09–11; Upper Iowa, 12–18; *Southwestern Col. (Kans), 18–* Instr, Kansas, 24–25; visiting prof, DePauw, 38–39. Chem. Soc; Kans. Acad. (pres, 36). Thiazolidines; thiazolidones; fats and oils.

O'Neal, Prof. Claude E(dgar), 265 W. Fountain Ave, Delaware, Ohio. *Botany.* Coatesville, Ind, Jan. 29, 84. A.B, Indiana, 11, A.M, 13, Ph.D, 22. Teaching fellow *bot,* Indiana, 12–13; instr, *Ohio Wesleyan,* 13–14, asst. prof, 14–17, assoc. prof, 17–21, *prof, 21–* Summer, asst, Indiana, 12, teaching fellow, 13. A.A; Bot. Soc; fel. Ohio Acad. (pres, 39); Ind. Acad. Embryo-sac development in Oenothera; reduction division in Datura; species of Nummularia found in Indiana.

O'Neill, Dr. Hugh T(homas), Catholic University, Washington, D. C. *Botany.* Allentown, Pa, April 25, 94. B.S, Florida, 25; Ph.D, Catholic Univ, 30. From instr. to *assoc. prof. biol. and curator Langlois herbarium, Catholic Univ.* Botanical surv, Everglades Exp. Sta, Florida, 25; botanist, bur. entom. and bur. plant quarantine, U. S. Dept. Agr, 29. Botanist, Arctic exped, Le Nouveau Que, 39. Bot. Soc; Biol. Soc. Wash. Experimental taxonomy; Cyperaceae of North America, Hawaiian Islands, Yucatan and Central America; statistical survey of plants of Florida; Arctic Cyperaceae.

O'Neill, Dr. J(ohn) J(ohnston), McGill University, Montreal, Que, Can. *Geology.* Port Colborne, Ont, Nov. 12, 86. B.Sc, McGill, 09, M.Sc, 10; fellow, Yale, 10–12, Ph.D, 12; Wisconsin, 12–13. Asst. geol, McGill, 09–10; Yale, 11–12; field asst, Geol. Surv. Can, 09–13, asst. geologist, 13, geologist, 14–20; Whitehall Petrol. Corp, 20–21; asst. prof. *geol, McGill,* 21–27, assoc. prof, 27–29, *Sir Wm. Dawson prof. and head dept, 29–, dean* science, 35–39, grad. studies and research, 39–42, *eng, 42–* Consulting geologist, 21–; geologist in charge Can. Arctic exped, 13–16. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; fel. Royal Soc. Can; Can. Inst. Min. and Metal; Eng. Inst. Can. Petrography; economic geology; Arctic geology.

O'Neill, John J(oseph), 209 N. Long Beach Ave, Freeport, L. I, N. Y. *General science.* New York, N. Y, June 21, 89. *Science ed,* Brooklyn Daily Eagle, 26–32; *N. Y. Herald Tribune, 33–* Shared Pulitzer prize journalism, 37; Clement Cleveland medal, 38. A.A; Am. Inst. (chairman, board managers, 33–37); Soc. Psychical Research (trustee, 36–41); Nat. Asn. Sci. Writers (pres, 41). Psychical research; economics; popularization of science; seasonal effects on personality.

Oneto, Dr. John F(rancis), College of Pharmacy, University of California, San Francisco, Calif. *Pharmaceutical chemistry.* Sonora, Calif, July 10, 03. B.S, Michigan, 32, M.S, 33, Ph.D, 35. Instr. *pharmacy and pharmaceut. chem,* State Col. Wash, 35–36; *col. pharmacy, California,* 36–39, *asst. prof, 39–* Chem. Soc. Organometallic compounds of arsenic.

Onsager, Prof. Lars, 225 Prospect St, New Haven, Conn. **[9]Chemistry, Physics.* Oslo, Norway, Nov. 27, 03. Chem.E, Norges Tekniske Hoiskole, Trondhjem, 25; Eidgen. Tech. Hochschule, Zurich, 26–28; Sterling fellow, Yale, 33–34, Ph.D, 35. Assoc. *chem,* Hopkins, 28; research instr, Brown, 28–33; asst. prof, *Yale,* 34–40, *assoc. prof, 40–* A.A; Physical Soc; Chem. Soc; N. Y. Acad; Conn. Acad; Norwegian Acad. Theory of electrolytes and dielectrics; reciprocal relations in irreversible processes; crystal statistics.

Oosting, Dr. Henry J, 2642 University Drive, Durham, N. C. *Botany.* Holland, Mich, March 12, 03. A.B, Hope Col, 25; M.S, Mich. State Col, 27; Ph.D, Minnesota, 31. Asst. *bot,* Mich. State Col, 25–27; instr, Minnesota, 27–32; *Duke,* 32–37, *asst. prof, 37–* Summers, mem. staff, Minn. Biol. Sta, 34; Junaluska, Duke, 33–36, 38, marine sta, 39, 42. Exped, Greenland, 37. A.A; Ecol. Soc; Torrey Bot. Club; N. C. Acad. Ecology of aquatic flowering plants; vegetation of North Carolina; vegetation of rock outcrops; coastal dune ecology; forest ecology of the Piedmont; viability of naturally buried seeds; phytosociology of virgin forests; pulpwood forests of Maine.

Opatowski, Dr. I(saac), Armour Research Foundation, 35 W. 33rd St, Chicago, Ill. *Mathematical physics, Applied mechanics, Mathematical biology.* Warsaw, Poland, Feb. 20, 05. Bologna, 23–25; D.E, Reale Istituto Superiore Ing, Torino, Italy, 29, Dr. Math, 32. Substitute prof. math. and physics, Reale Istituto Tec. Superiore Sommeiller, Torino, Italy, 34–36; engineer, Fiat Co, Torino, Italy, 36–39; instr. math. and mechanics, Minnesota; *mem. staff, Armour Research Foundation.* A.A; Math. Soc; Soc. Mech. Eng; Math. Asn; Physical Soc; Franklin Inst. Newtonian fields; cylindrical, spherical and Lamé functions; biharmonic functions; vector analysis; dynamics of an electron; theory of lethal irradiation of microorganisms; technical dynamics; theory of friction and wear; theory of elasticity.

Opie, Dr. Eugene L(indsay), Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. **[1]Pathology.* Staunton, Va, July 5, 73. A.B, Hopkins, 93, M.D, 97, fellow, 98–99; Sc.D, Yale, 31; LL.D, Washington (St. Louis), 40. Asst. bacter, Hopkins, 99–00, instr, 00–01, assoc, 01–04; mem, Rockefeller Inst, 04–10; prof. path, sch. med, Washington (St. Louis), 10–23, dean, 12–15; prof. and director dept. path, sch. med, Pennsylvania, and director lab, Henry Phipps Inst, 23–31; prof. *path, med. col, Cornell,* 31–41, *emer. prof, 41–* House officer, Hopkins Hosp, 97–98; pathologist, Presb. Hosp, New York, 07–10; N. Y. Hosp, 31–41; visiting prof, Peiping Union Med. Col, 39. Ed, 'Jour. Exp. Med,' 05–10. Mem. board sci. directors, Rockefeller Inst, 28–32; int. health div, Rockefeller Foundation, 35–38; exec. cmt, Int. Union against Tuber, 29–34. Trudeau medal, Nat. Tuber. Asn, 29; Gerhard medal, Path. Soc. Phila, 29; medal, Soc. Puertorriquena de Tisiologie, 38. M.C, 17–19, col. Nat. Acad; A.A; Asn. Path. and Bact. (pres, 18); Soc. Exp. Path. (pres, 23); Am. Physicians; Soc. Exp. Biol. (sec'y, 09, pres, 34); Physiol. Soc; Am. Med. Asn; Path. Soc. Phila. (past pres); Tuber. Asn. (pres, 29); Asn. Immunol. (pres, 29); Harvey

Soc. (pres, 36). Histology and pathology of the pancreas and its relation to diabetes mellitus; protozoan microorganism related to the malarial parasites; eosinophile leucocytes; necrosis and cirrhosis of the liver; enzymes and antienzymes of inflammatory exudates; diet in relation to certain toxic substances; pneumonia and influenza; immunity; tuberculosis.

Opie, Dr. J(oseph) W(endell), Beacon, N. Y. *Organic chemistry.* Wilmot, S. Dak, Sept. 27, 13. Ch.B, Minnesota, 35, Merck fellow, 39–40, Ph.D, 40. Microanalyst, Minnesota, 35–39; senior chemist, Merck and Co, Inc, 40–42; research assoc, Nat. Defense Research Cmt, Minnesota, 42; *research chemist, Texas Co, 42–* Chem. Soc. Polyalkylbenzenes; polyalkylquinones; substituted coumarins; vitamin E.

Öpik, Dr. E(rnst) J(ulius), Astronomical Observatory, Tartu, Estonia. *Astronomy, Astrophysics.* Port Kunda, Estonia, Oct. 23, 93. Ph.D, Tartu Univ, Estonia, 23; Moscow Imp. Univ, 16. Asst, observatory, Moscow Univ, 18–20; asst. prof, Tashkent Univ, 20–21; astronomer, Tartu Univ, 21–30; visiting lecturer astrophys, Harvard, and research assoc, Harvard Observatory, 30–34; *astronomer, observatory, Tartu Univ, 34–* Meteors; stellar statistics.

Opler, Prof. Morris Edward, Claremont Colleges, Claremont, Calif. *Anthropology.* Buffalo, N. Y, May 16, 07. A.B, Buffalo, 29, A.M, 30; Ph.D, Chicago, 33. Social Science Research Council fellow, 32–33; asst. and research assoc. study Apache Indians, dept. anthrop, Chicago, 33–35; Gen. Educ. Board fellow study of relation between sch. and community, 35–36; asst. anthropologist, Bur. Indian Affairs, 36–38; *asst. prof. anthrop, grad. sch, Claremont Cols, 38–* Visiting lecturer, Reed Col, 37–38; Guggenheim Mem. Foundation fellow, 42–43. Summer, lecturer, Wisconsin, 41. Anthrop. Asn; Folklore Soc; Southwest. Archeol. Federation (pres, 41); Social Sci. Research Conf. Pacific Coast. Ethnology of Apache tribes; culture history in the Southwest; psychology and culture; folklore of the Southwest; problems of race and culture.

Opp, Dr. Carl J(oseph), 5102 Laconia Ave, Bond Hill, Cincinnati, Ohio. *Chemistry.* Forest, Ohio, Aug. 29, 04. A.B, Miami (Ohio), 28; Deutsch fellow, Cincinnati, 29–31, A.M, 30, Ph.D, 32. Asst. chem. eng, Cincinnati, 28–29, inorg. and anal. chem, 31–32; head depts. science and math, Armstrong Junior Col, W. Va, 32–33; Beckley Col, 33–35; fellow biochem, Duke, 35–36; research and develop. chemist, manufacture of synthetic resins and paint vehicles, Aluminum Industries, Inc, 35–39; *synthetic resin chemist, Interchem. Corp, 39–* Instr, evening col, Cincinnati, 35– A.A; Chem. Soc; W. Va. Acad. Organic and physical chemistry; electrolytic oxidation of acetone; testing of lithographic inks and varnishes; determination of iodine in organic compounds, blood, urine and animal tissue.

Oppel, Dr. Theodore W(right), 630 Park Ave, New York, N. Y. *Medicine.* Madison, Wis, Dec. 23, 03. A.B, Wisconsin, 26, A.M, 27; M.D, Pennsylvania, 29. *Instr. med, med. col, Cornell.* Harvey Soc. Biotin metabolism in man.

Oppenheimer, Prof. B(ernard) S(utro), 124 E. 61st St, New York, N. Y. *Medicine.* New York, N. Y, June 20, 76. A.B, Harvard, 97; M.D, Columbia, 01. Fellow path, *Columbia,* 11, asst. prof. *clin. med,* 15–36, *prof, 36–* Attending physician and chief med. div, Montefiore Home and Hosp, 11–33, consulting physician, 33–; assoc. attending physician, Mt. Sinai Hosp, 19–27, physician, 27–40, consulting physician, 40– Gold medal, Am. Med. Asn, 17. Am. Physicians; Soc. Clin. Invest; Soc. Exp. Biol; N. Y. Acad. Med; N. Y. Tuber. and Health Asn. (director). The circulatory system.

Oppenheimer, Dr. Ernst A(dolph), Ciba Pharmaceutical Products, Inc, Summit, N. J. *Pharmacology.* Frankfurt, Germany, Dec. 30, 88. M.D, Freiburg, 13. Asst. pharmacol, Freiburg, 13–14, instr, 18–22; sci. research fellow, Bayer, Leverkusen, 23–24; pharmacologist, Krause Medico Gesellschaft, Munich, 24–27; chief research lab, C. H. Bochringer Lohn, Hamburg, 27–33; director research, Promonta, Inc, 33–36; chief pharmacologist and head sci. dept, *Ciba Pharmaceut. Products, Inc,* 36–37, *v. pres. in charge research, 37–* Asn. Study Int. Secretions; Asn. Hist. Med. Physiology; endocrinology.

Oppenheimer, Prof. J. R(obert), University of California, Berkeley, Calif. **[5]Physics.* New York, N. Y, April 22, 04. A.B, Harvard, 26; Ph.D, Göttingen, 27. Nat. research fellow, 27–28; Int. Educ. Board fellow, 28–29; asst. prof. *theoret. physics, California,* 29–30, assoc. prof, 30–35, *prof, 35–;* assoc. prof, *Calif. Inst. Tech,* 28–37, *prof, 37–* Nat. Acad; fel. Physical Soc; fel. Am. Acad. Quantum mechanics; cosmic rays.

Oppenheimer, Dr. Jane M(arion), 235 S. 15th St, Philadelphia, Pa. *Biology.* Philadelphia, Pa, Sept. 19, 11. A.B, Bryn Mawr Col, 32; Ph.D, Yale, 35. Sterling fellow biol, Yale, 35–36, Am. Asn. Univ. Women Sarah Berliner research fellow, 36–37; research fellow embryol, Rochester, 37–38; instr. biol, Bryn Mawr Col, 38–42; Guggenheim Mem. Foundation fellow, 42–43; *asst. prof. biol, Bryn Mawr Col, 43–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Asn. Anat; Soc. Zool; Biol. Photographic Asn. Experimental embryology; neuro-embryology; early organization of fish embryo; development of central nervous system of fishes.

Oppenheimer, Dr. M(orton) J(oseph), Temple University School of Medicine, Philadelphia, Pa. *Physiology.* Philadelphia, Pa. June 9, 05. A.B, Ursinus Col, 27; M.D, Temple, 32, Ed.M, 38. Instr. *physiol, sch. med, Temple,* 33–35, assoc, 35–37, asst. prof, 37–41, *assoc. prof, 41–* Physiol. Soc; Soc. Exp. Biol. Neurophysiology; labyrinth; smooth muscle; intestine.

Opper, Dr. Lincoln, Norwich State Hospital, Norwich, Conn. *Pathology.* New Haven, Conn, June 16, 06. A.B, Yale, 27; M.D, Munich, 33. Instr. path, sch. med, Yale, 35–36, Alexander Brown Coxe research fellow neuropath, univ, 36–37; asst. prof. biochem, Arkansas, 37–40; pathologist, Gardner State Hosp, Mass, 40–41; *director clin. labs, Norwich State Hosp, 41–* Asn. Path. and Bact. Neurogenic origin of gastric ulcer; cerebral lesions produced by convulsions; pathological aspects of nutritional diseases.

O'Quinn, Prof. Ralph L(ivingstone), Louisiana State University, Baton Rouge, La. *Mathematics.* Colfax, La, April 20, 91. A.B, Louisiana, 20, M.S, 28. Teacher, high schs, 10–20; instr. *math, Louisiana,* 20–30, asst. prof, 30–38, *assoc. prof, 38–* Math. Asn; La. Acad. Analysis.

Orban, Dr. Balint, Chicago College of Dental Surgery, Chicago, Ill. *Oral histology.* Temesvar, Hungary, March 24, 99. M.D, Budapest, 22, Vienna, 30; D.D.S, Northwestern, 38. Dozent dental dept, med. sch, Vienna, 34–38; asst. prof, dental sch, Northwestern, 38–40; *prof. oral path. and research, Chicago col. dental surg, Loyola (Ill), 40–* A.A; Int. Asn. Dental Research; Int. Dental Federation (chairman sci. cmn, 36–). Oral pathology; periodontal diseases.

Orbison, Prof. Agnes M, Elmira College, Elmira, N. Y. *Zoology.* Lahore, India, Jan. 27, 97. A.B, Bryn Mawr Col, 22; A.M, Missouri, 24. Asst. prof. *biol, Elmira Col,* 26–29, *assoc. prof, 29–* Cytoplasmic inclusions in relation to yolk formation in the eggs of Gallus domesticus.

Orchard, Prof. John E(wing), 800 S. Washington St, Alexandria, Va. *Economic geography, Economics.* Exeter, Nebr, July 19, 93. A.B, Swarthmore Col, 16; A.M, Harvard, 20, Ph.D, 23. Instr. hist. and eng, George Sch, 16–17; asst. mine economist, U. S. Bur. Mines, 18–19; instr. *econ. geog, sch. business, Columbia,* 20–24, asst. prof, 24–29, assoc. prof, 29–38, *prof, 38–;* indust. econ. adviser, Office Production Management, 41; *senior asst. administrator, Office Lend Lease Admin, 41–* Asn. Geog. (treas, 35–37). Economics and regulation of the coal industry; rent of mineral lands; population and industrial development of Japan; industrialization of the Far East.

Orchin, Dr. Milton, U. S. Bureau of Mines, Pittsburgh, Pa. *Organic chemistry.* Barnesboro, Pa, June 4, 14. Ph.D, Ohio State, 39. Asst. chemist, food and drug admin, U. S. Dept. Agr, 39–42, bur. animal indust, 42–43; *assoc. org. chemist, U. S. Bur. Mines, 43–* Constitution of oils obtained by the hydrogenation of coal.

Orcutt, Dr. Fred S(cott), Virginia Polytechnic Institute, Blacksburg, Va. *Bacteriology, Biochemistry.* Sioux City, Iowa, Nov. 27, 07. B.S, Wisconsin, 31, fellow, 31–35, M.S, 33, Ph.D, 35. Research assoc. anesthesia and pharmacol, Wisconsin, 35–36; instr. *bacter, dept. biol, Va. Polytech,* 36–38, asst. prof, 38–41, *assoc. prof, 41–* A.A; Soc. Bact. (v. pres, Va. branch, 40–). Cellular physiology.

Orcutt, Mrs. Ruby (Rivers) Murray, 629 W. 115th St, New York, N. Y. *Chemistry.* Burlington, Vt, Nov. 19, 88. A.B, Mt. Holyoke Col, 12, A.M, 14; Ph.D, Cornell, 16. Asst. chem, Mt. Holyoke Col, 12–14; reader, Cornell, 14–16; chemist, Standard Aniline Products Co. and Standard Essence Co, 16–18; research, Columbia, 33–40; *author, 40–* Abstractor, 'Chem. Abstracts,' 16–17. Chem. Soc; N. Y. Acad. Unsaturated compounds containing phenyl groups; phthaleins; adsorption; indanes; tetralins; phenanthrenes.

Ord, Dr. John A(llyn), 2703 O'Neil Blvd, McKeesport, Pa. *Physics.* West Elizabeth, Pa, March 9, 12. B.S, Carnegie Inst. Tech, 34, M.S, 35, Sc.D, 39. Teaching fellow physics, Carnegie Inst. Tech, 34–37, instr, 37–38; asst. prof. physics, N. Dak. Agr. Col, 38–40; *Signal Corps, U. S. Army, 40–, lieut. col.* Infrared absorption of dilute solutions of HCl and HBr.

Ordahl, Dr. George, Sonoma State Home, Eldridge, Calif. *Psychology.* Austin, Minn, April 21, 74. B.S, Valparaiso, 90; A.B, Oregon, 02, A.M, 03; Ph.D, Clark, 08. Prof. psychol, Geneva Col, 08–09; psychol. and educ, Nevada, 09–14; state psychologist, Ill, 14–15; fellow and lecturer mental deficiency, Stanford, 15–16; *clin. psychologist and educ. director, Sonoma State Home, 16–, director outpost clinics, 25–* Summer, Sch. Feeble-Minded, Minn, 14. Psychol. Asn; Asn. Applied Psychol; Asn. Mental Deficiency. Mental deficiency; delinquency; heredity.

Ordal, Dr. Erling J(osef), University of Washington, Seattle, Wash. *Microbiology, Chemistry.* Waterville, Iowa, Aug. 20, 06. A.B, Luther Col, 27; Shevlin fellow, Minnesota, 31–33, Ph.D, 36. Teaching asst. math, Minnesota, 29–30, teaching fellow bacter, 33–36, instr, 36–37; *Washington (Seattle),* 37–38, asst. prof, 38–43, *assoc. prof, 43–* Soc. Bact; Chem. Soc; Inst. Food Technologists. Physiology and biochemistry of bacteria; germicides and detergents.

Ordeman, Dr. G(eorge) Fred(erick), 1823 Cleveland Ave, Whiting, Ind. *Chemistry.* Frederick, Md, Nov. 9, 92. B.S, Washington and Lee, 12, 12–13; Ph.D, Hopkins, 16. Assoc. prof. chem, Washington and Lee, 16–18; research chemist, *Standard Oil Co. of Ind,* 19–23, asst. supt. acid and asphalt div, 23–27, supt. finishing dept, 27–29, crude still dept, 29–32, asst. supt. pressure stills, 32–34, supt. light oils dept, 34–43, *asst. gen. supt, 43–* Lieut, S.C, 18–19.

Ordway, Dr. Thomas, 297 S. Manning Blvd, Albany, N. Y. *Medicine.* Dorchester, Mass, May 7, 77. A.B, Harvard, 00, A.M, 01, M.D, 05; hon. Sc.D, Union (N. Y). Asst. zool, Radcliffe Col. and Harvard, 00–01, physiol, Harvard Med. Sch, 02–03; path. dept, Boston City Hosp, 05, house officer, 05–07; asst. path, Harvard, 07–08; Boston City Hosp, 08–09; prof. path. and bacter, Albany Med. Col, Union (N. Y), 09–11; physician in charge, Huntington Hosp, Harvard, 11–15; assoc. prof. med, Albany Med. Col, Union (N. Y), 15–30, prof, 30–37, dean, 15–37; *consulting physician, Albany Hosp, 37–* Director, Bender Hygienic Lab, Albany, 09–11; lecturer and instr, Harvard Med. Sch; visiting physician, Boston City Hosp. A.A; Am. Med. Asn; Am. Physicians; Asn. Path. and Bact; Soc. Clin. Invest; Asn. Cancer Research. Pancreatitis in the cat; metabolism of the rat; blood in cancer; radium injuries; radiotherapy; tumors of fowls; nature of the Wassermann reaction; diseases of the blood; early diagnosis of pneumonia.

Ore, Prof. Oystein, Yale University, New Haven, Conn. *[5]Mathematics.* Oslo, Norway, Oct. 7, 99. Ph.D, Oslo, 24; hon. A.M, Yale, 29. Research assoc, Mittag-Leffler Math. Inst, Stockholm, 23; Int. Educ. Board fellow, Europe, 24–27; assoc. *math,* Oslo, 25–28; asst. prof, *Yale,* 27–28, assoc. prof, 28–29, *prof, 29–, head dept, 36–* Ed. board, 'Annals of Math,' 30–40; 'Econometrica,' 32–; 'Duke Math. Jour,' 35–41; 'Am. Jour. Math,' 38–41. Mem, Nat. Research Council, 39–42. A.A; Math. Soc. (councilor, 34–36, ed. board, 'Trans,' 37–; colloquium lecturer, 41); Math. Asn; Soc. math. de France; Norwegian Math. Soc; Norwegian Acad. Algebra; number theory.

O'Reilly, Sister M. Francis Xavier, Mount Mercy College, Pittsburgh, Pa. *Biology.* Monongahela, Pa, April 16, 79. B.S, Pittsburgh, 24, M.S, 28; Ph.D, Michigan, 37. Director clin. lab, Mercy Hosp, Pittsburgh, Pa, 22–29; *teacher biol. and head dept, Mt. Mercy Col, 29–* Trustee, Mt. Mercy Col, 34–, mem. board corporators. A.A; Mich. Acad; Pa. Acad. Production of the basophilia of the granules of the polymorphonuclear neutrophilic leucocytes in experimental infection of the rat; leucocytic reaction to bacterial infection in animals.

Orelup, J(ohn) W(estley), 57 Wilkinson St, Jersey City, N. J. *Organic chemistry.* St. Paul, Minn, 97. Minnesota, 13–17. Research chemist, Sherwin-Williams Co, 17–18; Carus Chem. Co, 18–20; Sunbeam Chem. Co, 20–21; director research, Chem. Co. of Amer. and cooperative lab, Boyce and Veeder Co, 21–30; *pres, Patent Chemicals, 30–* A.A; Chem. Soc; Soc. Automotive Eng; fel. Inst. Chem; Petrol. Inst; Asn. Textile Chem. and Colorists; Chemists' Club; fel. Royal Soc. Arts. Stabilizers for gasoline; surface tension agents; insecticide sprays; extreme pressure lubricants; ultra-violet radiometer; corrosion in electrolytes; dyes; automotive fuels.

Orent-Keiles, Dr. Elsa, Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture, Beltsville, Md. *Nutrition, Biochemistry.* Proskuroff, Russia, Oct. 31, 04. B.S, Tufts Col, 25; Sc.D, Hopkins, 30. Asst. biochem, pediat. research lab, Jewish Hosp. Brooklyn, 25–27; nat. research fellow, sch. hygiene and pub. health, Hopkins, 30–32, asst. and assoc. biochem, 32–40; assoc. nutrition chemist, *bur. human nutrition and home econ, U. S. Dept. Agr,* 40–41, *in charge nutrition research labs, 41–, asst. chief foods and nutrition div, 41–* A.A; Chem. Soc; fel. Inst. Chem; Inst. Nutrition; Soc. Exp. Biol; Soc. Biol. Chem; Pub. Health Asn. Physical chemistry of calcification; mineral deficiency diseases; function of manganese, magnesium, sodium and potassium in animal nutrition; vitamins.

Orleans, Prof. J(acob) S(amuel), 101 Ellwood Ave, Mt. Vernon, N. Y. *Education.* London, Eng, Dec. 22, 99. B.S, Col. City of N. Y, 19; A.M, Columbia, 21, Ph.D, 26. Teacher, high schs, N. Y, 20–21, 22–23; asst, inst. educ. research, Teachers Col, Columbia, 21–22, 23–24; research assoc, educ. research div, State Educ. Dept, N. Y, 24–28; ed, research and test service dept, World Book Co, 28–35; asst. prof. *educ, Col. City of N. Y,* 35–37, *assoc. prof, 37–, subchairman dept, 39–* Exten. courses, dept. educ, Col. City of N. Y, 23, 31–; consultant personnel research and occupational anal. sect, classification and replacement branch, Office Adj. Gen, U. S. Army, 43. Summers, instr, Cornell, 22, 23, 26, 27; Kansas, 24; N. Y. State Col. Teachers, 25; Pa. State Col, 31; Col. City of N. Y, 33–; Colorado, 38, 40–42. A.A; Educ. Research Asn; Council Measurements in Educ. (exec. cmt, 40–; v. pres, 41); Consumer Educ. Asn. (ed. board, 39–); Educ. Research Asn. N. Y. (chairman permanent planning cmt, 40–). Educational tests; educational facilities for crippled children; achievements of subnormal pupils; prediction of success in high school work; educational statistics; training teachers of commercial subjects; commercial arithmetic; typewriting.

Orlemann, Dr. E(dwin) F(ranklin), University of California, Berkeley, Calif. *Physical chemistry.* Livingstone, Mont, July 19, 15. B.S, St. Thomas Col, 36; Ph.D, Minnesota, 41. *Instr. chem, California, 41–* Chem. Soc. Electrochemistry.

Ormondroyd, Prof. Jesse, University of Michigan, Ann Arbor, Mich. *Mechanics.* Philadelphia, Pa, Feb. 7, 97. A.B, Pennsylvania, 20. Elec. heating engineer, Westinghouse Elec. and Mfg. Co, 22–24, ry. motor engineer, 24–30, manager exp. div, South Phila. works, 30–37; *prof. eng. mech, Michigan, 37–; commander, E-V(S), U. S. Naval Res, 41–* Special lecturer, Harvard, 29, 30–32; Pittsburgh, 25–30. Mech. Eng; Franklin Inst; Gesell. für angewandte Math. und Mech. Technical mechanics; technical applications of vibration theory.

Ormsbee, Dr. Richard A(rmstrong), Harvard Medical School, Boston, Mass. *Biochemistry.* Walla Walla, Wash, Jan. 6, 15. A.B, Montana, 36; California, 37; M.S, State Col. Wash, 38; Ph.D, Brown, 41. Teaching fellow, State Col. Wash, 37–38; asst, Brown, 38–41; *special research assoc. biochem, Harvard Med. Sch, 41–* Cellular physiology; protozoology.

Orning, Dr. Arthur A(lonzo), Carnegie Institute of Technology, Pittsburgh, Pa. *Physical chemistry.* Gilbert, Iowa, Oct. 29, 06. B.S, Iowa State Col, 34; M.S, Carnegie Inst. Tech, 35, Sc.D, 38. *Mem. staff, coal research lab, Carnegie Inst. Tech, 38–* Chem. Soc. The mechanism and rate of combustion of individual particles of powdered fuel.

Ornstein, Dr. George Guttman, 965 Fifth Ave, New York, N. Y. *Medicine.* New York, N. Y, Jan. 25, 92. M.D, N. Y. Univ, 15. *Assoc. prof. med, N. Y. Homeop. Med. Col; assoc. clin. prof, N. Y. Post-Grad. Med. Sch, Columbia.* Director tuber, Sea View Hosp, Staten Island; Metropolitan Hosp, Welfare Island; consultant, Munic. Sanatorium, Otisville; Elizabeth Horton Mem. Hosp, Middletown; Ulster County Tuber. Hosp, Kingston; St. Luke's Hosp, Newburgh; Richmond Mem. Hosp, S. I; Rockaway Beach Hosp, L. I. A.A; Am. Med. Asn; fel. Col. Physicians; Asn. Thoracic Surg; Tuber. Asn; Soc. Exp. Biol; N. Y. Acad. Med; N. Y. Tuber. and Health Asn. (director). Experimental and clinical tuberculosis; benign acute pulmonary tuberculosis; etiology of lung abscess; the Wildbolz auto-urine reaction in tuberculosis; obscure bronchial conditions caused by pollens; the influence of the local blood supply on crisis and lysis in pneumonia.

O'Roke, Prof. E(arl) C(leveland), University of Michigan, Ann Arbor, Mich. *Zoology.* Sabetha, Kans, Aug. 2, 87. A.B,

Kansas, 12, A.M, 16; Ph.D, California, 29. Instr. zool, Wyoming, 17–19, asst. prof. and asst. parasitologist, Exp. Sta, 19–20; asst. prof. zool, S. Dak. State Col, 20–27; asst, California, 27–28; asst. prof. *forest zool, Michigan,* 29–37, *assoc. prof,* 37– Biol. surv, Kans, 12, 16; parasitologist, State Fish and Game Div, Calif, 27–29; collaborator, div. wildlife research, fish and wildlife service, U. S. Dept. Interior, 32–; grouse investigations, State Dept. Conservation, Mich, 33, 35. A.A; Soc. Zool; Soc. Parasitol; Soc. Foresters; Wildlife Soc; Mich. Acad. Parasitology; protozoology; forest zoology; lungworms of deer; diseases of waterfowl and upland game birds.

O'Rourke, Prof. C(harles) E(dward), Cornell University, Ithaca, N. Y. *Structural engineering.* New York, N. Y, June 4, 96. C.E, Cornell, 17. Instr. *struct. eng, Cornell,* 19–22, asst. prof, 23–35, *prof, 35–* Visiting prof, Carnegie Inst. Tech, 22; Imp. Peiyang Univ, China, 26–27; consulting engineer, Grange League Federation, Ithaca, N. Y, 35–40; engineer, Finger Lakes State Parks Cmn, 36–38; visiting prof, Hawaii, 41. Summers, designer, Concrete Steel Co, New York, N. Y, 20–26. Consulting ed, 'Int. Textbook Co,' 32– Concrete Inst. Behavior of reinforced concrete structures; formulas and tables for engineers.

O'Rourke, Prof. Edward V(incent), Ohio State University, Columbus, Ohio. *Petroleum and mine engineering.* Columbus, Ohio, Sept. 5, 95. B.E.M, Ohio State, 19. Engineer, Fortuna Mine, Braden Copper Co, Chile, S. Amer, 19–20; development sampler and asst. assayer, Nev. Consol. Copper Co, Ruth, Nev, 20–21; field engineer and geologist, Maracaibo Oil Explor. Corp, Venezuela, 21–22, 23–24; asst. to F. A. Ray, Columbus, 22–23; explor. geologist, S. Am. div, Gulf Oil Corp, Venezuela, 24–25; instr. *mine eng, Ohio State,* 25–26, asst. prof, 26–32, assoc. prof, 32–39, *prof, 39–* Consultant, Shell Oil Co, St. Louis, Mo, 39. Petrol. Inst; Min. and Metal. Eng. Application of technology to valuation of oil and gas fields; application of scientific methods to increase recovery of oil; estimation of mineral reserves.

O'Rourke, Dr. L(awrence) J(ames), U. S. Civil Service Commission, Washington, D. C. *Psychology.* Seattle, Wash, Aug. 10, 92. A.B, Lawrence Col, 15; Wisconsin; A.M, Cornell, 18; Ph.D, George Washington, 22. Instr, Wisconsin; Cornell, 17–18; psychologist, civilian advisory board, war plans div, Gen. Staff, 20–22; *director research in personnel and admin, U. S. Civil Service Cmn, 22–* Lecturer, George Washington, 22–25; assoc, Teachers Col, Columbia; director, President's Council Personnel Admin, 31–40. Summers, instr, Wisconsin, 16–17. Director nation-wide studies in English, vocabulary and reading, Psychol. Inst, Carnegie Foundation for Adv. Teaching, 30–35. Chairman directors, Psychol. Inst; Civics Research Inst; mem. board directors, Psychol. Corp; tech. cmt. on occupational studies, Nat. Research Council; tech. cmt, Nat. Occupational Conf; consultant, personnel admin, Tenn. Valley Authority. Commissioned officer, A.S, U.S.A, 18–19; psychologist, med. research lab, A.S, 18; chief of selection, enlisted personnel, 19. Psychol. Asn; Personnel Research Federation (past pres); Statist. Asn; Management Asn; Educ. Research Asn; Soc. Adv. Management; Personnel Research Federation (past pres; director). Criminology; industrial and educational psychology; vocational guidance and intelligence tests; technique validity and reliability of selection and training of employees; English; vocabulary; reading.

Orr, Prof. Grover L(ewis), 767 College Ave, Columbus, Ohio. *Chemistry.* Thornville, Ohio, July 17, 93. A.B, Capital Univ, 18; A.M, Ohio State, 21. Instr. *chem, Capital Univ,* 18–22, asst. prof, 22–24, *prof, 24–* A.A; Chem. Soc; Ohio Acad. Analytical chemistry.

Orr, Dr. Harold, 329 Tegler Bldg, Edmonton, Alta, Can. *Dermatology.* Toronto, Ont, April 28, 89. M.B, Toronto, 11, Dr.P.H, 20, M.D, 21. *Director div. social hygiene, Provincial Dept. Health, Alta, Can, 20–; clin. prof. dermat. and in charge dept, Alberta, 24–; lieut. col. directing venereal disease control, Med. Corps, Royal Can. Air Force.* Médaille des Epidémies, France, 18; officer, Order of the British Empire. Fel. Col. Physicians; Royal Col. Physicians Can; fel. Royal Soc. Med. Syphilis.

Orr, Dr. J(ohn) H(arland), Queen's University, Kingston, Ont, Can. *Bacteriology.* Kingston, Ont, 99. M.D, Queen's (Can), 23. Intern, Broad St. Hosp, New York, 23–25; Lister Inst, London, 26–27; asst. prof. *bacter, Queen's (Can),* 27–40, *prof, 40–; director, Provincial Govt. Lab, 42–* Consulting bacteriologist, Kingston Gen. Hosp. Fel. Royal Col. Physicians Can. Experimental anemias following injection of bacterial toxins; toxin production by anaerobes; variation of the tubercle bacillus; identification of anaerobes; chemotherapy of gas gangrene.

Orr, L(eslie) W(ayne), Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, Washington, D. C. *Entomology.* Clarissa, Minn, Aug. 8, 02. B.S.F, Minnesota, 27; M.S.F, Michigan, 30. Asst. entom, Minnesota, 27–29, instr, 30–35; *junior instr,* Michigan, 29–30; assoc. entomologist, *div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–37, *senior entomologist,* 37– A.A; Asn. Econ. Entom; Soc. Foresters; Entom. Soc. Wash. Forest entomology.

Orr, Dr. Paul R, Brooklyn College, Brooklyn, N. Y. *Physiology.* Meadville, Pa, Dec. 1, 98. B.S, Muhlenberg Col, 22; M.S, Pennsylvania, 23, Ph.D, 30. Instr. *biol,* Pennsylvania, 24–30; Bryn Mawr Col, 30–31; *Brooklyn Col, Col. City of N. Y,* 31–38, *asst. prof, 38–* Respiratory metabolism; heat death.

Orr, Dr. Robert T(homas), California Academy of Sciences, San Francisco, Calif. *Mammalogy, Ornithology.* San Francisco, Calif, Aug. 17, 08. B.S, San Francisco, 29; A.M, California, 31, Ph.D, 37. Asst. mammal, univ. museum vertebrate zool, California, 32–35; asst. wildlife technician, U. S. Nat. Park Service, 35–36; *asst. curator birds and mammals, Calif. Acad. Sciences, 36–* Summer, acting instr, nat. hist. museum, Stanford, 40. Ornith. Union; Soc. Mammal. (recording sec'y, 38–42); Cooper Ornith. Club; Wildlife Soc; Calif. Acad; Grinnell Nat. Soc. (v. pres, 41, 42); Wasmann Biol. Club (assoc. ed, 'Wasmann Collector'). Life history, ecology and geographic variation among mammals and birds.

Orr, Dr. Thomas G(rover), 5930 Mission Drive, Kansas City, Mo. *Surgery.* Carrollton, Mo, May 9, 84. A.B, Missouri, 07; M.D, Hopkins, 10. From instr. to assoc. prof. *surg, Kansas,* 15–24, *prof. and chairman dept, 24–* Major, M.C, 18–19. Surg. Asn; fel. Col. Surg. (governor, 38); Am. Med. Asn; South. Med. Asn; West. Surg. Asn. (pres, 39); Kansas City Acad. Med; Soc. int. de Chirurg. Modern methods of amputation; operative surgery; chemical aspect of intestinal obstruction; peritonitis; pancreas; liver and kidney pathology.

Orrok, Geo(rge) A(lexander), Orrok and Myers, 21 E. 40th St, New York, N. Y. *Mechanical engineering.* Dorchester, Mass, July 3, 67. Sch. Mech. Arts, 83–85; Mass. Inst. Tech, 85–88; hon. M.E, Stevens Inst. Tech, 29. Teacher, pub. schs, Mass, 88–90; manual training, Ogden Mil. Acad, 90–91; Utah State Col, 91–92; draftsman and engineer. F. S. Pearson, 92–98; mech. engineer, N. Y. Edison Co, 98–16; *consulting engineer, 16–* Consulting prof, Polytech. Inst. Brooklyn, 11–14; lecturer, Yale, 20–40; Cyrus Fogg Brackett lecturer, Princeton, 25; lecturer, eng. sch, Harvard, 27–40; Pennsylvania, 27. Eng. div, Nat. Research Council; v. chairman, Eng. Foundation, 26–30. A.A; hon. mem. Mech. Eng. (sec'y, gas power sect, 07–14, manager, 12–15); Civil Eng; Min. and Metal. Eng; Inst. Consulting Eng; Franklin Inst; Conn. Soc. Civil Eng; Conn. Bot. Soc; Brooklyn Eng. Club (pres, 10); London Inst. Mech. Eng; Egypt Explor. Soc. Heat transmission; power development; air and helium at low temperatures; properties of water.

Orsino, Dr. Joseph A(nthony), 744 St. Marks Ave, Westfield, N. J. *Chemistry, Physics.* Castilfranci, Italy, July 13, 08. A.B, Ohio State, 29, M.S, 31, Ph.D, 33. Asst, Ohio State, 29–33; chemist, Willard Storage Battery Co, Cleveland, 34–39; *chemist and physicist, research labs, Nat. Lead Co, 39–* Chem. Soc; Electrochem. Soc. Organic chemistry; carbohydrates; lignin; humic acids; lead alloys; lead oxides; storage batteries.

Ort, Dr. John M(ouk), E. R. Squibb and Sons, Brooklyn, N. Y. *Biochemistry, Pharmacology.* Home City, Ohio, May 31, 96. B.Ch.E, Ohio State, 18, M.S, 19, du Pont fellow, 23–24, Ph.D, 24. Asst. chem, Ohio State, 18–19, 22–23; instr, Case, 19–22; asst. prof. biophys, Mayo Foundation, Minnesota, 24–32; *research lab,* Swift and Co, Chicago, 32–33; *E. R. Squibb and Sons, 33–* Soc. Biol. Chem; Chem. Soc. Colloidal biophysics; oxidation potentials of sugars and active sugars; membrane potentials; permeabilities in animal membranes; water binding power in animal colloids; pharmaceuticals; manufacturing development.

Orten, Prof. James M, Wayne University College of Medicine, Detroit, Mich. *Physiological chemistry.* Farmington, Mo, Nov. 29, 05. B.S, Denver, 28, M.S, 29; Ph.D, Colorado, 32. Asst. pharmacy, Denver, 27–28; instr. biochem, Colorado, 31–32; Alexander Brown Coxe fellow, Yale, 32–33, 34–35; nat research fellow, 33–34; Pfizer fellow, 35–37; *asst. prof. physiol*

chem, col. med, Wayne, 37– Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition. Synthesis of glycine; experimental anemia and polycythemia; nutritional significance of minerals; metabolism of organic acids; metabolism of carbohydrates.

Ortenburger, Prof. A(rthur) I(rving), University of Oklahoma, Norman, Okla. *Zoology, Herpetology, Zoogeography.* Detroit, Mich, June 8, 98. A.B, Michigan, 20, fellow, 20–22, M.S, 22, Ph.D, 25. Asst. curator herp, Am. Museum Nat. Hist, 22–24; asst. prof. *zool, Oklahoma,* 24–29, assoc. prof, 29–36, *prof, 36–, chairman dept. animal biol, 42–, curator vertebrates, museum zool, 24–* Asst, U. S. Wis. Biol. Surv, 18; vert. zoologist, Okla. Biol. Surv. Summer, Detroit Junior Col, 20; Rocky Mt. Biol. Sta, 31; biol. sta, Indiana, 32–38. In charge Am. Museum Nat. Hist. exped, Ariz, 23, Univ. Okla. biol. surv. exped, 25–31. A.A; Soc. Zool; Soc. Ichthyol. and Herp; Ecol. Soc; Limnol. Soc; fel. Okla. Acad. (sec'y, v. pres); Mich. Acad. Fauna of Oklahoma; herpetology of the United States; Oklahoma reptiles and amphibians; geographical distribution; characters of reptile hemipenes; the genera Masticophis and Coluber.

Orth, Dr. O(swald) S(idney), University of Wisconsin Medical School, Madison, Wis. *Physiology, Pharmacology.* Cincinnati, Ohio, June 29, 06. B.S, Illinois, 29, M.S, 32; Ph.D, Wisconsin, 39, M.D, 42. Teacher math. and science, high sch, Malden, Ill, 29–30; asst. physiol, Illinois, 30–36; instr. med. physiol, *sch. med, Wisconsin,* 36–42, *asst. prof. pharmacol, 42–* Effects of anesthesia on heart, kidney and liver.

Ortleb, Prof. Ruth (Virginia), Miami University, Oxford, Ohio. *Psychology.* Burlington, Iowa, Jan. 11, 98. A.A, Graceland Col, 25; Ph.B, Chicago, 27; A.M, Columbia, 31; Ph.D, Iowa, 35. Clin. psychologist, Cook Co. Psychopathic Hosp, Chicago, Ill, 28–30; school psychologist, Georgetown Demonstration Sch, Georgetown, Del, 31–32; research worker, Iowa State Planning Board, 34–35; psychological counselor, pub. schs, Shorewood, Wis, 35–37; clin. psychologist, guidance clinic, Children's Center, Detroit, Mich, 37–38; *psychological and vocational counselor and asst. prof. psychol, Miami (Ohio), 39–* Summer, psychologist, demonstration sch, Teachers Col, Columbia, 41. Assoc. Psychol. Asn; assoc. Asn. Applied Psychol. Exceptional children; vocational guidance.

Orton, Dean C(layton) R(oberts), West Virginia University, Morgantown, W. Va. **[1]Plant pathology.* East Hardwick, Vt, April 1, 85. B.S, Vermont, 09; M.S, Purdue, 15; Ph.D, Columbia, 24. Special agent, U. S. Dept. Agr, 09–10; asst. plant pathologist, Wisconsin, 10; asst. botanist, Exp. Sta, Purdue, 10–13; asst. prof. bot, Pa. State Col, 13–16, assoc. prof, 16–19, plant path, 17–19, prof, 19–27, plant pathologist, Exp. Sta, 13–27; prof. and head dept, *West Virginia,* 29–38, *dean col. agr, 38–,* plant pathologist, *Exp. Sta,* 29–38, *director, 38–* Collaborator, bur. plant indust, U. S. Dept. Agr, 13–25, 29–; Crop Protection Inst. Bayer Co, Inc, fellow, Boyce Thompson Inst, 25–29. Phytopath. Soc. rep, div. biol. and agr, Nat. Research Council, 22–24, liaison mem. div. states relations, 23–24. Mem, State Planning Board, W. Va, 35–40, chairman, 41– A.A. (pres, Pa. State Col. branch, 23); Asn. Plant Path. (sec'y, advisory board, 18–21, chairman, 22); Phytopath. Soc. (chairman, cmt. for plant diseases, 28–; pres, 39); Bot. Soc; Crop Protection Inst. (board governors, 20–25, 35–); Torrey Bot. Club; Pa. Acad; Ind. Acad. Uredinales; Dothideales; plant diseases; seed-borne parasites; plant disinfection; land use.

Orton, Dr. Samuel T(orrey), 12 E. 86th St, New York, N. Y. *Psychiatry.* Columbus, Ohio, Oct. 15, 79. B.S, Ohio State, 01; M.D, Pennsylvania, 05; A.M, Harvard, 06. Pathologist and clin. director, Worcester State Hosp, Mass, 10–14; instr. neuropath, Harvard, 13; sci. director, Pa. Hosp, Phila, 14–19; prof. psychiat, Iowa, and director, State Psychopathic Hosp, 19–28; prof. neur. and neuropath, col. physicians and surg, Columbia, 30–36. Lecturer, Clark, 13, 15; neuropathologist, N. Y. Neur. Inst, 29–36. A.A; Psychiat. Asn. (pres, 29); Am. Med. Asn; Neur. Asn; Asn. Research Nervous and Mental Disease (pres, 32); N. Y. Acad. Med. Neuropathology; disorders of language.

Osborn, Dr. Chase S(almon), Sault Ste. Marie, Mich. *Economic geology.* Huntington Co, Ind, Jan. 22, 60. B.S, Purdue, 80; M.D, Detroit Col. Med, 09; LL.D, Michigan, 11, Olivet Col. (Mich), 11, Alma Col, 12, Northwestern, 22, Atlanta Law Sch, 35. State game and fish warden, Mich, 95–99; state commissioner railroads, 99–03; regent, Michigan, 08–11; governor, Mich, 11–12. Lecturer, various institutions. Mem. advisory council, Herty Forest Inst, Ga. A.A; Min. and Metal. Eng; Seismol. Soc; Am. Geog. Soc; Soc. Mammal; Ornith. Union; Forestry Asn; Bison Soc; Nat. Asn. Audubon Societies; Mich. Audubon Soc; Mich. Acad; Ga. Miner. Soc; Sulgrave Inst; Lake Superior Min. Inst; Geog. Soc. Chicago; hon. mem. Madagascar Acad. Cosmic theories; geography; terrestrial motion; iron bacteria; iron-bearing rocks.

Osborn, Dr. Clinton M(orris), Ohio State University, Columbus, Ohio. *Anatomy, Experimental zoology.* Litchfield, Conn, March 11, 12. A.B, Bates Col, 33; A.M, Harvard, 35, Ph.D, 38. Asst, Harvard, 33–34, 36–38, Austin teaching fellow, 34–36, Parker research fellow biol. sciences, 38–39; *instr. histol. and embryol, dept. anat, Ohio State, 39–* Summers, asst, Oceanog. Inst. and Marine Biol. Lab, Woods Hole, 38; research fellow, Oceanog. Inst, Woods Hole, 39–40. Soc. Zool; Asn. Anat; Ohio Acad. Histo-physiology of retina; molting in amphibians; reproduction; mammary gland development; spontaneous activity in dwarf mice; color change mechanisms; factors influencing melanophore development; histophysiology of hypophysis; interrelationships of endocrines.

Osborn, Dr. E(lburt) F(ranklin), 2801 Upton St, Washington, D. C. *Petrology.* Ill, Aug. 13, 11. A.B, DePauw, 32; M.S, Northwestern, 34; Ph.D, Calif. Inst. Tech, 37. Teaching fellow, Northwestern, 32–34; Calif. Inst. Tech, 34–37; instr, Northwestern, 37; geologist, Val d'Or, Que, Can, 38; *petrologist, geophys. lab, Carnegie Institution, 38–* Geologist, Que-On Gold Mines, Ltd, 36. Miner. Soc; Geol. Soc. Wash; Petrol. Club (sec'y-treas, 40–). Chemical and physical properties of the rock-forming silicates.

Osborn, Brig. Gen. Frederick, 123 E. 73rd St, New York, N. Y. *Eugenics.* New York, N. Y, March 21, 89. A.B, Princeton, 10. *Research assoc. anthrop, Am. Museum Nat. Hist; brig. gen. and chief special service, War Dept, 42–* Social Science Research Council. Trustee, Am. Museum Nat. Hist; Carnegie Corp. of N. Y. Popul. Asn. Amer. del, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, Paris, 37. A.A; Eugenics Soc; Eugenics Research Asn. (director); Galton Soc. (sec'y and director); Anthrop. Asn; Popul. Asn. Population trends.

Osborn, Dr. Gerald, 727 Campbell Ave, Kalamazoo, Mich. *Organic chemistry.* Tangier, Ind, April 11, 03. A.B, Mich. State Nor. Col, 27; M.S, Michigan, 29, Ph.D, 39. Instr. gen. chem, Mich. State Nor. Col, Ypsilanti, 27–29, asst. prof. *chem,* 29–39; *prof. and chairman dept, West. Mich. Col. Educ, 39–* Summer, consultant, cmt. educ. of science teacher, Nat. Cmt. Science Teaching, Columbia, 41. Chem. Soc; Mich. Col. Chem. Teachers Asn. Free radicals; rate of dissociation of pentaarylethanes; energy of activation; chemical education.

Osborn, Prof. Herbert, Ohio State University, Columbus, Ohio. **[1]Zoology, Entomology.* Lafayette, Wis, March 19, 56. B.S, Iowa State Col, 79, M.S, 80, Sc.D, 16; LL.D, Pittsburgh, 30, Ohio State, 36; museum comp. zool, Harvard, 81–82; Naples Zool. Sta, 94–95. Asst. *zool. and entom,* Iowa State Col, 79–83, asst. prof, 83–85, prof, 85–98; *Ohio State,* 98–16, research prof, 16–33, *emer. prof, 33–; prof. entom, Rollins Col, 34–* Special agent, div. entom, U. S. Dept. Agr, 85–94; entomologist, Exp. Sta, Iowa State Col, 90–98; state entomologist, Iowa, 98; director lake lab, Ohio State, 98–18; director, Ohio Biol. Surv, 12–; consulting entomologist, Exp. Sta, Maine, 13–18; Trop. Plant Research Foundation, 25. Ed, 'Ohio Jour. Science,' 30–32. In charge entom. exhibit, Exp. Stations, Columbian Expos, 93. Trustee, Trop. Plant Research Foundation, 25–; 'Biol. Abstracts,' 26–37. Del. 1st, 2nd, 4th and 5th Int. Entom. Congs; del. Int. Cong. Zool, 07, 10. A.A. (v. pres, 17, exec. cmt, 20–24); Soc. Nat; Soc. Zool; Asn. Econ. Entom. (pres, 98); hon. fel. Entom. Soc. (managing ed, 'Annals,' 08–29, emer. ed, 29–, pres, 11); Ecol. Soc; Micros. Soc. (pres, 07–09); Entom. Soc. Wash; Biol. Soc. Wash; hon. mem. Calif. Acad; Ohio Acad. (treas, 98–04, pres, 04); hon. fel. Iowa Acad. (pres, 87, sec'y-treas. and ed, 90–98); cor. mem. Acad. Nat. Sci. Phila; Phila. Entom. Soc; Sigma Xi (sec'y, 07); hon. mem. Entom. Soc. Ont; Soc. entom. de France. Economic entomology; life histories and ecology of insects; grass insects; Mallophaga; systematic and faunal studies of Hemiptera.

Osborn, Dr. H(erbert) T(irrill), 2346 Brandon Road, Columbus, Ohio. *Entomology, Plant pathology.* Ames, Iowa, Dec. 6, 87. A.B, Ohio State, 09, Ph.D, 31; A.M, Illinois, 10. Agent and expert, cereal and forage insect investigations, bur. entom, U. S. Dept. Agr, 10–12; asst. entomologist, Exp. Sta, Hawaiian Sugar Planters' Asn, 13–24; entomologist, United

Sugar Companies, Mex, 25–27; Cent. Aguirre Sugar Co, Fajardo Sugar Co. and S. P. R. Sugar Co, 28–31; assoc, dept. animal and plant path, Rockefeller Inst, 32–39; *agent, div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 40–* Capt, Inf, 17–18. A.A; Asn. Econ. Entom; Entom. Soc. Amer. Insects of sugar-cane; introduction of insect parasites; virus diseases of plants; insect vectors of virus diseases of plants.

Osborn, Prof. Jesse O(tto), Harris Teachers College, St. Louis, Mo. *Mathematics.* Trinity, Ky, Oct. 15, 94. A.B, Berea Col, 17; A.M, Kentucky, 21; Ph.D, Cornell, 23. Instr. *math,* Pa. State Col, 20–21; Cornell, 21–23; Iowa, 23–24; *prof, Harris Teachers Col, 24–* A.A; Math. Soc; Math. Asn. Algebraic geometry.

Osborn, Prof. John L(ynn), Oregon State College, Corvallis, Oregon. *Anatomy.* Burlington, Kans. Ph.C, Michigan, 15; A.B, Kansas, 22; A.M, Nebraska, 23; Ph.D, Washington (Seattle), 39. Asst. instr. *zool,* Nebraska, 22–23; instr, *Oregon State Col,* 23–34, *asst. prof, 34–* A.A. Gross and comparative anatomy.

Osborn, Dr. R(obert) A(mbrose), Route 2, Falls Church, Va. *Chemistry.* Van Wert, Ohio, Dec. 12, 97. B.S, Ohio Northern, 21; M.S, Ohio State, 22, fellow, 23–24, Ph.D, 24. Asst. prof. chem, Oregon State Col, 24–31; food research div, bur. chem. and soils, U. S. Dept. Agr, 31–34, assoc. chemist and later *chemist, beverage sect, food div, food and drug admin,* 34–39; *Fed. Security Agency, 39–* Chem. Soc. (sec'y, Oregon sect, 28–30, cmt. anal. reagent chemicals, 32–, cmt. standard apparatus, 32–). Analytical and physical chemistry; sodium carbonate as an ultimate standard; Kjeldahl method; testing of reagent chemicals; determination of selenium; metals in foods; color and turbidity measurements; fruit and fruit products; beverages; sugar; sugar products.

Osborn, Dr. Robert H(enry), 1401 Lincoln Ave, Silverside Heights, Wilmington, Del. *Physics.* Denver, Colo, May 25, 07. B.S, S. Dak. Sch. Mines, 29; Ph.D, Pittsburgh, 38. Research engineer, Westinghouse Elec. and Mfg. Co, 29–31; elec. engineer, West. Pub. Service Co, 31–33; asst. physics, Pittsburgh, 34–37; *research physicist, Hercules Powder Co, 37–* Optical Soc; Soc. X-ray and Electron Diffraction. Thermal conductivity and Thompson effect in tungsten and molybdenum at incandescent temperatures; spectrophotometry and colorimetry; viscosity of solutions of cellulose and its derivatives.

Osborn, Sidney J(ose), 500 Sugar Bldg, Denver, Colo. *Chemistry.* Philadelphia, Pa, Feb. 26, 83. A.B, Pennsylvania, 02, A.M, 03. *Gen. chemist, Great West. Sugar Co, 17–* A.A; Chem. Soc. (chairman, sugar div, 21, chairman, Colo. sect, 22–24); Soc. Sugar Beet Technol. Chemical control of the beet sugar manufacturing process.

Osborn, Dr. Stanley H(art), State Department of Health, Hartford, Conn. *Public health.* Peabody, Mass, May 3, 91. M.D, Tufts Col, 14, hon. Sc.D, 42; C.P.H, Harvard, 15, Mass. Inst. Tech, 15. Acting biologist, Metropolitan Water Board, Boston, 14; in charge field unit, Am. Red Cross Sanit. Cmn, 15–16; typhus and malaria control, Serbia and Montenegro, 15–16; dist. health officer, State Dept. Health, Mass, 16–17; epidemiologist, 17–18, 19–20; director bur. preventable diseases and deputy commissioner health, *State Dept. Health, Conn,* 20–22, *state commissioner health,* 22– Lecturer, sch. med, Yale, 24– Mem, Tri-state Treaty Cmn. on Pollution of Waters, 31– Order of St. Sava of Serbia, III; cross of Nat. Order of Civil Merit of Bulgaria, II. Lieut, M.C, and div. epidemiologist, A.E.F. and B.E.F, 18–19. A.A; fel. Pub. Health Asn; Epidemiol. Soc; Am. Med. Asn. Public health administration.

Osborne, Dr. Darrell W(ayne), Apt. 3, 5708 11th Road, N, Arlington, Va. *Physical chemistry.* Los Angeles, Calif, Jan. 16, 14. A.B, California at Los Angeles, 35; Ph.D, Calif. Inst. Tech, 38. Asst, Calif. Inst. Tech, 35–36, teaching fellow, 36–38, A. A. Noyes fellow chem, 38–40; nat. research fellow, California, 40–41; instr, Wisconsin, 41–42; *research assoc, Nat. Defense Research Cmt, George Washington, 42–* Chem. Soc. Thermodynamics; heat capacities at low temperatures; spectroscopy.

Osborne, Prof. Earl Dorland, 471 Delaware Ave, Buffalo, N. Y. *Dermatology.* Petoskey, Mich, Feb. 1, 95. M.D, Michigan, 19; M.S, Minnesota, 24. Asst. and assoc. dermat. and syphilol, Mayo Clinic, 20–22; asst. to chief dermatologist, Buffalo City Hosp, 23–25; *prof. dermat. and syphilol, Buffalo, 26–* Dermatologist and syphilologist in chief, Buffalo City Hosp, 26–; attending dermatologist and syphilologist, Buffalo Gen, Children's and Lafayette Gen. Hosps, 26–; consulting dermatologist and syphilologist, Buffalo State Hosp, Mem. Hosp. of Buffalo and Buffalo Marine Hosp, 26– Acad. Dermat. and Syphilol. (sec'y, 38). Syphilology; neurosyphilis; congenital syphilis; pharmacology and therapeutics of iodine and the arsphenamines; hemiatropy of the face; the spinal fluid; warts; ringworm; industrial dermatoses; eczematizing properties of soaps.

Osborne, Dr. F(releigh) Fitz, McGill University, Montreal, Que, Can. *Geology.* Nogales, Ariz, Nov. 7, 03. B.A.Sc, British Columbia, 24, M.A.Sc, 25; S. F. Emmons Mem. fellow, 27–28; Ph.D, Yale, 28. Instr. *geol,* Iowa, 28–29, assoc, 29–30; asst. prof, *McGill,* 30–39, *assoc. prof, 39–* Field geologist, Ont. Dept. Mines, 28–29; Que. Bur. Mines, 32–36, consulting geologist, 38–41. Geol. Soc; Soc. Econ. Geol; Can. Inst. Min. and Metal; fel. Royal Soc. Can. Titaniferous iron deposits; origin of alkaline rocks; mineralography; petrography; areal and economic geology.

Osborne, Dr. Harold S(mith), 195 Broadway, New York, N. Y. *Electrical engineering.* Fayetteville, N. Y, Aug. 1, 87. B.S, Mass. Inst. Tech, 08, fellow, 08–10, D.E, 10. Engineer, transmission and protection dept, *Am. Tel. and Tel. Co,* 10, asst. to transmission and protection engineer, 14–20, transmission engineer, 20–39, operating results engineer, 39–40, plant engineer, 40–42, asst. chief engineer, 42–43, *chief engineer, 43–* V. pres, U. S. nat. cmt, Int. Electrotech. Cmn; mem, Elec. Standards Cmt. A.A; fel. Elec. Eng. (director, pres, 42); Eng. Educ; fel. Physical Soc; fel. Acoustical Soc; Radio Eng; Standards Asn. (chairman standards council); Soc. Planning Officials (past pres; director); Regional Plan Asn. (director, v. pres). Communications.

Osborne, J(ames) G(ranville), 5210 Andover Road, Chevy Chase, Md. *Forestry.* Chickasha, Okla, Feb. 10, 06. B.S, California, 30. Junior forester, *South. Forest Exp. Sta, U. S. Forest Service,* 31–34, asst. silviculturist, 35–36; assoc. silviculturist, 36–38, *senior silviculturist, 38–; Air Forces, U. S. Army, 42–* Soc. Foresters. Forest mensuration; pine silviculture; naval stores.

Osborne, Dr. Nathan S(anford), 3615 Wisconsin Ave, N. W, Washington, D. C. *Physics.* Southampton, N. Y, Feb. 10, 75. E.M, Mich. Col. Mines, 99, hon. D.E, 36; hon. Sc.D, Stevens Inst. Tech, 30. Mining engineer, Champion Copper Co, Painesdale, Mich, 99–00; instr. math. and physics, Mich. Col. Mines, 00–03, 10–12; lab. asst, *Bur. Standards,* 03–06, asst. physicist, 06–10, assoc. physicist, 12–19, physicist, 19–28, *prin. physicist, 28–* Research assoc, Am. Soc. Refrig. Eng. and Am. Soc. Mech. Eng; Philos. Soc. Wash; Wash. Acad. Testing glass volumetric apparatus; density and thermal expansivity of alcohol-water mixtures; thermodynamic properties of ammonia, water, ice and steam; calorimetry of fluids.

Osborne, Dr. Stafford L(ennox), 1108 S. Grove Ave, Oak Park, Ill. *Physiology.* Vancouver, B. C, Can, May 16, 85. B.P.E, Int. Y. M. C. A. Col, 13; M.S, Northwestern, 38, Ph.D, 40. *Asst. prof. physical therapy, med. sch, Northwestern, 27–* Physiol. Soc. Physical therapy.

Osburn, M(ax) R(aymond), Ft. Pierce, Fla. *Entomology.* Newark, Ohio, March 19, 01. B.S, King Col, 24; M.S, Ohio State, 26. Insecticide investigator, State Dept. Agr, N. C, 25; Ohio Exp. Sta. and Bur. Plant Indust, Pa, 26; asst. entomologist and *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 27–* Asn. Econ. Entom; Fla. Entom. Soc. Control of cotton boll-weevil; carbon disulfide and ethylene oxide fumigation of fresh fruit to destroy the Japanese beetle; control of Japanese beetle larvae in lawns and golf courses; control of insects and mites attacking Citrus and subtropical fruits.

Osburn, Dr. O(iven) L(loyd), c/o National Distillers Products Corp, Cincinnati, Ohio. *Bacteriology.* Elwood, Ind, April 7, 93. B.S, Colo. State Col, 22; M.S, Iowa State Col, 30, Ph.D, 34. State dairy chemist, Colo, 22–25; instr. biochem, Arkansas, 27–29; cooperative bacteriologist and agent, agr. by-products lab, bur. chem. and soils, U. S. Dept. Agr, and Iowa State Col, 30–36; *research bacteriologist, Nat. Distillers Products Corp, 37–* Soc. Bact. Biochemical methods; fermentative utilization of agricultural waste; biochemical reactions of bacteria and yeasts.

Osburn, Prof. O(rren) E(dgar), 417 Illinois Ave, Pullman, Wash. *Electrical engineering.* Boring, Oregon, May 22, 91. B.S, Oregon State Col, 19. Instr. *elec. eng,* Oregon State Col,

22–23; *asst. prof, State Col. Wash, 23–* Elec. Eng; Eng. Educ. Electronics; electrical machinery.

Osburn, Prof. Raymond C(arroll), Ohio State University, Columbus, Ohio. ***²Zoology.** Newark, Ohio, Jan. 4, 72. B.S, Ohio State, 98, M.S, 00; fellow, Columbia, 02-03, Ph.D, 06. Instr. biol. and embryol, Starling Med. Col, 98–99; prof. biol, Fargo, 99–02; teacher, N. Y. High Sch. of Commerce, 03–07; instr. zool, Barnard Col, Columbia, 07–10, asst. prof, 10–15; assoc. director, N. Y. Aquarium, 10–15; prof. biol, Conn. Col. for Women, 15–17; prof. zool. and entom. and head dept, Ohio State, 17–42, director, Franz Theodore Stone Lab, Put-in-Bay, 18–36; *retired.* A.A; Soc. Nat; Soc. Zool; Fisheries Soc; Asn. Econ. Entom; Entom. Soc; Ecol. Soc; Soc. Parasitol; Micros. Soc; Limnol. Soc. (pres, 41); Ohio Acad; N. Y. Zool. Soc; N. Y. Entom. Soc; N. Y. Acad. Fishes and fisheries; Syrphidae; aquatic adaptation in vertebrates; origin of the limbs of vertebrates; Bryozoa; Woods Hole faunal survey; aquatic biology and ecology.

Oser, Dr. Bernard L(evussove), Food Research Laboratories, Inc, 4814 33rd St, Long Island City, N. Y. *Biochemistry.* Philadelphia, Pa, Feb. 2, 99. B.S, Pennsylvania, 20, M.S, 25; Ph.D, Fordham, 27. Asst. physiol. chem, Jefferson Med. Col, 20–21; biochemist, Phila. Gen. Hosp, 22–26; instr. biochem, grad. sch. med, Pennsylvania, 22–26; asst. director, *Food Research Labs, Inc,* 26–34, *director, 34–, v. pres, 39–* Chemist, Dermat. Research Inst, Phila. Mem, Animal Vitamin Research Council. A.A; Chem. Soc; Asn. Consulting Chem. and Chem. Eng. (sec'y, 35–40); fel. Inst. Chem; Inst. Food Technol; Asn. Sci. Workers; Chemists' Club; N. Y. Acad. Blood chemistry; food and nutrition; vitamins.

Osgood, Dr. Alfred T(ownsend), 65 E. 66th St, New York, N. Y. *Surgery.* Upland, Pa, Oct. 14, 72. A.B, Yale, 95; M.D, Columbia, 99. Prof. *urol. surg,* Univ. and Bellevue Hosp. Med. Col, 12–35, *col. med, N. Y. Univ,* 35–37, *emer. prof, 37–* Consulting surgeon, Bellevue Hosp; French Hosp. A.A; fel. Col. Surg; Urol. Soc; Asn. Genito-Urinary Surg; Soc. int. d'Urol. Surgery of the urinary and genital tracts.

Osgood, Dr. Cornelius, Yale University, New Haven, Conn. *Anthropology.* Winchester, Mass, March 20, 05. Ph.B, Chicago, 27, Ph.D, 30. Ethnologist, Nat. Museum, Can, 28–29; instr. *anthrop, grad. sch, Yale,* 30–35, asst. prof, 35–40, *assoc. prof, 40–, chairman dept, 43–,* asst. curator *anthrop, Peabody Museum,* 30–34, *curator, 34–* Ed, Viking Fund Publications in Anthrop, 42– A.A; Anthrop. Asn. (treas. and assoc. ed, 34–39); East. States Archeol. Federation (pres, 38–42); Archeol. Soc. Conn. (pres, 34–36). American Indian ethnology and archeology; Chinese culture.

Osgood, Dr. Edwin E(ugene), University of Oregon Medical School, Portland, Oregon. *Internal medicine.* Fall River, Mass, Jan. 25, 99. A.B, Oregon, 23, A.M, 24, M.D, 24. Asst. biochem, *med. sch, Oregon,* 19–21, instr, 21–25. assoc, 25–28, med, 25–29, asst. prof. biochem, 28–34, *med,* 29–36, *assoc. prof, 36–,* director labs, 28–36, *head div. exp. med, 36–* Bronze medal, Am. Med. Asn, 29. Soc. Exp. Biol; Am. Med. Asn; Soc. Clin. Path; Col. Physicians; Heart Asn; Soc. Clin. Invest; Pacific Interurban Clin. Club; Northwest Med. Asn; N. Pacific Soc. Int. Med. Diagnosis; hematology; culture of human marrow; chemotherapy.

Osgood, Prof. H(arlow) S, Westminster College, New Wilmington, Pa. *Chemistry.* Bradford, Pa, April 16, 02. B.S, Westminster Col. (Pa), 27; M.S, Pa. State Col, 29; Ph.D, Cornell, 34. Asst, Exp. Sta, Agr. and Mech. Col. Texas, 28–29; asst. prof. and later *prof. chem, Westminster Col. (Pa), 29–* Chem. Soc; fel. Inst. Chem. Animal nutrition.

Osgood, Prof. R(obert) B(ayley), 372 Marlborough St, Boston, Mass. *Medicine.* Salem, Mass, July 6, 73. A.B, Amherst Col, 95, hon. Sc.D, 35; M.D, Harvard, 99. Roentgenologist, Children's Hosp, Boston, 02–03; asst. surgeon, Carney Hosp, 02–06; Mass. Gen. Hosp, 07–15, visiting surgeon, 15–22, in charge dept. orthop. surg, 19–22; chief staff, dept. orthop. surg, *Children's Hosp,* 22–31, *consulting surgeon, 31–;* J. B. and Buckminster Brown prof. *orthop. surg, Harvard Med. Sch,* 22–31, *emer. J. B. and Buckminster Brown prof, 31–* Hugh Owen Thomas lecturer, Med. Inst, Liverpool, 25. Advisory board, Shriners' Hosp. for Crippled Children; chairman, Am. cmt, Ligue Int. contre le Rheumatisme. Orthop. Asn. (pres, 21); fel. Col. Surg; Inst. Social Sci; Am. Acad; New Eng. Surg. Soc. (pres, 28); Boston Surg. Soc; Royal Soc. Med. England; hon. mem. British Orthop. Asn; Italian Orthop. Asn; cor. mem. Belgian Orthop. Asn; Scandinavian Orthop. Asn; Int. Soc. Orthop. Surg. Diseases of tibial tubercle and of bones and joints; epidemiology of infantile paralysis, anatomical causes of tennis elbows; diseases of the bones and joints; fundamentals of orthopedic surgery in general medicine and surgery; medical and orthopedic management of chronic arthritis.

Osgood, Prof. Thomas H(arris), Michigan State College, East Lansing, Mich. *Physics.* Louth, Lincolnshire, Eng, 00. M.A, St. Andrews, Scotland, 21, B.Sc, 23; Carnegie scholar, Cambridge, 23–25, Ph.D, 27; Commonwealth Fund fellow, 25–27; M.S, Chicago, 27. Asst. lecturer *physics,* St. Andrews, Scotland, 21–23; lecturer, Manchester, 27–28; asst. prof, Pittsburgh, 28–33; assoc. prof, Toledo, 34–38, prof, 38–41, head dept; *prof. and head dept, Mich. State Col, 41–; mem. div. war research, Columbia, 42–* Assoc. ed, 'Am. Jour. Physics,' 41–; 'Jour. Applied Physics,' 43. Fel. Physical Soc. Ionization by electrons in gases; x-rays of long wave-lengths.

Osgood, Dr. Wilfred H(udson), Field Museum of Natural History, Chicago, Ill. ***²Zoology.** Rochester, N. H, Dec. 8, 75. A.B, Stanford, 99; Ph.D, Chicago, 18. Asst. biologist, U. S. Biol. Surv, 97–09; asst. curator mammal. and ornith, *Field Museum Nat. Hist,* 09–20, curator *zool,* 21–41, *emer. curator, 41–* Specialist, Fur Seal Inquiry, 14; expeds, Alaska, S. Amer, Africa and French Indo-China. A.A; fel. Ornith. Union; Soc. Mammal. (pres, 23–25); Cooper Ornith. Club (1st pres); Biol. Soc. Wash. (sec'y, 00–09); Chicago Zool. Soc. (trustee, 33–); British Ornith. Club; cor. mem. London Zool. Soc. Mammalogy; ornithology; classification; distribution; evolution; anatomy; museology.

Osgood, Dr. W(illia)m R, 2929 Macomb St, N. W, Washington, D. C. *Mechanical engineering.* Cambridge, Mass, April 17, 95. A.B, Harvard, 17; B.S, Mass. Inst. Tech, 19; M.S, Illinois, 24, Ph.D, 33. Asst. mech. eng, Mass. Inst. Tech, 20–21; instr. theoret. and applied mech, Illinois, 21–26; asst. prof. struct. eng, Cornell, 26–29; *materials engineer, Bur. Standards, 29–* A.A; Civil Eng; Wash. Acad; assoc. Med. Soc. D. C. Strength of columns; testing of structural elements; structural mechanics.

O'Shaughnessy, Prof. Louis, Virginia Polytechnic Institute, Blacksburg, Va. *Mathematics, Engineering.* South Solon, Ohio, Aug. 8, 77. B.S, Va. Polytech, 03, C.E, 04; A.M, Ohio State, 07; Ph.D, Pennsylvania, 11. Instr. civil eng, Va. Polytech, 04–06; math, Pennsylvania, 07–18; *prof.* civil eng, *Va. Polytech,* 18–19, applied math, 19–31, *applied mech, 31–, director grad. studies, 36–* A.A; Math. Asn; Eng. Educ. Differential equations and series.

O'Shea, Prof. Harriet E(astabrooks), Purdue University, Lafayette, Ind. *Psychology, Education.* Buffalo, N. Y, 95. A.B, Wisconsin, 16, A.M, 17, Anna C. Brackett fellow, 19–20; fellow, Columbia, 20–21, Ph.D, 30. Sch. psychologist and teacher educ. psychol, Child Educ. Foundation, New York, 17–19; lecturer educ, Bryn Mawr Col, 21–22; director high sch, chairman dept. English and sch. psychologist, Children's Univ. Sch, New York, 23–25; assoc. educ, Bryn Mawr Col, 25–27; assoc. prof. psychol. and educ. and student personnel adviser, Mills Col, 27–31, director pre-sch. lab, 27–30; *assoc. prof. educ. psychol. and nursery sch. admin, Purdue, 31–,* in charge personnel work for women, 31–37, *consulting psychologist for women students, 37–* Fellow, Strasbourg; statistician, all year sch. surv, Newark, 26; advisory staff, state sch. surv, Miss, 26; consulting psychologist, L. S. Ayers, Indianapolis, 37. Summers, asst, Wisconsin, 16, lecturer, 37; teacher, Colo. State Teachers Col, Greeley, 17; prof, Maine, 25. Statistician, War Dept, 18. A.A; assoc. Psychol. Asn; Soc. Study Educ; Asn. Applied Psychol; fel. Soc. Research Child Develop; Col. Personnel Asn. (sec'y, 35–); Soc. Psychol. Study Social Issues; Nursery Educ. Asn. (exec. cmt, 30, nat. nursery sch. cmt, 29); Pacific Coast Nursery Sch. Asn. (pres, 29–31, director, 31–33); Ind. Asn. Clin. Psychol. (sec'y-treas, 36–); Ind. Cong. Social Work (director, 37–). Mental hygiene; parent-child relationships; nursery education; effect of interest on learning; guided and unguided learning; errors of measurement.

Oskamp, Prof. Joseph, Route 3, Ithaca, N. Y. *Pomology.* Cincinnati, Ohio, Jan. 22, 88. B.S, Missouri, 12. Asst. hort, Exp. Sta, Purdue, 12–13, pomol, 14–16, assoc, 17–20; horticulturist, Mo. Fruit Exp. Sta, 20–21; exten. prof. pomol, N. Y. State Col. Agr, Cornell, 21–41; *retired.* Soc. Hort. Sci. Orchard nutrition; soil management; fertilization; pruning; soils in relation to fruit growing.

Oslund, Dr. Robert M, 1355 Wilshire Blvd, Los Angeles, Calif. *Physiology.* Great Falls, Mont, Oct. 14, 93. A.B,

Montana, 20; Ph.D, Chicago, 23, M.D, Rush. 32. Instr. physiol. and pharmacol, sch. med, Vanderbilt, 23–25: asst. prof. physiol, col. med, Illinois, 25–27, assoc. prof. 27–30, acting head dept, 31; *diagnosis and endocrinol. Ross-Loos Med. Group, 31–* Asn. Study Int. Secretions. Cryptorchidism and hormone production; vasectomy in rats, guinea pigs and dogs; interstitial cell hypertrophy; vasectomy and rejuvenescence; the testicular hormone; physiological tests of spermatoxin; follicular extracts; vasa efferentia ligation; effects of x-rays on testes.

Osman, Dr. Elizabeth M(ary), 918 Madison St, Wilmington, Del. *Organic chemistry.* Ottawa, Ill, April 29, 15. B.S, Illinois, 37, M.S, 38; Ph.D, Bryn Mawr Col, 42. Lit. searcher, *Hercules Powder Co, 41–42, research chemist, 42–* Chem. Soc. Polymerization.

Osmun, Prof. A(lbert) Vincent, Massachusetts State College, Amherst, Mass. *Botany.* Danbury, Conn, Jan. 20, 80. B.Agr, Conn. Agr. Col, 00; B.S, Boston, 03; B.S, Mass. Col, 03, M.S, 05. Asst, Conn. Exp. Sta, 00–02; instr. *bot,* Mass. Col, 03–07, asst. prof, 07–14, assoc. prof, 14–16, *prof. and head dept, col. and Exp. Sta,* 16–31, *Mass. State Col, 31–* A.A; Bot. Soc; Phytopath. Soc; Fern Soc. (sec'y, 04); New Eng. Bot. Club. Ferns and flora of New England; soil bacteria; plant pathology; mycology; cryptogamic botany.

Osol, Dr. Arthur, Philadelphia College of Pharmacy and Science, Philadelphia, Pa. *Chemistry.* Riga, Latvia, Dec. 1, 05. Ph.G, Phila. Col. Pharmacy, 25, B.S, 28; M.S, Pennsylvania, 31, Ph.D, 33. Asst. chem, *Phila. Col. Pharmacy,* 28–30, instr, 30–33, asst. prof, 33–34, assoc. prof. physical chem, 34–37, *prof. physical chem. and director chem. labs, 37–, asst. dean, 35–* Co-editor, 'U. S. Dispensatory'; assoc. ed, 'Remington's Practice of Pharmacy'; tech. ed, 'Am. Druggist.' Mem. health cmt, League of Nations, 33–37. Chairman physical chem. cmt, Nat. Conf. Pharmaceut. Research, 34–41. A.A; Chem. Soc. (councilor, 41–; chairman Phila. sect, 43–); Pharmaceut. Asn. (chairman Phila. sect, 39, del, 40–43); fel. Inst. Chem; Electrochem. Soc; Franklin Inst. Activity coefficients of molecular acids in salt solutions; opium analysis; solubility of xanthines in amine solutions.

Ostenson, Prof. Burton T(homas), Michigan State College, East Lansing, Mich. *Zoology.* Elbow Lake, Minn, March 20, 12. A.B, Luther Col, 32; M.S, Michigan, 34, Edwin B. Hinsdale scholar, 35–36. Asst, lab. vertebrate genetics, Michigan, 32–33, mammal div, museum zool, 33–35; instr. *zool, Mich. State Col,* 36–42, *asst. prof, 42–* Soc. Mammal; Wildlife Soc; Mich. Acad. Mammals of the Nebraska sandhills; population studies of mammals; life history studies on the otter; wildlife management.

Oster, Prof. Robert H(arold), University of Maryland Medical School, Baltimore, Md. *Physiology.* Tyrone, Pa, Sept. 23, 01. B.S, Pa. State Col, 23, M.S, 26; Ph.D, Harvard, 33. Instr. physics, Pa. State Col, 24–26; asst. biophys, Harvard, 26–28; instr. physics, Williams Col, 28–31; asst. gen. physiol, Harvard, 31–33, fellow, 33–34, research fellow *med,* Harvard Med. Sch, 34–36; asst. prof, *med. sch, Maryland,* 36–43, *assoc. prof, 43–* Summers, fellow, Marine Biol. Lab, Woods Hole, 33, 34. Physiol. Soc. Biophysics; effects of ultraviolet light and x-rays on biological systems; penetration of light into ocean waters and its relation to marine plankton; the effects of irradiation on malignant tumors; tissue ions; muscle action potentials; electroencephalography.

Osterberg, Dr. Arnold E(rwin), Mayo Clinic, Rochester, Minn. *Chemistry.* Minneapolis, Minn, Feb. 9, 94. B.S, Washington (Seattle), 16; M.S, Minnesota, 20, Ph.D, 25. Asst. chem, Washington (Seattle), 16–17; instr, high sch, Wash, 17; *assoc. chemist, Mayo Clinic, 17–, head sect. clin. biochem, 29–; assoc. chemist, Mayo Foundation, Minnesota, 17–,* asst. prof. *physiol. chem, univ,* 25–31, *assoc. prof, 31–* A.A; Chem. Soc; Soc. Biochem. Organic chemistry; biochemistry; thyroxin; organic synthesis; clinical methods and clinical investigation.

Osterberg, Dr. Harold, 260 Hastings Ave, Buffalo, N. Y. *Physics.* Hammar, Norway, 05. A.B, Wisconsin, 27, Ph.D, 31. Asst. physics, Wisconsin, 28–37; *with Spencer Lens Co, 37–* Thermodynamics; piezoelectricity; elasticity; thermoelasticity; electrostriction; piezodielectric effect.

Osterbrock, Prof. W(illiam) C(arl), University of Cincinnati, Cincinnati, Ohio. *Electrical engineering.* Cincinnati, Ohio, Dec. 17, 93. E.E, Cincinnati, 18. Instr. *elec. eng, Cincinnati,* 18–22, asst. prof, 22–27, assoc. prof, 27–37, *prof, 37–* Elec. Eng; Radio Eng.

Osterhof, Prof. G(erard) G(ordon), South Dakota State School of Mines and Technology, Rapid City, S. Dak. *Chemistry.* Greenleafton, Minn, Aug. 22, 99. A.B, Hope Col, 20; M.S, Ohio State, 21. Ph.D, 23. Asst. *chem,* Ohio State, 20–22; Nat. Lime Asn. fellow, 22–23; asst. prof, *S. Dak. Sch. Mines and Tech,* 23–27, assoc. prof, 27–39, *prof, 39–, head dept, 42–* Eng. Educ; Chem. Soc. General chemistry and qualitative analysis; electrochemistry; industrial chemistry.

Osterhout, Dr. M(arian) I(rwin), 182 E. End Ave, New York, N. Y. *Physiology.* Tokyo, Japan, June 16, 88. A.B, Bryn Mawr Col, 13; Ph.D, Radcliffe Col, 19. Nat. research fellow, Radcliffe Col, 23–25; assoc, div. gen. physiol, Rockefeller Inst, 25–33. A.A; Bot. Soc; Harvey Soc; Soc. Exp. Biol; Physiol. Soc. Cell permeability.

Osterhout, Dr. W(inthrop) J(ohn) V(anleuven), Rockefeller Institute, New York, N. Y. *[#1]Botany.* Brooklyn, N. Y, Aug. 2, 71. A.B, Brown, 93, A.M, 94; Bonn, 95–96; Ph.D, California, 99; hon. Sc.D, Harvard, 25, Brown, 26. Instr. bot, Brown, 93–95; California, 96–01, asst. prof, 01–08, assoc. prof, 08–09; asst. prof, Harvard, 09–13, prof, 13–25; mem, *Rockefeller Inst,* 25–39, *emer. mem, 39–* Hitchcock lecturer, California, 19; Colver lecturer, Brown, 22, Sedgwick Mem. lecturer, 25. Joint ed, 'Jour. Gen. Physiol.' Board directors, Rockefeller Inst, 20–25; trustee, Marine Biol. Lab, Woods Hole. Nat. Acad; A.A; Soc. Nat; Bot. Soc; Physiol. Soc; Soc. Exp. Biol; Chem. Soc; Philos. Soc; Am. Acad; New Eng. Bot. Club; Wash. Acad; cor. mem. Acad. Nat. Sci. Phila; hon. mem. Bot. Soc. Edinburgh; Halle Akad. der Naturforscher; Kung. Physiog. Säl, Lund, Sweden. Spindle formation and fertilization in plants; antagonism; permeability; electrical conductivity; respiration; photosynthesis; bioelectric phenomena.

Osterman, Dr. Elizabeth, U. S. Public Health Service, 112 Federal Office Bldg, San Francisco, Calif. *Bacteriology.* Walla Walla, Wash, July 27, 10. A.B, Washington (Seattle), 32, M.S, 37; Ph.D, Yale, 40. Research assoc. bacter, Washington (Seattle), 41–42; *asst. bacteriologist, dist. five, U. S. Pub. Health Service, 42–* Soc. Bact. Variation of organisms of the Friedländer and aerogenes groups; relationships between the coli-aerogenes and Friedländer groups of organisms.

Osterud, Prof. H(jalmar) L(aurits), Medical College of Virginia, Richmond, Va. *Anatomy.* Spring Valley, Minn, March 15, 83. A.B, Washington (Seattle), 09, A.M, 10; Columbia, 10–11; Ph.D, Minnesota, 21. Instr. zool, Washington (Seattle), 11–17; teaching fellow, Minnesota, 17–18, instr. *anat,* 18–19, 20–21, asst. prof, 21–22; prof, Alabama, 19–20; assoc. prof, *Med. Col. of Va,* 22–24, *prof, 24–* A.A; Asn. Anat; Soc. Zool; Va. Acad. Embryology; growth.

Osterud, Dr. K(enneth) L(eland), University of Minnesota, Minneapolis, Minn. *Protozoology.* Seattle, Wash, Feb. 23, 14. A.B, Randolph-Macon Col, 35; Ph.D, N. Y. Univ, 41. Asst. biol, N. Y. Univ, 35–41; *instr. zool, Minnesota, 41–* A.A; Micros. Soc. Nutrition of Protozoa.

Ostrander, Prof. Allen R(oys), University of Missouri, Columbia, Mo. *Geology.* Samokov, Bulgaria, June 14, 07. B.S, Hamilton Col, 29; M.S, Wisconsin, 31; Ph.D, Washington (St. Louis), 38. Instr. geol. and geog, Missouri, 38–39; DePauw, 39–41; assoc. prof, Phillips, 41–43; *asst. prof. geog, Missouri, 43–* Summer, instr, Cent. Mo. State Teachers Col, 39. Ind. Acad; Oklahoma Acad. Heavy mineral assemblages from upper Cambrian formations as exposed at Coon Valley and Victory, Wisconsin.

Ostrofsky, Dr. Morris, Gulf Oil Corporation, P. O. Box 1166, Pittsburgh, Pa. *Physics, Petroleum engineering.* Boguslav, Russia, June 18, 09. B.S, Pittsburgh, 29; Ph.D, Wisconsin, 37. Smoke fellow, Mellon Inst, 29–30; asst, Wisconsin, 30–35; *process engineer, Gulf Oil Corp, 36–* Instr, Duquesne, 38–40; Carnegie Inst. Tech, 41– A.A; Physical Soc. Complex spectra; nuclear structure of lithium; problems in distillation.

Ostrolenk, Morris, 2500 14th St, N.E, Washington, D. C. *Bacteriology.* Gloversville, N. Y, Aug. 10, 04. Cornell, 25–27; B.S, Maryland, 29; A.M, George Washington, 35. Bacteriologist, Import Milk Sta, Rouses Point, N. Y, 29–30; junior bacteriologist, *bacteriological sect, food and drug admin,* U. S. Dept. Agr, 31–36, *assoc. bacteriologist, Fed. Security Agency, 39–* Asn. Official Agr. Chem; Soc. Bact; Pub. Health Asn.

Bacteriology and sanitary aspects of crab meat production; cytogenesis of Cerion incanum.

Ostrom, Dr. G(ustaf) E(smer), 533 Earlham Drive, Whittier, Calif. *Inorganic chemistry.* Moline, Ill, June 8, 88. A.B, Augustana Col. (Ill), 09, A.M, 11; California, 20–21; Ph.D, Iowa, 30; hon. Sc.D, Whittier Col, 38. Instr. chem, Augustana Col. (Ill), 08–10; Illinois, 10–11; prof, Whittier Col, 11–40, registrar, 24–25; *director chem. research, Chemre Corp, 40–* Instr, Iowa, 29–30. A.A; Soc. Test. Mat; Chem. Soc. Cyclonic distribution of rainfall; decomposition of thiosulfuric acid; fractional precipitation; borides of chromium; alloys by powder method; high polymers.

O'Sullivan, Prof. Paul M(ichael), 313 Brunswick Ave, Toronto, Ont, Can. *Physiology.* Toronto, Ont, March 22, 90. Fellow, Toronto, 10–12, M.A, 11, M.B, 15, Ph.D, 22. Asst. prof. physiol, *Toronto,* 29–30, *assoc. prof. psychol, St. Michael's Col, 30–* Director labs, Christie St. Hosp, Toronto. History of medicine.

Oswalt-Lotz, Prof. Edna Rickey (Mrs. Glen DeWitt Oswalt), Kent State University, Kent, Ohio. *Psychology.* Albany, Ohio, April 22, 97. A.B, Ohio (Athens), 17, B.S, 20; A.M, Ohio State, 21, Ph.D, 24. Psychologist, State Bur. Juvenile Research, Ohio, 20–22; training teacher special educ, Columbus Nor. Sch, 23–31; director private sch. for handicapped children and consulting psychologist, Columbus, 31–34; supervisor special educ, West. State Teachers Col, Mich, 34–36; asst. prof. *psychol, Kent State Univ,* 36–37, *assoc. prof, 37–* Summers, prof, Syracuse, 29–32. A.A; assoc. Psychol. Asn; Ohio Acad; Mich. Acad; Int. Council Educ. Exceptional Children. Experimental and abnormal psychology; endocrinology; exceptional children.

Ota, Dr. Robert K(azuo), Marquette University School of Medicine, Milwaukee, Wis. *Pharmacology.* Puna, Hawaii, Dec. '24, 10. A.B, Hawaii, 34; M.D, Marquette, 39. Res. *pharmacol, sch. med, Marquette,* 38–39, *instr, 39–* A.A. Malaria; chemotherapy of avian malaria.

Otero, José I(dilio), Institute of Tropical Agriculture, Mayagüez, P. R. *Botany.* Mayagüez, P. R, March 27, 93. Puerto Rico, 14, 20–22; Columbia, 30, 32. Teacher, schs, P. R, 09–14; minor surgeon, Dept. Health, P. R, and supt, Leper Colony, 15–18; minor surgeon, Central Mercedita, 19; librarian and curator herbarium, Exp. Sta, Puerto Rico, 22–42; *librarian, Inst. Trop. Agr, 42–* Med. Corps, 18. Sociedad Americana de Ciencias Agricolas (sec'y bot. sect, 41–); Britton-Stahl Bot. Club (sec'y-treas, 35–). Flora of Puerto Rico and the Caribbean; systematic botany and bibliography.

Othmer, Prof. D(onald) F(rederick), 99 Livingston St, Brooklyn, N. Y. *Chemical engineering.* Omaha, Nebr, May 11, 04. Armour Inst. Tech, 21–23; B.S, Nebraska, 24; M.S, Michigan, 25, Ph.D, 27. Chemist, Cudahy Packing Co, 24; chem. and develop. engineer, Eastman Kodak Co, Rochester, and Tenn. Eastman Co, Kingsport, 27–30; *consulting chem. engineer, 31–;* instr. *chem. eng, Polytech. Inst. Brooklyn,* 32–33, asst. prof, 33–37, *prof. and head dept, 37–* Consultant, Chem. Warfare Service, U. S. Army, 42–; War Production Board, 42–; Inter-Am. Develop. Cmn, 42–; Inst. de Fomento Indust, Colombia; senior gas officer, Brooklyn, N. Y, 43– A.A; Chem. Eng. (admissions cmt, 40–42); Eng. Educ; Chem. Soc. Flow of heat; distillation; absorption; extraction; liquid-vapor and liquid-liquid equilibria; industrial processes for acetic and other organic acids and solvents; waste wood utilization; synthesis of organic chemicals; lignin; chemical machinery and plant design.

Othmer, Prof. M(urray) E(ade), Tufts College, Medford, Mass. *Chemical engineering.* Muscatine, Iowa, Aug. 6, 07. B.S, Grinnell Col, 29; Rochester, 30–31; M.S, Michigan, 33. Asst. supervisor heavy chem, Eastman Kodak Co, 29–32; develop. research engineer, Calco Chem. Co, 33–36; tech. director, C.A.I. Productora de Grasas, Venezuela, 36–40; instr. *chem. eng, Tufts Col,* 40–41, asst. prof, 41–42, *assoc. prof, 42–* Chem. Eng; Chem. Soc; Eng. Educ. Heavy chemicals; liquid-liquid extraction; vegetable oil refining.

Otis, Dr. Arthur B(rooks), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *General physiology.* Grafton, Maine, Sept. 11, 13. A.B, Maine, 35; M.Ed, Int. Y.M.C.A. Col, 37; M.S, Brown, 39, Ph.D, 41. Research assoc. cellular physiol, Iowa, 41–42; *instr. physiol, sch. med. and dentistry, Rochester, 42–* Mode of action of drugs and ions; activation and behavior of protyrosinase.

Otis, Dr. Arthur S(inton), 313 Park Hill Ave, Yonkers, N. Y. *Psychology, Mathematics.* Denver, Colo, July 28, 86. A.B, Stanford, 10, A.M, 15, Ph.D, 20. Director research, Office Surgeon Gen, War Dept, 17–18, develop. specialist, 20–21; psychologist, Cheney Bros. Silk Mills, 18–19; instr. statist. method, Stanford, 19; ed, standard tests and math. text-books, *World Book Co,* 21–38; *psychol. consultant, 38–* Summers, instr, Stanford, 20; N. Y. Univ, 23. Lieut, Sanit. Corps, U. S. Army, 17–19. A.A; Psychol. Asn; Soc. Study Educ; Educ. Research Asn; tech. mem. Inst. Aeronaut. Sci. The measurement of intelligence; the teaching of mathematics and aeronautics; self-administering tests of mental ability.

Otis, Prof. Cha(rle)s H(erbert), Bowling Green State University, Bowling Green, Ohio. *Biology.* Raymond, Nebr, Jan. 25, 86. A.B, Michigan, 10, Ph.D, 13. Asst. bot, Michigan, 09–10, curator bot. garden and arboretum, 10–12, acting director and asst. bot, 12–13; instr, Cornell, 13–15; New Hampshire, and asst. botanist, Exp. Sta, 15–16; instr. *biol,* Western Reserve, 16–19, asst. prof, 19–27; Wisconsin, 27–30; *Bowling Green State Univ,* 30–34, assoc. prof, 34–38, *prof, 38–* Exten. service, Exp. Sta, Vermont, 15; plant disease surv, bur. plant indust, U. S. Dept. Agr, 18; Pa. State Col, 27. A.A; Bot. Soc; Limnol. Soc; Wilson Ornith. Club; fel. Ohio Acad. Woody plants; transpiration; biological technique; invertebrate zoology; physiology.

Otis, Prof. H(erbert) N(ewell), 114 W. 183rd St, Bronx, New York, N. Y. *Physics.* Bloomingdale, N. Y, April 24, 05. B.S, Union (N. Y), 27, M.S, 29; Ph.D, Yale, 33. Instr. *physics, Hunter Col,* 32–37, *asst. prof, 37–, chairman dept, 40–* Physical Soc; Asn. Physics Teachers. Magnetism.

Otis, Dr. Russell M(orley), 2245 Las Lunas St, Pasadena, Calif. *Physics.* New Brunswick, N. J, Jan. 17, 00. B.S, Calif. Inst. Tech, 20, fellow, 20–24, Ph.D, 24. Tech. staff, Bell Tel. Labs, 24–27; *research engineer,* Hughes Develop. Co, 27–31; Multicolor, Ltd, 31; Burt-Warner Power Corp, 32–33; consulting engineer and patent attorney, Los Angeles and Pasadena, Calif, 33–41; *research engineer, Lane-Wells Co, 41–* Cosmic rays; colored motion pictures; heat insulation; electronics.

O'Toole, Dr. A(lphonsus) L(awrence), Federal Communications Commission, Washington, D. C. *Statistics, Mathematics, Psychology.* Peterboro, Ont, Can, April 11, 02. B.A, Toronto, 23; John Marshall Law Sch, 25–26; Chicago, 25–28, 38–41; M.S, Michigan, 30, Ph.D, 31. Instr. math, St. Jerome's Col, 23–25; John Carroll, 25–29; Michigan, 29–31; nat. research fellow, Minnesota, 31–32; prof. math. and physics and head dept, Mary Manse Col, 32–35; math. and statist, Col. of St. Catherine, 35–38; prof, Mundelein Col, 39–41; *engineer, Fed. Communications Cmn, 41–; lieut, U. S. Naval Res, 42–* Assoc. ed, 'Annals Math. Statist,' 31–37. Fel. Inst. Math. Statist; Math. Asn. (pres, Minn. sect, 37); Statist. Asn. Scientific methods in the investigation and interpretation of social and economic phenomena.

Ott, Dr. E(lls) R(aymond), University of Buffalo, Buffalo, N. Y. *Mathematics.* Dexter, Kans, Dec. 14, 06. A.B, Southwestern Col. (Kans), 28; fellow, Kansas, 28–29, A.M, 29; fellow, Illinois, 31–32, Ph.D, 33. Instr. *math,* Illinois, 29–31; Arkansas, 32–33; *Buffalo,* 33–37, asst. prof, 37–41, *assoc. prof, 41–* Math. Soc; Math. Asn. Algebraic geometry; college algebra.

Ott, Dr. Emil, Hercules Powder Co, Wilmington, Del. *Chemistry.* Zurich, Switzerland, May 19, 02. Swiss Inst. Tech, Zurich, 25, Dr.Sc, 27. Asst. physics, Zurich, 25–27; Am. Petrol. Inst. fellow, 28–29; asst. prof. chem, Hopkins, 29–33; develop. dept, *Hercules Powder Co,* 33–37, head research dept, 37–39, *director research, 39–* A.A. (v. chairman org. high molecular weight polymers, Gibson Island Conf, 44); Chem. Soc; Chem. Eng; Indust. Research Inst; Chemists Club. X-rays; sulfur compounds; polymers; terpenes; resins; cellulose and its derivatives.

Ott, Dr. George L(ewis), Cedarburg, Wis. *Bacteriology, Parasitology.* Marinette, Wis, Sept. 17, 09. Ph.D, Wisconsin, 36. *Director research, Herbert A. Nieman and Co, 36–* Bacterial and virus disease of silver fox and mink; parasitic diseases of silver fox and mink; nutrition of fur bearing animals.

Ott, Harry G(lenn), 64 Corwin Road, Rochester, N. Y. *Physics.* Brookings, S. Dak, Nov. 8, 94. B.S, Chicago, 17. Sci. director, Spencer Lens Co, Buffalo, 17–37, v. pres, 34–37; tech. director, Waltham Watch Co, 37–39; *scientist, aerial mapping equipment, Bausch and Lomb Optical Co, 39–* A.A;

Soc. Photogrammetry; Optical Soc. Lens design and mathematical methods of lens design; physical optics.

Ott, Prof. P(ercy) W(right), Ohio State University, Columbus, Ohio. *Mechanics.* Mt. Hermon, La, Sept. 24, 89. B.S, Illinois, 17; Toulouse, 19; M.S, Ohio State, 30. Instr. mech, *Ohio State,* 19–20, mech. and mining eng, 20–21, asst. prof. *mech,* 21–24, assoc. prof, 24–30, *prof, 30–, chairman dept.* C.Eng, 17–19, capt. Civil Eng. Strength of materials; vibration; airplane instruments; fluid mechanics.

Ott, Dr. Walther H(enry), 2089 Church St, Rahway, N. J. *Biochemistry.* Hermiston, Oregon, Sept. 30, 11. B.S, Oregon State Col, 34, fellow, 34–36, M.S, 36; fellow, Pa. State Col, 37–39, 39–41, Ph.D, 42. Asst. poultry husbandry, Okla. Agr. and Mech. Col, 36–37; *biochemist, Merck Inst. Therapeut. Research, Merck and Co, Inc, 42–* Chem. Soc; Poultry Sci. Asn. Chick nutrition.

Ott, Prof. William P(inkerton), University of Alabama, University, Ala. *Mathematics.* Augusta Co, Va, Dec. 12, 76. A.B, Washington and Lee, 00, A.M, 01; Ph.D, Chicago, 17. Instr, Univ. Sch, Nashville, Tenn, 01–09; from instr. to assoc. prof. *math,* Vanderbilt, 09–24; *prof. and head dept, Alabama, 24–* A.A; Math. Soc; Math. Asn; Ala. Acad. Analysis; calculus of variations.

Otte, Prof. B(urton) J(ohn) H(enry), University of Florida, Gainesville, Fla. *Chemistry.* Northfield, Minn, Jan. 21, 97. A.B, Carleton Col, 18; M.S, Florida, 30. *Curator chem, Florida, 25–,* asst. prof, 27–37, *assoc. prof, 37–* Curator, L. M. Drake Mem. Lab, 37– C.W.S, 18–19. Chem. Soc. (sec'y, 30–36, v. chairman, 36, chairman, 37). Pine oleoresin; laboratory equipment; shark repellants.

Otte, Prof. Herman F(rederick), Columbia University, New York, N. Y. *Economic geography.* Colfax Co, Nebr, March 4, 03. A.B, Nebraska, 28, M.S, 29; Ph.D, Columbia, 40. Asst. geog, Nebraska, 28–30; *econ. geog, Columbia,* 30–31, lecturer, 31–36, instr, 36–41, *asst. prof, 41–* Soil surveyor, Nebr. Conservation and Surv. Div, 30. Summer, econ. geographer, State Div. Commerce, N. Y, 42. A.A; Econ. Asn; Am. Geog. Soc. Regional economic geography; industrial geography of minerals.

Ottenberg, Dr. Reuben, 1112 Park Ave, New York, N. Y. *Medicine, Biology.* New York, N. Y, 82. A.B, Columbia, 02, M.D, 05. Instr. bacter, Columbia, 13–20; adj. physician and *assoc. physician, Mt. Sinai Hosp, 20–* A.A; Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc; N. Y. Path. Soc; N. Y. Acad. Blood transfusion; heredity of the blood groups.

Otterbacher, Theo(dore) J(ohn), 3002 Bethel Blvd, Zion, Ill. *Chemistry.* Zion, Ill, Sept. 16, 04. A.B, Zion Col, 25. Instr. chem, Zion Educ. Institutions, 23–33; chief chemist, Zion Institutions and Industries, 29–35; consultant, Sperry Candy Co, Milwaukee, Wis, 33–37; *research fellow, Miner Labs, Corn Products Ref. Co, 35–; consultant, 37–* Chem. Soc; Asn. Cereal Chemists; Soc. Bakery Eng; Bakery Technicians Amer. Biscuits; candy; flavors; food colors; general food technology.

Ottley, Dr. Alice M(aria), Lakeland, Fla. *Botany.* Seneca Castle, N. Y, Nov. 20, 82. A.B, Cornell, 04; A.M, Wellesley Col, 06; Ph.D, California, 21. Asst. bot, Wellesley Col, 04–06, 07–09, instr, 09–16, 17–19, asst. prof, 19–22, curator herbarium, 22–39, assoc. prof. bot, 22–34, prof, 34–39. Exchange prof, Univ. Witwatersrand, S. Africa, 25. A.A; Bot. Soc; Genetic Asn; Torrey Bot. Club. Comparative morphology; taxonomy of flowering plants.

Otto, Prof. Belle, Goucher College, Baltimore, Md. *Analytical chemistry.* Sayville, N. Y, Jan. 1, 05. A.B, Columbia, 26; A.M, Mt. Holyoke Col, 28; Ph.D, Hopkins, 40. Fellow and asst. chem, Mt. Holyoke Col, 26–28; instr, *Goucher Col,* 28–38, asst. prof, 38–42, *assoc. prof, 42–* Chemist, Frankford Arsenal, 42–43. A.A; Chem. Soc. Catalysis for the combustion of organic substances containing nitrogen.

Otto, Prof. Carl, University of Maine, Orono, Maine. *Chemistry.* Covington, Ky, Nov. 6, 95. A.B, Cincinnati, 16, A.M, 20, Ph.D, 22. Asst. chem, Cincinnati, 16–21, instr. chem. eng, 21–24; asst. prof. *chem, Maine,* 24–38, *assoc. prof, 38–;* major, *Chem. Warfare Service, U. S. Army,* 40–42, *lieut. col, 42–* A.A; Chem. Soc. (v. chairman, Maine sect, 25, chairman, 27). Physical chemistry; microchemistry; analytical chemistry.

Otto, Dr. Earl, 215 Route Boissezon, Shanghai, China. *Chemistry.* Covington, Ky, Aug. 6, 99. A.B, Cincinnati, 19, A.M, 20, fellow, 26–27, Ph.D, 31. Lab. instr. chem, Cincinnati, 19–20; civil service chemist, Edgewood Arsenal, 20–21; prof. chem. and head dept, Nantung Tech. Sch, China, 21–26; asst. prof, Clemson Col, 27–28; prof, Albright Col, 28–29; Ashland Col, 29–31; Cotner Col, 31–33; gen. inspector, *Nat. Carbon Co,* Cleveland, 34–35, *overseer Shanghai plant, China, 35–* Chem. Soc. Reaction of organic compounds with fused alkalis; hydroxides.

Otto, Dr. George H(erman), University of Missouri, Columbia, Mo. *Petrography.* Brookville, Ind, April 24, 08. B.S, Chicago, 31, Ph.D, 42; Calif. Inst. Tech, 31–32. Asst. geol, Ill. State Geol. Surv, 30–35; asst. geologist and sedimentary petrographer, soil conservation service, U. S. Dept. Agr, 35–41; lab. technician, hydrodynamics lab, Chicago, 42–43; *asst. prof. geol, Missouri, 43–* Summer, geochem. consultant, La. Land and Explor. Co, Houma, 40. Sedimentary petrography; problems of sampling sediments and the interpretation of mechanical analyses of sediments; foundation problems of Chicago.

Otto, Dr. G(ilbert) F(red), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Parasitology.* Chicago, Ill, Dec. 16, 01. A.B, Kalamazoo Col, 26; M.S, Kans. State Col, 27; Sc.D, Hopkins, 29. Asst. zool, Kans. State Col, 26–27; *parasitol, sch. hygiene and pub. health, Hopkins,* 27–29, instr, 29–31, assoc, 31–42, *assoc. prof, 42–, asst. dean, 40–* Summers, mem. and director field expeds, 28–32. A.A; Soc. Parasitol. (treas, 37–40); Micros. Soc; Soc. Trop. Med; Malaria Soc; Pub. Health Asn; Helminth. Soc. Wash. (pres, 35, ed. cmt, 'Proc'). Epidemiology of ascaris in southern United States; biology of ascaris; epidemiology of hookworm; experimental hookworm disease; immunity to parasitic infections; trichinosis.

Oughterson, Dr. A(shley) W(ebster), Yale University, New Haven, Conn. *Surgery.* Seneca, N. Y, Sept. 28, 95. M.D, Harvard, 24; William Harvey Cushing Mem. fellow, Yale, 28–29, M.S, 29. House officer path, Peter Bent Brigham Hosp, Boston, 24–25, asst. res. surgeon, 27–28; surg, New York Hosp, 25–27; res. surgeon, Bellevue Hosp, New York, 27; asst. prof. *surg, sch. med, Yale,* 29–34, *assoc. prof, 34–* Assoc. surgeon, New Haven Hosp, and New Haven Dispensary, 29–A.A. Vascular diseases; tumors; experimental surgery.

Over, W(illiam) H(enry), 125 N. Harvard St, Vermillion, S. Dak. *Anthropology, Biology.* Albion, Ill, June 10, 66. Hon. D.Sc, South Dakota, 36. In charge *museum, South Dakota, 13–, director.* Anthrop. Asn; Wilson Ornith. Club. Birds; reptiles; flora of South Dakota.

Overbaugh, Dr. S(idney) C(harles), E. I. du Pont de Nemours and Co, Arlington, N. J. *Organic chemistry.* Pullman, Wash, May 20, 05. B.Sc, Alberta, 31, Robt. Tegler scholar, 32–33, M.Sc, 33; Ph.D, McGill, 35. *Research chemist, E. I. du Pont de Nemours and Co,* 35–37, *plastics dept,* 37– Bacterial action of alkylresorcinol carboxylic acids; the Grignard reagent on benzanthrone.

Overbeck, Prof. Clarence J(acob), 2410 Thayer St, Evanston, Ill. *Physics.* Holland, Ind, March 14, 01. A.B, Indiana, 25, A.M, 26; Ph.D, Northwestern, 31. Indiana, 25–26; from instr. to *assoc. prof. physics, Northwestern,* 27– Physical Soc; Asn. Physics Teachers. Sound and supersonics.

Overcash, Prof. H(inton) B(axter), Hampden-Sydney College, Hampden-Sydney, Va. *Biology.* Statesville, N. C, Sept. 6, 94. B.S, Davidson Col, 15; Virginia, 17; A.M, Columbia, 26. Asst. biol, Davidson Col, 13–15, acting prof, 18–19; *prof.* nat. science, Catawba Col, 15–17, 20–22; Palmer Col, 19–20; *biol, Hampden-Sydney Col, 22–* Va. Acad. Bacteriology; milk survey in rural Virginia.

Overcash, Dr. J(ean) P(arks), University of Tennessee West Experiment Station, Jackson, Tenn. *Horticulture.* Kannapolis, N. C, Aug. 15, 17. B.S, N. C. State Col, 38; Alumni scholar, Wisconsin, 38–40, M.S, 39, Ph.D, 41. *Research horticulturist, Exp. Sta, Tennessee, 42–* Soc. Hort. Sci; Soc. Plant Physiol; Phytopath. Soc. Strawberry breeding and inheritance; vegetable crops.

Overhage, Dr. Carl F. J, Radiation Laboratory, Massachusetts Institute of Technology, Cambridge, Mass. *Experimental physics.* London, Eng, April 2, 10. B.S, Calif. Inst. Tech, 31, M.S, 34, Ph.D, 37. Physicist, Technicolor Motion Picture Corp, 37–40, acting director research, 40–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Optical Soc. Photoelectric effect; color cinematography.

Overholser, Prof. E(arle) L(ong), State College of Washington, Pullman, Wash. *Pomology.* Kansas City, Mo, Dec. 19, 88. B.S.A, Missouri, 13, fellow, 13–14; Ph.D, Cornell, 26. Asst. bot, Missouri, 11–13; instr. pomol, Cornell, 14–17, asst. prof, 17–18; exchange prof. from Cornell, California, 18–19, asst. prof, 19–29. assoc. prof, 29–30; *prof. hort. and head dept, State Col. Wash, 30–* Asst, Cornell, 25–26, acting prof, 35–36; collaborator, regional salinity lab, bur. plant indust, U. S. Dept. Agr, 38–41, prin. technologist, west. regional research lab, bur. agr. chem. and eng, 41–43, collaborator, 43. Mem. arboretum advisory council, Washington (Seattle), 40– Del. from Univ. Calif. and Pacific States Cold Storage Warehousemen's Asn, 4th Int. Cong. Refrig, London. A.A; Hort. Soc; Soc. Hort. Sci; Bot. Soc; Soc. Plant Physiol; Wash. State Hort. Asn. (director, 34–). Color production, pollination and cold storage of fruits; physiology of fruits and fruit plants.

Overholser, Dr. Lyle G(roff), University of Virginia, University, Va. *Analytical chemistry.* Butte, N. Dak, Dec. 9, 11. B.S, Jamestown Col, 33; M.S, Minnesota, 35, Ph.D, 38. Asst. *anal. chem, Virginia,* 38–42, *instr, 42–* Jefferson prize, Va. Acad. Sci, 40; Interacad. award, 41. Chem. Soc. Adsorption and coprecipitation; organic analytical reagents.

Overholser, Prof. Milton D(avid), University of Missouri, Columbia, Mo. *Anatomy.* Harrisonville, Mo, Dec. 16, 00. A.B, Missouri, 23, A.M, 24; Ph.D, N. Y. Univ, 28, M.D, 31. Asst. *anat,* Missouri, 22–24, instr, 24–25; N. Y. Univ, 25–30; asst. prof, *Missouri,* 31–33, *chairman dept, 33–,* assoc. prof, 33–36, *prof, 36–* Sec'y, State Anat. Board, Mo, 33– A.A; Asn. Anat; Am. Med. Asn; Asn. Study Int. Secretions; Harvey Soc; Mo. State Med. Asn. (v. pres, 41). Endocrine glands; sex hormones; relation of internal secretions to new growths.

Overholser, Dr. Winfred, St. Elizabeths Hospital, Washington, D. C. *Psychiatry.* Worcester, Mass, April 21, 92. A.B, Harvard, 12; M.B, Boston, 15, M.D, 16, Sc.D, 40. Mem. staffs, Westboro, Gardner and Medfield State Hosps, Mass, 17–24, asst. to commissioner mental diseases, 24–25, director div. exam. prisoners, 25–30, asst. commissioner mental diseases, 30–34, commissioner, 34–36; director div. mental hosp. research, Nat. Cmt. Mental Hygiene, 37; *supt, St. Elizabeths Hosp, Fed. Security Agency, 37–; prof. psychiat, sch. med, George Washington.* Prof, sch. med, Boston Univ. Collaborator, 'Jour. Nervous and Mental Diseases'; mem. ed. board, 'War Med.' Mem. med. council, U. S. Veterans Admin; chairman cmt. neuropsychiat, Nat. Research Council. Am. Med. Asn; Psychiat. Asn. (sec'y-treas); Asn. Mental Deficiency; Cmt. Mental Hygiene (cmt. sci. admin); New Eng. Soc. Psychiat. (past pres); hon. mem. Mass. Psychiat. Soc. (past pres); Wash. Inst. Mental Hygiene (pres). Forensic psychiatry; hospital administration; gerontology.

Overholts, Prof. L(ee) O(ras), Pennsylvania State College, State College, Pa. **7Botany.* Camden, Ohio, June 23, 90. A.B, Miami (Ohio), 12; Lackland fellow, Washington (St. Louis), 12–15, Ph.D, 15. Instr. *bot, Pa. State Col,* 15–17, asst. prof, 17–20, assoc. prof, 20–25, *prof, 25–* Collaborator, U. S. Dept. Agr, 18– Torrey Bot. Club; Mycol. Soc. (v. pres, 37, pres, 38). Taxonomy of fungi; forest pathology; physiology of fungi.

Overley, F(red) L(loyd), Tree Fruit Branch Experiment Station, Wenatchee, Wash. *Horticulture.* Center Junction, Iowa, Dec. 30, 84. B.S, Iowa State Col, 12, M.S, 16. Asst. prof, Iowa State Col, 12–18; county agr. agent, exten. service, Iowa, 18–23; asst. prof. hort, *State Col. Wash,* 23–27, assoc, *tree fruit branch, Exp. Sta,* 27–37, *supt, 37–,* assoc. horticulturist, 41. Soc. Hort. Sci; Soc. Plant Physiol. Production problems with tree fruit, especially with pears and apples.

Overman, Dean J(ames) R(obert), 211 Clay St, Bowling Green, Ohio. *Mathematics.* Bedford, Ind, April 15, 88. A.B, Indiana, 09; A.M, Columbia, 14; Ph.D, Michigan, 30. Teacher, high sch, Ind, 09–12; Horace Mann High Sch, Teachers Col, Columbia, 12–14; *prof. math,* Bowling Green State Col, Ohio, 14–35, *Bowling Green State Univ, 35–, dean col. lib. arts, 30–* A.A; Math. Soc; Math. Asn; Council Teachers Math. Mathematics and pedagogy of mathematics.

Overman, Prof. O(liver) R(alph), University of Illinois, Champaign, Ill. *Chemistry.* Windfall, Ind, April 15, 86. A.B, Indiana, 10, A.M, 11; Ph.D, Cornell, 17. Teaching fellow, Indiana, 10–11; asst. chem, Cornell, 11–15; prof. chem. and geol, Huron Col, 15–17; assoc. *dairy chem, Illinois,* 17–19, asst. prof, 19–35, assoc. prof, 35–39, *prof, 39–* Chem. Soc. (councilor, S. Dak. sect, 16); Dairy Sci. Asn; S. Dak. Acad. (2nd v. pres, 15). Electrodeposition of lead; oxidation of hydrazin and ammonia; food values and dairy products; chemical composition of dairy products; chemical changes in butter during storage; nitrogen distribution in dairy products; keeping quality of powdered whole milk.

Overman, Dr. Ralph S(pencer), 37 Washington Square West, New York 11, N. Y. *Biological chemistry.* Huron, S. Dak, June 30, 16. A.B, Illinois, 38; M.S, Wisconsin, 40, Ph.D. 42. Asst. biochem, Wisconsin, 38–42; *research chemist, Maltine Co, 42–* Chem. Soc. Blood chemistry; studies on the anticoagulant 3, 3′-methylenebis, 4-hydroxycoumarin; blood substitutes; endocrinology.

Overmyer, Dr. Calvin J, Pine Bluff Arsenal, Pine Bluff, Ark. *Chemistry.* Lindsey, Ohio, Feb. 13, 97. B.S, Mich. State Col, 18; Rhodes scholar, Oxford, 19, Ph.D, 23. Research chemist, Wadsworth, Howland and Co, Inc; Peaslee-Gaulbert Paint and Varnish Co, Ky; from chief chemist to *gen. supt. plants, Devoe and Raynolds Co; col, Chem. Warfare Service, U. S. Army, and chief admin. div, Pine Bluff Arsenal.* Major and lieut. col, C.W.Res. Paints; varnishes; lacquers.

Overn, Prof. Oswald B(enjamin), 1222 St. Anthony Ave, St. Paul, Minn. *Physics.* Mankato, Minn, Jan. 26, 91. A.B, Minnesota, 12; M.S, Iowa, 18; Chicago, 19–20. Instr. *physics,* Luther Col, 12–19; *prof, Concordia Col, 20–* A.A; Physical Soc. X-rays.

Overpeck, Prof. J(ohn) C(lay), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Agronomy.* Rosedale, Ind, June 3, 95. B.S.A, Purdue, 17; M.S, Ohio State, 20. Asst. prof. agron, Wyoming, and asst. agronomist, Exp. Sta, 20–23; *prof. agron, N. Mex. Col, and agronomist, Exp. Sta, 23–,* acting dean agr, 35–36. Soc. Sugar Beet Technol; Soc. Agron. Farm crops, especially cotton and sugar beets.

Overstreet, Dr. Roy, 906 Regal Road, Berkeley, Calif. *Soil chemistry.* Nida, Okla, July 30, 03. B.S, California, 27, M.S, 30, Ph.D, 36. Jr. chemist and later *asst. chemist,* div. plant nutrition, *col. agr, California,* 38–40, *div. soils, 40–* Clay and soil colloids; reactions between plant roots and soil colloids.

Ovitz, Frank K(eehn), 1707 Central Ave, Whiting, Ind. *Chemical engineering.* Mineral Point, Wis, May 17, 82. B.S, Michigan, 05. Instr. chem. eng, Illinois, 06–07, chemist, eng. exp. sta, 07–08; asst. chemist, fuel engineer and supt, U. S. Bur. Mines, 08–20; *fuel engineer, Standard Oil Co. of Ind, 20–* Min. and Metal. Eng. Chemistry and utilization of fuels; petroleum; combustion.

Ovrebo, Prof. Paul J(ohannes), 210 W. Chestnut St, Selinsgrove, Pa. *Physics.* Summit, S. Dak, Aug. 3, 01. A.B, St. Olaf Col, 23; service scholar, Chicago, 26–28, Ph.D, 28, summers, 38–39. Pub. sch. supt, Minn, 23–25; asst. prof. *physics,* West Virginia, 28–30; *prof, Susquehanna, 30–; physicist, Wright Field, 43–* Instr, eng, science and management defense training program, night course, Pa. State Col, 41–42. Summers, director, Susquehanna, 37; instr, eng, science and management defense training program, Pa. State Col, 41. Physical Soc. Energy levels of platinum; pressure effect in platinum spectrum.

Owen, Prof. Benton B(rooks), Yale University, New Haven, Conn. *Physical chemistry.* Richmond, Va, Aug. 11, 00. Chem.E, Virginia, 22, 22–23; Paris, 23–24; Sterling fellow, Yale, 29–30, Ph.D, 30. Research chemist, Ethyl Gasoline Corp, 24–25; director tech. chem. honors sch, Univ. Punjab, India, 26–28; instr. *chem, Sterling chem. lab, Yale,* 30–35, asst. prof, 35–40, *assoc. prof, 40–* A.A; Chem. Soc; N. Y. Acad; Va. Acad. The thermodynamic properties of electrolytes in solution; standard electrode potentials; conductivity.

Owen, Ed(gar) W(esley), 532 Milam Bldg, San Antonio, Texas. *Geology, Geography.* Huntsville, Ark, June 20, 96. B.S, Denison, 15; A.M, Missouri, 16. *Geologist,* Empire Gas and Fuel Co, 16–17; Greenwood Co, 17–18; John C. Keys, 19–27; *oil div, L. H. Wentz, San Antonio, Texas, 27–; Air Force, U. S. Army, 42–, major.* Asn. Petrol. Geol. (sec'y-treas, 39–41, pres, 41); Texas Acad. Petroleum, Pleistocene and structural geology.

Owen, Dr. F(orrest) V(ern), U. S. Department of Agriculture, 1810 S. Main St, Salt Lake City, Utah. *Genetics.* Harrisville, Utah, Aug. 27, 99. B.S, Utah Col, 21; M.S, Oregon State Col, 23; fellow, Wisconsin, 24–25, Ph.D, 26. Asst. crops, Oregon, 21–23; assoc. biologist, Exp. Sta, Maine, 26–30;

geneticist, div. sugar plants, bur. plant indust, U. S. Dept. Agr, 30– A.A. Inheritance and physiology of sugar beets.

Owen, Prof. Gwllym E(myr), Antioch College, Yellow Springs, Ohio. *Physics.* Bangor, North Wales, Jan. 9, 97. Ph.B, Lafayette Col, 19; Ph.D, Pennsylvania, 28. Instr. *physics,* Williams Col, 19–20; Pennsylvania, 20–29; asst. prof, *Antioch Col,* 29–30, *chairman dept, 30–,* assoc. prof, 30–34, *prof, 34–* Exchange lecturer, Univ. Col. S. Wales and Monmouthshire, 38–39; Gen. Educ. Board fellow, Chicago, 41. Summers, asst, Gen. Elec. Co, 20; asst. physicist, Bur. Standards, 22. A.A; Physical Soc; Asn. Physics Teachers; Ohio Physics Club (pres, 32). Absorption and energy losses in solid dielectrics; dielectric absorption; electrets.

Owen, Prof. Humphrey G(ray), University of Denver, Denver, Colo. *Zoology.* Utica, Ky, Sept. 6, 90. A.B, Denver, 14, A.M, 15; California, 22–23; Chicago, 27, 29. Instr. zool, Denver, 15–17; prof. biol, N. Mex. Nor. Univ, 18–19; asst. prof. *zool,* Montana, 19–25; assoc. prof, *Denver,* 25–34, *prof. and chairman div. biol. sciences, 34–* Summer, asst. prof, Puget Sound Biol. Lab, 25. Genetic Asn; Colo-Wyo. Acad. Experimental embryology; teratology; regeneration.

Owen, Dr. John J(acob), Standard Oil Company of Louisiana, Baton Rouge, La. *Analytical and organic chemistry.* Arlington, Ky, Oct. 8, 94. A.B, Transylvania Col, 17; M.S, Kentucky, 30, fellow, 33–34, Ph.D, 34; Ohio State, 32, 33. Head dept. science, Ogden Col, 18–19; head dept. chem, Linsly Inst, 19–25, Linsly Inst. Tech, 25–33; *research chemist, Standard Oil Co. of La, 34–* Chem. Soc. Soil analysis; alkyl sulfates; lubricating oils; synthetic chemicals from petroleum products; chemical process patents.

Owen, Miss Juliette A, 306 N. Ninth St, St. Joseph, Mo. *Ornithology.* St. Joseph, Mo. Vassar Col. A.A; Ornith. Union; Asn. Mus; Biol. Soc. Wash; Wash. Acad; N. Y. Acad. Ornithology and botany of Missouri; songs, habits and protection of birds.

Owen, Randolph J, The E. L. Patch Co, Stoneham, Mass. *Chemistry.* Stoneham, Mass, May 5, 00. B.S, Boston, 27. Chemist, *E. L. Patch Co,* 25–33, *supt, 33–* Chem. Soc. Interfacial films.

Owen, Dr. Ray D(avid), University of Wisconsin, Madison, Wis. *Genetics.* Genesee, Wis, Oct. 30, 15. B.S, Carroll Col. (Wis), 37; Ph.M, Wisconsin, 38, Ph.D, 41. *Asst. genetics, Wisconsin, 40–* Genetics Soc; Genetic Asn. Bird genetics and hybridization; mammalian genetics; immunogenetics.

Owen, Robert G(uthrie), 508 Highland Ave, South Charleston, W. Va. *Chemistry.* Fulton, Mo, Dec. 15, 03. A.B, Westminster Col. (Mo), 26; M.S, Iowa, 28, Ph.D, 30. Asst. chem, Iowa, 26–30; prof, Ozark Wesleyan Col, 31–32; Ozark Junior Col, Mo, 32–35; *Carbide and Carbon Chem. Corp, 35–* Chem. Soc.

Owen, Dr. S(eward) E, U. S. Veterans Administration, Hines, Ill. *Physiology, Biochemistry, Bacteriology.* DeSmet, S. Dak, Dec. 31, 98. Ph.G, S. Dak. State Col, 22, Ph.C, B.S, 24; M.S, Oregon, 26; fellow, St. Louis, 26–27; Macy fellow, Northwestern, 30–31, Ph.D, 31. Asst, Oregon, 24–26; instr, Illinois, 27–30; asst. prof. pharmacol. and physiol, sch. med, Utah, 31–32, assoc. prof, 32–33; scientist, cancer research unit, U. S. Veterans Admin, 33–41; *food and nutrition officer, fourth corps area, U. S. Army, 41–* A.A; Pharmaceut. Asn; Asn. Cancer Research. Bacteriostatic action of dyes; diuresis; secretin; blood counting; heart reflexes from viscera; cancer; metabolism; endocrines; nutrition and foods.

Owen, Prof. William B(ert), University of Wyoming, Laramie, Wyo. *Parasitology, Entomology.* Gilbertsville, Ky, Oct. 28, 03. A.B, Kentucky, 27; A.M, Minnesota, 29, Ph.D, 36. Teaching fellow, Minnesota, 27–29; instr. *zool,* Hamline, 29–30; Oregon State Col, 30–31; *asst. prof, Wyoming, 31–* Asst, Minnesota, 35–36. Soc. Parasitol; Entom. Soc. Amer; Colo-Wyo. Acad. Biology and taxonomy of mosquitoes; intestinal protozoa of American Indian children; development and survival of parasitic roundworm eggs; parasites of game animals.

Owens, Dr. A(lbert) W(affle), 21 Hastings Road, Belmont, Mass. *Metallurgy.* Lewisburg, Pa, Oct. 23, 88. B.S, Bucknell, 09; Ph.D, Illinois, 18. Instr. science, Bacone Col, 09–11; chem, Illinois, 11–13, 15–17; high sch, Ariz, 13–15; physical chemist, Bur. Standards, 18–20; *tech. research lab, U. S. Smelting, Ref. and Mining Co, Boston, Mass,* 20–26, *supt, 26–* Chem. Soc. Atomic weight of samarium; preparation of pure aluminum and of iron-carbon-manganese alloys.

Owens, Dr. (Arthur) Neal, 1615 American Bank Bldg, New Orleans, La. *Surgery.* Heflin, Ala, Aug. 5, 99. B.S, Alabama, 24; M.D, Emory, 26. Rotating intern, Birmingham Baptist Hosp, 26–27; intern, St. Agnes Hosp, Baltimore, Md, 27–28, res. surg, 28–29, res. pathologist, 29–30, dispensary surgeon, 30–33; instr. surg, *Tulane,* 33–37, *prof. clin. surg, 37–, in charge plastic surg, 33–* Asst. dispensary surgeon, Johns Hopkins Hosp, 30–33; head dept. plastic surg, Eye, Ear, Nose and Throat Hosp, New Orleans, 33–; senior assoc. and consultant, Touro Infirmary; mem. surg. staff, South. Baptist Hosp; Mercy Hosp; Soniat Mem; Hotel Dieu; New Orleans Hosp. and Dispensary for Women and Children; exten. teacher, Alabama. Mem. Am. Board Plastic Surg. Fel. Col. Surg; Am. Med. Asn; Asn. Oral and Plastic Surg; Soc. Plastic and Reconstructive Surg; South. Med. Asn; fel. Southeast. Surg. Asn. Plastic surgery; enhancement of blood supply to tube pedicle transplant by diathermy; wound healing and diathermy; burns; operation for correction of laryngeal stenosis; chronic varicose ulcers; an artificial vagina by split skin graft.

Owens, Prof. C(harles) E(lmer), Oregon State College, Corvallis, Oregon. *Botany.* Clay Co, Ind, Nov. 26, 77. A.B, Indiana, 10, A.M, 11; Ph.D, Wisconsin, 34. Teacher pub. schs, Ind, 00–09; teaching fellow, Indiana, 10–12; instr. bot. and plant path, *Oregon State Col,* 12–16, asst. prof, 16–20, assoc. prof, 20–30, prof. plant path, 30–34, acting head dept. *bot,* 34–35, *head dept, 35–* A.A; Bot. Soc; Phytopath. Soc. Plant pathology.

Owens, Prof. F(rederick) W(illiam), Pennsylvania State College, State College, Pa. *Mathematics.* Rockwell City, Iowa, Nov. 18, 80. B.S, M.S, Kansas, 02, fellow, 02–03; Ph.D, Chicago, 07. Instr. *math,* Evanston Acad, Northwestern, 05–07; Cornell, 07–15, asst. prof, 15–26; *prof. and head dept, Pa. State Col, 26–* A.A; Math. Soc; Math. Asn; Physical Soc; Asn. Symbolic Logic; Circolo Mat. di Palermo. Foundations of geometry; applied mathematics.

Owens, Dr. Harry S(utphin), 1650 Oxford St, Berkeley, Calif. *Chemistry.* Pocatello, Idaho, March 18, 10. B.S, Idaho, 31; Ph.D, Columbia, 35. Asst. chem, Columbia, 31–35; asst. prof, Idaho, 35–42; *asst. chemist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* A.A; Chem. Soc; fel. Inst. Chem. Colloidal chemistry; application of the Werner theory to the structure and properties of oxide hydrosols; carbohydrates; enzymes.

Owens, Dr. James S(amuel), Central Technical Laboratory, Armstrong Cork Co, Lancaster, Pa. *Physics.* McKinney, Ky, March 27, 08. B.S, Chattanooga, 28; Wisconsin, 28–29; M.S, Michigan, 30, fellow, 31–32, Ph.D, 32. Asst. physics, Chattanooga, 26–28; Wisconsin, 28–29; research assoc, dept. eng. research, Michigan, 29–31, asst, dept. int. med, 32–33; physicist, Dow Chem. Co, 33–39; *Armstrong Cork Co,* 39–40, *asst. chief chemist, glass and closure div, 40–; chief tech. aide, Nat. Defense Research Cmt, Michigan, 43–* Cmt. spectroscopy as applied to chem, Nat. Research Council. Ceramic Soc; Physical Soc. Reactions between activated and normal atoms and molecules; quantitative spectrographic analysis of alloys and chemicals; applications of optics to industrial chemistry; photochemistry; physical and chemical properties of glasses.

Owens, J(ames) S(tanley), University of Connecticut, Storrs, Conn. *Agronomy.* Pa, Dec. 27, 90. B.S, Pa. State Col, 17, M.S, 19. Asst. agronomist, Pa. State Col, 17–20; exten. agronomist and *prof. agron, exten. service,* Conn. Agr. Col, 20–33, *Connecticut, 33–* A.A; Soc. Agron; Soc. Plant Physiol. Curing of tobacco; environmental factors relating to dominance of pasture grasses.

Owens, Dr. (Owen) Glynn, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Oakland, Calif, Aug. 19, 14. A.B, California, 36, A.M, 37, Ph.D, 41. *Instr. math, Mass. Inst. Tech, 41–* Partial differential equations.

Owens, Prof. R(alph) G(ardner), 2420 Prospect Ave, Evanston, Ill. *Physics.* Eaton, Ohio, Aug. 21, 05. B.E.E, Ohio State, 27, M.S, 28; Ph.D, Michigan, 39. Instr. physics, West Virginia, 28–30; Western Reserve, 30–37; Wayne, 38–41; asst. prof. mech, Colo. Sch. Mines, 41–43, assoc. prof. mech. eng, 43; *research engineer, Armour Research Foundation, 43–* The infra-red absorption spectrum of methyl amine; molecular structure.

Owens, Prof. T(hurston) D(orr), Case School of Applied Science, Cleveland, Ohio. *Electrical engineering.* Des Moines,

Iowa, Aug. 6, 97. B.S, Illinois, 20; M.S, Case, 25. Instr. *elec. eng, Case,* 20–25, asst. prof, 25–40, *assoc. prof, 40–* Instr, Mass. Inst. Tech, 31. Elec. Eng. (chairman, Cleveland sect, 29, dist. prize paper cmt, 34–36); Eng. Educ. Power transmission.

Owens, Prof. W(illiam) A(bbott), Winona State Teachers College, Winona, Minn. *Psychology.* Oshkosh, Wis, Aug. 25, 80. B.S, Chicago, 10, A.M, 11, fellow, 17–18. Director training, Minn. State Teachers Col, Duluth, 11–17; asst. prof. *psychol,* Rochester, 18–19; *prof,* Cornell Col. (Iowa), 19–20; *Winona State Teachers Col, 20–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn; Minn. Acad. Educational and social psychology; educational measurements; mental hygiene.

Owens, Dr. W(illiam) A(bbott), Jr, Iowa State College, Ames, Iowa. *Psychology.* Duluth, Minn, June 13, 14. B.E, Minn. State Teachers Col, 35; Chicago, 35–36; Ph.D, Minnesota, 40. Teaching asst, Minnesota, 38–40; *instr. psychol, Iowa State Col, 40–; U. S. Naval Res.* A.A; assoc. Psychol. Asn. Tests and statistical methods in psychology; personnel; psychology of advertising; statistics; applied psychology.

Owens, Prof. W(illia)m G(undy), Bucknell University, Lewisburg, Pa. *Chemistry.* Lewisburg, Pa, May 14, 58. A.B, Bucknell, 80, A.M, 83, hon. Sc.D, 35. Prof. and *emer. prof. chem, Bucknell, 85–* Mem. faculty, Shanghai, 35–36. A.A; Chem. Soc. Inorganic chemistry.

Ower, Prof. John James, University of Alberta, Edmonton, Alta, Can. *Pathology.* Smiths Falls, Ont, Dec. 4, 85. B.A, McGill, 05, M.D, 09. Asst. pathologist, Montreal Gen. Hosp, 12; A. A. Browne fellow, McGill, 13, James Douglas fellow, 14; *prof. path, Alberta, 19–* Pathologist, C.E.F, 14–19. Asn. Cancer Research; fel. Royal Col. Physicians Can; Can. Med. Asn; Int. Asn. Geog. Path; Int. Asn. Med. Mus. Immunity in tuberculosis.

Ownbey, Dr. (Francis) Marion, State College of Washington, Pullman, Wash. *Botany.* Kirksville, Mo, Sept. 29, 10. A.B, Wyoming, 35, A.M, 36; Ph.D, Washington (St. Louis), 39. Instr. *bot, State Col. Wash,* 39–42, *asst. prof, 42–* Mem. board editors, 'Madroño,' 41– A.A; Bot. Soc; Soc. Plant Taxon; Calif. Bot. Soc. Experimental taxonomy; Calochortus; Allium; cytogenetics.

Oxley, Prof. Arthur D(aniel), Lambuth College, Jackson, Tenn. *Biology.* West Liberty, Iowa, Dec. 18, 00. B.S, Iowa Wesleyan Col, 23; A.M, Arkansas, 24; Iowa, 26, 27; Iowa State Col, 31. Asst. bot, Arkansas, 23–24; *prof. biol, Lambuth Col, 24–* Summer, instr, Hendrix Col, 24. Genetic Asn; Tenn. Acad. Mosses of northwestern Arkansas.

Oxtoby, Prof. John C(orning), Bryn Mawr College, Bryn Mawr, Pa. *Mathematics.* Saginaw, Mich, Sept. 14, 10. A.B, California, 33, A.M, 34; junior fellow, Harvard, 36–39. Asst. prof. *math, Bryn Mawr Col,* 39–43, *assoc. prof, 43–* Math. Soc. Topology and measure theory.

Ozburn, Prof. Reg(inald) H(owarth), Ontario Agricultural College, Guelph, Ont, Can. *Entomology, Zoology.* Toronto, Ont, Oct. 31, 98. B.S.A, Ont. Agr. Col, 24; fellow, Minnesota, 27–28, M.S, 30; Toronto. Lecturer and later *assoc. prof. entom. and zool, Ont. Agr. Col; major, Med. Corps, Royal Can. Army.* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Ont. (sec'y-treas, 30–42).

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Pabst, Prof. Adolf, University of California, Berkeley, Calif. *Mineralogy.* Chicago, Ill, Nov. 30, 99. A.B, Illinois, 25; Ph.D, California, 27. Lecturer *miner, California,* 27–28, instr, 29–31, asst. prof, 31–36, *assoc. prof, 36–* Am-Scandinavian Foundation fellow, Oslo, Norway, 28–29; Guggenheim Mem. Foundation fellow, 38–39. Summer, asst. geologist, Ill. Geol. Surv, 23. Miner. Soc. (councilor, 42–); Geol. Soc. The petrography of autoliths; the orientation of minerals in rocks; crystallography; crystal structure.

Pace, Prof. Donald M(etcalf), University of Nebraska, Lincoln, Nebr. *Physiology.* Wilkes-Barre, Pa, Nov. 8, 06. B.S, Susquehanna, 28; fellow, Duke, 28–31, A.M, 29, Ph.D, 31. Instr. zool. and research assoc, Hopkins, 31–42; *asst. prof. physiol, Nebraska, 42–* A.A; Soc. Zool. Cellular physiology; cytology; culture methods; cellular growth and growth substances; chemosynthesis; cellular respiration.

Pace, Dr. Henry A(lexander), 26 E. Tallmadge Ave, Akron, Ohio. *Organic chemistry.* Cleveland, Ohio, March 7, 14. B.S, Illinois, 36; Ph.D, Iowa State Col, 40. Asst. org. chem, Iowa State Col, 36–40; *org. research chemist, Goodyear Tire and Rubber Co, 40–* Chem. Soc. Organometallic chemistry; lateral organoalkali compounds; latex; plastic research and development.

Pace, Dr. Nello, National Naval Medical Center, Bethesda, Md. *Physiology.* Richmond, Calif, June 20, 16. B.S, California, 36, Ph.D, 40. Asst. physiol, California, 36–40; research assoc, Med. Col. of Va, 40–41; *environmental physiologist, U. S. Naval Med. Sch, 41–* A.A. Plant and animal pigments; photodynamic action; tissue extracts; diving and aviation physiology.

Pack, Dr. George Thomas, E. 68th St. and York Ave, New York, N. Y. *Surgery.* Antrim, Ohio, May 14, 98. B.S, Ohio State, 20; M.D, Yale, 22; hon. M.D, Costa Rica, 42; hon. LL.D, Alabama, 42. Asst. physiol, Ohio State, 20–21; instr. pharmacol. and toxicol, Yale, 21–23; assoc. prof. path, Alabama, 23–24, prof. and head dept, 24–28, lecturer minor surg, 23–28; fellow, Curie Inst, Paris, 28; cancer research, *Mem. Hosp,* 28–31, *attending surgeon, 31–; asst. clin. prof. surg, med. col, Cornell, 35–* Consultant, Paterson Gen. Hosp, Hackensack Hosp. and Montclair Community Hosp, N. J; St. Francis Hosp, N. Y; Goshen Hosp; United Hosp; Elizabeth A. Horton Mem. Hosp; N. Y. Infirmary for Women and Children; Yonkers Gen. Hosp; Yonkers Professional Hosp; Good Samaritan Hosp; Huntington Hosp, L. I; St. Vincent's Hosp, Staten Island; hon. surgeon, Hosp. St. Juan de Dios, San Jose, Costa Rica. A.A; Am. Med. Asn; fel. Col. Surg; Asn. Path. and Bact; Physiol. Soc; Asn. Cancer Research; Radium Soc; Soc. Exp. Biol; fel. N. Y. Acad. Med; N. Y. Surg. Soc; Mex. Acad. Med. Nitrogenous metabolism and blood concentration; the sensation of thirst; picric acid poisoning; pharmacological and ionic medication; burn deformities; ablation of the superior cervical sympathetic ganglia; proteoses obtained from shattered ox-blood antigen; cholesteatoma; neurofibromatosis; tumors of the renal pelvis; cancer; radiation therapy; burns; cancer of stomach; tumors of hands and feet; treatment of cancer.

Pack, R(obert) W(allace), Sun Oil Co, Beaumont, Texas. *Geology.* Berkeley, Calif, June 15, 85. B.S, California, 08, fellow, 09–10. Asst. miner. and petrog, California, 08–09; asst. and assoc. geologist, U. S. Geol. Surv, 10–13, paleontologist, 14–15, geologist, 16–17; *Sun Oil Co,* 17–19, chief geologist, 20, *gen. manager, Gulf Coast div, 20–, v. pres. and gen. manager, Sun Pipe Line Co, 20–* Geol. Soc; Paleont. Soc; Asn. Petrol. Geol. Geology of petroleum; California stratigraphy and Tertiary paleontology; petroleum deposits of California and Gulf Coast of Texas and Louisiana; salt dome structures.

Packard, Prof. Charles, Marine Biological Laboratory, Woods Hole, Mass. **5Zoology.* Boston, Mass, 84. B.S, Syracuse, 07, M.S, 08, Sc.D, 38; Ph.D, Columbia, 14. Instr. *zool,* Williams Col, 08–10; Columbia, 14–18; asst. prof, Peking Union Med. Col, 18–23; assoc, *inst. cancer research, Columbia,* 24–29, *asst. prof, 29–*; clerk corp, *Marine Biol. Lab, Woods Hole,* 31–38, asst. director, 38–40, *director, 40–* Cmt. on radiation, Nat. Research Council. A.A; Soc. Zool; Soc. Nat; Harvey Soc. General physiology; effect of radium and the x-ray on living matter; cancer.

Packard, C(lyde) M(onroe), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Cummington, Mass, Jan. 28, 89. B.S, Mass. Col, 13; M.S, California, 25. From sci. asst. to *prin. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 13–, chief div. cereal and forage insects, 37–* A.A; Entom. Soc; Asn. Econ. Entom. Cereal and forage crop insects.

Packard, Dean E(arl) L(eroy), Oregon State Agricultural College, Corvallis, Oregon. *Paleontology.* East Charlemont, Mass, April 10, 85. A.B, Washington (Seattle), 11, A.M, 12; Ph.D, California, 15. Instr. geol, Washington (Seattle), 15–16; asst. prof, Oregon, 16–17; head dept, Miss. Agr. and Mech. Col, 17–18; prof, Oregon, 18–32; dean sch. science, Oregon State System Higher Educ, 32–38; *head dept. geol. and director gen. research, Oregon State Col, 32–* A.A; Paleont. Soc; Geol. Soc. Mesozoic and Cenozoic Mactrinae of the Pacific Coast; fauna of the Cretaceous of the Santa Ana Mountains; quantitative molluscan fauna of San Francisco Bay; the Trigoniae of the Pacific Coast; an aberrant oyster from the Oregon Eocene; the Jurassic and Cretaceous rudistids of Oregon; Paleozoic and Mesozoic of central Oregon.

Packard, Prof. L(eonard) O(scar), 68 Warren St, Needham, Mass. *Geography.* Rockland, Maine, Nov. 11, 72. B.S, Harvard, 04; A.M, Clark, 26. Head dept. science, high sch, Conn, 04–07; *prof. geog. and head dept, Teachers Col. City of Boston, 07–* Lecturer, sch. educ, Boston, 18–28. Nat. Council Geog. Teachers (pres, 28); Mass. Council Geog. Teachers (pres, 17–23). Nations as neighbors; current events instructions; wall and desk maps; economic geography; nations at work; nations to-day; global geography for high schools.

Packard, Prof. W(ales) H(arrison), 223 S. Glenwood, Peoria, Ill. *Physiology.* Chatham, Ohio, Nov. 12, 70. B.S, Olivet Col. (Mich), 94; Chicago, 94–98, Ph.D, 08. Instr. zool, Marine Biol. Lab, Woods Hole, 95–99; *biol, Bradley Polytech,* 98–04, prof, 04–41, *emer. prof, 41–* Summers, instr, Chicago, 03; Illinois, 14. A.A; Ill. Acad. Resistance to lack of oxygen; dissolved oxygen in polluted streams; natural purification of polluted waters.

Packchanian, Prof. A(rdzroony), University of Texas School of Medicine, Galveston, Texas. *Bacteriology, Protozoology.* Armenia, Nov. 17, 00. Col. City of N. Y, 21–23; Columbia, 22–24, 26, summers, 25, 27; Yale, 24–25; Cornell, 27; M.S, Michigan, 30, Ph.D, 33. Asst. bacter, med. sch, Michigan, 28–32; research bacteriologist and protozoologist, sch. med, Washington (St. Louis), 33–34; N. Y. Post-Grad. Med. Sch, Columbia, 34–36; protozoologist, nat. inst. health, U. S. Pub. Health Service, 36–41; *assoc. prof. bacter. and trop. med, sch. med, Texas, 41–* A.A; Pub. Health Asn; Chem. Soc; Soc. Bact; Soc. Parasitol; Genetic Asn; Asn. Trop. Med; Asn. Path. and Bact; Asn. Immunol; Soc. Exp. Biol; Am. Med. Asn; Mich. Acad; fel. Royal Soc. Trop. Med. and Hygiene. Tropical medicine; antiseptics and disinfectants; bacterial variations; micrurgy; tissue culture; trypanosomes; spirochetes; Endamoeba histolytica; electrophoresis; relapsing fever; rat-bite fever; nagana; murrina; toxicity tests; Chagas' and Weil's diseases; epidemic jaundice; yellow fever.

Pacsu, Prof. E(ugene), Winant Road, Princeton, N. J. *Organic chemistry.* Budapest, Hungary, July 13, 91. Ph.D, Royal Hungarian Univ, 14. Adj. prof. *org. chem, Royal Hungarian Univ, Budapest,* 19–30, *privat-docent, 26–;* asst. prof, *Princeton,* 30–34, *assoc. prof, 34–* Int. Educ. Board fellow, hygienic lab, U. S. Pub. Health Service and Bur. Standards, 28–29. Chem. Soc. Carbohydrates; derivatives of carbohydrates; glycosides; acyl migration in the partial saponification of mixed acylated polyphenolic acids; polypeptides.

Paddick, Prof. M(orris) E(vans), Colorado State College, Ft. Collins, Colo. *Plant physiology.* Claremont, Ill, May 16, 13. B.S, Illinois, 34; M.S, Rutgers, 36; Ph.D, Iowa State Col, 39. Asst. agron, N. J. Exp. Sta, 34–36; *asst. prof. bot, Colo. State Col, and mem. staff, Exp. Sta, 40–* Soc. Agron; Soc. Plant Physiol. Plant nutrition and growth, especially in relation to soils.

Paddock, Prof. F(loyd) B, 2116 Country Club Blvd, Ames, Iowa. *Zoology, Entomology.* Three Oaks, Mich, 87. B.S.E, Colo. Agr. Col, 10; M.S, Ohio State, 15; Wisconsin. Assoc. prof. entom, Agr. and Mech. Col. Texas, 11–15; state entomologist, Texas, 15–19; assoc. prof. entom, *Iowa State Col,* 19–27, *prof. apicult,* 27– State apiarist, Iowa, 19– A.A; Asn. Econ. Entom; Iowa Acad; Aphis Club Int. Apiculture.

Paddock, Dr. G(eorge) F(rederic), Lick Observatory, University of California, Mt. Hamilton, Calif. *Astronomy.* Providence, R. I, 79. Ph.B, Brown, 02; fellow, Virginia, 02–06, A.M, 06, Ph.D, 12. Asst, south. sta, Lick Observatory, California, Santiago, Chile, 06–12, Mt. Hamilton, Calif, 12–18, acting astronomer in charge south. sta, 18–24; instr. astron, Northwestern, 25–26; asst, *Lick Observatory, California,* 28–31, *asst. astronomer, 31–* Astron. Soc; Astron. Soc. Pacific. Radial velocities of stars; spectroscopy.

Paddock, Prof. Russell G(urney), University of Arkansas, Fayetteville, Ark. *Mechanical engineering.* Connersville, Ind, Feb. 14, 93. B.S, Purdue, 20, M.S, 23. Instr. mech. eng, Purdue, 21–23; mech. engineer, Consumers Power Co, Jackson, Mich, 23–30; research engineer, Sargent and Lundy, Inc, Chicago, 30–31; *prof. mech. eng, Arkansas, 31–* Mech. Eng. (exec. cmt, mid-continent sect, 33); Eng. Educ. (pres, Ark-Okla. sect, 38). Public utility power; power plant operation.

Paddock, Prof. W(endell), Ohio State University, Columbus, Ohio. *Horticulture.* Three Oaks, Mich, July 12, 66. B.S, Mich. State Col, 93, M.S, 98. Asst. hort, N. Y. Exp. Sta, Geneva, 93–00; prof. bot. and hort, Colo. Agr. Col, 98–09; *hort, Ohio State,* 09–37, *emer. prof, 37–* A.A; Soc. Hort. Sci.

Paden, Dr. W(illiam) R(eynolds), Clemson Agricultural College, Clemson, S. C. *Agronomy.* Shamrock, Mo, Nov. 25, 95. B.S, Missouri, 25; M.S, Illinois, 26, Ph.D, 29. Asst soil biol, Illinois, 25–29; assoc. agronomist, *Exp. Sta, Clemson Col,* 29–39, *agronomist, 39–* A.A; Soc. Agron; Chem. Soc. Soil fertility; plant nutrition.

Padgett, Dr. A(lgie) R(oss), 226 Iowa St, Baytown, Texas. *Organic chemistry.* Morocco, Ind, April 20, 11. B.S, Purdue, 32, fellow, 35–37, M.S, 36, Ph.D, 37. Asst. chem, Purdue, 32–35; research chemist, refinery, *Humble Oil and Ref. Co,* 37–40, research sect. head, 40–41, *Bow lab. dept. head, Baytown Ordnance Works, 41–* Chem. Soc. Ethylation of glucose; detergents from kerosene; improvement of octane number of aviation gasoline and production of pure compounds from petroleum.

Padgett, Prof. Earl C(alvin), 1316 Professional Bldg, Kansas City, Mo. *Surgery.* Greenleaf, Kans, July 8, 93. B.S, Kansas, 16; M.D, Washington (St. Louis), 18. Clin. asst. surg, sch. med, Washington (St. Louis), 21–24; research fellow, *Kansas,* 26–27, instr. surg. and anat, 27–31, asst. prof. *clin. surg,* 31–36, assoc. prof, 36–41, *prof, 41–* Col. Surg; Surg. Asn; South. Med. Asn; West. Surg. Soc. Oral surgery.

Padgett, Fred Warde, 33 Rector St, New York, N. Y. *Chemistry.* Ft. Scott, Kans, Oct. 10, 88. B.S, Pittsburgh, 13, M.S, 14. Fellow, Mellon Inst, 12–17; assoc. prof. chem, Oklahoma, 17–25, prof. petrol. eng, 25–33; Sun Oil Co, 33–36; *Moore and Munger, 36–; consulting chemist.* Chem. Soc. (chairman, Okla. sect, 25, sec'y and v. chairman, petrol. div, 27). Petroleum refining, especially wax technology.

Padgitt, Dr. Frank L(ykins), Box 7413, University Station, Baton Rouge, La. *Physical chemistry.* Winslow, Ariz, March 31, 13. A.B, Southwest Mo. State Teachers Col, 35; M.S, Louisiana, 39, Ph.D, 41. *Research and develop. chemist, Ethyl Gasoline Corp, 41–* Physical properties of the dioxane-methyl alcohol system.

Padilla, Dr. Sinforoso G, University of the Philippines, Manila, P. I. *Psychology.* Solano, Neuva Vizcaya, Philippines, July 18, 01. A.B, Willamette Univ, 24; fellow, Oregon, 24–26, A.M, 26; univ. fellow, Michigan, 26–28, Ph.D, 30. Asst, Michigan, 26–30; instr. educ, *Philippines,* 30–31, *psychol,* 31–35, *asst. prof, 35–, dean men, 39–* A.A. Abnormal, clinical and adolescent psychology; Philippine self-administering intelligence tests; problem children and their adjustments.

Pady, Prof. Stuart M(cGregor), Ottawa University, Ottawa, Kans. *Botany.* Arnprior, Ont, Can, Nov. 15, 05. B.A, McMaster, 28, M.A, 29; Nat. Research Council Can. bursar, Toronto, 29–30, student, 30–31, Ph.D, 33. Asst, dept. bot, Toronto, 31–33; nat. research fellow, 33–35; lecturer *biol,* McMaster, 35–36; *prof, Ottawa, 36–* A.A; Mycol. Soc; Phytopath. Soc; Kans. Acad. (chairman bot. sect, 41, 43). Uredinales; cytology; plant pathology.

Paff, Prof. George H(ugo), 83 Durland Road, Lynbrook, N. Y. *Histology, Embryology.* Beaver Falls, Pa, March 3, 05. B.S, Notre Dame, 27; Crile scholar, Western Reserve, summers, 28, 31, A.M, 30, Ph.D, 33. Instr. biol, Notre Dame, 28–29; teaching fellow, sch. med, Western Reserve, 29–33, demonstrator, dental sch, 31–33; instr. biol, Notre Dame, 33–35; *anat, L. I. Col. Med,* 35–36, asst. prof, 36–43, *assoc. prof, 43–* Asn. Anat; L. I. Research Soc. (sec'y-treas, 41, v. pres, 42, pres, 43). Gross anatomy; skeletal muscle; embryonic heart in vitro.

Paffenbarger, Dr. Geo(rge) C(orbly), 59 Livingston St, Brooklyn, N. Y. *Dentistry.* McArthur, Ohio, Nov. 3, 02. D.D.S, Ohio State, 24. Extern, Palama Settlement Dental Clinic, Honolulu, Hawaii, 25–27; instr, col. dentistry, Ohio State, 27–29; Am. Dental Asn. research assoc, Bur. Standards, 29–41; *lieut. commander, naval med. supply depot, Brooklyn, U. S. Naval Res, 41–* Fel. Col. Dentists (sec'y Washington, D. C, sect, 38, chairman, 40); Am. Dental Asn; Int. Asn. Dental Research (sec'y, Wash, D. C, sect, 30–38, chairman, 39). Physical and chemical properties of dental materials.

Page, Dr. Ben(jamin) M(arkham), Stanford University, Calif. *Geology.* Pasadena, Calif, May 6, 11. A.B, Stanford, 33, A.M, 34, Ph.D, 40. Field geologist, 35–37; instr. geol, Southern California, 37–40, asst. prof, 40–41; *asst. geologist, U. S. Geol. Surv, 42–; assoc. prof. geol, Stanford, 43–* Sum-

mers, instr, Stanford, 37, asst. director geol, 39–41. Physical geology; basin-and-range structure; glaciation in Washington.

Page, Dr. Calvin G(ates), 128 Marlboro St, Boston, Mass. *Bacteriology.* Boston, Mass, July 9, 67. A.B, Harvard, 90, M.D, 94. Physician, orthop. dept, Boston Dispensary, 96–16; asst. bacter, Harvard Med. Sch, 99–12, instr, 12–20, asst. prof, 20–25; assoc. prof, Mass. Col. Pharmacy, 21–26; *research bacteriologist, otolaryngol. lab, Mass. Eye and Ear Infirmary, 29–* House officer, Children's Hosp, 93–94; Boston City Hosp, 95. Soc. Bact; Asn. Path. and Bact; Pub. Health Asn; Am. Med. Asn; Tuber. Asn. Bacteriology of scarlet fever; sporotrichosis; milk; Lactobacillus acidophilus; streptococcus diagnosis; pathogenic fungi; tubercle bacilli; tuberculosis.

Page, Dr. Chester H(all), 9209 Saybrook Ave, Silver Spring, Md. *Physics.* Providence, R. I, Nov. 13, 12. A.B, Brown, 34, M.S, 34; Ph.D, Yale, 37. Instr. *physics, Lafayette Col,* 37–40, *asst. prof, 40–; assoc. physicist, Bur. Standards, 41–* Physical Soc. Van der Waals forces in helium; mathematical physics; radio.

Page, Prof. E(dwin) Richard, 131 Page St, Norman, Okla. *Electrical engineering.* Winterport, Maine, Oct. 18, 84. B.S, Maine, 13. Teacher, Cornell; *prof. elec. eng, Oklahoma, 20–* Designing engineer, Gen. Elec. Co; engineer, Nev. Calif. Elec. Corp; Westinghouse Elec. and Mfg. Co. Elec. Eng; Army Ordnance Asn. Ballistics; radio; electricity in the petroleum industry.

Page, Dr. Ernest W(inslow), 2560 Bancroft Way, Berkeley, Calif. *Obstetrics, Gynecology.* Berkeley, Calif, Oct. 9, 09. A.B, Stanford, 30, M.D, 34. Instr. obstet. and gynec, Southern California, 35–40; research assoc, div. physiol, *California,* 40–42, *asst. prof. obstet. and gynec, med. sch, 42–* Soc. Exp. Biol. Toxemias of late pregnancy.

Page, Prof. Frederick S(myth), Dartmouth College, Hanover, N. H. *Botany.* Candia, N. H, Oct. 28, 89. B.S, Dartmouth Col, 13; M.S, Vermont, 14. Asst. bot, Vermont, 13–15, Exp. Sta, 14–15; instr. biol, *Dartmouth Col,* 15–21, asst. prof, 21–31, *prof. bot, 31–* A.A; Bot. Soc. Mycology.

Page, Dr. Irvine H, Indianapolis City Hospital, Locke and Tenth Sts, Indianapolis, Ind. *Medicine.* Indianapolis, Ind, Jan. 7, 01. A.B, Cornell, M.D, 26. Presb. Hosp, New York, 26–28; chief chem. div, Kaiser Wilhelm Inst, Munich, 28–31; assoc. mem, Rockefeller Inst. Hosp, 31–37; *director Lilly clinic and lab. for clin. research, Indianapolis City Hosp, 37–* Subcmt. clin. research, Nat. Research Council. A.A; Chem. Soc; Soc. Exp. Biol; Am. Med. Asn; Marine Biol. Asn; Am. Heart Asn. (past chairman, vascular sect); Physiol. Soc; Soc. Biol. Chem; Col. Physicians; Cent. Soc. Clin. Research; Harvey Soc; N. Y. Acad. Med; Deuts. Chem. Gesell. Clinical chemistry; lipids and sterols; brain chemistry; chemistry of protoplasm; nephritis; hypertension.

Page, Dr. J(ames) D(aniel), Temple University, Philadelphia, Pa. *Psychology.* Rome, N. Y, May 6, 10. A.B, Columbia, 32, A.M, 34, Ph.D, 35. Instr. psychol, Rochester, 37–41; *acting director psychol. clinic, Temple, 41–,* instr. *psychol,* 41–43, *asst. prof, 43–* Psychol. Asn; Asn. Applied Psychol. Clinical and abnormal psychology; statistics in mental disease; experimental psychopathology; personality and mental tests.

Page, J(ames) M(orris), Jr, 8415 Ingleside, Chicago, Ill. *Chemistry.* Cobham, Va, July 18, 01. B.S, Virginia, 24. Research chemist, *Standard Oil Co. of Ind,* 24–38, *technologist, develop. and patent dept, 38–* Petroleum lubricating oils and paraffin waxes.

Page, Prof. John L(orence), University of Illinois, Urbana, Ill. *Geography.* Grapevine, Texas, Sept. 23, 01. A.B, Oklahoma, 26; A.M, Clark, 27, Ph.D, 29. California at Los Angeles, 26–27; assoc. *geog, Illinois,* 29–31, *asst. prof, 31–* Summers, Oklahoma, 25, 26; Emory, 27. A.A; Meteorol. Soc. Climate of Mexico and of Yucatan; climatology of Kaskaskia Valley; climatology of Peten, Guatemala.

Page, Capt. J(ohn) Wallace, Jr, Office of the Surgeon General, Washington, D. C. *Chemistry.* Richmond Hill, L. I, N. Y, Sept. 3, 05. A.B, Columbia, 29, A.M, 32, Ph.D, 33. Asst. food chem, Columbia, 29–32, instr. food investigation and vitamin research, 32–33, inorg. chem, 33–35, research assoc. bur. educ. research science, Teachers Col, 35–36, assoc, New Col, 35–36; assoc. prof. science educ, Ohio State, 36–37; asst. prof. chem. and science educ, Syracuse, 37–40; *director, Md. Acad. Sciences, 40–; capt, training div, Sanit. Corps, U. S. Army, 42–* Chem. Soc. Improvements in vitamin G; measuring concentration and fractionation of vitamin G; growth promoting properties of vitamin G concentrates; a new approach to chemistry; a functional program of teacher education.

Page, Prof. Leigh, Yale University, New Haven, Conn. ***Physics.* South Orange, N. J, Oct. 13, 84. Ph.B, Yale, 04, Ph.D, 13. Instr. *physics, Yale,* 12–16, asst. prof, 16–22, *prof, 22–* Silliman lecturer, Yale, 17. Summers, lecturer, Chicago, 22, 24; Columbia, 26. Judge, Einstein contest, 'Sci. Am.' A.A; Physical Soc; Math. Soc; Am. Acad. Principle of relativity; photoelectric effect; electrodynamics; atomic structure.

Page, Dr. Lincoln R(idler), U. S. Geological Survey, Washington, D. C. *Geology.* Lisbon, N. H, Feb. 11, 10. A.B, Dartmouth Col, 31; A.M, Minnesota, 32, Ph.D, 37. Instr. geol, Dartmouth Col, 32–35; Minnesota, 35–37; asst. geologist, Standard Oil Co. of Texas, 37–38; asst. prof. geol, Colorado, 38–39; *junior geologist, U. S. Geol. Surv, 39–* A.A; Asn. Petrol. Geol; Miner. Soc. Experimental geology; stratigraphy; metamorphic geology; ore deposits; tin, tungsten and pegmatite ore deposits.

Page, Dr. Richard M(artin), Bureau of Child Study, Board of Education, 228 N. LaSalle St, Chicago, Ill. *Psychology.* Spencer, Iowa, March 3, 98. A.B, Michigan, 21; M.S, Chicago, 32; Ph.D, Northwestern, 41. Instr, Texas, 22–23; asst. plant personnel office, Mountain States Tel. and Tel. Co, 24–26; asst. psychol, Northwestern, 26–27; lecturer, sch. commerce and business admin, Chicago, 28–29; instr. psychol, New Mexico, 29–30, asst. prof, 30–33; asst. personnel manager, Denver Munic. Water Works, 33–34, chief clerk, 34–35, acting rate engineer, 36; consulting psychologist, 37–38; psychologist, *bur. child study, Board of Educ, Chicago, Ill,* 39–42, *admin. asst, 42–* Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Midwest. Psychol. Asn; Ill. Asn. Applied Psychol. (treas, 43); Chicago Psychol. Club (sec'y, 41). Clinical psychology; personnel and public relations.

Page, Dr. Thornton (Leigh), Yerkes Observatory, Williams Bay, Wis. *Astrophysics.* New Haven, Conn, Aug. 13, 13. B.S, Yale, 34; Rhodes scholar, Oxon, 34–37, Ph.D, 38. Chief asst, univ. observatory, Oxon, 37–38; *instr. astrophys, Chicago, 38–* Astron. Soc; Astron. Soc. Pacific; Royal Astron. Soc. Spectrophotometry; planetary nebulae.

Pagel, Prof. H. Armin, 3620 C St, Lincoln, Nebr. *Chemistry.* New Hartford, Minn, Oct. 13, 96. A.B, Minnesota, 22, M.S, 23, Ph.D, 27. Instr. math, chem. and physics, Park Region Col, 23–25; *anal. and inorg. chem, Nebraska,* 27–33, asst. prof, 33–41, *assoc. prof, 41–* Chem. Soc. Inorganic and analytic chemistry.

Pagon, W(illiam) Watters, Baltimore Life Bldg, Baltimore, Md. *Engineering.* Baltimore, Md, June 3, 85. A.B, Hopkins, 05; B.S, Mass. Inst. Tech, 07; M.C.E, Harvard, 10. With Baltimore Bridge Co, 07–09; J. E. Greiner and Co, 10–17; *consulting engineer,* 17, *19–* Lecturer, Hopkins, 19–23. Mem, Charter Revision Cmn, Baltimore, 25–26; Cmn. City Planning, 39– Mem. special cmts, rev. design of U. S. airships Shenandoah and R. S–1, Nat. Advisory Cmt. Aeronautics. U. S. N, prize airship competition, 28; James Laurie prize, Am. Soc. Civil Engineers, 43. Capt. construction div, U.S.A, 17–19. Civil Eng; Inst. Aeronaut. Sci; Eng. Club Baltimore (pres, 35). Airship design; wind pressure on buildings and bridges; concrete erosion in sea-water; transatlantic seaplane base; economics of airports.

Paige, Sidney, 270 Broadway, New York, N. Y. *Geology.* Washington, D. C, Nov. 2, 80. Michigan, 02–03; Yale, 08. Nicaragua Canal Cmn, 98–00; asst. geologist, U. S. Geol. Surv, 02–07, geologist, 13–26, in charge west. areal geol, 16–18, in charge div. geol, 18–26; Amerada Corp, 26–27; *consulting geologist, 27–;* adviser mines and oil, Turkish Republic, 33–35; *prin. geologist, N. Atlantic div, U. S. Army Engineers, 35–* Consultant, Panama Canal. 40: St. Lawrence Waterway, 41–42; northwest div, U. S. Eng. Corp, Can, 43. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Geol. Soc. Wash. Structural and economic geology of Alaska, United States, South America and Turkey.

Pailthorp, R(aymond) R(uss), 109 Holly Ave, Takoma Park, Md. *Agricultural economics.* Petoskey, Mich, April 11, 89. B.S, Mich. State Col, 13. Instr. hort, Delaware, 13–17, asst. prof, 17–18; investigator in marketing fruits and vegetables, *bur. agr. econ, U. S. Dept. Agr,* 18–21, specialist

fruit transportation and storage of fruits and vegetables, 21–22, pomologist, 22–24, marketing specialist, 24–26, senior investigator, 26–27, asst. chief marketing specialist, *div. fruits and vegetables*, 27–28, *senior marketing specialist*, 28– State Marketing Officials Asn. Methods of handling, packing, storage and transportation of fruits and vegetables; development and improvement of grades for fruits and vegetables, nuts and honey; fruit and vegetable marketing.

Paine, Prof. Ellery B(urton), 606 Pennsylvania Ave, Urbana, Ill. *Electrical engineering.* Willington, Conn, Oct. 9, 75. B.S, Worcester Polytech, 97, M.S, 98, E.E, 04. Gen. Elec. Co, N. Y, 99; elec. engineer, Lehigh Valley Coal Co, Pa, 99–02; prof. physics, Stetson, 02–04; physics and elec. eng, N. C. State Col, 04–07; asst. prof. *elec. eng, Illinois*, 07–13, *prof. in charge dept, 13–* Elec. Eng; Eng. Educ; West. Soc. Eng. High potential discharges in dielectrics; combinations of harmonic motions; high voltage power cables.

Paine, H(arold) W(illiam), 14 Elston Road, Upper Montclair, N. J. *Chemistry.* Warwick, R. I, July 28, 86. Ph.B, Brown, 07; B.S, Mass. Inst. Tech, 09. Asst. instr. org. chem, Mass. Inst. Tech, 10; manager electroplating plant, 10–13; supt. guncotton plant, 13–16; research chemist, Fiberloid Corp, 16–20; chem. supt, Viscoloid Corp, 20–26; *E. I. du Pont de Nemours and Co*, 26–29, asst. director research, 29–37, *director research, 37–, director Arlington lab, 41–* A.A; Chem. Soc; Inst. Chem; Chem. Eng; Soc. Test. Mat; Soc. Rheol; Inst. Physics; Farm Chemurg. Council; Aeronaut. Asn; Soc. Plastics Indust; Dental Research Inst; Franklin Inst; N. Y. Acad; London Chem. Soc; Inst. Plastics Indust. London; Kolloid-Gesell; Verein Deuts. Chem; Soc. de Chim. Indust; Soc. Suisse de Chem. Cellulose derivatives and synthetic plastics; coloring of plastics; tantalum as acid resistant construction material; lucite; methylmethacrylate; polyvinylacetals; nylon monofilaments; injection molding.

Painter, Dr. Ben T(homas), Medical College of Virginia, Richmond, Va. *Zoology.* Galax, Va, Oct. 25, 08. B.S, Col. of William and Mary, 32; A.M, Harvard, 38, Ph.D, 40. Instr. biol, Col. of William and Mary, 32–35; asst, Harvard, 36–40; instr, Armstrong Junior Col, 40–42; *teaching fellow, Med. Col. of Va, 42–* Asst, Radcliffe Col, 39–40. Regeneration; pituitary cytology.

Painter, C(arl) E(lliott), 1328 Michigan Ave, Salt Lake City, Utah. *Civil engineering.* Marshalltown, Iowa, Nov. 22, 91. B.S, Kansas, 15, C.E, 24. Rodman and bridge inspector, Calcasieu Highway Dept, La, 15; instrument man, geol. surv, Sentinel Oil and Gas Co, Okla, 15–16; estimates, designs and working drawings for reinforced concrete, J. P. Sprague and Co, Kansas City, 16–17; in charge surveys, design and construction of water works systems, Burns and McDonnell, Kansas City, 17–20; sales engineer, D. C. Dunbar Co, Salt Lake City, 20–23; *v. pres. and consulting engineer in charge eng. work, Waterworks Equipment Co, Salt Lake City, 23–* Summers, in charge preliminary surveys and construction sewers, Black and Veatch, 16. Assoc. Civil Eng. (pres, Utah chap, 30); Water Works Asn; Asn. Eng. (director, 28, pres, 37); Asn. Mil. Eng. Municipal water works systems, especially purification and distribution systems; design and economics of municipal water systems.

Painter, Dr. E(dgar) P(age), North Dakota State College, Fargo, N. Dak. *Biochemistry.* Schuyler, Nebr, Oct. 2, 09. B.S, S. Dak. State Col, 32, M.S, 35; Ph.D, Minnesota, 39. Asst. chemist, S. Dak. State Col, 32–36; teaching asst, Minnesota, 36–39; asst. chemist, State Col. Wash, 39–40; *agr. chemist, Exp. Sta, N. Dak. Col, 40–* A.A; Chem. Soc. Chemistry and toxicity of selenium compounds and selenium in plants; synthesis of organic Se compounds; selenium and sulfur relationships; preparation of amino acids; composition of linseed oils; fat metabolism in the flaxseed.

Painter, Dr. Elizabeth E(dith), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Physiology.* New Freedom, Pa, April 8, 09. A.B, Goucher Col, 30; Ph.D, Maryland, 38. Asst. *physiol*, sch. med, Maryland, 30–33, *instr*, 33–37; *col. physicians and surg, Columbia, 37–* Physiol. Soc. Smooth muscle physiology; uterine motility; total body water; water balance in dehydration; submaxillary saliva composition; traumatic shock.

Painter, H(enry) R(aymond), U. S. Entomological Laboratory, Box 495, Lafayette, Ind. *Entomology.* Big Springs, Kans, Sept. 10, 88. B.S, Okla. Agr. and Mech. Col, 12, M.S, 16. Asst. entomologist, Okla. Agr. and Mech. Col, 12–18; *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 18–* A.A; Asn. Econ. Entom. San Jose scale; fowl tick; locust borer.

Painter, Prof. Reginald H(enry), Kansas State College, Manhattan, Kans. *Entomology.* Brownwood, Texas, Sept. 12, 01. A.B, Texas, 22, A.M, 24; Ph.D, Ohio State, 26. Asst. prof. *entom, Kans. State Col*, 26–30, assoc. prof, 30–41, *prof, 41–* Nat. Acad. grant, 32. A.A; fel. Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc; Soc. Nat. Resistance of crop plants to insects; taxonomy of Bombyliidae and Apioceratidae.

Painter, Prof. Theophilus S(hickel), University of Texas, Austin, Texas. *[4]*Zoology.* Salem, Va, Aug. 22, 89. A.B, Roanoke Col, 08; A.M, Yale, 09, Ph.D, 13, Sc.D, 36. Instr. *zool*, Yale, 14–16; adj. prof. and prof, *Texas*, 16–37, *research prof, 37–* Nat. Acad; Soc. Nat; Soc. Zool; Asn. Anat. Experimental zoology; mammalian cytology; cytogenetics.

Pait, Dr. Charles F(ranklin), Jr, 701 Irving St, Alhambra, Calif. *Bacteriology.* Calif, March 3, 10. A.B, San Jose State Col, 33; M.D, Stanford, 41. *Instr. bacter*, Stanford, 40–42; *Southern California, 42–; med. microbiologist, communicable disease unit, Los Angeles Gen. Hosp, 42–* Summer, instr, Southern California, 42. Soc. Bact. Medical bacteriology.

Palache, Prof. Charles, 106 Appleton St, Cambridge, Mass. *[2]*Geology, Mineralogy.* San Francisco, Calif, July 18, 69. B.S, California, 91, fellow, 92–94, Ph.D, 94, LL.D, 41. Instr. *miner, Harvard*, 96–01, asst. prof, 02–12, prof, 12–41, *emer. prof, 41–* Nat. Acad; A.A; Geol. Soc. (pres, 37); Miner. Soc. (pres, 21). Mineralogy; crystallography and paragenesis of American minerals; Dana system of mineralogy.

Palermo, Dr. Anthony James, Western Electric Co, Sharon, Pa. *Electrical engineering.* Schenectady, N. Y. B.S, Union (N. Y), 22, M.S, 24, Ph.D, 31. Instr. elec. eng, Union (N. Y), 22–36; head depts. math. and physics, St. Francis Col. (N. Y), 36–37; high voltage staff, Westinghouse Elec. and Mfg. Co; *mem. staff, West. Elec. Co.* Assoc. Radio Eng. Effect of displacement current on the high frequency resistance of single layer coils; distributed capacity of single-layer coils; twenty-hour soap film; voltage distribution in transformers during lightning surge.

Paley, Charles, 19 Hudson St, New York, N. Y. *Food chemistry.* Aug. 28, 97. B.S, Columbia, 19, M.S, 38; LL.B, St. John's, 28. Chemist, Electrosynth Chem. Co, 19–20; bur. foods and drugs, City Health Dept, New York, 20–22; Foods Sales Co, 22; inspector of foods, City Health Dept, New York, 23–26; chemist, *Certified Labs, Inc*, 26–30, *director, 30–* Lecturer, Delehanty Inst, N. Y, 29; co-lecturer, Columbia, 42. Mem. cmt, Nat. Formulary Clin. Lab. Preparations. Fel. Inst. Chem; Chem. Soc; Inst. Food Tech; Pub. Health Asn; Dairy Sci. Asn; N. Y. State Dairy Sanitarians Asn. Microbiology; testing of foods; bacteriology of milk and ice cream; enzymes of milk; testing equipment for foods; devices for food industry; test bottle for viscous foods; Broadhurst-Paley stain.

Pall, Dr. David B(oris), 129 W. 89th St, New York, N. Y. *Chemistry.* Ft. William, Ont, Can, April 2, 14. B.Sc, McGill, 36, Ph.D, 39; Brown, 36–37. *Group leader inorg. pigment div, research labs, Interchem. Corp, 40–* Nat. Research Council Can. grant, 37–38, 38–39. Physical and inorganic chemistry; critical phenomena; inorganic pigments.

Pall, Prof. Gordon, McGill University, Montreal, Que, Can. *Mathematics.* Winnipeg, Man, Can, Dec. 26, 07. B.A, Manitoba, 26; M.A, Toronto, 27; Ph.D, Chicago, 29. Nat. research fellow *math*, Calif. Inst. Tech, 29–31; lecturer, *McGill*, 31–34, asst. prof, 34–43, *assoc. prof, 43–* Guggenheim Mem. Foundation fellow, 40–41. Math. Soc; Math. Asn; fel. Royal Soc. Can. Theory of numbers; representation in quadratic forms.

Pallister, Dr. Helen (Mrs. W. O'D. Pierce), 222 Jefferson Ave, Brooklyn, N. Y. *Psychology.* Brooklyn, N. Y, Oct. 15, 07. A.B, Columbia, 29, univ. fellow, 31–32, Ph.D, 33, 40–41; Berlin, 28; Chicago, 30. Asst. psychol, Barnard Col, Columbia, 29–31, instr, 39–40; research assoc. psychol, Psychol. Corp, 33–34; St. Andrews Univ, Scotland, 35–38; *sch. psychologist, Columbia Grammar Sch, New York, N. Y*, 38–39, *40–; instr. psychol, Barnard Col, Columbia.* Personality tests; consumer research; personnel; differential occupational ability patterns; comparison of Scottish and American groups on standard interest and personality tests; psychological factors in art.

Pallister, Hugh D(avidson), 3754 Independence Road, Cleveland, Ohio. *Mining.* Cleveland, Ohio, May 31, 83.

B.S, Case, 06, E.M, 14. Mining and consulting engineer, 06–10; instr. mech. and hydraul. eng, Case, 08–10; metal. and mining, Pa. State Col, 10–12, asst. prof, 12–15; prof. and head depts. geol. and mining, Texas Sch. Mines, 15–19; supt. coal mines, McKinney Steel Co, 19–21; director, State Mine Exp. Sta. and sch. mines, Alabama, 21–29; v. pres, Mech. Develop. Co, Cleveland, 29–42; *mining engineer, U. S. Bur. Mines, 42–* Asst, Texas Bur. Econ. Geol. Petrol. Retailers of Ohio rep, subcmt, marketing cmt, dist. no. 2, petrol. indust. cmt, U. S. Petrol. Coordinator, 41–42. Consulting engineer, U. S. Shipping Board, 17–19. Coal Min. Inst; Nat. Asn. Petrol. Retailers (director, 37); Ala. Acad. Geology, mining and metallurgy of quicksilver, iron and coal; pumping equipment; paper mill equipment.

Palm, Dr. Charles E(dmund), Cornell University, Ithaca, N. Y. *Entomology.* Austin, Texas, June 24, 11. A.B, Arkansas, 31; Ph.D, Cornell, 35. Asst. bot. and entom, Arkansas, 29–31; biol, *Cornell,* 32–34, instr. entom, 34–35, asst. exten. entomologist, 35–36, asst. prof. *entom,* 36–38, *prof. and head dept, 38–* Asn. Econ. Entom; Entom. Soc. Amer. Forage crop insect pests; insect ecology.

Palmer, Prof. A(lbert) H(arold), Pennsylvania State College, State College, Pa. *Biochemistry.* Moncton, N. B, Can, 02. B.Sc, Mt. Allison, 26; fellow, Columbia, 28–29, Ph.D, 30. Instr. chem, Mt. Allison, 26–27; asst, Columbia, 27–28, 29–30; Sterling fellow, Yale, 30–31; instr. chem, col. med, N. Y. Univ, 31–41; *asst. prof. agr. biochem, Pa. State Col, 41–* Soc. Biol. Chem; Harvey Soc. Invertase; proteins; azoxybenzene; histochemistry; microanalysis and chemical embryology.

Palmer, Dr. Arthur, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Otolaryngology.* Oswego, N. Y, Aug. 30, 89. A.B, Brown, 11; M.D, Cornell, 15. Asst, N. Y. Post-Grad. Sch, 19–21, instr, 21–22, assoc. laryngol, 22–24; instr, *Cornell,* 23–27, asst. prof. and later *assoc. prof. clin. surg, 27–, acting head dept. otolaryngol.* Consulting laryngologist and otolaryngologist, Southside Hosp; laryngologist, N. Y. Infirmary Women and Children; otolaryngologist, Mather Mem. and State Reconstruction Hosp. Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol; fel. Col. Surg; Am. Med. Asn; Soc. Plastic and Reconstructive Surg. (pres, 39–41); N. Y. Acad. Med; Am. Med. Asn. of Vienna. Sinusitis; nasal polypus asthma; bronchoscopy; plastic surgery; tumors of larynx.

Palmer, Dr. Carroll E(dwards), U. S. Public Health Service, Washington, D. C. *Biostatistics.* Fairmont, Minn, Nov. 3, 03. B.S, Hamline, 25; A.M, Minnesota, 27, M.D, 28, Ph.D, 29. Nat. research fellow child develop, 28–30; instr. and assoc. biostatist, sch. hygiene and pub. health, Hopkins, 30–36; *passed asst. surgeon, U. S. Pub. Health Service, 36–* Statistician, Hopkins Hosp, 35–36. Consultant, U. S. Pub. Health Service, 32–36. Ed, 'Child Develop,' 38. Asn. Anat; Statist. Asn; Pub. Health Asn; Soc. Research Child Develop. (sec'y-treas, 34–, managing ed, publications, 35–). Medical statistics; child hygiene.

Palmer, Prof. C(harles) C(onger), University of Delaware, Newark, Del. *Animal diseases.* Canton, Ohio, July 20, 92. D.V.M, Ohio State, 12; M.S, Minnesota, 13–17; *prof. bacter. and hygiene, Delaware, 17–,* head dept. animal indust, 22–38, *director Haskell animal disease research, 39–* Lieut, V.C, 18. Vet. Med. Asn. (sec'y). Physiology; diseases of live stock.

Palmer, Prof. C(harles) Mervin, Butler University, Indianapolis, Ind. *Botany.* Chester, Pa, Aug. 25, 00. B.S, Pa. State Col, 22, M.S, 25; Ph.D, Indiana, 40. Instr. *bot,* Pa. State Col, 24–25; asst. prof, *Butler,* 25–41, *assoc. prof, 41–* Director, Civilian Pub. Service Camp No. 12, N. Y, 41. Limnol. Soc; Bot. Soc; Pa. Acad; Ind. Acad. (press sec'y, 41–). Algae of Indiana; morphology and taxonomy of Lemanea.

Palmer, D(ewey) H(omer), Hospital Bureau of Standards and Supplies, 247 Park Ave, New York, N. Y. *Engineering, Physics.* Stamford, Nebr, May 24, 98. B.S, Colorado, 22; M.S, Iowa State Col, 25; Columbia, 28–29. Instr, high sch, Colo, 22–24; teaching fellow and asst. instr. physics, Iowa State Col, 24–25; instr. and head dept, Kans. Wesleyan, 25–27; asst, Lincoln Sch, Columbia, 28–29; junior col, Calif, 29–31; head tech. dept, Consumers' Research, 31–35; tech. supervisor, Consumers' Union of U. S, 37–39; *research engineer, Hosp. Bur. Standards and Supplies, 39–; consultant, Office Price Admin, 41–* A.A; Hosp. Asn. (simplification and standardization cmt); Soc. Test. Mat; Asn. Textile Chem. and Colorists. Adaptation of the selenium cell to the measurement of small variations in the intensity of red light; ether drift experiments; rating sharpness and durability of razor blades; relation of automobile design to automobile accidents; standardization and simplification of consumer's goods.

Palmer, Dr. Dwight M(iller), Ohio State University College of Medicine, Columbus, Ohio. *Anatomy, Neuropsychiatry.* Scio, Ohio, Feb. 14, 06. B.S, Ohio State, M.D, 32, 33– Asst. anat, *col. med, Ohio State,* 27–29, instr, 29–34, asst. prof, 34–42, instr. neuropsychiat, 40–42, *assoc. prof. anat. and neuropsychiat, 42–* Mem. Am. Board Psychiat. and Neur. Am. Med. Asn; Asn. Anat; Ohio Acad. Embryology of the lung; neuro-anatomy; psychosomatic medicine; psychopathology.

Palmer, E(dmund) F(rank), Ontario Horticultural Experiment Station, Vineland Station, Ont, Can. *Horticulture.* Victoria, B. C, Oct. 17, 91. B.S.A, Toronto, 13. Asst. director, Ont. Fruit Branch, 13–16; *director, Ont. Hort. Exp. Sta, 16–; prof. hort, Ont. Agr. Col, 34–* A.A; Soc. Hort. Sci; Bot. Soc; Can. Soc. Tech. Agr. Breeding of horticultural crops.

Palmer, Prof. E(phraim) Laurence, Cornell University, Ithaca, N. Y. *Science education.* McGraw, N. Y, July 8, 88. A.B, Cornell, 11, A.M, 13, fellow, 16–17, Ph.D, 17. Asst. bot, Cornell, 10–13; prof, Iowa State Teachers Col, 13–19; asst. prof. *rural educ, Cornell,* 19–23, *prof, 23–* Exten. lecturer, California, 26–27. Summers, staff, California at Los Angeles, 22, 24; Iowa State Col, 23, 34; Utah Col, 25–27; Hawaii, 31; Washington, 37. Ed, 'Cornell Rural Sch. Leaflet,' 19–; director nature educ, 'Nature Magazine,' 25–A.A; N.E.A. (pres, dept. sci. instruction, 29); Ecol. Soc; Nature Study Soc. (sec'y, 25–28, pres, 35–37); Soc. Mammal; Wildlife Soc; Outdoor Writers Asn; Council Supervisors Nature Study and Gardening (pres, 27); Nat. Asn. Research Sci. Teaching; Iowa Acad. Botany; impurities of commercial seeds.

Palmer, E(rik) S(chjöth), Western Electric Co, Inc, 195 Broadway, New York, N. Y. *Engineering.* Cleveland, Ohio, Dec. 31, 85. Ph.B, Yale, 06; Columbia, 11–12. Instr. math, Rollins Col, 08–09; Rutgers, 09–12; prof. math. and chem, Rollins Col, 12–17; ballistic engineer, Winchester Repeating Arms Co, 17–20, research engineer, 20–30; *patent expert, West. Elec. Co, 30–* Ballistics; patents.

Palmer, E(rnest) J(esse), Arnold Arboretum, Jamaica Plain, Mass. *Botany, Forestry.* Leicester, Eng, April 8, 75. Baptist Col. (Mo). Field collector, Mo. Bot. Garden and *Arnold Arboretum, Harvard,* 13–18, *collector and research asst, 21–* A.A; Ecol. Soc; Fern Soc; St. Louis Acad. Botanical exploration; plant lists; taxonomy; plant geography; forest distribution.

Palmer, Dr. Fred S(hank), Middletown, Md. *Organic chemistry.* Middletown, Md, May 12, 08. B.S, Virginia, 30, Ph.D, 34. Mallinckrodt fellow alkaloid chem, Virginia, 34–35; *research chemist, E. I. du Pont de Nemours and Co, 35–* Chem. Soc. Catalytic hydrogenation of unsaturated ketones; preparation and structure of some amino-derivatives of morphine and codeine.

Palmer, Prof. F(rederic), Jr, Haverford College, Haverford, Pa. *Physics.* Brookline, Mass, Oct. 17, 78. A.B, Harvard, 00, A.M, 04, Ph.D, 13. Instr. math, Asheville Sch, N. C, 00–01; math. and physics, Worcester Acad, 01–03; *physics, Haverford Col,* 04–08, assoc. prof, 08–16, *prof, 16–* Lecturer, Harvard, 18–19. Lick Observatory, California, solar eclipse exped, Spain, 05. Exec. cmt, Inst. Physics, 32–40; physics examiner, Col. Ent. Exam. Board, 34– A.A; Physical Soc; Asn. Physics Teachers (v. pres, 32, pres, 33–35, chairman cmt. on awards); Franklin Inst; Physics Club Phila. (past pres). Ionization by Schumann rays.

Palmer, Prof. Geo(rge) D(avid), Jr, University of Alabama, University, Ala. *Chemistry.* Helena, Ark, Dec. 7, 97. B.S, Clemson Col, 19; A.M, Hopkins, 21, Ph.D, 24. Prof. chem, Guilford Col, 21–22; org. chem, Kans. State Col, 24–27; asst. prof. *chem, Alabama,* 27–30, *assoc. prof, 30–* Summer, asst, Bur. Standards, 19. A.A; Chem Soc. (chairman Ala. sect, 41); Inst. Chem; South. Asn. Sci. and Indust. (pres, 41, sec'y, 41–, treas. and chairman exec. cmt, 41); Ala. Acad. (pres, 40). Dyes; rubbers; plastics; phenol.

Palmer, Dr. George T(ruman), 125 Worth St, New York, N. Y. *Public health.* Chicago, Ill, June 17, 87. B.S, Rochester, 07; B.S, Mass. Inst. Tech, 09, M.S, 11; Dr.P.H, Michigan,

20. Asst, sanit. research lab, Mass. Inst. Tech, 09–11; sanit. inspector, State Dept. Health, N. J, 11–12, asst. to chief, div. sewerage and water supplies, 12–13; chief investigating staff, State Cmn. on Ventilation, N. Y, 13–17; epidemiologist, Detroit Dept. Health, 19–23; director div. research, Child Health Asn, 23–34; Dept. Health, New York, 34–35, deputy commissioner, 36–43; *asst. director, Am. Pub. Health Asn, 43–* Lecturer, L. I. Col. Med, 34–40; St. John's. Mem. advisory cmt, Oriental Science Lit. Service. Mem, N. Y. Cmn. on Ventilation, 23–28. Sanit.C, 17–19, capt. Pub. Health Asn. (cmt. admin. practise; chairman subcmt. manual practise and appraisal of local health work; mem. governing council, 41); Soc. Pub. Admin. (v. pres, N. Y. chap, 41). Epidemiology; school ventilation; public health statistics and surveys; health of school children; public health administration.

Palmer, Dr. H(arold) K(ing), 1741 S. Harvard Blvd, Los Angeles, Calif. *Astronomy, Engineering.* Berkeley, Calif, Jan. 20, 78. B.S, California, 98, fellow, 98–02, Ph.D, 03. Asst, D. O. Mills exped, South. Hemisphere, 03–05; Lick Observatory, California, 05–06; solar observatory, Carnegie Institution, 06; with West. Elec. Co, 07; Lucile Oil Co, 08; engineer, U. S. Indian Service, 09–25; designing engineer, *Los Angeles County Sanit. Districts,* 25–40, *office engineer, 40–* Instr, California, 03. Civil Eng. Spectra of faint nebulae; celestial photography; irrigation and sanitary engineering; hydraulics; flow meters.

Palmer, Prof. Harold S(chjöth), University of Hawaii, Honolulu, Hawaii. *Geology.* Cleveland, Ohio, June 4, 90. A.B, Yale, 12, Ph.D, 23; Vienna, 26–27. Geol. aid, U. S. Geol. Surv, 14–16, asst. geologist, 16–18, assoc. geologist, 18; instr. *geol,* Trinity, 19–20; asst. prof, *Hawaii,* 20–23, *prof, 23–,* director grad. work, 25–34. Asst, Yale Cent. Andean exped, 13; Bishop Museum, Honolulu, 'Tanager' expeds, 23, 24. U.S.A, 18–19. A.A; Geol. Soc; Meteorol. Soc; Geophys. Union; Hawaiian Acad. (pres, 29). Geology of ground waters; areal geology in Hawaii.

Palmer, Dr. H(enry) F(rancis), 519 Mineola Ave, Akron, Ohio. *Chemistry.* Lynn, Mass, July 2, 99. A.B, Dartmouth Col, 21; M.S, Ohio State, 22, univ. fellow, 23–24, Grasselli fellow, 24–25, Ph.D, 25, Ch.E, 38. Instr. chem, Dartmouth Col, 22–23; research chemist, Firestone Tire and Rubber Co, 25–26; *chief chemist, Xylos Rubber Co, 26–; production manager synthetic rubber plants, Rubber Reserve Co, 42–* Chem. Soc. (chairman, Akron sect, 28, mem, exec. cmt, rubber div, 30); Chem. Eng; fel. Inst. Chem. Automatic melting point apparatus; rate of cure, effect of temperature on tensile alkalinity determination, chloroform extract, T-50 test, test formulae and natural aging of reclaimed rubber; automatic proportioning of liquid chemicals in reclaimed rubber plant.

Palmer, Howard, Box 527, Westerly, R. I. *Geography.* Norwich, Conn, Nov. 28, 83. A.B, Yale, 05; LL.B, Harvard, 08. *Explorer; author; lecturer.* Exploring and mapping, North. Selkirk Mountains, B. C, Can, 08–12, 15; explorer, Can. Rockies between Mt. Columbia and Mt. Robson, 16, 19, 20, 23–27. Trustee, Pub. Library, New London, Conn. Explorers' Club; Am. Alpine Club (sec'y, 11–17, v. pres, 23–26, pres, 26–29); cor. mem. Phila. Geog. Soc; New London County Hist. Soc. (v. pres, 29–); fel. Royal Geog. Soc; British Alpine Club. Mountain exploration; motion of glaciers; history and topography of the Canadian Cordillera.

Palmer, J(ames) C(larence), 502 Federal Office Bldg, Seattle, Wash. *Chemistry.* Williston, N. Dak, March 17, 93. Ph.C, Washington (Seattle), 14, B.S, 16. Asst. state chemist. Wash, 16–17; research chemist, evaporated fruits and vegetables, Wittenberg King Co, Oregon, 18; bur. chem. and later *food and drug admin,* U. S. Dept. Agr, 18–39; *Fed. Security Agency, 39–,* chemist, west. dist, field inspection service, *chief chemist, Seattle sta.* Chem. Soc. (v. chairman, Puget Sound sect, 31, chairman, 32). Analysis of egg products.

Palmer, Dr. John W(arren), E. R. Squibb and Sons, New Brunswick, N. J. *Biochemistry.* Marshalltown, Iowa, July 27, 08. A.B, Iowa, 28, M.S, 29; George Blumenthal, Jr, fellow, Columbia, 29–31, Ph.D, 33. Asst. chem, Iowa, 28–29; biochem, col. physicians and surg, Columbia, 31–36, instr, 36; *biochemist, biol. lab, E. R. Squibb and Sons, 36–* Asst. chemist, eye service, Presb. Hosp, 33–36. A.A; Chem. Soc; N. Y. Acad. Chemistry of the skin; halogen metabolism; chemistry of mucins and mucoids; chemistry of the eye; bacterial carbohydrates and antigens; antitoxins and antibodies; serum proteins.

Palmer, Dr. Katherine (E. H) Van Winkle, 206 Oak Hill Road, Ithaca, N. Y. *Paleontology.* Oakville, Wash, Feb. 4, 95. B.S, Washington (Seattle), 18; Goldwin Smith fellow, Cornell, 18–20, Ph.D, 25. Asst. geol, Oregon, 18; Cornell, 21, 25; asst. prof. hist. geol. and paleont, Washington (Seattle), 22; Heckscher asst. paleont, Cornell, 25–27, Oberlin curator, 28–29, lecturer, 42–43. Summers, prof, Utah Col, 25–27. A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Geol. Soc; Paleont. Research Inst. (pres, 36, trustee); Calif. Acad; Soc. géol. de France; Soc. linn. de Lyon. Oligocene and Eocene of Washington; Veneridae; Gastropoda of middle and upper Eocene of southern United States.

Palmer, Dr. Kenneth J(ames), U. S. Department of Agriculture, Albany, Calif. *Physical chemistry.* Oakland, Calif, Sept. 15, 10. B.S, California, 35; Ph.D, Calif. Inst. Tech, 38. Asst, Washington (St. Louis), 38–41; *assoc. chemist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Chem. Soc. X-ray and electron diffraction studies of agricultural products.

Palmer, L(awrence) A(lfred), 4845 Leland St, Chevy Chase, Md. *Physics, Chemistry.* Dunavant, Kans, Jan. 19, 92. A.B, Nebraska, 17; M.S, George Washington, 28. Assoc. chemist, Bur. Standards, 20–23; research chemist, Glass Containers Asn, 23–25; research assoc, Bur. Standards, 25–34; chemist and research specialist, bur. pub. roads, U. S. Dept. Agr, 35–41; *senior engineer soil mech, bur. yards and docks, U. S. Navy Dept, 41–* Mem, Hy. Research Board. Soc. Test. Mat; Ceramic Soc. Ceramics; glass; clay products; lime and cement; masonry mortars; soil mechanics; mechanics and foundation engineering; soil stabilization.

Palmer, L(awrence) J(ohn), U. S. Biological Survey, Juneau, Alaska. *Biology.* Rockford, Ill, Jan. 19, 93. Nebraska, 11–15. Asst. forest ranger, U. S. Forest Service, 15–16, forest ranger, 16–17, grazing asst. and examiner, 17–18, grazing examiner and in charge grazing studies, dist. 4, 19–20, asst. in charge reindeer grazing investigations, bur. biol. surv, U. S. Dept. Agr, Alaska, 20–28, senior biologist in charge, Reindeer Exp. Sta, Alaska Agr. Col, 28–36; *with* Rocky Mt. Forest and Range Exp. Sta, U. S. Forest Service, 36–37; *U. S. Biol. Surv, Alaska, 37–* U.S.N.R, 18. A.A; Soc. Foresters; Soc. Mammal; Ecol. Soc; Forestry Asn; Game Protect. Asn. Alaska reindeer, mountain sheep and muskoxen; reindeer raising.

Palmer, Prof. L(eroy) S(heldon), 2262 Carter Ave, St. Paul, Minn. *Biochemistry.* Rushville, Ill, March 23, 87. B.S, Missouri, 09, A.M, 11, Ph.D, 13. Chemist, dairy div, U. S. Dept. Agr, 09–13; asst. prof. dairy chem, Missouri, 13–19; assoc. prof. *agr. biochem, Minnesota,* and dairy chemist, Exp. Sta, 19–22, *prof, 22–, chief div, 43–* Borden award, Am. Chem. Soc, 39. A.A; Soc. Biol. Chem; Chem. Soc; Genetic Asn; Soc. Exp. Biol; Dairy Sci. Asn; Inst. Nutrition; Inst. Food Technol; Acad. Polit. and Social Sci. Agricultural and dairy chemistry; carotenoides; physical chemistry of milk and dairy products; animal nutrition; vitamins.

Palmer, Prof. Lewis Franklin, 319 Terrace Ave, Cincinnati, Ohio. *Mathematics.* Washington, D. C, Feb. 22, 98. C.E, Cincinnati, Ph.D, 33. *Asst. prof. civil eng, Cincinnati, 23–* Summability of Fourier series.

Palmer, Prof. Martin F(ranklin), Municipal University of Wichita, Wichita, Kans. *Speech.* Adrian, Mich, Oct. 25, 05. A.B, Olivet Col. (Mich), 27; A.M, Michigan, 31, Sc.D, 37. Head dept. speech, Kans. Wesleyan, 31–32; prof. speech path, Marymount Col, 33–34; assoc. prof. speech sciences and acting head dept, *Munic. Univ. Wichita,* 34–37, *prof. and head dept,* 37–39, *logopedics, 39–, director inst. logopedics, 39–* A.A; fel. Speech Correction Asn. (chairman cmt. educ, 41–; exec. councilor, 42–); Soc. Hard of Hearing; Kans. Acad. Speech defects and disorders; correlation of physiological mechanisms and speech; stuttering; technics in cleft palates; cerebral palsy; dysphonia.

Palmer, Prof. M(aurice) B(uell), 125 N. Pearl St, Kent, Ohio. *Chemistry.* Mt. Pleasant, Iowa, May 8, 02. B.S, Iowa Wesleyan, 25; M.S, Iowa, 26, Ph.D, 29. Instr, high sch, Redfield, Iowa, 22–24; teaching fellow, Iowa, 25–29; research chemist, Standard Oil Co, 29–31; *assoc. prof. chem, Kent State Univ, 31–* Chem. Soc. Physical and colloidal chemistry; properties of solutions; vapor pressure of gasolines; conservation; critical miscibility phenomena in binary liquid mixtures; hydrogen ion concentration of gels.

Palmer, Prof. Miriam A(ugusta), Colorado State College, Ft. Collins, Colo. *Entomology.* Phoenixville, Pa, Aug. 28, 78. A.B, Kansas, 03, A.M, 04; M.S, Colo. Agr. Col, 25.

Insect delineator, Exp. Sta, Colo. Agr. Col, 04–35, *Colo. State Col, 35–,* instr. drawing, 04–06, physiol. and zool, 18–37, *assoc. prof. entom, 37–* A.A; fel. Entom. Soc. Amer. (v. pres, 42–); Colo-Wyo. Acad. Aphidae of Colorado.

Palmer, Dr. R(alph) Ronald, 836 College, Beloit, Wis. *Physics.* Balaton, Minn, Jan. 28, 05. A.B, Macalester Col, 26; Ph.D, Minnesota, 31. Asst. *physics,* Minnesota, 26–31, instr, 31–32; James Millikin, 32–35, asst. prof, 35–38, assoc. prof, 38–40, *prof,* 40–43; *Beloit Col, 43–* Physical Soc. Electron scattering in gases at low pressures.

Palmer, Dr. Ralph S(imon), Vassar College, Poughkeepsie, N. Y. *Vertebrate zoology.* Richmond, Maine, June 13, 14. A.B, Maine, 37; Ph.D, Cornell, 40. Asst. ornith, Cornell, 38–39; asst, State Conservation Cmn, N. Y, 42; instr. zool, conservation div, Vassar Col, 42–43; *ensign, U. S. Naval Res, 43–* Summer, mem, exped. to Hudson Bay, 40. Assoc. Ornith. Union; Soc. Mammal. Mammalogy; bird behavior; vertebrate ecology.

Palmer, R(ichard) C(laxton), Dominion Experiment Station, Summerland, B. C, Can. *Agriculture.* Victoria, B. C, Jan. 13, 97. B.S.A, British Columbia, 21, M.S.A, 23. Asst. supt, *Dom. Exp. Sta,* 21–26, chief asst. in charge pomol. investigation, 26–32, *supt, 32–* Soc. Hort. Sci; Can. Soc. Tech. Agr. Physiological diseases of apples, especially Jonathan breakdown; breeding, culture, harvesting, storage and root stock of apples and pears.

Palmer, Dr. R(obert) H(astings), Neptuno 1060, Habana, Cuba. *Geology, Paleontology.* Toledo, Ohio, Dec. 1, 82. A.B, Adrian Col, 06; A.M, Utah, 09; J.D, Chicago, 12; Ph.D, Stanford, 26. Practising lawyer, 12–17; prof. paleont, Washington (Seattle), 20–21; chief paleontologist and stratigrapher, Inst. Geol. Mex, 21–23; consulting geologist, 23–24; *geol. work,* U. S. and S. Amer, 25–29; *Cuba, 29–* U.S.A, 17–18. A.A; Asn. Petrol. Geol; Geol. Soc; Cooper Ornith. Club; Soc. géol. de France. Rudistids of Mexico and Cuba; corals of southern Mexico; geology of Hidalgo, Mexico and Vera Cruz; geology of Lake Chapala; Eocene echinoids of Cuba; geology of Cuba.

Palmer, Dr. Rufus N, 476 Broadmoor Ave, Mt. Lebanon, Pa. *Engineering.* Bath, Maine, March 7, 02. B.S, Mass. Inst. Tech, 25, Sc.D, 38. Research engineer, Exolon Co, 25–34; *indust. fellow, Mellon Inst, 37–* Chem. Soc; Ceramic Soc; Soc. Metals. Chemical and mechanical engineering; artificial abrasives and refractories; electromagnetic ore separators; electrodeposition of ceramic materials; properties and new uses for fine silica; pearl button machinery design.

Palmer, Prof. Samuel C(opeland), 526 S. Orange St, Media, Pa. *Zoology.* Concord, Pa, April 27, 74. A.B, Swarthmore Col, 95, A.M, 07; fellow, Harvard, 07–08, 10–11, A.M, 09, Ph.D, 12. Asst. zool, Harvard, 07–09; Radcliffe Col, 08–09; acting asst. prof. zool. and geol, *Swarthmore Col,* 09–10, asst. prof, 10–25, assoc. prof. biol, 25–26, *prof,* 26–30, *bot, 30–* Lecturer, Wagner Free Inst, 11. Botanist, Bowdoin-Baffin Land exped, 29. A.A; Soc. Zool; assoc. Ornith. Union; Del. Valley Ornith. Club (treas, 12–27, pres, 30–32); Acad. Nat. Sci. Phila; Phila. Bot. Club. Histology of the vertebrate retina.

Palmer, Prof. Stanley G(ustavus), 533 University Terrace, Reno, Nev. *Electrical engineering.* Waterville, Maine, Sept. 18, 87. B.S, Nevada, 09; M.E, Cornell, 10. Student engineer, Telluride Power Co, Utah, 10–11; electrician, South. Pacific Co, 11–15; instr. *elec. eng, Nevada,* 15–17, asst. prof, 17–18, *prof. and head dept, 18–,* acting dean *col. eng,* 41–42, *dean, 42–* Sec'y, State Licensing Board Professional Engineers, Nev. A.A; Elec. Eng; Eng. Educ.

Palmer, Dr. T(heodore) S(herman), 1939 Biltmore St, Washington, D. C. *Zoology.* Oakland, Calif, Jan. 26, 68. A.B, California, 88; M.D, Georgetown, 95. Field agent, U. S. Dept. Agr, 89–90, first asst. ornithologist, 90–96, asst. chief, bur. biol. surv, 96–02, asst. in charge game preservation, 02–10, asst. chief, 10–14, in charge game preservation, 14–16, expert in game conservation, 16–24, biologist, 24–28, senior biologist, regulation of importation birds and mammals, 28–33; *hon. assoc. zool, U. S. Nat. Museum, 33–* A.A; Soc. Nat; fel. Ornith. Union (sec'y, 17–37); Soc. Mammal. (v. pres, 31–35); Genetic Asn; Bison Soc; Fisheries Soc; Forestry Asn; Soc. Foresters; Nat. Asn. Audubon Societies (v. pres, 05–36); Cooper Ornith. Club; Baird Ornith. Club; Wilson Ornith. Club; Biol. Soc. Wash. (v. pres, 02–08, pres, 09–10); Wash. Acad; Calif. Acad; cor. mem. Ornith. Gesell. Bavaria; Royal Hungarian Ornith. Inst. Nomenclature of mammals and birds; index of genera of mammals; game protection; biography of zoologists.

Palmer, Prof. Walter L(incoln), 1320 E. 58th St, Chicago, Ill. *Medicine.* Evanston, Ill, June 29, 96. B.S, Chicago, 18, M.S, 19, M.D, 21, Ph.D, 26. Asst. prof. *med, Chicago,* 26–30, assoc. prof, 30–41, *prof, 41–* A.A; Soc. Exp. Biol; Soc. Clin. Invest; Gastro-Enterol. Asn; Am. Physicians; fel. Col. Physicians; Cent. Soc. Clin. Research. Diseases of the gastro-intestinal tract.

Palmer, Prof. Walter S(tanley), University of Nevada, Reno, Nev. *Metallurgy.* Waterville, Maine, May 29, 84. B.S, Nevada, 05; E.M, Columbia, 07. Gen. practise mining and metal, 05–08; chemist, Balakala Copper Co, Calif, 08–09; mining engineer, U. S. Gen. Land Office, 09–10; instr. and asst. prof. mining and metal, *Nevada,* 10–16, *prof. metal, 16–,* acting prof. mining and director, Mackay Sch. Mines, 22–24. Consulting engineer, 10–; gen. manager, Bullshead Mining and Smelting Co, 19; chemist and metallurgist, State Mining Lab, Nev, 10–23, director, 23–; consulting metallurgist, U. S. Bur. Mines, Nev, 18; certifying adviser indust. furloughs, mining and smelting industries, Nev, 18. Min. and Metal. Eng. Metallurgy of gold and silver; non-metallics.

Palmer, Prof. W(alter) W(alker), 24 Gramercy Park, New York, N. Y. *[4]*Medicine.* Southfield, Mass, Feb. 27, 82. B.S, Amherst Col, 05, Sc.D, 22; M.D, Harvard, 10, fellow, 12–13, 14–15; grad, Mass. Gen. Hosp, 11. Instr. physiol. chem, Harvard, 12–13; house physician, Mass. Gen. Hosp, 13–15; asst. med, Rockefeller Inst, and asst. res. physician, hosp, 15–17; assoc. prof. *med.* and acting director dept, Columbia, 17–19; assoc. prof, Hopkins, 19–21; *Bard prof, Columbia, 21–* Visiting physician, Presb. Hosp, New York, 17–19, 21–, acting director med, 17–19, director, 21–; assoc. visiting physician, Hopkins Hosp, 19–21. Amherst Col. paleont. exped, Wyoming, 04. Med. div, Nat. Research Council, 24–26; Nat. Board Med. Examiners. A.A; Am. Med. Asn. (council pharmacy and chem); Am. Physicians; Soc. Exp. Biol. (councilor, 30); Soc. Clin. Invest. (sec'y, 17); Harvey Soc. (pres, 26); N. Y. Acad. Med. Metabolism; acid-base equilibrium; diabetes mellitus; nephritis.

Palmie, Prof. Anna H(elene), Ormond, Fla. *Mathematics.* Brooklyn, N. Y, May 21, 63. Ph.B, Cornell, 90, fellow, 90–91; Chicago, 96; Göttingen, 98–99. Instr. German and math, Horace Mann Sch, 91–92; *math, Flora Stone Mather col, Western Reserve,* 92–93, assoc. prof, 93–95, prof, 95–28, *emer. prof, 28–*

Palmiter, Dr. D(eForest) H(arold), Rochdale Road, Poughkeepsie, N. Y. *Plant pathology.* Antigo, Wis, May 12, 04. B.S, Oregon State Col, 27; M.S, Wisconsin, 29, Ph.D, 32. Instr. bot, Oregon State Col, 27–28; asst. *plant path,* Wisconsin, 28–37; research assoc. and later *asst. prof, Hudson Valley fruit investigations lab, Vassar Col, N. Y. Agr. Exp. Sta, 37–* Phytopath. Soc. Fruit diseases; fungicides.

Palmquist, Prof. Edward M(arshall), University of Missouri, Columbia, Mo. *Botany.* Claremont, N. H, Feb. 7, 07. B.S, Cornell, 31, M.S, 33, Ph.D, 36. Instr. *bot,* Cornell, 31–39; asst. prof, McGill, 39–42, *assoc. prof, Missouri, 42–* Exchange instr, Ohio State, 37. Bot. Soc; Sullivant Moss Soc. Plant physiology.

Palser, Dr. Barbara F(rances), University of Chicago, Chicago, Ill. *Botany.* Worcester, Mass, June 2, 16. A.B, Mt. Holyoke Col, 38, A.M, 40; Ph.D, Chicago, 42. *Instr. bot, Chicago, 42–* Histological and cytological responses of plants to growth-promoting substances.

Palsgrove, Prof. Grant K(nauer), 1514 Sage Ave, Troy, N. Y. *Hydraulic engineering.* Pottstown, Pa, Oct. 1, 88. M.E, Rensselaer Polytech, 11. Asst. mech. eng, *Rensselaer Polytech,* 11–13, instr, 13–17, asst. prof, 17–20, *prof. hydraul. eng. and sec'y faculty, 20–* Summers, Rensselaer Polytech, 13–17; mech. engineer, Am. Locomotive Co, N. Y, 17–20; hydraul. dept, Wm. Cramp and Sons, S. and E. B. Co, Phila, 20, 22–27. Consultant, City of Saratoga Springs, N. Y, 32–34; consultant and tech. expert, South. States Power Co, 38–; consultant, W. and L. E. Gurley Co, 39–; Blue Ribbon Potato Chip Co; Cluet Peabody Co; Mammala Corp; Del. and Hudson R.R. Co; mem. educational staff, Munic. Training Inst. N. Y. State, 37–40. Chairman board directors, Rensselaer Cent. R.R. Co, 38– Expert examiner, State Civil Service Cmn, N. Y, 19. Power plant inspector, U. S. Fuel Admin. Cmn, 18. Am. advisory council, Yenching Univ, Peiping, China. A.A; Mech. Eng; Eng. Educ. (v. chairman, mid-Atlantic states sect, 37); Asn. Mil. Eng; Acad. Polit. and Social Sci; Nat. Soc.

Professional Eng; N. Y. State Soc. Professional Eng. (sec'y-treas, Rensselaer County chap, 32–35, pres, 35); Soc. Eng. East. N. Y. (board governors, 24–, v. pres, 29, pres, 30); Rensselaer County Tuber. and Pub. Health Asn. Mechanical engineering; hydraulics; pipe flow by graphical analysis; variable flow of fluids.

Pan, Dr. Wen-Yuan, 331 Harvard St, Cambridge, Mass. *Electrical communication.* July 15, 12. B.S, Chaio-Tung Univ, 35; E.E, Stanford, 39, Ph.D, 40. *Chief radio engineers, Universal Trading Corp. and China Defense Supplies.* Soc. Mil. Eng. Ultra-high frequency ranging; locating of aeroplanes and battleships.

Panagiotákos, Dr. P(aul) C(harles), 290 Branch St, Lowell, Mass. *Chemistry.* Lowell, Mass, 14. B.S, Mass. Inst. Tech, 35, Ph.D, 39. Research org. chemist, Atlantic Ref. Co, Philadelphia, Pa, 35–36, 37; Lucidol Corp, Buffalo, N. Y, 40; teaching fellow org. chem, Mass. Inst. Tech, 36–38; *in charge dept. org. chem, Lowell Textile Inst, 39–* Second lieut, C.W.Res, 35. Organic peroxides; alkaloids; petroleum; lubrication; cancer.

Pañganiban, Dr. Elias H, Faraon, Occidental Negros, P. I. *Agricultural chemistry.* Bocawe, Bulacan, P. I, July 30, 91. B.Agr. Philippines, 15, B.S, 20, M.S, 21; Philippine fellow, Cornell, 22–24, Ph.D, 24. Instr. agr. chem, Philippines, 20–22, asst. prof, 25–27; manager, Faraon Farm, Occidental Negros, 27–28; *sugar planter, 28–* A.A; Philippine Soc. Adv. Research; Philippine Asn. Sugar Technol. Soil bacteriology; analytical chemistry.

Pangborn, Dr. Mary C(andace), New York State Department of Health, Albany, N. Y. *Biochemistry.* New York, N. Y, Aug. 13, 07. A.B, Smith Col, 27; Ph.D, Yale, 31. Asst. chem, Woman's Med. Col. of Pa, 28–29; Nat. Tuber. Asn. fellow, Sterling chem. lab, Yale, 31–34; *asst. biochemist, State Dept. Health, N. Y, 34–* A.A; Soc. Biol. Chem; Chem. Soc; N. Y. Acad. Lipids; lipid antigens.

Pankratz, Dr. David S(chultz), University of Mississippi, University, Miss. *Anatomy.* Cordell, Okla, Oct. 14, 98. A.B, Bethel Col, 23; A.M, Kansas, 27, Ph.D, 29; M.D, Chicago, 38. Asst, Bethel Col, 22, instr. biol, 24; asst, Kansas, 25–27, instr. *anat,* 27–29; col. med, Tennessee, 29–30, asst. prof, 30–38; *prof, sch. med, Mississippi, 38–* Summers, Marine Biol. Lab, Woods Hole, Mass, 27; research guest, Wistar Inst, 28, 29. A.A; Asn. Anat. Cranial musculature and nerve components in the toadfish; development of suprarenal gland in the albino rat and the origin of foetal movements; development of foetal movements in the rabbit and the bat and the causes of their origin; behavior of the pouch opossum.

Panofsky, Dr. Hans Arnold Albert, 2132 Grand Ave, Bronx, N. Y. *Astronomy.* Cassel, Germany, Sept. 18, 17. A.B, Princeton, 38; Ph.D, California, 41. *Instr.* astron, Wilson Col, 41–42; *meteorol, N. Y. Univ, 42–* Sunspot number variation; telluric oxygen bands.

Panofsky, Dr. Wolfgang K. H, 668 E. California St, Pasadena, Calif. *Physics.* Berlin, Germany, April 24, 19. A.B, Princeton, 38; Ph.D, Calif. Inst. Tech, 42. *Assoc. physicist, Nat. Defense Research Cmt, Calif. Inst. Tech, 42–* Physical Soc; Math. Soc.

Panshin, Prof. Alexis J(ohn), Michigan State College, East Lansing, Mich. *Forestry.* Voronege, Russia, Oct. 18, 01. B.S, Syracuse, 27, M.S, 29, Ph.D, 31. Asst, N. Y. State Col. Forestry, Syracuse, 28–31, research fellow, 31–34; asst. technologist, Forest Products Lab, U. S. Forest Service, 34–35; asst. prof. *forestry, Mich. State Col,* 35–41, *assoc. prof, 41–* Soc. Foresters; Soc. Bot; Int. Asn. Wood Anat. Wood technology and anatomy; woods of the Philippine mangrove swamps; timber of the west coast of Africa; comparative anatomy of the Meliaceae and Verbenaceae; development of vessels in the angiosperms; causes of birdseye maple formation; fireproofing of wood.

Pantsios, Dr. Athan A(nastasov), 5455 Blackstone Ave, Chicago, Ill. *Organic chemistry.* Macedonia, May 2, 12. B.S, Chicago, 34, M.S, 36, Ph.D, 38. Consultant, insecticides, Murray and Nickel Manufacturing Co, 34–37; Eli Lilly fellow chemotherapy, Chicago, 37–40; *chief chemist, Ill. Adhesive Products Co, 40–* Chem. Soc; Kent Chem. Soc. (pres, 37). Cholesterol and the male-sex hormones; organic condensations by means of halogen acids; synthetic chemotherapeutic agents; insecticides; adhesives; plastics.

Panyity, L(ouis) S(amuel), 94 Main St, Bradford, Pa. *Geology.* Budapest, Hungary, Aug. 7, 90. Pittsburgh. Chief geologist, subsidiaries of Columbia Gas and Elec. Co, 15–22; valuation engineer, oil and gas sect. internal revenue, Nat. Resource Div, 22–23; *consulting geologist, 23–* Instr, Pittsburgh, 13. Asn. Petrol. Geol; Min. and Metal. Eng. Petroleum geology; oil and gas.

Papadakis, Dr. Ph(ilippos) E(mmanuel), 1455 Jesup Ave, New York, N. Y. *Chemistry.* Voutais, Candia, Crete, Greece, April 12, 94. B.S, Coe Col, 20; A.M, Columbia, 21, Ph.D, 30. Asst. chem, Columbia, 23–25, org. chem, 25–29; org. and qualitative chem, *Wash. Sq. Col, N. Y. Univ,* 29–31, *instr. chem, 31–, research chemist, dept. therapeutics, med. sch, 42–* Corporal, U.S.A, 18–19. Enzymes; invertase and raffinase; carbohydrates; monomethyl-diethylmercaptoglucose; 1, 2-monoacetone-5, 6-benzophenone-alpha-d-glucofuranose; catalytic hydrogenation of acetals of aromatic ketone sugars; dibenzylidene derivatives of glucose and glucuronic acid; optical rotation, absorption spectra and examination of the isomeric glucononitriles; cardiac glycosides.

Papageorge, Dr. Evangeline (Thomas), Box 747, Emory University, Ga. *Biochemistry.* Constantinople, Turkey, Dec. 1, 06. A.B, Agnes Scott Col, 28; fellow, Emory, 28–29, M.S, 29; Ph.D, Michigan, 37. Asst. *biochem, Emory,* 29–31, *instr,* 32–34, 35–38, *asst. prof, 38–* Sterling research fellow, Yale, 41–42. A.A; Chem. Soc; Ga. Acad; N. Y. Acad. Intermediary metabolism of phenylalanine; clinical chemistry; anterior pituitary adrenotropic factor.

Papanicolaou, Dr. G(eorge) N(icholas), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Biology, Anatomy.* Coumi, Greece, May 13, 83. M.D, Athens; Ph.D, Munich. Asst, Oceanog. Museum, Monaco, 11; dept. path, N. Y. Hosp, 13–14; *dept. anat, med. col, Cornell,* 14–16, instr, 16–23, asst. prof, 23–37, *assoc. prof, 37–* Physiologist, Prince of Monaco oceanog. exped, 11. Asn. Anat; Soc. Zool; Soc. Exp. Biol; Harvey Soc; cor. mem. Acad. Athens. Sex; reproduction; endocrine glands; oestrus.

Papenfuss, Dr. E(mma) J(ohnstone), care of G. F. Papenfuss, University of California, Berkeley, Calif. *Zoology.* Kansas City, Mo, March 10, 04. A.M, Hopkins, 31, Ph.D, 33. Fellow by courtesy, Lund and Uppsala, 34–35; Cape Town, 35–36, demonstrator, 37–39; mem. faculty, Chapman Col, 40. Tissue fusion; taxonomic significance of nematocysts; taxonomy of zoanthids.

Papenfuss, Prof. G(eorge) F(rederik), University of Hawaii, Honolulu, Hawaii. *Botany, Marine algology.* Harrismith, S. Africa, Nov. 4, 03. B.S, N. C. State Col, 29; Ph.D, Hopkins, 33. Asst. bot, Hopkins, 29–31, instr, col. for teachers, 33–34, Johnston scholar, 34–36; fellow by courtesy, Lund and Uppsala, 34–35, Cape Town, 35–38, Lund, 39–40; *asst. prof. bot, Hawaii, 40–* Lecturer, Capetown, 38. Summers, mem. Hopkins exped, Jamaica, 32; instr, Chesapeake Biol. Lab, 33. Bot. Soc. Morphology and taxonomy of marine algae.

Papez, Prof. James W(enceslas), Cornell University, Ithaca, N. Y. *Anatomy.* Glencoe, Minn, Aug. 18, 83. A.B, Minnesota, 08, fellow, 09–11, M.D, 11. Prof. anat, histol. and embryol, Emory, 12–16, gross anat. and neur, 16–19, applied anat, 19–20; asst. prof. anat. and neur, *Cornell,* 20–37, *prof. anat, 37–* Sec'y, Ga. Anat. Board, 13–19. A.A; Asn. Anat; Soc. Physical Anthrop; Asn. Research Nervous and Mental Disease; Neur. Asn. Atrial musculature; reticulospinal tracts in the cat; subdivision of facial nucleus; superior olives and colliculi; comparative neurology; thalamic evolution of medial geniculate body; the brain as an organ; intestinal anomaly; the mechanism of emotions; neurology.

Papish, Prof. Jacob, Cornell University, Ithaca, N. Y. *Chemistry.* Russia, Aug. 4, 87. B.S, Valparaiso, 10; A.M, Indiana, 17; Ph D, Cornell, 21. Prof. anal. chem, Valparaiso, 10–14; instr. chem, Indiana, 16–18; Purdue, 18–19; *Cornell,* 19–25, asst. prof. chem. spectros, 25–29, *prof. chem, 29–, chairman dept.* Inorganic chemistry; chemistry of the rarer elements.

Pappenhagen, Prof. L(ouis) A(bell), 705 W. State St, Alliance, Ohio. *Chemistry.* Perrysburg, N. Y, Feb. 27, 95. B.S, Allegheny Col, 15; M.S, Northwestern, 16; Ph.D, Ohio State, 25. Chemist, Nat. Transit Co, 18; asst. prof. *chem,* Ohio Wesleyan, 18–25; *prof, Mt. Union Col, 25–* A.A; Chem. Soc; Ohio Acad; Deuts. Chem. Gesell. Metallic silver as an ultimate standard in volumetric analysis; use of selenium cell in turbidimetry; chemical tests for insulating oils; indicator electrodes in alcohols.

Pappenheimer, Prof. A(lwin) M, Jr, New York University, New York, N. Y. *Biochemistry.* Cedarhurst, N. Y, Nov. 25, 08. B.S, Harvard, 29, Ph.D, 32. Instr. and tutor biochem. sciences, Harvard, 30–33; nat. research fellow med, 33–34; instr. applied immunol, sch. pub. health, Harvard, 36–39; sr. chemist, State Antitoxin and Vaccine Lab, Mass, 36–39; *asst. prof.* biochem. and bacter, sch. med, Pennsylvania, 39–41; *bacter, col. med, N. Y. Univ, 41–; capt, Sanit. Corps, U. S. Army.* Edward Hickling Bradford fellow, Harvard Med. Sch, 36–37. Asn.. Immunol; Chem. Soc; Soc. Bact; Soc. Biol. Chem; Soc. Exp. Biol; N. Y. Acad. Biochemistry of bacteria; immunochemistry; bacterial nutrition; bacterial toxins; chemistry of immune reactions.

Pappenheimer, Prof. Alwin M(ax), 630 W. 168th St, New York, N. Y. ***⁴***Pathology.* New York, N. Y, Dec. 4, 78. A.B, Harvard, 98; M.D, Columbia, 02. Intern, Bellevue Hosp, 03–05, pathologist, 05–10; visiting pathologist, Presb. Hosp, 05–12; demonstrator *path, Columbia,* 09, assoc, 09–14, asst. prof, 14–19, assoc. prof. and *prof, 19–* A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Harvey Soc. (treas, 19); N .Y. Path. Soc. (pres, 15–17); N. Y. Acad. Med; N. Y. Acad. Pneumococcus in the human mouth and lungs after death; spirochaetal infection; filiform bacterium in case of vegetative endocarditis; muscular dystrophy; histology of the thymus gland; tumors of the pineal gland; thymectomy in rats; lymphocytes; trench fever; war-gas poisoning; experimental rickets; rheumatic aortitis; fowl paralysis; nutritional encephalomalacia of chicks; parathyroids in renal disease; nutritional muscular dystrophy in rabbits, guinea pigs, rats and mice.

Pappenheimer, Dr. John R(ichard), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Physiology.* New York, N. Y, Oct. 25, 15. B.S, Harvard, 36; Ph.D, Cambridge, 40. Demonstrator pharmacol, univ. col, London, 39; research fellow *physiol, col. physicians and surg, Columbia,* 40–41, *instr, 41–* Soc. Exp. Biol. Circulation in mammalian muscle.

Papurt, Dr. M(axwell) J(erome), 30 Fifth Ave, New York, N. Y. *Psychology.* Cleveland, Ohio, June 12, 07. B.S, Ohio State, 28, A.M, 29, Ph.D, 31. Instr. psychol, Ohio State, 28–31; consulting psychologist, Domestic Relations and Juvenile Courts, Franklin Co, Ohio, 31–32; chief psychologist, State Dept. Correction, N. Y, 32–37; *exec. director,* Hawthorne Knolls Sch, 37–39; *Pride of Judea Children's Home, 39–* Psychologist, Elmira Reformatory, N. Y, 32; lecturer, New Sch. for Social Research, 37; Police Acad, New York, 42. A.A; Psychol. Asn; Prison Asn. Clinical psychology; military psychology; psychological warfare; juvenile delinquency and penology; the defective delinquent; sex education in institutions; psychology in epilepsy; correction of speech defect.

Paquette, Lieut. Robert G(eorge), U. S. Naval Academy, Annapolis, Md. *Physical chemistry.* Chippewa Falls, Wis, Feb. 5, 15. B.S, Washington (Seattle), 36, Ph.D, 41. *Instr.* math, *U. S. Naval Acad,* 41–42, *chem, 42–* Chem. Soc. Colloidal electrolytes.

Paraskevopoulos, Dr. J(ohn) S(tefanos), Bloemfontein, Orange Free State, S. Africa. *Astronomy.* Piraeus, Greece, June 20, 89. D.Sc, Athens, 10. Astronomer, Nat. Observatory, Athens, 12–19; prof. astron, Naval Sch, 17–19; meteorol, Sch. Forestry, 18–19; asst, Yerkes Observatory, Chicago, and Mt. Wilson Observatory, Carnegie Institution, 19–21; in charge *Boyden Sta, Harvard Col. Observatory,* Peru, 23–27, *supt, Orange Free State, 27–,* asst. prof. *astron, Harvard,* 27–39, *assoc. prof, 39–* Hon. prof, Grey Univ, S. Africa, 28–Astron. exped, north. Chile, 23–24; south. Peru, 24–25. A.A; Astron. Soc; fel. Royal Astron. Soc; Soc. astron. de France; Greece Geog. Soc. (trustee, 22). Spectroscopic binary orbits; variable stars; nebulae.

Parcel, John I(ra), 3701 Lindell Blvd. St. Louis, Mo. *Structural engineering.* A.B, Westfield Col, 03; B.S, Illinois, 09. Instr. struct. eng, Minnesota, 09–13; asst. prof, Illinois, 13–14; assoc. prof, Minnesota, 14–19, prof, 19–36; *consulting engineer, Sverdrup and Parcel, 36–* Civil Eng; Concrete Inst. Secondary stresses in bridges; theory of frames, arches and suspension bridges; experimental determination of stresses in structures; behavior of suspension systems.

Pardee, Prof. Arthur M(cCay), University of South Dakota, Vermillion, S. Dak. *Chemistry.* Rochester, N. Y. March 27, 85. A.B, Washington and Jefferson Col, 07; Ph.D, Hopkins, 16. Instr. chem, Tarkio Col, 07–08, prof, 08–10, chem. and physics, 11–18; *chem,* Washington and Jefferson Col, 18–20; *prof. and head dept, South Dakota, 20–,* director grad. sch, 29–36, *dean col. arts and sciences, 36–* Chem. Soc. Conductivities of alcoholic solutions; alcoholysis; saponification numbers.

Pardee, J(oseph) T(homas), U. S. Geological Survey, Washington, D. C. *Geology.* Salt Lake City, Utah, May 30, 71. California. *U. S. Geol. Surv, 10–* Geol. Soc; Geol. Soc. Wash. Metalliferous deposits in various parts of the western United States.

Pardoe, Prof. W(illiam) S(prague), University of Pennsylvania, Philadelphia, Pa. *Hydraulic engineering.* Toronto, Ont, Can, May 16, 81. B.A.Sc, Toronto, 06, C.E, 20. Res. engineer on construction, 07–09; from instr. to *prof. hydraul. eng, Pennsylvania, 09–* Civil Eng; Mech. Eng; Franklin Inst; Eng. Club Phila; Eng. Inst. Can. Turbines; pumps and fluid meter.

Pardue, Prof. Louis A(rthur), 120 Waller Ave, Lexington, Ky. *Physics.* Scottsville, Ky, July 21, 00. A.B, Kentucky, 25, M.S, 27; Ph.D, Yale, 31. Instr. *physics,* Kentucky, 26–27; Lehigh, 27–28; Yale, 28–31; asst. prof, *Kentucky,* 31–35, *assoc. prof, 35–* Summer, prof, Lincoln Mem. Univ, 27. Physical Soc. X-rays; discharge in gases; nuclear physics.

Parent, Dr. J(oseph) D(ominic), 6553 N. Newgard Ave, Chicago, Ill. *Chemistry.* Boston, Mass, Aug. 4, 10. B.S, Catholic Univ, 29; M.S, Rensselaer Polytech, 31; Maryland, 31–32; Ph.D, Ohio State, 33. Asst, Catholic Univ, 23–29; chemist, D. C. Paper Mfg. Co, Georgetown, D. C, 29–30; asst. chem. eng, Ohio State, 32–33; *instr. chem, Loyola (Ill), 35–* A.A; Chem. Soc; Electrochem. Soc. (chairman, arrangements cmt, Chicago sect, 36, treas, 37). Industrial and physical chemistry.

Park, Prof. Bartholow, Michigan College of Mining and Technology, Houghton, Mich. *Chemistry.* Atchison, Kans, May 4, 96. B.S, Kansas, 19; M.S, Mich. Col. Mines, 30. Instr. *chem, Mich. Col. Min. and Tech,* 20–25, asst. prof, 25–36, *assoc. prof, 36–* Chem. Soc. Quantitative analysis.

Park, Prof. Charles F(rancis), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering.* Boston, Mass, April 11, 69. B.S, Mass. Inst. Tech, 92. Asst. mech. eng, *Mass. Inst. Tech,* 92–94, instr, 94–00, asst. prof, 00–06, assoc. prof, 06–12, prof. *mechanism,* 12–34, *emer. prof, 34–* Director, Lowell inst. sch, Mass. Inst. Tech. A.A; Mech. Eng; Soc. Automotive Eng; Am. Acad.

Park, Dr. C(harles) F(rederick), Jr, U. S. Geological Survey, Washington, D. C. *Economic geology.* Wilmington, Del, Dec. 18, 03. B.S, N. Mex. Sch. Mines, 26; M.S, Arizona, 29; Ph.D, Minnesota, 31. Asst. geologist, Empire Zinc Co, 27–28; instr. geol, Minnesota, 29–31; junior geologist, *U. S. Geol. Surv,* 31–34, asst. geologist, 34–36, assoc. geologist, 36–38, geologist, 38–41, *senior geologist, 41–* Summer, junior geologist, U. S. Geol. Surv, 30. Soc. Econ. Geol. Economic geology; hydrothermal alteration of copper minerals.

Park, Charles R(udisel), R. D. 2, Cuyahoga Falls, Ohio. *Chemistry, Physics.* Tiffin, Ohio, Aug. 21, 94. A.B, Cornell, 16. Asst. chem, Minnesota, 16–17; instr, Mass. Inst. Tech, 17–23; research, Goodyear Tire and Rubber Co, 23–26; Delano Land Co, 26–29; Goodyear Tire and Rubber Co, 29–30; chief chemist, United Carbon Co, 30–31; *research chemist, Firestone Tire and Rubber Co, 31–* Chem. Soc; Chem. Eng. Physical properties of rubber compounds; effects of powders in reinforcement of rubber; temperature effects during vulcanization.

Park, Prof. Edwards A(lbert), Johns Hopkins Hospital, Baltimore, Md. ***⁷***Pathology, Medicine, Pediatrics.* Gloversville, N. Y, Dec. 30, 77. A.B, Yale, 00, hon. A.M, 21; M.D, Columbia, 05. Instr. path, Columbia, 09–11; assoc. prof. *pediat,* Hopkins, 14–21; *prof,* Yale, 21–27; *sch. med, Hopkins, 27–* Chevalier, Order of Leopold. Soc. Pediat. Research; Pediat. Soc; Acad. Pediat; Soc. Exp. Biol; Am. Physicians; Interurban Clin. Club. Rickets; scurvy.

Park, Prof. H(ubert) V(ern), State College Station, Raleigh, N. C. *Mathematics.* Salisbury, N. C, Dec. 29, 11. A.B, Lenoir-Rhyne Col, 31; A.M, North Carolina, 33, Ph.D, 39. Teaching fellow *math,* North Carolina, 32–33; instr, *N. C. State Col,* 34–39, *asst. prof, 39–* Math. Soc; Eng. Educ; N. C. Acad. Conditions on two singular matrices A and B such that AB and BA may have the same reduced characteristic function.

Park, J(ames) Theodore, 610 E. 14th St, Chester, Pa. *Physics, Chemistry.* Sunbury, Pa, Oct. 7, 83. B.S, Bucknell,

06; A.M, Susquehanna, 27; Pennsylvania, 31– Prin, high sch, Pa; asst. to pres, Dickinson Sem, Williamsport; prof. math. and chem, Sch. of the Lackawanna, Scranton; teacher, high sch, Conn; prof. physics and physical chem, Susquehanna, 25–30; teacher science and math, high sch, Pa, 31–36; *prof. calculus for grad. eng. groups, Del. County Inst. Science, 36–; director educ, Sun Ship and Dry Dock Co, 38–; instr. eng. math. and mech, Swarthmore Col, 40–* Mem, Tech. Educ. Cmn, 11. Shipyard mathematics; blue print reading courses.

Park, Prof. J(ay) B(oardman), Ohio State University, Columbus, Ohio. *Agronomy.* Clarence, Ill, Jan. 30, 84. A.B, Illinois, 08, M.S, 12; Sc.D, Harvard, 16. Asst. chem, Exp. Sta, Illinois, 08–11, assoc. plant breeding, 11–14; *prof.* farm crops, *Ohio State,* 16–33, *agron, 33–* Assoc. ed, 'Ohio Jour. Science,' 17–31. A.A; Soc. Agron; Genetics Soc; Ohio Acad. Self-sterility; field crop breeding; soybeans; sweet clover; sweet corn.

Park, J(ohn) Howard, National Bureau of Standards, Washington, D. C. *Physics.* Seattle, Wash, Nov. 23, 06. B.S, Washington (Seattle), 28. Student engineer, Puget Sound Power and Light Co, Seattle, Wash, 28–30; junior elec. engineer, *Bur. Standards,* 30–36, asst. physicist, 36–41, *assoc. physicist, 41–* Assoc. Elec. Eng. Electrical measurements; temperature effects on electromotive force of standard cells; accuracy of high range current transformers; standard alternating and direct current transfer instrument; surge voltage and current generators.

Park, Prof. Orlando, 1925 Sherman Ave, Evanston, Ill. *Zoology.* Elizabethtown, Ky, Oct. 13, 01. B.S, Chicago, 25, Ph.D, 29. Asst. prof. *zool,* Kent State Col, Ohio, 29–30; instr, Illinois, 30–34; asst. prof, *Northwestern,* 34–37, assoc. prof, 37–42, *prof, 42–* Sect. ed, 'Biol. Abstracts,' 42– A.A; Soc. Zool; Ecol. Soc. (sec'y-treas, 35–38, v. pres, 40, pres, 43); fel. Entom. Soc. Amer; Chicago Acad. (hon. curator zool); British Ecol. Soc. Nocturnal ecology; Pselaphidae.

Park, Prof. O(scar) W(allace), 615 Ash Ave, Ames, Iowa. *Entomology.* Concordia, Kans, Jan. 14, 89. B.S, Kans. State Col, 17; M.S, Iowa State Col, 20, Ph.D, 24. Asst. zool, Kans. State Col. and Exp. Sta, 17; *apicult,* Exp. Sta, Iowa State Col, 18–20, instr, 21, asst. chief, 21–23; asst. prof, Illinois, 23–25; *assoc. prof, Iowa State Col, and research assoc. prof, Exp. Sta, 25–* Lecturer, Florida, 22. A.A; Asn. Econ. Entom; Iowa Acad. The acquisition of food by the honey-bee; activities of honey-bees; resistance of honey-bee to American foulbrood.

Park, Robert H, 3339 N St, N.W, Washington, D. C. *Physics.* Strassbourg, Germany, March 15, 02. B.S, Mass. Inst. Tech, 23; Royal Tech. High Sch, Stockholm, 23–24. Elec. and mech. engineer, Gen. Elec. Co, 24–29; elec. engineer, Stone and Webster Eng. Corp, 29–31; director physics research, Calco div, Am. Cyanamid Co, 31–41; *in charge develop, Naval Ordnance Lab, 41–* Elec. Eng; Chem. Soc. Electrical, mechanical and chemical engineering; synchronous machinery and power transmission; spectrophotometry; ordnance devices.

Park, Prof. R(ussell) Smith, 213 Burnam Court, Richmond, Ky. *Mathematics.* Richmond, Ky, March 28, 98. B.S, Kentucky, 20, M.S, 25, Ph.D, 30. Traffic engineer, N. Y. Telephone Co, 20–21; *prof. math, East. Ky. State Teachers Col, 23–* Math. Soc; Math. Asn. (chairman, Ky. sect, 31–35). Number theory; center of ocular rotation of the human eye.

Park, Dr. S(unshine) E(lizabeth), Parkersburg, Ill. *Bacteriology.* Parkersburg, Ill, May 7, 07. Ph.D, Illinois, 36. Asst. animal path, Illinois, 30–31; bacteriologist, State Dept. Agr, Ill, 31–33; asst. instr. bacter, Illinois, 33–36; *diagnostic staff, N. Shore Animal Hosp, Evanston, Ill, 36–* Assoc. ed, 'N. Am. Veterinarian,' 36– Ill. Soc. Bact. Microbiology of frozen foods; thermophilic bacteria; Brucella in milk; diseases of small animals.

Park, Prof. Thomas, University of Chicago, Chicago, Ill. **Zoology.* Danville, Ill, Nov. 17, 08. B.S, Chicago, 30, Ph.D, 32. Curator zool, Chicago, 30–31, asst, 31–33; nat. research fellow, Hopkins, 33–35, instr. biol, sch. hygiene and pub. health, 35–36, assoc, 36–37; instr. *zool, Chicago,* 37–39, asst. prof, 39–42, *assoc. prof, 42–* Summer, instr, Hopkins, 35; asst. prof, Northwestern, 36. Ed. board, 'Ecology,' zool. ed, 40–; mem. advisory board, 'Quarterly Rev. Biol.' Sec'y cmt. ecol. of animal populations, Nat. Research Council. A.A; Soc. Zool; Ecol. Soc; Soc. Nat. Ant ecology and physiology; experimental population studies with Tribolium confusum; experimental biology of populations.

Park, Prof. Willard Z(erbe), University of Oklahoma, Norman, Okla. *Anthropology.* Silt, Colo, Oct. 14, 06. A.B, California, 31; Ph.D, Yale, 36. Instr. anthrop, Northwestern, 35–38; prof. anthrop. and sociol. and head dept, *Oklahoma,* 38–40, *prof. anthrop. and chairman dept, 40–; chief social and geog. unit, research div, Coordinator of Inter-Am. Affairs, 42–* A.A; Folk-Lore Soc; Am. Geog. Soc; Anthrop. Asn; Soc. Archeol; N. Y. Acad. North American ethnology, especially in the Great Basin area; the ethnology of South America; primitive religion; social organization; ethnological theory.

Parker, Dr. Alice E(lizabeth), 4200 E. Ninth Ave, Denver, Colo. *Anatomy.* Mexico, Maine, July 11, 03. A.B, Denver, 29; A.M, Colorado, 32, Ph.D, 35. Research fellow, Child Research Council, 30–42; *instr. anat, med. sch, Colorado, 42–* A.A; Asn. Anat. The lymph system of the abdomen; gross and microscopic anatomy.

Parker, Dr. A(llan) E(lwood), Shrewsbury, Mass. *Physics.* Brooklyn, N. Y, Feb. 12, 09. A.B, Amherst Col, 29; Ph.D, Yale, 33. Research assoc, Columbia, 35–36; instr, Hunter Col, 36–37; physicist, Elec. Testing Labs, 37–42; *prof. physics, Worcester Polytech, 42–* Physical Soc; Optical Soc; Illum. Eng. Soc; Soc. Test. Mat; Inter-Soc. Color Council. Molecular spectra; photometry; color.

Parker, Arthur C(aswell), Museum of Arts and Sciences, Rochester, N. Y. *Archeology, Education.* Iroquois, N. Y, April 5, 81. Williamsport-Dickinson Sem, 98–01; special courses in anthrop. under Prof. F. W. Putnam, 01–03; hon. M.S, Rochester, 22; Sc.D, Union Col. (N. Y), 40; L.H.D, Keuka Col, 43. Special asst. archeol, Am. Museum Nat. Hist, 01–02; field archeologist, Peabody Museum Archeol. and Ethnol, 03; ethnologist, State Dept. Educ, N. Y, 04–06; archeologist, N. Y. State Museum, 06–24; *director, Rochester Museum, 24–* State Indian commissioner, N. Y, 19–22. Ed, 'Am. Indian,' 12–16; 'Museum Service,' 26– Chief, N. Y. State Museum archeol. exped, 06–24. Cornplanter medal. A.A; Anthrop. Asn; Ethnol. Soc; Asn. Mus. (v. pres); Soc. Am. Indians (pres, 16); Soc. Archeol. (pres, 35); East. States Archeol. Fed; N. Y. Archeol. Asn. (founder, pres); N. Y. Hist. Asn. (trustee); fel. Royal Soc. Arts. Anthropology; ethnology; New York Indians; visual education.

Parker, Dr. Basil Waldo, Lehigh University, Bethlehem, Pa. *Aerobiology.* Cambridge, Mass, April 13, 09. B.S, Mass. Inst. Tech, 33, Ph.D, 39; A.M, Harvard, 35. Asst. biol, Harvard, 33–35; asst. and teaching fellow biol, Mass. Inst. Tech, 35–39; biologist, State Dept. Pub. Health, Mass, 37, chief entomologist, 39–40; *instr. biol, Lehigh, 40–* Microbiology of the upper air; instrumentation in biological research.

Parker, Dr. Ben H(utchinson), 1001 18th St, Golden, Colo. *Geology.* Oklahoma City, Okla, Nov. 3, 02. M.E, Colo. Sch. Mines, 24, Sc.D, 34. Geologist, Marland Oil Co. of Colo, 24–28; Gypsy Oil Co, 28–29; E. W. Marland Co, 29–30; consulting geologist, 30–33; instr. geol, Colo. Sch. Mines, 33–35; asst. prof, 35–36; geologist, Gulf Oil Corp, 36–39; asst. prof. *geol, Colo. Sch. Mines,* 39–40, *assoc. prof, 40–* Pres, Gold Crest Mining Co, 33–; Petrol. Corp, 35–; asst. chief geologist, Yacimientos Petroliferos Fiscales, Argentina, 39–40. Min. and Metal. Eng; Asn. Petrol. Geol. Petroleum genesis; economic geology of petroleum and non-ferrous ores; orogeny of Rocky Mountains.

Parker, Prof. Cha(rle)s S(tewart), 321 11th St, N. E, Washington, D. C. *Botany.* Corinne, Utah, March 31, 82. A.B, Trinity Col, 05; B.S, Wash. State Col, 22, M.S, 23; Ph.D, Pa. State Col, 32. *Prof. bot, Howard, 24–* Director field exped, Hawaiian-Papenoff Co, Mex, 08–12; mem. bot. surv. party, Wash, 21–22. A.A; Mycol. Soc; Bot. Soc; Phytopath. Soc; Torrey Bot. Club; British Mycol. Soc. Mycology.

Parker, Dr. Dean R(oberts), Texas Technological College, Lubbock, Texas. *Zoology.* Bertram, Texas, Dec. 30, 13. A.B, Texas, 33, Ph.D, 39. Asst. zool, Texas, 33–37, tutor, 37–39; *instr. biol, Texas Tech. Col, 39–* Genetics.

Parker, Dr. Dorothy, University of Cincinnati, Cincinnati, Ohio. *Botany.* Marion Co, Ind, Jan. 23, 10. B.S, Butler, 32; A.M, Cincinnati, 34, Ph.D, 36. Head dept. biol, Brenau Col, 36–38; acting instr. bot, Cincinnati, 38–39; head dept. biol, St. Mary's Col. (Ind), 39–42; Marion Talbot research fellow, *Am. Asn. Univ. Women,* 42–43, *Sarah Berliner research fellow, 43–* Ecol. Soc; Sullivant Moss Soc; Bot. Soc; Ind. Acad. Plant geography; liverworts of Indiana; vegetation of the United States.

Parker, E(arl) R(andall), General Electric Co, Research Laboratory, Bldg. 5, Schenectady, N. Y. *Physical metallurgy.* Denver, Colo, Nov. 22, 12. Met.E, Colo. Sch. Mines, 35. *Research metallurgist, research lab, Gen. Elec. Co, 35–* Instr, Nat. Defense Training Course, 40– Soc. Metals; Min. and Metal. Eng. High temperature properties of materials; fatigue of metals; impact loading and its effect on materials.

Parker, Edward W(heeler), 225 S. 15th St, Philadelphia, Pa. *Mineralogy.* Port Deposit, Md, June 16, 60. High sch. Statistician, *U. S. Geol. Surv,* 91–07, chief div. mineral resources, 07–15, *director anthracite bur. information, 15–* Ed, 'Eng. and Mining Jour,' 01–02. Anthracite Coal Strike Cmn, 02–03. Jury awards, Columbian Expos, 93; expert special agent, U. S. Census, 00–; La. Purchase Expos, 03–04. Silver medal, Paris Expos, 00; Pan-Am. Expos, 01; commemorative medal, La. Purchase Expos, 04. Min. and Metal. Eng; Statist. Asn; Min. Cong; Coal Min. Inst; Geol. Soc. Wash; Wash. Econ. Soc; Wash. Soc. Eng. Anthracite.

Parker, Dr. E(dwin) R(obert), Citrus Experiment Station, Riverside, Calif. *Horticulture.* Monett, Mo, Aug. 21, 96. A.B, Pomona Col, 19; M.S, California, 23; Ph.D, Cornell, 29. Asst. orchard management, *Citrus Exp. Sta, California,* 23–29, junior horticulturist, 29–30, asst. horticulturist, 30–40, *assoc. horticulturist, 40–* A.A; Hort. Soc; Soc. Agron. Management of experimental orchards and technique of orchard trials; effect of fertilizers on yield and quality of citrus fruit; thinning of oranges; virus diseases of avocados; zinc and manganese deficiency of citrus trees.

Parker, Prof. Francis L(e Jau), Medical College of the State of South Carolina, Charleston, S. C. *Chemistry.* Charleston, S. C, Jan. 8, 76. B.S, The Citadel, 94; A.B, South Carolina, 96; B.S, Chicago, 00; Ph.D, Hopkins, 01; M.D, Med. Col. of S. C, 09. Asst. prof. *chem,* The Citadel, 96–00; prof, Col. of Charleston, 00–10; lecturer, *Med. Col. State of S. C,* 10–13, *prof, 13–* Chemist, Cmn. Pub. Works, Charleston, 06–; State Board Health, S. C, 07– Major, M.R.C, lieut. col, M.O.R.C. Chem. Soc; Water Works Asn; Am. Med. Asn. Sanitation; treatment of water supplies.

Parker, Dr. Francis P, Emory University, Ga. *Pathology.* New York, N. Y, June 9, 06. B.S, Emory, 27, M.D, 31. *Assoc. pathologist, hosp, Emory, and asst. prof, depts. path. and bacter, sch. med; pathologist, Crawford W. Long Hosp.* Am. Med. Asn; Soc. Clin. Path. Hematology; allergy.

Parker, Dr. F(rank) W(ilson), E. I. du Pont de Nemours and Co, Wilmington, Del. *Soil chemistry.* Hamilton, Ill, Oct. 23, 97. B.S, Ala. Polytech, 18; Ph.D, Wisconsin, 21. Soil chemist, Exp. Sta, Ala. Polytech, 22–29; *agronomist, ammonia dept, E. I. du Pont de Nemours and Co, 29–; consultant fertilizer problems, Office Price Admin, 42–* Fertilizer chemistry; composition of soil solution; nature of soil acidity; absorption of inorganic elements by plants; relative availability of phosphates; fertilizer technology and utilization.

Parker, Dr. Frederic, Jr, 40 Rosalie Road, Newton Center, Mass. *⁶*Pathology.* Boston, Mass, Sept. 20, 90. A.B, Harvard, 13, M.D, 16. Asst. path, Boston City Hosp, 16–18, asst. pathologist, 19–20; instr. bacter, col. physicians and surg, Columbia, 20–22, asst. prof, 22–23; asst. pathologist, *Boston City Hosp,* 23–32, *pathologist, 32–;* asst. prof. *path, Harvard Med. Sch,* 28–34, *assoc. prof, 34–* A.A; Asn. Path. and Bact. (asst. treas, 36); Am. Med. Asn; Soc. Exp. Biol. Bacteriology; immunology; virus diseases; pathology of the blood-forming organs; sex hormones; liver cirrhoses.

Parker, Prof. G(eorge) H(oward), 16 Berkeley St, Cambridge, Mass. *¹*Zoology.* Philadelphia, Pa, Dec. 23, 64. Acad. Nat. Sciences Phila, 79–82; B.S, Harvard, 87, Sc.D, 91, Parker fellow, Leipzig, Berlin, Freiburg and Naples, 91–93; Sc.D, Colby Col, 35. Asst. *zool, Harvard,* 86–88, instr, 88–91, 93–99, asst. prof, 99–06, prof, 06–35, *emer. prof, 35–,* director zool. lab, 21–34. Clark lecturer, Amherst Col, 14; exchange prof, west. cols, 21; U. S. investigator, Pribilof seals, 14. Trustee, Marine Biol. Lab, Woods Hole, 07–35, emer. trustee, 35– Lewis prize, Am. Philos. Soc, 41; Elliot medal, Nat. Acad. Sciences, 43. Nat. Acad; A.A. (v. pres, F, 16); Soc. Nat. (pres, 29); Soc. Zool. (pres, 03); Physiol. Soc; Asn. Anat; Soc. Exp. Biol; Soc. Vert. Paleont; Ecol. Soc; hon. mem. Otol. Soc; assoc. Neur. Asn; Philos. Soc; Am. Acad. (v. pres, 27, pres, 33–35); Sigma Xi (nat. pres, 34); Mass. Med. Soc; hon. mem. Calif. Acad; Wash. Acad; hon. mem. N. Y. Acad; Cambridge Philos. Soc; cor. mem. Acad. Nat. Sci. Phila; for. mem. Linnean Soc. London; cor. mem. Zool. Soc. London; cor. mem. Soc. biol. de Paris; assoc. mem. Soc. belge de Biol; cor. mem. Peiping Soc. Nat. Hist. Biology and social problems; the elementary nervous system; anatomy and physiology of sense organs and of central nervous organs; animal reactions; smell, taste and allied senses; evolution of man; humoral agents in nervous activity; chromatophores.

Parker, Prof. G(eorge) S(ims), 829 Ostrom Ave, Syracuse, N. Y. *Electrical engineering.* Syracuse, N. Y, Sept. 13, 90. E.E, Syracuse, 14. Asst. *elec. eng,* Columbia, 14–16; instr, Illinois, 20–22; asst. prof, *Syracuse,* 22–24, *assoc. prof, 24–* 2nd lieut, A.S, 17–19. Elec. Eng; Eng. Educ. Surface reactions of electrolytes; law of current conduction in extremely short electrical circuits.

Parker, G(lenn) L(ane), U. S. Geological Survey, Washington, D. C. *Hydraulic engineering.* Butte, Mont, Dec. 23, 84. B.S, Kansas, 06. Instrumentman and asst. div. engineer, C. B. and Q. R. R, 06–07; deck officer, U. S. Coast and Geod. Surv, 08; from junior engineer to *chief hydraulic engineer, U. S. Geol. Surv, 09–* A.A; Civil Eng; Geophys. Union; Wash. Acad. Water resources investigations; water power; irrigation; flood control.

Parker, Prof. H(arry) G(eorge), Park College, Parkville, Mo. *Chemistry.* London, Eng, Nov. 15, 65. A.B, William Jewell Col, 92, A.M, 93; Ph.D, Harvard, 01. Prof. chem. and physics, William Jewell Col, 96–13, chem, 13–28, head dept. science; commercial water and milk anal, 28–30; *prof. chem. and head dept, Park Col, 30–, dean industry, 40–* City chemist, Excelsior Springs, Mo. A.A; Chem. Soc; Soc. Bact; Pub. Health Asn; Mo. Soc. Math. and Sci. Teachers. Atomic weight of magnesium; centrifugal quantitative analysis; water and milk analysis.

Parker, Dr. H(arry) L(amont), South American Parasite Laboratory, Foreign Parasite Introduction, U. S. Department of Agriculture, Blanca del Tabare 2950, Montevideo, Uruguay. *Entomology.* Spartanburg, S. C, Feb. 14, 93. B.S, Clemson Col, 14; Dr. Paris, 25. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 14–, senior entomologist and director, S. Am. parasite lab.* Laureat, Soc. entom. de France, Prix Passet, 24. Capt, U.S.A, 17–19. Entom. Soc; Asn. Econ. Entom; Soc. entom. de France; Soc. d'Hist. nat. de Toulouse; Soc. Linn. de Lyon. Anatomy of chalcid larvae; ecology and biology of hymenopterous parasites; biology and behavior of entomophagous parasites.

Parker, Dr. Henry C(ole), National Press Bldg, Washington, D. C. *Physical chemistry.* Denver, Colo, Sept. 8, 91. B.S, Kalamazoo Col, 15; A.M, Clark, 16, Ph.D, 20. Nat. research fellow physical chem, 20–23; research dept, Leeds and Northrup Co, 23–28; U. S. Patent Office, 28–29; *patent attorney and chemist, 29–* A.A; Chem. Soc; Chem. Eng; Electrochem. Soc. Conductivity of aqueous solutions and hydrogen ion concentration measurements and their application to industrial control of water treatment and waste disposal.

Parker, Prof. H(ermon) M(anley), Box 87, Wake Forest, N. C. *Theoretical physics.* Cameron, N. C, Dec. 4, 14. A.B, North Carolina, 36, A.M, 37; Ph.D, Cornell, 41. *Asst. prof. physics, Wake Forest Col, 41–* Physical Soc. Theory of the deuteron with twice the usual meson mass.

Parker, Herschel C(lifford), 2623 Monmouth Ave, Los Angeles, Calif. *¹*Physics.* Brooklyn, N. Y, July 9, 67. Ph.B, Columbia, 90, fellow, 90–91. Asst. physics, Columbia, 91–93, tutor, 93–01, instr, 01–03, asst. prof, 03–11; *consulting engineer.* A.A; Physical Soc; Min. and Metal. Eng; fel. Am. Geog. Soc; Am. Alpine Club; Explorers Club; fel. N. Y. Acad; Can. Alpine Club; fel. Royal Soc. London. Methods of electrical measurement; electrical resistances; electrical investigations with very brief intervals of contact; electrical properties of materials at high incandescence; reduction of metallic iridium; formation and electrical properties of helium; precipitation of gold from solutions; geology.

Parker, Horatio Newton, Engineer Bldg, Jacksonville, Fla. *Public health.* Cambridge, Mass, Feb. 3, 71. Mass. Inst. Tech. Asst. biologist, Boston Water Works, 96–99; asst. and chief biologist, Metropolitan Water Board, 00–01; health officer, Montclair, N. J, 01–04; asst. hydrographer and asst. engineer, U. S. Geol. Surv, 04–10; dairy bacteriologist, Illinois, and asst, Exp. Sta, 10–17; lecturer munic. sanit, Indiana, 17; bacteriologist and program ed, 'Delineator,' 7th baby campaign, 17–18; *city bacteriologist and director labs. and sanit, city dept. health, Jacksonville, Fla, 18–* A.A; fel. Pub.

Health Asn; Soc. Bact; Chem. Soc; Dairy Sci. Asn; New Eng. Water Works Asn; Asn. Food and Drug Officials Southeast. States (pres, 24); Fla. Acad; Fla. Pub. Health Asn. (pres, 32); Can. Pub. Health Asn; Int. Asn. Milk Sanitarians (pres, 33). Field work on surface water supplies; effect of dissolved gases in water on micro-organisms; water and milk supply and typhoid fever; food sanitation; quality of the water supplies of Kansas; the Potomac River basin.

Parker, Dr. Hugh K(lemme), Wallace and Tiernan Co, Inc, Newark, N. J. *Chemistry.* Fayette, Iowa, April 11, 94. A.B, Upper Iowa, 16; Ph.D, Hopkins, 21. Research chemist, *Wallace and Tiernan Co,* 21–23, tech. director, European exploitation 'The Agene Process,' 23–30, *research chemist, Novadel-Agene Corp, 30–* A.A; Chem. Soc; Asn. Cereal Chemists. Treatment of flour with nitrogen trichloride.

Parker, Dr. Ivy M(ay), Plancor 880, Sweeney, Texas. *Organic chemistry.* Quay Co, N. Mex, Sept. 11, 07. A.B, W. Texas State Teachers Col, 28; A.M, Texas, 31, Ph.D, 35. Asst. prof. chem, Mary Hardin-Baylor Col, 34–35; *chemistry,* Shell Petrol. Refinery, Texas, 36–43; *J. S. Abercrombie Ref. Div, 43–* Chem. Soc. Nitrogen bases produced in pyrolysis of cottonseed-meal; corrosion of refinery equipment.

Parker, Dr. Jesse E(lmer), University of Tennessee, Knoxville, Tenn. *Poultry husbandry.* Wetumpka, Ala, Nov. 23, 11. B.S, Tennessee, 34; A.M, Missouri, 36, Ph.D, 40; Louisiana, 36–37. Asst. poultry husbandry, Missouri, 35–36; Louisiana, 36–37; instr, Missouri, 37–39; *instr. animal and poultry husbandry, Tennessee, and poultry husbandman, Exp. Sta, 39–* Poultry Sci. Asn. Physiology of reproduction in domestic fowls; growth and development of domestic fowls; pastures for chickens.

Parker, Prof. J(ohn) B(ernard), 1217 Lawrence St, N. E, Washington, D. C. *Biology.* Danville, Ohio, Sept. 24, 70. A.B, Ohio State, 98, fellow, 98–00, A.M, 00, Ph.D, 15. Asst. English, Ohio State, 98–00; instr. biol, S. High Sch, Cleveland, Ohio, 00–06; asst. entomologist, Kans. State Col. and Exp. Sta, 08–10; instr. biol, Catholic Univ, 10–13, assoc. prof, 13–18, prof, 18–40; *retired.* A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Entomology.

Parker, Dr. John H(untington), Quivira Acres, Manhattan, Kans. *Agronomy.* St. Paul, Minn, Aug. 13, 91. B.S, Minnesota, 13; M.S.A, Cornell, 16; Ph.D, Cambridge, 28. Sci. asst, cereal investigations, bur. plant indust, U. S. Dept. Agr, 13–17; prof. crop improv, Kans. State Col, 17–39; *director, Kans. Wheat Improv. Asn, 39–* Acting prof, Cornell, 31–32. A.A; Soc. Agron; Genetic Asn; Soc. Nat; Kans. Acad. Wheat improvement.

Parker, Dr. John M(ason), III, Box 5171, State College Station, Raleigh, N. C. *Structural geology.* Owego, N. Y, Sept. 6, 06. A.B, Cornell, 28, A.M, 33, Ph.D, 35. Instr. geol, N. C. State Col, 35–40, asst. prof. geol, 40–42; junior geologist, *U. S. Geol. Surv,* 40–42, *asst. geologist, 42–* Summers, instr, Cornell, 36, 37. Min. and Metal. Eng; Carolina Geol. Soc; N. C. Acad. Regional systematic jointing in sediments.

Parker, Dr. J(ohn) R(obert), U. S. Department of Agriculture, Bozeman, Mont. *Entomology.* Windsor, Conn, June 28, 84. B.S, Mass. Col, 08, M.S, 21; Ph.D, Minnesota, 29. Instr, Mass. Col, 09–10; assoc. entomologist, Exp. Sta, Mont. State Col, 10–22; asst. entomologist, Exp. Sta, Minnesota, 22–24; entomologist, Exp. Sta, Mont. State Col, 24–30; *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–* U. S. rep, Int. Locust Conf, Egypt, 36. A.A; Asn. Econ. Entom. (exec. cmt, 35–37; pres, 41); Entom. Soc. Amer; Ecol. Soc. Grasshoppers; Mormon crickets.

Parker, Dr. J(oseph) L(loyd), 1801 Spring Drive, Louisville, Ky. *Organic chemistry.* Equality, Ala, Nov. 22, 13. B.S, Ala. Polytech, 35; M.S, Nebraska, 38, Parke, Davis and Co. fellow, 38–40, Ph.D, 40. Asst, Nebraska, 35–36; research chemist, *E. I. du Pont de Nemours and Co,* 40–42, *plant supervisor, 42–* Organic arsenicals; polymerization.

Parker, Dr. Karr, 234 Depew Ave, Buffalo, N. Y. *Electrical engineering.* Sebree, Ky, July 3, 92. B.S, Carthage Col, 13, hon. Sc.D, 29; M.S, Illinois, 14. Radio engineer, United Wireless Tel. Co, 11–13; engineer, Marconi Wireless Tel. Co, 13–14; elec. engineer, *McCarthy Brothers and Ford,* 14–18, eng. manager, 18–29, v. pres, 29–31, *pres, 31–* Pres, Buffalo Elec. Co, 39–; director, Electro Refractories and Alloys Co. Trustee, Nichols Sch, Buffalo; eng. cmt, Univ. Buffalo. Elec. Eng; Mech. Eng. (past chairman, Buffalo sect); Illum. Eng. Soc; Buffalo Eng. Soc. (past pres); N. Y. Eng. Club. Reception and reproduction of radio programs; sound reproducing sets; the electrical dynamometer test of the Pierce Arrow engine; electrolytic conductivity of solutions; electromotive force of concentration cells.

Parker, Prof. K(enneth) G(ardner), Cornell University, Ithaca, N. Y. *Plant pathology.* Scottsburg, Ind, March 22, 06. A.B, DePauw, 28; Ph.D, Cornell, 34. Asst, Cornell, 28–31; California, 31–33; *research asst. prof. plant path, Cornell, 34–* A.A; Phytopath. Soc. Fruit tree disease; Dutch elm disease.

Parker, Kenneth W(illiam), 2900 E. Ninth St, Tucson, Ariz. *Forest ecology.* Boston, Mass, Oct. 18, 04. B.S, California, 28, M.S, 29, 31–32. Tech. asst. forestry, California, 29–32; asst. prof. animal husbandry in charge range management, New Mex. State Col, 32–37; assoc. conservationist, *Southwest. Forest and Range Exp. Sta, U. S. Forest Service,* 37–40, *forest ecologist, 40–* Soc. Foresters. Range and plant ecology; poisonous plants; control of noxious range plants; range management.

Parker, Lawrence B(emis), Government Research Laboratories, Moorestown, N. J. *Entomology.* Shrewsbury, Mass, Aug. 19, 01. B.S, Conn. Agr. Col, 24. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 24–30, for. parasite investigation and introd. work, India, 26–29, *asst. entomologist,* Japan, 30–32, *govt. research labs, 32–; capt, U. S. Army.* Asn. Econ. Entom. Economic entomology.

Parker, Dr. Lee A(llen), 210 Riverside Drive, New York, N. Y. *Organic chemistry.* Cordele, Ga, Dec. 17, 05. B.S, Ga. Tech, 26; M.S, Ohio State, 30, Ph.D, 32. Chem. engineer, Procter and Gamble Co, 26–29; asst. instr. chem. eng, Ohio State, 29–32, hon. fellow, 33; chem. engineer, M. W. Kellogg Co, 33–38; *asst. manager, Dodge and Olcott Co, 39–* Chem. Soc. Insecticides; drugs; essential oils; aromatic chemicals.

Parker, Prof. Margaret T(errell), Wellesley College, Wellesley, Mass. *Geography.* Rochester, Ill, Sept. 27, 92. B.S, Chicago, 16, Ph.D, 39; A.M, Wellesley Col, 21; Univ. Col. of Wales, 21–22. Teacher, Ill, 11–14; geog, Minn. State Teachers Col, St. Cloud, 16–17; instr. *geol. and geog, Wellesley Col,* 17–21, asst. prof, 21–27, assoc. prof, 27–39, *prof, 39–* Summer, instr, Calif. State Teachers Col, San Diego, 23; univ. exten. lecturer, Boston, 23. Europe and Asia; southern lands.

Parker, Dr. M(arion) W(esley), U. S. Department of Agriculture, Beltsville, Md. *Plant physiology.* Salisbury, Md, Dec. 4, 07. B.S, Hampden-Sydney Col, 28; M.S, Maryland, 30, Ph.D, 32. Asst. plant physiol, Maryland, 28–30, instr. microchem. and biochem, grad. sch, 31–35, asst. prof, 35, asst. plant physiologist, Exp. Sta, 31–36; assoc. plant physiologist, *bur. plant indust, U. S. Dept. Agr,* 36–40, *physiologist, 40–* Lecturer, grad. sch, U. S. Dept. Agr, 35–36. Soc. Plant Physiol. After-harvest physiology and biochemistry of sweet corn, snap beans and squash; effect of photoperiod on growth, development and composition of plants.

Parker, Prof. Matthew A(rchibald), 365 Waverley St, Winnipeg, Man, Can. *Chemistry.* Glasgow, Scotland, 71. B.S, Glasgow, 92; Heidelberg, 97; LL.D, Manitoba, 24. Lecturer and demonstrator, Glasgow Tech. Col, 94–01; lecturer org. chem, Glasgow, 01–04; prof. *chem, Manitoba,* 04–37, *emer. prof, 37–* Hon. fel. Can. Inst. Chem; fel. Royal Soc. Can; fel. Inst. Chem. Gt. Britain and Ireland; fel. Chem. Soc. London. Relationships of the chemical elements and the structure of matter.

Parker, Dr. M(elbourne) C(arroll), 317 S. Eighth Ave, Bozeman, Mont. *Genetics.* Gould City, Mich, Nov. 1, 08. B.S, Mont. State Col, 30; fellow, Wisconsin, 30–31, M.S, 31, Ph.D, 33. Agent, bur. plant indust, U. S. Dept. Agr, 31–32; *geneticist, Gallatin Valley Seed Co, 33–* Inheritance of chlorophyl deficiencies and disease resistance in beans; development of disease-resistant and new types of peas for use in the canning and freezing industries.

Parker, Dr. Milton M, St. Elizabeths Hospital, Washington, D. C. *Physiological psychology, Physiological chemistry.* New York, N. Y, Jan. 23, 15. B.S, N. Y. Univ, 35; A.M, Ohio State, 36, scholar, 36–37, fellow, 37–38, Ph.D, 39, Comly-Coleman scholar, 42–43, M.D, 43. Teaching asst. psychol, Ohio State, 38–39, instr, 39–40, asst. physiol. chem, 40–42, asst. anat, 42–43; *junior med. officer, St. Elizabeths Hosp, 43–* Assoc. Psychol. Asn. Neurology; psychiatry; constitutional factors in normal and abnormal personality.

Parker, Dr. Paul T(homas), 732 Iberville St, Capital Heights, Baton Rouge, La. *Organic chemistry.* Glidden, Iowa, Dec. 15, 06. B.S, Iowa State Col, 29, Ph.D, 37. Anal. chemist, E. I. du Pont de Nemours and Co, 29–32; *research chemist, Standard Oil Co. of La, 37–* Chem. Soc. Dibenzofuran derivatives; synthetic rubber.

Parker, Prof. R(alph) L(angley), Kansas State College, Manhattan, Kans. *Entomology.* Brockton, Mass, April 12, 92. B.S, R. I. State Col, 15; M.S, Brown, 17, Iowa State Col, 22; Schuyler fellow, Cornell, 24–25, Ph.D, 25. Asst, Brown, 15–17; instr. physiol, Iowa State Col, 19–23, asst.; chief apicult, 23–24; asst. prof. *entom. and apicult, Kans. State Col,* 25–27, assoc. prof, 27–30, *prof, 30–,* asst. entomologist, *Exp. Sta,* 25–27, assoc. entomologist, 27–30, *entomologist, 30–* Field asst, bur. entom, U. S. Dept. Agr, 25; state apiarist, Kans, 25– A.A; Entom. Soc; Asn. Econ. Entom. (v. pres, 30); Kans. Acad; Kans. Entom. Soc. (sec'y-treas, 27–37, pres, 40); fel. Iowa Acad. Insect physiology; apiculture; fruit insects.

Parker, Dr. R(alph) R(obinson), U. S. Public Health Service, Hamilton, Mont. *Medical entomology.* Malden, Mass, Feb. 23, 88. B.S, Mass. Col, 12, M.S, 14, Ph.D, 15; hon. Sc.D, Montana, 38. Asst. zool, Mass. Col, 11–12, instr, 12–13, lecturer entom, 13–14; asst. entomologist, State Board Entom, Mont, 15–21; *special expert, U. S. Pub. Health Service, 21–, director, Rocky Mt. lab, 28–* A.A; Pub. Health Asn; Asn. Econ. Entom; Soc. Trop. Med; Wash. Acad. Public health; Rocky Mountain spotted fever and other rickettsioses; tularemia; tick paralysis and other tick-borne infections; plague.

Parker, Dr. Raymond C(randall), University of Toronto, Toronto, Ont, Can. *Biology.* Newport, N. S, Oct. 18, 03. B.A, Acadia, 24; Sterling fellow, Yale, 26–27, Ph.D, 27. Asst. zool, Yale, 24–26; nat. research fellow biol, Kaiser Wilhelm Inst, Berlin, 27–29; asst, div. exp. surg, Rockefeller Inst, 30–31, assoc, 31–39; head virus research div, biol. labs, E. R. Squibb and Sons, 39–41; *research assoc, Connaught labs, Toronto, 41–, lecturer subdept. virus infections, sch. hygiene, 42–* A.A; Asn. Anat; Harvey Soc; N. Y. Acad. Cell physiology; tissue culture; antibody formation; viruses.

Parker, Dr. Robert F(rederic), Lakeside Hospital, Cleveland, Ohio. *Medicine.* St. Louis, Mo, Oct. 29, 07. B.S, Washington (St. Louis), 27, M.D, 29. Asst. radiol, Washington (St. Louis), 29–30; intern, Barnes Hosp, St. Louis, 30–31; asst. med, Washington (St. Louis), 31–32, instr, 32–33; asst, Rockefeller Inst, 33–36; instr. *med, Western Reserve,* 36–37, asst. prof, 37–40, *assoc. prof, 40–* Soc. Clin. Invest; Soc. Bact; Asn. Immunol. Virus diseases; vaccinia.

Parker, Dr. Robert P(rescott), 281 Altamont Place, Somerville, N. J. *Chemistry.* West Hartford, Conn, Oct. 19, 04. A.B, Williams Col, 26, A.M, 28; Ph.D, Yale, 33. With Gen. Elec. Co, 29; *org. research, Calco Chem. Co, Bound Brook, N. J, 33–* Chem. Soc. Organic chemistry.

Parker, Dr. Sylvia L(ouise), City Department of Health, 125 Worth St, New York, N. Y. *Mathematics.* Foxcroft, Maine, April 17, 95. A.B, Mt. Holyoke Col, 16; Ph.D, California, 28. Asst. zool, Mt. Holyoke Col, 16–17; asst. biologist, Exp. Sta, Maine, 17–18; instr. and assoc. biometry and vital statist, sch. hygiene and pub. health, Hopkins, 18–24; instr. and asst. prof. poultry husbandry, California, 24–30; asst. prof. math, Calif. State Teachers Col, San Jose, 31–33; prof, Hamlin Sch, San Francisco, 34–36; *statistician,* State Dept. Health, N. Y; *City Dept. Health, New York.* Marine Biol. Lab, Woods Hole, 16. Poultry Sci. Asn. Duration of life in Drosophila; physiology of reproduction in poultry.

Parker, Dr. Vincent E(veland), 170 W. Main St, Newark, Del. *Physical chemistry.* Kuala Lumpur, F.M.S, Sept. 18, 14. A.B, Evansville Col, 36; Ph.D, Indiana, 40. Asst, Indiana, 36–40; head dept. physical science, Cent. Nor. Col, 40–41; instr. and later *asst. prof. chem, Delaware, 41–* Asst. microchemist, Biochem. Research Foundation, Franklin Inst. Application of the heterodyne beat method to the determination of the dielectric constants and dipole moments of well-conducting liquids; chemistry of artificially radioactive elements.

Parker, Prof. Walter H(untington), University of Minnesota, Minneapolis, Minn. *Mining engineering.* Stillwater, Minn, Aug. 1, 84. E.M, Minnesota, 07. Mining engineer, Berlin, Wash, 07; chief engineer, Int. Coal Co. and Mont. Coal and Iron Co, 08–12; consulting engineer, 12–17; assoc. prof. *mining, Minnesota,* 19–24, *prof, 24–* City engineer, Bear creek, Mont, 10. Mem. board admin. inst. tech, Minnesota. Capt, C.A.C, 17–19, staff, sch. of fire, F.A, 18. A.A; Min. and Metal. Eng. (v. pres, Minn. sect, 35); Eng. Educ; Civil Eng; Soc. Adv. Educ; Inst. Min. and Metal. Gt. Britain. Mining; petroleum; geophysical prospecting; petroleum engineering; explosives.

Parker, Prof. Walter R(obert), 1025 David Whitney Bldg, Detroit, Mich. *Medicine.* Marine City, Mich, 65. B.S, Michigan, 88, Sc.D, 34; M.D, Pennsylvania, 91, Sc.D, 28. Prof. *ophthal, Michigan,* 05–33, *emer. prof, 33–* Knapp medal, Am. Med. Asn. A.A; Am. Med. Asn. (chairman, ophthal. sect, 15); Ophthal. Soc. (pres, 28); Acad. Ophthal. and Otolaryngol. (pres, 22); Col. Surg; Int. Ophthal. Soc. (councilor). Ophthalmology; neurofibroma of the orbit; the pituitary body and eye symptoms; ophthalmology and diseases of the nose; tension of the eyeball; ocular manifestations and diabetes; detachment of the retina; eye conditions in children.

Parker, W(illiam) E(dward), Ft. Lauderdale, Fla. *Civil engineering.* Newton, Mass, March 21, 76. B.S, Mass. Inst. Tech, 99. From aid to hydrog. and geod. engineer, U. S. Coast and Geod. Surv, 01–34; *retired.* Civil Eng. (pres, D. C. sect, 23); Geophys. Union; Wash. Soc. Eng. (sec'y, 19, director, 26, pres, 31); Philos. Soc. Wash; Wash. Acad. (v. pres, 31). Hydrographic surveying; oceanography.

Parker, Dr. W(illiam) E(rnest), 1710 Dorchester St, West, Station H, Montreal, Que, Can. *Biological chemistry.* Georgetown Royalty, P. E. I, Nov. 21, 03. B.Sc, Acadia, 33; M.Sc, McGill, 37, Ph.D, 41. *Research and develop. chemist, Ogilvie Flour Mills Co, Ltd, 40–* Vitamin A.

Parker, Prof. W(illiam) Vann, Louisiana State University, Baton Rouge, La. *Mathematics.* Monroe, N. C, Dec. 22, 01. A.B, North Carolina, 23, A.M, 24; Princeton, 26–27; fellow, Brown, 29–30, Ph.D, 31. Asst. prof. *math,* Univ. of the South, 24–25; North Carolina, 25–26; instr, Princeton, 26–27; asst. prof, North Carolina, 27–31; prof, Miss. Woman's Col, 31–34; asst. prof, Ga. Tech, 34–36; assoc. prof, *Louisiana,* 36–39, *prof, 39–, head dept, 42–* Ed. board, 'Nat. Math. Magazine.' Math. Soc; Math. Asn. Algebra.

Parkhill, Dr. Edith M(uriel), Mayo Clinic, Rochester, Minn. *Pathology.* Rochester, Minn, Aug. 17, 99. A.B, Wisconsin, 28, M.D, 30; M.S, Minnesota, 39. Asst. *surg. path, Mayo Clinic,* 34–36, *assoc, 36–; instr. path, Mayo Foundation, Minnesota, 39–* Am. Med. Asn; Soc. Clin. Path. Biopathology; bacteriology of cholecystitis and cholelithiasis; histogenesis and classification of tumors of the eye; pathological histology of the thyroid gland.

Parkhurst, D(ouglas) L(lewellyn), 4602 Norwood Drive, Chevy Chase, Md. *Engineering.* Amherst, N. H, May 25, 93. B.S, Worcester Polytech, 15, M.E, 26. Designer, Bosch Magneto Co, 15–17; War Dept, 17–21; assoc. engineer, Bur. Standards, 21–23; *senior engineer, chief instrument div, U. S. Coast and Geod. Surv, 23–* Wash. Soc. Eng; Philos. Soc. Wash. Precision instruments for geodetic, magnetic, hydrographic and seismological work.

Parkhurst, Elizabeth, New York State Department of Health, Albany, N. Y. *Vital statistics.* Moline, Ill, April 20, 05. A.B, Smith Col, 25; Rockefeller Foundation fellow, Hopkins, 28–29, M.S, 38. Asst, *div. vital statist, State Dept. Health, N. Y,* 25–28, *senior statistician, 29–* Statist. Asn; Pub. Health Asn. Vital statistics.

Parkhurst, Prof. Raymond T(hurston), 4 Sunset Court, Amherst, Mass. *Poultry husbandry, Nutrition.* Everett, Mass, April 24, 98. B.S, Mass. Agr. Col, 19; M.S, Idaho, 26; Ph.D, Edinburgh, 32. Exten. poultryman, Iowa State Col, 19–21; head dept. poultry husbandry, Idaho, 21–27; director, Nat. Inst. Poultry Husbandry, Harper Adams Col, England, 27–32; director agricultural research, Nat. Oil Products Co, N. J, 32–38; *head dept. poultry husbandry, Mass. State Col, 38–* Poultry Sci. Asn; World Poultry Sci. Asn; British Asn. Instrs. and Investigators Poultry Husbandry (past pres). Vitamin requirements of poultry and farm animals; relative value of various protein and vitamin feeds for poultry; requirements and sources of calcium and manganese for poultry.

Parkin, J(ohn) H(amilton), National Research Council, Ottawa, Ont, Can. *Aeronautics.* Toronto, Ont, Sept. 27, 91. B.A.Sc, Toronto, 12, M.E, 19. Lecturer mech. eng, Toronto, 14–20, asst. prof, 20–26, assoc. prof, 26–29; asst. director div. physics in charge aeronaut. research, *Nat. Research Council Can,* 29–36, *director div. mech. eng, 36–* Asst. to engineer in chief, British Acetones, Toronto, Ltd, 16–19; consultant in

aeronaut, 19–29. Inst. Aeronaut. Sci; Mech. Eng; Soc. Automotive Eng; fel. Royal Soc. Can; Eng. Inst. Can; fel. Royal Aeronaut. Soc. Aerodynamics.

Parkins, Dr. W(illia)m E(dward), Jr, Radiation Laboratory, University of California, Berkeley, Calif. *Physics.* Bozeman, Mont, March 1, 16. B.S, Montana, 37; McMullen scholar, Cornell, 37–39, Ph.D, 42. Asst. physics, Cornell, 39–42; *research assoc, radiation lab, California, 42–* Physical Soc. Electronics; gas discharge.

Parkinson, Prof. G(eorge) A(mbrose), 623 W. State St, Milwaukee, Wis. *Mathematics.* Columbus, Ohio, Jan. 22, 99. B.S, Ohio State, 22, A.M, 23; Ph.D, Wisconsin, 29. Instr. *math, Wisconsin, 23–27, assoc. prof. and head dept, exten. div, Milwaukee, 27–* A.A; Math. Soc; Math. Asn. (past chairman, Wis. sect). Theory of pairs of curves in spaces of n-dimensions.

Parkinson, John S(trong), Johns-Manville Research Laboratories, Manville, N. J. *Acoustical engineering.* Madison, Wis, Feb. 21, 07. Wisconsin, 24–26. Engineer, Burgess Labs, Madison, Wis, 26–29; *Johns-Manville Corp, 29–31, in charge acoustical eng. sect, research labs, 31–; U. S. Naval Res. and asst. to officer in charge applied mech. sect, David Taylor Model Basin, U. S. Navy Dept, 41–, lieut. commander.* Fel. Acoustical Soc. (director, 34–37); Soc. Heat. and Vent. Eng. Noise surveys and measurement; sound-absorbing and sound-insulating materials.

Parkinson, Dean William N, Temple University, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Sept. 17, 86. B.S, Villa Nova Col, 07, LL.D, 30; M.D, Temple, 11; M.S, Pennsylvania, 25. From instr. to *prof. clin. surg, Temple, 15–,* assoc. dean *med. sch,* 22–25, *dean, 29–* Asst. surgeon, Joseph Price Hosp, Philadelphia, Pa, 12–17. Trustee, Temple, 32– Surgeon, U.S.A, 17–19. Am. Med. Asn; Col. Surg; Acad. Med, Brazil. Medical education; hospital management.

Parks, Prof. George S(utton), Stanford University, Calif. *[6]*Chemistry.* Tacoma, Wash, Jan. 7, 94. B.S, Washington (Seattle), 15, M.S, 16; Ph.D, California, 19. Asst. chem, California, 16–19; instr. anal. chem, Calif. Inst. Tech, 19–20; instr. *chem, Stanford,* 20–25, asst. prof, 25–30, assoc. prof, 30–37, *prof, 37–* Chemist, Hercules Powder Co, 18; Guggenheim Mem. Foundation fellow, Europe, 32. Assoc. ed, 'Jour. Physical Chem,' 39– A.A; Chem. Soc. (chairman, Calif. sect, 28). Physical chemistry; specific heats at low temperatures; heats of combustion; the free energy of organic compounds; the physical-chemical properties of mixtures of organic liquids; the glassy state of matter; viscosity.

Parks, Prof. Hal(burton) B(raley), 134 Elm St, Nacogdoches, Texas. *Zoology.* Sitka, Alaska, April 13, 06. A.B, Texas, 31, A.M, 33; Rockefeller Foundation fellow, Texas, 32–34, Ph.D, 34. Curator dept. zool, museum, Texas, 30–32; head dept. science, Ranger Junior Col, 34–35; Corpus Christi Junior Col, 35–37; asst. prof. and *assoc. prof. biol, Stephen F. Austin State Teachers Col, 37–* A.A; Genetic Asn; fel. Texas Acad. Entomology; marine zoology; embryology of Drosophila; effect of x-ray in mosaic patterns; ecology of Corpus region; marine mollusca of Corpus Bay and adjacent Gulf waters; flora and fauna of Nacogdoches County; histology of poisonous Lepidoptera; histology of human blood; zoogeography of east Texas.

Parks, Harold E(rnest), 'Spruce Cove,' Trinidad, Humboldt Co, Calif. *Botanical exploration, Mycology.* Albany, Oregon, Aug. 5, 80. Technician, dept. bot, *California,* 20–28, *assoc. curator herbarium, 28–* A.A; Mycol. Soc; Am. Geog. Soc; Torrey Bot. Club; Calif. Bot. Soc. Flora of California; Tahiti, Tongatabu and Eua in the Tongan Islands, Rarotonga, and Viti Levu, Fiji; botanical reconnaissance of southeastern Alaska.

Parks, H(arris) B(raley), Route 1, Box 368, San Antonio, Texas. *Entomology.* Carlinville, Ill, June 10, 79. B.S, Blackburn Col, 00; Missouri, 15–17. Asst. supt, Sitka Training Sch, Alaska, 05–11; nat. science, Palmer Col, 12–17; exten. entomologist, Agr. and Mech. Col. Texas, 18–20; sec'y, Am. Honey Producers League, 21–22; apiculturist, *Exp. Sta, Agr. and Mech. Col. Texas, 22–26, chief div. apicult, 27–* A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Texas Acad. (sec'y, 28–33). Apiculture; flower insect ecology.

Parks, Prof. Lloyd M(cClain), 1642 Monroe St, Madison, Wis. *Pharmaceutical chemistry.* Scottsburg, Ind, March 21, 12. B.S, Purdue, 33, M.S, 36; Ph.D, Wisconsin, 38. *Asst. prof. pharmaceut. chem, Wisconsin, 38–* Phytochemistry.

Parks, Prof. L(ytle) R(aymond), 141 E. Fairmount Ave, State College, Pa. *Chemistry.* Aurora, Ind, April 13, 90. B.S, Purdue, 12; M.S, Pa. State Col, 14; Ph.D, Cornell, 28. Instr. chem, *Pa. State Col,* 13–17, asst. prof, 17–22, assoc. prof. physical chem, 22–27, *prof. chem. and director chem. labs, 27–* Chem. Soc. Colloids; classification, purification and properties of dyes; theory of dyeing; standard cellulose; application of glass and antimony electrodes in dyeing and dairy products; chemistry of hide protein.

Parks, Prof. Mabel, Belhaven College, Jackson, Miss. *Botany.* Sitka, Alaska, Aug. 24, 10. A.B, Texas, 32, A.M, 33, Ph.D, 42. *Asst. prof. biol, Belhaven Col, 36–* A.A; Texas Acad; Miss. Acad. Morphology.

Parks, Dr. Margaret M(erriman), Rhode Island State College, Kingston, R. I. *Chemistry.* Boonton, N. J, Oct. 19, 04. A.B, Vassar Col, 25; A.M, Columbia, 28, Ph.D, 30. Asst, Vassar Col, 25–27; Columbia, 28–30; *instr. chem, R. I. State Col, 33–* Quantitative method for the determination of vanadium; home economics; consumer chemistry.

Parks, Dr. R(obert) Q(uinn), U. S. Plant, Soil and Nutrition Laboratory, Ithaca, N. Y. *Soil fertility.* South Lyon, Mich, Oct. 12, 15. B.S, Arizona, 37, M.S, 39; Ph.D, Ohio State, 41. Instr. agron, Ohio State, 40–41; asst. agronomist, Ohio Agr. Exp. Sta, 41–42; *agent and assoc. soil scientist, plant, soil and nutrition lab, U. S. Dept. Agr, 42–* Redox potential in soils; determining moisture in plant material; spectrochemical determination of boron; boron fixation in soils.

Parks, Prof. R(oland) D(ane), 2037 20th Road, N, Arlington, Va. *Mining engineering.* Lake Linden, Mich, Sept. 26, 00. B.S, E.M, Mich. Col. Mines, 20; M.S, Wisconsin, 25. Instr. mining and civil eng, Mich. Col. Min. and Tech, 21–27, asst. prof, 27–31, assoc. prof. mining eng, 31–40; *asst. prof. mineral indust, Mass. Inst. Tech, 40–; mem. staff, War Production Board, 41–* Mine valuation consultant, 34–36. Min. and Metal. Eng; Lake Superior Min. Inst. Drilling and blasting; mining and timbering practise; mine examination and valuation; yieldable metal props for underground support; total profits versus present value in mining; mine surveying.

Parks, Prof. T(haddeus) H(edges), Ohio State University, Columbus, Ohio. *Entomology.* Ashville, Ohio, Feb. 14, 87. B.S.A, Ohio State, 09; M.S, Illinois, 25. Sci. asst, bur. entom, U. S. Dept. Agr, 09–13; exten. entomologist, Idaho, 13–15; Kans. State Col, 15–17; asst. prof. *entom, exten. service, Ohio State,* 18–19, *prof, 19–* Entom. Soc; Asn. Econ. Entom; Ohio Acad. Economic entomology.

Parks, Dr. T(homas) B(ranson), 2549 Grant Blvd, Milwaukee, Wis. *Chemistry.* Ramseur, N. C, Nov. 28, 94. A.B, Elon Col, 20; fellow, Iowa State Col, 23–27, Ph.D, 30, Cambridge, 32. Instr. gen. and anal. chem, N. C. State Col, 20–22; quantitative anal, Pa. State Col, 22–23; biochem, dept. med, Vermont, 27–33; research chemist, Maltex Cereal Co, Burlington, Vt, 33–34, consultant, 34–35; bacteriologist and research chemist, Pepsodent Co, Chicago, 34–35; research chemist, S. F. Baker and Co, 35–39; asst. prof. food chem, Iowa State Col, 39–40; *research, Jos. Schlitz Brewing Co, 40–* A.A; Chem. Soc. Physiological and nutritional chemistry; effect of processing upon the nutritive value of cereals and cereal products; mineral content of foods; calcium and phosphorus metabolism; vitamins; foods; pharmaceuticals.

Parks, Prof. W(ilber) George, Rhode Island State College, Kingston, R. I. *Chemistry.* Rockwood, Pa, Dec. 20, 04. A.B, Pennsylvania, 26; A.M, Columbia, 28, Ph.D, 30. Instr, Drexel, 26; asst. chem, Columbia, 27–30, lecturer, 30–31; asst. prof. anal. chem, *R. I. State Col,* 31–36, assoc. prof, 36–39, *prof. chem. and director research, 39–, director summer session, 41–* Tech. aide cmt. quartermaster problems, Nat. Research Council. A.A; Chem. Soc. (sec'y, R. I. sect, 36–39, chairman, 39); Electrochem. Soc; Inst. Chem; Farm Chemurg. Council; New Eng. Asn. Chem. Teachers; N. Y. Acad; Providence Eng. Soc. (director); London Chem. Soc. Activity coefficients, heats of transfer and partial and integral heats of dilution of cadmium sulfate from electromotive force measurements; vapor-phase catalytic oxidation of organic compounds; simultaneous electrodeposition of alloys; viscosity; solubility of metals in mercury; amalgam electrodes; catalysis; non-aqueous solutions.

Parks, Prof. W(illiam) B(enjamin), Kansas State Teachers College, Pittsburg, Kans. *Chemistry.* Lancaster, Texas, Aug. 31, 63. B.S, Texas Christian, 86, A.M, 92, Ph.D, 94; Vanderbilt, 87; Harvard, 88; Virginia, 90; M.S, Chicago, 20.

Prof. chem, Texas Christian, 87-99, 04-17, dean, 10-17, acting pres, 11-12; head dept. chem, Southwest. Okla. Teachers Col, 18-21; Okla. Agr. and Mech. Col, 21-23; *prof. chem, Kans. State Teachers Col, Pittsburg, 23–* A.A; Chem. Soc. (treas, Okla. sect, 21-23); Kans. Acad. Properties of atoms; atomic numbers; electron theory; oxidation-reduction reactions.

Parlee, Dr. N(orman) A(llen) D(evine), 109 Bentinck St, Sydney, N. S, Can. *Physical chemistry, Metallurgy.* South Farmington, N. S, March 23, 15. B.Sc, Dalhousie, 35, Nat. Research Council Can. bursar, 36-37, M.Sc, 37; Nat. Research Council Can. student, McGill, 37-39, Ph.D, 39. Demonstrator, Dalhousie, 35-36; chemist, Imp. Oil Co, 36; lecturer, Sir George Williams Col, 38-39; metallographer, *Dom. Steel and Coal Corp, 39–40, research metallurgist, 40–,* head metal. dept, Trenton Steel Works, 41-42. Can. Inst. Chem; N. S. Inst. Sci. Homogenous first order gas reactions; atomic reactions; miscellaneous problems in the working of steel; development of gun steel and shell steel; recovery of vanadium from blast furnace iron.

Parlin, Prof. Wellington A(mos), 560 Walnut St, Carlisle, Pa. *Physics.* Des Moines, Iowa, Jan. 19, 99. A.B, Simpson Col, 21; A.M, Iowa, 22; Ph.D, Hopkins, 29. Instr. physics, Emory, 23-26; tech. asst, Hopkins, 29-30; *prof. physics, Dickinson Col, 30–* Physical Soc; Pa. Acad. Infra-red absorption spectra; determining ratio of effective and maximum voltages of alternating current generator; a simple refractometer; specific heat measurements for the laboratory; impact coefficients of small spheres.

Parman, Dan(iel) C(leveland), Box 509, Uvalde, Texas. *Entomology.* Franklin, Tenn, March 5, 85. B.S.A, Tennessee, 11. Entom. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 11-24, asst. entomologist, 24-29, *assoc. entomologist, 29–* A.A; Entom. Soc; Asn. Econ. Entom; Soc. Parasitol. Insecticides; biology of animal parasites; climatology and insect activity; chemotropism of flies affecting live stock.

Parmele, Dr. H(arris) B(arnum), P. Lorillard Co, Middletown, Ohio. *Chemistry.* Rockford, Ill, Oct. 18, 01. B.S, Wisconsin, 23, M.S, 24, Ph.D, 27. U. S. Dept. Agr, 23-24; asst, Wisconsin, 25-28; chemist, Gen. Labs, Madison, Wis, 28-29; *chief chemist, P. Lorillard Co, 29–* Chem. Soc. Fermentation of sauerkraut; tobacco.

Parmelee, Prof. Cullen W(arner), University of Illinois, Urbana, Ill. *Ceramics.* Brooklyn, N. Y, 74. B.S, Rutgers, 96, M.S, 26, Sc.D, 36. Director dept. ceramics, Rutgers, 03-16; prof. *ceramic eng, Illinois,* 16-42, *emer. prof, 42–,* head dept, 23-42. Consulting ceramic engineer, Ill. Geol. Surv, 37-Ceramic Soc; British Ceramic Soc; fel. British Asn. Glass Tech; hon. mem. Deuts. Keramische Gesell. Clays, bodies, glasses and glazes.

Parmelee, Dr. H(oward) C(oon), 330 W. 42nd St, New York, N. Y. *Chemistry.* Omaha, Nebr, Dec. 4, 74. B.S, Nebraska, 97, A.M, 99; hon. Sc.D, Colo. Col, 17. Chief chemist, Globe plant, Am. Smelting and Ref. Co, 00-02; consulting chemist, 02-05; ed, 'Mining Reporter,' 05-07; 'West. Chemist and Metallurgist,' 07-10; west. ed, 'Metal. and Chem. Eng,' 10-16; pres, Colo. Sch. Mines, 16-17; ed, 'Chem. and Metal. Eng,' 17-27; v. pres. and ed. director, *McGraw-Hill Publishing Co,* 28-33, *ed, 'Eng. and Mining Jour,' 33–* Chem. Soc; Electrochem. Soc. (pres, 24); Chem. Eng. (sec'y); Colo. Sci. Soc. (sec'y, 10-16, pres, 16). Organic chemistry; technical journalism.

Parmenter, Prof. Charles L(eroy), University of Pennsylvania, Philadelphia, Pa. *Zoology.* Owens Station, Ohio, 82. A.B, Southern California, 10, A.M, 12; fellow, Pennsylvania, 17-18, Ph.D, 18. Instr. *zool,* Southern California, 10-12; asst, Wisconsin, 12-15; Minnesota, 15-16; *Pennsylvania,* 16-17, instr, 18-25, asst. prof, 25-29, assoc. prof, 29-39, *prof, 39–* Summers, instr, Marine Biol. Lab, Woods Hole, 18-22; Southern California, 24. A.A; Zool. Soc; Soc. Study Develop. and Growth. Cytology; amphibian cytology; chromosomes in parthenogenetic frogs.

Parmenter, Dr. Frederick J(ames), 40 W. North St, Buffalo, N. Y. *Medicine.* Buffalo, N. Y, Nov. 24, 80. Hobart Col, 98-99; M.D, Buffalo, 03. *Prof. urol, Buffalo, 16–* Urology.

Parmenter, Prof. Geo(rge) F(reeman), Waterville, Maine. *Chemistry.* Dover, Mass, March 26, 77. B.S, Mass. Col. and Boston, 00; A.M, Ph.D, Brown, 03; Sc.D, Colby Col, 16. Instr. chem, Mass. Col; chemist, Exp. Sta, R. I. State Col, 01; instr. *chem,* Brown, 01-03; assoc. prof, *Colby Col,* 03-04, *prof,.04–* Asst. chemist, Hatch Exp. Sta, Mass. A.A; Chem. Soc; New Eng. Asn. Chem. Teachers; Maine Sci. and Math. Asn. (pres). The action of acetic anhydrid on acids of the phenylpropiolic series; acids of the phenylpropiolic series; the composition of casein; quantitative methods.

Parmenter, Dr. Richard, 602 Parkway, Ithaca, N. Y. *Physiology.* Buffalo, N. Y, Nov. 16, 94. C.E, Cornell, 17, Ph.D, 37. Hydrographer, Mass. Bay surv, Bur. Fisheries, 24-25; commander, Austin sub-Arctic exped, 27; field director and hydrographer, Lake Erie surv, 28; research assoc. physiol, Cornell, 35-40, director research, Civilian Pilot Training Program, 39-40; *lieut. commander, U. S. Naval Reserve, 40–* A.A; Am. Acad; N. Y. Acad. Oceanography.

Parmley, Prof. Thomas J(ennison), University of Utah, Salt Lake City, Utah. *Physics.* Scofield, Utah, Nov. 2, 97. B.S, Utah, 21; Ph.D, Cornell, 27. Instr. *physics, Utah,* 21-24, asst. prof, 27-31, assoc. prof, 31-39, *prof, 39–* Photoelectric effect in single bismuth crystals.

Parnell, Dr. Ivan W(illiam), Macdonald College, Que, Can. *Parasitology.* Rugby, Eng, July 26, 98. B.A, Cambridge, 21; Ph.D, Edinburgh, 32. Asst, inst. animal genetics, Edinburgh, 30-32; *inst. parasitol, Macdonald Col, McGill,* 33-36, *lecturer, 36–* Helminthology; ecology; genetics.

Parpart, Dr. Arthur K(emble), 2 College Road, Princeton, N. J. *Physiology.* Brooklyn, N. Y, Dec. 28, 03. A.B, Amherst Col, 25. A.M. 27; Ph.D, Pennsylvania, 31. Instr. embryol. Amherst Col, 27-28; physiol, Pennsylvania, 29-31; *gen. physiol, Princeton,* 31-33, asst. prof, 33-41, *assoc. prof, 41–* In charge physiol, Marine Biol. Lab, Woods Hole, 41-Soc. Zool; Physiol. Soc. Cell permeability; membrane chemistry; blood.

Parr, Prof. A(lbert) E(ide), Yale University, New Haven, Conn. *Zoology, Oceanography.* Bergen, Norway, Aug. 15, 00. Cand. Mag, Royal Univ. Oslo, Norway, 25. Asst, Norwegian Bur. Fisheries, 24-26; N. Y. Aquarium, 26; *curator Bingham oceanog. collection, Yale, 27–,* asst. prof. zool, 31-37, assoc. prof, 37-38, prof, 38-42, sci. director oceanog. expeds, 31-37, director marine research, 37-42, Peabody Museum, 38-42, *ed, Sears Foundation, 42–, research assoc, Bingham oceanog. lab, and assoc. fellow, Davenport Col; director, Am. Museum Nat. Hist, 42–* Research assoc. and trustee, Oceanog. Inst, Woods Hole. Zoologist, 3rd exped, 'Pawnee,' 27. Fel. N. Y. Zool. Soc. Marine biology; evolution and adaptation; deep sea fishes; anatomy and classification of fishes; West Indian fishes; instincts and biology of fishes; physical oceanography; Sargasso weeds.

Parr, Prof. Harry L, Columbia University, New York, N. Y. *Mechanical engineering.* Yonkers, N. Y, March 20, 80. A.B, Columbia, 02, M.E, 04. Asst. mech. eng, Columbia, 05-06; eng. dept, Power Specialty Co, 06-07; instr. *in charge mech. eng. exp. labs, Columbia,* 07-12, asst. prof, 12-21, assoc. prof, 21-28, prof, 28-41, *Stevens prof, 41–* Consulting mech. engineer. A.A; Mech. Eng; Physical Soc. Steam and gas power generation; power plant economics; heat transfer; fluid dynamics.

Parr, Prof. Leland W(ilbur), George Washington University School of Medicine, Washington, D. C. *Bacteriology, Hygiene.* Cooksville, Ill, Nov. 2, 92. B.S, Chicago, 16, Ph.D, 23. Instr. physical sciences, Assiut Col, Egypt, 16-19; assoc. bacter, Chicago, 21-23; adj. prof. bacter. and hygiene, American Univ. Beirut, 23-26, chairman path. sciences and assoc. prof. bacter. and hygiene, 26-30; assoc. prof. hygiene and bacter, Chicago, 30, exten. assoc. prof. bacter, 31-32; chief bacteriologist, research lab, int. health board, Rockefeller Foundation, Andalusia, Ala, 31-32; assoc. prof. *bacter, sch. med, George Washington,* 32-38, *prof, 38–, exec. officer, 39–* A.A; Soc. Bact; Soc. Exp. Biol; Asn. Path. and Bact; Genetic Asn; Asn. Immunol; Soc. Exp. Path; fel. Pub. Health Asn; Wash. Acad. (pres, 43). Biological anthropology; intestinal bacteriology; bacterial ecology; genetics; tuberculosis.

Parr, Dr. Rosalie M(ary), University of Illinois, Urbana, Ill. *Chemistry.* Peoria Co, Ill. Ph.D, Illinois, 16. Asst. bot, Illinois, 10-16; *assoc.* science, Calif. State Nor. Sch, Santa Barbara, 16-17; *chem, Illinois, 18–* A.A; Chem. Soc. Chemical factors in biological problems; chemistry of rare elements.

Parr, Dr. Thaddeus, 56 Hillhouse Ave, New Haven, Conn. *Forest entomology.* Revillo, S. Dak, June 2, 05. B.S. Minnesota, 29; M.F, Yale, 32, Ph.D, 39; Royal Swedish For. Exp. Sta. 35-36. Plant operator, Abbott Labs, 24-25; forest en-

tomologist and supt, Civilian Conservation Corps, 33–35; asst, Royal Swedish Forest Exp. Sta, 36; junior entomologist, *div. forest insect investigation, bur. entom. and plant quarantine, U. S. Dept. Agr*, 37–39, asst. entomologist, 39–43, *assoc. entomologist, 43–* A.A; Soc. Foresters. Physiology of sucking insects, including physiological effects upon the host plants; electrical potentials in living trees, particularly as related to attacks of such trees by certain insects.

Parrack, Dr. Horace O(lin), Harvard Medical School, Boston, Mass. *Physiology.* W. Va, Sept. 16, 05. A.B, West Virginia, 29; A.M, Columbia, 32, Ph.D, 40; Porter fellow, Harvard, 39–40. Instr. zool, Columbia, 29–31, physiol, col. physicians and surg, 34–39; *Austin teaching fellow, Harvard Med. Sch, 40–* Electro-physiology.

Parran, Dr. Thomas, U. S. Public Health Service, Washington, D. C. *Public health.* St. Leonard, Md, Sept. 28, 92. A.B, St. John's (Md), 11, A.M, 15, LL.D, 36; M.D, Georgetown, 15, hon. Sc.D, 36; LL.D, Syracuse, 34, Toronto, 41; hon. Pharm.D, Phila. Col. Pharmacy, 37; hon. Sc.D, Wesleyan, Colgate, 37, Columbia, 38, Maryland, 40, St. Bonaventure Col, 40, Tufts Col, 40; hon. Dr.P.H, N. Y. Univ, 38. Asst. surgeon, *U. S. Pub. Health Service*, 17–21, passed asst. surgeon, 21–25, surgeon, 25, asst. surgeon gen. in charge div. venereal diseases, 26–30, *surgeon gen, 36–;* state commissioner health, N. Y, 30–36. Ed. board, 'Am. Jour. Syphilol.' Chief med. officer, Muscle Shoals, Ala, 18; exec. officer, med. div, War Risk Ins. Bur, 19; director, Tri-State Sanit. Dist, 20–21; rural sanit. div, state board health, Mo, 21–23; county health work, state dept. health, Ill, 23–25. Tech. advisory board, Milbank Mem. Fund; advisory council, Henry Phipps Inst, Pennsylvania; Nat. Sci. Advisory Board and sub-cmt. pub. health problems; advisory board, Mass. Inst. Tech. Corp; Nat. Cmt. Social Security; sci. director, int. health div, Rockefeller Foundation, 36–; Gorgas Mem. Inst; mem. tech. advisory board, Nat. Research Council. Mendel medal, Villanova Col, 38. Chairman, U. S. delegation, Int. Cong. Dermat, Budapest, 35. Pub. Health Asn. (treas, 31–33, chairman, exec. board, 33–35, pres, 36); fel. Am. Med. Asn; Soc. Control Cancer (v. pres. and director); Tuber. Asn. (v. pres, 37); Am. Neisserian Med. Soc. (pres, 36); Social Hygiene Asn. (chairman, gen. advisory cmt, 37–); Col. Physicians; Col. Surg; Am. Physicians; fel. N. Y. Acad; hon. fel. Royal Sanit. Inst, Gt. Britain. Preventive medicine and public health; social hygiene and public health; public medical care; public health organization; milk control; maternal and infant mortality; tuberculosis control; venereal disease.

Parratt, Dr. L(yman) G(eorge), Naval Ordnance Laboratory, Navy Yard, Washington, D. C. *Physics.* Salt Lake City, Utah, May 17, 08. A.B, Utah, 28; Ph.D, Chicago, 32. Asst. *physics*, Utah, 28–29; Chicago, 30–33; nat. research fellow, *Cornell*, 33–35, instr, 35–38, asst. prof, 38–42, *assoc. prof, 42–; physicist, Naval Ordnance Lab, 41–* Fel. Physical Soc; Asn. Physics Teachers. Diffraction of x-rays in crystals; intensities and shapes of x-ray spectral lines; quantitative chemical analysis with x-ray; structure of x-ray absorption discontinuities; magnetic instruments; ship's magnetism; acoustic instruments; torpedoes; submarine detection.

Parrett, Dr. A(rthur) N, Rayonier, Inc, Shelton, Wash. *Chemistry.* Marshalltown, Iowa, July 7, 96. B.S, Minnesota, 20, Chem.E, 21; Ph.D, Pittsburgh, 25. Research chemist, E. I. du Pont de Nemours and Co, 25–30; chem. research and direction, A. O. Smith Corp, 30–32; *research and chem. develop, Rayonier, Inc, 32–* Chem. Soc; Chem. Eng. Varnishes; lacquers; rubber products; synthetic resins; chemical wood pulp.

Parris, Dr. (George) Keith, University of Hawaii, Honolulu, Hawaii. *Plant pathology.* Barbados, B. W. I, April 13, 08. B.S.A, McGill, 30; Ph.D, Cornell, 35. Asst. prof. and later *assoc. prof. plant path, Hawaii, and assoc. plant pathologist, Exp. Sta, 35–; acting head dept. plant path, Va. Truck Exp. Sta, 42–* Diseases of spinach, sweet potatoes, beans and tomatoes.

Parrish, Dr. Charles I(thamer), 285 W. Greenwood Ave, Lansdowne, Pa. *Chemistry.* Shelbyville, Ind, Jan. 9, 07. B.S, Illinois, 30; M.S, Virginia, 31; Parke, Davis and Co. fellow, Northwestern, 31–33, Ph.D, 33. Asst. chem, Virginia, 30–31; consulting chemist, Pacini Lab, 33–34; *research chemist*, Universal Oil Products Co, 34–36; *Pa. Salt Mfg. Co, Phila, 36–* Chem. Soc. Tautomerism; pyrogallol derivatives; development and utilization of by-products in the food industry; cracking of hydrocarbons.

Parrish, Dr. William, Pennsylvania State College, State College, Pa. *Crystallography, Mineralogy.* Philadelphia, Pa, April 16, 14. B.S, Pa. State Col, 35; Samuel Franklin Emmons Mem. fellow and Susan B. Swett fellow, Mass. Inst. Tech, 38–39, Ph.D, 40. Teaching fellow *miner*, Mass. Inst. Tech, 35–38, research assoc, 39–40; *instr, Pa. State Col, 40–; technologist, War Dept, Sig. Corps, U. S. Army, 42–* Miner. Soc; Miner. Soc. Gt. Britain. Crystal chemistry of inorganic solids; x-ray diffraction studies of minerals; microscopic identification of inorganic compounds.

Parrott, Dr. E(rnest) M(ilford), Massachusetts State College, Amherst, Mass. *Biochemistry.* Cordova, Tenn, Dec. 17, 03. B.S, Union (Tenn), 27; Florida, 28–29; M.S, Mass. State Col, 32; Ph.D, Missouri, 38. Asst. biol, Union (Tenn), 27; instr. science, high sch, Monterey, Tenn, 27–28; asst. chem, Florida, 28–29; Mass. State Col, 29–30, instr, 30–36; lab. asst. agr. chem, Missouri, 36–38; *instr. chem, Mass. State Col, 38–* Chick anemia caused by a vitamin deficiency; manganese absorption by the fowl; effect of various fruits on alkali reserve; vitamin E.

Parrott, P(ercival) J(ohn), New York Agricultural Experiment Station, Geneva, N. Y. *Entomology.* Croydon, Eng, May 28, 74. A.B, Kansas, 97, A.M, 98. Asst. entomologist, Exp. Sta, Kans. State Col, 98–99; entomologist, Kans. Hort. Soc, 99–00; asst. entomologist, N. Y. Exp. Sta, Geneva, 00–02; entomologist, Ohio Exp. Sta, 02–04; *N. Y. Exp. Sta, Geneva*, 04–42, v. director, 29–38, director, 38–42, *emer. prof. entom, 42–* Special agent, U. S. Dept. Agr, Africa, 36. A.A; Entom. Soc; Asn. Econ. Entom. (v. pres, 10, pres, 13). Economic entomology.

Parshall, Ralph L(eroy), 926 Akin Ave, Ft. Collins, Colo. *Irrigation.* Golden, Colo, July 2, 81. B.S, Colo. Agr. Col, 04; Chicago, 06–07. Instr. eng. and physics, Colo. Agr. Col, 04–06, asst. civil and irrig. eng, 07–10, assoc. prof, 11–13; asst. irrig. eng, *U. S. Dept. Agr*, 14–18, *in charge irrig. investigations, Exp. Sta*, Colo. Agr. Col, 18–35, *Colo. State Col, 35–, senior irrig. engineer.* A.A; Civil Eng. Irrigation engineering and hydraulics.

Parshley, Prof. H(oward) M(adison), Smith College, Northampton, Mass. *Zoology.* Hallowell, Maine, Aug. 7, 84. A.B, Harvard, 09, A.M, 10, Sc.D, 17. Instr. *zool*, Maine, 11–14; asst. prof, *Smith Col*, 17–19, assoc. prof, 19–25, *prof*, 25–Assoc. field zoologist, biol. lab, Cold Spring Harbor, 19–25, field zoologist, 26–28; biologist, Nat. League Girls Clubs Summer Sch, 25–26. Summer, field zoologist and entomologist, Chicago, 27. Managing ed, 'Catalogue Hemiptera.' A.A; Soc. Zool; Entom. Soc; Genetics Soc; Soc. Nat; Soc. entom. de France. North American Hemiptera; biology of sex.

Parshley, Dr. Mary Stearns (Mrs. Thomas F. Parshley), 77 Washington Place, New York, N. Y. *Anatomy.* Manchester, N. H, Feb. 6, 12. A.B, Smith Col, 33; traveling fellow from Smith Col, Pennsylvania, 34–38, A.M, 35, Bennett fellow, 36–37, Ph.D, 38. Finney-Howell research fellow, Pennsylvania, 38–39; *research asst. to Dr. Simms, dept. path, col. physicians and surg, Columbia, 40–* Physiol. Soc. Phila. Connective tissue in living rabbits in Clark-Sandison transparent chambers; carcinogenic compounds injected in living tissues in these chambers; development of fat in adult chick fibroblasts in tissue cultures; regeneration of tissues in wound healing.

Parson, Howard E(verett), 608 Court House, Shreveport, La. *Plant pathology.* Smiths Creek, Mich, May 13, 97. B.S, Mich. State Col, 23; M.S, Minnesota, 28. Sch. supt, 24–25; junior pathologist, *U. S. Dept. Agr*, 29–30, *asst. pathologist, 30–* A.A; Phytopath. Soc. Physiologic specialization in leaf rust of oats; potato seed treatment; diseases of pecans.

Parsons, A(rthur) B(arrette), 29 W. 39th St, New York, N. Y. *Mining, Metallurgy.* Salt Lake City, Utah, Nov. 22, 87. B.S, Utah Sch. Mines, 09. Mill supt, Candor Mines Co, N. C; smelter foreman, Burma Mines, Ltd, India; mining engineer, Butte and Superior Mining Co, Mont; assoc. ed, Mining and Sci. Press, San Francisco; 'Eng. and Mining Jour,' New York; pres, Mineral Research Corp, New York; *sec'y, Am. Inst. Mining and Metal. Engineers, and ed, 'Mining and Metal.'* Sec'y, Engineers Defense Board; sec'y, Engineers Council Professional Develop. Min. and Metal. Soc; Inst. Min. and Metal. Gt. Britain. Technical and economic phases of mining; porphyry coppers.

Parsons, Prof. Arthur L(eonard), University of Toronto, Toronto, Ont, Can. *Mineralogy.* Mt. Morris, N. Y, Sept. 16,

73. A.B, N. Y. Univ, 96. Asst. *miner*, N. Y. State Museum, 00–02; field asst, U. S. Geol. Surv, 02–03; instr, Minnesota, 03–07; lecturer, *Toronto*, 07–13, asst. prof, 13–19, assoc. prof, 19–29, *prof, 29–* Asst. director, Royal Ont. Museum Miner, 20–39, director, 39–; field geologist, Ont. Bur. Mines, 07, 10–12, 14–20. Asst. in charge, N. Y. State sci. exhibit, Pan-Am. Expos, 01. Fel. Miner. Soc. (pres, 29); fel. Geol. Soc; Can. Inst. Min. and Metal; fel. Royal Soc. Can; London Miner. Soc.

Parsons, Dr. Charles L(athrop), American Chemical Society, 1155 16th St, N.W, Washington, D. C. *[1]*Chemistry*. New Marlboro, Mass, March 23, 67. B.S, Cornell, 88; hon. Sc.D, Maine, 11; hon. D.Ch, Pittsburgh, 14. Asst, Exp. Sta, New Hampshire, 88, instr. chem, univ, 90–92, prof, 92–11; chief mineral chemist, U. S. Bur. Mines, 11–16, chief chemist, 16–19; *sec'y, Am. Chem. Soc, 07–; consulting chemist, 19–* Nitrate Cmn; advisory board on gas warfare; chairman cmt. on use of zirconium in light armor; special investigator in Europe on nitrogen fixation, War Dept, 19. Nichols medal, Am. Chem. Soc, 04, Priestley medal, 32. Officier, Légion d'honneur, 25; officer, Corona d'Italia, 26. Chairman inorg. sect, 8th Int. Cong. Applied Chem; v. pres, Interallied Union of Pure and Applied Chem; del, Int. Cong. Chem, Rome, 38. A.A. (sec'y, C, 04–08); Chem. Soc. (sec'y, 07–); hon. mem. Soc. Chem. Indust; hon. mem. Roumanian Chem. Soc. Mineralogy; crystallography; blowpipe analysis; atomic weights; compounds of beryllium; solution in binary solvent; basic nitrate polyiodids; mineral waters; fuller's earth; extraction of radium from its ores; cyanids; nitrogen fixation; ammonia oxidation.

Parsons, Cha(rle)s W(esley) D(arwin), Lake Mohawk, Sparta, N. J. *Physics*. Clifton Springs, N. Y, Aug. 25, 72. A.B, Cornell, 97; A.M, Northwestern, 09. Instr, secondary sch, 97–07; prof. physics, Colo. Col, 07–09; asst, Northwestern, 09–10; with Cent. Sci. Co, Chicago, 10–18, 19–41; *retired*. Lieut, A.S, 18–19, A.S.R, 19–30, capt, 31–35. Experimental evidence for the presence of ions.

Parsons, Prof. Dickson Ward, 1239 College Ave, Morgantown, W. Va. *Agriculture*. Rich Mountain, W. Va, Aug. 21, 81. A.B, West Virginia, 05; M.S, Wisconsin, 18; Ph.D, Cornell, 30. Instr, high sch, La, 05–07; instr. and asst. prin, preparatory branch, West Virginia, 07–15; sch. supt. and prin, W. Va, 15–17; county agr. agent, W. Va, 18–20; prin. and teacher, high sch, W. Va, 20–23; state supervisor vocational agr, W. Va, 23–26; teacher trainer and assoc. prof. agr. educ, *col. agr, West Virginia*, 23–33, assoc. prof. *rural organization*, 33–39, *prof, 39–, head dept, 33–, teacher trainer vocational agr, 36–* A.A; Vocational Asn. Agricultural education.

Parsons, D(ouglas) E(ugene), 5510 Southwick St, Bethesda, Md. *Structural engineering*. Marion, Iowa, Nov. 3, 94. A.B, Cornell Col. (Iowa), 17, C.E, 23. Asst. chief engineer, Iowa Ry. and Light Co, Cedar Rapids, Iowa, 19–23; assoc. engineer, *Bur. Standards*, 23–29, *chief masonry construction sect, 29–* Wasson research medal, Am. Concrete Inst, 36. Civil Eng; Soc. Test. Mat. (chairman, cmt. mfg. masonry units, 30–42); Concrete Inst. (director, 41–). Structural engineering and materials of construction, including clay and concrete products and reinforced concrete.

Parsons, Dr. Elizabeth I(ngersoll), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Immunology*. Colorado Springs, Colo, Sept. 8, 94. A.B, Vassar Col, 17; Sc.D, Hopkins, 25. Dept. pub. health, Am. Museum Nat. Hist, 18–19; research fellow, Hopkins, 25–27; director, State Hygienic Lab, W. Va, 28–34; research fellow, *sch. hygiene and pub. health, Hopkins*, 36–40, asst, 41–43, *research assoc, 43–* A.A. Spermatoxins; diphtheria; dental caries.

Parsons, Dr. Eloise (Mrs. W(illia)m J. Baker), 5830 Stony Island Ave, Chicago, Ill. *Physiological chemistry, Medicine*. Roswell, N. Mex, July 7, 95. A.B, Randolph-Macon Woman's Col, 17; Ph.D, Chicago, 23, M.D, Rush, 25. Asst. physiol. chem, Chicago, 20–23; fellow, Mayo Foundation, Minnesota, 25–28; clin. asst. med, Chicago, 28–29, asst. prof. gynec. and obstet, 29–34; *practising physician*. Am. Med. Asn; fel. Col. Surg. Histamine as a constituent of secretin preparations; hemorrhage and shock in traumatized limbs; treatment of diabetes during pregnancy; cystic cervicitis by cauterization.

Parsons, Dr. Frances H(olsopple) (Mrs. Judson A(spinwall) Parsons), 62 Highland Parkway, Rochester, N. Y. *Psychology*. A.B, Juniata Col; Ph.D, Pennsylvania, 19. Special agent, U. S. Inter-Departmental Social Hygiene Board, 18–19; psychologist, White-Williams Foundation, 19–21; director dept. child study, Soc. Prevention Cruelty to Children, Rochester, 21–26; *instr. and psychologist, div. psychiat, sch. med. and dentistry, Rochester, 25–* Psychol. Asn. Clinical psychology.

Parsons, Prof. Helen T(racy), University of Wisconsin, Madison, Wis. *Nutrition*. Arkansas City, Kans, March 26, 86. B.S, Kans. State Col, 11; M.S, Wisconsin, 16; Ph.D, Yale, 28. Asst. and instr, Wisconsin, 13–16; instr. and research worker, sch. hygiene and pub. health, Hopkins, 16–20; asst. prof. *home econ. and in charge Purnell research in nutrition, Wisconsin*, 20–28, assoc. prof, 28–34, *prof, 34–* A.A; Soc. Biol. Chem; Home Econ. Asn; Dietetic Asn; Inst. Nutrition; Wis. Acad; N. Y. Acad; Biochem. Soc. Gt. Britain. Vitamin C; physiological effects of high protein diets and of egg whites.

Parsons, Dr. James B(ayard), 5801 Dorchester Ave, Chicago, Ill. *Inorganic chemistry*. Worton, Md, Dec. 16, 95. A.B, Washington Col. (Md), 17; Ph.D, Chicago, 31. Instr, schs, Md, 17–18, 19–20; W. Va, 20–25; Ill, 25–28; *Chicago City Cols, 28–34, director physical science, 34–* A.A; Chem. Soc. (chairman chem. educ. sect, Chicago, 30–32); Asn. Junior Cols. (chairman sci. sect, 41). Gallium and liquid ammonia; the halides and nitrogen compounds of gallium.

Parsons, Dr. John L(angdon), Hammermill Paper Co, Erie, Pa. *Chemistry*. Rye, N. H, June 3, 95. B.S, Mass. Inst. Tech, 17; Hammermill Paper Co. fellow, Yale, 23–25, Ph.D, 25. Instr. chem, Boston, 17–20; Mass. Inst. Tech, 18–19; research chemist, *Hammermill Paper Co, 20–23, 25–32, chief research dept, 32–* A.A; Chem. Soc; Asn. Pulp and Paper Indust; British Textile Inst. Cellulose and its derivatives and degradation products; chemical wood pulp; pulp and paper technology.

Parsons, Dr. J(ohn) P(url), 808 Grand Marais, Grosse Pointe Park, Mich. *Medicine*. Eau Claire, Wis, May 28, 89. B.S, Michigan, 14, M.D, 19. Demonstrator physiol, Manitoba, 15–17; intern pediat. and infectious diseases, Michigan, 19–20; res, Mass. Gen. Hosp, Boston, 20–21; instr. pediat. and infectious diseases, Michigan, 21–29, asst. prof, 29–34; *private practise, 34–* Acad. Pediat; Am. Med. Asn; Asn. Study Allergy; Mich. Med. Soc. (sec'y, pediat. sect, 29–31, pres, 31). Metabolism; allergy; intestinal gradient; pediatrics.

Parsons, Dr. J(oseph) G(reeley), Crookston, Minn. *Ophthalmology*. Pawlet, Vt, 71. M.D, Minnesota, 98. *Practising physician*. Lecturer, S. Dak. State Col; Sioux Falls Col; Lutheran Nor. Sch. Del, 4th Int. Cong. Sch. Hygiene. A.A; fel. Acad. Ophthal. and Otolaryngol; Am. Med. Asn; S. Dak. Sch. Hygiene Asn. (pres). Otolaryngology; public health.

Parsons, Dr. Leon W(oodman), Tide Water Oil Co, 17 Battery Place, New York, N. Y. *Chemistry*. Newburyport, Mass, Sept. 22, 91. B.S, Mass. Inst. Tech, 13; A.M, Harvard, 16, Ph.D, 17. Asst. director research lab. applied chem, Mass. Inst. Tech, 19–22; chief chemist, *Tide Water Oil Co*, 22–25, technologist, 25–29, *chief technologist, 29–* Capt, C.W.S, 17–19. Chem. Soc. Petroleum technology; inorganic and physical chemistry; industrial chemistry.

Parsons, Dr. L(lewellyn) B(radley), Lever Brothers Co, Cambridge, Mass. *Chemistry*. Saginaw, Mich, Feb. 28, 97. B.S, Syracuse, 19; M.S, Wisconsin, 21, Ph.D, 23. Supervising chemist, Cudahy Packing Co, 23–39; *chief chemist, Lever Brothers Co, 39–* Oil Chem. Soc; Chem. Soc. Applications of chemistry to bacteriology; fats and oils; hydrogenation; meat processing; soaps and nonsoap detergents.

Parsons, Prof. Louis A(lexander), R. R. 2, Hampstead, Md. *Physics*. Burlington, Iowa, April 9, 72. A.B, Iowa, 95, A.M, 99; fellow, Hopkins, 00–02, Ph.D, 02. Instr, high sch, Iowa, 95–98; asst. *physics*, Hopkins, 02–03; instr, Utah, 03–04; California, 04–07; prof, Gettysburg Col, 07–25; acting prof, Swarthmore Col, 25–26; prof, *Whitman Col*, 26–38, *emer. prof, 38–* A.A; Physical Soc; Franklin Inst. The spectrum of hydrogen; electric discharge in gases.

Parsons, R(aymond) V(an Dolsen), 22 E. 40th St, New York, N. Y. *Acoustics*. Ypsilanti, Mich, Nov. 16, 83. Asst. factory manager, G. R. Veneer Works, 01–07; sec'y and manager, Holland Veneer Works, 07–10; *consulting engineer, Johns-Manville Corp, 10–* Fel. Acoustical Soc; Physical Soc; Acad. Motion Picture Arts and Sci. Architectural acoustics; modern housing building materials.

Parsons, Dr. Robert J(erome), University of Michigan, Ann Arbor, Mich. *Pathology*. Syracuse, N. Y, March 27, 07. A.B,

Syracuse, 28, M.D, 31. Intern, Peter Bent Brigham Hosp, Boston, 31–32; research fellow med, Harvard Med. Sch, 32–33; intern path, N. Y. Hosp, 33–34, res, 34–35; asst. path. and bacter, Rockefeller Inst, 35–38; instr. *path, med. sch, Michigan*, 38–41, *asst. prof, 41–* Asst, med. col, Cornell, 33–35. Asn. Path. and Bact; Soc. Exp. Path; Soc. Bact; Am. Med. Asn; Harvey Soc; Mich. Path. Soc. Histology and pathology of the human pituitary gland; virus causing oral papillomatosis in rabbits; histoplasmosis in man; experimental histoplasmosis in mice; effect of pulse on formation and flow of lymph and movement of substances in the tissues; connective tissue.

Parsons, Dr. Willard H(all), National Bureau of Standards, Washington, D. C. *Geology.* New York, N. Y, June 10, 11. B.S, Hamilton Col, 33; A.M, Princeton, 35, fellow, 35–36, Ph.D, 36. Asst. geol, Princeton, 34–35; instr, Hamilton Col, 36–41; junior petrographer, *Bur. Standards*, 41–42, *asst. petrographer, 42–* Summer, instr, Princeton, 38. Geophys. Union; Miner. Soc; Wash. Geol. Soc. Tertiary and Cretaceous volcanic rocks; ore deposits in the Absaroka Mountains, Wyoming; petrography of concrete aggregates.

Partansky, Dr. Alex(ander) M(ichael), Dow Chemical Co, Midland, Mich. *Chemistry.* Petrograd, Russia, Nov. 23, 04. B.S, Washington (Seattle), 31, M.S, 32, Ph.D, 35. Research assoc. bacter. and chem, Washington (Seattle), 35–36; *research chemist, Dow Chem. Co, 36–* Chem. Soc. Sulfite waste liquor pollution effects and stabilization by fermentation; berry wines; wood hydrolysis and fermentation; germicides, fungicides and preservatives; products of oil cracking; synthetic rubber; catalysis.

Partlo, Prof. F(ay) L(ilford), Michigan College of Mining and Technology, Houghton, Mich. *Physics.* Fairgrove, Mich, March 23, 01. E.M, Mich. Col. Mines, 23, B.S, 25; Ph.M, Wisconsin, 30. From instr. to *assoc. prof. math. and physics, Mich. Col. Min. and Tech, 23–, coordinator army training, 43–* Physical Soc; Eng. Educ. Geophysics; electronics; photography.

Partridge, Dr. Edward G(raffam), American Anode, Inc, Akron, Ohio. *Physical chemistry.* Sivas, Turkey, April 27, 02. A.B, Oberlin Col, 24; Ph.D, Illinois, 27. *Research chemist,* B. F. Goodrich Co, 27–41; *Am. Anode, Inc, 41–* Inst. Chem; Chem. Soc. Colloid chemistry; conductivity of solid salts; rubber; rubber latex.

Partridge, Dr. Everett P(ercy), Hall Laboratories, Inc, 323 Fourth Ave, Pittsburgh, Pa. *Physical chemistry.* Edinburg, N. Y, Dec. 15, 02. B.S, Syracuse, 25; Detroit Edison fellow, Michigan, 25–28, M.S, 26, Ph.D, 28. Research engineer, Michigan, 28–31; supervising engineer, non-metallic minerals exp. sta, U. S. Bur. Mines, 31–35; *director research, Hall Labs, 35–* Assoc. ed, 'Indust. and Eng. Chem,' 28–31. Chem. Soc; Chem. Eng; Soc. Test. Mat. Properties and physical chemistry of the formation of boiler scale; equilibria in aqueous solutions at high temperatures; crystal forms of calcium sulfate; recovery of potassium salts from complex minerals; heat transfer; metaphosphates; water conditioning.

Partridge, Dr. G(eorge) E(verett), 526 W. University Parkway, Baltimore, Md. *Psychology.* Worcester, Mass, May 31, 70. Harvard, 89–90; Ph.D, Clark, 99. Instr. psychol, Minn. State Nor. Sch, Mankato, 00–04; lecturer, Clark, 04–06; psychologist, Pa. Hosp, 23–26; Sing Sing Prison, 27; *psychopathologist, Md. Training Sch. for Boys, 27–* Psychologist, Sheppard and Enoch Pratt Hosp, 27–30; director classification, penal insts, Md, 31–35. Psychology of individuals, of intemperance, of nations; principles of sciences; personality; psychopathology.

Partridge, Prof. H(erman) M(ilton), New York University, Washington Square, New York, N. Y. *Chemistry.* Newfields, N. H, Feb. 11, 03. B.S, New Hampshire, 23, M.S, 25; Ph.D, N. Y. Univ, 28. Asst, New Hampshire, 23–25; *chem, Wash. Sq. Col, N. Y. Univ, 25–29, asst. prof, 29–, asst. to dean, 35–*, program director radio cmt, 36–37, *director univ. broadcasts, 37–* Consultant, sci. instruments, rare earths and rare metals; Gen. Educ. Board fellow, Nat. Broadcasting Co, 37. Chem. Soc. Applications of electronic tubes to quantitative analysis and control; radio broadcasting; radio communications.

Partridge, Dr. Newton L(yman), P. O. Box 307, East Lansing, Mich. *Horticulture.* Chicago, Ill, Dec. 10, 90. B.S, Illinois, 13, M.S, 14, Ph.D, 17. Research horticulturist, Exp. Sta, Delaware, 19–20; exten. asst. prof. pomol, Iowa State Col. 20; asst. *hort, Exp. Sta, Mich. State Col*, 20–38, *research assoc, 38–* Soil conservationist, soil conservation service, U. S. Dept. Agr, 35–36. A.A; Soc. Hort. Sci; Soc. Agron; Soil Sci. Soc; Geophys. Union. Soil relations of fruits and vegetables; land evaluation for horticultural crops.

Partridge, Dr. R(uth) C(arnahan), University of Toronto, Toronto, Ont, Can. *Hygiene.* Campbellford, Ont, July 9, 00. B.A, Toronto, 23, M.A, 29, Ph.D, 32. Asst. physics, *Toronto*, 24, Connaught lab, 27, physiol. hygiene, 28–30, physiol, 30–31, lecturer and *research assoc*, faculty med, 31–32, *physiol. hygiene, sch. hygiene and dept. Best med. research, 32–* Physiological hygiene; nerve impulses; equation of the motion of a runner; ventilation; lighting; hearing in relation to public health; the special senses as related to naval medical problems.

Paschal, Prof. Franklin Cressey, Vanderbilt University, Nashville, Tenn. *Psychology.* Chillicothe, Ill, Feb. 6, 90. A.B, DePauw, 11; A.M, Pennsylvania, 16, fellow, 16–17, Ph.D, 18. Director research, Ind. Reformatory, 12–16; asst. psychol, Pennsylvania, 17–18; asst. prof, Arizona, 19–21, prof, 21–27, dean men, 22–25, registrar, 25–27; *prof. psychol, Vanderbilt, 27–*, assoc. dean col. arts and science, 27–29, *dean*, 29–35, *junior col, 35–* Pres, Tenn. Col. Asn, 35; South. Deans Conf, 31. Psychologist, med. research lab, A.S, 18–19. Psychol. Asn. Attention; psycho-motor tests.

Paschall, Alfred H, 4073 N. Prospect Ave, Milwaukee, Wis. *Soil science.* West Chester, Pa, March 2, 03. B.S, Pa. State Col, 25, M.S, 32. Asst. agron, Ohio Agr. Exp. Sta, 25–34; *chief div. conservation surveys, soil conservation service, U. S. Dept. Agr, 34–* Soil Sci. Soc. Soil and erosion.

Pascoe, Dr. T(ruman) A(rchie), Nekoosa-Edwards Paper Co, Port Edwards, Wis. *Chemistry.* Medford, Minn, May 19, 03. B.S, Minnesota, 25, M.S, 26, Ph.D, 28. Instr. physiol. chem, med. sch, Minnesota, 28–29, asst. prof, 29–30; director research, Northwest Paper Co, Cloquet, Minn, 30–36; *tech. director, Nekoosa-Edwards Paper Co, 36–* Summers, field asst, bur. plant indust, U. S. Dept. Agr, Utah and Ariz, 25–29. Color reaction with bile acids; milled flours; tissue fluids of Phoradendron parasitic on various hosts; relation of soil solution to tissue fluids of cotton; decay on chemical and physical properties of wood; mechanism of wood pulp bleaching; application of statistical methods to routine tests.

Pasiut, Dr. L(ad) A(ristid), R. R. 1, Macedonia, Ohio. *Organic chemistry, Electrochemistry.* Budapest, Austria-Hungary, Aug. 3, 94. Chem.E, Joseph Royal Tech. Univ, Budapest, 23; Ph.D, Western Reserve, 30. Asst. org. chem. to Dr. Geza Zemplen, Joseph Royal Tech. Univ, Budapest, 22–23; Munic. Testing Labs, 23–27; research chemist, Clin. Lab. Co, *Cleveland*, 28–30; *assoc. prof. chem, Fenn Col, 30–* Research chemist, Gebauer Chem. Co. and Ohio Instrument Mfg. Co, Cleveland, 27–28; part-time research, Int. Asn. Electrotypers, 32–33. Electrochem. Soc; Chem. Soc. Halogenation of organic compounds; electrotyping.

Pask, Prof. Joseph A(dam), University of Washington, Seattle, Wash. *Ceramic engineering.* Chicago, Ill, Feb. 14, 13. B.S, Illinois, 34, fellow, 36–38, Ph.D, 41; fellow, Washington (Seattle), 34–35, M.S, 35. Ceramic engineer, Willamina Clay Products Co, 35–36; instr. *ceramic eng*, Illinois, 38–41; *asst. prof. and head div, Washington (Seattle), 41–* Summer, asst. engineer, U. S. Bur. Mines, Norris, Tenn, 41. Ceramic Soc; Ceramic Eng. Properties and uses of certain non-metallic raw materials; drying of clay bodies; diffusion in glass.

Passano, R(ussell) F(erdinand), 209 Wall St, Bethlehem, Pa. *Engineering.* Baltimore, Md, June 30, 03. B.S, Hopkins, 24. Chemist, Baltimore Gas Appliance and Mfg. Co, 24; Penniman and Browne, Baltimore, 24–25; research assoc, Bur. Standards, 25–26; research engineer, Am. Rolling Mill Co, 26–41; *research engineer, Bethlehem Steel Co, 41–* Consultant, Office Chief of Ordnance, 42– Soc. Test. Mat. (chairman subcmt. field tests of metallic coatings, 32–; sec'y tech. cmt. interpretation and presentation of data, 35–; v. chairman corrosion iron and steel, 42–); Inst. Math. Statist; Soc. Indust. Quality Statist. Corrosion of iron and steel; economic use of steel products; quality of steel products; control of quality; inspection engineering.

Passino, Dr. Herbert J, M. W. Kellogg Co, Jersey City, N. J. *Organic chemistry.* Malone, N. Y, March 22, 14. A.B, Cornell, 36; M.S, Pa. State Col, 37, Ph.D, 40. *Research chemist,*

M. W. Kellogg Co, 40– Chem. Soc. Condensations with hydrogen fluoride.

Pasternack, Dr. Simon, University of Pennsylvania, Philadelphia, Pa. *Physics.* Calgary, Alta, Can, Sept. 1, 14. B.Sc, Alberta, 35; Ph.D, Calif. Inst. Tech, 39. *Instr. physics,* San Bernardino Valley Junior Col, 40–42; *Pennsylvania, 42–* A.A; Physical Soc. Theory of the solid state.

Pastorius, Dr. George J(ames), 3941 O'Hara St, Pittsburgh, Pa. *Physiology, Pharmacology.* Pittsburgh, Pa, Sept. 20, 11. B.S, Pittsburgh, 33, M.D, 35. Asst. physiol. and pharmacol, sch. med, *Pittsburgh,* 32–34, demonstrator physiol. chem, 36–37, instr. and later *asst. prof. physiol. and pharmacol, 37–* Res. pathologist, Children's Hosp. of Pittsburgh, 36–37. Comparative actions of hydroxyethylapocupreine, quinine and quinidine on the frog heart; observations with a photoelectric hemoglobinometer.

Pastrana-Castrence, Dr. Maria D, University of the Philippines, Manila, P. I. *Botany.* Mauban, Tayabas, P. I. Ph.C, B.S. and M.S, Philippines; Phar.D, Manila Col. Pharmacy; Philippines fellow and Barbour scholar, Michigan, 27–31, A.M. and Sc.D, 31. *Asst. prof. bot, Philippines.* Assoc. mem. Nat. Research Council of the Philippines. A.A; Mich. Acad; Philippine Pharmaceut. Asn; Philippine Sci. Soc. Bibliography of Philippine botany; economic plants of Manila and its vicinity; cytology of the Malvaceae.

Patch, Clyde L(ouis), National Museum of Canada, Ottawa, Ont, Can. *Biology.* Hiawatha, Kans, June 30, 87. Pub. schs. Taxidermist; Am. Museum Nat. Hist, 10–13; *chief taxidermist,* Victoria Mem. Museum and later *Nat. Museum Can, 13–, herpetologist, 18–* Assoc. ed, 'Can. Field Nat.' Biol. exped, Vancouver Island, 15; Queen Charlotte Islands, 19; Frontenac County, Ont, 31; Algonquin Park, Ont, 36, 37. Soc. Ichthyol. and Herp. Herpetology; ornithology; mammalogy.

Patch, Dr. Edith M(arion), P. O. Box 150, Orono, Maine. *Entomology.* Worcester, Mass, July 27, 76. B.S, Minnesota, 01; M.S, Maine, 10, Sc.D, 37; Ph.D, Cornell, 11. Instr, high sch, Minn, 01–03; entom, *Maine,* 03–04, entomologist, *Exp. Sta,* 04–37, *emer. entomologist, 37–* A.A; Soc. Nat; Entom. Soc. (pres, 30); Asn. Econ. Entom; Soc. Zool. Economic and ecological entomology; life histories and ecology of migratory aphids.

Patch, Dr. F(rank) S(tewart), 1225 Bishop St, Montreal, Que, Can. *Medicine.* Kingston, Ont, Sept. 19, 78. B.A, McGill, 99, M.D, 03; Bonn, Vienna and London, 05–06; Vienna, 11. Intern, Montreal Gen. Hosp, 03–05, med. supt, 07–09, genito-urinary surgeon, 16; clin. prof. *urol, McGill,* 20–38, *prof, 38–* Col, C.A.M.C, C.E.F, 15–19. Urol. Asn; Asn. Genito-Urinary Surg; Col. Surg; Clin. Soc. Genito-Urinary Surg; Can. Med. Asn. (pres, 39); fel. Royal Col. Surg. Can. (councilor, 38–); Int. Soc. Urol. Urology.

Patch, L(awrence) H(enry), U. S. Department of Agriculture, Purdue University, West Lafayette, Ind. *Entomology.* Wenham, Mass, March 15, 96. B.S, Mass. Col, 19. *Div. cereal and forage insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 20–, assoc. entomologist.* A.A; Asn. Econ. Entom. Determination of strains of corn resistant to the European corn-borer; effect of time of planting corn on reducing loss due to the borer.

Patch, N(athaniel) K(night) B(ailey), 197 Lathrop St, Buffalo, N. Y. *Metallurgy.* Houghton Co, Mich, Feb. 15, 79. Mass. Inst. Tech, 97–00. Asst. master mechanic, Buffalo Smelting Works, 00; salesman, *Lumen Bearing Co,* Buffalo, 01–04, manager branch plant, Toronto, 04–12, plant engineer, *Buffalo,* 12–13, gen. supt, 13–14, sec'y and works manager, 14–25, *sec'y and advertising manager, 25–* Advisory ed, 'The Foundry,' 30– John A. Penton gold medal, Am. Foundrymen's Asn, 40. Foundrymen's Asn. (director, 26–29, 31–, v. pres, 29, pres, 30); Brass Founders Asn. (pres, 11); British Inst. Metals. Foundry practise relative to the casting of bronzes and brasses to meet extraordinary conditions; metallurgy of bronzes and brasses.

Patch, Dr. R(ichard) H(arkness), E. F. Houghton and Co, Philadelphia, Pa. *Chemistry.* Fitchburg, Mass, April 15, 88. A.B, Harvard, 10, Ph.D, 14. Austin teaching fellow, Harvard, 11–13; metal. engineer, Midvale Steel Co, 14–17, armor supt, 17–22, asst. open hearth supt, 22–26; asst. to pres, *E. F. Houghton and Co,* 26–29, *director plants, 29–, treas, 33–, v. pres, 36–* Inst. Chem. Steel; amino-aryl carbinols; alloy steels; greases; oils.

Patch, Prof. Roland (Harrison), University of Connecticut, Storrs, Conn. *Floriculture.* Wenham, Mass, July 28, 88. B.S, Mass. Col, 11, Boston, 11; M.S, Cornell, 16. Foreman of nursery, Forest Hills Cemetery, Boston, 11–12; gardener, Waveny Farm, New Canaan, Conn, 12; asst. floricul, Cornell, 12–13, instr, 13–15; agr. bot, Essex County Agr. Sch, Mass, 15–16; gardener, Nat. Soldiers' Home, Va, 16–17; instr. *floricul,* West Virginia, 17–19, asst. prof, 19–22; Conn. Agr. Col, 22–28, *assoc. prof,* 28–38, Conn. State Col, 33–40, *Connecticut, 40–* In charge trial gardens, Am. Dahlia Soc, 22–U.S.A, 18–19. Dahlia Soc. Dahlia trial gardens.

Pate, V(ernon) S(ennock) L(yonesse-Llancour), Cornell University, Ithaca, N. Y. *Entomology.* Philadelphia, Pa, Aug. 31, 03. A.B, Cornell, 28. *Instr. entom, Cornell, 28–* Biologist, State Conservation Cmn, N. Y, 27–33; research assoc, Acad. Nat. Sciences Phila, 38– Assoc. ed, 'Entom. News,' 36– Entom. Soc; Acad. Nat. Sci. Phila. (ed, 'Monograph Series,' 38–); Soc. Study Speciation. Systematic entomology; Hymenoptera; geographic distribution; limnology.

Patek, Prof. Paul R, University of Southern California School of Medicine, Los Angeles, Calif. *Anatomy.* Cleveland, Ohio, May 1, 08. A.B, Southern California, 31, Ph.D, 38. Asst. *anat, sch. med, Southern California,* 31–38, instr, 38–39, *asst. prof, 39–* A.A; Asn. Anat. Sympathomimetic drugs; lymphatics of the heart; perivascular spaces of the brain.

Patelski, Dr. R(ay) A(rthur), 141–33 79th Ave, Flushing, L. I, N. Y. *Organic chemistry.* Aurora, Ill, Dec. 28, 05. B.S, Michigan, 27, M.S, 33, Ph.D, 36. Asst. chem, Illinois, 27–29; org. chemist, Detroit Testing Labs, 29–30; instr. org. chem, Illinois, 30–34; research assoc, Michigan, 36–38; mem. research dept, *Chas. Pfizer and Co,* 38–42, *coordinator research and production, 42–* Chem. Soc. Synthetic drugs; organic arsenicals; synthetic laxatives of yellow phenolphthalein; synthetic vitamins and other fine chemicals.

Paterson, Prof. Donald G(ildersleeve), University of Minnesota, Minneapolis, Minn. **Psychology.* Columbus, Ohio, Jan. 18, 92. A.B, Ohio State, 14, A.M, 15, 16. Asst. psychol, Ohio State, 16; instr, Kansas, 16–17; applied psychologist, Scott Co, 19–21; *prof. psychol, Minnesota, 21–* Advisory ed, 'Mental Measurement Monographs,' 25–; ed. board, 'Jour. of Psychol,' 36–; advisory ed, 'Pub. Personnel Quart,' 39–42; ed, 'Jour. Applied Psychol,' 43– Chairman tech. cmt, Nat. Occupational Conf, 33–38; mem. cmt. measurement and guidance, Am. Council Educ, 36–41. Capt, Sanit.C, 17–19. A.A; Psychol. Asn. (sec'y, 31–37); Vocational Guidance Asn. Applied and differential psychology; business, educational and industrial psychology; mental tests.

Patnode, Dr. Winton (Irving), General Electric Company, Schenectady, N. Y. *Chemistry.* Pittsfield, Mass, June 6, 04. B.Ch, Cornell, 27, Heckscher fellow, 28–31, Ph.D, 31. Asst. instr, Cornell, 25–27, 28–31; *chemist,* Eastman Kodak Co, 27–28; *Gen. Elec. Co, 31–* Chem. Soc. (chairman plastics group, 40). Organo-metallic compounds; synthetic resins.

Paton, Dr. Julia B(ayles), National Drug Co, 4663 Stenton Ave, Philadelphia, Pa. *Physiology, Biochemistry.* East Orange, N. J, Sept. 29, 74. A.B, Smith Col, 00, A.M, 12; Ph.D, Yale, 20. Head dept. biol, Constantinople Col, 02–06; high schs, Conn, 06–20; assoc. biochem, col. physicians and surg, Columbia, 20–22; research, State Inst. Hygiene, Warsaw, Poland, 23–24; fellow, Vassar Col, 26–27; research biochemist, E. L. Patch Co, 27–30; exp. research labs, Burroughs Wellcome and Co, 30–35; *biochemist, research labs, Nat. Drug Co, 36–* A.A; Chem. Soc; Bot. Soc; Physiol. Soc. Phila. Pollen enzymes; vitamins; malnutrition; biological products.

Paton, Prof. R(obert) F(rederick), University of Illinois, Urbana, Ill. *Physics.* Opechee, Mich, Dec. 9, 92. A.B, Michigan, 15, A.M, 16, fellow, 18, Ph.D, 22. Asst. *physics,* Michigan, 14–18; instr, Western Reserve, 19–20; Michigan, 20–22; assoc, *Illinois,* 22–29, *assoc. prof,* 29– A.A; Physical Soc; Asn. Physics Teachers; Ill. Acad. (sec'y, 38–43). Spectra of hydrogen chloride gas in the near infra-red of silicon from vacuum spark source in the visible and ultra-violet and of beryllium; the lines of silicon in stellar spectra; temperature in internal combustion engines; nuclear disintegration of boron and phosphorus bombarded by thorium C′ alpha particles.

Patrick, Dr. Austin L(athrop), 6229 32nd Place, Washington, D. C. *Agronomy.* Scranton, Pa, Aug. 23, 89. B.S, Pa. State Col, 13, M.S, 25; Ph.D, Cornell, 31. Scientist, soil surv,

U. S. Dept. Agr, 13–19; assoc. prof. soil technol, Pa. State Col, 19–26, prof, 26–37; with *soil conservation service, U. S. Dept. Agr*, 37–39, asst. chief, 39–42, *regional conservator northeast, 42–* Regional director, soil conservation service, U. S. Dept. Agr, Pa, 34–36, regional conservator, northeast. region, 36–, chief div. watershed and conservation surveys. Fel. Soc. Agron; Soil Sci. Soc. (pres, 34, sec'y-treas, 35–). Soil erosion and its relationship to flood control; soil conservation.

Patrick, Prof. G(eorge) T(homas) W(hite), 1440 California Ave, Palo Alto, Calif. *[1]*Psychology, Philosophy.* North Boscawen, N. H, Aug. 19, 57. A.B, Iowa, 78; B.D, Yale, 85; fellow, Ph.D, Hopkins, 88; Leipzig, 94. Prof. and *emer. prof. philos, Iowa, 87–* A.A; Philos. Asn. Play; psychology of social reconstruction; philosophy of mind.

Patrick, Prof. James R(uey), Ohio University, Athens, Ohio. *Psychology.* Walton Co, Ga, Feb. 16, 93. A.B, Georgia, 25, Phelps-Stokes fellow, 25–26, A.M, 26; Ph.D, North Carolina, 31. Teacher, pub. sch, Ga, 15–17, 20–22; asst. and instr. *psychol*, Georgia, 24–26; instr, North Carolina, 26–28; asst. prof, *Ohio (Athens)*, 28–35, assoc. prof, 35–38, *prof, 38–; capt, U. S. Army.* Summers, instr, Georgia, 25, 26; North Carolina, 28; Alabama, 30–32, 35. Lieut, F.A, 17–19, capt, F.A.R, 31. Psychol. Asn; Midwest. Psychol. Asn; fel. Ohio Acad. (v. pres, 35). Racial differences in Negroes and whites; emotional excitement and rational behavior; maze learning; physiological changes and personality reaction tendencies.

Patrick, Prof. Ruth (Mrs. Charles Hodge, 4th), Pennsylvania School of Horticulture, Ambler, Pa. *Botany.* Topeka, Kans, Nov. 26, 07. B.S, Coker Col, 29; M.S, Virginia, 31, Ph.D, 34. Asst, Coker Col, 29; research, Temple, 34; *prof. bot, Pa. Sch. Hort, 35–* Curator, Leidy Micros. Soc, 37–; assoc. curator, Acad. Nat. Sciences, Phila, 39– Trustee, Coker Col, 41– A.A; Bot. Soc; Soc. Plant Taxon; Limnol. Soc; Torrey Bot. Club; Acad. Nat. Sci. Phila. Algae; taxonomy of green algae; taxonomy; geographical and geological distribution of diatoms; sugars as mounting media; plant nutrition; technique methods.

Patrick, Prof. Walter A, Johns Hopkins University, Baltimore, Md. *[2]*Chemistry.* Syracuse, N. Y, Jan. 6, 88. B.S, Syracuse, 10, Sc.D, 35; Ph.D, Göttingen, 14. Research assoc, Mass. Inst. Tech, 10–12; asst, Univ. Col, London, 14–15; instr. *physical chem*, Mass. Inst. Tech, 15–16; Syracuse, 16–17; assoc, *Hopkins*, 17–24, *prof, 24–* Colloids; adsorption; silicic acid; reaction rate.

Patry, Dr. Frederick L(orimer), 218 State St, Albany, N. Y. *Psychiatry, Neurology.* Toronto, Ont, Can, Nov. 9, 97. M.B, Toronto, 25, M.D, 28. Intern, Montreal Gen. Hosp, 25; intern and asst. physician, Utica State Hosp, 25–28; asst. physician, Marshall Sanitarium, Troy, N. Y, 26; Commonwealth fellow psychiat, Phipps Psychiat. Clinic, Hopkins, 28–31; neuropsychiatrist, State Educ. Dept, N. Y, 31–36; *practising physician, 36–* Assoc, Albany Med. Col, Union (N. Y), and univ. hosp, 32–37; consulting psychiatrist, Potts Mem. Hosp; Anderson Sch; med. specialist, U. S. War Dept, Albany Induction Sta, '40–; consulting neuropsychiatrist, U. S. Veterans Admin. Fel. Psychiat. Asn; fel. Am. Med. Asn; Ont. Col. Physicians and Surg; Asn. Research Nervous and Mental Disease; British Med. Asn. Mental health; postencephalitic parkinsonism; intelligence and behavior analysis and reconstruction; relation of various factors to the incidence of epileptic seizures.

Pattee, Prof. E(rnest) N(oble), 408 Euclid Ave, Syracuse, N. Y. *Chemistry.* Ottawa, Ont, Can, July 21, 64. B.S, Rochester, 86, M.S, 90; Sc.D, Syracuse, 22. Teacher, Greece, N. Y, 86–87; teacher science, Heyward Col. Inst, Ill, 89–90; instr. *chem, Syracuse*, 90–94, adj. prof, 94–95, assoc. prof, 95–97, prof, 97–42, *emer. prof, 42–*, col. med, 08–19; city chemist, Syracuse, 20–32. Chem. Soc.

Patten, A(ndrew) J(arvis), Huron Milling Co, Harbor Beach, Mich. *Chemistry.* Cherryfield, Maine, July 1, 74. B.S, Maine, 97; Heidelberg, 02–03. Asst. chemist, Exp. Sta, Maine, 97–00; N. Y. Exp. Sta, Geneva, 00–05; chemist, Exp. Sta, Michigan, 05–27; *research chemist, Huron Milling Co, 27–* A.A; Chem. Soc; Agr. Chem. (pres, 23); Mich. Acad. Separation of arginin and histidin; phytin; soil acidity; glutamic acid.

Patten, Prof. Bradley M(errill), University of Michigan Medical School, Ann Arbor, Mich. *[5]*Embryology, Anatomy.* Milwaukee, Wis, June 14, 89. A.B, Dartmouth Col, 11; A.M, Harvard, 12, Ph.D, 14. Asst. zool, Harvard, 12–14; instr. histol. and embryol, sch. med, Western Reserve, 14–18, asst. prof, 18–20, assoc. prof, 20–34; asst. director med. sciences, Rockefeller Foundation, 34–36; *prof. and director dept. anat, med. sch, Michigan, 36–* Oceanographer, Int. Ice Patrol, 14; visiting investigator, Path-anat. Inst, Vienna, 27. Mem. White House Conf. Child Health and Develop, 30–31; mem. corp, Marine Biol. Lab, Woods Hole; Bermuda Biol. Sta. A.A; Soc. Zool; Asn. Anat. (2nd v. pres, 34–36); Ohio Acad. (v. pres, chairman, med. sci. sect, 23). Embryology, especially of the cardiovascular system; micro-moving pictures of living embryos; anatomy and congenital defects of heart.

Patten, Prof. C(harles) Gordon, College of the Pacific, Stockton, Calif. *Physics.* Armstrong, B. C, Can, Oct. 21, 04. B.A, British Columbia, 27, M.A, 29; Ph.D, California, 33. Instr. math. and physics, Polytech. Col. of Engineers and Polytech. Junior Col, 34–35; *assoc. prof. physics, Col. of Pacific, 35–* Summer, assoc. prof, California, 36. Physical Soc. X-ray absorption in metal films; cosmic rays with Wilson cloud chamber.

Patten, Prof. E(verett) F(rank), Miami University, Oxford, Ohio. *Psychology.* Sycamore, Ill, July 7, 95. Ph.B, Wisconsin, 21, Ph.M, 22; Ph.D, Chicago, 29. Asst, Wisconsin, 20–22; asst. prof. *psychol*, Miami (Ohio), 22–25; instr, Chicago, 26; assoc. prof, *Miami (Ohio)*, 27–32, *prof, 32–* Assoc. Psychol. Asn. Abnormal psychology; hypnosis; predicting engine lathe aptitude; duration of post-hypnotic suggestion; effect of amnesia on practise; direct waking suggestion; hypersuggestibility produced by positive response to direct suggestion.

Patten, Dr. Harrison E(astman), Hermosa Beach, Calif. *Chemistry.* Crete, Ill, May 29, 73. A.B, Northwestern, 94, fellow, 95, A.M, 96; fellow, Wisconsin, 01–02, Ph.D, 02. Asst. chem, Northwestern, 93–94; instr, Wisconsin, 02–06; soil chemist, bur. soils, U. S. Dept. Agr, 06–11, physical chemist, bur. chem, 11–18, 19–20; chief chemist, Provident Chem. Works, Mo, and consulting chem. engineer, 20–21; chemist, Chem. Warfare Service, 21–23; *consulting chemist, 23–; asst. chemist, bur. chem. and soils, U. S. Dept. Agr, 27–, process eng, Douglas Aircraft Co, 43–* Teacher, high schs, Ill; consulting chemist, 34–37; lubrication research, U. S. Navy, 37–42. Capt, U.S.A, 18–19, major, C.W.S.R, 24– Chem. Soc. Soil physics; electrochemical research; colloids; catalytic nitration; war gases; blast furnace methods; electrical precipitation of dust; phosphates; lubrication.

Patterson, Prof. Andrew, 511A E. Rosemary, Chapel Hill, N. C. *Physical chemistry.* Texarkana, Texas, July 23, 16. A.B, Texas, 37, A.M, 38, Ph.D, 42. *Prof*, N. Texas Agr. Col, 41–42; *physical chem, North Carolina, 42–* Summer, prof, Our Lady of the Lake Col, 42. Chem. Soc. Heats of solution of gaseous di- and trimethylamine; ionization constant of propionic acid in 10 and 20% methyl and ethyl alcohol; molal electrode potentials of silver-silver chloride electrode in 10 and 20% ethyl alcohol-water mixtures.

Patterson, Prof. A(rthur) L(indo), Bryn Mawr College, Bryn Mawr, Pa. *Physics.* Nelson, New Zealand, July 23, 02. B.Sc, McGill, 23, M.Sc, 24, Ph.D, 28; Royal Inst. London, 24–26; Berlin, 26–27. Lecturer physics, McGill, 28–29; assoc. biophys, Rockefeller Inst, 29–31; fellow med. physics, Johnson foundation, Pennsylvania, 31–33; research crystal analysis, dept. physics, Mass. Inst. Tech, 33–36; asst. prof. *physics, Bryn Mawr Col*, 36–40, *assoc. prof, 40–* Fel. Inst. Physics Gt. Britain. X-ray crystal analysis; biophysics.

Patterson, Dr. Austin M(cDowell), 221 N. King St, Xenia, Ohio. *[4]*Chemistry.* Damascus, Syria, May 31, 76. A.B, Princeton, 97; Ph.D, Hopkins, 00. Instr. chem, Centre Col. (Ky), 00–01; Rose Polytech, 01–03; ed. chem. and allied terms, *'Webster's New Int. Dict,'* 03–07, *ed. chem, 08–*; prof. *chem, Antioch Col*, 21–41, *emer. prof, 41–*, v. pres, 30–41; *prin. specialist chem. educ, engineering, science and management war training, U. S. Office Educ, 41–* Assoc. ed, 'Chem. Abstracts,' 08–09, ed, 09–14. Trustee, Antioch Col, 41– Nat. Research Council, 32–41. Am. mem, Int. Cmn. Org. Chem. Nomenclature, 24– Chemist, U. S. Bur. Mines and War Dept, 18–19. A.A; Chem. Soc; London Chem. Soc; Deuts. Chem. Gesell; Soc. chim. de France; Int. Union Pure and Applied Chem. (councilor, 25–31, 36–38). Permanganic acid and new permanganates; structure of camphor; chemical nomenclature; education.

Patterson, Prof. Boyd C(rumrine), College Hill, Clinton, N. Y. *Mathematics.* McKeesport, Pa, April 23, 02. A.B.

Washington and Jefferson Col, 23; A.M, Hopkins, 25, Ph.D, 26. Asst. prof. *math*, Washington and Jefferson Col, 26-27; assoc. prof, *Hamilton Col*, 27-36, *prof*, *36–* A.A; Math. Soc; Math. Asn. Invariant theory of inversive geometry; projective geometry; history of mathematics.

Patterson, Bryan, Field Museum of Natural History, Chicago, Ill. *Vertebrate paleontology.* London, Eng, March 10, 09. Chicago, 27-30. Preparator vert. paleont, *Field Museum Nat. Hist*, 26-30, asst. paleont, 30-35, asst. curator fossil mammals, 35-37, *paleont*, 37-42, *curator*, *42–* Exped. work, Tertiary formations, West. states. Soc. Vert. Paleont. South American fossil mammals and birds; Tertiary crocodiles; Paleocene mammals.

Patterson, Prof. C(ecil) F(rederick), University of Saskatchewan, Saskatoon, Sask, Can. *Horticulture.* Watford, Ont, Dec. 1, 92. B.S.A, Toronto, 18; M.S, Illinois, 20, Ph.D, 21. *Prof. hort, Saskatchewan, 22–* A.A; Bot. Soc; Soc. Hort. Sci; Soc. Plant Physiol. Plant breeding.

Patterson, Chalmer N(ash), 610 W. Thelma St, Biloxi, Miss. *Physics.* Wyoming, Ill, Aug. 7, 91. A.B, Oregon, 17, A.M, 21; Iowa, summers, 23-25; Marquette, 29. Teacher, pub. schs, Oregon, 11-16; prof. physics and educ. Albany Col, 19-22; physics and biol, Sterling Col, 22-25; physics, Hastings Col, 25-29; Sch. Eng. Milwaukee, 29-34; educ. adviser, Civilian Conservation Corps, 34-41; *civilian instr. electricity and textbook preparation, tech. schs, Air Corps, U. S. Army, 43–* Machine design, Debus Mfg. Co, Hastings, Nebr, 26-29. Civilian research, Sig.C, U.S.A, 18-19. Physical Soc. Thomson effect; airplane structures; aircraft fuel and oil systems.

Patterson, Dr. Gordon D(erby), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Meadville, Pa, Dec. 7, 97. B.S, Allegheny Col, 19; M.S, Ohio State, 20, Grasselli fellow, 22-23, Ph.D, 23. Asst, Ohio State, 20-23; research chemist, *E. I. du Pont de Nemours and Co, 23-25, research div. head, exp. sta, 26–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A; Chem. Soc; N. Y. Acad. Practical physical chemistry of disperse systems.

Patterson, Dr. G(uillermo), Jr, P. O. Box 719, Panama City, Panama. *Chemistry.* Panama, Feb. 13, 84. B.C, Cooper Union, 10; Chem.E, N. Y. Univ, 11; M.S, Notre Dame, 11, Ph.D, 12; LL.B, Hamilton Col, 20. Asst. chemist, Lederle Labs, 06-08; med. col, Cornell, 08-10; asst. prof. chem, Notre Dame, 11-12; prof. math, Panama Nat. Inst, 12-13, chem. and in charge dept, 13-14, 16-24; prof. math. and chem. and in charge depts, Panama Nor. Col, 14-16, prof. chem. and in charge dept, 16-24, sch. pharmacy, 16-24; attaché, Panama Legation, Berlin, 24, sec'y, Italy and Switzerland, 25-26, chargé d'affaires, 26-28; *attorney-at-law, Panama and C. Z, 20–; judge, Fifth Circuit Court, 38–* Laudy prize, 08, 09; medal, Panama Nat. Inst. Int. Cong. Applied Chem, 08, 12. A.A; Chem. Soc; Pub. Health Asn; Acad. Polit. and Social Sci; C. Z. Bar Asn. (pres, 42); fel. Royal Soc; hon. mem. Soc. Ital. de Beneficenza; Istituto Antimalarico di Roma (hon. director). Inorganic, organic and experimental chemistry; determination of lead; electrolytic separation of lead from copper; analysis of alloys; antimony tetrasulfid; physiological effects of radium; qualitative analysis; wood distillation.

Patterson, Dr. H(arry) J(acob), University of Maryland, College Park, Md. *Chemistry, Agriculture.* Yellow Springs, Pa, Dec. 17, 66. B.S, Pa. State Col, 86; Sc.D, Maryland, 12. Asst. chemist, Exp. Sta, Pa. State Col, 86-88; chemist, *Exp. Sta*, Md. Agr. Col, 88-98, director and chemist, 98-16, Md. State Col, 16-20, *Maryland*, 20-37, *emer. director, 37–*, dean *col. agr*, 25-37, *emer. dean, 37–*, pres, Md. Agr. Col, 13-17. Sec'y, State Board Agr, Md, 08-16. A.A; Chem. Soc; Agr. Chem. (pres, 12); Soc. Chem. Indust. Chemistry; feeding and fertilizing problems; methods of rendering phosphates available to crops.

Patterson, Dean Herbert, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Education, Psychology.* Chilmark, Mass, Feb. 17, 87. A.B, Wesleyan, 08, A.M, 11; A.M, Yale, 11, fellow, 11-13, Ph.D, 13; California, 36; Southern California, 37. Teacher, high sch, Pa, 08-09; Mass. 09-10; prof. educ, Dakota Wesleyan, 13-19; prof. and dean, sch. educ, *Okla. Agr. and Mech. Col*, 19-37, *dean admin, 37–* Mem, Okla. Educ. Surv. Cmt, 22; Okla. State High Sch. Reorganization Cmt, 27-28; Okla. State Cmt. Inspecting Junior Colleges, 26-35. A.A; South. Asn. Teacher Training Institutions (exec. council, 24-25); Okla. Educ. Research Asn; fel. Okla. Acad. (exec. council, 25-33, sec'y, 27-31, pres, 31). Spelling tests; high-school curriculum; character education; supervision of college teaching; intelligence of college freshmen.

Patterson, Ian D(avid), Goodyear Tire and Rubber Co, Akron, Ohio. *Chemical engineering.* Eckford, Mich, April 6, 97. A.B, Albion Col, 19; B.S, Michigan, 20. Chem. engineer, Goodyear Tire and Rubber Co, Akron, Ohio, 20; Edgewood Arsenal, 21; rubber compounder and research chemist, Goodyear Tire and Rubber Co, 21-27, chief chemist, 27-39, develop. manager, Great Britain, 36-39; gen. supt, St. Mary's Mfg. Co, 39-42; *mil. products eng, Goodyear Tire and Rubber Co, 42–* Chem. Soc; Chem. Eng; fel. Inst. Rubber Indust. Gt. Britain. Rubber chemistry and compounding.

Patterson, I(rving) W, P. O. Box 36, Hamilton, R. I. *Engineering.* Torrington, Conn, March 9, 88. B.S, C.E, Brown, 09. Res. and testing engineer, State Highway Dept, R. I, 09-10; asst. engineer, Arthur H. Blanchard, and consulting highway engineer, 10-11; construction engineer, Texas Co, 11-13; chief engineer, State Highway Dept, R. I, 13-24; *dist. engineer, Lane Construction Corp, 24–* A.A; Civil Eng; Nat. Highway Traffic Asn; Road Builders' Asn. (director, 18-23). Highway engineering.

Patterson, J(ohn), Meteorological Office, Toronto, Ont, Can. *Meteorology.* Ont, Jan. 3, 72. B.A, Toronto, 00; 1851 Exhib. scholar, Cambridge, 00-02, M.A, 06. Prof. physics, Univ. Allahabad, India, 02-05; imp. meteorologist, govt. of India, 05-10; meteorol. physicist, *Can. Meteorol. Service*, 10-24, Org. 25-29, director, 29-36, *controller, 36–* Meteorol. asst. director, U. S.; fel. Royal Soc. Can. (pres, sect. III, 36); Soc. (pres, 30-31) Can. Inst. (pres, 32-33); hon. mem. Royal hon. mem. Royal Meteor. Soc. Upper air; anemometry; extraction of helium from natural gas.

Patterson, Dr. J(ohn) Alexander), Jr, 316 Hazel Ave, Westfield, N. J. *Chemistry.* Philadelphia, Pa, Sept. 17, 01. B.S, Lehigh, 24; Ph.D, Pennsylvania, 28; research chemist and chemist, Atlantic Ref. Co, Phila, 24-25; du Pont de Nemours and chem. engineer, ammonia dept, E. I. du Pont de Nemours and Co, 28-30; asst. instr. chem, Pennsylvania, 30-34; research chemist and chem. engineer, Continental Oil Co, *38–* Chem. Soc; Chem. Eng. Physical and organic chemistry; engineering phases of chemical processes for the production of chemicals from petroleum.

Patterson, Prof. J(ohn) T(homas), University of Texas, Austin, Texas. **Zoology.* Piqua, Ohio, Nov. 3, 78. B.S, Col. of Wooster, 03, Sc.D, 38; Ph.D, Chicago, 08. Prof. biol, Buena Vista Col, 03-05; asst. *zool*, Chicago, 05-06; instr, *Texas*, 08-11, adj. prof, 11-13, *prof, 13–*, research prof, 26-27, *distinguished prof, 37–, director zool. research, 38–* Assoc. ed, 'Jour. Morphol,' 20-21. Nat. Acad; A.A. (v. pres, F, 41); Soc. Soc. Nat; Soc. Zool. (pres, 39); Asn. Anat; Genetics Soc; Texas Acad. Avian embryology; embryology of the armadillo; polyembryony in insects; biology of Cynipidae; effects of x-rays on mutations and development in Drosophila; specialist in Drosophila.

Patterson, Dr. John W(ard), University of Vermont, Burlington, Vt. *Organic chemistry.* Baldwin, Kans. Dec. 6, 16. A.B, Ohio Wesleyan, 39; M.S, Ohio State. 41, Ph.D, 42. *Instr. org. chem, Vermont, 42–* Chem. Soc. Absorption spectra; stereochemistry; amino acid synthesis.

Patterson, Sister Mary Thomasine, Mt. Mary College, Milwaukee, Wis. *Biology.* Wis, March 3, 06. Ph.B, Mt. Mary Col, 27; M.S, Marquette, 36, Ph.D, 41. *Prof. biol, Mt. Mary Col, 36–* A.A. Cytology of apogamy in Polystichum tussemense.

Patterson, Prof. Paul M(orrison), Hollins College, Va. *Botany.* Sutsien, Kiangsu, China, Feb. 25, 02. A.B, Davidson Col, 25; A.M, North Carolina, 27; Ph.D, Hopkins, 33. Asst. prof. *biol*, Davidson Col, 27-28; assoc. prof, South Carolina, 30-33; *prof, Hollins Col, 33–* Mem. staff, High Sch. and Junior Col, Chester, S. C, 33-34; instr, Mountain Lake Biol. Sta, 35, 40, 41, 42. A.A; Bot. Soc; Sullivant Moss Soc; South. Appalachian Bot. Club; Va. Acad. (chairman biol. sect, 41). Pollen content of air; water molds; morphology and ecology of bryophytes.

Patterson, Prof. Ralph Morris, 1313 E. Ann St, Ann Arbor, Mich. *Psychiatry.* Ohio, Nov. 26, 04. B.S, Michigan, 23-26, M.D, 30, M.S, 38. Asst. physician, Ypsilanti State Hosp, Mich, 31-35, 36-37; asst. surgeon, U. S. Pub. Health Service, 35-36;

instr. *psychiat, med. sch, Michigan*, 37–40, *asst. prof, 40–* Consulting psychiatrist, Mich. Children's Inst, 37–39. Am. Med. Asn; Psychiat. Asn; Asn. Research Nervous and Mental Disease; Mich. Soc. Neur. and Psychiat. Forensic, psychosomatic and juvenile psychiatry.

Patterson, Prof. R(obert) A(lexander), Spring Ave. near Locust Ave, Troy, N. Y. *Physics.* Enfield, Conn. July 12, 90. A.B, Yale, 11, A.M, 12, Ph.D, 15. Instr. *physics*, Yale, 13–17, 19; nat. research fellow, Harvard, 19–20; asst. prof, Yale, 20–22; *prof, Rensselaer Polytech, 22–, head dept, 40–* Summers, visiting instr, Harvard, 25–32. F.A, 17–18, major. A.A; fel. Physical Soc; Eng. Educ; Asn. Physics Teachers. Spectroscopy; x-ray spectra; crystal structure of metals.

Patterson, Dr. Robert C(ompton), Potomac State School, Keyser, W. Va. *Mammalogy.* Wilsonburg, W. Va, Aug. 11, 04. A.B, West Virginia, 31, M.S, 32, Ph.D, 35. Instr. zool, *West Virginia*, 31–33, *prof. biol, Potomac State Sch, 33–* Sec'y and exec. cmt, W. Va. Biol. Surv. A.A; W. Va. Acad. Ecology and breeding habits of the Pennsylvania wood rat; anatomy of the little brown bat.

Patterson, Dean Robert U(rie), University of Maryland School of Medicine, Baltimore, Md. *Medicine.* Montreal, Que, Can, June 16, 77. M.D, McGill, 98, LL.D, 32. Lieut, *M.C, U. S. Army*, 01–06, capt, 06–10, major, 10–17, lieut. col, 17–27, col, 27–31, surgeon gen, 31–35, *major gen, retired, 35–; dean sch. med*, Oklahoma, 35–42; *Maryland, 42–* Fel. Am. Med. Asn; fel. Col. Surg; fel. Col. Physicians; Soc. Trop. Med; South. Med. Asn. (chairman sect. med. educ. and hosp). Gynecology; obstetrics; medical military administration.

Patterson, Prof. T(homas) L(eon), Wayne University College of Medicine, Detroit, Mich. *Physiology.* Madison, Maine, Jan. 15, 84. A.B, Clark, 09; A.M, Kansas City, 11; Yale, 10–11; M.S, Chicago, 15, Ph.D, 20. Agent and expert, bur. entom, U. S. Dept. Agr, 09–10; asst. biol, Sheffield Sci. Sch, Yale, 10–11; prof. biol. science and director micros. lab, Highland Park, 11–12; assoc. prof. biol. and physiol, Maryland, 12–15; asst. prof. *physiol*, Queen's (Can), 15–19; Iowa, 19–21; prof, Detroit Col. Med, 21–34, *col. med, Wayne*, 34–41, *research prof, 41–; prof. physiol, col. dentistry, Detroit, 41–* Summers, sci. asst, gipsy moth parasite lab, bur. entom, U. S. Dept. Agr, 08, 09, 11; acting instr, Hopkins Marine Sta, Stanford, 22, acting prof, 28, 36. Int. Physiol. Cong, Boston, 29. A. Cressy Morrison prize, N. Y. Acad, 31. A.A; Physiol. Soc; Soc. Zool; Soc. Exp. Biol; Mich. Acad; fel. Iowa Acad; Detroit Physiol. Soc. (treas, 37–39, councilor, 37–42, pres, 41); N. Y. Acad; Can. Physiol. Soc; Royal Soc. Arts; Royal Meteorol. Soc. Movements of empty and filled stomachs in mammals, birds, reptiles, amphibians, fishes, cyclostomes, mollusks and crustaceans; gastric and pulmonary tonus; glands of internal secretion; reciprocal innervation; kymographic ink-recording; relationship of gastro-duodenal motility phases to duodenal ulcer pain.

Patterson, V(ernon) H(owe), 361 Brooks Ave, Rochester, N. Y. *Metallurgy.* Rochester, N. Y, Feb. 5, 10. B.S, Rochester, 33; Indust. Lender's Tech. Inst, 35. Asst. manager, Personal Finance Co, 33–36; metal. asst, *Bausch and Lomb Optical Co*, 36–37, asst. metallurgist, 37–40, *chief metallurgist, 40–* Soc. Metals (exec. cmt, 41, 42); Min. and Metal. Eng. Metals and finishes for glass pressing molds; stress relief annealing of ferrous and non-ferrous metals for optical use; precious metals for spectacle frames.

Patterson, Dr. W(illiam) A(lexander), McMasterville, Que, Can. *Physical chemistry.* Shankhouse, Eng, July 16, 15. B.A, New Brunswick, 36; M.A, Toronto, 38, Ph.D, 40. Asst. chemist, N. B. Int. Paper Co, 36–37; asst. chem. and demonstrator electrochem, Toronto, 37–40; *research chemist, research and develop. lab, Can. Industries Ltd, 40–* Chem. Soc; Can. Inst. Chem. Determination of the temperature coefficient of the diffusion constants of copper in aqueous solutions of sulphuric acid, containing copper sulphate, by an electrolytic method.

Patterson, Dr. W(illiam) A(nderson), Fenn College, Cleveland, Ohio. *Mathematics.* Lorain, Ohio, Sept. 23, 11. A.B, Wittenberg Col, 32; A.M, Ohio State, 33, Ph.D, 36. Asst. *math*, Ohio State, 33–36; instr, *Fenn Col*, 36–39, *asst. prof, 39–* Math. Soc; Math. Asn. Calculus of variations.

Pattie, Prof. Frank A(cklen), Jr, Rice Institute, Houston, Texas. *Psychology.* Winchester, Tenn. Jan. 13, 01. A.B, Vanderbilt, 22; fellow, Princeton, 22–23, Procter fellow, 24–25, Ph.D, 25; Macdonald fellow, Harvard, 23–24, A.M, 25. Nat. research fellow, Harvard, 25–26, instr. *psychol*, 26–29; *Rice Inst*, 29–31, *asst. prof, 31–* Auditory fatigue; visual discrimination in chicks; gregarious behavior of chicks; hypnotic anesthesias; stuttering.

Patton, Dr. A(lva) R(ae), E. I. du Pont de Nemours and Co, New Brunswick, N. J. *Biochemistry.* Livingston, Mont, Oct. 15, 08. B.S, Mont. State Col, 30; M.S, Minnesota, 33, Ph.D, 35. Instr, Cornell, 35–36; asst. prof. animal husbandry, Arkansas, 36–38; Colo. State Col, 38–39; prof. chem. research, Mont. State Col, and head chem. dept, Exp. Sta, 39–43; *research chemist, E. I. du Pont de Nemours and Co, 43–* A.A; Chem. Soc; Soc. Animal Production; fel. Inst. Chem. Agricultural biochemistry; animal nutrition.

Patton, Prof. F(rancis) L(ester), Hamilton College, Clinton, N. Y. *Economics, Anthropology.* Columbus, Ohio, July 27, 91. A.B, Ohio State, 13; B.A, Oxford, 16, M.A, 19; Ph.D, Columbia, 26. Instr. *econ*, Cincinnati, 16–17; N. Y. Univ, 19–20; *prof, Hamilton Col, 20–* A.A; Econ. Asn; Royal Econ. Soc. Diminishing returns; economic life.

Patton, Prof. Leroy T(hompson), 2415 19th St, Lubbock, Texas. *Geology.* Fairpoint, Ohio, Dec. 5, 80. A.B, Muskingum Col, 05; B.S, Chicago, 13; M.S, Iowa, 16, Ph.D, 23. Prin. and supt, schs, 05–12; prof. chem. and geol, Geneva Col, 12–18; geol, Muskingum Col, 18–22; assoc. geologist, bur. econ. geol. and technol, Texas, 22–25; *prof. geol. and petrol. eng, Texas Tech. Col, 25–* Summers, field geologist, Okla. Geol. Surv, 20, 21. Tech. adviser, State Board Water Engineers, Texas, 23–24; water resources cmt, Texas State Planning Board, 35–39. A.A; Asn. Petrol. Geol; fel. Iowa Acad; Texas Acad. Physiographic and economic geology; petrology.

Patton, Dr. Robert A(dams), 180 Taylor Ave, Beaver, Pa. *Psychology.* Pittsburgh, Pa, May 20, 15. A.B, Geneva Col, 37; A.M, Pittsburgh, 39, Williams-Waterman Research Corp. fellow, 40–42, Ph.D, 42. Asst. psychol, *Pittsburgh*, 39, *Buhl Foundation research fellow, 42–, instr. psychol, 42–* A.A; assoc. Psychol. Asn. Effects of specific vitamin-B-complex deficiencies upon the sensitivity of the rat to sound-induced convulsive seizures; learning studies on the cat and the rat.

Patton, Dr. Robert L(ee), Cornell University, Ithaca, N. Y. *Physiology.* Livingston, Mont, Oct. 31, 13. B.S, Mont. State Col, 35; Ph.D, California, 38. Research fellow, N. Y. Exp. Sta, 38–39; *instr. insect physiol, Cornell, 39–* A.A. Insect physiology; physiological aspects of the action of common insecticides.

Patty, Ernest N(ewton), Gold Placers, Inc, Fairbanks, Alaska. *Economic geology.* La Grande, Oregon, March 27, 94. B.S, Washington (Seattle), 19, E.M, 29. Mining engineer, Wash. Geol. Surv, 19–20; manager, First Thought Mine, Wash, 20–21; engineer in charge, Black Rock Mine, 21–22; prof. geol. and miner, Alaska Agr. Col, 22–24, dean col. and head sch. mines, 24–35; *v. pres. and gen. manager, Gold Placers, Inc, 35–; pres, Alluvial Golds, Inc, 35–; sec'y-treas, Clear Creek Placers, Ltd, 40–; pres-gen. manager, Spruce Creek Placers, Ltd, 41–* Consulting geologist and mining engineer, Alaska. Min. and Metal. Eng; Aeroarctic. Mining; metal mines; magnesite deposits and mineral resources of Washington.

Patty, F(rank) A(rthur), Fidelity and Casualty Co, 80 Maiden Lane, New York, N. Y. *Chemistry.* Lawrence, Kans, Jan. 11, 97. B.S, Kansas, 20. Instr. chem, Washington (Seattle), 20–21; research baking indust, 21–26; asst. biochemist, U. S. Bur. Mines, 28–32, assoc. chemist in charge gas masks and respirators lab, 32–36; *chief chemist, lab. indust. hygiene and toxicol, Fidelity and Casualty Co, 36–, director indust. hygiene, 37–* Visiting instr, N. Y. Univ, 41. Advisory cmt. med. and pub. health, New York World's Fair, 39. A.A; Chem. Soc; Pub. Health Asn; Indust. Hygiene Asn. (director, 39–42, chairman N. Y. sect, 41); N. Y. Acad. Industrial hygiene; toxicity, physiological action and explosions of gases, vapors and dusts; analytical procedures for atmospheric contaminants; ventilation; gas masks and respirators.

Patty, Prof. Ralph L, South Dakota State College, Brookings, S. Dak. *Agricultural engineering.* Redfield, Iowa, Aug. 28, 84. B.Di. Iowa State Teachers Col, 07; B.S. Iowa State Col, 16. Teacher and prin, high schs, Iowa and S. Dak, 07–13; exten. specialist *agr. eng, S. Dak. State Col*, 16–24, *prof. and head dept, 24–* Director project relation of elec. to agr, S. Dak. Agr. Eng. Agr. Eng; S. Dak. Soc. Architects and Eng. Electric power and equipment and its use on the farm;

building materials for farm structures; rammed earth as a building material.

Paul, Arthur E(rnest), 218 N. Latrobe Ave, Chicago, Ill. *Chemistry.* Germania, Pa, Sept. 29, 74. B.S, Illinois, 97, M.S, 98; Ph.G, Chicago Col. Pharmacy. Chief chemist, Mariner and Hoskins, 99–09; asst. chemist, bur. chem, U. S. Dept. Agr, 09–20, chief, Cincinnati sta, 20–23, Chicago sta, 23–29, *asst. chief cent. dist, food and drug admin,* 29–39, *Fed. Security Agency, 39–* A.A; Chem. Soc; Agr. Chem. (referee on drugs, v. pres, 31, pres, 32). Methods of drug analysis.

Paul, Benson H(oward), 1118 University Bay Drive, Shorewood Hills, Madison, Wis. *Forestry.* New York, N. Y, Dec. 25, 89. B.S, Cornell, 13, M.F, 15; Wisconsin, 24–29. Forester, N. Y. Conservation Cmn, Albany, 15–22; assoc. silviculturist, *Forest Products Lab, U. S. Forest Service,* 22–28, silviculturist, 28–36, *senior silviculturist, 36–* Soc. Foresters. Influence of growth conditions upon wood properties.

Paul, Dr. Fred(erick) W(illiam), University of Rochester, Rochester, N. Y. *Physics, Optics.* Seattle, Wash, June 5, 11. A.B, Willamette, 33; M.S, Mass. Inst. Tech, 35, Ph.D, 37; B.S, Ohio State, 40. *Instr.* physics, Ohio State, 37–38, physiol. optics, 38–40; *physical optics, Rochester, 40–* Physical Soc; Optical Soc. Spectroscopy; absorption spectra of rare earths; absorption spectra of Mn and Ag in the Schumann region; rotational structure of B F bands; high stages of ionization in the rare gases.

Paul, Dr. Henry E(dward), 119 N. Broad St, Norwich, N. Y. *Nutrition.* Los Angeles, Calif, May 21, 08. B.S, Okla. Agr. and Mech. Col, 33; Ph.D, Cornell, 38. *Director biol. lab, Norwich Pharmacal Co, 38–* Development of vitamin preparations and methods of analysis; problems of aging; the role of vitamins in the latter half of life.

Paul, Dr. John R(odman), Yale University School of Medicine, New Haven, Conn. *[*7]Pathology.* Philadelphia, Pa, April 18, 93. A.B, Princeton, 15; M.D, Hopkins, 19; hon. A.M, Yale, 40. Asst. path, Hopkins, 19–20; director Ayer clin. lab, Pa. Hosp, 22–28; asst. and assoc. surg. path, postgrad. sch. med, Pennsylvania, 22–28; asst. prof. med, *Yale,* 28–34, assoc. prof, 34–40, *prof. prev. med, 40–; assoc. physician, New Haven Hosp, 28–; director cmn. neurotropic virus diseases, U. S. Army, 41–* Fellow, Pennsylvania, 22–28; research assoc, Desert Sanatorium, Tucson, Ariz, 36–37; mem. cmt. epidemics, Nat. Foundation Infantile Paralysis, 40– A.A; Am. Med. Asn; Soc. Exp. Path; Am. Physicians; Soc. Clin. Invest. (treas, 33–37, pres, 37); Soc. Bact; Pub. Health Asn; Clin. and Climat. Asn; Soc. Immunol; Epidemiol. Soc; Rheumatism Asn; Path. Soc. Phila; fel. Col. Physicians Phila. Infectious disease; rheumatic fever; poliomyelitis.

Paul, Dr. L(orne) C(aswell), Dominion Entomological Laboratory, Saskatoon, Sask, Can. *Entomology.* Prince Albert, Sask, Oct. 27, 04. B.Sc, Saskatchewan, 30, M.Sc, 32; Ph.D, Iowa State Col, 40. *Asst. entomologist, Science Service, Can. Dept. Agr, 35–* Teaching fellow, Iowa State Col, 36–37. Entom. Soc. Amer; Can. Soc. Tech. Agr; Entom. Soc. Ont. Grasshopper investigations.

Paul, Dr. Martin A, College of the City of New York, 140th St. and Convent Ave, New York, N. Y. *Physical chemistry.* New York, N. Y, June 29, 10. A.B, Col. City of N. Y, 30; A.M, Columbia, 31, Ph.D, 36. *Instr. chem, Col. City of N. Y, 30–* A.A; Chem. Soc; N. Y. Acad. Chemical thermodynamics; chemical reaction kinetics.

Paul, Dr. Mary F(rances Crowell) (Mrs. Henry E. Paul), Norwich Pharmacal Co, Norwich, N. Y. *Animal nutrition.* Farmington, N. Y, May 25, 08. B.S, Hobart Col, 28; Ph.D, Cornell, 35. Research, Conn. State Fish Hatchery, 28–30; asst. animal nutrition, Cornell, 30–35; *vitamin control lab, Norwich Pharmacal Co, 35–* A.A. Nutrition of brook trout; effect of rapid versus slow growth on longevity of the albino rat; nutrition of the clothes moth.

Paul, Dr. Philip T(imothy), Naugatuck Chemical Co, Naugatuck, Conn. *Chemistry.* Peoria, Ill, Dec. 31, 10. B.S, Illinois, 31; M.S, Iowa, 32, Ph.D, 34. *Research chemist, Naugatuck Chem. Co, 35–* Chem. Soc. Rubber chemicals; carbohydrates.

Paul, Prof. Wolfgang, Institute for Advanced Study, Princeton, N. J. *[*7]Physics.* Vienna, Austria, April 25, 00. Ph.D, Munich, 21. Asst, Göttingen, 21–22; Copenhagen, 22–23; docent, Hamburg, 23–28; *prof. theoret. physics, Eidgenossische Tech. Hochschule, Zurich, 28–; visiting prof, Inst. Advanced Study,* 35–36, *40–* Summers, lecturer, Michigan, 31, 41; Purdue, 42. A.A; Physical Soc; Swiss Physical Soc. Theoretical physics; atomic and nuclear physics.

Pauli, Dr. Wolfgang F(rederick), 68 Mill St, Haverhill, Mass. *Embryology.* Ponape, Caroline Islands, March 6, 00. Columbia, 19–21; Berlin, 22–23; Ph.D, Wurzburg, 26. Instr, Wash. Sq. Col, N. Y. Univ, 26–27, 29–31; biophysicist, Mem. Hosp, Cornell, 27–29; *instr. nat. science, Bradford Junior Col, 31–* A.A; Soc. Zool; N. Y. Acad. Experimental embryology; physiological color change of fish and Amphibia.

Paulin, Dr. Eugene A(dam), Maryhurst Normal School, Kirkwood, Mo. *Physics.* Pittsburgh, Pa, Feb. 23, 82. B.S, Dayton, 09, M.S, 20; L.S, Fribourg, 12; Ph.D, Texas, 29. Prof. physics, St. Mary's (Texas), 25–27; instr, Texas, 27–28; prof. and dean, St. Mary's (Texas), 28–29; *instr. math. and science, Maryhurst Nor. Sch, St. Louis, 29–* Inspector, schs, Society of Mary, Province St. Louis, 30–; lecturer, Sci. Soc, San Antonio, Texas. A.A; Physical Soc; Asn. Physics Teachers. Polarization of very short radio waves.

Pauling, Prof. Linus (Carl), California Institute of Technology, Pasadena, Calif. *[*5]Chemistry, Physics.* Portland, Oregon, Feb. 28, 01. B.S, Oregon State Col, 22, hon. Sc.D, 33; fellow, Calif. Inst. Tech, 22–25, Ph.D, 25; hon. Sc.D, Chicago, 41. Teaching fellow, Calif. Inst. Tech, 22–25; nat. research fellow, 25–26; asst. prof. theoret. chem, *Calif. Inst. Tech,* 27–29, assoc. prof, 29–31, *prof. chem, 31–, head div, 37–, director Gates and Crellin chem. labs, 37–* Guggenheim Mem. Foundation fellow, Munich, Zurich and Copenhagen, 26–27; hon. fellow, Victoria Univ, Manchester, 30; lecturer, California, 29–33; visiting prof, Mass. Inst. Tech, 32; George Fisher Baker lecturer, Cornell, 37–38. A. C. Langmuir prize, Am. Chem. Soc, 31, Wm. H. Nichols medal, N. Y. sect, 41. Nat. Acad; Philos. Soc; Chem. Soc; fel. Physical Soc; hon. fel. Chem. Soc. London. Determination of structure of crystals and molecules; application of quantum mechanics to chemistry; rotation of molecules in crystals; sizes of ions; theory of stability of complex crystals; chemical bond; line spectra; immunochemistry.

Paulsen, Dr. Alice E, St. Luke's Hospital, New York, N. Y. *Psychology.* New York, N. Y, Feb. 15, 90. A.B, Mt. Holyoke Col, 13; A.M, Columbia, 14, Ph.D, 24. Psychologist, N. Y. Post-Grad. Hosp, 14–20; Neur. Inst. N. Y, 22–25; N. Y. Children's Court, 20–30; asst. exec. sec'y pub. health cmt, N. Y. Acad. Med, 25–37; *psychologist, St. Luke's Hosp, 37–* Psychologist, Nat. Cmt. for Mental Hygiene, 22–23; Cornell Clinic, 23–24; St. Luke's Hosp, 25–30. Psychol. Asn; Asn. Applied Psychol. (sec'y-treas, 30). Public health; religious healing.

Paulsen, Carl G(ustave), 3700 Massachusetts Ave, N. W, Washington, D. C. *Hydraulics.* Chicago, Ill, April 22, 87. B.S, Idaho, 13. Hydrographer, U. S. Bur. Reclamation, 11; junior to hydraul. engineer, *U. S. Geol. Surv,* 14–17, dist. hydraul. engineer, Atlanta, Ga, and Boise, Idaho, 18–31, chief surface water div, 31–39, *asst. chief hydraul. engineer, 40–* C.Eng, U.S.A, 17–18. Civil Eng; Civil Eng. Wash. Flow of water in open channels.

Paulsen, Prof. Gaige B(rue), Ohio University, Athens, Ohio. *Psychology.* Hollandale, Wis, July 22, 05. A.B, Minnesota, 27, Ph.D, 30. Instr. *psychol,* Minnesota, 27–29; asst. prof, *Ohio (Athens),* 30–40, *assoc. prof, 40–* Assoc. Psychol. Asn. Trait variability; steadiness of motor control; reliability.

Paulson, Dr. Moses, 11 E. Chase St, Baltimore, Md. *Medicine.* Baltimore, Md, May 2, 97. B.S, Maryland, 19, M.D, 21; Vienna; Berlin. Asst. *clin. med, Hopkins,* 27–28, instr, 28–33, *assoc, 33–, asst. visiting physician, Hopkins Hosp, 30–, consultant digestive diseases, diagnostic clinic, 33–* Mem. ed. staff, 'Am. Jour. Digestive Diseases.' Am. Med. Asn; Col. Physicians; Soc. Bact; Gastro-Enterol. Asn; Med. and Chirurg. Faculty Md. Internal medicine, especially gastro-enterology; etiology of chronic ulcerative colitis; bacteriology and pathology, parasitology, serology, viruses and pharmacology relating to the digestive tract; gastric secretion.

Paulus, Prof. A(lbert) J(oseph), University of Tennessee, Knoxville, Tenn. *Agricultural education.* Suffield, Ohio, Dec. 8, 93. B.S, Ohio State, 24; Columbia, 27; M.S, Cornell, 28, Ph.D, 30. Teacher vocational agr, West Salem, Ohio, 24–27; assoc. prof. agr. educ, Clemson Col, 30–34; prof. educ. and head dept, Scranton, 34–38; *assoc. prof. agr. ed, Tennessee, 38–* Vocational Asn; Tenn. Vocational Asn. Reviewing, com-

piling and organizing for teaching; crops; livestock; farm management; soils; farm mechanics.

Paulus, Dr. Max G(eorge), Standard Oil Company of Indiana, 910 S. Michigan Ave, Chicago, Ill. *Chemistry.* Baltimore, Md, Sept. 25, 91. A.B, Hopkins, 12, Ph.D, 15. Manager mfg, *Rocky Mt. div, Standard Oil Co. of Ind,* 27–31, *director, 32–, v. pres. in charge mfg, 33–*

Pauly, Prof. R(udolph) J(ohannes), American University of Beirut, Beirut, Lebanese Republic. *Pharmaceutical chemistry.* Walla Walla, Wash, Dec. 19, 98. B.S, Whitman Col, 20; M.S, Wisconsin, 27, Ph.D, 31. Instr. chem, American Univ. Beirut, 20–23; Whitman Col, 23–24; asst, Yale, 24–26; adj. prof. *pharmaceut. chem, American Univ. Beirut,* 27–30, *assoc. prof, 31–* Pharmaceut. Asn. Phytochemistry; food chemistry.

Pavlychenko, T(homas) K(arp), University of Saskatchewan, Saskatoon, Sask, Can. *Plant ecology.* Ukraine, March 7, 92. Agr. Ing, Col. Agr, Prague, Czechoslovakia, 27; B.S.A, Saskatchewan, 30, M.Sc, 32; Ph.D, Nebraska, 41. Manager dept. sci. publications, Provincial Govt, Podolia, Ukraine, 18–19; research, Inst. Plant Production, Prague, Czechoslovakia, 23–24; agr. adviser, Carpatho-Ukraine, 24–27; weed experimentalist, Nat. Research Council Can, 30–37; *research prof. plant ecol. and Ukrainian lang, Saskatchewan, 37–* Can. Soc. Tech. Agr; Can. Inst. Int. Affairs; West. Can. Soc. Agron; Saskatchewan Field Husbandry Asn. Vegetative propagation in grasses; competitive powers of plants; methods of quantitative root studies; plant roots in relation to soil structure; pedostructometer; tensile strength of roots; eradication of weeds.

Pawling, Jesse, 1440 Kennedy St, N. W, Washington, D. C. *Astronomy, Mathematics.* Lower Merion, Pa, Oct. 29, 65. A.B, Cent. High Sch. Phila, 88, A.M, 93; B.S, Cornell, 93, 93–94; George Washington, 94–95; Hopkins, 95–96; Pennsylvania, 00–01, 03–05. Computer, 'Nautical Almanac' Office, 94–96; U. S. Coast and Geod. Surv, 95; instr. physics, Cent. High Sch. Phila, 96–03; instr. and asst, Randal Morgan lab. physics, Pennsylvania, 03–05; computer, Isthmian Canal Cmn, 05; computer and asst, U. S. Naval Observatory, 05–24, asst. astronomer, 24–25, assoc. astronomer, 25–35; *retired.* A.A; Astron. Soc; Philos. Soc. The metric system; legislation on weights and measures; transit circle observations; proper motions.

Pawlowski, Prof. Felix W(ladyslaw), University of Michigan, Ann Arbor, Mich. *Aeronautical engineering.* Near Warsaw, Poland, July 23, 76. M. and E.E, Tech. Col, Mittweide, Saxony, 96; Eng. Sch, Brunswick, Germany, 08; Certificat d'Etude (Aeronaut), Sorbonne, 10; M.S, Michigan, 14. Designer and chief engineer, machine industries, Europe, 97–08; motor car designer, United States, 11–13; instr. mech. eng, *Michigan,* 14–15, asst. prof, 15–18, assoc. prof. aeronaut. eng, 18–22, prof. and head dept, 22–29, *Guggenheim prof. aeronautics, 29–* Aeronaut. and automotive research engineer. Aeronaut. Eng, U.S.A, 17–18. Board advisers, Kosciuszko Foundation, New York. A.A; Soc. Automotive Eng; Eng. Educ; Detroit Eng. Soc; fel. Inst. Aeronaut. Sci; Polish Inst. Arts and Sciences in Amer; hon. mem. Asn. Polish Eng. Amer; fel. Royal Aeronaut. Soc; Stow. Tech. Warsaw. Aeronautics; aerodynamics; theory of propellers; mechanics of flight; aeroplane structure; design of internal combustion motors; streamlining of vehicles.

Paxson, Dr. E(dwin) W(oolman), Wayne University, Detroit, Mich. *Mathematics.* Camden, N. J, Oct. 23, 13. B.S, Calif. Inst. Tech, 34, fellow, 34–37, Ph.D, 37. Instr. and later *asst. prof. math, Wayne,* 37– Math. Soc. Topological spaces.

Paxton, Prof. Earle K(err), Washington and Lee University, Lexington, Va. *Mathematics.* Rockbridge Co, Va, Feb. 17, 86. A.B, Washington and Lee, 08, A.M, 09; A.M, Columbia, 25. Teacher, prin. and supt, schs, Va, 09–20; asst. prof. *math, Washington and Lee,* 20–23, *assoc. prof, 23–* Asst, Columbia, 24–25. Math. Soc; Math. Asn.

Paxton, G(lenn) E(rnest), Lakewood, Walnut Creek, Calif. *Plant pathology.* Garnett, Kans, June 15, 96. B.S, Colo. Agr. Col, 18; M.S, Wisconsin, 21; California, 21–23, 30–32. Instr. bot, Mills Col, 22–23; California at Los Angeles, 23–24; plant pathologist, Matco-Boyd y Cia, Los Mochis, Sinaloa, Mex, 25–27; asst. plant pathologist, Exp. Sta, Asn. Hawaiian Pineapple Canners, Honolulu, 27–30; asst. plant path, California, 30–32; assoc. agronomist, *soil conservation service, U. S. Dept. Agr,* 35–36, project manager and dist. conservationist, 36–41, *dist. soil conservationist, 42–* Helminthosporiums found on cultivated barley in California; disease of pineapples.

Paxton, Dr. Hugh C(ampbell), 195 Claremont Ave, New York, N. Y. *Nuclear physics.* Los Angeles, Calif, April 29, 09. A.B, California at Los Angeles, 30; James M. Gowey fellow, California, 35–36, research fellow, 36–37, Ph.D, 37. Mem. tech. staff, Bell Telephone Labs, 30–32; teaching fellow, California, 32–35; research assoc, lab. nuclear chem, Col. of France, 37–38; *instr. physics, Columbia, 38–* Physical Soc. Cyclotron construction; cloud chamber investigation of beta-ray spectra.

Payne, Prof. Charles K(enneth), New York University, Washington Square, New York, N. Y. *Statistics.* Richland, Nebr, Feb. 10, 80. A.B, Nebraska, 03; A.M, N. Y. Univ, 25, Ph.D, 33. *Asst. prof. math, Wash. Sq. Col, N. Y. Univ, 25–* A.A; Math. Soc; Statist. Asn; Math. Asn. Educational statistics; calculus of finite differences; theory of probability.

Payne, Dr. E(lmer) C(urry), 321 Geneva Ave, Elmhurst, Ill. *Chemistry.* West Lebanon, Ind, July 3, 00. A.B, Butler, 22; Hopkins, 23–24, 25; Purdue, 28–29; Baldwin fellow, Cincinnati, 29–30, Laws fellow, 30–31, Ph.D, 31. Asst. chem, Purdue, 28–29; asst. prof, Butler, 32–35; *chemist,* food and drug admin, *U. S. Dept. Agr,* 35–40, *insecticide div, agr. marketing service, 40–* Chem. Soc. Physical and inorganic chemistry; solutions of electrolytes; electrical transference numbers; analytical methods for insecticides and for drugs.

Payne, Prof. Fernandus, Indiana University, Bloomington, Ind. **3*Zoology.* Shelbyville, Ind, Feb. 13, 81. A.B, Indiana, 05, A.M, 06; fellow, Columbia, 07–09, Ph.D, 09; Sc.D, Franklin Col, 35. Asst. *zool, Indiana,* 05–07, asst. prof, 09–12, assoc. prof, 12–19, *prof, 19–,* asst. dean *grad. sch,* 25–27, *dean,* 27–V. chairman div. biol. and agr, Nat. Research Council, 31–32, chairman, 32–33. A.A; Soc. Nat; Soc. Zool. (pres, 31); Genetics Soc; Asn. Am. Univs. (chairman, cmt. on classification univs. and cols); Ind. Acad. (pres, 32–); Sigma Xi (exec. cmt, 41–). Cytology; genetics; embryology; fresh-water Coelenterata.

Payne, Dr. Geo(rge) C(alvin), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Epidemiology.* Sweet Springs, Mo, Oct. 18, 87. A.B, Missouri, 10; M.D, Cornell, 12; Dr.P.H, Hopkins, 23. Collaborator, U. S. Dept. Agr, 07–10; *field director, int. health div, Rockefeller Foundation, 16–;* instr. rural sanit. and health, Columbia Sch. Trop. Med, Puerto Rico, 26–31, asst. prof. med. zool, 32–34; *sub-chief office special sanitation, Mex. Dept. Health, 40–* A.A; assoc. fel. Am. Med. Asn; Soc. Parasitol; Pub. Health Asn. Control of hookworm disease; epidemiology; public health administration.

Payne, Dr. J(ohn) H(oward), 1718 Hunnewell St, Honolulu, Hawaii. *Chemistry.* Hartford City, Ind, 06. A.B, Butler, 27; A.M, Cincinnati, 28, Lloyd fellow, 28–30, Ph.D, 30; Chemist, research dept, E. I. du Pont de Nemours and Co, 30–32; asst. prof. chem, Hawaii, 32–40; *director chem. research, Pacific Guano and Fertilizer Co, 40–* Fellow, Munich, 30–31. Chem. Soc. Sugar chemistry and technology; oxidation of organic compounds; hydrogen peroxide; cellulose; lignin.

Payne, Prof. L(oyal) F(rederick), Kansas State College, Manhattan, Kans. *Poultry husbandry.* Tecumseh, Nebr, July 14, 89. B.S, Okla. Agr. and Mech. Col, 12; M.S, Kans. State Col, 25. In charge poultry investigations, Okla. Agr. and Mech. Col, 12–14; from instr. to prof. *poultry husbandry,* Mass. Col, 14–21; assoc. prof, *Kans. State Col,* 21–23, *prof. and head dept, 23–* Fel. Poultry Sci. Asn. (sec'y-treas, 22–25, pres, 25); World Poultry Sci. Asn. (councilor, 33–). Poultry science, nutrition and management.

Payne, Sister M. Anthony, Mt. St. Scholastica College, Atchison, Kans. *Biology, Cytology.* Cameron, Mo, Aug. 24, 98. A.B, St. Louis, 28, A.M, 29; Ph.D, Kansas, 33. *Head dept. biol, Mt. St. Scholastica Col, 30–* A.A. Intravitam studies on germ cells; microscopic anatomy of Mollugo verticillata and Aizoaceae; seasonal biology.

Payne, Dr. Nellie M(aria de Cottrell), American Cyanamid Co, Stamford, Conn. *Physiology, Entomology.* Cheyenne Wells, Colo, Dec. 11, 00. B.S, Kans. State Col, 20, M.S, 21; Ph.D, Minnesota, 25. Asst. zool. and entom, Kans. State Col, 18–21; instr. chem. and math, Lindenwood Col, 21–22; asst. and librarian, dept. entom, Minnesota, 22–25; nat. research fellow zool, Pennsylvania, 25–27; sci. staff, 'Biol. Abstracts,'

27–33; lecturer entom, Minnesota, 33–37; asst. research entomologist, *Am. Cyanamid Co*, 37–43, *entomologist, 43–* Research investigator, Vienna and Berlin, 30–31. Summer, mem. staff, Marine Biol. Lab, Woods Hole, 26, 29, 31; guest investigator, Marine Biol. Asn, Plymouth, England, 30. A.A; Entom. Soc. Amer; Soc. Zool; Chem. Soc; N. Y. Acad; N. Y. Entom. Soc. Inheritance of color-blindness; insect cold hardiness; hydroid pigments; general physiology of insects.

Payne, Dr. Thomas G(ibson), 810 South Ave, Rochester, N. Y. *Geology.* Rochester, N. Y, June 30, 15. A.B, Rochester, 37, M.S, 39, univ. fellow, 39–41; Ph.D, Chicago, 42. Geologist and curator, Rochester Museum Arts and Sciences, N. Y, 36–39; asst. *geol*, Chicago, 39–41; *instr, Kansas, 41–* Geologist and ed, Kans. State Geol. Surv, 41– Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Sedimentary petrology; devonian sedimentary environments and paleoecology; petroleum geology; oil and gas exploration in eastern Kansas.

Payne, Dr. V(irgil) F(rancis), U. S. Signal Corps, Ft. Monmouth, N. J. *Chemistry.* Callaway Co, Mo, Jan. 28, 93. A.B, Westminster Col. (Mo), 16; A.M, Missouri, 20; Chicago; Ph.D, Kentucky, 31. Prin, high sch, Mo, 16–17; asst. agr. chem, Missouri, 17; asst. prof. chem, N. Mex. Col, 18–20; prof. science, Palmer Col, 20–23; chem, Transylvania Col, 23–42, registrar, 29–42; chemist, *U. S. Signal Corps*, 42–43, *senior chemist, 43–* A.A; Chem. Soc. (v. pres, Lexington sect, 24, sec'y-treas, 25, pres, 26); Ky. Asn. Chem. Teachers (pres, 29–32); Ky. Acad. (pres, 30). Phases of the teaching of chemistry; development of primary and secondary batteries for specialized uses.

Payne, Dr. Willard A, 522 Greenbrier St, Charleston, W. Va. *Organic chemistry.* Salamanca, N. Y, Feb. 12, 08. A.B, Oberlin Col, 31; A.M, Rochester, 33, Ph.D, 36. Asst, Rochester, 31–36; instr, Oberlin Col, 36–37; *chemist, ammonia div, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Organic chemical processes.

Payne-Gaposchkin, Dr. Cecilia H(elena) (Mrs. S. I. Gaposchkin), Harvard University, Cambridge, Mass. ***Astrophysics.* Wendover, Eng, May 10, 00. B.A, Cambridge, 23; Ph.D, Radcliffe Col, 25; hon. Sc.D, Wilson Col, 41. Nat. research fellow, *Harvard*, 25–27, astronomer, Harvard Observatory, 27–38, *Phillips astronomer, 38–* Colver lecturer, Brown, 42. Annie J. Cannon prize, 35. Astron. Soc. (councilor, 35); Philos. Soc; Royal Astron. Soc. Constitution of stellar atmospheres; stellar variability; stellar photometry.

Paynter, Prof. Richard H(enry), 395 Grand Ave, Brooklyn, N. Y. *Psychology.* Brooklyn, N. Y, March 27, 90. A.B, Columbia, 12, A.M, 13, fellow, 13–14, Ph.D, 17. Psychologist, legal dept, Coca-Cola Co, 15–16; asst. psychol, Columbia, 14, 16–17; merchant, 19–21; psychologist, various hosps, New York, 20–23; chief psychologist, child guidance clinic no. 1, Nat. Cmt. Mental Hygiene, 23–27; research psychologist, Phila. Gen. Hosp, 27–28; *prof.* social and abnormal psychol, *Long Island*, 28–32, *psychol, 32–, chairman div. psychol. and educ, 33–; practising psychologist, 28–* Psychologist, N. Y. Asn. Consulting Psychol, 20–22; instr. psychol, grad. sch. med, Pennsylvania, 25–28; clin. psychologist, Phila. Orthop. Hosp. and Infirmary for Nervous Diseases, 27–28; chief staff, counseling service, Psychol. Corp, 30–32. Summers, acting director psychol. lab, N. Y. Neur. Inst, 20, 21, 30; visiting prof, Columbia, 32, extramural exten, 34–38. Ed. asst, 'Am. Men of Science,' 16; cooperative ed, 'Educational Abstracts,' 35– Chairman cmt. psychologists, board examiners, Board Educ, New York, 36–38; mem, Nat. Cmt. Mental Hygiene; chairman cmt. tech. exhibits, New York World's Fair, 39. Psychol. examiner, U.S.A, 18–19. A.A; Psychol. Asn; Orthopsychiat. Asn; Asn. Applied Psychol. (sec'y-treas, 29, v. pres, 31, pres, 32, chairman, sect. consulting psychol, 37, joint cmt. clin, consulting and educ. sections, 37–, tech. cmt, 37–, mem. ed. board 'Jour,' 37–42); Soc. Adv. Educ; N. Y. Asn. Consulting Psychol; Metrop. N. Y. Asn. Applied Psychol. (chairman cmt. psychol. services in nat. defense); assoc. fel. N. Y. Acad. Med. Advertising; trademark infringement; consulting psychology; mental hygiene; job analysis; psychology of drug addiction; military psychology.

Paytash, Prof. Peter Leonard, Xavier University, New Orleans, La. *Organic and bio-chemistry.* Dunlo, Pa, Aug. 5, 05. B.S, St. Vincent Col, 29; M.S, Louisiana, 37, 38; Colorado, 33; Pittsburgh, 32, 40; Tulane, 39. Instr. chem. and biol, *Xavier (La)*, 29–36; *prof. chem, 36–, director sci. div, 37–* A.A; Chem. Soc. Organic compounds as analytical reagents; fractional precipitation of fibrin.

Peabody, Prof. Dean, Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Structural engineering.* Reading, Mass, July 3, 88. B.S, Mass. Inst. Tech, 10, M.S, 38. Instr. and *assoc. prof. struct. design, Mass. Inst. Tech, 10–* Exchange instr, Worcester Polytech, 16–17. A.A; Soc. Test. Mat; Concrete Inst; Soc. Civil Eng; Boston Soc. Civil Eng. Concrete; physical properties and economical commercial use of concrete material; reinforced concrete design.

Peabody, Dr. Elizabeth B(arrett), Wilson College, Chambersburg, Pa. *Zoology.* New York, N. Y, May 30, 99. B.S, Columbia, 20; A.M, Smith Col, 23; Ph.D, Radcliffe Col, 38. Instr. *biol*, Olivet Col. (Mich), 20–22; Mt. Holyoke Col, 23–24; Colorado, 24–29, 31–33; Sarah Lawrence Col, 30–31; Col. St. Elizabeth, 35–37; *asst. prof, Wilson Col, 38–* Hermaphroditism in Eurycea bislineata; morphology of fish scales; development of the eye and retinal pigment migration of the Isopod, Idothea.

Peabody, Dr. W(illia)m A(lden), Valentine's Meat-Juice Co, Richmond, Va. *Biochemistry.* Ellisburg, Pa, May 10, 00. U. S. Naval Acad, 18–19; Mass. Inst. Tech, 19–20; Chem.E, Colo. Sch. Mines, 23; M.S, Colorado, 26, Ph.D. 29. Metal. chemist, Denver Rock Drill Mfg. Co, 23–24; asst. sch. med, Colorado, 25–29; assoc. chem, Med. Col. of Va, 29–32; *director research, Valentine's Meat-Juice Co, 32–* Fel. Inst. Chem; Chem. Soc. (ed, 'Bul,' Va. sect, 35). Bacterial growth as a factor in the deposition of calcium from saliva; non-toxicity of creatin; retention and distribution of organic and inorganic iodide; creatine-creatinine metabolism; tissue, especially liver, extracts; analytical methods.

Peach, Dr. Harry L(awrence), 357 Ninth St, Brooklyn, N. Y. *Physics.* Malden, Mass, May 30, 00. B.S, Mass. Inst. Tech, 18; A.M, N. Y. Univ, 29, Ph.D, 33. Research chemist, E. I. du Pont de Nemours and Co, 18–19; Gen. Elec. Co, 19–20; U. S. Rubber Co, 20–21; chemist, Beacon Blanket Co, 21–23; teacher, R. I, 23–26; N. H, 26–29; *instr. physics, Brooklyn Col, Col. City of N. Y, 29–* Chem. Soc. Determination of aromatic hydrocarbons by sulfonation and subsequent hydrolysis.

Peacock, Fred(eric) L(ockwood), U. S. Coast and Geodetic Survey, Washington, D. C. *Hydrography.* Lincoln, N. Y, Nov. 13, 88. C.E, Syracuse, 13. *U. S. Coast and Geod. Surv, 13–, hydrographic and geod. engineer.* Lieut, U.S.N.R, 17–18. A.A; Civil Eng; Soc. Mil. Eng. Oceanography.

Peacock, Dr. H(enry) B(ates), 1311 Republic Bank Bldg, Dallas, Texas. *Physics.* Keosauqua, Iowa, March 3, 94. A.B, Iowa, 21, M.S, 22, Ph.D, 25. Instr. physics, Arizona, 25–26; Geophys. Research Corp, 26–30; *Geophys. Service, Inc, 30–* Summer, asst, Stanford, 26. Physical Soc; Asn. Petrol. Geol; Soc. Explor. Geophys. Acoustic wave filters; Hall effect in evaporated metal films.

Peacock, M(artin) A(lfred), University of Toronto, Toronto, Ont, Can. *Geology, Mineralogy.* Edinburgh, Scotland. Jan. 15, 98. B.Sc, Glasgow, 22, Carnegie fellow, 24–26, Ph.D, 25, D.Sc, 32; licentiate, Royal Acad. Music, 23; A.M, Harvard, 27. Prof. pianoforte, Glasgow Athenaeum, 23–24; Commonwealth Fund fellow, Harvard, 26–29; lecturer geol, British Columbia, 29–30, asst. prof. geol. and geog, 30–31; research assoc. *miner*, Harvard, 32–37; assoc. prof, *Toronto*, 37–42, *prof, 42–* Research assoc, Heidelberg, 29, 33. Carnegie geol. exped, Iceland, 24; vulcanological field work, Modoc Lava Field, Calif, 27; physiographic field work, B. C. and Alaska, 29–31. Ed, 'C. Palache Presentation Vol,' Harvard, 37. Pilot-lieut, Royal F.C, 17–19. Geol. Soc; Miner. Soc. (councilor, 41–); Royal Soc. Can; Miner. Soc. Gt. Britain (abstractor, 41–); Soc. française de Miner; Norsk Geol. Forening. Geology and petrology of Iceland; physiography of the Faeroes and coasts of British Columbia and Alaska; descriptive and systematic mineralogy; geometrical and structural crystallography; x-ray study of ore minerals.

Peacock, Prof. N(eal) D(ow), 2121 White Ave, Knoxville, Tenn. *Horticulture.* Kokomo, Ind, Jan. 27, 97. B.S, Purdue, 19; M.S, Tennessee, 23; Ph.D, Mich. State Col, 37. Instr. and assoc. prof. hort, Georgia, 19–21; field rep, Tenn. Hort. Soc, 21–23; instr. and later *prof. and chief hort, Tennessee, 23–, v. director res. instruction, 43–* Soc. Hort. Sci; Pomol. Soc; Tenn. Hort. Soc. Cultural practises related to strawberry growing.

Peacock, Walter M(iller), R. D. 5, Bridgeton, N. J. *Horticulture.* Freisburg, N. J, June 15, 86. B.S, Cornell, 13, M.S.A, 15; Mass. Col. Instr, Cornell, 13–16; instr. in charge farm management and cost accounting, Mass. Col, 16–19;

pres. and business manager, Peacock Tractor Service Co, 19–22; horticulturist, bur. plant indust, U. S. Dept. Agr, 22–33; pres, Nat. Farm Service, 33–34; agr. economist, Resettlement Admin, 34–38; tech. crop adviser, Seabrook Farms and Deerfield Packing Corp, 38–41; *owner and manager, Bonnievale Farms, 41–* Summers, enumerator, L. I. and Steuben County Crop Surveys, 13, in charge surveys, Monroe, Clinton and Franklin Counties, 14; lecturer, N. Y. Cent. and Lehigh Valley Railways, 14, 15; investigator, N. Y. Food Supply Cmn. and Mass. Milk Supply Cmns, 17. Ed. and business manager, 'Am. Potato Jour,' 26–28. Potato Asn. (asst. sec'y-treas, 23–25, sec'y-treas, 26, sec'y, 27, managing ed, 'Potato News Bul,' 24, ed. and business manager, 'Am. Potato Jour,' 24–27); N. Y. State Potato Asn. (sec'y, 14–16). Cost of producing, storage, dormancy and rest period, germination, culinary quality, suberization of, and control of seed corn maggot in cut seed potatoes; potatoes as affected by sugars; effect of solar and sky radiation; shrinkage and curing of potatoes; development of the periderm of cut seed; carbohydrate composition of potatoes as influenced by storage temperature; effectiveness of limes in changing the hydrogen ion concentration of soils; determination of soluble sugars.

Pearis, Prof. L(eonard) M(arion), West Virginia University, Morgantown, W. Va. *Entomology.* Lawrence, Kans, June 5, 86. B.S. Kans. State Col, 05, M.S, 07; Cornell, 09; fellow, Chicago, 16–17, Ph.D, 25. Instr. *entom,* Maryland, and asst. entomologist, Exp. Sta, 08–10; Kans. State Col. and Exp. Sta, 10–12; *West Virginia and Exp. Sta,* 12–14, *prof. and entomologist, 14–* Ed, 'Jour. Econ. Entom,' 40– A.A; Entom. Soc; Asn. Econ. Entom. Relation of climate to insect development and control.

Peak, Prof. Helen, Care of Tiffany Foundation, Oyster Bay, L. I, N. Y. *Psychology.* Dallas, Texas, March 17, 00. A.B, Texas, 21; A.M, Radcliffe Col, 24; Ph.D, Yale, 30. Clin. psychologist, Girls' Training Sch, Texas, 24–26; instr. psychol, South. Methodist, 26–27; research asst, Inst. Human Relations, Yale, 29–32, Sterling fellow, 32–33; *prof. psychol, Randolph-Macon Woman's Col, 33–* A.A; Psychol. Asn. Relation of speed to intelligence; interrelations of reflex and voluntary behavior; learning; variability.

Peake, Dr. John S(pencer), R.F.D. 3, Midland, Mich. *Inorganic and physical chemistry.* Louisville, Ky, Aug. 4, 09. A.B, Indiana, 31, Ph.D, 35; M.S, Carnegie Inst. Tech, 32. *Research chemist, Dow Chem. Co, 35–* Determination of ionization constants by electromotive force measurements.

Peakes, Dr. Lawson V(ernon), Jr, Canajoharie, N. Y. *Organic chemistry.* Somerville, Mass, Feb. 26, 04. B.S, Mass. Inst. Tech, 26, M.S, 29, Ph.D, 32. Chemist, Wadsworth Howland Co, Malden, Mass, 26–28; Remington Arms Co, Bridgeport, Conn, 28; asst, Mass. Inst. Tech, 33–35; *research chemist, Beech-Nut Packing Co, 35–* Chem. Soc; Inst. Chem. Free radicals; chicle; synthetic resins; chewing gum.

Peakes, R(alph) W(are), Chemical Warfare Service, Washington, D. C. *Chemistry.* Boston, Mass, May 6, 84. B.S, Mass. Col, 06; Harvard, 06–07. Lab. chemist, Ellis-Foster Co, N. Y, 07–08; control chemist, Merrimac Chem. Co, Mass, 08–11, chemist in charge control lab, 11–17, chief chemist, Everett works, 17–20; supt. floor covering plant, Bird and Son, Inc, Mass, 20–21; research chemist, *Chem. Warfare Service, U. S. Army,* Edgewood Arsenal, 22–35, senior chemist, *office of chief,* 35–42, *prin. chemist, 42–* Chem. Soc. Nitranilins; nonshrinkable wool.

Peale, Dr. Rodgers, San Luis Mining Co, Tayoltita, Durango, via Mazatlán, Sinaloa, Mex. *Economic geology.* New York, N. Y, Dec. 29, 97. A.B, Harvard, 21, B.S, 22, A.M, 29, Ph.D, 30. Geologist, Cerro de Pasco Copper Corp, 22–28; chief geologist, Hercules Mining Co, 29–32; *geologist,* Guanaceui Mining Co, Mex, 32–35; *Hoggin-Hearst interests in Mex, 35–* Summers, geologist, Noranda Mines, Ltd, 28, 29. A.A; Soc. Econ. Geol; Min. and Metal. Eng; Can. Inst. Min. and Metal. Mining geology.

Pearce, Cecil E(dward), 708 N. Stadium Way, Tacoma, Wash. *Engineering.* Oroville, Calif, June 10, 98. A.B, Stanford, 22. Draftsman and office engineer, Turlock Irrig. Dist, 22–24; designing engineer, Exchequer Dam and Power Plant, 24–26; Bucks Creek Dam and Power Plant, 26–27; asst. designing engineer, Los Angeles County Flood Control Dist, 27–28; chief designing engineer, Pasadena Water Dept, 28–34; prin. engineer, Tenn. Valley Authority, 34–40; power house designer, U. S. Army Engineers, Texas, 40–41; *head civil and hydraul. design engineer, Tacoma City Light Dept, Wash, 41–* Summer, designer, Balch Project, 26; U. S. Bur. Reclamation, Denver, Colo, 34. Assoc. Civil Eng; Seismol. Soc. Dams; power houses; hydraulic and structural engineering.

Pearce, Prof. Dennis W(iffen), 308 W. Stadium Ave, West Lafayette, Ind. *Chemistry.* Lamont, Alta, Can. B.A, British Columbia, 29, M.A, 30; Illinium fellow, Illinois, 30–31, Ph.D, 34. Asst. chem, Illinois, 31–33; head dept. physical sciences, Danville Junior Col, 33–35; instr. *chem, Purdue,* 35–37, asst. prof, 37–41, *assoc. prof, 41–* Summers, field asst, Geol. Surv. Can, 29, 30, chief geol. aid, 35. A.A; Chem. Soc; Miner. Soc; Ind. Acad. The rare earths; extraction; purification; x-ray spectra; anomalous valence; rare minerals; geochemistry.

Pearce, George W(hitenack), New York Agricultural Experiment Station, Geneva, N. Y. *Chemistry.* State College, Pa, March 21, 07. B.S, Pa. State Col, 29, scholar, 29–30, M.S, 30. Asst. *research, N. Y. Exp. Sta, Geneva,* 30–38, *assoc, 38–* Summers, chemist, H. J. Heinz Co, 29, 30. Chem. Soc; Asn. Econ. Entom. Chemistry of insecticides and fungicides and their analysis; analysis and chemistry of spray deposits; calcium arsenates; insecticidal efficiency and phytocidal properties of petroleum oils in relation to their chemical constitution; relation of structure of synthetic hydrocarbons to their insecticidal and phytocidal properties.

Pearce, Prof. John M(usser), Hoagland Laboratory, 335 Henry St, Brooklyn, N. Y. *Pathology.* New York, N. Y, Oct. 23, 08. Ph.D, Yale, 30; M.D, Harvard Med. Sch, 34. Asst, col. physicians and surg, Columbia, 34–37; fellow, Rockefeller Institute, 37–38; instr. *path, L. I. Col. Med,* 38–39, asst. prof, 39–43, *assoc. prof, 43–* A.A; Soc. Exp. Path; Federation Clin. Research; Asn. Path. and Bact; Soc. Exp. Biol; New York Path. Soc. (sec'y, 41). Pathology of virus diseases.

Pearce, Dr. Joseph A(lgernon), Dominion Astrophysical Observatory, Victoria, B. C, Can. *Astrophysics.* Brantford, Ont, Feb. 7, 93. B.A, Toronto, 20, M.A, 22; Ph.D, California, 30. Asst. astron, Toronto, 19–21, demonstrator, 21–22; fellow, Lick Observatory, California, 22–24; asst. astronomer, *Dom. Astrophysical Observatory,* 24–26, astronomer, 26–36, asst. director, 36–40, *director, 40–* Eclipse exped, Mex, 23. Major, C.E.F, 15–19. A.A; Physical Soc; Astron. Soc; Royal Astron. Soc. Can. (councilor, 20–, v. pres, 34–39, pres, 40); Royal Soc. Can; Soc. astron. de France. Orbits of asteroids; spectroscopic binaries and eclipsing variables; stellar radial velocities; motions of the O- and B-type stars; interstellar calcium and galactic rotation.

Pearce, Dr. Louise, Trevenna Farms, Belle Mead, N. J. *Pathology.* Boston, Mass, March 5, 86. A.B, Stanford, 07; Boston, 07–09; M.D, Hopkins, 12. Med. house officer, Hopkins Hosp, 12–13; asst. *path. and bacter, Rockefeller Inst,* 13–15, assoc, 16–23, *assoc. mem, 23–* Visiting prof, Peiping Union Med. Col, 31–32; mem. Nat. Research Council, 31–33. Trustee, Princeton Hosp, 40–; mem. board corporators, Woman's Med. Col. Pa, 41– Order of the Crown, Belgium. A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Pharmacol; Asn. Cancer Research; Social Hygiene Asn. (gen. advisory cmt); Soc. Trop. Med; Genetic Asn; Harvey Soc; N. Y. Soc. Trop. Diseases; N. Y. Acad. Med; Path. Soc. Gt. Britain and Ireland; hon. mem. British Soc. Study Venereal Diseases; Royal Soc. Trop. Med. and Hygiene; Soc. belge de Méd. trop; Peiping Soc. Nat. Hist. Experimental trypanosomiasis and syphilis; chemotherapy; constitutional factors in disease; chemotherapy of trypanosome and spirochete infections; genetic and physical constitution and environment in relation to disease.

Pearce, Dr. R(oy) G(entry), 512 W. Market St, Akron, Ohio. *Physiology.* Madison, Wis, Aug. 28, 84. A.B, Wabash Col, 08; M.D, Western Reserve, 12; Bern, 13. Demonstrator physiol, Western Reserve, 12–13, instr, 13–17, prof. dental sch, 12–17; asst. prof. med, Illinois, 17; mem. research lab. clin. med, Lakeside Hosp, 17–20; research div, health dept, B. F. Goodrich Co, 20–23; *practising physician, 23–* Director, Akron Clinic, 25– Major, C.W.S, 18. Carbohydrate metabolism; innervation of the kidney; vasomotor nerves; internal medicine.

Pearce, S(elden) J(aquith), 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* Hallowell, Maine, Dec. 29, 05. B.S, Maine, 27. Junior chemist, *U. S. Bur. Mines,* 27–35, asst. chemist, 35–41, *assoc. chemist, 41–* Chem. Soc. Physiological and toxicological effects of gases and vapors; development of analytical methods; respiratory protective equipment.

Pearce, W(illiam) E(rnest), 200 S. Kenilworth Ave, Elmhurst, Ill. *Chemistry.* Pleasant Hill, Mo, March 4, 07. A.B, Westminster Col, 29; M.S, Illinois, 31. Asst. chem, Westminster Col, 26–29; instr, Illinois, 29–31; chemist, research dept, *Am. Can Co,* 31–37, asst. chief *div. packaging technol,* 37–40, *chief, 40–* Chem. Soc; Pub. Health Asn; Inst. Food Technol. Separation of rare earth metals; food inspection methods; causes of canned food spoilage; canning technology of vegetable, fruit, meat and fish products.

Pearce, Dr. W(illiam) T(udor), 222 W. Washington Square, Philadelphia, Pa. *Chemistry.* Norfolk, Va, Sept. 3, 90. A.B, Randolph-Macon Col, 10; M.S, Kentucky, 12; Ph.D, Chicago, 16. Asst. chem, Kentucky, 10–12; instr, Clemson Col, 12–13, asst. prof, 13–14; asst, Chicago, 14–15; prof, Fargo, 15–16; asst. prof, N. Dak. Col, 16–18, prof, 18–28, head sch. chem, 19–26, dean, 26–28; director research, Valentine and Co, New York, 28–30; *tech. develop. sales promotional work Resinous Products and Chem. Co, Phila, 30–* Chem. Soc. (sec'y, div. paint and varnish chem, 24–26, chairman, 27); Soc. Test. Mat. Paint and varnish chemistry.

Pearl, Dr. Irwin A(lbert), 626 W. Prospect, Appleton, Wis. *Organic chemistry.* Seattle, Wash, Dec. 25, 13. B.S, Washington (Seattle), 34, M.S, 35, Ph.D, 37. Teaching fellow, Washington (Seattle), 34–37, research assoc. org. chem, 37–41; *asst, Inst. Paper Chem, Lawrence Col, 41–* Supervisor lab, state dept. conservation and develop, Wash, 37–40. Chem. Soc. Utilization of waste sulfite liquor; waste liquor pollution.

Pearl, Dr. William A(biel), 8508 Constance Ave, Chicago, Ill. *Engineering.* Kent, Wash, Oct. 2, 93. B.S, State Col. Wash, 16, M.S, 24; Ph.D, Michigan, 34. Asst. prof. mech. eng, State Col. Wash, 19–25; in business, 25–26; head gas eng. and aviation dept, Benson Polytech. Sch, 26–35; assoc. prof. mech. eng. and director shops, Armour Inst. Tech, 35–36, prof. *mech. eng,* 36–40, *adj. prof, Ill. Inst. Tech, 40–;* chief engineer, stoker div, *Whiting Corp,* 37–40, director develop, 40–41, manager plant div, 41–42, *v. pres. in charge mfg, 42–* Estimator, Puget Sound Navy Yard, 18, apprentice instr, 19; mem. staff, eng. exp. sta, State Col. Wash; exp. engineer, Armour Research Foundation. Eng. Educ; Mech. Eng; Welding Soc. (fundamental research cmt). Rope and tackle; critical velocity of steam with counter-flowing condensate; effect of initial temperature on rate of pressure rise; heat effects in welding.

Pearlman, Dr. Harry, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Highbridge, N. J, May 17, 15. A.B, Cornell, 35; Ph.D, Mass. Inst. Tech, 39. *Arthur D. Little fellow chem, Mass. Inst. Tech, 39–* Beams of high-velocity neutral atoms.

Pearlman, Dr. W(illiam) H(enry), Clark University, Worcester, Mass. *Biochemistry.* New York, N. Y, March 2, 14. B.S, Brooklyn Col, 34; Ph.D, Columbia, 40. *Research assoc. biochem, Clark, 40–* A.A; Chem. Soc. Steroid metabolism.

Pearsall, David E(delblute), Bickford Research Laboratories, Avon, Conn. *Chemical engineering.* Brookville, Pa, Feb. 2, 99. B.S, Pennsylvania, 22, Chem.E, 30. Research, *chem. eng,* Atlas Powder Co, 22–23; Vulcan Detinning Co, 23–26; West. Elec. Co, 26–30; research fellow, Mellon Inst, 30–41; *director, Bickford Research Labs, 41–* Soc. Test. Mat; Chem. Eng; Chem. Soc; Nat. Soc. Professional Eng; N. Y. Acad. Tin oxide; hard rubber; asphalts; waxes; resins; plastics; explosives; safety fuses; insulating materials.

Pearse, Prof. A(rthur) S(perry), Duke University, Durham, N. C. *[3]*Zoology.* Crete, Nebr, March 15, 77. B.S, Nebraska, 00, A.M, 04, LL.D, 41; Ph.D, Harvard, 08; London Sch. Trop. Med, 26. Teacher, high schs, Nebr. and Ill, 00–06; Austin teaching fellow, Harvard, 07–08; instr. *zool,* Michigan, 08–10, asst. prof, 10–11; Philippines, 11; St. Louis, 11; Wisconsin, 11–12, assoc. prof, 12–19, *prof,* 19–27; *Duke, 27–* Staff, Marine Biol. Lab, Woods Hole, 08, 09, 12; special investigator, Bur. Fisheries, 12–24, 35–36; int. health div, Rockefeller Foundation, 25–26; visiting prof, Keiogijuku, Tokyo, 29–30. Ed, 'Ecol. Monographs,' 30– Carnegie Institution and Duke Univ. biol. exped, Yucatan, 32, 36. A.A; Soc. Nat; Soc. Zool; Soc. Parasitol; Ecol. Soc. (pres, 25); Limnol. Soc; N. C. Acad; Asn. Southeast. Biol. (pres, 42). Ecology; parasitology; behavior; Crustacea; fishes.

Pearse, Charles Kenneth, U. S. Forest Service, Washington, D. C. *Botany.* Chicago, Ill, July 30, 07. B.S, Chicago, 30, M.S, 32. *U. S. Forest Service, 30–, senior forest ecologist.* A.A; Ecol. Soc; Soc. Agron. Range ecology; range reseeding.

Pearse, Langdon, Sanitary District of Chicago, Chicago, Ill. *Sanitary engineering.* Boston, Mass, Nov. 12, 77. A.B, Harvard, 99; B.S, Mass. Inst. Tech, 01, M.S, 02. Asst. engineer, Charles River Dam Cmn, 02; Additional Water Supply Cmn, New York, 03; private asst. to George C. Whipple, 04; asst. engineer, improved water and sewage works, Columbus, Ohio, 04–07; water filtration, Oakland, Calif, 07–08; *sanit. engineer, Sanit. Dist, Chicago, 09–* Consulting engineer. Aldred lecturer, Hopkins, 17. Civil Eng; Inst. Consulting Eng; Water Works Asn; Pub. Health Asn; fel. Am. Acad; West. Soc. Eng; New Eng. Water Works Asn; Boston Soc. Eng; Eng. Inst. Can; Inst. Civil Eng. London; Inst. Sanit. Eng. London. Treatment of sewage, water and industrial wastes.

Pearson, Dr. Allen M(obley), Auburn, Ala. *Biology.* Mobile, Ala, Jan. 14, 09. B.S, Ala. Polytech, 31; M.S, Iowa State Col, 31–34, M.S, 32, Ph.D, 36. Asst, Delaware, 34–35; assoc. biologist, soil conservation service, U. S. Dept. Agr, 35–37; *assoc. biologist, fish and wildlife service, U. S. Dept. Interior, 37–* Soc. Mammal; Ornith. Union; Wildlife Soc. Wildlife management.

Pearson, Prof. Anthony A(ugustus), Jr, Baylor University College of Medicine, Houston, Texas. *Anatomy.* Greenville, S. C, Oct. 9, 06. B.S, Furman, 28; A.M, Michigan, 30, Ph.D, 33. Teaching fellow *anat,* Michigan, 30–33; instr, Chicago, 33–37; assoc, med. sch, Loyola (Ill), 37–40, asst. prof, 40–43; *assoc. prof, col. med, Baylor, 43–* Visiting asst. prof, sch. med, Tennessee, 41. Asn. Anat. Development of the nervous system; cerebellum and cranial nerves.

Pearson, Dr. Bjarne, Tulane University School of Medicine, New Orleans, La. *Pathology.* Oslo, Norway, May 22, 00. B.S, Minnesota, 27, M.B, 29, fellow, 30–33, M.D, 30, M.S, 32. Res, Minneapolis Gen. Hosp, 29–30; asst. pathologist, univ. hosps, Minnesota, 30–33; pathologist and asst. surg, St. Croix Clinic, 33–35; instr. *path,* sch. med, Louisiana, 35–40, asst. prof, 40–42; *assoc. prof, Tulane, 42–;* visiting pathologist, *Charity Hosp, New Orleans,* 35–37, *senior pathologist, 37–* Fellow, Cancer Inst, Minnesota, 30–33; consultant, tumor clinic, Charity Hosp; nat. cancer inst, U. S. Pub. Health Service. A.A; Asn. Cancer Research; Asn. Path. and Bact; Soc. Exp. Biol; N. Y. Acad; La. State Asn. Path. Malignancy; carcinoma of cervix; carcinoma of the lung; experimental cancer.

Pearson, Prof. Carl A(ugust), 105 Huron Drive, S.E, Forest Heights, Md. *Physics.* Helsingborg, Sweden, Aug. 13, 99. A.B, Harvard, 25, A.M, 30. Instr. *physics, Simmons Col,* 25–30, *asst. prof, 31–; assoc. radio physicist, Naval Research Lab, 42–* Instr, Franklin Tech. Inst, Boston; research work, Mass. Eye and Ear Infirmary. A.A; Asn. Physics Teachers. Light sense in early glaucoma.

Pearson, Prof. F(rank) A(shmore), Cornell University, Ithaca, N. Y. *Agriculture.* Kans, Dec. 31, 87. B.S, Cornell, 12, Ph.D, 22. Asst. prof. dairy husbandry, Illinois; instr, *Cornell,* 20–23, *prof.* marketing, 23–29, *prices and statist, 29–* Farm Econ. Asn; Statist. Asn; Econ. Asn; Royal Econ. Soc. Prices; statistics.

Pearson, Dr. G(erald) H(amilton) J(effery), 111 N. 49th St, Philadelphia, Pa. *Psychiatry.* Key West, Fla, Sept. 21, 93. B.A, Western Ontario, 15, M.D, 15; Sc.D, Pennsylvania, 30. Asst. physician, Ont. Hosp. Insane, 15–16; neuropsychiatrist, Ottawa Civic Hosp, 24–25; *assoc. psychiat, grad. sch. med, Pennsylvania, 28–; instr. mental hygiene, med. sch, Temple, 32–,* asst. prof. pediat, 34–38, *assoc. prof. child psychiat, 38–* Psychiatrist, Phila. Child Guidance Clinic, 28–32; neuropathologist, dept. nervous and mental diseases, Pa. Hosp, 28–32. Capt, C.A.M.C, 16–19. Am. Med. Asn; Psychiat. Soc; Orthopsychiat. Soc; Psychoanal. Soc; Phila. Psychoanal. Soc. (v. pres, 41). Problems of neuroses, psychoses and delinquency in children; psychoanalytic understanding of human behavior; common neuroses of children and adults.

Pearson, G(erald) L(eondus), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Salem, Oregon, March 31, 05. A.B, Willamette, 26; fellow, Stanford, 27–29, A.M, 29. *Research physicist, Bell Tel. Labs, 29–* Fel. Physical Soc. X-rays; shot effect; thermal agitation of electric charge; vacuum tube noise; semi-conductors and thermostors.

Pearson, G(ustaf) A(dolph), U. S. Forest Service, Tucson, Ariz. *Forestry.* Holdredge, Nebr, Nov. 14, 80. B.S, Nebraska, 06, A.M, 07. Silviculturist, *U. S. Forest Service*, 07–08, director, *Southwest. Forest and Range Exp. Sta*, 09–35, *senior silviculturist, 35–* A.A; Soc. Foresters (pres, southwest. sect, 16); Ecol. Soc. (v. pres, 23). Botany; growth and reproduction of forest trees; forest ecology and management; artificial reforestation; forest meteorology.

Pearson, Prof. H(arold) E(manuel), University of Michigan School of Public Health, Ann Arbor, Mich. *Epidemiology.* Alturas, Calif, April 18, 11. A.B, Stanford, 33, M.D, 38; Rockefeller Foundation fellow, Calif. State Dept. Health, 39–40; M.P.H, Harvard, 41. Instr. bacter, Stanford, 37–39; *epidemiol, sch. pub. health, Michigan,* 41–42, *asst. prof, 42–* Soc. Bact. Infectious diseases.

Pearson, Dr. Helen M(onosmith), 58 Sunset Ave, Amherst, Mass. *Genetics.* Corvallis, Oregon, June 26, 07. A.B, Iowa, 25; Ph.D, California, 28. Asst, Carnegie Institution, 28–29; viticulture, California, 30–32. A.A; Genetics Soc. Sex and sterility in plants.

Pearson, Major Jay F(rederick) W(esley), 1329 Alhambra Circle, Coral Gables, Fla. *Ecology, Entomology.* Woodsfield, Ohio. May 7, 01. B.S, Pittsburgh, 25, M.S, 26; Ph.D, Chicago, 32. Instr, Pittsburgh, 25–26; Miami (Fla), 26–27, asst. prof. zool, 27–31; biologist, A Century of Progress Expos, Chicago, 31–33; prof. zool. and head dept, Miami (Fla), 34–40, sec'y and dean faculty, 41–42; capt, *Air Corps, U. S. Army,* 42–43, *major, 43–* Asst, Chicago, 29–30. Summers, asst. to pres, Miami (Fla), 27, 28. Sec'y and trustee, Miami (Fla), 34–40. Asst, N. Y. Zool. Soc. exped, Sargasso Sea and Galapagos Island, 25; in charge class, N. Y. Zool. Soc. and Univ. Pittsburgh exped, British Guiana, 26. Sec'y, Pan Am. Cmn. on Eugenics and Homiculture, 34–A.A. (v. pres, S. Fla. branch, 35–39); Ecol. Soc; assoc. Soc. Zool; Asn. Southeast. Biol; Fla. Acad. (treas, 36, pres, 41). Relation of light to color changes in fish; taxonomy; ecology and toleration physiology of Apoidea; marine zoology.

Pearson, John C(leary), U. S. Department of the Interior, Beaufort, N. C. *Biology.* Cambridge, Mass, Feb. 23, 02. B.S, Cornell, 24. Temporary asst, Bur. Fisheries, 24–29, *asst. aquatic biologist,* 29–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Marine fisheries and life histories of marine food fishes of the Atlantic and Gulf coasts.

Pearson, Dr. John H(erbert), Box 149, Long Island City, N. Y. *Chemistry.* Providence, R. I, March 23, 08. B.S, Brown, 29; A.M, Duke, 32, Ph.D, 33. E. I. du Pont de Nemours and Co, 29–30; asst, Duke, 30–34; research chemist, Tenn. Valley Authority, 34–36; *Gen. Chem. Co,* 36–41, *asst. manager research, 41–* Chem. Soc. Organic chemistry; fluorination of organic compounds with elementary fluorine; inorganic fluorine technology; organic development.

Pearson, Dr. J(ohn) M(agnus), 1608 Walnut St, Philadelphia, Pa. *Physics.* Portland, Oregon, July 9, 04. B.S, Chicago; Ph.D, Calif. Inst. Tech, 30. Teaching fellow, Calif. Inst. Tech, 29–30; *physicist,* Sun Oil Co, 30–32; Sun Pipe Line Co, 32–39; *Susquehanna Pipe Line Co, 39–* Scattering of electrons by gases; electric measurements; electrical geophysics; electrolysis; electrical engineering.

Pearson, J(oseph) C(leaveland), Lehigh Portland Cement Co, Allentown, Pa. *Physics.* Andover, Maine, May 25, 79. A.B, Bowdoin Col, 00; A.M, Harvard, 03. Instr. physics, Bowdoin Col, 03–06; magnetic observer, Carnegie Institution, 06–10; physicist, Bur. Standards, 10–24; asst. to chem. engineer, *Lehigh Portland Cement Co,* 24–30, *director research, 30–* Soc. Test. Mat; Concrete Inst. (director). Uses of concrete and cement.

Pearson, Prof. N(athan) E(verett), Butler University, Indianapolis, Ind. *Zoology.* Amboy, Ind, Dec. 12, 95. A.B, Indiana, 21. A.M, 23, Ph.D, 26. Asst. *zool,* Indiana, 21–25; asst. prof, *Butler,* 26–27, *assoc. prof,* 27–38, *prof. and head dept, 38–* Ichthyologist, Mulford exped, Amazon Basin and Peru, S. Amer. A.A; Soc. Zool; Ind. Acad. Taxonomy and distribution of South American freshwater fishes; chromosomes of gynandromorphic katydids.

Pearson, Dr. Norma L, S. E. Corner 12th and C Sts, S. W, Washington, D. C. *Botany.* Bloomington, Wis, Aug. 4, 97. A.B, Wisconsin, 18, A.M, 21, Ph.D, 28. Teacher, high sch, Wis, 18–20; asst. bot, Wisconsin, 20–22; instr. bot. and chem, Cottey Col, 22–23; bot. and zool, Beloit Col, 23–26; asst. plant path, Wisconsin, and agent, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 26–29; instr. biol, East. Ky. State Teachers Col, 29–30; asst. cotton technologist, bur. agr. econ, *U. S. Dept. Agr,* 30–36, *assoc. cotton technologist, bur. agr. econ. and bur. plant indust, 36–* A.A; Bot. Soc; Ky. Acad. Parasitism of Gibberella saubinetii on corn seedlings; cotton; relation of seed cotton properties to ginning and spinning.

Pearson, Dr. O(scar) H(arris), Eastern States Farmers Exchange, Springfield, Mass. *Olericulture,* Stratham, N. H, Jan. 17, 02. B.S, New Hampshire, 23, M.S, 25; Ph.D, California, 28. Asst, New Hampshire, 23–25; col. agr, California, 25–27, junior olericulturist, 27–33; *plant breeder and veg. specialist, East. States Farmers Exchange, 34–* Collaborator, bur. plant indust, U. S. Dept. Agr, 29–33. A.A; Soc. Hort. Sci. Plant breeding; genetics.

Pearson, Prof. Paul B(rown), Agricultural and Mechanical College of Texas, College Station, Texas. *Nutrition.* Oakley, Utah, Nov. 28, 05. B.S, Brigham Young, 28; M.S, Mont. State Col, 30; fellow, Wisconsin, 36–37, Ph.D, 37. Asst. animal husbandman, Mont. State Col, 30–31; asst, California, 32–33, research assoc, 33–35; prof. *animal nutrition, Agr. and Mech. Col. Texas,* 37–41, *grad. prof, 41–* A.A; Soc. Animal Production; Soc. Exp. Biol; Biochem. Soc; Chem. Soc; Inst. Nutrition. Mineral metabolism; vitamins; relation of quality of proteins and amino acids to the oestrous cycle and to hemoglobin formation.

Pearson, Prof. William A(lexander), 235 N. 15th St, Philadelphia, Pa. *Chemistry.* Van Wert, Ohio, April 6, 79. Ph.C, Ferris Inst, 98; Ph.D, Michigan, 02; M.D, Hahnemann Med. Col, 15. Research chemist, Parke, Davis and Co, 02–04; *prof.* pharmacy, Ferris Inst, 04–06; *chem. and toxicol, Hahnemann Med. Col, 08–* Trustee, Allentown State Homeopath. Hosp. A.A; Chem. Soc. (chairman, Phila. sect); Pharmaceut. Asn. (chairman, Phila. sect); Pa. Pharmaceut. Asn. Physiological chemistry; nitrogen metabolism; pharmacodynamics of drugs acting mainly on the heart.

Pease, Prof. A(rthur) S(tanley), Harvard University, Cambridge, Mass. *Botany.* Somers, Conn, Sept. 22, 81. A.B, Harvard, 02, A.M, 03, Ph.D, 05; LL.D, Williams Col, 31, Amherst Col, 33. Instr, Harvard and Radcliffe Col, 06–09; from asst. prof. to prof. classics, Illinois, 09–24; Latin, Amherst Col, 24–27, pres, 27–32; *prof. Latin, Harvard, 32–* Archeol. Inst; Philol. Asn. (pres, 40); fel. Am. Acad. (v. pres, 33–38); New Eng. Bot. Club (pres, 34–37). Flora of Coös County, New Hampshire.

Pease, Prof. Charles S, 227 S. Seventh St, Corvallis, Oregon. *Chemistry.* Licking Co, Ohio, Jan. 16, 95. B.S, Denison, 18; Ph.D, Ohio State, 28. Teacher, sch, 12–15; instr. gen. chem, *Oregon State Col,* 25–28, *org. chem,* 28–30, *asst. prof, 30–* Organic chemistry; ultra-violet absorption spectra of organic compounds.

Pease, Dr. Daniel C(hapin), Columbia University, New York, N. Y. *Cell physiology, Experimental embryology.* New York, N. Y, Aug. 7, 14. A.B, Yale, 36; M.S, Calif. Inst. Tech, 37; Ph.D, Princeton, 40. Nat. research fellow, Stanford, 40–41; *visiting lecturer embryol, Columbia, 41–* Assoc. Soc. Nat. The chemical and physical determination of bilaterality in invertebrate eggs; the biological effects of high hydrostatic pressure.

Pease, Herbert D(odge), 39 W. 38th St, New York, N. Y. *Bacteriology, Hygiene.* Boston, Mass, Oct. 25, 70. M.B, Toronto, 93; Hopkins, 93–94, fellow, 94–95. Res. pathologist, Thomas Wilson Sanitarium for Children, Baltimore, 94; first asst. bacteriologist, Dept. Health, Phila, 95–98; bacteriologist, N. Y. State Path. Lab, Buffalo, 98–00; instr. bacter, Sheffield Sci. Sch, Yale, 01; director antitoxin hygienic lab, State Dept. Health, N. Y, 01–09; *consulting bacteriologist and hygienist, 09–*; sanit. expert, Board Water Supply, New York, 10–16; *director,* Lederle Labs, 09–18; *Pease Labs, 18–* Adj. prof, Phila. Polyclinic, 97. A.A; Asn. Path. and Bact; Soc. Bact; Chem. Soc; N. Y. Acad; Int. Cong. Tuber. (sec'y, N. Y. State Cmn); Int. Cong. Hygiene and Demog. Diphtheria and tetanus antitoxins and their standardization; bacteriology of summer diarrheas of children; malignant tumors; typhoid fever; sanitation of food supplies; determinations of antiseptic and germicidal efficiencies; water purification; effects of dyes and chemical products on skin and tissue; toxicity of metals; shellfish sanitation; nutritional values and deficiencies of foods; processing and dehydration of foods.

Pease, Dr. Marshall Carleton, 155 E. 62nd St, New York, N. Y. *Pediatrics.* B.S, Beloit Col, 02; M.D, Columbia, 06. *Attending pediatrician, N. Y. Post-Grad. Med. Sch, Columbia, 22–, prof. pediat, 23–; attending pediatrician, Willard Park Hosp. for Contagious Diseases, 22–* Consulting pediatrician, Monmouth Mem. Hosp, Long Branch, N. J; Jamaica Hosp, N. Y; Lutheran Hosp, New York. Acad. Pediat; Col. Physicians; Soc. Exp. Biol; Asn. Immunol; Am. Med. Asn; Harvey Soc; N. Y. Acad. Med. Nephritis; feeding and caring for the baby.

Pease, Dr. Robert N(orton), Princeton University, Princeton, N. J. **5Physical chemistry.* Burlington, Vt, April 12, 95. B.S, Vermont, 16; Ph.D, Princeton, 21. Nat. research fellow *chem,* Princeton, 21–22; asst. prof, Virginia, 22–24, assoc. prof, 24–26; research assoc, *Princeton,* 26–31, *assoc. prof, 31–* 2nd lieut, research div, C.W.S, 17–19. A.A; Chem. Soc. Contact catalysis; chemical equilibria; kinetics of gas reactions; hydrocarbons.

Peaslee, Willis Dhu Aine, 625 E. Monroe St, South Bend, Ind. *Electrical engineering.* Grass Valley, Calif, June 19, 87. A.B, Stanford, 09; E.E, Oregon State Col, 16; diploma, Paris, 18. Test. engineer, Gen. Elec. Co, 10–11, asst. to sales manager, Portland branch, 11–14; asst. prof. elec. eng, in charge lab. and research, Oregon State Col, 14–17; elec. engineer and gen. manager, Jeffery-DeWitt Insulator Co, 19–21; chief engineer, Belden Mfg. Co, 22–24; pres, Terlee Elec. and Mfg. Co, 24–25; gen. manager, Daven Radio Corp, 25–27; *director and v. pres, Am. Construction Co, and director, Interurban Elec. Co, 25–* Consulting engineer, 14–17; asst. to pres, Underwriters Labs, 27–35; chief engineer, W. S. Dickey Clay Mfg. Co, 37– Capt, C. Eng, 17–19; tech. attaché, Am. Cmn. to Negotiate Peace. A.A; fel. Elec. Eng; Mech. Eng; Soc. des Ing. civils de France; Soc. française des Elec. High voltage transmission; gas power; hydraulics; radio; Diesel engines; ceramics.

Peatman, Prof. John Gray, College of the City of New York, New York, N. Y. *Psychology.* Centerville, Iowa, March 16, 04. A.B, Columbia, 27, A.M, 28, Ph.D, 31. Asst. *psychol,* lab. comp. psychol, Columbia, 27–28; lecturer, St. Marks Hosp, New York, 28–29; tutor, *Col. City of N. Y,* 29–31, instr, 31–36, asst. prof, 36–42, *assoc. prof, 42–, sec'y faculty, 41–, director office research, radio div, 41–* Assoc. ed, 'Psychol. Record,' 37– Psychol. Asn; Asn. Applied Psychol. (board affiliates, 41–); N. Y. State Asn. Applied Psychol. (exec. cmt, 41–); N. Y. Metrop. Asn. Applied Psychol. (exec. cmt, 43–). Market and radio; psychology of music; tests and measurements; statistics.

Peattie, Prof. Roderick, Ohio State University, Columbus, Ohio. *Geography.* Omaha, Nebr, Aug. 1, 91. B.S, Chicago, 14; Ph.D, Harvard, 20; Europe. Asst. prof, Williams Col, 19–20; *Ohio State,* 20–24, *prof. geog, 24–* Summers, lecturer, California, 21, Clark, 24, Northwestern, 25, Wisconsin, 38. Asn. Geog. Principles of geography; the Saint Lawrence area; mountain and historical geography.

Pechstein, Dean L(ouis) A(ugustus), University of Cincinnati, Cincinnati, Ohio. *Psychology, Education.* Clinton, Mo, Oct. 30, 88. A.B, B.S, Missouri, 12; fellow, Chicago, 14–16, Ph.D, 16. Teacher, pub. and nor. schs, 08–14; asst. psychol, Chicago, 14–16; *prof.* psychol. and educ. and head dept, Rochester, 16–22; *educ. and dean teachers col, Cincinnati, 22–, director war training programs, 42–* Director summer sch, Cincinnati, 23– Capt, Sanit.C. Psychol. Asn; Nat. Educ. Asn. (pres, city training sect, 25); Soc. Col. Teachers Educ. (pres, 39); Educ. Research Asn; Nat. Council Educ. (pres, 37–). Educational psychology; motor learning; mental tests; memory; retention; adolescent and child psychology; higher education.

Pechuman, Dr. L(aVerne) L(eRoy), 7 Davison Road, Lockport, N. Y. *Entomology.* Lockport, N. Y, Oct. 18, 13. B.S, Cornell, 35, M.S, 37, Ph.D, 39. Asst. entom, Cornell, 35–39; *entomologist, Calif. Spray Chem. Corp, 39–* Entom. Soc. Amer; Asn. Econ. Entom. Insecticides for the control of fruit and vegetable insects; taxonomy of the family Tabanidae.

Peck, Dr. E(dward) B(ates), 180 Lincoln Ave, Elizabeth, N. J. *Chemistry.* Essex, Vt, Aug. 13, 91. Ph.B, Brown, 12; M.S, Mass. Inst. Tech, 14; Ph.D, Clark, 16. Asst. chem, Worcester Polytech, 12–13; instr, Minnesota, 16–17; asst. chemist, U. S. Bur. Mines, 17; *research chemist,* Roessler and Hasslacher Chem. Co, 19–22; *Standard Oil Develop. Co,* 22–Summer, junior chemist, Bur. Standards, 16. Lieut, C.W.S, 17–19. A.A; Chem. Soc. Metallic state; thermodynamics; catalysis; non-aqueous solutions; petroleum technology.

Peck, Prof. John Sanford, College of the City of New York, New York, N. Y. *Civil engineering.* New York, N. Y, May 27, 93. C.E, Columbia, 15, fellow, 27–31, A.M, 32, Ph.D, 36. Field engineer, Semet-Solvay Co, 16–18; res. engineer, Terry and Tench Co, 19–20; asst. engineer tests, testing lab, Columbia, 21–23, research engineer, 24–25; Cinder Tile Co, 25–27; from instr. to *assoc. prof. civil eng. and director materials testing lab, sch. technol, Col. City of N. Y, 31–* 2nd lieut, A.S, 18–19. Civil Eng; Soc. Test. Mat; Concrete Inst; Eng. Educ. Physical properties of structural materials; light weight concrete; modern methods of proportioning concrete; solution process for manufacturing light weight concrete aggregate; the laboratory in engineering education.

Peck, Dr. Leigh, University of Texas, Austin, Texas. *Child psychology.* Texas, Feb. 14, 01. A.B, N. Texas State Teachers Col, 22; A.M, Texas, 30, Ph.D, 34; Chicago, summers, 30, 32. Teacher, schs, Texas, 22–30; *instr. ed. psychol, Texas, 32–* Assoc. Psychol. Asn. Eidetic imagery; reading readiness; mental hygiene of teachers.

Peck, Millard, 1346 Quincy St, N.W, Washington, D. C. *Agricultural economics.* McCallsburg, Iowa, July 7, 91. B.S, Iowa State Col, 17, M.S, 25; fellow, Harvard, 25–26, A.M, 27. Instr, Northwest Sch. Agr, 19–21; instr, Iowa State Col, 21–25; assoc. prof. agr. econ, Kans. State Col, 26–27; senior agr. economist, div. land econ, U. S. Dept. Agr, 27–29; prof. agr. econ, Iowa State Col, 29–34; senior agr. economist, div. subsistence homesteads, U. S. Dept. Interior, 34–35; land policy sect, Agr. Adjust. Admin, 35; prin. agr. economist, div. land utilization, Resettlement Admin, 36–38; regional director land utilization program, bur. agr. econ, U. S. Dept. Agr, 38–39, regional leader div. land econ, Great Plains, 39–41; *prin. economist, Office Econ. Warfare, 41–* U.S.A, 17–19. Farm Econ. Asn; Econ. Asn. Agricultural development; agricultural geography.

Peck, Prof. Morton E(aton), Willamette University, Salem, Oregon. *Botany.* La Porte City, Iowa, March 12, 71. A.B, Cornell Col. (Iowa), 95, A.M, 11, Sc.D, 40. Instr. *biol,* Marionville, 96–97; *prof,* Ellsworth, 97–05; Iowa Wesleyan Col, 07–08; *Willamette, 08–* Bot. collector, British Honduras, 05–07. A.A; Bot. Soc; Cooper Ornith. Club; Calif. Bot. Soc. Taxonomy and distribution of seed plants of Oregon.

Peck, Dr. Oswald, Dominion Department of Agriculture, Ottawa, Ont, Can. *Entomology.* Bolton, Eng, April 27, 03. B.Sc, Alberta, 31; M.Sc, McGill, 33, Ph.D, 36. *Asst. entomologist, div. entom, Dom. Dept. Agr, 37–* Can. Soc. Tech. Agr; Ont. Entom. Soc. Taxonomy of hymenopterous insects, particularly sawflies and chalcidoids.

Peck, Prof. R(alph) E, Illinois Institute of Technology, Chicago, Ill. *Chemical engineering.* Herbert, Sask, Can, Dec. 8, 10. B.Ch.E, Minnesota, 28–32, Ph.D, 36. Asst. instr, Minnesota, 32–36; instr, Drexel Inst, 36–39; *chem. eng, Ill. Inst. Tech,* 39–41, *asst. prof, 41–* Chem. Eng; Chem. Soc; Eng. Educ.

Peck, Prof. Ralph H(oward), University of Missouri, Columbia, Mo. *Forestry.* Cheshire, Conn, March 3, 05. B.S, Connecticut, 29; M.F, Yale, 31. State dist. forester, west. Tenn, 31–33; forest ranger, forest service, U. S. Dept. Agr, 33–34; asst. state forester, Tenn, 34–36; exten. asst. prof. *forestry, Missouri,* 36–38, *asst. prof, 38–* Soc. Foresters; Mo. Acad. Reforestation; farm forestry; growth rates and regeneration of farm forest stands in central hardwood region; forestry in farm management.

Peck, Dr. Raymond E(lliot), University of Missouri, Columbia, Mo. *Geology.* Hamilton, Mo, May 3, 04. A.B, Park Col, 26; A.M, Missouri, 28, Ph.D, 32. Instr. *geol, Missouri,* 30–37, *asst. prof, 37–* A.A; Paleont. Soc; fel. Geol. Soc. Paleontology; nonmarine microfossils; crinoids.

Peck, Dr. Robert L(awrence), Merck and Co, Inc, Rahway, N. J. *Organic chemistry.* Southern Pines, N. C, Aug. 25, 14. B.S, Duke, 36, Ph.D, 39; Columbia, 37, 38. Research chemist on the Univ. Research Council grant, Duke, 36–39; Nat. Tuber. Asn. fellow chem, Yale, 39–41; *senior chemist, Merck and Co, Inc, 41–* A.A; Chem. Soc. Organic chemistry of microorganisms; chemistry of constituents of bacteria and fungi; products of metabolic activities of bacteria and fungi; chemical mechanisms of infectious diseases; physiology of bacteria and fungi.

Peckham, Dr. R(obert) H(amilton), 211 Tyson Ave, Glenside, Pa. *Physiological optics.* Youngstown, Ohio, March 15, 08. A.B, Rochester, 30; Ph.D, Hopkins, 33. Nat. research fellow, Pennsylvania, 33–34; instr. research ophthal, sch. med, Temple, 34–39; Dartmouth Col, 39–41; *lieut, U. S. Naval Res, 41–* Assoc. Psychol. Asn; Optical Soc; Franklin Inst; S. Soc. Philos. and Psychol. Psychology; geometric optics; ophthalmology; stereoscopic vision; spectrophotometry; statistics.

Pecora, Dr. William T(homas), U. S. Geological Survey, Washington, D. C. *Geology.* N. J, Feb. 1, 13. B.S, Princeton, 33; A.M, Harvard, 37, Ph.D, 40. *Assoc. geologist, U. S. Geol. Surv.* Petrology and mineralogy of Bearpaw Mountains, Montana; nickel deposits in western hemisphere.

Pedersen, Dr. Frederick M(alling), 788 Riverside Drive, New York, N. Y. *Mathematical physics.* New York, N. Y, Feb. 12, 69. B.S, Col. City of N. Y, 89; E.E, Columbia, 93; M.S, N. Y. Univ, 02, Sc.D, 05. Asst. engineer, Crocker Wheeler Co, 93–99; tutor math, Col. City of N. Y, 99–02, instr, 03–10, asst. prof, 10–21, assoc. prof, 21–39; *retired.* Math. Asn. The influence of molecular structure upon the internal friction of gases.

Pedersen, Dr. Svend, S.C.U. 1933, Camp Kohler, Calif. *Surgery.* Sandby, Denmark, June 7, 98. B.S, Pa. State Col, 29, M.S, 30; Ph.D, Michigan, 36. Asst. agr. biochem, Pa. State Col, 29–30; biochem, Michigan, 30–35, asst. surg, univ. hosp, 35–41; *capt, Sanit. Corps, U. S. Army, 41–* Analyses of rat blood; metabolism of glutamic acid, pyrrolidone carboxylic acid, proline and hydroproline; chemical studies of human blood in hyperthyroidism and in thyroid crisis; salt and water balance in surgical patients.

Pederson, Dr. Carl S(everin), New York Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* South Milwaukee, Wis, April 30, 97. B.S, Wisconsin, 24, M.S, 25; Ph.D, Cornell, 29. Asst. *bacter, N. Y. Exp. Sta, Geneva,* 25–29, research assoc, 29–31, *chief in research, 31–* Soc. Bact; Pub. Health Asn; Inst. Food Technol. Food preservation; fermentation of sauerkraut; tomato products; pickles and fruit and vegetable juices; fermentation of various bacteria, especially acid-producing types.

Pederson, Prof. Mart G, 2619 23rd St, Lubbock, Texas. *Dairy bacteriology.* Clifton, Texas, March 23, 07. B.S, Texas Tech, 32; M.S, Kans. State Col, 35; Mich. State Col, 39. Instr. *dairying,* Texas Tech, 32–34; asst. prof, Kans. State Col, 35; *Texas Tech,* 35–38, assoc. prof, 39–42, *prof, 42–* Dairy Sci. Asn; Asn. Food Technol; Texas Acad. Dairy manufacturing problems.

Pedley, Dr. Frank G(ordon), 4820 Roslyn Ave, Montreal, Que, Can. *Public health.* Winnipeg, Man, Oct. 17, 92. B.A, McGill, 13, M.D, 16; Dr.P.H, Harvard, 24; M.P.H, Hopkins, 40. *Asst. prof. pub. health and univ. med. officer, McGill, 38–* Pub. Health Asn; Can. Med. Asn; Can. Pub. Health Asn. Coronary disease and occupation; tuberculin testing of young adults with particular reference to the Vollmer patch test.

Pedlow, Dr. G(eorge) Wesley, Jr, Evanston, Ill. *Organic chemistry.* Chester, Pa, March 7, 13. B.S, Dickinson Col, 34; Hopkins, 36; M.S, Pa. State Col, 39, Ph.D, 40. Chemist's asst, E. I. du Pont de Nemours and Co, 35–36, *research org. chemist,* 40–41; *Miner Labs, 41–* Lecturer civilian gas defense, Office Civilian Defense, 42– Chem. Soc. Organic synthesis.

Pedlow, Prof. J(ohn) Thomas, University of Maine, Orono, Maine. *Chemistry.* Red Bank, N. J, Aug. 31, 02. B.S, Pa. State Col, 25, Ph.D, 34; M.S, Rutgers, 26. Instr, DePauw, 28–32; asst. biophysicist, Burroughs Wellcome and Co, 34–36; asst. prof. *biochem, Maine,* 36–43, *assoc. prof, 43–* Chem. Soc. Biophysical chemistry.

Peebles, Dr. Florence, Lewis and Clark College, Portland, Oregon. *[1]*Biology.* Pewee Valley, Ky, June 3, 74. A.B, Goucher Col, 95; Mary E. Garrett scholar, Bryn Mawr Col, 95–96, fellow, 96–97, Mary E. Garrett European fellow at Halle and Munich, 98–99, Ph.D, 00; Bonn, 05; Wurzburg, 11; Freiburg, 13. Asst. biol, Bryn Mawr Col, 97–98; instr, Goucher Col, 99–02, assoc. prof, 02–06; lecturer, Bryn Mawr Col, 13; prof. biol, Newcomb Col, Tulane, 15–17; assoc. prof. physiol, Bryn Mawr Col, 17–19; prof. biol, Calif. Christian Col, 28–35, Chapman Col, 28–42; *director biol. lab, Lewis and Clark Col. (Oregon), 42–* Am. woman's table, Naples Zool. Sta, 98, 01, 07, 13, 27; research worker, Marine Biol. Lab, Woods Hole, 95–24; Scripps Institution, California, 28, 32. A.A; Soc. Nat; West. Soc. Nat; Botanists South. Calif. Regeneration of hydroids; embryology; life history of Haematococcus; acoelous flatworms; growth accelerators and regulators.

Peebles, Prof. John Bradbury, Emory University, Ga. *Electrical engineering.* Petersburg, Va, Oct. 1, 81. B.E, Union (N. Y), 06; M.S, Ga. Tech, 27. Pa. R. R. and Terminal Co, 06–08; asst. prof. applied math, Wofford Col, 08–12; *prof, Emory,* 12–19, eng, 19–27, *eng. and applied math. and chairman div. eng, 27–* Elec. Eng; Ga. Acad. Vacuum tube voltage regulator; electrical sources in the human anatomy.

Peebles, R(obert) H(ibbs), U. S. Department of Agriculture, Sacaton, Ariz. *Genetics.* Portsmouth, Ohio, July 19, 00. *Assoc. agronomist, bur. plant indust, U. S. Dept. Agr, 22–* Bot. Soc; Biol. Soc. Wash. Cotton genetics and breeding; taxonomic botany.

Peek, R(obert) L(ee), Jr, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Roselle, N. J, Sept. 11, 98. A.B, Columbia, 21, Met.E, 23. U. S. Metals Ref. Co, 23–24; *Bell Tel. Labs, 24–* Physics of materials; diffusion theory; plasticity and viscosity; physical testing; statistical analysis; electromagnetic apparatus design.

Peele, Dr. T(almage) L(ee), Box 3106, Duke University Hospital, Durham, N. C. *Neuroanatomy.* Goldsboro, N. C, Aug. 16, 08. A.B, Duke, 29, M.D, 34; Vanderbilt, 29–31. Intern and asst. res. med, Duke Hosp, 34–36; intern and res. neur, Bellevue Hosp, New York, 36–37; fellow *anat, sch. med,* Hopkins, 37–38; instr, Rochester, 38–39; instr. and later *assoc, Duke, 39–* Human anatomy; cytoarchitecture of cortex and of fiber connections of the cortex of primates; parietal lobe.

Peelle, Prof. Miles, Adrian College, Adrian, Mich. *Biology.* Sabina, Ohio, Aug. 16, 06. A.B, Wilmington Col, 28; A.M, Haverford Col, 29. Investigator biol, Hokkaido Univ, 29–33; social worker, Chicago, Ill, and Dayton, Ohio, 34–37; *prof. biol, Adrian Col, 37–* Wilson Ornith. Club. Truncus arteriosus in Rana.

Peery, Prof. G(eorge) G(ose), 96 High St, Salem, Va. *Biology.* Burkes Garden, Va, 84. A.B, Roanoke Col, 05, A.M, 07; Hopkins, 10–12. *Prof. biol, Roanoke Col, 11–*

Peery, Prof. Thomas M(artin), 1335 H St, N. W, Washington, D. C. *Human pathology.* Lynchburg, Va, Aug. 24, 09. A.B, Newberry Col, 28; M.D, Med. Col. State of S. C, 32. Instr. *path,* Med. Col. State of S. C, 34–38; asst. prof, *George Washington,* 38–42, *assoc. prof, 43–* Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Wash. Soc. Path. (pres, 41–). Heart disease; tumors.

Peery, Lieut. Trusten Edwin, Stephens College, Columbia, Mo. *Geology.* Albany, Mo, April 12, 04. A.B, Missouri, 31, A.M, 32, Ph.D, 40. Instr. *geol,* Christian Col, 34–36; *prof, Stephens Col, 36–; lieut, U. S. Naval Res, 42–* Instr, Missouri, 35–36. Summers, ranger naturalist, Yellowstone Nat. Park, 32–40; asst. prof, Missouri, 41, 42. Mo. Acad. (chairman geol. and geog. sect, 42–). Stratigraphy; paleontology; conodonts of the Snyder Creek shale; stratigraphy of the Fulton, Missouri, quadrangle.

Peet, Prof. Bert William, 128 Normal St, Ypsilanti, Mich. *Chemistry.* Chesaning, Mich, March 16, 71. B.S, Mich. State Col, 92; M.S, Michigan, 98; Columbia. Teacher, high sch, Mich, 92–97; instr. chem, Mich. State Nor. Col, Ypsilanti, 99–05, asst. prof, 05–09, assoc. prof, 09–12, prof, 12–41, head dept, 16–41; *retired.* Assoc. ed, 'Sch. Science and Math,' 05–16. Chem. Soc; Mich. Chem. Col. Teachers Asn. (pres, 26–28). Adulteration of foods; chemistry of foods; chemical education.

Peet, Dr. Louise J(enison), 2833 Ross Road, Ames, Iowa. *Home economics.* Cambridge, Mass, Sept, 85. A.B, Wellesley Col, 08, A.M, 11; Zurich, 12–13; Ph.D, Iowa State Col, 29. Constantinople Col, 10–12, 13–14; curator chem, Wellesley Col, 14–16; assoc. prof. foods and nutrition, *Iowa State Col,* 29–30, *prof. household equipment and head dept, 30–* Mem. faculty, Constantinople Col, 38–39. Household engineering and equipment; application of heat to cooking utensils of various materials; care of meat in household refrigerators; home lighting.

Peet, Prof. Max M(inor), 2030 Hill St, Ann Arbor, Mich. *Surgery.* Iosco, Mich, Oct. 20, 85. A.B, Michigan, 08, A.M, 10, M.D, 10, hon. M.Ed, Mich. State Nor. Col, 34. Asst. instr.

zool, Michigan, 07; intern, R. I. Hosp, 10–12; Robert Robinson Porter fellow research med, Pennsylvania, 12–13, asst. instr. surg, 13–15, instr, 16; *Michigan*, 16–17, asst. prof, 18–27, assoc. prof. neurosurg, 27–30, *prof. surg, 30–, chief neurosurg. div, 18–* Asst. chief surgeon, Phila. Gen. Hosp, 14–16. Ornithologist, Univ. Mich. Museum exped, 04, 05, 07, 32. Mem, Am. Board Surg; Am. Board Neur. Surg; chairman educational cmn, Nat. Foundation Infantile Paralysis; mem. cmt. virus research, cmt. med. publication and gen. advisory cmt. Mem. Int. Neur. Cong, 31, 35. Fel. Col. Surg; Soc. Neur. Surg. (pres, 35); Neur. Asn; Surg. Asn; fel. Am. Med. Asn; Cent. Surg. Asn; hon. mem. Los Angeles Surg. Soc; hon. mem. Detroit Acad. Surg. Ornithology; medicine; neurosurgery; diseases of the brain, spinal cord and hypertension.

Peevy, Dr. Walter J(ackson), Louisiana State University, Baton Rouge, La. *Soils.* Jonesboro, La, Jan. 22, 14. B.S, Louisiana, 36; M.S, Iowa State Col, 37, Ph.D, 41. Asst. agronomist, soil conservation service, U. S. Dept. Agr, 38–41, assoc. soil scientist, 41–43; instr, *Louisiana*, 38–41, *assoc. agronomist, Exp. Sta, 43–* Soil Sci. Soc; Soc. Agron. Soil chemistry and physics; soil conservation; soil fertility.

Pegau, Prof. A(rthur) A(ugust), Rugby Road, University, Va. *Mineralogy, Petrography.* Petersburg, Va, March 17, 94. A.B, Virginia, 19, A.M, 21; Ph.D, Cornell, 24. Asst. *chem, Virginia*, 19–20, geol, 20–22, *asst. prof, 24–; mineralogist, Va. Geol. Surv, 26–* Summer, asst. geologist, Va. Geol. Surv, 20. A.A; fel. Miner. Soc; fel. Geol. Soc. Rutherford Mines in Amelia County, Virginia; pegmatites and minerals of Virginia.

Pegram, Prof. Annie M(cKinnie), Greensboro College, Greensboro, N. C. *Mathematics.* Trinity, N. C. A.B, Trinity Col. (N. C), 96, A.M, 01; Columbia. *Prof. math, Greensboro Col*, 01–04, *05–* A.A; N. C. Acad. Application of mathematics to science, especially in the fields of astronomy and chemistry.

Pegram, Dr. George B(raxton), Columbia University, New York, N. Y. **1Physics.* Trinity, N. C, Oct. 24, 76. A.B, Trinity Col. (N. C), 95, hon. Sc.D, 18; Columbia, 99–00, Ph.D, 03, hon. Sc.D, 30; Berlin; Cambridge; hon. Sc.D, George Washington, 37. Teacher, high schs, N. C, 95–99; asst. *physics, Columbia*, 00–02, tutor, 02–05, instr, 05–09, adj. prof, 09–13, assoc. prof, 13–16, *prof, 16–*, dean faculty applied science, 17–30, acting dean *grad. sch*, 36, *dean, 37–* Magnetic observer, U. S. Coast and Geod. Surv, 02–06. A.A. (chairman, B, 36); Physical Soc. (treas, 18–, pres, 41); Optical Soc; Eng. Educ. (pres, 25); Mech. Eng; assoc. Radio Eng; Inst. Physics (sec'y, 32–); N. Y. Acad; Sigma Xi (treas, 17–). Radioactivity and electromagnetic theory; neutrons and nuclear changes.

Pegrum, Prof. Reginald H(erbert), 538 Highgate Ave, Buffalo, N. Y. *Geology.* Romford, Essex, Eng, Dec. 17, 99. B.Sc, Alberta, 23; Ph.D, Princeton, 27. Asst. *geol*, Alberta, 23–24; Princeton, 24–27; instr, *Buffalo, 27–28*, asst. prof, 28–35, assoc. prof, 35–38, *prof, 38–* Field asst, Geol. Surv. Can, 22–26, asst. geologist, 27; curator, Buffalo Museum, 27–29; geologist, Int. Fish Surv, Lake Erie, 29; asst. geologist, Labrador Mining Explor. Co, Ltd, 36. Origin of alkaline rocks; sedimentation.

Pegues, Prof. B(oykin) W(itherspoon), Louisiana State University, Baton Rouge, La. *Civil engineering.* Stonewall, La, Oct. 1, 74. B.S, Louisiana, 95; Cornell, 07, 22; M.S, Wisconsin, 28. Chainman, recorder and transitman, U. S. Govt, 95–99; asst. prof. civil eng, *Louisiana*, 99–01, prof, 01–26, acting dean col. eng, 26–31, *prof. civil eng. and head dept, 31–* Mem. State Board Eng. Examiners, La, 08– Civil Eng; La. Eng. Soc.

Pehrson, Prof. E(rnest) W(illiam), University of Utah, Salt Lake City, Utah. *Mathematics.* Logan, Utah, Oct. 28, 80. A.M, California, 28. Instr. *math, Utah*, 04–14, asst. prof, 14–22, assoc. prof, 22–32, *prof, 32–* A.A; Math. Soc; Math. Asn. Difference equations.

Pelker, Dr. Alfred L(ouis), 526 Central Ave, Bound Brook, N. J. *Physical chemistry.* West Orange, N. J, Aug. 27, 03. B.S, Trinity Col. (Conn), 25, M.S, 28; T. Sterry Hunt fellow, McGill, 29–30, Ph.D, 30. Instr. chem, Trinity Col. (Conn), 30–34; *research chemist, Calco Chem. Co, 34–* Chem. Soc. Reaction kinetics; solid-liquid equilibria; the colloidal aspects and surface chemistry of dyestuffs and organic pigments; surface coating; resin emulsions.

Peller, Karl E(rnest), 16 Fernwood Road, West Hartford, Conn. *Mechanical engineering.* Hartford, Conn, Nov. 25, 83. B.S, Mass. Inst. Tech, 04. Junior engineer, Richardson Eng. Co, 04–05; asst. engineer, U. S. Metals Ref. Co, 05–07; designer, W. S. Barstow and Co, 07; engineer, J. B. Hackett Co, 08; actuarial calculator, Aetna Life Ins. Co, 09–10; asst. engineer to W. A. Lorenz, consulting engineer, 10–15; mech. engineer, Hartford-Fairmont Co, 15–22; chief engineer, *Hartford-Empire Co*, 22–36, *v. pres. and assoc. director research, 36–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Fel. Ceramic Soc; Mech. Eng; Elec. Eng; Chem. Soc; Electrochem. Soc. Glass technology; heat treatment, feeding and forming of molten glass; suspended charge method of feeding molten glass to forming machines; vapor film method of conveying molten glass; refractories for molten glass.

Peirce, Prof. Alan S(tanley), Mary Washington College, Fredericksburg, Va. *Botany.* Chicago, Ill, June 8, 09. A.B, Illinois, 32, M.S, 33, Ph.D, 36. Asst. bot, Ill. State Nat. Hist. Surv, 33–34; asst. instr, Illinois, 34–35; instr. *biol, Mary Washington Col*, 35–37, *asst. prof*, 37– Summer, prof, Mountain Lake Biol. Sta, 37. Bot. Soc; Ill. Acad; Int. Asn. Wood Anat. Plant morphology; conifer wood anatomy; plant pathology; mycology.

Peirce, Dr. Carleton B(arnhart), Royal Victoria Hospital, Montreal, Que, Can. *Roentgenology.* Elgin, Ill, April 4, 98. Knox Col, 16–19; A.B, Michigan, 20, M.D, 24, M.S, 27. Instr. roentgenol, med. sch, Michigan, 26–27; asst. prof, col. med, Nebraska, 27–29, prof, 29–30; asst. prof, med. sch, Michigan, 30–33, acting director dept. roentgenol. and physical therapy, 30–31, assoc. prof. roentgenol, 33–38; *director dept. radiol, Royal Victoria Hosp, 38–*; hon. lecturer, *McGill*, 38–41, *assoc. prof. radiol, 41–; surgeon, lieut. commander and consultant radiologist, Royal Can. Navy, 42–* A.A; Roentgen Ray Soc. (chairman, exec. council, 36, sec'y, 37–41); Radiol. Soc. N. Amer; fel. Col. Physicians; Royal Col. Physicians and Surg. Can. (sec'y cmt. certification); Can. Asn. Radiol. (chairman cmt. interrelations, 42–); Can. Med. Asn. (director, dept. cancer control, 41–). Cholelithiasis and renal disease; undescended caecum; perforation of the small bowel; histoanatomy of bone repair; giant cell bone tumor; fuso-spirochetal pneumonia; lymphoblastoma; intrathoracic tumors; pulmonary anatomy; rickets and diet; pulmonary pneumatocele; tuberculous tracheo-bronchitis; traumatic lipoarthrosis; bronchogenic carcinoma.

Peirce, Prof. G(eorge) J(ames), Stanford University, Calif. **2Plant physiology.* Manila, P. I, March 13, 68. B.S, Harvard, 90, Parker fellow, 92–94; Ph.D, Leipzig, 94. Asst. bot, Harvard and Radcliffe Col, 90–92; asst. prof, Indiana, 95–97; *Stanford*, 97–00, assoc. prof. plant physiol, 00–10, prof. *bot*, 10–33, *emer. prof, 33–* Collaborator, U. S. Forest Service, 09–10; special agent effects of smoke on vegetation, U. S. Dept. Justice, 10–11. A.A; Bot. Soc. (pres, 32); Soc. Plant Physiol; Am. Acad; Calif. Bot. Soc. (pres, 31); Calif. Acad; Deuts. Bot. Gesell. Physiology; respiration; irritability; parasitic flowering plants; effect of smelter, other smoke and cement on vegetation; ascent of sap.

Peirce, Dr. Sidney J(ames) S(hepard), 1608 Lorne Ave, Brandon, Man, Can. *Pathology.* Southampton, Eng. B.A, Manitoba, 98, M.D, 04. Intern, Winnipeg Gen. Hosp, 04–06; vol. path. asst, Mayo Clinic, 07–08; *pathologist*, Winnipeg Gen. Hosp, 08–17; *Bigelow Clinic, Brandon, 17–* Bacteriologist, Brandon, 18–; lecturer, Man. Med. Col, 08–15, assoc. prof, 15–17. Analyst, Man. Liquor Cmn, 25– Board governors, Brandon Gen. Hosp. A.A; Asn. Path. and Bact; Soc. Control Cancer; Can. Med. Asn; Man. Med. Asn. (pres, 23); Brandon Med. Asn. (pres, 36); Int. Asn. Med. Mus. Anti-typhoid inoculation; cholesterol in bile and blood.

Peirce, W(illis) M(cGerald), New Jersey Zinc Co, Palmerton, Pa. *Metallurgy.* Buffalo, N. Y, June 20, 96. B.S, Illinois, 18; M.S, Yale, 20. From research investigator to *chief* metal research div, *N. J. Zinc Co*, 19–37, *research div, 37–* Min. and Metal. Eng. (chairman, Inst. Metals div, 35, director, 37–, v. pres, 40–43); Min. and Metal. Soc; Soc. Automotive Eng; British Inst. Metals. Non-ferrous metal; zinc alloys; die casting.

Peirson, H(enry) B(yron), Maine Forest Service, Augusta, Maine. *Entomology.* Orange, Mass, Dec. 10, 94. B.S, Mass. Col, 19; M.S, Harvard, 20. Asst. forest sch, Harvard, 20–21; state forest entomologist, *Maine*, 21–29, *state entomologist*, 29– Asn. Econ. Entom; Soc. Foresters. Forest entomology.

Pekeris, Dr. Chaim L(eib), Massachusetts Institute of Technology, Cambridge, Mass. *Geophysics.* Alytus, Lithuania, June 15, 08. B.S, Mass. Inst. Tech, 29, Guggenheim Mem. Foundation fellow, 29–31, Sc.D, 34; Oslo, 32–33. Asst. meteorol, *Mass. Inst. Tech,* 31–32, geophys, 33–34, Rockefeller fellow, 34–36, *research assoc. geophys, 36–* Physical Soc; Geophys. Union; Soc. Explor. Geophys. Heat balance in the atmosphere; atmospheric ozone; seismology; atmospheric tides; hydrodynamics.

Pellett, Frank C(hapman), Box 389, Hamilton, Ill. *Apiculture.* Atlantic, Iowa, July 12, 79. State apiarist, Iowa, 12–17; *field ed, 'Am. Bee Jour,' 18–* Asn. Econ. Entom; Iowa Acad; Apis Club, England (hon. v. pres). Productive beekeeping; practical queen rearing; American honey plants.

Pelluet, Dr. D(ixie), Dalhousie University, Halifax, N. S, Can. *Cytology.* London, Eng. B.Sc, Alberta; M.A, Toronto; Ph.D, Bryn Mawr Col, 27. Head dept. biol, Ky. State Teachers Col, Murray, 27–30; asst. prof. biol, Rockford Col, 30–31; lecturer and asst. prof. *zool, dept. biol, Dalhousie,* 31–41, *assoc. prof, 41–*

Pels, Dr. Isaac R(osenbaum), 1010 St. Paul St, Baltimore, Md. *Dermatology.* Baltimore, Md, Oct. 8, 81. A.B, Hopkins, 02, M.D, 06. *Assoc. clin. dermat, Hopkins, 20–, asst. visiting dermatologist, Hopkins Hosp, 27–* Consulting and visiting dermatologist, Union Mem. Hosp; Church Home and Infirmary; Sinai Hosp; St. Agnes Hosp; City Hosp; lecturer, Hopkins Hosp; Union Mem. Hosp; Hosp. for Women of Md. Dermat. Asn; Am. Med. Asn; South. Med. Asn; Med. and Chirurg. Faculty Md; Baltimore and Wash. Dermat. Soc. Phytopharmacology of certain dermatoses; clinical dermatology.

Pelsor, Dr. Gene T(homas), University of New Mexico, Albuquerque, N. Mex. *Physics.* Los Angeles, Calif, Oct. 1, 12. A.B, Colo. Col, 35; M.S, Oklahoma, 37, Ph.D, 41. Asst. physics, Oklahoma, 35–37, instr, 37–40; geophysicist, Stanolind Oil and Gas Co, 40–41; *instr. physics, New Mexico, 41–* Physical Soc; Asn. Physics Teachers. The ultra-violet absorption spectrum of CS_2; band spectroscopy.

Peltier, Prof. Geo(rge) L(eo), University of Nebraska, Lincoln, Nebr. *Plant pathology.* Merrill, Wis, May 8, 88. A.B, Wisconsin, 10; A.M, Washington (St. Louis), 12; Ph.D, Illinois, 15. Teacher, high sch, Wis, 10–11; teaching fellow, Shaw sch. bot, Washington (St. Louis), 11–12; assoc. floricul. path, Illinois, 12–16; prof. plant path, Ala. Polytech, and plant pathologist, Exp. Sta, 16–20; *prof.* plant path, *Nebraska,* 20–37, *bacter, 37–, chairman dept, 37–,* plant pathologist, Exp. Sta, 20–37. Summers, agent, bur. entom, U. S. Dept. Agr, 11, plant pathologist, bur. plant indust, 22, 24, 26, agent, 19–20, senior pathologist, 35, senior botanist, 38. Assoc. ed, 'Phytopath,' 19–22, 31–33, 41– A.A; Phytopath. Soc; Soc. Bact; Nebr. Acad. (pres, 27). Diseases of floricultural and ornamental plants; Rhizoctonia; citrus canker; stem rust of wheat; Ozonium; resistance of alfalfa to bacterial wilt; relation of environment to disease; nature of cold resistance in crop plants; bacterial fermentations.

Peltier, Leslie C(opus), Delphos, Ohio. *Astronomy.* Delphos, Ohio, Jan. 2, 00. High sch. *Draftsman and cost accountant, Delphos Bending Co.* Donohoe comet medals, 25, 30, 32–33, 36, 37, 39; Am. Asn. Variable Star Observers award, 34; Comet medal, Astron. Soc. Pacific, 37. Astron. Soc; Asn. Variable Star Observers (v. pres, 32). Variable stars and novae; comets; telescopic meteors; aurora borealis.

Pelton, W(ard) C(leveland), University of Tennessee, Knoxville, Tenn. *Horticulture.* Erie, Pa, Aug. 27, 88. B.S, Pa. State Col, 11; M.S, Delaware, 25. Asst. horticulturist, Exp. Sta, Del. Col, 11–13; exten. expert market gardening, Rutgers, 13–14; agr. agent, Sussex County, Del, 14–17; investigator olericulture, Conn. Exp. Sta, 17–20; prof. veg. gardening, Pa. State Col, 20–23; instr. hort, rehabilitation div, Delaware, 23–25; *exten. horticulturist, Tennessee, 25–* Soc. Hort. Sci. Cover crops; uniformity of crops.

Pelzer, Dr. Karl J(osef), Johns Hopkins University, Baltimore, Md. *Geography.* Oberpleis, Germany, Feb. 23, 09. Ph.D, Bonn, 35. Asst, Council For. Relations, New York, 36–37; instr, exten. div, California, 38; research assoc, Walter Hines Page sch. int. relations, Hopkins, 38–40; research assoc, Inst. Pacific Relations, 40–41; *Walter Hines Page sch. int. relations, Hopkins,* 41–42, *assoc. geog,* 42– Am. Geog. Soc; Inst. Pacific Relations. Anthropogeography; migration; land settlement; southeastern Asia.

Pemberton, C(yril) E(ugene), Experiment Station, Hawaiian Sugar Planters' Association, Honolulu, Hawaii. *Entomology.* Los Angeles, Calif, Aug. 12, 86. A.B, Stanford, 11. Agent and expert, bur. entom, U. S. Dept. Agr, 11, sci. asst, 12–16, entom. asst, 16–18; asst. entomologist, *Exp. Sta, Hawaiian Sugar Planters' Asn,* 19–23, assoc. entomologist, 23–28, *entomologist, 28–* Rodent control, Hawaiian cane fields, 23–24; commissioner, Hawaii Board Agr. and Forestry, 43– Beneficial insect explor. and collection, Australia and Fiji, 21–22, Malay Archipelago, 25–26, New Guinea and New Britain, 28–29, Malay Peninsula, 30–31; Am. sugar cane exped, New Guinea, 28. A.A; Asn. Econ. Entom; Hawaiian Entom. Soc. (pres, 18, 33); Asn. Hawaiian Sugar Technol. (pres, 37); Hawaiian Acad; Int. Soc. Sugar Cane Technol. Citrus fruit and sugar-cane insects; fruit-flies in Hawaii.

Pemberton, Dr. John de J(arnette), Mayo Clinic, Rochester, Minn. *Surgery.* Wadesboro, N. C, May 3, 87. A.B, North Carolina, 07; LL.D, 32; M.D, Pennsylvania, 11; M.S, Minnesota, 18. *Surgeon, Mayo Clinic, 18–;* assoc. prof. *surg, Mayo Foundation, Minnesota,* 27–36, *prof, 36–* Am. Board Surg. A.A; Col. Surg; Am. Med. Asn; Surg. Asn; Soc. Clin. Surg; Asn. Study Goiter (pres, 41); South. Surg. Asn; Int. Soc. Surg. General surgery; surgery of the thyroid gland.

Pemberton, Dr. Ralph, 2031 Locust St, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Sept. 14, 77. B.S, Pennsylvania, 98, M.S, 99, M.D, 03, Woodward fellow, 08–10; Berlin, 11; Strasbourg, 12. Asst. visiting neurologist, Phila. Gen. Hosp, 05–08; outpatient physician, Presb. Hosp, Phila, 05–13; asst. instr. and instr. med, Pennsylvania, 06–11; asst. visiting physician, Univ. Hosp, 10–11; visiting physician, Presb. Hosp, 13–33, director dept. metabolic diseases, 23–33; assoc. prof. *med, grad. sch. med, Pennsylvania,* 28–30, *prof, 31–* Physician, Abington Mem. Hosp, 33–; consultant, Chester Co. Hosp, 33– Mem. standing cmt. prev. med, Dept. Health, Phila, 21–22; nat. consultant rheumatism and arthritis, War-Time Grad. Med. Meetings. Chairman, Am. Cmt. for Control Rheumatism, 27–38, v. pres, Ligue int. contre le Rheumatisme, 33–38, pres, 38– Meritorious Service medal, Commonwealth Pa, 39. Major, M.C, 18–19. Am. Med. Asn. (council physical therapy, 26–42); fel. Col. Physicians; Soc. Clin. Invest. (treas, 20–23); Soc. Exp. Biol; Rheumatism Asn. (pres, 38); Inst. Nutrition; Acad. Physical Med; Soc. Vert. Paleont; Phila. Co. Med. Soc. (med. advisory cmt. pub. welfare, 39); Col. Physicians Phila; Physiol. Soc. Phila; hon. fel. Royal Soc. Med; hon. mem. Societatea Anatomo Clinica Bucharest; hon. mem. Liga Argentina contra el Reumatismo. Internal medicine; biochemistry; nature and treatment of arthritis and rheumatoid conditions; medicine in physical therapy.

Pence, Prof. Forrest K(izer), 1609 Scenic Drive, Austin, Texas. *Ceramic chemistry.* Sidney, Ohio, Nov. 30, 83. B.S, Ohio Northern, 03; A.B, Ohio State, 07, Cer.E, 09. Ceramic engineer, Am. Encaustic Tiling Co, 09–12; prof. ceramic eng, Ohio State, 12–13; ceramic engineer and supt. manufacture, Am. Encaustic Tiling Co, 13–21; *consulting ceramic engineer, 21–; prof. ceramic eng, Texas, 40–* Pres, Paducah Tile and Pottery Co, 23–27; proprietor, F. K. Pence Tile Works, Paducah, 27–40. Ceramic Soc; Chem. Soc; Ceramic Eng. Matness in glazes; dust pressed bodies; colors produced by nickel oxid in ceramic mixtures containing zinc; hydrated silicic acid in clays; zinc in underglaze colors containing chromium; tiles; pyrometry of clay wares; Texas raw materials in white wares; microcharacter data versus durability record on glazed flood tiles; vermiculite as a raw material in ceramic manufacture.

Pence, Dr. James O(rville), Ohio State University, Columbus, Ohio. *Chemical engineering.* Mackay, Idaho, March 9, 12. B.S, Idaho, 33, M.S, 35; Ph.D, Ohio State, 37. Asst. instr. chem, Boise Jr. Col, 33–34; asst. *chem. eng, Ohio State,* 35–37, *instr, 37–* Chem. Soc; jr. mem. Inst. Chem. Eng. Heats of solution and of dilution at high temperatures.

Pence, Prof. Leland H(adley), Reed College, Portland, Oregon. *Organic chemistry.* Kearney, Mo, Oct. 1, 11. Stanford, 28; B.S, Florida, 32; M.S, Michigan, 33, Ph.D, 37. Lecturer, demonstrator and asst, Michigan, 33–34, teaching fellow org. chem, 34–35, gen. chem, 35–37; org. research chemist org. chem, Biochem. Research Foundation, Franklin Inst, 37–39; instr. *org. chem, Reed Col,* 39–42, *asst. prof,* 42– Summers, org. research chemist, Mayo Clinic, 40; Difco Labs, 41; research fellow, Calif. Inst. Tech, 43. Chem. Soc. The syntheses and reactions of polycyclic hydrocarbons and phenanthrene derivatives; water-soluble carcinogenic hydrocarbons; organic sulfur and nitrogen compounds; sulfanilamide

derivatives; bile acids; synthetic estrogenic compounds; immunochemistry.

Pence, R(oyce) O(wen), Kansas State College, Manhattan, Kans. *Milling industry.* Sidney, Ind, June 11, 96. B.S, Kans. State Col, 24, M.S, 30, F.M.E, 35. *Assoc. prof. milling indust, Kans. State Col, and milling technologist, Exp. Sta, 27–* Asn. Operative Millers (chairman research cmt); Int. Inst. Milling Technol. (chairman standards cmt). Short time conditioning of wheat.

Pence, Prof. Sallie (Elizabeth), University of Kentucky, Lexington, Ky. *Algebraic geometry.* Lexington, Ky, Sept. 3, 93. A.B, Kentucky, 14, A.M, 28; Cornell, summers, 32, 33; Ph.D, Illinois, 37. Teacher, schs, Ky, 14–27; instr. *math,* Murray State Teachers Col, Ky, 28–29; *Kentucky,* 29–38, *asst. prof, 38–* Math. Soc; Math. Asn. The configuration of double points of cubics of a pencil.

Pencharz, Dr. Richard, University of California, Berkeley, Calif. *Biology.* Bialystok, Poland, Nov. 20, 98. A.B, California, 25, A.M, 28, Ph.D, 32. *Research assoc. zool, California, 32–* Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions. Ovarian regeneration; physiology of reproduction; relation of hypophyseal hormones to growth, reproduction and carbohydrate metabolism; experimental diabetes insipidus.

Pender, Dr. Harold, University of Pennsylvania, Philadelphia, Pa. *[*3]Electrical engineering.* Tarboro, N. C, Jan. 13, 79. A.B, Hopkins, 98, Ph.D, 01; Paris, 03; hon. Sc.D, Pennsylvania, 23. Teacher, McDonogh Sch, 01–02; instr. physics, Syracuse, 02–03; elec. engineer, Pittsburgh, 03–04; New York, 04–09; prof. theoret. and applied elec, Mass. Inst. Tech, 09–13, director research div, dept. elec. eng, 13–14; prof. in charge, *Pennsylvania,* 14–23, *dean, Moore sch. elec. eng, 23–* Ed. in chief, 'Pender's Handbook for Elec. Engineers,' 14, 36. Fel. Elec. Eng. (manager, v. pres, 15–18); Eng. Educ; Philos. Soc; Am. Acad; Franklin Inst. Electricity and magnetism for engineers; electrical convection; electric transmission of power; direct current machinery.

Pendergrass, Dr. Eugene P(ercival), 3400 Spruce St, Philadelphia, Pa. *Radiology.* Florence, S. C, Oct. 6, 95. Wofford Col, 12–14; North Carolina, 14–16; M.D, Pennsylvania, 18. Intern, *univ. hosp, Pennsylvania,* 18–19, assoc. director *dept. radiol,* 22–39, *director, 39–,* asst. prof. *radiol, grad. sch. med,* 28–37, *prof, 37–, sch. med, 36–* Gold medal, Am. Med. Asn, 29; Am. Roentgen Ray Soc, 35. Lieut, M.C, U.S.N, 18–19, lieut. commander, M.C-V(S), U.S.N.R, 35–41. Am. Med. Asn; fel. Col. Radiol. (sec'y, 37–39); Roentgen Ray Soc. (sec'y, 32–37); Soc. Control Cancer (director; mem. exec. cmt); Radiol. Soc. N. Amer; Phila. Co. Med. Soc. (pres, 43); Phila. Roentgen Ray Soc. (sec'y, 26, pres, 28); Col. Physicians Phila. (councilor, 39–42). Radiology; roentgenologic diagnosis; pneumoconiosis; encephalography.

Pendleton, Dr. Ray A(rthur), Oregon State College, Corvallis, Oregon. *Soils.* Cherokee, Iowa, July 9, 97. B.S, Oregon State Col, 28; M.S, Iowa State Col, 28, Ph.D, 30. Asst. soil technologist, bur. chem. and soils, and later *assoc. soil technologist, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Soc. Agron. Sodium nitrate as a fertilizer for corn and small grain on Iowa soils; nitrate assimilation in soils; sugar beet fertilization on humid and peat soils; sugar beet seed production.

Pendleton, Dr. Robert L(arimore), U. S. Department of Agriculture, Washington, D. C. *Soil science.* Minneapolis, Minn, June 25, 90. B.S, California, 14, fellow, 16–17, Ph.D, 17. Asst. soil surv, California, 14–15; instr. soils, Ewing Christian Col, India, 18; asst. and officiating director agr, Gwalior State, India, 19–21, director, 21–23; prof. soil technol, col. agr, Philippines, 23–35, head dept. soils, 30–35; *soil technologist and agriculturist, Royal Dept. Agr. and Fisheries, Siam,* 35–42; *prin. soil technologist, office for. agr. relations, U. S. Dept. Agr, 42–* Chief soil technologist, Nat. Geol. Surv, China, 31–33; consultant, U. S. War Dept, 42–43. Indian Cent. Cotton Cmt, 21–23; Indian Board Agr, 19–23. Mem. Nat. Research Council, P. I, 34–37. Capt, C.W.S.R. A.A; Soc. Agron; Chem. Soc; fel. Geol. Soc. China. Soil surveys; tropical soils; soil fertility and classification in the Orient; soils of central India, the Philippines, China and Siam.

Pendleton, T(homas) P(ercy), U. S. Geological Survey, Washington, D. C. *Topography.* Nicolaus, Calif, Sept. 25, 85. California, 11. Topographer, Pacific Coast states, U. S. Geol. Surv, 09–17, Mt. McKinley Nat. Park, Alaska, 19, special mission to Turkey and Balkan States, 20, chief sect. photog. mapping, 21, topographer, special mission to Palestine and Balkan States, 22, chief sect. photog. mapping, 23–26; chief engineer, Brock and Weymouth, Inc, Phila, 26–32; Aerotopograph Corp. of Amer, Wash, D. C, 32–33; chief photocompiler, U. S. Coast and Geod. Surv, 33–34; asst. sect. chief in charge, Tenn. Valley Authority cooperative mapping program, *U. S. Geol. Surv,* 34–40, chief sect. photo mapping and later *chief topog. engineer, 40–* Lieut, E.O.R.C, 18. Civil Eng; Soc. Photogrammetry (past pres); Am. Geog. Soc; Cong. Surv. and Mapping; Wash. Acad; Can. Inst. Surv. Topographic and planimetric mapping; photogrammetry.

Pendray, G(eorge) Edward, 966 Summer Place, Mt. Lebanon, Pa. *Engineering.* Omaha, Nebr, May 19, 01. A.B, Wyoming, 24, LL.D, 43; A.M, Columbia, 25. Science ed, 'Herald Tribune,' New York, 30–32; 'Literary Digest,' 32–36; *asst. to pres, Westinghouse Elec. and Mfg. Co, 36–,* chairman time capsule cmt, 38. Ed. director, Milk Research Council, N. Y, 31–36. Mem. science talent search cmt, Science Clubs of Amer, 42– A.A; Eng. Educ; Newcomen Soc; Rocket Soc. (pres, 33–36, sec'y, 36–); Soc. Research on Meteorites; Royal Astron. Soc. Can. Reaction motors; popularization of science; rocket development; construction and history of telescopes; science education.

Penfield, Prof. Wilder, Montreal Neurological Institute, Montreal, Que, Can. *Neurology.* Spokane, Wash, Jan. 26, 91. Litt.B, Princeton, 13; Rhodes scholar, Oxford, 14, B.A, 16, B.Sc, M.A, 20, D.Sc; M.D, Hopkins, 18; Beit Mem. fellow, 20; Harvard; Edinburgh; St. Bartholomew's, London. Asst. prof. surg, col. physicians and surg, Columbia, 20–28; neurosurgeon, Royal Victoria and Montreal Gen. Hosps; *prof. neur, McGill, 28–; director, Montreal Neurol. Inst.* Asst. surgeon, Neur. Inst, New York, 25–28; assoc. attending surgeon, Presb. Hosp, New York, 20–28. Neur. investigation, Spain, 24, Germany, 28. Ed, 'Archives Neur. and Psychiat.' A.A; Neur. Asn; Asn. Research Nervous and Mental Disease (pres, 37); Soc. Clin. Surg; Surg. Research Soc; Can. Med. Asn; fel. Royal Soc; fel. Royal Soc. Can; fel. Royal Col. Surg. (pres, Can, 30, 41). Neuropathology; neurophysiology; neurosurgery; epilepsy; brain tumors; traumatic headache; spina bifida; epilepsy and cerebral localization.

Penfound, Prof. W(illia)m T(heodore), Tulane University, New Orleans, La. *Plant ecology.* Elyria, Ohio, Nov. 8, 97. A.B, Oberlin Col, 22; A.M, Illinois, 24, Ph.D, 31; Rutgers, 38. Asst. plant ecol, Illinois, 23–24, 25–26, asst. prof. *bot, Tulane,* 27–31, assoc. prof, 37–39, *prof, 39–* Asst. prof, Iowa State Teachers Col, Cedar Falls, 24–25. Summers, field asst, Alpine Lab, Carnegie Institution, 23–26; plant ecologist, Tenn. Valley Authority, 37. Ecol. Soc; Bot. Soc; La. Acad; New Orleans Bot. Soc. (pres, 30, 34); New Orleans Acad. Ecological anatomy; hay fever plants; vegetation of Louisiana; bryophytes.

Penick, D(ixon) B(rown), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Austin, Texas, Dec. 24, 02. B.S, Texas, 23, A.B, 24; A.M, Columbia, 27. *Mem. tech. staff, Bell Tel. Labs, 24–* Radio Eng. Noise in vacuum tubes; stabilized direct current amplifier circuits; low-grid-current vacuum tubes; development of carrier telephone systems.

Peniston, Dr. Q(uintin) P(earman), Corn Products Refining Co, Argo, Ill. *Organic chemistry.* Seattle, Wash, Dec. 8, 10. B.S, Washington (Seattle), 31; M.S, Mass. Inst. Tech, 33; Ph.D, McGill, 39. *Research chemist, Corn Products Ref. Co, 39–* A.A; Chem. Soc. Carbohydrate chemistry.

Penland, Prof. C(harles) William (Theodore), 1106 N. Weber St, Colorado Springs, Colo. *Biology.* Baggs, Wyo, Dec. 5, 99. A.B, Wyoming, 20; Thayer fellow, Harvard, 21–22, A.M, 22, Ph.D, 25. Instr. biol, Colo. Col, 22–24; Austin teaching fellow, Harvard, 24–25; asst. prof, *Colo. Col,* 25–28, assoc. prof, 28–31, *prof. bot, 31–* Summers, asst, Carnegie Institution, 26–30. A.A; Bot. Soc; Colo-Wyo. Acad. Cytology, morphology, taxonomy and ecology of the seed plants.

Penn, George H(enry), Jr, 3124 General Pershing St, New Orleans, La. *Aquatic biology.* New Orleans, La, Nov. 20, 18. B.S, Tulane, 39, M.S, 41. Asst. zool, Tulane, 39–41; field biologist, State Dept. Conservation, La, 41–42; *U. S. Navy, 42–, ensign.* A.A; Soc. Ichthyol. and Herp; La. Acad; Tenn. Acad. Life history of aquatic animals; herpetology; parasitology.

Penn, Prof. John C(ornelius), 10120 Lafayette Ave, Chicago, Ill. *Civil engineering.* Netherlands, Nov. 26, 81. B.S, Armour Inst. Tech, 05, C.E, 10. Asst. city engineer, Chicago.

05–10; instr. *civil eng, Ill. Inst. Tech,* 10–14, asst. prof, 14–18. assoc. prof, 18–21, *prof, 21–,* director dept, 34–37, asst. to dean eng. and examiner, 21–27, acting dean, 27, dean, 28–33. Civil Eng; Eng. Educ; Am. Geog. Soc; West. Soc. Eng; Ill. Soc. Eng. Sanitary engineering; surveying; history of public land survey.

Penn, Dr. Leo G, 1501 N. Sixth St, Philadelphia, Pa. *Pharmacy.* Odessa, Russia, Sept. 24, 79. Ph.G, Temple, 13, Ph.D, 17. *Instr. theory and practise of pharmacy, Temple, 18–* A.A; Pharmaceut. Asn; Am. Druggists; Pa. Pharmaceut. Asn. Theory and practise of pharmacy; problems of pharmacists.

Pennak, Prof. Robert W(illiam), University of Colorado, Boulder, Colo. *Zoology.* Milwaukee, Wis, June 13, 12. B.S, Wisconsin, 34, M.S, 35, Ph.D, 38. Asst. zool, Wisconsin, 34–38; instr. *biol, Colorado,* 38–40, asst. prof, 40–43, *assoc. prof, 43–* Ecol. Soc; Soc. Zool; Limnol. Soc; Micros. Soc; Soc. Study Speciation; Colo-Wyo. Acad. Limnology; fresh-water invertebrates; microscopic metazoa of sandy beaches; Rotatoria; animal ecology at high altitudes.

Pennell, Dr. Francis W(hittier), Academy of Natural Sciences, Philadelphia, Pa. *⁶*Botany.* Wawa, Pa, Aug. 4, 86. B.S, Pennsylvania, 11, Ph.D, 13, fellow, 13–14. Assoc. curator, N. Y. Bot. Garden, 14–21; *curator plants, Acad. Nat. Sciences, Phila, 21–* Lecturer, Pennsylvania. Bot. expeds, U. S, 12, 13, 15, 17, 20, 23, 25, 27, 31, 37, 38, 40, Colombia, 17–18, 22, Peru and Chile, 24–25, Mex, 34, 35. A.A; Bot. Soc; Soc. Plant Taxon; Torrey Bot. Club (sec'y-treas, 19–21); Phila. Bot. Club. Scrophulariaceae.

Pennell, Dr. Robert B(rown), 119 Overhill Road, Springfield, Pa. *Biological chemistry.* Berrien Springs, Mich, March 27, 09. B.S, Mich. State Col, 30, M.S, 32, Ph.D, 37. Asst. bacter, Mich. State Col, 34–39; *research chemist immunochem, Sharp and Dohme, 39–* Soc. Bact. Chemical fractionation of the Brucella group of organisms; chemistry of antitoxins, antisera and blood plasma products.

Pennell, Walter O(tis), 69 Court St, Exeter, N. H. *Engineering.* Exeter, N. H, Jan. 13, 75. B.S, Mass. Inst. Tech, 96. Teacher elec. eng, Lafayette Col, 96–98; asst. engineer, Bell Tel. Co, Phila, 98–02; engineer, Am. Tel. and Tel. Co, Boston, 02–03; chief engineer, Mo. and Kans. Tel. Co, Kansas City, 03–12; building and equipment engineer, Southwest. Bell Tel. Co, 12–16, acting chief engineer, 16–18, chief engineer, 18–36; *retired.* Mem, Legislature, N. H, 39–42. Special research assoc, Harvard, 41–42. Pres, St. Louis Elec. Board Trade, 31; v. pres, Exeter Hosp. Corp; past director, New Eng. Council. Fel. Elec. Eng; Math. Asn; Eng. Club St. Louis (pres, 30). Electrical engineering; mathematics.

Penner, Dr. Lawrence R(aymond), University of Connecticut, Storrs, Conn. *Parasitology.* Lawrence, Kans, March 29, 13. A.B, Kansas, 34, A.M, 36; Michigan, summers, 35–39; Ph.D, Minnesota, 40. Teaching asst. zool, Minnesota, 36–40; research scholar parasitol, Biol. Research Inst, Balboa Park, Calif, 40–41; *instr. zool. and parasitol, Connecticut, 41–* Summers, asst, biol. sta, Michigan, 36–39; research, Harvard Med. Sch, 40. Soc. Parasitol; Micros. Soc; Entom. Soc. Amer; West. Soc. Nat; Wilson Ornith. Club. Trematode, nematode and cestode life histories; schistosome dermatitis; parasitism in zoological gardens; parasites of muskrat; helminths.

Penney, Gaylord W(allis), 171 Orchard Road, Wilkinsburg, Pa. *Physics, Electrical engineering.* Stacyville, Iowa, Nov. 20, 98. B.S, Iowa State Col, 23; M.S, Pittsburgh, 29. Engineer, power eng. dept, *Westinghouse Elec. and Mfg. Co,* 23–29, 31, research engineer, *research labs,* 29–30, 31–36, *manager electro-physics dept, 36–; lecturer mech. eng, Pittsburgh, 28–* Elec. Eng; Physical Soc; Soc. Heat. and Vent. Eng. Heat transfer; electrostatic precipitation of dust.

Penney, Prof. James T(heophilus), University of South Carolina, Columbia, S. C. *Zoology.* Charlotte, N. C, July 1, 00. A.B, North Carolina, 21, fellow, 23–25, A.M, 25, Ph.D, 29. Instr, high sch, N. C, 21–23; teaching fellow biol, North Carolina, 23–25; instr. histol, col. med, Tennessee, 25–27; asst. zool, North Carolina, 27–29; *assoc. prof. biol, South Carolina, 29–* Soc. Zool; S. C. Acad; N. C. Acad. Cell behavior in regeneration of sponges from dissociated cells.

Pennington, Dr. L(eon) A(lfred), University of Illinois, Urbana, Ill. *Psychology.* Hart, Mich, July 12, 08. A.B, Michigan, 30, A.M, 32; fellow, Brown, 32–34, Ph.D, 34. Nat. research fellow, Chicago, 34–35; asst. prof. psychol. and sociol, West. Ill. State Teachers Col, 35–37; instr. and *asst. prof. psychol,* Arkansas, 37–38; *Illinois, 38–, gen. div, 40–; U. S. Naval Res, 42–* A.A; Psychol. Asn; Asn. Applied Psychol; Midwest. Psychol. Asn. Physiological and comparative psychology; neurology; psychopathology; general psychology and the first course.

Pennington, Dr. Mary E(ngle), 233 Broadway, New York, N. Y. *²*Chemistry.* Nashville, Tenn, Oct. 8, 72. Ph.D, Pennsylvania, 95. Fellow, Pennsylvania, 95–97; Yale, 97–98; director chem. lab, Woman's Med. Col. of Pa, 98–06; chief, Phila. Chem. Lab, 01–07; chief food research lab, bur. chem, U. S. Dept. Agr, 08–19; manager research and develop. div, Am. Balsa Co, 19–23; *private consultant and investigator perishable foods and refrig, 22–* Bacteriologist in charge, Bur. Health, Phila, 04–07; bacter. chemist, bur. chem, U. S. Dept. Agr, 05–07. Garvan gold medal, Am. Chem. Soc, 40. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Bact; Soc. Refrig. Eng; Am. Inst. Refrig. (director); Inst. Food Technol; hon. mem. Asn. Refrig. Warehouses; hon. mem. Nat. Poultry, Butter and Egg Asn; Inst. Am. Poultry Industries; Int. Inst. Refrig. Biochemistry; bacteriological chemistry; columbium and tantalum; tungsten; chemico-physiology of Spirogyra nitida; diphtheria; chemico-bacteriology of milk; physiological chemistry; chemistry, bacteriology and histology of flesh foods; food refrigeration.

Penny, Dr. John S(loyan), University of Pennsylvania, Philadelphia, Pa. *Paleobotany.* Philadelphia, Pa, Aug. 3, 14. A.B, La Salle Col, 37; univ. scholar, Pennsylvania, 38, M.S, 39, Ph.D, 42. *Asst. instr. bot, Pennsylvania, 39–* The conifers of the Magothy formation.

Pennypacker, Prof. John Y(oung), 1013 W. Lehigh Ave, Philadelphia 33, Pa. *Botany.* Kimberton, Pa, May 29, 85. B.S, Pennsylvania, 11, A.M, 12, Ph.D, 15. Instr. *bot,* Cent. High Sch. Phila, 12–15; asst. prof, *Germantown High Sch,* 15–20, *prof, 20–* Pa. Bot. Soc. Plant morphology and variation.

Pennypacker, Dr. M(iriam) I(rene), University of Pennsylvania, Philadelphia, Pa. *Zoology.* Philadelphia, Pa. B.S, Pennsylvania, 20, Ph.D, 29. *Tech. asst. zool, lab, Pennsylvania, 21–* Asst. Woman's Med. Col. of Pa, 31; Phila. Col. Pharmacy, 36– Cytology.

Penquite, Prof. R(obert), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Poultry husbandry.* La Monte, Mo, July 6, 97. B.S, M.S, Okla. Agr. and Mech. Col; Ph.D, Iowa State Col, 36. Asst. poultryman, Arizona, 22–23; assoc. prof. *poultry husbandry, Okla. Agr. and Mech. Col,* 23–41, *prof, 41–* Poultry Sci. Asn; Okla. Acad. Poultry nutrition.

Penrod, E(stel) B(urdell), 5521 Kimbark Ave, Chicago, Ill. *Physics.* North Manchester, Ind, Aug. 20, 90. B.S, Purdue, 15, M.S, 20; M.M.E, Cornell, 23. Prof. *physics,* Mt. Union Col, 16–18; instr, Purdue, 19–20; Western Reserve, 20–22; assoc. prof, Hillsdale Col, 24–34, prof, 34–42; *research engineer, Armour Research Foundation, 42–* Physical Soc; Asn. Physics Teachers; Meteorol. Soc. Heat adsorption; honorary degrees conferred by colleges and universities in the United States from 1921 to 1931.

Penrod, Lieut. Kenneth E(arl), Aero Medical Research Laboratory, Wright Field, Dayton, Ohio. *Physiology.* Blanchester, Ohio, March 30, 16. B.S, Miami (Ohio), 38; Ph.D, Iowa State Col, 42. Instr. physiol, Miami (Ohio), 40–41; *lieut, U. S. Army, and research physiologist, areo med. research lab, Wright Field, 41–* A.A. Human physiology; respiration; aviation physiology.

Pentland, Dr. A(rthur) G(erald), P. O. Box 75, Kimberley, B. C, Can. *Geology.* Carman, Man, April 11, 04. B.A, Wesley Col. (Can), 26; Manitoba, 27; M.A, Toronto, 28; Ph.D, Wisconsin, 30. Asst, Manitoba, 26–27; Toronto, 27–28; Wisconsin, 28–30; geologist, Consol. Mining and Smelting Co, Kimberley, B. C, 30–31; Compañía Minera Unificada del Cerro de Potosi, Bolivia, 31–33; *chief geologist, Consol. Mining and Smelting Co, 34–* Mineralogy; heavy minerals of the Franconia and Mazomanie sandstones, Wisconsin; occurrence of tin in the Sullivan Mine.

Pentler, Dr. C(harles) F(rederic), 160 Martin Ave, Palo Alto, Calif. *Bacteriology.* Milwaukee, Wis, Sept. 16, 10. B.S, Mass. Inst. Tech, 34; Ph.D, California, 40. Asst, Hooper Foundation Med. Research, California, 36–40; food technologist, Golden Nugget Sweets, Ltd, 41; *research bacteriologist,*

Golden State Co, Ltd, 42– A.A; Chem. Soc; Soc. Bact; Inst. Food Technol. Bacteriology of dairy products; dehydration processes.

Pentzer, W(ilbur) T(ibbils), Route 3, Box 552, Fresno, Calif. *Physiology.* Lincoln, Nebr, Sept. 8, 01. B.S, Oregon State Col, 23; M.S, Iowa State Col, 25. Junior marketing specialist, *U. S. Dept. Agr*, 26–28; asst. physiologist, *bur. plant indust*, 28–35, *physiologist, 35–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Soc. Refrig. Eng. Handling, transportation and storage of fruits and vegetables.

Peoples, Dr. James A(lexander), Jr, Apt. 7D, 35 Elk St, Hempstead, N. Y. *Physics.* Springfield, Tenn, April 20, 11. A.B, Vanderbilt, 33, M.S, 34; Ph.D, Ohio State, 38. Asst, Ohio State, 34–38; instr. physics, Lehigh, 38–40; *research, Sperry Gyroscope Co, Inc, 40–* Summers, geophys. prospecting, Reading Coal and Iron Co, 35; research, Gravity Service Co, Houston, Texas, 39. Physical Soc; Geophys. Union; Soc. Explor. Geophys. Zeeman and Paschen-Back effect of neon; geophysics; servo mechanisms.

Peoples, Prof. Joe Webb, U. S. Geological Survey, Washington, D. C. *Geology.* Nashville, Tenn, May 29, 07. A.B, Vanderbilt, 28, fellow, 28–29, M.S, 29; fellow, Northwestern, 29–30; Princeton, 31–32, Ph.D, 32. Teacher math, Peoples Tucker Sch, 24–25; teaching asst, Vanderbilt, 27–28; asst. geol, Princeton, 30–31; instr, Lehigh, 32–33; economic geologist, Phila. and Reading Coal and Iron Co, 33–35; asst. prof. *geol, Wesleyan*, 35–38, *assoc. prof, 38–;* asst. geologist, *U. S. Geol. Surv*, 39–41, geologist, 41–42, *senior geologist, 42–* Asst, Tenn. Geol. Surv, 29. A.A; Soc. Econ. Geol; Miner. Soc; Geophys. Union; Geol. Soc. Devonian stratigraphy; chromite deposits of the Stillwater complex, Montana; geophysical prospecting.

Peoples, Dr. S(tuart) Anderson, Baylor University College of Medicine, Houston, Texas. *Pharmacology.* Petaluma, Calif, Nov. 3, 07. A.B, California, 30, M.D, 34, Merck fellow, 34–35. Intern, univ. hosp, California, 33–34; Commonwealth fellow, Mandsley Hosp, London, 35–36; asst. prof. pharmacol, Louisville, 36–38; assoc. prof. physiol. and pharmacol, sch. med, Alabama, 38–43; *prof. pharmacol, col. med, Baylor, 43–* A.A; Soc. Exp. Pharmacol; Soc. Exp. Biol; Ala. Acad; fel. Int. Col. Anesthetists. Development of new anesthetics; metabolic changes induced by anesthesia.

Pepkowitz, Dr. Leonard P(aul), Rhode Island State College, Kingston, R. I. *Agricultural chemistry.* Paterson, N. J, March 23, 15. B.S, Minnesota, 39; Ph.D, Rutgers, 43. Asst. plant physiol, N. J. Exp. Sta, 40–43; *asst. chemist, Exp. Sta, R. I. State Col, 43–* Soc. Plant Physiol. Plant metabolism; plant organic acids; carotene and ascorbic acid in plants.

Peppel, Dr. William J(ennings), Experimental Station, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Sault Ste. Marie, Mich, Dec. 18, 12. B.S, Michigan, 36; Ph.D, Illinois, 39. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Isomerization of free radicals; catalysis and high pressure organic technology.

Pepper, Dr. Bailey B(reazeale), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Entomology.* Easley, S. C, March 20, 06. B.S, Clemson Col, 29; M.Sc, Ohio State, 31; Ph.D, Rutgers, 34. Asst, Ohio State, 29–31; *N. J. Exp. Sta*, 31–35, asst. entomologist, 35–42, *assoc. entomologist, 42–;* asst. prof. *entom, Rutgers*, 40–43, *assoc. prof, 43–* Entom. Soc. Amer; Asn. Econ. Entom. Economic entomology.

Pepper, Dr. Echo D(olores), University of Illinois, Urbana, Ill. *Mathematics.* B.S, Washington (Seattle), 20, M.S, 22; fellow, Chicago, 23–25, Ph.D, 25. Nat. research fellow *math*, Oxford, 25–26; instr, Bryn Mawr Col, 26–28; *Illinois*, 28–29, *assoc, 29–* A.A; Math. Soc; Math. Asn; London Math. Soc. Analysis; theory of probability; theory of numbers.

Pepper, J(ames) H(ubert), Montana State College, Bozeman, Mont. *Zoology, Entomology.* Argentine Republic, Dec. 17, 02. B.S, Alberta, 31; M.S, Mont. State Col, 32; Ph.D, Minnesota, 42. *Asst. entomologist, Exp. Sta, Mont. State Col, 32–* Asn. Econ. Entom; Entom. Soc. Amer. Insecticides; insect physiology.

Pepper, J(ohn) O(scar), Pennsylvania State College, State College, Pa. *Entomology.* Pickens Co, S. C, June 9, 02. B.S, Clemson Col, 23; M.S, Ohio State, 25. Exten. entomologist, Clemson Col, 26–28; asst. exten. entomologist, Pa. State Col, 28–30; advanced entomologist, State Dept. Agr, Pa, 31–34; *assoc. exten. entomologist, Pa. State Col, 34–* Asn. Econ. Entom; Entom. Soc. Economic entomology; Heteroptera; Homoptera; Aphididae.

Pepper, Dr. O(liver) H(azard) Perry, University of Pennsylvania Hospital, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, 84. B.S, Pennsylvania, 05, M.D, 08. Asst. prof. med, *Pennsylvania*, 20–28, *prof.* clin. med, 28–34, *med, 34–*, asst. chief *med. clinic*, 28–37, *chief, 37–* Chairman cmt. med, div. med. sciences, Nat. Research Council. Mem. board for investigation and control epidemic diseases in the United States Army. Am. Med. Asn; Am. Physicians; Col. Physicians; Soc. Exp. Biol; Soc. Clin. Invest; Clin. and Climat. Asn; Col. Physicians Phila. (pres); Path. Soc. Phila. Hematology; clinical aspects of internal medicine.

Pepper, Prof. Paul M(ilton), University of Notre Dame, Notre Dame, Ind. *Mathematics.* Kendallville, Ind, May 16, 09. A.B, Indiana, 31, A.M, 32; Ph.D, Cincinnati, 37. Taft teaching fellow *math*, Cincinnati, 32–37, instr, 37–38; *Notre Dame*, 38–40, asst. prof, 40–43, *assoc. prof, 43–* Math. Soc; Math. Asn. Metric geometry.

Pepper, Dean William, 1112 Prospect Ave, Melrose Park, Philadelphia, Pa. *Medical education.* Philadelphia, Pa, 74. A.B, Pennsylvania, 94, M.D, 97, hon. Sc.D, 32; LL.D, Temple, 42. Asst. prof. clin. path, *Pennsylvania*, 08–18, *dean sch. med, 12–* Pres. board trustees, Phila. Free Library. A.A; Am. Med. Asn. (council on med. educ. and hosps, 17–27); Philos. Soc.

Peppler, Dr. H(enry) J(ames), Kansas State College, Manhattan, Kans. *Agricultural bacteriology.* Saratov, Russia, Nov. 29, 11. B.S, Wisconsin, 36, M.S, 38, Ph.D, 39. Asst, Wisconsin, 37–39; *instr. bacter, Kans. State Col, 39–* Soc. Bact. Physiology of microorganisms.

Percival, Prof. W(alter) C(lement), West Virginia University, Morgantown, W. Va. *Forestry.* Jericho, Vt, June 25, 01. B.S, Syracuse, 23, M.S, 26, Ph.D, 33. Instr. forest bot, N. Y. State Col. Forestry, Syracuse, 26–33; cultural foreman, U. S. Forest Service, 33, dist. ranger, 34; asst. prof. *forestry, West Virginia*, 34–37, assoc. prof, 37–39, *prof. and head dept, 39–*, assoc. forester, *Exp. Sta*, 37–39, *forester, 39–* Land-planning consultant, U. S. Dept. Interior, W. Va, 34. Soc. Foresters; Forestry Asn; Bot. Soc; Phytopath. Soc; W. Va. Forest Products Asn. (pres, 37–); W. Va. Acad. Land use; private timberland organization.

Percy, J(ames) Ward, U. S. Steel Corporation, Research Laboratory, Kearny, N. J. *Physics, Physical chemistry.* Port Huron, Mich, Dec. 1, 00. B.S, Mich. State Col, 23, M.S, 26, Met.E, 30. Metal. engineer, Gen. Motors Corp, 23–25; asst, Mich. State Col, 25–26; chief metallurgist, Republic Steel Corp, 28–31; research metallurgist, Republic Steel Co. Subsidiary, 26–28, 31–32; engineer, U. S. War Dept, 33–34; *research metallurgist, U. S. Steel Corp, 35–; capt, U. S. Army.* Soc. Metals; Iron and Steel Eng. Grain growth; properties of alloy steels; heat transfer; plant practise; combustion and heating; pyrometry.

Perdew, W(illiam) E(dward), 335 W. Lewis St, Wichita, Kans. *Chemical engineering.* Monte Vista, Colo, May 22, 89. A.B, Stanford, 11. Chemist and chem. engineer, South. Pacific Ry. Co, 11–17; chem. engineer, U. S. Bur. Mines, 17–19; Union Petrol. Co, Pa, 19–24; Derby Oil Co, 24–27; *consultant, Winkler-Koch Eng. Co, 27–* Mem. Inter-Allied Cmns. on Petrol. Chem. Soc; Soc. Test. Mat; Petrol. Inst; Chemists' Club. Petroleum technology; oil shale; cracking.

Peretti, Dr. Ettore A(lex), Columbia University, New York, N. Y. *Metallurgy.* Meaderville, Mont, April 5, 13. B.S, Mont. Sch. Mines, 34, fellow, 34–35, M.S, 35; int. exchange fellow, Wuerttemberg Inst. Tech, Germany, 35–36, D.Sc, 36. Instr. *metal*, Mont. Sch. Mines, 36–39, *asst. prof*, 39–40; *sch. mines, Columbia, 40–* Min. and Metal. Eng; Eng. Council Professional Develop. (junior cmt. professional develop). Diffusion in the solid state; binary phase diagrams.

Perisho, Prof. Floyd W(arder), Colorado State College, Ft. Collins, Colo. *Chemistry.* New Providence, Iowa, Nov. 28, 83. B.S, Penn Col. (Iowa), 08; M.S, Iowa, 23, Ph.D, 30. Gen. sec'y, Y.M.C.A, Okla. Col, 10–11; prof. science and math, Nebr. Cent. Col, 08–10, 11–15, acting pres, 12–13; *prof. chem. and head dept*, Pacific Col. (Oregon), 15–33; William Penn Col, 33–37; *Colo. State Col, 37–* Chem. Soc; Iowa Acad. Water chemistry; relative concentration of negative ions in different parts of an electro-osmose apparatus.

Perkins, A(lbert) E(dward), Ohio Agricultural Experiment Station, Wooster, Ohio. *Dairying.* Natural Bridge, N. Y. B.S, Syracuse, 06; M.S, Missouri, 11. With Halcomb Steel Co, 06–07; dairy div, U. S. Dept. Agr, 07–11; *asst. and assoc. dairy indust, Ohio Exp. Sta, 11–* Chem. Soc; Dairy Sci Asn. Biochemistry; protein requirements of dairy cows; effect of different protein levels on metabolism; composition of milk and body fluids; silage and pasture investigations.

Perkins, Prof. Alfred T(homas), Kansas State College, Manhattan, Kans. *Soil chemistry.* Lansdowne, Pa, Jan, 98. B.S, Pa. State Col, 20; M.S, Rutgers, 22, Ph.D, 23. Asst. prof. *soil chem, Kans. State Col,* 25–33, assoc. prof, 33–38, *prof, 38–* Chem. Soc. (sec'y-treas, local sect); Soc. Agron; Kans. Acad; Int. Soc. Soil Sci. Base exchange in soils; soil solutions; adsorption; soil structure; soil formation.

Perkins, Beauregard, Jr, Box 2038, Pittsburgh, Pa. *Physics.* Covington, La, Nov. 12, 95. B.S, Tulane, 16. Instr. physics, Tulane, 19–20; Pittsburgh, 20–24; asst. prof, Louisiana, 24–29; *geophysicist, Gulf Research and Develop. Corp, 29–; lieut. commander, U. S. Naval Res, 42–* Physical Soc. Band spectra; seismology.

Perkins, Dr. Cha(rle)s A(lbert), 1715 W. Clinch Ave, Knoxville, Tenn. *[1]Physics.* Ware, Mass, Oct. 31, 58. A.B, Williams Col, 79; fellow, Hopkins, 83–84, Ph.D, 84. Prof. math, Lawrence Col, 80–81; asst. physics, Hopkins, 84–87; assoc, Bryn Mawr Col, 87–91; prof, Hampden-Sydney Col, 91–92; physics and elec. eng, *Tennessee,* 92–07, *elec. eng,* 07–41, *emer. prof, 41–, consultant, eng. exp. sta.* Del, Nat. Conf. Electricians, Phila, 84. Fel. Elec. Eng. Magnetism of nickel; vapor tension of sulfuric acid; electricity; magnetism.

Perkins, Prof. Donald L(ee), Wayne University, Detroit, Mich. *Mechanical engineering.* Toledo, Ohio, Feb. 1, 95. B.S.E, Michigan, 17, M.S.E, 22, M.E, 27. Foreman, Fore River Shipbuilding Corp, 17–18; Fed. Shipbuilding Co, 18–21; asst. prof, Michigan, 22–28; director mfg. methods, Gen. Motors Inst, 28–29; *prof. in charge mech. eng, Wayne, 29–* Mech. Eng; Eng. Educ. Metal cutting; factory organization.

Perkins, Prof. Earle B(ryant), Rutgers University, New Brunswick, N. J. *Zoology.* South Portland, Maine, May 21, 01. B.S, Bowdoin Col, 23, hon. M.S, 35; A.M, Harvard, 26, Ph.D, 27. Asst. *zool,* Harvard, 23–26, Austin teaching fellow, 26, 27; instr, *Rutgers,* 27–28, *asst. prof, 28–, director dept. biophotog, 38–; lieut, U. S. Naval Res, 42–* Summers, asst, Bur. Fisheries, 26–27; research biologist, oyster investigation lab, N. J. Exp. Sta, 29–31. Zoologist, Byrd Antarctic exped, 33–35. Chromatophore physiology; educational motion picture films in biology and medicine; Navy training films.

Perkins, Dr. F(rancis) Theodore, Claremont Colleges, Claremont, Calif. *Psychology.* Lawrence, Kans, Jan. 3, 09. A.B, Kansas, 30, A.M, 31, Ph.D, 34. Asst. instr. *psychol,* Kansas, 30–32, instr, 32–34, *asst. prof,* 34–38; *Claremont Cols, 38–* Mem. div. child develop. and teacher personnel, cmn. teacher educ, Am. Council Educ, 40–41. Psychol. Asn; West. Psychol. Asn. Action currents of the cerebral cortex; memory for visual form; relative choice in animals; esthetics; educational psychology; reasoning; history of scientific law; child development.

Perkins, Prof. Fred W(illiam), Dartmouth College, Hanover, N. H. *Mathematics.* Malden, Mass, May 14, 98. A.B, Harvard, 21, A.M, 22, Sheldon traveling fellow, Europe, 26–27, Ph.D, 28. Instr. *math,* Harvard, 23–26; *Dartmouth Col,* 27–34, asst. prof, 34–40, *prof, 40–* Math. Soc; Math. Asn. Mathematical analysis; theory of harmonic functions.

Perkins, Dr. Granville A(kers), Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Chemistry.* Lin Ching, China, Oct. 2, 91. A.B, Cornell, 13; Ph.D, Pittsburgh, 17. Instr. chem, Porto Rico, 13–15; junior chemist, bur. chem, U. S. Dept. Agr, 15; instr. chem, Pittsburgh, 15–17; research chemist, E. I. du Pont de Nemours and Co, 17; chemist, Bur. Science, P. I, 19–22; chief chemist, Culion Leper Colony, 22–27; *research chemist,* Am. Meat Packers, 27–29; *Carbide and Carbon Chem. Corp, 29–* Lieut, C.W.S, 17–18. Chem. Soc. (chairman, Kanawha Valley sect, 31). Phthalic acid derivatives; war gases; chaulmoogra-group oils and acid; chemistry of leprosy therapy.

Perkins, Prof. Henry A(ugustus), 55 Forest St, Hartford, Conn. *Physics.* Hartford, Conn, Nov. 14, 73. A.B, Yale, 96, 00–02; E.E, A.M, Columbia, 99; Paris, 08–09; Col. de France, 21–22. Hartford Elec. Light Co, 99–00; asst. physics, Yale, 01–02; prof, Trinity Col. (Conn), 02–42, acting pres, 15–16, 19–20; *retired.* A.A; fel. Physical Soc; assoc. Elec. Eng; Explorers' Club; Am. Alpine Club; Soc. de Physique. Velocity of propagation of magnetism; theory of Wheatstone's bridge sensibility; efficiency sparking apparatus; rectification effect in Geissler tube discharge; discontinuity in electric discharges; variation of resistance of metallic films with electrostatic charge; thermodynamics; college physics; residual magnetism.

Perkins, Prof. H(enry) F(arnham), 205 S. Prospect St, Burlington, Vt. *Zoology.* Burlington, Vt, May 10, 77. A.B, Vermont, 98; Ph.D, Hopkins, 02. Instr. *zool, Vermont,* 02-05, asst. prof, 05–12, *prof, 12–, director museum.* Asst, Carnegie Institution, 03–04; sci. asst, Bur. Fisheries, 06, 08; director eugenics sury, Vt, 25– A.A; Soc. Nat; Soc. Zool; Eugenics Soc. (pres, 31–34); Audubon Soc. Morphology and embryology of Medusae; fresh-water mollusks; animal behavior; genetics; eugenics.

Perkins, Dr. James E(liab), State Department of Health, State Office Bldg, Albany, N. Y. *Public health, Epidemiology.* St. Paul, Minn, July 17, 05. M.D, Minnesota, 30; M.P.H, Hopkins, 31, Dr.P.H, 33. Epidemiologist, *State Dept. Health,* Minn, 30–33; *N. Y,* 34, dist. state health officer, 35–38, *director communicable disease div, 38–; assoc. prof. pub. health and prev. med, Albany Med. Col, 37–* Director exten. course qualifying for grade II health officers, Albany Med. Col. and State Dept. Health, N. Y, 37– Assoc. ed, 'Am. Jour. Pub. Health.' Epidemiol. Soc. Public health administrative procedures; communicable disease control.

Perkins, Dr. Jay, 272 Morris Ave, Providence, R. I. *Medicine, Anatomy.* Penobscot, Maine, Oct. 15, 64. Colby Col, 87–88; M.D, Harvard, 91; Vienna, 98. House physician, R. I. Hosp, 91–93; Boston Lying-in Hosp, 93–94; pathologist, R. I. Hosp, 94–00; demonstrator human anat, Brown, 97–05; physician to outpatients, dept. pulmonary tuber, R. I. Hosp, 00–20. Bacter. work, State Board Health, R. I, 94–05; med. examiner, Dist. No. 10, Providence County, R. I, 96–09; visiting physician, St. Joseph's Hosp, 06–24; Providence City Hosp, 15–24; consulting physician, R. I, St. Joseph's, South County and Pawtucket Mem. Hosps. Am. Med. Asn; Clin. and Climat. Asn; R. I. and Mass. Medico-Legal Soc. (pres, 97–99); Providence Tuber. League (pres, 06–38, emer. pres, 38–). Air embolism; tuberculosis; fresh-air schools; asthma; pituitary dysfunctioning.

Perkins, Prof. Llewellyn R(ood), 12 Hillcrest Road, Middlebury, Vt. *Mathematics.* Woodstock, Vt, Sept. 7, 74. B.S, Tufts Col, 98, A.B, 02, A.M, 12. Head dept. nat. science, prep. sch, Polytech. Inst. Brooklyn, 98–99, 02–03; Dean Acad, Franklin, Mass, 07–13; prof. and head dept. *math, Middlebury Col,* 13–42, *emer. prof, 42–* Elementary mathematical analysis; mathematics of finance.

Perkins, Dr. Melvin A(lfred), 185 Brandywine Blvd, Edgewood Hills, Wilmington, Del. *Organic chemistry.* Rutland, Vt, Sept. 16, 02. B.S, Middlebury Col, 22; M.S, Mass. Inst. Tech, 24, Ph.D, 27. *Research chemist,* Nat. Aniline and Chem. Co, Buffalo, 24–25; *dyestuffs, E. I. du Pont de Nemours and Co, 26–* Chem. Soc. Oxidation products of 9-phenyl uric acid; dye-stuffs of anthraquinone benzanthrone series.

Perkins, Dr. Nellie L(ouise), 208 Delaware Ave, W, Urbana, Ill. *Psychology.* Chicago, Ill, Aug. 5, 89. A.B, Michigan, 12, Ph.D, 25; Chicago, 12–14. Instr. psychol, Michigan, 14–16; director, Wayne County Psychopath. Clinic, Juvenile Court, Detroit, 16–25; prof. child develop. and director nursery sch. lab, Cornell, 25–27; *private practice, 27–; assoc. prof. child develop. and family relationships, Illinois, 40–* Exten. prof, Michigan, 21–23; special lecturer, Wayne, 27–35; psychologist, Methodist Children's Home, Detroit, 27–29; neuropsychiat. clinic, Harper Hosp, 27–35; director, Country Day Nursery Sch, Grosse Pointe Shores, 29–39. A.A; assoc. Psychol. Asn; Orthopsychiat. Asn; Council Women Psychol. Mental hygiene of childhood; psychology of learning; emotional and social development

Perkins, Dr. O(rman) C(larence), 829 Carroll St, Brooklyn, N. Y. *Medicine.* Newberg, Maine, April 23, 92. A.B, Bates Col, 15; A.M, Columbia, 17; M.D, L. I. Col. Hosp, 21. Instr. biol, Bates Col, 15–16; comp. anat, Columbia, 16–20, neur, 21–26; anat, L. I. Col. Hosp, 16–17, 20–21, bacter, 17–18, asst. prof, 21–23, assoc. prof. anat. and assoc. neur, 23–26, *prof. neur,* 26–30, *L. I. Col. Med, 30–* Attending neurologist, Brooklyn, Bushwick, Creedmore State, Kingston Ave, Caledonian, Brooklyn State, Norwegian, Swedish and Kings County Hosps; L. I. Col. Hosp, 26–; consulting neurologist, Rockaway

Beach, Victory Mem, Bethany Deaconess, Evangelical Deaconess and Cent. Islip State Hosps. Am. Med. Asn; Asn. Anat; fel. Col. Physicians; Asn. Research Nervous and Mental Disease; Brooklyn Neur. Soc; N. Y. Acad. Med; N. Y. Neur. Soc. Bacteriology; anatomy; neurology.

Perkins, Dr. Perry B(laine), Standard Life Assurance Co, St. John, N. B, Can. *Physics.* Centreville, N. B, April 16, 77. B.A, New Brunswick, 02; Harvard, 03; A.M, Yale, 04, fellow, 06–08, Ph.D, 08; Göttingen, 12. Prin, schs, Can, 95–99; Leland and Gray Sem, 04–05; prof. physics, Western Maryland Col, 05–06; substitute prof, Trinity Col. (Conn), 08–09; prof, Howard, 09–13; fellow, Sir Ernest Rutherford's lab, Manchester, 13–14; asst. prof, Brown, 14–17; prof, Mt. Allison; *manager, Standard Life Assurance Co.* Governor general's gold medal, 02. Physical Soc; N. S. Inst. Radioactivity; ionization; action of x-rays and gamma-rays on fungi.

Perkins, Dr. Ralph P(arker), Dow Chemical Co, Midland, Mich. *Chemistry.* Ocoee, Fla, July 6, 01. B.S, Florida, 23; M.S, Pa. State Col, 26; Ph.D, Northwestern, 29. Instr. chem, Northwestern, 27–28; *research chemist, Dow Chem. Co, 28–* Chem. Soc. Organic mercury compounds; commercial research and development in organic chemistry.

Perkins, Robert Loyal, 436 Oakwood Ave, East Aurora, N. Y. *Organic chemistry.* Boyne City, Mich, June 5, 90. B.S, Michigan, 15, M.S, 16. Research chemist, Parke, Davis and Co, 16–18; plant chemist, *Nat. Aniline and Chem. Co,* 18–23, research chemist, 23–30, *research group leader, 30–* Summer, instr, Michigan, 16. Chem. Soc; Inst. Chem. Determination of alcohol and water in ether for anesthesia; reagents for flotation of minerals; dyestuffs.

Perkins, Dean W(illiam) H(arvey), 1025 Walnut St, Philadelphia, Pa. *Medicine.* Germantown, Pa, Oct. 21, 94. M.D, Jefferson Med. Col, 17. Mem, Am. Presb. Mission, Siam, 19–23; Rockefeller Foundation fellow, 25–26; prof. med, Chulalongkarana, Siam, 26–30; instr, sch. med, Tulane, 30–31, prof. and director prev. med, 31–41; *prof. prev. med. and dean, Jefferson Med. Col, 41–* Order of the White Elephant, Siam, 30. Fel. Am. Med. Asn; fel. Col. Physicians; Med. Asn. Siam. Preventive medicine; role of hookworm larvae as vectors of pathogenic micro-organisms; cause and prevention of disease.

Perletz, Dr. Percy, 554 Linden Ave, Buffalo, N. Y. *Organic chemistry.* New York, N. Y, April 15, 12. B.S, Col. City of N. Y, 33; univ. fellow, Northwestern, 38–39, Ph.D, 40. *Research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 40–* Chem. Soc. Synthesis of methylketene; dyestuffs and their intermediates.

Perley, George Arthur, 4901 Stenton Ave, Philadelphia, Pa. *Chemistry.* Goffstown, N. H, Nov. 21, 86. B.S, New Hampshire, 08; M.S, Cornell, 10. Chief chemist and works manager, Albany Lubricating Co, New York, 10–11; asst. prof. and assoc. prof. chem, New Hampshire, 11–29; *chief chem. div, research dept, Leeds and Northrup Co, Phila, 29–* Consultant, Tenn. Copper Co, 20. Ordnance Dept, 17–18, capt. Chem. Soc; Electrochem. Soc; fel. Inst. Chem; Chem. Eng. Photochemistry; storage battery sulfation; rare elements; oxidation of ammonia; sulfuric acid production and hydrogen ion methods.

Perlin, Dr. I(rwin) E(arl), 544 W. Cathedral Parkway, New York, N. Y. *Mathematics, Analysis.* Russia, Dec. 1, 11. B.S, Northwestern, 32, M.S, 33; Ph.D, Chicago, 35. Asst. instr, Northwestern, 32–33; *instr. math, Ill. Inst. Tech, 37–* Math. Soc; Math. Asn. Calculus of variations; quasi-analytic functions.

Perlis, Dr. Sam, 4041 Los Feliz Blvd, Hollywood, Calif. *Mathematics.* Maywood, Ill, April 18, 13. B.S, Chicago, 34, M.S, 36, Ph.D, 38. Asst. math, Chicago, 38–39; instr, Ill. Inst. Tech, 38–41, 41–42; Michigan, 41; *senior research asst, Lockheed Aircraft Corp, 42–* Math. Soc. Algebra; maximal orders in rational cyclic algebras of composite degree; scalar extensions of algebras with exponent equal to index; a characterization of the radical of an algebra; normal bases of cyclic field of prime-power degree.

Perlman, Dr. David, College of the City of New York, New York, N. Y. *Chemistry.* New York, N. Y, Nov. 12, 09. B.S, Col. City of N. Y, 30, fellow, 30–34; A.M, Columbia, 32, Ph.D, 36. Tutor, *Col. City of N. Y,* 34–37, *instr. chem,* 37– Chem. Soc. Organic chemistry; phenanthrene; homologs.

Perlman, Dr. E(ly), 77–14 113th St, Forest Hills, N. Y. *Immunochemistry.* New York, N. Y, Nov. 11, 13. A.B, Columbia, 34; M.D, N. Y. Univ, 38; fellow, Cornell, 42. Littauer pneumonia research fellow, Harlem Hosp, 38–40, intern, 40–42; research fellow, dept. allergy, dept. med, N. Y. Hosp. and med. col, Cornell, 42; *research fellow, Rockefeller Inst. Hosp, 42–* Nature of cross reactions; theoretical studies on rates of antigen-antibody reactions; purification and electrophoretic analysis of ragweed fractions with immunological studies; C-protein and C-antibody; cold-agglutinins.

Perlman, Dr. Henry B(ernard), 950 E. 59th St, Chicago, Ill. *Otology.* Russia, July 15, 01. A.B, Wisconsin, 22; M.D, Chicago, 26. Instr. *otolaryngol, med. sch, Chicago,* 33–40, *asst. prof, 40–* Am. Med. Asn; Acad. Ophthal. and Otolaryngol. Anatomy, normal and pathological physiology of the ear; clinical problems in otology.

Perlman, J(acob) Lincoln, 41 Ryckman Ave, Albany, N. Y. *Chemistry.* Sheboygan, Wis, Feb. 3, 03. B.S, Wisconsin. Consulting chemist, Detroit Test. Lab, 27–28; *food chemist, State Dept. Agr. and Markets, N. Y, 29–* Foods; biochemistry; spray residue determination; phospholipoid distribution and stability in food products.

Perlman, Dr. Morris L(eonard), Radiation Laboratory, University of California, Berkeley, Calif. *Physical chemistry.* Detroit, Mich, Aug. 10, 16. B.S, Louisiana, 37; Ph.D, California, 40. Asst. chemist, U. S. Bur. Mines, 40–41; *research assoc, radiation lab, California, 41–* Chem. Soc. Vapor density of iodine at high temperatures.

Perlmutter, Dr. Alfred, Room 205, Post Office Bldg, Gloucester, Mass. *Aquatic biology.* New York, N. Y, Dec. 7, 14. B.S, N. Y. Univ, 34; M.S, Michigan, 36, Sc.D, 40. *Asst. aquatic biologist in charge rosefish investigations, fish and wildlife service, U. S. Dept. Interior.* Atlantic Fisheries Biol. (sec'y-treas, 40). Flounder fisheries on the American north Atlantic coast.

Perlow, Dr. Gilbert J(erome), 3808 W St, S.E, Washington, D. C. *Physics.* New York, N. Y, Feb. 10, 16. A.B, Cornell, 36, A.M, 37; Ph.D, Chicago, 40. Instr. physics, Minnesota, 40–41; *physicist,* Naval Ordnance Lab, 41–42; *Naval Research Lab, 42–* Physical Soc. X-ray spectroscopy; nuclear disintegration.

Perlow, Dr. Mina Rea J(ones), 3808 W St, S.E, Apt. 101, Washington, D. C. *Inorganic chemistry.* Harrodsburg, Ky. A.B, Centre Col, 31; M.S, Pa. State Col, 33; Ph.D, Chicago, 41. Chemist, W. Va. Pulp and Paper Co, 33–38; *assoc. indust. analyst, inorg. chem. sect, War Production Board, 42–* The lithium-lithium hydride-hydrogen equilibrium.

Perlzweig, Prof. W(illiam) A(lexandre), Duke Hospital, Durham, N. C. *Biochemistry.* Ostrog, Russia, April 23, 91. B.S, Columbia, 13, A.M, 14, Ph.D, 15. Asst. biochem, Columbia, 13–16; director chem. lab, Beth Israel Hosp, 16; asst. chemist, Rockefeller Inst. Hosp, 16–17; biochemist, U. S. Pub. Health Service, 19–21; instr. and assoc. med, Hopkins, and chemist, med. clinic, Hopkins Hosp, 21–30; *prof. biochem, sch. med, Duke, and biochemist, Duke Hosp, 30–* Lieut, Sanit.C, 17–19. A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Pathological chemistry; immunochemistry; mineral metabolism; vitamins.

Permar, Prof. H(oward) H(enry), Division of Laboratories, Mercy Hospital, Pittsburgh, Pa. *Pathology, Bacteriology.* Pittsburgh, Pa, Aug. 27, 89. M.D, Pittsburgh, 12. House pathologist, Mercy and Magee Hosps, Pittsburgh, 13–16; instr. *path, Pittsburgh,* 16–19, asst. prof, 19–22, *assoc. prof, 22–* M.C, 17–18, major. Asn. Path. and Bact; Soc. Bact; Soc. Exp. Path; Soc. Exp. Biol. Phagocytic mononuclear wandering cells in lung tissue; tularemia; psittacosis; pneumonia.

Pernert, Dr. John C(arl), Oldbury Electro-Chemical Co, Niagara Falls, N. Y. *Organic chemistry.* St. Louis, Mich, Oct. 15, 98. B.S, Michigan, 23, M.S, 24, Ph.D, 25. Research and develop. chemist, Phosphorus Compounds Co, 25–27; *chief research chemist, Oldbury Electro-Chem. Co,* 27– A.A; Chem. Soc; Electrochem. Soc. Methyl biphenyls; free radicals.

Perrey, J(oseph) I(rving), 305 N. Eighth, Pawnee, Okla. *Civil engineering.* Ft. Wayne, Ind, Aug. 20, 04. B.S, Purdue, 27. Junior engineer, water resources branch, U. S. Geol. Surv, 27–29, asst. engineer, 29–34, assoc. engineer, 34–41; *major, Field Artil, U. S. Army, 41–* Assoc. Civil Eng; Geophys. Union. Hydrological engineering; stream flow.

Perrin, Prof. F(leming) A(llen) C(lay), University of Texas, Austin, Texas. *Psychology.* La Harpe, Ill, April 29, 84. Ph.B, Chicago, 09, Ph.D, 13. Instr. *psychol,* Pittsburgh, 12–14, asst. prof, 14–17; adj. prof, *Texas,* 17–25, *prof,* 25– A.A; Psychol. Asn. The learning process; character analysis; mental tests; social psychology.

Perrin, Dr. Francis H(enri), Columbia University, New York, N. Y. *Physical chemistry.* Paris, France, Aug. 17, 01. D.Sc, Paris, 28. Prof. theoret. physics, Paris, 36–41; *visiting prof. chem, Columbia, 41–* Physical Soc. Fluorescence; solutions of large molecules.

Perrin, Dr. Fred (Hiram), Eastman Kodak Co, Rochester, N. Y. *Physics.* Fairlee, Vt, Dec. 20, 01. B.S, Mass. Inst. Tech, 24, M.S, 25; Ph.D, Rochester, 36. Instr, Mass. Inst. Tech, 25–27, 30–32; *physicist,* Bausch and Lomb Optical Co, 28–29; *Eastman Kodak Co, 36–* A.A; Optical Soc. Photography; resolving power and image structure; optics; ophthalmic optics and flicker in binocular vision.

Perrin, Dr. Tom S(mith), Cleveland, Miss. *Chemistry.* Boerne, Texas, June 26, 02. A.B, A.M, Southwestern (Texas); Ph.D, Texas, 33. Prof. science, Blinn Junior Col, Texas, 26–30; instr. chem, Texas, 30–33; prof, Southwest Texas State Teachers Col, 33–34; Lee Junior Col, 34–37; Delta State Teachers Col, Miss, 37–42; *research, Diamond Alkali Co, 42–* Summers, chemist, Union Oil Co, Wilmington, Calif, 32, 33. Chem. Soc. Nitrogen compounds in petroleum.

Perrine, Dr. C(harles) D(illon), Irigoyen 671, San Vicente, Cordoba, Argentina. *[1]*Astronomy.* Steubenville, Ohio, July 28, 67. High sch; Lick Observatory, California; hon. Sc.D, Santa Clara, 05. In business until 93; sec'y, Lick Observatory, California, 93–05, asst. astronomer, 95–05, astronomy, 05–09; director, Argentine Nat. Observatory, 09–36; *retired.* Acting astronomer, Lick Observatory, California, 01. Lalande prize, Paris Acad, 97; gold medal, Soc. Astron. de Mex. A.A; Astron. Soc; Astron. Soc. Pacific (pres, 02); for. assoc. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; cor. mem. Soc. Cient. Argentina. Discovery, observation and orbits of comets; solar eclipse problems; observations for solar parallax; physical and other observations of the nebulae; discovery and observations of the sixth and seventh satellites of Jupiter; definitive orbit of comet 1895 IV; observations of southern nebulae and clusters; Wolf-Rayet and other early type stars.

Perrine, Dr. Irving, Petroleum Bldg, Oklahoma City, Okla. *Geology.* Wallkill, N. Y, Aug. 5, 84. A.B, Cornell, 07, A.M, 11, Ph.D, 12. Instr. geol, Cornell, 08–11; prof, Oklahoma, 12–15; chief geologist, Pierce Oil Corp, 15–16; *petrol. geologist and oil producer, 17–* Asst. state geologist, La, 08–09; field asst, U. S. Geol. Surv, 08–09; chief geologist, Marland Ref. Co, 13–14; pres, Belle Isle Royalty Co; Unidos Royalty Co; special consultant, Securities and Exchange Cmn, 34–35; U. S. Engineers, 40–; Dept. Justice, 40– A.A; Asn. Petrol. Geol. (v. pres, 19); Min. and Metal. Eng; Okla. Acad; Kans. Acad; N. Y. Acad; Okla. City Geol. Soc. (pres, 22). Paleontology of the Claiborne Eocene; oil and gas in Louisiana, mid-continental and coastal fields; stratigraphy; decline and ultimate recovery of oil wells.

Perrine, Dr. J(ames) O(wen), 36 Marion Road, Upper Montclair, N. J. *Physics.* Bushnell, Ill, Feb. 26, 86. A.B, Iowa, 09; M.S, Michigan, 16; Ph.D, Cornell, 21. Prof. physics, Iowa State Teachers Col, Cedar Falls, 09–16; asst. prof. radio eng, Yale, 19; instr. physics, Cornell, 20–21; asst. v. pres, Am. Tel. and Tel. Co, 21–25; *ed, 'Bell System Tech. Jour,' 25–,* asst. v. pres, 39. Capt, Sig.C, 18–19, in charge tech. staff, officer training sch, Yale, 19. Physical Soc. Communication engineering; fundamental physical phenomena in communications art and practise.

Perrot, Dr. Max, University of Missouri, Columbia, Mo. *Zoology.* Geneva, Switzerland, Dec. 2, 14. M.S, Geneva, 36, Sc.D, 38. Asst. zool. and comp. anat, Geneva, 38–39; visiting fellow, Princeton, 39–40; *instr. zool, Missouri, 40–* Assoc. mem. Soc. Zool; Soc. Suisse de Zool. Comparative cytology of molluscs; polyploidy in amphibians.

Perrott, G(eorge) St. J(ohn), U. S. Public Health Service, Washington, D. C. *Chemistry.* Grand Forks, N. Dak, July 29, 93. A.B, North Dakota, 14, A.M, 15; Princeton, 15–17. Physical chemist, U. S. Bur. Mines, 19–25, asst. chief explosives chemist, 25–27, supt, Pittsburgh sta, 27–31; mem. research staff, A. O. Smith Corp, 31–32; *prin. statistician, U. S. Pub. Health Service, 33–, chief div. pub. health methods, nat. inst. health, 39–* Consultant, Co. de Real del Monte y Pachuca, Mex, 24; Cerro de Pasco Copper Corp, Peru, 25. Lieut, C.W.S, 18–19. Statist. Asn; Pub. Health Asn. Gas mask absorbents and fabrics; carbon black; liquid oxygen explosives; permissible explosives for use in coal mines; safety in mines; public health investigations.

Perrow, Dr. Mosby G(arland), Lynchburg, Va. *Chemistry, Biology.* Campbell Co, Va, Sept. 20, 76. A.B, Washington and Lee, 97, A.M, 06, Ph.D, 08. Director science, pub. schs, *Lynchburg, Va,* 02–09; *city chemist and bacteriologist, 06–, health officer, 10–, director pub. welfare, 20–* A.A; Chem. Soc; Am. Med. Asn; Pub. Health Asn; Anti-Tuber. League (pres, 05–15); Water Works Asn; Va. Pub. Health Asn. (pres, 13); Va. Acad. Chemistry and bacteriology of milk; house-fly; sewage; food preservation; infant mortality; filtration of water.

Perry, Dr. Bruce A(llen), Blandy Experimental Farm, University of Virginia, Boyce, Va. *Genetics, Cytology.* Zebulon, N. C, June 27, 09. B.S, Wake Forest Col, 30, A.M, 36; Duke, 37–38; Ph.D, Virginia, 42. Teaching fellow biol, Wake Forest Col, 34–36, instr, 36–38; research fellow, Blandy Exp. Farm, Virginia, 38–42; *Air Forces, U. S. Army, 42–* Genetics Soc; Genetic Asn; Va. Acad. Cytology and phylogeny of the Euphorbiaceae; cytogenetics of the Martyniaceae.

Perry, Dr. C(ornelius) Alfred, Burnbrae Road, Towson, Md. *Public health, Bacteriology.* Bernardsville, N. J, Feb. 21, 98. B.S, Rutgers, 21; Sc.D, Hopkins, 30. Junior bacteriologist and junior biologist, State Dept. Health, N. J, 20–23; asst. bacteriologist, *State Dept. Health, Md,* 23–30, *chief bur. bacter. and director bacter. labs, 30–; instr. bacter, sch. hygiene and pub. health, Hopkins, 30–* A.A; fel. Pub. Health Asn; Soc. Bact; Conf. State and Provincial Pub. Health Lab. Directors. Sanitary bacteriology of shellfish and water; bacteriological methods for the diagnosis of communicable diseases.

Perry, Prof. Elwyn L(ionel), 25 School St, Williamstown, Mass. *Geology.* Melrose, Mass, Dec. 2, 02. B.S. Tufts Col, 23; Ph.D, Princeton, 27. Asst. *geol,* Princeton, 23–26, instr, 26–28; *Williams Col,* 28–36, assoc. prof, 36–42, *prof, 42–* Summers, asst, Vt. Geol. Surv, 25, 26, instr. and asst. director, int. summer sch. geol, Princeton, 27–29, research assoc, Beartooth-Big Horn research exped, 30–31. A.A; Miner. Soc; Seismol. Soc. (chairman E. sect, 42); Geophys. Union. Seismology; structural and metamorphic geology of western New England; Rocky Mountain structure in Montana.

Perry, Dr. Esther P(arsons), 120 Hilgard Hall, University of California, Berkeley, Calif. *Soils.* Los Angeles, Calif, April 26, 03. B.S, California, 25, M.S, 27, Ph.D, 39. Tree surgeon and gum disease, East Highlands Orange Co, 23–26; assoc. soil technol, *Exp. Sta, California,* 28–39, *junior soil technologist, 39–* A.A; Soil Sci. Soc; West. Soc. Soil Sci; Int. Soc. Soil Sci. Soil morphology; soil survey; profile studies of the more extensive primary soils derived from granitic rocks in California.

Perry, Prof. Eugene S(heridan), Montana School of Mines, Butte, Mont. *Geology.* Danville, Ill, June 6, 92. B.S, Kentucky, 23, M.S, 24; Ph.D, Chicago, 27. Field geologist, Okla. Geol. Surv, 15–16; oil geologist, Okla, 17; instr. *geol,* Kentucky, 19–24; N. Mex. Sch. Mines, 24–25; *prof. and head dept, Mont. Sch. Mines, 27–* Chief geologist, State Bur. Mines and Geol, Mont, 31. Summers, field geologist, Tenn. Geol. Surv, 19–22; Ky. Geol. Surv, 22, 25. Master engineer, U.S.A, 18. Fel. Geol. Soc; Northwest Sci. Asn. Mineral resources; tripoli; oil and gas; ground water; non-metallics; geological maps.

Perry, Geo(rge) S(argent), 3102 Magnolia Ave, Knoxville, Tenn. *Forestry.* Stewartstown, Pa. B.S, Pa. State Col, 13; Royal Col. Forestry, Stockholm, 24–25. Forester, State Dept. Forestry, Pa, 13–18; prof. silviculture and dendrol, Pa. State Forest Sch, Mt. Alto, 18–29; senior research forester, Forest Research Inst, State Dept. Forests and Waters, Pa, 29–35; *forestry div, Tenn. Valley Authority, 35–* Lecturer, Miss. State Teachers Col, Hattiesburg, 27. A.A; Soc. Foresters; Genetic Asn; Pa. Acad. Natural sciences; Scandinavian forestry; trees and shrubs of Pennsylvania; fire and forest soils; tree antagonisms; tree seed sources and quality; calcium and soil productivity.

Perry, Dr. H(arold) S(anford), 2302 Cranford Road, Durham, N. C. *Genetics.* Rathbone, N. Y, Dec. 17, 00. A.B, N. Y. State Col. for Teachers, 27; Ph.D, Cornell, 32. Instr. and *asst. prof. bot, Duke, 32–* A.A; Genetic Asn; N. C. Acad. Genetics of maize.

Perry, Prof. Isabella (Hester), Second and Parnassus Ave, San Francisco, Calif. *Pathology.* Henderson, N. C, Nov. 24, 92. M.D, Woman's Med. Col. of Pa, 21. Asst. path, Yale, 25–28; vol, inst. animal physiol, Copenhagen, 28–29; instr. *path, med. sch, California,* 29–32, *asst. prof,* 32– Asst. visiting pathologist, Children's Hosp, San Francisco; Laguna Hondra Home; director labs, Peralta Hosp, Oakland. Asn. Path. and Bact; Asn. Cancer Research; Am. Med. Asn; Soc. Exp. Biol; Int. Asn. Med. Mus. Cancer research.

Perry, Prof. James C, Xavier University, Cincinnati, Ohio. *Biology.* Denver, Colo, Feb. 27, 99. A.B, St. Louis, 24, A.M, 25; Ph.D, Cincinnati, 40. Prof. *biol,* Rockhurst Col, 29–31; asst. prof, *Xavier (Ohio),* 31–37, *prof. and head dept,* 37– A.A. Action of adrenalin on vertebrate reproductive systems and other endocrine glands; factors controlling seasonal reproduction in birds.

Perry, Dr. J(ohn) H(oward), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry, Chemical engineering.* Hampden, Maine, Nov. 10, 95. B.S, Maine, 17; M.S, Northwestern, 20; Ph.D, Mass. Inst. Tech, 23. Chemist, Exp. Sta, Maine; Am. Agr. Chem. Co, 16–17; chemist and chem. engineer, U. S. Bur. Mines, 23–25; *tech. investigator, develop. dept, E. I. du Pont de Nemours and Co,* 25– Asst, Northwestern, 19–20. Ed, 'Chem. Engineers' Handbook.' Ordnance Dept, U.S.A, 18–19. A.A; Eng. Educ; Chem. Soc; Chem. Eng; Franklin Inst. Unit operations and economics of chemical engineering; industrial chemical technology.

Perry, Dr. L(andis) H(arlan), 1042 B Sonora Ave, Glendale, Calif. *Physical chemistry.* Whittier, Calif, April 30, 13. A.B, Whittier Col, 35; A.M, Stanford, 38, Ph.D, 40. *Chemist, Don Baxter Research and Production Labs, Inc,* 41– Use of the hydrophil balance in studies of the surfaces of ordinary solutions; ultracentrifuge.

Perry, Dr. Lily M, Arnold Arboretum, Jamaica Plain, Mass. *Botany.* Havelock, N. B, Can, Jan. 5, 95. B.A, Acadia, 21; A.M, Radcliffe, 25; Ph.D, Washington (St. Louis), 32. Asst. prin, schs, Can, 21–24; asst, Gray Herbarium, Harvard, 25–30; instr. bot, Georgia, 32–34; biol, Sweet Briar Col, 34–35; asst, Gray Herbarium, *Harvard,* 35–37, *tech. asst, Arnold Arboretum,* 37– Alchemilla; Lachemilla; vascular flora of St. Paul Island, Nova Scotia; the North American species of verbena; flora of New Guinea.

Perry, Prof. Lynn, 828 McCartney St, Easton, Pa. *Civil engineering.* Millsboro, Del, Feb. 27, 84. B.S, Pennsylvania, 06, M.S, 07, C.E, 09. Asst. engineer, Board Water Supply, New York, 06; draughtsman, Shoemaker and Co. and Belmont Iron Works, Phila, 07; draughtsman and engineer, Bur. Surveys, Phila, 07–10; consulting engineer, civil improvements, 11–15; sanit. engineer, State Dept. Health, N. J, 16–17; *prof. in charge hydraul. and sanit. eng, Lafayette Col, 19–; lieut. col, U. S. Army.* Consulting engineer, Mil. Order of Foreign Wars. Capt, U.S.A, 18–19; lieut. col, Eng. C, O.R.C. Civil Eng. (pres, Lehigh Valley sect, 31); Mech. Eng. (chairman, Lehigh Valley sect, 25); Eng. Educ; Soc. Mil. Eng. Flow of water in pipes; loss of head in pipes and standard connections; theory of electrochemical sewage treatment; sanitation and the prevention of goiter; treatment of water for industrial purposes; hydraulics; history of the lower Eastern Shore; historic state and international boundaries; genealogy.

Perry, Margaret C(ampbell), Columbia Hospital, Milwaukee, Wis. *Chemistry.* Joliet, Ill, April 9, 94. A.B, Illinois, 15, A.M, 17, 19–20. Asst. chem, Illinois, 15–17; teacher, high sch, 17–18; bacteriologist, State Water Surv, Ill, 18–21; *chemist, Columbia Hosp, Milwaukee, 21–* A.A; fel. Inst. Chem; Chem. Soc; Soc. Bact. Bacteriology; sanitary and physiological chemistry; medical problems.

Perry, Prof. Robert Dawson, Texas Agricultural and Industrial College, Kingsville, Texas. *Mathematics.* Lockhart, Texas, Aug. 8, 00. B.S, Southwest Texas State Teachers Col, 23; A.M, Colo. State Teachers Col, 25; B.Mus, Chicago, 26; Ph.D, George Peabody Col, 32. Asst. math, Southwest Texas State Teachers Col, 22–23; instr, high sch, Texas, 23–24, 25–26; asst, Colo. State Teachers Col, Greeley, 24–25; asst. prof, Purdue, 25–31; asst, George Peabody Col, 31–32; prof, West. Ky. State Teachers Col, 32–40; prof. statistics and registrar, Baylor, 40–42; *prof, Texas Agr. and Indust. Col,* 42– Math. Asn. Music; standardized achievement tests in plane geometry; function and technic technology of musical instruments; acoustics for musicians.

Perry, Dean R(ufus) P(atterson), Langston University, Langston, Okla. *Organic chemistry.* Brunswick, Ga, June 4, 03. A.B, J. C. Smith Univ, 25; M.S, Iowa, 27, Ph.D, 39. Prof. chem. and head dept. and chairman nat. science dept, Prairie View State Col, 27–43, director div. arts and sciences, 39–43; *admin. dean, Langston,* 43– A.A; Chem. Soc. Biochemistry; steric hindrance; physico-biochemical studies of farm products; local anesthetics.

Perry, Thomas D(oane), 361 W. Second St, Moorestown, N. J. *Engineering.* Charlestown, Mass, May 27, 77. A.B, Doane Col, 97; B.S, Mass. Inst. Tech, 00. Factory production, Boston, Mass, and Grand Rapids, Mich, 00–06; business manager and sec'y, Board Educ, Grand Rapids, 06–11; v. pres. and manager, Grand Rapids Veneer Works, 11–24; consulting engineer, Bigelow, Kent, Willard and Co, Boston, 25–29; chief engineer, New Albany Veneering Co, Ind, 29–34; Jasper Houses, 35–36; *develop. engineer, Resinous Products and Chem. Co, Phila,* 36– Tech. ed, 'Veneers and Plywood,' 26; ed. wood products sect, 'Nat. Encyclop,' 34; woodworking sect, 'Kent's Mech. Engineers' Handbook,' 38. Trustee, Doane Col, 12. Mech. Eng. (chairman, wood indust. div, 20–23, 29–31). Plywood products and processes; pre-finished plywood flooring; pre-fabricated plywood housing; waterproof resin adhesives for plywood; sound-proof plywood telephone booths; modern plywood; modern wood adhesives; stamped envelopes of the United States.

Perry, Prof. W(illiam) S(anford), University of Florida, Gainesville, Fla. *Physics.* Ft. Deposit, Ala, Jan. 7, 83. A.B, Southern (Ala), 06; M.S, Chicago, 17. Instr. *physics, Florida,* 10–17, asst. prof, 17–27, *assoc. prof,* 27– A.A; Physical Soc.

Perry, Prof. Winona M(erle), University of Nebraska, Lincoln, Nebr. *Educational psychology.* Holyoke, Mass, Dec. 28, 90. Ph.B, Brown, 14, A.M, 15; Ph.D, Columbia, 25. Prof. educ. and math, Judson Col, 15–17; teacher, high schs, R. I, Mo. and Idaho, 17–23; assoc. research, Lincoln Sch, Teachers Col, Columbia, 24–25; assoc. prof. and *prof. educ. psychol. and measurements, Nebraska,* 25– A.A; assoc. Psychol. Asn; Nat. Soc. Study Educ; Educ. Research Asn; Nat. Soc. Col. Teachers Educ; Nat. Council Teachers Math; Council Women Psychol; Midwest. Psychol. Asn. Psychology of learning in educational psychology and in geometry.

Persing, Dr. C(harles) O(scar), Citrus Experiment Station, Riverside, Calif. *Entomology.* Whittier, Calif, Dec. 2, 09. B.S, California, 33, Ph.D, 38; Iowa State Col, 36–37. Assoc. entom, *Citrus Exp. Sta, California,* 37–38, junior entomologist, 38–43, *asst. entomologist,* 43– Asn. Econ. Entom. Insect toxicology; biology and control of invertebrate pests of citrus and other subtropical tree crops.

Persky, Dr. Harold, Michael Reese Hospital, Chicago, Ill. *Metabolism.* Chicago, Ill, Aug. 11, 17. B.S, Chicago, 36, Ph.D, 41. Asst, Chicago, 41–42; *research assoc. metabolism of paralyzed muscle, research inst, Michael Reese Hosp,* 42– Chemical changes occurring in paralyzed muscles.

Person, Prof. Fred G(ilman), P. O. Box 445, Ft. Collins, Colo. *Physics.* Rochester, Vt, Nov. 26, 69. A.B, Colorado, 05, A.M, 11; Chicago. Sch. supt, Colo, 97–99, 00–02, 05–08; Denver Nor. and Prep. Sch, 00; prof. *physics* and head dept, Colo. Agr. Col, 08–35, *Colo. State Col,* 35–38, *emer. prof,* 38– Summers, instr, Colorado. A.A; Physical Soc. Measurement of surface tension; general physics for home economics students.

Person, Prof. H(jalmer) T, University of Wyoming, Laramie, Wyo. *Civil engineering.* Hitchcock, S. Dak, Feb. 7, 03. B.S, S. Dak. State Col, 25, C.E, 32; M.S, Iowa State Col, 27. Asst, Iowa State Col, 25–27; instr. *civil eng,* S. Dak. State Col, 27–28, asst. prof, 28–29; from asst. prof. to *prof, Wyoming, 29–, chairman civil eng. div. and institutional director eng, science and management defense training and E.S.M.W.T.* Summers, Pittsburgh Des Moines Steel Co, 26; bridge designer, State Highway Dept, S. Dak, 28; steel detailer, Am. Bridge Co, 29; bridge designer, State Highway Dept, Mo, 30, 31; special asst. state engineer, Wyo, 34; state rep, U. S. Coast and Geod. Surv. in charge Wyo. State Coast and Geod. Control Survs, 33–34; advisory engineer, Emergency Relief Admin, 34–35; consulting engineer, 34– Chairman, State Planning Board, Wyo, 34–35; v. pres. and pres, State Board Examining Engineers, 35–; director west. zone, Nat. Council State Boards Eng. Examiners, 40–42. Civil Eng. (pres, Wyo. sect, 39); Soc. Test. Mat; Wyo. Eng. Soc. (v. pres, 39, pres, 40); Wyo. Reclamation Asn. (sec'y, 38–). Structural engineering; development and utilization of Wyoming water resources.

Person, Hubert L(awrence), U. S. Forest Service, Portland, Oregon. *Forestry.* Minneapolis, Minn, Dec. 6, 98. B.S, Minnesota, 21, M.S, 22. Asst, Minnesota, 22–23; junior and asst. forest entomologist, Calif. Forest and Range Exp. Sta, *U. S. Forest Service,* 25–30, assoc. silviculturist, 30–35, silviculturist, 35–43, *senior silviculturist, Pacific Northwest Forest and Range Exp. Sta, 43–* Soc. Foresters (sec'y-treas, Calif. sect, 30). Entomology; biological control of forest insects; tree selection by forest insects; forest planting; natural reproduction and management in the redwood region; labor problems in the Douglas fir region.

Person, Dr. L(ee) H(omer), Louisiana State University, Baton Rouge, La. *Plant pathology.* Memphis, Tenn, Feb. 3, 04. B.S, Miss. Agr. and Mech. Col, 26; M.S, Minnesota, 29, Ph.D, 37. Instr. bot, Miss. Agr. and Mech. Col, 26–27; agent, U. S. Dept. Agr, Minnesota, 28–29; *asst. plant pathologist, Exp. Sta, Louisiana, 29–* Phytopath. Soc. Diseases of vegetable crops.

Personius, Prof. Catherine J(ane), Cornell University, Ithaca, N. Y. *Food chemistry.* Elmira, N. Y, Aug. 5, 04. B.S, Elmira Col, 25; A.M, Columbia, 28; Ph.D, Cornell, 37. Instr. foods and nutrition, Elmira Col, 25–27; Hampton Inst, 28–30; food chem, Cornell, 30–37, asst. prof, 37–40; assoc. prof. foods, Wisconsin, 40–43; *prof. home econ, Cornell, 43–* Summer, mem. faculty, Minnesota, 36. A.A; Chem. Soc; Home Econ. Asn; Inst. Food Technol. Chemistry of food preparation.

Pervier, Prof. Norville C(larence), University of Minnesota, Minneapolis, Minn. *Chemistry.* Clinton, Iowa, Feb. 26, 91. B.S, Iowa State Col, 16, fellow, 16–17, M.S, 17; Ph.D, Minnesota, 22. Instr, Iowa State Col, 18–19; chemist and asst. supt, Standard Chem. Co, Iowa, 19; instr, *Minnesota,* 20–23, *asst. prof. chem, 23–* A.A; Chem. Soc. Biochemistry.

Pessel, Dr. Leopold, 409 W. School Lane, Philadelphia, Pa. *Metallurgy.* Vienna, Austria, July 8, 98. Ph.D, Vienna, 22; Temple, 30; E.E, Drexel Inst, 35. Asst. instr. chem, Vienna, 20–21; with Baldwin Locomotive Works, E. I. du Pont de Nemours and Co. and Girard Smelting and Ref. Co, 23–28; tech. director, asst. sec'y and treas, Metals Coating Co. of Amer, 28–37; *research chemist, RCA Mfg. Co, 37–* Chem. Soc; Min. and Metal. Eng. Physical chemistry; protective coatings; corrosion; powder metallurgy; electrical instrumentation.

Pessin, Dr. L(ouis) J(erome), 2519 General Pershing St, New Orleans, La. *Botany.* Kremenchug, Russia, May 19, 93. B.S, Georgia, 16; Ph.D, Hopkins, 23. Instr. bot, Miss. Agr. and Mech. Col, 20–21, asst. prof, 21–24; N. C. State Col, 24–25; assoc. prof, Agr. and Mech. Col. Texas, 25–28, plant pathologist, Exp. Sta, 27–28; ecologist, South. Forest Exp. Sta, U. S. Forest Service; *wood tech. research, Higgins Aircraft Inc.* Summer, sci. asst, bot. exped, Jamaica, B. W. I, 19. Bot. Soc; Soc. Plant Physiol; Ecol. Soc; Soc. Foresters. Forestry; ecology.

Pestel, Arthur (Robert), 180 Claremont Ave, New York, N. Y. *Engineering.* Chemnitz, Germany, April 22, 78. B.E, Mittweida, Germany, 02. Designing engineer, Lowenstein Radio Co, 15–20; Ford Instrument Co, 23–26; develop. engineer, private practise, 26–32; patent-eng. practise, Ryan Coffee Corp, 32–35; private practice, 35–39; *develop. engineer, Pitometer Log Corp, 40–* A.A; Elec. Eng. Development of inventions; electric meters; recording time intervals; threading and tapping operations; variable transmissions; numeric relations between points and space magnitudes; hydraulic measurements.

Pestrecov, Dr. K(onstantin) V(asilievich), 24 Jones Ave, Rochester, N. Y. *Physics.* Petrograd, Russia, Dec. 27, 03. D.Sc, Charles Univ, Prague, 29. Asst, Charles Univ, Prague, 29–30; physicist, Rockefeller Inst, 32–36; Pupin labs, Columbia, 37–39; research assoc, Int. Y.M.C.A. Col, 40–41; *physicist, Bausch and Lomb Optical Co, 41–* Research physicist, J. J. Frič Co, Prague, 29–30. Kučera prize, Czechoslovak Physical Soc, 30. A.A; Physical Soc; Czechoslovak Physical Soc. X-rays; technical physics; crystal structure; optical design.

Petch, C(harles) E(dgar), Canadian Department of Agriculture, Hemmingford, Que, Can. *Entomology.* Toronto, Ont, Jan. 22, 88. B.S.A, Toronto, 12. *Entomologist in charge fruit insect investigations for Que, Can. Dept. Agr, 12–* Spraying and dusting; apple insects.

Peter, Prof. Alfred M(eredith), University of Kentucky, Lexington, Ky. *Chemistry.* Lexington, Ky, May 25, 57. B.S, Kentucky, 80, M.S, 85, Sc.D, 13. Asst. chemist, Ky. Geol. Surv, 78–86; asst. chemist and chemist, Exp. Sta, *Kentucky,* 86–07, head dept. chem, 07–27, acting director, 12, 15, 16–18, prof. *soil technol,* 18–29, *emer. prof, 29–* Adj. prof, Kentucky Univ, 78; Kentucky, 78, 80. Reporter on soils and ash, 'Agr. Chem,' 94–95. Ky. Geol. Surv, 04–12; State Board Agr, Ky; State Live Stock Sanit. Board, Ky. A.A; Chem. Soc; Soc. Chem. Indust; fel. Inst. Chem; Ky. Acad. (sec'y, 16–34, pres, 34, emer. pres, 35–). Agricultural analysis; soils; composition of Kentucky forage plants and mineral waters.

Petering, Dr. Harold G(eorge), 39 Linden Ave, Metuchen, N. J. *Chemistry.* LaPorte, Ind, Oct. 8, 10. B.S, Chicago, 34; Ph.D, Wisconsin, 38. Research chemist, Wilson and Co, 34–35; asst. starch, glycosides and photosynthesis, Wisconsin, 35–38; asst. research chemist, Exp. Sta, Mich. State Col, 38–41; *research chemist, biol. lab, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Physico-organic chemistry; photosynthesis; photochemistry of plant pigments and provitamins D; colloid chemistry; isolation of plant lipides and glycosides; polarography.

Peterka, Prof. Harry E(dward), Kansas Wesleyan University, Salina, Kans. *Biology.* Utica, S. Dak, June 2, 05. A.B, Yankton Col, 28; A.M, South Dakota, 31; Ph.D, Kansas, 35. Asst. instr. zool, Kansas, 31–35; prof. biol, Okmulgee Junior Col, 35–41; *assoc. prof. biol, Kans. Wesleyan, 41–* A.A; Kans. Acad; Okla. Acad. Myology; mammalogy.

Peterkin, Albert G(ordon), Pembroke and Winsford Roads, Bryn Mawr, Pa. *Chemical engineering.* Northwich, Eng, Oct. 4, 81. Cooper Union; Polytech. Inst. Brooklyn; Cornell, 08–10. Chemist and asst. supt, Benzol Products Co, 10–13; mfg. manager chem. dept, Barrett Co, 13–22; develop. engineer, Atlantic Ref. Co, 23–34; asst. to pres, Houdry Process Co, 35–36; *v. pres. Catalytic Develop. Co, 36–* Chem. Eng; Chem. Soc. Manufacture of coal tar and petroleum products; distillation.

Petermann, Dr. Mary L(ocke), University of Wisconsin, Madison, Wis. *Biochemistry.* Laurium, Mich, Feb. 26, 08. A.B, Smith Col, 29; Ph.D, Wisconsin, 39. Fellow, *Wisconsin,* 39–42, *biochemist, 42–* Chem. Soc. Physical chemistry of proteins.

Peters, Dr. Arthur S(ylvester), New York University, New York, N. Y. *Mathematics.* New York, N. Y, April 29, 07. M.S, N. Y. Univ, 32, Ph.D, 41. *Instr. math, N. Y. Univ, 30–* Math. Soc. Elasticity.

Peters, Prof. C(harles) A(dams), Sunset Place, Amherst, Mass. *Chemistry.* Worcester, Mass, June 29, 75. B.S, Mass. Col, 97; Ph.D, Yale, 01; Berlin, 08. Prof. chem, Idaho, 01–09; exchange teacher, Oberrealschule, Berlin, 09–10; *prof. inorg. and soil chem, Mass. State Col, 11–* A.A; Chem. Soc. (chairman, Conn. Valley sect, 40). Analytical chemistry; plant nutrient solutions.

Peters, Prof. Charles C(linton), 257 Ridge Ave, State College, Pa. *Psychology.* Duffield, Pa, Nov. 24, 81. A.B, Lebanon Valley Col, 05; A.M, Harvard, 10; Ph.D, Pennsylvania, 16. Teacher classical languages, Clarksburg Col, 05–07; Westfield Col, 07–11; prof. philos. and educ, Lebanon Valley Col, 11–13; supt. and prin, pub. schs, Pa, 13–16; instr. *educ,* Lehigh, 16–17; asst. prof. to prof, Ohio Wesleyan, 17–27; *prof. and director educ. research, Pa. State Col, 27–* Acting prof, Miami (Fla), 26–27. Summers, prof, Ohio State, West Virginia, Kansas, California, Minnesota, Stanford and Syracuse, 20–38. Educ. Research Asn; Sociol. Soc; Psychometric Soc; Am. Acad. Polit. and Social Sci; Nat. Soc. Curriculum Study; Nat. Soc. Col. Teachers Educ. Educational psychology; statistical theory; mathematical statistics and statistical research methods; statistical and experimental studies of the mores; social objectives of education; objective measurement of church school text-books.

Peters, Chauncey G, National Bureau of Standards, Washington, D. C. *Physics.* Emerald, Wis, Feb. 6, 87. A.B, Ripon Col, 11; Wisconsin, 12. Assoc. physicist and *prin. physicist, Bur. Standards, 13–* Optical Soc; Philos. Soc. Wash; Wash. Acad. Interferometry; dimensional changes of materials; index of refraction; length standards; thermal expansion; optical surface microhardness.

Peters, Dr. Fredus N(elson), 1821 Muscatel Ave, Rosemead, Calif. *Chemistry.* Epworth, Iowa, Jan. 26, 64. A.B, Missouri, 87, A.M, 90; Chicago, 98, 01, 02; Ph.D, Ill. Wesleyan,

03. Prin, high schs, Mo, 87–92; sch. supt, Mo, 92–95; instr. chem. and v. prin, Cent. High Sch, Kansas City, Mo, 97–19. A.A; Chem. Soc; Federation Teachers Math. and Nat. Sci; Cent. Asn. Sci. and Math. Teachers (chairman, chem. sect, 08); Mo. Asn. Math. and Sci. Teachers (pres, 09). Acetylene; migration of ions; ionization; modern and applied chemistry; chemistry for nurses.

Peters, Dr. Fredus N(elson), Jr, The Quaker Oats Co, 141 W. Jackson Blvd, Chicago, Ill. *Organic chemistry.* Kansas City, Mo, Jan. 30, 97. A.B, Missouri, 20, A.M, 22; Ph.D, Wisconsin, 25. First asst. city chemist, Kansas City, 17–18; instr. org. chem, Missouri, 20–22; research chemist, Miner Labs, Chicago, 25–31; manager tech. div, *Quaker Oats Co*, 31–37, *director research, 37–* Chem. Soc. Grignard reagents; chemistry of furan compounds; cereal antioxidants.

Peters, Harold S(eymour), U. S. Department of the Interior, Washington, D. C. *Entomology, Ornithology.* Groveport, Ohio, April 23, 02. B.S, Ohio State, 25, M.S, 26. Asst. entom, Ohio State, 25–26; asst. entomologist, Va. Truck Exp. Sta, 26–27; bur. entom. and plant quarantine, *U. S. Dept. Agr*, 28–35, *assoc. biologist, fish and wildlife service, U. S. Dept. Interior, 35–* Summer, entomologist, U. S. Nat. Museum exped, West Indies, 30; MacMillen Arctic exped, 37; East. Can. Arctic Patrol, 39; ornith. studies, Newfoundland, 37, 38, 41–43. A.A; Ornith. Union. Wildlife; conservation; external parasites of birds.

Peters, Dr. H(enry) N(elson), University of Missouri, Columbia, Mo. *Psychology.* Little Rock, Ark, Jan. 31, 08. A.B, Arkansas, 30; A.M, Missouri, 31; Ph.D, Chicago, 33. Instr. *psychol, Missouri*, 32–38, *asst. prof, 38–* Psychol. Asn; Midwest. Psychol. Asn. Animal and human learning; feeling and emotion.

Peters, James L(ee), Museum of Comparative Zoology, Cambridge, Mass. *Ornithology.* Boston, Mass, Aug. 13, 89. A.B, Harvard, 12. Assoc. ornith, *museum comp. zool, Harvard*, 21–26, asst. curator *birds*, 27–32, *curator, 33–* Expeds, West Indies, Cent. Amer. and S. Amer, 13–28. Mem. Int. Cmn. on Zool. Nomenclature. Brewster medal, 40. Fel. Ornith. Union (councilor, 28–36, v. pres, 37–42, pres, 43–); Soc. Mammal; Nuttall Ornith. Club (sec'y, 23–33, v. pres, 40, pres, 42–); Cooper Ornith. Club; New Eng. Zool. Club; Wash. Acad; Biol. Soc. Wash; Boston Soc. Nat. Hist; Deuts. Ornith. Gesell; Ornith. Gesell. Bavaria; Soc. ornith. del Plata. Systematic ornithology.

Peters, Prof. John P(unnett), 789 Howard Ave, New Haven, Conn. *°*Pathology, Internal medicine.* Philadelphia, Pa, Dec. 4, 87. A.B, Yale, 08; M.D, Columbia, 13. Med. house officer, Presb. Hosp, New York, 13–15; asst. physician and instr. med, col. physicians and surg, Columbia, 16–17; research fellow and instr, med. col, Cornell, 17–20; adj. attending physician, Bellevue Hosp, 19–20; assoc. prof. med, Vanderbilt, 20–21; *internal med, Yale*, 21–27, *prof, 27–* Coolidge research fellow, Columbia, 15–17. Capt, M.C, 17–19. A.A. (sec'y cmt. physicians for improv. med. care); Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Soc. Biol. Chem; Am. Physicians; Harvey Soc; Interurban Clin. Soc. Electrolyte equilibrium of the blood; cardiac dyspnea and the respiratory system; diabetes and nephritis.

Peters, Dr. J(oseph) William, 512 S. McKinley Ave, Champaign, Ill. *Mathematics.* Baltimore, Md, Nov. 30, 03. A.B, Hopkins, 25, A.M, 27, Ph.D, 28. Jr. instr. *math*, Johns Hopkins, 26–28; *instr, Illinois, 28–* Math. Soc; Math. Asn. Geometry.

Peters, Dr. Lawrence, Pharmacological Laboratory, Medical Research Division, Sharp and Dohme, Inc, Glenolden, Pa. *Pharmacology.* Hague, Sask, Can, Feb. 13, 17. B.Sc, Saskatchewan, 38; Shevlin fellow, Minnesota, 40–42, Ph.D, 42. Lab. instr. pharmacy, Saskatchewan, 36–38, instr, 38–39; *pharmacologist, Sharp and Dohme, Inc, 42–* The trypanocidal activity and arsenic content of rat blood following the intravenous administration of mapharsen; mechanism of action of arsenicals; mapharsen toxicity.

Peters, Dr. Leo J(ames), Box 661, Tulsa, Okla. *Electrical engineering.* Edgemont, S. Dak, Dec. 25, 97. B.S, Wisconsin, 19, E.E, 20, Ph.D, 29. Instr. elec. eng, Wisconsin, 20–26; research engineer, Marland Oil Co, 26–27; asst. prof. elec. eng, Wisconsin, 27–29; *research engineer*, Gulf Oil Co; *Gypsy Oil Co.* Elec. Eng. (sec'y, Madison sect, 27, chairman, 28, mem, electrophysics cmt, 29); Radio Eng; fel. Physical Soc. Geophysics; radio engineering; electrical and vacuum tube circuit theory.

Peters, Sister Mary Fridiana, St. Francis Convent, Lafayette, Ind *Educational psychology.* Rhineland, Germany, May 27, 95. A.B, Ind. State Teachers Col, 28, A.M, 32; Purdue, 34–35; Ph.D, Indiana, 37. Teacher, high sch, Ind, 28–31; instr. and prof. psychol, *St. Francis Col. (Ind)*, 31–36, *dean instruction, 37–, director, 40–* Assoc. Psychol. Asn. Emotional stability of elementary school children; elementary school reading.

Peters, Dr. M(elville) F(uller), Beltsville, Md. *Physics.* Ishpeming, Mich, Oct. 16, 92. E.M, B.S, Mich. Col. Mines, 17; A.M, George Washington, 25; Ph.D, Hopkins, 31. Research engineer, N. J. Zinc Co, 17, 19–22, 25; instr. physics, Hopkins, 26–27; physicist and *senior physicist, heat and power div, Bur. Standards*, 22–25, *27–* Ensign, U. S. Submarine Force, 18. Ceramics; high temperatures; automotive ignition; electricity; Raman effect.

Peters, Dr. Paul E(rwin), North Shore Coke and Chemical Co, Waukegan, Ill. *Chemistry.* Cameron, Mo, Feb. 1, 07. A.B, Mo. Wesleyan Col, 27; M.S, Iowa, 28, Ph.D, 30. Special research assoc. chem. eng, Illinois, 30–32; research chemist, *North Shore Coke and Chem. Co*, 32–34, *director research, 35–* Chem. Soc. Vapor pressure of pure liquids; adsorption of vapors by charcoal; partial oxidation of organic compounds; utilization of coke oven gas.

Peters, Prof. Ruth M(argaret), Lake Erie College, Painesville, Ohio. *Geometry.* Gettysburg, Pa, Dec. 11, 06. A.B, Bryn Mawr Col, 28, A.M, 31; Ph.D, Radcliffe Col, 33. Assoc. prof. math, Judson Col, 34–36; *prof. math. and physics, Lake Erie Col, 36–* Math. Soc; Math. Asn. Parallelism and equidistance in Riemannian geometry.

Peters, Prof. W(alter) H(arvest), 1452 Hythe St, St. Paul, Minn. *Animal husbandry.* Keokuk, Iowa, July 9, 85. B.S.A, Iowa State Col, 08, hon. M.Agr, 20. Prof. *animal husbandry* and head dept, Man. Agr. Col, 08–14; head dept. Exp. Sta, North Dakota, 14–18; *prof. and head dept, Minnesota, 20–* Soc. Animal Production. Live stock production; animal genetics and nutrition.

Petersen, Dr. L(awrence) Howard, 3929 Olive St, Kansas City, Mo. *Physics.* Wichita, Kans, Jan. 30, 04. A.B, Friends, 30; M.S, Kans. State Col, 31; Ph.D, Indiana, 33. Asst. instr, Indiana, 31–33; *sales and service engineer, Wallace and Tiernan Sales Corp, 36–* Summer, instr, Friends, 34. Ind. Acad. Conduction of heat and electricity in cast bismuth plates.

Petersen, Prof. Max (Heinrich), Lehigh University, Bethlehem, Pa. *Physics.* Dundee, Ill, 90. B.S, Northwestern, 13, A.M, 14; Ph.D, Wisconsin, 24. Asst. and instr. *physics*, Wisconsin, 14–24; asst. prof, N. Y. Univ, 24–27; *Lehigh*, 27–30, assoc. prof, 30–39, *prof, 39–* Interim solar observer, Yerkes Observatory, Chicago. Physical Soc; Soc. X-Ray and Electron Diffraction. Spectroscopy; x-ray crystallography; magnetism.

Petersen, Prof. W(illia)m E(arl), University Farm, St. Paul, Minn. *Dairy husbandry.* Pine City, Minn, Feb. 3, 92. B.S, Minnesota, 16, M.S, 17, Ph.D, 28. Dairy specialist, Kans. State Col, 17–21; field sec'y, Minn. Holstein Friesian Asn, 20–21; asst. prof. *dairy husbandry, Minnesota*, 21–28, assoc. prof, 28–39, *prof, 40–* A.A; Genetic Asn; Soc. Animal Production (chairman dairy sect, 41); Dairy Sci. Asn. (chairman production sect, 40); Chem. Soc; Soc. Exp. Biol. Milk secretion; dairy cattle breeding; general dairying; testing of milk and milk products; physiology and biochemistry of lactation.

Petersen, Dr. William F(erdinand), 1322 Astor St, Chicago, Ill. *Pathology.* Chicago, Ill, March 25, 87. B.S, Chicago, 09, M.D, Rush, 12; Harvard; Columbia. Asst. prof. path. and exp. med, Vanderbilt, 14–17; assoc. path, Illinois, 19–25, prof, 25–43; *private research, 43–* U.S.A, 18–19. Asn. Path. and Bact; Soc. Exp. Path. (pres, 30–); Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest. Enzymes; pellagra; tuberculosis; non-specific therapy; capillary permeability; the meteorological environment.

Peterson, Prof. Alvah, Ohio State University, Columbus, Ohio. *Entomology.* Galesburg, Ill, Sept. 13, 88. B.S, Knox Col, 11; A.M, Illinois, 13, Ph.D, 16. Assoc. prof. entom, Rutgers, 16–25; senior entomologist, fruit insect investigations, bur. entom, U. S. Dept. Agr, 25–28; *prof. entom, Ohio State, 28–* A.A; Entom. Soc; Asn. Econ. Entom. Biological control of insects; immature insects; research methods with living insects.

Peterson, Dr. Arnold (Per Gustaf), General Radio Co, 30 State St, Cambridge, Mass. *Electrical engineering.* DeKalb.

Ill, Aug. 7, 14. B.Eng, Toledo, 34; M.S, Mass. Inst. Tech, 37, Sc.D, 41. Asst. elec. eng, Mass. Inst. Tech, 36–40; *engineer, Gen. Radio Co, 40–* A.A; assoc. Radio Eng; Physical Soc; Meteorol. Soc; Geophys. Union. High frequency measurements.

Peterson, Prof. Ben H(arrison), 1834 First Ave, N.E, Cedar Rapids, Iowa. *Chemistry.* Macedonia, Iowa, June 6, 93. B.S, Coe Col, 18; M.S, Iowa, 22, Ph.D, 26. Instr. *chem, Coe Col, 22–24, prof, 24–, head dept, 26–* Mem. State Basic Science Board, Iowa. Chem. Soc. Oxychloride cements; alum floc; colloid coagulation and adsorption; activity coefficients; oxidation of nitrogenous matter in natural waters; indicator constants; solvent properties of acetamide.

Peterson, Dr. C(harles) J, Industrial Products, Inc, Greenville, S. C. *Chemistry.* Beaumont, Texas, June 9, 05. B.S, Agr. and Mech. Col. Texas, 26; fellow, Iowa State Col, 27–30, Ph.D, 30. Asst. chem. engineer, Gulf Ref. Co, 26–27; research chemist, Stein, Hall and Co, 30–33; *chief chemist and production manager, Indust. Products, Inc, 33–* Chem. Soc. The chemical constitution of the corn-stalk; production of cellulosic pulps from the corn-stalk; application of starch and starch products to industrial work; application of starches, gums and fats to the sizing and finishing of cotton fabrics.

Peterson, Pres. E(lmer) G(eorge), Utah State Agricultural College, Logan, Utah. *Bacteriology.* Plain City, Utah, Aug. 26, 82. B.S, Utah Col, 04; Chicago, 06; A.M, Cornell, 09, Ph.D, 11. Asst. prof. bacter, Cornell, 09–10; prof, Oregon State Col, and bacteriologist, Exp. Sta, 10–11; prof. bacter, *Utah State Col,* 11–12, bacteriologist and director exten. div, 12–16, *pres, 16–* Mem. exec. cmt, Asn. Land-Grant Cols. and Univs, 40–; mem. nat. council, Boy Scouts Amer. A.A; Soc. Bact; Genetic Asn; Acad. Polit. and Social Sci; Farm Econ. Asn; Am. Geog. Soc. (fellow, council); Nat. Agr. Soc; Nat. Econ. League; Nat. Econ. Council; Country Life Asn; Utah Acad.

Peterson, Dr. Eric L(ee), 1791 Alder St, Eugene, Oregon. *Physics.* Shelley, Idaho, Dec. 24, 03. B.S, Oregon, 28, M.S, 31; Ph.D, Purdue, 36. Instr. math, Purdue, 36–42; *asst. prof. physics, Oregon, 42–* Theory of metals.

Peterson, Dr. E(ugene), 180 Varick St, New York, N. Y. *Electrical engineering.* New York, N. Y, Aug. 26, 94. Cornell, 11–14; E.E, Polytech. Inst. Brooklyn, 17; A.M, Columbia, 23, Ph.D, 26. *Circuit research engineer, Bell Tel. Labs, 19–* Lecturer, Polytech. Inst. Brooklyn, 24–25; Columbia, 35–41. Elec. Eng; Radio Eng; Physical Soc. Carrier communication; non-linear electrical circuits and elements.

Peterson, Dr. F(loyd) C(harles), Dow Chemical Company, Midland, Mich. *Chemistry.* Canajoharie, N. Y, Jan. 13, 02. B.S, Syracuse, 24, M.S, 25, Ph.D, 36. Instr, high sch, N. Y, 25–26; assoc. prof. forest chem, N. Y. State Col. Forestry, Syracuse, 26–36, 37–38; *mem. cellulose products div, Dow Chem. Co,* 36–37, *38–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Organic and cellulose chemistry; forest chemistry; water soluble polysaccharides of eastern, western and European larch wood; cellulose and cellulose derivatives; lignin; pulp and paper engineering.

Peterson, Prof. Geo(rge) M(axwell), University of New Mexico, Albuquerque, N. Mex. *Psychology.* Council, Idaho, June 30, 01. Ph.B, Chicago, 23, A.M, 27, Ph.D, 31. Instr. *psychol,* Iowa State Col, 27–29; asst. prof, Denver, 31–33; *New Mexico,* 33–35, assoc. prof, 35–40, *prof, 41–* A.A; Psychol. Asn. Animal and physiological psychology; brain mechanisms and handedness; learning.

Peterson, Prof. H(arvey) A(ndrew), Illinois State Normal University, Normal, Ill. *Psychology.* St. Louis, Mo, 73. A.B, Chicago, 97, Ph.D, 09; A.M, Harvard, 00. Prof. *psychol,* George Peabody Col, 03–08; *prof. and head dept, Ill. State Nor. Univ, 09–* Midwest. Psychol. Asn. Educational psychology.

Peterson, Prof. Henry, 651 Canyon Road, Logan, Utah. *Psychology.* Huntsville, Utah, May 9, 68. Ph.B, Chicago, 05; A.M, Harvard, 06, 06–07. Teacher, high sch, Utah, 07–09; dean teachers col, Brigham Young, 09–11; sch. supt. and prin, high sch, Utah, 11–21; head dept. educ, *Utah State Col,* 21–28, prof. *psychol,* 28–38, *emer. prof, 38–, trustee.* Int. Cong. Psychol. Education.

Peterson, Dr. H(oward) B(oyd), Utah State Agricultural College, Logan, Utah. *Soil chemistry.* Redmond, Utah, Oct. 10, 12. B.S, Brigham Young, 35, A.M, 37; fellow, Nebraska, 37–40, Ph.D, 40. *Instr. soils, Utah State Col, and research asst, Exp. Sta, 40–* Soc. Agron; Soil Sci. Soc. Soil fertility.

Peterson, Prof. Hugh W(ickman), 662 N. Fifth East St, Provo, Utah. *Chemistry, Chemical engineering.* Ephraim, Utah, Oct. 13, 93. A.B, Brigham Young, 16, A.M, 28; Ph.D, Iowa, 36. Instr. *chem, Brigham Young,* 27–36, *asst. prof, 36–* Chem. Soc. (chairman, northwest. Utah sect, 34). Use of colloidal bentonite in water treatment.

Peterson, Dr. Joel B(igelow), White Laboratories, Inc, Newark, N. J. *Chemistry.* Chicago, Ill, April 3, 97. B.S, Denison, 19; M.S, Ohio State, 20, Ph.D, 23. Asst. chem, Ohio State, 19–23; instr, Wisconsin, 23–24; chemist, Am. Med. Asn, 24–38; director research, Frederick Stearns and Co, 38–40; *research chemist, White Labs, Inc, 40–* Chem. Soc. Absorption spectra of phenylazophenol and of some of its derivatives; medicinal chemistry.

Peterson, Prof. John B(ooth), Iowa State College, Ames, Iowa. *Soil chemistry.* Salem, Oregon, July 18, 05. B.S, Oregon State Col, 28; M.S, Iowa State Col, 29, Ph.D, 36. Teaching fellow, *Iowa State Col,* 28–29, instr. *agron,* 29–33, asst. prof, 33–43, *assoc. prof, 43–* Nat. research fellow, California, 39–40. Soc. Agron. Soil conservation, fertility and structure; soil microscopy.

Peterson, Prof. J(ohn) C(hristian), 1330 Laramie St, Manhattan, Kans. *Psychology.* Huntsville, Utah, Jan. 10, 84. A.B, Utah, 13; fellow, Chicago, 16–17, Ph.D, 17. Prin, high sch, Idaho, 09–11; asst, Utah, 13–14; sch. supt, Utah, 14–15; *prof. psychol, Kans. State Col, 17–* A.A; Psychol. Asn; Kans. Acad. (chairman, psychol. sect, 30). The higher mental processes in learning; self-checking; self-scoring reusable tests of ability and achievement.

Peterson, Dr. J(ohn) Merriam, Valley Stream, N. Y. *Chemical engineering.* Council Bluffs, Iowa, March 3, 03. B.S, Iowa State Col, 23, M.S, 24; Ph.D, Illinois, 27. Asst. chem, Illinois, 24–26; research chemist and develop. engineer, Hercules Powder Co, Wilmington, Del, 27–40; *assoc. prof. chem. eng, Cooper Union, 40–* Chem. Soc. (chairman, Del. sect, 37); Chem. Eng. Organometallic compounds; cryoscopic study of non-aqueous solutions; viscosity; physical constants of naval stores products; ammonia oxidation; chlorinated rubber.

Peterson, Dr. M(erlin) D(ewey), 126 Tucker Ave, Oak Ridge, Tenn. *Physical chemistry.* Provo, Utah, July 22, 10. A.B, Vanderbilt, 31; Ph.D, California, 36. Instr. chem, California, 36–37; *research chemist,* ammonia dept, E. I. du Pont de Nemours and Co, 37–43; metal. lab, Chicago, 43; *Clinton Labs, 43–* A.A; Chem. Soc. Radioactivity; carbon monoxide; hydrocarbon chemistry; high pressure synthesis.

Peterson, Capt. Oliver H(erdien), Station Hospital, Ft. Riley, Kans. *Bacteriology.* Minneapolis, Minn, Nov. 2, 09. B.Ch, Minnesota, 32; A.M, Missouri, 33, Ph.D, 42. Asst. bacter, Missouri, 32–36, instr, 36–42; *Sanit. Corps, U. S. Army, 42–, capt.* Soc. Bact; Chem. Soc; Pub. Health Asn; Int. Asn. Milk Sanitarians. Intestinal bacteria in water; bacterial enzymes.

Peterson, Dr. P(aul) D(onald), Freeport Sulphur Co, 1804 American Bank Bldg, New Orleans, La. *Plant pathology.* Wadena, Minn, Aug. 29, 94. B.S.A, Minnesota, 24, M.S, 26, Ph.D, 29. Asst. plant path, Minnesota, 24–25, instr, 25–28; asst. pathologist, office cereal crops and diseases, U. S. Dept. Agr, 28–30; plant pathologist, Koppers Research Corp, 30–32; acting asst. prof, Cornell, 32–33; Crop Protection Inst. research fellow, Delaware, 33–34; plant pathologist and later *director agr. research, Freeport Sulphur Co, 34–* A.A; Phytopath. Soc. Fruit diseases; corn root rots; plastid pigment of tobacco; fungicides and herbicides from coal tar by-products; sulfur in agriculture.

Peterson, Prof. P(eter) Victor, 430 S. 16th St, San Jose, Calif. *Chemistry.* Hampton, Iowa, Feb. 11, 92. A.B, Iowa State Teachers Col, 17; A.M, Stanford, 21, Ph.D, 30. Sch. supt, Iowa, 17–18; instr. chem, Iowa State Teachers Col, 19–20; high sch. and junior col, 21–22; *prof. chem. and chairman dept. nat. science, San Jose State Col, 22–* Director, West Coast Sch. Nature Study, 31– U.S.A, 18–19. Chem. Soc. Action of sodium amide on silicates; elementary science.

Peterson, Dr. Raymond A(lfred), 1255 E. Green St, Pasadena, Calif. *Geophysics.* Denver, Colo, March 12, 09. B.S, Calif. Inst. Tech, 31, Ph.D, 35. *Mem. staff,* Geophys. Eng. Corp, 35–37; *United Geophys. Co, 38–* Mem. staff, div. war

research, California and Columbia, 41–42. Pure and applied geophysics.

Peterson, Dr. Robert F, 244 Meehan Ave, Philadelphia, Pa. *Organic chemistry.* Lima, Ohio, Sept. 27, 09. A.B, Montana, 31; M.S, Illinois, 32; Ph.D, Maryland, 41. Asst. sci. aid, U. S. Engineers, 36–38; junior chemist, *U. S. Dept. Agr,* 38–40, asst. chemist, *east. regional research lab, bur. agr. chem. and eng,* 40–42, *assoc. chemist, 42–* Chem. Soc. Conversion of milk proteins to commercially utilizable forms, especially fiber and plastics.

Peterson, R(udolph) E(arl), 636 Cascade Road, Forest Hills, Pittsburgh, Pa. *Mechanics.* Oregon, Ill, Nov. 8, 01. B.S, Illinois, 25, M.S, 26. *Westinghouse Elec. and Mfg. Co, 26–,* sect. engineer in charge strength of materials research labs, 30–31, *manager mech. div, research labs, 31–* Junior award, Soc. Mech. Eng, 26. Mech. Eng; Soc. Test. Mat. Applied mechanics; theory of gearing; fatigue of metals; strength of materials.

Peterson, Dr. R(udolph) F(rederick), Dominion Rust Research Laboratory, Winnipeg, Man, Can. *Plant breeding.* Winnipeg, Man, Sept. 20, 00. B.S.A, Manitoba, 30; M.S, Minnesota, 31, Ph.D, 33. Asst, Minnesota, 30–32; asst. supt. in charge cereal investigations, Dom. Exp. Farm, Brandon, Man, 34–35; *cereal specialist, Dom. Dept. Agr, 35–* Can. Soc. Tech. Agr. Wheat breeding; genetics of disease resistance in wheat.

Peterson, Dr. Russell W(ilbur), Arden, Wilmington, Del. *Physical chemistry.* Portage, Wis, Oct. 3, 16. B.S, Wisconsin, 38, Ph.D, 42. *Research chemist, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Inhibition of chemical reactions; nylon.

Peterson, Dr. S(elmer) W(ilfred), 3302 Iowa St, Pittsburgh, Pa. *Physical chemistry.* Owatonna, Minn, Sept. 8, 17. A.B, St. Olaf Col, 38; A.M, South Dakota, 40; Ph.D, Maryland, 42. Asst. chemist, State Chem. Labs, S. Dak, 38–39; asst, Maryland, 39–42; *indust. fellow, Mellon Inst, 42–* Chem. Soc. Reaction velocity; rate of conversion of ammonium cyanate to urea; dielectric constant and solvent effects; synthetic rubber type resins.

Peterson, Dr. T(hurman) S(tewart), 2288 University St, Eugene, Oregon. *Mathematics.* Mercur, Utah, May 5, 05. B.S, Calif. Inst. Tech, 27; M.S, Ohio State, 28, Ph.D, 30. Instr. math, Michigan, 30–32; Inst. Advanced Study, 32–34; chairman depts. math. and science, Shipley Sch, Bryn Mawr, 34–38; instr. *math, Oregon,* 38–39, *asst. prof, 39–* Math. Soc; Math. Asn. Functional analysis.

Peterson, Dr. W(alter) J(ohn), 1121 Harvey, Raleigh, N. C. *Chemistry.* Negaunee, Mich, June 21, 09. B.S, Mich. State Col, 30, M.S, 33; Ph.D, Iowa, 35. Chemist, du Pont Rayon Co, Buffalo, N. Y, 30–31; instr. chem, Kans. State Col, 35–36, chemist in animal nutrition, 36–42; *prof. in charge animal nutrition research, N. C. State Col, 42–* A.A; Chem. Soc. Halogenation; pyrazolines; carotenoid pigments; vitamins; animal nutrition.

Peterson, Dr. W(illard) D(ouglas), 373 Shawnee Drive, Easton, Pa. *Chemistry.* Council Bluffs, Iowa, Feb. 12, 06. B.S, Iowa State Col, 27; A.M, Harvard, 28, Ph.D, 31. Asst. org. and physical chem, Radcliffe Col, 28–31; Harvard, 31–34; research, Eastman Kodak Co, 34–42; *mem. research staff, Gen. Aniline and Film Corp, 42–* Chem. Soc. Mercury compounds; azo dyes; reactions of alpha, beta-unsaturated ketones; dyes for color photography; properties and uses of heterocyclic compounds.

Peterson, Prof. William, Utah State Agricultural College, Logan, Utah. *Geology.* Bloomington, Idaho, May 24, 74. B.S, Utah Col, 99; Chicago, 01–03. Asst. prof. geol. and physics, Utah Col, 03–08; mining engineer, 08–10; prof. geol, *Utah State Col,* 10–37, director, *Exp. Sta,* 21–27, *agr. extension service,* 24–43, *emer. director, 43–* State geologist, Utah, 17–21. Utah Water Storage Cmn, 25–41; President Hoover's Cmn. Conservation and Admin. Pub. Domain, 30–31; chairman, Special Investigating Cmt. to Study Econ. and Financial Conditions West. Reclamation Projects, 40; Cmt. to Work out Land and Water Relationships, Klamath Falls Reclamation Project, Oregon, 41; mem. advisory board, Columbia River Basin Reclamation Projects, 41. Min. and Metal. Eng; West. Waters Asn. (v. pres, 25); fel, Utah Acad. Ground water; agricultural geology; coal.

Peterson, Prof. W(illiam) H(arold), University of Wisconsin, Madison, Wis. *Biochemistry.* Libertyville, N. Y, Nov. 14, 80. B.S, Wesleyan, 07; A.M, Columbia, 09; Ph.D, Wisconsin, 13. Asst. *biochem, Wisconsin,* 09–10, instr, 10–14, asst. prof, 14–18, assoc. prof, 18–25, *prof, 25–* Summers, asst, Columbia, 09–11; fellow, Kaiser Wilhelm Inst, 14. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Bact; Inst. Nutrition; Soc. Exp. Biol; Biochem. Soc. Gt. Britain. Nutrition; fermentation; biochemistry of fungi; growth factors for bacteria.

Peto, Dr. F(rank) H(erbert), Research Department, Buckerfield's, Ltd, Vancouver, B. C, Can. *Cytogenetics.* Emerson, Man, 05. B.S.A, Manitoba, 28; M.Sc, Alberta, 30; Nat. Research Council Can. fellow, Wales, 30–31, and John Innes Horticultural Institution, London, 31–32; Ph.D, Wales, 32. Asst, Alberta, 28–30; cytologist, div. biol. and agr, Nat. Research Council Can, 32–40; *sugar beet research and seed production, Buckerfield's Ltd, 40–* Genetics Soc; Can. Soc. Tech. Agr. Cytology of intergeneric hybrids; influence of heat on the mutation rate in plants.

Petran, Dr. Laurence A(rmstrong), 405 Hilgard Ave, Los Angeles 24, Calif. *Psychology.* Albert Lea, Minn, May 12, 02. A.B, Mus.B, Carleton Col, 23; diploma, Peabody Conservatory Music, 29, Mus.M, 36; fellow, Am. Guild Organists, 29; A.M, Hopkins, 29, Ph.D, 30. Teacher, high sch, S. Dak, 23–24; teacher and acting prin, Asheville Farm Sch, N. C, 24–27; asst. psychol, Hopkins, 28–30; instr, Peabody Conservatory Music, 29–42, research assoc, 30–42; instr. *music,* Goucher Col, 35–42; *assoc. prof, California, 42–* A.A; Musicol. Soc; assoc. Psychol. Asn. Controlled association; pitch identification and discrimination; motor coordination as a factor in musical talent; sensory musical tests; pedagogy of harmony; folk music; expression of emotion in music.

Petre, A(ndrew) W(illiam), Mellon Institute, Pittsburgh, Pa. *Biochemistry.* Pittsburgh, Pa, June 13, 03. B.S, Pa. State Col, 25; M.S, New Hampshire, 27. Asst, Exp. Sta, New Hampshire, 25–27; asst. biochem, Boyce Thompson Inst, 27–34; asst. plant physiol, Brown, 35; *indust. fellow, Mellon Inst, 36–* Chem. Soc. Virus of mosaic disease of tobacco; aging of tobacco; composition of commercial types and grades of cigarette tobacco; chemical composition of cigarette smoke; hygroscopic properties of cigarette type tobaccos; relative water resistance of casein adhesives.

Petrie, Prof. John M(atthew), Gardner Road, Templeton, Mass. *Chemical engineering.* Phillipsdale, R. I, March 17, 05. B.S, Worcester Polytech, 29, M.S, 31. Asst. chem, *Worcester Polytech,* 29–31, instr, 31–32, chem. and chem. eng, 32–37, asst. prof. *chem. eng,* 37–43, *prof, 43–* Chem. Soc; Eng. Educ; Chem. Eng. Heat transfer.

Petrie, Dr. R(obert) M(ethven), Dominion Astrophysical Observatory, Victoria, B. C, Can. *Astronomy.* St. Andrews, Scotland, May 15, 06. B.A, British Columbia, 28; fellow, Michigan, 28–30, A.M, 29, Ph.D, 32. Instr. astron, Michigan, 30–35; *astronomer, Dom. Astrophys. Observatory, 35–* Summers, asst, Dom. Astrophys. Observatory, 26–29. A.A; Astron. Soc; Royal Astron. Soc. Can; fel. Royal Soc. Can. Spectroscopic binaries; radial velocities; solar physics; celestial mechanics; celestial kinematography; spectrophotometry.

Petrovich, Dr. Anton I, 676 Shelton St, Bridgeport, Conn. *Metallurgy.* Bridgeport, Conn, April 16, 11. B.S, Rensselaer Polytech, 33, M.S, 34, fellow, 34–36, Ph.D, 36. Research chemist, Gen. Chem. Co, 36–38; physical chemist, Aluminum Research Labs, 38–40; *metallurgist, RCA Mfg. Co, 41–* Chem. Soc; Physical Soc; Soc. Metals. X-rays and crystal structure; spectroscopy; inorganic chemistry of platinum and of fluorine; surface chemistry; high temperature reactions; physical metallurgy; powder metallurgy.

Petrunkevitch, Prof. Alexander, Yale University, New Haven, Conn. *²*Zoology.* Pliski, Russia, Dec. 22, 75. Moscow, 94–98; Ph.D, Freiburg, 00; hon. Sc.D, Puerto Rico. 26. privat-docent, Freiburg, 01–03; lecturer, Harvard, 03–04; acting prof. zool, Indiana, 06; hon. curator Arachnida, Am. Museum Nat. Hist, 09–11; *prof. zool, Yale, 17–* Visiting prof, Puerto Rico, 25–26. South. Mex. exped, Am. Museum Nat. Hist, 09. Chairman, sect. comp. physiol, Int. Cong. Zool. Boston, 07. A.A; Soc. Nat; Soc. Zool; Entom. Soc; Paleont. Soc; Conn. Acad. (pres); fel. N. Y. Acad; hon. mem. Soc. entom. de Belg. Cytology; physiology; psychology; experimental zoology; paleontology; microphotography; morphology of invertebrates; heredity; synonymic catalogue of American spiders; anatomy of spiders; sense of sight; mating; taxonomy.

Petry, Prof. Loren C(lifford), Cornell University, Ithaca, N. Y. ***Botany.* New Paris, Ohio, Sept. 22, 87. B.S, Earl-

ham Col, 07; Haverford Col, 08; M.S, Chicago, 11, fellow, 11–13, Ph.D, 13, 13–14. Instr. bot, Syracuse, 14–16, asst. prof, 16–20, assoc. prof, 20–24, prof, 24–25, director summer session, 19–25; *prof. bot, Cornell, 25–, director summer session, 35–* A.A; Bot. Soc. (sec'y, 33–36, v. pres, 37, chairman paleobot. sect, 38). Paleobotany of the Devonian period; botanical teaching.

Petry, Dr. Robert L(owell), University of the South, Sewanee, Tenn. *Physics.* New Paris, Ohio, Nov. 1, 97. A.B, Earlham Col, 19; B.S, Haverford Col, 20; Ph.D, Princeton, 25. Instr. *physics,* Saskatchewan, 21–23; *prof,* Roanoke Col, 25–29; *Univ. of the South, 29–* A.A; Physical Soc; Asn. Physics Teachers; Tenn. Acad. Secondary electron emission from metals; motion pictures for teaching physics.

Pett, Dr. L(ionel) Bradley, Department of National Health, Ottawa, Ont, Can. *Biochemistry.* Winnipeg, Man, 09. B.Sc.A, Toronto, 30, fellow, 31–33, M.A, 32, Ph.D, 34; fellow, Ont. Agr. Col, 31; M.D, Alberta, 42. Asst. soil analyst, Ont. Agr. Col, 30, lecturer chem, 30–31; demonstrator biochem, Toronto, 33–34; 1851 Exhib. scholar, Stockholm, 34–35, Cambridge, 35–36; lecturer, Alberta, 36–41; *director nutrition services, Can. Dept. Nat. Health, 41–; sec'y, Can. Council Nutrition, 41–* Soc. Biol. Chem; fel. Can. Inst. Chem. Microbiological chemistry; enzymes; nutrition.

Petterssen, Prof. Sverre, Massachusetts Institute of Technology, Cambridge, Mass. *Meteorology.* Hadsel, Norway, Feb. 19, 95. M.Sc, Oslo, 26, D.Sc, 33. Meteorologist, Norwegian Weather Forecasting Service, 25–32; head, Weather Forecasting Inst, Bergen, Norway, 32–39; assoc. prof. *meteorol, Mass. Inst. Tech, 39–40, prof, 40–, head dept, 41–* Visiting lecturer and instr, U. S. Navy Base, Norfolk, Va, and San Diego, Calif; Calif. Inst. Tech; U. S. Weather Bur; Meteorol. Office, Toronto, Ont, Can. General meteorology; weather forecasting; quantitative forecasting based on the movement of air fronts, air masses and low pressure centers.

Pettijohn, Dr. Earl, University of Tulsa, Tulsa, Okla. *Chemistry.* St. Peter, Minn, June 18, 84. A.B, Minnesota, 06, B.S, 10, M.S, 11, Ph.D, 18. Chemist, Bur. Standards, 15–18; chief chemist, Firestone Steel Products Co, 18–25; prof. chem. and physics, Mo. Valley Col, 25–42, acting dean, 36–41; mem. staff, Cardox Corp, 42–43; *mem. faculty, Tulsa, 43–* Adsorption; gases in steel.

Pettijohn, Prof. Francis J(ohn), University of Chicago, Chicago, Ill. *Geology.* Waterford, Wis, June 20, 04. A.B, Minnesota, 24, A.M, 25, Ph.D, 30; fellow, California, 27–28. Instr, Macalester Col, 24–25; *geol,* Oberlin Col, 25–29; *Chicago,* 29–31, asst. prof, 31–39, *assoc. prof, 39–* A.A; Geol. Soc; Miner. Soc. Sedimentary petrology; Precambrian sediments; sedimentation and geochronology.

Pettijohn, Dr. O(rpha) Glenn, 142 S. Eleanor, Peoria, Ill. *Biochemistry.* Sardinia, Ohio, Jan. 5, 04. B.S, Ohio State, 32, M.S, 34, Ph.D, 40. Asst. agr. chem, Ohio State, 34–40; fed. soft wheat lab, Ohio Agr. Exp. Sta, 37–38; junior chemist, field surv. stream pollution in Ky, U. S. Pub. Health Service, 40–41; *asst. chemist, fermentation div, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Production of materials of industrial importance by the fermentation of carbohydrates by means of various bacteria, yeasts and molds; the effect of oxidation-reduction potential upon the proteolytic activity of papain.

Pettingill, Dr. Olin Sewall, Jr, Carleton College. Northfield, Minn. *Zoology, Ornithology.* Belgrade, Maine, Oct. 30, 07. A.B, Bowdoin Col, 30; Ph.D, Cornell, 33. Instr, night sch, N. Y, 33; teaching fellow biol, Bowdoin Col, 33–34; instr, Westbrook Junior Col, 35–36; *zool, Carleton Col, 36–41, asst. prof, 41–* Research assoc, Cranbrook Inst. Science, 40– Summers, instr, Lost River Nature Camp, 34, 36; mem. staff, biol. sta, Michigan, 38– Mem. Carnegie Museum zool. exped, Hudson Bay, 31; co-leader, Cornell-Carleton Col. ornith. exped, Mex, 41. Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp; Wildlife Soc; Nuttall Ornith. Club; Wilson Ornith. Club (sec'y, 37–41, v. pres, 42–); Cooper Ornith. Club; Northeast. Bird-Banding Asn. (councilor); Minn. Bird Club; Minn. Acad. Life history, ecology, behavior and distribution of birds.

Pettis, Dr. B(illy) J(ames), Box 673, Spartanburg, S. C. *Mathematics.* Pittsburgh, Pa, Sept 7, 13. A.B, Wofford Col, 32; A.M, North Carolina, 33; Brown, 33–35; Ph.D, Virginia, 37. Du Pont research fellow, Virginia, 37–38; Sterling research fellow, Yale, 38–39; Benjamin Peirce instr, Harvard, 39–41; *Coast Artil. Corps, U. S. Army, 41–, 2nd lieut.* Math. Soc; Math. Asn. Function spaces.

Pettis, Col. C(harles) R(oberts), 1980 Suffolk Road, Columbus, Ohio. *Hydraulic engineering.* Oxford, Miss, May 21, 80. A.B, Mississippi, 99; U. S. Mil. Acad, 04; Army Eng. Sch, 09; Army War Col, 21. With U. S. Army, 04–37; asst. prof. math, U. S. Mil. Acad, 10–13; *col, C. Eng,* Ft. Hayes, Ohio, 33–36, *Detroit, 36–* A.A; Civil Eng; Soc. Mil. Eng; Int. Asn. Navig. Cong. Flood hydraulics; flood probabilities; hydrology of the Great Lakes.

Pettit, Dr. Albert V(ictor), 2000 Van Ness Ave, San Francisco, Calif. *Obstetrics, Gynecology.* Hoquiam, Wash, Feb. 2, 91. A.B, Stanford, 15, M.D, 19. Senior intern obstet. and gynec, Lane Hosp, 19–20, res, 20–21; from res. to *assoc. clin. prof. obstet. and gynec, sch. med, Stanford, 20–* Chief, women's clinic, sch. med, Stanford, 21–25; asst. visiting obstetrician and gynecologist, San Francisco Hosp, 26–29, acting visiting obstetrician, 29, visiting obstetrician and gynecologist, 29– Mem, Am. Board Obstet. and Gynec. Fel. Am. Med. Asn; Col. Surg; Pacific Coast Soc. Obstet. and Gynec; fel. Calif. Acad. Med; San Francisco Bay Counties Obstet. and Gynec. Soc; San Francisco Path. Soc. Effects of radiation of the hypophysis; surgical treatment of pelvic inflammatory disease; non-surgical treatment of gonorrhoea in women; plastic surgery of the pelvic floor; the shape of the female pelvis and the clinical course of labor.

Pettit, Dr. Edison, Mt. Wilson Observatory, Pasadena, Calif. ***Astrophysics.* Peru, Nebr, Sept. 22, 90. B.E, Nebr. Nor. Sch, Peru, 11; Ph.D, Chicago, 20; LL.D, Carthage Col, 35. Teacher, high sch, Nebr, 11–14; astron. and physics, Washburn Col, 14–15, astron, 15–18; asst, Yerkes Observatory, Chicago, 18–20; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 20–* Eclipse expeds, Matheson, Colo, 18, Point Loma, 23, Middletown, 25, Honey Lake, 30, Lancaster, N. H, 32. Astron. Soc; Optical Soc; Astron. Soc. Pacific; Int. Astron. Union. Astronomy; solar physics; double stars; radiation measurements on celestial objects; solar energy curve in the ultraviolet; motions and other characteristics of prominences.

Pettit, Dr. Hannah Steele, Mt. Wilson Observatory, Pasadena, Calif. *Astronomy.* Coatesville, Pa, Nov. 6, 86. A.B, Swarthmore Col, 09, A.M, 12; Ph.D, Chicago, 19. Observer, Sproul Observatory, Swarthmore Col, 12–16; *asst,* Yerkes Observatory, Chicago, 16–20; *Mt. Wilson Observatory, Carnegie Institution, 20–* Solar eclipse exped, Matheson, Colo, 18, Point Loma, 23, Honey Lake, 30, Lancaster, N. H, 32. Astron. Soc. Astrophysics; stellar parallax; eclipse observations.

Pettit, Prof. H(arvey) P(ierson), Waterford, Wis. *Mathematics.* Chadron, Nebr, April 25, 93. A.B, Kalamazoo Col, 14; fellow, Kentucky, 18–19, A.M, 19; Ph.D, Illinois, 22. Teacher, high sch, Mich, 14–18; asst. *math,* Illinois, 19–22, instr, 22–23; *prof. and head dept,* Ill. Wesleyan, 23–26; *Marquette, 26–* A.A; Math. Soc; Math. Asn. Projective geometry.

Pettit, Dr. J(oseph) M(ayo), Harvard University, Cambridge, Mass. *Electrical engineering.* Rochester, Minn, July 15, 16. B.S, California, 38; E.E, Stanford, 40, Ph.D, 42. Teaching asst. *elec. eng,* Stanford, 38–39; *instr, California, 40–;* research assoc, Nat. Defense Research Cmt, Stanford, 41–42; *special research assoc, Office Sci. Research and Develop, 42–* Radio communication, U. S. Forest Service, 37; transmission substa, Nev-Calif. Elec. Corp, 38. Elec. Eng; Radio Eng; Eng. Educ. Electrical and radio engineering; radio direction finding; frequency modulation; high-frequency circuits.

Pettit, Prof. Lincoln C(oles), 59 Harrison Ave, Baldwin, L. I, N. Y. *Insect embryology.* West Hoboken, N. Y, Feb. 12, 11. A.B, Cornell, 34, A.M, 35, Ph.D, 40. Instr, Cornell, 35–40; entom, Maryland, 40; biol, Washington and Lee, 40–41, asst. prof, 41–42; *Inf, U. S. Army, 42–, capt.* Insect life history; Blattidae.

Pettit, Prof. R(ufus) H(iram), Michigan State College, East Lansing, Mich. *Entomology.* Baldwinsville, N. Y, Jan. 11, 69. B.S, Cornell, 95; hon. Sc.D, Mich. State Col, 31. Asst. state entomologist, Minn, 95–97; instr. zool, *Mich. State Col,* 97–06, prof. *entom,* 06–34, *emer. prof, 34–,* asst. entomologist, *Exp. Sta,* 97–06, entomologist, 06–34, *consulting entomologist, 34–* Collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr. Entom. Soc. Amer; Asn. Econ. Entom; Mich. Acad; Entom. Soc. Wash; Soc. linn. de Lyon. Economic entomology; Coccidae; control of noxious pests.

Petty, Prof. Ben(jamin) H(arrison), 707 Crestview Place, West Lafayette, Ind. *Engineering.* Hayes Co, Nebr, Oct. 12, 88. B.S, Purdue, 13. Morgan Eng. Co. and Miami Conservancy Dist, Dayton, Ohio, 13–20; from instr. to *prof. highway eng, Purdue, 20–; capt, U. S. Army, 42–* Eng. Educ; Road Builders Asn; Civil Eng. (pres, Ind. sect, 42); Nat. Soc. Professional Eng. (director); Ind. Eng. Soc. (pres, 33, trustee, 33–35). Highway engineering.

Petty, Dabney E(lijah), Petty Geophysical Engineering Co, P. O. Drawer 1477, San Antonio, Texas. *Geophysics.* Olive, Texas, June 29, 91. Ga. Tech, 13–14; Texas, 14–16; Cornell, 23–24. Geol. work, Texas Co, 16–17; geologist, Sinclair Oil Corp, 17–18; consulting geologist, 19–22; Cornell, 23–24; assoc. geologist, bur. econ. geol. and technol, Texas, 24–25; *chief geologist, Petty Geophys. Eng. Co, 25–* Explor, Africa, 22–23. C.Eng, U.S.A, 18–19. A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Civil Eng; Seismol. Soc; Geophys. Union; Soc. Explor. Geophys; Soc. Econ. Paleont. and Miner; Soc. Mil. Eng. Geophysical prospecting.

Petty, Dr. Gerald M(cKinney), Johns-Manville Corp, Manville, N. J. *Physical chemistry.* Excello, Mo, Dec. 6, 01. B.S, Missouri, 26, A.M, 27; Ph.D, Pittsburgh, 33. Instr, S. W. Baptist Junior Col, 27–28; asst. chemist, U. S. Bur. Mines, Pittsburgh, 28–29; teacher, high sch, Pa, 29–32; chemist, Vanadium Corp. of Amer, 34–37; asst. chemist, lab. indust. hygiene and toxicol, Fidelity and Casualty Co. of N. Y, 37–43; *senior research chemist, research lab, Johns-Manville Corp, 43–* Chem. Soc; Inst. Chem; Physical Soc; Indust. Hygiene Asn. Chemical analysis.

Petty, Prof. Julian J(ay), 1711 Maplewood Drive, Columbia, S. C. *Geography, Geology.* Ontario, N. Y, Nov. 3, 01. B.S, Denison, 24; A.M, Harvard, 29; Ohio State, 35–36. Instr. geol, Allegheny Col, 25–26; teaching fellow, Harvard, 26–29; *assoc. prof. geog, South Carolina, 29–* Summers, instr, Marshall Col, 28; asst, Ohio State, 35–36. Popul. consultant, State Planning Board, S. C, 38– A.A; Am. Geog. Soc; Popul. Asn; Council Geog. Teachers; S. C. Acad. Physiography; glacial geology; fulgurites; demography.

Petty, Dr. Milton Andrew, Jr, University of Maryland, College Park, Md. *Plant pathology.* Bunkie, La, 15. B.S, Southwest. La. Inst, 35; M.S, Louisiana, 37; Ph.D, Minnesota, 40. Asst. prof. biol, Southwest. La. Inst, 39–42; *instr.* biol. and social studies, North. Mont. Col, 42; *plant path, Maryland, 43–* Summer, inspector, State Dept. Agr, La, 37. Phytopath. Soc; La. Acad. Variation in fungi; potato diseases; diseases of ornamentals.

Petty, O(live) S(cott), 101 E. Kings Highway, San Antonio, Texas. *Geophysics.* Olive, Texas, April 15, 95. B.S, Texas, 17, C.E, 20. Adj. prof. civil eng, Texas, 20–23; struct. engineer, 23–25; *pres, Petty Geophys. Eng. Co. and Petty Labs, Inc, 25–* Lieut, Eng. C, 17–18. A.A; Min. and Metal. Eng; Asn. Petrol. Geol; Soc. Explor. Geophys; Civil Eng; Geophys. Union; Seismol. Soc; Texas Acad.

Pettyjohn, Prof. E(lmore) S(haw), 1507 Granger Ave, Ann Arbor, Mich. *Chemical engineering.* Alma, Mich, April 12, 97. A.B, Michigan, 18, B.S.E, M.S.E, 22, Chem.E, 30. Junior blower, Ill. Steel Co, Chicago, 22–23; cadet engineer, Chicago By-Products Coke Co, 23–24, gen. plant shift foreman, 24–27; investigator, dept. eng. research, Michigan, 27–30, assoc. prof. gas eng, 29–33, research engineer, 30–33; chem. engineer, Leader Industries, Decatur, Ill, 33–36; chief engineer, Mervin Bldg. Corp, 36–37; asst. prof. *chem. eng, Michigan,* 37–39, *assoc. prof, 39–; lieut. commander, U. S. Naval Res, 40–* Ensign, U.S.N.R, 18–19, lieut. A.A; Chem. Eng; Chem. Soc; Gas Asn. (water gas cmt, 28–36); Mich. Gas Asn. Gas engineering; the production of carbureted water gas; the use of bituminous, coking and non-coking coals and crude oil as water gas generator fuel; designing of whiskey distillation units; evaporation and heat transfer; sedimentation.

Peugnet, Prof. Hubert B(eaufort), Washington University School of Medicine, St. Louis, Mo. *Physiology.* St. Louis, Mo, Jan. 17, 03. A.B, St. Louis, 24, M.D, 30. Asst. *physiol,* sch. med, St. Louis, 26–30; instr, *sch. med, Washington (St. Louis),* 30–40, *asst. prof, 40–; Med. Corps, U. S. Army, 40–* A.A; Physiol. Soc. Nerve-muscle electro-physiology; biological oxidation-reduction phenomena.

Peurifoy, Prof. R(obert) L(eroy), Texas College of Arts and Industries, Kingsville, Texas. *Sanitary engineering.* Reisel, Texas, Dec. 1, 02. B.S, Texas, 27, A.M, 29. Instr. civil eng, Texas, 29; physics, N. Texas State Teachers Col, 29; asst. prof. civil eng, Texas, 29–30; *director div. eng, Texas Col. Arts and Indust, 30–; prin. specialist eng. educ, eng, science and management war training, U. S. Office Educ.* City engineer, Kingsville, Texas, 32–36. Assoc. Civil Eng; Eng. Educ. The use of the micro-micrometer to measure the magnetostriction of steel and nickel; the effects of irrigating field crops with domestic sewage.

Pew, John C(larence), U. S. Forest Service, Madison, Wis. *Chemical engineering.* Cleveland, Ohio, June 21, 01. B.Ch.E, Ohio State, 25, M.S, 30. Chemist and later chief chemist, Arco Co, Cleveland, Ohio, 26–29; asst. engineer, *Forest Products Lab, U. S. Forest Service,* 30–35, assoc. engineer, 35–42, *engineer, 42–* Tech. Asn. Pulp and Paper Indust. Pulpwood properties; the mechanical pulping of wood; plastics.

Peyton, Dr. Floyd A(very), 405 Snyder St, Ann Arbor, Mich. *Dentistry.* Charlestown, Ind, 05. A.B, Indiana, 28; B.S, Mich. Col. Mines, 29; Sc.D, Michigan, 33. Teaching asst, Mich. Col. Min. and Tech, 29; chemist, A. P. Fox Co, Indianapolis, 29–30; teaching asst, Michigan, 30–33; research chemist, W. V-B. Ames Co, Fremont, Ohio, 34–35; instr. metal. and *asst. prof. dentistry, sch. dentistry, Michigan, 35–* Physical properties of dental materials.

Peyton, Garland, 425 State Capitol, Atlanta, Ga. *Mining, Geology.* Mt. Airy, Ga, Oct. 2, 92. B.S, Georgia, 14. Mining engineer, U. S. Smelting, Ref. and Mining Co, 14–17; director sch. mines, North Ga. Agr. Col, 19–28; asst. mill supt. and research metallurgist, Tenn. Copper Co, 28–31; consulting mining engineer, 31–33; mining engineer, *div. mines, mining and geol, State Dept. Nat. Resources, Ga,* 37–38, *director, 38–* Lieut, U.S.A, 17–19, capt, 33–37. Min. and Metal. Eng; Asn. Am. State Geol; Soc. Mil. Eng; South. Asn. Adv. Sci; Ga. Mineral Soc. Mineral resources of Georgia.

Peyton, Dr. William T(homas), 64 S. E. Barton St, Minneapolis, Minn. *Surgery.* Minn, Jan. 11, 92. B.S, Minnesota, 16, M.B, 18, M.D, 19, A.M, 24, Ph.D. (Anat), 26, Ph.D. (Surg), 30. Instr. anat, *Minnesota,* 22–26, teaching fellow *surg,* 26–29, instr, 29–30, asst. prof, 30–34, assoc. prof, 34–40, *prof, 40–, director div. neurosurg, 37–* Growth of the normal and maldeveloped palate; functional healing of bones; surgical relief of pain.

Pfaffmann, Dr. Carl, Brown University, Providence, R. I. *Physiological psychology.* Brooklyn, N. Y, May 27, 13. Ph.B, Brown, 33, A.M, 35; Rhodes scholar, Oxon, 35–38, B.A, 37; George Henry Lewes student, Cambridge, 38–39, Ph.D, 39. Asst. psychol, Brown, 33–35; research assoc. neurophysiol, Pennsylvania, 39–40; *instr. psychol, Brown, 40–; lieut, U. S. Naval Res.* Assoc. Psychol. Asn; East. Psychol. Asn. Electrophysiology; sensory processes; sensory problems in aviation.

Pfahler, Dr. George Edward, 1930 Chestnut St, Philadelphia, Pa. *Radiology.* Numidia, Pa, Jan. 29, 74. M.D, Medico-Chirurg. Col. Phila, 98; hon. Sc.D, Ursinus Col, 31. Intern, Phila. Gen. Hosp, 98, asst. chief res. physician, 99–02; director *radiol,* Medico-Chirurg. Col. Phila, 02–16, clin. prof, 09–12, *prof,* 12–16; *Pennsylvania, 16–* Radiologist, Phila. Gen. Hosp, 99–02. Mem. board directors, Ursinus Col. A.A; Roentgen Ray Soc. (pres, 10); Physical Therapy Asn. (pres, 12); Radium Soc. (pres, 20); Col. Radiol. (pres, 22).

Pfanstiel, Dr. R(obert), E. I. du Pont de Nemours and Co, Cleveland, Ohio. *Chemistry.* Morning View, Ky, Feb. 7, 86. B.S, Valparaiso, 10, Kentucky, 14; A.M, Pennsylvania, 20, du Pont fellow, 19–21, Harrison fellow, 21–22, Ph.D, 22. Prin, schs, Ill, 10–11; chemist, soils and geol. surv. lab, Exp. Sta, Kentucky, 14–16; E. I. du Pont de Nemours and Co, 16–19; sect. chief and asst. chief anti-gas div, Chem. Warfare Service, U. S. Army, 22–25; research chemist, Gen. Chem. Co, 25–28; *research chemist and chem. engineer, Grasselli chem. div, E. I. du Pont de Nemours and Co, 28–* A.A; Chem. Soc. Analytical, physical and industrial chemistry.

Pfeiffer, Dr. Carl (Curt), Parke, Davis and Co, Detroit, Mich. *Pharmacology.* Peoria, Ill, May 19, 08. A.B, Wisconsin, 31, A.M, 33, Ph.D, 35; M.D, Chicago, 37. Asst. pharmacol, Wisconsin, 34–35; Chicago, 36–37, instr, 37, 38–40; intern, Wis. Gen. Hosp, 37–38; assoc. prof, col. med, Wayne, 40–41; *chief pharmacologist, Parke, Davis and Co, 41–; lieut, Med. Corps, U. S. Naval Res, 43–* Organic arsenicals; chemotherapy; analgesic drugs; experimental and migraine headaches; diuretics.

Pfeiffer, Dr. Carroll A(they), Yale University, New Haven, Conn. *Anatomy.* Reno, Ohio, April 18, 06. A.B, Marietta

Col, 29; M.S, Iowa, 31, Ph.D, 35. Asst, Iowa, 29–35; Henry research fellow med, New York Hosp. and med. col, Cornell, 35–36; asst. primate biol, *Yale*, 36–37, *anat*, 37–39, *asst. prof*, 39– A.A; Asn. Anat; Soc. Zool; Soc. Exp. Biol; Asn. Study Int. Secretions; Asn. Study Cancer Research. Physiology of reproduction; interrelation of the mammalian hypophysis and gonads in both sexes; relation of gonadotropic and sex hormones to cancer of the reproductive system; influence of sex hormones on bone formation and blood calcium.

Pfeiffer, Prof. G(eorge) A(dam), 113 W. 18th St, New York, N. Y. *Mathematics.* New York, N. Y, July 16, 89. M.E, Stevens Inst. Tech, 10; A.M, Columbia, 11, Ph.D, 14. Instr. *math*, Col. City of N. Y, 14–15; Harvard, 15–16; Princeton, 16–18; *Columbia*, 19–24, asst. prof, 24–31, *assoc. prof*, *31–* Assoc. ed, 'Annals of Math,' 17–28. A.A; Math. Soc. Conformal mapping; functional equations; point sets.

Pfeiffer, Dr. Isabelle (Gifford) Weed, 223 Dwight St, New Haven, Conn. *Zoology.* North Rose, N. Y, March 12, 07. A.B, Wisconsin, 30; M.S, Iowa, 32, Ph.D, 35. Asst. *zool*, Iowa, 30–35, research assoc, 35–37; *hon. fellow and guest*, *Yale*, *37–* Soc. Zool. Cytology of skin and muscle; hormones in insects.

Pfeiffer, Dr. J(ohn) Arthur F(ranklin), 2934 N. Calvert St, Baltimore, Md. *Pathology, Medicine.* Wilmington, Del, June 27, 83. M.D, Maryland, 08; A.M, George Washington, 16, Ph.D, 18. Physician and pathologist, City Hosp, Baltimore, 09–10; physician, Springfield State Hosp, Sykesville, Md, 10–11; asst, Munich and Frankfurt, 11–13; senior physician and director path. lab, Govt. Hosp, Washington, D. C, 13–17; lecturer path, Hopkins, 19–23; *practising physician.* Lecturer, George Washington, 14. Lecturer, med. officers training sch, U.S.A, 18. Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Asn. Anat; Psychiat. Asn; Med. and Chirurg. Faculty Md. Bacteriology; chronic chorea; pernicious anemia; Landry's paralysis; choroid plexus; lenticular degeneration; spinal fluid; Treponema pallidum; hereditary ataxia; nephelometric study of proteins; neurosyphilis; rhinitis; common colds; electrophoretic migration velocities of blood cells in syphilis.

Pfeiffer, Karl E(rwin), 2701 Queen Anne Road, Windsor Hills, Baltimore, Md. *Forestry.* Brooklyn, N. Y, Aug. 25, 89. A.B, Cornell, 12, 13–14, 15–16. Asst. State Board Forestry, *Md*, 14–15, asst. forester, 16–22, *Dept. State Forests and Parks*, 22–24, *asst. state forester*, *24–*, *director state parks*, *37–* Soc. Foresters (v. chairman, Allegheny sect, 28, 32, chairman, 33); hon. mem. Md. Nat. Hist. Soc; hon. mem. Mountain Club of Md. Basket willows of Maryland.

Pfeiffer, Dr. Norma E(tta), Boyce Thompson Institute for Plant Research, Yonkers, N. Y. *Botany.* Chicago, Ill. B.S, Chicago, 09, fellow, 10–12, Ph.D, 13. From instr. to assoc. prof. bot, North Dakota, 12–23; *research morphologist, Boyce Thompson Inst*, *24–* A.A; Bot. Soc; N. Dak. Acad. (pres, 22). Microchemistry; morphology; Isoetes; pollen; Lilium hybrids.

Pfiffner, Dr. Jos(eph) J(ohn), Parke, Davis and Co, Detroit, Mich. *Biochemistry.* Dubuque, Iowa, June 24, 03. B.S, Iowa, 25, M.S, 26, Ph.D, 28. Asst, Iowa, 26–28; research chemist, Parke, Davis and Co, 28–29; research biochemist, L. I. Biol. Asn, 29–30; research assoc. biol, Princeton, 30–34; biol. chem, col. physicians and surg, Columbia, 34–36; *research chemist, Parke, Davis and Co, 36–, div. head biochem, 42–* Lecturer, med. sch, Wayne, 43– Soc. Biol. Chem: Chem. Soc. (sec'y-treas. div. biol. chem, 37, chairman, 38); Soc. Exp. Biol; Physiol. Soc; Asn. Study Int. Secretions; Pharmaceut. Asn. Chemistry of the body fluids and tissues; determination and metabolism of guanidine bases; chemistry and physiology of hormones and vitamins; plant constituents; enzymes.

Pfister, Jos(eph) C(lement), 240 Sixth Ave, Newark, N. J. *Mechanics, Mathematical physics.* Newark, N. J, March 10, 67. A.B, Columbia, 89, fellow, 89–92, A.M, 90. Asst. math. and astron, Columbia, 89–90, tutor higher math. and astron, 90–93, mech, 93–01, instr, 01–05, adj. prof, 05–11. Fel. N. Y. Acad. Bibliography of mechanics; nebular hypothesis.

Pfister, Dr. Karl H. T, 22 Llewellyn Road, Summit, N. J. *Chemistry.* Freising, Bavaria, April 21, 81. Ph.D, Ludwig-Maximilian, Munich, 09. Org. research chemist dyes, Badische Anilin and Soda-Fabrik, Germany, 09–11; textile chemist, Badische Co. Amer, 11–19; chief chemist, G. Siegle Corp. Amer, 19–24; org. research and process chemist, Rohm and Haas Co, 24–27; *head lake color and specialty dept, Gen. Dyestuff Corp, 27–* A.A; Chem. Soc. Organic chemistry.

Pfister, Dr. R(udolf) J(ohn), 331 E. Foster Ave, State College, Pa. *Analytical chemistry.* Indianapolis, Ind, May 6, 11. A.B, Butler, 32; A.M, Oberlin Col, 36; Ph.D, Pa. State Col, 42. Asst. petrol. ref, sch. chem. and physics, *Pa. State Col*, 38–42, *asst. prof. petrol. and nat. gas eng, sch. mineral industries*, *42–* Chem. Soc; Optical Soc. Spectrophotometry; ultraviolet recording photoelectric spectrophotometer; ultraviolet absorption curves of hydrocarbons for analytical use; photoelectric monochromator for direct recording of the spectral intensity curves of Raman spectra, and for obtaining the depolarization factors of Raman lines.

Pflaum, Capt. Daniel J(oseph), 1120 Holly St, Denver, Colo. *Physical and organic chemistry.* Cedar Rapids, Nebr, Feb. 24, 10. A.B, Creighton, 31; M.S, Notre Dame, 32, Ph.D, 34. Prof. chem, Siena Heights Col, 34–37; asst. prof, Regis Col, 37–39, assoc. prof, 39–41; *capt, Chem. Warfare Service*, *41–* A.A; Chem. Soc; Colo-Wyo. Acad. Electric moments; methods of analysis; acetylenic compounds; toxicology of chemical warfare agents.

Pfluger, Dr. Helmuth L(ouis), 16 Rupert St, Springfield, Mass. *Chemistry.* New York, N. Y, Oct. 30, 08. A.B, Columbia, 29, A.M, 31, Ph.D, 33. Asst. chem, Columbia, 28–34; Cutting traveling fellow, Copenhagen, 34–35; *research chemist*, Kendall Co, 36–41; *Ludlow Mfg. and Sales Co*, *42–* Inst. Chem; Chem. Soc. Reaction kinetics and relative acidity in non-aqueous solutions; effect of structure upon catalysis by bases; cellulose technology; fiber microscopy.

Pfund, Prof. A(ugust) H(erman), Johns Hopkins University, Baltimore, Md. *²*Physics.* Madison, Wis, Dec. 28, 79. B.S, Wisconsin, 01; fellow, Hopkins, 05–06, Ph.D, 06. Carnegie asst, *Hopkins*, 03–05, asst. *physics*, 06–07, Johnston scholar, 07–09, assoc, 09–10, assoc. prof, 10–27, *prof*, *27–*, *chairman dept.* Longstreth medal, Franklin Inst, 22; Dudley medal, Soc. Test. Mat, 31; Frederick E. Ives medal, Optical Soc. Amer, 39. A.A; Physical Soc; Optical Soc. Light and radiant heat; wave-lengths of standard iron lines; colorimetry; infra-red investigations.

Pfund, Prof. Marion C(aroline), Cornell University, Ithaca, N. Y. *Food chemistry.* Boston, Mass, Nov. 16, 97. B.S, Simmons Col, 19; A.M, Vassar Col, 21; Ph.D, Yale, 28. Asst. chem, Vassar Col, 19–23, instr, 24–25; instr, Yale Sch. Nursing, 25; chem. sec'y and librarian, Calco Chem. Co, N. J, 27–28; acting asst. prof. *home econ, Cornell*, 28–29, asst. prof, 29–33, *prof*, *33–* Summers, mem. faculty, sch. home econ, Oregon State Col, 37, 40. A.A; Chem. Soc; fel. Inst. Chem; Home Econ. Asn. (chairman research dept, 42–); Inst. Food Technol. Nutritive and culinary quality in foods; objective tests for foods; experimental cookery.

Phair, Dr. John J(oseph), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Bacteriology, Pathology.* Cincinnati, Ohio, Sept. 10, 04. B.S, Cincinnati, 26, M.B, 28, M.D, 29, M.S, 31; C.P.H, Hopkins, 33, Dr.P.H, 38. Res. pathologist, Cincinnati Gen. Hosp, 29–30; Hamilton County Tuber. Sanatorium, 30–31; bacteriologist, Health Dept, Cincinnati, 31–32; field mem, int. health div, Rockefeller Foundation, 33–36; assoc, *dept. epidemiol, sch. hygiene and pub. health, Hopkins*, 36–43, *assoc. prof*, *43–* Pub. Health Asn; Soc. Trop. Med. Brucellosis; diphtheria; meningococcal meningitis; epidemiology.

Phalen, Prof. H(arold) R(omaine), College of William and Mary, Williamsburg, Va. *Mathematics.* Acton, Mass, April 21, 89. B.S, Tufts Col, 12; M.S, Chicago, 23, Ph.D, 26. Instr. math, James Millikin, 13–15; acting prof, Berea Col, 15–18; instr, Armour Inst. Tech, 18–19, asst. prof, 19–22, assoc. prof, 23–26; prof, St. Stephen's Col, Columbia, 26–35, provost, 29–33, prof. *math*, Bard Col, 35–39; acting asst. prof, Brown, 39–40; *assoc. prof, Col. of William and Mary*, *40–* A.A; Math. Soc; Math. Asn. Geometry.

Phalen, Dr. W(illiam) C(lifton), Drawer No. 271, Syracuse, N. Y. *Geology.* Gloucester, Mass, Feb. 1, 77. B.S, Mass. Inst. Tech, 99, M.S, 02; Ph.D, George Washington, 09. Austin teaching fellow, Mass. Inst. Tech, 01–02; asst. chem. and physical geol, U. S. Nat. Museum, 02–04; geologist, U. S. Geol. Surv, 04–16, mineral resource specialist, 08–16; mineral technologist, U. S. Bur. Mines, 16–20; *consulting eng. geologist*, *20–* War minerals, U. S. Bur. Mines, 17–18. Geol. Soc; Min. and Metal. Eng; Soc. Econ. Geol. Stratigraphy; petrography; rocks of Greenland and Virginia; iron ores; coal and clay re-

sources of northeastern Kentucky; areal and economic geology of Georgia, North Carolina and Tennessee; salt mining; salt deposits and mineral resources of the United States; nonmetallic minerals.

Phaneuf, Prof. Louis E(usebe), 270 Commonwealth Ave, Boston, Mass. *Gynecology, Obstetrics.* St. Hilaire, Que, Can, Feb. 27, 84. Pharm.D, Ph.C, Mass. Col. Pharmacy, 05; M.D, Tufts Col, 13, hon. Sc.D, 33. *Prof. gynec, med. sch, Tufts Col, 27–* Chief of service, dept. gynec. and obstet, Carney Hosp, Boston, 28–; obstetrician in chief, Malden Hosp, 29–; consulting gynecologist, Beth Israel Hosp, Boston, 29–; Leonard Morse Hosp, Natick, 26–; Henrietta D. Goodall Hosp, Maine, 28–; consulting gynecologist and obstetrician, Fall River Gen. Hosp, Mass, 28–; St. Anne's Hosp, Fall River, 31–; *consultant,* dept. gynec, Boston Dispensary. Asn. Obstet. Gynec. and Abdom. Surg; Gynec. Soc; Radium Soc; fel. Col. Surg; New Eng. Obstet. and Gynec. Soc; Mass. Med. Soc. (chairman, sect. obstet. and gynec, 29); Boston Obstet. Soc; Boston Surg. Soc; cor. mem. Soc. d'Obstet. et de Gynec. de Paris; hon. mem. Soc. belge de Gynec. et d'Obstet. de Bruxelles; Obstet. Soc. Bucharest; Int. Soc. Surg. Cervical cesarean section.

Phatak, Prof. Nilkanth M(anohar), University of Oregon Medical School, Portland, Oregon. *Pharmacology.* Bombay, India, Oct. 15, 98. B.S, N. Pacific Col. Pharmacy, 24; A.B, California, 31, M.S, 35; Ph.D, Cincinnati, 39. Research asst. pediat, med. sch, California, 28–34, fellow pharmacol, 34–37; pharmacologist, William S. Merrell Co, Cincinnati, Ohio, 37–39; *prof. pharmacol. and physiol, N. Pacific Col. Pharmacy and Dentistry, 40–; capt, Sanit. Corps, U. S. Army, 43–* Lecturer, med. sch, Oregon, 40. A.A; Chem. Soc; Soc. Trop. Med; Soc. Pharmacol; Pharmaceut. Asn; fel. Int. Col. Anesthetists. Antiseptics; anesthesia; barbiturates; mineral metabolism; nutrition.

Phelan, Prof. Earl W(alter), Georgia State Womans College, Valdosta, Ga. *Chemistry.* Rahway, N. J, Sept. 24, 00. Ch.B, Cornell, 21, Ph.D, 28; Wisconsin, 21–23. Asst. *chem,* Wisconsin, 21–23; instr, Oregon State Col, 23–26; asst, Cornell, 26–28; instr, Western Reserve, 28–30; *prof. and head dept, Ga. State Womans Col, 30–* A.A; Chem. Soc. (v. chairman, div. chem. educ, 36). Oxidation of hydroxylamine; chemical education.

Phelan, Prof. G(erald) B(ernard), St. Michael's College, Toronto, Ont, Can. *Psychology.* Halifax, N. S, Aug. 25, 92. St. Mary's Col. (N. S); Holy Heart Sem; S.T.B, Catholic Univ, 15; M.A, St. Francis Xavier (Can), 18; Ph.D, Louvain, 24, Agrégé, 25. Instr. philos, St. Mary's Col. (N. S), 16–22; *prof. psychol, St. Michael's Col, Toronto, 25–, pres. inst. mediaeval studies, 39–* Am. Catholic Philos. Asn. (pres, 30); British Psychol. Soc; Asn. française pour l'Avance. des Sci. Feeling and emotion; feeling experience and its modalities; psychology and ethics.

Phelps, Dr. Allen S(pencer), Lederle Laboratories, Inc, Pearl River, N. Y. *Bacteriology.* Brookings, S. Dak, July 29, 14. B.S, S. Dak. State Col, 36; M.S, Wisconsin, 39, fellow, 40–41, Ph.D, 41. Asst. bacteriologist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–42; *bacteriologist, Lederle Labs, 42–* Soc. Bact. Fermentation biochemistry; industrial alcohols; formation of vitamins by fermentation.

Phelps, Prof. Austin, University of Texas, Austin, Texas. *Zoology.* Chicago, Ill, March 19, 05. Ph.B, Yale, 28, Ph.D, 32. Asst, Yale, 28–30; nat. research fellow, Stanford, 32–34, research assoc, Hopkins Marine Sta, 35–37, instr, 37–38; *zool. and physiol, Texas,* 38–39, *asst. prof, 39–* A.A; West. Soc. Nat. Protozoology; growth; ecology of marine invertebrates.

Phelps, Dr. C(lement) Russell, 73 Cathaway Park, Rochester, N. Y. *Mathematics.* West Brookfield, Mass, Aug. 31, 16. B.S, Hamilton Col, 37; Elihu Root fellow from Hamilton Col, Harvard, 37–38, A.M, 38, Ph.D, 42. Instr. math, Ga. Sch. Tech, 38–40, 41; *U. S. Naval Res, 42–, lieut, instr. math, U. S. Naval Acad, 42–* Math. Soc; Math. Asn. Algebra; homogeneous algebra with limited associativity.

Phelps, Dr. Doris (Hawkins), Vanderbilt University School of Medicine, Nashville, Tenn. *Anatomy.* New Orleans, La, Nov. 30, 98. A.B, Vanderbilt, 24, A.M, 25, Ph.D, 37. Asst. biol, Ward Belmont Sch, 25–29; *obstet. and gynec, sch. med, Vanderbilt,* 33–40, *research assoc, 40–* A.A; Asn. Anat; Asn. Study Int. Secretions. Endocrinology; female reproductive system.

Phelps, Prof. Earle B(ernard), 384 W. 253rd St, New York, N. Y. *Sanitary science.* Galesburg, Ill, July 10, 76. B.S, Mass. Inst. Tech, 99. Asst. bacteriologist, Lawrence exp. sta, State Board Health, Mass, 99–03; chemist and bacteriologist, sanit. research lab, Mass. Inst. Tech, 03–13, asst. prof. chem. biol, 05–13, assoc. prof, 13; prof. chem, hygienic lab, U. S. Pub. Health Service, 13–19; *sanit. science, col. physicians and surg, Columbia,* 25–43, *emer. prof, 43–* Asst. hydrographer, U. S. Geol. Surv, 05–10; special expert, U. S. Census Bur, 10; consulting sanit. engineer, Int. Joint Cmn; cmt. on sewage disposal, Nat. Research Council; N. Y. Ventilation Cmn. A.A; Chem. Soc; Pub. Health Asn; Water Works Asn. Ventilation; chlorination of water.

Phelps, Prof. H(oward) E(astwood), 1816 Monroe St, Pullman, Wash. *Highway engineering.* Denver, Colo, April 12, 84. B.S, Colorado, 07, C.E, 16. Practising engineer, 07–08, 09–12; instr, Pennsylvania, 08–09; asst. prof. and *prof,* Colorado, 12–18; *highway eng, State Col. Wash, 19–* Summers, U. S. Pub. Health Service. Civil Eng; Eng. Educ. The relation between road surfaces and tire wear; highway economics.

Phelps, Dr. Isaac King, Connecticut State Hospital, Middletown, Conn. **²Chemistry.* Enfield, Conn, Feb. 16, 72. A.B, Yale, 94, Silliman fellow, 94–97, Ph.D, 97; Heidelberg, 02. Thayer scholar, Harvard, 97–98; asst. chem, Yale, 95–97, 98–99, instr, 99–08; asst. prof, George Washington, 09–10; asst. chemist, bur. chem, U. S. Dept. Agr, 10–12; org. chemist, U. S. Bur. Mines, 12–13; chemist in charge org. chem. investigations, bur. chem, U. S. Dept. Agr, 13–16, food control lab, 16–22; chemist, 22–23; chem. director, Wamesit Chem. Co, Mass, 23–25; consulting chemist, 25–39; *chemist, Conn. State Hosp, 39–* Joint cmt. definitions and standards, U. S. Dept. Agr, 14–21. Collaborator, U. S. Pharmacopoeia, 20–30. A.A. The determination of carbon dioxide; dehydromucic acid; inorganic and organic analytical methods; organic synthesis; catalysis; food analysis; production, preparation and conservation of food; biochemistry; toxicology.

Phelps, Prof. Robert T(hayer), 1001 19th St, Golden, Colo. *Physical chemistry.* Boston, Mass, July 26, 06. B.S, New Hampshire, 27; Ph.D, Pa. State Col, 31. Asst, Pa. State Col, 27–31; instr. *physical chem, Colo. Sch. Mines,* 31–34, *asst. prof, 34–* Summers, asst, Gen. Elec. Co, 29; exp. sta, E. I. du Pont de Nemours and Co, 30. Chem. Soc; Eng. Educ; Optical Soc. X-ray investigation of solid solutions of metals; activity coefficients of solutions; specific heats of solids; spectrochemical analysis.

Phelps, Dr. W(illiam) D(onald), Harvard University, Cambridge, Mass. *Physics.* Beaver, Okla, March 13, 07. A.B, DePauw, 29; fellow, Oklahoma, 30–31, M.S, 31; Ph.D, Iowa, 34. Asst. physics, Iowa, 31–34, research assoc, 34–35; research physicist, RCA Victor div, RCA Mfg. Co, 35–41; Gen. Elec. Co, 41–42; *special research assoc. acoustics, Harvard, 42–* Teaching asst, Iowa, 31–33, asst. and assoc, 33–35. Acoustical Soc. X-ray absorption spectra; acoustics and electroacoustic apparatus; speaker acoustic impedance and resonance in pipes; radio cabinet resonance; microphone distortion; microphone wind screening; wall absorption in exponential horns and pipes; artificial reverberation.

Phemister, Dr. D(allas) B(urton), 5621 University Ave, Chicago, Ill. *Surgery.* Carbondale, Ill, July 15, 82. M.D, Rush, Chicago, 04. Asst. *surg,* Rush Med. Col, *Chicago,* 06–11, instr, 11–18, asst. prof, 18–23, assoc. prof, 23–24, assoc. clin. prof, 24–25, prof, S. Side Med. Sch, 25–27, *prof. and chairman dept, univ, 27–* Surg. Asn; Soc. Clin. Surg. (treas, 29–); Col. Surg; Orthop. Asn; Interurban Surg. Club; Chicago Surg. Soc; Inst. Med. Chicago. Pathological, roentgenological and clinical aspects of a number of bone and joint diseases; traumatic shock; calcium carbonate gallstones; normal and pathological physiology of the sympathetic nervous system; resections of carcinomas of esophagus and of proximal end of stomach through the chest.

Phemister, Prof. T(homas) C(rawford), University of Aberdeen, Aberdeen, Scotland. *Geology.* Glasgow, Scotland, 02. B.Sc, Glasgow, 22, D.Sc, 28; M.S, Chicago, 24; Cambridge, 25–26, Ph.D, 33; Law traveling scholar, 22–26. Asst. lecturer petrog, Glasgow, 24–25; asst. crystallog, Cambridge, 25–26, demonstrator miner. and petrol, 33–36; assoc. prof. miner. and petrol, British Columbia, 26–33; *prof. geol. and head dept, Aberdeen, 37–* Geol. Soc; Miner. Soc; Inst. Min. and Metal. Gt. Britain; London Miner. Soc. (councilor, 34–37). Mineralogy; physical crystallography; economic geology; petrology.

Phifer, Dr. Harold E(dwin), 225 E. Quincy Road, Riverside, Ill. *Physical chemistry.* Cincinnati, Ohio, Aug. 13,

10. A.B, Cincinnati, 32, A.M, 33, Ph.D, 34. Asst. chem, Cincinnati, 31–34; *research chemist*, Intag Co, Int. Printing Ink Corp. and later *Intag div, Interchem. Corp, 34–* A.A; Chem. Soc. Solute diffusion; rotogravure printing ink formulation.

Phifer, Dr. Lyman D(eArmond), Oceanographic Laboratories, University of Washington, Friday Harbor, Wash. *Botany.* Knoxville, Tenn, July 3, 04. B.S, Washington (Seattle), 28, M.S, 29, Ph.D, 32. Asst, Wash. State Nor. Sch, Bellingham, 25–27; teaching fellow, *Washington (Seattle)*, 28–29, assoc. bot, 29–30, instr. *oceanog*, 32–36, asst. prof, 36–39, *assoc. prof, 39–, director oceanog. labs, 31–* A.A; Bot. Soc; Soc. Plant Physiol. Marine phytoplankton; plant physiology.

Philbrick, Prof. H(erbert) S(haw), 2130 Sherman Ave, Evanston, Ill. *Mechanical engineering.* Waterville, Maine, April 13, 75. A.B, Colby Col, 97, Sc.D, 29; B.S, Mass. Inst. Tech, 06. Asst. prof. mech. eng, Missouri, 07–12; prof, Northwestern, 12–42; *retired.* Consulting engineer, Evanston; Chautauqua Inst; pres, Waterville Iron Works. Trustee, Colby Col, 27–30. Mech. Eng. (chairman, Chicago session, 20–21); Eng. Educ.

Philbrick, Dr. Shaller S(haw), 426 Walnut Road, Ben Avon, Pittsburgh, Pa. *Geology.* Columbia, Mo, May 11, 08. A.B, DePauw, 30; Ph.D, Hopkins, 33. Junior topographic engineer, U. S. Geol. Surv, 34; junior soil expert, soil conservation service, U. S. Dept. Agr, 35; junior geologist, *U. S. Engineers, War Dept*, 35–37, asst. geologist, 37–38, assoc. geologist, 38–40, geologist, 40–43, *senior geologist, 43–* Soc. Econ. Geol; Min. and Metal. Eng; Miner. Soc. Engineering geology; metamorphism of argillaceous rocks; geology of Maine.

Philbrook, Dr. George E(dwin), 8230 Highland Place, Munster, Ind. *Organic chemistry.* New York, N. Y, May 2, 16. B.S, Maine, 38, M.S, 40; Ph.D, Cincinnati, 42. Asst. chem, Maine, 38–40; Cincinnati, 40–42; *research chemist, Standard Oil Co. of Ind, 42–* Chem. Soc. Synthesis of some organo selenium compounds of interest in medicine; secondary amino ethers as local anesthetics.

Philip, Prof. B(rother) R(oger), Fordham University, New York, N. Y. *Experimental psychology.* Toronto, Ont, Can, April 29, 92. B.A, Toronto, 17, M.A, 22; Ph.D, Catholic Univ, 27. Asst. prof. *psychol*, Alberta, 27–33, assoc. prof, 33–37; exchange prof, La Salle Col, 37–38; assoc. prof, *grad. sch, Fordham*, 39–42, *prof, 42–, acting head dept, 41–*, assoc. prof, Queen's (Can), 38. Psychometric Asn; Psychol. Asn; East. Psychol. Asn; N. Y. Acad; Can. Psychol. Asn. Color perception; psychophysics; memory; motor abilities; time.

Philip, Dr. Cornelius B(ecker), Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Mont. *Entomology.* Ft. Lupton, Colo, June 12, 00. B.S, Nebraska, 23; M.S, Minnesota, 25, Ph.D, 30. Asst. entom, Nebraska, 23; asst. and instr. parasitol, Minnesota, 23–26; asst. entom, Exp. Sta, Mont. State Col, 26–27; State Board Entom, Mont, 28; entomologist, W. Africa yellow fever cmn, int. health div, Rockefeller Foundation, Nigeria, 28–29; assoc. entom. and *med. entomologist, Rocky Mt. Lab, U. S. Pub. Health Service, 30–* Guggenheim Mem. Foundation fellow, 41–42. A.A; Soc. Parasitol. (ed. board); Mont. Acad. Medical entomology; disease transmission by arthropods; encephalitides; rickettsial diseases; tularemia; horseflies; mosquitoes; ticks.

Philipp, Dr. L(awrence) A(ugust), 20455 Renfrew Road, Detroit, Mich. *Chemical engineering.* Concord, Mich, Feb. 11, 00. B.S, Michigan, 21, M.S, 22, Ph.D, 25. Asst. investigator, Michigan, 25–27; *with Kelvinator Corp, 27–* Chem. Soc; Soc. Refrig. Eng. Heat transfer; thermodynamics; mechanical refrigeration; physical chemistry; patents.

Philips, A(llen) G(riffith), Allied Mills, Inc, Chicago, Ill. *Poultry husbandry.* West Chester, Pa, Jan. 5, 86. B.S.A, Kans. State Col, 07; Cornell, 07–08. Asst. poultry husbandry, Kans. State Col, 08–10; prof. in charge dept, Purdue, 10–26; *gen. sales manager, Allied Mills, 26–* Poultry Sci. Asn. (pres, 20); Int. Asn. Poultry Husbandry (director, 25). Feeding of animal and vegetable proteins to laying hens; temperature in incubation; cost of raising poultry.

Philips, Dr. Frederick S(tanley), Yale University Medical School, New Haven, Conn. *Chemical embryology.* Mt. Vernon, N. Y, Sept. 25, 16. A.B, Columbia, 36; Ph.D, Rochester, 40. Asst. zool, Seth Low junior col, Columbia, 36; biol, Rochester, 36–40; Theresa Seessel fellow, Osborn Zool. Lab, *Yale*, 40–41, nat. research fellow, *med. sch*, 41–42, *research fellow pharmacol, 42–* Soc. Zool. Oxygen consumption of the chick embryo; oxygen consumption and its inhibition of fish embryos during early development; photochemical absorption spectrum of the respiratory enzyme in the area vitellina of the early chick embryo.

Phillips, Dr. Albert J(ohn), 833 Monroe Ave, Plainfield, N. J. *Metallurgy.* New Haven, Conn, Feb. 4, 02. B.S, Yale, 23, M.S, 25, Ph.D, 28. Metallurgist, Scovill Mfg. Co, Conn, 25–31; *supt. research, cent. research lab, Am. Smelting and Ref. Co, Barber, N. J, 31–* Min. and Metal. Eng. (chairman inst. metals div, 37); Soc. Metals; Soc. Test. Mat; British Inst. Metals. Twinning in relation to the plastic deformation of metals; brass equilibrium diagram as related to the alpha and beta phases; lead and its alloys.

Phillips, Prof. Arthur, 2141 Chapel St, New Haven, Conn. *Metallurgy.* Troy, N. Y, Feb. 3, 92. Ph.B, Yale, 13, M.S, 15. Metallurgist, Bridgeport Brass Co, 15–19; asst. prof. *metal, Sheffield Sci. Sch, Yale*, 19–28, assoc. prof, 28–34, *prof, 34–* Metallurgist, Henry G. Thompson and Son Co. Min. and Metal. Eng; Chem. Soc; Soc. Metals; Soc. Test. Mat. Structure and properties of brasses and bronzes; malleable cast iron and zinc; physical metallurgy.

Phillips, Dr. Arthur M(orton), Jr, U. S. Fish and Wildlife Service, Leavenworth, Wash. *Nutrition, Biochemistry.* Rochester, N. Y, June 18, 14. B.S, Cornell, 36, Ph.D, 39. Lab. asst. fish nutrition and biochem, State Conservation Dept, N. Y, 39–41; asst. aquatic biologist, *fish and wildlife service, U. S. Dept. Interior*, 41–42, *assoc. aquatic biologist, 42–* A.A; Chem. Soc; Fisheries Soc. Nutrition and biochemistry of fish in relation to artificial propagation; carbohydrate utilization and absorption; anemia in fish; vitamin studies; suitable diets for hatchery reared trout and salmon; blood.

Phillips, Dr. Arthur P(age), 2542 University Ave, Bronx, New York, N. Y. *Organic chemistry.* Haverhill, Mass, Feb. 14, 17. B.S, Tufts Col, 38, M.S, 39; Ph.D, N. Y. Univ, 42. *Research chemist, Burroughs-Wellcome and Co, 42–* Chem. Soc. Condensation reactions of quinoline aldehydes.

Phillips, Arthur W(elch), 20 Erchles St, Rumford, Maine. *Chemistry.* Somerville, Mass, Aug. 3, 93. B.S, Tufts Col, 15; A.M, Harvard, 21. Asst. research prof, Mass. State Col, 24–27; purchasing agent, Kittinger Co, Buffalo, 27–29; asst. research prof. chem, Tufts Col, 29–35; plant chemist, Colgate-Palmolive-Peet Co, 36–41; consultant, War Production Board, 41–42; *mem. research dept, Oxford Paper Co, 42–* Lieut, U.S.N, 18. Chem. Soc. Physical, physiological and analytical chemistry.

Phillips, Dr. Benjamin, Jr, Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Organic chemistry.* Galveston, Texas, April 1, 17. B.S, Univ. of the South, 37; Ph.D, Hopkins, 42. Junior instr, Hopkins, 38–41; *research chemist, Carbide and Carbon Chem. Corp, 41–* Chem. Soc. Naturally occurring purines; synthetic resins.

Phillips, Dr. B(enjamin) A(ustin), Servel Inc, Evansville, Ind. *Physical chemistry.* El Paso, Texas, Aug. 22, 12. A.B, Texas Col. Mines, 34; A.M, Texas, 35, B.S. and Ph.D, 39. Instr. chem, Texas, 35–38; *research engineer, Servel Inc, 39–* Chem. Soc. Absorption refrigeration; vapor and partial pressures of methylamines and their solutions; activity coefficients by isopiestic methods.

Phillips, C(harles) J(ohn), Corning Glass Works, Corning, N. Y. *Physics.* St. Louis, Mo, Dec. 31, 08. B.S, Pittsburgh, 30; fellow, Oberlin Col, 30–31, A.M, 31. Asst. indust. research, Mellon Inst, 28–30; physicist, *Corning Glass Works*, 31–37, *sales manager insulation div, 38–* Quantum mechanics; electron diffraction; tensile strength of glass; heat treatment of glass.

Phillips, Dr. Charles R(ush), Pennsylvania State College, State College, Pa. *Textile chemistry.* Blackville, S. C, June 13, 12. B.S, Clemson Col, 33; M.S, Pa. State Col, 36, Ph.D, 38. *Research instr. textile chem, E. H. Richards Inst, Pa. State Col, 38–* A.A; Chem. Soc; Asn. Textile Chem. and Colorists. Detergency; dyes; textile testing.

Phillips, C(lement) A(ll), University Farm, Davis, Calif. *Dairying.* Colfax, Wash, April 5, 95. B.S, State Col. Wash, 19; M.S, California, 27. Dept. dairy husbandry, col. agr, State Col. Wash, 20–21; *assoc. dairy indust, col. agr, California, Davis, 21–* Dairy Sci. Asn. Dairy industry; dairy manufacture.

Phillips, Dr. D(aniel) E(dward), Shepherd State Teachers College, Shepherdstown, W. Va. *Psychology.* Morgantown, W. Va, July 29, 65. A.B, Nashville, 93, A.M, 94; scholar, Clark, 96-98, Ph.D, 98; Litt.D, Denver, 14. Prof. educ. and psychol, Georgia, 94-96; head dept, Denver, 98-23, psychol, 23-29, director div. educ. and psychol, 29-30, director city col, 98-30; assoc. prof. and *prof. psychol, Shepherd State Teachers Col, 30–* Lecturer, Ford Motor Co, 15. Summers, prof, West Virginia, 89; mem. grad. faculty, Illinois, 22, 26, 27, 30; lecturer, Brigham Young, 25; Washington (Seattle); Oklahoma; Utah; Idaho; California. Psychol. Asn; Soc. Sci. Study Educ; Int. Cong. Psychol. Business psychology; the human element in literature; education in a reconstructed world.

Phillips, Rev. Edward C(harles), S.J, 501 E. Fordham Road, New York 58, N. Y. *Mathematics.* Germantown, Pa, Nov. 4, 77. A.B, St. Francis Xavier, 98; fellow, Hopkins, 06, fellow by courtesy, 07-08, Ph.D, 08; Woodstock Col. (Md), 09-13. Prof. physics, Boston Col, 08-09; lecturer apologetics, Woodstock Col. (Md), 13-14, dogmatic theol, 15-19, prof. math. and astron, 19-25, dean faculty, 22-25; director astron. observatory, Georgetown, 25-28; provincial superior, Md-N. Y. Province S.J, 28-35; spiritual director, dept. theol, Woodstock Col. (Md), 35-38, dean dept. philos, 36-39, prof. math, 37-39; dean grad. sch, Georgetown, 39-43; *staff asst. to superior, N. Y. Province, Soc. of Jesuits, 43–* Mem, Int. Cmt. for Revision of Studies in Jesuit Sems, 38-39. Math. Asn; Asn. Jesuit Scientists (pres, 27, 41–); Astron. Soc; Philos. Soc. Wash; fel. Royal Astron. Soc; Soc. astron. de France; Soc. sci. de Bruxelles. Algebraic curves; diophantine analysis.

Phillips, Prof. E(verett) F(ranklin), Cornell University, Ithaca, N. Y. *Apiculture.* Hannibal, Ohio, Nov. 14, 78. A.B, Allegheny Col, 99, Sc.D, 29; fellow, Pennsylvania, 03-04, Ph.D, 04. Teacher, high sch, Pa, 99-00; Harrison fellow, Pennsylvania, 04-05; acting in charge *apicult,* bur. entom, U. S. Dept. Agr, 05-07, in charge, 07-24; *prof, Cornell, 24–* Ed. board, 'Jour. Econ. Entom,' 23-27, 40–; ed. apicult. sect, 'Biol. Abstracts,' 27– Langstroth Mem. cmt, 26-30. Chairman cmt. coordination of entom. with war effort, Am. Asn. Econ. Entom. and Entom. Soc. Amer, 42– Apis Club medal, 24; medal, Syndicat des Apicult. du Berri, 26; medal, Soc. d'Apicult. méridionale, 26. A.A; Soc. Nat; Entom. Soc; Asn. Econ. Entom. (pres, 34); fel. Apis Club (int. pres, 26); nat, state, local and for. bee keepers' associations; Nat. Beekeeping Council (chairman, 42–); Entom. Soc. Wash. (cor. sec'y-treas, 08); Acad. Nat. Sci. Phila. Development of the compound eye of the honeybee; rearing of queen bees; bee diseases; beekeeping regions of the United States; insect behavior.

Phillips, Dr. Francis J(ames), Hay Springs, Nebr. *Surgery.* Hay Springs, Nebr, Oct. 4, 04. A.B, Nebraska, 27; M.D, Rush, Chicago, 37. Asst. surg, Chicago, 31-32; med. and surg, Ohio State, 32-34; Rush Med. Col, Chicago, 37; *intern, Presb. Hosp, 37–; surgeon, U. S. Army, 41–* Asst, Chicago, 38; res. surgeon, Wm. H. Maybury Sanatorium, Mich, 39; senior surg. res, chest service, Herman Kiefer Hosp, 40. A.A; Nebr. Acad. Roentgen therapeutics in Melanomata; iodine and goiter; iodine in ration of dairy cows; biochemical iodimetry; amyloid disease and thyroid metabolism; hypothermia therapeutics in poliomyelitis; allergic effects of topical anesthetics in bronchoscopy; bronchoscopic studies of tracheo bronchial tuberculosis.

Phillips, Dr. Frank McGinley, 1433 Sheperd St, Washington, D. C. *Public health.* Knox Co, Ohio, July 30, 74. M.Di, Iowa State Nor. Sch, 07; A.B, Iowa State Teachers Col, 11; A.M, Iowa, 15; Ph.D, George Washington, 19. Sch. supt, Iowa and Minn, 03-14; registrar and head dept. educ, Cent. Col. (Iowa), 14-17; head dept. math, Iowa Wesleyan Col, 17-18; assoc. prof. statist, George Washington, 18-30; *actuary and chief statistician, U. S. Employees Compensation Cmn, 30–* Sci. research, U. S. Pub. Health Service, 20-23; chief div. statist, Bur. Educ, 23-30. Director Washington office, Fed. Board Vocational Educ, 19-20. Statistician, War Dept, 18-19. A.A; Pub. Health Asn; Statist. Asn; Meteorol. Soc; Nat. League Compulsory Attendance Officers (pres, 29–). Statistics; education; educational rank of states; lead poisoning from pottery; health condition among chemical workers; physiological effect of high temperatures and humidities in still air.

Phillips, George R(obert), 4712 Harrison St, N. W, Chevy Chase, Md. *Forestry.* Branchville, N. J, July 17, 00. B.S, Mich. State Col, 22. Map compiler, State Land Econ. Surv, Mich, 22-23; asst. state forester, Ind, 23-26; state forester, Okla, 26-36; with U. S. Forest Service, 34-39, div. state cooperation, 36-38, chief div. state forestry, 38-39; *in charge water policy and farm forestry coordination, office land use coordination, U. S. Dept. Agr, 39–* State director, Okla. Plains Shelterbelt Project, 34-36. Soc. Foresters (chairman, Ozark sect, 31); fel. Okla. Acad. Fire protection in Oklahoma; state and private forestry.

Phillips, G(eorge) W(illiam) Macpherson, 521 E. Willow Grove Ave, Wyndmoor, Pa. *Chemical engineering.* New York, N. Y, April 13, 88. B.S, Pennsylvania, 10. Metallurgist, Brady Brass Co, 10-13; steel and concrete designer, Phila, 13-15; thermal specialist, sugar technologist, designing engineer and plant appraiser, Honolulu Iron Works Co, New York and Havana, 16-27; develop. chem. engineer, E. I. du Pont de Nemours and Co, 28; research chem. engineer, Am. Cyanamid Co, 28-30; chem. engineer and patent investigator, W. M. Grosvenor Labs, Inc, 31-41; chem. engineer, east. regional research lab, *bur. agr. and indust. chem, U. S. Dept. Agr,* 41-43, *in charge guayule rubber research sta, 43–* A.A; Chem. Eng; Chem. Soc; Mech. Eng; Inst. Chem; Int. Soc. Sugar Cane Technol. (sect. sec'y, 27). Heat transfer; steam utilization in sugar factories; thermocompressor systems of evaporating; graphical methods of computation; sulfuric acid manufacture.

Phillips, Dr. Harold Clair, St. Vincent Archabbey, Latrobe, Pa. *Psychology.* Butte, Mont, Nov. 19, 06. A.B, St. Vincent Col, 29, A.M, 31; Ph.D, Hopkins, 36. *Prof. psychol, St. Vincent Col, 33–* Assoc. Psychol. Asn. Abnormal psychology.

Phillips, Prof. H(enry) B(ayard), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Yadkin College, N. C, Sept. 27, 81. B.S, Erskine Col, 00, LL.D, 39; Ph.D, Hopkins, 05. Instr. *math,* Cincinnati, 05-07; *Mass. Inst. Tech,* 07-14, asst. prof, 14-21, assoc. prof, 21-27, *prof, 27–, head dept, 35–* Consulting prof, Brown, 27-29. Summer, California, 28. A.A; Math. Soc; Physical Soc; Radio Eng; Am. Acad. Vector analysis; matrices; kinetic theory of gases; potential theory; thermodynamics.

Phillips, Dr. Howard M(itchell), Emory University, Ga. *Biology, Cytology.* Lumberton, N. C, June 27, 10. B.S, Wake Forest Col, 32, A.M, 34; Ph.D, Virginia, 38. Teaching fellow *biol,* Wake Forest Col, 32-34; research fellow, Blandy Exp. Farm, Virginia, 34-38; instr, *Emory,* 38-40, asst. prof, 40-43, *assoc. prof, 43–* Andrew Fleming prize, Virginia, 38; Jefferson gold medal, Va. Acad. Science, 38. A.A; Genetics Soc; Bot. Soc; Genetic Asn. Cytogenetics; cytotaxonomy; karyology of the Plumbaginaceae; cytogenetics of Erythronium.

Phillips, Ja(me)s F(rith), 39 Glendonwynne Road, Toronto, Ont, Can. *Chemistry.* Toronto, Ont, July 7, 99. B.A.Sc, Toronto, 21, Nat. Research Council Can. bursar, 21-23, M.A, 23. V. prin, West. Tech. Sch, Toronto; *British Acetones Ltd. and Gooderham and Worts.* Assoc. Can. Inst. Chem. Zymology; biochemistry of bacteriological associations.

Phillips, Prof. J(ohn) B(ernard), McGill University, Montreal, Que, Can. *Chemical engineering.* Montreal, Que, Aug. 19, 99. B.Sc, McGill, 27, M.Sc, 28, Ph.D, 30. Asst, Mass. Inst. Tech, 30-31; lecturer and *asst. prof. chem. eng, McGill, 31–* Chem. Eng; Soc. Chem. Indust; Eng. Educ; Eng. Inst. Can; Can. Pulp and Paper Asn. Cellulose chemistry; lignin and related compounds; resins of jack pine; effect of light and heat on cellulose; action of various chemical agents on cellulose fibers; soya-bean; hydrogenation, waxed paper.

Phillips, Dr. L(yle) W(inston), University of Illinois, Urbana, Ill. *Physics.* Arthur, N. Dak, Sept. 9, 10. B.S, N. Dak. State Col, 32; M.S, Buffalo, 35; Ph.D, Illinois, 39. Asst. physics, Buffalo, 33-35; Univ. service fellow, Illinois, 35-36, asst. physics, 36-39; molecular structure, Chicago, 39-40; instr. *physics, Illinois,* 40-42, *assoc, 42–* Fel. Physical Soc. Atomic spectra; vacuum spectroscopy.

Phillips, Dr. Max, 1531 Varnum St, N. W, Washington, D. C. *Chemist.* Sopotskin, Russia, Oct. 1, 94. B.S, Wisconsin, 17, M.S, 18; Ph.D, George Washington, 23. Assoc. chemist, *color investigations lab,* bur. chem, *U. S. Dept. Agr,* 19-27, *senior chemist, bur. chem. and soils, 27–* Chemist, Bur. Aircraft Production, War Dept, 18-19. Chem. Soc; Wash. Acad. Coal tar dyes and intermediates; alkali fusions; synthetic thymol; carvacrol; p-cymene; furfural resins; anthraquinone derivatives; lignin.

Phillips, Dr. Melba (Newell), University of Minnesota, Minneapolis, Minn. *Physics.* Hazelton, Ind, Feb. 1, 07. A.B,

Oakland City Col, 26; A.M, Battle Creek Col, 28; Whiting fellow, California, 32–33, Ph.D, 33. Instr, Battle Creek Col, 28–30; research assoc, California, 33–34, instr, 34–35; research fellow, Bryn Mawr Col, 35–36; Am. Asn. Univ. Women fellow, Inst. Advanced Study, 36–37; *instr. physics*, Connecticut Col, 37–38; *Brooklyn Col, 38–; lecturer, Minnesota, 41–* Theoretical physics; theory of complex spectra; relativistic quantum mechanics; collisions of nuclei.

Phillips, Prof. Norman E(thelbert), 4326 Van Buren St, Hyattsville, Md. *Zoology*. Cleveland, Ohio, May 31, 94. B.S, Allegheny Col, 16; Ph.D, Cornell, 31. Asst. prof. entom, Mass. Col, 21–22; exten, Pa. State Col, 22–25; instr. *zool*, Syracuse, 25–30; asst. prof, *Maryland*, 31–36, *assoc. prof. and chairman dept, 36–* General and invertebrate physiology; growth and metabolism.

Phillips, Dr. Paul H(orrell), University of Wisconsin, Madison, Wis. *Biochemistry*. Johnston City, Ill, Oct. 13, 98. B.S, State Col. Wash, 23; indust. fellow, Wisconsin, 31–33, Ph.D, 33. Research assoc, *Wisconsin*, 33–36, asst. prof. agr. chem, 36–39, assoc. prof. *biochem*, 39–40, *prof, 40–* Dairy Sci. Asn; Inst. Nutrition; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Animal Production. Animal nutrition; physiology; nutritional pathology.

Phillips, Dr. Philip, 25 Garden St, Cambridge, Mass. *American archeology*. Buffalo, N. Y, Aug. 11, 00. A.B, Williams Col, 22; M.Arch, Harvard, 27, Ph.D, 40. *Asst. curator southeast. archeol, Peabody Museum, Harvard, 37–* Anthrop. Asn; Soc. Am. Archeol; Mass. Archeol. Soc. Archeology of southeastern United States.

Phillips, Dr. Ralph F(lint), University of Utah, Salt Lake City, Utah. *Organic chemistry*. Eureka, Calif, Feb. 3, 08. A.B, Nebraska, 30; M.S, California, 32; Arthur D. Little fellow, Mass. Inst. Tech, 38–39, Ph.D, 39. Chemist, Pan. Am. Petrol. Corp, Dutch West Indies, 30–31; research chemist, Shell Petrol. Corp, Texas, 33–36; teaching fellow org. chem, Mass. Inst. Tech, 36–38; research chemist, Standard Oil Develop. Co, N. J, 39–40; research assoc, Mass. Inst. Tech, 40–42; in charge process develop. research, Naugatuck chem. div, U. S. Rubber Co, 42–43; *asst. prof. org. chem, Utah, 43–* Chem. Soc. Identification of organic compounds; hydrocarbon chemistry; industrial production and use of organic chemicals.

Phillips, Ralph Oliver, Dorchester House, Apt. 414, 2480 16th St, N.W, Washington, D. C. *Chemistry*. Somerville, Mass, Feb. 2, 92. B.S, Tufts Col, 15, M.S, 16. Chemist and supt, Pittsburgh Plate Glass Co; chemist, War Dept, Picatinny Arsenal; chief inspector smokeless powder and high explosives plant; instr. in charge, U. S. Army sch. for inspectors of powder and explosives; asst. inspector powder and explosives, U. S. Navy; chemist and develop. engineer, Barrett Co, New York; chief chemist, Tannin Corp; tech. consultant, Natal Tannin Extract Co, Pietermaritzburg, S. Africa; La Forestal Argentina, Buenos Aires; Calder and Mersey Extract Co, Liverpool; chief chemist, Forestal Land, Timber and Railways Co; *commander, U. S. Naval Res.* Leather Chem. Asn; Royal Photog. Soc; London Chem. Soc; London Soc. Chem. Indust; Inst. Chem. Eng. London; Soc. Leather Trades Chem. London. Powder and explosives; tannin extract industry; leather industry.

Phillips, Dr. Ralph W(esley), U. S. Department of Agriculture, Beltsville, Md. *Animal genetics and physiology*. Parsons, W. Va, Feb. 7, 09. B.S, Berea Col, 30; A.M, Missouri, 31, Ph.D, 34. Asst. animal husbandry, Missouri, 30–33; instr, Mass. State Col, 33–36; assoc. animal husbandman, bur. animal indust, U. S. Dept Agr, 36–39, physiologist, 39; prof. animal husbandry and head dept, Utah State Col, 39–41; *senior animal husbandman in charge genetics investigations, bur. animal indust, U. S. Dept. Agr, 41–* Ed, 'Jour. Animal Science.' A.A; Soc. Animal Production; Genetic Asn. Physiology of reproduction; measuring performance in livestock.

Phillips, R(ees) Lloyd, 33 E. Park Place, Newark, Del. *Bacteriology*. Brazil, Ind, Jan. 28, 07. B.S, Purdue, 32, M.S, 36. Control bacteriologist, Commerical Solvents Corp, 28–30; asst. bacter, Purdue, 34–36; *research bacteriologist, Biochem. Research Foundation, 36–; lieut, Sanit. Corps, U. S. Army.* Mem. Bang's disease control lab, U. S. Dept. Agr, 36. Soc. Bact. Action of sulfonamide drugs; inhibitory substances produced by microorganisms.

Phillips, Dr. R(ichard) F(ifield), 503 Carleton Road, Westfield, N. J. *Organic chemistry*. Worcester, Mass, July 4, 17. A.B, Amherst Col, 39; du Pont fellow, Illinois, 41–42, Ph.D, 42. *Research chemist, Merck and Co, Inc, 42–* Chem. Soc. Alkaloids of Senecio and Crotalaria; stereochemistry.

Phillips, Dr. R(obert) A(llan), Rockefeller Institute for Medical Research, New York, N. Y. *Chemistry*. Clear Lake, Iowa, July 16, 06. B.S, Iowa, 27; M.D, Washington (St. Louis), 29. Intern, Barnes Hosp, St. Louis, 29–30; nat. research fellow, Harvard and Albert-Ludwigs Univ, Germany, 30–32; Littauer fellow, Harvard, 32–33; asst. surg. res, Yale, 33–35; instr. physiol, Stanford, 35–36; asst, fatigue lab, Harvard, 36; asst. prof. physiol, med. col, Cornell, 36–40; *lieut, U. S. Naval Res, 40–; fellow, Rockefeller Inst, 41–* Staff, first-aid service, Am. Red Cross, 26–35. Soc. Exp. Biol; Physiol. Soc; Harvey Soc. Renal physiology; neurophysiology; metabolism.

Phillips, Dr. Robert E, University of Maryland, College Park, Md. *Poultry physiology*. Joplin, Mo, Nov. 20, 09. B.S, Kans. State Col, 35, M.S, 36; Iowa, 40; Ph.D, Iowa State Col, 41. Instr. poultry husbandry, Kans. State Col, 37; head poultry div, Am. Butter Co, 38; instr. poultry husbandry, Iowa State Col, 38–41; *assoc. prof. poultry husbandry, Maryland, and poultry physiologist, Exp. Sta, 42–* Poultry Sci. Asn. Physiology of avian reproduction from the standpoint of endocrinology; comparative gonadotropic potency of unfractioned extracts of poultry pituitaries.

Phillips, Prof. Thomas D(avid), 302 Sixth St, Marietta, Ohio. *Physics*. Chardon, Ohio, April 1, 91. A.B, Oberlin Col, 16; M.S, Michigan, 23; Ph.D, Boston, 34. Instr. physics, Marietta Col, 20–24; N. Y. Univ, 24–27; asst. prof, Marietta Col, 27–30, prof, 30–42; *lieut, U. S. Naval Res, 42–* Bur. Standards, 37–38. Summers, mem. staff, Bur. Standards, 39; pilot training specialist, Civil Aeronaut. Admin, 40; consultant, Embrie-Riddle Sch. Aviation, 41. A.A; Physical Soc; Optical Soc; Soc. Rheol; Acoustical Soc; Asn. Physics Teachers; Ohio Physics Club (pres, 34). Adsorption of gases; thermal insulation.

Phillips, Prof. T(homas) G(uthrie), University of New Hampshire, Durham, N. H. *Agricultural chemistry*. West Derby, Vt, Nov. 18, 87. B.S.A, Ohio State, 12, M.S, 13; Ph.D, Chicago, 18. Instr. *agr. chem*, Ohio State, 12–15, asst. prof, 15–23, *prof*, 23–25; *New Hampshire, and chemist, Exp. Sta, 25–* A.A; Chem. Soc; Bot. Soc; Soc. Plant Physiol. Plant biochemistry; storage of fruits and vegetables; carbohydrates of plants.

Phillips, Dr. T(homas) W(olden), Hahnemann Medical College and Hospital, Philadelphia, Pa. *Anatomy*. Camden, N. J, 87. M.D, Hahnemann Med. Col. (Pa), 16; Pennsylvania, 23, 24. *Prof. anat. and head dept, Hahnemann Med. Col. (Pa), 18–* A.A; Asn. Physical Anthrop; Am. Med. Asn; Am. Acad. Polit. and Social Sci; Hist. Sci. Soc.

Phillips, Prof. Walter S(argeant), University of Arizona, Tucson, Ariz. *Morphology*. Lynn, Mass, Oct. 20, 05. A.B, Oberlin Col, 29; fellow, Chicago, 33–35, Ph.D, 35. Instr. Eng, Ming Shen Sch, Taiku, China, 29–31; asst. bot, Chicago, 33–35; assoc. prof, Miami (Fla), 35–40; *assoc. prof. bot, Arizona, and assoc. botanist, Exp. Sta, 40–* Bot. Soc; Sullivant Moss Soc. Anatomy of Cynara scolymus; bolting in sugar beets; ecology of southern Florida.

Phillips, Dr. W(illiam) J(eter), 718 Cargil Lane, Charlottesville, Va. *Entomology*. Accomac Co, Va, Dec. 23, 79. B.S, Va. Polytech, 01, M.S, 03; Ph.D, Virginia, 25. Asst. state entomologist, Va, 03–04; bur. entom, U. S. Dept. Agr, 04–35; *retired*. A.A; Entom. Soc; Asn. Econ. Entom. Jointworms of grains and grasses; the corn earworm.

Phillips, Dr. William L(inton), 131 Linwood Ave, Buffalo, N. Y. *Medicine, Ophthalmology*. Buffalo, N. Y, June 30, 72. Case; M.D, Buffalo, 97; Glasgow; London; Paris; Freiburg. From assoc. to asst. prof. ophthal, dept. med, Buffalo, 04–37; *retired*. Wills Eye Hosp. and Medico-Chirurg. Col. Phila; chief ophthal. surgeon, Emergency Hosp; ophthal. surgeon, City and Millard Fillmore Hosps. Capt, M.C, 17–19. Acad. Ophthal. and Otolaryngol; fel. Col. Surg; Aesculapian Soc; Soc. Malacol; Buffalo Acad. Med; Buffalo Micros. Soc; Buffalo Ophthal. Soc; Oxford Ophthal. Soc. Pathological conditions of the human and animal eye; chronological and microscopical color-blindness; microscopy.

Philp, Guy L(ockhart), College of Agriculture, University of California, Davis, Calif. *Horticulture, Plant physiology*. Federal, Pa, June 7, 90. B.S, Cornell, 14; M.S, Oregon State

Col, 16. Instr. pomol, *California*, 17–23, asst. prof, 23–25, asst. pomologist, 25–29, *assoc. pomol, 30–* Soc. Hort. Sci. Pollination; pruning; fruit breeding.

Philpott, Prin. Charles H(ughes), 6564 Delor St, St. Louis, Mo. *Zoology.* Monroe Co, Mo, Dec. 22, 88. A.B, Missouri, 14, A.M, 15, Ph.D, 27. Prof. biol, Kansas City Junior Col, 15–23; prof. biol. and dean men, *Harris Teachers Col, St. Louis*, 23–43, *prin, 43–* Lecturer, sch. med, Washington (St. Louis), 29–33. A.A; Soc. Zool; Bot. Soc; St. Louis Acad. (sec'y). Protozoology; medical zoology; effect of toxins and venoms on Protozoa; acquirement of resistance in races in Protozoa to the action of antigenic poisons; use of Protozoa in titrating the potency of venoms and of their antiserums; growth of paramecia in pure cultures of pathogenic bacteria.

Philson, Dr. P(aul) J(ames), 2416 Monroe St, Columbia, S. C. *Biology.* Greer, S. C, Aug. 20, 05. B.S, Furman, 28; A.M, Duke, 31; Ph.D, Minnesota, 35. *Instr. biol, South Carolina, 36–* Minn. exped, Australia and New Zealand, 34–35. S. C. Acad. Phycology.

Phipps, Prof. Cecil G(lenn), 1210 Margaret St, Gainesville, Fla. *Mathematics.* Skidmore, Mo, July 24, 95. A.B, Montana, 21; A.M, Minnesota, 24, Ph.D, 28. Instr. and asst. *math*, Minnesota, 21–24; *Florida*, 24–27, asst. prof, 27–29, assoc. prof, 29–43, *prof, 43–* A.A. Approximation.

Phipps, Prof. Harris E(ugene), 205 Grant St, Charleston, Ill. *Physical chemistry.* Elyria, Ohio, Oct. 29, 02. A.B, Oberlin Col, 26, A.M, 28; Ph.D, Illinois, 31. Research chemist, Eastman Kodak Co, Rochester, 26–27; instr. *chem. and physics, East. Ill. State Teachers Col*, 31–34, assoc. prof, 34–42, *prof, 42–, head dept. chem, 34–* Summers, research chemist, Eastman Kodak Co, 28–30, 43. Abstractor, 'Chem. Abstracts,' 35– Chem. Soc. Plasticity and optical properties of cellulose and cellulose ester sols; transition points of polymorphic substances; chemical education.

Phipps, Prof. T(homas) E(rwin), 908 S. Busey Ave, Urbana, Ill. *Physical chemistry.* Stony Point, Tenn. Oct. 24, 95. A.B, Texas, 15, A.M, 16; Ph.D, California, 21. Instr. *chem, Illinois*, 21–23, assoc, 23–26, asst. prof, 26–29, assoc. prof, 29–37, *prof, 37–* Guggenheim Mem. Foundation fellow, 30–31. Chem. Soc. Electrical conductance in solid salts; magnetic moments of atoms; molecular rays; ionization on surfaces.

Phleger, Prof. F(red) B, 40 Orchard St, Amherst, Mass. *Geology.* Kansas City, Kans, July 31, 09. A.B, Southern California, 31; M.S, Calif. Inst. Tech, 32; Ph.D, Harvard, 36. Asst. paleont, Harvard, 34–36, Sheldon traveling fellow *geol*, 36–37; instr, *Amherst Col*, 37–40, *asst. prof, 40–* Investigator, Oceanog. Inst, Woods Hole, 41– Soc. Vert. Paleont; Paleont. Soc. Paleontology.

Pianfetti, Dr. John A(ndrew), 513 Highland Ave, South Charleston, W. Va. *Organic chemistry.* Sawyerville, Ill, July 19, 07. B.S, Illinois, 30; A.M, Wisconsin, 33; Ph.D, Purdue, 41. Asst. physical chem, A. O. Smith Corp, 30–32; *research org. chem*, Mmer Labs, 36–38; *Westvaco Chlorine Products, 40–* Chem. Soc. Diazonium salts; glycerol and derivatives; chlorination of organic compounds.

Platt, Dr. Jean, University of Pennsylvania, Philadelphia, Pa. *Anatomy.* Marion, Ohio, Sept. 22, 09. B.S, Butler, 32; A.M, Haverford Col, 33; Ph.D, Yale, 37. Instr. anat, Vermont, 37–39; nat. research fellow, col. physicians and surg, Columbia, 39–40; res. biologist, E. N. Huyck Preserve, 40–41; *instr. anat, Pennsylvania, 41–* A.A; Asn. Anat; Genetic Asn; Soc. Zool; Soc. Ichthyol. and Herp. Experimental morphology; anatomy of hyobranchial apparatus and musculature in salamanders; morphogenesis of cranial muscles of vertebrates; nerve growth and pattern in salamanders.

Picard, Rev. Maurice, 18 Rope Ferry Road, Hanover, N. H. *Philosophy, Psychology.* Nyack, N. Y, July 18, 90. A.B, Columbia, 10, A.M, 11; Ph.D, N. Y. Univ, 19; hon. A.M, Dartmouth Col, 29. Instr, Lincoln, 11–12; asst. prof. bot, Middlebury Col, 13–14; lecturer philos, Barnard Col, Columbia, 19–22; asst. prof. philos. and psychol, Wells Col, 23–25; Lehigh, 25–29; *prof. philos, Dartmouth Col, 29–* Philos. Asn. Value-philosophy.

Piccard, Dr. Jean (Felix), University of Minnesota, Minneapolis, Minn. *Chemical engineering.* Basle, Switzerland, 84. Chem.E, Swiss Inst. Tech, 07, Dr.Nat.Sci, 09. Privat-docent org. chem, Munich, 14; Lausanne, 14–16; asst. prof, Chicago, 16–18, assoc. prof, 18–19; prof, Lausanne, 19–26; res. instr, Mass. Inst. Tech, 26–29; head dept. chem. service, Hercules Powder Co, 29–32; stratosphere flying work, 33–34; research assoc, Bartol Research Foundation, 34–36; special lecturer *aeronaut. eng, Minnesota*, 36–37, *prof, 37–* Stratosphere flight from Ford Airport, Dearborn, Mich, 34. Chem. Soc; Inst. Aeronaut. Sci; Franklin Inst; Explorers Club. Applications of physical chemistry to organic and inorganic chemistry; relation between color and constitution; high molecular amino compounds; Gomberg's free radical by colorimetric measurement of dissociation favored by dilution; aeronautical engineering; stratosphere; sounding balloons.

Piccoli, Prof. Leonard J, Vail's Grove, Brewster, N. Y. *Physiology.* New York, N. Y, Jan. 6, 06. Ph.G, Fordham, 25, Ph.C, 27, B.S, 29, M.S, 30, Ph.D, 32; M.S, Columbia, 34. Asst. instr. *mat. med. and physiol, col. pharmacy, Fordham*, 25–26, instr, 26–29, asst. prof, 29–30, assoc. prof, 30–31, *prof. and head dept, 31–* Lecturer, Columbia; director bacter. and clin. micros. labs, Fordham; hematologist, Fordham Hosp; lecturer, Nurses Training Sch; chief professional service, E. R. Squibb and Sons; Inter-Am. Corp. Pharmaceut. Asn; Pub. Health Asn. (pres); Social Hygiene Asn; N. Y. Pharmaceut. Asn. Materia medica; pharmacology; hematology; bacteriology; microscopy; microbiology of foods.

Pick, Dr. E(rnest) P(eter), 19 E. 98th St, New York, N. Y. *Pharmacology.* Jaroměř, Bohemia, May 18, 72. M.D, Prague, 96; Strassburg, 96–99; Vienna. Prof. pharmacol. and head dept, Vienna, 24–38; *clin. prof. pharmacol, Columbia, 38–* Lecturer, Vienna, 04–24; chief, Austrian Fed. Pharmacological Drug Research Inst; dean med. faculty, Vienna, 32–33; assoc. pharmacologist, Mt. Sinai Hosp. Goldberger prize, Med. Soc. Vienna, 06, 14; Lieben prize, Acad. Science Vienna, 25. A.A; Soc. Exp. Biol; Soc. Pharmacol; cor. fel. N. Y. Acad. Med; hon. mem. Harvey Soc; Imp. German Acad. Halle. Toxicology; experimental pathology, biochemistry and immunology.

Pickard, Greenleaf W(hittier), 59 Dalton Road, Newton Center, Mass. *Electrical engineering.* Portland, Maine, Feb. 14, 77. Harvard, 99; Mass. Inst. Tech, 00; Blue Hill Meteorol. Observatory, Harvard, 99–00. Elec. engineer, Am. Tel. and Tel. Co, 02–06; consulting engineer, Wireless Specialty Apparatus Co, 07–30; RCA Victor Co. of Mass, 30–31; *consulting engineer, 31–* Medal, Inst. Radio Eng, 26; Armstrong medal, Radio Club, 40. A.A; fel. Elec. Eng; fel. Radio Eng. (pres, 13); fel. Radio Club; Meteorol. Soc; Geophys. Union; fel. Am. Acad; Soc. des Amis de la Télégraphie sans Fil; Int. Sci. Radio Union (exec. cmt). Radio communication.

Pickard, Dr. Hugh B(rown), College of Puget Sound, Tacoma, Wash. *Physical chemistry.* Albion, N. Y, Sept. 25, 11. A.B, Haverford Col, 33; Ph.D, Northwestern, 38. Instr. *chem*, Northwestern, 39–40; *instr, Col. Puget Sound, 40–* Chem. Soc. Thermodynamics of solutions of non-electrolytes.

Pickel, Prof. Geo(rge) J(acob), S.J, John Carroll University, Cleveland, Ohio. *Organic chemistry.* St. Louis, Mo, July 6, 67. A.B, Col. of Sacred Heart, 85; St. Ignatius Col, Holland, 94–01; Göttingen, 01–03. Instr. classics, John Carroll, 92–94, prof. chem, 04–07, pres, 07–10; *prof. chem*, Campion Col, 10–25; *John Carroll, 27–* Chem. Soc. Synthetic resins; ozone.

Pickels, Dr. E(dward) G(reydon), Rockefeller Foundation, New York, N. Y. *Physics.* Richmond, Va, May 23, 11. B.S, Richmond, 32; fellow, Virginia, 32–35, M.S, 33, Ph.D, 35. Asst. labs, *int. health div, Rockefeller Foundation*, 34, 35, *staff mem, 36–* A.A; Harvey Soc; N. Y. Acad. High speed centrifuges.

Pickens, Prof. A(ndrew) L(ee), Paducah Junior College, Paducah, Ky. *Biology.* S. C, March 6, 90. B.S, Furman, 15; M.S, Virginia, 24; Ph.D, California, 32. Asst. instr, Virginia, 23–24; acting prof. biol, Furman, 24–26; field biologist, termite investigations cmt, California, 28–32; asst. supervisor, Upper Archeol. Surv, S. C, 35; *prof. biol. sciences, Paducah Junior Col, 35–* Ed, 'Neighborhood,' 37–, 'Meridian States Research,' 37–; mem. sci. consulting board, 'Ky. Nature,' 38. A.A; assoc. Ornith. Union; Ky. Ornith. Soc; Ky. Acad. American ornithophily; geographical distribution; color evolution; symbiosis; termitology.

Pickens, Dr. Russell M, Rayonier, Inc, Shelton, Wash. *Chemistry.* Lincoln, Nebr, April 17, 98. B.S, Mont. State Col, 20; M.S, Iowa State Col, 22, Ph.D, 25. Research chemist and chem. director, du Pont Rayon and Cellophane Companies, 25–30; *tech. director, Rayonier, Inc, 30–* A.A; Chem. Soc; Chem. Eng. Rayon; Cellophane; wood pulp.

Pickering, David B(edell), 171 S. Burnet St, East Orange, N. J. *Astronomy.* Elmira, N. Y, Jan. 18, 73. A.A; Astron. Soc; Asn. Variable Star Observers (pres, 18–19, 27); fel. Royal Astron. Soc; Soc. astron. de France; Int. Astron. Union (visiting cmt, Harvard Observatory, 27). Variable stars; observatories; variable star charts.

Pickering, Prof. William H(ayward), California Institute of Technology, Pasadena, Calif. *Electrical engineering.* Wellington, N. Z, Dec. 24, 10. B.S, Calif. Inst. Tech, 32, M.S, 33, Coffin fellow, 33–35, Ph.D, 36. Asst. and teaching fellow, *Calif. Inst. Tech,* 32–36, instr, 36–40, *asst. prof. elec. eng, 40–* Lecturer, Southern California, 38. Physical Soc; Elec. Eng; Radio Eng. Cosmic radiation; radio and electronics; development of cosmic ray radio sonde.

Pickett, Prof. B(ethel) S(tewart), Iowa State College, Ames, Iowa. *Horticulture.* Tillsonburg, Ont, Can, June 4, 82. Assoc. grad, Ont. Agr. Col, 00; B.S.A, Toronto, 04; M.S, Illinois, 06. Sec'y and registrar, Ont. Agr. Col, 02–05; lecturer and asst. pomol, Illinois, 06–08, *prof,* 12–23; hort, New Hampshire, 08–12; *hort. and head dept. hort. and forestry, Iowa State Col, 23–* A.A; Soc. Hort. Sci; Pomol. Soc. (pres); Nat. Apple Inst. (pres, 35); Iowa Hort. Soc. (pres); Federated Garden Clubs Iowa (pres). Spraying of apple trees; cold storage of apples; correlation in foliage and fruit of strawberries; heredity in muskmelons and squashes; formation of fruit buds in apples; apple breeding; fertilization and other soil treatments in apple and peach orchards; propagation.

Pickett, Dr. C(harles) F(rancis), 67 Blackthorn Road, Wallingford, Pa. *Chemistry.* Concord, N. H, Jan. 4, 03. B.S, New Hampshire, 24, M.S, 25; Ph.D, N. Y. Univ, 27. Lazote, Inc, 27–29; research chemist, Sherwin-Williams Co, 29–35; *sales develop, Resinous Products and Chem. Co, Phila, 35–* Chem. Soc. Paint and varnish raw materials.

Pickett, Dr. Gerald, 3540 Kenilworth Ave, Berwyn, Ill. *Physics.* Ashton, Kans, Aug. 29, 01. B.S, Okla. Agr. and Mech. Col, 27; M.S, Kans. State Col, 31; Ph.D, Michigan, 38. Assoc. prof. mech, Kans. State Col, 29–40; *research physicist, Portland Cement Asn, 40–* Mech. Eng; Soc. Test. Mat. Stress analysis of concrete during volume changes.

Pickett, Dr. H(owell) G(rady), Madison College, Harrisonburg, Va. *Chemistry.* Madison, N. C, Sept. 20, 99. B.S, North Carolina, M.S, Ph.D, 28. Teaching fellow chem, North Carolina, 22–23; asst, U. S. Gypsum Co, N. Y, 23; asst. prof, Va. Polytech, 23–26; instr. chem. eng, North Carolina, 26–28; head dept. physics, *Madison Col,* 28–30, *prof. chem. and head dept, 30–* Chem. Soc; Va. Acad; N. C. Acad. Nitration of toluene in presence of certain metallic salts and in the vapor phase; potentiometric titration of iron and aluminum; sulfur factor in the methanol synthesis; artificial production of the age-tone in walnut wood.

Pickett, Prof. Lucy W(eston), Mt. Holyoke College, South Hadley, Mass. *Physical chemistry.* Beverly, Mass, Jan. 19, 04. A.B, Mt. Holyoke Col, 25, A.M, 27; Mary E. Woolley fellow, Illinois, 28–29, Robert Carr fellow, 29–30, Ph.D, 30. Asst. *chem,* Mt. Holyoke Col, 25–27; instr, Goucher Col, 27–28; *Mt. Holyoke Col,* 30–34, asst. prof, 34–40, *assoc. prof, 40–* Asn. Univ. Women European fellow, Royal Inst, 32–33. Lalor fellow and Cmn. Relief Belgium Foundation fellow, 38–39. A.A; Chem. Soc. Chemical effects of x-rays; crystal structure; ultra-violet absorption spectra.

Pickett, Dr. W(illia)m F(rancis), Kansas State College, Manhattan, Kans. *Horticulture.* Kansas City, Mo, 94. B.S, Kans. State Col, 17, M.S, 23; Ph.D, Mich. State Col, 35. From asst. prof. to prof. *hort, Kans. State Col,* 18–38, *head dept, 38–, horticulturist, Exp. Sta, 38–* A.A; Soc. Hort. Sci. Pomology; orchard soil management; photosynthesis of apple leaves; anatomy of fruit-tree leaves.

Pickford, Gerald D(uane), U. S. Forest Service, Portland, Oregon. *Forestry.* Cerro Gordo Co, Iowa, Feb. 13, 01. B.S, Iowa State Col, 26. Junior range examiner, *U. S. Forest Service,* 27–30, asst. silviculturist, div. range research, Intermountain Forest and Range Exp. Sta, 30–35, *forest ecologist,* 35–36, *in charge range research, Pacific Northwest Forest and Range Exp. Sta, 37–* Soc. Forestry; Ecol. Soc. Range research; forest and range ecology.

Pickford, Dr. Grace E(velyn), Yale University, New Haven, Conn. *Zoology.* Bournemouth, Eng, March 24, 02. Cambridge, 23, Mary Ewart traveling scholar, S. Africa, 25–27; hon. fellow, Yale, 30–31, Ph.D, 31. Research fellow, Osborn zool. lab, *Yale,* 31–33, *research asst, Bingham oceanog. lab, 35–; instr. biol, Albertus Magnus Col, 36–* Oligochaeta; Cephalopoda; invertebrate physiology.

Pickles, Dr. Wilfred, 184 Waterman St, Providence, R. I. *Surgery.* Oldham, Lancashire, Eng, Aug. 31, 96. A.B, Brown, 18; M.D, Harvard, 22. *Asst. prof. biol. and surgeon, Brown, 29–* Neurosurgeon, R. I. Hosp; consulting surgeon, Providence Lying-in Hosp; Westerly Hosp; asst. surgeon, Charles V. Chapin Hosp. Fel. Col. Surg; fel. Am. Med. Asn; New Eng. Surg. Soc. Surgery of the nervous system.

Picklesimer, Dr. P(arnell) W(ilson), 225 Harding St, Greenville, N. C. *Geography.* Maytown, Ky, Dec. 15, 93. B.Pd, Berea Col, 16; B.S, Peabody Col, 23, A.M, 26, Ph.D, 42. Social service director, E. I. du Pont de Nemours and Co, 19–22; *prof. geog. and head dept, E. Carolina Teachers Col, N. C, 26–* Human geography; the new bright tobacco belt of North Carolina.

Pickwell, Prof. Gayle B(enjamin), San Jose State College, San Jose, Calif. *Zoology.* Murdock, Nebr, March 25, 99. A.B, Nebraska, 21, A.M, 22; Northwestern, 22–26; Columbia, 24; fellow, Cornell, 26–27, Ph.D, 27. Asst, Nebraska, 21–22; instr. zool, Northwestern, 22–26; from instr. to *prof. zool, San Jose State Col,* 27– Ed, 'West. Nature Study'; 'Nature Study Illustrated.' Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Soc. Mammal; fel. Calif. Acad. Spiders of Nebraska; ecology and field behavior of birds; natural history of belted piping plover, killdeer, prairie horned lark, barn owl and white-tailed kite; natural history; weather; deserts; insects; animals in action; amphibia and reptiles of the Pacific states.

Picó, Dr. Rafael, Box 876, Rio Piedras, P. R. *Geography.* Coamo, P. R, Dec. 29, 12. A.B, Puerto Rico, 32; A.M, Clark, 34, Ph.D, 38. Instr. geog, Puerto Rico, 34–38; instr. and asst. prof, Catholic Univ, 38–40; assoc. prof, Puerto Rico, 40–42; *chairman, P. R. Planning Board, 42–* Consultant, P. R. Reconstruction Admin, 35–36; U. S. Census Bur, 39–40; visiting lecturer, Hispanic-Am. Inst, Miami (Fla), 40. Summer, prof, Northwestern, 38. Fel. Am. Geog. Soc; Council Geog. Teachers; Asn. Geog; Soc. Planning Officials (director). Land tenure in Puerto Rico; economic geography of West Indies and Caribbean America.

Pidgeon, Dr. L(loyd) M(ontgomery), Rockcliffe Park, Ottawa, Ont, Can. *Chemistry.* Markham, Ont, Dec. 3, 03. B.A, Manitoba, 25; Nat. Research Council Can. bursar, McGill, 26–27, M.Sc, 27, Nat. Research Council Can. student, 27–28, Ph.D, 29; Sir William Ramsay Mem. fellow of Can, Oxford, 29–31, B.Sc, 31. Demonstrator chem, McGill, 28–29; asst. chemist, *Nat. Research Council Can, Ottawa,* 31–38, *assoc. chemist, 38–* Electrochem. Soc; Soc. Chem. Indust. Absorption of water vapor on wood, cellulose and pulp; oxidation of hydrocarbons; action of anti-knocks; ultra-violet absorption spectra of oxidizing hydrocarbons; adsorption of gases and vapors by silica; preparation and properties of carbon black; production of metallic magnesium.

Pielemeier, Prof. W(alter) H(enry), 517 E. Foster Ave, State College, Pa. *Physics.* Freelandville, Ind, Feb. 6, 89. A.B, Michigan, 16, A.M, 19, Ph.D, 28. Instr. *physics,* Kans. State Col, 16–18; Michigan, 18–20; asst. prof, *Pa. State Col,* 20–23, assoc. prof, 23–35, *prof, 35–* A.A; Physical Soc; Acoustical Soc. High frequency sound absorption and velocity; supersonics; gas constants.

Piemeisel, R(obert) L(ouis), Box 826, Twin Falls, Idaho. *Plant ecology.* Jordan, Minn, July 15, 89. A.B, Minnesota, 12. Sci. asst, alkali and drought investigations, *bur. plant indust, U. S. Dept. Agr,* 12–17, assoc. plant physiologist and *plant physiologist, 24–* A.A; Ecol. Soc; British Ecol. Soc. The relation of desert vegetation and secondary successions to the beet leafhopper and curly-top disease of sugar beets.

Pien, Dr. C(hung) L(ing), Designers for Industry, Inc, 2915 Detroit Ave, Cleveland, Ohio. *Hydraulic engineering.* China, Nov. 13, 09. B.S, Nat. Cent. Univ. (China), 33; M.S, Iowa, 38, China Foundation fellow, 40–41, Ph.D, 41. Hydraul. eng. asst, Iowa, 38–41; mech. eng. designer, Stone and Webster Eng. Corp, 41–42; struct. designer, Arthur G. McKee and Co, Cleveland, Ohio, 42–43; *hydraul. engineer, Designers for Industry, Inc, 43–* Junior and asst. engineer, Reconstruction Bur, Kiangsu Prov. Govt. Assoc. Geophys. Union; assoc. Soc. Hydraul. Eng; assoc. Civil Eng. China. Water require-

ments of rice irrigation; turbulence and suspended material transportation in open channels.

Pieniazek, Dr. Stephen A(leksander), Rhode Island State College, Kingston, R. I. *Pomology.* Slup, Poland, Dec. 27, 13. M.Ph, Warsaw, 38; M.S, Cornell, 40, Ph.D, 42. *Asst. pomologist, Exp. Sta, R. I. State Col, 42–* Soc. Hort. Sci. Storage of fruits.

Pienkowsky, Arthur T(haddeus), National Bureau of Standards, Washington, D. C. *Physics.* Wis, 73. Ph.B, Chicago, 98. Teacher, high schs, Ill. and Ind, 98–03; assoc. physicist and *physicist, Bur. Standards, 05–* A.A; Physical Soc; Philos. Soc. Wash; Wash. Acad. Constancy of standards of mass; high precision weighing.

Pieper, Prof. Charles J(ohn), New York University, Washington Square, New York, N. Y. *Science education.* Avilla, Ind, May 30, 87. A.B, Wabash Col, 10; A.M, Columbia, 27. Teacher chem. and gen. science, Minn, 10–15; head dept. science, univ. high sch, Minnesota, 15–16; instr, high sch, Chicago, 16–26; asst. prof. educ, *Wash. Sq. Col, N. Y. Univ,* 28–30, assoc. prof, 30–32, *prof. and chairman science dept, sch. educ, 32–* Ed, 'Science Education.' A.A; Nat. Asn. Research Sci. Teachers. Science education; science teaching.

Pierce, Dr. Alan E(ugene), 729 Mountain Ave, Bound Brook, N. J. *Organic chemistry.* Howell, Mich, Jan. 4, 12. B.S, Chicago, 32, Ph.D, 34. *Research chemist,* Calco Chem. Co, Bound Brook, 35–42; *Johnson and Johnson, 42–* Chem. Soc. Pharmaceutical chemistry.

Pierce, Dr. A(rchie) B(urton), Jamesburg Route, Box 13, Monterey, Calif. *Mathematics.* Rockingham, Vt, Dec. 14, 67. B.S, California, 90, 90–91; A.M, Harvard, 92; Chicago, 96; Göttingen, Univ. Greifswald and Zurich, 01–03; Ph.D, Zurich, 03. Instr. math, California, 92–01; instr. and asst. prof, Michigan, 03–08, asst. prof. civil eng, 08–12; designing engineer, Mayberry and Parker, Los Angeles, 12–15; teacher, high sch, 15–16; designing engineer, Pacific Light and Power Corp, Los Angeles, 16–17; South. Calif. Edison Co, Los Angeles, 17–24, tech. asst. to chief civil engineer, 24–31; *retired.* Civil Eng.

Pierce, Charles H(enry), 1900 Jackson St, N. E, Washington, D. C. *Hydraulic engineering.* Royalton, Vt, March 6, 78. B.S, Vermont, 04; A.M, Harvard, 28. Instr. theoret. and applied mech, Illinois, 05–06; asst. prof. eng. math, Vermont, 06–10; hydraul. engineer and dist. engineer, U. S. Geol. Surv, 10–25; hydraul. engineer, Chas. T. Main, Inc, Boston, 26–30; *senior hydraul. engineer, water resources branch, U. S. Geol. Surv, 31–* Civil Eng. Hydrology.

Pierce, Prof. C(larence) A(lbert), Worcester Polytechnic Institute, Worcester, Mass. *Physics.* Redding, Conn, Nov. 4, 78. B.S, Wesleyan, 02, M.S, 04; Ph.D, Cornell, 08. Asst. physics, Wesleyan, 02–04; instr, Cornell, 04–11; asst. prof. *elec. eng, Worcester Polytech,* 11–31, *prof, 31–* Lab. asst, Bur. Standards, 02–04, asst. physicist, 06; engineer, Gen. Elec. Co, 27–28. Eng. Educ. Electrical engineering; fluorescence and phosphorescence.

Pierce, Dr. Elwood C(lifton), 4612 College Ave, College Park, Md. *Plant biochemistry.* Warren, Ohio, Nov. 4, 13. B.S, Ohio State, 37; M.S, New Hampshire, 39; Ph.D, Maryland, 42. Instr. plant physiol, Maryland, 41–42; *war work, 42–* Soc. Plant Physiol. Relationship of organic acids to salt absorption and accumulation by plants.

Pierce, Prof. G(eorge) W(ashington), Harvard University, Cambridge, Mass. *²*Physics.* Weberville, Texas, Jan. 11, 72. B.S, Texas, 93, A.M, 94; Ph.D, Harvard, 00; Leipzig, 00–01. Instr. *physics, Harvard,* 03–07, asst. prof, 07–17, prof. and director, Cruft lab, 17–40, *emer. prof, 40–,* chairman div. physical sciences, 27–40. Medal, Inst. Radio Eng, 29; Franklin medal, Franklin Inst, 43. Nat. Acad; Physical Soc; Radio Eng. (past pres); Elec. Eng; Inventors Guild; Am. Acad; Deuts. Physik. Gesell. Communication engineering; electrical resonance; electric waves; liquid diffusion and supersaturation; resonance in wireless telegraph circuits; measurement of intensity of sound; crystal rectifiers for alternating currents; electric oscillations and electric waves; transmission line phenomena; piezoelectric crystal and magnetostriction oscillators; sound; submarine detection; supersonics; radio communication.

Pierce, Prof. H(arold) B(arnard), University of Vermont College of Medicine, Burlington, Vt. *Physiological chemistry, Nutrition.* Kansas City, Mo, Oct. 15, 94. B.S, Mass. Col, 17; M.S, Pa. State Col, 21; Fleischmann fellow, Rochester, 26–27, Ph.D, 28. Asst. chemist, Exp. Sta, Mass. Col, 18–19; instr. and asst. prof. food and dairy chem, Pa. State Col, 19–26, assoc. prof, 27–28; asst. prof. physiol. chem, Rochester, 28–32, prof, 32–37; assoc. prof. *biochem, col. med, Vermont,* 37–38, *prof. and head dept, 38–* 2nd lieut, Inf, 17–18, capt, C.W.S.R, 23–A.A; Soc. Biol. Chem; Chem. Soc. (sec'y, cent. Pa. sect, 24–26, 27); Inst. Nutrition; Soc. Exp. Biol; Inst. Chem; N. Y. Acad. Enzymes, secretion, digestion, absorption and putrefaction in alimentary tract; metabolism of carbohydrates and proteins; chemistry of food and dairy products; mineral metabolism; trichinosis.

Pierce, Dr. H(arold) F(isher), 65 E. 55th St, New York, N. Y. *Physiology.* Willington, Conn, Oct. 5, 89. A.B, Clark, 12; B.Sc, Oxford, 22; Ph.D, Columbia, 27; M.D, Hopkins, 35. Eng. and chem. work, Gen. Elec. Co, 13–14; instr. chem, Dartmouth Col, 14–15; Austin teaching fellow physiol, Harvard Med. Sch, 15–16, teaching fellow, 16–17; tutor and demonstrator physiol. and mem. dept. path, Oxford, 19–22; assoc. physiol, col. physicians and surg, Columbia, 22–27; assoc. prof. research ophthal, Wilmer inst, Hopkins, 27–32, ophthal, 32–35; practising physician, 35–42; *chief med. service and asst. flight surgeon, Sta. Hosp, Randolph Field, Texas, 42–, major, Med. Corps, U. S. Army, 42–* Trustee, William Holland Wilmer Foundation, 24–27. U. S. Bur. Mines and Sanit.C, 17–19, major. Physiol. Soc; Mech. Eng; Asn. Mil. Surg; Physiol. Soc. Gt. Britain and Ireland. Physiology of the eye, of respiration and of metabolism; aviation medicine; internal medicine; design of scientific apparatus.

Pierce, Dr. I(ra) H(otchkiss), 245 Hutchinson Ave, Iowa City, Iowa. *Pharmacology.* Blairstown, Iowa, May 2, 82. B.S, M.S, Iowa, 25, Ph.D, 31. Asst. prof. chem, State Col. Wash, 13–20; assoc. chemist, Edgewood Arsenal, 20–21; research assoc. *pharmacol, col. med, Iowa,* 25–37, *assoc. prof, 37–* Morphine addiction.

Pierce, Dr. J(erry) A(lbert), 980 Steele Blvd, Baton Rouge, La. *Chemistry.* Leadville, Colo, July 25, 86. A.B, Iowa, 09; M.S, Denver, 23; Ph.D, Hopkins, 28. Research chemist, E. R. Squibb and Sons, 23–26; chief chemist, Pompeian Corp, 29; research chemist, Silica Gel Corp, 29–32; instr. pediat, Hopkins, 32–39; *research chemist, Standard Oil Develop. Co, 39–* Chem. Soc. Sugar; vegetable oils; catalysts; rickets.

Pierce, Prof. Jesse, 2639 Hampshire Road, Cleveland, Ohio. *Mathematics.* Greeley, Colo, April 22, 87. B.S, Idaho, 12; M.S, Chicago, 23; Ph.D, Michigan, 31. Assoc. prof. *math,* James Millikin, 21–23; prof, Heidelberg Col. (Ohio), 23–43; *asst. prof, Case, 43–* Math. Asn. Differential equations with arbitrary initial conditions; linear differential equations in the vicinity of singular points; solution of systems of differential equations in terms of infinite series of definite integrals.

Pierce, Prof. J(ohn) Stanton, University of Richmond, Richmond, Va. *Organic chemistry.* Catlettsburg, Ky, Oct. 4, 98. B.S, Georgetown Col. (Ky), 20; M.S, Illinois, 21, Ph.D, 24. Asst. *chem,* Illinois, 20–22; instr, South Dakota, 22–23; prof, Georgetown Col. (Ky), 24–37; *assoc. prof, Richmond, 37–* Chem. Soc. Amino alcohols; catalytic reductions; inorganic analysis; local anesthetics.

Pierce, Prof. Joseph A(lphonso), Atlanta University, Atlanta, Ga. *Mathematics.* Waycross, Ga, Aug. 10, 02. A.B, Atlanta, 25; M.S, Michigan, 30, Ph.D, 38. Asst. prof. math, Texas Col, 24–27; chairman dept. *math,* Washington High Sch, Atlanta, Ga, 27–29; prof, Wiley Col, 30–38; *prof. and chairman dept, Atlanta, 38–* Supervisor statist, study Atlanta Negro, Nat. Youth Admin, Ga, 39. Mem. ed. board, 'Morehouse Jour. Sci.' Math. Soc; Inst. Math. Statist. Mathematical statistics.

Pierce, Dr. L(eo) F(rancis), L. F. Pierce Laboratories, 2007 Wilshire Blvd, Los Angeles, Calif. *Chemistry.* Story Co, Iowa, Aug. 5, 94. B.S, Grinnell Col, 16; M.S, Tulane, 21; fellow, Stanford, 20–21, Ph.D, 23. Instr. chem, Idaho, 17–18; prof, Washburn Col, 18–20; demonstrator, Tulane, 20–21; prof. and head dept. chem, San Diego State Col, 23–31; research chemist and director clin. lab, Grace Deere Velie Metabolic Clinic, Carmel, Calif, 31–32; *director, L. F. Pierce Labs, 32–* A.A; Chem. Soc; Inst. Chem. Physico-chemistry of the Poulsen arc converter; dextrose, hemoglobin, hydrogen ion concentration and iron in blood; physical chemistry of the serology of syphilis, particularly sensitivity, specificity and mechanism of precipitation-flocculation tests.

Pierce, Prof. Madelene E(vans), Vassar College, Poughkeepsie, N. Y. *Zoology.* Boston, Mass, Nov. 7, 04. A.B,

Radcliffe Col, 26, A.M, 27, Ph.D, 33. Instr. *zool*, Smith Col, 27–29; *Vassar Col*, 31–38, *asst. prof*, 38– Instr, Marine Biol. Lab, Woods Hole, 43– A.A; Soc. Zool. Skin grafting in Amphibia; smooth muscle cells as independent effectors in the chick amnion; activity of melanophores of cold-blooded vertebrates.

Pierce, Prof. Newton L(acy), Princeton University, Princeton, N. J. *Astronomy.* Santa Ana, Calif, July 12, 05. B.S, Michigan, 28, M.S, 34; Ph.D, Princeton, 37. Instr. *astron*, Doane Col, 28–29; Northwestern, 29–35; asst, *Princeton*, 37–38, research assoc, 38–40, instr, 40–43, *asst. prof*, *43–* Astron. Soc. Photometry of eclipsing variables.

Pierce, Prof. Norval H(arvey), 15th St. and Zuni Drive, Del Mar, Calif. *Medicine.* Washington, D. C, May 13, 63. M.D, Illinois, 85. Prof. otology, Chicago Post-Grad. Med. Sch, 91–95; Chicago Polyclinic, 95–00; prof. *laryngol, rhinol. and otology and head dept, col. med, Illinois*, 15–32, *emer. prof*, *31–* Surgeon, Ill. Eye and Ear Infirmary and St. Luke's Hosp. Lieut, M.R.C, 11–17, capt, 17, major, 17–, chief, U. S. Base Hosp, Vichy, France. A.A; Otol. Soc. (pres, 17); Laryngol. Asn. (pres, 19); Laryngol, Rhinol. and Otol. Soc. (pres, 04); Am. Med. Asn. (chairman, sect. laryngol. and otol, 15); Col. Surg. Otology; rhinology; laryngology; embryology of upper respiratory tract and temporal bone in relation to normal and abnormal pneumatization; otosclerosis.

Pierce, Dr. Robert H(enry) H(orace), Jr, U. S. Steel Corp. of Delaware, Kearny, N. J. *Physical chemistry.* Pittsburgh, Pa, July 18, 10. A.B, Western Reserve, 31; B.S, Case, 31; A.M, Ohio State, 37, Ph.D, 40. *Physical chemist, research lab, U. S. Steel Corp, Kearny, N. J*, *31–* Research engineer, eng. exp. sta, Ohio State, 36–39. Soc. Metals; Chem. Soc; Ceramic Soc. Physical properties of metals; thermal expansion; thermal conductivity; refractories; pyrometry; data of state; ortho and para hydrogen; reaction velocity and catalysis.

Pierce, Roy G(ifford), U. S. Department of Agriculture, 803 Grace American Bldg, Richmond, Va. *Forestry, Plant pathology.* Norfolk, Nebr, Oct. 22, 84. A.B, B.S, Nebraska, 07; M.S, Michigan, 08. Forest asst. and acting forest supervisor, U. S. Forest Service, 08–12; tree surgeon, Pa. Chestnut Blight Cmn, 12–13; forest pathologist, *div. plant disease control, bur. entom. and plant quarantine, U. S. Dept. Agr*, 20–23, asst. pathologist, 23–29, assoc. pathologist, 29–34, *pathologist, 34–* Treas, Cmt. for Establishment Nat. Arboretum and Bot. Garden, 23–26. Advertising manager, 'Phytopathology,' 21–24. Soc. Foresters; Hort. Soc. (treas, 31–35); Archeol. Soc. Va; Bot. Soc. Wash. (sec'y, 20–23). White pine blister rust; Ribes ecology.

Pierce, Prof. T(racy) A(ugustus), University of Nebraska, Lincoln, Nebr. *Mathematics.* Paso Robles, Calif, June 4, 91. B.S, California, 14, Ph.D, 16. Instr. *math*, California, 15–16; Harvard, 16–17; *Nebraska*, 19–20, asst. prof, 20–26, assoc. prof, 26–29, *prof*, *29–* Officer, U.S.A, 17–19. A.A; Math. Soc; Math. Asn. Theory of numbers; algebra.

Pierce, Dr. W(alter) H(oward), U. S. Department of Agriculture, Raleigh, N. C. *Plant pathology.* Healdsburg, Calif, Aug. 22, 02. B.S, Idaho, 25, M.S, 26; fellow, Wisconsin, 30–33, Ph.D, 33. Asst. pathologist, Idaho, 26–30, assoc. plant path, 33–37; geneticist in charge pea breeding, Associated Seed Growers, Inc; *asst. agr. economist, div. state and local planning, bur. agr. econ, U. S. Dept. Agr.* Bean and pea diseases; disease resistance in peas and beans.

Pierce, Dr. W(illiam) Dwight, Los Angeles County Museum, Los Angeles, Calif. *Entomology, Biology.* Champaign, Ill, Nov. 16, 81. A.B, Nebraska, 04, A.M, 07; Ph.D, George Washington, 17. Asst. state entomologist, Miss, 04; special field agent, bur. entom, U. S. Dept. Agr, 04–19; consulting biologist, 19–27; entomologist, Victorias Milling Co, P. I, 27–30; asst. ed, 'Biol. Abstracts,' 31–36; *curator entom, Los Angeles County Museum, 37–* Lecturer, Col. Osteop. Physicians and Surg, Los Angeles, 43– A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; South. Calif. Acad. (pres, 43–); Entom. Soc. Wash. Strepsiptera; Rhipiphoridae; Rhynchophora and their parasites; biology of the Rhynchophora of North America; catalogue of Rhynchophora of the world; laws of the reaction of living creatures to physical forces; cotton and sugar-cane insects; atomic physics; biology of Philippine Island of Negros; medical and sanitary entomology.

Pierce, Dr. William G(amewell), U. S. Geological Survey, Washington, D. C. *Geology.* Gettysburg, S. Dak, Sept. 24, 04. A.B, South Dakota, 27; A.M, Princeton, 29, Ph.D, 31. Field asst, S. Dak. Geol. Surv, 26; U. S. Geol. Surv, 27–28; asst, Princeton, 28–29; junior geologist, *U. S. Geol. Surv*, 29–30, asst. geologist, 31–34, assoc. geologist, 34–39, *geologist*, 39–43, *senior geologist*, *43–* A.A; Asn. Petrol. Geol; Geol. Soc; Geol. Soc. Wash. Structural geology; stratigraphy; coal, oil and gas; manganese.

Pierce, Prof. W(illiam) M(arion), Eastern Illinois State Teachers College, Charleston, Ill. *Physics.* Dunkirk, N. Y, Oct. 28, 96. A.B, Cornell, 18, M.S, 20, Ph.D, 28. Asst. physics, Cornell, 18–20, instr, 20–25; Williams Col, 25–28; prof, Hartwick Col, 29–31; teacher, high sch, N. Y, 33–35; asst. physics and household eng, Teachers Col, Columbia, 35–36; assoc. prof. *physics*, Converse Col, 36–42; *asst. prof, East. Ill. State Teachers Col*, *42–* Electrolytic capacitance of platinum electrodes in a sulfuric acid solution.

Pierce, Prof. W(illis) C(onway), University of Chicago, Chicago, Ill. *Chemistry.* Carrollton, Ky, 95. B.S, Georgetown Col, 20; M.S, Chicago, 25, Ph.D, 28. Instr. *chem*, Kentucky, 20–22; South Dakota, 23–27; *Chicago*, 28–31, asst. prof, 31–40, *assoc. prof*, *40–*; *director, Nat. Defense Research Cmt. lab, Northwestern*, *42–* Chem. Soc. Photochemistry; x-ray diffraction in liquids and gases; chemical analysis with x-rays; quantitative analysis; spectrochemical analysis.

Pierre, Prof. W(illiam) H(enry), Iowa State College, Ames, Iowa. *Agronomy.* Brussels, Wis, Aug. 2, 98. B.S, Wisconsin, 21, M.S, 23, Ph.D, 25. Asst. soil surveyor, S. Dak. State Col, 21–22; assoc. soil chemist, Exp. Sta, Ala. Polytech, 25–29; assoc. prof. agron. and assoc. agronomist, West Virginia, 29–36, prof. agron. and head dept. agron. and genetics, 36–38; *prof. agron. and head dept, Iowa State Col*, *38–* Summers, soil surveyor, State Soil Surv, Wis, 19–21, 23–26. Chilean Nitrate of Soda Nitrogen Research award, Am. Soc. Agron, 31. A.A; Chem. Soc; Soc. Agron; Soc. Plant Physiol; Soil Sci. Soc. (pres, 40); Int. Soc. Soil Sci. Soil chemistry and fertility; equivalent acidity and basicity of fertilizers; soil acidity and base exchange; aluminum toxicity to plants; soil phosphorus and soil plant relationships.

Piersma, Dr. H(enry) D(irk), Lederle Laboratories, Inc, Pearl River, N. Y. *Bacteriology.* Grand Rapids, Mich, July 2, 08. A.B, Calvin Col, 31; Michigan, 31; Ph.D, Purdue, 41. Instr. bacter, Purdue, 36–39; *research bacteriologist, Lederle Labs, Inc*, *39–* Soc. Bact. Pathogenic anaerobic bacteria; bacterial nutrition; bactericidal agents.

Piersol, Dr. G(eorge) Morris, 2031 Locust St, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, Oct. 13, 80. B.S, Pennsylvania, 02, M.D, 05. Asst. instr. *med, Pennsylvania*, 07–09, instr, 09–12, assoc, 12–20, *prof, grad. sch. med, 20–, clin. med, sch. med*, *42–* Prof, Woman's Med. Col. of Pa, 17–23; med. director, Bell Tel. Co. Pa, 20– Asst. physician, Univ. Hosp, 12–17; physician, Phila. Gen. Hosp, 17–31, consultant, 31–; physician, Methodist Hosp, 23–31; Presb. Hosp, 29–33; director med. service, Abington Mem. Hosp, 31–; physician, Grad. Sch. Hosp, 20– Ed, 'Am. Jour. Med. Sci,' 11–22; 'Int. Clinics,' 37– A.A; Am. Med. Asn; Am. Physicians; fel. Col. Physicians (sec'y-gen, 27–32, 37, pres, 33); Gastro-Enterol. Asn; Clin. and Climat. Asn; Path. Soc. Phila; fel. Col. Physicians Phila. Internal medicine.

Piersol, Dr. R(obert) J(ames), State Geological Survey, Urbana, Ill. *Physics.* Marion, Kans, Jan. 28, 90. A.B, Allegheny Col, 12; M.S, Tulane, 13; Tyndale fellow, Pennsylvania, 13–15; Ph.D, California, 16. Fellow, Mellon Inst, 16–17; research engineer, Engels Copper Mining Co, 17–19; research physicist, Standard Chem. Co, 19–21; asst. prof. physics, Pittsburgh, 21–23; research physicist, Westinghouse Elec. and Mfg. Co, 23–27; consulting physicist, 27–31; *physicist, Ill. Geol. Surv*, *31–* Summer, head dept. physics, Chautauqua, 14. A.A; Physical Soc; Min. and Metal. Eng; Math. Soc; Electrochem. Soc; Optical Soc; Ill. Eng. Soc; British Asn. Photoelectric effect; oil flotation; concentration of radium ore; chromium plated reflectors; selenium cells; vapor pressure of silver; radial astigmatism; cold electronic discharge; copper oxide rectifiers; coal briquets; electrostatic demulsification; bleaching earths; permeability of oil sands; plasticity at high pressures.

Piersol, Prof. W(illiam) H(unter), 103 Hudson Drive, Toronto, Ont, Can. *Embryology.* Philadelphia, Pa, Sept. 20, 73. B.A, Toronto, 95, M.B, 99; London and Edinburgh, 99–00. Demonstrator biol, McMaster, 96–98; lecturer biol. and histol, *Toronto*, 02–10, assoc. prof. *histol. and embryol*, 10–23,

prof, 23– Asn. Anat; Royal Inst. Can. Embryology and natural history of Amphibia.

Pierson, Dr. Bernice F(rances), Johns Hopkins University, Baltimore, Md. *Protozoology.* Auburn, Nebr, Aug. 17, 06. A.B, Western Reserve, 28; A.M, Hopkins, 37, Ph.D, 41. Asst. zool, dental and pharmacy schs, Maryland, 28–31, 36–38; instr. biol, Md. State Teachers Col, Towson, 34–35; Nat. Park Col, 41–42; *research asst. chem, Hopkins, 42–* Summers, instr, Maryland, 34, 35; asst, Hopkins, 37, 38, instr, 39– Relation of mortality after endomixis to the prior interendomictic interval in Paramecium aurelia; a comparative morphology of several species of Euplotes closely related to Euplotes patella.

Pierson, C(harles) J, Hyattsville, Md. *Zoology.* Ohio, April 12, 66. A.B, Stanford, 96; B.Pd, Nebr. State Nor. Sch, Peru, 06; A.M, California, 16. Teacher, pub. schs, 92–13; zool, Calif. State Nor. Sch, San Jose, 13–14; instr. zool. and entom. and asst. in research, Maryland, 16–19, prof. vert. morphol, 19–21, zool, 21–37, head dept, 21–37; *retired.* Asst, biol. surv, Panama Bay, 96; dept. educ, P. I, 01–05. Gold medal, La. Purchase Expos, 04. Soc. Mammal; Biol. Soc. Wash. Vertebrate morphology; taxonomy of fishes of Panama Bay; insects infesting introduced trees and shrubs in the region of San Francisco Bay, California.

Pierson, Geo(rge) S(pencer), 1301 Grand Ave, Kalamazoo, Mich. *Engineering.* Bergen, N. Y. C.E, A.M, Union (N. Y), 75. *Consulting engineer, 85–* Civil Eng. (director, 05–07). Hydraulic and sanitary engineering; theory and practise of the separate system of sewerage.

Pierson, Royale K(ing), University of Idaho, Moscow, Idaho. *Forest pathology.* Buxton, Iowa, Jan. 6, 07. A.B, Montana, 30; fellow, Idaho, 31–33, M.S. (Forestry), 33. Forest technician, div. forest path, bur. plant indust, U. S. Dept. Agr, 33–35, asst. pathologist, 35–36; *exten. forester, Idaho, 36–, asst. prof. forestry, 40–* Soc. Foresters; Phytopath. Soc. Farm forestry; sexuality of coniferous rusts; white pine blister rust.

Pierstorff, Dr. A(rthur) L(ewis), Ohio State University, Columbus, Ohio. *Plant pathology.* Rockford, Ohio, Nov. 12, 95. A.B, Ohio State, 19; fellow, Cornell, 23–24, Ph.D, 30. Exten. plant pathologist, Cornell, 25–26; exten. horticulturist, Rutgers, 26–27; exten. plant pathologist, *Ohio State,* 28–38, *assoc. prof. bot, 38–* Phytopath. Soc; Ohio Acad. Fire blight; control of plant diseases; diseases of fruits and vegetables.

Pietenpol, Dean C(larence) J(ohn), Washington and Jefferson College, Washington, Pa. *Physics.* Leota, Minn, July 7, 97. B.S, Pittsburgh, 20; A.M, Colorado, 23; Ph.D, N. Y. Univ, 28. Instr. *physics,* Colorado, 21–24; N. Y. Univ, 25–28; asst. prof, Long Island, 28–29, assoc. prof, 29–37; asst. prof, *Washington and Jefferson Col,* 37–39, *prof, 39–,* dean eng, 40–43, director defense activities, 40–43, *dean faculty, 43–, special asst. to pres, 43–* A.A; Physical Soc; Asn. Physics Teachers; Pa. Acad. Photoelectron distribution; radioactivity.

Pietenpol, Dean H(enry) W(illiam), Central College, Pella, Iowa. *Mathematics.* Milwaukee, Wis, 84. A.B, Cent. Col. (Iowa), 07, A.M, 08, LL.D, 41; A.M, Iowa, 30. Teacher, high sch, Iowa, 08–16; *prof. math. and dean, Cent. Col. (Iowa), 16–* Math. Soc.

Pietenpol, Prof. W(illiam) B(rasser), 707 14th St, Boulder, Colo. *Physics.* Newkirk, Iowa, March 26, 86. A.B, Cent. Col. (Iowa), 09; A.M, Wisconsin, 14, Ph.D, 16. Asst. *physics,* Wisconsin, 12–16; prof, Hope Col, 16–18; asst. prof, Pittsburgh, 18–20; assoc. prof, *Colorado,* 20–22, *prof, 22–,* asst. head dept, 33–35, *head dept, 35–* A.A; Physical Soc; Asn. Physics Teachers (exec. cmt); Colo-Wyo. Acad. (pres); Colo-Wyo. Asn. Physics Teachers. Radiation; absorption; linear expansion; radioactivity; electrical resistivity; magnetism; surface tension; storage batteries; electrical measurements; viscosity.

Piette, Prof. Eugene Constantine, 518 N. Austin Blvd, Oak Park, Ill. *Pathology.* Mariupol, Russia, Oct. 2, 92. M.D, Univ. Kharkov, 17. Instr. and *asst. prof. path, bacter. and pub. health, col. med, Illinois, 25–* Consulting pathologist, Chicago State Hosp, Dunning, Ill. Am. Med. Asn; Chicago Med. Soc; Chicago Path. Soc; Deuts. Path. Gesell. Casuistic study of tumors; biology; histology; dental histology.

Piggot, Dr. Charles S(nowden), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. *Physical chemistry.* Sewanee, Tenn, June 5, 92. A.B, B.S, Univ. of South, 14; Pennsylvania, 14–16; du Pont fellow, Hopkins, 19–20, Ph.D, 20. Instr. chem, Univ. of South, 13–14; chemist, E. I. du Pont de Nemours and Co, 15; Ramsay Mem. fellow, Univ. Col, London, 22–23; research chemist, U. S. Indust. Alcohol Co, 20–22, 23–25; *physical chemist, geophys. lab, Carnegie Institution, 25–; mem. bur. ordnance, U. S. Navy, 41–* Cmt. on determination geol. time by atomic disintegration, Nat. Research Council, cmt. standards of radioactivity. U.S.A, 17–19. A.A; Geophys. Union; Philos. Soc. Wash; Wash. Acad. Radioactive disintegration in geology; catalysis; age of geologic formations; radioactive isotopes; radium in igneous rocks and in deep sea sediments; core samples of deep sea sediments; time intervals in deep sea sediments.

Pigman, Dr. W(illiam) W(ard), 5002 Wakefield Road, Friendship Station, D. C. *Chemistry.* Chicago, Ill, March 5, 10. B.S, George Washington, 32, A.M, 33; Ph.D, Maryland, 36. *Research chemist, Bur. Standards, 30–* Lalor fellow, Leipzig, 38–39. A.A; Chem. Soc. Synthesis and properties of sugars and glycosides; specificity and occurrence of enzymes hydrolyzing glycosides and polysaccharides; origin of optical rotation; correlation of structures with physical and chemical properties.

Pike, Dr. E(ugene) W(ilmoth), Battelle Memorial Institute, Columbus, Ohio. *Physics.* Chicago, Ill, Jan. 26, 09. B.S, Harvard, 29; Ph.D, Princeton, 34. Physicist, Scott Paper Co, Chester, Pa, 34–37; RCA Mfg. Co, 37–40; consultant and mfrs. agent, 40–41; mem. staff, West. Elec. Co, 41–43; *research engineer, Battelle Mem. Inst, 43–* Physical Soc. Electronics; industrial physics.

Pike, Prof. F(rank) H(enry), College of Physicians and Surgeons, 630 W. 168th St, New York. ***Physiology.* Aurora, Ill, Jan. 20, 76. A.B, Indiana, 03; Ph.D, Chicago, 07. Instr. physiol, Chicago, 07–11; asst. prof, Columbia, 11–16, assoc. prof, 16–41; *retired.* Instr, biol. sta, Indiana, 04; Marine Biol. Lab, Woods Hole, 09; special lecturer, Columbia, 42– Cmt. on vestibular research, Nat. Research Council, cmt. on aural structures and functions, 27–29. A. Cressy Morrison prize, 37. A.A; Physiol. Soc; Soc. Zool; Asn. Research Nervous and Mental Disease (mem, cmn, 29); Ecol. Soc; N. Y. Acad. (v. pres, 18). Effect of pressure in the coronary vessels on the heart; resuscitation of the central nervous system; automaticity of bulbar nervous mechanisms; degenerate eyes of the shrimp; heredity of sex; mechanism of spinal shock; the phylogeny of function in the central nervous system; the labyrinth, cerebellum and vertigo; adaptation and the theorem of Le Chatelier; thermodynamics in the struggle for existence; convulsions; changes in chemical concentrations from excitation of the nervous system.

Pike, Dr. Robert M(errett), Southwestern Medical Foundation, Dallas, Texas. *Bacteriology.* Hiram, Maine, April 5, 06. A.B, Brown, 28, A.M, 30, fellow, 31–32, Ph.D, 32. Asst. biol, Brown, 28–29, demonstrator bacter, 29–31; bacteriologist, Otsego County Lab. and M. I. Bassett Hosp, Cooperstown, N. Y, 32–43; *asst. prof. bacter, sch. med, Southwestern Med. Foundation, 43–* Pub. Health Asn; Soc. Bact. Phagocytosis; bacterial variation; virulence and antigenic structure; sulfonamide bacteriostasis.

Pike, Dr. William S(ibley), Jr, Box 2099, Houston, Texas. *Geology.* Baltimore, Md, Sept. 27, 07. Ph.D, Hopkins, 33. Junior geologist, U. S. Geol. Surv, 30–34; *geologist, Shell Oil Co, Inc, 34–* Grants, Penrose Fund, Geol. Soc. Amer, 33, 34. Asn. Petrol. Geol. Sedimentation; deposits associated with oscillating strand-line; upper Cretaceous of New Mexico.

Pilcher, Dr. Cobb, Vanderbilt University Hospital, Nashville, Tenn. *Surgery.* Nashville, Tenn, Oct. 7, 04. M.D, Vanderbilt, 27. Asst. med, *sch. med, Vanderbilt,* 28–29, *surg,* 29–31, instr, 31–33, asst. prof, 33–39, *assoc. prof, 39–* Fellow, Washington (St. Louis), 32–33. Am. Med. Asn; Col. Surg; Soc. Neur. Surg; Soc. Univ. Surg; Neur. Asn; South. Med. Asn; South. Surg. Asn; Harvey Cushing Soc. Neurological surgery.

Pilcher, Dr. J(ames) D(ouglas), Cleveland City Hospital, Cleveland, Ohio. *Pediatrics.* Guelph, Ont, Can, Nov. 2, 79. A.B, Western Reserve, 02, M.D, 05. Dept. pharmacol, Western Reserve, 08–14; prof, Nebraska, 14–17; demonstrator *pediat, Western Reserve,* 23–24, instr, 24–26, senior instr, 26–28, asst. prof, 28–33, *assoc. prof, 33–* Pediat. Soc; Soc. Pharmacol; Physiol. Soc. The effects of atropin, caffein and alcohol on the vasomotor center; wheal reactions; tuberculin reaction.

Pilcher, Dr. John F(uller), 416 Chaparral, Corpus Christi, Texas. *Pathology.* Streator, Ill, Nov. 16, 04. A.B, Ohio

Wesleyan, 25; M.D, Texas, 31. Instr. chem, Texas, 25, path, 31–32, adj. prof, 32-33, assoc. prof, 33–37; *director, Terrell's Labs, 37–* Pathologist, Spohn, Fred Roberts and Refugio County Hosps, 38–; chief staff, Spohn Hosp, 41– A.A; Chem. Soc; Am. Med. Asn; South. Med. Asn; fel. Soc. Clin. Path; Texas Acad; Texas Med. Asn. (chairman, path. sect, 36–). Hypertension; thyroid function.

Pilcher, Dr. K. Stephen, Cutter Laboratories, Foot of Carleton St, Berkeley, Calif. *Bacteriology.* Memphis, Tenn, Dec. 15, 08. B.S, Washington (Seattle), 33, Ph.D, 39. Teaching fellow bacter, Washington (Seattle), 37–39; *research bacteriologist, Cutter Labs, 39–* Viruses of infectious myxoma and the Shope fibroma of rabbits, especially the reaction of chick embryo to the virus; viruses of equine encephalomyelitis, hog cholera, fowl laryngotracheitis and fowl pox.

Pilcher, Dr. Robert W(arren), 809 N. Scott St, Wheaton, Ill. *Biochemistry.* St. Louis, Mo, Nov. 16, 98. B.S, Washington (St. Louis), 22, M.S, 24; fellow, Missouri, 27–30, Ph.D, 30. Instr. chem, Washington (St. Louis), 22–27; agr. chem, Missouri, 30; biochemist and supervisor nutrition lab, research dept, *Am. Can Co, Maywood, Ill,* 30–34, asst. chief, sales research div, 34–37, chief, 37–40, asst. to manager, 40–42, *asst. director research, 42–* Inst. Food Technol; Chem. Soc; Pub. Health Asn. Vitamin B and protein; metabolism on varied protein levels; vitamin conservation in canned foods; canning and packaging technology of vegetables, fruits and meats; food poisoning.

Pilgrim, Dr. F(orrest) D(ean), 1740 Orchard Court, Kingsport, Tenn. *Organic chemistry.* Gainesville, Ga, Sept. 18, 05. B.S, Emory, 27, M.S, 28; Ph.D, Northwestern, 32. Instr. inorg. chem, Ga. Tech, 27–29; asst. chem, Northwestern, 29–30; *dept. supt, Tenn. Eastman Corp, 32–* Chem. Soc. Thermal decomposition of saturated hydrocarbons; pyrolysis of organic compounds.

Pillemer, Dr. L(ouis), Army Medical School, Army Medical Center, Washington, D. C. *Immunochemistry, Protein chemistry.* Johannesburg, S. Africa, July 4, 08. B.S, Duke, 33; Ph.D, Western Reserve, 38. Demonstrator *immunol, Western Reserve,* 38–39, instr, 39–41, *senior instr, 41–* Complement and associated non-specific immune factors.

Pilling, Norman B(oden), The International Nickel Co, Bayonne, N. J. *Metallurgy.* Waterbury, Conn, Jan. 23, 93. Ph.B, Yale, 15, M.S, 17. Research metallurgist, Westinghouse Elec. and Mfg. Co, 17–24; metallurgist, *Int. Nickel Co,* 24–32, in charge metal. research, 32–33, manager *research lab,* 33–39, *director, 39–* A.A; Min. and Metal. Eng; Soc. Test. Mat; Soc. Metals; Chemists' Club; British Inst. Metals; British Iron and Steel Inst. Physical metallurgy of refined copper; transformer steels; high temperature oxidation of metals; heat resisting nickel alloys; corrosion resisting alloys and steels; age hardening heavy alloys.

Pillow, Maxon Y(oung), 1344 Morrison St, Madison, Wis. *Forestry.* Janesville, Minn, Jan. 29, 99. B.S, Minnesota, 24; M.S, Wisconsin, 33, Ph.D, 39. Junior wood technologist, *Forest Products Lab, U. S. Forest Service,* 24–29, asst. wood technologist, 29–35, *assoc. wood technologist, 35–* A.A; Soc. Foresters (sec'y, Wis. sect, 30); Bot. Soc; Ecol. Soc. Relation of the structure of wood to its properties; effect of heat on strength of wood and structure; occurrence and properties of compression wood; characteristics of wood as correlated with growth conditions.

Pillsbury, Arthur F(rancis), University of California, Los Angeles, Calif. *Irrigation engineering.* Los Angeles, Calif, Oct. 11, 04. A.B, Stanford, 28, C.E, 30. Civil engineer, 30–32; erosion control engineer, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 33–34; junior irrig. engineer, *col. agr, California,* 32–33, 34–38, *asst. prof. and asst. irrig. engineer, 38–* Geophys. Union; Civil Eng. Irrigation and erosion control; hydrology; soil physics.

Pillsbury, Prof. J(oshua) P(lummer), 2715 Hillsboro St, Raleigh, N. C. *Landscape architecture.* Buena Vista, Ohio, Dec. 7, 73. Mo. Bot. Garden, 91–95, certificate; B.S, Pa. State Col, 10; Harvard, 28–29. Head gardener and from asst. to asst. prof. hort, Pa. State Col, 95–11; *prof, N. C. State Col,* 11–40, *landscape archit, 40–, landscape architect, 25–* A.A. Highway planting.

Pillsbury, Prof. W(alter) B(owers), University of Michigan, Ann Arbor, Mich. *[1]*Psychology.* Burlington, Iowa, July 21, 72. Penn Col. (Iowa), 88–90; A.B, Nebraska, 92, LL.D, 34; Ph.D, Cornell, 96. Instr. math, Grand Island Col, 92–93; asst. psychol, Cornell, 95–97; instr, *Michigan,* 97–00, asst. prof. philos. and director psychol. lab, 00–05, junior prof, 05–10, prof. *psychol,* 10–42, *emer. prof, 42–* Non-res. lecturer, Columbia, 08–09. Summer, Chicago, 10. Collaborator, 'Am. Jour. Psychol,' 97; 'Psychol. Rev,' 10–32; 'Jour. Educ. Psychol,' 10–15; 'Jour. Social Psychol,' 30– Nat. Acad; Psychol. Asn. (pres, 10); West. Philos. Asn. (pres, 06); for. assoc. mem. Soc. française de Psychol. Reading; circulation in relation to consciousness; fatigue of sensory processes; attention; psychology of reasoning; standards of intensity of sound; psychology of nationality; language; history of psychology; body types and intelligence.

Pilot, Dr. I(sadore), 507 Briar Place, Chicago, Ill. *Pathology, Bacteriology.* Chicago, Ill, Oct. 16, 95. M.D, Illinois, 17; B.S, Chicago, 19. Instr. path. and bacter, *col. med, Illinois,* 20–24, assoc, 24–26, asst. prof. path, bacter. and med, 26–29, *assoc. prof. path. and med, 29–; major, Med. Corps, U. S. Army.* A.A; Asn. Path. and Bact; fel. Am. Med. Asn; Soc. Int. Med; Cent. Soc. Clin. Research; Chicago Path. Soc; Inst. Med. Chicago. Bacteriology of the upper respiratory tract; fusiform bacilli; spirochetes; streptococci; septic sore throat; arthritis; pulmonary diseases; allergy.

Pilsbry, Dr. H(enry) A(ugustus), Academy of Natural Sciences, Philadelphia, Pa. *[1]*Zoology, Paleontology.* Iowa City, Iowa, Dec. 7, 62. B.S, Iowa, hon. Sc.D, 99. *Special curator dept. Mollusca, Acad. Nat. Sciences, Phila, 88–* Lecturer, Pennsylvania. Ed, 'The Nautilus,' 89– Joseph Leidy mem. award, 28. A.A; Philos. Soc; Malacol. Union (hon. pres, 37); cor. mem. Zool. Soc. London; London Malacol. Soc; hon. mem. Conchol. Soc. Gt. Britain and Ireland; Soc. belge de Zool. et Malacol; Real Acad. Cien. Madrid; Senckenberg. Naturforscher Gesell. Systematics; anatomy and phylogeny of land mollusks and of Cirripedes.

Pinchot, Dr. Gifford, Milford, Pa. *[1]*Forestry.* Simsbury, Conn, Aug. 11, 65. A.B, Yale, 89, hon. A.M, 01, LL.D, 25; hon. A.M, Princeton, 04; Sc.D, Mich. State Col, 07; LL.D, McGill, 09, Pa. Mil. Col, 23, Temple, 31; France; Germany; Switzerland; Austria. Consulting forester, 92–98; in charge forestry, Biltmore estate, 92-94; Nat. Forest Cmn, 95–96; confidential forest agent to Sec'y of the Interior, 97; forester, U. S. Dept. Agr, 98–10; commissioner of forestry, Pa, 20–22, governor, 23–27, 31–35. Prof. and emer. prof. forestry, Yale, 03– Cmt. on Organization of Govt. Sci. Work and of Cmn. on Pub. Lands, 03; Cmn. on Dept. Methods, 05; Inland Waterways Cmn, 07; chairman, Nat. Conservation Cmn, 08; Cmn. on Country Life, 08; chairman, Joint Cmt. on Conservation, 08. Medal, Nat. Acad, 16; Roosevelt medal. Soc. Foresters; Nat. Conservation Asn. (pres, 10); Acad. Polit. and Social Sci; Biol. Soc. Wash; Wash. Acad; Pa. Acad. Forestry in the United States.

Pinck, L(ouis) A(aron), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Russia, June 20, 94. B.S, N. Y. Univ, 18, Chem.E, 27; M.S, George Washington, 23. Control chemist. U. S. Nitrate Plant No. 2, Muscle Shoals, Ala, 18; *asst. chemist,* fixed nitrogen research lab, bur. chem. and soils, *U. S. Dept. Agr,* 19–39, *bur. plant indust, 39–* Chem. Soc. Cyanamide and its derivatives; nitrations; ammonolysis; fluorene chemistry; diazo compounds; hydrazines; amine oxidation; fertilizers; ammoniated peat; organic phosphates; soil organic matter.

Pinckard, Dr. J(oseph) A(lexander), Mississippi State College, State College, Miss. *Plant pathology.* Lebanon, Mo, Nov. 16, 06. B.S, Oregon State Col, 30; M.S, Wisconsin, 31, Ph.D, 34. Asst. plant path, Wisconsin, 31–36; asst. plant pathologist, Exp. Sta, Va. Polytech, 36–40, assoc. plant pathologist, 40–41; mem. staff, N. C. Exp. Sta, North Carolina, 41; *plant pathologist and head dept, Exp. Sta, Miss. State Col, 41–* Agent, U. S. Dept. Agr, 41–; plant pathologist, State Plant Board, Miss, 41– A.A; Phytopath. Soc; Soc. Agron; Torrey Bot. Club; Miss. Acad. Apple diseases; physiology of the gall-forming plant pathogens; diseases of tobacco; downy mildews, their control, and mechanism of spore dispersal; soil borne diseases of cotton.

Pincus, Dr. Alexis G(eorge), Southbridge, Mass. *Ceramics.* Newark, N. J, Aug. 11, 11. B.S, Rutgers, 32, M.S, 34; Mass. Inst. Tech, 39–40; Ph.D, Pa. State Col, 40. Asst. glass, Rutgers, 32–34; *ceramist, Am. Optical Co, 34–* Asst, Pa. State Col, 38. Ceramic Soc; Soc. Glass Technol. Factors limiting glass formation; atomic arrangements in glass; glasses with unusual properties.

Pincus, Prof. Gregory (Goodwin), Clark University, Worcester, Mass. **Zoology, *Physiology.* Woodbine, N. J, April 9, 03. B.S, Cornell, 24; M.S, Sc.D, Harvard, 27. Instr. zool, Harvard, 26; nat. research fellow biol, 27–30; instr. gen. physiol, Harvard, 30–31, asst. prof, 31–38; *visiting prof. exp. zool, Clark, 38–* Visiting investigator, Cambridge, 37–38. Ed, 'Exp. Biol. Monographs'; chairman cmt. assay of chorionic gonadotrophin, U. S. Pharmacopoeia. A.A; Physiol. Soc; Genetics Soc; Soc. Zool; Pub. Health Asn. (cmt. lab. animal); Asn. Anat; Asn. Study Int. Secretions; Asn. Study Growth and Develop; Asn. Cancer Research; Soc. Study Psychosomatics; fel. Am. Acad; for. mem. Soc. d'Endocrinologie. Animal reproduction; endocrinology; animal genetics.

Pineo, Orrin Weston, The Woodrow Wilson, New Brunswick, N. J. *Physics.* Katahdin Iron Works, Maine, Sept. 28, 08. B.S, Mass. Inst. Tech, 29. Asst. physics, Mass. Inst. Tech, 29–32, Textile Foundation senior fellow, 32–33; independent develop. of automatic spectrophotometers with Messrs. Adam Hilger, Ltd, London, 33–34; *physicist, Calco Chem. Co, Bound Brook, 25–* A.A; Optical Soc; Asn. Textile Chem. and Colorists; Soc. Dyers and Colorists. Spectrophotometry.

Pines, Dr. Herman, 5475 Everett Ave, Chicago, Ill. *Organic chemistry.* Lodz, Russia, Jan. 17, 02. Chem.E, Inst. Chem, Lyon, France, 27; Ph.D, Chicago, 35. *Research chemist, Universal Oil Products Co, 30–; research asst. prof. chem, Northwestern, 41–* Chem. Soc. Catalysis in hydrocarbon chemistry; alkylation; isomerization; polymerization; synthesis of hydrocarbons.

Pingert, Dr. Frederick P(aul), R. F. D. 1, Macedon, N. Y. *Organic chemistry.* Zagreb, Austria, Aug. 27, 06. Vienna, 29; Ph.D. Rochester, 34. Asst. instr, Vienna, 26–28; asst, Rochester, 33–34; *research chemist,* Eastman Kodak Co, Rochester, 34–43; *Burroughs Wellcome and Co, Inc, 43–* A.A; Chem. Soc. Oxidation of fatty acids; cellulose esters; film base; synthetic resins; photographic intermediaries; polyaryls; organic syntheses.

Pinkerton, Prof. Henry, St. Louis University School of Medicine, St. Louis, Mo. *Pathology.* Brooklyn, N. Y, June 13, 97. B.S, Mass. Inst. Tech, 18; M.D, Harvard, 24. Path. house officer, Peter Bent Brigham Hosp, Boston, 24–25, res. pathologist, 26–27; Children's Hosp, Boston, 25–26; instr, Harvard Med. Sch, 27–28, faculty instr. *path,* 28–36, asst. prof, 36–39; *prof. and director dept, sch. med, St. Louis, 39–* Asn. Path. and Bact; Soc. Exp. Biol; St. Louis Path. Soc. (pres, 41–). Rickettsial and virus diseases; tissue culture.

Pinkley, Dr. George (Davison), American Museum of Natural History, New York, N. Y. *Geology, Paleontology, Anthropology.* A.B, Illinois, 24; Columbia; Ph.D, London, 35. Petrol. geologist, 24–29; asst. dept. geol, *Am. Museum Nat. Hist,* 29–32, assoc. *dept. comp. anat,* 36–38, *assoc. curator, 38–* Ensign and naval aviator, U.S.N.R, 18–19. A.A; Asn. Physical Anthrop; Soc. Vert. Paleont; fel. N. Y. Acad. Evolution of man with special reference to the brain; human paleontology.

Pinkney, Dr. P(aul) S(within), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Mondovi, Wis, May 29, 12. B.S, Wisconsin, 34; Chem. Foundation fellow, Illinois, 35–37, Ph.D, 37. Asst. chem, Illinois, 34–35; *exp. sta, E. I. du Pont de Nemours and Co, 37–* The synthesis of polynuclear organic compounds from acetylenic glycols.

Pinkston, Dr. James O(liver), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physiology.* Waverly, Ala, July 7, 03. B.S, Birmingham-Southern Col, 26; Ph.D, Harvard, 34. Instr. biol, Birmingham-Southern Col, 26–28, asst. prof, 28–30; teaching fellow physiol, Harvard Med. Sch, 30–35; research assoc. pharmacol, sch. med, Vanderbilt, 35–37; assoc. prof. and chairman dept, American Univ. Beirut, 37–41; *pharmacologist, div. indust. hygiene, nat. inst. health, U. S. Pub. Health Service, 41–* Visiting prof, sch. med, Georgia, 34. A.A. The control of body temperature; experimental fever and the nervous control of body temperature; sympathomimetic drugs; artificially heated clothing for airplane pilots; vasomotor reflexes.

Pinner, Dr. Max, Montefiore Hospital, New York, N. Y. *Pathology, Bacteriology.* Berlin, Germany, Nov. 28, 91. Berlin; M.D, Tübingen, 19. Director lab, Maybury Sanatorium, 26–30; in charge labs. and assoc. director, Desert Sanatorium, Tucson, 30–35; prin. diagnostic pathologist, Tuber. Hosps, State Dept. Health, N. Y; Hermann Biggs Mem. Hosp, Ithaca, N. Y, 35–38; *chief div. pulmonary diseases, Montefiore Hosp, 38–; clin. prof. med, Columbia, 39–* Ed, 'Am. Rev. Tuber,' 38– A.A; Asn. Path. and Bact; Soc. Exp. Biol; Tuber. Asn; fel. Col. Physicians; Asn. Thoracic Surg; fel. N. Y. Acad. Immunology and pathology of tuberculosis.

Pinney, Prof. Mary Edith, Milwaukee-Downer College, Milwaukee, Wis. *Biology.* Iowa City, Iowa. A.B, Kansas, 08, A.M, 10; Bonn and Heidelberg, 11–12; Ph.D, Bryn Mawr Col, 18. Instr. zool, Kansas, 12–13; demonstrator biol, Bryn Mawr Col, 13–17; instr. zool, Wellesley Col, 17–19; prof. biol, Lake Erie Col, 19–24; asst. prof. *zool, Milwaukee-Downer Col,* 24–25, *prof, 25–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Soc. Zool. Cytology; spermatogenesis of insects; cytology of fish hybrids.

Pinson, Dr. Ernest A(lexander), 139 Walnut St, Yellow Springs, Ohio. *Aviation medicine and physiology.* Henderson Co, Ky, Jan. 2, 13. A.B, DePauw, 35; fellow, Rochester, 35–39, Ph.D, 40. *Research physiologist aviation med, Air Corps, U. S. War Dept, 39–* Insensible perspiration; heat and water balance in the human; physiology of high altitude flight.

Piore, Dr. E(manuel) R(uvin), Bureau of Ships, U. S. Navy Department, Washington, D. C. *Physics.* Wilno, Russia Poland, July 19, 08. A.B, Wisconsin, 30, Ph.D, 36. Asst. instr. physics, Wisconsin, 30–35; physicist, electronic research lab, RCA Mfg. Co, 35–38; in charge television lab, Columbia Broadcasting System, 38–42; *senior physicist, bur. ships, U. S. Navy Dept, 42–* Radio Eng; Physical Soc; Franklin Inst. Electronics; thermionic, photoelectric and secondary emission; composite surfaces; metallic state; color television.

Piper, Arthur M(aine), U. S. Geological Survey, Washington, D. C. *Geology.* Thomaston, Maine, Sept. 20, 98. B.S, Tufts Col, 19; M.S, Idaho, 20, 25. Topographer, Idaho Bur. Mines and Geol, 20–21, asst. geologist, 21–22, geologist, 22–26; asst. geologist, *U. S. Geol. Surv,* 26–29, assoc. geologist, 29–32, geologist, 32–40, *senior geologist, 40–* Geol. Soc; Geophys. Union. Ground water hydrology.

Piper, Dr. John D(onald), 4758 Westland Ave, Dearborn, Mich. *Chemistry.* Calumet, Mich, Dec. 16, 03. A.B, Mich. State Nor. Col, 29; M.S, Ohio State, 31, Ph.D, 33. Teacher, pub. schs, Mich, 21–25; asst. chem, Mich. State Nor. Col, 27–29; Ohio State, 29–33; *research chemist, Detroit Edison Co, 33–* Chem. Soc. Absorption spectra of dyes; high voltage insulation.

Pipes, Dr. Louis A(lbert), Harvard University, Cambridge, Mass. *Electrical engineering.* Mexico City, Mex, Oct. 22, 10. B.S, Calif. Inst. Tech, 33, M.S, 34, Ph.D, 36. Instr. elec. eng, Rice Inst, 36–37; Alumni research fellow, *Wisconsin,* 37–38; *instr. elec. eng, Harvard, 38–* Elec. Eng; Math. Soc. Mathematical applications to electrical engineering; circuit analysis; electric waves; vibration problems; operational methods; matrix algebra.

Pirenian, Prof. Z(areh) M, Box 2457, University Station, Gainesville, Fla. *Mathematics.* Armenia, Oct. 30, 01. B.S, Florida, 26, M.S, 28; Chicago, 28–37. Instr. *math,* Ala. Polytech, 27–30, asst. prof, 30–31; *Florida,* 31–37, *assoc. prof, 37–* Math. Soc; Math. Asn. Algebra; mathematics of finance; tables of compound interest functions.

Piret, Prof. Edgar L(ambert), 477 Edmund St, St. Paul, Minn. *Chemical engineering, Industrial bacteriology.* Winnipeg, Man, Can, July 1, 10. B.Ch.E, Minnesota, 32, Ph.D, 37; Franco-Am. fellow, Lyon, 35–36, Dr. univ, 36. Instr. *chem. eng, Minnesota,* 37–41, *asst. prof, 41–* Research and consulting eng, Minn. Mining and Manufacturing Co, St. Paul, 37– Chem. Eng; Chem. Soc; Inst. Food Technol; Soc. Bact; Minn. Indust. Chem. Forum; Minn. Acad. Flow of heat and fluids; waste disposal; industrial fermentations; food dehydration; synthetic resins; engineering design.

Pirnie, Dr. Miles D(avid), W. K. Kellogg Bird Sanctuary, Augusta, Mich. *Ornithology.* Pulaski, N. Y, June 4, 98. B.S, Cornell, 23, Ph.D, 28. Instr. ornith, Cornell, 23–28; ornithologist, Mich. State Conservation Cmn, 28–31; *director W. K. Kellogg bird sanctuary and assoc. prof. zool, Mich. State Col, 31–* Summer, exped, Okefinokee Swamp, Ga, 22. Waterfowl refuge investigations, Wis. and Minn, bur. biol. surv, U. S. Dept. Agr, 34. Assoc. Ornith. Union; Wilson Ornith. Club; Wildlife Soc; Mich. Audubon Soc. Waterfowl; upland game birds; plumages and molts of waterfowl of North America; feeding habits of wild ducks; wildlife management.

Pirone, Prof. P(ascal) P(ompey), Rutgers University, New Brunswick, N. J. *Plant pathology.* Mt. Vernon, N. Y, Oct. 7,

07. B.S. Cornell, 29, Farm Bur. fellow, 29-33, Ph.D, 33. Asst. plant pathologist, A. A. Grinnell Co, Elba, N. Y, 27-28; field asst. and project leader, Dutch elm disease eradication, bur. plant indust, U. S. Dept. Agr, 33-34; asst. prof. *plant path*, Cornell, 34-38; *assoc. prof, Rutgers, 38–* Diseases of vegetable crops and ornamental plants; maintenance of shade and ornamental trees; aero-propagator.

Pirson, Dr. Sylvain J(oseph), Pennsylvania State College, State College, Pa. *Geophysics.* Vogenée, Belgium, June 28, 05. Min.C.E, Louvain, 29; Cmn. Relief Belgium Educ. Foundation fellow, Pittsburgh, 29-30, M.S, 30; Sc.D, Colo. Sch. Mines, 31. Instr. geophys, Colo. Sch. Mines, 33-34; geophysicist, Seismog. Service Corp, Okla, 34-36; Gulf Research and Develop. Corp, Pittsburgh, 36; *head petrol. and nat. gas eng, Pa. State Col, 36–* A.A; Min. and Metal. Eng; Asn. Petrol. Geol; Soc. Explor. Geophys. Applied geophysics and geochemistry; petroleum engineering.

Piston, Dr. Donald S(tover), 127 Cornell Ave, Fresno, Calif. *Physics.* Rockland, Maine, Dec. 16, 99. B.S, Mass. Inst. Tech, 21; Ph.D, Stanford, 35. Instr. physics, Maine, 25-27, asst. prof, 27-34; acting instr, Stanford, 35; *physicist, Twining Labs, Fresno, 36–* A.A; Physical Soc; Meteorol. Soc. General physics; meteorology; x-rays.

Pistor, Prof. William J(acob), University of Arizona, Tucson, Ariz. *Animal pathology.* Tucson, Ariz, Sept. 15, 00. B.S.A, Arizona, 22; B.S. and D.V.M, State Col. Wash, 26. Practising veterinarian, Portland, Oregon, 26-30; veterinarian, State Dept. Agr, Calif, 30-33; asst. prof. vet. med, State Col. Wash, 33-34; assoc. prof, *Arizona*, 34-36, *prof. animal path. and head dept, 36–* Infectious keratitis in cattle; mineral deficiencies of range cattle; acute death losses due to nutritional causes of cattle on alfalfa and alfalfa barley pastures.

Pitcher, Prof. A(rthur) E(verett), Lehigh University, Bethlehem, Pa. *Mathematics.* Hanover, N. H, July 18, 12. A.B, Western Reserve, 32; A.M, Harvard, 33, Ph.D, 35. Instr. *math*, Harvard, 34-35; asst, Inst. Advanced Study, 35-36; instr. and tutor, Harvard, 36-38; instr, *Lehigh*, 38-39, *asst. prof, 39–* Math. Soc; Math. Asn. Calculus of variations and topology.

Pitman, Earle Carver, Riverbrook, Red Bank, N. J. *Chemistry.* West Boylston, Mass, Oct. 10, 93. A.B, Harvard, 14; B.S, Mass. Inst. Tech, 16. Chem. engineer, Brown Co, Berlin, N. H, 16-18; supt, Lustron Co, Boston, 18-19; chem. engineer, E. I. du Pont de Nemours and Co, Parlin, N. J, 19-25, asst. director, Parlin lab, 25-43; *chem. and chem. eng. consultant, 43–* A.A; Chem. Soc; Electrochem. Soc; fel. Inst. Chem; Soc. Chem. Indust. Viscosity of nitrocellulose solutions; cellulose derivatives and their utilization; reactions in high frequency field.

Pitman, Prof. John H(imes), 328 Vassar Ave, Swarthmore, Pa. *Astronomy.* Conshohocken, Pa, April 7, 90. A.B, Swarthmore Col, 10, A.M, 11, Lippincott fellow, 11-12; Lick Observatory fellow, California, 12-13. Instr. *math. and astron, Swarthmore Col*, 13-18, asst. prof, 18-28, *assoc. prof, 28–* A.A; Astron. Soc. (councilor, 38-41; chairman cmt. teaching, 41); Rittenhouse Astron. Soc. Phila. (v. pres, 36-38, pres, 38); fel. Royal Astron. Soc. Stellar parallaxes; masses of binary stars; orbits of comets and asteroids.

Pittenger, Dr. Paul S(tewart), Sharp and Dohme, 640 N. Broad St, Philadelphia, Pa. *Biology.* Easton, Pa, Sept. 20, 89. Ph.G, Medico-Chirurg. Col, 09, Ph.C, 10, Phar.D, 11; Ph.M, Phila. Col. Pharmacy, 19, Sc.D, 40. Director pharmaceut. and biol. labs, *Sharp and Dohme*, 10-29, *v. pres, 29–* Instr, Phila. Col. Pharmacy, 10-29; Temple, 24-29. Pharmaceut. Asn. (v. pres, 24, chairman, sci. sect, 24); Am. Drug Mfg. Asn. (chairman, sci. sect, 29, pharmaceut. sect, 36). Biologic assays; biochemic drug assay methods; pharmacology.

Pittier, Dr. H(enri François), Caracas, Venezuela, S. Amer. *Botany, Ethnography.* Bex, Switzerland, Aug. 13, 57. A.B, Lausanne, 75, B.S, A.M, 76, D.Sc, 27; C.E, Swiss Polytech, 80; Jena, 80-81. Swiss Topog. Surv, 81-82; prof. nat. hist, Inst. Henchoz, 82-85; physical geog, Lausanne, 85-87; director, Geog. and Nat. Hist. Surv, Costa Rica, 87-04; expert, United Fruit Co, 04-05; bionomic investigator, U. S. Dept. Agr, 05-19; director, Commercial Museum, Caracas, 20-32; in charge meteorol. service, Venezuela, 31-32, director, 32-33; *botanist, Ministry of Agr, 36–* Officier de l'Instruction pub; officier de l'Ordre de Leopold. Bot. Soc; Ecol. Soc; Anthrop. Asn; cor. mem. Am. Geog. Soc; Asn. Geog; Asn. Mus; Anthrop. Soc. Wash; Biol. Soc. Wash; hon. mem. Pa. Hort. Soc; hon. cor. mem. Royal Geog. Soc. and Royal Scottish Geog. Soc; Berl. Gesell. Anthrop. und Ethnog; hon. mem. Soc. des Sci. nat; Soc. belge de Bot; Soc. suisse de Bot; Zurich Geog. Gesell; Soc. Cient. Ant. Alz; Acad. Cienc. y Let. de San Salvador; cor. mem. Acad. Ciencias Colombia; Soc. Geog. de Madrid; Soc. helvétique des Sci. nat. Geography; climate and native tribes of Costa Rica; economic plants of tropical America; Indians of Colombia; flora of Central and South America; languages of Costa Rican Indians; climate of Venezuela.

Pittman, Prof. D(on) W(arren), Utah State Agricultural College, Logan, Utah. *Agriculture, Agronomy.* Bloomfield, Iowa, Feb. 10, 91. B.S, Iowa State Col, 14; M.S, Utah Col, 16. From instr. to *prof.* agron, *Utah State Col*, 16-31, *soils, 31–, forest soils, 36–, assoc. agronomist, Exp. Sta, 24–* Tech. adviser, Ministry of Agr, Iran, Teheran, 40-43. A.A; Soc. Agron; Soil Sci. Soc; Soc. Plant Physiol; fel. Utah Acad; West. Soc. Soil Sci; Int. Soc. Soil Sci. Analysis and treatment of alkali soils; fertility maintenance by rotation and use of manure; irrigation of barley, alfalfa, sugar-beets and potatoes; eradication of wild morning-glory; nitrate relationships of soils under manuring and cropping treatment.

Pittman, Dr. Margaret, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Bacteriology.* Prairie Grove, Ark, Jan. 20, 01. A.B, Hendrix Col, 23; M.S, Chicago, 26, Ph.D, 29. Prin. acad, Galloway Woman's Col, 23-25; fellow, influenza cmn, Metropolitan Life Ins. Co, 26-28; asst, Rockefeller Inst, 28-34; asst. bacteriologist, State Dept. Health, N. Y, 34-36; assoc. bacteriologist, *nat. inst. health, U. S. Pub. Health Service*, 36-41, *bacteriologist, 41–* A.A; Soc. Bact. (sec'y Washington branch, 40-42); Soc. Exp. Biol; Harvey Soc. Respiratory bacteriology; pneumococcus; Hemophilus influenzae; influenzal meningitis; meningococcus.

Pittman, Prof. Martha S(ophia), Kansas State College, Manhattan, Kans. *Nutrition.* Kans, Nov. 9, 85. B.S, Kans. State Col, 06; B.S, Columbia, 16, A.M, 18; Ph.D, Chicago, 30. Teacher, pub. schs, Kans, 06-07; Chilocco Indian Sch, 07-10; high sch, Nev, 10-15; exten. work home econ, Pa. State Col, 17-19; *Kans. State Col, 19–, prof. foods and nutrition and head dept.* A.A; Inst. Nutrition; Dietetic Asn; Home Econ. Asn. Digestion and metabolism experiments.

Pittman, Lieut. Melvin A, U. S. Naval Academy, Annapolis, Md. *Physics.* B.S, The Citadel, 25; M.S, South Carolina, 29; Michigan, 32-33; Ph.D, Hopkins, 36. Instr. physics, Maryland, 29-36, head dept, Baltimore branch, 36-37; Madison Col, 37-42; engineer, Sig. Corps Radar Lab, Belmar, N.J, 42; *lieut, U. S. Naval Res. and instr. physics, U. S. Naval Acad, 42–* Infra-red dispersion of chloroform and bromoform; dispersion of xylenes; skin temperature.

Pitts, Prof. Frank P(atrick), 2302 Kenmore Road, Richmond, Va. *Analytical chemistry.* Ambler, Pa, Feb. 8, 95. B.S, Va. Polytech, 24, M.S, 27. Instr. *chem*, Va. Polytech, 25-27; Virginia, 27-28; assoc, *Med. Col. of Va*, 28-34, *asst. prof, 36–* A.A; Chem. Soc; Va. Acad. Utilization of metals by animals.

Pitts, Dr. R(obert) F(ranklin), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Physiology.* Indianapolis, Ind, Oct. 24, 08. B.S, Butler, 29; Adam T. Bruce fellow, Hopkins, 31-32, Ph.D, 32; M.D, N. Y. Univ, 38. Asst. zool, Hopkins, 29-31; physiol, col. med, N. Y. Univ, 32-33, instr, 33-38, asst. prof, 40-42; fellow, Rockefeller Foundation, 38-40; *asst. prof. physiol, med. col, Cornell, 42–* Physiol. Soc; Harvey Soc. Central nervous system autonomic and respiratory regulation; renal physiology.

Pitzer, Prof. Kenneth S(anborn), University of California, Berkeley, Calif. **Physical chemistry.* Pomona, Calif, Jan. 6, 14. B.S, Calif. Inst. Tech, 35; Ph.D, California, 37. Instr. *chem, California*, 37-39, asst. prof, 39-42, *assoc. prof, 42–* Chem. Soc. Thermodynamics; statistical mechanics; argentic salts; crystal structure; entropies of ions; heat capacities; thermodynamics of hydrocarbons.

Pixley, Prof. E(mily) C(handler), 4928 Cottage Grove Ave, Chicago, Ill. *Mathematics.* Knoxville, Tenn, Aug. 19, 04. A.B, Randolph-Macon Woman's Col, 26; A.M, Chicago, 27, Ph.D, 31. Instr. *math, St. Xavier Col*, 27-30, *prof, 30–* Div. research and planning, Nat. Recovery Admin. Math. Soc. The Waring problem; labor productivity.

Pixley, Prof. Henry H(owes), Wayne University. Detroit, Mich. *Mathematics.* Skaneateles, N. Y, July 18, 02. A.B.

J. B. Stetson, 23, A.M, 24; M.S, Chicago, 27, Ph.D, 31. Instr. *math*, Ga. Tech, 24–26; Rutgers, 27–28; Bryn Mawr Col, 28–29; Col. City of Detroit, 30–33, *Wayne*, 33–34, asst. prof, 34–37, *assoc. prof, 37–* Math. economist, Nat. Recovery Admin, 33–34. Math. Soc; Econometric Soc; Math. Asn; Inst. Math. Statist; Statist. Asn. Calculus of variations; mathematical economics.

Pizzarello, Dr. R(oy) A(loysius), Interchemical Corp, 432 W. 45th St, New York, N. Y. *Organic chemistry.* Paterson, N. J, Aug. 4, 10. B.S, Fordham, 33, M.S, 35, Ph.D, 38. Lab. asst, Permutit Co, New York, 28–29; instr. org. chem, Fordham, 35–38; *research chemist, Interchem. Corp, 38–* Summers, lab. asst, Permutit Co, 30–32. Chem. Soc. Carbohydrate chemistry; alkaloids; pigments; dyes; intermediates.

Placzek, Dr. George, Cornell University, Ithaca, N. Y. *Physics.* Bruenn, Czechoslovakia, Sept. 26, 05. Ph.D, Vienna, 28; Utrecht, Leipzig and Rome, 28–32. Sci. collaborator, inst. theoret. physics, Copenhagen, 32–34, 35–38; prof. theoret. physics, Jerusalem, 34–35; research worker, inst. de chimie nuclèaire, Col. de France, 38; *research assoc. physics, Cornell, 39–* Physical Soc; École Libre des Hautes Etudes. Atomic and molecular structure; spectroscopy; quantum mechanics; neutrons; nuclear structure.

Plagge, Prof. Herbert J(ohn), 519 Lynn Ave, Ames, Iowa. *Physics.* Barrington, Ill, July 14, 84. B.S, Northwestern, 06; A.M, Wisconsin, 10. Teacher science, Geneseo Collegiate Inst, 07; instr, Wisconsin, 08–09; dept. *physics, Iowa State Col*, 09–18, *assoc. prof, 18–* Summers, research, Automatic Elec. Co, Chicago, 29–30. A.A; Acoustical Soc. Sound absorption materials and methods of observing amount of absorption; constant frequency electric oscillators for producing constant pitch tone.

Plagge, Prof. H(omer) H(enry), 2215 Storm St, Ames, Iowa. *Pomology.* Barrington, Ill. B.S, Iowa State Col, 16, M.S, 19, Ph.D, 32. Asst. bot, Iowa State Col; asst. pathologist, U. S. Dept. Agr; *research asst. prof. pomol, Iowa State Col, 20–* Soc. Hort. Sci; Iowa Acad. Storage of apples; orchard stocks; fruit and vegetable preservation.

Plagge, Dr. James C(larence), University of Illinois College of Medicine, Chicago, Ill. *Endocrinology.* Barrington, Ill, April 5, 11. B.S, Chicago, 37, Ph.D, 40. Asst. zool, Chicago, 37–40; instr. gross anat, Maryland, 40–41, asst. prof, 41–43; *assoc. anat, col. med, Illinois, 43–* Physiology of the endocrines, particularly sex organs, thymus and thyroid.

Plakidas, Prof. A(ntonios) G(eorge), Louisiana Terrace, Baton Rouge, La. *Plant pathology.* Ikaria Island, Greece, Sept. 7, 95. B.S, California, 24, Ph.D, 27. Asst. plant path, California, 24–27; asst. plant pathologist, *Exp. Sta. Louisiana*, 27–30, *assoc. plant pathologist, 30–* Summers, cooperative research, office hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 29, 30. A.A; Phytopath. Soc. (pres, south. div, 39; assoc. ed, 'Phytopath,' 42–); Mycol. Soc; La. Acad. Strawberry virus and fungus diseases, especially leaf-spotting fungi; diseases of pear and tung trees, especially crown girdle; downy mildew of cucumbers; fungicides.

Planck, Dr. Ralph W(aldo), 4400 Fifth Ave, Pittsburgh, Pa. *Chemistry.* Jefferson Co, N. Y, Jan. 15, 13. A.B, Syracuse, 34; Ph.D, Northwestern, 38. Asst, Northwestern, 35–36, teaching asst, 36–38; research chemist, Durez Plastics and Chemicals, Inc, 39; *indust. fellow, Mellon Inst, 39–* Summers, analyst, N. Y. State Exp. Sta, Geneva, 36; research chemist, Coleman Elec. Co, Ill, 37. Chem. Soc; Soc. Rheol. Heats of dilution; plastics; pressure-sensitive adhesives; rheology.

Plank, H(arold) K(auffman), U. S. Department of Agriculture, Mayaguez, P. R. *Entomology.* Morgantown, Pa, May 4, 91. B.S, Pa. State Col, 14. Asst. zool. and entom, Pa. State Col, 13–14; deciduous fruit-insect investigations, bur. entom, U. S. Dept. Agr, 14–20; cacao and trop. fruit-insect investigations, dept. agron, Asociacion de Agr. del Ecuador, 20–21; chief agr. dept, Trop. Oil Co, Colombia, 21–22; in charge trop. and subtrop. fruit insect investigations, bur. entom, U. S. Dept. Agr, New Orleans, 23–26; entomologist, Cuba Sugar Club Exp. Sta, Trop. Plant Research Foundation, 26–31; supervising entomologist, State Dept. Agr, Calif, 32–33, dist. inspector, 33–35; cocoanut, pineapple and banana insect investigations, bur. entom. and plant quarantine, *U. S. Dept. Agr*, 35–36, *bamboo and trop. plant insect investigations, P. R. Exp. Sta, 36–, acting director, 42–* A.A; Asn. Econ. Entom. Ecology and control of insect pests affecting the apple, cranberry, coconut, sugar-cane, vanilla, pineapple, cacao, banana, bamboo, tropical food crops and insecticidal plants.

Plank, Prof. W(illiam) B(ertolette), 246 Taylor Ave, Easton, Pa. *Mining engineering.* Morgantown, Pa, June 24, 86. B.S, Pa. State Col, 08, E.M, 09. Instr, sch. mines, Pa. State Col, 08–09; mining engineer, Phila. and Reading Coal and Iron Co, 09–12; Pittsburgh Coal Co, 12–16; asst. mining engineer, mining engineer and dist. mining engineer, U. S. Bur. Mines, 16–20, consulting engineer, 23–24; *John Markle prof. mining eng. and head dept, Lafayette Col, 20–* Chairman, Emergency Fuel Cmn, Easton, 25–26; Civil Service Cmn; Am. Inst. Min. and Metal. Engineers rep, Eng. Council Professional Develop, 41–; Lehigh Valley area coordinator, eng, science and management defense training, U. S. Office Educ, 41–42. Min. and Metal. Eng. (chairman, mineral indust. educ. div, 36–38, sec'y, 38–); Coal Min. Inst; Eng. Educ; Soc. Test. Mat; Lehigh Valley Eng. Club. Physical properties of slate; influence of rock structure on blasting; merchandising of anthracite from the consumer's viewpoint.

Plant, Dr. James S(tuart), Essex County Juvenile Clinic, 51 13th Ave, Newark, N. J. *Psychology.* Minneapolis, Minn, Aug. 3, 90. A.B, Hamilton Col, 12, Sc.D, 38; A.M, Pennsylvania, 13, M.D, 18; Paris, 19–20. Pathologist, McLean Hosp, Waverley, Mass, 20–22; asst, Judge Baker Foundation, Boston, 22–23; *director, Essex County Juvenile Clinic, 23–* Psychol. Asn; Psychiat. Asn; N. J. Med. Soc; Acad. Pediat. Conduct disorders in adults and children.

Plant, Prof. L(ouis) C(lark), Michigan State College, East Lansing, Mich. *Mathematics.* Nunica, Mich, Nov. 24, 70. Ph.B, Michigan, 97; Chicago, 97–98, M.S, 04. Asst. *math*, Bradley Polytech, 98–00, assoc, 00–04, instr, 04–07; assoc. prof, Montana, 07–08, *prof*, 08–13; *Mich. State Col, 13–* A.A; Math. Soc; Math. Asn; Eng. Educ. Geometrical applications of Jacobi's functions; optical transformations; introductory mathematical analysis; agricultural mathematics; first year college mathematics.

Plantinga, Dr. Oliver S(amuel), 901 Fulton St, Wausau, Wis. *Chemical engineering.* Worcester, Mass, Jan. 5, 07. B.S, Mass. State Col, 28, M.S, 30; Ph.D, N. Y. Univ, 34. Chief chemist, Autoxygen Inc, New York, N. Y, 34–37; Westvaco Chlorine Products Corp, Carteret, N. J, 37–40; instr. chem. eng, State Col. Wash, 40–42; *asst. supt, Marathon Chem. Co, Rothschild, Wis, 42–* A.A; Chem. Soc; Chem. Eng. Plastics; gas absorption; process development on inorganic and organic heavy chemicals; distillation; lignin recovery from sulfite liquors; tanning agents; vanillin; water treating compounds; dispersing agents.

Plaskett, Prof. H(arry) H(emley), University Observatory, Oxford, Eng. ***Astrophysics.* Toronto, Ont, Can, July 5, 93. B.A, Toronto, 16; M.A, Oxford, 32. Astronomer, Dom. Astrophys. Observatory, 19–28; assoc. prof. astrophys, Harvard, 28–30, prof, 30–32; *Savilian prof. astron, Oxford, 32–* Astron. Soc; Royal Astron. Soc; Royal Soc. O-type stars; wedge method in spectrophotometry; bright line stars; formation of solar absorption lines; solar granulation.

Plass, Dr. E(verett) D(udley), 407 Melrose Ave, Iowa City, Iowa. *Obstetrics, Gynecology.* Poughkeepsie, N. Y, May 6, 86. A.B, Colgate, 07; M.D, Hopkins, 11. From asst. to assoc. prof. obstet, sch. med, Hopkins, 12–22; obstetrician-in-chief, Henry Ford Hosp, Detroit, 22–26; *prof. obstet. and gynec. and head dept, Iowa, 26–* A.A; Asn. Obstet. and Gynec; Gynec. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Am. Med. Asn. (sec'y, sect. obstet. and gynec, 34–37, chairman, 37); Cent. Asn. Obstet. and Gynec. (sec'y, 29–33, pres, 34); Chicago Gynec. Soc. Biochemistry; placental transmission; toxemias of pregnancy; moniliasis; etiology of thrush.

Plastridge, Dr. Wayne N(orman), University of Connecticut, Storrs, Conn. *Bacteriology.* Ingham Co, Mich, Feb. 5, 03. B.S, Mich. State Col, 25; Sterling scholar, Yale, 25–26, Ph.D, 28. Asst. bacter, Yale, 26–28; asst. bacteriologist, *Storrs Exp. Sta.* Conn. Agr. Col. 28–31. *assoc. bacteriologist*, 31–33, Conn. State Col, 33–39, *Connecticut, 39–* Soc. Bact. (pres, Conn. Valley branch, 32); Pub. Health Asn. Influence of gases on growth and toxin production of Corynebacterium diphtheriae; metabolism and serology of Brucella; bacteriology and control of bovine infectious mastitis; variants of Salmonella pullorum.

Platenius, Dr. Hans, R. D. 2, Ithaca, N. Y. *Horticulture.* Barmen, Germany, 01. M.S, Nebraska, 28; Ph.D, Cornell, 31. Asst, Nebraska, 26–28; asst. chemist, Exp. Sta, Agr. and Mech.

Col. Texas, 28–29; asst. and research instr. *veg. crops, Cornell*, 29–36, research asst. prof, 36–43, *research assoc. prof, 43–* Chem. Soc; Soc. Plant Physiol; Soc. Hort. Sci. Vegetable crops; plant metabolism; plant chemistry; storage problems.

Platt, Dr. John R(ader), University of Minnesota, Minneapolis, Minn. *Physics.* Jacksonville, Fla, June 29, 18. B.S, Northwestern, 36, M.S, 37; Ph.D, Michigan, 41. Instr. *physics,* Toledo, 41; *research fellow, Minnesota, 41–* Optical Soc; Physical Soc. Spectroscopy; extension of absorption spectra of biological materials to the vacuum ultra-violet.

Platt, Dr. Joseph B(aven), University of Rochester, Rochester, N. Y. *Physics.* Portland, Oregon, Aug. 12, 15. A.B, Rochester, 37; Ph.D, Cornell, 42. Asst. *physics,* Cornell, 37–41; *instr, Rochester, 41–* Summer, physicist, Eastman Kodak Co, 39. Physical Soc; Asn. Physics Teachers. Fine structure in x-ray K absorption edge of potassium.

Platt, Prof. Robert S(wanton), University of Chicago, Chicago, Ill. *Geography.* Columbus, Ohio, Dec. 4, 91. A.B, Yale, 14; Ph.D, Chicago, 20. Instr. *geog,* Yale-in-China, 14–15; *Chicago,* 19–22, asst. prof, 22–28, assoc. prof, 28–39, *prof, 39–* Adviser, geographer's office, State Dept, 43. V. chairman div. geol. and geog, Harris cmt. int. relations, Nat. Research Council, 37–39. A.A; Asn. Geog. (treas, 29–34, v. pres, 43). Reconnaissance in economic and political regional geography of Latin America; airways and air traffic.

Platt, Washington, 412 Douglas St, Syracuse, N. Y. *Chemistry.* Baltimore, Md, Oct. 6, 90. Ph.B, Yale, 11; Hopkins; A.M, Columbia, 21. In charge lab, Nat. Biscuit Co, 12–17; production manager, Harris Labs, 21–22; research, *Borden Co,* 22–30, *asst. director research lab, 30–; third armored div, U. S. Army, 41–, col.* Lecturer, evening courses, Columbia, 16. Capt, R.C, 17–19, lieut. col, C.W.S.R. Chem. Soc. (chairman, Syracuse sect, 28); Asn. Cereal Chemists (pres); Chem. Eng; Dry Milk Inst. (chairman, research cmt). Food and cereal chemistry; chemistry of milk products.

Platz, Prof. Gustav A(dolph), Homeacres, Lamoni, Iowa. *Plant pathology.* Burlington, Iowa, Sept. 22, 85. B.S, Nebraska, 20; M.S, Iowa State Col, 24, Ph.D, 28. Instr. sciences, Graceland Col, 20–23, 24–25; bot, Colo. Agr. Col, 25–26; *prof. biol, Graceland Col, 27–* A.A; Phytopath. Soc; fel. Iowa Acad. Effect of carbon dioxide and oxygen upon the germination of the chlamydospores of Ustilago zeae; factors influencing the pathogenicity of Ustilago zeae.

Platzman, Dr. Robert L(eroy), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry, Physics.* Minneapolis, Minn, Aug. 23, 18. B.S, Chicago, 37, M.S, 40, Ph.D, 42. Asst. chem, Chicago, 38–42; *mem. staff, radiation lab, Mass. Inst. Tech, 42–* X-ray crystallography; photochemistry.

Plaut, Dr. Alfred, 33 East End Ave, New York, N. Y. *Pathology.* Frankfurt-am-Main, Germany, 88. M.D, Freiburg, 13. Asst. pathologist, Hamburg, 13–22; *pathologist,* Barnert Mem. Hosp, Paterson, N. J, 22–23; Woman's Hosp, *New York,* 24–29; *Beth Israel Hosp, 29–* A.A; Asn. Path. and Bact; N. Y. Path. Soc; Int. Asn. Med. Mus. Pathology of hypophysis; ulcer of the stomach; cancer of the cervix; pathology of avitaminosis; development of medical thought; malformations of the heart; comparative anatomy of respiration; ovarian tumors; diseases of arteries.

Pleger, Dr. Karl G, 230 Vernon Place, Rochester, N. Y. *Organic chemistry.* St. Louis, Mo, Oct. 19, 09. B.S, Washington (St. Louis), 30, M.S, 32; Ph.D, Yale, 35. *Research chemist, Eastman Kodak Co, 35–* Local anesthetics; cellulose chemistry.

Plesset, Dr. Milton S(pinoza), California Institute of Technology, Pasadena, Calif. *Physics.* Pittsburgh, Pa, Feb. 4, 08. B.S, Pittsburgh, 29; Charles A. Coffin fellow, Yale, 30–31, Loomis fellow, 31–32, Ph.D, 32. Nat. research fellow, Calif. Inst. Tech, 32–33, Copenhagen, 33–34; Cmn. Relief Belgium Educ. Foundation fellow, 34–35; instr. *physics,* Rochester, 35–40; *research fellow, Calif. Inst. Tech, 40–* Fel. Physical Soc. Theoretical physics.

Pletcher, Dr. D(onald) E, 1305 Bookness St, Midland, Mich. *Organic chemistry.* Goshen, Ind, June 6, 15. A.B, Manchester Col, 37; Ph.D, Ohio State, 41. Asst. chem, Ohio State, 37–41; *research chemist, Dow Chem. Co, 41–* Chem. Soc. Carbohydrates; structure and synthesis of the Cori ester.

Pletsch, Dr. D(onald) J(ames), Montana State College, Bozeman, Mont. *Entomology.* Lake City, Minn, May 8, 12. B.S, Hamline, 32; M.S, Minnesota, 36, Ph.D, 42. Asst. state entomologist, Mont, 37; *asst. prof. entom, Mont. State Col, and asst. entomologist, Exp. Sta, 37–* Asn. Econ. Entom; Entom. Soc. Amer. Insect and plant disease relationships; the bionomics of the potato psyllid.

Pletta, Prof. D(an) H(enry), Box 417, Blacksburg, Va. *Applied mechanics.* South Bend, Ind, Dec. 31, 03. B.S, Illinois, 27, C.E, 38; M.S, Wisconsin, 31. Instr. mech, Wisconsin, 27–30; asst. prof. civil eng, South Dakota, 30–32; *applied mech, Va. Polytech,* 32–39, assoc. prof, 39–41, *prof, 41–, in charge materials testing lab, 37–; capt, ordnance dept, U. S. Army.* Concrete Inst. (chairman cmt. rigid frame bridges, 40–); assoc. Civil Eng; Eng. Educ; Va. Acad. (chairman eng. sect, 38–40). Permeability of concrete; mechanics of helical springs; design of rigid frame bridges.

Plice, Dr. M(ax) J(ennings), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Soils.* Ashland Co, Ohio, Feb. 9, 94. B.S.A, Purdue, 18, M.S, 25; Ph.D, Cornell, 32; Forest Hochschule, Tharandt, Germany, 32–33. Soil research, Purdue, 20–27; Cornell, 27–32; forest soil research, Appalachian Forest Exp. Sta, U. S. Forest Service, 33–36; head land classification, Va, W. Va, N. C, Ky. and Tenn, Resettlement Admin, 36–38; *assoc. soil research, dept. agron, col. and Exp. Sta, Okla. Agr. and Mech. Col, 38–* Soc. Agron; Soil Sci. Soc; Okla. Acad. Soil organic matter.

Plimpton, Prof. S(amuel) J(ames), 30A Boynton St, Worcester, Mass. *Physics.* Hartford, Conn, March 9, 83. Ph.D, Yale, 12. Instr. *physics,* Yale, 12–13; Hopkins, 13–14; *Worcester Polytech,* 14–19, *asst. prof, 19–* Fellow, Clark; visiting prof, London, 19–20. Physical Soc. Ionization of gases; x-rays; sound; electrodynamics; partial differential equations.

Pliske, Dr. Edward C(arl), University of North Carolina, School of Medicine, Chapel Hill, N. C. *Anatomy.* Cleveland, Ohio, May 24, 08. A.B, Oberlin Col, 32; Crane scholar, Marine Biol. Lab, Woods Hole, Mass, 32; A.M, Minnesota, 34, Ph.D, 36. Teaching asst. histol, Minnesota, 32–37, *instr,* 37–38; *anat, sch. med, North Carolina, 38–* Summers, jr. biologist, fish surv, Minnesota, 37; asst. prof, North Carolina, 40. A.A; Asn. Anat; Elisha Mitchell Sci. Soc. (assoc. ed, 40). Reproduction; follicular cycle; follicular development; hematology; connective tissue studies on inflammation; human normal and pathological blood.

Plotz, Dr. Harry, Army Medical Center, Washington, D. C. *Bacteriology.* Paterson, N. J, April 17, 90. M.D, Columbia, 13. Intern, Mt. Sinai Hosp, New York, 13, path. intern, 14; *chief lab, Pasteur Inst, 31–; Inst. de Biol. physico-chim, 23–* Am. Red Cross typhus exped, Serbia, 15–16, Poland and Russia, 21. Trustee, Ella Sachs Plotz Foundation for Adv. of Med. Officier Légion d'honneur; Serbian and Bulgarian decorations. Lieut. col, M.R.C, 17–19. A.A; Asn. Immunol; Soc. Exp. Biol; Harvey Soc; Soc. de Chim. biol; Soc. de Path. comparée. Typhus fever; cultivation of viruses; measles and other virus diseases.

Plough, Prof. Harold H(enry), Amherst College, Amherst, Mass. **Biology.* New York, N. Y, April 5, 92. A.B, Amherst Col, 13; A.M, Columbia, 15, fellow, 16–17, Ph.D, 17. Instr. *biol, Amherst Col,* 17–19, assoc. prof, 19–24, prof, 24–33, *Rufus Tyler Lincoln prof, 33–; capt, Sanit. Corps, U. S. Army.* Instr, Marine Biol. Lab, Woods Hole, 22–31. Managing ed, 'The Amherst Books,' 24–31; assoc. ed, 'Jour. Morphol,' 38–40. Trustee, Marine Biol. Lab, Woods Hole, 40– A.A; Soc. Nat. (treas, 39–41); Soc. Zool; Genetics Soc; Soc. Bact; Mass. Archeol. Soc. (trustee). Genetics; temperature effects on crossing-over and mutation; zoology of ascidians; physical anthropology.

Plueddemann, Dr. Edwin P(aul), 49 Freeman St, Woodbridge, N. J. *Organic chemistry.* Galion, Ohio, March 27, 16. A.A, Bay City Junior Col, 36; B.S, Baldwin-Wallace Col, 38; Ph.D, Ohio State, 42. Asst. chem, Ohio State, 38–42; *research chemist, Westvaco Chlorine Production Corp, Carteret, N. J, 42–* Addition of hydrogen fluoride to acetylenes and chloroolefins; organic halogen and phosphorus compounds.

Plum, Dr. W(illiam) B(yrle), U. S. Naval Operating Base, Norfolk, Va. *Physics.* Jackson, Minn, July 21, 07. A.B, Morningside Col, 30; A.M, Missouri, 32, Ph.D, 35. Asst. physics, Missouri, 30–35; prof. math. and physics, Texas Wesleyan Col, 35–36; assoc. prof. math. and physics and head dept. math, Southwestern Col, 36–38, prof. physics and head dept. physical science, 38–42, dean men, 37–42; *assoc. physicist, U. S. Navy, 42–* Research awards, Kans. Acad. Science 40, 41. A.A; Physical Soc; Asn. Physics Teachers; Kans.

Acad. Infra-red absorption spectra of certain organic liquids from one to thirteen microns; transmission of ultra-violet light by organic liquids; spectroscopic determination of vitamins.

Plumley, Dr. H(arold) J(amison), 200 S. Maple Ave, Oak Park, Ill. *Physics.* Oak Park, Ill, Sept. 19, 12. B.S, Chicago, 33, Ph.D, 37. Research sect, eng. dept, Commonwealth Edison Co, Chicago, 37–41; *mem. staff, Naval Ordnance Lab, 41–* Summer, research lab, Gen. Elec. Co, 36. Elec. Eng. Fluorescence of gases; isotopes; effects in Raman spectra; electrical conduction by liquid dielectrics; power system transients.

Plummer, Dr. Albert J(oseph), 62 Prospect St, Reading, Mass. *Pharmacology.* Somerville, Mass, April 16, 08. A.B, Boston, 29, A.M, 30, fellow, 32–35, Ph.D, 35. Instr. *pharmacol, sch. med, Boston, 35–39, asst. prof, 39–* Carbohydrate metabolism; toxicity of alcohols; barbiturates; theophylline.

Plummer, Dr. C(harles) C(arlton), Laboratorio Entomologico, Apartado 3, Colonia Anahuac, Mexico, D. F. *Entomology.* Jamestown, N. Y, July 28, 07. B.S, Conn. State Col, 28; M.S, New Hampshire, 29; Ph.D, Ohio State, 40. Field asst, Exp. Sta, New Hampshire, 28–29; asst, Ohio State, 29–31; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr, 31–37, assoc. entomologist, 37–* Summers, scout foreman, U. S. Dept. Agr, 26, field asst, New Hampshire, 27, Mexico, 30. Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Soc. Mex. de Microbiol; Soc. Mex. de Hist. Nat. Insecticides; fruit flies; Membracidae.

Plummer, Fred L(eroy), Hammond Iron Works, Warren, Pa. *Engineering.* West Union, Ohio, Dec. 30, 00. A.B, Ohio, 20; B.S, Case, 22, M.S, 24. From instr. to assoc. prof. struct. eng, Case, 22–37; consultant, Cuyahoga County, Ohio, 37–40; *chief research engineer, Hammond Iron Works, 40–* Consultant, Westchester Park Cmn, N. Y, 25; Cleveland, Cuyahoga County, Ohio, 26–28; Wilbur Watson and Associates, 29–; U. S. Eng. Corp, 35–38. Mem. Nat. Research Council, 35–Civil Eng; Soc. Test. Mat; Eng. Educ; Concrete Inst; Welding Soc. (director, 41–); Petrol. Inst; Mech. Eng. Photoelasticity; soil mechanics; welding; structural analysis.

Plummer, Prof. F(rederick) B(yron), University of Texas, Austin, Texas. *Geology.* Hanover, N. H, Aug. 31, 86. B.S, Dartmouth Col, 09; Chicago, 09–11, fellow, 13–15. Asst. geol, Chicago, 09–11; instr, Vassar Col, 11–13; geologist, Roxana Petrol. Co, Okla, 15–17, chief geologist in charge explor. work, Texas and La, 17–20; consulting petrol. engineer, Royal Dutch Shell Group, The Hague, 20–23; petrol. engineer, Rycade Petrol. Corp, 23–24; chief geologist, Texas div, Amerada Petrol. Corp. 24–27; consulting petrol. engineer in charge geophys. work, Vacuum Oil Co, 27–28; *prof. petrol. eng, sch. eng, Texas, and geologist, bur. econ. geol, 28–* Lecturer, Chicago, 24–27; Northwestern, 29–32. Summer, geologist, Wis. Geol. Surv, 14. Fel. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol; Soc. Econ. Palcont. and Miner. (sec'y, 27–29, sec'y-treas, 30); Min. and Metal. Eng; fel. Paleont. Soc. (v. pres, 32); fel. Texas Acad. (v. pres, 31, 43); fel. Okla. Acad; British Inst. Petrol. Technol. Underground waters and subsurface temperatures in the Woodbine sand; Pennsylvanian sedimentation in Texas; evolution of ammonoid genera; geochemistry of Woodbine sand; the Carboniferous ammonoids and the Cenozoic formations of Texas; geology of Carboniferous rocks of the Llano region of Texas.

Plummer, Mrs. Helen J(eanne), 3109 Walling Drive, Austin, Texas. *Paleontology.* May 7, 91. A.B, Northwestern, 13, A.M, 25. Office geologist, Ill. Geol. Surv, 14–17; Roxana Petrol. Corp, 17–18; special lecturer micro-paleont, Northwestern, 30, 32; *consulting geologist, bur. econ. geol, Texas, 33–* A.A; Paleont. Soc; Geol. Soc; Texas Acad. (ed, 33–). Micropaleontology.

Plummer, Dr. J(ames) K(emp), 177 Westminster Drive, Atlanta, Ga. *Chemistry.* Middleburg, N. C, Sept. 20, 86. B.S, N. C. State Col, 07, M.S, 09; A.M, Cornell, 11, Ph.D, 15. Asst. chemist, Exp. Sta, N. C. State Col, 07–09, soil chemist, 11–18; asst. chem, Cornell, 10–11; state chemist, N. C, 18–21; *production manager, South. Agr. Chem. Corp, 21–* Chem. Soc. (pres, N. C. sect, 15). Soil chemistry; mineralogy; bacteriology; manufacture of heavy chemicals.

Plummer, Dr. J(esse) H(opkins), 1433 Rollins Road, Toledo, Ohio. *Physics.* Baltimore, Md, Sept. 10, 09. Univ. of the South; Ph.D, Hopkins, 33. *Research engineer, gen. research lab, Owens-Ill. Glass Co, 34–* Glass technology.

Plummer, Prof. Louisa G(reenleaf), Northern Montana College, Havre, Mont. *Inorganic chemistry.* Milwaukee, Wis, Aug. 30, 08. A.B, Hanover Col, 29; M.S, Minnesota, 32, 38; Miami (Ohio), 40. Asst. chem, Minnesota, 30–32; teacher science, Sage Col. (Iran), 32–35; instr. *chem and math, North. Mont. Col, 38–40, asst. prof, 40–, ground sch. instr. meteorol, Civilian Pilot Training Program, 40–* Chem. Soc; Mont. Acad. Qualitative analysis; cations.

Plummer, Dr. S(amuel) C(raig), 621 Pine St, Boulder, Colo. *Surgery.* Rock Island, Ill, April 27, 65. A.B, Augustana Col, 83, A.M, 86, Ph.D, 00; M.D, Northwestern, 86, hon. Sc.D, 40. Prof. anat, Northwestern, 92–95, operative surg, 95–05, clin. prof. surg, 05–08; surgeon, St. Luke's Hosp, Chicago, 08–36; *retired.* Chief surg, service, U.S.A. Base Hosp, U.S.A, 14. Surg. Asn; Col. Surg; West. Surg. Asn. (pres, 33); Chicago Surg. Soc. (pres, 15). Anatomy of the middle meningeal artery; dystopic kidney.

Plummer, Prof. William Ward, 89 Bryant St, Buffalo, N. Y. *Surgery.* Buffalo, N. Y, Dec. 13, 77. B.L, Hobart Col, 98, LL.D, 26; M.D, Buffalo, 02. *Prof. orthop. surg, Buffalo, mem. admin. board, dept. med, 19–* Attending orthop. surgeon, Buffalo Gen. Hosp; chief orthop. surgeon, Children's Hosp; City Hosp; pres. staff, Children's Hosp, 29– Fel. Col. Surg; Am. Med. Asn; Orthop. Asn. (sec'y, 19–21); Buffalo Acad. Med. Operative treatment of residual deformities of anterior poliomyelitis; spinal cord tumor; cervical ribs; Paget's disease of the bone; recurrent anterior dislocation of the shoulder; acute bone infections; derangements of the knee; non-union fractures of long bones; tuberculosis of skeletal muscle and of joints.

Plunguian, Dr. Mark, Homasote Co, Trenton, N. J. *Organic chemistry.* Plungian, Lithuania, March 31, 04. B.S, Syracuse, 30; M.S, Idaho, 31; Ph.D, McGill, 34. Research chemist, Potlatch Forests, Inc, Idaho, 31–32; asst, McGill, 32–34; *research chemist,* Thomas and Hochwalt Labs, Dayton, Ohio, 34–36; Mead Corp, 36–40; *Homasote Co, 40–* Chem. Soc. Fireproofing of wood; humic acids; lignin; pulp and paper; cellulose chemistry.

Plunkett, Dr. C(harles) R(obert), Pottersville, N. J. *Biology.* New York, N. Y, Nov. 3, 92. A.M, Columbia, 25, Ph.D, 26. Instr. biol, N. Y. Univ, 24–27, asst. prof, 27–28, assoc. prof, 28–31, prof, 31–34. A.A; Genetics Soc. Genetics; general physiology; mechanism of development; evolution.

Plunkett, Prof. Donald J(oseph), 926 N. Notre Dame Ave, South Bend, Ind. *Comparative anatomy.* Cadillac, Mich, April 20, 06. B.S, Notre Dame, 29; Michigan, 30–32; M.S, Illinois, 37. Instr. *biol,* Carroll Col. (Mont), 29–30; *assoc. prof, Notre Dame, 32–* A.A; Ind. Acad. Endocrinology.

Plunkett, Prof. Orda Allen, University of California at Los Angeles, Los Angeles, Calif. *Botany.* Advance, Ind, Aug. 4, 97. A.B, Wabash Col, 20; A.M, Illinois, 22, Ph.D, 24. Asst. *bot,* Illinois, 20–23; asst. prof, Ill. State Nor. Univ, 24–25; instr, *California at Los Angeles,* 25–29, *asst. prof, 29–* A.A; Phytopath. Soc; Micros. Soc. Plant pathology; medical mycology.

Plunkett, Dr. Roy J(oseph), 30 Ziegler Tract, Penns Grove, N. J. *Organic chemistry.* New Carlisle, Ohio, June 26, 10. A.B, Manchester Col, 32; M.S, Ohio State, 33, Ph.D, 36. Research chemist, Jackson lab, *E. I. du Pont de Nemours and Co, 36–39, chief chemist dye works, tetra ethyl lead plant, 39–* Chem. Soc. Industrial research; plant development and control.

Plyler, Prof. E(arle) K(eith), University of North Carolina, Chapel Hill, N. C. *Physics.* Travellers Rest, S. C, April 26, 97. A.B, Furman, 17, A.M, 18; A.M, Hopkins, 23; Ph.D, Cornell, 24; Michigan, 30–31. Asst. prof. *physics,* Furman, 20–22; *North Carolina, 24–27,* assoc. prof, 27–34, *prof, 34–; research physicist, Michigan, 41–* Physical Soc. Infra-red absorption and absorption spectra; molecular structure of nitrous oxide and water vapor; reaction rates by infra-red spectra; detection of small quantities of water in alcohol and acetone.

Podbielniak, Dr. Walter Joseph, 8344 S. Chicago Ave, Chicago, Ill. *Chemical engineering.* Buffalo, N. Y, March 13, 99. A.C, Buffalo, 20; B.S, Michigan, 25, Ph.D, 28. Chem. engineer, Nat. Aniline and Chem. Co, Buffalo, 20–21; instr, Alliance Col. (Pa), 21–23; in charge research lab, Phillips Petrol. Co, Okla, 26–27; *Podbielniak Centrifugal Super-Contactor Co, 28–* Chem. Soc; Gas Asn; Chem. Eng. Frac-

tionation analysis apparatus for both gaseous and liquid mixtures; fractionating, absorbing, refrigerating and reacting equipment; physical chemistry of complex solutions; commercial production of pure hydrocarbons, purified essential oil and organic chemical components; apparatus for counter-current solvent extraction and treating processes.

Podolsky, Prof. Boris, University of Cincinnati, Cincinnati, Ohio. *Theoretical physics.* Taganrog, Russia, June 29, 96. B.S, Southern California, 18, A.M, 26; Ph.D, Calif. Inst. Tech, 28. Instr, Southern California, 19–20; junior elec. engineer, Los Angeles, 21–25; nat. research fellow, California and Leipzig, 28–30; assoc, Calif. Inst. Tech, 30–31; sci. director theoret. physics, Ukrainian Physico-Tech. Inst, Kharkov, Russia, 31–33; research worker, Inst. Advanced Study, 34–35; asst. prof. *math. physics, Cincinnati,* 35–41, *assoc. prof, 41–* Physical Soc. Quantum mechanics; electrodynamics; theory of relativity.

Poe, Prof. Charles Franklin, University of Colorado, Boulder, Colo. *Chemistry.* Golden, Colo, Feb. 15, 88. A.B, A.M, Colorado, 11, Ph.C, B.S, 14; Ph.D, Cornell, 26. From instr. to *prof. chem, Colorado, 11–; lieut. col, U. S. Army, and chief supply div, New Orleans Port of Embarkation, 40–* Asst. state chemist, Colo, 11–33, state chemist, 34–; research, Pasteur Inst, 19–20. Mem, State Board Basic Science Examiners, Colo, 37– Capt, U.S.A, 17–19. Pharmaceut. Asn; Dairy Sci. Asn; Soc. Bact; Chem. Soc. Food, drug and sanitary chemistry; bacteriology.

Poehlman, Dr. J(ohn) M(ilton), University of Missouri, Columbia, Mo. *Plant physiology.* Macon, Mo, May 9, 10. B.S. (Agr), Missouri, 31, Ph.D, 36. Agent, bur. plant indust, U. S. Dept. Agr, 31–33, 35–39; asst. bot, *Missouri,* 33–34, instr. *field crops,* 34–35, 36–40, *asst. prof, 40–* Soc. Agron. Field crops; plant juice analyses; physiological differences in soybean varieties; small grain breeding and physiology; plant breeding.

Poetker, Rev. A(lbert) H(enry), S.J, University of Detroit, McNichols Road at Livernois, Detroit, Mich. *Physics.* Cincinnati, Ohio, Jan. 4, 87. A.B, St. Xavier Col. (Ohio), 07; A.M, St. Louis, 14; Ph.D, Hopkins, 26. Instr. physics, Campion Col, 14, asst. prof, St. Louis, 15–19; research fellow, Hopkins, 26–27; prof, Marquette, 27–31; *Univ. Detroit,* 31–32, pres, 32–39, *exec. dean, 39–* A.A; Physical Soc; Optical Soc. Infrared spectroscopy; band spectra.

Poffenberger, Prof. A(lbert) T(heodore), Jr, Columbia University, New York, N. Y. *⁴*Psychology.* Dauphin, Pa, Oct. 23, 85. A.B, Bucknell, 09, Sc.D, 26; A.M, Columbia, 10, Ph.D, 12. Asst. *psychol, Columbia,* 11–12, lecturer, 12–14, instr, 14–19, asst. prof, 19–22, assoc. prof, 22–27, *prof, 27–,* exec. head dept, 27–41. V. chairman div. psychol. and anthrop, Nat. Research Council, 31, chairman, 32–33, exec. cmt, Social Science Research Council, 35–36, 41–; pres, Psychol. Corp, 35–40; Research Council Problems of Alcohol. Cooperating ed, 'Jour. Social Psychol'; ed. psychol, 'Int. Encyclop,' 28–32; 'Psychol. Series,' Ronald Press. Capt, Sanit.C, 17–19. A.A. (chairman, I, 37; councilor, 42–); Psychol. Asn. (councilor, 24, pres, 34); Nat. Inst. Psychol. (pres, 43); Soc. Exp. Psychol. (pres, 43); Asn. Applied Psychol; N. Y. Acad. (v. pres, 31). Applied psychology; physiological psychology.

Poffenberger, Dr. Noland, 1023 W. Park Drive, Midland, Mich. *Chemistry.* Gulfport, Miss, Dec. 13, 06. B.S, Case, 28, M.S, 31; Swett fellow, Mass. Inst. Tech, 32, Ph.D, 34. Anal. chemist, Ind. Cement Co, 27; *research chemist, Dow Chem. Co,* 28–31, *34–* Chem. Soc; Chem. Eng. Compressibility of ethane and propane; patents on dry cleaning fluids and glue preservatives; manufacture of heavy organic chemicals, chlorbenzol, phenol, aniline, salicylates and butadiene.

Pogo, Dr. Alexander, Harvard Library 189, Cambridge, Mass. *History of science.* St. Petersburg, Russia, Aug. 6, 93. E.E, M.E, Liége, 20; A.M, Columbia, 26; Ph.D, Chicago, 28. *Div. hist. research, Carnegie Institution, 29–* Assoc. ed, 'Isis.' A.A; Hist. Sci. Soc; Astron. Soc. Spectroscopic orbits; eclipses; Egyptian astronomy; Maya chronology.

Pogue, Dr. J(oseph) E(zekiel), 29 Washington Square, New York, N. Y. *Petroleum engineering.* Raleigh, N. C, June 6, 87. A.B, North Carolina, 06, M.S, 07; Ph.D, Yale, 09; Heidelberg, 11. Asst. geologist, N. C. Geol. Surv, 06–08; asst. miner, Sheffield Sci. Sch, Yale, 08–09; asst. curator div. miner, U. S. Nat. Museum, 09–13; assoc. geologist, U. S. Geol. Surv, 13–19; assoc. prof. geol. and miner, Northwestern, 14–17; technologist, div. mineral technol, U. S. Nat. Museum, 17–19; director econ. research, Sinclair Consol. Oil Corp, 19–21; consulting engineer, 21–36; *v. pres, Chase Nat. Bank, 36–* Asst. to chairman, Petrol. Industry War Council, 42– Asst. director bur. oil conservation, U. S. Fuel Admin, 17–19. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Mech. Eng; Soc. Automotive Eng; Petrol. Inst; Statist. Asn; Econ. Asn. Geology; geography; industrial economics; energy resources of the United States; petroleum economics.

Pohl, Dr. Erwin R(obert), Horse Cave, Ky. *Geology.* Albany, N. Y, March 16, 04. A.B, George Washington, 24, A.M, 25, Ph.D, 27. Asst, N. Y. Geol. Surv, 21–22; div. stratig. and paleont, U. S. Nat. Museum, 22–27; instr. geol. and eng. geol, Rutgers, 27–28; asst. prof. geol, Vanderbilt, 28–31; Mammoth Onyx Cave, 31–35; tech. geologist, *Nat. Park Service, Mammoth Cave, Ky,* 35–36, *asst. geologist, 36–, exec. sec'y, 37–* Va. Geol. Surv, 25; Wis. Geol. Surv, 26; Mich. Geol. Surv, 27; field geologist, Tenn. Geol. Surv, 28–31; Imp. Chem. Industries, Ltd, N. S; geologist, Tenn. Elec. Power Co, 30. Smithsonian Institution geol. explorations, north. Rocky Mts, 25. Fel. Geol. Soc; fel. Paleont. Soc; fel. Am. Geog. Soc; Geol. Soc. Wash; Ky. Acad; fel. Tenn. Acad. Devonian and Mississippian paleontology and stratigraphy; speleology of mid-central states.

Pohl, Dr. Herbert A(ckland), 518 Mellon St, S.E, Washington, D. C. *Physical chemistry.* Lisbon, Portugal, Feb. 17, 16. B.S, Duke, 36, Ph.D, 39. Rockefeller grant and research fellow anat, sch. med. and pub. health, Hopkins, 39–40; asst, Carnegie Institution, 40–41; chem. eng, Nat. Defense Research Cmt. project, Hopkins, 41–42; *mem. staff, Naval Research Lab, 42–* A.A; Chem. Soc. Hydrogen bond polarization; placental permeability to radio-sodium; adsorption and chemisorption; electrical insulation.

Pohle, E(lroy) M, U. S. Sheep Experiment Station, Dubois, Idaho. *Wool research.* Wilson, Kans, Nov. 20, 09. B.S, Wyoming, 32, M.S, 37. Teacher agr, Wyo, 33–36; Calif, 36–38; *assoc. animal fiber technologist in charge wool research program, sheep exp. sta, bur. animal indust, U. S. Dept. Agr. and West. Sheep Breeding Lab, 38–* A.A; Soc. Animal Production. Physical, chemical and biological studies of wool, mohair and other animal fibers as influenced by breeding, feeding and environment upon quantity, structure, composition and manufacturing properties; agricultural sheep and wool.

Pohle, Prof. E(rnst) A(lbert), 414 N. Charter St, Madison, Wis. *Radiology.* Wiesbaden, Germany, Dec. 31, 95. M.D, Frankfurt, 21; Ph.D, Michigan, 28. Asst, Physiol. Inst, Frankfurt, 19–20; res, dept. internal med, Wiesbaden City Hosp, 20–21; asst, Inst. Radiation Research, Frankfurt, 21–23; roentgenologist, Mt. Sinai Hosp, Cleveland, 23–25; asst. prof. roentgenol, Michigan, 25–27, assoc. prof, 27–28; *prof. radiol. and chairman dept. radiol. and physical therapy, Wisconsin, 28–* A.A; Roentgen Ray Soc; Radium Soc; Radiol. Soc. N. Amer; Col. Radiol; Am. Med. Asn. Biophysics; clinical field of radiation; x-rays; radium; ultra-violet rays; high frequency currents.

Pohlman, Dr. Augustus G(rote), 4056 Farmouth Drive, Los Angeles, Calif. *Anatomy.* Buffalo, N. Y, Feb. 21, 79. M.D, Buffalo, 00; Freiburg, 01–03. Asst. anat, Cornell, 00–01, instr, 01–03; asst, Hopkins, 03–04; asst. prof, Indiana, 04–06, assoc. prof, 06–07, junior prof, 07–08, prof, 08–13; St. Louis, 13–32, director dept, 13–29; dean sch. med, South Dakota, 32–33; prof. anat, Creighton, 33–38; *assoc. prof. otolaryngol, sch. med, Southern California, 38–* Summer, instr, California, 18; assoc, Riverbank Labs, Geneva, Ill, 23. A.A; Asn. Anat; Soc. Exp. Biol; Acoustical Soc; Col. Oto-Rhino-Laryngol; Physiol. Soc. Comparative anatomy and embryology; middle ear region in birds and mammals; vascular system; acuity for air and bone transmitted sound; mechanics of audition.

Pohlman, Prof. G(eorge) G(ordon), University of West Virginia, Morgantown, W. Va. *Soils.* Doon, Iowa, Oct. 6, 02. B.S, Iowa State Col, 23, M.S, 24, Ph.D, 30. Asst. soil chemist, Arizona, 24–28; asst. prof. *agron, West Virginia,* 30–38, *prof, 38–,* asst. agronomist, *Exp. Sta,* 30–38, *agronomist, 38–* A.A; Soc. Agron. (sec'y-treas, 38–); Soil Sci. Soc. (sec'y-treas, 38–); Int. Soc. Soil Sci. Soil bacteriology; legume bacteriology and bacteria in relation to soil acidity; soil fertility.

Poillon, Howard A(ndrews), 174 E. 80th St, New York, N. Y. *Mining engineering.* New York, N. Y, July 22, 79. Columbia, 01; hon.M.E, Stevens Inst. Tech, 36. Consulting engineer, Am. Agr. Chem. Co; Mason Valley Mines Co; Sir

Mortimer Davis, Inc; Cadilac Coal Co, 00–27; *pres, Research Corp, 27–* Mem. sect. D-M, div. D, Nat. Defense Research Cmt. V. chairman div. eng. and indust. research, Nat. Research Council. A.A; Min. and Metal. Eng; Min. and Metal. Soc; Int. Inst. Refrig. Mining exploration and development; relation of institutional discoveries to industry and the administration of patents in the interest of the public.

Poindexter, Prof. H(ildrus) A(ugustus), Howard University, Washington, D. C. *Bacteriology, Parasitology.* Memphis, Tenn, May 10, 01. A.B, Lincoln (Pa), 24; M.D, Harvard, 29; Gen. Educ. Board fellow, Columbia, 29–31, A.M, 30, Ph.D, 32. Asst. prof. *bacter, prev. med. and pub. health, sch. med, Howard,* 31–34, *assoc. prof, 34–,* acting head dept, 33–34, *head dept, 34–* Rockefeller Foundation traveling fellow, P. R, 32. Surv. Negro children, Ala, 34. A.A; Nat. Med. Asn; Social Hygiene Asn. Public health.

Poitevin, Dr. Eugene, Geological Survey of Canada, Ottawa, Ont, Can. *Mineralogy.* Montreal, Que, Dec. 2, 88. B.A.Sc, Polytech. Sch, Montreal, 11; Harvard, 14; Cornell, 15; D.Sc, Montreal, 21. Asst. mineralogist, *Geol. Surv. Can,* 13–19, assoc. mineralogist, 19–24, *chief div. miner, 24–* Fel. Miner. Soc; Can. Inst. Min. and Metal; fel. Royal Soc. Can; Soc. miner. de France. Optical mineralogy; crystallography; geochemistry of eastern asbestos camps in Quebec; mineralogy of the Black Lake Area; silicosis and asbestosis.

Poland, Dr. Leslie B(yron), 845 Laurita St, Linden, N. J. *Organic chemistry.* Sumner, Ill, May 1, 13. B.Ed, Ill. State Nor. Univ, 34; M.S, Illinois, 35, Ph.D, 41. Org. chemist, Int. Harvester Co, 35–38; instr. org. chem, Hofstra Col, 41–42; *org. chemist, Gen. Aniline and Film Corp, 42–* Chem. Soc. A constituent of the rhizomes of ordinary iris; derivatives of 8-aminoquinoline.

Polansky, Dr. T(heodore) S(tephen), Pennsylvania State College, State College, Pa. *Fuel technology.* Coaldale, Pa, March 2, 07. B.S, Pa. State Col, 34, stipend scholar, 34–36, M.S, 36, stipend scholar, 37–39, Ph.D, 41. Chief chemist, Wilbur-Suchard Chocolate Co, Inc, 36–37; asst, *Pa. State Col,* 39–41, *research asst, 41–* Chem. Soc. Fermentation of tobacco, cacao beans, cellulose, glucose and hydrocarbons; development of stabilized chocolate drinks and chocolate products; oxidation of bituminous coal to hydroxycarboxylic acids; use of hydroxycarboxylic acids for colloidal fuel, carbon black and plastics.

Pole, Dr. Gordon R(eginald), Tennessee Valley Authority, Wilson Dam, Ala. *Chemical engineering.* Dryad, Wash, 99. B.S, Washington (Seattle), 22; Ph.D, Pa. State Col, 34. Junior fellow, Mellon Inst, 23–27; research assoc, Bur. Standards, 27–31; refractory research, Pittsburgh Plate Glass Co, 31–33; *chem. eng. research, Tenn. Valley Authority, 34–, senior chem. engineer.* Chem. Eng; assoc. Inst. Ceramic Eng; Ceramic Soc. Moisture expansion of terra cotta; testing refractories against corrosion of electric phosphate furnace slags; expansion characteristics of kyanite; kinetics of solid phase reactions; testing refractories against molten calcium metaphosphate; fertilizer from rock phosphate; alkali metaphosphates; basic refractories; magnetite for ammonia catalysts; thermal fixation of nitrogen.

Poley, Prof. W(ellington) E(rnest), South Dakota State College, Brookings, S. Dak. *Poultry husbandry.* Waterbury, Conn, April 19, 07. B.S, Conn. State Col, 29; M.S, N. C. State Col, 30; Ph.D, Purdue, 34. Asst. poultry nutrition, Purdue, 30–33; hatchery manager, 33–34; *prof. poultry husbandry and head dept, S. Dak. State Col, 34–, poultry husbandman, Exp. Sta, 34–* Summer, research chemist, Lancaster Processes, Inc, 34. Chairman, State Poultry Indust. Cmt, S. Dak, 40. Capt, Inf. Res, 37. A.A; Poultry Sci. Asn; S. Dak. Poultry Improv. Asn. (director, 35). Alkali disease; nutritive values of oats, millets and wheat products in poultry rations; effect of cereal grains on and measurement of poultry carcass and egg quality.

Polgár, Dr. Andor, California Institute of Technology, Pasadena, Calif. *Organic chemistry.* Körmöczbánya, Hungary, Jan. 7, 07. Szeged; Budapest; Ph.D, Pécs, 39. Asst, med. sch, Pécs, Hungary, 35–38, teaching and research asst, chem. inst, 38–40; *research asst. chem, Calif. Inst. Tech, 40–* Natural pigments; carotenoids.

Poling, Dr. C(lyde) E(dward), Swift and Co. Research Laboratories, Chicago, Ill. *Nutrition.* Darke Co, Ohio, Dec. 15, 14. A.B, Ohio Wesleyan, 36; M.S, Syracuse, 39; S.M.A. Corp. fellow, Western Reserve, 39–41, Ph.D, 41. Asst. chem, Syracuse, 37–39; junior chemist, City Dept. Pub. Health and Welfare, Cleveland, 41–42; *research chemist, div. nutrition, research labs, Swift and Co, 42–* Chem. Soc. Nutritive value of meats and related products, particularly protein quality as related to processing.

Polissar, Dr. Milton J, San Francisco Junior College, San Francisco, Calif. *Chemistry.* Russia, Feb. 6, 01. A.B, California, 25, Ph.D, 29. Instr. chem, California, 29–30; indust. chemist, Shell Develop. Co, 30–31; research assoc, California, 31–33; in charge dept. chem, Armstrong Junior Col, 33–35; *dept. chem, San Francisco Junior Col, 35–* Nat. Research Council grant, 33. Chem. Soc. Chemical kinetics; theory of liquids.

Polk, Dr. Henry T(asker), Clemson Agricultural College, Clemson College, S. C. *Agronomy, Soil chemistry.* Washington, D. C, July 29, 08. B.S, Kentucky, 31, M.S, 33; Ph.D, Cornell, 38. Asst. agron, Cornell, 33–38; *assoc. agronomist, Exp. Sta, Clemson Col, 38–* Soil Sci. Soc. Soil fertility.

Pollack, Dr. Dale, Templetone Radio Co, Mystic, Conn. *Engineering.* St. Louis, Mo, July 26, 12. A.B, Columbia, 33, B.S. 34, E.E, 35; Sc.D, Mass. Inst. Tech, 40. Engineer, RCA, 36–39; lecturer, Tufts Col, 39–40; mem. tech. staff, Bell Tel. Labs, 40–43; *chief engineer, Templetone Radio Co, 43–* Radio Eng. Radio communication; frequency modulation.

Pollack, Dr. Herbert, 20 E. 76th St, New York, N. Y. *Medicine.* New York, N. Y, June 29, 05. Hopkins; A.B, Washington and Lee, 25; M.D, Cornell, 29; Ph.D, Minnesota, 33. Asst. med, Mayo Clinic, 32–34; *asst. and later physician in charge metabolism clinics, Mt. Sinai Hosp, New York, 34–; major, U. S. Army, 42–* Instr, med. col, Cornell, 34–40. Am. Med. Asn; Soc. Clin. Invest; Physiol. Soc; Soc. Exp. Biol; Inst. Nutrition; fel. Col. Physicians; Diabetic Asn; N. Y. Diabetic Asn. (cmt. int. med); N. Y. Acad. Med. Physiological chemistry; intracellular hydrogen ion concentration; oxidation-reduction potentials; calcium metabolism; muscle metabolism; diabetes mellitus and carbohydrate metabolism; normal diet and nutritional states.

Pollack, Dr. Maxwell A(aron), E. F. Drew and Co, Inc, Boonton, N. J. *Organic chemistry.* New York, N. Y, June 21, 15. B.S, Col. City of N. Y, 34; M.S, Northwestern, 35, Ph.D, 37. Research chemist and supervisor org. research, Pittsburgh Plate Glass Co, 37–40; asst. prof. chem. and research chemist, Texas, 40–42; *chem. director, E. F. Drew and Co, Inc, 42–* Summer, research chemist, Gray Indust. Labs, 34. A.A; Chem. Soc. (sec'y-treas, Cent. Texas sect, 42). Allylic rearrangements; polymerization and plastics; vitamins; cancer; fats and oils.

Pollard, Prof. C(ash) B(lair), University of Florida, Gainesville, Fla. *Chemistry.* Hannibal, Mo, Feb. 22, 00. A.B, William Jewell Col, 21; M.S, Purdue, 23, Ph.D, 30. Graver Corp, 23; instr. *chem,* Purdue, 23–30; asst. prof, *Florida,* 30–35, assoc. prof, 35–37, *prof, 37–* Consultant on sci. criminal investigations. Chem. Soc. (councilor, Fla. sect, 34, v. chairman, 35, chairman, 36); fel. Inst. Chem. (membership cmt); Fla. Acad; Ind. Acad; Soc. chim. de France; Int. Asn. Identification. Fertility and composition of eggs; acyl derivatives of o-aminophenol; derivatives of piperazine and morpholine; analogs of nupercaine and ephedrine; amino alcohols; reactions of aldehydes with amines; new aldehyde reagent; new preliminary test for blood; quinine absorption into cerebrospinal fluid of fetus in utero.

Pollard, Charles L(ouis), Arlington, Vt. *Botany.* New York, N. Y, March 29, 72. A.B, Columbia, 93, A.M, 94. Asst. curator, U. S. Dept. Agr, 94–95; div. plants, U. S. Nat. Museum, 95–03; consulting botanist, G. and C. Merriam Co, Springfield, Mass, 03–06; curator-in-chief, pub. museum, Staten Island Asn. Arts and Sciences, 07–13; private tutor, 13–16; *specialist museum installation and biol. collector, 16–* Ed, 'Plant World,' 99–07; contributor bot. terms, 'Suppl. Webster's Int. Dict,' 00; 'Century Dict,' 03; 'Webster's New Int. Dict,' 03–06. Hon. mem. Wash. Biol. Field Club (pres, 00); hon. mem. Phila. Bot. Club. Entomology and botany of North America; genetics.

Pollard, Dr. E(lisha) F(red), 7501 Freret St, New Orleans, La. *Chemistry.* Luverne, Ala, July 27, 97. B.S, Ala. Polytech. 19, M.S, 20; Jeavon fellow, Western Reserve, 31–32, Ph.D, 34. Instr. chem, Ala. Polytech, 20–23; asst, Iowa State Col, 23–25; instr, Ga. Tech, 25–26; Tulane, 26–27, asst. prof, 27–42; *chem. technologist, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Summers, asst.

state chemist, Ala, 20–23, visiting prof, Ala. Polytech, 27, Alabama, 29, 30. Chem. Soc. (sec'y La. sect, 36–41; v. pres, 42, pres, 43); South. Asn. Sci. and Indust. Conversion of barium ores to useful compounds; reactions in the solid state; hydrolysis of alkaline earth sulphides; industrial utilization of cotton; sweet potatoes and peanuts; recovery of natural rubber from domestic plants.

Pollard, Dr. Ernest (Charles), Yale University, New Haven, Conn. *Physics.* Yunnan, China, 06. B.A, Cambridge, 28, Ph.D, 32, Shuttleworth student, 28–30. Asst. lecturer, Leeds, 30–33; Sterling fellow, *Yale*, 33–36, instr. *physics*, 36–38, asst. prof, 38–43, *assoc. prof, 43–* Fel. Physical Soc; fel. Physical Soc. London. Nuclear physics; transmutation of light nuclei by alpha particles; scattering of alpha particles by light nuclei; energy levels of nuclei by observation of proton groups.

Pollard, Prof. F(rank) H(owell), Box 17, Clemson, S. C. *Chemistry.* Auburn, N. Y, Aug. 21, 92. Ch.B, Cornell, 16, Ph.D, 22. Prof. *chem*, Huron Col, 17–18; asst. prof, *Clemson Col*, 22–24, assoc. prof, 24–29, *prof, 29–* Chem. Soc; Inst. Chem. Physical chemistry; adsorption of gases by platinum.

Pollard, Dr. Harry, 58 Waldeck St, Dorchester, Mass. *Mathematics.* Boston, Mass, Feb. 28, 19. A.B, Harvard, 39, A.M, 40, Parker fellow, 41–42, Ph.D, 42. *Instr. math, Harvard, 42–* Math. Soc. Analysis.

Pollard, Prof. H(arry) S(trange), 350 Patterson Ave, Oxford, Ohio. *Mathematics.* Lansing, Mich, Oct. 18, 00. A.B, Olivet Col. (Mich), 22; M.S, Iowa, 24; Ph.D, Wisconsin, 33. Instr. *math*, Wisconsin, 24–27; asst. prof, *Miami (Ohio)*, 27–38, *assoc. prof, 38–* Inst. Math. Statist; Math. Soc; Math. Asn. Mathematical statistics.

Pollard, Dr. Leonard H(eber), 351 N. Third E, Logan, Utah. *Olericulture.* Emmett, Idaho, April 17, 09. B.S, Utah State Agr. Col, 32, M.S, 34; Ph.D, California, 39. Assoc. truck crops, California, 36–39; *assoc. prof. vegetable crops and head dept, Utah State Agr. Col, 39–* Cultural and varietal improvement of vegetables.

Pollard, Prof. W(illiam) G(rosvenor), 1715 Cornell Ave, Knoxville, Tenn. *Theoretical physics.* Batavia, N. Y, April 6, 11. A.B, Tennessee, 32; fellow, Rice Inst, 32–35, A.M, 34, Ph.D, 35. Asst. *physics*, Rice Inst, 35–36; asst. prof, *Tennessee*, 36–41, assoc. prof, 41–43, *prof, 43–* Cosmic rays; continuous beta ray spectra; adsorption; electrostatic control of small particles.

Polley, Prof. J(oseph) Crawford, 416 W. Wabash Ave, Crawfordsville, Ind. *Mathematics.* Cheshire, Conn, Aug. 17, 97. A.B, Yale, 21, A.M, 23; Ph.D, Cornell, 29. Instr, sch, Conn, 21–22; high sch, Conn, 22–23; *math*, Colgate, 23–28; Cornell, 28–29; *prof, Wabash Col, 29–* Instr, Yale, 22–23. A.A. Algebraic geometry.

Pollister, Prof. Arthur W(agg), 501 W. 113th St, New York, N. Y. **Zoology.* Turner, Maine, April 13, 03. A.B, Bates Col, 24; A.M, Columbia, 27, Ph.D, 30. Instr. anat, L. I. Col. Hosp, 26–28, assoc, 28–29; instr. *zool, Columbia*, 29–35, asst. prof, 35–42, *assoc. prof, 42–* Soc. Zool; Genetics Soc; Soc. Vert. Paleont. Spermatogenesis; centrioles; mitochondria; Golgi apparatus; structure of cytoplasm; localization and properties of nucleoproteins; developmental tables for amphibia.

Pollister, Prof. Priscilla F(rew), Brooklyn College, Brooklyn, N. Y. *Cytology, Insect histology.* Berlin, N. H, Oct. 20, 03. A.B, Bates Col, 25; A.M, Columbia, 28, Ph.D, 38. Asst. *biol*, Wash. Sq. Col, N. Y. Univ, 25–27, instr, 27–29; Hunter Col, 29–30; *asst. prof, Brooklyn Col, 38–* Soc. Zool. Nuclear behavior in the mitosis of plant cells; structure and development of wax glands of Pseudococcus maritimus; centrioles and chromosomes in Viviparidae.

Pollock, Dr. H(arry) E(velyn) D(orr), 10 Frisbie Place, Cambridge, Mass. *Anthropology.* Salt Lake City, Utah, June 24, 00. A.B, Harvard, 23, A.M, 30, Ph.D, 36. *Archeologist, div. hist. research, Carnegie Institution, 31–* A.A; Anthrop. Asn. (councilor, 37–); Soc. Archeol. Middle American archeology.

Pollock, Dr. Herbert C(hermside), General Electric Co, Schenectady, N. Y. *Physics.* Staunton, Va, June 13, 13. A.B, Virginia, 33; Ph.D, Oxford, 37. *Research physicist, Gen. Elec. Co, 37–* Physical Soc. Mass spectroscopy; ultra-centrifuges; dielectric properties of gases; under-water sound.

Pollock, Dr. Horatio M(llo), 447 Manning Blvd, Albany, N. Y. *Mental disease.* Patria, N. Y, Sept. 2, 68. B.S, Union Col. (N. Y), 95, hon. M.S, 97; M.A. and Ph.D, Leipzig, 97. Teacher, high sch, N. Y, 97–00; senior examiner, State Civil Service Cmn, 00–07; teacher, N. Y. State Col. for Teachers, 07–08; Union Col. (N. Y), 08–10; consulting statistician, Nat. Cmt. Mental Hygiene, 12–24; *mem. med. council, U. S. Veterans Admin, 24–* Statistician and ed, State Hosp. Cmn. and State Dept. Mental Hygiene, N. Y, 11–; consultant, U. S. Bur. Census, 21–24. U. S. del, Pan-Am. Neuropsychiat. Conf, Lima, Peru, 39. Consulting statistician and lieut, Office Surgeon Gen, U. S. Army, 17. A.A; Statist. Asn. (v. pres); Asn. Mental Deficiency (v. pres, 24–42, pres, 42); Psychiat. Asn. Modern cities; expectation of mental disease; hereditary and environmental factors in the causation of manic-depressive psychoses and dementia praecox; mental disease and social welfare; family care of mental patients.

Pollock, Dr. Lewis J(ohn), 122 S. Michigan Ave, Chicago, Ill. *Neurology.* Moscow, Russia, April 18, 86. M.D, Illinois, 06. *Practising neuropsychiatrist; prof. neur. and mental diseases, med. sch, Northwestern, 15–, chairman dept, 26–* Neur. Asn. (pres, 41); Asn. Research Nervous and Mental Disease (v. pres, 31); Soc. Exp. Biol; Am. Med. Asn. (sec'y, sect. neur, 24, 26, chairman, 27); Cent. Neuropsychiat. Asn. (pres, 25); Chicago Neur. Soc; Chicago Path. Soc; Chicago Soc. Int. Med; Inst. Med. Chicago. Neuropsychiatry; pathological anatomy; physiology of the nervous system; epilepsy; muscle tone; decerebrate rigidity; sensation and peripheral nerve lesions.

Polskin, Dr. L(ouis) J(ulian), 630 W. Front St, Plainfield, N. J. *Biochemistry.* New York, N. Y, July 3, 14. A.B, N. Y. Univ, 35; M.S, Rutgers, 37, Ph.D, 40. Asst. agr. biochem, Rutgers, 35–40; biochemist, *Jewish Hosp, Brooklyn*, 40–43, *research fellow biochem. under grants, Mead Johnson and Co, 41–* Chem. Soc. Vitamin A and D metabolism.

Polya, Prof. George, Brown University, Providence, R. I. **Mathematics.* Budapest, Hungary, Dec. 13, 87. Vienna, 10–11; Ph.D, Budapest, 12; Göttingen, 12–14; Paris, 14. Privatdocent *math, Ecole Polytech, Zurich*, 14–28, *prof, 28–*, chairman dept, 38–40; *visiting prof, Brown, 40–; assoc. prof. math, Stanford, 42–* Rockefeller traveling fellow, Oxford and Cambridge, 24–25; visiting lecturer, Princeton, 33. Summers, Stanford, 33, 41. Math. Soc; London Math. Soc; Soc. math. de France; Hungarian Math. Soc; Schweiz. Math. Gesell; Naturforscher Gesell. Zurich. Theory of functions; location of roots; probability; theory of numbers; heuristic study of the solution of problems

Polyak, Dr. S(tephen), 2137 Cedar Road, Homewood, Ill. *Anatomy.* Gjurgjevac, Yugoslavia, Dec. 13, 89. M.D, Zagreb, Yugoslavia, 20. Asst. neur, Zagreb, Yugoslavia, 20–28; asst. prof. anat, California, 29–30; Billings Hosp, *Univ. Chicago*, 30–31, assoc. prof. neur, 31–37, *anat*, 37–42, *prof, 42–* Research, Vienna, 21, London, 24, Madrid, 25, Chicago, 27. Co-editor, 'Jour. Comp. Neur.' Asn. Anat; Neur. Asn. Anatomy and histology of the central nervous system; the spinal cord; acoustic system; fiber systems of the forebrain in Primates; organization and function of the cortex; minute structure and function of the eye, retina and optic pathways; history of science.

Pomerat, Prof. Charles Marc, University of Alabama, University, Ala. *Biology.* Southbridge, Mass, July 23, 05. A.B, Clark, 32; A.M, Harvard, 34, Ph.D, 37. Instr. *biol*, Clark, 32–37, asst. prof, 37–39; assoc. prof, *Alabama*, 39–40, *prof, 40–, chairman dept, 39–* Rockefeller Foundation fellow, Buenos Aires and Cambridge, 37–38. Soc. Zool; Soc. Exp. Biol. Experimental morphology; temperature and respiration; tissue culture metabolism; endocrinology.

Pomerat, Dr. Gerard R(oland), Harvard University, Cambridge, Mass. *Endocrinology, Animal cytology, Biology.* Holyoke, Mass, Oct. 19, 01. A.B, Clark, 36; A.M, Harvard, 37, Ph.D, 40. Austin teaching fellow *biol, Harvard*, 37–38, *instr, 38–* A.A; Soc. Zool. Physiology and cytology of the endocrine glands.

Pomerene, Dr. E(lizabeth), St. Luke's Hospital, Cleveland, Ohio. *Biochemistry.* Berlin, Ohio, July 3, 07. A.B, Georgetown Col. (Ky), 26; M.S, Illinois, 27; Ph.D, Western Reserve, 29. *Biochemist, St. Luke's Hosp, 29–* A.A; Inst. Chem. Creatinine and xylose excretion; medical and clinical biochemistry.

Pomerleau, Dr. René, Laval University, Quebec, Que, Can. *Forest pathology.* Saint-Ferdinand, Halifax, April 27, 04.

B.S.A, Laval, 24; M.Sc, McGill, 27; Sorbonne, 27–30; Ecole Nat. des Eaux and Forests, Nancy, France, 30; D.Sc, Montreal, 37. Forest pathologist, *Dept. Lands and Forests, Que*, 30–37, *chief div. forest path, 37–; prof. forest path, Duchesnay Ranger's Sch, 35–; forestry sch, Laval, 39–* Summers, plant disease investigator, Dom. Dept. Agr, Can, 24–30. David prize, 37. Mycol. Soc; Can. Soc. Forest Eng; Soc. de Sylviculture de Que. Wood decay; rusts of conifers.

Pomeroy, C(arl) S(tone), Box 1066, Riverside, Calif. *Horticulture.* Franklin, Vt, May 31, 82. Ph.B, Vermont, 04, B.S, 06. Asst. hort, Exp. Sta, Vermont, 06–07; Exp. Sta, Mass. Col, 07–08; sci. asst. and asst. pomologist, fruit transportation and storage, *bur. plant indust, U. S. Dept. Agr*, 08–13, assoc. pomologist and pomologist, fruit improv. investigations, 13–18, investigator, marketing fruits and vegetables, 18–20, *assoc. pomologist, fruit improv. investigations, div. fruit and veg. crops and diseases, 20–* A.A; Soc. Hort. Sci. Bud variation and selection.

Pomeroy, Prof. Fred E(lmer), Bates College, Lewiston, Maine. *Biology.* Lewiston, Maine, March 6, 77. A.B, Bates Col, 99; A.M, Harvard, 02; Mass. Inst. Tech. and Harvard, 13–14; hon. Sc.D, Hillsdale Col, 25; Columbia, 26–27. Asst. chem. and physics, *Bates Col*, 99–01, instr. bot, 00–01, *biol*, 02–06, *prof, 06–*, dean men, 21–26. A.A; Eugenics Soc; Genetic Asn; Ornith. Union.

Pomeroy, Dr. Richard (Durant), 1490 Carroll Drive, Altadena, Calif. *Chemistry.* Burbank, Calif, 04. B.S, Calif. Inst. Tech, 26, M.S, 27, Am. Petrol. Inst. fellow, 27–29, Ph.D, 31. Assoc. chem, California at Los Angeles, 27–31; research chemist, Los Angeles County Sanitation Districts, 32–40; *consultant, 40–* Chem. Soc; Calif. Sewage Works Asn. Chemistry of sewage, water and industrial wastes.

Pomeroy, Dr. William C(yrus), 2436 Russell St, Berkeley, Calif. *Physics.* Chicago, Ill, Aug. 15, 91. B.S, California, 14, M.S, 20, Ph.D, 26. Supt, Univ. Apparatus Co, 14–18; asst. physics, California, 16–19, instr, 19–20, assoc, 20–22, teaching fellow, 22–25; instr, Calif. Col. Pharmacy, 25–29, asst. prof, 29–31; consulting engineer, 31–33; statistician, *office of pres, California*, 33–40, admin. asst, 40–42, *registrar, 42–* Instr, U.S.A. Sch. Vocational Training, 18. A.A; Physical Soc; Elec. Eng. Electricity; band spectra.

Pommerenke, Dr. Wesley T(heodore), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Obstetrics, Gynecology, Physiology.* Orlando, Okla, Dec. 11, 01. A.B, Kansas, 22, fellow, 22–23, A.M, 23; fellow, Wisconsin, 23–25, Ph.D, 26; fellow, Harvard, 29–30, M.D, 30. Instr. physiol, Wisconsin, 25–28; nat. research fellow path, Rochester, 33–34, instr. *obstet. and gynec, sch. med. and dentistry*, 34–36, *asst. prof, 36–* Asst. obstetrician and gynecologist, Strong Mem. Hosp. Physiology of reproduction; plasma protein regeneration; metabolism during pregnancy.

Poncher, Dr. Henry G(eorge), 1819 W. Polk St, Chicago, Ill. *Pediatrics.* Odell, Ill, Feb. 15, 02. M.D, Michigan, 27. Assoc. *pediat, col. med, Illinois*, 28–29, instr, 29–30, asst. prof, 30–34, assoc. prof, 35–41, *prof, 41–* Attending physician, children's div, Cook County Hosp; physician in charge pediat. service, Research and Educational Hosp. Pediat. Soc; Soc. Pediat. Research; Acad. Pediat; Chicago Pediat. Soc; Inst. Med. Chicago. Hematology; nutrition; metabolism in infancy and childhood; tuberculosis in childhood.

Pond, Dr. Millicent, 275 Central Ave, New Haven, Conn. *Psychology.* Amherst, Mass, Aug. 2, 89. A.B, Bryn Mawr Col, 10, A.M, 11; Ph.D, Yale, 25. Teacher, high sch, Pa, 11–16; chief chemist, Atlas Powder Co, 18–19; employment interviewer, Winchester Repeating Arms Co, 19–23; supervisor employment and director employment test research, Scovill Mfg. Co, 23–42; *personnel technician, War Dept, 42–* Visiting psychologist, Conn. Indust. Sch. for Girls, 25–37. A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol; Conn. Valley Asn. Psychol. Industrial psychology; psychological tests for factory employment.

Pond, Prof. R(obert) S(pencer), Southwestern, Memphis, Tenn. *Mathematics.* Elmira, N. Y, July 19, 76. A.B, Washburn Col, 99; A.M, Marietta Col, 08; Hopkins, 08–09; fellow, Kansas, 09–10, Ph.D, 10. Instr, Pendleton Acad, 00–02; Marietta Acad, 02–08; from instr. to assoc. prof. math, Georgia, 10–20; asst. manager, South. Mfg. Co, 20–29; prof. *math*, Morris Harvey Col, 29–31; *assoc. prof, Southwestern (Tenn), 31–* Collineations in space of four dimensions; basis of grading students.

Pond, Dr. Samuel E(rnest), Pratt and Whitney Aircraft Division, Engineering Research, Rentschler Field, Hartford, Conn. *Physiology.* Woonsocket, R. I, March 27, 90. B.H, Springfield Col, 12; fellow, Clark, 15–17, 19–21, A.M, 17, Ph.D, 21. Instr, Adelbert Col, Western Reserve, 18–19; physiologist and acting director, research inst, Nat. Dental Asn, 17–19; assoc. biologist, Nela Research Lab, 21–24; instr. physiol, sch. med, Washington (St. Louis), 24–25; asst. prof, sch. med, Pennsylvania, 25–33; investigator, Marine Biol. Lab, Woods Hole, 19–42, custodian, 25–42, tech. manager, 33–42; chemist, Naval Research Lab, 42–43; *chem. engineer, United Aircraft Corp, 43–* A.A; Physiol. Soc; Optical Soc; Franklin Inst; Int. Asn. Dental Research. General physiology; muscle contraction wave velocity; action of ultraviolet radiation on protoplasm; energy transformations in living tissues; physical and physiological aspects of calcification; culture and attachment of Volsella; surge control of radial engines; surge analysis, embolism and determination of stated fuel-air mixture in the air cooled aviation engine.

Pond, Walter F(ranklin), G-5 State Office Bldg, Nashville, Tenn. *Geology.* Greenfield, Mass, June 23, 85. B.S, Amherst Col, 07, Mass. Inst. Tech, 17, Harvard, 17. In business, 07–14; asst. geologist and geologist, Mo. Bur. Geol. and Mines, 19–27; *state geologist, Tenn, 27–* Lieut. and capt. engineers, 17–19. A.A; Min. and Metal. Eng; Geol. Soc; Asn. State Geol. (pres, 38); Tenn. Acad. (pres, 34); Eng. Asn. Nashville (pres, 31). Economic geology of Missouri and Tennessee.

Ponder, Dr. Eric, Nassau Hospital, Mineola, L. I, N. Y. *Physiology.* Darjeeling, India, May 23, 98. M.B, Edinburgh, 19, Ch.B, 19, Crighton fellow, 23–26, D.Sc, 24, M.D, 25. Lecturer physiol, Edinburgh, 20–27; prof. gen. physiol, Wash. Sq. Col, N. Y. Univ, 27–34; investigator, biol. lab, Cold Spring Harbor, 34–36, interim director, 36–37, director, 37–40; *research investigator and attending physician, Nassau Hosp, 40–* Carnegie teaching fellow, 24–27. Gold medalist, Edinburgh, 25; Gunning Victoria jubilee prizeman, 22. Physiol. Soc; fel. Royal Micros. Soc. Hemolysis; physiology of red and white cells; permeability; water balance; shock.

Ponton, Gerald M(ungo), State Road Department, Tallahassee, Fla. *Geology.* Belleville, Ont, Can, March 8, 88. E.M, Toronto, 09. Consulting geologist, Calgary, Can, 09–14; metallurgist, Phelps-Dodge Co, Tyron, N. Mex, 14; asst. sec'y and tech. adviser, Can. Trade Cmn, 19; manager and geologist, Harris Oil Corp, Shreveport, La, 20–24; consulting engineer, Jacksonville, Fla, 24–27; asst. geologist, Fla. Geol. Surv, 27–33; *geologist, State Road Dept, Fla, 33–* Lieut, C.Eng, C.E.F, 15–16, supervisor production metal. products, Imp. Munitions Board, Ottawa, 17–18. Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Min. and Metal. Eng; Can. Inst. Min. and Metal. Eng. Invertebrate paleontology; Foraminifera; stratigraphy; oil exploration; metallurgy.

Pool, Dr. Eugene H(illhouse), 107 E. 60th St, New York, N. Y. *Surgery.* New York, N. Y, June 3, 74. A.B, Harvard, 95; M.D, Columbia, 99. Clin. prof. surg, Columbia, 15–37; *prof. clin. surg, med. col, Cornell, 31–; senior attending surgeon, New York Hosp.* Consulting surgeon, French, Woman's and New York Orthop. Hosps. and New York Eye and Ear Infirmary; United Hosp, Port Chester, N. Y; Cent. Islip State Hosp; N. Country Community Hosp, Glen Cove, N. Y; Elizabeth A. Horton Mem. Hosp, Middletown, N. Y; Monmouth Mem. Hosp, Long Branch, N. J; emer. surgeon in chief, Ruptured and Crippled Hosp, New York; consulting board cancer research, Columbia, 37– Trustee, Columbia, 37– Am. Med. Asn; Col. Surg. (pres, 36–); Surg. Asn; South. Surg. Asn; N. Y. Surg. Soc; N. Y. Acad. Med. (pres, 35–37); Int. Surg. Soc. The spleen; diseases of the thyroid gland; surgery at the New York Hospital one hundred years ago.

Pool, Prof. M(arion) L(lewellyn), 208 Amazon Place, Columbus, Ohio. *Physics.* Bushnell, Ill, Oct. 26, 00. B.S, Chicago, 24, Ph.D, 27. Asst. *physics*, Chicago, 25–28; instr, *Ohio State*, 28–32, asst. prof, 32–36, *assoc. prof, 36–* Elizabeth Clay Howald scholar, 36–37. A.A; Physical Soc. Metastable states; fluorescent radiation; nuclear disintegration.

Pool, Prof. Raymond J(ohn), University of Nebraska, Lincoln, Nebr. **5Botany.* Wabash, Nebr, April 23, 82. A.B, Nebraska, 07, A.M, 08, Ph.D, 13; Chicago, 08. Asst. *bot, Nebraska*, 05–07, instr, 07–09, adj. prof, 09–10, asst. prof. and curator herbarium, 10–11, assoc. prof, 11–14, *prof, 14–, head dept, 15–* Director, State Bot. Surv, Nebr, 07–; on staff, biol. sta, Michigan, 10. A.A. (chairman, G, 38); Soc. Nat; Bot.

Soc. (chairman, syst. sect, 26); Ecol. Soc; Micros. Soc. (v. pres, 33, pres, 41); Taxon. Soc; Phytopath. Soc; Torrey Bot. Club; Soc. Foresters; Forestry Asn; Bot. Cent. States; Biol. Soc. Wash; Nebr. Acad. (treas, 09, pres, 17). Plant morphology, phylogeny, ecology and physiology; mycology; relations of industrial operations to vegetation.

Poole, Prof. Albert R(oberts), 1390 Emerald St, Eugene, Oregon. *Mathematics.* Dinapur, India, Jan. 10, 10. A.B, British Columbia, 29, A.M, 31; Ph.D, Calif. Inst. Tech, 35. Asst. math, Calif. Inst. Tech, 31–35; teacher, Prince Rupert High Sch, 35–36; instr. math. and mechanics, Minnesota, 36–41; *asst. prof.* math, Mont. Sch. Mines, 41–43; *math. and physics, Oregon, 43–* Math. Asn. Finite ova.

Poole, Dr. Charles F(rederick), U. S. Regional Vegetable Breeding Laboratory, Charleston, S. C. *Genetics.* Philadelphia, Pa, Aug. 2, 94. B.S, Hawaii, 20, M.S, 26; Ph.D, California, 30. Agriculturist, Paauhau Sugar Co, 20–23; research agriculturist, McBryde Sugar Co. and Hawaiian Sugar Co, 23–26; asst. genetics, California, 28–29, assoc, 29–32, lecturer, 32–33, instr. truck crops div, 33–36; *cytologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 36–* A.A; Genetic Asn; S. C. Acad. (sec'y-treas, 41). Cytology; plant breeding in sugar cane; genetics and cytology of interspecific hybrids in Crepis; pollen grains in Crepis; Drosophila; sweet corn; watermelons; lettuce; zinnias; cabbage.

Poole, Earl L(incoln), Reading Public Museum and Art Gallery, Reading, Pa. *Vertebrate zoology, Archeology.* Haddonfield, N. J, Oct. 30, 91. Pennsylvania, 20–22. Instr, high schs, Pa, 15–25, director art, 17–38; asst. director, *Reading Pub. Museum and Art Gallery, 26–38, director, 38–* Soc. Mammal; Ornith. Union; Baird Ornith. Club (pres, 25–). Mammalogy; ornithology; Pennsylvania German folk arts.

Poole, Prof. Fred L(loyd), Gonzaga University, Spokane, Wash. *Electrical engineering.* Colton, Calif, 94. B.S, Calif. Inst. Tech, 17, Ph.D, 27; M.S, Union (N. Y), 19. Engineer, Gen. Elec. Co, 17–20; instr, Calif. Inst. Tech, 20–22; physics, California at Los Angeles, 22–24; teaching fellow elec. eng, Calif. Inst. Tech, 24–27; instr. physics, Texas, 27–28; assoc. prof. *elec. eng,* Colo. Agr. Col, 28–35, Colo. State Col, 35–38; asst. prof, Utah, 38–43; *prof, Gonzaga, 43–* Assoc. Elec. Eng; Eng. Educ. Photoelectricity.

Poole, Prof. J(ames) P(lummer), Dartmouth College, Hanover, N. H. *Botany.* Gloucester, Mass, May 6, 89. B.S, Maine, 12; A.M, Harvard, 18, Ph.D, 21. Instr. bot, Washburn Col, 12–13; asst, Kans. State Col, 13–16; Austin teaching fellow, Harvard, 16–18, 20–21; asst. prof, Wyoming, 18–20; instr. evolution, *Dartmouth Col,* 22–23, asst. prof, 23–27, *prof,* 27–36, *bot, 36–* Asst, Bussey Inst, Harvard, 21–22. A.A; New Eng. Bot. Club. Paleobotany; systematic botany.

Poole, Pres. R(obert) Frank(lin), Clemson Agricultural College, Clemson, S. C. *Plant pathology.* Gray Court, S. C, Dec. 2, 93. B.S, Clemson Col, 16, Sc.D, 37; M.S, Rutgers, 18, Ph.D, 21; LL.D, South Carolina, 42. Asst. plant path, Clemson Col, 16–17; Rutgers, 17–18, 19–21, asst. plant pathologist, N. J. Exp. Sta, 20–22, assoc. plant pathologist, 22–26; assoc. prof. plant path, N. C. State Col, 26–28, prof, 28–40, assoc. plant pathologist, Exp. Sta, 26–28, plant pathologist, 28–40, chairman cmt. directing grad. instruction, 30–40; *pres, Clemson Col, 40–* Alternate mem, Nat. Research Council. A.A; Phytopath. Soc. (chairman, council south. div, 32); Mycol. Soc; Hort. Soc; N. C. Acad. Fruit, truck and vegetable diseases; flue-cured tobacco.

Poole, Prof. S(idman) P, Maple Drive, Fayetteville, N. Y. *Geology, Geography.* Syracuse, N. Y, Oct. 19, 93. B.S, Syracuse, 21, M.S, 25; Chicago, 21, 23, 24, 28–29, Ph.D, 32; Cambridge, 25. Asst. prof. *geol. and geog, Syracuse,* 20–37, assoc. prof, 37–40, *prof, 40–; lieut. col. and chief map and photo branch, gen. staff, U. S. Army, 40–* Geographer, Syracuse Andean exped, 30–31. Gaspé exped, 33; director, Syracuse exped, Yucatan, 37–38. Summer, visiting prof, Cornell, 32. Fel. Am. Geog. Soc; Geol. Soc. Wash; fel. Royal Geog. Soc. Historical and cultural geography of New York, Europe and South America.

Pooler, Dr. Louis G(ordon), Navy Department, Washington, D. C. *Physics.* New York, N. Y, March 19, 97. A.B, Columbia, 20, A.M, 21, fellow, 24–25, Ph.D, 30. Asst. physics, Columbia, 20–23; instr, Hunter Col, 28–41; *research physicist, bur. ordnance, U. S. Navy, 41–, lieut. commander.* Research physicist, Commercial Cable Co, 23; N. Am. Co, 30–31. Velocity of propagation of sound; gaseous discharge phenomena.

Poor, Prof. Charles Lane, 35 E. 69th St, New York, N. Y. **Astronomy, Astrophysics.* Hackensack, N. J, Jan. 18, 66. B.S, Col. City of N. Y, 86, M.S, 90; Ph.D, Hopkins, 92. Instr. math, Col. City of N. Y, 86–88; instr, assoc. and assoc. prof. astron, Hopkins, 91–00; lecturer, *Columbia,* 03–04, *prof,* 04–10, *celestial mech, 10–* A.A; Astron. Soc; Math. Soc; Am. Acad; fel. N. Y. Acad. (ed, 'Annals,' 01-04); fel. Royal Astron. Soc. Periodic comet of 1899, 1896 and 1903; perturbations due to elliptic figures of Jupiter; figure of the sun and possible variations in its size and shape; the photoheliometer; tidal currents of the Atlantic coast; simplified methods of navigation; the line of position computer; the motions of Mercury; astronomical evidence and the relativity theory; methods of testing eclipse plates; the law of gravitation; mathematics of the relativity theory; rules and regulations for the construction, measurement and classification of racing yachts.

Poor, Prof. R(ussell) S(purgeon), 717 Ninth Court W, Birmingham, Ala. *Geology.* Cowgill, Mo, March 10, 99. B.S, Illinois, 23, M.S, 25, fellow, 27, Ph.D, 27. Instr. geol, Illinois, 24–27; *prof. geol. and head dept, Birmingham-Southern Col, 27–* Summers, Ill. Geol. Surv, 23, 24, 26, 27; Ky. Geol. Surv, 25. Paleont. Soc; Soc. Econ. Paleont. and Miner; Min. and Metal. Eng; Miner. Soc; Asn. Petrol. Geol; Soc. Econ. Geol; Ala. Acad. (pres, 35). Coal and iron ore.

Poor, Prof. Vincent C(ollins), 930 Packard St, Ann Arbor, Mich. *Mathematics.* A.B, Kansas, 01; M.S, Chicago, 07, Ph.D, 15. From instr. to *assoc. prof. math, Michigan, 07–* Math. Soc. Theoretical physics; asymptotic series; mechanics; potential theory; polygenic functions; vector analysis; the linear vector function; electricity and magnetism.

Poorman, Prof. A(lfred) P(eter), 329 Russell St, West Lafayette, Ind. *Mechanics.* Altamont, Ill, Feb. 13, 77. B.S, Illinois, 07; C.E, A.B, Colorado, 09. Instr. civil eng, Colorado, 07–09; from asst. prof. to *prof. applied mech, Purdue,* 09–17, *19–* Capt, C.Eng, 17–19. A.A; Civil Eng; Soc. Test. Mat; Eng. Educ; Concrete Inst. Applied mechanics; strength of materials.

Poos, Dr. F(rederick) W, U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Potter, Kans, Nov. 12, 91. A.B, Kansas, 15, A.M, 16; Ph.D, Ohio State, 26. Agent, bur. plant indust, U. S. Dept. Agr, and asst. nursery inspector, Fla, 16–17, sci. asst, 17–22, asst. entomologist, in charge European corn borer lab, Sandusky, Ohio, 22–26; entomologist, Va. Truck Exp. Sta, 26–28; *senior entomologist bur. entom. and plant quarantine, U. S. Dept. Agr, 28–* Biol. surv. party, Univ. Kans, 14. A.A; Entom. Soc; Asn. Econ. Entom; Ohio Acad; Va. Acad; Kans. Acad; Kans. Entom. Soc; Entom. Soc. Wash. (cor. sec'y, 40); Biol. Soc. Wash. Cereal, forage and truck crop insects; insect vectors of plant diseases.

Pope, Dr. Alton S(tackpole), 35 Fair Oaks Ave, Newtonville, Mass. *Epidemiology.* Manchester, Maine, April 26, 86. A.B, Bowdoin Col, 11; M.D, Tufts Col, 24; Dr.P.H, Harvard, 25. Asst. prof. epidemiol, col. physicians and surg, Columbia, 25–26; chief bur. communicable diseases, Dept. Health, Chicago, 26–29; instr. vital statist, sch. pub. health, Harvard, 29–30; *director div. tuber, State Dept. Health, Mass, 30–, deputy health commissioner, 37–* Lecturer, Chicago, 26–29; med. sch, Tufts Col, 32–; Harvard Sch. Pub. Health, 37– Ed. board, 'Am. Jour. Pub. Health,' 41– Am. Med. Asn; Pub. Health Asn; Soc. Epidemiol. Epidemiology of scarlet fever and tuberculosis.

Pope, Clifford H(illhouse), 922 Elm St, Winnetka, Ill. *Herpetology, Biology.* Washington, Ga, April 11, 99. Georgia, 16–18; B.S, Virginia, 21. Asst. zool, 3rd Asiatic exped, Am. Museum Nat. Hist, 21–23, div. Asiatic explor. and research, 24–26, asst. dept. herp, 26–27, asst. curator, 28–35, dept. ichthyol, 35; writer, 35–39; asst. curator *div. reptiles and amphibians, Field Museum Nat. Hist,* 40–41, *curator, 41–* A.A; Soc. Ichthyol. and Herp. (pres, 35). Taxonomy and ecology of reptiles and amphibians; herpetology of China.

Pope, Dr. E(gerton) L(lewellyn), University of Alberta, Edmonton, Alta, Can. *Internal medicine.* Belleville, Ont, Aug. 17, 74. B.A, Queen's (Can), 95; M.D, McGill, 00; L.R.C.P, 03; London, Paris and Vienna, 24. Assoc. prof. *med,* Manitoba, 23; *prof, Alberta, 23–* Service medal, 19; Victory medal, 19; King's Jubilee medal, 35; Coronation medal, 37. Lieut. col, M.C, Royal Can. Army, 16–19. Can. Med. Asn; fel. Royal Col. Physicians Can; Alta Med. Asn;

Edmonton Acad. Med; Man. Med. Asn; fel. Royal Col. Physicians, London; Royal Col. Surg. Incidence of actinomycosis in Alberta; incidence of metastases in cancer; problems in medical emergencies.

Pope, Dr. F(rank) B(igelow), B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Franklin, Pa, June 13, 12. A.B, Ohio State, 33; A.M, Indiana, 36, Ph.D, 40. Plant chemist, Gen. Chem. Co, Pa, 33–34; anal. chemist, Union Carbide Co, N. Y, 34–35; asst. quantitative anal. and gen. chem, Indiana, 35–36, org. chem, 38–40; *research chemist, B. F. Goodrich Co,* 36–38, *40–* Synthesis of disubstituted furamidines; organic chemicals connected with synthetic rubber, rubber-like plastics and rubber chemicals; pilot plant development of chemical syntheses.

Pope, Dr. Merritt N(ichol), U. S. Department of Agriculture, Beltsville, Md. *Agronomy.* Odell, Ill, May 2, 83. B.S, Northwestern, 05; A.M, Harvard, 11; B.S.A, N. Dak. Col, 13; Ph.D, Maryland, 29. Instr, secondary and nor. schs, 05–16; biol. and agr, Wis. Nor. Sch, Eau Claire, 16–18; asst, *barley investigations, bur. plant indust, U. S. Dept. Agr,* 18–20, asst. agronomist and assoc. agronomist, 20–30, *agronomist, 30–* A.A; Soc. Agron; Genetic Asn; Bot. Soc. Wash; Wash. Acad. Anatomy, physiology and morphology of barley seeds and seedlings; breeding and inheritance in barley.

Pope, Dr. O(tis) A(lston), U. S. Department of Agriculture, Washington, D. C. *Plant breeding, Genetics.* Ft. Seybert, W. Va, July 18, 01. B.S. West Virginia, 27; fellow, Iowa State Col, 28–30, M.S, 29, Ph.D, 35. Asst. prof. agron, Delaware, 27–28; asst, Arkansas, 30–35; assoc. agronomist, *bur. plant indust, U. S. Dept. Agr,* 35–42, *agronomist, 42–* Soc. Agron; Genetic Asn. Ecological factors affecting quality of cotton fiber; cotton breeding; laboratory and field plot technique.

Pope, Prof. Philip H(untley), 925 Alvarado Terrace, Walla Walla, Wash. *Herpetology.* Manchester, Maine, Oct. 24, 87. A.B, Bowdoin Col, 14; A.M, Harvard, 17; Ph.D, Pittsburgh, 21. Instr. biol, Pittsburgh, 19–21; Reed Col, 21–23; U. S. Veterans' Hosp, Walla Walla, 23–30; instr. *biol, Whitman Col,* 30–37, *prof, 37–* A.A; Soc. Ichthyol. and Herp. The introduction of West Indian Anura into Bermuda; life history and sense of smell of the water newt.

Pope, Dr. Willis T(homas), University of Hawaii, Honolulu, Hawaii. *Horticulture, Botany.* Decatur, Ill, Feb. 17, 73. B.S, Kans. State Col, 98; M.S, California, 16; Sc.D, Hawaii, 26. Supt, fruit farm, Kans, 99; horticulturist, Nat. Farm Sch, Pa, 00–02; teacher science and agr, Territorial Nor. Sch, Honolulu, 03–08; prof. bot. and hort, Col. Hawaii, 08–10; supt. pub. instruction, Territory Hawaii, Honolulu, 10–13; instr. econ. bot, California, 16–20; senior horticulturist, U. S. Dept. Agr. and Exp. Sta, Hawaii, 20–37; *retired.* Gold medal, Alaska-Yukon-Pacific Expos. Hawaiian Bot. Soc. (pres, 28); Hawaiian Acad. Acid lime fruit; tropical fruit culture; grafting of tropical fruit trees; propagation of plants by cuttings; wayside plants of Hawaii.

Popenoe, Dr. Paul, 2503 N. Marengo Ave, Altadena, Calif. *Social biology.* Topeka, Kans, Oct. 16, 88. Occidental Col, hon. Sc.D, 29; Stanford. Agr. explorer, expeds, Algeria, India and Arabia, 11–13; ed, 'Jour. Heredity,' 13–17; law enforcement sec'y, Social Hygiene Asn, 19–20, exec. sec'y, 20; sec'y, Human Betterment Foundation, 26–37; *director, Am. Inst. Family Relations, Los Angeles, 30–* Lecturer, Southern California, 32– Summers, Columbia, 27–32. Capt, Sanit.C, and director sect. on vice and liquor control, Cmn. on Training Camp Activities, 17–19. A.A; Eugenics Soc; Genetic Asn; Social Hygiene Asn; Genetics Soc; Popul. Asn. Human heredity; eugenics; social hygiene; mental hygiene; family relations.

Popenoe, Dr. W(illis) P(arkison), California Institute of Technology, Pasadena, Calif. *Paleontology.* Topeka, Kans, Sept. 5, 97. Hopkins, 28–29; B.S, George Washington, 30; M.S, Calif. Inst. Tech, 33, Ph.D, 36. Sci. helper, U. S. Geol. Surv, 24–28, geol. aid, 28–29; *curator invert. paleont, Calif. Inst. Tech, 30–,* teaching fellow geol, 30–36. Petrol. geologist, Far East Oil Develop. Co, Manila, 37; senior petrol. geologist, Nat. Develop. Co, Philippine Commonwealth, 39–40. Paleont. Soc; San Diego Soc. Nat. Hist. Cretaceous stratigraphy and paleontology of the Pacific coast; Tertiary mollusks of the Philippine Islands.

Popenoe, Dr. Wilson, Altadena, Calif. *Botany.* Topeka, Kans, March 9, 92. Pomona Col; hon. Sc.D, San Marcos, Peru, 25. Agr. explorer, office for. seed and plant introd, bur. plant indust, U. S. Dept. Agr, 13–25; *mem. staff, United Fruit Co, Boston, 25–; director, Escuela Agricola Panamericana, 42–* Decoration 'Al Merito,' Chile, 23; Ecuador, 25; medal, Soc. Nat. d'Acclimatation de France, 23. A.A; Soc. Nat; Forestry Asn; hon. mem. Calif. Avocado Asn; Biol. Soc. Wash; Wash. Acad; Soc. Venezolana de Ciencias Nat; Soc. Geog. de Lima. Tropical agriculture and horticulture.

Popham, Dr. Richard A(llen), 236½ Pearl St, Marion, Ohio. *Botany.* Charleston, Ill, Sept. 29, 13. B.Ed, East. Ill. State Teachers Col, 36; M.S, Ohio State, 37, Ph.D, 40. Asst. bot, Ohio State, 37–40, instr, 40–42; *chief ballistician, Scioto Ordnance Plant, 42–* Summers, agent, Dutch elm disease lab, U. S. Dept. Agr, 37, 38; research plant anatomist, desert lab, div. plant biol, Carnegie Institution, 39. A.A; Bot. Soc; Ohio Acad. Developmental and physiological plant anatomy.

Popham, W(illiam) L(ee), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Corvallis, Mont, Feb. 26, 01. B.S, Mont. State Col, 24. Leader in charge *barberry eradication, bur. plant indust, U. S. Dept. Agr,* Mont, 24–29, special supervisory duties, 30, senior pathologist and field supervisor in charge, div. plant disease control, *bur. entom. and plant quarantine,* 31–42, *asst. chief bur. and in charge crop pest control projects, 42–* Control measures for stem rust of small grains; eradication of common barberry bushes as a means of controlling stem rust of wheat in Montana.

Popkin, Dr. A(lexander) H, 5 Buchanan Place, New York, N. Y. *Organic chemistry.* New York, N. Y, Nov. 7, 13. B.S, Brooklyn Col, 34; M.S, Pa. State Col, 35, Ph.D, 39. Asst. chem, Pa. State Col, 36–37, org. chem, 37–38, instr, 38–39; *research chemist, Gen. Printing Ink Corp, 39–* Chem. Soc. Abnormal reactions of the Grignard molecule; rearrangement of aliphatic compounds; dyes and dye intermediates; sulfanilamides and related pharmaceuticals; synthetic resins.

Popp, Prof. H(enry) W(illiam), Pennsylvania State College, State College, Pa. *Botany, Plant physiology.* Millvale, Pa, Nov. 19, 92. B.S, Pa. State Col, 17, M.S, 22; Carnegie Inst. Tech; Ph.D, Chicago, 26. Anal. chemist, Crucible Steel Co, Pa, 12–14; asst. zool. and entom, Pa. State Col, 16–17; head dept. biol, Cent. State Nor. Sch, Pa, 17–20; instr. bot, Pa. State Col, 20–23; asst. plant physiol, Boyce Thompson Inst, 23–25; asst. prof. *bot, Pa. State Col,* 25–30, assoc. prof, 30–37, *prof, 37–* Subcmt, Nat. Research Council. A.A; Bot. Soc. (chairman physiol. sect, 42); Soc. Plant Physiol; Pa. Acad. Effect of radiation on plants.

Poppelbaum, Dr. H(ermann), Alfred University, Alfred, N. Y. *Zoology, Anthropology.* Frankfurt, Germany, May 24, 91. Freiburg, 09–10; Ph.D, Munich, 13. *Special lecturer anthrop. and psychol, col. lib. arts, Alfred, 40–* Buffalo Soc. Nat. Sci. Synthetic anthropology.

Popper, Dr. Daniel M(agnes), McDonald Observatory, Ft. Davis, Texas. *Astronomy.* Oakland, Calif, Aug. 11, 13. A.B, California, 34, Ph.D, 38. Lick Observatory fellow, 36–38; Martin Kellogg fellow, Lick Observatory, California, 38–39; *instr. astron, McDonald Observatory, Chicago-Texas, 39–* Astron. Soc; Astron. Soc. Pacific. Radial velocities of stars; spectroscopic binaries.

Porges, Dr. Nandor, U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Hungary, April 10, 02. B.S, Mass. Col, 24; Chilean sodium nitrate fellow, 27–29; M.S, Ph.D, Rutgers, 31. Asst, N. J. Exp. Sta, 29–37; asst. bacteriologist, by-products lab, farm wastes investigation div, bur. chem. and soils, *U. S. Dept. Agr,* 37–41, *assoc. biochemist, sweet potato products div, south. regional research lab, bur. agr. and indust. chem, 41–* Chemist, U. S. Pharmacal Co, Newark, N. J, 33–37. A.A; Chem. Soc; Soc. Bact. Bacteriology; fermentation; starch; fermentation chemistry; bacteriological biochemistry.

Poris, Dr. Ethel G, 1560 Grand Concourse, Bronx, New York, N. Y. *Histology, Endocrinology.* New York, N. Y, Nov. 4, 12. A.B, Hunter Col, 33; M.S, N. Y. Univ, 38, Ph.D, 40. Teaching fellow biol, N. Y. Univ, 36–40, asst. instr, 40–41; *instr. physiol, Hunter Col,* 42, *43–* Histology of the pituitary gland of the American chameleon, Anolis carolinensis.

Poritsky, Dr. Hillel, 1012 Wendell Ave, Schenectady, N. Y. *Pure and applied mathematics.* Pinsk, Russia, June 28, 98. A.B, Cornell, 20, Ph.D, 27. Instr. math. and physics, Cornell, 20–27; nat. research fellow math, Harvard, 27–29; *mathematician, Gen. Elec. Co, 29–* Math. Soc; Math. Asn. Poten-

tial theory; polynomial approximations; dynamics; stress analysis; eddy currents.

Porsche, Dr. Jules D(ownes), Armour and Co, Union Stock Yards, Chicago, Ill, *Chemistry.* London, Eng, July 7, 09. B.S, Chicago, 30, Ph.D, 33. *Research chemist,* Munic. Tuber. Sanitarium, *Chicago,* 33–35; *Armour and Co, 35–, head biol. sect, chem. research dept.* A.A; Chem. Soc. Chemistry of carbon to carbon and carbon to nitrogen bonds; silicosis; internal secretions; proteins.

Porsild, A(lf) E(rling), National Museum of Canada, Ottawa, Ont, Can. *Botany.* Copenhagen, Denmark, Jan. 17, 01. Asst. botanist, Danish Biol. Sta, Greenland, 22–25; botanist in charge grazing surveys, *Dom. Govt. Can,* 26–31, botanist in charge introd. reindeer, 31–35, *botanist in charge Nat. Herbarium, 36–* Advisory board wild life protection, Interdept. Reindeer Cmn; Can. v. consul to Greenland, 40, consul, 41– Mem. expeds, Alaska, 26–27, 29, Mackenzie Dist, 27–28, 31–35; James Bay, 29; Keewatin and Ungava, 30; Lapland, 31; Bartlett Greenland exped, 37. Fel. Am. Geog. Soc; Professional Inst. Can; Can. Conserv. Soc; Bot. Soc. Denmark; Royal Soc. Greenland. Plant taxonomy and geography.

Porte, W(illia)m S(olomon), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Sergeantsville, N. J, Feb. 4, 91. B.S, Rutgers, 15, 16–17; Washington French Sch, 21, 24. Asst. bot, Rutgers, 15–16; teacher, high sch, N. J, 16–18; asst. pathologist and *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 18–* A.A; Phytopath. Soc. Plant breeding for disease resistance.

Portenier, Prof. Lillian G, University of Wyoming, Laramie, Wyo. *Psychology.* Guide Rock, Nebr. A.B, Nebraska, 22, A.M, 24; Ph.D, Columbia, 33. Teacher, prin. and supt, high sch, 15–25; supervisor math, *Wyoming,* 25–29, asst. prof. *psychol,* 30–33, assoc. prof, 33–39, *prof, 39–, acting chairman dept. psychol. and philos, 43–* Inst. lecturer, 18–31. Summers, asst. instr, Nebraska, 22–24. Psychol. Asn; Asn. Applied Psychol. Personality and individual differences; pupils of low mentality in high school.

Porter, Prof. Alton M, University of Connecticut, Storrs, Conn. *Horticulture.* South Paris, Maine, Sept. 24, 94. B.S, Mich. State Col, 17, M.S, 32, Ph.D, 36. Manager, Hunter Land Co, Wash, 19–23; instr, sch, Mich, 23–26, supt. schs, 26–31; instr. *hort, Connecticut,* 33–35, asst. prof, 35–43, *assoc. prof, 43–* Soc. Plant Physiol; Soc. Hort. Sci; Veg. Growers Amer. Vegetable gardening; effect of light intensity on photosynthetic efficiency of tomato plants; effects of cellulose acetate film on hot bed plants; effects of bulb and cable heat on field growth of vegetable plants.

Porter, Dr. Bennet A(llen), 123 Willow Ave, Takoma Park, Md. *Entomology.* Northampton, Mass, July 12, 92. B.S, Mass. Col, 14, Ph.D, 21. From assoc. entomologist to *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 17–* A.A; Entom. Soc; Asn. Econ. Entom. (chairman, east. branch, 35); Entom. Soc. Wash. Economic entomology; fruit insects.

Porter, Prof. C(edric) L(ambert), 1713 Rainbow Ave, Laramie, Wyo. *Botany.* Gujranwala, India, Jan. 15, 05. B.S, Michigan, 28, M.S, 29; Ph.D, Washington (Seattle), 37. Asst, Michigan, 28–29; instr. *bot, Wyoming,* 29–32, asst. prof, 32–38, assoc. prof, 39–42, *prof, 43–* Teaching fellow, Washington (Seattle), 35–36; curator, Rocky Mountain Herbarium, 41– Summers, asst. botanist, bur. plant indust, U. S. Dept. Agr, 34, 35. A.A; Bot. Soc; Soc. Plant Taxon; Colo-Wyo. Acad. Taxonomy of grasses and the genus Astragalus.

Porter, Prof. Charles L(yman), 924 N. Main St, West Lafayette, Ind. *Plant pathology, Physiology.* Mackinaw, Ill, Feb. 22, 89. B.S, Ill. Wesleyan, 11; A.B, Illinois, 13, A.M, 21, Ph.D, 23. Instr. biol, Parsons Col, 14–16; head dept. biol, Fairmount Col, 16–19; asst. bot, Illinois, 19–21; botanist, State Nat. Hist. Surv, Ill, 22; assoc. prof. plant path. and physiol. and *prof. bot, Purdue, 23–* A.A; Phytopath. Soc; Mycol. Soc; Ind. Acad. (chairman, div. bot, 37). Mycology; ecological relations of fungi; inhibitions exhibited by fungi.

Porter, Dean C(harles) Scott, 29 Hitchcock Road, Amherst, Mass. *Mathematics.* Hatfield, Mass, Sept. 23, 97. A.B, Amherst Col, 19; A.M, Clark, 22. Instr. *math,* Worcester Polytech, 19–24; *Amherst Col,* 24–27, asst. prof, 27–29, assoc. prof, 29–35, acting dean, 31–32, *dean, 32–* Math. Soc; Math. Asn. Modern algebraic theories; Galois group theory.

Porter, Prof. C(harles) W(alter), 911 Oxford St, Berkeley, Calif. *Chemistry.* Morgan, Utah, May 16, 80. B.S, Utah Col, 05; A.M, Harvard, 09; Ph.D, California, 15. Prof. *chem,* Utah Col, 07–17; asst. prof, *California,* 17–20, assoc. prof, 20–26, *prof, 26–,* asst. dean col. chem, 25–41, *director chem. labs, 41–* A.A; Chem. Soc. The carbon compounds; organic chemistry; molecular rearrangements.

Porter, Dr. Dale A(lbert), U. S. Department of Agriculture, Auburn, Ala. *Zoology, Parasitology.* Kalamazoo, Mich, Nov. 4, 09. A.B, Kalamazoo Col, 30; M.S, Kans. State Col, 32; Sc.D, Hopkins, 35. Asst. zool, Kans. State Col, 30–32; helminthol, sch. hygiene and pub. health, Hopkins, 32–35; junior parasitologist, *bur. animal indust, U. S. Dept. Agr,* 35–38, *assoc. parasitologist, regional animal disease research lab, 38–* Soc. Parasitol; Micros. Soc; Asn. Southeast. Biol; Helminth. Soc. Wash. Host-parasite relations of nematodes; pathology and immunity in parasitic diseases.

Porter, Prof. David Douglas, Rutgers University, New Brunswick, N. J. *Physics.* Allegheny City, Pa, Nov. 19, 90. A.B, Pittsburgh, 13, A.M, 17; Chicago, 22–23, 24; Columbia, 29–30. Instr. *physics, Rutgers,* 23–33, *asst. prof, 33–* Ultrasonics; determination of the velocity of sound in liquids by the method of diffraction of light by ultrasonic waves.

Porter, Prof. David J(ordan), University of Missouri, Columbia, Mo. *Chemical engineering.* Urbana, Ill, Sept. 1, 10. B.S, Illinois, 30, M.S, 31; Ph.D, Pa. State Col, 35. Production dept, United Ref. Co, 35–36; research chemist, Benedum-Trees Oil Co, Pittsburgh, Pa, 36–38; *asst. prof. chem. eng, Missouri, 38–* Chem. Eng; Chem. Soc. Hydrocarbon pyrolysis; gas analysis.

Porter, Prof. Donald H(enry), 4105 S. Wigger St, Marion, Ind. *Mathematics.* Medina Co, Ohio, Nov. 29, 07. A.B, B.S, Marion Col, 29; A.M, Indiana, 30. From asst. prof. to *assoc. prof. math. and physics, Marion Col, 30–,* registrar, 32–35. Math. Asn. Contact transformations.

Porter, Dr. D(onald) R(ockwell), Campbell Soup Co, Camden, N. J. *Plant pathology, Genetics.* Norden, Nebr, Dec. 24, 00. B.S, Iowa State Col, 23, M.S, 25, Ph.D, 29. Exten. plant pathologist, Iowa, 23–25; Kans, 25–26; asst. plant path, Exp. Sta, Iowa State Col, 26–29; asst. prof. truck crops, California, 29–35, assoc. prof, 35–39, asst. olericulturist, Exp. Sta, 29–35, assoc. olericulturist, 35–39; *plant pathologist and geneticist, Campbell Soup Co, 39–* A.A; Phytopath. Soc; Soc. Hort. Sci; Potato Asn. Breeding of and disease control in tomatoes, carrots, okra, rutabaga, pepper and other vegetables.

Porter, Prof. Eugene L(yman), University of Texas School of Medicine, Galveston, Texas. *Physiology.* Springfield, Mass, May 10, 81. A.B, Harvard, 04, Ph.D, 12; A.M, Michigan, 08. Asst. prof. nat. science, Transylvania Col, 04–06; prof, Adrian Col, 06–07; asst. zool, Michigan, 07–08; teaching fellow *physiol,* Harvard, 08–12, research fellow, 12–13; instr, Simmons Col, 13–15; Pennsylvania, 15–18; asst. prof, Western Reserve, 18–24; *prof, sch. med, Texas, 24–* A.A; Physiol. Soc. Reflex irritability of the spinal cord; reflex analysis; tonus; reflex as a pharmacological indicator; arterial pain.

Porter, Prof. Everett E(llis), Shorter College, Rome, Ga. *Chemistry.* Clinton, Ky, July 29, 94. A.B, Baylor, 16; M.S, Rice Inst, 20, Ph.D, 27. *Prof. chem, Shorter Col. (Ga), 20–* A.A; Chem. Soc. Adsorption by hydrous oxides; color lakes.

Porter, Dr. Frank, Solvay Process Co, Syracuse, N. Y. *Chemistry.* Auxvasse, Mo, June 11, 98. A.B, Missouri, 19; M.S, George Washington, 23, Ph.D, 26. Chemist, Cook Paint and Varnish Co, 20–21; asst. chemist, U. S. Helium Plant No. 3, Texas, 21; assoc. chemist, cryogenic research lab, U. S. Bur. Mines, 21–25; assoc. research chemist, Marland Oil Co, 26–27; *research chemist,* Atmospheric Nitrogen Corp, 27–35; *nitrogen div, Solvay Process Co, 35–* Chem. Soc. Helium; natural gas; catalysis by radon; high pressure synthesis.

Porter, Dr. Goldie Printis Horton, University of Texas, Austin, Texas. *Mathematics.* Athens, Texas, Sept. 4, 87. A.B, Texas, 08, Ph.D, 16; A.M, Smith, 10; fellow, Bryn Mawr Col, 12–13. Tutor *pure math, Texas,* 13–17, instr, 17–26, *asst. prof, 26–* Math. Soc. Analysis of pure mathematics.

Porter, Harry F(rank), Old York Road and Stetson Road, Elkins Park, Pa. *Electrical engineering.* Trenton, N. J, Feb. 28, 94. E.E, Princeton, 16. Sec'y, Pyroelectric Instrument Co, 16–20; treas. and works manager, Ajax Electrothermic Corp, 20–26, in charge eng. for magnetic alloys, 26–28; chief engineer, Valley Appliances, Inc, Rochester, 28–29; elec. engineer magnetic materials, Allegheny Steel Co. and

later asst. director electrical materials div, Allegheny Ludlum Steel Corp, 29–42; *elec. engineer in charge eng, develop. and sales, Magnetic Metals Co, N. J, 42–* Elec. Eng; Inst. Radio Eng; Franklin Inst. Measurement of high temperature; thermionic control of electrical and mechanical apparatus; fusion of refractory materials; electrical precision apparatus; high permeability alloys for audio frequency amplifications; testing of magnetic materials in steel mill production; development and selection of special magnetic and electrical alloys for radar, radio communication and electronic devices; magnetic core designs.

Porter, Dr. H(enry) Dudley, Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Tungchow, China, Nov. 5, 10. B.S, Beloit Col, 32; Ph.D, Northwestern, 35. Lab. instr, Northwestern, 32–34, asst, 34–35; *research chemist, Eastman Kodak Co, 35–* Chem. Soc. Indene derivatives; couplers for color photography.

Porter, H(enry) Hobart, 50 Broad St, New York, N. Y. *Civil engineering.* New York, N. Y, March 12, 65. M.E, Columbia, 86, fellow, 86–87; LL.D, Hobart Col, 30; hon. D.E, Rensselaer Polytech, 38. *Chairman, Am. Water Works and Elec. Co.* Mem. finance cmt, N. Y. Bot. Garden. Trustee, Edison Elec. Inst; trustee, mem. advisory cmt. investments and chairman finance cmt, Columbia. Chairman board, Eng. Foundation, 29–33; Am. Soc. Civil Eng. rep, div. eng. and indust. research, Nat. Research Council, 24–27, mem. exec. cmt, 25, 26. A.A; Civil Eng; Mech. Eng; Min. and Metal. Eng.

Porter, Hollis P(aine), 208 Midco Bldg, Tulsa, Okla. *Engineering.* Ft. Scott, Kans, Aug. 7, 73. Tulane, 93–94, 06–07; Tulsa, 28–29. Mem. firm, Wagoner and Porter, Abbeville, La, 97–00, chief engineer construction, Connersville, Ind, 01–06; city engineer, Abbeville, La, 07; engineer of construction, Webber Duller Co, Houston, Texas, 07–08; mem. firm, Winfry, Schlafli and Porter, 08–10; chief engineer, Power Cerro Depasco Smelters, Peru, 10–12; chief engineer in charge construction, A. M. Lockett and Co, Mex, 12–13, chief engineer construction and sales, New Orleans, 13–16; supt. petrol. dept, chief engineer and consulting engineer, Gypsy Oil Co, Tulsa, Okla, 16–28; teacher petrol. eng, Univ. Tulsa, 29–30; *consulting engineer, Tulsa, 31–* Lecturer, night sch, Univ. Tulsa, 31– Summer, asst. to chief engineer, Gulf Oil Co, Texas and Okla, 16. Fel. Mech. Eng. (councilor, 20, chairman, mid-continent sect, 18, 34). Engineering education; petroleum production engineering; meter testing; irrigation pumping plants; oil and gas separator; oil engine for ice manufacture; oil furnaces; oil recovery by natural methods; oil-field equipment; oil well blowing.

Porter, Prof. Homer C(lifford), 622 N. Main St, Washington, Pa. *Biology.* Washington, Pa, June 28, 04. A.B, Washington and Jefferson Col, 26, fellow, 26–29, A.M, 29; Ph.D, Pittsburgh, 35. Instr. biol. and geol, *Washington and Jefferson Col,* 29–34, *asst. prof. biol, 35–, director war activities.* A.A; N. Y. Acad; W. Va. Acad. Experimental embryology of Amphibia; grafting in Amphibia; muscle regeneration in Amphibia.

Porter, Dr. Horace C(hamberlain), 1833 Chestnut St, Philadelphia, Pa. *Chemistry.* Urbana, Ill, July 13, 76. A.B, Illinois, 97, B.S, 99, M.S, 00; A.M, Harvard, 01, Ph.D, 03. Chemist, Solvay Process Co, N. Y, 03–06; research chemist, fuel investigations, U. S. Bur. Mines, 07–15; chem. engineer, The Koppers Co, 15–17; *consulting chemist and chem. engineer, 20–* Part-time lecturer, Pennsylvania, 28. Capt, Ordnance Dept, 17–19. Chem. Soc. (chairman, Phila. sect, 25); Chem. Eng; Soc. Test. Mat; Gas Asn; Franklin Inst; Eng. Club Phila. Organic chemistry; orthobenzoquinone; chemistry of fuels; fuel engineering and economics; coking and by-products; coal carbonization; spontaneous combustion; scientific aspects of the behavior of coal and other fuels in utilization; explosions of gases and dusts; coal carbonization.

Porter, Dr. J(ames) M(elville), Jr, Carnegie Institute of Technology, Pittsburgh, Pa. *Psychology.* Texarkana, Ark, Sept. 23, 10. B.S, Virginia, 31, M.S, 32; du Pont fellow, Virginia, 32–33; Ph.D, Yale, 36. Asst, inst. human relations, Yale, 34–36; prof. *psychol,* King Col, 36–37; instr, *Carnegie Inst. Tech,* 37–39, *asst. prof, 39–* Psychol. Asn. Learning; conditioning; applied psychology.

Porter, Prof. J(ames) P(ertice), Ohio University, Athens, Ohio. *Psychology.* Hillsboro, Ind, Sept. 23, 73. A.B, Indiana, 98, A.M, 01; hon. fellow, Clark, 03–04, Ph.D, 05; Sc.D, Waynesburg Col, 17. Teacher, high sch, Ind, 93–94, prin, 95–97; teacher, Ill, 98–00; instr. *psychol,* Indiana, 00–03; Clark Col, 03–07, asst. prof, 07–12, prof, 12–22, acting dean, 09–10, dean, 10–22; instr, Clark, 10–22; prof, *Ohio (Athens),* 22–43, *emer. prof, 43–* Summers, instr. biol. sta, Indiana, 01–03, lecturer, 08, 14, 17; Columbia, 13; State Col. Wash, 15; instr, Oregon, 36. Ed. 'Jour. Applied Psychol.' Pres. sect. psychol, Ohio Col. Asn, 33. Mem, Int. Zool. Cong; Int. Cong. Psychotechnique; Int. Cong. Psychol; Int. Cong. Eugenics. Psychol. Asn; Midwest. Psychol. Asn. (councilor, 34; pres, 41); Ohio Acad. (mem. exec. cmt, 33). Instinct in spiders; psychology of the English sparrow; intelligence tests of high school and college students; perception and judgment; methods and reliability of physical and mental measurements; personality traits.

Porter, Dr. J(ermain) D(oty), Lebanon Valley College, Annville, Pa. *Chemistry.* Cincinnati, Ohio, July 5, 11. A.B, Cornell, 32, Ph.D, 37. Asst. chem, Cornell, 33–37; instr, Union (N. Y), 37–41; asst. prof, *Lebanon Valley Col,* 41–42, *assoc. prof. chem. and physics, 42–* A.A; Chem. Soc. Electrochemistry; colloid chemistry.

Porter, Dr. John L(emoyne), 1749 Bryant St, Palo Alto, Calif. *Physical chemistry.* Alma, Nebr, Oct. 30, 03. B.S, Princeton, 26; Edward Curtis Franklin fellow, Stanford, 29–30, Windt scholar, 31, Ph.D, 36. Teaching fellow chem, Stanford, 30–31, research assoc, 38–39; *research chemist,* Chem. Process Co, 39–42; *Permanente Metals Corp, 42–* Chem. Soc. Sorption of liquids and vapors by solids; commercial soap; refining of sugar solutions; synthesis and use of ion exchange materials; spectrographic analysis of magnesium alloys; high vacuum in the retorts for the production of magnesium.

Porter, Prof. John N(orman), University of Puerto Rico, Mayagüez, P. R. *Mycology.* Fairfield, Iowa, Sept. 29, 14. B.S, Purdue, 35, M.S, 36; Ph.D, Harvard, 40. *Assoc. prof. bot, col. agr, Puerto Rico, 40–* Orchid mycorrhiza and other mycological problems.

Porter, Prof. J(ohn) R(oger), State University of Iowa, Iowa City, Iowa. *Bacteriology.* Alma, Nebr, Aug. 14, 09. B.S, Iowa State Col, 33, M.S, 35; Ph.D, Yale, 38. Instr. *bacter, Iowa,* 38–39, assoc, 39–41, *asst. prof, 41–* Soc. Bact. General bacteriology and bacterial physiology.

Porter, Dr. John W(illard), Purdue University, West Lafayette, Ind. *Agricultural chemistry.* Mukwonago, Wis, June 12, 15. B.S, Wisconsin, 38, univ. fellow, 41–42, Ph.D, 42. Asst. genetics and biochem, Wisconsin, 38–41; *asst. chemist, Purdue, 42–* A.A; Chem. Soc. Carotenoids of Lycopersicon species; quantitative variations of carotenoids and vitamin C in tomatoes and the inheritance of each.

Porter, Dr. K(eith) R(oberts), Rockefeller Institute for Medical Research, New York, N. Y. *Zoology.* Yarmouth, N. S, Can, June 11, 12. B.Sc, Acadia, 34; Ph.D, Harvard, 38. Nat. research fellow zool, Princeton, 38–39; *research asst, Rockefeller Inst, 39–* Soc. Zool. Androgenetic hybridization; nucleo-cytoplasmic relationships; species formation.

Porter, L(awrence) C(opeland), General Electric Co, Cleveland, Ohio. *Electrical engineering.* Kensington, Conn, June 2, 87. Ph.B, Yale, 07. Test course, *Gen. Elec. Co,* Mass, 07–09, sales dept, N. J, 09–11, illum. eng. dept, 11–30, *illum. engineer, in charge rural lighting, incandescent lamp dept, Cleveland, 30–, coordinator blackout activities, lamp dept.* Mem, state tech. advisory cmt, Office Civilian Defense, Ohio. U. S. Naval Exp. Sta, Conn, 17–18. A.A; fel. Elec. Eng. (chairman, publicity cmt, Cleveland sect, 36, chairman sect, 41, advisory board, 42, mem. cmt. cooperative relations with industry, 42, cmt. civil defense, 42); Illum. Eng. Soc. (sec'y, N. Y. sect, 17, mem, papers cmt, manager, Cleveland sect, 38–); fel. Agr. Eng. (chairman, cmt. on use of lights in agr); Soc. Automotive Eng. (standards cmt); fel. Motion Picture Eng. (governor, sec'y and pres, 20–32, chairman, paper and standards cmts); Arbitration Asn; Cleveland Eng. Soc. Lighting; ultra-violet and miniature lamps; germicidal and infra red lamps; rural lighting.

Porter, Prof. Lyman E(dwards), University of Arkansas, Fayetteville, Ark. *Chemistry.* New Haven, Conn, Nov. 7, 93. A.B, Yale, 16, A.M, 18, Ph.D, 20. Asst. chem, Yale, 16–18, 19–20; research dept, Barrett Co, Edgewater, N. J, 20–21; instr. *chem, Arkansas,* 21–27, asst. prof, 27–37, *assoc. prof, 37–* C.W.S, U.S.A, 18. A.A; Chem. Soc. Analysis of rarer metals and elementary chlorine.

Porter, Prof. M(ilton) B(rockett), University of Texas, Austin, Texas. *[1]Mathematics.* Sherman, Texas, Nov. 22, 69. B.S, Texas, 92; A.M, Harvard, 95, Ph.D, 97. Instr. *math,* Texas, 97–99; Yale, 99–02, asst. prof, 02–04; *prof, Texas, 04–* Math. Soc. Differential equations; function theory.

Porter, Dr. Philip K(elsey), H. J. Heinz Co, Pittsburgh, Pa. *Industrial chemistry.* Stuart, Iowa, March 22, 96. A.B, Grinnell Col, 18; A.M, Illinois, 21, Ph.D, 23. Asst, Illinois, 19–23; instr, Louisiana, 23–24; indust. fellow, Mellon Inst, 24–28; chief chemist, Jonas and Naumburg Corp, 28–34; research chemist, Int. Printing Ink Corp, 34–38; Resinous Products and Chem. Corp, 38–39; research fellow, Mellon Inst, 39–42; *research and production chemist, H. J. Heinz Co, 42–* A.A; Chem. Soc. Structure of isocampholactone; measurement of cup grease consistency by use of the plastometer; petroleum research on cup grease and gasoline; printing ink, especially news and magazine inks; preparations of hatters furs; varnishes; lacquers; synthetic resins; plastics; plywood.

Porter, Dr. Richard J(anvier), University of Michigan School of Public Health, Ann Arbor, Mich. *Malariology.* Swampscott, Mass, Oct. 22, 13. A.B, Virginia, 35, A.M, 36; Ph.D, Chicago, 41. *Instr. epidemiol, sch. pub. health, Michigan, 41–* A.A; Va. Acad. Experimental malariology, especially vertebrate life cycle and chemotherapy; biology of sporozoa in general.

Porter, Dr. (Robert) Langley, Mar Monte Hotel, Santa Barbara, Calif. *Medicine.* Montreal, Que, Can, Jan. 30, 70. B.S, Pa. Mil. Col, 90; M.D, Cooper Med. Col, 96; L.R.C.P, London, 02. Res. physician, St. Mark's Hosp, London, Eng, 01; clin. prof. med. and pediat, sch. med, Stanford, 06–16; lecturer pediat, *med. sch, California,* 18–21, clin. prof, 21–27, *prof. med, 27–,* dean, 27–40, *emer. dean, 40–* City physician, San Francisco, Calif, 06–08; visiting physician, Lane Hosp, 06–16; Children's Hosp, 06–20; visiting pediatrician, Univ. Hosp, California, 21–24. A.A; Am. Med. Asn; Pediat. Soc; Acad. Pediat; Calif. Acad. Med; Royal Col. Surg. England. Pediatrics.

Porter, Prof. R(oyal) A(rthur), Syracuse University, Syracuse, N. Y. *Physics.* Adair, Ill, Feb. 8, 77. B.S, Northwestern, 01, M.S, 02; Ph.D, Göttingen, 12. Instr. *physics, Syracuse,* 03–05, asst. prof, 05–06, assoc. prof, 06–12, *prof, 12–* A.A; Physical Soc; Eng. Educ; Asn. Physics Teachers. Effect of atmosphere on arc spectra; characteristics of discharge in gases.

Porter, Dr. R(upert) Howard, 3416 Oakland, Ames, Iowa. *Plant pathology.* Norden, Nebr, 92. B.S, Iowa State Col, 18, M.S, 20, Ph.D, 30. Instr. plant path, Iowa State Col, 19, asst. prof. plant diseases, exten. service, 20–23; plant pathologist, Nanking Univ, 23–27; exten. plant pathologist, *Iowa State Col,* 27–31, exten. prof. plant path. and assoc. prof. bot, 31–33, assoc. prof. and research assoc. prof. bot. and agron. and head seed lab, 33–41, *prof. bot, research prof. agron. and director seed lab, 41–* Field asst, bur. plant indust, U. S. Dept. Agr, 19–20. Phytopath. Soc. del, Pan-Pacific Sci. Cong, Tokyo, 27. A.A; Phytopath. Soc; Bot. Soc; Iowa Acad. Dry rot of corn; seed treatment of and smut resistance in cereals; cucumber mosaic resistance; type of mosaic; seed borne pathogens; uniform techniques in seed technology; use of seed disinfectants in seed technology.

Porter, Dr. T(homas) R(eginald), San Francisco Junior College, San Francisco, Calif. *Plant morphology.* Alma, Nebr, Feb. 4, 12. A.B, Nebraska, 34, A.M, 36; Ph.D, California, 41. Lab. instr, Nebraska, 34–36; California, 36–38; *instr. bot, San Francisco Junior Col, 38–* Summer, asst, biol. surv, Nebraska, 36. Development of megagametophyte of Allium cepa; morphology and histogenesis of shoot apex and leaf of Triticum vulgare.

Porter, Prof. William L(orimer), Davidson College, N. C. *Geology.* Warren Co, Ill, 74. A.B, Tarkio Col, 96; A.B, Yale, 00, A.M, 02. Mem. faculty, Tarkio Col, 02–05, 14–20; Gordon Col. (India), 05–10; Austin Col, 20–21; *prof. biol. and geol, Davidson Col, 21–* Y.M.C.A. service, 18–19. A.A; Am. Geog. Soc; Forestry Asn; N. C. Acad. (past pres).

Porter, Dr. William L(yon), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Analytical chemistry.* Juniata, Pa, Nov. 29, 13. B.S, Pa. State Col, 35, commercial fellow, 35–36, M.S, 38, Ph.D, 40. Asst, Pa. State Col, 36–40, research chemist tobacco investigations, 40–41; *asst. chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Summers, anal. chemist, N. Y. Exp. Sta, Geneva, 38, 39. Chem. Soc. Fertility of certain Lancaster County, Pennsylvania, tobacco soils; factors influencing the chemical composition of flue-cured cigarette leaf tobacco.

Porter, Prof. W(illiam) T(ownsend), Harvard Medical School, Boston, Mass. *[1]Physiology.* Plymouth, Ohio, Sept. 24, 62. M.D, St. Louis Med. Col, 85; Kiel, Berlin and Breslau, 87–93; LL.D, Maryland, 07; Sc.D, Washington (St. Louis), 15. Acting supt, St. Louis City Hosp, 86–87; asst. prof. physiol, St. Louis Med. Col, 87–88, prof, 88–93; asst. prof, *Harvard Med. Sch,* 93–98, assoc. prof, 98–06, prof. *comp. physiol,* 06–28, *emer. prof, 28–* Physiology of growth; the circulation; the spinal cord; respiration; muscle; physiological apparatus.

Porterfield, Hugh G, Soil Conservation Service, Amarillo, Texas. *Agronomy.* Hammon, Okla, Oct. 2, 11. A.B, Panhandle Agr. and Mech. Col, 34; Texas Tech. Col, 38. Lab. asst, Exp. Sta, Panhandle Agr. and Mech. Col, 30–34; prin, high sch, Okla, 34; junior erosion specialist, *soil conservation service, U. S. Dept. Agr,* 34–35, junior forester, 36–38, asst. soil conservationist, *research div, Amarillo exp. sta,* 38–42, *assoc. soil conservationist, 42–* Soc. Agron. Revegetation of sand dunes and severely eroded crop lands in the southern Great Plains; crop production; range revegetation and carrying capacities of range land.

Porterfield, Dr. W(illard) M(erritt), U. S. Department of Agriculture, Washington, D. C. *Plant physiology, Cytogenetics.* Harrisburg, Pa, Sept. 8, 93. A.B, Franklin and Marshall Col, 14, A.M, 15; Ph.D, Columbia, 29. Instr. biol, St. John's, Shanghai, 16–21, prof, 22–23; Exp. Sta, Vermont, 34; research collaborator, N. Y. Bot. Garden, 36–38; *asst. botanist and director N. Y. research, soil conservation service, U. S. Dept. Agr, 38–* Biol. lab, Cold Spring Harbor, 14. Torrey Bot. Club; N. Y. Acad; Royal Asiatic Soc. (N. China branch). Anatomy and growth of bamboo; Chinese vegetable food plants; cytogenetic studies of incompatibilities and sterilities.

Porteus, Prof. S(tanley) D(avid), University of Hawaii, Honolulu, Hawaii. *Psychology.* Box Hill, Victoria, Australia, 83. Melbourne, 12, D.Sc, 33. Supt, special schs, Victoria, Australia, 12; lecturer exp. educ, Melbourne, 16–17, research scholar and co-director lab. educ. anthrop, 17; director research, N. J. Training Sch, Vineland, 19–25; *prof. clin. psychol. and director clinic, Hawaii, 22–* Leader, Australian Nat. Research Asn. exped, cent. and northwest Australia, 29; exped, Kalahari Desert, S. Africa, 34. Psychol. Asn; Asn. Applied Psychol; fel. Am. Geog. Soc; N. Y. Acad; Royal Soc. Anthropology; mental tests; racial psychology.

Ports, E(arl) G(eorge), 383 E. Mt. Pleasant Ave, Livingston, N. J. *Engineering.* Hanover, Pa, Aug. 14, 01. B.S, Gettysburg Col, 23, M.S, 25. Radio engineer, Bell Tel. Labs, 25–29; research engineer, Int. Communication Labs, Int. Tel. and Tel. Co, 29–31, engineer, Fed. Telegraph Co, 31–33, chief engineer, 33–42; *manager communication products div, Fed. Telephone and Radio Corp, 42–* Radio Eng; Elec. Eng; Standards Asn; Nat. Elec. Mfg. Asn; Aeronaut. Asn. Wave propagation; field strength measuring equipment; single sideband transmitters; frequency measurements; vacuum and mercury vapor tubes; development of radio equipment.

Posey, Prof. Chesley J(ohnston), State University of Iowa, Iowa City, Iowa. *Hydraulics, Structural engineering.* Mankato, Minn, June 12, 06. B.S, B.S. (C. E) and C.E, Kansas; M.S, Illinois, 27. With Harrington, Howard and Ash, Am. Bridge Co. and Ralph Modjeski, 27–29; instr. mech. and hydraul, *Iowa,* 29–34, asst. prof, 34–37, *hydraul. and struct. eng,* 37–40, *assoc. prof, 40–* Assoc. Civil Eng; Eng. Educ; Concrete Inst; Iowa City Eng. Club (pres, 40). Engineering education; hydraulics of steady flow in open channels.

Posey, Prof. C(hesley) J(ustin), University of Kansas, Lawrence, Kans. *Geography.* Troy, Ill, Jan. 26, 73. Illinois, 09; fellow, Chicago, 04–05, 11–12, M.S, 05. Prin, sch, Ill, 95–97; supt. and instr, schs, Ill. and Ind, 00–03; univ. high sch, Chicago, 03–04; head dept, Minn. State Nor. Sch, Mankato, 05–11; instr. geol, Wisconsin, 12–13; asst. prof. *geog,* Minnesota, 13–20; assoc. prof, *Kansas,* 20–40, *prof, 40–* A.A; fel. Am. Geog. Soc. Regional geography.

Posey, G(ilbert) B(radley), 6160 31st St, N. W, Washington, D. C. *Plant pathology.* Riverside, Md, Aug. 9, 91. B.S, Md. Col, 12; fellow, Oregon State Col, 13–14, M.S, 15. Instr, high sch, Ill, 12–13; asst. plant path, Exp. Sta, Oregon State Col, 15–16; sci. asst, office forest path, *U. S. Dept. Agr,* 16–

17, *investigation and control of white pine blister rust, div. blister rust control, bur. plant indust, 18–, senior pathologist, in charge west. dist, 28–* U.S.A, 17–18, lieut. Soc. Foresters. White pine blister rust in the United States; gipsy-moth larvae and white pine blister rust; the identity of a Cronartium on ribes in California; effect of ribes eradication in controlling blister rust; uredinia of Cronartium ribicola on ribes stems.

Posnjak, Dr. E(ugene) W(aldemar), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington 8, D. C. *Physical chemistry.* Moscow, Russia, June 23, 88. Ph.D, Leipzig, 12. Research assoc. physical chem, Mass. Inst. Tech, 12; *chemist, geophys. lab, Carnegie Institution, 13–* Consultant, Nat. Defense Research Cmt, 41– Chem. Soc; Wash. Acad. Colloidal chemistry; geochemistry; equilibrium in salt solutions; structure of crystals; ferromagnetism.

Post, Prof. Arthur H(erman), Montana State College, Bozeman, Mont. *Agronomy.* Dunsmuir, Calif, March 24, 99. B.S, State Col. Wash, 22, M.S, 23; Wisconsin, 31–32. Asst. prof. *agron, Mont. State Col,* 24–29, assoc. prof, 29–37, *prof. and head dept, 37–* Soc. Agron. Soil fertility experiments; crop rotations.

Post, Dr. C(arl) B(randt), Carpenter Steel Co, Reading, Pa. *Metallurgy.* Clarksburg, W. Va, Nov. 30, 09. A.B, West Virginia, 31, M.S, 32; Ph.D, Pa. State Col, 38. Instr. physics, West Virginia, 33; asst. to metallurgist, Weirton Steel Co, 34–37; *research metallurgist and director labs, Carpenter Steel Co, 38–* Soc. Metals; Physical Soc; British Iron and Steel Inst; Verein d. Deutsch. Eisenhuttenleute. Crystal structure; diffusion of gases through metals; cold rolling of strip steel; basic open-hearth control; electric arc furnace melting control; metallurgy of tool, stainless and high speed steels.

Post, Dr. C(harles) Irwin, National Oil Products Co, Harrison, N. J. *Chemistry.* Atlanta, Ga, Sept. 14, 98. B.S, Rutgers, 21; Ph.D, Columbia, 25. Dist. sales manager, *Nat. Oil Products Co,* 25–27, head chemist, 27–29, west. manager, 29–32, manager tanning dept, 32–34, *Vitex dept,* 34–39, *gen. sales manager vitamin divs, 40–* Enzymes; fatty oils; vitamins.

Post, Prof. Emil L(eon), 610 W. 173rd St, New York, N. Y. *Mathematics.* Augustowo, Poland, Feb. 11, 97. B.S, Col. City of N. Y, 17; A.M, Columbia, 18, Ph.D, 20. Lecturer and instr. exten. teaching, Columbia, 18–20, instr, 21–22; Cornell, 24; teacher, high schs, New York, 27–32; instr. *math, Col. City of N. Y,* 32, 35–38, *asst. prof, 38–* A.A; Math. Soc; Math. Asn; Asn. Symbolic Logic. Functional equations; calculus of operations; group generalizations; symbolic logic.

Post, Prof. Howard W(illiam), 94 N. Ellicott St, Williamsville, N. Y. *Organic chemistry.* Syracuse, N. Y, Sept. 18, 96. B.S, Syracuse. 19, M.S, 21; Ph.D, Hopkins, 27. Instr. *chem,* Syracuse, 20–22; instr. and *asst. prof, Buffalo, 23–* Chem. Soc; Inst. Chem. Nitration of aromatic amines; keto-enol isomerism in the acetoacetic ester series; ortho esters.

Post, Prof. Kenneth, Cornell University, Ithaca, N. Y. *Floriculture.* Michigan, Nov. 24, 04. B.S, Mich. State Col, 27; M.S, Iowa, 28; Ph.D, Cornell, 38. Exten. floriculturalist, Mich. State Col, 28–30; instr. *floricul, Cornell,* 30–38, asst. prof, 38–40, *assoc. prof, 40–* Soc. Hort. Sci; Soc. Plant Physiol. Light, temperature, nutrients and water effects on the growth and flowering of greenhouse plants.

Post, Dr. Lawrence T(yler), Washington University, St. Louis, Mo. *Ophthalmology.* St. Louis, Mo, Dec. 25, 87. A.B, Yale, 09; M.D, Hopkins, 13. Surg. intern, Hopkins Hosp, 13–14; assoc. surgeon, South Baltimore Eye, Ear, Nose and Throat Hosp, 14–15; practicing physician, St. Louis, Mo, 15–43; *prof. clin. ophthal. and head dept, Washington (St. Louis), 33–* Ophthalmologist in chief, Barnes Hosp; St. Louis Children's Hosp. Pres, Ophthalmic Pub. Co. Ed, 'Am. Jour. Ophthal,' 24–43, ed. in chief, 31–40. Mem. subcmt. ophthal, cmt. surg, Nat. Research Council, 41–43. M.C, U.S.A, 17–19, major, 19–27, lieut. col, Res.C, 27–32. Fel. Col. Surg; Acad. Ophthal. and Otolaryngol; Am. Med. Asn. (chairman ophthal. sect); Ophthal. Soc; South. Med. Asn. (past chairman ophthal. sect).

Post, R(ichard) H(owell), 84 Bancroft Road, Northampton, Mass. *Anthropology.* New York, N. Y, Jan. 17, 04. B.S, Princeton, 26; Santa Fe Museum scholar, 30; Ph.D, Harvard, 36. Dept. genetics, Carnegie Institution, 27–28; instr. zool, Smith Col, 30–41; v. consul, Montevideo, Uruguay, 41–43; *consul, Mendoza, Argentina, 43–* Summer, investigations of techniques in anthropom, Europe, 29. A.A; Asn. Physical Anthrop. Physical anthropology; standardization of anthropometric techniques; morphological asymmetry in man.

Poste, Emerson P(eck), 309 McCallie Ave, Chattanooga, Tenn. *Chemical engineering.* Naples, N. Y, July 6, 88. B.S, Carnegie Inst. Tech, 10, Chem.E, 18. Director labs, Elyria Enameled Products Co, and Elyria div, Pfaudler Co, Elyria, Ohio, 12–25; chem. engineer, Chattanooga Stamping and Enameling Co, *Chattanooga, Tenn,* 25–31; *operator, Emerson P. Poste Chem. Lab, 31–* Chem. Soc. (pres, southeast Tenn. sect, 34–38, chairman, 38); Chem. Eng; Soc. Test. Mat; fel. Ceramic Soc. (chairman, enamel div, 19, pres, 30–31); Chattanooga Eng. Club (pres, 29). Manufacture and use of vitreous enamels and enameled equipment; fuels; metallurgy; carbonated beverages; minerals; air pollution.

Postel, Prof. A(lbert) Williams, University of Pennsylvania, Philadelphia, Pa. *Petrology, Petrography, Structure.* New York, N. Y, Jan. 5, 09. A.B, Pennsylvania, 31, M.S, 35, Ph.D, 39; Royal Sch. Mines, 31–32; Bryn Mawr Col, 36–39. Instr. *geol, Pennsylvania,* 34–41, *asst. prof, 41–* A.A; Miner. Soc; Pa. Acad; N. Y. Acad; Phila. Geol. Soc. (v. pres, 38–41). Metamorphic and igneous petrology and structure in the Philadelphia area; petrology and structure of igneous and metamorphic rocks.

Potapenko, Dr. Gennady W(assilievitch), Aircraft Specialties Co, Los Angeles, Calif. *Physics.* Kimry, Russia, March 25, 94. Grad, Univ. Moscow, 17, A.M, Ph.D, 20. Rockefeller Foundation fellow, Calif. Inst. Tech, 30–31, Carnegie Corp. fellow, 31–32. Asst. physics, Inst. Petrography, Moscow, 14–17; docent, Univ. Moscow, 20–32; *assoc. prof, Calif. Inst. Tech, 32–; tech. director, Aircraft Specialties Co, 43–* Lecturer, Mining Acad, Moscow, 19–27, prof. and director, inst. physics, 27–32; prof, Univ. Jaroslavl, 24–29; research assoc, Berlin, 27; visiting lecturer, Göttingen, 29; prof, Agr. Acad, Moscow, director inst. physics and meteorol. observatory, 29–31. Silver medal, Moscow, 14; Russian Sci. Council prize, 28. A.A; fel. Physical Soc; Geophys. Union. Ultrashort waves; applied geophysics.

Pote, Prof. F(rank) W(alter), 15 Chester Ave, Medford, Mass. *Physics.* Stroudsburg, Pa, Feb. 18, 83. B.S, Rose Polytech, 06; fellow, Ohio State, 09–10, M.S, 29. Asst. *physics,* Rose Polytech, 08–09; instr, Ohio State, 10–12; *Tufts Col,* 12–18, *prof, 18–* Physical Soc.

Poth, Dr. Edgar J(acob), Johns Hopkins University School of Medicine, Baltimore, Md. *Physical chemistry.* Seguin, Texas, Feb. 1, 99. A.B, Texas, 22, A.M, 23; Ph.D, California, 25; M.D, Hopkins, 31. Tutor org. chem, Texas, 22–23; teaching fellow chem, California, 23–25, instr, 25–26; fellow, Petrol. Inst, 26–27; instr. pharmacol, sch. med, Hopkins, 27, asst, 27–30, substitute intern, 30–31; surg. house officer, Lane Hosp, San Francisco, 31–32; asst. surg, sch. med, Stanford, 32–36, instr, 36–39, asst. prof, 39, res. surg, univ. hosps, 35–36; prof. surg, sch. med, Arkansas, and surgeon in chief, univ. hosp, 39–40; instr. *surg, sch. med, Hopkins,* 40–41, *assoc, 41–, assoc. surgeon, Hopkins Hosp, 41–* Nat. research fellow, 32–34; chief surgeon, Bahrein Petrol. Co, 36–37; attending visiting surgeon, San Francisco Hosp, 37–39; surgeon, Standard Oil Co, Calif, 38–39. Summers, nat. research fellow, 28, research assoc, 29, 30. Chem. Soc. Chemical studies; semicarbazides; semicarbazones; microanalysis; nitrogen bases in petroleum; surgery of bowel, biliary tract, empyema, pancrease, skin grafting, peritonitis, intestinal antisepsis by succinylsulfathiazole and phthalylsulfathiazole; pharmacology; mydriatics; sulfonamides.

Potratz, Dr. Herbert A(ugust), Beverly, Mass. *Chemistry.* Sumner, Iowa, July 2, 02. B.S, Illinois, 28; M.S, Colorado, 31, Ph.D, 35. Instr. *chem,* Blackburn Col, 28–29; asst, *Colorado,* 29–36, instr, 36–38, *asst. prof, 38–* Chem. Soc; Colo-Wyo. Acad. Indium; organic reagents.

Potsdamer, Louis S(amter), 2201 Chestnut St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Oct. 16, 91. B.S, Pennsylvania, 13, Chem.E, 18. Toch Brothers, 13–18; Chem. Pigments Corp, 20–22; *Industr. By-Products and Research Corp, 24–* C.W.S, U.S.A, 18–19. Chem. Eng; Franklin Inst; Textile Inst. England. Barium; sodium prussiate; tung oil; textiles.

Pottebaum, Sister M. Edward, Briar Cliff College, Sioux City, Iowa. *Organic chemistry.* Dubuque Co, Iowa, May 28, 03. A.B, Iowa, 33, M.S, 34; Ph.D, Notre Dame, 42. *Head dept. chem, Briar Cliff Col,* 34–39, *41–* A.A; Chem. Soc; Iowa Acad. Reaction of certain primary amines with phenyl isothiocyanate and o-tolyl isothiocyanate; esterification of amino alcohols.

Pottenger, Dr. Francis M(arion), The Pottenger Sanatorium and Clinic, Monrovia, Calif. *Medicine.* New Baltimore, Ohio, Sept. 27, 69. Ph.B, Otterbein Col, 92, Ph.M, 97, A.M, 05, hon. LL.D, 09; Med. Col. of Ohio, 92–93; M.D, Cincinnati Col. Med. and Surg, 94; Vienna, Berlin, Munich and London, 94, 05, 07, 09. Asst. chair surg, Cincinnati Col. Med. and Surg, 94–95; lecturer diseases chest and climat, dept. med, *Southern California,* 03–04, clin. prof. *med, sch. med,* 05–09, 14–20, 31–43; *emer. prof,* 42–; *pres. and med. director, Pottenger Sanatorium and Clinic, 03–* Trustee, Otterbein Col, 24– Consultant, Los Angeles County Hosp, 33–; Collis P. and Howard Huntington Mem. Hosp, Pasadena, 36– Chairman tuber. advisory cmt, Dept. Charities, Los Angeles County, 34–; v. pres, State Board Pub. Health, Calif, 40– Founder and pres, South. Calif. Anti-Tuber. League, 03–06. A.A; Am. Med. Asn; Therapeut. Soc. (pres, 14); Asn. Study Int. Secretions (sec'y, 17–35, pres, 35–37); Tuber. Asn. (director, 30–34); fel. Col. Physicians (councilor, 15–23, regent, 23–29, 33–39, pres, 32); Clin. and Climat. Asn; Am. Heart Asn; Pub. Health Asn; Trudeau Soc. (pres, 24); Eugenics Soc; Cong. Int. Med. (councilor, 16–23); Acad. Polit. and Social Sci; Col. Chest Physicians; Sci. League Amer; Miss. Valley Med. Asn. (pres, 17–19); Calif. Tuber. Asn. (director, 30–40, pres, 31); South. Calif. Med. Soc. (pres, 12); Pacific Interurban Clin. Club (chairman, 32); Pacific Geog. Soc. (regent, 29–33); Los Angeles County Med. Asn. (pres, 06); Los Angeles Acad. Med. (pres, 23); Los Angeles Tuber. and Health Asn. (director, 24–, pres, 39–41); Trudeau Soc. Los Angeles (pres, 12, 35); hon. mem. Tuber. Soc. Scotland; Int. Union against Tuber. Diseases of the chest; visceral neurology; allergic diseases; tuberculosis; suppurative diseases of the lung; asthma; endocrinology; muscle spasm and degeneration in intrathoracic inflammation and light touch palpation.

Potter, Alden A(rchibald), Box 181, Route 3, Bethesda 14, Md. *Economics.* Minneapolis, Minn, Oct. 12, 84. B.Agr, Minnesota, 09. Asst. cereal pathologist, bur. plant indust, U. S. Dept. Agr, 09–20; special agent, div. agr, bur. census, U. S. Dept. Commerce, 20–21. A.A; Econ. Asn. Economic theory.

Potter, Dean A(ndrey) A(braham), Purdue University, Lafayette, Ind. *Engineering.* Vilna, Russia, Aug. 5, 82. B.S, Mass. Inst. Tech, 03; hon. E.D, Kans. State Col, 25; hon. Sc.D, Northeastern, 36. Design, construction and research, Gen. Elec. Co, 03–05, 13; asst. prof. mech. eng, Kans. State Col, 05–10, prof, 10–20, *dean eng. and director eng. exp. sta,* 13–20; *Purdue, 20–* Consulting engineer and advisory ed, companies, 10–; advisory ed, Ginn and Co, Boston, 24–31; consultant, Nat. Resources Cmt, 36, 38; chairman advisory cmt. war training in eng, science and management and expert consultant, U. S. Office Educ, 40–; exec. director, Nat. Patent Planning Cmn, 42– Advisory board, Asn. Am. Railroads, 34– Mem. land-grant col. surv, U. S. Bur. Educ, 28–31. Lamme medal, Soc. Prom. Eng. Educ, 40; Washington award, West. Soc. Engineers, 43. Chairman cmt. eng. schs, Eng. Council Professional Develop, 39–41. Assoc. mem, Naval Consulting Board, 17–19; dist. educ. director, War Dept, 17–18. A.A; Mech. Eng. (power test cmt, 20–32, cmt. on relation with cols, 25–30, chairman, Indianapolis sect, 25, main research cmt, 29–33, pres, 33); Eng. Educ. (v. pres, 20, pres, 24); Eng. Council (pres, 36–38); Eng. Foundation (trustee); hon. mem. Asn. Power Eng; Asn. Land-Grant Cols. (sec'y, 14–19, v. pres. and acting pres, 22); Ind. Eng. Soc. (pres, 23); Kans. Eng. Soc. (pres, 18). Power plant engineering; thermodynamics; fuels; engineering education.

Potter, Prof. C(lifford) M(iller), Box 112, Alfred. N. Y. *Physics.* West Union, N. Y, Oct. 20, 94. B.S, Alfred, 18, M.S, 24; Michigan, 26; Cornell, 29. Instr. indust. mech, *Alfred,* 20–22, asst. prof. and instr. math, 22–26, *prof. physics, 26–* A.A; Physical Soc; Asn. Physics Teachers. High frequency phenomena.

Potter, Prof. David, Clark University, Worcester, Mass. *Biology.* Concord, Mass. B.S, Mass. Col, 16, M.S, 23; Ph.D, Harvard, 31. Asst. bot. Mass. Col, 21–23; instr. *biol,* Albion Col, 23–24; asst. prof, *Clark,* 24–31, assoc. prof, 32–38, *prof, 38–* Summer, Bowdoin-MacMillan Arctic exped, 34; MacMillan Arctic exped, 37. A.A; Sullivant Moss Soc; Soc. Plant Taxon; New Eng. Bot. Club; Worcester Soc. Nat. Hist. (trustee); Boston Soc. Nat. Hist; Explorers Club. Plant morphology; taxonomy and geographic distribution of plants.

Potter, Dr. D(wight) J(ames), P. O. Box 67, Allendale, N. J. *Organic chemistry.* Iowa City, Iowa, July 15, 11. A.B, Iowa, 30, M.S, 31; Ph.D, Harvard, 36. Asst. chem, Harvard, 32–33; org. chem, Radcliffe Col, 33–36; *research chemist,* Solvay Process Co, 36–38; *Colgate-Palmolive-Peet Co, 38–* Chem. Soc. Aromatic chemistry; high-pressure syntheses; synthetic detergents and wetting agents.

Potter, Dr. Edith L(oulse), University of Chicago, Chicago, Ill. *Pathology.* Clinton, Iowa, Sept. 26, 01. B.S, Minnesota, 23, M.D, 25, M.S, 32, Ph.D, 34; Vienna, Austria, 27. Adviser, health service, Minnesota, 28–31, teaching fellow path, 31–34; Douglas Smith fellow path. and instr. obstet. and gynec, *Chicago,* 34–41, *asst. prof. path, dept. obstet. and gynec, 41–* Private practise, 28–31. Am. Med. Asn; Asn. Path. and Bact; Soc. Pediat. Research. Pathology of the fetus and newly born infant; fetal and neonatal deaths.

Potter, Dr. E(lmer) Vernon, 1600 E. First South St, Salt Lake City, Utah. *Metallurgy.* Baltimore, Md, April 29, 08. B.E, Hopkins, 28, D.E. 32. *Junior elec. engineer,* geophys. sect, *U. S. Bur. Mines,* 30–33, *metal. sect, 35–* Geophys. Union. Applied geophysics; physical metallurgy; radio frequency measurements.

Potter, E(rmine) L(awrence), Oregon State Agricultural College, Corvallis, Oregon. *Animal husbandry.* Turney, Mo, April 13, 84. B.S, Mont. State Col, 06; B.S.A, Iowa State Col, 08, M.S.A, 20; Stanford; California. Prof. animal husbandry, *Oregon State Col,* 08–33, *chief div. agr. econ, 33–* Live stock; economics.

Potter, Dr. Eugene B(reckenridge), Mason Clinic, Seattle, Wash. *Pathology.* Omaha, Nebr, March 2, 99. M.D, Michigan, 25. Intern, univ. hosp, Michigan, 25–26, instr. surg, med. sch, 26–30, asst. prof, 30–34, assoc. prof, 34–36; *surgeon, Mason Clinic, Seattle, 36–* Clinical pathology.

Potter, Dr. Franklin C(arl), Ohio University, Athens, Ohio. *Geology, Paleontology.* Baraboo, Wis, July 9, 02. Ph.B, Wisconsin, 26; M.S, Northwestern, 28; Ph.D, Chicago, 33. Asst, Northwestern, 26–28; lecturer, Field Museum Nat. Hist, 28–35; regional geologist, Nat. Park Service, 35–36, assoc. geologist, 36–38; *instr. geol, Ohio (Athens), 38–; lieut, Air Corps, U. S. Army, 43–* Paleont. Soc; Ill. Acad. Ordovician starfish and scolecodonts; Mississippian starfish; snow dunes; gypsum sands.

Potter, Dr. F(rederick) C(lyde), 826 Chestnut Blvd, Cuyahoga Falls, Ohio. *Pathology.* Wyoming Co, Pa, July 10, 82. M.D, Medico-Chirurg. Col. Phila, 09. Asst. physician, Norristown State Hosp, 10–13; pathologist, Cent. Ind. Hosp. Insane, 13–18; asst. dept. nervous and mental diseases, sch. med, Indiana, 13–16, assoc, 16–18; pathologist, Mich. State Hosp, Kalamazoo, 19–21; asst. med. director, Mercer Sanitarium, Pa, 21–23; director clin. lab, People's Hosp, Akron, 23–40; *Med. Corps, U. S. Army, and chief lab. service, Billings Gen. Hosp, Ft. Benjamin Harrison, 40–, lieut. col.* Pathologist, Children's Hosp, 29–33, St. Thomas Hosp, 29–40. U.S.A, 18–19. A.A; Soc. Clin. Path; fel. Am. Med. Asn; fel. Col. Physicians; fel. Psychiat. Asn; Soc. Bact; Ohio Path. Soc. (pres, 35); hon. mem. Ind. Path. Soc; Summit Co. Med. Asn. (pres, 29). Spinal fluid in mental diseases; clinical pathology.

Potter, Prof. Geo(rge) E(dwin), Agricultural and Mechanical College of Texas, College Station, Texas. *Zoology, Embryology.* Fairport, Kans, Nov. 18, 98. B.S, Ottawa, (Kans), 21; M.S, Iowa, 23, Ph.D, 27. Asst. *zool,* Iowa, 21–23, instr, 23–27; prof. and head dept, Baylor, 27–39; *prof. biol. and pre-med. adviser, Agr. and Mech. Col. Texas, 39–* A.A; Texas Acad; Iowa Acad. Ichthyology; development of the scales of the bluegill; ecology of the garpike in Lake Okoboji, Iowa; swim-bladder in Lepidosteus platystomus; respiration of Lepidosteus; food, scales, respiration and embryology of fish; respiration of horned lizard; fish of Texas; endocrine studies on horned lizard.

Potter, Dr. George F(rederick), U. S. Department of Agriculture, Bogalusa, La. *Horticulture.* Madison, Wis, Aug. 7, 91. B.S.A, Wisconsin, 13, M.S.A, 16; Ph.D, Cornell 30. Instr. hort, Wisconsin, 13–18, asst. prof, 18–20; prof, New Hampshire, 20–38; *prin. physiologist, bur. plant indust, U. S. Dept. Agr, 38–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Culture of tung orchards; improvement of tung trees.

Potter, Prof. Howard W(ieland), 70 E. 77th St, New York, N. Y. *Psychiatry.* Union, N. J, Feb. 8, 92. M D, Columbia, 13. Bloomingdale Hosp, White Plains, 16–20; Hudson River State Hosp, Poughkeepsie, 20–21; clin. director, Letchworth Village, Thiells, 21–29; asst. director, N. Y. State Psychiat. Inst. and Hosp, 29–35; assoc. psychiat, col. physicians and surg, Columbia, 28–30, *prof. clin. psychiat,* 30–39; *L. I. Col.*

Med, 39–; practicing psychiatrist, 34– Consulting psychiatrist, L. I. Col. Hosp, 38–; Englewood Hosp, N. J, 38–; Rockland State Hosp, 39–; consulting neurologist, N. Y. Neur. Inst. 29–; Nyack Hosp, 35– Psychiat. Asn; Am. Med. Asn; Asn. Study Feeble-Minded (sec'y-treas, 25–31, pres, 32); Nat. Cmt. Mental Hygiene (director); N. Y. Psychiat. Soc; N. Y. Soc. Clin. Psychiat; N. Y. Acad. Med; N. Y. State Charities Aid Asn. (mental hygiene div). Dementia praecox; heredity and non-heredity in mental defects; endocrinology and mental deficiency; erotism in idiots; circulatory rating in mental defectives; syphilitic mental defectives; prevention, classification, and treatment of problem children; traumatic neuroses of war.

Potter, Prof. James G(regor), South Dakota School of Mines and Technology, Rapid City, S. Dak. *Physics.* Manhattan, Kans, April 2, 07. B.S, Princeton, 28; M.S, N. Y. Univ, 31; Mass. Inst. Tech, 31–33; Ph.D, Yale, 39. Teaching fellow physics, N. Y. Univ, 28–30; jr. physicist, U. S. Govt. Naval Res. Lab, 30–31; asst. physics, Mass. Inst. Tech, 31–32; instr. math, Armour Inst. Tech, 35–36, *physics,* 36–39, asst. prof, 39–40; *prof, S. Dak. Sch. Mines and Tech, 40–, administrator gen. eng, 40–* A.A; Physical Soc; Eng. Educ. (chairman cmt. physics, 40–); Asn. Physics Teachers; Inst. Physics (physics bldg. fund cmt). Temperature dependence of the work function of tungsten from measurement of contact potentials by the Kelvin method; cathode sputtering of silicon and chromium.

Potter, Dr. J(ames) S(treeter), West Neck Road, Cold Spring Harbor, L. I, N. Y. *Biology.* Quincy, Ill, June 9, 01. B.S, Illinois, 27, M.S, 29, Ph.D, 33. State Dept. Agr, Ill, 21–24; asst. plant breeding and pomol, Illinois, 27–29, 30; *dept. genetics, Carnegie Institution,* 29–30, assoc, 31–33, *investigator, 33–* A.A; Genetics Soc; Bot. Soc; Soc. Study Develop. and Growth. Cytology of Malus species; mouse leukemia; developmental anomalies.

Potter, Dr. Paul D(avid), 614 Division St, Webster, Iowa. *Chemistry.* Webster City, Iowa, Sept. 20, 85. A.B, Wisconsin, 08, A.M, 10; Ph.D, Chicago, 12. Instr. chem, Pa. State Col, 06–10, asst. prof. physical chem, 11–12; chief chemist, Sprague Warner and Co, 12–39; mem. staff, Des Moines Ordnance Plant; *retired.* Compounds of alkali metals with tellurium; equilibrium in the system water-arsenic pentoxid.

Potter, Prof. P(ercival) B(utton), Virginia Polytechnic Institute, Blacksburg, Va. *Agricultural engineering.* Hazelton, Kans, Dec. 89. B.S. (C.E), Kans. State Col, 11, B.S, (Agron), 16, A.E, 30. Asst, Kans. State Col, 10–11; instr, Ohio State, 16–19, asst. prof, 19–28; *Va. Polytech,* 28–31, *assoc. prof. agr. eng, 32–* Agr. Eng; Va. Acad. Household engineering.

Potter, Dr. Peter, 345 W. Juniper St, San Diego, Calif. *Anatomy.* Dade Co, Mo, Nov. 24, 75. B.S, Missouri, 01, M.S, M.D, 03. Instr, acad, Mo, 96–99; high sch, 99–00; asst. anat, Missouri, 01–03; assoc. prof, St. Louis, 03–07; practising surgeon, 07–37; *retired.* Co-ordinator med. service, Office Civilian Defense, San Diego. Board Selective Service, Butte, 17–19; Park and Playground Board, 19–38. Topography of the thoracic and abdominal viscera by the cross-section method; the Comfort test as a method of refraction.

Potter, R(alph) K(imball), 39 Green Village Road, Madison, N. J. *Radio engineering.* Elgin, Ill, Oct. 1, 94. B.S, Whitman Col, 17; E.E, Columbia, 23. *Radio telephone engineer,* dept. develop. and research, Am. Tel. and Tel. Co, New York, 23–34; *Bell Tel. Labs, New York, 34–* A.A; Radio Eng. (paper cmt). Communication.

Potter, Robert D(ucharme), 235 E. 45th St, New York, N. Y. *Physics.* Syracuse, N. Y, Feb. 5, 05. B.S, Buffalo, 27; fellow, Duke, 27–28, A.M, 28. Asst. and instr. physics, N. Y. Univ, 28–32; science ed, New York 'Herald Tribune,' 32–34; news ed. and staff physics writer, Science Service, 34–40; *science ed, 'Am. Weekly,' 40–; instr. gen. science, N. Y. Univ, 42–* Research aid, dept. terrestrial magnetism, Carnegie Institution, 39–40. A.A; Physical Soc; Nat. Asn. Sci. Writers (sec'y, 37, v. pres, 41, pres, 43); Asn. Sci. Workers. Ultra-ionization potentials of gases; rotational spectrum and selective absorbers in the far infra-red; direct current amplifiers; popularization of science for the lay press.

Potter, Rowland S(amuel), Brightford Road, Rochester, N. Y. *Chemistry.* Eng, March 23, 78. City and Guilds of London Finsbury and Cent. Tech. Cols, 96–00. Private asst, Ilford, Ltd, London, England, 01–10; chemist and emulsion maker, Defender P. S. Co, Rochester, N. Y, 11–16; v. pres, Am. P. S. Co, N. J, 17–27; *v. pres. and tech. director, Defender Photo Supply Co, 27–* Optical Soc; Soc. Motion Picture Eng; Photog. Soc. Amer. (v. pres; past pres, Rochester tech. sect); Royal Photog. Soc. Photographic chemistry.

Potter, Dr. T(ruman) S(quire), 5748 Harper Ave, Chicago, Ill. *Preventive medicine.* Minneapolis, Minn, 97. B.S, Chicago, 22; M.D, Rush, Chicago, 26. *Seymour Coman fellow and research assoc. prev. med, Chicago, 28–* Asn. Immunol; A.A; Asn. Path. and Bact. Viability of tubercle bacilli in dry and moist vacuum, and in profound cold; resistance to tuberculosis conferred by dead vaccines; cellular arena of chemotherapy and immunity; ossification of bone marrow in pigeons; bacterial asphyxia.

Potter, Dr. Van R(ensselaer), University of Wisconsin, Madison, Wis. *Biochemistry.* Day Co, S. Dak, Aug. 27, 11. B.S, S. Dak. State Col, 33; Alumni Research Foundation fellow, Wisconsin, 35–36, M.S, 36, Ph.D, 38. Asst. chem, Exp. Sta, S. Dak. State Col, 30–35; asst. biochem, Wisconsin, 36–38; nat. research fellow agr, Stockholm, 38–39; Rockefeller traveling fellow, Sheffield and Chicago, 39–40; Bowman research fellow, dept. oncology, *Wisconsin,* 40–42; *asst. prof, dept. cancer research, 42–* Chem. Soc; Soc. Biol. Chem. Physiological action of selenium; iron and copper in nutrition; vitamins and biological oxidations; mechanism of hydrogen transport; biocatalysts of tumor tissue.

Potter, Dr. Wilbur F(urse), Faculty House 16, University, Miss. *Physiology.* Cherryvale, Kans. A.B, A.M, Kansas, 25, Ph.D, 29; M.D, Rush, Chicago, 39. Instr. physiol, Kansas, 25–29; asst. prof. physiol. and pharmacol, Georgia, 29–31, acting head dept, 30–31; assoc. prof. *physiol,* Georgetown, 31; *prof, Mississippi, 31–* Relationship of guanidine substances to tetany; relation of hormone and parasympathetic effects on liver.

Potts, Dr. Albert M(intz), University of Chicago, Chicago, Ill. *Biochemistry.* Baltimore, Md, June 8, 14. A.B, Hopkins, 34; Ph.D, Chicago, 38. Asst, *Chicago,* 38–42, *research assoc. and instr. biochem, 42–* A.A; Chem. Soc; Asn. Sci. Workers. Sterols; vitamin D; chromatographic adsorption; posterior pituitary hormones; cellular metabolism.

Potts, Prof. Arthur E(dward), 1011 College St, Saskatoon, Sask. Can. *Dairying.* England, 90. B Sc, Edinburgh, 12; M.S.A, Cornell, 14. Asst. *dairying,* Cornell, 13–14; instr, Iowa State Col, 14–15; asst. prof. and *prof, Saskatchewan, 19–; Col. Inf, Can. Army, 39–* C.E.F, 15–19, col, 21st Can. Inf. Brigade. Manufacturing methods for butter and cheese, especially effects of storage conditions on keeping quality.

Potts, Dr. Hugh E(ustis), Biochemical Research Foundation, Newark, Del. *Biology.* Dover, N. J, Oct. 14, 02. Litt.B, Rutgers, 25; Schiefflin scholar, N. Y. Univ, 36–37, M.S, 37, Ph.D, 40. Teaching fellow, N. Y. Univ, 37–40, asst. instr, 40–41; *biologist, Biochem. Research Foundation, Franklin Inst, 41–* Post-adrenalectomy diuresis; endocrinology; anatomy and morphology of the hypophysis of several species of ovoviviparous poeciliids.

Potts, Dr. J(ohn) C(alvin), 1024 N. Halagueno St, Carlsbad, N. Mex. *Physical chemistry.* St. Louis, Mo, 06. B.S, California, 30, M.S, 32, Ph.D, 35. With food and drug admin, U. S. Dept. Agr, 36–37; gen. research labs, Owens-Ill. Glass Co, 37–42; *research div, Int. Minerals and Chem. Corp, 42–* A.A; Chem. Soc. Gaseous reactions; physical properties of glass; glass melting process; hydrous calcium silicates; phase equilibria in salt solutions.

Potts, Dr. Louis M(axwell), Teletype Corp, 1400 Wrightwood Ave, Chicago, Ill. *Physics.* Canonsburg, Pa, Oct. 30, 76. A.B, Washington and Jefferson Col, 96, hon. Sc.D, 35; Ph.D, Hopkins, 00. Teacher, high sch, Pa, 96–97; asst, Hopkins, 99–00; elec. engineer, Rowland Telegraphic Co, 00–02, constructing engineer, 02–04, chief engineer, 04–10; Universal Telegraphic Co, 10–15; Universal Machine Co, 15–20; engineer, West. Elec. Co, 20–25; Bell Tel. Labs, New York, 25–28; *research engineer, Teletype Corp, 28–* A.A; Physical Soc; Elec. Eng. (sec'y, Baltimore sect, 09–20); Soc. française de Physique. Measurements of alternating currents by the electrodynamometer; printing and machine telegraphs.

Potts, Roy C(hester), 210 Maple Ave, Washington, D. C. *Agricultural economics.* Washington, Mich, May 21, 81. B.S, Mich. State Col, 06. Prof. dairying, Okla. Agr. and Mech. Col, 06–15; marketing specialist, agr. marketing service, U. S. Dept. Agr, 15–43; *pres. and gen. manager, Indust. Royalties,*

Inc. and manager, Roy C. Potts Associates, 43– Official del, World's Dairy Cong, London, 28. Dairy Sci. Asn; Poultry Sci. Asn. Standardization, grading and marketing of dairy and poultry products.

Potts, Samuel F(rederick), 56 Hillhouse Ave, New Haven, Conn. *Physiology.* Crawford, Miss, June 9, 00. B.S, Miss. State Col, 21; Exp. Sta. fellow, Maryland, 22–24, M.S, 24; Ohio State, 24–25. Asst. exten. entomologist, State Dept. Entom, La, 21–22; field asst, bur. entom, U. S. Dept. Agr, 24; asst. zool, Ohio State, 24–25; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 26–27, asst. entomologist, 27–40, *assoc. entomologist, 40–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. Toxicology.

Potts, Prof. W(illiam) M(c Daniel), Agricultural and Mechanical College of Texas, College Station, Texas. *Chemistry.* Colony, Kans, April 26, 92. B.S, Chicago, 21, M.S, 27, Ph.D, 37. Teacher, high sch, Mo, 22–24; Butte, Mont, 24–26; instr. *chem, Agr. and Mech. Col. Texas,* 26–35, asst. prof, 35–37, assoc. prof, 37–38, *prof, 38–,* research prof, Exp. Sta, 40, 41. A.A; Chem. Soc. Organic chemistry; biological chemistry; ferric chloride catalyzed reactions; drying oils; converting cottonseed oil into a drying oil; oils for drying properties; damage to eggs by feeding cottonseed products.

Potvin, Prof. Roger, Laval University, Quebec, Que, Can. *Physical chemistry, Metallurgy.* St. Boniface, Man, Can, Jan. 17, 11. B.A, Laval, 32, B.S.A, 36, Nat. Research Council Can. scholar, 36–39, M.Sc, 37; Ph.D, McGill, 39. Mem. dept. physical chem, Nat. Research Council Can, 39–40; physical metal, Bur. Mines, Ottawa, 40–42; *asst. prof. electrometal. and physical metal, Laval, 42–* Soc. Metals; Can. Inst. Chem. Photochemistry; physical metallurgy; electrometallurgy; powder metallurgy; x-ray analysis; thermodynamics; hard carbides.

Potzger, Dr. J(ohn) E(rnest), Butler University, Indianapolis, Ind. *Ecology, Plant physiology.* Presque Isle Co, Mich, July 31, 86. A.B, Butler, 27, A.M, 31; Ph.D, Indiana, 32. Instr. *bot, Butler,* 32–37, asst. prof, 37–39, *assoc. prof, 39–* Summers, field botanist, geol. and nat. surv, Wisconsin, 40; Am. Philos. Soc. grant, 40. Bot. Soc; Ecol. Soc; Sullivant Moss Soc; Cent. Asn. Sci. and Math. Teachers (ed. gen. biol. sect, 'Sch. Sci. and Math,' 40–); Wis. Acad; Ind. Acad. (chairman, library cmt, 37). Plant ecology; pollen analysis; microclimate; forest survey.

Pough, Dr. Frederick H(arvey), 538 E. 89th St, New York, N. Y. *Mineralogy.* Brooklyn, N. Y, June 26, 06. B.S, Harvard, 28, Ph.D, 35; M.S, Washington (St. Louis), 32. Asst. curator, *Am. Museum Nat. Hist,* 35–41, acting curator, 41–43, *curator, 43–* Miner. Soc. Morphology of phenacite; mineral paragenesis.

Poullot, Dean Adrien, Laval University, Quebec, Que, Can. *Mathematics.* Saint-Jean, Can, Jan. 4, 96. B.A, Laval, 15, M.A, 28; B.A.Sc, Montreal, 19; M.Sc, Paris, 27; LL.D, Ottawa, 40. Civil engineer, Que, 20–23; lecturer math, *Laval,* 22–24, *prof. differential and integral calculus, 24–,* sec'y faculty science, 38–40, *director dept. math, 39–, dean faculty science, 40–* Governor, Can. Broadcasting Corp, 39– Math. Soc; Soc. math. de France. Education in the Province of Quebec with suggestions for reforms.

Poull, Dr. L(ouise) E(lizabeth), Hotel Benjamin Franklin, 222 W. 77th St, New York, N. Y. *Psychology.* Port Washington, Wis, Nov. 19, 76. B.S, Columbia, 17, A.M, 19, Ph.D, 22. Psychol. examiner, ungraded classes, New York, 17–20; psychologist, City Dept. Hosps, 20–40. Instr, exten. div, Columbia, 22–40. Summer, lectures and clinic, Wash. State Nor. Sch, Ellensburg, 19. Psychol. Asn; N. Y. Asn. Consulting Psychol. (exec. cmt, 23, chairman, cmt. standards, 30–, pres, 34). Interests and intelligence; truants; intelligence quotients; practise effects; measures of social competence; mental age growth limit.

Poulson, Prof. D(onald) F(rederick), Yale University, New Haven, Conn. *Genetics.* Idaho Falls, Idaho, Oct. 5, 10. B.S, Calif. Inst. Tech, 33, Ph.D, 36. Asst. embryol, Carnegie Institution, 36–37; instr. *biol,* Osborn zool. lab, *Yale,* 37–40, *asst. prof, 40–* A.A; Soc. Nat; Soc. Zool; Genetics Soc; Conn. Acad. Effects of chromosomal deficiencies upon embryonic development; genes and development; insect embryology; cytology in relation to genetics.

Poulson, Prof. M(artin) Wilford, 866 N. Second E. St, Provo, Utah. *Psychology.* Pleasant Grove, Utah, Nov. 21, 84. A.B, Brigham Young, 14; A.M, Utah, 19; Chicago; California; Stanford. Instr. educ, *Brigham Young,* 10–16, asst. prof, 16–22, assoc. prof. *psychol,* 22–23, *prof. and head dept, 23–* Assoc. Psychol. Asn; assoc. Asn. Mental Deficiency; Utah Library Asn. (pres, 22); fel. Utah Acad. (v. pres, 36, pres, 38). Eyestrain in relation to reading; effect of different degrees of speed upon accuracy in the acquisition of skill; psychology of the background of early Mormonism; psychology in religious education.

Poulter, Dr. Tho(ma)s C(harles), Armour Research Foundation, Chicago, Ill. *Physics.* Salem, Iowa, March 3, 97. B.S, Iowa Wesleyan Col, 23, Sc.D, 35; Iowa, 31; Ph.D, Chicago, 33. Asst. chem, Chicago, 23–25; head dept, Iowa Wesleyan Col, 25–27, prof. physics and head dept, 27–33, head div. physical sciences, math. and astron, 33–36; *sci. director, Armour Research Foundation, 36–; mem, Nat. Defense Research Cmt.* Guggenheim Mem. Foundation fellow, 33–34. Summer, lecturer, state univs, 27. Midwest Meteor Asn. exped, Ariz, 32; 2nd command and senior scientist, Byrd Antarctic exped, 33–35. Special gold medal, Nat. Geog. Soc, 37; congressional medal, 38. U. S. Submarine C-4, Panama, 18–19; lieut. commander, N.R.C, 36. A.A; Physical Soc; Seismol. Soc; Chem. Soc; Midwest Meteor Asn; Iowa Acad. Organic chemistry; electrical, chemical, physical and optical effects of extremely high pressures; antarctic meteor and auroral phenomena; geophysics; glaciology; seismology; terrestrial magnetism.

Pound, Dr. Roscoe, Harvard University, Cambridge, Mass. **)Botany.* Lincoln, Nebr, Oct. 27, 70. A.B, Nebraska, 88, A.M, 89, Ph.D, 97, LL.D, 13; Harvard Law Sch, 89–90; LL.D, Michigan, 13, Chicago and Missouri, 16, Brown, 19, Harvard, 20, Cambridge, 22, Union (N. Y), 23, Pittsburgh, 26, Colorado, 27, George Washington, 28, California, 29, Cincinnati, 33, Rutgers, 41; L.H.D, Boston, 33; J.U.D, Berlin, 34. Asst. bot, Nebraska, 88–89; director, Nebr. Bot. Surv, 92–03; judge, Supreme Court, Nebr, 01–03; dean col. law, Nebraska, 03–07; prof. law, Northwestern, 07–09; Chicago, 09–10; *Harvard,* 10–15, Carter prof. jurisprudence, 15–37, dean law sch, 15–36, *univ. prof, 37–* Ed, 'Ill. Law Rev,' 07–09. A.A; Bot. Soc; Micros. Soc; Ecol. Soc; Am. Bar Asn; Judicature Soc. (director); Am. Acad; cor. fel. British Acad; for. fel. Royal Soc. Naples; hon. fel. Royal Acad. Palermo; Acad. int. de Droit comparé; Inst. int. de Droit pub. Phytogeography.

Pound, Prof. V(ivian) Ellsworth, 190 Capen Blvd, Buffalo, N. Y. *Mathematics, Physics.* Ridgeway, Ont, Can, June 21, 85. B.A, Toronto, 07, M.A, 08, Ph.D, 13. Demonstrator physics, Toronto, 07–12; lecturer, Queen's (Can), 12–17; manager, Ridgeway Milling Co, Ltd, 17–22; instr. *math, Buffalo,* 22–25, asst. prof, 25–28, *prof, 29–* Math. Soc; Math. Asn. Alpha rays from polonium; penetrability of the beta rays of radium; radioactive lead.

Povah, Dr. Alfred Hubert (William), 143 Elmhurst Ave, Detroit 3, Mich. *Botany.* Detroit, Mich, March 25, 89. A.B, Michigan, 12, fellow, 15–16, Ph.D, 16. Instr. bot, Michigan, 16–17; special lecturer forest mycol, N. Y. State Col. Forestry, Syracuse, 17–18, asst. prof. forest bot, 18–21; assoc. prof. plant path. and assoc. plant pathologist, Ala. Polytech, 21–22; asst. prof. bot, Northwestern, 22–25, assoc. prof, 25–29; asst. prof, Cincinnati, 29–30; asst, Harvard, 30–31; park naturalist, Yellowstone Park, 31; asst. director freshman col, Wayne, 34–35, community cols, 36–37; *teacher science,* Cent. High Sch, *Detroit,* 37–39, *Denby High Sch, 39–* Summers, cryptogamic botanist, Mich. Biol. Surv, 14; botanist, Isle Royale Surv, 30. A.A; Phytopath. Soc; Mycol. Soc; Mich. Acad. Mucoraceae; forest pathology; mycology.

Povitzky, Dr. Olga R(aissa), 235 E. 22nd St, New York, N. Y. *Bacteriology.* Maryampol, Russia, 77. Gym, Russia; M.D, Woman's Med. Col. of Pa, 01; Dr.P.H, N. Y. Univ, 24. *Bacteriologist, bur. labs, Health Dept, New York, 12–* A.A; Soc. Bact; Asn. Immunol; Pub. Health Asn; Woman's Med. Asn; N. Y. Acad. Med. Influenza; pertussis; scarlet fever; glanders; diphtheria; toxins; toxoids; antitoxins; Ramon flocculation test.

Powdermaker, Dr. Hortense, Queen's College, Flushing, N. Y. *Anthropology.* Philadelphia, Pa, Dec. 24, 01. A.B, Goucher, 19; Ph.D, London, 28. Nat. research fellow, Am. Museum Nat. Hist. and Yale, 30–31; Social Science Research Council fellow, 31–34; asst. anthrop, inst. human relations, Yale, 34–35, research assoc, 35–37; instr. social sciences and *asst. prof. anthrop, Queen's Col. (N. Y), 38–; visiting asst. prof, Yale, 43–* Lecturer, New Sch. for Social Research, 38–39. Australian Nat. Research Council exped, New Ireland,

29. Anthrop. Asn. Cultural studies of Melanesians and American Negroes.

Powell, Dr. A(lfred) R(ichard), Koppers Co, Koppers Bldg, Pittsburgh, Pa. *Chemistry.* Athens, Ohio, Feb. 1, 91. B.S, Kansas, 14; A.M, Nebraska, 15; Ph.D, Illinois, 18. Asst. chem, Nebraska, 14–15; Illinois, 15–18; asst. gas chemist, U. S. Bur. Mines, 18, research chemist, 19–23; research chemist and *asst. director research, Koppers Co, 23–* Lieut, C.W.S, 18–19. Chem. Soc; Gas Asn; Min. and Metal. Eng. Organic compounds in the soil; sulfur in coal; coke; gas; coal carbonization by-products.

Powell, Prof. E(dward) C(harles), Memorial University College, St. John's, Newfoundland. *Chemistry.* Newtown, Wales, Sept. 20, 02. B.Sc, Saskatchewan, 27, M.Sc, 29; Ph.D, McGill, 32. Demonstrator chem, Saskatchewan, 27–28; McGill, 30–32; *prof. educ, Mem. Univ. Col, Newfoundland, 35–* Asst. chemist, Fisheries Biol. Board, Prince Rupert, B. C, Can. Fel. Can. Inst. Chem. Iso-ureas; lignin; oxidation of organic acids.

Powell, Dr. Eugene F(rancis), University of Nebraska, Lincoln, Nebr. *Zoology.* West Lafayette, Ohio, May 7, 95. A.B, Ohio Wesleyan, 20; A.M, Michigan, 23; Ph.D, Nebraska, 37. Prin, high sch, Ohio, 20–21; asst. *zool,* Michigan, 22; *instr, Nebraska, 23–* Summers, instr, Nebraska, 24–26, 28–34, 38–40, 42. Nebr. Acad. Chrysomelid beetles, especially in Nebraska; genitalia of the Chrysomelidae of the United States.

Powell, Dr. E(ugene) L(oren), Hallsville, Mo. *Nutrition, Agricultural biochemistry.* Hallsville, Mo, Nov. 19, 13. A.B, Missouri, 38, A.M, 39, Ph.D, 42. Asst. agr. chem, Missouri, 38–41; asst. instr, 41–42; *lieut, Sanit. Corps, U. S. Army, 42–* Summer, mem. staff research labs, Swift and Co, 37. A.A; Chem. Soc. Deaminized casein anemia; nutritive properties of proteins; separation of amino acids from protein hydrolysates; vitamin requirements of adult pigeons; the anemias of B-complex deficiencies.

Powell, H(arold) Clark, University of Pretoria, Pretoria, Transvaal, S. Africa. *Horticulture.* Newark, Del, Feb. 16, 00. B.S, California, 22. *Prof. hort, Univ. Pretoria, 24–* Research, Empire Marketing Board, Zanzibar, Palestine, Cyprus, West Indies, British Honduras and Sierra Leone, 27–29; Nyasaland Govt, 33. Asn. Adv. Sci. S. Africa. Citrus fruit production.

Powell, Prof. Homer K, 339 N. McKenzie St, Adrian, Mich. *Astronomy, Physics.* Findlay, Ohio, Feb. 13, 69. B.S, Findlay Col, 98, Chicago, 07; M.S, Michigan, 25. Prof. science, Findlay Col, 98–00; prin, Barkeyville Acad, Pa, 00–02; high sch, Ohio, 03–06; prof. math. and physical science, West Lafayette Col, 07–16; *prof. math. and astron. and head dept, Adrian Col, 16–* Star constellations; astronomical phenomena.

Powell, Dr. H(orace) M(ann), 5565 Washington Blvd, Indianapolis, Ind. *Immunology.* Valparaiso, Ind, Aug. 5, 94. A.B, Ind. State Nor. Sch, 14; fellow, Hopkins, 22–23, Sc.D, 23. Teacher, schs, Ind, 14–20; instr. immunol, Hopkins, 23–25; *immunologist, biol. research dept, Eli Lilly and Co, 25–* A.A; Asn. Immunol; Soc. Bact; Soc. Exp. Biol; Ind. Acad. (chairman, div. bact, 37); N. Y. Acad. Filterable viruses; bacteriology.

Powell, Prof. J(ames) E(llis), 137 Bogue St, East Lansing, Mich. *Mathematics.* Mt. Gilead, Ohio, Feb. 15, 03. B.S, Denison, 24; M.S, Ohio State, 26; Ph.D, Chicago, 31. Prof. *math,* Shurtleff Col, 25–26; instr, *Mich. State Col,* 26–30, asst. prof, 30–38, *assoc. prof, 38–* Math. Soc; Math. Asn. Calculus of variations.

Powell, Dr. Leo S, 345 Washington Ave, Nutley, N. J. *Organic chemistry.* Manhasset, N. Y, Nov. 5, 09. B.S, N. Y. Univ, 30; A.M, Columbia, 33; Ph.D, Rutgers, 36. *Org. chemist,* E. R. Squibb Research Labs, 36–38; *research lab, G. W. Carnrick Co, 38–* Chem. Soc. Sex hormones.

Powell, Dr. Louis H(arvey), 1581 Beechwood Ave, St. Paul, Minn. *Paleontology.* White Rock, S. Dak, March 26, 04. B.S, Minnesota, 24, Ph.D, 33. Field asst, Geol. Surv. Can, 27; geologist, Anglo-Am. Corp, N. Rhodesia, 28–29; librarian, Winchell Library of Geol, Univ. Minnesota, 29–31; curator *science museum, St. Paul Inst,* 31–32, acting director, 33–34, *director, 35–* Ozarkian fauna of Minnesota.

Powell, Dr. Milton E(dward), Knudsen Creamery Co, 21st St. and Santee, Los Angeles, Calif. *Chemistry.* St. Joseph, Mo, May 10, 02. B.S, Illinois, 26; A.M, Missouri, 30; Ph.D, Minnesota, 34. Asst. dairy husbandry, Missouri, 28–29, instr. 30–31; asst. agr. biochem, Minnesota, 31–34; *in charge research,* Abbotts Dairies; *Knudsen Creamery Co; engineer, organization center, Camp Clayborn, La.* Dairy Sci. Asn. Dairy chemistry.

Powell, Prof. P(arker) P(reston), 126 W. Glenn Ave, Auburn, Ala. *Chemistry.* Yantley, Ala, Nov. 12, 88. B.S, Ala. Polytech, 10, M.S, 12. Instr. *chem, Ala. Polytech,* 12–13, asst. prof, 13–19, assoc. prof, 19–35, *prof, 35–* Chem. Soc; Ala. Acad. Analytical chemistry.

Powell, Prof. Ralph W(aterbury), 75 W. Norwich Ave, Columbus 1, Ohio. *Hydraulics, Hydraulic engineering.* Ionia Co, Mich, Oct. 4, 89. B.S, Mich. State Col, 11; C.E, Cornell, 14; Ph.B, Yale, 16. Instr. civil eng, Mich. State Col, 11–12; Cornell, 12–14; asst. testing materials, Yale, 14–16; head dept. physics, Col. Yale-in-China, 16–22, assoc. prof. applied math, 23–27; asst. prof. *mech, Ohio State,* 27–34, *assoc. prof, 34–* Junior engineer, U. S. Engineers Office, Tenn, 27; asst. engineer, U. S. Engineers Office, Ill, 30; hydraulic engineer, Muskingum Watershed Conservancy Dist, 34–35. A.A; Civil Eng; Eng. Educ; Geophys. Union. Flow of water in pipes and channels; rainfall and runoff; dimensional analysis; theory of models.

Powell, Dr. S(argent) G(astman), University of Washington, Seattle, Wash. *Chemistry.* Seattle, Wash, Dec. 21, 95. B.S, M.S, Washington (Seattle), 16; Ph.D, Illinois, 20. Asst. *chem,* Illinois, 16–19; assoc, *Washington (Seattle),* 19–20, instr, 20–26, asst. prof. and *assoc. prof, 26–* Chem. Soc. Organic chemistry.

Powell, Sheppard T, 330 N. Charles St, Baltimore, Md. *Chemical engineering.* Troy, N. Y, Aug. 5, 83. Rensselaer Polytech, 06. Chief chemist, James M. Caird Labs, Troy, N. Y, 06–08; Baltimore County Water and Elec. Co, Md, 08–12, consulting chem. engineer, 12–21; *private consulting chem. engineer, 21–*; assoc. sanit. eng, sch. hygiene and pub. health, Hopkins, 29–33; *special consultant, Nat. Resources Board, 37–, Tenn. Valley Authority.* Chem. Soc. (past chairman, Md. sect); Chem. Eng; Pub. Health Asn; Water Works Asn. (chairman, 4 states sect, 33, past chairman, water purification div; mem. cmt. standardization of zeolites; cmt. standardization of chem. for water purification uses; cmt. manual water works practise); Civil Eng. (chairman boiler feed water studies cmt, 25–35; joint cmt. stream pollution); Mech. Eng. (embrittlement cmt; boiler code cmt); Soc. Test. Mat. (cmt. standardization water anal); Tech. Asn. Pulp and Paper Indust; Chemists' Club; Md-Del. Water and Sewage Asn; Eng. Club Baltimore; Baltimore Gas and Elec. Asn; Eng. Club New York; Newcomen Soc; British Inst. Chem. Eng. Boiler feed; industrial and sanitary water purification; boiler scale, embrittlement and carry-over; corrosion; industrial wastes.

Powell, Dr. T(homas) E(dward), Jr, Elon College, N. C. *Biology.* Warren Plains, N. C, July 6, 99. A.B, Elon Col, 19; A.M, North Carolina, 24; Ph.D, Duke, 30. Instr. biol, Elon Col, 19–20, asst. prof, 20–24, prof, 24–36; *head and manager, Carolina Biol. Supply Co, 36–* A.A; N. C. Acad. Ecology; life history and control of Lasioderma serricorne.

Powell, Dr. Wilson M(arcy), Kenyon College, Gambier, Ohio. *Physics.* Litchfield, Conn, July 18, 03. A.B, Harvard, 26, Ph.D, 33. Asst. *physics,* Harvard, 29–30, 34–35; Radcliffe Col, 34–35; instr, Conn. Col, 35–37; *asst. prof, Kenyon Col, 37–* Fellow, Oceanog. Inst, Woods Hole, 37; research assoc, California, 41–42; Guggenheim Mem. Foundation fellow, 41–42. Swarthmore eclipse exped, Mex, 23, Sumatra, 25; Kenyon Col. cosmic ray exped, 40, 41. Physical Soc. Optics in the Shumann region; cloud-chamber studies of cosmic rays at high altitudes.

Power, Dr. A(rchie) D(ayton), RCA Victor Division, Radio Corp. of America, Harrison, N. J. *Physics.* Baldwin City, Kans, Aug. 28, 87. B.S, Baker, 11; A.M, Kansas, 12; Hopkins, 14–16; Ph.D, Minnesota, 22. Dept. terrestrial magnetism, Carnegie Institution, 12–14, 16–18; instr, Minnesota, 19–24; prof. physics, Lawrence Col, 24–29; research radio vacuum tubes, Westinghouse Lamp Co, 29–30; *develop. lab, RCA Victor div, Radio Corp. Amer, 30–* Magnetic expeds, S. Amer, 12–18. Ensign, U.S.N.R, 18–19. Physical Soc. Atmospheric electricity; fluorescence and resonance radiation; vacuum tubes and gauges; gas analysis; gas reactions with metals at low pressures; electronics; ultra short wave tubes; thermionic emissions; television tubes.

Power, Prof. Carleton E(lderkin), New York State College for Teachers, Albany, N. Y. *Physics.* Palmyra, N. Y, Feb.

28. 85. B.S, Rochester, 08; Ph.D, Cornell, 15. Asst. instr. physics, Cornell, 10–12, instr, 12–15; *N. Y. State Col. Teachers*, 15–18, asst. prof, 18–33, *prof.* science, 33–42, *physics*, 42– A.A; Physical Soc. Phosphorescence.

Power, Dr. Florence D(ell) Stouder, 10 Ridge Terrace, Short Hills, N. J. *Chemistry.* Denver, Colo, Oct. 9, 98. A.B, Denver, 19, A.M, 20; Ph.D, Illinois, 25. Teacher, high sch, Colo, 20–22; asst. chem, Illinois, 22–25; assoc. prof, Lawrence Col, 25–29; research chemist, Scott and Bowne, 29–30; Food Research Labs, Inc, New York, 30–31; director research, Scott and Bowne, 31–33; *private research, 33–* Chem. Soc. Structure of rubiadin; antioxidants; vitamin concentrates of cod liver oil; calcium cod liver oil therapy for tuberculous children; diets to entirely prevent tooth decay in children.

Power, Rev. Francis W(illiam), S.J, Fordham University, New York, N. Y. *Chemistry.* Worcester, Mass, June 19, 93. A.B, Col. of Holy Cross, 15; A.M, Clark, 17; Sc.D, Fordham, 26. Instr. org. chem. and quantitative anal, Fordham, 24–25, asst, 25–26; asst. prof. chem, Weston Col. (Mass), 27–30; prof. and head dept, *Fordham*, 30–31, *prof. quantitative analysis, 32–, micro-analysis, 33–* Summer, prof, Fordham, 32. Cmt. on lab. construction and equipment, Nat. Research Council, 32– Asst. chief chemist, Ordnance Dept, 17–19. A.A; Chem. Soc. (director N. Y. sect, 40–; sec'y-treas. div. anal. and microchem, 40–); Statist. Asn; Asn. Jesuit Scientists; Metrop. Microchem. Soc. (pres, 38); Chemists' Club; Deuts. Chem. Gesell. Analytical methods; organic microanalysis; statistical applications in chemistry.

Power, Prof. H(arry) H(arrison), University of Texas, Austin, Texas. *Petroleum engineering.* Chassell, Mich, July 7, 92. B.S, State Col. Wash, 19, Chem.E, 36; M.S, California, 28. Junior engineer, Cities Service Co, 19–22; valuation engineer, U. S. Bur. Int. Revenue, 22–26; chief production engineer, Gypsy div, Gulf Oil Corp, 27–36; *chairman dept. petrol. eng, Texas, 36–* Min. and Metal. Eng. (mem, Lucas award cmt, chairman, mid-continent sect, 30, petrol. div, 35); Asn. Petrol. Geol; Petrol. Inst. (chairman, cmt. petrol. tech). Production engineering, technology and economics.

Power, Prof. M(arschelle) H(arnly), Mayo Clinic, Rochester, Minn. *Chemistry.* Edgar, Nebr, Sept. 1, 94. A.B, Nebraska, 17, M.S, 21, Ph.D, 23. Asst. chem, Nebraska, 19–24; nat. research fellow, Chicago, 23–24; *biochem. research, Mayo Clinic, 24–;* from instr. to *assoc. prof, Mayo Foundation, Minnesota.* A.A; Chem. Soc; Soc. Biol. Chem. Organic chemistry; biochemistry; oxidation of glucose in limewater; carbohydrate metabolism; blood sugar; inorganic and ethereal sulfate in blood serum; electrolytes in serum and in-vivo dialysates; myasthenia gravis; hypoglycemia and hyperinsulinism; gum acacia and renal function; electrolytes in Addison's disease.

Power, Dr. Maxwell E(lliott), Yale University, New Haven, Conn. *Zoology.* Hamilton Co, Ind, Oct. 2, 13. A.B, Indiana, 36; M.S, Oklahoma, 38; Ph.D, Yale, 42. Museum asst, Oklahoma, 36–38; lab. asst. biol, *Yale*, 38–41, asst. zool, 41, asst. in instruction, 42, *instr. biol, Osborn Zool. Lab, 42–* Genetics Soc. Neurological manifestations of mutant genes; developmental genetics; insect populations; parasitology; invertebrate morphology.

Power, Wilson H, 3-A Eastway, Greenbelt, Md. *Chemistry.* Spokane, Wash, Aug. 22, 10. B.S, Mo. Sch. Mines, 31; M.S, Carnegie Inst. Tech, 33. Chemist, Armstrong Cork Co, 34–39; teaching fellow, Maryland, 39–42; *chemist, Naval Research Lab, 42–* A.A; Chem. Soc. Use of the glass electrode in alcohol solutions for measurement of hydrogen ion concentration; primary and secondary current sources.

Powers, Prof. A(lfred) R(aymond), Clarkson College of Technology, Potsdam, N. Y. *Electrical engineering.* Chester, Mass, April 2, 85. B.S, Worcester Polytech, 07, E.E, 09; Sc.D, Clarkson Tech, 33. Instr, tech. night sch, and test engineer, Westinghouse Elec. and Mfg. Co, 07–08; instr. *elec. eng, Pennsylvania*, 09–11; *prof. and head dept, Clarkson Tech, 11–, director eng, science and management war training, 41–* Test engineer, Gen. Elec. Co, 30; research, Cent. N. Y. Power Co; consulting engineer, 33– Elec. Eng; Eng. Educ.

Powers, Dr. Donald H(oward), Monsanto Chemical Co, Everett, Mass. *Chemistry.* Boston, Mass, March 31, 01. A.B, Boston, 21; A.M, Princeton, fellow, 24, Ph.D, 24. Asst. chem, Princeton, 21–23; research chemist, E. I. du Pont de Nemours and Co, 24–29; chief chemist, U. S. Finishing Co, 29–31; research chemist, Rohm and Haas Co, 31–43; *textile specialist, Merrimac div, Monsanto Chem. Co, 43–* Chem. Soc. (councilor); Asn. Textile Chem. and Colorists (chairman, R. I. sect, research council, 30); Textile Research Inst. (director); Soc. Test. Mat. Alkoxy and hydroxy hydroxamic acids; the guanidines as accelerators; the aging of rubber; dyestuff and rubber industries; application of rubber to the textile industry; enzymes in the textile industry; synthetic resins and their application to textiles.

Powers, Prof. E(dward) Lawrence, Jr, University of Notre Dame, Notre Dame, Ind. *Zoology, Genetics.* Columbia, S. C, Dec. 30, 15. B.S, Col. of Charleston, 38; Ph.D, Hopkins, 41. Instr. *biol, Notre Dame*, 41–42, *asst. prof, 42–* Summer, lecturer, Fordham, 41. A.A; Genetics Soc; Ind. Acad. The genetics of the Protozoa.

Powers, Edwin, Lexington, Mass. *Psychology.* New York, N. Y, Feb. 19, 96. A.B, Williams Col, 19; LL.B, N. Y. Law Sch, 24; A.M, Dartmouth Col, 30. Tutor, Robert Col, Constantinople, 19–21; law clerk, New York, 21–25; lawyer, 25–27; instr. and asst. prof. psychol, Dartmouth Col, 27–37; *Cambridge-Somerville youth study*, 37–40, *exec. sec'y, 40–* Research, State Prison Colony, Norfolk, Mass, 33–35. Prison Asn; Psychol. Asn; Sociol. Soc. Legal psychology; criminology.

Powers, Prof. Edwin B(ooth), 133 E. Hillvale Drive, Knoxville, Tenn. *Zoology.* Waxahachie, Texas, Aug. 6, 80. A.B, Trinity (Texas), 06; M.S, Chicago, 13; fellow, Illinois, 16–17, Ph.D, 18; Cambridge, 22. Instr. and prof. biol, Trinity (Texas), 08–15; teaching fellow, Illinois, 15–16; asst. prof, Colo. Col, 18–19; study and travel, 19–20; instr. zool, Nebraska, 20–22; assoc. prof. anat, col. med, *Tennessee*, 22–23, acting prof. and acting head dept. *zool*, 23–24, *prof. and head dept, 24–* Summers, asst, Puget Sound Biol. Sta, 14, instr, 18, prof, 19, 21, 23; entom. asst, State Lab, Ill, 17; asst, Illinois, 15, 16. Assoc. ed, 'Ecology,' 25–32. A.A; Soc. Zool; Ecol. Soc. (pres, 33); assoc. Entom. Soc. Ecology; fish migration; toxicities; physiology of respiration of fishes; character of marine and fresh water in relation to fishes; deposition of gases into swim-bladder of fishes.

Powers, Dr. G(rover) F(rancis), 789 Howard Ave, New Haven, Conn. *Pediatrics.* Colfax, Ind, Aug. 12, 87. B.S, Purdue, 08, hon. Sc.D, 35; M.D, Hopkins, 13; hon. A.M, Yale, 27. House officer and asst. res. pediat, Hopkins Hosp, 13–16, instr. and assoc. clin. pediat, Hopkins, 16–21; med. director, Babies' Milk Fund Asn, Md, 16–21; asst. prof. *pediat, Yale*, 21–24, assoc. prof, 24–27, *prof, 27–* Assoc. pediatrician, New Haven Hosp, 21–27, pediatrician-in-chief, 27–; Henry Ford Hosp, Detroit, 27. Ed. board, 'Jour. Pediatrics.' Advisory cmt, maternal and child health, U. S. Children's Bur. A.A; Pediat. Soc; Soc. Pediat. Research; fel. Acad. Pediat; Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest. Clinical pediatrics.

Powers, Dr. Harry H(enry), 28 Fuller Brook Road, Wellesley, Mass. *Biochemistry.* Hillsdale, Mich, April 13, 00. A.B, Grand Island Col, 23; A.M, Nebraska, 24; Ph.D, Harvard, 27. Research chemist, E. R. Squibb and Sons, 27–30; Free Hosp. for Women, Brookline, 30–31; instr. *biochem, med. and dental schs, Tufts Col*, 31–36, asst. prof, 36–42, *assoc. prof, 42–* Ovarian follicular hormone.

Powers, Dr. Howard A(dorno), Paia, Maui, Hawaii. *Geology.* Huron, S. Dak, Jan. 4, 04. B.S, S. Dak. State Col, 24; A.M, Oregon, 26; Ph.D, Harvard, 29. Asst. petrol, Harvard, 26–29; junior scientist, Hawaiian Volcano Observatory, *U. S. Geol. Surv*, Honolulu, 29–30, asst. scientist, 30–32, ground water investigations, Island of Maui, 32–34, ground water geologist, water works dept, County of Maui, 35–38; ranger, Haleakala sect, Hawaii Nat. Park, U. S. Nat. Park Service, 38–41; *capt, Quartermasters Corps, U. S. Army, 41–* Volcanic geology and petrology; volcanoes in northern California and Hawaii.

Powers, Dr. Justin L(awrence), 2215 Constitution Ave, Washington, D. C. *Pharmaceutical chemistry.* Tekonsha, Mich, March 12, 95. B.S, Michigan, 24, M.S, 27; Ph.D, Wisconsin, 35. Instr. pharmacy, State Col. Wash, 19–24; asst. prof, Oregon State Col, 24–26; instr, Michigan, 26–31, asst. prof, 31–40; *chairman cmt. Nat. Formulary and director lab, Am. Pharmaceut. Asn, 40–, ed. sci. edition, 'Jour,' 42–* Cmt. revision, U. S. Pharmacopoeia, 40–; revision cmt, Pharmaceut. Recipe Book, 41– A.A; Chem. Soc; Pharmaceut. Asn. Establishment of official drug standards.

Powers, LeRoy, 301 Curtis St, Rodeo District, Salinas, Calif. *Genetics.* Sheldon, Iowa, March 24, 02. B.S, Mont. State Col,

24; M.S, State Col. Wash, 26; Ph.D, Minnesota, 31. Asst. agronomist, Mont. State Col, 26–30; instr. plant genetics and asst. plant geneticist, Minnesota, 30–31, asst. prof, 31–34, assoc. prof, 34–35; senior geneticist and later *prin. geneticist, guayule research project, bur. plant indust, U. S. Dept. Agr, 36–* A.A; Soc. Agron. Plant genetics; horticulture; cytology.

Powers, Dr. Paul O(dell), Armstrong Cork Co, Lancaster, Pa. *Organic chemistry.* Boston, Mass, March 26, 97. A.B, Boston, 19; M.S, Pittsburgh, 22, Ph.D, 24. Dept. supt, Atlantic Dyestuffs Co, 18–19; asst. chem, Pittsburgh, 20–23, fellow, Mellon Inst, 23–25; *research chemist,* Calco Chem. Co, N. J, 26–28; Newport Industries, Inc, 28–36; *Armstrong Cork Co, 36–* Chem. Soc. Dyes; terpenes; natural and synthetic resins; synthetic rubber; drying oils.

Powers, Prof. S(amuel) R(alph), 106 Morningside Drive, New York, N. Y. *Science education.* Petersburg, Ill, May 16, 87. A.B, Illinois, 12; A.M, Minnesota, 19, Ph.D, 23. Instr, Minnesota, 16–23; *prof. nat. science, Teachers Col, Columbia, 23–* A.A; Educ. Research Asn. (chairman cmt. nat. sci. and math); Council Sci. Teachers (chairman subcmt. teacher educ); Soc. Study Educ. (chairman, cmt. on sci. teaching); Progressive Educ. Asn; Nat. Asn. Research Sci. Teaching (pres, 38).

Powers, Prof. W(allace) F(rank), 10 Fearing St, Amherst, Mass. *Physics.* Spencer, Mass, March 27, 89. A.B, Clark, 10, A.M, 11, Ph.D, 14. Assoc. prof. math. and physics, Richmond, 14–16; instr. *physics,* N. Y. Univ, 17–20; asst. prof, Wesleyan, 20–25; *prof. and head dept,* Mass. Col, 25–31, *Mass. State Col, 31–* Physical Soc. High frequency oscillations; applications of thermionic tubes.

Powers, Prof. W(ilbur Louis), Oregon State Agricultural College, Corvallis, Oregon. *Soils.* Tiskilwa, Ill, March 5, 87. Illinois, 04–07; B.S, N. Mex. Col, 08, M.S, 09; Ph.D, California, 26. Asst. soils and soil physics, N. Mex. Col, 09; asst. agronomist, *Oregon State Col,* 09–15, *prof.* irrig. and drainage, 15–18, *soils, 18–* Consultant, U. S. Bur. Reclamation. A.A; Int. Soc. Soil Sci. Irrigation; drainage; soil sulfur; minor elements in plant nutrition; organic colloids of soils.

Powers, Prof. William E(dwards), Northwestern University, Evanston, Ill. *Geology.* Florence, Ala, March 25, 02. B.S, Northwestern, 25, fellow, 25–26, A.M, 28; Thayer fellow, Harvard, 29–31, Ph.D, 31. Instr. geol, *Northwestern,* 26–31, asst. prof. geol. and physiog, 31–40, *assoc. prof. geol, 40–* Asst. geologist, Ill. Geol. Surv, 27– Library of Congress fellow, 40–41. A.A; Geol. Soc; Ill. Acad; Boston Geol. Soc. Physiography; glaciology of northern Illinois; desert basins of western New Mexico; Rocky Mountains in Colorado; glaciation in Hawaii; meteorology and climatology.

Powick, Wilmer C(hrisman), U. S. Department of Agriculture, Beltsville, Md. *Biochemistry.* Dalphin, Pa, July 4, 86. B.S, Pa. State Col, 07. From asst. to *senior biochemist, bur. animal indust, U. S. Dept. Agr, 07–* Sanit. C, 17–19, capt. Chem. Soc; fel. Inst. Chem. Cold storage of meats; rancidity of fats; hog cholera; nutritional factors in necrotic enteritis.

Powsner, Dr. Louis, Refined Syrups and Sugars, Inc, Yonkers, N. Y. *Genetics.* Brooklyn, N. Y, March 18, 07. B.S, N. Y. Univ, 28, Ph.D, 34. Asst, N. Y. Univ, 27–28, 29–33; technician, First Inst. Podiatry, Long Island, 33–34, asst. prof, 34–35, prof, 35–43; *in charge bacterial research, Refined Syrups and Sugars, Inc, 43–* Genetics Soc. Kinetics of development; bacterial variation; industrial bacteriology.

Poynter, Dr. Charles W(illiam) M(cCorkle), 1306 S. 35th Ave, Omaha, Nebr. *Anatomy.* Eureka, Ill, 75. B.S, Nebraska, 98, M.D, 02. Head dept. anat, *col. med, Nebraska,* 12–30, *dean, 30–, supt. hosp, 30–* A.A. (sec'y, N, 29–31); Asn. Anat. (exec. councilor); Am. Med. Asn; Anthrop. Asn; Asn. Med. Cols. (v. pres, 33, exec. councilor, 34, 41, pres, 40); Anat. Soc. Gt. Britain and Ireland. Cerebral anthropology; experimental teratology; arterial variations; tissue sensitization on embryos.

Prager, Dr. Richard, Harvard University, Cambridge, Mass. *Astronomy.* Hannover, Germany, Nov. 30, 83. Marburg, 01; Göttingen, 03; Ph.D, Berlin, 08. Asst, Akad. der Wissenschaften, Berlin, 08–09; chief sect, Observatorio Astronomico Nacional, Santiago de Chile, 09–13; asst, observer and prof, Univ. Sternwarte, Berlin-Babelsberg, 13–38; *research assoc, Harvard Observatory, 39–* Astron. Soc; hon. mem. Asn. Variable Star Observers; Astron. Gesell. (sec'y, 30–36). Variable stars; photoelectric photometry; star positions; proper motions.

Prager, Dr. William L(ouis), College of the City of New York, New York, N. Y. *Chemistry.* New York, N. Y, Jan. 8, 82. B.S, Col. City of N. Y, 00; M.S, N. Y. Univ, 04; fellow, Clark, 07–08, Ph.D, 08. Tutor, *Col. City of N. Y,* 02–07, instr. *chem,* 08–15, asst. prof, 15–21, assoc. prof, 21–23, *prof, 32–, chairman dept, 38–* A.A; Chem. Soc; Inst. Chem. Esterification and steric hindrance; organic synthesis; tautomerism; cacao.

Prager, Prof. W(illy), Brown University, Providence, R. I. *Mechanics.* Karlsruhe, Germany, May 23, 03. Dipl.Ing, Inst. Tech. Darmstadt, 25, Dr.Ing, 26. Acting director inst. applied mech, Göttingen, 29–32; prof. and director inst. mech, Inst. Technol. Karlsruhe, 33; *prof.* mech, Istanbul, 34–41; *applied mech, Brown, 41–* Math. Soc; assoc. fel. Inst. Aeronaut. Sci. Theoretical and applied mechanics; theory of elasticity and plasticity; vibrations; aerodynamics and aircraft structures.

Prater, Dr. Arthur N(icolas), U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Arena, N. Dak, Oct. 22, 09. A.B, California at Los Angeles, 32; M.S, Calif. Inst. Tech, 33, Ph.D, 35. Teaching asst, Calif. Inst. Tech, 32–33, teaching fellow, 33–35, asst, 38–39, research fellow, 38–41; research chemist, Continental Oil Co, 35–36; technologist, Shell Oil Co, 36–38; *assoc. chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* A.A; Chem. Soc. Olefin chemistry; lubricating oils; micro and bio-organic chemistry; freezing preservation of foods.

Pratt, Prof. Arthur J(ohn), Maple Grove Place, Ithaca, N. Y. *Agriculture.* Norwich, N. Y, May 3, 05. B.S, Cornell, 26, Ph.D, 33. Asst. *veg. crops, Cornell,* 29–32, exten. instr, 32–36, exten. asst. prof, 36–42, *exten. assoc. prof, 42–* V. pres, Consumers Co-Op, Ithaca; director East. Cooperative League. Vegetable crops; statistical methods in vegetable variety; home gardening; 4-H vegetable growing and potato growing.

Pratt, Prof. Avery D(aniel), Virginia Polytechnic Institute, Blacksburg, Va. *Dairying.* Le Raysville, Pa, May 13, 96. B.S, Pa. State Col, 25, M.S, 27; Pfaudler fellow, Rochester, 27–28, Ph.D, 33. Asst. agr. and biochem, Pa. State Col, 26–27; *asst. prof. dairying,* Conn. Agr. Col, 28–30; *Va. Polytech, 30–* Dairy Sci. Asn; Va. Acad. Sci. Animal and human nutrition; pasture fertilization; vitamins.

Pratt, Dr. Burt C(arlton), 104 Lynhurst Ave, McDaniel Heights, Wilmington, Del. *Organic chemistry.* Lititz, Pa, May 13, 11. B.S, Bucknell, 33; du Pont fellow, Cornell, 36–37, Ph.D, 38. Research chemist, E. I. du Pont de Nemours and Co, 33–34; asst, Cornell, 34–36, 37–38; *research chemist, E. I. du Pont de Nemours and Co, 38–* Chem. Soc. Resins.

Pratt, Carl D(avis), R. D. 2, Tamaqua, Pa. *Chemistry.* Philadelphia, Pa, Feb. 21, 97. A.B, Swarthmore Col, 18. Chemist, *Reynolds exp. lab, Atlas Powder Co,* 18–25, in charge black powder and dynamite develop, 25–30, *director, 30–* Chem. Soc. (v. chairman and chairman, Lehigh Valley sect, 32–, councilor, 34, 36, 39–); Chem. Eng; Franklin Inst; Army Ordnance Asn. Explosives development; black blasting powder; dynamite; heavy chemicals; poisonous fumes from dynamite blasting.

Pratt, Prof. Carroll C(ornelius), Rutgers University, New Brunswick, N. J. *Psychology.* North Brookfield, Mass, April 27, 94. A.B, Clark, 15, fellow, 16, A.M, 16, fellow, 19–21, Ph.D, 21; fellow, Cambridge, 19. Asst. psychol, Clark, 19–20, instr. exp. psychol, 20–22; *psychol,* Harvard, 22–27, asst. prof, 27–37; *prof, Rutgers, 37–; director Army specialized training program in psychol, Harvard, 40–* Guggenheim Mem. Foundation fellow, Berlin, 31; visiting prof, Princeton, 39– Summers, mem. faculty, Harvard, 38–41. Assoc. ed, 'Jour. Exp. Psychol,' 39–; 'Jour. Musicology,' 39– Emergency cmt. psychol, Nat. Research Council, 40–; cmt. musicology, Am. Council Learned Societies, 41– A.A; Psychol. Asn; Soc. Exp. Psychol. (chairman, 41); Am. Acad; Nat. Inst. Psychol. Experimental psychology; psychophysics; learning and memory; theoretical psychology; musicology; esthetics.

Pratt, Prof. Dudley James, 1118 Taylor St, Topeka, Kans. *Plant physiology.* Beverly, Kans, March 31, 91. A.B, Washburn Col, 13; A.M, Kansas, 16; Stanford, 16–17; Iowa State Col, 28–30. Teaching fellow bot, Kansas, 15–16; asst, Stanford, 16–17; asst. prof. *biol, Agr. and Mech. Col. Texas,* 19–21, assoc. prof, 21–26, *prof, 26–* A.A; Soc. Plant Physiol.

Physiological anatomy of seed plants; absorption and colloidal behavior of seeds; respiration; organic food reserves; winter hardiness.

Pratt, Dr. Frank R(andall), 41 N. Seventh Ave, New Brunswick, N. J. *Physics.* Warsaw, N. Y, 76. B.S, Rutgers, 06, M.S, 08; Ph.D, Princeton, 17. Instr. math, *Rutgers,* 07–10, *physics,* 10–12, asst. prof, 12–17, assoc. prof, 17–21, *prof, 21–, head dept, N. J. Col. for Women, 26–* A.A; Physical Soc; Asn. Physics Teachers; New Brunswick Sci. Soc. (sec'y and treas, 10–13). Heat.

Pratt, Dr. Frederick H(aven), 105 Hundreds Road, Wellesley Hills, Mass. *Physiology.* Worcester, Mass, July 19, 73. A.B, Harvard, 96, A.M, 98, M.D, 06; Göttingen, 99; Worcester Polytech, 00–01. Asst. physiol, Harvard, 01; instr. physiol. and hygiene, Wellesley Col, 09–12; prof. physiol, Buffalo, 12–19; hon. fellow biol, Clark, 19–20; teaching fellow *physiol,* Harvard, 20–21; prof, *Boston,* 21–42, *emer. prof, 42–* Physiol. Soc; Soc. Exp. Biol; Antiquarian Soc; Am. Acad. (librarian, 41–); hon. mem. Mass. Med. Soc. Heart and nerve-muscle physiology; biographical studies.

Pratt, Dr. George K(enneth), 80 Myrtle Ave, Westport, Conn. *Psychiatry.* Detroit, Mich, Dec. 17, 91. M.D, Detroit Col. Med. and Surg, 15. Med. director, Mass. Soc. Mental Hygiene, 21–25; asst. med. director, Nat. Cmt. Mental Hygiene, 25–33; *med. director, Conn. Soc. Mental Hygiene, 35–; asst. clin. prof. psychiat, sch. med, Yale, 35–; instr. mental hygiene, State Teachers Col, New Haven, Conn, 40–* Consultant, Vermont, 26–31; psychiatric director, mental hygiene clinics, Bridgeport and Stamford, Conn, 35–; psychiatric consultant, St. Christopher's Sch, N. Y, 31–35. Fel. Psychiat. Asn; fel. Orthopsychiat. Asn; fel. N. Y. Acad. Med; Royal Medico-Psychological Asn. Techniques for leaders of parent education study groups.

Pratt, Dr. H(arold) P(arker), Soil Conservation Service, Box 99, Montrose, Colo. *Animal ecology.* Union Mills, Ind, Feb. 18, 06. A.B, West. State Col. Colo, 31, A.M, 33; Ph.D, Colorado, 38. Asst. biol, Colorado, 34, 36–38; res. biologist, U. S. Nat. Park Service, 35; junior biologist, *soil conservation service, U. S. Dept. Agr,* 39–41, *asst. biologist, 41–* Ecology and population study of the trout of the Gunnison River; wildlife management on irrigated lands.

Pratt, Prof. Henry S(herring), 210 E. Livingston Ave, Orlando, Fla. **‡Zoology.* Toledo, Ohio, Aug. 18, 59. A.B, Michigan, 82; admitted to Ohio bar, 85; Leipzig, Freiburg and Geneva, 88–92; zool. sta, Villefranche-sur-mer; Ph.D, Leipzig, 92; Harvard, 92–93; Innsbruck, 02–03; Graz, 09–10. Instr. *biol, Haverford Col,* 93–98, assoc. prof, 98–01, prof, 01–29, *emer. prof, 29–* Instr, biol. lab, Cold Spring Harbor, 96–28; Tortugas lab, Carnegie Institution, 08–09; investigator forest zool, N. Y. State Col. Forestry, Syracuse, 17. Cmn. for Relief in Belgium, 16–17. A.A; Soc. Nat; Soc. Zool. (sec'y-treas, east. branch, 05–07); Ecol. Soc; cor. mem. Helminth. Soc. Wash; Cambridge Entom. Club (pres, 97). Embryology and metamorphoses of insects; flatworms; structure and classification of trematodes and cestodes.

Pratt, Dr. Ivan, University of Kansas City, Kansas City, Mo. *Parasitology.* Navarre, Kans, Sept. 18, 08. A.B, Col. Emporia, 32; M.S, Kans. State Col, 35; Ph.D, Wisconsin, 38. Asst. zool, Kans. State Col, 33–35; teaching asst, Wisconsin, 35–38; instr, Idaho, 38–42; *asst. prof. anat, sch. dentistry, Kansas City, 42–* Summers, lecturer, Wisconsin, 39; instr, Inst. Marine Biol, 41; seasonal park ranger, Nat. Park Service, 42. A.A; Micros. Soc. The effect of parasitism upon the host; dental physiology.

Pratt, Prof. James B(issett), Williams College, Williamstown, Mass. *Psychology.* Elmira, N. Y, June 22, 75. A.B, Williams Col, 98, Litt.D, 43; A.M, Harvard, 99, Ph.D, 05; Berlin, 02–03; LL.D, Amherst Col, 30; L.H.D, Wesleyan, 35. Instr. *philos, Williams Col,* 05–06, asst. prof, 06–13, prof, 13–43, *emer. prof, 43–* Philos. Asn. (v. pres, 19, pres, 35); Oriental Soc. Psychology of religion.

Pratt, Dr. J(ean) P(aul), 18910 Fairway Drive, Detroit, Mich. *Gynecology, Obstetrics.* Wellington, Ohio, March 15, 82. A.B, Ohio State, 06; M.D, Hopkins, 10. House physician, Hopkins Hosp, 10–13; instr. surg, California, 13–17; *asst. surgeon in chief and chief div. gynec. and obstet, Henry Ford Hosp, Detroit, 17–* A.A; Am. Med. Asn; Col. Surg; Asn. Study Int. Secretions (pres, 34); Asn. Anat; Gynec. Soc; Asn. Obstet, Gynec. and Abdom. Surg; Cent. Asn. Obstet. and Gynec. (pres, 36). Ovarian functions; formation of ova; internal secretions; carcinoma of rectum and rectosigmoid; pseudohermaphrodism.

Pratt, Dr. J(oseph) G(alther), Duke University, Durham, N. C. *Parapsychology.* Winston-Salem, N. C, Aug. 31, 10. A.B, Duke, 31, A.M, 33, Ph.D, 36. *Mem. staff, parapsychol. lab, Duke, 37–* Assoc. Psychol. Asn; South. Soc. Philos. and Psychol. Extra-sensory perception; comparative psychology.

Pratt, Dr. Joseph H(ersey), 30 Bennet St, Boston, Mass. *Pathology, Medicine.* Middleboro, Mass, Dec. 5, 72. Ph.B, Yale, 94; M.D, Hopkins, 98; A.M, Harvard, 01; Sc.D, Colby Col, 41. Asst. path, Boston City Hosp, 98–00, asst. visiting pathologist, 01–02; instr. path, Harvard, 00–02, asst. med, 02–09, instr, 09–18; *physician in chief,* Boston Dispensary, 27–31; *New Eng. Med. Center, 31–; Joseph H. Pratt Diagnostic Hosp, 38–; prof. clin. med, med. sch, Tufts Col, 29–* Advisory council, Henry Phipps Inst, Pennsylvania. Trustee, Bingham Associates Fund Advancement Rural Med, 31–A.A; Soc. Exp. Path; Am. Physicians; Soc. Clin. Invest. (pres, 10); Soc. Exp. Biol; Physiol. Soc; Soc. Pharmacol; Am. Acad. Histology of pneumonia; the blood platelets; psychalgias; tumors; differentiation of typhoid and colon bacilli; metabolism in pancreatic disease and gout; experimental anemia; tuberculosis; thrombus formation; pancreatic disease; digitalis; heart disease; toxic cirrhosis of the liver; action of cinchophen.

Pratt, Dr. Karl C(hapman), Central Michigan College of Education, Mt. Pleasant, Mich. *Psychology.* Huntington, Ohio, Nov. 20, 99. A.B, Ohio State, 23, A.M, 24, fellow, 26–27, Ph.D, 27. Instr. psychol, Ohio State, 27–28; N. Y. Univ, 28–30; nat. research fellow, Ohio State, 30–31; instr. and later *asst. prof. psychol, Cent. Mich. Col. Educ, 31–* A.A; assoc. Psychol. Asn; Soc. Adv. Educ; Midwest. Psychol. Asn. Early infantile behavior; animal behavior; growth and behavior of invertebrates; psychometrics; education.

Pratt, Dr. L(ester) A(lbert), 7 Everett Ave, Winchester, Mass. *Chemistry.* Manchester, N. H, Aug. 2, 85. B.S, New Hampshire, 09, M.S, 11; Ph.D, Pittsburgh, 13. Asst. chem, New Hampshire, 09–10, instr, 10–11; research chemist, Mellon Inst, 13–16; director research lab, Merrimac Chem. Co, Woburn, Mass, 16–27, manager, Anderson chem. div, *Boston,* 27–35, *gen. manager sales, Merrimac div, Monsanto Chem. Co, 35–* Chem. Soc; Electrochem. Soc; Soc. Chem. Indust; Chem. Eng; Chemists' Club. Basic nitrate of yttrium; yttrium potassium oxalate; separation of cerium; rare earth compounds.

Pratt, Merritt B(erry), 321 State Office Bldg, Sacramento, Calif. *Forestry.* Paw Paw, Ill, Oct. 3, 78. B.S, Chicago, 03; M.F, Yale, 05. Forest asst, U. S. Forest Service, 05–09; deputy forest supervisor, Tahoe Nat. Forest, Calif, 09–14; asst. prof. forestry, California, 14–18; deputy state forester, *Calif,* 18–21, *state forester, 21–* Soc. Foresters. Forest utilization; fire protection.

Pratt, Dr. Orlyn B(ernard), 312 N. Boyle Ave, Los Angeles, Calif. *Pathology.* St. Helena, Calif, May 23, 99. A.B, Pacific Union Col, 21; M.D, Col. Med. Evangelists, Los Angeles, 24. *Assoc. prof. path, Col. Med. Evangelists, Los Angeles, 29–* Am. Med. Asn; Soc. Clin. Path; fel. Col. Physicians. Metabolism of tartrates; blood sugar methods.

Pratt, Dr. P(hilip) E(dmunds), 204 Berkeley Ave, Bloomfield, N. J. *Organic chemistry.* Ottumwa, Iowa, April 5, 14. B.S, Iowa State Col, 35; M.S, Iowa, 37, Ph.D, 40. Asst, Iowa, 35–40; *research chemist, Bakelite Corp, 40–* Chem. Soc. Synthetic resins.

Pratt, Dr. Robertson, University of California Medical Center, San Francisco, Calif. *Botany.* Brooklyn, N. Y, Oct. 28, 09. A.B, Columbia, 31, Ph.D, 36. Lab. asst, dept. bot, Columbia, 31–38; instr. *pharmacog, California,* 38–41, *asst. prof, 41–* Summers, instr, Col. City of N. Y, 34–35. A.A; Bot. Soc; Soc. Plant Physiol; Torrey Bot. Club. Effects of radiation on plants; effects of heavy water on growth; physiology of growth; plant chemistry with special reference to medicinal plants and the physiological role and mechanism of the formation of drugs therein.

Pratt, Wallace E(verette), Standard Oil Co. of N. J, 30 Rockefeller Plaza, New York, N. Y. *Geology.* Phillipsburg, Kans, March 15, 85. A.B, Kansas, 07, B.S, 08, A.M, 09, E.M, 14. Asst, Kans. Geol. Surv, 08–09; geologist, div. mines, Bur. Science, P. I, 09–13, chief, 13–16; div. geologist, Texas Co, 16–18; chief geologist, Humble Oil and Ref.

Co, 18–24, director, 24–30, v. pres, 30–37; *director and mem. exec. cmt, Standard Oil Co. of N. J, 37–* A.A; fel. Geol. Soc; Asn. Petrol. Geol. (pres, 20–); Petrol. Inst. (director, 28–32); fel. Am. Geog. Soc; Min. and Metal. Eng; Soc. Econ. Geol; Inst. Petrol. Technol. Gt. Britain. Areal and economic geology of the Philippine Islands; vulcanism; structural, stratigraphic and economic geology of Texas; petroleum geology and economics.

Pratt, Dr. Yolanda (Tota), 300 Barrett St, Wilmington, Del. *Organic chemistry.* Elmira, N. Y, July 18, 13. A.B, Cornell, 38; Ph.D, Columbia, 42. Lecturer chem, Barnard Col, Columbia, 41–42; asst, Harvard, 42–43; *research chemist, Hercules Powder Co, 43–* Chem. Soc. Heterocyclic compounds; resin acids.

Prebble, Dr. M(alcolm) L(awrence), Dominion Entomological Laboratory, Victoria, B. C, Can. *Entomology.* St. John, N. B. B.Sc, New Brunswick, 30; M.Sc, McGill, 32, Ph.D, 40. *Officer in charge forest insect investigations, Science Service, Dom. Dept. Agr, 40–* Forest insects.

Preble, Edward A(lexander), American Nature Association, 1214 16th St, Washington, D. C. *Ornithology, Mammalogy.* Somerville, Mass, June 11, 71. High sch. Field naturalist, biologist and senior biologist, bur. biol. surv, U. S. Dept. Agr, 92–35; *assoc. ed, 'Nature Magazine.'* Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp; Biol. Soc. Wash. Biological investigation of the Hudson Bay, the Athabaska and Mackenzie regions, British Columbia, Canada, the Pribilof Islands, Alaska.

Preble, Dr. Robert B, 909 N. Michigan Blvd, Chicago, Ill. *Medicine.* Chicago, Ill, March 14, 66. A.B, Michigan, 89, hon. A.M, 14; M.D, Northwestern, 91, hon. Sc.D, 31. *Prof. med, med. sch, Northwestern, 00–* Chevalier, Légion d'honneur. Am. Med. Asn; Am. Physicians.

Prebluda, Dr. H(arry) J(acob), 3916 Maine Ave, Baltimore, Md. *Biochemistry.* Fall River, Mass, May 19, 11. B.S, Rhode Island State Col, 32, M.S, 33; fellow, Hopkins, 35–37, Ph.D, 37. Asst. instr. chem, R. I. State Col, 32–33, instr, 33–35; *research biochemist, U. S. Indust. Alcohol, 37–; develop. biochemist, U. S. Indust. Chem, 38–; consulting chemist.* Summers, instr, R. I. State Col, 34, 35. A.A; Chem. Soc. Inorganic and organic compounds of vanadium; diazo compounds; chemical and microbiological tests for water soluble vitamins; fermentation by-products; poultry feeds; insect repellents; de-icing fluids.

Prebus, Prof. Albert F(rederick), Ohio State University, Columbus, Ohio. *Electron optics.* Edmonton, Alta, Can, April 19, 13. B.Sc, Alberta, 35, scholar, 36–37, M.Sc, 37; Nat. Research Council Can. bursar, Toronto, 37–38, student, 38–39, Ph.D, 40. Demonstrator physics, Alberta, 35–37; asst, Toronto, 39–40; research fellow, *Ohio State,* 40–41, asst. prof. *electron optics,* 41–43, *assoc. prof, 43–* Physical Soc; Electron Micros. Soc. Amer. (v. pres, 42). Development of apparatus associated with transmission electron microscope and its applications.

Préfontaine, Dr. Georges, University of Montreal, Montreal, Que, Can. *Biology.* Isle Verte, Que, May 26, 97. B.A, Laval, 18; M.D, Montreal, 23, licencié ès-sci, 33; Paris, 25; Strasbourg, 26; Harvard, 27. *Asst. prof.* histol, *Montreal,* 29–32, *biol, 27–, head dept, 35–* Mem, Fisheries Research Board, Can; Que. Salmon Cmn; Que. Sci. Research Bur. A.A; fel. Royal Soc. Can; Soc. Can. Hist. Nat. (pres, 40); Asn. canfrançaise pour l'avance. des Sci. (pres, 40); Asn. des Anat. France; Union des Nat. France. Fauna of the St. Lawrence estuary; salmon; fresh-water biology.

Preisler, Dr. P(aul) W(illiam) (Otto), 3420 Longfellow Blvd, St. Louis, Mo. *Biochemistry.* St. Louis, Mo. May 31, 02. B.S, Washington (St. Louis), 23, M.S, 25, fellow, 25–27, Ph.D, 27. Asst. chem, Washington (St. Louis), 23–24, instr, 24–25; nat. research fellow med, hygienic lab, U. S. Pub. Health Service, 27–28; Harvard, 28–29; research fellow physiol. chem, McCarthy Neur. Foundation, sch. med, Pennsylvania, 29–31; research assoc. *biochem, sch. med, Washington (St. Louis),* 31–34, *instr, 34–; major, Sanit. Corps, U. S. Army, 42–* A.A; Soc. Biol. Chem; Chem. Soc; Electrochem. Soc; Progressive Educ. Asn; Am. Fed. Teachers. Oxidation-reduction potentials; kinetics of reactions; indicators; sulfur compounds; biological oxidations and reductions; biological pigments; semiquinones; bacterial metabolism; methods of analysis.

Prenowitz, Prof. Walter, Brooklyn College, Brooklyn, N. Y. *Mathematics.* New York, N. Y, Oct. 19, 06. A.B, Columbia, 25, A.M, 26, Ph.D, 36. Tutor *math, Col. City of N. Y,* 27–30, *Brooklyn Col,* 30–33, instr, 33–38, *asst. prof, 38–* Math. Soc. Geometry.

Prentice, Prof. Burr N(orman), 20 Waldron St, West Lafayette, Ind. *Forestry.* Berkshire, N. Y, Aug. 1, 88. A.B, Syracuse, 12, M.F, 13. U. S. Forest Service, 13–14; instr. *forestry, Purdue,* 14–15, asst. prof, 15–20, assoc. prof, 20–26, *prof. and head dept, 26–* Soc. Foresters (sec'y, Ohio Valley sect, 24, pres, 25); Forestry Asn; Ind. Acad. Growth of white oak; growth in grazed and ungrazed woodlots.

Prentice, Pres. Donald B(ishop), Rose Polytechnic Institute, Terre Haute, Ind. *Mechanical engineering.* Hartford, Conn, April 27, 89. Ph.B, Yale, 10, M.E, 14; A.M, Lafayette Col, 27, hon. Sc.D, 36; LL.D, Wabash Col, 32. Instr. mech. eng, Yale, 12–17; asst. prof, Lafayette Col, 17–18, prof. and head dept, 18–31, dean, 24–30; *pres, Rose Polytech, 31–* Lafayette Col. rep, World's Eng. Cong, Japan, 29. Director, Camp Lafayette, 18. A.A; Mech. Eng; Eng. Educ. (councilor, 27–30, v. pres, 39, pres, 40); Polit. Sci. Asn. Heating boilers; low rate combustion of solid fuels.

Prentice, Dr. William C(ourtney) H(amilton), Johns Hopkins University, Baltimore, Md. *Psychology.* East Aurora, N. Y, Aug. 4, 15. A.B, Swarthmore Col, 37; Rhodes scholar, Oxford, 37–38; A.M, Harvard, 41, Ph.D, 42. Asst. *psychol,* Harvard, 38–40; visiting instr, Col. of William and Mary, 40; tutor, Radcliffe Col, 40–41; *instr,* Vermont, 41–42; Swarthmore Col, 42–43; *Hopkins, 43–* Exten. lecturer, Boit, Dalton and Church Co, Boston, 41. Assoc. Psychol. Asn. Experimental psychology; learning; memory; motivation.

Prentiss, Brig. Gen. A(ugustin) M(itchell), Pine Bluff Arsenal, Ark. *Chemistry.* Chapel Hill, N. C, Jan. 4, 90. B.S, George Washington, 11, C.E, 13, Ph.D, 23, LL.B, 33. Chief ordnance sect, Chem. Warfare Service, 17–19, tech. div, 19–21; asst. prof. mech. eng, George Washington, 23–25; tech. director, Edgewood Arsenal, 27–30; chief mfg. and supply div, Chem. Warfare Service, 32–36; admin. div, Edgewood Arsenal, 36–39; chem. officer, Panama Canal Dept, 38–39, Chicago, Ill, 40–41; *commanding gen, Pine Bluff Arsenal, 41–* Research assoc, George Washington, 23; Bur. Standards, 33. D.S. medal, 22; chevalier, Légion d'honneur. A.A; Chem. Soc; N. Y. Acad. Chemical warfare; mechanical and chemical engineering; physical chemistry; explosives chemistry; physics and chemistry of warfare gases; carburetion and chemical process patents; chemicals in war; civil air defense.

Prentiss, Dr. Spencer S(cott), 1041 Sanford Ave, Irvington, N. J. *Physical chemistry.* Washington, D. C, Dec. 14, 05. B.S, George Washington, 28; Ph.D, Mass. Inst. Tech, 31–34; research chemist, Linde Air Products Co, 34–36; E. I. du Pont de Nemours and Co, 36–42; *tech. aide, Nat. Defense Research Cmt, 42–* A.A; Chem. Soc. Theory of solutions; freezing points of aqueous solutions of electrolytes; properties of acetylene.

Prescott, Dr. C(harles) H(olden), Jr, Bell Telephone Laboratories, 463 West St. New York, N. Y. *Physical chemistry.* Cleveland, Ohio, Feb. 22, 00. A.B, Yale, 22; Ph.D, Calif. Inst. Tech, 26. Teaching fellow, Calif. Inst. Tech, 23–26, research fellow, 26–27, nat. research fellow, 27–28; *Bell Tel. Labs, 28–; research assoc, radiation lab, California, 43–* Chem. Soc; Physical Soc. High temperature chemical equilibria; physicochemical properties of photoelectric and thermionic emitters.

Prescott, Ford L(ewis), 557 Kolping Ave, Dayton, Ohio. *Mechanical engineering.* Grand Rapids, Mich, Sept. 27, 92. B.S, Florida, 23, M.E, 25. Designer, Am-La France Fire Engine Co, Elmira, N. Y, 16–21; mech. engineer, South. Utilities Co, Palatka, Fla, 23–25; instr. to assoc. prof. mech. eng, Florida, 25–29; *prin. mech. engineer, Air Corps, Wright Field, 29–* Manley medal, 32. Soc. Automotive Eng. (v. chairman and chairman, Dayton sect, 32–34). Aircraft power plants; crankshaft torsional vibration and torsiometers; high speed engine pressure indicators.

Prescott, Prof. G(erald) W(ebber), 601 Burr Oak St, Albion, Mich. *Biology.* La Porte City, Iowa, 01. A.B, Oregon, 23; A.M, Iowa, 26, Ph.D, 28. Assoc. prof. biol, Willamette, 28–29; instr. bot, exten. center, Oregon, 29; asst. prof. and later *assoc. prof. biol, Albion Col, 29–* Summers, instr, Iowa, 28, 30; Marine Biol. Lab, Woods Hole, 32, 33, 35, 36, 37; field research, U. S. Dept. Agr, 34; Wis. Geol. Nat. Hist. Surv, 36–39; research, Louisiana, 38; Panama, 39; mem. staff, biol. sta, Michigan, 40– A.A. (v. pres, acad. conf, 42); Micros. Soc. (v. pres, 42); Soc. Taxon; Limnol. Soc; Sulli-

vant Moss Soc; Mich. Acad. (v. pres, 43). Aquatic biology, especially fresh water; phycology; fungus parasites of aquatic organisms.

Prescott, Prof. Samuel C(ate), Massachusetts Institute of Technology, Cambridge, Mass. *Industrial microbiology.* South Hampton, N. H, April 5, 72. B.S, Mass. Inst. Tech, 94; Marine Biol. Lab, Woods Hole, 96; Berlin and Copenhagen, 00; Sc.D, Bates Col, 23. Asst. *biol, Mass. Inst. Tech,* 95–96, instr, 96–03, asst. prof, 03–09, assoc. prof, 09–14, prof, 14–42, *emer. prof, 42–,* head dept. biol. and pub. health, 22–42, dean *science,* 32–42. Instr, Framingham Nor. Sch, Mass, 98–03; Simmons Col. (Mass), 03–11; director, Boston Bio-Chem. Lab, 05–22; research lab, United Fruit Co, Costa Rica, 14–17; in charge div. dehydration, U. S. Dept. Agr, 19–20. Collaborator, 'Centralblätt. für Bakter,' 01–10. Trustee, Trop. Agr. Research Foundation, 24–43. Appert medal, Am. Acad. of Arts and Sciences, 43. Major, Sanit.C, 17–19, lieut. col, 20, col, 25–35. A.A; Soc. Nat; Soc. Bact. (v. pres, sec'y, 06, 07, pres, 19, rep, Nat. Research Council, 20); Chem. Soc; Soc. Chem. Indust; fel. Pub. Health Asn; Inst. Food Technol. (pres, 39–41); Am. Acad; Inst. Int. du Froid (pres, cmt. III). Industrial bacteriology; water and food bacteriology; food technology.

Present, Dr. R(ichard) D(avid), Purdue University, Lafayette, Ind. *Physics.* New York, N. Y, Feb. 5, 13. B.S, Col. City of N. Y, 31; A.M, Harvard, 32, Ph.D, 35. *Instr. physics, Purdue, 35–* Physical Soc. Quantum theory of nuclear structure; the structure of molecules.

Presnell, Dr. A(lexander) K(oehne), Andrew Jergens Co, Cincinnati, Ohio. *Biochemistry.* Torreon, Mex, Dec. 29, 09. A.B, Miami (Ohio), 32; fellow, Cincinnati, 32–35, M.S, 33, Ph.D, 35. Asst. prof, col. pharmacy, Cincinnati, 35–38, Jergens fellow biochem, 35–40; research biochemist, Andrew Jergens Co, 40–43; *Sanit. Corps, U. S. Army, 43–* A.A; Chem. Soc. Vitamins; blood clotting; tissue respiration; antiseptics.

Presnell, Prof. Galen W(ood), Washington Missionary College, Takoma Park, Washington, D. C. *Physics.* Eagle Lake, Minn, Sept. 5, 97. A.B, Union Col. (Nebr), 21; fellow, Colorado, 30–31, A.M, 31, Ph.D, 32. Instr. math. and physics, Union Col. (Nebr), 21–23; Campion Acad, Colo, 23–24; asst. physics, Colorado, 24–25, 29–30, instr, 31–32, univ. fellow, 33–34; instr. math. and physics, Washington Missionary Col, 25–28; physics, Wyoming, 32–33; asst. prof, Colo. Agr. Col, 34–35; *prof. and head dept. physics and math, Washington Missionary Col, 36–* Physical Soc. Contact rectification; cathode ray oscillograph.

Pressey, Prof. Sidney L(eavitt), Ohio State University, Columbus, Ohio. *Psychology.* Brooklyn, N. Y, Dec. 28, 88. A.B, Williams Col, 12; A.M, Harvard, 15, Ph.D, 17. Asst. psychologist and intern, Psychopathic Hosp, Boston, 16–17; asst. and instr. *psychol,* Indiana, 17–21, asst. prof, 21; *Ohio State,* 21–26, *prof, 26–* A.A; Psychol. Asn; Asn. Applied Psychol. (chairman ed. sect, 41); Soc. Psychol. Study Social Issues; Educ. Research Asn; Midwest. Psychol. Asn. (pres, 43); Ohio Acad. Educational and abnormal psychology; curriculum building; tests; adult education.

Pressman, Dr. David, California Institute of Technology, Pasadena, Calif. *Chemistry.* Detroit, Mich, Nov. 24, 16. B.S, Calif. Inst. Tech, 37, Ph.D, 40; A.M, California at Los Angeles, 38. Noyes fellow chem, *Calif. Inst. Tech,* 40–41, *research fellow, 41–* Chem. Soc. Physical organic chemistry; immunochemistry; determination of unsaturation in organic compounds; allylic rearrangements; reaction of ethylene dibromide derivatives with potassium iodide; hydration of unsaturated compounds; serological reactions of complex haptenes.

Pressman, Dr. R(alph), 309 Central Ave, Hatboro, Pa. *Bacteriology.* Philadelphia, Pa, May 1, 01. B.S, Phila. Col. Pharmacy, 29, Maltbie Chem. Co. fellow, 29–31, Ph.G, 30, M.S, 31, Warner Chem. Co. fellow, 33–34; A.M, Pennsylvania, 34, Ph.D, 36. Special work, Pa. State Col, 24–25; Temple, 29–30; instr. and later *asst. prof. bacter, Phila. Col. Pharmacy, 30–* Research, Post-Grad. Hosp, Pennsylvania, 29; director bacter, Dean Lab, Phila, 30–34; Zeller Labs, Reading, Pa, 33–35; med. research div, Chem. Warfare Service, Edgewood Arsenal, 40–41. Bacteriology; pharmacology; chemistry; bactericidal efficiency and toxicity of creosote; butyl alcohol; acetone and ethyl alcohol from molasses; bactericidal properties of sodium perborate; isolation of pathogenic bacteria from the air.

Prest, Dr. V(ictor) K(ent), 83 Prince Arthur Ave, Toronto, Ont, Can. *Geology.* Edmonton, Alta, April 2, 12. B.Sc, Manitoba, 35, M.Sc, 36; Ph.D, Toronto, 41. Asst. geol, Toronto, 36–39; museum asst, Royal Ont. Museum, 37–39; lecturer geol, Toronto, 39–40; junior geologist, research lab, Int. Nickel Co, 42; *sub-lieut, Royal Can. Naval Volunteer Res, 42–* Summers, geologist, Dept. Mines, Ont, 37–42. Can. Inst. Min. and Metal. Precambrian of the Miminiska-Fort Hope area, Albany River, Ontario.

Preston, Prof. Howard K(ent), 260 Orchard Road, Newark, Del. *Engineering.* Trenton, N. J, May 11, 88. C.E, Lafayette Col, 09. With Del, Lackawanna and West. R.R, 09–10; instr. math. and drawing, Lafayette Col, 10–12; math. and eng, Delaware, 12–15, asst. prof, 15–18; asst. engineer, du Pont Eng. Co, 18–19; res. engineer, State Highway Dept, N. J, 19–20; *prof. eng, Delaware,* 20–28, *head dept. mech,* 29– Director, Del. Safety Council. Civil Eng. (director Phila. sect, 41–). Civil engineering.

Preston, Prof. Malcolm G(reenhough), 311 Llandrillo Road, Bala-Cynwyd, Pa. *Psychology.* Philadelphia, Pa, Dec. 29, 05. B.S, Pennsylvania, 27, A.M, 31, Ph.D, 35. Asst. instr. *psychol, Pennsylvania,* 30–35, instr, 35–39, *asst. prof, 39–* Psychol. Asn. Psychophysics; statistics.

Preston, Prof. Richard J(oseph), Jr, 1415 S. College Ave, Ft. Collins, Colo. *Forestry.* Rockford, Ill, Sept. 28, 05. A.B, Michigan, 27, M.S, 28, Ph.D, 41; Chicago, 32, 33; Stanford, 30, 32; Grenoble (France), 28; Washington (St. Louis), 35. Junior forester, U. S. Forest Service, Wyo, 29; exten. ranger, State Forest Service, Fla, 30–32; asst. prof. bot, Principia Col, 32–36; *assoc. prof. forestry, Colo. State Col, 36–; assoc. technologist, Forest Products Lab, U. S. Forest Service, 43–* Summers, naturalist, Nat. Park Service, 35, 36. Mo. Acad. Conservation of natural resources; trees of the Rocky Mountains; silvics; wood technology.

Preston, Dr. Roger G(uy), 2627 Virginia St, Berkeley, Calif. *Physical chemistry.* Colton, Calif, Feb. 26, 15. B.S, California, 37, Ph.D, 41. Asst. physical sciences, San Francisco State Col, Calif, 39–41; research chemist, Standard Oil Co, Calif, 41–43; *ensign, U. S. Naval Res, 43–* Entropies of transfer and absolute partial molal entropies of certain aqueous ions from silver-silver bromide and silver-silver iodide thermocells.

Preston, Dr. Walter C(reigh), 3901 Clifton Ave, Cincinnati, Ohio. *Chemistry.* Lewisburg, W. Va, Nov. 3, 95. A.B, Washington and Lee, 15; Ph.D, Hopkins, 23. *Research chemist, Procter and Gamble Co, 23–* Chem. Soc. Detergent action; surface properties of soap solutions; sulfated and sulfonated compounds; laundering and water softening; soap manufacturing processes.

Preston, Dr. William M, Sandy Pond Road, Lincoln, Mass. *Physics.* New York, N. Y, April 24, 09. B.S, Princeton, 30; Ph.D, Harvard, 35. Instr. physics, Harvard, 36–41; *staff mem, radiation lab, Mass. Inst. Tech, 41–* A.A; Physical Soc; Optical Soc. Vacuum spectroscopy.

Preston, Dr. William S(amuel), University of Michigan, Ann Arbor, Mich. *Medical bacteriology.* Woonsocket, R. I, June 23, 06. A.B, Brown, 28, A.M, 30; Ph.D, Wisconsin, 37. Demonstrator biol, Brown, 28–30; asst. med. bacter, Wisconsin, 30–32, 34–37; asst. bacteriologist, State Dept. Health, N. Y, 37–38; *research assoc. and instr. bacter, Michigan, 38–* A.A; Soc. Bact. Virus diseases; bacillary dysentery; arthritis.

Pretz, Harold W(illiam), 123 S. 17th St, Allentown, Pa. *Botany.* Allentown, Pa, Nov. 18, 77. Pub. sch; hon. M.S, Muhlenberg Col, 14. *Trust officer, Allentown Nat. Bank.* A.A; Fern Soc; Torrey Bot. Club; Phila. Bot. Club. Pteridophytes; spermatophytes; systematic botany; plant distribution; flora of Lehigh County, Pennsylvania.

Pretz, Rev. P(aschal) H(arry), St. Benedict's College, Atchison, Kans. *Physics.* Gardner, Kans, July 31, 95. A.B, St. Benedict's Col, 17, A.M, 20; M.S, Iowa, 29. Instr. *physics, St. Benedict's Col,* 23–27, *prof, 29–* A.A; Asn. Physics Teachers; Physical Soc; Kans. Acad.

Preu, Dr. Paul W(illiam), 16 N. Goodman St, Rochester, N. Y. *Neurology, Psychiatry.* Brooklyn, N. Y, Nov. 13, 06. B.S, Catholic Univ, 27; M.D, Cornell, 30. Intern, Mem. Hosp, Orange, N. J, 30–31; univ. hosp, Duke, 31–32; asst. psychiat, Michigan, 32–33; psychiat. and mental hygiene, *Yale,* 33–34, instr, 34–36, asst. prof, 36–42; *attending neurologist and psychiatrist, Rochester Gen. Hosp, 42–* Res. physician, State

Psychopath. Hosp, Mich, 32-33; asst. res. psychiatrist, New Haven Hosp, 33-34; res. psychiatrist, 34-35; assoc. psychiatrist, New Haven Hosp. and New Haven Dispensary, 36-42; Rockefeller fellow, N. Y. Neur. Inst, 39-40. Psychiat. Asn; Am. Med. Asn. Symptomatic psychoses; psychiatric aspects of gastro-enterology and cardiology; social factors in personality development; psychiatric teaching and education.

Prewitt, Dr. Pro(viso) V, 122 E. 82nd St, New York, N. Y. *Physiology.* Slater, Mo, Jan. 13, 93. A.B, Missouri, 15, A.M, 16; M.D, N. Y. Univ, 20, Ph.D, 22. Instr. physiol, Missouri, 15-16; physiol. and path. physiol, N. Y. Univ, 16-20, asst. prof. physiol, 20-23, assoc. prof, 23-28; *practising surgeon, 28-* Soc. Exp. Biol; Am. Med. Asn; fel. Col. Surg; Gastro-Enterol. Asn; Harvey Soc; fel. N. Y. Acad. Med. Lipolytic activity of liver and blood.

Prian, Dr. V(asily) D(imitry), Fenn College, Cleveland, Ohio. *Mechanical engineering.* Harbin, Manchuria, March 7, 08. B.S, Harbin Polytech. Inst, 31; M.S, Michigan, 32, Sc.D, 35. Efficiency engineer, 34-35; designing engineer, 35-36; from instr. to *assoc. prof. mech. eng, Fenn Col, 36-* Mech. Eng; Soc. Metals; Soc. Adv. Management. Industrial engineering; machinability of metal; cutting fluids; work simplification.

Price, Dr. Bronson, Federal Communications Commission, Washington, D. C. *Psychology.* Freeport, Ill, March 24, 05. B.S, Antioch Col, 29; Ph.D, Stanford, 34. Social Science Research Council fellow, Moscow, U.S.S.R, 34-36; instr. psychol, Ohio State, 36-42; *senior broadcast analyst, Fed. Communications Cmn, 42-* Assoc. Psychol. Asn. Tests; genetic and social psychology.

Price, Prof. Charles C(oale), 305 W. Vermont St, Urbana, Ill. *Organic chemistry.* Passaic, N. J, July 13, 13. A.B, Swarthmore Col, 34; A.M, Harvard, 35, Ph.D, 36. Asst. *chem, Illinois,* 36-37, instr, 37-39, assoc, 39-41, asst. prof, 41-42, *assoc. prof, 42-* A.A; Chem. Soc. Mechanism of substitution and orientation in aromatic compounds; alkylation of aromatic compounds; addition polymerization; synthesis of organic compounds.

Price, Dr. D(avid) J(ames), 701 Whittier St, N. W, Washington, D. C. *Engineering.* Ashland, Pa, March 27, 84. B.S, Pa. State Col, 25, E.M, 27; M.S, George Washington, 27; Ph.D, American Univ, 31. Chainman, Lehigh Valley Coal Co, Pa, 00-02; res. mining engineer, Clearfield Bituminous Coal Corp, Pa, 02-12; asst. mining engineer, U. S. Bur. Mines, Pa, 12-14; engineer in charge grain dust explosions and develop. work, bur. chem, *U. S. Dept. Agr,* 14-27, prin. engineer in charge chem. eng. div, *bur. agr. and indust. chem,* 27-40, *prin. chem. engineer, 40-* Am. Standards Asn; Nat. Fire Protection Asn. (chairman, dust explosion hazards cmt, 22-, farm fire protection cmt, 25-, pres). Dust explosions in industrial plants; farm and rural fire prevention; spontaneous heating and ignition of agricultural products; industrialization agricultural products.

Price, Dr. Donald, 166 E. 96th St, New York, N. Y. *Organic chemistry.* Fontainebleau, France, Sept. 25, 91. A.B, Columbia, 24, A.M, 26, du Pont fellow, 28-29, Ph.D, 30; Cambridge, 29-30; Munich, 30-31; Chem-Mediz Inst, Graz, 31. Asst. chem, Columbia, 25-28, 31-36; research chemist, Nat. Oil Products Co, Harrison, N. J, 36-37, *tech. director org. research lab, 37-* 2nd lieut, Inf, 18. A.A; Chem. Soc. (councilor, 40-); Inst. Chem. (councilor, N. Y. chap, 40-, chairman, 41, nat. v. pres, 42-); Oil Chem. Soc; Asn. Textile Chem. and Colorists; Metrop. Microchem. Soc. (pres, 40); Chemists' Club; Soc. Ghem. Indust. Gt. Britain (exec. cmt, Am. sect, 42-); fel. London Chem. Soc; Deuts. Chem. Gesell; Deuts. Gesell. für Fettforschung. Chalcones and benzalcoumaranones; molar volume and refraction in dilute solution; microanalysis; derivatives of fats, oils and waxes; water-soluble vitamins; wetting agents; textile assistants; synthetic detergents.

Price, Dr. Dorothy, University of Chicago, Chicago, Ill. *Zoology.* Aurora, Ill, Nov. 12, 99. B.S, Chicago, 22, Ph.D, 35. Asst. *zool, Chicago,* 23-37, *research assoc, 37-* Soc. Zool; Asn. Study Int. Secretions. Embryology; endocrinology.

Price, Prof. Edwin O(liver), 412 E. Washington St, Pittsburg, Kans. *Physical chemistry.* Longmont, Colo, Jan. 3, 04. A.B, Colorado, 26; M.S, Ohio State, 33, Ph.D, 38. Prof. *chem.* and head dept, Iowa Wesleyan, 34-40; *asst. prof, Kans. State Teachers Col, Pittsburg, 40-* Chem. Soc; Iowa Acad; Kans. Acad. State of oxygen, nitrogen and methane at low temperatures and low pressures.

Price, Dr. E(mmett) W(illiam), 6519 40th Ave, University Park, Hyattsville, Md. *Parasitology.* Clover Lick, W. Va, Jan. 30, 96. D.V.M, George Washington, 18, Ph.D, 35; M.S, American Univ, 31. Assoc. prof. path, Agr. and Mech. Col, Texas, 19-26; assoc. parasitologist, *bur. animal indust, U. S. Dept. Agr,* 26-29, parasitologist, 29-36, *senior parasitologist and asst. chief zool. div, 36-* Zoologist, Johnson-Smithsonian deep-sea exped, Puerto Rican Deep, 33. A.A; Soc. Parasitol; Vet. Med. Asn; Micros. Soc; Helminth. Soc. Wash. (cor. sec'y, 30-32, pres, 32); Wash. Acad. (v. pres, 36-40, 42-). Helminthology; parasites and parasitic diseases of domesticated and wild animals; taxonomy and morphology of nematodes and trematodes; monogenetic trematodes.

Price, G(eorge) M(cCready), 143 Barton Ave, Loma Linda, Calif. *Geology, Philosophy.* Havelock, N. B, Can, Aug. 26, 70. A.B, Col. Med. Evangelists, 12; hon. A.M, Pacific Union Col, 18. Prof. physics and chem, Lodi Acad, Calif, 14-20; geol, Pacific Union, 20-22; Union Col. (Nebr), 22-24; prin, Stanborough Col, England, 27-28; prof. geol, Emmanuel Missionary Col, 29-33; philos. and geol, Walla Walla Col, 33-38; *retired.* Langhorn-Orchard prize, Victoria Inst, London, 25. Evolutionary geology and the new catastrophism; the flood theory of geology.

Price, Dr. George M(erriman), Brewerton, N. Y. *Surgery.* Liverpool, N. Y, March 3, 65. M.D, Syracuse, 86. Demonstrator anat, *Syracuse,* 90-92, instr, 92-93, lecturer, 93-99, prof, 99-04, prof. and director anat. lab, 04-07, prof. *clin. surg,* 06-32, *emer. prof, 32-* Past director cancer clinic, univ. hosp, Syracuse. Fel. Col. Surg; Am. Med. Asn; Cent. N. Y. Med. Asn. (past pres); Onondaga County Med. Soc. (past pres); Syracuse Acad. Med. (past pres).

Price, Prof. G(riffith) Baley, University of Kansas, Lawrence, Kans. *Mathematics.* Brookhaven, Miss, March 14, 05. A.B, Miss. Col, 25; Townsend scholar, Harvard, 26-27, A.M, 28, Ph.D, 32. Instr. *math,* Miss. Col, 25-26, 29-30; Harvard, 27-29, 30-32; Union (N. Y), 32-33; Rochester, 33-36; Brown, 36-37; asst. prof, *Kansas,* 37-39, assoc. prof, 39-43, *prof, 43-* Summers, instr, Harvard, 28, 31-33, 36, 37, 41. A.A; Math. Soc. (councilor, 41-43); Math. Asn. Integration; abstract spaces.

Price, Prof. H(arvey) L(ee), Virginia Polytechnic Institute, Blacksburg, Va. *Horticulture.* Price's Fork, Va, March 18, 74. B.S, Va. Polytech, 98, M.S, 00. Instr. *hort, Va. Polytech,* 00-03, *prof. and horticulturist, Exp. Sta, 03-, dean dept. agr, 08-* A.A; Soc. Hort. Sci; Pomol. Soc; Va. Hort. Soc. Phenology; inheritance in hybrids; apple breeding; phenology of tree fruits.

Price, Dr. Irene, State Teachers College, Oshkosh, Wis. *Mathematics.* Parr, Ind, Jan. 16, 02. A.B, Indiana, 26, Clara-Javan Goodbody scholar, 26-27, A.M, 27, Ph.D, 32. *Instr,* Indiana, 26-29, exten. div, 27-29; *math, Wis. State Teachers Col, 29-* Math. Soc; Math. Asn. (chairman Wis. sect, 42). Econometric Soc. Mathematical analysis.

Price, Dr. J(acob) Walde, Western Reserve University, Cleveland, Ohio. *Chemistry.* Nashville, Tenn, Oct. 19, 06. B.S, Butler, 28; A.M, Cincinnati, 29, Ph.D, 31. Asst, Children's Hosp, Research Foundation, Cincinnati, 32-38; research chemist, dept. med, Lakeside Hosp, 38-40; *senior instr. biochem, Western Reserve, 40-* Chem. Soc; Ind. Acad. Chemical changes in nephritis; kidney function; leukemia.

Price, Prof. John R(eese), 1818 Chadbourne Ave, Madison, Wis. *Electrical engineering.* Cambria, Wis, Feb. 15, 80. B.S, Wisconsin, 05. Testing dept, Gen. Elec. Co, Schenectady, 05-06; from instr. to *prof. elec. eng, Wisconsin, 06-* Elec. Eng; Eng. Educ. Alternating current machinery.

Price, Prof. John W(orthington), Ohio State University, Columbus, Ohio. *Vertebrate zoology.* Plain City, Ohio, Sept. 17, 99. B.S, Ohio State, 21, M.S, 23, Ph.D, 30. Instr. *zool, Ohio State,* 27-30, asst. prof, 30-33, assoc. prof, 33-42, *prof, 42-* A.A; Soc. Zool; Ohio Acad. Experimental embryology; growth and gill development of small-mouth bass; embryology of whitefish; time-temperature relations in the incubation of the whitefish; eggshell cap method of incubating chick embryos.

Price, Prof. Leonard C(assell), 1134 Victor St, East Lansing, Mich. *Mechanical engineering.* Lexington, Ky, Jan. 18, 95. M.E, Cornell, 25, M.M.E, 29. Instr. exp. eng, Cor-

nell, 23–26; research assoc. prof. *mech. eng*, Arkansas, 26–42; *assoc. prof, Mich. State Col, 42–* A.A; Mech. Eng. High speed internal combustion engines; domestic heating plants.

Price, Prof. Melvin, 5 Indianapolis Road, Lafayette, Ind. *Engineering.* Lafayette, Ind, Sept. 14, 77. B.S, Purdue, 97, E.E, 02; A.M, Columbia, 04. Instr. machine design, Nebraska, 99–05; prof, Rochester, 12–21; head dept. mech. eng, Florida, 21–35; research engineer, Allison Eng. Co, 35–36; asst. prof. machine design, Purdue, 36–37; mech. eng, Kansas, 37–38; research engineer, Bendix Aviation Corp, 39–42; *special staff engineer, Aluminum Co. Amer, 42–* State Board Eng. Examiners, Fla, 32–35. Mathematical curves; microstructure and friction of bearing metals; mechanical design for aircraft.

Price, Prof. Paul H(olland), P. O. Box 879, Morgantown, W. Va. *Geology.* Uffington, W. Va, Sept. 1, 98. A.B, West Virginia, 23, M.S, 26; Ph.D, Cornell, 30. Asst. geologist, W. Va. Geol. Surv, 22–34, *state geologist, W. Va, 34–*; instr. *geol, West Virginia,* 30–32, assoc. prof, 34–38, *prof. and head dept, 38–*; *major, Special Res, U. S. Army.* Mem, State Planning Board, W. Va. Fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Geophys. Union; Asn. State Geol; Appalachian Geol. Soc; W. Va. Acad; Eng. Soc. West. Pa. Structural and economic geology; coal; oil; gas.

Price, R(alph) H(enry), Pan-American Refining Corp, Texas City, Texas. *Chemical engineering.* Parsons, Kans, Feb. 26, 95. A.B, Baker, 17; B.S, Mass. Inst. Tech, 21; Harvard. Instr. chem. eng, Mass. Inst. Tech, 21–24; research fellow, Miner labs, Chicago, 24–29; Standard Oil Co. of Ind, 29–34; *director research, Pan-Am. Ref. Corp, 34–* Lecturer, Chicago, 29–31. Chem. Eng; Chem. Soc; Soc. Test. Mat. Refining and cracking of petroleum; paper manufacture; vapor phase clay treating of gasoline.

Price, Raymond, U. S. Forest Service, Tucson, Ariz. *Forestry.* Oden, Utah, Feb. 10, 08. B.S, Utah, 31; M.S, Yale, 39. Junior range examiner, Intermountain Forest and Range Exp. Sta, *U. S. Forest Service,* 31–34, asst. range examiner, 34–35, assoc. forest ecologist, 35–37, in charge Great Basin branch exp. sta. and senior forest ecologist, div. range research, 37–42, *director, Southwest. Forest and Range Exp. Sta, 42–* Soc. Foresters. Forest and range ecology; range and cattle management; forest management; artificial range revegetation; watershed management.

Price, Dr. Robert W(unner), Lederle Laboratories, Inc, Pearl River, N. Y. *Organic chemistry.* Albion, Nebr, Sept. 5, 08. A.B, Carleton Col, 31; M.S, Mass. Inst. Tech, 34, Ph.D, 37. Teaching fellow org. chem, Mass. Inst. Tech, 34–37; asst. prof, Vermont, 37–38; research chemist, *Lederle Labs, Inc,* 39–41, *head pharmaceut. sterile filling dept, 41–* Chem. Soc. Pyrylium salts; rates of reaction of amines and isocyanates; vitamin K and water soluble derivatives; sulfadiazine.

Price, Prof. T(homas) M(alcolm), 3722 S St, N. W, Washington, D. C. *Physiological chemistry.* Darlington, Md, April 11, 79. B.S, Maryland, 99; M.S, George Washington, 00, Ph.D, 03. Chemist, Exp. Sta, Md. Agr. Col, 99–02; instr. chem, *George Washington,* and biochem, med. sch, 02–05, asst. prof, 05–09, *prof. physiol. chem, 09–* Sci. asst, U. S. Dept. Agr, 02–08; senior biochemist, 08–10, chemist in charge meat inspection labs, 10–20; chemist, Dept. Health, D. C, 20–27; chief chemist, Fuller Dyeing and Cleaning Co; assoc. prof, Hahnemann Med. Col, 30–31; prof, Fairmount Col, 31– Chem. Soc. Digestibility of milk treated with preservatives; effects of baking powders and preservatives on digestion; the isolation of animal and bacterial enzymes; vegetable enzymes and their toxic effects; anilin dyes; determination of starch in meats.

Price, Prof. W(alter) A(llen), University of Kentucky, Lexington, Ky. *Entomology, Botany.* Columbus, Ohio, Feb. 25, 87. B.S.A, Ohio State, 13, M.S, 16. Asst. *entom,* Ohio State, 12–14; asst, Purdue, 14–15, instr, 15–17, asst. prof, 17–20, assoc. prof, 20–29; *prof, Kentucky, and head dept. entom. and bot, Exp. Sta, 29–,* acting director, 43. State entomologist, administrator bee, nursery and seed laws, Ky, 29–; collaborator, bur. entom. and plant quarantine, U. S. Dept. Agr, 30– Summers, agent, bur. entom, U. S. Dept. Agr, 22–25. A.A; Entom. Soc. Amer; Asn. Econ. Entom. (v. pres, 40); Ky. Bee Keepers Asn. (sec'y, 30–); Ky. Research Club; Ky. Acad. Economic entomology and apiculture.

Price, Prof. Walter V(an), University of Wisconsin, Madison, Wis. *Dairying.* Schenectady, N. Y, Dec. 10, 96. B.S, Cornell, 20, M.S, 21, Ph.D, 24. Asst. prof, Cornell, 24–25, *prof,* 26–28; *dairy indust, Wisconsin, 29–* A.A. Manufacture of the products of milk.

Price, Dr. Whitfield, 118 Shepherd Ave, South Charleston, W. Va. *Physical chemistry.* Brookhaven, Miss, Aug. 12, 09. A.B, Miss. Col, 31; Ph.D, Virginia, 35. *Research chemist, Westvaco Chlorine Products Corp, 35–* A.A; Chem. Soc. Industrial chemistry.

Price, Dr. W(illiam) Armstrong, (Jr), Box 1860, Corpus Christi, Texas. *Geology.* Richmond, Va, March 27, 89. A.B, Davidson Col, 09; Ph.D, Hopkins, 13. Instr. geol, West Virginia, 13–14, asst. prof, 14–19; geologist, companies, 19–24; *consulting geologist, 20–* Summers, U. S. Geol. Surv, 10, 11; Md. Geol. Surv, 10–13, 16; W. Va. Geol. Surv, 13–20; Pa. Geol. Surv, 21; pyrite investigator, U. S. Bur. Mines, 18. Lieut, O.R.C, 18–33. A.A; Geol. Soc; Asn. Petrol. Geol. (regional assoc. ed, 'Bul,' 30–32; chairman, Post-Cretaceous correlation cmt, 41–); Am. Geog. Soc; Texas Acad. (v. pres, 35, pres, 36, director, 39–). Invertebrate paleontology of the Pennsylvania system of West Virginia and Maryland; stratigraphy and economic geology of the Carboniferous and Devonian of West Virginia; geology and physiography of south Texas and northern Mexico coastal plain, lower Mississippi alluvial valley and Llano Estacado; geology of oil and natural gas.

Price, William B, Box 534, Waterbury, Conn. *Chemistry, Metallurgy.* New Haven, Conn, Sept. 22, 77. Ph.B, Yale, 02. Chemist, *Scovill Mfg. Co,* 02–06, chief chemist and metallurgist, 06–41, *director research, 41–* Metal. advisory board, Ordnance Dept. Min. and Metal. Eng. del, Int. Metal. Conf, Zurich, 31; Am. Soc. Test. Mat. and official U. S. del, Int. Asn. Test. Mat. Cong, Zurich, 31; Am. Foundrymen's Asn. del, Int. Foundrymen's Cong, Milan, 31. Chem. Soc. (past chairman, subcmt. on methods anal. on non-ferrous alloys); Min. and Metal. Eng. (past pres); Soc. Test. Mat. (exec. cmt, past chairman, subcmt. IX on nomenclature, chairman, subcmt. III for int. standardization of zinc, mem, cmts. B2, B3, B5, E4, D2); Electrochem. Soc; Soc. Automotive Eng; British Inst. Metals; Int. Asn. Test. Mat. Manganic periodates; the recovery of waste products; buffing and cleaning compounds; lacquers; metallurgy, physical properties and testing of brass, copper, nickel, silver and the non-ferrous alloys; corrosion, heat and electrical resistant alloys.

Price, Dr. W(illiam) Conway, Rockefeller Institute, Princeton, N. J. *Plant pathology.* Blacksburg, Va, Sept. 8, 06. B.S, Va. Polytech. Inst, 27; Ph.D, Columbia, 32. Asst. *plant path,* Boyce Thompson Inst, 28–32; *Rockefeller Inst,* 32–38, *assoc, 38–* A.A; Soc. Nat; Bot. Soc; Phytopath. Soc; Torrey Bot. Club. Plant virus diseases; acquired immunity in plants.

Prichard, Prof. Reuben P(arker), 5559 S. Salina St, Syracuse, N. Y. *Forestry.* Somerville, Mass, Feb. 25, 84. B.S, Dartmouth Col, 07; M.F, Yale, 09. Forest asst, U. S. Forest Service, 10–12; from instr. to acting director, N. Y. State Ranger Sch, 12–14; asst. prof. and *assoc. prof. silviculture, N. Y. State Col. Forestry, Syracuse, 14–* Soc. Foresters. Silviculture; wood technology; forest nursery practise.

Prickett, Dr. Cavett O(liver), 447 Grove, East Lansing, Mich. *Nutrition, Animal pathology.* Manchester, N. H, Feb. 18, 06. B.S, New Hampshire, 28; Yale, 28–30, 37–39; D.V.M, Ala. Polytech, 42. Assoc. nutritionist, Exp. Sta, Ala. Polytech, 30–37, asst. anat. inst, 40–41, path, 41–42; asst. veterinarian, *regional poultry research lab, U. S. Dept. Agr,* 42–43, *assoc. veterinarian, 43–* A.A. Vitamins; neuropathology of vitamin B deficiency; pathology of M. paratuberculosis infection of cattle; fowl leukosis; virus diseases; immunology.

Prickett, Dr. Paul S(mith), Mead Johnson and Co, Evansville, Ind. *Bacteriology.* Cleburne, Texas, Sept. 21, 99. B.S, Agr. and Mech. Col. Texas, 22; M.S, Cornell, 24, Ph.D, 28. City chemist and bacteriologist, Amarillo, Texas, 22; inspector chemist, bur. chem, U. S. Dept. Agr, 22–23; asst. instr. chem, Cornell, 23–24, instr. bacter, 24–26; asst. in research, N. Y. Exp. Sta, Geneva, 26–28; asst. bacter, food and drug admin, U. S. Dept. Agr, 28–29; *chief bacteriologist, Mead Johnson and Co, 29–* Soc. Bact; Pub. Health Asn; Dairy Sci. Asn. Thermophilic micro-organisms in foods; dairy and general bacteriology; food sanitation.

Pride, Prof. H(erbert) Hammond, New York University, New York, N. Y. *Mathematics.* Framingham, Mass, March 14, 91. A.B, Amherst Col, 13; M.S, N. Y. Univ, 22, Ph.D, 26. Instr. *math, N. Y. Univ,* 14–26, asst. prof, 26–35, assoc. prof, 35–39, *prof, 39–* U.S.A, 17–19. Eng. Educ. Quintic

curve with triple point; notes on advanced algebra; elements of analytic geometry.

Pridham, Dr. Alfred M(ellville) S(tewart), Cornell University, Ithaca, N. Y. *Horticulture.* Toronto, Ont, Can, Aug. 12, 02. B.S.A, Toronto, 25; M.S, Cornell, 28, Ph.D, 33. Instr. floricul, *Cornell*, 25–35, exten, 36, *ornamental hort*, 36–41, *asst. prof, 41–* Asst. prof, Mass. State Col, 28. New Eng. Gladiolus Soc. (hon. v. pres). Physiology of gladiolus; fertilization of shade trees; plant propagation.

Priem, Prof. Lillian A(rends), 125 N. Wright St, Naperville, Ill. *Chemistry.* Ackley, Iowa, Aug, 85. B.S, N. Cent. Col, 10; M.S, Wisconsin, 26. Instr. *chem, N. Cent. Col*, 21–27, *asst. prof, 27–* A.A; Chem. Soc; Ill. Acad. Fermentation products produced by bacteria.

Priepke, Dr. Rudolf J(ulius), 14 Cypress Ave, New Brunswick, N. J. *Physical chemistry.* Clarksville, Iowa, Sept. 3, 08. B.S, Elmhurst Col, 29; A.M, Duke, 30, fellow, 31–32, Ph.D, 32. Asst, Duke, 29–31; acting prof. chem, Elmhurst Col, 33–34, instr, 34–36; *research chemist*, Zonite Products Corp, 36–42; *Industrial Tape Corp, 42–* A.A; Chem. Soc. Voltaic cells; Weston standard cells; colloids; pressure-sensitive adhesives.

Priest, Prof. Ward C(urtiss), 41 Judson St, Canton, N. Y. *Physics.* Canton, N. Y, June 16, 86. A.B, St. Lawrence, 07; A.M, Harvard, 10; Sc.D, Clarkson Tech, 35. Teacher, high sch, N. Y, 07–08; instr. *physics*, St. Lawrence, 08–09; Tufts Col, 10–11; *St. Lawrence*, 11–12, *prof, 12–* A.A; Radio Eng; Acoustical Soc; Illum. Eng. Soc; Asn. Physics Teachers; Hist. Sci. Soc. Acoustics; radio.

Priester, Prof. George C(harles), 814 Fulton St, S. E, Minneapolis, Minn. *Mathematics, Mechanics.* Guttenberg, Iowa, Feb. 1, 85. B.E, Iowa, 10; M.S, Minnesota, 16; Ph.D, Michigan, 28. Instr. math. and mech, *Minnesota*, 10–16, asst. prof, 16–24, assoc. prof, 24–29, *prof. materials of eng, 29–* Math. Asn; Soc. Test. Mat; Soc. Metals (chairman, Northwest chap, 25–27); Eng. Educ; Minneapolis Eng. Club; Gesell. für angewandte Math. und Mech. Mechanical and physical properties of steel and cast iron; stress analysis in the cable of a suspension bridge; deformation of flat plates on elastic foundations; plastic deformation of cast iron.

Priestley, Dr. James T(aggart), Mayo Clinic, Rochester, Minn. *Surgery.* Des Moines, Iowa, April 7, 03. A.B, Pennsylvania, 23, M.D, 26; surg. fellow, Minnesota, 28–33, M.S, 31, Ph.D, 32. J. William White fellow, Mayo Clinic, 34; *surgeon, Mayo Clinic, 33–; U. S. Army.* Am. Med. Asn; Col. Surg; Urol. Asn; Surg. Soc; Asn. Genito-Urinary Surg; Clin. Soc. Genito-Urinary Surg; Cent. Surg. Asn; West. Surg. Asn. General and urological surgery.

Prill, Dr. Edward A(lbert), Boyce Thompson Institute for Plant Research, Yonkers, N. Y. *Chemistry.* Ripon, Wis, March 17, 05. A.B, Ripon Col, 28; Ph.D, Wisconsin, 32. Asst. chem, Ripon Col, 27–28; Wisconsin, 28–32, biochem, 33–35; instr. chem. and bacter, Coe Col, 35–37; Chas. Pfizer and Co. fellow, Iowa State Col, 37–39; org. chemist, med. sch, Wisconsin, 40; instr. chem, S. Dak. State Col, 41–42; chemist, Borden Co, 42–43; *assoc. biochemist, Boyce Thompson Inst, 43–* Chem. Soc; Iowa Acad. Heterocyclic nitrogen compounds; fats; diacetyl; flavors in dairy products; analytical methods.

Primakoff, Dr. Henry, Queens College, Flushing, N. Y. *Theoretical physics.* Odessa, Russia, Feb. 12, 14. A.B, Columbia, 35, A.M, 35; Ph.D, N. Y. Univ, 38. *Instr. physics*, Polytech. Inst. Brooklyn, 38–40; *Queens Col. (N. Y), 40–* Physical Soc. Nuclear field theory and nuclear forces; ferromagnetism.

Prime, Dr. Frederick, 131 E. 66th St, New York, N. Y. *Pathology.* Baltimore, Md, March 3, 81. B.S, Pennsylvania, 02, M.D, 05. Instr. surg, Pennsylvania, 07–11; assoc. cancer research, col. physicians and surg, Columbia, 13–20, asst. prof, 20–40; *practicing physician, 40–* Assoc, St. Luke's Hosp, 23–A.A; Asn. Path. and Bact; Asn. Cancer Research; Harvey Soc. Cancer.

Primmer, Dr. Geo(rge) H(enry), Minnesota State Teachers College, Duluth, Minn. *Geography.* Champaign, Ill, Jan. 23, 89. Ed.B, Ill. State Nor. Univ, 21; M.S, Chicago, 23; Ph.D, Clark, 33. Asst, Chicago, 21–22; *teacher geog, Minn. State Teachers Col, 22–, head dept, 33–* A.A; Nat. Council Geog. Teachers (chairman, state sect, 24, 35); Am. Geog. Soc; Minn. Acad. Iron ore, steel and forest resources of Minnesota; influence of location of Duluth; climate of Alpine Mediterranean Asia.

Primrose, Dr. A(lexander), 50 Forest Hill Road, Toronto, Ont, Can. *Surgery.* Pictou, N. S, 61. M.B, Edinburgh, 86, LL.D, 25; Middlesex Hosp, London, 87. Prof. anat, Toronto, 92–06, assoc. prof. clin. surg, 97–18, prof, 18–32, dean faculty med, 20–32; *retired.* Consulting surgeon, Toronto Gen. Hosp. and Hosp. for Sick Children. Companion of the Bath. Col, M.C, C.E.F, England, France and Salonika, 15–18. Surg. Asn. (past pres); Am. Med. Asn; Can. Med. Asn. (past pres); fel. Royal Col. Surg; fel. Royal Soc. Med. London; fel. Royal Med. Soc. Edinburgh; Royal Med. and Chirurg. Soc. Myology of the anthropoid ape; anatomy; tumors of the breast.

Prince, Dr. A(lan) T(heodore), Kilmar, Que, Can. *Petrography, Chemistry.* Toronto, Ont, Feb. 15, 15. B.A, Toronto, 37, M.A, 38; fellow, Chicago, 38, Ph.D, 41. Asst, Chicago, 39; junior research chemist, magnesian products lab, Nat. Research Council Can, 40–43; *research chemist and petrographer, Can. Refractories, Ltd, 43–* Miner. Soc. Petrography and physical chemistry of basic refractory materials; crystallography and chemistry of sphene; high temperature phase equilibrium of silicate systems; improvement of basic refractory materials.

Prince, Prof. Arthur L(eslie), 202 Lawrence Ave, New Brunswick, N. J. *Soil chemistry.* Worcester, Mass, July 4, 94. A.B, Clark, 16; M.S, Mass. Col, 20. *Prof. soil chem, Rutgers, and asst. soil chemist, N. J. Exp. Sta, 19–* A.A; Official Agr. Chem. (assoc. referee on nitrogen, fertilizer sect, 24–); Int. Soc. Soil Sci. Soil fertility; fertilizer.

Prince, Prof. A(rthur) Reginald, 108 Brunswick St, Truro, N. S, Can. *Botany.* Truro, N. S, Oct. 28, 00. B.A, Acadia, 22; A.M, Harvard, 24. Austin teaching fellow, Harvard, 25–26; *prof. bot. and head dept, Nova Scotia Agr. Col, 26–* Provincial botanist, N. S, 26– Bot. Soc; Phytopath. Soc; Can. Soc. Tech. Agr. Flora of Nova Scotia; mycology; bryology.

Prince, Dean A(rthur) W(arren), Forest Hill, Jackson, Tenn. *Chemistry, Physics.* Ironton, Mo, Nov. 4, 79. A.B, William Jewell Col, 04, A.M, 05, Sc.D, 32; Chicago, intermittently, 07–25. Prin, pub. schs, Mo, 01–02; instr. physics, William Jewell Col, 04–05; head sci. dept, West. Mil. Acad, Ill, 05–08; *prof. chem, Union (Tenn), 08–*, dean, 19–37, acting pres, 31–32. Consulting chemist, City Water Dept, Jackson, Tenn. Capt, C.W.Res. Fel. Inst. Chem; Chem. Soc; Tenn. Acad. (exec. board, 12–14). Catalysts in hydrolysis; complex ammonium compounds; laboratory outlines of physiological chemistry.

Prince, David C(handler), General Electric Co, 1 River Road, Schenectady, N. Y. *Electrical engineering.* Springfield, Ill, Feb. 5, 91. B.S, Illinois, 12, M.S, 13; Sc.D, Union (N. Y), 43. Testing, Gen. Elec. Co, 13–14; asst. elec. engineer, State Pub. Utility Cmn. of Ill, 14–17; engineer, research lab, *Gen. Elec. Co*, 19–31, chief engineer, switch-gear dept, 31–40, manager commercial eng, 40–41, *v. pres. in charge application eng, apparatus dept, 41–* Ordnance Dept, U.S.A, 17–19. A.A; fel. Elec. Eng. (pres, 41); Mech. Eng; Inst. Aeronaut. Sci. Applied physics; vacuum and gas discharge devices and circuit interrupting devices.

Prince, Prof. Ford S(moot), University of New Hampshire, Durham, N. H. *Agronomy.* Sidney, Ohio, Nov. 14, 87. B.S, Illinois, 13. Instr. soils, Mich. Agr. Col, 13–14; county agent, Xenia, Ohio, 18–25; asst. prof. *agron, New Hampshire*, 14–18, *prof. and agronomist, 25–* Soc. Agron; Int. Soc. Soil Sci. Fertilizer and lime experiments with hay, silage crops and potatoes.

Prince, Prof. Vertie D(oretha) (Mrs. Jennings G. King), Flora Macdonald College, Red Springs, N. C. *Mathematics.* Grady Co, Ga, Dec. 26, 07. A.A, Andrew Col, 24; A.B, Georgia, 30, A.M, 31. Fellow, dept. math, Georgia, 30–31; prof. math, Palmer Col, 32–36, dean educ, 35–36; *prof. math, Flora Macdonald Col, 36–* A.A; Math. Asn. Correlation of freshman mathematics grades with high school averages.

Prindle, Dr. Bryce, Iowa State College, Ames, Iowa. *Microbiology.* Brule, Wis, Oct. 23, 09. B.S, Mass. Inst. Tech, 31, Textile Foundation fellow, 31–35, Ph.D, 35. Senior research fellow, Textile Foundation, Mass. Inst. Tech, 35–37; instr. bacter, Iowa State Col, 37–41, asst. prof, 41–43; *field supervisor dehydration, Quartermaster Corps, U. S. Army, 43–* Pub. Health Asn; Soc. Bact; Inst. Food Technol; Boston Bact. Club. The microbiology of textile fibers; food bacteriology.

Prindle, Louis M(arcus), 104 E. Melrose St, Chevy Chase, Md. *Geology.* Great Barrington, Mass, Aug. 28, 65. A.B, Williams Col, 87; Munich, 90–91; Hopkins, 93; Harvard, 00–01. Geol. aid, U. S. Geol. Surv, 02–03, asst. geologist, 04–07, assoc. geologist, 08–35. A.A; Geol. Soc; Geol. Soc. Wash.

Prine, Prof. Cha(rle)s W(ilson), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Hillsboro, Ohio, Dec. 13, 91. B.S, Denison, 15; M.S, Wisconsin, 17. From instr. to *assoc. prof. physics, Carnegie Inst. Tech, 17–* A.A; Asn. Physics Teachers; Physical Soc. Radiation; heat.

Pringle, Prof. H(omer) S(eymour), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Agricultural engineering.* Chautauqua, N. Y, Aug. 22, 02. B.S, Cornell, 26. Exten. instr. *agr. eng, Cornell, 26–39, exten. prof, 39–* Summers, N. Y. Univ, 27, 28. Agr. Eng. Rural electrification; farm machinery.

Pringsheim, Prof. Peter, University of Chicago, Chicago, Ill. *Physical chemistry.* Munich, Bavaria, March 19, 81. Ph.D, Munich, 06; Göttingen, 07; Cambridge, 08. Asst. physics, Berlin, 09–20, privat-docent, 20–23, extraordinary prof, 23, ordinary prof, 29–33; prof. agrégé, Brussels, 33–40; *visiting prof,* California, 40–41; *chem, Chicago, 41–* Berl. Physikalische Gesell. (pres, 27–31); Soc. de Physique Belge; Acad. Tech. Sciences, Warsaw. Spectroscopy; fluorescence and phosphorescence; photoelectric effect.

Prinz, Dr. Hermann, University of Pennsylvania, Philadelphia, Pa. *Pharmacology.* Schwittersdorf, Germany, June 13, 68. D.D.S, Michigan, 96, hon. A.M, 12; M.D, Barnes Med. Col. (Mo), 01; Berlin, 13–14; hon. Sc.D, Pennsylvania, 26; Dr. Med. Dent, Cologne, 29. Prof. mat. med. and therapeut, Washington (St. Louis), 00–13, director research lab, 10–13; *prof. mat. med. and therapeut, Pennsylvania, 14–* Int. Cong. Dentistry, Berlin, 09, Phila, 26, Paris, 31. A.A; cor. mem. Cent. Verein Zahnärzte; Leopold-Carol Deuts. Akad. für Naturforscher; fel. Acad. Sci. Halle. Dental materia medica and therapeutics; dental formulary; diseases of the soft structures of the teeth; diseases of the mouth and their treatment.

Prinzmetal, Dr. Myron, 2007 Wilshire Blvd, Los Angeles, Calif. *Internal medicine.* Buffalo, N. Y, Feb. 8, 08. A.B, California, 28, A.M, 32, M.D, 33. Asst. med, Washington (St. Louis), 33–34; nat. research fellow, Harvard Med. Sch, 34–35; fellow med, Mt. Sinai Hosp, New York, 35–36; Am. Col. Physicians fellow, dept. clin. science, Univ. Col. Hosp, London, 36; *instr. med. and lecturer physiol, sch. med, Southern California, 37–; consultant clin. med, 37–;* assoc. attending physician and director research, Cedars of Lebanon Hosp; assoc. attending physician, Los Angeles County Hosp. Soc. Pharmacol; Am. Heart Asn; Soc. Clin. Invest; Calif. Heart Asn. Hypertensive arterial disease; heart disease; pharmacology; experimental therapeutics; peripheral vascular disease.

Prior, Prof. John C(linton), Ohio State University, Columbus, Ohio. *Civil engineering.* Lawrence Co, Ohio, Dec. 23, 83. B.S, Denison, 06; C.E, Ohio State, 29. Practising civil engineer, 06–24; *prof. civil and sanit. eng, Ohio State, 24–; consulting engineer, 24–* Mem. board inquiry, State Dept. Highways, Ohio, 37–38. Chief cost engineer, U. S. Housing Corp, 18–19. Civil Eng; Water Works Asn; Eng. Educ; Geophys. Union. Hydrology; runoff; pipe joints; disposal of liquid wastes; bearing power of soils.

Pritchard, Dr. A(ndrew) L(yle), Pacific Biological Station, Nanaimo, B. C, Can. *Biology.* Alcove, Que, Oct. 29, 04. B.A, Toronto, 26, M.A, 27, Ph.D, 30. Demonstrator biol, Toronto, 26–28; sci. asst, *Pacific Biol. Sta, Biol. Board Can,* 28–35, asst. *biol,* 35–38, *assoc, 38–* Life histories and taxonomy of Leucichthys and Pomolobus and other fresh-water fishes; life histories and migration of Pacific salmon; fish culture; general ecology.

Pritchard, Dr. E(dward) M(iller), 1 74th St, Brooklyn, N. Y. *Engineering.* Somerville, Mass, March 30, 08. B.S, Mass. Inst. Tech, 30, M.S, 31, Sc.D, 34; Paris, 31–32; Göttingen, 32. Asst. elec. eng, Mass. Inst. Tech, 34–35; develop. engineering research and develop. lab, RCA Mfg. Co, Harrison, N. J, 35–37; chief engineer, United Cinephone Corp, Long Island City, N. Y, 37–40; *develop. engineer, Arma Corp, 40–* Radio Eng. Electrical engineering; gaseous discharges; servo systems.

Pritham, Prof. Gordon H(erman), 816 Richmont St, Scranton, Pa. *Physiological chemistry.* Freeport, Maine, April 7, 07. B.S, Pa. State Col, 30, scholar, 30–33, M.S, 31, Ph.D, 36. Assoc. prof. and later *prof. chem, Scranton, 33–* A.A; Chem. Soc; fel. Inst. Chem; Pa. Chem. Soc. Blood chemistry; biochemistry of Fusarium lycopersici; chemistry of fungus metabolism.

Pritzl, Rev. Peter P(hilip), St. Norbert College, West De Pere, Wis. *Chemistry.* Hollandtown, Wis, Feb. 5, 04. A.B, St. Norbert Col, 25; A.M, Wisconsin, 30. Instr. Latin, math. and chem, high sch, Wis, 25–29; *prof.* Latin and math, *St. Norbert Col,* 31–33, *chem, 33–, chairman dept, 35–, master of novices, St. Norbert Abbey,* 35–40, *42–* A.A; Chem. Soc. (sec'y northeast. Wis. sect, 38, v. chairman, 39, chairman, 40); Wis. Acad. Nitromethane; Montana soils; deposition of metallic oxides on metals; extraction of magnesium; concentration of manganese dioxide; soaps.

Probst, Dr. T(homas) Richard, 212 Elm St, Menasha, Wis. *Paper chemistry.* Lock Haven, Pa, Sept. 1, 14. B.S, Pa. State Col, 35; M.S, Lawrence Col, 37, Ph.D, 39. Chemist, Mead Corp, 37, 38; chief chemist, *Gilbert Paper Co,* 39–40, *tech. director, 40–* Tech. Asn. Pulp and Paper Indust. The paper making qualities of highly purified pulps.

Procter, Dr. H(enry) A(rchibald), 33 Rosedale Heights, Toronto, Ont, Can. *Physiology.* Woodstock, Ont, Jan. 21, 06. M.A, Toronto, 29, fellow, 29–31, Ph.D, 31. *Research asst, insulin cmt. lab, Toronto, 32–* Carbohydrate metabolism.

Procter, Dr. William, Bar Harbor, Maine. *Biology.* Cincinnati, Ohio, Sept. 8, 72. Ph.B, Yale, 94; Paris, 96–97; Columbia, 16–20; D.Sc, Montreal, 36. *Pres. and director, Biol. Surv, Mt. Desert Region, Bar Harbor, 28–* Research assoc. Acad. Nat. Sci, Phila, 28–36. Board managers, Wistar Inst, 29–36; Plymouth Marine Lab, England; trustee, Am. Museum Nat. Hist; mem. advisory board, dept. zool, Columbia. A.A; fel. Entom. Soc. Amer. (ed. board, 'Annals,' 40–); Micros. Soc; assoc. Ornith. Union; N. Y. Entom. Soc; South. Calif. Acad; Brooklyn Entom. Soc; Royal Acad. Sci. Can; London Ray Soc. Marine biology; Insecta.

Proctor, Prof. Bernard E(merson), 39 Harding Road, Melrose, Mass. *Biology, Technology.* Malden, Mass, May 5, 01. B.S, Mass. Inst. Tech, 23, fellow, 25–26, Ph.D, 27. Teaching fellow chem, sch. med, Boston, and mem. research staff, Mass. Homeop. Hosp, Boston, 23–26; asst, *Mass. Inst. Tech,* 26–27, instr, 27–30, asst. prof. biol, 30–37, *assoc. prof. food technol. and indust. biol, 37–; director subsistence research, Quartermaster Corps, U. S. Army, 43–* Summers, sanit. engineer, State Board Health, N. H, 24–26. Mem. cmt. aerobiol, Nat. Research Council. Lieut, Sanit.R.C. A.A; Soc. Bact; fel. Pub. Health Asn. (chairman, cmt. on foods, 35, 36, 41, 42); Chem. Soc. (councilor agr. and food sect, 42); Inst. Food Technol. (councilor, 41, 42); Soc. Refrig. Eng. (chairman cmt. biol, 37–42); Boston Bact. Club (sec'y, 27–30). Food preservation and technology; microbiology; germicides; sanitary biology.

Proctor, Prof. Cha(rle)s A(lbert), Dartmouth College, Hanover, N. H. *Physics.* Hanover, N. H, Sept. 15, 78. A.B, Dartmouth Col, 00; Ph.D, Chicago, 09. Asst. *physics,* Chicago, 03; instr, Missouri, 04–07; asst. prof, *Dartmouth Col,* 07–18, *prof, 18–* A.A; Physical Soc; Optical Soc. Measurement of refractive indices with interferometer; variation of mass of an electron with change in velocity; physiological optics.

Proctor, Prof. Phimister, Jr, University of Idaho, Moscow, Idaho. *Wood anatomy.* New York, N. Y, Jan. 17, 02. B.S.F, Washington (Seattle), 37, M.S.F, 38; Ph.D, Yale, 40. Pathologist, Exp. Sta, E. I. du Pont de Nemours and Co, 40–41; *asst. prof. wood technol, sch. forestry, Idaho, 41–* Wood pathology; dendrology.

Proebsting, Prof. E(dward) L(ouis), University of California, Davis, Calif. *Pomology.* Philipsburg, Mont, June 24, 97. B.S, California, 18; M.S.A, Cornell, 21, Ph.D, 24. Instr. hort, Minnesota, 18–19; manager, orchard, Medford, Oregon, 19–20; asst. bot, Cornell, 21, instr. plant physiol, 21–23; *pomol, California,* 23–26, asst. prof, 26–30, assoc. prof, 30–43, *prof, 43–* Nat. research fellow, 31–32. A.A; Soc. Hort. Sci; Bot. Soc. (sec'y, physiol. sect, Pacific div, 24); West. Soc. Soil Sci. Relation of food reserve to cambial activity in the apple; histology of the graft union; maintenance of orchard soil fertility; nutrition of deciduous fruits.

Proescher, Dr. Fr(ederick), Santa Clara County Hospital, San Jose, Calif. *Pathology.* Darmstadt, Germany, Nov. 15, 75. M.D, Basle Univ, 99; Berlin; Vienna; Frankfurt. Asst, Inst.

Exp. Therapie, Frankfurt, 00–02; pathologist, Mercy Hosp, Pittsburgh, 06–07; Allegheny Gen. Hosp, Pittsburgh, 07–13; physician in chief, City Hosp, Pittsburgh, 13–14; Radium Research Lab, Pittsburgh, 13–17; director Research Lab, Iowa, 17–21; consulting pathologist, *Santa Clara County Hosp*, 22–32, *pathologist, 32–; consulting pathologist, O'Connor Sanitarium, 40–* Pathologist, Agnews State Hosp, 22–32; consulting pathologist, San Jose Hosp, 24–42. Capt, U.S.A, 17–18. A.A; Am. Med. Asn; Soc. Exp. Biol; Chem. Soc. Bacteriology; biochemistry.

Proetz, Prof. Arthur W(alter), 1010 Beaumont Bldg, St. Louis, Mo. *Otolaryngology.* St. Louis, Mo, Oct. 12, 88. A.B, Washington (St. Louis), 10, M.D, 12. Asst. and assoc. prof. *otolaryngol, sch. med, Washington (St. Louis)*, 23–37, *prof, 37–* Assoc. laryngologist, Barnes Hosp, 20–; St. Louis Children's Hosp, 20–; McMillan Hosp, 30–; laryngologist, Jewish Hosp, 24– Co-editor, 'Annals Laryngol, Rhinol. and Otol,' 27– Examiner, Am. Board Otolaryngol, 26– Casselberry prize, Laryngol. Asn, 31. Capt, M.C, 17–18. A.A; Otol. Soc; fel. Laryngol. Asn. (sec'y, 42–); fel. Laryngol, Rhinol. and Otol. Soc; fel. Acad. Ophthal. and Otolaryngol. (ed, 'Trans,' 31); St. Louis Laryngol. Soc; Chicago Laryngol. Soc. Displacement method of sinus diagnosis and treatment; radiopaque substances in the sinuses; the olfactory sense; functions of nasal sinuses; applied physiology of the nose; tissue cultures of ciliated epithelium.

Proffitt, Max J(ay), National Bureau of Standards, Washington, D. C. *Chemistry.* Gunnison, Colo, Aug. 27, 85. A.B, Denver, 09. Asst. chemist, Great West. Sugar Co, 09, chief chemist, 10, chemist, gen. staff, 10–17, supt. research lab, 17–19, asst. to research manager, 19–20; assoc. sugar technologist and later *sugar technologist, Bur. Standards, 20–* A.A; Chem. Soc. Sugar technology; levulose technology; diffusion battery performance; design of apparatus.

Prophet, Prof. Edward C, Michigan State College, East Lansing, Mich. *Geography.* Pass Christian, Miss, Aug. 15, 01. A.B, Michigan, 24, A.M, 26, Mich. State Real Estate Board scholar, 27–29. Instr. *geog*, Michigan, 25–30; asst. prof, *Mich. State Col*, 30–42, *assoc. prof, 42–* Am. Geog. Soc; Mich. Acad. (treas, 29–40, v. pres, 41). Land economics; regional and economic geography; resort development; city growth; urban geography; land utilization; geography of World War II.

Proskouriakoff, A(venir), 67 Fairview Ave, Lansdowne, Pa. *Chemistry.* St. Petersburg, Russia, July 23, 82. Chem.E, Imp. Inst. Tech. Tomsk. Asst. prof, Imp. Inst. Tech. Tomsk, 13–15; research chemist, Dermat. Research Labs, Phila, 18–27; Lankenau Hosp. Research Inst, Phila, 27–28; *assoc. physiol. chem. and toxicol, Jefferson Med. Col, and chief chemist, dept. diseases chest, Jefferson Hosp, 29–* Imp. Russian Artil. Cmn, U. S, 16–18. A.A; Chem. Soc; Inst. Chem; Franklin Inst. Organic mercurials.

Prosser, Dr. C(lifford) Ladd, University of Illinois, Urbana, Ill. *Zoology, Physiology.* Avon, N. Y, May 12, 07. A.B, Rochester, 29; Ph.D, Hopkins, 32. Asst. zool, Hopkins, 29–32; Parker fellow physiol, Harvard and Cambridge, 32–34; research assoc, Clark, 34–35, asst. prof. physiol, 35–38, assoc. prof, 38–39; *asst. prof. zool, Illinois, 39–* Physiol. staff mem, Marine Biol. Lab, Woods Hole, 35–41. A.A; Soc. Zool; Physiol. Soc. Physiology of the nervous system and heart of annelids, molluscs and Crustacea; electrophysiology; spinal reflexes.

Proudfoot, Malcolm J(arvis), Bureau of the Census, Washington, D. C. *Geography.* Chicago, Ill, July 18, 07. Ph.B, Chicago, 28, M.S, 30, Ph.D, 36; Alexander von Humboldt fellow, Berlin, 30–31. Asst. geographer, *Bur. Census*, 35–41, *asst. to director, 41–; lecturer geog, American Univ, 39–* Lecturer, Catholic Univ, 40–41. Summer, lecturer, Chicago, 41; professorial lecturer, George Washington, 42. A.A; Asn. Geog; Am. Geog. Soc; Statist. Asn; Popul. Asn. Land classification; intra-city business census statistics; outlying business centers of Chicago; city retail structure; statistical cartography; census areas of the United States; history of the measurement of geographic area.

Prouty, Prof. C(harles) C(larence), State College of Washington, Pullman, Wash. *Dairy bacteriology.* Pueblo, Colo, March 10, 96. B.S, Oregon State Col, 23; M.S, Iowa State Col, 24. Asst. prof. bacter. and asst. bacteriologist, Exp. Sta, Idaho, 24–29; agent, rabbit exp. sta, bur. biol. surv, U. S. Dept. Agr, Fontana, Calif, 29–30; *assoc. dairy bacteriologist, Exp. Sta, State Col. Wash, 30–*, instr. *bacter, univ*, 30–36, *asst. prof, 36–* Asst, sch. med, Southern California, 29–30. Dairy Sci. Asn. Use of dyes in isolation of micro-organisms; virus diseases of rabbits; effect of pasteurization on bacterial flora of milk; bacteriology of mastitis of the dairy cow; efficiency of chlorine sterilizers; milk and cream fermentations; bacteriology of cheese.

Prouty, Prof. W(illia)m F(rederick), University of North Carolina, Chapel Hill, N. C. *Geology.* Putney, Vt, Aug. 15, 79. B.S, Syracuse, 03, M.S, 04; fellow, Hopkins, 05–06, Ph.D, 06. Instr. geol, Syracuse, 03–04; assoc. prof. geol. and miner, Alabama, 06–12, prof. geol, 12–19; chief asst. state geologist, Ala, 06–19; *prof. econ. and structural geol, North Carolina, 19–, head dept. geol, 32–* Geologist, N. C. Geol. Surv, 19–22; paleontologist, W. Va. Geol. Surv, 22–25. Summers, asst, Md. Geol. Surv, 04–06; U. S. Geol. Surv, 06; consulting geologist, Tenn. Valley Authority, 39– A.A; fel. Geol. Soc; Soc. Econ. Geol; N. C. Acad. Manlius formation of New York; Mesozoic-Silurian of Maryland; oil, marble, flake graphite and road materials of Alabama; structure and stratigraphy in the southern Appalachians; relation of topography to geologic structure; structural relation of Triassic basins of eastern United States; Silurian of eastern Tennessee; Carolina bays.

Provine, Prof. E(ugene) A, 310 Cherry St, Arkadelphia, Ark. *Chemistry.* Big Creek, Miss, Feb. 21, 01. A.B, Mississippi Col, 23; M.S, Louisiana, 25; Ph.D, Ohio State, 36. *Prof. chem, Ouachita Col, 29–, head dept. science, 36–* Chem. Soc. Dyes and carbohydrates.

Provine, Prof. John William, Mississippi College, Clinton, Miss. *Organic chemistry.* Coles Creek, Miss, June 19, 66. B.S, Mississippi, 88, fellow, 88–90, A.M, 90, LL.D, 16; Ph.D, Göttingen, 92. Chairman faculty, *Miss. Col*, 95–97, pres, 97–98, 11–31, *emer. pres, 31–, prof. org. chem, 27–* Vice chairman cmn, Insane Hosp, Miss. Cytisin.

Prucha, Prof. Martin J(ohn), University of Illinois, Urbana, Ill. *Bacteriology.* Bohemia, 74. Ph.B, Wesleyan, 03, M.S, 08; fellow, Cornell, 10–11, Ph.D, 13. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 03–08, assoc. bacteriologist, 08–12; instr. plant physiol, Cornell, 12–13, asst. prof, 13; *dairy bacter, Illinois*, 13–16, assoc. prof, 16–20, *prof, 20–*, acting head dairy dept, 20–21, asst. chief, *Exp. Sta*, 13–16, assoc. chief, 16–21, *chief, 21–* Bacteriologist, Penick and Ford Co, Iowa, 20. Dairy Sci. Asn; Pub. Health Asn. Bacterial control in dairy products.

Pruess, Dr. L(ouis) M(artin), Marion Place, Evans Park, Pearl River, N. Y. *Biochemistry.* Milwaukee, Wis, Dec. 11, 04. B.S, Wisconsin, 27, M.S, 28, Ph.D, 30. Research assoc, Wisconsin, 30–33; *biochemist*, Commercial Solvents Corp, 33–41; *Lederle Labs, Inc, 41–* Fermentation biochemistry; chemistry of micro-organisms.

Pruette, Dr. Lorine L(ivingston), 1904 Kirby Ave, Chattanooga, Tenn. *Psychology.* Tenn, Nov. 3, 96. B.S, Chattanooga, 18; A.M, Clark, 20; Ph.D, Columbia, 24. Psychol. examiner, 20–22; instr, Smith Col, 22–23; Utah, 23–24; research psychologist, R. H. Macy, 25–26; lecturer, grad. sch, N. Y. Univ, 26–27; director research, Cmt. Social Attitudes, 28–29; consulting psychologist and lecturer, 29–32; director study, Nat. Council Women, 32–33; ed. personnel study, Am. Womans Asn, 34–35; consultant, cmt. human relations, Progressive Educ. Asn, 36–38; ed, Nat. Bur. Econ. Research, 41–43; *program supervisor overseas radio, Office War Information, 43–* Ed. board, 'Indust. Psychol.' Assoc. Psychol. Asn. Vocational psychology; psychology of prejudice and childhood; women and leisure; social waste; vocational self-guidance; glands; radio.

Pruitt, Prof. Clarence M(artin), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Chemistry.* Birdseye, Ind, Jan. 30, 98. A.B, Indiana, 19, A.M, 25; fellow, Columbia, 26–28, Ph.D, 35. Teacher, high sch, 19–25; N. C. State Col, 28; science and science methods, Alabama, 28–33; N. Y. Univ, 33–34; Pa. State Col, 35; Colo. State Col. Educ, 35–36; Evansville Col, 37–38; *asst. prof. chem, Okla. Agr. and Mech. Col, 38–* Business manager, abstract ed. and book rev. ed, 'Science Educ,' 33– A.A; Asn. Research in Sci. Teaching. Science education; an analysis, evaluation and synthesis of subject matter concepts and generalizations in chemistry.

Prutton, Prof. C(arl) F(rederic), 2217 S. Overlook Road, Cleveland Heights, Ohio. *Chemical engineering.* Cleveland, Ohio, July 31, 98. B.S, Case, 20, M.S, 23; Ph.D, Western Reserve, 28. Instr. *chem. eng, Case*, 20–25, asst. prof, 25–30,

assoc. prof, 30–35, *prof, 35–* Chem. Eng; Chem. Soc; Electrochem. Soc; Inst. Petrol; Petrol. Inst; Soc. Automotive Eng; Deuts. Chem. Gesell. Physical chemistry; petroleum products; lubricants.

Pryor, Dr. Dean E(arl), U. S. Department of Agriculture, La Jolla, Calif. *Plant pathology.* Bonsall, Calif, Feb. 16, 14. B.S, California, 36; Alumni Research Foundation scholar, Wisconsin, 36–37, fellow, 37–38, Ph.D, 39. Asst. plant path, Wisconsin, 38–39; agent *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 39–41, *assoc. pathologist, 41–* A.A; Phytopath. Soc; West. Soc. Nat; fel. San Diego Soc. Nat. Hist. Diseases of truck crops; nature of disease resistance in crucifers; development of disease resistant varieties of lettuce and cantaloups.

Pryor, Dr. Helen B(renton), Stanford University, Calif. *Anthropometry.* Green Mountain Falls, Colo, July 31, 97. A.B, Oregon, 19; M.D, Minnesota. Res. obstet. and gynec, Peking Union Med. Col, 24; asst. pediat, med. sch, California, 28–35, research assoc, inst. child welfare, California, 30–40; *prof. hygiene and med. adviser women, Stanford, 35–* Visiting pediatrician, Childrens Hosp, 30–35. A.A; Am. Med. Asn; Pub. Health Asn; Acad. Pediat. Child growth and development; physical and physiological aspects of adolescence; anthropometry and body build.

Pryor, Rear-Admiral James C(hambers), 184 Columbia Heights, Brooklyn, N. Y. *Hygiene.* Winchester, Tenn, March 13, 71. A.B, M.D, Vanderbilt, 96; A.M, Hopkins, 13. Brig. surgeon, naval forces ashore, Vera Cruz, 14; fleet surgeon, U. S. fleet, 23–24; past commanding officer, Naval Hosps. and U. S. Naval Med. Sch; capt, *M.C, U. S. Navy,* med. aid, 1st dist, Navy Yard, Boston, *rear-admiral, 34–* Med. officer, 'Albatross' exped, S. Sea Islands, 99–00; prof, George Washington, 18–19. Chairman, U. S. delegation, Int. Cong. Mil. Med. and Pharmacy, The Hague, 31, Brussels, 35. Asn. Mil. Surg. (v. pres, 26–30, pres, 30); Am. Med. Asn; fel. Col. Surg. Naval hygiene; national defense; preventive medicine.

Pryor, Dr. Joseph E(hrman), Harding College, Searcy, Ark. *Physical chemistry.* Melber, Ky, March 19, 18. A.B. and B.S, Harding Col, 37; A.M, Louisiana, 39, Charles Edward Coates fellow, 41–42, Ph.D, 43. Teaching fellow math, Louisiana, 37–39, chem, 39–41, instr, 42–44; *prof. chem, Harding Col, 44–* Chem. Soc; La. Acad. Zeta potentials; polygons of maximum area inscribed in an ellipse.

Pryor, Prof. Joseph W(illiam), University of Kentucky, Lexington, Ky. *Anatomy.* Palmyra, Mo, April 3, 56. M.D, Missouri, 76. Prof. *anat. and physiol, Kentucky,* 90–40, *emer. prof, 40–* A.A; Am. Med. Asn; Asn. Anat; Ky. State Med. Soc. (1st v. pres); Fayette Co. Med. Soc. (pres). Chronology and order of ossification of human bones; sex differences in bone development; bones of the hand; union of epiphyses with diaphyses; bilateral symmetry in ossification; differentiation of identical and fraternal multiple births.

Prytherch, Dr. Herbert F(rancis), U. S. Fishery Biological Laboratory, Beaufort, N. C. *Marine biology.* Binghamton, N. Y, July 15, 98. B.S, Syracuse, 21; Ph.D, Pennsylvania, 31. Sci. asst, *fish and wildlife service, U. S. Dept. Interior,* 21–23, asst. aquatic biologist, 24–31, *supt. and director fisheries lab, Beaufort, 31–* Poteat gold medal and Jefferson award, 38. Mem, Chesapeake Bay Fisheries Cmn; south. cmt, Nat. Resources Planning Board. A.A; Soc. Zool; Fisheries Soc; Shellfisheries Asn. (pres, 35); N. C. Acad. (pres, 42); Biol. Soc. Wash. Ecology of the American oyster; the rôle of copper in controlling the development and distribution of the oyster; environmental factors controlling reproduction; methods for increasing the production of oysters; physiology, behavior and protozoan parasites of marine mollusks.

Prytz, Dr. Bo, Hawk House, R.I.M.R, Princeton, N. J. *Biochemistry.* Copenhagen, Denmark, Aug. 23, 04. B.S, Copenhagen, 27; M.S, Iowa State Col, 31; Michigan, 31–32; Ph.D, Pa. State Col, 40. Chief chemist, Wallace Labs, Inc, 40–42; director labs, Block Drug Co, Inc, 42–43; *research chemist, Corsan Products, Inc, 43–* Chem. Soc. Pharmaceutical chemistry.

Pucher, Dr. George W(alter), 3 Haverford St, Hamden, Conn. *Biochemistry.* Lake La Barge, Alaska, May 13, 98. B.S, Washington (Seattle), 17, M.S, 18; Ph.D, Yale, 20. Research chemist, Nat. Aniline and Chem. Co, 20–21; biochemist, Buffalo Gen. Hosp; assoc. and asst. prof. biochem, Buffalo, 22–28; *research assoc, Conn. Exp. Sta, 28–* Chem. Soc; Soc. Exp. Biol; Soc. Plant Physiol. Synthesis in the glyoxaline series; carbohydrate metabolism and chemistry of the seasonal variations of adults; chemistry of green leaf tissue.

Puchstein, A(lbert) F(rederick), Jeffrey Mfg. Co, Columbus, Ohio. *Engineering.* New Buffalo, Ohio, 86. B.E.E, Ohio State, 17, M.S, 19, E.E, 29. Draftsman, Carnegie Steel Co, Ohio, 07–08, 15–16, 18; asst. instr, Ohio State, 16–18, instr, 18–19, asst. prof, 19–28, assoc. prof, 28–30; develop. engineer, Robbins and Myers, Inc, 30–34, chief engineer, 34–39, consulting engineer, 39–40; private consulting engineer, 40–41; consulting engineer, Celanese Corp. Amer, 41–42; *elec. engineer, Jeffrey Mfg. Co, 42–* Designing engineer, Columbus Ry, Power and Light Co, Ohio, 27, Harrop Ceramic Service Co, 29. A.A; Elec. Eng; Eng. Educ; Nat. Soc. Professional Eng. Electrical and mechanical engineering; electrical machinery; telephony; radio; engineering mathematics; complex quantity slide rule; communication; physics; mechanics; telephone communication; alternating current machines.

Puck, Dr. Theodore T(homas), University of Chicago, Chicago, Ill. *Physical chemistry, Biochemistry.* Chicago, Ill, Sept. 24, 16. B.S, Chicago, 37, univ. fellow, 38–39, Augustavus F. Swift fellow, 39–40, Ph.D, 40. *Research assoc, dept. med, Chicago, 41–* Chem. Soc. Fluorescence; photosynthesis; aerosols and air-borne infectious diseases.

Puckett, Dr. W(illiam) O(lin), Princeton University, Princeton, N. J. *Biology.* Cornelius, N. C, May 3, 06. A.B, Davidson Col, 27; A.M, North Carolina, 31; Ph.D, Princeton, 34. Asst. prof. *biol,* Davidson Col, 27–29; assoc. prof, Southwestern (Tenn), 34–35; instr, *Princeton,* 35–38, *asst. prof, 38–* Asn. Anat; Soc. Zool; N. C. Acad. Comparative anatomy and embryology; the effects of x-radiation on embryonic development; regeneration in amphibia; sex hormones and sex differentiation in amphibia; biological uses of plastics.

Puckett, Prof. William T(homas), Jr, University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* East Radford, Va, Nov. 21, 05. B.S, Roanoke Col, 27; M.S, Virginia, 31, Ph.D, 37. Instr. *math,* Roanoke Col, 29–30; student instr, Virginia, 30–37; instr, 37–39; *California at Los Angeles,* 39–42, *asst. prof, 42–* Math. Soc; Math. Asn. Topology.

Puddington, Dr. I(ra) E(dwin), 189 Springfield Road, Ottawa, Ont, Can. *Chemistry.* Clifton, N. B, Jan. 8, 11. B.Sc, Mt. Allison, 33; M.Sc, McGill, 36, Ph.D, 38. Lecturer chem, McGill, 37; Sir Geo. Williams Col, 38; senior research asst, *Nat. Research Council Can,* 38–39, junior research chemist, 39–41, *asst. research chemist, 41–* Chemistry of lubricating greases; chemical and physical properties of starch; colloid and physical chemistry.

Puestow, Dr. Charles B(ernard), 25 E. Washington St, Chicago, Ill. *Surgery.* Oshkosh, Wis, Jan. 10, 02. B.S, Wisconsin, 23; M.D, Pennsylvania, 25; fellow, Minnesota, 28–31, M.S, 31, Ph.D, 32. Asst. instr. *surg,* Pennsylvania, 27; assoc, *col. med, Illinois,* 31–33, asst. prof, 33–37, *assoc. prof, 37–* Attending surgeon, Ill. Research Hosp; senior surgeon, Henrotin Hosp; consulting surgeon. Munic. Contagious Disease Hosp. Fel. Col. Surg; fel. Am. Med. Asn; Soc. Exp. Biol; Physiol. Soc; Surg. Asn; Cent. Surg. Asn; West. Surg. Asn; Chicago Surg. Soc. Isolated intestinal segments; extrahepatic biliary tract.

Puestow, Dr. K(arver) L(ouis), University of Wisconsin, Madison, Wis. *Internal medicine, Gastroenterology.* Oshkosh, Wis, Nov. 1, 97. B.S, Wisconsin, 19; B.M, Minnesota, 21, M.D, 22. Instr. *med, med. sch, Wisconsin,* 22–23, 24–26. asst. prof, 26–29, *assoc. prof, 29–,* physician, student health dept, 22–23, 24–25. Director out-patient dept, Wis. Gen. Hosp, 25–41, physician, 25–41; consultant, Lakeview Sanatorium, 30–35. Fel. Col. Physicians. Gastroscopy.

Puffer, Prof. L(ouis) B(lackmer), 176 Loomis St, Burlington, Vt. *Civil engineering.* Bennington, Vt, July 24, 86. C.E, Rensselaer Polytech, 09. Instr. math. and surveying, Rensselaer Polytech, 09–20; asst. production manager, Fed. Signal Co, 20–21; asst. prof. *civil eng, Vermont,* 21–23, assoc. prof, 23–33, *prof, 33–* Eng. Educ; Civil Eng; Vt. Soc. Eng. Water power engineering; applied hydraulics.

Pugh, Prof. Emerson M(artindale), 1427 Walnut St, Pittsburgh, Pa. *Physics.* Ogden, Utah, July 19, 96. B.S, Carnegie Inst. Tech, 18; M.S, Pittsburgh, 27; Ph.D, Calif. Inst. Tech, 29. Instr. physics, Carnegie Inst. Tech, 20–27;

fellow, Am. Petrol. Inst, 27–29; nat. research fellow, 29–30; asst. prof. and *assoc. prof. physics, Carnegie Inst. Tech, 30–* Eng. officer, U.S.N, 18–19. Physical Soc. Galvano-magnetic effects; colloid mobilities; Hall effect and magnetic properties of ferro-magnetic materials; cataphoresis in rotating electric fields; Hall effect and intensity of magnetization; heat waves through insulating walls.

Pugsley, Prof. Donald W(esley), Berea College, Berea, Ky. *Mathematics.* Elwell, Mich, Oct. 31, 03. B.S, Alma Col, 25; M.S, Michigan, 27. Instr, pub. sch, Mich, 27–28; *assoc. prof. math, Berea Col, 28–,* acting head dept, 30–31. Taft mem. teaching scholar, Cincinnati, 38–39. Math. Asn; Ky. Acad.

Pugsley, Dr. Leonard I(rving), Laboratory of Hygiene, Department of Pensions and National Health, Ottawa, Ont, Can. *Biochemistry.* Five Islands, N. S, June 23, 00. B.A, Acadia, 27; M.Sc, McGill, 30, fellow, 30–34, Ph.D, 32. Asst, Macdonald Col, McGill, 28–30, lecturer biochem, 34–36; asst. biochemist, *Fisheries Research Board Can,* 36–39, *pharmacologist, 39–* Soc. Biol. Chem; Chem. Soc; Professional Inst. Civil Servants; Can. Physiol. Soc. Soil survey work of eastern townships of Quebec; calcium metabolism as influenced by parathyroid hormones; thyroxine; pituitary hormones and vitamin D; creatine and creatinine metabolism; vitamin A and D survey of Pacific Coast fishes; biological assay of sex hormones.

Puhr, Prof. Leo Francis, South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. Dak. *Agronomy.* Bushnell, S. Dak, Aug. 23, 02. B.S, S. Dak. State Col, 25, M.S, 27; hon. scholar, Wisconsin, 38–40, Ph.D, 40. Asst. prof. *agron, S. Dak. State Col,* 27–39, *assoc. prof, 39–* Summers, assoc. soil scientist, Farm Credit Admin, 36. A.A; Soc. Agron. Soil fertility; soil mineralogy; plant chemistry.

Pullen, Dr. M(yrick) W(hiting), Johns Hopkins University, Baltimore, Md. *Electrical engineering.* Whiting, Iowa, Jan. 25, 83. B.S, Iowa State Col, 08; fellow, Mass. Inst. Tech, 10–12; hon. LL.D, Am. Int. Acad, 22. Instr. *elec. eng,* Iowa State Col, 08–10; *Hopkins,* 12–20, *assoc, 20–* Consulting engineer, U. S. Bur. Mines, 28; geophys. prospector, Union Carbide and Carbon Corp, 29. A.A; Elec. Eng; Illum. Eng. Soc; Eng. Educ; Md. Acad. (pres, 21–29). Electric circuits; electrical properties of minerals.

Pulling, Prof. Howard E(dward), 14 Winthrop Road, Wellesley, Mass. *Botany.* Wausau, Wis, Feb. 3, 86. A.B, Beloit Col, 10; fellow, Wisconsin, 12–13, Ph.D, 15. Instr. *bot,* Wisconsin, 13–15; Hopkins, 15–19; asst. prof, *Wellesley Col,* 19–20, assoc. prof, 20–23, *prof, 23–,* lecturer biophys, 23–33. Summer, asst, desert lab, Carnegie Institution, 13. A.A; Bot. Soc; Soc. Plant Physiol; Torrey Bot. Club; New Eng. Bot. Club. Plant physiology; capillary water in soils; sunlight; growth in plants.

Pulsifer, H(arry) B(ridgman), 9907 Lamont Ave, Cleveland, Ohio. *Chemistry, Metallurgy.* Lebanon, N. H, Dec. 23, 79. B.S, Mass. Inst. Tech, 03; Chem.E, Armour Inst. Tech, 15; M.S, Chicago, 18. Instr. and asst. prof. metal, Armour Inst. Tech, 11–17; prof, Mont. Sch. Mines, 17–20; asst. prof, Lehigh, 20–24; *metallurgist,* Beryllium Corp. of Amer, 25–27; *Ferry Cap and Set Screw Co, 27–;* Am. Steel and Wire Co, 35–41; *Am. Metal Treating Co, 41–* A.A; Chem. Soc; Min. and Metal. Eng; Soc. Metals; London Inst. Metals. Metallography.

Pulskamp, Dr. C(ornelius) A(loysius), Marin Union Junior College, Kentfield, Calif. *Physics.* Franklin Co, Ind, Sept. 19, 98. A.B, Ind. State Teachers Col, 23; Ph.D, California, 29. Teaching fellow *physics,* California, 23–27; *instr, Marin Union Junior Col, 27–* Summer, instr, Ind. State Teachers Col, Terre Haute, 26. Absorption spectrum of oxygen in the ultra-violet.

Pultz, Dr. L(eon) M(erle), University of Arizona, Tucson, Ariz. *Plant physiology.* Lake Preston, S. Dak, July 6, 04. B.S, S. Dak. State Col, 25, M.S, 27; Ph.D, Chicago, 29. Asst. bot, S. Dak. State Col, 25–27; Chicago, 27–29; assoc. physiologist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–36; asst. prof. bot, Arizona, and asst. botanist, Exp. Sta, 36–38; physiologist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 38–40; *prof. bot. and head dept, Arizona, and botanist, Exp. Sta, 40–* A.A; Bot. Soc; Soc. Agron; Soc. Plant Physiol. Plant nutrition; applied botany.

Pulver, Prof. H(arry) E, University of Wisconsin, Madison, Wis. *Engineering.* Viroqua, Wis, Nov. 20, 84. B.S, Wisconsin, 10, C.E, 11. Asst. mech, Wisconsin, 11–12; instr. mech. and structures, Rensselaer Polytech, 12; instr. mech, Wisconsin, 13–15; prof. civil eng, Govt. Inst. Tech, China, 15–20; from asst. prof. to *prof. civil and struct. eng, Wisconsin, 20–* Eng. Educ; Concrete Inst; Eng. Soc. Wis. Materials of construction; concrete practise; handbook of building construction; movable and long span steel bridges; steel and timber structures; reinforced concrete and masonry structures; reinforced concrete construction; construction estimates and costs.

Pumphrey, Prof. Fred H(omer), Lincoln St, Stelton, N. J. *Electrical engineering.* Dayton, Ohio, July 31, 98. A.B, Ohio State, 20, B.E.E, 21, E.E, 29. Tech. engineer, Staten Island Edison Corp, 24–27; *prof. elec. eng, Rutgers, 28–; lieut. col, Sig. Corps, U. S. Army, 43–* Elec. Eng.

Pumplin, Dr. Gerald G(lynn), 1833 Vinewood, Wyandotte, Mich. *Physical chemistry.* Davenport, Iowa, Aug. 1, 10. B.S, Iowa, 32, Ph.D, 37. Research chemist, *Mich. Alkali Co,* 37–39, *supervisor chlorine dept, 39–* Chem. Soc. Vapor pressures and partial molal volumes of aqueous solutions of ammonium chloride and cupric sulfate at 25 degrees centigrade.

Pund, Dr. Edgar R(udolph), University of Georgia School of Medicine, Augusta, Ga. *Pathology.* Augusta, Ga, June 9, 94. A.B, Georgia, 14, M.D, 18. From instr. to assoc. prof. *path, sch. med, Georgia,* 23–31, *prof, 31–,* assoc. pathologist, *univ. hosp,* 23–30, *pathologist, 30–* Col. Physicians; Am. Med. Asn; Ga. Acad. Histopathology of venereal diseases; surgical pathology of ovarian tumors; lymphosarcoma; pathology of tularemia; cerebral trichinosis; primary pulmonary arteriosclerosis.

Punnett, Dr. P(ercy) W(ithers), 318 Allaire Ave, Leonia, N. J. *Chemistry.* Rochester, N. Y, Oct. 25, 89. B.S, Rochester, 11; A.M, Columbia, 12, fellow, 14–15, Ph.D, 15. Prof. chem, Western Maryland Col, 15–16; chem. pathologist, Bellevue Hosp, 16–17; research chemist, Butterworth-Judson Corp, 17–20; Rochester Button Co, 20–23; Anchor Cap and Closure Corp, 23–26; Maresi-Mazzetti Corp, 26–27; Dry Ice Corp, 27–28; research assoc, Teachers Col, Columbia, 28–40; *chief chemist, 'Good Housekeeping Magazine,' 28–* A.A; Chem. Soc. Biochemistry; food chemistry; dyes and intermediates; coffee.

Puppel, Dr. Italo D(aRin), Ohio State University, Columbus, Ohio. *Surgery.* Venice, Italy, April 5, 09. B.S, Ohio State, 32, A.M, 36, M.D, 36. Asst. med. surg. research, Ohio State, 32–36, research surg, 36–38; intern, dept. int. med, Barnes Hosp, St. Louis, Mo, 38–39; dept. surg, sch. med, Washington (St. Louis), 39–40; asst. res. surg, *Ohio State,* 40–42, asst. surg, *col. med,* 41–42, instr, 42–43, *asst. prof. research surg, 43–* Chief res. surg, Starling-Loving Univ. Hosp, 42–43. A.A; Asn. Study Int. Secretions; Cent. Soc. Clin. Research. Goiter; calcium and iodine metabolism.

Purcell, Dr. E(dward) M(ills), 5 Wright St, Cambridge, Mass. *Physics.* Taylorville, Ill, Aug. 30, 12. B.S, Purdue, 33; Tech. Hochschule Karlsruhe, 33–34; A.M, Harvard, 35, Ph.D, 38. *Instr. physics, Harvard, 38–; research assoc. elec. eng, Mass. Inst. Tech, 41–* Physical Soc.

Purcell, Dr. Edwin J(oseph), Route 5, Box 738, Tucson, Ariz. *Mathematics.* New York, N. Y, Jan. 17, 01. A.B, Arizona, 29; fellow, Colorado, 29–31, A.M, 31; Ph.D, Cornell, 32. Instr. math. and physics, Evans Sch, Tucson, Ariz, 24–28; *Arizona,* 35–37, *asst. prof. math,* 37–42, *assoc. prof, 42–* Math. Soc; Math. Asn. Algebraic geometry.

Purdom, Prof. E(mil) G(arness), Guilford College, N. C. *Physics.* Mitchellsburg, Ky, Nov. 25, 02. M.S, Chicago, 27; Ph.D, Michigan, 34. Instr. *physics,* Ky. Col. for Women, 22–23; high sch, Ky, 23–26; assoc. prof, *Guilford Col,* 27–34, *prof, 34–* Physical Soc. Grating measurements in x-rays.

Purdum, Prof. R(aymond) B(randenburg), Davis and Elkins College, Elkins, W. Va. *Chemistry.* Providence Forge, Va, Nov. 17, 99. B.S, Virginia, 23, M.S, 24, du Pont fellow, 24–25, Ph.D, 26. Asst. *chem,* Virginia, 20–23, teaching fellow, 23–25; *prof, Davis and Elkins Col, 25–, acting pres. and coordinator civilian pilot training.* Chem. Soc. Rapid electrolysis without rotating electrodes; kinetics of the reduction of benzene to cyclohexane; equilibrium in the system; benzene, hydrogen, cyclohexane; solubilities of sparingly soluble salts; solvent effect of reagents on glass bottles.

Purdum, Prof. W(illiam) Arthur, University of Maryland, Baltimore, Md. *Pharmacy.* Baltimore, Md, Jan. 28, 10. Ph.G, Maryland, 30, B.S, 32, M.S, 34, Ph.D, 41. Asst. *pharmacy,* Maryland, 30–34, instr, 34–39; *asst. prof,* Georgia,

39–41; *Maryland, 41–* Pharmaceut. Asn; Md. Pharmaceut. Asn. Disguising taste of drugs; oral and rectal absorption of digitalis in cats.

Purdy, Dr. A(lvin) C(anfield), Madison, N. J. *Chemistry.* Middletown, N. Y, Oct. 30, 97. A.B, Cornell, 20, Ph.D, 24; Lyons, 21–22. In charge special research, Kearfott Eng. Co, 24–27; *gen. partner, Bull and Roberts, 27–* Del, Int. Union Chem, Washington, D. C, 26. Asn. Consulting Chem. and Chem. Eng. (pres, 39); Chem. Soc; Naval Archit. and Marine Eng; London Soc. Chem. Indust. Organic chemistry; stream pollution; marine problems.

Purdy, Prof. Daisy I(nez), 403½ Knoblock, Stillwater, Okla. *Home economics.* White Bead Hill, Okla, Dec. 7, 93. Texas, 16–17; A.B, Minnesota, 24, Caleb Dorr fellow, 25–26, M.S, 26; Ph.D, Maryland, 31. Teacher and prin, pub. and high schs, Texas, 11–18; clerical work, Washington, D. C, and Texas, 18–20; asst. business sec'y, Y.W.C.A, St. Paul, 20–22; asst. nutrition, sect. home econ, Minnesota, 24–25; asst. prof. home econ, Kans. State Teachers Col, Pittsburg, 26–27; prof. and director dept, Ill. Wesleyan, 27–29; Purnell asst, Maryland, 29–31; prof. home econ. and director sch. home econ, Texas Col. Arts and Indust, 31–32; *prof. household science, head depts. household science and hotel admin. and director and business manager col. foods units, Okla. Agr. and Mech. Col, 32–* A.A; Home Econ. Asn; Soc. Bact; Chem. Soc; Okla. Home Econ. Asn. (pres, 37–39). Foods research; the bacteriological effects produced during the aging of dry-sugar cured hams; texture, volume and contour of cakes; factors influencing shrinkage of cooked hams.

Purdy, Dr. D(onald) M(cLean), Mills College, Calif. *Psychology.* Corning, N. Y, March 29, 00. A.B, Cornell, 21; A.M, Harvard, 26, Ph.D, 30. Asst. physics, Cornell, 19–21; instr, Princeton, 21–23; asst. astron, Harvard, 24–26; *psychol,* California, 27–29; asst. prof, Kansas, 29–34; Maine, 34–36; acting instr, Washington (Seattle), 37–38; *lecturer, Mills Col, 38–* Nat. research fellow, 31–32; Guggenheim Mem. Foundation fellow, 36–37. Assoc. Psychol. Asn. Theoretical psychology; visual perception.

Purdy, Ross C, American Ceramic Society, Columbus, Ohio. *Ceramic engineering.* Jasper, N. Y, March 3, 75. Cer.E, Ohio State, 08; Sc.D, D.Cer, Alfred, 36. Chemist and asst. supt, Mosaic Tile Co, 99–01; chemist and foreman, glazing and burning depts, Roseville Pottery Co, 01–02; asst. ceramics, Ohio State, 02–05, asst. prof. clayworking and ceramics, 07–08, assoc. prof. ceramic eng, 08–09, prof, 09–11; instr, Illinois, 05–07; director research labs, Norton Co, 11–19; *consulting ceramic engineer, 19–*; v. pres, Dover Mfg. Co, 19–22; *gen. sec'y, Am. Ceramic Soc, 22–* Ceramist, Ill. Geol. Surv, 05–07. A.A; Ceramic Soc. (v. pres, 07, pres, 09, sec'y, 21–). Abrasives; abrasive products; white ware bodies and glazes; refractories.

Purdy, W(illiam) C(arey), 1223 Herschel Ave, Cincinnati, Ohio. *Biology.* Westover, Pa, April 12, 71. B.S, Bucknell, 99, M.S, 04; Mass. Inst. Tech, 13. Asst. prof. biol, Pa. State Teachers Col, Slippery Rock, 02–08; prof, Geneva Col, 08–12; special expert planktonology, stream pollution investigations, U. S. Pub. Health Service, 13–41; *retired.* A.A; Micros. Soc. Plankton of the Potomac and Ohio rivers; microscopic life of the Illinois River; mosquito breeding in California rice fields; interrelationships of plankton and bacteria; reoxygenation of polluted water by microscopic algae; activities of tubificid worms.

Purer, Dr. Edith A(bigail), 4238 Chamoune Ave, San Diego, Calif. *Botany.* Chicago, Ill, Dec. 11, 97. B.S, Northwestern, 17; M.S, Chicago, 21; Ph.D, Southern California, 33. *Teacher bot,* Senn High Sch, Chicago, 20–30; *Hoover Senior High Sch, San Diego, Calif, 31–* Fellow, Nat. Hist. Museum, San Diego. A.A; Bot. Soc; Ecol. Soc; West. Bot. Soc; Calif. Bot. Soc. Ecology and physiology of plants; sand dune plants.

Purks, Prof. J(ames) H(arris), Jr, Emory University, Ga. *Physics.* Bartow, Ga, Aug. 6, 01. B.S, Emory, 23; A.M, Columbia, 25, Ph.D, 28. Instr. math, Ga. Tech, 23–24; asst. *physics,* Columbia, 24–29, instr, 29–30; asst. prof, *Emory,* 30–33, assoc. prof, 33–37, *prof, 37–, dean col. arts and sciences, 38–,* acting dean grad. sch. Physicist, Steiner Cancer Clinic and Robert Winship Clinic. X-rays; x-ray spectrometers.

Purton, A(stley) B(loxam), 303 Federal Bldg, Salt Lake City, Utah. *Engineering.* Minneapolis, Kans, Oct. 17, 86. B.S, Kansas, 07. Aid, U. S. Coast and Geod. Surv, 07–09; from junior engineer to *senior hydraul. engineer, U. S. Geol. Surv, 10–; dist. engineer, Utah and Nev, 18–* Assoc. Civil Eng. Water supply.

Purves, Dr. Clifford B(urrough), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Cupar Fife, Scotland, Feb. 6, 02. B.Sc, St. Andrews, 23, Ph.D, 29. Commonwealth fund fellow, Bur. Standards, 26–29; teaching fellow physiol, Marischal Col, Scotland, 29–31; *research assoc.* chem, nat. inst. health, U. S. Pub. Health Service, 31–36; *org. chem, Mass. Inst. Tech, 36–* Chem. Soc; British Chem. Soc. Chemistry of carbohydrates and cellulose; biochemistry of carbohydrates.

Purvis, Dr. E(rnest) R(udolph), Virginia Truck Experiment Station, Norfolk, Va. *Soil chemistry.* Florence, S. C, March 15, 06. B.S, Clemson Col, 28; M.S, Florida, 29; Ph.D, Rutgers, 33. Asst. chemist, Exp. Sta, Fla, 33–35, assoc. chemist, 35–37; *soil technologist, Va. Truck Exp. Sta, 37–; major, U. S. Army.* Chemistry of soils; plant physiology; plant nutrition.

Pusch, Dr. Lewis C(harles), York Hospital, York, Pa. *Pathology.* Sandusky, Ohio, June 15, 99. A.B, Hopkins, 21, M.D, 26. Assoc. path, Med. Col. of Va, 27–28, asst. prof, 28–32, assoc. prof, 32–35, asst. pathologist, hosp. div, 27–35; *pathologist, York Hosp, 35–* Assoc. mem. med. advisory board number four, State Selective Service, Pa. Asn. Study Neoplastic Diseases; Am. Med. Asn; fel. Soc. Clin. Path. Neoplastic disease; syphilis of the stomach; lesions of the thyroid gland.

Puterbaugh, Prof. M(ilton) P(orter), Ashland College, Ashland, Ohio. *Chemistry.* Lanark, Ill, Sept. 17, 00. A.B, Ashland Col, 22; M.S, Northwestern, 30, Ph.D, 35. Instr. *chem, Ashland Col, 22–25, prof, 26–, dean students, 40–* Asst, Northwestern, 29–31. Chem. Soc. (chairman Wooster sect, 41). Preparation of o-nitro aniline; concentration of hydrogen peroxide solutions; unsaturated phenolic ethers and their pyrolysis.

Putnam, Dr. Alfred L(unt), 781 Yale Station, New Haven, Conn. *Mathematics.* Dunkirk, N. Y, March 10, 16. B.S, Hamilton Col, 38; A.M, Harvard, 39, Ph.D, 42. Teaching fellow *math,* Harvard, 41–42; *instr, Yale, 42–* A.A; Math. Soc. Abstract algebra.

Putnam, Dr. D(onald) F(ulton), University of Toronto, Toronto, Ont, Can. *Geography.* Lower Onslow, N. S, Aug. 15, 03. B.S.A, Ont. Agr. Col, 27; Macdonald Col, McGill, 30; Ph.D, Toronto, 35. Lecturer *geog, Toronto,* 38–42, *asst. prof, 42–* Can. Soc. Tech. Agr. Physiography and soils of Ontario; agricultural geography.

Putnam, Dr. G(arth) L(ouis), E 121 Blairville-Creek Road, Youngstown, N. Y. *Chemical engineering.* Reardan, Wash, June 11, 13. B.S, Washington (Seattle), 35, M.S, 37; Ph.D, Columbia, 42. Consulting engineer, electrochem. develop, Dr. C. G. Fink, 38–42; *research engineer, Carborundum Co, 42–* Chem. Soc; Electrochem. Soc. Electrolytic iron and chlorine; gold chemistry and metallurgy; electrochemistry of anhydrous ethylene diamine solutions; corrosion; hard alloys and compounds; diamond abrasives.

Putnam, Dr. George R(ockwell), 2126 Bancroft Place, Washington, D. C. *Engineering.* Davenport, Iowa, May 24, 65. B.S, Rose Polytech, 90, M.S, 95, D.E, 33; Sc.D, Stevens Inst. Tech, 22. U. S. Coast and Geod. Surv, 90–10, commissioner lighthouses, 10–35. Director coast surveys, P. I, 00–06. A.A; Civil Eng; Eng. Soc. Wash; Wash. Acad. Lighthouse engineering; radio aids to navigation; government personnel and administration; condition of the earth's crust; cartography.

Putnam, Mark E(dson), 2011 Hill Court, Midland, Mich. *Organic chemistry.* Ovid, Mich, Aug. 6, 86. A.B, Albion Col, 10; M.S, Michigan, 11. Instr. org. chem, Case, 12–15; *Dow Chem. Co,* 15–31, *production manager, 31–, director, 41–, v. pres, 42–; pres, Cliffs-Dow Chem. Co, 31–* Mem, Nat. Research Council. Trustee, Albion Col. Chem. Soc. (chairman, Midland sect, 25); Chem. Eng. Chemical engineering; manufacture of synthetic organic chemicals.

Putnam, Dr. Persis, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Biostatistics.* La Crosse, Wis, July 31, 88. A.B, Smith Col, 11; Sc.D, Hopkins, 26. *Biostatistician, int. health div, Rockefeller Foundation, 26–, mem. health cmn, 42–* Statist. Asn; Pub. Health Asn. Public health, with special emphasis on tuberculosis and malaria.

Putnam, Prof. R(obert) G(arfield), 115 Riverview Ave, Tarrytown, N. Y. *Mathematics.* Spencer, Mass, Nov. 20, 86.

B.S, Worcester, 12; M.S, Pittsburgh, 21; Ph.D, Chicago, 24. Instr. *math*, Pittsburgh, 19–22; *N. Y. Univ*, 24–26, asst. prof, 26–28, *assoc. prof, 28–* Math. Soc; Math. Asn. Topology.

Putnam, Prof. Russell C(aldwell), 2223 S. Overlook Road, Cleveland, Ohio. *Electrical engineering.* Jacksonville, Ill, March 27, 98. A.B, Butler, 19; B.S, Colorado, 23, E.E, 28; M.S, Case, 33. Test engineer, Gen. Elec. Co, 24–25; instr. *elec. eng, Case*, 25–28, asst. prof, 28–35, *assoc. prof, 35–* Elec. Eng; Illum. Eng. Soc; Eng. Educ. Illuminating engineering; engineering administration.

Putnam, Dr. S(tearns) T(yler), 167 Haines St, Newark, Del. *Organic chemistry.* Springfield, Vt, July 30, 17. B.S, Brown, 38; A.M, Harvard, 40, Ph.D, 42. Teaching asst. org. chem, Harvard, 38–41, asst, Nat. Defense Research Cmt, 41–42; *research chemist, Hercules Powder Co, 42–* Chem. Soc. Oxidation of hydrocarbons with lead tetraacetate; carcinogenic hydrocarbons; chemistry of terpenes.

Putnam, Dr. Tracy J(ackson), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Neurology.* April 14, 94. A.B, Harvard, 15, M.D, 20. Instr. path, med. sch, Hopkins, 20–21; Austin teaching fellow surg, Harvard Med. Sch, 26–27, asst, 27–29, fellow neuropath, 29–31, instr, 31–32, faculty instr, 33, asst. prof. neurosurg, 33–35, *prof.* neur, 34–39; *neur. and neurosurg, col. physicians and surg, Columbia, 39–; director services neur. and neurosurg, Neur. Inst, 39–* Am. Med. Asn; Neur. Asn; Asn. Research Nervous and Mental Disease; Soc. Clin. Invest; Asn. Neuropath; Soc. Exp. Biol; Practitioners Soc; Soc. Neur. Surg; Soc. Research Psychosomatic Problems (pres, 43); Harvey Cushing Soc. (pres, 42); Am. Acad; N. Y. Acad. Med; N. Y. Neur. Soc; Boston Soc. Psychiat. and Neur. (sec'y, 29–33, pres, 38); Boston Surg. Soc. Central visual system; subdural hematoma; hypophysis; cerebral circulation; multiple sclerosis; athetosis; hydrocephalus; encephalitis; epilepsy.

Putnam, Prof. William C(lement), 405 Hilgard Ave, Los Angeles, Calif. *Geology.* Redding, Calif, May 21, 08. A.B, Stanford, 29, A.M, 30; Ph.D, Calif. Inst. Tech, 37. Geologist, Associated Oil Co. of Calif, 30; instr. *geol*, Stanford, 31; Los Angeles City Col, 31–38; *asst. prof, California at Los Angeles, 38–* Geologist, U. S. Geol. Surv. Summers, instr, Stanford, 37–39. Geol. Soc; Asn. Petrol. Geol; Geophys. Union; Pacific Oceanog. Soc. Shoreline physiography; volcanology; military geology.

Putnam, Prof. W(illiam) J(ames), University of Illinois, Urbana, Ill. *Mechanics.* Rosamond, Ill, Aug. 22, 87. B.S, Illinois, 10, M.S, 19, M.E, 30. Elec. construction engineer, Ill. Traction System, 10–14; assoc. prof. and *prof. theoret. and applied mech, Illinois, 14–* A.A; Soc. Test. Mat; Elec. Eng; Nat. Soc. Professional Eng; Ill. Soc. Eng. Strength and elastic properties of structural materials.

Putt, Earl B, Maple St, Haworth, N. J. *Chemistry.* Doylestown, Ohio, Jan. 26, 86. Ph.C, Ohio State, 07, B.S, 09. Asst. chemist, N. Dak. Exp. Sta, 09–13; instr. mat. med, sch. pharmacy, N. Dak. Col, 09–10, asst. prof, 10–11, prof. mat. med. and therapeut, 11–13; asst. chemist, div. drugs, bur. chem, U. S. Dept. Agr, U. S. Appraiser's Stores, New York, 13–16, chemist in charge, Interstate Drug Lab, east. dist, 14–16; chief chemist, Youngstown Chem. Co, 16–20; *mem. firm, Seil, Putt and Rusby, Inc, 20–* A.A; Chem. Soc; Pharmaceut. Asn; fel. Inst. Chem; Agr. Chem. (assoc. referee on drugs, 12); Chemists' Club. Microchemical and other analyses of drug products; manufacture of pharmaceutical preparations.

Pye, Dr. Willard D(ickison), 1253 Harding St, Winter Park, Fla. *Petroleum geology.* Merzifon, Turkey, Feb. 20, 15. A.B, Oberlin Col, 35; fellow, Calif. Inst. Tech, 35–37, M.S, 37; fellow, Chicago, 40–41, Virgil R. D. Kirkham fellow, 41–42, Ph.D, 42. Teaching fellow geol. and geophys, Calif. Inst. Tech, 35–37; geologist and chief of party, Carter Oil Co, 37–40; teaching fellow geol, Chicago, 40–42; research engineer, Servel, Inc, and Nat. Defense Research Corp, 42–43; *geologist, Texas Co, 43–* Consultant geologist, 35–; asst. seismologist, Shell Oil Co, 36; research, soil conservation service, U. S. Dept. Agr, 36–37; research geologist, Ill. State Geol. Surv, 41–42. Assoc. Asn. Petrol. Geol; assoc. Min. and Metal. Eng. Geophysics; ore deposits; methods of making sedimentological, porosity and permeability determinations of oil field cores and indurated sandstones; brine analyses; petroleum geological problems.

Pyenson, Dr. Harry, University of Illinois, Urbana, Ill. *Dairy chemistry.* Otis, Mass, May 16, 13. B.S, Mass. State Col, 34; M.S, Pa. State Col, 35, Ph.D, 37. Asst. dairy mfrs, Pa. State Col, 34–37; purchasing agent, Fed. Surplus Commodities Corp, 38–39; fieldman, marketing service, Fed. Milk Market Admin, Chicago, Ill, 39–42; *asst. research chemist, dairy husbandry, Illinois, 42–* A.A; Dairy Sci. Asn. Dairy manufactures; physico-chemical properties of dairy products; whipping of cream; sterilization of dairy products under gas pressure.

Pyke, Prof. W(esley) E(merson), Colorado State College, Ft. Collins, Colo. *Chemistry.* Richmond, Kans, March 30, 96. A.B, Baker, 18; Missouri; Columbia; Ph.D, California, 40. Teacher, high sch, N. Mex, 23–24; asst. prof. *chem, Colo. State Col*, 24–32, assoc. prof, 32–38, research assoc. prof. *foods, Exp. Sta*, 38–42, *research prof, 42–* Chairman trustees, Colo. Agr. Research Foundation, 41– Chem. Soc; Inst. Food Tech; Colo-Wyo. Acad. Chemistry of and quality characteristics of foods and other biological materials; food processing and technology.

Pyle, Prof. C(harles) B(ertram), 407 W. Quincy St, Pittsburg, Kans. *Psychology.* Lucasville, Ohio, March 22, 72. A.B, Ohio Wesleyan, 01; S.T.B, Boston, 05, Ph.D, 27; A.M, Harvard, 06; Oxford, Paris and Jena, 13–14; Iowa; Columbia; Minnesota. Head dept. psychol. and philos, Baker, 20–24; assoc. prof. psychol. and educ, *Kans. State Teachers Col, Pittsburg, 24–27, prof. psychol. and philos. and head dept, 27–* Assembly lecturer, Lakeside, Ohio, 17. Assoc. Psychol. Asn; Philos. Asn. Behaviorism; religious philosophy.

Pyle, Prof. H(enry) Randolph, Whittier College, Whittier, Calif. *Mathematics.* Poplar Ridge, N. Y, Oct. 26, 04. A.B, Whittier Col, 26; A.M, California, 28, Ph.D, 31. Prof. math. and dean men, Penn Col. (Iowa), 30–33, William Penn Col, 33–35, pres. and prof. math, 35–36; asst. prof, Earlham Col, 36–38, prof, 38–40, acting dean, 37–38, dean, 38–40; *prof. math, Whittier Col, 40–* A.A; Math. Soc. Conditions for conformality in the elliptic and hyperbolic geometries.

Pyle, Dr. Robert W(endell), Rensselaer Polytechnic Institute, Troy, N. Y. *Zoology.* Phoenixville, Pa, March 3, 08. B.S, Pennsylvania, 33, A.M, 39; Ph.D, Harvard, 41. Mem. faculty, Georgetown Special Sch, Del, 34–37; Caesar Rodney Special Sch, Wyoming, 37–38; zool. librarian, Pennsylvania, 38–39; teaching fellow, Radcliffe Col, 41; Nat. Defense Research Project, Oceanog. Inst, Woods Hole, 41–42: fellow, *Rensselaer Polytech, 42, instr. biol, 42–* A.A. Histology and cytology of the invertebrate nervous system.

Pyle, Prof. W(illiam) H(enry), Wayne University, Detroit, Mich. *Psychology, Education.* Carmi, Ill, Feb. 27, 75. A.B, Indiana, 98; Ph.D, Cornell, 09. Prin. and sch. supt, Ill, 98–06; asst. psychol, Cornell, 07–09; instr, Missouri, 09–14, asst. prof. *educ. psychol*, 14–25; *prof*, Detroit Teachers Col. 25–33; *Wayne, 33–, sec'y grad. sch, 34–, director, 38–* A.A; Psychol. Asn. The effect of imperceptible shadows on the judgment of distance; after-images of subliminally colored stimuli; expectation; memory; mental development; learning; child training; psychology of the common branches.

Pyle, Prof. W(illiam) R(ussell), 240 Fife Ave, Wilmington, Ohio. *Physics.* Rockford, Ind, Oct. 7, 96. B.S, Purdue, 21; M.S, Ohio State, 26, Ph.D, 30. Teacher, pub. schs, Ind, 14–17; *prof. physics, Wilmington Col, 21–* Cent. Ohio Physics Club. Electrical appliances for the home; calibration of electrostatic voltmeters; dielectric constants of certain organic liquids at medium frequency.

Pyles, Prof. H(enry) M(ilton), Kentucky Wesleyan College, Winchester, Ky. *Botany, Zoology.* Sardis, Ky, Jan. 20, 90. B.S, Dixon Col, 11; A.M, Ky. Wesleyan Col, 22; Kentucky; Cincinnati; M.Ed, Peabody Col, 39. Prof. math. and science, Powhatan Col, 11–13; sch. supt, Ky, 13–15; *prof. biol*, Southern Col, 17–21; *Ky. Wesleyan Col, 21–* Ky. Acad. Laboratory manual of botany; pre-medical courses in biology.

Pyrtle, Prof. R(alph) N(olan), Box 51, Wilberforce, Ohio. *Zoology.* Langston, Okla, 90. B.S, Syracuse, 11; Chicago; M.S, Ohio State. Prin, high sch, Okla, 11–16; dean, West. Col. (Mo), 16–18; Roger Williams, 18–20; *prof. biol*, Wilberforce, 20–23; Agr. and Nor. Univ, Okla, 23–25; *Wilberforce, 25–* Ohio Acad. Animal behavior; conditions affecting the rate of locomotion in Porcellio laevis; reactions of Asellus to temperature; spiders of the oak-hickory forest.

Q

Quackenbush, Dr. F(orrest) W(ard), Purdue University, Lafayette, Ind. *Agricultural chemistry.* Melrose, Wis,

Aug. 18, 07. B.S, Wisconsin, 32, Ph.D, 37. Rockefeller Foundation fellow, Kaiser-Wilhelm Inst, Heidelberg, 38–39, Rijk's Univ, Utrecht, 39; research fellow, Wisconsin, 39–41, instr. biochem, 41–43; *prof. agr. chem. and head dept, Purdue, 43–* State chemist and seed commissioner, Ind, 43– Chem. Soc; Oil Chemists Soc. Animal and plant chemistry; animal nutrition; biochemistry of lipids.

Quade, Prof. E(dward) S(chaumberg), University of Florida, Gainesville, Fla. *Mathematics.* Jacksonville, Fla, June 28, 08. B.S, Florida, 30, M.S, 32; fellow, Brown, 34–35, Ph.D, 36. Asst. *math,* Brown, 32–34; instr, *Florida,* 30–32, 35–40, *asst. prof, 40–* Math. Soc. Fourier series; abstract spaces; linear operations.

Qualfe, Dr. Mary Louise, 56 Louise Ave, Highland Park, Mich. *Biochemistry.* Madison, Wis, Dec. 8, 17. A.B, Michigan, 38, M.S, 39, Lucy Elliott Mem. fellow, 41–42; Ph.D, Illinois, 42. Blood chemist, univ. hosp, Vanderbilt, 39–40; teaching asst. chem, Illinois, 41–42, physiol, 42–43; *research chemist, Distillation Products, Inc, 43–* Chem. Soc. Protein structure.

Quaintance, Dr. A(ltus) L(acy), Silver Spring, Md. *Entomology.* New Sharon, Iowa, Dec. 19, 70. B.S, Florida, 93; M.S, Ala. Polytech, 94, Sc.D, 15. Instr. biol, Florida, 94–97, prof. entom, 98; biol. and hort, Exp. Sta, Georgia, 99–01; zool. and entom, Maryland, and state entomologist, Md, 01–02; expert in charge deciduous fruit insect investigations, bur. entom, U. S. Dept. Agr, 03–24, assoc. chief bur, in charge research work, 24–30; *retired.* Asn. Econ. Entom. (pres, 04); Entom. Soc. Wash; Biol. Soc. Wash. (pres, 12); Wash. Acad. Economic entomology; Aleyrodidae; insects destructive to deciduous fruit plants in the United States.

Quam, Prof. G(eorge) N(orman), Long Island University, Brooklyn, N. Y. *Chemistry.* Madison, Wis, May 7, 91. A.B, South Dakota, 16; scholar, Wisconsin, 20–21, M.S, 21; fellow, Iowa State Col, 23–24, Ph.D, 24. Asst. *chem,* Iowa State Col, 21–23; prof, Midland Col, 24–25; asst. prof, Coe Col, 25–28, prof, 28–29; *assoc. prof, Long Island, 29–* Honorarium, Iowa, 28. A.A; Chem. Soc; Inst. Chem; N. Y. Acad. Liquid hydrogen sulfide; copper content of plant of animal tissues; corrosion of metals by milk; properties of sodium hypochlorite; lead content of water and food products; chemical education; vanadium oxychlorides; sintered filter mats; periodic classification of elements.

Quam, Prof. Louis O(tto), University of Colorado, Boulder, Colo. *Physical geography.* Salina, Colo, June 15, 06. A.B, Colorado, 31, M.S, 32; Ph.D, Clark, 38. Instr. *geol, Colorado,* 34–39, *asst. prof, 39–* Summers, ranger-naturalist, Rocky Mountain Nat. Park, 32–33. A.A; Am. Geog. Soc; Asn. Pacific Coast Geographers; Rocky Mountain Asn. Petrol. Geol; Colo-Wyo. Acad. Sci. Glacial geology; Rocky Mountain physiography; Rocky Mountain structural geology.

Quarles, Prof. Gilford G(odfrey), Furman University, Greenville, S. C. *Physics.* Charlottesville, Va, Dec. 24, 09. B.S, Virginia, 30, M.S, 33, Ph.D, 34. Instr. *physics,* Virginia, 31–33; asst. prof, Mercer, 34–35; instr, Alabama, 35–37, asst. prof, 37–41; *assoc. prof, Furman, 41–* Summer, engineer, Hazeltine Service Corp, 42. Asn. Physics Teachers; Physical Soc. Electro-optical Kerr effect of viscous liquids and in gases; photographic latent image.

Quarles, Dr. Lawrence R(eginald), University of Virginia, University Station, Charlottesville, Va. *Physics.* Charlottesville, Va, Jan. 26, 08. B.S.E, Virginia, 29, fellow, 32–35, Ph.D, 35. Engineer, Westinghouse Research Labs, 29–32; instr. *elec. eng, Virginia,* 35–40, asst. prof, 40–42, *assoc. prof, 42–* Radio Eng; assoc. Elec. Eng. Circuit development for electronic devices; field currents.

Quarles, Dr. Richard W(ingfield), 426 Sulgrave Road, Pittsburgh, Pa. *Physical chemistry.* Richmond, Va, March 21, 11. B.S, Virginia, 31, du Pont fellow, 34–35, Ph.D, 35; Michigan, 36. Asst, Virginia, 35–37; research chemist, Carbide and Carbon Chem. Corp, 37–39; *indust. fellow, Mellon Inst, 39–* Chem. Soc; Chem. Eng. Adsorption of gases and surfaces phenomena; synthetic resins; surface coatings and adhesives.

Quashnock, Dr. Jos(eph) M(atthew), 2652 Mt. Troy Road, N.S, Pittsburgh, Pa. *Biochemistry.* Mt. Pleasant, Pa, Oct. 14, 13. B.S, Pittsburgh, 35, M.D, 37. Instr. physiol. chem, sch. med, Pittsburgh, 38–41; *capt, Med. Corps, U. S. Army, and in charge nutrition unit, aero med. lab, Wright Field, 42–* Supersonics.

Quattlebaum, Dr. W(illiam) M(eritt), Jr, Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Organic chemistry.* Winnsboro, S. C, Oct. 10, 08. B.S, South Carolina, 29, M.S, 31; Ph.D, Harvard, 34. *Research chemist, Carbide and Carbon Chem. Corp, 33–* Chem. Soc. Pyrrole; dipyrryl methane; porphyrin series; synthetic resins; elastomers.

Quayle, Prof. H(enry) J(oseph), Citrus Experiment Station, Riverside, Calif. *Entomology.* Isle of Man, April 29, 76. A.B, Illinois, 03; M.S, California, 11. Asst. entom, California, 03–05; instr. zool, Iowa State Col, 05–06; asst. prof. *entom, California,* 06–11, assoc. prof, 11–15, *prof, 15–, entomologist, Citrus Exp. Sta.* Subtropical fruit insects.

Quayle, Prof. O(sborne) R(obinson), Emory University, Ga. *Organic chemistry.* Cleveland, Ohio, Dec. 15, 98. A.B, Swarthmore Col, 19; A.M, Harvard, 21; Ph.D, Hopkins, 24. Asst. prof. *chem, Emory,* 24–27, assoc. prof, 27–31, *prof, 31–* A.A; Chem. Soc. (chairman, Ga. sect, 32); Ga. Acad; N. Y. Acad. Benzoylbenzoic acids and anthraquinones; organic equilibria; relation of structure to physical properties.

Quayle, Prof. W(illiam) L(ittlefair), 505 S. 12th St, Laramie, Wyo. *Agriculture.* Logan, Utah, May 31, 81. B.S, Utah Col, 11. Asst. irrig. experiments, Utah Col, 11–13; sec'y, State Board Farm Commissioners, Wyo, 13–18; *prof. agr. experimentation, Wyoming, and director state exp. farms, 18–* Live stock; use of irrigation for crops.

Queen, Dr. Frank B, 303 E. Superior, Chicago, Ill. *Pathology.* St. John, Wash, Aug. 28, 04. A.B, State Col. Wash, 25; M.D, Washington (St. Louis), 29. Res. path, sch. med, Rochester, 30–32; Commonwealth fellow, kidney research fund, Pennsylvania, 32–33; fellow, Child Research Council, Denver, Colo, 33–35; instr. path, sch. med, Colorado, 35–38; *asst. prof. path. and director Patterson foundation cancer research, med. sch, Northwestern, 38–; Med. Corps, U. S. Army, 41–, lieut. col.* Director labs, Passavant Mem. Hosp, 38– Fel. Am. Med. Asn; Asn. Path. and Bact; Asn. Cancer Research; Asn. Exp. Path; fel. Col. Physicians; Soc. Clin. Path; Asn. Mil. Surg; Cent. Soc. Clin. Research; Ill. Soc. Path; Chicago Path. Soc. Parasitology; neoplastic disease.

Queneau, Dr. Bernard R(ussell), U. S. Naval Proving Ground, Dahlgren, Va. *Metallurgy.* Liége, Belgium, July 14, 12. B.S, Columb.a, 32, Met.E, 33; Ph.D, Minnesota, 36. Metallurgist, Research Corp, 33–34; asst, Minnesota, 34–36; research lab, U. S. Steel Corp, Kearny, N. J, 36–37; director plant lab, Carnegie-Ill. Steel Corp, 37–38; *asst. prof. metal, Columbia, 38–; U. S. Naval Res, 41–, lieut. commander.* Rhodes prize, Columbia. Eng. Educ; Min. and Metal. Eng; Soc. Metals; British Iron and Steel Inst. Physical metallurgy of steel; naval ordnance.

Quensé, Dr. John A(dolph), 1322 E. 63rd St, Seattle, Wash. *Organic chemistry.* Seattle, Wash, May 20, 12. B.S. and A.B, Washington (Seattle), 35, Ph.D, 40. Teaching fellow chem, Washington (Seattle), 36–40; *lieut, U. S. Naval Res, and instr. math, U. S. Naval Acad, 40–* Chem. Soc. Microscopic identification of sugars and polyhydric alcohols; chemical microscopy; development of high explosives; design and construction of new instruments and apparatus.

Querry, Prof. J(ohn) W(illiam), 1313 21st St, Huntsville, Texas. *Mathematics.* Pattonsburg, Mo, Oct. 10, 03. B.S, Northwest Mo. State Teachers Col; M.S, Iowa, 31, Ph.D, 34. Asst. *math,* Iowa, 30–34; *prof, Sam Houston State Teachers Col, 34–* Math. Soc; Math. Asn. Certain extensions of the theory of mechanical quadrature.

Quick, Dr. A(rmand) J(ames), Marquette University School of Medicine, Milwaukee, Wis. *Biochemistry.* Theresa, Wis, July 18, 94. B.S, Wisconsin, 18, M.S, 19; Ph.D, Illinois, 21; M.D, Cornell, 28. Instr. chem, Vanderbilt, 19–20; biochem, Pennsylvania, 22–26; asst. research surg, med. col, Cornell, 26–28, assoc. 30–32; asst. prof. *pharmacol, sch. med, Marquette,* 35–37, *assoc. prof, 37–* A.A; Soc. Pharmacol; Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Am. Med. Asn; Cent. Soc. Clin. Research. Organic arsenic compounds; glycuronic and hippuric acids; clinical hyperparathyroidism; liver function tests; drug toxicity action of salicylates; uric acid metabolism; coagulation of blood; hemorrhagic diseases.

Quick, Prof. B(ert) E(dwin), Westminster College, New Wilmington, Pa. *Botany.* Lowell, Mich, April 30, 86. A.B,

Michigan, 08, Ph.D, 16. *Prof. biol*, Iowa Wesleyan Col, 08–10; Southwestern Col. (Kans), 16–18; DePauw, 18–19; *Westminster Col. (Pa), 19–* A.A. Distribution of climax association in southern Michigan; botany of the Philippines, Iowa, Java, Ceylon and Puerto Rico.

Quick, Clarence R(oy), 26 Giannini Hall, University of California, Berkeley, Calif. *Ecology.* Curtis, Nebr. Oct. 1, 02. A.B, Col. of Pacific, 28; A.M, California, 30. Junior microanalyst, bur. plant indust, *U. S. Dept. Agr*, 31–33, *bur. entom. and plant quarantine*, 33–35, asst. pathologist, 35–41, *assoc. forest ecologist, 41–* A.A; Bot. Soc; Soc. Foresters; Calif. Acad; Calif. Bot. Soc. (sec'y, 43). Ecology and botany of the genus Ribes; seed germination of native plants.

Quiggle, Prof. Dorothy, Pennsylvania State College, State College, Pa. *Chemical engineering.* Boston, Mass, Aug. 21, 03. B.S, Mass. Inst. Tech, 26, M.S, 27; Ph.D, Pa. State Col, 36. *Research chemist*, research lab. applied chem, Mass. Inst. Tech, 27–29; *petrol. ref. lab, Pa. State Col, 29–*, instr. *chem. eng*, 35–37, asst. prof, 37–39, *assoc. prof, 39–* Chem. Soc. Catalysis; high-pressure reactions; petroleum refining; fractionation; composition and knock-rating of gasoline; cracking of oils and gases; oxidation of hydrocarbons; selective absorbents for gases.

Quigley, Prof. J(ohn) P(aul), 14450 Superior Road, Cleveland Heights, Ohio. *Physiology.* Syracuse, N. Y, April 25, 96. B.S, Syracuse, 18; M.S, Minnesota, 21; Ph.D, Chicago, 29. Instr. physiol. and pharmacol, Georgia, 24–25; Alberta, 25–28; physiol, Chicago, 28–29; senior instr, *Western Reserve*, 29–33, asst. prof, 33–35, assoc. prof, 35–43, *prof. gastro-intestinal physiol, 43–* Physiol. Soc; Soc. Exp. Biol; Gastro-Enterol. Asn. Carbohydrate metabolism and gastro-intestinal motility; insulin; glucose; humoral control of gastric motility; actions of pituitary extract, atropine, novatropine and perparin; absorption of calcium and iron; electrical potential of the stomach; the pyloric sphincter and gastric evacuation.

Quigley, Rev. Thomas H(arold), S.J, College of the Holy Cross, Worcester, Mass. *Physics.* Boston, Mass, Aug. 18, 96. A.B, Boston Col, 19; A.M, Woodstock Col, 25; Ph.D, Hopkins, 41. Instr. *physics and math, Col. of Holy Cross*, 25–28, *prof, 39–*, coordinator, civilian pilot training, 40–42. A.A; Physical Soc. Experimental determination of the velocity of sound in dry carbon dioxide-free air and methane at temperatures below the ice-point.

Quill, Prof. Laurence L(arkin), University of Kentucky, Lexington, Ky. *Inorganic chemistry.* Carson City, Nev, Feb. 24, 01. B.S, Nevada, 24, M.S, 25; Stanford, 24; fellow, Illinois, 27–28, Ph.D, 28. Instr, high sch, Nev, 24–25; asst. *chem*, Illinois, 25–27, special asst, 28–29, instr, 29–30, assoc, 30–35; asst. prof, Ohio State, 35–38, assoc. prof, 38–39, prof, 39–42, supervisor gen. chem, 36–42; *prof. chem. and head dept, Kentucky, 42–* Int. research fellow, Göttingen, 31–32. Asst. ed, 'Chem. Abstracts,' 36–; assoc. ed, 'Jour. Chem. Educ,' 41–A.A; Chem. Soc; Ky. Acad. Solubility of rare earth salts; artificial radioactivity of scandium and the rare earths; thermal analysis of rare earth salt mixtures.

Quillian, Prof. M(arvin) C(larke), Wesleyan College, Macon, Ga. *Ecology, Morphology, Physiology.* Cleveland, Ga, Aug. 6, 74. A.B, Emory, 95, 25; fellow, Vanderbilt, 99–00, A.M, 00; Ga. State Nor. Sch, 95, 97; Chicago, intermittently, 07–27; Columbia, 21; N. Y. Univ, 31. Asst. prin. and prin, high schs, Ga, 95–98; *prof.* Greek and science, Polytech. Col, 00–02; high sch, Texas, 02–05, univ. training sch, 05–06; biol. and geol, *Wesleyan Col*, 06–24, *biol, 24–* A.A; Ecol. Soc; Soc. Plant Physiol; Bot. Soc; Micros. Soc; Genetics Soc; Wilson Ornith. Club; Soc. Preservation Wild Flowers (director, 25–); Nature Study Soc; fel. Am. Geog. Soc; Asn. Biol. Teachers; Southeast. Asn. Biol; Ga. Hort. Soc; Ga. Acad; Ga. Soc. Archeol. Tropisms of Planaria dorotocephala; the development of mollusks; the biology of ginseng; natural history; folk-lore.

Quimby, Mrs. Edith H(inkley), 630 W. 168th St, New York 32, N. Y. *Biophysics.* Rockford, Ill, July 10, 91. B.S, Whitman Col, 12, Sc.D, 40; A.M, California, 16. Asst. physicist, Mem. Hosp, 19–32, assoc. physicist, 32–42; asst. prof. *radiol*, med. col, Cornell, 41–42; *assoc. prof, col. physicians and surgeons, Columbia, 42–* Physical Soc; Radium Soc. (v. pres, 29); Roentgen Ray Soc; Radiol. Soc. N. Amer. X-rays and radium; physical characteristics and therapeutic applications of radiations; comparison of different types of radiations.

Quimby, Dr. Maynard W(ard), Massachusetts College of Pharmacy, 179 Longwood Ave, Boston, Mass. *Plant anatomy and morphology.* Corinna, Maine, Jan. 26, 05. Ph.C, Mass. Col. Pharmacy, 29, Ph.C, 31; B.S, Maine, 33; M.S, Cornell, 34, Ph.D, 39. Teaching fellow, Mass. Col. Pharmacy, 29–31; asst, dept. bot, Cornell, 34–35, instr, 35–37; Maine, 37–38; *dept. bot. and pharmacog, Mass. Col. Pharmacy*, 38–42, *asst. prof, 42–* Anatomy of Ephedra species and Cephalanthus occidentalis; floral morphology of the Crassulaceae.

Quimby, Dr. Oscar T(aylor), 3129 Penrose Place, Cincinnati, Ohio. *Physical chemistry.* Cascade, Mont, Oct. 15, 01. B.S, Mont. State Col, 24; Ph.D, Wisconsin, 37. Instr. indust. and gen. chem, Mont. State Col, 24–26; gen. chem, Wisconsin, 26–28; junior chemist, Forest Products Lab, U. S. Forest Service, 28–30; *research chemist, Procter and Gamble Co*, 30–35, *37–* Summer, analyst, Anaconda Copper Mining Co, Mont, 26. A.A; Chem. Soc. Chemical engineering.

Quimby, Prof. S(hirley) L(eon), Columbia University, New York, N. Y. *Physics.* San Francisco, Calif, Aug. 21, 93. A.B, California, 15; Ph.D, Columbia, 25. Instr. *physics, Columbia*, 19–26, asst. prof, 26–36, assoc. prof, 36–43, *prof, 43–*; *lieut. commander, U. S. Naval Res, 43–* Ernest Kempton Adams fellow, Columbia, 36–37. Physical Soc. Magnetism; elasticity and internal friction in solids.

Quinby, Dr. William C(arter), Peter Bent Brigham Hospital, Boston, Mass. *Surgery.* Worcester, Mass, May 26, 77. A.B, Harvard, 99, M.D, 02. Asst. genito-urinary surgeon, Boston Dispensary, 05–09; asst. surgeon, New Eng. Baptist Hosp, 08–14; exp. surgeon, Brady Clinic, Hopkins Hosp, 14–16, assoc. surg, Hopkins, 15–16; director lab. surg. research, *Harvard Med. Sch*, 17–21, asst. prof. *genito-urinary surg*, 21–26, clin. prof, 26–41, *emer. clin. prof, 41–*; urol. surgeon, *Peter Bent Brigham Hosp*, 17–41, *urol. consultant, 41–* A.A; Am. Acad; Urol. Asn; Col. Surg; Asn. Genito-Urinary Surg; Surg. Research Soc; Am. Med. Asn; Physiol. Soc; Soc. Clin. Invest; Boston Surg. Soc. (pres, 37). Physiology; physiology of the kidney.

Quinlan, Prof. F(lorence) M(ary), University of Toronto, Toronto, Ont, Can. *Physics.* Barrie, Ont, Jan. 5, 96. B.A, Toronto, 17, M.A, 18, Ph.D, 32. Lecturer *physics, Toronto*, 38–41, *asst. prof, 41–* Royal Can. Inst. Interferometer measurements in the ultra-violet region of copper.

Quinlan, Prof. F(rancis) S(ylvester), St. Michael's College, Winooski Park, Vt. *Organic chemistry.* Reading, Mass, May 24, 00. A.B, Boston Col, 21; B.S, St. Michael's Col, 25, M.S, 26; Ph.D, Fordham, 29. Instr. chem, St. Michael's Col, 22–27; prof. inorg. chem, Fordham, 27–34; director educ, U. S. Dept. Ed, 35–40; *prof. org. chem, St. Michael's Col, 40–* Chem. Soc. The action of Gomberg's binary system; magnesium plus magnesium iodide on unsaturated aromatic acids.

Quinland, Dr. William S(amuel), 1308 South St, Nashville, Tenn. *Pathology.* All Saints', Antigua, B. W. I, Oct. 12, 85. B.S, 18; M.D, Meharry Med. Col, 19. Rosenwald fellow, Harvard Med. Sch, 19–22; asst. *path*, Peter Bent Brigham Hosp, Boston, 21–22; *prof. and head dept, Meharry Med. Col, 22–* Pathologist, George W. Hubbard Hosp, 22–, assoc. med. director, 31–37; pathologist, Millie E. Hale Hosp, Nashville, 22–39; Gen. Educ. Board fellow, Chicago, 41. Ed. board, 'Jour. Nat. Med. Asn,' 33; 'Punjab Med. Jour,' India, 41. A.A; Asn. Path. and Bact; Nat. Med. Asn. Carcinoma of the kidneys, esophagus, lungs and prostate; congenital malformation of the intestine; syphilitic osteitis and gummatous ulcer of the leg; tuberculosis; post-mortem review of heart diagnosis; leiomyofibroma of the uterus complicating pregnancy.

Quinlivan, Quentin L, E. I. du Pont de Nemours and Co, Arlington, N. J. *Chemistry.* B. C, Can. B.S, Washington (Seattle), 26. *Div. head Arlington research lab, chem. div, plastics dept, E. I. du Pont de Nemours and Co.* Plastics development.

Quinn, Dr. A(lonzo) W(allace), Brown University, Providence, R. I. *Geology.* Halltown, Mo, May 28, 99. B.S, Denison, 24; M.S, Iowa, 27; Ph.D, Harvard, 31. Instr. *geol*, Kansas, 24–25; Iowa, 25–26; Williams Col, 26–28; *Brown*, 29–36, asst. prof, 36–42, *assoc. prof, 42–* Summers, Ill. Geol. Surv, 26; U. S. Geol. Surv, 29–30. A.A; Miner. Soc; Geol. Soc. Normal faults in the Lake Champlain region; petrology of Red Hill, New Hampshire; minerals of Copper Mine Hill, Rhode Island; petrology of the Winnipesaukee, New Hampshire, area.

Quinn, Dr. C(arolyn) Grace Shover, 3221 Wheeler Road, S.E, Washington 20, D. C. *Mathematics.* Grove City, Ohio, Dec. 20, 06. A.B. and B.S, Ohio State, 26, A.M, 27, Ph.D, 31; Bryn Mawr Col, 34-35. Instr. *math,* Conn. Col, 29-33; teacher, Shipley Sch, Pa, 35-36; instr, N. Y. State Col, 36-37; Carleton Col, 37-42; *assoc, George Washington, 42-* Math. Soc; Math. Asn. Class number and multiplication of ideals in a rational linear associative algebra.

Quinn, Dr. E(dmond) J(ohn), 106 N. Lee Ave, Rockville Centre, N. Y. *Chemistry.* Antwerp, N. Y, July 12, 86. B.S, Notre Dame, 11; Ph.D, Columbia, 25. Ind. Geol. Surv, 11-14; Exp. Sta, Mont. State Col, 14-18, asst. prof. chem, col, 18-23; asst, Columbia, 23-25, instr, 25-30; *research director,* Maltine Co, 30-37; *Merck and Co, 37-* A.A; Chem. Soc; Soc. Biol. Chem. The relative thermo stability of vitamin A; phosphorus in relation to age, growth and food.

Quinn, Prof. Elton L(eroy), 1360 Browning Ave, Salt Lake City, Utah. *Chemistry.* Pittsfield, Maine, July 26, 87. A.B, Bates Col, 10; Ph.D, Princeton, 13. Research chemist, Bagdad Land and Lumber Co, 13-14; *prof. chem,* N. Mex. Sch. Mines, 14-15; *Utah, 15-* Summer; research chemist, U. S. Bur. Mines, 11. A.A; Chem. Soc. Atomic weight of cadmium; liquid carbon dioxide as a solvent; internal pressure of liquid carbon dioxide; carbon dioxide; absorption of carbon dioxide.

Quinn, Dr. John F(rederick), 5138 Washington Blvd, St. Louis, Mo. *Organic chemistry.* Pittsfield, Mass, Dec. 19, 12. A.B, Indiana, 35; M.S, Col. of Holy Cross, 36; fellow, Purdue, 36-37, Ph.D, 42. Teaching fellow, Col. of Holy Cross, 35-36; instr. chem, Purdue, 39-41; *research chemist, Monsanto Chem. Co, 41-* Chlorination of aliphatic acids and their derivatives.

Quinn, J(oseph) P(atrick), 3301 13th St, N. E, Washington, D. C. *Animal husbandry.* Boston, Mass, Nov. 1, 89. A.B, George Washington, 31, A.M, 39. Exten. poultry husbandman, *animal husbandry div, bur. animal indust, U. S. Dept. Agr,* 18-21, asst. poultry husbandman, 21-26, chief sci. aid, 26-36, *poultry geneticist, 36-* Poultry Sci. Asn; Genetic Asn. Inheritance of egg production and egg quality; morphological and physiological characters and artificial insemination in fowls.

Quinn, Dr. Robert B(yron), Naval Research Laboratory, Washington, D. C. *Physics.* Valparaiso, Ind, Feb. 6, 07. A.B, Indiana, 29, A.M, 30; Ph.D, Chicago, 41. Instr. physics, Rose Polytech, 30-31; Carleton Col, 39-42; *mem. staff, Naval Research Lab, 42-* Ind. Acad. Sparking potentials at low pressures; discharges in gases.

Quinn, R(obert) J(ohn), Wykagyl Gardens, New Rochelle, N. Y. *Chemical engineering.* Chicago, Ill, Feb. 5, 90. B.S, Illinois, 12. Asst. chemist, Morris and Co, 12-16, chief chemist, 16-17; manager packing house dept, Wahl-Henius Inst, 17; chief chemist, Midland Chem. Co, 17-18; sales manager, A. Daigger and Co, 18-20; Chicago dist. sales manager, *Mathieson Alkali Works,* 20-23, *asst. gen. sales manager,* 23-42, *asst. to v. pres. and director sales, 42-* Mem. drug chem. and allied trades sect, N. Y. Board Trade, trustee, 38- West. ed, 'Chem. Age'; board of editors, 'Chem. Bul.' Cantonment construction div, Q.M.C, 17. Chem. Soc. (sec'y, Chicago sect, 16-20, councilor, 20; N. Y. sect, 38); Salesmen's Asn; Soc. Chem. Indust. (sec'y-treas, 25, v. pres, 26, pres, 27); Water Works Asn; Gas Mfrs. Asn; Soc. Refrig. Eng; Oil Chem. Soc; Nat. Asn. Practical Refrig. Eng; Chemists' Club (chairman house cmt, 37-42; trustee, 37-42). Synthetic ammonia; liquid chlorine; alkali.

Quiring, Daniel P(aul), Western Reserve University, Cleveland, Ohio. *Comparative anatomy.* Newton, Kans, Oct. 22, 94. A.B, Oberlin Col, 17; A.M, Illinois, 28; Ph.D, Western Reserve, 32. Asst. zool, Illinois, 17-18, 27-29; instr. *biol, Western Reserve,* 29-37, asst. prof, 37-43, *assoc. prof, 43-* Head anat. div, Cleveland Clinic Foundation, 37- Cleveland Clinic Museum African exped, 35-36, sub-Arctic exped, 37. Surg. asst, U.S.A, 18-19. A.A; Soc. Zool; Asn. Anat; Ill. Acad. Development of the ear, especially in elasmobranchs; comparative anatomy of the heart, endocrine glands and the autonomic nervous system; growth.

Quirk, Prof. Arthur L(incoln), Providence College, Providence, R. I. *Physics.* Nasonville, R. I, Jan. 24, 08. B.S, Providence Col, 30; Knights of Columbus fellow, Catholic Univ, 30-34, M.S, 32, Ph.D, 34. *Prof. math. and physics, Providence Col, 34-* A.A; Physical Soc. Ultra-sonic radiations; the sonic interferometer.

Quirke, Prof. Terence T(homas), 705 W. Oregon St, Urbana, Ill. *Geology.* Brighton, Eng, July 23, 86. M.E, North Dakota, 12, fellow, 12-13, M.S, 13; fellow, Chicago, 13-15, Ph.D, 15. Instr. *geol,* Minnesota, 15-17, asst. prof, 17-19; assoc. prof, *Illinois,* 19-25, *prof, 25-,* chairman dept, 19-28; *consultant.* Summers, field asst, N. Dak. Geol. Surv, 10-13; geologist, Geol. Surv. Can, 14-32. Del, Int. Geol. Cong, Brussels, 22, Madrid, 26. A.A; fel. Geol. Soc; Miner. Soc; Soc. Econ. Geol. Precambrian geology; economic geology and mineralogy; meteorites.

Quisenberry, Prof. J(ohn) H(enry), Agricultural and Mechanical College of Texas, College Station, Texas. *Genetics.* Gainesville, Texas, June 25, 07. B.S, Agr. and Mech. Col. Texas, 31; M.S, Illinois, 33, Ph.D, 37. Asst. animal genetics, Illinois, 31-36; *assoc. prof. genetics, Agr. and Mech. Col. Texas, 36-* A.A; Eugenics Soc; Genetic Asn; Genetics Soc; Soc. Animal Production; Poultry Sci. Asn; Texas Acad. Theoretical genetics; animal breeding; genetics of disease resistance; inheritance of size and growth factors.

Quisenberry, Dr. K(arl) S(pangler), University of Nebraska, Lincoln, Nebr. *Agronomy.* Denison, Texas, Aug. 2, 97. B.S, Kans. State Col, 21; M.S, Minnesota, 25, Ph.D, 30. Instr. agron. and asst. agronomist, col. agr, West Virginia, 21-25; assoc. agronomist, div. cereal crops and diseases, *bur. plant indust, soils and agr. eng, U. S. Dept. Agr,* 25-30, agronomist, 31-42, *senior agronomist, 42-; prof. agron, Nebraska, 36-* A.A; Soc. Agron. Plant breeding; wheat genetics and improvement; winter hardiness of wheat.

Quisumbing, Dr. Eduardo, Bureau of Science, Manila, P. I. *Botany.* Santa Cruz, Laguna, P. I, Nov. 24, 95. B.Agr, Philippines, 18, fellow, 20-23; M.S, Chicago, 21, Ph.D, 22. Asst. bot, Philippines, 18-19, instr, 23-24, asst. prof. plant physiol, 24-26; nat. research fellow, Chicago, 26-28; *botanist, Bur. Science, P. I, 28-, asst. to director, 36-; curator, Philippine Nat. Herbarium, and chief, Nat. Museum, 36-* A.A; Bot. Soc. Stony layer in seeds of gymnosperms; protoplasmic connections in seeds; life histories of tropical plants; weeds; honey plants; ecology of bananas; systematic botany of the Philippines.

Quortrup, Dr. Erling R, Bear River Wildlife Disease Research Station, Brigham, Utah. *Wildlife management.* Denmark, Feb. 27, 02. D.V.M, Agr. and Mech. Col. Texas, 36. Gamekeeper, Gerry Game Farm, N. Y, 27-30; Montcalm Game Farm, Pa, 30; White Oak Quail Farm, Va, 31; Mo. Pheasantry, 32; *in charge Bear River wildlife disease research lab, fish and wildlife service, U. S. Dept. Interior, 37-* Vet. Med. Asn; Wildlife Inst; Soc. Mammal. Diseases of wild birds, mule deer, elk, bighorn sheep and bison; botulism of western waterfowl, including bacteriological, biochemical, pathological and ecological aspects.

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Raab, Dr. Albert W(illiam), 1616 N. Randolph St, Philadelphia, Pa. *Mathematics.* Fairview, N. J, Nov. 21, 03. B.S, Pennsylvania, 27; A.M, Columbia, 29; Ph.D, Chicago, 32. Instr. math, Pa. State Col, 27-28; Hunter Col, 28-29; Knox Col, 30-31; private research, 32-36; *teacher math, Northeast High Sch, Phila, 36-* Calculus of variations.

Raab, Dr. W(ilhelm), 130 Robinson Parkway, Burlington, Vt. *Internal medicine, Pathological physiology.* Vienna, Austria, Jan. 14, 95. M.D, Vienna, 20, Prague, 26. First asst, clinic prof. Biedl, German Univ. Prague, 21-26, privatdocent path. physiol, 26-35; int. med, Vienna, 35-39; *asst. prof. clin. med, med. col, Vermont, 39-* Asst. and first asst, first med. clinic, Vienna, 26-36; Rockefeller research fellow, Harvard, 29-30; physician in chief, Krankenhaus der Kaufmannschaft, Vienna, 36-39, official examiner int. med, 36; consulting internist, Mary Fletcher and Bishop DeGoesbriand Hosps, Burlington, 40- Austrian and Hungarian war decorations. Lieut, M.C, Austrian-Hungarian Army, 17-19. Am. Med. Asn. Diseases and physiology of endocrine glands; pathogenesis of arterial hypertension; arteriosclerosis; angina pectoris; cardiac failure; treatment of angina pectoris by x-ray irradiation of the adrenal glands; tryptic carcinolysis and serum proteins; catechols in uremia.

Raabe, Prof. Rudolph H(enry), 316 S. Gilbert St, Ada, Ohio. *Pharmacy.* Ft. Jennings, Ohio, June 8, 81. B.S, Ohio Northern, 03, Ph.G, 10, Ph.C, 11; Pharm D, Havana, 30. Asst. *pharmacy, col. pharmacy, Ohio Northern,* 11-14, instr, 14-16, asst. prof, 16-17, *prof. and dean, 17-* A.A; Pharmaceut.

Asn; Chem. Soc; Ohio Pharmaceut. Asn. Principles of dispensing; mathematics for the pharmacist.

Raasch, Dr. Maynard S(tanley), 2515 W. 18th St, Wilmington, Del. *Organic chemistry.* Castlewood, S. Dak, Feb. 27, 15. B.S, S. Dak. Sch. Mines, 37; M.S, Ohio State, 38, Wm. S. Merrell Co. fellow, 39–41, Ph.D, 41. Asst. chem, S. Dak. Sch. Mines, 35–37; asst. chem, Ohio State, 37–39; *research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 41–* Summer, mem. staff, Eastman Kodak Co, 39. A.A; Chem. Soc. Synthetic resins; optically active compounds; synthetic medicinals.

Rabak, Frank, U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Madison, Wis, June 10, 81. Ph.C, Wisconsin, 03, B.S, 05. Asst. instr. pharmacog, Wisconsin, 03–04, pharmaceut. chem, 04–05, instr. pharmaceut. technique, 05–06; expert, *bur. plant indust, U. S. Dept. Agr,* 06–09, chem. biologist, 09–24, *assoc. biochemist, 24–* A.A; Pharmaceut. Asn; Soc. Brewing Chem. Volatile and fatty oils; drying oil seeds; drug plants; waste product utilization; hops.

Rabak, William, 2211 Channing Way, Berkeley, Calif. *Chemistry.* Madison, Wis, March 25, 92. Ph.G, Wisconsin, 13, B.Sc, 15. Instr. physiol. chem, Nebraska, 16–17; drug analyst, Am. Med. Asn, 18–19; with U. S. Food and Drug Admin, 20–26; tech. bur, Biscuit and Cracker Manufacturers Asn, 26–30; indust. research pharmaceut, 31–35; assoc. chemist and later *chemist, bur. agr. and indust. chem, U. S. Dept. Agr, 35–* Inst. Food Technol. Synthetic drugs and other pharmaceuticals; rancidity resistance of fats; nutritive values of biscuit and cracker products; ripening of Bartlett pears with ethylene; vitamin C in frozen foods; packaging materials used in frozen foods; efficiency of nonmetallic packages in storing frozen foods.

Raber, Prof. B(enedict) F(rederick), 1124 Arch St, Berkeley, Calif. *Mechanical engineering.* Farmington, Iowa, Oct. 8, 82. B.S, M.E, Purdue, 07. Instr. *mech. eng,* Purdue, 07–13; *prof,* Nebraska, 14–15; *California, 15–* City mech. and elec. engineer, filtration div, Sacramento, 20–21. A.A; Mech. Eng. (chairman, San Francisco sect, 19). Thermodynamics; heat power; engines and refrigeration machines; air-conditioning equipment.

Raber, C(harles) T(ilghman), Glens Falls Portland Cement Co, Glens Falls, N. Y. *Chemistry.* Mechanicsville, Pa, Jan. 15, 93. Pa. State Col, 14–18. Chief cement and fine aggregate dept, Highway Dept, Pa, 19–37; chem. engineer, *Glens Falls Portland Cement Co,* 37–41, supt, 41–43, *gen. chemist, 43–* Soc. Test. Mat. (cmt. C–1, 30–, advisory cmt. to War Production Board, 43–). Various types of cement, including masonry cement; admixtures in cement.

Rabi, Prof. I(sidor) I(saac), Columbia University, New York, N. Y. **Physics.* Rymanow, July 29, 98. B.Chem, Cornell, 19; Ph.D, Columbia, 27. Tutor physics, Col. City of N. Y, 24–27; Barnard fellow, Columbia, 27–28; Int. Educ. Board fellow, Munich, Copenhagen, Hamburg, Leipzig and Zurich, 28–29; lecturer *physics, Columbia,* 29–30, asst. prof, 30–35, assoc. prof, 35–37, *prof, 37–* Ernest Kempton Adams fellow, 35. Summers, lecturer, Michigan, 36; Stanford, 38. Semi-Centennial prize, Sigma Xi, 36; prize, Am. Asn. Adv. Science, 39. Ed. board, 'Physical Rev,' 35–38, 40– Nat. Acad; A.A; fel. Physical Soc; Philos. Soc; Am. Acad. Magnetism; nuclear physics; quantum mechanics; molecular beams.

Rabin, Dr. Albert I(srael), 105 Pleasant St, Concord, N. H. *Psychopathology.* Lithuania, June 20, 12. B.S, Boston, 35, A.M, 36, Ph.D, 39; Harvard, 36–38. Asst, dept. psychol, Boston Univ, 36–38; *chief psychologist, N. H. State Hosp, 39–* Lecturer, grad. sch, Boston Univ, 40; consultant, Golden Rule Farm, 41–; examiner, Civilian Aeronaut. Admin. Program, 42. A.A; assoc. Psychol. Asn; Asn. Applied Psychol; East. Psychol. Asn. Perseveration in dementia praecox and the manic depressive psychoses; patterns of mental functioning and problems of deterioration in the psychoses.

Rabinovitch, Dr. B(enton) S(eymour), National Research Bldg, Ottawa, Ont, Can. *Physical chemistry.* Montreal, Que, Feb. 19, 19. B.Sc, McGill, 39, Nat. Research Council Can. fellow, 41–42, student, 40–41, fellow, 41–42, Ph.D, 42. Research chemist, Chem. Warfare Labs, 42; *lieut, Can. Army, 42–* Chemical kinetics; hydrolytic reactions; hydrogen atom reactions; chemical warfare.

Rabinowitch, Dr. Eugene I, 67 Poplar St, Watertown, Mass. *Physical chemistry.* St. Petersburg, Russia, April 26, 01. Ph.D, Berlin, 26. Asst, Kaiser Wilhelm Inst. Physical Chem, Berlin Dahlem, 29; dept. physics, Göttingen, 30–33; fellow, Rask Oersted Foundation, Royal Acad. Sci, Copenhagen, 33; consultant, Imp. Chem. Industries, Ltd, and Univ. Col, London, 34–38; *research assoc, Mass. Inst. Tech, 39–* Chem. Soc. Physical chemistry; reaction kinetics; photochemistry; photosynthesis.

Rabinowitch, Dr. I(srael) M(ordecai), McGill University, Montreal, Que, Can. *Medicine.* Philadelphia, Pa, Dec. 27, 91. M.D, McGill, 17, D.Sc, 32. Asst. prof. and later *assoc. prof. med. and lecturer biochem, med. jurisprudence and toxicol, McGill.* Director dept. metabolism and chief clinic diabetes, Montreal Gen. Hosp; consulting biochemist, Children's Mem. Hosp, Montreal; Shriners' Hosp. Montreal. Director chem. warfare lab, Can. Army Overseas; sci. adviser chem. warfare, Dom. Govt. A.A; fel. Col. Physicians; Soc. Biol. Chem; Inst. Nutrition; fel. Royal Col. Physicians Can; Can. Med. Asn; Montreal Physiol. Soc; Montreal Medico-Chirurg. Soc; Biochem. Soc. Gt. Britain; Microchem. Soc. Gt. Britain. Metabolism in medicine.

Rabjohn, Dr. Norman, University of Illinois, Urbana, Ill. *Organic chemistry.* Rochester, N. Y, May 1, 15. B.S, Rochester, 37; M.S, Illinois, 39, Ph.D, 42. Asst. *chem, Illinois,* 38–42, *instr, 42–* Oxidation of aliphatic nitro compounds; chlorination of ketones.

Race, Dr. Henrietta V(iola), 106 River Drive, Appleton, Wis. *Psychology.* Aurora, Ill, March 26, 69. A.B, Lawrence Col, 00; A.B, Baker, 09; hon. A.M, Columbia, 12, Ph.D, 22. Teacher, pub. schs, 86–03, supt, 03–07; head dept. educ, Southwestern Col. (Kans), 07–14; director research, Board Educ, Louisville, 14–20; psychol. clinic, Kansas City, 20–21; research, Youngstown, 21–26; clin. psychologist, State Dept. Pub. Instruction, Wis, 26–39; *retired.* Psychol. Asn; Educ. Research Asn. Gifted children; improvement; psychology of learning through experience.

Race, Dr. Hubert H(awley), 1394 Dean St, Schenectady, N. Y. *Dielectrics.* Buffalo, N. Y, Feb. 12, 99. E.E, Cornell, 22, Ph.D, 27. Instr, elec. lab, Cornell, 20–22; design engineer, Phila. Elec. Co, 22–23; instr. advanced elec. theory, Cornell, 23–27, asst. prof, 27–29; *research engineer, research lab, Gen. Elec. Co, 29–* A.A; Physical Soc; Elec. Eng; N. Y. Acad. Solid and liquid dielectrics.

Rachele, Dr. Julian R(ichard), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Microchemistry.* New York, N. Y, Oct. 31, 12. B.A, N. Y. Univ, 34, M.S, 35, Ph.D, 39. Teaching fellow chem, N. Y. Univ, 35–38; research assoc. *biochem, med. col, Cornell,* 38–39, *instr, 39–* Chem. Soc. Microchemical techniques applied to protein and vitamin chemistry; isotropic tracers in metabolism.

Racicot, H(omère) N(oé), Central Experiment Farm, Ottawa, Ont, Can. *Phytopathology.* South Stukely, Que, March 9, 93. B.A, McMaster, 21. Plant pathologist and officer in charge Dom. lab. plant path, Ste. Anne de la Pocatière, Que, 23–30, *plant pathologist for west. Que, Can. Dept. Agr, 30–* Phytopath. Soc; Can. Soc. Tech. Agr; Can. Phytopath. Soc. Plant pathology and physiology.

Rackemann, Dr. Francis M(inot), 263 Beacon St, Boston, Mass. *Medicine.* Milton, Mass, June 4, 87. A.B, Harvard, 09, M.D, 12. Asst. *med, Harvard Med. Sch,* 16–25, instr, 25–35, assoc, 35–40, *lecturer, 40–; Mass. Gen. Hosp,* 16–24, chief med, outpatient dept, 24–28, *physician, 28–* Am. Med. Asn; Am. Physicians; Soc. Clin. Invest; Asn. Immunol; Clin. and Climat. Asn; Soc. Study Asthma; Asn. Study Allergy; Col. Physicians; Harvey Soc. Anaphylaxis; asthma; hay fever; clinical allergy.

Radasch, Prof. A(rthur) H(itchcock), Cooper Union, New York, N. Y. *Chemical engineering.* Longmeadow, Mass, June 25, 98. B.S, Mass. Inst. Tech, 20. Instr. chem. eng, Northeastern, 20–21; asst. director, div. indust. cooperation and research, Mass. Inst. Tech, 20–21; asst. chem, Harvard, 20–21; prof, N. Y. State Col. Ceramics, Alfred, 21–27; chem. engineer, research and develop. dept, The Barrett Co, 27–38; *prof. chem. eng. and head dept, Cooper Union, 38–* Chem. Eng; Chem. Soc. Distillation.

Radcliffe, Dr. Lewis, 5600 32nd St, Washington, D. C. *Ichthyology.* Savannah, N. Y, Jan. 2, 80. A.B, Cornell, 05; M.S, George Washington, 15; hon. Sc.D, Washington Col. (Md), 31. Teacher, high sch, N. Y, 05–07; asst. naturalist, 'Albatross,' 07–08; sci. asst, Bur. Fisheries, 09–12, director, Beaufort Lab, 12–14, sci. asst, 14–16, asst. in charge fishery indus-

tries, 16–22; special fisheries investigator, U. S. Tariff Cmn, 22–23; deputy commissioner, Bur. Fisheries, 23–33, *exec. sec'y, Oyster Growers and Dealers Asn. of N. Amer, 33–; Sponge Inst, 34–; director, Oyster Inst. of N. Amer, 35–* Mem. fishery advisory cmt, U. S. Dept. Interior. Fisheries Soc; Nat. Shellfisheries Asn. (pres, 29–31); Biol. Soc. Wash. Commercial fisheries; fisheries economics; fishes of the eastern Pacific, Peru, Philippines and the United States.

Rademacher, Prof. Hans (Adolph), P. O. Box 247, Swarthmore, Pa. **6Mathematics.* Wandsbek, Germany, April 3, 92. Ph.D, Göttingen, 17. Privat-docent math, Berlin, 19–22; prof, Hamburg, 22–25; Breslau, 25–34; asst. prof. and later *prof, Pennsylvania, 34–* Math. Soc; London Math. Soc. Theory of real functions; orthogonal functions; analytic theory of numbers.

Rader, Lewis F(ranklin), Jr, Bureau of Plant Industry, U. S. Department of Agriculture, Beltsville, Md. *Soils.* Canon City, Colo, March 7, 03. B.S, George Washington, 34. Junior chemist, Empire Zinc Co, Colo, 26–27, 29; sci. aide, *U. S. Dept. Agr,* 30–35, junior chemist, 35–37, *asst. chemist, fertilizer investigations, bur. plant indust, 37–* Inst. Chem. (v. pres, D. C. chap, 40–42); Chem. Soc. Phosphates and phosphatic fertilizers; soil solution displacement with special reference to fertilized soils and the salt index of mixed fertilizers.

Rader, Prof. Lloyd F(orrest), University of Wisconsin, Madison, Wis. *Civil engineering.* Lincoln, Nebr, Oct. 8, 02. U. S. Naval Acad, 19–22; B.S.E, Michigan, 24, Roy D. Chapin fellow, 24–25, M.S.E, 25; Indiana, summers, 29–32; Ph.D, Michigan, 38. Instr. civil eng, Nebraska, 25–28; asst. prof, Polytech. Inst. Brooklyn, 28–37, assoc. prof, 37–40, in charge highway materials testing lab, 29–40; *prof. civil eng. in charge highway eng. and city planning, Wisconsin, 40–; lieut. commander, Civil Eng. Corps, U. S. Naval Res, 41–* Summers, senior inspector, highway construction, Pa. Highway Dept, 24, 25, 27; engineer, State Dept. Pub. Works, Nebr, 26, 28. Prize of Belgium, Int. Road Cong, The Hague, 38. Civil Eng; Soc. Test. Mat; Eng. Educ; Inst. Traffic Eng; Asn. Asphalt Paving Tech. (pres, 43); Soc. Mil. Eng. Bituminous and non-bituminous highway materials; hydraulic cements; admixtures in concrete; methods of proportioning and curing concrete; physical properties of bituminous paving mixtures at low temperature; soil mechanics; asphalt paving mixtures; materials of construction.

Radforth, Dr. Norman W(illiam), University of Toronto, Toronto, Ont, Can. *Paleobotany, Experimental embryology.* Barrow-in-Furness, Lancashire, Eng, Sept. 22, 12. B.A, Toronto, 36, M.A, 37; Ph.D, Glasgow, 39. Demonstrator, Glasgow, 37–38; research fellow, Royal Soc. Can, 38–39; special lecturer gen. bot. and plant physiol, McMaster, 39–41; *lecturer paleobot. and gen. bot, Toronto, 41–* Summer, special lecturer, Queen's (Can), 40. A.A; British Asn. Fructifications of Carboniferous plants.

Radó, Prof. Tibor, 92 Walhalla Road, Columbus, Ohio. **5Mathematics.* Budapest, Hungary, June 2, 95. Polytech. Sch, Budapest, 13–15; Ph.D, Szeged, Hungary, 21. Adjunctus, Szeged, Hungary, 22–29; int. research fellow, Rockefeller Foundation, 29; *prof. math, Ohio State, 30–* Privat-docent, Szeged, Hungary; visiting lecturer, Harvard and Rice Inst, 29–30. Summer, prof, Chicago, 42. Collaborating ed, 'Am. Jour. Math,' 43, A.A; Asn. Symbolic Logic; Math. Soc. (councilor, 41–); Math. Asn. Conformal mapping; partial differential equations; area of surfaces; problem of Plateau; subharmonic functions.

Radspinner, Dr. J(ohn) A(sa), Pan-American Refining Corp, Texas City, Texas. *Physical chemistry.* Vincennes, Ind, May 14, 17. B.S, Richmond, 37; M.S, Va. Polytech, 38; Sc.D, Carnegie Inst. Tech, 42. *Research chemist, Pan-Am. Ref. Corp, 42–* Chem. Soc. Surface oxidation of coal; petroleum chemistry.

Radt, Dr. Martin, 225 College Ave, Grove City, Pa. *Electrical engineering.* Hohensalza, Poland, Sept. 20, 83. D.Eng, Tech. Univ. Karlsruhe, 08. Instr. elec. eng, Tech. Univ. Karlsruhe, 08–10; director, German Gen. Elec. Co, 10–31; independent civil engineer and expert, Elec. Pub. Utilities, 31–35; *asst. prof. elec. eng, Grove City Col, 41–* Design of electric machinery; management of public utilities.

Rae, Dr. James J(amieson), University of Toronto, Toronto, Ont, Can. *Organic chemistry.* Toronto, Ont, Jan. 25, 08. B.A, McMaster, 30; M.A, Toronto, 31, Ph.D, 33. Asst, dept. med. research, Banting Inst, Toronto, 30–33; 1851 Overseas fellow, Lister Inst. Prev. Med, London, 33–34; prof. chem, Brandon Col, 34–37; *lecturer gen. and org. chem, Toronto, 37–* Fel. Can. Inst. Chem. (chairman Toronto branch, 40). Phosphorus metabolism.

Rae, Prof. W(ilfrid) J(ohn), University of Saskatchewan, Saskatoon, Sask, Can. *Poultry genetics.* Winnipeg, Man, March 22, 99. B.S.Agr, Manitoba, 23; M.S, Wisconsin, 28. Instr, Manitoba, 24–26, lecturer, 26–29; asst. prof. poultry husbandry, *Saskatchewan,* 29–42, *prof. poultry and head dept, 42–* Genetic Asn; Poultry Sci. Asn; Can. Soc. Tech. Agr. Inheritance studies in egg production; body conformation in bronze turkeys.

Raeder, Prof. J(ohn) Milford, University of Idaho, Moscow, Idaho. *Plant pathology.* Wilkes-Barre, Pa, April 4, 92. B.S, Iowa State Col, 15, M.S, 20. Instr. plant path, Iowa State Col, 20–21; asst. *plant path, Idaho,* 21–31, *assoc. prof, 31–,* asst. plant pathologist, *Exp. Sta,* 21–27, *assoc. plant pathologist, 27–* A.A; Phytopath. Soc. (sec'y-treas, 32–41); Northwest Asn. Hort, Entom. and Plant Path. Cereal pathology; stripe rust; potato diseases; infection as affected by nutrition.

Raeder, Prof. Warren, University of Colorado, Boulder, Colo. *Civil engineering.* St. Louis, Mo, June 8, 91. B.S, California, 16; M.S, Colorado, 27. Instr. *civil eng, Colorado,* 26–28, asst. prof, 28–32, assoc. prof, 32–39, *prof, 39–* Civil Eng; Concrete Inst. Structural engineering.

Raffel, Dr. Daniel, York Road, Sparks, Md. *Genetics.* Baltimore, Md, Aug. 7, 99. A.B, Hopkins, 26, Ph.D, 30; Copenhagen, 26–27; Naples Zool. Sta, 27–28. Nat. research fellow biol, Hopkins, 30–31; nat. research fellow, Osborn zool. lab, Yale, 31–34; research worker, Inst. Genetics, Acad. Sciences, U.S.S.R, 34–37. Genetics Soc. Genetics of the Protozoa; mutation; position effect.

Raffel, Dr. Sidney, Stanford University, Calif. *Bacteriology, Immunology.* Baltimore, Md, Aug. 24, 11. A.B, Hopkins, 30, Sc.D, 33; M.D, Stanford, 43. Asst. immunol, Hopkins, 33–35; *bacter. and exp. path, Stanford,* 35–37, instr, 37–38, *asst. prof, 38–* Asn. Immunol; Soc. Bact. Experimental pathology; immunity in trypanosome diseases; heterophile antigens; organ specificity; immunology of poliomyelitis; tuberculosis immunity; blood proteins and antibodies.

Rafferty, Dr. M(ichael) A(lphonse), Miles Laboratories, Inc, Elkhart, Ind. *Biochemistry, Pharmacology.* Weston, W. Va, Dec. 24, 03. Ph.C, West Virginia, 29; M.D, Rush, Chicago, 37. Asst. biochem. and pharmacol, sch. med, West Virginia, 29–31, instr, 31–32, asst. prof, 32–37, assoc. prof. biochem. and head dept, 37–41; *asst. med. director, Miles Labs, Inc, 41–* A.A; Am. Med. Asn. Gastro-enterology; metabolism.

Rafton, Harold R(obert), Box 8, Shawsheen Village Station, Andover, Mass. *Chemistry.* Boston, Mass, Dec. 21, 90. A.B, Harvard, 10. Instr. chem, N. Dak. Col, 10–11; chemist, S. D. Warren Co, 11–16; *pres. and chem. director, Raffold Co. of Amer, 16–; pres, affiliated companies, Rafton Labs, Inc, Raffold Process Corp, Rafton Eng. Corp. and Raffold Int. Corp, 28–* Lieut, C.W.S, 18. A.A; Chem. Soc; Tech. Asn. Pulp and Paper Indust; N. Y. Acad. Chemical engineering; coating and sizing paper; manufacture and use of alkaline fillers; causticizing process; alkaline earth metal compounds; utilization of waste lime mud.

Rafton, Mrs. Harold R(obert) (Dr. Helen F(rances) Grayson), Alden Road, Andover, Mass. *Organic chemistry.* New York, N. Y, Sept. 1, 97. B.S, Columbia, 18; Ph.D, Bryn Mawr Col, 22. *Assoc. chem. director, Raffold Co. of Amer, 22–; treas, Rafton Labs, Inc, and affiliated companies, 28–* A.A. Rearrangement, equilibrium and formation of the propyl bromides; alkali and alkaline earth carbonates.

Ragan, Dr. George L(eslie), 22–150 Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Laurel, Fla, July 9, 14. B.S, Florida, 36; scholar and fellow, Wisconsin, 36–40, Ph.D, 41. Asst. physics, Wisconsin, acting instr, 40–41; *staff mem, Mass. Inst. Tech, 41–* Physical Soc. Nuclear physics; proton-proton scattering; lithium gamma rays.

Ragatz, Prof. R(oland) A(ndrew), 4106 Cherokee Drive, Madison, Wis. *Chemical engineering.* Prairie du Sac, Wis, Dec. 19, 98. B.S, Wisconsin, 20, M.S, 23, Ph.D, 31. Instr. *chem. eng, Wisconsin,* 20–26, asst. prof, 26–29, 30–37, assoc. prof, 37–42, *prof, 42–* Research metallurgist, A. O. Smith Corp, Milwaukee, 29–30. Chem. Soc; Soc. Metals; Eng.

Educ. Low temperature reduction of iron ores; heat treatment of steel.

Ragins, Dr. Alex B(enjamin), Chicago Medical School, Chicago, Ill. *Pathology.* Kiev, Russia, Feb. 6, 08. B.S, Illinois, 29, M.D, 31, M.S, 31. Instr. *path,* Illinois, 33–41; *prof, Chicago Med. Sch, 39–; major, Med. Corps, U. S. Army,* 42–43, *lieut. col, 43–* A.A; Asn. Clin. Path; Soc. Path. and Bact; Chicago Path. Soc. Liver and kidney diseases; tumors of the kidney.

Ragins, Dr. Ida Kraus, 5240 Greenwood, Chicago, Ill. *Biochemistry.* Russia, Oct. 10, 94. B.S, Chicago, 18, M.S, 19, Ph.D, 24. Asst. quantitative analysis, 15–18; teacher, Okla. Col. for Women, 19–20; instr. biochem, Chicago, 24–37; *senior chemist, Cook County Hosp, 37–* Soc. Exp. Biol. Protein analysis; quantitative determination of amino acids; peptic and tryptic hydrolysis of proteins; protein specificity reactions.

Raginsky, Dr. Bernard B(oris), 376 Redfern Ave, Montreal, Que, Can. *Pharmacology.* Ekaterinoslav, Russia, Oct. 10, 02. McGill, 19–21, M.D, 27. Demonstrator pharmacol, McGill, 30–31; *assoc. physician med. and neuropsychiat, Jewish Gen. Hosp, Montreal, 34–; practising physician.* Prize, 'British Jour. Anesthesia,' 35. Am. Med. Asn; Am. Med. Editors' Asn. (Can. membership cmt, 34–); Am. Heart Asn; Associated Anesthetists U. S. and Can; Can. Med. Asn; Can. Physiol. Soc; Montreal Physiol. Soc; Montreal Clin. Soc; Montreal Medico-Chirurg. Soc; cor. mem. Soc. française d'Anesthesie; Int. Anesthesia Research Soc; fel. Int. Col. Anesthetists. Pharmacology of anesthesia, avertin, nitrous-oxide, cyclopropane, vinyl ether and conditioned reflexes; vinethene; muscle tonus; analeptics; psychotherapy; hypnotic phenomena.

Ragland, Prof. C(arlton) H(erbert), Mississippi State College, State College, Miss. *Horticulture.* Ackerman, Miss, Aug. 8, 99. B.S, Miss. State Col, 26; Ph.D, California, 34. Instr. hort, Miss. State Col, 26–27, asst. prof, 27–29; grad. asst. pomol, California, 30–31, 32–34; acting prof. *hort,* Agr. and Mech. Col. Texas, 31–32; *prof, Miss. State Col, and horticulturist, Exp. Sta, 35–* Soc. Hort. Sci. General pomology; fruit growth and development.

Ragsdale, Prof. A(rthur) C(hester), University of Missouri, Columbia, Mo. *Dairy husbandry.* Aurora, Mo, Oct. 28, 90. B.S.A, Missouri, 12; hon. scholar, Wisconsin, 24–25, M.S, 25. Asst. instr. animal husbandry, Rutgers Col. and N. J. Exp. Sta, 13–15; instr. and asst. prof, West Virginia, 15–16; exten. asst. prof, *Missouri,* 16–19, *prof. dairy husbandry, 19–* A.A; Dairy Sci. Asn. (pres, exten. sect, 18, chairman, production sect, 27, official test. sect, 29); Genetic Asn; Soc. Animal Production. Growth, nutrition and breeding.

Rahn, Dr. Hermann, University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Zoology, Endocrinology.* East Lansing, Mich, July 5, 12. A.B, Cornell, 33; Kiel, 33–34; Ph.D, Rochester, 38. Asst, Rochester, 34–38; nat. research fellow, Harvard, 38–39; instr. zool. and physiol, Wyoming, 39–41; fellow *physiol, sch. med. and dentistry, Rochester,* 41–42, *instr, 42–* Summer, John D. Jones scholar, biol. lab, Cold Spring Harbor, 38. Assoc. Soc. Zool. Morphology and physiology of the pituitary; reproductive physiology of reptiles.

Rahn, Prof. Otto, 107 Maple Ave, Ithaca, N. Y. *Bacteriology.* Tiegenhof, Westpreussen, Germany, April 9, 81. Ph.D, Göttingen, 02. Asst. dairy science, Göttingen, 02–06; soil bacter, Exp. Sta, Halle, 06–07; asst. prof. bacter, Mich. State Col, 07–12; Illinois, 12–14; *prof.* dairy physics, Exp. Sta, Kiel, 20–26; *bacter, Cornell, 27–* A.A; Soc. Bact. Dairy physics; theory of cream rising and of the churning process; dairy, soil and food bacteriology; physiology of bacteria; kinetics of fermentation; growth mechanism; biochemistry of growth and death; biological radiations.

Raiford, Prof. L(emuel) Charles, State University of Iowa, Iowa City, Iowa. *Organic chemistry.* Southampton Co, Va, Aug. 2, 72. Ph.G, Maryland, 95; Ph.B, Brown, 00, A.M, 04; Ph.D, Chicago, 09. Instr. chem, Brown, 00–01; Clemson Col, 01–02; assoc. prof. textile chem. and dyeing, Miss. Agr. and Mech. Col, 02–07; assoc. chem, Chicago, 07–09; research chemist, Wyoming, 09–11; instr. chem, Chicago, 11–15; prof, Okla. Agr. and Mech. Col, 15–18; assoc. prof. *org. chem, Iowa,* 18–27, *prof,* 27– Summers, visiting prof, Western Reserve, 30; Nebraska, 32. Board ed, 'Jour. Org. Chem.' 36– A.A; Chem. Soc. (chairman, div. org. chem, 37); Inst. Chem; N. Y. Acad; Iowa Acad; Okla. Acad. (v. pres, 16, pres, 17). Chloroimidoquinones; replacement of halogen by the nitro group; the migration of acyl from nitrogen to oxygen in ortho-aminophenols; substitution products of vanillin; rearrangement of phenylhydrazones to pyrazolines; carbamic acid derivatives as acylating agents; substitution products of veratric acid; uretediones; behavior of azlactones obtained from vanillin substitution products.

Raiford, Dr. Theodore E(rnest), 1618 Shadford Road, Ann Arbor, Mich. *Mathematics.* Ivor, Va, July 25, 89. B.S, Earlham Col, 14; A.M, Michigan, 24, Ph.D, 33. *Instr. math,* Purdue, 19–23; *Michigan, 23–* Inst. Math. Statist. Geometry as a basis for canonical forms; hemoglobin, statistics of infants; relationship between height and weight of male and female infants; chords of a conic; mathematics of finance; skewness of combined distributions.

Raimond, Dr. William A(nthony), Calco Chemical Division, American Cyanamid Co, Bound Brook, N. J. *Organic chemistry.* Providence, R. I, May 15, 15. B.S, R. I. State Col, 37; M.S, Rutgers, 40, Ph.D, 42. Asst. chem, Rutgers, 37–40, instr, 40–42; *research chemist, Calco chem. div, Am. Cyanamid Co, 42–* Chem. Soc; fel. Inst. Chem. The halopropanols and the halobutanols.

Raines, Prof. M(orris) A(bel), 7204 Seventh St, N. W, Washington, D. C. *Botany.* Latvia, March 31, 94. B.S, Columbia, 15, A.M, 17, Ph.D, 22. Asst. bot, Columbia, 16–17; sci. asst. physiol, U. S. Pub. Health Service, 17; instr. bot, West Virginia, 20–22; managing ed, Continental Book Co, New York, 22–24; indust. consultant, 25–27; asst. mycologist, bur. chem, U. S. Dept. Agr, 27; Carl Zeiss, Inc, 28–30; asst. prof. and assoc. prof. *bot, Howard,* 30–39, *prof, 39–* Del, Am. Sci. Cong, Washington, 40. Lieut, A.S, 18. A.A; Bot. Soc; Soc. Plant Physiol; Micros. Soc; Torrey Bot. Club; Wash. Acad; Bot. Soc. Wash. Plant physiology; microscopy; relation of vigor to susceptibility to disease; physiology of the root system; rotary vertigo in the tail spin; wick-culture technique; plant aeroculture; use of a water spray in plant propagation; physiology of the spraychamber.

Rainey, Dr. C(harles) C(lark), E. I. du Pont de Nemours and Co, Waynesboro, Va. *Chemistry.* Atlanta, Ga, April 28, 10. A.B, Emory, 31; Coca-Cola Co. fellow, Hopkins, 31–35, Ph.D, 34. Instr. chem, Hopkins, 34–35; prof. and head dept, Berry Col, 35–38; instr, sch. biol. sciences, Tennessee, 38–39; patent investigator, *E. I. du Pont de Nemours and Co,* 39–42, *research chemist, 42–* A.A; Chem. Soc. Electrode. potentials; deposition potentials; overvoltage; hydration of ions; decomposition potentials; nylon; cellulose acetate; rayon B.

Rainey, Prof. Froelich (Gladstone), University of Alaska, College, Alaska. *Anthropology.* Black River Falls, Wis, June 18, 07. Ph.B, Chicago, 29; Ph.D, Yale, 35. Asst. curator *anthrop,* Peabody Museum, Yale, 35; *prof, Alaska, 36–* Summer, asst. prof, Puerto Rico, 35. Anthrop. Asn; Soc. Archeol. Prehistory in the West Indies; prehistory and ethnology in Alaska.

Rainich, Prof. G(eorge) Y(uri), 602 Oswego St, Ann Arbor, Mich. ***Mathematics.* Odessa, Russia, March 25, 86. Odessa, 04, 07–08; Göttingen, 05–06; Munich, 06–07; M.Math, Kazan, 13. Privat-docent, Kazan, 12–17, prof, 17–18; instr, Odessa, 17–22; Johnson scholar *math,* Hopkins, 23–26; asst. prof, *Michigan,* 26–29, assoc. prof, 29–35, *prof, 35–* A.A; Math. Soc; Math. Asn; Circolo Mat. di Palermo; Soc. Naturalists, Odessa; Physico-math. Soc, Kazan (sec'y, 16–18). Mathematical physics; vector analysis; differential geometry; theory of numbers; electromagnetism in curved spacetime.

Rainier, Dr. E(dwin) T(hornton), 931 Bromley Road, Charlotte, N. C. *Chemistry.* Auburn, Ind, Feb. 19, 04. A.B, DePauw, 26; M.S, Cincinnati, 27, Ph.D, 29. *Research chemist, U. S. Rubber Co, 29–, chief chemist, Charlotte plant.* Chem. Soc. Oxidation-reduction potentials; fatigue of rubber; abrasive wheels; cellular rubber; explosives.

Rainville, Prof. Earl D(avid), 1459 Rosewood, R. 7, Ann Arbor, Mich. *Mathematics.* Leominster, Mass, Nov. 5, 07. A.B, Colorado, 30, A.M, 35; Ph.D, Michigan, 39. Instr. eng. math, Colorado, 30–33; jr. engineer, U. S. Bur. Reclamation, 33–36, asst. engineer, 36–37; instr. *math, Michigan,* 37–41, *asst. prof, 41–* Math. Soc; Math. Asn. Differential operators; differential equations; elementary theory of numbers.

Raisz, Dr. Erwin, 107 Washington Ave, Cambridge, Mass. *Cartography.* Löcse, Hungary, 93. Dipl, Polytech, Budapest, 14; A.M, Columbia, 24, Ph.D, 29. Asst. geol, Columbia, 25–28,

instr, exten. div, 28-32; *cartography, inst. geog. explor, Harvard, 32–* Summers, geol. artist, Yellowstone Park, Am. Asn. Museums, 30, 31. Mem. cmt. land forms, Nat. Research Council. Asn. Geog; Am. Geog. Soc. The physiographic method of representing scenery on maps; the rectangular statistical cartogram; rounded lakes and lagoons of the coastal plains of Massachusetts; landform maps of the United States; analemma block pile system of statistical maps; geographical distribution of mineral industry of the United States; relief models; orthoapsidal projections.

Raitt, Prof. Effie I(sabel), University of Washington, Seattle, Wash. *Home economics.* Paterson, Iowa, June 13, 78. B.S, Columbia, 12, A.M, 19. Dietitian, State Sanatorium for Tuber, Mass, 03-04; St. Luke's Hosp, New York, 04-05; house director, Northwestern, 05-11; *prof. and director sch. home econ, Washington (Seattle), 12–* Chairman household management cmt, President's Conf. on Home Bldg. and Home Ownership, 31. Home Econ. Asn. (councilor, 15-18, chairman, institution econ. sect, 21, 24-26, v. pres, 28-31, pres, 34-36); Dietetic Asn. (2nd v. pres, 23, v. pres, 24). Home economics education; cost of living; household accounts; home economics in institution administration.

Raitt, Dr. Russell W(atson), 7964 Princess St, La Jolla, Calif. *Physics.* Philadelphia, Pa, Sept. 30, 07. B.S, Calif. Inst. Tech, 29, M.S, 32, Ph.D, 35. Research physicist, Hercules Powder Co, 29-31; *geophysicist, Geophys. Eng. Corp, 35–; physicist, div. war research, California, 41–* Physical Soc. Radioactivity; geophysics; seismology.

Raiziss, Prof. George W(enjamin), 6451 Sherwood Road, Overbrook, Philadelphia, Pa. *Chemotherapy.* Odessa, Russia, Aug. 28, 84. Univ. Odessa, 02-04; Leipzig, 06-07; Berlin, 07; Bern, 07-08; Ph.D, Freiburg, 10. Physiol. chemist, Montefiore Home and Hosp, New York, 10-11; chemist, Matheson Lead Co, 11; Rockefeller Inst, 11-12; research chemist, Gen. Elec. Co, 12-13; assoc. prof. physiol. chem, Phila. Polyclinic, 13-14; *head dept. chem, dermat. research lab, Abbott Laboratories, 14–, director, 22–; prof. chemotherapy, grad. sch. med, Pennsylvania, 18–* Trustee, Research Inst. Cutaneous Med. A.A; Chem. Soc; Soc. Biol. Chem; Am. Med. Asn; Soc. Exp. Biol; Pharmaceut. Asn. Chemical constitution, therapeutic effect and toxicity of organic compounds of arsenic, mercury and bismuth; experimental syphilis and trypanosomiasis in lower animals; specific and non-specific therapy; antiseptics and chemical compounds for the treatment of staphylococci, streptococcic and pneumococcic infections; sulfanilamide and its derivatives; sulfapyrazine.

Rake, G(eoffrey) W(illiam), Squibb Institute for Medical Research, New Brunswick, N. J. *Bacteriology.* Fordingbridge, Eng, Oct. 18, 04. M.B, B.S, London, 28, L.R.C.P, 27. House physician, Guy's Hosp, 27-28; asst. and instr. path, Hopkins, 28-31; asst, Rockefeller Inst, 31-34, assoc, 34-36, research assoc, Connaught labs, Toronto, 36-37; *head div. microbiol, Squibb Inst. Med. Research, 37–* Stokes traveling scholar, 29-30. Summer, voluntary asst, Path. Inst. Heidelberg, 30. Beaney prize; Rettlinger prize; Hilton prize; Stokes prize; Treasurer's medal. Soc. Exp. Biol; Epidemiol. Soc; Asn. Immunol; Harvey Soc; fel. Royal Soc. Med. Achalasia of cardia; nephritis; thyrotoxic heart; meningococcus; pneumococcus; measles; lymphogranuloma venereum; chemotherapy; antibiotic substances.

Rakestraw, Prof. N(orris) W(atson), Brown University, Providence, R. I. *Chemistry.* Toledo, Ohio, Jan. 16, 95. A.B, Stanford, 16, A.M, 17, Ph.D, 21. Instr. *chem*, Stanford, 19-23, 24-25; asst. prof, Oberlin Col, 25-26; *Brown*, 26-32, *assoc. prof, 32–* Research assoc, Oceanog. Inst, Woods Hole, 31– Ed, 'Jour. Chem. Educ,' 40– A.A; Chem. Soc. (sec'y, div. chem. educ, 33-40); Soc. Biol. Chem; Geophys. Union. Biochemistry; blood analysis; oceanography.

Rakieten, Dr. Morris L(ouis), Long Island College of Medicine, Brooklyn, N. Y. *Bacteriology.* New Haven, Conn, March 12, 99. B.S, Wesleyan, 22; Ph.D, Yale, 26, M.D, 31. Instr. bacter, sch. med, Yale, 26-29, asst, dept. protobiol, 31-35; asst. prof. *bacter, L. I. Col. Med*, 35-38, *assoc. prof, 38–; major, Med. Corps, U. S. Army, 42–* A.A; Soc. Bact; Am. Med. Asn. Immunology; bacteriophage; viruses; bacterial variation.

Rakieten, Dr. Nathan, Yale University, New Haven, Conn. *Physiology.* New Haven, Conn, July 17, 08. B.S, Wesleyan, 29; Ph.D, Yale, 33. Demonstrator physiol, sch. med, Yale, 31-32, Porter fellow, 33-34; instr. physiol, Mass. State Col, 34-39; *research asst. applied psychol, Yale, 39–* Managing ed, 'Quart. Jour. Studies on Alcohol.' Mem, Research Council Problems of Alcohol. A.A; Physiol. Soc. Respiration and metabolism.

Raleigh, Prof. G(eorge) J(oseph), Cornell University, Ithaca, N. Y. *Horticulture.* Clyde, Kans, Oct. 22, 98. B.S, Kans. State Col, 22; M.S, Nebraska, 23; Ph.D, Chicago, 28. Instr. pomol, Mass. Col, 23-26; chem. lab, Swift and Co, 28-32; asst. exten. prof. *veg. crops, Cornell*, 32-37, exten. prof, 37-40, *prof, 40–* A.A; Chem. Soc; Soc. Plant Physiol; Soc. Hort. Sci. Plant nutrition; vegetable production on organic soils.

Raleigh, Prof. S(tephen) M(artin), University of Maine, Orono, Maine. *Agronomy.* Clyde, Kans, March 23, 04. B.S, Kans. State Col, 27; Ph.D, Minnesota, 34. Instr, Minnesota, 27-31; agent, U. S. Dept. Agr, 31-32; asst. exten. agronomist, Minnesota, 32-34; *asst. prof. agron, Maine, 34–* A.A; Soc. Agron. Sugar beets; plant nutrition; plant physiology.

Raleigh, Dr. W(alter) P, Clyde, Kans. *Plant pathology.* Clyde, Kans, Jan. 8, 01. B.S, Kans. State Col, 23; fellow, Iowa State Col, 24-26, Ph.D, 28. Asst, Iowa State Col, 26-28; agent, U. S. Dept. Agr, 28-30, assoc. pathologist, bur. plant indust, 30-42; *U. S. Army, 42–* A.A; Phytopath. Soc; Bot. Soc. Wash. Seed disinfectants; potato diseases.

Raley, Dr. John H(oward), Shell Development Co, Emeryville, Calif. *Physical chemistry.* Salt Lake City, Utah, Sept. 28, 16. A.B, Utah, 37, A.M, 39; fellow, Rochester, 40-42, Ph.D, 42. Teaching asst, Utah, 37-39; Rochester, 39-40; *chemist, Shell Develop. Co, 42–* Summer, research technologist, Shell Oil Co, 38. Chem. Soc. Thermodynamics of solutions; photochemistry and kinetics; applications of kinetics.

Rall, Harry T, 538 E. 14th St, Bartlesville, Okla. *Petroleum chemistry.* Glasgow, Mo, Aug. 3, 00. A.B, Missouri, 24, B.S, 26. Routine tester, Shell Petrol. Corp, Wood River, Ill, 26-27, exp. aid, 27-28; junior chemist, *petrol. exp. sta, U. S. Bur. Mines*, 28, asst. chemist, 28-36, asst. petrol. engineer, 36-42, *assoc. petrol. engineer, 42–* Chem. Soc. Pyrolysis of natural gas; properties of petroleum fractions.

Ralli, Dr. Elaine P, 138 E. 36th St, New York, N. Y. *Medicine.* New York, N. Y. A.B, Vassar Col, 16; M.D, N. Y. Univ, 25. Crile research fellow, Western Reserve, 26-27; res. physician, 3rd med. div, Univ. and Bellevue Hosp. Med. Col, 28, instr. *med*, 28-30, asst. prof, 30-35, *N. Y. Univ. Col. Med*, 35-39, *assoc. prof, 39–, assoc. visiting physician, 3rd med. div, Bellevue Hosp.* A.A; Physiol. Soc; Soc. Study Int. Secretions; Inst. Nutrition; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Med; N. Y. State Med. Soc. Carbohydrate metabolism and disturbances of nutrition; diabetes mellitus; diseases of metabolism.

Ralls, Prof. J(ames) O(wen), 24 High St, Buffalo, N. Y. *Biochemistry.* Huntington, Mo, Nov. 29, 01. B.S, Washington (St. Louis), 23; Ph.D, St. Louis, 27. Asst. *biochem*, St. Louis, 23-27; instr, *dept. med, Buffalo*, 27-28, assoc, 28-33, *asst. prof, 33–* Chem. Soc. Ovarian hormone; chemistry of cholesterol and derivatives; metabolism in rats under normal conditions as influenced by drugs and physiological extracts.

Ralston, Dr. A(nderson) Wheeler, Armour and Co, Chicago, Ill. *Chemistry.* Martins Ferry, Ohio, Dec. 29, 99. B.S, A.M, Kenyon Col, 22; fellow, Iowa State Col, 23-27, Ph.D, 27. Research chemist, Standard Oil Co. of N. J, 29-31; *Armour and Co*, 27-29, 31-35, *chief research chemist, 35–* Chem. Soc; Oil Chemists Soc. Reactions in non-aqueous solvents; fatty acids and their derivatives; catalytic hydrogenation and decompositions.

Ralston, Dr. H(enry) J(ames), 184 Edgewood Ave, San Francisco, Calif. *Physiology.* San Francisco, Calif, Feb. 10, 06. A.B, California, 29, Ph.D, 34. Lecturer zool, California, 34-35; *instr. physiol, San Francisco Junior Col, 35–; col. dentistry, California, 39–, research assoc, med. sch, 42–* Effect of radiation on organisms; dynamics of circulation.

Ralston, Prof. J(ames) G(arfield), Muskingum College, New Concord, Ohio. *Chemistry.* Fredericktown, Ohio, April 21, 81. B.S, Ohio State, 18, M.S, 19. *Head dept. chem, Muskingum Col, 19–*, acting prof, 19-20, assoc. prof, 20-21, *prof, 21–* Chem. Soc.

Ralston, Dr. N(oel) P(rintiss), University of California, Davis, Calif. *Animal husbandry.* Carthage, Mo, Nov. 24, 15. B.S, Missouri, 37, A.M, 39; Ph.D, Cornell, 42. Asst. instr.

dairy cattle husbandry, Missouri, 37–39; animal husbandry, Cornell, 39–42; instr. animal husbandry, California, junior animal husbandryman, Exp. Sta, and supt, State Official Advanced Registry Testing, Calif, 42; *U. S. Army, 43–* Dairy Sci. Asn. Nutrition; feeding trials; physiology; influence of hormone on milk secretion; general dairy cattle management problems.

Ralston, Oliver C(aldwell), U. S. Bureau of Mines, Washington, D. C. *Metallurgy, Chemical engineering.* Colorado Springs, Colo, Sept. 6, 87. B.S, Colo. Col, 10. Instr, high sch, Colo, 10–11; research chemist, U. S. Bur. Mines, 12–14, metallurgist, 14–17; chief metallurgist, Hooker Electrochem. Co, 17–20; supt. northwest. exp. sta, U. S. Bur. Mines, 20–21, Pacific exp. sta, 21–28; director research, United Verde Copper Co, Clarkdale, Ariz, 28–35; prin. chem. engineer, *Bur. Mines,* 35–37, *chief nonmetals div, 37–* Min. and Metal. Eng; Chem. Soc; Electrochem. Soc. (director); Faraday Soc. Oxidation and deterioration of coal; metallurgy of lead and zinc; flotation of ores; electrometallurgy of zinc; plastic magnesia; thermodynamics of iron oxides; applied electrokinetics; petrurgy.

Ralston, Dr. R(obert) H(enry), 4016 Pine St, Philadelphia, Pa. *Chemistry.* Maple Creek, Sask, Can, July 30, 14. B.Sc, Saskatchewan, 35, M.Sc, 37; Ph.D, Chicago, 40. *Mem. research div, Pa. Salt Mfg. Co.* Chem. Soc. Physical and inorganic chemistry; kinetics; photochemistry; thermodynamics of solutions.

Ralston, Dr. Robert R(ay), P. O. Box 239, Matawan, N. J. *Electrochemistry.* Portersville, Pa, Jan. 12, 04. B.S, Tarkio Col, 26; M.S, Nebraska, 28; E. I. du Pont fellow, Michigan, 31–32, Ph.D, 32. Teaching scholar chem, Nebraska, 26–28; teaching asst, Michigan, 28–31; chief chemist and director research, Exolon Co, Can. and N. Y, 33–36; chemist, Gen. Elec. Co, Mass, 36–39; senior electrochemist, Bur. Mines, 39–43; *chief of research, Peter J. Schweitzer, Inc, Spotswood, N. J, 43–* Summers, mem. research lab, Detroit Edison Co, 29, 30. Electrochem. Soc; Chem. Soc. (chairman, E. Tenn. sect, 42). Electrothermics.

Ramadanoff, Dr. Dimiter, National Carbon Co, Cleveland, Ohio. *Physics.* Sofia, Bulgaria, Oct. 8, 00. B.S, Illinois, 24; Ph.D, Cornell, 32. Physicist, Illinois, 24–25; McMullen scholar and instr. elec. eng, Cornell, 26–37; *research elec. engineer and physicist, Nat. Carbon Co, 37–* Summers, surv. engineer, Mich. Bell Tel. Co, 26; engineer, research lab, Gen. Elec. Co, 29. Photoelectricity; conduction of electricity through gases; light projection apparatus eliminating use of bullets for machine-gun training purposes; automobile generator; mathematics; old violins; electrical engineering; development of brushes for electrical equipment used in industry and on military aircraft.

Ramage, Dr. W(illiam) D(ouglas), 2314 Marin Ave, Berkeley, Calif. *Physical chemistry.* Worthington, Minn, May 13, 97. B.S, California, 18, Ph.D, 22. Chief chemist, San Francisco Bay Marine Piling Investigation, 22–24; research chemist, Calif. Ink Co, 24–28; consulting chemist, 28–30; asst. director research, Great West. Electro-Chem. Co, 30–35; consulting chemist, 35–41; *senior indust. analyst, U. S. Dept. Agr, 41–* Fel. Inst. Chem; Chem. Soc. Specific heats of solutions; colorimetric determination of hydrogen ion concentration; pigment colors; wood preservation; wood waste utilization; water purification; organic synthesis; organic chlorination; industrial utilization of agricultural commodities; food dehydration.

Ramberg, Dr. E(dward) G(ranville), RCA Laboratories, Princeton, N. J. *Physics.* Florence, Italy, June 14, 07. A.B, Cornell, 28; Ph.D, Munich, 32. Asst. physics, Cornell, 28–30, 32–35; *research physicist, RCA Mfg. Co, 35–* Physical Soc. X-rays; theoretical physics; electronics.

Ramberg, Dr. W(alter), 7000 Rolling Road, Chevy Chase, Md. *Physics.* Florence, Italy, Feb. 16, 04. A.B, Cornell, 26; D.Sc, Tech. Hochschule, Munich, 30. Elec. engineer, Westinghouse Elec. and Mfg. Co, Pittsburgh, 26–28; *physicist eng. mech, Bur. Standards, 31–* Mem, Nat. Advisory Cmt. Aeronautics, cmt. aircraft structures. Inst. Aeronaut. Sci; Mech. Eng; Philos. Soc. Wash; Wash. Acad. Strength of materials; strength of aircraft structures; vibration of structures.

Rambo, Prof. Susan Miller, 12 Barrett Place, Northampton, Mass. *Mathematics.* Easton, Pa, April 3, 83. A.B, Smith Col, 05, A.M, 13; Ph.D, Michigan, 20. From asst. to assoc. prof. *math, Smith Col,* 08–37, *prof, 37–* A.A; Math. Soc; Math. Asn. Pure mathematics.

Ramírez, Rev. J(esús) Emilio, Instituto Geofisico de los Andes Colombianos, Apdo. 270, Bogotá, Colombia, S. Amer. *Geophysics.* Yolombó, Antioquia, Colombia, April 25, 04. B.A, Univ. Javeriana, 26; A.M, Weston Col, 27; M.S, St. Louis, 31, fellow, 36–37, Ph.D, 39; D.D, Ignatiuskolleg, Valkenburg, Holland, 35. Instr, high sch, New York, 27–28; St. Louis, 37–39; prof. physics, Colegio de San Bartolomé, 40–43; *director seismol. sta, Instituto Geofisico de los Andes Colombianos, 43–* Trustee, Colegio de San Bartolomé, 40–43. Seismol. Soc. (cmt. microseisms, 37–39); Physical Soc; Geog. Soc; Mo. Acad. (chairman geophys, 38). Seismology.

Ramírez-Torres, Prof. O(svaldo), University of Puerto Rico, Rio Piedras, P. R. *Physical chemistry.* Cabo Rojo, P. R, Jan. 5, 03. B.Ch.E, Puerto Rico, 24; M.S, Chicago, 30, Ph.D, 38. Director chem. lab, Juanita Sugar Factory, 24–25; chemist, Brooklyn Union Gas Co, 25; instr. *chem, Puerto Rico,* 26–30, asst. prof. and later assoc. prof, 26–40, *prof. and head dept, 40–* A.A; Chem. Soc; Asn. Chemists P. R. (v. pres, 35, pres, 40); Real Soc. Española de Química y Física. Spectrographic chemical analysis.

Ramler, Dr. Edward O(tto), 18 Beech St, North Arlington, N. J. *Organic chemistry.* Washington, D. C, Sept. 25, 16. B.S, Catholic Univ, 38; M.S, Pa. State Col, 40, Ph.D, 42. Instr. inorg. chem, Pa. State Col, 41–42; *research chemist, plastics dept, E. I. du Pont de Nemours and Co, 42–* Chem. Soc; Inst. Chem. Organic compounds of fluorine; reactions catalzyed by hydrogen fluoride.

Ramler, Prof. Otto J(oseph), 12 Girard St, N. E, Washington, D. C. *Mathematics.* Richmond, Ind, June 12, 87. A.B, Canisius Col, 10, A.M, 12; Mass. Inst. Tech, 10–11; Ph.D, Catholic Univ, 18. *Prof. math,* Canisius Col, 11–12; D'Youville Col, 12–13; *Catholic Univ, 13–* Instr, Knights of Columbus evening sch, Washington, D. C, 20–26; lecturer, Inst. Catholic Parochial Sch. Teachers, Baltimore and Washington, 24. Expert examiner, U. S. Civil Service Cmn, 16–17; computer, Ordnance Dept, U.S.A, 17. Math. Soc; Math. Asn. Application of complex variables to geometry.

Rampino, Dr. Louis D(aniel), 350 Fargo Ave, Buffalo, N. Y. *Chemistry.* Buffalo, N. Y, April 1, 16. B.S, Canisius Col, 37, M.S, 38; Ph.D, Fordham, 41. *Research assoc, physical chem, Princeton, 41–* Student medal, Am. Inst. Chemists, 37. Chem. Soc; Inst. Chem. Physico-organic chemistry; catalysis.

Ramsay, Dr. A(ndrew) J(ackson), Jefferson Medical College, Philadelphia, Pa. *Histology, Embryology.* Angola, Ind, Dec. 10, 07. A.B, DePauw, 30; Ph.D, Cornell, 34. Asst. *histol. and embryol,* Cornell, 30–31, instr, 31–36; assoc, *Jefferson Med. Col,* 36–37, asst. prof, 37–41, *assoc. prof, 41–* A.A; Asn. Anat. Anatomy; pharyngeal derivatives; lymphatic tissue; gonads; muscle.

Ramsay, Prof. Bertrand P(ettus), University of Kentucky, Lexington, Ky. *Optics.* Columbus, Miss, Nov. 7, 01. A.B, Wofford Col, 26; M.S, Kentucky, 30, Ph.D, 36; Michigan. Instr. Eng, *Kentucky,* 26–27, *physics,* 28–36, asst. prof, 37–41, *assoc. prof, 41–; physicist in charge Kensington magnetic lab, dept. terrestrial magnetism, Carnegie Institution, 43–* Fellow, Brown, 41–42; research physicist, Naval Ordnance Lab, 42–43. Physical Soc; Asn. Physics Teachers; Optical Soc; Ky. Acad; Ky. Asn. Physics Teachers (sec'y-treas, 33–38). Interferential method in optics; theories of optical resolution and resolving power.

Ramsay, Dr. Maynard J(ack), 37 Burgard Place, Buffalo, N. Y. *Economic entomology.* Buffalo, N. Y, Nov. 22, 14. A.B, Buffalo, 36, A.M, 38; Ph.D, Cornell, 42. Teaching asst. zool, Buffalo, 36–38; insect morphol. and insect physiol, Cornell, 39–40, biol, 40–42; hort. inspector, bur. plant indust, State Dept. Agr. and Markets, N. Y, 42–43; *asst. plant quarantine inspector, bur. entom. and plant quarantine, U. S. Dept. Agr, 43–* Teaching asst, Millard Fillmore Col, 37–38. Summers, asst, Cornell, 39–41. A.A; Entom. Soc. Amer; Asn. Econ. Entom. Coleoptera of Allegany State Park, New York; biology and control of the Mexican bean beetle; Dutch elm disease control; Japanese beetle control.

Ramsbottom, Dr. John M(elville), Swift and Co, Chicago, Ill. *Chemistry, Nutrition.* Lanark, Ont, Can, Sept. 1, 02. B.Sc, Toronto, 29; M.S, Iowa State Col, 31, Ph.D, 33. Asst, Iowa State Col, 33–35; *research chemist, Swift and Co, 35–*

Chem. Soc; Soc. Animal Production; Inst. Food Technol. Animal nutrition; enzymes; meat products; frozen food technology.

Ramsdell, Prof. G(eorge) E(dwin), 40 Mountain Ave, Lewiston, Maine. *Mathematics.* Turner, Maine, April 1, 75. A.B, Bates Col, 03; A.M, Harvard, 07. Sub-master, Maine Cent. Inst, 03-05; *prof. math, Bates Col, 08–* Math. Soc; Math. Asn.

Ramsdell, Prof. Lewis S(tephen), University of Michigan, Ann Arbor, Mich. *Mineralogy.* Clinton, Mich, June 4, 95. A.B, Michigan, 17, Ph.D, 25. Instr. *miner, Michigan,* 20–26, asst. prof, 26–35, *assoc. prof, 35–* Miner. Soc; Soc. X-ray and Electron Diffraction; Mich. Acad. Crystal structure.

Ramsden, Dr. Cha(rle)s T(heodore), 8 and 19, Vista Alegre, Santiago de Cuba. *Zoology.* Santiago de Cuba, Feb. 11, 76. Ph.B, Yale, 96; D.Sc, Univ. de Cuba, 18. Private sci. expeds, Cuba. Cor. fel. Ornith. Union; Soc. Mammal; Entom. Soc; Soc. Ichthyol. and Herp; Malacol. Union; Wilson Ornith. Club; Acad. Nat. Sci. Phila; Soc. Cubana de Hist. Nat. (sec'y, zool. sect, 18); London Malacol. Soc; cor. mem. Mus. y Biblio. Pub. de Cárdenas; cor. mem. Mus. y Biblio. de Santiago de Cuba; hon. mem. Grupo Humboldt, Soc. Geog. Hist. de Oriente. Ornithology; entomology; conchology; herpetology; mammalogy; taxonomy, distribution and ecology of Cuban forms.

Ramser, C(harles) E(rnest), 4615 Kenmore Drive, N.W, Washington, D. C. *Hydraulics, Hydrology.* Montezuma, Iowa, Nov. 1, 85. B.S, Illinois, 09. Instr. highway eng, Polytech. Inst. Brooklyn, 09–11; hydrographer, Knoxville Power Co, 11–12; asst. drainage engineer, *U. S. Dept. Agr,* 13–15, drainage engineer, 15–17, senior drainage engineer, 17–35, *chief hydrol. div, soil conservation service, 35–* A.A; Civil Eng; Agr. Eng. (councilor, 37–40); Geophys. Union. Hydraulics and hydrology in soil and water conservation work; drainage; soil erosion control; terracing farm lands to prevent soil erosion; field measurements to determine roughness coefficients and discharge through wooded floodways and drainage channels.

Ramsey, Prof. G(eorge) G(arfield), Box 709, Salisbury, N. C. *Chemistry.* Manor, Pa, Oct. 6, 80. A.B, Grove City Col, 08; A.M, Columbia, 21, Ph.D, 25. *Prof. chem, Catawba Col, 25–* A.A; Chem. Soc. Temperature coefficients of enzymic activity; heat destruction of trypsin.

Ramsey, Dr. George Herbert, 148 Martine Ave, White Plains, N. Y. *Epidemiology.* Olean, N. Y, Aug. 18, 91. A.B, Rutgers Col, 13; M.D, Columbia, 17; Dr.P.H, Hopkins, 26. Deputy commissioner, State Dept. Health, Mich, 21–26; assoc. epidemiol, Hopkins, 26–27; epidemiologist, W. African Yellow Fever Cmn, 27–28; assoc. prof. epidemiol, Hopkins, 28–33; director div. communicable diseases, *State Dept. Health, N. Y,* 33–35, *asst. commissioner for preventable diseases, 36–* Epidemiologist, Rockefeller Foundation, 30–31. Epidemiol. Soc; Pub. Health Asn. (chairman, epidemiol. sect, 35). Epidemiology of various diseases.

Ramsey, Dr. G(len) B(laine), University of Chicago, Chicago, Ill. *Botany.* Hamilton Co, Ind, May 21, 89. A.B, Indiana, 13, A.M, 14; Ph.D, Chicago, 25. Asst. bot, Indiana, 13–14; instr, Maine, 14–16, asst. plant pathologist, Exp. Sta, 16–18, exten. pathologist, 18–19; asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 20–24, assoc. pathologist, 24–27, pathologist, 27–28, *senior pathologist, 28–* A.A; Phytopath. Soc. Transit, storage and market diseases of fruits and vegetables.

Ramsey, Dr. Helen J(oyce), College of Physicians and Surgeons, W. 168th St, New York, N. Y. *Physiology.* Richmond, Ky, Sept. 2, 16. B.S, Purdue, 37, M.S, 38; Ph.D, Duke, 41. Asst. zool, Duke, 38, 39; *research, col. physicians and surg, Columbia, 42–* Blood physiology; specificity of denaturation rate of hemoglobin; tissue culture of human leucocytes and their constitutional differences.

Ramsey, Prof. J(ames) B(laine), University of California at Los Angeles, Los Angeles, Calif. *Chemistry.* Greeley, Kans, April 20, 92. A.B, Kansas; Ph.D, California. Teacher, high sch, Kans, 16–17; asst, Kansas, 17–18, 19–20; chemist, U. S. Bur. Mines, 19; teaching fellow *chem,* California, 20–23, from instr. to *assoc. prof, California at Los Angeles, 23–* Chem. Soc. Induced oxygen reactions; simultaneous reactions in general; physical methods of determining the molecular species involved in chemical reactions.

Ramsey, Prof. Norman F(oster), Jr, 1233 N. Taylor St, Arlington, Va. *Physics.* Washington, D. C, Aug. 27, 15. A.B, Columbia, 35, Tyndall fellow, 39, Ph.D, 40; Kellett fellow, Cambridge, 35–37, M.A, 41; fellow, Carnegie Institution, 39–40. Instr, Illinois, 40–41; research assoc, Mass. Inst. Tech, 40–42; *asst. prof. physics, Columbia, 41–; expert consultant to U. S. Sec'y War, 42–* Consultant, Nat. Defense Research Cmt, 40–41. Fel. Physical Soc; Math. Soc. Molecular beams; radio-frequency spectra of molecules; nuclear physics; proton-helium scattering; radio; radar.

Ramsey, Dr. Robert W(eberg), University of Rochester, Rochester, N. Y. *Physiology.* New York, N. Y, May 22, 07. B.S, N. Y. Univ, 29, M.S, 31, Ph.D, 33. Asst. biol, N. Y. Univ, 29–33; physiol, sch. med. and dentistry, *Rochester,* 33–34, instr. biol, univ, 34–38, research assoc. *physiol, sch. med. and dentistry,* 38–39, instr, 39–41, *assoc, 41–* Physiol. Soc; Soc. Zool. Metabolism of red cells; narcosis of muscle; excitation of muscle; mechanics of muscle; theory of muscular contraction.

Ramsey, Dr. Rolla R(oy), 615 E. Third St, Bloomington, Ind. *Physics.* Morning Sun, Ohio, April 11, 72. Miami (Ohio), 91–92; A.B, Indiana, 95, A.M, 98; Clark, 98–99; Ph.D, Cornell, 01; Europe, 12–13. Teacher, high sch, Ind, 95–96; lab. asst. *physics,* Indiana, 96–97; prof, Westminster Col. (Pa), 97–98; asst, Cornell, 99; instr, Indiana, 99–00; Missouri, 01–03; asst. prof, Indiana, 03–05, assoc. prof, 05–19, prof, 19–42, *emer. prof, 42–, acting head dept,* 37–42; *Wabash Col, 43–* Specialist, Bur. Standards; chief instr, U. S. Sch. for Radio Mechanicians, Indiana, 18. A.A; Physical Soc; Radio Eng; Ind. Acad. Electrolytic cells; radioactivity; N-rays; atomic model; radio circuits.

Ramstad, Dr. Paul E(llertson), 2010 E. Hennepin Ave, Minneapolis, Minn. *Agricultural biochemistry.* Minneapolis, Minn, Jan. 30, 18. B.S, Minnesota, 39, Ph.D, 42. Asst, Minnesota, 39–42; cooperative agent, bur. agr. chem. and eng, U. S. Dept. Agr, 39–42; *research chemist, research labs, Gen. Mills, Inc, 42–* Chem. Soc. Utilization of agricultural products.

Rand, Dr. A(ustin) L(oomer), National Museum of Canada, Ottawa, Ont, Can. *Ornithology, Vertebrate zoology.* Kentville, N. S, Dec. 16, 05. B.Sc, Acadia, 27; Ph.D, Cornell, 32. Asst. ornithologist, Cornell, 27–29, 31–32; asst, Mission Zool. Franco-Anglo-Amer. de Madagascar, 29–31; Am. Museum Nat. Hist. exped, New Guinea, 32–34; Am. Museum Nat. Hist, 34–35, research assoc. dept. ornith, 35–42, expeds. to New Guinea, 36–39; *asst. zoologist, Nat. Museum Can, 42–* Ornith. Union; Soc. Mammal. Mammalogy; birds of Madagascar and New Guinea; bird behavior.

Rand, Dr. Frederick V(ernon), 1359 Meridian Place, N. W, Washington, D. C. *Botany, Bacteriology.* Barnet, Vt, March 16, 83. B.S, Vermont, 08, M.S, 11; Hopkins, 12–13; Columbia, 13–14, Ph.D, 20. Instr. bot, Vermont, 06–08, asst, Exp. Sta, 07; sci. asst, bur. plant indust, *U. S. Dept. Agr,* 08–13, collaborator, 13–14, asst. pathologist, 14–20, pathologist, 20–24, collaborator, 24–29, *senior pathologist, and in charge cooperation with 'Biol. Abstracts,' office exp. stations, 29–,* assoc. ed, 'Biol. Abstracts,' 25–36, in charge Washington, D. C, office, 29–35. Asst, Columbia, 13–14; instr, Hopkins, 23–24, lecturer, 24–26. Assoc. ed. in chief, 'Bot. Abstracts,' 24–27; ed. staff, 'Exp. Sta. Record,' 35– Sec'y board trustees, 'Biol. Abstracts,' 27–35. Exec. sec'y, div. biol. and agr, Nat. Research Council, 24–25. Bot. Soc; Phytopath. Soc; Bot. Soc. Wash. Plant pathology.

Rand, Dr. Gertrude (Mrs. C(larence) E(rrol) Ferree), College of Physicians and Surgeons, 635 W. 165th St, New York 32, N. Y. *Psychology.* New York, N. Y, Oct. 29, 86. A.B, Cornell, 08; fellow, Bryn Mawr Col, 09–11, A.M, Ph.D, 11; hon. Sc.D, Wilson Col, 43. Fellow, Bryn Mawr Col, 11–12, Sarah Berliner research fellow, 12–13, reader exp. psychol, 13–14, assoc. exp. and applied psychol, 14–24, demonstrator exp. psychol, 24–27; assoc. prof. research ophthal, Wilmer Inst, sch. med, Hopkins, 28–32, physiol. optics, 32–36; assoc. director, Research Lab. Physiol. Optics, 36–43; *research assoc. ophthal, Knapp Foundation, col. physicians and surgeons, Columbia, 43–* Research asst, cmt. on indust. lighting, Nat. Research Council, 24–27. A.A; Psychol. Asn; Optical Soc; Soc. Adv. Educ; Illum. Eng. Soc; Inter-Soc. Color Council. Lighting and hygiene of the eye; central and peripheral refraction; light and color sensitivity, central and peripheral; perimetry and scotometry; functional tests in relation to eye diseases; diagnostic scales; photometry; optical and ophthal-

mological instruments; lighting equipment; mental measurement; color blindness.

Rand, Prof. Herbert W(ilbur), Harvard University, Cambridge, Mass. **2*Zoology.* Oil City, Pa, July 2, 72. A.B, Allegheny Col, 92; A.B, Harvard, 97, A.M, 98, Ph.D, 00. Asst. prin, high sch, Pa, 94–96; instr. *zool, Harvard,* 00–09, asst. prof, 09–19, assoc. prof, 19–38, *emer. assoc. prof, 38–* Lecturer, Wellesley Col, 08–09, 14–15, 18–19; exchange prof, Grinnell, Beloit and Colo. Cols, 29. Trustee, Bermuda Biol. Sta, 26–, sec'y, 26–37. A.A. (sec'y, F, 21–25); Soc. Nat; Soc. Zool. (sec'y-treas, east. branch, 10, v. pres, 34); Am. Acad. Experimental morphology; localized form-controlling agencies in Hydra and planarians; skin transplantation in amphibians; regeneration; histogenesis of regeneration in annelids.

Rand, Dr. W(endell) P(hillips), Gulf Oil Corp, P. O. Box 1166, Pittsburgh, Pa. *Engineering.* Bear Creek, Wis, Nov. 27, 94. B.S, Wisconsin, 26, M.S, 29, Am. Petrol. Inst. fellow, 29–31, Ph.D, 31. Asst, Wisconsin, 31–33; engineer, State Conservation Cmn, Wis, 33; asst. geologist, U. S. Engineer Corps, 34–35; *research geologist, Gulf Oil Corp, 35–* A.A; Petrol. Inst; Min. and Metal. Eng; Asn. Petrol. Geol. Petroleum geology.

Rand, Dr. W(illiam) W(hitehill), 141 S. Oakhurst Drive, Beverly Hills, Calif. *Geology.* Salt Lake City, Utah, Jan. 17, 02. A.B, California, 26, Ph.D, 32. *Geologist, Shell Oil Co,* 27–28, *32–* Geology of Santa Cruz Island, California.

Randall, Prof. D(avid) L(indsey), 1200 Maple St, Albion, Mich. *Inorganic chemistry.* Athol, Mass, Dec. 8, 82. A.B, Yale, 04, A.M, 05, Ph.D, 07. Instr. *chem,* New Hampshire, 07–10; prof, Baker, 10–18; assoc. prof, Wesleyan, 18–19; *prof, Albion Col, 19–* Summer, research chemist, Merrimac Chem. Co, 18. Chem. Soc. (chairman, Mich. State Col. sect, 22); Mich. State Col. Chem. Teachers Asn. (pres, 28). Inorganic analysis; analytical method for estimation of molybdenum.

Randall, Prof. D(orus) P(owers), Box 28, University Station, Syracuse, N. Y. *Physics.* Covert, Mich, 89. A.B, Western Reserve, 13, A.M, 14; Chicago, 17; Harvard, 19–21, 25–26, Cutting fellow, 21. Instr. *physics,* Western Reserve, 14–19; *prof, Syracuse, 21–* Physical Soc; Radio Eng; Elec. Eng. Electrical measurements; fluxmeter characteristics; electronics.

Randall, Lieut. F(rancis) E(ugene), 1009 Ray Ave, N.W, New Philadelphia, Ohio. *Zoology, Physical anthropology.* New Philadelphia, Ohio, April 1, 14. A.B, Western Reserve, 36, A.M, 38; fellow, Cleveland Clinic, 36–38; Ph.D, Harvard, 42. Teaching fellow physical anthrop, Western Reserve, 38–40; *physiologist, physical anthropologist and lieut, Air Corps, U. S. Army, 42–* Skeletal growth in anthropoids, particularly the gorilla; physical size studies on aviation flying personnel for purposes of coordination with aircraft design and aircraft accessory design.

Randall, Prof. Glenn O(rvice), North Carolina State College, Raleigh, N. C. *Horticulture.* Jennings, La, Nov. 24, 98. B.S, Arkansas, 22; M.S, Iowa State Col, 23. Exten. veg. specialist, Illinois, 23–24; exten. horticulturist, *N. C. State Col,* 24–25, *assoc. prof. hort, 25–* Soc. Hort. Sci. Olericulture; floriculture.

Randall, Prof. H(arrison) M(cAllister), University of Michigan, Ann Arbor, Mich. **3*Physics.* Burr Oak, Mich, Dec. 17, 70. Ph.B, Michigan, 93, Ph.M, 94, Ph.D, 02. Teacher, high sch, Mich, 94–99; instr. *physics,* Mich. State Nor. Sch, Ypsilanti, 99–00; asst, *Michigan,* 00–01, instr, 01–06, asst. prof, 06–09, junior prof, 09–15, *prof, 15–, director physical lab, 17–* A.A. (v. pres, B, 25); Physical Soc. (v. pres, 36, pres, 37); Optical Soc. Coefficients of expansion by the Abbé-Fizeau dilatometer; measurements of wave-length in the infra-red spectra of elements; fine structures of near-infra-red absorption bands of gases; molecular structure; far-infra-red rotation spectra; high dispersion in the near- and far-infra-red; industrial application of infra-red spectroscopy.

Randall, Lieut. J(ohn) R(eed), Map Division, O.S.S, Washington, D. C. *Geography.* Ann Arbor, Mich, Dec. 18, 06. A.B, Michigan, 28, A.M, 29; Ph.D, Wisconsin, 34. Asst. geog, Michigan, 27–29; instr, Colorado, 29–30; asst, Wisconsin, 30–34; Illinois, 34–36; instr, Pa. State Col, 36–40; Ohio State, 40–41; Wisconsin, 41–42; *lieut, Air Forces, U. S. Army, 42–* Regional geography; Laurentian shield of Canada.

Randall, Dr. Lowell O(rlando), Burroughs Wellcome and Co. Tuckahoe, N. Y. *Pharmacology, Biochemistry.* North Georgetown, Ohio, Sept. 11, 10. B.S, Mt. Union Col, 31; Ph.D, Rochester, 35. Asst. biochem. and pharmacol, Rochester, 31–35, instr, 35; asst. chemist, State Civil Service, Mass, 35–39; *pharmacologist, Burroughs Wellcome and Co, 39–* A.A; Chem. Soc; Soc. Biol. Chem. Biochemistry of brain; pharmacology of sympathomimetic amines.

Randall, Prof. Merle, University of California, Berkeley, Calif. **4*Physical chemistry.* Poplar Bluff, Mo, Jan. 29, 88. A.B, Missouri, 07, A.M, 09; fellow, Mass. Inst. Tech, Ph.D, 12. Asst. *chem,* Missouri, 07–09; research assoc, *California,* 12–17, asst. prof, 17–22, assoc. prof, 22–27, *prof, 27–* Chemist, U. S. Kelp Potash Plant, 18; sec'y, Am. Cmn. for Annual Tables of Numerical Data and Constants, 15–22; chairman subcmt. chem, Termite Investigations Cmn, 29– Special ed. sect. free energy, Int. Critical Tables. Commemorative medal, Charles Univ, Prague, 32. Chem. Soc. Chemical technology; free energy of chemical substances; calorimetry; conductance of solutions; activity coefficients; utilization of sea water bitterns and of kelp; decolorizing carbons; petroleum; chemical engineering.

Randall, Prof. O(tis) E(verett), Brown University, Providence, R. I. *Applied mathematics.* North Stonington, Conn, Feb. 28, 60. A.B, Brown, 84, A.M, 87, Ph.D, 96; Charlottenburg, 99–00. Instr, high sch, R. I, 84–85; math. and eng, *Brown,* 85–90, asst. prof, 90–94, prof. mech. and mech. drawing, 94–12, dean, 12–31, *emer. prof. applied math.* Eng. Educ. Strength of long columns; shades and shadows and perspective; descriptive geometry; construction of plates in mechanical drawing.

Randall, Prof. Robert H(ulbert), 24 Prospect Terrace, Tenafly, N. J. *Physics.* Grand Rapids, Mich, July 1, 03. A.B, Columbia, 23, A.M, 26, Ph.D, 30. Asst. *physics,* Columbia, 26–29; instr, *Col. City of N. Y,* 30–36, *asst. prof, 36–* Summers, instr, Hunter Col, 29, 30. Physical Soc. Gaseous discharges; life times of excited states of mercury atom; electron temperatures; internal friction in metals.

Randall, Dr. W(alter) C(lark), St. Louis University Medical School, St. Louis, Mo. *Physiology.* Akeley, Pa, Dec. 12, 16. A.B, Taylor, 38; M.S, Purdue, 40, Ph.D, 42. Asst. biol, Purdue, 38–42; fellow *physiol,* Western Reserve, 42–43; *instr, med. sch, St. Louis, 43–* Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Ind. Acad. Respiration; temperature regulation; circulation.

Randall, Prof. William A(rthur), 110 St. Lawrence Drive, Silver Spring, Md. *Bacteriology.* Washington, D. C, Aug. 11, 07. B.S, Maryland, 30; M.S, St. Louis, 32; Ph.D, Georgetown, 36. Teaching fellow bacter, St. Louis, 30–32; Georgetown, 32–34, instr, 34–37, asst. prof, 37–40, assoc. prof, 40–42; *assoc. bacteriologist, food and drug admin, Fed. Security Agency, 42–* Soc. Bact; assoc. Soc. Exp. Biol. Bacterial variation; mode of action of complement; efficacy of typhoid vaccination; action of sulfone drugs; penicillin.

Randels, Dr. W(illiam) C(onrad), University of Oklahoma, Norman, Okla. *Mathematics.* Valley City, N. Dak, Nov. 19, 09. A.B, Alma Col, 30; A.M, Princeton, 32; Ph.D, Brown, 34. Sterling research fellow, Yale, 34–35; Inst. Advanced Study, 35–36; instr. *math,* Northwestern, 36–38; asst. prof, *Oklahoma,* 38–40, *assoc. prof, 40–; with N. Am. Aviation Corp, 43–* Math. Soc; Math. Asn. Fourier series.

Randers, Gunnar, Yerkes Observatory, Williams Bay, Wis. *Astrophysics.* Oslo, Norway, April 28, 14. Cand.Mag, Oslo, 36, Cand.Real, 37. *Research asst, inst. theoretical astrophysics, Oslo, 35–,* research fellow, Harvard and Mt. Wilson Observatory, 39–40; *instr. astrophysics, Chicago and Yerkes Observatory, 40–* Guest lecturer, Mass. Inst. Tech, 41. Astron. Soc; Norsk Astron. Selskap; Int. Astron. Union. Hydrodynamics of stars; extragalactic nebulae and cosmology.

Randle, Dr. Stacy B(oyce), University of Kentucky, Lexington, Ky. *Biochemistry, Nutrition.* Blue Springs, Miss, July 30, 05. A.B, Mississippi, 30, M.S, 35, Ph.D, Wisconsin, 39. Teacher, high schs, Miss, 30–32; grad. teaching asst. chem. Mississippi, 32–34, head science dept, univ. high sch, 34–37; asst. biochem, Wisconsin, 37–39, fellow, 39–40; *chemist, dept. feed and fertilizer, Exp. Sta, Kentucky, 40–* Chem. Soc: Ky. Acad. Animal nutrition; vitamins; vitamin K requirement of poultry; fat determination; feed analysis.

Randolph, Prof. E(dgar) E(ugene), North Carolina State College, Raleigh, N. C. *Chemical engineering.* Mecklenburg Co, N. C, July 22, 78. A.B, North Carolina, 04, A.M, 06.

Ph.D, 07; Mass. Inst. Tech, summers, 22–25. Carnegie asst, Col. City of N. Y, 05; prof. science, Lenoir-Rhyne Col, 07–09; Elon Col, 09–18; eng, Agr. and Mech. Col. Texas, 18–20; *prof. chem. eng, N. C. State Col, 20–, head dept, 24–* Summers, Appalachian State Nor. Col, 10–16; Tulane, 19; N. C. State Col, 21–25; ranger, Yellowstone Nat. Park, 20; chem. engineer, South. Utilities Co, Raleigh, 30; State Dept. Conservation and Develop, N. C, 32. Del, Chem. Eng. Cong, World Power Conf, London, 36. Chem. Eng; Eng. Educ; Chem. Soc; Southeast. Gas Asn; N. C. Soc. Eng. Chemical quality of the surface waters of North Carolina; water conditioning; chemical engineering education; purification of industrial waste liquors; pulp from farm products; rate of penetration of digestive liquors in pulp making; iodine in water supplies; removal of odor and taste from fish oil; North Carolina natural resources; suitability of North Carolina trees for chemical conversion products and for other uses.

Randolph, Dr. John (Adam) F(itz), Cornell University, Ithaca, N. Y. *Mathematics.* Newton, Iowa, May 2, 04. B.S, W. Texas State Teachers Col, 26; A.M, Michigan, 28; Ph.D, Cornell, 34. Teacher, high sch, Texas, 26–27; instr. math, Syracuse, 28–29, math. and astron, 29–31; math, Cornell, 31–36; Inst. Advanced Study, 36–38; *asst. prof. math, Cornell, 38–* Math. Soc; Math. Asn. Analysis; metric properties of point-sets; genetics.

Randolph, Dr. L(owell) F(itz), Cornell University, Ithaca, N. Y. *Cytology, Genetics.* Alfred, N. Y, Oct. 7, 94. Ph.B, Alfred, 16; Ph.D, Cornell, 21. Asst. instr. bot, Cornell, 18–19, instr, 19–22; agent, *office cereal investigations, bur. plant indust, U. S. Dept. Agr,* 22–23, assoc. cytologist, 23–35, *cytologist, 35–;* research assoc. cytol, *N. Y. State Col. Agr, Cornell,* 32–38, *prof. bot, 38–* A.A. Cytogenetics of maize; induced polyploidy in maize and other plants.

Rands, Dr. R(obert) D(elafield), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Falmouth, Ky, Nov. 19, 90. B.S, Nebraska, 13; M.S, Wisconsin, 15, Ph.D, 17. Instr. bot, Louisiana, 13–14; sci. asst, U. S. Dept. Agr, 17–18; botanist to Netherlands Govt, Java, 19–21; pathologist and *prin. pathologist, bur. plant indust, U. S. Dept. Agr, 22–* Asst. prof, Cornell, 17. A.A; Phytopath. Soc; Bot. Soc. Wash; Wash. Acad. Diseases of the Irish potato, Para rubber, cinnamon and sugar cane.

Rane, Dr. Leo, Lederle Laboratories, Pearl River, N. Y. *Bacteriology, Immunology.* Chicago, Ill, Nov. 25, 06. B.S, Chicago, 28; Ph.D, Harvard, 32. Asst. bacter, Chicago, 28–30; Harvard Med. Sch, 32–42; bacteriologist, Beth Israel Hosp, Boston, 32–34; senior bacteriologist, State Dept. Health, Mass, 34–42; *head nor. human blood plasma dept, Lederle Labs, 42–* Soc. Immunol; Soc. Bact. Scarlet fever toxin and antitoxin; meningococcus endotoxin; antimeningococcic sera; growth of the tubercle bacillus; virulence and electrophoretic mobility of bacteria; nutritional requirements of the streptococcus, pneumococcus, meningococcus and gonococcus; blood and blood substitutes.

Raney, Dr. Edward C(owden), Cornell University, Ithaca, N. Y. *Vertebrate zoology.* Pittsburgh, Pa, May 23, 09. B.S, Pa. State Teachers Col, 31; M.S, Cornell, 35, Ph.D, 38. Asst. *zool, Cornell,* 37–39, *instr, 39–* Summers, biologist, N. Y. State Conservation Cmn, 37, 38, 40, 41. Soc. Ichthyol. and Herp. (board governors, 41); Ecol. Soc; Wildlife Soc. Taxonomy, distribution and life histories of fresh water fishes; movement, growth, ecology and behavior of frogs and toads.

Ranger, Lieut. Col. R(ichard) H(owland), 574 Parker St, Newark, N. J. *Radio engineering.* Indianapolis, Ind, June 13, 89. B.S, Mass. Inst. Tech, 11. Ranger Printing Co, Boston, 11–16; design sect, Radio Corp. of Amer, 20–30; pres, Rangertone, Inc, 30–42; *lieut. col, Sig. Corps, Air Corps, U. S. Army, 42–* A.E.F, 17–19, in charge labs, Sig.C, 20, major. Radio Eng; Elec. Eng; Optical Soc; fel. Royal Soc. Radio and electric music; electric transmission of pictures; radio reception; phonographic recording.

Rank, Dr. D(avid) H, 750 Holmes St, State College, Pa. *Physics.* Annville, Pa, Jan. 2, 07. B.S, Lebanon Valley Col, 28; M.S, Pa. State Col, 32, Ph.D, 35. *Instr. physics, Pa. State Col, 35–* Physical Soc. Spectroscopy.

Rankin, Prof. Allan Coats, University of Alberta, Edmonton, Alta, Can. *Bacteriology, Hygiene.* Montreal, Que, Feb. 6, 77. M.D, McGill, 04, Dr.P.H, 09; L.R.C.P, London. Asst. bacteriologist, Royal Victoria Hosp, Montreal, 07–09; govt. bacteriologist, Bangkok, Siam, 09–14; *prof. bacter. and hygiene, Alberta, 14–, dean faculty med, 20–; lieut. col, Med. Corps, Royal Can. Army.* Provincial bacteriologist, Alberta, Can, 14–Pub. Health Asn; Can. Med. Asn; fel. Royal Col. Physicians Can; Can. Pub. Health Asn; Can. Tuber. Asn. (exec. councilor); fel. Royal Sanit. Inst. Bacteriology; public health.

Rankin, Dr. David, 1755 Eighth Ave, Marion, Iowa. *Organic chemistry.* Monmouth, Ill, Feb. 14, 13. B.S, Monmouth Col, 36; M.S. and Ph.D, Purdue, 41. *Research chemist, Penick and Ford, Ltd, Inc, 41–; lieut, U. S. Naval Res.* Chem. Soc. Corn starch and derivatives.

Rankin, George A(twater), 1716 22nd St, N. W, Washington, D. C. *Physical chemistry.* Ithaca, N. Y, Oct. 7, 84. A.B, Cornell, 07. Asst. physical chemist, Cornell, 06–07; chemist, geophys. lab, Carnegie Institution, 07–16; Pittsburgh Plate Glass Co, 16–17; Chem. Warfare Service, 17–34; *retired.* Application of physical chemistry to rock magmas.

Rankin, Dr. J(ohn) O(wen), Box 387, Hayti, Mo. *Agricultural economics.* Tarkio, Mo, April 17, 84. A.B, Tarkio Col, 04; B.S.A, Iowa State Col, 08; A.M, George Washington, 12; Ph.D, Cornell, 32. Asst. agron, U. S. Dept. Agr, and special agent, Census Bur; teacher econ. agr, Iowa State Col; asst. prof, Wisconsin, 14–15; research and administrator, Missouri, 15–16; teacher and research, Iowa State Col, 16–18; Nebraska, 18–31; *owner and operator, J. O. Rankin Farms, 31–* Econ. Asn. Farm land problems; costs and standard of living on farms; rural social and political science; rural government; cotton economics.

Rankin, Dr. John S(tewart), Jr, University of Washington, Seattle, Wash. *Parasitology,* Manchester, N. H, Sept. 27, 11. A.B, Wesleyan, 33, A.M, 34; Ph.D, Duke, 36. Lab. asst, Wesleyan, 32–34; Duke, 34–36; teaching fellow biol, Amherst Col, 36–38, instr, 38–41; *asst. prof. zool, Washington (Seattle), 41–* Summers, junior instr, Marine Biol. Lab, Woods Hole, 37–38, senior instr, 39–41, mem. corp. A.A; Soc. Zool; Soc. Parasitol; Micros. Soc. Ecology, taxonomy and life cycles of parasites, primarily Trematoda.

Rankin, Prof. J(oseph) M(arshall), 1810 Ash St, Caldwell, Idaho. *Mathematics.* Knoxville, Tenn, Nov. 22, 90. A.B, Maryville Col, 11; A.M, California, 31. Teacher, Lee's Collegiate Inst, Ky, 11–12; *prof. math, Col. of Idaho, 12–* A.A; Math. Soc; Math. Asn. Theory of probability; differential equations of physics and chemistry.

Rankin, Dr. Lanning P(arke), Caldwell, N. J. *Organic chemistry.* Osawattomie, Kans, Dec. 21, 03. A.B, Kansas, 24, A.M, 25, Ph.D, 36. Research chemist, Exp. Sta, Hercules Powder Co, 25–30; instr, high sch, Kans, 30–34; *research chemist, Bakelite Corp, 36–* Conversion of liquid oxygen to ozone; molar weight of vapors at the boiling point; terpenes; synthetic resins; plastics; coating resin.

Rankin, Prof. R(olfe) M(ontgomery), 1604 Pine St, Rolla, Mo. *Mathematics.* Jefferson City, Tenn, Dec. 17, 92. A.B, Maryville Col, 16; A.M, Chicago, 22; B.S, Mo. Sch. Mines, 27. *Assoc. prof. math,* Westminster Col. (Utah), 19–21; *Mo. Sch. Mines, 22–* Analytic projective geometry.

Rankin, Prof. Roy, 404 W. Seventh St, Hays, Kans. *Bacteriology, Chemistry.* Amoret, Mo, Feb. 25, 77. A.B, Kansas, 12, A.M, 17; Austin scholar, Harvard, 30–31. *Prof. chem. and head dept. and chairman science div, Ft. Hays Kans. State Col, Hays, 18–* A.A; Chem. Soc; Kans. Acad. (pres, 21). Bacteriology of baby foods; composition of mother liquor from dibenzoylmethane.

Rankin, Prof. Walter M(ead), Princeton, N. J. *[1]*Biology.* Newark, N. J, Dec. 1, 57. A.B, Williams Col, 79; M.S, Princeton, 84; Ph.D, Munich, 89. Instr. biol, *Princeton,* 89–95, asst. prof, 95–01, prof. invert. zool, 01–04, *biol,* 04–22, *emer. prof, 22–* Instr, Marine Biol. Lab, Woods Hole, 90–95. A.A; Soc. Nat. Plant morphology; taxonomy.

Rankin, Dr. W(illiam) H(oward), New York State Department of Agriculture and Markets, Albany, N. Y. *Plant pathology.* Richmond, Ind, April 3, 88. A.B, Wabash Col, 10; fellow, Cornell, 10–12, Ph.D, 14. Asst. bot, Ohio Exp. Sta, 08; Wabash Col, 09–10; state forest pathologist, State Conservation Cmn, N. Y, 12–13; instr. plant path, Cornell, 13–14, asst. prof, 14–19; officer in charge, Dom. Lab. Plant Path, St. Catharines, Ont, 19–22; assoc. research plant path, N. Y. Exp. Sta, Geneva, 22–34; *assoc. plant pathologist, bur. plant indust, State Dept. Agr. and Markets, N. Y, 34–* Phytopath. Soc. Diseases of small fruits and ornamental trees.

Rankin, Prof. W(illiam) W(alter), 1011 Gloria Ave, Durham, N. C. *Mathematics.* Charlotte, N. C, Dec. 28, 82. B.E, N. C. State Col, 04; A.M, North Carolina, 12. Instr. *math,* North Carolina, 13–16, asst. prof, 16–19; instr, Columbia, 19–21; prof. and head dept, Agnes Scott Col, 21–26; *prof, Duke, 26–* Math. Asn. (sec'y and chairman, program cmt, southeast. sect); Nat. Council Teachers Math. (director, 21–24); N. C. Acad. (chairman, math. sect, 27). History of mathematics.

Ransom, Dr. Henry K(ing), University Hospital, Ann Arbor, Mich. *Surgery.* Jackson, Mich, Jan. 21, 98. A.B, Michigan, 20, M.D, 23, M.S, 34. Res. house officer, univ. hosp, *Michigan,* 23–24, asst. res. surg, 24–25, instr. anat, 25–26, instr. *surg,* 26–29, asst. prof, 29–33, *assoc. prof, 33–* Col. Surg; Am. Med. Asn. Anesthesia; abdominal surgery.

Ransom, Prof. William R(ichard), 29 Sawyer Ave, Tufts College, Mass. *Mathematics.* Chicago, Ill, Jan. 18, 76. A.B, A.M, Tufts Col; A.M, Harvard, 03. *Prof. math, Tufts Col, 00–* Instr, Harvard, 02–04. A.A; Math. Soc; Math. Asn. College mathematics.

Ranta, Prof. Lawrence E(dward), University of British Columbia, Vancouver, B. C, Can. *Bacteriology.* Toronto, Ont, April 30, 10. M.D, Toronto, 36, Hastings Mem. fellow, 38–39, D.P.H, 39. Res. physician, Riverdale Isolation Hosp, Toronto, 36–37; res. physician and surgeon, St. Michael's Hosp, Toronto, 37–38; *asst. prof. bacter. and prev. med. and lecturer dept. nursing and health, British Columbia, 39–; research asst, Connaught Labs, Toronto, 39–* Can. Pub. Health Asn; B. C. Acad. Sci. Toxigenic properties of hemolytic streptococci; survival of Salmonella typhi; serological properties of Cholera vibrio; legislative control of communicable diseases.

Rantz, Prof. Lowell A(ddison), Stanford Hospitals, San Francisco, Calif. *Medicine.* Placerville, Calif, June 1, 12. A.B, Stanford, 32, M.D, 36; fellow, Harvard, 37–39. Intern, Lane Hosp, 35–36, asst. res, 36–37; Thorndike mem. lab, Harvard, 37–39; instr. *med, Stanford,* 39–42, *asst. prof, 42–* Am. Med. Asn; Soc. Clin. Invest. Clinical and experimental medicine; streptococcal infections with special reference to the serological classification of these organisms in relation to clinical medicine and also the immunology of clinical hemolytic streptococcal diseases.

Raper, Dr. John R(obert), Indiana University, Bloomington, Ind. *Cryptogamic botany.* Lexington, N. C, Oct. 3, 11. A.B, North Carolina, 33, A.M, 36; A.M. and Ph.D, Harvard, 39. Nat. research fellow bot, Calif Inst. Tech, 39–41; *instr. bot. and mycol, Indiana, 41–* Mycol. Soc; Bot. Soc. Sexual hormones in aquatic Phycomycetes; sexuality of lower fungi.

Raper, Dr. Kenneth B(ryan), U. S. Department of Agriculture, Peoria, Ill. *Mycology.* Welcome, N. C, July 11, 08. A.B, North Carolina, 29; A.M, George Washington, 31; scholar, Harvard, 34–35, A.M, 35, Austin fellow, 35–36, Ph.D, 36. Junior mycologist, div. soil microbiol, bur. chem. and soils, *U. S. Dept. Agr,* 29–34, bur. plant indust, 34–36, asst. mycologist, 36–40, microbiologist *fermentation div, north. regional research lab, bur. agr. chem. and eng,* 40–41, *senior microbiologist, 41–* Mycol. Soc; Bot. Soc. Distribution, morphology and physiology of the Acrasiae; soil microbiology; industrial microbiology; fermentation microorganisms.

Rapp, Dr. I(saiah) M(arch), R. D. 1, Malvern, Pa. *Physics.* Warren Tavern, Pa, Nov. 22, 77. A.B, Ursinus Col, 03; Ph.D, Chicago, 15. Instr. physics, Ursinus Col, 04–09, asst. prof, 09–10, prof. and head dept, 10–15; asst. prof, Oklahoma, 15–19, acting head dept, 16–17, 18–19; assoc. physicist, Bur. Standards, 19–20; asst. prof. physics and chairman dept, Montana, 20–23. Acting head, State Bur. Standards, Okla, 16–17. Physical Soc. Viscosity of air.

Rappenecker, Dr. Caspar, University of Tennessee, Knoxville, Tenn. *Geography.* Philadelphia, Pa, April 30, 06. A.B, Cornell, 27, Ph.D, 36. Asst. econ, Cornell, 27–30, *instr. geol. and geog,* 30–36; *Tennessee, 36–* Fel. Am. Geog. Soc; Meteorol. Soc. Physical, economic and regional geography; climatology and economic geography of Jamaica, British West Indies.

Rappleye, Howard S(nyder), 6712 Fourth St, N. W, Washington, D. C. *Mathematics.* Ithaca, N. Y, May 19, 92. Cornell. Topog. aid, U. S. Geol. Surv, 16; field and hydrog. draftsman and computer, *U. S. Coast and Geod. Surv,* 17, from computer to *senior mathematician, 19–, chief sect. leveling, 29–* Acting chief computing div, Manila field sta, U. S. Coast and Geod. Surv. Summers, instr, Columbia, 25, 27– 2nd lieut, E.O.R.C, 17–18, U.S.G.N.A, 18, capt. A.A; assoc. Civil Eng; Astron. Soc; Wash. Acad. (treas, 40–); Wash. Soc. Eng; Philos. Soc. Wash. Geodetic surveying; reduction of observation.

Rappleye, Dean Willard C(ole), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Medicine.* Marinette, Wis, Feb. 11, 92. A.B, Illinois, 15; M.D, Harvard, 18; A.M, Yale, 22; Sc.D, Trinity Col, 39. Pathologist, Foxboro State Hosp, Mass, 17–18; house officer, Mass. Gen. Hosp, 18–19; chief clin. labs. and instr. biochem, med. sch, California, 19–20, director hosps, 21; exec. sec'y, Cmt. on Training of Hosp. Executives, 21–22; prof. hosp. admin, Yale, 22–25; director study, Cmn. Med. Educ, 25–32; *dean col. physicians and surg, Columbia, 31–, prof. med. econ, 32–,* acting dean, *sch. dental and oral surg,* 33–34, *dean, 34–; director, N. Y. Post-Grad. Med. Sch, 33–, pres, advisory board med. specialties, 37–,* chairman, cmn. grad. med. educ, 37–39. Med. adviser, State Board Control, Calif, 21; superintendent, New Haven Hosp, 22–26; commissioner of hosps, New York, 40–41. Ed. board, 'Modern Hosp'; assoc. ed, 'Jour. Higher Educ.' Trustee, Roosevelt Hosp. Mem. board admin. consultants, Dept. Hosps, New York; mem. board directors, Henry St. Settlement; med. council, U. S. Veterans Bur; pres, Advisory Council Med. Educ, 39–; Asn. Am. Med. Cols, 38, exec. councilor and chairman cmt. preparedness, 39–; pres, Josiah Macy, Jr, Foundation, 42– A.A; fel. Am. Med. Asn; Am. Hosp. Asn; fel. Col. Physicians; fel. N. Y. Acad. Med. Medical education; medical economics.

Rapport, Dr. David, 416 Huntington Ave, Boston, Mass. *Physiology.* Pittsburgh, Pa, Aug. 29, 91. A.B, Harvard, 12, M.D, 16. Austin teaching fellow *physiol,* Harvard Med. Sch, 19–20, instr, 20–21; research fellow, med. col, Cornell, 21–24; senior instr, sch. med, Western Reserve, 24–26, asst. prof, 26–29; *prof, med. sch, Tufts Col, 29–* A.A; Physiol. Soc; Am. Acad. Circulation; endocrine glands; metabolism.

Rapson, Dr. W(illiam) Howard, Hawkesbury, Ont, Can. *Organic chemistry.* Toronto, Ont, Sept. 15, 12. B.A.Sc, Toronto, 34, M.A.Sc, 35, Ph.D, 41. Demonstrator chem. eng, Toronto, 34–40, asst, sch. eng. research, 34–38, instr. chem. eng, 40; *research chemist, Can. Int. Paper Co, 40–* Fel. Can. Inst. Chem. Oxidative degradation of organic compounds by alkali fusion; refining of sulphite wood pulp; chain-length fractionation of cellulose.

Rarick, Dr. M(organ) J, 1313 Hampton St, Richmond, Va. *Organic chemistry.* Lawrence, Kans, July 2, 09. A.B, Kansas, 32, Ph.D, 39. Instr. chem, Kansas, 36–37, 38–39, asst. prof, 39–41; *research chemist, tech. div, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Reduction of aromatic nitro compounds with alcoholates; aromatic ethers from p-fluoronitro-benzene; molecular weights of gases and vapors.

Rarita, Prof. William, Brooklyn College, Brooklyn, N. Y. *Physics.* Bordeaux, France, March 21, 07. B.S, Col. City N. Y, 27, E.E, 29; A.M, Columbia, 30, Ph.D, 37. Tutor, *Col. City of N. Y,* 28–30, tutor and instr, *Brooklyn Col,* 30–41, *asst. prof, 41–* Quantum mechanics; nuclear physics.

Rasch, Dr. Carl H(enry), 639 Niagara St, North Tonawanda, N. Y. *Chemistry.* North Tonawanda, N. Y, April 8, 04. A.B, Buffalo, 25; M.S, Pittsburgh, 29, Ph.D, 32. Chemist, Cent. Romana, Inc, Dominican Republic, 25–26; Riverside Chem. Co, 26–28; research chemist, Mellon Inst, 29; instr. chem, Pittsburgh, 29–32; *chief chemist and tech. director, Riverside Chem. Co, 32–* Summers, chem. engineer, U. S. Battery Corp, 29, 30. Chem. Soc. (councilor, 41); Inst. Chem. (sec'y, 39; alternate rep, 40–); Nat. Soc. Professional Eng; N. Y. State Soc. Professional Eng; Buffalo Soc. Eng. Organic and electro-organic chemistry; chemical engineering.

Rasche, Prof. W(illiam) H(enry), Virginia Polytechnic Institute, Blacksburg, Va. *Descriptive geometry.* Petersburg, Va, Jan. 19, 75. Va. Polytech; Mass. Inst. Tech. Instr. eng. drawing, *Va. Polytech,* 95–07, *prof. mechanism and descriptive geometry, 07–* Math. Asn; Eng. Educ. Mechanism.

Rasetti, Dr. Franco, Laval University, Quebec, Que, Can. *Physics.* Castiglion del Lago, Italy, Aug. 10, 01. Dr. Physics, Pisa, 23. Assoc. prof. *physics,* Rome, 27–30, *prof,* 31–39; *Laval, 40–* Rockefeller Foundation fellow, Calif. Inst. Tech, 28–29, Kaiser Wilhelm Inst, Berlin, 31–32; research assoc, Columbia, 36. Summer, lecturer, Cornell, 36. Righi prize, Accad. delle Scienze, Bologna; Matteucci prize, Accad. Italiana delle Scienze, Rome; Mussolini prize, Reale Accad.

d'Italia, Rome. Fel. Physical Soc; Pontificia Accad. delle Scienze; Reale Accad. dei Lincei. Atomic and molecular spectroscopy; Raman effect; nuclear physics; neutrons and radioactivity induced by neutrons; cosmic rays.

Rashevsky, Prof. Nicolas, University of Chicago, Chicago, Ill. *Mathematical biophysics.* Chernigov, Russia, Sept. 20, 99. Univ. Kieff, 19. Instr, Univ. Kieff, 19–21; teacher, Robert Col, Constantinople, 21–22; prof, Russian Univ, Prague, 22–24; research physicist, Westinghouse Elec. and Mfg. Co, 24–35; asst. prof. *mathematical biophys, Chicago,* 35–38, *assoc. prof, 38–* Lecturer, Pittsburgh, 24–35. Mathematical biophysics; electrodynamics; theory of relativity; thermionic effect; thermodynamics; theory of surface phenomena and their biological aspects.

Raskin, Dr. John, 719 W. McNichols Road, Detroit, Mich. *Bacteriology.* Arnprior, Ont, Can, July 27, 06. A.B, Col. City of Detroit, 29; A.M, Michigan, 31, Ph.D, 35. Asst. bacter, Simpson Mem. Inst, Michigan; mem. staff, Highland Park Gen. Hosp; *practicing physician.* Mich. Acad. Antigenic nature of lipoids of tubercle bacillus.

Rasmussen, Dr. A(aron) F(rederick), Jr, 431 Hawthorne Court, Madison, Wis. *Medical bacteriology.* St. Anthony, Idaho, May 27, 15. B.S, Idaho, 37; M.S, Wisconsin, 40, univ. fellow, 40–41, Ph.D, 41. Asst. *med. bacter, Wisconsin,* 37–40, research assoc, 41–42, *instr, 42–* Soc. Bact. Poliomyelitis; properties of virus; nature of immunity; effect of nutrition on resistance to infection.

Rasmussen, Prof. A(ndrew) T(heodore), 1055 14th Ave, S. E, Minneapolis, Minn. *[6]Anatomy, Neurology.* Spring City, Utah, Aug. 10, 83. A.B, Brigham Young, 09; Chicago, 08, 11, 13; Ph.D, Cornell, 16. Instr. biol, Brigham Young, 09–11, head dept, 11–13; asst. physiol, Cornell, 13–14, instr, 14–16; *neur, Minnesota,* 16–18, asst. prof, 18–19, assoc. prof, 19–25, *prof, 25–* A.A; Physiol. Soc; Soc. Exp. Biol; Asn. Anat. (exec. cmt, 34–38); Asn. Study Int. Secretions (v. pres, 23, 36–). Changes in the blood, nerve cells, mitochondria, hypophysis and interstitial cells of the testis and ovary during hibernation; thyroparathyroidectomy and blood coagulation; human hypophysis; nervous pathways; hypothalamus; acoustic nerve; history of neuroanatomy.

Rasmussen, Dr. D(aniel) I(rvin), Utah State Agricultural College, Logan, Utah. *Biology.* Mt. Pleasant, Utah, May 21, 03. B.S, Brigham Young, 28; M.S, Illinois, 30, fellow, 30–31, Ph.D, 32. Asst. zool, Illinois, 28–30; asst. biologist, Ill. State Nat. Hist. Surv, 32–33; technician, U. S. Forest Service, 33–34; *assoc. prof. wildlife management, Utah State Col, 34–, leader cooperative wildlife research unit, 35–* Assoc. biologist, fish and wildlife service, U. S. Dept. Interior, 35– Ecol. Soc; Soc. Mammal; Wildlife Soc; Utah Acad. Ecology; wildlife management; big game-range management relations.

Rasmussen, Prof. G(rant) L(ittster), Medical College of the State of South Carolina, Charleston, S. C. *Neuroanatomy.* Cleveland, Utah, July 22, 04. A.B, Utah, 28; A.M, Minnesota, 35, Ph.D, 40. Teaching fellow zool, Utah, 28–29; *anat,* Minnesota, 29–33; instr, *Med. Col. State S. C,* 34–38, assoc, 38–42, *asst. prof, 42–* Auditory pathways; volumetric study of grey and white matter of spinal cord; quantitative distribution of the pyramidal tract; degeneration and regeneration of peripheral nerves.

Rasmussen, Dr. (Hans) K(arl Christian Appel), Dominion Experimental Station, Lethbridge, Alta, Can. *Animal breeding, Genetics.* Sheffield, Ill, Feb. 3, 06. B.Sc.A, Manitoba, 30; M.S, California, 36; Ph.D, Iowa State Col, 41. *Exp. farm asst. livestock and poultry investigations, Dom. Exp. Sta, 31–* Genetics Soc; Can. Soc. Tech. Agr. (pres, South Alta, 40); Can. Soc. Animal Production (pres, west. sect, 40–42). Inbreeding in sheep; heritability of economic characteristics of sheep.

Rasmussen, Prof. M(arius) P(eter), Cornell University, Ithaca, N. Y. *Agricultural economics.* Bennington, Vt, Oct. 1, 93. B.S, Cornell, 19, Ph.D, 24. Exten. specialist farm management, Vermont, 20–21; instr. *marketing, Cornell,* 21–24, *prof, 24–; consultant fresh fruits and veg, War Food Admin, 43–* From consultant to senior agr. economist, U. S. Dept. Agr; prin. marketing specialist, Fed. Farm Board; collaborator, fed. farm board and bur. agr. econ, U. S. Dept. Agr; expert in marketing, Farm Credit Admin; consultant, city food terminal marketing cmt, New York; head consultant fresh fruits and veg, War Production Board, 42–43. Adviser, Am. Farm Bur. Federation. Farm Econ. Asn; Int. Asn. Agr. Econ. Marketing of fruits and vegetables.

Rasmussen, Dr. R(obert) S(everin), Shell Development Co, 4560 Horton St, Emeryville, Calif. *Chemistry.* Chicago, Ill, July 23, 16. B.S, Chicago, 38; Ph.D, Calif. Inst. Tech, 41. *Chemist, physics dept, Shell Develop. Co, 41–* Physical Soc. Infra-red absorption spectra of hydrocarbons and other petroleum derivatives and products; molecular structure of hydrocarbons; application of infra-red absorption to analysis of hydrocarbon mixtures.

Rasmussen, Dr. R(ussel) A(soph), Michigan State College, East Lansing, Mich. *Animal nutrition.* Blackfoot, Idaho, March 29, 10. B.S, Idaho, 33; M.S, Pa. State Col, 34; Ph.D, Cornell, 38. Lab. asst, Idaho, 31–33; asst. agr. chem, Pa. State Col, 33–34; nutrition research, E. L. Patch Co, Stoneham, Mass, 34–35; research asst. nutrition, Cornell, 35–38; instr. agr. chem, Missouri, 38–40; asst. prof. animal nutrition, Utah State Col, 40–42; *assoc. chemist, Exp. Sta, Mich. State Col, 42–* A.A; Chem. Soc; Soc. Animal Production. Vitamin C metabolism in animals of the farm; nutritional studies using synthetic diets with lambs, rabbits and guinea pigs; nutritional inadequacies of beet molasses rations for hogs; nutrition of farm animals.

Rasmusson, M(arvin) H(elmar), Standard Brands, Inc, Peekskill, N. Y. *Chemistry.* Conn, Oct. 8, 11. B.S, Cooper Union, 35, Chem.E, 42; M.S, N. Y. Univ, 41. Chemist, Fleischmann research labs, *Standard Brands, Inc,* New York, 27–40, *supervising chemist, Peekskill mfg. branch, 41–* Instr, evening session, Cooper Union, 36–38. Chem. Soc. Food technology.

Rasor, Prof. S(amuel) E(ugene), 1594 Neil Ave, Columbus, Ohio. *Mathematics.* Clayton, Ohio. Feb. 21, 73. B.S, Ohio State, 98, fellow, 98–99, M.S, 02; Chicago, 06; Berlin, 10–11. Instr. *math, Ohio State,* 00–06, asst. prof, 06–08, assoc. prof, 08–13, prof, 13–43, *emer. prof, 43–* A.A; Math. Soc. Differential geometry; theory of functions of a complex variable; calculus of variations and integral equations.

Raspet, Dr. August, Old Lyme, Conn. *Applied physics.* Irwin, Pa, Aug. 24, 13. B.S, Carnegie Inst. Tech, 35; M.S, Maryland, 40, Ph.D, 42. Physicist, U. S. Bur. Mines, 35–36; geophysicist, 36–42; *research director, Pratt, Read and Co, Inc, 42–* Geophys. Union; Inst. Aeronaut. Sci; Soaring Soc. Earth magnetic field determination; meteorological aspects of soaring flight; aerodynamics.

Rassweiler, Dr. C(lifford) F(red), Brooklawn Drive, Short Hills, N. J. *Chemistry.* Polo, Ill, May 18, 99. A.B, Denver, 20; A.M, Illinois, 22, Ph.D, 24. Exp. Sta, E. I. du Pont de Nemours and Co, 24–27, Philadelphia lab, 27–41, asst. director, 29–34, director, 34–41; *v. pres. in charge research and develop, Johns-Manville Corp, 41–* Chem. Soc; Franklin Inst. Development and research on asbestos-containing products, building materials, insulations, packings, friction materials and related products.

Rassweiler, Dr. Gerald M(ark), General Motors Research Laboratory, Detroit, Mich. *Physics.* Chicago, Ill, March 6, 03. A.B, Bucknell, 24; M.S, Illinois, 26, Ph.D, 28. Asst, Illinois, 24–28; *research physicist, Gen. Motors Research, 28–* Research physicist, E. I. du Pont de Nemours and Co, 25, 27. Physical Soc; Optical Soc. Spectroscopy; instrumentation; engine combustion.

Rassweiler, Prof. Merrill (Paul), Northern Montana College, Havre, Mont. *Physics.* Chicago Heights, Ill, Feb. 28, 10. B.S, Beloit Col, 30; M.S, Illinois, 32, Ph.D, 37. Instr. physics, Illinois, 30–37; *physics and math, North. Mont. Col,* 37–39, asst. prof, 39–42, *assoc. prof, 42–* Band spectra of caesium hydride.

Ratchford, Dr. W(illiam) P(aul), 1419 W. Grange St, Philadelphia, Pa. *Physical and organic chemistry.* Scranton, Pa, May 5, 15. B.S, Scranton, 37; Ph.D, Catholic Univ, 40. Instr. chem, St. Francis Col, 40–41; *research chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Kinetics of reactions; pyrolysis of organic compounds.

Ratcliffe, Dr. Herbert Lee, University of Pennsylvania, Philadelphia, Pa. *Pathology.* Brunswick, Ga, Oct. 12, 01. B.S. Emory, 25, M.S, 26; Sc.D, Hopkins, 28. Nat. research fellow, med. board, 28–29; assoc. *comp. path, Pennsylvania,* 29–41, *asst. prof, sch. med. and parasitol, grad. sch. med, sch. med. vet. med, 41–;* asst. pathologist, *Zool. Soc. Phila,* 29–42, *pathologist, 42–* A.A; Asn. Path. and Bact; Soc. Parasitol; Path. Soc. Phila. (sec'y-treas, 33–); Physiol. Soc. Phila. Comparative pathology; parasitology.

Raterink, Dr. Harry R, Charles Lennig Co, Richmond and Kennedy Sts, Bridesburg, Philadelphia, Pa. *Organic chemistry.* Jamestown, Mich, Nov. 28, 04. A.B, Hope Col, 25; M.S, Northwestern, 27, Ph.D, 31. *Research chemist,* Röhm and Haas Co, 30–32, Resinous Products and Chem. Co; *Charles Lennig Co.* Chem. Soc. Synthetic resins for use in varnishes, lacquers, plywood, adhesives, coatings and rubber-like materials.

Rath, Prof. Henry Earl, Iowa State Teachers College, Cedar Falls, Iowa. *Comparative physiology.* Mason City, Iowa, Nov. 5, 91. B.S, Iowa State Col, 16, M.S, 22, Ph.D, 33. Prin, high schs, Iowa, 16–17, 19–21; asst. prof. science, *Iowa State Teachers Col,* 21–32, *prof. health educ,* 32– A.A; Iowa Acad. Effects of dehydration on resistance to stimulants and narcotics and Mus norvegicus albinus.

Rath, Dr. Maurice M(onroe), 105 Leslie St, Newark, N. J. *Pharmacology, Physiology.* Newark, N. J, Oct. 2, 14. A.B, Indiana, 36, M.D, 43; M.S, N. Y. Univ, 41; fellow, Maryland, 41–42, Ph.D, 42. *Asst. surgeon, U. S. Pub. Health Service, 43–* Chem. Soc. Age-cancer relationship; hypertension; nitrites and nitrates.

Rathbun, Prof. J(ohn) Charles, 706 Riverside Drive, New York, N. Y. *Civil engineering.* Mondovi, Wis, March 14, 82. A.B, Washington (Seattle), 03, A.M, 04, B.S, 08, C.E, 09; Ph.D, Columbia, 34. Teacher science, Tung Wen Inst, China, 04–06; practising civil engineer, 06–19; asst. prof. civil eng, Washington (Seattle), 19–25; prof. and head dept, S. Dak. Sch. Mines, 25–29; prof. and acting head dept. eng, Antioch Col, 29–31; assoc. prof. *civil eng, Col. City of N. Y,* 31–41, *prof, 41–* Engineer, bur. pub. works, Manila, P. I, 12–15; supt. bridge construction, City of Seattle, Wash, 15–18; research engineer, Columbia, 23–24; consultant, Westchester County Park Cmn, N. Y, 25; State Highway Cmn, Conn, 25–28. Civil Eng; Eng. Educ. Indeterminate stress analysis; stress analysis in the ring of a concrete skew arch; analysis of skew arch and of multiple skew arch on electric piers; wind stresses in tall buildings; elastic properties of riveted connections.

Rather, Prof. H(oward) C(hristian), 823 Oak St, East Lansing, Mich. *Agronomy.* Bay Port, Mich, Sept. 17, 95. B.S, Mich. State Col, 17. Exten. specialist *farm crops, Mich. State Col,* 20–28, *prof. and head dept, 28–* In charge corn borer control campaign, U. S. Dept. Agr, Mich, 27. Mem, Int. Grasslands Cong, 37. A.A; fel. Soc. Agron; Int. Crop Improv. Asn. (sec'y-treas, 26, pres, 28). Farm crops; crop varieties; culture of alfalfa, barley, beans, sugar beets and corn; hay curing; alfalfa pasture; field crops.

Rather, J(ames) B(urness), 26 Broadway, New York 4, N. Y. *Chemistry.* Bullard, Texas, Oct. 16, 88. B.S, Agr. and Mech. Col. Texas, 07, M.S, 11; Chicago, 08, 10; A.M, Hopkins, 15. Asst. state chemist, Texas, 07–09; asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 09–12, first asst, 12–14; prof. agr. chem, Arkansas, and chemist, Exp. Sta, 15–18; asst. chief chemist, Standard Oil Co. of N. Y, 18–19, chief chemist, 19–32; *in charge gen. labs, Socony-Vacuum Oil Co, New York, 32–; v. pres. and director, Neches Butane Products Co, 42–* A.A; Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. (exec. cmt, 34–36); Petrol. Inst. Humus; ether soluble constituents of plants; inositephosphoric acids; cottonseed; ethylene; phenacyl esters; petroleum.

Rathmann, F(ranz) H(einrich), All-Union Scientific Research Vitamin Institute, Leningrad, U.S.S.R. *Chemistry.* Gotha, Fla, April 8, 04. A.B, Minnesota, 24, A.M, 27; Illinois, 27–29. Asst. prof. chem, James Millikin, 29–31; Inst. Chem. Physics, *Leningrad,* 31–35; *senior sci. worker, All-Union Sci. Research Vitamin Inst, U.S.S.R, 36–* Chem. Soc; Ill. Acad. Organic and physical chemistry; organic syntheses; mechanism of organic reactions; vitamin synthesis.

Ratliff, Dr. Margaret M(acLeod), University of Kentucky, Lexington, Ky. *Psychology.* Aberdeen, S. Dak, March 19, 96. A.B, Smith, 19; A.M, Kentucky, 31, Ph.D, 37. Instr. *psychol,* West. Ky. State Teachers Col, 32–33; *Kentucky,* 35–39, *asst. prof, 39–* Fel. Asn. Applied Psychol; Psychol. Asn; Personnel Asn; South. Soc. Philos. and Psychol; Midwest. Group Col. Psychiatrists and Clin. Psychologists (co-chairman); Midwest Psychol. Asn; Ky. Psychol. Asn. Techniques in counseling.

Ratliff, Prof. R(yland) F(letcher), 903 Main St, Rolla, Mo. *Physics.* Marion, Ind, Jan. 6, 58. A.B, Indiana, 00, A.M, 03. Teacher science, Fairmont Acad, 90–99; prof. physical science, Cent. Nor. Col, Danville, Ind, 01–20; assoc. prof. physics, Mo. Sch. Mines, 20–37. Instr, Indiana, 05–06, asst. prof, 17–18. A.A; Physical Soc; Ind. Acad; Ind. Asn. Sci. Teachers (pres, 17–19); Mo. Acad. Effect of radium on electrolytic conductivity; electrochemistry; phosphorescence; damping of phosphorescence by red and infra-red waves; photoelasticity; optical engineering.

Ratliffe, Geo(rge) T(homas), Soil Conservation Nursery, Sibley, La. *Agronomy.* Hugoton, Kans, Oct. 10, 86. B.S, Kans. State Col, 11. Irrig. asst, *U. S. Dept. Agr,* 13–16, asst. supt, Exp. Sta, Belle Fourche, S. Dak, 16–17, assoc. agronomist and supt, Exp. Sta, San Antonio, 20–33, *nursery manager, soil conservation nursery, 34–* A.C, U.S.A, 17–19. Cotton root-rot; disease crop production in semi-arid regions.

Ratner, Dr. Bret, 50 E. 78th St, New York, N. Y. *Pediatrics.* Brooklyn, N. Y, April 28, 93. M.D, Bellevue Med. Col, 18. Res. intern pediat, N. Y. Nursery and Child's Hosp, Cornell, 19–21, allergy and pediat. research, 21–24; research immunol, col. physicians and surg, Columbia, 23–24; instr. pediat, *N. Y. Univ,* 25–27, *clin. prof. pediat. and lecturer immunol, 27–* Asst. pathologist, City Hosp, 18–20; asst. visiting pediatrician, Manhattan Maternity Hosp, 23–24; Harlem Hosp, 23–25; City Hosp, 25–27; assoc. attending pediatrician, Sydenham Hosp, 27–30; Bellevue Hosp, 30–, director Crane research dept. anaphylaxis, 24–37; attending immunologist, Seaside Hosp. for Children, 32–38; consulting pediatrician, French Hosp; director pediatrics and attending pediatrician, Sea View Hosp. for Tuber, 43– A.A; Asn. Immunol; fel. Acad. Pediat; Soc. Exp. Biol; Soc. Bact; Asn. Path. and Bact; Asn. Study Allergy; Soc. Asthma and Allied Conditions; Soc. Exp. Path; Pub. Health Asn; Tuber. Asn; Harvey Soc; N. Y. Path. Soc; N. Y. Acad. Med; N. Y. Acad; Med. Soc. Co. N. Y. (chairman cmt. infant mortality). Allergic diseases of children; immunity of the newborn; congenital allergy; experimental asthma; anaphylactogenic properties of heat-denatured foods; immunotherapy; allergy, anaphylaxis and immunotherapy.

Ratner, Dr. Sarah, 1520 Shakespeare Ave, New York, N. Y. *Biochemistry.* New York, N. Y, June 9, 03. A.B, Cornell, 24; A.M, Columbia, 27, W. J. Gies fellow, 34–35, fellow, 35–36, Ph.D, 37. Asst. pediat, L. I. Col. Med, 26–30; asst. biochem, *col. physicians and surg, Columbia,* 30–31, teaching asst, 32–34, Macy research fellow, *dept. biochem,* 37–39, *instr, 39–* Acid-base metabolism; sterols; amino acids; synthesis and metabolism of amino acids with isotopes.

Ratsek, Dr. J(ohn) C(arl), Route 5, Tyler, Texas. *Horticulture.* Chicago, Ill, Jan. 28, 03. B.S, Illinois, 26; M.S, Cornell, 32, Ph.D, 37. Asst. floricul, Cornell, 29–35; *horticulturist, Substa. No. 2, Exp. Sta, Agr. and Mech. Col. Texas, 35–* Soc. Hort. Sci. Roses and orchids.

Rau, Phil(ip), 549 E. Argonne Drive, Kirkwood, Mo. *Entomology.* St. Louis, Mo, April 12, 85. A.A; Entom. Soc; fel. Entom. Soc. Amer; Ecol. Soc; St. Louis Acad. (curator, 10–15, chairman, entom. sect, 11–15, treas, 31–35). Ecology; animal behavior; wasp psychology; jungle bees and wasps of Barro Colorado Island.

Raub, Prof. Leo G(erard), Box 125, Montgomery. W. Va. *Physics.* Ischua, N. Y, March 19, 93. A.B, Oberlin Col, 16; Ph.D, Nebraska, 21. Asst. *physics,* Nebraska, 16–21; instr, Cincinnati, 21–23; asst. prof, Louisville, 23–25, assoc. prof, 25–28; *prof, W. Va. Inst. Tech, 28–* Physical Soc; Eng. Educ; W. Va. Acad. Cathode fall in helium and argon with wire electrodes; effects of color and illumination; the training of science teachers for high school.

Rauchenstein, Dr. E(mil), U. S. Department of Agriculture, Milwaukee, Wis. *Agricultural economics.* Rice Lake, Wis, April 7, 89. B.S, Wisconsin, 11; M.S, Illinois, 23; Ph.D, Minnesota, 26. Teacher, high schs, Wis, 11–16; farm manager, Va, 16–18; staff, dept. farm management, Illinois, 18–24; agr. econ. div, California, 25–28; *senior agr. economist, bur. agr. econ, U. S. Dept. Agr, 28–* Farm Econ. Asn. Threshing ring management; the cost of producing field crops; the supply and prices of cantaloupes; efficiency in dairy farming; types of farming in Pennsylvania; farm management on central Maine farms; input-output relationships in milk production.

Raudenbush, Dr. H(enry) W(illiam), Jr, 84-41 169th St, Jamaica, N. Y. *Mathematics.* Haverstraw, N. Y, Oct. 9, 02. A.B, Columbia, 24, A.M, 26, Ph.D, 33. Instr, Columbia, 27–34; asst. prof. *math,* Yale, 34–37; instr, *Queens Col, Col.*

City of N. Y, 37–39, *asst. prof, 39–* Math. Soc; Math. Asn. Algebraic theory of functional equations.

Raulston, Dr. Burrell O(tto), 200 S. Hudson Ave, Los Angeles, Calif. *Medicine.* Jefferson City, Tenn, Jan. 28, 86. A.B, Maryville Col, 09; M.D, Rush, Chicago, 15. Instr. path, Rush Med. Col, Chicago, 16–20, instr. and asst. clin. prof. med, 20–24; senior attending physician, Los Angeles County Hosp, Los Angeles, 24–29; *prof. med, sch. med, Southern California, 29–, dean, 43–* Res. pathologist, Presb. Hosp, Chicago, 16–20. Am. Med. Asn; Am. Physicians; Pacific Interurban Med. Club. Nature of action of diuretics; uremia.

Raup, Prof. H(allock) F(loyd), Eastern Washington College of Education, Cheney, Wash. *Geography.* Athens, Pa, Jan. 15, 01. B.S, California, 24, M.S, 27, Ph.D, 35. From asst. to instr, California at Los Angeles, 30–40; *asst. prof. geog, East. Wash. Col. Ed, 40–* Asn. Pacific Coast Geographers (sec'y-treas, 35–37); fel. Am. Geog. Soc. Historical geography; Pennsylvania Dutch; California water problems; geography of California cities; cities and towns of the Northwest.

Raup, Dr. Hugh M(iller), Arnold Arboretum, Harvard University, Jamaica Plain, Mass. *Botany.* Springfield, Ohio, Feb. 4, 01. A.B. Wittenberg Col, 23; A.M, Pittsburgh, 25, Ph.D, 28. Instr. biol, Wittenberg Col, 23–25, asst. prof, 25–32; asst, *Arnold Arboretum, Harvard,* 32–34, research assoc, 34–38, *asst. prof. plant ecol, 38–* Asst, Harvard, 29–30; nat. research fellow, 30–32. Summers, field botanist, Can. Nat. Museum, 28–30; bot. surv. expeds. Mackenzie River basin, 26–30, 32, 35, 39; Alcan Highway, 42. A.A; Am. Geog; Torrey Bot. Club; New Eng. Bot. Club. Plant ecology and geography.

Rauscher, Prof. M(anfred), Massachusetts Institute of Technology, Cambridge, Mass. *Aeronautics.* Ruegsau, Switzerland, Feb. 23, 04. B.S, M.S, Mass. Inst. Tech, 27, Sc.D, 36. Chief engineer, Engineers Aircraft Corp, Stamford, Conn, 29–30; asst. *aeronaut. eng, Mass. Inst. Tech,* 27–29, asst. prof, 30–43, *assoc. prof, 43–* Assoc. fel. Inst. Aeronaut. Sci; Gesell. für Angewandte Math. Wing flutter; oscillations of nonlinear systems; various phases of aeronautical mechanics.

Rauscher, Prof. William H(erbert), 1512 Jacob St, Troy, N. Y. *Organic chemistry.* Sherrill, N. Y, Oct. 1, 03. Ch.E, Rensselaer Polytech, 26, Ph.D, 37. Instr. chem, *Rensselaer Polytech,* 26–37, *asst. prof. org. chem, 37–* Chem. Soc. Microanalysis; ethanolamines; plastics.

Rautenstrauch, Prof. Walter, Columbia University, New York, N. Y. *Mechanical engineering.* Sedalia, Mo, Sept. 7, 80. B.S, Missouri, 02, LL.D, 32; M.S, Maine, 03. Instr. *mech. eng,* Maine, 02–03; asst. prof, Cornell, 03–06; adj. prof, *Columbia,* 06–07, *prof, 07–* Pres, Splitdorf Elec. Co; Splitdorf Radio Corp; Kings County Iron Foundry; F. F. French Co; Metalastic, Inc; Am. Elec. Motor Co; v. pres, J. G. White Management Corp; v. pres. and gen. manager, Liberty Yeast Corp. A.A; Mech. Eng; Acad. Polit. Sci; N. Y. Acad. Polit. Sci; fel. N. Y. Acad. The economic characteristics of the manufacturing and construction industries; organization theory.

Rauth, Prof. J(ohn) Edward, Catholic University, Washington, D. C. *Psychology.* Hagerstown, Md, July 6, 86. A.B, Mt. St. Mary's Col, 13, A.M, 17; fellow, Catholic Univ, 21–22, Ph.D, 26. Instr. chem, Mt. St. Mary's Col, 13–17, 19–21; *psychol, Catholic Univ,* 22–34, *asst. prof, 34–; instr, Trinity Col. (D. C), 30–* Lieut, C.W.S, 17–19. A.A; Chem. Soc; Psychol. Asn. (chairman, Wash-Baltimore sect, 35–); Soc. Research Child Develop. Child, clinical and experimental psychology; tests; sensations.

Ravdin, Prof. I(sidor) S(chwaner), 2015 DeLancey Place, Philadelphia, Pa. *Surgery.* Evansville, Ind, Oct. 10, 94. B.S, Indiana. 16; M.D, Pennsylvania, 18. Instr. surg, *Pennsylvania,* 18–25, assoc, 25–27, asst. prof. research surg, 27–29, J. William White prof, 29–36, *Harrison prof. surg, 36–; lieut. col, Med. Corps, U. S. Army.* A.A; Physiol. Soc; Soc. Exp. Path. Acute appendicitis; function of the gall bladder; liver shock; pulmonary atelectasis; metabolism during anesthesia; nutritional edema in surgical patients.

Ravely, Prof. Melville F(uller), Illinois College, Jacksonville, Ill. *Organic chemistry.* Jud, N. Dak, March 21, 12. B.S, Jamestown Col, 34; M.S, Iowa, 36, Ph.D, 38. Instr. *chem, Ill. Col,* 38–40, *asst. prof, 40–* Chem. Soc; Ill. Acad. The directive influence in the vanillin and isovanillin molecule when subjected to bromination.

Raven, H(enry) C(ushier), American Museum of Natural History, New York, N. Y. *Zoology, Mammalogy.* Brooklyn, N. Y, April 16, 89. Cornell, 18–19; Columbia, 20–21; Hopkins, 27. Field rep, Smithsonian Institution, 12–18; naturalist, Smithsonian Institution and Universal Film Co. exped, Africa, 19–20; field rep, *Am. Museum Nat. Hist,* 21–23, asst. curator *dept. comp. anat,* 23–25, *assoc. curator, 25–;* assoc. prosector, *N. Y. Zool. Soc,* 25–27, *prosector, 27–;* asst. vert. paleont, *Columbia,* 26–29, lecturer *zool,* 29–43, *assoc, 43–* Assoc, sch. med, Hopkins, 36–38. Smithsonian Institution exped, Borneo, 12–15, Celebes, 15–18, Africa, 19–20; Am. Museum Nat. Hist. exped, Australia, 21–23, Greenland, 26; Columbia Univ. and Am. Museum Nat. Hist. exped, Africa, 29–31. A.A; Asn. Anat; Soc. Mammal; Soc. Ichthyol. and Herp; Soc. Vertebrate Paleont; fel. N. Y. Zool. Soc; fel. N. Y. Acad. Natural history; anatomy of vertebrates, especially mammals; habits of East Indian, Australian and African animals; phylogeny and classification of marsupials, cetaceans and primates, especially anthropoid apes.

Ravenel, Prof. Mazyck P(orcher), University of Missouri, Columbia, Mo. *[1]*Bacteriology, Public health.* Pendleton, S. C. Grad, Univ. of South, 81; M.D, Med. Col. of S. C, 84; Scott fellow, Pennsylvania, 93; Pasteur Inst, Paris, and Inst. Hygiene, Halle, 96; Inst. Maragliano, Genoa, 04. Asst. demonstrator anat, Med. Col. State of S. C; lecturer diseases of children, Charleston Med. Sch; asst. bacter, Pennsylvania, 95; director lab. hygiene, Princeton, 96; bacteriologist, State Live Stock Sanit. Board, Pa, 97–07; lecturer bacter, vet. dept, Pennsylvania, 98–03, asst. med. director and chief lab, Henry Phipps Inst, 03–07; prof. bacter, Wisconsin, 07–14; director, State Hygienic Lab, Wis, 08–14; prof. *prev. med. and bacter, Missouri,* 14–36, *emer. prof, 36–* Summers, prof, California, 13–15. Ed, 'Am. Jour. Pub. Health,' 25, emer. ed, 40– Advisory board, hygienic lab, U. S. Pub. Health Service, 14; Nat. Advisory Health Council, 31. Int. Cmn. Bovine Tuber; Nat. Cmn. Milk Standards. U. S. del, Int. Cong. Hygiene, Berlin, 08; Int. Cong. Alimentary Hygiene, Brussels, 10; official rapporteur, Int. Am. Cong, Buenos Aires, 10. From major to lieut-col. M.C, 17–19. Pub. Health Asn. (director, 15–19, pres, 20); Tuber. Asn. (pres, 11); Am. Med. Asn. (chairman, pub. health sect, 13); U. S. Live Stock Sanit. Asn. (pres, 13); Philos. Soc; Wis. Anti-Tuber. Asn. (pres, 09–14); Col. Physicians Phila; hon. mem. Cleveland Acad. Med; hon. fel. Royal Sanit. Inst. Tuberculosis; rabies.

Ravitz, Dr. S(ol) Frederick, 1321 E. S. Temple, Salt Lake City, Utah. *Metallurgy.* Council Bluffs, Iowa, July 14, 07. A.B, Utah, 27, A.M, 28; Ph.D, Calif. Inst. Tech, 31. Teaching fellow, Utah, 27–28; Calif. Inst. Tech, 28–31; assoc. chem, *Utah,* 31–32, research metallurgist, *eng. exp. sta,* 32–34, acting director, 34–35, *director sta. and head dept. metal, 35–* Min. and Metal. Eng; Eng. Educ; Utah Acad. Non-ferrous metallurgy; theory of the flotation process.

Rawcliffe, Dr. R. D, 50 Frost Road, Belmont, Mass. *Physics.* Ill, July 27, 13. A.B, N. Cent. Col, 37; M.S, Illinois, 39, Ph.D, 41. Instr. physics, Illinois; *mem. radiation lab, Mass. Inst. Tech, 42–* Molecular physics; measurements of the lifetimes of the excited states of molecules.

Rawdon, Henry, 5103 13th St. Washington, D. C. *Metallurgy.* Derby, Eng, 82. B.Ch.E, Michigan, 12. From asst. physicist to physicist in charge metallog, *Bur. Standards,* 12–29, *prin. metallurgist and chief div. metal, 29–* Metal. advisory board, U. S. Ordnance Dept. 42–; materials for aircraft cmt, Nat. Advisory Cmt. Aeronautics; min. and metals advisory cmt, Nat. Research Council to War Production Board, 42– Min. and Metal. Eng; Soc. Test. Mat; Soc. Metals; Wash. Acad. Microscopy of metals; structure of metals and alloys; corrosion of metals, especially as related to structure; corrosion prevention; coated metal products.

Rawles, Dr. Mary E(lbert), Johns Hopkins University, Baltimore, Md. *Biology, Embryology.* Greensville Co, Va. A.B, Randolph-Macon Woman's Col, 19; M.S, Chicago, 29, Ph.D, 34. Asst. biol, Randolph-Macon Woman's Col, 19–20, instr, 27–28; high sch, Va, 22–27; asst. zool, Chicago, 29–33; *embryol,* Rochester, 33–40; *research assoc, Hopkins, 40–* A.A; Soc. Zool; Asn. Anat; N. Y. Acad. Experimental embryology of chick; pigmentation and feather pattern.

Rawles, Dean Thomas H(oward), Colorado College, Colorado Springs, Colo. *Mathematics.* Bloomington, Ind. A.B, Indiana, 19, A.M, 25; Ph.D, Yale, 27. Instr. math, Yale, 27–29, asst. prof, 29–35; *dean freshmen, Colo. Col, 35–; major, Field Artil, U. S. Army, 42–* A.A; Math. Soc; Econometric Soc. Calculus of variations; analysis; probability.

Rawles, Dr. William P(ost), 320 E. 42nd St, New York, N. Y. *Geology.* Bloomington, Ind, May 28, 00. A.B, Indiana, 22, A.M, 26; Ph.D, Wisconsin, 30. Sec'y mineral inquiry, Am. Inst. Min. and Metal. Engineers, 30–33; sec'y planning cmt. for mineral policy, 34–36; *geologist, Tri-Continental Corp, 36–* A.A; Min. and Metal. Eng; Ind. Acad. Mineral economics.

Rawling, Dr. Francis G(eorge), West Virginia Pulp and Paper Co, Luke, Md. *Industrial chemistry.* Stockton-on-Tees, Eng, Oct. 2, 90. B.Sc, Leeds, 10, M.Sc, 11, D.Sc, 22. Instr, Edinburgh, 11–13; research chemist and engineer, W. Va. Pulp and Paper Co, 13–23; U. S. Forest Service, 23–26; research chemist and engineer, Mead Corp, 26–31; chem. engineer, *W. Va. Pulp and Paper Co,* 32–37, *director research, 37–* Lecturer, Wisconsin, 23–26. Chem. Soc; fel. Inst. Chem; fel. Inst. Chem. London. Manufacture of paper pulp; distillation.

Rawlins, Prof. C(harles) H(enry), Jr, 13 Franklin St, Annapolis, Md. *Mathematics.* Seaford, Del, Feb. 16, 89. Ph.B, Dickinson Col, 10, A.M, 13; Ph.D, Hopkins, 16. Instr. *math,* Dickinson Sem, Pa, 10–13; instr. and asst. prof, Delaware, 16–19; instr, *U. S. Naval Acad,* 19–22, asst. prof, *postgrad. sch,* 22–28, assoc. prof, 28–38, *prof, 38–* Math. Soc; Math. Asn. Concomitants of the three-point and the four-point in geometry.

Rawlins, Dr. George M(imms), Jr, Woodrow Wilson High School, Washington, D. C. *Chemistry.* Clarksville, Tenn, Nov. 30, 02. B.S, Southwest. Presb. Univ, 25; A.M, George Peabody Col, 32, fellow, 32–34, Ph.D, 34. Instr, high sch, Tenn, 25–26, head div. science, 26–31; instr. chem, George Peabody Col, 32–34; Wilson Teachers Col, 34–36; *head dept. science, div. 1–9, pub. schs, Wash, D. C, 36–* A.A; Chem. Soc. Analytical survey of soil and rock, Montgomery County, Tennessee; distribution of calcium and iron in black oak trees.

Rawlins, Prof. T(homas) E(lsworth), University of California, Berkeley, Calif. *Plant pathology.* Elk Creek, Calif, 95. B.S, California, 21, Ph.D, 26; M.S, Wisconsin, 22. Asst. hort, Wisconsin, 21–22; plant path, *California,* 23–25, junior plant pathologist, 26–28, asst. prof. *plant path,* 28–35, *assoc. prof, 35–, assoc. plant pathologist, Exp. Sta.* A.A; Phytopath. Soc; Bot. Soc. Virus diseases of plants; phytopathological technique; microchemistry.

Rawlins, Prof. W(illiam) A(rthur), Cornell University, Ithaca, N. Y. *Economic entomology.* Geneva, N. Y, Dec. 5, 08. B.S, Cornell, 30, Ph.D, 36. Asst. *entom, Cornell,* 30–36, research instr, 36–39, *research asst. prof, 39–* Asn. Econ. Entom. Biology and control of potato insects with emphasis on wireworm control.

Rawlinson, Dr. H(erbert) E(dward), University of Alberta, Edmonton, Alta, Can. *Anatomy.* London, Eng, June 18, 00. M.D, Alberta, 27; M.Sc, McGill, 32, Ph.D, 34. Demonstrator anat, Alberta, 27–30; McGill, 30–32, lecturer histol. and embryol, 32–34, asst. prof, 34–38; *assoc. prof. anat, Alberta, 38–* A.A; Asn. Anat. Histo-physiological aspects of gland secretion; capillary permeability.

Rawson, Arthur J(oy), University of Pennsylvania, Philadelphia, Pa. *Mechanical design.* Lincoln, Va, Oct. 13, 96. A.B, Swarthmore Col, 23, M.E, 30. Eng. asst, Bell Telephone Co. of Pa, 23–28; instr. mech. eng, Swarthmore Col, 28–29; assoc. med. physics, Johnson foundation, Pennsylvania, 29–40; asst. prof. biophys, med. col, Cornell, 40–41; assoc. *biol. eng, Johnson foundation, Pennsylvania,* 41–43, *asst. prof, 43–* Summers, junior aeronaut. engineer, Nat. Advisory Cmt. Aeronautics, Langley Field, Va, 28, 29. A.A; Mech. Eng. Mechanical design of research apparatus.

Rawson, Prof. D(onald) S, University of Saskatchewan, Saskatoon, Sask, Can. *Biology.* Ont. Co, Ont, May 19, 05. B.A, Toronto, 26, M.A, 27, Nat. Research Council Can. bursar, 27–28, Ph.D, 29. Demonstrator biol, Toronto, 25–28; asst. prof. zool. and later *prof. biol, Saskatchewan, 29–* Soc. Ichthyol. and Herp; Ecol. Soc; Limnol. Soc; Can. Conservation Asn. (v. pres). Limnobiology and fresh-water fisheries; bottom fauna and ecology of Lake Simcoe; game fish in the Prince Albert National Park, Saskatchewan; productivity of Kamloops, British Columbia, lakes; temperature, oxygen and trophic conditions in Saskatchewan lakes; biology and fisheries management in lakes of the Canadian Rockies; biology of saline lakes of Saskatchewan; ecology of alpine lakes in western Canada; conservation and utilization of natural resources in Saskatchewan.

Rawson, Dr. G(eorge) W(illiam), 232 E. Grand Blvd, Detroit, Mich. *Biology, Veterinary science.* Barton on Humber, Lincolnshire, Eng, April 25, 90. D.V.M, U. S. Vet. Col, 16; Hopkins, 23. Bur. animal indust, U. S. Dept. Agr, 16–17; Va. Livestock Sanit. Board, 19–21; biol. and pharmaceut. chemist, dept. animal indust, *Parke, Davis and Co, Detroit,* 23–43, *parasitologist, biol. and med. research labs, 43–* Vet. R.C, U.S.A, 17–19. A.A; Vet. Med. Asn; Detroit Acad. Nat. Sciences (v. pres, 42). Medical entomology; parasitology; Nearctic Lepidoptera.

Ray, Dr. Arthur B(enning), Beacon Hill, Port Washington, N. Y. *Chemistry.* Leaksville, N. C, Sept. 12, 89. A.B, Wake Forest Col, 10, A.M, 11; Ph.D, Cornell, 16. Instr. applied math, Wake Forest Col, 10–11; prof. nat. sciences, Blue Ridge Col, 11–12; instr. chem, Cornell, 12–16; assoc. prof. indust. chem, Agr. and Mech. Col. Texas, 16–17; research chemist, Union Carbide and Carbon Corp, 19–34; *in charge activated carbon div, Carbide and Carbon Chem. Corp, 34–* Capt, C.W.S, 17–19. Chem. Soc; Chem. Eng. Inorganic, physical and industrial chemistry; rare earths; toxic inorganic materials; reactions between gases; incendiary and pyrotechnic materials; activated carbon.

Ray, Dr. Bronson S(ands), 525 E. 68th St, New York, N. Y. *Surgery.* New Albany, Ind, Jan. 4, 04. B.S, Franklin Col, 24; M.D, Northwestern, 28. Instr. surg, Harvard Med. Col, 31–32; *assoc. prof. surg, med. col, Cornell, 41–* Attending surgeon, New York Hosp, 39–; assoc. St. Luke's Hosp, 42–; clin. asst. visiting neuro-psychiatrist, Bellevue Hosp, 42–Am. Med. Asn; Neur. Asn; Soc. Clin. Surg; Harvey Soc; Soc. Univ. Surg; N. Y. Acad. Med; N. Y. Neur. Soc; N. Y. Surg. Soc. Surgery of the nervous system; pain sensitive structures of the head; carotid sinus; sympathetic innervation of the upper extremity; surgical relief of intractable pain.

Ray, Dr. Charles, Jr, Central Fibre Corp, Pisgah Forest, N. C. *Genetics.* Baltimore, Md, Dec. 6, 11. A.B, Lafayette Col, 37; fellow, Virginia, 37–41, Ph.D, 41. *Geneticist, plant research dept, Cent. Fibre Corp, 41–* Annual research award, Va. Acad. Science, 41; Walker prize, 41. A.A; Bot. Soc; Genetic Asn; Genetics Soc; Soc. Agron; N. C. Acad. Genetics and cytology of flax species; species crosses; cyto-genetics; cytology and genetics of Crotalaria.

Ray, Dr. David H(eydorn), 1235 S. First Ave, Arcadia, Calif. *Engineering.* New York, N. Y, July 14, 78. A.B, Col. City of N. Y, 97; B.S, Columbia, 01, A.M, 02; C.E. and Sc.D, N. Y. Univ, 08. Instr. physics and eng, Col. City of N. Y, 05–10; engineer buildings, New York, 10–13; asst. prof. mech, Calif. Inst. Tech, 19–20; struct. engineer, Bur. Buildings, Los Angeles, 23–27; examining engineer, Civil Service Cmn. of Los Angeles, 27–32; *consulting engineer.* Bldg. struct. engineer, Dept. Bldg. and Safety, Los Angeles. Science examiner, Civil Service Board, New York, 02–04; Board Educ, New York. Sec'y planning cmn, high sch. board, Arcadia, Calif, 26–29, 32– Appraisal and valuating officer, War Dept, 18, capt, C.Eng.R. A.A; Civil Eng; Mech. Eng. Mechanics; materials of engineering; industrial and economic engineering; valuation.

Ray, Prof. Francis E(arl), 2926 Woodside Place, Cincinnati, Ohio. *Organic chemistry.* Chicago, Ill, Jan. 2, 98. B.Sc, Oxford, 21, D.Sc, 31; A.M, Illinois, 26. Prin, high sch, Ill, 21–25; asst, Illinois, 25–26; instr, Grinnell Col, 27–30; asst. prof. *chem, Cincinnati,* 30–43, *assoc. prof, 43–* Mem. exec. cmt, Cincinnati Tech. and Sci. Council. A.A; Chem. Soc. (councilor, 35, 41, chairman, Cincinnati sect, 36); fel. Iowa Acad; fel. Ohio Acad. (v. pres, 40, mem. admin. board, 41–). Experimental chemistry; toxicology; foods; decomposition of tartaric acid; trimethylglutaric acids; aliphatic diazo compounds; sulfur compounds; synthetic organic medicinals; ultra-violet spectral analysis in determining aging of whiskey; fluorene compounds; sulfonium compounds.

Ray, Dr. George B(urrill), 350 Henry St, Brooklyn, N. Y. *Physiology.* Boston, Mass, May 9, 93. B.S, Mass. Col, 16; A.M, Harvard, 21, Ph.D, 22. Austin teaching fellow, Harvard, 19–22. instr. applied physiol, Harvard Med. Sch, 22–23, physiol, sch. pub. health, 23–24; senior instr, sch. med, Western Reserve, 24–26, asst. prof, 26–29, assoc. prof, 29–33; *prof. physiol. and pharmacol, L. I. Col. Med, 33–* A.A; Physiol. Soc; Soc. Exp. Biol. Mammalian physiology; physiology of respiration; spectrophotometry of the blood.

Ray, Dr. Kenneth W(ilbert), General Refineries, Inc, Minneapolis, Minn. *Chemistry, Metallurgy.* Worthington, Ind,

Sept. 20, 97. A.B, Indiana, 21, A.M, 22, Ph.D, 26. Prof. chem, Linfield Col, 22–28; assoc. metal, dept. chem, Iowa, 28–32; assoc. prof. physics and metal, dental sch, Northwestern, 32–34; *director research, Gen. Refineries, Inc, 34–* A.A. Dental metals and alloys.

Ray, Dr. Louis L(amy), U. S. Geological Survey, Washington, D. C. *Geology.* St. Louis, Mo, July 26, 09. A.B, Washington (St. Louis), 30, M.S, 32; Ph.D, Harvard, 38. Asst. geol, Washington (St. Louis), 30–32; Austin teaching fellow physiog, Harvard, 35–37, asst, 37–39; asst. prof. geol, Mich. State Col, 39–42; *assoc. geologist, U. S. Geol. Surv, 42–* Nat. Research Council and Washington (St. Louis) grant, Alaska, 31. Smithsonian Institution archeol. exped, Lindenmeier site, Colo, 36–37. A.A; Soc. Photogrammetry; Am. Geog. Soc; Geophys. Union. Physiography and geology of archeological sites; glacial geology and physiography of Alaska and the Southern Rocky Mountains; structure of the Sangre de Cristo Mountains, New Mexico.

Ray, Dr. O(vid) M(alcolm), North Dakota State College, Fargo, N. Dak. *Physiology.* Lindsay, Okla, March 10, 11. A.B, Drake, 32, A.M, 33; Ph.D, Iowa, 38. Asst. zool, Iowa, 33–35, physiol, 35–37, research assoc, 37–39; instr, N. Dak. State Col, 39–41, asst. prof, 41–42; *aviation physiol, U. S. Army, 42–* X-rays on oxygen consumption and enzyme formation and activation; x-rays and ultra-violet rays on grasshopper embryos; effects of dialysis on enzyme activity; properties of naturally occurring enzyme activators.

Ray, Prof. T(homas) W(illiam), 561 N. 15th St, Milwaukee, Wis. *Organic chemistry.* Houston, Texas, Aug. 23, 83. A.B, Texas, 16, A.M, 17; Ph.D, Chicago, 25. Asst. and tutor, Texas, 15–18; chief chemist, Humble Oil and Ref. Co, Houston, 19–20; prof. chem, East. Texas State Teachers Col, 20–21; instr, Toledo, 26–27, *asst. prof,* 27–28; *physiol. chem, sch. med, Marquette, 28–* Chemist and bacteriologist, City of Austin and State Board Health, Texas, 16–18. Physiological chemistry; synthetic drugs; microchemistry of human biliary calculi; manganese metabolism; methods of manganese determination.

Ray, Dr. Verne F(rederick), 2543 Boyer Ave, Seattle, Wash. *Anthropology.* Enfield, Ill, March 13, 05. A.B, Washington (Seattle), 31, A.M, 32; Ph.D, Yale, 38. Assoc. *anthrop, Washington (Seattle),* 30–37, instr, 37–39, *asst. prof, 40–* Ed. board, 'Pacific Northwest Quart.' Exec. board, Sapir Mem. Publication Fund. Anthrop. Asn. (councilor); Ethnol. Soc; Folk-Lore Soc. (councilor). Ethnology in western America.

Ray, Prof. Ward L(ow), 512 E. College Ave, Waukesha, Wis. *Chemistry.* Deer Lick, Pa, Dec. 21, 83. A.B, Oregon, 08; A.M, Wisconsin, 10, fellow, 20–22, Ph.D, 22. *Prof.* chem, William and Vashti Col, 11–17; physics, New Mexico, 17–18; *chem,* Drury Col, 18–20; *Carroll Col, 22–* A.A; Chem. Soc. Selenium.

Ray, Prof. Wendell A(ugustus), Colby College, Waterville, Maine. *Physical chemistry.* Auburn, Maine, Oct. 7, 10. A.B, Bates Col, 32; A.M, Harvard, 34, Ph.D, 36. Asst, Harvard, 36–38; instr. *chem, Colby Col,* 38–40, *asst. prof, 41–* Chem. Soc. Surface and electro-chemistry.

Ray, Dr. Wilbert S(cott), Hillsdale College, Hillsdale, Mich. *Psychology.* Rochester, Pa, July 21, 01. A.B, Washington and Jefferson Col, 23; A.M, Wisconsin, 29, Ph.D, 30. Teacher, high sch, 24–28; asst. psychol, Wisconsin, 29–30; clinic child develop, Yale, 30–31; clin. psychologist, N. J. State Hosp, 31–37; *prof. psychol, Hillsdale Col, 37–* Assoc. Psychol. Asn; fel. Soc. Research Child Develop; Asn. Applied Psychol; Mich. Psychol. Asn; Mich. Acad. (sec'y psychol. sect). Learning.

Ray, Dr. W(illiam) Winfield, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Mycology, Plant pathology.* Grabill, Ind, Jan. 31, 09. B.S, Northwestern, 31, M.S, 33; Ph.D, Cornell, 38. Instr. plant path, Cornell, 37–38; *asst. prof. bot. and plant path, Okla. Agr. and Mech. Col, 38–* Phytopath. Soc; Mycol. Soc; Okla. Acad. Fungi of Oklahoma; cotton diseases.

Rayburn, Dr. C(larence) H(oward), R.F.D. No. 2, Glen Allen, Va. *Chemistry.* Hatton, Wash, May 13, 07. B.S, State Col. Wash, 28; Ph.D, Iowa State Col, 32. Fellow, Iowa State Col, 28–34; *chemist, Am. Tobacco Co, 34–* Fermentation of sugar derivatives; tobacco.

Raymond, Dr. Albert L, G. D. Searle and Co, P. O. Box 5110, Chicago 80, Ill. *Biochemistry.* Berkeley, Calif, Feb. 12, 01. B.S, Calif. Inst. Tech, 21, M.S, 23, fellow, 24–25, Ph.D, 25. Teaching fellow, Calif. Inst. Tech, 21–22, asst. biochem, 22–23; instr, California, 25–26; nat. research fellow, Rockefeller Inst, 26–28, asst, 28–30, research assoc, 30–36; *director research, G. D. Searle and Co, 36–* Chem. Soc. Mechanism of carbohydrate metabolism in living organisms and by enzyme systems; carbohydrate chemistry.

Raymond, Dr. C(harles) L(awrence), 100 Bush St, San Francisco, Calif. *Physical chemistry.* Schenectady, N. Y, May 18, 11. B.S, Union Col. (N. Y), 32, M.S, 33; Ph.D, Mass. Inst. Tech, 37. Petrol. technologist, Shell Oil Co, 37–40; *research engineer, Shell Develop. Co, 40–* Chemical engineering.

Raymond, H(arry), 318 New Scotland Ave, Albany, N. Y. *Astronomy.* LaGrange, Ohio, Feb. 17, 76. A.B, Harvard, 05, Asst, Dudley Observatory, Union (N. Y), 05–07; dept. meridian astron, Carnegie Institution, 07–18, astronomer, 18–37, research assoc, 38–40; *retired.* Asst. physicist, Sig. Lab, Camp Edwards, Mass, 42– Gold medal, Royal Danish Acad. Sci, 26. A.A; Astron. Soc; Am. Geog. Soc. Meridian astronomy; sidereal motions; fundamental star positions; radio direction finding.

Raymond, Dr. Howard Monroe, Grass Lake, Mich. *Physics.* Grass Lake, Mich, Oct. 25, 72. B.S, Michigan, 93; Sc.D, Colo. Sch. Mines, 22. Instr. physics, *Armour Inst. Tech,* 95–98, assoc. prof, 98–03, prin, Armour Sci. Acad, 99–03, prof. exp. physics, 03–13, dean eng, 03–21, acting pres, 21–22, pres, 22–32, *emer. pres, 32–* Ed. in chief, 'Cyclopedia Eng'; 'Cyclopedia Mech. Eng.' and 'Cyclopedia Modern Shop Practice.' Trustee, Armour Inst. Tech. A.A; Elec. Eng; Eng. Educ.

Raymond, Prof. L(ee) C(arleton), Macdonald College, Que, Can. *Agronomy.* Bloomfield Station, N. B, 89. B.S.A, McGill, 12; M.S, Wisconsin, 24. Asst. agron, *Macdonald Col, McGill,* 12–16, lecturer in charge roots and corn, 18–23, asst. prof, 23–29, forage crops, 29–42, *assoc. prof. agron, 42–* A.A; Soc. Agron; Can. Soc. Tech. Agr. Varietal corn hybrids; selection in self-fertilized lines of roots.

Raymond, Dr. M(arion) R(obert), 327 Main, Winona, Minn. *Zoology, Limnology.* Sumpter, Mich, Sept. 5, 07. A.B, Mich. State Nor. Col, 30; A.M, Michigan, 31, Ph.D, 36. Asst. biol, Mich. State Nor. Col, 28–30; zool, Michigan, 30–34, teaching fellow, 34–36; *head dept. biol, Winona State Teachers Col, 36–* Limnol. Soc; Micros. Soc. Plankton.

Raymond, Dr. Percy E(dward), Museum of Comparative Zoology, Cambridge, Mass. ***Invertebrate paleontology.* New Canaan, Conn, May 30, 79. A.B, Cornell, 02; Ph.D, Yale, 05; A.M, Harvard, 42. Asst. curator in charge invert. paleont, Carnegie Museum, 04–10; prof, Pittsburgh, 09–10; paleontologist, Geol. Surv. Can, 10–12; asst. prof. *paleont, Harvard,* 12–17, assoc. prof, 17–29, *prof, 29–, curator invert. paleont, museum comp. zool, 12–* Walker grand prize, Boston Soc. Nat. Hist, 28. A.A; Paleont. Soc. (past pres); Geol. Soc; Am. Acad; Boston Soc. Nat. Hist; Boston Malacol. Club (past pres); Lunds Geol. Faltklub. Faunas and stratigraphy of the Ordovician formations; anatomy and classification of the Trilobita.

Raymond, Dr. Richard C(ollyer), 6 Garden Court, Cambridge, Mass. *Physics.* Spokane, Wash, Aug. 27, 17. B.S, State Col. Wash, 38; Ph.D, California, 41. Research assoc. elec. eng, Mass. Inst. Tech, 41–42; *special research assoc, Harvard, 42–* Nuclear physics; radio.

Raymond, Prof. William J(ames), 2622 Piedmont Ave, Berkeley, Calif. *Physics.* Utica, N. Y, July 27, 65. B.S, California, 87; Hopkins, 92–93. Asst. mech, *California,* 87–89, *physics,* 89–91, instr, 91–92, 93–96, asst. prof, 96–08, assoc. prof, 08–34, prof, 34–35, *emer. prof, 35–* Electrical measurements; differential ballistic galvanometer; harmonic motion; synthesizers and analyzers; sound.

Rayner, Dr. Ernest A(dolphus), Carlsbad, Calif. *Psychology.* Chillicothe, Mo, July 15, 78. B.S, Cornell Col. (Iowa), 01, A.M, 12; Ph.D, N. Y. Univ, 15. Educ. work, P. I, 06–11; prin, Wash. Collegiate Inst, 12–13; prof. psychol. Nebr. Wesleyan, 15–19; pres, Union Col, P. I, 19–24; prof. psychol, Southern California, 25–35; psychologist, Escondido Nursery Schs, 35–37; *consulting psychologist, 37–* Director educ. surv, P. I, 23–24. Educational survey of the Philippines; Pangasinan grammar and dictionary; pyschological moments; psychology of racial adjustments; psychology of the very young child.

Rayner, Prof. W(illiam) H(orace), 715 W. Iowa St, Urbana, Ill. *Civil engineering, Education.* Ewing, Nebr, Feb. 16, 84. B.S, Illinois, 09, C.E, 13, M.S, 20. Topographer, U. S. Geol. Surv, 10–11; from instr. to *assoc. prof. civil eng, Illinois, 10–* Civil Eng; Soc. Photogrammetry; Cong. Surveying and Mapping (v. pres, region four, 41–); Ill. Soc. Eng. Elementary and advanced surveying.

Raynor, Prof. C(harles) H(azard), Roanoke College, Salem, Va. *Physics.* Sackets Harbor, N. Y, Dec. 25, 99. B.S, Hobart Col, 20; M.S, Michigan, 26. Instr. physics, Miss. Agr. and Mech. Col, 20–23; asst. prof, Va. Polytech, 23–25; instr, Michigan, 25–27; head dept. physics and math, Flint Junior Col, Mich, 27–29; *prof. physics and head dept, Roanoke Col, 29–*

Raynor, Prof. G(eorge) E(mil), Lehigh University, Bethlehem, Pa. *Mathematics.* San Francisco, Calif, Feb. 27, 95. B.S, Washington (Seattle), 18; A.M, Princeton, 20, Ph.D, 23. Instr. *math,* Princeton, 20–23; asst. prof, Wesleyan, 23–27; assoc. prof, Oklahoma, 27–31; asst. and *assoc. prof, Lehigh, 31–* Math. Soc; Math. Asn. Mathematical analysis; potential theory.

Rayton, W(ilbur) B(ramley), Bausch and Lomb Optical Co, 635 St. Paul St, Rochester, N. Y. *Optics.* Rochester, N. Y, 84. A.B, Syracuse, 05, Sc.D, 42; Sc.D, Rochester, 33. Mem. sci. staff, *Bausch and Lomb Optical Co, 08–26, director sci. bur, 26–* Mem. admin. cmt, Inst. Applied Optics, Rochester, 28– A.A; Optical Soc. (pres, 34); Motion Picture Eng; Soc. Photogrammetry; Photog. Soc. Amer; Soc. Cinematog. Performance and design of ophthalmic, photographic and projection lenses; military and laboratory optical instruments.

Rayton, Prof. Willis M(acNair), Dartmouth College, Hanover, N. H. *Physics.* Rochester, N. Y, May 17, 09. B.S, Hamilton Col, 31; M.S, Rochester, 33, Ph.D, 36. Instr. *physics,* Mass. Inst. Tech, 36–39; *Dartmouth Col,* 39–40, *asst. prof, 41–* Physical Soc. A Wilson cloud chamber determination of the ranges of uranium alpha particles.

Razek, Dr. Joseph, 430 Greenview Lane, Llanerch, Pa. *Physics.* Czechoslovakia, Aug. 15, 99. B.S, Washington (St. Louis), 21; Ph.D, Pennsylvania, 30. Instr. mech. eng, Washington (St. Louis), 21–22; Pa. State Col, 23–24; Pennsylvania, 24–26, physics, Randal Morgan lab, 26–38, asst. prof, 38–40; *consulting physicist, 40–* Asn. Physics Teachers; Franklin Inst. Vacuum tube amplifiers; photo-electric cells; spectrophotometry; color analysis; helium spectrum; development of Razek-Mulder color analyzer; industrial electronics.

Razran, Dr. Gregory S, 72–36 112th St, Forest Hills, L. I, N. Y. *Psychology.* Russia, June 4, 01. B.S, Columbia, 27, A.M, 28, Ph.D, 33. Lecturer *psychol,* Columbia, 30–38; *instr, Queens Col. (N. Y), 39–* A.A; Psychol. Asn. Conditioning; social, abnormal and theoretical psychology.

Rea, H(omer) E(arl), 814 E. 30th St, Bryan, Texas. *Agriculture.* Midlothian, Texas, Nov. 30, 01. B.S.A, Agr. and Mech. Col. Texas, 22. Plant breeder, Exp. Sta, *Agr. and Mech. Col. Texas,* 23–24, economist, farm and ranch econ, 24–25, supt. *substa. No. 5,* 25–26, *agronomist, 27–* Soc. Agron. Cotton root-rot.

Rea, Paul M(arshall), 436 E. Padre St, Santa Barbara, Calif. *Botany, Zoology.* Cotuit, Mass, Feb. 13, 78. A.B, Williams Col, 99, A.M, 01; Columbia, 99–00, 02–03. Asst. biol, Williams Col, 00–02; prof. biol. and geol, Col. of Charleston, 03–14; director, Charleston Museum, 03–20; prof. embryol. and physiol, Med. Col. State of S. C, 11–19, embryol, 19–20; director, Cleveland Museum Nat. Hist, 20–28; exec. officer, Pa. Museum Art, 28; consultant to advisory group on museum educ, Carnegie Corp. of N. Y, 30–32; director, Santa Barbara Museum Nat. Hist, Calif, 33–37; *private research, 37–* Summers, Marine Biol. Lab, Woods Hole, 98, 99, instr, 06–11; field asst, U. S. Forest Service, 02, 03. A.A; fel. Asn. Mus. (sec'y and ed, 'Proc,' 07–17, pres, 19–21); fel. Ohio Acad. (pres, 25). Anatomy and physiology of Oligochaeta; Annelida; fauna of coastal region of South Carolina; museum administration; fungi of southern California.

Rea, Philip L(ewis), State Department of Highways, Columbus, Ohio. *Engineering.* Richland, Mich, July 15, 98. A.B, Oberlin Col, 20; A.M, Marietta Col, 23, Illinois, 30. Instr. math, Marietta Col, 20–24, asst. prof, 24–31, director astron. observatory, 30–31; asst. engineer and *engineer, State Dept. Highways, Ohio,* 27–28, *33–*

Read, Dr. Bernard E, Henry Lester Medical Research Institute, Shanghai, China. *Pharmacology.* Brighton, Eng, May 17, 87. Ph.C, London, 09; Rockefeller fellow, Hopkins, 16, Yale, 17–19, Chicago, 24; M.S, Yale, 18, Ph.D, 24. Head dept. pharmacol. and chem, Peking Union Med. Col, 09–15, assoc. prof. biochem, 18–20, biochem. and pharmacol, 20–24, prof. pharmacol, 24–32; *head div. physiol. sciences, Lester Inst, 32–* Trustee, Peiping Union Med. Col. A.A; Soc. Exp. Biol; London Physiol. Soc; Physiol. Soc. China; China Med. Asn; Chem. Soc. China. Chaulmoogra; Chinese materia medica; ephedrine.

Read, Prof. Cecil B(yron), Municipal University of Wichita, Wichita, Kans. *Mathematics.* Lewis, Iowa, Jan. 11, 01. A.B, Colo. Col. 27; fellow, Princeton, 27–28, A.M, 28; M.S, Colorado, 35; Ph.D, Colo. State Col. Educ, 38. Instr. math, Princeton, 28–29; master, Taft Sch, 29–31; head dept. *math,* Genesee Wesleyan Junior Col, 31–32; asst. prof, *Wichita,* 32–39, assoc. prof, 39–40, *prof. and head dept, 40–* Math. Asn. Teaching and history of mathematics; statistics.

Read, Dr. Chester L(ouis), 519 Lenox Ave, Westfield, N. J. *Physical chemistry.* Huntington, W. Va, Jan. 21, 01. B.S, Colorado, 22, Chem.E, 27; A.M, Columbia, 28, fellow, 28–29, Ph.D, 30. Chemist, Am. Smelting and Ref. Co, Denver, Colo, 22–25, *research and develop. chemist,* Maurer, N. J, 25–30; Standard Oil Co. of N. J, 30–35; *Standard Oil Develop. Co, 35–* Chem. Soc. Recovery and refining of non-ferrous metals and their compounds; refining of lubricating oils; processing of acid sludges.

Read, Prof. Donald N(earing), 40–15 157th St, Flushing, N. Y. *Physics.* Middletown, N. Y, Sept. 14, 08. A.B, Princeton, 29, A.M, 30, Ph.D, 34. Asst, Princeton, 32; Bartol Research Foundation, 34–37; instr. *physics, sch. eng, Cooper Union,* 37–40, *asst. prof, 40–* Physical Soc. Molecular spectra; cosmic radiation.

Read, Dr. Harold J(ames), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Chemistry.* Dubuque, Iowa, Feb. 14, 11. B.S, Illinois, 34, M.S, 35; du Pont fellow, Pennsylvania, 37–38, Ph.D, 39. Chemist, Eng. Exp. Sta, Illinois, 33–35; asst. instr. chem, Pennsylvania, 35–37, instr, 38–40; *indust. fellow, Mellon Inst, 40–* Chemist, A. Kenneth Graham and Associates, 36–40. Chem. Soc; Electrochem. Soc; Soc. Metals. Metallurgy; electrodeposition; electro-organic chemistry.

Read, Dr. Harry S(tafford), 815 Embree Crescent, Westfield, N. J. *Physics.* Mankato, Minn, Sept. 11, 93. B.S, North Dakota, 15, fellow, 15–16, M.S, 16; Yale, 19–21, fellow, 21–22; Ph.D, Cornell, 24. Research, West. Elec. Co, 17–20; instr. physics, Cornell, 22–24; nat. research fellow, Chicago and Stanford, 24–25; physicist, West. Elec. Co, 25–32; S. S. White Dental Mfg. Co, 33–36; physical chemist, United Color and Pigment Co, 37–38; *physicist,* Wright Aeronaut. Corp, 39–40; *H. W. Dietert Co, 41–* Physical Soc. Vacuum tube and amplifier; alternating current bridge measurement; visual indicator for alternating current bridge unbalance; a theory for the Bumstead electroscope; x-ray absorption; spectrographic analyses and apparatus.

Read, Dr. J(ay) Marion, 1270 Monterey Blvd, San Francisco, Calif. *Internal medicine.* Helena, Mont, April 14, 89. B.S, California, 12, M.S, 13; M.D, Stanford, 15. Clin. instr. *med, sch. med, Stanford,* 20–25, asst. clin. prof, 25–27, assoc. clin. prof, 27–35, *clin. prof, 35–* Am. Med. Asn; Soc. Exp. Biol; Asn. Study Int. Secretions; Calif. Acad. Med. (sec'y, 25–30, exec. cmt, 30). Diseases of the heart and thyroid.

Read, Dr. J(ohn) W(illiam), 831 Hillside Ave, Glen Ellyn, Ill. *Biochemistry.* Mexico, Mo, Jan. 31, 85. B.S.A, Missouri, 07, fellow, M.S, 08; fellow, Minnesota, 27–29, Ph.D, 31. Prof. chem. and physics, Ill. Col, 08–11; instr. chem, Illinois, 11–14; prof. science, Colo. State Teachers Col, Gunnison, 14–16; chem, Ft. Hays Kans. State Teachers Col, 16–18; prof. agr. chem. and head dept, Arkansas, 18–27; *research and consulting chemist, W. E. Long Co, 29–* Summers, instr, Michigan, 10; Missouri, 14. Contrib. ed, 'Jour. Chem. Educ.' Properties of ideal solutions; soils; animal nutrition; vitamins; mineral requirements; foods; ultra-violet light; cereal technology; active chlorine; industrial chemistry; selective fermentation of sugars; proteases and amylases in relation to baking; dough conditioning agents; baking technology.

Read, Dr. R(oland) R, 2117 Franklin Ave, St. Louis, Mo. *Organic chemistry.* Morton, Minn, March 9, 96. B.S, North Dakota, 17; Ph.D, Yale, 22. Chemist, Bridgeport Brass Co, 18–19; asst. prof. chem, Vermont, 22–27; *research director,* Sharp and Dohme, 27–33; *Lambert Pharmacal Co, 33–* Chem. Soc. Pharmaceutical products.

Read, Dr. Thomas A(lbert), Ordnance Laboratory, Frankford Arsenal, Philadelphia, Pa. *Physics.* Montclair, N. J, Oct. 21, 13. A.B, Columbia, 34, Ph.D, 40; fellow, Westinghouse Elec. and Mfg. Co, 39–41. Asst. physicist and later *assoc. physicist, Ordnance Lab, Frankford Arsenal, 41–* Physical Soc; Soc. Metals; Min. and Metal. Eng. Elastic and plastic properties of metals; internal friction.

Read, Prof. Thomas T(hornton), Columbia University, New York, N. Y. *Mining.* Monmouth Co, N. J, Feb. 10, 80. E.M, Columbia, 02, fellow, 04–05, Ph.D, 06. Assoc. prof. mining, Wyoming, 02–04; asst. miner, Columbia, 05–06; prof. mining and metal, Colo. Col, 06–07; metal, Pei Yang Univ, Tientsin, China, 07–10; assoc. ed, 'Mining and Sci. Press,' 01–15; chief service div, N. J. Zinc Co, 15–19; educ. information, U. S. Bur. Mines, 19–24, safety service director, 24–26; asst. sec'y, Am. Inst. Mining and Metal. Eng, 26–29; *Vinton prof. mining eng, Columbia, 29–; consultant educ. and allocation of engineers, office director operations, War Manpower Cmn, 42–* A.A; Min. and Metal. Eng. (chairman, mineral indust. div, 34–); Acad. Polit. and Social Sci. Amalgamation of gold ores; platinum in ores; copper ores and smelting; the phase rule applied to igneous magmas; mineral resources and production of the Chinese Empire; beneficiation of iron ores; economics of the mineral industry; ores and industry of South America; development of mineral industry education.

Read, Prof. William F(ranklin), 308 E. Franklin St, Appleton, Wis. *Geology, Paleontology.* Chicago, Ill, Oct. 18, 15. A.B, Harvard, 36; Ph.D, Chicago, 42. *Asst. prof. geol,* West Texas State Teachers Col, 40–41; *Lawrence Col, 41–* A.A; Paleont. Soc; Soc. Vertebrate Paleont. Environment of deposition of sediments in the West Texas Permian Basin.

Read, Dean W(illiam) T(hornton), Rutgers University, New Brunswick, N. J. *Chemistry.* College Station, Texas, March 8, 86. A.B, Austin Col, 05, A.M, 08; A.M, Texas, 15; Ph.D, Yale, 21. Instr. chem, Texas, 14–15; asst. Harvard, 15–16; chemist, bur. econ. geol, Texas, 16–18; instr. chem, Yale, 19–24, asst. prof, 24–25; prof, Texas Tech. Col, 25–30; *dean sch. chem, Rutgers, 30–* Advisory cmt. and director students' course, Nat. Expos. Chem. Indust, 23–41. Lieut, C.W.S, 18– Chem. Soc. (councilor, N. J. sect, 31–34; chairman, 35); Chem. Eng; fel. Inst. Chem. (v. pres, 40–42). Organic and industrial chemistry; semicarbazide; hydrazine; hydantoin derivatives; composition, use and treatment of boiler feed waters.

Reade, Dr. Maxwell, Purdue University, Lafayette, Ind. *Mathematics.* Philadelphia, Pa, April 11, 16. A.B, Brooklyn Col, 36; Edward Russell scholar, Harvard, 36–37, A.M, 37; fellow, Rice Inst, 37–40, Ph.D, 40. *Instr. math,* Ohio State, 40–42; *Purdue, 42–* Math. Soc; Math. Asn. Subharmonic functions; potential theory.

Readio, Prof. Philip A(dna), 604 Mitchell St, Ithaca, N. Y. *Entomology.* Northampton, Mass, Dec. 18, 97. B.S, Mass. Col, 20; M.S, Kansas, 22, Ph.D, 26. Instr. entom, Kansas, 20–23, asst. prof, 23–28, nat. research fellow, 28–29; assoc. prof, 29–34; asst. prof. *econ. entom, Cornell,* 34–35, *prof, 36–* A.A; Entom. Soc; Asn. Econ. Entom. Economic entomology; biology of terrestrial Hemiptera; taxonomy and biology of Reduviidae.

Reagan, Prof. Charles A(rthur), 703 Everett Ave, Wichita, Kans. *Mathematics.* Mauckport, Ind, Dec. 22, 80. B.S, Moores Hill Col, 16; A.M, Kansas, 26. Prof. *math,* Hanover Col, 19–23; asst. instr, Kansas, 24–26; *prof, Friends, 26–* Math. Asn.

Reamer, Dr. Jeannette C(hase), Board of Education, Sixth and Rockwell Aves, Cleveland, Ohio. *Psychology.* Columbus, Ohio, July 6, 92. A.B, Ohio State, 13, A.M, 16, Ph.D, 20. *Psychologist, Board Educ, Cleveland, 21–* Psychol. Asn; Cleveland Research Soc. Psychological tests for the deaf.

Reamer, Ronald, Taylor Instrument Companies, Rochester, N. Y. *Chemical engineering.* Toledo, Iowa, Nov. 1, 95. B.S, Allegheny Col, 20; M.S, Ga. Tech, 30. Chemist, Gulf Ref. Co, Texas, 22–23; petrol. chemist, De Laval Separator Co, N. Y, 24–25, research chem. engineer, 28–35; instr. chem, Ga. Tech, 25–28; *sales engineer, Taylor Instrument Companies, 36–* Chem. Soc. Automobile crankcase oil; turbine lubricating oil; acid treatment of petroleum; automatic control.

Reames, Prof. Eleanor Elmire, Tulane University, New Orleans, La. *Physics, Biology.* New Orleans, La, Feb. 18, 83. A.B, Tulane, 05, A.M, 07, Ph.D, 13; Chicago, 14, 15. Instr. *physics, Newcomb Col, Tulane,* 09–27, *asst. prof,* 27– A.A; New Orleans Acad. Fresh-water algae of the southern states.

Reardon, Dr. Anna Joyce, Woman's College, University of North Carolina, Greensboro, N. C. *Physics.* East St. Louis, Ill, Jan. 22, 10. A.B, Col. of St. Teresa, 30; M.S, St. Louis, 33, Ph.D, 37. *Instr,* high sch, Minn, 30–31; Mo, 32–35; physics and math, Ursuline Col. (La), 36–37; Mt. St. Scholastica Col, 37–39; Col. of St. Teresa, 39–40; Loretto Heights Col, 40–41; *physics, Woman's Col, North Carolina, 41–* Summer, instr, Hunter Col, 41. Physical Soc; Kans. Acad. Theoretical photography.

Reavely, Prof. G(eorge) H(arold), 239 Hale St, London, Ont, Can. *Geology.* Montreal, Que, Jan. 23, 01. B.A, Western Ontario, 25, M.A, 28; D.I.C, Royal Sch. Mines, London, Eng, 36. From instr. to *head dept. geol. and geog, Western Ontario, 28–* Origin of the Roman Deeps gold of South Wales; petrographic aspects of the Dresden meteorite; petrology; petrography.

Reaves, Dean S(amuel) W(atson), University of Oklahoma, Norman, Okla. *Mathematics.* Marion, S. C, July 27, 75. B.S, North Carolina, 99; A.B, Cornell, 00, 00–01; A.M, Chicago, 12, Ph.D, 15. Teacher, S. C, 95–98; Mich. Mil. Acad, 01; asst. prof. *math,* Clemson Col, 01–05; *prof, Oklahoma, 05–,* dean *col. arts and sciences,* 23–40, *emer. dean, 40–* Math. Soc; Math. Asn; Okla. Acad. (pres, 12). Differential geometry; metrical properties of flecnodes on ruled surfaces.

Reber, Prof. L(ouis) A(lexander), 1742 N. Wilton St, Philadelphia, Pa. *Physical chemistry.* Philadelphia, Pa, Oct. 5, 10. Ph.G, Phila. Col. Pharmacy, 30, Ph.C, 31, B.S, 34, M.S, 36; Ph.D, Pennsylvania, 41. Asst. instr. *chem, Phila. Col. Pharmacy and Science,* 31–35, instr, 35–41, *asst. prof, 41–* Chem. Soc. Effect of salts on the mutual solubility of normal butyl alcohol and water; formulation and analysis of pharmaceutical and medicinal products.

Rebrassier, Prof. Russell Edmund, Ohio State University, Columbus, Ohio. *Veterinary medicine.* Louisville, Ohio, July 27, 90. D.V.M, Ohio State, 14, M.S, 25. Veterinariæn, Ohio Agr. Cmn, 14–15; Lederle Antitoxin Labs, 15–16; from instr. to *prof. vet. parasitol, col. vet. med, Ohio State, 16–, chairman dept.* Coccidiosis in chickens; tapeworms in chickens; fowl leucosis; nodular worms in sheep; anthelmintics.

Rechard, Prof. Ottis H(oward), 601 S. 13th St, Laramie, Wyo. *Mathematics.* York, Pa, Jan. 7, 96. A.B, Gettysburg Col, 16, A.M, 18; Ph.D, Wisconsin, 30. Instr. *math,* Gettysburg Col, 16–18; high sch, Pa, 19; Wisconsin, 19–23; asst. prof, *Wyoming,* 23–25, assoc. prof, 25–28, *prof, 28–, head dept, 26–, war projects administrator, 43–* Lecturer, Wisconsin, 29–30. 2nd lieut, C.A.C, 18; field director, Am. Red Cross, 19. A.A; Math. Soc; Math. Asn. (governor, 41–). Multiplicative axiom; elementary solution of the quadratic matric equation; theory of ordinary linear differential equations; solution of linear systems of matrix equations.

Recknagel, Prof. A(rthur) B(ernard), 107 Cayuga Heights Road, Ithaca, N. Y. *Forestry.* Brooklyn, N. Y, Dec. 15, 83. A.B, Yale, 04, M.F, 06; Forstakademie, Eberswalde, Germany, 11. U. S. Forest Service, 06–13; *prof. forestry, Cornell, 13–* Exchange prof, California, 29; British Columbia, 38. Forester and sec'y, Empire State Forest Products Asn, 17. Board editors, 'Jour. Forestry,' 13–27; 'Forstliche Rundschau,' 28– Joint cmt, Nat. Forest Conservation Conf, 34–37. Soc. Foresters. Forest management and utilization.

Record, Dr. P(aul) R(iddle), 31 Fairview Place, Decatur, Ill. *Animal nutrition.* Kasota, Minn, Jan. 8, 99. B.S, Pa. State Col, 21; M.S, Kentucky, 29; Ph.D, Iowa State Col, 41. Asst. animal husbandry, Ohio Exp. Sta, 29–42; *director animal nutrition, A. E. Staley Mfg. Co, 42–* Chem. Soc; Poultry Sci. Asn; Soc. Animal Production.

Record, Dean Samuel J(ames), 205 Prospect St, New Haven, Conn. *Forestry.* Crawfordsville, Ind, March 10, 81. A.B, Wabash Col, 03, A.M, 06, hon. Sc.D, 30; M.F, Yale, 05. Forest asst, U. S. Forest Service, 04–07; forest supervisor, 07–10; instr. forestry, *Yale,* 10–11, asst. prof. forest products, 11–17, prof, 17–39, *dean sch. forestry, 39–* Research assoc, Field Museum Nat. Hist. Ed, 'Trop. Woods.' A.A; fel. Soc. Foresters; Int. Asn. Wood Anat. Structure and identification of woods; tropical woods.

Records, Prof. Edward, University of Nevada, Reno, Nev. *Veterinary science.* Los Angeles, Calif, March 15, 86. D.V.M, Pennsylvania, 09. Lab. asst, Pa. Live Stock Sanit. Asn, 10–11;

bacteriologist, H. K. Mulford Co, 11–14; *veterinarian, Exp. Sta, Nevada, 14–, head dept. vet. science, univ, 18–, research prof, 22–; director, State Vet. Control Service, Nev, 18–* A.A; Vet. Med. Asn; Soc. Bact; U. S. Live Stock Sanit. Asn. (pres, 35). Infectious diseases of animals; poisonous range-plants.

Rector, Thomas M(arion), Washington Valley Road, Morristown, N. J. *Chemistry.* Warrenton, Va, Feb. 26, 94. Asst. and asst. chemist, Inst. Indust. Research, 11–15; chief chemist, Pompeian Olive Oil Co, Baltimore, 15–17; director dept. chem, Pease Labs, New York, 20–22; chief chemist, Franklin Baker Co, Hoboken, N. J, 22–27; chem. engineer, *Gen. Foods Corp,* 27–32, director eng. research, 32–39, *manager* cent. labs, 39–43, *research and develop. dept, 43–* Lieut, C.W.S, 17–19. Chem. Soc; Inst. Food Tech; Franklin Inst. General food preservation and processing.

Redd, Dr. John C(oleman), Mead Corp, Chillicothe, Ohio. *Chemistry.* Morenci, Ariz, May 24, 15. B.S, Arizona, 37, M.S, 38; Ph.D, Lawrence Col, 42. *Develop. engineer, Mead Corp.* Chem. Soc. Hemicelluloses of hardwoods; alumina in the rosin-size system; cellulose and paper; paper coatings development.

Reddick, Prof. Donald, New York State College of Agriculture, Ithaca, N. Y. *[3]*Plant pathology.* Sheridan, Mo, March 1, 83. A.B, Wabash Col, 05; Ph.D, Cornell, 09. Asst. bot, Wabash Col, 03–05; mycol, *Cornell,* 05–07, instr. *plant path, N. Y. State Col. Agr,* 07–09, asst. prof, 09–11, *prof, 11–* Business manager, 'Phytopathology,' 11–14, ed, 15–18; chairman board control, 'Bot. Abstracts,' 18–20, business manager, 22–24. Sec'y for path, Int. Bot. Cong, 26. A.A. (councilor, 26–32); Soc. Nat; Phytopath. Soc. (councilor, 19, pres, 20); Bot. Soc; Can. Phytopath. Soc; Soc. linn. de Lyon; cor. mem. Nederlandsche Bot. Vereen; Int. Union Biol. Sci. (v. pres, bot. sect, 35–). General pathology.

Reddick, Harry E(rnest), 730 Grizzly Peak Blvd, Berkeley, Calif. *Civil engineering.* Abilene, Kans, Aug. 25, 92. B.S, Southern California, 15. Res. engineer, Ventura County Highway Cmn, 15–17; res. engineer and supt. construction, Thermal Belt Water Co, 17–18; consulting civil and agr. engineer, 18–33; *regional conservator, soil conservation service, U. S. Dept. Agr, 34–* Assoc. Civil Eng; Soc. Agr. Eng. (pres, Pacific Coast sect, 41). Flood control; river bank protection; soil conservation by means of bench terraces.

Reddick, Prof. H(arry) W(ilfred), Cooper Union Institute of Technology, New York, N. Y. *Mathematics.* Raysville, Ind, Feb. 6, 83. A.B, Indiana, 04; Chicago, 05; fellow, Illinois, 05–06, A.M, 06; Ph.D, Columbia, 10. Instr, schs, Ind. and Ill, 04–06; asst. *math,* Columbia, 07–09, tutor, 09–10, instr, 10–15; *prof. and head dept, Cooper Union, 15–; director, Brooklyn Defense Training Inst, 41–* Director reading, Col. Ent. Exam. Board, 30–33. Director computations on bomb-dropping experiments, Langley Field, 18. Eng. Educ; Math. Soc; Math. Asn. Differential equations; differential geometry.

Redding, C(harles) S(ummerfield), Leeds and Northrup Co, 4901 Stenton Ave, Philadelphia 44, Pa. *Engineering.* Philadelphia, Pa, Nov. 20, 83. B.S, E.E, Pennsylvania, 06. Instr. mech. eng, Pennsylvania, 06–08; *Leeds and Northrup Co, 09–,* v. pres, 18–39, *pres, 39–* A.A; Physical Soc; Elec. Eng; Franklin Inst. (pres, 41–). Instrument manufacture; electrical measuring instruments, pyrometers and electrical furnaces.

Reddish, Dr. G(eorge) F(ults), Lambert Pharmacal Co, St. Louis, Mo. *Bacteriology.* Somerset, Ky, June 30, 94. B.S, Kentucky, 19; Ph.D, Yale, 22. Asst. bacter, Yale, 19–22; assoc. prof, Med. Col. of Va, 22–24; assoc. bacteriologist, bur. chem, U. S. Dept. Agr, 24–27; bacteriologist in charge dept, Hynson, Westcott and Dunning, 27; senior bacteriologist, food and drug admin, U. S. Dept. Agr, 27–29; *chief bacteriologist, Lambert Pharmacal Co, 29–* A.A; Soc. Bact; Pub. Health Asn. Anaerobes; culture media; microbic flora of cream and butter; botulism; yeast; disinfectants; antiseptics.

Redditt, Bruce H(ampton), Barksdale Field, La. *Mathematics.* Caldwell Parish, La, Oct. 16, 90. A.B, Randolph-Macon Col, 10; A.M, Hopkins, 23. Instr, Randolph-Macon Acad, 11–13; prin, high sch, La, 14–16; instr. French, Washington and Lee, 16–17; math, Baltimore Polytech. Inst, 17–19; prof, Lebanon Valley Col, 23–26; asst. prof, Kenyon Col, 26–31; prof, Ouachita Junior Col, 31–34, Northeast Center, Louisiana, 34–38; research, 38–40; *civilian instr, Barksdale Field, 40–* Elliptic functions; theory of finite groups.

Reddy, Dr. Cha(rle)s S(teven), Iowa State College, Ames, Iowa. *Plant pathology.* Platteville, Wis, Nov. 19, 87. B.S, Wisconsin, 15, M.S, 16, Ph.D, 23. Teacher and prin, high sch, 07–13; asst. plant path, Wisconsin, 15–16; plant pathologist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 16–27; asst. chief bot. and plant path. sect, *exp. sta, Iowa State Col,* 27–32, *research assoc. prof. bot. and plant path, 32–* A.A; Phytopath. Soc; Bot. Soc. Wash. Diseases of barley, wheat, rye and corn; bacterial diseases of plants.

Redeker, Commander Harry Erwin, 94 College Ave, Annapolis, Md. *Physical chemistry.* Butler, Ind, Nov. 8, 89. B.S, Idaho, 12; Chicago, 14; A.M, Stanford, 28, Ph.D, 32. Instr, Telluride Sch, Beaver, Utah, 12–13; instr. and prin, high sch, Idaho, 13–28; research chemist, Fed. Telegraph Co, Calif, 28–31; instr. physics, chem. and radio, San Mateo Junior Col, 31–39; *commander, U. S. Naval Res, 39–;* instr. chem, dept. elec. eng, *U. S. Naval Acad,* 39–43, *head chem. cmt, 43–* Chem. Soc. Photochemistry; quantitative spectrographic analysis; role of hydrogen in the oscillating arc; possible use of the Poulson arc as a means of detecting traces of impurities in metals; oscillation generator process and apparatus; hydrides of metals.

Redemann, Dr. C. Ernst, 8306 Melrose, Los Angeles, Calif. *Organic chemistry.* Magdalena, N. Mex, June 19, 08. A.B, California at Los Angeles, 31; Ph.D, Calif. Inst. Tech, 40. Assoc. chem, California at Los Angeles, 31–39; asst, Calif. Inst. Tech, 39–40; *research chemist, Gordon A. Alles Labs, 40–* A.A; Chem. Soc. Synthetic and analytical organic chemistry; synthesis of amino acids; structure of cyameluric acid and related compounds; biogenic amines; sympathomimetic amines; barbiturates; antiseptics.

Reder, Prof. Ruth (Elizabeth) (Mrs. St. Julian), 125 S. Knoblock St, Stillwater, Okla. *Biochemistry.* Logansport, Ind, Dec. 31, 98. A.B, Oberlin Col, 20; A.M, Illinois, 27, fellow, 27–29, Ph.D, 29. *Assoc. prof. biochem, agr. chem. research dept, Okla. Agr. and Mech. Col, 29–* Metabolism of amino-acids; effects of vitamin deficiency upon the coefficients of digestibility of proteins, fats and carbohydrates; measurements of vitamins B and G; toxicity of gossypol; effect of light upon the synthesis of vitamins.

Redewill, Dr. F(rancis) H(amilton), 521 Flood Bldg, San Francisco, Calif. *Urology.* San Francisco, Calif. B.S, California, 02, hon. A.M, 26; M.D, Hopkins, 06. Asst. urol, med. sch, California, and research worker, Hooper Foundation, 26–29; *urologist, St. Joseph Hosp, 29–, lecturer anat. and med, 30–* Am. Med. Asn; Soc. Parasitol; Calif. Acad. Anatomy; physiology; internal medicine; surgery.

Redfern, Ellsworth Lovejoy, 1706 York St, Des Moines, Iowa. *Chemistry.* Red Oak, Iowa, April 7, 75. B.S, Nebraska, 04. State chemist, Nebraska, 04–15; Iowa, 15–37; *chemist, Vy Lactos Lab, 37–* Chem. Soc. Analytical chemistry.

Redfern, Dr. Sutton, The Fleischmann Laboratories, 810 Grand Concourse, Bronx, N. Y. *Chemistry.* Seattle, Wash, April 18, 12. B.S, Washington (Seattle), 33; Fleischmann fellow, Hopkins, 33–36, Ph.D, 36. *Fleischmann labs, Standard Brands, Inc, 36–* Chem. Soc; Asn. Cereal Chem. Physical chemistry; enzymes; starch chemistry; malt; nucleic acid and derivatives.

Redfield, Prof. Alfred C(larence), 21 Berkeley St, Cambridge, Mass. *[5]*Zoology, Physiology.* Philadelphia, Pa, Nov. 15, 90. B.S, Harvard, 14, Ph.D, 17. Instr. *physiol,* Harvard, 18–19; asst. prof, Toronto, 19–20; *Harvard,* 21–30, assoc. prof, 30–31, *prof, 31–,* director biol. lab, 34–35. Senior biologist, Oceanog. Inst, Woods Hole, 31–36, research assoc, 36–; visiting lecturer, Cmn. Relief Belgium Educ. Foundation, 31. Summer, acting assoc. prof, Stanford, 30. Managing ed, 'Biol. Bul,' 30–41, mem. ed. board, 'Jour. Comp. and Cellular Physiol.' Trustee, Marine Biol. Lab, Woods Hole; Bermuda Biol. Sta; Elizabeth Thompson Science Fund; New Eng. Museum Nat. Hist. A.A; Physiol. Soc. (sec'y, 29); Soc. Zool; Am. Acad; Boston Soc. Nat. Hist. Chromatophores; physiological action of radiations from radium and of ultra-violet light; respiratory function of blood; muscular contraction; marine ecology.

Redfield, Dr. Harry W(estfall), 400 Seminole St, Clearwater, Fla. *Chemistry, Bacteriology.* Brooklyn, N. Y, Feb. 21, 78. B.S, Cornell, 00, Ph.D, 12. Chemist and supt, Davis and Quick, 00–06; asst. chem, Cornell, 06–07, instr. sanit. chem, 07–15; bacteriologist, State Food Dept, Ill, 15–16; in charge in-

spection microbiol, bur. chem, U. S. Dept. Agr, 16–19, chief, N. Y. Sta, 19–26; *consulting food technologist, 26–* Chem. Soc; Soc. Bact; Pub. Health Asn; Int. Asn. Milk and Dairy Inspectors (3rd v. pres). Culture media for examination of water; production of hydrogen sulfid by bacteria in water; decomposition in frozen and liquid eggs; phenol sulfonic acid method for determining nitrates in water; cream and butter; remade milk and cream; decomposition in dried eggs.

Redfield, Dr. Helen, California Institute of Technology, Pasadena, Calif. *Genetics.* Archbold, Ohio, May 5, 00. A.B, Rice Inst, 20; Ph.D, California, 24. Teaching fellow zool, California, 20–24; nat. research fellow, Columbia, 25–28; *William G. Kerckhoff labs, Calif. Inst. Tech.* Maternal inheritance and triploid crossing over in Drosophila melanogaster.

Redfield, Dr. Janet E(sther), University of Colorado, Boulder, Colo. *Child development.* Davenport, Iowa, Nov. 11, 13. A.B, Iowa, 34, A.M, 36, Ph.D, 38. Research assoc. educational psychol, Illinois, 38–39; instr. psychol, Lawrence Col, 39–40; *research assoc. anthrop. and biometry, child research council, sch. med, Colorado, 40–* Soc. Research Child Develop. Child psychology; physical growth.

Redfield, Prof. Robert, University of Chicago, Chicago, Ill. *Anthropology.* Chicago, Ill, Dec. 4, 97. Ph.B, Chicago, 20, J.D, 21, Social Science Research Council fellow, 26–27, Ph.D, 28. Instr. sociol. and anthrop, Colorado, 25–26; *anthrop, Chicago,* 27–28, asst. prof, 28–30, assoc. prof, 30–34, *prof, 34–, dean div. social sciences, 34–* Research assoc. in charge ethnol. field work in Yucatan and Guatemala, Carnegie Institution, 30– A.A; Anthrop. Asn; Sociol. Research Asn; Am. Acad. Polit. and Social Sci; Folk-Lore Soc. Mexican ethnology and sociology.

Redlich, Dr. Otto, State College of Washington, Pullman, Wash. *Physical chemistry.* Vienna, Austria, Nov. 4, 96. Ph.D, Vienna, 22. Indust. research, Copper and Tin Smelter, Vienna, 22–24; from asst. to prof, Tech. Univ, Vienna, 25–38; *research assoc. chem, State Col. Wash, 39–* Cooperating expert, sect. activity coefficients, Landolt-Boernstein, Physikalisch-chemische Tabellen, 31, 36. Collaborator, Tables Annuelles, 26–37. Haitinger prize, Acad. Sciences, Vienna, 31. Chem. Soc; Chemisch-physikalische Gesell, Vienna (treas, 31–38). Vibrations of isotopic molecules; Raman spectra; anharmonicity; thermodynamics of electrolytes; deuterium compounds; azeotropic solutions; ionization constants of strong acids; hydration of cement; alumina from clay.

Redman, Prof. Kenneth, State College Station, Fargo, N. Dak. *Pharmacognosy.* Melbourne, Wash. July 20, 06. Ph.C, Washington (Seattle), 29, B.S, 30; Ph.D, Wisconsin, 41. Instr. pharmacy, N. Dak. Agr. Col, 30–38, pharmacognosy, 38–39; asst. prof. pharmacy, Toledo, 41–42; *prof. mat. med, N. Dak. Col, 42–* Asst, Wisconsin, 41. Pharmaceut. Asn. Pharmacognostical study of the leaf buds of Populus Trichocarpa Torrey and Gray and related species.

Redman, Dr. Lawrence V, Box 530, Burlington, Ont, Can. *[4]*Chemistry.* Oil Springs, Ont, Sept. 1, 80. B.A, Toronto, 08, fellow, 08–10, D.Sc, 31; LL.D, Western Ontario, 30. Instr, Toronto, 08–09; indust. fellow and asst. prof, Kansas, 10–13; pres, Redmanol Chem. Products Co, 14–41; v. pres. and director research and develop, Bakelite Corp, 22–41; *retired.* Grasselli medal, Soc. Chem. Indust, 31. A.A; Chem. Soc. (pres, 32, chairman, Chicago sect, 18–20, N. J. sect, 30); Inst. Chem; Soc. Chem. Indust. (chairman, Am. sect, 26); Chem. Eng; Directors Indust. Research; Chicago Chemists Club; Chemists' Club (v. pres, 25, pres, 29–31). Phenol condensation products.

Redmon, Dr. B(ryan) C(ollins), American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Chemistry.* North Middletown, Ky, Sept. 4, 09. B.S, Kentucky, 30; Ph.D, Mass. State Col, 34. Asst. chem, Mass. State Col, 30, lab. asst, 30–34, 35–36, instr, 36–37; research chemist, Am. Cyanamid and Chem. Corp, Bridgeville, Pa, 37–38, *research org. chemist, Am. Cyanamid Co, 38–* Fellow, Inst. Int. Educ, Berlin, 34–35, Frankfurt, 35. Chem. Soc; fel. Inst. Chem. Inorganic and organic chemistry; mechanism of permanganate-oxalate reaction; effect of cranberries on blood and urinary acidity; process development for heavy organic chemicals; large scale manufacture of organic cyanides and derivatives of them.

Redmond, Prof. W(illiam) B(rinson), Emory University, Ga. *Parasitology.* Marshall Co, Tenn, Feb. 8, 01. A.B, Emory, 27, M.S, 28; Ph.D, Chicago, 37. Instr. *biol, Emory,* 28–37, *asst. prof, 37–* Asst, Chicago, 35–36. A.A; Soc. Parasitol; Soc. Trop. Med. Immunity in malaria.

Reece, Dr. Philip C(ulloden), 1451 Highland Road, Winter Park, Fla. *Plant anatomy, Morphology.* Billings, Mont, July 29, 03. B.S, Rollins Col, 28; A.M, Columbia, 31; Ph.D, Cornell, 38. Asst. bot, Cornell, 32–37; *mem. staff subtrop. fruit production investigation, bur. plant indust, U. S. Dept. Agr, 38–* A.A; Bot. Soc; Fla. State Hort. Soc. Morphology of the flowers and inflorescences of the Fagaceae; floral anatomy of the avocado; flowering of pineapples; differentiation of blossom-buds of avocados, mangoes and other subtropical fruits.

Reece, Dr. Ralph P(arlette), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Physiology.* Crawford Co, Ohio, March 10, 09. B.S, Ohio State, 29; M.S, Connecticut, 32; Ph.D, Missouri, 37. Asst. *dairy husbandry,* Connecticut, 29–32; *asst,* Missouri, 34–37; *N. J. Exp. Sta, 37–; asst. prof, col. agr, Rutgers, 38–* A.A; Asn. Anat; Soc. Animal Production; Soc. Exp. Biol; Soc. Study Int. Secretions; Dairy Sci. Asn. Physiology of reproduction with special emphasis upon the endocrine control of the mammary gland; factors influencing the lactogen content of the anterior pituitary gland.

Reece, Pres. Richard Herb, New Mexico School of Mines, Socorro, N. Mex. *Mathematics, Physics.* B.S, Kans. State Col, 06; A.M, Colorado, 21; Southern California, 27. Telephone engineer, West. Elec. Co, Chicago, 06–08; prin, high sch, Mich, 08–10; instr. math, Mich. State Col, 10–17; *prof. math. and physics, N. Mex. Sch. Mines, 17–,* dean men, 30–38, asst. to pres, 38–42, acting pres, 42, *pres, 42–* Math. Asn. Education for engineering students.

Reed, Dr. Adrian F(aragher), Tulane University School of Medicine, New Orleans, La. *Anatomy.* Terre Haute, Ind, Dec. 22, 07. A.B, DePauw, 28; A.M, Cornell, 31, Ph.D, 33; M.D, Tulane, 43. Asst. neuroanat. and gross anat, med. col, Cornell, 29–30, instr, 30–33; *gross anat, sch. med, Tulane,* 33–39, asst. prof, 39–43, *assoc. prof, 43–* A.A. Nuclear masses in cervical spinal cord in macaca mulatta; anatomy of the epidural space; anatomy of the inferior laryngeal nerve.

Reed, Prof. Alfred C(ummings), 350 Post St, San Francisco 8, Calif. *Medicine.* Pleasant Hill, Mo, Dec. 2, 84. A.B, Pomona Col, 06, hon. Sc.D, 35; M.D, Bellevue Med. Col, 10; Dipl. Trop. Med. and Hygiene, London Sch. Hygiene and Trop. Med, 28. Assoc. clin. prof. med, sch. med, Stanford, 16–28; prof. trop. med, California, 28–42; *assoc. clin. prof. med, Stanford, 42–* Consultant, Chinese, Children's, Mt. Zion and San Francisco Hosps; consultant, Veterans Diagnostic Center; Franklin Hosp; mem. advisory council, U. S. Pub. Health Service. Ed, 'Calif. State Jour. Med,' 17–21. Chief med. service, U. S. Naval Hosp, Mare Island, 18–19. A.A; Am. Med. Asn; Soc. Trop. Med. (councilor, 32–, pres, 38); Acad. Trop. Med. (councilor); Royal Soc. Trop. Med; Far East. Asn. Trop. Med. Internal medicine; tropical medicine; medical ethnography.

Reed, Mrs. Bessie P(rice), 1853 W. Polk St, Chicago, Ill. *Ornithology.* Petersburg, Ill. A.B, Kansas, 19, A.M, 24; Illinois. Asst. ornith, Illinois, 10–11; instr. zool, Kansas, 17–20. A.A. Bird migration; habits of the great horned owl; green heron colony; food habits of birds; nestling weights; banding; agricultural economic value of birds; nesting habits.

Reed, Prof. Burleigh, Washburn Municipal University, Topeka, Kans. *Chemistry.* Near Algona, Iowa, Jan. 18, 85. B.S, Cornell Col. (Iowa), 09, A.M, 19; Iowa, 09–10. *Prof. chem, Washburn Munic. Univ, 20–* A.A; Chem. Soc; fel. Inst. Chem. Analytical chemistry.

Reed, Prof. C(arlos) I(saac), University of Illinois College of Medicine, Chicago, Ill. *Physiology.* Batesville, Ohio, Oct. 7, 87. A.B, Ohio State, 15; A.M, Kansas, 23; Ph.D, Chicago, 25. Asst. physiol, Ohio State, 12–15, instr, 15-18; sci. asst, U. S. Pub. Health Service, 19; asst. prof. and assoc. prof. physiol. and hygiene, Kansas, 19–24; nat. research fellow *physiol,* Chicago, 24–25; assoc. prof, col. med, Baylor, 25–28; asst. prof, *col. med, Illinois,* 28–35, assoc. prof, 35–40, *prof, 40–* Summers, asst, Chicago, 15, 28. A.A.A.S. grant, 26; Phi Rho Sigma grant, 26, 29, 30; Am. Acad. Sci. grant, 30; Mead, Johnson and Co. grant, 30, 33, 34, 35; Wisconsin Foundation grant, 34; Nutrition Research Lab. grant, 36–42. Pharmacologist, C.W.S, 18. A.A; Physiol. Soc; Soc. Exp. Biol. Placodal ganglia of Squalus acanthias; pharmacology of war gases; effect of adrenalin on the frog heart; photophysiology; heparin; bilateral vagotomy; thyroid and parathyroid; digestive mechanism of Raptores; anaphylaxis; physiological action of vitamin D; mineral metabolism in relation to age and growth; x-ray diffraction study on bone metabolism.

Reed, Charles D(ana), Weather Bureau Office, Des Moines, Iowa. *Climatology.* Carroll Co, Iowa, Feb. 27, 75. B.Agr, Iowa State Col, 94, M.S.A, 96. Asst. in charge farm, Iowa State Col, 95–96, in charge field experiments, Exp. Sta, 97; farmer, 98–99; *observer,* Vicksburg, Miss, *U. S. Weather Bur,* 99–00, Columbus, 00, Omaha, 00–05, Sioux City, 05–10, New York, 10–16, *Des Moines, 17–,* all grades to *senior meteorologist.* Lecturer. Nat. Crop Reporting Board, Washington, D. C. Cmt. on U. S. Weather Bur, Science Advisory Board. A.A; Meteorol. Soc. (councilor); fel. Iowa Acad. Floods; weather forecasting; weather and crops; trend of precipitation; drought; excessive precipitation; forecasting by correlation; long range forecasting.

Reed, Dr. Charles E(li), General Electric Co, Schenectady, N. Y. *Chemistry.* Findlay, Ohio, Aug. 11, 13. B.S, Case, 34; Sc.D, Mass. Inst. Tech, 37. Asst. prof. chem. eng, Mass. Inst. Tech, 38–42; *chem. engineer, research lab, Gen. Elec. Co, 42–* Chem. Soc; Chem. Eng. Colloid chemistry; chemical engineering; industrial chemistry; industrial chemistry of high polymers; applied mathematics in chemical engineering.

Reed, C(larence) A(rthur), U. S. Department of Agriculture, Washington, D. C. *Horticulture.* Howell, Mich, Jan. 23, 80. B.S, Mich. State Col, 05, M.H, 13. Asst. hort, Maryland, 06–07; West Virginia, 07; *specialist in nut investigations, bur. plant indust, U. S. Dept. Agr, 07–* A.A; hon. mem. Nat. Pecan Asn; North. Nut Growers Asn; Pomol. Soc; Genetic Asn; Bot. Soc. Wash. Nut culture.

Reed, Clyde T(heodore), Box 51, Gregory, Texas. *Biology.* Neosho, Mo, Sept. 12, 91. A.B, Campbell Col, 14; M.S, Washington Col. (Md), 18; M.S, Cornell, 37. Instr. science and math, Graceland Col, 14–16; asst. prof. chem. and biol, Parsons Col, 16–18; instr. science, Washington Col. (Md), 18; head biol. dept, Muhlenberg Col, 19; asst. prof. physics and instr. miner, Robert Col, Istanbul, 19–21; head dept. science and prof. chem, Texas Col. for Women, 21–25; head dept. biol, Texas Col. Arts and Indust, 25–37; prof. biol, dean and director summer sch, Corpus Christi Junior Col, 37–38; *biol. consultant, 38–* Summer, instr, N. Texas State Teachers Col, Denton, 24. A.A; fel. Texas Acad. (pres, 27, 28); Texas Soc. Mental Hygiene (director); Texas Human Betterment Foundation (sec'y). Coastal and marine biology; marine biology of Texas; science, religion and modern life; marine biological laboratories of America; marine life of Texas waters.

Reed, Prof. E(dward) L(ooman), Texas Technological College, Lubbock, Texas. *Botany.* Chetopa, Kans, Nov. 28, 73. A.B, Okla. State Baptist Col, 12; M.S, Chicago, 22, Ph.D, 24. Asst. prof. chem. and physics, Okla. State Nor. Col, Edmond, 08–10, assoc. prof. biol. and chem, 10–11; prof. science, Okla. State Baptist Col, 11–13; instr. b'ol, Agr. and Mech. Col. Texas, 13–17; prof, John Tarleton, 17–26; assoc. prof, *Texas Tech. Col,* 26–29, *prof. bot, 29–* A.A; Bot. Soc; Soc. Plant Taxon; Ecol. Soc; Texas Acad. Morphology of the extra floral nectar glands of the cotton and castor oil plants; morphology, ecology and embryology of the peanut plant; ecology of meadow vegetation; new species of Ephedra; morphology and taxonomy; new species of Drosera; vegetation of playa lakes of Staked Plain.

Reed, Edward O(liver), Crane and Co, Dalton, Mass. *Chemistry.* Washington, D. C, Sept. 8, 83. B.S, George Washington, 08. Asst. chemist, bur. chem. and soils, U. S. Dept. Agr, 08–16, in charge paper investigations, 16–22; chief of tests, Govt. Printing Office, 22–27, *tech. director,* 27–29; *in charge lab. and research, Crane and Co, 29–* Asn. Pulp and Paper Indust. (chairman, testing div, 30–33, exec. cmt, 33–36). Methods of paper testing; paper qualities; effect of relative humidity on paper and printing; importance of standard atmospheric conditions in printing plants; value of research and technical control in the printing and book binding industry.

Reed, Prof. Eleanore, 204 Langley St, N.S, Pittsburgh, Pa. *Experimental morphology.* Walton, N. Y, Oct. 28, 98. B.S, Pittsburgh, 35, M.S, 38. *Asst. prof. histol. and bacter, Pittsburgh, 30–* Hist. Soc. West. Pa; Int. Asn. Dental Research. Effects of the short electric wave on the rate of regeneration in Triturus viridescens Rafinesque; regeneration of the mandible and teeth in Triturus viridescens viridescens Rafinesque.

Reed, Erik K(ellerman), P. O. Box 461, Santa Fe, New Mex. *Archeology.* Quincy, Mass, Aug. 16, 14. A.B, George Washington, 32; A.M, Harvard, 33. Asst, Gila Pueblo, Ariz, 34–35; regional archeologist, Nat. Park Service, 35–43. Anthrop. Asn. (councilor, 42); Soc. Am. Archeol. (asst. ed, 41–). History and archeology of southwestern United States.

Reed, Prof. Ernest, Syracuse University, Syracuse, N. Y. *Botany.* Chicago, Ill, March 8, 90. A.B, Michigan, 17, M.S, 19, Ph.D, 22. Plant breeder, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 20–22; asst. prof. *bot, Syracuse,* 22–25, assoc. prof, 25–28, *prof, 28–, univ. coordinator, Armed Forces, 42–* Summers, exec. sec'y, summer sch, Syracuse, 26–27, director, 27–, asst. dean grad. sch, 29– Genetic Asn. Plant physiology and pathology; genetics.

Reed, Prof. Eugene C(lifton), University of Nebraska, Lincoln, Nebr. *Geology.* Holdrege, Nebr, Dec. 12, 01. A.B, Nebraska, 23, M.S, 33. Asst. geologist, Mexican Eagle Oil Co, Mex, 23–25; geologist and chief exploration geologist, Lago Petrol. Corp, Venezuela, 25–31; asst. geologist, Nebr. Geol. Surv-Univ. Nebraska, 33–35; asst. state geologist and asst. prof. conservation, conservation and surv. div, *Nebraska,* 35–41, *asst. state geologist and assoc. chief conservation and surv. div, 41–* Asn. Petrol. Geol; Geol. Soc. Stratigraphy of Pennsylvanian and Permian in Nebraska and adjacent states; subsurface stratigraphy in Nebraska; insoluble residues; lithology.

Reed, Dr. E(verett) L(enox), 11 Westmoreland Ave, Arlington Heights, Mass. *Metallurgy.* Somerville, Mass, Sept. 1, 92. B.S, Tufts Col, 16; Carnegie scholar, British Iron and Steel Inst, 25; Sc.D, Harvard, 30. Chemist, Sanford Mills, Reading, Mass, 16–17; asst. in metal, Boston Navy Yard, 17–20; metallurgist, Sauveur Boylston, Cambridge, 20–21; instr. metal, eng. sch, Harvard, 21–30; metallurgist, Am. Sheet and Tin Plate Co, Pittsburgh, 30–35; *research metallurgist, Watertown Arsenal, 35–* Min. and Metal. Eng; Soc. Metals. Physical metallurgy.

Reed, Dr. F(rank) H(ynes), State Geological Survey, Urbana, Ill. *Chemistry.* Logansport, Ind, Jan. 12, 90. A.B, Wabash Col, 11; fellow, Chicago, 15–17, Ph.D, 17. Instr. chem, Wabash Col, 13–14; Mich. State Col, 14–15; research chemist, Sherwin-Williams Co, 17–19; Butterworth Judson Corp, 19–22; supt. dyestuffs dept, Tower Mfg. Co, 22–28; supervisor catalytic dept, Nat. Aniline and Chem. Co, 28–30; plant develop. chemist, Roessler and Hasslacher Chem. Co, 30–31; *chief chemist, Ill. Geol. Surv, 31–* A.A; Chem. Soc; Min. and Metal. Eng. Synthetic organic and fuel chemistry; geochemistry; organic fluorine compounds.

Reed, Prof. F(rank) W(alker), Ohio University, Athens, Ohio. *Mathematics, Astronomy.* Wytheville, Va, June 17, 81. A.B, Nashville, 02; Vanderbilt fellow, Virginia, 04–07, A.M, Ph.D, 07. Instr. astron, Illinois, 07–17, sch. mil. aeronaut, 17–18; *math,* Cornell, 19–23; asst. prof, *Ohio (Athens),* 23–24, assoc. prof, 24–36, *prof, 36–* A.A; Math. Soc; Math. Asn; Astron. Soc. Celestial mechanics; development of the perturbative function; integral invariants; linear periodic functions.

Reed, Prof. Fredda Doris, 1 Jewett Lane, South Hadley, Mass. *Botany.* Parker, Ind, Aug. 15, 94. A.B, Earlham Col, 18; M.S, Chicago, 23, Ph.D, 24. Instr. *bot,* Earlham Col, 24–26; asst. prof, *Mt. Holyoke Col,* 28–32, assoc. prof, 32–43, *prof, 43–* A.A; Bot. Soc. Paleobotany; Carboniferous flora.

Reed, Dr. George H(enry), Knox College, Galesburg, Ill. *Inorganic chemistry.* New York, N. Y, Dec. 21, 05. B.S, Rochester, 27; M.S, Iowa, 29, Ph.D, 31. Assoc. *chem,* Illinois, 31–39; *assoc. prof, Knox Col, 39–* Chem. Soc. Heats of adsorption.

Reed, Dr. George M(atthew), Brooklyn Botanic Garden, Brooklyn, N. Y. **6Botany.* Ingleside, Pa, May 2, 78. A.B, Geneva Col, 00; A.M, Wisconsin, 04, Ph.D, 07. Prof. nat. science, Amity, 00–03; asst. bot, Wisconsin, 04–07, instr, 07; asst. prof, Missouri, 07–12, prof, 12–18; pathologist, bur. plant indust, U. S. Dept. Agr, 19–20; *curator, Brooklyn Bot. Garden, 21–, acting director, 43–* Summers, instr, N. Y. Univ, 12; res. investigator, Brooklyn Bot. Garden, 16, 17. A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc; Genetic Asn; Torrey Bot. Club; Wis. Acad. Plant pathology; powdery mildews; cereal smuts and rusts; physiological specialization of parasites.

Reed, Dr. G(eorge) Nathan, Penick and Ford, Ltd, Cedar Rapids, Iowa. *Chemistry.* Campbell, Texas, Nov. 19, 01. B.S, Okla. Agr. and Mech. Col, 22; M.S, Oklahoma, 24; Colorado, 26–29; Ph.D, Kans. State Col, 38. Asst. inorg. chem, Oklahoma, 22–24; head science dept, high sch, Cushing, Okla, 24–26; instr. inorg. chem, Colorado, 26–29; org. chem, Kans.

State Col, 29–41; *Corn Industries Research Foundation fellow, Penick and Ford Co, 41–* Chem. Soc. Organic chemistry; starch chemistry; the alkaloids of tobacco; the reactions of kojic acid with aldehydes; new type rotating cylinder viscometer; characteristics of starch pastes.

Reed, Prof. Guilford B(evil), 218 Albert St, Kingston, Ont, Can. *Bacteriology.* Port George, N. S, Nov. 27, 87. B.S, Harvard, 12, A.M, 14, Ph.D, 15. Asst. bot, Harvard, 10–15; asst. prof, *Queen's (Can),* 15–19, *prof. bacter, 19–* Instr, N. S. Summer Sch. of Science, 12–14; botanist, Shaler Mem. exped, 11. Walker prize, 12; Bowdoin prize, 15. Order of the British Empire. Capt, M.C, Can, 16–19. Soc. Bact; Bot. Soc; fel. Can. Inst. Chem; fel. Royal Soc. Can. Oxidase ferments and respiration; variation in bacteria; pernicious anemia; tuberculosis; anaerobes; wound infections.

Reed, H(arry) E(rnest), U. S. Department of Agriculture, Washington, D. C. *Agricultural marketing.* Atchison, Kans, Aug. 31, 92. B.S.A, Missouri, 14; M.S, Kans. State Col, 28. Asst. prof. animal husbandry, Arkansas, 21–23; assoc. prof, Kans. State Col, 23–29, prof, 29–31; senior marketing specialist, for. agr. service, bur. agr. econ, *U. S. Dept. Agr,* 31–33, prin. marketing specialist, 33–35, agr. commissioner, 35–39, asst. chief agr. marketing service, 39–41, *chief livestock and meats branch, Food Distribution Admin. and War Food Admin, 42–* Animal husbandry; agricultural economics.

Reed, Dean H(arry) J(ames), Purdue University, Lafayette, Ind. *Agriculture.* Paris, Ill, Feb. 9, 87. B.S.A, Purdue, 11. Hort. exten, 11; farm manager, 12; county agr. agent and agent, U. S. Dept. Agr, 13–16; assoc. hort, *Purdue,* 16–17, asst. director, *Exp. Sta,* 17–39, *director, 39–,* farm director, 18–39, *dean sch. agr. and director agr. exten. service, 39–* A.A; Soc. Hort. Sci; Genetic Asn; fel. Ind. Acad. Horticulture.

Reed, Prof. H(enry) R(ouse), State University of Iowa, Iowa City, Iowa. *Electrical engineering.* Minneapolis, Minn, Feb. 1, 04. B.S, Minnesota, 25, M.S, 27; E.E, S. Dak. State Col, 30; Ph.D, Iowa, 41. Instr. elec. eng, S. Dak. State Col, 27–28, asst. prof, 28–29; Mich. Col. Min. and Tech, 29–32, assoc. prof, 32–41, research engineer, 31–41; assoc. prof. *elec. eng, Iowa,* 41–42, *prof, 42–* Electrical tester, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 29; electrical tester and designer, Elec. Machinery and Mfg. Co, Minneapolis, 26; engineer, Nat. Park Service, 39; instr, Nat. Defense Training Courses, 41– Engineer, C. Eng, 30. Elec. Eng; Eng. Educ. Electrical circuits and machinery; electrical engineering experiments; communication circuits; turns and phases in squirrel cage windings; cost of deep-mine hoisting with electricity; induction motors on unbalanced voltages; deep-mine hoisting; unbalance and cost of motor operation; non-linearity in transformers; subharmonic phenomena.

Reed, Prof. H(omer) B(losser), Ft. Hays Kansas State College, Hays, Kans. *Psychology.* Youngstown, Ohio, Aug. 16, 86. A.B, A.M, Indiana, 09; Ph.D, Chicago, 12; Columbia, 13–14. Instr. psychol, Illinois, 14–15; asst. prof. philos. and psychol, Idaho, 15–21; assoc. prof. *psychol,* Colo. State Teachers Col, Greeley, 21–24; asst. prof, Pittsburgh, 24–29; *prof, Ft. Hays Kans. State Col, 29–* Psychol. Asn; Educ. Research Asn; Kans. Acad. Learning.

Reed, Prof. Howard S(prague), University of California, Berkeley, Calif. **Plant physiology.* North East, Pa, Aug. 6, 76. Grove City Col, 98; A.B, Michigan, 03; Ph.D, Missouri, 07; Strassburg, 13. Asst. plant physiol, Michigan, 99–03; instr. bot, Missouri, 03–06; expert in soil fertility, bur. soils, U. S. Dept. Agr, 06–08; prof. mycol. and bacter, Va. Polytech, and plant pathologist, Exp. Sta, 08–15; *prof. plant physiol,* Citrus Exp. Sta, *California,* 15–35, *univ, 35–* Marine Biol. Lab, Woods Hole, 02; Smithsonian table, Naples Zool. Sta, 13; guest prof, Geneva, 30. External examiner, Sydney, 35. Assoc. ed, 'Growth,' 38– Del, Int. Cong. Agr, Ghent, 13; mem, Int. Hort. Cong, London, 30; contributor, Int. Cong. Comp. Path, 36. Bronze medal, Soc. nat. d'Acclimat. de France, 35. A.A; Soc. Nat; Phytopath. Soc. (pres, Pacific div, 20–22); Bot. Soc. (v. chairman and rep. ed. board, 'Am. Jour. Bot,' physiol. sect, 37); Soc. Biol. Chem; Soc. Exp. Biol; West. Soc. Nat. (pres, 23); Calif. Bot. Soc. (pres, 43); Soc. linn. de Lyon. Biochemistry; bacteriology; dynamics of growth; differentiation; plant nutrition; pre-Columbian botany.

Reed, Prof. J. Fielding, Louisiana State University, Baton Rouge, La. *Agronomy.* Baton Rouge, La, Dec. 15, 12. B.S, Louisiana, 33, M.S, 34, Ph.D, 37. Agr. engineer, Godchaux Sugars, Inc. 33; mem. staff, Fed. Rice Inspection Service, 34; instr. agron, Louisiana, 34–39, asst. agronomist, Exp. Sta, 34–39; Rockefeller Foundation fellow, Cornell, 39–40; instr. *agron, Louisiana,* 40–41, *asst. prof, 41–, asst. agronomist, Exp. Sta, 40–* The use of chemical methods in soil testing; the occurrence and application of the minor elements in soils; soil fertility problems in connection with vegetable crops.

Reed, Dr. James B(urbank), 181 W. Sparks St, Philadelphia, Pa. *Inorganic chemistry.* New York, N. Y, July 22, 04. B.S, Mass. Col, 27; M.S, Illinois, 32, Ph.D, 35. Instr, vocational sch, Vt, 27–31; asst. prof. chem, Idaho, 35–40; *asst. chemist, Frankford Arsenal, 40–* A.A; Chem. Soc. Rare earths; reactions of ammonium salts; x-ray diffraction.

Reed, Jesse O, 7815 16th St, N. W, Washington, D. C. *Engineering.* Paxinos, Pa, Dec. 31, 96. B.S, Pa. State Col, 18. *Develop. engineer, bur. agr. chem. and eng, U. S. Dept. Agr, 18–* Sirup from sweet potatoes; improved nozzle for cleaners; dust explosions and control; belt dressings for eliminating static; improved naval stores; grain elevator construction; fire extinguishing materials; utilization of agricultural by-products; turpentine still buildings and equipment; oleoresin refining processes; anti-skid fire chain.

Reed, John B(yron), Health Department, District of Columbia, Washington, D. C. *Chemistry.* Lincoln Center, Maine, Aug. 15, 80. A.B, Michigan, 03. Instr. chem, Maine, 03–05; anal. and org. chem, Lowell Textile Sch, 05–09; asst. chemist and assoc. chemist, bur. chem, U. S. Dept. Agr, 09–29; *chemist, Health Dept, D. C, 29–* A.A; Chem. Soc. By-products of rice milling; peanut oil; marine food products; food, drug and toxicological work for coroner; urine analysis.

Reed, Dr. John C(alvin), U. S. Geological Survey, Washington, D. C. *Geology.* Erie, Pa, April 15, 05. B.S, Pa. State Col, 27; Ph.D, Princeton, 30. Junior geologist, *U. S. Geol. Surv,* 30–31, asst. geologist, 31–35, assoc. geologist, 35–39, geologist, 39–42, *senior geologist, 42–* Geol. Soc; Soc. Econ. Geol; Geol. Soc. Wash. Geology of Potsdam Quadrangle, New York; mining districts and heavy mineral assemblages of plutonic rocks of eastern Oregon; mining districts and general geology of parts of Idaho; quicksilver in Arkansas; geology and ore deposits of southeastern Alaska.

Reed, Prof. John F(rederick), 253 E. Bridge Street, Berea, Ohio. *Botany.* Rockport, Maine, Nov. 18, 11. A.B, Dartmouth Col, 33; A.M, Duke, 35, Ph.D, 36. Asst. bot, Duke, 33–34, research fellow, 35–36; instr. nat. sciences, Amarillo Col, 36–37; *biol, Baldwin-Wallace Col,* 38–39, asst. prof, 40–41, *assoc. prof, 41–* Ecol. Soc; Ohio Acad. Forest ecology.

Reed, Dean Lowell J(acob), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Mathematics, Statistics.* Berlin, N. H, Jan. 8, 86. B.S, Maine, 07, M.S, 12, Sc.D, 39; fellow, Pennsylvania, 13–14, Ph.D, 15. Instr. math, Maine, 07–13; Pennsylvania, 14–15; asst. prof, Maine, 15–17; assoc. prof. *biometry and vital statistics, Hopkins,* 19–25, *prof. and head dept, 25–, dean sch. hygiene and pub. health, 37–* Director bur. tabulation and statist, W.T.B, 17–18. A.A; Math. Soc; Math. Asn; Statist. Asn; Am. Med. Asn; Pub. Health Asn. Vital statistics; biometry; statistical methods.

Reed, Dr. M(arion) C, 918 Blvd, Westfield, N. J. *Chemistry.* Havensville, Kans, Aug. 31, 98. B.S, Kans. State Col, 21; M.S, Ohio State, 22, Ph.D, 25. *Research chemist,* B. F. Goodrich Co, 25–30; Carbide and Carbon Chem. Co, 30–33; Nat. Carbon Co, 33–41; *Bakelite Corp, 41–* Chem. Soc. Rubber; chemical patents.

Reed, Dr. Myril B(aird), Illinois Institute of Technology, Chicago, Ill. *Electrical engineering.* Woodruff, Utah, Feb. 14, 02. B.S, Colorado, 26; M.S, Texas, 31, Ph.D, 35. Meter tester, Pub. Service Co. of Colo, 23–25; hydroplant operator, Utah Power and Light Co, 26–27; instr. *elec. eng,* Texas, 27–36, asst. prof, 36–38; *Ill. Inst. Tech,* 38–40, assoc. prof, 40–42, *prof, 42–* Electric circuit theory; matrices.

Reed, O(llie) E(zekiel), U. S. Department of Agriculture, Washington, D. C. *Dairy husbandry.* Fayette, Mo, Aug. 19, 85. B.S, Missouri, 08, M.S, 10. Asst. dairy husbandry, Missouri, 08–09; asst. and instr, Purdue, 09–10; chief dairy dept, Kans. State Col, 10–18; Purdue, 18–20, manager dairy farm, 20–21; *chief* dairy dept, Mich. State Col, 21–28; *bur. dairy indust, U. S. Dept. Agr, 28–* Purchaser cattle, French High Cmn, 19; studied live stock, Great Britain and Isles, 23. Official del, World's Dairy Cong, 28, 31; chairman, U. S. dele-

gation, Int. Dairy Cong, Berlin, 37. Nat. Research Council. A.A; Dairy Sci. Asn. (pres, 25); Soc. Animal Production; Dairy Federation. Dairy cattle; animal nutrition.

Reed, Robert F(indley), 191 Lafayette Circle, Cincinnati, Ohio. *Chemistry.* Bellefontaine, Ohio, Dec. 30, 90. Chem.E, Cincinnati, 14. Chemist, Ault and Wiborg Co, 14–19; research chemist and director Lake lab, dyestuffs dept, E. I. du Pont de Nemours and Co, 19–25; *research director, Lithographic Tech. Foundation, Inc, 25–* A.A; Chem. Soc. (chairman, Cincinnati sect, 31); Chem. Eng; Soc. Rheol; Asn. Pulp and Paper Indust. Chemistry and physics of the lithographic process.

Reed, Dr. R(obert) M(arion LaFollette), The Girdler Corp, Louisville, Ky. *Chemistry, Chemical engineering.* Bend, Oregon, Sept. 13, 06. B.S, Washington (Seattle), 29, Denny fellow, 29–30, M.S, 30, Ph.D, 35. Research chemist, Procter and Gamble Co, 30–37; chemist, Swann and Co, 37–38; *chemist and tech. director gas processes div, The Girdler Corp, 38–* Chem. Eng; Chem. Soc. Analyses of essential and vegetable oils; preparation, solubilities, surface tensions and electrical conductivities of salts of higher alkyl sulfonic acids; gas purification with amines by the Girbotol process.

Reed, Prof. R(ufus) D(aniel), State Teachers College, Upper Montclair, N. J. *Chemistry.* Blanchester, Ohio, Sept. 12, 94. B.S, Wilmington Col, 19; A.M, Ohio State, 20, Ph.D, 28. Teacher, rural schs, Ohio, 12–16; asst. chem, Ohio State, 19–20; teacher, high sch, Ohio, 20–29; asst. prof. and *assoc. prof. science, N. J. State Teachers Col, Upper Montclair, 29–* A.A; Chem. Soc. (testing cmt; chairman div. chem. educ, 40); N. J. Sci. Teachers Asn. (pres, 37–39). Potassium zirconium reactions; homogenous grouping of chemistry students; preparation of science teachers.

Reed, Prof. Samuel Macon, Hampden-Sydney College, Hampden-Sydney, Va. *Mathematics.* Charlotte Court House, Va, July 4, 79. Vanderbilt, 97–99, 01–02; A.B, South Carolina, 06; A.M, Columbia, 22. .Prof, high sch, S. C, 99–01; N. C, 02–03; S. C, 03–04; asst. prof. math, South Carolina, 05–06; prof. math. and science, Peacock Mil. Sch, Texas, 07–08; head master, Donaldson Mil. Sch, N. C, 08–16; assoc. prof. Greek, Latin and math, Davidson Col, 16–20; *prof. math, Hampden-Sydney Col, 22–,* dean, 22–36.

Reed, Dr. Sheldon C(lark), Harvard University, Cambridge, Mass. *Genetics.* Barre, Vt, Nov. 7, 10. A.B, Dartmouth Col, 32; A.M, Harvard, 33, Ph.D, 35. Asst. genetics, Harvard, 34–36; lecturer, McGill, 36–40; *instr. biol, Harvard, 40–* Genetic Asn. Genetics of small mammals; karyology of the Hymenoptera; time of determination of hair pigments; microevolution in Drosophila.

Reed, Dr. S(olomon), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Psychology.* Dornsife, Pa, Dec. 12, 84. A.B, Susquehanna, 08; A.M, Yale, 11, Ph.D, 13; Columbia, 16. Instr. psychol, Pennsylvania, 13–14; prof, Gustavus Adolphus, 14–20; *head dept. psychol. and philos, Okla. Agr. and Mech. Col, 20–* Midwest. Psychol. Asn; Okla. Acad. (v. pres, 20–). Attitudes; clinical psychology.

Reed, W(endell) M(onroe), Welcome, Md. *Civil engineering.* Moriah, N. Y, Dec. 28, 64. C.E, Vermont, 86. Ry. worker, 87–89; engineer, Pecos Valley Irrig. Co, 89–00; U. S. Reclamation Service, 02–12; chief engineer, Indian irrig. service, U. S. Bur. Indian Affairs, 12–32; pres, South. Md. Tri-County Cooperative Asn, Inc; *retired.* 2nd Pan-Am. Sci. Cong. Civil Eng. Reclamation of arid lands.

Reed, W(illiam) D(oyle), 17 North Blvd, Richmond, Va. *Entomology.* Eupora, Miss, Sept. 25, 97. B.S, Miss. Agr. and Mech. Col, 22; Cornell, 23, 24. Instr. zool. and entom, Clemson Col, 22–23, asst. prof, 23–25; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 25–26, *assoc. entomologist, 27–* Summers, asst, Delta Labs, La, 20–22; Malarial Control Exp. Sta, 21. A.A; Entom. Soc; Asn. Econ. Entom; Pacific Coast Entom. Soc; Entom. Soc. Wash; Va. Acad. Insect pests of dried fruits; tobacco insects.

Reed, Prof. W(illiam) P, University of Wyoming, Laramie, Wyo. *Psychology.* Milroy, Minn, Jan. 30, 98. B.S, Minnesota, 23, A.M, 26. Director research, pub. schs, Minn, 23–26; asst. educ. psychol, Minnesota, 26–27; instr. *psychol, Wyoming,* 27–28, *asst. prof, 30–, director personnel, 28–; capt, C.A.C, U. S. Army, 43–* Capt, C.A.C.R. A.A; assoc. Psychol. Asn; Wyo. Acad. Tests; college personnel.

Reeder, Dr. Wendell, 4906 Woodland Ave, Kansas City, Mo. *Physiological chemistry.* Hyde Park, Utah, Sept. 11, 10. B.S, Utah State Col, 32, M.S, 34; Ph.D, Iowa State Col, 40. Technician, Iowa State Col, 35–40; *chemist, Campbell Taggart Research Corp, 41–* Fluorescence associated with proteins; growth rate, reproduction and histological changes in rats fed rations used in the nutritional studies of swine.

Reedman, Dr. E(ric) J(ames), Summerside, Que, Can. *Biochemistry.* Niagara Falls, Ont, April 29, 10. B.S.Agr, Toronto, 35, M.A, 37, Ph.D, 38. Instr. chem. and asst, Toronto, 35–38; asst. biochemist, Merck and Co, 38–40; biochemist, Nat. Research Council Can, 40–43; *tech. consultant, 43–* Grantee, Banting Research Foundation, Toronto, 36, 37; consultant, Harvey Labs, 39. Chem. Soc; Inst. Food Technol; fel. Can. Inst. Chem. Nutrition; food processing and technology.

Reeds, Dr. Chester A(lbert), Ghent, N. Y. *Geology, Invertebrate paleontology.* Lacygne, Kans, July 20, 82. B.S, Oklahoma, 05; M.S, Yale, 07, Ph.D, 10. Instr. miner. and petrol, Oklahoma, 08; lecturer geol, Bryn Mawr Col, 08–10, assoc, 10–12; asst. curator geol. and invert. paleont, Am. Museum Nat. Hist, 12–17, assoc. curator invert. paleont, 17–27, curator, 27–28, geol. and invert. paleont, 28–38, observer in charge seismograph, 21–38, ed, publications, miner. geol, geog. and paleont, 25–35; research assoc. meteorites, 35–37; *consulting geologist and paleontologist, 38–* Exten. instr, Columbia, 14–17. Summers, field asst, U. S. Geol. Surv, 03, 06, 08; collector, museum, Yale, 05, 07; leader, Am. Museum Nat. Hist. field party, Okla, 14, Puerto Rico, 15, N. Y, 18, 19, Pa, 20, N. Y. and N. J, 22–36. Ed, 'Nat. Hist. Cent. Asia,' 25–35. A.A; fel. Geol. Soc; Paleont. Soc; Seismol. Soc; Am. Geog. Soc; N. Y. Acad. (v. pres, 25–27); hon. mem. Soc. de Geog. de Colombia. Stratigraphy and paleontology of the Arbuckle Mountains, Oklahoma; seasonal records of geologic time; varved glacial clays of New Jersey and New York; Pleistocene glacial and interglacial deposits.

Reedy, Prof. J(ohn) H(enry), University of Illinois, Urbana, Ill. *Chemistry.* Plano, Texas, May 1, 79. A.B, A.M, Southwestern (Texas), 00; M.S, Chicago, 14; Ph.D, Yale, 15. Prof. *chem,* Southwestern (Texas), 05–13; South. Methodist, 15–18; from asst. prof. to *prof, Illinois, 18–* Chem. Soc; Electrochem. Soc. Inorganic and analytical chemistry.

Reedy, Lieut. Robert J(oseph), Station Hospital, Ft. Jackson, S. C. *Bacteriology.* Washington, D. C, March 13, 08. B.S, Maryland, 31, M.S, 32; Ph.D, Georgetown, 36. Instr. bacter, med. sch, Georgetown, 33–36, asst. prof, 37–38; junior bacteriologist, fish and wildlife service, U. S. Dept. Interior, 38–39, asst. bacteriologist, 40–42; *lieut, Sanit. Corps, U. S. Army, 42–* Soc. Bact. Correlation between "O" agglutinin titre and mouse protection tests in typhoid prophylaxis; a rapid test in the determination of bacterial reduction of nitrates; a rapid test for the estimation of E. coli in crab meat.

Rees, Dr. Bryant E(ugene), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Scipio, Utah, June 5, 12. A.B, Utah, 34, A.M, 36; Ph.D, Stanford, 39. Asst. zool, Utah, 34–36; *asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 40–* Summers, ranger naturalist, U. S. Nat. Park Service, 36–40. A.A; Entom. Soc. Wash. Morphology and taxonomy of insects; coleopterous larvae; mosquito control.

Rees, Prof. Carl J(ohn), 230 E. Main St, Newark, Del. *Mathematics.* Millersville, Pa. A.B, Franklin and Marshall Col, 18; A.M, Chicago, 24; Ph.D, Pennsylvania, 40. From instr. to *prof. math. and head dept, Delaware, 20–* Math. Soc; Math. Asn. Elliptic functions; problems in teaching mathematics; orthogonal polynomials.

Rees, Dr. Cha(rle)s W(illiam), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Zoology.* Coalville, Utah, March 22, 86. B.S, Utah Col, 13; A.M, California, 20, Ph.D, 21. Asst. zoologist, Utah Col, 23–25; research, Yale, 25–26; scholar, sch. hygiene and pub. health, Hopkins, 26–28; assoc. zoologist in charge live stock exp. farm, bur. animal indust, U. S. Dept. Agr, 28–33, nat. research center, Beltsville, Md, 33–39; *senior protozoologist, nat. inst. health, U. S. Pub. Health Service, 39–* A.A; Soc. Parasitol; Soc. Trop. Med; Pub. Health Asn; Wash. Acad; Helminth. Soc. Wash. Cytology; taxonomy; viability and cultivation of parasitic protozoa; anaplasmosis; piroplasmosis; bovine vaginal trichomoniasis; bovine coccidiosis; splenectomy of cattle and sheep; micro-isolation of Endamoeba histolytica.

Rees, Prof. Don M(errill), University of Utah, Salt Lake City, Utah. *Zoology. Entomology.* Wales, Utah, Sept. 9, 01. B.S, Utah, 26, M.S, 29; Ph.D, Stanford, 36. Instr. *zool, Utah,* 30–36, asst. prof, 36–40, assoc. prof, 40–42, *prof, 42–* Supervisor, Salt Lake City Mosquito Abatement Dist, 30–37, trustee, 38– Culicidae.

Rees, Prof. L(ouis) W(illiam), University Farm, St. Paul, Minn. *Forestry.* Langdon, N. Dak, June 21, 95. B.S, Syracuse, 23, Ph.D, 29. Asst. instr. wood technol, N. Y. State Col. Forestry, Syracuse, 23–27; *asst. prof. forestry, Minnesota, 27–* Soc. Foresters (sec'y, Minn. sect, 29, 33, chairman, 34). Electrical resistance of wood; growth of forest trees; moisture movement through wood; effect of steaming and chemicals on the strength and physical properties of wood.

Rees, Prof. Maurice H(olmes), University of Colorado School of Medicine, Denver, Colo. *Physiology.* Newton, Iowa, April 27, 80. A.B, Monmouth Col, 04; A.M, Illinois, 05; Ph.D, Chicago, 17; M.D, Washington (St. Louis), 21. Prof. biol, Tarkio Col, 07–14; asst. prof. physiol, Kansas, 14–16; assoc. prof, Chicago, 16–17; *prof,* South Dakota, 17–21; *physiol. and pharmacol, sch. med, Colorado, 21–,* asst. dean, 24–25, *dean, 25–, supt. hosps, 27–* Physiol. Soc; fel. Am. Med. Asn; Am. Hosp. Asn. Effect of pituitary extracts on urinary excretions and intestinal absorption; uterine contractions; diuretic drugs; endocrine organs.

Rees, Prof. Mina S(piegel), Hunter College, New York, N. Y. *Mathematics.* Cleveland, Ohio, Aug. 2, 02. A.B, Hunter Col, 23; A.M, Columbia, 25; Ph.D, Chicago, 31. Instr. *math, Hunter Col,* 26–32, asst. prof, 32–40, *assoc. prof, 40–; prin. tech. aide, applied math. panel, Nat. Defense Research Cmt, 43–* A.A; Math. Soc; Math. Asn. Division algebras.

Rees, Dr. O(rin) W(ainwright), State Geological Survey, Urbana, Ill. *Analytical chemistry.* Vermilion Grove, Ill, July 29, 98. B.S, Earlham Col, 22; M.S, Illinois, 25, Ph.D, 31. Instr. chem, Earlham Col, 22–24; analyst, State Water Surv, Ill, 25–30; *chemist and head anal. div, Ill. Geol. Surv, 31–* A.A; Soc. Test. Mat; Chem. Soc; Ill. Acad. Catalytic reduction; water analysis; perchlorates; moisture in coal; coal, rock, oil, gas and brine analysis and testing.

Rees, Prof. Paul K(lein), Southern Methodist University, Dallas, Texas. *Mathematics.* Center Point, Texas, June 10, 02. A.B, Southwestern (Texas), 23; A.M, Texas, 25; Ph.D, Rice Inst, 33. Teacher, high sch, Texas, 23–26; instr. *math,* Texas Tech. Col, 26–28, 34–35; asst. prof, Mississippi, 28–30; asst, Houston, 33–34; *asst. prof,* N. Mex. Col, 35–39; *Southern Methodist, 39–* Summers, instr, Southwestern (Texas), 23; prof, Westmoorland, 34, 37, 40; Sul Ross State Teachers Col, 36, 38, 39; E. Texas State Teachers Col, 36, 40. Math. Soc; Math. Asn. (chairman, southwest. sect, 36). Automorphic functions; algebra; trigonometry; analytic geometry.

Reese, Prof. Albert M(oore), West Virginia University, Morgantown, W. Va. *[8]Zoology.* Lake Roland, Md, April 1, 72. A.B, Hopkins, 92, Ph.D, 00. Teacher, high schs; lecturer, Homeop. Med. Col, Baltimore, 93–98; prof. biol, Allegheny Col, 01–02; instr, Syracuse, 02–03, assoc. prof. histol, 03–07; *prof. zool, West Virginia, 07–* Lecturer, Pa. Col. (Gettysburg), 97; collaborator zool, Smithsonian Institution, 13. Smithsonian Institution exped, Orient, 13; Carnegie Institution exped, S. Amer, 19. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; Micros. Soc; Soc. Ichthyol. and Herp. Embryology, anatomy and habits of the American alligator; anatomy and habits of certain Amphibia and Reptilia.

Reese, Dr. Hans H, University of Wisconsin, Madison, Wis. *Neuropsychiatry.* Bordesholm, Germany, 91. M.D, Kiel, 18. From asst. to *prof. neuropsychiat, psychiat. inst, and chairman dept, med. sch, Wisconsin.* Am. Med. Asn; Col. Physicians; Cent. Neuropsychiat. Asn. (v. pres, 32); Dane County Med. Soc. (pres, 30). Neurosyphilis.

Reese, Prof. Herbert M(eredith), University of Missouri, Columbia, Mo. *Physics.* Baltimore, Md, Dec. 1, 73. A.B, Hopkins, 97, Ph.D, 00. Fellow, Lick Observatory, California, 00–01, asst. spectros, 01–03; Yerkes Observatory, Chicago, 03–04; instr. *physics, Missouri,* 04–07, asst. prof, 07–12, assoc. prof, 12–21, *prof, 21–* Physical Soc; Optical Soc. The Zeeman effect; astronomical spectroscopy; investigations of stellar spectra; orbit of spectroscopic binary; optical rotation.

Reese, Dean J. Allen, University of Kansas, Lawrence, Kans. *Pharmacognosy, Pharmacology.* St. Charles, Va, July 2, 05. B.S, Med. Col. of Va, 30; M.S, Florida, 36, Ph.D, 38. Instr, Med. Col. of Va, 30–32, assoc. pharmacy, 32–35; asst. pharmacog, Florida, 35–38; asst. prof, *Med. Col. of Va,* 38–40, assoc. prof, 40, *prof. pharmacy and pharmacog. and dean sch. pharmacy, 40–* Mem. revision cmt, 'U. S. Pharmacopoeia,' 40– Chairman, Conf. Pharmacog. and Pharmacol. Teachers, 41. A.A; Pharmaceut. Asn. Ipecac; ipomeas; ergot; biological standardization of drugs.

Reese, Prof. John D, 1426 Henry St, Berkeley, Calif. *Microscopic anatomy.* Ventura, Calif, June 25, 07. A.B, California, 30, A.M, 31, M.D, 34. Instr. *anat,* Louisiana, 35–36; *California,* 36–39, *asst. prof, 39–; capt, Med. Corps, U. S. Army.* Experimental pathology of the endocrines.

Reese, Dr. John S(mith), 4th, 1600 Brinckle Ave, Wilmington, Del. *Chemistry.* Wilmington, Del, Sept. 15, 04. A.B, Princeton, 27; Vienna, 27–28; A.M, Hopkins, 30, Ph.D, 32. Textile Foundation senior fellow, Manchester, 32–33, Mass. Inst. Tech, 34–35; *exp. sta, E. I. du Pont de Nemours and Co, Wilmington, 35–* Summer, E. I. du Pont de Nemours and Co, 26. Chem. Soc. Orienting influences in the benzene ring; cellulose; sulfonation of benzoic acid; nitration of phenol derivatives.

Reeside, Dr. John B(ernard), Jr, Hyattsville, Md. *[5]Geology.* Baltimore, Md, June 24, 89. A.B, Hopkins, 11, Ph.D, 15. Asst. geologist, *U. S. Geol. Surv,* 15–19, paleontologist, 19–20, *geologist,* 20–32, *in charge paleont. and stratig, 32–* A.A; Geol. Soc; Paleont. Soc. (pres); Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. (v. pres); Geol. Soc. Wash. (pres); Biol. Soc. Wash; Wash. Acad; cor. mem. Soc. Geol. Peru. Stratigraphy; Mesozoic paleontology.

Reeve, C(harles) S(nyder), Leonia, N. J. *Chemistry.* Philadelphia, Pa, 75. B.S, Pennsylvania, 97. Asst. chemist, Gen. Elec. Co, 97–00; chem. engineer, Indust. Water Co, 00–03; chemist, Phila. Bur. Surveys, 03–06; asst. inspector asphalt and cement, D. C, 06–09; asst. chemist and chemist, office pub. roads, U. S. Dept. Agr, 09–18; research chemist, Barrett Co, 18–22, chief chemist, develop. dept, 22–41, manager research develop, 32–39, *tech. adviser,* 39–41, *Barrett div, Allied Chem. and Dye Corp, 41–* Chem. Soc; fel. Inst. Chem; Soc. Chem. Indust; Soc. Test. Mat; Wood Preservers Asn; Gas Asn. Manufacture, testing and use of coal tar products and bituminous paving, roofing and waterproofing materials.

Reeve, Dr. (Edward) Wilkins, 1703 32nd St, N.W, Washington, D. C. *Organic chemistry.* Westmont, N. J, July 31, 13. B.S, Drexel Inst, 36; Ph.D, Wisconsin, 40. Instr. org. chem, Maryland, 40–41; *tech. aide, Nat. Defense Research Cmt, 41–* A.A; Chem. Soc. Syntheses of amino acids; dehydrogenation of alcohols; hydrogenation of organic compounds.

Reeve, Dr. R(oger) M(ansfield), U. S. Department of Agriculture, Albany, Calif. *Plant anatomy.* Tipton, Iowa, May 20, 11. A.B, Coe Col, 33; M.S, Wisconsin, 37; Ph.D, California, 42. Teaching asst. bot, Wisconsin, 35–37; California, 38–42; *asst. histologist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Bot. Soc; Soc. Plant Taxon. Developmental morphology; histochemistry of food processing.

Reeve, Prof. W(illiam) D(avid), 106 Morningside Drive, New York, N. Y. *Mathematics.* Edwardsport, Ind, Sept. 11, 83. B.S, Chicago, 09; Ph.D, Minnesota, 24. Teacher, pub. schs, Ind, 03–05, prin, high sch, 05–08; teacher math, univ. high sch, Chicago, 10–14; head dept, univ. high sch, Minnesota, 15–21, prin, 21–23; *prof. math, Teachers Col, Columbia, 24–* Ed, 'Math. Teacher,' 28– Math. Asn; Nat. Council Teachers Math. (ed. yearbook, 27–). High school mathematics; mathematical tests; the teaching of mathematics.

Reeves, Dr. Cora D(aisy), West China Union University, Chengtu, Sge, China. *Zoology.* Rockford, Ill, Aug. 23, 73. A.B, Michigan, 06, Ph.D, 17. Teacher physiol, Mich. State Nor. Col, 15–17; *dept. biol,* Ginling Col, 17–38; *W. China Union Univ, 38–* A.A. Fish habits; classification of Chinese vertebrates; color vision in fish; breeding behavior in fish.

Reeves, E(noch) L(loyd), U. S. Department of Agriculture, Box 99, Wenatchee, Wash. *Plant pathology.* Peck, Idaho, March 17, 01. B.S, California, 26; M.S, State Col. Wash, 37. *Assoc. pathologist, fruit disease investigations, bur. plant indust, U. S. Dept. Agr, 27–* Perennial and Cytospora apple canker; injuries from washing during removal of spray residue; virus diseases of stone fruits.

Reeves, Dr. Frank, Oakland, Md. *Geology.* Triune, W. Va, Oct. 11, 86. A.B, West Virginia, 11; Ph.D, Hopkins, 16. Geol. aid, U. S. Geol. Surv, 14, 17, asst. geologist, 18–21, geologist, 21–28; *consulting geologist, 29–; for. analyst, Petrol. Admin. for War, 42–* Research student, Hopkins, 16–17. Geol. Soc; Asn. Petrol. Geol. Petroleum and structural geology.

Reeves, Geo(rge) I, 1466 Edison St, Salt Lake City, Utah. *Entomology.* Morris, Ill, March 4, 79. A.B, Illinois, 02, fellow, 02–03. Asst. entom, Missouri and Exp. Sta, 03–04; from special field agent to entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 04–28, senior entomologist, 28–36; *retired.* Exten. lecturer, Utah, 25–26. Summer, instr, Illinois, 03. Insects affecting cereal and forage plants; alfalfa weevil.

Reeves, Dr. John R(obert), Penn-York Natural Gas Corp, Buffalo, N. Y. *Economic geology.* Anderson, Ind, March 17, 96. A.B, Indiana, 20, A.M, 21, Ph.D, 23. Instr. geol, Indiana, 21–24; geologist, Ind. Geol. Surv, 23–24; res. geologist, Empire Gas and Fuel Co, 24–29, dist. manager, 29–30; *manager and v. pres, Penn-York Nat. Gas Corp, 30–; gen. supt, Republic Light, Heat and Power Co. and Dom. Nat. Gas Co, Ltd, 40–* Cooperative research, U. S. Bur. Mines. A.A; Asn. Petrol. Geol; Gas Asn; Kans. Geol. Soc; Ind. Acad. Petroleum geology; oil shale; natural gas.

Reeves, Dr. Richard E(dwin), U. S. Department of Agriculture, New Orleans, La. *Organic chemistry.* Lincoln, Nebr, Oct. 28, 12. A.B, Doane, 33; Ph.D, Yale, 36. Nat. Tuber. Asn. research fellow, Yale, 36–37; research fellow chem, Rockefeller Inst, 37–38; research chemist, Boyce Thompson Inst, 38–40; Leonard Wood Mem. fellow, Yale, 40–41; *assoc. chemist, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Chemistry of microorganisms and carbohydrates.

Reeves, Dr. Richard F(ranklin), Foothill Road, R.F.D. 2, Somerville, N. J. *Organic chemistry.* Jamaica, N. Y, July 23, 13. A.B, Syracuse, 33; Ph.D, N. Y. Univ, 40. Asst. chem. engineer marine oil surveys, Charles V. Bacon, 33–35; plant chemist, Schenley Distilling Corp, 35–36; *research chemist, Calco chem. div, Am. Cyanamid Co, 40–* Chem. Soc. Action of Grignard reagents on benzoyl formanilides.

Reeves, Prof. R(obert) G(atlin), Agricultural and Mechanical College of Texas, College Station, Texas. *Botany, Cytology.* Summit, Miss, June 24, 98. B.S, Miss. Agr. and Mech. Col, 22; Ph.D, Iowa State Col, 28. Instr. *bot,* Iowa State Col, 23–28; *prof, Agr. and Mech. Col. Texas, 28–* A.A; Genetics Soc; Ecol. Soc; Bot. Soc; Texas Acad. Plant cytology and morphology.

Reeves, Dr. Robert J(ames), Duke University, Durham, N. C. *Roentgenology.* Matador, Texas, Dec. 28, 98. B.S, 18, A.B, 20; M.D, Baylor, 24. Instr. med, Columbia, 25–30; asst. prof. med, *Duke,* 30–32, assoc. prof. *roentgenol,* 32–41, *prof, 41–* Res. roentgenologist, Mass. Gen. Hosp, Boston; roentgenologist, Columbia Med. Center, 25–30. Roentgen Ray Soc; Am. Med. Asn; N. C. Roentgenol. Soc. Radiology; x-ray; radium.

Regan, Prof. Francis, St. Louis University, St. Louis, Mo. *Mathematics.* Vigo Co, Ind, Jan. 10, 03. A.B, Ind. State Teachers Col, 22; LL.B, LaSalle Exten. Univ, 26; A.M, Indiana, 30; fellow, Michigan, 30–32, Ph.D, 32. Instr, high sch, Ind, 23–25; prof. commerce and asst. prof. math, Columbus Col, 25–29; asst. prof. *math,* Colo. Agr. Col, 29–30; instr, *St. Louis,* 32–34, asst. prof, 34–39, *assoc. prof, 39–* Inst. Math. Statist; Math. Soc. Admissible numbers.

Regan, Dr. J(ames) F(rancis), 1800 W. Sixth St, Los Angeles, Calif. *Physiology.* Boston, Mass, April 6, 08. A.B, Columbia Col. (Iowa), 28; Ph.D, Chicago, 33, M.D, 34. Intern surg, Billings Hosp, Chicago, 34–36; res. orthopedics, Univ. Chicago, 35–36; fellow surg, Mayo Clinic, 36–40; *surgeon, Holleran Med. Group, 40–* Mem. exec. staff, Queen of Angels Hosp. Am. Med. Asn. Interrelationship of pituitary and pancreas; effects of insulin and amino acids on gastric motility; physiologic action of dehydrocholic acid; intranuclear bodies in normal and pathological human tissues; hyperthyroidism and diabetes.

Regan, Rev. John (Joseph), Niagara University, N. Y. *Biology.* Leominster, Mass, Sept. 13, 91. B.S, Niagara, 22, M.S, 33, Ph.D, 37. *Prof. biol, Niagara, 22–* A.A; Genetic Asn. Preservation of glycogen in histological preparations.

Regan, Prof. W(illiam) M(ichael), College of Agriculture, University of California, Davis, Calif. *Dairy husbandry.* Joplin, Mo, Feb. 18, 83. B.S, Missouri, 12, A.M, 14. Instr. dairy husbandry, Missouri, 14–16; asst. prof, Nevada, 16–18; prof. dairying, Rutgers, 18–22; assoc. prof. *animal husbandry, California,* 22–29, *prof, 29–* Dairy Sci. Asn; Soc. Animal Production. Dairy cattle breeding and feeding.

Regan, Dr. W(illiam) S(wift), 1701 W. Yakima Ave, Yakima, Wash. *Entomology.* Williamsburg, Mass, Aug. 21, 85. B.S, Mass. Col, 08, Ph.D, 15. Chief deputy state nursery inspector, Mass, 09–13; asst. prof. entom, Mass. Col, 15–18, assoc. prof, 19–21; asst. entomologist, Mont. State Col, 22–24; horticulturist, McIntosh-Morello Orchards, Mont, 24–25; *entomologist, Northwest. dept, Calif. Spray Chem. Co, Yakima, 25–* Special agent, white pine blister rust investigation, bur. plant indust, U. S. Dept. Agr, 18–21. A.A; Asn. Econ. Entom. Orchard insect pests; Psammocharinae.

Regelmbal, Dr. Louis O(dilon), 2012 Lanier Drive, Silver Spring, Md. *Biology, Plant physiology.* Crookston, Minn, Jan. 8, 90. B.S, Minnesota, 20, M.S, 24, Ph.D, 30. Instr. plant physiol, Exp. Sta, Minnesota, 21–30; *assoc. physiologist, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Soc. Plant Physiol; Bot. Soc; Chem. Soc. Horticulture.

Reger, David B(right), P. O. Box 816, Morgantown, W. Va. *Geology.* Rural Dale, W. Va, April 11, 82. A.B, West Virginia, 09, B.S, 11. Field asst, U. S. Geol. Surv, 03–06; hydrog. surveyor, U. S. Naval Sta, Cuba, 06–07; field asst, W. Va. Geol. Surv, 09–13, asst. geologist, 13–27; acting state geologist, 27–29, assoc. geologist, 29–30; *consulting geologist, 19–* A.A; fel. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; W. Va. Acad. (pres, 33). Economic geology; topography; geology of numerous counties of West Virginia; Mississippian stratigraphy of the Appalachian states.

Regestein, W(alter) P(hilip), E. I. du Pont de Nemours and Co, Penns Grove, N. J. *Chemistry.* Boston, Mass, June 20, 82. B.S, Mass. Inst. Tech, 04. Asst. chem, N. Y. Univ, 04–05; chemist and asst. supt, Hygienic Chem. Co, Elizabethport, N. J, 05–09; *smokeless powder dept, Burnside lab, E. I. du Pont de Nemours and Co, 09–* Chem. Soc. Smokeless powder.

Rehberg, Dr. C(hessie) E(lmer), 801 E. Pleasant Ave, Chestnut Hill Station, Philadelphia, Pa. *Organic chemistry.* Cairo, Ga, Aug. 15, 11. B.S, Ga. State Col. for Men, 33; M.S, Emory, 37; Ph.D, Texas, 41. Instr. chem, Emory, 37–38; Texas, 38–41; research chemist, Sharples Chem, Inc, 41; asst. chemist and later *assoc. chemist, east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* A.A; Chem. Soc. Phenacyl carbinamines; lactic esters; acrylic resins.

Rehder, Prof. Alfred, Arnold Arboretum, Jamaica Plain, Mass. *§*Botany, Dendrology.* Waldenburg, Saxony, Sept. 4, 63. Gym. Zwickau, 76–81; Berlin, 84–85; Göttingen, 89–91; hon. A.M, Harvard. Asst, Arnold Arboretum, *Harvard,* 98–18, curator herbarium, 18–40, assoc. prof. *dendrol, univ,* 34–40, *emer. assoc. prof, 40–* A.A; Bot. Soc; Soc. Hort. Sci; Am. Acad; New Eng. Bot. Club; Boston Soc. Nat. Hist; Linnean Soc. London; Bot. Soc. Edinburgh; Deuts. Bot. Gesell; Dendrol. Gesell; Tokyo Bot. Soc; Peking Soc. Nat. Hist. Taxonomy and bibliography of woody plants; Chinese ligneous plants.

Rehder, Dr. Harald A(lfred), U. S. National Museum, Washington, D. C. *Zoology.* Jamaica Plain, Mass, June 5, 07. A.B, Bowdoin Col, 29; A.M, Harvard, 33; Ph.D, George Washington 34. Senior sci. aid, *div. mollusks, U. S. Nat. Museum,* 32–34, asst. curator, 34–42, *assoc. curator, 42–* Malacol. Union (pres, 40); Am. Geog. Soc; Biol. Soc. Wash; Boston Soc. Nat. Hist; Conchol. Soc. Gt. Britain and Ireland. Systematic malacology; geographical distribution of mollusks.

Rehm, Dr. Warren S(tacy), Jr, University of Louisville School of Medicine, Louisville, Ky. *Physiology.* Lancaster, Pa, Oct. 16, 07. A.B, Texas, 30, fellow, 33–35, Ph.D, 35; M.D, Chicago, 41. Chemist, Armstrong Cork Co, 28–29; tutor zool, Texas, 30–33; research bot, Chicago, 35–37; instr. *physiol, sch. med, Louisville,* 40–42, *asst. prof, 42–* A.A. Correlation between bioelectric and morphological patterns in Phaseolus multiflorus; electrical energy output of the mammalian stomach.

Rehman, Dr. Irving, 477 First Ave, New York, N. Y. *Anatomy.* New York, N. Y, July 17, 11. B.S, N. Y. Univ, 33, M.S, 35, Ph.D, 39. Asst. *anat, col. dentistry, N. Y. Univ,* 34–36,

instr, 36– A.A; Biol. Photog. Asn; Asn. Physical Anthrop. Anatomical and physiological changes in the fetus, newborn and infant; teaching methods in anatomy; developmental anatomy.

Rehn, James A(bram) G(arfield), Academy of Natural Sciences, Philadelphia, Pa. **7Zoology, Mammalogy, Orthopterology.* Philadelphia, Pa, Oct. 26, 81. Pa. Acad. Fine Arts. Asst. curator, *Acad. Nat. Sciences, Phila,* 03–25, assoc. curator, 25–33, *curator entom, 33–,* sec'y, 20–38, *cor. sec'y, 38–* A.A; Soc. Mammal; assoc. Ornith. Union; Entom. Soc. (ed, 12–26, treas, 29–, pres, 41–); fel. Entom. Soc. Amer. Faunistic and systematic studies in the Orthoptera at large; geographical distribution of North American Orthoptera.

Rehner, Dr. John, Jr, Standard Oil Development Co, Linden, N. J. *Physical chemistry.* New York, N. Y, Oct. 29, 08. B.S, Missouri, 29, A.M, 30; Ph.D, Minnesota, 33. Asst. civil eng, Missouri, 28–29, chem, 29–30; Minnesota, 30–33, research physics, 33–34; *research chemist,* B. F. Goodrich Co, 34–41; *Standard Oil Develop. Co, 41–* Chem. Soc. Physics; adsorption phenomena of dyes; thermodynamics of strong electrolytes; quantum mechanics of x-ray bands; surface chemistry; rubber chemistry.

Reiber, Dr. Harold G(eorge), College of Agriculture, University of California, Davis, Calif. *Chemistry.* Stratford, Ont, Can, Dec. 6, 01. B.S, Alberta, 27, M.S, 30; Ph.D, California, 33. Asst. provincial analyst, Alberta, 28–30; research chemist, Union Oil Co, Calif, 33–37; instr. and later *asst. prof. chem, California, 37–,* junior chemist and later *asst. chemist, Exp. Sta, col. agr, 37–* Preparation and properties of tetra-alkyl iminium salts and bases; development and utilization of by-products in the petroleum industry.

Reich, Prof. Herbert J(oseph), 507 S. Willis St, Champaign, Ill. *Physics, Electrical engineering.* Staten Island, N. Y, Oct. 25, 00. M.E, Cornell, 24, M.S, 26, Ph.D, 28. Instr. machine design, Cornell, 24–25, asst. physics, 25–26, instr, 26–29; asst. prof. *elec. eng, Illinois,* 29–36, assoc. prof, 36–39, *prof, 39–* A.A; Physical Soc; Elec. Eng; Radio Eng; Eng. Educ; Ill. Acad. Electron tubes and electron-tube circuits; ultra-high frequency techniques.

Reich, Dr. Wilhelm, 99–06 69th Ave, Forest Hills, L. I, N. Y. *Sexeconomy.* Austria, March 24, 97. M.D, Vienna, 22. Asst, Vienna Psychoanal. Polyclinic, 22–28, v. director, 28–30; *director, Orgone Inst, 36–; Orgone and Cancer Research Lab, 39–;* assoc. prof. *med. psychol, New Sch. Social Research,* 39–41, *emer. assoc. prof, 41–* Attending physician, Vienna Psychiat. Clinic, 22–24; teacher and lecturer, Psychoanal. Clinics, Vienna and Berlin, 24–33; director, Vienna Tech. Seminar Psychoanal, 24–30; Mental Hygiene Centers, Berlin and Vienna, 28–33; lecturer and research, psychol. inst, Oslo, 34–39. Am. Acad. Polit. and Social Sci; hon. mem. Int. Soc. Plasmogeny. Orgone biophysics; character analytic vegetotherapy; mental disease and other biopathies, especially cancer; sexeconomy in connection with emotional ailments; irrationalism in society and politics; technic of changing human emotional structure from irrational to rational acting and thinking.

Reichard, Prof. Gladys A, Barnard College, Columbia University, New York, N. Y. *Anthropology.* Bangor, Pa, July 17, 93. A.B, Swarthmore Col, 19; A.M, Columbia, 20, Ph.D, 25, fellow, California, 22–23. Asst. *anthrop, Barnard Col, Columbia,* 21–22, instr, 23–27, asst. prof, 28–41, *assoc. prof, 41–* Guggenheim Mem. Foundation fellow, Hamburg, Germany, 26–27. Field trips, Arikara, Wiyot, Coeur d'Alene and Navajo Indians, 21–41. A.A; Folk-Lore Soc. (sec'y, 24–36, ed, 39, pres, 43); Ethnol. Soc. (sec'y, 24–26). Wiyot grammar and texts; Navajo social life; Melanesian design; Navajo weaving, sand-paintings, language and ethnology; Coeur d'Alene language.

Reichart, Prof. Ernest L(eo), University of Nebraska, Lincoln, Nebr. *Dairy manufactures.* Toledo, Ohio, Feb. 18, 01. B.S, Kans. State Col, 24; M.S, Nebraska, 28. *Assoc. prof. dairy husbandry, Nebraska, 24–* Dairy Sci. Asn. Cheese; ice cream; butter.

Reiche, Prof. F(ritz), 601 W. 113th St, New York, N. Y. *Theoretical physics.* Berlin, Germany, July 4, 83. Ph.D, Berlin, 07, 11–13; Breslau, 08–11. Instr. theoret. physics, Berlin, 13–21, asst. to Prof. Planck, 15–18; prof. theoret. physics, Breslau, 21–33; guest prof, Prague, 34–35; *assoc. prof. physics, New Sch. Social Research, 41–* Optics; quantum theory.

92

Reiche, Prof. Parry, University of New Mexico, Albuquerque, N. Mex. *Geology.* Sharon, Mass, Dec. 16, 99. B.S, Mass. Inst. Tech, 22; Ph.D, California, 34. Asst. geologist, Shell Oil Co, 25–30; regional geologist, soil conservation service, U. S. Dept. Agr, 34–40; asst. prof. *geol, New Mexico,* 40–43, *assoc. prof, 43–* A.A; Asn. Petrol. Geol; Geol. Soc. Sedimentology; geomorphology.

Reichel, Dr. John, Reichel Laboratories, Kimberton, Pa. *Pathology.* Cincinnati, Ohio, May 30, 86. D.V.M, Pennsylvania, 06. Lab, Pa. State Livestock Sanit. Board, Univ. Pennsylvania, 05–10; director, Mulford Vet. Biol. Lab, 11–17, Mulford biol. labs, Sharp and Dohme, 17–36, tech. div, labs, 36–40; *pres. and director, Reichel Labs, 40–* A.A; Soc. Bact; Tuber. Asn; Pub. Health Asn; Chem. Soc; Vet. Med. Asn; Path. Soc. Phila; Physiol. Soc. Phila; Union Int. contre la Tuber. Bacteriology; immunology; tuberculosis, rabies and other infectious diseases of animals and man; preservation of biological products by drying.

Reichert, Prof. Frederick L(eet), Stanford University Hospital, San Francisco, Calif. *Surgery.* Doylestown, Ohio, Nov. 17, 94. Ph.B, Franklin and Marshall Col, 16, Sc.D, 37; M.D, Hopkins, 20. Fellow *surg,* sch. med, Hopkins, 20–21, instr, 21–26; assoc. prof, *sch. med, Stanford,* 26–30, *prof, 30–* Asst. res. surgeon, Hopkins Hosp, 21–24, res. surgeon, 24–26. Pres, Pan. Pacific Surg. Cong. Fel. Am. Med. Asn; Soc. Exp. Biol; Neur. Asn; Surg. Asn; Pacific Coast Surg. Asn; North. Calif. Neuropsychiat. Soc; Calif. Acad. Med; Int. Soc. Surg. Neurosurgery; pulmonary and anastomotic circulation; circulatory balance; wound healing; development and regeneration of lymphatics; lymphoedema; elephantiasis; canine hypophysectomy and replacement therapy; thermal changes after sympathectomy; history of medicine.

Reichert, Dr. Joseph S, E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Chemistry.* Selden, Kans, Aug. 25, 89. A.B, Miami, 15; A.M, Minnesota, 17; Ph.D, Notre Dame, 22. Supervisor production, edible products dept, Procter and Gamble Co, 19–20; prof. chem. and asst. dean col. science, Notre Dame, 20–24; sect. chief, anti-gas dept, Chem. Warfare Service, Edgewood Arsenal, 24–28; *research chemist, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 28–* 2nd lieut, C.W.S, 17–19. Chem. Soc. Acetylene syntheses; chemical warfare; peroxygen products.

Reid, Dr. Cha(rle)s D(avid), Eastman Kodak Co, Rochester, N. Y. *Physics.* Toronto, Ont, Can, April 28, 99. B.Sc, Alberta, 23, M.Sc, 24; A.M, Harvard, 28, Ph.D, 30. Instr. physics, Harvard, 26–30; *physicist, develop. dept, Eastman Kodak Co, 30–* Energy distribution in ultra-sonic beams; velocity of sound of ultra-sonic frequencies; motion picture projectors; optical testing; photographic exposure meters.

Reid, Dr. Colin C(ampbell), Williams College, Williamstown, Mass. *Organic chemistry.* Chicago, Ill, March 18, 17. A.B, Princeton, 38; Ph.D, Yale, 41. Asst. *chem,* Yale, 38–40; *instr, Williams Col, 41–* Chem. Soc. Polymerization and high polymers, especially elastoprenes and elastoplastics.

Reid, Prof. Duncan H(enry), Agricultural and Mechanical College of Texas, College Station, Texas. *Poultry husbandry.* Montello, Wis, Feb. 19, 81. B.S, Wisconsin, M.S, 22. Instr, Wisconsin, 19–21, asst. prof, 21–23; *prof. poultry husbandry and head dept, Agr. and Mech. Col. Texas, 23–* Summers, instr, Minnesota, 20–22. Poultry Asn. (2nd v. pres, 31, 1st v. pres, 32, pres, 33); fel. Poultry Sci. Asn. (director, 34–36); Genetic Asn; Texas Acad. Feeding thyroid; a hen with variable plumage color; use of proteins from different sources in feeding baby chicks; crosses of different varieties of bobwhite quail.

Reid, Prof. E. Emmet, 203 E. 33rd St, Baltimore, Md. **3Chemistry.* Fincastle, Va, June 27, 72. A.M, Richmond, 92, LL.D, 17; fellow, Hopkins, 97–98, Ph.D, 98. Prof. chem, Col. of Charleston, 98–01; Baylor, 01–08; Carnegie asst, Hopkins, 08–09, Johnston scholar, 09–11; research chemist, Colgate and Co, 11–14; assoc. prof. chem, *Hopkins,* 14–16, prof. org. chem, 16–37, *emer. prof. chem, 37–* Consultant, E. I. du Pont de Nemours and Co, 19–; Hercules Powder Co, 26–; Thiokol Corp, 34–; Socony-Vacuum Oil Co, 37–; research adviser, Richmond, South Carolina, Emory, Furman, Alabama, Ga. Tech, Birmingham-Southern Col. and Howard Col. Summer, visiting prof, Chicago, 30. Consultant gas warfare, U. S. Bur. Mines and War Dept, 18–19; consultant, C.W.S, Edgewood Arsenal, 20– Chem. Soc. (chairman, div. org. chem, 20, director, 34–37); Inst. Chem. Organic chemistry; hydrolysis

and alcoholysis of acid amids; the formation of nitriles; organic sulfur compounds; relative solubilities; organic catalysis; identification of acids, alcohols and phenols; anthraquinone thio-ethers; influence of sulfur on the color of dyes; ethylation of benzene; derivatives of 'mustard gas'; high speed stirring; isomers and series.

Reid, Prof. Elliott G(ray), Stanford University, Calif. *Aerodynamics.* Sycamore, Ohio, May 29, 00. B.S, Michigan, 22, M.S, 23, Aeronaut. Eng, 38. Junior aeronaut. engineer, Nat. Advisory Cmt. for Aeronaut, 22–24, asst, 24–27, assoc, 27; *prof. aerodynamics, Stanford, 27–* Fel. Inst. Aeronaut. Sci; Soc. Automotive Eng; assoc. fel. Royal Aeronaut. Soc. Aerodynamics; performance and stability of airplanes; aircraft propellers; air resistance of motor cars.

Reid, Dr. E(rnest) W(elcom), Schenley Apartments, Pittsburgh, Pa. *Chemistry.* Chase, Kans, Dec. 17, 91. A.B, Southwestern (Kans), 16; M.S, Pittsburgh, 17, Ph.D, 30. Fellow, Mellon Inst, 16–21; research chemist, Carbide and Carbon Chem. Corp, 21–25, director sales develop, 25–36, European rep, 36–40; mem. advisory cmt, Council Nat. Defense, 40–41; asst. chief chem. sect, Office Production Management, 41; chief chem. branch, *War Production Board*, 42–43, *director gen. indust. div, 43–* Senior fellow, Mellon Inst, 25–36. Chem. Soc. Organic synthesis; organic solvents and their application.

Reid, Dr. Evans B(urton), Middlebury College, Middlebury, Vt. *Organic chemistry.* Brock Township, Ont, Can, March 29, 13. B.Sc, McGill, 37, Ph.D, 40. Asst, McGill, 37–38, demonstrator chem, 38–40; research chemist, Dom. Tar and Chem. Co, 40–41; instr. *chem, Middlebury Col,* 41–43, *asst. prof, 43–* Chem. Soc; assoc. Can. Inst. Chem. Dimeric ketenes and cyclobutane diones; synthesis and degradation of cyclic diketones.

Reid, Dr. G(eorge) H(ugh), Carbide and Carbon Chemicals Corp, South Charleston, W. Va. *Organic chemistry.* Boston, Mass, Feb. 12, 00. A.B, Harvard, 21, A.M, 23, Ph.D, 27. Instr, Maine, 25–27; *research chemist, Carbide and Carbon Chem. Corp, 27–* Chem. Soc.

Reid, Prof. Harry Fielding, 608 Cathedral St, Baltimore, Md. *[1]*Geophysics.* Baltimore, Md, May 18, 59. C.E, Pa. Mil. Acad, 76; A.B, Hopkins, 80, Ph.D, 85. Prof. math, Case, 86–89, physics, 89–94; lecturer, *Hopkins,* 94–96, assoc. prof. geol. physics, 96–01, prof, 01–11, *dynamic geol. and geog,* 11–30, *emer. prof, 30–* Assoc. prof, Chicago, 95–96; chief highway div, Md. Geol. Surv, 98–05; special expert in charge earthquake records, U. S. Geol. Surv, 02–14; Hitchcock lecturer, California, 11. Mem, Cmn. int. des Glaciers, 94–16, pres, 03–06. Del, Int. Geod. and Geophys. Union, 22– Nat. Acad; A.A; Physical Soc; Geol. Soc; Seismol. Soc. (pres, 12–14); Geophys. Union (pres, 24–26); Philos. Soc; Wash. Acad; Acad. Nat. Sci. Phila; hon. mem. Soc. helvétique des Sci. nat; Int. Seismol. Asn. (del, 06–22). Dynamic geology, seismology and glaciology; origin of mountain ranges; variation of glaciers.

Reid, H(enry) J(ohn) E(dward), National Advisory Committee for Aeronautics, Langley Field, Hampton, Va. *Engineering.* Springfield, Mass, Aug. 20, 95. B.S, Worcester Polytech, 19. Student engineer, Westinghouse Elec. and Mfg. Co, 19; chief maintenance dept, Noiseless Typewriter Co, 20–21; from junior mech. engineer to *engineer in charge, Nat. Advisory Cmt. Aeronautics, 21–* Fel. Inst. Aeronaut. Sci; Soc. Automotive Eng. Flight research; instruments.

Reid, Dr. J(ames) Douglas, Medical College of Virginia, Richmond, Va. *Bacteriology, Mycology.* Peace Dale, R. I, Jan. 2, 06. Ph.B, Brown, 28; Sc.D, Hopkins, 31. Bacteriologist, State Dept. Health, Minn, 31–32; research bacteriologist, Scarlet Fever Fund, City Bur. Health, Richmond, Va, 32–37; asst. prof. bacter, Tennessee, 37–38; assoc. *bacter. and parasitol, Med. Col. of Va,* 38–40, asst. prof, 40–42, *assoc. prof, 42–* Pub. Health Asn; Va. Acad. Streptococci; pathogenic fungi; spirochetes; disinfection.

Reid, Prof. J(ames) J(ohnston), Pennsylvania State College, State College, Pa. *Agricultural bacteriology.* Indianapolis, Ind, Aug. 7, 98. B.S, Purdue, 23; M.S, Wisconsin, 33, Ph.D, 36. Asst. *bacter,* Wisconsin, 32–36; asst. prof, *Pa. State Col,* 36–41, *assoc. prof, 41–* Yeast metabolism; nitrogen fixation; tobacco fermentation; bacterial leaf spot diseases.

Reid, Dr. J(ohn) David, Southern Regional Research Laboratory, New Orleans, La. *Cellulose chemistry.* Portland, Oregon, Feb. 19, 09. B.S, State Col. Wash, 30; A.M, George Washington, 32; Ph.D, American Univ, 37. Jr. chemist, color and farm waste div, bur. chem. and soils, U. S. Dept. Agr, 30–37; asst. chemist, agr. by-products lab, Iowa State Col, 37–40; assoc. chemist, *south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr,* 40–42, *chemist, 42–* Chem. Soc; Inst. Chem. Ketonimine dyestuffs; analytical methods for cellulose and formic acid; lignin and cellulose research.

Reid, Dr. L(egh) W(ilber), Haverford College, Haverford, Pa. *Mathematics.* Alexandria, Va, 67. B.S, Va. Mil. Inst, 87; A.B, Hopkins, 89; M.S, Princeton, 96; Ph.D, Göttingen, 99. Instr. *math,* Princeton, 93–97, 99–00; *Haverford Col,* 00–01, assoc. prof, 01–07, prof, 07–34, *emer. prof, 34–* Class numbers of cubic algebraic number realms; the elements of the theory of algebraic numbers.

Reid, Dr. L(oudon) Corsan, 1 E. 105th St, New York, N. Y. *Physiology.* North Bay, Ont, Can, Oct. 13, 93. M.D, McGill, 16. Surg. pathologist, Fifth Ave. Hosp, 37–41; research assoc. *physiol, N. Y. Med. Col,* 41, *assoc. prof, 41–; U. S. Army, 42–* Harvey Soc. Respiration.

Reid, Dr. Marion A(delaide), 80 E. Concord St, Boston, Mass. *Physiology.* Beverly, Mass, Nov. 23, 03. A.B, Boston, 24, A.M, 29, Ph.D, 36. Tissue technician, path. lab, Mass. Mem. Hosps, 24–26; sec'y-technician physiol, sch. med, Boston Univ, 26–27; asst, Evans Mem, 27–29; *instr. physiol, sch. med, Boston Univ, 29–* Mem. staff, Sargent Col. Physical Ed, 37; lecturer, Boston Soc. Physio-therapists, 37; mem. staff, sch. nursing, Boston City Hosp, 37– A.A; Physiol. Soc; Nat. Hist. Soc; New Eng. Nat. Hist. Soc; Boston Soc. Biol. Muscle; nerve-muscle; neurogenic and myogenic lymphatic hearts; chemical analysis of effect of lead poisoning on muscle.

Reid, Dr. Mary Elizabeth, 3900 Hamilton St, Hyattsville, Md. *Plant physiology, Biochemistry.* Oconomowoc, Wis, May 30, 85. A.B, Wisconsin, 10, fellow, 20–22, Ph.D, 23. Teacher, sch, Wis, 10–17; univ. high sch, Wisconsin, 17–19; fellow plant physiol, Boyce Thompson Inst, 23–26; Sterling research fellow biochem, Yale, 26–29; plant physiologist, green sect, U. S. Golf Asn, 29–33; *cytologist, nat. inst. health, U. S. Pub. Health Service, 36–* A.A; Bot. Soc; Soc. Plant Physiol; assoc. Soc. Exp. Biol; Wash. Bot. Soc; Wash. Acad. Effect of variations of carbohydrates and nitrogen on growth of seedlings and cuttings; effect of variations in hydrogen ion concentration and mineral nutrients on the growth of turf grasses; vitamin C in plants; physiology of vitamin C.

Reid, Dr. Robert J(ohn), Firestone Tire and Rubber Co, Akron, Ohio. *Organic chemistry.* Ashland, Ohio, Oct. 20, 11. A.B, Ohio State, 34, M.S, 36, Ph.D, 38. *Research chemist, Firestone Tire and Rubber Co.* Chem. Soc. Rubber technology; rubber derivatives; plastics.

Reid, Dr. Roger D(elbert), 1833 E. Monument St, Baltimore, Md. *Bacteriology, Immunology.* Lamont, Iowa, July 31, 05. A.B, South Dakota, 27; M.S, Pa. State Col, 31, Ph.D, 35. Instr, South Dakota, 29–30; asst. bacter, Pa. State Col, 30–31, instr, 31–35, asst. prof, 35–36; asst. prof. bacter. and immunol, Idaho, and asst. bacteriologist, Exp. Sta, 36–37; *instr. bacter, sch. med, Hopkins, 37–; capt, Sanit. Corps, U. S. Army, and officer in charge labs, Ft. Meade, 41–* A.A; Soc. Bact. Bacterial physiology and pigmentation; microbic antagonisms; mode of action of sulfonamides on pneumococcus and gonococcus; diagnostic tests in bacteriology; antigens of the pneumococcus; cultivation and growth of gonococcus.

Reid, Prof. W. Malcolm, Monmouth College, Monmouth, Ill. *Parasitology.* Ft. Morgan, Colo. M.S, Kans. State Col, 37, Ph.D, 41; Brown, 37–38; Michigan, 39. Instr. biol. and Eng, Assiut Col, Egypt, 32–35; *asst. prof. biol. and head dept, Monmouth Col, 38–* Soc. Parasitol; Ill. Acad. Life history and physiology of chicken cestodes.

Reid, Dr. Walter P(hillip), Purdue University, Lafayette, Ind. *Mathematical physics.* Cleveland, Ohio, Aug. 8, 16. B.S, Carnegie Inst. Tech, 38, M.S, 39; Ph.D, Pittsburgh, 42. Teaching asst. physics, Carnegie Inst. Tech, 38–39; asst, Pittsburgh, 39–42; *mem. staff,* U. S. Rubber Co, 42–43; *Purdue, 43–* A.A; Physical Soc. Effect of high electrostatic fields upon the resistance and vaporization of molybdenum filaments.

Reid, Prof. (William) Curtis, 239 N. 30th St, Corvallis, Oregon. *Physics.* Essex, Mo, April 12, 08. A.B, Willamette, 29; M.S, N. Y. Univ, 32; Ph.D, Oregon State Col, 41. Asst. *physics,* N. Y. Univ, 29–33; instr, *Oregon State Col,* 37–42. *asst. prof, 42–; asst. prof. visual instruction and head dept, Oregon State System Higher Educ, 42–* Reflection factors of polished metals at high temperatures in the infra-red.

Reid, Prof. W(illia)m H(erbert) E(ddy), University of Missouri, Columbia, Mo. *Dairying.* Geneva, N. Y, 94. B.S, Wisconsin, 19; A.M, Missouri, 20. *Prof. dairy husbandry, Missouri, 20–* Ice cream; market milk; butter; cheese; milk products; condensed milk.

Reid, W(illiam) J(ohn), Jr, P. O. Box 324, Charleston, S. C. *Entomology.* Richburg, S. C, Sept. 28, 02. B.S, Clemson Col, 24. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 24–29, asst. entomologist, 29–43, *assoc. entomologist, 43–* Asn. Econ. Entom. Biology and control of insects affecting vegetable crops.

Reid, Prof. W(illiam) T(homas), University of Chicago, Chicago, Ill. *Mathematics.* Grand Saline, Texas, Oct. 4, 07. A.B, Hardin-Simmons, 26, hon. Sc.D, 43; A.M, Texas, 27, Ph.D, 29. Nat. research fellow *math, Chicago,* 29–31, instr, 31–37, asst. prof, 37–42, *assoc. prof, 42–* Math. Soc; Math. Asn. Differential and integro-differential equations; calculus of variations.

Reid, William T(homas), U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Fuel engineering.* Racine, Wis, Feb. 14, 07. B.S, Washington (Seattle), 29. Junior fuel engineer, *U. S. Bur. Mines,* 29–34, asst. fuel engineer, 34–37, assoc. fuel engineer, 37–42, *fuel engineer, 42–* Mech. Eng. Coal ash slags; effect of addition of chemicals to solid fuels on the combustion characteristics; utilization of fuels; physical properties of coal ash at high temperatures.

Reid, Prof. W(illis) A(lton), North Carolina State College, Raleigh, N. C. *Organic chemistry.* Whitakers, N. C, Aug. 6, 07. B.S, Wake Forest Col, 28; Hopkins, 28–30; Ph.D, Wisconsin, 40. Instr. *chem, N. C. State Col,* 30–40, *asst. prof, 40–* Summers, asst, Am. Petrol. Inst, 29, 30. A.A; Chem. Soc; N. C. Acad. Dehydrogenation; sulfur compounds.

Reif, Prof. Edward C(larence), 74 N. Bryant Ave, Bellevue, Pa. *Pharmacology.* Pittsburgh, Pa, Jan. 8, 88. Ph.G, Pittsburgh, 06, Ph.C, 16, Phar.D, 19. Asst. prof. bot, *dept. pharmacy, Pittsburgh,* 22–24, *prof.* physiol, 25–29, *physiol. and mat. med, 29–, director courses hosp. lab. technique, 22–* Biochemist and lecturer, St. John's Gen. Hosp, 19–; lecturer, McKeesport Gen. Hosp, 14–18. Summer, assoc. director, Lake sch. biol, Thiel Col, 24. Pharmaceut. Asn; Pa. Pharmaceut. Asn. Biochemistry; pharmacology of Galinsoga; resin content of Podophyllum; narcotic addiction; vitamins.

Reiff, Dr. O(rland) M, Socony Vacuum Oil Co, Paulsboro, N. J. *Organic chemistry.* Bucyrus, Ohio, Aug. 3, 98. A.B, Oberlin Col, 22, A.M, 23; Grafflin scholar, Hopkins, 25–26, Ph.D, 26. *Research chemist, Socony Vacuum Oil Co, Inc, 26–* Chem. Soc. Refined petroleum distillates.

Reimann, Dr. Hobart A(rnsteth), Jefferson Hospital, Philadelphia, Pa.. *Medicine.* Buffalo, N. Y, Oct. 31, 97. M.D, Buffalo, 21. Asst. Rockefeller Inst. Hosp, 23–26; nat. research fellow path, Prague, 26–27; assoc. prof. *med,* Peking Union Med. Col, 27–30; Minnesota, 30–36; *prof, Jefferson Med. Col, 36–* Soc. Exp. Biol; Soc. Clin. Invest; Am. Physicians; Soc. Exp. Path; Cent. Interurban Clin. Soc. Infectious disease.

Reimann, Dr. Stanley P(hilip), Lankenau Hospital, Philadelphia, Pa. *Pathology.* Philadelphia, Pa, Oct. 13, 91. M.D, Pennsylvania, 13; Sc.D, Hahnemann Med. Col, 41. Hanna research fellow path, Western Reserve, 16–17; asst. prof. exp. path, *Pennsylvania,* 20–25, grad. sch. med, 20–30, *assoc. prof. surg. path. and lecturer zool, 30–; director research inst, Lankenau Hosp, 17–; prof. oncology, Hahnemann Med. Col. and Hosp, 38–* Ward Burdick award, Am. Soc. Clin. Path, 37. A.A; Soc. Clin. Path. (v. pres, 37); Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn; Physiol. Soc; Col. Physicians Phila. Pathology of growth.

Reimer, F(rank) C(harles), Southern Oregon Branch Experiment Station, Talent, Oregon. *Horticulture.* Stevensville, Mich, Sept. 4, 81. B.S, Mich. State Col, 03; M.S, Florida, 05. Asst. botanist and horticulturist, Florida, 03–05; from asst. prof. to prof. hort, N. C. State Col, 05–11; *supt, South. Oregon Branch Exp. Sta, Oregon State Col, 11–* Explorer for State of Oregon and U. S. Dept. Agr, Japan, Korea and China, 17, 19. Soc. Hort. Sci; Phytopath. Soc; Asn. Northwest. Hort, Entom. and Plant Path. (pres, 31). Pollination and breeding of muscadine grapes; blight resistance of pears; pear root stocks; pollination and breeding of pears; sulfur as a fertilizer for alfalfa.

Reimer, Prof. Marie, Barnard College, Columbia University, New York, N. Y. *Chemistry.* Northumberland, Pa. A.B, Vassar Col, 97; Berlin, 02–03; Ph.D, Bryn Mawr Col, 04. From instr. to *prof. chem, Barnard Col, Columbia, 03–* A.A; Chem. Soc. Reactions of unsaturated organic compounds.

Reimert, Dr. L(awrence) J(ohn), 204 Columbia Ave, Palmerton, Pa. *Physics.* New Tripoli, Pa, March 11, 12. B.S, Muhlenberg Col, 32; Chicago, 32, 34; Charles A. Coffin fellow, Hopkins, 39–40, Ph.D, 41. Instr. physics and math, Muhlenberg Col, 32–34; junior instr. physics, Hopkins, 34–40; *investigator, research div, N. J. Zinc Co, 40–* Atomic beams; photoelectric effect.

Reinders, Dr. Victor A, Mallard, Iowa. *Chemistry.* Mallard, Iowa, Dec. 27, 06. A.B, Carroll Col. (Wis), 29; A.M, Wisconsin, 30, Ph.D, 35. Instr. *chem, exten. div, Wisconsin, Milwaukee,* 30–33, 35–38, *asst. prof, 38–; 2nd lieut, Air Corps, U. S. Army, 42–* Chem. Soc. Chemistry of rhenium in its lower valence states.

Reindollar, W(illia)m F(ranklin), 5701 Stoney Run Drive, Baltimore, Md. *Biochemistry.* Baltimore, Md, Feb. 9, 98. Ph.G, Maryland, 18, M.S, 35; B.S, Hopkins, 34, Sc.D, 37. Asst. chemist, *bur. chem, State Dept. Health, Md,* 19–30, asst. chief bur, 30–35, *chief bur, 36–* Lecturer, sch. pharmacy, Maryland, 22–27. A.A; fel. Pub. Health Asn; Asn. Food and Drug Officials (chairman ed. cmt); Chem. Soc; Pharmaceut. Asn; Agr. Chem. (cmt. recommendations of referees, 39–). Food chemistry; pharmaceutical chemistry.

Reinecke, Dr. Roger M(inske), Mayo Clinic, Rochester, Minn. *Physiology.* Waseca Co, Minn, Nov. 20, 14. B.S, Minnesota, 37, A.M, 38, B.M, 40, Ph.D. and M.D, 41. Teaching asst. anat, Minnesota, 37–38, physiol. chem, 40, physiol, 40–41; *asst, div. biochem, Mayo Clinic, 41–; lieut, U. S. Army.* A.A; Chem. Soc. Metabolism of fructose; relationship of pituitary gland to metabolism; relationship of adrenal gland to metabolism.

Reineke, Prof. E(zra) P(aul), 1305 Ross, Columbia, Mo. *Dairy chemistry.* Waseca, Minn, Jan. 5, 09. B.S, Minnesota, 34; A.M, Missouri, 36; Ph.D, 42. Instr. *dairy husbandry, Missouri,* 38–42, *asst. prof, 42–* Biochemistry and physiology of milk secretion; formation of thyroactive iodinated proteins; recovery of thyroxine from thyroactive iodinated proteins; influence of thyroidal materials on the secretion of milk and milk fat.

Reineke, L(ester) H(enry), U. S. Forest Service, New Haven, Conn. *Forestry.* New York, N. Y, May 15, 00. B.S, Cornell, 29; Baker fellow, California, 29–31. Junior forester, Appalachian Forest Exp. Sta, *U. S. Forest Service,* 24–25, asst. silviculturist, branch research, 25–30, asst. and assoc. silviculturist, Calif. Forest and Range Exp. Sta, 30–32, assoc. silviculturist and *silviculturist, North. Forest Exp. Sta, 32–* Soc. Foresters. Forest mensuration; statistical methods; stem growth of forest trees.

Reiner, Dr. L(aszlo), 165 Franklin St, Bloomfield, N. J. *Experimental medicine.* Budapest, Hungary, Jan. 21, 94. M.D, Budapest, 17; Ph.D, Frankfurt, 21. Asst. prof, Royal Elisabeth Univ, Hungary, 18–19, assoc. prof, 23–29; instr. bacter, N. Y. Univ, 29–34; research consultant, Burroughs Wellcome and Co, Tuckahoe, 29–38, director research labs, 38–42; *research dept, Wallace and Tiernan Products, Inc, 42–* Inst. Kolloidforschung, Frankfurt, 19–22; Rockefeller Foundation traveling fellow, 24–25. Kornfeld prize, 26. A.A; Asn. Immunol; Soc. Exp. Biol; Soc. Biol. Chem; Chem. Soc; Faraday Soc; N. Y. Acad. Biophysical chemistry; immunology.

Reiner-Deutsch, Major W(illia)m, William Beaumont General Hospital, El Paso, Texas. *Bacteriology.* Senica, Czechoslovakia, March 13, 98. Ph.D, Prague, 21. Assoc. bacteriologist and *bacteriologist,* Doctors Hosp, New York, 30–39; *consultant bacteriologist, Molnar Labs, 39–; exec. director, Triboro Labs, 39–; research director, Clark and Clark, 41–; major, Sanit. Corps, U. S. Army.* A.A; Soc. Bact. (v. pres, New York branch, 34, pres, 35, chairman council, 34–37, 42–, councilor, 39); fel. N. Y. Acad; Int. Tuber. Union. Medical bacteriology; arthritis; allergy; bacteriology and serology of intestinal flora; viruses.

Reingold, Dr. Haim, 146 N. Parkside Ave, Chicago, Ill. *Mathematics.* Lodz, Poland, March 16, 10. A.B, Cincinnati, 33, A.M, 34, Ph.D, 38. Instr. *math,* Cincinnati, 35–36, teaching fellow, 37–38; prof. and head dept, Our Lady of Cincinnati Col, 38–42; supervisor instruction, Sig. Corps Training Schs, *Ill. Inst. Tech,* 42–43, *asst. prof, 43–* Math. Soc; Math. Asn. Invariants of a system of linear homogeneous differential equa-

tions of the second order; generalized determinants of Vandermonde.

Reinhard, Prof. Edward G(eorge), Catholic University of America, Washington, D. C. *Zoology.* Buffalo, N. Y, Oct. 20, 99. A.B, Woodstock Col, 22, A.M, 23; Ph.D. Minnesota, 30. Instr. biol, Fordham, 23–24; Canisius Col, 24–25; asst. biologist, Buffalo Soc. Nat. Sciences, 25–27; assoc. biologist, State Dept. Health, Minn, 27–30; staff ed, Compton's Pictured Encyclop, 30–33; assoc. prof. *biol,* St. Thomas Col. (Pa), 33–35, prof. and head dept, 35–38, Scranton, 38–40; *assoc. prof. and head dept, Catholic Univ. (D. C), 40–* Summers, ranger naturalist, Yellowstone Nat. Park, 30; instr, Ball State Teachers Col. (Ind), 33; instr. in charge invert. zool, Marine Biol. Sta, Maine, 36–41. A.A; Genetics Soc; Limnol. Soc; Soc. Zool; Wash. Acad. Habits of solitary wasps; plankton; biology of rhizocephala.

Reinhard, H(enry) J(onathan), Agricultural and Mechanical College of Texas, College Station, Texas. *Entomology.* Amherst, Ohio, Nov. 6, 92. B.S.A, Ohio State, 15. Asst. entomologist, Exp. Sta, Iowa State Col, 15–16; *entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 16–* Asn. Econ. Entom. Cotton, truck and forage crop insects; taxonomy of muscoid flies.

Reinhard, M(elvin) C(harles), 247 Berkshire Ave, Buffalo 15, N. Y. *Biophysics.* Buffalo, N. Y, May 9, 97. B.S, Buffalo, 24, A.M, 25. Asst. physicist, *State Inst. Study Malignant Disease, Buffalo,* 22–26, *physicist, 26–* Ultra-violet absorption spectra of organic compounds and biological fluids; physics of radiation in its application in the treatment of disease.

Reinhardt, G(ustav) A(dolph), 59 Mill Creek Drive, Youngstown, Ohio. *Metallurgical engineering.* New Washington, Ohio, April 22, 81. B.S, Case, 05; Met.E, Harvard, 13. Chemist, Dom. Iron and Steel Co, Sydney, N. S, Can, 05; Carnegie Steel Co, 06; chief chemist, Salem Iron Co, Leetonia, Ohio, 06–07; Cleveland Furnace Co, 07–09; Crowell and Murray, 09–11; asst. to Prof. Albert Sauveur, Harvard, 12–13; metal. engineer, *Youngstown Sheet and Tube Co,* 13–29, *director metal. and research, 29–* Am. Iron and Steel Inst; Min. and Metal. Eng; Soc. Test. Mat. (exec. cmt, 30–32); Standards Asn; Asn. Steel Manufacturers (pres, 28–30); Iron and Steel Inst. Gt. Britain; British Inst. Metals. Steel making.

Reinhart, Dr. Francis E(dward), Biochemical Research Foundation, Newark, Del. *Organic chemistry.* New Haven, Conn, March 26, 09. B.S, Yale, 32, Ph.D, 37. Research chemist, E. I. du Pont de Nemours and Co, 35–36; *chemist, Biochem. Research Foundation, Franklin Inst, 37–* Chem. Soc. Organic synthesis; chemotherapy; biological chemistry.

Reinhart, Frank W(alter), 9918 Sutherland Road, Silver Spring, Md. *Organic chemistry.* Bellwood, Pa, July 16, 07. B.S, Juniata Col, 30; Columbia, 30; Maryland, 37–42. Instr. chem, Juniata Col, 30–37; junior chemist *plastics, Bur. Standards,* 37–40, asst. chemist, 40–41, assoc. chemist, 41–42, *chemist, 42–* Chem. Soc. Organic plastics; airplane dopes; lacquers; phenolic resins; plastic applications; reinforced plastics.

Reinhart, Dr. Harry L(ouis), Starling-Loving University Hospital, Columbus, Ohio. *Pathology.* Stanford, Ky, June 9, 95. A.B, Ohio State, 22, M.D, 24. Lieut. (j.g), U. S. Navy, 24–27; instr. *path, Ohio State,* 27–30, asst. prof, 30–37, assoc. prof, 37–42, *prof, 42–, acting chairman dept, 42–, director labs, Starling-Loving Univ. Hosp, 32–, director training sch. for med. technologists, 36–* Director labs, Grant Hosp, 32–41. Am. Med. Asn; Soc. Clin. Path; Asn. Path. and Bact; Asn. Hist. Med; Ohio Soc. Path. Morphological and clinical pathology; clinical pathology as related to liver function.

Reinhart, Dr. Philip W(ingate), 1008 W. Sixth St, Los Angeles, Calif. *Geology, Paleontology.* Ferguson, Mo, Nov. 5, 05. A.B, Stanford, 27, A.M, 28, Ph.D, 33. *Geologist, Shell Oil Co,* 28–31, *33–* Asn. Petrol. Geol; Paleont. Soc; Paleont. Soc. Japan.

Reinhart, Prof. Raymond E(arl), South Dakota State College, Brookings, S. Dak. *Physics.* Goltry, Okla, June 17, 05. A.B, Phillips, 27; M.S, Washington (Seattle), 29; Ph.D, Kansas, 33. Teaching fellow, Washington (Seattle), 27–29; asst. instr, Kansas, 30–33; instr. *physics,* Arkansas, 33–34; asst. prof, *S. Dak. State Col,* 34–37, *prof. and head dept, 37–* A.A; Physical Soc; Asn. Physics Teachers. Magnetism.

Reinhart, Warren H(arry), National Institute of Health, U. S. Public Health Service, Washington, D. C. *Industrial hygiene.* Spring City, Pa, July 23, 03. B.S, Pa. State Col, 24; M.S, Cincinnati, 26. Asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 24–25; from asst. to instr. biochem, col. med, Cincinnati, 25–29; inspector, City of Cincinnati, 29–30; asst. toxicologist and asst. biol. chemist, exp. sta, U. S. Bur. Mines, Pittsburgh, 30–34; asst. biochemist, *indust. hygiene div, nat. inst. health, U. S. Pub. Health Service,* 35–40, *assoc. chemist, 40–, indust. hygiene engineer, div. indust. hygiene, State Health Dept, La, 42–,* indust. hygiene surv, 35–36. Summer, asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 26. Mem, Nat. Conf. Governmental Indust. Hygienists. A.A; Chem. Soc; Indust. Hygiene Asn. Industrial hygiene; physiology of reproduction; toxicity of vapors, dusts and gases.

Reinheimmer, Dr. Hans H(einrich), Sand Springs Road, Williamstown, Mass. *Physics.* Bruchsal, Germany, April 9, 95. Dr. physics, Bonn, 23. Director testing dept, Rhein. Draht and Kabelwerke, Cologne, 23–28; director labs, Norddeutsche Kabelwerke, Berlin, 28–34; elec. engineer, Buenos Aires, Argentine, 35; tech. manager, Fábrica Uruguaya de Conductores Eléctricos, Montevideo, Uruguay, 35–37; asst. prof. *physics,* Boston Col, 38–43; *visiting assoc. prof, Williams Col, 43–* Physical Soc; Optical Soc. Spectroscopy; high-voltage transmission; long-distance telephony.

Reinhold, Dr. John G(unther), Philadelphia General Hospital, Philadelphia, Pa. *Biochemistry.* Milwaukee, Wis, Oct. 29, 00. B.S, Wisconsin, 24; M.S, Yale, 26; Ph.D, Pennsylvania, 33. Asst. biochemist, *Phila. Gen. Hosp,* 25–27, *chief biochemist, 27–; instr. physiol. chem, grad. sch. med, Pennsylvania, 33–* Chem. Soc; Soc. Biol. Chem. Clinical biochemistry; bile; lipids; muscle disease; sulfonamides; vitamin B complex.

Reinke, Prof. E(dwin) E(ustace), 1702 Beechwood Ave, Nashville, Tenn. *Zoology.* Jamaica, B. W. I, June 27, 87. A.B, Lehigh, 08, A.M, 09; fellow, Princeton, 09–13, Ph.D, 13. Asst. biol, Lehigh, 08–09; Procter fellow, Princeton, 13–14; instr. *biol,* Rice Inst, 14–15; asst. prof, *Vanderbilt,* 15–17, assoc. prof, 17–22, *prof, 22–, chairman div. nat. science and math, 41–* Director, Highlands Museum and Biol. Lab, N. C. 29–35. Research assoc, Carnegie Institution expeds, Jamaica, 11, 12; Dry Tortugas Lab, 13–15. A.A; Soc. Zool; Asn. Anat; hon. mem. Ala. Acad. Cytology; spermic dimorphism among the prosobranch snails; vertebrate embryology; Amphibia.

Reinking, Dr. Otto A(ugust), N. Y. State Agricultural Experiment Station, Geneva, N. Y. *Plant pathology.* Madison, Wis, Feb. 11, 90. B.S.A, Wisconsin, 12, M.S, 15, Ph.D, 22. In charge dept. agr, Mid-Pacific Inst, Mills Sch, Honolulu, Hawaii, 12–13; instr, Colo. Agr. Col, and asst. botanist, Exp. Sta, 15–16; asst. prof. and prof. plant path, Philippines, and plant pathologist, Exp. Sta, 16–21; pathologist, United Fruit Co, Cent. Amer, and research dept, Boston, 22–27, director trop. research, 27–32; private research, Europe, 32–35; *prof. plant path. and head div, N. Y. Exp. Sta, 36–* Collaborator, U. S. Dept. Agr, China, Siam and the East, 19–22; trop. cmt, Nat. Research Council, 21; office for. agr. relations, U. S. Dept. Agr. to cooperate with Latin Am. develop. program, 42–; special assignment to determine copper sulfate requirement for banana spraying in Cent. Amer, U. S. Dept. Agr, U. S. State Dept. and Board Econ. Warfare, 42–43. Mem. plant path. board, Trop. Plant Research Foundation, 22. Mem, Col. A. F. Fischer's cinchona mission, Costa Rica, 43. Contributing ed, 'Philippine Jour. Science,' 20–22. Chairman, Fusarium Conf, Wis, 24. A.A; Phytopath. Soc; Bot. Soc; Genetic Asn; Crop Protection Inst; N. Y. Acad. Diseases and disease resistance of orchard crops and tropical fruits and plants; mycology; Fusaria, Cylindrocarpons and Phytophthoras of soils and plants; plant explorations; diseases of vegetable crops.

Reinmuth, Dr. (Phillip Henry) Otto, 5517 Kimbark Ave, Chicago, Ill. *Organic chemistry.* Valley, N. S, Can, July 23, 00. B.S, Maryland, 22, M.S, 25, Ph.D, 30. Inspector and analyst, Md. Feed and Fertilizer Regulatory Service, 23–25; asst. ed, *'Jour. Chem. Educ,'* 25–28, assoc. ed, 28–32, *ed, 32–; managing ed, 'Jour. Org. Chem,' 36–; research instr, Chicago, 36–* Instr, Maryland, 25–28. Chem. Soc. Theories of organic and general chemistry.

Reinsch, Prof. B(ernhard) P(aul), Florida Southern College, Lakeland, Fla. *Mathematics.* Malcom, Iowa, Nov. 22, 92. Iowa, 12–13; Mass. Inst. Tech, 15, 16; A.B, Illinois, 18.

M.S, 20, B.S, 21, fellow, 22–24, Ph.D, 24; Harvard, 20. Asst. math, Illinois, 18–22, instr, 24–27; assoc. prof. in charge *math*, sch. eng, South. Methodist, 27–29, *prof. and head dept*, 29–33; *Fla. Southern Col, 33–* Instr, sch. mil. aeronaut, Illinois, 18; architectural designer, West. Elec. Co, Chicago, 20. Mem. univ. and col. dept, State Defense Council, Fla, 41– Mem. exec. cmt, Fla. Asn. Cols. and Univs, 40– Math. Soc; Math. Asn; Council Teachers Math; Eng. Educ; Fla. Acad. (chairman physical sect, 38; pres, 39). Differential equations; teaching of mathematics; engineering; architecture.

Reiser, Dr. Raymond, Agricultural and Mechanical College of Texas, College Station, Texas. *Biochemistry.* Philadelphia, Pa, July 28, 06. A.B, Western Reserve, 29; Ph.D, Ohio State, 36. Asst. agr. chem, Ohio State, 35–36; fellow med, Duke, 36–39; asst. animal nutrition, Exp. Sta, N. C. State Col, 39–40; asst. chemist, *div. chem, Exp. Sta, Agr. and Mech. Col. Texas*, 40–42, *assoc. chemist, 42–; lieut, Sanit. Corps, U. S. Army.* Chem. Soc. Micro fat analyses; fat metabolism; phosphorus metabolism; metabolism in sprue; commercial animal feeds.

Reissner, Prof. (Max) Eric, Massachusetts Institute of Technology, Cambridge, Mass. *Applied mathematics.* Aachen, Germany, Jan. 5, 13. Dipl.Ing, Tech. Hochschule, Berlin, 35, D.Ing, 36; Ph.D, Mass. Inst. Tech, 38. Asst. aeronautics, *Mass. Inst. Tech*, 37–39, instr. *math*, 39–42, *asst. prof, 42–* Inst. Aeronaut. Sci; Math. Soc. Theoretical and applied elasticity; hydro- and aero-dynamics; theory of structures.

Reistle, C(arl) E(rnest), Jr, Humble Oil and Refining Co, Houston, Texas. *Petroleum engineering.* Denver, Colo, June 26, 01. B.S, Oklahoma, 22. Petrol. chemist, U. S. Bur. Mines, 22–26, petrol. engineer, 26–33; chairman, E. Texas Eng. Asn, 33–36; engineer in charge petrol. eng. dept, *Humble Oil and Ref. Co*, 36–39, *chief petrol. engineer, 39–* Hon. mem. faculty, Wyoming, 24–29. Petrol. Inst; Min. and Metal. Eng. Water analysis; production of crude oil and natural gas.

Reitemeier, Dr. R(obert) F(rancis), U. S. Regional Salinity Laboratory, Riverside, Calif. *Chemistry, Soils.* Logansport, Ind, Jan. 24, 12. B.S, Purdue, 33; A.M, Missouri, 34; Shell fellow, Arizona, 36–38, Ph.D, 38. Junior technologist, Shell Oil Co, 38–39; agent soil chem, *regional salinity lab, bur. plant indust, U. S. Dept. Agr*, 39–40, asst. chemist *soils*, 40–43, *assoc. chemist, 43–* West. Soc. Soil Sci. Metaphosphates; petroleum; soil colloids; soil solutions of saline soils; semi-micro soil analysis.

Reiter, Prof. A(rthur) F(rederick), Route 1, Cyril, Okla. *Chemistry.* Bluffton, Ohio, March 26, 74. A.B, Tri-State Col, 99, Hiram Col, 05; M.S, Chicago, 16. Prof. Latin and English, South. Ill. Christian Col, 99–00; minister, 00–07; prof. *chem, Phillips*, 07–34, *emer. prof, 34–*, dean col. arts and sciences, 17–34. Summers, instr, Cent. Mennonite Col, 07; asst. instr, Chicago, 16. Chem. Soc; Okla. Chem. Soc; Okla. Acad. (pres, 18). Trisection of an angle; probable relation of Lyons stable groups of floating magnets to valence; valence and atomic structure; oxidation-reduction reactions to atomic structure; distribution of energy in the principal green line of mercury spectrum; extension of the periodic table.

Reiter, Dr. Frank H(orace), Clarke School for the Deaf, Northampton, Mass. *Psychology.* Red Hill, Pa, Aug. 11, 83. A.B, Muhlenberg Col; Lutheran Theol. Sem; A.M, Gallaudet Col; Ph.D, Pennsylvania. Instr, Pa. Institution for Deaf, 09–14; psychol, Pennsylvania, 14–20; psychologist, Board Educ, Newark, 20–25; director special educ, Dept. Pub. Instruction, Harrisburg, 25–36; *prin, Clarke Sch. for Deaf, 36–* Pa. Conf. Educ. Exceptional Children. Psychol. Asn; Genetic Asn; Asn. Promote Teaching Speech Deaf; Asn. Applied Psychol; Asn. Instrs. of Deaf; Conf. Execs. Am. Schs. for Deaf. Speech development; methods of developing speech and language in deaf children; psychological implications of deafness.

Reith, Dr. Allan F(under), 924 E. Sylvan Ave, Milwaukee, Wis. *Bacteriology.* Copenhagen, Denmark, Sept. 27, 90. A.B, Nebraska, 19; M.S, Chicago, 23, Ph.D, 25. Director labs, dept. prev. med, A. O. Smith Corp, *Milwaukee*, 25–32; Milwaukee Children's Hosp, 33–34; *bacteriologist, Jos. Schlitz Brewing Co, 35–* A.A; Soc. Bact; Wis. Acad. Medical bacteriology; yeast.

Reithel, Dr. F(rancis) J(oseph), St. Louis University School of Medicine, St. Louis, Mo. *Biochemistry.* Portland, Oregon, April 6, 14. A.B, Reed Col, 36; Oregon State Col, 36–37; A.M, Oregon, 38, Ph.D, 42. *Instr. biochem, sch. med, St. Louis, 42–* Lalor fellow, 42–43. Chem. Soc. Carbohydrates; antibacterial substances.

Reitnouer, Prof. Minnie Grage (Mrs. A. N. Reitnouer), 434 E. Olive St, Monrovia, Calif. *Biology.* Chicago, Ill. A.B, Wheaton Col, 16; A.M, Southern California, 28. Belgian Congo, West Africa, 19–22; prof. biol. and head dept. science, Straight Col, 22–35; Talladega Col, 35–36; *prof.* biol, South. Union Col, 38–40; *science, Brown Sch. for Girls, Glendora, Calif, 40–* Physiology; training of science teachers for secondary schools.

Reitz, Dr. Henry C(harles), Western Regional Research Laboratory, Albany, Calif. *Biochemistry.* Springfield, Mo, Jan. 8, 06. B.S, Illinois, 27; M.S, Maryland, 31; Ph.D, Minnesota, 37. Teaching asst, Maryland, 29–31; asst, Minnesota, 31–36, instr. agr. biochem, 36–40, asst. prof, 40; *asst. chemist, West. Regional Research Lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* A A; Chem. Soc. Chemistry of melanin; gelatinization studies on starches of the triticum species; proteins.

Reitz, Prof. Louis P(owers), Kansas State College, Manhattan, Kans. *Plant breeding.* Belle Plaine, Kans, June 3, 07. B.S, Kans. State Col, 30; M.S, Nebraska, 37. Asst. agronomist, Mont. State Col, 30–35; bur. plant indust, U. S. Dept. Agr, 35–38; *assoc. prof. crop improv, Kans. State Col, 39–* Wheat improvement; oats; sorghums.

Rejall, Dr. Alfred E(rnst), 54 Tompkins Place, Brooklyn, N. Y. *Psychology.* Brooklyn, N. Y, July 22, 85. Fellow, Columbia, A.B, 06, A.M, 07; hon. Pd.D, N. Y. State Col. for Teachers, 36. Prof. psychol. and educ, N. Y. State Nor. Col, Albany, 09–12; asst. psychol, Columbia, 12–14; educ. director, 23rd St. Y.M.C.A, New York, 14–16; instr, dept. educ, Boston, 16–18; supervisor immigrant educ. and later *adult educ*, State Dept. Educ, N. Y, 18–35; instr, *Hunter Col*, 35–42, *asst. prof, 42–* Psychologist, Sanit.C, 18–19. A.A; Asn. Applied Psychol; Am. Acad. Practice in typewriting; individual differences in delinquent and normal children; literacy test for voters; word list for citizenship and voting; adult education.

Rembert, Dr. E(rnest) Wayne, 719 S. Garfield St, Hinsdale, Ill. *Chemical engineering.* Jefferson City, Mo. Feb. 12, 00. B.S, Mo. Sch. Mines, 21, M.S, 22; Sc.D, Mass. Inst. Tech, 25. Chem. engineer, Nat. Ref. Co, 22; eng. develop. div, Nat. Aniline and Chem. Co, 24–25; director develop. dept, Tide Water Oil Co, 25–30; develop. supervisor, research labs, Johns-Manville Corp, 30–43; *v. pres. and gen. manager, Johnson Suture Corp, 43–* Chem. Soc; Concrete Inst. Combustion; petroleum refining; absorbents; asbestos-cement products; building materials.

Remick, Dr. A(rthur) Edward, 14425 Archdale Ave, Detroit, Mich. *Chemistry.* Chicago, Ill, June 5, 99. Ch.B, Cornell, 22; Ph.D, Chicago, 28. Analyst, Kirkman and Sons, Brooklyn, 20–21; Nat. Aniline and Chem. Co, Buffalo, 22–23; research chemist, E. R. Squibb and Sons, Brooklyn, 23–24; Todd Co, Rochester, 27–29; instr. *chem*, Col. City of Detroit, 29–33, *Wayne*, 33–37, *asst. prof*, 37– Summer, research chemist, Eastman Kodak Co, 30. Chem. Soc. (v. chairman, Detroit sect, 36). Oxidation-reduction potentials of organic systems; electron theory in organic chemistry.

Remick, Prof. B(enjamin) L(uce), Kansas State College, Manhattan, Kans. *Mathematics.* Athens, Maine, May 28, 67. Ph.B, Cornell Col. (Iowa), 89, Ph.M, 92; Hopkins, 92–93; Chicago, 94–95, 96–98. Instr. *math*, Cornell Col. (Iowa), 89–92; Northwestern, 93–94; prof, Pacific, 95–96; assoc, Bradley Polytech, 98–00; *prof, Kans. State Col, 00–*, head dept, 00–37. Teaching medal, Kans, State Col, 25. Math. Soc; Math. Asn. (pres, Kans. sect, 18). Agricultural arithmetic; breeding properties of generalized Mendelian population.

Remington, Dr. John W(ood), University of Georgia, Augusta, Ga. *Physiology.* Fargo, N. Dak, Dec. 19, 14. B.S, Col. of Charleston, 35; M.S, N. Y. Univ, 37, Ph.D, 39. Teaching fellow, N. Y. Univ, 35–39; research assoc, Princeton, 39–43; *asst. prof, Georgia, 43–* Adrenal cortex; water and electrolyte metabolism; shock; renal hypertension.

Remington, Dr. Lewis D, 145 Stedman Place, Monrovia, Calif. *Medicine.* Pontiac, Mich, Aug. 31, 69. M.D, California, 09. Prin, high sch, Mich, 90–02; instr. diseases of chest. Southern California, 12–15, lecturer, 15–16, asst. prof, 16–18; Col. Med. Evangelists, 18–20, clin. prof, 20–39; *retired.* Attending physician, Los Angeles Gen. Hosp, 12–39

A.A; Am. Med. Asn; Los Angeles Co. Trudeau Soc. (pres, 23). Tuberculosis.

Remington, Prof. Roe E(ugene), 280 Calhoun St, Charleston, S. C. *Biochemistry.* Northville, Mich, Sept. 3, 81. A.B, Colorado, 05; A.M, Minnesota, 24, Shevlin fellow, 27–28, Ph.D, 28; Sc.D, Clemson Col, 37. Teacher, high sch, Colo, 05; instr. chem, Iowa, 05–07; asst. chemist. Armour and Co, Chicago, 07–08; food chemist, N. Dak. Food Cmn, 08–19; manager, Remington Packing Co, Minn, 18–21; assoc. prof. biochem. and quantitative anal, N. Dak. Col, 21–28; *prof. nutrition and director food research lab, Med. Col. State of S. C, 28–* Director, S. C. Food Research Cmn, 28–37. Grant, Am. Med. Asn, 37. A.A; Soc. Biol. Chem; Chem. Soc. (chairman, div. biol. chem, 35); Agr. Chem; Pub. Health Asn; Inst. Nutrition; S. C. Acad. (pres, 35). Properties of living cells; geochemistry and biochemistry of iodine; goiter as a deficiency disease; mineral elements in nutrition; nutritive value of sea food.

Remler, R(aymond) F(rederick), E. I. du Pont de Nemours and Co, 3092 Broadway, Cleveland, Ohio. *Chemistry.* Beaver Falls, Pa, April 15, 98. Ch.B, Pittsburgh, 20. Ohio Exp. Sta, 20–21; U. S. Bur. Mines, Pittsburgh, 21; indust. fellow, Mellon Inst, 21–26; *sales engineer, Grasselli chem. dept, E. I. du Pont de Nemours and Co, 26–* Chem. Soc. Wood chemicals; concrete; soluble silicates; detergents; adhesives.

Remmers, Prof. H(ermann) H(enry), Purdue University, Lafayette, Ind. *Psychology, Education.* Norden, Ostfriesland, Germany, Nov. 25, 92. A.B, Iowa, 21, A.M, 22, Ph.D, 27. Instr. *psychol. and educ,* Colo. Col, 22–23; asst. prof, *Purdue,* 23–28, assoc. prof, 28–31, *prof, 31–, director div. educ. reference, 31–* Summers, lecturer, Iowa, 24–26, 28–31; California, 28; Washington, 40. Ed, Harper and Brothers. A.A. (sec'y, Q, 39–); Psychol. Asn; Statist. Asn; Soc. Study Educ; Educ. Research Asn; Ind. Acad. Psychology of education and personnel; mental and educational tests and measurements; measurement of interests and attitudes; educational-vocational guidance.

Remp, Dr. Donald G(illespie), Albany Medical College, Albany, N. Y. *Biochemistry.* Huron, S. Dak, July 5, 09. A.B, Col. of Wooster, 31; Ph.D, Western Reserve, 35. Teaching fellow *biochem,* sch. med, Western Reserve, 33–35; instr, *Albany Med. Col, Union (N. Y),* 35–38, asst. prof, 38–41, *assoc. prof, 41–* Chem. Soc. Nutritional anemia; sterol metabolism; vitamins.

Remp, Prof. Martin, 667 College Ave, Wooster, Ohio. *Psychology.* Hamilton, Ohio, July 27, 76. A.B, Col. of Wooster, 04; A.M, Nebraska, 14; Chicago, 23–26; LL.D, Hastings Col, 35. Teacher, pub. schs, Ohio, 95–00; prof. philos. and educ. and dean, Huron Col, 04–10; Hastings Col, 10–15; *prof. psychol, Col. of Wooster, 15–* A.A; Psychol. Asn; Midwest. Psychol. Asn. Relative efficiency of learning with and without knowledge of results; influence of age on learning; esthetic perception; elimination and retardation of college students; intelligence tests and scholastic success.

Rempel, Dr. Arthur G(ustav), Whitman College, Walla Walla, Wash. *Zoology.* Russia, Jan. 5, 10. A.B, Oberlin Col, 34; Ph.D, California, 38. Acting curator, museum zool. and anthrop, Oberlin Col, 31–34; custodian, dept. zool, California, 34–35, teaching asst, 35–38; instr. *biol, Whitman Col,* 38–43, *asst. prof, 43–, curator museum nat. hist, 38–* Development of head musculature in Triturus embryo.

Rempel, Prof. J(acob) G(erhard), Regina College, Regina, Sask, Can. *Entomology, Limnology.* Ukraine, June 26, 03. B.Sc, Saskatchewan, 31, M.Sc, 33; Ph.D, Cornell, 37. *Asst. prof. biol, Regina Col, Saskatchewan, 37–* Sex-determination in insects; intersexuality; Chironomidae; Culicidae.

Renard, Dr. Earl J(oseph), Rigby, Idaho. *Plant genetics.* Seymour, Wis, Oct. 1, 98. Ph.D, Wisconsin. *Geneticist, Canners Seed Corp.* Plant genetics of canning crops, especially peas.

Renaud, Prof. E(tienne) B(ernardeau), 1158 Marion St, Denver, Colo. *Anthropology.* Billancourt, France, June 14, 80. B.A, Paris, 05, 06–07; Catholic Univ, 07–08; A.M, Colorado, 15; Ph.D, Denver, 20; Columbia. *Prof.* archeol, *Denver,* 20–24, *anthrop, 24–* Am. Sch. for Prehist. Research fellow, Europe, 23–24; lecturer, Archeol. Inst. Amer, 29. Summers, assoc. prof, Colorado, 25–28; prof, Denver, 24–43, *director instruction, A.S.T. unit, 43–* Director, Colo. Museum Nat. Hist. exped, Cimarron, 29; archeol. surv, east. Colo, 30–35; east. Wyo, 31; west. Nebr, 33; northeast N. Mex, 34–35; south. Wyo, 35–39; south. Colo, 40–43. Chevalier, Légion d'honneur. Anthrop. Asn; Archeol. Inst; Acad. Polit. and Social Sci; Colo-Wyo. Acad. (treas, 27–29, pres, 35); Archeol. Soc. Denver (pres, 28–30); Soc. des Américanistes de Paris; Asn. française pour l'Avanc. des Sci; Soc. préhist. de France; Soc. des Américanistes de Belg; Inst. int. d'Anthrop. American archeology, especially of Colorado and the Southwest; European prehistory, especially of England, Belgium, France and Spain; racial anthropology, especially Indian craniometry.

Renfrew, Dr. Alice G(ertrude), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Manchester, N. H, Dec, 98. A.B, Mt. Holyoke Col, 21, A.M, 23; Ph.D, Yale, 27. Nat. Tuber. Asn. fellow, Yale, 26–31; *research fellow, Mellon Inst, 31–* Chem. Soc; Soc. Biol. Chem. Organic and biological chemistry; hydantoin chemistry; the tubercle bacillus; plant gums; quinine derivatives; heterocycle compounds.

Renfrew, Dr. Malcolm M(ac Kenzie), 91 Beech St, Arlington, N. J. *Chemistry.* Spokane, Wash, Oct. 12, 10. B.S, Idaho, 32, M.S, 34; du Pont fellow, Minnesota, 37–38, Ph.D, 38. Asst, Idaho, 32–35; Minnesota, 35–37; *research chemist, plastics dept, E. I. du Pont de Nemours and Co, 38–* Chem. Soc. Physical-organic chemistry; Raman spectroscopy; thermoplastic resins.

Renfrow, Prof. W(illiam) B(urns), Jr, Occidental College, Los Angeles, Calif. *Organic chemistry.* Charlotte, N. C, Jan. 30, 14. B.S, Furman, 33; A.M, Duke, 35, Ph.D, 37. Research chemist, United Gas Improvement Co, 38–39: fellow. Minnesota, 40–41; instr. *chem, Occidental Col,* 41–42, asst. prof, 42–43, *assoc. prof, 43–* Chem. Soc. Molecular rearrangements; the aceto-acetic ester condensation; vitamin E.

Renick, Dr. B(rink) Coleman, 258 E. Rosewood Ave, San Antonio, Texas. *Geology.* Winchester, Ky, June 2, 97. B.S, Centre Col, 17; M.S, Chicago, 20, Ph.D, 22; Wisconsin, 20–21. Assoc. geol, Iowa, 22–23; asst. geologist, U. S. Geol. Surv, 23–26; geologist, Shell Petrol. Corp, 26–30, consulting geologist, 30; dist. geologist, Vacuum Oil Co. and Magnolia Petrol. Co, 30–36; v. pres, Phillips Drilling Co, 36–40; independent geologist, 40–42; major, *Air Corps, U. S. Army,* 42–43, *lieut. col, 43–* F.A, U.S.A, 18–19, 2nd lieut. Fel. Geol. Soc; Asn. Petrol. Geol. Stratigraphy of coal measures of western Pennsylvania; ground water and geology in Montana, New Mexico, California and Louisiana; geology of Washington, Oregon and Texas; Tertiary of Texas.

Renn, Dr. Charles (Easterday), Harvard University, Cambridge, Mass. *Oceanography.* Frederick, Md, March 27, 05. B.S, Columbia, 28; Ph.D, Rutgers, 35. Asst. marine bacter, *Oceanog. Inst, Woods Hole,* 31–33, fellow, 33–35, junior marine bacteriologist, 35–40, *assoc. bacteriologist, 40–; tutor and instr. biol, Harvard, 35–,* instr. *sanit. biol, grad. sch. eng,* 37–42, *assoc. prof, 42–* A.A; Limnol. Soc; Soc. Trop. Med; Malaria Soc; Bermuda Biol. Soc. Marine bacteriology; wasting disease of Zostera; physiology of mosquitoes; sanitary bacteriology.

Rennebaum, Dr. E(rnest) H(enry), 113 W. 18th St, New York, N. Y. *Bacteriology.* Williamstown, N. J, Dec. 29, 94. A.B, Illinois, 21; A.M, Michigan, 28, M.S, 32, Ph.D, 34. Teacher, high schs, Ill, 21–23, 24–28; asst. bacter, med. sch, Michigan, 28–34; director labs. and bacteriologist in chief, Methodist-Episcopal Hosp, Brooklyn, 35–39; *biochemist, Warner Inst. Therapeut. Research, 39–* Colon bacillus and some of its rough variants; organisms causing thrush in babies; detoxication; conjugations of sulphanilamide and related compounds.

Renner, F(rederic) G(ordon), 6692 32nd Place, N.W, Washington, D. C. *Forestry.* Great Falls, Mont, Nov. 23, 00. B.S, Washington (Seattle), 20; M.S, Oregon State Col, 22. Forest ranger, Wenatchee Nat. Forest, U. S. Forest Service, Wash, 17–18, sci. asst, forest disease investigations, office forest path, 19–20; teaching fellow bot, Oregon State Col, 21–22; junior range examiner, Santa Fe Nat. Forest, U. S. Forest Service, N. Mex, 22–23, Calif. Nat. Forest, 24, asst. range examiner, Wenatchee Nat. Forest, Wash, 25–28, Malheur and Mt. Hood Nat. Forest, Oregon, 29, assoc. range examiner, Intermountain Forest and Range Exp. Sta, 30, Calif. Forest and Range Exp. Sta, 31–34, forest ecologist, 34–35; senior range examiner, div. research, *soil conservation service, U. S. Dept. Agr,* Colo, 36–37, *senior soil conservationist, Wash, D. C, 37–, chief range*

conservation div, 33– Soc. Foresters (sec'y, intermountain sect, 30). Erosion as affected by various biotic and physiographic factors; range; live stock and wildlife management on western lands; the new range outlook; public works and rural land use; improving range conditions for livestock production.

Renner, Prof. George T(homas), Jr, Teachers College, Columbia University, New York, N. Y. *Geography.* Winfield, Kans, July 11, 00. A.B, Cornell Col. (Iowa), 22, LL.D, 43; Chicago, summers, 22–25; A.M, Columbia, 24, Ph.D, 27. Lecturer econ. geog, Columbia, 22–26, instr, 26–27; assoc. prof. geog, Washington (Seattle), 27–33; geographer, State Forest Survey, Iowa, 33–34; from asst. economist to senior economist, Nat. Resources Board, 34–36; acting assoc. prof. *geog, Teachers Col, Columbia,* 36–37, assoc. prof, 37–38, *prof, 38–* Professional lecturer, George Washington, 34–35. Consultant, Nat. Resources Planning Board, 37–43. Educational map ed, Denoyer-Geppert Co, Chicago, 33– Mem. Tech. Cmt. Regional Planning, Washington, D. C, 35; consultant, Civil Aeronaut. Admin, 42. Asn. Geog; Geophys. Union; Nat. Council Geog. Teachers; Am. City Planning Inst. Climatology; geonomics; social and cultural geography; city and regional planning; conservation; geopolitics.

Renner, Prof. Kenneth M(iller), Texas Technological College, Lubbock, Texas. *Dairying.* Brooklyn, Iowa, Aug. 28, 00. B.S, Iowa State Col, 21; M.S, Kans. State Col, 27. Instr. dairy husbandry, Kans. State Col, 21–27; *prof. dairy manufactures and head dept, Texas Tech. Col, 27–* Dairy Sci. Asn; Texas Pub. Health Asn; Int. Asn. Milk Sanitarians. Limits of error in the Babcock test for cream; use of sugar in ice cream; simplified total solids test for ice cream; manufacture of cheese; production of quality cream; rapid method for determining percentage mold mycelia in cream.

Rennie, Dr. Thomas A(lexander) C(umming), Cornell University Medical College, New York, N. Y. *Psychiatry.* Motherwell, Scotland, Feb. 28, 04. B.S, Pittsburgh, 24; M.D, Harvard Med. Sch, 28. Med. house officer, Peter Bent Brigham Hosp, Boston, Mass, 28–29; res. med. physician, Simpson Mem. Hosp, Michigan, 29–30, instr. med, univ, 30–31; res. house officer, Phipps Psychiat. Clinic, Hopkins, 31–32, asst. res. psychiatrist, 32–33, res. psychiatrist, 33–36, dispensary psychiatrist, 33–41, asst. *psychiat,* univ, 31–33, instr, 33–36, assoc, 36–41; *assoc. prof, med. col, Cornell, 41–* Asst. visiting psychiatrist, Baltimore City Hosp, 37–41; med. director Payne Whitney psychiat. clinic, New York Hosp, 41–, attending psychiatrist, 41– Am. Med. Asn; fel. Psychiat. Asn; hon. mem. North Pacific Soc. Neur. and Psychiat; N. Y. Soc. Clin. Psychiat; N. Y. Psychopath. Soc. Psychosomatic relations; clinical psychiatric research.

Reno, Franklin V(ictor), P. O. Box 423, Aberdeen, Md. *Mathematics.* Salt Lake City, Utah, May 14, 11. A.B, Colorado, 31; A.M, Virginia, 35. Astron. asst, Virginia, 32–35; asst. statistician, Washington, D. C, 35–37; junior mathematician, *ballistic research lab, Aberdeen Proving Ground,* 37–39, asst. mathematician, 39–41, assoc. mathematician, 41–43, *mathematician and head theory sect. in exterior ballistics, 43–* A.A; Inst. Math. Statist. Theoretical mechanics; mathematical statistics; numerical analysis; ballistics.

Rense, Dr. William A, Rutgers University, New Brunswick, N. J. *Physics.* Massillon, Ohio, March 11, 14. B.S, Case, 35; Ph.D, Ohio State, 39. Instr. *physics,* Louisiana, 39–40; asst. prof, Miami (Fla), 40; *visiting asst. prof, Rutgers. 41–* A.A; Physical Soc; Astron. Soc. Astrophysics; spectroscopy.

Renshaw, Prof. Birdsey, Wright Laboratory, Oberlin College, Oberlin, Ohio. *Physiology.* Middletown, Conn, Oct. 10, 11. B.S, Harvard, 33, A.M, 35, Ph.D, 38. Nat. research fellow, Rockefeller Inst, 38–39, fellow, 39–40, asst. *physiol,* 40–41; *asst. prof, Oberlin Col, 41–* Physiol. Soc; assoc. Soc. Zool. Physiology of the nervous system.

Renshaw, Prof. Samuel, 2675 Coventry Road, Columbus, Ohio. *Psychology.* Sugar Grove, Ohio, March 10, 92. A.B, Ohio (Athens), 14; A.M, Ohio State, 23, Ph.D, 25. Instr. psychol, Ohio (Athens), 14–16; prof, Rio Grande Col, 16–17; asst. prof, West. State Teachers Col, Mich, 17–23; *exp. psychol, Ohio State,* 25–27, assoc. prof, 28–29, *prof, 29–* Summer, asst. prof, Washington (Seattle), 27; visiting prof, Wyoming, 34, 36. A.A; Psychol. Asn; Midwest. Psychol. Asn. (sec'y-treas, 28–30); Ohio Acad. Experimental and comparative psychology; human learning; age, sex and seasonal variations in children's sleep; taste; visual form; psychological apparatus.

Rentschler, Dr. H(arvey) C(layton), Westinghouse Electric and Mfg. Co, Bloomfield, N. J. *Physics.* Hamburg, Pa, March 26, 81. A.B, Princeton, 03, fellow, 03–04, A.M, 04; hon. Sc.D, Princeton, 41; Ph.D, Hopkins, 08. Instr. physics, Princeton, 04–05; Pa. Col, 07; Missouri, 08–17; *in charge research, lamp div, Westinghouse Elec. and Mfg. Co, 17–* A.A; Physical Soc; Optical Soc; Elec. Eng; Soc. Bact. Relative motion of ether and matter; dispersion of gases in ultra-violet; resonance and ionization of monatomic gases; arc phenomena in various gases; preparation and properties of ductile thorium and uranium; ultra-violet light meter; improved high resistances; photoelectric emission from metals; bacterial action of ultra-violet radiation.

Repetti, Rev. W(illiam) C(harles), S.J, Manila Observatory, Manila, P. I. *Seismology.* Washington, D. C, May 3, 84. A.B, Gonzaga Col, 02; B.S, George Washington, 07; Ph.D, St. Louis, 28. *Chief div. seismol. and magnetism, Manila Observatory, P. I. Weather Bur, 28–* A.A; Seismol Soc. Seismology of the Philippines; earthquakes; microseisms.

Ressler, Prof. Barton C. V, University of Tennessee, Knoxville, Tenn. *Zoology.* Shamokin, Pa, Dec. 6, 98. B.S, Lafayette Col, 22; M.S, Iowa, 23. Asst. *zool,* Iowa State Col, 22–23; asst. prof, *Tennessee,* 23–35, *assoc. prof, 35–* Tenn. Acad. Invertebrate embryology.

Rethke, Lieut. Roland V(incent), Cabin 3, 1802 Junction Ave, Sturgis, S. Dak. *Botany.* Milbank, S. Dak, Sept. 12, 14. B.S, S. Dak. State Col, 35, M.S, 37; Ph.D, Washington (Seattle), 40. Asst. bot, S. Dak. State Col, 35–37; teaching fellow, Washington (Seattle), 37–39; instr. biol, Yakima Valley Junior Col, 39–41; *bot, S. Dak. State Col,* 41–42, *asst. prof, 42–* Summer, field man, Govt. Forage Surv, 37. Bot. Soc; S. Dak. Acad. Anatomy of circumscissile dehiscence; growth substances and cereal crops.

Rettger, Prof. L(eo) F(rederick), 340 Ogden St, New Haven, Conn. *Bacteriology.* Huntingburg, Ind, March 17, 74. A.B, Indiana, 96, A.M, 97, hon. LL.D, 31; Ph.D, Yale, 02; Strassburg, 03. Instr. *bacter,* Sheffield Sci. Sch, *Yale,* 02–06, asst. prof, 06–19, prof, 19–42, *emer. prof, 42–; non-res. bacteriologist in charge investigations of animal diseases, Storrs Exp. Sta,* Conn. Agr. Col, 09–33, Conn. State Col, 33–39, *Connecticut, 39–* Research scholar, Rockefeller Inst, 01–03, fellow, 03–06; lecturer, Wesleyan, 17–18. Hygiene Referee Board; pres, N. Am. Conf. Research Workers in Animal Diseases, 33. Consultant and bacteriologist, disinfection of army anti-gas mask, 17–18. A.A; Soc. Bact. (councilor, 13, v. pres, 16, pres, 17). Bacterial variation, nutrition, metabolism and classification; anaerobes; intestinal bacteria; carbon dioxide requirements; cellulose decomposition; butyl alcohol production; infectious abortion of cattle; blackhead of turkeys; pullorum disease of fowl.

Rettger, R(obert) E(rnest), Sun Oil Co, Dallas, Texas. *Geology.* Terre Haute, Ind, April 6, 97. A.B, Wisconsin, 20, A.M, 22. Wis. Geol. Surv, 17–22, chief party, 19–20; asst. prof. geol, Cornell, 22–25; *geologist, Sun Oil Co, 25–* Bauxite explor, Aluminum Co. of Amer, 23–24. Asn. Petrol. Geol. (sec'y-treas, 43); Soc. Econ. Geol; Min. and Metal. Eng; W. Texas Geol. Soc. (pres, 30). Bauxite deposits of southeastern Alabama; petroleum geology.

Retty, Dr. J(oseph) A(rlington), Ft. Coulonge, Que, Can. *Geology.* Ft. Coulonge, Que, June 3, 04. B.A, L.Ph, Ottawa, 26; A.M, Princeton, 30, fellow, 30–31, Ph.D, 31. Asst, field seasons, Geol. Surv. Can. 24–29, asst. geologist, 35–36; asst. prof. chem. and geol, St. Patrick's Col, 31–35; chief geologist, Labrador Mining and Explor. Co, 36–40; consulting geologist, 40–42; *field engineer, Labrador Mining and Explor. Co, 42–* Mem. staff, Que. Bur. Mines, 41– Summers, geologist, Que. Bur. Mines, 29–34. Prin, Ft. Coulonge Model Sch, 26–27; asst, Princeton, 28–29; lecturer, Ottawa, 34–36. Can. Inst. Min. and Metal. Precambrian geology; iron ores; rocks.

Reukema, Prof. Lester E(dwin), 2319 Oregon St, Berkeley, Calif. *Electrical engineering.* Chicago, Ill, Aug. 31, 91. B.S, California, 22, M.S, 24, Ph.D, 26. Checking and testing elec. apparatus, West. Elec. Co, Ill, 09–11; ice, coal and moving business, Chicago, 11–17; asst, col. mech, *California,* 19–23, *elec. eng,* 23–25, instr, 25–27, asst. prof, 27–30, *assoc. prof, 30–, lecturer, exten. div, 23–* Guggenheim Mem. Foundation fellow, Europe, 28–29. Eng. dept, U.S.N, 17–19. A.A; Elec. Eng. (councilor, Calif. branch, 29, chairman, councilors, 8th dist, 31–); Radio Eng. (chairman, membership cmt, San Francisco sect, 31); assoc. Projection Soc. Electrical and radio communications; relation of frequency to spark over voltage;

sound motion pictures; alternating and direct current circuits, machines and apparatus; heat power engineering; industrial electronics; radio communication and underwater sound.

Reuszer, Dr. Herbert W(illiam), Soil Conservation Service, Auburn, Ala. *Microbiology.* Jamestown, Mo, Aug. 4, 03. B.S, Missouri, 25; M.S, Rutgers, 30, Ph.D, 32. Instr. agron, Rutgers, and research specialist agron, N. J. Exp. Sta, 26–29, asst. soil microbiol, 29–32, instr, 32–33; assoc. bacteriologist, Exp. Sta, Colo. Agr. Col, 33–35, Colo. State Col, 35–40; *co-operative agent, soil conservation service, U. S. Dept. Agr, and Exp. Sta, Alabama, 40–* Research asst. marine bacter, Oceanog. Inst, Woods Hole, 30–31, junior marine bacteriologist, 32–33. A.A; Soc. Agron; Biochem. Soc; Soil Sci. Soc. (sec'y soil microbiol. sect, 42, chairman, 43); Int. Soc. Soil Sci. Marine and soil microbiology; organic matter decomposition in the soil; non-symbiotic nitrogen fixation; relation of microorganisms to soil conservation.

Reuter, Sister Mary Agnita, Siena Heights College, Adrian, Mich. *Natural sciences.* Chicago, Ill, July 15, 99. A.B, St. John's (Ohio), 27; M.S, Detroit, 30; Ph.D, Catholic Univ, 37. Teacher, high schs, Mich, 27–28; St. Joseph Acad, 29–31; head dept, St. Joseph's Col. (Mich), 31–34; in charge, Adrian Dominican House of Studies, Washington, D. C, 35–37; *head dept. nat. sciences, Siena Heights Col, 37–* A.A; Chem. Soc. Creatine determination; ultra-violet absorption; purine and pyrimidine fluorescence; intercellular wound hormones; effect of hydrogen ion concentration on the spectrum of uracil-5-carboxylic acid; effect of hydroxy substitutions on ultra-violet absorption; hypoxanthine; xanthine; uric acid.

Reuter, Dr. Raymond, Atlantic Refining Co, 3144 Passyunk Ave, Philadelphia, Pa. *Organic chemistry.* Rochester, N. Y, Jan. 21, 00. B.S, Rochester, 22; M.S, Mass. Inst. Tech, 23, Ph.D, 25; Freiburg, 30. *Research and develop. dept, Atlantic Ref. Co.* Summer, Arthur D. Little, Inc, 23. Chem. Soc. Pyrolysis of oil and hydrocarbons.

Reuter-Sköld, Prof. Knute A(xel), 2662 E. 73rd St, Chicago, Ill. *Medicine.* B.Sc, Griefswald, 11, Ph.D, 30; M.A, Stockholm, 14, B.M, 16; M.D, Illinois, 27. Asst. histol. and anat, Stockholm, 12–14; path, Illinois, 23–27; intern, St. Luke's Hosp, Chicago, 27–28; asst. res. physician, Albert Merritt Billings Hosp, 28–29, res. physician, 29–32; *asst. prof. med, Chicago, 31–, sec'y dept, 35–, head dept. allergy, 36–* Royal Swedish Acad. Science exped, Africa, 13–14. Am. Med. Asn. Automatic nervous system; histology of striped muscle anatomy.

Reuyl, Dr. D(irk), Leander McCormick Observatory, University of Virginia, Charlottesville, Va. *Astronomy.* Kampen, Holland, Aug. 28, 06. Vanderbilt fellow, Virginia, 27–30; Ph.D, Utrecht, 31. Instr. *astron, McCormick Observatory, Virginia,* 31–38, *asst. prof, 38–; ballistician, ballistic research lab, Aberdeen Proving Ground, 42–* Astron. Soc; Va. Acad; Nederlandsche Astron. Club; Soc. Netherlands Scholars in North Amer. Trigonometric determination of stellar parallaxes; photography of close double stars; photographic measurement of variable stellar motion.

Revell, Prof. Daniel G(raisberry), Edmonton, Alta, Can. *Anatomy, Criminology.* Ingersoll, Ont, Aug. 15, 69. B.A, Toronto, 94, M.B, 00; fellow, Chicago, 00–02. Teacher, high schs, Ont, 89–91, 94–97; instr. anat, Chicago, 02–07; provincial pathologist, Alta, 07–13; prof. *anat, Alberta,* 13–38, *emer. prof, 38–* Med. Council Can; Can. Cmt. Mental Hygiene. A.A; Asn. Anat; Can. Med. Asn; Alta. Med. Asn. (pres). Pancreatic ducts in dogs; human gastric mucosa; questioned documents; identification; handwriting; sweat glands and dermal papillae; bone.

Revelle, Dr. Roger (Randall Dougan), 9201 Flower Ave, Silver Spring, Md. *Oceanography.* Seattle, Wash, March 7, 09. A.B, Pomona Col, 29; Ph.D, California, 36. Asst. *oceanog, Scripps Institution, California,* 31–36, *instr, 36–* A.A; Geophys. Union; Meteorol. Soc; Oceanog. Soc. Pacific; West. Soc. Nat. Buffer mechanism in sea water; Pacific deep sea bottom deposits; marine sediments off North American coast; north Pacific circulation and distribution of chemical components.

Reves, Prof. George E(verett), The Citadel, Charleston, S. C. *Mathematics.* Sweatman, Miss, Oct. 24, 08. B.S, Millsaps Col, 29; fellow, Vanderbilt, 29–30, A.M, 30; Brown, 34–37; Ph.D, Cincinnati, 41. Instr. *math,* Ga. Sch. Tech, 30–34; Brown, 34–37; *asst. prof, The Citadel, 37–* Lecturer, Cincinnati, 40–41. Math. Asn. Absolute convergence of double Fourier series.

Revukas, Dr. A(nthony) J(ohn), 450 E. Lincoln Ave, Cranford, N. J. *Chemistry.* Brooklyn, N. Y, Jan. 23, 06. B.S, Polytech. Inst. Brooklyn, 31, M.S, 34, Ph.D, 40. Lab. asst, Brooklyn Edison Co, Inc, 29–35, asst. chemist, 35–37; research assoc, Consol. Edison Co, New York, 37–41; *senior research chemist, Tide Water Associated Oil Co, 41–* Instr, Pratt Inst, 39; teaching aide, Polytech. Inst. Brooklyn, 40–42. Chem. Soc; fel. Inst. Chem. Low pressure catalytic hydrogenation of substituted azo-compounds; insulating oil deterioration; synthesis of lubricating oil anti-oxidants, corrosion inhibitors and Diesel engine detergents.

Rex, Edgar G(eorge), Department of Agriculture, Trenton, N. J. *Plant pathology.* Allentown, Pa, Dec. 11, 00. B.S, Pa. State Col, 22, M.S, 25. Asst. state plant pathologist, *State Dept. Agr, N. J,* 25–28, director Japanese beetle suppression, 28–30, *supervisor plant pest control, 30–* A.A; Phytopath. Soc; N. Y. Acad; N. Y. Entom. Soc; Pa. Acad. Japanese beetle suppression; entomogenous fungi; Dutch elm disease control.

Rexroad, Prof. Carl N(ewton), Stephens College, Columbia, Mo. *Psychology.* Darlow, Kans, Sept. 3, 96. A.B, McPherson Col, 18; B.D, Yale, 22, Ph.D, 24. Prof. chem, La-Verne Col, 18–19; asst. instr. *psychol,* Yale, 22–23; instr, Ohio State, 23–27; *prof, Stephens Col, 27–, chairman science div, 35–* Summers, prof, Tennessee, 26; assoc. prof, Missouri, 28; Ohio State, 32. Psychol. Asn. Experimental and comparative psychology.

Reyerson, Prof. L(loyd) H(ilton), University of Minnesota, Minneapolis, Minn. *Chemistry.* Dawson, Minn, May 1, 93. A.B, Carleton Col, 15; A.M, Illinois, 17; Ph.D, Hopkins, 20. Instr. *chem, Minnesota,* 19–21, asst. prof, 21–26, assoc. prof, 26–30, *prof, 30–* Guggenheim Mem. Foundation fellow, 27–28; director, Northwest Research Inst, 35–; mem. nat. cmt, Colloid Symposium, 35– Assoc. ed, 'Jour. Physical Chem,' 37–38. U. S. del, Int. Union Pure and Applied Chem, Warsaw, 27, The Hague, 28. 2nd lieut, C.W.S, 18–19. A.A; Chem. Soc. (sec'y, div. colloid chem, 37, v. chairman, 38, chairman, 39); Physical Soc. Colloid chemistry; carbon suboxide; adsorption; zeta potentials; catalysis; exchange reactions involving deuterium and heavy water; production of hydrogen from lignite; chlorination of propane; adsorption of halogens; silica gel; adsorption of hydrogen halides; cellulose.

Reymert, Dr. Martin L(uther), Mooseheart Laboratory for Child Research, Mooseheart, Ill. *Psychology.* Holmestrand, Norway, Nov. 10, 83. A.B, Oslo, 03, A.M, 06; fellow, Clark, 16–17, Ph.D, 17. Fellow psychol, Iowa, 18–19, research assoc, child welfare research sta, 19–20; asst. prof, Oslo, 20–25; prof. exp. psychol, head dept. and director psychol. lab, Wittenberg Col, 25–30; *director, Mooseheart Lab. Child Research, 30–* Ed. in chief, 'Scandinavian Sci. Rev'; Scandinavian collaborator, 'Psychol. Abstracts'; co-editor, 'Character and Personality'; 'Psychol. Record'; 'The Nervous Child.' Mem, Cmt. Intel. Research, 22, 23. Pres. advisory board, Ill. Div. Delinquency Prevention, 39–; mem, State Cmn. Child Legislation, Ill. Norwegian del, Int. Cong. Moral Training, The Hague, 12; chairman symposium on mental tests, Int. Cong. Psychol, Yale, 29. A.A; Psychol. Asn. (chairman, clin. sect, 35); Psychometric Soc; Ill. Soc. Consulting Psychol. (pres, 39–); fel. Ohio Acad. (v. pres. in charge psychol, 29); Gesell. für Psychol. Experimental and child psychology; feelings and emotions; child development; character and personality.

Reynard, George B(ergin), Box 844, Charleston, S. C. *Botany.* Toronto, Ont, Can, Jan. 9, 14. A.B, Hiram Col, 35; M.S, Maryland, 36, Ph.D, 43. Asst. bot, Maryland, 35–38; junior botanist *veg. investigations, bur. plant indust, U. S. Dept. Agr,* 38–40, *asst. geneticist, 40–* A.A; Bot. Soc; Soc. Hort. Sci. Stock-poisoning plants of Maryland; plant breeding; Lycopersicon.

Reynard, Dr. John W(illiam), Muskingum College, New Concord, Ohio. *Inorganic chemistry.* Tippecanoe, Ohio, April 4, 14. A.B, Muskingum Col, 35; A.M, Ohio State, 38, Ph.D, 40. Instr. *chem,* Bethany (W. Va), 40–43; *asst. prof, Muskingum Col, 43–* Chem. Soc; W. Va. Acad. The rare earth elements and their compounds.

Reynders, Dr. John V(an) W(icheren), Suite 3353, 120 Broadway, New York, N. Y. *Metallurgy, Engineering.* Ho-

boken, N. J, Dec. 17, 66. C.E, Rensselaer Polytech, 86, hon. D.E, 25. Managing head and organizer bridge building, Pa. Steel Co, 91–06, v. pres. in charge, 06–16; *consultant and adviser steel properties, companies, 16–* Div. eng. and indust. research, Nat. Research Council. Min. and Metal. Eng. (pres, 25); Eng. Soc. Pa. (past pres). Raw materials and manufacturing of steel and iron.

Reyniers, Prof. J(ames) A(rthur), University of Notre Dame, Notre Dame, Ind. *Bacteriology.* Mishawaka, Ind, April 16, 09. B.S, Notre Dame, 30, M.S, 31. Assoc. prof, *prof. and director bacter. labs, Notre Dame, 31–* A.A; Soc. Bact; Biol. Photog. Asn; Ind. Acad. Mechanization bacteriological technique; germ-free animal technique and use in bacteriology; bacteriological genetics; micrurgy; control of cross infection.

Reynolds, Prof. Albert E(ugene), DePauw University, Greencastle, Ind. *Zoology.* Staunton, Ind, Aug. 4, 07. A.B, DePauw, 30; M.S, Chicago, 35, univ. fellow, 38–39, Ph.D, 41. Asst. *zool, DePauw,* 30–32, instr, 32–36, asst. prof, 36–41, *assoc. prof, 41–; aviation physiologist, Air Corps, U. S. Army, 42–* A.A; Soc. Ichthyol. and Herp; Ind. Acad. Endocrinology; physiology of sex and reproduction.

Reynolds, Prof. Bruce D(odson), University of Virginia, Charlottesville, Va. *Zoology.* Long Island, Va, June 28, 94. B.S. Virginia, 20; fellow, Hopkins, 21–23, Sc.D, 23. Instr. animal biol, Iowa, 20–21; asst. prof. zool, Arkansas, 23–24; *Virginia,* 24–26, assoc. prof. *biol,* 26–38, *prof, 38–* Director, Mt. Lake Biol. Sta, 30–33. A.A; Soc. Zool; Soc. Parasitol; Genetic Asn; Va. Acad. Physiology and genetics of Protozoa; studies of monad flagellates; structure and movement of flagella.

Reynolds, Prof. Chapman, Louisiana State University Medical Center, New Orleans, La. *Pharmacology.* Cynthiana, Ky, March 14, 98. B.S, Chicago, 19; B.M, Louisiana, 35, M.D, 36. Instr. *pharmacol,* Iowa, 19–22; Tulane, 22–29; *asst. prof,* Marquette, 29–34; *sch. med, Louisiana, 36–* Soc. Exp. Biol; Soc. Pharmacol; Soc. Anesthetists; Int. Col. Anesthetists. Propylene anesthesia; cardiac output; autonomic sensitization; small dose effects; obstetrical anesthesia; intravenous anesthetics; physiology of anesthesia.

Reynolds, Prof. C(larence) N(ewton), Jr, 217 McLane Ave, Morgantown, W. Va. *Mathematics.* Nashua, N. H, Feb. 6, 90. Ph.B, Brown, 13, A.M, 14; Ph.D, Harvard, 19. Instr. *math,* Wesleyan, 16–20; Dartmouth Col, 20–21; asst. prof, *West Virginia,* 21–25, assoc. prof, 25–31, *prof, 31–* A.A; Math. Soc; Math. Asn. Linear differential equations; map coloring; analysis situs.

Reynolds, Dr. Delbert D(aniel), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Marietta, Ohio, Aug. 16, 13. A.B, Marietta Col, 35; M.S, Ohio State, 37, Ph.D, 39. *Research chemist, Eastman Kodak Co, 39–* Synthetic resins; carbohydrate chemistry.

Reynolds, Dewey A, 2638 Voelkel Ave, Pittsburgh, Pa. *Chemistry.* Plymouth, Ind, July 11, 98. B.S, Washington and Lee, 22; Pittsburgh, 24–26. Instr. chem, Greenbriar Mil. Sch, W. Va, 22–23; junior chemist, *U. S. Bur. Mines, Pittsburgh,* 23–25, asst. physical chemist, 25–29, assoc. fuels chemist, 29–43, *chemist, 43–* Sergt, M.C, 17–19. Chem. Soc. Industrial gas hazards; spontaneous combustion of fuels; reactivity of cokes; carbonization of coals.

Reynolds, Dr. Dexter H(arold), 15 W. Bowman Ave, Dayton, Ohio. *Chemistry.* Mt. Vernon, Mo, Aug. 28, 02. A.B, Missouri, 32; M.S, Arizona, 33; Ph.D, Illinois, 36. Anal. chemist, United Verde Copper Co, Ariz, 28–31; asst. chem, Illinois, 33–36; x-ray specialist, Gen. Elec. X-Ray Corp, 36–39; *research chemist, cent. research div, Monsanto Chem. Co, 39–* Soc. X-Ray and Electron Diffraction; Chem. Soc. Chemical analysis by x-ray diffraction; x-ray and other spectrographic methods applied to industrial chemical problems.

Reynolds, Dumond S(toddart), 112 Varnum St, N. W, Washington, D. C. *Chemistry.* Delhi, N. Y, June 20, 99. B.S, Denver, 24; A.M, George Washington, 32. *Asst. chemist, bur. plant indust, U. S. Dept. Agr, 25–* A.A; Chem. Soc. Determination of fluorine in phosphate rock; heat treatment of phosphate rock for use as a fertilizer.

Reynolds, Dr. E(lbert) B(runner), Agricultural and Mechanical College of Texas, College Station, Texas. *Agriculture.* Moseley's Bluff, La, Dec. 1, 90. Louisiana, 07–08; B.S, Okla. Agr. and Mech. Col, 14; fellow, Iowa State Col, 14–15, M.S, 15, Ph.D, 29. Instr. agron, *Agr. and Mech. Col. Texas,* 15–17, asst. prof, 17–18, supt, *Exp. Sta,* 18–20, agronomist, 20–23, *chief div. agron, 23–* Soc. Agron; Chem. Soc; Soil Sci. Soc; Texas Acad; Int. Soc. Soil Sci. Agronomy; soil fertility.

Reynolds, Dr. Ellen A(nn), Monroe and Edward Sts, Franklin, Ind. *Home economics.* Lexington, Ky. B.S, Kentucky; A.M, Chicago, 19, Ph.D, 24. Instr. and head dept. science, high sch, Ky, 07–15; asst. prof, Kentucky, 15–18; Kans. State Col, 19–20; Cornell, 20–23; research prof, Va. Polytech, 25–27; prof. and director home econ, Louisiana, 27–29; *consultant, writer and research worker, 29–; prof, Franklin Col, 37–* Director training and research ed, Works Progress Admin, 35–36. Housing investigator, Woman's Munic. League, Boston, 23; South End House, 29. Home Econ. Asn. (chairman, educ. sect, 22); Pub. Health Asn; La. Home Econ. Asn. (pres, 27). Hygiene of the home; sanitary aspects of food legislation; food costs and dietary habits; child welfare; vocational education.

Reynolds, Dr. Ernest S(haw), 667 Park Ave, Meadville, Pa. *Plant physiology.* Glendale, Mont, Dec. 7, 84. Ph.B, A.M, Brown, 07; fellow, Illinois, 07–09, Ph.D, 09. Instr. and asst. prof. bot, Tennessee, 09–12; assoc. prof. and prof, N. Dak. Col, 12–27; assoc. prof, Washington (St. Louis), and plant physiologist, Mo. Bot. Garden, 27–39; *liaison and planning officer, Keystone Ordnance Works, 42–* Fellow, Boyce Thompson Inst, 26–27. Summers, special agent, office forest path, U. S. Dept. Agr, 11, 17, 19; State Dept. Forestry, Minn, 16. A.A; Bot. Soc; Soc. Plant Physiol; Phytopath. Soc; New Eng. Bot. Club. Nature of parasitism and resistance; nutritional physiology of fungi; radiations; temperature relations.

Reynolds, Floyd W(ilson), National Bureau of Standards, Washington, D. C. *Chemistry.* Guyandotte, W. Va, June 18, 91. B.S, Cent. Wesleyan Col, 11; M.S, Cent. Col. (Mo), 12. Instr. chem, Morris Harvey Col, 14–18; junior chemist, Bur. Standards, 18–19; instr. chem, Hopkins, 19–20; assoc. chemist, bur. chem, U. S. Dept. Agr, 20–26; research chemist, Wallerstein Labs, 26–30; *chemist, Bur. Standards, 30–* Chem. Soc. Beet sugar technology; commercial manufacture of pectin.

Reynolds, Lieut-Col. François H(üe) K(árl), Army Medical Center, Washington, D. C. *Bacteriology, Pathology.* Washington, D. C, April 13, 86. D.V.M, George Washington, 14; M.S, American Univ, 34. Quarantine and path. div, U. S. Dept. Agr, 14–18; *lab. service, med. dept, U. S. Army, 18–* Instr, col. vet. med, George Washington; Army Med. Sch; Army Vet. Sch. Mem, U.S.A. Med. Research Board, Manila, P. I, 28–30; Ancon, C. Z. Assoc. referee, cmt. standard methods for examination dairy and food products, Am. Pub. Health Asn. Medal, Army Vet. Sch, 25. Soc. Bact; Asn. Mil. Surg; Soc. Trop. Med; Vet. Med. Asn. Serology; physiological chemistry; blood chemistry of the horse; prevalence of Malta fever on the southern border of the United States; trypanosomiasis of horses; glanders; tetanus; tropical dermatitis of horses; malaria and dengue fever of man; chemistry of foods; transmission of equine encephalomyelitis by Aedes albopictus; comparative studies of equine encephalomyelitis and encephalitis.

Reynolds, Prof. Frederick G(regory), College of the City of New York, New York, N. Y. *Mathematics.* New York, N. Y, Feb. 2, 72. B.S, Col. City of N. Y, 91; LL.B, N. Y. Univ, 96, M.S, 99, Sc.D, 04. Prof. *math, Col. City of N. Y,* 91–43, *emer. prof, 43–* A.A; Math. Soc. Viscosity coefficient of air.

Reynolds, Herbert B(yron), 600 W. 59th St, New York, N. Y. *Mechanical engineering.* Baltimore, Md, April 8, 88. M.E, Cornell, 11, M.M.E, 15. Apprentice, Westinghouse Elec. and Mfg. Co, 12; turbine tester, Gen. Elec. Co, 13; asst. engineer, Interborough Rapid Transit Co, 13–17; mech. asst. to supt. motive power, United Railways and Elec. Co, Baltimore, 17–18; fuel engineer, U. S. Bur. Mines, 18; mech. research engineer, *Interborough Rapid Transit Div, New York City Transit System,* 18–28, mech. engineer, 28–41, *supt. motive power,* 41–42, *in charge dept, 42–* Elec. Eng; fel. Mech. Eng. (chairman, power div, 26). Steam power engineering.

Reynolds, Dr. Howard, Iowa State College, Ames, Iowa. *Chemistry, Bacteriology.* Sioux City, Iowa, Jan. 15, 05. B.S, Iowa State Col, 31, fellow, 31–35, Ph.D, 35. Chem. and bacter. research, chem. research dept, Armour and Co, Chicago, 35–38; Exp. Sta, Arkansas, 38–43; *asst. prof. bact, Iowa*

State Col, 43– A.A; Soc. Bact. Physiology of microorganisms and food chemistry.

Reynolds, Dr. Howard H(ecker), 125 Pentridge Apt, 1506 Pentridge Road, Baltimore, Md. *Chemical engineering.* Cambridge, Mass, Jan. 28, 16. A.B, Harvard, 36; Sc.D, Mass. Inst. Tech, 39. Asst. colloid chem, Mass. Inst. Tech, 39; mem. research dept, Mich. Alkali Co, 39–41; *chem. engineer, research and develop. dept, Davison Chem. Corp, 41–* Chem. Soc; Chem. Eng. Colloid chemistry; development of process for manufacture of sodium orthosilicate; development of process for manufacture of sodium polyphosphates; silica gel.

Reynolds, Prof. Jos(eph) B(enson), 721 W. Broad St, Bethlehem, Pa. *Mathematics, Technology.* New Castle, Pa, May 17, 81. A.B, Lehigh, 07, A.M, 10; Ph.D, Moravian Col, 19. Instr. math. and astron, *Lehigh,* 07–13, asst. prof, 13–21, assoc. prof, 21–27, acting head dept, 24–25, *prof. math. and theoret. mech,* 27– A.A; Math. Asn; Eng. Educ. Elements of minor planets; applications of vector analysis; applied mathematics; technical engineering.

Reynolds, Prof. J(oshua) Paul, Birmingham-Southern College, Birmingham, Ala. *Zoology.* High Falls, N. C, Oct. 17, 06. B.S, Guilford Col, 28; M.S, North Carolina, 29; Ph.D, Hopkins, 34. Instr. biol, Guilford Col, 29–31; *asst. prof.* zool, North Carolina, 32–33; *biol, Birmingham-Southern Col, 34–* Summers, asst. prof, North Carolina, 32–39. A.A; Genetics Soc. Genetics; cytology; chromosome behavior.

Reynolds, Prof. Kenneth C(ass), Massachusetts Institute of Technology, Cambridge, Mass. *Hydraulics.* Somerville, Mass, May 28, 97. B.S, Tufts Col, 19; M.S, Mass. Inst. Tech, 25, Sc.D, 37; John R. Freeman traveling fellow, Europe, 27–29. Designer, Fay, Spofford and Thorndike, Boston, 19–20; asst. civil and sanit. eng, *Mass. Inst. Tech,* 20–21, instr, 21–29, asst. prof. *hydraul,* 29–37, *assoc. prof, 37–, in charge river hydraul. lab, 30–* Visiting prof, Southern California, 41–42. Assoc. Civil Eng; Eng. Educ; Boston Soc. Civil Eng. Theory of models.

Reynolds, Dr. Lawrence, 10 Peterboro St, Detroit, Mich. *Roentgenology.* Ozark, Ala, Feb. 11, 89. A.B, Alabama, 12; M.D, Hopkins, 16. Instr. roentgenol, med. sch, Hopkins, 19; Harvard Med. Sch, 20–22; assoc. roentgenologist, *Harper Hosp, Detroit,* 22–34, *roentgenologist, 34–; Children's Hosp,* 22– Roentgenologist, Peter Bent Brigham Hosp, Boston, 19–22; consulting roentgenologist, Herman Kiefer and U. S. Marine Hosps, Detroit. Ed, 'Am. Jour. Roentgenol. and Radium Therapy,' 30– Lieut, M.C, 17, capt, 18–19. A.A; Am. Med. Asn; Roentgen Ray Soc. (v. pres, 28); Col. Radiol; Radiol. Soc. N. Amer; Detroit Acad. Med. (pres, 35). Control of the pylorus; diffraction of human bone used to differentiate diseases; fluoridism of incisors of rats; association between carbohydrate metabolism and certain bone diseases.

Reynolds, Prof. Leon B(enedict), Room 275, Stanford University, Calif. *Sanitary engineering.* Hillsdale, Mich, Dec. 29, 84. A.B, Hillsdale Col, 06, Sc.D, 32; A.B. (C.E). Stanford, 09; Cornell, 11–12. Asst. engineer. Burns and McDonnell, Kansas City, 09–11, 12–20, mem. firm, 20–23; *prof. hydraul. and sanit. eng, Stanford, 23–* Civil Eng. (pres. San Francisco sect. 31); Pub. Health Asn. (pres, North. Calif. branch, 34); Water Works Asn; Calif. Sewage Works Asn. (pres, 29, director, 31–36). Sewage treatment.

Reynolds, Neil B(alley), 123 Glen Ave, Scotia, N. Y. *Physics.* Scotia, N. Y, Aug. 19, 03. B.S, 24; M.S, Union (N. Y), 26; A.M, Princeton, 28. Research physicist, research lab. Gen. Elec. Co, 24–32; asst. physics, Mass. Inst. Tech, 33–35; *ed, publicity dept, Gen. Elec. Co, 35–* Co-editor, 'Excursions in Science,' 39. A.A. Electron emission from composite filaments; contact potentials; molecular scattering of light; science radio programs.

Reynolds, R(ussell) R(oy), Box 373, Crossett, Ark. *Economics.* Howard City, Mich, Dec. 21, 06. B.S, Michigan, 29, M.S, 30. Junior forester, South. Forest Exp. Sta, *U. S. Forest Service,* 30–33, asst. conservationist, 33–34, assoc. forest economist, 34–36, *officer in charge, Crossett Exp. Forest, 36–, forest economist, 39–* Charles Lathrop Pack fellow, 34. Soc. Foresters. Timberland management; logging and milling practise.

Reynolds, Dr. Samuel R(obert) M(eans), 4028 Deepwood Road, Baltimore, Md. *Anatomy, Physiology.* Swarthmore, Pa, Dec. 9, 03. A.B, Swarthmore Col, 27, A.M, 28, Hannah Leedom fellow, 28–29; Chicago, 29; Harrison fellow, Pennsylvania, 30–31, Ph.D, 31. Asst. biol, Swarthmore Col, 26–27, zool. and physiol, 27–29; physiol, Pennsylvania, 29–30; nat. research fellow med, dept. embryol, Baltimore, Carnegie Institution, 31–32; instr. physiol, sch. med, Western Reserve, 32–33; L. I. Col. Med, 33–34, asst. prof, 34–38, assoc. prof, 38–41; *research assoc, dept. embryol, Carnegie Institution, 41–; capt, Air Corps, U. S. Army.* Guggenheim Mem. Foundation fellow, sch. med, Rochester, 37–38. Mem. hormone advisory board, U. S. Pharmacopoeia. Mem, Pharmacopoeial Conv. A.A; Physiol. Soc; Asn. Anat; Asn. Study Int. Secretions; Soc. Exp. Biol; Federation Clin. Research; Harvey Soc. Physiology of the uterus; peripheral circulation; endocrinology; human physiology; experimental embryology and pregnancy mechanisms; steroid hormones.

Reynolds, Prof. William B(ryan), University of Cincinnati, Cincinnati, Ohio. *Organic chemistry.* Ottumwa, Iowa, March 9, 13. A.B, Cornell Col, 34; Ph.D, Chicago, 36. Research chemist, E. I. du Pont de Nemours and Co, 36–39; Interchem. Corp, 39–41; instr. org. chem, Chicago, 41–42; *asst. prof. applied science, Cincinnati, 42–* Chem. Soc; Asn. Textile Chem. and Colorists. Color chemistry; organo-metallics; terpenes.

Reznek, Dr. S(olomon), U. S. Food and Drug Administration, Custom House, Philadelphia, Pa. *Chemistry.* Washington, D. C, Oct. 26, 06. B.S, George Washington, 27; fellow, Maryland, 27–28, B.S, 28; M.S, N. Y. Univ, 36; Ph.D, Polytech. Inst. Brooklyn, 40. Junior chemist, *food and drug admin, Fed. Security Agency,* 29–35, asst. chemist, 35–40, *assoc. chemist, 40–* Chem. Soc. Development and application of a simplified polarograph; analytical methods for drugs; polarographic methods.

Reznikoff, Dr. Paul, 525 E. 68th St, New York, N. Y. *Medicine.* Brooklyn, N. Y, Feb. 1, 96. B.S, New York, 16; M.D, Cornell, 20. Teaching fellow med, Harvard Med. Sch, 22–23; nat. research fellow, 22–24; asst. physiol, sch. pub. health, Harvard, 22–24; instr. med, *med. col, Cornell,* 24–32, asst. prof, 32–40, *assoc. prof. clin. med, 40–,* assoc. anat, 24–28; adj. asst. visiting physician and assoc. visiting physician, *Bellevue Hosp,* 24–30, *visiting physician, 38–;* assoc. attending physician, *N. Y. Hosp,* 32–43, *attending physician, 43–* Marine Biol. Lab, Woods Hole. Soc. Exp. Biol; Soc. Clin. Invest; Physiol. Soc; Am. Physicians; Harvey Soc; N. Y. Acad. Med. The specific gravity of red blood cells; lead poisoning; the effect of lead on muscle; micro-dissection and injection of cells; medical education; hematology.

Rheinberger, Prof. Margaret B(ernardine), Manhattanville College of the Sacred Heart, New York, N. Y. *Physiology.* New York, N. Y, June 28, 06. A.B, Smith Col, 29; Ph.D, Yale, 35. Asst. physiol. and hygiene, Flora Stone Mather Col, Western Reserve, 29–31; instr. zool, Smith Col, 31–32; asst. physiol, sch. nursing, Yale, 34–35; research assoc. psychol, Brown, 35–38; *neurophysiologist, Jewish Hosp, Brooklyn, 38–; prof. biol, Manhattanville Col. of the Sacred Heart, 41–* Primate metabolism; electroencephalography.

Rheineck, Dr. Alfred E(dward), 2900 Erie St, S.E, Washington, D. C. *Chemistry.* Milwaukee, Wis, Oct. 7, 04. B.S, Wisconsin, 28; Archer-Daniels-Midland Co. fellow, Lehigh, 29–31, M.S, 31; Fritschi Brothers fellow, Wisconsin, 32, Alumni Research Foundation fellow, 33–34, Ph.D, 34. City testing engineer, Milwaukee, 28–29; instr. chem, exten. div, Wisconsin, 31–32; research chemist, Devoe and Raynolds Co, 34–43; *mem. drying oils sect, fats and oils branch, food distribution, U. S. Dept. Agr, 43–* Chem. Soc; Pharmaceut. Asn. Drying oils; phytochemistry; terpenes.

Rhine, Prof. J(oseph) B(anks), Duke University, Durham, N. C. *Psychology.* Waterloo, Pa, Sept. 29, 95. Ohio Northern; Col. of Wooster; B.S, Chicago, 22, M.S, 23, Ph.D, 25. Asst. plant physiologist, Boyce Thompson Inst, 23–24; instr. plant physiol, West Virginia, 24–26; philos. and psychol, *Duke,* 28–29, asst. prof. *psychol,* 29–35, assoc. prof, 35–37, *prof, 37–, in charge parapsychol. lab.* Ed, 'Jour. Parapsychol.' Hypnosis; extrasensory perception; psychokinesis.

Rhinehart, Prof. D(armon) A(rtelle), 4 Armistead Road, Little Rock, Ark. *Anatomy, Roentgenology.* Pulaski Co, Ind, June 5, 87. A.B, Indiana, 10, fellow, 10–11, A.M, 12, M.D, 13. Asst. anat, Indiana, 08–10, assoc, 11–12, instr, 13–14; assoc. prof, *Arkansas,* 14–17, *prof,* 17–19, *applied anat. and roentgenol, 20–* Trustee, Am. Registry X-ray Technicians, 42– Asn. Anat; Am. Med. Asn. (delegate, 33); Radiol. Soc. N. Amer; fel. Col. Radiol; Ark. Med. Soc. (pres, 31). Nerve supply of the thyroid and parathyroids; facial nerve of the

albino mouse; congenital anomalies of the stomach; roentgenographic technique; x-ray diagnosis of gas and air in the tissues; calcification within the lungs.

Rhines, Dr. Chester E, 169 Forest Road, Glen Rock, N. J. *Biochemistry.* Walters, Minn, June 24, 09. B.S, N. Dak. Col, 31, 31–32; nat. research fellow, Rutgers, 32–35, Ph.D, 35. Asst. agronomist, soil conservation service, U. S. Dept. Agr, 35–36; *research biochemist and bacteriologist, U. S. Rubber Co, 36–* Survival of tubercle bacilli in soil; production of high quality latex and crude rubber.

Rhines, Prof. Frederick N(ims), Carnegie Institute of Technology, Pittsburgh, Pa. *Metallurgy.* Toledo, Ohio, July 25, 07. B.S, Michigan, 29; Ph.D, Yale, 33. Metallurgist, Aluminum Research Labs, Cleveland, 29–31; contract metallurgist, U. S. Naval Research Lab, 31; asst. *metal,* Yale, 33–34; instr, *Carnegie Inst. Tech,* 34–35, *asst. prof, 35–* Award. Inst. Metals, 39, 42. Min. and Metal. Eng; Soc. Metals; Sci. of Metals Club (chairman, 41); British Inst. Metals; Iron and Steel Inst. Gt. Britain. Gas-metal equilibria; Widmanstätten figures; diffusion in metal systems; oriented overgrowths on metals; oxidation of metals; constitution of alloys.

Rhinesmith, Prof. H(erbert) S(lias), Allegheny College, Meadville, Pa. *Organic chemistry.* Westtown, N. Y, Oct. 25, 07. A.B, Wesleyan, 29, A.M, 30; A.M, Harvard, 31, Ph.D, 33. Teaching fellow *chem,* Wesleyan, 34–36, instr, 36–38; *Allegheny Col,* 38–40, *asst. prof, 40–* Chem. Soc. Action of Grignard reagents on acetylenic esters; cyclopropane chemistry.

Rhoad, Albert O(liver), U. S. Department of Agriculture, Jeanerette, La. *Animal husbandry.* Mt. Airy, Pa, Sept. 26, 02. B.S, Pa. State Col, 26; M.S, Cornell, 28. Instr, Cornell, 26–29; prof. animal husbandry, Escola Superior de Agr, Vicosa, Minas Geraes, Brazil, 29–35; tech. consultant, Inst. de Perquisas Agron, Pernambuco, Brazil, 35–36; *supt. in charge, Iberia livestock exp. sta, U. S. Dept. Agr, 36–* A.A; Genetic Asn; Soc. Animal Production; fel. Am. Geog. Soc. Animal genetics, ecology and nutrition.

Rhoades, Prof. H(arold) F(rancis), 1138 N. 44th St, Lincoln, Nebr. *Agronomy.* Hackberry, Okla, Nov. 7, 07. B.S, Missouri, 29, A.M, 31; Ph.D, Nebraska, 36. Asst. soils, Missouri, 29–33; asst. prof, N. C. State Col, 33–34; instr. agron, *Nebraska,* 34–37, asst. prof, 37–42, *assoc. prof. agron. and acting head soil div, 42–* Properties of soils; chemical changes in soils as a result of cropping and fertilizing practises; phosphate fertilizers on wheat; soil nitrification; tilth studies on alkali soils; classification and genesis of soils derived from glacial materials.

Rhoades, Dr. M(arcus) M(orton), Columbia University, New York, N. Y. *Genetics.* Graham, Mo, July 24, 03. B.S, Michigan, 27, M.S, 28; Ph.D, Cornell, 32. Experimentalist in plant breeding, Cornell, 30–35; agent, U. S. Dept. Agr, 35–37, geneticist, Arlington Exp. Farm, 37–40; assoc. prof. *bot, Columbia,* 40–43, *prof, 43–* Ed. cmt, 'Am. Jour. Bot,' 39–40; advisory ed, 'Chronica Botanica,' 40–; managing ed, 'Genetics,' 40–; ed. board, 'Bot. Rev,' 40–; assoc. ed, 'Columbia Biol. Series.' Mem. board managers, N. Y. Bot. Garden, 40– Mem. Nat. Research Council, 39– A.A; Genetics Soc. (v. pres, 42, pres, 43); Genetic Asn. (councilor); Soc. Nat; Bot. Soc; Soc. Agron; Torrey Bot. Club. Genetics and cytogenetics of maize.

Rhoades, Roger F(arnsworth), U. S. Bureau of Reclamation, Customhouse, Denver, Colo. *Engineering geology, Petrography.* Denver, Colo, May 19, 05. A.B, California, 30, Charles Mills Gayley fellow, 30–32. With Garfield and Nelson O. Rhoades, Mexico City, 28; Lago Petrol. Corp, Venezuela, 29; instr, Antioch Col, 32–34, asst. prof, 34–35; asst. geologist, Tenn. Valley Authority, 35–36, assoc. geologist, 36–40, geologist, 40–41; *geologist and head petrographic and earth materials labs, U. S. Bur. Reclamation, 41–* A.A; Geophys Union; Concrete Inst; Min. and Metal. Eng; Rocky Mountain Asn. Petrol. Geol; Tenn. Acad. (chairman geol. and geog. 40). Engineering geology of dams, dam sites and quarries; physiography, especially in the region of the lower Tennessee, Ohio and Cumberland River valleys; ground water flow and solution; construction materials, especially petrography of concrete and concrete aggregate.

Rhoads, Dr. Arthur S(tevens), Cocoa, Fla. *Plant pathology.* Philadelphia, Pa, June 10, 93. B.S, Pa. State Col, 14, M.S, 15; Ph.D, Syracuse, 17. Asst. forest bot. and path, N. Y. State Col. Forestry, Syracuse, 15–17; asst. forest path, office forest path. investigations, bur. plant indust, U. S. Dept. Agr, 17–21, office cereal disease investigations, 21–22, office fruit disease investigations, 22; pathologist, Mo. State Fruit Exp. Sta, 22–23; asst. plant pathologist, Fla. Exp. Sta, 23–27, assoc. plant pathologist, 27–32, plant pathologist, 32–40. Summer, forest asst, U. S. Forest Service, 14. Phytopath. Soc; Mycol. Soc; Fla. Hort. Soc. Wood rotting fungi; wood decay; forest tree, deciduous fruit, grape and citrus diseases.

Rhoads, Dr. C(ornelius) P(ackard), Memorial Hospital for the Treatment of Cancer and Allied Diseases, 444 E. 68th St, New York, N. Y. ***°Pathology, Medicine.* Springfield, Mass, June 20, 98. A.B, Bowdoin Col, 20; M.D, Harvard, 24. Surg, Peter Bent Brigham Hosp, Boston, 24–25; Trudeau fellow, Trudeau Sanatorium, N. Y, 25–26; asst. pathologist, Boston City Hosp, 26–28; assoc, Rockefeller Inst, 28–33, assoc. mem, 33–39, pathologist, hosp, 30–39; *med. director, Mem. Hosp. Treatment Cancer and Allied Diseases, 39–; col. and chief med. div, Chem. Warfare Service, U. S. Army, 43–* A.A; Asn. Cancer Research; fel. Col. Physicians; Am. Med. Asn; Radium Soc; Soc. Control Cancer; Am. Physicians; Soc. Med. Jurisprudence; Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Clin. Invest; Soc. Trop. Med; Interurban Clin. Club; Interurban Path. Club; Harvey Soc; N. Y. Acad. Med; Int. Soc. Sci. Research. Poliomyelitis; renal physiology; anemia; deficiency disease.

Rhodehamel, H(arley) W(esley), Eli Lilly and Co, Indianapolis, Ind. *Chemistry.* Indianapolis, Ind, Dec. 6, 84. B.S, Purdue, 07. *Director research develop, Eli Lilly and Co, 07–* A.A; Chem. Soc. (pres, Indianapolis sect, 18); Pharmaceut. Asn; Soc. Chem. Indust; Deuts. Chem. Gesell; Schweiz. Chem. Gesell. Biochemistry; manufacture and purification of insulin; liver extracts; parathyroid extract.

Rhodes, C(ecil) M(arvin), 2191 Wellesley Ave, St. Paul, Minn. *Chemistry, Physics.* Somerville, Mass, June 16, 04. B.S, Syracuse, 28, Research, Oswego Falls Corp, N. Y, 26–27; with Certainteed Products Corp, 28–30; Flintkote Co, 30; *tech. director, Rapinwax Paper Co, 31–* Minn. Indust. Chemists Forum, sec'y, 41. Development of food-wrapping papers; protective coatings and printing inks; development of testing and processing equipment and machinery.

Rhodes, Dr. C(harles) Everett, Union College, Schenectady, N. Y. *Mathematics.* Groton, N. Y, Nov. 23, 00. A.B, Cornell, 23; Chicago, 26–27; Ph.D, Cincinnati, 32. Instr. *math,* Heidelberg Col, 24–26; Cincinnati, 27–35; Ohio State, 35–36, 37–39; Cornell, 36–37; Case, 40–41; Cornell, 41–42; *asst. prof, Union Col. (N. Y), 42–* Math. Asn. Mathematical analysis.

Rhodes, E(dmund) O(liver), Tar and Chemical Division, Koppers Products Co, 506 Flannery Bldg, Pittsburgh, Pa. *Chemistry.* Dodge City, Kans, Aug. 4, 90. B.S, Kansas, 12, indust. fellow, 12–13, M.S, 13; fellow, Mellon Inst, 13–21. *Tech. director,* Am. Tar Products Co, 21–25; *tar and chem. div, Koppers Products Co, 25–* Chem. Soc; Soc. Test. Mat; Road Builders' Asn; Wood Preservers' Asn; Int. Road Cong. Hydrogenation of edible oils and manufacture of butter substitutes; electrothermic reduction of alumina; recovery of potash from portland cement; coke from coal tar pitch; manufacture of carbon electrodes; pitch coke; tar products.

Rhodes, Prof. Fred H(ofmann), Cornell University, Ithaca, N. Y. *Chemical engineering.* Rochester, Ind, June 30, 89. A.B, Wabash Col, 10; Ph.D, Cornell, 14. Asst. English, Wabash Col, 09–10, math, 10; qualitative anal, Cornell, 10–12, asst, 12–14; instr. chem, Montana, 14–15; Cornell, 15–17; director research, dept. chem, Barrett Co, 17–20; *prof.* indust. chem, *Cornell,* 20–33, *chem. eng, 33–, director sch. chem. eng, 38–, Herbert Fisk Johnson prof. indust. chem, 41–* Chem. Soc; Chem. Eng. Chemical engineering; industrial chemistry.

Rhodes, J(ohn) Cecil, Medical Arts Bldg, Jenkintown, Pa. *Chemistry, Bacteriology.* Philadelphia, Pa, Aug. 23, 98. B.S, Pennsylvania, 19, M.S, 21. Instr. chem, Pennsylvania, 19–24; water bacteriologist, bur. labs, *State Dept. Health, Pa,* 24–26, chief chemist, 26–32, *asst. chief, Phila. lab, 32–; director, Med. Arts Lab, Jenkintown, Pa, 32–* Special consultant, Radnor Township, Pa; chem. consultant, Doylestown, Pa; director lab, Doylestown Hosp. Chem. Soc; Asn. Consulting Chem. and Chem. Eng; Pa. Pub. Health Asn; Phila. Inst. Consulting Chem. and Chem. Eng.

Rhodes, L(eland) B(rown), State Department of Agriculture, Raleigh, N. C. *Chemistry.* Trenton, N. C, Aug. 23, 91. B.S, North Carolina, 13, fellow, 14, M.S, 14. Chemist and

later *senior chemist, State Dept. Agr, N. C, 14–, assoc. state chemist, div. food and oil, 22–* A.A; Chem. Soc. (sec'y, N. C. sect, 20–30); N. C. Acad. Cockle-bur oil; preservation of succulent vegetables; surface activity; utilization of solar energy.

Rhodes, Prof. M(arce) C(linton), University of Tampa, Tampa, Fla. *Mathematics.* Collinsville, Miss, May 16, 98. B.S, Miss. State Teachers Col, 23; A.M, George Peabody Col, 27, Ph.D, 30. Sch. supt, Miss, 24–27, 35–37; asst. and instr. econ, George Peabody Col, 27–30; chairman dept. *math,* Mississippi, 30–32; assoc. prof, *Tampa,* 37–38, *prof, 38–, dean admin, 42–* Math. Asn.

Rhodes, Prof. P(eyton) N(alle), Southwestern, Memphis, Tenn. *Physics.* Crozet, Va, Jan. 29, 00. A.B, Virginia, 20, A.M, 21, fellow, 24–26, Ph.D, 26. Asst. and instr, Virginia, 18–22; teacher chem. and physics, Woodberry Forest Sch, 22–24; *prof. physics and head dept, Southwestern (Tenn), 26–* A.A; Physical Soc; Asn. Physics Teachers; Tenn. Acad. Spectroscopy.

Rhodes, Prof. Robert C(linton), 1126 Clifton Road, N. E, Atlanta, Ga. *Biology.* Magnolia, Ark, Oct. 12, 87. A.B, Henderson Col, 06; A.B, Vanderbilt, 07, A.M, 08; Ph.D, California, 17. Instr, Mississippi, 08–10, asst. prof, 10–12; prof. science, Henderson Col, 12–15, v. pres. and dean, 12–14; asst. zool, California, 15–17; *prof. biol. and chairman dept, Emory, 18–* A.A; Eugenics Soc; Soc. Zool; Soc. Parasitol; South. Asn. Sci. and Industry; Southeast. Soc. Biol. (pres, 40); Ga. Soc. Nat; Ga. Acad. (councilor, pres, 33). Protozoology; algology; eugenics; binary fission in Collodictyon triciliatum; Heteronema acus; the Euglenoidina; flagellates; biological factors involved in democracy.

Rhodes, Prof. Robert D(rake), San Jose State College, San Jose, Calif. *Plant physiology.* Lamar, Mo, Oct. 12, 06. A.B, San Jose State Col, 28; A.M, Stanford, 32, univ. fellow, 35–37, Ph.D, 38; Washington (Seattle), 30. Teaching asst. biol, Stanford, 34–37; instr. nature study, *San Jose State Col, Calif,* 37–39, asst. prof. *biol,* 39–41, *assoc. prof, 41–* Acting instr, Stanford, 40. West. Soc. Nat. General physiology; anthocyanin pigments in plants and their behavior in electrical fields.

Rhodes, Prof. W(alter) K(remer), 101 S. Fourth St, Lewisburg, Pa. *Electrical engineering.* Near Gettysburg, Pa, Oct. 2, 74. Cumberland Valley State Nor. Sch, 98; Ph.B, Bucknell, 03, A.M, 06; B.S, Michigan, 09. Teacher, pub. schs, Pa, 94–97, 98–99; eng. dept, Pa. R.R. Co, 03–05; *prof. elec. eng, Bucknell, 07–* Elec. Eng; Eng. Educ. Electrical design.

Rhodes, W(illiam) W(arren), Kinetic Chemicals, Inc, Wilmington, Del. *Chemistry.* Chester, Pa, Jan. 27, 88. B.S, Pennsylvania, 10. Chemist, Security Cement and Lime Co, W. Va, 10–11; chemist and geologist, Blair Limestone Co, 11–12; Woodville Lime and Cement Co, Ohio, 11–13; engineer, Wash. Bldg. Lime Co, Ohio, 13, manager, 14; chem. dept, E. I. du Pont de Nemours and Co, 17–22, dyestuffs dept, 22–26, sales manager miscellaneous chemicals, 26–30; *sales director, Kinetic Chemicals, Inc, 30–* Pres, Del. Mining and Explor. Co, Mex, 25–26. A.A; Chem. Soc; Chem. Eng; Soc. Test. Mat. Industrial chemistry; refrigerants; fluorspar; flotation agents; seed disinfectants; inhibitors for gasolines and oils; inhibitors against corrosion in automobile radiators; nitrated filter cloths.

Riblet, Dr. Henry J(ames), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Calgary, Alta, Can, July 21, 13. B.S, Yale, 35, A.M, 37, Ph.D, 39. Instr. math, Adelphi Col, 39–41; asst. prof, Hofstra Col, 41–42; *research assoc, radiation lab, 42–* Math. Soc. Abstract algebra; electrodynamic boundary value problems.

Riblett, Dr. E(arl) W(endell), M. W. Kellogg Co, Jersey City, N. J. *Chemistry.* Barboursville, W. Va, Sept. 11, 04. A.B, Morris Harvey Col, 27; A.M, West Virginia, 29; Ph.D, N. Y. Univ, 31. Teaching fellow, N. Y. Univ, 29–31, research assoc. physics, 31–32; *physical chemist, M. W. Kellogg Co, 32–* Chem. Soc. Physical and colloidal chemistry; reaction velocities of gaseous systems.

Ricci, Dr. John E(ttore), New York University, University Heights, New York, N. Y. *Physical chemistry.* New York, N. Y, Jan. 1, 07. B.S, N. Y. Univ, 26, M.S, 28, fellow, 29–31, Ph.D, 31. Instr. *chem, N. Y. Univ,* 31–37, asst. prof, 37–41, *assoc. prof, 41–* Chem. Soc. (assoc. ed, 'Jour,' 39–); N. Y. Acad. Phase rule; analytical chemistry; solubilities; theory of solution.

Rice, Dr. A(lexander) Hamilton, 901 Fifth Ave, New York, N. Y. *Geography.* Boston, Mass, Aug. 29, 75. A.B, Harvard, 98, M.D, 04, hon. A.M, 15; diploma, Sch. Geog. Surv. and Field Astron, Royal Geog. Soc, 10. Intern surg, Mass. Gen. Hosp, 04–05, out-patient dept, 05–06; *lecturer,* Lowell Inst, 22; *diseases of S. Amer, Harvard Med. Sch, 23–, prof. geog. explor. and director inst. geog. explor, Harvard, 30–* Hon. curator, S. Amer. sect, Peabody Museum, Harvard, 29– Established Indian Sch, Hosp. and Crèche, São Gabriel, Rio Negro, Brazil, 18– Mem. board consulting physicians and surg, Newport Hosp, R. I. Organizer and leader expeds, Columbia, Brazil and Venezuela, 01–25. Trustee, Am. Museum Nat. Hist, 25–; trustee, French Lycée in N. Y; N. Y. Dispensary; French Inst. in U. S; mem. board directors, Am. Museum of Health. Patrons gold medal, Royal Geog. Soc, 14; gold medal, Harvard Travelers Club, 15; David Livingstone gold medal, Am. Geog. Soc, 19; Elisha Kent Kane gold medal, Geog. Soc. Phila, 21; gold medal, Soc. royale de Géog. d'Anvers, Belgium, 30; chevalier, Légion d'honneur, 34, commandeur, 38; Gran Cruz de la orden de Isabel la Catolica, 40. Surgeon and director hosp, France, 14–15; lieut, U.S.N.R, 17–19. A.A; Am. Geog. Soc. (councilor and v. pres, 15–30); fel. Geol. Soc; Anthrop. Soc; Geog. Soc. Phila; hon. fel. Royal Geog. Soc. (v. pres, 30–33); fel. Royal Meteorol. Soc; fel. Royal Astron. Soc; fel. London Geol. Soc; fel. Royal Anthrop. Inst; Royal Inst. London; Soc. géog. de Paris; Soc. royale de Géog. d'Anvers; cor. mem. Soc. des Américanistes de Paris; hon. fel. Reale Soc. de Geog. de Madrid; Inst. Hispano Am. de Relaciones Culturales de Madrid (hon. councilor); hon. fel. Reale Soc. Geog. Ital. Mathematical, physical and ontographic divisions of geography; geo-pathology; time signals in the determination of longitude; auxiliary methods of exploration and survey; air photography in exploration.

Rice, Dr. Andrew C(arl), 1401 N. Virginia, Reno, Nev. *Chemistry.* Springfield, Mass, March 13, 00. B.S, New Hampshire, 23, M.S, 25; Ph.D, Columbia, 28. Instr, Pratt Inst, 28–33; analyst, Columbia, 33–35; asst. analyst, *U. S. Bur. Mines,* 35–36, *assoc. analyst, 36–* Chem. Soc. Analytical chemistry; chemistry of rarer metals.

Rice, Arthur L(ouis), 53 W. Jackson Blvd, Chicago, Ill. *Electrical and steam engineering.* Barre, Mass, May 14, 70. B.S. (M.E), Worcester Polytech, 91, B.S. (E.E), 93; fellow, Cornell, 95–96, M.M.E, 96. Instr. mech. eng, Worcester Polytech, 92–95; head dept. applied elec, Pratt Inst, 97–01; assoc. ed, 'Engineer,' 02–03, *ed,* 03–08; 'Practical Engineer,' 08–17; *'Power Plant Eng,' 17–* Mech. Eng. (v. pres, 22); West. Soc. Eng. Cylinder condensation in steam engines; liquid air phenomena; the economic limits of super-heating of steam; steam pumps; boiler plant operation; steam and water handling; Diesel engine operation; electrical equipment; refrigeration; air conditioning, heating and ventilation.

Rice, Dr. Carl O(liver), 1635 Medical Arts Bldg, Minneapolis, Minn. *Surgery.* Renville, Minn, May 7, 98. B.S, South Dakota, 23; M.B, Minnesota, 25, M.D, 26, M.S, 31, Ph.D, 34. Instr. *surg, Minnesota,* 32–42, *asst. clin. prof, 42–* Fel. Col. Surg; Minn. Path. Soc; Minneapolis Surg. Soc. Thyroid diseases and pathology; histopathology following injection treatment of hernia; local anesthesia in fractures.

Rice, Prin. C(harles) Herbert, Allahabad Christian College, Allahabad, India. *Psychology.* Jefferson, Iowa, Dec. 10, 84. A.B, Col. of Wooster, 06, A.M, 20, LL.D, 30; Ph.D, Princeton, 24. V. prin. and prof. philos, Forman Christian Col, Univ. Punjab, 11–29; *prin, Ewing Christian Col, Univ. Allahabad, 29–* Fellow, Univ. Punjab. Psychol. Asn. of Indian Sci. Cong. Hindustani Binet-performance point scale; comparison of the intelligence of certain caste groups in the Punjab.

Rice, Chester W(illiams), 1161 Lowell Road, Schenectady, N. Y. *Engineering.* Lynn, Mass, Dec. 16, 88. B.S, Harvard, 10, M.E.E, 11. *Research engineer, Gen. Elec. Co, 11–* A.A; Elec. Eng; Physical Soc; Radio Eng; Chem. Soc; Math. Soc. Electrostatic problems; radio reception; free and forced convection of heat; loud speakers; windage losses; refraction of short radio waves; sonic altimeter; sonic locator.

Rice, Dr. Christine E(lizabeth), Perth, Ont, Can. *Bacteriology.* Perth, Ont, March 5, 02. B.A, Queen's (Can), 26, M.A, 27; Nat. Research Council Can. bursar, Toronto, 28–29, Ph.D, 31. Asst, Queen's (Can), 26–28, research fellow,

31 32; Royal Soc. Can. traveling fellow, 32–33; asst. chemist, *State Dept. Health, N. Y*, 29–30, *asst. bacteriologist, 34–; mem. staff, Can. Dept. Nat. Defense, 43–* A.A; Soc. Bact; Asn. Immunol. Decomposition of marine products; variation in the tubercle bacillus and other acid-fast species of bacteria; complement-fixation tests with antigens of the meningococcus, gonococcus and pneumococcus.

Rice, Dr. Earle Milford, 2 Greenhill St, Charleston, S. C. *Tropical medicine.* East Hartford, Conn, July 7, 91. M.D, Oregon, 15; D.T.M. and D.T.H, England. Chief med. officer, Indian Tea Asn, 18–32; cholera research officer, King Edward VII Pasteur Inst, India, 32–39; director health div, State Pub. Service Authority, S. C, 39–41; exec. officer and lecturer trop. med. and chief div. parasitol, Army Med. Sch, 41–42; *med. observer, for. mil. mission and lieut. col, Med. Corps, U. S. Army, 42–* Chief med. officer, Angus Co; med. supt, British India Steam Navigation Co, 22. Acad. Trop. Med; Royal Soc. Trop. Med; fel. Royal Entom. Soc, London. Malaria survey of India, Kansali-India.

Rice, Prof. Edward L(oranus), 265 N. Sandusky St, Delaware, Ohio. *[1]*Zoology.* Middletown, Conn, March 18, 71. A.B, Wesleyan, 92, Sc.D, 27; Ph.D, Munich, 95. Asst. *zool*, Wesleyan, 96; prof, Allegheny Col, 96–98; *Ohio Wesleyan,* 98–41, *emer. prof, 41–, war emergency instr, 42–* Instr, lake lab, Ohio State, 05, 06, 08, 09, 12; Bay View Summer Univ, 43. A.A. (v. pres, F, 23); Soc. Nat; Soc. Zool; Asn. Anat; Ohio Acad. (pres, 06, sec'y, 12–22). Gill structure of lamellibranchs; comparative embryology of vertebrate skull.

Rice, Dr. Eldon E(merson), 6632 Greenwood, Chicago, Ill. *Biochemistry.* Huntington, Ind, Feb. 29, 12. A.B, DePauw, 34; M.S, Illinois, 36, Ph.D, 38. Asst, Illinois, 38–41; *research chemist, Swift and Co, 41–* Chem. Soc. Significance of amino acids in nutrition; stability of the B-complex vitamins during the cooking, processing and storage of foods.

Rice, Prof. F(rancis) O(wen), Catholic University of America, Washington, D. C. *[5]*Chemistry.* Liverpool, Eng, May 20, 90. B.Sc, Liverpool, 11, M.Sc, 12, 1851 Exhib. scholar, 14, D.Sc, 16; Princeton, 19. Instr. *chem*, N. Y. Univ, 19–20, asst. prof, 20–24; assoc, Hopkins, 24–26, assoc. prof, 26–38; *prof. and head dept, Catholic Univ, 38–* Cmt. research contact catalysis, Nat. Research Council, 37– A.A; Chem. Soc. Reaction kinetics; photochemistry; explosives; catalysis; mechanism of organic reactions.

Rice, Dr. Frank E(lmore), Evaporated Milk Association, 307 N. Michigan Ave, Chicago, Ill. *Chemistry.* Cuba, Ind, July 31, 87. A.B, Indiana, 09; Ph.D, Cornell, 14. Asst. chem, Indiana, 08–09; asst, instr. and asst. prof, Cornell, 09–24; prof, N. C. State Col, 24–28, chairman dept, 28; *sec'y, Evaporated Milk Asn, 28–* Summers, asst. chemist, Am. Steel and Wire Co, 08; N. Y. Exp. Sta, Geneva, 10–12; consulting chemist, Nestlé's Food Co, 17–24. Chem. Soc. (chairman, N. C. sect, 25); N. C. Acad. Biochemistry; agricultural, food and dairy chemistry.

Rice, George S(amuel), Box 296, Alexandria, Va. *Mining engineering.* Claremont, N. H, Sept. 8, 66. E.M, Columbia, 87; hon. Sc.D, Lafayette Col, 36. Mining engineer, Colo. and N. Mex, 87–97; consulting mining engineer, Chicago, 97–08; mining engineer, U. S. Geol. Surv, 08–11; chief mining engineer, U. S. Bur. Mines, 11–37, chairman mine safety board, 24–37; *mine investigations, Prov. N. S, 37–* In charge party engineers to investigate European mines, 11; Can. Cmn. on Turtle Mountain Rock Slide, 11; organizer and sec'y, Int. Conf. Mine Exp. Stations, 12. Cmn. Post-War Mining and Indust. Conditions, France and Belgium, 19; in charge ventilation studies and tests, Holland Vehicular Tunnel, 21. Organizer and liaison officer, safety in mines research, cooperation U. S. Bur. Mines and British Mines Dept, 24– Medal, British Inst. Min. Eng, 29; medal, Columbia Univ, 31. U.S.A, 17–19. A.A; hon. mem. Min. and Metal. Eng; Min. and Metal. Soc. (chairman, cmt. on ground movement and subsidence); Wash. Acad; hon. mem. British Inst. Min. Eng; hon. mem. La Soc. de l'Industrie Minerale, France. Prevention of coal mine explosions; methods of mining coal for greater safety and waste prevention; ground movement and subsidence from mining; disastrous bumps and gas outbursts.

Rice, Dr. H(arington) M(olesworth) A(nthony), Geological Survey of Canada, Ottawa, Ont, Can. *Geology.* Weymouth, Eng, Sept. 7, 00. B.A.Sc, British Columbia, 23, M.A.Sc, 31; Ph.D, Calif. Inst. Tech, 34. Field geologist, Britannia Mining and Smelting Co, 26–30; Geol. Surv. Can, 31–32; chief field geologist, Col. H. H. Yuill, 34–35; *bur. econ. geol, Geol. Surv. Can, 35–* Geology of the Cranbrook area, British Columbia; glaciation; economic geology.

Rice, Prof. Harris, Worcester Polytechnic Institute, Worcester, Mass. *Mathematics.* Worcester, Mass, Aug. 27, 88. B.S, Worcester Polytech, 12; A.M, Harvard, 22. Instr. *math*, Tufts Col, 15–19, asst. prof, 19–20; *Worcester Polytech*, 20–24, *prof, 24–* Instr, Harvard, 18. A.A; Eng. Educ; Math. Soc; Math. Asn. Differential equations and their application to engineering.

Rice, H(erbert) L(ouis), U.S.N. (retired), 4304 Groveland Ave, Baltimore, Md. *Mathematics.* Chicago, Ill, Dec. 18, 69. Michigan, 88–91; B.S, George Washington, 93, M.S, 94. Asst, 'Nautical Almanac' Office, 92–02; asst. astronomer, U. S. Naval Observatory, 02–07; prof. math, U. S. Naval Acad, 07–33; *retired.* Instr, George Washington, 94–97, prof, 97–04. Theory and practice of interpolation.

Rice, Dr. James C(arl), University of Mississippi School of Medicine, University, Miss. *Pharmacology.* St. Louis, Mo, July 18, 93. B.S, Missouri, 23, A.M, 27; Ph.D, Kansas, 34. Instr. chem, Kansas City Junior Col, Mo, 23–38; *pharmacol, sch. med*, Kansas, 36–38; Louisiana, 38–42; *prof, Mississippi, 42–* A.A; Chem. Soc; Soc. Pharmacol. Mechanism of barbiturate action; antagonism between drugs affecting the central nervous system; pharmacodynamics of ephedrine; drug action on enzyme systems.

Rice, Prof. James E(dward), Mexico, N. Y. *Poultry husbandry.* Aurora, Ill, March 12, 65. B.S.A, Cornell, 90. Asst. prof. *poultry husbandry, Cornell,* 02–06, prof, 06–33, *emer. prof, 33–* Ed, 'Poultry Science Series.' Chairman cmt, World's Poultry Cong. and Expos, Cleveland, 38. Poultry Sci. Asn. (pres); Poultry Asn. (chairman, cmt. on promotion and protection poultry indust); Northeast. Poultry Producers Council (pres); N. Y. Cooperative Official Poultry Breeders; N. Y. Agr. Soc; N. Y. Hort. Soc; World's Poultry Sci. Asn. (pres). Judging poultry for production; practical poultry management.

Rice, Dr. John L(evi), 530 E. 86th St, New York, N. Y. *Public health.* Granby, Conn, Dec. 2, 87. B.S, Wesleyan, 12, hon. M.S, 34; M.D, Hopkins, 17; hon. A.M, Yale, 34. Field and state director, int. health div, Rockefeller Foundation, 17–19, 21–23; health officer, Ky, 19–20; dist. health officer, State Dept. Health, N. Y, 20–21; health officer, New Haven, 23–34; lecturer and asst. prof, sch. med, Yale, 23–34; commissioner health, New York, 34–42. Pub. Health Asn; Am. Med. Asn; N. Y. Acad. Med. Bacteriology; preventive medicine.

Rice, Prof. J(ohn) W(inter), 610 St. George St, Lewisburg, Pa. *Bacteriology.* Williamsport, Pa, July 4, 91. B.S, Bucknell, 14, M.S, 15; A.M, Columbia, 18, Ph.D, 22. Instr. biol, *Bucknell*, 16–18, asst. prof, 18–20, assoc. prof, 20–22, *prof. bacter, 22–*, chairman dept. biol, 40–42. Summer, instr, Columbia, 22; special investigator, N. Y. State Exp. Sta, Geneva, 38, 39. Bacteriologist, N. Pub. Health Bur, N. Y, 22, Pa, 26; pres, Milk Control Area No. 4, Pa, 27– Instr, Yale Army Lab. Sch, 18. A.A; Pub. Health Asn; Soc. Bact. (pres, cent. Pa. branch, 35); Social Hygiene Asn; Pa. Asn. Dairy and Milk Inspectors (pres, 27–28). Bacteriology of milk and milk products and of dairy equipment and supplies.

Rice, Prof. J(oseph) Nelson, 3326 13th St, N.E, Washington, D. C. *Mathematics.* Weymouth, N. S, Can, Dec. 26, 90. B.A, St. Francis Xavier (Can), 10, M.A, 12; Ph.D, Catholic Univ, 17. Instr. *math, Catholic Univ,* 17–22, *assoc. prof,* 22– Math. Soc; Math. Asn; Statist. Asn.

Rice, Dr. Katherine K(empner), Johns Hopkins Hospital, Baltimore, Md. *Medicine.* Göttingen, Germany, March 1, 07. A.B, Colorado, 26, M.S, 28; fellow, Hopkins, 28–30, Sc.D, 30, fellow by courtesy, 31–33, M.D, 41. Asst. chem, Colorado, 26–28; prof. biol, Col. of Notre Dame, 33–36; asst. psychobiol, *med. sch, Hopkins,* 41–43, *house officer, 43–* Cancer dietary relations; decomposition of organic compounds; vitamin-endocrine interrelationships.

Rice, Dr. K(enneth) S(tillman), New England Museum of Natural History, Boston, Mass. *Education.* Gloucester, Mass, June 19, 91. Ph.B, Brown, 13, M.S, 15, Ph.D, 27. Instr. physiol, dept. med, Georgia, 17–18; biol, premed. sch, Tufts Col, 18–19; asst. prof, Clark, 19–24; Maine, 27–28, assoc. prof, 28–34; research, col. med, Tennessee, 34–35; temporary asst. biol, Bur. Fisheries, Woods Hole, 35–36; *with New Eng. Mu-*

seum Nat. Hist, 36– Physiology; permeability of collodion membranes.

Rice, Lucile (Addie), Mangum Junior College, Mangum, Okla. *Zoology.* Richmond, Ky, Dec. 9, 00. A.B, Kentucky, 22; A.M, Illinois, 29. Teacher, high sch, Ky, 22–24; Ohio, 24–26; Tenn, 26–27; teaching fellow, Illinois, 28–29, asst, 33–35; *instr. biol,* Utah, 29–33; Lindenwood Col, 35–36; Sweet Briar Col, 36–38; East. Ky. State Teachers Col, 38–42; *Mangum Junior Col, 42–* A.A; Ecol. Soc. Animal ecology; effects of fire upon grassland animal communities; barnacles; earthworms of Salt Lake City and surrounding foothills; food of Reelfoot Lake fishes; malaria control; Nonectidae.

Rice, Mother M. Berenice, College of New Rochelle, New Rochelle, N. Y. *Psychology.* New York, N. Y, Nov. 13, 02. A.B, Col. of New Rochelle, 24; A.M, Fordham, 32; Ph.D, Catholic Univ, 37. Editorial writer, 'N. Y. Sun,' 24–25; instr. educ, *Col. of New Rochelle,* 30–35, *prof. psychol, 37–* A.A; Psychol. Asn; East. Psychol. Asn. Diagnosis of mental hygiene problems of college women.

Rice, Dr. Mabel A(gnes), 118 Bradford St, Pittsfield, Mass. *Phytopathology.* Pittsfield, Mass, 75. A.B, Smith Col, 98; A.M, Columbia, 21, Ph.D, 27. Teacher, high sch, Mass; *biol,* Columbia, 20–22; asst. prof, Wheaton Col. (Mass), 22–25, assoc. prof, 25–26, prof, 26–41; *retired.* Summers, research, Maria Mitchell Dept. Nat. Science, Nantucket. Mycol. Soc; Torrey Bot. Club. Uredineae.

Rice, Prof. M(artin) E(verett), University of Kansas, Lawrence, Kans. *Physics.* Westfield, N. Y, Nov. 19, 70. B.S, Kansas, 91, M.S, 93; Chicago, 94, 96, Yerkes Observatory, Chicago, 98. Instr. physics and math, *Kansas,* 92–96, asst. prof, 96–98, *physics and elec. eng,* 98–06, *assoc. prof, 06–,* acting head dept, 07–09. A.A; Physical Soc; Elec. Eng. The inverse of conics and conicoids from the center; effect of magnetism on spectral lines; alternating currents in Wheatstone's bridge; the ballistic electrodynamometer as an instrument for testing iron.

Rice, Prof. Murray J(ohn), Box 155, Alfred, N. Y. *Physical chemistry.* Flint, Mich, July 11, 98. B.S, Kalamazoo Col, 19; A.M, Clark, 20; Ph.D, Iowa, 26. From instr. to prof, Georgetown Col. (Ky), 21–24; *prof. ceramic chem, N. Y. State Col. Ceramics, Alfred, 27–* Chem. Soc. Analytical chemistry; adsorption of water, ethyl alcohol, ethyl acetate and acetic acid by tungstic and zirconium oxides; heterogeneous catalysis.

Rice, Prof. Nolan E(rnest), Middle Georgia College, Cochran, Ga. *Zoology.* Covington, Ky, July 4, 08. A.B, Kentucky, 31; fellow, Duke, 31–34, A.M, 33, Ph.D, 34. Asst. zool, Duke, 31–34; prof. biol, Brenau Col, 34–35; instr. zool, Tennessee, 35–37; *prof. biol, Middle Ga. Col, 37–* A.A; Soc. Zool; Asn. Southeast. Biol; Ga. Acad. Nutrition and locomotion of amoebae.

Rice, Prof. Oscar K(nefler), University of North Carolina, Chapel Hill, N. C. **6Chemistry, Physics.* Chicago, Ill, Feb. 12, 03. B.S, California, 24, Ph.D, 26. Teaching fellow, California, 24–26, assoc. chem, 26–27; nat. research fellow, Calif. Inst. Tech, Univ. California, Leipzig, 27–30; instr. *chem,* Harvard, 30–35; research assoc, California, 35–36; assoc. prof, *North Carolina,* 36–43, *prof, 43–* Lecturer, Princeton, 31. Assoc. ed, 'Jour. Chem. Physics,' 34–36; advisory board, 'Philos. of Science,' 34– Am. Chem. Soc. award, 32. Réunion int. de Chim. physique, Paris, 28. A.A; Chem. Soc. (sec'y-treas. div. physical inorg. chem, 41, chairman, 43); Asn. Sci. Workers (v. pres, 42–); fel. Physical Soc; N. C. Acad. Surface and colloid chemistry; chemical kinetics; quantum mechanics; properties of matter; liquids and melting phenomena; photochemistry.

Rice, Dr. Paul L(aVerne), University of Delaware, Newark, Del. *Entomology.* Bancroft, Nebr, Dec. 28, 06. B.S, Idaho, 31, M.S, 32; Ph.D, Ohio State, 37. Asst. entomologist, Idaho, 31–33; Delaware, 36–37; prof. biol, Alma Col, 37–42; *assoc. entomologist, Delaware, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Parasitic chalcidoidea.

Rice, Dr. Penelope Burtis, 1401 N. Virginia Ave, Reno, Nev. *Nutrition.* Fredonia, Kans, Dec. 29, 00. B.S, Kans. State Col, 24; Ph.D, Columbia, 28. Asst. chem, Columbia, 24–28; nutrition research, N. Y. Asn. for Improving Condition of Poor, 28–31; research with Prof. Sherman, Columbia, 33–35; *nutrition specialist, 36–* Biochemistry; vitamin A; diet.

Rice, Prof. Philip X, 829 N. Allen St, State College, Pa. *Transportation, Electricity.* Bentonville, Ark, Nov. 2, 92. B.S, Arkansas, 16, E.E, 22; M.S, Pa. State Col, 23. Foreman, testing dept, Gen. Railway Signal Co, 20–21; instr. elec. eng, Pa. State Col, 21–23; elec. engineer, Miller Train Control Corp, 23–27, chief engineer, 27–30; asst. prof. and later *assoc. prof. elec. eng, Pa. State Col, 31–* Chief engineer, Railway Power Plant, U.S.A, 18. Elec. Eng. Economics of railway grade crossings; economics of refrigerator car insulation; magnetic Wheatstone bridge for detecting automobiles; automatic train control.

Rice, Prof. Robert B(arton), North Carolina State College, Raleigh, N. C. *Mechanical engineering.* Mass, Nov. 22, 00. B.S, Tufts Col; A.M, Columbia. Asst. to chief engineer, Fiberloid Corp, Indian Orchard, Mass, 19–22; instr. *mech. eng,* Pratt Inst, 26–28; asst. prof, Newark Col. Eng, 28–29, assoc. prof, 29–36; *N. C. State Col,* 36–37, *proj, 37–, exec. officer dept, 42–, director, Naval Training Sch, 42–* Consulting engineer, Wolkan Motor Co, Newark, N. J, 29–31; Textile Manufacturing Co, Westfield, Mass. 34. Mech. Eng; Eng. Educ. (sec, heat-power cmt; past pres, N. C. chap); Soc. Metals; Heat. and Vent. Eng. (past pres, N. C. chap); N. C. Soc. Eng. (sec'y-treas). Experimental engineering; pulverized coal; thermodynamic and heat power problems.

Rice, Dr. Stuart A(rthur), 2863 Beechwood Circle, Arlington, Va. *Sociology, Statistics.* Wadena, Minn, Nov. 21, 89. A.B, Washington (Seattle), 12, A.M, 15; Ph.D, Columbia, 24. Supt, Munic. Lodging House, New York, 15–18; instr. and asst. prof. sociol, Dartmouth Col, 23–26; prof. sociol. and statist, Pennsylvania, 26–40; chairman, U. S. Cent. Statist. Board, 35–40; *asst. director budget in charge statistical standards, Exec. Office of the Pres, 39–* Visiting prof, Chicago, 32–33; asst. director bur. census, U. S. Dept. Commerce, 33–36. Research sec'y social statist, Social Science Research Council, 31–32; investigator, President's Research Cmt. on Social Trends, 31–32; chairman, Cmt. Govt. Statist. and Information Services, 33. •Mem, Social Science Research Council, 37–42. Mem. cmt. organization, and chairman statist. sect, Am. Sci. Cong, 40. A.A. (chairman, K, 37); fel. Statist. Asn. (pres, 33, director, 34–36); Am. Council Learned Societies (rep, 28–32); Sociol. Soc. (exec. cmt, 30–33); Econ. Asn; Sociol. Research Asn; Inter-Am. Statist. Inst. (chairman temporary organizing cmt; first v. pres, 41–); Int. Statist. Inst. (chairman arrangements cmt, 25th biennial session). Governmental statistics; statistical methods in politics; the development of social statistics; methods in social science.

Rice, Prof. Thurman B(rooks), 3167 N. Delaware St, Indianapolis, Ind. *Bacteriology, Public health.* Grant Co, Ind, Aug. 17, 88. B.S, Marion Col, 09; A.B, Indiana, 14, A.M, 17, M.D, 21. Head dept. science, Winona Col, 14–16; asst. prof. path, sch. med, Indiana, 21–24; director lab. hygiene, State Board Health, Ind, 24–26; assoc. prof. and *prof. bacter. and pub. health, sch. med, Indiana, 26–, chairman dept, 28–; state health commissioner, Ind, 42–* Director bur. health and physical educ, State Board Health, Ind, 36–, ed, 'Bul.' Pub. Health Asn; Soc. Bact; Am. Med. Asn. Bacteriophage; distribution and conquest of disease; racial hygiene; sex education; health and physical education.

Rice, Prof. V(ictor) A(rthur), Massachusetts State College, Amherst, Mass. *Animal husbandry.* Cleveland, Ohio, May 4, 90. B.S, N. C. State Col, 17; M.Agr, Mass. Col. 23. Exten. *animal husbandry, Mass. State Col,* 17–19, asst. prof, 19–30, *prof. and head div. agr, 30–* Genetic Asn; Soc. Animal Production. Animal genetics.

Rice, W(aldo) S(ilas), Georgia Agricultural Extension Service, Athens, Ga. *Animal husbandry, Biology.* Bancroft, Nebr, May 7, 95. B.S.A, Nebraska, 21; M.S.A, Georgia, 32. Prof. animal husbandry, col. agr, Georgia, 21–41; *livestock specialist, Ga. Agr. Exten. Service, 41–* Food and parthenogenetic reproduction as related to the constitutional vigor of Hydatina senta; nitrogen balance of cottonseed meal in hog feeding.

Rice, Prof. W(illiam) A(bbott), University of North Carolina, Chapel Hill, N. C. *Physical geology.* Delaware, Ohio, Dec. 8, 12. A.B, Ohio Wesleyan, 34; Ph.D, Yale, 40. Instr. geol, Yale, 36–38; Utah State Col, 38–40; geol. trainee, Shell Oil Co, 40–41; *asst. prof. geol, North Carolina, 41–* Geology of the Blind River-Spragge area, North Shore of Lake Huron.

Rice, William E(lmer), U. S. Bureau of Mines, Washington, D. C. *Engineering.* Alliance, Ohio, July 29, 97. Mt. Union Col; Carnegie Inst. Tech. Asst. instr. chem, Carnegie Inst.

Tech, 18–20; computer, *exp. sta, Bur. Mines*, Pittsburgh, 20–25, asst. fuel engineer, 25–30, assoc. fuel engineer, 30–38, fuel engineer, 38–42, senior fuel engineer and asst. to chief, technol. branch, 42–43, *budget officer, 43–* Mech. Eng; Min. and Metal. Eng. Burning of fuels; use of fuels in kilns and in oil stills; refractories; producer gas; refractories service conditions; classification of coal by uses; measurement of drafts and temperatures in furnaces.

Rich, Dr. Arnold R(ice), Johns Hopkins Hospital, Baltimore, Md. *[5]*Pathology.* Birmingham, Ala, March 28, 93. A.B, Virginia, 14, A.M, 15; M.D, Hopkins, 19. Asst. *path, Hopkins*, 19–20, instr, 20–21, assoc, 21–23, *assoc. prof, 23–* Res. pathologist, Hopkins Hosp, 20–26, assoc. pathologist, 29– Asn. Physicians; Soc. Exp. Biol; Soc. Exp. Path; Asn. Path. and Bact. Pathological anatomy and physiology; blood coagulation; the palatal nerves and muscles; bile pigment metabolism; tuberculosis; capillaries; blood cells; pancreatitis; allergy; immunity; cirrhosis; periarteritis nodosa.

Rich, Edward D(unbar), Michigan State Department of Health, Lansing, Mich. *Sanitation.* Marcellus, N. Y, Nov. 21, 68. C.E, Rensselaer Polytech, 95. Leveler, N. Y. State Canals, 96–98; asst. city engineer, Utica, 98–03; city engineer, Summit, N. J, 03–07; locating engineer, Rome and North. Ry, 07; deputy city engineer, Utica, 08; asst. prof. civil eng, Michigan, 08–13; director *bur. eng, State Dept. Health, Mich*, 13–40, *deputy director, 40–* Civil Eng; Water Works Asn; Mich. Eng. Soc. (pres, 18). Leakage into sanitary sewers; sewage disposal; the sanitary privy; tannery waste disposal; garbage collection and disposal; water filtration and chlorination; well water supplies for homes.

Rich, Frank V(arney), 58 Eighth St, North Arlington, N. J. *Chemistry.* Burlington, Vt, Sept. 15, 08. B.S, Vermont, 30; A.M, Princeton, 32, Ph.D, 34. *Mem. staff, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Plastics; synthetic resins; carbohydrate derivatives.

Rich, Dr. Gilbert J(oseph), 515 Public Safety Bldg, Milwaukee, Wis. *Psychology.* New York, N. Y, Oct. 16, 93. A.B, A.M, Cornell, 15, Ph.D, 17; M.D, Rush, Chicago, 29. Instr. psychol, Hobart Col, 17–18; asst. prof, Drake, 19–20; instr, Pittsburgh, 20–24; research psychologist, Inst. Juvenile Research, Chicago, Ill, 26–28, psychiatrist, 31–33; asst. alienist, Bellevue Hosp, New York, 28–29; instr. psychiat, N. Y. Univ, and asst. physician, Boston Psychopathic Hosp, 29–30; fellow psychiat, Inst. Child Guidance, New York, 30–31; assoc. criminol, Illinois, 31–32; clin. instr. psychiat, Rush Med. Col, Chicago, 32–33; *director, Milwaukee County Guidance Clinic, 33–; instr. psychiat, Marquette, 38–* Lecturer, exten. dept, Wisconsin, 34–35. Psychol. examiner, U.S.A, 18–19. A.A; Psychol. Asn; Psychiat. Asn; Orthopsychiat. Asn; Am. Med. Asn; Royal Medico-Psychol. Asn. Audition; psychophysics; personality traits as related to body chemistry.

Rich, Prof. John L(yon), University of Cincinnati, Cincinnati, Ohio. *[6]*Geology.* Hobart, N. Y, Dec. 1, 84. A.B, Cornell, 06, A.M, 07, fellow, 07–08, Ph.D, 11. Asst. geol, Cornell, 06–07; geol. aid, U. S. Geol. Surv, 07–08, junior geologist, 09–18; instr. geol, Cornell, 09–11; Illinois, 11–17, assoc, 17–18; petrol. geologist, 19–31; asst. prof. econ. geol, *Cincinnati*, 31–32, assoc. prof. *geol*, 32–38, *prof, 38–, head dept. geol. and geog, 40–* Summers, U. S. Geol. Surv; Ill. Geol. Surv; N. Y. Geol. Surv. Asst, Tarr exped, Alaska, 06. Exec. cmt, div. geog. and geol, Nat. Research Council, 37–40. Capt, U.S.A, 18–19. A.A; Geol. Soc. (ed. board, 35–41); Asn. Petrol. Geol. (ed, 'Bul,' 26–29); Soc. Econ. Geol; Am. Geog. Soc; Asn. Geog; Min. and Metal. Eng; Ohio Acad. Oil geology; methods of increasing recovery from oil sands; structural geology; physiography; glacial geology; migration and accumulation of oil.

Rich, Prof. R(onald) E(mil), University of Notre Dame, Notre Dame, Ind. *Chemical engineering.* Mishawaka, Ind, Jan. 4, 07. B.S, Notre Dame, 28, M.S, 36; Wisconsin, 35. Chem. engineer, Gen. Chem. Co, Chicago, Ill, 28–30, plant engineer, 30–31; instr. *chem. eng, Notre Dame*, 31–36, asst. prof, 36–39, *assoc. prof, 39–, head dept, 42–* Chem. Eng; Chem. Soc; Eng. Educ; Ind. Chem. Soc; Ind. Acad. Distillation; filtration; fluid flow.

Rich, Prof. Willis H(orton), Stanford University, Calif. *Ichthyology.* Galesburg, Ill, March 15, 85. B.S, Lombard Col, 05; A.B, Stanford, 09, A.M, 18, Ph.D, 24. Instr. zool. and physiol, Stanford, 08–18; field asst, Bur. Fisheries, 18–22, in charge div. inquiry, 22–26, chief investigator, salmon fisheries, 26–30; *prof. biol, Stanford, 30–* Fish culture worker, Calif. Fish and Game Cmn, 10–13; director research, Oregon Fish Cmn, 37– A.A; Soc. Zool; Soc. Ichthyol. and Herp; Cooper Ornith. Club; Limnol. Soc; Ecol. Soc; West. Soc. Nat; Oceanog. Soc. Pacific; Calif. Acad. Life histories and development of Salmonidae; fisheries.

Richards, Dr. A(lbert) Glenn, Jr, University of Pennsylvania, Philadelphia, Pa. *Entomology.* Lake Forest, Ill, May 29, 09. A.B, Georgia, 29; Ph.D, Cornell, 32. Asst, Cornell, 30–32; acting head dept. entom, Ward's Nat. Science Establishment, 32; asst, dept. zool, Rochester, 33–36; Am. Museum Nat. Hist, 36–37; *instr.* biol, Col. City of N. Y, 37–39; *zool, Pennsylvania, 39–* Biologist, Nassau County Mosquito Extermination Cmn, 37. Summer, temporary entomologist, N. Y. State Museum, 36. Mem, Marine Biol. Lab, Woods Hole. Entom. Soc; Soc. Study Speciation; fel. Entom. Soc. Amer; Soc. Zool; Pa. Acad; N. Y. Entom. Soc. Experimental insect morphology and embryology; histopathology; electron microscopy; taxonomy of American Noctuidae.

Richards, Dr. Alfred N(ewton), University of Pennsylvania, Philadelphia, Pa. *[3]*Pharmacology.* Stamford, N. Y, March 22, 76. A.B, Yale, 97, A.M, 99; Ph.D, Columbia, 01, hon. Sc.D, 42; hon. Sc.D, Pennsylvania, 25, hon. M.D, 32; hon. Sc.D, Western Reserve, 31, Yale, 33, Harvard, 40; hon. LL.D, Edinburgh, 35. Asst. physiol. chem, Columbia, 98–02, tutor, 02–04, instr. *pharmacol*, 04–08; *prof*, Northwestern, 08–10; *Pennsylvania, 10–* Research scholar, Rockefeller Inst, 01–04; Herter lecturer, Univ. and Bellevue Hosp. Med. Col, 26; visiting prof, sch. pub. health, Harvard, 31. Sect. ed, 'Chem. Abstracts.' Harvey lecturer, N. Y. Acad. Med, 22, 34; Croonian lecturer, Royal Soc, 38. Chairman cmt. med. research, Office Sci. Research and Develop, 41. Trustee, Rockefeller Foundation, 37–41. William Wood Gerhard gold medal, Path. Soc. Phila, 32; Kober medal, Asn. Am. Physicians, 33; Keyes medal, Am. Asn. Genito-Urinary Surgeons, 33; John Scott medal, Phila, 34; medal, N. Y. Acad. Med, 36; Phila. award, 38. Attached to staff, British Med. Research Cmt, 17–18; major, Sanit.C, and in charge physiol. lab, C.W.S, Chaumont, France, 18. Nat. Acad; A.A; Philos. Soc; Soc. Pharmacol; Am. Physicians; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; fel. Am. Acad; Harvey Soc; hon. mem. Phila. Co. Med. Soc; Physiol. Soc. Phila; hon. fel. Col. Physicians Phila; hon. mem. British Physiol. Soc; hon. fel. Royal Soc. Med; for. mem. Royal Soc. London. Chemistry of connective tissues; salivary digestion; adrenalin glycosuria; toxicity of indol; action of cyanids; delayed chloroform poisoning; adrenalin secretion; kidney function; action of histamin and other dilators; shock.

Richards, Arthur, Municipal Bldg, Larchmont, N. Y. *Engineering.* Johnstown, Pa, March 16, 83. C.E, Ohio State, 04. City engineer's dept, Columbus, Ohio, 04–06; construction, Panama Canal, U. S. Govt, 06–12; designing engineer, Water Bur, Schenectady, N. Y, 13; consulting engineer, Columbus, Ohio, 14–17; bridge engineer, Franklin County, Ohio, 18–22; city engineer, Chillicothe, 23–25; city planning engineer, Altoona, 26–28; hydraul. engineer, N. J. Water Policy Cmn, 30; city manager, Mamaroneck, N. Y, 31; research director, Trenton, N. J, 32–35; *engineer exec, Larchmont, N. Y, 35–* Mech. Eng; Civil Eng; Asn. Eng. (nat. director, 24, v. pres, 29, pres, 41). Services and salaries of engineers; classification and compensation of engineers.

Richards, Dr. Arthur, University of Texas, Austin, Texas. *Geology.* Marquette, Mich, Feb. 19, 09. A.B, North. State Teachers Col, Mich, 30; A.M, Michigan, 36, Ph.D, 41. *Instr.* chem, high sch, Mich, 30–37; *geol, Texas, 41–* Geology of Middle Park, Colorado.

Richards, Prof. A(ute), University of Oklahoma, Norman, Okla. *Zoology.* Tekamah, Nebr, Oct. 31, 85. A.B, Kansas, 08; A.M, Wisconsin, 09; fellow, Princeton, 09–11, Ph.D, 11; Sc.D, Marietta Col, 39. Teacher, high sch, Kans, 07–08; asst. *zool*, Wisconsin, 08–09; instr, Texas, 11–16, adj. prof, 16; *prof*, Wabash Col, 16–20; *Oklahoma, 20–, director sch. applied biol.* Director, Okla. Biol. Surv. Pres, Rocky Mt. Biol. Lab, 28–38, trustee, 37– A.A; Soc. Nat; Soc. Zool; Okla. Acad. (sec'y, 24–28, pres, 29). Cellular physiology; cytology; comparative embryology.

Richards, Prof. B(ert) L(orin), Utah State College, Logan, Utah. *Botany, Plant pathology.* Farmington, Utah. B.S, 14, M.S, 16; fellow, Wisconsin, 18–19, Ph.D, 19. Asst. prof. bot, *Utah State Col*, 15–16, assoc. prof, 20–24, *prof. bot. and plant path, 24–, head dept*, acting dean sch. agr, 25–26. A.A. Soil temperature as a factor in plant diseases; virus diseases in

plants; wilt resistance in tomatoes; wilt resistance in alfalfa and strawberry root-rots.

Richards, Dr. C(larice) Audrey, Forest Products Laboratory, Madison, Wis. *Forest pathology.* Mendon, Ohio. A.B, Miami (Ohio), 12, A.M, 14; Ph.D, Wisconsin, 22. Asst. bot, Miami (Ohio), 12–14; asst, Ohio Biol. Surv, 15; bot, Wisconsin, 15–17, forest path, 17–29; *pathologist in charge Madison branch div. forest path, bur. plant indust, U. S. Dept. Agr, 29–* A.A; Bot. Soc; Phytopath. Soc; Wis. Acad. Toxicity of preservatives; deterioration of wood pulp due to fungi; fungus defects in wood products.

Richards, Dr. Dickinson W, Jr, 620 W. 168th St, New York, N. Y. *Medicine.* Orange, N. J, Oct. 30, 95. A.B, Yale, 17; A.M, Columbia, 22, M.D, 23. *Assoc. prof. clin. med, Columbia, 37–* Am. Physicians; Soc. Clin. Invest. Clinical investigation in physiology of lungs and circulation.

Richards, Dr. E(dward) F(ranklin), University of Alabama, University, Ala. *Geology, Paleontology.* San Juan, P. R, Aug. 22, 03. A.B, Hopkins, 24, Ph.D, 29. Instr, Shenandoah Valley Acad, 24–26; asst. Spanish, Hopkins, 27–29; assoc. geologist, Venezuela Gulf Oil Co, 29–32; instr. Spanish, Maryland, 33–35; *geol. and paleont, Alabama,* 35–37, *asst. prof, 37–; lieut, U. S. Naval Res, 42–* Summers, field asst, U. S. Geol. Surv, 27, 28. Paleont. Soc; Asn. Petrol. Geol; Ala. Acad. Invertebrate paleontology.

Richards, Dr. Ernest T(homson) F(raser), 1368 Lowry Medical Arts Bldg, St. Paul, Minn. *Medicine.* Kingstown, St. Vincent, B. W. I, July 28, 83. M.D, McGill, 05. Instr. path. and neur, Harvard Med. Sch, 07–11; *med, med. sch, Minnesota,* 11–17, asst. prof, 17–22, *assoc. prof, 22–* Ed, 'Minn. Med,' 16–18. Chief div. med, Harvard surg. unit, B.E.F, 15–16. Am. Med. Asn; Minn. Acad. Med; Minn. Heart Asn; Minn. Soc. Int. Med. Hemolytic jaundice; bacillary dysentery; typhoid meningitis; experimental arthritis; polycythemia; heart disease; tuberculosis; bronchiectasis; paratyphoid fever; infectious mononucleosis; agranulocytosis; moniliasis.

Richards, Dr. Esther Loring, Johns Hopkins Hospital, Baltimore, Md. *Psychiatry.* Holliston, Mass, June 6, 85. A.B, Mt. Holyoke Col, 10, hon. Sc.D, 26; Wisconsin, 10–13; M.D, Hopkins, 15. Intern, Phipps Psychiat. Clinic, Hopkins Hosp, 15–16, asst. res. physician, 17–18; dispensary psychiatrist, 18–21, asst. *psychiat, Hopkins,* 17–18, instr, 18–20, assoc, 20–22, *assoc. prof, 22–, lecturer, sch. hygiene, 20–, assoc. psychiatrist, Hopkins Hosp, and physician in charge of outpatients, Phipps Psychiat. Clinic, 20–; psychiatrist in chief, psychopath. div, Baltimore City Hosp, 31–* Annual lectures and community programs, Boston; New York; Phila; Chicago; Denver; Cleveland. Psychiat. Asn; Orthopsychiat. Asn; Asn. Study Feeble-Minded. Mental hygiene of children, adolescents and adults.

Richards, Prof. G(ordon) E(arle), 170 St. George St, Toronto, Ont, Can. *Radiology.* Lyn, Ont, March 15, 85. M.B, Toronto, 08. *Director dept. radiol, Toronto Gen. Hosp, 18–; prof. radiol, Toronto, 20–; director, Ont. Inst. Radiotherapy, 34–* Roentgen Ray Soc; Radiol. Soc. N. Amer; Can. Med. Asn; fel. Royal Col. Physicians Can; Acad. Med. Toronto. Diagnosis and treatment of cancer; cancer therapy.

Richards, Dr. Gragg, 670 Riverside Drive, New York, N. Y. *Geology.* Dedham, Mass, Aug. 14, 80. B.S, Harvard, 02, M.S, 03, A.M, 25, M.Ed, 27; Columbia, 22–23; Ph.D, Clark, 27; Wisconsin, 27. Asst. instr, Mass. Inst. Tech, 03; civil engineer, Miss. River Cmn, 04; mining and civil engineer, Ely, Nev, 06–07; examiner mines and prospects, U. S, Can, Newfoundland, Labrador, Mex, Cent. Amer. and Colombia, 07–09; geologist, zinc properties, Mont, N. J, Mo. and Tenn, 10–12; sampling nitrate deposits, Chile, 16; examiner, vanadium and coal deposits, Argentina and Peru, 20–21; research miner. and petrol, Cambridge, Mass, 24–27; geol. field work, Norway, Sweden and Denmark, 30; *consulting geologist, 30–* Capt, C.Eng, 17–19, C.Eng.R, 19–38, major, 38– A.A; Soc. Mil. Eng; Meteorol. Soc. Occurrence and physical properties of vanadium minerals and phosphates; geology and mineral deposits of Sierra de Cordoba, Argentina; areal and glacial geology of the Boston Basin; rainfall of Florida and New England; iron ore deposits of northern Scandinavia.

Richards, Prof. Harold F(rederic), Florida State College for Women, Tallahassee, Fla. *Physics.* Cincinnati, Ohio, Oct. 12, 94. A.M, Cincinnati, 17, Hanna fellow, 17–18, 19–20, Ph.D, 20. Instr. *physics,* Cincinnati, 20–22; nat. research fellow, Princeton, 22–23; *prof,* Lawrence Col, 23–25; *Fla. State Col. for Women, 25–* Physical Soc; Asn. Physics Teachers. Electrification by impact; contact electricity of solid dielectrics; physical science.

Richards, Mrs. Herbert M. (Marion E), Barnard College, Columbia University, New York, N. Y. *Botany.* New York, N. Y. A.B, Columbia, 03, A.M, 05. Asst. and instr. *bot, Barnard Col, Columbia,* 05–15, *lecturer, 15–* A.A; Torrey Bot. Club. Physiological botany.

Richards, Prof. Horace C(lark), 509 Woodland Terrace, Philadelphia, Pa. *Physics.* Philadelphia, Pa, Jan. 4, 68. A.B, Pennsylvania, 88, Ph.D, 91; Hopkins, 91–92. Instr. physics, Pennsylvania, 90; Bryn Mawr Col, 92–93; *Pennsylvania,* 93–03, asst. prof, 03–09, prof. math. physics, 09–38, *emer. prof, 38–,* director physics lab, 31–38. Assoc. physicist, Bur. Standards, 18. A.A; fel. Physical Soc; Optical Soc; Philos. Soc; Franklin Inst; Soc. française de Physique. Mathematical physics; optics; mechanics.

Richards, Dr. Horace G(ardiner), 509 Woodland Terrace, Philadelphia, Pa. *Paleontology.* Philadelphia, Pa, March 21, 06. A.B, Pennsylvania, 27, M.S, 29, Harrison fellow, 29–31, Ph.D, 32. Senior sci. aid, div. mollusks, U. S. Nat. Museum, 31–32, asst. curator, 32; *research assoc, N. J. State Museum, Trenton, 34–* Research fellow, Acad. Nat. Sciences, Phila, 37–42, assoc. curator, 42–; assoc, N. C. State Museum, 41– Paleont. Soc; Malacol. Union; Geol. Soc; Pa. Acad. Mollusks; Tertiary and Pleistocene paleontology and geology; marine ecology.

Richards, Dr. James A(ustin), Jr, 170 Brown St, Lewisburg, Pa. *Physics.* Boston, Mass, April 15, 16. A.B, Oberlin Col, 38; Ph.D, Duke, 42. *Instr. physics, Bucknell, 42–* Physical Soc. Energy distribution in cosmic ray showers; cosmic ray theory.

Richards, Dr. L(eon) W(right), Howard College, Birmingham, Ala. *Pharmacy.* Port Blakley, Wash, Sept. 2, 04. B.S, Washington (Seattle), 26, M.S, 28, Ph.D, 32. Asst. prof. pharmacy, Montana, 30–37, assoc. prof, 37–41; *director pharmacy, Howard Col, 41–* Summers, research investigator, North. Rocky Mt. Forest and Range Exp. Sta, U. S. Forest Service, 35–37. Pharmaceut. Asn. (sec'y, practical pharmacy and dispensing sect, 35–37). Plant chemistry and its relationship to forest fires; phytochemical investigation of Ceanothus velutinus; effect of vegetation on rate of spread of forest fires.

Richards, Dr. L(orenzo) A(dolph), U. S. Regional Salinity Laboratory, Riverside, Calif. *Physics.* Fielding, Utah, April 24, 04. B.S, Utah Col, 26, A.M, 27; Ph.D, Cornell, 31. Asst, Utah Col, 24–27; physics, Cornell, 27–29, instr. 29–35; research physicist, Battelle Mem. Inst, Columbus, 35; asst. prof. physics and research asst. prof. soils, Iowa State Col, 35–38, assoc. prof. physics and research assoc. prof. soils, 38–39; *senior soil physicist, regional salinity lab, bur. plant indust, U. S. Dept. Agr, 39–; nat. defense research fellow, Calif. Inst. Tech, 42–* Summers, assoc, Exp. Sta, Utah State Col, 25–28, 30–33. Physical Soc; Soc. Hort. Sci; Soc. Agron; Soil. Sci. Soc. (chairman, soil physics sect, 38); Geophys. Union; Int. Soc. Soil Sci. Applied electricity; soil physics; auto-irrigator and soil moisture tensiometers; flow and distribution of water in soil; soil solution extraction; moisture sorption by soil.

Richards, Prof. M(athias) C(owley), University of New Hampshire, Durham, N. H. *Plant pathology.* Fielding, Utah, Dec. 7, 06. B.S, Utah State Col, 32; Nassau Co. Farm Bur. fellow, Cornell, 33–37, Ph.D, 38. Instr. plant path, Cornell, 38; assoc. prof, Tennessee, 39–40; *asst. prof. bot. and plant pathologist, New Hampshire, 40–* Phytopath. Soc. (sec'y-treas, New Eng. div). Diseases of potatoes and vegetables; spinach mildew; apple fruit rots.

Richards, Mrs. Mildred (Albro) Hoge, 434 Chautauqua Ave, Norman, Okla. *Zoology.* Baltimore, Md, July 7, 85. A.B, Goucher Col, 08; A.M, Columbia, 12, Ph.D, 14. Teacher, high sch, Md, 08–11; instr. zool, Indiana, 14–18. Summers, Rocky Mt. Biol. Lab. A.A; Soc. Zool; Genetics Soc; Okla. Acad. Genetics; inheritance in Drosophila.

Richards, Dr. Oscar W(hite), Spencer Lens Co, 19 Doat St, Buffalo, N. Y. *Physiology, Zoology.* Butte, Mont, Jan. 4, 02. A.B, Oregon, 23, A.M, 25; Ralph Sanger scholar, Harvard, 26–27; Ph.D, Yale, 31. Teaching fellow zool, Oregon, 23–25, instr. zool. and med, 25–26; asst. prof. biol, Clark, 28–30; instr, Yale, 31–37; *biologist, dept. research, Spencer Lens*

Co, 37– Lecturer, Woman's Col. of New Haven, 35–37. Summer, asst, Hopkins Marine Sta, Stanford, 26; in charge chem. room, Marine Biol. Lab, Woods Hole, 29–37. A.A; Soc. Zool; Physiol. Soc; Biol. Photog. Asn. (director, 33–); Statist. Asn; Soc. Exp. Biol. Pedagogy of biology; biomathematics; growth of organisms, especially yeast and Mytilus; cinephotomicrography; microscopy.

Richards, R(alph) W(ebster), U. S. Geological Survey, Washington, D. C. *Geology.* Waterville, Maine, May 30, 79. A.B, Colby Col, 01; fellow, Tufts Col, 01–02, A.M, 02. From aid to assoc. geologist, U. S. Geol. Surv, 07–13; consulting geologist, 13–29; *geologist, U. S. Geol. Surv, 30–* A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng; Geol. Soc. Wash. Geology of coal, phosphate and petroleum.

Richards, Dr. R(ichard) K(ohn), Abbott Laboratories, North Chicago, Ill. *Pharmacology, Therapeutics.* Lodz, Poland, June 16, 04. Berlin; M.D, Hamburg, 31. Asst. pharmacol, Hamburg, 31–33, research assoc. med, 33–35; research fellow physiol, Michael Reese Hosp, Chicago, Ill, 35–36; *chief pharmacologist in charge pharmacol. research, Abbott Labs, 37–* Lecturer, Hamburg, 35. Physiol. Soc; Soc. Exp. Biol; assoc. Col. Physicians; fel. Int. Col. Anesthetists. Anesthetics; analeptics; digitalis; metabolism; clinical therapeutics; toxicology.

Richards, Prof. Robert H(allowell), 32 Eliot St, Jamaica Plain, Mass. *Mining engineering, Metallurgy.* Gardiner, Maine, Aug. 26, 44. B.S, Mass. Inst. Tech, 68; LL.D, Missouri, 08. Asst. chem, *Mass. Inst. Tech,* 68–69, instr. essaying and qualitative anal, 69–70, asst. prof. anal. chem, 70–71, prof. miner. and assaying and in charge mining and metal. labs, 71–72, prof. mining eng, 73–84, head dept. mining, 73–14, prof. *mining eng. and metal,* 84–14, *emer. prof, 14–,* sec'y faculty, 78–83. Trustee, Eliot Sch, Jamaica Plain. Gold medal, Min. and Metal. Soc. A.A; hon. men. Min. and Metal. Eng. (pres, 86); hon. mem. Min. and Metal. Soc; Am. Acad; Min. Eng. Soc. Can; hon. mem. Min. and Metal. Soc. S. Africa. Ore dressing.

Richards, Dr. S(terling) J(acob), New Jersey State Agricultural Experimental Station, New Brunswick, N. J. *Soil physics.* Fielding, Utah, March 24, 09. B.S, Utah State Col, 33; Ph.D, Cornell, 38. *Asst. soil physicist, N. J. Exp. Sta, 38–; cooperative agent, soil conservation service, U. S. Dept. Agr, 38–; instr. soils, Rutgers, 41–* Physical Soc; Soc. Agron; Geophys. Union; Soil Sci. Soc. Hysteresis in the relation between soil moisture content and capillary potential; field measurements of soil moisture tension; percolation and sorption of infiltration water; soil penetrometer.

Richards, Dr. T(homas) W(illiam), Antioch College, Yellow Springs, Ohio. *Psychology.* Hempstead, N. Y, 07. A.B, Lafayette Col, 29; Pennsylvania, 31, Ph.D, 33. Asst. psychol, Pennsylvania, 29–30, psychol. clinic, 30–32; Gen. Educ. Board fellow, child welfare research sta, Iowa, 34–35; assoc, *Antioch Col,* 35–36, asst. prof. *psychol,* 36–37, *assoc. prof, 37–,* research assoc, *Samuel S. Fels Research Inst,* 35–40, *asst. to director, 40–, director, Antioch psychol. clinic, 41–; lieut, U. S. Naval Res.* A.A; Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn; Soc. Research Child Develop. Child development; development personality; psychopathology.

Richards, Prof. Wilfrid G(ladstone), Oxford, Ohio. *Geography.* Duneiden, New Zealand, July 23, 98. B.S, Linfield Col, 21; M.S, Chicago, 28. *Asst. prof. geog, Miami (Ohio), 28–* Economic geography.

Richardson, Dr. Alan H(oulds worth), Laurence M. Marks and Co, 49 Wall St, New York, N. Y. *Chemistry.* New Brunswick, N. J, Aug. 13, 01. B.S, Rutgers, 23; Ph.D, Columbia, 28. Asst. chem, Columbia, 23–27, instr, 28–30; chem. statistician, securities dept, Adams Express, 30–32, 33–36; Standard Statist. Co, 32–33; *indust. research analyst and chem. economist, Laurence M. Marks and Co, 36–* Chem. Soc. Solubility relations in gas-liquid systems.

Richardson, Albert Cameron, Battelle Memorial Institute, Columbus, Ohio. *Engineering.* Malden, Mass, Oct. 15, 98. B.S, North Dakota, 22; fellow, U. S. Bur. Mines, 23–24; M.S, Washington (Seattle), 24. Research engineer, Pacific Coast Coal Co, Seattle, Wash, 22–23; engineer, Pacific Coke and Coal Co, 24–26; testing engineer and open-hearth engineer, Colo. Fuel and Iron Co, 26–29; engineer in charge investigation of coking coal from South Manchuria, Perin and Marshall, New York, 29; assoc. mining engineer, south. exp. sta, U. S. Bur. Mines, 29–33; *research engineer, Battelle Mem. Inst, 33–* Min. and Metal. Eng. Coal preparation and ore concentrations.

Richardson, Dr. A(lbert) S(tarnes), 31 Larchmont Drive, Wyoming, Ohio. *Chemistry.* Murfreesboro, Tenn, Dec. 11, 89. A.B, Princeton, 13, A.M, 15, Ph.D, 27. Instr. chem, Princeton, 15–17, 19–20; research chemist, E. I. du Pont de Nemours and Co, 20–21; *in charge chem. research, Procter and Gamble Co, Cincinnati, 21–* A.A; Chem. Soc; Oil Chemists Soc. (pres, 31); London Chem. Soc. Detergents; fats.

Richardson, Dr. Arthur P(awley), University of Tennessee Medical School, Memphis, Tenn. *Pharmacology.* Longmont, Colo, Aug. 2, 11. A.B, Stanford, 32, M.D, 37. Asst. in pharmacol. research, Stanford, 33–36, instr. *pharmacol,* 37–38, asst. prof, 39–41; nat. research fellow, Hopkins, 38–39; visiting asst. prof, *med. sch, Tennessee,* 41, assoc. prof, 41–43, *prof, 43–, head dept, 41–* Soc. Exp. Biol; Soc. Pharmacol; Federation Clin. Research. Cyanide antidotes; potassium chlorate; bismuth in syphilis; liver extract; hemostatics; colloidal dyes; sulfanilamide derivatives on blood; antimalarials.

Richardson, Lieut. Commander Burt, U. S. Naval Air Station, Jacksonville, Fla. *Physics.* Los Angeles, Calif, Feb. 16, 96. Ph.B, Yale, 19; M.S, Calif. Inst. Tech, 30. Instr. physics, Occidental Col, 27–28, asst. prof. and in charge, 28–36; Ventura Jr. Col, 38–41; *instr. aerology and aerological officer, U. S. Naval Air Sta, 41–* Observer, U. S. Weather Bur, 26–36; research assoc, Scripps Institution, California, 28–36. Mem. cmt. evaporation, Nat. Research Council, 33–Geophys. Union. Evaporation from lakes; insolation; radiation from water; penetration of light in seawater; generation of gaseous ions; ozone generation by electrical fields; explosive light sources for spectroscopes; photoelectric color; supersonic waves; absorption of gases by liquids under pressure; shortwave radio transmission; air mass analysis.

Richardson, Prof. Charles H(oward), Iowa State College, Ames, Iowa. *Entomology.* Pasadena, Calif, July 7, 87. A.B, Stanford, 12; M.S, Harvard, 13; Ph.D, Columbia, 21. Asst. entomologist, N. J. Exp. Sta, 13–16; instr. entom, Rutgers, 15–16; entomologist, bur. entom, U. S. Dept. Agr, 19–28; assoc. prof. *entom, Iowa State Col,* 28–31, *prof, 31–* A.A; Entom. Soc; Asn. Econ. Entom; Chem. Soc; Entom. Soc. Wash. Physiology, toxicology and chemical control of insects.

Richardson, Prof. Clarence H, Bucknell University, Lewisburg, Pa. *Mathematics.* West Plains, Mo, July 21, 90. B.S, Kentucky, 13; M.S, Illinois, 18; Ph.D, Michigan, 27. Asst. *math,* Illinois, 15–18; *prof,* Georgetown Col. (Ky), 18–28; *Bucknell, 28–* Math. Asn; Inst. Math. Statist. Statistics of sampling; statistical analysis; business mathematics.

Richardson, Prof. Davis P(ayne), 524 Leverette St, Fayetteville, Ark. *Mathematics.* Ben Franklin, Texas, Oct. 10, 02. A.B, Arkansas, 22; A.M, Harvard, 27; Ph.D, Chicago, 30. Instr. *math,* Ga. Tech, 24–26; *Arkansas,* 27–29, asst. prof, 30–37, *assoc. prof, 37–* Math. Soc. Cremona transformations.

Richardson, Prof. D(orothy), Connecticut College, New London, Conn. *Zoology.* Gloucester, Mass, May 21, 03. A.B, Mt. Holyoke Col, 24, Alumnae fellow, 28–29, Asn. Univ. Women, Margaret E. Maltby fellow, 29–30; Ph.D, Yale, 31. Asst. *zool,* Mt. Holyoke Col, 24–25, instr, 25–27, 30–35; *assoc. prof,* Rockford Col, 35–43; *Conn. Col, 43–* Summer, asst, Cornell, 25; instr, marine sta, Maine, 32–33. A.A; Asn. Anat. Heteroplastic transplantation of the ear in Amblystoma; regeneration in Triturus.

Richardson, Dr. Edward (Peirson), Massachusetts General Hospital, Boston, Mass. *Surgery.* Boston, Mass, April 7, 81. A.B, Harvard, 02, M.D, 06. Asst. prof. *surg, Harvard,* 21–25, assoc. prof, 25–28, Homans prof, 28–31, *emer. Homans prof, 31–; chief west surg. service, Mass. Gen. Hosp.* A.A; Surg. Asn; Soc. Clin. Surg; Am. Med. Asn; South. Surg. Asn; New Eng. Surg. Soc; Int. Soc. Surg.

Richardson, Dr. Edwin M(ounger), 3747 de l'Oratoire, Montreal, Que, Can. *Organic chemistry.* Baltimore, Md, Aug. 3, 12. B.S, Hopkins, 33, Ph.D, 38; fellow, Calif. Inst. Tech, 37–38. Research chemist to Dr. E. A. Peterson, Baltimore, Md, 38–39; research fellow chemotherapy of tuber, McGill, 39–42; *research chemist, Ayerst, McKenna and Harrison, 42–* Chem. Soc. Phenolic and mercurated phenolic antiseptics; synthesis of vitamin B_1 analogs; chemotherapy of tuberculosis; vitamin D_3; reactions of free radicals in solution with special reference to the Wurtz-Fittig reaction.

Richardson, Prof. Edythe T, University of New Hampshire, Durham, N. H. *Zoology.* Millis, Mass, Nov, 96. B.S, New Hampshire, 22, M.S, 24. Instr. *zool, New Hampshire,* 22–29, *asst. prof, 29–*

Richardson, Dr. Flavia L(ucile), 148 Stillwater Ave, Old Town, Maine. *Protozoology.* Atkinson, Maine, Dec, 97. A.B, Maine, 20, fellow, 25–27, A.M, 27; Sc.D, Hopkins, 34. Teacher, high sch, Maine, 20–25; Conn, 27–28; *instr.* zool, Vermont, 28–31, 34–38; *anat, physiol. and histol, Colby Junior Col, 38–* A.A; Soc. Parasitol. Intestinal protozoa of birds; cecectomy of chicks and its effect upon their growth and infectibility with intestinal flagellates.

Richardson, Dr. Frank, University of Nevada, Reno, Nev. *Vertebrate zoology.* Paia, Hawaii, June 9, 13. A.B, Pomona Col, 34; California at Los Angeles; Ph.D, California, 39. Junior econ. biologist, State Div. Fish and Game, Calif, 40–41; instr. *zool, Nevada,* 41–43, *asst. prof, 43–* Ornith. Union; Cooper Ornith. Club. Comparative avian anatomy; vertebrate natural history.

Richardson, Prof. G(eorge) Arthur, 65 College Park, Davis, Calif. *Dairying.* Stirling, Ont, Can, July 26, 93. B.Sc. (Agr), Toronto, 20; M.S, Minnesota, 25, Ph.D, 27. Instr, Sch. Agr, Alta, 20–23; asst. biochem, Minnesota, 24–26; assoc. *dairy indust, California,* 26–28, asst. prof, *col. agr,* 28–38, *assoc. prof, 38–,* asst. dairy chemist, *Exp. Sta,* 28–38, *assoc. dairy chemist, 38–* Dairy Sci. Asn; Chem. Soc. (v. chairman, Sacramento sect, 31, chairman, 32, sec'y-treas, 36–42); Inst. Food Technol. Agriculture; dairy industry; dairy chemistry, especially physicochemical properties of milk; effect of temperature and humidity on milk secretion; electrokinetics of rennin coagulation; milk fat; mineral metabolism and milk; properties of acid caseins; milk amylases; variation in composition of milk; lipolysis; by-products.

Richardson, Dr. G(eorge) B(urr), U. S. Geological Survey, Washington, D. C. *Geology.* New York, N. Y, Aug. 21, 72. B.S, Harvard, 95, M.S, 97; Ph.D, Hopkins, 01. *Geologist, U. S. Geol. Surv, 00–* Geol. Soc; Wash. Acad. Geology of the Appalachian coal, oil and gas fields.

Richardson, Dr. G(raham) M(cGavock), 500 Marsh Road, North Hills, Wilmington, Del. *Organic chemistry.* Emory, Va, Jan. 10, 13. B.S, Tennessee, 34; Ph.D, Mass. Inst. Tech, 39. Cooperative student worker, Tenn. Eastman Corp, 33–34; mem. tech. staff, cellulose acetate plant, 34–36; teaching fellow, Mass. Inst. Tech, 36–38; *chemist, dye works, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Preparation and reactions of organosodium compounds derived from amyl and butyl chlorides.

Richardson, Dr. Helen M(ary), New Jersey College for Women, Rutgers University, New Brunswick, N. J. *Psychology.* Spearfish, S. Dak, March 7, 95. A.B, Colorado, 18; A.M, Columbia, 23; Ph.D, Yale, 31. Teacher, high sch, Nebr, 18–22; instr. *psychol,* State Col. Wash, 23–29, 31–33; asst, clinic child develop, Yale, 30–31; instr, *N. J. Col. for Women, Rutgers,* 33–36, *asst. prof, 36–* Summers, instr, Colorado, 24; asst, Yale, 33. Psychol. Asn; East. Psychol. Asn; N. J. Asn. Psychol. Development of adaptive behavior in infants; personality.

Richardson, Prof. Henry B(arber), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Medicine.* Boston, Mass, 89. A.B, Harvard, 10, M.D, 14. Intern, Peter Bent Brigham Hosp, Boston, 15–16; asst. med, Hopkins, 16–18; Columbia, 19–21; fellow, Russell Sage Inst, 21–32; asst. prof. med, *med. col, Cornell,* 24–32, *assoc. prof,* 32–38, *clin. med, 38–* Adj. asst. visiting physician, Bellevue Hosp, New York, 21, asst. visiting physician, 24–29, visiting physician, 29–; attending physician, N. Y. Hosp, 32– Lieut, M.C, 18–19. Soc. Clin. Invest; Am. Physicians; Col. Physicians; N. Y. Acad. Med. Electrocardiography; metabolism; micro-respiration; endocrinology.

Richardson, Dr. H(enry) H(owe), Beltsville Research Center, Beltsville, Md. *Entomology.* Millis, Mass, Feb. 22, 06. B.S, Mass. Col, 26; M.S, Iowa State Col, 29, Crop Protection Inst. fellow, 29–30, Ph.D, 31. Asst, Cotton Boll Weevil Sta, Florence, S. C, 26; junior entomologist, Gipsy Moth Lab, Melrose Highlands, Mass, 26–28; asst, Iowa State Col, 28–29; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–37, *assoc. entomologist, 37–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. (sec'y, 36); Insecticide Soc. Wash. Insecticides; insect toxicology; pyrethrum; derris; rearing media for housefly; fumigation; methyl bromide; nicotine.

Richardson, Dr. J(ames) Wilfred, 6231 Eichelberger St, St. Louis 9, Mo. *Physical chemistry.* Berkeley, Calif, Sept. 4, 07. A.B, San Jose State Col, Calif, 29; A.M, Stanford, 30, Ph.D, 39. Anal. chemist, Dried Fruit Asn, Calif, 28–32; instr. chem, San Jose State Col, Calif, 30–39, asst. prof, 39–41; asst. supervisor chem, eng, science and management defense training, Pa. State Col, 41–42; *tech. rep, Plexiglas dept, Rohm and Haas Co, 42–* Chem. Soc. Viscosity of glucose glass; heats of combustion of some representative organic compounds.

Richardson, Prof. Jessie E(mma), 916 S. Willson Ave, Bozeman, Mont. *Home economics.* S. Dak, Nov. 18, 87. B.S, Carleton Col, 09; Chicago, 18; Ph.D, Minnesota, 25. Teacher, high schs, Minn, 09–17; instr. chem, Carleton Col, 17–19; prof. home econ, Mich. State Nor. Col, 20–22; instr. textiles, Minnesota, 22–23, dietetics, 23–24; *prof. home econ. and head dept, Exp. Sta, Mont. State Col, 25–* Mem, State Nutrition Cmt, Mont. A.A; Chem. Soc. (sec'y, Mont. sect, 29–31). Nutrition; vitamins B and C; standards of living in rural families.

Richardson, Prof. J(ohn) Reginald, University of Illinois, Urbana, Ill. *Nuclear physics.* Edmonton, Alta, Can, Oct. 31, 12. A.B, California, 33, Ph.D, 37. Nat. research fellow *physics,* Michigan, 37–38; *asst. prof, Illinois, 38–* Physical Soc. Investigations of the radiations of artificially produced radioactive substances; cyclotron and cloud chamber technique.

Richardson, Dr. L(aurence) R(obert), Victoria University College, Wellington, N. Z. *Zoology.* Footscray, Victoria, Australia, May 11, 11. B.Sc, McGill, 31, M.Sc, 33, Ph.D, 35. Field biologist, Piscicultural Service, Que, 30–36; demonstrator *zool,* McGill, 32–33, asst, 33–39; *lecturer, Victoria Univ. Col, 39–* Lecturer, Sir George Williams Col, 37–39; field biologist, Can. Fisheries Research Board, 38–39. Consulting ed, 'New Zealand Science Rev.' Soc. Parasitol; Soc. Ichthyol. and Herp; Fisheries Soc; Royal Soc. New Zealand (councilor, Wellington branch, 41, v. pres, 42); New Zealand Asn. Sci. Workers (councilor, 42–, v. pres, 42). Aquatic biology and fisheries; behavior of fishes; protozoan and other parasites of fishes; leech behavior and distribution; comparative vertebrate teratology.

Richardson, Prof. Leon B(urr), 11 N. Park St, Hanover, N. H. *Chemistry.* Lebanon, N. H, April 14, 78. B.L, Dartmouth Col, 00, A.M, 02, Litt.D, 33. Instr. *chem, Dartmouth Col,* 01–10, asst. prof, 10–19, *prof, 19–* Summers, lecturer, Teachers Col, Columbia, 27–29. Chem. Soc; N. H. Acad. (pres, 23). Complex compounds of cobalt; adsorption of single gases and mixtures in charcoal; college chemistry, education and history; biography.

Richardson, Dr. L(loyd) T(homas), Central Experimental Farm, Ottawa, Ont, Can. *Plant pathology.* Hamilton, Ont, Nov. 19, 13. B.A, McMaster, 37; M.A, Toronto, 38, Ph.D, 41. Asst. bot, Toronto, 37–41; agr. asst, Dom. Lab. Plant Path, 41–42; *agr. scientist, div. bot. and plant path, Cent. Exp. Farm, 42–* Summers, asst, Hort. Exp. Sta, Vineland, 38–41. Elizabeth Anne Wintercorbyn prize, 40. Can. Soc. Tech. Agr. Disease of tomatoes caused by Phytophthora parasitica; root rot of strawberries; potato diseases, especially bacterial ring rot and tuber necroses.

Richardson, Dr. L(uther) R(ay), University of Missouri, Columbia, Mo. *Animal nutrition.* Kenton, Ky, Jan. 23, 99. B.S, Georgetown Col. (Ky), 23; A.M, Missouri, 28, Ph.D, 32. Instr. chem, Southwest Baptist Col. (Mo), 23–26; Junior Col, Caruthersville, Mo, 28; asst. *agr. chem, Missouri,* 29–34, instr, 34–42, *asst. prof, 42–* Reactions of creatinine; ultra-violet irradiation and vitamin B complex; differentiation of the antidermatitic vitamin; unrecognized vitamins required for life cycle of the rat and those required for normal development of the chick; nutrients required to prevent perosis in chicks.

Richardson, Lt. Col. M(arion) W(ebster), Adjutant General's Office, War Department, Washington, D. C. *Psychology.* Ohio, Aug. 20, 96.' B.S, Antioch Col, 23; Ph.D, Chicago, 36. Supervisor selection research, personnel research dept, Procter and Gamble Co, 30–31; examiner in the physical sciences and asst. prof. psychol, Chicago, 32–39; chief educ. and psychol. unit and supervisor test construction, U. S. Civil Service Cmn, 40–42; *officer in charge personnel research classification and enlisted replacement branch, Adjutant Gen. Office, War Dept, 42–* Assoc. director, Psychol. Corp, Chicago, 37–40; pres, Psychometric Corp, 40–41; lecturer, George Washington, 41– Ed, 'Psychometrika,' 36–; assoc. ed, 'Educ. and Psychol.

Measurement,' 41– Psychol. Asn; Psychometric Soc. (director, 36, ed. councilor, 36–, pres, 42); fel. Asn. Applied Psychol. Personnel; tests and measurements; test theory.

Richardson, Dr. Mark W(yman), 82 Devonshire St, Boston, Mass. *Medicine.* Fitchburg, Mass, Dec. 27, 67. A.B, Harvard, 89, M.D, 94; Berlin and Vienna, 94–95. Asst. path, Harvard, 97–99, theory and practise of med, 99–00; sec'y, State Board Health, Mass, 09–14; *chief examiner for Boston, Equitable Life Assurance Soc. of the U. S.* Bullard fellow, Harvard, 98; Dalton scholar, Mass. Gen. Hosp, 98–01. A.A; Am. Med. Asn; Am. Physicians; Soc. Psychic Research. Bacteriology of and immunity in typhoid fever; epidemiology of infantile paralysis; psychic research and mediumship.

Richardson, Dr. Moses, Brooklyn College, Brooklyn, N. Y. *Mathematics.* Brooklyn, N. Y, Sept. 23, 11. A.B, Col. City of N. Y, 30; A.M, Columbia, 31, Ph.D, 36. Tutor math, Brooklyn Col, 31–36; fellow, Inst. Advanced Study, 36–38; *instr. math, Brooklyn Col, 38–* Teacher, high sch, New York, N. Y, 32–36. Math. Soc; Math. Asn. Topology.

Richardson, Sir Owen W(illans), Chandos Lodge, Alton, Hants, Eng. *[3]Physics.* Dewsbury, Eng, April 26, 79. B.A, Cambridge, 00, M.A, 04, Clerk Maxwell student, 04–06; D.Sc, London, 04; hon. LL.D, St. Andrew's; hon. D.Sc, Leeds. Prelector, Trinity Col, Cambridge, 01–06; director science studies, Corpus Christi, 05–06; prof. physics, Princeton, 06–14; Wheatstone prof, *King's Col, London,* 14–24, *director research, 24–, hon. prof. physics, 24–; Yarrow research prof, Royal Soc, 24–* Hughes medal, Royal Soc, 20, Royal medal, 30; Nobel prize, 28. Physical Soc; Philos. Soc; British Asn. (pres, A, 21); fel. Royal Soc; London Physical Soc. (pres, 26–28, for. sec'y, 28–); Cambridge Philos. Soc; Soc. française de Physique; hon. fel. Indian Acad. Sci; Norske Videnskabs Akad. Oslo; for. mem. K. Svenska Vet. Akad, Stockholm; cor. mem. Preuss. Akad. Wiss, Berlin. Thermionics; photoelectricity; discharge of electricity through gases; diffusion of gases through solids; effect of pressure on spectral lines; theory on magnetism; nature and energy of thermions; nature of electromagnetic radiations; thermal effects of the emission and absorption of electricity by bodies; electrons and chemical action; soft x-rays; hydrogen band spectrums; secondary electrons; spectroscopy.

Richardson, Dr. R(obert) S(hirley), 813 Santa Barbara St, Pasadena, Calif. *Astronomy.* Kokomo, Ind, April 22, 02. A.B, California at Los Angeles, 26; Ph.D, California, 31. *Solar asst, Mt. Wilson Observatory, Carnegie Institution, 30–* Astron. Soc. Pacific. Sunspots; solar and terrestrial relationships.

Richardson, Dr. Robert W(illiam), 1960 Biltmore St, N.W, Washington, D. C. *Geography.* Oakland, Calif, Dec. 16, 06. A.B, California, 30, Ph.D, 42. Teaching fellow geog, California, 34–37, lecturer, exten. div, 36–38, intersession, 37; acting assoc. prof, Chico State Col, Calif, 38–39; asst. prof, San Diego State Col, 39–42; *chief social science analyst, Office Coordinator Inter-Am. Affairs, 42–* Summer, lecturer, San Diego State Col, Calif, 39. Fel. Am. Geog. Soc; Asn. Pacific Coast Geog. Microclimatology; socio-geographic problems in Latin America.

Richardson, Dr. R(oger) W(olcott), 2626 Dalrymple Drive, Baton Rouge, La. *Chemical engineering.* New Orleans, La, Oct. 27, 05. B.S, Louisiana, 27; M.S, Iowa State Col, 28, Ph.D, 30. Junior scientist, Bur. Standards, 27–30; chem. engineer, E. I. du Pont de Nemours and Co, 30–33; Standard Oil Co, La, 33–37; Standard Oil Develop. Co, 37–40; *asst. director Esso labs, Standard Oil Co, La, 40–* Chem. Soc; Soc. Automotive Eng. Insulating materials; pulp and paper; petroleum products; lubricants; catalysts.

Richardson, Dean R(oland) G(eorge) D(wight), Brown University, Providence, R. I. *[3]Mathematics.* Dartmouth, N. S, Can, May 14, 78. B.A, Acadia, 98, D.C.L, 31; A.B, Yale, 03, A.M, 04, Ph.D, 06; Göttingen, 08–09; LL.D, Lehigh, 41. Instr. *math,* Yale, 04–07; asst. prof, *Brown,* 07–12, assoc. prof, 12–15, *prof, 15–, dean grad. sch, 26–* Summers, lecturer, Chicago, 18; California, 20. Trustee, Teachers Ins. and Annuity Asn, 26–30, 31–35. Del, Int. Cong. Math, Zurich, 32. A.A; Math. Soc. (v. pres, 20, sec'y, 21–40, trustee, 24–); Math. Asn. (v. pres, 19); Am. Acad; Asn. Teachers Math. New Eng; Deuts. Math. Verein; Circolo Mat. di Palermo. Mathematical analysis.

Richardson, Dr. R(onald) Ernest), Duplate Safety Glass Co. of Canada, Ltd, Oshawa, Ont, Can. *Chemistry.* Calgary, Alta, 08. B.Sc, Alberta, 30; M.Sc, McGill, 31, Ph.D, 33. *In charge research, W. E. Phillips Co, Duplate Safety Glass Co. of Can. and Duplate Windsor, 33–* Fel. Can. Inst. Chem. Physical chemistry of pulp and paper; mirror chemistry and vacuum deposition; safety glass chemistry.

Richardson, Dr. Russell, 320 S. 16th St, Philadelphia, Pa. *Medicine.* Brooklyn, N. Y, March 19, 82. A.B, Princeton, 04; A.M, M.D, Harvard, 11. Asst. physiol, Harvard Med. Sch, 07–08; asst. path, Pennsylvania Hosp, 12–17; *director path. lab, Methodist Episcopal Hosp, Phila, 18–;* instr. *med, Pennsylvania,* 24–30, assoc, 30–36, *asst. prof, 36–, assoc, George S. Cox med. research inst, 31–* Am. Med. Asn; Col. Physicians; Soc. Exp. Biol; Col. Physicians Phila; Path. Soc. Phila. Bacteriology; immunity and exercise in diabetes.

Richart, Prof. Frank Erwin, University of Illinois, Urbana, Ill. *Civil engineering.* Lena, Ill, May 11, 92. B.S, Illinois, 14, M.S, 15, C.E, 22. Concrete designer, C. F. Massey Co, 15; Concrete Steel Products Co, 16; instr. theoret. and applied mech, *Illinois,* 16–18, research assoc, 19–21, research asst. prof, 21–28, research assoc. prof, 28–31, *research prof. eng. materials, 31–* Mem, Highway Research Board; Joint Cmt. Specifications for Concrete and Reinforced Concrete, 30–31. Struct. engineer, Emergency Fleet Corp, 18–19. Civil Eng; Soc. Test. Mat; Concrete Inst. (pres, 38); West. Soc. Eng. Materials of construction; structural engineering; reinforced concrete.

Richdorf, Prof. L(awrence) F(rancis), University of Minnesota, Minneapolis, Minn. *Pediatrics.* Kellnersville, Wis, Aug. 25, 91. B.S, Wisconsin, 17; M.D, Minnesota, 20, Ph.D, 24. Asst, clin. lab, Wisconsin, 16–17, instr. path, 17–18; teaching fellow *pediat,* Minnesota and Mayo Clinic, 20–24, instr, *Minnesota,* 24–28, *asst. prof, med. sch, 28–* Chief pediat, Catholic Boys' Home, Minneapolis. Acad. Pediat; Am. Med. Asn; Northwest. Pediat. Soc; Cent. States Pediat. Soc; Minn. Trudeau Soc. Polyarthritis in the infant; tuberculosis in children; growth in the first year and the first five years; cereal feeding; food and fads; poliomyelitis; infections as a cause of absence in nursery school; rare case of double type anti- and iso-peristaltic intussusception; breast feeding studies on vitamin K in newborns.

Richer, Dr. A(nthony) C(hester), Pennsylvania State College, State College, Pa. *Soil technology.* Scranton, Pa, Nov. 10, 12. B.S, Pa. State Col, 34, M.S, 35, Ph.D, 40. Asst. *soil technol, Pa. State Col,* 34–37, instr, 37–42, *asst. prof, 42–* Soil Sci. Soc. Soil chemistry and microbiology.

Richert, Prof. D(avid) H(enry), Bethel College, Newton, Kans. *Mathematics.* McPherson Co, Kans, 75. A.B, Oberlin Col, 09; A.M, Colorado, 28. Supt. schs, Moundridge, Kans, 02–06; instr. math, Bethel Acad, 06–14; *prof. math. and astron, Bethel Col. (Kans), 15–* Math. Soc; Math. Asn; Soc. Research Meteorites; Astron. Soc. Pacific. Astronomy.

Richeson, Prof. A(llie) W(ilson), 5912 Bellona Ave, Baltimore, Md. *Mathematics.* Blantons, Va, July 3, 97. B.S, Richmond, 18; A.M, Hopkins, 25, Ph.D, 28. Asst. to the dean sch. business admin. and instr. *math, Maryland,* 21–26, asst. prof, 26–35, *assoc. prof, 35–* Instr, Hopkins, 28–40. Assoc. ed, 'Nat. Math. Mag.' Geometry; an extension of Brahmagupta's theorem; history of mathematics; mathematical statistics; financial mathematics.

Richey, F(rederick) D(avid), University of Tennessee, Knoxville, Tenn. *Agronomy.* St. Louis, Mo, Sept. 3, 84. B.S.A, Missouri, 09. Sci. asst, bur. plant indust, U. S. Dept. Agr, 11–19, asst. agronomist, 20–21, agronomist, 21–23, in charge corn investigations, 23–33, assoc. chief, 33–34, chief, 34–38; corn breeder, 38–42; *prin. agronomist, U. S. Dept. Agr, and assoc. agronomist, Exp. Sta, Tennessee, 43–* Mem. advisory cmt. research, U. S. Dept. Agr, 37–38. Explor. for maize, S. Amer, 24. A.A; Soc. Agron. (v. pres, 36, pres, 37); Soc. Plant Physiol; Genetic Asn; Genetics Soc. (v. pres, 32); Soc. Nat. Breeding, genetics and growth of maize.

Richey, Prof. H(arry) W(yatt), Iowa State College, Ames, Iowa. *Horticulture.* Norwich, Ohio, 90. B.S. (Agr), Nebraska, 14. *Pomol,* Iowa State Col, 14–17; West Virginia, 17–19; Maryland, 20–21; *prof, Iowa State Col, 21–* Growth of the American grape and strawberry.

Richmond, Prof. D(onald) E(verett), Williamstown, Mass. *Mathematics.* Meriden, Conn, May 23, 98. A.B, Cornell, 20, M.S, 22, Ph.D, 26. Asst. physics, Cornell, 18–20, instr, 20–22; engineer, Am. Tel. and Tel. Co, 22–23; instr. math, Cornell, 23–26; nat. research fellow, 26–27; asst. prof.

math, Williams Col, 27–36, assoc. prof, 36–40, *prof, 40–* Math. Soc; Physical Soc. Calculus of variations; quantum mechanics; reflection from a moving mirror, and the Michelson and Morley experiment.

Richmond, Major E(dward) A(very), 39 Newbury St, Brockton, Mass. *Entomology.* Brockton, Mass, June 10, 87. B.S, Dartmouth Col, 12; A.M, Cornell, 24; Ph.D, Mass. Col, 30. Sci. asst, Mass. Fish and Game Cmn, 11–12; asst. zool, Dartmouth Col, 12; N. Y. Univ, 12–13; entom. and biol, Cornell, 13–15; instr. physiol. and anat, Simmons Col, 17–18; chemist, Great West. Sugar Co, 19–20; chem. supt, private sugar-cane co, 20; instr. bot, R. I. State Col, 20–22; prof. physiol, Gen. Med. Foundation, Chicago, 22–23; agent, physiol. div, Japanese beetle lab, bur. entom, U. S. Dept. Agr, 24–29; field entomologist, Rohm and Haas Co, 29–30; investigator, Crop Protection Inst, 31–33; cranberry specialist, Mass. State Col, 34; asst. prof. exten. entom, Pa. State Col, 34–41; consulting entomologist, 41–42; *major, Chem. Warfare Service, U. S. Army, 42–* Physiologist, M.C, 18, lieut, Sanit.C, A.S, 18–19, capt, O.R.C, 24–34. Entom. Soc; Asn. Econ. Entom; Pa. Acad; Cambridge Entom. Soc. Hydrophilidae; chemotropism; phototropism; morphology; physiology; insecticides.

Richmond, Prof. Francis A, 456 W. Gray St, Elmira, N. Y. *Chemistry.* Adams, Mass, Aug. 15, 74. B.S, Cornell, 98. Instr. chem, Cornell, 98–99; *prof. chem. and physics, Elmira Col, 99–* Chem. Soc. Phenyl mustard oil as a reagent for the detection of the alcoholic hydroxyl group; sulfur in illuminating gas.

Richmond, Dr. James H(ugh), Masonite Corp, Laurel, Miss. *Organic chemistry.* Smiths Falls, Ont, Can, Jan. 31, 15. B.Sc, McGill, 36, Nat. Research Council Can. bursar, 38–39, student, 39–40, Ph.D, 40. Asst. chem, McGill, 37–38; *research chemist, Masonite Corp, 40–* Chem. Soc. Mechanism of the decomposition of quaternary ammonium bases and of xanthate esters; chemicals from wood; lignin chemistry.

Richmond, Thomas R(ollin), College Station, Texas. *Agronomy.* Kyle, Texas, Sept. 7, 09. B.S, Agr. and Mech. Col. Texas, 31, M.S, 38; Minnesota. Asst. crops, Exp. Sta, Agr. and Mech. Col. Texas, 31; junior agronomist, *bur. plant indust, U. S. Dept. Agr,* Texas and Ariz, 32–33, asst. agronomist, 35–39, *assoc. agronomist, 39–; Exp. Sta, Agr. and Mech. Col. Texas, 39–* Soc. Agron. Genetics; breeding and improvement of cotton.

Richmond, Dr. W(allace) E(verett), 2333 S. Nash St, Arlington, Va. *Crystallography.* North Adams, Mass, Sept. 18, 01. A.B, Williams Col, 23; Mass. Inst. Tech, 25; A.M, Harvard, 35, Ph.D, 39. In charge x-ray lab, Harvard, 37–39; x-ray crystallographer, U. S. Geol. Surv, 40–42; *technologist, Sig. Corps, U. S. Army, 42–* A.A; Miner. Soc; Wash. Geol. Soc. X-ray crystallography; mineralogy by use of the x-ray technique, including methods of determinative mineralogy and atomic structure.

Richter, Dr. Charles F(rancis), 220 N. San Rafael Ave, Pasadena, Calif. *Seismology.* Butler Co, Ohio, April 26, 00. Southern California, 16–17; A.B, Stanford, 20; Ph.D, Calif. Inst. Tech, 28. Asst. seismol. research, Carnegie Institution, 27–37; *asst. prof. seismol, Calif. Inst. Tech, 37–* A.A; Seismol. Soc. Seismology, especially of California.

Richter, Dr. Curt P(aul), Johns Hopkins Hospital, Baltimore, Md. *Psychology, Psychobiology.* Denver, Colo, Feb. 20, 94. B.S, Harvard, 17; Ph.D, Hopkins, 21. Asst. *psychobiol, Phipps Psychiat. Clinic, sch. med, Hopkins,* 21–22, instr, 22–25, assoc, 25–29, lecturer, 30–31, *assoc. prof, 32–* A.A; Psychol. Asn; Physiol. Soc; Soc. Mammal; Neur. Asn; Soc. Exp. Biol. Endocrine, nervous and nutritional factors involved in self-regulatory behavior and the maintenance of a constant internal environment; biological studies on grasp reflex; sympathetic nervous system; periodic phenomena.

Richter, Dr. Frederic (Paul), U. S. Rubber Co, Hogansville, Ga. *Organic chemistry.* Tremont, Pa, June 20, 16. A.B, Temple, 36, A.M, 38; Aeration Processes Corp. fellow, Illinois, 39–41, Ph.D, 41. *Research chemist, U. S. Rubber Co, 41–* Cotton.

Richter, Dr. G(eorge) Holmes, Rice Institute, Houston, Texas. *Chemistry.* Gainesville, Texas, May 22, 04. A.B, Rice Inst, 26, A.M, 27, Ph.D, 29. Nat. research fellow chem, Cornell, 29–31; instr. *org. chem, Rice Inst,* 31–38, *asst. prof, 38–* Deuts. Chem. Gesell. Organic and colloid chemistry; chemistry of anesthesia and disinfection; colloid chemistry of insanity; synthesis in furane series; synthesis and rates of reactions of organic halides; colloid chemistry and chemotherapy.

Richter, Dr. Hartmut W(alter), 292 W. Emerson Ave, Rahway, N. J. *Physical chemistry.* Hamm, Germany, March 3, 04. Ph.D, Freiburg, 27. Asst. chem, Frankfurt, 27–29; *chemist, Metal and Thermit Corp, 29–* Chem. Soc; Electrochem. Soc. Inorganic chemistry.

Richter, Dr. Julius, 2556 Main St, Buffalo, N. Y. *Surgery, Anatomy.* Allegheny, Pa, Dec. 19, 76. M.D, Buffalo, 04. Clin. instr, *Buffalo,* 13–15, asst. anat, 15–17, instr, 17–20, asst. surg, 20–22, assoc. anat. and surg, 22–27, asst. prof. and later assoc. prof. anat, 27–42, asst. prof. surg, 30–42; *retired.* Lecturer, Sch. Fine Arts, Buffalo. Fel. Col. Surg; hon. mem. West. N. Y. Surg. Asn; Buffalo Surg. Soc. (pres, 43); Buffalo Acad. Med. Gastro-intestinal surgery.

Richter, Dr. Kenneth M(urrel), University of North Dakota School of Medicine, Grand Forks, N. Dak. *Embryology.* Newcastle, Ind, Aug. 26, 12. A.B, Ind. Cent. Col, 34; A.M, Indiana, 37; fellow, Oklahoma, 38–39, Ph.D, 39. Asst. biol, Ind. Cent. Col, 31–34; teaching fellow zool, Indiana, 34–37; research fellow path, *sch. med,* Oklahoma, 39–41; *instr. histol. and embryol, dept. anat, North Dakota, 41–* Summers, asst, div. fish and game, State Dept. Conservation, Ind, 34–36; research fellow, sch. med, Oklahoma, 42. Cytology; histology; nucleus and cytoplasm; Golgi complex; mitochondria; vacuoles of blood and germ cells; cellular pathology and physiology; germinal tissue, blood and lymph; lymphocytic function.

Richter, Prof. Maurice N(athaniel), N. Y. Post-Graduate Medical School, 303 E. 20th St, New York, N. Y. *Pathology.* Chicago, Ill, Aug. 26, 97. B.S, Columbia, 19, M.D, 21. Intern, Bellevue Hosp, 22–24; instr. med, *col. physicians and surg, Columbia,* 24–28, assoc. *path,* 25–28, asst. prof, 28–39, *prof, 39–; prof. and director dept, N. Y. Post-Grad. Med. Sch, and director dept, hosp, 39–* Soc. Exp. Path; Soc. Clin. Path; Asn. Path. and Bact; Harvey Soc; N. Y. Path. Soc. (sec'y, 32–34, pres, 39–41); N. Y. Acad. Med; Int. Asn. Med. Mus. Hematology; leukemia; Auer bodies; anemia; tumors.

Richtmann, Prof. W(illiam) O(scar), 1709 Adams St, Madison, Wis. *Pharmacognosy.* Arcadia, Wis, Nov. 30, 76. Ph.G, Wisconsin, 94, fellow, 94–97, B.S, 97, Am. Flavoring Extract Asn. fellow, 15–16, Ph.D, 19. Instr. practical pharmacy, Wisconsin, 98–00, pharmacog, 00–02; expert, U. S. Dept. Agr, 02–06; res. manager, Satsuma Co, 06–15; pharmacognosist, pharmaceut. exp. sta, *Wisconsin,* 17–34, asst. prof. *pharmacog,* 19–25, assoc. prof, 25–35, *prof, 35–* Revision cmt, U. S. Pharmacopoeia, 20, 30, 40, chairman subcmt. volatile oils. A.A; Pharmaceut. Asn. (sec'y, sci. sect, 11, chairman, 12, sec'y, hist. sect, 19, chairman, 20); Chem. Soc. (chairman local sect, 27); Wis. Hist. Soc; Wis. Pharmaceut. Asn; Wis. Acad. Practical pharmacy and pharmacognosy.

Richtmeyer, Dr. Cleon C, 908 S. Fancher St, Mt. Pleasant, Mich. *Mathematics.* Prairieville, Mich, May 14, 03. A.B, Albion Col, 24; Chicago, 27; A.M, Peabody Col, 31; Ph.D, Colo. State Col. Educ, 38. Instr. *math, Cent. Mich. Col. Educ,* 24–27, asst. prof, 27–31, *prof, 31–, head dept, 38–, director instruction, 41–,* summer session, 40–41. Math. Asn; Council Teachers Math. (subcmt, 'Yearbook'). Mathematics curricula; the teaching of mathematics.

Richtmyer, Dr. Nelson K(ellogg), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Organic chemistry.* Coxsackie, N. Y, Nov. 18, 01. A.B, Harvard, 23, A.M, 25, Ph.D, 27; Heidelberg, 28–29. Asst, Harvard, 27–28, 29–30; assoc. chem, Bryn Mawr Col, 30–34; *with nat. inst. health, U. S. Pub. Health Service, 34–* Isoxazoles; isoxazoline oxides; oxido ketones and esters; carbohydrates and carbohydrases.

Richtmyer, Dr. R(obert) D(avis), 3235 N. Abingdon St, Arlington, Va. *Physics.* Ithaca, N. Y, Oct. 10, 10. A.B, Cornell, 31, A.M, 32; Ph.D, Mass. Inst. Tech, 35. Teaching fellow, Mass. Inst. Tech, 32–34; instr. physics, Stanford, 35–40; mem. staff, Navy Dept, 40–43; *senior tech. aide, Office Sci. Research and Develop, 43–* X-rays; nuclear physics; klystronics.

Rick, Dr. Charles M(adeira), University of California College of Agriculture, Davis, Calif. *Plant genetics.* Reading, Pa, April 30, 15. B.S, Pa. State Col, 37; A.M, Harvard, 38. Ph.D, 40. *Instr. truck crops, col. agr, California, and junior geneticist, Exp. Sta, 40–* Soc. Hort. Sci. Cytogenetics.

Rickaby, H(arold) C(olman), Ontario Department of Mines, Toronto, Ont, Can. *Geology.* Orono, Ont, Dec. 29, 90. B.A, Toronto, 22, M.A, 23. Asst. miner, Toronto, 24–26; asst. geologist, *Ont. Dept. Mines,* 27–34, *provincial geologist, 34–; deputy minister mines, Ont, 38–* Can. Inst. Min. and Metal.

Rickards, Burt R(ansom), New York State Department of Health, Albany, N. Y. *Public health.* Cambridge, Mass, Sept. 28, 76. B.S, Mass. Inst. Tech, 99. Instr. anal. chem, Lowell Textile Sch, Mass, 99–00; first asst. bacter. and chem, Boston Board Health Lab, 00–05, director, 05–09; chief labs, State Board Health, Ohio, 09–11; assoc. prof. munic. and sanit. dairying, Illinois, 11–12; asst. director biol. dept, Eli Lilly and Co, 12–15; *director* develop. dept, Randall Faichney Co, 15–17; *div. pub. health educ, State Dept. Health, N. Y, 17–* Lecturer, Albany Med. Col, Union (N. Y); Mass. Inst. Tech; DeLamar Sch. Pub. Health. Ed. 'Health News'; 'Am. Jour. Pub. Health,' 05–12. Fel. Pub. Health Asn. (sec'y, lab. sect, 06–12); hon. mem. Mass. Health Officers Asn. Bacteriological diagnostic methods; production of biological products; lye legislation; public health educational methods and literature.

Rickart, Dr. C(harles) E(arl), 253 Lawrence St, New Haven, Conn. *Mathematics.* Osage City, Kans. A.B, Kansas, 37, A.M, 38; fellow, Michigan, 38–40, Ph.D, 41. Benjamin Peirce instr. and tutor *math,* Harvard, 41–43; *instr, Yale, 43–* Analysis; theory of integration.

Ricker, Prof. C(laire) W(illiam), Tulane University, New Orleans, La. *Electrical engineering.* Rantoul, Ill, Jan. 11, 91. B.S, Mass. Inst. Tech, 14, M.S, 15; M.E.E, Harvard, 15. Transmission engineer, West. Elec. Co, 15–16; instr. elec. eng, Mass. Inst. Tech, 16–20, asst. prof, 20–26; prof. and head dept, N. C. State Col, 26–28; *Tulane,* 28–37, *head sch. elec. eng, 37–* Elec. Eng. (chairman, New Orleans sect, 36; v. pres, dist. four, 43–); Eng. Educ; La. Eng. Soc. Electrical transmission and machinery; electrical engineering laboratory experiments.

Ricker, Maurice (G), 1358 Newton St, N. E, Washington, D. C. *Natural science.* Wataga, Ill, July 18, 69. B.S, Drake, 92. Teacher, high sch, Iowa, 92–99, prin, 99–18; asst. director educ. work, U. S. Pub. Health Service, 20–26; director motion pictures, U. S. Dept. Interior, 26–29; engineer, film div, United Research Corp, 29–37; motion picture director, U. S. Dept. Agr, 37–42; *retired.* Lecturer, biol. sta, Montana, 01–06; photographer, Univ. Iowa exped, Barbados and Antigua, 18. In charge motion picture lab. and sch. projection, War Work Council, Y.M.C.A, 18–19; director motion picture activities, Int. Cmt, 19–20. A.A; Motion Picture Eng; N. Y. Elec. Soc; fel. Iowa Acad; fel. St. Louis Acad. Plankton in Montana lakes and rivers; hydra and hydrachnids; ecology; physiography; photography applied in biological problems; motion picture photography.

Ricker, Dr. Norman (Hurd), 1718 E. 30th St, Tulsa, Okla. *Physics, Seismology.* Galveston, Texas, Oct. 11, 96. A.B, Rice Inst, 16, fellow, 16–19, A.M, 17, Ph.D, 20. Instr. physics, Rice Inst, 19–21; mem. research staff, Bell Tel. Labs, 21–23; head geophys. dept, Humble Oil and Ref. Co, 23–25; consulting physicist, 25–27; physicist, Hughes Tool Co, 27–32; consulting physicist, 32–38; *senior geophysicist, Carter Oil Co, 38–* A.A; Physical Soc; Acoustical Soc; Geophys. Union; Math. Soc; Seismol. Soc; Soc. Explor. Geophys. Wavelet theory of seismogram structure; viscosity of earth formations; seismic exploration; gravimetric prospecting; electrical conductivity of flames; luminosity of ionized mercury vapor; modulation with thermionic vacuum tubes; frequency standards; development Hughes plunger lift; paper cone type loud speaker; geophysical methods of petroleum exploration; prospecting with continuous periodic elastic waves.

Ricker, P(ercy) L(eroy), U. S. Department of Agriculture, Washington, D. C. *Botany.* Brunswick, Maine, March 27, 78. B.S, Maine, 00, M.S, 01. Asst. biol, Maine, 01; sci. asst. agrost, *bur. plant indust, U. S. Dept. Agr,* 01–05, asst, office of botanist, 05–07, *asst. botanist,* taxon. and range investigations, 08–17, *forage crop investigations, 17–* A.A; Bot. Soc; New Eng. Bot. Club; Bot. Soc. Wash; Wash. Biol. Field Club. Grasses; legumes; taxonomy of cultivated plants; conservation of native plants.

Ricker, Prof. William E(dwin), Indiana University, Bloomington, Ind. *Limnology.* Waterdown, Ont, Can, Aug. 11, 08. B.A, Toronto, 30, M.A, 31, Ph.D, 36. Sci. asst, Fisheries Research Board, Can, 32–37; junior scientist, Int. Pacific Salmon Fisheries Cmn, 38; *asst. prof. zool, Indiana, 39–* Ecol. Soc; Limnol. Soc; Soc. Ichthyol. and Herp; Fisheries Soc; Ind. Acad; Entom. Soc. B. C. Bionomics of fish populations; biota of lakes and streams; taxonomy of Plecoptera.

Rickers-Ovsiankina, Prof. M(aria) A, Wheaton College, Norton, Mass. *Psychology.* Tschita, Russia, May 3, 00. Ph.D, Giessen, 27. Teaching asst, Berlin, 27–31; research assoc. Worcester State Hosp, Mass, 31–36; *asst. prof. psychol. Wheaton Col. (Mass), 35–* Psychol. Asn. Motivational psychology; psychopathology; social psychology.

Ricketson, Dr. Oliver G(arrison), Jr, Ricketson's Point, South Dartmouth, Mass. *Archeology.* Pittsburgh, Pa, Sept. 19, 94. A.B, Harvard, 16, Ph.D, 33. Archeologist, Carnegie Institution, 21–41, in charge Uaxactun project, 26–32, Guatemala research, 29–36, staff mem, Cambridge, Mass, 37–42; deputy exped. leader, Rubber Develop. Corp, U. S. Govt, 42. Peabody Museum exped, Ariz, 20, Am. Museum Nat. Hist. Cartier exped, Ariz. and Utah, 20; 1st Beam exped, Nat. Geog. Soc, 23; expeds. for Carnegie Institution, Maya Old Empire, 21, Tulum and Petén, 22, 23, excavations at Baking Pot, 24, Chichen Itza Project, 25; Lindbergh flight over Yucatan Peninsula, 29. A.A; Anthrop. Asn; Am. Geog. Soc; Soc. Am. Archeol; Soc. de Geog. e Hist, Guatemala; Soc. Amigos del Museo, Guatemala; Latin Amer. Inst. (advisory council). Maya archeology and anthropology.

Rickett, Prof. H(arold) W(illiam), New York Botanical Garden, New York, N. Y. *Botany.* Birmingham, Eng, July 30, 96. A.B, Wisconsin, 17, A.M, 20, Ph.D, 22. Asst. bot, Wisconsin, 19–22, instr, 22–24; asst. prof, Missouri, 24–28, assoc. prof, 28–39; asst. bibliographer, *N. Y. Bot. Garden,* 39–42, *bibliographer, 42–* Visiting prof, Reed Col, 37–38. A.A; Bot. Soc; Torrey Bot. Club (ed, 40–). Plant morphology; taxonomy; bibliography and nomenclature.

Rickett, Dr. R(eginald) L(yon), U. S. Steel Corp, Lincoln Highway, Kearny, N. J. *Metallurgy.* Brighton, Mich, Nov. 19, 03. B.S, Michigan, 27, M.S, 31, Sc.D, 33. Metallurgist, Westinghouse Lamp Co, 27–28; research assoc. eng. research, Michigan, 28–32; metallurgist, Firestone Steel Products Co, 33–36; *research lab, U. S. Steel Corp, 36–* Min. and Metal. Eng; Soc. Metals. Diffusion in metals; behavior of metallic alloys at high temperatures; treatment and properties of steel.

Ricketts, Dr. Henry T(ubbs), 950 E. 59th St, Chicago, Ill. *Medicine.* Berlin, Germany, Aug. 11, 01. B.S, Chicago, 24, 25–27; M.D, Harvard, 29. Instr. *med, Chicago,* 33–39, asst. prof, 39–43, *assoc. prof, 43–* Soc. Clin. Invest; Am. Med. Asn; Soc. Exp. Biol; Physiol. Soc; Diabetes Asn; Cent. Soc. Clin. Research; Inst. Med. Chicago (governor). Metabolism, especially of carbohydrates; aviation medicine.

Ricketts, Dr. Rowland, Hahnemann Medical College and Hospital, Philadelphia, Pa. *Anatomy, Gastroenterology.* Camden, N. J, Aug. 10, 04. B.S, Hahnemann Col. Science, 27; M.D, Hahnemann Med. Col. (Pa), 28; A.M, Villanova Col, 33. *Assoc. prof. anat, Hahnemann Med. Col. (Pa), 37–, gastroenterol, 39–* Fel. Gastroenterol. Asn; Inst. Homeopathy; Pa. State Homeopathic Soc; Homeopathic Soc. County of Phila. Gastric temperature; effects of orange juice on gastric acidity.

Rickey, Prof. F(rank) A(tkinson), Louisiana State University, Baton Rouge, La. *Mathematics.* Crowley, La, Nov. 13, 03. A.B, Southwest. La. Inst, 23; M.S, Louisiana, 30, Ph.D, 35. Instr. *math, Louisiana,* 35–37, asst. prof, 38–40, *assoc. prof, 41–* Math. Soc; Math. Asn. Differential geometry.

Rickles, Dr. D(avid) N(athaniel), 1107 Hyde Park Blvd, Chicago, Ill. *Chemical engineering.* Seattle, Wash, Nov. 14, 01. B.S, Washington (Seattle), 24, M.S, 25; Ph.D, Chicago, 28. *Director* oil lab, Armour and Co, 25–26; *chem. eng, bur. eng, Board Educ, Chicago, 28–* Complex inorganic compounds; gas adsorption of charcoals; aluminum alloys; water purification; synthetic resins; paints; varnishes.

Riddell, Dr. W(illiam) A, Public Health Laboratories, Regina, Sask, Can. *Organic chemistry.* Oakner, Man, July 6, 05. B.A, Saskatchewan, 25, B.Sc, 26, M.Sc, 28; fellow, Stanford, 29–31, Ph.D, 31. Asst. chem, Saskatchewan, 26–28, lecturer, 28–29; prof, Regina Col, 31–36; asst. chemist, Fisheries Exp. Sta, 36–38; *prov. chemist, Sask, Can, 38–; acting director, Sask. Pub. Health Labs, 42–* Summers, assayer, Consol. Mining and Smelting Co, Can, 28; asst, Pacific Biol. Sta, 32–34. A.A; Chem. Soc; fel. Can. Inst. Chem. Organic

antimonials; stibinic acids; the Friedel-Craft reaction; mixed catalysts; marine products; vitamin content of foods; survey of potable waters.

Riddell, Prof. W(illiam) H(ugh), University of Arizona, Tucson, Ariz. *Dairy husbandry.* Ft. Langley, B. C, Can, June 19, 97. B.S.A, British Columbia, 22; M.S, Minnesota, 24, Caleb Dorr fellow, 27–28, Ph.D, 32. Instr. dairy husbandry, Kans. State Col, 24–26; supt. official tests, Minnesota, 27–29; asst. prof. dairy husbandry, Kans. State Col, 29–31, assoc. prof, 31–39; *prof. dairy husbandry and head dept, Arizona, and dairy husbandman, Exp. Sta, 39–* Soc. Animal Production; Dairy Sci. Asn; Genetics Soc. Dairy cattle feeding; nutritive value of dairy products; pasture studies; vitamin content of milk; irrigated pastures.

Riddick, Dr. J(ohn) A(llen), Commercial Solvents Corp, Terre Haute, Ind. *Analytical chemistry.* Greenville, Texas, Dec. 20, 03. A.B, A.M, Southwestern (Texas), 26; Ph.D, Iowa, 29. Asst, Southwestern, 24–26; Iowa, 26–28; asst. prof. chem, Mississippi, 28–31; consultant, 31–35; instr, South. Methodist, 35–36; *asst. to director div. anal. chem, Commercial Solvents Corp, 36–, acting director anal. div.* Summer, Iowa, 29. Chem. Soc. Oxidation potentials; pyrophosphate determinations; analysis of nitroparaffins and their derivatives; determination of small amounts of water.

Riddle, Prof. C(harles) D(ayton), Furman University, Greenville, S. C. *Zoology.* Birmingham, Ala, Sept. 20, 00. A.B, Howard Col, 24; M.S, Chicago, 28. Instr. *biol,* Howard Col, 24–26; asst. prof, *Furman,* 26–31, assoc. prof, 31–40, *prof, 40–* A.A. Vertebrate embryology; endocrine glands.

Riddle, Dr. E(thel) M, 108 Arundel Place, St. Louis, Mo. *Psychology.* St. Louis, Mo, Jan. 2, 85. A.B, Vassar Col, 06; Ph.D, Columbia, 25; A.M, Washington (St. Louis), 27. *Psychologist,* Psychiat. Clinic, St. Louis, 24–25; *Community and John Burroughs Schs, 24–* A.A; Psychol. Asn; S. Soc. Philos. and Psychol. Clinical and social psychology; stealing as a form of aggressive behavior.

Riddle, Frank H(arwood), 1420 Strathcona Drive, Detroit, Mich. *Ceramics.* Colorado Springs, Colo, March 9, 83. Colo. Col, 03; Cer.E, Ohio State, 31. Foreman glaze color and burning dept, Van Briggle Pottery, Colorado Springs, 02–04, supt. and manager, 07–10; asst. ceramics, Ohio State, 04–07; ceramic chemist, Am. Sewer Pipe Co, 10–12; with Norton Griffiths Steel Construction Co, 12–14; cost and production betterment work, Gladding, McBean and Co. and Pacific Sewer Pipe Co, 14–16; chemist, Bur. Standards, Pittsburgh, 16–19; director research, *ceramic div, Champion Spark Plug Co, Detroit,* 19–43, *factory manager, 43–* A.A; fel. Ceramic Soc. (trustee, 20–24, pres, 22, chairman, white ware div, 25, assoc. dean fellows, 34, dean fellows, 35); Elec. Eng. (chairman, Detroit sect, 28); Deuts. Keramische Gesell. Ceramic technology; plant control and efficiency; development and application of sillimanite in porcelain and refractories; spark plug insulators and refractories; refractory porcelain products, especially chemical ware, pyrometer tubes and glass house refractories.

Riddle, Dr. Oscar, Carnegie Institution, Cold Spring Harbor, N. Y. *[2]*Zoology, Physiology.* Cincinnati, Ind, Sept. 27, 77. A.B, Indiana, 02, LL.D, 33; Ph.D, Chicago, 07. Teacher biol, Training Sch, San Juan, P. R, 99–01; physiol, high sch, Mo, 03–05; asst, Chicago, 04–07, assoc, 07–08, instr. exp. therapeut. and zool, 08–10; investigator in Europe, 10–11; research assoc, *Carnegie Institution,* 12–15, *investigator, dept. genetics, sta. for exp. evolution, 14–* Nat. hist. exped, Orinoco River, 01. Chairman, Am. delegates, Int. Cong. Sex Research, London, 30; v. pres, Int. Cong. Zool, Padua, 30. Gold medal, Am. Inst, New York, 34. U.S.A, 18–19. Nat. Acad; A.A; Soc. Nat; Soc. Zool; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions (pres, 29–); Philos. Soc; Am. Inst. (trustee, 23–, v. pres, 35–); Inst. Social Sci; Genetic Asn; Am. Acad; Harvey Soc; Wash. Acad; Soc. linn. de Lyon; Nat. Acad. Med. Buenos Aires. Bionomic physiology; color development; physiology of reproduction; the nature and functional basis of sex; internal secretions.

Ridenour, Dr. G(erald) M, University of Michigan, Ann Arbor, Mich. *Sanitary engineering.* Lima, Ohio, May 17, 11. B.S, Rutgers, 29, M.S, 32, Ph.D, 35. Asst. engineer, Buckeye Pipe Line, 19–21; draftsman, Lima Locomotive Works, 21; senior draftsman, Chesapeake and Ohio R.R, 22; engineer, South P. R. Sugar Co, 23; senior draftsman, State Highway Dept, N. C, 24; asst. engineer, State Board Health, 25–28; supt. pub. utilities, 28–29; asst. prof. water supplies and sewage disposal, Rutgers, and assoc. water and sewage research, N. J. Exp. Sta, 29–40; assoc. prof. sanit. eng, dept. civil eng, Pa. State Col, 40–41; *res. lecturer pub. health eng, sch. pub. health, Michigan, 41–* Assoc. Civil Eng; Chem. Soc; Water Works Asn; Pub. Health Asn; Federation Sewage Works Asn. Water; sewage; plant operation; stream pollution; public health engineering.

Ridenour, Dr. Louis N(icot), 72 Grozier Road, Cambridge, Mass. *[1]*Physics.* Montclair, N. J, Nov. 1, 11. B.S, Chicago, 32; fellow, Calif. Inst. Tech, 32–35, Ph.D, 36. Mem. Inst. Advanced Study, 35–36; instr. *physics,* Princeton, 36–38; asst. prof, *Pennsylvania,* 38–41, *assoc. prof, 41–; mem. staff, radiation lab, Mass. Inst. Tech, 41–* Physical Soc. Nuclear physics; artificial radioactivity.

Rider, Prof. Arthur J(ohn), Drake University, Des Moines, Iowa. *Chemistry.* Kirkwood, N. Y, June 22, 77. B.S, Colgate, 12, M.S, 14; Ph.D, Cornell, 23. Instr. *chem,* Colgate, 12–15; Cornell, 16–23; assoc. prof, *Drake,* 23–24, *prof, 24–, head dept, 26–* A.A; Chem. Soc; Iowa Acad. Hydrogen ion concentration of milk.

Rider, Prof. Paul R(eece), Washington University, St. Louis, Mo. *Mathematics, Statistics.* Independence, Mo, Oct. 14, 88. A.B, William Jewell Col, 09, A.M, 10; A.M, Yale, 14, Ph.D, 15; Chicago, 12, 14; Minnesota, 31. Instr. *math,* Sheffield Sci. Sch, Yale, 15–16; *Washington (St. Louis),* 16–18, asst. prof, 18–21, assoc. prof, 21–39, *prof, 39–* Lecturer, Mo. Bot. Garden, St. Louis, 25; Sterling research fellow, Yale, 28–29; statistician, U. S. Business Trends Corp, Columbus, 33–35; Gen. Educ. Board research fellow, London, 35–36; U. S. exchange prof, Nat. Univ. (Mex), 42–43. Summer, adj. prof, Texas, 20. Del, Int. Cong. Mathematicians, Oslo, 36; special guest, Nat. Cong. Math, Saltillo, Mex, 42. 2nd lieut, C.A, 18. Math. Soc; Math. Asn. (sec'y-treas, Mo. sect, 17–31); fel. Statist. Asn; Econometric Soc; fel. Inst. Math. Statist. (v. pres, 37, pres, 39, sec'y-treas, 40); Mex. Math. Soc. Calculus of variations; mathematical statistics; theory of small samples.

Rider, Dr. T(heodore) H(arold), 127 E. Fourth St, Hinsdale, Ill. *Chemistry, Pharmacology.* Washington, D. C, Oct. 14, 03. Ph.B, Yale, 25, Ph.D, 28. Instr. pharmacol. and toxicol, sch. med, Yale, 28–30; chief chemist, Wm. S. Merrell Co, 30–33, research director, 33–37; *tech. director, Pepsodent Co, Chicago, 37–* Prof, Cincinnati Col. Pharmacy, 32–37. A.A; Chem. Soc; Pharmaceut. Asn. (v. pres, Cincinnati sect, 34–37). Synthesis and testing of local anesthetics; chemical detoxification of toxins; pharmaceutical products and synthetic drugs; dentifrices; antiseptics.

Rider, W(illia)m M, Pennsylvania Holstein Association, Tunkhannock, Pa. *Dairy husbandry.* Salem, N. Y, Jan. 28, 84. B.S, Mich. State Col, 08; M.S, Syracuse, 29. Prof. animal and dairy husbandry, Winona Col, 09–13, v. pres, 11–13; Syracuse, 13–18; director exten. service, Holstein-Friesian Asn. Amer, Vt, 18–21; prof. dairy husbandry, Syracuse, 22–34; field supervisor bur. milk publicity, State Dept. Agr. and Markets, N. Y, 34–43; *sec'y-fieldman, Pa. Holstein Asn, 43–* Director Int. Dairy Exten. Service, Vt. and N. Y, 22– Dairy Sci. Asn. Dairy herd management; manufacture of butter, cheese and ice cream; marketing milk; consumption of milk and milk products; milk publicity; efficient milk production and promotion of pure bred Holstein-Friesian cattle.

Ridge, Dr. John (Drew), Cerro de Pasco Copper Corp, Morococha, Peru, S. Amer. *Geology.* Cincinnati, Ohio, July 3, 09. B.S, Chicago, 30, M.S, 32, Ph.D, 35. Research petrographer, Universal Atlas Cement Co, 35–36; junior geologist, Nat. Park Service, 36–37; *asst. geologist, Cerro de Pasco Copper Corp, 37–* A.A; Miner. Soc; Min. and Metal. Eng; Soc. Mil. Eng; Geol. Soc. Wash. Copper, lead and zinc deposits; petrography of Portland cement; determination of quartz percentage in fine-grained rocks.

Ridgley, Prof. Douglas C(lay), 516 S. Clayton St, Bloomington, Ill. *Geography.* Wabash Co, Ind, March 18, 68. A.B, Indiana, 93; M.S, Chicago, 22; Ph.D, Clark, 25. Teacher, pub. schs, Ind, 84–86, 87–89, 91–92, 93–95; high schs, Chicago, 95–00, prin, grammar sch, 00–03; prof. geog. and head dept, Ill. State Nor. Sch, 03–22; special lecturer, *Clark,* 22–24, assoc. prof. *geog. in educ,* 24–28, prof. and director home study dept. and summer session, 28–38, *emer. prof, 38–* Prof, 1st univ. cruise around world, 26–27. Director geog, A.E.F. Univ, France, and mem, Army Educ. Corps, 19. Nat. Council Geog. Teachers (treas, 20–31, pres, 31–). Educational phases of geography; teaching of geography.

Ridgway, Arthur (Osbourne), 301 Equitable Bldg, Denver, Colo. *Engineering.* Lawrence, Kans, Feb. 23, 70. B.S, Kansas, 92. Draftsman, Denver and Rio Grande R. R. Co, 92–94; chief engineer, Bellefontaine Bridge and Iron Co, 94–95; asst. engineer. Denver and Rio Grande R. R. Co, 95–01, div. engineer. 01–03, locating engineer, 03–05; gen. supt, Silverton Ry. and Silverton North. R. R, 05–06; office engineer, Denver and Rio Grande R. R. Co, 06–08, engineer, 08–09, asst. chief engineer, 09–23, chief engineer, 23–41; Denver Union Terminal Ry. Co. and Salt Lake City Union Depot and R. R. Co, 23–41; *eng. consultant, Denver and Rio Grande West. R. R. and Allied Companies, 41–* Safety officer, 18–23; chairman valuation cmts. Denver and Rio Grande R. R. Co. and allied companies, 13–23. Gold medal, Colo. Soc. Engineers, 40. A.A; Civil Eng. (past director); Ry. Eng. (past director); Ry. Bridge and Bldg. Asn. (past pres); Colo. Sci. Soc; Colo. Eng. Council (first pres). Historic development of rail transportation; economics of physical characteristics of transportation routes.

Ridgway, Raymond R(onald), 144 58th St, Niagara Falls, N. Y. *Electrochemistry.* Morris, Ill, Aug. 27, 97. B.S, Mass. Inst. Tech, 20. Engineer, electrode plant, Aluminum Co. Amer, 20–21; elec. construction engineer, Ridgway Elec. Co, 21–22; research engineer, *Norton Co,* 22–37, director abrasive research, 37–40, *assoc. director research, 40–* Mod. Pioneer award, Nat. Asn. Mfrs, 40; Jacob F. Schoellkopf medal award, 43. A.A; Chem. Soc; Electrochem. Soc. (v. pres, 36–38, pres, 41); Indust. Research Inst. Electrometallurgy; ceramics; manufactured abrasives; purification and fusion of alumina; boron carbide; titanium carbide; improved silicon carbide processes; high temperature reactions; powder metallurgy; standards of hardness.

Ridland, Dr. G(eorge) C(arman), Canadian Radium and Uranium Corp, 630 Fifth Ave, New York 20, N. Y. *Geology.* New Westminster, B. C, Can, July 20, 13. B.A.Sc, British Columbia, 36; A.M, Princeton, 38, Ph.D, 39. Res. geologist, Bear Explor. and Radium, 39–40; mineral technologist, Johns-Manville Corp, 40–43; *geol. engineer, Can. Radium and Uranium Corp, 43–* Min. and Metal. Eng; Can. Min. and Metal. Eng. Diatomite; gold; radioactive ores.

Ridpath, Prof. Robert F(erguson), N. E. Corner 18th and Chestnut Sts, Philadelphia, Pa. *Rhinolaryngology.* Jenkintown, Pa, April 3, 76. M.D, Medico-Chirurg. Col. Phila, 99. Assoc. prof. laryngol, grad. sch. med, Pennsylvania; chief clinic, Jewish Hosp; dept. rhinolaryngol, *Temple, prof, med. dept, 28–* Laryngol, Rhinol. and Otol. Soc; Laryngol. Asn; Acad. Ophthal. and Otolaryngol. (2nd v. pres); Am. Med. Asn. (chairman, nose and throat sect, 37–); fel. Col. Surg; Pa. Med. Soc. (past chairman, ophthal. and otolaryngol. sect); Phila. Laryngol. Soc. (past pres); Col. Physicians Phila. Bronchoscopy; voice production; embryology of the larynx; sphenoidal infection.

Rieber, Frank, Rieber Research Laboratory, 142 Seventh Ave, S, New York, N. Y. *Geophysics.* Placerville, Calif, March 12, 90. B.S, California, 15. Physicist, West. Precipitation Co, 13–14; chief engineer, Rieber Lab, 14–18; pres. and chief engineer, Roentgen Appliance Co, 19–23; pres, Frank Rieber, Inc, 23–29; assoc. with Herbert E. Metcalf, 29–31; director, Rieber Lab, 32–37; pres. and chairman board, Frank Rieber, Inc, 38–42; *director, Rieber Research Lab, 42–* Mem, U. S. Submarine Defense Board, 18; sec'y, State War Inventions Cmn, Calif, 18. Acoustical Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Physical Soc; Soc. Explor. Eng. Geophysical exploration, including magnetic, electrical-conductivity and elastic wave apparatus; special apparatus for research into geophysical problems, particularly into patterns of elastic waves as influenced by geological structure; development of military instruments and devices.

Riebsomer, Dr. J(esse) L(eRoy), DePauw University, Greencastle, Ind. *Chemistry.* Connersville, Ind, June 6, 05. A.B, DePauw, 28; Ph.D, Cornell, 32. Asst. prof. *chem, DePauw,* 32–37, assoc. prof, 37–40, *prof, 40–* Summers, mem. synthetic org. dept, Eastman Kodak Co. Chem. Soc; Ind. Acad. Analyses and methods in handling vegetable oils and fats; synthetic medicinals.

Riecken, Prof. W(illia)m (Emil), Millsaps College, Jackson, Miss. *Botany.* Mt. Vernon, Ind, Jan. 23, 92. A.B, Indiana, 23, A.M, 25, Ph.D, 28. Instr. bot, Indiana, 24–28; asst. prof, Ohio Wesleyan, 28–34; *head dept. biol, Millsaps Col, 34–, dean, 39–* A.A; Ohio Acad; Ind. Acad; Miss. Acad. Agrostology.

Riedel, Dr. F. A(therton), Box 211, Morehead State Teachers College, Morehead, Ky. *General science.* Newark, Ohio, June 5, 88. A.B, Miami (Ohio), 07; A.M, Columbia, 26; Ph.D, Colorado, 41. Head science dept, high sch, Colo, 09–25; asst, Lincoln sch, Teachers Col, Columbia, 25–26; *head dept.* science and math, Wilson Teachers Col, D. C, 30–36; *chem, Morehead State Teachers Col, Ky, 42–* Summers, lecturer, teachers insts, Colo, 20–25, Conn, 30–33, Puerto Rico, 29. A.A; Entom. Soc; Asn. Research Sci. Teaching; Ky. Acad. Comparison of teaching methods in science; internal anatomy American lubber grasshoppers.

Riedel, Dr. P(aul) A(rthur), 3515 48th St, Jackson Heights, L. I, N. Y. *Chemistry.* New York, N. Y, Sept. 17, 04. Ch.B, Cornell, 28, Ch.M, 29, Ph.D, 31. Path. chemist, City Hosp, *New York,* 32–42; *senior chemist, Bellevue Hosp, 42–* Chem. Soc. Toxicology; biochemistry; biological chemistry; chemical studies on sulphapyridine and phosphatase; clinical analysis; routine analysis of body fluids; analysis of body fluids for metals, non-volatile and volatile poisons.

Riegel, Dr. Cecilia, 1002 Aikens Road, Philadelphia, Pa. *Biochemistry.* Philadelphia, Pa. M.S, Pennsylvania, 25, Ph.D, 27. Asst. pharmacol. and surg, *Pennsylvania, 27–31, assoc, dept. research surg, sch. med, 31–* Chem. Soc; Soc. Biol. Chem; Physiol. Soc. Phila. Lactic acid metabolism; blood coagulation; gall bladder functions.

Riegel, Prof. Emil Raymond, 3425 Main St, Buffalo, N. Y. *Chemistry.* Metz, France, July 14, 92. B.S, Harvard, 08, M.S, 10, Ph.D, 11. Austin teaching fellow, Harvard, 08–10; chem. industries, 11–20; asst. prof. *chem, Buffalo,* 20–24, assoc. prof, 24–26, *prof, 26–* Chem. Soc. (councilor, west. N. Y. sect, 25–28); Chem. Eng. (chairman, Buffalo membership); Asn. Univ. Prof. (sec'y, Buffalo chap, 24, pres, 25); cor. mem. Acad. nat. de Metz. Industrial and colloidal chemistry; micrographs; organic syntheses.

Riegel, Prof. (Ernest) Byron, Northwestern University, Evanston, Ill. *Biochemistry.* Palmyra, Mo, June 17, 06. A.B, Cent. Col. (Mo), 28; A.M, Illinois, 31, Ph.D, 34. Instr. chem, Cent. Col. (Mo), 28–29; asst, Princeton, 29–30; Illinois, 30–34; biochem, sch. med, George Washington, 34–35; nat. research fellow med, Tech. Hochschule, Danzig, 35–36; Harvard, 36–37; instr. *biochem, Northwestern,* 37–40, asst. prof, 40–43, *assoc. prof, 43–* A.A; Chem. Soc; Soc. Biol. Chem; Asn. Cancer Research. Steroids; carcinogens; vitamin K; homocysteine.

Rieger, Prof. Wray M(ontgomery), 516 S. Halliburton St, Kirksville, Mo. *Organic chemistry.* Kirksville, Mo, May 26, 02. A.B, Missouri, 27; M.S, Chicago, 28; Ph.D, Southern California, 34. Asst. prof. *chem,* Northeast Mo. State Teachers Col, 28–31; instr, Southern California, 33–34; *prof, Northeast Mo. State Teachers Col, 34–* Chem. Soc; Mo. Acad. (chairman chem. sect, 41). Preparation of inulin and levulose.

Rieke, Dr. Carol Anger, 13 Longfellow Road, Cambridge, Mass. *Astronomy, Physics.* Milwaukee, Wis, Jan. 17, 08. A.B, Northwestern, 28, M.S, 29; Whitney fellow, Radcliffe Col, 29–32, Ph.D, 32. Sarah Berliner fellow, 32–33; tutor astron, Radcliffe Col, 33–36; asst. physics, Chicago, 38–42; *war research, 42–* Astron. Soc. Spectroscopic parallaxes; galactic clusters; molecular spectra.

Rieke, Dr. Foster F(rederick), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Barrington, Ill, Dec. 15, 05. B.S, Northwestern, 28; A.M, Harvard, 30, Ph.D, 33. Asst. physics, Harvard, 29–30, instr, 30–36, tutor, 34; asst, Hopkins, 36–37, instr, 37–38; research instr. *chem, Chicago,* 38–41, *research assoc, 41–; elec. eng, Mass. Inst. Tech, 42–* Chemical physics and biophysics.

Rieman, Prof. G(ustav) H(erman), University of Wisconsin, Madison, Wis. *Genetics.* Faribault, Minn, Oct. 31, 02. B.S, Iowa State Col, 25; M.S, Wisconsin, 27, Ph.D, 30. Asst. genetics, Iowa State Col, 25–26; agent, U. S. Dept. Agr, 26–30; asst. plant path, Wisconsin, 29–30; assoc. geneticist, U. S. Dept. Agr, 30–31; director research dept, Associated Seed Growers, Inc, New Haven, 31–36; assoc. prof. *genetics, plant path. and hort, Wisconsin,* 36–41, *prof, 41–* A.A; Genetics Soc; Genetic Asn; Phytopath. Soc; Soc. Hort. Sci. Disease resistance; plant breeding; vegetable improvement.

Rieman, Prof. William, 3d, 256 Seaman St, New Brunswick, N. J. *Chemistry.* Jersey City, N. J, Sept. 4, 99. B.S, Rutgers, 22, Ph.D, 25. Teaching fellow *chem, Rutgers,* 22–23,

instr, 23–26, asst. prof, 26–35, *assoc. prof, 35–* Chem. Soc. (councilor, N. J. sect, 42–). Emulsions; analysis.

Riemenschneider, Roy W(illiam), 48 Cliveden Ave, Glenside, Pa. *Biochemistry.* Ill, May 7, 03. A.B, Illinois, 27; fellow, Maryland, 27–30, M.S, 30; fellow, Nat. Cottonseed Products Asn, 38–39. Junior chemist, bur. animal indust, *U. S. Dept. Agr,* 30–36, asst. chemist, 36–38; *chemist, east. regional research lab, bur. agr. chem. and eng, 39–* Chem. Soc; Oil Chem. Soc. Chemistry of fats and oils; composition and keeping quality of animal fats and oils.

Rienhoff, Dr. W(illiam) F(rancis), Jr, 1201 N. Calvert St, Baltimore, Md. *Surgery.* Springfield, Mo, Oct. 10, 94. A.B, Cornell, 15; M.D, Hopkins, 19. Intern, *Hopkins,* 19–20, asst. res. surgeon, 20–23, res. surgeon, 23–25, asst. surgeon, 25–26, asst. visiting surgeon, 26–38, *visiting surgeon, 38–,* instr. *surg,* 22–32, assoc. clin. surg, 31–32; *assoc. surg, 33–* Attending surgeon, Women's, Union Mem, Church Home, Md. Gen, Mercy, Provident and Marine Hosps. Assoc. ed, 'Surgery,' 36– Gold medal, Am. Asn. Study Goiter, 30. Lieut. commander, U.S.N.R.C. Surg. Asn; fel. Col. Surg; fel. Am. Med. Asn; Asn. Anat; Soc. Univ. Surg; Bronchoscopic Asn; Soc. Thoracic Surg; Soc. Clin. Surg; South. Surg. Asn; South. Med. Asn; Med. and Chirurg. Faculty Md. Metanephros in chick embryos; familial spastic paraplagia; chronic ulcerative colitis; the thyroid gland; gastrectomy; arterio-venous aneurisms; hyperthyroidism; total and partial pneumonectomy and compensatory changes in thoracic cavity.

Ries, Dr. Donald T(immerman), Starved Rock State Park, Utica, Ill. *Entomology, Zoology.* Ithaca, N. Y, Dec. 10, 03. B.S, Cornell, 25, fellow, 28, Am. Iris Soc. fellow, 28–30, Ph.D, 30; M.S, Mich. State Col, 27. Instr. entom, Mich. State Col, 25–27; asst. exten. entomologist, Pa. State Col, 29; agent, Mediterranean fruit-fly project, U. S. Dept. Agr, 30–31; curator entom. and educ, Cranbrook Inst. Science, 31–34; guest, Cornell, 34–36; State Nat. Hist. Surv, Ill, 36–38; *state park naturalist, State Dept. Pub. Works and Bldgs, Ill, 38–; entomologist and lieut, Sanit. Corps, U. S. Army, 43–* State Dept. Conservation, N. Y, 36. Summers, field asst, bur. entom, U. S. Dept. Agr, 24–26. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash; fel. London Entom. Soc; Soc. entom. de France. Biology of the wheat stem sawfly; iris insects; Siricidae; Cephidae; Xiphydriidae.

Ries, Dr. E(mil) D(urbin), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering.* Chicago, Ill, Sept. 7, 00. B.S, Chicago, 20; M.S, Calif. Inst. Tech, 22; M.S, Mass. Inst. Tech, 23, Sc.D, 26. Teaching fellow, Calif. Inst. Tech, 20–21; chem. engineer, Standard Oil Co. of N. J, 22–24; instr. chem. eng, Mass. Inst. Tech, 24–26; prof. and in charge, Pa. State Col, 26–30, director div. indust. research, 27–28; chem. engineer, *ammonia dept, E. I. du Pont de Nemours and Co,* 30–36, research supervisor, 36–38, *asst. director sales, 38–* A.A; Chem. Soc. (councilor, cent. Pa. sect, 28). Contact sulfuric acid; lubrication; pressure synthesis.

Ries, Dr. Ferd(inand) A(ugust), 825 E. 41st St, Baltimore, Md. *Neuropsychiatry.* Baltimore, Md, 99. M.D, Maryland, 21. Assoc. prof. physiol, sch. med, Maryland, 28–35; neuropsychiatrist, Springfield State Hosp, 35–37; *instr. neur, med. sch, Hopkins, 37–* A.A; Physiol. Soc. Medullary reflexes; toxicity of bile salts; secretion of bile.

Ries, Prof. Heinrich, Cornell University, Ithaca, N. Y. *[1]*Geology.* Brooklyn, N. Y, April 30, 71. Ph.B, Columbia, 92, fellow, 93–95, A.M, 94, Ph.D, 96. Asst. miner, Columbia, 96–97; instr. *econ. geol, Cornell,* 98–02, asst. prof, 02–06, prof, 06–39, *emer. prof, 39–,* in charge dept, 14–37. Barnard fellow, Columbia, 97–00. Summers, asst. geologist, N. Y. Geol. Surv, 91, 92, 95; geologist, Mich, 98, 06; Md, 00; N. J, 01, 02; Texas, 03; Wis, 04; Va, 05, 15, 16, 22; Can, 10–14; Ky, 21; special agent, U. S. Geol. Surv, 95–01; geologist, 18; lecturer, pub. schs, N. Y, 95–97. Joseph S. Seaman gold medal, Am. Foundrymen's Asn, 36; jury awards, Atlanta Expos, 95; Pan-Am. Expos, 01; La. Purchase Expos, 04. A.A; Geol. Soc. (1st v. pres, 25, pres, 29); Soc. Econ. Geol; Seismol. Soc; Am. Geog. Soc; Miner. Soc; Min. and Metal. Eng; Ceramic Soc. (pres, 10); Foundrymen's Asn. (tech. director sand research); Ky. Acad; Rochester Acad; Can. Inst. Min. and Metal; British Ceramic Soc. The occurrence, uses and geological distribution of clay.

Ries, Prof. Victor H(einrich), Ohio State University, Columbus, Ohio. *Floriculture.* New York, N. Y, July 29, 94. B.S, Cornell, 15, M.S, 16. Asst. prof. nat. science, Iowa State Teachers Col, 19–20, prof, 20–21; asst. prof. *floriculture,* Purdue, 21–26; Ohio State, 27–40, *assoc. prof, 41–, specialist, agr. exten.* Home beautification.

Riesbol, H(erbert) S(pencer), 727 Mabelle Ave, Moscow, Idaho. *Agricultural hydrology.* Browning, Mont, May 29, 08. B.S, Idaho, 29, Agr.E, 36. Junior engineer, Chicago Bridge and Iron Works, 29–30; junior civil engineer, bur. agr. eng, *U. S. Dept. Agr,* 30–34; assoc. agr. engineer, 34–35, assoc. hydraul. engineer, *soil conservation service,* 35–40, *hydraul. engineer, 40–; lieut, Eng. Corps, U. S. Army.* Chairman joint cmt. hydrol, Am. Soc. Agr. Engineers and Am. Geophys. Union, 40–42. Assoc. Civil Eng; Soc. Agr. Eng. (v. chairman soil and water conservation div, 40, chairman, 41, cmt. run-off, 40–42); Geophys. Union. Soil erosion, and its control in Oklahoma; development of hydrologic studies and measuring devices in Ohio; analysis of run-off rates and amounts in the Pacific Northwest.

Riesch, Dr. Leonard C(hristian), 1327 W. Lippincott St, Philadelphia, Pa. *Chemistry.* Titusville, Pa, June 13, 04. B.S, Phila. Col. Pharmacy, 29, M.S, 30; Harrison fellow, Pennsylvania, 33–34, Ph.D, 34. Chemist, Halcomb Steel Co, 22–24; W. R. Warner Co, 30–31; instr. chem, Drexel Inst, 35; *research chemist, museum, Pennsylvania, 35–* Research chemist, John Wyeth and Brothers, 36– Chem. Soc. Pharmaceutics; catalysis in salt solutions; dissociation constant of acids; analysis of ancient ceramic ware.

Riesen, Prof. A(ustin) H(erbert), Yale Laboratories of Primate Biology, Orange Park, Fla. *Comparative psychology.* Newton, Kans, July 1, 13. A.B, Arizona, 35; Columbia, 32; Ph.D, Yale, 39. Asst. psychobiol, *sch. med, Yale,* 35–37, asst. *primate biol,* 37–39, *research asst, 39–; aviation physiologist, Air Corps, U. S. Army, 43–* A.A; assoc. Psychol. Asn. Comparative, genetic and physiological psychology.

Riess, Prof. B(ernard) F(rank), Hunter College, 68th St. and Park Ave, N. Y. *Psychology.* New York, N. Y, April 28, 07. A.B, Col. City of N. Y, 27, M.S, 29; Ph.D, Columbia, 34. Instr. *psychol, Hunter Col,* 28–38, *asst. prof, 38–* Grant in aid, Social Science Research Council, 39. A.A; Psychol. Asn; Soc. Psychol. Research (trustee); Soc. Psychol. Study Social Issues; Inst. Research Child Psychol. (sec'y); N. Y. Acad. Animal learning; social psychology; psychosomatics.

Rietz, Dr. Edward G(ustave), 1586 Le Roy Ave, Berkeley, Calif. *Chemistry.* Chicago, Ill, Feb. 24, 11. B.S, Chicago, 33, M.S, 35, Ph.D, 39. Asst. prof. chem, Howard Col, 39; asst. chemist, food and drug admin, U. S. Dept. Agr, 39–41, research chemist, 41–43; *lieut, U. S. Naval Res, 43–* Chem. Soc. Carbohydrate chemistry.

Rietz, Prof. H(enry) L(ewis), 128 E. Fairchild St, Iowa City, Iowa. *[2]*Mathematics.* Gilmore, Ohio, Aug. 24, 75. B.S, Ohio State, 99; fellow, Cornell, 00–01, Ph.D, 02. Asst. math, Cornell, 01–02; prof. math. and astron, Butler, 02–03; instr. *math,* Illinois, 03–04, asst. prof, 04–11, assoc. prof, 11–13, prof, 13–18; statistician, Exp. Sta, 07–18; *prof. and head dept, Iowa, 18–* Mem. and consulting actuary, Ill. Pension Laws Cmn, 16, 18; actuarial adviser, Chicago Pension Cmn, 26; actuarial consultant, Fed. Emer. Relief Admin, 34–35. Trustee, Teachers Ins. and Annuity Asn, 34–38. A.A. (v. pres, K, 29); Math. Soc. (assoc. ed, 'Bul,' 20–35, v. pres, 30); Math. Asn. (pres, 24); Inst. Actuaries (v. pres, 19); Statist. Asn. (v. pres, 25); Inst. Math. Statist. (pres, 35); Iowa Acad. (pres, 30); Royal Statist. Soc. Group theory; the mathematics of statistics; actuarial theory.

Rietz, Dr. J(ohn) H(arrison), University of West Virginia, Morgantown, W. Va. *Animal pathology.* Gilmore, Ohio, Aug. 18, 80. D.V.M, Ohio State, 03, M.S, 29. Instr. vet. science, Agr. and Mech. Col. Texas, 03–05; vet. inspector, bur. animal indust, U. S. Dept. Agr, 05–21; asst. veterinarian, live stock sanit. dept, Clemson Col, 21–25; assoc. prof. *animal path, West Virginia,* 27–41, *prof, 41–,* assoc. veterinarian, *Exp. Sta,* 27–41, *animal pathologist, 41–* Special research, U. S. Dept. Agr, Cuba, 16. A.A; Vet. Med. Asn; Soc. Parasitol. Animal husbandry; swine disease; Bang's disease; parasites of sheep, cattle and poultry.

Rieveschl, Dr. George, Jr, University of Cincinnati, Cincinnati, Ohio. *Organic chemistry.* Arlington Heights, Ohio, Jan. 9, 16. A.B, Cincinnati, 37, M.S, 39, Ph.D, 40. Instr. *chem, Cincinnati,* 40–42, *asst. prof, 42–* A.A; Chem. Soc; Ohio Acad. Chemistry of fluorene; local anesthetics; antispasmodics.

Rife, Dr. D(avid) C(ecil), Ohio State University, Columbus, Ohio. *Genetics.* Cedarville, Ohio, Jan. 3, 01. B.S, Cedar-

ville Col, 22; B.S.(Agr), Ohio State, 23, A.M, 31, Ph.D, 33. Instr. science, Giffen Sch. Agr, Khartoum, Anglo-Egyptian Sudan, 27–30; *genetics, Ohio State*, 34–38, asst. prof, 38–42, *assoc. prof, 42–; consulting geneticist, Ohio Exp. Sta, 41–* Genetics Soc. Inheritance of special abilities; diagnosis of dextrality, tuberculosis and intelligence in twins; genetic studies of dermatoglyphics.

Rifenburgh, Dr. S(umner) A(dam), 246 Marstellar St, West Lafayette, Ind. *Zoology*. Rome, Pa, March 13, 96. B.S, Valparaiso, 15, A.B, 16, A.M, 21; M.S, Chicago, 22; Ph.D, Purdue, 35. Asst. bot, Valparaiso, 14–16; instr. and prin, high schs, Ind. and Mich, 15–19; asst. prof. *zool*, Valparaiso, 19–21, prof. and head dept, 22–23; instr, *Purdue*, 23–37, *asst. prof, 37–* Summer, instr, Valparaiso, 18. A.A; Entom. Soc; Eugenics Research Asn; Soc. Parasitol; Ind. Acad. Digestion in Panaria dorotocephala; raising fleas in the laboratory; parasitic copepods; effects of ultra-violet light on Drosophila; mutations in Drosophila; crossing-over in Drosophila males.

Riffenburg, Prof. H(arry) B(uchholz), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry, Chemical engineering*. Ward, Colo, Feb. 28, 91. Ph.B, Denver, 15, A.M, 17; Ph.D, American Univ, 24. Teacher, pub. schs, Colo, 15–16; head dept. science and athletics, Murray State Sch. Agr, Okla, 16–17; asst. prof. chem. and chem. eng, Agr. and Mech. Col. Texas, 17–20; chemist, U. S. Geol. Surv, 20–25; chem. engineer, special investigation, West. Elec. Co, 25–26; chemist, Continental Motors Corp, 26–27; asst. prof. chem, Mich. Col. Min. and Tech, 27–28; *chem. and chem. eng, Va. Polytech*, 28–30, *assoc. prof, 30–* Summers, chemist, West. Chem. Co, 15, special investigator, Tomboy Gold Mines Co, Ltd, 17; instr, George Washington, 21–22. Chem. Soc. (chairman, Blueridge sect, 34; councilor, 35); Eng. Educ; Va. Acad. Geology, ground water resources and quality of waters in Texas, Montana and North Dakota; the treating of tannery wastes; colorimetric determination of chlorides in waters; materials dissolved from glass containers.

Rigby, Dr. George W(ayne), Shipley Road, Wilmington, Del. *Organic chemistry*. Pendleton, Oregon, March 30, 05. A.B, Willamette, 27; M.S, Mass. Inst. Tech, 28, Swett fellow, 28–29, du Pont fellow, 29–30, Ph.D, 30; Pennsylvania, 36–40. Instr, Franklin Union, Boston, 29–30; *research chemist*, du Pont Rayon Co, Buffalo, 30–32, *exp. sta, E. I. du Pont de Nemours and Co, Wilmington, 32–* Chem. Soc. (program chairman, Del. sect, 42). Constitution of flax cellulose; preparation and properties of some mixed aliphatic ethers; cellulose and its derivatives; heterogeneous catalysis; chitin; nylon; criteria of purity.

Rigdon, Dr. Vera E(sta), University of Missouri, Columbia, Mo. *Geography*. Jefferson Co, Nebr. A.B, Nebraska, 21, Ph.D, 34; A.M, California, 23. Instr. geog, Kans. State Teachers Col, Emporia, 22; asst. prof. nat. science, Iowa State Teachers Col, 24–29; prof. *geog*, Wis. State Teachers Col, Oshkosh, 29–30; instr, Ill. State Nor. Univ, 30; prof, Miss. State Teachers Col, Cleveland, 31–32; instr, exten, Nebraska, 35–42; asst. prof, East. Ill. State Teachers Col, 42; *asst. prof, Missouri, 43–* Summers, instr, Northwest. State Teachers Col, Mo, 41; prof, Denver, 42. Economic geography; terminology.

Rigg, Prof. Geo(rge) B(urton), University of Washington, Seattle, Wash. *Botany*. Woodbine, Iowa, Feb. 9, 72. B.S, Iowa, 96, B.Di, 99; A.M, Washington (Seattle), 09; Ph.D, Chicago, 14. Assoc. prin, pub. schs, Iowa, 96–98; teacher science, Woodbine Nor. Sch, Iowa, 98–07; bot. and zool, high sch, Wash, 07–09; instr. *bot, Washington (Seattle)*, 09–13, asst. prof, 13–19, assoc. prof, 19–28, *prof, 28–*, exec. officer dept, 40–42, *mem. staff, oceanog. labs, 30–* Summers, asst. prof, Chicago, 17; Iowa, 25; scientist, kelp investigations, bur. soils, U. S. Dept. Agr, Puget Sound, 11–12, in charge party, Alaska, 13. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; West. Soc. Nat. Plant physiology; sphagnum bogs; oceanography.

Rigg, Prof. Melvin (Gillison), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Psychology*. Eureka, Kans, Oct. 20, 95. A.B, Baker, 16; Cornell, 16–17; Harrison fellow, Pennsylvania, 17–18, 19–20, A.M, 19, Ph.D, 20; Chicago, 22; Ph.D, Ohio State, 29. Asst. prof. psychol. and educ, Oklahoma City Col, 20–22; teacher, high sch, Mo, 22–23; asst. prof. psychol. and educ, Kenyon Col, 23–26, assoc. prof, 26–30, prof. *philos. and psychol*, 30–37; asst. prof, *Okla. Agr. and Mech. Col*, 37–38, *assoc. prof, 38–; lieut, Adj. Gen. Dept, U. S. Army*. Summers, instr, Texas, 21; Col. of Wooster, 28. Assoc. ed, 'Jour. Musicol.' Psychol. Asn; Soc. Aesthetics; South. Soc. Philos. and Psychol; Midwest. Psychol. Asn; Ohio Col. Asn. (pres, psychol. sect, 32). Intelligence of foreign born; measurement of efficiency of college English courses and of ability to appreciate poetry; psychology of music.

Riggs, Prof. Cecil O(rval), 145 W. High St, Waynesburg, Pa. *Physics*. Marshall Co, W. Va, Aug. 22, 99. A.B, West Virginia, 20; M.S, Ohio State, 21. *Prof. physics, Waynesburg Col, 21–; lieut, E-V(S), U. S. Naval Res, 42–* Chairman science div, Asn. Lib. Arts Cols. West. Pa, 40, mem. exec. cmt, 42. Meteorol. Soc; Civilian Pilot Training Coordinators Asn. (exec. cmt, Pa); Asn. Physics Teachers; Chem. Soc; Asn. Physics Teachers West. Pa. (pres, 34–36, sec'y, 36–). Chemistry.

Riggs, E(lmer) S, Field Museum of Natural History, Chicago, Ill. *Vertebrate paleontology*. Nineveh, Ind, 69. A.B, A.M, Kansas, 96; fellow, Princeton, 97–98; Chicago, 02–04. Asst. *paleont*, museum, Kansas, 96–97; asst. curator, *Field Museum Nat. Hist*, 99–21, assoc. curator, 21–37, curator, 37–42, *hon. curator, 42–* In charge Field Museum paleont. expeds, Argentina, 22–27. A.A; Paleont. Soc; Geol. Soc; Asn. Mus; Kans. Acad. Dinosaurs; Carnivora; Miocene mammals; middle Eocene mammals; South American fossil mammals.

Riggs, Prof. Henry Earle, Underdown Road, Barton Hills, Ann Arbor, Mich. *Civil engineering*. Lawrence, Kans, May 8, 65. A.B, Kansas, 86; C.E, Michigan, 10, D.E, 37. In ry. service, 86–96; mem. firm, Riggs and Sherman, 96–12; prof. *civil eng.* and head dept, *Michigan*, 12–30, *hon. prof, 30–, hon. chairman dept, 37–; consulting engineer, 12–* Hon. mem. Civil Eng. (cmt. on valuation, 13–17, director, 32–34, v. pres, 35, pres, 38); Ry. Eng; Inst. Consulting Eng; hon. mem. Mich. Eng. Soc. (pres, 01); Detroit Eng. Soc; Eng. Inst. Can. Valuation of public utility property, especially theories and methods of determination of depreciation.

Riggs, Dr. Lloyd K(endrick), 500 Peshtigo Court, Chicago, Ill. *Biochemistry, Pharmacology*. Castalia, Iowa, June 12, 88. A.B, Leander Clark, 10, A.M, 14; M.S, Chicago, 15, Ph.D, 18. Prof. chem, Leander Clark, 11–14; instr. physiol. chem, Chicago, 17–18; biochem. and pharmacol. research, E. R. Squibb and Sons, 18–26; prof. physiol. and director research, N. J. Col. Pharmacy, Rutgers, 26–36; *director research, Kraft Cheese Co, 36–* A.A. Physiological chemistry.

Riggs, Dr. Lorrin A(ndrews), Brown University, Providence, R. I. *Physiological psychology*. Harput, Turkey, June 11, 12. A.B, Dartmouth Col, 33; A.M, Clark, 34, Ph.D, 36. Nat. research fellow biol. sciences, Johnson foundation med. physics, Pennsylvania, 36–37; instr. psychol, Vermont, 37–38, 39–41; research assoc, *Brown*, 38–39, *research psychologist, 41–* Summers, research interne, Worcester State Hosp, Mass, 33, 34. Assoc. Psychol. Asn. Electrical recording from optic nerve fibers and from the retina.

Riggs, R(obert) J(ennings), Stanolind Oil and Gas Co, Tulsa, Okla. *Geology*. Aintab, Turkey, Jan. 3, 88. A.B, Oberlin Col, 11; Chicago, 11–12; Columbia, 14–15. Mining and geol. engineer, S. Amer, 12–14; petrol. geologist, Texas Co, 14–16; consulting geologist, 16–25; chief geologist, Indian Territory Illum. Oil Co, 25–34; *consulting and research geologist, Stanolind Oil and Gas Co, 34–* Asn. Petrol. Geol. (v. pres, 32); Min. and Metal. Eng. Oil geology of the Mid-Continent area.

Righter, F(rancis) I(rving), U. S. Forest Service, Berkeley, Calif. *Genetics*. Port Jervis, N. Y, Sept. 22, 97. B.S, Cornell, 23, M.F, 28. Asst. agriculturist, Oahu Sugar Co, Hawaii, 26–27; junior forester, South. Forest Exp. Sta, U. S. Forest Service, 28–29; asst. prof. forest management, Cornell, 29–31; *geneticist, inst. forest genetics, Calif. Forest and Range Exp. Sta, U. S. Forest Service, 31–* Soc. Foresters; Genetic Asn. Forestry.

Rightmire, Prof. B(randon) G(arner), 106 Poplar St, Watertown, Mass. *Mechanical engineering*. Columbus, Ohio, Feb. 17, 11. A.B, Ohio State, 32, A.M, 33, B.M.E, 35; Sc.D, Mass. Inst. Tech, 41. Instr. *mech. eng, Mass. Inst. Tech*, 38–42, *asst. prof, 42–* Mech. Eng; Inst. Aeronaut. Sci. Fluid mechanics; hydraulic cavitation.

Rigler, Dr. Leo G, University Hospital, Minneapolis, Minn. *Radiology*. Minneapolis, Minn, Oct. 16, 96. B.S, Minnesota, 17, M.B, 19, M.D, 20. Teaching fellow internal med, Minne-

sota, 21–22; roentgenologist, Minneapolis Gen. Hosp, 22–26; assoc. prof. *radiol, Minnesota*, 27–29, *prof, 29–, chief dept. radiol. and physical therapy, 37–* Roentgenologist, Univ. Hosp; consultant roentgenologist, Minneapolis Gen. Hosp; State Dept. Pub. Institutions, Minn. A.A; Radiol. Soc. N. Amer. (v. pres, 39); Roentgen Ray Soc; Am. Med. Asn; Asn. Thoracic Surg; Minn. Radiol. Soc. (pres, 28–30, sec'y-treas, 30–37, v. pres, 37, pres, 38); Minn. Surg. Soc; Minn. Path. Soc. (pres, 38). Roentgen diagnosis of pleural effusions, thoracic disease, bronchial asthma, cystic disease of lungs and cardiac disease; benign and malignant tumors of the stomach; esophageal changes in disease of the heart and aorta; roentgen studies of liver and spleen; diagnosis of acute abdominal disorders.

Rigler, Dr. Nell E(dward), Agricultural and Mechanical College of Texas, College Station, Texas. *Chemistry.* Waco, Texas, Nov. 2, 08. B.S, Trinity (Texas), 30; A.M, Texas, 32, Ph.D, 35. Asst. chem, Trinity (Texas), 29–30; Texas, 30–31, tutor, 31–33, instr, 33–35; agent, bur. plant indust, U. S. Dept. Agr, 35–37; research chemist, E. R. Squibb and Sons, N. Y, 37; assoc. agronomist, Exp. Sta, N. C. State Col, 37–38; *plant physiologist, Exp. Sta, Agr. and Mech. Col. Texas, 38–* Chem. Soc. Alkoxy ketones; hydantoins; organic medicinals; plant biochemistry; isolation; identification and determination of plant compounds.

Rigney, Prof. J(ackson) A(shcraft), North Carolina State College, Raleigh, N. C. *Field crops.* N. Mex, Jan. 20, 13. B.S, N. Mex. State Col, 34; M.S, Iowa State Col, 35; West Virginia, 36–38. Asst. agron, West Virginia, 36–38; instr. field crops, *N. C. State Col*, 38–39, asst. prof, 39–40, *assoc. prof. field crops and exp. statistics, 41–* Soc. Agron. (program cmt, 42). Soy-bean breeding; field plot technique.

Rigney, Jos(eph) W(heeler), U. S. Department of Agriculture, Silver City, N. Mex. *Horticulture.* Near Huntsville, Ala, July 4, 86. B.S, N. Mex. Col, 11. Asst. prof. hort, N. Mex. Col, 11–14, 16–21, 24–35, dean soldier training, 21–24; county agent, Chavez County, N. Mex, 14–16; *sub-dist. agronomist, soil conservation service, U. S. Dept. Agr, 35–* In charge revegetation work, Civilian Conservation Corps Camps. Ecological factors pertaining to revegetation under sixteen inches of rainfall.

Rigterink, Dr. M(erle) D(ale), Bell Telephone Laboratories, Murray Hill, N. J. *Ceramics, Inorganic chemistry.* Hamilton, Mich, Nov. 22, 12. A.B, Hope Col, 33; Ph.D, Ohio State, 37. Asst. gen. inorg. chem, Ohio State, 33–37; *research engineer, Bell Tel. Labs, 37–* Chem. Soc; Ceramic Soc. Adsorption of dyes by inorganic crystals during their growth from solution; steatite ceramics; refractory oxides; special porcelains; crystal growth; inorganic fillers.

Riker, Prof. A(lbert) J(oyce), University of Wisconsin, Madison, Wis. *[*7] *Botany, Plant pathology.* Wheeling, W. Va, April 3, 94. A.B, Oberlin Col, 17; A.M, Cincinnati, 20; fellow, Wisconsin, 20–22, Ph.D, 22. Asst. bot, Cincinnati, 17–18, instr, 19–20; plant path, Wisconsin, 22–23; nat. research fellow biol, 23–24; fellow, Crop Protection Inst, 24–25; asst. prof. *plant path, Wisconsin*, 25–28, assoc. prof, 28–30, *prof, 30–* Int. Educ. Board fellow, London and Paris, 26–27. Bacteriologist, U. S. Base Hosp. No. 25, 18–19. A.A; Phytopath. Soc. (ed, 'Jour,' 29–32); Soc. Bact; Soc. Foresters; Asn. Cancer Research; Soc. Growth and Develop. Bacterial diseases of plants; physiology of parasitism; pathological growth stimulation; diseases of forest trees.

Riker, Dr. Regina S(tockhausen), University of Wisconsin, Madison, Wis. *Plant pathology.* Philadelphia, Pa, Sept. 7, 94. A.B, Smith Col, 16; A.M, Mt. Holyoke Col, 18; Ph.D, Wisconsin, 23. Asst. bot, Mt. Holyoke Col, 16–18; Wellesley Col, 18–19, instr, 19–20; asst, *Wisconsin*, 20–23, instr, 23–24, *asst.* plant path, 24–34, *plant path. and biochem, 43–* A.A; Bot. Soc. Plant physiology; disease resistance; measurement of vitamins.

Riley, Dr. Augustus, 59 Bay State Road, Boston, Mass. *Urology.* Riley, Ala, Nov. 17, 78. A.B, Oberlin Col, 03; M.D, Harvard, 07. Asst. prof. genito-urinary surg, Harvard Med. Sch. Urol. consultant, Boston City Hosp, Boston Dispensary and Cambridge Hosp. Urol. Asn; Am. Med. Asn; fel. Col. Surg. Syphilis of the bladder; nephropexy for ureteral kinks; the prostate and seminal vesicles as a focus for Staphylococcus septicemia; pain in the kidney region; angioma of the kidney; epidermoid carcinoma of the perineal urethra; conservative kidney surgery; deaths from alypin poisoning; incontinence of urine due to ureteral ectopic; typhoid prostatovesiculitis; polycystic kidneys; foreign bodies in male urethra.

Riley, Dr. Bryan M(ichael), 3564 Poppleton Ave, Omaha, Nebr. *Medicine.* Dawson, Nebr, Feb. 7, 74. A.B, St. Mary's Col. (Kans), 96; M.D, Creighton, 00. Prof. med. and head dept, *col. med, Creighton*, 17–33, dean, 33–39, chief of staff and chairman board admin, 33–39, *emer. prof. med, 39–* Director med. staff, St. Joseph's Hosp. and Sch. Nursing, 21–33, chief of staff and chairman board admin, 33–39. Am. Med. Asn; fel. Col. Physicians; Omaha-Midwest Clin. Soc. (pres, 37); Omaha-Douglas County Med. Soc. (pres, 32).

Riley, C(lifford) G(eorge), Central Experimental Farm, Ottawa, Ont, Can. *Forest pathology.* Toronto, Ont, March 4, 99. B.S.A, Ont. Agr. Col, 23; M.F, Yale, 28. Asst. and demonstrator bot, Toronto, 23–26; asst, B. C. Forest Service, Victoria, 28–30; *forest pathologist, div. bot, Cent. Exp. Farm, Can. Dept. Agr, Ottawa, 30–* Can. Soc. Forest Eng; Can. Phytopath. Soc. Deterioration of pulpwood in log jams and in storage; deterioration in insect-killed spruce; heart-rots of Pinus banksiana and Populus; rusts of pines.

Riley, Dr. Edwin G(lover), 129 Carpenter Ave, Sea Cliff, N. Y. *Malaria.* Atlantic City, N. J, May 14, 11. B.S, Rutgers, 35; M.D, Chicago, 40, Ph.D, 42. Special fellow, int. health div, Rockefeller Foundation, 41–42; asst. director and asst. malariologist, bur. malaria control, State Board Health, Fla, 42–43; *lieut, Med. Corps, U. S. Army, 43–* Immunology of helminth infections; chemotherapy of malaria.

Riley, Dr. Elizabeth F(rances), Purdue University, West Lafayette, Ind. *Organic chemistry.* Greenville, Texas, Sept. 12, 12. A.B, Hardin-Simmons, 29, A.M, 31; Texas, 34–36; fellow, Purdue, 37–41, Ph.D, 41. Asst. chem, Hardin-Simmons, 29–34; tutor, Texas, 34–35; asst. patent div, dept. research and develop, Nat. Aniline and Chem. Co. Div, Allied Chem. and Dye Corp, 41–42; *Nat. Acad. Sciences-Purdue Research Foundation fellow org. chem, Purdue, 42–* Chem. Soc. Nitroparaffins; chlorination.

Riley, Dr. Gardner M(aurice), 1515 Ottawa Drive, Ann Arbor, Mich. *Endocrinology.* Stony Point, N. Y, March 10, 10. A.B, St. Stephen's Col, 31; M.S, Iowa, 34, Ph.D, 36. Research assoc. zool, Iowa, 36–39; asst. physiologist, bur. animal indust, U. S. Dept. Agr, 39–42; *endocrinologist and instr. obstet. and gynecol, med. sch, Michigan, 42–* Soc. Zool. Factors controlling diurnal rhythm of spermatogenesis in birds; light and seasonal reproduction; physiology of the anterior pituitary; factors controlling ovulation in the domestic fowl.

Riley, Dr. G(ordon) A(rthur), Yale University, New Haven, Conn. *Oceanography.* Webb City, Mo, June 1, 11. B.S, Drury Col, 33; M.S, Washington (St. Louis), 34; Ph.D, Yale, 37. Research fellow zool, Yale, 37–38, *marine biologist, Bingham Oceanog. Foundation, 38–; marine physiologist, Woods Hole Oceanog. Inst, 40–* Limnol. Soc; Ecol. Soc. Marine biology; plankton and its ecological relationships.

Riley, Dr. Henry Alsop, 117 E. 72nd St, New York, N. Y. *Neurology.* New York, N. Y, July 23, 87. A.B, Yale, 08; A.M, M.D, Columbia, 12. Instr, *col. physicians and surg, Columbia*, 16–18, assoc. 18–23, asst. prof. neur, 23–30, *prof.* neur. and neuro-anat, 31–39, *clin. neur, 39–* Sec'y-gen, Int. Neur. Cong, 29–33, v. pres, U. S, 35– Neur. Asn. (sec'y, 25–); Asn. Research Nervous and Mental Disease (sec'y, 23–31, v. pres, 31, 37); Am. Med. Asn; N. Y. Neur. Soc. (pres, 32); N. Y. Acad. Med; cor. mem. Paris Neur. Soc; hon. mem. Italian Neur. Soc. Human and comparative morphology of the central nervous system; clinical neurology.

Riley, Prof. Herbert P(arkes), University of Kentucky, Lexington, Ky. *Botany.* Brooklyn, N. Y, June 28, 04. A.B, Princeton, 25, A.M, 29, Francis Hinton Maule fellow, 30–31, Ph.D, 31; Columbia, 25–28; summers, Cornell, 30, 31, 36, Mass. Inst. Tech, 35. Asst. biol, Princeton, 28–30, Charlotte Elizabeth Procter fellow, 31–32; nat. research fellow biol, Bussey Inst, Harvard, 32–34; asst. prof, Newcomb Col, Tulane, 34–38; *bot,* Washington (Seattle), 38–42, assoc. prof, 42; *prof. and head dept, Kentucky, 42–* A.A; Genetic Asn; Genetics Soc; Bot. Soc; Micros. Soc; Torrey Bot. Club; N. Y. Acad; Ky. Acad. Genetics; cytology; natural hybridization and polyploidy in Tradescantia; species in Iris; morphogenesis in Iris; self-sterility in Capsella and Nemesia.

Riley, H(orace) E(lgin), 42 Franklin St, Verona, N. J. *Chemistry, Chemical engineering.* Buffalo, N. Y, Aug. 5, 02. A.B, Marietta Col, 24. Oil inspection, Nat. Ref. Co, 25;

analyst and research chemist, Bakelite Corp, 25– Fel. Inst. Chem; Chem. Soc. (treas, N. Jersey sect, 34–42, chairman-elect, 43). Analytical chemistry; chemical resistance of synthetic plastics; analysis and identification of plastics; rheological characteristics of plastics.

Riley, Prof. H(oward) W(ait), Cornell University, Ithaca, N. Y. *Agricultural engineering.* Orange, N. J, May 2, 79. M.E, Cornell, 01. Chief draftsman, United Telpherage Co, 01–04; engineer, Morse Chain Co, 04–06; instr. exp. eng, *Cornell,* 06–07, farm mech, 07–09, asst. prof, 09–12, *prof,* 12–13, *agr. eng, 13–* Agr. Eng. (pres, 11). Farm machinery, power and buildings.

Riley, Prof. J(oseph) C(ains), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering.* Boston, Mass, 76. B.S, Mass. Inst. Tech, 98. Assoc. prof. mech. eng. and later *prof. heat eng, Mass. Inst. Tech.* Mech. Eng. Heat engineering; mechanical design.

Riley, Dr. Richard F, 260 Crittenden Blvd, Rochester, N. Y. *Physiological chemistry.* South Pasadena, Calif, March 23, 17. A.B, Pomona Col, 39; Ph.D, Rochester, 42. Asst. *biochem. and pharmacol, Rochester, 39–42, instr, 42–* Chem. Soc. Synthesis of unsaturated lipids; determination of amytal in urine.

Riley, Dr. R(obert) H(ickman), 100 Beechwood Ave, Catonsville, Md. *Public health.* Ripley, W. Va, Aug. 13, 79. B.S, Oklahoma, 09, M.D, 13; Dr.P.H, Hopkins, 22. Chief clerk and asst. health commissioner, State Dept. Health, Okla, 09–14; deputy state health officer, *State Dept. Health, Md,* 14–20, chief bur. communicable diseases, 20–25, asst. health director, 25–28, *health director, 28–; lecturer, sch. hygiene and pub. health, Hopkins, 28–* Fel. Pub. Health Asn; fel. Am. Med. Asn; fel. Col. Physicians. Poliomyelitis; psittacosis; rickettsial diseases; typhus; spotted fever; public health aspect of teaching of obstetrics.

Riley, Dr. W(illiam) A(lbert), University of Minnesota, Minneapolis, Minn. *§Zoology.* Mankato, Minn, Jan. 10, 76. B.S, DePauw, 97, hon. Sc.D, 26; fellow, Cornell, 98–99, Ph.D, 03. Asst. zool, DePauw, 96–98; entom, Cornell, 99–01, instr, 01–06, asst. prof, 06–12, prof. entom. and parasitol, 12–18; entom. and chief div. entom. and econ. zool, *Minnesota,* 18–25, zool. and head dept, 25–30, *chief div. entom. and econ. zool, 30–* Visiting prof, Lingnan Univ, 31–32, trustee, 33– Hookworm investigations, P. R, 22, Panama, 26. Ed. board, 'Jour. Parasitol.' A.A; Soc. Nat; Soc. Zool; fel. Entom. Soc. (exec. cmt, pres, 26); Asn. Econ. Entom; Soc. Parasitol. (ed. board, pres, 31); Soc. Trop. Med. Medical entomology; parasitology.

Rimbach, Richard, 1117 Wolfendale St, Pittsburgh, Pa. *Metallurgy.* New York, N. Y, Dec. 24, 95. B.S, Mass. Inst. Tech, 18; hon. B.S, Harvard, 18. Tech. adviser, Standard Steel Spring Co; chairman research information sect, War Metal. Cmt; *publisher, 'Instruments Mag.'* Soc. Metals; Electrochem. Soc; Soc. Test. Mat; Electroplaters Soc; Soc. for Measurement and Control.

Rinde, Charles A(nderson), 406 W. Oak St, Lodi, Calif. *Physics.* Pasadena, Calif, 03. A.B, California, 27; A.M, Col. of Pacific, 30. Managing engineer quartz mining operations, Mariposa County, Calif, 27–29; teacher, high sch, Calif, 29–37; *private writing, research and consulting, 37–;* instr. physics, Polytech. Col, Oakland, 38–39; civilian pilot training ground instr, Sacramento, 40; instr. aeronautics, Santa Rosa Junior Col, 40–42. A.A; Physical Soc; Meteorol. Soc. Color vision; retinal field; chromatic field at various wave-lengths; mining operations; secondary general science materials; pre-induction training matter.

Rinehart, Dr. H(erbert) W(ade), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Baltic, Ohio, Sept. 9, 97. A.B, Oberlin Col, 19, A.M, 20; Ph.D, Yale, 22. Instr. org. chem, Yale, 22–26; *with* ammonia dept, *E. I. du Pont de Nemours and Co,* 26–39, *personnel div, 39–* Chem. Soc. The chemical behavior of the system, ammonia, formaldehyde and prussic acid; high pressure synthesis of alcohols from carbon monoxide and hydrogen.

Rinehart, Prof. James F(leece), University of California Medical School, San Francisco, Calif. *Pathology.* Oakland, Calif, May 7, 01. A.B, California, 23, M.D, 27. Res. pathologist, hosp, California, 29–30; fellow, Thorndike mem. lab, and Littauer fellow of the cancer cmn, Harvard, 30–31; asst. prof. *path, med. sch, California,* 31–36, assoc. prof, 36–42, *prof, 42–* A.A; Soc. Exp. Biol; Asn. Path. and Bact; Soc. Exp. Path; Soc. Clin. Invest; Rheumatism Asn; Am. Med. Asn. Rheumatic fever; rheumatoid arthritis; deficiency diseases; blood cytology.

Rinehart, Dr. John S(argent), National Bureau of Standards, Washington, D. C. *Physics.* Kirksville, Mo, Feb. 8, 15. B.S, Northeast Mo. State Teachers Col, 34, A.B, 35; M.S, Calif. Inst. Tech, 37; Ph.D, Iowa, 40. Asst. physics, Calif. Inst. Tech, 35–37; Iowa, 37–40; instr, Ft. Hays Kans. State Col, 40; Wayne, 41–42; *assoc. physicist, Bur. Standards, 42–; tech. aide, sect. E, div. A, Nat. Defense Research Cmt, 42–* Summer, lecturer, Iowa, 41. Physical Soc; Asn. Physics Teachers. Temperature dependence of Young's modulus of beta-brass single crystals with special reference to the order-disorder transition; temperature dependence of Young's modulus of various plastics materials.

Rinehart, Dr. Robert Fross, Case School of Applied Science, Cleveland, Ohio. *Mathematics.* Springfield, Ohio. May 31, 07. A.B, Wittenberg Col, 30; A.M, Ohio State, 32, scholar, 34, Ph.D, 34. Asst, Ohio State, 30–34; prof. *math,* Ashland Col, 34–37; instr. and later *asst. prof, Case, 37–* Ed. board, 'Nat. Math. Magazine.' Math. Soc. Discriminant matrices of linear associative algebras.

Rinehart, Dr. W(ilmer) T(oney), 4740 Woodlawn Ave, Chicago, Ill. *Physical chemistry.* Preble Co, Ohio, Aug. 10, 07. A.B, Indiana, 29, A.M, 30, Ph.D, 40. Process develop. chemist, Roessler and Hasslacher Chem. Co, 30–31; *research chemist,* plaster sect, U. S. Gypsum Co, 40–42; *Armour Research Foundation, 42–* A.A; Chem. Soc; Inst. Chem. Viscosity; specialty plasters; war research.

Rines, David, First National Bank Bldg, Boston, Mass. *Astronomy.* Russia, April 6, 84. A.B, Harvard, 07; LL.B, LL.M, M.P.L, Nat. Univ, 16. Computer, U. S. Coast and Geod. Surv, 07–09; asst, U. S. Naval Observatory, 10–14; U. S. Patent Office, 14–17; asst. patent attorney, Westinghouse Elec. and Mfg. Co, 17–19; *lawyer, 19–* Lecturer, eng, sch, Harvard, 31– A.A; Astron. Soc; Physical Soc; Optical Soc; Math. Soc; Radio Eng; Bar Asn; Patent Law Asn; Boston Bar Asn; Boston Patent Law Asn. Determination of time and fundamental star positions.

Ring, A(ndrew) D(onald), Ring and Clark, 102 Munsey Bldg, Washington, D. C. *Radio engineering.* Franklin, Tenn, Sept. 2, 99. B.S, Tennessee, 25. Radio engineer in charge design high power broadcast apparatus, Gen. Elec. Co, 25–29; prin. engineer, Fed. Radio Cmn, 29–34, asst. chief engineer, Fed. Communications Cmn, 34–41; *sec'y cmt. IV, Board War Communications, 41–; consulting radio engineer.* In charge broadcast allocation surv, Cmn. Develop. Broadcasting. Radio Eng. Radio broadcasting.

Ring, Prof. Gordon C(lark), Ohio State University, Columbus, Ohio. *Physiology.* Westfield, Mass, Oct. 26, 01. B.S, Wesleyan, 23, A.M, 24; Ph.D, Harvard, 30. Asst, Wesleyan, 22–24; instr, Mass. Col, 24–26; teaching fellow *physiol,* Harvard, 26–30, instr, 30–38; *asst. prof, Ohio State, 38–* Instr, Sargent Sch, Boston, 26–31. A.A; Physiol. Soc; Asn. Study Int. Secretions; Ohio Acad. Physiology of exercise; effects of endocrines upon metabolism; specific dynamic action.

Ringenberg, Lieut. Lawrence A(lbert), Corps of Engineers, Officer Candidate School, Ft. Belvoir, Va. *Mathematics.* Stryker, Ohio, Aug. 21, 15. A.B. and B.S, Bowling Green State Univ, 37; A.M, Ohio State, 39, fellow, 40–41, Ph.D, 41. Asst. math, Ohio State, 37–40; asst. prof, Tusculum Col, 41; *Corps Engineers, U. S. Army, 41–, 2nd lieut.* Functions of intervals.

Ringer, Dr. Michael, 425 West End Ave, New York, N. Y. *Internal medicine.* Wirballen, Russia, July 17, 94. B.S, Col. City of N. Y, 15; M.D, Cornell, 19. Instr. exp. med, Yale, 19–21; physiol, Cornell, 21–23; house staff, Peter Bent Brigham Hosp, Boston, 23–25; *assoc. attending physician, Montefiore Hosp, 25–* Soc. Exp. Biol; fel. N. Y. Acad. Med. Metabolism of carbohydrates and nucleic acids; physiology of shock; blood concentration in disease; minute volume of the circulation in heart disease.

Ringo, Dr. G(eorge) R(oy), 800C S. Washington St, Alexandria, Va. *Experimental physics.* Minot, N. Dak, Jan. 19, 17. B.S, Chicago, 36, Ph.D, 40. Physicist, U. S. Rubber Co, 41; *asst. physicist, Naval Research Lab, 41–* Physical Soc. Mass spectroscopy; supersonics.

Ringoen, Prof. Adolph R, 1469 Grantham St, St. Paul, Minn. *Zoology.* Ridgeway, Iowa, Jan. 1, 87. A.B, Iowa, 09; A.M, Minnesota, 13, Ph.D, 19. From asst. prof. to *prof. zool, Minnesota.* Research fellow biol, Harvard, 37–38. A.A; Soc. Zool; Asn. Anat. Embryology; histology; endocrinology.

Ringrose, Dr. Arthur T, 222 University Ave, Lexington, Ky. *Nutrition.* Prattsburg, N. Y. B.S, Cornell, 30, Ph.D, 35. Asst, poultry dept, Cornell, 30–31, research instr, 31–35; asst. director nutritional research and control lab, Nat. Oil Products Co, Harrison, N. J, 35–37; *instr. poultry husbandry and asst, Exp. Sta, Kentucky, 37–* Cause and prevention of nutritional paralysis in chicks; pellagra-like syndrome in chicks; the nature of vitamin G; the vitamin G requirements of poultry; stability of vitamins A and D in stored feeds.

Rinkenbach, W(illia)m H(enry), Picatinny Arsenal, Dover, N. J. *Chemistry.* Pa, March 17, 94. A.B, Cornell, 15; M.S, Pittsburgh, 22. Chemist, E. I. du Pont de Nemours and Co, 15–18; research chemist, U. S. Bur. Mines, 19–27; asst. chief chemist, *Picatinny Arsenal,* 27–29, chief chemist, 29–42, *prin. chemist, 42–* Lecturer, Pittsburgh, 22–25. Leader, Carnegie Museum ichthyol. expeds, 24, 25. A.A; Chem. Soc; fel. Inst. Chem. Explosives; organic, physical and industrial chemistry.

Rinker, Prof. Jacob A(aron), Eureka College, Eureka, Ill. *Physics.* B.S, Eureka Col, 18; M.S, Chicago, 28, summers, 30, 35, 36. Instr. *physics, Eureka Col,* 19–21, acting prof, 21–23, *prof, 23–* Physical Soc; Asn. Physics Teachers; Ill. Acad. Band spectra of potassium.

Rintelen, Lieut. J(oseph) C(harles), Jr, Bureau of Ordnance, U. S. Navy Department, Washington, D. C. *Metallurgy.* Brooklyn, N. Y, Feb. 25, 07. B.S, Polytech. Inst. Brooklyn, 28; M.S, Cornell, 30; univ. fellow, Duke, 33–36, Ph.D, 36. Teaching fellow, Cornell, 28–30; instr, Carnegie Inst. Tech, 30–33; research metallurgist, Int. Nickel Co, 36–37, asst. supt, 37–42; *lieut, O-V(S), bur. ordnance, U. S. Navy Dept, 42–* Soc. Metals. Carbide precipitation in stainless steel; theory of solutions; solubility of organic compounds; vapor pressures of organic compounds; hemoglobin crystals of amphibians.

Rioch, Prof. D(avid) McK(enzie), Chestnut Lodge Sanitarium, Rockville, Md. *Psychiatry.* Mussoorie, India, July 6, 00. A.B, Butler Col, 20; M.D, Hopkins, 24. Surg. house officer, Peter Bent Brigham Hosp, Boston, 24–26; asst. res. and instr. med, Strong Mem. Hosp. and sch. med. and dentistry, Rochester, 26–28; nat. research fellow, dept. anat, Michigan, and Dutch Cent. Inst. Brain-Research, 28–29; Oxford, 29–30; assoc. physiol, med. sch, Hopkins, 30–31; asst. prof. anat, Harvard Med. Sch, 31–38; prof. neurol, sch. med, Washington (St. Louis), 38–43; *director research, Chestnut Lodge Sanitarium, 43–; fellow, Wash. Sch. Psychiat, 43–* Asst, Oxford, 30. A.A; Asn. Anat; Neur. Asn; Physiol. Soc; Psychiat. Asn; Asn. Research Nervous and Mental Disease. Water diuresis; anatomy of the diencephalon; the knee-jerk; cortex and striatum.

Ripley, Prof. G(iles) E(mmett), 95 S. Duncan St, Fayetteville, Ark. *Physics.* Decatur, Ind, 74. B.S, Purdue, 99, M.S, 02; Chicago, 07–09. Prof. physics and chem, N. Dak. State Nor. Sch, Valley City, 05–08; prof. *physics* and head dept, *Arkansas,* 08–40, *emer. prof, 40–,* dean men, 23. Pres, Vickers Cleaning and Laundry, Inc. Elec. Eng; Ark. Sci. Asn; Ind. Acad. Mechanics; continuous motion of moving pictures; effect of solvents on physical growth; effect of temperature on decay; kindling temperature; energy transfer for power efficiency; self-closing faucets.

Ripley, Dr. P(hilip) O(scar), Central Experimental Farm, Ottawa, Ont, Can. *Field husbandry.* Port Perry, Ont, Can, April 11, 00. B.S.A, Ont. Agr. Col, 22; M.S, Mich. State Col, 29, Ph.D, 40. Supervisor experiments, field husbandry div, Can. Exp. Farm, Ottawa, 22–26; asst. supt, Dom. Exp. Sta, 27–32; *chief asst, field husbandry div, Dom. Exp. Farms Service, 32–* Can. Soc. Tech. Agr. (sec'y soils group, 42; v. pres, 43). Crop rotation and sequence; soil cultivation and fertility; silage production; pasture investigations.

Ripperton, J(ohn) C(arson), University of Hawaii, Honolulu, Hawaii. *Chemistry.* Belle Plain, Kans, 91. A.B, Fairmount Col, 13; M.S, Kans. State Col, 16. Scientist, soil investigations, bur. soils, U. S. Dept. Agr, 17–20; chemist, *Exp. Sta, Hawaii,* 20–36, *agronomist, 36–* Pastures; taro; sweet corn.

Rippie, Dr. C(harles) W(illiam), Painesville, Ohio. *Chemistry.* Wayne, Iowa, Sept. 30, 95. B.S, Michigan, 19; M.S, Illinois, 25, Ph.D, 26. Instr, high sch, Okla, 20–22; consultant chemist and city chemist, Okmulgee, Okla, 22–23; asst, Illinois, 23–26; research chemist, Doherty Research Co, 26–27; head dept. chem, Des Moines, 27–28; research chemist, Shell Petrol. Corp, 28–35; Solvay Process Co, 36–37; petrol. technologist, Solvay Sales Corp, 37–42; Monsanto Chem. Co, 42–43; *supervisor tech. service, Diamond Alkali Co, 43–* Soc. Automotive Eng; Chem. Soc. (councilor); Chem. Eng; Petrol. Inst. Transference numbers of mixed chlorides of sodium and potassium.

Ris, Dr. Hans, Johns Hopkins University, Baltimore, Md. *Cytology.* Bern, Switzerland, June 15, 14. Bern, 33–38; fellow, Rochester, 38–39; Ph.D, Columbia, 42. Asst. *zool,* Columbia, 39–40, lecturer, 41–42; Seessel fellow, Yale, 42; *instr, Hopkins, 42–* Mitosis.

Rishoi, Dr. A(lfred) H(erman), 500 Fifth St, Wilmette, Ill. *Dairy industry, Engineering.* Brookings, S. Dak, Dec. 17, 92. B.S, S. Dak. State Col, 16; Int. Asn. Milk Dealers fellow, Cornell, 23–24, M.S, 24, Ph.D, 38. Asst. state dairy expert, S. Dak, 16–19; creamery operator, 19–21; instr. dairy mfrs, State Col. Wash, 21–24, asst. prof, 24–28; chemist and bacteriologist, West. Dairy Products Co, Seattle, Wash, 28–32; instr. dairy indust, Cornell, 32–38; *research engineer dairy industry equipment, Cherry-Burrell Corp, 38–* A.A; Dairy Sci. Asn. Biology, physical and chemical properties of milk and milk products and their relationship to the design and operation of heat exchange equipment.

Risi, Prof. Jos(eph), 39 Ploermel Ave, Quebec, Que. Can. *Organic chemistry.* Ennetburgen, Switzerland, March 13, 99. M.A, Zug, 18; L.Sc, Fribourg, 22, D.Sc, 25. Lecturer *org. chem, Laval,* 25–28, *prof, 28–* Chem. Soc; fel. Can. Inst. Chem; Schweiz. Chem. Gesell. Emulsions; origin and constitution of maple flavor; polymerization in the polyindene and polystyrene series; wood chemistry; charcoal; gazogene.

Rising, Prof. Louis Walt, University of Washington, Seattle, Wash. *Pharmaceutical chemistry.* Rising, Ill, May 11, 02. Ph.G, B.S, Oregon State Col, 24; fellow, Washington (Seattle), 26–29, M.S, 26, Ph.C, 28, Ph.D, 29. Assoc. prof. pharmacy, South Carolina, 29–30; asst. prof, Rutgers, 30–34; assoc. prof. pharmaceut. chem. and toxicol, *Washington (Seattle),* 34–36, *prof.* pharmaceut. chem, 36–37, *pharmacy, 37–* Assoc. ed, 'Pacific Drug Rev'; collaborator, 'Am. Jour. Pharm. Educ,' 37– Chairman surv. cmt, Nat. Conf. Pharmaceut. Research, 32; U. S. Pharmacopoeia Revision Cmt. Lieut, C.W.S.R. Pharmaceut. Asn. (chairman, membership cmt, 28, sec'y, sect. educ. and legislation, 35, chairman, sect. practical pharmacy and dispensing, 36, board rev, 'Jour,' 34–); Asn. Cols. Pharm. (sec'y, conf. teachers pharmacy, 31, 37, chairman, 32, 38, chairman, cmt. curriculum and teaching, 36). Toxicology; pharmaceutical chemistry; phytochemistry; pharmaceutical economics.

Rising, W(alter) H(amilton), Corning Glass Works, Corning, N. Y. *Chemistry.* Corning, N. Y, Feb. 19, 93. B.S, Michigan, 20. Physical lab, Corning Glass Works, 11–13, chem. lab, 16–17, 19; asst. chem, Michigan, 20; chemist, Spencer Lens Co, N. Y, 20–25; *Corning Glass Works,* 25–30, *patent attorney, 30–* Sergt, C.W.S, 18. Optical glass; telescope disks; glass composition.

Risley, Prof. A(lice) Marguerite, Randolph-Macon Woman's College, Lynchburg, Va. *Astronomy.* Wanakena, N. Y, Sept. 2, 05. A.B, Syracuse, 26, A.M, 28; Augustus Anson Whitney and Benjamin White Whitney fellow, Radcliffe Col, 38–39, Ph.D, 42. Instr. *math, Randolph-Macon Woman's Col,* 28–39, *adj. prof, 39–* Astron. Soc; Inst. Math. Statist; Astron. Soc. Pacific; Va. Acad. Galactic structure; stellar distribution; classification of stellar spectra; determination of stellar colors.

Risley, Dr. P(aul) L(emuel), University of Iowa, Iowa City, Iowa. *Zoology.* Elk Rapids, Mich, May 28, 06. A.B, Albion Col, 27; M.S, Michigan, 29, Ph.D, 31. Asst. *zool,* Michigan, 27–28, instr, 28–31; assoc, *Iowa,* 31–37, asst. prof, 37–42, *assoc. prof, 42–* A.A; Soc. Zool; Asn. Anat; Soc. Nat; Iowa Acad. Sex dimorphism and differentiation; cytology of germ cells; embryogenesis of the reproductive system; developmental anatomy.

Risser, Dr. William C(hristian), Abbott Laboratories, North Chicago, Ill. *Biochemistry.* Washington, Ill, May 31, 15. B.S, Illinois, 37, Ph.D, 40. *Research biochemist, Abbott*

Labs, 40– Preparation and metabolism of amino acids; heparin.

Ritcher, Dr. Paul O(sborn), University of Kentucky, Lexington, Ky. *Entomology.* Washburn, Ill, April 15, 10. A.B, Illinois, 31, A.M, 32; Ph.D, Wisconsin, 35. Asst, Wisconsin, 32–36; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–36; *asst. entomologist, Exp. Sta, Kentucky, 36–* Entom. Soc. Amer; Asn. Econ. Entom. White grubs; spray materials; larval taxonomy; insect biology; methyl bromide fumigation.

Ritchey, Geo(rge) E(dgar), University of Florida. Gainesville, Fla. *Agronomy.* Rising City, Nebr, Aug. 2, 88. B.S, Iowa State Col, 17; M.S, Cornell, 27. Teacher and acting prin, Civil Service, P. I, 13–15; instr, Cornell Col, 17–19; head dept. agron, col. agr. and forestry, Univ. Nanking, 19–26; instr. and asst. prof, Florida, 27–29; agent, *div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29–31, asst. agronomist, 31–32, *assoc. agronomist cooperating with Exp. Sta, Florida, 32–* Soc. Agron. Forage crops.

Ritchey, G(eorge) W(illis), R. F. D, Azusa, Calif. **¹Astronomy.* Tuppers Plains, Ohio, Dec. 31, 64. Cincinnati, 83–84, 86–87. Asst, Cincinnati Observatory, 86–87; instr. manual training, Chicago Manual Training Sch, 88–96; optician, Yerkes Observatory, Chicago, 96–99, supt. instrument construction, 99–04; instr. practical astron, Chicago, 01–04, asst. prof, 04–05; astronomer and supt. instrument construction, Solar Observatory, Carnegie Institution, 05–10, astronomer and optician, 10–19; private astrog. lab, 19–24; director astrophotog. lab, Observatoire de Paris, 24–30; *photog. telescope research, U. S. Naval Observatory, Washington, D. C, 31–* Assoc. Royal Astron. Soc. Development of the reflecting telescope for astronomical photography; design and construction of reflectors; refinements in astronomy and photography; long-exposure photography of the revolving stellar systems, the Spirals; cellular, ventilated glass discs for optical mirrors; the fixed, vertical and universal type of reflecting telescope, having quickly interchangeable focal lengths.

Ritchey, Dr. Harold W, 320 Corona Ave, Long Beach, Calif. *Physical chemistry.* Kokomo, Ind, Oct. 5, 12. B.S, Purdue, 34, fellow, 34, 35, M.S, 36, Ph.D, 38. Instr. and asst, Purdue, 34–38; research chemist, Union Oil Co, Calif, 38–41; *lieut, U. S. Navy, 41–* Caustic attack of iron; electrode potentials; activity coefficients of ammonium chloride in liquid ammonia at 25° C; improved lubricants; electronics.

Ritchey, Lieut. Col. H(erbert) E, 213 Maiden Lane, Lexington, Va. *Organic chemistry.* Rossville, Ind, Sept. 6, 06. A.B, Indiana, 28; M.S, Purdue, 31; Am. Textile Foundation fellow, Illinois, 32–34. Anal. chemist, Ill. Steel Co, 28; instr. chem, Va. Mil. Inst, 30–32; head science dept, Pikeville Col, 34; asst. prof. *chem, Va. Mil. Inst,* 34–40, *assoc. prof, 40–* Chem. Soc; Va. Acad. Ores and extraction of hafnium; moth repellents.

Ritchey, Dr. J. O, 23 E. Ohio St, Indianapolis, Ind. *Medicine.* Owasco, Ind, Feb. 1, 91. B.S, Indiana, 16, M.D, 18, 19, M.S, 21. Intern, Univ. Hosp, *Indiana,* 18–19, res, 19–21, instr. med, *sch. med,* 21–23, asst, 23–27, asst. prof, 27–28, assoc. prof, 28–32, *prof. med. and chairman dept, 32–; private practice and internist, 21–* Fel. Col. Physicians; Am. Med. Asn; Indianapolis Med. Soc. (pres, 41). Nephritis; thyroid disease.

Ritchie, C(harles) F(isher), American Potash and Chemical Corp, Trona, Calif. *Chemistry.* Los Angeles, Calif, June 13, 00. B.S, Calif. Inst. Tech, 22. Research chemist, Celite Products Co, 22–24; Am. Trona Corp, 24–27; chief chemist, Clark Chem. Co, 28; supervisor chem. develop, *Am. Potash and Chem. Corp,* 29–33, *asst. director research, 33–* Chem. Soc; Chem. Eng. Chemical engineering; non-metallic natural resources; improvements on diatomaceous earth products, especially filter aids; sodium and potassium salts from natural deposits; patents.

Ritchie, Prof. Earland, Taylor University, Upland, Ind. *Physics.* Yorktown, Ind, Aug. 2, 98. B.S, Ball State Teachers Col, 25; A.M, Columbia, 26; Ph.D, Indiana, 31. Teacher, schs, Ind, 16–20, high sch, 20–25; acting prof, Doane Col, 26–28; head dept. physics, high sch, Okla, 28 29; teaching fellow, Indiana, 29–31; acting prof. physics, Ind. State Teachers Col, Terre Haute, 31–33; science, Ball State Teachers Col, Ind, 33–34; physics, East. Ill. State Teachers Col, 35–37; prof. math. and physics, Shurtleff Col, 37–38; *prof. physics and dean, Taylor, 38–* A.A; Asn. Physics Teachers; Ind. Acad. Transmission of sound.

Ritchie, Dr. Kenneth S(inclair), 8476 Sunset Blvd, Los Angeles, Calif. *Engineering.* McCook, Nebr, Oct. 31, 97. A.B, Stanford, 21, Chem.E, 23, Ph.D, 26. Asst. petrol. engineer, Marland Oil Co. 27–29; research engineer, Signal Gasoline Co, 29–32; refinery engineer, *Norwalk Co, Los Angeles,* 33–42, *chief engineer, 42–* Lecturer, Taft Junior Col, 36. Min. and Metal. Eng. Petroleum hydrocarbons; gasoline plant and oil refinery engineering; process and design engineering; removal of sulfur compounds from petroleum hydrocarbons.

Ritchie, Dr. Lawrence S(tarr), Woman's College, University of North Carolina, Greensboro, N. C. *Biology.* Glenvil, Nebr, Dec. 9, 06. A.B, Grand Island Col, 28; A.M, Northwestern, 30, Ph.D, 36. Asst. *biol,* Northwestern, 28–30; *instr,* Grand Island Col, 30–31; Northwestern, 31–36; *Woman's Col, North Carolina, 36–* Summer, instr, Grand Island Col, 28. Relation of Endamoeba gingivalis to conditions in the oral cavity; gametogenesis in the human and pig Ascaris.

Ritchie, Prof. Walter S(untz), Massachusetts State College, Amherst, Mass. *Biochemistry.* Ludlow, Ky, April 11, 92. B.S, Ohio State, 16; A.M, Missouri, 18, Ph.D, 22. Instr. agr. chem, Missouri, 16–20, asst. prof, 20–34; *prof. chem. and head dept, col. and Exp. Sta, Mass. State Col, 35–* Chem. Soc. Agricultural chemistry; animal nutrition.

Ritt, Prof. J(oseph) F(els), Columbia University, New York, N. Y. **¹Mathematics.* New York, N. Y, Aug. 23, 93. Col. City of N. Y, 08–10; A.B, George Washington, 13, Sc.D, 32; fellow, Columbia, 14–16, Ph.D, 17. Asst. *math, Columbia,* 16–18, lecturer, 18, instr, 19–21, asst. prof, 21–27, assoc. prof, 27–31, *prof, 31–* Mem, Nat. Research Council, 38–41. Master computer, Ordnance Dept, U.S.A, 18–19. Nat. Acad; A.A; Math. Soc. (v. pres, 38–40); Math. Asn. Theory of functions; functional equations.

Rittenberg, Prof. D(avid), 630 W. 168th St, New York, N. Y. *Biological chemistry.* New York, N. Y, Nov. 11, 06. B.S, Col. City of N. Y, 29; Ph.D, Columbia, 34. Refractories chemist, U. S. Bur. Mines, 29–31; instr. *biochem, Columbia,* 37–41, *asst. prof, 41–* Eli Lilly award, 41. Chem. Soc; Federation Biol. Chemists. Super refractories; thermodynamics; lipid and protein metabolism; isotopes.

Rittenberg, Dr. Sydney C(harles), Tulane University, New Orleans, La. *Bacteriology.* Chicago, Ill, Dec. 19, 14. A.B, California, 35, A.M, 37, Ph.D, 41. Asst. marine bacter, Scripps Inst. Oceanog, California, 37–41; research chemist, Technicolor Motion Picture Corp, 41–42; *chief bacteriologist, cmt. infectious wounds, Nat. Research Council, Tulane, 42–* Soc. Bact. Iodometric determination of copper; potentiometric determination of ruthenium compounds; marine bacteriology; marine sediments; bacteriology of infectious wounds.

Rittenhouse, Dr. Gordon, Box 1558, Greenville, S. C. *Geology.* Chicago, Ill, March 5, 10. B.S, Chicago, 32, M.S, 33, Ph.D, 35; Minnesota, 34–35. Junior engineer, *sedimentation div, soil conservation service, U. S. Dept. Agr,* 35–37, asst. geologist, 37–39, *assoc. geologist, 39–* Geophys. Union. Sedimentation; modern sediments; size analysis; heavy minerals; laboratory technique; pre-Cambrian of Ontario; flood control.

Ritter, Dr. Frank O(lin), 54 Chestnut St, Malverne, L. I, N. Y. *Organic chemistry.* New York, N. Y, Aug. 17, 92. A.B, Cornell, 14; A.M, Columbia, 16; Ph.D, N. Y. Univ, 29. Indust. research, 16–18; instr. chem, Stevens Inst. Tech, 19–20; asst. and *instr. org. chem, N. Y. Univ, 21–* Chem. Soc. Chemistry of the hydrazine derivatives.

Ritter, Dr. Geo(rge) J(oseph), University of Wisconsin, Madison, Wis. *Chemistry.* Appleton, Wis, 86. B.S, Wisconsin, 16, M.S, 17, Ph.D, 20. Sch. supt, Wis, 12–16; instr. chem, Wisconsin, 16–20; *research chemist, U. S. Forest Service, 20–; lecturer forestry and forest products, Wisconsin, 22–* Chem. Soc; Wis. Acad. Chemistry of wood; fiber microstructure.

Ritter, Dr. Sarah M(argaret) M(rs. Ira Brown), 149 Carrollton Road, Norfolk, Va. *Psychology.* Orleans, Ind, March 31, 73. B.S, 91; A.B, Indiana, 10; Ph.D, Chicago, 16. Teacher, pub. and high schs, Ind, 91–09; asst. dept. psychol. and educ, Winthrop Col, 14–18; head dept, Sioux City Nor. Sch, 18–19; Womans Col. of Ala, 19–25; Wesleyan Col. (Ga), 25–28; head dept. sociol. and social psychol, Huntingdon Col. (Ala), 30–35. Visiting prof, Soochow Univ, 28–30. Summer,

asst, Indiana, 10. A.A; Psychol. Asn. Vertical-horizontal illusion; meridional disparities in the visual field.

Ritter, Prof. W(illia)m E(merson), University of California, Berkeley, Calif. *[*1]Zoology, Biology.* Columbia Co, Wis, Nov. 19, 56. B.S, California, 88, LL.D, 33; A.M, Harvard, 91, Ph.D, 93. Instr. biol, *California,* 91–93, asst. prof. *zool,* 93–98, assoc. prof, 98–02, prof, 02–23, *emer. prof, 23–; hon. pres, Science Service.* Director, Scripps Institution, California, 09–23, emer. director, 23– Int. Cong. Hist. Science and Technol, London, 31. A.A. (v. pres, F, 09, pres, Pacific div, 20); Soc. Nat; Soc. Zool. (v. pres, 15); Soc. Mammal; Ecol. Soc; Am. Acad; Pacific Biol. Soc. (pres, 12); West. Soc. Nat; fel. Calif. Acad. (pres, 98–00, v. pres); Wash. Acad; cor. mem. Acad. Nat. Sci. Phila; fel. San Diego Nat. Hist. Soc. Pineal organ; eyes and sense organs of Point Loma blind fish; budding in ascidians; morphology and taxonomy of ascidians and Enteropneusta; habits of salamanders; resources and population of North Pacific area; organic growth and integration; animal activities in nature, especially birds; philosophical aspects of zoology and biology.

Ritti, Prof. Mabel M(arguerite), Hunter College, 68th St. and Park Ave, New York, N. Y. *Physiology.* New York, N. Y, Oct. 5, 90. A.B, Hunter Col, 13; A.M, Columbia, 16. Instr. *physiol, Hunter Col,* 16–27, *asst. prof, 27–* A.A. Teaching of physiology.

Rittman, Dr. W(alter) F(rank), 6112 Alder St, Pittsburgh, Pa. *Chemical engineering.* Sandusky, Ohio, Dec. 2, 83. A.B, Swarthmore Col, 08, A.M, 09, M.E, 11, Chem.E, 16; Ph.D, Columbia, 14. Instr. chem, Swarthmore Col, 09–12; chief petrol. chemist, U. S. Bur. Mines, 14–16; consulting chemist, 16–21; head dept. commercial eng, Carnegie Inst. Tech, 21–32; *consulting engineer, 32–* Lecturer, Columbia, 14. Consulting engineer, State of Pa, 24–25. A.A; Chem. Eng; Chem. Soc; Min. and Metal. Eng; Mech. Eng; Indust. Eng. (pres); Franklin Inst; Chemists' Club. Chemical and industrial engineering; fuel oil and gas.

Rittner, Dr. E(dmund) S(idney), 11 Everett St, Cambridge, Mass. *Chemistry.* Boston, Mass, May 29, 19. B.S, Mass. Inst. Tech, 39, Ph.D, 41. A. D. Little fellow chem, *Mass. Inst. Tech,* 41–42, *research assoc, div. indust. cooperation, 42–* Chemical effect of sonic energy; polymorphism; coprecipitation.

Ritvo, Dr. Max, 485 Commonwealth Ave, Boston, Mass. *Roentgenology.* Russia, Dec. 19, 96. A.B, Harvard, 18, M.D, 22. Asst. prof. and assoc. prof. radiol, med. col, Tufts, 35–40; *asst. prof. roentgenol, Harvard Med. Sch, 40–* Am. Med. Asn; Radiol. Soc; New Eng. Roentgen Soc; Mass. Med. Soc. (councillor, 39–); Greater Boston Med. Soc. (pres, 39). Clinical roentgenology, diagnosis and therapy.

Ritzman, Prof. C(arl) H(arry), University of Oklahoma, Norman, Okla. *Speech pathology.* Superior, Wis, Jan. 8, 12. B.Ed, Wis. State Teachers Col, 34; summers, Northwestern, 34; Wisconsin, 37; A.M, Iowa, 35, Ph.D, 41. Instr. advanced subjects, exten. sch, Minnesota, 35–36; *speech, Oklahoma,* 36–39, asst. prof, 40–43, *assoc. prof, 43–, director speech clinic, 37–* Summer, speech specialist, Portland Summer Session, 42. Speech Correction Asn. Etiology of stuttering; metabolic and cardiovascular study of stutterers and non-stutterers.

Ritzmann, O(tto) F, P. O. Drawer 2038, Pittsburgh, Pa. *Geophysics.* Philadelphia, Pa, Nov. 22, 01. B.S, Pa. State Col, 22, M.S, 24. Instr. physics, Pa. State Col, 22–24; teaching fellow, Calif. Inst. Tech, 24–27; instr, Mich. Col. Mines, 27–28; Lehigh, 28–29; *physicist, Gulf Research and Develop. Co, 29–* A.A; Physical Soc; Geophys. Union; Soc. Explor. Geophys. Seismic and electrical methods of geophysical prospecting; vibration; acoustic and recording instruments.

Riven, Prof. Samuel S(aul), Vanderbilt University Hospital, Nashville, Tenn. *Internal medicine.* Montreal, Que, Can, Aug. 26, 01. M.D, McGill, 25. Instr. internal med, Michigan, 27–30; *clin. med, Vanderbilt,* 30–31, *asst. prof, 31–* Am. Med. Asn; Col. Physicians. Heart disease.

Rivera, Dr. Trinita, 535 W. 113th St, New York, N. Y. *Chemistry.* Gurabo, P. R, April 19, 07. A.B, Columbia, 27, A.M, 32, Ph.D, 36. Asst. chem, Columbia Sch. Trop. Med, Puerto Rico, 27–31, instr, 32–36; *chief chemist, Killian Research Labs, 36–* Teacher, Barnard Col. and Marymount Col, 33–36. Chem. Soc. Analytical and organic chemistry; chemistry of the vitamins.

Rivero, Dr. Luis Howell, University of Havana, Havana, Cuba. *Ichthyology.* Havana, Cuba, Sept. 23, 06. B.S, Inst. de Segunda Enseñanza de la Habana, Cuba, 25; Dr. Nat. Sci, Havana, 30. Hon. asst. nat. hist, Inst. de Segunda Enseñanza de la Habana, Cuba, 24–26; hon. asst. geol, *Havana,* 27–30, *asst, sch. sci, 30–,* curator dept. fishes, 39. Guggenheim Mem. Foundation fellow, museum comp. zool, Harvard, 34–36; mem, Cuban Bur. Fisheries, 37– Mem. surv. fishes of Jamaica, Dept. Science and Agr, Jamaica, 37. Mem, Harvard-Havana Atlantis expeds, 38, 39. Soc. Ichthyol. and Herp. (governor, 36–); N. Y. Acad; Soc. Geog. de Cuba (gen. sec'y, 38–42; governor, 42–); Soc. Cubana de Hist. Nat. Felipe Poey. Taxonomy and biology of West Indian fauna, especially that of Cuban waters.

Rivers, Dr. J(oseph) T(racy), E. I. du Pont de Nemours and Co, Martinsville, Va. *Chemistry.* Louisville, Ky, May 29, 15. B.S, Haverford Col, 37; Ph.D, Mass. Inst. Tech, 42. Teaching fellow org. chem, Mass. Inst. Tech, 37–38, instr, 38, wrestling coach, 39–41; *research chemist, E. I. du Pont de Nemours and Co, 42–* Textile chemistry of nylons; synthesis of carotenoids related to beta carotene.

Rivers, Dr. T(homas) M(ilton), Rockefeller Institute, New York, N. Y. *[*5]Pathology, Medicine, Bacteriology.* Jonesboro, Ga, Sept. 3, 88. A.B, Emory, 09, Sc.D, 36; M.D, Hopkins, 15; Sc.D, Rochester, 38; Chicago, 41. Asst. bacteriologist, Santo Tomas Hosp, Panama, 12–13; instr. pediat, Hopkins, 17–18, bacter, 19–20, assoc, 20–22; *Rockefeller Inst,* 22–24, assoc. mem, 24–27, *mem, 27–, director, Rockefeller Hosp, 37–* Mem, Board Health, New York; board sci. directors, int. health div, Rockefeller Foundation; advisory cmt, Nat. Foundation Infantile Paralysis. Pres, Int. Cong. Microbiol, 39. Nat. Acad; A.A; Soc. Exp. Path; Soc. Bact. (pres, 36); Asn. Immunol. (pres, 34); Soc. Clin. Invest. (pres, 32); Am. Physicians; Pediat. Soc; Harvey Soc. (treas, 33–38); Interurban Clin. Club. Bacteriology of respiratory diseases; classification of influenza bacilli; influenza meningitis; filterable viruses; chicken-pox; measles.

Rizzolo, Dr. Attilio, 264 Garside St, Newark, N. J. *Neurophysiology.* Callabritto, Italy, Jan. 30, 99. B.H, Springfield Col, 21; fellow, Clark, 22, A.M, 22; D.Sc, Paris, 28; Ph.D, Columbia, 30; M.D, Rome, 34. Asst. human physiol. and physiol. chem, Rome, 24–26; gen. physiol, Paris, 26–28; nat. research fellow biol, 28–30; research, Rome, 30–35; *practising physician and research physio-path, 35–; director, Rizzolo Labs. Med. Biophysics, 41–* Biochem. Soc. Rome; Italian Biol. Soc. Neurosurgery; physiology of the central nervous system; psychology; pathological, normal and abnormal functioning of the central nervous system; the isochronism of the reflex; epilepsy; tuberculosis.

Roach, Prof. Franklin E(vans), University of Arizona, Tucson, Ariz. *Astrophysics.* Jamestown, Mich, Sept. 23, 05. B.S, Michigan, 27; M.S, Chicago, 30, Ph.D, 34. Asst, Wheaton Col. (Ill), 28–29; Yerkes Observatory, Chicago, 29–30, 32–34; research physicist, A. O. Smith Corp, Milwaukee, 30–32; asst, Yerkes and McDonald Observatories, Chicago, 34–36; instr. *physics and astron, Arizona,* 36–37, *asst. prof, 37–* Sec'y-treas, State Basic Science Board, Ariz. Astron. Soc. Stellar spectroscopy; spectrochemical analysis; photoelectric photometry.

Roadhouse, Prof. C(hester) L(inwood), College of Agriculture, University of California, Davis, Calif. *Dairying.* Watsonville, Calif, Jan. 5, 81. D.V.M, Cornell, 06. Vet. inspector, bur. animal indust, U. S. Dept. Agr, 06–08; chief dairy inspector, Dept. Pub. Health, San Francisco, 09; city veterinarian in charge milk supply, Berkeley, 10; instr. and assoc. prof. vet. science, *col. agr, California,* 10–17, *prof. dairy indust, 17–* Pres, Pacific Slope Dairy Show; U. S. del, World's Dairy Cong, Berlin, 37. Medal, Pan-Pacific Int. Expos. Dairy Sci. Asn. (ed. board, 'Jour,' 17–26, past pres); Int. Asn. Dairy and Milk Inspectors (past pres). The control of tuberculosis in certified dairies; Bacillus enteritidis as the cause of infectious diarrhea in calves; the relation of acidity to butterfat content in milk and cream; taste and flavor of milk and their control; corrosion of metals by milk and its relation to the oxidized flavors in milk; measuring the oxidizability of milk fat; the market milk industry.

Roark, Louis, 2652 S. Trenton St, Tulsa, Okla. *Geology.* Kingfisher, Okla, Feb. 9, 90. A.B, Oklahoma, 12; Chicago, 12–13; M.S, Indiana, 21. Asst. prof. geol, Miss. Agr. and Mech. Col, 13–16; field geologist, Gypsy Oil Co, 16–17; asst. prof. geol, Indiana, 17–18; field and dist. geologist, Shell Petrol. Corp, 18–23; chief geologist, Kingwood Oil Co, 23–28; consulting geologist and petrol. engineer, 28–29; chief

geologist, Red Bank Oil Co, 29–30; consulting geologist and petrol. engineer, 30–40; *chief geologist, Margay Oil Corp, 40–* U. S. Geol. Surv, Wyo, N. Dak. and S. Dak, 11–12; field geologist, Ill. Geol. Surv, 13; chief field party, Wis. Geol. Surv, 14. Asn. Petrol. Geol; Min. and Metal. Eng. Petroleum engineering; field methods in the Mid-Continent oil fields; the Hewitt oil field; Healdton oil field, Oklahoma; petroleum engineering in the Papoose oil field.

Roark, Prof. Raymond J(efferson), University of Wisconsin, Madison, Wis. *Mechanics.* Greenville, Ky, July 25, 90. B.S, Illinois, 11, M.S, 12. Detailer and designer, T. L. Condron Co, Ill, 12; instr, Wisconsin, 13–16; assoc. prof. mech. and hydraul, Iowa, 19–20; asst. prof. *mech, Wisconsin,* 20–27, assoc. prof, 27–33, *prof, 33–* F.A, 17–19, capt. Eng. Educ. Theoretical and applied mechanics; properties of materials of construction; elasticity; stress analysis; aeronautics.

Roark, Dr. R(uric) C(reegan), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Glasgow, Ky, March 13, 87. A.B, Cincinnati, 07; A.M, Illinois, 08; Ph.D, George Washington, 17. Asst. chemist, bur. chem, U. S. Dept. Agr, 08–17; chief chemist, U. S. Sanit. Specialties Corp, Ill, 18; research chemist, Gen. Chem. Co, 18–23; assoc. chemist, bur. chem, *U. S. Dept. Agr, 23–27, prin. chemist in charge insecticide div, bur. entom. and plant quarantine, 28–* A.A; Chem. Soc; Agr. Chem. (referee, insecticides, 14–16); Asn. Econ. Entom. Insecticides.

Roast, Harold J(ames), 999 Delormier Ave, Montreal, Que, Can. *Chemistry, Metallurgy, Metallography.* London, Eng, Nov. 21, 82. Grad, City of London Col. Chemist in charge, Can. Iron Foundries, Radnor Forges, Que, 03; works manager, Can. Carbonate Co, Montreal, 04; gen. manager, Can. Magnesite Co, 07; manager testing dept, James Robertson Co, 14; v. pres. and gen. manager, Nat. Bronze Co, 22–26, pres, 26–28, metal. director, Robert Mitchell Co, 28–33; *owner, Roast Labs, 10–; lecturer in charge metallog, McGill, 19–;* tech. adviser, *Can. Bronze Co,* 33–35, *v. pres. in charge tech. operations, 35–* Extramural lecturer, McGill. Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat; Min. and Metal. Eng; Inst. Metals (Can. rep); Foundrymen's Asn. (v. chairman, Can. sect); fel. Can. Inst. Chem; Eng. Inst. Can; fel. London Chem. Soc; Asn. Professional Chemists, Que. Metallurgical chemistry; antimonial lead bullet alloy; arsenical alloys; bronze bearing metal.

Roback, Dr. A(braham) A(ron), 8 Prescott St, Cambridge, Mass. *Psychology.* June 19, 90. B.A, McGill, 12; A.M, Harvard, 13, Ph.D, 17; traveling fellow, Princeton, 16. Instr. psychol, Pittsburgh, 17; prof. psychol. and English, Northeastern, 18–21; instr, Harvard, 20–23; nat. research fellow, 23–25; *lecturer, univ. exten, State Dept. Educ, Mass, 26–* Lecturer, Simmons Col. (Mass), 19–21; New Hampshire, 22; Clark, 22; Mass. Inst. Tech, 26. Ed. board, 'Character and Personality.' Psychol. Corp. A.A; Psychol. Asn; Philos. Asn; hon. fel. Jewish Acad. Experimental and applied psychology; interference of will impulses; the graphic mechanism; group tests; behaviorism; psychology of character; personality; philosophy; folk and ethnic psychology; business psychology; history of psychology; self-consciousness; psychography; terminology.

Robb, Prof. B(yron) B(urnett), Forest Home Drive, Ithaca, N. Y. *Agricultural engineering.* Webster, N. Y, Aug. 8, 82. B.S, Cornell, 11, M.S.A, 13. Teacher, pub. schs, N. Y, 05–07; instr, *Cornell,* 11–13, asst. prof, 13–19, *prof. agr. eng, 19–* Summers, drainage engineer, State Dept. Agr, N. Y, 11–15. Agr. Eng. (chairman, N. Atlantic sect). Application of engineering principles to agriculture; uses of paints and of electrical energy in agriculture; the removal of excess water from farm lands.

Robb, Prof. Charles A(lexander), University of Alberta, Edmonton, Alta, Can. *Mechanical engineering.* Amherst, N. S, Jan. 28, 88. B.Sc, McGill, 09; M.S, Mass. Inst. Tech, 10. Apprentice, Allis Chalmers Co, West Allis, Wis; designer, Robb Eng. Co, Amherst, N. S, Can, 10–11; asst. mech. eng, Mass. Inst. Tech, 11–12; lecturer, Alberta, 12–16; supt. gauge production, Imp. Munitions Board, Ottawa, 16–17; tech. asst. to U. S. rep, Imp. Munitions Board, Washington, D. C, 17–18; asst. prof. *mech. eng, Alberta,* 19, assoc. prof, 20, *prof, 21–* Assoc. Mech. Eng; Eng. Inst. Can; Asn. Professional Eng. Alta. (pres, 23). Fuels and combustion; operation of aero-engines at low temperatures; behavior of natural gas wells; recompression phenomena in steam nozzles.

Robb, Dr. Elda, 31 Bay State Road, Boston, Mass. *Nutrition.* Croswell, Mich, Nov. 13, 95. B.S, Mich. State Col, 16; A.M, California, 25; Spelman fellow, Columbia, 25–26, Ph.D, 34. Teacher, pub. schs, Mich, 16–18, asst. leader, State Junior Exten. Dept, 18–24; nutritionist, Cincinnati, 26–27; child develop. inst, Columbia, 28–37; instr. and asst. prof. chem. and nutrition, Temple, 37–41; *director sch. home econ, Simmons Col, 41–* Energy metabolism; nutrition of children.

Robb, Prof. Jane Sands, University of Syracuse College of Medicine, Syracuse, N. Y. *Physiology, Pharmacology.* Corning, N. Y, Nov. 20, 93. A.B, Syracuse, 15; M.D, Woman's Med. Col. of Pa, 18; Sc.D, Pennsylvania, 24. Intern, Phila. Gen. Hosp, 19–20, asst. res. physician, 21–23; asst. and instr. med. and cardiol, Woman's Med. Col. of Pa, 21–23; nat. research fellow med, Edinburgh, Cambridge and Western Reserve, 23–25; acting prof, Woman's Med. Col. of Pa, 25–26, prof, 26–30; *assoc. prof. pharmacol, col. med, Syracuse, 30–, in charge course, 43–* Instr, Pennsylvania, 22–24; physician, Bryn Mawr Col, 20–21; Sara Berliner fellow, 27. Am. Med. Asn. research grant; bronze medal, Am. Med. Asn. and Can. Med. Asn, 35. Physiol. Soc; Soc. Exp. Biol; Heart Asn; Physiol. Soc. Phila. Pulse wave velocity; aortic regurgitation; reflexes from the veins; cardiac and circulatory diseases; structure of the mammalian auricle and ventricle; physiology and pathology of ventricular muscles; carbon monoxide poisoning; localization of infarcts.

Robb, Dr. R(obert) Cumming, 22 Main St, Phoenix, N. Y. *Medicine, Genetics.* Song Jin, Korea, Aug. 21, 03. B.A, Dalhousie, 24, M.A, 26; 1851 Exhib. scholar, Harvard, 26–28, M.S, 27, Sc.D, 28; M.D, Syracuse, 35. Asst. zool, Dalhousie, 24–26; nat. research fellow, col. physicians and surg, Columbia, 28–29; intern, Strong Mem. Hosp, Rochester, 35–36; instr. anat, col. med, Syracuse, 36–38; *practising physician, 38–* Joint bronze medalist, Am. Med. Asn, 35. A.A; Am. Med. Asn; Genetic Asn. Medical genetics; pituitary and size inheritance; organ size regulation; racial growth in the evolution of the horse; cardiac anatomy and physiology; diseases in twins.

Robb, Prof. R(obert) G(llchrist), College of William and Mary, Williamsburg, Va. *Chemistry.* Port Royal, Va, Oct. 22, 75. A.B, B.S, Virginia, 97, A.M, 00; D.Sc, St. Stephen's Col, 10. Prof. math. and chem, Miller Sch, Va, 00–03; physics and chem, St. Stephen's Col, 03–18; org. chem, *Col. of William and Mary,* 18–25, *head dept. chem, 25–* Major, C.W.Res. A.A; Chem. Soc. Electrolysis.

Robbie, Dr. Wilbur A(lexander), 1041 26th St, S.E, Cedar Rapids, Iowa. *Physiology.* Cedar Rapids, Iowa, Dec. 23, 12. A.B, Coe Col, 34; M.S, Iowa, 38, Ph.D, 40. Research assoc. radiol, *Iowa,* 40, *instr. biochem, 41–* Biochemistry; cellular respiration.

Robbins, Prof. A(rthur) G(raham), 12 Grove St, Winchester, Mass. *Civil engineering.* Carlisle, Mass, July 11, 62. B.S, Mass. Inst. Tech, 86. From asst. to prof. *civil eng, Mass. Inst. Tech,* 86–32, *emer. prof, 32–* Affiliate mem. Civil Eng; Boston Soc. Civil Eng.

Robbins, Dr. Benjamin H(oward), Bear Road, Nashville, Tenn. *Pharmacology.* Byrdstown, Tenn, Dec. 18, 04. A.B, Berea Col, 25; M.S, Vanderbilt, 26, M.D, 33. Asst, *sch. med, Vanderbilt,* 26–33, asst. prof. *pharmacol,* 33–35, *assoc. prof, 35–* A.A; Soc. Pharmacol. Anthelmintics; anesthetics; proteolytic enzymes.

Robbins, Prof. Charles Kendall, 418 Vine St, West Lafayette, Ind. *Mathematics.* Angelica, N. Y, April 21, 88. A.B, Hobart Col, 10; A.M, Harvard, 13. Instr. *math, Purdue,* 14–20, *asst. prof, 20–* A.A; Math. Soc; Math. Asn. (chairman Ind. sect, 38); Ind. Acad. (chairman, div. math, 37). Contact transformations; calculus.

Robbins, Dr. D(aniel) S(tucker), 343 Armijo St, Las Cruces, N. Mex. *Physics.* Asbury, Pa, 21, 64. B.S, N. Ind. Nor. Sch, 89, M.S, 94; Rush, Chicago, 04, Chicago, 06; Ph.D, Valparaiso, 07. Prof. math, Chillicothe Nor. Sch, Mo, 90–97, pres, 97–98; Stanberry Nor. Sch, Mo, 98–03; consulting engineer, 08–18; prof. gen. eng, *N. Mex. Col,* 19–22, *physics,* 22–33, *emer. prof, 33–,* acting dean sch. eng, 29–30. Asn. Eng. (director and exec. cmt, 20–24, treas, southwest. div, 21–23, v. pres, 23); N. Mex. Asn. Adv. Sci. (pres, 24). Electron theory of matter; x-ray spectroscopy.

Robbins, Prof. E(rnest) T(hompson), University of Illinois, Urbana, Ill. *Animal husbandry.* Payson, Ill, June 27, 78. B.S, Illinois, 00; M.S.A, Iowa, 07. Asst. animal hus-

bandman, Iowa State Col, 05–09; prof. animal husbandry, Chicago Vet. Col, 09–13; agr. county agent, Tazewell Co, Ill, 13–18; farm manager, H. F. Scarborough, Payson, Ill, 18–20; agr. county agent, DeWitt Co, Ill, 20–23; *livestock exten. specialist, Illinois, 23–* Assoc. ed, 'Breeder's Gazette,' 09–13. Saddle and Sirloin gold medal, 12. Soc. Animal Production. Corn feeding in pork production; tuberculosis in swine; work horse rations; roots and corn silage for fattening lambs; influence of feeding sugar beets and mangels to breeding animals.

Robbins, Prof. Floy B, Murray State Teachers College, Murray, Ky. *Geography.* Forest, Miss, May 21, 87. B.S, George Peabody Col, 25, A.M, 27, Ph.D, 30. Teacher and prin, pub. sch, Miss, 11–20; elementary supervisor, La. State Teachers Col, 22–25; *geol. and geog, Murray State Teachers Col, Ky, 26–31, prof. and head dept, 31–* Nat. Council Geog; Ky. Acad. Geography of western Tennessee; geographic interpretation of the Brazilian coffee industry; the function of geography; teaching grade arithmetics; training of geography teachers.

Robbins, Dr. Frieda S, School of Medicine and Dentistry, University of Rochester, Rochester, N. Y. *Physiology, Experimental pathology.* Euskirchen, Germany, June 8, 93. Chicago; Ph.D, Rochester, 34. Asst, Hooper Foundation, California, 17–22; *assoc. path, sch. med. and dentistry, Rochester, 22–* Vol. asst, Rockefeller Inst, 26; lecturer, exten. div, Rochester, 30. Physiol. Soc; Soc. Exp. Path; Soc. Exp. Biol. Liver physiology; anemia; blood regeneration; plasma proteins; blood volume; blood gases; nitrogen metabolism; muscle and blood hemoglobin.

Robbins, Dr. H(erbert) E(llis), New York University, New York, N. Y. *Mathematics.* New Castle, Pa, Jan. 12, 15. A.B, Harvard, 35, A.M, 36, Ph.D, 38. Instr. and tutor math, Harvard, 36–38; asst, Inst. Advanced Study, 38–39; *instr. math, N. Y. Univ, 39–* Math. Soc. Topology and applications.

Robbins, Dr. Rainard B(enton), 522 Fifth Ave, New York, N. Y. *Mathematics.* Clinton Co, Ind, April 21, 86. A.B, Indiana, 09, A.M, 10; Ph.D, Harvard, 14. Instr. math, Harvard, 12–14; Sheffield Sci. Sch, Yale, 14–17; Michigan, 17–23; N. Y. Ins. Dept, 23–27; v. pres, Union Labor Life Ins. Co, 27–31; *sec'y, Teachers Ins. and Annuity Asn, 31–, v. pres, 37–* Math. Soc; Actuarial Soc; Am. Inst. Actuaries; Statist. Asn; Casualty Actuarial Soc. Statistics; actuarial science; applications of mathematics to biology; retirement and social security problems.

Robbins, Samuel D(owse), 40 Centre Ave, Belmont, Mass. *Psychology.* Belmont, Mass, Dec. 28, 87. A.B, Harvard, 11, A.M, 19. Prin, Robbins Sch. for Stammerers, 14–15; director, Boston Stammerers' Inst, 16–40; *prof. psychol, Emerson Col, 37–* Speech corrector, Mass. Gen. Hosp, 20–; Mass. Div. Mental Hygiene, 27– Managing trustee, Inst. Speech Correction, Inc, 40– A.A; Psychol. Asn; fel. Speech Correction Asn. (v. pres, 29–31, sec'y, 31–40, pres, 40–42; chairman, nomenclature cmt, 28–). Classification, methods and psychology of preventing and correcting disorders of speech; sound discrimination tests.

Robbins, Prof. Wilfred William, College of Agriculture, University of California, Davis, Calif. *Botany.* Mendon, Ohio, May 11, 84. A.B, Colorado, 07, A.M, 09; Ph.D, Chicago, 17. Instr. biol, Colorado, 08–11; bot. and forestry, Colo. Agr. Col, 11–13, asst. prof, 13–14, prof. bot. and botanist, Exp. Sta, 14–19; plant physiologist and pathologist, Great West. Sugar Co, 19–21; botanist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 21–22; assoc. prof. and *prof. bot, California, 22–* A.A; Bot. Soc. Crop plants; weeds and poisonous plants.

Robbins, Dr. William J(acob), New York Botanical Garden, New York, N. Y. **5Botany, Plant physiology.* North Platte, Nebr, Feb. 22, 90. A.B, Lehigh, 10, hon. Sc.D, 37; Ph.D, Cornell, 15. Instr. biol, Lehigh, 10–11; plant physiol, Cornell, 12–16; prof. bot, Ala. Polytech, and plant physiologist, Exp. Sta, 16–17; soil biochemist, bur. plant indust, U. S. Dept. Agr, 19; prof. bot, Missouri, 19–37, dean grad. faculty, 30–37; *prof. bot, Columbia, 37–; director, N. Y. Bot. Garden, 37–* Summers, asst, Marine Biol. Lab, Woods Hole, 12–14; special investigator, citrus exp. sta, California, 24. European office, Rockefeller Foundation, 28–30. Chairman biol. sciences, fellowship board, Nat. Research Council, 31–37. Chairman, Nat. Science Fund, 41– 2nd lieut, Sanit.C, 18. A.A; Bot. Soc. (pres); Torrey Bot. Club (pres); Mo. Acad. (pres). Plant nutrient; enzyme secretion by fungi; isoelectric points for plant tissue; tissue culture with higher plants; growth substances and vitamins.

Robbins, Prof. W(illiam) Rel, Rutgers University, New Brunswick, N. J. *Plant physiology.* Passaic, N. J, May 16, 99. B.S, Rutgers, 22, M.S, 24, Ph.D, 26. Asst. olericulture, *Rutgers, 22–24,* plant physiol, 24–26, asst. olericulturist, 26–33, instr. veg. gardening, 26–29, asst. prof, 29–33, *plant physiol, 33–42, assoc. prof, 42–,* asst. plant physiologist, *Exp. Sta, 33–42, assoc. plant physiologist, 42–* A.A; Soc. Plant Physiol; Soc. Hort. Sci; Bot. Soc. (physiol. sect). Carbohydrate-nitrogen relations of plants; mineral nutrition.

Roberds, Prof. Wesley M(ilton), 129 E. Palmer Ave, Collingswood, N. J. *Physics.* Burlington, Kans, May 15, 03. A.B, Kansas, 25, A.M, 26, Ph.D, 35. Asst. instr. physics, Kansas, 26–27; instr, Arkansas, 27–34, asst. prof, 35–42; *elec. engineer, RCA Mfg. Co, 42–* Physical Soc. High frequency conductance; x-rays; instrument design.

Roberg, Dr. Jane, 20 Hawthorn Road, Bellingham, Wash. *Physics.* Los Angeles, Calif, March, 15. B.S, Washington (Seattle), 37; Edinburgh, 38; A.M, Duke, 41, Ph.D, 42. *Research fellow, California, 42–* Cosmic rays; theoretical physics; angular scattering in cosmic ray showers.

Robert, Prof. James M(arshall), Tulane University, New Orleans, La. *Engineering.* St. Paul, Minn, June 20, 85. B.E, Tulane, 06. Inst. mech. eng. and drawing, *Tulane, 06–12,* asst. prof. exp. eng, 12–16, assoc. prof. machine design, 16–20, *prof, 20–33, mech. eng, 33–,* acting dean *col. eng, 35–36, dean, 36–; consulting and testing engineer, 06–* In charge shipping board, marine eng. sch, Tulane, 17–21. In charge motor mechanics dept, Camp Martin, 17–19. Mech. Eng. (chairman, New Orleans sect, 23); Eng. Educ; La. Eng. Soc. (past sec'y, v. pres, 23, pres, 24).

Robert, Nan L, Hunter College, New York, N. Y. *Zoology.* Garnett, S. C, 94. B.S. Columbia Col. (S. C), 16; M.S, Emory, 24; Columbia, 28–31. Asst. science, Columbia Col. (S. C), 17–21; prof. *biol,* Flora Macdonald Col, 21–28; *instr, Hunter Col, 29–* N. C. Acad; N. Y. Acad. Protozoology.

Roberts, Dr. Arthur, 103 Aberdeen Ave, Cambridge, Mass. *Physics.* New York, N. Y, July 6, 12. B.S, Col. City of N. Y, 31; A.M, Columbia, 33; Ph.D, N. Y. Univ, 36. Asst, N. Y. Univ, 35–37; *research assoc. physics, Mass. Inst. Tech, 37–* Teacher, New Eng. Conservatory Music, 40– Physical Soc. Nuclear physics; thyroid physiology with radioactive indicators.

Roberts, Prof. Byron D(avid), New Mexico Highlands University, Las Vegas, N. Mex. *Mathematics.* Chicago, Ill, June 16, 93. A.B, Indiana, 20, A.M, 22; Ph.D, Iowa, 31. *Prof. math,* Parsons Col, 20–32; *N. Mex. Highlands Univ, 32–* Math. Soc; Math. Asn. Abstract vector fields.

Roberts, Claudius H(enry) M(astin), 5058 Sedgwick St, Washington 16, D. C. *Chemistry.* Mobile, Ala, Sept. 11, 94. B.S, Mass. Inst. Tech, 17. Chemist and later director research, Tretolite Co, 23–31, 35–37; director research, Petrol. Rectifying Co, 31–35, 37–39; *v. pres. and director research, Petrolite Corp, 39–; deputy chief, ammunition develop. branch, tech. div, Office Chief of Ordnance, 42–, lieut. col, U. S. Army, 42–* Lieut. and capt, Ordnance Dept, 17–25, major, 25–42. A.A; Chem. Soc; Petrol. Inst; Electrochem. Soc; Min. and Metal. Eng; Faraday Soc. Physical chemistry of petroleum.

Roberts, Prof. E(dith) A(delaide), Vassar College, Poughkeepsie, N. Y. *Plant science.* Dover, N. H, 81. A.B, Smith Col, 05; M.S, Chicago, 11, Ph.D, 15. Instr. and assoc. prof. bot, Mt. Holyoke Col, 15–17; exten. worker with women, U. S. Dept. Agr, 17–19; assoc. prof. *bot, Vassar Col, 19–21, prof, 21–* A.A; Bot. Soc. Plant physiology and ecology; germination of seeds and propagation of native plants.

Roberts, Dr. Edward F(reeman), 30 Rockefeller Plaza, New York, N. Y. *Medicine.* Presque Isle, Maine, Oct. 14, 01. A.B, Bates Col, 23; Ph.D, Yale, 26, M.D, 30. Asst. immunol, Yale, 23–26, instr, 26–29; director med. dept, *Lederle Labs,* 30–32, asst. director labs, 32–34, *director dept. med. service, 34–* Am. Med. Asn; Asn. Immunol; Pub. Health Asn. Preventive medicine; reticulo-endothelial system and antibody production; tuberculin allergy; maggot treatment of chronic osteomyelitis; pneumonia.

Roberts, Dr. E(dward) N(oel), Standard Oil Company of Indiana, Whiting, Ind. *Chemistry.* Wind River, Wyo, March 1, 88. A.B, Wyoming, 11; B.A, Oxford, 13; Ph.D, Chicago, 18. Asst. research chemist, Exp. Sta, Wyoming, 13–15; instr. chem, Chicago, 16–18; asst. prof, West Virginia, 19–20; research biochemist, U. S. Indust. Alcohol Co, 20–25; asst. re-

search chemist, Wyoming, 25–26; *research chemist, Standard Oil Co. of Ind, 26–* Lieut, Sanit.C, 18–19. A.A; Chem. Soc; Soc. Bact. Saponification of ethyl formate; fermentation; forage plants; petroleum.

Roberts, Dr. E(dwin) J(ay), 150 Pleasant St, Laconia, N. H. *Chemistry.* Gilford, N. H, Feb. 2, 85. B.S, New Hampshire, 06; Ph.D, Yale, 11. Asst. chem, Yale, 08–10; instr, Colby Col, 11–14; asst. prof. anal. chem, Polytech. Inst. Brooklyn, 14–17, assoc. prof, 17–18; *in business, 18–* A.A; Chem. Soc; N. H. Acad. Rare earth metals.

Roberts, Dr. E(lliott) J(ohn), R. D. 2, Westport, Conn. *Physical chemistry.* Kalispell, Mont, Aug. 7, 04. B.S, Yale, 25, Ph.D, 28. Instr, Yale, 27–30; consultant, *Dorr Co,* 28–30, research chemist and chem. engineer, 30–41, *research director, 41–* Inst. Chem; Min. and Metal. Eng; Chem. Soc; Chem. Eng. Thermodynamics of solutions; electrode potentials; microchemical analysis; physical chemistry in petrography; petrology of the Shonkin Sag laccolith; sedimentation and classification.

Roberts, Prof. Elmer, 404 W. Iowa St, Urbana, Ill. *Genetics.* Burnside, Ky, June 29, 86. B.S, Illinois, 13, Ph.D, 17. Asst. genetics, *Illinois,* 13–14, instr, 14–18, assoc, 18–20, asst. prof, 20–25, assoc. prof, 25–35, *prof. animal genetics, 35–* A.A; Soc. Zool. Mammalian and avian genetics; agriculture; immunity.

Roberts, Dr. E(merson) B(ryan), 327 Woodside Road, Wilkinsburg, Pa. *Engineering.* Talbot Co, Md, Oct. 10, 90. A.B, St. John's Col. (Md), 11, A.M, 13, Sc.D, 19. Teacher, pub. schs, Pa, 11–17; supervisor grad. students and manager tech. employment and training, *Westinghouse Elec. and Mfg. Co,* 19–37, *asst. to v. pres, 37–* Director cooperative grad. courses, Pittsburgh. U.S.A, 17–19. Industrial engineering; engineering education; industrial relations; personnel.

Roberts, E(ugene) V(ickers), Box 252, Asheville, N. C. *Forestry.* Delaware Co, Pa, July 16, 04. B.S, Pa. State Col, 26; M.F, Yale, 30. Forest ranger, *U. S. Forest Service,* 26–27, jr. forester, 27–31, assoc. forester, 31–36, *sr. forester and regional surv. director in charge forest surv, Appalachian Forest Exp. Sta, 36–; capt, Corps Engineers, U. S. Army, 42–* Soc. Foresters (v. chairman Appalachian sect, 38). Determination of area of forest land, volume of standing timber, rate of growth, rate of depletion and place of forests in economic and social life of states in middle Atlantic region.

Roberts, Dr. Frank H(arold) H(anna), Jr, Smithsonian Institution, Washington, D. C. **5Archeology.* Centerburg, Ohio, Aug. 11, 97. A.B, Denver, 19, A.M, 21; Hemenway fellow, Harvard, 24–25, A.M, 26, Ph.D, 27. Instr. archeol, Denver, 21–24; asst. anthrop, Harvard, 25–26; *archeologist, Bur. Am. Ethnol, 26–* Asst. curator, State Museum, Denver, 23–24. Summers, instr, Chaco Canyon field sch, New Mexico, 40, 41. Mem, Colo. State Museum archeol. expeds, 21–24, director, 23, assoc. director, 24; Nat. Geog. Soc. exped, Pueblo Bonito, 25–26; in charge, Bur. Am. Ethnol. expeds, 27– U. S. rep, Int. Cmn. Historic Monuments, 37– U. S. expert, Int. Cong. Archeol, Cairo, 37. A.A; Anthrop. Asn. (councilor, 26–, assoc. ed, 'Am. Anthropologist,' 32–, rep, Nat. Research Council, 35–37, 39–41); Soc. Am. Archeol. (councilor, 35–36, asst. ed, 'Am. Antiquity,' 35–); Anthrop. Soc. Wash. (v. pres, 28, 34, sec'y, 29–33, pres, 36); Wash. Acad. (manager, 40–42). American archeology of Colorado, New Mexico, Texas, Arizona, Tennessee and Mexico.

Roberts, Dr. Frank L(ester), University of Tennessee, College of Medicine, Memphis, Tenn. *Public health, Preventive medicine.* Miles City, Mont, Sept. 8, 95. A.B, Minnesota, 18, A.M, 19, M.B, 21, M.D, 22; Dr.P.H, Hopkins, 36. Teaching fellow anat, Minnesota, 18–19; special staff mem, Rockefeller Foundation, 23; county health officer, State Health Dept, Tenn, 23–28, director local health work for west. Tenn, 28–30, county health officer, Gibson Co, 30–37; *prof. prev. med, col. med, Tennessee, 37–* Fel. Col. Physicians; fel. Am. Med. Asn; Pub. Health Asn; South. Med. Asn. Anatomy; growth of children; vital capacity of children; syphilis.

Roberts, Prof. Geo(rge), University of Kentucky, Lexington, Ky. *Agronomy.* Burnside, Ky, June 16, 73. B.Pd, Kentucky, 99, M.S, 01. Asst. chemist, Exp. Sta, Kentucky, 01–03, 06–09; Exp. Sta, California, 03–06; agronomist and prof. *agron, Kentucky,* 09–43, *emer. prof, 43–,* asst. dean col. agr, 19–43, head dept. agron, Exp. Sta. A.A; Soc. Agron. (treas, 13–17); Ky. Acad. (pres, 32). Soil fertility.

Roberts, Helen H(effron), Tryon, N. C. *Anthropology.* Chicago, Ill, 88. Grad, Monticello Sem, 07; Chicago Musical Col, 09; Am. Conservatory, 14; A.M, Columbia, 19. Private teaching, Mex. and Texas, 07–09; instr. music, Kans. State Manual Training Nor. Sch, 12–15; asst. anthrop, Barnard Col, Columbia, 17–18; special work, div. anthrop, Am. Museum Nat. Hist, Smithsonian Institution and Geol. Surv. Can, 21–23; asst. and instr. anthrop, Yale, 24–36; *retired.* Vassar Col. Folk-Lore Foundation exped, Jamaica, 20; Hawaiian Legend and Folk-Lore Cmn. Surv, Hawaiian ancient music, 23–24; Smithsonian Institution field trips to Southwest, 27, Yale, 29–31. A.A; Musicol. Soc. Comparative musicology; Salish and Southwest basketry; Pawnee Indian music; Copper Eskimo songs; Jamaica Negro songs; ancient Hawaiian music; California and Pueblo Indian music; songs of the Nootka.

Roberts, Dr. H(oward) Radclyffe, Villa Nova, Pa. *Entomology.* Villa Nova, Pa, March 26, 06. B.S, Princeton, 29; Ph.D, Pennsylvania, 41. Instr. zool, Pennsylvania, 35–41; *research assoc, Acad. Nat. Sci. Phila, 34–; lieut, Sanit. Corps, U. S. Army.* A.A; Entom. Soc. (recording sec'y, 42–). Taxonomy; Orthoptera of Mexico; evolution; ornithology.

Roberts, Howard S(hreve, 2nd), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. *Physical chemistry.* Philadelphia, Pa, Dec. 12, 90. E.E, Pennsylvania, 12; Drexel Inst, 13. Chemist, Wirt Co, 14–17; *physicist, geophys. lab, Carnegie Institution, 17–* Manufacturer optical glass, W.I.B, 18. A.A; Chem. Soc; Philos. Soc. Wash; Wash. Acad. Oxid of iron and copper; optical glass; silicate calorimetry.

Roberts, Hugh M(arine), 306 Lonsdale Bldg, Duluth, Minn. *Mining geology.* Superior, Wis, Sept. 3, 85. Wisconsin, 07–11. Explorations, Brazil and Hudson Bay, Can, 09–11; field and chief geologist, E. J. Longyear Co, 12–20; *mining geologist, 20–* A.A; Min. and Metal. Eng; Can. Inst. Min. and Metal; Soc. Econ. Geol. Genesis of Sudbury nickel-copper ores; value of the geological surveys; replacement hematite deposits, Steep Rock Lake, Ontario; hydrothermal replacement in deep-seated iron ore deposits of Lake Superior region.

Roberts, Dr. James L(emoyne), 471 Maple St, West Lafayette, Ind. *Agricultural bacteriology.* Normanna, Texas, Oct. 27, 12. A.B, Texas, 33, A.M, 34; Ph.D, Wisconsin, 37. Asst. agr. bacter, Exp. Sta, Wisconsin, 34–37; *asst. prof. bot. and assoc, Exp. Sta, Purdue, 37–* Soc. Agron; Soc. Bact; Soil Sci. Soc. Bacterial endospore formation; nitrification; symbiotic nitrogen fixation.

Roberts, Prof. (John) Harvey, Louisiana State University, Baton Rouge, La. *Entomology, Morphology.* Arena, Wis, Feb. 25, 04. B.S, Wisconsin, 29; M.S, Maryland, 31, Ph.D, 35. Instr. *zool, Louisiana,* 29–35, asst. prof, 36–40, *assoc. prof, 40–* Entom. Soc. Morphology of insects.

Roberts, Prof. J(ohn) H(enderson), Duke University, Durham, N. C. *Mathematics.* Raywood, Texas, Sept. 2, 06. A.B, Texas, 27, Ph.D, 29. Nat. research fellow, 29–30; adj. prof. pure math, Texas, 30–31; asst. prof. *math, Duke,* 31–40, *assoc. prof, 40–; lieut, U. S. Naval Res, 42–* Visiting lecturer, Princeton, 37–38. A.A; Math. Soc; Math. Asn. Pure mathematics; analysis situs; point set theory.

Roberts, Dr. J(ohn) R(oderick), 216 N. Adams St, Moscow, Idaho. *Mycology.* Omaha, Nebr, Nov. 30, 06. B.S, Washington (Seattle), 30, M.S, 32, Ph.D, 36. Head dept. biol, Yakima Jr. Col, 37–39; *instr. bot, Idaho, 39–* Polyporaceae of Washington; mycorrhiza of bogs; Agaricaceae of Idaho.

Roberts, Dr. John W(illiam), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Alma, Nebr, July 4, 82. A.B, Nebraska, 04, fellow, 08, A.M, 09; Ph.D, George Washington, 17. Instr, high sch, Nebr, 05–06; asst. bot, Nebraska, 07–09; sci. asst, *bur. plant indust, U. S. Dept. Agr,* 09–11, asst. pathologist, 12–13, pathologist, 13–28, senior pathologist, 28–35, *prin. pathologist, 35–* Co-editor, 'Phytopathology,' 29–31; ed. board, 'Jour. Agr. Research,' 30– Fed. Insecticide and Fungicide Board, 24–27. A.A; Phytopath. Soc; Bot. Soc; Ecol. Soc; Bot. Soc. Wash. (pres, 36). Diseases of apples, peaches, plums and cherries.

Roberts, J(oseph) K(astle), Standard Oil Company, Room 1601, 910 S. Michigan Ave, Chicago, Ill. *Chemical engineering.* Berkeley, Calif, Jan. 13, 05. B.S, Kentucky, 25; M.S, Mass. Inst. Tech, 28. Asst. and research assoc, Mass. Inst. Tech, 25–28; chem. engineer, *Standard Oil Co. of Ind,* Whiting, 28–34, asst. director research, 34–38, *asst. to gen. manager*

research and develop. and director research, Chicago, 38– Chem. Soc. (chairman petrol. div, 41); Chem. Eng. Petroleum technology; corrosion.

Roberts, Prof. Joseph K(ent), University of Virginia, Charlottesville, Va. *Geology.* Saltville, Va, July 11, 89. A.B, Emory and Henry Col, 10; A.M, Hopkins, 15, Ph.D, 22. Prof. geol. and biol, Emory and Henry Col, 16–20; asst. prof. *geol,* Vanderbilt, 22–24, assoc. prof, 24–26; *prof, Virginia, 26–* Summers, asst. geologist, Cent. Ga. Ry, 15, geologist, 16; asst. geologist, Va. Geol. Surv, 20–23, 27, 31, 40, 41; Tenn. Geol. Surv, 24, 25; Ky. Geol. Surv, 26, 29. Pres. and Visitors' Research award, Virginia, 29. A.A; fel. Geol. Soc; fel. Paleont. Soc; Seismol. Soc; Va. Acad. (chairman, geol. sect, 32); Geol. Soc. Wash. Triassic stratigraphy, structure and lithology; Tertiary sedimentology of western Tennessee, western Kentucky and eastern Virginia; Triassic bibliography; history of geological formations in Virginia; topographic and geologic maps of Virginia; annotated geological bibliography of Virginia.

Roberts, Dr. Joseph T(homas), University of Texas Medical Branch, Galveston, Texas. *Cardiology, Internal medicine, Anatomy.* San Marcos, Texas, Oct. 21, 09. A.B, Southwest Texas Teachers Col, 29; M.S, Tulane, 33, M.D, 36, Ph.D, 41. Instr, Tulane, 34–36; Rees fellow med, sch. med, Western Reserve, 36–39, intern, 39–40; instr. pediat, cardiovascular unit and asst. med. and anat, *med. branch, Texas,* 40, instr. anat, med. and pediat, 40–41, asst. prof. anat. and instr. med. and pediat, 41, *asst. prof. med. and anat, 41–, director shops, 40–,* co-director *dept. exp. lab,* 40–42, *director, 42–; visiting staff, John Sealy Hosp. and St. Mary's Infirmary, 40–; chief res. physician, Gallinger Munic. Hosp, 43–; adj. clin. prof. med, sch. med, George Washington, 43–; Georgetown, 43–* A.A; Asn. Anat; Am. Heart Asn; Federation Clin. Research; Am. Med. Asn; Texas Acad; Int. Asn. Med. Mus. Clinical and experimental heart disease; cardiac failure; hypertrophy; growth; atrophy; capillaries; nerves; lymphatics; blood flow; revascularization; utriculoendolymphatic valve; cerebral cortical asymmetry; vessels of nerves; medical education and history.

Roberts, Prof. L(athrop) E(merson), University of Arizona, Tucson, Ariz. *Chemistry.* St. Joseph, Mo, Sept. 9, 88. B.S, Chicago, 14, Ph.D, 19. Instr. chem, Pittsburgh, 14–16; asst. director research, Am. Writing Paper Co, 20–22; physical chemist, U. S. Bur. Mines, 22–23; asst. prof. *chem, Arizona,* 23–24, assoc. prof, 24–26, *prof, 26–* C.W.S, U.S.A, 17–18. Chem. Soc. Physical chemistry; surface tension; entropy relations in vaporization; oxidation of ferrous salts; determination of magnetite in copper slags; effect of slag composition on solubility of matte; reaction between Pyrex glass and hydrogen.

Roberts, Dr. L(eo) B(ogan), Agricultural and Mechanical College of Arkansas, Monticello, Ark. *Inorganic chemistry.* Pineville, La, July 1, 99. A.B, Millsaps Col, 20, A.M, 21; A.M, Cornell, 25, Ph.D, 28. Instr. physics, Agr. and Mech. Col. Texas, 21–22; head dept. science, Whitworth Col, 25–26; instr. physics, Drexel Inst, 27; head dept. science, Belhaven Col, 27–30; prof. chem. and physics, Emory Junior Col, Emory, 30–32; head dept. science and dean, Bowdon Col, 33–35; geol. and physics, Centenary Col, 35–36; science, Ark. Col, 36–38; *prof. chem. and physics and head dept. chem, Ark. Agr. and Mech. Col, 38–* A.A; Chem. Soc; South Asn. Sci. and Indust. (exec. cmt, 41; treas, 42–); Ark. Acad. (v. pres, 42, pres, 43–); La. Acad; Miss. Acad. (exec. councilor, 30). Chemistry of azido derivatives; inorganic chemical reactions; petrified wood composed of iron oxide; vapor pressures; modification of analytical procedure; laboratory apparatus; insoluble copper carbonate-sodium bicarbonate crystals.

Roberts, Prof. Lydia J(ane), 5618 Blackstone Ave, Chicago, Ill. *Nutrition.* Hope Township, Mich. Ph.B, Chicago, 17, M.S, 19, Ph.D, 28. Asst. prof. *home econ, Chicago,* 19–28, assoc. prof, 28–29, *prof. and chairman dept, 30–* A.A. Human nutrition; nutrition and related health problems of children.

Roberts, Prof. Milnor, 4501 15th Ave, N. E, Seattle, Wash. *Mining engineering.* New York, N. Y, March 10, 77. A.B, Stanford, 99. Instr. miner, Stanford, 00–01; *prof. mining and metal. eng. and dean col. mines, Washington (Seattle), 01–* Consulting mining engineer, Pacific Northwest and Alaska, 01–; U. S. Bur. Mines; City of Seattle; mining companies; railroads; Wash. Geol. Surv, 01, 02; cooperative investigations with northwest exp. sta, U. S. Bur. Mines, 16–; tech. adviser, State Planning Council, Wash, 34– In charge collecting ores of Wash. for La. Purchase and Portland Expositions; int. jury awards, Alaska-Yukon-Pacific Expos, 09. A.A; Min. and Metal. Eng. (director, 30–36); Min. and Metal. Soc. (councilor, 25–28); Min. Cong. (state sec'y, 30–); Eng. Educ; Eng. Council for Professional Develop. (board examiners, 36–); Seismol. Soc; Pacific Northwest Soc. Eng. (pres, 09). The mining industry; mining and treatment of ore and mineral deposits of the Pacific Northwest, British Columbia and Alaska.

Roberts, Prof. O(liver) C(ousens), Massachusetts State College, Amherst, Mass. *Pomology.* Berwick, Maine, Jan. 30, 95. B.S, Mass. State Col, 19; M.S, Illinois, 41. Instr. agr, West Lebanon Acad, Maine, 20–22; foreman dept. *pomol, Mass. State Col,* 22–26, instr, 26–35, *asst. prof, 36–* Pomol. Soc. (cmt. arsenic and lead residue); Soc. Hort. Sci. Arsenic and lead residue on apples; effect of hormone sprays on the keeping quality of apples in storage; effect of various spray materials on fruit.

Roberts, Dr. O(scar) L(ynn), Kirkwood, Pa. *Physics, Chemical engineering.* Bangalore, India, Aug. 29, 01. A.B, Baker, 23; M.S, Pa. State Col, 25, Ph.D, 30. Control chemist, Int. Cement Co; materials tester, State Highway Dept, Pa, 24–25; asst, Pa. State Col, 25–30; *research supervisor, Atlantic Ref. Co, 30–* Summers, mem. staff research lab, N. J. Zinc Co, 28, 29. Min. and Metal. Eng. Solvent extraction; motor fuel production; crude oil production.

Roberts, Paul H(enley), 346 Central Ave, Salinas, Calif. *Forestry.* Maxwell, Nebr, Aug. 6, 91. B.S, Nebraska, 15. Inspector grazing, region three, *U. S. Forest Service,* 18–22, forest supervisor, 22–31, admin. officer, branch of research, 31–34, director Prairie States forestry project, 34–42, *assoc. director guayule emergency rubber project, 42–* Soc. Foresters; Forestry Asn. Wildlife; a forest wildlife program; the western range as an integrated part of western agriculture; the shelterbelt project.

Roberts, R(alford) A(shley), Bureau of Entomology and Plant Quarantine, Washington, D. C. *Entomology.* Clinton, Ky, Nov. 10, 03. B.S, Agr. and Mech. Col. Texas, 26; M.S, Iowa State Col, 28; Cornell, 33, 34. Asst. entomologist, entomologist and *senior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 26–* Entom. Soc. Amer; Asn. Econ. Entom; Soc. Parasitol. Mantidae; biology and distribution of Muscoidean flies; insects affecting man and animals; parasites and predators of Diptera; economic control of grasshoppers; Mormon cricket and white-fringed beetle.

Roberts, Dr. Ralph, 901 Quackenbos St, N.W, Washington, D. C. *Organic electrochemistry.* Bridgeton, N. J, May 31, 15. B.Ch.E, Catholic Univ, 36, M.S, 38, Ph.D, 42. Asst, Catholic Univ, 36–40; *asst. chemist, U. S. Naval Eng. Exp. Sta, 42–* Chem. Soc. Structure of diketene; local action of metals and alloys; storage batteries.

Roberts, Prof. R(ay) H(arland), University of Wisconsin, Madison, Wis. *Horticulture.* Lebanon, Oregon, April 4, 90. B.S, Oregon State Col, 10, M.S, 12; Ph.D, Wisconsin, 24. Instr. *hort, Wisconsin,* 15–18, asst. prof, 18–22, assoc. prof, 22–29, *prof, 29–* A.A. Apple physiology; fruitfulness of plants.

Roberts, Prof. Raymond, University of Nebraska, Lincoln, Nebr. *Taxonomy, Entomology.* Unionville, Mo, April 8, 99. B.S, Colo. State Col, 24; M.S, Nebraska, 29. Mem. faculty, *Nebraska,* 24–38, *assoc. prof. entom, 38–* Asn. Econ. Entom. Taxonomy of social wasps; Vespoidea; ground cornstalks in baits to replace bran; bait attrahents and poisons; stored grain insects and their control.

Roberts, Dr. Richard B(rooke), 5241 Broad Branch Road, Washington, D. C. *Physics.* Titusville, Pa, Dec. 7, 10. A.B, Princeton, 32, A.M, 33, Ph.D, 37. Carnegie Institution fellow, *Carnegie Institution,* 37–39, *assoc. physicist, 39–* Consultant, Nat. Defense Research Cmt, 41–42. A.A; Physical Soc. Nuclear physics.

Roberts, Prof. R(ichard) G(rifith), 163 W. 142nd St, Riverdale, Ill. *Physiological chemistry.* Osage City, Kans, Feb. 25, 96. B.S, Chicago, 24; Ph.D, Northwestern, 34. Surveyor, Atchison, Topeka and Santa Fe Ry, 16–17, chemist, 19–21; physicist, West. Elec. Co, 21–22; chemist, Ill. Cent. Ry, 24; Swift and Co, 26–29; instr, high sch, Ill, 29–31; asst. prof. *physiol. chem, Chicago Med. Sch,* 31–39, *assoc. prof, 39–* Draftsman, U.S.A, 18. A.A; Chem. Soc; Soc. Exp. Biol; Ill. Acad. Proteins and related substances in liquid ammonia; hormones; chemical process patents; vitamins and plastic-elastomers.

Roberts, Prof. R(obert) Chester, Colgate University, Hamilton, N. Y. *Chemistry.* Onaga, Kans, March 2, 91. B.S, Ottawa (Kans), 12; fellow, Kansas, 12–13, A.M, 14; Ph.D, Yale, 21. Instr, Kansas, 13–14; asst, Yale, 20–21; *prof. chem,* Franklin Col, 15–20, 21–28; *Colgate, 28–, head dept, 28–* A.A; Chem. Soc; London Chem. Soc; Deuts. Chem. Gesell. Organic chemistry.

Roberts, Prof. Roy E(lmer), Purdue University, Lafayette, Ind. *Poultry husbandry.* Oxford, Ind, June 8, 94. B.S.A, Purdue, 21; M.S, Ohio State, 25. Instr. poultry husbandry, Purdue, 21–23; Ohio State, 23–25; asst. prof. poultry exten, Pa. State Col, 25–26; *assoc. poultry husbandry, Exp. Sta, Purdue, 26–* Poultry Sci. Asn. Poultry nutrition.

Roberts, Dr. Stiles M(oxley), Glenham, N. Y. *Organic chemistry.* McLean, Texas, July 3, 13. B.S, Texas Tech. Col, 34, M.S, 36; Union Oil Co. Calif. fellow, Texas, 38–39, Ph.D, 39. Instr. chem, Texas, 36–38; research chemist, Texas Co, 39–42; *process development chemist, Gen. Aniline and Film Corp, 42–* Summer, sanit. engineer, U. S. Resettlement Admin, 36. Chem. Soc. Nitrogen compound from California petroleum; proof of structure of a $C_{16}H_{25}N$ nitrogen base.

Roberts, Dr. Tho(ma)s S(adler), University of Minnesota, Minneapolis, Minn. *Medicine, Ornithology.* Philadelphia, Pa, Feb. 16, 58. M.D, Pennsylvania, 85; Sc.D, Minnesota, 40. *State ornithologist, Minn, 90–;* prof. *pediat, Minnesota,* 01–06, clin. prof, 06–13, *emer. prof, 13–, prof. ornith. and director museum nat. hist.* A.A; Am. Med. Asn; fel. Ornith. Union (councilor, 30); Soc. Mammal; Wilson Ornith. Club; Cooper Ornith. Club; cor. mem. Biol. Soc. Wash; Minn. Acad. Med. Ornithology of Minnesota.

Roberts, Prof. T(ilden) W(irt), Parsons College, Fairfield, Iowa. *Animal behavior, Animal physiology.* Donna, Texas, Dec. 12, 11. A.B, Indiana, 33; Duke, 33–34; M.S, Northwestern, 37; Ph.D, Illinois, 42. Asst. zool, Duke, 33–34; asst. and lab. instr, Northwestern, 34–37; instr. zool. and bot, Va. Junior Col, 37–38; asst. zool. and instr. ecol, Illinois, 39–42; *asst. prof. physiol. and ecol, Parsons Col, 42–* Ecol. Soc. Analysis of the mechanisms that time the occurrence of locomotion in crayfishes; testing of Hopkins host selection principle and making a search for the mechanism that controls it.

Roberts, Dr. Walter van B(raam), 155 Hodge Road, Princeton, N. J. *Electrical engineering.* Titusville, Pa, Nov. 13, 93. B.S, Princeton, 15, E.E, 17, A.M, 23, Ph.D, 24. Instr. physics and elec. eng, Princeton, 19–23; *engineer, patent dept, Radio Corp. of Amer, New York, 24–* C.Eng, U.S.A, 17–19. Fel. Radio Eng. Radio.

Roberts, Dr. Willard L(ewis), General Foods Corp, 1125 Hudson St, Hoboken, N. J. *Chemistry.* Milton Junction, Wis, March 24, 04. A.B, Milton Col, 27; A.M, Wisconsin, 32, Ph.D, 37. Chemist, State Regulatory Dept, N. Dak, 28–30, 32–35; asst. chem, Wisconsin, 30–32, biochem, 35–37; *director* cereal research, Post Products, *Gen. Foods Corp,* 37–41, *biochem. and anal. chem. research, cent. labs, 42–* A.A; Inst. Chem; Chem. Soc. Analytical, organic and biological chemistry; petroleum products; paints; varnishes; foods; drugs; toxicology; vitamins.

Robertson, Dr. A. James, U. S. Naval Observatory, Washington, D. C. *Astronomy.* Rockford, Ill, May 1, 67. B.S, Michigan, 91; Sc.D, Georgetown, 33. Asst, Nautical Almanac Office, U. S. Naval Observatory, 93–09, senior asst, 09–24, astronomer, 24–27, senior astronomer and asst. director, 27–29, head astronomer and director, Nautical Almanac Office, 29–39; *retired.* Nat. Cmt. Calendar Simplification. A.A; Astron. Soc; Philos. Soc. Wash; Astron. Gesell; Int. Astron. Union. Elements of fifth satellite of Jupiter; improved methods of computing eclipses and occultations in American Ephemeris; theory of the motion of the moon.

Robertson, Prof. A(lbert) D(uncan), 454 St. James St, London, Ont, Can. *Zoology.* Wellington Co, Ont, Aug. 24, 76. B.A, Toronto, 10, fellow, 10–12, M.A, 27. Lecturer *biol,* Toronto, 12–15; assoc. prof, *Western Ontario,* 15–19, *prof, 19–* A.A; Soc. Zool; Asn. Anat; Ecol. Soc; Can. Inst. Mollusca; oysters; Limnophila.

Robertson, Dr. A(lfred) C(rawford), 206 Albemarle St, Rochester, N. Y. *Physical chemistry.* Dayton, Oregon, March 22, 00. B.S, Oregon State Col, 22; M.S, Wisconsin, 24, du Pont fellow, 24–25, Ph.D, 25. Nat. research fellow, Calif. Inst. Tech, 25–27; assoc. technologist, Bur. Fisheries, 27–29; research assoc, Illinois, 29–32; Am-Scandinavian Foundation fellow, Copenhagen, 32–33; *research chemist, Eastman Kodak Co, 34–* Chem. Soc; N. Y. Acad. Promoter action; catalysis; marine products of commerce; furnace corrosion; manufacture of photographic products.

Robertson, Dr. A(nthony) E(dward), 12 Garden Drive, Roselle, N. J. *Physical and organic chemistry.* Center, Mo, Dec. 9, 03. B.S, Col. City of N. Y, 29; M.S, Polytech. Inst Brooklyn, 35, Ph.D, 41. Gas analyzer, Brooklyn Union Gas Co, 26–29; *research chemist motor fuels, Standard Oil Develop. Co, 29–* Chem. Soc. Low temperature analysis of petroleum gases; gasoline analysis; aviation fuel problems; chemistry of guanidine derivatives.

Robertson, Dr. A(rchie) H(unt), Department of Agriculture and Markets, State Office Bldg, Albany, N. Y. *Bacteriology.* Lounsberry, N. Y, Nov. 21, 94. B.S, Cornell, 20, M.S, 24, Ph.D, 27. City bacteriologist, Geneva, N. Y, 20–21; asst. bacteriologist, N. Y. Exp. Sta, Geneva, 21–26; bacteriologist, Exp. Sta, Vermont, 26–28; *State Dept. Agr. and Markets, N. Y,* 28–30, *chemist and director food lab, 30–* Soc. Bact; Chem. Soc; Pub. Health Asn; Dairy Sci. Asn; N. Y. Asn. Dairy and Milk Inspectors; Int. Asn. Milk Sanitarians. Bacterial counts; bacterial flora and heat sterilization of milking machines; thermophilic and thermoduric bacteria and pasteurization; biochemical and bacterial tests for the quality of milk; fluctuations of bacterial counts in grade A milk; examination of foods for conformity to pure food regulations.

Robertson, Prof. B(urtis) L(owell), University of California, Berkeley, Calif. *Electrical engineering.* Flint, Mich, Nov. 27, 02. B.S, Michigan, 24, M.S, 26, E.E, 30; Ph.D, Stanford, 34. Engineer, Gen. Elec. Co, N. Y, 24–25, 26–28; teaching asst, Michigan, 25–26; asst. prof. *elec. eng,* Pa. State Col, 28–31; *California,* 31–36, *assoc. prof, 36–* Summers, engineer, Gen. Elec. Co, N. Y, 29, 30. Fel. Elec. Eng. (sec'y, San Francisco sect, 40, v. chairman, 41, chairman, 42); Eng. Educ. Synchronous machines.

Robertson, Prof. Burton J, University of Minnesota, Minneapolis, Minn. *Engineering.* Lyle, Minn, May 3, 82. B.S, Minnesota, 14, E.E, 15. Engineer, Lyle Culvert and Road Equipment Co, 15–18; asst. director exp. eng. labs, *Minnesota,* 18–24, asst. prof. gas eng, 24–27, assoc. prof. *internal combustion engines,* 27–41, *prof, 41–* Mech. Eng. (v. chairman, Minneapolis sect, 25, chairman, 26); Soc. Automotive Eng; Eng. Educ. (sec'y, Minneapolis sect, 25, chairman, 27); Inst. Aeronaut. Sci. Combustion engineering; lubricants for internal combustion engines; piston rings; gasolines.

Robertson, Dr. Campbell, 647 Norman Place, Westfield, N. J. *Chemistry.* Kalamazoo, Mich, Jan. 24, 06. Michigan, 21–24; B.S, Columbia, 27, fellow, 29–30, Ph.D, 30. Asst. chem, Columbia, 28–29; research chemist, *E. I. du Pont de Nemours and Co, Perth Amboy, N. J,* 30–31, *production manager, ceramic div, 32–, ceramic research supervisor, 35–* A.A; Chem. Soc; Ceramic Soc; Inter-Soc. Color Council. Cryoscopy; ceramic colors; inorganic process development.

Robertson, Prof. C(harles) W(illiam), Eureka College, Eureka, Ill. *Biology.* Bigelow, Ark, Aug. 23, 06. B.S, Southwestern (Tenn), 29; M.S, N. Y. Univ, 32, Ph.D, 35. Instr. *biol,* Southwestern (Tenn), 29–30; teaching fellow, N. Y. Univ, 30–35, asst, 35–37; asst. prof, *Eureka Col,* 37–38, assoc. prof, 38–39, *prof, 39–* Genetics Soc. Cytology; insect development and metamorphosis.

Robertson, Dr. D(avid) W(ield), Colorado State College, Ft. Collins, Colo. *Agronomy.* Penpont, Dumfriesshire, Scotland, Dec, 93. B.S.A, Manitoba, 18; M.S, Minnesota, 20, Ph.D, 28. Assoc. prof. agron, *Exp. Sta, Colo. State Col,* 20–36, *agronomist, 37–* Summer, instr, Man. Agr. Col, 18. A.A; Soc. Agron; Can. Soc. Tech. Agr. Plant genetics; plant physiology.

Robertson, Dr. Elizabeth Chant, Hospital for Sick Children, 67 College St, Toronto, Ont, Can. *Nutrition.* Toronto, Ont, Can, April 17, 99. B.A, Toronto, 21, George Brown fellow, 24, M.D, 24, Ph.D, 37; fellow, Hopkins, 25–26. Asst. hygiene, *Toronto,* 26–28, *pediat,* 28–42, clin. asst, 42–43, *junior clinician, 43–* Soc. Exp. Biol; Inst. Nutrition; Can. Soc. Study Diseases of Children (sec'y-treas, 39–42). Air-borne infections; nutrition in relation to resistance to infection; physiological effects of diets deficient in minerals; diagnosis to early vitamin A deficiency.

Robertson, Dr. G(eorge) Gordon, Baylor University College of Medicine, Houston, Texas. *Physiological genetics.*

St. John, N. B, Can, Jan. 30, 16. B.Sc, Acadia, 36, B.A, 37; Ph.D, Yale, 41. Asst. biol, Yale, 38–41; research fellow *anat*, sch. med, Georgia, 41–42; *instr*, Louisiana, 42–43; *col. med, Baylor, 43–* A.A; Genetics Soc. Development of inherited abnormalities in the mouse; homoplastic ovarian transplantations in the mouse.

Robertson, Prof. G(eorge) M(cAfee), 403 Walnut St, Hays, Kans. *Zoology, Paleontology.* Milan, Ill, June 18, 96. A.B, Carleton Col, 20; B.S, N. Dak. Col, 22; A.M, Dartmouth Col, 25; Ph.D, Yale, 37. Asst. animal biol, Minnesota, 22–23; instr. evolution, Dartmouth Col, 23–28, *asst. prof*, 28–36, zool, 36–38; *zool. and geol, Ft. Hays Kans. State Col, 38–* A.A; Paleont. Soc; Soc. Vert. Paleont; Soc. Study Speciation; N. H. Acad. (pres, 37); Kans. Acad. Vertebrate paleontology; ostracoderms.

Robertson, Prof. G(eorge) Ross, 10639 Wellworth Ave, Los Angeles 24, Calif. *Organic chemistry.* Toronto, Ont, Can, May 27, 88. A.B, Pomona Col, 09; B.S, California, 11; M.S, Chicago, 19, Ph.D, 21. Instr. chem, high sch, and junior col, Calif, 11–18; junior chemist, U. S. Pub. Health Service, 19–21; from instr. to *assoc. prof. chem, California at Los Angeles, 21–* A.A; Chem. Soc. Arsenical aromatic compounds; glycine; glass electrode; reduction of nitro group; chemical apparatus and appliance design; chemistry in journalism.

Robertson, Glenn D(avid), Shell Petroleum Corp, Houston, Texas. *Geology.* Spanish Fork, Utah, March 2, 96. B.S, Utah, 19, M.S, 20. Asst. geologist, Associated and Pacific Oil Companies, Calif, 20–23, geologist and petrol. engineer, 23–27, asst. chief petrol. eng, 27–29; chief geologist and asst. sec'y, Cities Service Petrol. Co, Ltd, Calif, 29–33; consulting engineer, Los Angeles, 33–34; senior exploitation engineer, *Shell Petrol. Corp*, Texas, La. and N. Mex, 34–35, special assignment, The Hague, 35, 36; *asst. to v. pres. production, 37–*, senior exploitation engineer, 38–41, *mem. div. exploitation eng, 41–* Fellow, dept. metal. research, exp. sta, Salt Lake City, U. S. Bur. Mines. Asn. Petrol. Geol; Min. and Metal. Eng. (sec'y-treas, south. Calif. sect, 26–29, chairman, 29, assoc. v. chairman, petrol div, 29). Petroleum engineering.

Robertson, Prof. H(arold) E(ugene), Mayo Foundation, Rochester, Minn. *Pathology.* Waseca, Minn, Oct. 8, 78. A.B, Carleton Col, 99; Columbia, 00–01; M.D, Pennsylvania, 05; Berlin, 14; Freiburg, 15. Instr. path, Albany Med. Col, Union (N. Y), 05–06; Harvard Med. Sch, 07; path. and bacter, *Minnesota*, 07–09, asst. prof, 10–11, assoc. prof, 11–13, *prof. path, 13–*, acting head dept. path, bacter. and pub. health, 13–15, director, 15–18, path. and pub. health, 18–21, *prof. path, Mayo Foundation, 21–; head dept. path. anat, Mayo Clinic, 21–* Pathologist, Boston City Hosp, 06–07. Major, M.C, 17–18. Asn. Path. and Bact. (pres, 25); Am. Med. Asn; Col. Physicians; Soc. Control Cancer (director); Minn. Acad. Med; Int. Asn. Med. Mus. (pres, 29–32). Anterior poliomyelitis; ganglio-neuromata; bacteriology; lipoma myxomatodes; tetanus; pleural endothelioma.

Robertson, H(arold) F(oster), Carbide and Carbon Chemicals Corp, 30 E. 42nd St, New York, N. Y. *Chemistry.* Brantford, Ont, Can, Jan. 31, 98. B.A.Sc, Toronto, 23. Refractories fellow, Mellon inst, 23–27, chrome ore fellow, 28, org. synthesis fellow, 28–36, senior fellow, 36–39; mem. staff, *Carbide and Carbon Chem. Corp*, 39–42, *manager develop. dept, plastics div, 42–* Chem. Soc. Refractories; chrome brick; organic synthesis; resins; plastics.

Robertson, Prof. H(oward) P(ercy), Princeton University, Princeton, N. J. *[6]*Mathematics, Mathematical physics.* Hoquiam, Wash, Jan. 27, 03. B.S, Washington (Seattle), 22, M.S, 23, Denny fellow, 23; Ph.D, Calif. Inst. Tech, 25. Teaching fellow math. physics, Calif. Inst. Tech, 23–25; nat. research fellow math, Göttingen, Munich and Princeton, 25–28; asst. prof, Calif. Inst. Tech, 27–29; *math. physics, Princeton*, 28–31, assoc. prof, 31–38, *prof, 38–; mem, Office Sci. Research and Develop.* Sect. mem. Nat. Defense Research Cmt. Fel. Physical Soc; Math. Soc; Astron. Soc; Philos. Soc. Relativity; mechanics.

Robertson, Imogene C(hristabel Strickler) (Mrs. Harold R. Robertson), 136 Buffum St, Buffalo, N. Y. *Biology.* Buffalo, N. Y, June 23, 72. Private study. Curator conchol, Buffalo Soc. Nat. Sciences, 26–27; assoc. malacol. and later curator biol, *Buffalo Museum of Science*, 28–42, sci. ed. and registrar, 36–42, *research assoc. malacol, 42–* Malacol. Union (financial sec'y, 31–); Buffalo Soc. Nat. Sciences (sec'y, conchol. sect, 17–36, pres, 36–, sec'y, micros. sect, 20–); Buffalo Nat. Field Club (field sec'y, 97, recording sec'y, 98). Conchology; aquatic biology; microscopy; nature notes.

Robertson, Prof. J(ohn) K(ellock), 105 Albert St, Kingston, Ont, Can. *Physics.* Perth, Ont, Jan. 2, 85. B.A, Toronto, 07, M.A, 08; Cambridge, 12–13. Asst. demonstrator and research student *physics*, Toronto, 07–09; lecturer, *Queen's (Can)*, 09–12, from asst. prof. to *prof. and head dept, 13–* Visiting prof, Imp. Col. Science and Technol, London, Eng, 33–34. Fel. Royal Soc. Can. (v. pres, 43; sec'y, sect. III, 35–41, v. pres, 41, pres, 42). Electrodeless discharge in gases and vapors; intensity measurement of spectral lines; physical optics; history of science and the relation of science to the humanities; x-rays and x-ray apparatus; high frequency discharges; theory of optical instruments.

Robertson, Prof. Judson H(all), 1634 Yale Ave, Knoxville, Tenn. *Chemistry.* Crozet, Va, March 20, 92. Richmond Col, 11–12; B.S, Virginia, 17, M.S, 19, Ph.D, 20. Teacher, sch, Va, 10–11; The Miller Sch, 12–13; asst. *chem*, Virginia, 14–17, instr, 17–20; assoc. prof, *Tennessee*, 20–25, *prof, 25–* Director smoke surv, Knoxville, 27, 29, 30. A.A; Chem. Soc. (chairman east Tenn. sect, 41); Tenn. Acad. Molecular weight determinations; constant temperature control and vapor density; solubility and hydrolysis measurements; Nessler solutions; free lime in Portland cement; atmospheric smoke and health; smoke abatement.

Robertson, Dr. Malcolm S(lingsby), Highwood, New Brunswick, N. J. *Mathematics.* Brantford, Ont, Can, July 18, 06. B.A, Toronto, 29, M.A, 30; Royal Soc. Can. fellow, 33–34; Ph.D, Princeton, 34. Nat. research fellow, 34–35; instr. *math*, Yale, 35–37; *Rutgers, 37–39, asst. prof, 39–* Math. Soc. Theory of univalent functions.

Robertson, Dr. Marjorie Babcock (Mrs. W. F. Robertson), Paauilo, Hawaii. *Psychology.* Hornell, N. Y, March 6, 99. A.B, Wells Col, 19; A.M, Hawaii, 27; Ph.D, Columbia, 32. Asst, Training Sch, Vineland, N. J, 19–21, 23–24; psychol. examiner, child study dept, Board Educ, Rochester, 21–22; prof. clin. psychol. and asst. director psychol. clinic, Hawaii, 22–23, 24–38; *consulting psychologist, 38–* Governor's Educ. Cmn, Hawaii, 30; Pan-Pacific Women's Conf, 28–30. Assoc. Psychol. Asn; fel. Asn. Applied Psychol.

Robertson, Dr. Nat C(lifton), Standard Oil Co. of Louisiana, Baton Rouge, La. *Physical chemistry.* Atlanta, Ga, July 23, 19. A.B, Emory, 39; du Pont fellow, Princeton, 41–42, Ph.D, 42. Asst. chem, Princeton, 40–41, research assoc, 42–43; *research chemist, Standard Oil Co. of La, 43–* Chem. Soc. Gas reactions; reactions of cyanogen.

Robertson, Prof. O(swald) H(ope), University of Chicago, Chicago, Ill. *[7]*Pathology, Medicine.* Woolwich, Eng, June 2, 86. B.S, California, 10, M.S, 11; M.D, Harvard, 13. Fellow path, Mass. Gen. Hosp, 14–15; asst. bacter. and path, Rockefeller Inst, 15–17; assoc. prof. *med*, Peking Union Med. Col, 19–23, *prof. and head dept*, 23–27; *Chicago, 27–* Nat. Acad; A.A; Am. Physicians; Soc. Exp. Biol; Soc. Clin. Invest. Blood destruction and transfusion; hemorrhage; blood volume; anemia and plethora in relation to antibody production; pneumococcus immunity; lobar pneumonia; air sterilization with glycol vapors.

Robertson, Dr. R(andal) McG(avock), 1 Hillside Place, Cambridge, Mass. *Physics.* Tampa, Fla, March 12, 11. M.A, Glasgow, 32; Ph.D, Mass. Inst. Tech, 36. Demonstrator physics, Glasgow, 27–28; teaching fellow, Mass. Inst. Tech, 35–36; asst, Columbia, 37–38; *research assoc, Norton Co, 38–; mem. staff radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Arc cathode phenomena; nuclear magnetic moments; abrasive materials and bonded abrasive articles; surface finish of machine parts; secret military devices.

Robeson, Prof. F(rank) L(elgh), 207 Otey St, Blacksburg, Va. *Physics, Spectroscopy.* Farmville, Va, June 24, 84. B.S, Va. Polytech, 04, M.E, 05; A.M, Columbia, 13; Ph.D, Hopkins, 23. Supt, Farmville Mfg. Co, 07–10; asst. math, *Va. Polytech*, 04–05, instr. math. and drawing, 05–07, math. and mech. eng, 10–12, assoc. prof. *physics*, 13–17, *prof. and head dept, 17–* A.A; Physical Soc; Va. Acad. History and properties of the cycloid; infra-red spectrum of helium.

Robeson, Dr. J(ohn) M(axwell), Jr, Syracuse University, Syracuse, N. Y. *Zoology.* Buena Vista, Va, Dec. 18, 03. B.S, Virginia, 27, M.S, 28, Gen. Educ. Board fellow, 28–30, Ph.D, 30. Asst. *zool*, Virginia, 26–28; instr, *Syracuse*, 30–36, asst.

prof. and *assoc. prof, 36–* Summers, staff, Virginia, 28–32. Eugenics Soc; Va. Acad. Histology; embryology.

Robey, Dr. Ashley, 421 College Ave, Salem, Va. *Organic chemistry.* Ft. Worth, Texas, Aug. 1, 03. B.S, Texas Christian, 23; fellow, Colorado, 23–24; Agr. and Mech. Col. Texas, 24–25, M.S, 25; Ph.D, Cornell, 32. Asst. chem, Cornell, 26–27, asst. in charge, lab. div. elementary chem, 27–31; prof. *chem.* and head dept, Ark. State Col, 32–41; asst. prof, *Roanoke Col,* 41–43, *acting director dept, 43–* Summer, acting asst. prof, Cornell, 31. A.A; fel. Inst. Chem; Chem. Soc. Sulfinic acids; reactions of 9-fluorenyl magnesium halides; isolation of toxin from seeds of Daubentonia longifolia.

Robey, Dr. Richard F(oerster), 409 Orange Ave, Cranford, N. J. *Chemistry.* Columbus, Ohio, May 29, 12. A.B, Ohio State, 33, M.S, 34, Ph.D, 37. Asst. instr. chem, Ohio State, 33–37; *research chemist, Esso Labs, Standard Oil Develop. Co, 37–* Chairman subcmt. anal. methods, tech. advisory cmt. Petrol. Ind. War Council, 42– Chem. Soc; Soc. Measurement and Control (sec'y, 42). Physical and analytical chemist; kinetics of chemical reactions; phase equilibria; analytical methods; physical chemistry of the unsaturated hydrocarbons.

Robey, Dr. William Henry, 202 Commonwealth Ave, Boston, Mass. *Medicine.* Boston, Mass, July 3, 70. M.D, Harvard, 95. House physician, Boston City Hosp, 94–96; Boston Lying-in Hosp, 96; *practising physician, 97–;* asst. bacter, instr. and faculty instr. *med, Harvard Med. Sch,* 00–19, asst. prof, 19–27, clin. prof, 27–32, *emer. clin. prof, 32–,* George W. Gay lecturer, 30. Past pres, senior staff, Boston City Hosp; consulting physician, Boston City, Milton, Norwood and Marlborough Hosps. M.C, 17–18, lieut. col; col, U.S.A. Res. A.A; fel. Am. Med. Asn; Asn. Path. and Bact; Am. Heart Asn. (pres, 29–31); Clin. and Climat. Asn; fel. Col. Physicians; New Eng. Heart Asn. (pres, 27–30); Mass. Med. Soc. (Shattuck lecturer, 29, pres, 33–35). Internal medicine; circulatory diseases; causes of heart failure; headache.

Robinow, Dr. Meinhard, University of Georgia School of Medicine, Augusta, Ga. *Pediatrics.* Hamburg, Germany, May 19, 09. M.D, Hamburg, 34. Chairman sect. physical growth, Fels Inst, 39–42; *asst. prof. pediat, sch. med, Georgia, 42–* A.A. Child development; physiology; genetics.

Robinson, Prof. A(braham) L(ouis), University of Pittsburgh, Pittsburgh, Pa. *Physical chemistry.* Chicago, Ill, Oct. 17, 02. B.S, Pennsylvania, 23, M.S, 24; Ph.D, Pittsburgh, 26. Instr. *chem, Pittsburgh,* 26–28, asst. prof, 28–39, assoc. prof, 39–43, *prof, 43–* Chem. Soc. Chemical kinetics; thermochemistry of solutions.

Robinson, Prof. A(llen) D(inwoody), University of Manitoba, Winnipeg, Man, Can. *Chemistry.* Alliston, Ont, May 24, 04. B.A, Saskatchewan, 25, M.A, 27; Caleb Dorr fellow, Minnesota, 27–28, Ph.D, 30. Instr. agr. and biochem, New Hampshire, and asst. chemist, Exp. Sta, 29–30; *asst. prof. agr. chem, Manitoba, 30–* Assoc. Can. Inst. Chem. Physical chemistry of the proteins; animal nutrition; nutrition.

Robinson, Dr. Benj(amin) W(elbourne), Iowa State Employment Service, Des Moines, Iowa. *Psychology.* Cedar Falls, Iowa, Jan. 17, 91. A.B, Iowa State Teachers Col, 19; A.M, Iowa, 20, Ph.D, 21. Asst, bur. personnel research, Carnegie Inst. Tech, 21–24; research assoc, research bur. retail training, Pittsburgh, 24–26; asst. to chief of methods and standards, Armour and Co, Chicago, 26–27, asst. office manager, gen. offices, 27–29, research assoc, personnel dept, 29–32; manager student employment service, Iowa, 32–35; State Employment Service, Iowa, 35–42; *supervisor special services, U. S. Employment Service, 42–* Lecturer, Carnegie Inst. Tech, 24–26. Tests of natural capacity and aptitude for typewriting; a new timing device for 'Work Limit' group tests; classification of clerical workers for the purpose of salary adjustments; revision of personnel record system; personnel and employment problems.

Robinson, Dr. B(rittain) B(ragunier), U. S. Department of Agriculture, Washington, D. C. *Plant breeding.* Topeka, Kans, Dec. 4, 99. B.S, Agr. and Mech. Col. Texas, 22; M.S, Mich. State Col, 24, Ph.D, 32. Asst, Mich. State Col, 22–24; asst. plant breeder, assoc. plant breeder and *senior agronomist, office fiber plants, bur. plant indust, U. S. Dept Agr, 24–* Sci. research work for U. S. Dept. Agr, Europe, 30, Peru, 41. Genetics Soc. Fiber plants.

Robinson, Dr. Byron L(ewis), University of Arkansas School of Medicine, Little Rock, Ark. *Anatomy.* Oconomowoc, Wis, March 30, 92. A.B, Wisconsin, 14, A.M, 17; M.D, Minnesota, 24. Asst. zool, Wisconsin, 13–14, anat, 15–16; biol, Marquette, 14–15; prof. anat, Mississippi, 16–17, hygiene, 20–22, *anat,* 22–23; asst, Minnesota, 17–18; asst. prof, Iowa, 24–25; *prof, sch. med, Arkansas,* 25–41, *dean, 41–* Asn. Anat; fel. Am. Med. Asn; Asn. Study Int. Secretions. Comparative anatomy; neuroanatomy; endocrinology; pulmonary plugs in suprarenalectomy; brain defect; castration atrophy and theelin.

Robinson, Prof. Charles J(udson), Pomona College, Claremont, Calif. *Chemistry.* Eureka, Ill, Dec. 12, 82. B.S, Ill. Wesleyan, 03; Ph.D, Hopkins, 06. Instr, Univ. and Bellevue Hosp. Med. Col, 05–09; prof. chem, Louisville, 09–17; research chemist, Saranac Lake, 17–21; prof. chem, Des Moines, 21–27, dean col. arts and sciences, 26–27; *prof. chem, Pomona Col, 27–* Capt, Sanit.C, 18–19. A.A; Chem. Soc. Camphoroxalic acid; phosphorus compounds in wheat bran; demulsification; capillary rise in powders.

Robinson, Prof. C(harles) S(ummers), Vanderbilt University School of Medicine, Nashville, Tenn. *Biochemistry.* Chicago, Ill, April 17, 85. A.B, Michigan, 07, M.S, 09, Ph.D, 17; Cambridge, 28. Asst. chem, Michigan, 06–08; West. Elec. Co, 09; asst. chem, Exp. Sta, Mich. State Col, 09–15, research assoc, 15–28; chemist, 28–31; *prof. biochem, sch. med, Vanderbilt, 31–* Assoc. Rockefeller Inst. Hosp, 18. Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Mineral metabolism; intestinal absorption; lipid metabolism.

Robinson, Prof. C(lair) W(illard), 243 W. Park Ave, State College, Pa. *Geology.* Baie Verte, N. B, Can, April 25, 83. B.A, Acadia, 11; A.B, Yale, 12, A.M, 15. Instr. *geol,* Iowa, 15–16; *Pa. State Col,* 16–17, asst. prof, 17–25, *assoc. prof, 25–, curator museum, sch. mineral industries, 34–* Summers, field work, Geol. Surv. Can, 12–20; Pa. Geol. Surv, 21.

Robinson, Prof. C(lark) S(hove), Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering.* Fall River, Mass, April 8, 88. B.S, Mass. Inst. Tech, 09, M.S, 15. Chemist, Sherwin-Williams Co, Cleveland, 10–11; asst. plant manager, Roessler and Hasslacher Chem. Co, Perth Amboy, N. J, 11–12; chemist, Walworth Mfg. Co, Boston, 13–14; *consulting chem. engineer, 15–;* instr. *chem. eng, Mass. Inst. Tech,* 15–19, asst. prof, 19–25, *assoc. prof, 25–; ordnance dept, U. S. Army.* Lieut. col, Ordnance O.R.C, 24– Chem. Eng; Chem. Soc. Unit operations in chemical engineering.

Robinson, Lieut. C(lark) S(hove), Jr, 65A Dana St, Cambridge, Mass. *Physics.* Reading, Mass, May 13, 17. B.S, Mass. Inst. Tech, 38, James Savage fellow, 40–41, Ph.D, 42. Teaching fellow physics, Mass. Inst. Tech, 39–40; research assoc, radiation lab, 41–43; *lieut, Sig. Corps, U. S. Army, 42–* A.A; Physical Soc; Appalachian Mountain Club. Rate of crystal growth in drawn tungsten wire as a function of temperature.

Robinson, E(dmund) G(rubb), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Wilmington, Del, Feb. 23, 86. A.B, Swarthmore Col, 05. With *E. I. du Pont de Nemours and Co,* 05–29, *gen. manager org. chem. dept,* 29– Chem. Soc. Dyestuffs and related organic chemicals.

Robinson, Prof. Edward Schouten, 917 W. Third Ave, Stillwater, Okla. *Philosophy, Psychology.* Burlington, Vt, Aug. 30, 04. A.B, Harvard, 26, A.M, 28, Ph.D, 32; Vienna; Göttingen; Berlin. Instr. Eng, Syracuse, 26–27; asst. philos, Harvard and Radcliffe Col, 29–30; instr. philos. and psychol, Lincoln Sch. Lib. Arts, 35; Kenyon Col, 36–38; *asst. prof. psychol. and philos, Okla. Agr. and Mech. Col, 38–; U. S. Army.* Summer, instr, West. State Nor. Sch, Maine, 38. Philos. Asn; Asn. Symbolic Logic; Midwest. Psychol. Asn; Southwest. Philos. Conf; Okla. Acad.

Robinson, Dr. Edwin A(llin), 99 Fairmount Ave, Chatham, N. J. *Chemistry.* Denver, Colo, Nov. 17, 07. A.B, Denver, 28, M.S, 29; Ph.D, Columbia, 33. Instr. chem, Denver, 28–29; asst, Columbia, 30–32; research chemist, Tenn. Eastman Corp, Kingsport, 33–36; *tech. director indust. div, Nat. Oil Products Co, Harrison, N. J, 36–* Summers, research chemist, Eastman Kodak Co, 29, 30. Chem. Soc. Female sex hormones; synthesis of diuretics and antirheumatic substances; esters and ethers of cellulose; rayon and acetate textile yarns; oils, fats and waxes as treatments for textiles, tanning, paper and other fibrous materials; oil and fat synthetic derivatives.

Robinson, Dr. Elliott S(tirling Andrew), 1321 Holly St, N.W, Washington, D. C. *Serology.* New Haven, Conn, Aug.

22, 94. A.B, Yale, 16, M.D, 18, Ph.D, 22. Asst. res. med, New Haven Hosp, 18–19; asst. path. and bacter, sch. med, Yale, 19–20, instr, 20–23; nat. research fellow med, 22–23; asst. director *div. biologic labs, State Dept. Pub. Health, Mass*, 23–33, *director, 33–*; asst. *pub. health, Harvard Med. Sch*, 23–25, instr, 25–33, *asst. prof, 33–; lieut. col, Med. Corps, U. S. Army, 42–* Consultant, Commonwealth Fund; to U. S. Sec'y War, 41–42. Chairman, Conf. State Lab. Directors, 39. A.A; Am. Med. Asn; Pub. Health Asn. (v. chairman standard methods cmt. on biol. products, lab. sect, 40, chairman, 41; mem. co-ordinating cmt); Soc. Exp. Biol; Soc. Bact; Asn. Immunol. Diphtheria toxin and antitoxin.

Robinson, Dr. Ellis J(aquith), American Cyanamid Co, Stamford, Conn. *Physiology.* Belleville, N. J, Sept. 21, 03. B.S, Muhlenberg Col, 26; M.S, N. Y. Univ, 31, Ph.D, 34. Asst. biol, N. Y. Univ, 30–35; instr. physiol, Ohio State, 35–37; *research physiologist*, pharmacol. lab, Calco Chem. Co, 37–39; *Am. Cyanamid Co, 39–* Permeability and osmotic properties of mammalian erythrocytes.

Robinson, Dr. Elsa E(lizabeth), New York University, Washington Square, New York, N. Y. *Psychology.* Jan. 25, 09. A.B, Columbia, 29; A.M, N. Y. Univ, 34, Ph.D, 37. Asst. *psychol*, Judge Baker Foundation, 29–30; *N. Y. Univ*, 30–34, *instr, 35–* A.A; assoc. Psychol. Asn. Child psychology; reasoning in humans.

Robinson, Prof. F(rancis) P(leasant), Ohio State University, Columbus, Ohio. *Psychology.* Danville, Ind, Dec. 21, 06. A.B, Oregon, 29; A.M, Iowa, 30, Ph.D, 32. Asst, Iowa, 29–32, director reading clinic, 29–33, instr. psychol, 32–33; prof. psychol. and educ, Stout Inst, 33–37, head dept, 34–37; asst. prof. *psychol*, Oregon, 37; *Ohio State*, 37–41, *assoc. prof, 41–* Col. Personnel Asn; Ed. Research Asn; Psychol. Asn; Midwest. Psychol. Asn. Psychology of reading, personnel, language and education.

Robinson, Dr. G(eorge) Canby, 4712 Keswick Road, Baltimore, Md. *Medicine.* Baltimore, Md, Nov. 4, 78. A.B, Hopkins, 99, M.D, 03; Munich, 08–09; hon. LL.D, Washington (St. Louis), 28; Sc.D, George Washington, 32. Asst. demonstrator anat, Cornell, 03–04; res. pathologist, Pennsylvania Hosp, 04–06, res. physician, 06–08; director path. lab, Presb. Hosp, Phila, 09–10; assoc. med, Rockefeller Inst, and res. physician, Hosp, 10–13; assoc. prof. med, Washington (St. Louis), 13–20, acting dean and dean sch. med, 17–20; prof. med. and dean sch. med, Vanderbilt, 20–28; prof. med. med. col, Cornell, 28–35; director, N. Y. Hosp, Cornell Med. Col. Asn, 28–35; *retired.* Visiting prof, Peiping Union Med. Col. China, 35; acting prof. Hopkins, 21–22, lecturer, med. sch. 36–; director blood donor service, Am. Red Cross, 41– Ed. in chief, 'Jour. Clin. Invest,' 25–27. A.A; Am. Med. Asn; Physiol. Soc; Am. Physicians (pres, 33); Soc. Pharmacol; Harvey Soc. (pres, 28). Bacteriology; pathology; diseases of the heart; electrocardiography; digitalis therapy; output of the heart; medical education; social aspects of medicine; the patient as a person.

Robinson, Dr. G(eorge) H(enry), William H. Singer Research Laboratory, 310 E. North Ave, N. S, Pittsburgh, Pa. *Bacteriology, Immunology.* Lewiston, Maine, May 23, 89. A.B, Bates Col, 11; A.M, Brown, 12, Ph.D, 14. Research bacteriologist, H. K. Mulford Co, 14–18; assoc. bacter, sch. hygiene and pub. health, Hopkins, 18–24; *bacteriologist, William H. Singer Research Lab. and Allegheny Gen. Hosp, 24–* Bacteriologist, U. S. Pub. Health Service, 20; lecturer, sch. med, Pittsburgh, 26– Soc. Bact; Soc. Exp. Path. Experimental pathology.

Robinson, Prof. G(ilbert) de B(eauregard), University of Toronto, Toronto, Ont, Can. *Mathematics.* Toronto, Ont, June 3, 06. B.A, Toronto, 27; Ph.D, Cambridge, 31. Lecturer *math, Toronto*, 31–34, asst. prof, 34–43, *assoc. prof, 43–* Math. Soc; London Math. Soc. Theory of groups.

Robinson, Dr. Hamilton (Burrows Greaves), 4559 Scott Ave, St. Louis, Mo. *Pathology, Histology.* Philadelphia, Pa, Feb. 16, 10. D.D.S, Pennsylvania, 34; Rockefeller fellow, Rochester, 34–36, M.S, 36. Carnegie fellow, Rochester, 36–37; asst. prof. *oral histol. and path, Washington (St. Louis)*, 37–42, *assoc. prof, 42–* Managing ed, 'Jour. Dental Research,' 37–38, ed, 38– A.A; Dental Asn. (research cmt); Asn. Dental Editors; Asn. Adv. Oral Diagnosis; Mo. Dental Asn; Int. Asn. Dental Research (councilor, 36, 41, ed, 41–). Oral pathology and histology; oral tumors.

Robinson, Dr. H(arold) C(unningham), Geneva, N. Y. *Bacteriology.* Riverside, Calif, April 21, 89. B.A, Acadia, 10; A.B, Yale, 13, Ph.D, 17. Asst. bacter, Yale, 15–16; bacteriologist, Quarantine Sta, New York, 16–17; Lederle Antitoxin Lab, 17–21; pathologist, Geneva Gen. Hosp, 21–42; *bacteriologist in charge, Ont. County Labs, Geneva, 21–*; Yates County Lab, Penn Yan, 25–42. Soc. Bact; Soc. Exp. Biol; Ont. County Med. Soc; Geneva Acad. Med. Bacterial growth and metabolism in protein-free digestion products.

Robinson, Heath M(ontgomery), 1004 Gulf States Bldg, Dallas, Texas. *Geology.* Pilot, Va, Oct. 11, 90. B.S, Va. Polytech, 10, M.S, 12; Yale, 13–15. Geologist, U. S. Geol. Surv, 12–15, 17–18; with F. Julius Fohs, 16; F. Julius Fohs and Humphreys Oil Co, 19–23; *v. pres. and director, Penn Oil Co, 23–; consulting geologist, 23–* Asn. Petrol. Geol. Oil and gas.

Robinson, Prof. Henry A(llen), Agnes Scott College, Decatur, Ga. *Mathematics.* Augusta, Ga, Aug. 21, 02. B.S, Georgia, 22; A.M, Hopkins, 25, Ph.D, 31. Instr. *math*, Agr. and Mech. Col. Texas, 23–24; junior instr, Hopkins, 24–26, 29–30; acting prof, *Agnes Scott Col*, 26–29, *prof, 30–; capt, U. S. Army, and classification and assignment officer, Ft. McPherson, Ga, 40–* Math. Soc; Math. Asn. (sec'y-treas, southeast. sect, 33–; governor, region V, 42–); Statist. Asn; fel. Ga. Acad. Inversive geometry and elliptic functions.

Robinson, H(erbert) E(dwin), Swift and Co, Chicago, Ill. *Biochemistry.* Henderson, Mont, Nov. 7, 07. A.B, Montana, 27; Ph.D, Pittsburgh, 31. Asst. chem, Pittsburgh, 27–31; research chemist, *Swift and Co*, 32–41, *asst. chief chemist, 41–* Chem. Soc; Oil Chem. Soc; Inst. Food Technol; Poultry Sci. Asn; Chicago Chem. Club (sec'y, 41, pres, 43). Glycerides; vitamin G; poultry nutrition; canine nutrition; animal feeds, fats and oils; processing effects on nutritive values of foods.

Robinson, Dr. Howard A(ddison), Armstrong Cork Co, Lancaster, Pa. *Physics.* Rotterdam, N. Y, July 30, 09. B.S, Mass. Inst. Tech, 30, James Savage fellow, 30–31, Ph.D, 35; Am-German exchange student, Munich, 30–31. Teaching fellow physics, Mass. Inst. Tech, 32–35; Irving Langmuir fellow, Am-Scandinavian Foundation, Uppsala, 35–36; instr. physics, Ohio State, 36–37; physicist, *Armstrong Cork Co*, 37–38, asst. chief physicist, 38–42, *chief physicist, 42–* Physical Soc. Spectroscopy; rheology; physical properties of materials.

Robinson, Dr. Howard W(est), Temple University, Philadelphia, Pa. *Biochemistry.* Philadelphia, Pa, April 20, 96. B.S, Pennsylvania, 21, M.S, 25; Ph.D, Vanderbilt, 29. Instr. research med, Pennsylvania, 23–25; biochem, sch. med, Vanderbilt, 25–30, asst. prof, 30–31; grad. sch, Cincinnati, 31–41, pediatric research, col. med, 35–41; *biochemist, dept. pediat, med. sch, Temple, 42–* Fellow, research foundation, Children's Hosp, Cincinnati, 31–41. A.A; Soc. Biol. Chem; Chem. Soc. Acid-base equilibrium of body fluids; hydrogen ion concentration determinations; buffer system; blood serum proteins.

Robinson, Dr. J. F(rench), 1405 E. Sixth St, Cleveland, Ohio. *Geology, Engineering.* Elizabeth, W. Va, Dec. 13, 90. B.S, West Virginia, 15, M.S, 18; Sc.D, Pittsburgh, 29. Asst. geologist, Baltimore and Ohio R. R. Co, 14–18; engineer and supt, Ford Run-Franklin Coal and Coke Co, 18–19; geologist, Seneca Hill Oil Co, 19–20; asst. state geologist, Pa, 20–21; geologist and engineer, Hope Nat. Gas Co, 21–33; director and v. pres, Belmont Quadrangle Drilling Corp, Bradford, 33–35; geologist and engineer, Peoples Nat. Gas Co, 21–33, director, 33–40, v. pres, 33–35, pres, 36–40; *pres. and director, East Ohio Gas Co, 40–* Geologist and engineer, Columbia Nat. Gas Co, 21–33, v. pres, 33–36, director, 33–40, pres, 36–40; manager, N. Y. State Nat. Gas Corp, 30–36, director and pres, 36–40; manager, Keuka Construction Co, 30–36, director and pres, 36–40; Brave Water Co, 36–40; Reserve Gas Co, 36–40; Lycoming United Gas Corp, 36–40; gen. chairman nat. gas and nat. gasoline cmt. and chairman dist. 1 NG and NG cmt, Petrol. Admin. for War, 42. Min. and Metal. Eng; Petrol. Inst. (chairman, east. div, nat. drilling cmt); Inst. Petrol. Geol; Min. Cong; Gas Asn. (chairman nat. gas sect, 41); Eng. Soc. West Pa. (pres, 36). Geology of the Appalachian territory; stratigraphy of southwestern Pennsylvania.

Robinson, Dr. James V(ance), 41 Harrison Ave, Kenmore, N. Y. *Physical chemistry.* Louisville, Ky, March 26, 16. A.B, Pomona Col, 36; Continental Oil Co. fellow, Illinois, 38–40, Ph.D, 40. Teaching asst, Illinois, 36–38; *research chemist, rayon dept, E. I. du Pont de Nemours and Co, 40–* Chem. Soc.

Cellulose chemistry; surface orientation of floating monomolecular films and built-up multilayers; chemistry of transparent cellulose films.

Robinson, Prof. J(esse) M(athews), Alabama Polytechnic Institute, Auburn, Ala. *Zoology, Entomology.* Higginsport, Ohio, Jan. 30, 89. A.B, Miami (Ohio), 11; A.M, Ohio State, 16. Teacher, schs, Ohio, 11–15, prin, 15–17; asst. zool. and entom, Ohio State, 15–16; exten. worker, bur. entom, U. S. Dept. Agr, N. C. and Tenn, 17–18; asst. prof. *zool. and entom, Ala. Polytech,* 19-21, assoc. prof, 21–24, acting head dept, 24–29, *prof. and head dept, 29–,* asst. entomologist, *Exp. Sta,* 19–21, assoc. entomologist, 21–24, acting entomologist, 24–29, *entomologist, 29–* A.A; Entom. Soc; Asn. Econ. Entom; Eugenics Research Asn; Genetic Asn; Ala. Acad; Ohio Acad. Cotton insects; vegetable insects.

Robinson, Dr. John C(utler), Jr, 2201 N. Franklin St, Wilmington 238, Del. *Organic chemistry.* Reading, Mass, Jan. 18, 18. B.S, Boston, 39; Ph.D, Illinois, 43. Asst. chem, Boston, 37–38; special asst. and teaching asst, Illinois, 40–43; *research chemist, Exp. Sta, Hercules Powder Co, 43–* Summer, research chemist, gen. labs, U. S. Rubber Co, 42. Chem. Soc. Diels-Alder reaction of unsaturated anils; organic derivatives of boron fluoride.

Robinson, Prof. Joseph L(ee), Iowa State College, Ames, Iowa. *Agronomy.* Omega, Okla, July 10, 93. B.S, Okla. Agr. and Mech. Col, 16; fellow, Iowa State Col, 16–17, M.S, 18, Ph.D, 33. Asst. agronomist, Wyoming, 17–20; supt. cooperative experiments, *Iowa State Col,* 20–32, research asst. prof. farm crops, 32–38, *research assoc. prof. agron, 38–, assoc. prof, exten. service, 34–* Asst. supt, Int. Grain and Hay Show, 23. Production manager, Cmt. for Agr. Develop, 43– 2nd lieut, U.S.A, 18. Soybean Asn. (v. pres, 24); Iowa Corn and Small Grain Growers Asn. (sec'y, 20–, treas, 41–); Iowa Agr. Exp. Asn. (sec'y, 20–, treas, 24–); Int. Crop Improv. Asn. (director, 26–). Farm crops; crop production; plant physiology.

Robinson, Dr. L(immye) V(ernon), University of Mississippi, University, Miss. *Mathematics, Astronomy.* Beechgrove, Tenn, Feb. 8, 98. A.B, Texas, 21, A.M, 22; Vanderbilt fellow, Virginia, 23; Chicago; Ph.D, Harvard, 31. Asst. math, Texas, 20–22; instr, Meridian Col, 22–23; asst, McCormick Observatory, Virginia, 23–24; asst. prof. math. and astron, Oklahoma City Univ, 24–25, prof. astron, 25–26; adj. prof. math, Texas Tech. Col, 26–30; instr. astron, Radcliffe Col, 31; astronomer, Harvard Col. Observatory, 31–32; asst. soil conservationist, U. S. Dept. Agr, 35–37; prof. *math,* Amarillo Col, 37–40; *asst. prof, Mississippi, 40–* A.A; Math. Soc; Math. Asn; Astron. Soc. Applied mathematics; differential equations; variable stars; stellar evolution; photographic photometry.

Robinson, Prof. M(urrell) O(rton), Alabama Polytechnic Institute, Auburn, Ala. *Bacteriology.* Holmesburg, Pa, March 20, 00. V.M.D, Pennsylvania, 25, 28–29; Wisconsin, 27–28. Director labs, Scott-Powell Dairies, Philadelphia, Pa, 28–37; *prof. bacter, Ala. Polytech, 37–* Vet. Med. Asn. (chairman cmt. food hygiene, 39); Soc. Bact; fel. Pub. Health Asn; Ala. Vet. Med. Asn. Problems in milk control; thermophilic bacteria in milk; control of spreaders on agar plates; variations in butterfat tests at milk plants.

Robinson, Prof. P(ierre) G(ain), Iowa State College, Ames, Iowa. *Mathematics.* Pierre, S. Dak, 89. B.S, Chicago, 14, M.S, 22, Ph.D, 25. Instr, Colo. Agr. Col; high sch, Ill; *Iowa State Col,* 22–23, *assoc. prof. math, 24–* Math. Soc. Projective differential geometry; study of surfaces with constant absolute invariants.

Robinson, Dr. Preston, Box 693, North Adams, Mass. *Physical chemistry.* Boston, Mass, June 30, 02. B.S, Mass. Inst. Tech, 22, M.S, 23; Ph.D, California, 25. Teaching fellow, California, 23–25; research metallurgist, Guggenheim Brothers, 25–29; *director research, Sprague Specialties Co, 29–* Chem. Soc; Physical Soc. Equilibria at high temperatures; metallurgy of tin; thermodynamics; dielectrics.

Robinson, Dr. Raphael M(itchel), University of California, Berkeley, Calif. *Mathematics.* National City, Calif, Nov. 2, 11. A.B, California, 32, A.M, 33, Ph.D, 35. Instr. *math,* Brown, 35–37; *California,* 37–41, *asst. prof, 41–* Math. Soc. Functions of complex variables.

Robinson, R(eginald) H(eber), Oregon State College, Corvallis, Oregon. *Chemistry, Economic entomology.* Gladwin, Mich, Nov. 10, 86. A.B, Pacific, 09; M.S, California, 12. Asst. chemist, U. S. Dept. Agr, San Francisco, 10–11; asst. chemist, *Exp. Sta, Oregon State Col,* 11–18, assoc. chemist, 18–24, *chemist, 24–* Asst. chemist, bur. chem. and soils, U. S. Dept. Agr, 28, prin. chemist, 34. A.A; Chem. Soc; Asn. Econ. Entom. Insecticides; fungicides; spray residues; chemical phases of economic entomology and plant pathology.

Robinson, Prof. Rex J(ulian), University of Washington, Seattle, Wash. *Analytical chemistry.* Maxwell, Ind, Nov. 15, 04. A.B, DePauw, 25; A.M, Wisconsin, 27, Ph.D, 29. Asst, Wisconsin, 26–29; instr. anal. chem, *Washington (Seattle),* 29–34, asst. prof. *anal. chem,* 34–37, *assoc. prof, 37–* A.A. Summers, anal. chemist, Wis. Geol. Surv, 26–29. Chem. Soc; Oceanog. Soc. Pacific. Microchemistry; limnological and oceanographic chemistry.

Robinson, Dr. R(obert) R(oss), U. S. Regional Pasture Research Laboratory, State College, Pa. *Agronomy.* New Geneva, Pa, Feb. 14, 09. B.S, West Virginia, 31, M.S, 33, Ph.D, 36. Agent agron, bur. plant indust, *U. S. Dept. Agr,* 30–35, asst. agronomist, soil conservation service, 35, *bur. plant indust,* 35–37, *assoc. agronomist, regional pasture research lab, 37–* Soc. Agron; Soil Sci. Soc. Soil-plant relationships.

Robinson, Dr. Robin, 16 Allen St, Hanover, N. H. *Mathematics.* Clinton, Conn, May 11, 03. A.B, Dartmouth Col, 24; A.M, Harvard, 25, Ph.D, 29; Sheldon fellow, Hamburg, 27–28. Instr. *math,* Harvard, 26–27; *Dartmouth Col,* 28–36, asst. prof, 36–42, *prof, 42–* Math. Soc; Math. Asn. Non-Euclidean differential geometry.

Robinson, Dr. Samuel J(oseph), Sterling Pulp and Paper Co, Eau Claire, Wis. *Chemistry.* Savannah, Ga, March 11, 09. B.S, Iowa State Col, 31; M.S, Lawrence Col, 32, Ph.D, 34. Chemist, Champion Fibre Co, N. C, 34–36; *tech. director, Sterling Pulp and Paper Co, 36–* Tech. Asn. Pulp and Paper Indust. Rosin sizing of paper.

Robinson, Dr. Selby (Lemley), 41–38 Westmoreland St, Little Neck, N. Y. *Mathematics.* Albia, Iowa, 97. B.S, Northeast Mo. State Teachers Col, 25; M.S, Iowa, 29, Ph.D, 31. Instr. *math,* Wisconsin, 30–31; research assoc, Iowa, 31–32; nat. research fellow, Princeton, 32–33, asst, 33–34; *instr, Col. City of N. Y, 34–* Math. Soc; Math. Asn; Inst. Math. Statist. Topology; abstract spaces and permutation groups.

Robinson, Prof. Sid, Indiana University, Bloomington, Ind. *Physiology.* Winona, Miss, Dec. 6, 02. B.S, Miss. Agr. and Mech. Col, 24; M.S, Cornell, 30; Ph.D, Harvard, 38. Teacher biol, high sch, Independence, La, 24–25; acting prof, Miss. Col, 26–27; head physical educ. dept, Kentucky, 29–30; asst. prof, *Indiana,* 30–33, *physiol,* 33–40, *assoc. prof, 40–* A.A; Physiol. Soc. Physiology of exercise and fatigue; metabolic, circulatory and respiratory reactions of man as affected by work and environmental conditions.

Robinson, T(homas) Ralph, Terra Ceia, Fla. *Horticulture.* Syracuse, N. Y, Aug. 25, 76. A.B, Syracuse, 98, A.M, 99. Plant physiologist, U. S. Dept. Agr, 01–10; in charge commercial citrus grove, 11–18; crop physiologist, bur. plant indust, U. S. Dept. Agr, 18–40; *retired.* A.A; Phytopath. Soc; Soc. Hort. Sci; Fla. Acad; Fla. State Hort. Soc. (pres, 40); Bot. Soc. Wash. Soil bacteriology; breeding of subtropical fruits.

Robinson, Thomas W(illiam), U. S. Geological Survey, Washington, D. C. *Hydraulic engineering.* Aladdin, Wyo, July 21, 00. B.S, S. Dak. Sch. Mines, 25, C.E, 30. Instrumentman, State Highway Cmn, S. Dak, 24, inspector, computer and draftsman, 25–26; junior engineer, *water resources branch, U. S. Geol. Surv,* 26–29, asst. engineer, 29–37, assoc. engineer, 37–42, *engineer, 42–* Assoc. Civil Eng; Geophys. Union. Hydrology; geology and ground water resources of California and Texas; ground water for irrigation in Oregon; Artesian conditions in west-central South Dakota; hydrology of the San Luis Valley, Colorado; salt water contamination of the Pecos River, New Mexico; ground water resources of Iowa and South Dakota.

Robinson, Dr. True W(illiam), University of Illinois, Urbana, Ill. *Physiology.* Spearfish, S. Dak, June 19, 05. B.S, Calif. Inst. Tech, 29; A.M, Harvard, 33, Parker fellow, 36–37, Ph.D, 37. Asst. gen. physiol, Harvard, 31–35; instr. *zool, Illinois,* 37–40, *assoc, 40–; lieut, Air Force, U. S. Army, 42–* A.A; Soc. Zool. Physiology of development and differentiation; organizers; internal secretions; tropisms; plant growth hormones.

Robinson, Prof. Una (Lane), Indiana University, Bloomington, Ind. *Nutrition.* Cameron, Texas, Dec. 20, 93. A.B, Baylor, 14, A.M, 22; Ph.D, Chicago, 36. Teacher, elementary sch, 14–18, high sch, 18–21; prof. chem. and biol, Chowan Col, 22–24, dean women, 23–24; asst. prof. chem, Okla. Col. for Women, 24–25; Judson Col, 25–28; *home econ, Indiana,* 29–43, *assoc. prof, 43–* Nutrition specialist, bur. home econ, U. S. Dept. Agr, 41. A.A; Chem. Soc; Home Econ. Asn; Dietetic Asn; Ind. State Home Econ. Asn. (pres, 43–); Int. Federation Home Econ. Food chemistry; condition of calcium, phosphorus and nitrogen in evaporated milk.

Robinson, Dr. Victor, Temple University, Philadelphia, Pa. *History of medicine.* Ukraine, Russia, Aug. 16, 86. Ph.G, N. Y. Col. Pharmacy, 10; Ph.C, Columbia, 11; M.D, Chicago Col. Med. and Surg, 17. Ed, 'Med. Rev. of Revs,' 16–18, 27–37; *prof. hist. of med, sch. med, Temple, 29–, lecturer hist. of nursing, sch. nursing, 37–* Radio broadcast, Univ. of the Air. Ed, 'Med. Life'; 'Historia Medicinae'; 'Mod. Home Physician,' 34–39; Am. ed, 'Paolo Mantegazza,' 35–36; 'Encyclopedia Sexualis,' 36; Am. ed, 'Psychopathia Sexualis,' 39; 'New Peoples Physician,' 41. Official del. Int. Cong. Hist. of Med, Leyden-Amsterdam, Holland, 27. Hist. Sci. Soc; Asn. Hist. Med. (councilor, 39–); N. Y. Soc. Med. Hist. (pres, 40). History of otology and military medicine.

Robinson, Dr. (Virgil) Nelson, Louisiana State University, Baton Rouge, La. *Geometry, Mathematics.* Richmond, Ky, Oct. 8, 12. A.B, Vanderbilt, 34, scholar, 34–35, A.M, 35; scholar, Chicago, 38–39, Ph.D, 39. Teacher *math,* schs, Ga, 35–37; *instr,* Ga. Tech, 39–40; *Louisiana, 40–; lieut, U. S. Naval Res, 42–* Math. Soc. Generalized intersector varieties; the contact of a quartic surface with a general analytic surface; transformation between osculating curves of a rational normal curve in a space of odd dimension; projective differential geometry.

Robinson, Weldon B(ainbridge), 546 Custom House, Denver, Colo. *Biology.* Parker, Idaho, Feb. 7, 16. B.S, Wyoming, 37. Junior biologist, *fish and wildlife service, U. S. Dept. Interior,* 37–42, *asst. biologist, wildlife research lab, 42–* Methods of controlling predatory animals that prey upon the nation's livestock and game supply.

Robinson, Prof. W(ilbur) I(rving), Texas Technological College, Lubbock, Texas. *Geology.* Portland, Mich, May 15, 89. B.S, M.S, Michigan, 14; Ph.D, Yale, 16. Instr. and asst. prof. geol, Vassar Col, 16–18; asst. prof, Colo. Sch. Mines, 20–21; geologist, Mich. Geol. Surv, 21–26; S. Am. Gulf Oil Co, 26–27; *assoc. prof. geol, Texas Tech. Col, 27–* Asn. Petrol. Geol; Paleont. Soc. Oil and structural geology.

Robinson, Dr. William, Burnt Mills Hills, Silver Spring, Md. *Entomology.* Hamilton, Ont, Can, Sept. 7, 90. B.S.A, Toronto, 18; M.S, Kansas, 24; Ph.D, Minnesota, 26. Asst. prof. entom, Minnesota, 26–28; path, Sprague Mem. Inst, Chicago, 28–31; *senior entomologist, U. S. Dept. Agr, 31–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc. Medical entomology; pharmacology and therapeutics of insect secretions.

Robinson, Prof. William H(enry), Tillotson College, Austin, Texas. *Mathematics, Physics.* Louisville, Ky, March 3, 00. B.S, Pittsburgh, 22; A.M, Boston, 32, Ph.D, 37. Asst. director mech. arts, Prairie View State Col, Texas, 22–24; *prof. math. and physics,* Brick Col, 25–33; *Tillotson Col, 33–* Math. Soc; Math. Asn. The structure of H-Alpha of hydrogen.

Robinson, W(illiam) O(rrin), U. S. Department of Agriculture, Beltsville, Md. *Soil chemistry.* Marlboro, N. H, Oct. 2, 84. B.S, New Hampshire, 05, M.S, 06. Instr. chem, New Hampshire, 05–06, Exp. Sta, 06; assoc. chemist and chemist, bur. soils, *U. S. Dept. Agr,* 06–27, bur. chem. and soils, 27–38, *senior chemist, bur. plant indust, soils and agr. eng, 38–* Capt, C.W.S, 17–19. A.A; Chem. Soc; Soc. Agron; Soil Sci. Soc; Soil Sci. Soc. Fla. Rare elements in soils; soil analysis; composition of plant ash; quantitative determination and composition of soil colloids; detection of selenium in plants and soils; chemistry of submerged and infertile soils; mutual dependence of compositions of soils and plants; determination and distribution of boron, barium, fluorine and rare earths in soils and plants.

Robinson, Dr. Winifred J(osephine), University of Delaware, Newark, Del. *Botany.* Johnstown, Mich, Oct. 17, 67. B.S, B.Pd, Michigan, 99; hon. A.M, Mich. Nor. Col, 12; A.M, Columbia, 04, Ph.D, 12; LL.D, Delaware, 39. Instr, training dept, Mich. State Nor. Col, 93–95; biol, Vassar Col, 00–07, bot, 09–13, asst. prof, 13–14; dean *women's col, Delaware,* 14–38, *emer. dean, 38–* Research fellow, N. Y. Bot. Garden, 03. A.A; Soc. Nat; Inst. Social Sci; Torrey Bot. Club; Asn. Sci. Teachers Middle States (pres, 30); Del. Nat. Hist. Soc. Plant morphology; taxonomy of Hawaiian ferns; life history of Hymenophyllaceae.

Robison, Dr. G(eorge) M(erritt), Polytechnic Institute of Puerto Rico, San German, P. R. *Mathematics.* Cranberry Creek, N. Y, July 24, 92. A.B, Cornell, 16, A.M, 17, Ph.D, 19. Instr. math, Cornell, 19–23; asst. prof, Duke; instr, N. Y. Univ; *mem. faculty, Polytech. Inst. P. R.* Mathematical analysis; divergent series.

Roblin, Dr. Richard O(wen), Jr, 1937 W. Main St, Stamford, Conn. *Chemistry.* Rochester, N. Y, Dec. 11, 07. A.B, Rochester, 30; A.M, Columbia, 31, G. A. Pfeiffer fellow, 32, univ. fellow, 33, Ph.D, 34. *Research chemist, Am. Cyanamid Co, 34–, director chemotherapy div, 42–* A.A; Chem. Soc; Inst. Chem. Sulfanilamide type compounds; chemotherapy; synthetic organic chemistry; organic derivatives of cyanamide; manufacturing processes.

Roblyer, Prof. J(ohn) H(omer), College of Idaho, Caldwell, Idaho. *Chemistry.* Wellsboro, Pa, July 28, 99. B.S, Muhlenberg Col, 20; M.S, N. Y. Univ, 21. Asst. instr, N. Y. Univ, 21; *prof.* chem. and physics, Ind. Cent. Nor. Col, Danville, 21–23; *chem, Col. of Idaho, 23–; state chemist, State Insecticide Lab, Idaho, 25–* Chem. Soc. Basis for physiological properties of certain onium compounds; the sulfur analogue of choline.

Robnett, Dr. D(udley) A(nderson), 16 S. Tenth St, Columbia, Mo. *Surgery.* Columbia, Mo, May 28, 95. A.B, Missouri, 16, A.M, 17; M.D, Hopkins, 19. Instr. path, *Missouri,* 21–25, asst. prof, 25–27, *assoc. prof,* 27–31, *surg, 31–* Fel. Col. Surg; West. Col. Surg. Pathology.

Robscheit-Robbins, Dr. Frieda S(aur), School of Medicine and Dentistry, University of Rochester, Rochester 7, N. Y. *Pathology.* Euskirchen, Germany, June 8, 93. Ph.D, Rochester, 34. Asst, Hooper Foundation for Medical Research, California, 17–22; *assoc. path, sch. med. and dentistry, Rochester,* 22–, lecturer exten. div, 30–31. Vol. asst, Rockefeller Inst, 26. Soc. Exp. Path. (councilor, 42); Soc. Exp. Biol; Physiol. Soc. Blood regeneration; anemia; liver physiology; plasma proteins; blood volume; gases in blood; hemoglobin.

Robson, Dr. H(omer) L(ouis), Water St, Lewiston, N. Y. *Chemistry.* MacGregor, Man, Can, July 13, 02. B.Sc. Saskatchewan, 22; Nat. Research Council Can. bursar, 23–24; Saskatchewan traveling fellow, California, 24–25, Ph.D, 27. Chief chemist, Burnham Chem. Co, Calif, 27–28; *research chemist,* Synthetic Iron Color Co, Calif, 28–30; *Mathieson Alkali Works, Niagara Falls, 30–* Chem. Soc; Ceramic Soc; Miner. Soc; fel. Can. Inst. Chem. Equilibria in saturated salt solution; the system magnesium sulfate and water to 240° C; the system magnesium sulfate, sodium sulfate and water; the system magnesium sulfate and sodium chloride.

Robson, Dr. James T(homas), 4150 E. 56th St, Cleveland, Ohio. *Ceramics.* Cleveland, Ohio, Feb. 1, 95. B.Ch.E, Ohio State, 19, M.S, 20, Ph.D, 23, Chem.E, 33, Cer.E, 37. Instr. ceramic eng, Ohio State, 19–25; director labs, Harrop Ceramic Service Co, 25–33; *manager, Allied Eng. Div, Ferro Enamel Corp, 33–* Ceramic Soc. Ceramic engineering; chemistry of fuels.

Roby, Dr. Joseph, 234 Culver Road, Rochester, N. Y. *Medicine.* Rochester, N. Y, Aug. 19, 71. A.B, Yale, 93; M.D, Columbia, 96. *Collaborating epidemiologist, N. Y. State Dept. Health, 95–; deputy health officer, Rochester, N. Y, 04–* Chief med. service and later consulting physician, Rochester Gen. Hosp; consulting physician, Baden St. Dispensary, 20–; lecturer, sch. med, Rochester, 26– Harsen prize, col. physicians and surg, Columbia, 96. Am. Med. Asn. Pasteurization of milk; method of finding tubercle bacilli in spinal fluid; meaning and reliability of umbilical cord Wassermann tests; Wassermann and Kahn tests of umbilical cord blood.

Roche, Dr. James N(orman), 200 West Drive, Fox Chapel, Pittsburgh, Pa. *Chemistry.* Ithaca, N. Y, Oct. 14, 98. Ch.B, Pittsburgh, 24, Ph.D, 27. Instr, Pittsburgh, 27–30; *research chemist,* Am. Tar Products Co, Pittsburgh, 30–31; *Koppers Co, 31–* Chem. Soc. (chairman Pittsburgh sect, 41); Wood Preservers Asn; Ry. Eng. Asn. Coal-tar products; glycerides.

Rochen, Dr. Leo K(ant), 344 Colvin Ave, Buffalo, N. Y. *Organic chemistry.* New York, N. Y, Oct. 9, 13. B.S, Col. City of N. Y, 33; Columbia, 33–34; Ph.D, Northwestern, 40. Asst, Northwestern, 38–40; *research chemist, Lucidol Corp, 40–* A.A; Chem. Soc. Microbiological chemistry; dioxanes; organic peroxides; vitamins; pharmaceuticals.

Rochow, Dr. Eugene G(eorge), General Electric Co, Schenectady, N. Y. *Chemistry.* Newark, N. J, Oct. 4, 09. Ch.B, Cornell, 31, Ph.D, 35. Research chemist, Halowax Corp, 31–32; asst. chem, Cornell, 32–35; *chemist, research lab, Gen. Elec. Co, 35–* A.A; Chem. Soc. Inorganic chemistry; preparation and reactions of fluorine; metallo-organic compounds of gallium, indium and thallium; compounds of germanium; organosilicon compounds.

Rochow, Dr. T(heodore) G(eorge), American Cyanamid Co, Stamford, Conn. *Chemistry.* Newark, N. J, July 8, 07. Ch.B, Cornell, 29, Ph.D, 34. Leather chemist, O. H. Oppenheimer and Co, 29–30; asst. chem, Cornell, 30–34; *chem. microscopist, research labs, Am. Cyanamid Co, 34–* Chem. Soc. Chemical microscopy; physical chemistry; mineralography; petrography; metallography; resin analysis.

Rock, Prof. George D(aniel), Box 4423, Brookland Station, Washington, D. C. *Physics.* Bridgeport, Conn, Sept. 21, 99. B.S, Catholic Univ, 21, A.M, 22, Ph.D, 27. Instr. elec. eng, *Catholic Univ, 21–24, physics, 24–28, assoc. prof, 28–* Physical Soc; Asn. Physics Teachers; Philos. Soc. Wash. Ultrasonics; electronics.

Rock, Dr. Joseph F(rancis Charles), 48 Shih Chiaopu, Yünnanfu, China. *Botany.* Vienna, Austria, Jan. 13, 84. Vienna; LL.D, 30. Botanist, Hawaii, 11–19, prof. syst. bot, 19; agr. explorer, office for. seed and plant introd, *bur. plant indust, U. S. Dept. Agr,* 20–24, *collaborator, div. plant explor. and introd, China, 24–* Adviser to govt, Yünnan, China. Director, Nat. Geog. Soc. exped, Yünnan-Tibet, 23–24; director, Arnold Arboretum, Harvard, Northwest China-Tibet exped, 24–27; Nat. Geog. Soc. and Szechuan-Yünnan-Tibet exped, 27–30; museum comp. zool, Harvard, zool. exped, W. China, 30–32; Univ. Calif. bot. exped, southeast. Tibet and upper Yalung, 32–33. Consulting botanist, Board Commissioners Agr. and Forestry, Honolulu, 11–21; collaborator, U. S. Dept. Agr, 13–14. Bot. Soc; Torrey Bot. Club; fel. Am. Geog. Soc; Biol. Soc. Wash; fel. Royal Geog. Soc. London; hon. mem. Rhododendron Soc. London; Royal Asiatic Soc; W. China Border Research Soc. Phytogeography; Hawaiian trees and plants; Chinese plants; geography and history of West China and East Tibet.

Rock, Prof. Robert T(homas), Jr, Fordham University, New York, N. Y. *Psychology.* Bridgeport, Conn, Oct. 13, 03. B.S, Catholic Univ, 25, Knights of Columbus fellow, 25–26, A.M, 26; Eleanor Colford Morris fellow, Columbia, 31–32, Ph.D, 35. Instr. psychol, Catholic Univ, 26–31; assoc. prof. educ. psychol. and measurements and head dept, *grad. sch, Fordham,* 31–39, *prof. exp. psychol. and head dept, 39–*; major, *Air Corps, U. S. Army,* 41–42, *lieut. col, 42–* Clin. psychologist, Providence Hosp, Washington, D. C, 25–31; visiting prof, Missouri, 40. A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol; fel. Soc. Research Child Develop; fel. N. Y. Acad. (v. pres, 39); N. Y. State Asn. Applied Psychol. (v. pres, 40); Metrop. N. Y. Asn. Applied Psychol. (pres, 40). Human learning; measurement of interests; education and rehabilitation of physically handicapped; vocational guidance.

Rockie, W(illiam) A(llan), Soil Conservation Service, Portland, Oregon. *Physiography, Soils.* Fremont, Nebr, 90. B.S, Nebraska, 14, 14–15, 19–20. Soil scientist, bur. soils, U. S. Dept. Agr, 15–19; asst. prof. geog, Nebraska, 19–20; farmer, 20–22; ecol. investigator, blister rust control, *U. S. Dept. Agr,* 22–30, supt, Pacific Northwest soil erosion exp. sta, bur. chem. and soils, 30–33, regional conservator, *soil conservation service,* 33–38, *in charge Alaskan studies, 38–, chief project plans div,* Pacific Northwest region, 41–42, *Pacific Coast region, 42–* A.A; Asn. Geog; Am. Geog. Soc; Northwest Sci. Asn. (pres, 35); Asn. Pacific Coast Geog. Soil conservation; agricultural geography; land use along Pacific slope in Alaska, Canada, United States and Mexico.

Rockwell, Dr. Alice J(ones), Lord Baltimore Hotel, Baltimore, Md. *Psychology.* Philadelphia, Pa, Aug. 16, 98. B.S, Pennsylvania, 18, A.M, 22, Ph.D, 24. Recorder, psychol. clinic, Pennsylvania, 22–24; director, Beaver County, Pa, Child Study Bur, 24–28; *psychologist, Baltimore Mental Hygiene Clinic, 29–* Psychol. Asn; Orthopsychiat. Asn. Clinical psychology; the superior child; the problem child; mental hygiene of childhood.

Rockwell, Dr. Donald M(ason), Juniata College, Huntingdon, Pa. *Organic chemistry.* Proctor, Vt, Dec. 19, 06. B.S, Vermont, 27; Ph.D, Yale, 31. Asst. *chem,* Yale, 31–32; from instr. to *prof, Juniata Col, 32–* Chem. Soc; Inst. Chem. Synthetic medicinals.

Rockwell, Dr. Geo(rge) E(dmond), 2500 Melrose Ave, Cincinnati, Ohio. *Bacteriology.* Streator, Ill, March 25, 95. B.S, Cincinnati, 20, M.S, M.D, 23. City bacteriologist, Cincinnati, Ohio, 19; research assoc, leather research dept, Cincinnati, 20–29, assoc. prof. bacter, col. med, 27–37; *private practise, 37–* A.A; Soc. Bact; Pub. Health Asn; Am. Med. Asn; Col. Allergists; Ohio Med. Soc; Cincinnati Acad. Med. The relation of carbon dioxide to the growth of bacteria; bacteriology of tanning; streptococcic blood stream infections; heterophile immunity; oral vaccination; chemical components of pollen extract.

Rockwell, Dr. John G(undersen), 3208 V St, Sacramento, Calif. *Psychology.* Homer, Nebr, July 26, 92. A.B, Stanford, 18; Ph.D, Chicago, 31. Asst. prof. educ. psychol, Minnesota, 23–34, assoc. prof, 34; state commissioner educ, Minn, 34–40; field rep. in charge *Sacramento Indian agency, office Indian affairs, U. S. Dept. Interior,* 41–43, *supt, 43–* Summer, prof, Missouri, 30; Northwestern, 36–40. A.A; assoc. Psychol. Asn. Genius and the intelligence quotient; the thyroid gland; parathyroids; thyroparathyroid deficiency and learning; dietary control of parathyroid tetany; genetic development of form perception in children.

Rockwood, L(awrence) P(eck), U. S. Department of Agriculture, Forest Grove, Oregon. *Entomology.* Waterbury, Conn, Oct. 13, 86. B.S, Mass. Col, 12. Sci. asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 12–23, assoc. entomologist, 23–28, *entomologist, 28–* A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Economic entomology; cereal and forage crop insects.

Roda, Prof. Alfredo Pio de, University of the Philippines, Manila, P. I. *Bacteriology, Immunology.* Indang, Cavite, P. I, Sept. 5, 98. Philippines; Trudeau Sch. of Tuberculosis. Instr, *inst. hygiene, Philippines,* 28–35, *asst. prof, 35–* Manila Med. Soc. Bacteriophage; intestinal bacteriology; tuberculosis; diphtheria.

Rodaniche, Dr. Enid, University of Chicago, Chicago, Ill. *Bacteriology, Parasitology.* Washington, D. C, Oct. 25, 07. A.B, Bryn Mawr Col, 31; Ph.D, Chicago, 37. *Instr. med, Chicago, 41–* Soc. Parasitol; Ill. Soc. Bact. Viruses; lymphogranuloma venereum; herpes simplex; St. Louis encephalitis; amebiasis; lamblias; chronic ulcerative colitis.

Rodbard, Dr. S(imon), Michael Reese Hospital, Chicago, Ill. *Physiology.* Poland, Aug. 8, 11. B.S, Chicago, 38, Ph.D, 41. Research assoc. and asst. to director cardiovascular dept, Michael Reese Hosp, 35–42; *lieut, Air Forces, U. S. Army, and aviation physiologist, sch. aviation med, Randolph Field, 42–* Eli Lilly fellow, 41. Physiol. Soc; assoc. Soc. Exp. Biol. Cardiovascular physiology; blood reservoirs; action of digitalis; hypertension; uremia; kidney function; aeroembolism.

Rodden, Clement J(ames), National Bureau of Standards, Washington, D. C. *Chemistry.* Dover, N. H, Aug. 2, 02. B.S, New Hampshire, 27; M.S, N. Y. Univ, 34. Instr. chem, New Hampshire, 28–29; microanalyst, med. sch, George Washington, 35–37; junior chemist, Bur. Standards, 37–38, asst. chemist, 38–39, assoc. chemist, 39–40, chemist, 40–42, *senior chemist, 42–* Chem. Soc. Microchemical analysis; rare earths analysis; inorganic and microanalytical chemistry.

Rodebush, Prof. Worth H(uff), University of Illinois, Urbana, Ill. *†*Chemistry.* Selden, Kans, May 24, 87. A.B, Kansas, 12, A.M, 14; Ph.D, California, 17. Asst. chem. engineer, Bur. Mines, 18; chemist, U. S. Indust. Alcohol Co, 19; nat. research fellow, California, 19–20; assoc. prof. *physical chem.* in charge div, *Illinois,* 21–24, *prof, 24–* Nat. Acad; A.A; Chem. Soc; fel. Physical Soc. Freezing points of solution; low temperatures; atomic structure; specific heats; vapor pressure of metals; entropy of condensed gases; mechanisms of gaseous reactions; statistical mechanics; absolute charge on earth's surface; ionization of electrolytes; magnetic properties of atoms; molecular rays; infra-red absorption spectra.

Rodeck, Prof. Hugo G(eorge), University of Colorado, Boulder, Colo. *Entomology, Zoology.* Marion, N. J, Sept. 19, 02. A.B, Colorado, 28, A.M, 29; Minnesota, 31–32, 38.

Asst. biol, *Colorado*, 28–29, instr, 29–31, asst, *museum*, 32–33, curator, 33–38, *director, 38–*, asst. prof. *nat. hist*, 33–38, *assoc. prof, 38–; Air Forces, U. S. Army.* A.A; Entom. Soc. Amer; Soc. Mammal; Ecol. Soc; Limnol. Soc; Asn. Mus. Taxonomy of wild bees, especially genus Nomada; altitudinal distribution of life.

Roden, Dr. Charlotte Rice, 265 N. Sandusky St, Delaware, Ohio. *Psychology.* Delaware, Ohio, Jan. 4, 04. A.B, Ohio Wesleyan, 26; Laura Spelman Rockefeller scholar, Hopkins, 28–29, Ph.D, 29. Laura Spelman Rockefeller fellow child psychol, California, 29–30; asst. prof. psychol, Denison, 30–39; independent consultant, 39–42; *asst. prof. psychol, Ohio Wesleyan, 42–* Assoc. Asn. Applied Psychol; assoc. Psychol. Asn; Soc. Research Child Develop; Midwest. Psychol. Asn. Development of perceptual processes in children; motor behavior in the neonate.

Rodenbaugh, H(enry) N(athan), Packard Bldg, Philadelphia, Pa. *Civil and mechanical engineering.* Norristown, Pa, Nov. 20, 79. B.S, Pennsylvania, 01, M.E, 31; Wagner Inst, 08–09. Eng. practise, 01–20; chief engineer, Fla. E. Coast Ry. Co, Fla. East Coast Car Ferry Co. and Jacksonville Terminal Co, 20–23, gen. manager, 23–25, v. pres. and director, 25–32; consulting engineer, 32–37; *v. pres, Day and Zimmermann, Inc, 37–* Trustee, Flagler Mem. Hosp; Dismukes Dental Clinic for White Children, Temple. Civil Eng. (past pres, Fla. sect); Mech. Eng; Ry. Eng; Soc. Mil. Eng; Acad. Polit. and Social Sci; Naval Inst; Soc. Naval Eng; Newcomen Soc. Eng. Railway construction, operation, traffic and finance.

Rodenhiser, Dr. H(erman) A(lonzo), 7829 Aberdeen Road, Bethesda, Md. *Plant pathology.* Allston, Mass, Nov. 16, 99. B.S, New Hampshire, 23; M.S, Minnesota, 25, Ph.D, 28. Instr. plant path. and bot, Minnesota, 24–28, asst. prof, 28–30; agent, *U. S. Dept. Agr*, 27–30, plant pathologist and *senior plant pathologist, div. cereal crops and diseases, bur. plant indust, 30–* Phytopath. Soc; Bot. Soc. Wash. Cereal diseases.

Roderick, Howard F(ranklin), Island Drive, Grosse Isle, Mich. *Chemistry.* Elkhart, Ind, March 24, 08. B.S, Michigan, 31. Chem. engineer, Mich. Alkali Co, 31–34, research chem. engineer, 35–38, *director research*, 39–43; J. B. Ford Co, 40–43; *Wyandotte Chemicals Corp, 43–* Chem. Soc; Chem. Eng; Electrochem. Soc; Tech. Asn. Pulp and Paper Indust; Soc. Test. Mat. Developmental and process improvement work on all phases of the manufacture of alkali products; new uses for alkali products in various industries; development of new or improved related products.

Roderick, Dr. Lee M(iles), Kansas State College, Manhattan, Kans. *Animal pathology, Bacteriology.* Juda, Wis, Jan. 30, 88. D.V.M, Ohio State, 15; M.S, N. Dak. Col, 22; Ph.D, Chicago, 26. Instr. vet. science, Georgia, 15–16; asst. prof, N. Dak. Col, 17–24, prof, 25–38, asst. veterinarian, Exp. Sta, 16–30, veterinarian, 30–38; *prof. path. and head dept, Kans. State Col, 38–* Bacteriologist and consulting veterinarian, N. Dak. Live Stock Sanit. Board, 30–38. Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Kans. Vet. Med. Asn. Hog cholera; avian tuberculosis; sweet clover disease of cattle; pregnancy disease of sheep; malignant catarrhal fever, encephalomyelitis.

Rodewald, Prof. C(harles) W(illiam), Washington University, St. Louis, Mo. *Chemistry.* Rushville, Ill, Nov. 11, 98. B.S, Illinois, 20, M.S, 21, Ph.D, 24. Instr. *chem*, Nebraska, 23–25; asst. prof, *Washington (St. Louis)*, 25–40, *assoc. prof, 40–* A.A; Chem. Soc. Physico-organic chemistry; thermodynamics.

Rodgers, Prof. Eric, Box 1472, University, Ala. *Physics.* Goshen, Ala, Oct. 17, 04. B.S, Alabama, 31, A.M, 32; Ph.D, Chicago, 37. Instr. *physics, Alabama*, 32–37, asst. prof, 37–41, *assoc. prof, 41–* Physical Soc. X-rays.

Rodgers, Dr. N(elson) E(arl), Western Condensing Co, 935 E. John, Appleton, Wis. *Bacteriology, Biochemistry.* Fredonia, Pa, May 18, 15. A.B, Allegheny Col, 37; A.M, Wisconsin, 40, Ph.D, 42. Asst. biol, Allegheny Col, 36–37; bacter, Wisconsin, 37–42; *chief bacteriologist, West. Condensing Co, 42–* Bacteriologist, Wis. Nat. Hist. Surv, 38–39. Soc. Bact. Variation in acetone-butanol organisms; bacteriology of lakes and beach sands; riboflavin synthesis by microorganisms.

Rodgers, Dean T(om) G(ladstone), 1018 Fourth St, East Las Vegas, N. Mex. *Mathematics.* Dorsetshire, Eng, 68. A.B, Tennessee, 00; A.M, Wisconsin, 10; Hopkins. Instr. math, Tennessee, 98–00; high schs, 00–10; prof, N. Mex. State Teachers Col, 10–14; *N. Mex. Highlands Univ*, 14, asst. dean, 14–23, dean, 23–30, *emer. dean, 30–* A.A; Math. Soc; Math. Asn. Reorganization of secondary mathematics; geometry.

Rodine, Dr. Milward T(heodore), Gustavus Adolphus College, St. Peter, Minn. *Physics.* Lindsborg, Kans, Dec. 10, 02. A.B, Bethany Col. (Kans), 26; A.M, Kansas, 30; Ph.D, Wisconsin, 37. Teacher, high sch, Kans, 26–30; *head dept. physics, Gustavus Adolphus Col, 33–* Asst, Wisconsin, 33–34. Physical Soc; Minn. Acad. Thermal conductivities of mercury-cadmium liquid alloys; thermal conductivities of bismuth single crystals as influenced by a magnetic field; the effect of carbon tetrachloride on the dielectric strength of air.

Rodman, C(larence) J(ames), Alliance Porcelain Products Co, Alliance, Ohio. *Chemistry, Engineering.* Milwaukee, Wis, July 10, 91. Ripon Col, 13; A.B, Wisconsin, 13, M.S, 14; Yale, 14–15; Pittsburgh, 18–19. Research chemist, Eastman Kodak Co, 16–17; research engineer, Westinghouse Elec. Co, 17–25; chem. engineer and dist. manager, Reisert Auto Water Co, 25–26; v. pres. and gen. manager, Buckeye Jack Mfg. Co, 26–33; *sec'y, v. pres. and director, Alliance Mfg. Co, 26–;* pres, treas. and director, Steel Sanit. Co, 26–34; v. pres. and director, Buckeye Labs, 30–36; *chairman board and treas, Alliance Porcelain Products Co, 36–* Consulting engineer, 24– Chem. Soc. (chairman, Pittsburgh sect, 22–24); Electrochem. Soc. (sec'y-treas, 24–26); Inst. Chem. (dist. v. pres, 25–28); Min. and Metal. Eng; Soc. Test. Mat; Eng. Soc. West. Pa. Heats of formation of organo-metallic salts; film support; electrochemistry of certain aromatic organic compounds; insulating oils; development of the hydrovolifier; super-purification of mineral oils; porcelain enameling; electrical transformers; fuelless incineration of household wastes; technical and industrial development of the first successful deep drawn formed metal sanitary ware.

Rodman, Dr. Jessie A(bigail), 4933 Rubicam Ave, Philadelphia, Pa. *Physics.* Philadelphia, Pa, June 21, 87. B.S, Pennsylvania, 12, A.M, 18, Ph.D, 26. *Teacher physics, Germantown High Sch, 16–* Summers, asst. physicist, Bur. Standards, 18, 20, 21, 23. Physical Soc; Franklin Inst; Phila. Physics Club (sec'y-treas, 18–20, pres, 24, exec. board, 25). Luminescence of radium salts; temperature effects.

Rodman, Prof. W(alter) S(heldon), University of Virginia, Charlottesville, Va. *Electrical engineering.* Wakefield, R. I, Sept. 1, 83. B.S, R. I. State Col, 04, M.S, 07; M.S, Mass. Inst. Tech, 09, Saltonstall fellow, 09–10. Instr. math. physics and elec. eng, R. I. State Col, 04–08, adj. prof. *elec. eng*, 10–13, assoc. prof, 13–17; *prof, Virginia, 17–*, acting dean eng, 31–33, *dean, 33–* A.A; Elec. Eng; Eng. Educ; Illum. Eng. Soc. Transients in circuits with magnetic cores.

Rodney, Dr. Gertrude, Parke, Davis and Co, Detroit, Mich. *Biological chemistry.* Manila, P. I, April 9, 14. B.S, Mich. State Col, 35; M.S, Michigan, 36, Ph.D, 38. *Research asst. immunochem, research dept, Parke, Davis and Co, 38–* A.A; Chem. Soc. Immunochemistry.

Rodnick, Dr. David, Hotel Kingsway, St. Louis, Mo. *Cultural anthropology.* New Haven, Conn, May 10, 08. B.S, N. Y. Univ, 30; A.M, Yale, 33; Ph.D, Pennsylvania, 36. Anthrop. collaborator, U. S. Office Indian Affairs, 35–37; state ed. in charge ethnic and cultural studies, Conn. Writers' Program, 37–40; *historian, U. S. Nat. Park Service, 41–, field curator, 42–* Anthrop. Asn; Sociol. Soc. American cultural patterns.

Rodolfo, Dr. Agustin, University of the Philippines, Manila. P. I. *Genetics.* San Antonio, Zambales, P. I, Aug. 28, 99 Ph.D, Wisconsin, 30. Research worker genetics, All-Union Research Inst. for Swine Husbandry, Poltava, Ukraine, U.S.S.R, 30–32; *instr. zool, Philippines, 34–* Experimental evolution; physiology of reproduction in swine; cytology.

Rodowskas, Dr. E(dward) L, 18 W. Salisbury Drive, Edge Moor Terrace, Wilmington 261, Del. *Chemistry.* Curtis Bay, Md. A.B, Loyola Col. (Md), 31; M.S, Col. of Holy Cross, 32; Ph.D, Hopkins, 35. Instr. chem, Col. of Holy Cross, 31–32; process research and eng, *E. I. du Pont de Nemours and Co*, Baltimore, 35–41, *supervisor in charge titanium dioxide production, 41–* High valences of silver; organic free radicals; titanium dioxide manufacture.

Rodríguez-Molina, Dr. R(afael), School of Tropical Medicine, San Juan, P. R. *Internal medicine, Medical zoology.* San Juan, P. R, Sept. 23, 01. B.S, Puerto Rico, 23; M.D.

Med. Col. of Va, 26; Sc.D, Columbia, 35. Intern, Presb. Hosp, San Juan, 26–27; visiting physician, Munic. Health Service, San Juan, 27–29; assoc. parasitol, *Columbia Sch. Trop. Med, Puerto Rico*, 30–36, *asst. prof. trop. med, 36–; attending physician, Univ. Hosp, 33–; capt, Med. Corps, U. S. Army*. Med. consultant, Presbyterian Hosp, 39; Bayamon Dist. Hosp, 41; asst. director, Hosp. San Alberto. A.A; fel. Col. Physicians; fel. Am. Med. Asn; Soc. Trop. Med; P. R. Med. Asn. Medical zoology; anemia and blood pressure; hypersensitiveness to hookworm proteins; hematology and treatment of hookworm disease and of Schistosomiasis mansoni; immunology of trichiniasis; ascaris infestation; simple achlorhidric anemia; hematology, clinical aspects and treatment of sprue.

Roe, Dr. A(lden) F(ranklin), 1335 H St, N. W, Washington, D. C. *Bacteriology*. Union City, Ind, Aug. 14, 96. B.S, Michigan, 22, M.S, 23, Sc.D, 32; fellow, inst. path, West. Pa. Hosp, 30–31. Instr. *bacter, med. sch, George Washington*, 32–40, *asst. prof, 40–* Soc. Bact. Dissociation and identification of pathogenic anaerobes; anaerobic methods; desiccation; agar.

Roe, Prof. Arthur, University of North Carolina, Chapel Hill, N. C. *Chemistry*. Victor, Colo, Aug. 22, 12. A.B, Oberlin Col, 33; A.M, Colo. Col, 35; Ph.D, Northwestern, 38. Asst. prof. *chem*, Univ. Oklahoma City, 38–39; instr, Illinois, 39–41; *asst. prof, North Carolina, 41–* Chem. Soc. Reactions of ketenes; structure of the dimer of ketene; synthesis of compounds in the cyclobutane series.

Roe, Dr. Charles Parker, 62 Newman Ave, Nutley, N. J. *Physical chemistry*. St. Paul, Minn, May 28, 05. B.Chem, Minnesota, 29, Ph.D, 33. *Research chemist, U. S. Rubber Co, 34–* Chem. Soc. Properties of gas mixtures at elevated pressures; electrophoretic properties of rubber latex proteins.

Roe, Eugene I(rving), U. S. Forest Service, St. Paul, Minn. *Forestry*. Troy, N. Y, Nov. 11, 04. B.S, Cornell, 29. Junior forester, *Lake States Forest Exp. Sta, U. S. Forest Service*, 29–35, asst. silviculturist, 35–37, *assoc. silviculturist, 37–* A.A; Soc. Foresters; Minn. Acad; Minn. Hort. Soc. Forest tree distribution; forest types in relation to soils; collection, extraction, storage and germination of forest seeds.

Roe, Glenwood C, 211 Willow Ave, N. W, Washington, D. C. *Zoology*. Union City, Ind, March 3, 92. A.B, Colorado, 18; M.S, Georgetown, 28. *Zoologist*, bur. animal indust, U. S. Dept. Agr. and later *food and drug admin, Fed. Security Agency, 18–* Helminth. Soc. Wash. Parasitology; plant poisoning of live stock.

Roe, Prof. H(arry) B(urgess), 1511 Chelmsford St, St. Paul, Minn. *Agricultural engineering*. Afton, Minn, June 1, 76. B.S, Minnesota, 08, M.S, 34, C.E, 36. Asst. engineer, construction and maintenance of way, Great North. Ry, 99–05; asst. div. engineer, Grand Trunk Pacific Ry, 05–07; instr. math, dept. agr, *Minnesota*, 08–09, *agr. eng*, 09–12, asst. prof, 12–18, assoc. prof, 18–29, *prof, 29–*, acting chief div, 38–39. Agr. Eng. (chairman, land reclamation div, 27, gen. meetings cmt, 25th anniversary, 31, gen. arrangements cmt, 39); Eng. Educ; Minn. Acad. Soil moisture relation in agriculture.

Roe, Prof. Joseph H(yram), George Washington University School of Medicine, Washington, D. C. *Biochemistry*. Winchester, Va, Dec. 27, 92. A.B, Roanoke Col, 16; A.M, Princeton, 17; Ph.D, George Washington, 23, Yale, 34. Assoc. prof. *biochem, sch. med, George Washington*, 19–22, *prof, 22–, exec. officer dept*, 22–32, *38–, chemist, univ. hosp*, 22–32, *38–*, asst. dean, 30–32. A.A; Soc. Biol. Chem; Inst. Nutrition; Chem. Soc; Soc. Exp. Biol; Wash. Acad; Wash. Acad. Med. Cyanogen compounds; biochemical laboratory methods; calcium absorption; metabolism of galactose and of 7-carbon sugars; nutrition and gastric function; vitamin C.

Roe, Prof. Joseph W(ickham), Southport, Conn. *Engineering*. Geneva, N. Y, Oct. 3, 71. Ph.B, Yale, 95, M.E, 07. Designer, Winchester Repeating Arms Co, 95–98; chief draftsman, Henry R. Worthington, 98–00; asst. supt, J. H. Williams and Co, 00–03; engineer, Crane Co, 03–06; asst. prof. indust. eng, Yale, 06–19; sec'y, Ry. Car Mfrs. Asn, 19–20; exec. engineer, Pierce-Arrow Motor Car Co, 20–21; prof. *indust. eng, N. Y. Univ*, 21–37, *emer. prof, 37–* Visiting prof, sch. eng, Yale, 37–38. Am. Eng. Council. Order of White Lion, Czechoslovakia, 27. Melville medal, 29; Gilbreth medal, 39. Indust. Eng. (past pres); Mech. Eng; hon. mem. Masaryk Acad. Mechanical and industrial engineering; engineering history.

Roe, Dr. J(osephine) R(obinson), 123 W. Ostrander Ave, Syracuse, N. Y. *Mathematics*. Meredith, N. H, May 5, 58. A.B, Oberlin Col, 94; hon. A.M, Berea Col, 02; A.M, Dartmouth Col, 11; Ph.D, Syracuse, 18. Prin, high sch, N. H, 80–82; instr, Literary Inst, New Hampton, N. H, 82–90; preceptress, Kimball Union Acad, N. H, 94–97; dean women, Berea Col, 97–07, prof. math, 97–11; asst. prof, Syracuse, 20; *retired*. A.A; Math. Soc; Astron. Soc. Symmetric functions.

Roe, Dr. Mabel L(ewis), 4509 E. Greenmeadow Road, Lakewood Village 8, Calif. *Botany*. Chicago, Ill, March 24, 81. A.B, Vassar Col, 03; M.S, Chicago, 14, fellow, 14–15, Ph.D, 15. Instr. bot. and Latin, Faulkner Sch. for Girls, Chicago, 09–13; bot, Carnegie Inst. Tech, 16–17; asst. prof, Kentucky, 17–18, asst. plant pathologist, Exp. Sta, 18–19; seed analyst, Dickinson Seed Co, 19; *instr*, high schs, Calif, 20–27; *bot. and biol, Long Beach Junior Col, 27–* A.A. Reproduction in brown algae.

Roebuck, Prof. John R(ansom), 2210 Hollister Ave, Madison, Wis. *Physics, Physical chemistry*. London, Ont, Can, Sept. 23, 76. B.A, Toronto, 02, Ph.D, 05. Lecturer *physics*, McGill, 02–07; instr, *Wisconsin*, 07–12, asst. prof, 12–19, assoc. prof, 19–25, *prof, 25–*, chairman dept, 35–36. Expert, submarine detection, U.S.N, 17–18. A.A; Chem. Soc; Physical Soc. Porous plug work.

Roeder, K(enneth) D(avid), Tufts College, Medford, Mass. *Biology*. London, Eng, March 9, 08. B.A, Cambridge, 29, M.S, 33. Asst. *zool*, Toronto, 30–31; instr, *Tufts Col*, 31–38, *asst. prof, 38–* A.A; Soc. Zool; Physiol. Soc; Boston Soc. Biol; Cambridge Entom. Club. Physiology of the nervous system and behavior in insects; electrophysiology.

Roehl, Prof. Louis Michael, Cornell University, Ithaca, N. Y. *Farm mechanics*. London, Wis, Oct. 21, 81. B.S, Stout Inst, 20. Instr. *agr. eng, Cornell*, 20–23, asst. prof, 23–28, *prof, 28–* Summers, teacher trainer, farm shop schs, 18–24. Farm tools.

Roehm, V(ictor) J(erome), 2320 Ridgewood Ave, Alliance, Ohio. *Chemical engineering*. Columbus, Ohio, Aug. 2, 95. B.Ch.E, Ohio State, 20; hon. Cer.E, 38. Asst. chemist, Homer-Laughlin China Co, Newell, W. Va, 20–24; U. S. Potter Asn. fellow, Bur. Standards, 24–26; *ceramic engineer, Sebring Pottery Co, Sebring, Ohio, 26–* Sales engineer, Ky. Clay Mining Co; Feldspar Milling Co. Ceramic Eng; fel. Ceramic Soc; Ohio Ceramic Indust. Asn. Tunnel kiln operations; physical properties of semi-vitreous bodies and glazes.

Roehr, Dr. Walter W(illiam), 1412 N. Superior St, Appleton, Wis. *Physics*. Mt. Vernon, Ind, Sept. 13, 07. A.B, DePauw, 29; M.S, Washington (St. Louis), 31, fellow, 31–33, Ph.D, 33. Asst, Washington (St. Louis), 29–31, research assoc, 33–34; *research physicist, Kimberly-Clark Corp, Neenah, Wis, 34–* Physical Soc. Photoelectricity; thermionics; pulp and paper.

Roelofs, Dr. Eugene W(oodrow), Institute for Fisheries Research, University Museums Annex, Ann Arbor, Mich. *Aquatic biology*. Jamestown, Mich, Oct. 31, 14. B.S, Mich. State Col, 36, M.S, 38, fellow, 38–41, Ph.D, 41; Michigan, 40. Asst. zool, Mich. State Col, 36–38; fisheries research technician, inst. fisheries research, Michigan, 38–41; *dist. fisheries biologist, fish div, State Dept. Conservation, Mich, 41–; 2nd lieut, Air Corps, U. S. Army, 43–* Fisheries Soc; Limnol. Soc. Water soils in relation to lake productivity.

Roepke, Prof. Martin H(enry), University of Minnesota, St. Paul, Minn. *Veterinary medicine*. Barnes, Kans, Aug. 17, 05. B.S, Kans. State Col, 28; M.S, Illinois, 29; Ph.D, Minnesota, 31; M.A, Toronto, 33. Asst. chem, Illinois, 28–29; fellow, Mayo Foundation, Minnesota, 29–31; fellow and lecturer pharmacol, Toronto, 31–36; asst. prof. *vet. med, Minnesota*, 36–41, *prof, 41–* A.A; Chem. Soc; Soc. Pharmacol; Minn. Acad. Potentiometric studies on sugars; humoral transmission of nerve impulses; mode of action of drugs; serological reactions of Brucella abortus; ketosis in cattle; sulfonamides; electrophoresis of bacteria.

Roeser, Jacob, Jr, U. S. Forest Service, Custer, S. Dak. *Forestry*. St. Louis, Mo, Jan. 3, 94. Missouri, 12–14; F.E, Colo. Col, 16. Forest asst, *U. S. Forest Service*, 17–21, forest examiner, 21–26, asst. silviculturist, Rocky Mt. Forest and Range Exp. Sta, 26–35, in charge, 27–35, assoc. silviculturist, 35–38; *asst. supervisor, Horney Nat. Forest, 38–* U.S.A, 17–18. A.A; Soc. Foresters; Ecol. Soc; Colo-Wyo. Acad. (chairman, plant sci. sect, 36). Forest management; forest genetics; plant physiology.

Roeser, W(illia)m F(rederick), National Bureau of Standards, Washington, D. C. *Physics.* Perry, Okla, Dec. 13, 01. B.S, George Washington, 25, A.M, 29. Asst. physicist, *Bur. Standards,* 20–25, consulting physicist, 25–27, assoc. physicist, 27–30, physicist, 30–41, senior physicist, 41–42, *prin. metallurgist, 42–* Instr, George Washington, 25–27. Physical Soc; Soc. Metals; Philos. Soc. Wash; Wash. Acad. Pyrometry; photometry; metallurgy.

Roesler, Dr. Hugo, Temple University School of Medicine, Philadelphia, Pa. *Medicine, Radiology.* Vienna, Austria, Jan. 4, 99. M.D, Vienna, 23. Radiologist and physician, Heart Hosp. and Polyclinic Hosp, Vienna, 24–30; Rockefeller research fellow, N. Y. Univ. and Boston, 30–31; *assoc. prof. radiol. and cardiologist, sch. med, Temple, 32–* Cardiology; clinical radiology of the heart; congenital heart disease; neurogenic tumors.

Roess, Dr. Louis Conrad, Fishkill, N. Y. *Physics.* Oil City, Pa, June 13, 05. E.E, Cornell, 26, Ph.D, 31. Heckscher asst, Cornell, 31; *research physicist, Texas Co, 31–* Physical Soc; Acoustical Soc. Theoretical calculation of x-ray absorption; experimental determination of critical temperature and pressure of petroleum fractions; molecular weights of viscous petroleum fractions; condenser type high speed engine indicator.

Roessler, Prof. Edward B(iffer), College of Agriculture, University of California, Davis, Calif. *Mathematics.* Redlands, Calif, Aug. 28, 02. A.B, California, 24, A.M, 25, Ph.D, 29. Instr. *math, California,* 29–33, *col. agr, Davis,* 33–36, asst. prof, 36–43, *assoc. prof, 43–,* asst. statistician, 36–42, *assoc. statistician, 42–* A.A; Math. Soc; Math. Asn; Soc. Hort. Sci. Geometry; autopolarity with respect to conics; biometry.

Roethe, Harry E(dward), 809 Stratford Drive, Peoria, Ill. *Agricultural engineering.* Fennimore, Wis, Oct. 2, 91. B.S, Wisconsin, 15. Engine tester, Fuller and Johnson Mfg. Co, 15–17; farm machinery expert, Int. Harvester Co, 16; instr. agr. eng, Wisconsin, 17; tractor tester, J. I. Case Threshing Machine Co, 17; engineer, bur. chem. and soils, *U. S. Dept. Agr,* 17–40, *tech. asst. to director, north. regional research lab, bur. agr. chem. and eng, 40–* Agr. Eng. Destructive distillation of straw for the production of gas; grain dust explosions; static electricity in machinery; farm fire prevention and control; spontaneous heating and ignition of agricultural products; new industrial uses for agricultural commodities.

Roever, Dr. William Edward, Rutgers University, New Brunswick, N. J. *Botany.* Unionville, Conn, Sept. 19, 07. B.S, Conn. Agr. Col, 32; M.S, Rutgers, 34, Ph.D, 37. Instr. *bot, Rutgers,* 37–42, *asst. prof, 42–* Mem. staff, W. Atlee Burpee Seed Co, Phila, 43– A.A; Bot. Soc; Torrey Bot. Club. Plant morphology; cytology; breeding; seed production.

Roever, Prof. W(illiam) H(enry), Washington University, St. Louis, Mo. *[3]Mathematics.* St. Louis, Mo, May 26, 74. B.S. Washington (St. Louis), 97; A.M, Harvard, 04, Ph.D, 06. Instr. astron, Washington (St. Louis), 99–01; *math,* Mass. Inst. Tech, 05–08; asst. prof, *Washington (St. Louis),* 08–16, assoc. prof, 16–17, *prof, 17–, head dept. math. and astron, 32–* Prof. and instr, Chicago, 18. Master computer, Aberdeen Proving Ground, 18. A.A. (sec'y, A, 20–24, chairman, 25–); Math. Soc; Math. Asn; St. Louis Acad. (first v. pres, 37); Circolo Mat. di Palermo. Geometry; mechanics.

Roff, Dr. Merrill F(lagg), Indiana University, Bloomington, Ind. *Psychology.* Wichita, Kans, April 13, 09. A.B, Wichita, 29; A.M, Kansas, 30; Ph.D, Cornell, 33. Asst. *psychol,* Cornell, 30–33; Chicago, 33–35; instr, *Indiana,* 35–38, *asst. prof, 38–; capt, Air Corps, U. S. Army, 42–* A.A; Psychol. Asn; Psychometric Soc. Psychometrics; tests; child psychology; personality.

Roger, Henry, Rolab Photo-Science Laboratories, Sandy Hook, Conn. *Biophysics.* Berlin, Germany, June 16, 91. M.E, Technische Hochschule, Darmstadt, 12. Aeronaut. engineer, Albatross Aeroplane Works, Germany, 12; designing engineer, A. Borsig Machine Works, Berlin-Tegel, 12–14; aerial photog, micros. and microcinema, private lab, Berlin, 18–23; biophysicist, Rockefeller Inst, 23–34; *with Rolab Photo-Science Labs, 34–* Navy aviation corps, Germany, 14–18. A.A; Am. Geog. Soc; Motion Picture Eng; fel. Royal Micros. Soc. Microcinematography; structure of living cells; human capillaries; apparatus for microcinematography, for tissue cultures and for scientific photography; application of photo-scientific methods to biological and industrial research; development of instruments for inspection of materials.

Rogers, Prof. Anna Sophie, Ohio State University, Columbus, Ohio. *Psychology.* Bushnell, Ill, July 3, 89. A.B, Illinois, 11, A.M, 14, Ph.D, 17; M.D, Ohio State, 30. Demonstrator biol, Bryn Mawr Col, 17–18; instr. *psychol, Ohio State,* 18–22, asst. prof, 22–33, *assoc. prof, 33–* Psychol. Asn; Am. Med. Asn; Woman's Med. Asn; Ohio Acad. Experimental and theoretical psychology; emotions; psychology of sexes.

Rogers, Dr. A(rthur) O(smond), Escarpment Drive, Lewiston, N. Y. *Chemistry.* Lindsay, Ont, Can, 08. B.A, Queen's (Can), 29, M.A, 32; Ph.D, Purdue, 35. Chemist, Kaufman Rubber Co, 29–30; asst. chem, Queen's (Can), 30–31; Purdue, 31–35; *research chemist,* U. S. Gypsum Co, Ill, 35–36; *E. I. du Pont de Nemours and Co, 36–* Chem. Soc; Can. Inst. Chem. Chlorinated hydrocarbons; sodium; organic cyanides.

Rogers, Dr. Austin F(lint), P.O. Box 87, Stanford University, Calif. *[4]Mineralogy, Crystallography, Petrography.* Lathrop, Mo, Aug. 15, 77. Mo. Sch. Mines, 96–97; A.B, Kansas, 99, A.M, 00; fellow, Columbia, 00–02, Ph.D, 02. Asst. miner, Kansas, 98–00; tutor, Columbia, 02–05; prof. miner. and petrog, Stanford, 05–42. Assoc, Columbia, 23; asst. geologist, Univ. Geol. Surv. of Kans, 98–00, 03, 08. Assoc. ed, 'Am. Mineralogist,' 19– A.A; Miner. Soc. (pres, 27); fel. Geol. Soc; fel. Am. Acad; Miner. Soc. Gt. Britain and Ireland; Soc. française de Miner. Graphical methods in crystallography; Pennsylvanian faunas; minerals of Kansas, California and Joplin lead and zinc district; calcite; silica minerals; copper sulfid ores; amorphous minerals; fossil bone; phosphorites; crystal symmetry; nomenclature of geometrical crystallography; crystal optics; paragenesis of minerals; geochemistry.

Rogers, Dr. Bruce A(llison), U. S. Bureau of Mines, Albany, Oregon. *Metallurgy.* Holstein, Iowa, June 27, 95. B.S, Iowa State Col, 16; M.S, Chicago, 20; Ph.D, Harvard, 33. Engineer, West. Elec. Co, N. Y, 20–22; asst. prof. physics, Conn. Agr. Col, 22–23; instr. math, Iowa State Col, 23–26; West. Elec. Co, Chicago, 27–30; research assoc, Bur. Standards, 34–35; senior metallurgist, *U. S. Bur. Mines,* Pittsburgh, 35–43, *prin. metallurgist, 43–* Soc. Metals; Min. and Metal. Eng. Magnetic properties of age hardening ferrous alloys; microscopic examination of metals at high temperatures; physical properties of open hearth furnace slags; application of physical methods to steel production.

Rogers, Prof. Carl R(ansom), Ohio State University, Columbus, Ohio. *Clinical psychology.* Oak Park, Ill, Jan. 8, 02. A.B, Wisconsin, 24; Union Theol. Sem, 24–26; fellow, Inst. Child Guidance, 27–28; A.M, Columbia, 28, Ph.D, 31. Psychologist, child study dept, Soc. Prev. Cruelty to Children, Rochester, N. Y, 28–30, director, 30–38; Rochester Guidance Center, 39; *prof. clin. psychol, Ohio State, 40–* Lecturer, Rochester, 37–39. Summer, lecturer, Teachers Col, Columbia, 35. Asn. Applied Psychol. (board editors, 39–, chairman clin. sect, 41–43); Psychol. Asn; Orthopsychiat. Asn. (v. pres, 41). Treatment techniques in clinical psychology; psychotherapy.

Rogers, Charles F(letcher), Ohio Agricultural Experiment Station, Wooster, Ohio. *Biochemistry.* Denver, Colo, June 15, 02. A.B, Nebr. Wesleyan, 23; M.S, Iowa State Col, 25. Instr. plant physiol, Iowa State Col, 23–25; bot, Colo. Agr. Col, 25–28; agr. biochem, Minnesota, 28–39; *assoc. biochem, dept. agron, Ohio Agr. Exp. Sta, 39–* Deputy state entomologist, Colo, 25–28. A.A; Chem. Soc; Bot. Soc; Soc. Plant Physiol; Asn. Cereal Chemists; Colo-Wyo. Acad; Iowa Acad. Biochemistry of fungi in relation to plant disease; cyanogenesis in plants and the feeding of these plants.

Rogers, Prof. C(harles) G(ardner), 378 Reamer Place, Oberlin, Ohio. *Physiology.* Perry, N. Y, March 4, 75. A.B, Syracuse, 97, A.M, 99, hon. Sc.D, 20; Chicago, 02; Ph.D, California, 04. Instr. physiol, Syracuse, 99–02; asst, Chicago, 02; California, 03–04; Kansas, 04; asst. prof, Syracuse, 05–07, assoc. prof, 07–10, prof, 10–13; zool, *Oberlin Col,* 13–15, *comp. physiol,* 15–41, *emer. prof, 41–,* acting dean, 24–26, head dept. zool, 36–41. Visiting prof, Duke, 42–43. Summers, teaching staff, Marine Biol. Lab, Woods Hole, 15–30. A.A; Soc. Nat; Physiol. Soc; Zool. Soc; Ohio Acad. (v. pres, med. sci. sect, 30). Effects of saline solutions upon the heart; physiology of nerve cells; fat digestion and absorption in lower animals; heat production in animal bodies; heat production during fertilization and cleavage of eggs; comparative physiology.

Rogers, Charles H(enry), Princeton University, Princeton, N. J. *Ornithology.* Philadelphia, Pa, Jan. 13, 88. Litt.B, Princeton, 09. Asst. ornith, Am. Museum Nat. Hist, 12–20;

curator museum zool, Princeton, 20– Leader, Princeton Museum Zool. exped, Panama, 23. A.A; Ornith. Union; Soc. Mammal; Wilson Ornith. Club; Del. Valley Ornith. Club; Linnaean Soc. N. Y. (sec'y, 15–20); N. J. Audubon Soc. (trustee, pres). Natural history of birds.

Rogers, Prof. Charles (Herbert), University of Minnesota, Minneapolis, Minn. *Pharmaceutical chemistry.* Belleville, Ill, May 28, 89. Ph.C, St. Louis Col. Pharmacy, 10; B.S, Michigan, 13; M.S, Minnesota, 15, Sc.D, 18. Asst, Michigan, 10–13; instr. *pharmaceut. chem,* Minnesota, 13–14; assoc. prof. and head dept, West Virginia, 14–17; *prof. and head dept, Minnesota, 17–, dean col. pharmacy, 36–* Pres, Asn. Cols. Pharmacy, 39, chairman exec. cmt, 41– A.A; Chem. Soc; Pharmaceut. Asn. (chairman house delegates, 38); Minn. Acad; Minn. State Pharmaceut. Asn. Pharmacy; pharmacology; inorganic pharmaceutical chemistry; chemistry of plant constituents.

Rogers, Dr. C(olonel) H(oyt), Coker's Pedigreed Seed Co, Hartsville, S. C. *Plant pathology, Agronomy.* Mullins, S. C, Jan. 6, 06. B.S, Clemson Col, 26; fellow, Kentucky, 27, M.S, 27; Ph.D, Rutgers, 31. Instr. biol, Ark. State Agr. and Mech. Col, Jonesboro, 28–29; teaching fellow bot, Rutgers, 29–30, asst. plant physiol, N. J. Exp. Sta, 30–31; *plant pathologist,* Exp. Sta, Agr. and Mech. Col. Texas, 31–42; *Coker's Pedigreed Seed Co, 42–* Bot. Soc; Soc. Agron; Phytopath. Soc. Crop production, breeding and diseases.

Rogers, David Banks, 2936 Hermosa Road, Santa Barbara, Calif. *Anthropology, Paleontology.* Pawpaw, Ill, Sept. 13, 68. Kansas; Nebraska. Teacher, pub. schs; head dept. anthrop. and paleont, Museum Nat. Hist, Santa Barbara, 24–39, curator, 28–39; *retired.* In charge field expeds. for Ohio State, Kansas, Museum Am. Indian Heye Foundation and Smithsonian Institution. A.A; Am. Geog. Soc; Southwest. Archeol. Asn. (pres, 35); N. Y. Acad. Ornithology; archeology; prehistoric man of the Santa Barbara coast.

Rogers, Prof. David Camp, 26 Pine St, Middletown, Conn. *Psychology.* New Britain, Conn, May 25, 78. Amherst Col, 95–97; A.B, Princeton, 99; Hartford Theol. Sem, 99–01; A.M, Harvard, 02, Ph.D, 03. Asst. philos, Harvard, 02–05, instr. social ethics, 05–09; asst. prof. psychol, Kansas, 09–14; prof, Smith Col, 14–42. Capt, Sanit.C, med. research, A.S, 18–19. A.A; Psychol. Asn. Social psychology; motives in men and animals; motives in social relationships; psychology of reasoning.

Rogers, D(onald) A(twater), Solvay Process Co, Hopewell, Va. *Chemical engineering.* Hannibal Center, N. Y, June 9, 99. M.E, Cornell, 24. Draftsman, Diamond Match Co, 16–20; Ithaca Gun Co, 20–22; instr. mech. eng, Cornell, 22–24; *chem. engineer and advisory engineer, Atmospheric Nitrogen Corp. and nitrogen div, Solvay Process Co, 24–* Chem. Soc; Mech. Eng; Chem. Eng. Mechanical engineering.

Rogers, Donald G(raydon), 725 Belmont Road, Ridgewood, N. J. *Organic chemistry.* Worcester, Mass, Oct. 14, 92. B.S, Worcester Polytech, 15. Research chemist, Gen. Chem. Co, N. Y, 15–18; *Nat. Aniline and Chem. Co,* 18–30, asst. director research and develop, 30–32, *asst. to gen. manager, 32–* Chem. Soc. Anthraquinone intermediates and colors.

Rogers, Prof. Donald P(hilip), American International College, Springfield, Mass. *Botany.* Toledo, Ohio, Feb. 5, 08. A.B, Oberlin Col, 29; Ph.D, Iowa, 35. Asst. bot, Nebraska, 29–30; Iowa, 31–35; nat. research fellow, Harvard, 35–36; instr. bot, Oregon State Col, 36–40; research, Harvard, 40–41; instr. bot, Brown, 41–42; *assoc. prof. biol, Am. Int. Col, 42–* Bot. Soc; Mycol. Soc. Mycology; cytology, comparative morphology and taxonomy of the Basidiomycetes.

Rogers, Dr. Edward, 61 Hamilton Place, New York, N. Y. *Organic chemistry.* New York, N. Y, Dec. 20, 13. B.S, Fordham, 34, Ph.D, 38. Org. chem, Illinois, 38–40; *research chemist, Merck and Co, 40–* Chem. Soc. Alkaloid structure; chemistry of useful plant principles.

Rogers, Dr. E(lla) Charlotte, Carromeal, Inc, West Brookfield, Mass. *Nutrition.* Norwich, Conn, Nov. 4, 78. A.B, Mt. Holyoke Col, 01; A.M, Brown, 24; Ph.D, Missouri, 28. Asst. prof. home econ, Conn. State Col; *with Carromeal, Inc.* Chem. Soc. Vitamins B and G.

Rogers, Dean Fred A, 320 Wisconsin Ave, Oak Park, Ill. *Physics.* Kent Co, Mich, Sept. 26, 69. B.S, Michigan, 94. Instr. physics and elec. eng, Lewis Inst. (Ill), 96–02, asst. prof, 02–08, prof. physics and elec. eng, 08–40, dean eng, 32–40, *director eng, science and management war training, Ill. Inst. Tech, 41–* A.A; Elec. Eng; Illum. Eng. Soc; West. Soc. Eng.

Rogers, Dr. Fred T(erry), Dallas Medical and Surgical Clinic, Dallas, Texas. *Physiology, Medicine.* Stephensport, Ky, May 24, 89. A.B, A.M, Baylor, M.D, 30; Ph.D, Chicago, 16. Instr. and asst. prof. physiol, Chicago, 16–20; prof, col. med, Baylor, 20–30; Billings Hosp, 30–31; *Med. and Surg. Clinic, Dallas, 31–* Physiol. Soc; Am. Med. Asn; Soc. Exp. Biol. Physiology of the stomach, of body temperature regulation, of water balance; physiologic effects of x-rays; basal nuclei of the brain; comparative physiology of the brain.

Rogers, Dr. F(red) T(erry), Jr, Lukas-Harold Corp, Indianapolis, Ind. *Physics.* Henderson, Ky, Nov. 4, 14. A.B, Rice Inst, 35, A.M, 36, Ph.D, 39. Teaching fellow physics, Rice Inst, 35–38, teaching asst, 38–39; asst. astrophys, Yerkes Observatory, Chicago, 39–40; research physicist, Gen. Geophys. Co, Houston, Texas, 40; instr. math, Houston, 40; asst. prof. physics, North Carolina, 41; Houston, 41–43; *research physicist, Lukas-Harold Corp, 43–* Assoc. physicist, California, 41; physicist, New Mexico, 42. A.A; Physical Soc; Asn. Physics Teachers. Precision measurements of energies and of mass-velocity relation for beta-particles; binding energy of deuteron; astrophysical thermoelectric radiometry; theory of electrostatic beta-particle analyzer.

Rogers, Prof. H(arris) W(hite), Colgate University, Hamilton, N. Y. *Chemistry.* Wellsbridge, N. Y, Jan. 15, 98. B.S, Colgate, 20, M.S, 22; Ph.D, Cornell, 33. Asst. *chem,* Colgate, 20–23; asst. instr, Cornell, 23–27; *asst. prof, Colgate, 27–* A.A; Chem. Soc. Analytical and physical chemistry.

Rogers, Pres. H(arry) S(tanley), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Engineering.* Detroit, Mich, Aug. 7, 90. B.S, Wyoming, 14, C.E, 26, LL.D, 42; Sc.D, Northeastern, 35. Instr, Iowa, 14–15; Wyoming, 15–16; instr. and asst. prof, Washington (Seattle), 16–18; asst. prof, Lafayette Col, 18–19; engineer, Truscon Steel Co, 20; prof. hydraul. eng, Oregon State Col, 20–27, dean eng, 27–33, director eng. exp. sta, 28–33; *pres, Polytech. Inst. Brooklyn, 33–* Consulting engineer, water supply and power, 21–33; director, L. I. Col. Med. and Brooklyn Hosp; Intertype Corp. Chairman exec. cmt. correction indust. pollution Willamette River, 33; State Reconstruction Advisory Board, Oregon, 33. Civil Eng; Eng. Educ. (v. pres, 30–33); Professional Eng. Oregon (pres, 32). Hydraulic and sanitary engineering; engineering education; stream pollution; structural engineering.

Rogers, Prof. Henry H(arper), Georgia State College for Women, Milledgeville, Ga. *Physics, Astronomy.* Rome, N. Y, June 13, 08. B.S, N. C. State Col, 28; A.M, Duke, 29; Ph.D, Pa. State Col, 34. Prof. physics and astron, Mercer, 35–37; *asst. prof. math, Ga. State Col. for Women, 37–; major, U. S. Army.* Physical Soc. Supersonics.

Rogers, Dr. H(erbert) W(esley), Lafayette College, Easton, Pa. *Psychology.* Kennebunkport, Maine, June 16, 90. B.S, Columbia, 15, A.M, 16, Ph.D, 21; Paris, 19. Psychologist, Charles William Stores, Brooklyn, 16–17; instr. psychol, Yale, 20–23; asst. prof, Minnesota, 23–24; *director psychol. lab, Lafayette Col, 24–* Psychol. Asn; Asn. Applied Psychol; Soc. Psychol. Study Social Issues; East. Psychol. Asn. (sec'y-treas, 34–36). Clinical and experimental psychology.

Rogers, Prof. Horace E(lton), 120 Parker St, Carlisle, Pa. *Chemistry.* Philadelphia, Pa, Dec. 5, 02. B.S, Dickinson Col, 24; fellow, Lafayette Col, 24–25, M.S, 25; Ph.D, Princeton, 30. Instr. chem, Dickinson Col, 25–27; asst, Princeton, 27–29; assoc. prof, *Dickinson Col,* 29–42, *prof. anal. chem, 42–* Summers, asst. chemist, Ledoux and Co, New York, 22–26. Chem. Soc; Pa. Acad. Physical chemistry; dielectric polarization of liquids; halogenated hydrocarbons; fatty acids.

Rogers, Dr. Howard T(opping), Alabama Polytechnic Institute, Auburn, Ala. *Soil science.* Surry Co, Va, July 22, 08. B.S, Va. Polytech, 30; M.S, Mich. State Col, 36; fellow, Iowa State Col, 39–40, Ph.D, 42. Instr, high schs, Va, 30–34; asst. soil technologist, *Exp. Sta,* Va. Polytech, 36–41; *assoc. soil chemist, Ala. Polytech, 42–* Soc. Agron; Soil Sci. Soc. Effect of lime on physico-chemical properties of soils and resulting crop yields; chemical versus microbial fixation of boron in soils; boron deficiency in relation to legume growth and seed production.

Rogers, Prof. James B(oyles), 101 W. Chestnut St, Louisville, Ky. *Anatomy.* Larned, Kans, March 5, 96. A.B, Kan-

sas, 16, A.M, 17; M.D, Louisville, 27. Asst. zool, California, 17; instr. biol, Tufts Col, 19–20; zool, Kans. State Col, 20–22; asst. *anat, Louisville*, 23–27, instr, 27–28, asst. prof, 28–33, assoc. prof, 33–37, *prof, 37–* Neur. clinic, Louisville City Hosp, 30– Summer, Kans. Biol. Surv, 16. Asn. Anat; Am. Med. Asn. Effect of extirpation of the thyroid on the pituitary in frogs; histology and physiology of blood vessels.

Rogers, Dr. James K(enneth), 1704 Milam Bldg, San Antonio, Texas. *Geology.* Leonardsville, N. Y, July 26, 04. A.B, Syracuse, 27; A.M, Cincinnati, 29, Ph.D, 33. Instr. geol, Lehigh, 29–30; Syracuse, 31; v. prin, Brookfield Cent. Sch, 33–36; *geologist, Ark. Fuel Oil Co, 36–* A.A. Stratigraphy; geomorphology; geologic factors of landslides.

Rogers, Prof. J(ames) Speed, University of Florida, Gainesville, Fla. *Zoology.* Dayton, Ind, Nov. 4, 92. Hanover Col, 10–13; A.B, Michigan, 15, A.M, 16, Ph.D, 31. Asst. prof. zool, Grinnell Col, 19–22; *prof. biol. and head dept, Florida, 22–* Assoc. curator Diptera, museum zool. Michigan, 18– A.A; Ecol. Soc; Entom. Soc; Limnol. Soc; Soc. Nat; Fla. Acad. Animal ecology; distribution, ecology and immature stages of craneflies.

Rogers, Jerome S(tanley), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Chemistry.* Honeoye Falls, N. Y, Nov. 8, 84. B.S, Syracuse, 07; M.S, Illinois, 09. Asst. chemist fertilizer control, Exp. Sta, Pa. State Col, 09; leather and tan materials, bur. chem, U. S. Dept. Agr, 09–18; chemist in charge, Kistler Lesh and Co, 19–21; sole leather tanning lab, Int. Shoe Co, 21–36; *senior chemist, hides, tanning materials and leather sect, bur. agr. and indust. eng, U. S. Dept. Agr, 37–*, chief tanning material sect, 40–41, *acting chief hides, tanning materials and leather div, 41–* Chem. Soc; Leather Chem. Asn. (pres, 24–26); Int. Soc. Leather Trade Chem. Chemical and technological research on hides, tanning materials and leather.

Rogers, Dr. Lewis H(enry), University of Florida, Gainesville, Fla. *Soil chemistry.* DeFuniak Springs, Fla, Oct. 1, 10. B.S, Florida, 32, M.S, 34; Gen. Educ. Board fellow, Cornell, 40–41, Ph.D, 41. Spectrochem. analyst, *Exp. Sta, Florida*, 35–39, *assoc. chemist, 39–; Chem. Warfare Service, Air Corps, U. S. Army, 42–, capt.* A.A; Soil Sci. Soc; Fla. Acad. Spectrochemical analysis; role of trace elements in agriculture.

Rogers, Dr. Lockhart B(urgess), Stanford University, Calif. *Analytical chemistry.* Manchester, Conn, July 16, 17. A.B, Wesleyan, 39; A.M, Princeton, 40, Leroy Wiley McCay fellow, 40–41, J. T. Baker Chem. Co. fellow, 41–42, Ph.D, 42. Instr. *anal. chem, Stanford*, 42–43, *asst. prof, 43–* Chem. Soc. Analytical chemistry of the alkali metals; inorganic complex compounds.

Rogers, Dr. L(ore) A(lford), U. S. Department of Agriculture, Washington, D. C. *Dairy bacteriology.* Patten, Maine, Feb. 7, 75. B.S, Maine, 96, Sc.D, 25; Wisconsin, 97–98; Sc.D, Maryland, 23. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 99–02; dairy bacteriologist and prin. bacteriologist, bur. dairy indust, U. S. Dept. Agr, 02–43, chief dairy research labs; *retired.* Del, World's Dairy Cong, Stockholm, 11, London, 28, Rome, 34, chairman, program cmt, 23. Chairman, Am. Type Culture Collection. Borden award, 37. Soc. Bact. (pres, 22); Dairy Sci. Asn; Wash. Acad. Med; Wash. Acad. (v. pres, 31). Bacteriology and manufacture of dairy products.

Rogers, Mrs. Margaret C(obb), 520 McCartney St, Easton, Pa. *Clinical psychology.* Tarrytown, N. Y, Feb. 6, 95. A.B, Vassar Col, 17; A.M, Columbia, 18, Ph.D, 21. Psychologist, clearing house for mental defectives, N. Y. Post-Grad. Hosp, 19; asst, Psycho-Clinic, Yale, 20–22; psychologist, Col. Hill Sch, Easton, 28–33; *private consultant, 33–* Psychol. Asn. Effect of adenoids and tonsils on general intelligence.

Rogers, Major Marvin C(arson), Edgewood Arsenal, Md. and Flossmoor, Ill. *Chemical engineering.* North St. Paul, Minn, May 13, 04. B.S, Minnesota, 26; M.S, Michigan, 27, Ph.D, 29. Asst, Michigan, 26–29; chem. engineer, Whiting Swenson Co, 29–31; asst, Michigan, 32; research chem. engineer, Standard Oil Co. of Ind, 32–38; asst. prof. chem. eng, Minnesota, 38–40; *director research, Lakeside Press, Chicago, Ill, 40–; major, Chem. Warfare Service, U. S. Army.* Consulting chem. engineer; Armour Inst. Tech, 38. Chem. Eng; Chem. Soc. (director, Chicago sect, 35–38). Distillation; evaporation; petroleum refining.

Rogers, Dr. M(ax) T(ofield), 551 S. Hill Ave, Pasadena, Calif. *Physical chemistry.* Jan. 12, 17. B.Sc, Alberta, 37, Roger Tegler fellow, 37–38, M.Sc, 38; Ph.D, Calif. Inst. Tech, 41. Teaching fellow *chem*, Calif. Inst. Tech, 38–41, research fellow, 41–42; *instr, California at Los Angeles, 42–* Electrochemistry with alternating current; magnetic anisotropy of crystals; electron diffraction study of molecular structure; the structure of crystals by x-ray diffraction methods; structure of protein fibers.

Rogers, Prof. Philip V(irgilius), Hamilton College, Clinton, N. Y. *Endocrinology.* Utica, N. Y, Feb. 7, 07. A.B, Hamilton Col, 30, A.M, 34; Ph.D, Yale, 37. Asst. biol, Hamilton Col, 32–34; lab. asst, dept. anat, sch. med, Yale, 34–37; instr. *biol, Hamilton Col*, 37–41, *asst. prof, 41–* A.A; Asn. Anat; Soc. Zool; Soc. Study Int. Secretions. Zoology; changes in electric potential of the rat during the normal oestrous cycle, after ovariectomy, hypophysectomy and after being given theelin and other hormones.

Rogers, Raymond H, Cooperstown, N. Y. *Forestry.* Upton, Mass, June 1, 01. B.S, Syracuse, 25, Charles Lathrop Pack fellow, 30, M.F, 32. Forester, Nelson Lumber Co, Mass, 18–19; forest asst, State Forest Dept, Mass, 19–20; forest engineer, West. Union Tel. Co, 25–26; forest tech. asst, U. S. Forest Service, 26; forester, Clark estate, N. Y, 27–32; *consulting forester, 32–; pres, Raymond H. Rogers and Associates, 32–* Asst, Northeast. Forest Exp. Sta, U. S. Forest Service, 35–36. Soc. Foresters. Utilization and silvicultural project.

Rogers, Dr. Raymond R(obinson), Columbia University, New York, N. Y. *Chemical engineering.* Ont, Can, Oct. 31, 03. B.A, Toronto, 25, M.A, 26; Ph.D, Columbia, 33. Demonstrator electrochem, Toronto, 25–26; lecturer chem, Manitoba, 26–28; asst. *chem. eng, Columbia*, 28–30, lecturer, 30–37, *instr, 37–* Chem. Soc; Chem. Eng; Electrodepositors Tech. Soc; Eng. Educ; Electrochem. Soc; fel. Can. Inst. Chem. Electro-deposition of metals; pickling and cladding of metals; metal finishing.

Rogers, Prof. R(obert) A(lonzo), State University of Iowa, Iowa City, Iowa. *Physics.* Lyndon, Ohio, April 19, 99. A.B, Miami (Ohio), 21; M.S, Iowa, 23, Ph.D, 26. Prof. physics, Park Col, 26–42; ground sch. instr. physics and math, preflight sch, U. S. Navy, 42–43; *assoc. prof. physics, Iowa, 43–* Summer, instr, Pa. State Col, 41. A.A; Physical Soc; Asn. Physics Teachers; Mo. Acad. (treas, 35–39, v. pres, 39, pres, 40). The M series x-ray absorption spectra of osmium, iridium and platinum.

Rogers, Dr. Ruth E(lmquist), U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Minneapolis, Minn, Sept. 8, 99. A.B, Minnesota, 21, M.S, 22, du Pont fellow, 25–26, Ph.D, 30. Instr. chem, Minnesota, 27–28; asst. textile chemist, bur. home econ, *U. S. Dept. Agr*, 29–35, assoc. textile chemist, 35–40, *textile chemist*, 40–43, *bur. human nutrition and home econ, 43–* Soc. Test. Mat; Asn. Textile Chem. and Colorists; Chem. Soc; Home Econ. Asn. Textile chemistry.

Rogers, Prof. Spencer L(ee), 920 Martinez St, San Diego 6, Calif. *Ethnology, Cultural anthropology.* Topeka, Kans, March 28, 05. A.B, San Diego State Col, 27; A.M, Claremont Cols, 30; Ph.D, Southern California, 37. Curator *anthrop.* San Diego Museum, 27–29; instr, *San Diego State Col*, 30–35, asst. prof, 35–40, *assoc. prof, 40–* Anthrop. Asn. Weapon culture; aboriginal medicine and surgery; medical folklore and healing rituals.

Rogers, Dr. T(homas) A(lvin), Shell Development Co, Emeryville, Calif. *Electrical engineering.* Mountain View, Calif, June 29, 05. B.S, California, 28, M.S, 30, E.E, 33, Ph.D, 35. Asst. *elec. eng, California*, 29–32, assoc, 32–33, instr, 33–38; research engineer, Shell Oil Co, 38–40; *engineer, Shell Develop. Co. 40–* Elec. Eng. Synchronous machines; lubrication of internal combustion engines.

Rogers, Dr. T(homas) Hunton, 5619 Dorchester Ave, Chicago 37, Ill. *Chemistry.* Fayette Co, Ky, Jan. 20, 95. A.B, Centre Col, 14, hon. Sc.D, 42; Ph.D, Hopkins, 17. Research chemist, E. I. du Pont de Nemours and Co, 19–22; *Standard Oil Co. of Ind*, 22–30, asst. director research, 30–38, *assoc. director research, 38–* U. S. Bur. Mines and C.W.S, U.S.A. 17–19. A.A; Chem. Soc; Soc. Test. Mat. Vapor pressure; catalytic oxidation of carbon monoxide; decolorization of oils; oxidation of oils; gasoline refining; petroleum asphalts; hydrocarbon conversion processes.

Rogers, Prof. W(alter) E, 911 E. North St, Appleton, Wis. *Biology.* Greenview, Ill, Feb. 24, 90. A.B, James Millikin, 13, Sc.D, 39; M.S, Iowa, 16; Michigan; Chicago. Technician,

St. Louis Biol. Lab, 13–14; asst. bot, Iowa, 14–17; *prof.* biol, Westminster Col. (Pa), 17–19; *biol. and bot, Lawrence Col, 19–*, Inst. Paper Chem, 30–38. Summers, technician, St. Louis Biol. Lab, 12, 14, 17; asst, Michigan, 15; field asst, lab. plant path, U. S. Dept. Agr, 18. A.A; Bot. Soc; Ornith. Union; Torrey Bot. Club; Wis. Acad. Plant morphology; ecology; ornithology; scientific photography.

Rogers, Dr. W(illia)m, Jr, Temple University, Philadelphia, Pa. *Chemistry.* Nottingham, Eng, Jan. 17, 00. B.S, Princeton, 21, A.M, 22, Ph.D, 24. From instr. to *prof. chem. and chairman dept, Temple, 25–* Sayre fellow. Chem. Soc; Franklin Inst. Physical chemistry.

Rogers, Prof. William M(itchell), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Anatomy.* Jennings, Fla, Sept. 18, 00. B.S, Georgia, 21; Ph.D, Cornell, 27. Asst. instr. histol. and embryol, Cornell, 23–24, instr, 24–27; *anat,* Univ. and Bellevue Hosp. Med. Col, 27–28; *col. physicians and surg, Columbia,* 28–31, *asst. prof, 31–* Asn. Anat; Harvey Soc. Experimental embryology; histogenesis of thyroid; development of the pharynx, tonsils and nervous system; silver technique; hyperinnervation of skeletal muscle; growth of nerves from transplanted spinal cords; specificity of peripheral nerves.

Rogers, Prof. W(illiam) W(hite), Winthrop College, Rock Hill, S. C. *Psychology.* Timberlake, N. C, Sept. 19, 87. A.B, North Carolina, 12, A.M, 24, Ph.D, 26; Cambridge, 19. Instr. *psychol,* North Carolina, 23–26; Wash. Sq. Col, N. Y. Univ, 26–29; *prof, Winthrop Col, 29–* Psychol. Asn; S. Soc. Philos. and Psychol; S. C. Acad. Integration of disparate activities into a unified reaction; rat-catching behavior of kittens; psychogalvanic reactions during complex learning.

Rogick, Dr. Mary D(ora), College of New Rochelle, New Rochelle, N. Y. *Zoology.* East Sandy, Pa, Oct. 7, 06. A.B, Nebraska, 29, scholar, 29–30, A.M, 30; Ph.D, Ohio State, 34; Columbia, 36, 37; Marine Biol. Lab, Woods Hole, 38, 39. Asst. zool, Ohio State, 30–34, physiol, 34–35; *prof. biol, Col. of New Rochelle, 35–* Summer, instr, Marine Biol. Lab, Woods Hole, 43. A.A; Micros. Soc; Limnol. Soc; Ohio Acad; N. Y. Acad. Histology of fish digestive tract; taxonomy; development and ecology of fresh-water Bryozoa; education.

Rogoff, Prof. J(ulius) M(oses), University of Pittsburgh, Pittsburgh, Pa. *Medicine.* Russia, 84. Ph.G, Ohio Northern, 00, hon. Sc.D, 33; M.D, Ohio Wesleyan, 08. Asst. physiol, Ohio Wesleyan, 08–10; demonstrator physiol. and pharmacol, Vanderbilt, 12–13, instr, 13–14, asst. prof. mat. med. and pharmacy, 14–15; instr. exp. med, Western Reserve, 15–17, assoc, 17–19, asst. prof, 19–22, assoc. prof, 22–34; research assoc. physiol, Chicago, 35–36, visiting prof, 36–39; *prof. endocrinol, Pittsburgh, 39–* A.A; Am. Med. Asn; Soc. Exp. Biol; Physiol. Soc; Soc. Pharmacol; Soc. Study Int. Secretions; N. Y. Acad. Experimental medicine; internal secretions; the central nervous system; endocrinology.

Rohdenburg, Dr. G(eorge) L(ouis), 530 Park Ave, New York, N. Y. *Pathology.* New York, N. Y, April 5, 83. M.D, Cornell, 05. Assoc. cancer research, Columbia, 10–27; *private practise.* Director lab, Lincoln Hosp, 10–17, consulting pathologist, 17–; director lab, Life Exten. Inst, 17–18; Lenox Hill Hosp, 17–; consulting pathologist, Misericordia Hosp, 29– Asn. Path. and Bact; Soc. Exp. Biol; Am. Med. Asn; N. Y. Path. Soc. (sec'y, 18–23, v. pres, 24); Harvey Soc. Cancer.

Rohlich, Prof. Gerard A(ddison), Pennsylvania State College, State College, Pa. *Sanitary engineering.* Brooklyn, N. Y, July 8, 10. B.S, Cooper Union, 34; B.S, Wisconsin, 36, fellow, 36–37, M.S, 37, fellow, 39–40, Ph.D, 40. Instr. civil eng, Carnegie Inst. Tech, 37–39, 40–41; *asst. prof. sanit. eng, Pa. State Col, 41–* A.A; Civil Eng. Oxidation studies in sewage-sludge mixtures; oxidation-reduction potential measurements in activated sludges and sewage.

Rohm, Dr. Pauling B(urgess), Simmons College, Boston, Mass. *Zoology.* Connellsville, Pa, Jan. 22, 13. A.B, Oberlin Col, 34; A.M, Wellesley Col, 36; univ. scholar, Pennsylvania, 38–39, Ph.D, 42. Asst. histol. and embryol, Wellesley Col, 34–37; teacher, Punahoe Acad. (Hawaii), 37–38; biol. and chem, Stevens Sch, Phila, Pa, 39–41; *instr. biol, Simmons Col, 41–* Evolutionary chromosome changes in Sciara.

Rohrbaugh, Dr. Lawrence M(ilburn), University of Oklahoma, Norman, Okla. *Plant physiology.* Jefferson Co, Nebr, Dec. 5, 08. A.B, Nebr. Wesleyan, 31, M.S, 33; Miami (Ohio), 31–32; Ph.D, Chicago, 42. Asst. bot, Miami (Ohio), 31–32; agent, U. S. Dept. Agr, 33–35, asst. leader barberry eradication in Nebr, 35–37; instr. science, high sch, Iowa, 37–41; asst. bot, Chicago, 41–42; instr. *plant sciences, Oklahoma,* 42–43, *asst. prof, 43–* Effects of light on plant growth; photoperiodism; mineral nutrition.

Rohrbaugh, Percy W, 560 N. Euclid Ave, Upland, Calif. *Plant physiology.* Fairbury, Nebr, June 18, 98. A.B, Nebr. Wesleyan, 27; M.S, Iowa State Col, 29. U. S. Dept. Agr, 27–29; pathologist, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 30; asst. plant physiol, Citrus Exp. Sta, California, 30–34; chemist, *Calif. Fruit Growers Exchange,* 34–38, *plant physiologist, research dept, 38–* Soc. Plant Physiol. Physiology of citrus; respiration; plant pigments; effects of ethylene on citrus as shown by epinastic responses.

Rohrer, Dr. Charles S(tephen), Springtown, Texas. *Chemistry.* Weatherford, Texas, April 6, 09. B.S, Kansas, 34; M.S, N. Texas State Teachers Col, 37; A.M, Columbia, 39, Ph.D, 42. Lab. instr. chem, N. Texas State Teachers Col, 36–37; head lecturer demonstrator, Columbia, 37–39, statutory asst, 39–41; instr, Hunter Col, 41–42; *lieut, specialists corps, U. S. Army, 42–* Chem. Soc. Physical, inorganic and electro chemistry; equilibrium of vanadium sulfates; general phase rule; electrochemical decomposition of nickel.

Rohrman, Prof. Frederick Alvin, Michigan College of Mining and Technology, Houghton, Mich. *Engineering.* Pendleton, Oregon, Jan. 10, 04. B.S, Oregon State Col, 26; M.S, Minnesota, 28; Samuel Willard Bridgham fellow, Columbia, 28–30, Ph.D, 31. Research assoc, Columbia, 30–31; asst. prof. *chem, Mich. Col. Min. and Tech,* 31–40, *assoc. prof. chem. eng, 40–; major, Field Artil, U. S. Army, 41–* Chem. Soc; Electrochem. Soc; Chem. Eng. Electrochemical engineering; electrochemistry of nickel; chemical engineering; materials of construction; corrosion.

Rohrmann, Dr. Ewald, Eli Lilly and Co, Indianapolis, Ind. *Organic chemistry.* Helena, Mont, March 21, 12. B.S, Oregon State Col, 34, 34–36; Ph.D, Pa. State Col, 39. Asst. chem, Pa. State Col, 38–40; *research chemist, Eli Lilly and Co, 40–* Chem. Soc. Chemistry of natural and medicinal products.

Rohwer, S(ievert) A(llen), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Telluride, Colo, Dec. 22, 88. Colorado, 07–09. Entomologist in charge taxon. investigations, bur. entom, *U. S. Dept. Agr,* 09–28, *asst. chief* plant quarantine and control admin, 28–31, *bur. entom. and plant quarantine, 31–* Asn. Econ. Entom. (ed. board, 36); Entom. Soc. Amer. (ed. board, 35); Entom. Soc. Wash. (sec'y-treas, 10–34, pres, 32); Biol. Soc. Wash. (pres, 25); Wash. Acad. (v. pres, 19). Hymenoptera; control, distribution and classification of insects.

Rojansky, Prof. V(ladimir), Union College, Schenectady, N. Y. *Physics.* Bologoe, Russia, March 27, 00. B.S, Whitman Col, 24; A.M, Oregon, 26; Ph.D, Minnesota, 28. Instr. *physics,* Washington (St. Louis), 28–30; assoc. prof, *Union Col. (N. Y.),* 30–37, *prof, 37–* Nat. research fellow, 31–32; visiting assoc. prof, Princeton, 41–42. Physical Soc. Quantum mechanics.

Roland, Dr. J(ohn) R(ichard), 112 Lynhurst Ave, McDaniel Heights, Wilmington, Del. *Organic chemistry.* Webster City, Iowa, Dec. 15, 09. B.S, Illinois, 32; Ph.D, Wisconsin, 36. Asst. instr. org. chem, Wisconsin, 32–36; *research chemist, E. I. du Pont de Nemours and Co, 36–* A.A; Chem. Soc. Acetoacetic ester reaction.

Rolf, Dr. Frederick, Texas Technological College, Lubbock, Texas. *Analytical chemistry.* Rock Island, Ill, Nov. 11, 10. A.B, Augustana Col, 32; M.S, Iowa, 35, Ph.D, 37. Asst. *chem,* Iowa, 34–37; *instr, Texas Tech. Col, 37–; Air Corps, U. S. Army.* Summer, instr, N. Mex. Highlands, 41. A.A; Chem. Soc. Quantitative spectrographic analysis.

Rolf, Dr. Pauline, Room 374, Meridian Hill Hotel, 16th and Euclid Sts, N.W, Washington, D. C. *Physics.* Philippine Islands, Oct. 24, 12. A.B, Cincinnati, 34; A.M, Bryn Mawr Col, 36, Ph.D, 42. *Asst. physicist, Bur. Standards, 42–* Solid state.

Rolfe, Dr. D(aniel) T(homas), Meharry Medical College. Nashville, Tenn. *Physiology.* Tampa, Fla, March 1, 02. M.D, Meharry Med. Col, 27. *Prof. physiol, Meharry Med. Col, 30–* Nat. Med. Asn. Vital capacity in normal Negroes; atropine and digitalis in congestive heart disease.

Rolfs, Prof. F(red) M(aas), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Botany.* Le Claire, Iowa, March 5, 75. B.S, Iowa State Col, 97; M.S, Colo. Agr. Col, 03; Columbia, 07; Ph.D, Cornell, 13. Asst. bot, N. Y. Exp. Sta, Geneva, 99–00; assoc. prof. bot. and hort, Colo. Agr. Col, and asst. botanist, Exp. Sta, 00–03; prof. bot. and hort, Florida, and botanist and horticulturist, Exp. Sta, 04–06; plant pathologist, Mo. Fruit Exp. Sta, 06–10; assoc. bot, plant path. and bacter, Clemson Col, and assoc. botanist and plant pathologist, Exp. Sta, 13–15; prof. hort, *Okla. Agr. and Mech. Col,* 16–24, *bot. and plant path,* 16–24, *emer. prof, 24–,* horticulturist and plant pathologist, *Exp. Sta,* 16–24, *botanist and plant pathologist, 24–* A.A; Bot. Soc; Path. Soc; Okla. Pecan Growers Asn; Okla. Acad. Diseases of plants.

Rolfs, Dr. P(eter) H(enry), 1422 W. Arlington St, Gainesville, Fla. *Botany.* Le Claire, Iowa, April 17, 65. B.S, Iowa State Col, 89, M.S, 91; Sc.D, Florida, 20. Asst. botanist, Iowa State Col, 91, entomologist and botanist, 91–92; Exp. Sta, Florida, 92–98, botanist and horticulturist, 98–99; botanist and bacteriologist, Clemson Col. and Exp. Sta, 99–01; plant pathologist in charge subtrop. lab. and garden, bur. plant indust, U. S. Dept. Agr, Miami, 01–06; director, Exp. Sta, Florida, 06–21, agr. exten, univ, 13–21, dean col. agr, 15–21; locator, organizer and conductor, Escola Superior de Agr. e Vet. do Estado, 21–29; tech. consultant agr, State of Minas-Gerais, 29–33; *retired.* Prof, Florida, 92–99; state supt, Fla. Farmers' Insts, 07–19. A.A; Bot. Soc; Phytopath. Soc; Soc. Hort. Sci; Asn. Econ. Entom; Pomol. Soc; Asn. Agr. Col; Fla. Hort. Soc. (pres, 07); Entom. Soc. Wash; Iowa Acad; St. Louis Acad; Int. Asn. Bot. Plant pathology and physiology; citrus and tropical plant diseases; organization of agricultural education; introduction and domestication of anti-lepric species of plants in Brazil.

Roll, Dr. Leslie J(ames), 478 Winona Blvd, Rochester, N. Y. *Chemistry.* Cincinnati, Ohio, Jan. 20, 07. B.S, Oregon State Col, 27; M.S, Illinois, 28, Ph.D, 31. Asst. chem, Illinois, 27–31; *research chemist, Eastman Kodak Co, Rochester, 31–* Chem. Soc. Theoretical and synthetic organic chemistry.

Rolland, Guy F(ranklin), Atlas Powder Co, Tamaqua, Pa. *Chemistry.* Orwigsburg, Pa, Dec. 1, 99. A.B, Dickinson Col, 23; Int. Paper Co. fellow, Lafayette Col, 23–24, A.M, 24; Cornell, 26–27. Instr. chem, Lafayette Col, 24–26; *exp. lab, Atlas Powder Co, 27–* Chem. Soc. Inorganic chemistry; explosives.

Rolle, Dr. Clifford J(ay), 85 Mayflower Drive, Tuckahoe, N. Y. *Chemistry.* Cincinnati, Ohio, Oct. 13, 94. A.B, Cincinnati, 15, A.M, 16, Ph.D, 18. Instr. physical and org. chem, Cincinnati, 18–20; chem. director, Van Schaack Brothers Chem. Works, 20–26; supt. pyroxylin lacquer dept. and later research director lacquer div, Ault and Wiborg Co, 26–34; research chemist, *Interchemical Corp,* 34–43, *sales engineer, Ault and Wiborg div, 43–* A.A; Chem. Soc; Inst. Chem. Organic chemistry; nitrocellulose lacquers, solvents and plasticisers; synthetic resins; industrial finishes.

Rollefson, Dr. A(imar) H(ermo), Shell Petroleum Corp, Houston, Texas. *Physics.* Grand Forks, N. Dak, Dec. 13, 01. A.B, Wisconsin, 23, A.M, 24, Ph.D, 28. Prin, high sch, Wis, 20–21; asst. physics, Wisconsin, 22–26, 33–35; asst. prof. physics and math, Hamline, 26–27; physics, Akron, 27–32; *seismologist, Shell Oil Co, Inc, 35–* Physical Soc. Infra-red absorption spectra; infra-red dispersion.

Rollefson, Prof. Gerhard K(rohn), University of California, Berkeley, Calif. *7*Chemistry.* Grand Forks, N. Dak, Jan. 12, 00. A.B, Wisconsin, 20, A.M, 21; du Pont fellow, California, 22–23, Ph.D, 23. Prin, high sch, Wis, 17–18; asst. physics, Wisconsin, 19–20, *chem,* 20–21; teaching fellow, *California,* 21–22, instr, 23–27, asst. prof, 27–31, assoc. prof, 31–40, *prof, 40–* Guggenheim Mem. Foundation fellow, 25–26. A.A; Chem. Soc. Reaction kinetics; soft x-rays; fluorescence; photochemistry.

Rollefson, Dr. R(agnar), University of Wisconsin, Madison, Wis. *Physics.* Chicago, Ill, Aug. 23, 06. A.B, Wisconsin, 26, scholar, 26–27,*A.M, 27, Ph.D, 30. Asst. *physics, Wisconsin,* 27–30, instr, 30–36, *asst. prof, 36–; mem. staff radiation lab, Mass. Inst. Tech, 42–* Continuous spectrum of mercury vapor; dispersion measurements in the infra-red.

Roller, Prof. Duane (Emerson), Hunter College, 68th St. and Park Ave, New York, N. Y. *Physics.* Minerva, Ohio, Oct. 9, 94. A.B, Oklahoma, 23, M.S, 25; Ph.D, Calif. Inst. Tech, 29. Sch. supt, Okla, 22–23; teaching fellow *physics,* Oklahoma, 23–24, instr, 24–26; asst, Calif. Inst. Tech, 27–28; asst. prof, Oklahoma, 28–32, assoc. prof, 32–35, prof, 36–37; research assoc, Columbia, 36–37; *assoc. prof, Hunter Col, 37–; chief tech. aide, Nat. Defense Research Cmt, 41–* Ed. research physics, 'Sch. Science and Math,' 27–; ed, 'Am. Jour. Physics,' 33– Lieut, A.S, 17–20. A.A; Physical Soc; Asn. Physics Teachers; Okla. Acad. (sec'y-treas, ed, 'Proc,' 36). Metallic and electrolytic conduction; photoelectricity; teaching of science; physical terminology.

Roller, Dr. Emery M, Sandhill Experiment Station, Route 5, Columbia, S. C. *Chemistry.* Seligman, Mo, June 14, 94. A.B, Missouri, 20; M.S, Iowa State Col, 23, Ph.D, 30. *Asst. chemist,* bur. chem. and soils and *bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 30–, Sandhill Exp. Sta, Clemson Col.* A.A; Chem. Soc; Soc. Agron. Bacteriology; green manuring; soil fertility; nitrification; soy-beans.

Roller, Dr. Paul S(almon), College Park, Md. *Chemistry.* New York, N. Y, April 2, 02. B.S, Polytech. Inst. Brooklyn, 23; A.M, Columbia, 25, Ph.D, 28. Research div, Combustion Utilities Corp, 23–24; asst. chem, Columbia, 26–27; asst. chemist, *non-metallic minerals exp. sta, Bur. Mines,* 28–29, assoc. chemist, 29–39, physical chemist, 39–42, *senior chemist, 42–* A.A; Chem. Soc; Soc. Test. Mat; Philos. Soc. Wash; Wash. Acad. Reaction kinetics; methods of chemical analysis; particle size; coal and gas; refractories; Portland cement; pozzolana; process for alumina; plastic flow; viscosity; phase equilibria.

Roller, Dr. P(leasant) E(rnest), Morris Harvey College, Charleston, W. Va. *Physical chemistry.* Meade, Kans, Nov. 13, 98. A.B, Friends, 20; A.M, Colorado, 23, Ph.D, 27; M.S, Nebraska, 26. Head dept. physics and math, Valparaiso, 27–29; research chemist in charge research in fat chem, S.M.A. Corp. 29–31; *head dept. physics and math, Morris Harvey Col, 31–,* dean arts and sciences, 35–41, *chairman nat. science div, 41–* A.A; Chem. Soc; Physical Soc. Potential measurements as applied to organic compounds; analysis and keeping qualities of fats

Rollins, Prof. H(oward) A(rthur), University of Connecticut, Storrs, Conn. *Pomology.* Salem, Mass, Feb. 23, 99. B.S, New Hampshire, 23, M.S, 25. Exten. horticulturist, New Hampshire, 23–30; exten. fruit specialist, *Connecticut,* 30–33, *assoc. prof. pomol, 33–* Soc. Hort. Sci. Orchard soil management; orchard cover crops; blueberry soil management.

Rollins, Prof. Reed Clark, Natural History Museum, Stanford University, Calif. *Botany.* Lyman, Wyo, Dec. 7, 11. A.B, Wyoming, 33; M.S, State Col. Wash, 36; fellow, Soc. Fellows, Harvard, 37–40, Ph.D, 41. Instr. *biol, Stanford,* 40–41, *asst. prof, 41–,* asst. curator, *Dudley Herbarium,* 40–41, *curator, 41–; assoc. geneticist, guayule research project, U. S. Dept. Agr, 43–* Bot. Soc; Soc. Plant Taxon; New Eng. Bot. Club; West. Soc. Nat; Calif. Bot. Soc. Systematics and cytology of the Cruciferae.

Rolnick, Dr. H(arry) A(braham), 316 N. 22nd St, Philadelphia, Pa. *Physics.* Minsk, Russia, July 28, 04. B.S, Rutgers, 25; Ph.D, Yale, 30. Chief engineer, Trenton Auto Radiator Works, 28–29; physicist, Brown Instrument Co, 30–38; *director, Trent Eng. Labs, 38–; proprietor, Rolnick Testing and Mfg. Co, 40–* Physical Soc. Electrical properties of metals.

Rolph, T(homas) W(illett), Holophane Co, Inc, Newark, Ohio. *Engineering.* Fargo, N. Dak, Oct. 29, 84. E.E, Cornell, 07. Engineer, Holophane Co, 07–13; Gen. Elec. Co, 13–19; manager st. lighting dept, *Holophane Co,* 21–31, *chief engineer, 31–, v. pres, 40–* Illum. Eng. Soc; Optical Soc. Illuminating engineering; light control.

Romaine, Jesse D(avis), 1155 16th St, N.W, Washington 6, D. C. *Agronomy.* Philadelphia, Pa, Nov. 8, 01. B.S, Pa. State Col, 23; M.S, Mich. State Col, 25. Instr. soil technol, Pa. State Col, 23–24; asst. and instr. soils, Mich. State Col. 25–28; asst. agronomist, agr. and sci. bur, N. V. Potash Export My, 28–31, agronomist, 31–35; *chief agronomist, Am. Potash Inst, 35–, sec'y, 40–* Asst, Agr. Abteilung, Deutsches Kalisyndikat, Berlin, 29–30. A.A; Soc. Agron; Soil Sci. Soc. Soil fertility and plant nutrition relationships; decomposition of urea in soils.

Roman, Dr. Irwin, Room 409 Custom House, Baltimore 2, Md. *Geophysics.* St. Louis, Mo, May 2, 93. A.B, Washington (St. Louis), 13; A.M, Chicago, 15, Ph.D, 20. Instr. math, Northwestern, 16–18, 19–23; assoc. prof, Vanderbilt, 23–25; math.

physicist, Amerada Corp. and Geophys. Research Corp, 25–30; consulting math. physicist, 30–31; asst. prof. math. and physics, Mich. Col. Min. and Tech, 31–35; *senior geophysicist, U. S. Bur. Mines and Geol. Surv, 35–* Ordnance Dept, U.S.A, 18–19. A.A; Math. Asn; Geophys. Union. Geophysical prospecting; applied mathematics; mathematical physics; defects in optical instruments; wave transmission through optical systems; interior ballistics.

Romanoff, Prof. Alexis L(awrence), Belleayre Apts, Ithaca, N. Y. *Embryology.* Petrograd, Russia, May 17, 92. B.S, Cornell, 25, M.S, 26, Ph.D, 28. Asst. exp. embryol, *Cornell,* 24–28, research instr, 28–32, research asst. prof. *avian embryol,* 32–43, *assoc. prof, 43–* Research fellow, Harvard, 39–40; Yale, 40–41; research, Florida, 42. Lieut, Eng.C, Russian Army, 14–19. A.A; Soc. Exp. Biol; Genetic Asn; Poultry Sci. Asn; Soc. Zool; N. Y. Acad; World's Poultry Sci. Asn. Physicochemical properties and food value of eggs; physiology of reproduction in birds; influence of physical environment on growth, metabolism and mortality of avian embryos.

Romans, Isabella B(radford), 101 Park Ave, New York, N. Y. *Bacteriology, Chemistry.* Waco, Texas, Jan. 26, 06. A.B, Baylor, 26; Columbia, 29, 32. Research chemist, Royal Baking Powder Co, 27–30; research bacter. and chem, Wallace and Tiernan, 30–33; patent research, Chloramine Co, 33–36; bacter. research, Chloramine Co. and Pease Labs, 36–39; *consulting bacteriologist, 39–* A.A; Pub. Health Asn; fel. Inst. Chem; Chem. Soc; Soc. Bact. Antiseptics; disinfectants; fungicides; bacteriology of condenser and paper slime; sterilization of water; chloramines.

Romans, Dr. R(obert) Gordon, 182 Brooke Ave, Toronto, Ont, Can. *Chemistry.* Waverley, N. S, Can, Aug. 19, 09. B.A, Toronto, 33, M.A, 34, Ph.D, 42. Asst. chem, *Toronto,* 33–36, 37–38; tech. asst, *Connaught labs,* 38–39, *research asst, 39–* Can. Chem. Asn; Toronto Biochem. and Biophys. Soc. Raman effect; photochemistry; insulin.

Romberg, Dr. Arnold, 406 E. 32nd St, Austin, Texas. *Physics.* Muldoon, Texas, July 7, 82. A.B, Texas, 10; Ph.D, Harvard, 15. Prof. physics, Hawaii, 15–22; Texas, 22–40. A.A; Physical Soc; Seismol. Soc. Heat; geophysics.

Romer, Prof. Alfred, Whittier College, Whittier, Calif. *Physics.* Pleasantville, N. Y, Aug. 9, 06. A.B, Williams Col, 28; Ph.D, Calif. Inst. Tech, 35. Asst. chem, Williams Col, 28–29; asst. prof. *physics, Whittier Col,* 33–39, *prof, 40–* Research fellow, Harvard, 40–41. Physical Soc; Asn. Physics Teachers; Hist. Sci. Soc. History of physics.

Romer, Prof. Alfred S(herwood), Harvard University, Cambridge, Mass. **6Zoology, Vertebrate paleontology, Anatomy.* White Plains, N. Y, Dec. 28, 94. A.B, Amherst Col, 17; Ph.D, Columbia, 21. Instr. anat, Univ. and Bellevue Hosp. Med. Col, and mem. dept. comp. anat, Am. Museum Nat. Hist, 21–23; assoc. prof. vert. paleont, Chicago, 23–31, *prof,* 31–34; *zool. and curator vert. paleont, Harvard, 34–* A.A; Paleont. Soc. (v. pres, 39); Soc. Vert. Paleont. (pres, 41); Soc. Nat; Asn. Physical Anthrop; Asn. Anat; Soc. Zool; Geol. Soc; Am. Acad; cor. mem. Zool. Soc. London. Vertebrate anatomy; myology; osteology; reptiles; amphibians.

Romeyn, Dr. Hendrik, Jr, 216 Whitford Ave, Nutley, N. J. *Chemistry.* Spokane, Wash, June 21, 09. A.B, Utah, 29; M.S, Brown, 30, Ph.D, 32. Chemist, Kalunite Syndicate, 32; asst, dept. chem, Harvard, 33–34; *research physical chemist, U. S. Rubber Co, 34–* Chem. Soc. Photochemistry; physical chemistry; chemistry of rare earths; heats of reactions of organic compounds; chemistry of aging of rubber; tire compounding development; plastics development; rubber and textile chemistry.

Rommel, Geo(rge) M(cCullough), Terrace View, Fountain City, Knoxville, Tenn. *Animal husbandry, Economics.* Mt. Pleasant, Iowa, Feb. 26, 76. B.S, Iowa Wesleyan, 97; B.S.A, Iowa State Col, 99. Asst. animal husbandry, Iowa State Col, 00–01; manager, O. R. and N. Exp. Farm, Walla Walla, Wash, 01; expert animal husbandry, bur. animal indust, U. S. Dept. Agr, 01–05, animal husbandman, 05–09, chief animal husbandry div, 10–22; ed, 'Field Illustrated,' 22; agr. consultant and writer, 23–28; indust. commissioner, Indust. Cmt, Savannah, 28–32; *supervisor agr. investigations and experiments, Tenn. Valley Authority, 33–* Lecturer, Illinois, 06; exten. lecturer, Columbia, 22; Inst. Pub. Affairs, Virginia, 28, 29; tech. consultant, U. S. Dept. Agr. and Bur. Standards, 27–28. U. S. del, Pan-Am. Sci. Cong, Santiago, Chile, 08, Wash, D. C, 14–15; Inter-Am. Conf, Wash, D. C, 30. A.A. In-

heritance of fecundity; marketing of dairy products; utilization of farm by-products; industrial development; phosphatic plant and animal foods.

Roney, Dr. Harland B(urr), Western Reserve University, Cleveland, Ohio. *Zoology.* Chicago, Ill, March 2, 12. B.S, Illinois, 33, Ph.D, 38. *Instr. biol, Cleveland Col, Western Reserve, 37–* A.A; Ecol. Soc. Effects of radiation on rate of development; community ecology.

Roney, Dr. J(ames) N(eville), Agricultural and Mechanical College of Texas, College Station, Texas. *Economic entomology.* Hickman, Ky, May 30, 04. B.S, Miss. State Col, 26, M.S, 27; Ph.D, Cornell, 41. Entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 27–38; mem. faculty, N. Y. State Col. Agr, Syracuse, 38–41; *entomologist, Exp. Sta, Agr. and Mech. Col. Texas, 41–* Asn. Econ. Entom; Texas Entom. Soc. Cotton and vegetable insect control.

Ronneberg, Dr. C(onrad) E(rwin), 4244 Garden Ave, Western Springs, Ill. *Chemistry.* Waterville, Minn, Nov. 7, 93. A.B, Lawrence Col, 16; Monsanto fellow, Mass. Inst. Tech, M.S, 22; Ph.D, Chicago, 35. Instr. chem, Mass. Inst. Tech, 22; in charge dept, Itasca Junior Col, Minn, 22–25; Crane City Junior Col, Chicago, 25–34; *chairman dept. physical sciences, Herzl City Junior Col, 34–; Chem. Warfare Service, U. S. Army, 42, major.* Lieut, Sanit.C, 17–19. A.A; Chem. Soc; Ill. Acad. Physical chemistry; thermochemistry of solutions; construction of calorimeters for measuring heat effects of the order of 1×10^{-6} degrees; determination of very small heats of dilution.

Ronstrom, Dr. George Nelson, Louisiana State University School of Medicine, New Orleans, La. *Human anatomy.* Kewanee, Ill, June 10, 07. B.S, Illinois, 30, M.S. and M.D, 32. Instr. *anat, sch. med, Louisiana,* 34–38, *asst. prof, 38–* A.A; Asn. Anat. Blood vascular supply of the human kidney.

Ronzio, Prof. Anthony R(ose), 861 17th St, Boulder, Colo. *Chemistry.* Pueblo, Colo, June 18, 05. A.B, West. State Col, Colo, 29; M.S, Colorado, 32, Ph.D, 35. Asst. chem, West. State Col, Colo, 27–28; *Colorado,* 29–34, asst, 35–37, instr, 37–38, *asst. prof. org. chem, 38–* Organic research; organic quantitative analysis; absorption spectra; reactions in liquid gases at low temperatures; pyrimidines and glyoxalines.

Ronzoni, Prof. Ethel, Washington University School of Medicine, St. Louis, Mo. *Biochemistry.* Redlands, Calif, Aug. 21, 90. A.B, Mills Col; A.M, Columbia; Ph.D, Wisconsin. Instr. *biochem, sch. med, Washington (St. Louis),* 23–27, *asst. prof, 28–* Soc. Biol. Chem; Soc. Exp. Biol. Carbohydrate metabolism of muscle and yeasts; action of sulfonamide drugs on metabolism of bacteria.

Rood, Prof. Clement E(ugene), 910 S. Superior St, Albion, Mich. *Physics.* Mt. Morris, Mich, Oct. 14, 70. Ph.B, Albion Col, 94, Ph.M, 97; fellow, Chicago, 97–99, Yerkes Observatory; Michigan, 24, 25, 36. Instr. math. and astron, Beloit Col, 99–01; acting prof. math. and physics, Carthage Col, 01–02, prin. nor. dept. and registrar, 02–03; instr. math. and physics, Mich. Col. Mines, 03–15, asst. prof, 15–20; prof. *physics, Albion Col,* 20–38, *emer. prof, 38–* Summers, acting prof, West. State Col, Colo, 23. A.A. Solar physics.

Rood, Prof. Paul, Western Michigan College of Education, Kalamazoo, Mich. *Physics.* Lawton, Mich, May 3, 94. A.B, Albion Col, 16; A.M, Michigan, 21, Ph.D, 38; Calif. Inst. Tech, 32–33. *Prof. physics, West. Mich. Col. Educ, 16–* A.A; Physical Soc. The Bergman series in sodium.

Roof, Dr. Jack G(lyndon), Oregon State College, Corvallis, Oregon. *Physical chemistry, Photochemistry.* Cleburne, Texas, June 17, 13. A.B, California at Los Angeles, 34, A.M, 35; Ph.D, Wisconsin, 38. Instr. *chem, Oregon State Col,* 38–41, *asst. prof, 41–; mem, Nat. Defense Research Cmt, Northwestern, 42–* Chem. Soc. Photochemical studies on aldehydes and ketones; high temperature gaseous reactions.

Roofe, Dr. Paul G(ibbons), 421 Macon Ave, Louisville, Ky. *Anatomy.* Gainesville, Mo, Dec. 25, 99. B.S, Kans. State Col, 24; B.D, Meadville Theol. Sch, 29; William Wilder, Jr, fellow, Chicago, 32–34, Ph.D, 34. Director, Thessilonica Agr. and Indust. Inst, Salonica, Greece, 24–25; instr. chem, Haskell Inst, 25–27; dairy chemist, Sidney Wanzer and Sons, Chicago, 30–34; asst. *anat, Louisville,* 34–35, instr, 35–41, *asst. prof, 41–* A.A; Asn. Anat. Endocranial blood supply of amphibians; histology of the paraphysics of amphibians.

Rooks, Dr. Roland, University of Iowa, Iowa City, Iowa. *Hygiene, Preventive medicine.* Hague, N. Dak, Aug. 17, 99.

A.B, Sioux Falls Col, 24; A.M, Iowa, 31, Ph.D, 35. Supt. schs, 28–29; asst, dept. hygiene and prev. med, *Iowa*, 33–35, *asst. prof. hygiene and prev. med, 35–* Pub. Health Asn. Natural body defenses; air-borne infection; bacterial filtering efficiency of surgical masks.

Roon, Leo, 10 Overhill Road, South Orange, N. J. *Chemistry.* New York, N. Y, Aug. 6, 92. Ph.Ch, Columbia, 10; M.S, N. Y. Univ, 16. Instr. chem, Columbia, 12–15; asst, N. Y. Univ, 15–16; chief chem. div, E. R. Squibb and Sons, 16–19; consulting chemist, 19–24; *pres, Roxalin Flexible Lacquer Co, 24–* Mem. advisory board protective coating sect, Office Production Management, 41–42. Chem. Soc; Soc. Test. Mat; Pharmaceut. Asn; Inst. Chem; Chemists' Club; N. Y. Paint, Varnish and Lacquer Asn. (pres, 41). Pharmaceutical colloid chemistry; surface coatings.

Rooney, J(ohn) T(homas), 50 Woodette Place, Buffalo, N. Y. *Chemistry.* Quebec, Que, Can, April 14, 90. B.Sc, Queen's (Can), 11. Chemist, Can. Cement Co, Que, 11–12; supt. acid works, Can. Explosives Co, 13–14; chem. engineer, Shawinigan Electro Metals Co, 15–16; process supervisor, Can. Electro Products Co, 17–18; metallurgist and research chemist, Johns-Manville Co, Lockport, *N. Y*, 19; test engineer, Nat. Aniline and Chem. Co, *Buffalo*, 20; *chief chemist, Spencer Lens Co, 21–* Manufacture of metallic magnesium, synthetic acetic acid and acetone; preparation of optical cements; development of immersion media and mounting resins for refractive index determination by microscopists; microscopical etching; electroplating; organic finishes; heat treatments of metals.

Rooney, W(illiam) J(oseph), 5241 Broad Branch Road, Washington, D. C. *Physics.* Waltham, Mass, April 20, 90. A.B, Boston, 12; B.S, Mass. Inst. Tech, 15. Ballistic engineer, E. I. du Pont de Nemours and Co, 16–19; assoc. elec. engineer, Bur. Standards, 20–24; assoc. physicist and *physicist, dept. terrestrial magnetism, Carnegie Institution, 24–; consultant, Nat. Defense Research Cmt, 41–* A.A; Geophys. Union; Philos. Soc. Wash; Wash. Acad. Electrical engineering; ballistics; earth currents and conductivity; mechanical stresses in gun mounts; electrical resistivity of earth.

Roope, Prof. Percy M(artin), Clark University, Worcester, Mass. *Physics.* Swampscott, Mass, June 12, 97. A.B, Clark, 20, A.M, 24, fellow, 24–26, Ph.D, 27. Instr. *physics*, Kalamazoo Col, 20–21; *Clark*, 21–27, asst. prof, 27–31, assoc. prof, 31–43, *prof, 43–* A.A; Physical Soc; Asn. Physics Teachers. The velocity of gravitation; relativity; acoustics.

Roos, Dr. Charles F(rederick), Econometric Institute, Inc, 500 Fifth Ave, New York, N. Y. *Econometrics.* New Orleans, La, May 18, 01. A.B, Rice Inst, 21, A.M, 24, Ph.D, 26. Instr. math, Rice Inst, 24–26; nat. research fellow, Chicago, Princeton, Cornell, 26–28; asst. prof. math, Cornell, 28–31; permanent sec'y, Am. Asn. Adv. Sci, 31–33; Guggenheim Mem. Foundation fellow, Europe, 33; director research, Nat. Recovery Admin, 33–34; prof. econometrics, Colo. Col, 34–37; director research, Mercer-Allied Corp, 37–39; *pres, Econometric Inst, Inc, 39–* Director research, Cowles Cmn. for Research in Econ, 34–37. A.A. (sec'y, K, 29–31); Statist. Asn. Econometrics; calculus of variations and functionals; mathematical economics; statistics.

Root, Dr. A(lfred) R(onald), 5737 Elliot Ave, S, Minneapolis, Minn. *Psychology.* Appleton, Wis, Dec. 29, 00. A.B, Lawrence Col, 22; A.M, Chicago, 25; fellow, Iowa, 27–28, Ph.D, 28. Teacher, pub. schs, Wis, 22; assoc. prof. psychol, S. Dak. State Teachers Col, Aberdeen, 23–24, prof, 24–26; assoc. prof, Hamline, 28–29, prof, 29–36; director, Psychol. Service Center, Minneapolis, 34–37; research director, *Knox Reeves Advertising, Inc, 37–39, director media and research, 39–* Lecturer, Gillette State Hosp, St. Paul, Minn, 31–37. Assoc. Psychol. Asn; Asn. Applied Psychol; Marketing Soc; Minn. Soc. Applied Psychol. Psychology of speech; applied and clinical psychology.

Root, Clarence J(ames), U. S. Weather Bureau, Detroit, Mich. *Meteorology.* Chicago, Ill, March 11, 75. High sch. Observer, *U. S. Weather Bur*, 00–10, local forecaster, 10–11, *in charge* Springfield sta, Ill. sect, 11–32, sect. director, 11–16, meteorologist, 17–37, *senior meteorologist, 37–, Detroit stations, 32–* Meteorol. Soc; Geophys. Union. Climatology.

Root, Dr. C(linton) W(illiam), 613 University Ave, Syracuse, N. Y. *Physiology.* Ft. Wayne, Ind, Jan. 23, 00. A.B, Oberlin Col, 27, A.M, 29; Ph.D, Princeton, 34. Asst, sch. med, Western Reserve, 29–30; Princeton, 33–34; instr, Hamilton Col, 34–35; *asst. prof. zool, Syracuse, 35–* Blood chemistry; bioluminescence of luminous bacteria; endocrinology.

Root, Dr. Frank B(rian), Ellis-Foster Co, Montclair, N. J. *Chemistry.* Albion, Ill, Sept. 3, 97. A.B, Oberlin Col, 22; Ph.D, Princeton, 26. *Research chemist*, Flood and Conklin Co, Newark, 25–29; Chadeloid Chem. Co, New York, 29–31; Rezyl Corp, *Montclair*, 31–32; *Ellis-Foster Co, 32–* Chem. Soc. Paints; varnishes; lacquers; synthetic resins; wrinkle finishes.

Root, Dr. Howard F(rank), 81 Bay State Road, Boston, Mass. *Medicine.* Ottumwa, Iowa, Aug. 28, 90. A.B, Harvard, 13, M.D, 19. Asst. physician and later *physician, New Eng. Deaconess Hosp;* house officer, Peter Bent Brigham Hosp, Boston, 19–20, assoc. *med*, 20–27; instr. and *assoc, Harvard Med. Sch*, 27– May fellow, sch. med, Hopkins, 20. Metabolism in diabetes mellitus.

Root, Prof. Ralph E(ugene), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Trenton, Mo, July 18, 79. B.S, Morningside Col, 05; M.S, Iowa, 09; fellow, Chicago, 10–11, Ph.D, 11. Teacher, high sch, Iowa, 05–06; instr. math, Iowa, 06–10; Missouri, 11–13; *U. S. Naval Acad*, 13–14, *prof. math. and mech, post-grad. sch, 14–* Math. Soc; Math. Asn; Eng. Educ. Iterated limits in general analysis; theory of limits and continuity; mathematics of engineering; dynamics of engine and shaft.

Root, Prof. R(aymond) W(illard), 139th St. and Convent Ave, New York, N. Y. *Physiology.* Bolivar, N. Y, Sept. 21, 05. A.B, Milton Col, 26; A.M, Duke, 29, Ph.D, 31. Instr. biol, Battle Creek Col, 27–28; zool, Duke, 29–31; *biol, Col. City of N. Y*, 31–35, *asst. prof, 35–, head div. physiol, 36–* Fellow, Oceanog. Inst, Woods Hole, 31–33; research assoc, Am. Museum Nat. Hist, 36–37. Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Soc. Zool; N. Y. Acad. Physiology of fishes; carbohydrate metabolism; respiration of cold-blooded vertebrates.

Root, Prof. Towner B(owditch), Box 218, Hamilton, N. Y. *Geology.* Kenilworth, Ill, Sept. 25, 99. B.S, Chicago, 21, M.S, 22, Ph.D, 35. Asst. *geol*, Chicago, 21–23, 24–25; instr, Manitoba, 23–24; *assoc. prof, Colgate, 25–* Summers, assoc. geologist, Ill. Geol. Surv, 24, 25, 29–32. A.A; Paleont. Soc; Meteorol. Soc. Geology of the Ava oil and gas district; geology and economic resources of the lower Illinois River valley.

Root, Prof. Walter S(tanton), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Physiology.* Buffalo, N. Y, Sept. 18, 02. B.S, Wesleyan, 24, 24–25; N. Y. Univ, 25–27; Ph.D, Pennsylvania, 30; Hopkins, 35. Asst. biol, Wesleyan, 24–25; asst. instr. physiol, sch. med, and instr. nutrition, sch. physical educ, Pennsylvania, 27–29; asst. prof. *physiol*, col. med, Syracuse, 29–31, *assoc. prof*, 31–36; sch. med, Maryland, 36–37; *col. physicians and surg, Columbia, 37–* Summers, Marine Biol. Lab, Woods Hole, 24, 28–36, mem. corp; asst. physiologist, Sch. Aviation Med, U.S.A, 25. A.A; Physiol. Soc; Soc. Exp. Biol; Harvey Soc. Cell respiration and cleavage; nerve and muscle metabolism; ether anesthesia; sympathetic nervous system; traumatic shock.

Root, Prof. William C(ampbell), Bowdoin College, Brunswick, Maine. *Chemistry.* Grass Valley, Calif, Oct. 26, 03. B.S, California, 25; A.M, Harvard, 27, Ph.D, 32. Asst. *chem*, Harvard, 25–30; instr, *Bowdoin Col*, 32–33, asst. prof, 33–39, *assoc. prof, 39–* Density of salt solutions; volume of ions; ancient American metallurgy.

Root, Prof. William T(homas), Jr, University of Pittsburgh, Pittsburgh, Pa. *Psychology.* Concordia, Kans, June 2, 82. A.B, Stanford, 12, A.M, 13, Ph.D, 19. Instr. psychol, Stanford, 13–18, Buckel Foundation Research, 18–20; *prof. educ. psychol, Pittsburgh, 20–, head dept, 29–, dean grad. sch, 35–* Board directors, West. Penitentiary, Pa. A.A; Psychol. Asn; Statist. Asn; Soc. Penal Information (advisory board). Educational and clinical psychology; superior children; subnormal children; psychology of crime.

Roots, Prof. Yale K(irby), Western College, Oxford, Ohio. *Physics.* Milford Center, Ohio, Feb. 3, 94. B.S, Col. of Wooster, 22; M.S, N. Y. Univ, 26; Ph.D, Boston, 34. Instr. *physics*, N. Y. Univ, 23–30; *prof*, Findlay Col, 30–41; *Western Col, 41–* A.A; Physical Soc. (chairman, Ohio sect, 39); Optical Soc; Asn. Physics Teachers. Spectroscopy.

Roper, Denney W(arren), Carmel, Calif. *Electrical engineering.* Grafton, Ill, Oct. 18, 69. M.E, Cornell, 93. Supt.

elec. equipment, Mo. Edison Co, 97–01; consulting engineer, 01–03; eng. dept, Chicago Edison Co, 03–05; asst. to chief operating engineer, Commonwealth Edison Co, 05–15, supt. street dept, 15–33, asst. elec. eng, 33–35; *retired.* Cmt. on elec. insulation, Nat. Research Council; U. S. nat. cmt, Int. Electrotech. Cmn, 24–30. Chanute medal, West. Soc. Eng, 07; prize, Am. Inst. Elec. Eng, 27. Elec. Eng. (chairman, Chicago sect, 13); West. Soc. Eng. (chairman, elec. sect, 08, v. pres, 16–18). Distribution of electricity; lightning protection; electrolysis.

Roque, Arturo (Perez), University of Puerto Rico, Rio Piedras, P. R. *Plant pathology, Plant genetics.* Ponce, P. R, Jan. 21, 07. B.S. (Agr), Puerto Rico, 28; M.S, Cornell, 30. Deputy inspector agr, Dept. Agr. and Labor, P. R, 28–30; asst. plant pathologist, *Exp. Sta, Puerto Rico,* 30–36, *geneticist and head dept. genetics, 36–* Bot. Soc; Soc. Agr. Sci. (chairman bot. sect, 41–); P. R. Bot. Club. Sugar cane breeding; breeding for disease resistance in vegetables; breeding for resistance to virus diseases.

Rorer, James Birch, Hacienda San Miguel, Milagro, Ecuador. *Plant pathology.* Ogontz, Pa, Dec. 29, 76. A.B, Harvard, 99, A.M, 01. Asst. bot, Harvard, 99–02, Austin teaching fellow, 01–02; sci. asst, bur. plant indust, U. S. Dept. Agr, 02–07, asst. pathologist, 07–09; mycologist, Board Agr, Trinidad, 09–18; chief dept. agron, Assoc. de Agr. del Ecuador, 18–22; director, Compañía Agr. Panigón, 22–25; manager, Hacienda San Miguel, Inc, 32–35; supt, Compañía Bananera del Ecuador, 35–37; in charge private butter and cheese factory, 37–39; *manager, Compañía Agricola San Miguel, 39–* A.A; Phytopath. Soc; Bot. Soc; Am. Geog. Soc. Diseases of apples, peaches, cacao, coconuts and sugar cane; cultivation of tropical crops.

Rorer, Dr. Jonathan T(aylor), 333 N. 34th St, Philadelphia, Pa. *Mathematics, Astronomy.* West Chester, Pa, Aug. 21, 71. A.B, Colorado, 95; Ph.D, Pennsylvania, 01. Instr. math. and English, Colo. Col, 94–95; math, Cent. High Sch. Phila, 95–99, asst. prof, 99–03, prof, 03–09; head dept. math, William Penn High Sch, 09–39; Benjamin Franklin High Sch, 39–40; *retired.* Prin, Cent. Evening High Sch, 21–40; lecturer, Temple, 41– Summers, instr, Hopkins, 20–22, 26, 27. Assoc. ed, 'The Math. Teacher,' 08–11. Instr. math, S.A.T.C, Pennsylvania, 18; supt. instruction, 2nd div, U.S.A, 19. A.A; Math. Soc; Math. Asn; Astron. Soc; Rittenhouse Astron. Soc. (pres, 35); Nat. Council Teachers Math; Asn. Teachers Math. Middle States and Md. (sec'y, 05–07, pres, 15–17, 36–39). Mathematical astronomy; education; the orbit of Brooks' comet, 1898 X.

Rosa, Prof. Delaphine G(race), Wellesley College, Wellesley, Mass. *Bacteriology.* Beloit, Wis, Sept. 11, 06. Ph.B, Wisconsin, 27, M.Ph, 28, Ph.D, 38. Instr. bacter, N. Dak. Agr. Col, 28–36, asst. prof, 36–37; instr. *bot, Wellesley Col,* 38–39, *asst. prof, 39–* Bactericidal agents; physiological variation.

Rosahn, Dr. Paul D(olin), 310 Cedar St, New Haven, Conn. *Pathology.* New York, N. Y, Dec. 21, 03. A.B, Columbia, 24; M.D, N. Y. Univ, 28. Med. house officer, Boston City Hosp, 28–30; asst. path. and bacter, Rockefeller Inst, 30–35; asst. director research, Pub. Health Inst, 35–36; Josiah Macy, Jr, Foundation fellow, *sch. med, Yale,* 36–37, asst. and instr. *path,* 37–40, *asst. clin. prof, 40–* Pathologist and director tumor clinic, New Britain Gen. Hosp, 38–; special consultant, U. S. Pub. Health Service, 40–; asst. attending pathologist, New Haven Hosp, 40– A.A; Am. Med. Asn; Pub. Health Asn; Asn. Cancer Research; Soc. Exp. Biol; Asn. Path. and Bact; Soc. Exp. Path; Harvey Soc; Conn. Asn. Pub. Health and Clin. Labs. (pres, 40); Conn. Soc. Path. (pres, 41); Interurban Path. Soc; Int. Asn. Med. Museums. Hematology; syphilis; constitution; biometrics; malignant tumors; genetics and physiology of the rabbit; virus diseases; cancer.

Rosaire, Dr. E(sme) E(ugene), 2711 Westheimer, Houston 6, Texas. *Geophysics, Geochemistry.* Chicago, Ill, July 17, 97. B.S, Chicago, 20, M.S, 21, Ph.D, 26. Physical chemist, develop. branch, West. Elec. Co, Ill, 22–25; field supt, Geophys. Research Corp, 25–32; pres, Rosaire and Kannenstine, 32–37; *owner, Subterrex, 37–* Pres. and gen. manager, Independent Explor. Co, 32–37. A.A; Geophys. Union; Physical Soc; Soc. Explor. Geophys. (v. pres, 30, pres, 34); Asn. Petrol. Geol; Seismol. Soc; Min. and Metal. Eng; Soc. Mil. Eng. Conductivity of electrolytes; high vacua; vacuum tube circuits; applied and theoretical geophysics; geochemical exploration; prospecting for petroleum.

Rosanoff, Dr. M(artin) A(ndré), 124 Longue Vue Drive, Mt. Lebanon, Pittsburgh, Pa. **²Chemistry.* Nicolaeff, Russia, Dec. 28, 74. Ph.B, N. Y. Univ, 95, Sc.D, 08; Berlin, 95–96; Paris, 96–98. Asst. to Prof. Friedel, Paris, 97–98; to Dr. J. M. Crafts, Mass. Inst. Tech, 98–99; research fellow, N. Y. Univ, 99–00; ed. for exact science, 'New Int. Encyclop,' 00–03; asst. to Thomas A. Edison, 03–04; instr. theoret. chem, N. Y. Univ, 04–05, asst. prof, 05–07; head dept. chem. and director chem. labs, Clark, 07–11, prof, 11–14; chem. research, Mellon Inst, 14–15, Willard Gibbs prof. research in pure chem, 15–19; indust. consultant, 19–33; prof. chem. research, Duquesne, 33–40, dean grad. sch, 34–40. Nichols medal, Am. Chem. Soc, 11. Am. Acad. Classification of stereoisomers; principle of optical superposition; the quantitative determination of halogens in the presence of sulfocyanates; the Victor Meyer law in esterification; partial vapor pressures of binary mixtures; isopiestic study of partial vapor pressures; variation of vapors of binary mixtures with the temperature; fractional distillation; the steric hindrance hypothesis; kinetics of certain inorganic reactions; theory of direct esterification; sugar inversion; homogeneous catalysis; practical simplification of the method of least squares.

Rosbash, Dr. David O(scar), 58 Sullivan St, Rochester, N. Y. *Chemistry.* Kremenchug, Russia, Dec. 14, 04. B.S, Chicago, 29, Ph.D, 32. Eli Lilly fellow, St. Luke's Hosp, and Chicago, 30–33; research chemist, G. F. Harvey Co, Saratoga Springs, 35–40; *fellow obstet. and gynec, Rochester, 40–* Pharmaceutical and chemical manufacturing processes; enzymes; chemistry of tumor tissue; antiseptics; heavy metal catalysis; organic chemical therapy; hormones.

Roschen, Ernest C(arl) H(enry), Cherry Hill Lane, Reisterstown, Md. *Geology.* Baltimore, Md, Sept. 4, 99. A.B, Hopkins, 22. Geologist, Baltimore and Ohio R. R, 23; geol. asst, Alaska div, U. S. Geol. Surv, 24; *geologist,* S. Am. Gulf Oil Co, 24–25; Panama Gulf Oil Corp, 25–28; *Consol. Oil Corp, 29–* A.A; Min. and Metal. Eng; Asn. Petrol. Geol; Am. Geog. Soc; Explorers Club. Stratigraphy; paleontology.

Roschen, H(arry) L(ouis), 1241 S. 13th Ave, Maywood, Ill. *Chemistry.* Lake City, Minn, April 4, 05. A.B, Carleton Col, 26. *Chemist, Swift and Co, 26–* Chem. Soc; Oil Chemists Soc. (v. pres, 37, chairman, jour. cmt, and ed, 'Oil and Soap,' 37–). Analysis and technology of oils, fats and soaps; oxidation stability and rancidity of fats and oils; influence of metallic and other catalysts on oxidation stability and rancidity.

Roscoe, Prof. Muriel V(ictoria), McGill University, Montreal, Que, Can. *Botany.* Centreville, N. S, May 24, 97. B.A, Acadia, 18; A.M, Radcliffe Col, 25, Ph.D, 26. Instr. *bot,* Acadia, 26–27, asst. prof, 27–28, prof, 28–40; asst. prof, *McGill,* 40–43, *assoc. prof, 43–* A.A; Bot. Soc. Plant cytology.

Rose, Dr. Albert, RCA Laboratories, Princeton, N. J. *Electronics.* New York, N. Y, March 30, 10. A.B, Cornell, 31, Ph.D, 35. Asst. physics, Cornell, 31–34; *elec. research, RCA Labs, 35–* Radio Eng. Television pickup tubes.

Rose, Prof. Annelles Argelander, Smith College, Northampton, Mass. *Psychology.* Weissenburg, Alsace, May 23, 96. Berlin; Ph.D, Heidelberg, 19. Assoc. prof. *psychol,* Jena; *asst. prof, Smith Col, 39–* Assoc. Psychol. Asn. Child psychology; personality.

Rose, Dr. Anton R(ichard), Edgewater, N. J. *Biochemistry.* Minn, Feb. 22, 77. B.S, Minnesota, 04; M.S, Yale, 11; Ph.D, Columbia, 12. Instr. chem, New Hampshire, 05; asst. chem, N. Y. Exp. Sta, Geneva, 06–10; biochem, Columbia, 10–13; private research, 14–16; assoc. path. chem, N. Y. Post-Grad. Med. Sch, 16–18; prof. chem, Fordham, 20–24; *biochemist, Prudential Ins. Co, 24–* Capt, Sanit.C, 18–19. Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Inst. Nutrition. Nutrition; physiological chemistry; clinical chemical methods.

Rose, Dr. Arthur, 631 Pearl St, Marion, Ohio. *Chemistry.* Cincinnati, Ohio, July 26, 03. A.B, Cincinnati, 25, A.M, 26, Ph.D, 27. Columbian carbon research fellow, Lehigh, 27–28; instr. chem, Hawaii, 28–29; Lehigh, 29–30; research assoc, Pa. State Col, 30–31, asst. prof, 31–40, assoc. prof, 40–42, supervisor chem. exten, 41–42; *tech. director, Scioto Ordnance Plant, 42–* A.A; Chem. Soc. (sec'y cent. Pa. sect, 40, v. chairman, 41, chairman, 42). Chemical engineering; metallic compounds formed in liquid ammonia solution; luminous flames and carbon black formation; high temperature reactions of hydrocarbons; analytical distillation; fractionation of liquefied gases; distillation theory; explosives; technical training in industry.

Rose, Dr. Bernhard A(lbert), 4177 Farmdale Ave, North Hollywood, Calif. *Physics.* Bonduel, Wis, Jan. 11, 07. A.B, Ripon Col, 29; fellow, Brown, 30–32, M.S, 31, Ph.D, 33; M.M.E, Chrysler Inst. Eng, 35. Instr. physics, Brown, 29–30, asst, 33–34; engineer, Chrysler Motor Corp, 34–39, prof. physics, Chrysler Inst. Eng, 34–39; *mech. research group engineer, Lockheed Aircraft Corp, 39–* Physical Soc. Contact potential difference; single crystals.

Rose, Dr. Bram, McGill University, Montreal, Que, Can. *Medicine.* Montreal, Que, April 21, 07. B.A, McGill, 29, M.D, 33, M.Sc, 37, Ph.D, 39. Jr. intern med, Royal Victoria Hosp, 33–34, asst. med. res, 34–35, assoc. med, 41; asst. in med. to Sir A. Hurst, Guy's Hosp, London, 35–36; *research assoc, univ. clinic, Royal Victoria Hosp, 37–; with Med. Service, Royal Can. Air Force.* Research assoc, McGill, 39–40. Soc. Clin. Invest; Can. Physiol. Soc; Montreal Medico-Chirurg. Soc. Clinical investigation of shock and allergy; the metabolism of histamine in relation to anaphylaxis, allergy and shock.

Rose, Prof. B(ruce), Queen's University, Kingston, Ont, Can. *Geology.* Mountain, Ont, Jan. 5, 85. B.Sc, Queen's (Can), 09; Ph.D, Yale, 13. Demonstrator geol, Queen's (Can), 09–10; lecturer, forest sch, Yale, 12; geologist, Geol. Surv. Can, 13–20; Whitehall Petrol. Corp, 20–22; from asst. prof. to *prof. geol, Queen's (Can), 22–* Summers, geologist, Ont. Dept. Mines, 23; Geol. Surv. Can, 24, 35–38; consulting geologist. Fel. Geol. Soc; fel. Royal Soc. Can. Geology of coal areas in Saskatchewan, Alberta and British Columbia; general geology of New Brunswick.

Rose, Prof. D(alton) K(eats), Washington University, St. Louis, Mo. *Urology.* Decatur, Mich, Oct. 28, 86. M.D, Washington (St. Louis), 15. Asst. prof. and later *prof. urol, sch. med, Washington (St. Louis).* Cystometric investigations; urinary bladder innervation; diverticula of the bladder; pyelonephritis of pregnancy; kidney and urinary bladder physiology.

Rose, Dr. D(ean) H(umboldt), U. S. Department of Agriculture, Washington, D. C. *Botany.* Ionia, Kans, Dec. 15, 78. A.B, Kansas, 04; A.M, Washington (St. Louis), 05; fellow, Chicago, 16–17, Ph.D, 17. Instr. bot, Kans. State Col, 09–12; pathologist, Mo. Fruit Exp. Sta, 13–18; from asst. pathologist to pathologist, office fruit disease investigation, *bur. plant indust, U. S. Dept. Agr,* 18–28, physiologist and *senior physiologist, div. fruit and veg. crops and diseases, 28–* Soc. Hort. Sci. Plant physiology; diseases of fruits on the market; storage and transportation of fruits and vegetables.

Rose, Dr. D(onald) C(harles), National Research Council, Ottawa, Ont, Can. *Physics.* Prescott, Ont, April 17, 01. B.Sc, Queen's (Can), 23, M.Sc, 24; 1851 Exhib. scholar, Cambridge, 24–27, student, 27–29, Ph.D, 27; Bristol, 28–29. Lecturer, Queen's (Can), 29–30; asst. research physicist and *assoc. research physicist, Nat. Research Council Can, 30–* Physical Soc; Cambridge Philos. Soc; fel. Royal Soc. Can. Scattering of alpha particles and of electrons and energy losses; reflection of electrons from a crystal; diffraction of electrons; atmospheric electricity; vibration in aircraft.

Rose, Dr. Embree R(ector), Ohio University, Athens, Ohio. *Biochemistry.* Linton, Ind, 93. A.B, Indiana, 19, A.M, 22; Stanford; Harvard; Western Reserve; M.D, Indiana, 41. Asst. chem, Indiana, 20–22; teaching fellow biochem, Harvard Med. Sch, 25–27; asst. prof, col. med, Vermont, 27–38; *acting director health service, Ohio (Athens), 41–* Summers, asst, Carnegie Institution, 20–21; Western Reserve, 25. Tryptophane content of proteins; purine enzyme distribution in organs of man and animals; electrolyte distribution between plasma and cells in bloods.

Rose, Dr. Flora, 48 San Luis Road, Berkeley, Calif. *Home economics.* Denver, Colo, Oct. 13, 74. B.S, Kans. State Col, 04; A.M, Columbia, 09; Ped.D, N. Y. State Col. for Teachers, 31; Sc.D, Kans. State Col, 37. Instr, Kans. State Col, 03–06; lecturer home econ, Cornell, 07–11, prof. and director col. home econ, 11–42; *retired.* Mem. weight control conf, N. Y. Acad. Med. and Am. Med. Asn, 24. Surv. nutrition of Belgian sch. children, Cmn. for Relief in Belgium, 23; director state food conservation program, N. Y, 17–19. Chevalier, Order of Crown, Belgium. A.A. Weight and how to control it; nutrition; home-making.

Rose, F(rank) W(illiam), Jr, Catalytic Development Corp, Marcus Hook, Pa. *Chemistry.* Washington, D. C, Feb. 5, 09. B.S, Virginia, 30; George Washington, 30–33; Maryland, 35–39. Am. Petrol. Inst. fellow, Bur. Standards, 30–40; *research chemist, Catalytic Develop. Corp, 40–* Chem. Soc. Constitution of petroleum; catalysis.

Rose, Dr. Fred(rick) C(lifton), 280 Glenwood Ave, Leonia, N. J. *Physics.* Cromwell, Iowa, June 25, 03. A.B, Grinnell Col, 27; Ph.D, Columbia, 39. Asst. *physics,* Columbia, 27–30; tutor, *Col. City of N. Y,* 30–36, *instr, 36–* Physical Soc. Variation of elastic constants with temperature and effect of grain size on internal friction.

Rose, Dr. Harold J(ames), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Pierre, S. Dak, May 9, 96. A.B, Yankton Col, 17, Sc.D, 32; Chicago; Carnegie Inst. Tech. Instr. chem. and physics, Yankton Col, 17; research chemist in charge coal and coke div, Koppers Co, 18–25, asst. chief chemist, 25–28, asst. director research, 28–30; director gen. lab. dept, Koppers Research Corp, 30–32; research fellow, *Mellon Inst,* 21–30, *senior fellow, 30–,* anthracite fellow, 32–36, *anthracite industries fellow, 37–; v. pres. in charge research, Anthracite Industries, Inc, 42–* Grasselli medal, Soc. Chem. Indust, 28. Chem. Soc. (chairman gas and fuel div, 34); Chem. Eng; Min. and Metal. Eng; Gas Asn. (chairman, chem. cmt, 29); Standards Asn. (chairman, cmt. classification coal, 27–40); Soc. Test. Mat; Heat. and Vent. Eng. (cmt. research, 39–41, 43–); Coal Research Club; East. State Blast Furnace and Coke Oven Asn. Coal selection and utilization, design and performance of household heating appliances; coal products and by-product coking.

Rose, Dr. John Kerr, Office of Economic Warfare, Washington, D. C. *Geography, Climatology.* Tazewell Co, Ill, Sept. 25, 05. A.B, Indiana, 28, A.M, 31; Wisconsin; Clark; Ph.D, Chicago, 35. Instr, high sch, Ill, 28–30; tutor geog, Indiana, 31, instr, 31–32, lecturer, 33–35; Social Science Research fellow, Chicago, 35–36; asst. research technician and assoc. research technician, Rural Electrification Admin, 36, assoc. econ. analyst, 36–38, econ. analyst, 38–41, senior econ. analyst and head econ. anal. sect, 41–42; *prin. analyst and acting chief resources develop. sect, Office Econ. Warfare, 42–; research assoc, George Washington, 37–* Lecturer, grad. sch, U. S. Dept. Agr, 37–41; lecturer, Catholic Univ, 41. A.A; Am. Geog. Soc; Asn. Geog; Meteorol. Soc; Ind. Acad. Statistical geography and climatology.

Rose, Dr. John L(awyer), New York University, University Heights, New York, N. Y. *Physics.* Washington Court House, Ohio, April 13, 97. B.S, Denison, 21; A.M, Ohio State, 23; Ph.D, N. Y. Univ, 32. Asst. *physics,* Ohio State, 21–23; asst. prof, Ala. Polytech, 23–26; Furman, 26–28; *instr, N. Y. Univ, 28–, supervisor physics lab, 41–* Fel. Physical Soc. Spectroscopy; hyperfine structure; isotopic constitution of radiogenic lead and determination of geologic time.

Rose, Dr. Milton Irwin, American Red Cross, Pacific Area Office, 61 Grove St, Civic Auditorium, San Francisco, Calif. *Public health.* New York, N. Y, Sept. 23, 02. Ph.B, Yale, 23, Ph.D, 27, M.D, 35, Dr.P.H, 41. Asst. physiol, med. sch, Yale, 26–27; instr, med. sch, California, 27–29, asst. prof. 29–30; research fellow, Yale, 30–32; asst. director curricula pub. health, California, 36–39; prof. pub. health admin, sch. med, Pennsylvania, and lecturer pub. health, sch. educ, 39–42; *director med. and health service, Pacific area, Am. Red Cross, 42–* Metabolism in exercise; metabolism of fructose.

Rose, Dr. Morris E, Bartol Research Foundation, Franklin Institute, Swarthmore, Pa. *Physics.* Brooklyn, N. Y, May 9, 11. A.B, Wayne, 31; A.M, Michigan, 33, fellow, 34–35, Ph.D, 35. Research scholar, Inst. Advanced Study, 35–36; Philos. Soc. scholar, Cornell, 36–39; Sterling fellow, Yale, 39–40; *research fellow, Bartol Research Foundation, Franklin Inst, 40–* A.A; Physical Soc. Collision theory; sound dispersion; quantum mechanics; electrodynamics; nuclear physics; theory of the cyclotron; Geiger counters; cosmic radiation; theory of vibrations.

Rose, Dr. Robert E(vstafieff), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Palermo, Sicily, June 2, 79. Ph.D, Leipzig, 03. Asst, St. Andrews, Scotland, 03–05; lecturer and demonstrator chem, Univ. Col, Nottingham, 05–07; asst. prof, Washington (Seattle), 07–17; fellow, Mellon Inst, 17; *org. chemist, E. I. du Pont de Nemours and Co, 17–, director tech. lab, 21–* Advisory cmt, cancer research fund, Pennsylvania, 28– Chairman advisory cmt. sci. research, Textile Foundation. A.A; Chem. Soc. (councilor, S. Jersey sect, 21–, councilor at large, 37–); Chem. Eng; Soc. Chem. Indust; Asn. Textile Chem. and Colorists (chairman, Phila. sect, 24, research council, pres, 32–35); Soc. Dyers and Colorists;

Franklin Inst; Textile Research Inst. (director, 35, v. pres, 41); Faraday Soc. Organic chemistry; alkylated sugars and glucosides; reduction of anhydroxims; wood decay; dyes; mechanics of dyeing.

Rose, Robert H(arold), U. S. National Park Service, Boulder City, Nev. *Geology, Archeology.* Jasper, Ind, March 31, 03. A.B, Indiana, 26; Stanford, 28–31. Teacher, high sch, Ind, 26–27; ranger, Yellowstone Nat. Park, 27; asst. instr, lab, Indiana, 26; Purdue, 27–28; ranger and ranger naturalist, Yosemite Nat. Park, 28–31; park naturalist in charge lecture and guide services and research, Southwest. Nat. Monuments, 31–36; park naturalist, *Boulder Dam Nat. Recreational Area,* 37–42, acting supt, 42–43, *supt, 43–* Mem. Nat. Park Service exped, Sonora, Mex, 35. A.A. Geology in nature notes; archeology; history of Spanish missions; the physiography of the Sierra Nevada; Pleistocene lake deposits of southeastern Nevada.

Rose, Prof. S. Brandt, Philadelphia General Hospital, Philadelphia, Pa. *Bacteriology, Immunology.* London, Eng, June 22, 01. M.D, McGill, 25, M.Sc, 26; fellow, Pennsylvania, 27–30, Sc.D, 30. Prof. bacter. and immunol, Woman's Med. Col. of Pa, 29–37, director hosp. lab, 30–32; assoc. immunol, grad. sch. med, Pennsylvania, 32; *ed. sect. chemotherapy and sect. clin. bacter, 'Biol. Abstracts,' 33–; chief div. bacter, Phila. Gen. Hosp, 36–* Soc. Bact; Soc. Clin. Path; Am. Med. Asn. The finer structure of the lung; relation of nutrition to infection and immunity; antiseptics; chemotherapy.

Rose, Dr. S(ylvan) Meryl, Smith College, Northampton, Mass. *Experimental embryology.* Camden, N. J, Sept. 29, 12. A.B, Amherst Col, 33, A.M, 35; Ph.D, Columbia, 39. *Instr.* biol, Amherst Col, 40–42; *zool, Smith Col, 42–* Embryonic induction; regeneration.

Rose, Prof. W(illia)m C(umming), University of Illinois, Urbana, Ill. ***Physiology, Biochemistry.* Greenville, S. C, April 4, 87. B.S, Davidson Col, 07; Ph.D, Yale, 11; Freiburg, 13. Asst. chem, Davidson Col, 06–07; asst. physiol. chem, Sheffield Sci. Sch, Yale, 08–11; instr, Pennsylvania, 11–13; assoc. prof. biochem, Texas, 13–14, *prof,* 14–22; physiol. chem, *Illinois,* 22–36, *biochem, 36–, acting head dept. chem, 42–* Summer, visiting lecturer, Michigan, 38; lecturer, Inst. Med. Chicago, 38. Advisory board, Wistar Inst, 36–40; consultant, U. S. Pub. Health Service. Ed. board, 'Jour. Biol. Chem,' 36–; assoc. ed, 'Jour. Nutrition,' 35–39. Food and nutrition board, Nat. Research Council; sci. advisory cmt, Nutrition Foundation. Nat. Acad; A.A; Soc. Biol. Chem. (councilor, 31–34, 36, v. pres, 37–39, pres, 39–41); Chem. Soc; Inst. Nutrition; hon. mem. Harvey Soc; Am. Med. Asn. (council on pharmacy and chem, 36–43); Soc. Exp. Biol; Ill. Acad. Pepsin, creatin and creatinin; metabolism of mucic acid; origin of uric acid; enzymes in marine organisms; purine metabolism; nephrotoxic action of dicarboxylic acids; replacement of amino-acids by synthetic products; significance of amino acids in growth; isolation, identification and spatial configuration of threonine; amino acid requirements of man.

Rose, Dr. W(illiam) Gordon, 1154 Josephine St, Berkeley, Calif. *Organic chemistry.* Salt Lake City, Utah, Feb. 3, 04. B.S, Utah, 29; M.S, Maryland, 32, Ph.D, 34. Junior chemist, bur. animal indust, *U. S. Dept. Agr,* 30–31, 34–35, asst. chemist, 35–38, *assoc. chemist, bur. agr. and indust. chem, 39–* Chem. Soc. Synthetic organic insecticides; structure of olefines; composition and utilization of oils, fats and waxes; enzyme chemistry.

Rose, Brig. Gen. W(illiam) H(enry), U.S.A, Sears, Roebuck and Co, Chicago, Ill. *Electrical engineering.* Safe Harbor, Pa, Oct. 24, 81. Franklin and Marshall Col, 98–99; grad, U. S. Mil. Acad, 03; grad, U.S.A. Eng. Sch, 07. From 2nd lieut. to brig. gen, Corps Engineers, U. S. Army, 03–19; director dept. elec. and mech. eng, Eng. Sch, 08–11; elec. engineer, Panama Canal, 12–17; dist. manager, Lockwood Greene and Co, 19–24; director and v. pres. Am. Machine and Foundry Co, 24–25; Lockwood Greene and Co, 25–26; v. pres, Atmospheric Nitrogen Corp, 26–30; *gen. supervisor, Sears, Roebuck and Co, 30–* A.A. Mathematical physics.

Roseberry, Prof. H(orace) Hewell, Ohio University, Athens, Ohio. *Physics.* Prescott, Ark, Sept. 3, 04. B.S, Davidson Col, 26, A.M, 28; M.S, Chicago, 31; Ph.D, Hopkins, 36. Instr. physics, Virginia, 26–27; Davidson Col, 27–28; Maryland, 28–36; prof. physics and math. and head dept, Col. of Ozarks, 36–37; asst. prof. and later *assoc. prof. physics, Ohio (Athens), 37–* Physical Soc; Asn. Physics Teachers. X-ray technique; widths of x-ray lines.

Roseboom, Prof. B(enjamin) B(rokaw), Box 368, East Lansing, Mich. *Physiology.* Auburn, N. Y, June 8, 84. B.S, Hamilton Col, 08; M.S, Chicago, 32. From instr. zool. and physiol. to *prof. physiol. and pharmacol, Mich. State Col, 09–* A.A. Physiology of intestinal movements; digestion in the dog.

Rosebury, Prof. Theodor, 630 W. 168th St, New York, N. Y. *Bacteriology.* London, Eng, Aug. 10, 04. D.D.S, Pennsylvania, 28. William J. Gies fellow biochem, *Columbia,* 28–30, instr. *bacter, col. physicians and surg,* 30–35, *asst. prof.* 35– Ed, 'Jour. Dental Research,' 35. A.A; Dental Asn; Soc. Bact; Asn. Sci. Workers (chairman, N. Y. branch, 42–); Harvey Soc; N. Y. Acad. Dentistry (ed, 34); Int. Asn. Dental Research (sec'y-treas, N. Y. sect, 32–36, chairman, 41). Dental bacteriology; dental caries; spirochetes; fusospirochetal infections.

Rosedale, Dr. R(aymond) S(amuel), Barnes Hospital, St. Louis, Mo. *Pathology.* Geary, Okla, Aug. 3, 04. M.D, Alberta, 29; M.S, Buffalo, 34. Asst. res. med, Henry Ford Hosp, Detroit, 29–31; res. path, Buffalo City Hosp, 31–34, assoc. pathologist, 34–37; asst. path, Buffalo, 31–34, instr, 34–37; *dept. otolaryngol, med. sch, Washington (St. Louis), 37–; otolaryngol, Barnes Hosp, 37–* Pathologist, Lafayette Gen. Hosp, Buffalo, 36–37; Mercy Hosp, Canton, Ohio, 38–43, mem. senior staff otolaryngol. and path, 43– Mem, Am. Board Path; Am. Board Otolaryngol. Asn. Path. and Bact; Asn. Adv. Gastroenterol; fel. Acad. Otolaryngol; Asn. Adv. Oral Diagnosis; Dental Asn; Am. Med. Asn; Soc. Clin. Path; assoc. Ohio State Dental Asn; Buffalo Acad. Med. (chairman, path. sect). Embryology of endocardial cushions; congenital anomalies; bronchiogenic carcinoma; otolaryngologic pathology.

Roseman, Dr. Reuben, 211 W. Monument St, Baltimore, Md. *Chemistry.* Baltimore, Md, Nov. 3, 08 Mass. Inst. Tech, 26–27; B.S, Hopkins, 29, J. T. Baker Chem. Co. fellow, 30–31, Ph.D, 33. Asst. and instr. chem, Hopkins, 29–30, 31–34, 36–37; evening sch, Baltimore City Col, 34–36; *chemist, Burton-Levin Foundation, Inc, 37–* Adolph Lewisohn fellow, Wilmer Inst, Hopkins Hosp, 36–37. A.A; Pharmaceut. Asn; Chem. Soc. Titanium; silicates.

Rosen, Dr. Esther Katz, 239 W. Allen Lane, Philadelphia, Pa. *Educational psychology.* Baltimore, Md, Jan. 8, 96. A.B, Goucher Col, 16; A.M, Columbia, 17, Ph.D, 25. Teacher, Minn. and Md, 17–21; asst. to Prof. E. L. Thorndike, inst. educ. research, Teachers Col, Columbia, 22; psychologist, All-Phila. Child Guidance Clinic, 25–27; clin. psychologist, grad. hosp, Pennsylvania, 27–33; *private practice, 27–* A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Council Women Psychol; Vocational Guidance Asn; Pa. Asn. Clin. Psychol. Psychological and educational measurement; comparison of the intellectual and educational status of neurotic and normal children in public schools; consulting psychology.

Rosen, Dr. Harry, 733 Eaton Road, Drexel Hill, Pa. *Pharmacology.* Washington, D. C, Sept. 30, 09. Ph.G, George Washington, 30, B.S, 31; M.S, Maryland, 33, Ph.D, 36. Lab. asst, Maryland, 35–36; *pharmacologist, John Wyeth and Brothers, Inc, 38–* Pharmaceut. Asn. Bioassay of squill; pharmacology of pyrethrum flowers; chemistry and pharmacology of ergot; action of histamine and mecholyl on capillaries; chemistry and pharmacology of digitalis.

Rosen, Prof. H(arry) R(obert), University of Arkansas, Fayetteville, Ark. *Plant pathology.* Wilmington, Del, Aug. 8, 89. B.S, Pa. State Col, 13; M.S, Wisconsin, 15; Lackland fellow, Washington (St. Louis), 21–22. Ph.D. 22. Asst. bot, Wisconsin, 13–15; sci. asst, Smithsonian Institution, 15–17; asst. botanist, Exp. Sta, Purdue, 17–18; asst. prof. *plant path, Arkansas,* 18–21, assoc. prof, 21–28, *prof, 28–,* asst. plant pathologist, *Exp. Sta,* 18–21, assoc. pathologist, 21–28, *plant pathologist, 28–* Assoc. ed, 'Phytopath,' 39–41. A.A; Bot. Soc; Phytopath. Soc. (councilor, 21). Pathological anatomy of insect galls; morphology and cytology of bacteria; bacterial diseases of grasses; rusts; diseases of cotton; fire blight of pears and apples; breeding for disease resistance in oats and roses.

Rosen, Dr. I(sidore) Theodore, 8423 Ridge Blvd, Brooklyn, N. Y. *Physiology.* New York, N. Y, June 14, 97. B.S, Columbia, 18, M.D, 22. Intern, Bellevue Hosp, 22–24, res. physician, 24–25; nat. research fellow med, 25–26; *physician, cardiac and med. clinic, Brooklyn Hosp.* The relation of stroke volume of heart to the pulse pressure; clinical syphilis of the heart.

Rosen, Dr. Joseph S(elwyn), Eastern New Mexico College, Portales, N. Mex. *Mathematical physics.* Russia, Dec. 23, 04. B.S, Washington (St. Louis), 25, M.S, 26, fellow, 27–28, 30–31, Ph.D, 36; Chicago; St. Louis. Instr. math. and physics, Omaha, 26–27; eng. math, Texas Tech. Col, 28–29; Wisconsin, 29–30; prof. math. and physics, Paducah Junior Col, 35–42; *assoc. prof. math, East. N. Mex. Col, 42–* Summer, assoc. prof, N. Mex. Col, 43. Some generalizations of Bessel functions; change of the index of refraction of aqueous solutions of alcohol under high pressure.

Rosen, Dr. Leonard J(oseph), Harvard University, Cambridge, Mass. *Organic chemistry.* Boston, Mass, Nov. 21, 14. A.B, Harvard, 36, A.M, 37, Ph.D, 41. Pittsburgh Plate Glass Co. fellow, *Harvard, 41, special research assoc, 41–* Chem. Soc. War research.

Rosen, Prof. Nathan, University of North Carolina, Chapel Hill, N. C. *Physics.* Brooklyn, N. Y, March 22, 09. B.S, Mass. Inst. Tech, 29, M.S, 30, Sc.D, 32; nat. research fellow, Michigan, 32–33, Princeton, 33–34. Research worker, Inst. Advanced Study, 34–36; prof. theoret. physics, Kiev, 36–38; spectroscopy research, Mass. Inst. Tech, 38–40; *asst. prof. physics,* Black Mountain Col, 40–41; *North Carolina, 41–* A.A; fel. Physical Soc; N. C. Acad. Relativity and unified field theory; quantum mechanics.

Rosen, Dr. Raphael, 10 Vista Ave, Elizabeth, N. J. *Chemistry.* Baltimore, Md, Aug. 31, 95. A.B, Hopkins, 16, A.M, 20; fellow, Clark, 21–23, Ph.D, 23. Foreman chemist, Hess Steel Corp, 18–19; *research chemist,* Esso labs, *Standard Oil Develop. Co,* 23–37, *chem. labs, 37–; Kellex Corp.* A.A; Chem. Soc. Sesqui-mustard gas; reactions of compounds of triphenyl methyl and triphenyl silicyl in liquid ammonia; analysis of hydrocarbon gases; organic sulfur in gases; gas cracking and polymerization; utilization of petroleum hydrocarbons; chemicals from petroleum; synthetic rubber; lubricating oil additives.

Rosen, Dr. S(amuel) H(arry), 262 Osborne Terrace, Newark, N. J. *Pathology.* New York, N. Y, Jan. 5, 03. A.B, Cornell, 25, M.D, 30. Intern, *Montefiore Hosp, New York,* 30–31, res. path, 31–32, fellow, 32–33, asst. bacteriologist, 33–40, serologist, 36–42, bacteriologist, 40–42, acting pathologist, 40–42, *assoc. pathologist, 42–* A.A; Soc. Exp. Biol; Asn. Path. and Bact; N. Y. Acad. Med; N. Y. Path. Soc. Experimental pathology of endocrine glands, particularly thyroid and interrelationships; experimental exophthalmos; sex factor in fowl leukosis.

Rosenau, Dr. M(ilton) J(oseph), University of North Carolina School of Public Health, Chapel Hill, N. C. **²Preventive medicine, Hygiene.* Philadelphia, Pa, Jan. 1, 69. M.D, Pennsylvania, 89; Hygienic Inst, Berlin, 92; Pasteur Inst, Paris, 00; hon. A.M, Harvard, 14. Asst. surgeon, U. S. Marine Hosp. Service, 90–95, passed asst. surgeon, 95, surgeon, 07; quarantine officer, San Francisco, 95–98; Santiago and other Cuban Hosp. Service, 98–09; prof. *prev. med. and hygiene, Harvard Med. Sch,* 09–35, *emer. prof, 35–,* prof. epidemiol, sch. pub. health, Harvard, 22–35, director div. pub. health, sch. med, *North Carolina,* 36–39, dean *sch. pub. health,* 39–40, *director, 41–* Director sch. pub. health, Harvard and Mass. Inst. Tech, 13–22; lecturer, U. S. Naval Med. Sch. 04–09; Georgetown, 05–09. Nat. Advisory Health Council, 31. Gold medal, Am. Med. Asn, 12. Sanit. attaché, Int. Conf. of Am. States, Mex, 02; del, 10th Int. Cong. of Hygiene and Demog; Int. Med. Cong, Paris, 00; mem, Int. Cmn. to Revise Nomenclature of Causes of Death, Paris, 00; del, Int. Sanit. Conf, Wash, 02. Sedgwick mem. medal, Am. Pub. Health Asn, 33. Capt, U.S.N.R. A.A; Am. Med. Asn; Asn. Path. and Bact; Soc. Bact. (v. pres, 33, pres, 34); Soc. Exp. Biol; Pub. Health Asn; Asn. Mil. Surg; Am. Physicians; Am. Acad. Hygiene; the milk question; disinfection and disinfectants; anaphylaxis; bacteriology; immunology; public health.

Rosenbach, Prof. J(oseph) B(ernhardt), 2550 Beechwood Blvd, Squirrel Hill, Pittsburgh, Pa. *Mathematics.* New York, N. Y, Oct. 5, 97. A.B, New Mexico, 17; Colorado, 17; M.S, Illinois, 19. Instr. *math,* New Mexico, 17–18; Illinois, 18–20; *Carnegie Inst. Tech,* 20–23, asst. prof, 23–28, assoc. prof, 28–35, *prof, 35–, in charge evening courses math, col. eng, 33–* Summers, engineer of maintenance, Atchison, Topeka and Santa Fe Ry, 15, 16, 21. A.A; Math. Soc; Math. Asn; Circolo Mat. di Palermo. Analysis; differential equations; plane and spherical trigonometry; college algebra; mathematical tables.

Rosenbaum, Dr. E(ugene) J(oseph), Sun Oil Co, Norwood, Pa. *Physical chemistry.* New York, N. Y, July 22, 07. B.S, Chicago, 29, Ph.D, 33. Instr. chem, Chicago, 31–40; Lalor Foundation fellow, Harvard, 40–41; *research chemist, Sun Oil Co, 41–* Chem. Soc. Conversion of para-ortho hydrogen; Raman spectra and molecular structure.

Rosenberg, Dr. Hans R(einhard), Windybush Road, R.F.D. 3, Wilmington, Del. *Organic chemistry.* Giessen, Germany, June 6, 12. Chem.Eng, Fed. Tech. Univ, Zurich, 34, D.Sc, 36. Asst, Fed. Tech. Univ, Zurich, 35–36; *research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 36–* A.A; Chem. Soc; Swiss Chem. Soc; Deuts. Chem. Gesell. Synthetic organic chemicals; natural products; vitamins; hormones.

Rosenberg, Prof. J(acob) E(lis), 789 Academy Place, Mt. Lebanon, Pittsburgh, Pa. *Physical chemistry.* Cere, Russia, Oct. 28, 97. A.B, Michigan, 20, M.S, 21; Ph.D, Pittsburgh, 25. In charge research dept, Gas Industries Co, 25–26; U. S. Glass Co, 26–27; asst. prof. and *prof. physics, Duquesne, 29–* Director research, O. Hommel Co, 33– Chem. Soc; Ceramic Soc. Ceramics; porcelain enamels; ceramic colors.

Rosenberg, Dr. Lauren E(mery), 3517 Life Sciences Bldg, University of California, Berkeley, Calif. *Protozoology.* Galesburg, Ill, Oct. 31, 10. B.S, Knox Col, 30; A.M, California, 33, Ph.D, 35. Asst. *zool, California,* 31–35, instr, *sch. agr,* 35–41, *asst. prof, 41–; lieut, U. S. Navy Research Lab. No. One, 41–* A.A; Micros. Soc; Soc. Parasitol; Soc. Zool; U. S. Naval Inst; West. Soc. Nat. Conjugation in protozoa; neuromotor systems of protozoa; avian histology; mammalian histology; influenza and respiratory diseases.

Rosenberger, Dr. Randle C(rater), Jefferson Medical College, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, March 4, 73. M.D, Jefferson Med. Col, 94. Director clin. lab, Phila. Gen. Hosp, 03–19; *prof.* prev. med, Woman's Med. Col. of Pa, 09–15; *bacter. and immunol, Jefferson Med. Col, 09–* Milk Cmn, Phila, 10; Pneumonia Cmn, Phila; cmt. poliomyelitis and encephalitis, Dept. Pub. Health, Phila, 35– A.A; Am. Med. Asn; Soc. Bact; fel. Pub. Health Asn; Col. Physicians Phila; Path. Soc. Phila; Acad. Nat. Sci. Phila; Int. Asn. Med. Mus. Bacteriology and immunology.

Rosenblad, Prof. L(awrence) E(ric), University of Houston, Houston, Texas. *Cytogenetics.* Georgetown, Texas, Sept. 16, 10. B.S, San Marcos State Teachers Col, Texas, 34; A.M, Texas, 37, Ph.D, 40. Prin. and teacher biol, high sch, Texas, 34–36; lab. instr. cytol, embryol. and gen. zool, Texas, 36–40; *asst. prof. genetics, bacter. and embryol, Houston, 40–* A.A; Genetics Soc; Soc. Bact; Soc. Study Speciation; Texas Acad. Speciation; Drosophila speciation on the basis of reproductive tract.

Rosenblueth, Dr. A(rturo Stearns), Harvard Medical School, Boston, Mass. *Physiology.* Chihuahua, Mex, Oct. 2, 00. A.B, Mexico, 17; M.D, Paris, 27. Instr. physiol, Mexico, 28; assoc. prof, 29–30; Guggenheim Mem. Foundation fellow, Harvard, 30–31, fellow, 32, instr. and tutor *physiol, Harvard Med. Sch,* 33–34, *asst. prof. and tutor, 35–* Physiol. Soc. Autonomic nervous system; electrophysiology.

Rosenblum, Dr. Charles, 75½ Harrison St, Princeton, N. J. *Physical chemistry.* Brooklyn, N. Y, Sept. 19, 05. B.S, Rochester, 27; du Pont fellow, Minnesota, 30–31, Ph.D, 31. Asst. chem, Minnesota, 27–35; Cmn. Relief Belgium Educ. Foundation fellow, Louvain, 35–37; instr. chem, Princeton, 37–41; *senior chemist, Merck and Co, 41–; lieut, Chem. Warfare Service, U. S. Army, 42–* Lieut, C.W.Res. Chem. Soc; Soc. chim. de Belg. Solubility; kinetics of gas reactions; radiochemistry; structure of precipitates; adsorption; radioactive indicators; photochemistry.

Rosendahl, Prof. C. O(tto), University of Minnesota, Minneapolis, Minn. *Botany.* Spring Grove, Minn, Oct. 24, 75. B.S, Minnesota, 01, A.M, 02; Ph.D, Berlin, 05. Instr. *bot, Minnesota,* 01–02, asst. prof, 05–10, *prof, 10–, chairman dept,* 17–24, *30–* Asst, Minn. Geol. and Bot. Surv, 02–03. A.A; Bot. Soc; Ecol. Soc; Am. Geog. Soc; Soc. Nat; Genetic Asn; Soc. Plant Taxon; Torrey Bot. Club; Biol. Soc. Wash; Brandenburg Bot. Verein. Systematic botany; plant geography; morphology.

Rosene, Prof. H(ilda) F(lorence), University Station, Austin, Texas. *Physiology.* Chicago, Ill. B.S, Washington (Seattle), 22, M.S, 24; fellow, Texas, 32–33, Ph.D, 33. Teaching fellow zool, Washington (Seattle), 22–24; prof. biol.

sciences, Wash. State Nor. Sch, Bellingham, 24–29, 30–31; Puget Sound Biol. Sta, 29; instr. zool, *Texas*, 33–37, asst. prof. *physiol*, 37–43, *assoc. prof*, *43–* Guggenheim Mem. Foundation fellow, 39–40; research fellow, Texas, 40–41. A.A; Soc. Zool; Soc. Plant Physiol; Bot. Soc; Texas Acad. Electrophysiology; nature and function of bioelectric potentials; absorption and transport of water.

Rosenfeld, Arthur H(inton), Boite Postale 763, Cairo, Egypt. *Entomology.* Petersburg, Va, July, 86. B.S, M.S, Va. Polytech. Asst, State Crop Pest Cmn, Va, 05; state hort. inspector, Ill, 05–06; special field agent, bur. entom, U. S. Dept. Agr, 06; asst. entomologist, State Crop Pest Cmn, La, 06–10; entomologist, Tucuman Sugar Exp. Sta, 10–11, subdirector, 11–13, director, 13–16, head dept. entom, Univ. Tucuman, 14–16; supt. agr, Ingenio Santa Ana, Tucuman, Argentina, 16–21; investigator artificial mulches, 22; special technologist for cane, Insular Exp. Sta, P. R, 23–26; consulting technologist, Am. Sugar Cane League, New Orleans, 27–32; *govt. sugar-cane technologist, Ministry of Agr. and Sugar Producers, Cairo, Egypt, 32–* Founding board mem, Univ. Tucuman; rep. investigating sugar and cotton industries, Trop. Plant Research Foundation, Peru, 26. Del, Pan-Am. Sci. Cong, 16. A.A; hon. mem. Asn. Econ. Entom; Int. Soc. Sugar Cane Technol. (gen. sec'y, 29–32). Agricultural engineering in the tropics; sugar-cane varieties and culture; genetics of sugar cane.

Rosenfeld, Prof. Irene, University of Wyoming, Laramie, Wyo. *Pathology.* Austria-Hungary, Oct. 13, 08. A.B, Ohio State, 35, M.S, 36, univ. scholar, 40–41, Crotte fellow, 41–42, Ph.D, 42. Asst, Ohio State, 35; Mt. Sinai Hosp, Chicago, Ill, 36–38; Ohio State, 38–40, instr. path, 42; *asst. prof. research chem, Wyoming, 42–* Relation of endocrines to immunity; relation of immunology to the treatment of cancer; pathology and pharmacology of selenium poisoning; pathology and pharmacology of plant toxins; pharmacology and pathology of the alkaloids of Senecio.

Rosenfels, Dr. Richard S, University of Chicago, Chicago, Ill. *Plant physiology.* Chicago, Ill, Nov. 20, 05. A.B, Wisconsin, 27; Ph.D, California, 33. Commercial work in soil chem, 28–31; nat. research fellow, Minnesota, 34–35; asst. soil surveyor, soil conservation service, U. S. Dept. Agr, N. J, 35–36, asst. physiologist, bur. plant indust, 36–42; *research assoc, metal. lab, Chicago, 43–* Absorption of mineral nutrients by plant cells; control of noxious weeds.

Rosengarten, Prof. George, 1105 Edgewood Road, Brookline, Pa. *Physics.* Philadelphia, Pa, Oct. 6, 87. B.S, Pennsylvania, 08, C.E, 10, Ph.D, 20. *Prof. physics, W. Phila. High Sch, 11–; asst. prof, Phila. Col. Pharmacy, 22–* A.A; Asn. Physics Teachers; Rittenhouse Astron. Soc. (pres, 30, 40); Franklin Inst; Pa. Acad; Phila. Physics Club (pres, 30). Infra-red spectra; radioactivity.

Rosenheim, Dr. Sylvan, Marlborough Apts, 1701 Eutaw Place, Baltimore, Md. *Rhinology, Laryngology, Otology.* Baltimore, Md, Sept. 16, 74. A.B, Hopkins, 95, M.D, 99. Asst. laryngol, Hopkins, 02–07; consulting laryngologist and chief clinic, Hebrew Hosp; aural surgeon, Baltimore Eye, Ear and Throat Hosp; consulting laryngologist and otologist, Eudowood Hosp. for Consumptives; Jewish Hosp. for Consumptives; *retired.* Exec. cmt. Hebrew Hosp; Baltimore Eye, Ear and Throat Hosp. Laryngol, Rhinol. and Otol. Soc; Asn. Anat; Am. Med. Asn; Med. and Chirurg. Faculty Md. (chairman, sect. otol. and laryngol); Md. Laryngol. Asn. Tracheal tumors; leukokeratosis buccolis; compression myelitis; nasal tumors; tuberculous laryngitis; tonsillar ring; esophagoscopy; submucous resection of nasal septum; subcutaneous emphysema following tonsillectomy.

Rosenholtz, Prof. Joseph L(eon), 101 Oakwood Ave, Troy, N. Y. *Geology, Mineralogy.* Kingston, N. Y, July 31, 99. Chem.E, Rensselaer Polytech, 20, M.S, 22, Ph.D, 24; Columbia; Wisconsin; Michigan; Montana. Instr. chem, *Rensselaer Polytech*, 20–21, asst. prof. *geol. and miner*, 23–25, *prof, 25–* A.A; Miner. Soc; Geophys. Union; N. Y. Geol. Asn; N. Y. Acad. Mineral tables; dielectric constants; thermal expansion of mineral sections.

Rosenkrans, Prof. D(uane) B, Clemson Agricultural College, Clemson, S. C. *Botany.* Edgewood, Iowa, March 21, 86. A.B, Upper Iowa, 11; A.M, Wisconsin, 17. Instr. *bot*, N. C. State Col, 11–13; *Clemson Col*, 13–16, asst. prof, 17–18, *assoc. prof, 18–* Summers, field asst, white pine blister rust eradication, bur. plant indust, U. S. Dept. Agr, 17, plant disease surv, 18.

Rosenow, Dr. Curt, 323½ N. Sycamore Ave, Los Angeles, Calif. *Psychology.* Berlin, Germany, Dec. 27, 76. B.S, Michigan, 97; Ph.D, Chicago, 16. Instr. psychol, Chicago, 16–20; biometrist, Juvenile Psychopathic Inst, 17–20; asst. prof. psychol, Kansas, 20–22, assoc. prof, 22–27; biometrist, Inst. Child Guidance, 27–32. Fel. Orthopsychiat. Asn. Biometry; abnormal and clinical psychology.

Rosenow, Dr. E(dward) C(arl), Mayo Clinic, Rochester, Minn. ****Bacteriology.* Alma, Wis, July 14, 75. M.D, Rush, Chicago, 02; hon. Sc.D, Cincinnati, 20, Carleton Col, 34, Hamline, 36; LL.D, Park Col, 25. Fellow path, Rush Med. Col, Chicago, 02–04, med, 04–09, instr, 07–15, mem, McCormick Inst, 04–15; *prof. exp. bacter, Mayo Foundation, Minnesota, 15–* Gold medal, Am. Med. Asn, 12; James E. Stacey award, col. med, Cincinnati, 37. A.A; Soc. Bact; Asn. Path. and Bact; Soc. Clin. Path; Soc. Clin. Invest; Soc. Exp. Path; Pub. Health Asn; Am. Med. Asn; Asn. Immunol. Transmutation of pneumococci and streptococci; elective localization of bacteria; poliomyelitis; influenza; lobar pneumonia; focal infection.

Rosenquist, Prof. C(arl) E(lmer), 1320 N. 37th St, Lincoln, Nebr. *Plant breeding.* Shickley, Nebr, July 20, 95. B.S, Nebraska, 24, M.S, 26; Ph.D, Illinois, 30. Asst. agron, Nebraska, 24–26; plant breeding, Illinois, 26–27; instr. *agr. bot, Nebraska*, 27–29, asst. prof, 30–40, *assoc. prof, 40–* A.A; Soc. Agron; Nebr. Acad. (pres, treas, 41). Crossing varieties of corn; hybrid vigor in wheat.

Rosenquist, Dr. Edward N(iles), 345 Monteray Ave, Oakwood, Dayton, Ohio. *Organic chemistry.* Boston, Mass, June 30, 10. B.S, Mass. Inst. Tech, 32, Ph.D, 35. Chemist, div. indust. cooperation, Mass. Inst. Tech, 34; *research chemist, cent. research dept, Monsanto Chem. Co, 35–* A.A; Chem. Soc. (sec'y, Dayton sect, 40). Reaction mechanism of guanidine derivatives; refining of lubricating oils; synthetic detergents; Friedel-Crafts reaction; dehydrogenation; plastics.

Rosenstein, Dr. Ludwig, General Chemical Co, 40 Rector St, New York, N. Y. *Chemistry.* Cologne, Germany, March 29, 86. B.S, Mass. Inst. Tech, 10; Ph.D, California, 14. Instr. chem, Mass. Inst. Tech, 10–12; California, 12–16; gen. manager, Chem. Specialties Co, 17–18; chem. director, Great West. Electrochem. Co, 19–24; consulting chemist, 24–31; *with* Shell Chem. Co, 31–42; *Gen. Chem. Co, 42–* Special lecturer, California, 32; Stanford, 33, 34, 41. Chem. Soc. (sec'y and treas, Calif. sect, 24–35, chairman, 36). Theoretical chemistry.

Rosenthal, Prof. Arthur, University of New Mexico, Albuquerque, N. Mex. *Mathematics.* Fuerth, Bavaria, Feb. 24, 87. Ph.D, Munich, 09; Göttingen, 11–12. Privat-docent math, Munich, 12–20, asst. prof, 20–22; assoc. prof. applied math, *Heidelberg*, 22–30, prof. *math*, 30–35, *emer. prof, 35–*; research fellow and lecturer, Michigan, 40–41; lecturer, *New Mexico*, 42, *asst. prof, 43–* Math. Soc; Math. Asn. Real and complex functions; point sets and applications to geometry.

Rosenthal, Dr. Jenny E(ugenie), Signal Corps General Development Laboratory, Eatontown Area, Ft. Monmouth, N. J. *Physics.* Moscow, Russia, July 31, 09. B.Sc, Paris, 26; M.S, N. Y. Univ, 27, Ph.D, 29. Nat. research fellow, Hopkins, 29–31; research assoc. physics, N. Y. Univ, 31–33; staff mem, Harvard Observatory, 34; Am. Asn. Univ. Women Sarah Berliner research fellow, Columbia, 35–36; *instr, grad. div, Brooklyn Col, 37–; lecturer, N. Y. Univ, 41–; physicist, Sig. Corps, U. S. Army, 42–* Math. Soc; fel. Physical Soc. Band spectroscopy; polyatomic molecules; applied mathematics; orthogonal polynomials.

Rosenthal, Dr. L(azar), 353 Ocean Ave, Brooklyn, N. Y. *Bacteriology, Immunology.* Suwalki, Russia, June 10, 74. M.D, Moscow, 04. Prof. bacter, Univ. Moscow, 06–20; *director labs, Israel-Zion Hosp, Brooklyn, 27–* Director, Metchnikof Inst, Moscow, 18–20; research, Pasteur Inst, Paris, 24–26. Soc. Exp. Biol. Dysenteric toxin and anti-toxin; relapsing fever; lytic bacteria; precipitation test for syphilis; intestinal flora of the new-born; spermagglutinating bacteria; treatment of trichomonas vaginitis; method for anaerobes; antagonistic bacteria.

Rosenthal, Dr. Otto, 4422 Osage Ave, Philadelphia, Pa. *Biochemistry.* Berlin, Germany, June 12, 98. M.D, Berlin, 23. Asst. internal med, Friedrichshain Hosp, Berlin, 23; Kaiser Wilhelm Inst, Dahlem, 23–24; chem. research, Charité Hosp, Berlin, 24–25; asst, cancer inst, and head dept. biochem, Univ. Berlin, 25–33; research, histol. lab, Amsterdam, 34–35; med. chemist, Biochem. Research Foundation, Franklin Inst,

36–37; *research assoc, Harrison dept. surg. research, sch. med, Pennsylvania, 37–* Genootschap ter bevordering van nat. genees en heelkunde. A.A; Asn. Cancer Research; Physiol. Soc. Phila. Tissue metabolism; cancer research.

Rosenthal, Dr. R(obert), 1010 Dorchester Road, Brooklyn, N. Y. *Physical chemistry.* Brooklyn, N. Y, Sept. 8, 11. B.S, Col. City of N. Y, 31; A.M, Columbia, 33, Ph.D, 37. Fellow chem, Col. City of N. Y, 31–37, instr, 38–41; *chief chemist, Lamon Chem. Corp, 42–* Chem. Soc. Kinetics of the quinhydrone electrode reaction.

Rosenthal, Dr. S(anford) M(orris), U. S. Public Health Service, Washington, D. C. *Pharmacology.* Albany, Ga, 97. M.D, Vanderbilt, 20; nat. research fellow, Hopkins, 22–24. Dispensary physician, Hopkins Hosp, 22–24; lecturer pharmacol, McGill, 24–28; *prin. pharmacologist, nat. inst. health, U. S. Pub. Health Service, 28–* Soc. Pharmacol. Pharmacology of dyestuffs; liver function tests; hemoglobin and bile salt metabolism; adsorption; colloidal test upon spinal fluid; action of arsenic; antidote for mercury poisoning; chemotherapy of bacterial infections; chemotherapy of shock.

Rosenthal, Dr. Sol Roy, 1853 W. Polk St, Chicago, Ill. *Pathology, Bacteriology.* Russia, Sept. 6, 03. B.S, Illinois, 25, M.D, 28, M.S, 30, Ph.D, 34; Freiburg, 32–33; Pasteur Inst, Paris, 33–34. Intern, Cook County Hosp, 27–29, res. path, 29–32; *special research bacteriologist and director Bacillus Calmette Guérin labs, Chicago Munic. Tuber. Sanitarium, 34–;* instr, *Illinois,* 30–32, 34–36, assoc, 36–40, *asst. prof, dept. pathbacter, 40–* Soc. Exp. Path; Soc. Exp. Biol; Asn. Path. and Bact; Ill. Soc. Bact; Chicago Path. Soc. Pathology; immunology; experimental lung abscess; chemical, histologic and experimental athrosclerosis; experimental tuberculosis; Bacillus Calmette Guerin vaccination; burns and shock; chemical mediator of pain.

Rosenzweig, Dr. Saul, Western State Psychiatric Hospital, Pittsburgh, Pa. *Psychology, Psychopathology.* Boston, Mass, Feb. 7, 07. A.B, Harvard, 29, A.M, 30, Ph.D, 32. Research fellow, psychol. clinic, Harvard, 31–34; psychologist, Worcester State Hosp, 34–43; asst. prof. abnor. psychol, Clark, 38–43; *chief psychologist, West. State Psychiat. Hosp, 43–; lecturer psychol, Pittsburgh, 43–* Psychol. Asn; Orthopsychiat. Asn; Asn. Applied Psychol; Soc. Psychol. Study Social Issues. Frustration theory; mental disease; child psychology; personality.

Rosenzweig, S(iegfried), The Korfund Co, Inc, 48–15 32nd Place, Long Island City. N. Y. *Mechanical engineering.* Berlin, Germany, April 27, 79. M.S, Polytech, Berlin, 02. Mech. engineer with Hugo Lentz, Erie City Iron Works, 04–13; consulting engineer, steam engine dept, York Ice Machinery Corp, Pa, 14–17; Pa. R. R. and Hooven, Owens, Rentschler Co, Hamilton, Ohio, 17–21; *consulting engineer, The Korfund Co, 23–,* v. pres, 23–30, *pres, 30–* Mech. Eng; Acoustical Soc. High pressure and superheated steam; uni-flow engines; the isolation of noise and vibration caused by machinery.

Rosevear, Dr. F(rancis) B(urt), 72 Reilly Road, Wyoming, Cincinnati, Ohio. *Physical chemistry.* East Orange, N. J, Aug. 4, 12. A.B, Cornell, 33, A.M, 35, Ph.D, 37. Asst. miner, Cornell, 30–33, chem, 33–37; *research chemist, Procter and Gamble Co, 37–* Chem. Soc. Ultra-violet irradiation of cellulose; soap phases; chemical microscopy.

Roseveare, Dr. W(illiam) E(arl), 4300 Hillcrest Road, Richmond, Va. *Physical chemistry.* Portland, Mich, Oct. 14, 04. B.S, Arizona, 25, M.S, 26; fellow, California. 26–27, Goewey fellow, 27–28, Ph.D, 28. Teaching fellow, Arizona, 25–26; instr. chem, California, 28–29; Wisconsin, 29–41; research chemist, *viscose rayon research, E. I. du Pont de Nemours and Co,* 41–42, *research supervisor, 42–* Chem. Soc. Chemical kinetics; anomalous dispersion of sound; heat capacities of gases.

Rosewall, Prof. O(scar) W(aldemar), Louisiana State University, Baton Rouge, La. *Entomology.* Algona, Iowa, March 12, 89. Cornell Col. (Iowa), 08–11; A.B, Iowa, 13; M.S, Louisiana, 16; Ph.D, Iowa State Col, 28. Instr. *entom, Louisiana,* 13–17, asst. prof, 17–20, assoc. prof, 20–24, *prof, 24–* Summers, asst, Lakeside Lab, Iowa, 12; field asst, bur. entom, U. S. Dept. Agr, 13; asst, Bur. Fisheries, 14. Mem, State Pest Control Cmn, La, 42– A.A; Entom. Soc; Asn. Econ. Entom; Wilson Ornith. Club; La. Entom. Soc; La. Acad; La. State Beekeepers Asn; Soc. entom. de France. Pentatomidae and Coleoptera of Louisiana.

Rosewarne, P(earce) V(ictor), Fuel Research Laboratories, Canadian Department of Mines and Resources, Ottawa, Ont, Can. *Engineering.* Ont. 88. B.A, McMaster, 19, Nat. Research Council Can. student, 19–20, M.A, 20. Explosives chemist, *fuel research labs, div. fuels, mines and geol. branch, Can. Dept. Mines and Resources,* 16–17, supt, T.N.T. mfg, 18, efficiency engineer, 20, *chem. engineer and research engineer in charge oils and nat. gas sect, 21–* Chem. Soc; Soc. Chem. Indust; Soc. Automotive Eng; Can. Inst. Chem. Liquid fuels; natural gas; explosives.

Rosin, Joseph, Merck and Co, Inc, Rahway, N. J. *Chemistry.* Russia, Aug. 5, 80. B.S, Pennsylvania, 09; M.Pharm, Phila. Col. Pharmacy, 25. Chief chemist, Powers-Weightman-Rosengarten Co, 13–27; *v. pres. and chem. director, Merck and Co, Inc, 27–* Trustee, Phila. Col. Pharmacy. Revision cmt, U. S. Pharmacopoeia. A.A; Chem. Soc. (cmt. analytical reagents); Inst. Chem; Chem. Eng; Pharmaceut. Asn; London Chem. Soc. Analytical chemistry; organic chemistry.

Rosin, Dr. Seymour, 4445 Post Road, New York, N. Y. *Physics.* Newark, N. J, May 12, 10. A.B, Columbia, 30, A.M, 32, Ph.D, 35. Asst. physics, Columbia, 31–35, lecturer, 36–38, instr, 38–40; *optical engineer and consultant, 38–;* Optical and Film Supply Corp, 41–42; Farrand Optical Co, 42–43. Optical instrument design; geometrical optics; physiological optics.

Rosinger, Dr. Arthur, 486 Clifton Ave, Newark, N. J. *Physical chemistry, Chemical engineering.* Nagyvárad, Hungary, Feb. 1, 87. Dipl. Ch.E, Royal Joseph Tech. Univ, 08; scholar, Tech. Hochschule, Berlin-Charlottenburg, 09–10; Ph.D, Royal Hungarian Francis Joseph Univ, 11. Asst. chemist, Exp. Sta. Lab, Kolozsvár, Hungary, 10–11; chief chemist, Nagyvárad, 11–21; Inspectorate of Social Hygiene, Cluj, Roumania, 21–24; *research chemist and asst. director research and develop, Nat. Products Ref. Co, 25–; prof. indust. chem. and chem. eng, chairman science dept. and director lab. applied chem, Essex Junior Col, 38–; assoc. prof. chem, Essex Col. Med. and Surg, 42–* Chief chemist, Inst. Pub. Health, Cluj, Roumania, 21–23. A.A; Chem. Soc; Soc. Test. Mat; Royal Astron. Soc. Can. Evaluation of domestic and foreign chrome ores for manufacturing of alkali chromates; aluminum oxide chromium pigments; zinc chromate; thermodynamics of concentrated salt solutions; food chemistry.

Rosinger, Prof. Kurt Edward, 314 N. George Mason Drive, Arlington, Va. *Medical biology.* Vienna, Austria, Aug. 5, 04. A.B, Michigan, 23, A.M, 24; univ. scholar, Harvard, 26–27, Leverett Saltonstall scholar, 27–28, Ph.D, 28. Research fellow, Harvard, 30–33; *asst. prof. psychol. and philos. of science, Brooklyn Col, 40–; unit chief, chem. sect, office civilian requirements, War Production Board, 42–* A.A; Philos. Asn. Scientific methods; mathematical logic; history of science; physiology; genetics.

Rosof, Dr. Jacob A(gassiz), 175 Crary Ave, Mt. Vernon, N. Y. *Endocrinology, Pathology.* Columbus, Ohio, March 15, 05. A.B, Ohio State, 26; M.D, N. Y. Univ, 31, Ph.D, 32. Instr. micro-anat, N. Y. Univ, 27–29, physiol, 30, acting assoc. prof. micro-anat, col. dentistry, 31; *lecturer anat. and path, sch. oral hygienists, Guggenheim Dental Clinic, 31–, physician in chief, clinic; asst. pathologist, Mt. Vernon Hosp.* Am. Med. Asn. Endocrinology; thyroid and parathyroid physiology and pathology.

Ross, Dr. A(rchibald) Frank, University of Maine, Orono, Maine. *Plant biochemistry.* New Hampton, Mo, April 20, 11. B.S, Missouri, 33, A.M, 34; Ph.D, Wisconsin, 37. Fellow, Rockefeller Inst. Med. Research, 37–39, asst, 39–40; *assoc. biochemist, Exp. Sta, Maine, 40–* A.A; Chem. Soc; Phytopath. Soc; Potato Asn. Chemistry of viruses; potato virus diseases.

Ross, Dr. A(rchibald) S(tewart), McGill University, Montreal, Que, Can. *Chemistry.* Middlesex Co, Ont, Oct. 8, 01. A.B, Western Ontario, 30; fellow, Oberlin Col, 30–31, A.M, 31; Nat. Research Council Can. bursar, 31–32; Ph.D, McGill, 37. Research chemist, Am. Zinc, Lead and Smelting Co, *McGill,* 34–38, *sessional lecturer, dept. chem, McGill, 38–* Lecturer, div. nat. sciences, Sir George Williams Col, 40– Density of chlorine gas; solubility of chlorine in water; sulphation of titanium ores; hydrolysis of titanium salt solutions; development of pigmentary properties in titanium dioxide; composite pigments containing oxides of zinc, alkaline earth metals, antimony and lead.

Ross, Dr. Arnold E(phraim), St. Louis University, St. Louis, Mo. *Mathematics.* Chicago, Ill, Aug. 24, 06. B.S,

Chicago, 28, M.S, 29, Ph.D, 31. Asst, Chicago, 29–31; nat. research fellow, Calif. Inst. Tech, 31–33; head dept. math, Peoples Junior Col, Chicago, 33–35; instr. *math, St. Louis,* 35–39, *asst. prof, 39–* Math. Soc. Number theory; algebra.

Ross, Dr. Arthur M, 633 Whitney Ave, New Haven, Conn. *Physical chemistry.* New Haven, Conn, July 27, 12. B.S, Yale, 34, Wm. Rogers Prize scholar, 34, Henry Bradford Loomis fellow, 39, Ph.D, 39. Treas. and asst. plant supt, Fruit Products Corp, New York, 35–36; *asst. to engineer, works lab, Gen. Elec. Co, 41–* Chem. Soc. Hydrolysis of methyl acetate in dioxone-water mixtures; synthetic resins and rubbers as applied to electrical insulation problems.

Ross, Dr. Clarence S(amuel), U. S. Geological Survey, Washington, D. C. **5*Geology.* Eldora, Iowa, Sept. 20, 80. A.B, Illinois, 13, A.M, 15, Ph.D, 20. Asst, Illinois; *prin. geologist, in charge sect. petrol, U. S. Geol. Surv.* Chairman cmt. investigation clay minerals, Nat. Research Council, 28–33, councilor, div. geol. and geog, 31–34, exec. cmt, 32. Geol. Soc. (v. pres, 36); Geophys. Union; Soc. Econ. Geol; fel. Miner. Soc. (councilor, 29–32, pres, 35); Geol. Soc. Wash. (pres, 42). Petrology; mineralogy; physical chemistry of ore deposits.

Ross, Dr. C(lay) C(ampbell), 131 Arcadia Park, Lexington, Ky. *Psychology.* Church Hill, Tenn, June 12, 92. A.B, Carson-Newman Col, 14, Tennessee, 16; A.M, Columbia, 20, Ph.D, 25. Psychologist, div. tests, War Dept, 20–21; acting prof. educ, Furman, 21–22; asst. prof. psychol, Iowa State Col, 23–25, assoc. prof, 25–26; *prof. educ. psychol, Kentucky, 26–* Summers, asst. prof, Ohio State, 23–25; Iowa State Col, 29. Psychol. Asn; Soc. Study Educ; Ed. Research Asn; S. Soc. Philos. and Psychol; Midwest. Psychol. Asn. Educational prognosis and guidance.

Ross, Clyde P(olhemus), U. S. Geological Survey, Washington, D. C. *Geology.* New York, N. Y, March 23, 91. B.S, Mass. Inst. Tech, 14, M.S, 15; M.S, Harvard, 15. Geologist, Old Dominion Copper Co, 16–17; asst. geologist, *U. S. Geol. Surv,* 17–19, assoc. geologist, 19–29, geologist, 29–41, *senior geologist, 41–* Geol. surv, Santo Domingo, 19, 41; Bolivia, 20. Soc. Econ. Geol; Geol. Soc; Min. and Metal. Eng; Geol. Soc. Wash. Mining; hydrology; geography.

Ross, Donald W(illiam), U. S. Bureau of Mines, College Park, Md. *Ceramics.* Crookston, Minn, Jan. 29, 85. B.S, Washington (Seattle), 10. Technician in charge clay drying, Denny-Renton Clay and Coal Co. and Far West Clay Co, 09–11; asst. ceramics, Bur. Standards, 13–17; director research, Findlay Clay Products Co, 18–36; *refractories develop, Laclede Christy Clay Products Co, 37–* Fel. Ceramic Soc. (chairman, res. cmn, ref. div, 32–43); Chem. Soc; Min. and Metal. Eng; British Ceramic Soc; British Soc. Glass Technol. Refractories developments; clay drying; load tests on refractories; specific gravity of silica brick; slip cast tank blocks.

Ross, Dr. D(ouglas) A(llen), 3521 University St, Montreal, Que, Can. *Physiology.* Westmont, Que, Jan. 5, 07. B.Sc, McGill, 29, M.Sc, 31, Ph.D, 34; Chicago, 35–36; M.D, Harvard, 38. Demonstrator physiol, McGill, 30–34; Royal Soc. Can. traveling fellow, physiol. lab, Cambridge, 34–35; *lecturer physiol, McGill, 38–* Peripheral sensory mechanisms.

Ross, Edgar S(amuel), 610 Montgomery School Lane, Wynnewood, Pa. *Industrial chemistry.* Ironwood, Mich, April 18, 93. B.S, New Hampshire, 17, M.S, 20; Pittsburgh. Chemist, Welsbach Co, N. J, 17–18; chief chemist, Columbite Reduction Co. and Charlotte Chem. Lab, Inc, N. C, 18–19; private research, New Hampshire, and Pa. Salt Mfg. Co, Phila, 19–22; chemist and metallurgist, McKechnie Bros, Inc, Phila, 22–23; senior research fellow, Mellon Inst, 23–28; manager research and develop, Headley Good Roads Co, Phila, 28–29; pres, Headley Emulsified Products Co, Phila, 29–32, tech. director, 29–33, chairman board directors, 32–33; chem. engineer, develop. dept, *Sun Oil Co, Phila,* 33–40, *asst. manager in charge specialties, develop. div, 40–* Mem, Nat. Research Council. Chem. Soc; Chem. Eng; Soc. Test. Mat; Asn. Asphalt Paving Tech; Soc. Refrig. Eng; Textile Inst. London; Int. Soc. Test. Mat. Rare earths and metals; bituminous and asbestos roofing; waterproofing; dampproofings; paints; paving and structural products; emulsified asphalts; oils and greases; petroleum specialties products; patent litigation.

Ross, Dr. Edward, 704 Virginia Drive, Orlando, Fla. *Biology.* Chambersburg, Pa, March 30, 09. B.S, Pa. State Col, 32; Ph.D, California, 37. Tech. asst. zool, California, 34–37; *chemist, Dr. P. Phillips Co, 37–* A.A; Bot. Soc; Chem. Soc; Fla. State Hort. Soc. Cellular respiration; effects of sodium cyanide and methylene blue on oxygen consumption by Nitella clavata; food technology; vitamin C in citrus fruits; physicochemical biology.

Ross, Dr. Edward S(hearman), California Academy of Sciences, San Francisco, Calif. *Entomology.* Spokane, Wash, Sept. 1, 15. B.S, California, 37, Ph.D, 41. *Asst. curator entom, Calif. Acad. Sciences, 39–; lieut, Sanit. Corps, U. S. Army and entomologist, eighth service command lab, 42–* Asst. ed, 'Pan-Pacific Entom.' Entom. Soc. Amer; Pacific Coast Entom. Soc. Systematic entomology; Embioptera; Coleoptera; Histeridae; biota of Sonoran deserts.

Ross, Dr. Frank E(lmore), Mt. Wilson Observatory, Pasadena, Calif. **5*Astronomy.* San Francisco, Calif, April 2, 74. B.S, California, 96, fellow, 97–98, Lick Observatory, 98–99, Ph.D, 01. Teacher math. and physics, Mt. Tamalpais Mil. Acad, Calif, 96–97; asst. prof. math, Nevada, 00; computer for Watson Trustees, 01–02; asst, 'Nautical Almanac' Office, 02–03; asst, Carnegie Institution, 03–05; director, Int. Latitude Observatory, 05–15; physicist, Eastman Kodak Co, 15–24; assoc. prof. *astron, Chicago,* 24–28, *prof, 28–* Nat. Acad; Astron. Soc. (v. pres, 37); assoc. Royal Astron. Soc. The general perturbations of the Watson asteroids; orbits of satellites, of the moon and of Mars; lunar theory; variation of latitude; the photographic plate; photographic photometry; photographic and astronomical objectives; photography of the planets; stars of large proper motion; discovery of variable stars; correcting lenses for reflectors.

Ross, Dr. F(rederick) W(illiam), 92 E. Lynn St, Seattle, Wash. *Physics, Aerodynamics.* Portland, Oregon, April 25, 12. B.S, Washington (Seattle), 35, Ph.D, 42. Teaching fellow physics, Washington (Seattle), 35–39; acoustics engineer, *Boeing Aircraft Co,* 39–41, *special aerodynamicist, 41–* Physical Soc; Acoustical Soc; Inst. Aeronaut. Sci. Dynamics; viscosities; gases; liquids; sound; radiation.

Ross, Prof. H(arold) E(llis), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Agriculture.* Leadville, Colo, Oct. 23, 81. B.S.A, Cornell, 06, M.S.A, 09. Asst. *dairy indust, N. Y. State Col. Agr, Cornell,* 06–07, instr, 07–10, asst. prof, 10–13, *prof, 13–* Dairy expert, Argentine Govt, 25–26. Dairy Sci. Asn. Dairy industry; care and handling of milk.

Ross, Dr. H(arry) A(lbert), The Borden Co, 350 Madison Ave, New York, N. Y. *Agricultural economics.* Greenville, Ill, Nov. 27, 92. B.S, Illinois, 17, M.S, 22; Ph.D, Cornell, 24. Asst. dairy economist, Illinois, 17–19, assoc. dairy economist, 20–22; instr. farm management, Cornell, 23–24, asst. prof. marketing, 24–26, prof, 26–29; economist, *Borden Co,* 29–41, *v. pres, 41–* Asst, Ill. Agr. Asn, 22; research agent, bur. agr. econ, U. S. Dept. Agr, 24–25. A.A; Dairy Sci. Asn; Econ. Asn; Farm Econ. Asn; Statist. Asn; Int. Conf. Agr. Econ. Economics of dairy production; marketing milk in the Chicago and New York dairy districts; marketing of dairy and poultry products.

Ross, Dr. Herbert H(oldsworth), Illinois State Natural History Survey, Urbana, Ill. *Entomology, Ecology.* Leeds, Eng, March 3, 08. B.S.A, British Columbia, 27; M.A, Illinois, 29, Ph.D, 32. Asst. entomologist, Dom. Entom. Branch, Can, 26–27; *State Nat. Hist. Surv, Ill,* 27–31, *syst. entomologist, 31–* Entom. Soc. Amer; Limnol. Soc; Entom. Soc. Wash; Ill. Acad; Wash. Acad. Taxonomy and ecology of Hymenoptera, Trichoptera and immature stages; biology and ecology in relation to insects.

Ross, Dr. John, Colgate-Palmolive-Peet Co, Jersey City, N. J. *Organic chemistry.* Durham, Eng, June 6, 02. B.Sc, London, 24, Ph.D, 26; Dipl, Imp. Col. Science and Tech, 26. Research chemist, Chem. Research Lab, Teddington, England, 27–28; asst. to Prof. Michael, Harvard, 29–32; research chemist, Ilford Photog. Co, London, England, 33–34; *supervisor chem. research, Colgate-Palmolive-Peet Co, 35–* Fel. Chem. Soc; fel. Inst. Chem. The mechanism of organic chemical reactions; chemistry of the utilization of oils, fatty acids and glycerol; organic and physical chemistry of surface active materials.

Ross, Dr. Joseph F(oster), 65 E. Newton St, Boston, Mass. *Medicine.* Azusa, Calif, Oct. 11, 10. A.B, Stanford, 33; M.D, Harvard, 36. Res. path, Mallory inst, Boston City Hosp, 36–37, house officer med. service, 37–39; path, Strong Mem. Hosp, Rochester, N. Y, 39–40; asst. physician, Evans Mem. and Mass. Mem. Hosps, Boston, Mass, 40–41; instr. *med, sch. med, Bos-*

ton, 40–42, *asst. prof*, *42–*, *Welch fellow int. med*, *43–* Assoc. mem. dept, Robert Dawson Evans Mem, 41– Soc. Exp. Path; Soc. Clin. Invest; Federation Clin. Research. Iron metabolism and blood formation with radioactive iron.

Ross, Prof. O(scar) Burr, University of Wisconsin, Madison, Wis. *Animal husbandry, Biochemistry.* Rosalie, Nebr, June 5, 14. B.S, Nebraska, 36; Iowa State Col, 37; M.S, Wisconsin, 39, Ph.D, 42. Instr. *animal husbandry*, Tennessee, 36–38; asst, *Wisconsin*, 38–41, instr, 41–42, *asst. prof, 42–; lieut, Sanit. Corps, U. S. Army.* Soc. Animal Production. Effect of diet upon reproduction and lactation in the rat and sow; genetic improvement of swine; total confinement system of raising swine; intestinal diseases of swine.

Ross, Prof. Robert T(rowbridge), Stanford University, California. *Psychology.* Los Angeles, Calif, April 4, 06. B.S, Calif. Inst. Tech, 27; A.M, Southern California, 30; Ph.D, Yale, 34. Instr. *psychol*, Yale, 34–36; *asst. prof, Stanford, 36–* Lecturer psychol, Calif. Inst. Tech, 37–; research assoc, Pasadena Playhouse Sch. of Theater, 37– Lieut, U.S.N.R. A.A; Psychol. Asn; Asn. Applied Psychol; West. Psychol. Asn. Personality development and measurement.

Ross, Dr. Sydney, University Club, Urbana, Ill. *Colloid chemistry.* Glasgow, Scotland, July 6, 15. B.Sc, McGill, 36; Ph.D, Illinois, 40. Asst. anal. chem, Illinois, 36–40; instr. chem. and math, Monmouth Col, 40–41; *research assoc. and Bristol-Myers Co. fellow chem, Stanford, 41–* Ill. Acad. Nature of foams and emulsions.

Ross, Prof. Thurston H(oward), 3682 Fairland Blvd, Los Angeles, Calif. *Statistics.* Richmond, Ind, Oct. 25, 94. B.S, Otterbein Col, 17; M.B.A, Southern California, 22, Ph.D, 33. From instr. to *prof. management and director bur. business research, Southern California, 28–* Mech. Eng; Management Asn. (councilor); Econ. Asn; Royal Soc. Arts. Statistical analysis; biological statistics; statistics in valuation; production control methods; correlation of engineering and economic functions in industry.

Ross, Dr. Victor, College of Physicians and Surgeons, Columbia University, New York, N. Y. *Biochemistry, Bacteriology.* Brooklyn, N. Y, Dec. 13, 93. B.S, Col. City of N. Y, 16; A.M, Columbia, 18, Ph.D, 23; fellow, Montefiore Hosp, 20–21. Asst. chemist, Montefiore Hosp, 16–18; asst. physiol. chem, col. physicians and surg, Columbia, 17–18, 19–20; Plaut research lab, Lehn and Fink, Inc, 23–28; bur. labs, Dept. Health, New York, 28–37; instr. bacter. and immunol, col. med, N. Y. Univ, 33–37; *research worker, dept. biochem, col. physicians and surgeons, Columbia, 39–* A.A; Chem. Soc; Soc. Exp. Biol. Endocrinology; oral immunization against pneumonia; photodynamic action of methylene blue; chemistry and serology of semen; improvements in diphtheria toxoid.

Ross, Dr. W(illiam) Bruce, 367 Metcalfe Ave, Westmount, Que, Can. *Physics.* Westmount, Que, Sept. 25, 05. B.Sc, McGill, 30; Nat. Research Council Can. bursar, 30, student, 31, M.Sc, 31, Ph.D, 33. Lecturer *math, McGill*, 32–42, *asst. prof, 42–*, warden, Douglas Hall, 37–41, senior instr. radio mech. course, 41–43. Radio eclipse exped, Newfoundland, 32. Assoc. Radio Eng; Eng. Inst. Can. Dielectric constants; radio investigation of ionosphere; Rayleigh discs; determinants.

Ross, Dr. William F(enton), Harvard University, Cambridge, Mass. *Organic chemistry.* Anderson, S. C, Sept. 8, 10. A.B, Virginia, 31; A.M, Harvard, 32, Ph.D, 34. Asst, Rockefeller Inst, 34–36; instr. chem, Virginia, 30–31; research assoc. *org. chem*, Mass. Inst. Tech, 36–38; *instr, Harvard and Radcliffe Col, 38–* Chem. Soc. Chlorophyll derivatives; spectroscopy and photochemistry of organic compounds; proteins; polypeptides; enzymes.

Ross, Dr. William H(arold), Massachusetts State College, Amherst, Mass. *Physics.* Philadelphia, Pa, July 16, 09. A.B, Amherst Col, 29, A.M, 30; Ph.D, Yale, 34. Asst, Yale, 31–33; *Mass. State Col*, 33–35, instr. *physics*, 35–41, *asst. prof, 41–* Visiting instr, Amherst Col, 41. Summer, mem. faculty, Pa. State Col, 41. A.A; Physical Soc. Magnetic susceptibilities of alloys.

Ross, Dr. W(illiam) H(orace), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Louisville, N. S, Can, Dec. 27, 75. B.S, Dalhousie, 03, M.S, 04, 1851 Exhib. scholar, 04–07; Hopkins, 04–05; Ph.D, Chicago, 07. Demonstrator chem, Dalhousie, 03–04; asst, Chicago, 05–07; asst. chemist, Exp. Sta, Arizona, 07–12; scientist, bur. soils, *U. S. Dept. Agr*, 12–27, *senior chemist*, fertilizer research div, bur. chem. and soils, 27–39, *div. soil and fertilizer investigations, bur. plant indust, 39–* Abstractor, 'Chem. Abstracts,' 07– Capt, C.W. S.R. A.A; Chem. Soc; Inst. Chem; Soc. Agron. Relation between the radioactivity and composition of thorium and uranium minerals; potash extraction and recovery; preparation of phosphoric acid; preparation and properties of mixed fertilizers; ammoniation of superphosphates; fertilizer analysis; granulation of fertilizers.

Rossander, Dr. S(wanie) S(iguard), E. I. du Pont de Nemours and Co, Deepwater, N. J. *Chemistry.* Red Oak, Iowa, May 15, 04. B.S, Tarkio Col, 24; M.S, Illinois, 28, Ph.D, 30. Instr. science, high sch, S. Dak, 24–26; research chemist, Jackson lab, *E. I. du Pont de Nemours and Co*, 30–35, plant supervisor, dyeworks, 35–36, *head azo colors div, Jackson lab, 37–* A.A; Chem. Soc; Asn. Textile Chem. and Colorists. Azo dyestuffs.

Rossbach, Dr. George B(owyer), Poynette, Wis. *Botany.* Belfast, Maine, Oct. 26, 10. B.S, Harvard, 33, A.M, 34; Ph.D, Stanford, 41. Acting instr. bot, Stanford, 40; junior biologist, fish and wildlife service, U. S. Dept. Interior, 41; *game biologist, State Conservation Dept, Wis, 41–* Soc. Plant Taxon; Wildlife Soc; New Eng. Bot. Club; Torrey Bot. Club. Food habits of game birds and water fowl and deer in Wisconsin; taxonomy, ecology and geographical distribution of the genus Erysimum in North America.

Rossbacher, Dr. H(enry John), Western Electric Co, Kearny, N. J. *Chemistry.* Kendallville, Ind, Dec. 19, 89. B.S, Purdue, 12, M.S, 17; Loewenthal fellow, Chicago, 18–19, Ph.D, 19. Chief chemist, Chicago Paving Lab, 15–20; develop. engineer and later supt. mfg. develop, West. Elec. Co, 21–32, manager vacuum tube mfg, Bell Tel. Labs, 32–34, supt, *West. Elec. Co*, 34–39, asst. engineer *mfg*, 39–42, *engineer, 42–* A.A; Chem. Soc; Physical Soc. M-tolylethyl barbituric acid; factitious asphalts; insulators and dielectrics; carbon products; vacuum lamps and tubes; cables; telephone apparatus; special war products.

Rossby, Dr. C(arl-) G(ustaf Arvid), University of Chicago, Chicago, Ill. *Meteorology.* Stockholm, Sweden, Dec. 28, 98. Philos. Cand, Stockholm, 18, Licentiate Philos, 25; hon. D.Sc, Kenyon Col, 39. Junior meteorologist, Bergen, Norwegian Govt. Service, 19; Stockholm, Swedish Govt. Service, 22–25; chairman, Daniel Guggenheim Cmt. on Aeronaut. Meteorol, 27–29; assoc. prof. meteorol, Mass. Inst. Tech, 28–32, prof, 32–41; *asst. chief in charge research and educ, U. S. Weather Bur, 39–* Research assoc, Oceanog. Inst, Woods Hole, 32– Conrad Holmboe exped, East Greenland, 23. Shared Albert Sylvanus Reed award, Inst. Aeronaut. Sciences, 34. Nat. Acad; fel. Inst. Aeronaut. Sci; Geophys. Union (v. pres. sect. meteorol, 40–); hon. mem, Royal Meteorol. Soc. Theoretical meteorology; application of polar front theory in North America; atmospheric turbulence; theory of the general circulation of the atmosphere.

Rosseland, Dr. Svein, 16 Prospect Ave, Princeton, N. J. **7Theoretical astronomy.* Norheimsund, Norway, March 31, 94. Ph.D, Oslo, 27. Prof. astron. and director univ. observatory and inst. theoret. astrophysics, Oslo, 28–41; *prof. astron, Princeton, 41–* Visiting prof, Harvard, 29–30. Summer, lecturer, Harvard, 39. Fridtjof Nansen prize, Norwegian Acad. Science and Letters, 29. Astron. Soc; Geophys. Union; assoc. Royal Astron. Soc, London; Norwegian Geophys. Soc; Norwegian Acad. (v. pres. sect. nat. sciences, 37, 39, pres, 38, 40). Stellar constitution.

Rosselot, Prof. G(erald) A(lzo), Georgia School of Technology, Atlanta, Ga. *Physics.* Westerville, Ohio, Jan. 11, 08. A.B, Otterbein Col, 29; A.M, Ohio State, 30, Ph.D, 36. Asst. physics, Ohio State, 29–34; instr, *Ga. Tech*, 34–35, math, 35–36, asst. prof. *physics*, 36–39, *assoc. prof, 39–*, asst. director, *state eng. exp. sta*, 40–41, *director, 41–* Summers, testing lab, State Highway Dept, Ohio, 32; chem. div, Procter and Gamble Co, 33. Physical Soc; Radio Eng; Eng. Educ. Electronics; spectroscopy; x-ray analysis.

Rosser, Dr. Charles M(arvin), 1606 Franklin St, Fredericksburg, Va. *Organic chemistry.* Sidney, Ohio, Jan. 14, 09. A.B, Wabash Col, 30; M.S, N. Y. Univ, 32, Ph.D, 35. Teaching fellow, N. Y. Univ, 30–34; *chemist*, Seil, Putt and Rusby, Inc, 34–35; *Sylvania Indust. Corp, 35–* Chem. Soc; Inst. Chem; Va. Acad. Terpenes; action of sulfur on amines; cellulose products.

Rosser, Dr. J(ohn) Barkley, Cornell University, Ithaca, N. Y. **7Mathematics.* Jacksonville, Fla, Dec. 6, 07. B.S,

Florida, 29, M.S. 31; Ph.D, Princeton, 34. Procter fellow, Princeton, 33–35; nat. research fellow, Harvard, 35–36; instr. *math*, Cornell, 36–39; lecturer, Princeton, 39–40; *assoc. prof, Cornell, 40–* Math. Soc; Math. Asn; Asn. Symbolic Logic (exec. cmt, 35–37, 41–, assoc. ed, 'Jour,' 36–). Mathematical logic and foundations of mathematics; theory of prime numbers.

Rossi, Prof. Bruno, Cornell University, Ithaca, N. Y. **7Physics.* Venice, Italy, April 13, 05. Padua, 23–25; Dr. physics, Bologna, 27. Asst. *physics*, Florence, 28–32; prof, Padua, 32–38; research fellow, Manchester, 39; research assoc, Chicago, 39–40; *assoc. prof, Cornell, 40–* Fel. Physical Soc. Cosmic rays.

Rossini, Dr. Frederick D(ominic), National Bureau of Standards, Washington, D. C. **6Physical chemistry.* Monongahela, Pa, July 18, 99. B.S, Carnegie Inst. Tech, 25, M.S, 26; Ph.D, California, 28. Asst. math, Carnegie Inst. Tech, 25–26; teaching fellow chem, California, 26–28; asst. scientist physical chem, *Bur. Standards*, 28–29, assoc. scientist, 29–36, *chief sect. thermochem. and petrol. chem, 36–* Lecturer. educ. cmn, Bur. Standards, 34–35, 36–37, 38–39, 41–42; Howard, 37–38; Catholic Univ, 42. Int. Cmt. on Thermochemistry. Hillebrand prize, Chem. Soc. Wash, 34. A.A; Chem. Soc; Physical Soc; Petrol. Inst; N. Y. Acad; Philos. Soc. Wash; Wash. Acad. (ed, 'Jour,' 37–40, sec'y, 40–43). Thermochemistry; petroleum chemistry; chemical thermodynamics.

Rossiter, Prof. R(ichard) A(lfred), Lamont-Hussey Observatory, Bloemfontein, S. Africa. *Astronomy.* Oswego, N. Y, Dec. 19, 86. A.B, Wesleyan, 14; A.M, Michigan, 20, Ph.D, 23. Teacher math, Genesee Wesleyan Sem, 14–19; telescope asst. astron, *Michigan*, 19–20, asst. astronomer, 20–23, asst. prof. *astron*, 23–26, *assoc. prof. and astronomer in charge, Lamont-Hussey Observatory, 26–* A.A; Astron. Soc; fel. Royal Astron. Soc; S. African Astron. Soc. The orbital motion; velocity of the center of mass; rotation effect in beta Lyrae; new and remeasures of double stars.

Rosskopf, Dr. M(yron) F(rederick), John Burroughs School, Clayton, Mo. *Mathematics.* Fairmont, Minn, Oct. 2, 07. A.B, Minnesota, 28, A.M, 30; Ph.D, Brown, 34. Instr. *math, John Burroughs Sch, 34–35, chairman dept, 35–* Math. Soc; Math. Asn; Nat. Council Teachers Math. Generalization of the Riesz-Fischer theorem and Parseval's identity; curriculum revision and tests in secondary mathematics.

Rossman, Dr. Joseph, Marathon Paper Mills Co, Rothschild, Wis. *Chemistry.* Philadelphia, Pa, Oct. 5, 99. B.S, Pennsylvania, 22; LL.B, A.M, George Washington, 27; Ph.D, American Univ, 30. Patent examiner, U. S. Patent Office, 23–35; *patent counsel, Marathon Paper Mills Co, 35–* Lecturer, grad. sch, U. S. Dept. Agr, 34– A.A. (chairman, cmt. patents, 34–); Chem. Soc. Chemical patents; technology.

Rost, Prof. C(layton) O(rd), University Farm, St. Paul, Minn. *Chemistry.* Ord, Nebr, Nov. 24, 85. B.S, Nebraska. 11, A.M, 12; Ph.D, Minnesota, 18. Asst. agr. chem, Exp. Sta, Nebraska, 12–13; instr. *soils, Minnesota*, 13–18, asst. prof, 18–23, assoc. prof, 23–35, *prof, 35–, chief div. soils, 42–*, asst. soils chemist, *Exp. Sta*, 13–18, assoc. soils chemist, 18–42, *soils chemist, 42–* A.A; Chem. Soc; Soil Sci. Soc; Soc. Agron; Int. Soc. Soil Sci. Soil chemistry; prairie and glacial soils; soil phosphorus; soil acidity; lime-deficient soils; replaceable bases of soils; soil genesis.

Rostler, Dr. F(ritz) S(iegfried), 2105a N. Franklin St, Wilmington, Del. *Chemistry.* Zastavnia, Austria, April 6, 06. Ph.D, Vienna, 34. Asst, Vienna, 35–38; *chief chemist, Wilmington Chem. Corp, 38–; lecturer and fellow, Delaware, 40–* Chief chemist. Naftolen Gesellschaft, Vienna, 35–38. A.A; Chem. Soc. Organic chemistry and technology; rubber compounding; utilizing waste materials from higher fractions of petroleum resulting in the production of Naftolen in Europe and this country.

Rostorfer, Dr. Howard H(ayes), University of Rochester, Rochester, N. Y. *Physiology.* Jackson Center, Ohio, June 1, 09. A.B, Wittenberg Col, 32; A.M, Ohio State, 35, fellow, 39–40, Ph.D, 40. Instr. zool, Wittenberg Col, 32–34; asst, Ohio State, 34–35; teacher science, Christenberry Sch, Tenn, 36–39; *instr.* chem, St. Mary's Hosp, Knoxville, 40; *physiol, Rochester, 41–* A.A. Physiology of fishes; physiology of the gastro-intestinal tract.

Roth, Dr. Adolph J, Hot Lake, Oregon. *Bacteriology.* Lowell, Mich, July 1, 97. A.B, Olivet Col. (Mich), 23; M.S, Michigan, 29, Dr.P.H, 32. Director pub. health, pub. schs, Mich, 24–27; tri-county health unit sanit. inspector, 32–33; asst. prof. bacter. and pub. health, State Col. Wash. Summers, resort inspector, State Health Dept, Mich, 29, 30, 31. Pub. Health Asn; Mich. Pub. Health Asn; Wash. Pub. Health Asn. Filtrable forms of bacteria in sewage; contaminated rivers; sanitary aspects of the increased use of trailer houses.

Roth, Dr. Barbara, 227 Grant Ave, Bound Brook, N. J. *Organic chemistry.* Milwaukee, Wis, June 9, 16. B.S, Beloit Col, 37; M.S, Northwestern, 39, Ph.D, 41. Tutor chem, Northwestern, 37–41, lab. asst. org. and elementary chem, 39–41; *research chemist, Calco chem. div, Am. Cyanamid Co, 41–* Instr, Lake Forest Col, 40–41. Chem. Soc. Condensation reactions of olefinic halides with benzene derivatives.

Roth, Charles F(erdinand), Grand Central Palace, New York, N. Y. *Chemistry.* New York, N. Y, Dec. 24, 86. B.S, Cooper Union, 12. Control chemist, Nat. Brewers Acad, N. Y, 07–10; chemist and chief chemist, Standard Oil Co. of N. Y, 11–14; chemist and mfg. manager, Hartford Cast Stone Co, 14–15; *organizer and manager, Nat. Expos. Chem. Indust, 15–; manager, Nat. Expos. Power and Mech. Eng, 22–; Int. Heat. and Vent. Expos, 29–* Consulting chemist, Int. Filtration Corp, 15–16; director, Beckman and Linden Eng. Corp, 19–25; manager, Paper Industries Expos, 23–24; manager, Nat. Elec. Expos, New York, 29; sec'y-treas, Int. Expos. Co, 23–26, v. pres, 26–36, pres, 36–; pres, Roth-Pinehurst Corp, 24– Chicago Expos. Power and Mech. Eng, 37; Pacific Heat. and Air Conditioning Expos, San Francisco, 41. Cooper medal, 12. Officer in charge adjustment branch of personnel, C.W.S, 18–19. Chem. Soc. (sec'y-treas, N. Y. sect, 16, 17, councilor, 21); Electrochem. Soc; Min. and Metal. Eng; Heat. and Vent. Eng; Chemists' Club. Chemical industries.

Roth, Dr. George B(yron), 1335 H St, N. W, Washington, D. C. *Pharmacology.* Mt. Eaton, Ohio, May 22, 79. A.B, Michigan, 06, Parke, Davis fellow, 07–08, M.D, 09. Instr: pharmacol, Michigan, 09–13; pharmacologist, hygienic lab, U. S. Pub. Health Service, 13–21; asst. prof. *pharmacol*, Western Reserve, 21–24; *prof, George Washington, 24–* Revision cmt, U. S. Pharmacopoeia, XI. A.A; Soc. Pharmacol. (councilor, 16, 31); Physiol. Soc; Soc. Exp. Biol; Am. Med. Asn. Camphoric acid; action of quinin on the leucocytes; aconite; pituitary preparations; barium; digitalin tablets; the arsphenamines; age and resistance; barbiturates; the autonomic nervous system and drugs; salines; effect of paraldehydebenzyl alcohol on the uterus.

Roth, Prof. Herman (Moe), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Astrophysics.* Richmond, Va, Dec. 5, 07. B.S, Virginia, 27, M.S, 28; Ph.D, Ohio State, 32. Teaching fellow, Virginia, 27–28; asst. physics, Ohio State, 28–32; head div. eng, Cameron Col, 33–35; asst. prof. *physics, Okla. Agr. and Mech. Col*, 35–37, *assoc. prof, 37–* Summer, demonstration teacher, col. workshop in gen. educ, Chicago, 40. Physical Soc; Asn. Physics Teachers. Equilibrium conditions in stars; density distribution in Capella; dynamical stability of stars.

Roth, Dr. Laurence W(ilfred), University of Colorado School of Medicine, Denver, Colo. *Physiology.* Battle Creek, Mich, May 26, 11. A.B, Battle Creek Col, 32; A.M, Michigan, 33, Ph.D, 40; fellow, Northwestern, 39–40. Teaching asst. zool, Michigan, 35–39; *instr. physiol, sch. med,* St. Louis, 40–42; *Colorado, 42–* Respiratory quotient of reptiles; reduced pressure physiology; peripheral vascular physiology.

Roth, Dr. Lewis F(ranklin), 116 W. Spring St, Oxford, Ohio. *Plant pathology, Bacteriology, Botany.* Poplar. Mont, April 12, 14. A.B, Miami (Ohio), 36; fellow, Wisconsin, 39–40, Ph.D, 40. Asst. plant path, Wisconsin, 36–39; instr. plant path. and bot, Oregon State Col, 40–42; *ensign, Supply Corps V (S), U. S. Naval Res, 42–* Sci. aid, Forest Products Lab, U. S. Forest Service, 40. Phytopath. Soc; Mycol. Soc. Forest diseases; aquatic fungi.

Roth, Dr. Paul, Battle Creek Sanitarium, Battle Creek, Mich. *Physiology.* Tramelan, Switzerland, July 9, 71. Gymnase Lausanne, Switzerland, 93–95; M.D, Am. Med. Missionary Col, 04; Paris, 09–10. Intern, neur. dept, *Battle Creek Sanitarium*, 04–06, *instr. hydrotherapy, sch. nurses, 04–, director physiotherapy dept*, 06–07, *20–*, asst, *clin. labs*, 07–09, *director, 10–* Assoc. investigator and contributor, nutrition lab, Carnegie Institution, Boston, 13–15, lab. staff, 17–18. Physiol. Soc; fel. Am. Med. Asn; fel. Col. Physicians; fel. Soc. Clin. Path; Inst. Nutrition. Clinical significance of alveolar carbon

dioxide tension; estimation of alveolar carbon dioxide tension and acetone in expired air; body metabolism; oxygen and carbon dioxide therapy; human efficiency under restricted diet; clinical spirography; hyperpyrexia; oxygen therapy tent.

Roth, Prof. William E(dward), University of Wisconsin in Milwaukee, Milwaukee, Wis. *Mathematics.* Chicago, Ill, June 18, 90. A.B, Wisconsin, 15, A.M, 25, Ph.D, 28. Teacher, high sch, Wis, 20–25; instr. *math, Univ. Wisconsin in Milwaukee,* 25–28, asst. prof, 28–37, *assoc. prof, 37–* Croix de Guerre. U.S.A, 17–19. Math. Soc; Math. Asn. Algebra of matrices; algebraic equations.

Rothbard, Dr. Sidney, Rockefeller Institute for Medical Research, E. 66th St. and York Ave, New York, N. Y. *Bacteriology, Immunology.* New York, N. Y, Dec. 28, 08. A.B, Colgate, 31; M.D, Rochester, 35. Intern med, Strong Mem. Hosp, Rochester, N. Y, 35–36, asst. res. physician, 36–37; asst. path, med. col, Cornell, 38, instr, 38–41; *fellow and asst. res. physician, hosp, Rockefeller Inst, 41–* Asst, sch. med, Rochester, 36–37. Soc. Study Rheumatic Diseases; Harvey Soc. Experimental and clinical study on streptococcal infections and rheumatic diseases.

Rothe, Prof. Erich Hans, University of Michigan, Ann Arbor, Mich. *Mathematics.* Berlin, Germany, July 21, 95. Munich, 13–14; Dr, Berlin, 26. Teacher math, Eng. Sch, Breslau, 27–35; prof. *math,* William Penn Col; *special asst. prof, Michigan.* Teacher, Breslau, 31–35. Math. Soc. Differential equations; topology in function spaces.

Rothemund, Dr. Geneva (Loretta) Shong (Mrs. Paul W. K. Rothemund), 604 Phillips St, Yellow Springs, Ohio. *Pediatrics, Obstetrics.* Superior, Wis, March 23, 04. B.S, Minnesota, 26, M.B, 28, M.D, 29; European univs. and cols, 32–33. Res. contagious diseases, McCormick Inst. Infectious Diseases, 28; gen. intern, Minneapolis Gen. Hosp, 28–29; intern pediat, Children's Mem. Hosp, Chicago, 29–30, obstet, Chicago Lying-in-Hosp, 30–31; res. pediat, Milwaukee Children's Hosp, Wis, 31–32; research assoc, Samuel S. Fels fund, Antioch Col, 33–35; res. staff physician, Massillon State Hosp, 35–36, pediatrician, bur. maternal and child hygiene, State Dept. Health, Ohio, 36–39; director health, Clinton County and Wilmington, 39–40; *practising pediatrician, 40–* Mem. visiting staff, Springfield City Hosp; pediatrician, city schs, Springfield, Ohio, 42– Fel. Pub. Health Asn; fel. Acad. Pediat; Am. Med. Asn; Soc. Research Child Develop. The influence of prenatal and postnatal environment on child development; basal metabolism in pregnancy; anthropological studies in child development; physical changes in mother and child; vitamin B and protein deficiencies in rats.

Rothemund, Prof. Paul (Wilhelm Karl), Antioch College, Yellow Springs, Ohio. *Biochemistry.* Augsburg, Germany, Jan. 13, 04. Reifezeugnis, Realgymnasium, Augsburg, 23; Diploma, Tech. Hochschule, Munich, 27, D.Ing, 30. Asst. org. chem, Tech. Hochschule, Munich, 27–30; asst. prof. *biochem, Antioch Col,* 30–37, *assoc. prof, 37–; chem, Ohio State, 37–; research chemist, C. F. Kettering Foundation Study Chlorophyll and Photosynthesis, 30–* A.A; Soc. Biol. Chem; Chem. Soc; Ohio Acad; Deuts. Chem. Gesell; Verein Deuts. Chem; Schweiz. Chem. Gesell. Organic and physiological chemistry; pyrroles; porphyrins; chlorophyll and protochlorophyll; hemin and respiration; photosynthesis; photosensitization; microanalysis.

Rothen, Dr. Alexandre, Rockefeller Institute, New York, N. Y. *Chemistry.* Geneva, Switzerland, 00. Chem.E. and D.Sc, Geneva. *Asst.* physical chem, Geneva, 25–28; *chem, Rockefeller Inst, 28–* Chem. Soc; Swiss Chem. Soc. Stereochemistry; optical activity; ultracentrifuge.

Rothermel, Prof. Julia E(lizabeth), Western College, Oxford, Ohio. *Histology, Embryology.* Reading, Pa, June 4, 98. A.B, Mt. Holyoke Col, 20; A.M, Cornell, 25, Ph.D, 28. Instr. biol, Agnes Scott Col, 20–24; asst. histol. and embryol, Cornell, 25–27, instr, 27–28; asst. prof. *biol, Western Col,* 28–29, *prof, 29–* A.A; Genetic Asn; Ohio Acad. General biology; histology and development of the blood-forming organs.

Rothery, Julian E(astman), 3310 Rowland Place, N. W, Washington, D. C. *Forestry.* Brookline, Mass, April 13, 85. Ph.B, Yale, 07, M.F, 08. Tech. asst, U. S. Forest Service, Utah, 08–10, supervisor, Idaho Nat. Forest, 10–12; consulting forest engineer, N. Y, 12–27; chief forest engineer, Int. Paper Co, 27–35; *forest inspector, div. forest management, U. S. Forest Service, 35–* Teacher, Utah Agr. Col, 08, 09; explor, Can. Labrador, 12–13; Can, Newfoundland, B. C. and Alaska, 13–31. A.A; Soc. Foresters; Can. Soc. Forest Eng. American and Canadian forests; valuations of forests and forest industries; protection and maintenance of forests.

Rothgeb, Dr. Russell G(rove), University of Maryland, College Park, Md. *Agriculture.* Luray, Va, Jan. 22, 01. B.S.A, Maryland, 24, Ph.D, 28; fellow, Iowa State Col, 24–25, M.S.A, 25. Asst, *Maryland,* 25–28, *agron, Exp. Sta,* 28–35, *assoc, 35–* A.A; Soc. Agron. Corn and small grain breeding.

Rothney, Dr. John W. M, University of Wisconsin, Madison, Wis. *Educational psychology.* Aberdeen, Scotland, April 10, 06. B.A, Alberta, 30; Ed.M, Harvard, 32, Ed.D, 34. Teacher and prin, pub. schs, 24–27; Meridon Junior Col, 34–35; asst, psycho-educ. clinic, Harvard, 35–36, research assoc, 36–37, instr. and lecturer, 38–39; instr. educ. psychol, Wellesley Col, 36–38; *asst. prof. educ, Wisconsin, 39–* Asst, Progressive Educ. Asn, 35–41. A.A; Progressive Educ. Asn; assoc. Psychol. Asn. Mental and physical development; measurement of interests, mental traits and employment; measurement in vocational guidance and child development.

Rothrock, Dean David A(ndrew), University of Indiana, Bloomington, Ind. *Mathematics.* Milltown, Ind, Jan. 31, 64. A.B, Indiana, 92, A.M, 93; Chicago, 94–95; Ph.D, Leipzig, 98. Instr. *math, Indiana,* 92–95, asst. prof, 95–99, assoc. prof, 99–05, junior prof, 05–08, prof, 08–38, *emer. prof, 38–,* dean col. arts and sciences, 20–37. Summer, prof, West. State Nor. Sch, Mich, 04. Ind. State Conservation Cmn, 25–33. Math. Soc; Math. Asn. Plane and spherical trigonometry; logarithmic, trigonometric and other tables; the point invariants of the groups of the plane; differential invariants derived from point invariants; the essentials of algebra.

Rothrock, Dr. David A(ndrew), Jr, Rohm and Haas Co, Philadelphia, Pa. *Chemistry.* Bloomington, Ind, Dec. 29, 10. A.B, A.M, Indiana, 32; Ph.D, Brown, 36. Research instr, chem, Brown, 36–37; *research chemist, Rohm and Haas Co, 37–* Chem. Soc; Inst. Chem. Non-aqueous solutions of electrolytes; synthetic resins and plastics.

Rothrock, Prof. E(dgar) P(aul), State Geological Survey, Vermillion, S. Dak. *Geology.* Garrettsville, Ohio, Aug. 26, 89. A.B, Oberlin Col, 12, A.M, 14; Ph.D, Chicago, 22. Asst. prof. *geol,* Oklahoma, 19–20; acting prof. and *prof, South Dakota, 22–; state geologist, S. Dak, 26–* A.A; Asn. Petrol. Geol; Geol. Soc. Glacial and economic geology of South Dakota.

Rothrock, Dr. Henry S(hirley), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Bloomington, Ind, Sept. 17, 06. A.B, Indiana, 26; Columbia, 26; M.S, Purdue, 28; fellow, Northwestern, 28–29; fellow, Pa. State Col, 29–30, Ph.D, 31. Asst. chem, Purdue, 26–28; *research chemist, E. I. du Pont de Nemours and Co, 30–* Chem. Soc; Ind. Acad. Organic chemistry.

Rotondaro, Dr. Felice A(ngelo), 4812 Alton Place, N. W, Washington, D. C. *Chemistry.* Policastrello, Italy, Jan. 24, 97. B.S, Pittsburgh, 22, Ph.D, 32. Chemist, Zemmer Co, Pittsburgh, 26–35; from asst. chemist to *chemist, food and drug admin, Fed. Security Agency, 35–* Asst, Pittsburgh, 26–32. A.A; Chem. Soc; Pa. Acad. Pharmaceuticals.

Rotunno, Prof. N(oreda) A(nthony), Syracuse University, Syracuse, N. Y. *Horticulture.* Fondi, Italy, June 13, 98. B.S.A, Syracuse, 21, M.S, 23; M.L.A, Harvard, 37. Asst. prof. hort, Syracuse, 21–34, *prof. landscape archit, Syracuse, 37–* Landscape design and architecture; ornamental horticulture; effect of the size of seed on the resultant plant.

Rouault, Dr. George (Francis), 1748 LaPorte Ave, Whiting, Ind. *Organic chemistry.* Jersey City, N. J, Nov. 18, 17. B.S, Pa. State Col, 38; Allied Chem. and Dye Corp. fellow, Minnesota, 41–42, Ph.D, 42. Teaching asst. chem, Minnesota, 38–41; *chemist, Standard Oil Co. Ind, 42–* Chem. Soc. Synthesis of poly-alkyl phenols; synthesis of long chain compounds containing isopentane units.

Roudabush, Dr. Robert L(ee), 709 N. Landing Road, Rochester, N. Y. *Zoology.* Mt. Carmel, Pa, March 20, 09. A.B, Lebanon Valley Col, 31; M.S, Iowa State Col, 32, Ph.D, 36. Instr. zool, Iowa State Col, 34–38; *head microscope slide dept, Ward's Nat. Science Estab, 38–; instr. parasitol, sch. med. and dentistry, Rochester, 43–* Soc. Parasitol; Micros. Soc. Parasitology; protozoology; regeneration; histological technique.

Rouiller, Dr. Cha(rle)s A(ugust), Edgewood Arsenal, Edgewood, Md. *Chemistry.* Paraje, N. Mex, June 10, 83. A.B, Stanford, 03; Ph.D, Hopkins, 06. Fellow, Rockefeller Inst, 06–07; asst. chem, Hopkins, 07–14; asst. and assoc. pharmacol, 14–18; chemist, Hynson, Westcott and Dunning, 18–20; assoc. pharmacol, Hopkins, 20–29; *chemist, information div, Edgewood Arsenal, 29–* Chem. Soc. Chemistry of the post-pituitary hormones and of insulin.

Rouleau, Prof. E(rnest), 4386 Orleans St, Montreal, Que, Can. *Systematic botany.* Montreal, Que, Aug. 21, 15. M.Sc, Montreal, 42. *Asst. prof. syst. bot, Montreal, and curator univ. herbarium.* The genus Populus of North America.

Roulton, John A(lbert), Ebasco Services, Inc, 2 Rector St, New York, N. Y. *Mechanical engineering.* New York, N. Y, May 12, 96. Cooper Union, 20. Asst. to chief engineer, Robins Conveying Belt Co, New York, 15–21; asst. chief engineer, W. J. Rainey, Inc, New York, 22–24; res. engineer, Rainey-Wood Coke Co, Pa, 24–30; research engineer, Atlantic Ref. Co, Phila, 30–33; consulting engineer, 33–35; project engineer, Phoenix Eng. Corp, New York, 36–38; power engineer, Gen. Aniline and Film Corp, 39–42; *mech. engineer, Ebasco Services, Inc, 43–* Mech. Eng; Asn. Power Eng; Chem. Soc; Math. Soc; Math. Asn; Franklin Inst; Pa. Acad; Eng. Club Phila. Fuel and power surveys.

Round, Dr. Eda May, 94 Angell St, Providence, R. I. *Paleobotany.* Providence, R. I, March 4, 71. Ph.B, 97, A.M, 99, Ph.D, 20. Critic teacher biol, Tech. High Sch, Providence; *retired.* Carboniferous paleobotany; fossil plants of Rhode Island.

Round, Dr. Lester A(ngell), Rhode Island State Department of Health, Providence, R. I. *Bacteriology.* Foster, R. I, Nov. 5, 88. A.B, Brown, 10, A.M, 11, Ph.D, 14; Harvard, 13–14, 20–21. Asst. bacteriologist and biologist, R. I. Commissioners Shell Fisheries, 11–14, sanit. inspector, 12–14; asst. bacteriologist, Health Dept, Providence, 12–14; bacteriologist, bur. chem, U. S. Dept. Agr, 14–18; pathologist, State Board Health, R. I, 18–29; pathologist and sec'y, R. I. Pub. Health Cmn, 29–35; director pub. health, R. I, 29–35, 39–41; chief div. labs, State Dept. Health, R. I, 35–36; asst. prof. bacter, R. I. Col. Pharmacy and Allied Sciences, 28–40. Sec'y, State Board Med. Registration, R. I, 29–35; state registrar vital statistics, R. I. A.A; Soc. Bact; fel. Pub. Health Asn; hon. mem. Nat. Asn. Fisheries Commissioners; Mass. Pub. Health Asn; hon. mem. Providence Med. Soc. Biology; shellfish; food and industrial bacteriology; sanitary and pathogenic bacteriology; serology; vital statistics.

Roundy, Dr. Z(ola) D(oyle), 17 McIntosh Ave, Clarendon Hills, Ill. *Dairy industry.* Escalante, Utah, June 22, 01. B.S, Utah State Col, 31, M.S, 33; Ph.D, Wisconsin, 39. Dairy chemist, Wisconsin, 36; *chemist, Armour and Co, 37–* Dairy products.

Rounsefell, Dr. George A(rmytage), U. S. Department of the Interior, 42 De Wolfe St, Cambridge, Mass. *Fisheries.* Ketchikan, Alaska, Feb. 11, 05. A.B, Stanford, 26, Ph.D, 31; M.S, Washington (Seattle), 29. Sci. asst, Div. Fish and Game, Calif, 24–25; in charge herring investigations, U. S. Bur. Fisheries, 25–34, in charge investigations sockeye salmon, Fraser River, 34–38, *in charge studies of groundfish abundance, North Atlantic, fish and wildlife service, U. S. Dept. Interior, 38–, in charge Atlantic coast salmon investigations, 42–* Lecturer, Washington (Seattle), 30–38. Fisheries Soc; Atlantic Fisheries Biol. (pres, 41). Age, rate of growth, mortality, racial characteristics, spawning, fluctuations in abundance, migration and segregation into races of the Pacific herring; salmon of Puget Sound and the Fraser River; geographic and bathymetric distribution and abundance of North Atlantic marine fishes; restoration methods for Atlantic salmon; transplantation of Pacific salmons.

Rous, Dr. (Francis) Peyton, Rockefeller Institute, New York, N. Y. **3*Medicine.* Baltimore, Md, Oct. 5, 79. A.B, Hopkins, 00, M.D, 05; hon. D.Sc, Cambridge, 38, Michigan. Res. house officer, Hopkins Hosp, 05–06; instr. path, Michigan, 06–08; asst. and assoc, *Rockefeller Inst,* 09–12, assoc. mem. *path. and bacter,* 12–20, *mem, 20–* Linacre lecturer, Cambridge, 29; hon. fellow, Trinity Hall, Cambridge, 41. Co-editor, 'Jour. Exp. Med.' V. chairman div. med, Nat. Research Council, 18–19, exec. cmt, 19–26; mem. board sci. advisers, Jane Coffin Childs Mem. Fund for Med. Research. John Scott medal and award, Phila, 27; Walker prize, Royal Col. Surgeons, England, 41. Nat. Acad; A.A; Am. Physicians; Soc. Exp. Biol. (pres, 30–32); Soc. Exp. Path. (pres, 32); Asn. Path. and Bact; Philos. Soc; Asn. Cancer Research; Harvey Soc. (pres, 28); assoc. fel. N. Y. Acad. Med; N. Y. Path. Soc; hon. mem. Path. Soc. Gt. Britain and Ireland; for. mem. Royal Soc; hon. fel. Royal Soc. Med; cor. mem. Acad. Med. Paris; Royal Acad. Sci. Denmark. Cancer; viruses; physiology and pathology of the liver, biliary system, blood and blood-vessels.

Rouse, Prof. Arthur G, 221 N. Grand, St. Louis, Mo. *Atomic physics.* New Hampton, Iowa, March 9, 11. A.B, Cornell, 32; M.S, Iowa, 35, Ph.D, 37. Instr. *physics, St. Louis,* 37–42, *asst. prof, 42–* A.A. Positive ion scattering.

Rouse, Dr. (Benjamin) Irving, Yale University, New Haven, Conn. *Anthropology.* Rochester, N. Y, Aug. 29, 13. B.S, Yale, 34, Ph.D, 38. Asst. *anthrop, Peabody museum, Yale,* 30–38, *asst. curator, 38–,* instr. *anthrop, grad. sch,* 39–43, *asst. prof, 43–* Anthrop. Asn; Soc. Archeol; East. States Archeol. Federation (director research, 41–43). Archeology and ethnology of the West Indies; archeology of Connecticut.

Rouse, Dr. G(lenn) F(rancis), Box 12, R.F.D. 1, Long Branch, N. J. *Physics.* Milan, Ill, July 20, 95. A.B, Cornell Col. (Iowa), 20; Ph.D, Wisconsin, 25. Instr. physics, Lehigh, 25–27; asst. prof, American Univ, 27–32, assoc. prof, 32–41; assoc. physicist, radar lab, *Sig. Corps, U. S. War Dept,* 41–42, *senior physicist, sig. lab, Camp Evans, 42–* Summers, research assoc, Bur. Standards, 29, asst. physicist, 30. Physical Soc. Radiation; instruments.

Rouse, Prof. Hunter, 701 N. Templin Road, Iowa City, Iowa. *Mechanics.* Toledo, Ohio, March 29, 06. B.S, Mass. Inst. Tech, 29, traveling fellow, 29–31, M.S, 32; D.Ing, Karlsruhe Tech. Hochschule, Germany, 32. Asst. hydraul, Mass. Inst. Tech, 31–33; instr. civil eng, Columbia, 33–36; asst. prof. *fluid mech,* Calif. Inst. Tech, 36–39; *prof, Iowa, 39–; assoc. director in charge, Iowa Inst. Hydraul. Research, 42–* Assoc. hydraul. engineer, soil conservation service, U. S. Dept. Agr, 36–39. Summers, prof, Colo. State Col, 40–41. Norman medal, Am. Soc. Civil Engineers, 38. Civil Eng. Fluid turbulence and resistance; sediment transportation; wave motion.

Rouse, Prof. J(ames) E(dward), Ft. Hays Kansas State College, Hays, Kans. *Agriculture.* La Belle, Mo, Jan. 12, 83. B.S. (Educ), Mo. State Teachers Col, 14; B.S. (Agr), Kans. State Col, 16; M.S, Wisconsin, 17. Prof. animal husbandry, Mo. State Teachers Col, Kirksville, 12–15; asst. exp. breeding, Wisconsin, 16–17; *prof. agr, Ft. Hays Kans. State Col, 17–* A.A; Genetic Asn; Kans. Acad. Genetics; poultry science; animal production.

Rouse, Dr. John T(homas), Magnolia Petroleum Co, Newton, Kans. *Geology.* Covington, Ky, Oct. 6, 06. A.B, Cincinnati, 29, Baldwin fellow, 29–30, A.M, 30; Class of 1883 fellow, Princeton, 31–32, Ph.D, 32. Asst. geol, Princeton, 30–31; instr, Hamilton Col, 32–36; Ohio State, 36–38; *geologist, Magnolia Petrol. Co, 38–* Princeton research party, Mont. and Wyo, 30–35. A.A; Miner. Soc; Geophys. Union; Geol. Soc; Asn. Petrol. Geol; Yellowstone-Bighorn Research Asn. (treas, 35–38). Physiography; volcanology; igneous intrusions of Absaroka Mountains; volcanic rocks and related structures in the Absaroka Mountains and Yellowstone National Park; petroleum geology.

Rouse, Prof. Louis J(oseph), 1137 Michigan Ave, Ann Arbor, Mich. *Mathematics.* Blue Anchor, N. J, Aug. 21, 85. A.B, Princeton, 08; A.M, Pennsylvania, 14; Ph.D, Michigan, 18. Instr. *math, Michigan,* 13–20, *asst. prof, 20–* Math. Asn. Linear dependence in linear integral equations; college algebra.

Rouse, Prof. T(heodore) A(lton), 623 W. State St, Milwaukee, Wis. *Physics.* Iowa, July 17, 04. A.B, Cornell Col. (Iowa), 26; A.M, Wisconsin, 28, Ph.D, 31. Asst. physics, *Wisconsin,* 26–31, instr. physics and math, *exten. div,* 31–35, *asst. prof. physics, 35–* Physical Soc. X-ray absorption edges.

Rouse, Dr. Warren, Brooklyn College, Brooklyn, N. Y. *Plant physiology.* Malden, Ill, Jan. 4, 13. B.S, Ill. Wesleyan, 36; A.M, Wisconsin, 38, Ph.D, 41. Asst. virus diseases, Wisconsin, 37–40, grad. teaching asst. plant physiol, 40–41; *tutor physiol, Brooklyn Col, 41–* Effect of certain chemicals on tobacco mosaic virus.

Roush, G(ar) A, U. S. Bureau of Mines, College Park, Md. *Metallurgy.* Harrisburg, Ind, Oct. 21, 83. A.B, Indiana, 05; M.S, Wisconsin, 10. Chemist, indust. companies, 05–09; research chemist, Exp. Sta, West Virginia, 11–12; asst. prof. metal, Lehigh, 12–20, assoc. prof, 20–26; acting prof, Mont. Sch. Mines, 26–27; min. and metal. expert, Museum of the

Peaceful Arts, New York, 27–30; ed, 'Mineral Indust,' 13–43; *mineral technologist, east. regional office, U. S. Bur. Mines, 43–* Toulmin medal, Soc. Am. Mil. Engineers, 38. Capt, Ordnance Dept, 18–19, major, Staff Specialist Reserve, 24– Min. and Metal. Eng. (ed, 'Bul,' 17); Electrochem. Soc. (asst. sec'y, 12–16, in charge ed. work, 'Trans,' 12–16); Soc. Mil. Eng. Strategic mineral supplies; mineral economics.

Rousseau, Prof. Jacques, Montreal Botanical Garden, Montreal, Que, Can. *Botany.* St. Lambert, Que, Oct. 5, 05. B.A, Montreal, 26, licencié ès-sci, 28, Ph.D, 34. *Asst. prof. bot, Montreal, 25–* Bot. expeds, E. Que. and N. S, Mex. and N. Mex. Asn. can-française pour l'avance. des Sci. (sec'y, 30–); Soc. Conservation Que. (chairman, 41–). Systematic botany; phytogeography; general botany; history of Canadian sciences.

Routh, Dr. J(oseph) I, State University of Iowa, Iowa City, Iowa. *Biochemistry.* Logansport, Ind, May 8, 10. B.S, Purdue, 33, M.S, 34; Ph.D, Michigan, 37. Asst. chem, Purdue, 34; *biol. chem,* Michigan, 34–37; instr, *Iowa,* 37–42, *asst. prof, 42–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Structure, composition and nutritional properties of the keratins; chemistry of biologically important sulfur compounds; nutritional requirements of the hamster.

Routien, Dr. John B(roderick), University of Missouri, Columbia, Mo. *Mycology.* Mt. Vernon, Ind, Jan. 23, 13. A.B, DePauw, 34; A.M, Northwestern, 36; Ph.D, Mich. State Col, 40. *Instr. bot, Missouri, 39–* Mycol. Soc; Bot. Soc; Ind. Acad. Agaricaceae.

Rove, Dr. Olaf N(orberg), R.F.D. 1, Annondale Road, Falls Church, Va. *Economic geology.* Milwaukee, Wis, Feb. 11, 98. B.S, Wisconsin, 22, M.S, 25; Am-Scandinavian Foundation fellow, Oslo, 23–24; Ph.D, Mass. Inst. Tech, 39. Asst. geologist, Phelps Dodge Corp, Ariz, 26–29; res. geologist, Empire Zinc Co, New Mex, 29–31; assoc. geologist, N. J. Zinc. Co, 31–35; geologist, U. S. Smelting, Ref. and Mining Co, Mass, 40–42; *chief manganese-chrome ore sect, ferroalloys branch, War Production Board, 42–* Summers, field geologist, Wis. Geol. Surv, 21, 26; Tenn. Geol. Surv, 25; assoc. geologist, Geol. Surv. Newfoundland, 39. Min. and Metal. Eng; Soc. Econ. Geol; Geol. Soc. Ore localization and structural control of ore deposits.

Rovenstine, Prof. E(mery) A(ndrew), 477 First Ave, New York, N. Y. *Medicine.* Atwood, Ind, July 20, 95. A.B, Wabash Col, 17; M.D, Indiana, 28. Asst. prof. anesthesia, Wisconsin, 33–34; surg, *col. med, N. Y. Univ,* 35–37, *prof. anesthesia, 37–, col. dentistry, 38–; director div. anesthesia, Bellevue Hosp, 35–* Guest director anesthetics, Radcliffe Infirmary, Oxford, England, 38; guest prof, Univ. Rosario (Argentine), 39. Assoc. ed, 'Anesthesiol,' 39– Mem. Am. Board Anesthesiology, 38– A.A; Soc. Exp. Biol; fel. Am. Med. Asn; Soc. Regional Anesthesia (pres, 36); fel. Soc. Anesthetists (pres, 43); fel. N. Y. Acad. Med; fel. Int. Anesthesia Research Soc. Anesthesia; clinical inhalation techniques and agents; therapeutic and diagnostic nerve blocking; regional anesthesia methods; inhalation therapy; surgical statistics.

Row, Charles H(erbert), 830 Milam Bldg, San Antonio, Texas. *Geology.* Clay City, Ind. A.B, Oklahoma, 19. Div. geologist, Mex. Eagle Oil Co, 20–21; geologist, *Sun Oil Co,* 21–22, *div. geologist, San Antonio dist, 22–* Asn. Petrol. Geol. (business cmt, 29–31, assoc. ed, 33–36, sec'y-treas, 36[2]); San Antonio Geol. Soc. (pres, 29, exec. cmt, 30). An experiment with a drop auger.

Rowan, Col. Hugh W(illiamson), Chemical Warfare Service, U. S. War Department, Washington, D. C. *Organic chemistry.* Newport, R. I, March 16, 94. Ph.B, Yale, 15; Harvard, 15–17. Research and plant chemist, Tide Water Oil Co, Bayonne, N. J, 19–20; from lieut. to *col, Chem. Warfare Service, U. S. Army, 20–* C.W.S, 17–19, capt. Uses and manufacture of chemical warfare agents.

Rowe, Dr. E(ugene) C(harles), 1327 White St, Ann Arbor, Mich. *Psychology.* Monroe, Mich, March 8, 70. A.B, Olivet Col. (Mich), 97; Ph.D, Clark, 08; Hamburg, Vienna and Tübingen, 22–24. Prof. psychol. and educ. and head dept. psychol, Cent. Nor. Col, Mich, 02–37; *retired.* Clin. psychologist, Police Dept, New York, 15–16. Major and chief psychol. examiner and clin. psychologist, U.S.A, 17–19. Psychol. Asn; Eugenics Research Asn. Mental testing and hygiene; voluntary movement; hygiene of sleep.

Rowe, Dr. Herbert W(illiam), 5824 Cabanne Ave, St. Louis, Mo. *Chemistry.* Lagro, Ind, July 1, 15. A.B, Wabash Col, 36; Purdue, 36; M.S, Lawrence Col, 38, Ph.D, 40. Tech. asst, Nekoosa-Edwards Paper Co, 40–42; *chem. engineer, St. Louis Ordnance Plant, 42–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Cellulose chemistry; investigation of antitarnish paper; staining of cellulosic fibers by iodine stains.

Rowe, Prof. J(esse) P(erry), University of Montana, Missoula, Mont. *Geology.* Salem Centre, Mich, May 5, 71. B.S, Nebraska, 97, fellow, 97–98, A.M, 03, Ph.D, 06, hon. Sc.D, 35. Asst. geol, Nebraska, 94–98; asst. prin, high sch, Mont, 98–99, prin, 99–00; instr. physics and geol, *Montana,* 00–01, prof, 01–08, *geol,* 08–42, *emer. prof, 42–,* director summer session, 16–18, 20–42. Asst, U. S. Geol. Surv, 06, 07; acting prof, Michigan, 21–22; visiting prof, Princeton, 28; prof, Floating Univ. Cruise, 28–29. Summers, acting prof, Michigan, 23, 29; prof, Columbia, 22, 25, 26; Cornell, 27, 28; Southern California, 30; California, 36; North Carolina, 42– Mont. State Text Book Cmn. War Camp Community Service, 18–19. Fel. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Mont. Acad. Coal; clay; copper; lead; gypsum; coals and lignites of the Northwest; petroleum; chromite and molybdenum deposits of Montana.

Rowe, L(ewis) W(illiam), c/o Parke, Davis and Co, Detroit, Mich. *Pharmacology.* Toledo, Ohio, Feb. 2, 91. B.S, Purdue, 13, M.S, 17. *Research asst. and research pharmacologist, Parke, Davis and Co, 13–* Summers, asst, chem. lab, Sun Oil Co, 11, 12. Ebert prize, Pharmaceut. Asn, 27. A.A; Pharmaceut. Asn. (chairman, Detroit sect, 25–27, chairman, sci. sect, 28, sec'y, 29–34); Chem. Soc. (chairman, Detroit sect, 27). Bioassay methods; hormones of the posterior pituitary; estrogenic and gonadotropic hormones.

Rowe, P(ercy) B(urton), U. S. Forest Service, Giannini Hall, Berkeley, Calif. *Forestry.* Henry Co, Ill, March 7, 00. B.S, Idaho, 28; scholar, Yale, 29–30, M.S, 30. Agent, white pine blister rust control, bur. plant indust, U. S. Dept. Agr, 24–28; junior forester, *U. S. Forest Service,* 28–31, asst. ecologist, *Calif. Forest and Range Exp. Sta,* 31–35, assoc. silvicultурist, 36–42, *silviculturist, 43–* Soc. Foresters; Geophys. Union (sect. meteorol. and hydrol). Forest influences; watershed management; watercycle-soil relations; hydrology; soil erosion; forest ecology.

Rowe, Prof. T(homas) D(udley), Medical College of Virginia, Richmond, Va. *Pharmacy, Plant chemistry.* Missoula, Mont, June 25, 10. B.S, Montana, 32, M.S, 33; Ph.D, Wisconsin, 41. Instr. *pharmacy,* Nebraska, 34–35; *Med. Col. of Va,* 35–37, asst. prof, 37–40, *assoc. prof, 41–,* acting chairman *dept,* 41–43, *chairman, 43–* Phytochemical and pharmacological investigation of fresh Aloe leaves.

Rowe, Dean Walter Ellsworth, University of South Carolina, Columbia, S. C. *Civil engineering.* Bristol, Ind, Sept. 18, 75. Oregon; B.S, Nebraska, 96; Chicago. Prof. math, Trinity Hall Sch, Ky, 98; supt, prof. and prin, schs, Nebr. and Mont, 97–04; prof. math. and physics, New Mexico, 04–05; civil eng, Okla. Agr. and Mech. Col, 05–06; head prof. and dean col. civil eng, Kentucky, 06–17; acting dean, South Carolina, 17–18; major prof, Drexel Inst, Phila, 18–20; engineer and manager, John E. Hand and Sons Co, La. and Md, 20–22; *dean sch. eng, South Carolina, 22–* Pres, Rowe, Ball and Suenwalt, Inc, Columbia, S. C, 27– Mem, State Archit. Exam. Board, S. C; board engineers for rehabilitation street car service, Columbia; chief state surv. road material, 27– With pub. utility and commercial companies. Civil Eng; Asn. Eng; Eng. Educ; Ky. Civil and Sanit. Eng. (pres, 16). Reinforced concrete; structural steel.

Rowe, William A, Hotel Stoddard, LaCrosse, Wis. *Engineering.* Newark, N. J, Sept. 14, 81. M.E, Cornell, 03. Chief engineer, Am. Blower Corp, 19–30, consulting engineer, 30–33; Aerovent Fan Co, Ohio, 35; develop. engineer, *Trane Co,* 36–43, *director research, 36–* Soc. Heat. and Vent. Eng. (councilor, 29–31; mem. research cmt, 29–31; code cmts, 27–32); Min. and Metal. Eng. (mine ventilation code, 26); Mining Cong. (mine ventilation code, 26). Fans; blowers; unit heaters; coolers; air conditioners; ventilating and air conditioning apparatus; airfoil fans; heat exchangers.

Rowe, William H(obson), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Champion, Mich, Sept. 18, 96. A.B, Michigan, 22; M.S, Kans. State Col, 26; Harvard, 31–32. Instr. accounting and math, Kans. State Col, 22–27; asst. prof. finance and econ, Akron, 27–29; agr. economist, bur. agr. econ, *U. S. Dept. Agr,* 29–35, senior agr. economist, 35–42, *prin. agr. economist and head program div, Fed.*

Crop Ins. Corp, 42– Econ. Asn; Farm Econ. Asn. Agricultural finance and insurance.

Rowell, Prof. Edward Z, 1061 Miller Ave, Berkeley, Calif. *Psychology.* Silver Lake, Minn, Sept. 3, 85. Ph.B, Chicago, 15, fellow, 18–20, Ph.D, 22. Asst. prof. philos, Carleton Col, 20–21; assoc. *pub. speaking, California,* 21–23, *assoc. prof, 23–* A.A. Psychology in relation to speech phenomena.

Rowell, Prof. Lyman S(mith), 38 Cliff St, Burlington, Vt. *Zoology.* Colebrook, N. H, May 8, 04. B.S, Vermont, 25, M.S, 30. Instr. *zool, Vermont,* 25–30, *asst. prof, 31–* Acting director, Robert Hull Fleming Museum, Vermont, 34–35. Vt. Wildlife Federation (sec'y, 38–42). Embryology; regeneration in Lumbricus.

Rowland, Prof. Ben W(right), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Physical chemistry.* Boulder, Colo, Dec. 24, 93. A.B, Colorado, 17; Ph.D, Wisconsin, 25. Instr. chem, Colorado, 18; junior chemist, U. S. Bur. Mines, 19; instr. chem, North Dakota, 19–21; asst. instr, Wisconsin, 22–25; research chemist, Goodyear Tire and Rubber Co, 26–27, director colloidal research, 28–30; from research assoc. to *prof. colloid chem, Inst. Paper Chem, Lawrence Col, 30–* Chem. Soc. Colloidal chemistry of proteins; technical and colloidal research on rubber, pulp, paper and starch.

Rowland, Dr. Elbert S(ands), Timken Roller Bearing Co, Canton, Ohio. *Metallurgy.* Olney, Ill, Dec. 12, 08. B.S.E, Wayne, 30; M.S, Michigan, 32, Ph.D, 34. Instr. mineral tech, Pa. State Col, 33–35; *research metallurgist, Timken Roller Bearing Co, 35–* Soc. Metals; Min. and Metal. Eng; British Iron and Steel Inst. Equilibrium diagrams of non-ferrous metals; development work on roller bearings.

Rowland, Dr. Floyd E(lba), 108 Gotanda Gochome, Shinagawaku, Tokyo, Japan. *Chemistry.* Hartwick, Iowa, Dec. 18, 85. B.S, Oregon State Col, 07; A.B, Illinois, 14, A.M, 15, Ph.D, 18. Instr. chem, Oregon State Col, 10–13, asst. prof, 18, head chem. eng, 20–30; asst. chem, Illinois, 15–18; Kansas, 19–20; guest, Mass. Inst. Tech, 30–31; private research fish waste and cod liver oil, 31–33; pres, Rowland Marine Products Co, 33–36; sci. director, Swan Finch Oil Corp, N. Y, 36; *sci. director and engineer, Tsukimoto Vitamin Labs. and Factory, Tokyo, 36–* Lieut, C.W.S, 18. Chem. Soc; Electrochem. Soc. Effect of temperature, pressure and steam on hydrocarbon vapors; war gases; peppermint and cedar oils; crystallization of menthol; chemical resources of Oregon; fish wastes and by-products; the vitamin content of fish liver oils.

Rowland, Dr. George P(eabody), Jr, 681 Sunsetview Drive, Akron, Ohio. *Physical chemistry.* Steubenville, Ohio, July 16, 10. B.S, Washington and Jefferson Col, 31; M.S, N. Y. Univ, 34, Ph.D, 36. Instr. chem, Washington and Jefferson Col, 36–37; microchemist, Bell Tel. Labs, 37–39; *research anal. chem. and microchemist, Firestone Tire and Rubber Co, 39–* Chem. Soc. Photoelectric colorimetry.

Rowland, Dr. P(eter) W(hitman), University of Mississippi, University, Miss. *Pharmacology.* Oakland, Miss, Feb. 25, 61. M.D, Memphis Hosp. Med. Col, 82. *Prof. pharmacol, med. sch, Mississippi, 03–, field director, Rowland med. library.* Fel. Col. Physicians; fel. Am. Med. Asn; Mid South Post Grad. Med. Assembly (past pres); Miss. State Med. Asn. (past pres). Chemistry of digitalis as applied to the heart; treatment of lobar pneumonia by the nasal catheter method.

Rowland, Dr. Richards A(twell), 107 Natural Resources Bldg, Urbana, Ill. *Geology, Petrography.* Richmond, Va, Dec. 20, 10. Geol.E, Cincinnati, 34; Belgian Am. Educational Foundation advanced fellow, Europe, 37–38; Ph.D, Cornell, 38. Computer field triangulation, U. S. Coast and Geod. Surv, 34–35; *asst. petrographer, Ill. State Geol. Surv, 37–; lieut, Ordnance Dept, U. S. Army, Edgewood Arsenal.* Miner. Soc; Geophys. Union. Petrofabrics of clastic quartz; application of petrographic methods in study of clays; differential thermal analysis of clays.

Rowland, Prof. S(idney) A(rchie), 45 Oak Hill, Delaware, Ohio. *Mathematics.* Camden, Ark, Sept. 23, 87. A.B, Ouachita Col, 07; scholar, Illinois, 09–10, fellow, 10–11; Chicago, 14–15. Instr, Arkansas, 07–09; asst. *math,* Illinois, 11–14; instr, Union (N. Y), 15–16, asst. prof, 16–21, assoc. prof, 21–24; Chicago, 24–26; *prof. and head dept, Ohio Wesleyan, 26–; U. S. Army, 42–* Mayor, Delaware, Ohio, 35–37. F.A, 17–19, capt; major, F.A.O.R.C. A.A; Math. Soc; Math. Asn. Differential equations.

Rowles, Prof. Emmett, Ohio University, Athens, Ohio. *Physiology.* New Matamoras, Ohio, Nov. 9, 99. A.B, Ohio (Athens), 20; A.M, Minnesota, 22, fellow, 22–23. Teaching fellow *biol,* Minnesota, 20–22; asst. prof, *Ohio (Athens),* 23–28, *assoc. prof, 28–* Summers, instr, Minnesota, 20; asst, Marine Biol. Lab, Washington (Seattle), 21–24. Ohio Acad. Dedifferentiation in obelia; relation of dedifferentiation, regeneration and injury to oxygen consumption of obelia; oxygen consumption of smooth muscle; stimuli and basal metabolism, blood pressure and galvanic reflex in man.

Rowley, Prof. F(rank) B(enjamin), 4801 E. Lake Harriet Blvd, Minneapolis, Minn. *Engineering.* Evansville, Wis, April 3, 82. B.S, Wisconsin, 05, M.E, 06. Engineer, Racine Gas Light Co, 06–07; instr. drawing and descriptive geometry, col. eng, *Minnesota,* 07–14, asst. prof, 14–16, exp. eng, 16–19, assoc. prof. and acting head dept, 19–20, *prof. mech. eng, 20–, head dept, 41–, director* exp. eng. labs, 30–37, *eng. exp. sta,* 37– Consulting engineer; engineer, Securities Cmn, Minn. Capt, Junior Plattsburg Training Camp, 18. A.A; Heat. and Vent. Eng. (pres, Minn. sect, 22, nat. councilor, 27–30, 2nd v. pres, 30, v. pres, 31, pres, 32); Mech. Eng. (pres, Minn. sect, 23); Eng. Educ. (pres, Minn. sect, 23); Minn. Federation Archit. and Eng. Societies. Heating and ventilation; surface coefficients of heat transmission; thermal conductivity of building materials; air filters; condensation within walls; summer cooling and air conditioning.

Rowley, Prof. H(oward) H, Lawrence College, Appleton, Wis. *Physical chemistry.* Medina, N. Y, Nov. 27, 05. B.S, Northwestern, 27, fellow, 27–28, M.S, 28; German-Am. exchange fellow, Frankfurt, 30–31, Alexander von Humboldt fellow, 31–32, Ph.D, 32. Research chemist, Dow Chem. Co, 28–30; instr. physical chem, Northwestern, 34–37; assoc, Iowa, 37–42; *assoc. prof. physical and anal. chem, Lawrence Col, 42–* Manager, Merck and Co. exhib, A Century of Progress Expos, Chicago, 34. Chem. Soc. Non-aqueous solvates; heat exchange between gases and metals; adsorption of mixed organic vapors on charcoal; reaction kinetics of mono- and di-saccharides in solution.

Rowley, Prof. Jean B(rintnall), Vassar College, Poughkeepsie, N. Y. *Psychology.* Hartford, Conn, Dec. 24, 02. A.B, Vassar Col, 25; A.M, Columbia, 27, Ph.D, 34. Instr. *psychol, Vassar Col, 27–34, asst. prof, 35–* A.A; Psychol. Asn. Animal learning; discrimination.

Rowntree, Prof. Jennie (Irene), University of Washington, Seattle, Wash. *Nutrition.* Rochester, Wis, June 9, 90. Milwaukee-Downer Col, 10; B.S, Wisconsin, 18; M.S, Chicago, 25; Ph.D, Iowa, 29. Teacher, high sch, Wis, 11–16; instr. nutrition and home management, Toronto, 18–19; asst. prof. *home econ,* Milwaukee-Downer Col, 20–24; *Washington (Seattle),* 25–30, assoc. prof, 30–32, *prof, 32–* Mem. nutrition cmt, White House Conf. Child Health and Protection, 30. Inst. Nutrition; Home Econ. Asn; Diet Asn. Child welfare; vitamin A absorption in young children; utilization of vitamin A by young children; economical aspects of nutrition; diet therapy; child guidance; food, nutrition and governmental policies.

Rowntree, Dr. L(eonard) G(eorge), Philadelphia Institute for Medical Research, Philadelphia, Pa. ****Medicine.* London, Ont, Can, April 10, 83. M.D, West. Med. Col. (Can), 05; D.Sc, Western Ontario, 16. Res. physician, Victoria Hosp, London, Ont, 05–06; asst. med, Hopkins, 07–08, instr. pharmacol, 08–10, assoc. exp. therapeut, 10–13, assoc. prof, 13–14, med, 14–16; prof. med. and chief dept, Minnesota, 16–20, Mayo Foundation, 20–32; senior med. consultant and director clin. research, Mayo Clinic; *director, Phila. Inst. Med. Research, 32–; chief med. div, Nat. Headquarters Selective Service System.* Col, M.R.C. A.A; Am. Med. Asn; Am. Physicians; Physiol. Soc; Soc. Pharmacol; Soc. Biol. Chem; Soc. Exp. Path; Soc. Clin. Invest. Clinical medicine; water balance; water intoxication; blood volume; renal and hepatic functional tests; absorption from pleural and peritoneal cavities; vividiffusion; plasmaphaeresis; radium; antimonials in trypanosomiasis; subcutaneous purgatives; Addison's disease; functions of the thymus and pineal glands; experimental tumors.

Rowse, Lieut. Commander R(oger) C(ushing), U. S. Coast and Geodetic Survey, Washington, D. C. *Civil engineering.* St. Louis, Mo, Oct. 30, 99. A.B, Harvard, 20; B.S, Washington (St. Louis), 23; Wisconsin, 22. Deck officer, *U. S. Coast and Geod. Surv,* 23–24, aid, 24–25, junior hydrog. and geod. engineer, 25–30, *hydrog. and geod. engineer, 30–*

Am. Geog. Soc; Soc. Mil. Eng. Hydrographic surveys; geodesy.

Roxas, Dr. Hilario A(tanacio), Mariquina, Rizal, P. I. *Marine zoology.* Mariquina, Rizal, P. I, Oct. 29, 96. B.S, Philippines, 22, fellow to Amer, 23–26; Ph.D, Chicago, 26. Assoc. prof. zool, Philippines, 28–31; chief and insular game warden, fish and game admin, P. I, 32–38, chief div. fisheries, dept. agr. and commerce, 38–39; *prof. zool. and head dept, Philippines, 40–* Guggenheim Mem. Foundation fellow, Europe, 30–31. Mem, Nat. Research Council of the Philippines, 32– Soc. Zool. Systematics of Philippine marine invertebrates; marine protozoa; systematics of Philippine fishes.

Roxas, Dr. Manuel L, National Development Co, Manila, P. I. *Agricultural chemistry.* Lipa, Batangas, P. I, July 1, 88. A.B, Ateneo de Manila, 05; B.S. (Agr), Philippines, 11, M.S, 13; Ph.D, Wisconsin, 16. Instr. chem, col. agr, Philippines, 14–19, asst. prof, 19–24, prof, 24–27; asst. director research, Philippine Sugar Asn, 28–29; director, Bur. Plant Indust, P. I, 28–34; under-sec'y agr. and commerce and commissioner of research, 34–36; *tech. asst. to pres. of P. I, 36–; director, Nat. Food Products Corp, 37–; Nat. Products Exchange, 37–; Nat. Power Corp, 37–* Mem, Nat. Econ. Council; chairman, Nat. Research Council, P. I, 34–37; director, Nat. Develop. Co. P. I, 36– Int. Asn. Sugar Technol; Philippine Sci. Soc; Philippine Sugar Technol. Asn; Tech. Agr. Asn. Industrial chemistry; biochemistry of sugar-cane nutrition; Filipino diet.

Roy, Arthur J(ay), 369 Morris St, Albany, N. Y. *Astronomy.* Clyde, N. Y, Nov. 7, 69. C.E, Union (N. Y), 93, A.M, 97. First asst, Dudley Observatory, Union (N. Y), 93–36; chief astronomer, dept. meridian astron, Carnegie Institution, 07–36, research assoc, 36–39. A.A; Astron. Soc; Albany Philos. Soc. (v. pres, 21). Comets; asteroids; meridian observations of stars and their reduction; star positions and motions; cosine flexure from the reflected minus direct observations.

Roy, Dr. Chalmer J(ohn), Louisiana State University, Baton Rouge, La. *Geology.* Oronogo, Mo, April 2, 07. A.B, Missouri, 29, A.M, 30; A.M, Harvard, 33, Ph.D, 36. Asst, Missouri, 29–30; Harvard, 30–33, instr, 33–35, Austin teaching fellow, 35–36; instr. *econ. geol, Louisiana,* 36–38, *asst. prof, 38–* Soc. Explor. Geophys; Asn. Petrol. Geol. General geology; economic geology and petrography of igneous rocks.

Roy, N(ereus) H(ubert), Waugh Laboratories, 420 Lexington Ave, New York, N. Y. *Engineering.* Bonham, Texas, July 4, 95. B.S, Texas, 20; hon. B.S, Mexico, 23; M.S, Illinois, 29, C.E, 30. Field engineer, asst. chief and acting chief eng, Int. Petrol. Co, 20–24; chief engineer, Milham Corp, 25–28; asst. research prof. eng. materials, eng. exp. sta, Illinois, 28–37; *director research, Waugh Labs, Waugh Equipment Co, 37–* A.A; Mech. Eng; Inst. Physics (council applied physics); Concrete Inst. Research and development of scientific instruments and test methods; testing instruments; engineering testing service.

Roy, S(harat) K(umar), Field Museum of Natural History, Chicago, Ill. *Geology.* Shyamnagar, India, Aug. 27, 97. A.B, Illinois, 22, M.S, 24; Ph.D, Chicago, 40. Asst. paleont, N. Y. State Museum, 24–25; asst. curator *geol, Field Museum Nat. Hist,* 25–37, *curator, 37–* Geologist, Rawson-MacMillan-Field Museum Nat. Hist. Arctic exped, 27–28; leader, Capt. Marshall Field paleont. exped, Newfoundland, 28; geol. expeds, U. S, 31, 33, 35, 37, 38, 40, 41. Paleont. Soc; Soc. Research Meteorites; N. Y. Acad; fel. London Geol. Soc; fel. Royal Geog. Soc. Physical and economical geology; Paleozoic invertebrates; Arctic geology and paleontology; meteorites.

Roy, Dr. T(heodore) E(rnest), 3775 University St, Montreal, Que, Can. *Bacteriology, Immunology.* Grande Ligne, Que, Nov. 4, 04. B.A, Acadia, 25; M.B, McGill, 31. Asst. *bacter,* Royal Victoria Hosp, Montreal, 33–35; lecturer, *McGill,* 36–38, *asst. prof, 38–; capt, Med. Corps, Royal Can. Army.* Soc. Bact; Can. Pub. Health Asn. Bacterial toxins; staphylococci; the anaerobic bacteria.

Roy, Dr. W(allace) R(obert), 1115 Ridgewood Ave, Orlando, Fla. *Biochemistry.* Chicago, Ill, June 11, 06. B.S, Clemson Col, 26; M.S, Kentucky, 34; Ph.D, Minnesota, 41. Teacher, high sch, S. C, 26–27; asst. control chemist, Goodyear Tire and Rubber Co, Akron, Ohio, 27–28; asst. chemist, Exp. Sta, Kentucky, 28–35; *assoc. biochemist, bur. plant indust, U. S. Dept. Agr, 35–; capt, U. S. Army, 42–* Chem. Soc. Soil fertility; function of copper, manganese, zinc, iodine and arsenic in plant metabolism; chemical methods of analysis.

Royall, Prof. N(orman) N(orris), Jr, Anti-Submarine Warfare Department, Submarine Chaser Training Center, Miami, Fla. *Mathematics.* Whiteville, N. C, Oct. 29, 08. B.S. and M.S, J. B. Stetson, 29; A.M, Emory, 35; Ph.D, Brown, 40. Instr. *math,* Ga. Sch. Tech, 29–35; Brown, 35–37; asst. prof, The Citadel, 37–40; *assoc. prof, Winthrop Col, 40–; lieut, U. S. Naval Res.* Math. Soc; Council Teachers Math. Mathematical analysis; Laplace transforms.

Royce, Dr. H(arvey) D, The Southern Cotton Oil Co, Savannah, Ga. *Chemistry.* Ft. Atkinson, Wis, March 4, 01. B.S, Wisconsin, 23, M.S, 24, Ph.D, 26. Head dept. chem, Puerto Rico, 27; prof, Howard Col. (Ala), 28; head dept, William Jewell Col, 28; *research dept, South. Cotton Oil Co, 28–* Chem. Soc. Electrochemistry of manganese and investigation of manganese amalgam; rancidity measurements on fats and oils; gossypol.

Royce, Dr. Randall, American Can Co, Maywood, Ill. *Chemistry.* Norborne, Mo, Aug. 21, 07. A.B, Southwestern Col. (Kans), 30; A.M, Kansas, 32, Ph.D, 34. Asst. instr. chem, Kansas, 30–34; *research dept, Am. Can Co, 34–* Chem. Soc. Electrochemistry; copper and silver coulometer; electrodeposition of chromium, gold and platinum from complex organic salts.

Royce, Stephen, Box 30, Crystal Falls, Mich. *Mining engineering, Economic geology.* Cambridge, Mass, May 26, 89. A.B, Harvard, 09, B.S, 10, M.E, 11. Chief engineer, Low Moor Iron Co, Va, 11; gen. engineer, 12; chief engineer, Gogebic Range, *Pickands, Mather and Co,* 12–17, *geologist, 17–;* consulting engineer and agent in charge operations, Judson Mining Co. and Nev. Land Co, 20–27, geologist, 27–40. A.A; Min. Cong; Min. and Metal. Eng; Soc. Econ. Geol; Lake Superior Min. Inst. Detailed geological mapping of ranges in the Lake Superior region; geological examinations in Utah, Idaho, Arizona and Nevada; exploration for iron ore; mining; caving and subsidence problems; mineral land classification and valuation; magnetic surveys.

Royce, Dr. W(illia)m F(rancis), 202A Holden Green, Cambridge, Mass. *Fisheries biology.* DeBruce, N. Y, Jan. 5, 16. B.S, Cornell, 37, Ph.D, 43. *Aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 42–* Summers, aquatic biologist, State Conservation Dept, N. Y, 36–41. A.A; Fisheries Soc; Soc. Ichthyol. and Herp. Life histories of fishes; measurement and sampling techniques of fisheries.

Royer, Dr. George L(ewis), 50 Mali Drive, North Plainfield, N. J. *Chemistry.* Akron, Ohio, Jan. 28, 08. A.B, Akron, 29; Ph.D, Cornell, 32. Asst. instr. chem, Cornell, 30–32; *research chemist, Calco Chem. Div, Am. Cyanamid Co, 32–* Chem. Soc. (sec'y-treas, 38–40; chairman div. anal. and micro- chem, 41); Microchem. Soc; Inst. Chem; Optical Soc; Biol. Photog. Asn; N. Y. Micros. Soc; Metrop. Microchem. Soc. Physical chemistry; analytical chemistry; microscopy; microchemistry; spectroscopy; dyeing phenomena; photography.

Royer, M(iles) B(enjamin), U. S. Bureau of Mines, Boulder City, Nev. *Metallurgy.* Madisonburg, Pa, April 25, 02. B.S, Pa. State Col, 24; M.S, Carnegie Inst. Tech, 27. Anal. chemist, W. Va. Pulp and Paper Co. 24–26; efficiency dept, Nat. Tube Co, Ohio, 27–29; asst. metallurgist, exp. sta, Pittsburgh, *Bur. Mines,* 29–32, rare and precious metal sta, Reno, 32–38, assoc. metallurgist, 39–40, *metallurgist, Boulder City exp. sta, 41–* Ferrous and non-ferrous metallurgy; high temperature investigations on slags and metals; flotation for recovery of losses during milling of rare and precious metals; electrowinning and electrorefining of metals; manganese; antimony.

Roys, Prof. Francis W(illiam), Worcester Polytechnic Institute, Worcester, Mass. *Mechanical engineering.* Nantucket, Mass, Aug. 16, 86. B.S, Worcester Polytech, 09, M.E, 17, hon. D.Eng, 39. Instr. *mech. eng,* Worcester Polytech, 10–16; Mass. Inst. Tech, 16–17; asst. prof, *Worcester Polytech,* 17–23, *prof. and head dept, 23–,* acting pres, 39, *dean eng, 39–* Mech. Eng; Soc. Metals; Soc. Test. Mat. Applied mechanics; mechanical testing; materials of engineering construction.

Roys, Prof. H(arvey) C(urtis), University of Oklahoma, Norman, Okla. *Physics.* Grand Rapids, Mich, July 5, 86. B.S, Michigan, 10, M.S, 18. Student engineer, Bell Tel. Labs, 10; prof. *physics,* Kiangnan Provincial Col, Nanking, 11; Univ. Nanking, 11–21; asst. prof, *Oklahoma,* 21–41, *assoc. prof, 41–* Physical Soc; Asn. Physics Teachers; Okla. Acad. Fine structure and x-ray spectroscopy in the K series.

Royster, Dr. Hubert A(shley), 2318 Beechridge Road, Raleigh, N. C. *Surgery.* Raleigh, N. C, Nov. 19, 71. A.B,

Wake Forest Col, 91, Sc.D, 31; M.D, Pennsylvania, 94. Intern, Mercy Hosp, Pittsburgh, 94–95; dean and prof. gynec, sch. med, North Carolina, 02–10; surgeon in chief, St. Agnes Hosp. Surgeon, Rex Hosp; South. Ry; consulting surgeon, Seaboard Air Line; Dix Hill State Hosp. Surg. Asn; fel. Col. Surg; Am. Med. Asn. (chairman, surg. sect, 32); S. Surg. Asn. (sec'y, 16–25, pres, 26); Tri-State Med. Soc. (pres, 06); N. C. Med. Soc. (pres, 22); Raleigh Acad. Med. Appendicitis; medical morals and manners.

Royster, Dr. Lawrence T(homas), Box 1335, University Station, Charlottesville, Va. *Pediatrics.* Norfolk, Va, Aug. 18, 74. M.D, Virginia, 97. Director, King's Daughters' Clinic for Children, Norfolk; prof. pediat, Virginia, 23–42; *retired.* Mem, State Board Health, Va. A.A; Pediat. Soc; Am. Med. Asn. (past chairman, pediat. sect); Asn. Physical Anthrop; Acad. Pediat; South. Med. Asn. (past chairman, pediat. sect). Child growth and development; diseases of children; nutrition and development; body type in Negro children; size of the sella turcica in white and colored males and females between the eighth and ninth years as measured on flat x-ray films; size of sella turcica in relation to body measurements.

Royston, Dr. G(randison) D(elaney), 3720 Washington St, St. Louis, Mo. *Obstetrics, Gynecology.* Washington, Ark, March 10, 85. M.D, Washington (St. Louis), 07. From asst. prof. to *prof. clin. obstet. and gynec, sch. med, Washington (St. Louis), 07–* Mem. Am. Board Obstet. and Gynec, 30–40. Asn. Obstet, Gynec. and Abdom. Surg. (v. pres, 29, pres, 42); Am. Med. Asn; fel. Col. Surg; Cent. Asn. Obstet, Gynec. and Abdom. Surg; Gynec. Soc; St. Louis Gynec. Soc. Pre- and post-natal care; surgical procedures during pregnancy; repair of complete perineal laceration; late toxemias of pregnancy; tuberculosis in pregnancy; new operation for cystocele; cancer of uterus; analgesia and anesthesia in obstetrics.

Rozeboom, Dr. Lloyd E(ugene), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Medical entomology.* Orange City, Iowa, Oct. 17, 08. B.S, Iowa State Col, 31; Sc.D, Hopkins, 34. Asst. med. entom, sch. hygiene and pub. health, Hopkins, 31–34; med. entomologist, Gorgas Mem. Lab, 34–37; assoc. prof. entom, Okla. Agr. and Mech. Col, 37–39; *assoc. med. entom, sch. hygiene and pub. health, Hopkins, 39–* Bailey K. Ashford award, 41. A.A; Soc. Parasitol. (treas, 41–); Entom. Soc. Amer; Soc. Trop. Med; Entom. Soc. Wash. Mosquitoes; malaria.

Ruark, Dr. Arthur Edward, University of North Carolina, Chapel Hill, N. C. ***Physics, Civil engineering.* Washington, D. C. Nov. 9, 99. A.B, Hopkins, 21, A.M, 23, Ph.D, 24. Mem. atomic structure sect, Bur. Standards, 22–26; asst. prof. physics, Yale, 26–27; physicist, Gulf Oil Companies, Mellon Inst, 27–29; chief physics div, Gulf Research Lab, 30; prof. *physics,* Pittsburgh, 30–34; *head dept, North Carolina, 34–* A.A; Physical Soc; Elisha Mitchell Sci. Soc; N. C. Acad; Pittsburgh Physical Soc. (v. pres, 29, pres, 30). Critical potentials; thermodynamics; spectroscopy; wave mechanics; indetermination principles; petroleum technology; radioactivity; nuclear physics.

Ruben, Dr. S(amuel), 2225A Parker St, Berkeley, Calif. *Chemistry.* San Francisco, Calif, Nov. 5, 13. B.S, California, 35, Ph.D, 38. *Instr. chem, California, 38–* Chem. Soc. Neutron induced radioactivity; radioactive phosphorus; radioactive carbon; absorption of CO_2 by plants; O^{18} as a tracer; photosynthesis.

Rubenkoenig, Prof. H(arry), 1120 Northwestern Ave, West Lafayette, Ind. *Mechanical engineering.* Graham, Texas, March 29, 84. B.S, Agr. and Mech. Col. Texas, 04; M.E, Purdue, 17. Instr. mech. drawing, Kans. State Manual Training Nor. Sch, 12–13; Milwaukee Continuation Schs, 13–14; from instr. to *prof. ry. mech. eng, Purdue, 14–, in charge dept, 18–* Director tests, power brake investigation, Am. Ry. Asn, 25–31. Mech. Eng; Ry. Asn; Eng. Educ; Int. Ry. Fuel Asn. Locomotive design and performance; railway car materials.

Rubens, Dr. Sidney M(ichel), Naval Ordnance Laboratory, Navy Yard, Washington, D. C. *Physics.* Spokane, Wash, March 21, 10. B.S, Washington (Seattle), 34, Ph.D, 39. Instr, Southern California, 39–40; research assoc, California at Los Angeles, 40–41; *assoc. physicist, Naval Ordnance Lab, 41–* Physical Soc; Geophys. Union. Conduction of electricity through gases; spectroscopy; molecular physics; terrestrial electricity and magnetism.

Rubenstein, Dr. B(oris) B(enjamin), 2900 S. Ellis Ave, Chicago, Ill. *Medicine.* Boston, Mass, April 15, 07. A.B, Harvard, 28, A.M, 29; fellow, Chicago, 30–33, M.D, Ph.D, 33. Asst. physiol, Chicago, 30–33, nat. research fellow, 33–34; Gen. Educ. Board fellow, Western Reserve, 35–37, Rockefeller Foundation fellow, 37–40; *Johnson Research Foundation fellow and research assoc, dept. metabolism and endocrinol, Michael Reese Hosp, 40–; lieut, Med. Corps, U. S. Army, 43–* A.A; Soc. Study Int. Secretions; Asn. Sci. Workers; Soc. Exp. Biol; Am. Med. Asn; Physiol. Soc. Human sex biology; clinical and investigative endocrinology; psychosomatic medicine.

Rubenstein, Dr. Pearl J(une), 13 Ware St, Cambridge, Mass. *Astrophysics.* Boston, Mass, June 13, 17. B.S, Mass. Inst. Tech, 38; A.M, Radcliffe Col, 40, Ph.D, 42. Asst. astron, Radcliffe Col, 39–41; Yerkes Observatory, Chicago, 41–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Astron. Soc; Physical Soc. The molecule CN in stellar spectra.

Rubey, Prof. Harry, University of Missouri, Columbia, Mo. *Civil engineering.* St. Louis, Mo, Feb. 23, 86. B.S, Illinois, 05, C.E, 25. Asst. engineer, Mo. Pacific Ry, 05–09; engineer and manager, Pacific Coast irrig. projects, 09–15; from instr. to assoc. prof. *civil eng,* Washington (Seattle) and Carnegie Inst. Tech, 15–24; *prof. and chairman dept, Missouri, 24–* Civil Eng; Eng. Educ. (councilor, 32–35). Engineering and route surveys; administrative engineering; transportation; construction.

Rubey, William W(alden), U. S. Geological Survey, Washington, D. C. **6*Geology.* Moberly, Mo, Dec. 19, 98. A.B, Missouri, 20; Hopkins, 22; Yale, 22–24. Asst. valuation engineer, Johnson and Huntley, Pa, 20; geol. aid, U. S. Geol. Surv, 20–21, asst. geologist, 21–22; instr. geol, Yale, 22–24; assoc. geologist, *U. S. Geol. Surv,* 24–29, geologist, 29–35, senior geologist, 35–43, *prin. geologist, 43–* Chairman div. geol. and geog, Nat. Research Council, 43– A.A; Geol. Soc. (councilor, 41–43); Geophys. Union; Geol. Soc. Wash. (v. pres, 41); Biol. Soc. Wash; Wash. Acad. Structural geology of western Wyoming; geomorphology; sedimentation.

Rubin, Dr. Morton A(lbert), Worcester State Hospital, Worcester, Mass. *Neurophysiology.* Stoughton, Mass, Jan. 8, 10. A.B, Harvard, 31; A.M, Clark, 34, Ph.D, 36. Research assoc. physiol, Clark, 36–38; neurophysiol, *Worcester State Hosp,* 36–38, *neurophysiologist, Mem. Foundation for Neuro-Endocrine Research, 38–; capt, Sig. Corps, U. S. Army, 42–* Summer, hon. fel, sch. med, Yale, 39. Soc. Exp. Biol; Physiol. Soc; Biol. Soc; Soc. Research Psychosometric Problems; N. Y. Acad; Mass. Soc. Research in Psychiat. Sense organ physiology; electrical activity of the brain in normal and pathological man; neuro-endocrine relations in man and animals.

Rubin, Louis C, 46 Francisco Ave, West Caldwell, N. J. *Petroleum.* Alamogordo, N. Mex, Jan. 26, 05. Petrol.Eng, Colo. Sch. Mines, 27; M.S, Mass. Inst. Tech, 30. *Director petrol. research, M. W. Kellogg Co.* Chem. Soc; Chem. Eng. Petroleum refining.

Rubin, Murray M(orrison), 16 Sterling St, Springfield, Mass. *Chemistry, Chemical engineering.* New York, N. Y, March 29, 02. B.S, Harvard, 25. Chief chemist, Chem. Paper Mfg. Co, 28–30; div. chemist, Fraser Paper Co, Ltd, 30–38; tech. director, Mohawk Paper Mills, Inc, 39–42; *consulting chem. engineer, 42–; director research and develop, Am. Tissue Mills, Inc, 43–* Tech. Asn. Pulp and Paper Indust; fel. Inst. Chem; Can. Pulp and Paper Asn. (tech. sect). Industrial chemistry and metallography; chemistry of pulp and paper-making; manufacturing costs; sheet formation on fourdrinier wires; paper defects, their cause, control and cure; metallic dendrites; metallographic inspection.

Rubinstein, Dr. David, 79 Park St, Brookline, Mass. *Chemistry.* Dorchester, Mass, Aug. 10, 07. B.S, Mass. Inst. Tech, 29, M.S, 30, Ph.D, 34. Asst. org. chem. and dyestuffs, Mass. Inst. Tech, 30–33; research chemist, Wescott Lab, Dover, Mass, 34–37; research and consultant, Arthur D. Little, Inc, Cambridge, 37–40; *research chemist,* Swift and Co, 40–41; *Dewey and Almy Chem. Co, 41–* Summers, chemist, U. S. Dept. Agr, 30; Mass. Inst. Tech, 34. Chem. Soc. The Friedel-Crafts reaction; lithography; synthetic resins; paper and cellulose; textiles; oils; organic synthesis; dyestuffs; printing ink; fats; synthetic detergents; emulsifying agents; polymerization; polyvinyl acetate; synthetic rubber; chemical patents.

Rubinstein, Dr. H(yman) S(olomon), 2349 Eutaw Place, Baltimore, Md. *Neuropsychiatry, Anatomy.* Leeds, Eng, March 16, 04. Ph.G, Maryland, 24, M.D, 28, Weaver fellow, 31–35, B.S, 32, Ph.D, 34; Hopkins, 32–35. Intern, Sinai Hosp,

Baltimore, 28–29, asst. med, 29–30; Maryland, 30–32, instr. anat, 30–33, instr. neur, 32–35, assoc. neuroanat, 33–35, chief neur. clinic, 34–35; *asst. physician neuropsychiat. and director, lab. for neuro-endocrine research, surg. div, Sinai Hosp. 35–; practising neuropsychiatrist.* Assoc. examiner, Am. Board Psychiat. and Neur, 38–; psychiatric consultant, Md. dist, Fed. Dist. Court, 42– A.A; Am. Med. Asn; Asn. Research Nervous and Mental Disease; Asn. Study Int. Secretions; Asn. Anat; Psychiat. Asn; Soc. Exp. Biol. Structure, function and pathology of nervous system; endocrine effects on growth and sex; body build and behavior; migraine; cerebellar agenesis; brain-body relations; treatment of morbid sex craving; endocrinopathic behavior problem children; endocrine therapy in neuropsychiatric disorders; hypothalamus in the psychotic; cerebral blood supply.

Ruby, Dr. Charles E(rnest), 38 Westland Ave, Boston, Mass. *Chemical engineering.* Louisville, Ky, Nov. 20, 93. B.S, Kentucky, 16; Ph.D, Mass. Inst. Tech, 20; LL.B, Northeastern, 28. Fellow, Mellon Inst, 16–17; asst. physical chem, Mass. Inst. Tech, 17–18, instr, 18–19, asst, 19–20, research assoc, 20–22; *consulting chem. engineer, 22–; patent attorney, 28–* Lecturer, sch. law, Boston, 34–35; Dept. Educ, Mass, 34– A.A. Thermodynamics; electrical conductivity of solutions; industrial applications of theoretical physics and chemistry; commercial process for making wool goods unshrinkable; law of chemical patents.

Ruby, Dr. Willard R(oland), Eastman Kodak Co, Rochester, N. Y. *Physical chemistry.* Oskaloosa, Iowa, April 20, 06. A.B, Penn Col, 28; Ph.D, Iowa State Col, 36. Instr, Iowa State Col, 35–37; *research chemist, Eastman Kodak Co, 37–; Office Sci. Research and Develop, Columbia, 43–* Chem. Soc. Color research and development.

Ruch, Prof. Floyd L(eon), University of Southern California, Los Angeles, Calif. *Psychology.* Guthrie Center, Iowa, Sept. 16, 03. B.S, Oregon, 25; A.M, Iowa, 26; Ph.D, Stanford, 30. Instr. psychol, Washington (St. Louis), 27–29; nat. research fellow biol, Sorbonne, Paris, 30–31; assoc. psychol, Illinois, 31–35, asst. prof, 35–36; Pa. State Col, 36–37; assoc. prof, Southern California, 37–40; v. pres, Opinion Research Corp, 40–41; pub. opinion consultant, Cmt. Nat. Morale, 41–42; *assoc, prof. psychol. and chairman dept, Southern California, 42–* Psychol. Asn. Applied psychology; public opinion polls; industrial psychology; tests.

Ruch, Dr. G(iles) M(urrel), Federal Security Agency, Washington, D. C. *Psychology, Education.* Guthrie Center, Iowa, July 7, 92. A.B, Oregon, 14; fellow, Stanford, 20–22, Ph.D, 22. Instr. educ, Oregon, 17–18, asst. prof, 18–19; psychol. and educ, Iowa, 22–24, assoc. prof, 24–26; prof. educ, California, 26–34; ed. dept, Scott Foresman and Co, 34–38; consultant, occupational information and guidance, Nat. Occupational Conf, 38–39; *chief research and statist. service, Fed. Security Agency, U. S. Office Educ, 39–* Visiting lecturer, Harvard, 34. Summers, lecturer, Florida, 39; professorial lecturer, George Washington, 40. A.A; Psychol. Asn; Educ. Research Asn. Mental measurements; psychology of education; vocational education.

Ruch, Dr. Theodore C(edric), Yale University School of Medicine, New Haven, Conn. *Physiology, Psychology.* Guthrie Center, Iowa, May 22, 06. A.B, Oregon, 27; A.M, Stanford, 28; Rhodes scholar, Oxford, 28–30, B.A, 30; Knight fellow, Yale, 32–34, Ph.D, 33. Asst. psychol, Stanford, 27–28; tutor *physiol,* Oxford, 30–32; instr, *sch. med, Yale,* 34–38, *asst. prof, 38–* Cmn. Relief Belgium fellow, Brussels, 39. Physiol. Soc. Physiology of primate cortex and thalamus; reflex action of spinal cord; primate bibliography; comparative psychology.

Rucker, Dr. Augusta, 145 E. 36th St, New York, N. Y. *Zoology.* Paris, Texas, May 24, 73. A.B, Texas, 96, fellow, 96–97, A.M, 99; M.D, Hopkins, 11. Tutor biol, Texas, 97–99, instr, 99–00, zool, 00; *practising physician.* A.A; fel. Texas Acad. Peripatus eisenii; the Texan Koenenia; the anatomy of Koenenia and its position among the Arachnida.

Ruckes, Prof. Herbert, 167–11 33rd Ave, Flushing, L. I, N. Y. *Vertebrate morphology.* New York, N. Y, Feb. 1, 95. B.S, A.M, Cornell, 17; Ph.D, Columbia, 29. Head dept. biol, Grove City Col, 17–18; instr. mil. sanit, Columbia, 18–19; asst, United Eng. Soc, 19–20; instr. *biol, Col. City of N. Y,* 20–29, asst. prof, 29–36, assoc. prof, 36–42, *prof, 42–, acting dean sch. business, 42–* Summer, instr, Columbia, 19. A. Cressy Morrison prize, N. Y. Acad, 28. A.A; Entom. Soc. Amer; N. Y. Entom. Soc. (v. pres, 35, pres, 36–38); fel. N. Y. Acad. (sec'y, 30–33, v. pres, 33–35, councilor, 35–38); Brooklyn Entom. Soc. Limnology; insect histology; vertebrate osteology; morphology of the male genital tract of Lepidoptera; technique and photography of blood vessels by x-rays; chelonian osteology; evolution of the hemipteran head; taxonomy of the Pentatomoidae, genus Brochymena.

Ruckmick, Dr. Christian A(lban), 475 Elder Lane, Winnetka, Ill. *Psychology.* New York, N. Y, Sept. 4, 86. A.B, Amherst Col, 09, A.M, 12; Ph.D, Cornell, 13. Instr, high sch, Mass, 09–10; psychol, Cornell, 11–13; Illinois, 13–15, assoc, 15–17, asst. prof. and acting head dept, 17–19, assoc. prof, 19–21; Wellesley Col, 21–24; prof, Iowa, 24–38; sec'y and gen. sales manager, C. H. Stoelting Co, 38–42; chief civilian psychologist, U. S. Armed Forces Induction Sta, Peoria, Ill, 42–43; *chairman cmt. psychol. techniques, dept. techniques, Office Civilian Defense, Chicago metrop. area, 42–; panel chairman, Nat. War Labor Board, 43–* Visiting lecturer, Nebraska, Denver, Utah, California, Southern California, Oregon, Montana, Stanford and Northwestern, 31; research lecturer, cols. and univs, Iowa, 31–32. Summers, lecturer, Harvard, 15; Kentucky, 22; Ohio State, 29. Ed, 'Iowa Studies in Psychol'; cooperating ed, 'Am. Jour. Psychol'; mem. advisory ed. board, 'Psychol. Dictionary.' Mem, Psychol. Corp. Del, 9th Int. Cong. Psychol. A.A; Psychol. Asn; Nat. Inst. Psychol; Midwest. Psychol. Asn. (pres, 35). Psychology of rhythm and music; historical and systematic psychology; emotion; esthetics; industrial psychology.

Rudd, Dean Wortley F(uller), 1614 Park Ave, Richmond, Va. *Chemistry.* Chesterfield Co, Va, Oct. 6, 76. A.B, Richmond, 98; Ph.B, Univ. Col. Med, 02; A.M, Columbia, 11; hon. D.Sc, Maryland, 41. *Prof. chem, Med. Col. of Va, 10–, dean sch. pharmacy, 20–* Lecturer, Richmond, 18; adviser, sch. pharmacy, Columbia, 37. Pres, Am. Asn. Cols. Pharmacy, 19. A.A; Chem. Soc. (chairman, Va. sect, 23); Pharmaceut. Asn. (chairman, sect. on educ. and legislation, 18); South. Asn. Adv. Sci. (pres, 41); Va. Acad. (pres, 40); Va. Chem. Club (chairman, 10); assoc. Med. Soc. Va; Va. Pharmaceut. Asn. Vegetable oils.

Ruddiman, Dr. E(dsel) A(lexander), 22179 Long Blvd, Dearborn, Mich. *Pharmacy.* Dearborn, Mich, Dec. 27, 64. Phar.C, Michigan, 86, Phar.M, 87; M.D, Vanderbilt, 93. Asst. in charge pharmacog, Michigan, 86–87; chemist in charge lab, Williamson, Ingram and Griggs, 87–90; prof. pharmacy and mat. med, Vanderbilt, 90–20; chief chemist, John T. Milliken and Co, 21–26; *research chemist, Ford Motor Co, 26–* Chemist, Tenn. Board Pharmacy, 97–20; U. S. food and drug inspection chemist, 07–14. Pharmaceut. Asn; Chem. Soc. Prescriptions; materia medica.

Ruddy, Dr. A. Wayne, Winthrop Chemical Co, Inc, Rensselaer, N. Y. *Chemistry.* Humboldt, Nebr, Aug. 28, 15. B.S, Nebraska, 36, M.S, 38; H. A. B. Dunning fellow, Maryland, 38–40, Ph.D, 40. Sharp and Dohme research assoc, Northwestern, 40–41; *research chemist,* Sharples Chem, Inc, 41–42; *Winthrop Chem. Co, Inc, 42–* 'Chem. Soc; Pharmaceut. Asn. Organic medicinal chemistry; mercurials; arsenicals and pressor amines.

Rude, C(lifford) S(ymes), Seagle Bldg, Gainesville, Fla. *Entomology.* Diamond Springs, Kans, Jan. 7, 94. B.S, Kans. State Col, 19; M.S, Agr. and Mech. Col. Texas, 26. Asst. entomologist and chief apiary inspector, Exp. Sta, Agr. and Mech. Col. Texas, 20–26; exten. entomologist, Okla. Exten. Service, 26–29; asst. entomologist, *div. cotton insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–38, *assoc. entomologist, 38–* Asn. Econ. Entom; Entom. Soc. Amer; hon. mem. Newell Entom. Soc. Insects affecting man and animals; ranch management program for control of screw worms; ticks affecting livestock.

Rude, Capt. G(ilbert) T(homas), U. S. Coast and Geodetic Survey, Washington, D. C. *Hydrography.* Sharps, Va, Sept. 13, 81. Washington Col. (Md). Capt. surveys, *U. S. Coast and Geod. Surv,* 03–17, chief div. tides and currents, 19–28, inspector construction ship, 'Hydrographer,' 28–31, *chief div. coastal surveys, 31–* Norman medal, Soc. Civil Eng, 29. Lieut. and lieut-commander, U.S.N, 17–19. Civil Eng; Soc. Mil. Eng; Geophys. Union (sec'y, E, 23–26). Tides and currents; navigation.

Rudel, Harry W(illiam), 444 Elinor Ave, Roselle Park, N. J. *Chemistry.* Baltimore, Md, Sept. 10, 05. B.S, Hopkins, 25; M.S, Maryland, 30; Ph.D, Ohio State, 38. Chemist, Baltimore and Ohio R.R, 25–26; Chem. Warfare Service, U. S. Army, 26–29; *research chemist,* electrochem. dept, E. I. du

Pont de Nemours and Co, 29–36; *Standard Oil Develop. Co, 38–* Chem. Soc. Effect of catalysts on the decomposition of hydrogen peroxide; determination of hydrogen peroxide and some related peroxygen compounds; olefins of the octene family.

Rüdenberg, Prof. R(einhold), 32 Ross Road, Belmont, Mass. *Electrical engineering.* Hannover, Germany, Feb. 4, 83. Dipl.Ing, Inst. Tech, Hannover, Germany, 06, D.Ing, 06; hon. D.Ing, Inst. Tech, Karlsruhe, Germany, 21. Instr. mech. eng, Göttingen, 06–08; elec. engineer and chief elec. engineer, Siemens Schuckert Werke, Berlin, 08, 23; lecturer and prof, Inst. Tech, Berlin, Germany, 13, 19; consulting engineer, Gen. Elec. Co, London, 36–39; *prof. elec. eng, Harvard, 39–* Visiting lecturer, Mass. Inst. Tech, 29. Montefiore prize, Liége, 12. Elec. Eng; Am. Acad; hon. mem. Roumanian Inst. Energie. Generation and transmission of electric power; electric waves.

Ruder, William Ernst, 1674 Rugby Road, Schenectady, N. Y. *Metallurgy.* Stockdale, Pa, Dec. 22, 86. B.S, Pa. State Col, 07. *Research metallurgist, research lab, Gen. Elec. Co, 07–, head metal. and magnetic research sect.* Director, Allegheny-Ludlum Steel Corp. Soc. Metals; Min. and Metal. Eng; Am. Iron and Steel Inst. Magnetism; diffusion of metals in solid state; grain growth in metals; magnetism and crystal orientation and grain size.

Rudert, Dr. F(rank) J(oseph), Commercial Solvents Corp, Terre Haute, Ind. *Bacteriology.* Swan Lake, N. Y, Feb. 2, 17. A.B, Cornell, 37, Ph.D, 40. Asst, Cornell, 37–40; instr, Oregon State Col, 40–41; *research bacteriologist, Commercial Solvents Corp, 41–* Soc. Bact. Bacteriological chemistry.

Rudisill, Dr. Hillyer, Jr, John Gaston Hospital, Memphis, Tenn. *Clinical oncology.* Macon, Ga, Feb. 28, 02. B.S, Mercer, 22; Emory, 20–22; M.D, Jefferson Med. Col, 24. Instr. roentgenol, Chicago, 30–31; asst. prof. *radiol,* Med. Col. State of S. C, 31–34, prof, 34–39; *asst. prof, col. med, Tennessee, 41–* Fel. Col. Physicians; fel. Col. Radiol. Clinical investigation of the relations between the growth-rate of cancer in patients and the calcium-potassium balance both locally in the tumors and in the body in general.

Rudnick, Dr. Dorothea, Albertus Magnus College, New Haven, Conn. *Zoology.* Oconomowoc, Wis, Jan. 17, 07. Ph.B, Chicago, 28, fellow, 29–31, Ph.D, 31. Seessel fellow, Yale, 31–32, research fellow, 32–33, nat. research fellow, 33–34; research fellow, Rochester, 34–37; asst. instr. genetics, Storrs Exp. Sta, Conn. State Col, 37–39; instr. zool, Wellesley Col, 39–40; *asst. prof. biol, Albertus Magnus Col, 40–* A.A; Soc. Zool; Soc. Develop. and Growth; Conn. Acad. Experimental embryology of chick and rat; developmental genetics.

Rudnick, Dr. Paul, RCA Manufacturing Co, Camden, N. J. *Astronomy, Physics.* Oconomowoc, Wis, June 11, 11. B.S, Chicago, 30, fellow, 32–35, Ph.D, 36. Astronomer, McDonald Observatory, Chicago-Texas, 36–39; instr. physics, Texas, 39–41; *research physicist, RCA Mfg. Co, 41–* Astron. Soc; Radio Eng. Astronomical spectra and photometry; optics; electronics.

Rudnick, Prof. Phillip, Vanderbilt University, Nashville, Tenn. *Physics.* Wis, May 21, 04. B.S, Chicago, 24, M.S, 25, Ph.D, 31. Junior physicist, Bur. Standards, 25–26; asst. *physics,* Chicago, 28–31; asst. prof, *Vanderbilt,* 31–41, *assoc. prof, 41–* Physical Soc. (sec'y, southeast. sect, 38–40); Asn. Physics Teachers; Tenn. Acad. Positive rays; crystal optics.

Rudoff, Dr. Hyman, 463 Crestwood Ave, Akron, Ohio. *Organic chemistry.* Montreal, Que, Can, June 26, 12. B.Sc, McGill, 33, Nat. Research Council Can. bursar, 35–36, Ph.D, 37; Moyse traveling scholar and 1851 Exhib. Overseas scholar, Oxford, 37–39. Asst, McGill, 34–35; *research chemist,* Agfa Ansco Corp, 39–40; *Pittsburgh Plate Glass Co, 41–* Chem. Soc. Dye and dye intermediate syntheses; plastics.

Rudolf, Paul O(tto), U. S. Forest Service, St. Paul, Minn. *Silviculture.* La Crosse, Wis, Nov. 4, 06. B.S, Minnesota, 28; M.F, Cornell, 29. Asst, dept. forestry, Cornell, 28–29; jr. forester, South. Forest Exp. Sta, *U. S. Forest Service,* 29–30, *Lake States Forest Exp. Sta,* 30–35, asst. silviculturist, 35–37, assoc. silviculturist, 37–42, *silviculturist, 42–* A.A; Soc. Foresters (sec'y-treas, Minn. sect, 36); Minn. Acad; Mich. Acad. Reforestation; silviculture of Pinus banksiana; racial variation in forest trees; forest seeds.

Rudolfs, Dr. Willem, Rutgers University, New Brunswick, N. J. *Biochemistry.* Wageningen, Holland, Feb. 13, 86. L.E, Holland, 11; fellow, Rutgers, 18, Ph.D, 19. Soil chemist, Illinois, 15–17; research fellow, Pasteur Inst, 19–20; biochemist, *N. J. Exp. Sta,* 20–24, *chief sewage investigations, 21–; prof. water supplies and sewage disposal, Rutgers, 26–* A.A; Chem. Soc; Pub. Health Asn; Civil Eng; Inst. Chem. Plant nutrition; soil biology and chemistry; insecticides; sewage biology; stream pollution.

Rudolph, Dr. B(ert) A(lexander), Route 1, Box 92, San Jose, Calif. *Plant pathology.* San Jose, Calif, Oct. 25, 89. B.S, California, 14, M.S, 15; Ph.D, Stanford, 29. Sci. asst, office fruit disease investigations, U. S. Dept. Agr, 15–20; *assoc. plant pathologist, col. agr, California, 20–, in charge deciduous fruit field sta, 25–* Fruit and veg. inspector, U.S.N, 17–19. A.A; Phytopath. Soc. (sec'y-treas, Pacific div, 26–36, pres, 36); Mycol. Soc; Pasteur Soc. Cent. Calif. Diseases of cotton, the cranberry, cherry and apricot; brown-rot of stone fruits; Verticillium diseases of economic plants; bacteriosis of walnuts.

Rudolph, Col. Myron P(arkhill), Headquarters Sixth Corps, A.P.O. 306, Care of the Postmaster, New York, N. Y. *Medicine.* Punxsutawney, Pa, Jan. 28, 89. M.D, Hahnemann Med. Col. (Pa), 15, 16–17; Army Med. Sch, 22; Dr.P.H, Hopkins, 37. Intern, Pittsburgh Homeop. Hosp, 15–16; lieut, *Med. Corps, U. S. Army,* 17–18, capt, 18–29, major, 29–37, lieut. col, 37–42, *col, 42–* Asst. instr, infantry sch, Ft. Benning, Ga, 20–21; asst. surgeon and surgeon, Ft. Logan, Colo, 22–25; asst. surgeon, Ft. Benjamin Harrison, 25–27; asst. med. inspector and asst. surgeon, Ft. Benning, Ga, 27–29; asst. surgeon, Ft. Mills, P. I, 30–31, med. inspector, 31–32; asst. surgeon, Ft. Hayes, Ohio, 32–33; med. supervisor, Civilian Conservation Corps, Ohio and W. Va, 33–36; med. inspector, Ft. Benning, Ga, 37–39; surgeon, 1st Div, *Inf, U. S. Army,* 39–40, 5th Div, 40–41, Camp Gordon, Ga, 41, *surgeon, 6th Army Corps, 41–* Silver Star medal and Oak Leaf Cluster, 18; Order of the Purple Heart, 18. The United States Army ration.

Rudy, Dr. Charles E, Jr, 2215 Channing Way, Berkeley, Calif. *Physical chemistry.* Harrisburg, Pa, Dec. 7, 17. B.S, Dickinson Col, 37; M.S, Carnegie Inst. Tech, 39, D.Sc, 42. *Chemist, Shell Develop. Co, 41–* Chem. Soc. Kinetics of homogeneous and heterogeneous reactions; electrochemistry.

Rudy, R(obert) B(artel), 720 Webster St, Washington, D. C. *Chemistry.* Lancaster, Pa, Sept. 5, 00. B.S, Franklin and Marshall Col, 20. *Chemist, Bur. Standards, 20–* Chem. Soc. Inorganic chemistry; analytical methods.

Rue, H(arold) P(ercy), U. S. Bureau of Mines, Laramie, Wyo. *Chemistry.* Honesdale, Pa, Dec. 2, 92. Franklin and Marshall Col, 16–17; Cornell, 18; A.B, George Washington, 20, M.S, 22. Assoc. refinery engineer, *U. S. Bur. Mines,* Okla, 27–28, petrol. chemist, Okla, 28–30, senior refinery engineer, *Wyo,* 30–31, *supervising engineer, 31–* Chem. Soc; Soc. Test. Mat. Petroleum chemistry and refining.

Rue, John L(eonard), U. S. Pecan Field Station, Brownwood, Texas. *Plant pathology.* Red Bank, N. J, July 15, 00. Stevens Inst. Tech, 19–20. Prin. sci. aid, *bur. plant indust, U. S. Dept. Agr,* 30–41, *chief sci. aid, 41–* A.A; Phytopath. Soc. Virus diseases of deciduous fruit trees.

Rue, Dr. Sigurd O(scar), 119 E. Maryland Ave, Royal Oak, Mich. *Analytical chemistry.* Westerville, S. Dak, Dec. 6, 06. A.B, Luther Col, 27; M.S, Iowa, 38, Ph.D, 41. Instr, schs, Minn, 27–39; *research analyst, Ethyl Corp, 41–* Chem. Soc. Quantitative spectroscopy; analytical methods.

Ruebush, Dr. T(renton) K(ieffer), Yale University, New Haven, Conn. *Invertebrate zoology.* Dayton, Va, Dec. 29, 10. A.B, Bridgewater Col, 31; A.M, Virginia, 33, Ph.D, 36. *Instr, Osborn zool. lab, Yale, 37–; U. S. Navy.* A.A. Morphology, cytology and taxonomy of rhabdocoel turbellarians.

Ruedemann, Dr. R(udolf), Education Bldg, Albany, N. Y. *[S]Geology, Paleontology.* Georgenthal, Germany, Oct. 16, 64. Ph.D, Jena, 87; Strassburg, 89. Asst. geol, Strassburg, 87–92; teacher, high schs, N. Y, 92–99; asst. state paleontologist, N. Y, 99–26, state paleontologist, 26–37; *retired.* Curator paleont, N. Y. State Museum, 13–37. Walker prize, Boston Soc. Nat. Hist, 01. Nat. Acad; A.A; Geol. Soc. (v. pres, 16); Paleont. Soc. (v. pres, 11, pres, 16); Halle Akad. der Naturforscher; hon. mem. Senckenberg. Naturforscher Gesell; cor. mem. Geol. Soc. Stockholm. Fossils and geology of the Ordovician and Silurian of New York; graptolites; cephalopods; eurypterids; radiolarians; inliers; origin of chert; areal geology; Precambrian continents.

Ruediger, Dr. E(rnest) Henry, Florida State Hospital, Chattahoochee, Fla. *Pathology.* Fountain City, Wis, 75. M.D, Rush, Chicago, 03. Serologist, Bur. Science, P. I, and assoc. prof. path. and bacter, Philippine Med. Sch, 04–16; pathologist, Bismarck Hosp, Bismarck, N. Dak, 16–23; Angelus Hosp, Los Angeles, Calif, 23–25; director, Hollywood Clin. Lab, 25–30; *pathologist,* Mercy Hosp, 30–40; *Fla. State Hosp, 40–* A.A; Am. Med. Asn. Bacteriology of the blood in typhoid fever; virulent pseudodiphtheria bacilli in gangrenous laryngitis; Bacillus typhosus associated with pyonephrosis; Wassermann reaction; pregnancy test.

Ruedy, Dr. J(ohn) E(dward), RCA Laboratories, Princeton, N. J. *Physics.* Cleveland Heights, Ohio, Dec. 23, 02. A.B, Western Reserve, 24; Ph.D, Cornell, 33. Asst, Bell Tel. Labs, 25–27; asst. physics, Cornell, 28–33, Heckscher asst, 33–34; production manager, Evaporated Films Co, 35–37; *physicist,* electronic research lab, RCA Mfg. Co, 37–42; *RCA Labs, 42–* Physical Soc. Line spectroscopy; secondary electron and photoelectric phenomena; electron optics; electron diffraction.

Ruedy, Dr. Richard, 321 Cloverdale Road, Ottawa, Ont, Can. *Physics.* Schaffhouse, Switzerland, March 31, 96. M.A, 21; D.Sc, Geneva, 23. Assoc. prof, Geneva, 22–23; research physicist, Nela Research Lab, Gen. Elec. Co, Cleveland, 24–27; research assoc, Toronto, 27–28, radio engineer, 29; *physicist, div. research information, Nat. Research Council Can, 30–* Physical Soc; Optical Soc; Radio Eng; Television Soc. England. Band spectra; electrical discharges in gases; forbidden spectral lines; radio and luminosity of the upper atmosphere; mechanical vibrations; propagation of waves.

Rueggeberg, Lieut. Walter H(erman) C(arl), 4003 Roland Ave, Baltimore, Md. *Chemistry.* Mulheim, Germany, June 3, 15. Ph.D, Hopkins, 41. Process develop. chemist, Carbide and Carbon Chem. Corp, 41–42; *lieut, U. S. Army, 42–* Summer, instr, Hopkins, 40. Chem. Soc. Carbides of magnesium; melting points of n-hydrocarbons; physical organic chemistry.

Ruehe, Prof. Harrison A(ugust), 908 S. Lincoln Ave, Urbana, Ill. *Dairy husbandry.* Gilman, Ill, June 26, 88. B.S, Illinois, 11, M.S, 16; Ph.D, Cornell, 21. Instr, California, 11–12; assoc. dairy husbandry, *Illinois,* 12–18, asst. prof, 18–21, *prof. and head dept, 21–; exec. sec'y, Am. Butter Inst, 43–* Assoc. ed, 'Jour. Dairy Sci.' Ill. rep, World's Dairy Cong, Washington, D. C, 23, Copenhagen, 31. Dairy Sci. Asn. (sec'y, dairy mfrs. sect, 22, chairman, 23; pres, 36). Production and marketing of dairy products.

Ruehle, A(rchie) E(dwin), International Minerals and Chemicals Corp, Austin, Texas. *Chemistry.* Port Townsend, Wash, Feb. 9, 08. B.S, Idaho, 30. Mem. tech. staff, Bell Tel. Labs, Inc, 30–42; *chief chemist, Austin magnesium plant, Int. Min. and Chem. Corp, 42–* Mem, Nat. Research Council. Chem. Soc; Optical Soc. Constitution of vitamin B_1; spectrochemical analysis; acidity; potentiometric titration; ultraviolet absorption; electronic tubes.

Ruehle, Dr. Geo(rge) D(ewey), Subtropical Experiment Station, Homestead, Fla. *Plant pathology.* Stillwater, Minn, May 10, 98. B.S, State Col. Wash, 23, fellow, 26–30, Ph.D, 30. State hort. inspector, Yakima, Wash, 23–26, Walla Walla, 26; asst. plant path, State Col. Wash, 26–30; asst. plant pathologist, Citrus Exp. Sta, *Florida,* 30–32, assoc. plant pathologist, 32–35, plant pathologist, *Subtrop. Exp. Sta,* 35–41, *in charge, 41–* A.A; Phytopath. Soc; Mycol. Soc; Torrey Bot. Club; Hort. Soc. Fla. Storage rots of apples; citrus diseases, especially citrus scab and melanose; potato and sub-tropical fruit diseases.

Ruehrwein, Dr. Robert A(rthur), U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Physical chemistry.* Glendive, Mont, Dec. 12, 15. A.B, Montana, 36; Ph.D, California, 39. Teaching asst. chem, California, 36–39; asst. biol, Calif. Inst. Tech, 39–41; *research assoc,* Carnegie Inst. Tech, 43; *Monsanto Chem. Co, 43–* Chem. Soc. Low temperature calorimetry.

Ruff, Prof. Horace Ewing, Jr, Louisiana Polytechnic Institute, Ruston, La. *Physics.* Pitman, Ark, July 2, 99. B.S, Hendrix Col, 22; M.S, Louisiana, 34; Ph.D, Iowa State Col, 38. *Assoc. prof. physics, La. Polytech, 38–* Physical Soc; Asn. Physics Teachers. Heat conductivity and thermal insulation.

Ruffin, Prof. Julian M(eade), Duke University School of Medicine, Durham, N. C. *Medicine.* Norfolk, Va, Aug. 26, 00. A.B, Virginia, 21, A.M, 22, M.D, 26. Instr. math, Virginia, 21–23; physical diagnosis, George Washington, 28–30; *assoc. prof. med, sch. med, Duke, 30–.* Civilian consultant on trop. diseases and food and nutrition to U. S. Sec'y War. Am. Med. Asn; Col. Physicians; Clin. and Climat. Asn; Soc. Clin. Invest; Gastro-Enterol. Asn. (recorder); Tri-State Med. Asn; South. Med. Asn. (sec'y, sect. gastro-enterol). Pellagra.

Ruffin, W(inford) A(udry), Box 247, Auburn, Ala. *Entomology.* Titus, Ala, Jan. 6, 02. B.S, Ala. Polytech, 23; M.S, Iowa State Col, 24. *Exten. entomologist and horticulturist, exten. service, Ala. Polytech, 24–* Apiculture.

Ruffner, Prof. Robert Henry, North Carolina State College, Raleigh, N. C. *Dairying.* Warrenton, Va, May 22, 82. B.S, Maryland, 08; M.S, N. C. State Col, 31. Asst. veterinarian, Exp. Sta, Md. Agr. Col, 08–09; dairyman, Isthmian Canal Cmn, Panama, 09–10; asst. prof. animal husbandry, Maryland, 10–13, prof, 13–18; exten. dairy husbandry, Va. Polytech, 18–19; *prof. animal husbandry, N. C. State Col, 19–* Dairy Sci. Asn; N. C. Acad. Animal genetics; feeding of the farm animal; care and management of dairy cattle.

Rufus, Prof. W(ill) Carl, University of Michigan, Ann Arbor, Mich. *Astronomy.* Chatham, Ont, Can, July 1, 76. A.B, Albion Col, 02, A.M, 08; fellow, Michigan, 13–15, Ph.D, 15. Asst. math, Albion Col, 01–02; teacher, high sch, Mich, 02–05; instr. math. and astron, Pyeng Yang Col, Korea, 07–11; supt. educ, Methodist Mission, Seoul, 11–13; prof. math. and astron, Seoul Col, 15–17; instr. *astron, Michigan,* 17–20, asst. prof, 20–34, assoc. prof, 34–41, *prof, 41–, acting chairman dept. and acting director observatories,* 30–31, 38–39, *42–* Prof, Univ. World Cruise, 26–27. A.A. (v. pres, L, 26); Astron. Soc; Hist. Sci. Soc. (councilor, 29); Soc. Research on Meteorites; Inst. Pacific Relations (Am. council); hon. mem. Astron. Soc. Philippines; Royal Asiatic Soc; Samfundet for Astron. Historieforskning I Lund. Astrophysics; stellar spectroscopy; the celestial planisphere of King Yi Tai Jo; place of class R stars in the evolutionary sequence; atmospheric motion of Cepheids; Oriental astronomy; history of astronomy.

Rugar, Dr. George F(rancis), 182 59th St, Niagara Falls, N. Y. *Chemistry.* Penn Yan, N. Y, May 13, 99. B.S, Rochester, 21; A.M, Columbia, 25, Ph.D, 31. Prof. science, Wagner Col, 21–24; asst. instr. anal. chem, Columbia, 24–26; research chemist, Diamond State Fibre Co, Bridgeport, Pa, 26–28; research and develop. chemist and later *sales promotion manager, Hooker Electrochem. Co, 28–* A.A; Chem. Soc. Colloid chemistry; Bredig hydrosols; phenol formaldehyde resins; bleaching of pulp and paper; chlorination of aromatic and aliphatic hydrocarbons; inorganic chlorine compounds.

Ruger, Prof. Henry A(lford), 526 N. Main St, Wellington, Ohio. *Psychology.* Janesville, Wis, Sept. 18, 72. A.B, Beloit Col, 95; fellow, Wisconsin, 01–03; A.M, Chicago, 05; Ph.D, Columbia, 10. Prin, acad, Port Byron, Ill, 96–00; asst. psychol, Columbia, 03–04; asst. prof, Colo. Col, 04–10; educ. psychol, Teachers Col, Columbia, 10–30, assoc. prof. educ, 30–38; *retired.* A.A; Psychol. Asn; Math. Soc; Statist. Asn. Psychology of efficiency; learning processes; growth curves.

Rugg, Prof. Harold Ordway, 600 West End Ave, New York, N. Y. *Psychology.* Fitchburg, Mass, Jan. 17, 86. B.S, Dartmouth Col, 08, C.E, 09, Ped.D, 35; Ph.D, Illinois, 15, Tasmania, 37. Instr. civil eng, James Millikin, 09–11; Illinois, 11–15; *educ,* Chicago, 15–17, asst. prof, 17–18, assoc. prof, 18–19; *prof, Teachers Col, Columbia, 19–* Specialist, investigation of U. S. Civil Service Cmn, 19. Statistician, cmt. on classification of personnel, U. S. A, 18. Soc. Col. Teachers Educ. School curriculum; the social sciences; international relations through education.

Rugg, Dr. W(illiam) Donald, 42 Hawthorne Ave, Princeton, N. J. *Psychology.* Rochester, N. Y, Oct. 23, 15. A.B, Cornell Col, 36; A.M, Rochester, 37; Ph.D, Princeton, 41. Asst, office pub. opinion research, Princeton, 40–42; *tabulating and statistical supervisor, Opinion Research Corp, 42–* Psychol. Asn. Social psychology; analysis of public opinion poll results.

Ruggles, Prof. Allen M(ead), University of Oklahoma, Norman, Okla. *Educational psychology.* Norwich, N. Y, Jan. 28, 81. A.B, Wisconsin, 06, 06–07; A.M, Columbia, 10, Ph.D, 24. Lab. asst. physics, Wisconsin, 06–07; teacher, rural sch. and sci. instr, Bellevue Acad, Nebr, 07–09; prof. educ, Simpson Col, 11–14; director personnel, State Civil Service Cmn, Wis-

14–23; assoc. prof. vocational educ, *Oklahoma*, 23–25, *prof. educational psychol. and head dept, 25–* A.A; Soc. Study Educ; fel. Okla. Acad. (v. pres, 41). Behavior problems of adolescents.

Ruggles, Prof. Arthur Gordon, University Farm, St. Paul, Minn. *Entomology.* Annapolis Royal, N. S, Can, May 30, 75. B.S.A, Cornell, 01, A.M, 04. Asst. prof. *entom, Minnesota*, 02–13, assoc. prof, 13–18, prof, 18–43, *emer. prof, 43–*; asst. to state entomologist, Minn, 02–13, state entomologist, 18–43. Entomologist, Pa. Chestnut Blight Cmn, 12–13. A.A; Entom. Soc; Entom. Soc. Amer. (first v. pres, 37); Asn. Econ. Entom. (pres, 23). Economic entomology.

Ruggles, Dr. Arthur H(iler), 305 Blackstone Blvd, Providence, R. I. *Psychiatry.* Hanover, N. H, Jan. 26, 81. A.B, Dartmouth Col, 02, A.M, 10, hon. Sc.D, 26; M.D, Harvard Med. Sch, 06; hon. Sc.D, Brown, 29. *Supt, Butler Hosp, 22–* Consultant and lecturer, Yale, 26–; lecturer, Brown; supt, Emma Pendleton Bradley Home, 31–41. Trustee, Dartmouth Col, 36– Pres, Nat. Cmt. Mental Hygiene, 32–40. Psychiat. Asn. (sec'y-treas, 38–41, pres, 42). Mental health; dementia praecox; behavior problems of abnormal children.

Ruggy, Dr. George H(arris), Ohio State University, Columbus, Ohio. *Physiological chemistry, Pharmacology.* Salem, Ohio, Feb. 13, 11. A.B, Col. of Wooster, 32; A.M, Ohio State, 34, Ph.D, 36; M.D, Chicago, 40. Asst. physiol. chem, Ohio State, 32–36, instr, 36–39; house officer, Blodgett Mem. Hosp, Grand Rapids, Mich, 40–41; instr. *pharmacol, Ohio State*, 41–42, *asst. prof, 42–, med, 43–* Am. Med. Asn. Chemistry of medicinal substances; clinical pharmacology and toxicology.

Rugh, Dr. R(oberts), 110 Morningside Drive, New York, N. Y. *Zoology.* Springfield, Ohio, April 16, 03. A.B, Oberlin Col, 26, A.M, 27; Ph.D, Columbia, 35. Instr. zool, Lawrence Col, 27–28; Seth Low Junior Col, Columbia, 29–30; Hunter Col, 30–39; *assoc. prof. biol, N. Y. Univ, 39–* Grant-in-aid, Am. Acad. Sci, 34, 37; Am. Philos. Soc, 38, 40, 42. Mem. corp, Marine Biol. Lab, Woods Hole. 'Collecting Net' scholar, Woods Hole, 29. A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Soc. Nat; Soc. Ichthyol. and Herp; Harvey Soc; fel. N. Y. Acad. Experimental and normal embryology; endocrinology.

Ruhe, Dr. C(arl) H(enry) William, 3941 O'hara St, Pittsburgh, Pa. *Physiology, Pharmacology.* Wilkinsburg, Pa, Dec. 1, 15. B.S, Pittsburgh, 35, M.D, 40. Student instr, *Pittsburgh*, 37–40, *instr. physiol. and pharmacol, 41–* Effect of anticoagulants on specific gravity of blood.

Ruhle, Dr. Geo(rge) C(ornelius), 50 Black Oak Drive, Medford, Oregon. *Physical chemistry.* Kankakee, Ill, Feb. 18, 00. B.S, Illinois, 21; Ph.D, California, 25; Yale, 40–41. Instr. chem, California, 25–26; prof, Oklahoma, 26–28; ranger naturalist, Yellowstone Nat. Park, 28–29; park naturalist, Glacier Nat. Park, 29–40; chief naturalist, Crater Lake Nat. Park, 41–42; *lieut, ordnance dept, U. S. Naval Res, 42–* Mem. advisory council, State Park Cmn, Oregon, 41– Chem. Soc. Natural history; iodide method of separation of radium from carnotite ore; thermodynamic treatment of molten salt solutions; forest cover types; ornithology of Montana; glaciers and glacial recession in Glacier Park; ethnological methods; natural history of John Day County, Oregon; mine warfare and degaussing.

Ruhnke, Prof. G(erald) N(elson), Ontario Agricultural College, Guelph, Ont, Can. *Soils.* Chatham, Ont, Nov. 21, 98. B.S.A, Toronto, 23, M.S.A, 29. Soil specialist, *dept. chem, Ont. Agr. Col,* 23–26, lecturer *soil chem,* 26–30, *prof, 30–, head dept, 36–* Soil Sci. Soc. (pres, 30); Soc. Agron; fel. Can. Inst. Chem; Can. Soc. Tech. Agr. Soil profiles; soil phosphates.

Ruhoff, Dr. John R(ichard), Mallinckrodt Chemical Works, St. Louis, Mo. *Chemistry.* De Pue, Ill, June 29, 08. B.S, Wisconsin, 29; Ph.D, Hopkins, 32. Fellow, Hopkins, 32–33; asst, Harvard, 33–35; *research chemist,* gen. labs, U. S. Rubber Products, 35–37; *Mallinckrodt Chem. Works, 37–* Chem. Soc. Hydrogenation; rubber; organic chemistry; inorganic chemistry.

Ruigh, Dr. W(illia)m L(ivingston), 44 Kent Place Blvd, Summit, N. J. *Chemistry.* Tokyo, Japan, Jan. 29, 05. B.S, Princeton, 27, Sayre fellow, 27–28, du Pont fellow, 28–29, Ph.D, 32. Asst, Princeton, 29–30; research chemist, Merck and Co, 30–37; *research assoc.* physiol. chem, med. sch, Pennsylvania, 37–38; div. org. chem, Squibb Inst. Med. Research, 38–43; *vitamin div, Nat. Oil Products Co, 43–* Tutor, col. dept, Hun Sch, 32–36. A.A; Chem. Soc; Princeton Eng. Asn. Molecular rearrangements; carbazole local anesthetics; divinyl ether as an inhalation anesthetic; blood concentrations and rate of elimination of volatile anesthetics; pelletierine alkaloids; chemistry of sterols; structure of spinasterol and campesterol; 7-dehydrocampesterol a pro-vitamin D.

Rule, Dr. Kenneth C, P. O. Box 272, South Charleston, W. Va. *Chemistry.* Jan. 25, 12. B.S, Chicago, 35; du Pont fellow, Columbia, 37–38, Ph.D, 38. Am-Scandinavian Foundation fellow, Denmark, 38–39, Sweden, 39–40; *asst. director process control dept, Westvaco Chlorine Products Corp, 41–* A.A; Chem. Soc. Dissociation constants of heavy hydrogen acids; x-ray absorption edges for sodium and samarium; alkali-chlorine electrolytic cells.

Rulon, Dr. (Gerald) Olin, Wayne University, Detroit, Mich. *Zoology.* Gallatin, Mo, 08. A.B, Park Col, 30; M.S, Oklahoma, 32; Ph.D, Chicago, 35. Grant, Rockefeller Foundation, Chicago, 34–37; instr. *biol, Wayne,* 37–40, *asst. prof, 40–* Summer, instr, Chicago, 40; Marine Biol. Lab, Woods Hole, 42. A.A; Soc. Exp. Biol; Soc. Zool. Axial gradients; alterations of axial gradients; developmental patterns.

Rulon, Prof. P(hilip) J(ustin), 10 Craigie St, Cambridge, Mass. *Psychology.* Keokuk, Iowa, March 11, 00. A.B, Stanford, 26, A.M, 28; Ph.D, Minnesota, 31. Instr. science and math, Peninsula Sch, Menlo Park, Calif, 25–28; *educ,* Minnesota, 28–30; *grad. sch. educ, Harvard,* 30–34, asst. prof, 34–40, *assoc. prof, 40–* Instr, Radcliffe Col, 32–33. A.A; Psychol. Asn; Statist. Asn; Am. Educ. Research Asn; Psychometric Soc; Inst. Math. Statist; Math. Soc; Math. Asn. Educational psychology, statistics and measurement.

Rumbaugh, Prof. L(ynn) H(amilton), University of Minnesota, Minneapolis, Minn. *Physics.* Ira, Iowa, March 8, 04. A.B, Miami, 28; Ph.D, Calif. Inst. Tech, 32. Nat. research fellow, Bartol Research Foundation, 32–34, research fellow, 34–37; *asst. prof. physics, Minnesota, 37–* Separation of isotopes in quantity; nuclear transmutations; cosmic radiation.

Rumbold, Dr. Caroline (Thomas), 425 Sterling Place, Madison, Wis. *Plant pathology.* St. Louis, Mo, July 27, 77. B.L, Smith Col, 01; A.M, Washington (St. Louis), 03, Ph.D, 11, fellow, Mo. Bot. Garden, 10–11; Dr. oec. publ, Munich, 07. Sci. aid, bur. plant indust, U. S. Dept. Agr, 03–05; asst. bot, Missouri, 08–10; expert and collaborator, bur. plant indust, U. S. Dept. Agr, 11–17, asst. pathologist, sugar plant investigations, 17–19, plant pathologist, 19–24, asst. pathologist, office forest path, 24–29, assoc. pathologist, 29–42. Plant physiologist, Pa. Chestnut Blight Cmn, 12–13. A.A; Phytopath. Soc; Soc. Plant Physiol; Bot. Soc. Wash. Fungus diseases of trees; injection of chemicals into chestnut trees; blue stain of wood.

Ruml, Dr. Beardsley, R. H. Macy and Co, New York, N. Y. *Psychology.* Cedar Rapids, Iowa, Nov. 5, 94. B.S, Dartmouth Col, 15; Ph.D, Chicago, 17. Instr. psychol, Carnegie Inst. Tech, 18; sec'y, Scott Co, 19–21; asst. to pres, Carnegie Corp, 21–22; director, Laura Spelman Rockefeller Mem, 22–29, exec. officer, Spelman Fund, 29–31; prof. educ. and dean div. social sciences, Chicago, 31–34; *treas, R. H. Macy and Co, 34–* Chairman, Fed. Reserve Bank, New York. Trustee, Spelman Fund, New York, 29–; Museum of Modern Art, New York; Nat. Bur. Econ. Research. Co-director trade test div, U.S.A, 18. Financial administration.

Rumold, Prof. C(hristian) F(erdinand), 320 S. Lincoln Ave, Kent, Ohio. *Chemistry.* Ottawa, Ill, Nov. 27, 73. LL.B, Kansas, 99, A.B, 01; Ph.D, Western Reserve, 31. Prof. chem. and physics, Berea Col, 03–18, acting dean col. dept, 06–18, v. pres. and acting pres, 17–18; *prof. chem. and physics and head dept,* Kent State Col, 18–35, *Kent State Univ, 35–* Clark lecturer, Berea Col, 06–18. A.A; Chem. Soc; fel. Inst. Chem; Chemists' Club. Gases; atomic weights; density of boron trifluoride and the atomic weight of fluorine.

Rumsey, Dr. L(ouys) A, W. E. Long Co, 155 N. Clark St, Chicago, Ill. *Chemistry.* Stryker, Ohio, May 7, 89. B.S, Denison, 12, M.S, 13; Ph.D, Minnesota, 22. Instr. chem, Iowa State Col, 13–17; asst. prof, Denison, 17–20; fellow, Am. Inst. Baking, 20–22, research chemist, 22–23; Wheat Council of U. S, 23–24; director trade promotion, Am. Bakers Asn, 24–25, sec'y, 25–28; *science, pub. relations and indust. advertising, W. E. Long Co, 28–* Chem. Soc; Soc. Bakery Eng; Asn. Dairy, Food and Drug Officials; Nat. Indust. Advertisement Asn. Cereal technology; baked products.

Runde, Sister Alberic, Rosary College, River Forest, Ill. *Chemistry.* Sinsinawa, Wis. A.B, Rosary Col, 24; A.M, Illinois, 27; Ph.D, Yale, 32. Asst. *chem,* Illinois, 27; *prof, Rosary Col, 32–* Chem. Soc. Preparation and properties of furylacetic acid; syntheses of naphthalene analogues of cinchophen.

Rundle, Prof. Robert Eugene, Iowa State College, Ames, Iowa. *Physical chemistry.* Orleans, Nebr, Dec. 13, 15. B.S, Nebraska, 37, M.S, 38; Ph.D, Calif. Inst. Tech, 41. *Asst. prof. chem, Iowa State Col, 41–* Chem. Soc. Structure of starch.

Rundles, Dr. (Ralph) Wayne, University Hospital, Ann Arbor, Mich. *Neuroanatomy, Internal medicine.* Urbana, Ill, Sept. 10, 11. A.B, DePauw, 33; Ph.D, Cornell, 37; M.D, Duke, 40. Asst. and instr. anat, med. col, Cornell, 33–37; intern, *univ. hosp, Michigan,* 40–41, asst. res. *int. med,* 41–42, res, 42–43, *instr, 43–* Fiber connections of the corpus striatum and temporal lobes of the brain in primates; diabetic neuritis.

Rundquist, Dr. E(dward) A(lfred), 216 E. Ninth St, Cincinnati, Ohio. *Psychology.* Crookston, Minn, Feb. 8, 06. A.B, Minnesota, 28, Ph.D, 32. Research instr, inst. child welfare, Minnesota, 29–30, research fellow, 33–34; asst. psychologist, Minneapolis Child Guidance Clinic, 29–30, psychologist, 30–33, 34–35; *asst. director psychol. lab, pub. schs, Cincinnati, 35–* Assoc. Psychol. Asn; Asn. Applied Psychol; Ohio Asn. Applied Psychol. Animal behavior; individual differences, tests, personality and behavior.

Runge, Prof. Lulu L(illian), 1619 R St, Lincoln, Nebr. *Mathematics.* Dane, Wis. Dec. 19, 84. A.B, Wisconsin, 05, A.M, 09. Instr. *math, Nebraska,* 09–13, *asst. prof, 13–* A.A; Math. Soc; Math. Asn. Mathematical economics.

Runk, Dr. B(enjamin) F(ranklin) Dewees, Box 1728, University Station, Charlottesvile, Va. *Botany, Biology.* Germantown, Pa, April 10, 06. B.S, Virginia, 29, M.S, 30, Ph.D, 39. Instr. sociol, Wisconsin, 30–33; econ. analyst, Fed. Emergency Relief Admin, 33–34; *instr. biol, Virginia, 39–; instr. bot, Marine Biol. Lab, Woods Hole, 38–* A.A. Morphology and taxonomy of the algae.

Runkel, Dr. Joseph E, Carroll College, Waukesha, Wis. *Psychology.* Waukesha, Wis, March 17, 11. A.B, Carroll Col, 33; A.M, Wisconsin, 34; Ph.D, Minnesota, 38. *Instr. psychol, Carroll Col. (Wis), 38–* A.A; assoc. Psychol. Asn; Soc. Research Child Develop. Child and social psychology.

Runnells, Prof. Russell A(lger), Michigan State College, East Lansing, Mich. *Comparative anatomy.* Oceana, Va, June 21, 91. D.V.M, Mich. State Col, 16; M.S, Michigan, 30. Asst. prof. animal path, Mich. State Col, 19–24; assoc. animal pathologist, Exp. Sta, Va. Polytech, 24–30; assoc. prof. vet. path, Iowa State Col, 30–43; *prof. comp. anat. and head dept, Mich. State Col, 43–* Officer, V.C, 17–19. Vet. Med. Asn; Asn. Research Workers in Animal Diseases; Int. Asn. Med. Mus. Brucella abortus infection of bovine udders; pullorum disease of fowls; bovine cutaneous tuberculosis; tumors of domestic animals; animal pathology.

Runner, Prof. J(oseph) J(ames), University of Iowa, Iowa City, Iowa. *Geology.* Aurora, Ill, July 17, 85. A.B, Nebraska, 07; Ph.D, Chicago, 24. Prof. *geol,* S. Dak. Sch. Mines; asst. prof, *Iowa,* 19–29, assoc. prof, 29–39, *prof, 39–; senior geologist, U. S. Geol. Surv, 42–* Geologist, The Texas Co. Summers, acting asst. prof, Stanford; Chicago. A.A; fel. Miner. Soc; fel. Geol. Soc. Precambrian, structural, metamorphic and igneous geology.

Running, Prof. Theodore R(udolph), 1019 Michigan Ave, Ann Arbor, Mich. *Mathematics.* Colfax, Wis, Dec. 14, 66. B.S, Wisconsin, 92, fellow, 95–97, M.S, 96, Ph.D, 99. Prof. math, physics and chem, St. Olaf Col, 93–95; asst. math, Wisconsin, 97–99, instr, 99–00; prof. math. and nat. science, St. Olaf Col, 00–03; instr. *math, Michigan,* 03–07, asst. prof, 07–13, assoc. prof, 13–20, prof, 20–37, *emer. prof, 37–,* acting asst. dean cols. eng. and archit, 24–25. A.A; Math. Soc; Math. Asn; Eng. Educ. Graphical methods.

Runyon, Prof. Ernest H(ocking), Agnes Scott College, Decatur, Ga. *Botany.* Iowa, July 8, 03. B.S, Chicago, 25, Ph.D, 34. Instr. *bot,* Washington (St. Louis), 26–28; asst, Chicago, 28–30; instr, Cincinnati, 30–34; Wellesley Col, 35–36; asst. prof, *Agnes Scott Col,* 36–38, *assoc. prof, 38–* Summers, desert lab, Carnegie Institution, 27–31. Bot. Soc; Soc. Plant Physiol. Plant biology; physiology; water relations of plants; organization in the slime mold Dictyostelium.

Runyon, Dr. Lallah C(urry), 144 Garland Ave, Decatur, Ga. *Zoology, Physiology.* Newton Highlands, Mass, May 31, 02. A.B, Wellesley Col, 24; M.S, Washington (St. Louis), 26, Ph.D, 28. Asst. zool, Washington (St. Louis), 24–26; instr. physiol, Wellesley Col, 28–30; research, Kettering lab, col. med, Cincinnati, 31–34. Cytology of mesonephros of Necturus maculosus; cytology of the brain; scientific drawing.

Ruoff, Prof. P(aul) M(ilton), Syracuse University, Syracuse, N. Y. *Organic chemistry.* LaCrosse, Wis, April 23, 10. B.Chem, Minnesota, 34; Hormel Foundation fellow, Hopkins, 34–38, Ph.D, 38. Asst, Hopkins, 38; research fellow, Minnesota, 39; *asst. prof. chem, Syracuse, 39–* Chem. Soc. (v. pres, Syracuse sect, 42). Thermal decomposition of alicyclic compounds; behavior of biological materials at the dropping mercury electrode; mold products.

Rupel, Prof. I(saac) Walker, 2735 Mason St, Madison, Wis. *Dairy husbandry.* Walkerton, Ind, May 3, 00. B.S, Illinois, 23; M.S, Wisconsin, 24, Ph.D, 32. Instr, *Wisconsin,* 24–29, asst. prof, 30–40, *assoc. prof. dairy husbandry, 41–* Exchange prof, Hawaii, 30. Dairy Sci. Asn. (sec'y, production sect, 37); Soc. Animal Production (chairman, dairy sect, 38). Nutrition; feeding and management of dairy cattle.

Rupert, Dr. F(rank) F(inch), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Caledonia, N. Y, Oct. 18, 83. A.B, Kansas, 06, A.M, 08; Ph.D, Mass. Inst. Tech, 12. Instr. chem, Kansas, 07–09; asst, Mass. Inst. Tech, 10–11; instr, Kansas, 11–12; junior physical chemist, Bur. Mines, 12–13; *indust. fellow, Mellon Inst, 13–* A.A; Chem. Soc. Colloid chemistry; phase rule; electrical potential; catalysis; inks; silvering of glass; spectrophotometry; air hygiene; analytical chemistry.

Rupp, Dr. Alice, Box 286, Milledgeville, Ga. *Physiology.* Pittsburgh, Pa, April 13, 98. A.B, Wellesley Col, 20, A.M, 22; Shevlin fellow, Minnesota, 22–23, Ph.D, 25, M.B, M.D, 28. Asst. physiol, Wellesley Col, 20–22; teaching fellow, Minnesota, 23–25, instr, 25–27, teaching fellow, 27–29, instr, 29–30; epidemiologist, State Dept. Health, Minn, 38–42; *staff physician, Allen's Hosp, 42–* A.A. Physiological pediatrics; conditions of the stomach in children.

Rupp, Prof. Charles A(ndrew), Pennsylvania State College, State College, Pa. *Mathematics.* Salem, Mass, Aug. 23, 98. A.B, Harvard, 19, A.M, 21; Cmn. Relief Belgium Educ. Foundation fellow, 21–22; fellow, Chicago, 27–28, Ph.D, 28. Instr. math. Harvard, 19–21; instr. *math,* Hamline, 23–24; adj. prof, Texas, 24–26; assoc. prof, *Pa. State Col,* 28–30, *prof, 30–; capt, Sig. Corps, U. S. Army.* Math. Soc; Math. Asn. N-dimensional and algebraic geometry.

Rupp, G(eorge) F(rancis), U. S. Department of Agriculture, Upper Darby, Pa. *Forestry.* Shiremanstown, Pa, Feb. 13, 95. B.S, Pa. State Col, 21; M.F, Yale, 26. Asst, U. S. Forest Service, 21; asst. prof. forestry, Pa. State Col, 22–27; prof. forestry and eng, Univ. of the South, 27–35; *regional forestry div, soil conservation service, U. S. Dept. Agr, 35–* Soc. Foresters: Forestry Asn. Forest management.

Rupp, Dr. R(aphael) E(mory), 92 Ridge Road, Lyman, S. C. *Chemistry.* Shiremanstown, Pa, April 29, 01. B.S, Dickinson Col, 22; Ph.D, Yale, 27. Chief anal. dept, *Pacific Mills,* 26–32, chief chemist, *Lyman div,* 32–35, *supt, 35–* Chem. Soc; Asn. Textile Chem. and Colorists; Textile Research Inst. Theory of color in the indigo molecule; analyses for minute amounts of metals in textiles; oxidation and reduction potential measurements.

Rupp, Virgil R(ichard), 4125 Ruckle, Indianapolis, Ind. *Chemistry.* Quincy, Ill, Nov. 26, 00. M.S, Catholic Univ, 23. Chemist, Moorman Mfg. Co, 24–27; research chemist, Russell Sage Inst, 27; Inst. Am. Meat Packers at Chicago Univ, 28–32; *Kingan and Co, 32–36, director research, 36–* Chem. Soc. Effect of an all-meat diet on human beings; meat curing; packing-house problems.

Ruppert, Karl, Carnegie Institution, Washington, D. C. *Archeology.* Phoenix, Ariz, Sept. 19, 95. B.S, Arizona, 20; M.S, George Washington, 24; A.M, Harvard, 28. *Archeologist, Carnegie Institution, 25–* Expeds, cliff ruins of north. Ariz; Nat. Geog. Pueblo Bonito exped, N. Mex; explorations in north. Mex, Guatemala, Chiapas, Yucatan, Campeche and Quintana Roo. Anthrop. Asn. Temple of the wall panels and the caracol at Chichen Itza.

Ruprecht, Dr. R(udolf) W(illiam), P. O. Box 327, Sanford, Fla. *Chemistry.* Brooklyn, N. Y, June 2, 89. B.S,

R. I. State Col, 11; M.S, Mass. Col, 14, Ph.D, 16; Cornell, 15–16. Asst. chemist, Exp. Sta, Mass. Col, 11–16; chemist and supt, F. W. Tunnel and Co, Pa, 16–19; *chemist*, Exp. Sta, Florida, 19–37; *in charge Celery Lab, Sanford, 37–* Chem. Soc; Soc. Agron. Agricultural chemistry.

Rusch, Prof. Harold P(aul), University of Wisconsin, Madison, Wis. *Oncology.* Merrill, Wis, July 15, 08. A.B, Wisconsin, 31, M.D, 33. Instr. physiol, *Wisconsin*, 34–35, Bowman fellow cancer research, 35–40, *chairman dept. cancer research, 40–*, asst. prof. and later *assoc. prof. oncology, 40–* A.A; Asn. Cancer Research; Soc. Exp. Path; Soc. Exp. Biol. and Med. Mechanism of cancer production with ultra-violet irradiation and carcinogenic chemicals; factors influencing liver tumor production.

Rusden, Dr. P(hilip) L(owry), 206 Federal Bldg, Cambridge, Mass. *Plant disease control.* Somerville, Mass, June 25, 07. B.S, Tufts Col, 30; A.M, Harvard, 32, Ph.D, 34. *Field agent, northeast region blister rust control, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–* A.A; Mycol. Soc; Soc. Foresters. Comparative cytology of Gasteromycetes.

Rush, Dr. Grace Preyer (Mrs. Charles Wilfred), 2256 Grandview Ave, Cleveland Heights, Ohio. *Psychology.* Denver, Colo, Jan. 31, 92. A.B, Western Reserve, 15, A.M, 16; Columbia, 20–22, 29–30, Ph.D, 37. Asst. psychol, Western Reserve, 15–16, instr. philos, 16–21, asst. prof. psychol, 21–39; *writer and gen. consultant, 39–* Assoc. Psychol. Asn. The scientific measurement of classroom products; child and educational psychology.

Rush, Prof. Harry S(peer), 1019 Ninth Ave, N. Fargo, N. Dak. *Electrical engineering.* Collins, Iowa, Jan. 23, 85. B.S, Iowa State Col, 05, E.E, 22. Meter tester, Union Elec. Light and Power Co, St. Louis, 05–06; testman, Gen. Elec. Co, Schenectady, 06–07; dist. engineer and asst. engineer elec. distribution, Pub. Service Co. of North. Ill, Chicago, 07–17; instr. *elec. eng*, N. Dak. State Sch. Science, 17–20; from asst. prof. to *prof, N. Dak. Col, 20–, asst. dean eng.* Elec. Eng. (counselor, student branch); Eng. Educ.

Rush, Prof. Philip Ellas, University of Pittsburgh, Pittsburgh, Pa. *Electrical engineering.* Parkersburg, W. Va, Sept. 7, 01. B.S, Ohio State, 24. Instr. *elec. eng*, Ohio State, 24–26; *Pittsburgh*, 26–34, *asst. prof, 34–* Elec. Eng; Eng. Educ. Fluorescent lighting.

Rush, Prof. R(ichard) I(rwin), Centre College, Danville, Ky. *Chemistry.* Woodstock, Va, Oct. 11, 00. A.B, Hopkins, 22, Ph.D, 27. *Prof. chem, Centre Col, 27–* A.A; Chem. Soc. (chairman, Lexington sect, 31); Ky. Asn. Chem. Teachers (pres, 40–42). Structural changes in amorphous materials; silica gel.

Rushmore, Dr. Stephen, 520 Commonwealth Ave, Boston, Mass. *Medicine.* Rochester, N. Y, Oct. 19, 75. A.B, Amherst Col, 97, hon. Sc.D, 37; M.D, Hopkins, 02. Asst. res. gynecologist, Hopkins Hosp, 03; house physician, Hudson St. Hosp, New York, 03–04; house surgeon, St. Mary's Hosp. for Children, 04–05; res. gynecologist, Hopkins Hosp, 05–06; house officer, Boston Lying-in Hosp, 07–08; instr. gynec, med. sch, Tufts Col, 09–12, assoc. prof, 12–22, prof. and dean, 22–27; sec'y, State Board Registration in Med, Mass, 31–42; *dean sch. med, Middlesex, 42–* Instr, Hopkins, 06; gynecologist; Symmes' Arlington Hosp; surgeon, Mass. Women's Hosp. A.A; Col. Surg; Gynec. Soc; New Eng. Surg. Soc; New Eng. Obstet. and Gyned. Soc; Boston Surg. Soc; Boston Obstet. Soc. Gynecology; obstetrics.

Rushton, Dr. E(ugene) R(ay), Tennessee Valley Authority, Wilson Dam, Ala. *Chemistry.* Montgomery, Ala, Oct. 25, 98. A.B, Virginia, 22; M.S, Wisconsin, 25; Ph.D, Cornell, 31. Asst. prof, Clemson Col, 21–32; asst. research, N. Y. Exp. Sta, Geneva, 33–34; junior chemist and later *asst. chemist, Tenn. Valley Authority, Wilson Dam, 36–* A.A; Chem. Soc. Physical and inorganic chemistry; physical and chemical properties of inorganic arsenic compounds and arsenical insecticides.

Rusk, Dr. G(ianville) Y(elsley), 117 Alton Ave, San Francisco, Calif. *Pathology.* Baltimore, Md, Feb. 15, 75. A.B, Hopkins, 96, M.D, 00. Med. house officer, Hopkins Hosp, 00–01; Enoch Pratt Hosp, 01–02; pathologist, Manhattan State Hosp, New York, 02–10; asst. prof. *path, California*, 10–14, assoc. prof, 16–28, *prof, 28–* Pathologist, Mt. Zion Hosp, San Francisco, 30– A.A; Asn. Path. and Bact; Am. Med. Asn. Neoplastic diseases; morbid anatomy.

Rusk, Dean H(enry) P(erly), University of Illinois, Urbana, Ill. *Animal husbandry.* Rantoul, Ill, July 19, 84. B.S, Valparaiso, 04; B.S. (Agr), Missouri, 08, M.S, 11. Asst. animal husbandry, Missouri, 08–09; Exp. Sta, Purdue, 09–10; from assoc. to asst. prof. beef cattle husbandry, *Illinois*, 10–22, prof. animal husbandry, head dept. and chief, Exp. Sta, 22–39, *dean col. agr, director, Exp. Sta. and exten. service in agr. and home econ, 39–* Mem. div. biol. and agr, Nat. Research Council, 26–29; exten. wartime advisory cmt, U. S. Dept. Agr; State War Council, Ill; chairman, Agr. Resources and Products Cmt. A.A; Soc. Animal Production (v. pres, 24, pres, 25); Ind. Cattle Feeders Asn. (sec'y, 09). Beef cattle production; cattle feeding.

Rusk, Hester M(ary), 26 Stoddard Place, Brooklyn, N. Y. *Botany.* Kansas City, Mo, Dec. 26, 90. Nebraska, 08–09; A.B, Columbia, 12, A.M, 17; Wisconsin, 19; Chicago, 19; Cornell, 28–30, 34. Instr. bot, agr. high sch, Nebraska, 13–15; asst, Barnard Col, Columbia, 15–18, instr. bot, 18–20; tech. asst, N. Y. Bot. Garden, 20–26; curatorial asst, *Brooklyn Bot. Garden*, 26–28, *instr, 28–* A.A; Bot. Soc; Torrey Bot. Club; Fern Soc. (librarian, 36–; curator herbarium, 41–); N. Y. Acad. Flowering plants.

Rusk, Prof. Rogers D, Mt. Holyoke College, South Hadley, Mass. *Physics.* Washington, D. C, Nov. 17, 92. B.S, Ohio Wesleyan, 16; A.M, Ohio State, 17; Ph.D, Chicago, 25. Instr. physics, acad, Ohio Wesleyan, 15–16; head dept. science, high sch, Ohio, 17–18; prof. *physics*, N. Cent. Col, 19–28; assoc. prof, *Mt. Holyoke Col*, 28–41, *prof, 41–, chairman dept, 40–* Sig.C, U.S.A, 18–19. A.A; fel. Physical Soc; Asn. Physics Teachers. Cosmic rays; electronics; philosophy of science.

Rusk, Prof. W(illiam) J(ames), Grinnell College, Grinnell, Iowa. *Mathematics.* Ont, Can, Sept. 30, 69. B.A, Toronto, 95, fellow, 95–98, M.A, 98; Chicago, 00–01, fellow, 01–02. Instr. *math*, Bishop's Col, 98–00; assoc. prof, *Grinnell Col*, 02–05, prof, 05–42, *emer. prof, 42–* Math. Soc; Math. Asn.

Rusoff, Prof. L(ouis) L(eon), Louisiana State University, Baton Rouge, La. *Nutrition, Biochemistry.* Odessa, Russia, Dec. 23, 10. B.S, Rutgers, 31; scholar, Pa. State Col, 31–32, M.S, 32; Ph.D, Minnesota, 40. Asst, nutrition lab, Exp. Sta, Florida, 32–35, lab. asst. animal nutrition, 35–37, asst, 37–42, instr, univ, 35–37, asst. prof, 37–42; *assoc. dairy nutritionist, Exp. Sta, Louisiana, 42–* A.A; Chem. Soc; Dairy Sci. Asn; Fla. Acad. (chairman biol. sciences sect, 41); Soil Sci. Soc. Fla. Vitamin assays; shark liver oil; trace elements in animal nutrition; poultry nutrition; pharmacology; animal nutrition; mineral elements; alkaloids.

Russel, Prof. Jouette Clark, University of Nebraska, Lincoln, Nebr. *Soil physics, Agronomy.* Galva, Kans, May 5, 89. B.S, McPherson Col, 11; Chicago, 11; Nebraska, 13; M.S, Minnesota, 18. Prof. chem. and physics, McPherson Col, 11–13, 15–18; chem, Nebr. Wesleyan, 18–19; from asst. prof. to *prof. agron, Nebraska, 19–; cooperative agent, soil conservation service, U. S. Dept. Agr, 38–* Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Soil and moisture conservation through residues on the surface and subsurface tillage; soil moisture evaporation.

Russell, Prof. A(lfred), 211 Hillsboro St, Chapel Hill, N. C. *Chemistry.* Belfast, Ireland, April 1, 05. B.S, Queen's (Ireland), 26, D.Sc, 29. Instr, Queen's (Ireland), 27–30; Glasgow, 30–31, lecturer, 35–36; lecturer and Carnegie teaching fellow, 31–34; Rockefeller traveling fellow, Illinois, 34–35; research chemist, Röhm and Haas Co, 36–37; assoc. prof. *chem, North Carolina*, 37–41, *prof, 41–* Chem. Soc. Natural and synthetic tanning materials.

Russell, Dr. Allen S(tevenson), Aluminum Research Laboratories, New Kensington, Pa. *Physical chemistry.* Bedford, Pa, May 27, 15. B.S, Pa. State Col, 36, M.S, 37, Ph.D, 41. Chemist, Bell Tel. Labs, 37; *physical chemist, Aluminum Research Labs, 40–* Chem. Soc. Ion scattering; physical chemistry of aluminum industry.

Russell, Arthur L(itchfield), Franklin Technical Institute, Boston, Mass. *Electrical engineering.* Boston, Mass, Dec. 4, 96. B.S, Mass. Inst. Tech, 18; B.S.(E.E), Harvard, 18. Asst. instr. elec. eng, Mass. Inst. Tech, 18–19; instr, Harvard, 19–22; Mass. Inst. Tech, 22–27, asst. prof, 27–32; *head elec. dept, Franklin Tech. Inst, 32–* Elec. Eng.

Russell, Dr. Carl P(archer), National Park Service, Washington, D. C. *Ecology.* Fall River, Wis, Jan. 18, 94. A.B,

Ripon Col, 15; A.M, Michigan, 17, Ph.D, 31; Nat. Museum fellow, France, 19. Prof. biol, St. Thomas Col, 17; park naturalist, Yosemite Nat. Park, 23–28; field naturalist in charge nat. park museums, *Nat. Park Service*, 28–35, chief museum div, 35–36, wildlife div, 36–37, regional director, region 1, 37–39, *supervisor research and interpretation, 39–, chairman pub. relations cmn, 41–* Am. Asn. Museums tour, 29–30; Oberlaender fellow, Germany, Austria and Switzerland, 36. Lieut, Inf, 17–19. A.A; Planning and Civic Asn; Asn. Museums; Soc. State and Local Hist; Soc. Mammal; Yosemite Nat. Hist. Asn. (director, 25–28); hon. mem. Pioneer Trails Asn; hon. mem. Ga. Soc. Archeol; Texas Geog. Soc. Mammalogy; Cervidae; game management; history of the American fur trade.

Russell, Dr. Charles D(aniel, Jr), Texas Co, Beacon, N. Y. *Physical chemistry.* Niagara Falls, N. Y, Aug. 30, 16. B.S, Niagara, 38; M.S, Calif. Inst. Tech, 40; Ph.D, Duke, 41. Teaching fellow, Duke, 39–41; *chemist, Beacon research lab, Texas Co, 41–* Summers, chemist, Union Carbide and Carbon Co, 37. Inst. Chem; Chemists' Club. Magnetochemical studies on hemoglobin compounds and on complex copper and nickel ions; physico-chemical studies on oil deterioration.

Russell, Prof. Chester, Jr, 110 Upland Road, Houghton, Mich. *Electrical engineering.* Russellville, Ark, Sept. 16, 04. B.S, New Mexico, 26, A.M, 33; M.S, Michigan, 40. Transmission and distribution engineer, Ark. Power and Light Co, 26–28; supt. distribution, Puerto Rico Ry, Light and Power Co, 28–29; assoc. prof. *elec. eng*, New Mexico, 29–39; prof, Denver, 39–41; *assoc. prof, Mich. Col. Min. and Tech, 41–* Elec. Eng; Eng. Educ; assoc. Illum. Eng. Soc. Theory of proximity effect in electrical conductors; economic application of illumination; transients in ferromagnetic circuits.

Russell, Prof. C(live) E(arnest), Michigan State College, East Lansing, Mich. *Horticulture.* Manton, Mich, May 6, 96. B.S, Mich. State Col, 26; fellow, Oregon State Col, 26–27, M.S, 28. Lecturer *hort*, Macdonald Col, McGill, 27–28; assoc. prof, Texas Tech. Col, 28–31, prof. and head dept, 31–37; *assoc. prof, Mich. State Col, 37–*

Russell, Dr. Elizabeth S(hull), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Physiological genetics.* Ann Arbor, Mich, May 1, 13. A.B, Michigan, 33; scholar, Columbia, 33–34, A.M, 34; fellow, Chicago, 34–35, Ph.D, 37. Asst, Chicago, 35–37; *independent investigator, Roscoe B. Jackson Mem. Lab, 37–* Elizabeth Pemberton Nourse fellow, Am. Asn. Univ. Women, 39–40. Asn. Cancer Research; Genetics Soc. Tumors in the fruit fly; physiological genetics of the coat color of mammals.

Russell, Ernest E(dward), U. S. Entomological Laboratory, Tempe, Ariz. *Entomology.* Springerville, Ariz, Dec. 24, 91. Asst. entomologist, State Cmn. Agr. and Hort, Ariz, 19–21; *cereal and forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 21–, assoc. entomologist.* Asn. Econ. Entom. Alfalfa seed chalcis; Pentatomidae and Myridae.

Russell, Dr. F(rancis) R(obinett), 1047 Hetfield Ave, Westfield, N. J. *Chemical engineering.* Athens, Ohio, Feb. 18, 11. A.B, Cincinnati, 30; M.S, Mass. Inst. Tech, 32, D.Sc, 36. Teaching asst, Cincinnati, 30–31; asst. director Bangor field sta, Mass. Inst. Tech, 33, asst, 34–36; *chem. engineer, Standard Oil Develop. Co, 36–* Chem. Soc. Kinetics of decomposition and polymerization of hydrocarbons; phase relationships of hydrocarbons during cracking; special instruments for measurement of level, flow and velocity; extreme pressure; munitions; electronics.

Russell, Dr. F(rederick) F(uller), Harvard Medical School, Boston, Mass. *[3]Pathology, Hygiene, Public health.* Auburn, N. Y, Aug. 17, 70. M.D, Columbia, 93; Sc.D, George Washington, 17; hon. Sc.D, Rochester. 42. Intern, Bellevue Hosp, New York, 93–95, res. physician. 95–96; Sloane Maternity Hosp, 95; lieut, M.C, U.S.A, 98–03, capt, 03–08, major, 09, 17, col, 17–20; curator, Army Med. Museum, 08–20, instr, Army Med. Sch, 08–20; prof. path. and bacter, George Washington, 09–20; director pub. health lab. service, int. health div, Rockefeller Foundation, 20–23, gen. director, 23–27, director, 27–36; prof. *prev. med. and epidemiol, Harvard Med. Sch. and sch. pub. health*, 36–39, *emer. prof, 39–* Director lab, Board Health, Ancon, C. Z, 15–17; in charge div. labs. infectious and venereal diseases, M.C. Nat. Board Med. Examiners, 19–20; div. med. sciences and govt. relations, Nat. Research Council. D.S. medal, 19; Sedgwick mem. medal, Am. Pub. Health Asn, 36; Marcellus Hartley medal, Nat. Acad. Sci, 36; Buchanan medal, Royal Soc. Arts and Sciences, 37; Snow medal, Am. Sch. Health Asn, 42. Col, M.O.R.C, 20–21, brig. gen, 21–42. Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn; Am. Physicians; Soc. Trop. Med; Asn. Mil. Surg; Col. Surg. Ancylostomiasis; malaria; opsonins; typhoid vaccination; dysentery bacilli; the prevention of typhoid fever; yellow fever.

Russell, Prof. G(eorge) E(dmond), 6 Audubon Road, Lexington, Mass. *Civil engineering.* Boston, Mass, Dec. 25, 77. B.S, Mass. Inst. Tech, 00. Mech. engineer, Am. Car and Foundry Co, 00–04; instr. civil eng, Cornell, 04–05; *Mass. Inst. Tech*, 05–07, asst. prof, 07–13, assoc. prof. hydraul. eng, 13–21, *prof. hydraul, 21–* Lecturer, Lowell Sch, 06–; examiner, Civil Service Cmn, Mass, 10–23; advisory board, U. S. Coast Guard Acad, 34–; consulting hydraul. engineer. Civil Eng; Am. Acad; New Eng. Water Works Asn; Boston Soc. Civil Eng. Hydraulics.

Russell, Prof. G(eorge) Oscar, 846 20th St, Ogden, Utah. *Speech pathology.* Conejos, Colo, Nov. 21, 90. A.B, Brigham Young, 14; A.M, Columbia, 16, Ph.D, 28; Berlin, Koenigsberg, Paris, Bologna, Vienna and Madrid, 10–13, 22–25. Asst. phonetics, Columbia, 16–17; assoc. prof, Utah, 19–23; prof. phonetics and director speech clinic and labs, Ohio State, 25–41; *supt, Utah State Sch. for Deaf, and director, State Research Labs. and Clinic, Utah, 41–* Speech pathologist, Children's Hosp, Columbus; research assoc, Carnegie Institution. Summers, visiting prof, Chicago; Wisconsin; Michigan; Washington (St. Louis); Linguistic Inst, Yale. Ed, 'Jour. Speech Disorders'; collaborating ed, 'Rev. de Phoniatrie'; 'Archiv. f. Sprach. u. Stimmheilkunde.' Aviation sect, U.S.A, 17–18; asst. mil. attaché, Brazil, 18; intel. div, U.S.A, 18–19. A.A; Acoustical Soc; Speech Correction Asn; Asn. Teachers Speech; Council Learned Societies; Linguistic Soc; Int. Exp. Phonetics Asn. Pathology, physiology and physics of speech, voice and hearing; vowel physiological mechanism; the vowel-x-ray analysis; speech x-rays for the deaf; dysphonia; x-ray analysis of vocal organ positions in singing and speaking; phonetics; language of the deaf and of the blind; manualization of a school for the deaf and blind.

Russell, Dr. H(arold) D(aniel), 195 Hoover Road, Rochester, N. Y. *Chemistry.* Bayard, Kans, Jan. 19, 02. A.B, 25, A.M, 26; Ph.D, Kansas, 29. *Research chemist, Eastman Kodak Co, Rochester, 29–* Photographic chemistry; electrochemistry.

Russell, Dr. H(arry) L(uman), University of Wisconsin, Madison, Wis. *[3]Bacteriology.* Poynette, Wis, March 12, 66. B.S, Wisconsin, 88, fellow, 88–90, M.S, 90, hon. Sc.D, 30; Berlin, 90; Pasteur Inst, Paris, and Naples Zool. Sta, 90–91; Ph.D, Hopkins, 92. Fellow, Chicago, 92–93; asst. prof. bacter, *Wisconsin*, 93–96, prof, 96–07, dean col. agr, 07–30, bacteriologist, Exp. Sta, 93–07, *director*, 07–30, *alumni research foundation, 30–* Consulting bacteriologist, State Board Health, Wis, 94–08; bacteriologist, Wis. Live Stock Sanit. Board, 01–07; lecturer, dairy sch, Minnesota, 01–16; director, State Hygienic Lab, Wis, 03–08. Mem. staff, U. S. Food Admin, 18–A.A; Soc. Bact. (chairman, 08); Pub. Health Asn. (chairman, lab. sect, 03); Asn. Land-Grant Cols. (pres, 20). Dairy bacteriology; bovine tuberculosis; bacterial plant diseases; pasteurization of milk; the curing of cheese.

Russell, Dr. Helen G(ertrude), Wellesley College, Wellesley, Mass. *Mathematics.* Gorham, Maine, Sept. 28, 01. A.B, Wellesley Col, 21; A.M, Columbia, 24; Ph.D, Radcliffe Col, 32. Teacher, high sch, N. J, 21–23; N. Y, 23–27; instr. *math, Wellesley Col*, 28–29, 32–36, *asst. prof, 36–* Math. Soc. Convergence and overconvergence of sequences of polynomials of best simultaneous approximation to several functions analytic in distinct regions.

Russell, Dr. Henry D, New England Museum of Natural History, 234 Berkeley St, Boston, Mass. *Malacology.* Boston, Mass, Sept. 5, 08. A.B, Harvard, 32; A.M, Boston, 33, Ph.D, 40. *Asst. curator molluscs, museum comp. zool, Harvard, 41–; asst. to pres, New Eng. Museum Nat. Hist, 42–* Mem. div. marine fisheries, State Dept. Conservation, Mass, 41–42; oceanog. research, Oceanog. Institution, Woods Hole, 43–44. Summers, biol. surv. work, Cuba, Bahama Islands and Island of Hispaniola, 34–37; surv. lakes and streams of Merrimac watershed, State Dept. Conservation, N. H, 38. Malacol. Union; Conchol. Soc. Gt. Britain and Ireland. Mollusca; lake and stream conservation in regard to their improvement for fish; museum management and policy.

Russell, Dr. Henry N(orris), 79 Alexander St, Princeton, N. J. ***Astronomy,* Oyster Bay, N. Y, Oct. 25, 77. A.B, Princeton, 97, fellow, 97–00, A.M, 98, Ph.D, 00; hon. Sc.D, Dartmouth Col, 23, Harvard, 29, Chicago, 41, Michoacan, 42; Docteur, Louvain, 27. Carnegie asst, Cambridge Observatory, 03–05; instr. *astron, Princeton,* 05–08, asst. prof, 08–11, prof, 11–27, *research prof, 27–, director observatory, 12–* Gold medal, Royal Astron. Soc, 21; Lalande medal, French Acad, 22; Draper medal, Nat. Acad, 22; Bruce medal, Astron. Soc. Pacific, 25; Rumford medal, Am. Acad, 25; Franklin medal, Franklin Inst, 34; Janssen medal, French Acad, 36. Engineer, Bur. Aircraft Production, 18–19. Nat. Acad; A.A. (pres, 33); Astron. Soc. (pres, 34–37); Physical Soc; Philos. Soc. (pres, 31); Am. Acad; for. assoc. and fel. Royal Astron. Soc; for. mem. Royal Soc; hon. fel. Royal Soc. Edinburgh; assoc. Acad. Royal Belgium; cor. mem. French Acad. Sidereal astronomy; spectroscopy; general astrophysics.

Russell, Dr. Horace, Jr, California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Atlanta, Ga, July 18, 17. B.S, Duke, 38; Ph.D, Calif. Inst. Tech, 41. *Instr. chem, Calif. Inst. Tech, 42–* Low temperature calorimetry; Raman spectra.

Russell, Dr. H(oward) W(illis), Battelle Memorial Institute, Columbus, Ohio. *Physics.* Denver, Colo, March 24, 01. A.B, Denver, 21; Ph.D, Cornell, 27. Instr. physics, Denver, 21–22; Cornell, 22–27; asst. prof, Carnegie Inst. Tech, 27–29; *physicist, Battelle Mem. Inst, 29–* Summers, physicist, Eastman Kodak Co, 23, 24. A.A; Physical Soc; Optical Soc. Metallurgy; photovoltaic cells; mechanical properties of metals at low temperatures.

Russell, Dean James E(arl), Teachers College, Columbia University, New York, N. Y. *Education.* Hamden, N. Y, July 1, 64. A.B, Cornell, 87; Jena, 93–94; Leipzig, 94–95, Ph.D, 94; LL.D, Dickinson Col, 03, Colorado, 05, McGill, 09, Iowa, 23; Litt.D, Columbia, 27, Univ. State of N. Y, 27. Teacher and prin, secondary schs, 87–93; prof. philos. and pedag, Colorado, 95–97; *educ, Teachers Col, Columbia,* 97–31, *emer. prof, 31–,* dean, 97–27, *emer. dean, 27–,* Barnard prof. educ, 04–27. Special agent, U. S. Bur. Educ, 93–94; European commissioner for Univ. State of N. Y, 93–95; chairman organizing cmt. and mem. exec. cmt, Nat. Advisory Cmt. on Educ, 30–31; mem, State Board Health, N. J, 32–40. A.A. (v. pres, 09); Psychol. Asn; Asn. Adult Educ. (pres, 26–29, chairman, 29–); Nat. Council Educ. German higher schools; university extension in England and America; education in Puerto Rico and the South; technical education.

Russell, Dr. James H(ershey), Sperry Gyroscope Co, Inc, 81 Willoughby St, Brooklyn, N. Y. *Psychology.* Pittsburgh, Pa, March 26, 98. A.B, Allegheny Col, 21; Union Sem, 23–25; A.M, Columbia, 26; Ph.D, Indiana, 40. Assoc. prof. psychol. and educational admin, Ind. State Teachers Col, Terre Haute, 28; instr. *psychol. and educ,* Carleton Col, 28–30; *assoc. prof, Miami (Ohio), 30–; training supervisor, Sperry Gyroscope Co, Inc, 42–* College and after college economic status of six hundred graduates of mid-western colleges.

Russell, Dr. Jane A(nne), Yale University School of Medicine, New Haven, Conn. *Physiological chemistry.* Los Angeles Co, Calif, Feb. 9, 11. A.B, California, 32, fellow, 34, Rosenberg fellow, 35–36, Ph.D, 37. Asst. biochem, California, 32–33, inst. exp. biol, 34–35, 36–37, Am. Physiol. Soc. Porter fellow, 37–38; nat. research fellow, *sch. med, Yale,* 38–39, Sterling fellow, 39–40, Lalor Foundation fellow, 40–41, *instr. physiol. chem, 41–* Research assoc. pharmacol, med. sch, Washington (St. Louis), 36. Physiol. Soc; Asn. Study Int. Secretions. The anterior pituitary and the adrenal cortex in intermediate metabolism.

Russell, Dr. John, 16 Meadow Lane, Rochester, N. Y. *Chemistry.* Nanaimo, B. C, Can, July 13, 99. B.A, British Columbia, 17; M.Sc, McGill, 18, 1851 Exhib. scholar, 19, Ph.D, 27. Instr. chem, Stanford, 21–23; asst. prof, Western Ontario, 23–28; *research chemist, Eastman Kodak Co, Rochester, 28–* Chem. Soc; fel. Can. Inst. Chem. Physico-chemical and colloid studies on cellulose, cellulose derivatives and gelatin; electrochemical and catalytic studies in glacial acetic acid; oxidation reduction potentials in organic systems.

Russell, Prof. J(ohn) W(illiam), 230 Sherwood Ave, London, Ont, Can. *Geology, Mineralogy.* B.A, McMaster, 95, M.A, 00; Harvard, 96. Science master, Woodstock Col. (Can), 98–07, 12–19; gen. manager, Kerry Mining Co, 07–11; prof. *geol, Western Ontario,* 19–40, *emer. prof, 40–; managing director, Oxford Cobalt Silver Mines, 19–* Director, White Lake Mines; pres, Goldbanks Mines; Kirkland Lake. Fel. Royal Soc. Arts England. Deposition of the ores of the monetary metals.

Russell, Prof. L(oris) S(hano), Royal Ontario Museum of Paleontology, Toronto, Ont, Can. *Paleontology.* Brooklyn, N. Y, April 21, 04. B.Sc, Alberta, 27; A.M, Princeton, 29, Ph.D, 30. Asst. paleontologist, Geol. Surv. Can, 30–37; *asst. prof. paleont, Toronto, 37–, asst. director, Royal Ont. Museum Paleont, 37–* Field officer, geol. div, Research Council, Alta, 28, 29. Geol. Soc; Paleont. Soc; Malacol. Union; Royal Soc. Can. Vertebrate paleontology; fossil vertebrates and mollusks of western Canada; Cretaceous and Tertiary stratigraphy of western Canada.

Russell, Louise M(ay), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Crown Point, N. Y, May 6, 05. B.S, Cornell, 26, M.S, 27. Senior sci. aid, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 27–29, junior entomologist, 29–38, *asst. entomologist, 38–* Entom. Soc. Wash; Biol. Soc. Wash. Taxonomy of sternorrhynchus Homoptera.

Russell, Dr. Mary A(nna), Newark, Del. *Biology.* Pasadena, Calif, Sept. 18, 02. A.B, Goucher Col, 25; M.S, Pennsylvania, 27, Ph.D, 36. Asst, Biochem. Research Foundation, Franklin Inst, 28–42; *instr. biol, Delaware, 42–* Botany; effects of roentgen rays on plants; growth in tissue culture.

Russell, Dr. M(orell) B(elote), Iowa State College, Ames, Iowa. *Soil physics.* Burr Oak, Mich, April 11, 14. B.S, Mich. State Col, 36; Ph.D, Iowa State Col, 39. Research asst. prof. soils, *Iowa State Col,* 36–39, *instr. physics and soils, 39–* Soil Sci. Soc. Energy concept of soil moisture; soil structure; clay minerals of soils.

Russell, Prof. Ned M(iller), 192 Fournier St, Berea, Ohio. *Psychology.* May 30, 11. A.B, Kansas, 32, A.M, 34, Ph.D, 36. Head dept. psychol. and educ, Huron Col, 36–37; Union Col. (Ky), 37–40; *assoc. prof. psychol, Baldwin-Wallace Col, 40–; lieut, Adj. Gen. Dept, U. S. Army.* Psychology of curricula in beginning arithmetic.

Russell, Col. Paul F(arr), 3327 Rittenhouse St, N.W, Washington 15, D. C. *Medicine.* Boston, Mass, Aug. 12, 94. A.B, Boston, 16; M.D, Cornell, 21; M.P.H, Harvard, 29. *Field staff, int. health div, Rockefeller Foundation, 23–; col, Med. Corps, U. S. Army; director Allied overseas sch. study of malaria, Algiers, 43–* Professorial lecturer, Philippines. Director, Straits Settlements Rural Sanit. Campaign, 26–28; Bur. Science, Manila, P. I, 29–34; malaria investigations, Madras, 36–42. A.A; Am. Med. Asn; Pub. Health Asn; Malaria Soc; Soc. Trop. Med; Acad. Trop. Med; Soc. Parasitol; Royal Soc. Trop. Med. and Hygiene; Far East Asn. Trop. Med; Philippine Soc. Parasitol. (pres, 31); Indian Sci. Cong. Public health; malaria.

Russell, Paul G(eorge), 3141 Aberfoyle Place, Washington, D. C. *Botany.* Liverpool, N. Y, April 24, 89. A.B, George Washington, 16, M.S, 24. Sci. asst, *bur. plant indust, U. S. Dept. Agr,* 17–23, junior botanist, 23–25, asst. botanist, 25–38, *assoc. botanist, 38–* Hort. Soc; Bot. Soc. Wash; Biol. Soc. Wash. Seeds of flowering plants; exotic woody ornamentals.

Russell, Dr. R. C, Dominion Laboratory of Plant Pathology, Saskatoon, Sask, Can. *Plant pathology.* Charing Cross, Ont, Nov. 30, 96. B.S.A, Saskatchewan, 24, M.Sc, 26; T. Eaton Co. scholar, Toronto, 28–29, 30–31, Ph.D, 34. Instr. biol, Saskatchewan, 23–24; asst. plant pathologist, div. bot, *Fed. Dept. Agr,* 25–30, *plant pathologist, div. bot. and plant path, 30–* Lecturer, Saskatchewan, 38– Can. Soc. Tech. Agr; Can. Phytopathol. Soc. Root rots and smuts of cereals.

Russell, Dr. R(aymond) G(ilbert), 1012 Kenneth Ave, New Kensington, Pa. *Inorganic chemistry.* Crivets, Wis, June 12, 15. A.B, Millikin, 37; M.S, Purdue, 39, fellow, 39, Ph.D, 42. Asst. and instr. chem, Purdue, 37–41; *research spectrographer and research chemist, research labs, Aluminum Co. Amer, 41–* Chem. Soc. Use of zeolites in the separation of the rarer elements; spectrographic methods; special analytical methods.

Russell, Prof. R(ichard) Dana, Louisiana State University, Baton Rouge, La. *Geology.* Pomona, Calif, Nov. 15, 06. A.B, Pomona Col, 27; Ph.D, California, 32. Teaching fellow geol, California, 28–30; instr. *miner, Louisiana,* 31–32, asst. prof, 32–38, *assoc. prof, 38–* Summers, geologist, Standard Oil Co, Calif, 26, 27. Asst, Miss. River Cmn, 34, 35; geologist, La. Geol. Surv, 37– Assoc. ed, 'Jour. Sedimentary Petrol,' 38–

Mem. cmt. sedimentation, Nat. Research Council, 37– Asn. Petrol. Geol; fel. Geol. Soc; Soc. Econ. Paleont. and Miner. Stratigraphic geology; sedimentary petrology and petrography.

Russell, Prof. Richard Joel, Louisiana State University, Baton Rouge, La. *Geology, Geography.* Hayward, Calif, 95. A.B, California, 20, Ph.D, 26. Teaching fellow geog, California, 20–22, assoc, 23–25; assoc. prof. geol, Texas Tech. Col, 26–27; geog, *Louisiana,* 28–30, *prof,* 30–35, *physical geog. and head dept, 36–* Collaborator, soil conservation service, U. S. Dept. Agr, 35–; geologist, La. Geol. Surv, 35– Summers, lecturer, California, 27, 29, 32, 34, 41; Harvard, 35. Mem, Nat. Research Council, 41– Assoc. ed, 'Geol. der Meere und Binnengewässer,' 39–41. W. W. Atwood award, 37. Univ. California del, Int. Geog. Cong, Paris, 31, U. S. del, Amsterdam, 38. La. State Univ. del, Int. Geol. Cong, Moscow, 37. Ensign, U.S.N.R, 18–19. A.A; Geol. Soc; Asn. Geog. (councilor, 36–39); Meteorol. Soc; Geophys. Union; Asn. Petrol. Geol. Geomorphology and structure of the Great Basin; climatic map of California; dry climates of the United States; climatic years; cheniers; deltas of the Mississippi River; stream patterns.

Russell, R(obert) P(rice), Room 2800, 30 Rockefeller Plaza, New York, N. Y. *Chemistry.* Worcester, Mass, July 16, 98. A.B, Clark, 17; M.S, Mass. Inst. Tech, 22. Research assoc, lab. applied chem, Mass. Inst. Tech, 22–23, div. director, 23–24, in charge eng. investigations, 24–25, asst. director, 25–26, director, 26–27; develop. and research dept, Standard Oil Co. of La, 27–29; *gen. manager, Hydro Eng. and Chem. Co, 29–;* manager develop. div, *Standard Oil Develop. Co,* 30–34, *v. pres. and gen. manager, 34–* Chem. Soc. (v. chairman, northeast. sect, 26); Chem. Eng; Soc. Test. Mat; Soc. Refrig. Eng; Soc. Automotive Eng; Petrol. Inst. Corrosion; combustion; fuels and their combustion; petroleum technology and hydrogenation.

Russell, Dr. Roger W(olcott), Michigan State College, East Lansing, Mich. *Experimental psychology.* Worcester, Mass, Aug. 30, 14. A.B, Clark Col, 35; A.M, Clark, 36; Peabody Col, 36–37; du Pont fellow, Virginia, 38–39, Ph.D, 39. *Instr. psychol,* Nebraska, 39–41; *Mich. State Col, 41–* Assoc. Psychol. Asn; Soc. Research Child Develop; South. Soc. Philos. and Psychol; Midwest. Psychol. Asn. Genetic psychology.

Russell, Dr. Thomas H(endrick), 2 E. 74th St, New York, N. Y. *Surgery.* Bracey, Va, April 12, 85. M.D, Jefferson Med. Col, 08. Intern, Gouverneur Hosp, New York, 08–11, asst. attending surgeon, 16–25, attending surgeon, 25–33, director surg, 33–36; asst. attending surgeon and later assoc. attending surgeon, *New York Post-Grad. Hosp. and Med. Sch, Columbia,* 18–36, *attending surgeon and director surg, 36–* Am. Med. Asn; fel. Col. Surg; N. Y. Surg. Soc. Injury of common duct and repair; spinal anesthesia; inguinal hernia; subphrenic abscess; results of gastric resection; surgery of stomach; reconstruction of common bile duct.

Russell, Prof. Walter C(harles), Rutgers University, New Brunswick, N. J. *Agricultural biochemistry.* Bellaire, Ohio, 92. B.S, Ohio Wesleyan, 14; fellow, Harvard, 19–20; M.S, Syracuse, 23; Swift fellow, Chicago, 23–25, Ph.D, 27. Teacher, high sch, Ohio, 14–15; instr. chem, Ohio Wesleyan, 15–17; instr, Syracuse, 20–23; asst. prof. and *prof. agr. biochem, Rutgers, 25–, exec. sec'y grad. faculty, 35–, biochemist nutrition, N. J. Exp. Sta.* Mem, Nat. Research Council, 43– U.S.A, 17–19. A.A; Soc. Exp. Biol; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Cellulose chemistry; nutrition; vitamins.

Russell, Dr. W(illiam) Lawson, Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Genetics.* Newhaven, Eng, Aug. 19, 10. B.A, Oxford, 32; Sherman Pratt fellow, Amherst Col, 32–33; fellow, Chicago, 33–34, Ph.D, 37. Asst. zool, Chicago, 34–36; *research assoc, Roscoe B. Jackson Mem. Lab, 37–* Genetics Soc; Soc. Zool. Physiological genetics of melanin pigmentation; genetics of the house mouse; relative importance of heredity and pre-natal environment.

Russell, Dr. William L(ogie), New York Hospital, 525 E. 68th St, New York, N. Y. *Psychiatry.* N.B, Can, July 24, 63. New Brunswick, 79–81; M.D, N. Y. Univ, 85. Med. inspector, State Cmn. Lunacy, N. Y, 03–10; med. director, Westchester div, N. Y. Hosp, 11–36; prof. *psychiat, Cornell,* 28–32, *emer. prof, 32–* Psychiat. Asn. (pres, 30); Asn. Research Nervous and Mental Disease; N. Y. Psychiat. Soc. (pres). History of the psychiatric service of the New York Hospital since 1791.

Russell, Dr. William L(ow), 2708 E. 22nd St, Tulsa, Okla. *Geology.* New Haven, Conn, Dec. 20, 97. A.B, Yale, 20, M.S, 22, Ph.D, 27. Aid, U. S. Geol. Surv, 20; petrol. geologist, N. Y. Geol. Surv, 21–23; S. Dak. Geol. Surv, 24–26; asst. prof. geol, South Dakota, 24–25; geologist, Creek Drilling Co, 28–30; Cumberland Petrol. Co, 30–33; Tidewater Oil Co, 35–38; consulting geologist, 38; geol. work, Standard Vacuum Oil Co, S. Africa, 38–40; geologist, Well Surveys, Inc, 40–43; *geol. research, Stanolind Oil and Gas Co, 43–* Chief geologist, E. Ohio Gas Co, 24. Asn. Petrol. Geol; Asn. Econ. Geol; assoc. Min. and Metal. Eng. Structural and petroleum geology; oil in South Dakota; artesian water; carbon ratio theory; oil recovery; Dakota sandstone; geology of oil fields of Kentucky and Tennessee; origin of concentrated brines; asphalt deposits of Kentucky; organic content of rocks; oil possibilities of South Africa; interpretation of radioactivity and neutron well records.

Russell, Dr. William O(gburn), Washington University School of Medicine, St. Louis, Mo. *Pathology.* San Jose, Calif, March 24, 10. A.B, Stanford, 33, M.D, 37. Res. path, Mallory Inst. Path, Boston, Mass, 38–39; instr. *path, sch. med, Washington (St. Louis),* 39–43, *asst. prof, 43–* Morphology of the central nervous system; effect of vitamin deficiency on the growth of tumors; erysipelothrix endocarditis; mixed intracranial gliomas; fibrosarcoma of arachnoidal origin with metastases; pinealoma.

Russell, Prof. W(illiam) P(olk), Pomona College, Claremont, Calif. *Mathematics.* Gaylesville, Ala, Dec. 29, 63. A.B, Cumberland, 85, A.M, 09. Prof. math. and astron, Lincoln Col. (Ill), 89–04; instr. *math, Pomona Col,* 04–08, asst. prof, 08–12, assoc. prof, 12–24, prof, 24–32, *emer. prof, 32–*

Russell, Prof. W(illiam) Walker, 651 Warren Ave, East Providence, R. I. *Chemistry.* Franklin, Mass, Nov. 25, 95. Ph.B, Brown, 18, M.S, 20; A.M, Princeton, 23, Ph.D, 26. Instr. *chem, Brown,* 24–29, asst. prof, 29–36, *assoc. prof, 36–* A.A; Chem. Soc. (sec'y-treas, R. I. sect, 27–29, v. chairman, 29–31, chairman, 31–32). Analysis; catalysis; heats of adsorption.

Russum, Dr. B(enjamin) Carl, 2524 N. 55th St, Omaha, Nebr. *Pathology.* Topeka, Kans, Jan. 6, 92. A.B, Creighton, 12, M.D, 16. Intern, Kings County Hosp, Brooklyn, N. Y, 16–17; res. pathologist, *St. Joseph's Hosp, Omaha,* 20–21, *attending pathologist, 21–;* instr. path, *col. med, Creighton,* 23, *prof,* 23–24, *path. and bacter, 24–, admin. board.* Attending pathologist, Douglas County Hosp, Omaha, 21–, St. Catherine's Hosp, 34– M.C, 17–19, capt; major, M.R.C, 25–35. A.A; fel. Soc. Clin. Path; Pub. Health Asn; fel. Am. Med. Asn; Int. Asn. Med. Mus. Pathological anatomy and histology.

Rust, Dr. Metta Maund, Teachers College, Columbia University, New York, N. Y. *Psychology.* Westmoreland Co, Va, Oct. 27, 89. B.S, Columbia, 25, A.M, 26, Laura Spelman Rockefeller fellow, 27–28, Ph.D, 31. Teacher and research *psychol, child develop. inst, Teachers Col, Columbia,* 28–35, *instr, 35–* Lecturer, Barnard Col, Columbia, 35–37. Assoc. Psychol. Asn; Soc. Research Child Develop; Educ. Research Asn; N. Y. Acad. Child psychology; mental and social measurement of preschool children; personality.

Rust, Dr. W(illiam) M(onroe), Jr, 23 W. Oaks Drive, Houston 6, Texas. *Mathematics, Geophysics.* Liberty, Texas, Jan. 17, 07. A.B, Rice Inst, 28, fellow, 28–31, Ph.D, 31. Instr. math, Rice Inst, 31–32; int. exchange fellow, Germany, 32–33; instr. and tutor math, Harvard, 33–34; geophysicist, *Humble Oil and Ref. Co, Houston,* 34–37, *head geophys. research,* 37–A.A; Math. Soc; Physical Soc; Geophys. Union; Soc. Explor. Geophys. (sec'y-treas, 41, v. pres, 43); Min. and Metal. Eng. Integral equations; circuit theory; applied geophysics.

Rutenber, Prof. Charles B(lackmer), Elmira College, Elmira, N. Y. *Chemistry.* Blooming Grove, N. Y, April 14, 98. Ch.B, Cornell, 21, Ph.D, 30. Instr. chem, Blackburn Col, 21–24; asst. chem, Cornell, 24–28; asst. prof, Kenyon Col, 28–34; prof, Huron Col, 34–36; research physiol. chem, sch. med, Pennsylvania, 36–37; *prof. chem,* Eureka Col, 37–38; Int. Y.M.C.A. Col, 38–43; *Elmira Col, 43–* A.A; Chem. Soc. Physical chemistry; physiological chemistry.

Ruth, Prof. B(urrell) F(ranklin), 1007 Roosevelt Ave, Ames, Iowa. *Chemical engineering.* Traverse City, Mich, July 21, 01. B.S, Mich. State Col, 23, M.S, 25; Ph.D, Minnesota, 31. Instr. *chem. eng,* Minnesota, 26–37; prof, Agr. and Mech. Col. Texas, 37–38; assoc. prof, *Iowa State Col,* 38–42, *prof, 42–* A.A; Chem. Soc; Eng. Educ. Theory of filtration.

Ruth, Prof. Elbert B(resee), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Anatomy.* Los Angeles,

Calif, March 19, 02. A.B, Indiana, 27; A.M, Wisconsin, 29, Ph.D, 31. Asst. zool, Wisconsin, 28–30, instr, 30–31; *anat*, sch. med. and dentistry, Rochester, 31–35, *asst. prof*, 35–37; sch. med, Georgetown, 37–38; *col. med, Cincinnati, 38–* Asst. limnologist, Wis. Geol. Surv, 28; State Biol. Surv, Ohio, 29. Asn. Anat; Soc. Zool. Comparative morphology; embryology; histology.

Ruth, Prof. W(arren) A(lbert), University of Illinois, Urbana, Ill. *Horticulture.* St. Joseph Co, Ind, May 23, 84. A.B, Wabash Col, 06, A.M, 09; fellow, Ohio State, 06–07; Ph.D, Illinois, 19. Asst. bot, Washington (St. Louis), 07–08; instr. chem, Wabash Col, 08–09; asst. chemist hort, *Illinois*, 09–12, assoc, 12–18, pomol, 18–19, asst. prof. *pomol. physiol*, 19–25, assoc. prof, 25–27, *prof, 27–* Soc. Hort. Sci; Bot. Soc. Pruning; spray residue removal.

Rutherford, Prof. E(lizabeth) J, Goucher College, Baltimore, Md. *Psychology.* Oakland, Ill, Sept. 19, 96. A.B, Illinois, 19, A.M, 21. Instr. *psychol, Goucher Col*, 21–27, asst. prof, 27–36, *assoc. prof, 36–, psychol. counselor, 33–* Psychologist, Jewish Children's Soc. and Jewish Social Service Bur, 28–30. Psychol. Asn; S. Soc. Philos. and Psychol. Mental hygiene of children; social adjustments of retarded children; the effect of current college rules and regulations on character.

Rutherford, Prof. Ralph L(eslie), University of Alberta, Edmonton, Alta, Can. *Geology.* Middleville, Ont, March 14, 94. B.Sc, Alberta, 19, M.Sc, 20; Ph.D, Wisconsin, 23. Field asst, Geol. Surv. Can, 17, 19; asst. *geol*, Wisconsin, 23; lecturer, *Alberta*, 23–29, asst. prof, 29–33, *assoc. prof, 33–* Field geologist, Sci. and Indust. Research Council of Alta, 20–35. Fel. Geol. Soc; fel. Miner. Soc; fel. Royal Soc. Can. Geology of the foothills and plains of Alberta; petrology and mineralogy.

Rutherford, Prof. Robert Leron, University of Southern California, Los Angeles, Calif. *Parasitology.* Highlands, Calif, March 12, 03. Ph.D, Southern California, 38. Asst. zool, *Southern California*, 28–36, instr. histol. and path, *col. dentistry*, 36–38, asst. prof, 38–40, *assoc. prof. histol, anat. and path, 40–* Life cycles of Coccidia.

Rutherford, Robert Murray, U. S. Department of the Interior, Chicago, Ill. *Forestry.* Newark, Calif, April 8, 00. B.S, California, 25. Asst. to land examiner, S. Pacific Land Co, 25–26; junior forester, asst, assoc. and land valuation engineer in charge sect. appraisals and negotiations, div. land acquisition, bur. biol. surv, U. S. Dept. Agr, and later asst. chief and *chief fed. aid in wildlife restoration div, fish and wildlife service, U. S. Dept. Interior, 26–* Soc. Foresters.

Ruthruff, Dr. Robert F(reeborn), 1711 W. 100th St, Chicago, Ill. *Chemistry.* Huron, Ohio, July 25, 02. B.S, Michigan, 24, M.S, 25, Ph.D, 27. *Chemist*, E. I. du Pont de Nemours and Co, 27–28; Standard Oil Co. of Ind, 28–36; M. W. Kellogg Co, 36–39; *Sherwin-Williams Co, 39–* Chem. Soc; Chem. Eng; Petrol. Inst; Miner. Soc; Soc. Chem. Indust. Gt. Britain; London Chem. Soc. Utilization of hydrocarbons; cracking; polymerization; catalysis; fatty oils.

Ruthven, Pres. Alexander G(rant), University of Michigan, Ann Arbor, Mich. **3*Zoology.* Hull, Iowa, April 1, 82. B.S, Morningside Col, 03, hon. LL.D, 31; Ph.D, Michigan, 06; hon. LL.D, Northwestern, 30, Albion Col, 30, Denison, 33, Tulane, 38, California, 38; hon. Sc.D, Kalamazoo Col, 31, Mich. Col. Min. and Tech, 37. Instr. zool, *Michigan*, 06–11, asst. prof, 11–15, prof, 15–29, dean admin, 28–29, *pres, 29–*, curator museum zool, 06–13, director, 13–29, univ. museums, 22–36, chairman dept. zool. and director zool. labs, 27–29. Chief field naturalist, Mich. Geol. and Biol. Surv, 08–12. A.A; Soc. Nat; Soc. Zool; Asn. Geog; Philos. Soc; fel. Am. Acad; Soc. Ichthyol. and Herp. (pres, 28); Mich. Acad. (pres, 13); Zool. Soc. London; Soc. linn. de Lyon. Herpetology and graphic distribution; variations and relationships in Reptilia.

Rutledge, Dr. Enid K(athleen), 4200 E. Ninth Ave, Denver, Colo. *Pathology.* N. S, Can, April 6, 00. A.B, Mt. Holyoke Col, 21; Harvard, 23, 24; M.D, Boston, 29; M.S, Colorado, 33. Teacher science, Acad, Berea Col, 21–25; intern, New Eng. Hosp. for Women and Children, Boston, Mass, 29–30, res. physician, 30–31; fellow path, Child Research Council, Denver, Colo, 31–32; *alternate pathologist, Children's Hosp, Denver, Colo, 32–; instr. path, sch. med, Colorado.* Development and pathology of the paranasal sinuses in the newborn.

Rutledge, Dr. John J(oseph), State Bureau of Mines, State Office Bldg, Annapolis, Md. *Geology.* Alton, Ill, March 10, 70. B.S, Illinois, 94; Ph.D, Hopkins, 04. Mine supt, 94–00; geologist, Md. Geol. Surv, 00–04; consulting engineer and geologist, 04–09; dist. mining engineer, Bur. Mines, 09–21; supt, Cent. Dist. Mining Exp. Sta, 21–22; *chief mining engineer, State Bur. Mines, Md, 22–* Geol. Soc; Min. and Metal. Eng. Economic geology; coal, iron, lead and zinc mining; mine accidents; origin of iron ores.

Rutledge, Prof. Philip C(asteen), Purdue University, Lafayette, Ind. *Civil engineering, Soil mechanics.* Champaign, Ill, Feb. 17, 06. B.S, Harvard, 27, Sc.D, 39; M.S, Mass. Inst. Tech, 33. Field engineer, Barney-Ahlers Construction Co, 28–29; struct. designer, Stone and Webster Eng. Corp, 29–31; asst. *soil mech*, Mass. Inst. Tech, 32–33; instr, grad. sch. eng, Harvard, 33–37; assoc. prof. and later *prof, Purdue, 37–* Treas. and assoc. ed, Int. Conf. Soil Mech, 36. Assoc. Civil Eng. (chairman cmt. drainage in earth dams, 38–42); Eng. Educ. (chairman cmt. soil mech, 39; chairman and ed, conf. soil mech, 40). Engineering soils problems; compression characteristics of clays; analyses of bearing values; drainage in earth dams; mechanics of deformations and failure of engineering materials; shear and tension failure in soils and other materials.

Rutledge, Prof. R(ay) W(atson), State Teachers College, Florence, Ala. *Botany.* Waterloo, Ala, July 28, 05. B.S, Union (Tenn), 23; A.M, George Peabody Col, 24; Ph.D, Chicago, 30. Teacher, high sch, Tenn, 24–27; prof. zool, Southwest. Texas State Teachers Col, 27–28; Tenn. Polytech, 30–33; *assoc. prof. biol, Ala. State Teachers Col, 33–* A.A. The anatomy of Cucurbita; the histological anatomy of the hypocotyl of Cucurbita maxima.

Rutstein, Dr. David D(avis), City Department of Health, New York, N. Y. *Medicine.* Wilkes-Barre, Pa, Feb. 5, 09. B.S, Harvard, 30, M.D, 34. Research fellow pediat. and bacter, Harvard Med. Sch, 36–37; med. consultant, bur. pneumonia control, State Dept. Health, N. Y, 37–40, chief cardiac bur, 40–43; asst. *med*, Albany Med. Col, 37–38, instr, 38–40, asst. prof, 40–43; *deputy health commissioner, City Dept. Health, New York, 43–; instr. med, col. physicians and surg, Columbia, 43–* A.A; Pub. Health Asn; Am. Med. Asn; Am. Heart Asn. Immediate serum reactions, hemolytic complement activity and circulatory changes in pneumonia patients.

Rutstein, Leo, Rutstein Laboratory and Library, 45 Branford Place, Newark, N. J. *Chemistry.* Yonkers, N. Y, April 13, 96. Newark Tech. Sch, 11–14; N. Y. Univ, 19–20. Asst. chemist, Clark Thread Co. and J. and P. Coats Co, 11–13; assoc, Worden Lab. and Library, Millburn, N. J, 11–35; *Rutstein Lab. and Library, Newark and Phila, 36–* Ed, 'Chem. Aviation,' 14–18; assoc. ed, 'Cellulose Acetate,' 15; 'U. S. Chem. Patents Index,' 15–24; 'Technol. Cellulose Esters,' 21; 'Technol. Cellulose Ethers,' 33; mem. board editors, 'Chem. Formulary,' 36–; 'Cosmetic Formulary,' 37; 'Standard Chem. and Tech. Dictionary,' 39. Mem, Nat. Research Council, 16–19. Bur. aeronautics, Sig.C, U.S.A, 17–19. Chem. Soc. Analytical chemistry; nitrocellulose; viscose artificial silk; technology of cellulose esters and ethers; carbohydrate carboxylates; fibers and papers; chemical nomenclature and indexing of patents; explosives; bibliographies.

Rutt, Prof. N(orman) E(by), Louisiana State University, Baton Rouge, La. *Mathematics.* Milton, Pa, March 16, 00. A.B, Haverford Col, 23; A.M, Pennsylvania, 27, Ph.D, 28. Instr. *math*, Pennsylvania, 23–28; nat. research fellow, Texas, 28–30; instr. and asst. prof, Northwestern, 30–36; assoc. prof. and later *prof, Louisiana, 36–* Math. Soc; Math. Asn; Asn. Symbolic Logic. Continuous curves and their arc-curves; structure of continua; prime ends and the boundaries of continua.

Rutzler, Dr. John E(noch), Jr, Carleton College, Northfield, Minn. *Physical chemistry.* Brooklyn, N. Y, Nov. 1, 03. Ch.B, Cornell, 27, Ph.D, 35. Research chemist, Pilot Labs, Arlington, N. J, 27–29; research fellow, Cornell, 29–35, asst. *chem*, Baker Lab, 36–39; *asst. prof, Carleton Col, 39–* Chem. Soc; N. Y. Acad; Minn. Acad. Colloid chemistry; reversible agglomeration of protein colloids in vivo and in vitro; pharmacology of sodium thiocyanate; fertilizers; anthocyanins.

Ruyle, Dr. E(lbert) H(ollis), American Can Co, Maywood, Ill. *Bacteriology.* Kemper, Ill, Dec. 19, 08. B.S, Shurtleff Col, 29; M.S, Illinois, 31, fellow, 31–33, Ph.D, 33. Asst, Illinois, 33–34; bacteriologist, Premier Pabst Corp, 34–37; *with*

research dept, Am. Can Co, 37– Inst. Food Technol. Microbiology of canned foods.

Ruzek, Prof. Charles V(ladis), Oregon State College, Corvallis, Oregon. *Soils.* Chicago, Ill, Jan. 26, 87. B.S.A, Wisconsin, 09, M.S, 29. Assoc. prof. agron, Arkansas, 09–14; asst. prof. *soil fertility, Oregon State Col,* 14–17, assoc. prof, 17–22, *prof, 22–, soil scientist, Exp. Sta, 22–* Soc. Agron. Soils and fertilizers.

Ryall, A(lbert) Lloyd, U. S. Department of Agriculture, Beltsville, Md. *Pomology.* Phoenix, Ariz, June 25, 04. B.S, N. Dak. Col, 26; fellow, Oregon State Col, 26–28, M.S, 28. Asst. pomologist, *div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 28–41, assoc. pomologist, 41–43, *horticulturist, 43–* Soft fruit maturity and storage; spray residue removal from apples and pears; transportation of fruits and vegetables.

Ryan, Dr. Alden H(oover), Naval Research Laboratory, Washington, D. C. *Physics.* Istanbul, Turkey, July 26, 13. A.B, Oberlin Col, 35; Ph.D, Iowa State Col, 39. Research fellow, Westinghouse Elec. and Mfg. Co, 39–40; *physicist, U. S. Naval Research Lab, 40–* Physical Soc. Microwave radio.

Ryan, Dr. Francis J(oseph), Columbia University, New York, N. Y. *Zoology.* Brooklyn, N. Y, Feb. 1, 16. A.B, Columbia, 37, A.M, 39, Ph.D, 41. Nat. research fellow, Stanford, 41–42; *instr. zool, Columbia, 42–* Soc. Vert. Paleont; assoc. Soc. Zool. Experimental embryology.

Ryan, Prof. James J(ay), Jr, University of Minnesota, Minneapolis, Minn. *Mechanical engineering.* LeClaire, Iowa, Nov. 27, 03. B.S, Iowa. 25; M.S, Pittsburgh, 29; M.E, Iowa, 35; Stanford. 39–40. Research and develop. engineer, elec. power eng. dept, Westinghouse Elec. and Mfg. Co, 26–31; asst. prof. *mech. eng,* design div, *Minnesota,* 31–41, *assoc. prof. in charge machine design div, 41–* Consultant, planning dept, Fed. Cartridge Corp, Twin Cities Ordnance Plant, 42–; responsible investigator aviation, med. div, Office Sci. Research and Develop, 42– Summers, consultant, Allis-Chalmers Mfg. Co, 36–41. Mech. Eng; Eng. Educ. Mechanical design, vibration and photoelasticity; the mechanics of vibration; oscillo-vibrograph.

Ryan, Dr. John F(rancis), 10 Clark Ave, Walpole, Mass. *Chemistry.* Boston, Mass, Nov. 11, 07. A.B, Harvard, 29; M.S, Brown, 31, Ph.D, 33. *Research chemist,* Nat. Aniline and Chem. Co, Buffalo; *Kendall Co.* Organic reactions in liquid ammonia solution.

Ryan, Dr. Joseph D(ennis), 3018 Middlesex Drive, Toledo, Ohio. *Organic chemistry.* Lockport, N. Y, June 13, 04. B.S, Michigan, 27, M.S, 28. Ph.D, 31. Asst. chem, Michigan, 27–30, instr. org. chem, 30–31; research chemist, *Libbey-Owens-Ford Glass Co,* 31–37, *asst. director research, 37–* A.A; Soc. Test. Mat; Chem. Soc; Deuts. Chem. Gesell. Polymerization; quinoidation; plastics; laminated glass.

Ryan, L(onnie) W(atterson), United Color and Pigment Co, McClellan St, Newark, N. J. *Chemistry.* W. Va, Dec. 6, 87. B.S, West Virginia, 11; M.S, Chicago, 14. Research chemist, Lindsay Light Co, 14–19, chief chemist, 19–23; research chemist, Titanium Pigment Co, 23–28, director research, 28–32; *United Color and Pigment Co,* 32–35, *tech. director, 35–* Chem. Soc; Soc. Test. Mat. Thorium and rare earths; triphenylmethane dyestuffs; titanium; lithopone; colored pigments; paints; surface chemistry.

Ryan, Prof. Mary Hilaire, Rosary College, River Forest, Ill. *Botany.* Appleton, Wis, June 19, 99. A.B, St. Clara Col, 21; A.M, Illinois, 23, Ph.D, 25. Asst. bot, Illinois, 21–24, head dept. *biol,* Col. New Rochelle, 25–26; *assoc. prof, Rosary Col, 27–* A.A. Taxonomy and morphology of the Microthyriaceae of Puerto Rico and Hawaii; development of the perithecia in the Microthyriaceae and a comparison with Meliola; asterine species from India.

Ryan, Dr. Roger W(illiam), Consolidated Edison Company of New York, 4 Irving Place, New York, N. Y. *Physical and industrial chemistry.* Auburn, Wash, Sept. 26, 93. B.S, Washington (Seattle), 16; Swift fellow, Chicago, 22–23, Ph.D, 23. Factory and research chemist, Carnation Milk Product Co, Wis, 17–20; physical chemist, Hercules Powder Co, 23–27; research chemist, Consol. Edison Co. of N. Y, 27–39; *eng. lit. analyst, 39–* C.W.S, U.S.A, 18. Chem. Soc. Atomic structure and stability; application of physical chemical methods to explosives; gas dehydration; manufactured gas and by-products; chemistry of foods; gas and electric utility problems.

Ryan, Dr. T(homas) A(rthur), Cornell University, Ithaca, N. Y. *Industrial psychology.* Batavia, N. Y, Sept. 15, 11. A.B, Cornell, 33, Ph.D, 37. Asst. *psychol, Cornell,* 34–37, instr, 37–42, *asst. prof, 42–, admin. eng, 40–* Sage scholar, Cornell, 37–38. A.A; assoc. Psychol. Asn; N. Y. State Asn. Applied Psychol. Personnel selection; manual skill; perception.

Ryan, Prof. Vanston H(ilary), 5225 Troost Ave, Kansas City, Mo. *Organic chemistry.* West Mineral, Kans, July 24, 04. A.B, Kansas, 25, A.M, 30, Ph.D, 37. Instr. math. and science, Salvatorian Col, 25–26; *chem, Rockhurst Col,* 26, *prof, 30–* Chem. Soc. Iodinated derivatives of diphenyl ether.

Ryan, Victor A(nthony), 1506 E. 33rd St, Baltimore, Md. *Organic chemistry, Physics.* Wilmington, Del, April 15, 93. Drexel Inst, 16. Chemist, E. F. Houghton and Co, 16–17; chief chemist, Marden, Orth and Hastings Corp, Ill, 17–20; research and tech. director, Irvington Varnish and Insulator Co, N. J, 20–30; Durium Products, Inc, New York, 30–33; consulting engineer, 33–36; *research director, Crown Cork and Seal Co, Inc, 36–* Fel. Am. Int. Acad. (trustee; past chairman sect. chem; sec'y-treas, sect. social sci, 37–). Physico-geographical influence in relation to American cork growing; vapolytic deposition of aluminum and silver coatings on steel by the cathode sputtering process.

Ryberg, Lieut. Milton E(manuel), Care of Supervisor of Shipbuilding, Manitowoc, Wis. *Biochemistry.* Minneapolis, Minn, Dec. 31, 01. B.S, Minnesota, 27. Agent, chemotropic investigations European corn-borer, bur. entom, U. S. Dept. Agr, 27–31; chemist, Exp. Sta, Minnesota, 37; lieut, U. S. Naval Res. Chem. Warfare Sch, Edgewood Arsenal, 40; *instr. chem. and physics, U. S. Naval Acad, 40–* A.A; U. S. Naval Inst; Soc. Naval Eng; Chem. Soc; Bot. Soc; Asn. Econ. Entom; Minn. Acad. Essential oils; plant products; cellulose; insect attractants and repellents.

Ryden, Dr. Laurence L(eland), Dow Chemical Co, Midland, Mich. *Chemistry.* Grandin, Mo, Aug. 7, 09. A.B, Cent. Col. (Mo), 31; A.M, Missouri, 33; Ph.D, Illinois, 37. Asst. chem, Illinois, 34–37; *research chemist, Dow Chem. Co, 37–* Chem. Soc. Polysulfones from olefins and acetylenes; thiokol synthetic rubber.

Ryder, Prof. John D(ouglas), Iowa State College, Ames, Iowa. *Electronics.* Columbus, Ohio, May 8, 07. B.E.E, Ohio State, 28, M.S, 29. Electronic develop, Gen. Elec. Co, 29–31; elec. engineer. Bailey Meter Co, Cleveland, Ohio, 31–41; *asst. prof. elec. eng, Iowa State Col, 41–* Elec. Eng; Radio Eng. Electronic application.

Ryerson, Dr. Dwight L(eonard), 2200 N. Hayes, Little Rock, Ark. *Zoology.* Onaga, Kans, Nov. 18, 08. A.B, Arizona, 31, fellow, 34, M.S, 36; Colorado, 31–32; univ. fellow, California, 40, Ph.D, 41. Instr. zool, Arizona, 35–38; Charles W. Hargitt research fellow, Duke, 41; *instr. anat, sch. med, Arkansas, 42–* Comparative hematology; hematozoa.

Ryerson, Dr. Edwin (Warner), 232 E. Walton St, Chicago, Ill. *Surgery.* New York, N. Y, March 14, 72. M.D, Harvard, 97. Prof. orthop. surg, col. med, Illinois, 16–18; assoc. prof. surg, Rush Med. Col, Chicago, 19–21; prof. orthop. surg. and head dept, med. sch, Northwestern, 27–35. V. pres, Am. Board Orthop. Surg, Inc, 33–40. Capt. and major, M.C, 18–19. Col. Surg; Acad. Orthop. Surg. (pres, 33); Orthop. Asn. (pres, 25); Am. Med. Asn. (chairman sect. orthop. surg, 16); Inst. Med. Chicago; Chicago Surg. Soc; Int. Orthop. Soc. Orthopedic surgery.

Ryerson, Prof. Knowles A(ugustus), College of Agriculture, University of California, Davis, Calif. *Horticulture, Botany.* Seattle, Wash, Oct. 17, 92. B.S, California, 16, M.S, 23. Asst. agr. exten, California, 19–22; asst. farm adviser, Los Angeles County, 22–24, farm adviser, 24–25; horticulturist, Service Technique, Haiti, 25–27; Joint Palestine Surv. Cmn, Palestine and Transjordan, 27; in charge div. for. plant introd, bur. plant indust, U. S. Dept. Agr, 28–34, chief bur, 34, prin. horticulturist, in charge subtrop. fruit investigations, div. fruit and veg. crops, 34–37; *prof. agr. and asst. dean col. agr, California, 37–; in charge S. Pacific project, Office Econ. Warfare, 43–* Summers, agr. explor. exped, north. Can, 29; Spain and N. Africa, 30. Chairman, Advisory Cmt. Inter-Am. Cooperation in Agr. Educ. Chevalier du Mérite agricole; Ouissam Alaouite; bronze medal, Soc. d'Acclimat. de France. A.A; Soc. Hort. Sci; Hort. Soc. (v. pres, 30–34); Soc. Nat;

Soc. Foresters; Soc. Agr. Sci; Polar Soc; Soc. Adv. Educ; Inst. Pacific Relations; Astron. Soc. Pacific; Calif. Bot. Soc; Calif. Hort. Soc; Genetic Asn; Wash. Acad; Royal Astron. Soc. Can. Tropical and subtropical horticulture; plant introduction.

Rygg, Dr. George L(eonard), Horticultural Field Laboratory, U. S. Department of Agriculture, Pomona, Calif. *Plant physiology.* Clifford, N. Dak, Feb. 14, 03. B.S, N. Dak. Agr. Col, 29; fellow, Oregon State Col, 29–31, M.S, 31; Ph.D, Minnesota, 41. Agent small fruit production, *U. S. Dept. Agr,* 30–31, junior pomologist, *div. fruits and veg. crops and diseases, bur. plant indust,* 31–37, *asst. physiologist, 37–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Date physiology as related to maturation and storage; transportation of perishable horticultural products.

Rykenboer, Dr. Edward A(ugust), Lewiston Heights, Lewiston, N. Y. *Chemistry.* Rochester, N. Y, July 19, 89. B.S, Rochester, 12, M.S, 13; Ph.D, Michigan, 17. Asst. chem, Michigan, 13–17; research chemist, Roessler and Hasslacher Chem. Co, 17–26, production supt, 26–30, gen. supt, 30–32, v. pres, exec. v. pres, asst. gen. manager and gen. manager, Roessler and Hasslacher chem. dept, *E. I. du Pont de Nemours and Co,* 31–42, *gen. manager electrochem. dept, 42–* Chem. Soc; Chem. Eng; Electrochem. Soc; Chemists' Club.

Ryker, Dr. T(ruman) C(lifton), Louisiana State University, Baton Rouge, La. *Plant pathology.* Hutchinson, Kans, May 4, 08. B.S, Miss. State Col, 29; M.S, Louisiana, 31; Ph.D, Wisconsin, 34. Asst. plant path, Louisiana, 29–31; Wisconsin, 31–34; plant breeder, Wis. Cabbage Seed Co, Racine, 34–35; *asst. plant pathologist, Louisiana, 35–* Sugar cane; Fusarium yellows of celery; rice diseases in Louisiana.

Ryland, Prof. Garnett, University of Richmond, Richmond, Va. *Chemistry.* King and Queen Co, Va, Dec. 17, 70. A.M, Richmond, 92; Ph.D, Hopkins, 98. Instr. *chem,* Maine, 98–99, asst. prof, 99–01; *prof,* Converse Col, 01–03; Georgetown Col. (Ky), 03–17; *Richmond, 17–* A.A; Chem. Soc; Va. Acad. (pres, 30); fel. London Chem. Soc. Boiling-points of mixtures of liquids.

Rynearson, Garn A(rthur), U. S. Geological Survey, Washington, D. C. *Economic geology.* Salt Lake City, Utah, March 13, 17. B.S, Calif. Inst. Tech, 38, 39; N. J. Zinc Co. fellow, Lehigh, 39–41, M.S, 41. Junior geologist, *metals sect, U. S. Geol. Surv,* 41–42, *asst. geologist, 42–* Geology of chromite deposits.

Ryniker, Dr. Charles, P. O. Box 661, Tulsa, Okla. *Geology.* Aarau, Switzerland, Dec. 25, 94. Ph.D, Zurich, 23. *Geologist, Gulf Oil Corp, Tulsa, Okla, 24–* Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner; Schweiz. Geol. Gesell; Schweiz. Miner. and Petrog. Gesell. Micropaleontology.

Rysgaard, Jens M(adsen), Snead Junior College, Boaz, Ala. *Physics.* Hundborg, Thy, Denmark, May 11, 72. A.B, North Dakota, 03; fellow, Chicago, 10–12. Instr. physics, North Dakota, 03–10; asst, Wisconsin, 12–14; prof, Hamline, 14–42; *retired.* A.A.

Rytand, Dr. David A, Stanford University Hospital, San Francisco, Calif. *Medicine.* San Francisco, Calif, Nov. 4, 09. A.B, Stanford, 29, M.D, 33. *Asst. prof. med, sch. med, Stanford, 38–* Soc. Exp. Biol. Clinical investigation.

Ryznar, Dr. J(ohn) W(illiam), 425 N. Catherine Ave, LaGrange Park, Ill. *Chemistry.* Sharpsburg, Pa, May 27, 12. B.S, Kent State, 34; M.S, Ohio State, 35, Ph.D, 37. *Research chemist, Nat. Aluminate Corp, 37–* Foaming and other phases of water treating problems; scale; corrosion; physical and colloid chemistry.

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Saalbach, Prof. Louis, 5620 Wellesley Ave, Pittsburgh, Pa. *Pharmacy.* Pittsburgh, Pa, Dec. 14, 74. Ph.G, Pittsburgh, 95, Phar.D, 08. Asst. prof. chem, *Pittsburgh,* 96–00, 05–06, prof. pharmacy and director pharmaceut. labs, 06–40, *emer. prof. pharmacy, 40–, treas, Pittsburgh Col. Pharmacy,* 01–09, *32–* V. chairman revision cmt, Nat. Formulary, 29–39. Mem. board directors, sch. pharmacy, Pittsburgh, 96–, sec'y, 25–A.A; Pharmaceut. Asn; Pa. Pharmaceut. Asn. (pres, 12, sec'y, 18–25, treas, 24). National Formulary problems.

Sabbagh, Dr. E(lias) M(orshed), Purdue University, Lafayette, Ind. *Electrical engineering.* Zahle, Syria, Feb. 4, 02. B.E.E, Ohio State, 26; M.S, Mich. State Col, 28; Ph.D, Purdue, 34. Asst. *elec. eng,* Mich. State Col, 26–28; *Purdue,* 28–29, instr, 29–35, asst. prof, 35–40, *assoc. prof, 40–* Elec. Eng; Eng. Educ. Alternating current machinery; transmission line phenomena; machinery and power generation and transmission; communication network analysis.

Sabin, Dr. Albert B(ruce), Children's Hospital Research Foundation, Cincinnati, Ohio. *Pathology, Bacteriology.* Poland, Aug. 26, 06. B.S, N. Y. Univ, 28, M.D, 31. Research assoc. bacter, sch. med, N. Y. Univ, 26–32; intern staff, Bellevue Hosp, 32–34; nat. research fellow med, Lister Inst, England, 34–35; asst, Rockefeller Inst, 35–37, assoc, 37–39; *assoc. prof. pediat, col. med, Cincinnati, 39–; fellow in charge infectious disease div, Children's Hosp. Research Foundation, 39–; epidemic diseases consultant to U. S. Sec'y War, 41–; major, Med. Corps, U. S. Army.* Theobald Smith award, Am. Asn. Adv. Science, 39; E. Mead Johnson award, Am. Acad. Pediat, 41. A.A; Nat. Inst. Social Sci; Soc. Pediat. Research; Soc. Bact; Soc. Exp. Biol; Harvey Soc. Pneumococcus infections; poliomyelitis; B virus disease; immunity in virus infections; toxoplasmosis; host factors influencing invasiveness of neurotropic viruses; pleuropneumonia group; chemotherapy of experimental chronic arthritis.

Sabin, Dr. Florence R(ena), 1333 E. Tenth Ave, Denver 3, Colo. *[1]*Anatomy, Pathology.* Central City, Colo, Nov. 9, 71. B.S, Smith Col, 93, Sc.D, 10; M.D, Hopkins, 00; Sc.D, Michigan, 26, Mt. Holyoke Col, 29, N. Y. Univ, 33, Wilson Col, 33, Syracuse, 34, Oglethorpe, 35, Colorado, 35, Pennsylvania, 37, Oberlin Col, 37, Russell Sage Col, 38; LL.D, Goucher Col, 31. Teacher math, Wolfe Hall, Denver, 93–94; asst. zool, Smith Col, 95; intern, Hopkins Hosp, 00–01, asst. anat, Hopkins, 02, assoc, 03–05, assoc. prof, 05–17, prof. histol, 17–25; mem, *Rockefeller Inst,* 25–38, *emer. mem, 38–* Asn. Adv. Univ. Educ. Women fellow, Hopkins, 01. Naples Table Asn. prize, 03; 'Pictorial Rev' prize, 29; 'Good Housekeeping' award, 31; Nat. Achievement award, 32; M. Carey Thomas prize, Bryn Mawr Col, 35. Nat. Acad; A.A; Asn. Anat. (v. pres, 09, pres, 24–26); Physiol. Soc; Soc. Exp. Biol. (councilor, 32–); Tuber. Asn; Harvey Soc. Tracts in the medulla oblongata; lymphatic system; blood vascular system; blood and bone marrow; tuberculosis.

Sabin, L(ouis) C(arlton), 905 Rockefeller Bldg, Cleveland, Ohio. *Engineering.* Memphis, Mich, June 25, 67. B.S, Michigan, 90, C.E, 94, hon. M.Eng, 16. Construction inspector, 87–92; asst. engineer, U. S. Eng. Dept, 93–04; sec'y, Am. Sect. Int. Waterways Cmn, 05–06; gen. supt, St. Marys Falls Canal, 06–25; *v. pres, Lake Carriers Asn, Cleveland, 25–* U. S. Board Engineers on Cement Specifications, 10–12. Civil Eng; Mich. Eng. Soc; Int. Asn. Navig. Congs. Cement and concrete; lake level regulation; inland shipping; locks and channel inputs.

Sabin, Raymond E(rnest), 3302 169th St, Flushing, N. Y. *Physical chemistry.* Burlington, Vt, July 8, 86. B.S, N. Y. Univ, 08. Research engineer, research lab, Nat. Lead Co, 11–12; Tozzi and Sabin, 13–16; research chemist, Calco Chem. Co, 16–21; research director, Sabin Elec. Products Corp, 22–25; consulting engineer, 25–38; *designing engineer,* Lenape Air Craft and Motors Corp, 38–39; Brewster Aeronaut. Corp, 39–42; *Fleet Wings, Inc, 42–* Theory of solutions.

Sabine, Dr. George B(urr), 5521 Northfield Road, Bethesda, Md. *Physics.* Palo Alto, Calif, March 18, 10. A.B, Cornell, 31, Ph.D, 36. Physicist, Kodak research labs, Eastman Kodak Co, 37–41; *asst. to prin. ordnance engineer, Naval Ordnance Lab, 41–* Trustee, Telluride Asn, Ithaca, N. Y, 31– Physical Soc; assoc. Optical Soc. Physical and geometrical optics; spectroscopy; optical properties of evaporated metallic films in the ultraviolet; non-reflecting films on glass surfaces; ultraviolet, visual and infrared spectrophotometry; photometric devices for manufacturing control.

Sabine, Dr. Jean C(aptain), Johns Hopkins University, Baltimore, Md. *Enzyme chemistry.* Cedar Grove, N. J, Jan. 14, 09. A.B, Mt. Holyoke Col, 31; A.M, Maine, 33; fellow, Rochester, 34–35, M.D, 38. Asst. physiol, sch. med. and dentistry, Rochester, 38–40, instr, 40–41; asst. pharmacologist, nat. inst. health, U. S. Pub. Health Service, 41–42; *fellow hist. of med, inst. hist. of med, Hopkins, 42–* Cushing prize, sch. med. and dentistry, Rochester, 38. Choline esterase in blood dyscrasias; kinetics of inhibition of choline esterase by morphine and its derivatives; history of the classification of human blood corpuscles.

Sabine, Dr. Paul E(arls), Riverbank Laboratories, Geneva, Ill. **Physics.* Albion, Ill, Jan. 22, 79. A.B, McKendree Col, 99; Harvard, 03, A.M, 11, Ph.D, 15. Master science, Worcester Acad, 03–11; asst. physics, Harvard, 15–16; asst. prof, Case, 16–18; *director, Wallace Clement Sabine Lab. of Acoustics, 19–* Chairman, Cmt. Nat. Noise Abatement. Fel. Physical Soc; Acoustical Soc. (pres, 35–37); Acoustical Mat. Asn. (chairman tech. advisory cmt); Franklin Inst. Architectural and physiological acoustics; photoelectricity.

Saboe, Dr. Lewis C(lifford), Ohio State University, Columbus, Ohio. *Plant genetics, Agronomy.* Willow Lake, S. Dak, Dec. 2, 07. B.S, S. Dak. State Col, 31; Augustana Col, 28–29; M.S, Minnesota, 40, Ph.D, 42. Asst. cereal breeding, S. Dak. State Col, 37–38; teaching asst. plant genetics, Minnesota, 38–42; *asst. agronomist, div. forage crops and diseases, U. S. Dept. Agr, 42–* A.A; Genetics Soc; Soc. Agron; Soybean Asn. Soybean improvement.

Sabowitz, Dr. Morris, 130 Fenimore St, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, Jan. 3, 08. B.S, N. Y. Univ, 28, M.S, 30, Ph.D, 34. Asst, N. Y. Univ, 28–33; chemist, food and drug admin, U. S. Dept. Agr, 33–35; *instr, high schs, N. Y, 35–* Terpenes; condensations of unsaturated compounds.

Sabrosky, Prof. Curtis W(illiams), Michigan State College, East Lansing, Mich. *Entomology, Taxonomy.* Sturgis, Mich, April 3, 10. A.B, Kalamazoo Col, 31; Michigan, 31; M.S, Kans. State Col, 33. Instr. *entom, Mich. State Col,* 36–42, *asst. prof, 42–* Mem, Am. Cmn. Sci. Nomenclature in Entom, 41. Fel. Entom. Soc. Amer; Soc. Study Speciation; Kans. Entom. Soc; Mich. Acad. Nomenclature.

Saccone, Dr. Andrea, 334 E. 116th St, New York, N. Y. *Pathology.* Italy, Dec. 11, 81. M.D, Naples, 05. *Pathologist, Metrop. Hosp, Dept. Hosps, New York, 25–; assoc. prof. path, N. Y. Med. Col.* Pathologist, Columbus Hosp; Mother Cabrini Mem. Hosp. Asn. Path. and Bact; Soc. Clin. Path; Soc. Bact; Pub. Health Asn.

Sachanen, Dr. Alexander N(icholas), 23 S. Woodland Ave, Woodbury, N. J. *Physical chemistry.* Viborg, Finland, July 20, 86. B.Sc, Moscow, 09; M.Sc, Petrograd, 12; D.Sc, Odessa, 16. Prof, Odessa, 14–20; director petrol. research inst, State Oil Trust Grozneft, 22–31; consulting engineer and chemist, Paris, France, 31–35; *senior research chemist, Socony-Vacuum Oil Co, 35–* A.A; Chem. Soc. Electrochemistry of non-aqueous solutions; cracking and conversion of petroleum; chemical composition of petroleum; petroleum refining.

Sachs, Dr. B(ernard), 2 W. 59th St, New York, N. Y. *Neurology.* Baltimore, Md, Jan. 2, 58. A.B, Harvard, 78; M.D, Strassburg, 82; Berlin, Vienna, Paris and London, 81–04. *Prof.* nervous and mental diseases, N. Y. Polyclinic; *clin. neur, Columbia.* Consulting neurologist, Mt. Sinai Hosp; consulting physician, Manhattan State Hosp; director child neur, Research Inst, New York. Pres, Int. Cong. Neur, Berne, 31. A.A; Neur. Asn. (pres, 31); Nat. Cmt. Mental Hygiene (v. pres, 28, 33); Am. Physicians; N. Y. Neur. Soc; N. Y. Acad. Med. (pres, 33); cor. mem. Soc. neur. de Paris; hon. mem. Moscow Neur. Soc. Nervous and mental disorders of children; infantile palsies; amaurotic family idiocy; epilepsy; syphilis of the central nervous system; vasomotor disorders; cerebellar and spinal cord tumors; the Wassermann reaction; lethargic encephalitis; society and delinquency; false claims of psychoanalysts.

Sachs, Prof. Ernest, Washington University School of Medicine, St. Louis, Mo. *Neurosurgery.* New York, N. Y, 79. A.B, Harvard, 00; M.D, Hopkins, 04. Intern, Mt. Sinai Hosp, New York, 04–07; clin. clerk, Nat. Hosp, London, 08; attending neur. surgeon, Montefiore Home and Hosp, New York, 09–11; Beth Israel Hosp, 09–11; assoc. and assoc. prof. surg, *sch. med, Washington (St. Louis),* 11–19, *prof. clin. neur. surg, 19–* Adj. asst. surgeon, Bellevue Hosp, New York, 09–11; assoc. surgeon, Jewish, Barnes, St. Louis Children's and St. Louis Maternity Hosps; neur. surgeon, Mo-Pacific Hosp; consulting neur. surgeon, St. Louis City Sanitarium. A.A; Col. Surg; Soc. Neur. Surg. (sec'y, 20–25, pres, 25–27); Am. Med. Asn; Physiol. Soc; Neur. Asn; Asn. Hosp. Social Workers; South. Surg. Asn; South. Med. Asn; St. Louis Surg. Soc; Royal Soc. Med; Halle Wissensch. Akad. Neurological surgery; optic thalamus; cerebral temperature centers; regeneration of nerves; anatomy of the eighth nerve; sugar metabolism in pituitary lesions; diagnosis and treatment of brain tumors.

Sachs, Dr. George, Case School of Applied Science, Cleveland, Ohio. *Physical metallurgy.* Moscow, Russia, April 5, 96. Dipl.Ing, Berlin, 21, D.Eng, 23. Head dept, Kaiser Wilhelm Inst, 24–30; director metal. research, Metallges, Frankfort on Main, 30–35; v. pres. in charge develop, Duerener Metallwerke, 35–36; head dept, Baker and Co, Newark, N. J, 36–38; asst. prof. *metal, Case,* 39–41, assoc. prof, 41–42, *prof, 42–* Min. and Metal. Eng. (exec. cmt, 39–42; lecturer, 41); Mech. Eng. (shell forging cmt, 41). Plastic flow of metals; x-ray diffraction.

Sachs, Dr. J(erome) M(ichael), Woodrow Wilson City College, 6800 Stewart Ave, Chicago, Ill. *Mathematics.* Chicago, Ill, Oct. 2, 14. B.S, Chicago, 36, M.S, 37, Ph.D, 40. *Instr. math,* Englewood Evening Sch, Chicago, Ill, 36–37; *evening div, Ill. Inst. Tech, 37–; Woodrow Wilson City Col, 38–* Math. Asn. Differential geometry.

Sachs, Dr. John H(arrison), 707 Coverdale Road, Wilmington, Del. *Chemistry.* Gettysburg, Pa, April 14, 89. B.S, Pa. Col, 10; Ph.D, Hopkins, 16. Carnegie fellow, Hopkins, 16–17; research chemist, *E. I. du Pont de Nemours and Co,* 17–20, supt. anthracene colors dept, du Pont Dye Works, 21–31, gen. supt, 32–33, *special asst. to manager, dyestuffs div, org. chem. dept, 33–* Chem. Soc; Chem. Eng. Anthracene dyes and intermediates; dyestuffs; organic chemicals.

Sachs, Dr. Robert G(reen), 704 Dodge St, West Lafayette, Ind. *Theoretical physics.* Md, May 4, 16. Ph.D, Hopkins, 39. Research fellow theoret. physics, George Washington, 39–41; *instr. physics, Purdue, 41–* Lecturer and research fellow, California, 41. Physical Soc. Atomic and nuclear physics.

Sachs, Ward H(anson), Apt. 6, 903 Park Place, Wilmington, Del. *Agronomy.* Towanda, Ill, Oct. 25, 87. B.S, Ill. Wesleyan, 10; A.M, Missouri, 17. Assoc. soils, Exp. Sta, Illinois, 10–16, 17–18; in charge acid control lab, Picric Acid Plant, Little Rock, 18–19; asst. prof. agron, Arkansas, 19–25; agronomist, Nat. Fertilizer Asn, 25–31; southeast. states, Am. Cyanamid Co, 31–36; *ammonia dept, E. I. du Pont de Nemours and Co, 36–* A.A; Soc. Agron; Soc. Plant Physiol; Soils; fertilizers.

Sacia, C(harles) F(red), 126 Grace St, Flint, Mich. *Physics.* Grand Rapids, Mich, June 7, 93. B.S, Michigan, 16. Eng. dept, West. Elec. Co, 16–25; Bell Tel. Labs, 25–32; *tech. consultant, 32–* Sig.C. and A.S, U.S.A, 18–19, radio officer, A.S, O.R.C, 19–25. Fel. Acoustical Soc. Dynamics of vowel sounds; photo-mechanical analyzer applied to Fourier analysis; power of speech sounds; speech transmission.

Sack, Dr. Henri S(amuel), 309 E. Upland Road, Ithaca, N. Y. *Applied physics.* Davos, Switzerland, Nov. 25, 03. Dipl, Zurich, 25, Dr.Sc. Math, 27. Asst. physics, Zurich, 25–27; Leipzig, 27–33; physical chem, Brussels, 33–37, chef de travaux, 37–40; *research assoc. applied physics, Cornell, 40–* Asst. ed, 'Physikalische Zeitschrift,' 29–33. Physical Soc; Chem. Soc; Swiss Physical Soc. Dielectric properties of matter; electrolytes; infrared spectroscopy; supersonic waves; elastic properties of solids.

Sackett, Dr. R(obert) L(emuel), 29 W. 39th St, New York, N. Y. *Engineering.* Mt. Clemens, Mich, Dec. 2, 67. B.S, Michigan, 91, C.E, 96, D.E, 37. Asst. prof. math, Earlham Col, 91–96, prof. applied math. and astron, 96–07; sanit. and hydraul. eng, Purdue, 07–15; dean eng, director eng. exten. and exp. sta, *Pa. State Col,* 15–37, *emer. dean eng, 37–* Consulting engineer, state cmns. and boards. A.A; Engineers Council for Professional Develop; Civil Eng; Mech. Eng. (v. pres); Eng. Educ. (pres, 27, board investigation). Sanitary and hydraulic engineering.

Sackett, Dr. Walter G(eorge), 512 W. Laurel St, Ft. Collins, Colo. *Bacteriology.* Sterling, Ill, July 5, 80. Ohio State, 98–99; B.S, Chicago, 02, Logan fellow, 17–18, Ph.D, 18. Prof. nat. sciences, Meredith Col. (N. C), 02–04; asst. prof. bacter. and hygiene, Mich. State Col, and asst. bacteriologist, Exp. Sta, 04–08; bacteriologist, Exp. Sta, Colo. Agr. Col, 08–33; mining promoter, Mex, 33–35; *consulting bacteriologist, 35–* Water analyst, Chicago, 99–00; special agent plant breeding, bur. plant indust, U. S. Dept. Agr, 04; smelter smoke investigations, Phelps Dodge Corp, Ariz, 37– A.A; Soc. Bact; Colo. Sci. Soc. Bacterial diseases of plants; a bacterial disease of alfalfa; bacteriology of alkali soils; food poisoning.

Sacks, Dr. Jacob, University of Michigan, Ann Arbor, Mich. *Pharmacology.* Chicago, Ill, Sept. 27, 01. B.S, Chicago, 22, M.S, 24; Ph.D, Illinois, 26; M.D, Northwestern, 31. Instr. chem, Tennessee, 22–24; research instr. physiol, med. sch, Northwestern, 27–31; instr. *pharmacol, med. sch, Michigan,*

32–37, *asst. prof, 37–* Soc. Pharmacol; Soc. Exp. Biol. Chaulmoogra derivatives; local anesthetics; gastric secretory hormone; epinephrin and glycogen metabolism; chemistry of muscular contraction; radioactive isotypes; experimental neurosis; insulin action.

Sackville, Prof. J(ohn) P(ercy), University of Alberta, Edmonton, Alta, Can. *Animal husbandry.* Port Hope, Ont, July, 79. B.S.A, Toronto, 15; M.S, Iowa State Col, 21. Livestock ed, 'Grain Growers Guide,' 18; assoc. prof. *animal husbandry,* Ont. Agr. Col, 19–22; *prof, Alberta, 22–* A.A; Soc. Animal Production; Can. Soc. Tech. Agr. (pres, 29); Can. Soc. Animal Production (pres, 26). Mineral feeding; influence of certain environmental factors on the development of bacon hogs; bacon hog production; age as a factor in profitable steer feeding; wool growth and quality as affected by certain nutritional and climatic factors; development of cobalt deficiency in sheep; efficacy of cobaltized salt for the prevention of cobalt deficiency in sheep.

Sadler, Dr. Alfred M(itchell), 30 Emory St, Jersey City, N. J. *Chemistry.* Stamford, N. Y, July 7, 06. A.B, Amherst Col, 28; A.M, Columbia, 30, Ph.D, 34. Asst. chem, Columbia, 28–30, 31–34; chemist, Standard Oil Co. of N. J, 30–31; asst. to Prof. A. F. Taggart, sch. mines, Columbia, 34–36; *mem. staff, Pennie, Davis, Marvin and Edmonds, 36–* Chem. Soc. Optical activity in biphenyl series; chemical reactions involved in ore flotation.

Sadler, Prof. Herbert C(harles), 1510 Hill St, Ann Arbor, Mich. *Naval architecture.* London, Eng, 72. London, 86–90; B.Sc, Glasgow, 93, D.Sc, 02. Practical shipbuilding, 90–96; asst. prof. naval archit, Glasgow, 96–00; prof. naval archit. and marine eng. and head dept, *Michigan,* 00–37, Alexander Zeivet prof. *eng,* 37, *emer. prof, 37–,* dean *col. eng. and archit,* 28–40, *emer. dean, 40–* Two silver medals, Inst. Eng. and Shipbuilders, Scotland. Consulting naval architect, Emergency Fleet Corp, U. S. Shipping Board, 18–19. A.A; Soc. Automotive Eng; Soc. Mech. Eng; N. Y. Soc. Naval Archit. and Marine Eng. (councilor, 08–, hon. v. pres, 30–); British Inst. Naval Archit; Inst. Eng. and Shipbuilders Scotland. Resistance of ships.

Sadler, Prof. William O(tho), Box 126, Clinton, Miss. *Limnology.* Chunky, Miss, July 23, 05. A.B, Miss. Col, 29; Ph.D, Cornell, 32. Asst. prof. zool, Miss. Col, 29–30; investigator, Bur. Fisheries, 30–32; *prof. zool, Miss. Col, 32–* Fisheries Soc; Limnol. Soc; Miss. Asn. Conservation Wild Life (exec. sec'y, 35–). Aquiculture; conservation.

Sadler, Dr. William S(amuel), 533 Diversey Parkway, Chicago, Ill. *Medicine, Psychiatry.* Spencer, Ind, June 24, 75. M.D, Am. Med. Missionary Col, Illinois, Chicago, 06. Past prof, post-grad. med. sch, Chicago; *director, Chicago Inst. Research and Diagnosis; attending psychiatrist, Columbus Hosp, Edgewater Rest Home.* Professorial lecturer, Presb. Theol. Sem. A.A; fel. Am. Med. Asn; fel. Psychiat. Asn; fel. Col. Surg; Psychopath. Asn; Ill. Soc. Mental Hygiene. Physical and mental hygiene; theory and practise of psychiatry; psychiatric nursing.

Sadowsky, Dr. Michael A(lexander), Illinois Institute of Technology, Chicago, Ill. *Applied mathematics.* Dorpat, Russia, March 1, 02. Ph.D, Berlin, 28. Docent applied math. and mech, Berlin, 29–31; asst. prof, Minnesota, 31–33; consultant photoelasticity, Leningrad, 34; prof. eng. mech, Novocherkassk, 34–37; asst. prof. *math, Ill. Inst. Tech,* 38–43, *assoc. prof, 43–* Sci. collaborator, Brussels, Belgium, 34. Math. Soc; Math. Asn. Plasticity; elasticity.

Sadtler, S(amuel) S(chmucker), 210 S. 13th St, Philadelphia 7, Pa. *Chemistry.* Gettysburg, Pa, Nov. 15, 73. B.S, Mass. Inst. Tech, 95. Chemist, U. S. Customs Service, 95–00; *consulting chemist, 00–* Pres, Samuel P. Sadtler and Son, Inc. Past ed, 'Allen's Commercial Org. Chem.' Chem. Soc; Electrochem. Soc. (sec'y, 04–07); Asn. Consulting Chem. and Chem. Eng; Chem. Eng; Chemists' Club. Industrial, technical and organic chemistry; chemistry of familiar things.

Saeger, Prof. Albert (C), Junior College of Kansas City, Kansas City, Mo. *Botany.* St. Charles, Mo, July 16, 95. A.B, Missouri, 20, A.M, 23, Ph.D, 30. Instr. *biol, Junior Col. of Kansas City,* 20–23, *prof. and head dept, 23–* Nat. research fellow, Cornell, 31–32; Missouri, 32–33, visiting asst. prof, 35, 37. A.A; Soc. Plant Physiol; Bot. Soc; Torrey Bot. Club. Plant physiology; effect of traces of elements; Lemnaceae.

Saegmüller, Frederick B, 5115 Little Falls Road, Arlington, Va. *Optical science.* Va, 78. B.S, C.E, Virginia, 02; Mass. Inst. Tech, 02–04. Sci. bur, Bausch and Lomb Optical Co, 05–07, supt. precision optical div, 07–21, supt. mil. dept. and director, Bausch and Lomb Optical Co, 21–27, v. pres, 26–27; *retired.* Optical Soc. Optics; civil engineering.

Saffir, Dr. Milton A(braham), Bureau of Child Study, 228 N. LaSalle St, Chicago, Ill. *Psychology.* Peoria, Ill, Feb. 22, 10. Ph.B, Chicago, 30, Ph.D, 35; Inst. Juvenile Research, 35–36. Asst. examiner, Chicago, 32–33; instr. psychol, Peoples Junior Col, 35–36; *psychologist, bur. child study, Chicago Pub. Schs, 36–;* Psychol. Corp, 40–43; *Psychol. Guidance Center, 43–* Summers, psychologist, Camp Shabbanau, 34–37. Assoc. Psychol. Asn; fel. Asn. Applied Psychol. (chairman cmt. legislation, 43–); Midwest. Psychol. Asn; Ill. Asn. Applied Psychol. (sec'y-treas, 40–43, sec'y, 43–); Chicago Psychol. Club (v. pres, 37). Clinical psychology; vocational guidance; tests and measurements.

Safford, Dr. C(lair) E(ugene), State Food Laboratory, State Office Bldg, Albany, N. Y. *Bacteriology.* Thief River Falls, Minn, Aug. 14, 05. B.S, Cornell, 29, Ph.D, 32. Asst. bacter, sch. med, St. Louis, 29–30; instr. dairy bacter, Cornell, 30–34; *senior food bacteriologist, State Food Lab, N. Y, 34–* Soc. Bact. Dairy and food bacteriology.

Safford, Prof. F(rederick) H(ollister), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Lawrence, Mass, June 20, 66. B.S, Mass. Inst. Tech, 88; A.M, Harvard, 94, Ph.D, 97; hon. fellow, Clark, 01–02. Instr. *math,* Harvard, 95–99; asst. prof, Cincinnati, 99–01; instr, *Pennsylvania,* 02–07, asst. prof, 07–20, prof, 20–37, *emer. prof, 37–* A.A; Math. Soc; Math. Asn; Astron. Soc; Franklin Inst. Cyclids of revolution; orthogonal surfaces; Weierstrass P-function curves.

Safford, Dr. H. R(obinson), Missouri Pacific Lines, Houston, Texas. *Engineering.* Madison, Ind, Feb. 7, 75. B.C.E, Purdue, 95, C.E, 17, D.E, 19. Eng. dept, I. C. Ry, 95; chief engineer, maintenance of way, 08; asst. to pres, Edgar Allen Manganese Steel Co, 10–11; chief engineer, Grand Trunk Ry, 11–18; asst. regional director, U. S. Ry. Admin, 18–20; asst. to pres, C. B. and Q. Ry, 20–21, v. pres, 21–25; *exec. v. pres, Mo. Pacific Lines, 25–* Trustee, Houston Museum Fine Arts. Civil Eng. (develop. cmt, 21, pres, local chap, 24); Ry. Eng. (pres, 11–23); Eng. Inst. Can. (councilor, 16–18). Railway engineering and operation.

Safir, Prof. Shelley R(ay), Yeshiva College, New York, N. Y. *Zoology, Genetics.* June 20, 90. A.B, Col. City of N. Y, 12; A.M, Columbia, 13, Ph.D, 20. Instr, high sch, N. Y, 13–26; *biol,* Col. City of N. Y, 26–28; *prof. and head dept, Yeshiva Col, 28–,* dean faculty, 28–36. Prin, Talmudical Acad, N. Y, 18–; supervisor Jewish parochial schs, New York, 41– Summer, sci. asst, Bur. Fisheries, 12; Marine Biol. Lab, Woods Hole, 15–17, 19, 22–24; Cold Spring Harbor, 11, 14. A.A; fel. Jewish Acad. (director and exec. sec'y, 27–40). Animal behavior.

Safro, Major V(ictor) I, Middletown Air Depot, Pa. *Entomology.* New York, N. Y, Aug. 26, 88. B.S, Cornell, 09. Agent and expert, bur. entom, U. S. Dept. Agr, 09–10; asst. entomologist, Exp. Sta, Oregon State Col, 10–14, asst. prof. entom, 11–14; entomologist, Ky. Tobacco Products Co, 14–22; v. pres. and entomologist, Nicotine Production Corp, 22–24; entomologist, Am. Cyanamid Co, 24–25; chief entomologist, Calif. Cyanide Co, 25–27; director, Japanese beetle suppression, State Dept. Agr, N. J, 27–29; entom. research, Kay labs. div, Kay-Fries Chem, Inc, 29–32; fumigant research, Mich. Alkali Co, 32–41; *Air Corps, U. S. Army, 42–, major.* Entomologist, Hood River Exp. Sta, Oregon State Col, 14. Entom. Soc; Asn. Econ. Entom; N. Y. Entom. Soc. Sprays; insecticide activators; fumigants; carbon dioxide.

Sage, Prof. B(ruce) H(ornbrook), 1410 La Solana, Altadena. Calif. *Petroleum.* State College, N. Mex, 09. B.S, N. Mex. Col, 29; M.S, Calif. Inst. Tech, 31, Ph.D, 34. Am. Petrol. Inst. teaching fellow, *Calif. Inst. Tech,* 30–34, research fellow, 34–35, senior fellow, 35–37, asst. prof. *chem. eng,* 37–40, assoc. prof, 40–43, *prof, 43–* Assoc. Chem. Soc; Min. and Metal. Eng. Pressure volume temperature relations of petroleum; thermodynamic properties of hydrocarbon mixtures; viscosities of liquid and gaseous hydrocarbons at elevated pressures.

Sagen, Dr. Harry E(dvin), 612 Keith Ave, Waukegan, Ill. *Bacteriology.* Washburn, Wis, July 31, 96. B.S, Wisconsin, 28, M.S, 29, Ph.D, 32. Teacher, high sch, Wis, 21–23, 24–27; instr. agr. bacter, Wisconsin, 28–35; *Abbott Labs, North Chicago, Ill, 35–* Bur. plant indust, U. S. Dept. Agr, 28, bur. animal indust, 34. Soc. Bact; Soc. Ill. Bact; Int. Soc. Micro-

biol. Agricultural bacteriology; plant pathology; etiology of crown-gall and hairy-root formation on plants; physiological characteristics of causative organisms of crown-gall and related organisms; laboratory diagnosis of mastitis.

Sagen, Dr. O(swald) K(arl), 401 W. Jackson, Springfield, Ill. *Mathematics.* LaCrosse, Wis, March 27, 06. A.B, Luther Col, 26; Ph.D, Chicago, 34. Prof. math, Luther Col, 29–31; worker, Inst. Advanced Study, 34–35; instr. math, Minnesota, 35–36; Iowa State Col, 36–37; asst. prof, Maryland, 37–38; research assoc, State Tax Cmn, *Ill,* 39–41; *chief statistician, State Dept. Pub. Health, 41–* Math. Soc. Theory of numbers; representation by sets of forms; statistics.

Sager, DeWitt D(unn), Picatinny Arsenal, Dover, N. J. *Chemistry.* Franklin, Pa, June 27, 01. B.S, McPherson Col, 22; M.S, Mich. State Col, 25. Teacher, high sch, 25–27; head dept. chem, Chariton Junior Col, Iowa, 27–29; research chemist, *Picatinny Arsenal,* 29–40, *chief research sect, 40–* Fel. Inst. Chem. Organic and physical chemistry; explosives; nitrocellulose.

Sager, Theron P(arker), 4701 Connecticut Ave, Washington, D. C. *Chemistry.* Syracuse, N. Y, Feb. 27, 93. B.S, Syracuse, 17. Asst. chemist, Halcomb Steel Co. Syracuse, N. Y, 17; *Bur. Standards,* 18–21, assoc. chemist, 21–29, *chemist, 29–* A.A; Chem. Soc; Soc. Test. Mat. Corrosion of iron and steel; organic plastics; aeronautical fabrics; permeability of elastic polymers to gases.

Sague, Prof. Mary (Louise) Landon (Mrs. James E. Sague), Vassar College, Poughkeepsie, N. Y. *Chemistry.* Burlington, Vt, Sept. 29, 85. A.B, Vassar Col, 07; A.M, Columbia, 14, Alumnae fellow, 17–18, Goldschmidt fellow, 18–19, Ph.D, 20. Teacher, high sch, N. J, 07–08; asst. *chem, Vassar Col,* 08–10, instr, 10–13, 14–17, asst. prof, 19–24, assoc. prof, 24–28, *chairman dept, 24–, prof, 28–* A.A; Chem. Soc; fel. Inst. Chem; Biochem. Soc. Gt. Britain. Inorganic and physical chemistry; biochemistry.

Sahyun, Dr. Melville, Frederick Stearns and Co, 6533 E. Jefferson Ave, Detroit, Mich. *Biochemistry.* Beirut, Syria, June 2, 95. A.B, American Univ. Beirut, 16; A.M, Stanford, 29, Ph.D, 30. Instr, American Univ. Beirut, 16–19; asst. manager to Al-Hilal Review, Cairo, 20–23; asst. biochemist, Potter metabolic clinic, Cottage Hosp, Santa Barbara, 23–28; research assoc, food research inst, Stanford, 30–34; *director* biochem. lab, *Frederick Stearns and Co,* 34–43, *research, 43–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc. Insulin; carbohydrate metabolism; muscular activity; growth factors for micro-organisms; amino acids metabolism, pernicious anemia and Penicillin.

Saibel, Prof. Edward A(aron), 416 Sulgrave Road, Pittsburgh, Pa. *Mathematics, Mechanics.* Boston, Mass, Dec. 25, 03. B.S, Mass. Inst. Tech, 24, Ph.D, 27; Cornell, 24–26. Instr. math. and mech, Minnesota, 27–30; asst. prof. and later *assoc. prof. mech, Carnegie Inst. Tech, 30–* Math. Soc; Math. Asn; Inst. Aeronaut. Sci. Fourier series; analysis situs; vibrations; stress analysis.

Saiki, Dr. Arthur K, University of North Dakota, Grand Forks, N. Dak. *Pathology.* Honolulu, Hawaii, July 29, 00. A.B, Hawaii, 24; B.S, North Dakota, 26; M.D, Nebraska, 28. Instr. physiol, *North Dakota,* 28, asst. prof. *bacter. and path,* 30–33, assoc. prof, 33–35, *prof, 35–, head dept, 30–* Pathologist, State Pub. Health Labs, N. Dak, 30– A.A; Am. Med. Asn. Physiology of sweat; rapid paraffin tissue technique.

Saller, Dr. Reece I(van), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Roseville, Ill, Nov. 8, 15. A.B, Kansas, 38, Ph.D, 42. Asst. to state entomologist, Kans, 42; *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 42–* Entom. Soc. Amer; Kans. Entom. Soc; Entom. Soc. Wash. Taxonomy of the suborder Heteroptera.

St. George, Dr. Armin, Bellevue Hospital, New York, N. Y. *Pathology.* Jersey City, N. J, March 9, 92. Ph.G, Ph.C, Columbia, 10, M.D, 14. *Asst. director labs, Bellevue and allied hosps, 19–* Capt, M.C, 18–19. Asn. Path. and Bact; Soc. Clin. Path. (pres, 40); Am. Med. Asn; N. Y. Path. Soc. (*Died Nov, 1943*)

St. George, R(aymond) A(lexander), U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Lynn, Mass, Sept. 19, 94. B.S, Mass. Col, 18; M.S, George Washington, 23. Sci. asst, *div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr,* 18–24, asst. entomologist, 24–28, assoc. entomologist in charge forest entom. lab, Asheville, in cooperation with Appalachian Forest Exp. Sta, U. S. Forest Service, 28–34, *entomologist, Wash, D. C, 35–* A.A; Asn. Econ. Entom; Soc. Foresters; Entom. Soc. Wash; Biol. Soc. Wash. Insects injurious to living forest trees and to forest products; termite control.

St. John, Dr. Ancel, 30–20 Thomson Ave, Long Island City, N. Y. *Physics.* Plainfield, N. J, June 20, 82. Ph.B, Rochester, 06; Ph.D, Clark, 17. Instr. physics, Syrian Protestant Col, 06–09; asst, Columbia, 09–10; acting prof, Emory and Henry Col, 10–12; instr, Worcester Polytech, 12–17; prof, Lake Forest Col, 17–18; research physicist, Nat. Carbon Co, 18–21; Union Carbide and Carbon Research Labs, 21–24; *consulting physicist, 24–; v. pres. in charge research and eng, St. John X-Ray Service, Inc, 30–* Applied physics; x-ray crystal analysis; x-ray examination of materials; radium inspection; x-ray equipment; metal-radiography.

St. John, Dr. E(lisabeth) Quintard, 1002 Professional Bldg, 1833 Chestnut St, Philadelphia, Pa. *Clinical pathology.* New York, N. Y, June 28, 76. Pennsylvania, 97; M.D, Woman's Med. Col. of Pa, 00. *Practising physician, 00–;* asst, *Phila. Clin. Lab,* 01–05, sec'y, 05–11, *pres, 11–;* microanalyst, food research lab, bur. chem, U. S. Dept. Agr, 05–19; *clin. pathologist, Fidelity Mutual Life Ins. Co, 23–* Am. Med. Asn; Soc. Clin. Path; Pub. Health Asn; Path. Soc. Phila. Chemical and bacteriological changes in milk and cream at low temperatures; influence of storage temperature on histological changes in chickens; chemistry and bacteriology of insectivorous plants.

St. John, Prof. Fordyce B(arker), 180 Ft. Washington Ave, New York, N. Y. *Surgery.* Hackensack, N. J, Feb. 10, 84. B.S, Princeton, 05; M.D, Columbia, 09; hon. Sc.D, Jefferson Med. Col, 27. Asst. prof. surg, *Columbia,* 15–21, assoc. prof, 21–25, *prof,* 25–29, *clin. surg, 29–* A.A; Surg. Asn; Soc. Clin. Surg; Col. Surg; Am. Med. Asn; N. Y. Surg. Soc; Int. Soc. Surg. Abdominal surgery.

St. John, Prof. Harold, University of Hawaii, Honolulu, Hawaii. *Botany.* Pittsburgh, Pa, July 25, 92. A.B, Harvard, 14, A.M, 15, Sheldon traveling fellow, Ph.D, 17; Paris, 19. Asst. bot, Harvard and Radcliffe Col, 13–15, Gray Herbarium, Harvard, 13–17, 19–20; asst. prof, State Col. Wash, 20–23, assoc. prof. and curator herbarium, 23–29; *prof. bot, Hawaii, 29–; botanist, Bishop Museum, Honolulu, 29–* Geol. Surv. Can, 15, 17; visiting prof, Yale, 39–40. A.A; Bot. Soc; Eugenics Soc; Hist. Sci. Soc; Soc. Plant Taxon; Torrey Bot. Club; Northwest Sci. Asn; New Eng. Bot. Club; Biol. Soc. Wash; cor. mem. Phila. Bot. Club; Acad. Nat. Sci. Phila; Dendrol. Gesell; Hawaiian Bot. Soc. (v. pres, 31–, pres, 32); Hawaiian Acad; cor. mem. Czechoslovakia Bot. Soc. Taxonomy and phytogeography of vascular plants; ferns and flowering plants of northeastern United States and eastern Canada; botany of north shore of the Gulf of St. Lawrence; flora of Labrador, Mt. Rainier, Mount Baker, Washington, Hawaii, Polynesia and Melanesia; Elodea; Potamogeton; weeds of pineapple fields.

St. John, Dr. J(ames) L(eonard), 206 Columbia Ave, Pullman, Wash. *Biochemistry, Analytical chemistry.* Janesville, Iowa, Feb. 12, 91. A.B, Iowa State Teachers Col, 15; M.S, Purdue, 18; Illinois; Ph.D, Minnesota, 27. Asst. chem, Purdue, 15–17; chemist, *Exp. Sta,* Illinois, 17–19; *State Col. Wash,* 19–21, *head div. chem, 21–* State chemist, Wash, 21–A.A; Chem. Soc. (chairman, exec. cmt, Pacific div). Foods and nutrition; food quality; proteins and vitamins; chemistry of fruits and eggs; biocolloidal chemistry; analytical methods; cereal and spray chemistry; fruit and vegetable products; bound water; plasticity.

St. Peter, Prof. Wilfred N(apoleon), 644 Pennridge Road, Pittsburgh, Pa. *Physics.* Norway, Mich, June 26, 82. A.B, Michigan, 05, A.M, 19, Ph.D, 24. Ferris Inst, 05–18; instr. *physics,* Michigan, 18–24; asst. prof, *Pittsburgh,* 24–28, assoc. prof, 28–29, *prof, 29–* Physical Soc; Optical Soc. Infra-red line spectra.

Saint-Pierre, Prof. J(oseph) M(aurice), College of Agriculture, Sainte-Anne de la Pocatière, Que, Can. *Animal husbandry.* July 11, 06. B.A, Laval, 28, B.S.A, 31; Ph.D, Cornell, 34. *Prof. dairy cattle and swine feeds and feeding and head dept. animal husbandry, col. agr, Ste-Anne de la Pocatière, Laval, 34–* Mem. Que. Provincial Feed Board, 34–; director sect. Ste-Anne, Corp. des Agronomes, 39–41. Asn. can-francaise pour l'avance. des Sci. Feeding of farm animals.

Sair, Dr. L(ouis), 825 N. University St, Peoria, Ill. *Chemistry.* Oxbow, Sask, Can, Aug. 20, 10. B.S.A, Manitoba,

35; M.Sc, McGill, 38, Nat. Research Council Can. fellow, Ph.D, 39. Indust. chemist, Ogilivie Flour Mills Co, Ltd, 41–43; *Corn Industries Research Foundation research fellow, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 43–* Chemistry of flavoring constituent of maple syrup; freezing and storage of meats; determination of true dry substance in cereals; relation of association to starch properties.

Saklatwalla, Dr. B(eram) D, Park Bldg, Pittsburgh, Pa. *Metallurgy.* Bombay, India, July 19, 81. B.S, Bombay, 02; Carnegie scholar, British Iron and Steel Inst, 08–09; D.E, Royal Polytech, Berlin, 09. Research chemist and metallurgist, Am. Vanadium Co, 10–11, gen. supt, 11–24; v. pres, Vanadium Corp. of Amer, 24–35; pres, U. S. Rustless Steel and Iron Corp, Pittsburgh, Pa, 35–38; *chairman board, Alloys Develop. Corp, 38–* Grasselli medal, 24. Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Chem. Eng; Chem. Soc; Electrochem. Soc; British Iron and Steel Inst; British Inst. Metals. Electrothermal processes; metallurgy of ferro-alloys and alloy steels.

Sakmann, Dr. Bernhard Walter, 149 Upland Road, Cambridge, Mass. *Physics.* Stuttgart, Germany, May 29, 12. Dipl.Ing, Tech. Hochschule Berlin, 35; M.S, Mass. Inst. Tech, 39, Ph.D, 41. Asst. to Prof. Carl Cranz, Nat. Govt. China, 36–38; *asst. prof. physics, Middlesex, 41–; research asst, Mass. Inst. Tech, 42–* Physical Soc. Electric birefringence; friction; experimental ballistics.

Salant, Prof. Edward O(liver), New York University, New York, N. Y. *Physics.* New York, N. Y, 00. A.B, Columbia, 22; Johnston fellow, Hopkins, 25–27; Ph.D, London, 28. Nat. research fellow *physics,* 27–29; asst. prof, *N. Y. Univ,* 29–35, *assoc. prof, 35–* Physical Soc. Quantum theory of the heat capacity of solids; infra-red spectra; repulsive forces and vibrations of solids; isotope effect in polyatomic molecules; Raman effect; quantum theory of spectral shifts in dispersive media; nuclear physics.

Salant, Dr. William, 617 West End Ave, New York, N. Y. *Pharmacology, Physiology.* Feb. 2, 70. B.S, Cornell, 94; M.D, Columbia, 99. Asst. physiol, Cornell, 02–03; physiol. chem, Columbia, 05–07; adj. prof, Alabama, 07–08; chief pharmacologist, bur. chem, U. S. Dept. Agr, 08–18; acting prof. physiol. chem, Wisconsin, 19–20; prof. physiol. and pharmacol, Georgia, 20–29; research pharmacol. sect, biol. lab, Cold Spring Harbor, 29–32; *guest prof. pharmacol, N. Y. Med. Col, 35–* Fellow, Rockefeller Inst, 01–07. A.A; Soc. Pharmacol; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Harvey Soc. Physiological effects of alcohol; effects of strychnin on nephrectomized rabbits; influence of nephrectomy on absorption and on coagulation of the blood; toxicity of bile; pharmacology of caffein, the alcohols and heavy metals; influence of ions; barium; ergotamine; ephedrine; action of drugs in pathological conditions; effects of ions and other factors on pharmacological action; history of science. (*Died Dec, 1943*)

Salathe, Dr. Albert, 327 E. Broadway, Long Beach, Calif. *Chemistry.* New York, N. Y, Nov. 1, 87. A.B, Colgate, 10, A.M, 12; fellow, Chicago, 19–20, Ph.D, 22. Asst. chem, Columbia, 11–12; instr, Union (N. Y), 12–19; asst, Chicago, 19–20; prof, Albany Col. Pharmacy, Union (N. Y), 20–21; physics, Iowa Wesleyan, 22; chem, Sweet Briar Col, 22–24; science, Centenary Col, 24–26; chem. eng, col. applied science, Syracuse, 27–37; research indust. chemist, Brown Co, 37–38; *consultant chem, Cellu-Service Corp,* New York, 38–41, *Calif, 41–* Lecturer, California at Los Angeles. A.A; Chem. Soc. (sec'y-treas, east. N. Y. sect, 16–18, v. chairman, 20, chairman, north. La. sect, 25, councilor, 27); Chem. Eng. Rare earths; absorption spectra; sulfuric acid; chemical education; petroleum; melting points; thallium; pulp and paper.

Sale, J(ohn) W(alter), 1337 Parkwood Place, N. W, Washington, D. C. *Chemistry.* Axtell, Kans, Aug. 29, 83. A.B, DePauw, 07; fellow, Ohio State, 07–09, A.M, 09. Instr. anal. chem, Ohio State, 08–09; asst. chemist, Columbus, Ohio, 09–10; chemist, bur. chem, U. S. Dept. Agr, 10–21, *senior chemist, beverage sect, food div, food and drug admin, Fed. Security Admin, 21–* Agr. Chem. (cmt. on editing methods of anal, 22–). Beverages; fruit, chocolate and saccharine products.

Salem, Dr. Raphael, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Salonica, Greece, Nov. 7, 98. M.E, Ecole Centrale des Arts et Mfrs, Paris, 21; M.A, Paris, 19, Sc.D, 40. Lecturer and later *asst. prof. math, Mass. Inst. Tech, 41–; visiting lecturer, Harvard, 42–* Math. Soc. 97

Pure mathematics; theory of Fourier series and trigonometrical series; real variables.

Sales, Dr. Reno H, P. O. Box 457, Butte, Mont. **7Mining geology.* Storm Lake, Iowa, Sept. 10, 76. B.S, Mont. State Col, 98, D.Sc, 35; Min.E, Columbia, 00. Asst. engineer, Boston and Mont. Consol. Copper Co, Butte, Mont, 00–01; asst. geologist, Amal. Copper Co, 01–06; *chief geologist, Anaconda Copper Mining Co, 06–* Penrose medal, Soc. Econ. Geol, 39; Egleston medal, Columbia, 42. AA.; Soc. Econ. Geol. (pres, 37); Geol. Soc; Min. and Metal. Eng; Min. and Metal. Soc; Can. Inst. Min. and Metal. Geology of ore deposits.

Saletel, Dr. Louis A(nthony), University of Dayton, Dayton, Ohio. *Crystallography.* Cleveland, Ohio, June 28, 04. B.S, Dayton, 25; Ph.D, Fribourg, 36. Teacher, W. Phila. Catholic High Sch, 25–26; Marianist Prep. High Sch, 26–33; lecturer biophys, *Dayton,* 36–37, *prof. geol. and miner, 37–* Miner. Soc. Mineralogy.

Salisbury, Prof. G(lenn) W(ade), R. D. 2, Ithaca, N. Y. *Animal husbandry.* Kingsville, Ohio, June 2, 10. B.S. (Agr), Ohio State, 31; Ph.D, Cornell, 34. Asst. *animal husbandry, Cornell,* 31–34, instr, 34–36, asst. prof, 36–41, *assoc. prof, 41–,* asst. animal husbandman, *Exp. Sta,* 36–41, *assoc. animal husbandman, 41–* Dairy Sci. Asn; Soc. Animal Production; Genetic Asn. Reproductive physiology of the male; genetics and nutrition of farm animals.

Salisbury, Dr. L(eroy) Frank, 7 Clearview Ave, Wilmington, Del. *Chemistry.* Cherokee, Okla, April 10, 10. B.S, Wichita, 31; Fleischmann fellow, Yale, 33–35, Ph.D, 35. Instr. chem, Conn. State Col, 35–36; Int. Cancer Research Foundation fellow, Yale, 36–39; *chemist, exp. sta, E. I. du Pont de Nemours and Co, 39–* Chem. Soc. Analytic examination of natural products; yeast and tobacco-seed lipids; constituents of organisms favoring growth of cancer or cancer-like growths; polyamides.

Salisbury, Prof. S(chuyler) M(arsh), Worthington, Ohio. *Animal husbandry.* Collinwood, Ohio, June 29, 89. B.S. (Agr), Ohio State, 13. Instr. dairying, N. C. Col. Agr. and Mech. Arts, 13–15; asst. prof. animal husbandry, Ohio State, 15–18; agr. agent, exten. service, Medina County, Ohio, 18–20; prof. *animal husbandry* and head dept, Mass. Col, 20–23, *prof,* exten. service, *Ohio State,* 23–25, *univ, 25–* Summers, lecturer, Iowa, 16–17. Dairy Sci. Asn. Dairy production.

Salisbury, Winfield W(yman), Harvard University, Cambridge, Mass. *Nuclear physics.* Carthage, Ill, Dec. 27, 03. A.B, Iowa, 26. Asst, Iowa, 26–27; teaching fellow, California, 27–28; consulting engineer, 28–37; employment analyst, U. S. Dept. Labor, 37; *mem. staff* radiation lab, California, 38–41, Mass. Inst. Tech, 41–42; *group leader, group A and coordinator groups A, Q and R, radio research lab, Harvard, 42–* Physical Soc. Micro-waves; ion sources; cyclotron engineering; ultrasonics.

Salit, Dr. P(eter) W(aldemar), University Hospital, Iowa City, Iowa. *Ophthalmology.* Latvia, May 31, 83. Diploma, German Baptist Theol. Sem, Rochester, 15; A.B, Valparaiso, 18; M.S, Iowa, 27, Ph.D, 29. Asst. ophthal, Iowa, 27–29; fellow, London, 30; *research assoc. ophthal, univ. hosp, Iowa, 31–* A.A. Chemical relations between aqueous and vitreous humors, the lens, spinal fluid and blood; possible chemical changes underlying certain types of glaucoma and cataract.

Salkover, Prof. Meyer, 1316 Avon Drive, Cincinnati, Ohio. *Mathematical physics.* Cincinnati, Ohio, April 4, 96. A.B, Cincinnati, 17, A.M, 19; Ph.D, Yale, 25. Instr. *math, Cincinnati,* 19–25, asst. prof, 25–29, *assoc. prof, 29–* Physical Soc; Math. Asn. Electron theory; relativity; quantum theory.

Sallans, Dr. B(ryce) J(ohn), Dominion Laboratory of Plant Pathology, Saskatoon, Sask, Can. *Plant pathology.* Baracas al sud, Argentina, April 22, 01. B.A, McMaster, 25; M.Sc, Saskatchewan, 29; Ph.D, Wisconsin, 39. Plant disease investigator, 26–28; asst. plant pathologist, *Dom. Lab. Plant Path,* 28–37, *asst. agr. scientist, 37–* Can. Soc. Tech. Agr. Root diseases of wheat, barley and oats.

Salle, Prof. A(nthony) J(oseph), University of California, Los Angeles, Calif. *Bacteriology.* Seattle, Wash, April 7, 95. B.S, Washington (Seattle), 20, M.S, 22; Illinois, 22–23; Ph.D, California, 27. Chemist and bacteriologist, bur. animal indust, U. S. Dept. Agr, 20–21; asst. biochem, Illinois, 22–23; *bacter, California,* 23–27, instr, 27–29, asst. prof, 29–41, *assoc. prof, 41–* Bacteriologist, bur. sanit. eng, State Board

Health, Calif, 25–30; investigator plant virus, U. S. Dept. Agr, 29–31; bacteriologist, leprosy investigation sta, U. S. Pub. Health Service, Honolulu, 31–33. Soc. Exp. Biol; Soc. Bact. Evaluation of germicides by the tissue culture technique; water bacteriology; leprosy investigations; tissue cultivation in vitro.

Salley, Dr. D(onovan) J(oseph), American Cyanamid Co, Stamford, Conn. *Physical chemistry.* Red Lake Falls, Minn, Dec. 4, 05. A.B, North Dakota, 27, fellow, 27–28, M.S, 28; fellow, Princeton, 31–32, Ph.D, 32. Tech. staff, Bell Tel. Labs, 28–29; asst, Princeton, 29–31, Textile Foundation fellow, 32–36; *research staff, Am. Cyanamid Co, 36–* Chem. Soc; Inst. Chem. Corrosion of metals; photochemistry; cellulose deterioration; catalysis; artificial radioactivity.

Salls, Dr. Carroll M(organ), 208 Maple Place, Cranford, N. J. *Chemical engineering.* Burlington, Vt, Dec. 19, 93. B.S, Vermont, 16; indust. fellow, McGill, 20; Goldschmidt fellow, Columbia, 22, Ph.D, 23. Anal. chemist, rubber lab, 16; plant supervisor and research chemist, explosives, 17–19; asst. consulting chemist, Columbia, 23; chem. engineer indust. health hazards, State Labor Dept, N. Y, 23–28; research chemist and tech. exec, Am. Cyanamid Co, 28–33; *consulting chem. engineer, 33–* Chem. Soc; Chemists' Club. Chlorine products; rubber; explosive; industrial chemicals, resins and plastics; industrial health problems; sodium cyanide; sodium phosphates.

Salman, Dr. K(enneth) A(llen), U. S. Department of Agriculture, 335 Giannini Hall, Berkeley, Calif. *Entomology.* Boston, Mass, Dec. 17, 01. B.S, Mass. Col, 24, Ph.D, 30. Asst. entomologist, Santa Paula Citrus Asn, 24; entomologist, Republic El Salvador, 24–26; instr. entom, Mass. Col, 26–30; agent, div. forest insects, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30–32, assoc. entomologist, 32–37, *entomologist, div. forest insect investigations, 37–; lecturer entom, California, 39–* Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Soc. Foresters; Pacific Coast Entom. Soc; Calif. Acad. Ecology and control of western forest insects.

Salminen, Dr. Ilmari F(ritiof), 199 Albemarle St, Rochester, N. Y. *Organic chemistry.* Worcester, Mass, Oct. 1, 11. A.B, Clark Col, 33; A.M, Clark, 35, Ph.D, 36. *Research chemist,* Calco Chem. Co, 36–39; *Eastman Kodak Co, 39–* Chem. Soc. Vat dyes; photographic couplers.

Salmon, Dr. S(amuel) C(ecil), 1403 Vermont St, N, Arlington, Va. *Agronomy.* Emery, S. Dak, July 25, 85. B.S, S. Dak. State Col, 07; M.S, Kans. State Col, 23; Ph.D, Minnesota, 32. Plant physiologist and special agent, U. S. Dept. Agr, 08–13; prof. farm crops, Kans. State Col, 14–31; *agronomist in charge wheat investigations, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–* A.A; Soc. Agron; Soc. Plant Physiol; Statist. Asn. Wheat; physiology; winter hardiness and breeding wheat; variety testing and improvement; relation of crop distribution to climate and soil; physiology of crop plants.

Salmon, Dr. Theodora N(ussmann) (Mrs. M. R. Salmon), Hunter College, 68th St. and Park Ave, New York, N. Y. *Endocrinology.* Buffalo, N. Y, June 2, 03. A.B, Western Col, 24; A.M, Cincinnati, 28; Ph.D, Columbia, 38. Instr. sciences, high sch, Robinson Acad, Texas, 24–27; hygiene and psychol, Oakwood Inst, Ohio, 27–30; asst. metabolism, dept. genetics, Carnegie Institution, 30–31; *instr. histol. and embryol, Hunter Col, 31–* Visiting scholar, Columbia, 39– Thyroid as related to growth and development.

Salmon, Dr. Vincent, 6220 S. Moody Ave, Chicago, Ill. *Acoustics.* Kingston, Jamaica, B.W.I, Jan. 21, 12. A.B, Temple, 34, A.M, 36; Ph.D, Mass. Inst. Tech, 38. Teaching fellow physics, Mass. Inst. Tech, 37–38; *physicist, Jensen Radio Mfg. Co, 39–* Fel. Acoustical Soc. Electroacoustics; sound field and radiation impedance of a hyperbolic horn; hypex horn formula.

Salmon, Prof. W(illiam) D(avis), Alabama Polytechnic Institute, Auburn, Ala. *Animal husbandry.* Cork, Ky, Feb. 12, 95. B.S.A, Kentucky, 20; A.M, Missouri, 21. Asst. animal husbandman, Clemson Col, 21–22; *Ala. Polytech,* 22–27, research prof. *animal nutrition,* 27–35, *prof, 35–* A.A; Inst. Nutrition; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Ala. Acad. Animal nutrition; mineral metabolism; chemical properties and physiological functions of B vitamins; nutritive properties of foods and feedstuffs; pathology of deficiency diseases.

Salt, Dr. R(eginald) W(ilson), Dominion Entomological Laboratory, Lethbridge, Alta, Can. *Entomology.* Loughborough, Eng, Sept. 10, 10. B.Sc, Alberta, 30; M.S, Mont. State Col, 33; Caleb Dorr research fellow, Minnesota, 33–35, Royal Soc. Can. fellow, 35–36, Ph.D, 36. Insect pest investigator, *entom. branch, Can. Dept. Agr,* 30–36, *asst, 36–* Acting head dept. entom, Alberta, 40–42. A.A. Insect freezing; alfalfa and clover insects.

Salter, Dr. F(rederick) J, Ohio State University, Columbus, Ohio. *Agronomy, Soils.* La Crosse, Kans, Sept. 28, 89. B.S, Ohio State, 13, M.S, 14, Ph.D, 29. Instr. agr. chem. and soils, *Ohio State,* 13–17, *soils,* 24–27, *asst. prof, 27–* Soc. Agron; Soybean Asn; Soil Sci. Soc. Soil fertility; soil organic matter relationships; quick tests for soil fertility and their calibration; soil color distinctions.

Salter, Dr. Mary D(insmore), University of Toronto, Toronto, Ont, Can. *Psychology.* Glendale, Ohio, Dec. 1, 13. A.B, Toronto, 35, A.M, 36, David Dunlap Mem. scholar, 37, 38, Ph.D, 39; Alpha Chi Omega Mary Emma Griffith Marshall mem. scholar, 37–38. Class asst. psychol, Toronto, 35–38, instr, 38–41, lecturer, 41–42; *personnel selection, Can. Army, 42–* David Dunlap Mem. fellow, Toronto, 39–42. Psychol. Asn; Can. Psychol. Asn. The measurement of personality adjustment; selection and adjustment of medical students.

Salter, Robert M(undhenk), U. S. Department of Agriculture, Beltsville, Md. *Agronomy.* Huntington, Ind, March 31, 92. B.S.A, Ohio State, 13, M.S, 14. Asst. soil chemist, Exp. Sta, West Virginia, 16–17, soil chemist, 17–19, agronomist, 19–21, asst. prof. soil chem, West Virginia, 17–19, prof. agron, 19–21; soils, Ohio State, 21–25; chief agron, Ohio Exp. Sta, 25–41, assoc. director, 40; prof. agron. and chairman dept, Ohio State, 29–40; director, Exp. Sta, N. C. State Col, 40–41; head div. soil and fertilizer investigations, bur. plant indust, *U. S. Dept. Agr,* 41–42, *chief bur. plant indust, soils and agr. eng, 42–* Soc. Agron. (pres, 36); Int. Soc. Soil Sci. Soil fertility, management and conservation; fertilizer development and application.

Salter, Dr. William T(homas), 333 Cedar St, New Haven, Conn. *Biochemistry, Pharmacology.* Boston, Mass, Dec. 19, 01. A.B, Harvard, 22, M.D, 25; A.M. (Privatim), Yale, 41. Med. intern, Mass. Gen. Hosp, 25–27, med. res, 27–28; Moseley traveling fellow, Harvard, 28–29, research fellow med, 29–32, tutor biochem. sciences, 29–39, instr. med, 32–34, asst. prof, 34–41; *prof. pharmacol, Yale, 41–* Research fellow, Harvard Cancer Cmn, 29–39; assoc. physician, Huntington Mem. Hosp, 29–39; junior assoc, Peter Bent Brigham Hosp, 32–36, assoc, 37–39; assoc. physician, Thorndike Mem. Lab, 39–41; junior visiting physician, Boston City Hosp, 39–41. A.A; Am. Med. Asn; Hist. Sci. Soc; Soc. Exp. Biol; Physiol. Soc; Inst. Nutrition; Soc. Clin. Invest; Am. Physicians; Asn. Hist. Med; Asn. Cancer Research; Chem. Soc; Asn. Study Int. Secretions; Col. Physicians; Am. Acad; Classical Asn. New Eng; N. Y. Acad; Biochem. Soc. Gt. Britain. Thyroid chemistry; acid-base metabolism; calcium and phosphate metabolism; vitamin deficiency; hormones and enzymes in cancer chemistry; carbohydrates in nutrition; chemistry of proteins in relation to disease; endocrine function of iodine; action of drugs.

Saltonstall, Dr. R(ichard) B(ell), 53 Hawthorne, Grosse Pointe, Mich. *Electrochemistry.* Cheboygan, Mich, Jan. 17, 06. B.S, Olivet Col. (Mich), 27; M.S, Mich. State Col, 31, Ph.D, 35. Asst. chem. and physics, Olivet Col. (Mich), 25–27; instr. chem, high sch, Mich, 27–30; asst, Mich. State Col, 31–35; research chemist, *Udylite Co, Detroit,* 36–37, asst. to tech. director, 37–43, *acting tech. director, 43–* Electroplaters Soc; Electrochem. Soc. Transference of fluosilicate ion; oxidation potential of ceric-cerous electrode; analytical methods for plating solutions.

Salvadori, Dr. M(ario) G(iorgio), Columbia University, New York, N. Y. *Civil engineering.* Rome, Italy, March 19, 07. D.C.E, Rome, 30, Dr.Math, 33, Libero Docente, 37; London, 33–34. Sec'y civil eng. div, Nat. Italian Research Council, 34–38; asst. prof. theory of structures, Rome, 37–38; lecturer *civil eng, Columbia,* 40–41, *instr, 41–* Consultant, Istituto Applicazioni Calcolo, Rome, 34–38; sec'y, Societa-Ital. Prove Materiali, 35–38; Int. fellow, Istitute Int. Relazioni Culturali, 38. Assoc. Civil Eng. Theory of structures; theory of elasticity; photoelasticity; applied mathematics.

Salvin, Dr. S(amuel) B(ernard), Harvard University, Cambridge, Mass. *Mycology.* Boston, Mass, July 10, 14. A.B, Harvard, 35, M.Ed, 37, A.M, 38, Ph.D, 41. Asst, Radcliffe Col. and Harvard, 37–41; *research assoc, biol. labs, Harvard, 41–* Bot. Soc; Mycol. Soc. Medical mycology; aquatic phycomycetes.

Salvoza, Dr. F(elipe) M(odesto), University of the Philippines, Laguna, P. I. *Botany, Dendrology.* Polillo, Tayabas, P. I, April 30, 92. B.S. (Forestry), Syracuse, 28; M.S, Harvard, 29, Sheldon fellow, 29–30, Sc.D, 30. Ranger, Bur. Forestry, P. I, 18–26; instr. dendrol, *sch. forestry, Philippines,* 30–35, *asst. prof. bot. and dendrol, 35–* Dendrologist, Bur. Forestry, P. I, 31– Assoc, Nat. Research Council P. I. P. I. Sci. Soc. Plant taxonomy; ecology.

Salyer, J(ohn) Clark, II, 807 Hinman Ave, Evanston, Ill. *Biology.* Higginsville, Mo, Aug. 16, 02. A.B, Cent. Col. (Mo), 27; A.M, Michigan, 30. Instr, high sch, Kans, 27–30; fellow, Michigan, 30–32; aquatic biologist, State Fish and Game Cmn, Iowa, 32–33; research assoc, Michigan, 33–34; *chief* migratory waterfowl div, bur. biol. surv, U. S. Dept. Agr, 34–40; *div. refuges, fish and wildlife service, U. S. Dept. Interior, 40–* Prof, Bethel Col. (Kans), 28. Food habits of fisheries predators; stream and lake improvement; beaver-trout ecology; waterfowl biology and conservation; aquatic and limnological biology.

Salzberg, Dr. H(arold) K(arl), Casein Co. of America, 350 Madison Ave, New York, N. Y. *Chemistry.* Galesburg, Ill, Oct. 11, 01. B.S, Knox Col, 24; M.S, Illinois, 25; Ph.D, Wisconsin, 29. Junior chemist, Forest Products Lab, U. S. Forest Service, 25–28; indust. fellow, Mellon Inst, 28–38; *senior chemist, Casein Co. Amer, 38–* Chem. Soc. Wood chemistry; naval stores; dairy products; adhesives and binders.

Salzberg, Dr. Paul L(awrence), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Galesburg, Ill. B.S, Knox Col, 25; Carr fellow, Illinois, 28, Ph.D, 28. *Chemist, exp. sta, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Organic syntheses; insecticides; polymers.

Salzer, Prof. George Washington, 1119 Pearl St, Denver, Colo. *Engineering.* New York, N. Y, Feb. 22, 97. A.B, George Washington, 18, M.S, 19; fellow, Colo. Sch. Mines, 19–21, E.M, 21, Sc.D, 22. Asst. prof. *descriptive geometry and eng. drawing, Colo. Sch. Mines,* 21–27, *prof. and head dept,* 27– Eng. Educ. (sec'y, Colo. Sch. Mines branch, 30). Descriptive geometry; engineering drawing; electricity applied to metallurgy.

Salzmann, Dr. Gerhard M(artin), R. F. D. 1, Midland Park, N. J. *Organic chemistry.* Staten Island, N. Y, Sept. 7, 06. A.B, Columbia, 28, A.M, 29, Ph.D, 32. Asst. inorg. chem, Columbia, 28–30; *research chemist, Colgate-Palmolive-Peet Co, 33–* Starches; dentifrices; cosmetics; glycerine.

Samachson, Dr. Joseph, 2530 Holland Ave, New York, N. Y. *Chemistry.* Trenton, N. J, Oct. 13, 06. B.S, Rutgers, 26; Ph.D, Yale, 30. Research chemist, Atlantic Ref. Co, 30–33; *with Am. Molasses Co, 37–* Gasoline; lubricating oils; sugar; molasses.

Samans, Dr. Carl H(ubert), Spencer Road, Charlton Depot, Mass. *Metallurgy.* Greenville, Pa, Jan. 27, 09. Chem.E, Rensselaer Polytech, 29; M.S, Yale, 32, Ph.D, 34. Asst. metallurgist, Chase Companies, Inc, Waterbury, Conn, 29–34; instr. metal. eng, Lehigh, 34–36; Rensselaer Polytech, 36–37; asst. prof. metal, Pa. State Col, 37–40, assoc. prof, 40–41; research metallurgist, Am. Optical Co, 41–42; copper consultant conservation div, War Production Board, 42–43; *research metallurgist, Am. Optical Co, 43–* Min. and Metal. Eng; Soc. Metals; British Iron and Steel Inst; British Inst. Metals. Deformation of single crystals of brass; x-ray spectroscopy; fatigue; corrosion fatigue; creep; solid state precipitation; precious metals.

Samaras, Dr. Nicholas N(apoleon) T(riantaphyllos), Monsanto Chemical Co, Dayton, Ohio. *Chemistry.* Siatista, Greece, Oct. 15, 06. B.S, Case, 27; Ph.D, Yale, 31. Chemist, N. Y. Cent. Lines, 27–28; research chemist, Eastman Kodak Co, 28; hon. fellow, Sterling chem. lab, Yale, 31–34; research chemist, Thomas and Hochwalt Labs, Inc, 34–36; group leader, cent. research dept, *Monsanto Chem. Co,* 36–43, *asst. director research, 43–* A.A; Chem. Soc. (chairman, Dayton sect, 41; councilor, 43). Acid and basic catalysis; solutions; plastics; surface active agents; synthetic rubber.

Samelson, Dr. H(ans), 255 Roosevelt Ave, Syracuse 10, N. Y. *Mathematics.* Strassburg, Germany, March 3, 16. Dr.sc. math, Swiss Fed. Inst. Tech, 40. Mem, Inst. for Advanced Study, 41–42; instr. *math,* Wyoming, 42–43; *asst. prof, Syracuse, 43–* Math. Soc. Topology; group manifolds.

Sammis, Dr. J(ohn) L(angley), 4225 Wanetah Trail. Madison, Wis. *Chemistry.* Winona, Minn, Jan. 1, 73. B.S, Illinois, 97, M.S, 99; fellow, Wisconsin, 05–06, Ph.D, 06. Asst. chem, Illinois, 97–99, instr, 99–05; expert in dairying, U. S. Dept. Agr, 06–07; asst. prof. dairy husbandry, Wisconsin, 07–17, assoc. prof, 17–39; *retired.* A.A; Chem. Soc. Action of mercaptids on quinones; dietetics; chemistry of milk curdling; chemistry and physics of the cheese-making process; pasteurization applied to the cheese industry; vocational education methods.

Sampey, Prof. John R(ichard), Jr, Furman University, Greenville, S. C. *Chemistry.* Louisville, Ky, Aug. 5, 96. B.S, Chicago, 20, M.S, 21, Ph.D, 23. Graffin scholar *chem,* Hopkins, 23–24; assoc. prof, Howard Col. (Ala), 24–26, *prof,* 26–34; *Furman, 34–; U. S. Army, 42–* Am. Petrol. Inst. fellow, Hopkins, 30–31. A.A; Chem. Soc. (senator, chem. educ, chairman, S. C. sect); Ala. Acad. (pres); S. C. Acad. (pres). Positive halogens; polar effects in halogen-phenols and halogen-naphthols; rates of reduction of nitro compounds; polar effects in halogen naphthylamines; aliphatic sulfur compounds; rates of bromination of side chains and ketones.

Sample, Prof. James H(alverson), Franklin College, Franklin, Ind. *Organic chemistry.* Cicero, Ill, Feb. 27, 14. B.S, Elmhurst Col, 35; M.S, Illinois, 36, Ph.D, 39. Asst. *chem,* Illinois, 36–39; *prof,* Ind. Cent. Col, 39–42; *Franklin Col, 42–* Chem. Soc. (assoc. ed, 'Accelerator,' 40–; director, Ind. sect, 42, sec'y, 43); Ind. Chem. Soc. Structure of polyvinyl chloride; growth of Freesias using chemiculture.

Sampson, Prof. Arthur W(illiam), University of California, Berkeley, Calif. *Forestry.* Oakland, Nebr, March 27, 85. B.S, Nebraska, 06, A.M, 07; Hopkins, 14–15; Ph.D, George Washington, 17. Plant ecologist, U. S. Forest Service, and director, Great Basin Forest Exp. Sta, Utah, 12–22; assoc. prof. and later *prof. forestry, California, 22–* Lecturer, Syracuse, 16; California, 21. A.A; Soc. Foresters; Bot. Soc; Ecol. Soc; Am. Acad. Botany; ecology; physiology; range and pasture management; American forage plants; livestock husbandry on range and pasture.

Sampson, Prof. Edward, Princeton University, Princeton, N. J. *Geology.* Oxford, Eng, May 31, 91. C.E, Princeton, 14, M.S, 15, Sc.D, 20; Mass. Inst. Tech, 17. Instr, Rutgers, 19–20; asst. geologist, U. S. Geol. Surv, 20–21, assoc. geologist, 21–34; asst. prof. *geol, Princeton,* 25–28, assoc. prof, 28–39, *prof, 39–,* head dept, 34–36. Princeton geol. expeds, Newfoundland, 15, in charge, 16, 20. Geol. Soc; Soc. Econ. Geol. (sec'y, 26–33, v. pres, 35); Asn. Petrol. Geol; Min. and Metal. Eng; Miner. Soc; Geophys. Union; Geol. Soc. Wash. (sec'y, 24); Miner. Soc. Phila; Geol. Soc. Phila; Can. Inst. Min. and Metal; Miner. Soc. London. Economic geology; mineralogy of metallic minerals; mineral resources.

Sampson, Prof. Homer C(leveland), Ohio State University, Columbus, Ohio. *Botany.* Wheeler, Ill, Jan. 21, 85. B.S, Chicago, 14, Ph.D, 17. Asst. biol, East. Ill. State Nor. Sch, 09–12; nat. science, Chicago, 12–17; instr. *bot, Ohio State,* 17–19, asst. prof, 19–22, *prof, 22–* Summer, asst, desert lab, div. plant biol, Carnegie Institution, 14. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Ohio Acad; Ill. Acad. Plant physiology and ecology.

Sampson, Dr. J(esse), 510 W. Williams St, Champaign, Ill. *Veterinary science.* Rowe, Ill, Dec. 13, 00. B.S, Illinois. 23; D.V.M, Cornell, 30, Ph.D, 33. Asst. farm adviser, Ill, 23–26, asst. and instr. vet. physiol, Cornell, 28–36; asst. *animal path. and hygiene, Illinois,* 36–37, assoc, 38–39, asst. prof. and asst. chief dept, 39–40, *assoc. prof. and assoc. chief dept, 41–* Vet. Med. Asn; Conf. Research Workers Animal Diseases N. Amer; Ill. Vet. Med. Asn. Ketosis in cattle and sheep; acid-base balance in cows and ewes; disturbances of carbohydrate metabolism in animals.

Sampson, Dr. J(ohn) B(ard), P. O. Drawer 2038, Pittsburgh, Pa. *Physics.* Mercer, Pa, Jan. 4, 16. A.B, Allegheny Col, 37; A.M, Princeton, 40; Frazer fellow, Pennsylvania, 39–41, Ph.D, 42. Asst. physics, Allegheny Col, 35–37; Princeton, 38–39; asst. instr, Pennsylvania, 41; instr, Worcester Polytech, 41–42; *research physicist, Gulf Research and Development Co, 42–* Theory of atomic spectra; theory of solids; lubrication and friction.

Sampson, Prof. Myra M(elissa), Smith College, Northampton, Mass. *Physiology.* Fall River, Mass, Jan. 31, 87. A.B, Brown, 09; traveling fellow, Smith Col, 13–14; Am. Asn. Univ. Women traveling fellow, 20–21; A.M, Michigan, 14, Ph.D, 26. Demonstrator *zool, Smith Col,* 09–10, asst, 10–13, instr, 13–18, asst. prof, 18–24, assoc. prof, 24–29, *prof, 29–*

Summer, asst, biol. lab, Cold Spring Harbor, 10; Univ. Mich. ecol. exped, Texas, 14. A.A; Soc. Zool; Inst. Nutrition. Protozoa; fertilization and development; nutrition.

Sams, Prof. James H(agood), 113 N. Clemson Ave, Clemson, S. C. *Mechanical engineering.* Columbia, S. C, April 26, 03. B.S, Clemson Col, 24; E.E, Cornell, 26; M.S, Michigan, 31, Ph.D, 37. Test engineer, Gen. Elec. Co, 26; instr. eng, Clemson Col, 27–31, asst. prof, 31–34; Michigan, 34–36; *assoc. prof. mech. eng, Clemson Col, 36–; Air Corps, U. S. Army.* Mech. Eng; S. C. Soc. Eng. Energy content of fluids in rotating channels.

Samson, Dr. E(dward) W(alter), Hammermill Paper Co, Erie, Pa. *Physics.* Winnipeg, Man, Can, Aug. 17, 03. B.Sc, Manitoba, 25, M.Sc, 26, Nat. Research Council Can. bursar, 26–27; student, Toronto. 27–28, M.A, 28; Procter fellow, Princeton, 29–30, Ph.D, 32. Asst, Princeton, 28–29, 30–31, instr, 31–32; nat. research fellow, Mass. Inst. Tech, 32–34, *physicist,* 34–35; *Hammermill Paper Co, 35–, head physics dept.* Physical Soc; Asn. Pulp and Paper Indust. Luminescence of solidified gases; critical potentials in nitrogen; optical dissociation and predissociation in iodine; effective collision cross sections for mercury-nitrogen; high voltage apparatus; ion sources; pulp and paper mill processes and machines.

Samson, Dr. R(ayburn) W(alter), Purdue University, Lafayette, Ind. *Botany.* Oconto, Nebr, April 18, 01. B.S, Nebraska, 26, M.S, 27; Ph.D, Purdue, 32. Asst. *bot, Purdue,* 27–32, acting head dept, *exp. sta,* 32–36, assoc, 36–37, *asst. chief and prof, 37–* A.A; Phytopath. Soc; Potato Asn; Soc. Hort. Sci. Plant pathology; virus diseases; plant breeding; plant ecology.

Samuels, Dr. Bernard, Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Ophthalmology.* Front Royal, Va, June 29, 79. M.D, Jefferson Med. Col, 07. Clin. prof. *ophthal, med. col, Cornell, emer. clin. prof, 43–; surgeon and pathologist, N. Y. Eye and Ear Infirmary.* Attending ophthalmologist, New York, St. Elizabeth's, Booth Mem. and Reconstruction Hosps, and N. Y. Infirmary for Women and Children. Oxford Ophthal. Cong; Heidelberg Ophthal. Cong. Major, M.C, 18–19. Ophthal. Soc. (ed, trans); Acad. Ophthal. and Otolaryngol. (1st v. pres, 37); Col. Surg; Col. Physicians; fel. Int. Col. Surg. The histopathology of the eye.

Samuels, Dr. Charles D(anziger), Box 385, Covina, Calif. *Soils.* Cleveland, Ohio, June 23, 99. B.S, California, 21, Ph.D, 25; M.S, Wisconsin, 22. *Consulting and commercial work, 25–* Chem. Soc; West. Soc. Soil Sci; Int. Soc. Soil Sci. Formation of acid soils; utilization of sulfur in the reclamation of alkaline soils; effect of oil sprays in transpiration and photosynthesis.

Samuels, Prof. Leo T(olstoy), University of Minnesota Medical School, Minneapolis, Minn. *Biochemistry.* Indianapolis, Ind, Nov. 15, 99. A.B, Emmanuel Col, 25; Ph.D, Chicago, 30. Director research labs, White Mem. Hosp, 30–34, instr. pharmacol, sch. med, Southern California, 34–37; asst. prof. *physiol. chem, med. sch, Minnesota,* 37–43, *assoc. prof, 43–* A.A; Soc. Biol. Chem; Soc. Pharmacol; Soc. Exp. Biol; Soc. Study Int. Secretions. Endocrines.

Samuels, L(eroy) T(homas), U. S. Weather Bureau, Washington, D. C. *Meteorology.* Milwaukee, Wis, Sept. 14, 93. High sch; univ. *U. S. Weather Bur, 11–,* observer, 18–23, asst. meteorologist, 23–30, assoc. meteorologist, 30–31, *asst. chief aerological div, 31–* Fel. Meteorol. Soc. (treas, 38); Philos. Soc. · Meteorology, with special reference to the upper air; aerology.

Samuelson, Dr. G(ilbert) J(ustus), 1390 E. Burnett St, Long Beach, Calif. *Chemistry.* Omaha, Nebr, Dec. 7, 07. B.S, Nebr. State Nor. Col, 29; M.S, Nebraska, 32, Ph.D, 34. Instr. chem, high sch, Nebr, 29–30; teaching scholar, Nebraska, 30–34; instr. chem, Agr. and Mech. Col. Texas, 35–37, asst. prof, 37–39, assoc. prof, 39–42; N. Texas Agr. Col, 42–43; *research chemist, Petrol. Rectifying Co, Calif, 43–* Chem. Soc. Electrochemistry.

Sanborn, Prof. Charles Emerson, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Entomology.* La Plata, Mo, April 16, 77. A.B, Kansas, 03, A.M, 04. Entom. expert, bur. entom, U. S. Dept. Agr, 05–09; cooperative entomologist, Texas Col, 06–08; acting state entomologist, Texas, 08; State Entom. Dept, Ill, 09; prof. *entom.* and head dept, *Okla. Agr. and Mech. Col,* and entomologist, Exp. Sta, 09–34, *emer. prof, 34–,* acting dean and director, Exp. Sta, 28. A.A; Okla. Acad. (pres, 24). Wildlife conservation.

Sanborn, Colin Campbell, Field Museum of Natural History, Chicago, Ill. *Mammalogy.* Evanston, Ill, June 12, 97. Asst. zool, *Field Museum Nat. Hist,* 22–30, asst. curator *mammals,* 31–37, *curator, 37–; lieut, U. S. Navy, 42–* Guggenheim Mem. Foundation fellow, 38. Expeds, Peru, Chile, Brazil, Uruguay and Argentina. F.A, U.S.A, 17–19. Soc. Mammal; Biol. Soc. Wash. Distribution of South American mammals; taxonomy and distribution of the Chiroptera; mammals of Peru.

Sanborn, Prof. Ethel I(da), Oregon State College, Corvallis, Oregon. *Botany.* Goodwin, S. Dak, Dec. 11, 82. B.S, S. Dak. Col, 03; A.B, South Dakota, 04, A.M, 07; Ph.D, Stanford, 28. Asst. prin, high sch, S. Dak, 04–06; teacher, Minn, 07–09; curator herbarium, Oregon, 14–17, instr. *bot,* 18–27, asst. prof, 28–32; *Oregon State Col,* 32–33, *assoc. prof, 33–* A.A; Paleont. Soc; Bot. Soc. Paleobotany of Oregon; Hepaticae; anthocerotes.

Sanborn, Frank B(erry), 37 Arlington St, Cambridge, Mass. *Engineering.* Hampton Falls, N. H, Jan. 15, 65. B.S, Dartmouth Col, 87, C.E, 89, hon. Sc.D, 42; M.S, Harvard, 98. Inspector, Factory Asn. East. States and Can, 90–99; asst. prof. civil eng, Tufts Col, 99–01, prof, 01–18; *proprietor, Sanborn Co, 18–* Substitute prof, Illinois, 08–09; lecturer, Dartmouth Col, 06– Civil Eng. Mechanics; hydraulics; fire protection; pitometer; measurement of water; low pressure gage; marine speedometer; blood pressure testing; heart testing.

Sanborn, Prof. Herbert (Charles), Vanderbilt University, Nashville, Tenn. *Psychology.* Winchester, Mass, Feb. 18, 73. Ph.B, Boston, 96, Jacob Sleeper fellow, 01–02; A.M, Tufts Col, 97; Heidelberg; Berlin; Halle; Leipzig; Ph.D, Munich, 08. Teacher, Concord Sch, 97–99; high sch, Conn, 99–00, prin, 00–01; prof. *philos. and psychol,* Washington Col. (Md), 09–11; assoc. prof, *Vanderbilt,* 11–21, *prof, 21–* A.A; Psychol. Asn; Philos. Asn; S. Soc. Philos. and Psychol. (pres, 22, councilor, 38–); Tenn. Acad; British Inst. Philos; Gesell. Aesthetik und allgemeine Kunstwissensch; Kant Gesell. Esthetics; animal psychology; instinct.

Sanborn, Dr. Joseph Raymond, New York State Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* Lawrence, Mass, Feb. 14, 97. B.S, Mass. Col, 20, Ph.D, 26. Lecturer bacter, Macdonald Col, McGill, 24–26, head dept, 26–29; assoc. prof, Dalhousie, 29–30; bacteriologist, research div, Int. Paper Co, Glens Falls, N. Y, 30–34; Arthur D. Little, Inc, 34–36; research bacteriologist, Int. Paper Co, 36–37; *in charge paper, paperboard and packaging investigations, N. Y. Exp. Sta, 37–* Bacteriologist, fisheries exp. sta, Biol. Board Can, Halifax, N. S, 29–30. Soc. Bact; fel. Pub. Health Asn; Asn. Pulp and Paper Indust. Industrial microbiology; foods; microbiology of cellulose; manufacture of useful substances through synthetic activities of micro-organisms; rôles played by micro-organisms in pulp and paper, textile and food industries; packaging of food products.

Sanborn, Prof. N(athan) W(illard), A207, University Station, Gainesville, Fla. *Poultry husbandry.* Marblehead, Mass, May 7, 59. M.D, Dartmouth Col, 80, N. Y. Univ, 81. Exten. poultryman, *Florida,* 18–20, prof. *poultry husbandry,* 21–24, *head prof, 24–* Lecturer, R. I. State Col; Conn. Col; Mass. Col. Fla. del, World's Poultry Cong, London, 30. Poultry Sci. Asn; World's Poultry Sci. Asn. Diseases of poultry; management of poultry.

Sanche, Sister Ignatius, Mt. St. Joseph, Ohio. *Chemistry.* Windsor, Ont, Can, Dec. 23, 96. A.B, Creighton, 24; A.M, Cincinnati, 30, Ph.D, 33. Teacher science, high sch, Colo, 20–27; *prof. chem, Col. Mt. St. Joseph-on-the-Ohio,* 27–29, *33–* A.A; Chem. Soc; Ohio Acad. Organic chemistry; chemical bibliography; stereoisomers of trimethyl glutaric acid.

San Clemente, Dr. Charles L(eonard), Western Reserve University, Cleveland, Ohio. *Biochemistry.* Milford, Mass, May 27, 14. B.S, Mass. State Col, 37; fellow, Mich. State Col, 39–41, M.S, 40, Ph.D, 42. Teaching asst. biochem, Mich. State Col, 37–39, asst. bacter, 41–42; *research immunochemist, med. sch, Western Reserve, 42–* Chem. Soc. Electrophoresis of serum proteins; brucellosis; complement.

Sanctuary, Prof. W(illia)m C(rocker), 19 Allen St, Amherst, Mass. *Poultry husbandry.* Essex Junction, Vt, Oct 16, 88. B.S, Mass. Col, 12, M.S, 32. Teacher and acting

director, N. Y. State Sch. Agr, Morrisville, 14–17, 19–21, 24–25; *prof. poultry husbandry*, Mass. Col, 21–24, 25–31, *Mass. State Col, 31–* U.S.A; 17–19. Poultry Sci. Asn. Malpositions in chick embryos; avian behavior, especially of the domestic fowl; poultry house ventilation.

Sand, Prof. Margaret C(ole), Adelphi College, Garden City, N. Y. *Psychology.* Boulder, Colo, July 11, 13. A.B, Colorado, 34; scholar, Columbia, 34–35, A.M, 35, Ph.D, 39. Asst. *psychol*, Barnard Col, Columbia, 35–36; instr, *Adelphi Col*, 37–40, *asst. prof, 40–, chairman dept, 37–* Summer, instr, Colo. Agr. Col, 34. Assoc. Psychol. Asn. Retroactive inhibition.

Sandberg, Dr. Adolph E(ngelbrekt), Box 413, Cocoli, C. Z. *Geology.* Minneapolis, Minn, Feb. 15, 98. A.B, Minnesota, 29, A.M, 31; Ph.D, Cincinnati, 37. Instr. geol, Cincinnati, 29–39; *geologist, Panama Canal, 39–* Minn. Geol. Surv, 28, 29, 37, 38; U. S. Geol. Surv, 30. Miner. Soc; Soc. Econ. Geol. Ore minerals; Lake Superior lavas; engineering geology.

Sandell, Dr. E(rnest) B(irger), University of Minnesota, Minneapolis, Minn. *Chemistry.* Minneapolis, Minn, Feb. 20, 06. B.S, Minnesota, 28; M.S, 29, du Pont fellow, 31–32, Ph.D, 32. Asst. *anal. chem, Minnesota*, 28–31, instr, 32–37, *asst. prof, 37–* A.A; Chem. Soc. Inorganic analysis; coprecipitation phenomena; microchemistry; geochemistry.

Sandels, Dr. Margaret R(ector), Florida State College for Women, Tallahassee, Fla. *Nutrition.* Ft. Smith, Ark, July 23, 88. B.S, Columbia, 20, A.M, 22, Ph.D, 28. Instr, Texas, 17–18; Margaret Morrison Col, Carnegie Inst. Tech, 18–20; Teachers Col, Columbia, 20–22; *prof. nutrition and dean, sch. home econ, Fla. State Col. for Women, 22–* Inst. Nutrition; Home Econ. Asn; Dietetic Asn. Nutrition investigations.

Sander, Dr. F(rank) V, 109 Lawrence Ave, Highland Park, N. J. *Chemistry.* Wheeling, W. Va, April 19, 90. B.S, West Virginia, 12; Ph.D, Chicago, 21. Instr. physiol. chem, Chicago, 21–22; chief chem. research labs, Wis. Psychiat. Inst, and instr, Wisconsin, 22–24; research chemist, Johnson and Johnson, 24–40; *director labs, Ortho Products, Inc, 40–, mem. board directors.* Chem. Soc. Saccharine acids; the preservation of blood for chemical analysis; antiseptics; germicides; foods; vitamins; catgut; contraceptives; pharmaceuticals.

Sander, Dr. (Hans) Gerhard (Friedrich), McGill University, Montreal, Que, Can. *Genetics, Plant physiology.* Frankfort, Germany, Aug. 25, 14. Frankfort; Freiburg; Ph.D, McGill, 39. Asst. *genetics, McGill*, 34–38, demonstrator, 38–42, *lecturer, 42–* Teaching asst, California, 38. Genetics Soc; Soc. Plant Physiol. Cytology and genetics of cereals; physiology of dwarfism in cereals; physiological genetics; cytogenetics.

Sander, Dr. Irvin W(illiam), 4841 Cass Ave, Detroit, Mich. *Histology, Embryology.* Canton, Ohio, April 23, 00. A.B, Hiram Col. 22; M.S, Chicago, 23; M.D, Wayne, 29, Dr.P.H, 33. Instr. biol, St. Lawrence, 23–24; *prof.* histol. and embryol, *col. med, Wayne*, 24–37, *prev. med. and pub. health, 37–, director student health service, univ, 35–* Field epidemiologist, State Dept. Health, Mich, 31–33. A.A; Am. Med. Asn; Pub. Health Asn. Student health.

Sanders, Dr. Barkev S(ahak), 4620 Morgan Drive, Chevy Chase, Md. *Medical statistics.* Van, Turkey, July 2, 03. B.S, Mass. State Teachers Col, 26; A.M, Columbia, 27, fellow, 28–29, Ph.D, 29; George Washington, 29–30; fellow, Brookings Institution, 30–32; Massachusetts Univ. Exten, 33–34; U. S. Dept. Agr, 39–40; LL.B, Georgetown, 40. Tech. director Attorney Gen's. surv. release procedures, Dept. Justice, 35–37; *chief div. health and disability studies, bur. research and statist, Social Security Board, 37–* Prison Asn. (research cmt, 35–37); Parole Asn. (cmt. research and statist, 35–37); Pub. Health Asn. (cmt. statistical practices, vital statist. sect, 42). Extent of dependency resulting from ill health; estimates of the extent of disability and reduced productive capacity in our population; governmental measures to ameliorate the economic risks incident to ill health.

Sanders, Dr. D(orsey) A(ddren), University of Florida, Gainesville, Fla. *Veterinary science.* Bascomville, S. C, Jan. 2, 98. B.S, Clemson Col, 20; D.V.M, Kans. State Col, 23. Asst. veterinarian, Exp. Sta, Kentucky, 23–25; assoc. veterinarian, Exp. Sta, *Florida*, 25–30, veterinarian, 30–36, *assoc. prof. vet. science, 34–, veterinarian, Exp. Sta, 36–* Vet. Med. Asn. Parasitology; protozoology; bacteriology; kidney worm of swine; eyeworm of poultry; bovine anaplasmosis; canine babesiasis; hemorrhagic septicemia of domestic animals; bronchopneumonia; plants poisonous to live stock; infectious bovine mastitis.

Sanders, Prof. Elizabeth P(ercy) (Mrs. Joseph R. Hobbs), Smith College, Northampton, Mass. *Protozoology.* Baltimore, Md, Sept. 18, 02. A.B, Goucher Col, 23; Sc.D, Hopkins, 28. Asst. biol, Goucher Col, 23–25; protozool, sch. hygiene and pub. health, Hopkins, 26–28; research fellow, sch. pub. health, Harvard, 28–31; instr. *zool*, Wellesley Col, 31–34; *Smith Col, 34–36, asst. prof, 36–* Research, Harvard Med. Sch, 31–34. Soc. Zool; Soc. Parasitol. Virulence of Entamoeba histolytica; life-cycles of parasitic amoebae; morphology of symbiotic Protozoa.

Sanders, Dr. F(rederick) H(enry), National Research Council, Ottawa, Ont, Can. *Physics.* London, Eng, Nov. 11, 06. B.A, British Columbia, 28; A.M, California, 30, Ph.D, 32. Teaching fellow, California, 28–32, research assoc, 33–34; *asst. research physicist, Nat. Research Council Can, 34–* Discharge through gases; ultrasonics; radio.

Sanders, Dr. Geo(rge) P(atrick), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Aitkin, Minn, Oct. 24, 94. B.S, Minnesota, 18, M.S, 25; Ph.D, American Univ, 30. Dairy chemist, Minnesota, 25–26; asst. chemist and later *assoc. chemist, bur. dairy indust, U. S. Dept. Agr, 26–* Chem. Soc; Dairy Sci. Asn. Physical and chemical properties of milk; minerals in milk; fractionation of milk proteins; chemistry of cheese; bacterial fermentations.

Sanders, Dr. Herbert L(ionel), 88 Maplewood Ave, Maplewood, N. J. *Physical chemistry.* London, Eng, May 26, 12. B.Sc, McGill, 34, M.Sc, 35, Nat. Research Council Can. bursar, 35–37; Moyse traveling fellow, Minnesota, 36–37, Ph.D, 37. *Research chemist* glass electrode, Mathieson Alkali Works, 36; titanium pigments, Va. Chem. Corp, 37–41; *iron oxides, United Color and Pigment Co, 41–* Chem. Soc. Antimony electrode; boundary potentials at solid salts; photovoltaic behavior of silver bromide; glass electrode errors.

Sanders, Prof. Isaac C(hristopher), Agricultural and Mechanical College of Texas, College Station, Texas. *Physics.* Jacksonville, Texas, July 22, 91. A.B, Rice Inst, 17, fellow, 24–26; A.M, Texas, 25. Asst. prof. *physics, Agr. and Mech. Col. Texas*, 21–24, *assoc. prof, 26–* Dielectric constants of gases; relation between motion of recording seismograph and earth movement.

Sanders, J(ames) G(lossbrenner), Care of American Embassy, Lima, Peru. *Entomology.* Louisville, Ohio, July 17, 80. Ph.B, Otterbein Col, 01; fellow, Ohio State, 01–04, A.M, 03. Asst, lake lab, Ohio State, 04; expert, bur. entom, U. S. Dept. Agr, 05–09; asst. prof, in charge dept. econ. entom. and chief nursery inspector, Wisconsin, 09–10, prof, 10–15; state entomologist, Wis, 15–16; econ. zoologist, State Dept. Agr, Pa, 16–19, director bur. plant indust, 19–23; entomologist and manager spray oil dept, Sun Oil Co, 23–38; trop. collections, 39–41; chief Amazon party, food div, Office Coordinator of Inter-American Affairs, 42–43; *gen. manager cinchona plantation, Peru, Board Econ. Warfare, 43–* Collaborator, fed. hort. board, U. S. Dept. Agr, 19. A.A; Entom. Soc; Asn. Econ. Entom. (pres, 22); Asn. Hort. Inspectors (sec'y, 13–19); Entom. Soc. Wash. (cor. sec'y, 06–09); Pa. Acad. Homoptera; Coccidae; miscible oils and oil emulsions; dustless treatments of coal and coke.

Sanders, Dr. James M(eadows), Chicago Teachers College, Chicago, Ill. *Embryology.* Knoxville, Tenn, Nov. 18, 05. A.B, William Jewell Col, 26; A.M, Illinois, 27, Ph.D, 31. Instr. zool, New Hampshire, 29–30; head *biol*, Ark. State Agr. and Mech. Col, 31–32; *prof*, Cumberland, 35–37; Sioux Falls Col, 37–39; *Chicago Teachers Col, 39–* A.A. Embryology of Urodeles; amphibian metamorphosis.

Sanders, Dr. J(esse) T(homas), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Duncanville, Texas, Feb. 26, 89. A.B, Oklahoma, 15; A.M, George Peabody Col, 17; Ph.D, Wisconsin, 25. Rural educ, Ala. State Nor. Sch, Moundville, 16; head dept. rural educ, La. State Nor. Col, 18; assoc. agr. economist, U. S. Dept. Agr, 19–24; prof. agr. econ. and head dept, Okla. Agr. and Mech. Col, 25–36; asst. regional director region 8, *U. S. Dept. Agr*, 36–39, senior agr. economist, bur. agr. econ, 39–42, *prin. economist, war food admin, 42–* Econ. Asn; Farm Econ. Asn; Statist. Asn; Okla. Acad. Farm tenancy; farm taxation.

Sanders, Dr. Murray, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Bacteriology.* Chelsea, Mass, April 11, 10. B.S, Tufts Col, 31; M.D, Rush, Chicago, 36; Oliver Rea scholar, Columbia, 38–39, fellow, 39–40. Instr. *bacter, col. physicians and surg, Columbia,* 40–41, *asst. prof, 41–* Consultant to U. S. Sec'y War. Mem, neurotropic virus cmn, Board for Control Influenza and other Infectious Diseases in the Army. Asn. Path. and Bact; Soc. Bact; Soc. Exp. Biol; N. Y. Acad. Med. Cultivation of viruses; virus of epidemic keratoconjunctivitis.

Sanders, Paul DeLeon, 'The Southern Planter,' Richmond, Va. *Agriculture.* West, Miss, Oct. 28, 01. B.S, Miss. Agr. and Mech. Col, 22; M.S, Maryland, 24, Harvard, 30. Junior entomologist, bur. entom, U. S. Dept. Agr, 22; asst, Maryland, 22–24, asst. entomologist, 24–28, assoc. entomologist, 29–31; exten. entomologist, bur. entom, U. S. Dept. Agr, 31–34; *ed. in chief, 'The Southern Planter,' 34–* Entom. Soc. Amer; Asn. Econ. Entom. (sec'y, exten. sect, 27–29, pres, 29); Asn. Agr. Editors; Entom. Soc. Wash; Cambridge Entom. Club. Economic and extension entomology; fruit and truck crop insect control; agriculture.

Sanders, Prof. S(amuel) T(homas), 170 McKinley St, Baton Rouge, La. *Mathematics.* Washington Co, Fla, Jan. 17, 72. A.B, Southern Col. (Ala), 91; M.S, Chicago, 27. Asst. prof. *math, Louisiana,* 07–17, prof, 17–42, *emer. prof, 42–* Ed, 'Nat. Math. Magazine.' Math. Asn. (chairman, La-Miss. sect, 26–28). Ideal numbers; mathematical process and its disciplines; philosophy of mathematics.

Sanders, Prof. S(amuel) T(homas), Jr, Southwestern Louisiana Institute, Lafayette, La. *Mathematics.* Baton Rouge, La, May 7, 07. A.B, Louisiana, 28, M.S, 30; Ph.D, Iowa, 35. Instr. *math,* St. Joseph Junior Col, Mo, 30–36; *prof,* Nebr. State Teachers Col, Chadron, 36–38; Miss. Delta State Teachers Col, 38–40; *Southwest. La. Inst, 40–* Summer, prof, Louisiana, 40. Point sets; topology.

Sanders, Dr. W(illia)m H(oward), U. S. Naval Research Laboratory, Washington, D. C. *Physics.* Rensselaer, Ind, 99. Ph.D, Illinois, 26; Zurich, 31–32. Instr. physics, Earlham Col, 25–26; Illinois, 26–30, assoc, 30–34; *with U. S. Naval Research Lab, 35–* Physical Soc. Electrical measurements; x-rays; thermodynamics.

Sanderson, Dr. Everett S(hovelton), University of Georgia School of Medicine, Augusta, Ga. *Bacteriology, Public health.* Fall River, Mass, June 22, 94. B.S, Mass. Col, 16; M.S, Yale, 21, Ph.D, 22; M.S, Brown, 23; M.D, Washington (St. Louis), 34. Asst. instr. bacter, sch. med, Yale, 22–23; asst, Rockefeller Inst, 23–25; asst. prof. bacter. and path, sch. med, Virginia, 25–28; head dept, sch. med, Mississippi, 28–30; asst. prof. bacter, immunol. and pub. health, sch. med, Washington (St. Louis), 30–34; *prof. bacter. and pub. health and head dept, sch. med, Georgia, 34–* Summers, mem, int. health div, Rockefeller Foundation, St. John, Virgin Islands, 29; State Dept. Health, Va, 30. Fel. Am. Med. Asn; fel. Pub. Health Asn; South. Med. Asn; Ga. Asn. Pathologists. Bacteriophage; newer venereal diseases.

Sanderson, Prof. (Ezra) Dwight, 212 Overlook Road, Cayuga Heights, Ithaca, N. Y. *Entomology, Sociology.* Clio, Mich, Sept. 25, 78. B.S, Mich. State Col, 97; B.S.A, Cornell, 98; Ph.D, Chicago, 21. Asst. state entomologist, Md, 98; entomologist, Exp. Sta, Del. Col, 99–03, assoc. prof. zool, col, 01–02; prof. entom, Agr. and Mech. Col. Texas, and state entomologist, 03–04; prof. zool. and entom, New Hampshire, 04–10, director, Exp. Sta, 07–10; dean col. agr, West Virginia, and director, Exp. Sta, 10–15; prof. rural sociol, N. Y. State Col. Agr, Cornell, 18–43; *retired.* A.A; Asn. Econ. Entom. (pres, 10); Sociol. Soc. (pres, 42); Rural Sociol. Soc. (pres, 38). Rural sociology; economic entomology.

Sanderson, Prof. J(ames) C(ox), 813 S. E. Fifth St, Minneapolis, Minn. *Mathematics, Mechanics.* Auburn, N. Y, Jan. 25, 84. A.B, Yale, 07, Ph.D, 11. Instr. physics, Minnesota, 11–15; teacher math, physics and chem, Blake Sch, 15–18; *asst. prof. mine plant and mech, sch. mines, Minnesota, 18–*

Sanderson, Dr. J(ames) O(wen) G(resham), 219 Lougheed Bldg, Calgary, Alta, Can. *Geology.* Medicine Hat, Alta, April 11, 98. B.Sc, Alberta, 22, M.Sc, 23, Nat. Research Council Can. bursar, 23–24; Yale, 24–25; Ph.D, Toronto, 28. Instr, Alberta, 22–23; Yale, 24–26; Toronto, 26–28; field geologist and geol. asst, Sci. and Indust. Research Council, Alta, Geol. Surv. Can. and geol. dept, Imp. Oil, Ltd, 20–26; geologist, Imp. Oil, Ltd, 27–31; *consulting geologist, Calgary, 31–* Asn. Petrol. Geol; fel. Geol. Soc; Can. Inst. Min. and Metal. (chairman, Rocky Mt. sect, 33–36, Calgary branch, 33–); Alta. Soc. Petrol. Geol. (pres, 32); Alta. Asn. Professional Eng. (councilor, 34–36, pres, 38). Stratigraphic and economic geology; stratigraphical geology of southern Alberta; Edmonton and Paskapoo formations; volcanic deposits in Alberta; paleogeography and stratigraphic correlation in western Canada; structural geology of Alberta foothills-North Turner Valley, Brazeau.

Sanderson, Dr. J(ohn) A(dolph), U. S. Naval Research Laboratory, Washington, D. C. *Physics.* Vardaman, Miss, Nov. 4, 08. A.B, Mississippi, 28, A.M, 29; Ph.D, Hopkins, 33. Instr. physics and astron, Mississippi, 29–30; physics, Hopkins, 30–35, astron, 34–35; junior physicist, *U. S. Naval Research Lab,* 35–37, assoc. physicist, 37–41, physicist, 41–43, *senior physicist, 43–* Physical Soc. Infra-red spectroscopy; diffraction gratings for infra-red; photoelasticity; absorption spectra of organic compounds; radiometry.

Sanderson, Dr. Milton W(illiam), Illinois State Natural History Survey, Urbana, Ill. *Entomology.* Pittsburg, Kans, July 29, 10. A.B, Kansas, 32, A.M, 33, Ph.D, 37. Field aide, U. S. Dept. Agr, 37; instr, Arkansas, and asst. entomologist, Exp. Sta, 37–42; *asst. entomologist, State Nat. Hist. Surv, Ill, 42–* Entom. Soc. Amer; Asn. Econ. Entom; Kans. Entom. Soc. Taxonomy of Coleoptera; biology of Scarabaeidae; cave insects.

Sanderson, Dr. R(obert) T(homas), Fishkill, N. Y. *Chemistry.* Bryson City, N. C, Dec. 25, 12. B.S, Yale, 34; Ph.D, Chicago, 39. Chemist, Grasselli chem. div, E. I. du Pont de Nemours and Co, 34–35; chief chemist, West. Geophys. Co, 39–40; *research chemist, Texas Co, 40–* Chem. Soc. Boron hydrides; valence studies and synthesis of aluminum borohydride; sorption of gases by solids; microanalysis of gases; geochemical exploration for petroleum; synthesis of aviation fuels; chemistry of petroleum hydrocarbons.

Sanderson, Prof. Sidney, Rutgers University, New Brunswick, N. J. *Psychology.* Bath, N. Y, Dec. 27, 93. B.S, Pennsylvania, 15, A.M, 23, Ph.D, 29. Asst. *psychol,* Pennsylvania, 21–22, instr, 22–29; asst. prof, *Rutgers,* 29–34, *assoc. prof, 34–* A.A; Psychol. Asn. Experimental psychology; learning.

Sanderson, W(ilford) E(dwin), National Audubon Society, 1006 Fifth Ave, New York, N. Y. *Forest ecology.* Ephratah, N. Y, Jan. 24, 88. B.S, Syracuse, 17; Yale, 20–21. Field asst. forest investigations, N. Y. State Col. Forestry, Syracuse, 16–17, asst. prof, forest exten, 19–22; sec'y and treas, Baker-Bullock and Sanderson, Inc, Mishike, Wis, 22–25; field rep, Am. Humane Asn, 26–30, director wildlife dept, 30–42; *mammal specialist, Nat. Audubon Soc, 42–* Director sophomore summer camp, N. Y. State Col. Forestry, Syracuse, 20–22; Camp Mishike, 22–25; statist. work, Am. Paper and Pulp Asn, New York, 24–25; field naturalist, N. Y. State Museum, 28–32. Soc. Foresters; Soc. Mammal. (chairman land mammals cmt); Wildlife Soc; Ecol. Soc. Control of biting flies in the Adirondacks; devices and methods for taking wild animals; beaver restoration; eastern wild turkey restoration.

Sandground, Dr. J(ack) H(enry), Lilly Research Laboratories, Indianapolis, Ind. *Helminthology.* Johannesburg, S. Africa, Feb. 2, 99. B.Sc, South Africa, 19, M.Sc, 20, Porter overseas scholar; Sc.D, Hopkins, 25. Lecturer zool, Witwatersrand, 20–22; asst. med. zool, sch. hygiene and pub. health, Hopkins, 23–25; instr. trop. helminth, dept. trop. med, Harvard Med. Sch, 25–33, asst. prof, 33–38, curator helminth, museum comp. zool, Harvard, 25–38; Guggenheim Mem. Foundation fellow, 38–39; *parasitologist, Lilly Research Labs, 39–* Helminthologist, Harvard exped, Africa, 34. Capt. Scott medalist, S. Africa Biol. Soc. A.A; Soc. Trop. Med; Soc. Parasitol; Soc. Zool; Micros. Soc; Helminth. Soc. Wash. Biology, immunology and therapy of parasitic infections.

Sandhoff, Prof. Allan G(eorge), 331 W. College Ave, State College, Pa. *Fuel technology.* Minneapolis, Minn, Feb. 17, 09. B.S, Minnesota, 33, M.S, 34; Rutgers, 34–36; J. H. Weaver fellow, Pa. State Col, 36–38, Ph.D, 38. Asst. soil microbiol, Rutgers, 34–36; *fuel technol, Pa. State Col,* 38–43, *asst. prof, 43–* Carbonization of bituminous coal; pyrolysis of coal and coal products; carbon black; colloidal fuel; plastics from products of oxidation of bituminous coal.

Sandholzer, Dr. Leslie A(drian), R. F. D. 2, care of B. F. Walker, Westfield, N. Y. *Bacteriology.* New York, N. Y, Sept. 7, 03. A.B, Syracuse, 27; univ. fellow, Rochester, 31–

40, Ph.D, 37. Asst. instr. chem, Syracuse, 27–28, asst. bacter, 29–31; director Craney Island lab, U. S. Pub. Health Service, 40–42; *assoc. technologist, U. S. Dept. Interior, 43–* Lecturer, Rochester Dental Asn, 35–37; Norfolk unit, Col. of William and Mary, 41. A.A; Soc. Bact; Dairy Sci. Asn; Pub. Health Asn; South. Asn. Adv. Sci; Va. Acad. (chairman bacter. sect); Int. Asn. Milk Sanitarians. Physiology and biochemistry of bacteria; public health methods and environmental sanitation; viruses.

Sandidge, Dr. John R(oy), Magnolia Petroleum Co, San Antonio, Texas. *Paleontology.* Ft. Worth, Texas, Dec. 15, 97. A.B, Texas Christian, 20; M.S, Vanderbilt, 22; Ph.D, Hopkins, 28. Prof. biol. and geol, Erskine Col, 22–24; geol, Birmingham-Southern Col, 26–27; instr, Princeton, 28–30, asst. prof, 30–33; *paleontologist, Magnolia Petrol. Co, Socony-Vacuum Corp, 33–* Consulting paleontologist, Sinclair Explor. Co, 28–33. Asst, U. S. Geol. Surv, 25; paleontologist, N. European Oil Co, 29. Research work on Bahama exped. of Princeton Int. Summer Sch. of Geol. and Nat. Resources, 31; Princeton geol. exped, Mont, 32. Paleont. Soc; Soc. Econ. Paleont. and Miner. (v. pres, 40); Asn. Petrol. Geol. (regional ed, 'Bul,' 41–); Geol. Soc; Paleont. Research Inst; S. Texas Geol. Soc. Invertebrate paleontology, micropaleontology and stratigraphy of the Cenozoic and Mesozoic.

Sandiford, Prof. Irene, University of Chicago, Chicago, Ill. *Biochemistry.* St. Charles, Mich, June 30, 89. A.B, Radcliffe Col, 13; Ph.D, Minnesota, 19. Asst. director metabolism lab, Mayo Clinic and Mayo Foundation, Minnesota, 16–30, instr. physiol. chem, univ, 21–30; *asst. prof. med, Chicago, 30–* Soc. Biol. Chem; Inst. Nutrition; N. Y. Acad. Metabolism.

Sandin, Prof. Reuben B(enjamin), University of Alberta, Edmonton, Alta, Can. *Chemistry.* Forest Lake, Minn, May 11, 97. Ph.D, Chicago, 24. Asst. prof. *chem, Alberta,* 24–27, assoc. prof, 27–43, *prof, 43–* Rockefeller Foundation fellow, Harvard, 39–40. Chem. Soc. (abstractor, 'Jour'). Organic mercurials; fats and fatty acids; reactivities of organic halogen compounds; carcinogenic compounds.

Sandison, Dr. (James) Calvin, 478 Peachtree St, N. E, Atlanta, Ga. *Surgery.* Paducah, Ky, Feb. 13, 99. A.B, Missouri, 22; M.D, Georgia, 26. Asst. anat, med. dept, Georgia, 23–26; instr, Pennsylvania, 26–28; intern, asst. res. and acting res. surgeon, Barnes Hosp, St. Louis, 28–31; fellow, Whitehead lab. surg. research, and asst. *surg, Emory,* 31–32, *instr, 32–; practising orthop. surgeon.* Asst, Washington (St. Louis), 29–31. Visiting surgeon, Henry Grady Hosp, Atlanta; on staff, Wesley Mem. Hosp, Ga. and Piedmont Hosp, Atlanta. Am. Med. Asn. Transparent chamber in the rabbit's ear; transplanted bone; hemothorax in dogs; modern method of treatment of broken hips; congenital funnel chest with cardiac compression corrected by elevation of the sternum; trochanteric fractures of the femur.

Sando, Dr. Charles E(arl), U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Bernville, Pa, Feb. 18, 94. B.S, Maryland, 16, Ph.D, 20; fellow, Michigan, 17–18, M.S, 20. Junior biochemist, office hort. and pomol, bur. plant indust, U. S. Dept. Agr, 17–18, office physiol. and fermentation investigations, 18–24, assoc. biochemist, office plant physiol. investigations, 24–27, senior biochemist, phytochem. sect, food research div, bur. chem. and soils, 27–43; *prin. biochemist, indust. eng. div, Office Econ. Warfare, 43–* Chem. Soc. Pigments from plants; inositol and scyllitol from Cornus and Rubus; ripening processes of Lycopersicum; chemical interpretation of genetical factors in Zea; ursolic acid and waxlike coating of Malus and Cornus; oleanolic acid from Vitis; lipides and their estimation; extraction and melting point apparatus.

Sando, W(illiam) J(oseph), 3021 South Dakota Ave, N. E, Washington, D. C. *Agronomy.* Bernville, Pa, Jan. 15, 92. B.S, Maryland, 20, M.S, 21. Field asst. cereal investigations, bur. plant. indust, *U. S. Dept. Agr,* 21, asst. agronomist, 21–24; assoc. agronomist, *div. cereal crops and diseases, bur. plant indust,* 24–37, *agronomist, 37–* A.A; Soc. Agron; Genetic Asn. Genetics; cytology; wheat improvement.

Sandow, Prof. Alexander, 15 E. Tenth St, New York, N. Y. *Biophysics.* New York, N. Y, May 6, 01. B.S, Mass. Col, 23; A.M, Columbia, 27; Ph.D, N. Y. Univ, 31. Asst. *biol, Wash. Sq. Col, N. Y. Univ,* 27–28, instr, 28–37, *asst. prof, 37–* Soc. Zool. Muscle physiology; diffraction spectra and structure of striated muscle; history of biology; latent period of muscle.

Sands, Dr. H(arold) C(ollender), Mount Vernon, N. H. *Plant pathology.* New York, N. Y, Nov. 16, 84. B.S, Cornell, 12; A.M, Columbia, 18, Ph.D, 23. Asst. landscape design, Cornell, 11; pathologist, bur. plant indust, State Dept. Agr, N. Y, 15–23; Salmon Lake Seed Co, Maine, 23–24; Maine Potato Growers Exchange, 24–25; *pres, Salmon Lake Seed Co, 25–; Sands and Co, Inc, 29–* Asst. Columbia, 22; pres, High Meadow Seed Co, 23–30. A.A; Phytopath. Soc; Bot. Soc. Cytology; bacteriology; pathology of potatoes and celery; chemical action of various soil waters on canned goods; color photography.

Sands, Prof. Lila, 2803 E. Fourth St, Tucson, Ariz. *Chemistry.* Friend, Nebr, Aug. 30, 88. B.S, Nebraska, 19, fellow, 19–20, A.M, 20, Ph.D, 24. Asst. instr. *chem,* Nebraska, 20–24; instr, *Arizona,* 24–25, asst. prof, 25–30, assoc. prof, 30–38, *prof, 38–* Chem. Soc. Amines in the vapor stage; l-mannonic and l-gluconic acids; composition of mesquite and cholla gum; arabinose from mesquite gum; isolation of d-galactose, l-arabinose and l-rhamnose from cholla gum; hemicelluloses in mesquite wood.

Sandstedt, Prof. R(udolph) M(arion), 2213 N. 64th St, Lincoln, Nebr. *Agricultural chemistry.* Ragan, Nebr, Oct. 17, 96. B.S, Nebraska, 20, M.S, 23. Asst. chemist, Exp. Sta, *Nebraska,* 21–25, instr. *agr. chem,* 25–30, asst. prof, 30–38, assoc. prof, 38–42, *prof, 42–, acting chemist, Exp. Sta, 41–* A.A; Chem. Soc; Asn. Cereal Chem. (managing ed, 38–). Cereal chemistry; cereal proteins; experimental baking; amylases; starch.

Sandsten, Dr. E(mil) P(eter), 5031 Saratoga Ave, Friendship Station, Washington, D. C. *Horticulture, Entomology.* Nybro, Sweden, Sept. 15, 68. B.S, Minnesota, 95, M.S, 98; Ph.D, Cornell, 03. Botanist, Am. Grass Twine Co, 99–00; assoc. prof. hort, Maryland, 01–02; prof. hort. and econ. entom, Wisconsin, 02–13; hort, Alabama, and state horticulturist, Ala, 13; prof. hort, *Colo. State Col,* 13–33, director, *Exp. Sta,* 33–39, *emer. director, 39–,* dean *agr,* 34–39, *emer. dean, 39–;* state horticulturist, Colo, 13–39. Mem, Fed. Conservation Board; State Conservation Board, Colo; State Planning Board. A.A; Soc. Hort. Sci; Pomol. Soc; Soc. Foresters; Colo-Wyo. Acad; N. Y. Acad; fel. Royal Hort. Soc. Physiological botany; pollination; self-sterility; conditions which affect the production and fertility of pollen; crop production in high altitudes.

Sandstrom, Prof. Carl J(ohan), New York University, University Heights, New York, N. Y. *Zoology.* Chicago, Ill, July 28, 97. B.S, Chicago, 25, Ph.D, 29, Asst. zool, Chicago, 26–29; instr. *biol, N. Y. Univ,* 29–33, asst. prof, 33–40, *assoc. prof, 40–* A.A; Asn. Anat; Soc. Growth; Micros. Soc; Soc. Zool. Experimental embryology; comparative anatomy; species specificity; heteroplastic transplantations.

Sandstrom, Prof. W(illiam) M(artin), University Farm, St. Paul, Minn. *Biochemistry.* Devils Lake, N. Dak, Oct. 9, 97. A.B, St. Olaf Col, 18; M.S, Minnesota, 24, Ph.D, 27. Asst. prof. *agr. biochem,* Louisville, 22–23; instr, *Minnesota,* 23–29, asst. prof, 29–37, assoc. prof, 37–41, *prof, 41–* Asst, U.S.A. Auxiliary Hosp. No. 1, 18–19. A.A; Chem. Soc; Ky. Acad; Deuts. Chem. Gesell. Agricultural biochemistry; proteins; enzymes.

Sandvik, Dr. Otto, Eastman Kodak Co, Rochester, N. Y. *Physics.* Norway, April 13, 93. B.S, North Dakota, 20; Ph.D, Northwestern, 24. Instr. physics, Northwestern, 21–24; *physicist, research lab, Eastman Kodak Co, 24–* Fel. Motion Picture Eng. Physical aspects of the photographic process and photographic recording of sound; physics of the photographic image; spectral sensitivity of photographic emulsions.

Sanes, Dr. Samuel, 76 Butler Ave, Buffalo, N. Y. *Pathology.* Rochester, N. Y, June 26, 06. A.B, Buffalo, 28, M.D, 30. From instr. to *assoc. prof. path, Buffalo, 34–* Asst. and assoc. pathologist, Buffalo Childrens and Gen. Hosps, 34–42; pathologist, Niagara Falls Mem. Hosp, 39–40; Buffalo Emergency Hosp, 41–42; assoc. pathologist, Meyer Mem. Hosp, Buffalo, N. Y, 42– A.A; Am. Med. Asn; Asn. Path. and Bact; Soc. Clin. Path; Med. Research Club; N. Y. State Soc. Path; Buffalo Path. Soc. (sec'y, 37–42); Buffalo Acad. Med. (chairman and sec'y sect. path, 39, 40); Int. Asn. Med. Mus. Congenital heart disease; disease of liver and gall-bladder.

Sanford, Dr. A(rthur) H(awley), Mayo Clinic, Rochester, Minn. *Clinical pathology.* New Albin, Iowa, Jan. 12, 82. A.B, Northwestern, 04, A.M, M.D, 07. Assoc. prof. physiol, Marquette, 07–09, prof, 09–11; *head sect. clin. labs, Mayo Clinic,*

11–; prof. clin. path, Mayo Foundation, Minnesota. Ward Burdick award, Am. Soc. Clin. Path, 33. A.A; Soc. Clin. Path. (pres, 27); Asn. Immunol; Soc. Exp. Biol; Am. Med. Asn. (chairman, sect. path. and physiol, 30). Diagnostic methods; serology; hematology.

Sanford, Prof. Fernando, 450 Kingsley Ave, Palo Alto, Calif. *[1]Physics.* Taylor, Ill, Feb. 12, 54. B.S, M.S, Carthage Col, 79, hon. Sc.D, 20; Berlin, 86–88. Prof. science, Mt. Morris Col, 79–82; sch. supt, Ill, 82–86, instr, 88–90; prof. physical science, Lake Forest Col, 90–91; *physics, Stanford,* 91–19, *emer. prof, 19–; private research, 19–* Engineer, ry. construction, 79, 80. A.A; Physical Soc. The electrical conductivity of wires in different dielectrics; electric photography in alternating condenser field; an acoustic pyrometer; radiation; a possible change of weight in chemical reactions; contact electromotive force and cohesion; the emission of ultra-violet radiation in an alternating condenser; electrical charges of atoms and ions; charges of metals; orbital motion of radiating electrons; physics of electrification; terrestrial electricity; sunspots and planetary configurations; permanent region of solar activity.

Sanford, Dr. Fillmore H(argrave), Harvard University, Cambridge, Mass. *Psychology.* Chatham, Va, Jan. 26, 14. A.B, Richmond, 35; A.M, Harvard, 37, Ph.D, 41. *Instr. psychol,* Wellesley Col, 38; Tufts Col, 39; Hofstra Col, 40–41; *Harvard, 41–; lieut, U. S. Naval Res, 43–* Assoc. Psychol. Asn. Psychology of language; psychology of public opinion.

Sanford, Dr. G(uthrie) B(rown), 11017–84 Ave, Edmonton, Alta, Can. *Agriculture.* Coldbrook, N. S, June 7, 90. M.S, Minnesota, 23, Ph.D, 25. Lecturer field crops, Alberta, 20–22; *officer in charge, Dom. Lab. Plant Path,* Saskatoon, 25–27, *Edmonton, 27–* Phytopath. Soc; Can. Phytopath. Soc; Can. Soc. Tech. Agr; West. Can. Soc. Agron. Root rots of cereals and field crops.

Sanford, H(erbert) L(uther), U. S. Department of Agriculture, 209 River St, Hoboken, N. J. *Entomology.* Ithaca, N. Y, Aug. 6, 83. B.S.A, Cornell, 10. Agent and expert, bur. entom, *U. S. Dept. Agr,* 10–12, entom. asst, 12–15, entom. inspector, *bur. entom. and plant quarantine,* 15–24, *assoc. entomologist, 24–* Entom. investigator, Cuba and Isle of Pines, 24. Asn. Econ. Entom. Hydrocyanic gas and subterranean larvae; chrysanthemum midge; pests collected from imported plants and plant products.

Sanford, Dr. John T(heron), Magnolia Petroleum Co, P. O. Box 1828, Oklahoma City, Okla. *Geology.* North Warren, Pa, Dec. 8, 03. A.B, Rochester, 26, 27; A.M, Princeton, 29, Ph.D, 30. Asst. geol, Princeton, 27–29; curator geol. and paleont, Buffalo Museum Science, 29–31; asst. prof. geol, Rochester, 31–36; *geologist, Magnolia Petrol. Co, 36–* Summer, geol. staff, Belmont Quadrangle Drilling Co, 29. A.A; Paleont. Soc. Middle and Lower Silurian of New York; Richmond mastodon; mechanical analysis of Paleozoic sediments.

Sanford, R(aymond) L(araway), National Bureau of Standards, Washington, D. C. *Physics.* Auburn, N. Y, Aug. 29, 84. B.S, Vermont, 07. Instr. physics and elec. eng, Vermont, 08–10; lab. asst, *Bur. Standards,* 10–11, asst. physicist, 11–18, assoc, 18–19, physicist, 19–28, *senior physicist, 28–* A.A; Soc. Test. Mat; Philos. Soc. Wash; Wash. Acad. Magnetic measurements and properties of materials; magnetic analysis.

Sanford, Dr. Roscoe F(rank), 1521 E. Mountain St, Pasadena, Calif. *[5]Astronomy.* Faribault, Minn, Oct. 6, 83. A.B, Minnesota, 05; Martin Kellogg fellow, California, 15–16, fellow, Lick Observatory, 16–17, Ph.D, 17. Instr, high sch, Minn, 05–06; Carnegie asst, Lick Observatory, California, 06–08; observer, South. Observatory, Carnegie Institution, San Luis, Argentina, 08–11; asst. astronomer, D. O. Mills exped. of Lick Observatory to Santiago, Chile, 11–15; *mem. staff, Mt. Wilson Observatory, Carnegie Institution, 18–* A.A; Astron. Soc; Astron. Soc. Pacific. Astrophysics; astronomical photography.

Sanford, S(amuel) N(ewton) F(ollus), 234 Berkeley St, Boston, Mass. *Botany, Zoology.* Westport, Mass, Aug. 2, 72. Harvard, 91, 92, 07. Sec'y and librarian, high sch, Mass, 06–18; asst. curator and curator marine invertebrates, *Boston Soc. Nat. Hist,* 18–43, *emer. curator marine invertebrates and bot, 43–,* acting curator bot, 18–37, curator, 37–43. Curator, Fall River Soc. Nat. Hist, 00–20; Marine Biol. Lab, Woods Hole, 06. Mem, Cmt. Mass. Flora. Fern Soc; New Eng. Bot. Club; Hort. Soc. Mass; Boston Mineral Club; Boston Soc. Nat. Hist; Boston Malacol. Club. Marine invertebrate biology and zoology; botany.

Sanford, Dr. Vera, State Teachers College, Oneonta, N. Y. *Mathematics.* Douglaston, L. I, N. Y, Oct. 1, 91. A.B, Radcliffe Col, 15; A.M, Columbia, 22, Ph.D, 27. Teacher *math,* Lincoln Sch, Teachers Col, Columbia, 20–29; asst. prof, sch. educ, Western Reserve, 29–33, *head dept,* N. Y. State Nor. Sch, 33–43, *prof, N. Y. State Teachers Col, 43–* Summers, Columbia, 24–29, 31–37. Assoc. ed, 'Scripta Mathematica,' 32– Math. Asn; Hist. Sci. Soc. (councilor, 31–33); Nat. Council Teachers Math. (director, 28, assoc. ed, 'Math. Teacher,' 29–). History and teaching of mathematics; standard problems in algebra.

Sanger, Dr. R(alph) G(rafton), 116 S. Grove Ave, Oak Park, Ill. *Mathematics.* Cincinnati, Ohio, April 10, 05. B.S, Chicago, 25, M.S, 26, Ph.D, 31. Instr. *math,* Wisconsin, 26–28; asst, *Chicago,* 28–30, instr, 30–40, *asst. prof, 40–, asst. dean students, 43–* Math. Soc; Math. Asn. Functions of lines and the calculus of variations.

Sanigar, Dr. Edward B(rowning), Biochemical Research Foundation, Newark, Del. *Physical chemistry.* Sheffield, Eng, Aug. 30, 02. B.Sc, Sheffield, M.Sc, 25; Dr. nat. sci, Charles Univ, Czechoslovakia, 26; Edward Weston fellow, Electrochem. Soc, Columbia, 29–30. Worshipful Co. of Cutlers' (London) traveling fellow, 24–26; investigator electro-metal, Sheffield (England), 26–29; research electrochemist, Leeds and Northrup Co, Phila, 30–31; *research physical chemist and investigator,* cancer research fund, sch. med, Pennsylvania, 33–35; *Biochem. Research Foundation, Franklin Inst, 35–* Lecturer, Sheffield (England), 26–29, demonstrator, 29; Cent. Intermediate Tech. Evening Col, Sheffield, 26–29; lecturer, Temple, 33– A.A; Electrochem. Soc; Chem. Soc; Electroplaters Soc; Electrodepositors Tech. Soc, London. Electrodeposition of silver; hydrogen ion concentration and its electrometric determination; absorption spectroscopy; high-speed ultracentrifuge analysis and electrophoretic analysis of proteins and bacterial extracts.

Sankey, Dr. Charles A(lfred), Ontario Paper Co, Ltd, Thorold, Ont, Can. *Chemistry.* Waskada, Man, 05. B.A.Sc, Toronto, 27; fellow, McGill, 27–28, M.Sc, 28, Nat. Research Council Can. bursar, 28–29, student, 29–30, Ph.D, 30. Physical chemist, Price Brothers and Co, Ltd, 30–35; research engineer, *Ont. Paper Co, Ltd,* 35–42, *research director, 43–* Chem. Soc; Tech. Asn. Pulp and Paper Indust; Chem. Eng; Can. Pulp and Paper Asn. (chairman, cmt. physical chem. standards, 32–39; councilor, 40–42). Lignin, lignosulfonic acids and related compounds; newsprint and pulp and paper technology; by-products from waste sulphite liquor.

Sansum, Dr. W(illiam) D(avid), 2800 Tallant Road, Santa Barbara, Calif. *Medicine.* Baraboo, Wis, Sept. 25, 80. B.S, Wisconsin, 12, M.S, 13; M.D, Rush, Chicago, 15. Teacher, pub. schs, Wis, 99–11; Sprague fellow, Rush Med. Col, Chicago, 13–20, instr. med, 18–20; *director Potter metabolic clinic, Santa Barbara Cottage Hosp, 20–; chief staff, Sansum Clinic.* Mem. staff, Santa Barbara Cottage Hosp. Am. Med. Asn; Col. Physicians; Soc. Exp. Biol; Asn. Study Int. Secretions; Am. Med. Authors Asn; Diabetes Asn. (trustee); Santa Barbara Co. Med. Soc. Diabetes; digestive disorders; malnutrition; obesity; hypertension; nephritis.

Santayana, Dr. George, Brown Shipley and Co, 123 Pall Mall, London, Eng. *[1]Philosophy.* Madrid, Spain, Dec. 16, 63. A.B, Harvard, 86, A.M, Ph.D, 89; Litt.D, Wisconsin, 11. Instr. philos, Harvard, 89–98, asst. prof, 98–07, prof, 07–12; *retired.* Philos. Asn; Psychol. Asn. History of philosophy.

Sante, Dr. L(e) R(oy), St. Louis University School of Medicine, St. Louis, Mo. *Radiology.* St. Louis, Mo, March 31, 90. M.D, Washington (St. Louis), 13. *Chief radiologist, St. Louis City Hosp. and allied hosps, 19–; director radiol. dept, St. Mary's Hosp, 24–; prof. radiol. and director dept, sch. med, St. Louis, 19–* Col. Radiol; Radiol. Soc. N. Amer; Col. Physicians; Roentgen Ray Soc. (v. pres, 34); Radium Soc. (v. pres, 41); Am. Med. Asn; Trudeau Tuber. Soc; St. Louis Roentgen Club. Diagnosis of chest conditions by x-ray; x-ray and radium in the diagnosis and treatment of malignant diseases; atelectasis; roentgenology of the chest.

Santee, Howard B(ritton), Electrical Research Products Division, Western Electric Co, 195 Broadway, New York, N. Y. *Engineering.* Williamson, N. Y, Aug. 19, 94. B.E, Union (N. Y), 16. Engineer, Bell Tel. Labs, 16–27; director theater eng, Elec. Research Products, Inc, 27–30, commercial eng, 30–

36, eng, 36–37, commercial relations manager, 37–41, *contract license manager, Elec. Research Products Div, West. Elec. Co, 41–* Acoustical Soc; Motion Picture Eng. (chairman, sound cmt, 31). Sound recording and reproducing; acoustics; patent licenses.

Santos, Dr. Alfredo C, University of the Philippines, Manila, P. I. *Pharmaceutical chemistry.* Santo Tomas, Pampanga, P. I, Aug. 15, 00. A.B, San Juan de Letran, 18; Ph.C, Philippines, 21, B.S, 25; Phar.D, Univ. Sto. Tomas, P. I, 25; Ph.D, Münster (Germany), 29. Instr, col. med, Philippines, 24–25; *col. pharmacy,* Nat. Univ, 25–27; *assoc. prof. pharmaceut. chem, Philippines, 35–* Asst. chem, Univ. Sto. Tomas, P. I, 25. Nat. Research Council P. I. Col. Med-Farmaceut. Filipinas; Philippine Pharmaceut. Asn. (v. pres); Manila Pharmacy Soc. (sec'y, 36–). Alkaloidal chemistry; phytochemistry; anoma reticulata; Archangelisia flava; Phaenthus ebracteolatus; Mahoria philippinensis; Pynarrhena manilensis; Eurycles amboinen.

Santos, Prof. Felix V(icierra), University of the Philippines, Manila, P. I. *Zoology.* Manila, P. I, Jan. 30, 96. B.S, 24; Ph.D, Chicago, 30. Asst. instr, *Philippines,* 24, instr. *zool,* 27–35, *asst. prof, 35–* A.A; P. I. Sci. Soc; Philippine Soc. Parasitol. Transplantation in Planaria.

Santos, Prof. F(rancisco) O, College of Agriculture, University of the Philippines, Los Baños, Laguna, P. I. *Biochemistry.* Calumpit, Balucan, P. I, June 2, 92. A.B, Philippines, 14, M.S, 19; Philippines fellow, Yale, 19–22, Ph.D, 22. Asst. math, *Philippines,* 15–17, instr, 17–19, asst. prof. *chem,* 22–26, assoc. prof, 26–29, *prof, 30–, head dept. agr. chem, 29–* Lecturer, Sch. Pub. Health Nursing and Sch. Hygiene and Pub. Health, P. I. Consultant, Bur. Pub. Welfare, P. I. Cmt. nutrition, Tuber. Cmn, P. I; advisory cmt, Sec'y Pub. Instruction, P. I. Chairman, sect. biol. chem, Nat. Research Council, P. I, 34–37. A.A; Inst. Nutrition; Philippine Soc. Adv. Research (pres, 34); P. I. Sci. Soc; Los Baños Biol. Club (pres, 29). Nutrition of the Filipinos; nutritive value of Philippine food materials.

Santos, Prof. José K(abigting), University of the Philippines, Manila, P. I. *Botany.* Arayat, Pampanga, P. I, Feb. 4, 89. Phar.C, Philippines, 16; Philippines fellow, Chicago, 20–23, B.S, 21, M.S, 22, Ph.D, 23. Instr. *bot, Philippines,* 18–20, asst. prof, 24–27, assoc. prof, 27–34, *prof, 34–,* acting head dept, 27–30, *head dept, 30–* Botanist, Bur. Science, P. I, 24–34; exchange prof, Michigan, 34–35. Nat. Research Council P. I, 34. Univ. Philippines del, Int. Bot. Cong, Amsterdam, 35. Pharmaceut. Asn; Philippines Pharmaceut. Asn; P. I. Sci. Soc. (pres, 31). Sex chromosomes in plants; pharmacognosy and microchemistry of Philippine medicinal plants.

Saphir, Dr. Otto, Michael Reese Hospital, 29th St. and Ellis Ave, Chicago, Ill. *Pathology.* Vienna, Austria, Aug. 29, 96. M.D, Vienna, 21. Asst. prof. *path,* sch. med, Western Reserve, 23–29; assoc. prof, *col. med, Illinois,* 29–42, *prof, 42–; pathologist, Michael Reese Hosp, 29–* Chairman, Nelson Morris Inst. A.A; Soc. Exp. Path; Asn. Path. and Bact; Chicago Path. Soc. (pres, 41). Pathology of the heart; tumors.

Sapp, Dr. Robert W(all), 115 Boxwood Road, Wilmington, Del. *Organic chemistry.* Albany, Ga, Oct. 30, 13. A.B, Duke, 34; A.M, Illinois, 35; Harvard, 38–39; Ph.D, Stanford, 40. Anal. chemist, Dow Chem. Co, 36–37, *research chemist,* 37–38; *Hercules Powder Co, 40–* Chem. Soc. Alkaloids; terpenes; insecticides; plasticizers.

Sappenfield, Dr. Bert R(eese), Montana State University, Missoula, Mont. *Psychology.* Ind, Jan. 2, 12. A.B, DePauw, 35; A.M, N. Y. Univ, 38, Ph.D, 41. Asst. psychol, N. Y. Univ, 35–39, 40–41, psychol. examiner, 36–39; sec'y cmt. tests, Life Office Management Asn, 39–40; *instr. psychol, Montana, 41–* Assoc. Psychol. Asn. Social psychology; mental measurements.

Sappington, Dr. C(larence) O(lds), 330 S. Wells St, Chicago, Ill. *Hygiene.* Kansas City, Mo, Sept. 29, 89. A.B, Whitman Col, 11; M.D, Stanford, 18; fellow, Harvard, 22–24, Dr.P.H, 24. Asst. res. physician, San Quentin Prison, and chief surgeon, Pacific Coast Shipbuilding Co, Calif, 19; teaching fellow indust. hygiene, sch. pub. health, Harvard, 22–24; med. director, Montgomery Ward and Co, Oakland, 24–28; indust. health div, Nat. Safety Council, 28–32; *consultant, indust. hygiene and occupational diseases, 32–* Asst. surgeon, U. S. Pub. Health Service, 20–; lecturer, Stanford and California, 24–28. Special ed. indust. med, 'Calif. and West. Med'; consultant and ed. in chief, 'Indust. Med,' 32– Wm. S. Knudsen award, 38. Del, Int. Hygiene Cong, Dresden, 30. A.A; fel. Pub. Health Asn; fel. Am. Med. Asn; Asn. Indust. Physicians and Surg. Industrial hygiene; medicolegal phases of occupational diseases; industrial health.

Sarason, Prof. S(amuel) D(avis), 834 Sumner Ave, Syracuse, N. Y. *Civil engineering.* Wilna, Poland, June 21, 83. Ph.B, Yale, 05. U. S. Coast and Geod. Surv, U. S, Alaska and P. I, 05–10; instr. *civil eng, col. applied science, Syracuse,* 10–12, asst. prof, 12–20, assoc. prof, 20–25, *prof, 25–* Consulting engineer, Syracuse, N. Y, 15–26. Mem. cmt. revision state bldg. code, State Indust. Board, N. Y. Civil Eng. (chairman, cmt. on aerial photog. mapping); Eng. Educ. Highway construction; aerial photographic mapping.

Sarbacher, Prof. Robert I(rving), 5555 Sheridan Road, Chicago, Ill. *Electronics, Communication engineering.* Baltimore, Md, Sept. 6, 07. B.S, Florida, 33; Princeton, 33–34; M.S, Harvard, 35, Sc.D, 39. Elec. engineer, Elec. Research Products, Inc, New York, N. Y, 26–31; instr. physics and communication eng, Harvard, 36–40; prof. elec. eng, Ill. Inst. Tech. 40–42; *director research and develop, aircraft, radio and radar div, Navy Dept, 42–* Instr, Radcliffe Col, 37–39; visiting prof, Harvard, 41. Radio Eng; Elec. Eng; Eng. Educ; Physical Soc; Acoustical Soc. Electron tubes of high power; electron tube oscillators with emphasis on micro-wave generation; ultra-high-frequency technics; hyper and ultra-high frequency engineering.

Sard, Prof. Arthur, Queens College, Flushing, N. Y. *Mathematics.* New York, N. Y, July 28, 09. B.S, Harvard, 31, A.M, 32, Ph.D, 36; Sorbonne, 32–33. Instr. and tutor math, Harvard, 33–36; mem. actuarial dept, Prudential Ins. Co, Newark, N. J, 36–37; instr. *math, Queens (N. Y),* 37–41, *asst. prof, 41–* Math. Soc; Math. Asn. The measure of critical values of functions and of sets of functions.

Sardeson, Dr. F(rederick) W(illiam), 3654 France Ave, S, Minneapolis, Minn. *Paleontology.* Owego Mills, Wis, Feb. 22, 66. B.L, Minnesota, 91, M.S, 92; Ph.D, Freiburg, 95. Instr. paleont, Minnesota, 92–94, 89–05, asst. prof, 05–14; expert geologist, State Securities Cmn, Minn, 18–33; *consulting geologist.* U. S. Geol. Surv, 89, 91, geologist, 11–24. Int. Geol. Cong, Zurich, 94. A.A; Geol. Soc. Stratigraphic geology; fauna of Saint Peter sandstone; fossil corals; Gastropoda; Cephalopoda; Crinoidea; glacial deposits; loess; paleontologic evidence and the theory of evolution.

Sarett, Dr. Lewis Hastings, 7 Greenholm, Princeton, N. J. *Organic chemistry.* Champaign, Ill, Dec. 22, 17. B.S, Northwestern, 39; Procter fellow, Princeton, 41–42, Ph.D, 42. *Research chemist, Merck and Co, Inc, 42–* Chemistry of natural products, especially bile acids and steroids.

Sargent, Dr. D(onald) E(dward), Hillside Ave, Easton, Pa. *Organic chemistry.* Alton, Ill, June 16, 18. A.B, Iowa, 38; Ph.D, Yale, 41. *Research chemist,* exp. sta, E. I. du Pont de Nemours and Co, 41–42; *Gen. Aniline and Film Corp, 43–* Chem. Soc. Pharmaceutical chemistry; industrial organic chemistry.

Sargent, Prof. E(lmer) L(awrence), Long Island University, Brooklyn, N. Y. *Chemistry.* Keokuk, Iowa, Dec. 16, 95. B.S, Colo. Col, 17; M.S, Rutgers, 22; A.M, Columbia, 25. Instr, West. Colo. State Col, 17–18; *chem,* Rutgers, 21–27; asst. prof, *Long Island,* 27–29, *assoc. prof, 29–* Analytical and organic chemistry.

Sargent, Prof. Florence C(ella), Simmons College, Boston, Mass. *Organic chemistry, Biochemistry.* Boston, Mass, Aug. 19, 90. B.S, Simmons Col, 11; M.A, Radcliffe Col. Asst. org. chem, Mass. Inst. Tech, 12; instr. *chem, Simmons Col,* 13–22, asst. prof, 22–38, *assoc. prof, 38–* Chem. Soc. (councilor, northeast. sect). Active principle in liver extract; amino-acid determination in gliadin.

Sargent, Dr. Lewis J(oseph), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Organic chemistry.* Brooklyn, N .Y, Oct. 27, 09. B.S, Polytech. Inst. Brooklyn, 32, M.S, 35; Ph.D, Edinburgh, 38. Asst. chem, Polytech. Inst. Brooklyn, 32–35; nat. research fellow, Virginia, 38–39; research assoc, Hopkins, 39–41; *assoc. chemist, nat. inst. health, U. S. Pub. Health Service, 41–* Chem. Soc. Alkaloid chemistry; opium alkaloids; anti-malarials.

Sargent, Dr. Marston C(leaves), Scripps Institution of Oceanography, La Jolla, Calif. *Plant physiology.* Somerville, Mass, April 2, 06. A.B, Harvard, 29; Ph D, Calif. Inst. Tech,

34. Asst. biol, Calif. Inst. Tech, 34–37; asst. biochem. and later *instr. oceanog, Scripps Institution, California, 37–; lieut, bur. ships, U. S. Naval Res.* Photosynthesis; phytoplankton.

Sargent, Dr. Paul D(udley), Eastland Hotel, Portland, Maine. *Engineering.* Machias, Maine, May 8, 73. C.E, Maine, 96, D.E, 26. Construction, Wash. Co. Ry, 97–98, maintenance of way engineer, 98–02; state highway commissioner, Maine, 05–11; asst. director, bur. pub. roads, U. S. Dept. Agr, 11–13; chief engineer, State Highway Cmn, Maine, 13–28; v. pres, New Eng. Metal Culvert Co; *gen. manager, Corrugated Metal Pipe Mfrs. Asn. N. Eng.* Del, Int. Road Cong, Milan, Italy, 26. Civil Eng. (exec. cmt, highway div, 25–); Soc. Test. Mat. (cmt. D4, 15–23); Road Builders Asn. (director, 13–16); Asn. State Highway Officials (pres, 20, exec. cmt); Asn. Highway Officials N. Atlantic States (v. pres, 15, director); Mass. Highway Asn; Maine Asn. Eng. (v. pres, 15, pres, 16, director, 17–20, chairman, cmt. on transportation); Permanent Int. Asn. Road Congs.

Sargent, R(ufus) H(arvey), 408 Oakwood St, S.E, Washington, D. C. *Topography.* Sedgwick, Hancock Co, Maine, Dec. 4, 75. Columbian Univ. (D. C). Engineer, Nat. Zool. Park, 95–98; topographer, topog. branch, *U. S. Geol. Surv,* 98–06, topographic engineer, Alaskan branch, 06–37, *chief sect. inspection and editing, topog. branch, 37–* Topographer, Carnegie Institution, China, 03–04; topographic surv, Green Cananea Mining Co, Mex, 07; topographic engineer, Bolivian Argentine Explor. Corp, 19; H. L. Doherty and Co, Mex, 26. Lecturer, Univ. Chicago, 06, 08, 10; Imp. Mil. Univ, Peking, China, 17. A.A; Asn. Geog; Soc. Photogrammetry; Cong. Surv. and Mapping; Explorers Club; Wash. Acad; Wash. Soc. Eng. Topographic mapping; Alaska; China.

Sargent, Dr. S(tephen) Stansfeld, Columbia University, New York, N. Y. *Psychology.* Philadelphia, Pa, Aug. 2, 06. A.B, Haverford, 27; A.M, Pennsylvania, 29; Ph.D, Columbia, 40. Instr. *psychol,* Adelphi Col, 31–32; asst. prof, Cent. Y.M.C.A. Col, 35–40; *instr, Barnard Col, Columbia, 40–* Special lecturer, Des Moines Pub. Forums, 33; lecturer, Fed. Forum, Chattanooga, Tenn, 37. Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues. Thought processes; propaganda; attitudes; psychology of personality.

Sargent, Dr. (Thomas Edward) Hartley, Department of Mines, Victoria, B. C, Can. *Geology.* Pendennis, Man, Nov. 18, 01. B.A. and B.A.Sc, British Columbia, 32; Nippissing fellow, Toronto, 32–33, M.A, 33; Ph.D, Mass. Inst. Tech, 42. Manager, Island Lake Gold Mines, 33–34; field engineer, H. H. Yuill, 34–35; *chief mining engineer, B. C. Dept. Mines, 35–* Can. Inst. Min. and Metal. Areal geology; economic geology.

Sarles, Dr. Merritt P(ardee), U. S. Department of Agriculture, Beltsville, Md. *Parasitology.* Mt. Kisco, N. Y, March 2, 04. B.S, Wesleyan, 25; Sc.D, Hopkins, 29. Asst. biol, Wesleyan, 25–26; tech. asst. helminth, sch. hygiene and pub. health, Hopkins, 26–27, asst, 27–29; animal path, Rockefeller Inst, 29–34; research assoc. hygiene and bacter, Chicago, 34–39; *asst. zool. div, bur. animal indust, U. S. Dept. Agr, 39–* A.A; Soc. Parasitol; Soc. Trop. Med; Helminth. Soc. Wash. Immunological and pathological reactions to parasitic worms.

Sarles, Prof. W(illiam) B(owen), 2237 Hollister Ave, Madison, Wis. *Agricultural bacteriology.* Viroqua, Wis, Oct. 1, 06. B.S.A, Wisconsin, 26, fellow, 26–27, M.S, 27, fellow, 29–30, Ph.D, 31. Asst, Wisconsin, 26; instr. bacter, Kans. State Col, 27–29; dairy bacter, dept. dairy indust, Iowa State Col, 30–32; asst. prof. *agr. bacter, Wisconsin,* 32–37, *assoc. prof, 37–* A.A; Soc. Bact. (sec'y-treas, 42–); Wis. Acad. Sterilization of dairy equipment; fermentation of cellulose at high temperatures; Bacillus coagulans; root nodule bacteria and leguminous plants.

Sarnoff, Dr. David, 11 E. 68th St, New York, N. Y. *Telegraphy.* Uzlian, Minsk, Russia, Feb. 27, 91. Pratt Inst; hon. Sc.D, St. Lawrence, 27, Marietta Col, 35; Litt.D, Norwich, 35. Junior telegraph operator, Marconi Co, 07–09, manager sta, Sea Gate, N. Y, 09–12, radio inspector and instr, Marconi Inst, 12–13, chief radio inspector and asst. chief engineer, 13–14, contract manager, 14–15, asst. traffic manager, 15–16, commercial manager, 17–19, *Radio Corp. Amer,* 19–20, gen. manager, 21–29, v. pres, 22–29, exec. v. pres, 29–30, *pres, 30–, director.* Director and chairman board, Nat. Broadcasting Co; RCA Mfg. Co; director, Elec. and Musical Indust, Ltd; Motion Picture Producers and Distributors Amer, Inc; Radio City Music Hall, Inc; Radio-Keith-Orpheum Corp; World's Fair Corp. Chevalier, Légion d'honneur, 35; officer, Order Oaken Crown, Grand Duchy of Luxemburg, 35, Order Polonia Restituta, Polish Govt, 24. Marconi mem. award, 39. Lieut. col, Sig. C. Res, 24–31, col, 31– Acad. Polit. Sci; Elec. Eng; fel. Radio Eng. (sec'y and director, 15–18); hon. mem. Radio Club; Elec. Mfg. Club; Nat. Inst. Social Sci; N. Y. State Hist. Asn.

Sarratt, Prof. Charles Madison, Vanderbilt University, Nashville, Tenn. *Mathematics.* Gaffney, S. C, June 21, 91. A.B, Cornell, 11; A.M, Syracuse, 15. Instr. and asst. prof. applied math, Syracuse, 13–15; from asst. prof. to *prof. math, Vanderbilt, 16–, head dept, 24–, dean men, 22–* Math. Soc. Determinants; arithmetic.

Sartain, Prof. A(aron) Q, Southern Methodist University, Dallas, Texas. *Psychology.* Gibtown, Texas, Sept. 5, 05. A.B, South. Methodist, 28, A.M, 30; Ph.D, Chicago, 39. Prin, high sch, Hobbs, N. Mex, 31–32; instr. *psychol, South. Methodist,* 32–35, asst. prof, 35–41, *assoc. prof, 41–,* acting head dept, 41–43. Summers, mem. faculty, Baylor, 39; N. Texas State Teachers Col, 40, Texas, 41, 42. Assoc. Psychol. Asn; Southwest. Social Sci. Asn; Southwest. Philos. Conf. The conception of the true path and efficiency in maze learning.

Sarton, Dr. George (Alfred Léon), Harvard Library, 185, Cambridge, Mass. *History and philosophy of science.* Ghent, Belgium, Aug. 31, 84. B.Sc, Ghent, 06, D.Sc, 11; L.H.D, Brown, 34; LL.D, Harvard, 35. Lecturer *hist. science,* George Washington, 15–16; *Harvard,* 16–18, 20–40, *prof, 40–; research assoc, Carnegie Institution, 18–* Lecturer, Lowell Inst, 16; Colver lecturer, Brown, 30; Hitchcock prof, California, 33; Elihu Root lecturer, Wash, D. C, 35; Averill lecturer, Colby Col, 42. Ed, 'Isis,' 13–35, 'Osiris,' 36– Advisory council, Yenching Univ, Peiping. Gold medal, four Belgian univs, 07; Prix Binoux, Acad. des Sciences, Paris, 15, 35. A.A; Hist. Sci. Soc; Hist. Asn; Philos. Soc; Oriental Soc; Mediaeval Acad; Am. Acad; hon. mem. Asn. Hist. Med; India Soc, London; Newcomen Soc, London; Gesell. Geschichte Med. und Naturwissensch; Halle Akad. der Naturforscher; Soc. Hist. Med. de Paris; Soc. statist. de Paris; cor. mem. Acad. de la Hist, Madrid; Royal Soc. Edinburgh; Swedish Linnaean Soc; hon. fel. Swedish Soc. Hist. Astron; Soc. di Storia Sci; Royal Asiatic Soc; Soc. asiatique; Int. Acad. Hist. Sci. Medieval science; unification of scientific knowledge; history of mathematics, astronomy and physics; Leonardo da Vinci; Arabic science.

Sartoris, Dr. G(eorge) B(artholomew), Canal Point, Fla. *Botany.* Marshfield, Oregon, Oct. 20, 96. B.S, Washington (Seattle), 20, M.S, 21; Ph.D, Michigan, 23. Asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 23–26, assoc, 26–29, pathologist, 29–35, *senior pathologist, 35–* Bot. Soc. Mycology; plant pathology; physiology and cytology of smuts; cytology of Ascomycetes; sucrose deterioration and breeding of sugar cane.

Sartorius, Dr. Ina Craig (Mrs. John A. Sartorius), 551 W. 120th St, New York, N. Y. *Psychology.* Crawford, Nebr, March 18, 92. A.B, State Col. Wash, 19; A.M, Columbia, 25, Ph.D, 31. Teacher, rural schs, Idaho, 11–15; high schs, Oregon and Idaho, 21–24; psychologist and research assoc, Teachers Col. and Horace Mann Sch, *Columbia,* 26–30, asst. prin. elementary sch, 30–42, *prin, Horace Mann-Lincoln Sch, 42–, instr. intel. testing, Teachers Col, 42–* Assoc. Psychol. Asn. Elementary school subjects; teaching of elementary spelling; teaching beginning reading.

Sarver, Dr. L(andon) A(rndale), American Viscose Corp, Roanoke, Va. *Chemistry.* Petersburg, W. Va, Jan. 26, 96. A.B, Randolph-Macon Col, 15; Yale, 16–17; Hopkins, 17–18; A.M, Lafayette Col, 19; Ph.D, Minnesota, 24; Paris, 27–28. Instr. math, Randolph-Macon Col, 14–15; asst. chem, Yale, 16–17; Hopkins, 17–18; instr, Lafayette Col, 18–19; Minnesota, 20–25, asst. prof, 25–39; *plant research director, Am. Viscose Corp, 39–; major, Chem. Warfare Service, U. S. Army, Edgewood Arsenal, 41–* Chief chemist, U. S. Lighthouse Depot, Staten Island, 25. A.A; Chem. Soc; Va. Acad. Analytical, physical, industrial and organic chemistry; rare earths; oxidation-reduction indicators; organic analytical reagents; rheology; viscose rayon technology; instruments.

Sarvis, J(ohnson) T(hatcher), Highmore, S. Dak. *Agriculture, Botany.* Highmore, S. Dak, June 1, 86. B.S, S. Dak. State Col, 09, M.S, 11. Asst. bot, S. Dak. State Col, 09–13; asst. dry land agr. and assoc. agron, bur. plant indust, U. S. Dept. Agr, 13–43. A.A; Soc. Agron; Ecol. Soc; N. Dak. Acad. Agronomy; ecology; dry land agriculture, crop rotation and tillage methods; grazing and grasses in the great plains area.

Sasin, Dr. G(eorge) S(tanley), Drexel Institute of Technology, Philadelphia, Pa. *Organic chemistry.* Bethlehem, Pa, Nov. 16, 14. B.S, Pennsylvania, 37, M.S, 39, Ph.D, 42. Chemist, Charles Enqu Johnson and Co, 37–38; *instr. chem, Drexel Inst, 41–* Chem. Soc. Organic sulfur compounds.

Saslaw, Prof. S(amuel), University of Miami, Coral Gables, Fla. *Mathematics.* Boston, Mass, Dec. 15, 09. B.S, Mass. Inst. Tech, 33, M.S, 34, Ph.D, 38. Instr. *math,* Cornell, 38–39; *asst. prof, Miami (Fla), 39–* Math. Soc. Fourier series; function theory.

Saslow, Dr. G(eorge), Washington University Medical School, St. Louis, Mo. *Physiology.* New York, N. Y, Dec. 5, 06. B.S, N. Y. Univ, 26, M.S, 29, Ph.D, 31; Rochester, 26–28; M.D, Harvard, 40. Asst. biol, N. Y. Univ, 28–30, instr, 30–32, asst. prof, 32–37; instr. physiol, sch. pub. health, Harvard, 37–40, asst. *psychiat,* Harvard Med. Sch, 42–43; *instr, med. sch, Washington (St. Louis), 43–* Visiting assoc, Rochester, 36–37. Physiol. Soc; Soc. Zool; Harvey Soc. Permeability, volume and diameter of erythrocytes; action of caffeine on frog muscle.

Sass, Prof. John E(ugene), Iowa State College, Ames, Iowa. *Botany.* Sept. 9, 97. B.S, Michigan, 24, M.S, 25, Ph.D, 29. Instr. *bot,* Michigan, 25–28; *Iowa State Col, 28–30, asst. prof, 30–* Morphology; pathological histology and cytology.

Sasscer, E(rnest) R(alph), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Waldorf, Md, Oct. 25, 83. B.S, Maryland, 04, M.S, 13. Sci. aid, bur. entom, *U. S. Dept. Agr,* 04–06, sci. asst, 06–12, chief inspector, fed. hort. board, 12–24, entomologist and exec. officer, 24–28, *prin. entomologist in charge div. for. plant quarantine, bur. entom. and plant quarantine, 28–* A.A; Asn. Econ. Entom. (v. pres, 24, pres, 39; sec'y, sect. hort. inspection, 20–23, chairman, 24); Biol. Soc. Wash; Entom. Soc. Wash. (recording sec'y, 12, 2nd v. pres, 14, pres, 18). Coccidae; fumigation methods; plant quarantine.

Satina, S(ophie) A, Smith College, Northampton, Mass. *Cytology, Mycology.* Tambov, Russia, April 17, 79. Degree, Woman's Col, Moscow, 04; Univ. Moscow, 13. Instr. bot, Woman's Col, Moscow, 07–15; asst. prof, Univ. Moscow, 16–21; collaborator, Nat. Research Council, 24–28; cytologist, Carnegie Institution, 30–42; *research assoc. cytogenetics, dept. bot, Smith Col, 42–* A.A; Bot. Soc; Mycol. Soc; Genetics Soc; Soc. Nat. Sexuality in Mucoraceae and Ascomycetes; cytogenetics in Datura.

Satterfield, Prof. G(eorge) Howard, North Carolina State College, Raleigh, N. C. *Biochemistry.* Mount Airy, N. C, Dec. 2, 94. Yale Army Lab. Sch, 18; A.B, Trinity Col. (N. C), 19, A.M, 20, indust. fellow, 20–21; Pub. Health Inst. fellow, Northwestern, 23–24; Duke, 29, 36; Columbia, 30. Asst, Trinity Col. (N. C), 19–20, instr, 21–22; teaching fellow, Northwestern, 22–23; asst. prof. chem, *N. C. State Col,* 24–28, *biochem,* 28–29, assoc. prof, 29–36, *prof, 36–* Chemist, Velvo-Touch Co, 26–; Feet-Tone Chem. Co, 31–; consulting chemist, Drisox Chem. Co, 31. Summer, instr, Trinity Col. (N. C), 20. Lab. technician, U.S.A, 18. A.A; Inst. Nutrition; Inst. Food Technol; fel. Inst. Chem; Soc. Exp. Biol; N. C. Acad. Tobacco; organic arsenicals; cosmetics; blood chemistry; copper and iodine in foods; vitamin A in animal tissues; ascorbic acid in plant and animal tissues; nicotinic acid.

Satterfield, H(oward) E(rnest), State College Station, Raleigh, N. C. *Mechanical engineering.* Fairmont, W. Va, May 11, 77. B.S, Purdue, 04, M.E, 09. Supt. exp. factory, Am. Window Glass Co, 05–06; Standard Sanit. Mfg. Co, 06–07; director sch. applied science, Winona Tech. Inst, 07–08; prof. mech. eng, N. C. State Col, 08–20; gen. contractor, 20–31; assoc. prof. mech. eng, N. C. State Col, 31–35; architectural and eng. adviser, Resettlement Admin, Raleigh, 35–36; *prof. mech. eng, N. C. State Col, 36–* Mech. Eng; Eng. Educ; Soc. Exp. Biol. Building.

Satterlee, Dr. Henry S(uydam), Newport, N. H. *Medicine, Physiology.* New York, N. Y, June 4, 74. A.B, Harvard, 96; M.D, Columbia, 00. Attending physician, N. Y. Dispensary, 03–11; asst. attending physician, Willard Parker Hosp, N. Y, 11–15, attending physician, 15–19; *consultant med. practise: biochem. research.* Lieut. col, M.C, 18–19. A.A; Am. Med. Asn; fel. N. Y. Acad. Med. Biochemistry; chronic arsenical poisoning; the labile arsenic fraction in mammalian blood; volatile arsenic in expired air; arsenic in relation to protective substances, thiol-disulfide systems and natural enzyme systems.

Satterly, Prof. John, University of Toronto, Toronto, Ont, Can. *Physics.* Ashburton, Devon, Eng, Nov. 29, 79. B.Sc, London, 01, D.Sc, 10; B.A, Cambridge, 08, M.A, 12. Demonstrator, Royal Col. Science, London, 01–03; tutor, univ. correspondence col, Cambridge, 03–12, asst. demonstrator, Cavendish lab, 10–12; lecturer *physics, Toronto,* 12–16, asst. prof, 16–22, assoc. prof, 22–25, *prof, 25–* Tyndall prize, Royal Col. Science, 99. Royal Soc. Can; Royal Astron. Soc. Can; Physical Soc. London. Thermomagnetic analysis of iron alloys; radioactivity of the air, water, soils, radium and thorium; helium; viscosity; surface tension; theory of measurements; heat.

Satterthwait, A(lfred) F(ellenberg), 806 Ohio St, Urbana, Ill. *Entomology.* Fairville, Pa, April 9, 79. Jessup scholar, Acad. Nat. Sciences Phila, 98–00. Clerk, div. zool, State Dept. Agr, Pa, 05–07, asst. econ. zoologist, 07–10; field asst, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 13–14, sci. asst, 14–24, *assoc. entomologist, 24–,* in charge entom. lab, Webster Groves, Mo, 16–36. A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Nature Study Soc. (past pres); Entom. Soc. Wash; N. Y. Entom. Soc; St. Louis Acad. (past pres). Economic entomology; life histories, ecology and parasites of the genus Calendra; distinguishing characters in pupae and larvae; Helianthus insects.

Satterthwaite, Dr. Franklin E(ves), Aetna Life Insurance Co, Hartford, Conn. *Mathematical statistics.* New York, N. Y, July 22, 14. B.S, Swarthmore Col, 36; M.S, Iowa, 39, Ph.D, 41. *Group statist. dept, Aetna Life Ins. Co, 41–* Fel. Casualty Actuarial Soc. Actuarial statistics.

Sattler, Dr. Louis, Brooklyn College, Bedford Ave. and Ave. H, Brooklyn, N. Y. *Chemistry.* Budapest, Hungary, Jan. 7, 98. A.B, Columbia, 22; fellow, Chicago, 23–25, Ph.D, 25. Asst, Rockefeller Inst, 14–17; chemist, Packard Motor Co, 18; instr. *chem, Brooklyn Col, Col. City of N. Y,* 25–36, asst. prof, 36–42, *assoc. prof, 42–* Research chemist, New York Sugar Trade Lab, 26– A.A; Chem. Soc. Cyclopropane ring; determination of ash in cane sugar and sugar products; color and turbidity measurements; symmetrical dibromoisopropyl methyl ether and its homologues; quantitative determination of sugar; electronic mechanisms of organic reactions; unfermentable reducing substances in molasses; allulose; heterolevulosan.

Sauchelli, Vincent, Davison Chemical Corp, 20 Hopkins Place, Baltimore, Md. *Agricultural chemistry, Plant pathology.* Foggia, Italy, July 11, 92. B.S, Mass. Col, 15; Mass. Inst. Tech, 15–16. Director agr. research, Soc. Int. de Plantations et de Finance, Kuala Lumpur, Fed. Malay States, 16–23; Koppers Co, Pittsburgh, Pa, 27–35; *asst. to pres, Davison Chem. Corp, 36–* Chem. Soc; fel. Inst. Chem; Fertilizer Asn. (plant food research cmt); Soc. Agron. Plantation rubber; agronomy; fertilizers; sulfur.

Saudek, Dr. E(verett) C(harles), Consumer's Yeast Co, 1384 Fifth St, Oakland, Calif. *Industrial bacteriology.* Milwaukee, Wis, March 11, 11. Fellow, Wisconsin, 33–37, Ph.D, 37. Bacteriologist, Red Star Yeast Co, 37–39; *process supt, Consumer's Yeast Co, 39–* Summers, chemist, Red Star Yeast Co, 33–37. Chem. Soc; Soc. Bact; Inst. Food Technol. Factors affecting yeast growth and baking quality.

Sauer, Prof. Carl O(rtwin), University of California, Berkeley, Calif. *Geography.* Warrenton, Mo, Dec. 24, 89. A.B, Cent. Wesleyan Col, 08; Northwestern, 08–09; Ph.D, Chicago, 15. Map ed, Rand McNally Co, 12–13; instr, Mass. State Nor. Sch, Salem, 13–14; *geog,* Michigan, 15–18, asst. prof, 18–20, assoc. prof. and director field courses, 20–22, prof, 22–23; *prof. and chairman dept, California, 23–* Guggenheim Mem. Foundation fellow, 31. Asst. geologist, Ill. Geol. Surv, 10–12; agent, office farm management, U. S. Dept. Agr, 19–20, consultant, soil conservation service. Founder, Mich. Land Econ. Surv. Mem. cmt. Latin-Am. studies, Am. Council Learned Societies, 40–; advisory board, Guggenheim Mem. Foundation. Charles P. Daly medal, Am. Geog. Soc, 40. Asn. Geog. (pres, 40); cor. mem. Am. Geog. Soc; cor. mem. Gesell. für Erdkunde zu Berlin; Geog. Gesell. Wien; Soc. Cient. Ant. Alz. Regional geography.

Sauer, Dr. Louis W(endlin), 636 Church St, Evanston, Ill. *Pediatrics, Immunology.* Cincinnati, Ohio, Aug. 13, 85. A.B, Cincinnati, 07; A.M, 08; Freiburg, 09; Berlin, 12; M.D, Rush, Chicago, 12, Ph.D, Chicago, 24. Attending pediatrician, Chicago Infant Welfare, 13–17; senior attending pediatrician, Evanston Hosp, 15–30; assoc. *pediat, med. sch, Northwestern,*

30–37, *asst. prof, 37–* Asst. attending physician, Children's Mem. Hosp, 13–18; physician, Evanston Hosp, 30– A.A; Am. Med. Asn; Acad. Pediat; Pub. Health Asn; Inst. Med. Chicago. Vaccine for whooping cough prevention.

Sauer, Dr. Mary (Elizabeth) Elmore (Mrs. F. C. Sauer), University of Texas School of Medicine, Galveston, Texas. *Anatomy.* Lincoln, Nebr, Jan. 4, 03. A.B, William Jewell Col, 25; fellow, Kansas, 26–27, A.M, 27, fellow, 29–30, Ph.D, 33. Asst. prof. biol, William Jewell Col, 27–29; asst. instr. bacter, Kansas, 30–32; bacteriologist, med. dept, Endicott Johnson Corp, Binghamton, N. Y, 33–34; instr. microscopic anat, sch. med, Alabama, 36–37; *histol. and embryol, sch. med, Texas,* 37–43, *asst. prof. anat, 43–* Summer, instr, Wichita, 36. A.A; Asn. Anat. Immunology; autonomic nervous system.

Saul, Dr. Everett L(ouis), 8930 97th St, Woodhaven, N. Y. *Chemistry.* Corona, L. I, N. Y, March 8, 08. A.B, Columbia, 29, Ph.D, 34. Asst. chem, Columbia, 30–34; *chief chemist, Felton Chem. Co, Inc, N. Y, 35–* Univ. grant, Columbia, 35. Chem. Soc; Inst. Chem. Enzymes; terpenes; synthetic organic chemistry.

Saul, Dr. Leon J(oseph), 43 E. Ohio St, Chicago, Ill. *Psychiatry.* New York, N. Y, April 26, 01. A.B, Columbia, 21, A.M, 23; London, 23–24; M.D, Harvard, 28. Commonwealth fellow and instr. psychiat, Boston Psychopathic Hosp, 30–33; *clin. assoc, Inst. for Psychoanalysis, Chicago, 33–; assoc, attending staff, Cook County Psychopathic Hosp, 36–* Mass. Psychiat. Asn. prize, 31. A.A; Psychiat. Asn; Physiol. Soc; Mass. Med. Soc. Action potentials in central nervous system; psychogenesis of organic symptoms; neurophysiology; psychophysiology; brain potentials.

Saunders, Aretas A(ndrews), 361 Crestwood Road, Fairfield, Conn. *Biology.* Avon, Conn, Nov. 15, 84. Ph.B, Yale, 07. Forest asst, U. S. Forest Service, 08–13; *teacher,* Union High Sch, West Haven, Conn, 13–16; *Cent. High Sch, Bridgeport, Conn, 16–* Summers, ornithologist, biol. sta, Montana, 14, 15; field ornithologist, Roosevelt Wild Life Forest Exp. Sta, 21–26; field naturalist, N. Y. State Museum, and teacher, Allegany Sch. Nat. Hist, Allegany State Park, 27–40. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club. Ornithology; ecology of birds; behavior of wild birds under natural conditions; bird songs.

Saunders, Prof. A(rthur) P(ercy), Hamilton College, Clinton, N. Y. *[1]Chemistry.* London, Ont, Can, March 22, 69. B.A, Toronto, 90; Ph.D, Hopkins, 94; Göttingen, 96; Berlin, 97; hon. fellow, Cornell, 99. Instr. *chem,* Wisconsin, 94–96; asst, McGill, 98; asst. prof, *Hamilton Col,* 00, *prof, 00–,* dean, 09–26. A.A; Chem. Soc; Peony Soc. (director); Iris Soc. (director); fel. Royal Hort. Soc. Chlorids of orthosulfobenzoic acid; double salts; allotropic forms of selenium; reaction velocities.

Saunders, Dr. C(harles) R(ichard), Alabama Polytechnic Institute, Auburn, Ala. *Organic chemistry.* Pensacola, Fla, Aug. 30, 03. B.S, Ala. Polytech, 23, M.S, 25; Northwestern, 28; Ph.D, Nebraska, 30. Instr. chem, Lafayette Col, 26–28; research chemist, E. I. du Pont de Nemours and Co, 30–32; assoc. prof. *chem, Ala. Polytech,* 32–40, *prof, 40–* Chem. Soc. Organic arsenicals.

Saunders, Dr. Charles W(inston), 1926 S. Virginia St, Hopkinsville, Ky. *Physiological chemistry.* Fulton Co, Ky, Oct. 3, 76. B.S, Missouri, 07; M.S, Chicago, 11, Ph.D, 25. Teacher, high sch, La, 07–11; Ala. State Nor. Sch, Jacksonville, 11–20; instr. chem, Iowa State Col, 20–24; prof, Thiel Col, 25–27; prof. and head dept. and dean, Ga. State Col, 27–32; *head science, high sch, Hopkinsville, 32–* Chem. Soc. Nutritional value of chlorophyl as related to hemoglobin formation; ethylene glycol as it affects the life span, growth and appetite of rats.

Saunders, Dr. Felix, 231 Playa del Sur, La Jolla, Calif. *Biochemistry.* La Junta, Colo, May 26, 95. B.S, Chicago, 24, Douglas Smith fellow, 27–28, Ph.D, 28. Instr. biochem, Chicago, 28–41. A.A; Chem. Soc; Soc. Bact; Soc. Biol. Chem; Soc. Exp. Biol. Chemistry of proteins and carbohydrates; metabolism of bacteria; nutrition; marine biology.

Saunders, Dr. Francis J(oseph), G. D. Searle and Co, P. O. Box 5110, Chicago, Ill. *Physiology.* Dubuque, Iowa, May 9, 11. B.S, California, 33, Ph.D, 37. Instr. animal husbandry, California, 38; *physiologist, G. D. Searle and Co, 38–* Asn. Study Int. Secretions. Gonadotropic hormones from pregnant mare serum and pituitaries, including methods of preparation and purification and their physiological action.

Saunders, Prof. F(rederick) A(lbert), South Hadley, Mass. *[1]Physics.* London, Ont, Can, Aug. 18, 75. B.A, Toronto, 95; fellow, Hopkins, 98–99, Ph.D, 99; Cambridge, 13; Tübingen, 13–14. Instr. *physics,* Haverford Col, 99–01; Syracuse, 01–02, assoc. prof, 02–05, prof, 05–14; Vassar Col, 14–19; assoc. prof, *Harvard,* 19–23, prof, 23–41, *emer. prof, 41–* War work, Nat. Research Council, 17–18. Nat. Acad; A.A; Physical Soc; Asn. Physics Teachers; Acoustical Soc. (pres, 37–39). Spectroscopy; acoustics.

Saunders, Dr. George B(radford, Jr), U. S. Department of the Interior, Brownsville, Texas. *Ornithology.* Oklahoma City, Okla, June 8, 07. A.B, Okla. City Univ, 28; Ph.D, Cornell, 32. Asst. biol, Okla. City Univ, 26–28; ornith, Cornell, 29–31; nat. research fellow, 32–33; staff ornithologist, State Dept. Conservation, Mich, 33–35; *assoc. biologist,* bur. biol. surv, U. S. Dept. Agr, 36–40; *fish and wildlife service, U. S. Dept. Interior, 40–* Assoc. ornithologist, Acad. Nat. Sciences Phila. exped, southwest Africa, 30. Assoc. Ornith. Union; Wildlife Soc; Cooper Ornith. Club; assoc. Wilson Ornith. Club; Northeast. Bird Banding Asn; Texas Acad. Wildlife conservation; avian ecology, distribution, migration and behavior; taxonomy and natural history of Anatidae, Columbidae and Icteridae.

Saunders, Prof. J(ohn) B(ertrand) de C(usance) M(orant), University of California Medical School, San Francisco, Calif. *Anatomy.* Grahamstown, S. Africa, July 2, 03. St. Andrews Col, S. Africa; M.B, Edinburgh, 25, Ch.B, 25. Demonstrator physiol, Edinburgh, 25, *anat,* 25–30; asst. prof, *med. sch, California,* 31–35, assoc. prof, 35–38, *prof, 38–, chairman div, 37–, lecturer med. hist. and bibliog, 38–, chairman div, 40–* Hosp. Sick Children, 28–29; hon. clin. asst, Royal Infirmary, 28–30; hon. surgeon, Settler's Hosp, 30. Assoc. med. ed, 'Isis.' Medal, Royal Col, 23. Hist. Sci. Soc; fel. Royal Col. Surg; British Med. Asn; Royal Soc. Med; Medico-Chirurg. Soc, Edinburgh. Development; growth; antenatal pathology; joint and muscle function.

Saunders, Prof. L(eslie) G(ale), University of Saskatchewan, Saskatoon, Sask, Can. *Entomology, Zoology.* London, Eng, Dec. 3, 95. Nova Scotia Agr. Col; B.S.A, McGill, 20, M.Sc, 21; 1851 Exhib. scholar, Cambridge, 21–24, Ph.D, 24. Orchard inspector, insect pest investigator, Provincial Govt, N. S, 14–17; *asst. prof. zool, Saskatchewan, 25–* Soc. Parasitol; fel. Entom. Soc. London; Soc. entom. de France. Terrestrial and other chironomids, particularly their early stages; trematode larvae connected with schistosome dermatitis.

Saunders, Prof. Paul C(anfield), P. O. Box 602, Alfred, N. Y. *Chemistry.* Doland, S. Dak, Sept. 17, 90. Colorado; B.S, Alfred, 14; M.S, Pittsburgh, 22, Ph.D, 24. Teacher, high sch, Pa, 14–16; instr. chem, Milton Col, 16–18; anal. chemist, E. I. du Pont de Nemours and Co, 18–19; prof. *chem,* Coker Col, 19–20; asst, Pittsburgh, 20–24; Howard Col, 24; *prof, Alfred, 24–* Consulting and anal. chemist. Summer, prof, R. I. Col. Educ, 24. A.A; Chem. Soc. Composition and energy relations in ozone formation; chlorination of methane; hydrolysis of methyl chloride.

Saunders, Prof. Samuel J, Hamilton College, Clinton, N. Y. *Physics, Astronomy.* Nanticoke, Ont, Can, Aug. 3, 62. B.A, Toronto, 88, M.A, 94; fellow, Cornell, 88–89, Sc.D, 94. Instr. physics, Cornell, 89–92; prof. *physics and astron, Hamilton Col,* 92–34, *emer. prof, 34–* Registrar, 07–34. Summer, prof, Wisconsin, 91; Cornell, 92. Electrical waves; penetration by x-rays; the relative value of Holtz machine and induction coil in x-ray work.

Saunderson, Prof. Hugh H(amilton), University of Manitoba, Winnipeg, Man, Can. *Physical chemistry.* Winnipeg, Man, Nov. 23, 04. B.A, Manitoba, 24, B.S, 29, M.S, 30; Nat. Research Council Can. bursar, McGill, 30–31, student, 31–32, Ph.D, 32. Lecturer, Manitoba, 32–33; research chemist, Can. Int. Paper Co, 33–34; asst. prof. *chem, Manitoba,* 34–42, *assoc. prof, 42–* Fel. Can. Inst. Chem. Germ constituents in wheat; penetration of solutions into spruce; sorption on wood pulp.

Saunderson, Dr. J(ason) L(ewis), Dow Chemical Co, Midland, Mich. *Physics.* Sioux City, Iowa, Dec. 22, 12. A.B, Morningside Col, 35; A.M, Michigan, 37, Ph.D, 39. *Research physicist, Dow Chem. Co, 39–* Physical Soc; Optical Soc. Electron scattering; spectroscopy; spectrophotometry; colorimetry.

Saurwein, Dr. Jean E(lizabeth) (Mrs. Glen R. Simmons), 5742 Drexel Ave, Chicago, Ill. *Organic chemistry.* Cleveland, Ohio, Jan. 20, 14. A.B, Western Reserve, 33; Julius Steiglitz Junior fellow, Chicago, 36–38, Ph.D, 38. *Instr. chem,* Chicago Christian Jr. Col, 37–38; *Evangelical Hosp, 38–; Barat Col,* 38–41, *prof, 41–* A.A; Chem. Soc. Biuret reactions of the polypeptides; parasitic worms; lignin.

Sauté, Prof. George, Rollins College, Winter Park, Fla. *Mathematics.* Belgium, June 9, 03. Ph.B, Brown, 24, A.M, 26; Cmn. Relief Belgium Educ. Foundation fellow, Brussels and Göttingen, 27–28. Asst. *math,* Brown, 24–26; instr. and tutor, Harvard, 26–27, 28–30; asst. prof, Cleveland Col, Western Reserve, 30–43; *assoc. prof, Rollins Col, 43–* Math. Asn. Calculus of variations; mathematical statistics.

Savage, Dr. Alfred, University of Manitoba, Winnipeg, Man, Can. *Bacteriology, Animal pathology.* Montreal, Que, Aug. 10. 89. B.S.A, McGill, 11; D.V.M, Cornell, 14. Col. veterinarian, Macdonald Col, McGill, 14–15, 19–21; *prof.* animal path, *Manitoba,* 21–30, *bacter. and animal path, 30–,* dean faculty agr. and home econ, 33–38; *provincial animal pathologist, 38–* Soc. Bact; Vet. Med. Asn; Royal Col. Vet. Surg. Biomicrometry; seminal pathology; application of the photoelectric cell to the microscope.

Savage, D(avid) A, Southern Great Plains Field Station, Woodward, Okla. *Agronomy.* Laurel, Mont, Aug. 12, 01. B.S, Mont. State Col, 24. Junior agronomist, bur. plant indust, U. S. Dept. Agr, 24–27; asst. agronomist, Exp. Sta, Mont. State Col, 27–28; agent, *bur. plant indust, U. S. Dept. Agr,* 28–29, asst. agronomist in charge forage crops experiments, Ft. Hays Exp. Sta, Kans. State Col, 29–37, *agronomist and regional supervisor pasture grass investigations, div. forage crops and diseases, South. Great Plains Field Sta, 37–* Soc. Agron; Ecol. Soc. Irrigated rotations; plant breeding; ecology; botany; forage crops; grasses; legumes; native herbaceous plants.

Savage, Prof. E(lmer) S(eth), Cornell University, Ithaca, N. Y. *Animal husbandry.* Lancaster, N. H, June 15, 84. B.S.A, New Hampshire, 05, Sc.D, 33; M.S.A, Cornell, 09, Ph.D, 11. Instr, Baron DeHirsch Sch, Woodbine, N. J, 05–07; asst. *animal husbandry, Cornell,* 07–09, instr, 09–11, asst. prof, 11–13, *prof, 13–,* acting head dept, 28–29. Soc. Animal Production (sec'y, 18–20, v. pres, 21); Dairy Sci. Asn. Animal nutrition. (*Died Nov, 1943*)

Savage, Dr. G(eorge) M(ason), Michigan Department of Health, Lansing, Mich. *Bacteriology.* Osseo, Minn, May 13, 13. Ch.B, Minnesota, 33, Ph.D, 37. Teaching fellow bact, Minnesota, 35–37, instr; *mem. bur. labs, State Dept. Health, Mich.* Summer, research, Frederick Stearns and Co, Detroit, Mich, 41. A.A; Soc. Bact. Aerofiltration of sewage; bacterial enzymes; preparation of suitable blood substitutes; influence of bacterial end products on intradermal skin reactions.

Savage, Dr. J(ohn) L(ucian), U. S. Bureau of Reclamation, 1651 Dahlia St, Denver, Colo. *Engineering.* Cooksville, Wis, Dec. 25, 79. B.S, Wisconsin, 03, hon. Sc.D, 34. From eng. aid to engineer, U. S. Reclamation Service, 03–08; with A. J. Wiley, consulting engineer, Boise, Idaho, 08–16; designing engineer, *U. S. Bur. Reclamation,* Denver, Colo, 16–24, *chief designing engineer, 24–* Consultant, govt. Porto Rico, 21–22; W. Indies Finance Corp, N. Y, 22–23; State of Calif, 29–31; Panama Canal Zone, 29–35; int. boundary cmn, U. S. Dept. State, 27; Tenn. Valley Authority, 33–; P. R. Reconstruction Admin, 36–A.A; hon. mem. Civil Eng; Concrete Inst. Hydraulics; irrigation; dams; power plants; earth dam materials; concrete; stress model testing; photo-elasticity and mechanical structures.

Savage, John R(ead), Route 3, Mt. Gilead, Ohio. *Zoology.* Annapolis, Md, Aug. 30, 02. A.B, St. John's Col. (Md), 25; A.M, Illinois, 27. Asst. zool, Illinois, 25–27; asst. entomologist, *Ohio Exp. Sta,* 27–33, *Grasselli fellow, 39–* Ecol. Soc. Animal ecology; experimental zoology; entomology.

Savage, Dr. L(eonard) J(immie), Cornell University, Ithaca, N. Y. *Mathematics.* Detroit, Mich, Nov. 20, 17. A.B, Michigan, 38, Ph.D, 41. Mem, Inst. for Advanced Study, 41–42; *instr. math, Cornell, 42–* Math. Soc. Differential geometry.

Savage, Prof. T(homas) E(dmund), University of Illinois, Urbana, Ill. *Geology.* Salem, Iowa, Jan. 8, 66. A.B, Iowa Wesleyan Col, 95; B.S, Iowa, 97, M.S, 98; Ph.D, Yale, 09. Prof. biol. and geol, Western Col, and asst. geologist, Iowa Geol. Surv, 99–03; asst. state geologist, Iowa, 03–06; asst. prof. stratig. geol, *Illinois,* 06–19, *prof. geol, 19–; geologist, Ill. Geol. Surv, 06–* Geologist, Navy Alaskan Coal Cmn, 20–21. A.A; Geol. Soc; Paleont. Soc; Ill. Acad; Iowa Acad. Areal and stratigraphic geology; Devonian paleontology and stratigraphy in Illinois; Silurian rocks in Illinois; the Alexandrian series; geology and paleontology of the Paleozoic rocks in the Hudson and James Bay region.

Savage, Dr. W(illiam) S(mith), 147 McNaughton St, Sudbury, Ont, Can. *Geology.* Dunleer, Ireland, Aug. 15, 00. B.A, Toronto, 32, M.A, 33, Ph.D, 35. Engineer and draftsman, Great North. Ry. Co, Ireland, 17–22; Toronto Transportation Cmn, 22–27; asst, dept. geol, Toronto, 32–35; *geologist, Int. Nickel Co, Can, Ltd, 36–* Summers, geologist, Ont. Dept. Mines, 30–35. Solution, transportation and precipitation of manganese.

Savides, Prof. A(ntonios) P(anayoton), 182 Allerton Road, Newton Highlands, Mass. *Psychology, Education.* Constantinople, Turkey, March 25, 81. B.A, Robert Col, Constantinople, 00; A.M, Harvard, 11, Ph.D, 17. Instr, Robert Col, Constantinople, 01–04; lecturer hist. of educ. and instr. exten, Simmons Col. (Mass), 17–18; special collaborator and racial adviser, U. S. Bur. Educ, New York, 18–19; lecturer, clubs and cols, 19–21; assoc. prof. philos, psychol. and educ, Colby Col, 21–22, prof, 22–24; acting prof. hist. of educ, Ohio State, 24–25; research worker psychol. and educ, Harvard Libraries, 25–27; prof, Russell Sage Col, 27–42; *lecturer, 42–; prof. psychol, Mass. Sch. of Art, 43–* Instr, teachers' classes, State Dept. Educ, Mass, 17–18. History and philosophy of education and psychology.

Saville, Dr. D(ouglas) B(arton) O(sborne), 497 Golden Ave, Ottawa, Ont, Can. *Botany.* Dublin, Ireland, July 19, 09. B.S.A, McGill, 33, M.Sc, 34; Macdonald Alumni scholar, 34–35; Emma J. Cole fellow, Michigan, 37–39, Ph.D, 39. Agr. asst, *div. bot, Dom. Dept. Agr,* 36–39, *agr. scientist, 39–* Aeronaut. eng. officer, Royal Can. Air Force, 41–43. Mycol. Soc; Bot. Soc. Mycology; plant pathology; meteorological optics; nuclear structure and life history of the rust fungi; bacterial diseases of plants; potato diseases.

Saville, C(aleb) M(ills), Pilgard Bldg, Hartford, Conn. *Hydraulic engineering.* Melrose, Mass, May 27, 65. A.B, Harvard, 89. Div. engineer, Metropolitan Water Board, Mass, 95–05; engineer in charge 3rd div, Isthmian Canal Cmn, 07–12; *manager and chief engineer,* Hartford Water Works, 12–30, *water bur, Metrop. Dist. Cmn, 30–* Norman medal, Soc. Civil Eng, 14; Brackett medal, New Eng. Water Works Asn, 15, 34; annual prize, Conn. Soc. Civil Eng, 35. A.A; Civil Eng. (pres, Conn. sect, 19); Water Works Asn; New Eng. Water Works Asn. (pres, 16); Boston Soc. Civil Eng; Royal Meteorol. Soc; Royal Inst. Water Works Eng. (pres, 31). Water supply; dam construction; foundation of Gatun Dam; hydrology of Chagres River and the water supply of the Panama Canal; geology; hydraulics of foundations.

Saville, Dean Thorndike, New York University, New York, N. Y. *Engineering.* Malden, Mass, Oct. 3, 92. A.B, Harvard, 14, M.S, 17, Sheldon traveling fellow, England and France, 19; B.S, Dartmouth Col, 14, C.E, 15; M.S, Mass. Inst. Tech, 17. Asst. physics and surveying, Dartmouth Col, 15–16; geol. and eng, Harvard, 16–17; asst. prof. and *prof. hydraul. and sanit. eng,* North Carolina, 19–32; *N. Y. Univ, 32–,* assoc. dean *col. eng,* 35–36, *dean, 36–; mem. nat. advisory cmt, eng, science and management war training, U. S. Office Educ, 41–* Chief engineer, State Dept. Conservation and Develop, N. C, 20–32, consulting engineer, 32–; int. health div, Rockefeller Foundation, Venezuela, 26–27; mem, U. S. Beach Erosion Board, 30–; exec. engineer, Nat. Resources Board, 34–35; mem. water resources cmt, Nat. Resources Cmn, 35– Lieut, U.S.A, 17–19. A.A; Civil Eng. (sec'y, N. C. sect, 22–32; director and v. pres, metrop. sect, 38–42); Water Works Asn. (sec'y, N. C. sect, 21–25); Geophys. Union; Mech. Eng; Inst. Aeronaut. Sci; Inst. Consulting Eng; New Eng. Water Works Asn; Boston Soc. Civil Eng. Nature and removal of color in water; power in the southern states; filter sands; rainfall in North Carolina; corrosion from filtered water; flood characteristics of North Carolina streams; statistical analysis of floods.

Sawdon, Prof. W(ill) M(iller), Cornell University, Ithaca, N. Y. *Experimental engineering.* Aurora, Ind, Jan. 1, 73. B.S, Purdue, 98; M.M.E, Cornell, 08. Teacher, Detroit Sch. for Boys, 98–99; mech. eng. and math, Kans. State Col, 99–02; mech. eng, Armour Inst. Tech, 02–04; instr. *exp. eng, Cornell,*

04–08, asst. prof, 08–19, *prof, 19–* Mayor, Ithaca, N. Y, 24. Mem, Board Pub. Works, Ithaca, 17–23, 27–32, 34–39. Mech. Eng. (chairman, Ithaca sect, 37–40, exec. cmt, 37–); Eng. Educ; Heat. and Vent. Eng. Heating and air conditioning.

Sawin, Prof. P(aul) B(aldwin), Brown University, Providence, R. I. *Genetics.* Canton, Ohio, Jan. 14, 00. B.S, Cornell, 24; M.S, Kans. State Col, 25; M.S, Sc.D, Harvard, 31. Instr. zool. and genetics, Grinnell Col, 25–27; *comp. anat. and genetics, Brown,* 31–36, *asst. prof, 36–* Summer, Col. City of N. Y, 36. A.A; Soc. Zool; Genetics Soc; Asn. Anat; Soc. Nat. Inheritance in the domestic rabbit; inheritance of morphological and serological variations.

Sawitz, Dr. W(illiam) G(eorge), 1025 Walnut St, Philadelphia, Pa. *Parasitology.* Rostock, Germany, April 29, 93. M.D, Rostock, 20. Asst. *parasitol,* dept. trop. med, Tulane, 36–38, instr, 38–42, *asst. prof,* 42–43; *dept. med, Jefferson Med. Col, 43–* A.A; Soc. Trop. Med; Soc. Parasitol. Trichinosis; oxyuriasis; amebiasis; epidemiology and diagnosis of parasitic infections.

Sawyer, Dr. C(harles) B(aldwin), 2745 Edgehill Road, Cleveland, Ohio. *Physics, Metallurgy.* Cleveland, Ohio, July 15, 94. A.B, Yale, 15; Ph.D, Mass. Inst. Tech, 21. Instr, Mass. Inst. Tech, 17–19; assoc, *Brush Labs. Co,* 21–27, pres, 27–36, *chairman, 36–* Director and v. pres, S. K. Wellman Co; director, v. pres. and treas, Brush Develop. Co, 35; pres, Brush Beryllium Co, 31. A.A; Physical Soc; Min. and Metal. Eng. (rare metals and minerals cmt); Soc. Metals; British Inst. Metals. Nitrogen in steel; commercialization of large Rochelle salt crystals for acoustics; beryllium and its production.

Sawyer, Dr. Clair N(athan), 2010 University Ave, Madison, Wis. *Sanitary chemistry.* Almond, Wis, Sept. 15, 06. B.S, Wisconsin, 30, Ph.D, 38; M.S, Colorado, 36. Instr. chem, exten. div, Wisconsin, 30–36; asst. sanit. eng, Wisconsin, 36–37, fellow, 38–40; asst. prof. sanit. chem. and biol, N. Y. Univ, 40–42; *director, Lake Pollution Surv, 42–* A.A; Chem. Soc; Water Works Asn; Pub. Health Asn; Federation Sewage Works Asn. Sewage treatment and stream pollution; lake pollution.

Sawyer, Prof. Elizabeth L(ouise), Rockford College, Rockford, Ill. *Zoology.* Orono, Maine, 04. A.B, Maine, 27; A.M, Michigan, 29; Ph.D, Missouri, 35. Instr. zool, Maine, 29–30; research assoc, Missouri, 35–36, instr. zool, 36–37; *assoc. prof.* biol, Converse Col, 37–43; *zool, Rockford Col, 43–* Instr, Christian Col, 35–36. A.A. Cytology of hypophysis cerebri.

Sawyer, Dr. J(ames) H(erbert), Bartol Research Foundation, Swarthmore, Pa. *Geophysics.* Talladega, Ala, April 3, 11. A.B, Rice Inst, 32, A.M, 33, fellow, 33–35, Ph.D, 35. Seismologist, Shell Petrol. Corp, Texas; *geologist, Bartol Research Foundation, Franklin Inst.* Min. and Metal. Eng; Physical Soc; Soc. Explor. Geophys. Secondary and tertiary particles ejected by cosmic rays; cosmic ray showers and the particles that produce them; applied seismology.

Sawyer, Dr. Margaret E(lizabeth) (Mrs. William Reginald Sawyer), Queen's University, Kingston, Ont, Can. *Physiology.* New Glasgow, N. S, April 2, 04. B.A, Dalhousie, 24, M.A, 26, Nat. Research Council Can. bursar, 26–27; student, Toronto, 27–28; student, McGill, 28–29, Ph.D, 30. Instr. histol. and embryol, Dalhousie, 24–26; asst, McGill, 29–30; nat. research fellow *physiol,* Harvard, 30–32, research fellow, 32–35; *fellow, Queen's (Can), 39–* Physiol. Soc. Development of Cumingea egg; action of histamine on the alimentary tract; carbohydrate metabolism; digestion and circulation in fishes; action of the sympathetic nervous system in regulating homeostasis; effect of thyroid and anterior pituitary on response to adrenine.

Sawyer, Prof. Ralph A(lanson), University of Michigan, Ann Arbor, Mich. **7Physics.* Atkinson, N. H, Jan. 5, 95. A.B, Dartmouth Col, 15; Ph.D, Chicago, 19. Asst. *physics,* Chicago, 17–18; instr, *Michigan,* 19–22, asst. prof, 22–27, assoc. prof, 27–30, *prof, 30–; lieut. commander, U. S. Naval Res, 41–* Guggenheim Mem. Foundation fellow, 26–27. Ensign, U.S.N.R, 18–19. A.A; fel. Physical Soc; Optical Soc. (director, 41–; assoc. ed, 'Jour'); Asn. Physics Teachers. Spectroscopy; radiometry; extreme ultraviolet spectra; series analysis of line spectra; hyperfine structure of spectral lines; quantitative spectrographic analysis.

Sawyer, Prof. Raymond B(urkert), Centre College, Danville, Ky. *Physics.* Freeport, Ill, Oct. 16, 97. Ph.B, Ripon Col, 21; M.S, Wisconsin, 25; Ph.D, Chicago, 30. Asst. prof. physics, Centenary Col, 23–24; Marietta Col, 24–27; research physicist, dept. eng. research, Michigan, 29–30; asst. prof. *physics,* Carleton Col, 30–36; *prof, Centre Col, 36–* Physical Soc; Asn. Physics Teachers. Electronics.

Sawyer, Dr. R(ichard) L(eigh), Texas Co, 135 E. 42nd St, New York, N. Y. *Organic chemistry.* Norfolk, Va, June 21, 07. B.S, George Washington, 32, A.M, 34; Ph.D, Cornell, 38. *Chemist, Texas Co, 38–* Chem. Soc. Organic chemistry of hydrocarbons; petroleum refining.

Sawyer, Dr. W(ilbur) A(ugustus), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. **6Pathology, Public health.* Appleton, Wis, Aug. 7, 79. A.B, Harvard, 02, M.D, 06. Intern, Mass. Gen. Hosp, 06–08; med. examiner, California, 08–11; director hygienic lab, State Board Health, Calif, 10–15, sec'y and exec. officer, 15–18; lecturer hygiene and prev. med, med. sch, California, 14–16, clin. prof, 16–19; senior state director, int. health div, *Rockefeller Foundation,* 19–23, asst. regional director for the East, 23–24, director pub. health lab. service, 24–27, assoc. director, *int. health div,* 27–35, *director, 35–* Nat. advisory health council, U. S. Pub. Health Service, 37–40; consultant, med. dept, U. S. Navy. Director cmn. trop. diseases, Board Investigation and Control Influenza and other Epidemic Diseases in Army; mem. subcmt. trop. diseases, Nat. Research Council. Major, M.C, 18–19. A.A; fel. Pub. Health Asn; Soc. Exp. Path; Epidemiol. Soc; Soc. Trop. Med; Soc. Parasitol; Am. Med. Asn; Asn. Mil. Surg; Soc. Bact; Soc. Exp. Biol; Am. Physicians; Acad. Trop. Med. (pres, 37); Asn. Immunol; Harvey Soc; N. Y. Soc. Trop. Med. (pres, 34); N. Y. Acad. Med; Royal Soc. Trop. Med. and Hygiene; cor. mem. Soc. de Biol. Paris; cor. mem. Soc. belge de Méd. trop. Public health administration; tropical hygiene; yellow fever.

Sawyer, Prof. W(illiam) H(ayes), Jr, Bates College, Lewiston, Maine. *Botany.* Limington, Maine, Feb. 4, 92. A.B, Bates Col, 13; A.M, Cornell, 16; Ph.D, Harvard, 29. Instr. *biol, Bates Col,* 13–15, 16–29, *prof, 29–* Instr, Radcliffe Col, 27; Mass. Inst. Tech, 28. Bacteriologist and clin. pathologist, base lab, A.E.F, Marseilles, 18–19. A.A; Bot. Soc. Mycology; embryology of Basidiomycetes; culture and morphology of Entomophthoraceae.

Sawyer, Dr. W(illiam) R(eginald), Care of Dr. Margaret E. Sawyer, Queen's University, Kingston, Ont, Can. *Chemistry.* Kingston, Ont, Sept. 29, 01. Royal Mil. Col. (Can), 20–24; B.Sc, Queen's (Can), 26, Milton Hersey fellow, 27, M.Sc, 27; Nat. Research Council Can. bursar, McGill, 27–28, Sterry Hunt fellow, 30–31, Ph.D, 31. Demonstrator, McGill, 28–30; asst. chem. and research asst, Harvard, 31–35; instr. and later assoc. prof. physics and chem, Royal Mil. Col, 35–39; *major, gen. staff, Can. Army, 39–* Chem. Soc. Photochemistry; light penetration into natural waters; cobalt-ammines.

Sax, Prof. Karl, Arnold Arboretum, Jamaica Plain, Boston, Mass. **5Botany.* Spokane, Wash, Nov. 2, 92. B.S, State Col. Wash, 16; M.S, Harvard, 17, Sc.D, 22. Instr. genetics, California, 19; plant breeder, Geneva, Ill, 19–20; biologist in charge plant breeding, Exp. Sta, Maine, 20–28; assoc. prof. plant cytol, *Harvard,* 28–35, *prof. bot, 35–* 2nd lieut, C.A.C, 18–19. Nat. Acad; Genetics Soc; Soc. Nat; Bot. Soc; Soc. Hort. Sci; Am. Acad. Cytogenetics.

Sax, Mrs. Karl (Dr. Hally Jolivette), 380 South St, Jamaica Plain, Mass. *Botany.* La Crosse, Wis. A.B, Wisconsin, 06, A.M, 09; Ph.D, Stanford, 12. Asst. bot, Wisconsin, 07–10; Stanford, 10–12; instr, State Col. Wash, 12–14; sci. asst. plant path, bur. plant indust, U. S. Dept. Agr, 14–15; instr. bot, Wellesley Col, 16–18. A.A; Wis. Acad. Cytology and physiology of fungi.

Saxl, Dr. Erwin J, 38 James St, Providence, R. I. *Physics.* Vienna, Austria, 04. Ph.D, Vienna, 27. Cent. x-ray inst, Univ. Vienna, 25–26; Gen. Elec. Co, Berlin, 27; research, Freiburg, 28; biol. lab, Cold Spring Harbor, 29–30; mem. staff, exhib. color, Museum Science and Indust, New York, 30–31; *consulting physicist and chemist, 31–; pres, Saxl Instrument Co, 36–* Lecturer, New Sch. for Social Research, 31–34; director research and develop, Waypoyset Mfg. Co, 34–36; lecturer, Mass. Dept. Educ, 38–42. Warp sizing cmt, Throwsters Research Inst. A.A; Physical Soc; Chem. Soc; Radio Eng; Inst. Textile Research; Soc. Test. Mat; Asn. Textile Chem. and Colorists; Northeast Chem. Soc; N. Y. Elec. Soc; Provi-

dence Eng. Soc; fel. Royal Soc. Arts. Ultraviolet microscopy; biological and physical effects of x-rays; radio frequency measurements on tissues; analysis of odors; microwaves; high voltage measurements; lapel microphone; incandescent lamps; textile physics and chemistry; dynamic characteristics of filamentous materials; testing instruments; visualizing air-flow; special apparatus for combat aircraft; military instruments; plug and ring gauges; evaporation in high vacuo; front surface mirrors; precision rollers.

Saxton, Dr. Harold L(avern), Naval Research Laboratory, Anacostia Station, Washington, D. C. *Physics.* Cooperstown, N. Y, Nov. 19, 01. B.S, Union (N. Y), 24, M.S, 30; Ph.D, Pa. State Col, 34. Research lab, Gen. Elec. Co, 24–25, 30, radio eng, 25–29; asst. physics, Pa. State Col, 31–34, instr, 34–39, asst. prof, 39–40; *mem. staff, Naval Research Lab, 40–* Physical Soc; Philos. Soc. Wash. Sound and supersonics.

Saxton, Dr. John A(lbion), Jr, 7673 Carrswold Drive, Clayton, Mo. *Medicine.* New Orleans, La, Jan. 29, 07. A.B, Yale, 29; M.D, Washington (St. Louis), 34. Asst. path, sch. med, Washington (St. Louis), 34–36; animal path, Rockefeller Inst, Princeton, N. J, 36–38; instr. *path,* med. col, Cornell, 38–42, *asst. prof,* 42; *sch. med, Washington (St. Louis), 42–* Asn. Path. and Bact; N. Y. Path. Soc. Relation of anterior pituitary to thyroid and ovary; genetic constitution in relation to disease; senility; cancer and leukemia; biochemical changes associated with disease.

Saxton, Prof. Ren G(eorge), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Civil engineering.* Berlin, Wis, 86. B.S, Wisconsin, 09, C.E, 15; M.S, Iowa State Col, 24. Practising engineer, ry. and highway, 09–13; instr. and asst. prof. *civil eng,* Mich. State Col, 13–23; *prof. and head dept, Okla. Agr. and Mech. Col, 23–* Instr, Case, 13. Summers, highway experimentation, Iowa State Col, 23–25; consulting engineer. Eng. Educ; Concrete Inst; Road Builders Asn; Okla. Soc. Professional Eng. Highway engineering; rolling friction; wind resistance; temperature effects; hard and soft auto casings; life of concrete pavements; silting of reservoirs; welded connections; Portland cement; concrete sewer pipes; soils as pavement supports; earthen houses.

Sayer, Dr. Arthur R(obert), Brooklyn College, Brooklyn, N. Y. *Astronomy.* Boston, Mass, Aug. 8, 08. A.A, Harvard, 32, A.M, 33, Ph.D, 35. Asst. astron, Radcliffe Col, 32–33; Harvard, 33–34; teaching fellow physics and astron, Amherst Col, 34–35; *instr.* astron, Northwestern, 35–38; *physics and astron, Brooklyn Col, 38–* Astron. Soc; N. Y. Acad. Astrophysics.

Sayers, Dr. Royd Ray, U. S. Bureau of Mines, Washington, D. C. *Preventive medicine.* Crothersville, Ind. A.B, A.M, Indiana, 07; M.D, Buffalo, 14. Chief chemist, Gould Storage Battery Co, 07–10; prof. electrochem. and physical chem, Buffalo, 11–13; surgeon, U. S. Pub. Health Service; chief surgeon and chief health and safety branch, U. S. Bur. Mines, 17–33; med. officer in charge, office indust. hygiene and sanit, U. S. Pub. Health Service, 33–40; *director, U. S. Bur. Mines, 40–* Lecturer, Pittsburgh, 25–27. Advisory cmt. indust. hygiene, Int. Labor Office, Geneva, Switzerland. Pres. Am. cmt, Int. Cong. Indust. Accidents and Occupational Diseases, Frankfurt-am-Main, 38. Pub. health officer, Coast Guard cutter 'Comanche,' 17. Am. Med. Asn; Asn. Indust. Physicians and Surg. (pres, 38); Pub. Health Asn; Asn. Mil. Surg; Gas Asn; Min. and Metal. Eng; Heat. and Vent. Eng. Public and industrial health; health and safety in mines; toxic dusts and gases; carbon monoxide and lead poisoning; silicosis; the physiological effects of abnormal temperatures and humidities.

Sayles, Prof. Leonard P(erkins), College of the City of New York, New York, N. Y. *Zoology.* Glocester, R. I, May 16, 02. A.B, Brown, 23, A.M, 24, Ph.D, 26. Asst. prof. *zool,* Norwich, 26–27; instr, Tufts Col, 27–30; *Col. City of N. Y,* 30–34, *asst. prof, 34–* Instr, Marine Biol. Lab, Woods Hole, 30–37. Soc. Zool. Regeneration and transplantation; morphology; Lumbriculus; Clymenella torquata; Squalus.

Saylor, Dr. Charles (Hamilton) Proffer, National Bureau of Standards, Washington, D. C. *Physical chemistry.* Camden, N. J, June 14, 01. Pratt Inst; Ch.B, Cornell, 23, Ph.D, 28, Heckscher fellow. Chemist, DeLaval Separator Co, 20–21; asst. chem, Cornell, 24–28; *chem. microscopist,* Div. Trade Waste, Cleveland, Ohio, 28–30; *Bur. Standards, 31–* Consultant, Nat. Defense Research Cmt, 42. Chem. Soc; Optical Soc. Chemical microscopy; crystals and the factors influencing crystal growth; optical properties of crystals; methods of microscopical investigation; microscopy of rubber; seals of metals to glass; control of temperature under the microscope; dust and dust measurement.

Saylor, Prof. J(ohn) H(enry), Duke University, Durham, N. C. *Physical chemistry.* Lamar, Mo, July 22, 04. A.B, South. Methodist, 25; A.M, Duke, 28, Ph.D, 30. Instr, high sch, Mo, 25–26; asst. *chem, Duke,* 27–28, instr, 28–35, asst. prof, 35–42, *assoc. prof, 42–* A.A; Chem. Soc. (chairman, N. C. sect, 33); N. C. Acad. Physical chemistry of solutions.

Saylor, Lawrence W(ebster), U. S. Department of the Interior, Washington, D. C. *Biology.* Bremerton, Wash, July 30, 13. B.S, California, 34, M.S, 35; George Washington, 37–Junior forester, field branch of forestry, U. S. Nat. Park Service, 35–37; junior biologist, U. S. Biol. Surv, 37–39; *asst. biologist, fish and wildlife service, U. S. Dept. Interior, 39–; special asst. to chief, War Production Board, 42–* A.A; Soc. Mammal; Soc. Plant Taxon; Cactus and Succulent Soc; Wilson Ornith. Club; Cooper Ornith. Club; Pan-Pacific Entom. Club; Wash. Acad; Biol. Soc. Wash; Entom. Soc. Wash. Taxonomic zoology, especially coleopterology; taxonomic and ecologic botany, especially xerophytic plants; economic zoology and botany; food habits of birds and animals; conservation; systematic entomology.

Sayre, Dr. A(lbert) N(elson), U. S. Geological Survey, Washington, D. C. *Geology.* Granville, Ohio, Jan. 28, 01. B.S, Denison, 23; Kansas, 23–24; Ph.D, Chicago, 28. Asst. instr, Kansas, 23–24; instr, Pennsylvania, 26–29; asst. geologist, *U. S. Geol. Surv,* 29–35, assoc. geologist, 35–39, *geologist, 39–* A.A; Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Geol; Geophys. Union; Geol. Soc. Wash. Paleontology; fauna of the drum limestone of Kansas and Missouri; ground water hydrology; relation of drought to ground water supplies; geology and ground water supplies of Texas.

Sayre, Prof. Charles B(ovett), New York Agricultural Experiment Station, Geneva, N. Y. *Horticulture.* Chicago, Ill, Jan. 3, 91. B.S, Illinois, 13, M.S, 24. Asst. olericulture, Illinois, 13–14; asst. prof. veg. gardening, Purdue, 14–17; olericulture, Illinois, 20–25; assoc. hort, *N. Y. Exp. Sta, Geneva,* 25–28, *prof. and chief research veg. crops, 28–* Lieut. col, F.A, 17–20. Soc. Agron; Soil Sci. Soc; Soc. Hort. Sci. Vegetable culture; morphology in relation to quality; production of canning crops; changes in composition in the soil; placement and availability of fertilizers; effect of fertilizers on root development and on rotation, earliness and total yield.

Sayre, Dr. Geneva, Russell Sage College, Troy, N. Y. *Botany.* Guthrie, Iowa, June 12, 11. A.B, Grinnell Col, 33; A.M, Wyoming, 35; Ph.D, Colorado, 38. Asst. *biol,* Colorado, 35–38, instr, 39, 40; *Russell Sage Col,* 40–41, *asst. prof, 41–* A.A; Sullivant Moss Soc. Mosses.

Sayre, Dr. J(asper) D(ean), 328 Elm Drive, Wooster, Ohio. *Botany.* Townville, Pa, May 19, 93. A.B, Ohio State, 17, A.M, 20, Ph.D, 22. Asst. bot, Ohio State, 16–20, instr, 20–25, asst. prof, 25–27, asst. pathologist, Ohio Exp. Sta, 26–28; agent, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 28–31, *plant physiologist, 31–* Summers, asst, Katmai expeds, 17–20. A.A; Soc. Plant Physiol; Optical Soc; Ohio Acad. Mineral nutrition of corn.

Sayre, Prof. M(ortimer) F(reeman), Union College, Schenectady, N. Y. *Mechanical engineering.* Newark, N. J. July 14, 85. E.M, Columbia, 07. A.M, 12. Eng. work, 07–10, 11–14; from instr. to *prof. applied mech, Union (N. Y), 14–* Mech. Eng; Min. and Metal. Eng; Soc. Test. Mat; Soc. Metals; Eng. Educ; Welding Soc. Corrosion; aluminum alloys; stresses in vibrating bodies; elastic behavior in metals.

Scacciaferro, S(alvator) J(ohn), 277 Harding Ave, Clifton, N. J. *Civil and sanitary engineering.* C.E, Cornell, 21. Prof. sanit. eng, Manhattan Col, 24–26, 36–38; *consulting engineer, 26–* A.A; Pub. Health Asn; Royal Sanit. Inst. Biochemical oxygen demand of sewage; treatment of trade wastes; sewage treatment; sludge disposal.

Scalera, Dr. Mario, 17 Brown St, Somerville, N. J. *Organic chemistry.* Naples, Italy, Sept. 4, 09. B.S, Yale, 32, Ph.D, 35. Research chemist dyestuff intermediates, *Calco chem. div, Am. Cyanamid Co,* 35–39, *research group director vat dyestuffs, 39–* Chem. Soc; Inst. Chem. Anthraquinone chemistry; dyestuffs.

Scammon, Prof. Richard E(veringham), University of Minnesota, Minneapolis, Minn. ****Anatomy.* Kansas City,

Mo, July 9, 83. A.B, Kansas, 04, A.M, 06; Ph.D, Harvard, 09; LL.D, St. Thomas Aquinas, 33. Asst. zool, Kansas, 05–06, instr, 06–07; Austin teaching fellow comp. anat, Harvard Med. Sch, 07–09, instr. histol. and embryol, 09–10; asst. prof. anat, Kansas, 10–11; Minnesota, 11–13, assoc. prof, 13–14, prof, 14–30, acting director, 23–24; prof. anat. and dean div. biol. science, Chicago, 30–31; dean med. sciences, *Minnesota*, 31–35, *distinguished service prof, grad. sch, 35–* Benjamin Radeford Knox lecturer, Cincinnati, 33; Porter lecturer, Kansas, 34; De Lamar lecturer, Hopkins, 35. Pres, Minn. Board Examiners in Basic Sciences, 27–30. Assoc. ed, 'Am. Jour. Physical Anthrop'; 'Growth.' A.A; Soc. Nat; Asn. Anat. (v. pres, 28–30); Soc. Exp. Biol; Physiol. Soc; Statist. Asn; Math. Soc; Math. Asn; Asn. Physical Anthrop; Soc. Research Child Develop; Acad. Pediat; Minn. Acad. Med. Embryology of selachians; development of the liver and pancreas; anatomy of fetus and child; growth of man; analytic and graphic methods applied to study of growth and form; medical bibliography; history of science.

Scanlan, Sister Grace Margaret, College of St. Rose, Albany, N. Y. *Botany.* Syracuse, N. Y, Jan. 11, 06. B.S, Syracuse, 26; M.S, Catholic Univ, 39, Ph.D, 42. *Head biol. dept, Col. of St. Rose, 29–* The Cyperus of the Hawaiian Islands; systematic botany.

Scanlan, Dr. John T(homas), 528 Wyndmoor Ave, Chestnut Hill, Philadelphia, Pa. *Chemistry.* Omaha, Nebr, Oct. 8, 93. B.S, Illinois, 23; M.S, George Washington, 25, Ph.D, 29. *Org. chemist,* bur. chem, *U. S. Dept. Agr,* 23–39, *east. regional research lab, bur. agr. and indust. chem, 39–* Chem. Soc. (mem. exec. cmt. standardization biol. stains, 33–). Synthesis of dyes and dye intermediates; biological applications of dyes as stains, indicators, therapeutic agents and antiseptics; utilization of animal fats and oils; purification and chemical modification of fatty acids and their derivatives.

Scarborough, Prof. J(ames) B(laine), U. S. Naval Academy, Annapolis, Md. *Applied mathematics.* Mt. Gilead, N. C, June 22, 85. A.B, North Carolina, 13, fellow, 13–14, A.M, 14; Ph.D, Hopkins, 23. Asst. physics, North Carolina, 12–13; instr. *math,* N. C. State Col, 14–18; *U. S. Naval Acad,* 18–21, asst. prof, 21–28, assoc. prof, 28–37, *prof, 37–* A.A; Math. Soc; Math. Asn. Hydrodynamics; aerodynamics; numerical mathematics; ballistics.

Scarbrough, Dr. Marvin McRae, New Haven, Conn. *Medicine.* Creswell, Oregon, Sept. 10, 78. A.B, Oregon, 02; A.M, Yale, 05, M.D, 07. Instr. biol, Oregon, 02–03; pharmacol, Yale, 08–12, therapeut, 12–19, lecturer med. juris, 14–22; *med. examiner for New Haven, 10–; lecturer path, Yale, 29–* Pathologist, Grace Hosp, New Haven, 16–22, attending physician, 17–Internal medicine.

Scarlett, Prof. A(ndrew) J(ackson), Jr, Balch St, Hanover, N. H. *Physical chemistry.* West Boylston, Mass, March 17, 89. A.B, Dartmouth Col, 10; A.M, Columbia, 14, Ph.D, 17. Instr. *chem,* Dartmouth Col, 11–13; asst, Columbia, 14–17; instr, *Dartmouth Col,* 17–18, asst. prof, 18–25, *prof, 25–* Chem. Soc. Surface tension of mixed liquids; solid emulsifying agents; college chemistry.

Scarseth, Prof. G(eorge) D(ewey), Purdue University, Lafayette, Ind. *Soil chemistry.* Galesville, Wis, Oct. 7, 98. B.S, Wisconsin, 24; Yale, 25–26; Ph.D, Ohio State, 35. Soil surveyor, Wis. Soil Surv, 24–25; asst. soil chemist, Conn. Exp. Sta, 25–26; soil chemist, United Fruit Co, Honduras, 26–28; asst. prof. *soil chem,* Ala. Polytech, 28–35, *assoc. prof,* 35–38; *Purdue, 38–,* soil chemist, *Exp. Sta,* 38–43, *head dept. agron, 43–* Chem. Soc; Soc. Agron; Soil Sci. Soc. (pres, 36); Soil Sci. Soc. Ind. (pres, 39); Int. Soc. Soil Sci. The black belt soils of Alabama; nature of soil acidity and relation to silicon dioxide-sesquioxide ratio; percentage base saturation of different soils at definite hydrogen ion values; physical chemistry of the Susquehanna fine sandy loam profile; fixation of phosphates by soils and soil colloids; subtropical soil weathering in Alabama; plant tissue tests as diagnostic aids in determining nutrient status in plants; fertilizer placement; use of nitrogen in corn fertilizers; nutrient balances in plants.

Scarth, Prof. G(eorge) W(illiam), McGill University, Montreal, Que, Can. *Botany.* Orkney, Scotland, 81. M.A, Edinburgh, 03; D.Sc, McGill, 33. Asst. *bot,* Edinburgh, 07–11; from lecturer to *MacDonald prof, McGill, 20–* A.A; Bot. Soc; Soc. Plant Physiol; fel. Royal Soc. Can. (sec'y, sect. V, 31; pres, 35). Plant and general physiology; action of electrolytes on contraction, viscosity and permeability of protoplasm; microdissection; physiology of stomata; structure and permeability of wood; cold and drought resistance.

Scarth, Dr. V(irgil), Phillips Petroleum Co, Bartlesville, Okla. *Chemistry.* Okeene, Okla, Nov. 5, 05. A.B, Wichita, 28; M.S, Oklahoma, 29; Ph.D, Iowa, 31. Instr. chem, Geneva Col, 31–32; research chemist, Derby Oil Co, Wichita, Kans, 33–35; prof. chem. and head dept, Phillips, 35–38; assoc. prof. mech. eng. in charge petrol. eng, Okla. Agr. and Mech. Col, 38–43; *head tech. sect, patent dept, Phillips Petrol. Co, 43–* Chem. Soc; Chem. Eng. Catalytic effect of activated carbon on iron oxide in the purification of water gas.

Scatchard, Prof. George, Massachusetts Institute of Technology, Cambridge, Mass. ****Chemistry.* Oneonta, N. Y, March 19, 92. A.B, Amherst Col, 13; Goldschmidt fellow, Columbia, 15–16, Ph.D, 17. Asst. chem, Columbia, 14–15, 16–17; assoc. prof, Amherst Col, 19–23; nat. research fellow, *Mass. Inst. Tech,* 23–24, asst. prof. *physical chem,* 24–26, assoc. prof, 26–37, *prof, 37–* Guggenheim Mem. Foundation fellow, 31–32. Lieut, Sanit.C, 17–19. A.A. (v. pres. and chairman, C, 41); Chem. Soc. (chairman div. physical and inorg. chem, 38); Am. Acad. Organic and physical chemistry; synthesis of quinazolins; war gases; physical properties of mixtures of optically active components; reaction rate in solutions; mixtures of non-electrolytes; electrolytes in solution; liquid junction potentials.

Scattergood, Dr. Allen, 761 Vose Ave, Orange, N. J. *Organic chemistry.* Chicago, Ill, July 9, 10. A.B, Columbia, 33; Ph.D, Princeton, 40. *Instr. chem, Union Junior Col, 36–; research assoc, Princeton, 41–* Chem. Soc. Carbohydrates.

Scattergood, Dr. E(zra) F(rederick), Department of Water and Power, 207 S. Broadway, Los Angeles, Calif. *Electrical engineering.* Burlington Co, N. J, April 9, 71. B.S, Rutgers, 93, M.S, 96, Sc.D, 31; fellow, Cornell, M.M.E, 99. Instr, Rutgers, 95–98; prof. elec. eng, Ga. Tech, 99–01; elec. engineer, Calif, 01–09; chief elec. engineer and gen. manager bur. power and light, *dept. water and power, Los Angeles,* 09–40, *advisory engineer, 40–* Lecturer, Stanford, 26– Nat. prize, Am. Inst. Elec. Eng, 35. Elec. Eng; Seismol. Soc. Engineering features of Boulder Dam-Los Angeles lines.

Schaad, Dr. John A, Herzl Junior College, Chicago, Ill. *Analytical chemistry.* Bath, Ill, Oct. 8, 06. B.S, Illinois, 31, Bauer and Black fellow, 33–35, Ph.D, 36. Asst. chem, Illinois, 35–36; *instr.* chem, Armour Inst. Tech, 36–39; *physical science, Herzl Junior Col, 39–* Chem. Soc. X-ray diffraction of the structure of collagen and its derivatives.

Schaad, Dr. R(aymond) E(ugene), Universal Oil Products Co, 310 S. Michigan, Chicago, Ill. *Organic chemistry.* Kirkersville, Ohio, Feb. 23, 01. B.S, Denison, 22; A.M, Ohio State, 24, fellow, Ph.D, 26. Asst, Ohio State; research chemist, *Universal Oil Products Co,* 26–38, *patents and develop, 38–* Visiting prof, grad. sch. evening course, Ill. Inst. Tech, 41–42. Chem. Soc; fel. Inst. Chem. Knock suppression; olefin polymerization; butene isomerization.

Schaaf, Prof. W(illiam) L(eonard), Bedford Ave, Brooklyn, N. Y. *Mathematics, Education.* New York, N. Y, Nov. 15, 98. B.S, Columbia, 19, A.M, 20, Ph.D, 28. Instr. math, prep. high sch, Col. City of N. Y, 25–32; *educ, Brooklyn Col,* 32–36, *asst. prof, 36–* A.A. Teaching of mathematics and science; mathematical education; training of teachers.

Schaak, Dr. Milton Franklin, 133 S. Seventh St, Lebanon, Pa. *Chemistry.* Lebanon, Pa, April 13, 67. Ph.G, Phila. Col. Pharmacy, 91; Ph.D, Strassburg, 97. Indust. chemist in charge control and research lab, Charles Pfizer and Co, 98–14; *consulting chemist, 14–* A.A; Chem. Soc; Pharmaceut. Asn; Chemists' Club. Unsaturated aliphatic acids and lactones; boric acid determination; citric acid; citrus by-products.

Schaal, Dr. L(awrence) A(rthur), U. S. Department of Agriculture, Greeley, Colo. *Plant pathology.* Manhattan, Kans, Oct. 19, 00. B.S, Kans. State Col, 24; M.S, Minnesota, 25, Ph.D, 41. Asst. pathologist *potato diseases, div. hort. crops and diseases, field lab, bur. plant indust, U. S. Dept. Agr,* 26–35, *assoc. pathologist, 35–* Potato Asn; Phytopath. Soc; Bot. Soc. Wash. Fungus and bacterial diseases of potatoes; common scab disease; breeding and testing of potato varieties resistant to scab, psyllid yellows and Fusarium wilt.

Schaar, B(ernard) E(dward), 754 W. Lexington St, Chicago, Ill. *Chemistry.* Cincinnati, Ohio, April 1, 84. Chem.E. Cincinnati, 08. Chemist, Morris and Co, *Chicago,* 08; Dept.

Health, 09; *pres, Schaar and Co, 09–* Managing ed, 'The Chem. Bul,' 23–33. V. chairman, Chicago Tech. Societies Council, 43. A.A; Chem. Soc. (chairman, Chicago sect, 31, councilor); fel. Inst. Chem; Asn. Sci. Workers (pres, Chicago branch, 42); Soc. Test. Mat. Science and social relations.

Schacht, Dr. Franklin L, State Office Bldg, Albany, N. Y. *Bacteriology.* Racine, Wis, Feb. 3, 99. B.S, Beloit Col, 24; M.S, Wisconsin, 29, Chicago Med. Milk Cmn. fellow, 29–30, Ph.D, 30. Bacteriologist, food lab, State Dept. Agr. and Markets, N. Y, 30–34; dist. sanitarian, *State Dept. Health, N. Y,* 34–37, *supervising inspector, 37–* Bacteriology of milk; bacteriological control of food products.

Schachter, Dr. B(enjamin), 322½ Bloor St, W, Toronto, Ont, Can. *Biochemistry.* Ft. Francis, Ont, Feb. 23, 14. B.A, McMaster, 34; Ph.D, Toronto, 39. Grant, Banting Research Foundation, Toronto, 35–40; *research biochemist, Can. Packers Ltd, 40–* Can. Chem. Asn. Isolation and identification of female sex hormones and related substances; synthesis and isolation of vitamins from natural sources.

Schade, Dr. Arthur L, Overly Bio-Chemical Research Foundation, Inc, 254 W. 31st St, New York, N. Y. *Microbiology.* New York, N. Y, Feb. 12, 12. A.B, Harvard, 34, A.M, 38, Ph.D, 39; Iowa State Col, 35–36; Idaho, 36–37. Asst. plant pathologist, U. S. Dept. Agr, Idaho, 36–37; *microbiologist,* Wallerstein Labs, Inc, 39–42; *Overly Bio-Chem. Research Foundation, Inc, 42–* Bot. Soc; N. Y. Acad. Parasitic fungi of Idaho; the watermold Leptomitus; enzyme production by microorganisms for industrial purposes; industrial fermentations of yeasts and bacteria; anti-biotic substances; bacteriophagy and bacillary dysentery.

Schaefer, H(erbert) C(arl), 7478 Amherst Ave, University City, Mo. *Biological chemistry.* Calumet Co, Wis, Aug. 19, 00. B.S, Wisconsin, 25, M.S, 27. Asst, Wisconsin, 25–27; *manager biol. labs, Ralston Purina Co, 27–* Lecturer, Washington (St. Louis), 42–43. Chem. Soc; Poultry Sci. Asn; Inst. Food Technol. Nutritional requirements of chickens, ducks, turkeys, dogs and laboratory animals; vitamin assay; animal nutrition.

Schaefer, Dean Hugo H(erman), Brooklyn College of Pharmacy, Brooklyn, N. Y. *Pharmaceutical chemistry.* Brooklyn, N. Y, July 3, 91. Ph.G, Ph.Ch, Columbia, 12, Phar.D, 13; Ph.D, Berne, 25. Chemist, N. Y. Quinine and Chem. Works, 14–16; instr, col. pharmacy, Columbia, 16–21, asst. prof. chem, 21–27, assoc. prof, 27–37, director chem. lab; *dean, Brooklyn Col. Pharmacy, 37–* Pharmaceut. Asn. (treas, 41–). Qualitative chemical analysis.

Schaefer, Prof. Joseph E(rnest), 55 E. Washington St, Chicago, Ill. *Oral surgery.* Muscatine, Iowa, July 3, 88. D.D.S, Chicago Col. Dental Surg, 07; LL.B, Chicago-Kent Col. Law, 13; B.S, Lewis Inst. (Ill), 19; M.D, Rush, Chicago, 24. Assoc. prof. prosthetic dentistry and prof. dental juris, Chicago Col. Dental Surg, 07–17; intern, Presbyterian Hosp, Chicago, Ill, 23–24; assoc. prof. oral surg, Illinois, 24–25; res. plastic surg, V. P. Blair, St. Louis, Mo, 25–26; *oral surg,* Cook County Hosp, 26–27; *assoc. prof, dental sch, Northwestern, 27–; private practice.* Attending oral surgeon, Cook County Hosp. Capt, D.C, 17–19. Fel. Col. Dentists; Chicago Dental Soc. (director, 28–31, treas, 29, v. pres, 30, pres, 33). Biological problems related to oral surgery.

Schaefer, Prof. Paul E(verett), University of New Hampshire, Durham, N. H. *Invertebrate embryology.* Barberton, Ohio, Sept. 18, 05. A.B, Bethany Col. (W. Va), 26; Yale, 28–30; M.S, Ohio State, 31, Ph.D, 36. Teacher, junior high sch, Ohio, 27–28; asst. zool, Ohio State, 30–31, instr. zool. and entom, 31–41; *asst. prof. zool, New Hampshire, 41–* Summer, asst, Franz Theodore Stone Lab, Ohio State, 30; tech. asst, Arlington Exp. Farm, Va, 31. A.A. (research assoc, cmt. improv. science in gen. educ, 38–39); Entom. Soc. Amer; Ohio Acad. Development of the nervous system in insects.

Schaefer, Dr. R(alph) A(nthony), 1764 N. Noble, East Cleveland, Ohio. *Physical chemistry.* Grafton, Ohio, Aug. 16, 13. A.B, Western Reserve, 35, M.S, 36, Ph.D, 41. *Chem. research and develop, Cleveland Graphite and Bronze Co, 36–* Chem. Soc; Electrochem. Soc; Electroplaters Soc; Faraday Soc. Pickling, cleaning and fluxing of ferrous and non-ferrous metals; powdered metallurgical development; electrochemical development and research of heavy deposits of metals and electroplated alloys for bearing purposes.

Schaefer, Dr. Vernon G, RCA Victor Co, Lancaster, Pa. *Industrial psychology.* Tonica, Ill, Jan. 1, 04. A.B, N. Cent. 98

Col, 26; A.M, Chicago, 30; Ph.D, Northwestern, 37. Teacher, high sch, Ill, 26–28, teacher zool. and head dept. science, Roosevelt High Sch, Chicago, 28–37; teacher indust. psychol, exten. div, Pa. State Col, 37–40, in charge supervisory training in indust, 40–43; *personnel director, RCA Victor Co, 43–* Instr, evening schs, Chicago, Ill, 29–37. Assoc. Psychol. Asn; Asn. Applied Psychol; East. Psychol. Asn; Midwest. Psychol. Asn. Industrial supervision and training; safety promotion in industry.

Schaefer, Dr. W(alter) H(erbert), 617 Drake St, San Antonio, Texas. *Zoology.* Tacoma, Wash, May 1, 02. A.B, Wisconsin, 30, A.M, 32, Ph.D, 34. Asst. *zool,* Wisconsin, 30–32, 34–35; prof, Salem Col, 35–38; Wartburg Col, 38–41; teacher, high sch, Iowa, 41–43; East. Ill. State Teachers Col, 43; *officer, Air Corps, U. S. Army, 43–* Assoc. Soc. Zool; assoc. Iowa Acad. Endocrinology; pituitary and thyroid glands of reptiles.

Schaeffer, Prof. Albert C(harles), 430 Addison Ave, Palo Alto, Calif. *Mathematics.* Belvidere, Ill, Aug. 13, 07. B.S, Wisconsin, 30; Ph.D, Mass. Inst. Tech, 36. Engineer, State Highway Cmn, Wis, 30–33; instr. *math,* Purdue, 36–39; *Stanford,* 39–41, asst. prof, 41–43, *assoc. prof, 43–* Hydromechanics; complex variables.

Schaeffer, Prof. Asa A(rthur), Temple University, Philadelphia, Pa. *[4]*Zoology, Physiology.* Kunkletown, Pa, May 9, 83. A.B, Franklin and Marshall Col, 04; fellow, Hopkins, 08–09, Ph.D, 09. Instr. zool, Tennessee, 09–10, asst. prof, 10–13, assoc. prof, 13–17, *prof,* 17–23; biol, Clark, 23–24; zool, Kansas, 24–31; *biol. and chairman dept, Temple, 32–* Summers, instr, marine biol. lab, Brooklyn Inst, 08–12, research staff, Cold Spring Harbor, 29–; with Carnegie Institution, 19–30. Assoc. ed, 'Jour. Morphol,' 24–27. A.A; Soc. Nat; Soc. Zool; Physiol. Soc. Phila. Feeding habits and taxonomy of amebas; molecular organization of protoplasm; spiral movements in man and other organisms; stereo-biology; spiral and circular drift in projected fields of space senses; spiral movement mechanism in 'blind' flying; spiral movements in leucocytes of man, other vertebrates and mollusks.

Schaeffer, Dr. Benjamin B(ernhard), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Organic chemistry.* Syracuse, N. Y, April 21, 96. B.S, Syracuse, 24; M.S, Polytech. Inst. Brooklyn, 34, fellow, 34–36, Ph.D, 36. Anal. chemist, Church and Dwight Co, Syracuse, N. Y, 24–26; *research chemist,* Max Henkels Lab, Brooklyn, 27–34; United Gas Improv. Co, 37–42; *east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Chem Soc; Franklin Inst; Chemists' Club. Chemical constitution of shellac; solvent fractionation of shellac; separation of the constituent acids of shellac; conversion of redwood into pulp for papermaking; commercial utilization of hydrocarbon oils and derivatives therefrom; chemical modification of fats and oils; utilization of glyceride oils and derivatives.

Schaeffer, Prof. Carl L(awyer), Westminster, Md. *Physics.* Silver Run, Md, Sept. 11, 92. A.B, Western Maryland Col, 14; B.S. Hopkins, 17. *Prof. physics, Western Maryland Col, 19–* F.A, U.S.A, 18–19.

Schaeffer, Dr. Elizabeth White, 90 Douglas Road, Rochester, N. Y. *Zoology.* Livingston Co, N. Y, Aug. 19, 13. A.B, Rochester, 35; A.M, Columbia, 37; Ph.D, Pennsylvania, 42. *Research asst. zool, Rochester, 42–* A.A; Genetics Soc. Genetics; Habrobracon; Drosophila.

Schaeffer, Prof. Florence L(ouise), Woman's College, University of North Carolina, Greensboro, N. C. *Chemistry.* Jersey City, N. J, April 13, 00. A.B, Barnard Col, Columbia, 20; fellow, Mt. Holyoke Col, 20–22, A.M, 22; Chicago; Yale. Asst. *chem,* Mt. Holyoke Col, 20–22; instr, *Woman's Col, North Carolina,* 22–24, asst. prof, 24–26, assoc. prof, 26–34, *prof. and head dept, 34–* Chem. Soc; N. C. Acad. Polypeptide hydantoins; isomerism of imides; antiseptics.

Schaeffer, Harold F(ranklin), University of Missouri, Columbia, Mo. *Chemistry.* Philadelphia, Pa, Sept. 21, 99. B.S, Muhlenberg Col, 22; M.S, New Hampshire, 26; Pittsburgh, 38; West Virginia, 41. Teacher, high sch, Pa, 22–24; asst. agr. chem, New Hampshire, 24–26; prof. *chem,* Waynesburg Col, 26–40, head dept, 40–42; *instr, Missouri, 42–* Chem. Soc; Inst. Chem; Pa. Chem. Soc; Chemists' Club. Chemical microscopy.

Schaeffer, Prof. J(acob) Parsons, Jefferson Medical College, Philadelphia, Pa. *[7]*Anatomy, Embryology.* Shamokin Dam, Pa, Aug. 20, 78. Cent. Pa. Col, 97; B.E, Keystone Nor, 01, M.E, 03; M.D, Pennsylvania, 07; A.M, Cornell, 09, Ph.D,

10; hon. A.M, Yale, 13; hon. Sc.D, Susquehanna, 25. Prin, pub. schs, Pa, 01–03; demonstrator med. anat, Cornell, 07–08, instr, 08–10, asst. prof, 10–11; anat, Yale, 11–12, prof, 12–14; *prof. anat. and director, Daniel Baugh inst, Jefferson Med. Col, 14–* Gold medal, Am. Med. Asn, 31. A.A; Asn. Anat; Am. Med. Asn; cor. fel. Laryngol. Asn; Genetic Asn; Philos. Soc; Col. Physicians Phila; Acad. Nat. Sci. Phila. The human nose; the olfactory organ; paranasal sinuses and nasolacrimal passageways in man; nasofrontal region; elastic tissue; ductus arteriosus; obliteration of blood-vessels; lacrimal apparatus; the visual pathway; the hypophysis cerebri; ligature of blood-vessels; intravascular clotting; the respiratory system; the human palate; individual anatomy in man; atresia of the nasal fossae; anatomy in roentgenology.

Schaeffer, Dr. J(ohn) R(ichard), Procter and Gamble Co, Ivorydale, Ohio. *Organic chemistry.* Belvidere, Ill, Jan. 8, 12. B.S, Illinois, 35; Procter and Gamble fellow, Ohio State, 37–38, Ph.D, 38. *Research chemist, Procter and Gamble Co, 38–* Chem. Soc. Synthetic detergents.

Schaeffer, Dr. Morris, 1073 Hopkinson Ave, Brooklyn, N. Y. *Bacteriology.* New York, N. Y, Dec. 31, 07. A.B, A.M, Alabama, 30; fellow, Washington (St. Louis), 31–32; Ph.D, N. Y. Univ, 35. Instr. bacter, col. med, N. Y. Univ, 33–36, lecturer, 36–37; research assoc, Dept. Health, New York, 36–41; mem, Pub. Health Research Inst, 41–42. Bacteriologist, Dept. Health, New York, 35–36. A.A. Filterable viruses; poliomyelitis; influenza; wound infections.

Schafer, Dr. Alice T(urner), 37 Nameaug Ave, New London, Conn. *Mathematics.* Richmond, Va, June 18, 16. A.B, Richmond, 36; M.S, Chicago, 40, Ph.D, 42. Teacher, high sch, Va, 36–39; *instr. math, Conn. Col, 42–* Projective differential geometry; singularities of space curves.

Schafer, E(arl) R(ogers), U. S. Forest Service, Madison, Wis. *Chemical engineering.* Liberty, Ind, April 25, 92. B.Ch.E, Ohio State, 17. Analyst, Procter and Gamble Co, 17, research chemist, 19–20; assoc. engineer *pulp and paper, Forest Products Lab, U. S. Forest Service,* 21–36, engineer, 36–42, *senior engineer, 42–* Asn. Pulp and Paper Indust. Pulp and paper; pulping of fibrous plants; fundamental variables in the mechanical process of pulping wood; mechanical pulps from new species of wood; pulp and paper mill wastes; physical and chemical properties of pulpwoods.

Schafer, Prof. E(dwin) G(eorge), State College of Washington, Pullman, Wash. *Agronomy.* Jewell, Kans, Feb. 18, 84. B.S, Kans. State Col, 07; M.S, Illinois, 10. Asst. agron, Kans. State Col, 07–09, instr. farm crops, 10–13; *prof. farm crops, State Col. Wash, and agronomist, Exp. Sta, 13–, head dept.* farm crops, 17–28, *agron, 28–* A.A; Soc. Agron; Northwest Sci. Asn. Farm crops; weeds; crop improvement; crop rotation.

Schafer, J(ohn) Peter, 209 Pinecrest Road, Oakhurst, N. J. *Radio engineering.* Brooklyn, N. Y, Oct. 29, 97. B.S, Cooper Union, 21, E.E, 25. *Radio engineer, West. Elec. Co. and Bell Tel. Labs, New York, 15–* Radio Eng. Radio propagation in reference to the structure of the ionosphere.

Schafer, Paul A(bbott), Box 249, Baguio, Mt. Province, P. I. *Geology.* Eugene, Oregon, July 4, 01. A.B, Wisconsin, 25; A.M, Hamilton Col, 27; fellow, Harvard, 27–31. Instr. geol, Hamilton Col, 25–27; asst. and instr, Harvard, 27–31; asst. prof, Mont. Sch. Mines, 31–35; geologist, State Bur. Mines and Geol, Mont, 35–37; *chief geologist, Balatoc Mining Co, 37–* Mont. Soc. Eng. Geology and theories concerning the origin of the Wisconsin lead and zinc deposits; geology and ore deposits of the Tobacco Root Mountains; the Neihart district, Montana; chromite deposits of Montana.

Schaffer, Jacob M, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* New York, N. Y, July 20, 95. B.S, George Washington, 18, M.S, 22. Chemist and *senior chemist, biochem. div, bur. animal indust, U. S. Dept. Agr, 18–, asst. chief office plant and operations.* Chem. Soc. Disinfectants, anthelmintics and diagnostic agents for animal diseases.

Schaffert, Dr. R(oland) M(ichael), 505 King Ave, Columbus, Ohio. *Physics.* Minden, Iowa, Nov. 9, 05. A.B, Doane Col, 30; Laws fellow, Cincinnati, 30–33, A.M, 31, Ph.D, 33. Instr. physics, Duquesne, 34–35, asst. prof, 35–36; research physicist, Mergenthaler Linotype Co, 36–41; *research engineer, Battelle Mem. Inst, 41–* Summer, research and consulting, Sinclair Ref. Co, 34. A.A; Physical Soc; Soc. Rheol; Soc. Metals. Construction of thermopiles by electrodeposition; thermomagnetic effects; ruling gratings; infra-red absorption spectra and molecular structure; analysis of petroleum products by infra-red absorption spectra; differential equations; electronic and nuclear physics; type casting and printing processes; electrotyping.

Schaffner, J(ohn) V(alentine), Jr, 56 Hillhouse Ave, New Haven, Conn. *Entomology.* Boston, Mass, June 26, 88. Mass. Col, 11. Deputy tree warden and local supt. moth work, Dover, Mass, 06–09; inspector moth work, Commonwealth of Mass, 09, asst, gipsy moth lab, 09–11; *bur. entom. and plant quarantine, U. S. Dept. Agr, 11–, assoc. entomologist, div. forest insects, 38–* Asn. Econ. Entom; Soc. Foresters. Forest insects, particularly defoliators and their natural enemies.

Schaffner, Dr. R(obert) M(ichael), 7000 East End Ave, Chicago, Ill. *Chemical engineering.* Brooklyn, N. Y, Jan. 30, 15. B.Ch.E, Polytech. Inst. Brooklyn, 36; M.S, West Virginia, 39; Ph.D, Pittsburgh, 41. Chem. engineer, A. Hess and Co, New York, 36–37; asst. chem. eng, West Virginia, 37–39; instr, Pittsburgh, 39–41; chem. engineer, research dept, Standard Oil Co, Ind, 41–43; *chem. engineer and head food dehydration, Miner Labs, 43–* Chem. Soc; Chem. Eng; Eng. Educ; Inst. Food Technologists. Unit operations; drying; high vacuum rectification; food dehydration.

Schalble, Dr. Philip J(ohn), 221 Cedar St, East Lansing, Mich. *Biochemistry.* Albany, N. Y, Feb. 7, 99. Chem.E, Rensselaer Polytech, 20; A.M, Columbia, 24; George Alexander fellow, Albany Med. Col, Union (N. Y), 28–30; Ph.D, Cornell, 31. Ludlum Steel Co, 20–21; Intravenous Products of Amer, 21–22; Gibson Snow Co, 22–23; div. labs. and research, State Dept. Health, N. Y, 24–27; Bender labs, Albany Med. Col, Union (N. Y), 27–30; *research assoc. chem, Exp. Sta, Mich. State Col, 32–* A.A; Chem. Soc; Inst. Chem; Poultry Sci. Asn. Nutrition; blood and egg chemistry; mineral metabolism; vitamins.

Schairer, Dr. J(ohn) F(rank), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington 8, D. C. **Geology.* Rochester, N. Y, April 13, 04. B.S, Yale, 25, M.S, 26, Ph.D, 28. Asst. chem, Yale, 25–27; *physical chemist, research staff, geophys. lab, Carnegie Institution, 27–* Exec. cmt, div. geog. and geol, Nat. Research Council, 37– Chem. Soc; fel. Miner. Soc. (pres, 43); fel. Geol. Soc. Mineralogy; petrology; physical chemistry.

Schales, Dr. Otto, 721 Huntington Ave, Boston, Mass. *Chemistry.* Frankfurt, Germany, Dec. 27, 10. B.Sc, Frankfurt, 29, J. Liebig fellow, 35, D.Sc, 35. Teaching fellow chem, Frankfurt, 34, asst. org. chem, 35; assoc. pharmacol, Dorpat, 36–38; biochem, Copenhagen, 38; research fellow *med, Harvard,* 39–41, *research assoc, 41–, tutor biochem. sciences, 41–* Chemist, Peter Bent Brigham Hosp, 39– A.A; Chem. Soc; Optical Soc; N. Y. Acad. Ethylamines; iron metabolism; blood pigments; chemiluminescence; microanalytical methods; catalytic reactions; biochemistry of hypertension; organic and clinical chemistry.

Schalk, Prof. A(rthur) F(rederick), Ohio State University, Columbus, Ohio. *Hygiene, Veterinary medicine.* Hamilton, Ohio, June 19, 80. D.V.M, Ohio State, 08; Chicago. Bur. animal indust, U. S. Dept. Agr, 08–10; asst. prof. vet. science, N. Dak. Col, 10–16, prof, 16–18, head sch. vet. science and veterinarian, Exp. Sta, 18–30; *prof. hygiene and prev. vet. med, Ohio State, 30–* Bacteriologist, N. Dak. Live Stock Sanit. Board, 18–30; director, N. Dak. State Serum Inst, 18–30. Sec'y-treas, Conf. Official State and Fed. Research Workers Animal Diseases N. Amer, 27–36, pres, 36–37. Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Ohio State Vet. Med. Asn; N. Dak. Acad; Int. Vet. Cong. Avian tuberculosis; infectious anemia in horses; physiology of the ruminant stomach; parasitic anaphylaxis; sweet clover disease.

Schalk, Dr. Marshall, 74 High St, Northampton, Mass. *Geology.* Boston, Mass, April 25, 07. A.B, Harvard, 29, Ph.D, 36; fellow, Oceanog. Inst, Woods Hole, summers, 33, 34. Asst. geologist, Montezuma Copper Co, Sonora, 29–30; instr. geol, Smith Col, 34–36; asst. geologist, Gulf Oil Corp, Pa, 36–41; *asst. prof. geol, Smith Col, 41–* Summers, fellow, Oceanog. Inst, Woods Hole, 33, 34. Min. and Metal. Eng. Sedimentation.

Schall, Dr. LeRoy A(llen), Massachusetts Eye and Ear Infirmary, Boston, Mass. *Otolaryngology.* Latrobe, Pa, Oct. 15, 92. M.D, Jefferson Med. Col, 17; hon. A.M, Harvard, 42. Contract surgeon, acting asst. surgeon, passed asst. surgeon, U. S. Pub. Health Service, and otolaryngologist, U. S. Veterans, Hosp, Boston, 20–23; clin. asst, *Mass. Eye and Ear In-*

primary and Mass. Gen. Hosp, 23–25, asst. surgeon, 25–29, assoc. surgeon, 29–35, surgeon, 35–39, *chief otology and laryngol, 39–; Walter Augustus Lecompte prof. otology and prof. laryngol, Harvard Med. Sch, 39–* Lieut, M.C, 17–19. Director, Am. Board Otolaryngol, 40– Fel. Am. Med. Asn. (v. chairman, sect. otolaryngol, 37, sec'y, 38–40, chairman, 40); Bronchoscopic Soc. (v. pres, 34, councilor, 37–41); Laryngol, Rhinol. and Otol. Soc; Acad. Ophthal. and Otolaryngol. (v. pres, 34); Col. Surg; Otol. Soc; Laryngol. Asn. Cavernous sinus thrombophlebitis; tumors of the nasopharynx; cancer of the nose and sinuses; malignant tumors of salivary glands; foreign bodies in the air and food passages; sinus pathology; malignancy; use of heparin in otolaryngology; dyspnoea due to congenital anomaly of the aorta; unusual tumors of the upper respiratory tract.

Schaller, Dr. Waldemar T(heodore), U. S. Geological Survey, Washington, D. C. **3*Mineralogy*. Oakland, Calif, Aug. 3, 82. B.S, California, 03; Ph.D, Munich, 12. *Mineralogist, U. S. Geol. Surv, 03–* Roebling gold medal, Mineralogical Soc. of Amer, 38. A.A; Miner. Soc. (v. pres, 21, pres, 26, treas, 31–41); Chem. Soc; Geol. Soc; Min. and Metal. Eng; Am. Acad; hon. mem. N. Y. Miner. Club; Geol. Soc. Wash. (v. pres, 34, pres, 35); Wash. Acad. (v. pres, 36); Miner. Soc. Gt. Britain and Ireland; Deuts. Miner. Gesell; Soc. française de Miner; Wien Miner. Gesell. Chemical, crystallographical and optical mineralogy; petrology.

Schaller, Dr. Walter F(rank), 909 Hyde St, San Francisco, Calif. *Neuropsychiatry*. Oshkosh, Wis, Oct. 6, 79. Virginia, 98–99; M.D, Cooper Med. Col, 02. *Clin. prof. med, sch. med, Stanford, 13–* Commander, M.C, U.S.N.R, retired. Neur. Asn. (2nd v. chairman, 22); Asn. Psychiat; Am. Med. Asn. (v. chairman, sect. nervous and mental diseases, 22–24, chairman, 24); Asn. Research Nervous and Mental Disease; Pacific Asn. Ry. Surg; Calif. Acad. Med; North. Calif. Neuropsychiat. Soc. (pres, 15). Clinical and pathological studies in neurology.

Schalm, Dr. O(scar) W(illiam), University of California, Berkeley, Calif. *Veterinary science*. Sturgis, Mich, Aug. 28, 09. D.V.M, Mich. State Col, 32; M.S, California, 33, Ph.D, 35. Asst. *vet. science, California*, 32–36, instr, 36–40, *asst. prof, 40–* Vet. Med. Asn; Calif. Vet. Asn; Int. Asn. Med. Mus. Poultry pathology, especially with reference to respiratory diseases; mastitis of dairy cattle.

Schamp, Dr. Harvey M, 344 14th St, San Francisco, Calif. *Physiology*. San Antonio, Texas, July 18, 14. B.S, Illinois, 36; scholar, Chicago, 36–37, fellow, 37–39, Ph.D, 39. Asst. physiol, Chicago, 37–39; *instr.* pharmacol, med. sch, George Washington, 39–40; *physiol, Col. Physicians and Surg, San Francisco, 40–* Adrenals; experimental caries.

Schantz-Hansen, Prof. T(horvald), Forest Experiment Station, Cloquet, Minn. *Forestry*. Cedar Falls, Iowa, Dec. 2, 91. B.S, Minnesota, 15; M.F, Yale, 17, Ph.D, 35. Forest asst, U. S. Forest Service, 15–17; *prof. forestry, forest exp. sta, Minnesota, 19–* Soc. Foresters. Condition of cut-over lands; forest planting; methods of cutting; thinning; control of damping-off; forest management.

Schanzle, W(illiam) F(red), 3380 Ault View Ave, Cincinnati, Ohio. *Engineering*. Cincinnati, Ohio, Aug. 31, 03. Chem.E, Cincinnati, 27. *Chem. engineer, Procter and Gamble Co, 27–* Chem. Soc. Oils; fats; soaps; glycerin.

Schappelle, Dr. N(ewell) A(llen), Hamburg, Pa. *Plant physiology*. Hamburg, Pa, May 21, 05. B.S, Mass. State Col, 28; Ph.D, Cornell, 34. Assoc. plant physiologist, Exp. Sta, Clemson Col, 36–38; *plant physiologist, Exp. Sta, Puerto Rico, 38–* Light quality effect on photoperiodism; water culture study on mineral requirements of cotton and pineapple; effect of waxing on shipped pineapples.

Scharrer, Dr. Ernst A(lbert), 2109 Adelbert Road, Cleveland, Ohio. *Anatomy*. Munich, Germany, Aug. 1, 05. Ph.D, Munich, 27, M.D, 33. Asst. zool, Munich, 28–29; Sterling fellow, Yale, 29–30; asst, Vienna, 30–31; research worker, Brain Research Inst, Munich, 31–33; asst. in charge neurological inst, Frankfurt, 33–37; Rockefeller fellow anat, Chicago, 37–38; fellow physiol, Rockefeller Inst. Med. Research, 38–40; *asst. prof, dept. anat, sch. med, Western Reserve, 40–* A.A; Asn. Anat. Neurosecretion; cerebral circulation; comparative physiology and anatomy of sense organs.

Schattenberg, Dr. Herbert John, Medical and Surgical Memorial Hospital, 215 Camden St, San Antonio, Texas. *Pathology*. Boerne, Texas, July 14, 95. M.D, Baylor, 31; M.S, Tulane, 38. Director bur. labs, San Antonio, Texas, 19–24; assoc. prof. bacter. and path, Tulane, 31–42; *director bur. labs, Med. and Surg. Mem. Hosp, 42–; consultant path, State Health Dept, Texas, 42–* Asst. director, State Bur. Labs, Texas, 31. Senior visiting pathologist and director Tulane unit, Charity Hosp, New Orleans, 31–42. Soc. Exp. Biol; Soc. Exp. Path; Asn. Path. and Bact; Soc. Bact; fel. Col. Physicians; fel. Soc. Clin. Path. Agranulocytic angina; immunity; sedimentation rate of red cells; ovarian tumors; Bacillus violaceus infection; embryonic rest tumors of the lung; bronchomonoliasis.

Schaub, Dr. I(ra) O(bed), North Carolina State College, Raleigh, N. C. *Soils*. Stokes Co, N. C, Sept. 28, 80. B.S, N. C. State Col, 00; Hopkins, 00–03; Sc.D, Clemson Agr. Col, 37. Asst. chemist, Exp. Sta, Illinois, 03–05; asst. prof. soils, Iowa State Col, 05–09; boys and girls club leader, N. C. State Col, 09–13; supt. farm demonstration work, Frisco Ry, 13–18; field agent, U. S. Dept. Agr, 18–24; *dean agr. and director agr. exten, N. C. State Col, 24–* Soil fertility.

Schaumann, Dr. Holger H(einrich), 101 Kells Ave, Newark, Del. *Physical chemistry*. Chadron, Nebr, March 5, 06. B.S, Nebr. State Teachers Col, 29; M.S, Nebraska, 31, fellow, 32–33, Ph.D, 33. Asst, Nebraska, 29–33; *research chemist, E. I. du Pont de Nemours and Co, Wilmington, 34–* Summer, instr, Nebr. State Teachers Col, Chadron, 31. Chem. Soc. Phase rule; phosphorescence; white pigments.

Schear, Prof. E(dward) W(aldo) E(merson), 107 W. Park St, Westerville, Ohio. *Biology*. New Philadelphia, Ohio, Oct. 31, 80. A.B, Otterbein Col, 07; A.M, Columbia, 15; Ph.D, Ohio State, 28. Prof. nat. science, Westfield, 07–11, pres, 11–12; *prof. biol, Otterbein Col, 12–* A.A; Entom. Soc; Ornith. Union; Eugenics Research Asn; Genetic Asn; Ohio Acad. Hereditary relations of reaction time; influence of cocaine and temperature changes on blood sugar; self- and cross-pollination.

Schechter, Prof. Victor, College of the City of New York, New York, N. Y. *Biology*. New York, N. Y, April 9, 07. B.S, Col. City of N. Y, 27; A.M, Columbia, 30, Ph.D, 34. Librarian, *Col. City of N. Y*, 25–27, tutor *biol*, 27–34, instr, 34–40, *asst. prof, 40–* Soc. Zool; N. Y. Asn. Biol. Teachers. Experimental morphology; cellular physiology.

Schechtman, Dr. A(be) Mandel, University of California at Los Angeles, Los Angeles, Calif. *Zoology*. Chicago, Ill, Oct. 9, 09. A.B, California at Los Angeles, 31; fellow, California, 32–34, Ph.D, 34. Teaching fellow *zool*, California, 31–32; instr, *California at Los Angeles*, 34–42, *asst. prof, 42–* A.A; Soc. Exp. Biol; West. Soc. Nat. Experimental embryology; Amphibian carcinogenesis.

Scheck, Prof. M. George, 104 Warwick Ave, Rochester, N. Y. *Psychology*. Rochester, N. Y, April 23, 95. A.B, Rochester, 20; A.M, Princeton, 22; Ph.D, Cornell, 24. *Prof. psychol*, Drake, 24–26; Bowling Green State Col, Ohio, 26–27; *Elmira Col, 27–, head dept.* Summer, Iowa State Col, 26. A.A; assoc. Psychol. Asn; fel. Iowa Acad. Visual study of contrast and contour.

Scheeline, Dr. Harold W(endel), Standard Oil Development Co, Elizabeth, N. J. *Chemical engineering*. San Francisco, Calif, Jan. 19, 15. A.B, Stanford, 35; Sc.D, Mass. Inst. Tech, 38. *Chem. engineer, develop. div, Standard Oil Develop. Co, 39–* Chem. Eng. High-pressure vapor-liquid equilibria in hydrocarbon mixtures.

Scheer, Dr. Bradley T(itus), Kerckhoff Marine Laboratory, Corona del Mar, Calif. *Comparative physiology, Biochemistry*. Los Angeles, Calif, Dec. 17, 14. B.S, Calif. Inst. Tech, 36; Ph.D, California, 40. Asst. physiol, Scripps Institution, California, 36–37. 38–40, teaching asst, med. sch, 37–38; instr. zool, West Virginia, 40–42; asst. biochem, col. physicians and surg, Columbia, 42–43; *instr. biol, Calif. Inst. Tech, 43–* A.A. Carotenoid pigments of marine organisms; purine metabolism.

Scheffé, Dr. Henry, Princeton University, Princeton, N. J. *Mathematics*. New York, N. Y, April 11, 07. A.B, Wisconsin, 31, A.M, 33, Ph.D, 35. Asst. math, Wisconsin, 31–35, instr, 35–37; Oregon State Col, 37–39, 40–41; math. teaching seminar, Reed Col, 39–40; *math, Princeton*, 41–43, *lecturer, 43–* Math. Soc; Math. Asn; Inst. Math. Statist. Mathematical statistics; ordinary differential equations.

Scheffer, Dr. Theo(dore) C(omstock), U. S. Forest Service, Madison, Wis. *Forest pathology*. Manhattan, Kans, Feb.

10, 04. B.S, Washington (Seattle), 26, M.S, 29; Ph.D, Wisconsin, 34. Teaching fellow bot, Washington (Seattle), 26–29; agent, *div. forest path, bur. plant indust, U. S. Dept. Agr*, 30–34, *assoc. pathologist, Wisconsin, 36–* Nat. research fellow, Hopkins, 35. Soc. Foresters; Phytopath. Soc. Sap stains, molds and decay of wood; effect of decay on physical and chemical properties of wood; oxygen-temperature relations of wood-inhabiting fungi.

Scheffer, Theo(philus) H, Puyallup, Wash. *Biology.* Lamartine, Pa, Feb. 21, 67. A.B, Kansas, 95; A.M, Cornell, 03. Sch. supt, Kans, 95–02; asst. and asst. prof. zool, Kans. State Col, 03–10; asst. and *assoc. biologist, bur. biol. surv, U. S. Dept. Agr, 10–* Soc. Mammal; Pacific Northwest Bird and Mammal Soc; Kans. Acad. Life histories of moles and burrowing rodents; food resources of waterfowl.

Scheffer, Dr. Victor B(lanchard), University of Washington, Seattle, Wash. *Economic zoology.* Manhattan, Kans, Nov. 27, 06. Ph.D, Washington (Seattle), 36. *Biologist, fish and wildlife service, U. S. Dept. Interior, 36–* Lecturer, Washington (Seattle), 38– Soc. Mammal; Wildlife Soc; Pacific Northwest Bird and Mammal Soc. (sec'y, 39–41); Puget Sound Acad. Sci; Biol. Soc. Wash. Migration routes and food habits of Alaska fur seals.

Scheffler, E(dward) F(rederick), 225 S. 22nd St, Richmond, Ind. *Chemistry.* Chicago, Ill, July 11, 04. B.S, Michigan, 25; Firestone Tire and Rubber Co. fellow, Akron, 29–30, M.S, 31. Chemist, Belden Mfg. Co, Chicago, 25–29; Firestone Tire and Rubber Co, 30–34; *chief chemist, Belden Mfg. Co, Chicago, 34–* Instr. defense training program, Purdue. Chem. Soc. Rubber compounding.

Scheffler, Dr. G(eorge) H(enry), 2907 Harrison St, Wilmington, Del. *Chemistry.* Chicago, Ill, Feb. 3, 08. B.S, Michigan, 27, M.S, 28, Ph.D, 30. Research chemist, Atlas Powder Co, 30–33; *Darco Corp*, 34–36, director exp. lab. and later *director research, 36–* Chem. Soc. Physical and colloid chemistry; adsorption; activity of adsorbents.

Scheflan, Dr. Leopold, Pyrene Manufacturing Co, Newark, N. J. *Chemistry.* Berlin, Germany, July 28, 02. A.B, Syracuse, 25, Ph.D, 29. Instr. chem, Syracuse, 26–29; Long Island, 29–33; Brooklyn Col. Pharmacy, 33–34; *chemist, Pyrene Mfg. Co, 34–* Instr, Polytech. Inst. Brooklyn, 30–31. Chem. Soc. Phase diagram of the system ammonia–hydrogen sulfide; textiles; phosgene; extinguishing fires with chemicals; atmospheres in fires; toxic gases; carbon tetrachloride.

Scheid, Prof. Vernon E(dward), University of Idaho, Moscow, Idaho. *Geology.* Baltimore, Md, Sept. 5, 06. A.B, Hopkins, 28, 29–34; M.S, Idaho, 40. Field asst, U. S. Geol. Surv, 29, 30; instr. *geol*, Hopkins, 31–34; *Idaho*, 34–38, *asst. prof, 38–* Field asst, U. S. Geol. Surv, 35, 36, asst. geologist, 40–42, assoc. geologist, 42–; Ark. Geol. Surv, 31; Idaho Bur. Mines and Geol, 34–, mineralogist, 38–39; collaborator, U. S. Coast and Geod. Surv, Idaho, 39–42. Summers, instr, Hopkins, 32, 34. A.A; Geophys. Union; Min. and Metal. Eng; Northwest Min. Asn; Northwest Sci. Asn; cor. mem. Geol. Soc. Wash. Igneous and metamorphic rocks of Magnet Cove, Arkansas; geology and ore deposits of Idaho.

Scheidemann, Dr. Norma V(alentine), 14712 W. Sylvan St, Van Nuys, Calif. *Psychology.* A.B, Iowa, 20, A.M, 23, Ph.D, 26; Jena (Germany), 32. Teacher, Kans. State Teachers Col, Emporia, 23–24; chairman psychol. dept, Des Moines, 26–27; lecturer, Southern California, 27–28, 29–35; asst. psychologist, mental clinic, Michael Reese Hosp, Chicago, 28–29; *special consultant child psychol, county mental clinic, Good Samaritan Hosp, Lebanon, Pa, 36–* Acting psychologist, Cook County Psychopath. Hosp, 28–29; visiting lecturer, Temple, 38–39. Summers, S. Dak. State Col, 23; South. Ill. State Teachers Col, Charleston, 29; Nebraska, 35; visiting lecturer, Kings Col. (London), 32; Helsingfors (Finland), 32; Jena (Germany), 32; Calcutta (India), 32; Imp. Univ. Japan, 32; Michigan, 39, 40, 41. Psychol. Asn. Psychology of exceptional children.

Scheidenhelm, F(rederick) W(illiam), 82-28 Abingdon Road, Kew Gardens, L. I, N. Y. *Hydraulic engineering.* Mendota, Ill, June 16, 84. A.B, Cornell, 05, C.E, 06. Struct. and hydraul. engineer, private companies, 06–14; *consulting engineer*, 14–16; *Daniel W. Mead and F. W. Scheidenhelm, 16–* Fuertes gold medal, Cornell, 17; Rowland prize, Soc. Civil Eng, 18; D.S. medal. Lieut. col, U.S.A, 17–19, col, Eng.Res, 19– A.A; Civil Eng. (chairman, power div, 26); Soc. Mil. Eng. (pres, N. Y. post, 27); Inst. Consulting Eng. Hydroelectric power; hydraulic construction; dams.

Scheier, Rev. M(aurice) A(ndrew), St. Bonaventure College, St. Bonaventure, N. Y. *Mathematics.* Allegany, N. Y, Dec. 15, 01. A.B, St. Bonaventure Col, 24, A.M, 31; M.S, Catholic Univ, 38. *Head dept. math, St. Bonaventure Col, 38–* A.A; Math. Soc; Math. Asn. Theorem on the rational cuspidal quartic; projective geometry.

Schein, Dr. Marcel, University of Chicago, Chicago, Ill. *Physics.* Trstena, Czechoslovakia, June 9, 02. Prague, 20; Vienna, 20; Wurzburg, 21–23; Ph.D, Zurich, 27. Asst, Zurich, 26–29, docent, 30–35; prof. physics, Odessa, 35–37; research fellow, *Chicago*, 38–40, research assoc. *physics*, 40–43, *asst. prof, 43–* Schnyder von Wartensee Stiftung prize, 29. Physical Soc. Cosmic rays; the properties of mesotrons in the stratosphere.

Schelkunoff, Dr. Sergei A(lexander), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Mathematics, Physics.* Samara, Russia, Jan. 27, 97. A.B, A.M, State Col. Wash, 23; Ph.D, Columbia, 28. Mem. research staff, Bell Tel. Labs, 23–26; instr. math, State Col. Wash, 26–27, asst. prof, 27–29; *consultant electromagnetic theory, Bell Tel. Labs, 29–* Morris Liebman Mem. prize, 42. A.A; Math. Soc; Math. Asn; Eng. Educ; Elec. Eng; Radio Eng. Electromagnetic waves; electromagnetic theory.

Schell, I(rving) I(srael), Blue Hill Meteorological Observatory, Harvard University, Milton, Mass. *Meteorology, Climatology.* Shchoochyn, Poland, Oct. 26, 06. B.S, Mass. Inst. Tech, 32, 33–34; Harvard, 35. Asst, Blue Hill Meteorol. Observatory, Harvard, 33–35; meteorologist, East. Air Lines, 35; junior meteorol. statistician, bur. agr. econ, U. S. Dept. Agr, 36–38; research fellow, Blue Hill Meteorol. Observatory, Harvard, 39–42; *assoc. meteorologist*, U. S. Weather Bur, 43; *Blue Hill Meteorol. Observatory, Harvard, 43–* Summers, in charge Twin Mt, N. H, Sta, Blue Hill Meteorol. Observatory, Harvard, 33, 34. Meteorol. Soc; Geophys. Union; N. H. Acad; Royal Meteorol. Soc. Mountain meteorology; polar ice; long-range weather forecasting experiments.

Schell, Prof. Margaret (Wood), University of Utah, Salt Lake City, Utah. *Zoology.* Beatrice, Nebr, May 5, 98. A.B, California, 24, A.M, 25, Ph.D, 30. Asst, inst. child welfare, California, 28–30; instr. *zool, Utah*, 30–33, *asst. prof, 33–* A.A; Soc. Parasitol. Protozoology; intestinal protozoan infections in children.

Schellbach, Louis, 3rd, Grand Canyon National Park, Grand Canyon, Ariz. *Archeology.* New York, N. Y, Oct. 20, 87. Pratt Inst, 04–18; Brooklyn Inst, 19–21; Columbia, 25. State archeologist, Nev, 22–27; staff archeologist, Museum Am. Indian, Heye Foundation, 27–31, director Idaho archeol. exped, 29; asst. sec'y, Explorers Club, 31–32; field archeologist, Cocle exped. to Panama, Peabody Museum Archeol, Harvard, 32–33; ranger-naturalist, *U. S. Nat. Park Service*, 33–34, museum technician, museum labs, 34–35, asst. museum chief, 35, asst. park naturalist, *Grand Canyon Nat. Park*, 37–40, *park naturalist, 41–* A.A; Anthrop. Asn; Asn. Mus; Southwest Mus. Asn; Grand Canyon Nat. Hist. Asn. (exec. sec'y, 41). Archeology of the Grand Canyon National Park area; biology, ecology, wildlife, geology, meteorology and other pertinent natural history features of Grand Canyon National Park.

Schellenberg, Prof. P(eter) E(diger), Bethel College, Newton, Kans. *Psychology.* Buhler, Kans, April 20, 98. A.B, Tabor Col, 23; A.M, Kansas, 26; Ph.D, Minnesota, 30. Asst. instr. *psychol*, Kansas, 25–26; asst, Minnesota, 26–27, instr, 27–30; *prof*, Tabor Col, 30–31; *Bethel Col, 31–* A.A; assoc. Psychol. Asn. Individual differences.

Schelleng, J(ohn) C(hristopher), Bell Telephone Laboratories, Deal, N. J. *Physics.* Freeport, Ill. A.B, Cornell, 15, 15–18. *Radio research engineer, Bell Tel. Labs, 18–* A.A; Physical Soc; Elec. Eng; Radio Eng. Radio transmission phenomena; apparatus for radio communication.

Schelling, Dr. Victor, 20002 Riopelle St, Detroit, Mich. *Chemistry.* Winterthur, Switzerland, Sept. 9, 00. Ph.D, Zurich, 26. Asst, pharmacol. inst, Zurich, 27–28; chemist, Amalgamated Silk Corp, Allentown, Pa, 28–29; *research chemist, Henry Ford Hosp, Detroit, 29–* A.A; Chem. Soc. Biochemistry; vitamins; proteins.

Schempf, Dr. John M(orey), Dubois Undergraduate Center, Pennsylvania State College, Dubois, Pa. *Analytical chemistry.* Watertown, Wis, Oct. 5, 12. B.S, Wisconsin, 34; Ph.D, Cornell, 38. Asst. instr, Cornell, 34–38; *instr.* anal. chem, Iowa

State Col, 38–39; *anal. and inorg. chem, Pa. State Col, 39–* Chem. Soc. Organic reagents in analytical chemistry micro methods.

Schenck, Prof. Harry P(aul), 1912 Spruce St, Philadelphia, Pa. *Otolaryngology.* Philadelphia, Pa, Jan. 6, 96. B.S, Haverford Col, 18; M.D, Pennsylvania, 23. Research fellow allergy, *Pennsylvania,* 25–28, assoc. otolaryngol, grad. sch. med, 27–34, asst. prof. path, sch. dentistry, 32–38, asst. prof. *otolaryngol, sch. med,* 35–39, *prof. and head dept, 39–, chief staff, Univ. Hosp, 39–* Curator, Mutter Museum, 25–38; otolaryngologist, Children's Hosp, Phila, 26–33. Casselberry award, 29. Fel. Col. Surg; fel. Am. Med. Asn; fel. Laryngol. Asn; Asn. Study Asthma; Soc. Study Allergy; Otol. Soc; Acad. Ophthal. and Otolaryngol; Laryngol, Rhinol. and Otol. Soc; Phila. Allergy Soc; Laryngol. Soc. Phila; fel. Col. Physicians Phila; Phila. Rheumatism Soc; Pan-Am. Med. Asn. Chemistry of cerebro-spinal fluid; surgical intervention in allergy; pathology of chronic pharyngeal infections; intracranial complications of otitic origin; development of clinical and roentgenologic diagnosis of paranasal sinus disease.

Schenck, Prof. Hubert G(regory), Stanford University, Calif. *Paleontology.* Memphis, Tenn, Sept. 24, 97. A.B, Oregon, 22, A.M, 23; Ph.D, California. 26. Geol. asst, div. mines, Bur. Science, P. I, 20–21; asst, Oregon, 22–23; assoc. paleont, California, 23–24; instr. *geol, Stanford,* 24–27, asst. prof, 27–35, assoc. prof, 35–40, *prof, 40–; major, U. S. Army, 43–* Consulting paleontologist, 27–; geologist, Standard Oil Co, Calif, 28; collaborator, Musée royal d'Hist. nat. Belgique, and advanced fellow, Cmn. Relief Belgium Educ. Foundation, 33–34; paleontologist, Amiranian Oil Co, 37–38. Summers, geologist, Standard Oil Co, Calif, 29, 30. U.S.A, 17–19. Paleont. Soc; Geol. Soc; Asn. Petrol. Geol; London Malacol. Soc; Soc. géol. de France; Schweiz. Geol. Gesell. Stratigraphy; micropaleontology; molluscan paleontology.

Schenck, Dr. Jay R(uffner), Abbott Laboratories, North Chicago, Ill. *Biochemistry.* Geneva, Ill, Jan. 10, 15. B.S, Illinois, 36, M.S, 37; fellow, George Washington, 37–38; fellow, Cornell, 38–40, Ph.D, 41. *Research biochemist, Abbott Labs, 41–* β-alanine; carnosine; anserine; transfer of methyl groups.

Schenck, Dr. Leslie M(illard), 503 Carleton Road, Westfield, N. J. *Organic chemistry.* Nauvoo, Ill, May 23, 15. A.B, Carthage Col, 37; Illinois, 36; A.M, Texas, 39, Parke-Davis fellow, 41–42, Ph.D, 42. Tutor chem, Texas, 37–39, instr, 39–41; *research chemist, Gen. Aniline and Film Co, 42–* Summer, research chemist, Union Oil Co, 39. Chem. Soc. Nitrogen heterocycles; pharmaceuticals; anticonvulsants and antimalarials; photographic sensitizers; photographic color-formers.

Schenck, Dr. Remsen T(en Eyck), 5317 Kimbark Ave, Chicago, Ill. *Organic chemistry.* New York, N. Y, May 25, 12. A.B, Princeton, 34, A.M, 35; Eli Lilly fellow, Chicago, 39–40, Ph.D, 40. Asst, Merck and Co, Inc, 35–37; *research chemist, Miner Labs, 40–* Peroxide effect in the addition of reagents to unsaturated compounds.

Schenken, Dr. J(ohn) R(udolph), 7805 Willow St, New Orleans, La. *Pathology, Bacteriology.* Keystone, Iowa, Jan. 6, 05. B.S, Iowa, 26, M.D, 28. Instr. path. and bacter, Iowa, 31–33; path, Georgetown, 33–35; asst. prof, *Louisiana,* 35–40, *prof. path. and bacter. and head dept, 40–* A.A; Asn. Path. and Bact; Soc. Clin. Path; Am. Med. Asn. Endometriosis; histoplasmosis; melitensis meningitis; myocarditis; lymphogranuloma venereum; Trichostrongylus colubriformis; urethral valves; hypertension; prostatic hyperplasia; antianemic principle; experimental urinary calculi; estrogen induced mammary carcinoma; mouse hepatomas; meningococcal septicemia; gastric and duodenal ulcer hemorrhage; appendiceal Enterobius vermicularis; coccidioidomycosis.

Scherago, Dr. Morris, University of Kentucky, Lexington, Ky. *Bacteriology.* Roman, Roumania, Dec. 25, 95. B.S, Cornell, 17, D.V.M, 19. Asst. path. and bacter, N. Y. State Vet. Col, Cornell, 18–19; instr. *bacter, Kentucky,* 19–20, asst. prof. and acting head dept, 20–22, assoc. prof, 22–24, *prof, 24–, head dept, 22–* Summers, lab. asst, U. S. Pub. Health Service, 18; bacteriologist, Life Exten. Inst, 19; div. labs. and research, State Dept. Health, N. Y, 20. King award, Ky. Acad. Science, 41. Soc. Bact. (pres, Ky. branch, 40); assoc. Soc. Clin. Path; fel. Pub. Health Asn; Vet. Med. Asn; South. Asn. Sci. and Industry (exec. cmt, 41); Ky. Vet. Med. Asn; Ky. Acad. Poultry diseases; food bacteriology; immunology; transformation of the intestinal flora; lactobacilli; water examination; staphylococcic toxin; epizootic septicemia of young guinea pigs; paracoli; fibrinolytic streptococci; food poisoning; antigenic properties of antibodies; enzyme purification of antibodies; effect of carcinogens on bacteria; pectin-fermenting coliform bacteria; microorganisms from a trickling filter.

Scherbatskoy, S(erge) A(lexander), 624 E. Fourth St, Tulsa, Okla. *Engineering.* Constantinople, Turkey, July 31, 08. B.Sc, Paris, 29. Engineer, Bell Tel. Labs, 29–32; Philco Radio and Television Corp, 32–34; director research, Eng. Labs, Inc, 35–39; v. pres, Well Surveys, Inc, 39–43; *consulting engineer, 43–* Geophysics; application of electronic research to industry; navigational instruments.

Scherberg, Dr. Max G(oy), 87 Locust St, Bridgeport, Conn. *Mathematics, Physics.* Russia, 02. B.S, Washington (St. Louis), 25; Ph.D, Minnesota, 31. Junior mathematician, Langley Mem. Aeronaut. Lab, Langley Field, Va, 25–27; instr. math, col. eng, Minnesota, 28–41; *aerodynamicist, Vought-Sikorsky Aircraft, 41–* Eng. Educ; Math. Soc; Math. Asn. Degree of convergence of a Bessel series; operational calculus; aerodynamics; regions of infinite acceleration and flow realms in a compressible fluid.

Scherer, Dr. George A(llen), Earlham College, Earlham, Ind. *Chemistry.* Kokomo, Ind, April 3, 07. B.S, Earlham Col, 27; M.S, Cornell, 28; Ph.D, Purdue, 33. Asst. *chem,* Cornell, 27–28; Purdue, 28–33; prof, Pacific Col. (Oregon), 33–34; McKendree Col, 34–36; instr, *Earlham Col,* 36–37, *asst. prof,* 37– Chem. Soc; Ind. Chem. Soc. (director). Potassium polyiodides; magnesium electrode.

Scherer, Norman W(illiam), 1885 University Ave, St. Paul, Minn. *Forestry.* Sandusky, Ohio, June 25, 88. B.S, Michigan, 10, M.S.F, 12; California, 19–20. Forest asst, Ft. Valley Forest Exp. Sta, Ariz, 10–13; asst. prof. forestry, Ohio State, 13–30; asst. engineer maintenance, State Highway, Ohio, 30–31; asst. park naturalist, Yellowstone Nat. Park, Wyo, 31–32; park naturalist, Lassen Volcanic Nat. Park, Calif, 32–33; Illini Purchase Unit, U. S. Forest Service, 33; forester, Lake States Regional Office, Indian Field Service, 33–43; *director supervisory training, Northwest Airlines, Inc, 43–* A.A; Soc. Foresters. Silviculture; forest management.

Scherer, Prof. Philip C(arl), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Brooklyn, N. Y, June 21, 93. Ph.B, Brown, 15, M.S, 23, du Pont fellow, 23–24, Metcalf fellow, 24–25, Ph.D, 25. Asst. prof. chem, Denison, 25–26; instr, Western Reserve, 26–27; research chemist, Brown Co, N. H, 27–29; asst. prof. chem, *Va. Polytech,* 29–32, assoc. prof. *physical chem,* 32–40, *prof, 40–* A.A; Chem. Soc; Va. Acad. Rayon; application of liquid ammonia as a solvent in the field of cellulose chemistry; cellulose xanthates.

Schermerhorn, Prof. Lyman G(ibbs), Rutgers University, New Brunswick, N. J. *Horticulture.* Malden, Mass, June 28, 87. B.S, Mass. Col, 10; A.M, Columbia, 32. Asst. prof. hort, Mont. State Col, 10–14; veg. gardening, *N. J. State Col, Rutgers, and N. J. Exp. Sta,* 14–20, assoc. prof. and olericulturist, 20–25, *prof. veg. gardening, 25–* Vegetable crops.

Scherp, Dr. Henry W(illiam), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Bacteriology.* New Rochelle, N. Y, March 15, 08. B.S, Dartmouth Col, 28; A.M, Harvard, 29, Ph.D, 31. Asst, Rockefeller Inst, 31–34; fellow, col. physicians and surg, Columbia, 34–35; instr. bacter, sch. med, Pennsylvania, 35–37; *immunochem, sch. med. and dentistry, Rochester,* 37–40, *asst. prof, 40–* Soc. Bact; Asn. Immunol; Chem. Soc. Organic chemistry; chemistry and immunology of bacteria and filterable viruses.

Schertz, Dr. Frank M(ilton), 1305 Farragut St, N.W, Washington, D. C. *Biochemistry.* Stanford, Ill, Jan. 8, 89. B.S, Nebr. Wesleyan, 14; fellow, Northwestern, 14–15, A.M, 15; fellow, Chicago, 17–18, Ph.D, 18. Asst. bot, Nebr. Wesleyan, 11–14; instr, Northwestern, 15–17; biochemist, bur. plant indust, U. S. Dept. Agr, 19–28, assoc. biochemist, fixed nitrogen research lab, bur. chem. and soils, 28–34; director research, Am. Chlorophyll, Inc, 34–37; writer, lecturer and consultant, 37–42; *capt, Chem. Warfare Service, U. S. Army, 42–* C.W.S, U.S.A, 18–19. A.A; Chem. Soc; Bot. Soc. Soil fertility; plant morphology and chemistry; carotene, chlorophyl, xanthophyl and their isolation on a semi-commercial scale; commercial production of the chloroplast pigments and other plant derivatives; chlorophyl and its function.

Schery, Dr. R(obert) W(alter), Missouri Botanical Garden, 2315 Tower Grove Ave, St. Louis, Mo. *Botany.* St. Louis, Mo,

March 12, 17. A.B, Washington (St. Louis), 38, M.S, 40, Ph.D, 42. Apprentice, Mo. Bot. Garden, 38–40; asst. *bot, Washington (St. Louis)*, 40–42, *instr, 42–; research asst. taxonomy, Mo. Bot. Garden, 42–; assoc. field technician, Rubber Develop. Corp, Brazil, 43–* Soc. Taxon. Flora of Panama; taxonomy of Malvaviscus; Mangebeira rubber.

Schevill, William E(dward), Harvard University, Cambridge, Mass. *Paleontology.* New York, N. Y, July 2, 06. A.B, Harvard, 27, A.M, 29; Chicago. Asst. curator *invert. paleont, museum comp. zool, Harvard*, 32–43, *assoc. curator, 43–*, librarian, 37–43. Paleont. Soc; Malacol. Union. Cephalopods.

Schick, Dr. Béla, 17 E. 84th St, New York, N. Y. *Pediatrics.* Boglar, Hungary, July 16, 77. M D, Karl Franz Univ, 00. Docent, Vienna, 12–18, prof, 18–23; *consulting pediatrician, Mt. Sinai Hosp, New York, 23–* Harvey lecturer, 23; Cutter lecturer, 23. Consulting pediatrician, Sea View Hosp, Staten Island; consulting pediatrician, Willard Parker Hosp; N. Y. Infirmary for Women and Children. Gold medal, Phi Lambda Kappa, 33; Addingham gold medal, 38; gold medal, Acad. Med. N. Y, 38. Pediat. Soc; hon. mem. Soc. Pediat. Research; Acad. Pediat; Soc. Exp. Biol; Asn. Immunol; hon. mem. Asn. Study Allergy; hon. mem. Harvey Soc; N. Y. Acad. Med. (chairman, pediat. sect); hon. mem. Southwest. Pediat. Soc; Gesell. für Kinderheilkunde; cor. mem. Gesell. der Ärzte Wien. Scarlet fever; tuberculosis; diphtheria; nutrition of new-born children; concentrated feeding in childhood; Schick test for determining susceptibility to diphtheria; allergy.

Schick, Prof. R(obert) Dean, University of Oklahoma, Norman, Okla. *Physiology.* Oakland Co, Mich, June 15, 10. A.B, Michigan, 32, M.S, 33, Ph.D, 42. Asst. zool, Michigan, 35–37, teaching fellow, 37–41; instr. *physiol*, Ohio State. 41–42; *asst. prof, Oklahoma, 42–* Sex hormones; reproduction and endocrines; changes associated with reproduction and pregnancy and their simulation.

Schicks, Dr. Geo(rge) C(harles), 66 Dryden Road, Upper Montclair, N. J. *Pharmacy.* Munson, Mass, May 11, 93. Ph.G, Mass. Col. Pharmacy, 19; Ph.C, Valparaiso, 21; Sc.D, R. I. Col. Pharmacy and Allied Sciences, 41. Prof. mat. med. and histol, col. pharmacy, Valparaiso, 20–27, dean, 25–27; *prof. mat. med. and toxicol, col. pharmacy, Rutgers, 28–, asst. dean, 29–, head dept. pharmacy.* Mem. revision cmt, U. S. Pharmacopoeia; chairman cmt. dental medication, Nat. Formulary. Chairman professional relations cmt. and cmt. personnel problems, Asn. Cols. Pharmacy; sec'y-treas. dist. no. 2, State Boards and Cols. Pharmacy. A.A; Pharmaceut. Asn. (recipe book revision cmt; chairman cmt. dental pharmacy). Dispensing pharmacy; dental pharmacy; medication used in warfare gases; drugs used in special dental medication.

Schiedt, Prof. R(ichard) C(onrad Francis), 1043 Wheatland Ave, Lancaster, Pa. *Biology, Geology.* Weissenfels, Germany, Sept. 21, 59. Erlangen, 78–80; Berlin, 81; Ph.D, Pennsylvania, 99; hon. Sc.D, Franklin and Marshall Col, 10. Instr. sciences, Calvin Col, Ohio, 81–82; prin, Int. Acad, Oregon, 82–85; prof. nat. sciences and chem, Franklin and Marshall Col, 87–00, biol. and geol, 00–18; temporary prof. comp. anat, Tennessee, 19; research chemist, Armstrong Cork Co, 24–28; *emer. prof. biol, Franklin and Marshall Col, 27–* Entomologist, State Board Agr, Pa, 93–00. A.A; Soc. Zool; Chem. Soc; Rousseau Soc. Geneva; Philos. Gesell. Pigmentation in animal tissue; regeneration and sex of Ostrea; causes of pigmentation; physical basis of morals.

Schieffelin, Dr. William Jay, 620 Park Ave, New York, N. Y. *Chemistry.* New York, N. Y, April 14, 66. Ph.B, Columbia, 87; Ph.D, Munich, 89. V. pres, Schieffelin and Co, 03–06, pres. 06–26. Pres. and director, Druggists Supply Co, New York. Hon. pres, N. Y. Col. Pharmacy. Int. Cong. Applied Chem, London, 09. A.A; Chem. Soc; London Chem. Soc. Chemicals used in medicine and their manufacture.

Schiele, Prof. Burtrum C(larence), University of Minnesota Hospitals, Minneapolis, Minn. *Neuropsychiatry.* Colorado Springs, Colo, Oct. 22, 04. A.B, Colo. Col, 27; M.D, Colorado, 31. Intern, Ancker Hosp, St. Paul, Minn, 31–32; Commonwealth Fund fellow, Colo. Psychopath. Hosp, Denver, 32–34; instr. psychiatry, med. col, Cornell, 34–37; asst. prof. *nervous and mental diseases, Minnesota*, 37–42, *assoc. prof, 42–* Res, Payne Whitney Clinic, 34–37. Am. Med. Asn; Psychiat. Asn; Cent. Neuropsychiat. Asn; Minn. Soc. Neur. and Psychiat. Clinical psychiatry.

Schierholtz, O(tto) J(ansen), 43 Queen's Park Crescent, Toronto, Ont, Can. *Organic chemistry.* Waterloo Co, Ont, June 24, 92. B.A.Sc, Toronto, 21. Chemist, Robson Leather Co, Oshawa, Ont, 21–23; tech. supervisor, Commercial Solvents Corp, Peoria, Ill, 24–28; chief analyst, Monsanto Chem. Co, St. Louis, 28–32; *Ont. Research Foundation fellow chem, Toronto, 32–* Chem. Soc; Can. Chem. Asn; fel. Can. Inst. Chem; Toronto Paint and Varnish Production Club. Paint; vapor pressures of solvents; tarnishing of gilt coatings on paper; pressure control for vacuum distillation; dispersion pigments in organic vehicles.

Schierz, Prof. E(rnest) R(udolf), 1512 Garfield St, Laramie, Wyo. *Organic chemistry.* Milwaukee, Wis, March 9, 94. B.S, Wisconsin, 16, M.S, 17, Ph.D, 22. Instr. chem, Pittsburgh, 17–18; Wisconsin, 19–22; asst. research chemist, Exp. Sta, *Wyoming, 22–24, in charge dept. org. chem, 24–, prof. chem.* Chem. Soc; Colo-Wyo. Acad. (v. pres, 39). Decomposition of formic acid in acetic anhydride solution and in sulfuric acid; hexabromo stearic acid; history of chemistry.

Schiff, Prof. Leon, 1027 Egan Hills Drive, Cincinnati, Ohio. *Internal medicine.* Riga, Latvia, May 1, 01. B.S, Cincinnati, 22, M.D, 24, M.S, 27, Ph.D, 29. Asst. prof. *med, med. sch, Cincinnati*, 30–40, *assoc. prof, 40–* Attending physician, med. service, Cincinnati Gen. Hosp. Soc. Clin. Invest; Gastro-Enterol. Asn; Cent. Soc. Clin. Research. Relationship of gastritis and gastric cancer; gastritis and vitamin deficiency.

Schiff, Dr. L(eonard) I(saac), University of Pennsylvania, Philadelphia, Pa. *Physics.* Fall River, Mass, March 29, 15. B.E, Ohio State, 33, M.S, 34; fellow, Mass. Inst. Tech, 35–37, Ph.D, 37. Nat. research fellow, California and Calif. Inst. Tech, 37–38; research assoc. *physics*, California, 38–40; instr, *Pennsylvania*, 40–42, *asst. prof, 42–, acting chairman dept, 42–, acting director, Randal Morgan lab, 42–* Summer, Gen. Elec. Research Lab, 37. A.A; fel. Physical Soc. Quantum mechanics; atomic and nuclear physics; field theory.

Schiffrin, Dr. M(ilton) J(ulius), Northwestern University Medical School, Chicago, Ill. *Physiology.* Rochester, N. Y, March 23, 14. A.B, Rochester, 37, M.S, 39; Nat. Research Council Can. fellow, McGill, 39–41, Ph.D, 41. Am. Physiol. Soc. Porter fellow, *med. sch, Northwestern*, 41–42, *instr. physiol, 42–; commander, U. S. Army, 43–* A.A; Montreal Physiol. Soc. Hormones of the gastro-intestinal tract, particularly as related to secretion; peptic ulcer; aviation medicine.

Schildknecht, Dr. C(alvin) E(verett), 188 Bellevue St, Upper Montclair, N. J. *Physical organic chemistry.* Frederick, Md, Aug. 15, 10. B.S, Gettysburg Col, 31; Ph.D, Hopkins, 36. *Research chemist polymerization, plastics dept, E. I. du Pont de Nemours and Co, 36–* A.A; Chem. Soc. The photo-oxidation of acetone; vinyl polymerization.

Schiller, Dr. Walter, Cook County Hospital, Chicago, Ill. *Pathology.* Vienna, Austria, Dec. 3, 87. M.D, Vienna, 12. Director lab, Fortress Serajevo, 14–15; pathologist, Mil. Hosp. No. 2, Vienna, 19–20; director lab, gynecological clinic, Univ. Vienna, 21–36; Lloyd Roberts lecturer, Manchester, Ingleby lecturer, Birmingham, and Hannah lecturer, Cleveland, 36; lecturer, U. S. and Can, 36–37; lab. director, Jewish Mem. Hosp, 37–38; *director labs, Cook County Hosp, 38–* Lecturer, Rotunda and Coombe Hosp, Royal Acad. and Trinity Col, Dublin, 23, 25, 35. Director epidemiol. lab, Austrian army, 18, consulting bacteriologist. Asn. Cancer Research; Asn. Path. and Bact; hon. mem. Midwest. Clin. Soc; hon. mem. Miss. Valley Soc; N. Y. Acad; Ill. Soc. Path. General pathology; early diagnosis of cancer of the uterus; ovarian tumors.

Schiller, Dr. William J(ohn), R. D. 2, Wexford, Pa. *Chemistry.* Pittsburgh, Pa, April 7, 02. B.S, Pittsburgh, 26, scholar, 26–27, M.S, 28, Ph.D, 31. *Asst. instr,* Pittsburgh, 32; *Mt. Mercy Col, 33–* Chem. Soc. Organic, analytical and semi-microchemistry.

Schilletter, Prof. J(ulian) C(laude), Iowa State College, Ames, Iowa. *Horticulture.* Clemson College, S. C, Nov. 1, 01. B.S, Clemson Col, 22; M.S, Iowa State Col, 23, Ph.D, 30. Instr. *hort, Iowa State Col*, 22–28, asst. prof, 28–36, *assoc. prof, 36–* Horticulturist, nat. research project, Works Progress Admin, 38. Summers, asst, Exp. Sta, Clemson Col, 22; inspection, U. S. Dept. Agr, 24, asst, 26. Int. Hort. Cong, 30. Differentiation of flower bud in Dunlap strawberries; growth of Dunlap strawberries; textbook of general horticulture.

Schilling, Prof. E(ugene) W(ashburn), Montana State College, Bozeman, Mont. *Electrical engineering.* Whatcheer,

Iowa, Dec. 23, 97. B.S, Illinois, 19; M.S, Iowa State Col, 30, Ph.D, 33, E.E, 36. Gen. Elec. Co, 19–20; tech. correspondent, Int. Correspondence Schs, 20; elec. engineer, Goodrich Rubber Co, 20; instr. elec. eng, Iowa State Col, 20–23; private business, 23–28; instr. *elec. eng*, Iowa State Col, 28–31; asst. prof, Mich. Col. Min. and Tech, 31–35, assoc. prof, 35–38; prof, *Mont. State Col*, 38–42, *head dept, 38–*, acting dean eng, 42–43, *dean eng. and director, Exp. Sta, 43–*, institutional rep, eng, science and management war training, 42, 43, *director, Army Specialized Training Program, 43–* Summers, Midwest Oil Refinery Co, 16; West. Elec. Co, 17; Gen. Elec. Co, 18. Elec. Eng. (membership cmt, Iowa sect, 30, sec'y-treas, 31; student counselor, 38–41; chairman, Mont. sect, 41, 42; v. pres. ninth dist, 42, 43; sec'y sects. cmt, 42, mem. electronics cmt, 42, 43); Eng. Educ. (acting chairman, elec. group, 35, chairman, 36; nominating cmt, 36). Illuminating engineering; flames in high voltage electrostatic fields; effect of material upon wearing qualities of commutators; separation of hematite by hysteretic repulsion; hysteresis of minerals; indicating slip meter; stray load losses in direct current machines.

Schilling, Geo(rge) S(llas), Zionsville, Ind. *Bacteriology.* Brillion, Wis, Jan. 21, 96. B.S, Arkansas, 24; M.S, Mich. State Col, 27. Asst. bacter, Mich. State Col, 24–26; Arkansas, 27; asst. bacteriologist and assoc. bacteriologist, Idaho, 27–36; *bacteriologist, Pitman-Moore Co, 36–* A.A; Soc. Bact; Pub. Health Asn; Asn. Immunol; U. S. Live Stock Sanit. Asn. Brucellosis; leptospirosis; potency tests of antibacterial sera.

Schilling, Prof. Harold K(istler), Pennsylvania State College, State College, Pa. *Physics.* Allentown, Pa, Feb. 7, 99. A.B, 21; A.M, Nebraska, 28; Ph.D, Iowa, 35. Instr. science, Campion Acad, Colo, 22–24; prof. physics and math. and head dept, Union Col. (Nebr), 24–41, dean, 36–41; asst. prof. *physics, Pa. State Col*, 41–42, *assoc. prof, 42–* Acoustical Soc; Physical Soc; Asn. Physics Teachers. Growth of single crystals of zinc; spectrophotometry; acoustics.

Schilling, Dr. O(tto) F(rancis) G(eorge), University of Chicago, Chicago, Ill. *Mathematics.* Apolda, Germany, Nov. 3, 11. Jena, 30–32; Göttingen, 32–33; Ph.D, Marburg, 34. Research, Inst. Advanced Study, 35–37; Johnston scholar, Hopkins, 37–39; *instr. math, Chicago, 39–* A.A; Math. Soc. Abstract algebra.

Schilling, Dr. Walter, Stanford University Hospital, San Francisco, Calif. *Medicine.* Oakland, Calif, Feb. 2, 92. A.B, California, 19, A.M, 20; M.D, Harvard, 24; Vienna, 26–27. Senior intern, Lane Hosp, 24–25; asst. med, med. sch, Stanford, 25–26; Neurologisches Inst, Psychiatrische Klinik, Allgemeine Poliklinik, Vienna, 26–27; clin. instr. *med, med. sch, Stanford*, 27–37, *asst. clin. prof, 37–* A.A; Am. Med. Asn; Psychiat. Asn; Statist. Asn; West. Soc. Biometricians. Biometry.

Schilt, Prof. Jan, Columbia University, New York, N. Y. *Astronomy.* Gouda, Netherlands, Feb. 3, 94. Utrecht, 12–18; Ph.D, Groningen, 24. Asst. astron, Leiden Observatory, 21–25; Int. Educ. Board fellow, Mt. Wilson Observatory, Calif, 25–26; asst, observatory, Yale, 26–29, asst. prof. *astron*, 29–31; assoc. prof, *Columbia*, 31–36, *Rutherford prof, 36–, head dept, 31–, director, Rutherford Observatory, 36–* World war, 14–18. A.A; Astron. Soc; Nederlandsche Astron. Club. Photometry; stellar statistics.

Schimke, Dr. Harold, Yakima Valley Junior College, Yakima, Wash. *Physical chemistry.* B.S, Washington (Seattle), 28, Ph.D, 35. Prof. chem, Grays Harbor Junior Col, Aberdeen, Wash, 35–36; junior sea-food inspector, food and drug admin, U. S. Dept. Agr, 36–37; *teacher, Yakima Valley Junior Col, 37–* The dissociation constant of lactic acid at 0 degree to 60 degrees by the potentiometric method; passivity and overvoltage of hydrogen on mercury.

Schimmel, Dr. Herbert, 3604 Minnesota Ave, S.E, Washington, D. C. *Physics.* New York, N. Y, Sept. 12, 09. A.B, Pennsylvania, 30, scholar, 31–32, M.S, 32, Ph.D, 36. Asst. physics, Pennsylvania, 32–34; research engineer, U. S. Nat. Research Project, 36–41; econ. and tech. consultant, migration cmt, House of Representatives, and small business cmt, *U. S. Senate, 42, chief investigations and analyses, sci. and tech. mobilization cmt, 43–* Technology; economics; modern atomic theory; historical and current development of industry and technology.

Schimpff, Dr. G(ustave) Weber, 5923 N. Manton Ave, Chicago 30, Ill. *Chemistry.* Jeffersonville, Ind, Nov. 7, 06. B.S, Louisville, 28; fellow, Chicago, 29–34, M.S, 30, Ph.D, 34. Asst, Chicago, 29–34; research chemist, Kelly-Burroughs Lab, 34–36; Armour and Co, 36–38; *director dept. biochem, Cook County Hosp, 38–* A.A; Chem. Soc. Aldonic lactones; aldoses; gelatin; collagen; catalytic hydrogenation at elevated pressures.

Schindler, Dr. Rudolf, 5608 Blackstone Ave, Chicago, Ill. *Gastroenterology.* Berlin, Germany, May 10, 88. M.D, Berlin, 12. Visiting prof. *med, Chicago*, 34–36, assoc. clin. prof, 36–37, *assoc. prof, 37–* Attending gastroscopist, Michael Reese Hosp, 36–37; consulting gastroscopist, Cook County Hosp, 36–37. Gold medal, Am. Med. Asn, 36. Gastro-Enterol. Asn; Gastroscopic Club (pres, 41); Inst. Med. Chicago; Soc. Int. Med. Chicago; Int. Gastro-Enterol. Soc. Diseases of the stomach; gastroscopy.

Schipper, Prof. A(rthur) L(ouis), Agricultural and Mechanical College of Texas, College Station, Texas. *Experimental physiology.* Maquoketa, Iowa, Sept. 14, 09. A.B, Coe Col, 30; Colo. Agr. Col, 28; M.S, Iowa, 32, Ph.D, 37. Instr. *gen. zool, Agr. and Mech. Col. Texas*, 37–40, asst. prof, 40–43, *assoc. prof, 43–* Summers, ranger naturalist, Glacier Nat. Park, 40, 41. Iowa Acad; Texas Herp. Soc; Texas Acad. Herpetology.

Schirmer, Dr. F(rank) B(onnell), Jr, University of Illinois, Urbana, Ill. *Inorganic chemistry.* Charleston, S. C, Jan. 16, 13. B.S, Clemson Col, 34; Ph.D, Cornell, 39. *Instr. chem, Illinois, 39–; U. S. Army.* Chem. Soc. Metallic halides; organo-metallic compounds.

Schlaikjer, Prof. Erich M(aren), Brooklyn College, Brooklyn, N. Y. *Vertebrate paleontology.* Newtown, Ohio, Nov. 22, 05. B.S, Harvard, 28; A.M, Columbia, 31, fellow, 31–32, Ph.D, 35. Instr. *geol. and paleont, Brooklyn Col*, 32–39, *asst. prof, 40–* Research assoc, Am. Museum Nat. Hist, 42– In charge paleont. expeds, Harvard, Great Plains region, 25–34; Am. Museum Yukon Territory-Alaska exped, 36; Am. Museum-Sinclair exped, southwest. Wyo, 37; Am. Museum-Sweet exped, Big Bend, Texas, 39; Am. Museum-Sinclair exped, 40. Fel. Paleont. Soc; Soc. Mammal; fel. Geol. Soc; fel. N. Y. Acad. (ed, 39–41). Mammals; Insectivora; Equidae; Tapiridae; dinosaurs; fossil teleost fishes; Cretaceous and Tertiary stratigraphy.

Schlatter, Dr. Carl, Hilltop Manor, Wilmington, Del. *Physical chemistry.* Winterthur, Switzerland, March 31, 96. C.E, Fed. Inst. Tech, Zurich; Sc.D, Geneva. Chemist, cotton printing mills, Switzerland, 18–20; gas plant, Winterthur, 22–23; research assoc. chem, Mass. Inst. Tech, 23–26; research engineer, S. Slater and Sons, 26–35; consulting engineer, 35–39; *research chemist, Am. Viscose Corp, 40–* Chem. Soc; Asn. Textile Chem. and Colorists. Soc. suisse de Chim. Compressibility; molecular weight of gases.

Schlatter, Dr. Maurice J(ay), University of California at Los Angeles, Los Angeles, Calif. *Organic chemistry.* Chicago, Ill, Feb. 4, 16. B.S, Calif. Inst. Tech, 38, Ph.D, 41. *Research fellow*, Calif. Inst. Tech, 41–42; *California at Los Angeles, 42–* Chem. Soc. Walden inversion; cyclopropene; three-membered and four-membered carbon ring compounds.

Schlayer, Dr. C(lotilde), Duke University Hospital, Durham, N. C. *Cellular physiology.* Barcelona, Spain, Dec. 18, 00. Berlin, 20–21; Munich, 21–22; Ph.D, Heidelberg, 27. Voluntary asst. cellular physiol, *Univ. Hosp*, Berlin, 33–35; *med, Duke*, 35–37, *research asst, 37–* Cell metabolism.

Schlechten, Prof. A(lbert) W(ilbur), Oregon State College, Corvallis, Oregon. *Metallurgy.* Bozeman, Mont, Nov. 28, 14. B.S, Mont. Sch. Mines, 37; Sc.D, Mass. Inst. Tech, 40. Asst, Mass. Inst. Tech, 37–40; instr, Minnesota, 40–41; asst. research engineer, Anaconda Copper Mining Co, 41; asst. prof. *mining eng*, Minnesota, 41–42; *assoc. prof. and acting head dept, Oregon State Col, 42–* Min. and Metal. Eng. Physical factors affecting the flotation process; determination of particle size; ore concentration processes.

Schlehuber, Dr. A(lva) M(arion), 2115 24th Ave, Meridian, Miss. *Plant genetics.* Durham, Kans, Jan. 14, 06. B.S, Kans. State Col, 31; M.S, State Col. Wash, 33, Ph.D, 38. Acting supt, Adams Branch Exp. Sta, Lind, Wash, 36; exchange asst. plant breeding, Halle, 36–37; asst, State Col. Wash, 37–38; assoc. prof. plant breeding, Mont. State Col, and assoc. agronomist, Exp. Sta, 38–41; *assoc. geneticist, div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 41–* Plant breeding.

Schlenk, Dr. F(ritz), University of Texas School of Medicine, Galveston, Texas. *Biochemistry.* Munich, Germany, Nov. 26,

09. Ph.D, Berlin, 34. Asst, Stockholm, 34–37, research assoc, 37–40; *asst. prof. biochem, sch. med, Texas, 40–* A.A; Chem. Soc; Soc. Biol. Chem. Enzymes; coenzymes; B vitamins.

Schlenker, Frank S(tott), Rhode Island State College, Kingston. R. I. *Agricultural chemistry.* Haverhill, Mass, Sept. 2, 05. B.S, New Hampshire, 27, M.S, 29. *Asst. chemist, Exp. Sta, R. I. State Col, 29–; lieut, Sanit. Corps, U. S. Army, 42–* Nitrogen metabolism.

Schlenz, Harry Edward, 4241 Ravenswood Ave, Chicago, Ill. *Sanitary engineering.* Denver, Colo, Nov. 1, 05. B.S, Illinois, 27, M.S, 29, C.E, 33. Asst, eng. exp. sta, Illinois, 27–29, instr. civil eng, 29–30; *v. pres, Pacific Flush-Tank Co, 30–* Sewage treatment; sedimentation; sludge digestion.

Schlesinger, Prof. H(ermann) I(rving), University of Chicago, Chicago, Ill. **Chemistry.* Minneapolis, Minn, Oct. 11, 82. B.S, Chicago, 03, Ph.D, 05; Berlin and Strassburg, 05–07. Asst. physiol. chem, Hopkins, 07; assoc. *chem, Chicago,* 07–10, instr, 10–11, asst. prof, 11–17, assoc. prof, 17–22, *prof, 22–,* sec'y dept, 22–33, *exec. sec'y, 33–; official investigator, Office Sci. Research and Develop, 42–* Cooperating expert, Int. Critical Tables. A.A; Chem. Soc. (asst. ed, 'Chem. Abstracts,' chairman, Chicago sect, 30). Inorganic and physical chemistry; behavior of electrolytes in anhydrous formic acid solution; agreement of some strong electrolytes with the mass law; manganates and permanganates; inorganic sulfur compounds; application of absorption spectra to inorganic chemistry; complex fluorides of platinum group metals; complex chromium compounds; equilibrium relations in complex ions; nitroso sulfonic acid; complex salts containing nitric oxide; hydrides of boron and related compounds.

Schlesinger, Dr. Kurt, Purdue University, Lafayette, Ind. *Physics.* Berlin, Germany, April 20, 06. Dipl-Eng, Berlin Technische Hochschule, 28, Dr.Eng, 29. Mem. staff, Loewe Radio Corp, 28–31, chief engineer, television lab, 31–38; mem. staff, Cable Works, Grammont, Paris, France, 38–40; *television research engineer, Radio Corp. of Amer. in cooperation with Purdue Research Foundation, 41–* Assoc. Radio Eng. Radio field strength measurements; television research; photoelectric and cathode ray tubes; electron optics.

Schlesinger, Dr. M(onroe) J(acob), Beth Israel Hospital, Boston, Mass. *Pathology.* New York, N. Y, June 21, 92. B.S, Col. City of N. Y, 12; Ph.D, Harvard, 22, M.D, 26. Asst. bacteriologist, West. Pa. Hosp, Pittsburgh, 14–17; instr. hygiene, *Harvard,* 17–22, asst. *path,* 22–26, *instr, 26–* Pathologist, Beth Israel Hosp, 26– A.A; Asn. Path. and Bact; Soc. Bact; Asn. Immunol; Soc. Exp. Biol. Allergy and anaphylaxis; Rickettsia; coronary arteriosclerosis.

Schlesman, Dr. C(arleton) H(ecker), 2938 Chew St, Allentown, Pa. *Chemistry.* Allentown, Pa, Nov. 20, 01. Chem.E, Lehigh, 22; du Pont fellow, Hopkins, 24–25, Ph.D, 25. Chem. engineer, Atlantic Ref. Co, 24; automotive supervisor, *gen. labs, Socony Vacuum Oil Co,* 25–36, *head research and develop. div, Paulsboro, N. J, 36–* A.A; Chem. Soc; Soc. Automotive Eng; Petrol. Inst; Franklin Inst. Measurements of the osmotic pressure of aqueous solutions at elevated temperatures; nature of detonation in internal combustion engines; effect of injection system and fuel characteristics upon Diesel engine performance; influence of engine design and lubricating oil characteristics upon the deterioration of lubricants in service.

Schlick, W(illiam) J(aphia), Iowa State College, Ames, Iowa. *Civil engineering.* Liberty Center, Iowa, Jan. 24, 87. B.C.E, Iowa State Col, 09, C.E, 14. Struct. detailer, Purdy and Henderson, Chicago, 09–10; with drainage investigations, U. S. Dept. Agr, 10–13; *civil engineer, eng. exp. sta, Iowa State Col, 14–* Civil Eng; Soc. Test. Mat. (sec'y, cmt. C 6); Iowa Eng. Soc. Drainage; loads and supporting strengths of ditch conduits; test of clay and concrete pipe; cast iron water pipe; strength and elastic properties of cast iron.

Schlink, F(rederick) J(ohn), Consumers' Research, Inc, Washington. N. J. *Physics, Mechanical engineering.* Peoria, Ill, Oct. 26, 91. B.S, Illinois, 12, M.E, 17. Asst. mech. engineer, 12–13; from lab. asst. to tech. asst. to director, Bur. Standards, 13–19; physicist in charge instruments-control dept, Firestone Tire and Rubber Co, Ohio, 19–20; mech. engineer and physicist, West. Elec. Co, 20–22; asst. sec'y, Am. Standards Asn, 22–31; *tech. director in charge operations, Consumers' Research, Inc, 31–* Licensed engineer. Edward Longstreth medal, Franklin Inst, 19. A.A; fel. Physical Soc; Mech. Eng. (chairman, research cmt. on measuring instruments, 19–24); Army Ordnance Asn; Econ. Asn; Philos. Soc. Wash. Measuring instruments; variant and hysteretic types of error; high speed displacements; pressures; preferred numbers; industrial standards and specifications; economics and technology of consumption goods; tests, quality and performance rating of consumers' materials, commodities and appliances.

Schloemer, Prof. C(larence) L(ouis), 616 Funston Place, San Antonio, Texas. *Biology.* Milwaukee, Wis, Jan. 5, 12. B.S, Beloit Col, 34; Ph.D, Wisconsin, 39. Asst. aquatic biologist, Ill. Nat. Hist. Surv, 39; *asst. prof. biol, N. Texas State Teachers Col, 40–; lieut, Air Corps, U. S. Army, 42–* Fishery biology; age and rate of growth of fresh water fishes; fecundity studies; seasonal cycles.

Schlomovitz, Dr. B(enjamin) H(erman), 1210 Majestic Bldg, Milwaukee, Wis. *Physiology, Internal medicine.* Milwaukee, Wis, May 18, 89. B.S, Wisconsin, 14; M.S, Iowa, 16; M.D, Rush, Chicago, 17. Instr. pharmacol, Iowa, 14–16; asst, Illinois, 16–17; instr. physiol, Marquette, 17; Wisconsin, 18–19, asst. prof. pharmacol, 19–20; prof. physiol. and director dept, Marquette, 20–22; *director clin. research lab, U. S. Vet. Hosp, 23–* A.A; Physiol. Soc; Am. Med. Asn. Physiology and pharmacology of specialized tissue of the heart; gas poisoning; experimental lung edema; relative blood cell volume; pathology of lung.

Schlosberg, Prof. Harold, Brown University, Providence, R. I. *Psychology.* Brooklyn, N. Y, Jan. 3, 04. A.B, Princeton, 25, A.M, 26, Procter fellow, 27–28, Ph.D, 28. Asst, Princeton, 25–26; instr. *psychol, Brown,* 28–30, asst. prof, 30–37, *assoc. prof, 37–* A.A; Soc. Exp. Psychol; Psychol. Asn; East. Psychol. Asn. Conditioned reflex; learning; general experimental psychology.

Schlosberg, Morris, 1920 Parkwood Ave, Toledo, Ohio. *Entomology.* New York, N. Y, Dec. 25, 99. B.S. (Agr), Ohio State, 25, M.S, 26. Asst. entomologist, *field sta, bur. entom. and plant quarantine, U. S. Dept. Agr,* 28–41, *assoc. entomologist, 41–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Control of clothes moth by heat; control of European corn borer by heat, cultural methods; clean-up practice and use of resistant strains of corn; European corn borer damage to corn and factors affecting rates.

Schloss, Dr. O(scar) M, 125 E. 72nd St, New York, N. Y. *Medicine.* Cincinnati, Ohio, June 20, 82. B.S, Ala. Polytech, 01; M.D, Hopkins, 05. Asst. diseases of children, Univ. and Bellevue Hosp. Med. Col, 08–12; instr. pediat, Columbia, 12–18; *prof.* diseases of children, med. col. Cornell, 18–21; Harvard Med. Sch, 21–23; *med. col, Cornell,* 23–34, *clin. pediat, 34–* Director pediat. service, Nursery and Child's Hosp; pediatrician in chief, N. Y. Hosp, 32–34, attending pediatrician, 34–; head, Children's Hosp, 32–34. A.A; Pediat. Soc. (ed. and recorder, 15, pres, 32); Acad. Pediat. (mem, council pediatric research); Soc. Clin. Invest; Asn. Immunol. Diseases of children; intestinal diseases of children; allergy; acidosis.

Schlotthauer, Dr. Carl F(rank), Mayo Foundation, Rochester, Minn. *Surgery, Pathology.* Madison, Wis, 93. Wisconsin, 11–13; D.V.M, St. Joseph Vet. Col, 23. Chief veterinarian, Pabst Corp, Wis, 23–24; instr. comp. path. and asst. prof. *exp. med, Mayo Foundation, Minnesota,* 24–37, *assoc. prof, 37–* Vet. Med. Asn. (sec'y, sect. small animals, 30–33, 35, chairman, 34; research councilor, 41); Animal Hosp. Asn. (chairman sect. neur, 40–42); Minn. Vet. Med. Soc. Experimental surgery; comparative pathology.

Schluchter, Dr. Alfred William, 1412 S. Mason St, Dearborn, Mich. *Metallurgy.* Pigeon, Mich, July 29, 96. B.S, Michigan, 19, M.S, 21, Ph.D, 26. *Research metallurgist, Gen. Motors Research Corp, 26–* A.A; Min. and Metal. Eng. Transference numbers and activities of sodium hydroxide in aqueous solutions.

Schlutz, Prof. F(rederic) W(illiam), University of Chicago, Chicago, Ill. *Pediatrics.* Greene, Iowa, Nov. 10, 80. A.B, Wartburg Col; M.D, Maryland, 02; Berlin, 09; Strassburg, 10; Berlin and Paris, 13; Harvard, 19; M.S, Minnesota, 36. Instr. pediat. and biochem, Minnesota, 10–12, *pediat,* 12–15, asst. prof, 15–22, *prof. and head dept,* 24–30; *Chicago, 30–* Lecturer, S. Amer, 27. Del, Pan-Am. Child Welfare Cong, 28. Am. Med. Asn; Acad. Pediat; Pediat. Soc; Soc. Pediat. Research; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Nutrition; hon. mem. Nat. Acad. Argentina; hon. mem. Pediat. Soc. Argentina, Colombia, Cuba, Paraguay, Peru, Uruguay, Venezuela and Mex. Medicine; physiology; bio-

chemistry of nutrition and protein metabolism; immunology; gastric and intestinal motility.

Schmalhausen, Dr. Samuel D(aniel) (Samuel Daniel House), 320 W. 78th St, New York, N. Y. *Psychology.* New York, N. Y, Sept. 14, 89. A.B, Col. City of N. Y, 09; A.M, Columbia, 12, Ph.D, 27. Teacher, high schs, N. Y, 09–17; lecturer psychol, Labor Temple Sch, New York, 28–30, 38–42; *psychol. consultant, lecturer and writer, 27–* Assoc. Psychol. Asn. Humanizing education; mental hygiene inventory; sex in civilization; our changing human nature; the new generation; woman's coming of age; economics and philosophy of psychiatry; the new road to progress; man's mind and the world crisis.

Schmarje, Dr. C(larence) F(red), Schmarje Carbide Tool Co, Muscatine, Iowa. *Mechanical engineering.* Muscatine, Iowa, July 30, 11. B.S, Iowa, 32, M.S, 34, Ph.D, 35. Asst. mech. eng, Iowa, 32–34, draftsman, dept. grounds and bldgs, 34–35; asst. fuel research engineer, Battelle Mem. Inst, 35–36; results engineer, Appalachian Elec. Power Co, 36–37; *exp. engineer,* Carnegie-Ill. Steel Corp, 37–42; *Schmarje Carbide Tool Co, 42–* Mech. Eng. Radiation in boiler furnaces; combustion; carbide tools.

Schmedeman, Dr. O(tto) C(arl), 1002 Boyle Bldg, Little Rock, Ark. *Mining geology.* Madison, Wis, Jan. 23, 10. B.S, Wisconsin, 30, A.M, 31; A.M, Harvard, 36, Ph.D, 37. Geologist, Cerro de Pasco Copper Corp, 31–35; asst. chief geologist, 37–41; *chief geologist, Reynolds Mining Corp, 41–* Occurrence and origin of bauxite deposits.

Schmeing, Prof. G(eorge) M(ichael), 6214 Wayne Ave, Chicago, Ill. *Physical chemistry.* Quincy, Ill, Nov. 25, 95. A.B, Quincy Col, 15, A.M, 16; B.S, Loyola (Ill), 19, M.S, 26; Chicago. Instr. *chem, Loyola (Ill),* 20–30, *prof, 30–* A.A; Chem. Soc. Effect of temperature on the activity of electrolytes in water solutions; photoelectric effect displayed by solutions.

Schmeisser, Dr. Harry C(hristian), Pathological Institute, University of Tennessee, Memphis, Tenn. *Pathology, Bacteriology.* Baltimore, Md, Sept. 20, 85. A.B, Hopkins, 08, M.D, 12, fellow, 12–14, Ph.D, 14; Marburg, 08; Freiburg, 10. From asst. to assoc. path, sch. med, Hopkins, 12–19; prof. and director dept. path. and bacter, sch. med, Emory, 19–21; *prof. path. and bacter, chief div. col. med, col. dentistry, sch. pharmacy and sch. nursing, director path. inst. and sec'y faculty council, col. med, Tennessee, 21–* Visiting pathologist, Grady and Wesley Mem. Hosps, Atlanta, Ga, 19–21; chief pathologist and bacteriologist, John Gaston Hosp, 21–, med. board, 26–; visiting pathologist, Baptist Mem. Hosp, Memphis, 21– Assoc. ed, 'Memphis Med. Jour,' 24–32. M.C, 17–19, major; O.R.C, 19–30, lieut. col, 30–40. Asn. Path. and Bact; fel. Am. Med. Asn; Soc. Exp. Path; fel. Col. Physicians; South. Med. Asn. (chairman, path. sect, 35, med. educ. sect, 36); Int. Asn. Geog. Path; Int. Asn. Med. Mus. Syphilis; tuberculosis; tumors; Gaucher's disease; relation of fowl typhoid to leukemia of the fowl; heart block caused by gumma of the septum; miliary tubercles of the choroid; syphilitic mesarteritis of the pulmonary artery; health laboratories in the South; art and medicine.

Schmelzle, Dr. A(mbrose) F. A, Creighton University, Omaha, Nebr. *Physical chemistry.* Forestville, Wis, Feb. 1, 15. B.S, St. Mary's Col. (Minn), 36; M.S, Creighton, 38; fellow, Indiana, 39–40, Ph.D, 40. Asst. *chem,* Creighton, 36–38; Indiana, 38–39; *instr,* John Carroll, 40–42; *Creighton, 42–* Vapor pressure of non-aqueous solutions; electrochemistry of solutions.

Schmerling, Dr. Louis, Universal Oil Products Co, Riverside, Ill. *Organic chemistry.* Milwaukee, Wis, April 20, 12. B.S, Wisconsin, 32; Ph.D, Northwestern, 35. *Research chemist, Universal Oil Products Co, 35–; lecturer, Northwestern, 41–* Chem Soc; Inst. Chem. Ether rearrangements; derivatives of alkylbenzenes; isomerization accompanying alkylation catalysis.

Schmidt, Prof. Bruno M(oritz), 16 Chipman Park, Middlebury, Vt. *Geology.* Freudenthal, Czechoslovakia, Jan. 20, 00. A.B, Williams Col, 22; A.M, Yale, 25. Asst. *geol,* Williams Col, 22–23; instr, *Middlebury Col,* 25–29, asst. prof, 29–31, *assoc. prof, 31–* A.A. Paleontology; stratigraphy; physical geology; a thousand foot core from the Tonkawa oil field in Oklahoma.

Schmidt, Dr. C. Robert, School of Aviation Medicine, Randolph Field, Texas. *Physiology, Surgery.* Wash, Oct. 8, 07. B.S, Washington (Seattle), 32; fellow, Northwestern, 33–38, M.S, 35, Ph.D, 38, M.D, 39. Intern, Henry Ford Hosp, Detroit, Mich, 38–39; surg. res, Hertzler Clinic, Halstead, Kans, 39–42, director research, 41–42; *Med. Corps, Air Forces, U. S. Army, 42–, capt. and aviation physiologist.* Instr, med. sch, Tennessee, 38. Physiol. Soc; Biol. Soc. Physiology of gall bladder; physiology of bile flow; bile salt metabolism; liver function in thyrotoxicosis in surgical patients; perverted thyroid secretion in goiter.

Schmidt, Prof. Carl F(rederic), University of Pennsylvania, Philadelphia, Pa. *[17]*Physiology, Pharmacology.* Lebanon, Pa, July 29, 93. A.B, Lebanon Valley Col, 14; M.D, Pennsylvania, 18. Instr. *pharmacol,* Pennsylvania, 19–22; assoc, Peking Union Med. Col, 22–24; asst. prof, *Pennsylvania,* 24–29, assoc. prof, 29–31, *prof, 31–* Soc. Pharmacol. (v. pres, 40–42; ed, 'Jour,' 40–42); Physiol. Soc; Soc. Exp. Biol; Physiol. Soc. Phila. Glomerular circulation in. the frog's kidney; action of drugs on respiration; action of ephedrine; cerebral circulation and respiration; morphine tolerance; carotid sinus, carotid body and respiration; blood-flow measurements in brain and kidney.

Schmidt, Prof. Carl L(ouis) A(ugust), University of California, Berkeley, Calif. *[18]*Biochemistry.* S. Dak, 85. B S, California, 08, M.S, 10, Ph.D, 16. Chemist, Metropolitan Light and Power Co, Calif, 08–09; expert chemist, referee board, U. S. Dept. Agr, 09–12; bacteriologist and chemist, Board Health, Berkeley, 13–14; asst. physiol, *California,* 15–18, asst. prof. chem. path, 18, *biochem,* 18–21, assoc. prof, 21–24, *prof. and chairman dept, 24–, dean col. pharmacy, 37–* Consulting biochemist, Univ. Calif. and South. Pacific Hosps; collaborator, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr; mem. staff, Eli Lilly and Co, 38–41; Rockefeller Foundation, 41– Pres, Annual Reviews, Inc. Ed. cmt, 'Annual Rev. Biochem.' Research award, Sigma Xi, 28; Chem. Foundation, Inc, 29–34; Carl Schurz Foundation fellow, 32. Int. Physiol. Cong, Boston, 29, Rome, 32. Soc. Biol. Chem. (ed. cmt); Chem. Soc; Soc. Exp. Biol; West. Soc. Nat; Pacific Asn. Ry. Surg; Calif. Acad. Med. Mineral metabolism; fermentation; metabolism of sulfur, bacteria and Protozoa; photodynamic action; bile; fat soluble vitamins; immunochemistry; physical chemistry of proteins and amino acids; thermodynamics and history of amino acids.

Schmidt, Dr. Carl T(heodor), P. O. Box 3166, Honolulu, Hawaii. *Entomology.* Maple Grove, Minn, Oct. 30, 04. A.B, Minnesota, 29; fellow, Hawaii, 31–34, Ph.D, 34. Asst. entom, Minnesota, 26–31; instr. zool, *Hawaii,* 34–36, *assoc. entomologist, Pineapple Research Inst, 36–; collaborator, U. S. Dept. Agr, 36–* Mem. biol. control exped, Brazil, 36–37, Bolivia, Peru, Venezuela, 39–40. A.A; Entom. Soc. Amer; Hawaiian Entom. Soc. (pres, 38); Hawaiian Acad. Animal ecology; Hawaiian entomology; economic entomology; insect toxicity.

Schmidt, Prof. C(larence) C(arl), Texas Technological College, Lubbock, Texas. *Physics.* Charles City, Iowa, Aug. 30, 94. A.B, Cornell Col. (Iowa), 17; A.M, Illinois, 21, Ph.D, 27. Asst. *physics,* Illinois, 19–27; assoc. prof, *Texas Tech. Col,* 27–42, prof, 42–43, *head dept, 43–* Summer, asst, eng. exp. sta, Illinois, 21. A.A; Physical Soc. Dielectric constant of electrolytes.

Schmidt, Prof. Edward W(illia)m, 918 W. Second St, Northfield, Minn. *Archeology, Geology.* Decorah, Iowa, Nov. 26, 66. A.B, Wisconsin, 87, A.M, 89; Minnesota; Chicago; California. St. Olaf Col, 88, 90–91, 04–08; Red Wing Sem, 89–90, 91–04, prin, 08–17; *prof. biol, St. Olaf Col, 17–* Indian archeology; geology of Goodhue and Rice counties, Minnesota.

Schmidt, Dr. Eleonora L(ouise), Faculty Exchange, Norman, Okla. *Anatomy.* Flucom, Mo, March 25, 94. A.B, Cent. Wesleyan Col, 19; A.M, Missouri, 24, B.S, 25; M.D, Washington (St. Louis), 27. *Res. physician to women and assoc. prof. anat, Oklahoma, 29–* Am. Med. Asn; Okla. Acad. Inclusion bodies of the ovarian eggs of Rana pipiens; regressive changes in fat bodies.

Schmidt, Prof. Emil Gustave, University of Maryland School of Medicine, Baltimore, Md. *Biochemistry.* Osceola, Wis, July 6, 00. B.S, Wisconsin, 21, M.S, 23, Ph.D, 24; LL.B, Maryland, 33. Instr. *biochem, sch. med, Maryland,* 25–27, assoc, 27–33, asst. prof, 33–36, *assoc. prof, 36–* Chem. Soc. Fermentation; blood chemistry.

Schmidt, Prof. Ernst A(lbert), University of Colorado School of Medicine, Denver, Colo. *Radiology.* Ay, Baden, Germany, Feb. 1, 95. M.D, Heidelberg, 20. Physician and

surgeon, univ. hosps, Heidelberg, 20–22; Sanatorium Black Forest, 22–24; roentgenologist, Colo. Gen. Hosp, and instr. radiol, Colorado, 25–26; director dept. radiol. and physiotherapy, N. La. Sanitarium and Clinic, Shreveport, 26–29; asst. prof. radiol, Wisconsin, 29–30; assoc. prof. *surg, sch. med, Colorado*, 31–39, *prof. radiol, 39–, chief dept, Colorado, 31–* Am. Med. Asn; fel. Col. Radiol; Radiol. Soc. N. Amer; Rocky Mountain Radiol. Soc; Denver Radiol. Club. Roentgenology; radium therapy; tuberculosis.

Schmidt, Prof. Erwin R, 1937 Arlington Place, Madison, Wis. *Surgery.* Dec. 19, 90. A.B, Wisconsin, 13; M.D, Washington (St. Louis), 16. Exchange asst, Maria Hosp, Stockholm, 20–21; Frankfurt, 21–22; *prof. surg, Wisconsin, 26–* A.A; fel. Col. Surg; Am. Med. Asn; Surg. Asn; Asn. Surg. of Trauma; Cent. Surg. Asn; West. Surg. Asn; German Surg. Cong. Duodenal obstruction; transverse myelitis due to leukemia; perforating ulcers of the stomach and the duodenum; hydrocephalus; intestinal obstruction.

Schmidt, Dr. F(rederic) C(owles), Union College, Schenectady, N. Y. *Chemistry.* New Haven, Conn, Feb. 19, 04. B.S, Brown, 27, M.S, 28, Ph.D, 31. Research chemist, Oldbury Electrochem. Co, Niagara Falls, 30–31; research, Brown, 31–32; instr. *org. chem, Union Col. (N. Y.)*, 32–37, asst. prof, 37–43, *assoc. prof, 43–* Chem. Soc. Heats of solution and reaction in liquid ammonia; organo-silicon compounds; nitrohaloalkanes.

Schmidt, Dr. Ida Genther, University of Cincinnati College of Medicine, Cincinnati, Ohio. *Histology.* New Milford, N. J, Dec. 1, 02. A.B, Mt. Holyoke Col, 25; A.M, Wisconsin, 27; Ph.D, Washington (St. Louis), 30. Asst. zool, Wisconsin, 25–27; path, sch. med, Washington (St. Louis), 27–29, zool, univ, 29–30; junior fellow, Children's Hosp, Research Foundation, *Cincinnati*, 30–33, instr. *anat, col. med*, 33–36, *asst. prof, 36–* Summers, Marine Biol. Lab, Woods Hole, 24– A.A; Soc. Zool; Asn. Anat. Amebocytes of Limulus; x-ray effects on ovaries; colchicine effects on ovaries.

Schmidt, Dr. John H(enry), 230 Grove St, Bloomfield, N. J. *Chemistry.* Saginaw, Mich, Oct. 18, 94. B.Ch.E, Michigan, 16; M.S, Wisconsin, 18, Ph.D, 21. Asst. chem, Michigan, 16; research chemist and asst. foreman, indigo dept, Dow Chem. Co, Midland, Mich, 16–17; instr. chem, Wisconsin, 17–23; research chemist, *Bakelite Corp*, 23–40, *supt, 40–* A.A; Chem. Soc. Plastics and synthetic resins.

Schmidt, Karl Patterson, Field Museum of Natural History, Chicago, Ill. **Zoology.* Lake Forest, Ill, June 19, 90. A.B, Cornell, 16. Asst, Am. Museum Nat. Hist, 16–18, asst. curator, 19–22; reptiles and amphibians, *Field Museum Nat. Hist*, 22–37, curator, 37–40, *chief curator zool, 41–* Guggenheim Mem. Foundation fellow, 32–33. Sect. ed, amphibia and reptilia, 'Biol. Abstracts.' Cornell geol. exped, Santo Domingo, 16; N. Y. Acad. sci. surv, P. R, 19; Marshall Field exped, Cent. Amer, 23; Brazilian exped, 26; Crane Pacific exped, 28–29; Mandel Guatemalan exped, 33–34; Field Museum Magellanic exped, 39. A.A; Soc. Ichthyol. and Herp. (herpetological ed, 'Copeia,' 37–, pres, 42); Soc. Mammal; Biol. Soc. Wash. Reptiles and amphibians; zoogeography.

Schmidt, Dr. L(awrence) D(elos), U. S. Bureau of Mines, Pittsburgh, Pa. *Physical chemistry.* West Concord, Minn, July 30, 01. B.S, Mass. Inst. Tech, 24; Ph.D, Minnesota, 36. Chemist, Peoples Gas Light and Coke Co, Chicago, 24–25; Asst. chief chemist, Chicago By-Products Coke Co, 25–26; research assoc, Bur. Standards, 27–28; research chemist, Celotex Co, New Orleans, 29–30; asst. chemist, *U. S. Bur. Mines*, 36–37, assoc. chemist, 37–40, chemist, 40–43, *senior chemist, 43–* Cmt. chem. utilization of coal, Nat. Research Council. Chem. Soc. Coal carbonization, oxidation and storage; moisture sorption and heat of wetting of cellulose.

Schmidt, Dr. L(eon) H(erbert), 3426 Whitfield, Cincinnati, Ohio. *Medicine.* Huron, Ohio, June 28, 09. A.B, De Pauw, 29; M.S, Cincinnati, 30, fellow, 30–32, Ph.D, 32. Research fellow, *Christ Hosp. inst. for med. research, col. med, Cincinnati*, 32–37, *director research, 38–, asst. prof. biol. chem, col. med, 38–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Bact; N. Y. Acad. Sulfonamide therapy of bacterial infections; bile acid and steroid metabolism; phospholipid and fat metabolism.

Schmidt, Ludwig, 1655 Cherokee Place, Bartlesville, Okla. *Engineering.* Des Moines, Iowa, May 11, 96. B.S, Oklahoma, 21, Chem.E, 24. *U. S. Bur. Mines, 21–, senior petrol. engineer.* Petrol. Inst; Chem. Soc. Conservation and efficient handling of crude petroleum and its products; evaporation losses; disposal of brines produced with crude petroleum and natural gas; interior corrosion in oil storage tanks; secondary mining methods for producing crude petroleum.

Schmidt, Dr. M(aurice) R(oland), 1931 Lake Ave, Whiting, Ind. *Chemistry.* Baltimore, Md, Dec. 3, 85. A.B, Hopkins, 06, fellow, 08–09, Ph.D, 09. Research chemist, Sharp and Dohme, 09–11; ed. worker, 11–14; anal. and research chemist, Chas. Pfizer and Co, 14–17; research chemist, *Standard Oil Co. of Ind*, 17–19, plant chemist, 19–22, dept. supt, 23–31, *asst. gen. supt, 31–* Pharmaceutical chemistry; petroleum; lubrication.

Schmidt, Robert, North Carolina State College, Raleigh, N. C. *Horticulture.* Manumuskin, N. J, March 11, 91. B.S, Rutgers, 12. Asst. seed analyst, N. J. Exp. Sta, 13–15; seed analyst, Exp. Sta, Kans. State Col, 15–17; assoc. prof. hort, Miss. Agr. and Mech. Col, 19–23; asst. and *assoc. horticulturist, Exp. Sta, N. C. State Col, 23–, assoc. prof. hort, 42–; major, U. S. Army.* Inf, 17–19, capt. Soc. Hort. Sci. Vegetable crops.

Schmidt, Walter A(ugust), 1016 W. Ninth St, Los Angeles, Calif. *Chemistry.* Los Angeles, Calif, Aug. 26, 83. B.S, California, 06. Engineer, *West. Precipitation Co*, 08–11, *pres. and gen. manager, 11–, pres, Precipitation Co. of Can, Ltd, Montreal, 35–; Int. Precipitation Co, 11–; officer and director, Westwell Chem. Co, Whittier, Calif.* A.A; Chem. Soc; Electrochem. Soc; Chem. Eng; Elec. Eng; Min. and Metal. Eng. Electrical precipitation of suspended particles from gases.

Schmiedel, Oscar (Robert Paul), San Blas Ave, R. F. D. 1, Atascadero, Calif. *Mathematics.* Gülzow, Germany, Dec. 1, 61. B.S, Bethany Col. (W. Va), 86, A.M, 88. Prof. math, Bethany Col. (W. Va), 86–02; Bellevue Col. (Nebr), 05–19, dean faculty, 18–19; Parsons Col, 19–20; Nebr. Wesleyan, 20–24. Math. Soc. Zero, infinity and the infinitesimal; infinite series; integration by inspection.

Schmieder, Dr. Rudolf G(ustav), University of Pennsylvania, Philadelphia, Pa. *Entomology.* San Diego, Calif, Aug. 26, 98. A.B, Pennsylvania, 20, A.M, 22, Ph.D, 27. Instr. *zool, Pennsylvania*, 23–37, *asst. prof, 37–* Assoc. ed, 'Entom. News,' 28– A.A; Entom. Soc. (pres, 36–38); Entom. Soc. Amer; Soc. Zool. Insect metamorphosis.

Schmitkons, Dr. G(eorge) E(dwin), 1830 W. 105th St, Chicago, Ill. *Organic chemistry.* Lorain, Ohio, Dec. 26, 11. A.B, Oberlin Col, 33; Ph.D, Ohio State, 37. Teaching asst. gen. chem, Ohio State, 34–37; *research chemist, Standard Oil Co, Ind, 37–* Chem. Soc. Catalytic conversion of hydrocarbons; analytical methods for hydrocarbon determination; reaction of alkylamines with molten sodium amide.

Schmitt, Dr. C(hris) G(eorge), University of Arkansas, Fayetteville, Ark. *Botany, Agronomy.* Pershing, Mo, Dec. 27, 06. A.B. and B.S, Cent. Mo. State Teachers Col, 27; Ph.D, Missouri, 39. Asst, Missouri, 32–39; *instr. agron, Arkansas, 39–; U. S. Army, 42–* Soc. Agron. Genetics of fungi; cotton fiber.

Schmitt, Dr. Clara, Chamber of Commerce, Los Angeles, Calif. *Psychology.* Elderville, Ill, Aug. 3, 78. A.B, B.S, Missouri, 05; fellow, Chicago, 11, Ph.D, 14. Teacher, pub. schs, 95–02; high schs, 05–08; psychologist, juvenile court, Chicago, 10–12; asst. director dept. child study, Board Educ, Chicago, 12–26; *supervisor psychol. clinic, pub. schs, Los Angeles, 26–* Instr, Chicago, 18–26; Southern California, 27. A.A; Psychol. Asn. Child study; mental hygiene of school children.

Schmitt, Dr. Claude G(ordon), 57 Dale Road, Rochester, N. Y. *Organic chemistry.* Swanton, Ohio, July 30, 05. B.S, Toledo, 27; M.S, Ohio State, 29, Ph.D, 31. Asst. prof. chem, Okla. Agr. and Mech. Col, 31–34; *tech. asst, patent dept, Eastman Kodak Co, 34–* A.A; Chem. Soc. Olefins; halogenated ethers.

Schmitt, Prof. Francis O(tto), 404 Common St, Belmont, Mass. **Zoology, Biology.* St. Louis, Mo, Nov. 23, 03. A.B, Washington (St. Louis), 24, Ph.D, 27. Nat. research fellow chem, California, 27–28; London, 28–29; Kaiser Wilhelm Inst, 29; asst. prof. zool, Washington (St. Louis), 29–34, assoc. prof, 34–38, prof, 38–40, head dept, 40–41; prof. biol, *Mass. Inst. Tech*, 41–42, *head dept. biol. and biol. eng, 42–* Physiol. Soc; Soc. Exp. Biol; Soc. Zool; Soc. Growth and Develop; Soc. Nat; fel. Am. Acad. Kidney function; conduction in heart muscle;

biochemistry and electrophysiology of nerve; analysis of tissue ultrastructure by polarized and reflected light, x-ray diffraction and electron microscope.

Schmitt, Dr. Harrison (Ashley), P. O. Box 572, Silver City, N. Mex. *Geology.* Mankato, Minn, June 11, 96. A.B, Minnesota, 21. M.S, 22, Ph.D, 26. Asst. geologist, Standard Oil Co. of Ind, 22; geologist, Am. Smelting and Ref. Co, 23–27; N. J. Zinc Co, 27–30; *consulting geologist, 30–* A.A; Soc. Econ. Geol; Geol. Soc; Min. and Metal. Eng; Miner. Soc. Mining; economic geology; petrography.

Schmitt, Dr. J(ohn) B(artley), 5 Chestnut St, Route 14, New Brunswick, N. J. *Entomology.* Trenton, N. J, June 26, 09. B.S, Rutgers, 32, M.S, 33, Ph.D, 36; Maryland, 33–34. Research fellow insecticides, Delaware, 36; *asst. entomologist, N. J. Exp. Sta, 37–; instr. entom, Rutgers, 37–* Asn. Econ. Entom; Entom. Soc. Amer. Morphology.

Schmitt, Prof. Otto H(erbert), University of Minnesota, Minneapolis, Minn. *Biophysics, Electronics.* St. Louis, Mo, April 6, 13. A.B, Washington (St. Louis), 34, Ph.D, 37. Nat. research fellow, Univ. Col, London, 38, Sir Halley Stewart research fellow, 39; instr. *physics and zool, Minnesota, 40, assoc. prof, 41–* Physical Soc; Minn. Acad. Mechanism of the nerve impulse and its mode of propagation in terms of purely physical and chemical concepts; electronic engineering.

Schmitt, Dr. Waldo L(asalle), U. S. National Museum, Washington, D. C. *[6]Zoology.* Washington, D. C, June 25, 87. B.S, George Washington, 13, Ph.D, 22; A.M, California, 16. Aid econ. bot, U. S. Dept. Agr, 07–10; div. marine invertebrates, U. S. Nat. Museum, 10; sci. asst, 'Albatross,' 10–13, naturalist, 14–15; instr. zool, George Washington, 15–20; asst. curator div. marine invertebrates, *U. S. Nat. Museum,* 15–20, curator, 20–43, *head curator biol, 43–* Bur. Fisheries exped, Lower Calif, 11; salmon investigations, Alaska, 11; biol. surv, San Francisco Bay, 12–13; halibut surv, coasts Wash. and Oregon, 14; Walter Rathbone Bacon scholar, Smithsonian Institution, 25–27; Tortugas lab, Carnegie Institution, 24–25, 30–32; Hancock Galapagos-Pacific expeds, 32–35; Smithsonian-Hartford exped, West Indies, 37; naturalist, Presidential Cruise, 38; mem, Hancock exped, N. coast S. Amer, 39; Alaska king crab investigation, fish and wildlife service, U. S. Dept. Interior, 40; U. S. Navy exped, Galapagos Islands, 41. Navy Oceanog. Conf, 24. A.A; Soc. Zool; Geophys. Union; West. Soc. Nat; Biol. Soc. Wash; Wash. Acad; Panama Canal Nat. Hist. Soc; Zool. Soc. London; cor. mem. Soc. Chilean Hist. Nat; Acad. Chilean Ciencias Nat; hon. mem. Soc. Brasileira Piscicult. e Oceanog. Fisheries; oceanography; oceanic island faunas, Galapagos Islands; taxonomy of Crustacea.

Schmitter, Dr. Ferdinand, 4 Westgate Blvd, Manhasset, N. Y. *Anatomy.* Albany, N. Y, Feb. 20, 76. A.B, Union (N. Y), 99; M.D, Hopkins, 03. Instr. anat, Wisconsin, 03–05; from lieut. to col, U. S. Army, 05–22; *retired.* Cytology of the kidney; syphilography; medical mycology.

Schmitz, Dean Henry, University of Minnesota, St. Paul, Minn. *Forestry.* Seattle, Wash, March 25, 92. B.S, Washington (Seattle), 15, M.S, 16; Ph.D, Washington (St. Louis), 19. Asst. prof. forestry, Idaho, 19–22, assoc. prof. forest products, 22–24, prof, 24–25; prof. and chief div. forestry, *Minnesota,* 25–43, *dean col. agr, forestry and home econ, 43–* A.A; Soc. Foresters (pres, 42–); Wood Preservers Asn. (preservatives cmt); Ry. Eng. Asn. (preservatives cmt); Bot. Soc; Phytopath. Soc. Wood decay; wood preservation; forest products.

Schmitz, Dr. Henry Lenzen, 25 E. Washington St, Chicago, Ill. *Medicine.* Chicago, Ill, Oct. 30, 98. B.S, Chicago, 20; Ph.D, Wisconsin, 24; M.D, Harvard, 26. Instr. pharmacol, Wisconsin, 22–24; *med,* Chicago, 28–30, asst. prof, 30–34; *assoc. clin. prof, sch. med, Loyola (Ill), 34–* Soc. Clin. Invest; Am. Med. Asn; Col. Physicians. Chemotherapy of local anesthetics; metabolism of leukemic leukocytes; physiology of the kidney; action of diuretics; hematology.

Schmoll, Dr. Hazel M(arguerite), Ward, Colo. *Botany.* McAllister, Kans, Aug. 23, 90. A.B, B.E, Colorado, 13; M.S, Chicago, 19, Ph.D, 32. Asst. biol, Vassar Col, 13–14, bot. and biol, 14–17; curator, State Bur. Mines, Colo, 20–21; asst. curator nat. hist, State Museum, Denver, 19–20, 21–23, curator, 23–25; ed. work, Rand McNally and Co, Chicago, 32–33; herbarium, Field Museum Nat. Hist, 33–39. Mich. Biol. Sta, 13; Vassar table, Marine Biol. Lab, Woods Hole, 14; teacher, Frances Shimer Junior Col, 34. Summers, head, Range View Ranch, Colo, 38–41. Ed. work, 'Bot. Gazette,' 35–36; 'Plant Physiol,' 35–38. Ecol. research, Colo. State Hist. and Nat. Hist. Soc, Chimney Rock, Pagosa Springs, Colo, 24, Mesa Verde Nat. Park, 25. Bot. Soc. Ecological botany; ecological survey of the forests in the vicinity of Glencoe, Illinois; ecological survey of Chimney Rock area in the Pagosa-Piedra region, Colorado.

Schmucker, Prof. S(amuel) C(hristian), Rosedale Ave, West Chester, Pa. *Biology.* Allentown, Pa, Dec. 18, 60. A.B, Muhlenberg Col, 82, A.M, 85, M.S, 91, Sc.D, 13; Ph.D, Pennsylvania, 93, hon. fellow, 99–00. Prof. sciences, Carthage Col, 83–84; nat. science, high sch, Pa, 84–89; *sciences, Pa. State Nor. Sch,* Indiana, 89–95; *West Chester, 95–24, emer. prof, 24–; zool, Wagner Free Inst, 08–, dean faculty.* Ecology; sexual selections.

Schmutz, F(rederick) C(harles), New Jersey Zinc Co, Palmerton, Pa. *Chemistry.* New York, N. Y, Nov. 8, 96. Ch.B, Cornell. Glidden Co, Cleveland, Ohio, 20–21; C. E. Harrison Co, 21–22; A. P. Munning Co, New York, 22–23; research div, *N. J. Zinc Co,* 23–40, *in charge commercialization of new products, tech. dept, 40–* Chem. Soc; Soc. Test. Mat. (sec'y, subcmt. VII, cmt. D–I on protective coating). Evaluation of organic protective coatings; ultra-violet light as a test for paint products; formulation of paint and varnish products, particularly house and maintenance paints for metal; paint deterioration; luminescent pigments.

Schneberger, Dr. Edw(ard), State Conservation Department, State Office Bldg, Madison, Wis. *Ichthyology.* Cuba, Kans, Feb. 18, 06. B.S, Kans. State Col, 28, M.S, 29; Ph.D, Wisconsin, 33. Biologist, State Forestry, Fish and Game Cmn, Kans, 27–29; asst. zool, Wisconsin, 29–33; biologist, *State Conservation Dept, Wis,* 33–37, *chief biologist, 37–* Mem, State Cmt. Water Pollution. Fisheries Soc; Limnol. Soc; Mich. Acad. Nutrition of fishes; age, growth and food of fish; fish management; fish diseases; factors affecting commercial fishing; pollution; control of obnoxious aquatic plants.

Schneble, Dr. A(lfred) William, Jr, 416 Lonsdale Ave, Dayton, Ohio. *Metallurgy.* Dayton, Ohio, Sept. 29, 17. B.Ch.E, Dayton, 39; Sc.D, Mass. Inst. Tech, 41. *Metal. engineer, Advance Foundry Co, 41–* Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn. Effect of superheating on the structure and properties of gray cast iron.

Schneck, Prof. Matthew M(aximilian) R(upprecht), 1824 E. Elm St, Tucson, Ariz. *Psychology.* San Bernardino Co, Calif, May 10, 98. A.B, Arizona, 25; A.M, Columbia, 27, Ph.D, 29. Instr. *psychol,* Arizona, 24–26; Col. City of N. Y, 27–30; assoc. prof, *Arizona,* 30–34, *prof. and head dept, 34–* A.A; assoc. Psychol. Asn. Tests; learning; abnormal psychology.

Schneckenburger, Dr. Edith R(uth), 210 N. Washington St, Ypsilanti, Mich. *Mathematics.* Warsaw, N. Y, July 20, 08. A.B, Syracuse, 27, A.M, 28; Ph.D, Michigan, 40. Instr. math, Wilson Col, 28–35; Randolph-Macon Woman's Col, 37–38; *Mich. State Nor. Col, 41–* Math. Soc. Topology; bounding monotonic transformations.

Schneider, Dr. Burch H(art), West Virginia University, Morgantown, W. Va. *Animal nutrition.* Oelwein, Iowa, May 2, 01. B.S, Iowa State Col, 25; M.S, Vermont, 26; Ph.D, Cornell, 31. Asst, Exp. Sta, Vermont, 25–27; rep, Harvard Mission, Albania, 27–29; asst. animal husbandry, Cornell, 29–31; nat. research fellow biol, animal nutrition div, Illinois, 31–33; head dept. animal husbandry and dairying, Allahabad Agr. Inst, 33–38; *assoc. prof. animal husbandry, West Virginia, 38–* Soc. Animal Production. Factors affecting the digestibility of feed nutrients; biological values and digestibility of protein concentrates; subdivision of the metabolic nitrogen in the feces; roughage quality for livestock; cattle raising and milk production in the tropics.

Schneider, Dr. B(yron) Aubrey, 1901 E. Madison St, Baltimore, Md. *Zoology.* Md, Jan. 9, 12. A.B, Western Maryland Col, 36; Sc.D, Hopkins, 39. *Instr. biol, sch. hygiene and pub. health, Hopkins, 39–* A.A; Soc. Zool. Population studies; nutrition; endocrinology of insects.

Schneider, Prof. Edward C(hristian), 25 Wesleyan Place, Middletown, Conn. *[3]Physiology.* Wapello, Iowa, Aug. 21, 74. B.S, Tabor Col, 97; Ph.D, Yale, 01; M.P.E, Int. Y.M.C.A. Col, 23; Sc.D, Denver, 14, Colo. Col, 32. Instr. chem, Tabor Col, 97–99, prof. biol. and physiol. chem, 01–03; *biol,* Colo. Col, 03–07. head prof. 07–19; *Ayres prof, Wesleyan, 19–* Sec'y

board control, Conn. Exp. Sta. Anglo-Am. exped, Pike's Peak, 11. John Jeffries award, Inst. Aeronaut. Sciences, 42. Sanit.C, U.S.A, major; physiologist, Sch. Aviation Med, Mitchell Field, 19–26. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Pub. Health Asn; fel. Physical Educ. Asn; Acad. Physical Educ; Conn. Pub. Health Asn. Influence of high altitudes and low oxygen on man; physical staleness; aviation physiology; physiology of physical exertion.

Schneider, Dr. Edwin G(eorge), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Colorado Springs, Colo, Aug. 25, 08. B.S, Wesleyan, 29; Ph.D, Harvard, 34. Instr. physics, Harvard, 34–37; physicist, Farnsworth Television, Inc, 37; engineer, television dept, Philco Radio and Television Corp, 37–38; instr. physics, Stevens Inst. Tech, 38–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Physical Soc; Optical Soc. Spectroscopy of the extreme ultraviolet; cosmic radiation.

Schneider, Dr. Frank L, 30 Van Zandt Ave, Douglaston, L. I, N. Y. *Analytical chemistry.* New York, N. Y, May 26, 06. B.S, Polytech. Inst. Brooklyn, 28; M.S, N. Y. Univ, 30; Ph.D, Rutgers, 36. Teaching fellow, N. Y. Univ, 28–32; asst, Rutgers, 33–34, instr, 34–37; *chem,* Trinity Col. (Conn), 37–39, *Queens Col. (N. Y),* 39–42, *asst. prof, 42–* Fel. Inst. Chem; Chem. Soc. (sec'y, microchem. sect, 36, chairman, 37); Microchem. Soc. (sec'y-treas, 35–37). Microchemistry.

Schneider, Dr. H(elmuth) G(ustav) R(ichard), 224 E. Fifth Ave, Roselle, N. J. *Organic chemistry.* East London, S. Africa, Nov. 25, 00. B.Sc, South Africa; Ph.D, Mass. Inst. Tech. Research chemist, Arthur D. Little, Inc, Cambridge, 25; instr. org. chem, N. Y. Univ, 25–33; *research chemist, Standard Oil Co. of N. J, 27–* Chem. Soc.

Schneider, Dr. Howard A(lbert), Rockefeller Institute for Medical Research, New York, N. Y. *Biochemistry, Nutrition.* Milwaukee, Wis, Dec. 25, 12. B.S, Wisconsin, 34, Alumni Research Foundation fellow, 34–36, M.S, 36, Ph.D, 38. Asst. biochem, Wisconsin, 36–39; Rockefeller Foundation fellow nat. sciences, Rockefeller Inst. Hosp, 39–40; *asst, Rockefeller Inst, 40–* A.A; Chem. Soc; Harvey Soc. Mineral metabolism; lipids; relation of nutrition to resistance to infection; nutritional genetics.

Schneider, Prof. Hyrum, University of Utah, Salt Lake City, Utah. *Geology, Mineralogy.* Logan, Utah, Oct. 24, 82. A.B, Brigham Young Col, 08; A.M, Wisconsin, 11, Ph.D, 26. Instr. *geol. and miner,* Colo. Sch. Mines, 12–14; from instr. to *prof, Utah, 14–, head dept. geol, 39–* Geologic aid, U. S. Geol. Surv; asst. geologist, Wis. Geol. Surv; Colo. Geol. Surv. A.A; fel. Geol. Soc; fel. Miner. Soc; fel. Utah Acad. (pres, 22). Structure, stratigraphy and physiography of the Wasatch Mountains and adjacent Basin Ranges.

Schneider, Dr. J(ohn) M(atthew), Middleport, N. Y. *Organic chemistry.* Steubenville, Ohio, July 12, 05. B.S, Carnegie Inst. Tech, 28; M.S, Va. Polytech, 32; Ph.D, Chicago, 35. Youngstown Sheet and Tube Co, 28–29; Bethlehem Steel Co, 29–31; Beatrice Creamery Co, 31–37; *Niagara Sprayer and Chem. Co, 37–* Chem. Soc. Carbohydrates; chemistry of dairy products; organic synthesis; insecticides.

Schneider, Dr. Joseph Z(ubanik), 3422 Carpenter St, S.E, Washington, D. C. *Chemistry, Economics.* Praha, Czecho-Slovakia, April 4, 97. B.A, Fine Arts and Science Col, Praha, 14; Chem.E, Inst. Tech, Praha, 20, Sc.D, 23, privat-docent, 27. Lecturer, Grad. Sch. Commerce, Inst. Tech, Praha, 22–27, 29–30, prof, 30–39, dean, 35, 38; visiting prof, Chicago, 27–28; consulting chemist, Chicago, Ill, 28–29; prof. chem, Madison Col. (Va), 40–42; *chief chem. unit, econ. objectives div, office econ, warfare analysis, Board Econ. Warfare, 42–* Mem. Brookings Dominican Surv, 41. Pres, Int. Econ. Course, Greece, 37, Germany, 38, Sweden, 39. Commander, Order of Gorgeous Jade, China. A.A; Chem. Soc; Am. Asn. Czecho-slovak Eng. (pres, 28); Va. Acad; Int. Soc. Business Educ. (exec. v. pres, 37–39). Technology and economics of commodities with special concentration on tropical raw materials, foodstuffs, education for business and international economic relations; tannin analysis; applied spectroscopy; gasoline substitutes; heavy water; enzymes; toxicology.

Schneider, Dr. J(ulius) L(e Verne), 6117 N. Kilbourn Ave, Chicago, Ill. *Chemical engineering.* Neenah, Wis, Sept. 24, 05. A.B, Nebr. State Teachers Col, 26; M.S, Iowa State Col, 27, fellow, 27–29, Ph.D, 29. *Chem. engineer indust. research, research dept, Continental Can Co, 29–* A.A; Chem. Soc. Chemistry; commercial utilization of cellulosic farm wastes, especially corn stalks; adhesives, lacquer cements and sealing compounds for cans; soldering fluxes.

Schneider, Prof. V(alerie), Texas Technological College, Lubbock, Texas. *Chemistry.* Locker, Texas, Jan. 12, 97. B.S, Texas, 26, M.S, 28; Sc.D, Mass. Inst. Tech, 31. Chemist, Vacuum Oil Co, 30–32; *assoc. prof. chem. eng, Texas Tech. Col, 33–* Chem. Soc. Chemical engineering; the mechanism of aromatic formation from paraffins; analysis of hydrocarbon mixtures.

Schneider, Prof. W(alter) A(rthur), 68 Edgars Lane, Hastings-on-Hudson, N. Y. *Physics.* East London, S. Africa, Jan. 2, 99. B.Sc, South Africa, 20; M.S, Michigan, 22; Ph.D, N. Y. Univ, 27, E.E, Polytech Inst. Brooklyn, 36. Asst. *physics,* Michigan, 21–22; instr, *N. Y. Univ,* 22–27, asst. prof, 27–29, *assoc. prof. and director physics lab, 29–* Instr, Polytech. Inst. Brooklyn, 29–35. Physical Soc; Radio Eng; Am. Inst; N. Y. Elec. Soc. Photoelectric effects in argentite; oscillographic analysis of vacuum tube characteristics; dielectric constants; nuclear disintegration.

Schneider, Dr. W(illiam) G(eorge), Harvard University, Cambridge, Mass. *Physical chemistry.* June 1, 15. B.Sc, Saskatchewan, 37, M.Sc, 39; Nat. Research Council Can. fellow, McGill, 40–41, Ph.D, 41; Harvard, 41–43. Research fellow chem, Royal Soc. Can, 41–42; *research assoc. physical chem, Harvard, 42–* Chem. Soc. Radio-active tracers.

Schneiderwirth, Dr. Herman J(oseph), Jericho Manor, Jenkintown, Pa. *Chemistry, Biology.* Meppen, Germany, Nov. 1, 92. Ph.D, Münster, 21. Mem. staff, Am. Electro-Osmosis Corp, New York, 23–26; Osten Chem. Corp. and Picochrome Corp, 27–36; Wm. R. Warner Co, Inc, 36–37; Chem. Bacter. Lab, Port Chester, N. Y, 38–41; *research director, Nat. Drug Co, 42–* Chem. Soc; Inst. Chem; Pharmaceut. Asn. Chemotherapy; synthetic medicinals; biotherapy; serums; vaccines; vitamins; electro dialytic and osmotic purification of colloids.

Schneidewind, Prof. Richard, University of Michigan, Ann Arbor, Mich. *Metallurgy.* Manila, P. I, Dec. 16, 00. B.S, Michigan, 23, M.S.E, 28, Ph.D, 33. Chemist, Studebaker Corp, Detroit, 19–21, 23–24; research engineer, *Michigan,* 24–37, asst. prof. *mētal. eng,* 37–39, *assoc. prof, 39–* Soc. Test. Mat; Soc. Metals; Foundrymen's Asn. Electrodeposition of chromium; metallurgy of power plant materials; malleable iron; gray cast iron and cast steel.

Schneirla, Prof. T(heodore) C(hristian), New York University, Washington Square, New York, N. Y. *Psychology.* Bay City, Mich, July 23, 02. A.B, Michigan, 24, M.S, 25, Sc.D, 28. Instr. *psychol,* Michigan, 27–28; *N. Y. Univ,* 27–29, asst. prof, 30–43, *assoc. prof, 43–; assoc. curator animal behavior, Am. Museum Nat. Hist, 43–* Nat. research fellow, Chicago, 30–31. Psychol. Asn. Comparative psychology; learning, orientation and communication in ants; learning in mammals; insect instinct; social organization in insects.

Schnelter, Roy, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Bacteriology.* Cowgill, Mo, Aug. 10, 02. B.S, Iowa State Col, 27, M.S, 29; Ph.D, Maryland, 43. Asst. chemist, State Grain and Warehouse Dept, Mo, 26; asst. bacteriologist, eng. sta, Iowa State Col, 27, teaching fellow, 27–28; bacteriologist, food and drug admin, U. S. Dept. Agr, 28–40; *in charge bacter, div. indust. hygiene, nat. inst. health, U. S. Public Health Service, 40–* Soc. Bact; Pub. Health Asn. (assoc. referee microbiol. methods for eggs and egg products in standard methods for examination dairy products, 39–41); Dairy Sci. Asn. (assoc. referee microbiol. methods dried milk products, 33–40); Asn. Official Agr. Chem. (assoc. referee microbiol. methods eggs and egg products, 37–40); Asn. Govt. Indust. Hygienists. Sanitary, food and drug bacteriology; bacteriology of dried milk and frozen egg products; etiology of acute illness among workers with stained cotton; airborne infections and the use of ultraviolet light for their control.

Schnepp, Prof. Raymond F(rancis), St. Mary's University, San Antonio, Texas. *Mathematics.* Chicago, Ill, March 10, 96. B.S, Dayton, 22; M.Sc, Fribourg, 28, Ph.D, 29. Prof. chem, Chaminade Col, 23–25; *prof. math. and head dept, St. Mary's Univ. San Antonio, 30–* A.A; Math. Soc; Math. Asn. Theory of numbers; factorization of integers.

Schnetzler, Dr. Estill Everett, Purdue University, West Lafayette, Ind. *Poultry genetics.* Salisbury, Mo, June 24, 06. B.S, Missouri, 28, A.M, 30; Ph.D, Iowa State Col, 43. Instr. *poultry husbandry,* Missouri, 30; Okla. Agr. and Mech. Col,

30–31; *Purdue*, 31–35, asst. prof, 35–42, *assoc. prof, 42–* Genetics Soc; Poultry Sci. Asn. Disease resistance.

Schniepp, Dr. L(ester) E(dward), 306 Gilbert Ave, Peoria, Ill. *Chemistry.* Nokomis, Ill, July 30, 08. B.S, Ill. Wesleyan, 31; M.S, Illinois, 32, Ph.D, 35. Asst. org. chem, Illinois, 32–35; research chemist, E. I. du Pont de Nemours and Co, 35–42; *senior chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc. Reactions of δ-amino-valeric acid; di-p-alkyl-phenyl dibiphenylene ethanes; industrial research; dyes and intermediates.

Schnur, G(eorge) Luther, 214 Druid Hill Ave, Salisbury, Md. *Forestry.* Chillicothe, Ohio, Aug. 21, 02. A.B, Wittenberg Col, 24; M.F, Yale, 26. Junior forester, *U. S. Forest Service*, 26–29, asst. silviculturist, *Allegheny Forest Exp. Sta*, 29–34, assoc. silviculturist, 34–38, *silviculturist, 38–* Soc. Foresters (sec'y-treas, Allegheny sect, 36–40); Ecol. Soc. Forest mensuration and silviculture.

Schoch, Dr. Arthur G, Southwestern Medical Foundation, College of Medicine, Dallas, Texas. *Dermatology.* Austin, Texas, June 13, 03. A.B, Texas, 23, M.D, 27; M.S, Pennsylvania, 31. Instr. *dermat. and syphilol*, Pennsylvania; asst. prof. and later *assoc. prof, col. med, Southwest. Med. Foundation, 36–* Director, Dallas Syphilis and Venereal Disease Clinic, 37– Investigator, cmt. med. research, Nat. Research Council, 41. Dermat. Asn; Acad. Dermat. and Syphilol; Am. Med. Asn; Soc. Investigative Dermat. Sensitization to the arsphenamine; reinfection in syphilis; the ten day syringe method in the treatment of early syphilis.

Schoch, Prof. Eugene P(aul), 2212 Nueces St, Austin, Texas. *Chemistry.* Berlin, Germany, Oct. 16, 71. C.E, Texas, 94, A.M, 96; fellow, Chicago, 99–00, Ph.D, 02. Instr. *chem, Texas*, 97–06, adj. prof, 06–11, *prof, 11–, director indust. chem. exp. sta, 14–* Texas Acad. (pres, 08). Physical and industrial chemistry; electromotive force of nickel; systematic electroanalysis; water treating; economic products from polyhalite; improving lignite as a fuel; effect of electric discharge upon hydrocarbons.

Schocken, Dr. Klaus, St. Joseph's College, Philadelphia, Pa. *Physics.* Berlin, Germany, April 24, 05. Ph.D, Berlin, 28. Asst, Institutum Divi Thomae, 36–38; Barnard Skin and Cancer Hosp, St. Louis, Mo, 40; *instr. physics*, Caney Junior Col, Ky, 40–41; *St. Joseph's Col. (Pa), 41–* Physical Soc. Medical radiology; electrology; climatology.

Schoder, Prof. E(rnest) W(illiam), 220 Willard Way, Ithaca, N. Y. *Hydraulic engineering.* Dewey, Fidalgo Island, Wash, Aug. 17, 79. B.S, Washington (Seattle), 00; Ph.D, Cornell, 03. Sta. asst, U. S. Geol. Surv, 00; engineer on construction, Ithaca Water Works Pumping Sta. and Cornell Water Purification Plant, 03–04; *engineer in charge hydraul. lab, Cornell, 04–*, asst. prof. *exp. hydraul*, 05–19, *prof, 19–* Capt, C.Eng, 17–19. A.A; Civil Eng. Flow of water in pipes; effects of curvative, size, roughness, temperature; critical velocity; effects of abnormal flow on piezometric indications; hydraulics of Panama sea-level canal without locks; the Pitot tube; flow of water over weirs; measuring devices; hydraulic models.

Schoeffel, Dr. Eugene W(ilhelm), American Medical Association, 535 N. Dearborn St, Chicago, Ill. *Agricultural biochemistry.* Stuttgart, Germany, Jan. 25, 03. Diploma, Hohenheim Agr. Col, 25; Ph.D, Wisconsin, 33. *Research chemist*, Chamber Agr, Stuttgart, Germany, 25; limnol, Alumni Research Foundation, Wisconsin, 31–33, agr. biochem, research lab, 33–36; *chem. lab, Am. Med. Asn, 36–* Microanalysis; carbohydrate fat chemistry; soil fertilizer; alkaloids.

Schoemaker, Prof. D(aniel) M(artin), 1402 S. Grand Blvd, St. Louis, Mo. *Anatomy.* Muscatine, Iowa, Oct. 7, 67. B.S, Chicago, 98, fellow, 99–00, M.D, Rush, 04; scholar, Rockefeller Inst, 02–03. Asst. anat, Chicago, 98–99; asst. prof. bacter, St. Louis, 04–05; asst. city bacteriologist, St. Louis, 06–07; assoc. prof. *anat, St. Louis*, 07–11, *prof, 11–, director dept, 30–* A.A; Asn. Anat; St. Louis Anthrop. Soc. A cross-section anatomy.

Schoen, Prof. J(ohn) E(dmund), 1515 W. Wisconsin Ave, Milwaukee, Wis. *Engineering.* Milwaukee, Wis, March 6, 98. B.S, Marquette, 19; M.S, Wisconsin, 29. *Prof. mech. and metal. eng. and head depts, Marquette.* Mech. Eng. (chairman Milwaukee sect, 43); Soc. Metals (chairman local sect, 39–40); Soc. Heat. and Vent. Eng. (cmt. fuels); Eng. Soc. Milwaukee (exec. board). Skin hardening of phosphor bronze sheet; physical tests of furnace cements; micro structures and corrosion resistance of brasses and bronzes; centrifugal casting of bearing metals; burning of oils in boilers; impact testing of safety shoes.

Schoen, Prof. Max, 5440 Bartlett St, Pittsburgh, Pa. *Psychology, Education.* Austria-Hungary, Feb. 11, 88. A.B, Col. City of N. Y, 11; Ph.D, Iowa, 21. Director music, E. Tenn. State Nor. Sch, 14–20; asst. *psychol*, Iowa, 20–21; asst. prof, *Carnegie Inst. Tech*, 21–23, assoc. prof, 23–25, *prof. and head dept. psychol. and educ, 25–* A.A; Psychol. Asn. Human nature; psychology of music; esthetics; effects of music; the beautiful in music.

Schoen, Dr. Z(byszko) J(ohn), 1019 Broadway, Buffalo, N. Y. *Optics.* Buffalo, N. Y, May 16, 09. B.S, Ohio State, 32; A.M, Buffalo, 34; Sc.D, N. Ill. Col. Optometry, 36; du Pont fellow, Virginia, 35–36, Ph.D, 37. *Clin. research and child specialist orthoptics and refraction, 32–* Ed. board, 'Am. Jour. Optometry.' A.A; Psychol. Asn; Va. Acad. Ophthalmic optics; neuromuscular efficiency of ocular muscles; ocular dominance; chronometric analysis of binocular equilibrium; normal range of the convergence index; visual projection; spatial positions of dissociated ocular images.

Schoenberg, Prof. I(saac) J(acob), 19 S. Wycombe Ave, Lansdowne, Pa. *Mathematics.* Galatz, Roumania, May 1, 03. A.M, Univ. Jassy, Roumania, 22, Ph.D, 26; Göttingen and Berlin, 22–25. Instr, Univ. Jassy, Roumania, 26–30; Int. Educ. Board fellow, Chicago, 31–32, asst, 30–31; mem, Inst. Advanced Study, 33–35; acting asst. prof. *math*, Swarthmore Col, 35–36; instr, *Colby Col*, 36–37, *asst. prof, 37–* Summer, visiting lecturer, Univ. Jerusalem, 28. Math. Soc; Math. Asn. Diophantine approximations; calculus of variations; problem of moments; linear inequalities; numerical solutions of algebraic equations; interpolatory function theory; analytical theory of isometric imbedding of metric spaces.

Schoenberg, Dr. Mark Joseph, 667 Madison Ave, New York, N. Y. *Medicine.* Pitesci, Roumania, Dec. 23, 74. A.B, Lyceum, Bucharest; M.D, Bucharest. Surgeon in chief and later *emer. surgeon, glaucoma clinic, Knapp Mem. Eye Hosp; chairman cmt. glaucoma, Nat. Soc. Prevention of Blindness.* Instr, col. physicians and surg, Columbia; adj. consulting ophthalmologist, Presb. Hosp; Bronx Hosp. Sec'y-treas, Brain Research Foundation, New York. Lucien Howe prize, N. Y. State Med. Soc, 14. Am. Med. Asn; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; fel. N. Y. Acad. Med. Glaucoma; intra-ocular pressure; ocular anaphylaxis and ocular tuberculosis; ciliary body; detachment of retina.

Schoenborn, Prof. Edward M(artin), Jr, University of Delaware, Newark, Del. *Chemical engineering.* Columbus, Ohio, May 3, 09. B.Ch.E, Ohio State, 32, M.S, 34, Ph.D, 41. Instr. chem, *Delaware*, 35–38, *chem. eng*, 38–39, *asst. prof, 39–* Mem. agr. and indust. relations cmt. for regional lab, U. S. Dept. Agr. Chem. Eng; Chem. Soc; Soc. Test. Mat; Eng. Educ. (sec'y-treas, div. chem. eng). Distillation; fluid flow and other unit operations.

Schoenborn, Dr. Henry W(illiam), Stanford University, Calif. *Biology.* Connersville, Ind, Dec. 31, 12. A.B, DePauw, 33; Ph.D, N. Y. Univ, 39. Asst. zool, DePauw, 32–33; biol, N. Y. Univ, 34–40; *instr. zool*, Oregon, 40–42; *Stanford, 42–; U. S. Army, 43–* A. Cressy Morrison prize, N. Y. Acad. Sciences, 39. A.A; Soc. Zool; Micros. Soc; N. Y. Acad. Nutritive requirements of protozoa under bacteria-free conditions.

Schoene, Dr. W(illiam) J(ay), Virginia Polytechnic Institute, Blacksburg, Va. *Entomology.* Henderson, Ky, July 27, 79. B.S, Kentucky, 05; M.S, Chicago, 10; Ph.D, Ohio State, 28. Asst. and assoc. entomologist, N. Y. Exp. Sta, Geneva, 05–13; state entomologist, Va, and teacher entom, *Va. Polytech*, 13–27, *teacher econ. entom, inst, and entomologist, Exp. Sta, 27–* Entom. Soc. Amer; Asn. Econ. Entom. (chairman, northeast. sect, 31). Economic entomology; insect pests; life history of insects.

Schoenfeld, Dr. Frank K(och), Hastings Road, Silver Lake Estates, Cuyahoga Falls, Ohio. *Physical chemistry.* Pittsburgh, Pa, Dec. 7, 04. B.S, Michigan, 27; M.S, Western Reserve, 33, Ph.D, 37. Research chemist and later *director koroseal and plastics research and develop, B. F. Goodrich Co, 27–, tech. supt. chem. div, 43–* A.A; Chem. Eng; Chem. Soc. Measuring gas black dispersion in rubber; energy of pigment dispersion in rubber; surface chemistry of carbon blacks; adhesives; rubber derivatives; pigment and rubber dispersions in liquids; polymerization; synthetic plastics.

Schoenfeld, Dean William Alfred, Oregon State College, Corvallis, Oregon. *Agriculture.* Saxony, Germany, Sept. 16, 88. B.S, Wisconsin, 14; M.B.A, Harvard, 22; Berlin. Exec. sec'y to dean and director, Exp. Sta, Wisconsin, 14; lecturer agr. econ, Texas, 14–15; v. director exten, Tennessee, 15–20; sec'y-manager, New Eng. Research Co, 20–22; asst. chief and acting chief, bur. agr. econ, *U. S. Dept. Agr,* 22–24, agr. commissioner, north. Europe, and agr. attaché, bur. econ, 24–26, Northwest. rep, *bur. agr. econ,* Portland, Oregon, 26–30, *regional rep, Fed. Farm Board, 29–, collaborator; dean and director sch. agr. and exten. service, Oregon State Col. and Exp. Sta, 31–* Lecturer, Mass. Inst. Tech, 21–22; consulting specialist, agr. adjust. admin, U. S. Dept. Agr; director, Production Credit Corp, Northwest Fruit Indust, Inc, Oregon Drought Service, Regional Agr. Credit Corp; chairman, State Conservation Advisory Cmn. and Agr. Council, Pacific Northwest Advisory Board; mem, State Planning Board, Oregon; temporary chairman, State Wildlife Federation; chairman board directors, Fed. Land Bank, Spokane; Fed. Intermediate Credit Bank; Bank for Cooperatives. U. S. del, Int. Agr. Cong, Warsaw, 25; Int. Inst. Agr, Rome, 26; Pacific Science Cong, Vancouver, 33. West. Farm Econ. Asn; Agr. Research Foundation; Agr. Eng. Research Foundation.

Schoenherr, Dr. Karl E(rnest), 4449 Volta Place, N. W, Washington, D. C. *Engineering.* Karlsruhe, Germany, Dec. 29, 93. B.S, Mass. Inst. Tech, 22; A.M, George Washington, 30; D.E, Hopkins, 32. Asst. engineer, *exp. model basin, U. S. Navy,* 22–35, naval architect, 35–40, *senior naval architect, David W. Taylor model basin,* 40–42, *head naval architect and chief hydromech. div, 42–* Naval Archit. and Marine Eng. Fluid dynamics; propeller and ship design.

Schoening, Dr. Harry W(illiam), U. S. Department of Agriculture, Washington, D. C. *Bacteriology, Pathology.* Philadelphia, Pa, Oct. 8, 86. D.V.M, Pennsylvania, 07. Veterinary inspector, meat inspection div, *bur. animal indust, U. S. Dept. Agr,* 07–13, *path. div,* 13–29, asst. chief, 29–31, *chief, 31–, asst. chief bur, 36–* Mem. foot and mouth disease cmn, U. S. Dept. Agr, Europe, 25–26. A.A; Soc. Bact; Vet. Med. Asn; D. C. Vet. Med. Asn. (pres, 39); Wash. Acad. Veterinary bacteriology and pathology; glanders; dourine; foot and mouth disease; vesicular stomatitis; rabies; equine encephalomyelitis; swine erysipelas.

Schoenlaub, Dr. R(obert) A(rnold), Basic Dolomite Co, Inc, Maple Grove, Ohio. *Petrography.* Marion, Ohio, Aug. 12, 06. B.Cer.E, Ohio State, 30, Ph.D, 33. Asst. miner, Ohio State, 30–33, asst. engineer, highway test. lab, 33–36; *with* Owens-Illinois Glass Co; *Basic Dolomite Co, Inc.* Solid solutions between glaucochroite, monticellite and eisen-kalk-olivine; proprietary admixtures for concrete; sandstones of Ohio; deleterious chert in concrete aggregates.

Schoenmann, L(ee) R(oy Adolph), Michigan State College, East Lansing, Mich. *Soils.* Plain, Wis, Jan. 13, 89. B.S.A, Wisconsin, 11. Soil scientist, bur. soils, U. S. Dept. Agr, 11–20; business manager and soil expert, Am. Rural Planning Asn, 20–21; develop. adviser, Nat. Land Colonizing Co, 21–22; chief soil surveyor, Mich. Land Econ. Surv, 22–25, in charge, 26–33; director forest camps, Civilian Conservation Corps, Mich, 33–34; director region 3, land policy sect, agr. adjust admin, U. S. Dept. Agr, 34–35; supervisor agr. land classification and land use adjust, agr. div, Tenn. Valley Authority, 35–36; Charles Lathrop Pack prof. wild land utilization, sch. forestry and conservation, Michigan, 36–37; *director conservation inst, Mich. State Col, 37–* Summers, asst. soil surveyor, Wis. Geol. and Nat. Hist. Surv, 09–11. Soil Sci. Soc; Mich. Acad. Land economic survey; natural resources inventories; characteristics of land and its environment; land use; land planning; conservation of natural resources.

Schoepfle, Prof. C(hester) S(eitz), 2022 Vinewood Blvd, Ann Arbor, Mich. *Chemistry.* Sandusky, Ohio, March 13, 92. B.Ch.E, Michigan, 14, Sc.D, 18. Instr. *org. chem, Michigan,* 16–19, asst. prof, 19–24, assoc. prof, 24–36, *prof, 36–, chairman dept. chem, 36–* A.A. Organic chemistry; trivalent carbon; quinoidation of triarylmethyl halides.

Schoepfle, Dr. G(eorge) K(ern), Oberlin College, Oberlin, Ohio. *Physics.* Sandusky, Ohio, April 13, 05. A.B, A.M, Oberlin Col, 27; Ph.D, Cornell, 33. Asst. *physics,* Amherst Col, 27–28; Cornell, 28–29, instr, 29–35; Agr. and Mech. Col. Texas, 35–37, asst. prof, 37–41, assoc. prof, 41–42; assoc. prof. and acting head dept, James Millikin, 42–43; *visiting lecturer, Oberlin Col, 43–* A.A; Physical Soc; Asn. Physics Teachers. Extreme ultra-violet spectroscopy; isoelectronic sequences.

Schoepfle, Dr. G(ordon) M(arcus), Washington University, St. Louis, Mo. *Physiology.* Louisville, Ky, June 11, 15. A.B, DePauw, 37; A.M, Princeton, 39, Ph.D, 40. *Instr. physiol, sch. med, Washington (St. Louis), 42–* Neurophysiology; kinetics of bioluminescence; interfacial tensions.

Schoewe, Prof. Walter Henry, University of Kansas, Lawrence, Kans. *Geology.* Milwaukee, Wis, Jan. 15, 91. A.B, Wisconsin, 14, M.S, 15; Ph.D, Iowa, 20; A.M, Harvard, 30. Instr. geol, Iowa, 18–19; geol. and miner, Colo. Sch. Mines, 19–20; asst. prof. *geol, Kansas,* 20–24, *assoc. prof, 24–* Lecturer, Wellesley Col, 30; geologist, State Geol. Surv, Kans, 41– Iowa Geol. Surv; Kans. Geol. Surv. A.A; Geol. Soc; Kans. Acad. (v. pres, 36, pres, 38; assoc. ed, 'Trans,' 40–); Iowa Acad. Pleistocene geology of Iowa; glacial sediments and wind-polished boulders in Kansas; stratigraphy of Pennsylvanian and Permian of northeastern Kansas; formation of wind-faceted pebbles; criteria of wind action; mineral economics of Kansas.

Schoff, Dr. Stuart L(eeson), Care of Mrs. S. L. Schoff, 617 E. Division St, Cadillac, Mich. *Geology.* Cadillac, Mich, Dec. 13, 06. A.B, Oberlin Col, 29; A.M, Ohio State, 31, Ph.D, 37. Asst. geol, Ohio State, 29–32; soil inspector, U. S. Army Engineers, 34, 35; instr. geol. and drafting, Springfield Junior Col, 35–36; asst. geol, DePauw, 36–37; junior geologist, *ground water div, U. S. Geol. Surv,* 37–40, *asst. geologist, 40–; lieut, U. S. Army, 42–* Geophys. Union. Ground water resources.

Schofield, Dr. Norman D, University of Texas Medical Branch, Galveston, Texas. *Pathology.* Dennison, Minn, Aug. 1, 04. B.S, Minnesota, 30, A.M, 33, Ph.D, 38; M.B, Wayne, 41, M.D, 42. Asst, Minnesota, 33–38; *instr. path,* Wayne, 38–39; intern and res. med, 41–43; *assoc. prof. path, med. branch, Texas, 43–* Am. Med. Asn; Mich. Path. Soc. Pathology of endocrine organs; developmental potentials of pancreatic unlaga; effect of variation of hypophyseal tissue on the gastro-intestinal tract.

Schofield, Prof. Samuel B(iggs), Western Maryland College, Westminster, Md. *Chemistry.* Georgetown, Md, Feb. 13, 98. A.B, Western Maryland Col, 19; A.M, Princeton, 25, 24–28; Cornell, summers, 21–24. Instr. *chem, Western Maryland Col,* 19–21, asst. prof, 21–24, dean men, 20–22, 23–24, *prof. and dean, 28–, dean admin, 39–* Chem. Soc; fel. Inst. Chem. Gaseous dissociation.

Schofield, Prof. Stuart J(ames), University of British Columbia, Vancouver, B. C, Can. *Geology.* Gravesend, Eng, Sept. 3, 83. M.A, Queen's (Can), 06, B.Sc, 08; Ph.D, Mass. Inst. Tech, 12. Geologist, Geol. Surv. Can, 06–21; prof. struct. geol, British Columbia, 21–40. Consulting geologist. Fel. Geol. Soc; fel. Soc. Econ. Geol; fel. Royal Soc. Can; Can. Inst. Min. and Metal; fel. Geol. Soc. China. Structural and economic geology; Beltian and Cambrian rocks, ore deposits and fissure system of British Columbia; ore in depth in British Columbia mines; geology of Crown Colony of Hong Kong; Coast Range batholith; geology of British Columbia.

Schofield, W(illiam) Richison, 736 E. Phil-Ellena St, Mt. Airy, Philadelphia, Pa. *Engineering.* Philadelphia, Pa, Oct. 20, 95. Pennsylvania. Draftsman, *Leeds and Northrup Co, Phila,* 16–19, designer, 19–21, engineer and designer, 21–25, asst. chief engineer, 25–28, chief engineer, 28–40, *director eng, 40–* Fel. Elec. Eng; Mech. Eng. Electrical, mechanical and chemical engineering; commercial and industrial application of scientific devices and apparatus, particularly various process controls including development and engineering phases.

Scholander, Dr. P(er) F(redrik), Swarthmore College, Swarthmore, Pa. *Physiology.* Orebro, Sweden, Nov. 29, 05. M.D, Oslo, 32, Ph.D, 34. Univ. stipendiate comp. physiol, Oslo, 34–39; Rockefeller fellow comp. physiol, Edward Martin biol. lab, *Swarthmore Col,* 39–41, *research assoc. zool, 41–; capt, Air Corps, U. S. Army, 43–* Soc. Zool; Physiol. Soc. Phila; Physiol. Soc. Oslo; Bot. Soc. Oslo. Respiratory adjustment to diving; metabolism; microgasometric methods; Arctic vascular plants and lichens.

Scholer, Prof. C(harles) H(enry), Kansas State College, Manhattan, Kans. *Civil engineering.* Lincoln Co, Kans, Sept. 19, 90. B.S, Kans. State Col, 14. Asst. engineer, office state engineer, Kans. State Col, 15–17; asst. bridge engineer, *State Highway Cmn, Kans,* 17–18, engineer tests, 19–29, *consulting materials engineer, 29–;* asst. prof. and assoc. prof. *applied*

mech, Kans. State Col, 19–22, prof. and head dept, 22– Chairman dept. materials and construction, Highway Research Board, 35– Engineer, Ordnance Dept, 18–19. Civil Eng; Soc. Test. Mat; Concrete Inst; Eng. Educ; Kans. Eng. Soc. Materials of construction; abrasion tests, durability and volume changes of concrete; weathering characteristics of aggregates; reinforcing steel.

Scholes, Dr. John C(harles), Beacon Milling Co, Inc, Cayuga, N. Y. *Animal genetics.* Killarney, Man, Can, March 26, 07. B.S.A, Manitoba, 28; Minnesota, 32; M.S, Cornell, 38, Ph.D, 40. Exten. poultry specialist, Man. Dept. Agr, Can, 28–35; asst. poultry, Cornell, 36–40; *poultry specialist, Beacon Milling Co, 40–* Poultry Sci. Asn. Resistance of chicks to pullorum disease; body temperature of chicks; smoking of poultry meats; animal physiology.

Scholes, Dr. S(amuel) R(ay), New York State College of Ceramics, Alfred, N. Y. *Chemistry.* Marquette, Wis, Jan. 22, 84. A.B, Ripon Col, 05; Loomis fellow, Yale, 10–11, Ph.D, 11. Instr, high sch, Wis, 05–08; asst. chem, Yale, 08–10; fellow, Pittsburgh, 11–13; chemist, H. C. Fry Glass Co, 13–20; manager, Utility Glass Works, 20–21; chemist, Fed. Glass Co, 21–29, 31–32; Fostoria Glass Co, 29–31; *glass technologist, N. Y. State Col. Ceramics, Alfred, 32–* Asst. director, Mellon Inst, 14–17; lecturer, Ohio State, 25–26. A.A; Chem. Soc; fel. Ceramic Soc. (sec'y, glass div, 35–); fel. Soc. Glass Technol. Inorganic colloids; vapor pressure of hydrates; glass; modern glass practise.

Scholl, Dr. A(llen) W, 1571 Girard St, Akron 1, Ohio. *Physics.* Alvada, Ohio, March 15, 08. B.S, Ashland Col, 30; M.S, Pa. State Col, 32, Ph.D, 34. Asst. chem, Ashland Col, 28–30; Pa. State Col, 30–34; asst. prof. chem. and physics, Ashland Col, 34–36, assoc. prof, 36–38; prof. chem. and head dept, Westminster Junior Col, Utah, 38–39; instr, Pa. Col. for Women, 39–42, assoc. prof. chem. and physics, 42–43; *senior research physicist, research lab, Firestone Tire and Rubber Co, 43–* Instr, eng, science and management defense training program, Pittsburgh Center, Pa. State Col, 41–43. Chem. Soc; Asn. Physics Teachers; Chemists' Club. Activity coefficients in non-aqueous solvents; oils and fats; synthetic rubber.

Scholp, Dr. Alvin C(onrad), Box 391, Fishkill, N. Y. *Physical chemistry, Mechanical engineering.* West New York, N. J, April 26, 16. M.E, Stevens Inst. Tech, 36; Ph.D, Mass. Inst. Tech, 39. *Physical chemist and mech. engineer, Beacon research lab, Texas Co, 39–* Engineering and chemical research on petroleum products.

Scholz, Dr. C(aesar) R(ichard), Ciba Pharmaceutical Products, Inc, Summit, N. J. *Organic chemistry.* Menado, Celebes, Dutch East Indies, Dec. 30, 07. Chem.E, Eidgenoessische Tech. Hochschule, Zurich, 31; Dr.Sc.Techn, Zurich, 34; Inst. Pasteur, Paris, 34–35. Research chemist, Soc. Chem. Industry, Bale, 35–40; *chief chemist, Ciba Pharmaceut. Products, Inc, 40–* Chem. Soc; Schweiz. Chem. Gesell; Deuts. Chem. Gesell. Yohimbine; corynanthine; steroidal hormones.

Scholz, Carl, 4111 Virginia Ave, Charleston, W. Va. *Mining engineering.* Slaventzitz, Germany, July 2, 72. Royal Gym. Beuthen. Manager mining and fuel dept, Rock Island Lines, 01–18; *v. pres, Raleigh Wyoming Coal Co, 19–* Lecturer, Chicago; consulting engineer, U. S. Bur. Mines, 10–20; C. B. and Q. System, 18–22. Min. and Metal. Eng; Min. Cong. (pres, 14–17). Prevention of coal mine explosion; extraction of coal; development of large tonnage mines; design and construction of mines.

Scholz, Dr. T(heodore) F(enton), Sunrise Farm, Mt. Horeb Road, Martinsville, N. J. *Organic chemistry.* New York, N. Y, July 28, 17. B.S, Yale, 38, hon. fellow, 40–41, Ph.D, 41. Asst. chem, Yale, 38–40; *research chemist, Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Mono alkamine esters of the pyrrole series.

Schomaker, Dr. Verner (Frederick Henry), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Nehawka, Nebr, June 22, 14. B.S, Nebraska, 34, M.S, 35; Ph.D, Calif. Inst. Tech, 38. Asst. chem, Nebraska, 34–35; teaching fellow chem, *Calif. Inst. Tech,* 35–38, George Ellery Hale fellow, 38–40, senior fellow chem. research, 40–41, *Guggenheim Mem. Foundation fellow, 41–* Chem. Soc. Raman spectra; electron diffraction by gas molecules.

Schomer, Harold A, 8507 Cunningham Drive, Berwyn Heights, Md. *Chemistry.* Ft. Pierre, S. Dak, Aug. 27, 06. B.S, S. Dak. State Col, 28; fellow, Chicago, 28–29, M.S, 29; Wisconsin, 31–35, fellow, 34–35. Instr, Duke, 29–31; asst, Wisconsin, 31–34; junior microanalyst, food and drug admin, *U. S. Dept. Agr,* 35–37, *asst. physiologist, bur. plant indust, 37–* Summers, State Biol. Surv, Trout Lake, Wis, 31–34. A.A. Irradiation of enzymes; photosynthesis in lakes; foods; transportation and storage of fruits and vegetables.

Schommer, Prof. John J(oseph), 3300 Federal St, Chicago, Ill. *Chemistry, Bacteriology.* Chicago, Ill, Jan. 29, 84. B.S, Chicago, 09; Chem.E, Armour Inst. Tech, 12. Asst. prof. and assoc. prof. chem. and *prof. indust. chem, Ill. Inst. Tech, 12–, director placement, 38–* Director, Acme Plating Co, 10–18. Asst. to State Occupational Adviser Draft Deferments, Ill. Trustee, Ill. Inst. Tech. A.A; Chem. Soc; Chem. Eng; fel. Eng. Educ. Chemical engineering; fermentation; gas; water; fuels; industrial chemistry.

Schoof, Dr. Herbert F(rederick), 302 Horne St, Raleigh, N. C. *Entomology.* Corona, L. I, N. Y, April 18, 14. B.S, N. C. State Col, 36, M.S, 38; Ph.D, Illinois, 40. Instr. zool. and entom, N. C. State Col, 40, 41–42; entomologist, malaria control defense areas, State Board Health, N. C, 40–41; *asst. entomologist, malaria control war areas, U. S. Pub. Health Service, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc. Taxonomic and morphological studies on genus Conotrachelus; taxonomic and biological studies of Culicidae.

Schooley, Dr. J(ames) P(lummer), Difco Laboratories, Inc, Detroit, Mich. *Zoology.* Geneva, Ind, May 8, 04. A.B, Indiana, 29, fellow, 32–33, Ph.D, 34. Teacher, high sch, Ind, 25–30; teaching fellow zool, Indiana, 30–32; asst, sta. for exp. evolution, dept. genetics, Carnegie Institution, 33–35, assoc, 35–39; *director endocrine labs, Difco Labs, Inc, 39–* A.A; Asn. Anat; Am. Med. Asn; Soc. Zool; Asn. Study Int. Secretions; Soc. Exp. Biol; Am. Inst. N. Y; N. Y. Acad; Mich. Acad. Embryology; endocrinology; anterior pituitary cytology.

Schoolland, Prof. John B, University of Colorado, Boulder, Colo. *Psychology.* Grand Rapids, Mich, May 11, 94. A.B, Michigan, 18; A.M, Columbia, 24; Colorado, 31–34; Ph.D, Duke, 38. Mem. dept. *psychol, Colorado, 31–, assoc. prof. and coordinator of guidance and counseling activities.* Assoc. Psychol. Asn; Colo-Wyo. Acad. Innate behavior tendencies; mental hygiene; psychology of personnel managers.

Schoonmaker, Dr. Hazel E(dith) (Mrs. L. T. Wilson), 20 Thompson St, Annapolis, Md. *Mathematics.* Philadelphia, Pa, Oct. 31, 88. A.B, Wellesley Col, 11; A.M, Radcliffe Col, 14; Ph.D, Cornell, 27. Acting assoc. prof. math, Denison, 15–16; acting prof, Augustana Col. (Ill), 20–21; prof, Gulf Park Col, 21–22; Western Col, 22–25; asst. prof, N. J. Col. for Women, Rutgers, 28–31; prof, Hartwick Col, 31–38. Math. Asn. Algebraic geometry.

Schoonover, Dr. Irl C(orley), National Bureau of Standards, Washington, D. C. *Chemistry.* Belington, W. Va, April 4, 06. A.B, George Washington, 29; Merck Chem. Co. fellow, Princeton, 30–32, A.M, 31, Ph.D, 34. Junior chemist, Bur. Standards, 29–30; asst. prof. chem, Davis and Elkins Col, 33–34; research assoc, Am. Silver Producers, *Bur. Standards,* 34–35, asst. chemist, 35–36, assoc. chemist, 36–41, *chemist, 41–* Chem. Soc; Wash. Acad; Int. Asn. Dental Research. Silver; precious metal alloys; physical and chemical properties of dental materials; resins.

Schoonover, Warren R(ippey), University of California College of Agriculture, Berkeley, Calif. *Agriculture.* Warsaw, Ind, Feb. 6, 91. B.S, Occidental Col, 12; M.S, Illinois, 16. Asst. soil fertility, col. agr, Illinois, 13–16, assoc. soil biol, 16–20; instr. biol, Riverside Junior Col, 21–22; specialist citriculture, agr. exten. service, *California,* 22–39, *specialist soils, 39–* A.A. Decomposition of green manures; management of orchard soils; orchard heating and efficiency of frost protection devices; methods of measuring smoke; fertility of California soils; fertilizer placement.

Schopf, Dr. James M(orton), U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Paleobotany.* Cheyenne, Wyo, June 2, 11. A.B, Wyoming, 30; M.S, Illinois, 32, Ph.D, 37. Asst. bot, Illinois, 30–33; asst, Ill. Geol. Surv, 34–35, asst. geologist, 36–43; *paleobotanist, U. S. Bur. Mines, 43–* A.A; Bot. Soc. (sec'y, paleobot. sect, 39, 40, chairman, 43); Paleont. Soc; Geol. Soc; Min. and Metal Eng. Morphology and taxonomy of Paleozoic plants, especially Medullosa, Mazocarpon, Dolerotheca, Lepidocarpaceae, fossil spores, geology, origin, constitution and type variation of coal; embryology of Larix.

Schopmeyer, Dr. C(lifford) S(charff), U. S. Forest Service, Lake City, Fla. *Plant physiology.* Center Point, Ind,

Aug. 21, 11. B.S, George Washington, 33; M.S, Maryland, 35; Ph.D, Duke, 37. Junior plant physiologist, North. Rocky Mountain Forest and Range Exp. Sta, *U. S. Forest Service*, 37–41, Intermountain Forest and Range Exp. Sta, 41–42, *asst. plant physiologist, South. Forest Exp. Sta, 42–* Soc. Plant Physiol; Soc. Foresters. Water relations; reforestation; vegetative propagation of pines.

Schorer, Dr. E(dwin) H(enry), Balcony Bldg, 300 W. 47th St, Kansas City, Mo. *Bacteriology, Pathology, Pediatrics.* Plymouth, Wis, Dec. 13, 81. B.S, Wisconsin, 02; M.D, Hopkins, 06; Dr.P.H, Harvard, 12. Asst, Rockefeller Inst, 06–07; asst. prof. parasitol. and hygiene, Missouri, 07–09; bacter. and path, Kansas, 09–10; dept. prev. med, Harvard, 10–12; *practising pediatrician, 12–* Director health, Kansas City, Mo, 35–40. Summers, investigator, Rockefeller Inst, 03; pathologist and bacteriologist, Thomas Wilson Sanitarium, Md, 04–06; serum lab, Harvard Med. Sch, 09. Lieut. col, M.C, and director lab. div, port of embarkation, Hoboken, N. J, 17–19. Asn. Path. and Bact; Soc. Bact; Am. Med. Asn; Acad. Pediat; Pub. Health Asn; Mo. Pub. Health Asn. (pres, 37); Royal Inst. Pub. Health, London. Hygiene, children's dysentery; milk investigation; rhabdomyoma of the heart; immunity to tuberculosis; vaccine and serum therapy; diphtheria; allergy; epidemic meningitis; influenza.

Schorger, Dr. A(rlie) W(illiam), 168 N. Prospect Ave, Madison, Wis. *Chemistry.* Republic, Ohio, Sept. 6, 84. Ph.B, Col. of Wooster, 06; A.M, Ohio State, 08; Ph.D, Wisconsin, 16. Lab. asst, Bur. Standards, 08; asst. chemist, Bur. Int. Revenue, 09; chemist, U. S. Forest Service, 09–17; director chem. research, C. F. Burgess Lab, 17–31, *pres, Burgess Cellulose Co, 31–* Chem. Soc; Soc. Mammal; Ornith. Union; Wis. Archeol. Soc; Wis. Acad. (pres, 42–). Terpenes; abietic acid; carbohydrates; action of aluminum chlorid on cymene; gelatinization of lignocellulose; chemistry of cellulose and wood.

Schorling, Prof. Raleigh, 403 Lenawee Drive, Ann Arbor, Mich. *Education, Mathematics.* Morris, Ind, Aug. 15, 87. A.B, Michigan, 11; M.S, Chicago, 14; Ph.D, Columbia, 25. Teacher, pub. schs, Ind, 04–07; prin, high sch, Ind, 07–08; Lincoln Sch, Teachers Col, Columbia, 17–22; organizer, univ. high sch, *Michigan,* 22, prin, 22–26, *prof. educ. and in charge teacher training, 26–* Educ. Research Asn; Nat. Council Teachers Math. (pres, 23–25). Objectives in the teaching of junior high school mathematics and determination of their validity; slow learning; teacher training.

Schormüller, Dr. Anton, Box 406, Painesville, Ohio. *Chemistry.* Olching, Germany, June 8, 05. Dr.Ing, Tech. Hochschule, Munich, 30. Asst. org. chem, Tech. Hochschule, Munich, 28–30, 32; fellow, Rockefeller Inst, 31, 33–34; research chemist, Diamond Alkali Co, 34–41; *chief chemist, Clifton Products, Inc, 41–* Chem. Soc. Synthesis of chlorophyl porphyrines; preparation of serine phosphoric acid; synthesis of phosphorylated hydroxy amino acids.

Schornherst, Prof. Ruth (Olive), Florida State College for Women, Tallahassee, Fla. *Botany.* Detroit, Mich, Feb. 27, 05. B.S, Fla. State Women's Col, 26; M.S, Chicago, 29; Emma J. Cole fellow, Michigan, 40–41, Ph.D, 41. Instr. *bot, Fla. State Col. Women,* 26–41, *asst. prof, 41–* A.A; Bot. Soc; South. Appalachian Bot. Club; Southeast. Biologists; Sullivant Moss Soc; Mich. Acad; Fla. Acad. Southern mosses; phytogeographic studies of the mosses of northern Florida.

Schoth, H(arry) A(ugust), U. S. Department of Agriculture, Oregon State College, Corvallis, Oregon. *Agronomy.* Hannah, Wyo, May 24, 91. B.S, Oregon State Col, 14, M.S, 17. *Bur. plant indust, U. S. Dept. Agr, Oregon State Col, 15–, agronomist, div. forage crops and diseases.* Soc. Agron. Forage crops in the Pacific Northwest, especially legumes and grasses; plant introduction and improvement; sand dune control; soil conservation nurseries in the Pacific Northwest.

Schott, Dr. E(mmett) L(ee), 13140 Balfour Ave, Huntington Woods, Mich. *Psychology.* Eldon, Mo, Sept. 7, 00. B.S, Missouri, 22, A.M, 23, Ph.D, 25. Asst. educ. psychol, Missouri, 20–23, instr, 23–25; manager personnel service bur, Cent. Y.M.C.A. Schs, Chicago, 25–26; psychologist, *div. neuropsychiat, Henry Ford Hosp, Detroit,* 26–36, *chief psychologist, 36–* A.A; Psychol. Asn; Asn. Applied Psychol. (chairman, program cmt, clin. sect, 38); Midwest. Psychol. Asn; Mich. Acad. (chairman, psychol. sect, 31); Mich. Psychol. Asn. (chairman, membership cmt, 35–38; pres, 39). Clinical and abnormal psychology; psychological tests.

Schott, Dr. John E(dward), 1001 Anderson Ave, New York, N. Y. *Organic chemistry.* Shelby, Nebr, Oct. 6, 90. B.S, Nebraska, 14, A.M, 15; fellow, Mellon Inst, 17; Ph.D, Chicago, 20. Asst. prof. chem, Pa. State Col, 21–23, assoc. prof, 23–25; research chemist and chem. engineer, Atlantic Ref. Co, 25–27; *research chemist, Tidewater Associated Oil Co, 28–* Chem. Soc; Inst. Chem. (local councilor); Chem. Eng. Oxidation and rearrangement of benzamide; preparation and properties of some new derivatives of barbituric acid.

Schott, Dr. Ralph G(eorge), U. S. Department of Agriculture, Beltsville, Md. *Genetics, Animal breeding.* Port Clinton, Ohio, Dec. 31, 94. B.S, Chicago, 27; Ph.D, Iowa State Col, 31. Asst. genetics, Iowa State Col, 28, instr, 29–30; fellow, Rockefeller Inst, Princeton, 31–32; asst. biol, sch. hygiene and pub. health, Hopkins, 32–33; instr. zool. and entom, Ohio State, 34–37; *animal husbandman, bur. animal indust, U. S. Dept. Agr, 37–* A.A. Animal genetics; inheritance of disease resistance in the mouse.

Schott, Dr. Stuart, U. S. Public Health Service, Cincinnati, Ohio. *Chemistry.* Newport, Ky, April 28, 13. B.S, Kentucky, 33; A.M, Cincinnati, 34, Ph.D, 36. Org. research chemist, Lemanco Labs, 37–39; asst. chemist, U. S. Pub. Health Service, 39–42; *lieut, Sanit. Corps, U. S. Army, 42–* A.A; Chem. Soc. Organic and sanitary chemistry; oxidation-reduction indicators; organic synthesis; analytical methods in sanitary chemistry; detection of war gases and other poisons in water supplies.

Schotté, Prof. Oscar E(mile), Amherst College, Amherst, Mass. *[7]*Experimental zoology.* Minsk, Russia, Dec. 21, 96. D.Sc, Geneva, 25. Instr. zool. and comp. anat, Geneva, 22–28; Rockefeller fellow, Freiburg, 28–31; Sterling research fellow, Yale 32–34; *assoc. prof. biol, Amherst Col, 34–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; fel. Soc. Nat; Soc. Zool; Asn. Anat; Soc. helvétique des Sciences nat. Experimental embryology and regeneration.

Schour, Dr. I(saac), 808 S. Wood St, Chicago, Ill. *Histology.* Russia, Jan. 11, 00. B.S, Chicago, 21, Ph.D, 31; D.D.S, Illinois, 24, M.S, 28; hon. Sc.D, Washington (St. Louis), 41. Instr. mat. med. and therapeut, *Illinois,* 24–26, asst. prof. *dental histol,* 27–31, assoc. prof, 31–35, *prof. and head dept, 35–* Mem. ed. board, 'Jour. Dental Research.' A.A; Asn. Anat; Dental Asn; Soc. Exp. Biol; Inst. Med. Chicago; Int. Asn. Dental Research (pres, 41). Embryology and histology of teeth; changes in teeth following hypophysectomy, adrenalectomy, gonadectomy, hyperparathyroidism and chronic and acute fluorosis; growth pattern and daily rhythm of incisor of rat; rate of formation of enamel, dentin and bone; tooth-ring analysis; nutrition; calcium metabolism and teeth.

Schrader, Prof. A(lbert) Lee, University of Maryland, College Park, Md. *Horticulture.* Kaukauna, Wis, May 9, 96. B.S, Wisconsin, 20, fellow, 20–21, M.S, 21; Ph.D, Maryland, 25. Asst. pomologist, *Maryland,* 21–29, *prof. hort, 29–, head dept, 36–, prof. pomol, 41–* Summer, asst, Wisconsin, 21. Radio service, U.S.N, 17–19, ensign, U.S.N.R, 21–22. A.A; Soc. Hort. Sci; Soc. Plant Physiol. Physiology and pruning of the Concord grape; regeneration with cuttings of the tomato; apple spurs and biennial bearing; apple pollination; peach pruning; fruitplant nutrition; dehydration of fruits.

Schrader, F(rank) C(harles), 20 Old Chester Road, Bethesda, Md. *Geology, Geography.* Sterling, Ill, Oct. 6, 60. M.S, Kansas, 91; A.M, Harvard, 93. Asst. entom, Kansas, 89–91; State Board Agr, Mass, 93–94; teacher geol, Harvard, 95–96; asst. geologist and geologist, U. S. Geol. Surv, 96–32; *retired.* A.A; fel. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Min. and Metal. Soc. (subcmt. on antimony, 24–26); Miner. Soc; Forestry Asn; Geol. Soc. Wash; Wash. Acad; Wash. Petrol. Club. Mining geology; geology, physiography and mineral resources of Alaska and western United States.

Schrader, Prof. Franz, Columbia University, New York, N. Y. *[5]*Zoology.* Magdeburg, Germany, March 11, 91. B.S, Columbia, 14, Ph.D, 19. Asst, Bur. Fisheries, 15–16; zool, Columbia, 17–19; pathologist, Bur. Fisheries, 20; assoc. biol. Bryn Mawr Col, 20–25, assoc. prof, 25–30; *prof. zool, Columbia, 30–,* head dept, 37–40. Assoc. ed, 'Jour. Morphol,' 32–35; 'Biol. Bul'; 'Chromosoma'; 'Columbia Biol. Series.' Mem. fellowship cmt, Nat. Research Council, 39–43. Trustee, Marine Biol. Lab, Woods Hole, 32– A.A; Soc. Nat; Soc. Zool; Genetics Soc. Cytology; sex determination; symbiosis; parthenogenesis.

Schrader, Prof. Glenn A(llen), Alabama Polytechnic Institute, Auburn, Ala. *Nutrition.* East Troy, Wis, Oct. 1, 02. B.S, Beloit Col, 24, M.S, 27; Ph.D, Wisconsin, 30. Teacher,

high sch, Minn, 24–25; instr. chem, Beloit Col, 25–27; asst. agr. chem, Wisconsin, 27–29, instr, 29–30; assoc. research prof. animal nutrition, dept. animal indust, *Ala. Polytech*, 30–39, *asst. prof. chem, sch. chem, 41–* A.A; Chem. Soc. Animal nutrition; vitamin B_1 and vitamin D; biochemistry and laboratory technique.

Schrader, Dr. William A(ldrete) B(enton), 519 Lincoln St, Milton, Pa. *Psychology.* Milton, Pa, April 25, 14. A.B, Bucknell, 34, A.M, 35; Ph.D, Ohio State, 40. Instr. educ, Kans. State Col, 36–37; asst. psychol, Ohio State, 37–40; asst. prof, Tennessee, 40–42; *assoc. personnel technician, Adj. Gen. Office, U. S. War Dept, 42–* Assoc. Psychol. Asn; Psychometric Soc; Statist. Asn; Vocational Guidance Asn. Psychological tests; learning; rational equations.

Schram, Dr. Mildred W(ebster) S(pargo), Lincoln-Liberty Bldg, Philadelphia 7, Pa. *Cancer.* St. Louis. Mo. A.B, Washington (St. Louis), 09, A.M, 11, Lackland fellow, 11–13, Ph.D, 13. Ed. publications, research lab, Eastman Kodak Co, 18–21; asst. to director, cancer research inst, Lankenau Hosp, Philadelphia, 30–33; *sec'y, Int. Cancer Research Foundation, 32–; advisory trustee, 32–* Guest, research inst, Royal Cancer Hosp, London, England, 38. Chairman, Advisory Board Cancer Research, 40– Del, Int. Cong. against Cancer, Madrid, 33. A.A; Asn. Cancer Research. The initiation, coordination and publication of cancer research.

Schramm, Prof. E. Frank, University of Nebraska, Lincoln, Nebr. *Geology.* DeWitt, Nebr, Sept. 7, 83. A.B, Oklahoma, 06; A.M, Nebraska, 08. *Nebraska, 06–, prof. geol, 18–, chairman, 34–* Summers, field asst, U. S. Geol. Surv, 07–10; mineral expert, U. S. Forest Service, 10–12; Nebr. Geol. Surv, 06–15; geologist, Union Pacific R.R, 17–19; geologist and mining engineer, oil and mining companies. Ed, 'The Compass.' Morrill geol. expeds, 06, 14. A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Forestry Asn; Soc. Vert. Paleont; Geophys. Union; Eng. Educ; Nebr. Acad. Mineralogy; oil shales and coal of Wyoming; oil and gas possibilities and deep wells of Nebraska; agate anticline; Artemisa mines of Sonora, Mexico.

Schramm, Dr. Edward, Onondaga Pottery Co, Syracuse, N. Y. *Chemistry.* New York, N. Y, Dec. 22, 86. B.S, Col. City of N. Y, 06; Chem.E, Columbia, 09, Ph.D, 13. Asst. chemist, Bur. Standards, 13–17; *research chemist,* Am. Zinc, L. and S. Co, 17-19; Bridgeport Brass Co, 19–20; *Onondaga Pottery Co, 20–* A.A; Chem. Soc; Ceramic Soc. Physical and inorganic chemistry; metallurgy; electrochemistry; zinc; sulfuric acid; ferrous and non-ferrous metals; ceramics.

Schramm, Rev. Dom Gregory J(ohn), St. Mary's Abbey, 528 High St, Newark, N. J. *Psychology.* Newark, N. J, Jan. 9, 98. Ph.L, St. Vincent Sem, 21, S.Th.L, 23; A.M, Catholic Univ, 26, Columbia, 27; Ph.D, Hopkins, 29. Prof. psychol. and head dept, Fu Jen Univ, Peiping, China, 29–33; psychologist, *St. Benedict's Prep. Sch,* 33–39, *director guidance, 39–, instr. gen. science and pre-induction aeronautics.* Lecturer, sch. nursing, St. Michael's Hosp, Newark, 33–; Chestnut Hill Col, 36–37; prof, Seton Hall Col, 37–40; lecturer, grad. sch. arts and sciences, Fordham, 39–42. A.A; Psychol. Asn; Asn. Applied Psychol; N. J. Guidance and Personnel Asn. Child psychology; developmental age; personality tests; psychology of emotions and personality.

Schramm, Dr. J(acob) R(ichard), University of Pennsylvania, Philadelphia, Pa. *[*3]Botany.* Hancock Co. Ind, Feb. 6, 85. A.B, Wabash Col, 10; Lackland fellow, Washington (St. Louis), 10–12, Ph.D, 13. Asst. to director, Mo. Bot. Garden, 12–15; instr, Shaw Sch. of Bot, Washington (St. Louis), 13–15; asst. prof. bot, Cornell, 15–17, prof, 17–25; ed, 'Biol. Abstracts,' 26–37; *prof. bot. and director dept, Pennsylvania, 37–, director, Morris Arboretum, 39–* Ed, 'Bot. Abstracts,' 21–26. Exec. sec'y div. biol. and agr, Nat. Research Council, 22–24. A.A; Soc. Nat; Bot. Soc. (sec'y, 18–22, v. pres, 23, pres, 25); Philos. Soc. Physiology of algae; ecology.

Schrammel, Prof. H(enry) E, 1606 West St, Emporia, Kans. *Psychology.* Herndon, Kans, March 1, 83. A.B, N. Cent. Col. (Ill), 12; Chicago, 14; A.M, Colorado, 22, Columbia, 23; Ph.D, Ohio State, 25. Teacher and prin, high sch, Minn, 12–16, prin, 17–20; sch. supt, Colo, 20–22; *prof. psychol, Kans. State Teachers Col, 24–, director bur. educ. measurements, 29–* Summers, regional sch, Mont, 23, 24; Texas, 31. Educ. Research Asn; Asn. Teachers Measurements (pres, 41); Kans. Acad. State school administration; intelligence and achievement tests; nation-wide testing programs.

Schrank, Dr. A(uline) R(aymond), University of Texas, University Station, Texas. *Physiology, Biophysics.* Hamilton, Texas, Aug. 15, 15. A.S, Tarleton Agr. Col, 37; A.B, Southwest Texas State Teachers Col, 37; Ph.D, Texas, 42. Asst, biol. lab, Southwest Texas State Teachers Col, 36–37; tutor physiol, *Texas,* 37–39; *instr. zool. and physiol, 39–* Bioelectrics; electric correlation patterns in the coleoptile of Avena sativa.

Schraut, Dr. K(enneth) C(harles), University of Dayton, Dayton, Ohio. *Mathematics.* Hillsboro, Ill. A.B, Illinois, 36; Laws scholar, Cincinnati, 36–37, A.M, 38, Ph.D, 40. Taft teaching scholar *math,* Cincinnati, 37–40; instr, *Dayton,* 40–41, *asst. prof, 41–* Summer, instr, Notre Dame, 40. Math. Soc; Math. Asn. Infinite series; mathematical analysis.

Schreiber, Prof. Edwin W(illiam), 719 W. Adams St, Macomb, Ill. *Mathematics.* Saginaw, Mich, Jan. 20, 90. A.B, Michigan, 11, 27–29; California, 13; A.M, Chicago, 24. Instr. math. and science, Univ. Sch. for Boys, Chicago, 11–12; head dept, high sch, Ariz, 12–14; *math,* high sch, Pa, 14–17; Proviso Township High Sch, Ill, 17–27; *assoc. prof, West. Ill. State Teachers Col, 29–* Mem. special math. cmt. pre-induction war students, Northwestern, 42. Chairman math. sect, High Sch. Conf, Ill, 24. Nat. Cmt. on Geometry, 29–31. A.A; Math. Asn; Nat. Council Teachers Math. (sec'y-treas, 29–); Hist. Sci. Soc; Cent. Asn. Sci. and Math. Teachers (director, 29–31, 40–); Chicago Math. Club (pres, 24). Teaching of mathematics; history of the metric system; history of elementary mathematical instruments.

Schreiber, Dr. R(aemer) E(dgar), Purdue University, West Lafayette, Ind. *Physics.* McMinnville, Oregon, Nov. 11, 10. A.B, Linfield Col, 31; A.M, Oregon, 32; fellow, Purdue, 37–38, Ph.D, 41. Asst. *physics,* Oregon State Col, 32–35; *Purdue,* 35–37, instr, 39–42, *research fellow, 42–* Physical Soc; Asn. Sci. Workers. Nuclear physics.

Schreiber, Dr. R(ichard) S(eyfarth), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Blue Island, Ill, Oct. 15, 09. A.B, Wabash Col, 31; Ph.D, Illinois, 35. *Chemist, E. I. du Pont de Nemours and Co, 35–* Hydrolysis of sulfonamides; linear condensation polymers; reactions of formaldehyde; cellulose derivatives.

Schreiner, Dr. B(ernard) F(rancis), 231 Humboldt Parkway, Buffalo, N. Y. *Surgery.* Buffalo, N. Y, Dec. 26, 86. M.D, Buffalo, 09. Asst. surgeon, Gen. Hosp, Buffalo, 14–22; City Hosp, 18–23; surgeon, *State Inst. for Study of Malignant Diseases,* 16–39, *prin. cancer physician, 39–;* instr, Buffalo, 13–22; surgeon, Buffalo Hosp. Sisters of Charity, 25–29. Ed. board, 'Radiol. Rev,' 35– Fel. Col. Surg; Am. Med. Asn; Asn. Cancer Research; Radium Soc. (v. pres, 25–); Col. Radiol; Radiol. Soc. N. Amer; Buffalo Acad. (treas, 13–18, chairman, path. sect, 11–13). Cancer.

Schreiner, Dr. Ernst J(efferson), U. S. Forest Service, New Haven, Conn. *Forestry, Genetics.* Brooklyn, N. Y, Nov. 18, 02. B.S, Syracuse, 26; Ph.D, Columbia, 31. Research forester, Oxford Paper Co, Rumford, Maine, 24–35; assoc. tree crop specialist, Tenn. Valley Authority, 35–36; *forest geneticist, Northeast. Forest Exp. Sta, U. S. Forest Service, 36–* Plant and forest tree breeding; poplars for pulpwood purposes; diseases of poplars; silviculture; forest utilization; forest genetics.

Schreiner, Dr. Oswald, U. S. Department of Agriculture, Washington, D. C. *[*2]Chemistry.* Nassau, Germany, May 29, 75. Ph.G, Maryland, 94; Hopkins, 94–95; U. S. Pharmacopoeia fellow, Wisconsin, 95–96, B.S, 97, M.S, 99, Ph.D, 02. Asst. lab. technique, Wisconsin, 96, instr, 97–02, physical chem, 02–03; chemist, bur. soils, *U. S. Dept. Agr,* 03–06, *chief soil fertility investigations,* bur. chem. and soils and later *bur. plant indust, 06–* Consulting prof, American Univ, 14–34. Summer, expert physical chem, U. S. Dept. Agr, 02. U. S. del. and chairman exec. cmt, Int. Cong. Soil Science, 27, 35; U. S. del, Pacific Sci. Cong, 29; Cong. Int. Sugar Cane Technol, 29; consulting del, Inter-Am. Conf. on Agr, 30; del, Am. Sci. Cong, 39. Ebert prize, 00; Longstreth medal, Franklin Inst, 12. A.A; Chem. Soc; Soc. Biol. Chem; Agr. Chem. (pres, 28); Bot. Soc; Soc. Agron; Soil Sci. Soc; Wash. Acad; Int. Soc. Soil Sci; Int. Soc. Sugar Cane Technol. Chemistry of soils; soil deficiency diseases of plants; colloid solutions; colorimetric methods; soil fertility; organic compounds in soils; oxidizing powers of roots; toxic effects of organic compounds on plants; action of fertilizers; biochemistry of soils and plants.

Schremp, Prof. Edward Jay, 370 Commonwealth Ave, Boston, Mass. *Physics.* Newark, N. J, Aug. 20, 12. B.S, Mass.

Inst. Tech, 34, Ph.D, 37. Teaching fellow *physics*, Mass. Inst. Tech, 35–37; instr, Washington (St. Louis), 37–41; *asst. prof, Cincinnati, 41–; research assoc. elec. eng, Mass. Inst. Tech, 41–* Physical Soc. Cosmic rays; theoretical physics; dynamics; electrodynamics.

Schrenk, Dr. H(elmuth) H(erman), 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* Golconda, Ill, Sept. 28, 02. A.B, Wisconsin, 25, M.S, 26, Ph.D, 28. Asst. state toxicologist, Wis, 23–28; assoc. toxicologist, *U. S. Bur. Mines*, 28–30, chemist in charge toxicol. and biochem. lab, 30–33, gas sect, 33–36, *chief chemist, health div, 37–* A.A; Chem. Soc. (chairman Pittsburgh sect, 43); Pub. Health Asn; Indust. Hygiene Asn. (director, 40–42, pres, 43). Industrial hygiene and toxicology; toxicology and physiological action of gases and vapors; analytic procedures for gases, vapors and dusts; blood chemistry in carbon monoxide poisoning and in asphyxia; absorption of substances through the intact skin; atmospheric dusts.

Schrenk, Prof. W(alter) T(heodore), Missouri School of Mines, Rolla, Mo. *Inorganic chemistry.* Golconda, Ill, May 24, 91. B.S, Monmouth Col, 15; M.S, Wisconsin, 19, Ph.D, 21. Instr. anal. chem, Wisconsin, 17–23; *prof. chem, Mo. Sch. Mines, 23–, head dept. chem. eng, 28–; consulting chemist, U. S. Bur. Mines, 30–* Chem. Soc; Eng. Educ; Mo. Acad. Analytical chemistry; analytical methods for the determination of quartz in the presence of calcium fluoride; iodine content of certain waters, soils and vegetables of Missouri.

Schriever, Prof. William, University of Oklahoma, Norman, Okla. *Physics.* Dakota City, Nebr, Jan. 16, 94. A.B, Morningside Col, 16; M.S, Iowa, 17, fellow, 17–18, 20–21, Ph.D, 21. Asst. prof. *physics, Oklahoma*, 19–24, assoc. prof, 24–27, *prof, 27–, chairman dept, 42–, director sch. eng. physics, 42–* Research fellow, Am. Petrol. Inst, 27–29. Summer, instr, Iowa, 21. A.A; Physical Soc; Asn. Physics Teachers; Soc. Explor. Geophys; Seismol. Soc; Geophys. Union; Okla. Acad. Elastic properties of metals at high temperatures; electrolytic conduction; magnetic susceptibilities in weak fields; meteor craters.

Schroeder, Dr. C(harles) R(obbins), Lederle Laboratories, Inc, Pearl River, N. Y. *Immunology.* New York, N. Y, July 29, 02. B.S, D.V.M, State Col. Wash, 29. Immunologist, Lederle Labs, Inc, 29–32; vet. pathologist, Zool. Soc. San Diego, 33–37; veterinarian, N. Y. Zool. Park, 37–39; *vet. pathologist*, Zool. Soc. San Diego, 39–41; *Lederle Labs, Inc, 41–* Soc. Bact; Pub. Health Asn; Vet. Med. Asn; Photog. Asn; N. Y. Acad. Animal pathology; parasitology; immunology.

Schroeder, Dr. E(lmer) F(rederick), Box 5110, Chicago, Ill. *Chemistry.* Napoleon, Ohio, Jan. 9, 05. A.B, Defiance Col, 26; M.S, Ohio State, 28, Ph.D, 30. Sterling research fellow, Yale, 30–31; research chemist, cancer research foundation, Pennsylvania, 31–35; chief chemist, Biochem. Research Foundation, Franklin Inst, 35–39; *research biochemist, G. D. Searle and Co, 39–* Chem. Soc; Soc. Biol. Chem. Pyrimidines; enzymes; sulfur metabolism; carbohydrate metabolism and synthesis.

Schroeder, Frederic W(illiam), Warrenton, Mo. *Chemistry, Ceramics.* Warrenton, Mo, Jan. 14, 99. A.B, Cent. Wesleyan Col, 19, Missouri, 19; M.S, Washington, 24. Asst. chemist, Bur. Mines, 19–26; *chief chemist*, Corhart Refractories Co, 27–34; A. P. Green Fire Brick Co, 34–41; *U. S. Army, 42–* A.A; Ceramic Soc; Ceramic Eng; Mo. Soc. Professional Eng. Analytical chemistry; metallurgical refractories.

Schroeder, Dr. H(erman) E(lbert), R. D. Shipley Road, Wilmington, Del. *Organic chemistry.* Brooklyn, N. Y, July 6, 15. A.B, Harvard, 36, A.M, 37, Ph.D, 39. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 38–* Chem. Soc. Ring enlargement of large ring ketones with diazomethane; synthesis of allenic substances suitable for the separation of optical isomers; catalysis; dyestuff intermediates; rubber chemicals; polymer chemistry.

Schroeder, Dr. Paul L(ouis), Institute for Juvenile Research, 907 S. Wolcott Ave, Chicago, Ill. *Medicine.* Hoyleton, Ill, July 6, 94. B.S, Illinois, 17, M.D, 19. Junior physician and senior physician, Peoria State Hosp, 19–22; asst. managing officer, Lincoln State Sch. and Colony, Ill, 22–24; psychiatrist, Div. Criminol, Ill, 24–30; psychiatrist, *Inst. Juvenile Research*, 24–30, *supt, 30–; prof. criminol. and head dept. and prof. psychiat, col. med, Illinois.* Neuropsychiatrist, U. S. Veterans Bur, 22; assoc, Michael Reese Hosp, 24–35; mem. staff, Cook County Psychopath. Hosp; state criminologist, Ill, 30–42; mem. faculty, Pestalozzi-Froebel Teachers Col. U.S.A, 17–19. Psychiat. Asn. (chairman cmt. legal aspects of psychiatry); Asn. Study Mental Deficiency; Am. Med. Asn; Orthopsychiat. Asn; Prison Asn; Ill. Psychiatric Soc; Ill. Soc. Mental Hygiene (mem. board); Chicago Neur. Soc; Inst. Med. Chicago; Chicago Acad. Criminol. (v. pres, 32, pres, 33, 34). Child guidance procedures; behavior difficulties in children associated with the results of birth trauma; relation of personality and behavior difficulties to disorders of speech; mental health program as a juvenile court method of supervising the feebleminded; the delinquent mental defective; criminal behavior in the later periods of life; enuresis in adolescent boys.

Schroeder, Prof. R(aymond) A(lfred), University of Missouri, Columbia, Mo. *Horticulture.* Kansas City, Mo, June 14, 12. B.S, Missouri, 33, A.M, 36, Ph.D, 38. Instr. *hort, Missouri*, 36–40, *asst. prof, 40–; lieut, U. S. Army.* Vegetable gardening; influence of soil fertility upon the composition and yield of vegetable crops.

Schroeder, Dr. W(esley) D(ean), Dow Chemical Co, Midland, Mich. *Organic chemistry.* Paola, Kans, March 7, 10. A.B. and A.M, Kansas, 37, Ph.D, 41. *Research chemist, Dow Chem. Co, 40–* Chem. Soc. Mercuration of diphenyl ether and some of its derivatives; derivatives of sulfanilamide; p-thiocyanodimethylaniline.

Schroeder, Dr. W(ilburn) C, Box 632, College Park, Md. *Chemical engineering.* Tell City, Ind, March 22, 06. B.S, Michigan, 30, Boiler Feedwater fellow, 30–33, M.S.E, 31, Ph.D, 33. Research chem. engineer and later *asst. chief fuels and explosives service, U. S. Bur. Mines, 33–* Chem. Soc; Soc. Test. Mat; Mech. Eng; Chem. Eng. Industrial water treatment; embrittlement of boiler steel; preparation and utilization of coal, explosives and synthetic liquid fuels; coke production.

Schroeder, William C(harles), Oceanographic Institution, Woods Hole, Mass. *Ichthyology.* Staten Island, N. Y, Jan. 10, 95. George Washington, 22–23; Harvard, 24–31. Fish culturist, Bur. Fisheries, 17–19, sci. asst, 20–23, aquatic biologist, 24–32; *business manager, Oceanog. Inst, Woods Hole, 32–; assoc. curator fishes, Harvard, 37–* Soc. Ichthyol. and Herp; N. Y. Acad; Boston Soc. Nat. Hist. Marine fauna, especially fishes, of the West Indies and the Atlantic and Gulf coasts of North America; elasmobranchs.

Schroff, Prof. Joseph, 119 W. 57th St, New York, N. Y. *Dentistry.* New York, N. Y, July 20, 87. B.S, Col. City of N. Y, 09; M.D, Columbia, 20, D.D.S, 22. Asst. prof. oral path, *Columbia*, 24–29, *assoc. prof. oral surg, 25–* A.A; Am. Dental Asn; Am. Med. Asn; Int. Asn. Dental Research. Diseases of mouth and jaws related to medical and dental problems.

Schroyer, Prof. J(ames) B(urnette), Adrian College, Adrian, Mich. *Analytical chemistry.* Munhall, Pa, June 20, 11. B.S, Waynesburg Col, 32; M.S, Michigan, 34, 36–39. Instr. physical science, South. Union Junior Col, 35–36; teaching fellow *chem*, Michigan, 36–39; *prof, Adrian Col, 39–* Chem. Soc. Organic reagents in inorganic analysis.

Schubauer, Dr. G(alen) B(randt), 4115 Wisconsin Ave, Washington, D. C. *Physics.* Sparrows Point, Md, July 7, 04. B.S, Pa. State Col, 28; M.S, Calif. Inst. Tech, 30; Ph.D, Hopkins, 34. Junior physicist, *Bur. Standards*, 29–36, asst. physicist, 36–39, *assoc. physicist, 39–* Inst. Aeronaut. Sci; Philos. Soc. Wash. Aerodynamics; boundary layer flow; phenomena involving wind tunnel turbulence.

Schubert, Dr. Bernice G(iduz), Gray Herbarium, Harvard University, Cambridge, Mass. *Systematic botany.* Boston, Mass, Oct. 6, 13. B.S, Mass. State Col, 35; A.M, Radcliffe Col, 37, Ph.D, 41. Part time tech. asst, *Gray Herbarium, Harvard*, 36–41, *tech. asst, 41–* Soc. Plant Taxon. The genus Desmodium in North, Central and South America.

Schubert, Geo(rge) P(eter), 1700 E. Houghton Ave, Houghton, Mich. *Civil engineering, Metallurgy.* Houghton, Mich, Feb. 8, 83. B.S, Mich. Col. Mines, 05, E.M, 06. Construction engineer, Mich. Smelting Co; from instr. to prof. civil eng, Mich. Col. Min. and Tech, 05–28; *supt, Mich. Smelting Co, Houghton, 28–* Asst, U. S. Lake Surv; expert witness, Anaconda and Phelps Dodge Co. Min. and Metal. Eng; Lake Superior Min. Inst; British Inst. Metals. Copper smelting, refining and fabrication.

Schubert, Dr. Herman J(acob) P(aul), Bell Aircraft Corp, 2050 Elmwood Ave, Buffalo, N. Y. *Psychology, Sociology.* Brooklyn, N. Y, Jan. 27, 07. B.S, Polytech. Inst. Brooklyn, 27, M.E, 28; A.M, Columbia, 30, Ph.D, 32. Cadet

engineer, 27–28; instr. math. and mech. drawing, Polytech. Inst. Brooklyn, 28–30; asst. psychol, Columbia, 30–32; nat. research fellow, Cornell, 32–33; fellow physiol, Buffalo, 33; supervisor research and vocational guidance, transient center, Temporary Emergency Relief Admin, Buffalo, N. Y, 33–35; lecturer sociol, Buffalo, 35–36; personnel manager, Nat. Youth Admin, Buffalo, N. Y, 36–39; chief statistician, Erie County Dept. Social Welfare; *supervisor personnel testing, Bell Aircraft Corp.* A.A; Statist. Asn. Work and efficiency; oxygen metabolism; educational and sociological characteristics of transients, National Youth Administration youths and Civilian Conservation Corps enrolees; personality; aptitude tests; motivation; population characteristics.

Schubert, Dr. Marcelle, Panel Chemical Corp, New York, N. Y. *Chemistry.* Paris, France, Aug. 14, 02. A.B, Cornell, 24; A.M, Columbia, 28, Ph.D, 33. *Research chemist,* Benzol Products Co, 32–42; *Panel Chem. Corp, 42–* Enzymes; pharmaceuticals.

Schubert, Dr. Maxwell P(hillip), Schering Corp, Bloomfield, N. J. *Chemistry.* New York, N. Y, Oct. 20, 02. A.B, Columbia, 24, A.M, 25, Ph.D, 28. Asst. chem, Columbia, 25–28, instr, 28–29; asst, Rockefeller Inst, 29–40; *chemist,* Barrett Co, 40–42; *Schering Corp, 42–* Chemistry of cysteine and related compounds; coal tar products and pharmaceuticals.

Schuchard, Dr. E(arl) A(dolph), Naval Ordnance Laboratory, Washington, D. C. *Physics.* Medford, Oregon, July 5, 12. B.S, Washington (Seattle), 33, M.S, 34, Ph.D, 40. Asst. elec. eng, Washington (Seattle), 33–34, math, 34–35, teaching fellow physics, 35–40; instr. physics and math, Amarillo Col, 40–42; asst. physicist, *Naval Ordnance Lab,* 42–43, *assoc. physicist, 43–* Physical Soc; Asn. Physics Teachers. High voltage measurements; neutron diffusion theory; transient and non-linear circuit analysis.

Schuck, Prof. Cecilia, Purdue University, Lafayette, Ind. *Nutrition.* Louisville, Ky, Jan. 26, 98. A.B, Ind. State Teachers Col, 22; M.S, Minnesota, 23; Ph.D, Chicago, 34. Instr. chem. and nutrition, Grand Rapids Junior Col, 24–30; asst. prof. foods and nutrition, Fla. State Col. Women, 30–33; Texas Tech. Col, 34–36; asst. prof. *nutrition, Purdue,* 36–41, *assoc. prof, 41–* A.A; Chem. Soc; Pub. Health Asn; Dietetic Asn. (pres, state asn, 40–42); Inst. Nutrition. Citric acid metabolism; dark adaptation tests for vitamin A deficiencies; fluorides.

Schuermann, Dr. William, Priestford Farm, Darlington, Md. *Chemistry.* Antwerp, Belgium, Sept. 14, 87. Ph.D, Bonn, 13. *Research chemist,* John Campbell and Co, New York; Nat. Aniline and Chem. Co; *Young Aniline Works, Baltimore.* Chem. Soc. Dyestuffs.

Schuett, Dr. (Jesse) Frank, 8031 Princeton Ave, Chicago, Ill. *Zoology.* Farmer City, Ill, Nov. 16, 03. A.B, Ohio Wesleyan, 25; M.S, Chicago, 26, Ph.D, 31. Instr. zool, Nebraska, 26–28; Crane Junior Col, 31–33; *chairman dept. biol, Woodrow Wilson Junior Col.* Coordinator biol. sciences, Chicago city colleges, 34–37. Cent. Asn. Sci. and Math. Teachers. Respiration in fishes; effect of crowding upon respiration and activity in fishes; pedagogy of zoology.

Schuette, Prof. H(enry) A(ugust), Maple Bluff, Madison, Wis. *Chemistry.* Green Bay, Wis, Jan. 11, 85. B.S, Wisconsin, 10, M.S, 12, Ph.D, 16. Asst. *chem, Wisconsin,* 10–14, instr, 14–18, asst. prof, 18–28, assoc. prof, 28–36, *prof, 36–* Chemist, Wis. Geol. and Nat. Hist. Surv; Wis. Dairy and Food Cmn; Forest Products Lab, U. S. Forest Service, 19; Bur. Aircraft Production, 18. A.A; Chem. Soc. (chairman, Wis. sect, 28, agr. food div, 32–34); Agr. Chem. (assoc. referee on honey, 27–36); Oil Chemists Soc. (pres, 40); Wis. Acad. (sec'y, 33–36). Chemistry of foods; sanitary chemistry; organic analysis; plankton and aquatic vegetation of Wisconsin lakes; fatty oils; levulinic acid; valerolactone; chemistry of honey.

Schuh, Dr. A(rthur) E(ugene), U. S. Pipe and Foundry Co, Burlington, N. J. *Metallurgy, Chemistry.* Nuremberg, Germany, Nov. 7, 99. B.S, Chicago, 21, Ph.D, 29. Chemist, Universal Oil Products Co, 21–23; chem. engineer, West. Elec. Co, 23–26; asst, Chicago, 27–29; physical chemist, Bell Tel. Labs, 29–38; *director research, U. S. Pipe and Foundry Co, 38–* A.A; Chem. Soc; Physical Soc; Soc. Test. Mat; Soc. Metals; Min. and Metal. Eng; Ceramic Soc; Electrochem. Soc; Foundrymen's Asn; Inst. Metals, London. Atomic structure; protective coatings; synthetic resins; surface chemistry; metallurgy of cast iron; metal processing.

Schuhardt, Prof. V(ernon) T(ruett), 1415 Wathen, Austin, Texas. *Bacteriology.* San Antonio, Texas, March 4, 01. A.B, Texas, 25; A.M, Rice Inst, 30, Ph.D, 40. Instr. zool, Schreiner Inst, 26–28; asst. director, State Hygienic Lab, Texas, 31–35; asst. prof. *bacter, Texas,* 35–37, assoc. prof, 37–42, *prof, 42–, director brucellosis research project, 40–* Tutor, Texas, 28; asst, Rice Inst, 29, 30. A.A; Soc. Bact; Soc. Trop. Med; Texas Acad. Diphtheria immunization; relapsing fever; serology of the relapse phenomenon; brucellosis.

Schuhmann, Prof. E(wald) W, University of Houston, Houston, Texas. *Physics.* Waldeck, Texas, Dec. 26, 85. A.B, Texas, 13, A.M, 15. Instr. *physics,* Okla. Agr. and Mech. Col, 16–19, asst. prof, 19–23; head dept, Edinburg Junior Col, 27–29; Houston Junior Col, 29–33, *prof. and head dept, Houston, 33–* A.A; Asn. Physics Teachers.

Schuhmann, Prof. R(einhardt), Jr, Massachusetts Institute of Technology. Cambridge, Mass. *Mineral dressing.* Corpus Christi, Texas, Dec. 16, 14. B.S, Mo. Sch. Mines, 33; M.S, Mont. Sch. Mines, 35; Sc.D, Mass. Inst. Tech, 38. *Asst. prof. mineral dressing, Mass. Inst. Tech, 40–* Min. and Metal. Eng; Chem. Soc; Eng. Educ. Flotation; comminution.

Schuler, R(obert), 520 Westminster Ave, Elizabeth, N. J. *Organic chemistry.* New York, N. Y, March 17, 07. B.S, Mass. Inst. Tech, 28, M.S, 29. Junior research assoc, Am. Petrol. Inst, 28–29; research chemist, subsidiaries of Standard Oil Co. of N. J, 29–37; research chemist and asst. plant manager, Jacqueline Cochran Cosmetics, 37–42, plant manager, 42–43; *director research and manager, J. C. Labs, 43–* Chem. Soc. Reactions of olefines to form alcohols; preparation of alkyl phenols from olefines for use as germicides; development and utilization of by-products of the petroleum industry; development and manufacture of cosmetic products; rubber and plastic products development.

Schulman, Edmund, University of Arizona, Tucson, Ariz. *Climatology.* New York, N. Y, July 19, 08. B.S, Arizona, 33, M.S, 35; A.M, Harvard, 38. Asst, tree-ring lab, Arizona, 32–34, Carnegie Institution cycle asst, 34–37; asst. atmospheric turbidity, Blue Hill Observatory, Harvard, 38–39; *instr. dendrochronology, Arizona, 39–, dendrochronologist, tree-ring lab, 40–* Collaborator water supply studies, U. S. Indian Service, 40. A.A; Astron. Soc; Meteorol. Soc; Am. Geog. Soc; Tree-Ring Soc. (managing ed. and treas, 39–); N. Y. Acad. Dendrochronology; precipitation and water supply fluctuations; atmospheric turbidity.

Schulman, Dr. James H(erbert), 25 Hammond St, Cambridge, Mass. *Electrochemistry.* Chicago, Ill, Nov. 15, 15. B.S, Mass. Inst. Tech, 39, Ph.D, 42. Teaching fellow chem, *Mass. Inst. Tech,* 39–41, *research assoc, div. indust. cooperation, 41–* Instr, Suffolk, 40–41. Chem. Soc. War research; photoelectricity.

Schulte, Prof. Geo(rge) N(icholas), Loras College, Dubuque, Iowa. *Chemistry.* Dubuque, Iowa, Aug. 3, 01. A.B, Columbia Col. (Iowa), 22; M.S, Catholic Univ, 28, Ph.D, 35. Instr. *chem, Loras Col. (Iowa),* 28–33, *prof, 33–, head dept, 36–* A.A; Chem. Soc; Iowa Acad. Heterocyclic compounds; optical activity.

Schulte, J(ohn) I(gnace), 2307 N. Glebe Road, Arlington, Va. *Agronomy.* New Vienna, Iowa, Oct. 11, 69. B.Agr, Iowa State Col, 95; Nat. Sch. Agr, Grignon, France, 99–00. Asst. horticulturist, Iowa State Col, 95–97; asst. ed. field crops, 'Exp. Sta. Record,' office exp. stations, U. S. Dept. Agr, 97–13, sci. and admin. asst, 13–23, senior agronomist and asst, exp. sta. admin, 23–39; *retired.* Assembling and installation, U. S. Dept. Agr. and exp. sta. exhibits world's expositions, Paris, 00, St. Louis, 04, Seattle, 09, San Francisco, 15; mem. int. jury awards, Paris Expos, 00. Chevalier du Mérite agricole. Research administration; revenues; expenditures; statistics.

Schultes, Dr. Richard Evans, Harvard University, Cambridge, Mass. *Economic botany.* Boston, Mass, Jan. 12, 15. A.B, Harvard, 37, A.M, 38, Ph.D, 41. Collaborator, instituto de biol, Univ. Nacional de Mexico, 38, 39, 41; *research assoc. bot, museum, Harvard, 41–; Guggenheim Mem. Foundation fellow, 42–* Nat. research fellow, 41–42; collaborator, U. S. Dept. Agr, 41–; instituto de Ciencias naturales, Univ. Nacional de Colombia, 41– Summer, junior mem, agr. surv. of Mex, Rockefeller Foundation, 41. Asst. ed, 'Chronica Botanica,' 40– A.A; New Eng. Bot. Soc; Soc. Cient. Ant. Alz. de Mex; Asn. sudamericana de fitotaxonomistas. Latin American ethnobotany with special reference to narcotics and poisons used by primitive peoples; taxonomic research in several genera of economic plants.

Schultz, Prof. Adolph H(ans), Johns Hopkins University School of Medicine, Baltimore, Md. **[5]Anthropology.* Zurich, Switzerland, Nov. 14, 91. Ph.D, Zurich, 16. Asst, Zootech. Inst, Bern, 11; research assoc, dept. embryol, Carnegie Institution, 16–25; *assoc. prof. physical anthrop, sch. med, Hopkins, 25–* Research assoc, Carnegie Institution, 37. Assoc. ed, 'Am. Jour. Physical Anthrop,' 25–42; 'Human Biol,' 29–; 'Int. Jour. Dental Research,' 35–; 'Biomorphosis,' 38–40. Asiatic primate exped, 37. Nat. Acad; A.A. (exec. cmt, H, 30–34); Anthrop. Asn; Philos. Soc; Asn. Physical Anthrop. (pres, 33, exec. cmt, 35–43); Asn. Anat; Soc. Nat; Soc. Mammal; Soc. suisse d'Anthrop; Int. Soc. Dental Research. Physical anthropology; fetal growth of man; growth, variability and evolution of Primates.

Schultz, Dr. Alfred R(eginald), 800 Vine St, Hudson, Wis. *Geology.* Tomah, Wis, March 26, 76. B.S, Wisconsin, 00; fellow, Chicago, 04–05, Ph.D, 05. Teacher, high sch, Wis, 00–02; res. hydrologist, Wis, 03; geologist in charge Leith explor. party, Ont, Can, 04; field asst, U. S. Geol. Surv, 05, hydrol. aid, 05–06, geol. aid, 06–07, asst. geologist, 07–10, chairman phosphate and metalliferous boards land classification, 12–16, geologist, miner. div, 16–18; *manager, Burkhardt Milling and Elec. Power Co, 21–; pres, Willow River Power Co, 22–; Afton Power Co, 21–; consulting geologist.* Geologist, Barber Asphalt Co. and Bermuda Oil Co, Venezuela and Trinidad, S. Amer, 10–11; Union Pacific Coal Co, 24. Pres, Hudson Hotel Co, 29–; director, First Nat. Bank, Hudson, 30–, Modern Made Foods, St. Paul, Minn, 39. Oil div, U. S. Fuel Admin, 18. A.A; Geol. Soc; Forestry Asn; Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad. Physics; stratigraphic and economic geology; gold; soda; oil; coals; leucite flows; classification and valuation of public coal and mineral lands.

Schultz, Dr. Alfred S, Fleischmann Laboratories, 810 Grand Concourse, New York, N. Y. *Chemistry.* Palm, Pa, Nov. 26, 95. B.S, Lehigh, 18; Loomis fellow, Yale, 23–24, Ph.D, 24. Chemist, J. L. Mott and Co, 19–20; junior chemist, bur. chem, U. S. Dept. Agr. 20–21; Fleischmann fellow chem, Rochester, 24–25; *research chemist, Fleischmann labs, Standard Brands, Inc, 25–* A.A; Chem. Soc; Asn. Cereal Chemists. Yeast; oxindole derivatives; vegetable amylases; diastase action in the absence of maltose; cereal chemistry; hydrolysis of starch in bread by plant amylases; bread; crackers; bios; vitamin B.

Schultz, Arthur C(harles), 3896 W. Jefferson Ave, Ecorse, Mich. *Physical chemistry.* Detroit, Mich, July 12, 16. B.S, Detroit Inst. Tech, 39. Metallurgist, Bohn Aluminum and Brass Corp, 38–39; *consulting chem. engineer and asst. tech. director, Plasteel Corp, 39–* Asst, Detroit Col. Pharmacy. A.A; Chem. Soc; Mich. Acad. Photochemistry; synthetic resins and plastics; metallurgy; influence of wave length on photochemical reaction; corrosion inhibiting characteristics of coating on steel; aluminum substitutes; plastic coated steels; characteristics influencing ionic concentration of natural brine; metal cleaning and treating compounds.

Schultz, C(harles) Bertrand, Nebraska State Museum, Lincoln, Nebr. *Geology.* Red Cloud, Nebr, June 17, 08. B.S, Nebraska, 31, M.S, 33, Ph.D, 41. *Asst, State Museum, Nebraska, 27–, senior field man, 30–,* asst. director, 38–41, *director, 41–, educational supervisor, Army Specialized Training Program, 43–* Asst, Frick labs, Am. Museum Nat. Hist, 32– Morrill paleont. expeds, Nebr. State Museum, 28– A.A; Soc. Archeol; Soc. Vert. Paleont; Geol. Soc; Asn. Museums; Paleont. Soc; Soc. Mammal; Nebr. Acad; Nebr. Archeol. Soc; N. Y. Acad. Vertebrate paleontology; upper Tertiary and Pleistocene mammals; Tertiary and Pleistocene stratigraphy; antiquity of man in North America.

Schultz, Prof. E(dwin) W(illiam), 743 Cooksey Lane, Stanford University, Calif. *Bacteriology, Pathology.* Lomira, Wis, Dec. 12, 87. B.S.A, Winona Col, 13; A.B, Michigan, 14; M.D, Hopkins, 17. Junior field director, int. health div, Rockefeller Foundation, 17; instr. *bacter. and exp. path, Stanford,* 19–20, asst. prof, 20–21, assoc. prof, 21–26, *prof,* 26–, acting exec. head dept, 20–23, *exec. head dept, 23–; prof. bacter. and path, sch. dentistry, Col. Physicians and Surgeons, San Francisco, 30–, chairman dept.* Mayo Foundation fellow, 21–22; Guggenheim Mem. Foundation fellow, Europe, 25–26. Director, Palo Alto Hosp. and Pub. Health Lab, 24–37; research worker, Labs. Int. Health Council, Alexandria, Egypt, 26; consultant, State Dept. Pub. Health, Calif, 38–; consultant epidemic disease to U. S. Sec'y War, 41– Assoc. mem, Int. Cmt. Study Infantile Paralysis, 31–32. U. S. del, Int. Cong. Microbiol, London, 36. M.C, 17–19, capt, major, 25–39. A.A; Soc. Bact; Soc. Exp. Path; Soc. Exp. Biol; Asn. Path. and Bact; Asn. Immunol; fel. Pub. Health Asn; fel. Am. Med. Asn; fel. Soc. Clin. Path; Calif. Acad; Calif. Acad. Med; Int. Asn. Dental Research. Typhus fever; toxicity of carbon tetrachloride; liver repair; fibrinogen; anaphylaxis; bacteriophage; filtrable viruses; poliomyelitis; Listerella.

Schultz, Dr. E(ugene) S, U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Pa, May 14, 84. B.S, Wisconsin, 13, M.S, 15; Ph.D, Columbia, 25. Plant pathologist and *senior plant pathologist, bur. plant indust, U. S. Dept. Agr, 17–* A.A; Phytopath. Soc; Bot. Soc; Bot. Soc. Wash; Wash. Acad. Phytopathology; plant cytology; mosaic and similar diseases; disease resistance.

Schultz, Dr. Fred H(enry), Jr, 1937 W. Main St, Stamford, Conn. *Pharmacology.* Rockford, Ill, May 13, 09. A.B, Carthage Col, 32; Illinois, 33; M.S, Colorado, 35, fellow, 33–38, Ph.D, 38. Instr. chem, Carthage Col, 32–33; biochem, sch. med, Colorado, 38–39; W. E. Weiss fellow, sch. med, Yale, 39–40; research on spasmolytics, Am. Cyanamid Co, 40–43; *aviation physiologist, Air Forces, U. S. Army, 43–* A.A. Pharmacology of spasmolytics and local anesthetics; pharmacology of drugs affecting body temperature.

Schultz, Dr. H(arold) W(illiam), Swift and Co, Chicago, Ill. *Nutrition, Biochemistry, Physiology.* Sheldon, Iowa, June 20, 10. A.B, Colo. Col, 33; M.S, Iowa, 35, Ph.D, 37. Instr. biochem, Iowa, 36–37; physiol, col. med, Ohio State, 37–40; research chemist, Arthur D. Little, Inc, 40–42; *research biochemist, Swift and Co, 42–* Summer, research assoc, Colo. Foundation Research Tuber, 37. Soc. Exp. Biol; Chem. Soc; Inst. Food Technol. Vitamins; biological value of proteins; absorption of fats; nutritive value of foods; physiology and chemistry of the integument; endocrinology.

Schultz, Dr. H(arvey) A(lbert), 48 Grand Ave, Akron, Ohio. *Physics.* Tampico, Ill, Jan. 4, 13. A.B, N. Cent. Col, 33; A.M, Illinois, 35, Ph.D, 37. Asst. physics, Illinois, 33–37; *physicist, B. F. Goodrich Co, 37–* Physical Soc. Rubber; synthetic rubber and related materials.

Schultz, Dr. Herman K(arl), University of Idaho, Moscow, Idaho. *Agronomy.* Altura, Minn, Nov. 6, 09. B.S, Minnesota, 34, M.S, 36, Ph.D, 40. Instr. agron. and plant genetics, Minnesota, 34–41; *asst. prof. agron, Idaho, and asst. agronomist, Exp. Sta, 41–; lieut, Coast Artil. Corps, U. S. Army, 41–* Soc. Agron; Northwest Sci. Asn; Minn. Acad. Plant breeding; plant genetics; wheat, oat and barley breeding and testing; corn investigations; pea breeding; improvement of forage grasses and legumes.

Schultz, Dr. H(oward) L(ouis), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Cassadaga, N. Y, March 23, 12. A.B, Buffalo, 33, A.M, 35; Loomis fellow, Yale, 35–37, Ph.D, 37. Sterling research fellow, Yale, 37–38, instr. *physics,* 38–40; instr. and later *prof, Buffalo, 40–; research assoc, radiation lab, Mass. Inst. Tech, 41–* Physical Soc. Nuclear physics; application of high voltage technique to acceleration of atomic nuclei; electronics.

Schultz, Dr. Jack, Lankenau Hospital, Girard and Corinthian Aves, Philadelphia, Pa. *Biology.* Astoria, L. I, N. Y, May 7, 04. A.B, Columbia, 24, A.M, 25, scholar, 25–26, Ph.D, 29. Asst. zool, Columbia, 25–27, nat. research fellow, 27–29; asst, Carnegie Institution, Calif. Inst. Tech, 29–36, research assoc, 36–41, assoc, inst, 41–42; visiting prof, Missouri, 42–43; *mem, research inst, Lankenau Hosp, 43–* Rockefeller Foundation int. fellow, Karolinska Inst, Stockholm, 37–39. Soc. Nat; Genetics Soc. Nature and function of the gene; nucleoproteins in relation to gene reproduction and activity; cytochemistry of growth.

Schultz, Dr. John R(ussell), Box 443, Lanark, Ill. *Geology, Paleontology.* Lanark, Ill, April 26, 08. A.B, Illinois, 31; M.S, Northwestern, 33; Ph.D, Calif. Inst. Tech, 37. Asst. geol. Northwestern, 31–33; teaching fellow, Calif. Inst. Tech. 33–37; nat. research fellow paleont, Calif. Inst. Tech. and Harvard, 37–38; field geologist, Standard Oil Co. Calif, Saudi Arabia, 38–40; *junior geologist, U. S. Engineers Office, Vicksburg, Miss, 41–* Recorder, U. S. Geol. Surv, 35–37. Ill. Acad. Chert of the Niagara series; late cenozoic vertebrates of western North America; geology of portions of Al Hasa and Nejd Provinces, Saudi Arabia; hydroelectric damsites on the Ouachita and Little Missouri Rivers, Arkansas.

Schultz, Dr. Julius, University of Pennsylvania School of Medicine, Philadelphia, Pa. *Biological chemistry.* Roches-

ter, N. Y, May 7, 14. B.S, Michigan, 36, Ph.D, 40. *Research fellow, sch. med, Pennsylvania, 39–* Chem. Soc. Nutrition; detoxication of selenium; influence of diet on liver composition and growth.

Schultz, Prof. Lawrence H(enry), 5634 Northumberland St, Pittsburgh, Pa. *Physical chemistry.* Fullerton, Calif, Feb. 10, 96. A.B, Southern California, 22; A.M. Columbia, 23; Ph.D, Hopkins, 29. *Asst. prof. chem,* St. John's, China, 23–27; *Carnegie Inst. Tech, 29–* Chem. Soc. Osmotic pressure.

Schultz, Dr. Leonard P(eter), U. S. National Museum, Washington, D. C. *Ichthyology.* Albion, Mich, Feb. 2, 01. A.B, Albion Col, 24; M.S, Michigan, 26; Ph.D, Washington (Seattle), 32. Instr, high sch, Mich, 24–25; asst. zool, Michigan, 25–27; asst. prof, Mich. State Nor. Col, Ypsilanti, 27–28; instr. ichthyol, Washington (Seattle), 28–32, asst. prof. fisheries, 32–36; asst. curator in charge *div. fishes, U. S. Nat. Museum,* 36–38, *curator, 38–* Summers, asst. curator fishes, Michigan, 31, 33. Univ. Mich. Museum exped, west. United States, 26, Wis, 28; leader, U. S. Bur. Fisheries Surv, Glacier Nat. Park, 34; fisheries research, Yellowstone Nat. Park, 36; naturalist, 'U.S.S. Bushnell' exped. hydrograph. surv, Phoenix and Samoan Islands, 39; Smithsonian Institution-U. S. Dept. State ichthyol. exped. Maracaibo Basin, Venezuela, 42. A.A; Soc. Ichthyol. and Herp. (v. pres, 37, v. pres, west. div, 34); Fisheries Soc; Biol. Soc. Wash; West. Soc. Nat; Wash. Acad. Fishes; fisheries; life histories, spawning habits, races, classification, taxonomy, anatomy, ecology and growth of fishes.

Schultz, Dr. Mark P(erry), 8 North Drive, Bethesda, Md. *Medicine.* Oxford, Ohio, Nov. 4, 99. A.B, Miami (Ohio), 22; M.D, Western Reserve, 26, A.M, 28. Intern, asst. res. and teaching fellow, dept. internal med, Univ. Hosps, Cleveland, 26–29; asst. res. physician, Rockefeller Hosp, 29–32; asst, Path. Inst, Leipzig, 32–33; med, Rockefeller Hosp, 33–35; prin. specialist heart disease, nat. inst. health, *U. S. Pub. Health Service,* 35–38, surgeon, 38–43, *senior surgeon, 43–* Fel. Col. Physicians; Soc. Clin. Invest; Asn. Path. and Bact; Soc. Bact; Am. Med. Asn; Asn. Immunol; Harvey Soc; Wash. Soc. Path. Clinical, pathological and experimental investigation of rheumatic fever and streptococcal infections.

Schultz, Dr. Melvin L(eRoy), 1018 N. Francisco Ave, Chicago, Ill. *Physical chemistry.* Chicago, Ill, May 24, 12. B.S, Chicago, 34, Ph.D, 39. *Instr. chem,* Armour Inst. Tech, 39–40, *Ill. Inst. Tech, 40–* Chem. Soc. Radioactive decay of materials subjected to centrifugal fields; deposition of atmospheric radioactivity on surfaces; absorption spectroscopy of coordination compounds of some of the transition elements.

Schultz, Prof. Orville C(arl), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Plant physiology.* Postville, Iowa, Oct. 29, 92. B.S, Iowa State Col, 15; Adams fellow, N. J. Exp. Sta, 15–17; Chicago, 30–31, summers, 20, 27, 28. Teacher, high sch, Iowa, 20; mathematical statistician, A. T. Emery, Chicago, Ill, 20–21; *assoc. prof. bot. and plant path, Okla. Agr. and Mech. Col, 24–* U.S.A, 17–19. Bot. Soc; Soc. Plant Physiol; Hist. of Sci. Soc; Philos. of Sci. Asn. Mathematical and histochemical analyses of growth; botanical history.

Schultz, Dr. Oscar (John) T(heodore), St. Francis Hospital, Evanston, Ill. *Pathology, Medicine.* Mount Vernon, Ind, Sept. 28, 77. A.B, Indiana, 93; M.D, Hopkins, 03; Brooklyn Inst. and Columbia, 04. Res. pathologist, Charity Hosp, Cleveland, Ohio, 03–04; demonstrator path. and protozool, Western Reserve, 04–05, instr, 05–06, lecturer, 07–10, asst. prof. path, 10–13; prof. path. and bacter, Nebraska, 13–16; *director,* Nelson Morris Mem. inst. and labs, Michael Reese Hosp, 16–29; labs, *St. Francis Hosp, Evanston, 29–* Ed. board, 'Arch. Path,' 27– U.S.A, 98–99, capt, M.C, 18–19, major, M.R.C, 24–29. A.A; Asn. Path. and Bact; fel. Am. Med. Asn; Soc. Exp. Biol; Ill. Soc. Path. (pres, 41); Chicago Path. Soc. (pres, 22); Inst. Med. Chicago. Etiology, pathology and histopathology of syphilis; dermatopathology; protozoology; biology of tumor cells; pathogenesis of tuberculosis; bacteriology; immunology; legal medicine.

Schultz, Prof. P(eter) Daniel, 624 Hiram Ave, Wichita, Kans. *Chemistry.* Mountain Lake, Minn, 85. A.B, Bethel Col. (Kans), 14; M.S, Minnesota, 18; Colorado, 30–31. Substitute prof, Bethel Col. (Kans), 15–16; head dept. science, high sch, Nebr, 16–18; *prof. chem, Friends, 18–* Chem. Soc. (councilor. 29–). Imbibition of various liquids by vulcanized caoutchouc.

Schultz, Dr. Raymond Frederick, Faulkland Road, Marshallton, Del. *Organic chemistry.* Milwaukee, Wis, Feb. 11, 08. B.S, Wisconsin, 30; A.M, Harvard, 33, Ph.D, 34. Asst. org. chem, Harvard, 30–34; research chemist, ammonia dept, exp. sta, E. I. du Pont de Nemours and Co, 34–37; instr. org. chem, Lehigh, 37–38, asst. prof, 38–41; asst. to director research, *Hercules Powder Co,* 41–42, acting asst. director *exp. sta,* 42–43; *asst. director, 43–* Chem. Soc. Organic free radicals; kinetics of homogeneous gas reactions; organic syntheses.

Schultz, Warner W(illiam), 3501 S. E. Woodstock Blvd, Portland, Oregon. *Physics.* Orange City, Iowa, June 17, 06. A.B, Morningside Col, 30; M.S, Iowa, 42. Instr, high sch, Iowa, 31–41; head dept. *physics,* Buena Vista Col, 42–43; *instr, Army Air Corps Meteorol. Training Unit, Reed Col, 43–* Motion of bow tips; archery.

Schultz, Prof. W(illiam) H(enry), University of Maryland School of Medicine, Baltimore, Md. *Pharmacology.* Canal Fulton, Ohio, Sept. 28, 73. Ph.B, Baldwin, 99; Chicago, 00, 01, 05; fellow, Hopkins, 05, Ph.D, 07. In charge science, Shorter Col, 99–03; dept. biol, Southwestern Baptist Univ, 04; instr. physiol. and pharmacol, Missouri, 07–08; assoc. pharmacol, hygiene lab, U. S. Pub. Health and Marine Hosp. Service, 08–13; prof. pharmacol. and mat. med, West Virginia, 13–18; George Washington, 19–20; *pharmacol, sch. med, Maryland,* 20–32, *research prof, 32–* Soc. Pharmacol; Pharmaceut. Asn; Chem. Soc; Physiol. Soc; Soc. Exp. Biol; Md. Chem. Soc. Physiology of the heart; soporifics; biological assays; pharmacological methods; pharmacodynamics of anaphylaxis; biological products; hormones; dietary constituents; chemicals toxic to rhabditic larvae; experimental pathology.

Schultze, Prof. M(ax) O(tto), University of Pittsburgh, Pittsburgh, Pa. *Biochemistry.* Switzerland, May 6, 06. B.S, Wisconsin, 32, Ph.D, 36. *Research fellow chem, Pittsburgh, 36–, asst. prof, 41–* Chem. Soc; Soc. Biol. Chem. Biochemistry of blood formation; vitamins.

Schulz, Dr. E(rnest) R(udolph), The Patent Cereals Co, Geneva, N. Y. *Chemistry.* Europe, Dec. 31, 90. B.S, Illinois, 16, M.S, 17, Ph.D, 19; Wisconsin, 22–25. Chemist, bur. plant indust, U. S. Dept. Agr, 20–25; *chief chemist, Patent Cereals Co, 25–* A.A; Chem. Soc; Soc. Brewing Chem. Chemistry of cereals, especially corn; chemical changes in plants at different periods of growth; changes of composition of plants due to chemicals; adhesives; detergents; brewing chemistry.

Schulz, Prof. J(ohn) A(dolph), Iowa State College, Ames, Iowa. *Chemistry.* Elmwood, Ill, Oct. 15, 94. B.S, Illinois, 17; M.S, Iowa State Col, 27. Chemist, dept. nutrition, Ohio Exp. Sta, 17–21; asst. chemist, *Exp. Sta, Iowa State Col,* 21–31, asst. chief animal nutrition, 26–31, *research asst. prof. animal chem. and nutrition, 31–* A.A; Chem. Soc; Iowa Acad. Nutrition; metabolism of mineral salts and elements, iodine and fluorine; biochemistry of farm animals.

Schulz, Prof. W(illia)m F(rederick), 1108 W. Green St, Urbana, Ill. *Physics.* Baltimore, Md, Jan. 11, 72. B.E, Hopkins, 93, Ph.D, 08; E.E, Illinois, 00. Instr. *physics, Illinois,* 00–06, asst. prof, 08–25, assoc. prof, 25–40, *emer. assoc. prof, 40–* A.A; Physical Soc; Ill. Acad. (treas, 22–24); London Physical Soc. Zeeman effect of magnetic field upon absorption spectra of rare earths; the photoelectric cell in stellar photometry; spectrophotometry; polarized light measurements.

Schulze, Dr. Else L(ouise), 4008 Floral Ave, Norwood, Ohio. *Organic chemistry.* Cincinnati, Ohio, Oct. 19, 01. A.B, Cincinnati, 23, Ernst Twitchell fellow, 23–26, A.M, 24, Ph.D, 26. Asst. chem, Cincinnati, 21–23; *tech. librarian, chem. div, Procter and Gamble Co, Ivorydale, Ohio, 26–* Chem. Soc. (2nd v. chairman, Cincinnati sect, 28, Cincinnati sect. rep, nat. women's service cmt, 29–). The liberation of hydrogen from carbon compounds.

Schulze, Dr. F(erdinand), E. I. du Pont de Nemours and Co, Parlin, N. J. *Chemistry.* Kerrville, Texas, April 18, 00. B.S, Agr. and Mech. Col. Texas, 23; M.S, Iowa State Col, 25, Ph.D, 27. Asst, Iowa State Col. 23–27; research chemist, *E. I. du Pont de Nemours and Co,* 28–34, research supervisor, 34–42, *asst. director research, 42–* Chem. Soc. Organic and cellulose chemistry; organometallic compounds; beryllium dialkyls and organoberyllium halides; cellulose derivatives; cellulose acetate.

Schumacher, Dr. A(rnold) E(dward), Kansas State College, Manhattan, Kans. *Animal nutrition.* Rockville Center, L. I, N. Y, Nov. 27, 13. B.S, Pa. State Col, 36; M.S, Cornell, 39, Ph.D, 40. Indust. investigator poultry nutrition, Cornell,

40–41; *asst. prof. poultry husbandry, Kans. State Col, 41–* Poultry Sci Asn; Chem. Soc. Physiology of poultry and poultry nutrition.

Schumacher, Earle E(dward), Bell Telephone Laboratories, Murray Hill, N. J. *Metallurgy.* Chelsea, Mich, May 10, 96. A.B, Michigan, 18. Asst. chem, Michigan, 16–18; *chief metallurgist, Bell Tel. Labs, 18–* Min. and Metal. Eng. Strains; gases in glass; wetting; thermionics; crystal structure; refractory oxides; spectroscopy; age hardening copper and lead alloys; solders; storage battery alloys; vacuum furnaces; gases in metals; copper; deoxidation; diffusion; electrical resistance; magnetics.

Schumacher, Erwin A(rthur), National Carbon Co, Cleveland, Ohio. *Physical chemistry.* Kehl, Baden, Germany, April 14, 01. B.S, Polytech. Inst. Brooklyn, 24; Western Reserve, 29–31. *Research chemist, Nat. Carbon Co, 24–* Chem. Soc; Electrochem. Soc. Electrochemistry; primary batteries.

Schumacher, Prof. Francis X(avier), Duke University, Durham, N. C. *Forestry.* Dayton, Ohio, March 14, 92. B.S, Michigan, 21; California, 21–23. Asst. forestry, California, 21–23, assoc, 23–25, instr, 25–26, asst. prof, 26–30; silviculturist, U. S. Forest Service, 30–35, senior silviculturist, 35–37; *prof. forestry, Duke, 37–* Collaborator, Appalachian Forest Exp. Sta, U. S. Forest Service, 37–; consultant, Tenn. Valley Authority, 38– Assoc. ed, 'Jour. Forestry,' 37– Soc. Foresters; Statist. Asn. Form and growth of timber trees and stands; statistical and experimental method in forestry.

Schumacher, Dr. Henry C(yril), 2525 Euclid Ave, Cleveland, Ohio. *Psychiatry.* Humphrey, Nebr, July 6, 93. B.S, St. Louis, 17, M.D, 19; Hopkins, 24–25; LL.D, St. Benedict's Col, 38. Asst. psychiatrist, Yankton State Hosp, 20–22; Nat. Cmt. Mental Hygiene fellow, 25–26; psychiatrist, Child Guidance Clinic, Phila, 25–26; instr. psychiat, grad. sch. med, Pennsylvania, 26; *director, Cleveland Guidance Center, 26–*; asst. prof. mental hygiene, *sch. applied social sciences, Western Reserve,* 27–29, assoc. prof, 29–42, *assoc. pediat, sch. med, 33–, lecturer, Bolton sch. nursing, 41–* Consulting psychiatrist, St. Ann's Hosp, 28–; lecturer, sch. nursing, St. Vincent's Charity Hosp, 34–41; Lucas County Hosp, 40– Summers, lecturer, John Carroll, 39–41. Advisory councilor, Cleveland Museum Health and Hygiene. Mem, Nat. Research Council; Nat. Cmt. Mental Hygiene. A.A; fel. Psychiat. Asn; Pub. Health Asn; fel. Orthopsychiat. Asn. (v. pres, 36, pres, 43); fel. Soc. Research Child Develop; Rorschach Inst, Inc; fel. Am. Med. Asn; Sociol. Soc; Acad. Polit. and Social Sci; Cent. Neuropsychiat. Asn; Nat. Conf. Social Work (chairman, div. mental hygiene, 30); Ohio Valley Sociol. Soc; Ohio State Med. Soc. (sec'y, 33; chairman sect. nervous and mental diseases, 34); Ohio Mental Hygiene Soc. (pres, 31–33); Cleveland Neur. Soc. (sec'y-treas, 38, chairman, 39). Mental disease behavior; mental hygiene.

Schuman, Dr. S(eymour) C(yrus), Pennsylvania State College, State College, Pa. *Physical chemistry.* New York, N. Y, April 4, 16. B.S, Michigan, 35; Ph.D, Pa. State Col, 40. Asst. *chem, Pa. State Col,* 37–40, *instr, 40–* Chem. Soc. Low temperature thermal data on organic compounds.

Schumann, Dr. Carl Louis, Ford Paint and Varnish Co, Grand Rapids, Mich. *Chemistry.* Morris, Minn, Oct. 11, 88. B.S, N. Dak. Col, 13; M.S, Michigan, 14, fellow, Ph.D, 16. Instr. chem, Minnesota, 15–16, org. chem, 16–19; chief chemist, Pratt and Lambert Varnish Co, 19–25; *chief chemist and manager,* Kreuter-Faasen Varnish Co; *v. pres. and gen. manager, Ford Paint and Varnish Co.* Vegetable oils; China-wood oils.

Schumb, Prof. W(alter) C(ecil), 9 Garden St, East Milton, Mass. *Chemistry.* Boston, Mass, Sept. 10, 92. A.B, Harvard, 14, Sheldon traveling fellow, 14–15, A.M, 16, Ph.D, 18. Asst. prof. *chem,* Vassar Col, 19–20; *Mass. Inst. Tech,* 20–27, assoc. prof, 27–34, *prof, 34–, director research lab. inorg. chem.* Chem. Soc; Am. Acad. Inorganic chemistry; preparation and properties of new halides of metals and non-metals, especially silicon; chemistry of fluorine.

Schunk, Dr. Oliver H(enry), Kingsbury Ordnance Plant, La Porte, Ind. *Chemistry.* Milwaukee, Wis, Sept. 8, 92. B.S, Wisconsin, 17, Ph.D, 26. Chemist, hygienic lab, U. S. Pub. Health Service, 18–20; research fellow, Mellon Inst, 20–22; research chemist, du Pont Film Mfg. Co, Parlin, N. J, 26–32; Atlantic Gelatin Co, Woburn, Mass, 33–34; Hammer Dry Plate Co, 34–39; consultant, 40–41; *research,* Prismacolor, Inc, Chicago, Ill, 41–42; *Kingsbury Ordnance Plant, 42–* Chem. Soc. Photographic science.

Schupp, Dr. O(rlon) E(dwin), Jr, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Phoenix, Ariz, Aug. 24, 02. B.S, Arizona, 24, M.S, 25; Loomis fellow, Yale, 29–30, Ph.D, 30. Instr. chem, Arizona, 25–27; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 30–* A.A; Chem. Soc. Analytical chemistry; potentiometric and volumetric analysis; student precision in quantitative and volumetric analysis; electrochemistry of cesium chloride and hydroxide solutions; sodium silicate adhesive bonds in corrugated fiberboard.

Schur, Milton O(scar), Brown Co, Berlin, N. H. *Chemical engineering.* Boston, Mass, Sept. 5, 95. B.S, Mass. Inst. Tech, 16. Research chemist, Mass. Inst. Tech, 16–17; chem. engineer, Chem. Products Co, Washington, D. C, 17–18; research chemist, *Brown Co,* 19–40, *director research and develop, 40–* Research chemist, Bur. Mines and C.W.S, 18–19. A.A; Chem. Soc; fel. Inst. Chem; Chem. Eng; Tech. Asn. Pulp and Paper Indust. Production of bismuth, tungsten and molybdenum; mustard gas; pulping coniferous and deciduous woods; cellulose derivatives, wet-strength papers and other fiber specialties.

Schureman, Leslie R(obbins), 85 Moore St, Princeton, N. J. *Civil engineering.* Waterbury, Conn, July 31, 04. C.E, Rensselaer Polytech, 28. Junior asst. engineer, State Dept. Pub. Works, N. Y, 26–27; instr. civil eng, Princeton, 28–34, asst. prof, 34–41; land surveyor consultant highway bridge projects, 41–42; eng. examiner, U. S. Civil Service Cmn, 42–43; *field rep, U. S. Office Educ, 43–* Bridge designer, Mercer County, N. J, 30– Assoc. Civil Eng; N. J. State Soc. Professional Eng. Economics and design simplification of highway bridges and culverts.

Schureman, Paul, 122 Sixth St, N. E, Washington, D. C. *Geophysics.* Toms River, N. J, Feb. 29, 76. B.S, Rutgers, 97, hon. M.S, 25. Teacher, pub. schs, N. J, 97–99, prin, 99–03; *computer and mathematician, U. S. Coast and Geod. Surv, 03–* A.A; Philos. Soc. Wash; Wash. Acad. Tides and currents; harmonic analysis and prediction of tides.

Schurman, Dr. I(man), 501 Federal Bldg, Cincinnati, Ohio. *Chemistry.* Holland, Mich, March 5, 05. A.B, Hope Col, 27; M.S, Ohio State, 29, Ph.D, 31. Research assoc, Ohio State, 32–33; chemist, State Highway Lab, Ohio, 33–35; from junior chemist to *assoc. chemist, food and drug admin, Fed. Security Agency, 35–* Chem. Soc. Liquid ammonia chemistry; foods and drugs.

Schuster, C(arl) E(phraim), Oregon State Agricultural College, Corvallis, Oregon. *Horticulture.* Green Spring, Ohio, July 15, 89. B.S, Oregon State Col, 14, M.S, 16. Sci. asst, U. S. Dept. Agr, 16–18; from instr. to prof. hort, Oregon State Col, and horticulturist, Exp. Sta, 19–29; *horticulturist, nut culture investigations, bur. plant indust, U. S. Dept. Agr, 29–* Soc. Hort Sci; Soc. Plant Physiol. Pollination of cherries, filberts and walnuts; strawberry production; irrigation of major berry crops; small fruit growing; soil types and moisture in relation to the growing of walnuts and filberts; nut culture.

Schuster, Prof. Geo(rge) L(ee), University of Delaware, Newark, Del. *Agronomy.* Middletown, Ind, May 25, 91. B.S, Ohio State, 16, M.S, 18. Asst. *agron,* Ohio State, 16–18; instr, West Virginia, 18–19; *prof, Delaware, 19–,* asst. dean sch. agr. and later *dean and director, Exp. Sta. and agr. exten. service, 37–* Cornell fellow, Europe, 27–28. Soc. Agron; Del. Crop Improv. Asn. (sec'y, 25–38). Farm crops; soils; pasture; methods of research.

Schutt, Dr. H(ermann) C(laus), Stone and Webster Engineering Corp, 49 Federal St, Boston, Mass. *Engineering.* Beidenfleth, Germany, July 14, 99. E.E, Munich, 25, M.E, 26, Dr.Tech.Sci. Design engineer, Texas Corp, Port Arthur, 26–27; H. S. Bell, New York, 28–29; Shell East. Petrol. Corp, 29–31; process engineer and tech. adviser, Alco Products, 31–40; *mem. staff, Stone and Webster Eng. Corp, 40–* Instr. hydraulics, Inst. Tech, Munich, 25–26. A.A; Chem. Soc. Hydraulics; thermodynamics; petroleum refining technology.

Schutz, Dr. Philip W(illiam), Columbia University, New York, N. Y. *Chemical engineering.* St. Louis, Mo, Aug. 23, 08. B.S, Washington (St. Louis), 29, M.S, 31; Ph.D, California, 33. Instr, California, 34; research chemist, Shell Oil Co. Martinez, Calif, 34–35; research assoc, California, 35–37;

instr: *chem. eng*, State Col. Wash, 37–40; *Columbia*, 40–42, *asst. prof*, *42–* Chem. Soc; assoc. Chem. Eng. Low temperature heat capacity measurements; thermodynamic data on inorganic salts; properties of deuterium compounds; distillation; heat transfer.

Schuyler, Prof. William H(illiard), Bucknell University, Lewisburg, Pa. *Chemical engineering, Chemistry.* Milton, Pa, Sept. 6, 90. B.S, Bucknell, 15; Columbia, 17; du Pont fellow, Virginia, 21–23, M.S, 23. Instr. chem, *Bucknell*, 15–18, *asst. prof. chem. eng, 18–*, head dept. junior col, Wilkes-Barre, Pa, 33–42. Board eds, 'Chem. Formulary' and org. sect, 'Handbook of Chem. and Physics.' Org. research chemist, C.W.S, 18–19. Chem. Soc; fel. Inst. Chem. (junior membership cmt); Pa. Acad. Organic and physical chemistry; esterification equilibria in the gaseous phase; emulsions; cosmetics.

Schwab, Prof. Edward H(enry), University of Texas School of Medicine, Galveston, Texas. *Internal medicine.* Yorktown, Texas, March 7, 03. A.B, Texas, 24, M.D, 28. Intern, John Sealy Hosp, 27–28; instr. *med, sch. med, Texas*, 28–29, adj. prof, 29–30, *assoc. prof, 30–*; asst. physician and *chief cardiac clinic, John Sealy Hosp, 28–* Electrocardiographer and consultant, U. S. Marine Hosp, Galveston. Am. Med. Asn; Am. Heart Asn; fel. Col. Physicians; South. Med. Asn. Cardiology.

Schwab, Frank W(ilbur), 5449 33rd St, N.W, Washington, D. C. *Analytical-physical chemistry.* Idana, Kans, Sept. 14, 05. B.S, George Washington, 32, A.M, 35. Asst. sci. aid anal. chem, *Bur. Standards*, 30–36, asst. chemist, 36–41, *assoc. chemist, 41–* Chem. Soc. Analytical reagents; pure substances; criteria of purity.

Schwab, J(ohn) F(rederick), 5449 33rd St, N.W, Washington, D. C. *Physical chemistry, Mathematics.* Morganville, Kans, Jan. 12, 98. A.B, Baker, 24; A.M, Kansas, 25; Southern California, 32; Washington (Seattle), 32–41. Instr. physics and chem, high sch, Kans, 25–27; prof, Parsons Col, 27–28; instr, high sch, Kans, 28–29; prof. physical sciences, Grays Harbor Junior Col, 29–32; *geophysicist, U. S. Geol. Surv, 42–* A.A; Chem. Soc; Geophys. Union; Asn. Social Case Workers; Am. Educ. Asn; Asn. Col. Physics Teachers. Thiazolidones; radioactivity; earthquake observations; air-mass analysis; community case study; natural gradation; prismatic astrolabe; probability.

Schwab, Prof. Joseph J(ackson), University of Chicago, Chicago, Ill. *Genetics.* Columbus, Miss, Feb. 2, 09. Ph.B, Chicago, 31, M.S, 35, Ph.D, 38. Instr. *biol, Chicago*, 35–40, *asst. prof, 40–, examiner biol. sciences, 40–*, asst. dean students, 42–43. Research assoc, Teachers Col, Columbia, 36–37; consultant, Progressive Educ. Asn, 38. Genetics Soc. Quantitative aspects of gene action; effect of heat on crossing-over.

Schwab, Dr. Sidney I(saac), Massachusetts General Hospital, Boston, Mass. *Neurology.* M.D, Harvard, 96; Berlin, Paris, Vienna, 96–99. Prof. nervous and mental diseases, St. Louis, 04–12; prof. clin. neur, Washington (St. Louis); *mem. staff, Mass. Gen. Hosp.* Neur. Asn; Psychopath. Asn. Mechanism of the neuroses, particularly war neuroses and the minor psychoses; neuropsychiatric diseases.

Schwabrow, J(ohn) R(obert), U. S. Geological Survey, Casper, Wyo. *Petroleum engineering, Geology.* Pittsburgh, Pa, May 1, 04. B.S, Pittsburgh, 27, P.E, 34. Junior petrol. technologist, *U. S. Geol. Surv*, 27–29, asst. petrol. engineer, 29–34, assoc. petrol. engineer, 34–38, dist. petrol. engineer, 38–43, *deputy supervisor, 43–* Asn. Petrol. Geol. Petroleum engineering, geology and oil and gas reserves of the Rocky Mountain states.

Schwalen, Prof. H(arold) C(hristy), University of Arizona, Tucson, Ariz. *Agricultural engineering.* St. Paul, Minn, Aug. 1, 95. B.S, Arizona, 17, M.S, 25; Iowa, 30; Wisconsin, 31. Asst. irrig, *Arizona*, 19–20, asst. prof. agr. eng. and asst. irrig. engineer, 20–27, assoc. prof. *agr. eng*, 27–36, *prof, 36–, assoc. irrig. engineer, 27–* Senior irrig. engineer, emergency rubber project, U. S. Forest Service, 42–43. Summer, research and field asst, Arizona, 17. F.A, U.S.A, 17–19. Civil Eng; Agr. Eng; Geophys. Union. Irrigation; construction, drilling, developing and testing of wells; the movement, source and quantity of surface and underground waters; design, maintenance and operation of pumping plants; hydraulics.

Schwantes, Prof. A(rthur) J(ohn), University Farm, St. Paul, Minn. *Agricultural engineering.* Kewaunee, Wis, Feb. 25, 96. B.S, Minnesota, 25; M.S, Wisconsin, 30. Manager service dept, A. J. Kirstin Co, Mich, 17–20; from asst. prof. to *prof. agr. eng. and chief dept, Minnesota, 21–* Land clearing engineer, Wahlkill Farms, Fla, 18. U.S.A, 18–19. Agr. Eng; Eng. Educ. Farm power and machinery; farm structures.

Schwardt, H(erbert) H(enry), 705 Mitchell, Ithaca, N. Y. *Entomology.* Savonburg, Kans, March 14, 03. B.S, Kans. State Col, 26, M.S, 27, Ph.D, 39. Junior entomologist, bur. entom, U. S. Dept. Agr, 27–28; asst. entomologist, Exp. Sta, Arkansas, 28–38; *asst. prof. entom, Cornell, 39–* Asn. Econ. Entom; fel. Entom. Soc. Amer; Kans. Entom. Soc. Biology of the Tabanidae; stored product insects; forage crops insects.

Schwarte, Dr. L(ouis) H(arold), Iowa State College, Ames, Iowa. *Veterinary science.* Saratoga Springs, N. Y, July 29, 96. B.S, Cornell, 18, M.S, 20; D.V.M, Iowa State Col, 28, Ph.D, 34. Pathologist, Exp. Sta, R. I. Col, 28–30; asst. prof. *vet. science, Iowa State Col*, 30–35, *assoc. prof, 35–* A.A; Vet. Med. Asn; Iowa Acad. Comparative physiology; poultry disease; animal diseases including hog cholera; enteritis and encephalomyelitis.

Schwartz, Dr. Abraham, Pennsylvania State College, State College, Pa. *Mathematics.* New York, N. Y, June 13, 16. B.S, Col. City of N. Y, 36; M.S, Mass. Inst. Tech, 37, Ph.D, 39. Asst. *math*, Inst. Advanced Study, 39–41; *instr, Pa. State Col, 41–* Math. Soc; Math. Asn. Higher dimensional Riemannian manifolds.

Schwartz, Dr. Anthony M(ax), 170 Irving Ave, Providence, R. I. *Organic chemistry.* Philadelphia, Pa, July 31, 08. B.Chem, Cornell, 28, Ph.D, 31. Research chemist, Nat. Aniline and Chem. Co, 32–40; research supervisor, Visking Corp, 40–43; *research director, Alrose Chem. Co, 43–* Chem. Soc. Organic syntheses; dyes and dyeing processes; inks and pigments; detergents; cellulose.

Schwartz, Dr. Benjamin, U. S. Department of Agriculture, Washington, D. C. *Zoology.* Austria-Hungary, Nov. 25, 89. A.B, Col. City of N. Y, 11; A.M, Columbia, 13; Ph.D, George Washington, 20. Sci. asst, Bur. Fisheries, 13; instr. biol, Arkansas, 13–15; prof. parasitol, Philippines, 20–23; junior zoologist, *bur. animal indust, U. S. Dept. Agr*, 15–20, asst. zoologist, 20, 23–25, assoc. zoologist, 25–27, zoologist, 27–28, senior zoologist, 28–36, asst. chief zool. div, 32–36, *prin. zoologist and chief zool. div, 36–; collaborator sect. helminth. collections, U. S. Nat. Museum, 39–* Director research, hookworm surveys, Philippine Health Service, 22–23. Asst. prof, zool, Howard, 31–33. Co-editor, 'Philippine Jour. Science,' 23; asst. ed, 'Bacter. Abstracts,' 25–27; ed. board, 'Jour. Parasitol,' 33–; ed. cmt, 'Jour. Agr. Research,' 36–; 'Agr. Hist. Series,' U. S. Dept. Agr, 41– Cmt. publication of research, Asn. Land Grant Cols. and Univs, 36– A.A; Soc. Parasitol. (councilor, 29–33); Soc. Exp. Biol; Soc. Trop. Med. (acting sec'y-treas, 25, sec'y-treas, 26–28, 30); Livestock Sanit. Asn; Conf. Research Workers Animal Diseases (exec. cmt, 42–); Helminth. Soc. Wash. (sec'y, 24–26, pres, 26); Wash. Acad. (v. pres, 27). Toxic products and physiology of parasitic worms; trichinosis; taxonomy, morphology and life histories of cestodes and nematodes; parasites of live stock; immunity in parasitic diseases.

Schwartz, Dr. Boris, 426 Main St, Metuchen, N. J. *Biochemistry, Organic chemistry.* Metuchen, N. J, Jan. 14, 18. B.S, Rutgers, 39, Ph.D, 42. Nutritional biochemist, Merck and Co; *org. chemist, Quaker Chem. Products Co.* Chem. Soc. Hydrolysis of triglycerides by lipase; effect of temperature on lipase; vitamin B_6 deficiency in domestic pig; pantothenic acid deficiency in domestic pig; synthetic organic chemistry; synthesis of organic mildewproofers, mothproofers, water-repellents and detergents.

Schwartz, Dr. Charles M(arvin), Battelle Memorial Institute, Columbus, Ohio. *Physical chemistry.* Williamsville, N. Y, June 15, 11. A.B, Buffalo, 31; Manchester, 34–35; Ph.D, Syracuse, 36. Asst. instr. chem, Syracuse, 31–34, 35–36; research chemist, King Labs, Inc, Syracuse, N. Y, 36–39; *research engineer, Battelle Mem. Inst, 39–* Chem. Soc. Crystal structure; application of electron diffraction to study of surfaces; corrosion films; x-ray metallography; metallurgy of alkaline earth alloys; photoelectric cells.

Schwartz, Dr. F(rederick) O(scar), 508 N. Grand Blvd, St. Louis, Mo. *Ophthalmology.* St. Louis, Mo, Oct. 22, 87. M.D, Washington (St. Louis), 10. Asst. prof. and later *assoc. prof. clin. ophthal, sch. med, Washington (St. Louis).* Asst.

ophthalmologist, Barnes Hosp; St. Louis Children's Hosp; McMillan Eye, Ear, Nose and Throat Hosp; consulting oculist and chief staff, Lutheran Hosp; surgeon to outpatients, Washington Univ. Dispensary. Fel. Acad. Ophthal. and Otolaryngol; Am. Med. Asn; fel. Col. Surg; St. Louis Ophthal. Soc. Ophthalmic surgery.

Schwartz, Prof. Frederick W(illiam), 27 Manning Blvd. Albany, N. Y. *Chemistry.* Albany, N. Y, Sept. 2, 83. B.S, Rensselaer Polytech, 05; Ph.D, Columbia, 11. Asst. chem, Rensselaer Polytech, 05–10; physical chem, Columbia, 10–11; instr. chem, *Rensselaer Polytech,* 11–13, asst. prof. *anal. chem,* 13–19, *prof, 19–* A.A; Chem. Soc. (councilor, 35). Plant products; photochemical reactions; toxic principles of plants; organic analytical reagents; paint vehicles.

Schwartz, G(eorge) L(ewis), 906 Blackshire Road, Wilmington, Del. *Chemistry.* Paragould, Ark, March 17, 87. B.S, Washington (Seattle), 15, fellow, 16–17, M.S, 17; Hopkins, 24. Pharmacist, 06–11; chemist, Forest Products Lab, U. S. Forest Service, 17; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 17–* Chem. Soc; U. S. Inst. Textile Research; Asn. Pulp and Paper Indust; British Textile Inst. Pulp; paper; textiles.

Schwartz, Prof. G(eorge) M(elvin), University of Minnesota, Minneapolis, Minn. *Geology.* Oakfield, Wis, Sept. 23, 92. A.B, Wisconsin, 15, A.M, 16; Ph.D, Minnesota, 23. Asst. geol, Wisconsin, 15–16; geologist, Copper Range Co, 16–18; instr. *geol, Minnesota,* 19–23, asst. prof, 23–29, *assoc. prof, 29–* Geologist, Wis. and Minn. Geol. Surveys; lecturer, Laval, 40–41. 2nd lieut, U.S.A, 18–19. A.A; Geol. Soc; Soc. Econ. Geol. Relations of the ore minerals; contact metamorphism; formation of high temperature sulfides; pre-Cambrian of Minnesota; Keweenawan geology of Minnesota; hydrothermal alteration; geophysical work in Minnesota.

Schwartz, Dr. Hans J(örgen), 100 Central Park, S, New York, N. Y. *Dermatology.* Que, Can, May 28, 76. M.D, McGill, 98. Prof. *clin. med, dept. dermat, med. col, Cornell,* 20–41, *emer. prof, 41–* Dermat. Asn; Harvey Soc; N. Y. Dermat. Soc; N. Y. Acad. Med. Syphilis.

Schwartz, Dr. Harry, Forest Products Laboratories, Ottawa, Ont, Can. *Chemistry.* Quebec, Que, July 27, 15. B.Sc, McGill, 36, Ph.D, 39. *Mem. staff, div. wood chem, forest products labs, Can. Dept. Mines and Resources, 40–* Cellulose and lignin chemistry.

Schwartz, Dr. Harry A(dolph), 2979 Yorkshire Road, Cleveland, Ohio. *Metallurgy.* Oldham Co, Ky, April 13, 80. B.S, Rose Polytech, 01, M.S, 03, M.E, 05, Chem.E, 31, hon. Sc.D, 33; hon. D.Eng, Case, 36. Instr, Rose Polytech, 01–02; acting supt, Indianapolis works, Nat. Malleable Casting Co, 02–20, *manager research, Nat. Malleable and Steel Castings Co, 20–* Lecturer, Case, 24–37, professorial lecturer, 37– Adviser on malleable iron, 'The Foundry,' 28–; ed. advisory board, 'Metals and Alloys,' 30– Penton medal, Am. Foundrymen's Asn, 30; E. J. Fox medal, Inst. British Foundrymen, 39. A.A; Chem. Soc. (sec'y, Ind. sect, 06–09); Soc. Metals (chairman, Cleveland sect, 23–25); Foundrymen's Asn. (chairman, cmt. on metallog, 23–, chairman, cmt. on specifications malleable iron, 29–, mem, advisory cmt. on malleable iron, 30–); Mech. Eng. (chairman Cleveland sect, 38); Min. and Metal. Eng. (v. chairman, north. Ohio sect, 24; iron and steel div, 35; Cleveland sect, 42); Soc. Test. Mat. (chairman, Cleveland dist. cmt, 31–39); British Iron and Steel Inst. Physical metallurgy of malleable cast iron; engineering properties of alloy cast steels.

Schwartz, Dr. Henry G(erard), Washington University Medical School, St. Louis, Mo. *Neurosurgery.* Brooklyn, N. Y, March 11, 09. A.B, Princeton, 28; M.D, Hopkins, 32. Surg. house officer, Hopkins, 32–33; nat. research fellow, Harvard, 33–35; instr. anat, Harvard Med. Sch, 35–36; fellow neurosurg, *med. sch, Washington (St. Louis),* 36–37, instr, 37–42, *asst. prof. clin. neurosurg, 42–; neur. surgeon, 21st Gen. Hosp, U. S. Army, 42–* Inst. League Against Epilepsy. Asn. Anat. Anatomy, surgery and physiology of the nervous system.

Schwartz, Col. Seymour C(randall), Station Hospital, Ft. Thomas, Ky. *Tropical medicine.* Sendai, Japan, Sept. 30, 86. B.S, Syracuse, 13, M.D, 14; Dr.P.H, Hopkins, 36. Instr. path, col. med, Syracuse, 14–16; serol. and immunol, Army Med. Sch, 27–31; pres. and mem, Army Med. Research Board, P. I. and C. Z, 32–35; *Med. Corps, U. S. Army, 16–* Soc. Trop. Med; Pub. Health Asn; Asn. Mil. Surg; fel. Col. Physicians. Serology; immunology.

Schwartze, Dr. C(hester) D(ruse), Western Washington Experiment Station, Puyallup, Wash. *Horticulture.* Yakima, Wash, March 13, 02. B.S, State Col. Wash, 24, Ph.D, 35. *Asst. horticulturist, Exp. Sta, State Col. Wash, 35–, horticulturist, West. Wash. Exp. Sta, 35–* Breeding strawberries and raspberries; frozen foods research with fruits and vegetables.

Schwartze, Dr. Erich W(ilhelm), 1225 Talbert St, S.E, Washington, D. C. *Pharmacology.* Cairo, Ill, Jan. 14, 91. A.B, Illinois, 12; M.D, Chicago, 14. Instr. physiol. and pharmacol, Univ. and Bellevue Hosp. Med. Col, 14–16; junior pharmacologist, bur. chem, U. S. Dept. Agr, 16–18, in charge pharmacol. lab, 18–26; Mellon Inst, 26–28; prof. physiol. and pharmacol, med. dept, Georgia, 28–31; *practising physician.* Nat. research fellow, London, 23–24. Soc. Pharmacol. Habituation to arsenic; pharmacology and chemistry of cottonseed poisoning; strychnine; pharmacology of sulfites and of local emetics; chemistry of g-strophanthin; physiological standardization of drugs; pharmacology of aluminum; influence of metals on vitamin C in milk; amebiasis and amebicides.

Schwarz, Prof. A(lexander) John, 874 Union Ave, Memphis, Tenn. *Pharmacognosy.* Dec. 31, 98. B.S, Wisconsin, 22, Hollister fellow, 22, Ph.D, 31. Botanist and pharmacognosist, Eli Lilly and Co, Indianapolis, 22–27; asst. prof. *bot. and pharmacog, Tennessee,* 27–31, *assoc. prof, 31–, chief div. pharmacog. and basic subjects, 36–* Asst, Wisconsin, 27. V. chairman, Plant Science Seminar, 41, chairman, 42, 43. Del, U. S. Pharmacopoeia convention, 30, 40; auxiliary mem, revision cmts, U. S. Pharmacopoeia XI, Nat. Formulary VI, mem. revision cmt, U. S. Pharmacopoeia XII. Pharmaceut. Asn. (cmt. on unofficial standards for drugs and chemicals); Asn. Cols. Pharm. (sec'y, sect. pharmacog. and pharmacol, 33, 41; chairman, 34, 42, 43); fel. Inst. Chem; Tenn. Acad. Chemistry of botanical drugs.

Schwarz, Prof. E(dward) R(obinson), 63 Lovell Road, Melrose Highlands, Mass. *Engineering.* Lawrence, Mass, March 4, 99. B.S, Mass. Inst. Tech, 23. Asst. *textile technol, Mass. Inst. Tech,* 22–25, instr, 25–29, asst. prof, 29–34, assoc. prof, 34–37, *prof, 37–* Advisory cmn, Textile Foundation, 31–; pres, Mass. Safety Council, 42– Chairman, ed. board, 'Textile Research,' 32–41. A.A; Micros. Soc; Optical Soc; Asn. Textile Chem. and Colorists; Textile Research Inst. (director, 32–); Fire Protection Asn; fel. British Textile Inst. Textile engineering and technology; textile microscopy; fire prevention and safety engineering.

Schwarz, Dr. Guenter, University of Illinois, Urbana, Ill. *Physics.* Cologne, Germany, Nov. 26, 13. Dipl. Ing, Tech. High Sch, Berlin, 38; Ph.D, Hopkins, 41. Asst. physics, Hopkins, 38–41, physical chem, 41–42; *instr. physics, Illinois, 42–* A.A; Physical Soc. Electronics; x-rays; natural constants; cyclotron.

Schwarz, Herbert F(erlando), American Museum of Natural History, New York, N. Y. *Entomology.* Fire Island, N. Y, Sept. 7, 83. A.B, Harvard, 04, A.M, 05; A.M, Columbia, 07. *Research assoc. Hymenoptera, Am. Museum Nat. Hist., 21–* Ed, 'Nat. Hist,' 21–24. A.A; fel. Entom. Soc. Amer; N. Y. Entom. Soc. (v. pres, 34, pres, 35); fel. N. Y. Acad. (ed, 25–36, councilor, 25–36). Hymenoptera.

Schwarz, Dr. Otto H(enry), 630 S. Kingshighway Blvd, St. Louis, Mo. *Obstetrics, Gynecology.* St. Louis, Mo, June 15, 88. Yale, 06–08; M.D, Washington (St. Louis), 13. Intern and res. physician, Washington Univ. Hosp. and Barnes Hosp, 13–15; asst. and instr. obstet. and gynec, *Washington (St. Louis),* 15–21, assoc. obstet, 21–22, assoc. prof, 22–26, *prof,* 26–29, *obstet. and gynec, 29–* Asn. Obstet. and Gynec; Gynec. Soc; Col. Surg; St. Louis Gynec. Soc.

Schwarzbek, Prof. William, 22 Domingo Ave, Berkeley, Calif. *Psychology.* Ney, Ohio, Feb. 14, 07. A.B, Wittenberg Col, 29; A.M, Ohio State, 31, Ph.D, 35. Asst. *psychol,* Ohio State, 30–36; *asst. prof, Wittenberg Col, 36–; lieut, U. S. Naval Res, 42–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Learning skills; perception and memory of visual forms.

Schwarze, Dr. Carl Alois, 181-20 Midland Parkway, Jamaica Estate, Jamaica, L. I, N. Y. *Plant pathology.* Brooklyn, N. Y, Sept. 27, 86. B.S, Missouri; A.M, Columbia, Ph.D, 22. Asst. bot, Columbia, 11–12, 19–21; asst. state plant pathologist, N. J. Exp. Sta, 12–18; *consulting plant pathologist, 23–* Sum-

mers, lecturer, Columbia, 20–22. M.C, U.S.A, 18–19. A.A; Phytopath. Soc; fel. Geog. Soc. N. Y. Parasitic fungi of New Jersey.

Schwarze, Prof. C(arl) T(heodore), 828 Milledge Road, Augusta, Ga. *Civil engineering.* Freedom, Wis, Aug. 12, 77. Cooper Union; B.S, Lehigh, 03, C.E, 05. Asst. engineer, Grade Crossing Cmn, Brooklyn, 05–07; instr, Cooper Union, 07–10, asst. prof, 11–21; lecturer, *N. Y. Univ,* 20–21, assoc. prof, 21–31, prof. *civil eng,* 31–42, *emer. prof, 42–* Consulting engineer, Hubert and Schwarze, 12–16; pres, Hudson River Day Sch, 23–25. Mem, Research Board Reinforced Brickwork. A.A; Civil Eng; Eng. Educ; Road Builders Asn. Materials of construction, especially concrete, reinforced concrete and reinforced brickwork; scientific accuracy of the Old Testament.

Schwarzschild, Dr. Martin, Columbia University, New York, N. Y. **Astronomy, Astrophysics.* Potsdam, Germany, May 31, 12. Ph.D, Göttingen, 35. *Lecturer astron, Columbia, 40–* Astron. Soc. Variable stars.

Schwelgert, Dr. G(eorge) E(arl), University of Missouri, Columbia, Mo. *Mathematics.* York, Pa, Nov. 13, 07. B.S, Washington and Jefferson Col, 29; Ph.D, Hopkins, 34. Acting prof, Lebanon Valley Col, 35–36; Service fellow, Virginia, 36–37, *instr. math,* 37–39; Cornell, 39–40; *Missouri, 40–* Summer, instr, Virginia, 42. Set theoretic topology.

Schweikher, Dr. F(erdinand) Paul, 1623 Compton Road, Cleveland Heights, Ohio. *Nature study.* London, Eng, Sept. 18, 78. Munich; A.Agr, Univ. Wales, 03; A.M, Western Reserve, 18, Ph.D, 31. Master, Colonial Training Col, England, 03–05; Queen Elizabeth Grammar Sch, England, 05–07; asst. head master and head dept. science, Kirkham Grammar Sch, England, 07–15; teacher, high sch, Ohio, 15–16; *supervisor nature study and gardening, pub. schs, Cleveland Heights, 16–* Master, Tech. Inst. Lytham, England, 08–10. Nature Study Soc; Nat. Sci. Club Cleveland (pres, 27–29); Wild Flower Club Cleveland (v. pres, 19). Anatomy; later stages of development and growth in the Hyaena skull; ectocranial suture closure in the Hyaenas; care and study of living laboratory animals.

Schweitzer, Dr. Carl E(arle), 207 Justis St, Newport, Del. *Organic chemistry.* Flint, Mich, Jan. 19, 14. A.B, Kalamazoo Col, 36, Upjohn fellow, 36–37, M.S, 37; Abbott fellow, Northwestern, 40–41, Ph.D, 41. Asst. chem, Northwestern, 37–40; *research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 41–* Chemists Club. Vitamin K; steroids, particularly dehydroandrosterone and testosterone.

Schweitzer, Dr. Morton D(avid), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Genetics, Statistics.* New York, N. Y, June 2, 08. A.B, Columbia, 29, A.M, 32, Ph.D, 34. Asst. zool, Columbia, 30–34; research fellow biol, Calif. Inst. Tech, 34–36; *research geneticist, med. col, Cornell, 36–; epidemiologist, Office Surgeon Gen, second corps area, Governor's Island, N. Y, U. S. Army, 42–, lieut.* A.A; Genetics Soc; Pub. Health Asn; Statist. Asn; N. Y. Acad. Familial epidemiology of rheumatic fever; medical genetics.

Schweitzer, Prof. P(aul) H(enry), Pennsylvania State College, State College, Pa. *Engineering.* Miskole, Hungary, May 20, 93. M.E, Polytech. Inst, Budapest, 17; D.E, Polytech. Inst, Dresden, 29. Draftsman, De La Vergne Machine Co, 20–22; tool designer, Oakland Motor Car Co, 22–23; asst. prof. *eng. research, Pa. State Col,* 23–26, assoc. prof, 26–37, *prof, 37–* A.A; Mech. Eng; Soc. Automotive Eng; Soc. Rheol; hon. mem. Soc. Develop. Int. Combustion Power. Diesel engines; thermodynamics; flow of liquids.

Schweizer, Dr. Malvina, Washington Square College, New York University, New York, N. Y. *Physiology.* New Orleans, La, Jan. 16, 06. B.S, N. Y. Univ, 27, M.S, 29, Ph.D, 33. Asst. instr. *biol, N. Y. Univ,* 27–33, *instr, 33–* A.A; Soc. Zool. Distribution of white blood cells; physiology of the endocrine glands.

Schwendeman, Dr. J(oseph) R, Moorhead State Teachers College, Moorhead, Minn. *Geography.* B.S, Ohio (Athens), 26; A.M, Clark, 27, fellow, 39–40, Ph.D, 41; Minnesota, 27–28. *Moorhead State Teachers Col, Minn, 26–, head dept. geog.* Instr, Minnesota, 27–28. Summers, instr, Columbia Col. (Iowa), 27; Spearfish State Teachers Col, S. Dak, 28; Ohio (Athens), 41. Council Geog. Teachers. Geography of Minnesota; human geography; Minnesota rocks and minerals; Minnesota products in national and foreign markets; truck farming in the Lower Muskingum Valley; the water supply geography of the basin of the Red River of the North.

Schwendiman, Dr. Avin, University of Wisconsin, Madison, Wis. *Agronomy.* Sugar City, Idaho, Aug. 29, 11. B.S, Idaho, 37; Ph.D, Wisconsin, 40. *Instr. agron, Wisconsin.* Weed control.

Schwenk, Dr. Erwin, Schering Corp, 86 Orange St, Bloomfield, N. J. *Chemistry.* Prague, Czechoslovakia, Oct. 19, 87. Dr.Tech, Tech. Hochschule, Vienna, 10. Asst, Kaiser Wilhelm Inst, Berlin, 14–16; director research, Verein f. Chem. u. Metal. Production, Aussig, Czechoslovakia, 16–28; asst. director research, Schering A.G, Berlin, 28–33; *director research and v. pres, Schering Corp, 33–* Chem. Soc; Chem. Eng. Dyestuffs; organic chemicals; camphor; hormones; pharmaceuticals; organic and pharmaceutical chemistry.

Schwenk, Prof. H(arold) S(pencer), University of Connecticut, Storrs, Conn. *Chemistry.* South Meriden, Conn, March 7, 95. B.S, Conn. Agr. Col, 16, M.S, 23; Cornell, summers, 27, 29–31; Yale, 33, 34. Sci. asst. marketing, U. S. Dept. Agr, 16–18; asst. *chem, Connecticut,* 21–23, instr, 23–29, asst. prof, 29–34, *assoc. prof, 34–* Chem. Soc. Salts of titanium in analytical processes; electrolytic preparation of titanous salts; qualitative detection of carbohydrates; thermionic control of constant temperature devices; preparation of amino acetal.

Schwentker, Dr. Francis F(rederic), Institutul de Igiène si Sanatate Publica, Iasi, Rumania. *Pediatrics.* Schenectady, N. Y, Feb. 13, 04. B.S, Union (N. Y), 25; M.D, Hopkins, 29. Intern, Hopkins Hosp, 29–30; asst. res. pediatrician and asst, Hopkins, 30–31, res. pediatrician and instr, 34–35, assoc. pediat, 35–38; director med. research, city health dept, Baltimore, 36–37; asst, Rockefeller Inst, 31–34; res. physician, Sydenham Hosp, 35–36; *research, Rockefeller Foundation, Rumania, 38–* Filterable viruses; infectious diseases.

Schwerma, Dr. Henry, Wayne University College of Medicine, Detroit, Mich. *Physiology, Pharmacology.* Manitowoc, Wis, April 12, 08. A.B, Wisconsin, 38, A.M, 40, Ph.D, 42. Asst. zool, Wisconsin, 38–42; asst. prof, N. Dak. Col, 42–43; *research assoc, col. med, Wayne, 43–* Gonadotropic hormones; antigonadotropic sera.

Schwesinger, Dr. Gladys C(lotilde), American Museum of Natural History, New York, N. Y. *Social sciences.* Vancouver, B. C, Can. B.A, British Columbia, 16; A.M, Radcliffe Col, 21; Ph.D, Columbia, 26. Clin. psychologist, Boston State Hosp, 21; asst, inst. educational research, Columbia, 22, 25–27; sch. psychologist, Montclair, N. J, 23–24; Brooklyn Friends Sch, 27–29; asst. director, Brooklyn Conf. Adult Educ, 29–30; research assoc, Eugenics Research Asn, 29–34; *research psychologist, dept. anthrop, Am. Museum Nat. Hist; research psychologist, Klein Inst, 43–* Lecturer, N. Y. Post-Grad. Med. Sch, Columbia, 21–22; counsellor, Pelham Inst, 25–29; psychologist and social investigator, State Training Sch. for Girls, N. Y, 30–32; consultant psychologist, Cherry Lawn Sch, Conn, 33–; research assoc, Am. Eugenics Soc, 35–42; consultant psychologist, Progressive Educ. Asn, 36–38; Gen. Educ. Board fellow, 36–38. A.A; assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; fel. Council Women Psychol. (exec. sec'y, 42–); fel. Asn. Applied Psychol. (mem. ed. board, 'Jour,' 35–38; chairman membership cmt, consulting sect, 38–); fel. N. Y. Acad. (sec'y, psychol. sect, 33–38); Metrop. New York Asn. Applied Psychol. (sec'y-treas. and chairman membership cmt, 41). Heredity and environment in man; vocabulary; adolescence; human relations; eugenics and population; civilian psychology in war-time.

Schwid, Dr. Nathan, Texas College of Mines and Metallurgy, El Paso, Texas. *Mathematics.* Milwaukee, Wis, Feb. 10, 03. A.B, Wisconsin, 30, A.M, 32, Ph.D, 34. Asst. *math,* Wisconsin, 30–31, instr, 31–36; adj. prof, Texas Col. Mines and Metal, 36–37; instr, Mont. State Col, 37–39; asst. prof, *Texas Col. Mines and Metal,* 39–41, *assoc. prof, 41–* Math. Soc. Differential equations.

Schwind, Prof. Joseph L(ouis), Albany Medical College, Albany, N. Y. *Anatomy.* Dayton, Ohio, July 12, 02. A.B, Cornell, 24, A.M, 25; Ph.D, Yale, 28. Asst. histol. and embryol, Cornell, 24–25; biol, Yale, 25–27; instr. *anat,* med. col, Cornell, 28–34; assoc. prof, sch. med, Georgetown, 34–35; asst. prof, *Albany Med. Col, Union (N. Y),* 35–38, *assoc. prof, 38–* A.A; Asn. Anat; Soc. Exp. Biol. Development of hypophysis; heteroplastic transplantation of eyes, limbs and girdles; tissue specificity; twinning in Amphibia; hematology.

Schwing, Prof. K(arl) J(osef), Upsala College, East Orange, N. J. *Chemistry.* Balzfeld, Baden, Germany, Feb. 27, 97. Ph.D, Freiburg, 22. Instr. chem, Freiburg, 22–23; research chemist, I. G. Farben Indust. Hoechst, Main, 23–24; E. I. du Pont de Nemours and Co, 24–25; Amalgamated Dye and Chem. Co, Newark, 25–29; Barrett Co, Edgewater, N. J, 30–31; assoc. prof. chem, *Upsala Col,* 31–40, *prof. chem. and physics, 40–* A.A; Chem. Soc. Stereoisomers of cyclohexane series; anthraquinone vat-acid-celanese silk colors; isolation of coal tar products; isolation of amino acids.

Schwitalla, Dean Alphonse M(ary), S.J, 1402 S. Grand Blvd, St. Louis, Mo. *Physiology.* Beuthen, Upper Silesia, Germany, Nov. 27, 82.. A.B, St. Louis, 07, A.M, 08, 12–16; Ph.D, Hopkins, 21; LL.D, Tulane, 38; Sc.D, Lawrence Col, 39. Instr. chem, St. Xavier Col, 07–10; biol. and physiol, St. Louis, 10–12; chem, Rockhurst Col, 16–18; assoc. prof. *biol,* St. Louis, 21–24, *prof. and director dept, 24–, dean sch. med, 27–,* dean *sch. nursing,* 28–40, *regent, 40–, sch. dentistry, 24–* Sec'y, Group Hospital Service, Inc, 36– Ed, 'Hosp. Progress,' 28– Mem. cmn. institutions higher educ, N. Cent. Asn. Cols. and Secondary Schs, 26–, examiner schs, 28–41, pres, 36; mem, Cmt. Costs of Med. Care, 28–33; pres, Catholic Hosp. Asn. U. S. and Can, 28–; joint cmt, Am. Catholic and Protestant Hosp. Asn, 32–; cmt. interneships and cmt. premed. educ, Advisory Council Med. Educ, 34–; cmt. educational policies, Asn. Am. Med. Cols, 36–; advisory councilor, Nat. Organization for Pub. Health Nursing, 38–; educ, problems and plans cmt, Am. Council on Educ, 37–, chairman subcmt. professional educ, 39–; subcmt. hosps, health and med. cmt, Council Nat. Defense, 40– Mem, White House Conf. Children in a Democracy, 40–; Nat. Conf. Catholic Charities, 37– A.A; assoc. fel. Am. Med. Asn. (blueprint cmt, 33; cmt. protection med. research, 35–; advisory cmt. council med. educ. and hosps, 38–); Am. Hosp. Asn. (cmt. pub. educ, 34–); hon. fel. Col. Hosp. Admin. (cmt. educ, 34–); Social Hygiene Asn. (director, 38–); hon. fel. Col. Dentists (nat. research cmt, 38–); Soc. Prevention of Blindness (director); Asn Med. Social Workers (advisory councilor, 37–); Occupational Therapy Asn. (advisory councilor); Soc. Control Cancer; Nat. Cmt. Mental Hygiene; Nat. Conf. Social Work; Sociol. Soc; Catholic Philos. Asn; Pub. Health Asn; Popul. Asn; Anthrop. Asn; Soc. Zool; Genetics Soc; Am. Acad. Polit. and Social Sci; Catholic Asn. Int. Peace; Hist. Sci. Soc; South. Med. Asn; Miss. Valley Med. Soc; Mo. Social Hygiene Asn. (director, 30–; pres, 30–32); Mo. Asn. Occupational Therapy (pres, 36; director); Mo. Soc. Crippled Children (director, 39–); Mo. Soc. Mental Hygiene (director, 32–37); Mo. Asn. Social Welfare (health cmt, 36–); Mo. Acad; State Hist. Soc. Mo; assoc, Med. Record Librarians East. Mo; St. Louis Acad; St. Louis Soc. Crippled Children (director, 37–); fel. Andean Anthrop. Exped. Inst. Sci. Research; Int. Hosp. Asn. (director, 37–). Biology; sociology; medical education; hospital administration; nursing education; influence of temperature on the rate of locomotion in amoeba.

Schwob, Dr. Claude R(ené), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Dobbs Ferry, N. Y, June 16, 10. B.S, Fordham, 30, M.S, 31, Ph.D, 33. Instr. org. chem, Fordham, 30–33; prof. physical chem, St. Peter's Col, 33–43; *asst. prof. chem, Carnegie Inst. Tech, 43–* A.A; Chem. Soc. Physical and organic chemistry; oxidation of pyrimidines; catalytic properties of charcoal.

Sclar, Dr. M(artin) D(avid), Industrial Chemical Products Co, Detroit, Mich. *Chemistry.* Philadelphia, Pa, Nov. 20, 08. A.B, Temple, 30, A.M, 32; Harrison fellow, Pennsylvania, 34–35, Ph.D, 35. Asst, Temple, 30–32; *research chemist, Indust. Chem. Products Co, 36–* Chem. Soc. Detergents; metal corrosion.

Scobey, Dr. E(lis) H(urlbut), 6131 Indianola Ave, Indianapolis, Ind. *Geology.* Carrolls, Wash, Sept. 15, 11. A.B, Cornell Col, 33; M.S, Iowa, 35, Ph.D, 38. Asst. geol, Iowa, 35–38; *asst. geologist, Gulf Ref. Co, 38–* Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. Stratigraphy; sedimentation; petroleum geology in the Illinois basin.

Scobey, Fred C(harles), Soil Conservation Service, Berkeley, Calif. *Engineering.* Greensburg, Ind, 80. A.B, Stanford. From office engineer to *senior irrig. engineer, irrigation div, soil conservation service, U. S. Dept. Agr, 11–* Special lecturer, various univs. Tech. adviser boundary cmn, U. S. Dept. State. Civil Eng. (chairman hydraulics div); Agr. Eng; Geophys. Union. Hydraulics; irrigation engineering; flow of water in irrigation and hydroelectric power channels, in wood stave pipes and concrete pipes and in riveted steel and analogous pipes and flumes; carrying capacity of water conduits.

Scofield, C(arl) S(churz), Lanham, Md. *Botany, Agriculture.* Bloomington, Minn, Feb. 5, 75. B.S.A, Minnesota, 00. Asst, *bur. plant indust, U. S. Dept. Agr,* 00–05, agriculturist and *prin. agriculturist in charge irrig. agr, 05–* A.A; Asn. Geog; Bot. Soc. Wash; Wash. Acad. Wild rice; varieties of wheat; commercial grading of corn; dry farming in the Great Basin; irrigation farming; movement of water in irrigated soils; quality of irrigation water; boron in plant nutrition.

Scofield, Prof. Carleton F(orman), 3840 Fulton St, N.W, Washington, D. C. *Psychology.* Trenton, N. J, Aug. 8, 00. A.B, Wesleyan, 21; Cornell, 22–23; Ph.D, Yale, 28. Instr, Cascadilla Sch, N. Y, 21–23; asst. *psychol,* Wesleyan, 23–24; instr, Yale, 24–28; asst. prof, *Buffalo,* 28–35, *assoc. prof, 35–; psychologist, Office Strategic Services, 42–* Visiting fellow, Yale, 37–38. A.A; Psychol. Asn. Perception in the region of the optic disc; vision.

Scofield, Dr. Edward H, 2402 Napoleon Blvd, Louisville, Ky. *Psychology.* Columbus, Ohio, June 23, 04. A.B, Ohio State, 33, A.M, 34, Ph.D, 39; Mass. Inst. Tech, 38. Instr, Ohio State, 34–38; *director psychometric research and chem. control labs, Joseph E. Seagram and Sons, Inc, 38–* A.A; Psychol. Asn; Midwest Psychol. Asn; Ohio Acad. Experimental psychology; color; odor; taste; experimental esthetics; chemical methodology.

Scofield, G(eorge) Vincent, 1112 Highland Road, Edgewood, Charleston 2, W. Va. *Organic chemistry.* Youngstown, Ohio, Aug. 23, 97. Union Col. *Chief works chemist, Carbide and Carbon Chem. Corp, 20–* A.A; Chem. Soc. (treas, Kanawha Valley sect, 27–40, v. chairman, 41, chairman, 42). Organic chemical analysis; organic nomenclature.

Scofield, Prof. H(erbert) H(enry), Cornell University, Ithaca, N. Y. *Engineering.* Bemus Point, N. Y, Oct. 5, 80. M.E, Cornell, 05. Teaching staff, Purdue, 05–18; inspection engineer, Curtiss Aeroplane Co, 18–19; ed. work, Soc. Automotive Engineers, 19; *prof. materials of construction, sch. civil eng, Cornell, 19–* Concrete Inst; Soc. Test. Mat. Materials of construction.

Scofield, Prof. Herbert T(emple), Ohio State University, Columbus, Ohio. *Plant physiology.* West Lafayette, Ind, May 16, 09. A.B, Cornell, 30, Ph.D, 37. Asst. plant physiol, Cornell, 31–36, instr, 36–37; *bot, Ohio State,* 37–40, *asst. prof, 40–* Agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 39. A.A; Bot. Soc; Soc. Plant Physiol; Ohio Acad. Ecology; light relations of plants.

Scofield, Prof. J(ames) Harry, Colorado State College, Ft. Collins, Colo. *Mechanical engineering.* La Plata, Mo, July 18, 87. B.S, Lewis Inst. Chicago, 19; M.E, Cornell, 21, fellow, 21–22. Instr, Cornell, 19–21; *assoc. prof. mech. eng, Colo. State Col, 24–* Lecturer, Stanford, 37. Summers, West. Elec. Co, 20, 21; engineer, Am. Beet Sugar Co, 24; Colo. Agr. Col. Mech. Eng; Eng. Educ. Variable-altitude laboratory with air conditioning; altitude laboratory development, 10,000 feet below to 21,000 feet above sea level.

Scofield, W(illiam) L, California State Fisheries Laboratory, Terminal Island, Calif. *Fisheries.* Iowa, 85. B.S, Stanford, 11; M.F, Yale, 13. Asst, U. S. Forest Service, 13–17; fisheries research, State Div. Fish and Game, Calif, 19–25; *supervising fishery researcher, State Fisheries Lab, Calif,* 25– U.S.A, 17–19. Changes in population of marine fishes.

Scoles, Prof. Dwight L, Long Island University, Brooklyn, N. Y. *Chemistry.* Fredericktown, Ohio, Jan. 8, 84. B.S, Berea Col, 14; M.S, Iowa State Col, 20; Ph.D, Columbia, 26. Asst. *chem,* Iowa State Col, 15–17, instr, 17–19, asst. prof, 19–20; prof, Ill. Wesleyan, 20–21; Robert Col, 21–24; assoc. prof, *Long Island,* 27–28, *prof. and director dept, 28–* A.A; Chem. Soc. Determination of phosphorus in the presence of molybdenum and vanadium; effect of traces of nickel on color change of cobalt hydroxide; nature of the complex which vanadium forms with phosphorus and molybdenum.

Scorah, Dr. R(alph) L(ouis), University of Missouri, Columbia, Mo. *Mechanical engineering.* Kokomo, Ind, Oct. 29, 01. B.S, Purdue, 24, Celite fellow, 24–25, M.S, 25, M.E, 32; Ph.D, Illinois, 32. Asst, Eng. Exp. Sta, Purdue, 24–25; dept. eng, Cincinnati Mil. Machine Co, 25–26; Union Gas and Elec. Co, 26–28; Northwest Eng. Co, 28–29; instr. *mech. eng,* Illinois, 29–32; Stanford, 32–35; asst. prof, *Missouri,* 35–42, *prof. and chairman dept, 42–* Mech. Eng. Machine design; heat engines; combustion; thermodynamics; heat transfer.

Scotland, Dr. Minnie B(rink), 42 Continental Ave, Cohoes, N. Y. *Biology.* Cohoes, N. Y, Aug. 12, 91. B.S, N. Y. State

Col. for Teachers, 13; A.M, Columbia, 21; Ph.D, Cornell, 33. Teacher, high sch, N. Y, 13–14, 15–18; Bacon Acad, Conn, 14–15; instr, *N. Y. State Col. for Teachers, Albany*, 18–29, *asst. prof. biol, 30–* A.A; Entom. Soc. Amer; Ecol. Soc; Ornith. Soc; Limnol. Soc; Wilson Ornith. Club; N. Y. Teachers Asn. The animal association of Lemma minor; Lemnophila scotlandae; Lemna insects; parasites of Lemnophila scotlandae.

Scott, Dr. Adelin White, Letchworth Village, N. Y. *Psychology.* Tyler, Texas, June 23, 90. B.S, George Peabody Col, 18; A.M, Columbia, 21, Ph.D, 29. Teacher, pub. schs, Texas, 10–15; critic teacher, West. Texas State Teachers Col, 18–19, adj. prof. educ, 19–21, assoc. prof, 21–24; asst. educ. psychol, Teachers Col, Columbia, 23–35; asst. prof, Cornell, 25–26; assoc. prof, Texas Tech. Col, 26–29; *consulting psychologist, 29–* Reading disabilities; comparative study of responses of children of different nationalities and environments to intelligence and achievement tests; reading materials; motor tests for children.

Scott, Dr. A(lbert) B, Norwich Pharmacal Co, Norwich, N. Y. *Organic chemistry.* Moundsville, W. Va, Feb. 15, 06. A.B, West Virginia, 26; Pub. Health Inst. Chicago fellow, Northwestern, 26–27, M.S, 27, Ph.D, 29; Parke, Davis and Co. fellow, Northwestern and Wisconsin, 27–29. Asst, div. chem. pharmacol, Rockefeller Inst, 29–31; research org. chem, Parke Davis and Co, 31–37; with Gen. Chem. Co, 37–39; *director org. research, Norwich Pharmacal Co, 39–* Chem. Soc. Arseno-compounds; arsonation of aromatic aldehydes; hydrogenation of unsaturated lactones to desoxy acids; medicinals.

Scott, Prof. A(leita) H(opping) (Mrs. Ernest L. Scott), 64 South St, Bogota, N. J. *Physiology.* Tottenville, N. Y, July 17, 90. A.B, Hunter Col, 12; Ph.D, Columbia, 23. Asst. plant physiol, Hopkins, 13–15; teacher, high sch, N. Y, 15–21; instr. physiol, col. physicians and surg, Columbia, 23–25, assoc, 25–30, asst. prof, 30–38, col. pharmacy, 23–31; *retired.* Asst. prof, Med. Col. State of S. C, 26. Seasonal variations in the gases and sugar of the blood and the nitrogen distribution in the blood of the alligator; tissue metabolism and endocrines; lactic acid determination.

Scott, Prof. Alfred W(itherspoon), 238 Springdale St, Athens, Ga. *Chemistry.* Macon, Ga, June 25, 96. B.S, Georgia, 18; Ph.D, Princeton, 21; Minnesota. Assoc. prof. *chem, Georgia,* 22–26, *prof, 26–, head dept, 27–, director div. physical sciences, 35–* Chem. Soc; Ga. Acad. (v. pres, 31, pres, 32). Beckman rearrangement of hydroxamic acid derivatives; hyponitrites; organic precipitants for inorganic qualitative analysis.

Scott, Prof. Allan C(harles), Union University, Schenectady, N. Y. *Zoology.* Barre, Vt, Oct. 21, 07. A.B, Clark, 29; M.S, Pittsburgh, 31; Ph.D, Columbia, 36. Asst. zool, Pittsburgh, 29–31; Columbia, 31–35; instr. *biol. Union (N. Y),* 35–37, *asst. prof, 37–* Genetics Soc; N. Y. Acad. Comparative studies of cytological fixation; cytology of Coleoptera; life history of Coleoptera; physiology of cell division.

Scott, Capt. A(ndrew) H(umbert), Box 777, Lovelock, Nev. *Chemical engineering, Metallurgy.* Los Angeles, Calif, July 9, 81. Stanford, 11; Nevada. Chemist-assayer, Alpha Mining Co, 12–15; consulting engineer, *Lovelock, Nev,* 15–17, *custom chem. eng, 20–* Capt, A.S, 17–20. A.A; Chem. Soc; Asn. Eng; Seismol. Soc; Meteorol. Soc. Aerodynamics; metallurgy; mineralogy; non-metallics.

Scott, Dr. Arnold H(enry), 110 Franklin St, Kensington, Md. *Physics.* Sutherland, Iowa, Aug. 20, 99. B.S, Mississippi, 21, A.M, 23; Ph.D, Hopkins, 28. Instr, Mississippi, 22–23; *research, Bur. Standards, 24–* A.A; Physical Soc; Philos. Soc. Wash. Electrical properties of rubber; compressibility of rubber below 700 atmospheres; edge capacitance in dielectric constant determinations.

Scott, Prof. Arthur F(erdinand), Reed College, Portland, Oregon. *Chemistry.* Coytesville, N. J. A.B, Colby Col, 19; A.M, Harvard, 21, Ph.D. 24. Asst. prof. *chem,* Reed Col, 23–26; instr, Rice Inst, 26–37; *prof, Reed Col, 37–, acting pres, 42–* Parker traveling fellow from Harvard, Munich. 22–23. Summer, chem. adviser, bur. statist. and research, Office Production Management, 41. Del, Int. Cong. Chem, Rome, 38. A.A; Chem. Soc. Physical chemistry; determination of atomic weights; solubilities; compressibilities.

Scott, Prof. Auguste, Ste-Anne de la Pocatière, Comté Kamouraska, Que, Can. *Soils.* St-Simon, Bagot, Jan. 1, 01. B.A, Montreal, 24; B.S.A, Laval, 28; M.S.A, Toronto, 30. Specialist *soils and fertilizers,* Que. Dept. Agr, 30–31; *prof, faculty of agr, Laval, 31–* In charge soils surv, Quebec, 37, 38, 39. Int. Soc. Soil Sci. Rapid soils testing methods for Quebec soils.

Scott, C(aleb) Emlen, University of California, Berkeley, Calif. *Plant pathology.* San Francisco, Calif, March 29, 94. A.B, Stanford, 17, A.M, 28. Plant pathologist, State Dept. Agr, Calif, 22–31; *exten. specialist plant path, California, 31–* A.A; Phytopath. Soc.

Scott, Dr. Charles C(overt), 4485 Marcy Lane, Indianapolis, Ind. *Pharmacology.* Sparta, Ill, Jan. 18, 09. B.S, Mo. Valley Col, 29, Missouri, 33; Ph.D. and M.D, Chicago, 37. Intern med, Billings Hosp, Chicago, 38; asst. prof. physiol, sch. med, Texas, 39–40; asst. med, Chicago, 40–41; *pharmacologist, research labs, Eli Lilly and Co, 41–* Physiology of hunger; secondary shock; physiology of pancreas.

Scott, Prof. Charles F(elton), Yale University, New Haven, Conn. *[1]*Electrical engineering.* Athens, Ohio, Sept. 19, 64. A.B, Ohio State, 85, hon. Sc.D, 37; Hopkins, 86–87; D.E, Stevens Inst. Tech, 12, Polytech. Inst. Brooklyn, 35; Sc.D, Pittsburgh, 12; LL.D, Rose Polytech, 39. Westinghouse Elec. and Mfg. Co, 88–04, consulting engineer, 04–11; prof. *elec. eng, Yale,* 11–33, *emer. prof, 33–* Rep, Am. Eng. Council, 21–33; chairman, Eng. Council Professional Develop, 35–38, cmt. professional recognition, 39–; State Engineers Registration Board, Conn, 35–; pres, nat. council, State Boards Eng. Examiners, 38. Edison medal, Am. Inst. Elec. Eng, 29; Lamme medal, Soc. Promotion Eng. Educ, 30. Elec. Eng. (pres, 02); Eng. Educ. (pres, 21–23, chairman, board investigation, 22–33); Eng. Soc. West. Pa. (pres, 02). Electricity, particularly alternating current in the transmission and utilization of power.

Scott, Donald, Harvard University, Cambridge, Mass. *Anthropology.* New York, N. Y, June 4, 79. A.B, Harvard, 00, A.M, 30. Asst. treas, Century Co, New York, 06, treas, 09–12; v. pres. and director, New York Evening Post, 19–22; asst. director, *Peabody Museum, Harvard,* 29–32, *director, 32–, Peabody prof. anthrop, 42–* Trustee, Am. Schs. Oriental Research, 41– Rep, div. planning and statist, U. S. Shipping Board and War Trade Board, 18–19. A.A; Anthrop. Asn; Am. Acad; Royal Anthrop. Inst. Archeology of southwestern United States.

Scott, Dr. D(onald) B(urton), University of Alberta, Edmonton, Alta, Can. *Physics.* Toronto, Ont, March 13, 13. B.A, Toronto, 37; Ph.D, McGill, 40. Sessional instr. *physics, Alberta,* 40–43, *sessional lecturer, 43–* Stark effect in zinc.

Scott, Dr. D(wight) B(aker) McNair, Garrison, Md. *Biochemistry.* Coldwater, Mich, May 5, 07. A.B, Vassar Col, 29; Mass. Inst. Tech, 31–32; Ph.D, Radcliffe Col, 36. *Asst.* biol. chem, Harvard Med. Sch, 34–36; Univ. Col. Hosp. Med. Sch, London, 36–38; Pa. Hosp. Nervous and Mental Diseases, 41–42; *pediat, Hopkins, 42–* A.A; Asn. Sci. Workers; British Biochem. Soc. Phosphorus compounds; carbohydrate metabolism.

Scott, Dr. Edward M(arion), Creighton University School of Medicine, Omaha, Nebraska. *Biochemistry.* Laramie, Wyo, July 20, 17. A.B, Carlton Col, 38; Ph.D, Minnesota, 41. Teaching asst. agr. biochem, Minnesota, 39–40, *instr,* 40–41; *biol. chem, sch. med, Creighton, 41–* Chem. Soc. Papain; blood coagulation.

Scott, Prof. Ernest L(yman), 64 South St, Bogota, N. J. *Physiology.* Kinsman, Ohio, Aug. 18, 77. B.S, Ohio Wesleyan, 02; fellow, Chicago, 09–11, M.S, 11; Ph.D, Columbia, 14. Teacher, high sch, Mich, 03–09; asst. physiol, Chicago, 09–11; asst. prof, Kansas, 11–12; instr. and assoc, Columbia, 12–19, asst. prof, 19–22, assoc. prof, 22–42; *retired.* Aid, U. S. Coast and Geod. Surv, 02. U.S.A, 17–19, major. A.A; Physiol. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Chem. Soc; Harvey Soc; N. Y. Acad. Med. Carbohydrate metabolism; sampling; probability of laboratory data.

Scott, Dr. E(ugene) W(arren), University of Cincinnati, Cincinnati, Ohio. *Organic chemistry.* Arrowsmith, Ill, Feb. 8, 07. B.S, Illinois, 28; Ph.D, Cornell, 31. Research chemist, Wm. S. Merrell Co, 31–34; *instr, Kettering lab. applied physiol, col. med, Cincinnati, 34–; chief gas officer, Office Civilian Defense, 42–; chemist, U. S. Pub. Health Service, 43–* Chem. Soc. Furane derivatives; fluorine analysis; anesthetics; industrial toxicology; industrial hygiene; chemical warfare agents.

Scott, Dr. E(verett) L(ee), 309 Security Bldg, Phoenix, Ariz. *Animal husbandry.* Mineral Wells, Texas, Nov. 18, 96. B.S, Colorado, 23; B.S.A, Colo. Agr. Col, 23; M.S, Iowa State Col, 24; fellow, Purdue, 26–30, Ph.D, 30. Instr. animal husbandry, Arizona, 24–26; asst, Purdue, 26–30; assoc. prof, Arizona, 30–36, prof, 36–37; *with West. Farm Management Co, 37–* Soc. Animal Production. Animal nutrition; influence of the growth and fattening processes in swine on the quality and quantity of pork yielded by them; breeding and feeding of beef cattle; range live stock loss; range and feedlot management.

Scott, Prof. Ewing C(arruth), Sweet Briar College, Sweet Briar, Va. *Chemistry.* Iola, Kans, Aug. 28, 94. A.B, Stanford, 16; Swift fellow, Chicago, 26–27, Ph.D, 28. Asst. chem, California, 16–17; assayist, Phelps-Dodge Corp, 20; asst. *chem,* Peking Union Med. Col, 20–22, instr, 23–25; *prof, Sweet Briar Col, 27–* U.S.A, 17–19. Chem. Soc. Physical and inorganic chemistry.

Scott, Prof. F(lora) Murray, University of California at Los Angeles, Los Angeles, Calif. *Botany.* Craig Manse, Scotland, Sept. 6, 91. M.A, St. Andrews, Scotland, 11, B.Sc, 14, Carnegie scholar, 14–15; fellow, Stanford, 23–25, Ph.D, 25. Demonstrator bot, St. Andrews, Scotland, 13–15; assoc. prof. biol, American Col, Constantinople, 20–21; asst, Stanford, 22–23; instr. *bot, California at Los Angeles,* 25–28, asst. prof, 28–43, *assoc. prof, 43–* A.A; Bot. Soc; Torrey Bot. Club. Anatomy; cytology; Golgi apparatus; Fouquieria splendens; Parkinsonia; Pisum; Ricinus; Echinocystis.

Scott, Sister Florence Marie, Seton Hill College, Greensburg, Pa. *Embryology.* Johnstown, Pa, March 15, 02. A.B, Seton Hill Col, 26; A.M, Columbia, 27, Ph.D, 35. Instr. *biol, Seton Hill Col,* 25–26, asst. prof, 27–31, *prof, 31–, chairman dept, 33–* Summers, Marine Biol. Lab, Woods Hole, 29–34; prof, Fordham, 41– A.A; Soc. Zool; Catholic Round Table of Science, Pa. (sec'y, 40–). Later embryonic development of tunicates; early development of Amaroecium.

Scott, Dr. Frank Walton, 4945 Dupont Ave, S, Minneapolis, Minn. *Metallurgy.* Greenfield, Ind, March 25, 03. B.S, Purdue, 25; M.S, Minnesota, 37, Ph.D, 41. Research chem. engineer, Grasselli Chem. Co, 25–28; research chemist and metallurgist, Inland Steel Co, 28–36; instr. metal, Minnesota, 36–41, asst. prof, 41–42; *gen. manager and chief metallurgist, welding electrode div, Marquette Mfg. Co, Inc, 42–* Metallurgy of iron and steel; physical chemistry of refining processes; effect of nitrogen on steel; non-metallic inclusions in steel; determination and identification of inclusions; equilibrium studies of metalloid distribution between slag and metal.

Scott, Dr. F(rederic) A(llen), Lehigh University, Bethlehem, Pa. *Physics.* Easton, N. Y, Jan. 25, 03. B.S, N. Y. State Col. for Teachers, 24; M.S, Lehigh, 29; Ph.D, Rice Inst, 35. Instr, high schs, N. Y, 24–27; asst. *physics, Lehigh,* 27–29, instr, 29–33, 35–39, *asst. prof, 39–* Physical Soc. Beta-ray spectra of radioactive substances.

Scott, Prof. F(rederick) H(ughes), University of Minnesota, Minneapolis, Minn. *Physiology.* Toronto, Ont, Can, Feb. 19, 76. B.A, Toronto, 97, Ph.D, 00, M.B, 04; MacKinnon student, Royal Soc. London, 06–07; D.Sc, London, 08. Demonstrator physiol, Toronto, 00–04; Sharpey student and asst, Univ. Col, London, 07–08; asst. prof. *physiol, Minnesota,* 08–12, assoc. prof, 12–18, *prof, 18–* A.A; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol. (councilor, 30); London Physiol. Soc; Biochem. Soc. Gt. Britain. Microchemistry; chemistry of phosphorus bodies; respiration and nervous activity; phosphorus compounds of tissues and their metabolism; interchange of tissue fluids and blood.

Scott, Prof. Gayle, Texas Christian University, Ft. Worth, Texas. *Paleontology.* Lamkin, Texas, Oct. 1, 94. A.B, Texas Christian, 17, A.M, 20; D.Sc, Grenoble, 25. Instr. biol. and geol, *Texas Christian,* 19–21, asst. prof. and assoc. prof, 21–25, *prof,* 25–28, *paleont, 28–* Summer, visiting prof, California, 36. Lieut, F.A, 17–19. A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner. (sec'y, 30–38); Geol. Soc; Asn. Petrol. Geol; Soc. géol. de France. Paleontology and stratigraphy of Texas Cretaceous; areal geology of Texas Comanchean and Pennsylvanian.

Scott, G(eorge) C(lytus), 1200 Commerce St, LeSueur, Minn. *Chemistry.* Arrowsmith, Ill, Dec. 6, 00. B.S, Illinois Wesleyan, 23; M.S, Iowa State Col, 25. Asst, Iowa State Col, 24–25; prof. physics and chem, Parsons Junior Col, 25–26; research chemist, Am. Can Co, 26–29; *director research, Minn. Valley Canning Co, 29–* Consultant, food branch, War Production Board. A.A; fel. Inst. Chem; Inst. Food Technol; Chem. Soc. Physical chemistry of metals; food chemistry; canning technology.

Scott, Dr. George G(ilmore), 460 Henkel Circle, Winter Park, Fla. *Biology.* Geneseo, N. Y, May 3, 73. A.B, Williams Col, 98, A.M, 99; Ph.D, Columbia, 13. Prof. and *emer. prof. biol, Col. City of N. Y.* Investigator, Bur. Fisheries, 13–14, 18. Bermuda Biol. Sta. A.A; Soc. Nat; Soc. Zool; fel. N. Y. Zool. Soc; Fla. Acad. Comparative histology of vertebrates; general biology.

Scott, George Stanley, 107 Cherry Valley Road, Pittsburgh, Pa. *Chemical engineering.* German Valley, N. J, June 29, 94. Chem.E, Lehigh, 20. Junior chemist, U. S. Bur. Mines, 20–22; research chemist, Hudson Coal Co, 23–25; engineer in charge, Exp. Briquet Plant, Bay City, Mich, 25–26; chief chemist, Koppers-Rheolaveur Co, 26–29; asst. in charge, Frost Research Lab, 29–31; asst. director anthracite inst, dept. science research, Pa. State Col, 31–34; junior chemist, *U. S. Bur. Mines,* 36–37, asst. chemist, 37–41, *assoc. chemist, 41–* Min. and Metal. Eng. Coal washability, preparation and combustion; boiler performance; chemical and physical properties of anthracite; non-fuel uses of anthracite; anthracite mine fires.

Scott, Dr. G(eorge) W(illiam), Jr, 607 State St, Lancaster, Pa. *Physics.* Auburn, N. Y, Feb. 20, 12. A.B, Wesleyan, 34; A.M, Cornell, 35, Ph.D, 38. Asst. physics, Cornell, 34–38; Haskins Lab. fellow applied electronics, Mass. Inst. Tech, 38–40, research assoc, 40–41; research physicist, *Armstrong Cork Co,* 41–42, *asst. chief physicist, 42–* Physical Soc. Electronics; design of vacuum tubes and intense sources of positive ions; biophysics; irradiation of living matter with electrons and protons; viscosity, strength and coefficient thermal expansion of glass.

Scott, Dr. G(ilbert) W(eaver), Associated Seed Growers, Inc, Milpitas, Calif. *Genetics.* Los Angeles, Calif, Jan. 8, 07. B.S, California, 29, Ph.D, 36; M.S, Cornell, 30. Asst. truck crops, California, 30–36; *geneticist, Pacific Coast dept. breeding, Associated Seed Growers, 36–* Soc. Hort. Sci. Genetics and breeding of vegetable crops.

Scott, Prof. Gordon H(atler), University of Southern California School of Medicine, Los Angeles, Calif. *[7]Anatomy, Cytology.* Winfield, Kans, April 10, 01. A.B, Southwestern Col. (Kans), 22; Hopkins, 22–23; A.M, Minnesota, 25, Ph.D, 26. Asst. zool, Hopkins, 22–23; teaching fellow anat, Minnesota, 23–26; asst. prof, Loyola (Ill), 26–27; asst, Rockefeller Inst, 27–28; asst. prof. cytol, sch. med, Washington (St. Louis), 28–31, assoc. prof. histol, 31–42; *prof. anat. and head dept,* sch. med, *Southern California, 42–* Cmt. biol. applications electron microscope, Nat. Research Council. A.A; Asn. Anat; Soc. Exp. Biol; Soc. Zool. Histology of human growth changes; histochemistry; microincineration; spectrography; development of electron microscope and electron microscopy; aviation physiology.

Scott, Dr. Gordon N(ickelsen), 555 S. Flower St, Los Angeles, Calif. *Physical chemistry.* Seacombe, Eng, Aug. 26, 98. A.B. and B.S, California, 22, Ph.D, 26. Teaching fellow, California, 23–26; plant supt, James Wakefield and Sons, Honolulu, 26–27; research chemist, Am. Midcontinent Petrol. Corp, 27–28; Am. Petrol. Inst. research assoc, Bur. Standards, 28–35; pipe line technologist, corrosion cmt, Am. Petrol. Inst, 35; *consulting engineer, 36–* Activity coefficients of aqueous electrolytes; post academic corrosion mitigation through protective coatings and cathodic protection; electrical phenomena associated with buried or submerged metallic structures.

Scott, Prof. H(arold) M(artin), University of Connecticut, Storrs, Conn. *Poultry husbandry.* Lincoln, Nebr, Feb. 13, 01. B.S, Oregon State Col, 24; M.S, Kans. State Col, 27; Ph.D, Illinois, 38. Instr. *poultry husbandry,* N. Dak. Col, 27–28; assoc. prof, Kans. State Col, 28–41; *prof. and head dept, Connecticut, 41–* Poultry Sci. Asn. Physiology; nutrition.

Scott, Dr. Harold W(illiam), University of Illinois, Urbana, Ill. *Geology.* Milford, Ill, Sept. 30, 06. A.B, Illinois, 29, A.M, 31; fellow, Chicago, 31–33, Ph.D, 35. Asst. *geol,* Ill. Geol. Surv, 30–31; instr, Mont. Sch. Mines, 33–35, asst. prof, 35–37; assoc, *Illinois,* 37–39, *asst. prof, 39–* Geologist, State Bur. Mines and Geol, Mont, 34–37. Paleont. Soc; Geol. Soc;

Asn. Petrol. Geol; Soc. Econ. Paleont; Ill. Acad. Paleontology; scolecodonts; conodonts; ostrocodes; Carboniferous stratigraphy; Paleozoic history of Montana; earthquakes.

Scott, Dr. Henry T(homas), 2242 W. Lawn Ave, Madison, Wis. *Agricultural chemistry.* Portage, Wis, Dec. 27, 00. B.S, Wisconsin, 25, M.S, 27, Ph.D, 29. Asst. agr. chem, Wisconsin, 25–28, instr, 28–30, chemist, *Wis. Alumni Research Foundation,* 30–33, *director biol. research, 33–* Chem. Soc; Pub. Health Asn. (chairman food and nutrition sect); Dairy Sci. Asn; Cong. Physical Therapy; Inst. Food Technol. Biochemistry; nutrition; calcium metabolism and relation of vitamin D to the parathyroid glands; milk and dairy products.

Scott, Howard, 616 Woodside Road, Wilkinsburg, Pa. *Physical metallurgy.* Rockville, Md, Oct. 26, 93. A.B, George Washington, 18. Lab. apprentice to physicist, Bur. Standards, 12–25; *research and sect. engineer, research labs, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 25–* Robert W. Hunt award, Am. Inst. Mining and Metal. Eng. A.A; Min. and Metal. Eng; Soc. Metals; Eng. Soc. West. Pa. Hardening of steel; constitution of alloys; strength of metals; glass-metal seals; thermostat metals; special purpose alloys.

Scott, Prof. I(rving) D(ay), University of Michigan, Ann Arbor, Mich. *Geology, Physiography.* Omaha, Nebr, Sept. 16, 77. A.B, Oberlin Col, 00; A.M, Michigan, 07, Ph.D, 12. Teacher, high sch, N. Y, 01–06; asst. miner. and geol, *Michigan,* 06–07, instr. *physiographical geol,* 07–13, asst. prof, 13–20, assoc. prof, 20–30, *prof, 30–* A.A; Geol. Soc; Mich. Acad. Shores; strand dunes.

Scott, Dr. J(ames) Allen, U. S. Bureau of Census, Washington, D. C. *Biology, Statistics.* Binghamton, N. Y, June 2, 98. A.B, Wesleyan, 22, A.M, 24; Sc.D, Hopkins, 27. Asst, Wesleyan, 22–23; instr. zool, Vermont, 23–25; asst. helminthol, Hopkins, 25–27, instr, 27–28, research assoc, 28–29; special mem. field staff, int. health div, Rockefeller Foundation, 29–37; helminthologist, ministry health, Venezuelan govt, 37–40; fellow, Hopkins, 40–41; pub. health biologist, div. malaria and hookworm service, State Dept. Pub. Health, Ga, 41–42, assoc. director, 42–43; *senior statistician, div. vital statistics, Bur. Census, 43–* Fellow by courtesy, Hopkins, 36–37; visiting prof, Ohio State, 41. A.A; Soc. Parasitol; Soc. Zool; Soc. Trop. Med. Biology and immunity of hookworms in normal and abnormal hosts; physiological strains of hookworms; distribution, epidemiology and control of parasitic diseases in Egypt and Palestine; epidemiology of helminth diseases in Venezuela; laboratory and statistical methods for parasitological studies.

Scott, Dr. James (Karl), University of Virginia Hospital, Charlottesville, Va. *Pathology.* Terra Alta, W. Va, March 4, 09. A.B, West Virginia, 30, B.S, 31, M.D, 33. Instr. *path, Virginia,* 33–35, asst. prof, 35–42, *assoc. prof, 42–* Experimental hypertension.

Scott, Dr. James R(obert), 1024 Don Cubero St, Santa Fe, N. Mex. *Public health.* Hamden, N. Y, April 29, 86. A.B, California, 08; M.D, Cooper Med. Col, 12; Ph.D, George Washington, 16. Anatomist and microscopist, Army Med. Museum, Washington, D. C, 12–18; pathologist, Los Angeles County Hosp, Calif, 18–19; Baker Clinic, Oregon, 19–20; assoc. prof. path. and bacter, S. Dak, 20–22; pathologist, St. Joseph Hosp, Albuquerque, 22–23; county health officer, 23–26; city health officer, Berkeley, 26–28; assoc. prof. health educ, New Mexico, 28–32, prof. health, 32–40, head dept, 28–40. County health officer, Albuquerque, 28–33, dist. health officer, 36–37; director, State Dept. Pub. Health, 40– A.A; Social Hygiene Asn; Pub. Health Asn; Am. Med. Asn; Am. Geog. Soc; N. Mex. Pub. Health Asn. (pres, 24, 28); Int. Asn. Med. Health Officers. Health education; pathological aspect of tuberculosis; the house fly and public health and transmission of disease; milk and public health; evaluation of public health work; bacteriology of bottled carbonated beverages.

Scott, Prof. John C(ulbertson), 220 Marne Ave, Haddonfield, N. J. *Physiology.* Cambridge, N. Y, May 25, 00. A.B, Montana, 23; Ph.D, Pennsylvania, 29. Assoc. *physiol, Hahnemann Med. Col. (Pa),* 29–31, assoc. prof, 31–38, *prof. and head dept, 38–* Physiol. Soc; Physiol. Soc. Phila. Circulation.

Scott, Prof. J(ohn) M(ark), University of the South, Sewanee, Tenn. *Physical chemistry.* Winfield, Kans, Dec. 9, 97. A.B, Southwestern Col. (Kans), 19; M.S, Iowa State Col, 22; Ph.D, Iowa, 29. Asst, Iowa State Col, 19–22; asst. research engineer, Anaconda Copper Mining Co, Mont, 22–23; asst. prof. *chem, Univ. of the South,* 23–33, *assoc. prof, 33–,* coordinator and instr. meteorol, civilian pilot training, 40–43; *lieut, U. S. Naval Res, 43–* A.A; Chem. Soc; Tenn. Acad. Chemistry of Fehling's solution; solutions.

Scott, Prof. J(ohn) P(aul), Wabash College, Crawfordsville, Ind. *Biosociology.* Kansas City, Mo, Dec. 17, 09. A.B, Wyoming, 30; Rhodes scholar, Oxford, 30–32, B.A, 32; Ph.D, Chicago, 35. Asst, Chicago, 32–35; assoc. prof. *zool, Wabash Col,* 35–42, *prof, 42–, chairman dept, 35–* A.A; Genetics Soc; Soc. Zool; Ecol. Soc. Developmental genetics of guinea pig; social organization of vertebrates.

Scott, Dr. J(ohn) T(errell), Room 525, Bank of America Bldg, San Diego, Calif. *Anatomy.* Lynchburg, Va, July 25, 93. A.B, Randolph-Macon Col, 14; A.M, Harvard, 15; M.D, Colorado, 22. Assoc. physician, Cragmor Sanatorium, 22–23; instr. anat, sch. med, Colorado, 23–28; extern, otolaryngol, N. Y. Post-Grad. Hosp. and Med. Sch, 31–32; *practising otolaryngologist and ophthalmologist, 32–* Res. otolaryngologist, Roosevelt Hosp, New York, 32; mem. staff, San Diego County Hosp; Mercy Hosp, 33. Mem. advisory board, Selective Service. Asn. Anat; Am. Med. Asn. Secondary carcinoma of the lung; effect of hydrogen ion concentrations on mitochondria in the liver cell; synergistic action of certain drugs with cocaine.

Scott, Prof. John W(illiam), University of Wyoming, Laramie, Wyo. *Zoology, Parasitology.* Lewis Co, Mo, July 1, 71. A.B, Missouri, 96, A.M, 97; Carnegie fellow, Marine Biol. Lab, Woods Hole, 02; fellow, Chicago, 02–04, Ph.D, 04. Teacher, high sch, Mo, 97–01, head dept. biol, 04–11; instr. zool, Kans. State Col, 11–12, asst. prof, 12–13; *prof. zool. and research parasitologist, Wyoming, 13–* Instr, Marine Biol. Lab, Woods Hole, 08–11; exec. sec'y and director, State Game and Fish Cmn, Wyo, 37–39. Ed. board, 'Jour. Parasitol,' 14–32. A.A; Soc. Nat; Soc. Zool; Soc. Parasitol; Asn. Anat; Ecol. Soc; Genetic Asn. (advisory council); Micros. Soc. (2nd v. pres, 37, pres, 42, 43); Am. Med. Editors' Asn; Izaak Walton League (exec. board); Colo-Wyo. Acad. Economic zoology; embryology; parthenogenesis and egg-laying habits of Amphitrite; insect transmission of swamp fever; Sarcosporidia; tapeworms of sheep and cattle; transmission of equine infectious anemia; Cladotaenia; Protostrongylus in rabbits; Coccidia and social behavior of the sage grouse; Diphyllobothrium in Yellowstone Park.

Scott, Prof. Joseph M(ehollin), 1415 Inwood Road, Alliance, Ohio. *Parasitology.* New Alexandria, Ohio, May 17, 90. B.S, Mt. Union Col, 13; Michigan, 14–16; Sc.D, Hopkins, 23. Prof. *biol,* Dakota Wesleyan, 16–18; *M. J. Lichty prof, Mt. Union Col, 18–* Nat. research fellow, Hopkins, 23–24. 2nd lieut, Sanit. C, 18–19. A.A; Soc. Parasitol; Soc. Zool; Ohio Acad. Smallpox; measles; filterable viruses.

Scott, Dr. Joseph P(restwich), University of Pennsylvania, Philadelphia, Pa. *Animal pathology, Bacteriology.* Denton, Manchester, Eng, Dec. 12, 90. B.Sc, Gymnase Sci, Lausanne, Switzerland, 10; D.V.M, Ohio State, 14; fellow, Cornell, 15–16; M.S, Kans. State Col, 24. Instr. vet. physiol, Cornell, 15–16; from instr. to prof. path, Kans. State Col, 16–36; *research assoc. vet. path, sch. vet. med, Pennsylvania, 36–* Agent swine influenza, bur. animal indust, U. S. Dept. Agr, at sch. vet. med, Pennsylvania, 36. Mem, Int. Cong. Microbiol, 30, reporter, New York, 39; mem, Int. Vet. Cong, 30; reporter, Int. Vet. Cong, New York, 34, Zurich, 38. A.A; Soc. Bact; Vet. Med. Asn; U. S. Live Stock Sanit. Asn. (cmt. on poultry diseases, 28); Kans. Vet. Med. Asn. Blackleg immunization; anaerobic bacteriology; aggressins; gas edema diseases; epizoology of shipping fever; Pasteurella; laryngotracheitis of fowl; filterable viruses; swine influenza.

Scott, L(eo) B(lynn), U. S. Department of Agriculture, Spartanburg, S. C. *Pomology.* Hersey, Osceola Co, Mich, Sept. 20, 88. Winona Agr. Inst, 08; B.S, Mich. State Col, 11. Sci. asst, U. S. Dept. Agr, 11–14, asst. pomologist, 14–17, pomologist, 17–20; gen. manager, Nurserymen's Bud Selection Asn, 20–21; pomologist, div. hort. crops and diseases, bur. plant indust, *U. S. Dept. Agr,* 21–28, senior pomologist, 28–25, *regional nurseryman, soil conservation service, 35–, chief div. nurseries.* Soc. Hort. Sci; hon. mem. Am. Plant Propagators Asn; hon. mem. Calif. Avocado Asn. Fruit improvement; rose stocks; rose propagations; nursery stock.

Scott, Dr. L(eonard) C(ase), 1430 Tulane Ave, New Orleans, La. *Public health, Medicine.* Shiloh, Ill, July 15, 80. B.S, Case, 00; Ph.D, Berlin, 08, M.D, 12. Chemist, Grasselli Chem. Co, 00–02; asst. and chief chemist, Kennicott Water Softener Co, 02–04; instr. trop. med, Tulane, 13–14, asst.

prev. med. and hygiene, 21–25; director bur. venereal diseases, State Board Health, La, 22–25, bur. information and research, 25–29; asst. prof. and assoc. prof. hygiene and trop. med, *Tulane*, 29–41, *assoc. prof. int. med*, *41–* Summer, lecturer, Tulane, 25. McMillan exped, Sudan and Abyssinia, 04–05. Fel. Am. Med. Asn. Iodin in sponges; electrolysis of organic acids; anatomy of racial hands; influenza; beri-beri; dengue fever; morphine addiction; salivary digestion; potassium in heart muscle; potassium in benign uterine tumors; inorganic constituents of heart muscle; microcataphoresis.

Scott, Louis Mollyneaux, U. S. Department of Agriculture, Seattle, Wash. *Horticulture.* Logansport, Ind, March 4, 86. A.B, Lake Forest Col, 09; Oregon State Col, 10; B.S, Winona Col, 12; Purdue, 13. Teacher hort. and plant path, Winona Col, 12–13; manager and owner fruit farms, Mich, 13–20; assoc. chief plant quarantine inspection service, fed. hort. board, *U. S. Dept. Agr*, 21–27, assoc. plant quarantine inspector, plant quarantine and control admin, 27–34, *plant quarantine inspector in charge field work west. states, bur. entom. and plant quarantine*, *34–*

Scott, Prof. Luther C(hapman), University of Toledo, Toledo, Ohio. *Mechanical engineering.* Bethlehem, Conn, Sept. 3, 64. Colorado; Valparaiso; B.M.E, Highland Park Junior Col. Adjuster, Winchester Arms Co, 98–00; supt. forging and machine depts, Bateman Mfg. Co, N. J, 00–03; head indust. dept, Highland Park Junior Col, 03–13; assoc. prof. *indust. eng, Toledo*, 19–41, *emer. assoc. prof*, head depts. geol. and shop. A.A; Eng. Educ; Ohio Acad. A forge work course for engineers; metallurgy of iron and steel.

Scott, Prof. Merit, Pennsylvania State College, State College, Pa. *Physics, Aeronautics.* Grahamsville, N. Y, Feb, 99. A.B, Cornell, 20, Ph.D, 24. Physics, Cornell, 18–26; asst. prof, Union (N. Y), 26–29; physicist, Guggenheim fund promotion aeronaut, Cornell, 29–31; asst. prof. *physics, Pa. State Col*, 31–37, assoc. prof, 37–40, *prof*, *40–* Engineer, research engineer and consultant, various aeronaut. concerns, 34– Physical Soc; Inst. Aeronaut. Sci; Meteorol. Soc. Visible and ultra-violet absorption; low voltage mercury arc; ice formation on aircraft; airflow characteristics at the surface of airfoils; airflow turbulence and its measurement; airplane structures and design.

Scott, Dr. Norman D(unshee), E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Chemistry.* Maxwell, Iowa, Jan. 6, 94. B.S, Drake, 16; Rhodes scholar, Oxford, 16, B.A, M.A, 20, B.Sc, 21; Ph.D, Wisconsin, 24. Demonstrator physics, Oxford, 20–21; instr. chem, Wisconsin, 22–23; Harvard, 23–24; Middlebury Col, 24–25; research on Milton Fund, Harvard, 25–27; research chemist, Roessler and Hasslacher Chem. Co, and research supervisor and later asst. chem. director, Roessler and Hasslacher chem. dept, *E. I. du Pont de Nemours and Co*, 27–41, *research consultant, electrochem. dept*, *41–* Chem. Soc. Cataphoresis of proteins; electrochemical study of haemoglobin; catalysis; gas reactions; reactions of sodium.

Scott, Dr. Robert W(allace), 1122 University Terrace, Linden, N. J. *Physics.* Akron, Ohio, July 17, 14. B.S, Akron, 36; M.S, Pa. State Col, 39, Ph.D, 42. Research physicist, Calco Chem. Co, 36–37; asst, Pa. State Col, 37–41, instr, 41–42; *research physicist, Standard Oil Develop. Co*, *42–* Physical Soc; Optical Soc. Spectroscopy; Raman spectra; emission spectra; absorption spectra; distillation.

Scott, Prof. R(oy) W(esley), City Hospital, Cleveland, Ohio. *Clinical medicine.* New Albany, Ind, March 20, 88. A.B, Indiana, 10; M.D, Western Reserve, 13, A.M, 17. Instr. physiol, *Western Reserve*, 15–17, senior instr, 17–18, asst. prof. med, 22–25, assoc. prof, 25–29, *prof. clin. med*, *29–* Physician in chief, Cleveland City Hosp. A.A; Am. Physicians; Soc. Clin. Invest; Physiol. Soc; Soc. Exp. Biol. (councilor, 32–); Soc. Pharmacol. Physiology and internal medicine.

Scott, R(ussell) B(urton), National Bureau of Standards, Washington, D. C. *Physics.* Ludlow, Ky, April 17, 02. B.S, Kentucky, 26, M.S, 28. Instr. physics, Kentucky, 27–28; junior physicist, *Bur. Standards*, 28–36, assoc. physicist, 36–40, *physicist*, *40–* Low temperature thermometry; superconductivity; vapor pressures of deuterium and deuterium compounds; properties of matter at low temperatures; calorimetry.

Scott, Dr. Samuel L(eRoy), 2201 N. Franklin St, Wilmington, Del. *Organic chemistry.* Rock Falls, Ill, Nov. 4, 17. B.S, Ill. Wesleyan, 37; M.S, Illinois, 38, Ph.D, 40. *Research chemist, Exp. Sta, E. I. du Pont de Nemours and Co*, *40–* Chem. Soc. 1,2-diaryl acetylene glycols.

Scott, T(homas) F(rederick) McNair, Temple University, Philadelphia, Pa. *Medicine, Pediatrics.* Inchbare, Forfarshire, Scotland, June 18, 01. B.A, Cambridge, 23, M.A, 28. Med. registrar, St. George's Hosp, London, 28–29; research fellow med, Harvard, 30–31; instr. pediat, Hopkins Hosp, 31–34; asst, Rockefeller Inst. Hosp, 34–39; prof. pediat, Temple, 39–41; *U. S. Army*, *41–* Harvey Soc; Royal Col. Physicians; Royal Soc. Med. Leukemia and blood cells; lead poisoning in children; lymphocytic choriomeningitis and other virus diseases.

Scott, Lieut. Thomas G(eorge), Ft. Lewis, Wash. *Zoology, Wildlife management, Ecology.* Youngstown, Ohio, May 22, 12. B.S, Iowa State Col, 35, M.S, 37, Ph.D, 42. Asst. entomologist, State Department Agr, Iowa, 35; wildlife specialist, agr. exten. service, Iowa State Col, 35–37, instr. zool, col, 37–38; *assoc. biologist, U. S. Dept. Interior and state leader Iowa cooperative wildlife unit*, *38–*; *lieut, U. S. Army*, *42–* Soc. Wildlife Management; Soc. Mammal; Ornith. Union; Wilson Ornith. Club; Iowa Acad. Ecology of the red fox; wild ducks; game birds and mammals.

Scott, Prof. Thurman C(arlisle), Highland Ave. and Forest St, Athens, Ohio. *Psychology.* Floyd, Va, Nov. 30, 95. A.B, Virginia, 20, A.M, 24; Bennett Wood Green fellow, Princeton, 26–29, A.M, 27, Ph.D, 29. Instr. French, Mercersburg Acad, Pa, 20–23; *psychol*, Virginia, 24–26; asst, Princeton, 26–29; asst. prof. and later *assoc. prof, Ohio (Athens)*, *29–* Sergt, U.S.A, 18–19. Psychol. Asn. Recognition and retention of patterns in maze learnings; construction and reliability of mazes; maze comparisons; maze imagery.

Scott, V(erner) E(phraim), University of Nevada, Reno, Nev. *Agricultural economics.* Chilton, Wis, May 2, 78. B.S, Wisconsin, 11; M.S, Nevada, 33. Instr. dairying and poultry, Dun County Sch. Agr, Menomonie, Wis, 11–12; prof, *Nevada*, 12–30, *exten. agr. economist*, *30–* Dairy Sci. Asn; West. Econ. Asn. Poultry; farm management and enterprise costs.

Scott, Dr. V(irgil) Brown, Inlow Clinic, Shelbyville, Ind. *Medicine, Physiology.* Sparta, Ill, July 4, 06. A.B, Lawrence Col, 27; Ph.D, Chicago, 34, M.D, 35. Surg. intern, univ. clinics, Chicago, 36–37; instr. physiol, Indiana, 37, asst. prof, 37–42; asst. surg, Chicago, 42; *Inlow Foundation fellow, Inlow Clinic*, *42–* A.A; Physiol. Soc; Soc. Exp. Biol; Ind. Acad. Mammalian physiology; external secretion of pancreas; secretin; pancreatic metabolism; gastrointestinal physiology.

Scott, Pres. Walter Dill, 1729 Chicago Ave, Evanston, Ill. *[3]Psychology.* Cooksville, Ill, May 1, 69. A.B, Northwestern, 95; McCormick Theol. Sem, 95–98; Ph.D, Leipzig, 00; LL.D, Cornell Col. (Iowa), 21, Southern California, 31. Instr. psychol. and pedag, *Northwestern*, 00–01, asst. prof. psychol, 01–08, prof, 08–20, director psychol. lab, 01–02, pres, 20–39, *emer. pres*, *39–* Pres, The Scott Co, 18–20. Cooperating ed, 'Psychol. Bul.' Director bur. salesmanship research, Carnegie Inst. Tech, 16–17; div. psychol. and anthrop, Nat. Research Council, 19–20. D.S. medal, 19. Director cmt. on classification of personnel, U.S.A, 17–19, col, 18–19. A.A; Psychol. Asn. (pres, 19); Taylor Soc; Indust. Relations Asn; Nat. Asn. Adv. Teachers (pres, 15). Theory of advertising; psychology of public speaking; efficiency; influencing men in business; individual differences; motivation; vocational selection; occupational descriptions; personnel administration.

Scott, Prof. W(alter) J(ames), 315 Chestnut Ave, Swarthmore, Pa. *Physiology.* Marienville, Pa, Sept. 24, 93. Ph.B, Lafayette Col, 15; Ph.D, Pennsylvania, 31. Instr. biol, col. med, Tennessee, 22–24; asst. instr. physiol, sch. med, Pennsylvania, 24–27; instr. *zool, Swarthmore Col*, 27–32, *asst. prof*, *32–* Soc. Mammal; Soc. Zool. Respiration; comparative physiology.

Scott, Dr. Walter M(oody), U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Pequabuck, Conn, June 13, 92. Ph.B, Yale, 12, Ph.D, 15. Chief chemist, Cheney Bros, 15–26; tech. adviser, Nat. Aniline and Chem. Co, 27–28; service director, Munsell Color Co, Baltimore, 28–30; consulting chemist, G. J. Esselen, Boston, 30–39; *chief cotton chem. finishing div, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 39–; col, Chem. Warfare Service, U. S. Army.* Major, C.W.Res. A.A; Inst. Chem; Chem. Soc. (senate of chem. educ, 26–28); Asn. Textile Chem. and Colorists (councilor and research cmt, 21); Soc. Test. Mat. (chairman, subcmt. B-4, 31–); Int. Soc. Color Council (exec. cmt, 30–37; v. chairman, 42–). Processing of textiles, leather and paper; manufacture and application of dyestuffs; mea-

surement and specification of color; chemistry of cellulose and its derivatives; chemical finishing of cotton.

Scott, Dr. W(alter) T(andy), 151 Oakmont Court, San Antonio, Texas. *Mathematics.* Haskell, Texas, Dec. 12, 12. A.B, Rice Inst, 33, fellow, 34–36, A.M, 35, Samuel Fain Carter fellow, 36–38, Ph.D, 38. Asst. math, Northwestern, 38, instr, 40–41; Ill. Inst. Tech, 39; Michigan, 39–40; *U. S. Army, 41–, lieut.* A.A; Math. Soc; Math. Asn. Continued fraction theory; theory of summation of series; diophantine approximation.

Scott, Prof. W(illiam) B(erryman), 7 Cleveland Lane, Princeton, N. J. *[1]*Paleontology.* Cincinnati, Ohio, Feb. 12, 58. A.B, Princeton, 77, Sc.D, 30; Ph.D, Heidelberg, 80; LL.D, Pennsylvania, 06; Sc.D, Harvard, 09, Oxford, 12. Asst. geol, *Princeton,* 80, Blair prof. *geol. and paleont,* 83–32, *emer. prof, 30–* Trustee, Marine Biol. Lab, Woods Hole; Woodrow Wilson Foundation. Wollaston medal, Geol. Soc. London, 10; Hayden medal, Acad. Nat. Sciences Phila, 26; Mary Clark Thompson medal, Nat. Acad, 30; E. K. Kane medal, Geog. Soc. Phila; Walker grand hon. prize, Boston Soc. Nat. Hist, 34; R. A. F. Penrose medal, Geol. Soc. Amer. Nat. Acad. (chairman, local cmt, 29); A.A; Soc. Nat; Paleont. Soc. (pres, 11); Geol. Soc. (pres, 25); Philos. Soc. (v. pres, 10, pres, 18–25); Am. Acad; Wash. Acad; British Asn; Geol. Soc. London; Zool. Soc. London; Linnean Soc. London. Vertebrate paleontology; the extinct mammalian fauna of North and South America.

Scott, Dr. W(illiam) J(ustus) Merle, University of Rochester, Rochester, N. Y. *Surgery.* Cleveland, Ohio, 94. A.B, Oberlin Col, 14; M.D, Hopkins, 18; A.M, Columbia, 22; Arthur Tracy Cabot fellow, Harvard, 22. Asst. *surg,* Harvard, 23; instr, Western Reserve, 24–25; asst. prof, *Rochester,* 26–27, *assoc. prof, 28–* Fel. Surg. Asn; Soc. Clin. Surg; fel. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Path. The influence of the adrenal glands on resistance; post-operative pulmonary complications; the sympathetic nervous system; surgery of the vascular system; gastric ulcer.

Scott, W(illiam) M(oore), Sanford, Fla. *Horticulture.* Sugar Grove, Va, May 30, 73. B.S, Va. Polytech, 96, M.S, 98. Asst. horticulturist, Va. Polytech, 96–98; state entomologist, Ga, 98–03; pathologist, bur. plant indust, U. S. Dept. Agr, 04–12; Gen. Chem. Co, 12–16; grades and standards specialist, bur. markets, U. S. Dept. Agr, 16–19; *horticulturist, Am. Fruit Growers, Inc, 19–* Phytopath. Soc; Bot. Soc; Asn. Econ. Entom; Biol. Soc. Wash. Orchard diseases; fruit industries.

Scott, Dr. W(illiam) W(allace), 950 E. 59th St, Chicago, Ill. *Physiology.* Kansas City, Kans, Jan. 27, 13. A.B, Missouri, 34; Ph.D, Chicago, 38, M.D, 39. Research assoc. *surg, Chicago,* 41–43, *instr, 43–,* asst. res, 41–43. Harry Ginsberg prize, Chicago, 38; gold medal, Am. Med. Asn, 40. Physiology of cerebral concussion; gastric physiology; endocrine relations in prostatic disease.

Scott, Dr. Winfield, 2001 Merner Ave, Cedar Falls, Iowa. *Agronomy.* Golconda, Ill, 81. B.Ed, Ill. State Nor. Univ, 13; B.S, Illinois, 16, M.S, 18; fellow, Iowa State Col, 24, Ph.D, 26. Asst. prof. and critic, univ. high sch, Ill. State Nor. Univ, 14–16; *science dept, Iowa State Teachers Col, Cedar Falls, 18–* Iowa Acad. Biology; soil fertility; plant physiology; teaching of elementary agriculture.

Scott, Dr. Winston M(acKinley), Room 5256, Department of Justice Bldg, Federal Bureau of Investigation, Washington, D. C. *Mathematics.* Jemison, Ala, March 30, 09. B.S, Alabama, 31, A.M, 33; Ph.D, Michigan, 41. Fellowship teacher, Alabama, 31–33, instr. math, 33–41; *special agent, Fed. Bur. Investigation, 42–* A.A; Math. Soc; Math. Asn. Higher algebra; matrix algebras over an algebraically closed field; characteristic roots of matrix products; college algebra marks; pupil success in college algebra; some special roulettes; application of a theorem.

Scoular, Prof. Florence I(sabelle), Teachers College Station, Box 5217, Denton, Texas. *Nutrition.* Iron Ridge, Wis, Nov. 17, 97. B.S, Stout Inst, 19; M.S, Iowa State Col, 29; Ph.D, Iowa, 37. Instr. home econ, River Falls State Nor. Sch, Iowa, 19–20; supervisor home econ, schs, Mich, 20–22; instr. foods and nutrition, Stout Inst, 22–27; science and nutrition, N. Y. State Teachers Col, Buffalo, 28–30; foods and nutrition, Purdue, 30–31; asst. prof. household science, Okla. Agr. and Mech. Col, 31–33; asst. nutrition, child welfare research sta, Iowa, 33–36; acting director home econ, Skidmore Col, 36–37; director dept, East. Ill. State Teachers Col, 37–38; *prof. nutrition and director dept. home econ, N. Texas State Teachers Col, 38–* A.A; Chem. Soc; Texas Acad. Metabolism of copper, zinc, aluminum and vitamin C; vitamin A and C content of Texas foods; dark adaptation of children and adults.

Scoville, Prof. G(ad) P(arker), R. D. 5, Ithaca, N. Y. *Agricultural economics.* Varysburg, N. Y, May 4, 85. B.S, Cornell, 10; A.M, Harvard, 24. Teacher, high sch, Calif, 10–12; farm bur. agent, Chemung County, N. Y, 12–14; asst. prof. *agr. econ, Cornell,* 14–20, *prof, 20–* Farm Econ. Asn. Farm management.

Scoville, Dr. Herbert, Jr, 248 Milburn St, Rochester, N. Y. *Physical chemistry.* New York, N. Y, March 16, 15. B.S, Yale, 37; Cambridge, 37–39; Ph.D, Rochester, 42. *Research chemist, Nat. Defense Research Cmt. project, Rochester, 41–* Photochemistry of esters.

Scribner, Bourdon F(rancis), 4801 Connecticut Ave, N.W, Washington, D. C. *Physical chemistry.* Westernport, Md, April 13, 10. B.S, George Washington, 33; M.S, Maryland, 39. From junior chemist to asst. chemist, spectroscopy sect, *Bur. Standards,* 33–36, *chemist in charge spectrochem. lab, 36–* Cmt. applications of spectroscopy to chem, Nat. Research Council. Chem. Soc; Optical Soc; Soc. Test. Mat. (sec'y cmt. spectrographic analysis). Description of atomic spectra; investigation of structure of spectra based on atomic theory, development and application of spectrographic methods of chemical analysis; physical basis for spectrographic analysis.

Scribner, B(ourdon) W(alter), 3802 Alton Place, N. W, Washington, D. C. *Chemistry.* Ridgway, Pa, Nov. 21, 85. B.S, Pa. State Col, 08. Chemist, Burton Powder Co, 08–09; director chem. labs, W. Va. Pulp and Paper Co, 09–23; *prin. technologist and chief paper sect, Bur. Standards, 25–* Chem. Soc; Asn. Pulp and Paper Indust. Paper technology; paper quality and testing standards; preservation of records; improvement in papermaking processes.

Scribner, Dr. (Eunice) Jane, 542 Paris St, San Francisco, Calif. *Bacteriology.* San Francisco, Calif, Sept. 10, 11. A.B, Radcliffe Col, 33; Ph.D, California, 37. Research bacteriologist, Consol. Chem. Co, 37–38; research fellow *bacter,* California, 38–41; *instr, San Francisco Junior Col, 41–* Bacteriophage.

Scripture, Dr. Edward W(heeler), Jr, 4 Parley Vale, Boston, Mass. *Physical and inorganic chemistry.* New Haven, Conn, Dec. 19, 99. A.B, Harvard, 20, A.M, 21, Ph.D, 24. Instr, Lowell Textile Inst, 23–24; research chemist, Onondaga Pottery Co, 24–28; Am. Zeolite Corp, 28–29; Aluminum Co. of Amer, 29–30; *director research, Master Builders Co, 30–; major, Eng. Corps, U. S. Army.* A.A; Chem. Soc; Ceramic Soc; Concrete Inst; Soc. Test. Mat; Soc. Chem. Indust. Atomic weights; colloidal behavior of clays; adsorption by aluminia; cement and concrete technology.

Scrivner, L(loyd) H(erbert), University of Wyoming, Laramie, Wyo. *Veterinary medicine.* Belleville, Kans, July 6, 02. D.V.M, Colo. State Col, 29; M.S, Cornell, 39. Instr. vet. sci. and bacter, Wyoming, 29–33, asst. prof, 33–38, asst. veterinarian, Exp. Sta, 29–38; agent in Bang's disease. bur. animal indust, U. S. Dept. Agr, 38–39; *asst. prof. veterinary science and bacter. and asst. veterinarian, Exp. Sta, Wyoming, 39–* Necro bacillosis in cattle; contagious ecthyma; ovine abortion; avian lymphomatosis.

Scroggie, Dr. A(rthur) G(albraith), E. I. du Pont de Nemours and Co, Box 1477, Richmond, Va. *Chemistry.* Guelph, Ont, Can, July 24, 96. B.Sc, Alberta, 22, M.Sc, 24; Ph.D, Illinois, 28. Asst. provincial analyst, Edmonton, Alta, 22–25; *research supervisor, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Fusibility of ash from Alberta coals; silicotungstic acid; analytical and cellulose chemistry.

Scruggs, Dr. Helen Eagleson (Mrs. Thomas M. Scruggs), 67 Lake Forest, St. Louis Co, Mo. *Psychology.* Seattle, Wash, Jan. 2, 99. B.S, Washington (Seattle), 20, M.S, 21; Ph.D, Hopkins, 24. Teaching fellow and asst, Gatzert Clinic, Washington (Seattle), 24–25; instr. psychol, Agnes Scott Col, 25–26, asst. prof, 26–28; instr, Hopkins, 28–29. Periodic variations in blood pressure.

Scudamore, Dr. Harold H(unter), 303 N. 24th St, Billings, Mont. *Zoology.* Wayne City, Ill, Dec. 8, 15. B.S, Mont. State Col, 37; M.S, Northwestern, 40, Ph.D, 42. Asst. zool,

Northwestern, 37–39, *correlation*, 39–42, *instr*, *42–*; *2nd lieut*, *U. S. Army*, *42–* A.A. Physiology; endocrine mechanisms of invertebrates; influence of sinus glands upon growth, molting and general metabolism in crustaceans.

Scudder, Dr. Charles L(ocke), 374 Commonwealth Ave, Boston, Mass. *Surgery.* Kent, Conn, Aug. 7, 60. A.B, Yale, 82, Ph.B, 83; M.D, Harvard, 88. Asst. prof. surg, Harvard Med. Sch; *hon. surgeon, Mass. Gen. Hosp, Boston.* Fel. Col. Surg; Surg. Asn; Soc. Clin. Surg; Am. Med. Asn; New Eng. Surg. Soc; Boston Surg. Soc.

Scudder, Prof. Fisk W(illiam) S(tocking), University Heights, Selinsgrove, Pa. *Cytology.* North Truro, Mass, Feb. 27, 97. A.B, Ohio Wesleyan, 23, 24–25; Ph.D, Cornell, 38. Asst. and instr. histol. and embryol, Cornell,.25–30; asst. prof. *biol, Susquehanna,* 30–38, *prof, 38–* A.A; Genetic Asn. Spermatogenesis.

Scudder, Sara Alicia, City Hospital, Welfare Island, N. Y. *Bacteriology.* Centerport, L. I, N. Y, April 29, 92. A.B, Hunter Col, 13; Columbia, 14–16; Mass. Inst. Tech, 25–27. Teacher, N. Y, 14–16; technician, Methodist Hosp, Brooklyn, 16–17; bacteriologist, City Dept. Health, New York, 17–23; med. cmt. for research, L. I. Hosp, Boston, 23–25; research fellow bacter, Evans Mem. Hosp, 25–27; *bacteriologist,* research cmn, Milbank Mem. Fund and Willard Parker Hosp, *New York,* 27–30; *City Dept. Hosps, 30–* Mem, Biol. Stain Cmn. A.A; Pub. Health Asn; N. Y. Acad. Cervicitis in children; septicemia and Neufeld reaction technique; Loeffler's culture media for pneumococcic typing; cultivation of fungi; L-aspartic acid in fermentation media for Salmonella, Shigella and Klebsiella; combined Gram-Pappenheim stain.

Scudi, Dr. John V(incent), 2018 37th St, Astoria, L. I, N. Y. *Chemistry.* New York, N. Y, June 21, 08. Fellow, N. Y. Univ, 31–35, Ph.D, 35. *Chemist,* E. I. du Pont de Nemours and Co, 35–37; Harlem Hosp, 37–38; Squibb Inst. Therapeut. Research, 38–39; *Merck and Co, Inc, 39–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; N. Y. Acad. Condensation reactions; sulfonamides and vitamins of the water and oil-soluble groups.

Scull, Dr. C(harles) Wesler, Fox Chase and Meetinghouse Roads, Jenkintown, Pa. *Biochemistry.* Richmond, Ind, July 31, 05. B.S, Earlham Col, 26; M.S, Illinois, 27, Ph.D, 30. Asst. metabolic chemist, Phila. Gen. Hosp, 29–30; instr. biochem, grad. sch. med, Pennsylvania, 30–32; *biochemist,* dept. metabolic diseases, Presb. Hosp, 32–33; *dept. rheumatoid diseases, Abington Mem. Hosp, 33–*; instr. *chem, grad. sch. med, Pennsylvania,* 37–43, *asst. prof, 43–* A.A; Chem. Soc. Amino-acid metabolism; clinical chemistry; nutrition; physiology; physics.

Scullen, Prof. A(nthony) J(ames), 1224 Lawrence St, Washington, D. C. *Civil engineering.* Little Falls, N. Y, Sept. 4, 89. C.E, Rensselaer Polytech, 11; D.Eng, Columbus Univ, 30. Instr. *civil eng, Catholic Univ,* 12–18, assoc. prof, 18–23, *prof. and head dept, 23–, dean sch. eng. and archit.* Civil Eng. Structural design and construction.

Scullen, Prof. H(erman) A(ustin), 325 S. 13th St, Corvallis, Oregon. *Entomology.* Pierce Co, Wis, Nov. 27, 87. A.B, Oregon, 10, A.M, 27; Cornell, 28; Washington (Seattle), 11; Ph.D, Iowa State Col, 34. Prin, high sch, Oregon, 10–12; instr. and asst. prof. zool, Iowa State Col, 12–18; special field agent, bee culture, U. S. Dept. Agr, 18–20; instr. *entom, Oregon State Col,* 20–22, asst. prof, 22–29, *assoc. prof, 29–* Summer, ranger naturalist, Crater Lake Nat. Park, 30. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Pacific Coast Entom. Soc. Oregon Hymenoptera; bee culture; honey flora; genera Cerceris and Eucerceris.

Scully, Dr. N(orbert) J(ohn), U. S. Department of Agriculture, Beltsville, Md. *Botany.* Chicago, Ill, June 5, 14. B.S, St. Marys Col. (Minn), 37; M.S, Chicago, 40, Ph.D, 41. Asst, Chicago, 40–41; agent, *U. S. Dept. Agr,* 41–42, *asst. ecologist, bur. plant indust, 42–* Soil environment of climax forests; photoperiodism.

Seaborg, Prof. Glenn T(heodore), 5418 S. Woodlawn Ave, Chicago 15, Ill. *Chemistry.* Ishpeming, Mich, April 19, 12. A.B, California at Los Angeles, 34; Ph.D, California, 37. Asst. *chem, California,* 37–39, instr, 39–41, *asst. prof, 41–; metal. lab, Chicago, 42–* Neutron reaction; radioactive isotopes; fission products of uranium; primary and secondary acids and bases.

Seabury, George T(illey), 33 W. 39th St, New York, N. Y. *Civil engineering.* Newport, R. I, April 12, 80. B.S, Mass. Inst. Tech, 02. Subway work, New York, 02–06; Board Water Supply, New York, 06–15; div. engineer in charge surveys, Board Water Supply, Providence, R. I, 15–18; pres. and gen. manager, George T. Seabury, Inc, 19–23; manager, Providence Safety Council, R. I, 23–24; *sec'y, Am. Soc. Civil Eng, 25–* Major, Q.M.C, 18–19. A.A; Civil Eng; Eng. Educ; Concrete Inst; Water Works Asn; Soc. Mil. Eng.

Seager, Dr. George F, 2333 34th St, S.E, Washington 20, D. C. *Geology.* Gridley, Calif, Sept. 24, 09. A.B, California, 30; Ph.D, Yale, 36. Asst. prof. geol, col. mines and metal, Texas, 35–36; instr, Mont. Sch. Mines, 36–40, asst. prof, 40–42; *min. specialist, metals and minerals branch, Office Econ. Warfare, 42–* Geologist, State Bur. Mines and Geol, Mont, 36–42. Mining geology and petrology.

Seago, Prof. Dorothy W(ilson), Tulane University, New Orleans, La. *Psychology.* New Orleans, La, July 27, 99. A.B, Tulane, 20, fellow, 20–21; Ph.D, Hopkins, 24. Asst, Bur. Educ. Experiments, New York, 21–22; psychol, Hopkins, 22–23, 24; psychologist, Vocational Service for Juniors, New York, 24–25; assoc. prof. *psychol,* Hollins Col, 25–29; N. C. Col. for Women, 29–31; asst. prof, *Newcomb Col, Tulane,* 31–36, *prof, 36–* A.A; assoc. Psychol. Asn. Mental measurements; child psychology.

Seagren, George W(illiam), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Physical metallurgy.* New York, N. Y, May 24, 06. B.S, Pa. State Col, 32. Research chemist, Bell Tel. Labs, 24–29; *research metallurgist,* Radio Corp. of Amer, 32–37; *Mellon Inst, 37–* Mem, Am. Coordinating Cmt. on Corrosion. Chem. Soc; Electrochem. Soc. (chairman Pittsburgh sect, 41). Corrosion of metals and their protection by means of organic finishes.

Seal, Prof. J(ames) L(ewis), Alabama Polytechnic Institute, Auburn, Ala. *Plant pathology.* Greenwood Co, S. C, Jan. 25, 93. B.S, Clemson Col, 13; M.S, Iowa State Col, 16; Ph.D, Minnesota, 27. Asst. bot, Clemson Col, 13–14; instr, Iowa State Col, 14–16; exten. plant path, S. C, 16–20; instr. plant path, Minnesota, 20–24; plant pathologist, State Plant Board, Fla, 25–27; Everglades Exp. Sta, Florida, 27–29; assoc. prof. *bot. and plant path, Ala. Polytech,* and assoc. plant pathologist, *Exp. Sta,* 29–32, *head prof. and botanist, 32–* Root and ear rot of corn; fruit and vegetable diseases; molds in silage; biologic forms in Sclerotinias; coconut bud rot.

Sealander, Prof. C(arl) E(lof), University of South Dakota, Vermillion, S. Dak. *Mathematics.* Detroit Lakes, Minn, Nov. 24, 14. A.B, Luther Col, 34; Princeton, 34–36; Ph.D, Iowa, 39. Instr. *math,* Fayette undergrad. center, Pa. State Col, 39–40; *asst. prof, South Dakota, 41–* Math. Soc. Boundary value problems of ordinary differential equations.

Seale, Alvin, El Corralitos Rancho, R. 5, Box 149, Watsonville, Calif. *Ichthyology.* Fairmount, Ind, July 8, 73. A.B, Stanford, 05. Curator fishes, Bishop Museum, Honolulu, 01–04; asst, Smithsonian Institution and Bur. Fisheries, 05; chief, Div. Fisheries, P. I, 07–16; assoc. ichthyol, museum comp. zool, Harvard, 16–19; supt, *Steinhart Aquarium, Calif. Acad. Sciences,* 23–41, *emer. supt, 41–* Prof, Philippines, 08. Stanford exped, Point Barrow, Alaska; chief, Bishop Museum exped, south. Pacific, New Zealand and Australia, 01–03; in charge sci. staff, C. Allan Hancock exped, Galapagos Islands, 01–02; mem. California Alexander exped, Alaska, 06; Steinhart Aquarium exped, Samoa, 29. A.A; West. Soc. Nat; Biol. Soc. Wash; San Francisco Aquarium Soc. (pres, 26–); Far East. Med. Soc. Systematic ichthyology; ichthyology of the Pacific Islands; aquarium building and management.

Seale, Prof. Roy Q(uincy), Southern Methodist University, Dallas, Texas. *Mathematics.* Dallas Co, Texas, Jan. 9, 98. A.B, South. Methodist, 19; A.M, Columbia, 20; Ph.D, Stanford, 35. Instr. math, South. Methodist, 22–24, asst. prof, 24–31; asst, Stanford, 31–34; asst. prof, South. Methodist, 34–35; prof. *math.* and head dept, Corpus Christi Junior Col, 35–42; *assoc. prof, Southern Methodist, 42–* Summer, asst. prof, South. Methodist, 33. Math. Soc; Texas Acad. (v. pres. south Texas branch, 41). Geometry of numbers; diophantine approximations; new proofs of some theorems of Minkowski; quadratic forms.

Sealock, Dr. Robert R(idgley), University of Rochester, Rochester, N. Y. *Biochemistry.* Lexington, Ill, June 15, 07. B.S, Eureka Col, 30; M.S, Illinois, 32; fellow, George Washington, 32–33, Ph.D, 36. Asst. chem, Illinois, 30–32; teaching fellow biochem, sch. med, George Washington, 33–35, instr, 35–37; *physiol. chem, dept. vital econ, Rochester,* 37–38,

asst. prof, 38– A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Biochemistry of amino acids and proteins and water soluble vitamins.

Seaman, Dr. William, Calco Chemical Division, American Cyanamid Co, Bound Brook, N. J. *Chemistry.* Providence, R. I, Nov. 27, 01. A.B, M.S, Brown, 22; Ph.D, Cornell, 29. *Chemist,* U. S. Dept. Agr, 22-27; U. S. Navy Dept, 25–26; Standard Oil Develop. Co, N. J, 29–31; Int. Paper Co, Glens Falls, N. Y, 31–33; *in charge lab. anal. research, Calco chem. div, Am. Cyanamid Co, 33–* Chem. Soc; Agr. Chem. (assoc. referee, 24–26); fel. Inst. Chem. Chemistry of honey and organic sulfur compounds; derivatives of phenylboric acid; methods of purification of organic compounds; methods of analysis, particularly of organic compounds.

Seaman, Prof. Wyllys A(rthur), Michigan College of Mining and Technology, Houghton, Mich. *Geology.* Marquette, Mich, Oct. 2, 86. B.S, Mich. Col. Mines, 06, E.M, 07, 08. Instr. miner, *Mich. Col. Min. and Tech,* 08–18, asst. prof. miner. and geol, 18–26, assoc. prof. and *prof. miner. and field geol, 26–; consulting geologist, 28–* Consultant, Champion Copper Co, 28–31; St. Mary's Canal Mineral Land Co, 28–31; Mohawk Consol. Min. Co, 28–31; geologist and consultant in charge Arcadian explor, Quincy Mining Co; v. pres. and gen. manager, Arcadian Mines, Inc, 43. In charge, Copper County geol. and magnetic surv, Mich. Geol. Surv, 27–35. Min. and Metal. Eng. Cambrian and Precambrian geology; mineralogy; Keweenawan faulting; Precambrian structures.

Seamans, A(rthur) E(dgerton), U. S. Experimental Station, Huntley, Mont. *Agronomy.* Wauwatosa, Wis, Aug. 16, 89. B.S, Mont. State Col, 13. *Agronomist, div. dry land agr, bur. plant indust, U. S. Dept. Agr, 14–* A.A; Soc. Agron. Crops; crop rotations and tillage; pasture crops; dry land conditions.

Seamans, H(oward) L(oomis), Post Office Bldg, Lethbridge, Alta, Can. *Entomology.* Wauwatosa, Wis, Aug. 11, 91. B.S, Mont. State Col, 16; M.Sc, Saskatchewan, 33. Asst. state entomologist, Mont, 16–17; special field agent, U. S. Dept. Agr, 17–18; asst. prof. zool, Mont. State Col, 19–21; *Dom. entomologist in charge, Alta, Can. Dept. Agr, 21–* A.A; Entom. Soc; Asn. Econ. Entom; Ont. Entom. Soc. Economic entomology; wheat insects; grain cut-worms; cereal and forage insects.

Searer, Dr. Jay C(harles), 761 Kenmore Ave, Kenmore, N. Y. *Organic chemistry.* Tremont, Pa, May 31, 14. B.S, Franklin and Marshall Col, 37; Ph.D, Northwestern, 41. Instr. chem, Lake Forest Col, 40–41; *research chemist, Durez Plastics and Chem, Inc, 41– Chem. Soc.* Reactions of aryl halides with anhydrous salts; reactions of phenoxthin.

Seares, Dr. F(rederick) H(anley), Mt. Wilson Observatory, Pasadena 4, Calif. *²*Astronomy.* Cassopolis, Mich, May 17, 73. B.S, California, 95, fellow, 95–96, 98–99, hon. LL.D, 30; Berlin, 99–00; Paris, 00–01; hon. LL.D, Missouri, 34. Instr. astron, California, 96–98; prof. and director, Laws Observatory, Missouri, 01–09; supt. computing div. and ed. publications, *Mt. Wilson Observatory, Carnegie Institution,* 09–25, *asst. director,* 25–40, *research assoc, 40–* Summers, lecturer, California, 17, 24. Collaborating ed, 'Astrophys. Jour,' 27–33, 41–, assoc. ed, 34–41. Bruce medal, 40. Chairman cmt. on stellar photometry, Int. Astron. Union, 19–38, del, Brussels, 19, Rome, 22. Nat. Acad; A.A. (v. pres, 36); Astron. Soc; Philos. Soc; Astron. Soc. Pacific (pub. cmt, 97, 2nd v. pres, 97, 3rd v. pres, 98, pres, 29); Wash. Acad; for. assoc. Royal Astron. Soc; Soc. astron. de France. Theory of orbits and perturbations; practical astronomy; stellar photometry; distribution of stars; the sun's general magnetic field.

Searight, Prof. Walter V(ernon), 24 N. Yale St, Vermillion, S. Dak. *Geology.* Odebolt, Iowa, Feb. 28, 96. A.B, Iowa, 23, M.S, 24, Ph.D, 27. Instr. *geol,* Iowa, 25–26; asst. prof, *South Dakota,* 27–34, *assoc. prof, 34–* Summers, Ill. Geol. Surv, 24–25; S. Dak. Geol. Surv, 29– Asn. Petrol. Geol; S. Dak. Acad. (v. pres, 38); fel. Iowa Acad. General geology; stratigraphy of Upper Cretaceous; geology of coal.

Searle, Dr. Donald S(tratton), 200 Hillcrest Road, Mt. Vernon, N. Y. *Chemistry, Medicine.* Worcester, Mass, Aug. 1, 05. B.S, Worcester Polytech, 27; M.S, N. Y. Univ, 28, Ph.D, 30; M.D, L. I. Col. Med, 36. Teaching fellow, N. Y. Univ, 27–30; instr. physiol. chem, N. Y. Homeop. Med. Col, 30–34; biochemist, *Burroughs Wellcome and Co, New York,* 36–41, asst. med. director, 41–42, *med. director, 42–* A.A; Chem. Soc. Sulfonium compounds; formocholine thioethers and sulfones; blood calcium and phosphorus in experimental convulsions; globin insulin; trypanosome metabolism.

Searle, H(arold) E(dwin), International Nickel Co, 67 Wall St, New York, N. Y. *Chemistry.* Toronto, Ont, Can, Oct. 29, 00. Chem.E, Met.E, Queen's (Can), 22. Asst. fellow, Mellon Inst, 22–24; develop. and research dept, *Int. Nickel Co,* 24–34, manager, sales research, 34–41, *platinum metals div, 41–* Chem. Soc. Performance of materials under corrosion conditions; development of corrosion testing methods and procedure, especially for field testing.

Searle, Dr. Harriet Richardson, 3036 Klingle Road, Washington, D. C. *Zoology.* Washington, D. C. A.B, Vassar Col, 96, A.M, 01; Ph.D, George Washington, 03. *Collaborator, Smithsonian Institution, 01–* A.A; Wash. Acad. Isopod Crustacea; systematic work on the Isopoda.

Searle, Dr. N(orman) E(dward), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Providence, R. I, Jan. 19, 10. Ph.B, Brown, 30, James Manning scholar, 30; M.S, Illinois, 31, Ph.D, 34. Asst. instr, Illinois, 30–34; *research chemist, E. I. du Pont de Nemours and Co, exp. sta, 34–* Chem. Soc. Stereochemistry of biphenyls; cellulose ethers; synthetic organic insecticides.

Searles, J(ohn) N, Continental Machines Co, Minneapolis, Minn. *Metallurgy.* Mazeppa, Minn, Dec. 27, 96. E.M, Minnesota, 23, M.S, 30. Instr. metal, sch. mines, Minnesota, 28–31, asst. prof, 31–42; *mem. staff, Continental Machines Co, 42–* Flow of heat through refractories; flotation as adapted to iron ore; general theory of flotation; ore dressing.

Searles, Capt. P(aul) J(ohn), Carnegie-Illinois Steel Corp, Munhall, Pa. *Physics.* Huntington, Ind, Dec. 5, 91. B.S, U. S. Naval Acad, 13; C.E, Rensselaer Polytech, 18; U. S. Army Eng. Sch, 23. Collector of customs, Jeremie, Haiti, 15; gunnery officer, U.S.S. 'Washington,' 16; chief industries, Guam, 23–25; project manager fleet facilities sect, Navy Dept, 32–35, pub. works officer, 14th naval dist, 35–38, 1st naval dist, 38–41, officer in charge construction, Naval Air Base, Bermuda, 41; *engineer, Carnegie-Ill. Steel Corp, 42–* Director, Susanna Hosp, Guam, 23–25. A.A; Naval Eng; Soc. Mil. Eng. (director). Civil engineering; oriental military history.

Searls, Prof. Ed(ward) M(arlborough), 1419 Vilas Ave, Madison, Wis. *Entomology.* Schaghticoke, N. Y, June 19, 93. Syracuse, 12–15; Mass. Col, 17, 19; B.S, Wisconsin, 26, M.S, 28, Ph.D, 36. Asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 19–30; *asst. prof. econ. entom, Wisconsin, 30–* Asn. Econ. Entom; Wis. Acad. Insect transmission of plant pathogenes; plant resistance to insect attack; taxonomy of insect larvae.

Sears, Dr. E(rnest) R(obert), U. S. Department of Agriculture, University of Missouri, Columbia, Mo. *Cytogenetics.* Rickreall, Oregon, Oct. 15, 10. B.S, Oregon State Col, 32; A.M, Harvard, 34, Ph.D, 36. *U. S. Dept. Agr, Missouri, 36–* Self-sterility in flowering plants; polyploidy in cereals.

Sears, Prof. Francis W(eston), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Plymouth, Mass, Oct. 1, 98. B.S, Mass. Inst. Tech, 21, M.S, 24. Instr. *physics, Mass. Inst. Tech,* 21–29, asst. prof, 29–39, *assoc. prof, 39–* Physical Soc; Optical Soc; Asn. Physics Teachers.

Sears, Prof. F(red) C(oleman), Massachusetts State College, Amherst, Mass. *Pomology.* Lexington, Mass, May 11, 66. B.S, Kans. State Col, 92, M.S, 96, Sc.D, 37. Asst. horticulturist, Exp. Sta, Kans. State Col, 93–97; prof. hort, Utah Col, 97; director, Nova Scotia Sch. Hort, 97–04; prof. hort, Nova Scotia Agr. Col, 04–07; *pomol,* Mass. Col, 07–31, *Mass. State Col,* 31–36, *emer. prof, 36–* Summers, investigator, Grenfell Mission, Labrador, 28–39. Pomol. Soc; Soc. Hort. Sci. Small fruit culture; productive orcharding; fruit growing projects.

Sears, Dr. George R(oberson), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Physics.* Beaver Dam, Wis, Sept. 12, 04. A.B, Wisconsin, 26, A.M, 27, Ph.D, 37. Chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 28–32; instr. *physics, Lawrence Col,* 36–37, asst, *Inst. Paper Chem,* 36–41, *research assoc, 41–* Physical Soc. Photoelectricity; electron microscopy; instrumentation; physics in the paper industry.

Sears, Prof. Geo(rge) W(allace), 917 N. Virginia St, Reno, Nev. *Chemistry.* Kidder, Mo, July 9, 78. B.S, Drury Col, 08; M.S, Illinois, 11, Ph.D, 14. Instr. *chem,* Illinois, 14–

17; *Nevada,* 17–18, assoc. prof, 18–22, *prof, 22–, head dept, 26–* Consulting chemist, U. S. Bur. Mines, 27– A.A; Chem. Soc. Rarer metals; qualitative analysis; fusion of rare metal ores; essentials of general chemistry.

Sears, Prof. H(arry) J(ohnson), 3720 S.W. Dosch Road, Portland, Oregon. *Bacteriology.* Daviess Co, Mo, Feb. 13, 85. A.B, Stanford, 11, A.M, 12, Ph.D, 16. Instr. chem, Stanford, 11–12, bacter, 13–16; city bacteriologist and chemist, Berkeley, Calif, 16–18; *prof. bacter, med. sch, Oregon, 18–* A.A; Soc. Bact; Soc. Exp. Biol; Pub. Health Asn. Antigenic relations in the colon-typhoid-dysentery group.

Sears, Dr. Julian D(ucker), U. S. Geological Survey, Washington, D. C. *Geology.* Baltimore, Md, June 3, 91. A.B, Hopkins, 13, fellow, 15–16, Ph.D, 19. Geol. aid, U. S. Geol. Surv, 15–16; geologist, Sinclair Cent. Am. Oil Co, 17–18; asst. geologist, *U. S. Geol. Surv,* 18, assoc. geologist, 18–20, geologist, 20–24, *administrative geologist, 24–* A.A; Geol. Soc; Asn. Petrol. Geol; Geol. Soc. Wash. Stratigraphic and structural geology; petroleum; coal.

Sears, Dr. Mary, Glendon Road, Woods Hole, Mass. *Biology.* Wayland, Mass, July 18, 05. A.B, Radcliffe Col, 27, A.M, 29, Ph.D, 33. Asst, *Oceanog. Institution, Woods Hole,* 33–39, *planktonologist, 39–;* instr. zool, Wellesley Col, 38–41, faculty fellow, 41–42, instr. zool, 42–43; *lieut, U. S. Naval Res, 43–* Tutor, Radcliffe Col, 34–40. Cmt. Inter-Am. Cultural and Artistic Relations grant for plankton studies in Peru, 41–42. Summers, asst, Bur. Fisheries, 30, 31. Oceanic biology; siphonophores; zooplankton; salinity of sea water; phytoplankton.

Sears, Prof. O(gle) H(esse), University of Illinois, Urbana, Ill. *Agronomy.* Oblong, Ill, May 24, 92. B.S, Illinois, 14, Ph.D, 28; M.S, Purdue, 17. From asst. chem. to asst. prof. agr. chem, Purdue, 14–20; from assoc. soil fertility to *prof. soil biol, Illinois, 20–* Soc. Agron; Soc. Bact. Microorganisms in relation to soil productivity.

Sears, Prof. Paul B(igelow), Oberlin College, Oberlin, Ohio. *[6]Botany.* Bucyrus, Ohio, Dec. 17, 91. A.B, B.S, Ohio Wesleyan, 13, hon. Sc.D, 37; A.M, Nebraska, 15; Ph.D, Chicago, 22. Instr. *bot,* Ohio State, 15–19; asst. prof, Nebraska, 19–25, assoc. prof, 25–27; *prof. and head dept,* Oklahoma, 27–38; *Oberlin, 38–* Botanist, Okla. Biol. Surv, 28–38; research assoc, Columbia, 36–38. Summers, Iowa Lakeside Lab, 25; corn borer investigations, Ohio Exp. Sta, 26, 27; Michigan, 31; staff, Rocky Mt. Biol. Sta, 28–29; Univ. Wyoming Summer Camp, 33–37; collaborator, soil conservation service, U. S. Dept. Agr, 36– U.S.A, 17–18. A.A; Bot. Soc. (sec'y, gen. sect, 24–27); Ecol. Soc; Limnol. Soc; Torrey Bot. Club; Okla. Acad; Ohio Acad; Nebr. Acad. (pres, 24); Mich. Acad. Vegetation and climatic history; applied ecology; pollen analysis.

Sears, Dr. Pauline S(needen), Yale University, New Haven, Conn. *Clinical psychology.* Fairlee, Vt, July 5, 08. A.B, Stanford, 30; A.M, Columbia, 31; Ph.D, Yale, 39. *Clin. instr. psychol, sch. med, Yale, 39–; clin. psychologist, Bridgeport Mental Hygiene Soc, 40–; Family and Children's Center, Stamford, Conn, 40–* Assoc. Psychol. Asn; Asn. Applied Psychol; East. Psychol. Asn. Personality; level of aspiration.

Sears, R(aymond) W, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Cambridge, Ohio, Jan. 9, 06. A.B, Ohio Wesleyan, 28; M.S, Ohio State, 29; Columbia, 30–32. Asst. physics, Ohio State, 28–29; *electronics research engineer, Bell Tel. Labs, 29–* Physical Soc; Radio Eng. Hall effect; thermionics; electronics.

Sears, Prof. Robert R(ichardson), Iowa Child Welfare Research Station, Iowa City, Iowa. *Psychology.* Palo Alto, Calif, Aug. 31, 08. A.B, Stanford, 29; Ph.D, Yale, 32. Instr. psychol, Illinois, 32–35, assoc, 35–36; asst. prof, Yale, 36–42, assoc. prof, 42, asst, Inst. Human Relations, 36–37; *prof. child psychol, Iowa, 42–, director, child welfare research sta, 42–* Clin. psychologist, Inst. Juvenile Research, Chicago, Ill, 32–36; lecturer, Wesleyan, 36–37; visiting asst. prof, Stanford, 41. Mem. cmt. child develop, Nat. Research Council. Soc. Research Child Develop; Psychol. Asn. Hypnotic and hysterical anesthesia; conditioned reflexes; social and abnormal psychology of frustration, aggression, projection, amnesias and repression; personality development in childhood.

Sears, Dr. William C(lifton), 493 Storer Ave, Akron, Ohio. *Physics.* Cambridge, Ohio, Feb. 16, 09. A.B, Ohio Wesleyan, 31; M.S, Ohio State, 32, Ph.D, 37. *Senior physicist, B. F. Goodrich Co, 37–* Physical Soc. Dielectric properties of high polymers.

Sears, Dr. William R(ees), 3517 W. 85th St, Inglewood, Calif. *Aerodynamics.* Minneapolis, Minn, March 1, 13. B.Aero.E, Minnesota, 34; Ph.D, Calif. Inst. Tech, 38. Instr. aeronautics, Calif. Inst. Tech, 37–39, asst. prof, 39–41; *chief aerodynamicist, Northrop Aircraft, Inc, Hawthorne, Calif, 41–* Lieut. (jg), U.S.N.R. Inst. Aeronaut. Sciences. Theoretical aerodynamics; airfoil theory.

Sease, Dr. V(irgil) B(ernard), 1010 Berkeley Road, Westover Hills, Wilmington 67, Del. *Chemistry.* Leesville, S. C, Sept. 13, 88. A.B, Newberry Col, 08; fellow, Hopkins, 16–17, Ph.D, 17. Instr, Newberry Col, 11–13; research chemist, E. I. du Pont de Nemours and Co, 17–25; director Redpath lab, du Pont Film Mfg. Corp, 25–42; *tech. consultant photo products dept, E. I. du Pont de Nemours and Co, 42–* A.A; Chem. Soc. Vapor pressure of aqueous solutions; cellulose acetate; photographic emulsions.

Seashore, Prof. C(arl) E(mil), University of Iowa, Iowa City, Iowa. *[1]Psychology.* Mörlunda, Sweden, Jan. 28, 66. A.B, Gustavus Adolphus Col, 91, D.Litt, 37; Ph.D, Yale, 95, Sc.D, 35; LL.D, Wittenberg Col, 27, Southern California, 35; Sc.D, Pittsburgh, 31; L.H.D, Augustana Col, 39; Mus.D, Chicago Musical Col, 39. Asst, psychol. lab, Yale, 95–97; asst. prof. philos, *Iowa,* 97–02, prof. psychol, 02–36, head dept, 05–37, dean *grad. col,* 08–37, emer. dean, 37–42, *dean pro tem, 42–,* director lab. psychol, 02–36, *research prof, 36–* Chairman div. psychol. and anthrop, Nat. Research Council, 20–21. U. S. del, Int. Cong. Psychol, Copenhagen, 32. Nat. Acad; A.A. (v. pres, I, 25); fel. Psychol. Asn. (pres, 11); hon. fel. Soc. Exp. Psychol; fel. Acoustical Soc; fel. Musicol. Soc; fel. Iowa Acad. (pres, 12); hon. fel. British Psychol. Soc. Psychology of music; acoustics; measurement of talent; gifted student projects; scientific approach to esthetics; motor skills; laboratory approach to educational psychology; psychology in university administration.

Seashore, Prof. Harold G(ustav), Alden St, Springfield, Mass. *Psychology.* Swea City, Iowa, Aug. 4, 06. A.B, Gustavus Adolphus, 29; A.M, Iowa, 31, Eastman fellow, 31–35, Ph.D, 33. Prin, high sch, Minn, 29–30; *prof. psychol, Int. Y.M.C.A. Col, 35–,* director admissions and freshman year, 41. Summers, lecturer, Iowa, 32, 33. Mem. research council, nat. council, Y.M.C.A. Psychol. Asn. Psychology of music; motor abilities; recreation.

Seashore, Prof. Robert H(olmes), Northwestern University, Evanston, Ill. *Psychology.* Iowa City, Iowa, June 14, 02. A.B, Iowa, 23, M.S, 24, Ph.D, 25. Instr. psychol, Ohio State, 25–26; nat. research fellow biol, dept. psychol, Stanford, 26–28; assoc. prof. *psychol,* Oregon, 28–36; prof, Southern California, 36–37; assoc. prof, *Northwestern,* 37–40, *prof, 40–* Visiting prof, Southern California, 34–36. Summers, field asst, Carnegie Institution, 22; acting prof, Stanford, 29; Oregon, 39. A.A; Psychol. Asn. (councilor, 43–); West. Psychol. Asn. (sec'y-treas, 31, v. pres, 34); Midwest. Psychol. Asn. (sec'y-treas, 39–42, pres, 42). Individual differences in sensory and motor fields; design of laboratory apparatus; classification of experimental methods.

Seastone, Dr. C(harles) V(ictor), University of Wisconsin, Madison, Wis. *Medical bacteriology.* Madison, Wis. Jan. 11, 08. A.B, Wisconsin, 27; M.D, Harvard, 32. Teaching fellow, Harvard Med. Sch, 31–33, nat. research fellow, univ, 33–34, Harvard traveling fellow, Koch Inst, Berlin, 34; fellow animal path, Rockefeller Inst, 34–35, asst, 35–38, assoc, 38–39; asst. prof. *med. bacter, med. sch, Wisconsin,* 39–42, *assoc. prof, 42–* Soc. Bact; Soc. Exp. Biol; Asn. Immunol. Immunology.

Seath, Dr. D(wight) M(oody), Louisiana State University, Baton Rouge, La. *Dairying.* Freeborn, Minn, Dec. 19, 03. B.S, Iowa State Col, 26, Ph.D, 39; M.S, Kans. State Col, 30. Co. agr. agent, Iowa State College, 27–29; exten. specialist, dairy husbandry, Kans. State Col, 30–39; *dairy husbandman and head dept. dairy research, Exp. Sta, Louisiana, 39–* A.A. Dairy breeding, feeding and management; pasture renovation and management; milk quality.

Seaton, Dr. J(ohn) T(homas), 108 Thompson Ave, New Concord, Ohio. *Educational psychology.* Clarksville, Ohio, Nov. 13, 98. B.S, Miami (Ohio), 23; A.M, Ohio State, 25, Ph.D, 29. Prin, high sch, Ohio, 23–25; asst. psychol, Ohio State, 25–26, 28–29; instr, Pittsburgh, 26–28; prof, Defiance Col, 29–33; director, Marysville Junior Col, 34–35; super-

visor emergency educ. and consulting psychologist, schs, Logan County, Ohio, 35–37; *clin. psychologist, State Bur. Juvenile Research, Ohio, 38–* Juvenile delinquency.

Seaton, Dean R(oy) A(ndrew), 731 Leavenworth St, Manhattan, Kans. *Engineering.* Glasco, Kans, April 17, 84. B.S, Kans. State Col, 04, M.S, 10; Wisconsin, 08; B.S, Mass. Inst. Tech, 11; hon. Sc.D, Northeastern, 42. Instr. and asst. prof. math, *Kans. State Col,* 04–06, mech. eng, 06–10, prof. applied mech. and machine design, 10–20, *dean div. eng. and director eng. sta, 20–* Designing draftsman, Gen. Elec. Co, Mass, 11–12; nat. director eng, science and management defense training, U. S. Office Educ, 40–42. Director, Nat. Council State Boards Eng. Exam, 35–37; mem. cmt. professional training, Engineers Council for Professional Develop, 32–38, councilor, 37–42; chairman, State Registration Board for Professional Engineers, Kans, 31– Lamme medal, 42. Capt, Ordnance Dept, 18. Mech. Eng; Eng. Educ. (chairman, Kans-Nebr. sect, 23–24, nat. councilor, 26–29, chairman cmt. on eng. research, 29–31, v. pres, 30, pres, 32); Asn. Land-Grant Cols. (sec'y, eng. sect, 24–29, chairman, 29); Kans. Eng. Soc. (v. pres. and acting pres, 29, pres, 30); Kans. Acad. Concrete construction for rural communities; Kansas sands for use in mortar and concrete.

Seaver, Dr. Fred J(ay), New York Botanical Garden, Bronx Park, New York, N. Y. *⁵*Botany.* Webster Co, Iowa, March 14, 77. B.S, Morningside Col, 02, hon. Sc.D, 31; fellow, Iowa, 03–04, M.S, 04, Ph.D, 12; fellow, Columbia, 06–07. Asst. bot, Iowa, 04–05; prof. biol, Iowa Wesleyan Col, 05–06; asst. prof. bot, N. Dak. Col, and mycologist, Exp. Sta, 07–08; director labs, *N. Y. Bot. Garden,* 08–11, curator, 12–43, *head curator, 43–* Ed. and manager, 'Mycologia.' A.A; Bot. Soc; Mycol. Soc; Phytopath. Soc; Torrey Bot. Club (v. pres, 43). Mycology; the cup fungi of North America; tropical ascomycetes.

Sebast, Prof. F(rederick) M(artin), 218 Second Ave, Troy, N. Y. *Electrical engineering.* Albany, N. Y, April 13, 92. E.E, Rensselaer Polytech, 13, D.E, 16. Instr. *elec. eng, Rensselaer Polytech,* 16–20, asst. prof, 20–26, assoc. prof, 26–33, *prof, 33–* Elec. Eng; Soc. Eng. East. N. Y. Electrical and magnetic properties of alloys.

Sebastian, Dr. John J(ulius) S(ebestyén), Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Hodos, Austria-Hungary, Jan. 16, 99. Chem.E, Royal Polytech. Inst, Budapest, 22; Sc.D, Carnegie Inst. Tech, 35. Chemist, Vanadium Corp. of Amer, Bridgeville, Pa, 24–25; asst. chief chemist, Interlake Iron Corp, South Chicago, 25–28; fuel research chemist, Koppers Co. and Mellon Inst, 28–31; *research chemist, coal research lab, Carnegie Inst. Tech, 31–* Min. and Metal. Eng; Chem. Soc; East. States Blast Furnace and Coke Oven Asn. Properties of cooking coals; oxidation of coal; storage of coal; coal carbonization; microanalysis of hydrocarbon gases; catalytic reduction of carbon monoxide to methane; hydrogenation of coal; reactivity of coals and cokes.

Sebrell, Dr. L(orin) B(eryl), Goodyear Tire and Rubber Co, Akron, Ohio. *Chemistry.* Alliance, Ohio, 94. M.S, Ohio State, Ph.D, 22; Wisconsin. *Manager research, Goodyear Tire and Rubber Co, 22–* Chem. Soc; Chem. Eng; Chemists' Club. Organic accelerators for the vulcanization of rubber; processing of rubber; special products and derivatives made from rubber; development of organic compounds by hydrogenation.

Sebrell, Dr. W(illiam) H(enry), Jr, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Nutrition.* Portsmouth, Va, Sept. 11, 01. M.D, Virginia, 25; George Washington, 28–31. Officers sch, *U. S. Pub. Health Service,* 25–26, asst. surgeon, 26–30, passed asst. surgeon, 30–37, surgeon, 37–43, *senior surgeon, 43–, nat. inst. health, 28–,* in charge field investigations of nutrition, 33–37, nutrition sect, div. chem, 37–40, *chief div. chemotherapy, 40–,* deputy asst. director nutrition office, defense health and welfare services, 41–43; *assoc. chief nutrition and food conservation branch, Food Distribution Admin, 43–* Lecturer, med. sch, George Washington, 39– Mead Johnson award, Am. Inst. Nutrition, 40. Tech. cmt. nutrition, League of Nations, 35–37; nutrition cmt, Pan Am. Sanit. Bur, 37–; govt. rep. food and nutrition board, Nat. Research Council, 40–; chairman vitamin cmt, Combined Food Board, 42– U. S. del, Pan Am. Sanit. Conf, 42; tech. adviser, U. S. delegation, United Nations Conf. Food and Agr, 43. A.A; fel. Col. Physicians; assoc. fel. Acad. Pediat; Soc. Clin. Invest; Soc. Biol. Chem; Chem. Soc; fel. Am. Med. Asn; fel. Pub. Health Asn; Inst. Nutrition (treas, 40–); Wash. Acad; Wash. Acad. Med. Pellagra; vitamins; dietary deficiency diseases; nutrition and public health.

Sechler, Dr. E(rnest) E(dwin), 2100 Dudley St, Pasadena, Calif. *Aeronautics, Engineering.* Pueblo, Colo, Nov. 17, 05. B.S, Calif. Inst. Tech, 28, M.S. (M.E), 29, M.S. (Aeronaut.E), 30, Ph.D, 33. Instr. aeronaut. and eng. drawing, *Calif. Inst. Tech,* 30–37, asst. prof. *airplane structures,* 37–40, *assoc. prof, 40–* Inst. Aeronaut. Sciences. Thin sheet metal airplane structures; compressive strength of stiffened and unstiffened sheet metal structural parts, especially aeronautic structures.

Sechrist, E(dward) L(loyd), Box 191, Papeete, Tahiti, Society Islands. *Apiculture.* West Salem, Ohio, Aug. 15, 73. A.B, Ohio Northern. Assoc. apiculturist, bee culture, bur. entom, U. S. Dept. Agr, Washington, D. C, 17–31, in charge, Pacific Coast bee culture field lab, Calif, 31–34; *private apiculturist, Villa Debure, Papeete, 34–* Research assoc, col. agr, California. Management of bees; production of honey; races of bees; wax production; plant introduction.

Sechrist, Prof. Gilbert H(aven), 1415 Kearney St, Laramie, Wyo. *Electrical engineering.* Meriden, Kans, Feb. 26, 88. B.S, Kans. State Col, 16, E.E, 38. M.S, Mass. Inst. Tech, 25. Equipment engineer, Automatic Elec. Co, Chicago, 16–18; instr. mech, La. Polytech, 19–20; assoc. prof. *elec. eng,* Agr. and Mech. Col. Texas, 20–23; assoc. prof, *Wyoming,* 24–38, *prof, 38–, chairman dept, 24–; staff mem, radiation lab, Mass. Inst. Tech, 43–* Instr. war course for radio mech, Carnegie Inst. Tech, 18. Elec. Eng; Eng. Educ.

Sechrist, W(illia)m C(linton), University of Missouri, Columbia, Mo. *Forestry.* Blossburg, Pa, Feb. 26, 09. B.S, Pa. State Col, 32. Field asst, timber surv, U. S. Forest Service, Calif, 30–31; private forestry, Del Monte, Calif, 31; instr. forestry, Pa. State Col, 32–34; land acquisition, U. S. Forest Service, N. C. and Va, 34–35; dist. forester, Tioga State Forest, 35–36; research forester in charge, Mont Alto State Forest and Forest Tree Nursery, State Dept. Forests and Waters, Pa, 36–40; *research forester, Missouri, 40–; lieut, U. S. Army, 42–* Forester, Emergency Conservation Work, Kit Carson Forest, 33. Soc. Foresters. Forest utilization and marketing.

Seckinger, Dr. Daniel L(amont), Municipal Center, Washington, D. C. *Public health.* Dec. 29, 93. A.B, Lenoir-Rhyne Col, 13; A.M, North Carolina, 15; M.D, Hopkins, 25, Dr.P.H, 32. Prin, Catawba Farm Life Sch, 15–16; bacteriologist, City Lab, Savannah, Ga, 19–21; intern, Hopkins, 25–26; res. physician and surgeon, St. Mary's Hosp. and Pierre Clinic, 26–27; asst. health commissioner, Savannah and Chatham County, Ga, 27–30; Rockefeller fellow, sch. hygiene and pub. health, Hopkins, 31–32; epidemiologist, State Dept. Health, Ga, 32–35; *asst. health officer, D. C, 35–, coordinator health and hosps, 37–* Director, Prenatal Clinics, Savannah and Chatham County, Ga; in charge sch. med. inspection, Chatham County, Ga; physiol. and pharmacol, research lab, Hynson, Westcott and Dunning, 23–25; asst. obstetrician, Health Dept, Baltimore, 25; lecturer, Catholic Univ, 36– Mem, Nat. Malaria Cmt, 33– Bacteriologist, Post Hosp, Ft. Screven, Ga, and bacter. lab, U. S. Gen. Hosp, No. 5, Ft. Ontario, Oswego, N. Y, 17–19. Am. Med. Asn; South. Med. Asn; D. C. Med. Soc. Cyclic variations in Fallopian tube contractions; the ovulation inhibiting substances of the corpus luteum; epidemiology of typhoid fever and amebic dysentery; the influence of drugs in malaria control; administration of medical services as part of a health department program; ovarian hormone; atabrine and plasmochin used in treatment and control of malaria.

Secord, Dr. Arthur, University of Missouri, Columbia, Mo. *Speech.* Deward, Mich, Dec. 8, 04. A.B, West. Mich. Col, 28; A.M, Michigan, 32, Ph.D, 41. Critic teacher speech, Paw Paw Training Sch, West. Mich. Col, 28–35; teaching fellow speech and director debate, Michigan, 35–36; instr. speech and debate coach, West. Mich. Col, 36–37; teaching fellow speech, Michigan, 37–41, instr, 41–43; *asst. prof. speech and director speech clinic, Missouri, 43–* Director men's debate and manager, Mich. High Sch. Forensic Asn, 37–43. Summers, director clinic and lecturer, Western Ontario, 36–40; lecturer, Manitoba, 42. Speech Correction Asn. Anatomy and physiology of the human larynx; pitch regulating mechanism of the human larynx; hyoid bone; thyroid and cricoid cartilages.

Secoy, Prof. C(harles) H(arold), University of Oregon, Eugene, Oregon. *Physical chemistry.* Archer, Nebr, Sept. 24, 08. B.S, Col. of Idaho, 29; M.S, Washington (Seattle), 30, Ph.D, 40. Prin, high sch, Wash, 32–38; *instr. chem, Oregon,*

40– Chem. Soc. Constitution of homomesityl oxide; thermodynamic properties, freezing points of solutions of and solubility in water of chlorine monoxide.

Secrest, Edmund, 1037 Beall Ave, Wooster, Ohio. *Forestry.* Randolph, Kans, Aug. 24, 82. B.S, Kans. State Col, 02, hon. Sc.D, 42; hon. Sc.D, Col. of Wooster, 38. Asst, U. S. Forest Service, 02–05; forestry, *Ohio Exp. Sta,* 06–09, assoc, 09–11, *chief forestry, 11–,* assoc. director, 21–37, *director, 37–, state forester, Ohio, 21–* Trustee, Dawes Arboretum; Wooster Col, 41; mem, Ohio Conservation Council, 28–30. A.A; Soc. Foresters (pres, cent. states sect, 23); Asn. State Foresters (pres, 28); fel. Ohio Acad. (v. pres, 24); Ohio Forestry Asn. (pres, 24–). Forest administration; propagation of forest planting stock; regeneration of farm woodlands; development of artificial reforestation.

Secrist, Dr. Mark H(oward), Johns Hopkins University, Baltimore, Md. *Geology.* Hanover, Pa, Sept. 27, 96. A.B, Gettysburg Col, 18; Ph.D, Hopkins, 23. Instr. *geol, Hopkins,* 30–38, *assoc, 38–* Paleont. Soc; Geophys. Union. Paleontology; stratigraphy; airplane mapping; photogrammetry.

Sedgewick, Prof. C(harles) H(ill) W(allace), University of Connecticut, Storrs, Conn. *Mathematics.* Middle Musquodoboit, N. S, Can, Aug. 21, 02. B.A, Dalhousie, 25; A.M, Brown, 30, fellow, 31–32, Ph.D, 34. Asst. and instr, Brown, 27–31; instr, Conn. Agr. Col, 32–33, Conn. State Col, 33–34, asst. prof. *math,* 34–41, *assoc. prof, Connecticut, 41–* Math. Soc; Asn. Teachers Math. New Eng. Infinite series; quality control in industry.

Sedgewick, Mrs. C(harles) H(ill) W(allace) (Dr. Rose A(lice) Whelan), Storrs, Conn. *Mathematics.* Brockton, Mass, June 16, 03. Ph.B, Brown, 25, A.M. 27, Arnold fellow, 27–28, Ph.D, 29; fellow, Bryn Mawr Col, 26–27. Instr. *math,* Rochester, 28–32, asst. prof, 32–34; *instr, Connecticut, 43–* Math. Soc. Boundary problems of differential equations.

Sedgwick, Prof. Paul J(oseph), 1052 Ackerman Ave, Syracuse, N. Y. *Botany.* Cincinnati, Ohio, Sept. 22, 96. B.S, Chicago, 18, fellow, 19–22, Ph.D, 22. Instr. *bot, Syracuse,* 22–25, asst. prof, 25–29, assoc. prof, 29–38, *prof, 38–* Summer, field asst, Ill. Geol. Surv, 25. Ensign, U.S.N.R, 18. A.A; Bot. Soc; Biol. Photog. Asn. Plant morphology; paleobotany; growth.

Sedgwick, Mrs. Paul J(oseph) (Dr. Lillian G(race) Reynolds), Box 33, University Station, Syracuse, N. Y. *Botany.* Chicago, Ill, Dec. 26, 96. B.S, Chicago, 19, fellow, 20–22, Ph.D, 22. Instr. biol, Stephens Col, 23–24; bot, Syracuse, 25–32. A.A. Plant morphology; paleobotany.

See, Capt. T(homas) J(efferson) J(ackson), 614 Ohio St, Vallejo, Calif. *[1]*Astronomy. Montgomery City, Mo, Feb. 19, 66. A.B, B.L, B.S, Missouri, 89, A.M, L.M, M.S, 92; Ph.D, Berlin, 92. Instr. in charge dept. astron, Chicago, 93–96; astronomer, Lowell Observatory, 96–98; prof. math, U. S. Navy, 99–30; *retired.* Lecturer, Lowell Inst, Boston, 99. A.A; Math. Soc; Physical Soc; Philos. Soc; Seismol. Soc. (v. pres, 07); Astron. Soc. Pacific; Calif. Acad; St. Louis Acad; Wash. Acad; Philos. Soc. Wash; fel. British Asn; fel. Royal Astron. Soc; British Astron. Asn; London Math. Soc; Edinburgh Math. Soc; Astron. Gesell; Deuts. Math. Verein; Soc. astron. de France; Soc. math. de France; Soc. de Physique; Circolo Mat. di Palermo; Sicilian Acad. Double stars; planets and satellites; earthquakes; cosmic evolution; the electrodynamic wave theory; the perihelion of Mercury; the moon's mean motion; theory of the ether; variation of latitude; polar motion; gravitation; secular variation of the earth's magnetism; cosmic rays.

Seebeck, Dr. Charles L(ouis), Jr, 1607 Third Ave, Tuscaloosa, Ala. *Mathematics.* Charleston, S. C, July 19, 08. A.B, Col. of Charleston, 28; Shattuck fellow, Harvard, 30–31, A.M, 31; Columbia, 35; fellow, North Carolina, 37–39, Ph.D, 39. *Instr. math,* high sch, N. C, 28–30; Riverdale Country Sch, New York, 31–34; Hebrew Tech. Inst, 34–36; *Alabama, 39–* Math. Soc; Math. Asn. Vectors associated with arbitrary curves in Riemannian and non-Riemannian spaces.

Seeber, Prof. R(ex) R(obert), Houghton, Mich. *Mechanical engineering.* Ida Grove, Iowa, Jan. 28, 79. B.S. and E.M, Mich. Col. Mines, 99, Met.E, 24. Mining engineer, Am. Mining Co, Mich, 99–00; Champion Copper Co, Mich, 00–06; supt, Winona Copper Co. and King Philip Copper Co, and consulting engineer, Houghton Copper Co, Mich, 06–18; manager, P. Q. Lumber Co, N. B, 18–20; v. pres. and gen. manager, Gen. Combustion Co, Chicago, 20–22; from instr. to *prof. mech. eng. and head dept, Mich. Col. Min. and Tech, 22–* Heat. and Vent. Eng. Electrical hoisting; copper concentrator; copper uses; corrosion; gas burners; extrusion of metal tubing.

Seeberg, Dr. Elizabeth (Alexandra), 147 Mason St, Cincinnati, Ohio. *Psychology.* Latvia, Dec. 14, 91. A.B, Texas, 14; A.M, Wisconsin, 15, Ph.D, 19. Clin. psychologist, Associated Charities, Minneapolis, 20–23; Child Guidance Clinic, Memphis, 24–27; Cent. Clinic, Cincinnati, 27–30; consultant psychol, diagnostic center, U. S. Veterans' Bur, Cincinnati, 27–33; private practise, 33–42; *psychologist, schs, Norwood, Ohio, 42–* Lecturer, Minnesota, 21–24; Cincinnati, 28–31. Summer, Wisconsin, 27. Assoc. Psychol. Asn; Orthopsychiat. Asn. Clinical psychology.

Seecof, Dr. David P(hilip), 1970 Daly Ave, Bronx, N. Y. *Pathology.* New York, N. Y, Dec. 25, 95. M.D, Univ. and Bellevue Hosp. Med. Col, 18. Pathologist, Montefiore Hosp, New York, 18–19, 21–27; assoc. prof. path, sch. med, Colorado, 27–29; asst. prof, Western Reserve, 29–33; pathologist, City Hosp, Cleveland, 29–33; director labs, Jewish Gen. Hosp, 34–37. A.A; Soc. Exp. Path; Asn. Path. and Bact; Asn. Cancer Research; Asn. Study Int. Secretions; Soc. Exp. Biol; N. Y. Path. Soc; N. Y. Acad. Med. Cancer; endocrine glands; diseases of the vascular system; cytology.

Seed, Dr. Lindon, 923 N. Elmwood Ave, Oak Park, Ill. *Surgery.* Wallaceburg, Ont, Can, Dec. 10, 97. B.S, North Dakota, 19; M.D, Rush, Chicago, 21; M.S, Minnesota, 25. *Assoc. prof. surg, col. med, Illinois; major, Med. Corps, U. S. Army.* Attending surgeon, Cook County Hosp. Asn. Study Goiter; Cent. Surg. Soc.

Seegal, Dr. Beatrice Carrier, 39 Claremont Ave, New York, N. Y. *Bacteriology.* Santa Barbara, Calif, Jan. 29, 98. A.B, California, 18, A.M, 21; Hooper Foundation fellow, 19–20; Am-Scandinavian Foundation fellow, 21–22; M.D, Hopkins, 24. Nat. research fellow path, Harvard Med. Sch, 24–26; instr. *bacter, col. physicians and surg, Columbia,* 27–30, *asst. prof, 30–* A.A; Asn. Path. and Bact; Soc. Exp. Biol; Harvey Soc. Blood volume and capillary circulation; immunity; anaphylaxis and allergy; epidemiology and biology of the hemolytic streptococcus; cytotoxins.

Seegal, Dr. David, 39 Claremont Ave, New York, N. Y. *Medicine.* Chelsea, Mass, June 23, 99. M.D, Harvard, 27. Asst. *med, biol. div, dept. med, col. physicians and surg, Columbia,* 30–33, instr, 34–35, assoc, 35–36, asst. prof, 36–42, *assoc. prof, 42–, asst. physician, Presb. Hosp, 30–* Director research div. chronic diseases, dept. hosps, New York, 36–; research service and clin. service, first div, Goldwater Mem. Hosp; Dept. Hosps; consultant to U. S. Sec'y War, 41–Rheumatism Asn; Soc. Clin. Invest; Soc. Immunol; Soc. Exp. Biol; Harvey Soc. Experimental local hypersensitiveness; epidemiology of hemolytic streptococcus infections; mechanism of acute and chronic glomerulonephritis.

Seeger, Prof. Raymond J(ohn), George Washington University, Washington, D. C. *Mathematical physics.* Elizabeth, N. J, Sept. 20, 06. A.B, Rutgers, 26; Ph.D, Yale, 29. Assoc. prof. *physics,* Presb. Col. (S. C), 29–30; asst. prof, *George Washington,* 30–37, *assoc. prof, 37–* A.A; fel. Physical Soc; Asn. Physics Teachers; Hist. Sci. Soc; Philos. Soc. Wash; Wash. Acad. Dynamics; quantum mechanics; foundations of physics; electron theory of solids.

Seegers, Dr. Walter H(enry), Research Laboratories, Parke, Davis and Co, Detroit, Mich. *Physiological chemistry.* Westgate, Iowa, Jan. 4, 10. A.B, Iowa, 31, fellow, 31–34, M.S, 32, Ph.D, 34. Assoc, Iowa, 34–35; research assoc, Samuel S. Fels research foundation, Antioch Col, 36–37; path, Iowa, 37–42; *research, Parke, Davis and Co, 42–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; fel. Inst. Chem. Heat treated proteins in nutrition; metabolism in the reproductive cycle; blood coagulation; vitamin K.

Seegmiller, Dr. Charles G(eorge), 3037 Dent Place, N.W, Washington, D. C. *Industrial hygiene.* Hayward, Calif, July 16, 13. B.S, California, 35; Ph.D, Western Reserve, 39. Asst, Western Reserve, 35–39; assoc. prof. chem, Peru State Teachers Col, Nebr, 39–40; junior chemist, U. S. Dept. Interior, 41; asst. chemist, *div. indust. hygiene, nat. inst. health, U. S. Pub. Health Service,* 42–43, *assoc. chemist, 43–* Chem. Soc. Inorganic chemistry; analytical chemistry; fluorination of thiocarbonyl perchloride and of phosphoryl tribromide; determination of fluorine in water; methods of determining halogenated hydrocarbons in air.

Seekins, Dr. Charles W(illiam), 14649 Gilmore St, Van Nuys, Calif. *Mathematics.* Los Angeles, Calif, Aug. 31, 16. A.B, Occidental Col, 38; Ph.D, Calif. Inst. Tech, 42. Asst, Calif. Inst. Tech, 38–41; instr. math, N. C. State Col, 41–42; *ensign, U. S. Naval Res. and instr. math, U. S. Naval Acad,* 42– Math. Soc. Lattice theory.

Seeler, Dr. Edgar V(iguers), Jr, Farlow Herbarium, 20 Divinity Ave, Cambridge, Mass. *Botany.* Philadelphia, Pa, Oct. 25, 08. A.B, Harvard, 32, A.M, 34, Ph.D, 40. *Hon. research assoc. mycol, Farlow Herbarium, Harvard, 40–* A.A; Mycol. Soc; Micros. Soc; Phytopath. Soc; New Eng. Bot. Club; Maria Mitchell Asn. (nat. hist. board, 40–; manager, 42–). Mycology.

Seeley, Lauren E(arl), 1856 Whitney Ave, Hamden, Conn. *Mechanical engineering.* Meriden, Conn, Nov. 9, 98. Ph.B, Yale, 21, M.E, 24, LL.B, 35. *Assoc. prof. mech. eng, Yale,* 22– Consultant, H. B. Smith Co, 23–; special consultant, Office Price Admin; regional adviser, eng, science and management war training program, U. S. Office Educ. Mech. Eng; Heat. and Vent. Eng. Combustion of fuels; wood burning; temperature and moisture changes of air in respiratory tract.

Seeley, Prof. Walter J(ames), Box 587, College Station, Durham, N. C. *Electrical engineering.* Hazleton, Pa, Nov. 30, 94. E.E, Polytech. Inst. Brooklyn, 17; M.S, Pennsylvania, 24. Instr. *elec. eng,* Pennsylvania, 19–25; asst. prof, *Duke,* 25–27, *prof, 27–, head dept, 36–* Asst. to consulting engineer, city street-lighting service, Trenton, 20–24. Summers, Duke Power Co, 25–; mem. staff, Naval Ordnance Lab, 41. Ensign, special board anti-submarine devices, U.S.N.R, 17–19. Elec. Eng; Radio Eng; Eng. Educ. Application of operational calculus to electrical circuit problems; development of mathematics.

Seelig, Prof. M(ajor) G(abriel), Washington University, St. Louis, Mo. *Surgery.* Helena, Ark, Feb. 19, 74. A.B, Harvard, 96; M.D, Columbia, 00; Berlin, 03–04. Prof. *surg,* St. Louis, 08–19; *clin. prof, sch. med, Washington (St. Louis), 19–* Director path, Barnard Free Skin and Cancer Hosp, St. Louis. Trustee, St. Louis Pub. Library. A.A; Col. Surg; Surg. Asn; Am. Med. Asn; West. Surg. Asn. Surgical pathology and clinical and general surgery; pathology of sarcomata; pathology of the thyroglossal duct; physiology of shock; pathology of carcinoma of the esophagus; history of medicine; hernia; cancer.

Seely, Prof. Fred B, University of Illinois, Urbana, Ill. *Engineering, Mechanics.* Chester, N. Y, April 29, 84. B.S, Worcester Polytech, 07; M.S, Illinois, 15. Draftsman and testing engineer, Carpenter Steel Co, 07–08; engineer, E. I. du Pont de Nemours and Co, 08; instr. mech. eng, Villa Nova Col, 08–09; *theoret. and applied mech, Illinois,* 09–15, assoc, 15–17, asst. prof, 17–19, assoc. prof, 19–21, *prof, 21–, head dept, 34–* Mech. Eng; Soc. Test. Mat; Eng. Educ. (councilor, 37–40). Hydraulics; fatigue of metals; strength of materials; dynamics.

Seely, Dr. Samuel, Massachusetts Institute of Technology, Cambridge, Mass. *Physics, Electrical engineering.* New York, N. Y, May 7, 09. E.E, Polytech. Inst. Brooklyn, 31; Henry Morton scholar, Stevens Inst. Tech, 32, M.S, 32; Ph.D, Columbia, 36. *Instr. elec. eng, Col. City of N. Y, 36–; staff mem, radiation lab, Mass. Inst. Tech, 41–* Elec. Eng; Radio Eng; Eng. Educ; Physical Soc. Diamagnetism; nuclear physics; electronics.

Seemann, Dr. Herman E(astman), Eastman Kodak Co, Rochester, N. Y. *Physics.* Athens, Mich, Jan. 3, 99. A.B, Oberlin Col, 21; scholar and fellow, Cornell, 21–23, Ph.D, 27. Instr. physics, Cornell, 23–29; *physicist, research lab, Eastman Kodak Co, 29–* Physical Soc. Thermal and electrical conductivity; applied x-rays.

Seery, Prof. F(rancis) J(oseph), Cornell University, Ithaca, N. Y. *Hydrology.* Waterbury, Conn, May 24, 74. B.S, Tufts Col, 05. Eng. asst, Waterbury, Conn, 93–00; engineer, Isthmian Canal Cmn, 00; instr. *hydraul. eng, Cornell,* 05–07, asst. prof, 07–18, prof, 18–43, *emer. prof, 43–* Legal consultant, State Dept. Pub. Works, N. Y. Summers, Waterbury, Conn, Fulton, N. Y, U. S. Geol. Surv; State Board of Health, N. Y; State Conservation Cmn, N. Y; State Dept. Eng, N. Y, 05– Chairman board pub. works, Ithaca, N. Y, 20–25. Supt. construction in charge water and sewers, Camp Dix, U.S.A, 17. Civil Eng; Water Works Asn; New Eng. Water Works Asn. Hydraulics of water distribution systems.

Seevers, Dr. C(harles) H(amilton), Central Y.M.C.A. College, Chicago, Ill. *Entomology.* Topeka, Kans, April 19, 07. A.B, Washburn Col, 28; Ph.D, Chicago, 32. Instr. *zool,* Northwest Mo. State Teachers Col, 32–33; assoc. prof. and later *prof. and chairman dept, Cent. Y.M.C.A. Col, 34–; research assoc, Field Museum Nat. Hist, 43–* A.A; Entom. Soc. Amer; Soc. Zool. Taxonomic and ecological investigations of termitophilous and myrmecophilous insects.

Seevers, Dr. M(aurice) Harrison, University of Michigan, Ann Arbor, Mich. *Pharmacology.* Topeka, Kans, Oct. 3, 01. A.B, Washburn Col, 24; fellow, Chicago, 26–28, Ph.D, 28, M.D, Rush, 30. Asst. *pharmacol,* Chicago, 26–28; instr, Loyola, 29; asst. prof, Wisconsin, 30–34, assoc. prof, 34–42; *prof. and chairman dept, Michigan, 42–* Intern, Wis. Gen. Hosp, 30–32; consultant, U. S. Pub. Health Service. Summer, assoc. prof, Chicago, 41. Consulting ed, 'Anesthesiology.' A.A; fel. Am. Med. Asn; Pharmacol. Soc. (councilor, 37; membership cmt, 41–); Physiol. Soc; Soc. Exp. Biol; Soc. Anesthetists; Cent. Soc. Clin. Research. Mechanisms of narcosis, tolerance and addiction; drugs and intermediary metabolism; anesthesia.

Segal, Dr. I(rving) E(zra), 20 Nassau St, Princeton, N. J. *Mathematics.* New York, N. Y, Sept. 13, 18. A.B, Princeton, 37; Ph.D, Yale, 40. Instr. math, Harvard, 41; asst, Princeton, 41–42, research assoc, 42–43; *U. S. Army, 43–* Math. Soc; Inst. Math. Statist; Statist. Asn. Functional and harmonic analysis; topological groups; probability theory.

Segall, Dr. Harold N(athan), 1538 Sherbrooke St, W, Montreal, Que, Can. *Clinical medicine.* Jassy, Roumania, Oct. 17, 97. M.D, McGill, 20; Univ. Col, London, 24–26. Demonstrator bacter. and path, McGill, 20–22; Henry P. Walcott fellow, Harvard, 22–23; *demonstrator med, McGill, 26–* Fel. Col. Physicians; Montreal Clin. Soc. (pres, 37); British Physiol. Soc. Cardiovascular system; physiology of heart sounds and murmurs.

Segrè, Prof. Emilio, 1617 Spruce St, Berkeley, Calif. *Physics.* Tivoli, Italy, Feb. 1, 05. Ph.D, Rome, 28. Asst. and assoc. prof. physics, Rome, 30–35; prof. physics and director lab, Palermo, 35–38; *research assoc, radiation lab, dept. physics, California, 38–* Rockefeller Foundation fellow, 31–32. Spectroscopy; nuclear physics; slow neutrons; elements 43 and 85.

Seib, Dr. George A(rthur), 2323 Lafayette Ave, St. Louis, Mo. *Anatomy.* St. Louis, Mo, Dec. 15, 02. A.B, Washington (St. Louis), 24, M.D, 28. Intern, St. Luke's Hosp, St. Louis, 28–29; instr. anat, Washington (St. Louis), 29–35, asst. prof, 35–42; *practising physician and surgeon, 42–* Smithsonian Institution exped, Kodiak Island, Alaska, 35. A.A; Asn. Anat; Asn. Physical Anthrop; St. Louis Anthrop. Soc; Mo. Acad; St. Louis Acad. Human anatomy; veins; heart; muscles; variation; respiration.

Seibel, C(lifford) W(inslow), U. S. Bureau of Mines, Amarillo, Texas. *Chemistry.* Kansas City, Mo. B.S, Kansas, 13, M.S, 15; hon. Sc.D, Texas Tech. Col, 37. Instr. chem, Kansas, 15–17; chemist in charge helium field investigation and repurification and later *supervising engineer, helium plant, U. S. Bur. Mines, Amarillo, 17–* Chem. Soc. Rare gases in natural gas.

Seibert, Prof. Florence B(arbara), Henry Phipps Institute, Seventh and Lombard Sts, Philadelphia, Pa. *Physiological chemistry.* Easton, Pa, Oct. 6, 97. A.B, Goucher Col, 18, LL.D, 38; Van Meter fellow, Yale, 21–22, Porter fellow, 22–23, Ph.D, 23; Sc.D, Chicago, 41. Chemist, Hammersley Paper Mill, 18–20; Porter fellow, Chicago, 23–24, instr. path. and asst, Sprague Mem. Inst, Chicago, 24–28, asst. prof. and assoc. *biochem,* 28–32; asst. prof, *Henry Phipps Inst, Pennsylvania,* 32–37, *assoc. prof, 37–* Guggenheim Mem. Foundation fellow, Uppsala, 37. Ricketts prize, Chicago, 24; Trudeau medal, Nat. Tuber. Asn, 38; Garvan medal, Am. Chem. Soc, 42; achievement award, Am. Asn. Univ. Women, 43. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Soc. Nat; Trudeau Soc. Cellulose; bacterial and protein fevers; chemistry of proteins and tuberculin; immunology of tuberculosis.

Seibert, Dr. Frank Meyers, Gulf Oil Corp, Houston, Texas. *Chemistry.* Berlin, Pa, Aug. 4, 87. B.S, Pa. State Col, 10; fellow, Princeton, 15–16, Ph.D, 17. Research chemist, U. S. Bur. Mines, 11–14; chief chemist, *Gulf Oil Corp. of Pa,* 17–42, *asst. to v. pres, 42–* Chem. Soc. (chairman, southeast. Texas sect, 18). Specific heats of salts at low temperatures; gas and oil.

Seidel, Dr. W(ladimir) S(amuel), University of Rochester, Rochester, N. Y. *Mathematics.* Odessa, Russia, Dec. 21, 06. A.B, Harvard, 28; Ph.D, Munich, 30. Nat. research fellow *math,* Harvard, 30–32, Benjamin Peirce instr, 32–35; instr, Rochester, 35–37; Brown, 37–38; asst. prof, *Rochester,* 38–39, *assoc. prof, 40–* A.A; Math. Soc; Math. Asn. Theory of functions.

Seidell, Dr. Atherton, 2301 Connecticut Ave, Washington, D. C. **Chemistry.* Hartwell, Ga, Dec. 31, 78. B.Agr, Georgia, 98, B.S, 99; M.S, George Washington, 01; Ph.D, Hopkins, 03. Asst. chemist, bur. soils, U. S. Dept. Agr, 00–05, bur. chem, 05–06; *chemist, nat. inst. health, U. S. Pub. Health Service, 07–* Officer, Légion d'honneur; Ufficiale dell'Ordine della Corona d'Italia. A.A; Chem. Soc; Chem. Soc. Wash. (sec'y, 03–05, pres, 19); Wash. Acad. Solubility of mixtures of two or more electrolytes; composition of precipitated manganese dioxid; solubility of the calcium phosphates; solubilities of inorganic and organic compounds; chemistry of thyroid; solubilities and physical constants of pharmacopoeial compounds; chemistry of vitamins; application of microfilms to documentation; current medical literature.

Seidell, Prof. T(homas) G(rayson), 25 Exeter Road, Avondale Estates, Ga. *Physics, Electrical engineering.* Salisbury, N. C, Dec. 24, 81. B.S, Ga. Tech, 15, E.E, 20. Elec. engineer, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 15–16; teacher, Yale, 16–18; assoc. physicist, Bur. Standards, 18–20; assoc. prof. *elec. eng, Ga. Tech,* 20–25, *prof, 25–* Summer, elec. engineer, West. Elec. Co, N. Y, 18. Elec. Eng; Philos. Soc. Wash. Theoretical principles of electricity and magnetism as applied to problems in electrical engineering; mathematical analysis as applied to design and invention in electrical engineering; electrical transmission and design.

Seidenfeld, Lieut. Col. Morton A(lfred), Adjutant General's Office, U. S. War Department, Washington, D. C. *Clinical psychology.* Spokane, Wash, Sept. 21, 06. B.S, Washington (Seattle), 27; M.S, Pennsylvania, 33, Ph.D, 37. Director speech clinic and psychol. clinic, St. Christopher's Hosp. for Children, Philadelphia, 34–38; instr. psychol, Denver, 38–40; director rehabilitation, Tuber. Inst. of Chicago and Cook County, Ill, 40; *lieut. col, U. S. Army, 40–* Psychol. consultant, Philadelphia, 35–38; director nurses testing, Pa. Gen. Hosp, 36–38; instr, Pennsylvania, 36–37; director rehabilitation, Nat. Jewish Hosp, Denver, Colo, 38–40. Consultant, State Board Vocational Rehabilitation, Colo, 38–40, Ill, 40. Fel. Asn. Applied Psychol. (chairman cmt. rehabilitation, clinical sect, 42); assoc. Psychol. Asn. Memory; tests for use with the chronically ill; use of individual tests in the army; rehabilitation of linguistically handicapped, mentally dull and other limited service personnel in the armed forces.

Seidl, Dr. Julius C(arl) G(frörer), 266 W. 23rd St, New York, N. Y. *Psychology.* New York, N. Y, Sept. 11, 02. B.S, N. Y. Univ, 27, I.E, 28; A.M, Fordham, 32, Ph.D, 36. Indust. engineer, Bosch Magneto Co, Stuttgart, Germany, 28–29; Otis Elevator Co, Yonkers, N. Y, 29–30; prof. psychol, Villa Maria Col, 34–35; indust. eng. and head dept, Manhattan Col, 35–42; *educational director, Ranger Aircraft Engines, 42–* Rep, Psychol. Corp, New York, 35– A.A; assoc. Psychol. Asn; Soc. Adv. Management (sec'y-treas, New York chap, 36–); Eng. Educ; Mech. Eng; Statist. Asn; Econ. Asn; Management Asn; Acad. Management; Soc. Adv. Management (v. pres, 39–). Industrial and educational psychology; tests and measurements; statistics.

Seidle, Russell E, Eastwood High School, Syracuse, N. Y. *Physics.* Steelton, Pa, 98. A.B, Dickinson Col, 21; A.M, Syracuse, 23. Asst. instr, Dickinson Col, 20–21; *instr.* eng. physics, Syracuse, 21–33; *physics, Eastwood High Sch, 33–; director radio night sch, Syracuse.* Engineer, Harrisburg Railways Co, 21; consulting radio engineer. Physical Soc; N. Y. State Sci. Teachers Asn. (chairman revision cmt, physics syllabus, 41). Electronic tube characteristics; electromagnetic wave antennas; short wave transmission bands; vacuum tube cathodes; acoustics.

Seidlin, Prof. Joseph, Alfred University, Alfred, N. Y. *Mathematics.* Pavlograd, Russia, May 23, 92. B.S, Columbia, 15, A.M, 16, Ph.D, 31. Instr. math, Rhodes Sch, 15–18; head dept, Lincoln Sch, 19–20; assoc. prof, *Alfred,* 20–24, *prof. math. and teaching of math, 24–, director grad. div, 38–* Summer, assoc, Teachers Col, Columbia, 29. Ed, teachers' dept, 'Nat. Math. Magazine.' U.S.A. 18. A.A; Math. Soc; Math. Asn. Teaching at the college and secondary school level; comparative education; analytic geometry.

Seidman, Dr. Leah R(ay), 306 Riverway, Boston, Mass. *Bacteriology.* Baltimore, Md, Jan. 14, 05. A.B, Goucher Col, 26; Sc.D, Hopkins, 34. Asst. bacteriologist, Brady Inst, Hopkins Hosp, 26–33, bacteriologist, 33–37; asst. *bacter, sch. pub. health, Harvard,* 37–40, *instr, 41–* Soc. Bact. Cultivation of tubercle bacilli; Hemophilus influenzae.

Seifert, Dr. H(oward) S(tanley), 382 S. Grand Oaks Ave, Pasadena, Calif. *Physics.* Reynoldsville, Pa, Feb. 17, 11. B.S, Carnegie Inst. Tech, 32, M.S, 34; fellow, Calif. Inst. Tech, 34–37, Ph.D, 38. Asst. prof. physics, Kalamazoo Col, 37–40; research physicist, research labs, Westinghouse Elec. and Mfg. Co, 40–42; *asst. project engineer, project No. 1, Guggenheim aeronaut. lab, Calif. Inst. Tech, 42–* Lecturer, Carnegie Inst. Tech, 42; U. S. Army Air Corps pre-meteorol. sch, Pomona Col, 43. Asn. Physics Teachers; Physical Soc. X-ray and infra-red spectroscopy; electronics; gas discharge devices; heat transfer.

Seifert, Dr. R(alph) L(ouis Edwin), 426 Woodworth Ave, Alma, Mich. *Physical chemistry.* Mt. Vernon, Ind, Feb. 4, 14. A.B, Evansville Col, 34; A.M, Illinois, 35, Ph.D, 37. Instr. physical chem, Illinois, 37–38; *Alma Col,* 38–40, asst. prof, 40–41, *prof. chem. and head dept, 41–* A.A; Chem. Soc. Thermionic emission of metals.

Seifriz, Prof. William, University of Pennsylvania, Philadelphia, Pa. **Botany, Plant physiology.* Washington, D. C, Aug. 11, 88. B.S, Hopkins, 16, Ph.D, 20; Geneva, 21; London, 21–22; Kaiser Wilhelm Inst, 22. Asst, bur. plant indust, U. S. Dept. Agr, 07–10; Seessel fellow, Yale, 22–23; instr. *bot,* Michigan, 23–24; nat. research fellow, *Pennsylvania,* 24–25, *prof, 25–* Assoc. ed, 'Jour. Protoplasma'; 'Biodynamica.' U.S.A, 17–18. A.A; Ecol. Soc; Soc. Plant Physiol; Soc. Nat; hon. mem. Latvia Biol. Soc. Plant biology and geography; microdissection; cell physiology; colloid chemistry.

Seifter, Dr. Joseph, Western Reserve University, Cleveland, Ohio. *Pharmacology.* Czechoslovakia, Dec. 5, 04. Ohio State, 26–31; M.D, Emory, 34. Asst. vet. med. and biochem, Ohio State, 31; *pharmacol, sch. med,* Emory, 31–34; instr, Oklahoma, 35–37; *Western Reserve,* 37–41, *asst. prof, 41–* Barbiturates; bismuth; metal alkyls; industrial toxicology.

Seigle, Dr. Leon W(illiam), 1975 Delaware Ave, Apt. 3A, Buffalo, N. Y. *Organic chemistry.* Clarksville, Ind, March 6, 10. B.S, Arizona, 35, M.S, 36; fellow, Purdue, 36–39, Ph.D, 39. *Research chemist, nat. aniline div, Allied Chem. and Dye Corp.* Chem. Soc. Nitration of isopentane; hemicellulose and pectic materials from lemon wood.

Seil, Dr. Gilbert E(dward), 18 Radcliffe Road, Cynwyd, Pa. *Chemical engineering.* Brooklyn, N. Y, Oct. 29, 88. Rutgers, 05–08; Columbia, 08–12; M.S, Pittsburgh, 21, Ph.D, 22. Chemist, Columbia, 12; chem. director, Metal and Thermit Corp, New York, 15–19; indust. fellow, Mellon Inst, 20–23; head pioneer research div, Koppers Co, 23–26; tech. director, *E. J. Lavino and Co, Phila,* 26–43, *tech. consultant, 43–* Lecturer, Pittsburgh, 20–23; consultant, Jeddo-Highland Coal Co, 28–29; Buffalo Elec. Furnace Corp, N. Y, 31–33. Chairman ferroalloys and ferrous minerals group, advisory cmt. metals and minerals, Nat. Research Council, Nat. Acad. Sciences, 40–A.A; Chem. Soc; Inst. Chem; Min. and Metal. Eng; fel. Ceramic Soc; Gas Asn; Soc. Test. Mat; Chem. Eng; Ceramic Eng; Franklin Inst; Pa. Acad; Pa. Chem. Soc. Organic synthesis; comminution of metals; sodium ferro-saccharate catalysts; purification of gases; combustion; aeration of liquids; insecticides; hydrolysis of organic nitriles; refractories; ore dressing; synthetic amphibolic products; abrasives; electric furnaces; metallurgical intermediates; alloys; manganese in clay products.

Sein, F(rancisco), Jr, University of Puerto Rico, Rio Piedras, P. R. *Economic entomology.* Lares, P. R, May 18, 98. B.S, Cornell, 20. *Asst. entomologist, Exp. Sta, Puerto Rico, 20–* Sugar-cane mosaic transmission; soil animals injurious to the roots of sugar-cane; fruit flies; banana weevil; coffee leaf-miner.

Seitz, Prof. Cha(rle)s E(dward), Virginia Polytechnic Institute, Blacksburg, Va. *Agricultural engineering.* Reno, Nev, Nov. 6, 91. Nevada; Ont. Agr. Col; Iowa State Col. Estimating and eng. dept, South. Pacific R. R, 10–11; state drainage engineer, Va. Exten. Div, 14–16, exten. agr. engineer, 18–20; *prof. agr. eng. and head dept, Va. Polytech, 20–* Research in mech. farm equipment and farm structures. Nat.

Advisory Council; mem, State Planning Board, Va. A.S, U.S.A, 17–18. Agr. Eng. (pres, 32, past pres. and sec'y, south. sect, chairman, col. div, 31); Va. Acad. Rural electrification; irrigation and drainage; erosion control; farm structures; farm machinery; water supply.

Seitz, Dr. Clifford P(eter), College of the City of New York, New York, N. Y. *Physiological psychology.* New York, N. Y, July 20, 12. A.B, Columbia, 34, A.M, 36, Ph.D, 39; Duke, 36–37. Asst. psychologist to Dr. R. A. McFarland, Columbia, 34–36, asst. *psychol,* 37–39; Duke, 36–37; *instr,* Alabama, 39–41; *Col. City of N. Y, 41–; lieut, H-V(S), U. S. Naval Res.* Staff mem, war research div, Columbia. Nat. Research Council grant, Civil Aeronautics Authority, 39–41; grant in aid, Linde Air Products Co. and Ala. Research Council. A.A; Psychol. Asn; Aero Med. Asn; Inst. Aeronaut. Sci. Aviation medicine; psychophysiological research at high altitude including a study of perception, drugs, fatigue, personality and pilot selection.

Seitz, Dr. Frederick, Jr, Carnegie Institute of Technology, Pittsburgh, Pa. **Physics.* San Francisco, Calif, July 4, 11. A.B, Stanford, 32; Ph.D, Princeton, 34. Instr. physics, Rochester, 35–36, asst. prof, 36–37; research lab, Gen. Elec. Co, 37–39; asst. prof. *physics,* Pennsylvania, 39–41, assoc. prof, 41–42; *prof. and head dept, Carnegie Inst. Tech, 42–* Soc. Metals; Min. and Metal. Eng; Physical Soc. Theory of the solid state; the physics of metals.

Seitz, Dr. Roland P(eter), 490 Post St, San Francisco, Calif. *Medicine.* San Francisco, Calif, Oct. 23, 96. A.B, Stanford, 19, M.D, 23. Visiting pediatrician, *San Francisco Hosp,* 26–40, *consultant, 40–;* asst. clin. prof. *pediat, sch. med, Stanford,* 27–31, *assoc. clin. prof, 31–* Chief visiting pediatrician, St. Joseph's Hosp, 30–; assoc. attending pediatrician, Children's Hosp, 39– Am. Med. Asn; Acad. Pediat; San Francisco Co. Med. Soc. (director and trustee, 39–). Diseases of children.

Selwell, Dr. H(arry) R(ichard), Oceanographic Institution, Woods Hole, Mass. *Oceanography.* Hazleton, Pa, Nov. 30, 04. B.S, North Carolina, 27; Scripps Institution, California, 27; Am-Scandinavian Foundation fellow, Norway and Germany, 32–33; Sc.D, Mass. Inst. Tech, 38. Biologist and chemist on board yacht 'Carnegie,' Carnegie Institution, 28–30; curator oceanog, Buffalo Museum Science, 30–31; *physical oceanographer, Oceanog. Inst, Woods Hole, 31–; oceanographer and capt, Air Corps, U. S. Army, 41–* Special investigator, U. S. Bur. Fisheries, 26–27; lecturer, Mass. Inst. Tech; Geophys. Union. Physical-chemical and physical oceanography.

Selby, Dr. C(larence) D(avey), General Motors Corp, Detroit, Mich. *Preventive medicine.* Des Moines, Iowa, July 21, 78. M.D, Western Reserve, 02. Demonstrator histol, dept. med, Western Reserve, 01; asst. to city bacteriologist, Cleveland, 02; intern, Lakeside Hosp, 02–03; res. pathologist, St. Alexis Hosp, 03–04; asst. to Dr. George W. Crile, 04–06; practising physician, Toledo, 06–16; commissioner health, Toledo, 16–18; consulting hygienist, U. S. Pub. Health Service, 18–19; practising physician, 19–35; *med. consultant, Gen. Motors Corp, 35–* Mem, Charter Commission, Toledo, 28–29. Chairman subcmt. indust. health and med, health and med. cmt, Office Defense Health and Welfare Service; cmt. indust. med, div. med. sciences, Nat. Research Council. A.A; Col. Surg; Pub. Health Asn; Asn. Indust. Physicians and Surg. (pres, 38); Asn. Mil. Surg; Am. Med. Asn. (council indust. health); Ohio Med. Asn. (sec'y-treas. and managing ed, 'Jour,' 08–18, pres, 25). Preventive medicine in industry; industrial hygiene and health maintenance.

Selby, Prof. S(amuel), University of Akron, Akron, Ohio. *Mathematics.* Winnipeg, Man, Can, Jan. 28, 04. B.A, Manitoba, 24, fellow, 24–26, M.A, 26, traveling fellow, 26–27; scholar, Chicago, 26–27, 28–29, Ph.D, 29. Teaching fellow, Manitoba, 24–26; instr. *math, Akron,* 27–29, asst. prof, 29–36, *assoc. prof, 36–* Representation by indefinite ternary quadratic forms; the direct product of the division and simple matric algebra; primitive idempotent elements.

Selden, Dr. Robert F(rancis), R.F.D. 3, Box 574, Hampton, Va. *Physical chemistry.* Hampton, Va, Aug. 21, 05. B.S, Virginia, 27, Ph.D, 30. Asst. physical chemist, U. S. Bur. Mines, 30–33; *Nat. Advisory Cmt. Aeronautics, 34–* Chem. Soc. Electromotive force of cadmium bromide cells and derived thermochemical data; sorption of compressed methane by several ranks of coal; combustion of liquid fuels upon injection into heated compressed air; engine knock and lubrication.

Self, Dr. J(ohn) Teague, University of Oklahoma, Norman, Okla. *Zoology.* Spur, Texas, Sept. 28, 06. A.B, Baylor, 31, A.M, 32; Ph.D, Oklahoma, 36. Instr. *zool, Oklahoma, 35–39, asst. prof, 39–* Summer, instr, Rocky Mt. Biol. Lab, 36, asst. director, 38–, acting director, 38. A.A; Micros. Soc; Soc. Zool; Okla. Acad. Cytology; embryology.

Selfridge, Dr. George C(harles), University of Utah, Salt Lake City, Utah. *Economic geology.* Butte, Mont, March 20, 04. B.S, Oregon State Col, 27; M.S, Columbia, 31, Kemp fellow, 31–32, 33–34, Ph.D, 34. Explor. engineer and geologist, Howe Sound Co, 37–42; *asst. prof. econ. geol, Utah, 42–* X-ray and optical investigation of the serpentine minerals.

Selga, Dr. Miguel, S.J, Manila Observatory, Manila, P. I. *Astronomy.* Rajadell, Spain, Nov. 25, 79. A.B, Barcelona, 04; Ph.D, Zaragoza, Spain, 08; D.D, Woodstock Col. (Md), 12. Prof. math, 04, 09; *Manila Observatory, 15–, sec'y, P. I. Weather Bur,* 15–19, asst. director, 19–26, *director, 26–* Lecturer, Philippines, 19–26; vol. asst, Georgetown Observatory, 11–13. Summers, vol. asst, Harvard Observatory, 13; Lowell Observatory, 14; Lick Observatory, California, 15. Astron. Soc; Franklin Inst; Astron. Soc. Pacific; Soc. astron. de France; Soc. Sismol. Ital; Soc. Astron. Espan. Amer. Radial velocities of stars and nebulae; double stars; climatology of the Philippine Islands; typhoons.

Selheimer, Prof. Charles W(illiam), Jr, Wayne University, Detroit, Mich. *Chemical engineering.* Reading, Pa. July 13, 01. B.S, Midland Col, 25; M.S, Michigan, 26, Ph.D, 31. Instr. math. and physics, Dana Col, 25; math, Michigan, 27–28, chem. eng, 28–31; chem. div, Procter and Gamble Co, Ivorydale, Ohio, 31–33; chem. supervisor, Gold Dust Corp, Baltimore, 33–34; chief chemist, 2 in 1-Shinola-Bixby Corp, Indianapolis, Ind, 34–36; asst. prof. *chem. eng, Wayne,* 36–42, *assoc. prof, 42–* Trustee, Wittenberg Col, 38–43. Chem. Eng. Solubility deviations for gases in petroleum fractions.

Seligmann, Dr. Paul, 1021 E. 53rd St, Chicago, Ill. *Chemistry.* Chicago, Ill, March 11, 13. B.S, Chicago, 33, M.S, 36, Ph.D, 41. *Chemist, Stein Hall Mfg. Co, 39–* Starch and dextrine adhesives.

Selin, Dr. Mohamed Ahmed, Box 510, Buffalo, Wyo. *Mechanical engineering.* Mit Kinana, Egypt, June 13, 12. C.E, Royal Sch. Eng, Egypt, 35; M.S, California, 39, Ph.D, 41. Engineer, Ministry Pub. Work, Egypt, 35–36; Alexandria Harbor, Egyptian Ports and Lights Admin, 36–37; *asst. irrigation, faculty eng, Fouad First Univ, 37–; teaching asst. mech. eng, California, 42–; assoc. engineer, U. S. Bur. Reclamation.* Civil Eng. Hydrology; underflow and uplift pressures for dams and weirs on porous media by electric analogy.

Selker, Dr. M(ilton) L(eonard), Bell Telephone Laboratories, Inc, Mountain Ave, Murray Hill, N. J. *Physical-organic chemistry.* Detroit, Mich, Nov. 2, 15. A.B, Western Reserve, 36, A.M, 37, Ph.D, 40. Lab. asst. qualitative anal, Western Reserve, 35–36, org. chem, 37; *rubber research chemist, Bell Tel. Labs, Inc, 40–* Summers, research chemist, Standard Oil Co, Ohio, 38, 39. Chem. Soc. Vulcanization and physical-organic properties of elastomers; natural and synthetic rubber.

Sell, Dr. Harold M(elvin), Box 2817, University Station, Gainesville, Fla. *Organic chemistry, Biochemistry.* Waseca, Minn, June 7, 05. A.B, N. Cent. Col, 29; M.S, Mich. State Col, 31; Ph.D, Wisconsin, 38. Asst. org. chem, Mich. State Col, 29–31; research chemist, Gen. Foods Corp, 31–35; asst. plant biochem, Wisconsin, 35–39; *assoc. chemist, bur. plant indust, U. S. Dept. Agr, 39–* A.A; Chem. Soc; Oil Chem. Soc. Organic and bio-chemistry; organic synthesis; carbohydrates; sterols; organic acids of plant tissue.

Sell, Dr. O(tto) E(dwin), Griffin, Ga. *Agronomy.* New Ulm, Minn, April 11, 07. B.S, Wisconsin, 30, fellow, 30–31, M.S, 33, Ph.D, 36. Asst. soils, branch exp. sta, Wisconsin, 31–36; *assoc. agronomist, Exp. Sta, Georgia, 36–* Soc. Agron; Soil Sci. Soc; South. Agr. Workers Asn. (sec'y agron. sect, 42–). Pasture production for Georgia.

Sellards, Prof. E(lias) H(oward), University of Texas, Austin, Texas. ***Geology.* Carter City, Ky, May 2, 75. A.B, Kansas, 99, A.M, 00; fellow, Yale, 02–03, Ph.D, 03. Asst. paleontologist, Kans. Univ. geol. surv, 00–01; field asst, Carnegie Museum, 03; instr. geol. and miner, Rutgers, 03–04; prof. geol. and zool, Florida, 04–07; state geologist, Fla, 07–18; geologist, *bur. econ. geol, Texas,* 18–25, assoc. director, 25–32, *director, 32–; prof. geol, Univ. Texas, 26–,* research prof, 36–37. Director, Texas Mem. Museum, 39– Div. geol. and geog, Nat. Research Council, 31–34. Geol. Soc. (councilor, 38–40, 43, v. pres, 43); Soc. Econ. Geol; Asn. Petrol.

Geol; Paleont. Soc. (pres, 42); Soc. Econ. Paleont. and Miner. (pres, 38); Soc. Vert. Paleont. Paleozoic plants and insects; underground water supply, geology and mineral resources of Florida; geology of Texas; stratigraphic geology; early man.

Selle, Prof. Raymond M(artin Louis), Occidental College, Los Angeles, Calif. *Biology.* Ft. Wayne, Ind, Oct. 11, 98. B.S, Occidental Col, 20; A.M, California, 21; Ph.D, Southern California, 34. Teaching fellow *zool*, California, 20–21; teacher, high sch, Calif, 21–23; instr, *Occidental Col*, 23–24, asst. prof, 24–29, assoc. prof, 29–39, *prof, 39–* A.A; Soc. Mammal; West. Soc. Nat. Oestrous cycle in the guinea pig; parasitic Protozoa; mammalian embryology; toxicity of heavy metals.

Selle, Prof. W(ilbur) A(rthur), 4310 Sherman Blvd, Galveston, Texas. *Physiology.* Ft. Wayne, Ind, May 30, 02. A.B, Occidental Col, 25; A.M, Stanford, 26, Ph.D, 29. Ichthyologist, State Fish Cmn, Calif, 24–26; instr. *physiol*, Calif. State Teachers Col, Santa Barbara, 26–28; *assoc. prof, sch. med, Texas, 29–* Consultant, Anderson Mem. Hosp. for Cancer Research, Houston, 43– Cancer research grants, Am. Med. Asn, Int. Cancer Research Foundation. Asn. Cancer Research; Soc. Study Int. Secretions; Physiol. Soc; Soc. Exp. Biol. Fisheries; insulin and diabetes; fat absorption in diabetics; basal metabolism in diabetes; respiration; experimental cancer.

Sellers, Dr. A(lfred) Hardisty, 49 Castlewood Road, Toronto, Ont, Can. *Medical statistics.* Toronto, Ont, Aug. 15, 07. B.A, Toronto, 29, M.D, 32, Rockefeller fellow, 32–33, D.P.H, 33. Hastings Mem. fellow, Toronto, 33–34, asst, dept. epidemiol. and biometrics, sch. hygiene, 34–36; med. statistician, Ont. Dept. Health, 36–40; *aviation med. statistics and med. records, med. branch, Royal Can. Air Force, 40–* Pub. Health Asn; Can. Pub. Health Asn. (ed. board, 37–40, assoc. sec'y, 39); Acad. Med, Toronto (sec'y, sect. prev. med, 38, chairman, 39). Vital statistics; maternal and infant mortality and morbidity; accidents; cancer; tuberculosis; nosology; hospital statistics; mental and general hospitals; hospital morbidity; aviation medical statistics.

Sellers, Dr. J(esse) E(arl), 114 Washington Road, Scotia, N. Y. *Chemistry.* Sugar Loaf, Colo, March 16, 98. B.S, Colorado, 21, M.S, 28, Ph.D, 31. Instr, Kans. State Col, 21–26; Colorado, 26–30; *chem. engineer, Gen. Elec. Co, Schenectady, 30–* A.A; Chem. Soc. Optical-crystallographic properties of strychnine salts and a test for strychnine; synthetic resins for use in varnish, lacquer and paint.

Sellers, Prof. John A(lvan), 702 Collegewood Ave, Ypsilanti, Mich. *Chemistry.* Fostoria, Ohio, July 18, 96. A.B, Manchester Col, 22; A.M, Illinois, 27, Ph.D, 30. Asst. prin, high sch, Ind, 18–21; head dept. science, high sch, Ill, 22–26; asst. *chem*, Illinois, 26–29; *prof, Mich. State Nor. Col, 29–* A.A; Chem. Soc. Inorganic chemistry; catalysis; chemical education.

Sellers, Dr. T(homas) F(ort), State Department of Public Health, Atlanta, Ga. *Public health bacteriology.* Grand Bay, Ala, May 24, 91. A.B, Mercer, 11; M.S, Michigan, 17; Rockefeller Foundation fellow, Hopkins, 23–24; M.D, Emory, 32. Bacteriologist, City Health Dept, Macon, Ga, 12–17; Parke, Davis and Co, 17; State Dept. Agr, *Ga*, 18; *State Dept. Pub. Health*, 18–20, *director labs, 20–* Senior surgeon, reserve, U. S. Pub. Health Service, 41. Soc. Bact; Pub. Health Asn. (chairman lab. sect, 39); Ga. Asn. Path. (chairman); Royal Soc. Trop. Med. Rabies; diagnostic methodology; preparation of antirabic treatment; laboratory diagnostic methods in helminthology and enteric infections; epidemiology of brucellosis.

Sellers, Wendell F(olsom), Imperial Institute of Entomology, Parasite Service, 228 Dundas St, Belleville, Ont, Can. *Entomology.* Everett, Mass, Aug. 15, 03. B.S, Mass. Col, 24. Junior entomologist, gipsy moth lab, Mass, bur. entom. and plant quarantine, U. S. Dept. Agr, 25–27, asst. entomologist, 27–30, div. forest insect investigations, cent. European parasite lab, Budapest, 30–35, div. for. parasite introd, Hyeres, France, 35–36, assoc. entomologist, Paris, 36–38, div. forest insect investigations, New Haven, Conn, 38–41; *senior entomologist, Imp. Agr. Bur, Imp. Inst. Entom, Parasite Service, 42–* Entom. Soc. Amer; Asn. Econ. Entom. Parasite exploration and investigation; Diptera; Tachinidae.

Sellew, Prof. George T(ucker), 140 W. Eighth St, Claremont, Calif. *Mathematics.* Cowanda, N. Y, Oct. 26, 66. A.B, Rochester, 89, A.M, 92; Cornell, 93–94; Ph.D, Yale, 98. Instr. *math*, Ohio Mil. Acad, 89–92; Pa. State Col, 92–93, 94–96; Yale, 98–99; prof, *Knox Col*, 99–33, *emer. prof, 33–* Math. Soc; Math. Asn; Statist. Asn. Statistics.

Selling, Dr. Laurence, Mayer Bldg, Portland, Oregon. *Medicine.* Portland, Oregon, March 18, 82. A.B, Yale, 04; M.D, Hopkins, 08. Fellow, Rockefeller Inst, 09; instr. and clinician *med, med. sch, Oregon*, 12–28, *clin. prof*, 28–40, *prof, 40–, head dept, 28–* Am. Med. Asn; Asn. Anat; Neur. Asn. Action of benzol on the blood; structure of the brain cortex in tabes; nephritis; electrical reactions in myotonia congenita.

Selling, Dr. Lowell S(inn), 330 Recorder's Court, Detroit, Mich. *Psychiatry.* Detroit, Mich, March 17, 02. A.B, Michigan, 22, M.S.P.H, 39, Dr.P.H, 40; A.M, Columbia, 25, Ph.D, 30; M.S, N. Y. Univ, 25, M.D, 28; California, 25–26. Asst physiol, California, 25–26; instr. psychiat, Univ. and Bellevue Hosp. Med. Col, 30; instr, dept. criminol, social hygiene and med. jurisprudence, col. med, Illinois, 30–31, assoc, 31–32, asst. prof, 32–34; psychiatrist and asst. director, *psychopath. clinic, Recorder's Court*, 35–36, *director, 36–* Alienist, psychopath. service, Bellevue Hosp, 28–30; psychiatrist, Inst. Juvenile Research, Chicago, Ill, 30–34; Joliet Penitentiary, 34; Eloise Hosp, 34–; Harper Hosp, 36–; lecturer, Wayne, 34. Summer, prof, Iowa State Col, 41. A.A; Psychol. Asn; fel. Am. Med. Asn; fel. Psychiat. Asn. (sec'y sect. for. psychiatry, 39, chairman, 40); Orthopsychiat. Asn; Soc. Med. Jurisprudence; Inst. Criminal Law and Criminol; Sociol. Soc; fel. Asn. Mental Deficiency; Asn. Research Nervous and Mental Disease; Asn. Study Int. Secretions; fel. Col. Physicians; Am. Med. Library Asn; Am. Med. Editors' Asn; Asn. Applied Psychol; Psychopath. Asn. (2nd v. pres, 40, v. pres, 42); fel. Pub. Health Asn; Soc. Psychol. Study Social Issues; Soc. Med. Psychol; Cent. Neuropsychiat. Asn; Midwest. Psychol. Asn; Ill. Acad; N. Y. Acad; Royal Medico-Psychol. Soc; British Psychol. Soc; Soc. de Med. Legal de France; Asn. Med. Argentina; Soc. de Med. Legal e Criminol. de Sao Paulo. Medical psychology; criminology; neurology; postural persistence; juvenile delinquency; military psychology; traffic psychology; psychological factors in nutrition; domestic relations; industrial psychiatry.

Sellmeyer, Dr. B(ernard) L(eo), St. Louis University, St. Louis, Mo. *Biology.* Glasgow, Mo, March 3, 90. A.B, St. Louis, 19, A.M, 20; M.D, Jefferson Med. Col, 12. Prof. biol, Creighton, 21–23, 27–28; Loyola (Ill), 29–37, head dept, 31–36, chairman dept, 35–37; head dept, Xavier, and student counselor, 37; *student counselor, St. Louis, 38–* A.A. Physiology.

Selover, Dr. Robert B(riggs), 244 S. Arlington Ave, East Orange, N. J. *Applied psychology.* Delaware, Ohio, May 25, 12. A.B, Ohio (Athens), 35, A.M, 36; Ph.D, Minnesota, 40. Instr, Minnesota, 39–40; assoc. personnel technician, Adjutant General's Office, War Dept, 41; *psychologist, Prudential Ins. Co. of Amer, Newark, N. J, 41–* Assoc. Psychol. Asn. Sophomore testing program at the University of Minnesota from 1932 to 1936; tests; statistics.

Seltz, Prof. Harry, Carnegie Institute of Technology, Pittsburgh, Pa. *Chemistry.* Philadelphia, Pa, June 16, 96. B.S, Pennsylvania, 17, Ph.D, 22. Instr. chem, Pennsylvania, 18–24; asst. prof. and assoc. prof. *physical chem, Carnegie Inst. Tech*, 24–38, *prof, 38–* Chem. Soc. Homogeneous catalysis; free energy; thermodynamics of metal systems.

Seltzer, Dr. Carl C(oleman), Harvard University, Cambridge, Mass. *Anthropology.* Boston, Mass, June 1, 08. A.B, Harvard, 29, Ph.D, 33; Tufts Col, 29–30. Anthropologist, constitution clinic, Presbyterian Hosp, New York, 30–31; nat. research fellow biol. sciences, 33–35; asst, fatigue lab, Harvard, 37–38; physical anthropologist, office Indian affairs, U. S. Dept. Interior, 37–42; *anthropologist, Grant Study, dept. hygiene, Harvard, 38–, physical anthrop, Peabody Museum, 40–* Research assoc, Robert Breck Brigham Hosp, Boston, Mass, 40– Assoc. ed, 'Am. Jour. Physical Anthrop,' 42– Mem. exped. to Mex, Texas Tech. Col, 34. Anthrop. Asn; Asn. Physical Anthrop. Physical anthropology; race mixture; American Indian; statistics; constitution.

Seltzer, Dr. Leonard A(dam), 72 Adams Ave, W, Detroit, Mich. *Pharmacy.* Joliet, Ill, Oct. 12, 70. Ph.C, Michigan. 92, hon. M.S, 26; hon. Pharm.M, Phila. Col. Pharmacy, 26; hon. Sc.D, Col. Pharmacy City of Detroit, 29. Mem, State Board Pharmacy, Mich, 14–18; mem. faculty, Detroit Inst. Tech, 19–20; Col. Pharmacy City of Detroit, 27–33, *instr. prescriptions, col. pharmacy, Wayne, 33–* Mem. revision cmt. U. S. Pharmacopoeia, 10–30; Nat. Formulary, IV, V and VI.

Pharmaceut. Asn. (chairman, sect. practical pharmacy and dispensing, 09, 3rd v. pres, 10, 1st v. pres, 16, 2nd v. pres, 17, local sec'y, Detroit meeting, 14, chairman, house delegates, 28). Pharmaceutical education, legislation and technique.

Selvidge, Prof. Harner, Kansas State College, Manhattan, Kans. *Radio communication.* Columbia, Mo, Oct. 16, 10. B.S, Mass. Inst. Tech, 32, M.S. (E.E), 33; M.S, Harvard, 34, Sc.D, 37. Instr. physics and communications eng, Harvard, 35–38; *assoc. prof. elec. eng, Kans. State Col, 38–* Consulting engineer, Am. Phenolic Corp, Chicago, Ill, 38–; physicist, Carnegie Institution, 41–42. Summer, instr, Mass. Inst. Tech, 37. Radio Eng. (chairman Kansas City, Mo, sect, 41); assoc. Elec. Eng; Eng. Educ. Antennas, propagation and transmission lines; television circuits; vacuum tubes.

Selvig, W(alter) A(lfred), U. S. Bureau of Mines, 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* Willmar, Minn, Jan. 20, 86. B.S, Minnesota, 09. Chemist, indust. labs, 09–11; from junior chemist to *senior chemist, Pittsburgh exp. sta, U. S. Bur. Mines, 11–* Chem. Soc; Soc. Test. Mat. (sec'y, cmt. D-5, 21–). Coal and coke; mine waters; fusibility of coal ash.

Selwood, Dr. P(ierce) W(ilson), Northwestern University, Evanston, Ill. *Chemistry.* Vancouver, B. C, Can, March 25, 05. B.A, British Columbia, 27; M.S, Illinois, 28, Ph.D, 31. Nat. research fellow *chem,* Princeton, 30–32, asst, 32–35; instr, *Northwestern,* 35–40, asst. prof, 40–43, *assoc. prof, 43–* Chem. Soc. Rare earths; isotopes; heavy water; magneto-chemistry; chemical education; free radicals.

Selye, Dr. Hans, McGill University, Montreal, Que, Can. *Biochemistry.* Vienna, Austria, 07. Paris, 25–26; Rome, 26–27; M.D, Prague, 29, Ph.D, 31; D.Sc, McGill, 42. Asst. exp. path, Prague, 29–31; Rockefeller fellow biochem, Hopkins, 31–32; *McGill,* 32–33, lecturer, 33–34, asst. prof, 34–41, *assoc. prof. histol, 41–* Soc. Study Int. Secretions; Soc. Exp. Biol; Asn. Anat; fel. Royal Soc. Can; Can. Physiol. Soc; Montreal Physiol. Soc. (pres, 43); Soc. de Biologie de Paris; Société d'Endocrinologie; cor. mem. Soc. Argentina de Biologia; cor. mem. Acad. Nacional de Med, Argentine. Physiology of pregnancy and lactation; internal secretions; the alarm reaction; pharmacology of steroid hormones.

Semans, Dr. F(rank) M(errick), North Jackson, Ohio. *Zoology, Entomology.* Columbus, Ohio, May 3, 03. A.B, Ohio State, 25, A.M, 28, Ph.D, 33; Harvard, 26. Teacher, high sch, Ohio, 25–26; junior instr. zool, Ohio State, 28–29; asst. prof. biol, Lombard Col, 29–30; asst. prof, West. Ky. State Teachers Col, 30–32; head dept, Youngstown Col, 35–43; *asst. plant quarantine inspector, bur. entom. and plant quarantine, U. S. Dept. Agr, 43–* A.A; Ecol. Soc; Entom. Soc; Ohio Acad. Parasitology; ecology; behavior and parasitism of insects; black widow spider distribution; stream-margin ecology; parasites of Orthoptera.

Semat, Prof. H(enry), 2693 Morris Ave, New York, N. Y. *Physics.* Grodno, Poland, Aug. 15, 00. B.S, Col. City of N. Y, 22; A.M, Columbia, 23, Ph.D, 34. Tutor *physics, Col. City of N. Y,* 22–27, instr, 27–35, asst. prof, 35–42, *assoc. prof, 42–* Physical Soc. X-rays; widths of x-ray absorption limits; atomic energy level widths; atomic physics.

Semeniuk, Dr. G(eorge), Iowa State College, Ames, Iowa. *Plant pathology.* Edmonton, Alta, Can, May 2, 10. B.Sc, Alberta, 32, M.Sc, 34; Ph.D, Iowa State Col, 38. Asst. plant path, Alberta, 30–34; research fellow bot, *Iowa State Col,* 34–38, asst, *Exp. Sta,* 38–39, *research assoc, 39–* Phytopath. Soc; Iowa Acad. Physiology of fungi; disease resistance in maize.

Semmes, Dr. Douglas R(amsay), Milam Bldg, San Antonio, Texas. *Geology.* Alexandria, Va, Nov. 24, 92. A.B, Virginia, 12, A.M, 13, fellow, 14–16; Ph.D, Columbia, 17. Geologist, P. R. Nat. Hist. Surv, 15; Texas Co, 16–17; assoc. prof. geol, Agr. and Mech. Col. Texas, 17–18; consulting geologist, 18–19; prof. geol, Alabama, 19–20; asst. chief geologist, Cia. Mex. de Pet. 'El Aguila,' 20–24; *consulting geologist, 24–* Gen. manager, Estancia Co, New York, 25–26; Cia. Mex. de Pet, 'El Charro,' Mexico City, 28–29; pres, Sarnosa Oil Corp, San Antonio, 33– A.A; fel. Geol. Soc; Asn. Petrol. Geol. (pres, San Antonio sect, 31); Am. Geog. Soc; Soc. géol de France. Petroleum geology and technology; petroleum resources of Alabama, Texas and Mexico.

Semon, Dr. Waldo L(onsbury), B. F. Goodrich Co, Akron, Ohio. *Chemistry.* Demopolis, Ala, 98. B.S, Washington (Seattle), 20, Ph.D, 23. Instr. chem, Washington (Seattle), 20–26; research chemist and chem. engineer, *B. F. Goodrich Co,* 26–40, *director synthetic rubber research, 40–;* v. pres. and director research, Hycar Chem. Co, 40–42. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Eng; Chem. Soc. (v. pres, Puget Sound sect, 24). Hydroxylamine; oximes; complexes of sulfur; rubber chemistry; antioxidants; rubber to metal adhesion; brass plating; polyvinyl chloride; Koroseal; butadiene; synthetic rubber.

Semple, A(rthur) T(ruman), U. S. Department of Agriculture, Washington, D. C. *Animal husbandry.* Dawson, Ill, March 28, 95. B.S, Illinois, 16. Farmer, 18–19; sci. asst, beef cattle investigations, bur. animal indust, *U. S. Dept. Agr,* 16–18, agent animal husbandry, 19–20, asst. animal husbandman, 20–23, assoc. animal husbandman, 23–35, agronomist, *soil conservation service,* 35–37, *senior agronomist, 37–* Soc. Agron; Soil Sci. Soc; Soc. Animal Production. Beef cattle; feed, pasture and range utilization; soil conservation.

Semrad, Prof. Joseph E(dward), 1740 Albron Ave, Chicago, Ill. *Zoology.* Renfrow, Okla, Aug. 15, 05. Ph.B, Creighton, 27; M.S, St. Louis, 31; Ph.D, Northwestern, 35. Asst, St. Louis, 27–29; instr, *Loyola (Ill),* 29–32. asst. prof. *biol,* 32–37, *assoc. prof, 37–, acting head dept, 39–; lieut, Air Forces, U. S. Army.* Summer, instr, Creighton, 28, 30. A.A; Soc. Parasitol; Helminth. Soc; Ill. Acad. Laboratory technique; helminthology; trichinosis.

Senderling, Dr. Ellwood W(esley), University of Alabama, University, Ala. *Psychology.* Philadelphia, Pa, July 3, 08. B.S, Temple, 32; A.M, Ohio State, 34, Ph.D, 39. *Asst. prof. psychol, consultant clin. psychol, exten. div, and director psychol. clinic, Alabama, 39–; lieut; Adj. Gen. Dept, U. S. Army.* Psychol. Asn; Asn. Applied Psychol. Clinical psychology; educational psychology.

Sendroy, Dr. Julius, Jr, Mercy Hospital, Chicago, Ill. *Biochemistry.* Zombor, Hungary, Sept. 26, 00. B.S, Col. City of N. Y, 23; A.M, Columbia, 25, Ph.D, 26. Asst. *chem,* Rockefeller Inst. Hosp, 26–30, assoc, 30–37; *prof. and head dept. exp. med, sch. med, Loyola (Ill), 37–* Vol. worker, Cambridge and Kaiser Wilhelm Inst, 28. Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. (ed. board, 41–); Cent. Soc. Clin. Research; Inst. Med. Chicago. Physical chemistry of the blood; acid-base balance; gas and electrolyte equilibria; methods of analysis.

Senear, Dr. F(rancis) E(ugene), 55 E. Washington St, Chicago, Ill. *Dermatology.* Salamanca, N. Y, Nov. 5, 89. B.S, Michigan, 12, M.D, 14, hon. M.S, 39. Instr. *dermat,* Michigan, 15–16; from assoc. to *prof. and head dept, col. med, Illinois.* Special consultant, U. S. Pub. Health Service. Dermat. Asn. (pres, 38); Am. Med. Asn. (sec'y, dermat. sect, 29–31, chairman, 32); Col. Physicians; Chicago Dermat. Soc. (sec'y, 25–27, pres, 28); Inst. Med. Chicago. Syphilology.

Senekjie, Dr. Harry (Tune Archak), Tulane University School of Medicine, New Orleans, La. *Tropical medicine, Parasitology.* Beirut, Lebanese Republic, July 24, 09. M.D, American Univ. (Beirut), 33; Paris; Vienna; M.S, Tulane, 43. Instr. bacter. and parasitol, med. sch, American Univ. (Beirut), 33–37, path, 35–36; asst. prof. bacter. and parasitol. and lecturer trop. med, Royal Col. Med, Baghdad, 37–40; instr. *trop. med, sch. med, Tulane,* 41–43, *asst. prof, 43–* Director, Govt. Bacter, Parasitol, Pasteur and Vaccine Insts, Iraq, 37–40; senior physician, Royal Hosp, Baghdad, 37–40; mem. visiting staff, Charity Hosp, New Orleans, La, 41–43. A.A; Soc. Trop. Med; Am. Med. Asn; La. State Med. Soc. Bacteriology; leishmaniasis; trypanosomiasis; intestinal parasites; El Tor vibrio; charge of parasites; trachoma; enteric infections.

Senior, Dr. James K(uhn), 5612 Kenwood Ave, Chicago, Ill. *Chemistry.* Cincinnati, Ohio, Sept. 15, 89. A.B, Harvard, 11, A.M, 12; Ph.D, Chicago, 17. Asst, Rockefeller Inst, 14–17; research chemist, Procter and Gamble Co, 19–20; Fries and Fries Co, 20–22; *research assoc. chem, Chicago, 26–* Fellow, Chicago, 25. Lieut, C.W.S, 18–19. Chem. Soc. Organic chemistry.

Senn, Dr. Harold A(rchie), Harvard University, Cambridge, Mass. *Genetics, Botany.* Caledonia, Ont, Can, Jan. 12, 12. B.A, McMaster, 32, M.A, 34; Ph.D, Virginia, 37. Asst. biol, McMaster, 30–34; fellow, Blandy exp. farm, Virginia, 34–37; *nat. research fellow bot, Harvard, and Atkins Institution, Arnold Arboretum, Cuba, 37–* In charge sci. work, bot. garden, Parks Board, Hamilton, Ont, Can, 31–33. Genetics Soc; Va. Acad. Chromosomes of rhabdocoeles; cyto-

taxonomy of Leguminosae; cytology and morphology of Lathyrus.

Senn, Prof. P(ettus) H(olmes), University of Florida, Gainesville, Fla. *Agronomy, Genetics.* Silverstreet, S. C, Oct. 13, 90. B.S, Clemson Col, 15; M.S, Wisconsin, 21, Ph.D, 31. Agr. agent, S. C, 15–18; asst. genetics, Wisconsin, 20–21; plant breeder, Clemson Col, 22–23; plant histologist, Exp. Sta, Kentucky, 24–25; Purnell corn breeder, Wisconsin, 26–28; asst. prof. *agron, Florida,* 29–34, assoc. prof, 35–39, *prof. and head dept, 39–* A.A; Genetic Asn; Genetics Soc; Phytopath. Soc; Soc. Agron; Soc. Plant Physiol; Asn. South. Agr. Workers; Fla. Soil Sci. Soc; Fla. Acad. Plant breeding; heritable characters in corn; inheritance of resistance of sweet and starchy corns to seedling blight.

Senning, Dr. W(illiam) C(harles), State Conservation Department, Rochester, N. Y. *Zoology.* Durango, Colo, Oct. 10, 99. A.B, Colo. Col, 23; Ph.D, Cornell, 31. Instr. zool, Cornell, 23–40; *senior aquatic biologist, State Conservation Dept, N. Y, 40–* Summers, biologist, State Biol. Surv, N. Y, 30– A.A. Vertebrate morphology; fisheries.

Sensel, Dr. E(ugene) E(dward), 62 W. Center St, Beacon, N. Y. *Chemistry.* Cleveland, Ohio, May 14, 11. A.B, Oberlin Col, 34; Ph.D, Western Reserve, 38. *Research chemist, Texas Co, 38–* Chem. Soc. Physical and organic chemistry; isomerization, hydrogenation and synthesis of petroleum hydrocarbons.

Senseman, C(ornelius) E(arl), Bureau of Agricultural Chemistry and Engineering, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Tipp City, Ohio, Sept. 30, 88. B.S, Antioch Col, 15; A.M, Ohio State, 16. Instr. chem, Case, 16–18; from assoc. chemist to *special asst. to chief bur, bur. agr. chem. and eng, U. S. Dept. Agr, 18–* Chem. Soc. Sulfonic acids; vapor pressures of organic compounds; liquid and vapor phase oxidations.

Sensenig, Dr. E(dgar) Carl, Oglethorpe University Medical School, Oglethorpe University, Ga. *Anatomy.* Gloucester, Mass, May 11, 10. A.B, Iowa, 35; M.S, Michigan, 37, Ph.D, 41. Asst, lab. vert. genetics, Michigan, 38–41; instr. *anat, med. sch,* Alabama, 41–43; *prof, Oglethorpe, 43–* Summer, asst. instr, Michigan, 41. Developmental osteology; Peromyscus; the nervous system.

Senstius, Prof. M(aurits) W(ilhelm), 1200 E. University Ave, Ann Arbor, Mich. *Geology, Mineralogy.* Souracarta, Java, May 5, 88. Utrecht, 07–12; Vienna and Halle, 12–13; Hopkins, 17–18; Michigan, 18–20, M.S, 19, Sc.D, 28. Agronomist, Exp. Sta, Java, 13–17; sci. bur, Bausch and Lomb Optical Co, 18; asst. prof. miner, Syracuse, 20–21; instr. geog, Chicago, 21–23, *asst. prof,* 23–26; *geol, Michigan, 29–* Summer, bur. soils, U. S. Dept. Agr, 21. Expeds, D. E. I. and P. I, 25–26. Walker prize, Boston Soc. Nat. Hist, 29. A.A; Soil Sci. Soc; Mich. Acad; Netherlands Geol. Soc; Royal Dutch Geog. Soc; Int. Soc. Soil Sci. Agro-geology and mineralogy; sediments; tropical soils.

Serber, Dr. Robert, University of Illinois, Urbana, Ill. *Physics.* Philadelphia, Pa, March 14, 09. B.S, Lehigh, 30; Ph.D, Wisconsin, 34. Nat. research fellow *physics,* California, 34–36, research assoc, 36–38; asst. prof, *Illinois,* 38–41, *assoc. prof, 41–* Summer, lecturer, Michigan, 40. Fel. Physical Soc. Quantum mechanics; nuclear physics; cosmic rays.

Serduke, James T(ychon), University of California, Berkeley, Calif. *Physics, Electrical engineering.* Russia, Oct. 23, 97. B.S, Union (N. Y), 26, M.S, 31. Research engineer, research lab, Gen. Elec. Co, Schenectady, N. Y, 26–30; asst. instr. physics, Mass. Inst. Tech, 31–32, teaching fellow, 32–35; prof. physics and elec. eng, Nat. Pei Yang Univ, 35–40; U. S. Navy Dept, San Francisco, Calif, 41–43; *physicist, California, 43–* A.A. High voltage kenotrons and x-ray tubes; high frequency furnace for melting metals.

Seren, Dr. Leo, 5401 S. Ellis Ave, Chicago, Ill. *Physics.* Chicago, Ill, May 9, 18. B.S, Chicago, 39, fellow, 40–41, Ph.D, 42. Asst. *physics, Chicago,* 41, *research assoc, 41–* War research; cloud chamber study of cosmic rays; metallurgy.

Serfass, Dr. Earl J(ames), Lehigh University, Bethlehem, Pa. *Analytical chemistry.* Allentown, Pa, Dec. 22, 12. B.S, Lehigh, 33, M.S, 35, Ph.D, 38; Hunt-Rankin Leather Co. fellow, 37. Textile Foundation senior fellow, *Lehigh,* 34–35, Nat. Oil Products Co. research, 35–36, asst. chem, 37–38, instr. biochem, 38–40, *asst. prof. anal. chem, 41–* Chem. Soc; Leather Chem. Asn. Leather; textiles; vegetable oils; design of electrical analytical instruments.

Serles, Dean Earl (Roy), University of Illinois College of Pharmacy, Chicago, Ill. *Pharmacology.* Salem, S. Dak, Nov. 18, 90. Ph.G, S. Dak. State Col, 11, B.S, 15, M.S, 17. Instr. chem. and pharmacy, S. Dak. State Col, 15–17, acting prof. pharmacy, 19–21, prof, 21–40, dean, 23–40; *prof. pharmacy and dean col. pharmacy, Illinois, 40–* Mem. revision cmt, U. S. Pharmacopoeia, 30– C.W.S, U.S.A, 17–18. Pharmaceut. Asn; Asn. Cols. Pharm. (v. pres, mem. syllabus cmt); S. Dak. Pharmaceut. Asn. Apparatus for blood counting; theory of emulsions; American worm seed oil; blood calcium and blood magnesium; rodent poisons.

Sermattei, Dr. J(ohn) P(eter), Parlin, N. J. *Chemistry.* San Francisco, Calif, Oct. 20, 04. B.S, California, 26, Ph.D, 29. Teaching fellow, California, 27–29; *research chemist,* E. I. du Pont de Nemours and Co, Parlin, N. J, 29–35; Rayonier Inc, 35–37; Rapinwax Paper Co, 38–41; *E. I. du Pont de Nemours and Co, 41–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Nitrocellulose lacquers; moisture proofing compositions for Cellophane and paper; synthetic resins; dissolving pulps.

Serrano, Luis A(ntonio), Isabela Experiment Substation, Isabela, P. R. *Agronomy.* Quito, Ecuador, April 7, 95. B.S, Cornell, 18. Asst. agronomist, *Exp. Sta, Puerto Rico,* 23–28, *director, Isabela Exp. Substa, 28–* Surv. cane indust, Venezuela, 27; agr. surv, Cauca Valley, Colombia, 29. P. R. Veg. Growers Cooperative Asn. (pres, 30); Asn. de Técnicos Azucareros de P. R; Int. Soc. Sugar Cane Technol. Sugar cane and vegetable growing.

Service, Prof. Jerry H(all), Michigan College of Mining and Technology, Houghton, Mich. *Physics.* New Carlisle, Ind, June 12, 88. B.S, Rose Polytech, 12, E.E, 28; M.S, Ohio State, 17, Ph.D, 28. Eng. apprentice, Gen. Elec. Co, 12; teacher, schs, 13–15; asst. physics, Ohio State, 15–17; instr, U. S. Army Sch. Mil. Aeronautics, Ohio, 17–18; instr, Ohio State, 18–19; dean trade and eng. schs, Youngstown Inst. Tech, 20–23; engineer and physicist, U. S. Coast and Geod. Surv, 23–28; prof. *physics and math,* Henderson State Teachers Col, Ark, 28–32; asst. prof, *Mich. Col. Min. and Tech,* 32–38, *assoc. prof, 38–; lieut. commander, U. S. Naval Res, 40–* Private, A.S, U.S.A; at sea, 19–20; lieut, U.S.N.R, 28–38, lieut. commander, 38–40. Physical Soc; Elec. Eng; Wash. Acad. Acoustics; transmission of sound through sea water; seismology; geophysics.

Service, Dr. W(illiam) C(orr), 1415 N. Nevada Ave, Colorado Springs, Colo. *Medicine, Biology.* Greenfield, Ind, Nov. 30, 01. A.B, Indiana, 23, M.D, 27. Instr. anat, Indiana, 22–23, therapeut, 27–28; *biol, Colo. Col,* 30–37, *asst. prof, 37–* A.A; fel. Am. Med. Asn; Asn. Study Int. Secretions; Asn. Study Asthma and Allied Conditions; fel. Col. Physicians; Colo-Wyo. Acad. (sec'y, 33); Colo. Foundation for Research Tuber; Colo. State Tuber. Soc. Polysaccharide content and antigenic reactions of pollens; production of vitamin C from local materials; quinine preparations as treatment adjuncts in asthma; allergy.

Serviss, Prof. Frederick L(eVerne), Purdue University, Lafayette, Ind. *Geology.* Telluride, Colo, July 30, 95. E.M, Colo. Sch. Mines, 20, M.S, 22; George Washington, 26–29. Head dept. *geol,* Catholic Univ, 23–29; assoc. prof, *Purdue,* 29–35, *prof, 35–* A.A; Min. and Metal. Eng; Eng. Educ; Am. Geog. Soc; Acad. Polit. Sci; Acad. Polit. and Social Sci. Metallic minerals; economic geology; crystal growth; political effect of mineral deposits of economic importance and their international significance.

Serviss, George H(enry), 107 Northway Road, Ithaca, N. Y. *Agronomy.* Bonhampton, N. J, Feb. 23, 03. B.S, Syracuse, 25; M.S, Arizona, 26. Asst, Arizona, 26–30; asst. agronomist, bur. chem. and soils, U. S. Dept. Agr, 30–34; *exten. agronomist, Cornell, 34–* A.A; Soc. Agron. Cotton fiber; forage crops; fertilizers.

Sessions, Dr. A(lwyn) C, California Spray Chemical Corp, Watsonville, Calif. *Chemistry.* Marion, Idaho, Sept. 15, 00. B.S, Utah State Col, 24; Am. Golf Green Asn. fellow, N. J. Exp. Sta, 26–27; M.S, Mass. Col, 27; Ph.D, Rutgers, 29. Teaching fellow and soil chemist, Mass. Col, 24–26; asst. plant physiol, Rutgers, 28–29; research chemist, Standard Oil Co. of N. J, dept. plant path, Exp. Sta, Rutgers, 29–35; *assoc. director research, Calif. Spray Chem. Corp, 35–* Nitrogen relation

in soils; nitrogen metabolism of plants; agricultural fungicidal and insecticidal oil sprays.

Sessions, Prof. William V(yne), Wayne University, Detroit, Mich. *Chemistry.* Hampden, Mass, Nov. 19, 96. B.S, Worcester Polytech, 17, M.S, 21; Ph.D, Clark, 24. Chemist, E. I. du Pont de Nemours and Co, 17–20; instr. *chem,* Dartmouth Col, 24; Princeton, 24–29; Col. City of Detroit, 29–33, *Wayne,* 33–34, *asst. prof, 34–* Chem. Eng; Chem. Soc. Metalorganic compounds; organic reagents.

Seton, Ernest Thompson, Seton Village, Santa Fe, N. Mex. *Zoology.* S. Shields, Eng, Aug. 14, 60. Royal Acad, London, 80–81; Paris, 90–96. *Naturalist, govt. of Manitoba, 92–* Silver medal, Soc. nat. d'Acclimat. de France, 18; John Burroughs medal, Am. Museum Nat. Hist, 27; Daniel Giraud Elliot medal, Nat. Acad, 28. Soc. Mammal; Nat. Inst. Arts and Letters; Ornith. Union; N. Y. Zool. Soc. Ornithology and mammalogy of Manitoba; life histories of northern mammals; sign talk of Indians; birch-bark roll; woodcraft; lives of game animals.

Sette, F(rancis) J(oseph), U. S. War Production Board, Washington, D. C. *Sanitary engineering.* New Haven, Conn, April 24, 98. Ph.B, Yale, 20; Mass. Inst. Tech; M.S, Harvard, 28. Construction engineer, Emil Diebitsch, Inc, New York, 20–21; Consol. Gas Co, New York, 21–23; instr. civil eng, Norwich, 23–24; asst. prof. and head dept, Puerto Rico, 25–27; sanit. engineer, Lederle and Provost, New York, 28–29; assoc. prof. sanit. eng, Va. Polytech, 29–37; special tech. asst, office sec'y, U. S. Dept. Agr, 37–40; deputy administrator, Rural Electrification Admin, 40–42; *exec. officer, office operations, Deputy Director Transportation and Storage, War Production Board, 42–* Mem. Governor's board of engineers, Va. advisory cmt, Reconstruction Finance Corp, 32; engineer-examiner, Pub. Works Admin, 33–34; special asst. state engineer, Pub. Works Admin, Va. 35; advisory specialist eng, planning div. Resettlement Admin, director progress and inspection div. and assoc. director, finance and control div, 35–36. Civil Eng; Eng. Educ; Water Works Asn; fel. Pub. Health Asn; Nat. Soc. Professional Eng; Va. Acad; Newcomen Soc. Filtration; sedimentation; hydrology; limnology; photogrammetry; government administration.

Sette, O(scar) E(lton), U. S. Bureau of Fisheries, Stanford University, Calif. *Ichthyology.* Juneau, Wis, March 29, 00. A.B, Stanford, 22; A.M, Harvard. 30. Sci. asst, State Fisheries Lab, California, 20–23; chief div. fishery industries, Bur. Fisheries, 24–28, special investigator in charge N. Atlantic fishery investigations, 29–37; *senior biologist in charge South Pacific investigations, fish and wildlife service, U. S. Dept. Interior, 37–; coordinator, area II, Office Coordinator of Fisheries, 43–* Director, U. S. Fisheries Biol. Sta, Woods Hole, 29–37; lecturer, Stanford, 40– Special commissioner, Int. Passamaquoddy Fisheries Cmn. A.A; Fisheries Soc; Soc. Ichthyol. and Herp; Biol. Soc. Wash. Life history of the mackerel; fluctuations in abundance of mackerel in the western North Atlantic; life history and fluctuations of the Pacific pilchard.

Setter, Dr. L(loyd) R(ichard), New York City Department of Public Works, New York, N. Y. *Chemical engineering.* Deer Park, Wis, May 19, 05. A.B, Wisconsin, 28; M.S, Rutgers, 29, fellow, 29–31, Ph.D, 32. Instr. water and sewage chem, Rutgers, and asst, Exp. Sta, 31–36; instr. sanit. eng, col. eng, N. Y. Univ, 36–37, asst. prof, 37–40; *prin. sanit. chemist, City Dept. Pub. Works, New York, 40–* Chem. Soc; Pub. Health Asn; Eng. Educ. Stream pollution and natural purification; treatment of water, sewage and industrial wastes; sanitary landfill; sewage research.

Setterfield, Prof. H(ugh) E(mery), Ohio State University, Columbus, Ohio. *Anatomy.* Shelby, Ohio, May 12, 00. A.B, Wittenberg Col, 23; M.S, Ohio State, 24, Ph.D, 35. Asst. zool, Ohio State, 23–24; instr, N. Dak. Col, 24–25; *Ohio State,* 25–27, *anat,* 27–29, asst. prof, 29–37, *assoc. prof, 37–* Nervous anatomy; polarized light technique for study of nervous system; relation of vitamin deficiency to nervous system.

Settlage, Dr. Paul H(enry), Brooklyn College, Brooklyn, N. Y. *Physiological psychology.* Potter, Wis, May 18, 10. A.B, Wisconsin, 33, A.M, 35, Ph.D, 37. Teaching asst. psychol, Wisconsin, 35–37; nat. research fellow, Chicago, 37–39; *instr. psychol,* Mich. State Col, 39–41; *Brooklyn Col, 41–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Psychopathology.

Setty, Prof. L(aurel) R(aymond), Park College, Parkville, Mo. *Entomology.* Council Grove, Kans, Nov. 8, 06. B.S, Kans. State Teachers Col, 29; A.M, Kansas, 30; Ph.D, Cornell, 39. Instr. *biol, Park Col,* 30–35, *assoc. prof, 35–* A.A; Entom. Soc. Amer; Genetic Asn; Mo. Acad. (chairman entom. sect, 41); Mo. Audubon Soc. Biology and morphology of Bittacidae.

Setzler, F(rank) M(aryl), U. S. National Museum, Washington, D. C. *Anthropology, Archeology.* Fremont, Ohio, Sept. 21, 02. Ph.B, Chicago, 28, 28–30. Asst. field director, Ohio State Hist. Soc, 25–27; field director, Ind. Archeol. Surv, 28–30; asst. curator div. archeol, *U. S. Nat. Museum,* 30–35, acting head curator *dept. anthrop,* 35–37, *head curator,* 37– Leader, Smithsonian Institution archeol. expeds, southwest. Texas, 31–33, Marksville, La, 32–33. Advisory board, Nat. Park Service, sec'y, 40– A.A; Anthrop. Asn. (councilor, 32–, sec'y, 37–40); Soc. Am. Archeol; Wash. Acad. (v. pres, 40–42); Anthrop. Soc. Wash. (board managers, 32, sec'y, 33–36, pres, 40); Ind. Acad; Ind. Hist. Soc. North American archeology, especially of the Mississippi Valley and the Big Bend Region, Texas.

Seulke, Dr. K(arl) J(ohn), A. E. Staley Manufacturing Co, Decatur, Ill. *Animal husbandry.* Seymour, Ind, Feb. 15, 90. B.S, Purdue, 13; M.S, Pa. State Col, 14; Ph.D, Cornell, 16. Teaching fellow, Pa. State Col, 13–14; asst. prof. animal husbandry, Cornell, 14–18, prof, 18–20; east. rep, Am. Aberdeen Angus Breeders Asn, 20–22; pres. and gen. manager, Jefferson Farms, Inc, 22–28; live-stock specialist, Ralston Purina Co, 28–34; *director* nutrition, *A. E. Staley Mfg. Co,* 34–38, *research develop, 38–* Summer, instr, Indiana, 13. Mem, Soy Food Research Council. A.A; Inst. Food Technol; Farm Chemurg. Council; Ill. Acad. Beef cattle; meats and meat products; soy-bean oil meal in live-stock and poultry rations and as a source of inorganic nitrogen in fertilizers.

Sevag, Dr. M(anasseh) G(ragos), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Chemistry, Bacteriology.* Sis, Cilicia, Armenia, Sept. 16, 97. A.B, St. Paul's Col, Armenia, 20; Yale, 20–21; Ph.D, Columbia, 29. Asst. chem, Columbia, 25–29; research chemist, Combustion Utilities Corp, Linden, N. J, 29–31; Munich, 31–32; Inst. Robert Koch, Germany, 32–35; research, Schering-Kahlbaum, Germany, 35–36; assoc. bacter, *sch. med, Pennsylvania,* 36–38, *asst. prof. biochem. in bacter, 38–* Thiazol dyes and dye intermediates; enzymes of bacteria; mechanism of bacterial respiration; immunochemistry; bacterial and yeast carbohydrates; tautomerism of oximes and their inhibitory property on catalase; chemistry of Streptococcus pyogenes; heavy particles; mechanism of the action of antibacterial sulfonamide drugs.

Sever, George F(rancis), Kingston, Mass. *Electrical engineering.* Cambridge, Mass, July 30, 66. Mass. Inst. Tech, 87; hon. M.S, Columbia, 05. Instr. elec. eng, Columbia, 93–01, adj. prof, 01–05, prof, 05–11; engineer, Jackson and Moreland, 19–25. Consulting elec. engineer, Dept. Water Supply, Gas and Elec, N. Y, 02–14; acting dean faculty applied science, Columbia, 05–07. Supt. elec. exhibits, Pan-Am. Expos, 01; Elec. Light Cmn, New York; juror, elec. div, La. Purchase Expos, 14. Major, C.Eng, 18–19, C.Eng.R, 19–30, lieut. col, auxiliary, 30– Elec. Eng. (past manager, v. pres); Eng. Educ. The cost of operation of electric elevators; hydroelectric projects of New England and the Pacific Coast.

Severance, Dr. H(ayward) M(erriam), 855 N. Vermont Ave, Los Angeles, Calif. *Chemistry, Botany.* Buffalo, N. Y, Jan. 19, 87. B.S, California, 10, M.S, 14; Ph.D, Chicago, 24. Chemist, Babcock Testing Lab, Lackawanna, N. Y, 16–17; Nat. Aniline and Chem. Co, Buffalo, 18–20; instr. chem, Arizona, 23–24; high sch, Calif, 24–25; teaching fellow and asst. biol, Southern California, 25–27; chief chemist, Eureka Petrol. Corp, Los Angeles. 27–28; *instr. chem,* Oregon State Col, 29–30; *Los Angeles City Col, 31–* A.A; Chem. Soc; Ecol. Soc.

Severin, Dr. Charles (Francis) (Brother Hilarion Charles), St. Mary's College, Winona, Minn. *Botany.* Kans, Sept. 3, 96. B.S, Chicago, 25, M.S, 27, Ph.D, 30. Teacher, high sch, De La Salle Inst, 20–33; *prof. biol. and head dept, St. Mary's Col. (Minn), 33–* Asst, Chicago, 30; instr, De Paul, 32–33. Summers, instr, De Paul, 31, 32. A.A; Bot. Soc; Minn. Acad. Morphology of botany; anatomy of roots of the lower monocotyls; anatomy of roots and seedlings of emergent spermatophytes.

Severin, Prof. H(arry) C(harles), South Dakota State College, Brookings, S. Dak. *Entomology.* Milwaukee, Wis, March 28, 85. A.B, Wisconsin, 06; A.M, Ohio State, 08; fellow, 08–09. *Prof.* entom, *S. Dak. State Col,* 09–18, *entom.*

zool, 18–, entomologist, Exp. Sta, 15– State entomologist, S. Dak, 09–25. Summer, asst. state entomologist, Ill, 09. Chairman, Int. Cmt. Grasshopper Research, 42– Pres, Rocky Mountain Conf. Entom, 41. A.A; Entom. Soc; Asn. Econ. Entom; S. Dak. Biol. Teachers (pres, 23–25); S. Dak. Acad. (pres, 29). Animal behavior; economic entomology; insect ecology, anatomy, histology and taxonomy; food habits of birds and mammals.

Severin, Dr. H(enry) H(erman) P(aul), University of California, Berkeley, Calif. *Entomology.* Milwaukee, Wis, April 18, 83. A.B, Wisconsin, 06, A.M, 07, fellow, 09–10, Ph.D, 10; fellow, Ohio State, 07–08. Instr. zool. and entom, Ohio State, 08–09; prof. entom, Col. of Hawaii, 10–12; entomologist, Exp. Sta, Wisconsin, 12–13; prof. biol, Marietta Col, 14–15; Northwest Mo. State Teachers Col, 15–16; *Exp. Sta, California, 16–, assoc. entomologist.* Hon. fellow, Wisconsin, 12–13; consulting entomologist, Exp. Sta, Maine, 14–16. Asn. Econ. Entom. Insect vectors; plant viruses.

Severinghaus, Prof. Aura E(dward), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Cytology.* Jeffersonville, Ind, May 5, 94. B.S, Columbia, 16, A.M, 19, Ph.D, 27. Asst. zool, Columbia, 16–17, 19–20; instr, Peking Union Med. Col, Rockefeller Foundation, 20–23, asst. prof, 23–26, dean premed. sch, 23–25; assoc. *anat, Columbia,* 27–29, asst. prof, 29–39, *assoc. prof, 39–, asst. dean.* A.A. Cytology of endocrine glands.

Severinghaus, Mrs. Frances Orr, 106 Morningside Drive, New York, N. Y. *Physics.* Piqua, Ohio, April 20, 92. A.B, Western Col, 14; A.M, Columbia, 20. Asst. math. and physics, Western Col, 14–16, 17–18; *physics,* Barnard Col, Columbia, 19–26; *instr, Hunter Col. and Brooklyn Col, 27–* A.A; Physical Soc; Asn. Physics Teachers.

Severinghaus, Dr. W(illard) L(eslie), 106 Morningside Drive, New York, N. Y. *Physics.* Terre Haute, Ind, Jan. 28, 82. A.B, Baldwin-Wallace Col, 04, A.M, 05; Ph.D, Columbia, 14. Prof. physics, Moores Hill, 04–07; asst, Columbia, 07–11, instr, 11–19, asst. prof, 19–29, assoc. prof, 29–41; *retired.* A.A; Physical Soc. (sec'y, 38). Short electric waves.

Severns, Prof. W(illia)m Harrison, 609 Indiana Ave, Urbana, Ill. *Mechanical engineering.* Garnett, Kans, Dec. 25, 88. B.S, Kansas, 14, M.S, 15. Asst. instr. mech. eng, Kansas, 14–15; Purdue, 15–16; asst. prof, New Hampshire, 16–17; instr, Illinois, 17–19; asst. field engineer, N. J. Zinc Co, 19–20; asst. prof. *mech. eng,* Wisconsin, 20–21; *Illinois,* 21–27, assoc. prof, 27–31, *prof, 31–* Summers, Santa Fe Ry; Ill. Cent. Ry; B. F. Sturtevant Co; White Motor Co; C. A. Dunham Co. Heat. and Vent. Eng; Eng. Educ. Heating, ventilating and air conditioning; steam, air and gas power.

Severson, Prof. Albert S, North Dakota Agricultural College, Fargo, N. Dak. *Animal husbandry.* Lyon Co, Iowa, Jan. 14, 96. B.S, N. Dak. Col, 18, M.S, 23. Asst. prof. *animal husbandry, N. Dak. Col,* 20–36, *assoc. prof, 36–* Soc. Animal Production. Factors which influence the quality and production of Wiltshire sides; a comparison of Trebi and Manchuria barley for hogs; beef, hog and lamb slaughtering, cutting and curing; iodine for livestock; meats; swine.

Severy, Prof. J(oseph) W(arren), University of Montana, Missoula, Mont. *Botany.* Avon, Ohio, May 23, 93. A.B, Oberlin Col, 15; M.S, Washington (St. Louis), 26; Ph.D, Wisconsin, 31. Teaching fellow, Shaw Sch. of Bot, Washington (St. Louis), 15–17; instr. *bot,* Oregon State Col, 19–21; *Montana,* 21–26, asst. prof, 26–28, assoc. prof, 28–32, *prof, 32–,* acting chairman *dept. bot,* 27–31, *chairman, 31–, div. biol. sciences, 34–,* v. pres, 39–41. Chairman, State Fish and Game Cmn, Mont, 41– U.S.A, 17–19. A.A; Bot. Soc; Soc. Plant Physiol; Ecol. Soc; Torrey Bot. Club; Northwest Sci. Asn. (pres, 42). Plant physiology; anatomy; ecology of the flora of Montana; enzyme relations.

Sevison, Z(ina) E(lliott), 400 W. Second Ave, Cheyenne, Wyo. *Civil engineering.* Constantine, Mich, June 14, 84. B.S, Michigan. L. S. and M. S. Ry, Ohio, 06; asst. city engineer, Cheyenne, Wyo, 07–08; res. engineer, Arnold Co. of Chicago, 08–10; practising engineer, Wyo, 10–17, state highway engineer, 17–33; consulting engineer, 33–37; *chief highway engineer, N. Dak, 37–* Civil Eng; Asn. State Highway Officials; West. Asn. State Highway Officials (past pres); Wyo. Eng. Soc. (past pres). Asphaltic oil surfaced roads for intermountain and mid-western regions.

Sevringhaus, Prof. Elmer L(ouis), 3914 Cherokee Drive, Madison, Wis. *Endocrinology.* New Albany, Ind, Feb. 9, 94. A.B, Wisconsin, 16, A.M, 18; M.D, Harvard, 21. Asst. org. chem, *Wisconsin,* 16, physiol. chem, 17–19, asst. prof, 21–25, assoc. prof, 25–27, *med,* 27–38, *prof, 38–* Chemist, Wis. Gen. Hosp, 24–35, assoc. physician, 27–38, physician, 38–; consultant, Wis. Psychiat. Inst, 24– Govt. grant, S. Amer, 41. A.A; Soc. Biol. Chem; Am. Med. Asn; fel. Col. Physicians; Am. Physicians; Asn. Study Int. Secretions (pres, 40); Soc. Clin. Invest; Cent. Soc. Clin. Research; Interurban Clin. Club. Post-mortem acidity; insulin physiology; metabolism in diabetes, in obesity and in fasting; metabolic pituitary and ovarian diseases; endocrinology and metabolism.

Seward, Prof. Georgene H(offman), Connecticut College, New London, Conn. *Psychology.* Washington, D. C, Jan. 21, 02. A.B, Columbia, 23, A.M, 24, Ph.D, 28. Instr. educ, Hunter Col, 29–30; *psychol,* Barnard Col, Columbia, 30–37; *asst. prof, Conn. Col, 37–* Psychol. clinics, N. Y. Post-Grad. Hosp; Neur. Inst; Children's Court. Psychol. Asn; Asn. Applied Psychol. Self-estimation; recognition time; students' reactions to a first course in psychology; psychological effects of the menstrual cycle; galvanic skin reaction; pregnancy; psychological effects of alcohol; hormone therapy in menopause; determinants of drives; reproductive activities in the guinea pig; menstrual absenteeism in industry; reevaluation of sex roles.

Seward, Prof. Herbert L(ee), 794 Townsend Ave, New Haven, Conn. *Engineering.* Guilford, Conn, April 17, 85. Ph.B, Yale, 06, M.E, 08. Instr. *mech. eng, Yale,* 08–16, asst. prof, 16–22, assoc. prof, 22–28, *Robert Higgin prof, 28–* Asst. to pres, Am. Bur. Shipping, New York, 29–32; tech. asst. director, U. S. Shipping Board, 35–36; naval aide to Governor, Conn, 31–38. Summers, Westinghouse Elec. and Mfg. Co; Gen. Elec. Co; Link Belt Co; West. Elec. Co; 3rd engineer, S. S. 'Leviathan'; Am. Eng. Council. Mem. shipyards cmn, Office Production Management, 41. Ed, Soc. Naval Archit. and Marine Engineers. Special expert and econ. adviser, U. S. Maritime Cmn, 36–37, asst. to Sec'y Commerce, 37–38; chairman advisory board, U. S. Coast Guard Acad. Mech. Eng; Eng. Educ; Naval Eng; Indust. Eng; Management Asn; Naval Archit. and Marine Eng. Mechanical, industrial and marine engineering; nomography; tests.

Seward, Prof. John P(erry), Jr, Connecticut College, New London, Conn. *Psychology.* New York, N. Y, April 24, 05. A.B, Cornell, 26; A.M, Columbia, 27, Ph.D, 31. Instr. *psychol,* Columbia, 29–37; *asst. prof, Conn. Col, 37–* A.A; Psychol. Asn. The effect of practise on the visual perception of form; effect of repetition on reaction to electric shock; galvanic skin reaction; effect of alcohol on reasoning; determinants of drives; hormone therapy in menopause; reproductive activities in the guinea pig; hormonal induction of behavior; Guthrie's theory of reinforcement; gradient of reinforcement in maze learning.

Seward, Prof. Ralph P(ray), Pennsylvania State College, State College, Pa. *Chemistry.* Chicago, Ill, Oct. 23, 01. B.S, Kalamazoo Col, 22; A.M, Clark, 23; Ph.D, Brown, 25. Prof. math. and physics, Catawba Col, 25–27; *chem,* Brenau Col, 28–29; instr, Mass. Inst. Tech, 29–34; *Pa. State Col,* 34–35, asst. prof, 35–43, *assoc. prof, 43–* Chem. Soc. Solubilities in non-aqueous solvents.

Seward, Prof. Raymond S(anford), College of Puget Sound, Tacoma, Wash. *Physics.* Monticello, Iowa, 89. B.S, Pomona Col, 12; A.M, California, 21; Ph.D, Stanford, 30. Instr, schs, Calif, 13–23; *prof. physics, Col. of Puget Sound, 23–* Asn. Physics Teachers. Intensity measurements in the spectrum of manganese.

Sewell, Dr. Malcolm C(ameron), 745 Illinois Bldg, Indianapolis, Ind. *Soils.* Buffalo, N. Y, Oct, 87. B.S, Kans. State Col, 12; M.S, Ohio State, 14; Ph.D, Chicago, 22. Asst. agron, Ohio State, 12–13; supt, Branch Exp. Sta, Kans. State Col, 14–16, assoc. prof. soils, 16–31; *gen. sec'y, Sigma Nu Fraternity.* Soc. Agron. Tillage; plant nutrition.

Seyb, Dr. Leslie P, 45 W. High St, Painesville, Ohio. *Organic chemistry.* Franklin, Iowa, May 11, 15. A.B, Coe Col, 35; M.S, Iowa, 37, Ph.D, 39. Chem. asst, patent dept, Phillips Petrol. Co, 39–42; *research chemist, Diamond Alkali Co, 42–* Chem. Soc. Identification of fatty acids from oat hulls; heterocyclic nitrogen compounds from secondary aliphatic amines.

Seybolt, Dr. Alan Upson, 220 Arden Road, Columbus, Ohio. *Physical metallurgy.* Westfield, N. Y, May 29, 10. B.S, Yale, 33, Ph.D, 36. *Research metallurgist,* Gen. Plate Co, 36–37;

Battelle Mem. Inst, 37– Min. and Metal. Eng. Non-ferrous physical metallurgy.

Seyer, Prof. W(illiam) F(rederick), University of British Columbia, Vancouver, B. C, Can. *Chemistry.* Stassfurt, Saxony, Germany, July 9, 90. B.A, Alberta, 15, M.Sc, 17; Ph.D, McGill, 20. Assoc. prof. *chem, British Columbia,* 20–38, *prof, 38–* A.A; Chem. Soc; Chem. Eng. Physical properties of hydrocarbons.

Seyfert, Dr. Carl K(eenan), Case School of Applied Science, Cleveland, Ohio. *Physics, Astronomy.* Cleveland, Ohio, Feb. 11, 11. A.B, Harvard, 33, A.M, 34, Parker fellow, 35–36, Ph.D, 36. Astronomer, McDonald Observatory, Chicago-Texas, 36–40; nat. research fellow, Mt. Wilson Observatory, Carnegie Institution, 40–42; *instr, Case, 42–* Astron. Soc; Astron. Soc. Pacific. Photometry and spectra of spiral nebulae.

Seyler, Dr. Paul J(acob), Ohio State University, Columbus, Ohio. *Zoology.* Marietta, Ohio, Dec. 3, 06. A.B, Marietta Col, 30; A.M, Ohio State, 31, Ph.D, 40. Asst, State Dept. Conservation, Ohio, 30; asst. *zool, Ohio State,* 31–37, *instr, 37–* Ohio Acad. Morphology and classification of spiders.

Seymour, Lieut. Edward H(ovey), Porchuck Road, Greenwich, Conn. *Physical chemistry.* New York, N. Y, Sept. 22, 16. B.S, Yale, 38, Ph.D, 41. Research chemist, Carbide and Carbon Chem. Corp, 41; *lieut, U. S. Naval Res, and instr. aircraft engines, 41–* Chem. Soc. Design and construction of a dynamic vapor-pressure apparatus.

Seymour, Dr. Keith M(orton), Stanolind Oil and Gas Co, Tulsa, Okla. *Organic chemistry.* Retreat, Wis, Nov. 5, 03. B.S, Washington (Seattle), 26, M.S, 29, du Pont fellow, 31–32, Ph.D, 33. Teaching fellow, Washington (Seattle), 28–31; instr. chem, Reed Col, 33–37; North. Mont. Col, 37–38; asst. prof, Carleton Col, 38–42; *research chemist, Stanolind Oil and Gas Co, 42–* A.A; Chem. Soc. (sec'y-treas, Oregon sect, 33). Synthetic organic chemistry; naphthenic acids.

Seymour, Dr. Merrill W(ilmer), 246 Sagamore Drive, Rochester, N. Y. *Organic chemistry.* Minneapolis, Minn, Dec. 6, 98. B.S, Minnesota, 21; du Pont fellow, Princeton, 23–24, A.M, 24, Ph.D, 25. Asst. chem, Minnesota, 21–22; Princeton, 22–23; *research photog. chemist, Eastman Kodak Co,* 24–28, *29–* Instr, St. John's Col. (Md), 28–29. Chem. Soc. Color photography; organic chemistry of nitrogen.

Seymour, Dr. Raymond B(enedict), 29 Glenbeck Ave, Dayton, Ohio. *Organic chemistry.* Boston, Mass, July 26, 12. B.S, New Hampshire, 33, M.S, 35; Ph.D, Iowa, 37. Research chemist, Goodyear Tire and Rubber Co, 37–39; chief chemist, Atlas Mineral Products Co, 39–41; *research chemist, Monsanto Chem. Co, 41–* Chem. Soc. Plastics and synthetic rubber.

Seymour, Prof. R(aymond) J(esse), 2931 Indianola Ave, Columbus, Ohio. *Physiology.* Groveport, Ohio, 78. B.S, Ohio State, 00, M.D, 04; M.S, Tufts Col, 01. Asst. path, col. med, *Ohio State,* 03–04, instr. *physiol,* 05–12, asst. prof, 12–28, *prof, 28–* A.A; Ohio Acad. (v. pres, 20–22).

Seymour-Jones, Dr. F(rank) L(eslie), 358 Knickerbocker Road, Englewood, N. J. *Chemistry.* Wrexham, Wales, Nov. 9, 96. B.Sc, Leeds, 21, M.Sc, 22; A.M, Columbia, 22, Ph.D, 23. From research chemist to *director research lab, Borden Co, 23–* Mil. Cross, 18; Le Blanc medal, 21. A.A; Chem. Soc; Dairy Sci. Asn; Inst. Food Technol; Metrop. Dairy Tech. Soc. Chemistry and technology of food and dairy products.

Shaad, Dr. Dorothy J, 1602 Crescent Road, Lawrence, Kans. *Ophthalmology, Psychology.* Newton, Mass, Aug. 16, 09. A.B, Kansas, 29; A.M, Bryn Mawr Col, 30, Ph.D, 34; Am. exchange student, Frankfurt, 32–33; Kansas, 40– Asst, Howe lab. ophthal, Harvard Med. Sch, 31–32; instr, St. Mary Col. (Kans), 34; clin. technician, Manhattan Eye, Ear and Throat Hosp, New York, 35–38; refractionist, Mass. Eye and Ear Infirmary, Boston, 39; nat. research fellow, col. physicians and surgeons, Columbia, 39–40. Assoc. Psychol. Asn. Binocular vision.

Shabica, Dr. Anthony C(harles), Jr, 553 Alden Drive, Rahway, N. J. *Organic chemistry.* Meadville, Pa, Nov. 20, 15. B.S, Brown, 38; M.S, Pa. State Col, 39, Ph.D, 42. Junior chemist, Calco Chem. Co, 37, 39; asst, Pa. State Col, 39–42; *senior chemist, Merck and Co, Inc, 42–* Chemists' Club. Mechanism of the polymerization of olefins; steroidal sapogenins and related compounds.

Shack, Dr. Joseph, National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Biological chemistry.* Whitman, Mass, Nov. 8, 12. A.B, Harvard, 33, Ph.D, 39. Asst. biol. chem, Harvard Med. Sch, 37–39, physical chem, 38–39; nat. research fellow med. sciences, sch. med, Hopkins, 39–41; *research fellow, nat. cancer inst, U. S. Pub. Health Service, 41–; capt, Sanit. Corps, U. S. Army.* Chem. Soc; N. Y. Acad. Acid-base properties of hemocyanins; physical chemistry of proteins; equilibria of metalloporphyrins.

Shackelford, Dr. B(enjamin) E(still), 30 Rockefeller Plaza, New York, N. Y. *Physics.* Richmond, Mo, Aug. 12, 91. A.B, Missouri, 12, A.M, 13; Ph.D, Chicago, 16. Asst. physics, Missouri, 12–14; physicist, Westinghouse Lamp Co, 16–25, head radio eng. dept, 25–30; mfg. dept, radiotron div, R.C.A. Mfg. Co, Harrison, N. J, 30–34, manager patent dept, 34–37; asst. to director research and later asst. to chief engineer, *Radio Corp. of Amer,* 37–42, *manager for. licensee service, 35–, engineer in charge frequency bur, 42–* Brush research fellow, Nela Research Lab, 15. Physical Soc; Optical Soc; Elec. Eng; Radio Eng; Franklin Inst. Radiation; illumination; vacuum tubes.

Shackell, Dr. L(eon) F(rancis), 141 W. Jackson Blvd, Chicago, Ill. *Biochemistry, Pharmacology.* Prairie Junction, Minn, Feb. 2, 87. B.S, St. Louis, 10, M.D, 14; LL.B, Utah, 27. Asst. nutrition, Illinois, 04–07; agr. chem, Missouri, 07–09; physiol, St. Louis, 09–10, instr, 10–11, pharmacol, 11–14, asst. prof, 14–16; prof. physiol. and physiol. chem, Utah, 16–30; pharmacologist, E. R. Squibb and Sons, 30–38; *patent lawyer, 38–* Summers, investigator, Bur. Fisheries, 09–18. Inst. Chem. Vacuum desiccation; fertilization of echinoderm eggs; protection of wood against marine borers; dye-protein aggregates; relation of dosage to effect; anesthetics; thyroid assay.

Shackleford, Prof. Martha W(heatly), Oklahoma College for Women, Chickasha, Okla. *Ecology.* Tacoma, Wash, Jan. 6, 98. A.B, Col. of Puget Sound, 22; M.S, Washington (Seattle), 25; Ph.D, Illinois, 27. Asst. prof. and *prof. biol, Okla. Col. for Women, 27–* Summer, mem. staff, Chesapeake Biol. Lab, Md, 34. Ecol. Soc; Okla. Acad. Animal ecology; grassland animal ecology.

Shacter, Prof. Helen, Northwestern University, Evanston, Ill. *Child psychology.* Newark, N. J, May 1, 98. A.B, Barnard Col, Columbia, 20, A.M, Columbia, 21; Ph.D, Northwestern, 32. City psychologist, psycho-educ. clinic, Newark, N. J, 22–24; psychologist, Ill. Soc. Mental Hygiene, 25; Chicago Teachers Col, 29–33; instr. educ. and psychol, Northwestern, 34–37; *consulting psychologist, pub. schs, Lake Forest, 37–; asst. prof. psychol, Northwestern, 39–* Assoc. Psychol. Asn; Midwest. Psychol. Asn; Ill. Soc. Consulting Psychol; Chicago Soc. Personality Study (sec'y-treas, 34–36). Clinical psychology; sustained attention in young children; personality adjustments of children; hypothyroidism in children.

Shadduck, Dr. Hugh A(llen), 2904 Avondale Road, Cleveland Heights, Ohio. *Chemistry.* Grand Ledge, Mich, Nov. 6, 98. B.S, Mich. State Col, 24; Ph.D, Chicago, 30. Asst, Chicago, 24–26; asst. chemist, Exp. Sta, Mich. State Col, 27–28, instr. chem, col, 28–29; chemist, research lab, Universal Atlas Cement Co, 30–37; *research chemist,* Owens-Ill. Glass Co, 37–42; *Harshaw Chem. Co, 42–* A.A; Chem. Soc; Physical Soc. Physical chemistry; inorganic chemistry.

Shadinger, Prof. Guy H(oward), Butler University, Indianapolis, Ind. *Chemistry.* Glencoe, Minn, Aug. 24, 77. Ph.B, Hamline, 00; Ph.D, Hopkins, 07. Teacher, high sch, Minn, 00–04; asst. *chem,* Hopkins, 05–06; prof, Butler, 07–08; research fellow, Tufts Col, 08–09; *prof,* Nebr. Wesleyan, 09–10; Dickinson Col, 10–20; *Butler, 20–* Prof, sch. dentistry, Indiana; instr, Indianapolis City Hosp; Nor. Col. Am. Gymnastic Union. Chem. Soc. (councilor, Ind. sect); Ind. Acad. Tautomerism in urazoles; velocity constants and mechanism of the reaction of alkyl halids with urazoles.

Shadle, Prof. Albert R(ay), University of Buffalo, Buffalo, N. Y. *Zoology.* Lockbourne, Ohio, July 18, 85. Fellow, Ohio State, 12–14, A.B, 13, A.M, 15; Ph.D, Cornell, 33. Instr. zool, Mich. State Col, 14; asst, Cornell, 15–16, instr, 16–18, asst. prof, 18–19; *biol, Buffalo,* 19–20, *head dept, 19–, prof, 20–* A.A; Soc. Mammal; Ornith. Union; Entom. Soc. Amer; Wildlife Soc; Wilson Ornith. Club; fel. Ohio Acad; N. Y. Acad; Buffalo Soc. Nat. Sci; Gesell. für Säugetierkunde. Respiration in fresh-water clams; the pelvis during pregnancy and parturition; insect fauna of Allegany State Park, New York; extrusive growth and attrition of incisor teeth of rodents and lagomorphs; malocclusion in Rodentia and Lagomorpha; food and feeding habits of beaver in Allegany State Park; breeding and life history of porcupine.

Shaefer, Dr. W(illiam) E(rnest), 509 W. Linden St, Kennett Square, Pa. *Chemistry.* Wolcottville, Ind, May 4, 96. A.B, Harvard, 18, A.M, 23, Ph.D, 26. Junior chemist, bur. chem. and soils, U. S. Dept. Agr, 19–21; *research chemist, Hercules Powder Co, Wilmington, 25–* Chem. Soc. Analytical methods.

Shafer, Prof. Geo(rge) D(aniel), 321 Melville Ave, Palo Alto, Calif. *Physiology, Entomology.* Muncie, Ind, Dec. 25, 74. A.B, Indiana, 00; A.M, Stanford, 06; fellow, Cornell, 06–08, Ph.D, 08. Asst. entom, Exp. Sta, Mich. State Col, 08–17, research assoc. prof, 13–17; instr. *physiol, Stanford,* 18–24, asst. prof, 24–30, assoc. prof, 30–39, prof, 39–40, *emer. prof, 40–* A.A; Soc. Nat; Entom. Soc; Soc. Exp. Biol; West. Soc. Nat; Calif. Acad; Mich. Acad. (sec'y, 09–12). Pattern double and single cones of eyes of fishes; kidney secretion; action of contact insecticides; eyes of spiders; mating in honey-bee; growth of dragon-fly nymphs; heat rigor in muscle; effect of sodium citrate in the circulation on cardiac vagus action.

Shafer, Dr. John I(rwin), Jr, Cornell University, Ithaca, N. Y. *Plant physiology.* South Bend, Ind, Nov. 12, 10. A.B, Dartmouth Col, 33; Ph.D, Cornell, 36. Nat. research fellow, 36–37; *instr. bot, Cornell, 37–; asst. prof. veg. crops, N. Y. Exp. Sta, Geneva, 43–* A.A; Bot. Soc. Plant genetics; the physiology of vigor in plants.

Shafer, Dr. William M(cKinley), 625 Illinois Road, Lake Forest, Ill. *Chemistry.* Sumner, Ill, March 29, 11. B.S, Illinois, 34, M.S, 37, Ph.D, 40. Science instr, high sch, Ill, 34–36; asst. chem, Illinois, 36–40; instr, Iowa State Teachers Col, 40–42; *research chemist, Fansteel Metal. Corp, 42–* Summer, instr, Texas Col. Mines, 40. Chem. Soc. X-ray diffraction study of metals; spectrographic methods for quantitative analysis of tantalum; columbium and tungsten compounds.

Shaffer, Dr. Bertram, University of Pennsylvania, Philadelphia, Pa. *Dermatology, Syphilology.* Philadelphia, Pa, May 19, 06. A.B, Pennsylvania, 27, M.D, 31, Sc.D, 39. *Instr. dermat. and syphilol, sch. med, Pennsylvania, 36–* Fel. Am. Med. Asn. Vitiligo; panniculitis; hydrogen ion concentration of skin; congenital syphilis; tryparsamide; x-rays on skin; drug eruptions; anthiomaline.

Shaffer, Dr. Elmer Lentz, 208 W. State St, Trenton, N. J. *Biology, Pathology.* Philadelphia, Pa, April 29, 92. A.B, B.S, Haverford Col, 15; fellow, Princeton, 16–17, 18–20, A.M, 19, Procter fellow, 19–20, Ph.D, 20. Asst. biol, Princeton, 15–16; instr, Haverford Col, 19–20; *pathologist, St. Francis Hosp, Trenton, 20–, chief transfusionist, 42–* Pathologist, Munic. Colony, 24–36, sec'y dept. chest diseases, 34–36. A.A; Soc. Bact; Soc. Clin. Path; N. J. Soc. Clin. Path. Cytology; mitochondria; clinical pathology.

Shaffer, Prof. G(eorge) Wilson, Tudor Arms Apartments, Baltimore, Md. *Psychology, Psychiatry.* Baltimore, Md, Nov. 23, 01. A.B, Hopkins, 24, Ph.D, 28. Director physical educ, Playground Athletic League, 18–26; asst. instr. *psychol,* Hopkins, 26–28; *prof, Baltimore, 28–;* lecturer, *Hopkins,* 34, *director physical educ. and athletics, 34–, prof. physical educ, 41–, dean col. arts and sciences, 42–* Mem. staff, Sheppard Pratt Hosp, 28– Physical education; alertness and motor abilities of athletes and non-athletes; suggestibility of mental patients and criminals; preferential use of the feet; abnormal psychology; psychological methods in vocational guidance; recreation as a preventive and a therapy for crime and mental disease; psychological aspects of athletics; recreation; hypnosis in hysteria; sulfathiazol and sulfadiazine; effects on alertness and motor ability.

Shaffer, Dr. James G(rant), 615 N. Wolfe St, Baltimore, Md. *Immunology.* Washington, Kans, Jan. 17, 13. B.S, Manchester Col, 35; Sc.D, Hopkins, 40. Asst. chem, Manchester Col, 34–35; instr, high sch, Ind, 35–37; asst. immunol, *Hopkins,* 37–40, *instr. immunol. and the filterable viruses, 40–;* research med. biologist, Am. Cyanamid Co, 42–43; *lieut, Sanit. Corps, U. S. Army, 43–* Filterable viruses; antigenic relationship of the rabbit viruses, myxoma and fibroma; pathology, immunology and general characteristics of the influenza virus.

Shaffer, Prof. Laurance F(rederic), Carnegie Institute of Technology, Pittsburgh, Pa. *Psychology.* Johnstown, N. Y, Aug. 12, 03. B.S, Union (N. Y), 24; A.M, Columbia, 27, Ph.D, 30. Research assoc, Lincoln Sch, Teachers Col, Columbia, 26–28; from asst. prof. to *prof. psychol, Carnegie Inst. Tech, 28–,* director summer session, 36–41; *Air Corps, U. S. Army, 41–, lieut. col.* Summers, instr, N. Y. State Col. for Teachers, 27–28. A.A; assoc. Psychol. Asn. Educational and clinical psychology; psychology of learning; development of children's generalizing abilities; mental hygiene; child psychology; psychology of aviation.

Shaffer, Dr. M(orris) F(rank), Tulane University School of Medicine, New Orleans, La. *Bacteriology.* Revere, Mass, Feb. 2, 10. B.S, Mass. Inst. Tech, 30, traveling fellow, 31–32; Rhodes scholar, Oxford, 31–34, Ph.D, 34. Asst. biol. and bacter, Mass. Inst. Tech, 30–31; fellow bacter, Harvard, 34–35, nat. research fellow med, 35–36, asst. bacter, 36–38; research assoc, div. microbiol, Squibb Inst. Med. Research, 38–42; senior bacteriologist, Mass. Antitoxin and Vaccine Lab, 42–43; assoc. bacter. and immunol, Harvard Med. Sch, 42–43; *assoc. prof. path. and bacter, sch. med, Tulane, 43–* Mem. cmn. measles and mumps, Board Prevention of Epidemic Diseases in U. S. Army. A.A; Soc. Exp. Path; Asn. Immunol; Pub. Health Asn; Soc. Bact; N. Y. Acad. Biology of the tubercle bacillus; pneumococcus type III natural immunity; joint and lymphatic infections; fever therapy; monolayers of antigens and antibodies; immunology of virus infections; herpes; measles; lymphogranuloma venereum.

Shaffer, Prof. Philip A(nderson), Washington University School of Medicine, St. Louis, Mo. *[3]Biochemistry.* Martinsburg, W. Va, Sept. 20, 81. A.B, West Virginia, 00; Ph.D, Harvard, 04; Sc.D, Rochester, 39. Asst. chemist, McLean Hosp, Waverley, Mass, 00–03; asst. exp. path, med. col, Cornell, 04–07, instr. path. chem, 07–10; *prof. biochem, sch. med, Washington (St. Louis), 10–,* chairman admin. cmn, 36–37, *dean,* 15–19, *37–* Herzstein lecturer, California, 32. Physiol. chemist, Huntington Fund for Cancer Research, 07–10; head chem. sect. lab, Bellevue Hosp, New York, 09–10. Major, Sanit.C, 17–19. Nat. Acad; A.A; Soc. Biol. Chem. (pres, 23–25); Chem. Soc; Physiol. Soc; Soc. Exp. Biol. (councilor, 30). Metabolism; analysis of urine; catalase; enzymes of tumors; cystinuria; protein metabolism in typhoid; creatin and creatinin; origin of 'acetone bodies'; anti-ketogenesis; oxidation-reduction; coupled reactions; semiquinones in catalysis.

Shaffer, Dr. Sherman S(impson), Humble Oil and Refining Co, Baytown, Texas. *Physical chemistry.* California, Mo, Aug. 12, 01. A.B, Cornell Col. (Iowa), 22, A.M, 23; Ph.D, California, 25. Research assoc. physical chem, California, 25–26; research chemist, *Humble Oil and Ref. Co,* 26–29, *in charge* develop. div, 29–34, *Baytown lab, 34–* Chem. Soc; fel. Inst. Chem. Magnetic susceptibility of inorganic salts in aqueous solution; petroleum products.

Shaffer, Dr. Wave H(enry), Ohio State University, Columbus, Ohio. *Physics.* Wauseon, Ohio, May 23, 09. A.B, Hiram Col, 33; Williams Col, 33–34; A.M, Ohio State, 36, univ. fellow, 38–39, Ph.D, 39. Asst. chem, Williams Col, 33–34; *physics,* Ohio State, 36–38; nat. research fellow, Chicago, 39–40; instr, *Ohio State,* 40–42, *asst. prof, 42–* A.A; fel. Physical Soc. Theory and interpretation of infra-red absorption spectra of polyatomic molecules; rotation-vibration interactions in polyatomic molecules; quantum mechanics.

Shaftesbury, Dr. Archie D(avis), Woman's College of the University of North Carolina, Greensboro, N. C. *Zoology.* Pawnee Co, Kans, Feb. 9, 93. A.B, Southwestern Col. (Kans), 20; Ph.D, Hopkins, 34. Prof. comp. anat, Mt. Vernon Col, 24; asst. prof. *zool, Woman's Col, North Carolina,* 24–27, *assoc. prof, 27–* Summers, research asst, bee culture lab, U. S. Dept. Agr, 21–23; lecturer, High Point Col, 28–29; director marine lab, Woman's Col, North Carolina, Beaufort, 35– Inf, U.S.A, 18–19. Ornith. Union; Soc. Zool; Wilson Ornith. Club; N. C. Acad; N. C. Bird Club (pres, 41). Anatomy and physiology of the honeybee; distribution of Siphonaptera; distribution of ticks and eastern type Rocky Mountain spotted fever.

Shahan, Dr. M(aurice) S(ommer), U. S. Department of Agriculture, Washington, D. C. *Veterinary bacteriology, Virology.* Kearney, Nebr, Aug. 21, 98. D.V.M, Colo. Agr. Col, 24. Practising veterinarian and munic. food inspector, 24–26; vet. inspector, *bur. animal indust, U. S. Dept. Agr,* 26–31, *animal disease investigations, 31–* Vet. Med. Asn. Animal diseases.

Shahan, Dr. W(illia)m E(wing), 5 Oakleigh Lane, Route 3, Clayton, Mo. *Ophthalmology.* Gadsden, Ala, Dec. 25, 77. A.B, Washington (St. Louis), 01, M.D, 04, A.M, 12. Asst. *clin. ophthal, sch. med, Washington (St. Louis),* 14–17, clin. instr, 17–19, assoc, 19–27, *prof, 27–* Mem. staff, St. Luke's Hosp, 14–; Barnes Hosp, 21–; St. Louis Children's Hosp, 21–; Barnard Free Skin and Cancer Hosp, 20–; St. Louis Maternity

Hosp, 27– A.A; Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Optical Soc; Am. Med. Asn; fel. Col. Surg; St. Louis Ophthal. Soc. Ophthalmic thermotherapy, lens design and illumination; stereoperimetry; thermal death; accuracy factors in selective thermotherapy.

Shaklee, Prof. A(lfred) O(gle), 5701 Chamberlain Ave, St. Louis, Mo. *Pharmacology.* Middle Creek, Ohio, Oct. 3, 65. B.S, Chicago, 99, 00–01, fellow, 01; M.D, St. Louis, 08; Europe, 13–14. Asst. chem, Chicago, 01; physiol, St. Louis, 06, instr. pharmacol, 07; fellow physiol. and pharmacol, Rockefeller Inst, 08–09, asst, 09–10; assoc. prof. pharmacol, Philippine Med. Sch, 10–13; asst. prof, Illinois, 14–16; prof. physiol. and biochem, Fordham, 16–18; *assoc. prof.* physiol. and pharmacodynamics, med. dept, Texas, 18–21; *pharmacol, sch. med, St. Louis, 21–* A.A; Soc. Exp. Biol. Mechanical destruction of ferments; strychnin poisoning; acid intoxication in Asiatic cholera; acclimatization; metabolism; cerebral ablation in pigeons; action of drugs, nerves and electric current in iris sphincter.

Shakow, Dr. David, Worcester State Hospital, Worcester, Mass. *Psychology.* New York, N. Y, Jan. 2, 01. B.S, Harvard, 24, Leverett Saltonstall scholar, 26–27, A.M, 27, James Walker fellow, 27–28, Ph.D, 41. Asst. psychologist, Worcester State Hosp, 24–25; psychol. intern, Boston Psychopathic Hosp, 25–26; *chief psychologist, Worcester State Hosp, 28–* Psychol. Asn; fel. Orthopsychiat. Asn; Asn. Applied Psychol; Psychopath. Asn; East. Psychol. Asn; Mass. Soc. Research in Psychiat. Psychopathology; experimental psychopathology.

Shallenberger, Prof. G(arvin) D(ennis), University of Montana, Missoula, Mont. *Physics.* Muldrow, Okla, Sept. 1, 89. B.S, Okla. Agr. and Mech. Col, 12; B.S, Tulane, 17, M.S, 19; Ph.D, Chicago, 23. Instr. *physics,* Tulane, 18–19; asst, Chicago, 19–20; *prof,* Beloit Col, 20–23; *Montana, 23–* A.A; Physical Soc. Vacuum spark spectroscopy; penetration of light into lake waters; flow of heat into and out of the ground; visibility through haze.

Shambaugh, Prof. George E(lmer), 5625 University Ave, Chicago, Ill. *Anatomy, Physiology.* Clinton Co, Iowa, Nov. 15, 69. Ph.B, Iowa, 92; M.D, Pennsylvania, 95; hon. Sc.D, Ill. Col, 30. *Instr. anat, Chicago, 00–, prof. otol. and laryngol, Rush Med. Col, 16–; laryngologist, Presb. Hosp, 02–* Ed. in chief, 'Archives Otolaryngol.' Lenval prize, 12. Am. Med. Asn; Laryngol. Asn. (pres, 31); Otol. Soc; Laryngol, Rhinol. and Otol. Soc; Col-Oto-Rhino-Laryngol. The embryology, histology and physiology of the end organs of the labyrinth; physiology of the labyrinth.

Shambaugh, Dr. Noel F(ranklin), 721 Security Bldg, Long Beach, Calif. *Applied physiology.* Ridgeville, Ind, Dec. 22, 96. B.S, Michigan, 20, M.D, 22, M.S, 26. Intern, Michigan, 22–24; nat. research fellow, 24–27; teacher, Physiol. Inst, Berne, 26–27; asst. prof. med, Michigan, 28–30; *private practise, internal med, 30–; asst. clin. prof. med, Southern California, 32–* M.C, 18–19. A.A; fel. Col. Physicians; fel. Am. Med. Asn; N. Y. Acad; Los Angeles County Med. Soc. (pres, internal med. sect, 35). Biochemistry; diuresis; amino-acid metabolism; renal injury; fat metabolism in diabetes; diagnostic thorium dioxide; acid-base balance; bronchial asthma.

Shamel, A(rchibald) D(ixon), Box 1066, Riverside, Calif. *Horticulture.* Taylorville, Ill, Oct. 15, 78. B.S, Illinois, 98. Instr. farm crops and in charge exp. sta. farm, Illinois, 98–02; sci. asst, *U. S. Dept. Agr,* 03–04, *prin. physiologist, 04–* U. S. Dept. Agr. exped, West Indies, 04–05, Brazil, 12–13, Hawaii, 20–27, Cent. Amer, 26, P. R, 28, Mex, 29, 35, 38. A.A; Soc. Hort. Sci. Improvement of plants through seed and bud selection; bud variation; atmospheric humidity control in the storage and curing of fruits.

Shanahan, Dr. William T, Craig Colony, Sonyea, N. Y. *Medicine.* Syracuse, N. Y, May 14, 78. M.D, Syracuse, 98. Med. officer, *Craig Colony,* 01–08, *med. supt, 08–* Lecturer, Syracuse. Am. Med. Asn; Psychiat. Asn; Asn. Study Epilepsy (pres, 12, 18); Asn. Study Feeble-Minded. Epilepsy.

Shand, Dr. Edwin W(illiam), 3614 Rhode Island Ave, Mt. Rainier, Md. *Chemistry.* Riverside, Ill, July 4, 99. B.S, Illinois, 23, M.S, 28; fellow, N. Y. Univ, 28–30, Ph.D, 30. Asst. chem, Illinois, 26–28; *chemist,* Am. Dental Asn, Chicago, 30–33; Calco Chem. Co, 33–34; Sherwin-Williams Co, 36–37; Montgomery Ward and Co, 37–39; E. I. du Pont de Nemours and Co, 41–43; *office rubber director, War Production Board, 43–* Chem. Soc. Heterocyclic ammonium compounds; chemistry of dental medicinal articles; dyes; intermediates; pigments.

Shand, Dr. S(amuel) James, Columbia University, New York, N. Y. *[7]*Geology.* Edinburgh, Scotland, Oct. 29, 82. B.Sc, St. Andrews, 05, D.Sc, 10; Ph.D, Munster, 06. Asst. geol, St. Andrews, 06–07; geologist, Royal Scottish Museum, Edinburgh, 08–11; *prof. geol,* Stellenbosch Univ, S. Africa, 11–37; *Columbia, 37–* Draper Mem. medal, Geol. Soc. S. Africa, 37. A.A; Geophys. Union; Miner. Soc; Geol. Soc; Miner. Soc. Gt. Britain and Ireland; Geol. Soc. London; Soc. geol. de Belg; Geol. Soc. S. Africa. Petrology; mineralogy; volcanism.

Shands, Dr. H(azel) L(ee), University of Wisconsin, Madison, Wis. *Agronomy.* Landrum, S. C, Oct. 19, 08. B.S, Clemson Col, 29; Ph.D, Wisconsin, 32. Asst. agron, *Wisconsin,* 29–33, research assoc. agron. and plant path, 33–37, asst. prof. *agron,* 36–42, *assoc. prof, 42–* Phytopath. Soc; Soc. Agron. Breeding disease resistant barley and oats.

Shands, Prof. R(uebush) G(eorge), University of Wisconsin, Madison, Wis. *Plant pathology.* Ebenezer, S. C, Sept. 21, 03. B.S, Clemson Col, 24; Ph.D, Wisconsin, 29. Asst. agronomist, Exp. Sta, Georgia, 24–25; asst. agron, Wisconsin, 26–29; agent, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29–35, assoc. agronomist, 35–42, *agronomist, 42–; asst. prof. agron, Wisconsin, 30–* Cereal scab diseases.

Shands, W(ayland) A(rthur), 17 Peters St, Orono, Maine. *Entomology.* Darlington, S. C, Sept. 13, 05. B.S, Clemson Col, 26; M.S, Minnesota, 28. Asst. zool, Minnesota, 26–29; asst. entomologist, *div. truck crop insects, bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–35, assoc. entomologist, 35–40, *senior entomologist, 40–* A.A; Asn. Econ. Entom; N. C. Acad. Insect ecology and toxicology; sugar-beet insects; tobacco insects; potato insects.

Shane, Prof. C(harles) D(onald), 89 San Mateo Road, Berkeley, Calif. *[6]*Astronomy.* Auburn, Calif, Sept. 6, 95. A.B, California, 15, Ph.D, 20. Instr. astron, *California,* 20–24, asst. prof, 24–29, assoc. prof, 29–35, *prof.* astrophys, 35–41, *astron, 41–, chairman dept, 41–* A.A; Astron. Soc. Pacific (pres, 40). Spectroscopy; spectrophotometry.

Shaner, Prof. Ralph F(aust), University of Alberta, Edmonton, Alta, Can. *Embryology.* Pottstown, Pa, Dec. 30, 93. Ph.B, Lafayette Col, 15; Ph.D, Harvard, 20. Teaching fellow histol. and embryol, Harvard Med. Sch, 15–20, instr. histol, 20–21; asst. prof. *anat, Alberta,* 21–23, assoc. prof, 22–27, *prof, 27–* A.A; Asn. Anat. Development of the cerebral nerves, midbrain and hypothalamic centers of mammals and of the pharynx, digestive tract and skull of reptiles; comparative anatomy of the vertebrate heart; development of the conduction system and musculature of the mammalian heart.

Shank, Prof. J(acob) R(alph), 1812 Bedford Road, Columbus, Ohio. *Structural engineering.* Bressler, Pa, June 30, 87. B.S, Pa. State Col, 10, C.E, 35. Asst. mech. eng. and struct. eng, Pa. Steel Co, 10–11, 12–15; civil eng, Pa. State Col, 11–12; struct. designer, N. Y. Cent. R. R, 15–17; instr. *civil eng, Ohio State,* 17–18, asst. prof, 18–23, *prof, 23–,* research prof, *eng. exp. sta,* 29–36, acting asst. director, 36–38, *asst. director, 38–* Wason research medal, Am. Concrete Inst, 37. Civil Eng; Eng. Educ; Concrete Inst; Nat. Soc. Professional Eng. Concrete and other engineering materials; structural problems.

Shank, John Jay, Wayne Laboratories, 17 E. Main St, Waynesboro, Pa. *Chemistry.* Waynesboro, Pa, Oct. 10, 98. B.S, Gettysburg Col, 21. *Owner and director, Wayne Labs, 21–* Chemist and bacteriologist, Boro of Waynesboro, 21–; technician and bacteriologist, Waynesboro Hosp, 21–26. Chem. Soc; Soc. Test. Mat. (cmt. D–8); Ceramic Soc; Waterworks Asn; Pub. Health Asn; Foundrymen's Asn; Soc. Bact. Analytical chemistry; industrial research problems; asphalts; tars; bitumens; non-metallic mineral fillers; particle size distributions; ceramic glazes and enamels.

Shankland, Dr. Robert S(herwood), Case School of Applied Science, Cleveland, Ohio. *Physics.* Willoughby, Ohio, Jan. 11, 08. B.S, Case, 29, M.S, 33; Ph.D, Chicago, 35. Physicist, Bur. Standards, 29–30; instr. *physics, Case,* 30–37, asst. prof, 37–39, assoc. prof, 39–41, *Ambrose Swasey prof, 41–* Asst, Chicago, 34–36, instr, 36. Physical Soc; Acoustical Soc; Optical Soc; Franklin Inst; London Physical Soc. Acoustics; x-rays; electron diffraction; physics of surfaces.

Shanklin, Prof. William M(athias), American University of Beirut, Beirut, Lebanese Republic. *Histology, Comparative*

neurology. Fork, Md, Oct. 18, 96. B.S, Blue Ridge Col, 21; Ph.D, Yale, 29. Asst. chemist, U. S. Govt, 23–25; adj. prof. *histol, med. sch, American Univ. Beirut,* 25–28, assoc. prof, 30–38, *prof, 39–* Rockefeller research fellow, Yale, 29–30; asst. prof, med. sch, Tennessee, 37–38. Asn. Anat; Anthrop. Asn; British Anat. Asn; Royal Anthrop. Inst. Microscopic anatomy of the pituitary; comparative neurology of the central nervous system of fish, reptiles and mammals; dermatoglyphics, serology and physical anthropology of the Arabs.

Shankman, Dr. S(olomon), 2727 Hyperion Ave, Los Angeles, Calif. *Biochemistry, Nutrition.* Toronto, Ont, Can, Aug. 27, 15. B.A, Toronto, 36, M.A, 37, Ph.D, 39. Asst. physical chem, Toronto, 36–39; Calif. Inst. Tech, 39–40; chemist, *W. T. Thompson Co,* 41–42, *research director, 42–* Chem. Soc; Inst. Food Technol. Vapor pressures of sulfuric acid solutions; succinnic dehydrogenase; nutrition of microorganisms; industrial problems.

Shanks, Prof. G(eorge), 36 Burton Road, Toronto, Ont, Can. *Pathology.* Howick, Que, Sept. 14, 84. B.A, McGill, 04, M.D, 08. Prof. *path,* Med. Col. Bengal, Calcutta, India, 21–31; *asst. prof, Toronto, 31–* Asn. Path. and Bact; Soc. Clin. Path; Can. Med. Asn; Ont. Asn. Path. (pres, 39); Path. Soc Gt. Britain; British Med. Asn; Royal Soc. Trop. Med. and Hygiene. Kala-azar; epidemic dropsy; experimental nephritis.

Shanks, Dr. John A(mos), Speed, Ind. *Chemistry.* Salem, Ind, Nov. 11, 15. M.S, Indiana, 37; Ph.D, Hopkins, 42 *Research chemist, Louisville Cement Co, 41–* Poly-alkylated hydrazine; inorganic and organic chemistry.

Shanks, Dr. M(errill) E(dward), University of Missouri, Columbia, Mo. *Mathematics.* Mason City, Iowa, Oct. 6, 11. A.B, Iowa, 32, Ph.D, 36; A.M, Columbia, 33. *Instr. math,* Michigan, 36–38; Pa. State Col, 38–40; *Missouri, 40–* Math. Soc; Math. Asn. Complex variables; topology.

Shanks, Prof. Royal E(astman), Austin Peay State College, Clarksville, Tenn. *Botany.* Ada, Ohio, Nov. 11, 12. A.B, Ohio Northern, 33; M.S, Ohio State, 37, Ph.D, 38. Prin, high sch, Ohio, 33–36; asst. *bot,* Ohio State, 36–39, instr, 39; Tennessee, 40, acting asst. prof, 40–41; *prof, Austin Peay State Col, 41–* Summers, agent on barberry eradication, U. S. Dept. Agr, 36, 38; asst, Ohio Wildlife Research Station, 37; temporary botanist and plant ecologist, N. Y. State Museum, 38–42. Ecol. Soc. (treas, 40–42); Bot. Soc; Soc. Plant Taxon; Soc. Study Speciation; Ohio Acad; Tenn. Acad. Regional vegetation surveys in Ohio and New York; plant ecology in relation to regional planning; Tennessee Juncaceae.

Shankweiler, Prof. John V(ictor), Muhlenberg College, Allentown, Pa. *Biology.* Huffs Church, Pa, July 22, 94. B.S, Muhlenberg Col, 21; A.M, Cornell, 27, Ph.D, 31. Instr. *biol, Muhlenberg Col,* 21–25, asst. prof, 25–28, *prof, 28–* A.A; Pa. Acad. Poison glands of Bufo americana and Rana pipiens.

Shannon, Dr. Claude E(lwood), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Applied mathematics.* Petoskey, Mich, April 30, 16. B.S, Michigan, 36; Bowles fellow, Mass. Inst. Tech, 39–40, M.S, 40, Ph.D, 40. Asst. elec. eng. and math, Mass. Inst. Tech, 36–39; nat. research fellow, 40; research mathematician, Nat. Defense Research Cmt, Princeton, 40–41; *mem. tech. staff, Bell Tel. Labs, 41–* Alfred Noble prize, 39. Math. Soc; Elec. Eng. Theory of switching circuits; calculating machines; mathematical genetics.

Shannon, F(loyd) B(ramley), 107 Larned Road, Summit, N. J. *Psychology.* New Galilee, Pa, Aug. 11, 03. A.B, Baldwin-Wallace Col, 25; A.M, Columbia, 27. Guidance officer, univ. exten, Columbia, 27–29; indust. psychologist, *West. Elec. Co, Kearny, N. J,* 29–32, employment manager, 32–37, *pub. relations manager, 37–* Research officer, Ordnance Dept, U. S. Army, 27–38. V. pres, Board Educ, Cranford, N. J, 33–37. Psychol. Asn. Industrial psychology.

Shannon, Prof. James A, Goldwater Memorial Hospital, Welfare Island, N. Y. *Physiology.* Hollis, N. Y, Aug. 9, 04. A.B, Col. of Holy Cross, 25; M.D, N. Y. Univ, 29, Ph.D, 35. Dept. physiol, Univ. and Bellevue Hosp. Med. Col, 31–32, instr, 32–35, asst. prof, *col. med, N. Y. Univ,* 35–40, *med,* 41–42, *assoc. prof, 42–* Director research service, third med. div, N. Y. Univ, Goldwater Mem. Hosp, 41–; consultant trop. diseases to U. S. Sec'y War. Soc. Clin. Invest; Physiol. Soc; Soc. Exp. Biol; Harvey Soc; fel. N. Y. Acad. Med. Comparative physiology of the kidney; measurement of glomerular filtration; secretory mechanisms of the renal tubule; renal control of water and electrolyte balance; functional aspects of renal disease; chemotherapy; malaria.

Shannon, Rev. J(ames) I(gnatius), St. Louis University, St. Louis, Mo. *Physics.* Hastings, Ont, Can, Sept. 30, 68. A.B, St. Louis, 99, A.M, 00; Hopkins, 06–08. Asst. prof. physics and math, St. Xavier Col, 00–02; *physics, St. Louis,* 09–12, *prof. and director dept, 12–,* asst. dean sch. philos. and science, 09–19, 22–24, dean, 24–32, assoc. dean grad. sch, 27–32. A.A; Physical Soc; Mo. Acad; St. Louis Acad. (cor. sec'y, 18–35). Atomic physics.

Shannon, R(aymond) C(orbett), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Entomology.* Washington, D. C, Oct. 4, 94. B.S, Cornell, 23. Junior entomologist, bur. entom, U. S. Dept. Agr, 12–16; asst. state entomologist, Wash, 20; asst. entom, Cornell, 21–22; instr, George Washington, 25; *insect investigations, Rockefeller Foundation,* Argentina and Patagonia, 26–28, Peru, 28, Brazil, 28–31, Greece, 32–36, Brazil, 36–41, *Trinidad, B.W.I, 41–* Cornell biol. exped, 17; entom. trip, Panama, 23, Europe, 25, 28. Sergt, Sanit. C, 17–19. A.A; fel. Entom. Soc. Amer; Entom. Soc. Wash; Wash. Biol. Field Club. Systematic dipterology; medical entomology; disease carrying insects.

Shannon, Prof. W(illia)m J(ohn), Iowa State College, Ames, Iowa. *Chemistry.* Ottawa, Ont, Can, March 9, 12. A.B, Illinois, 36, M.S, 38, Ph.D, 41. Asst. *chem,* Illinois, 36–40; *asst. prof, Iowa State Col, 40–, research asst. prof, indust. science research inst, 40–* Chem. Soc. (sec'y-treas, Amer. sect, 42–); Inst. Food Technol. Food technology; food chemistry; edible oils and fats; frozen foods; dehydration.

Shanor, Dr. Leland, University of Illinois, Urbana, Ill. *Botany, Mycology.* Butler, Pa, July 21, 14. A.B, Maryville Col, 35; A.M, North Carolina, 37, Ph.D, 39. Asst. biol, Maryville Col, 33–35; asst. and teaching fellow *bot,* North Carolina, 35–39; *instr,* Clemson Col, 39–40; *Illinois, 40–* Summer, fellow, Highlands Biol. Lab, N. C, 37, agent, U. S. Dept. Agr, 38, director, Highlands Museum Nat. Hist, N. C, 39. A.A; Bot. Soc; Mycol. Soc. Cryptogamic botany; culture of entomogenous fungi; cytology of Saprolegniaceae; distribution and taxonomy of aquatic fungi.

Shantz, Dr. H(omer) L(eRoy), U. S. Forest Service, Washington, D. C. *[3]*Botany.* Kent Co, Mich, Jan. 24, 76. B.S, Colo. Col, 01, Sc.D, 26; Ph.D, Nebraska, 05. Instr. bot. and zool, Colo. Col, 01–02; bot, sch. agr, Nebraska, 03–04; Missouri, 05–06; prof. bot. and bacter, Louisiana, 07; expert alkali and drought-resistant plant breeding investigations, bur. plant indust, U. S. Dept. Agr, 08–09, plant physiologist, 10–19, physiologist in charge plant geog. and plant physiol, 20–26; prof. bot. and head dept, Illinois, 26–28; pres, Arizona, 28–36; *chief div. wildlife management, U. S. Forest Service, 36–* Instr, Colo. Teachers' Inst, Colorado Springs, 02; lecturer, Clark, 24–27. Summers, special agent and collaborator, bur. plant indust, U. S. Dept. Agr, 06–08. Plant resources 'Inquiry,' Africa and Latin Amer, Allied Peace Cmn, 18; Educ. Cmn, E. Africa, 24; U. S. Dept. Agr. mem, land classification div, U. S. Geol. Surv; Nat. Land Use Planning Cmt, 31–34. Explorer, Smithsonian Institution exped, Africa, 19–20. A.A; Bot. Soc; Soc. Plant Physiol; fel. Soc. Agron; Ecol. Soc; Asn. Geog; Bot. Soc. Wash; Soc. pro Fauna et Flora Fennica; Int. Soc. Protection Nature; Int. Inst. African Languages and Cultures. Vegetation of the Great Plains; the indicator value of natural vegetation; physiology of drought resistance; biological study of the lakes in the Pike's Peak region; North American Branchinecta and their habitats; vegetation of the Great Plains and the Great Basin; plant geography of Africa and Latin America; plant geography and plant industry; agriculture of the African natives; wildlife management; agricultural geography of Africa.

Shapiro, Dr. C(aspar) V, The Viviny Co, West Haven, Conn. *Physics, Chemistry.* Jersey City, N. J, Oct. 16, 97. Ch.B, Cornell, 21, Ph.D, 28. Nat. research fellow physics, Zurich, 28–29; Heckscher asst, Cornell, 23–28, 29–33; *chief chemist, Viviny Co, 33–* Physical Soc; Chem. Soc. Absorption spectra of organic compounds; band spectroscopy.

Shapiro, Charles H(arry), 2003 Buffalo Drive, Houston, Texas. *Metallurgy.* Carmel, N. J, March 11, 99. A.B, Colorado, 22; LL.B, Houston Law Sch, 33. Denver Rock Drill Co, 22–24; U. S. Bur. Mines, 24–26; *director research, Reed Roller Bit Co, 26–* Chem. Soc; Soc. Test. Mat; Soc. Metals; Iron and Steel Indust. Gt. Britain. Ferrous metallurgy; gas combustion; effects of molten sulfur on stainless steels at elevated temperatures.

Shapiro, Dr. Harry H, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Anatomy.* New York, N. Y, July 27, 92. D.M.D, Tufts Col, 18. Instr. *anat, col. physicians and surg, Columbia,* 30–40, *asst. prof, 40–* Asn. Anat; Soc. Physical Anthrop; Int. Asn. Dental Research. Dentistry; applied anatomy of the head and neck.

Shapiro, Dr. H(arry) L(ionel), American Museum of Natural History, New York, N. Y. **7Anthropology.* Boston, Mass, March 19, 02. A.B, Harvard, 23, A.M, 25, Ph.D, 26; fellow, Bishop Museum, Honolulu, 23–24. Tutor anthrop, Harvard, 25–26; asst. curator *physical anthrop, Am. Museum Nat. Hist,* 26–30, assoc. curator, 31–42, *chairman dept,* 42– Anthropologist, Bishop Museum, Honolulu; prof, Columbia, 42. Div. anthrop. and psychol, Nat. Research Council, 31–33, 35–38, biological fellowships board. A.A; Anthrop. Asn; Asn. Physical Anthrop. (sec'y, 34–39, v. pres, 41–); Ethnol. Soc. (pres, 42); N. Y. Acad. (v. pres. and chairman, sect. anthrop). Physical anthropology; race mixture.

Shapiro, Dr. Herbert, Hahnemann Medical College and Hospital, 235 N. 15th St, Philadelphia, Pa. *Physiology.* Brooklyn, N. Y, Nov. 21, 07. B.S, Columbia, 29, A.M, 30; Francis Hinton Maule fellow, Princeton, 32–33, Ph.D, 34. Asst. zool, Columbia, 29–31; asst. instr. physiol, Princeton, 31–32; nat. research fellow biol. sciences, Chicago, 34–35; asst. *physiol,* Princeton, 35–37; asst. prof, Col. City of N. Y, 37; Guggenheim Mem. Foundation fellow, Univ. Col, London, 37–38; research assoc. *physiol,* Clark, 38–39; *instr,* Vassar Col, 39–41; *Hahnemann Med. Col. and Hosp, 41–; staff mem, radiation lab, Mass. Inst. Tech, 43–* Summers, investigator, Marine Biol. Lab, Woods Hole, 30–37, 39–, mem. corp. Soc. Zool; Physiol. Soc; Soc. Exp. Biol. Cellular metabolism; luminescence; nerve and muscle physiology; cell permeability; chemical embryology; mammalian parthenogenesis; surface and other biophysical properties of cells.

Shapiro, Dr. Maurice M(andel), 22 Froude Circle, Bethesda Branch, Washington, D. C. *Physics.* Jerusalem, Palestine, Nov. 13, 15. B.S, Chicago, 36, M.S, 40, Ph.D, 42. Instr. physics and math, Chicago City Cols, 37–41; instr. math, Gary Col, 42; *exp. physicist, David Taylor Model Basin, U. S. Navy Dept, 42–* Chairman dept. physical and biol. sciences, Austin Col, 38–41; lecturer, George Washington, 43. Physical Soc. Cosmic rays and nuclear physics; mechanics and piezoelectricity.

Shapley, Dr. Harlow, Harvard University, Cambridge, Mass. **8Astronomy.* Nashville, Mo, Nov. 2, 85. A.B, Missouri, 10, A.M, 11, LL.D, 27; fellow, Princeton, 12–14, Ph.D, 13, Sc.D, 33; Sc.D, Pittsburgh, 31, Pennsylvania, 32, Brown, 33, Harvard, 33, Toronto, 34; LL.D, Oglethorpe, 31; Litt.D, Bates Col, 42; Hon. Dr, Michoacan (Mex), 42. Astronomer, Mt. Wilson Observatory, Carnegie Institution, 14–21; *director, Harvard Observatory, and Paine prof. astron, Harvard, 21–* Harris Foundation lecturer, Northwestern, 35. Trustee, Damascus Sch. for Girls, 30–; Oceanog. Inst, Woods Hole, 30–; Mass. Inst. Tech, 32–; assoc. trustee, Pennsylvania, 32–37; councilor, Missouri, 32–34; trustee, Science Service, v. pres. and chairman exec. cmt, 40–; trustee, Nat. Science Fund (exec. cmt, 41–). Director, Cmn. Relief Belgium Educ. Foundation, 35– Draper medal, Nat. Acad, 26; medal, Univ. Brussels, 26; N. Y. Soc. Arts and Sci, 31; Janssen prix, Soc. astron. de France, 33; Rumford medal, Am. Acad, 33; gold medal, Royal Astron. Soc, 34; Bruce medal, Astron. Soc. Pacific, 39; Pope Pius XI prize, 41; Crux de honor, State of Puebla, Mex. Nat. Acad. (exec. cmt, 29–31); A.A. (v. pres, D, 29); Astron. Soc. (pres, 43–); Philos. Soc. (councilor); Am. Acad. (councilor, 26–30, pres, 39–); Astron. Soc. Pacific; New Eng. Bot. Soc; Wash. Acad. (v. pres, 30–32); for. cor. Mex. Nat. Acad; Royal Astron. Soc. Can; assoc. Royal Astron. Soc; for. cor. Royal Lombard Inst; Royal Acad. Belgium; for. mem. Royal Swedish Physiog. Soc. Lund; Norwegian Acad; hon. mem. Viennese Akad; Int. Astron. Union (pres, variable star cmn, 25–32, nebulae cmn, 32–). Photometry; spectroscopy; cosmogony.

Shapovalov, Leo, North Rotunda, Museum Bldg, Stanford University, Calif. *Zoology.* Dorpat, Estonia, April 14, 08. A.B, Stanford, 30, A.M, 32.. Field asst, *State Div. Fish and Game, Calif,* 32, junior fisheries researcher in charge Hot Creek exp. sta, 32, senior fisheries researcher, 33, senior inland water fish researcher, 34–40, *senior fisheries biologist, 40–* Temporary biologist, Bur. Fisheries, 34. A.A; Soc. Ichthyol. and Herp; Fisheries Soc; Limnol. Soc; Wildlife Soc; West. Soc. Nat; Pacific Fishery Biol; N. Y. Acad; Calif. Acad. Biology and systematics of fresh-water fishes; salmonid fishes; stream and lake ecology; biological surveys; fish management; conservation.

Shapovalov, Michael, Utah State Agricultural College, Logan, Utah. *Plant pathology.* Vilna, Russia, July 14, 80. Theol. Sem, Vitebsk, Russia, 96–03; Dorpat, 04–11; Wisconsin, 11–12; M.S, Maine, 13; George Washington, 16–17; California, 30–32. Asst. pathologist, Exp. Sta, Maine, 12–16; agent, *bur. plant indust, U. S. Dept. Agr,* 16–17, asst. plant pathologist, 18–19, plant pathologist, 20–28, *senior pathologist, 28–,* in charge *west. tomato disease investigations,* Rubidoux lab, 22–37, *Exp. Sta, Utah State Col, 38–* Mem, State War Board, U. S. Dept. Agr, Utah, 43– Collaborator, 'Bot. Abstracts.' A.A; Phytopath. Soc; Ecol. Soc; Crop Protection Inst; fel. Am. Geog. Soc; Utah Acad; Calif. Bot. Soc; Pasteur Soc. Cent. Calif; Wash. Acad. (v. pres, 21). Diseases of truck crops; vegetable seed production.

Shappell, Dr. M(aple) D(elos), California Institute of Technology, Pasadena, Calif. *Aeronautics.* Lebanon, Iowa, June 22, 94. B.S, Arizona, 21; Storrow fellow, Nat. Research Council, 32; Ph.D, Calif. Inst. Tech, 33. Asst. geologist, State Bur. Mines, Ariz, 21; junior petrol. engineer, State Mining Bur, Calif, 23–24; asst. seismologist, Carnegie Institution, 30–34; geologist and geophysicist, Int. Geophysics, Los Angeles, 34–38; *aeronaut. engineer, Guggenheim aeronautics lab, Calif. Inst. Tech, 42–* Geophysics; structure and physical properties of minerals; aerodynamics.

Share, Dr. Simon S(ander), Agricultural and Mechanical College of Texas, College Station, Texas. *Physics.* Muscatine, Iowa, June 21, 05. B.S, Marquette, 28, M.S, 30; Ph.D, Wisconsin, 38. *Instr,* Marquette, 30–33; *physics, Agr. and Mech. Col. Texas, 39–* Physical Soc; Texas Acad. Nuclear forces; nuclear binding energies.

Sharefkin, Dr. Jacob G, Brooklyn College, Brooklyn, N. Y. *Organic chemistry.* New York, N. Y, June 15, 09. B.S, Col. City of N. Y, 30; A.M, Columbia, 33; Ph.D, N. Y. Univ, 37. Tutor *chem, Brooklyn Col,* 30–36, *instr, 37–* Chem. Soc. Acid polymerized dipinene; xylyl methyl carbinol.

Sharlit, Dr. Herman, 32 E. 64th St, New York, N. Y. *Dermatology, Medicine.* New York, N. Y, May 2, 92. A.B, Adelphi Col, 13; B.S, Columbia, 13; M.D, Cornell, 17. Chem. pathologist, Harriman research lab, Roosevelt Hosp, 17–30; instr. dermat, col. med, N. Y. Univ, 29–37; *assoc. dermatologist, Skin and Cancer Hosp, 37–* Adj. attending dermatologist, Beth Israel Hosp, 30–; asst. attending dermatologist, New York Post-Grad. Hosp, 38–; assoc. dermatologist, Goldwater Mem. Hosp, 40– Soc. Investigative Dermat; Am. Med. Asn; Soc. Exp. Biol; Dermat. Asn; Acad. Dermat. and Syphilol; Audubon Med. Soc. (pres, 30–32); N. Y. Acad. Med. Clinical medicine.

Sharp, Prof. Aaron J(ohn), University of Tennessee, Knoxville, Tenn. *Botany.* Plain City, Ohio, July 29, 04. A.B, Ohio Wesleyan, 27; M.S, Oklahoma, 29; Ph.D, Ohio State, 38. Asst. *bot,* Oklahoma, 28–29; instr, *Tennessee,* 29–37, asst. prof, 37–40, *assoc. prof, 40–* Summers, bot. technician, Great Smokies Nat. Park, 34, ranger naturalist, 40, 41; instr, West Virginia, 39–41. Acting ed, 'Bryologist,' 43– Trustee, Highlands Biol. Lab, N. C, 34–40. A.A; Ecol. Soc; Bot. Soc; Torrey Bot. Club; Fern Soc; Sullivant Moss Soc. (pres, 34); South. Appalachian Bot. Club (sec'y, 40–); Tenn. Acad. Southern Appalachian bryophytes; North American Andreaeales; Tennessee flora; American species of Macromitrium, Micromitrium and Schlotheimia.

Sharp, Dr. Agnes A(rminda), 10848 Longwood Drive, Chicago, Ill. *Psychology.* Chicago, Ill, Dec. 20, 93. Ph.B, Chicago, 16, A.M, 30, Ph.D, 38. *Assoc. psychiatry, Rush Med. Col, Illinois, 30–; chief psychologist and asst. director, psychiat. inst, Munic. Court of Chicago, 33–* Mem. attending staff, Presbyterian Hosp, Chicago, Ill, 42– Summer, expert consultant to U. S. Sec'y War and Director Oveta Culp Hobby's rep. selection candidates for officer's sch, Women's Army Auxiliary Corps, 42. Fel. Asn. Applied Psychol; Psychol. Asn; Ill. Soc. Mental Hygiene (sec'y and mem. exec. cmt, 29–). Abnormal, clinical and medical psychology.

Sharp, Dr. A(lvin) G(eorge), Experimental Station, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Sept. 14, 15. B.S, Illinois, 35, M.S, 36, Ph.D, 39. Research assoc, Hopkins, 39–41; *chemist, E. I. du Pont de Nemours and Co, 41–* Benzopyrans; porphyrins; proteins.

Sharp, Prof. C(leveland) G(illespie), Alabama College, Montevallo, Ala. *Biology, Bacteriology.* Somerville, Ala, Dec.

19, 87. B.S, Ala. Polytech, 15, M.S, 19; Chicago, 23–26. Prin, high sch, Ala, 15–17; *prof. biol. and head dept, Ala. Col, 19–* A.A. Pathology; blight and wilt of beans and pustule of soy-beans.

Sharp, Dr. D(avid) Gordon, Duke University Hospital, Durham, N. C. *Biophysics.* Annandale, N. J, Nov. 15, 09. B.S, Rutgers, 32; A.M, Duke, 37, Ph.D, 39. *Research in* physics, Westinghouse Lamp Co, 32–36; *biophysics, Duke Univ. Hosp, 39–* Physical Soc. Applications of physical methods to biological problems; electrophoresis and ultracentrifuge experiments on isolation and analysis of proteins; electron microscopy of animal viruses.

Sharp, Donald E(llsworth), 2709 Inwood Drive, Toledo, Ohio. *Physics.* Corning, N. Y, Oct. 30, 96. Wisconsin; Carnegie Inst. Tech. Physical lab, Corning Glass Works, 14; physics dept, Wisconsin, 16; ceramic lab, Bur. Standards, 17; physicist, optical glass plant, Spencer Lens Co, 18–20, manager, 20–25; consulting glass technologist, 26–29; pres, Bailey and Sharp Co, Hamburg, N. Y, 29–36; glass technologist, Hartford Empire Co, 37–41, asst. director research, 41–43; *asst. director in charge glass technol, Libbey-Owens-Ford Glass Co, 43–* Physical Soc; Optical Soc; fel. Ceramic Soc. (councilor, glass div, 23, v. chairman, 31, trustee, 38–41); Chem. Soc; fel. British Soc. Glass Technol. Optical and colored glass; physical and chemical properties of glass; technical furnaces; temperature measurement; telescope disks.

Sharp, Prof. Edward A(ffleck), 81 Linwood Ave, Buffalo, N. Y. *Medicine.* Bridgeport, Ohio, Nov. 20, 75. M.D, Buffalo, 98; London, Vienna, Berlin, Munich and Paris, 10–11. *Prof. neur, sch. med, Buffalo, 22–, assoc. prof. psychiatry, 35–* Neurologist, E. J. Meyer Mem. Hosp; consulting neurologist, Children's, Buffalo Gen, Lafayette Gen, Charity Eye, Ear and Throat, Buffalo State and Buffalo Columbus Hosps, J. N. Adam Mem. Hosp, Perrysburg, N. Y, Craig Colony, Sonyea, Mt. St. Mary's Hosp, Niagara Falls. A.A; Am. Med. Asn; Neur. Asn; Psychiat. Asn; Asn. Research Nervous and Mental Disease; N. Y. Acad. Med; N. Y. Neur. Soc; Buffalo Acad. Med; Buffalo Neuropsychiat. Soc. Neurology; poliomyelitis and other infections of the nervous system.

Sharp, Dr. George Oscar, 232 Alexander Blvd, Elmhurst, Ill. *Biochemistry.* Pittsburg, Kans, March 19, 09. B.S, Ottawa (Kans), 29; A.B, Kans. State Teachers Col, 32; M.S, Kans. State Col, 30; Ph.D, Iowa, 41. Instr. chem, high schs, Iowa, 30–36; asst. prof, Elmhurst Col, 36–42; *chemist, Am. Med. Asn, 42–* Chem. Soc. Amino acid metabolism; lysine metabolism.

Sharp, Prof. Henry S(taats), Columbia University, New York, N. Y. *Geology.* Stuyvesant Falls, N. Y, March 26, 02. A.B, Cornell, 24; A.M, Columbia, 26, Ph.D, 29. Assoc, Conn. Geol. Surv, 27–28; lecturer *geol,* Columbia, 28–29, instr, 29–30; asst. prof, Denison, 30–32; instr, *Columbia,* 32–37, *asst. prof, 37–, chairman dept. geol. and geog, Barnard Col, 41–* Managing ed, 'Jour. Geomorphol.' A.A; fel. Geol. Soc; Asn. Geog. Physical history of the Connecticut shoreline; coastal erosion and accretion; origin of the lower Hudson River; geomorphology; map interpretation.

Sharp, Prof. H(oward) Oakley, Rensselaer Polytechnic Institute, Troy, N. Y. *Civil engineering.* Troy, N. Y, Nov. 22, 91. C.E, Rensselaer Polytech, 14. Asst. to consulting engineers, 14–15; chief engineer, West Side Foundry Co, 14–19; instr, Rensselaer Polytech, 19–20; with Gen. Elec. Co, 20–21; instr, *Rensselaer Polytech,* 21–26, asst. prof, 23–36, *prof. geol. and transportation eng, 36–, acting head dept. civil eng, 42–* Mem. Highway Research Board. Mem. Am. Cong. Surveying and Mapping. Civil Eng. (chairman cmt. aerial surveying and mapping, 39–42; past v. pres, Mohawk-Hudson sect); Soc. Photogrammetry (director); Roadbuilders Asn; Eng. Educ; Ry. Eng; Soc. Eng. East. N. Y. (past pres). Photogrammetry.

Sharp, Dr. L(eroy) Harold, Indiana University, Bloomington, Ind. *Psychology.* Mendota, Ill, April 1, 06. B.S, Illinois, 30; M.S, Northwestern, 37, Ph.D, 40. Asst. *psychol,* Northwestern, 36–40; instr, Illinois, 40–42; Columbia, 42–43; *acting asst. prof, Indiana, 43–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Experimental and physiological psychology; relations of residual muscle tension to mental and muscular work.

Sharp, Prof. Lester W(hyland), Cornell University, Ithaca, N. Y. ***Botany, Cytology.* Saratoga Springs, N. Y, April 21, 87. B.S, Alma Col, 08, Sc.D, 30; Hopkins, 08–10; fellow, Chicago, 11–12, Ph.D, 12, 13–14; Louvain, 12–13. Instr. *bot, Cornell,* 14–15, asst. prof, 15–21, *prof, 21–* Board editors, 'Am. Jour. Bot,' 32–37. A.A; Bot. Soc. (pres, 30); Soc. Nat. (v. pres, 24). Embryo sac; spermatogenesis; chromosome structure.

Sharp, Prof. M(arlay) A(lbert), University of Tennessee, Knoxville, Tenn. *Agricultural engineering.* McCook, Nebr, May 22, 89. B.S, Nebraska, 15; M.S, Iowa State Col, 28. State supervisor agr. educ, S. Dak, 21–25; assoc. prof. agr. eng, Iowa State Col, 25–37; *prof. agr. eng. and head dept, Tennessee, 37–* Agr. Eng. Scarification of Mellolotus Alba; agricultural engineering on corn belt farms.

Sharp, Prof. Paul F(rancis), 20 Bellevue Ave, Piedmont, Calif. *Dairy chemistry.* Allen, Nebr, Dec. 6, 94. A.B, Nebr. Wesleyan, 17; M.S, Minnesota, 20, Ph.D, 22. Instr. agr. biochem, Minnesota, 19–22; asst. chemist, Exp. Sta, Mont. State Col, 22–24, assoc. chemist, 24–25; prof. dairy chem, N. Y. State Col. Agr, Cornell, 25–42; *director research, Golden State Co, Ltd, 42–* Borden award and medal, Am. Dairy Science Asn, 41. A.A; Chem. Soc; Dairy Sci. Asn; Soc. Exp. Biol. Cereal chemistry; storage of eggs.

Sharp, Prof. R(ichard) Lauriston, Cornell University, Ithaca, N. Y. *Anthropology.* Madison, Wis, March 24, 07. A.B, Wisconsin, 29; Vienna, 30–31; Ph.D, Harvard, 37. Asst. dean freshmen, Wisconsin, 29–30; asst. *anthrop,* Harvard, 32–33, 36; lecturer, Sydney, 33–35; instr, *Cornell,* 36–38, *asst. prof, 38–* Mem. Logan Museum North African exped, 30; mem, Fox Indian Reservation Study, Chicago, 32; leader, North Queensland expeds, Australia, 33–35. Fellow, Australian Nat. Research Council. Anthrop. Asn. (exec. councilor, 36–); Soc. Applied Anthrop. (councilor, 41–). Archeology and ethnology of North Africa and the American Southwest; ethnology of the Fox Indians; physical anthropology, ethnology and linguistics of North Australia.

Sharp, Dr. Robert P(hillip), University of Illinois, Urbana, Ill. *Geology.* Oxnard, Calif, June 24, 11. B.S, Calif. Inst. Tech, 34, M.S, 35; A.M, Harvard, 36, Ph.D, 38. Asst. geol, Calif. Inst. Tech, 35; Austin teaching fellow, Harvard, 37, Woodworth fellow, 38; *instr. geol, Illinois, 38–* Asst. director, Stanford Geol. Surv, 38; research assoc, Museum North. Arizona, 40–41. Mem, Wood Yukon exped, 41. Geol. Soc. Basin-range structure and Tertiary history; Pleistocene glaciation in Nevada and Arizona; erosion surfaces of Grand Canyon; periglacial involutions in Illinois.

Sharp, Dr. Ward M, Red Rock Lakes National Wildlife Refuge, Monida, Mont. *Biology.* Fairview, W. Va, Nov. 2, 04. A.B, West Virginia; M.S, Cornell; Ph.D, Washington (St. Louis), 34. Instr. bot, West Virginia, 31–32; asst, Washington (St. Louis), 32–34; educ. supervisor, Office Educ, U. S. Dept. Interior, 34–35; *asst. biologist, migratory waterfowl div, fish and wildlife service, U. S. Dept. Interior, 35–* Ornith. Union; Bot. Soc; Soc. Mammal; Wilson Ornith. Club; Ecol. Soc; Wildlife Soc. Ornithology; botany; aquatic biology; wildlife management; trumpeter swan management.

Sharp, Prof. William B(arnard), 1724 Boulevard, Galveston, Texas. *Medicine.* Edgefield Junction, Tenn, Oct. 19, 89. A.B, Univ. of the South, 10; M.S, Chicago, 14, Ph.D, 22, M.D, Rush, 14. Research work, McCormick Inst, 13–14; instr. bacter, Chicago, 16; chief med. service, Rockefeller Foundation, Red Cross Gen. Hosp, Shanghai, 16–18; practising physician, Chicago, 19–21; *prof. bacter. and head dept, sch. med, Texas, 21–* Bacteriologist, John Sealy Hosp, 21–; supervisory bacteriologist, Health Dept, Galveston, 30– Summers, health officer and lecturer, Chicago, 21–31. Investigator, Respiratory Cmn, 19–21. Lieut, M.C, 18–19, major, M.R.C, 27–37. A.A; Am. Med. Asn; Soc. Trop. Med; Soc. Bact; Pub. Health Asn. Preventive medicine; bacteriology; public health; etiological factors in respiratory disorders; personal hygiene; fungus infections.

Sharp, Prof. Winford L(ee), College of Wooster, Wooster, Ohio. *Psychology.* Brownsvalley, Ind, March 24, 90. A.B, Franklin Col, 15; diploma, Rochester Theol. Sem, 18; A.M, Chicago, 22, Ph.D, 28. Acting assoc. prof. *psychol,* Hillsdale Col, 23–24; instr, Chicago, 26–28; assoc. prof, Denison, 28–30; asst. prof, *Col. of Wooster,* 30–31, *prof, 31–* A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn. Animal and experimental psychology; space perception.

Sharpe, Benjamin F(ranklin), Greenwich, N. Y. *Physics.* Cape May, N. J, Jan. 7, 64. A.B, Wesleyan, 87, A.M, 90; Hopkins, 91–93; fellow, Clark, 93–95, 96–97. Master, Beeman

Acad, Vt, 81–82; asst. prin, Monson Acad, Mass, 85–86; adj. prof. physics and biol, Randolph-Macon Col, 87–91; prof. math, N. Y. State Nor. Sch, New Paltz, 95–96. An absolute measure of the intensity of sounds; hydrodynamics and sound; increase of sensitiveness of the mercurial barometer; a new barograph.

Sharpe, Dr. C(harles) F(arquharson) Stewart, Soil Conservation Service, Washington, D. C. *Geology.* Winnipeg, Man, Can, Oct. 21, 07. A.B, Columbia, 28, A.M, 31, Ph.D, 38. Asst. soil conservationist, *climatic and physiog. div, soil conservation service, U. S. Dept. Agr,* 35–38, *assoc. soil conservationist, 38–, acting head physiog. sect, 41–* A.A; fel. Geol. Soc; Asn. Geog; Geophys. Union; Geol. Soc. Wash. Mass movements of soil and rock; accelerated erosion.

Sharpe, Prof. F(rancis) R(obert), 57 Central Ave, Ocean City, N. J. **Mathematics.* Warrington, Eng, Jan. 23, 70. B.A, Cambridge, 92; Ph.D, Cornell, 07. Lecturer *math,* Queen's (Can), 01–04; asst, *Cornell,* 05–06, instr, 06–10, asst. prof, 10–19, prof, 19–38, *emer. prof, 38–* Math. Soc. Hydrodynamics; geometrical transformations.

Sharpe, Dr. J(oseph) A(udley), Box 591, Tulsa, Okla. *Geophysics.* Axtell, Kans, March 2, 07. B.S, Arizona, 28; fellow, Wisconsin, 32–34, Ph.D, 34. Computer, Tucson magnetic observatory, U. S. Coast and Geod. Surv, 27–28; instr. physics, Arizona, 28–30; asst, Wisconsin, 30–32; Gen. Educ. Board fellow geophysics, Mass. Inst. Tech, 34–35; research geophysicist, West. Geophys. Co, 35–37; *chief physicist, Stanolind Oil and Gas Co, 37–* Ed, 'Geophysics,' 42– Min. and Metal. Eng; Math. Soc; Asn. Petrol. Geol; Physical Soc; Geophys. Union; Seismol. Soc; Soc. Explor. Geophys. Seismology; geophysical exploration.

Sharples, Philip P(rice), 17 Farrar St, Cambridge, Mass. *Chemistry.* Cambridge, Mass, July 11, 73. A.B, Harvard, 95. City inspector milk and vinegar, Cambridge, 01–05; head chemist, Barrett Mfg. Co, Boston, 05–14, manager tarvia dept, N. Y, 14–23; *adviser on road problems, 23–* A.A; Chem. Soc. Bituminous road binders.

Sharsmith, Dr. Carl W(illiam), University of Minnesota, Minneapolis, Minn. *Systematic botany, Phytogeography.* New York, N. Y, March 14, 03. A.B, California at Los Angeles, 32; Ph.D, California, 40. Instr. syst. bot. and ecol. and curator herbarium, State Col. Wash, 37–39; *instr. syst. bot, Minnesota, 40–* Soc. Plant Taxon; Bot. Soc; Calif. Bot. Soc. History of alpine floras of western America; systematic botany of Angiosperms.

Shartle, Dr. C(arroll) L(eonard), War Manpower Commission, Washington, D. C. *Industrial psychology.* Ruthven, Iowa, June 26, 03. A.B, Iowa State Teachers Col, 27; A.M, Columbia, 32; Ph.D, Ohio State, 33. Asst. psychologist and mem. educ. staff, Milwaukee Ry. and Light Co, 27–31; asst. psychol, Ohio State, 31–32, instr, 32–33; Mich. State Col, 33–35; *chief,* worker analysis unit, U. S. Employment Service, 35–39, occupational analysis sect, 39–43; *div. occupational analysis and manning tables, War Manpower Cmn, 43–* Lecturer, col. business admin, Marquette, 31; professorial lecturer, George Washington, 41– Cooperating ed, 'Educational and Psychol. Measurement.' Cmt. classification mil. personnel and cmt. selection and training civilian pilots, Nat. Research Council. A.A; Vocational Guidance Asn. (trustee, 41–); assoc. Psychol. Asn; fel. Asn. Applied Psychol. (sec'y board editors, 39–42; governor). Occupational classification; job analysis of civilian and army occupations; trade tests; interviewing; worker evaluations; aptitude testing; job relationships.

Sharvelle, Prof. Eric G(eorge), University Farm, St. Paul, Minn. *Plant pathology.* Longfield, Kent, Eng, Aug. 28, 08. B.S.A, McGill, 30; B.Sc. and M.Sc, Alberta, 32; Ph.D, Minnesota, 34. Res. doctor, Cornell, 38; Crop Protection Inst. fellow, N. Y. Agr. Exp. Sta, Geneva, 38–39; Conn. Exp. Sta, 39; *asst. prof. plant path, Minnesota, 39–* Phytopath. Soc; Minn. Acad. Diseases of small fruits and diseases of tree fruits; fungicide research.

Shattuck, Dr. George Cheever, 25 Shattuck St, Boston, Mass. *Medicine.* Boston, Mass, Oct. 12, 79. A.B, Harvard, 01, M.D, 05, hon. A.M, 19. Asst. prof. *trop. med, Harvard Med. Sch,* 21–38, *clin. prof, 38–, mem. faculty, museum comp. zool, Harvard, 33–* Asst. visiting physician and physician in charge service for trop. diseases, Boston City Hosp, 21–39, visiting physician, 39–41, consultant, 41–; attending specialist, U. S. Marine Hosp, Brighton, Mass, 23–; consultant, Mass. Gen. Hosp, Boston, 28– Typhus fever cmn, Am. Red Cross, Serbia, 15; advisory cmt, Gorgas Mem. Inst, 21–; chairman exec. cmt, Boston Health League, Inc, 23–39, pres, 39–; advisory cmt. to Health Commissioner, Boston, 36–; chairman, 41–; Boston Advisory Cmt. Sch. Hygiene, 37–; pres, Mass. Cent. Health Council, 38– Hon. major, R.A.M.C, 17–19. A.A; Am. Med. Asn; Soc. Clin. Invest; Soc. Trop. Med. (v. pres, 25, pres, 26); Clin. and Climat. Asn; Am. Acad; Pub. Health Asn; Acad. Trop. Med; Mass. Med. Soc; Royal Soc. Trop. Med. and Hygiene. Tropical diseases.

Shattuck, Dr. Howard F(rancis), 33 E. 68th St, New York, N. Y. *Medicine.* Clinton, Wis, Dec. 19, 87. A.B, Yale, 11; M.D, Columbia, 13. Physician, Presb. Hosp. Dispensary, 16–21; asst. attending physician, N. Y. Post-Grad. Hosp, 19–28, attending physician, 28–36; prof. clin. med, *Columbia,* 30–36, *clin. prof. med, col. physicians and surgeons, 36–* Attending physician, Roosevelt Hosp, 36– M.C, U.S.A, 17–18, lieut. Am. Med. Asn; Gastro-Enterol. Asn. (pres, 36); fel. Col. Physicians; Soc. Clin. Research; N. Y. Acad. Med. (chairman, sect. med, 25). Internal medicine; chemical and clinical aspects of diseases of the digestive tract.

Shatzer, Dean C(harles) G(allatin), Wittenberg College, Springfield, Ohio. *Geology, Geography.* Shelby, Ohio, Dec. 8, 77. A.B, Wittenberg Col, 00, A.M, 04; Sc.D, Susquehanna, 21; Chicago. Prin, high sch, Ohio, 00–01; instr, Wittenberg Acad, 01–04; acting prof. *geol. and biol, Wittenberg Col,* 04–05, *Springfield prof, 05–, dean,* 14–23, *25–* Summers, instr, Lake Lab, Ohio State, 11–16. A.A; fel. Ohio Acad. Physiographic geology.

Shaub, Prof. Benj(amin) M(artin), 159 Elm St, Northampton, Mass. *Economic geology.* New Freedom, Pa, Jan. 12, 93. M.E, Cornell, 25, M.S, 28, Ph.D, 29. Instr. machine design, Cornell, 23–29, 30–31; *asst. prof. miner, petrog. and petrol, Smith Col, 31–; major, Ordnance Dept, U. S. Army, 41–* Geologist, Rhodesian-Anglo Am. Mines, Broken Hill, North. Rhodesia, Africa, 29; v. pres, Morse-Shaub Oil and Gas Corp, 31–36. Fel. Miner. Soc; fel. Geol. Soc; Min. and Metal. Eng; fel. Soc. Research Meteorites; Soc. X-ray and Electron Diffraction. Mineralogy; petrography; petrology.

Shaub, Prof. H(oward) C(onway), 103 Le Moyne Ave, Washington, Pa. *Mathematics.* Concord, Ohio, April 2, 02. A.B, Dartmouth Col, 20, A.M. 22; Ph.D, Cornell, 27. Instr. *math,* Dartmouth Col, 20–22; Harvard, 22–23; Cornell, 23–27; asst. prof. and later assoc. prof, *Washington and Jefferson Col,* 27–42, *prof. and head dept, 42–* A.A; Math. Soc; Math. Asn. Pure mathematics; algebraic geometry; rational involutions in higher space; mapping rational surfaces; linear systems; Cremona transformations.

Shaughnessy, Prof. Howard J(ohn), State Department of Public Health, 1800 W. Fillmore St, Chicago, Ill. *Bacteriology, Public health.* Northampton, Mass, Aug. 21, 99. B.S, Mass. Col, 22; Ph.D, Yale, 26. Instr. pub. health, Yale, 22–26; nat. research fellow bacter, 26–27; instr. hygiene and bacter, Chicago, 27–30; asst. prof. path. and bacter, col. med, Illinois, 30–37; assoc. prof. bacter. and pub. health, sch. med, Colorado, 37–38; *asst. prof. bacter, med. sch, Northwestern, 39–* Chief, div. labs, State Pub. Health Dept, Ill, 30–37, 38– Soc. Bact; fel. Pub. Health Asn; Soc. Exp. Biol; Soc. Ill. Bact. (sec'y-treas; exec. councilor); Ill. Pub. Health Asn. (exec. councilor, v. pres). Physical chemistry of bacteria; infantile paralysis; public health bacteriology; staphylococcic food poisoning; viruses.

Shaulis, Dr. Nelson J(acob), Fruit Research Laboratory, Arendtsville, Pa. *Pomology.* Somerset, Pa, Sept. 10, 13. B.S, Pa. State Col, 35, M.S, 37; Ph.D, Cornell, 41. Asst. soil tech, *Pa. State Col,* 35–37, asst. county agr. agent, 37–38, asst. *pomology,* 38–41, *instr, 42–;* cooperative agent, *soil conservation service, U. S. Dept. Agr,* 38–41, *asst. soil conservationist, 42–* Orchard soil management; orchard soils; soil and plant responses to cover crops and mulches.

Shaver, Prof. Edna H(elen), 15 Second St, Troy, N. Y. *Organic chemistry.* Pittsburgh, Pa. A.B, Oberlin Col, 18, A.M, 20; Ph.D, Chicago, 27. Assoc. prof. *chem,* Okla. Col. for Women, 20–22; asst. prof, Oberlin Col, 22–25; assoc. prof. and later *prof, Russell Sage Col, 27–* Chem. Soc. Surface tension; sugars.

Shaver, Prof. Jesse M(ilton), George Peabody College for Teachers, Nashville, Tenn. *Zoology.* Gerber, Ga, Nov. 29, 88. B.S.A, Tennessee, 15; M.S, Vanderbilt, 21; Ph.D, Chicago, 28. Instr. *biol, George Peabody Col,* 15–16, asst. prof,

17–23, assoc. prof, 24–27, *prof, 28–* Asst. nursery inspector, Tenn, 22. A.A; Soc. Zool; Ecol. Soc; Ornith. Union; Wilson Ornith. Club (sec'y, 29–31, pres, 31–); Tenn. Ornith. Soc. (pres, 24); Tenn. Acad. (ed, 'Jour,' 28–, pres, 38). Animal ecology; ornithology.

Shaver, Dr. W(illiam) W(alker), Corning Glass Works, Corning, N. Y. *Physics.* Iroquois, Ont, Can, Jan. 9, 98. B.A, Toronto, 19, M.A, 20, Nat. Research Council Can. student, 20–21, fellow, 21–23, Ph.D, 23. Demonstrator physics, Toronto, 19–20, asst, 23–24; *research physicist, Corning Glass Works, 24–* Ceramic Soc; British Soc. Glass Technol. Spectroscopy; glass as electrical insulation material; developments and applications for glass.

Shaw, Prof. A(lbert) Norman, McGill University, Montreal, Que, Can. *Physics.* Huddersfield, Eng, Dec. 31, 86. B.A, McGill, 08, fellow, 09–10, M.S, 10, D.Sc, 15; M.A, Cambridge, 13. Lecturer *physics, McGill,* 10–11, Macdonald Col, 13–18, assoc. prof, 18–26, *prof, 26–, head dept. and director lab, 35–* A.A; fel. Physical Soc; fel. Royal Soc. Can. (pres, sect. III, 31). Absolute measurement of current; interference phenomena with gamma rays; contact potential; bifilar suspensions; hygrometry; anemometry; estuary tidal analysis; standard cells; thermodynamics.

Shaw, Dr. A(lfred) O, North Carolina State College, Raleigh, N. C. *Dairy cattle feeding and management.* Camas, Utah, Aug. 9, 07. B.S. and M.S, Idaho, 32; Ph.D, Pa. State Col, 35. Instr. dairying and dairy husbandman, Idaho, 35–39; asst. prof. dairying, Kans. State Col, 39–40, assoc. prof, 40–41; *head dept. animal industry, N. C. State Col, 41–* Livestock feeding and management.

Shaw, Prof. B(yron) T(homas), Ohio State University, Columbus, Ohio. *Soil physics, Physical chemistry.* Paradise, Utah, Sept. 7, 07. B.S, Utah State Agr. Col, 30; Southern California, summers, 33, 34; Brigham Young, 37; Ph.D, Ohio State, 40. Instr, high sch, Idaho, 30–37; asst. *agron, Ohio State,* 38–39, instr, 39–40, asst. prof, 40–42, *assoc. prof, 42–* Summer, instr, California, 40. Soc. Agron. Soil colloids; water relationships in soils.

Shaw, Dr. Charles H(enry), Johns Hopkins University, Baltimore, Md. *Physics.* Los Angeles, Calif, Jan. 26, 08. A.B, California at Los Angeles, 30; Ph.D, Hopkins, 33. Nat. research fellow *physics,* Cornell, 34–36; fellow, *Hopkins,* 36–38, instr, 38–42, *assoc, 42–* Physical Soc. Shapes and wavelengths of x-ray lines; x-ray satellites; fine structure of absorption edges; electron scattering in gases; industrial radiography.

Shaw, Dr. E(arl) B(ennett), 46 Elm St, Worcester, Mass. *Geography.* Monroe, Iowa, March 18, 89. A.B, Washington (St. Louis), 27, M.S, 29; Ph.D, Clark, 33. Asst. *geog,* Washington (St. Louis), 27–29, instr, 29–30; visiting prof, Puerto Rico, 32; asst, Smith Col, 32–33; *head dept, Mass. State Teachers Col, Worcester, 33–* Visiting prof, Puerto Rico, 40. Lecturer, World Federation Educ. Asns. Conf, S. Amer, 39. Asn. Geog. Geography of Latin America; economic geography.

Shaw, Dr. Edward B(yer), 384 Post St, San Francisco, Calif. *Pediatrics.* Olney, Ill, April 5, 95. A.B, California, 17, A.M, 19, M.D, 21. From asst. to *assoc. clin. prof. pediat, med. sch, California, 22–* Pediat. Soc; Acad. Pediat. (chairman region IV, 34–42). Clinical research pediatrics; communicable diseases.

Shaw, Prof. Edwin H(erbert), Jr, University of South Dakota, Vermillion, S. Dak. *Biochemistry, Chemistry.* Baltimore, Md, Oct. 12, 00. B.S, Hopkins, 21, Ph.D, 25. Int. Health Board fellow, Hopkins, 25–27; asst. prof. *biochem, South Dakota,* 27–29, assoc. prof, 29–35, *prof, 35–* A.A; Soc. Exp. Biol; Chem. Soc; S. Dak. Acad. Organic chemistry; organic selenium compounds; malaria; permeability of cells; mechanism of toxicity.

Shaw, Dr. E(verett) J, 1229 Walnut St, Western Springs, Ill. *Physical chemistry.* Joliet, Ill, Jan. 22, 05. B.S, Illinois, 26, scholar, 26–27, fellow, 29–30, Ph.D, 30. Instr. chem, Illinois, 30–31; senior chemist, Peoples Gas Light and Coke Co, Chicago, 31–35; chemist, A. B. Dick Co, 35–41; *chem. engineer, West. Elec. Co, 41–* Chem. Soc. Magnetic moments of diatomic molecules; theoretical electrochemistry; metering of gases; physical properties of gases; stencil paper; thermoplastics.

Shaw, Dr. Frank R(obert), Massachusetts State College, Amherst, Mass. *Entomology, Apiculture.* Belchertown, Mass, Nov. 19, 08. B.S, Mass. State Col, 31; Ph.D, Cornell, 36. Asst. insect morphol. and histol, Cornell, 31–34, instr. insect control, 34–35; *econ. entom. and beekeeping, Mass. State Col,* 35–43, *asst. prof, 43–* Asn. Econ. Entom. (chairman sect. apicult, 40); Entom. Soc. Amer. Taxonomy of Mycetophilidae.

Shaw, Prof. Frederick W(illiam), 2312 Stuart Ave, Richmond, Va. *Bacteriology, Pathology.* Halifax, Eng, Dec. 14, 82. M.D, Kansas, 06; B.S, M.S, Missouri, 21. Assoc. prof. and prof. hygiene, Missouri, 19–24; assoc. prof. bacter, *Med. Col. of Va,* 24–29, prof. bacter. and clin. path, 29–31, *prof. bacter. and parasitol, 31–* A.A; Am. Med. Asn. Clinical pathology; necro-bacillosis in man; fermentation of tan bark; liquefaction of gelatin by bacteria; localization of tuberculosis in rabbits; mycological infections.

Shaw, Dr. Geoffrey T(horp), Port Hope, Ont, Can. *Chemistry.* Westmount, Que, Feb. 14, 07. B.Sc, McGill, 30, Ph.D, 35, M.Sc, Macdonald Col, 33. *Research chemist,* Int. Paper Co, 30–31; Consol. Mining and Smelting Co. of Can, 35–41; *Eldorado Gold Mines, Ltd, 41–* Nat. Research Council Can. grant, 31–33. A.A. Base exchange properties of soils; kinetics of gas reactions; fertilizer manufacture; pulp and paper; radium and uranium.

Shaw, George, Geological Survey, Department of Mines and Resources, Ottawa, Ont, Can. *Geology.* Oldham, Lancastershire, Eng, Aug. 28, 10. B.Sc, Saskatchewan, 32; M.Sc, McGill, 34. Lecturer geol, McGill, 35; geologist, Prospectors Airways Ltd, 35–36; *asst. geologist, Geol. Surv. Can, 37–* Lecturer, Saskatchewan, 37–38. Precambrian geology of Quebec.

Shaw, Dr. G(eorge) R(obert), RCA Manufacturing Co, Inc, 415 S. Fifth St, Harrison, N. J. *Chemistry.* Frederick, Md, Dec. 13, 95. A.B, Washington and Lee, 15, A.M, 16; Ph.D, Wisconsin, 20. Instr. chem, Washington and Lee, 15–16; Wisconsin, 16–17, 19–20; chemist, nat. lamp works, Gen. Elec. Co, 20–29; chief chemist, *radiotron div, RCA Mfg. Co,* 30–40, *manager research and eng. dept, 40–* C.W.S, U.S.A, 17–19. Chem. Soc; Physical Soc; Radio Eng. Inorganic and physical chemistry; electronics.

Shaw, Harry B(erry), 723 Upshur St, N. W, Washington, D. C. *Plant pathology.* Huddersfield, Eng. George Washington, 99, 06. Sci. asst. plant bacter, bur. plant indust, U. S. Dept. Agr, 07–10, asst. path, sugar plant investigations, 10–14, chief path. inspector, N. Y. office, fed. hort. board, 14–25, pathologist, bur. entom. and plant quarantine, 25–35, pathologist and plant quarantine inspector in charge for. information service, div. for. plant quarantines, 35–39; *retired.* Phytopath. Soc; Bot. Soc; Bot. Soc. Wash. Curly-top disease of beets; thrips as pollinators of beets; sugarbeet nematodes; foreign plant quarantines.

Shaw, Henry S(outhworth), General Radio Co, 30 State St, Cambridge, Mass. *Electrical engineering.* Boston, Mass, Nov. 29, 84. A.B, Harvard, 06. Treas. *Gen. Radio Co,* 18–26, *chairman directors, 26–* V. pres, Mt. Washington Observatory, 36–39. A.A; Elec. Eng; fel. Radio Eng; fel. Acoustical Soc; Meteorol. Soc; Geophys. Union; assoc. Ornith. Union; fel. Am. Acad; Northeast. Bird Banding Asn. (v. pres, 24–34); N. H. Acad. (v. pres, 33). Radio transmission phenomena; meteorology.

Shaw, Prof. H(oward) B(urton), North Carolina State College, Raleigh, N. C. *Electrical engineering.* Winslow, Maine, Aug. 8, 69. A.B, North Carolina, 90, B.Ch.E, 91; A.M, Harvard, 94. Instr. math, North Carolina, 89–90, math, surveying and drawing, 91–93; asst, elec. eng. lab, Harvard, 94–96; asst. prof. elec. eng, Missouri, 96–99, prof, 99–13, dean sch. eng, 07–13, director eng, Exp. Sta, 09–13; commissioner, Mo. Pub. Service Cmn, 13–17; director, Doherty Training Schs, 17–23; eng. exp. sta, *N. C. State Col,* 23–32, *prof. indust. eng, 32–* Assoc. Elec. Eng; Eng. Educ; Soc. Adv. Management; N. C. Eng. Soc; hon. mem. Mo. Utilities Asn. Insulation; alternating current curves; alternating current motors; energy losses in magnetic materials; industrial application of electricity; operation of utilities; economics of industry; personnel and training; tractive resistance; highway transportation; transport costs and economics. (*Died Dec, 1943*)

Shaw, Prof. J(acob) K(ingsley), Massachusetts State College, Amherst, Mass. *Pomology.* Northfield, Vt, Aug. 5, 77. B.S, Vermont, 99; M.S, Mass. Col, 08, Ph.D, 11. Acting asst. prof. hort, Missouri, 05–06; instr, New Hampshire, 06–07; asst. horticulturist, Exp. Sta, Mass. Col, 08–13, research pomologist, 13–19; prof. hort, West Virginia, 19–20; *research*

prof. pomol, Mass. Col, 20–31, *Mass. State Col, 31–* Gold medal, State Dept. Agr, Mass, 24. A.A; Pomol. Soc; Soc. Hort. Sci. (pres, 38). Plant breeding; fruit variety characters; root and scion; nutrition.

Shaw, Prof. James B(yrnie), 2451 Ridgeview, Los Angeles 41, Calif. *[1]*Mathematics. Remington, Ind, March 20, 66. B.S, Purdue, 89, M.S, 90, Sc.D, 93. Prof. *math,* Ill. Col, 90–98; Kenyon Col, 99–03; James Millikin, 03–10; asst. prof, *Illinois,* 10–15, assoc. prof, 15–18, prof, 18–33, *emer. prof, 33–* Summer, prof, Chicago, 09. Soc. math. de France. Multiple algebra; linear associative algebra; general algebra; philosophy of mathematics.

Shaw, Dr. James Niven, Oregon State College, Corvallis, Oregon. *Parasitology.* Embarrass, Wis, 90. B.S, Oregon State Col, 15; B.S, State Col. Wash, 17, D.V.M, 17. Asst. veterinarian and *assoc. veterinarian, Exp. Sta, Oregon State Col, 19–,* dairy herd inspector, 21–25, asst. prof. *vet. med, col,* 25–33, assoc. prof, 33–38, *prof. and head dept, 38–* U.S.A, 17–19. Vet. Med. Asn. Veterinary parasitology.

Shaw, John G(ilbert), Laboratorio Entomologico, Apartado 3, Colonia Anahuac, D. F, Mex. *Entomology.* Columbia City, Ind, May 17, 08. A.B, Kansas, 30, A.M, 32. Bean insects investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–34; dist. educational adviser, Civilian Conservation Corps Camps, 34–37; Mexican fruitfly investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr, 37–,* in charge sublab, 37–42, *asst. entomologist, Tamaulipas, Mex, 39–* A.A; Asn. Econ. Entom; Entom. Soc. Amer; Kans. Entom. Soc. Biology of the Mexican bean beetle and the bean stalk weevil; biology and ecology of Mexican species of fruitflies.

Shaw, J(oseph) A(llan), Koppers Co, Mellon Institute of Industrial Research, Pittsburgh, Pa. *Chemistry.* Philadelphia, Pa, Nov. 20, 87. B.S, Pa. State Col, 11. Am. Steel and Wire Co, Pa, 11–16; Pittsburgh Crucible Steel Co, 16–18; *research chemist, Koppers Co,* Mellon Inst, 18–33, Kearny, N. J, 33–39, *Mellon Inst, 39–* Analytical methods and research on waste disposal; phenolic stream pollution; general coke plant problems; gas purification; removal of traces of impurities.

Shaw, J(oseph) B(radfield), 1432 Spring Road, N.W, Washington, D. C. *Ceramics.* West Lafayette, Ohio, May 13, 84. C.E, Ohio State, 08. Teacher, pub. sch, Ohio, 01–03; asst. eng. drawing, Ohio State, 07–08; supt, Wheeler Reflector Co, Boston, 08–09; porcelain dept, Grand Rapids Refrigerator Co, Mich, 09–11; research ceramic engineer, Andrew Ramsey Co, and supt, Sanit. Mfg. Plant, Md, 11–12; sch. supt, Pa, 12–13; research ceramic engineer, Pittsburgh Testing Lab, Pa, 13–16; prof. ceramic eng, N. Y. State Sch. Clay-working and Ceramics, 16–24; head dept. ceramics, Pa. State Col, 24–32; *consulting engineer, 16–* Asst. ceramic chemist, Bur. Standards; dist. chief, U. S. Fuel Admin, N. Y. and R.O.T.C, 17–19. Ceramic Soc. (standards cmt, cmt. on educ); Soc. Test. Mat. (chairman, subcmt. on abrasion, cmt. C-8); Soc. Rheol; Refractories Inst. Fire clays; sanitary ware; enamels; fire and paving bricks; enameled ware; antimony oxide as an opacifier; electrolytes in clay; acid test; high temperature fusion furnace; refractories at high temperatures; quartz content of feldspar; vitrification of ceramic products.

Shaw, Prof. J(oseph) C(lement), University of Connecticut, Storrs, Conn. *Dairy industry.* Perry, Iowa, Nov. 5, 08. B.S, Iowa State Col, 30; M.S, Mont. State Col, 33; Ph.D, Minnesota, 38. Dist. club agent, S. Dak. State Exten. Service, 30–32; teaching asst. animal husbandry, Mont. State Col, 32–33; asst. dairy husbandry, Minnesota, 33–38, assoc. physiologist, 38–40; *asst. prof. dairy industry, Connecticut, 40–* Field man, dept. agr. econ, Iowa State Col. and Minnesota, 36. A.A; Dairy Sci. Asn. Physiology of milk secretion; dairy cattle physiology and nutrition.

Shaw, Dr. L(eon) I(rwin), Western Electric Co, Chicago, Ill. *Engineering, Chemistry, Ceramics.* Alfred, N. Y, May 30, 86. B.S, Alfred, 07; M.S, Syracuse, 08; Ph.D, Wisconsin, 11. Asst. *chem,* Alfred, 06–07; Syracuse, 07–08; instr, Mass. Col, 08–09; asst, Wisconsin, 09–10, instr, 10–11; Northwestern, 11–17, asst. prof, 17–18; asst. chief chemist, U. S. Bur. Mines, 19–25; *develop. engineer, West. Elec. Co, 25–* Lieut, Ordnance R.C, 17–18, capt, C.W.S, 18–19, major, C.W.S.R, 24–34. A.A; Chem. Soc; Ceramic Soc; Soc. Test. Mat; Standards Asn. Smoke and incendiary material; helium; mineral technology; raw materials; ceramics; instrumental chemical analysis; die casting; health hazards; physical and electrical testing.

Shaw, Dr. L(uther), 2106 Breeze Road, Raleigh, N. C. *Plant pathology.* Saxapahaw, N. C, July 13, 06. B.S, N. C. State Col, 28; M.S, Arkansas, 29; Ph.D, Wisconsin, 32. Nat. research fellow, Cornell, 32–34; asst. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr, 34–35; plant pathologist, exten. div, *N. C. State Col,* 35–40, *prof. plant path, 40–* Phytopath. Soc. The occurrence and nature of resistance to fire blight in apples and pears; diseases of peanuts, apples and peaches.

Shaw, Dr. Myril C(lement), 400 Mimring Road, Columbus, Ohio. *Ceramics.* Columbus, Ohio, Nov. 4, 07. B.S, Pa. State Col, 29, M.S, 30; Ph.D, Ohio State, 34. Research engineer, eng. exp. sta, Ohio State, 30–34; asst. manager, *Edward Orton Jr. Ceramic Foundation,* 34–43, *manager, 43–* Ceramic Soc. Geological surveys of ceramic materials; thermochemistry.

Shaw, Dr. Myrtle A, 11 S. Lake Ave, Albany, N. Y. *Bacteriology.* Schiller Park, Ill, July 31, 97. B.S, Beloit Col, 19; M.S, Wisconsin, 20, Ph.D, 27. Instr. bot. and bacter, Beloit Col, 20–23; asst. agr. bacter, Wisconsin, 24–27, instr, 27–29; bacteriologist, research div, Commercial Solvents Corp, Terre Haute, Ind, 29–31; *senior bacteriologist, div. labs. and research, State Dept. Health, N. Y, 31–* Soc. Bact; Asn. Immunol. Thermophilic bacteria; microorganisms which decompose bacterial polysaccharides.

Shaw, Dr. Ralph J(esse), Southeastern State College, Durant, Okla. *Zoology.* Durant, Okla, Dec. 24, 06. B.S, Southeast. State Col, Okla. 26; M.S, Southern California, 31, Ph.D, 37. Instr. zool, Southern California, 37–38; *assoc. prof. science, Southeast. State Col, Okla, 38–* Measurements of group integration of fishes; locomotor activity of fishes.

Shaw, Dr. Reuben T(aylor), R. D. 2, Highland Ave, Media, Pa. *Education. Chemistry. Botany.* Delaware, Ohio, Oct. 8, 84. B.S, Ohio Wesleyan, 05, A.M, 08, LL.D, 39; Ph.D, Pennsylvania, 26. Teacher, high schs, Pa, 07; prof. chem. and geol, Temple, 07–09; instr. *science,* S. Manual Training High Sch. and West Phila. High Sch, 09–29; *head dept, Northeast High Sch, Phila, 29–* Coordinator pre-induction training courses, Board Educ, Phila, 42; supervisor, Temple, 43. Summers, expeds, Can. Rockies and Selkirks, 04, 06, 08, 09, 31. Chairman, Phila. Regional Cmt. Science and Math. Teaching, 42–Del, Int. Conf. World Federation Educ. Asns, Tokyo, 37, Rio de Janeiro, 39. A.A; Chem. Soc; Sci. Teachers Asn; N.E.A. (pres, 38); Franklin Inst; Pa. Acad; Phila. Sci. Teachers Asn. (pres, 42). Educational administration; adequacy and effectiveness of the Pennsylvania school employees retirement system.

Shaw, Prof. R(obert) M(cLeod), University of Alberta, Edmonton, Alta, Can. *Bacteriology, Hygiene.* Victoria Corner, N. B, Nov. 2, 81. B.A, Dalhousie, 02; M.D, McGill, 06, D.P.H, 21. Asst. bacteriologist, Alta, 21; univ. hosp, *Alberta,* 21, asst. prof. *bacter. and hygiene,* 21–26, assoc. prof, 26–29, *prof, 29–* Fel. Royal Col. Physicians Can; Can. Med. Asn. Bacteriological routine examinations; tularemia; maduromycosis; infectious mononucleosis; western duck sickness.

Shaw, Dr. Robert Sidey, Michigan State College, East Lansing, Mich. *Agriculture.* Woodburn, Ont, Can, July 24, 71. B.S.A, Ont. Agr. Col, 93, D.Agr, 22. Prof. agr, Mont. State Col, 98–02; *Mich. State Col,* 02–08, dean agr. and director, Exp. Sta, 08–28, pres, 28–41, *emer. pres, 41–* Mich. Acad. Animal husbandry; crops.

Shaw, Dr. R(obert) William, Cornell University, Ithaca, N. Y. *Physics, Astronomy.* Meadville, Pa, July 7, 04. B.S, Allegheny Col. 26; M.S, Purdue, 29; Ph.D, Cornell. 34. Asst. physics, Allegheny Col, 24–26; instr, Purdue, 26–29; *Cornell,* 29–37, astrophys, 37–39, asst. prof. *astron,* 39–42, *assoc. prof, 42–,* field director, *Fuertes Observatory,* 38–42, *director, 42–,* founder, Ariz. branch, 38. Visiting prof, Ariz. State Teachers Col, 35–40. Cornell solar eclipse exped, 32, Cornell ultra-violet starlight exped, Ariz, 33. A.A; Physical Soc; Astron. Soc; Optical Soc. Optical instrument design; ultra-violet stellar spectroscopy; development of apparatus and methods in teaching of astronomy; molecular spectroscopy.

Shaw, Dr. S(eth) T(homas), 61 E. First North St, Salt Lake City, Utah. *Horticulture.* Paradise, Utah, Feb. 20, 05. B.S, Utah State Col, 31, M.S, 32; Ph.D, Missouri, 40. Prof. hort, Brigham Young, 32–41; state commissioner marketing, *Utah,* 41–42; *state director, Agr. Trade Relations, Inc, 42–* Soc. Hort. Sci; Soc. Plant Physiol; Utah Acad. Physiology; respiration and spray residue.

Shaw, Thomas, 266 Lookout Ave, Hackensack, N. J. *Telephone engineering.* Huddersfield, Eng, Sept. 19, 83. B.S, Mass. Inst. Tech, 05. Eng. dept, Am. Tel. and Tel. Co, 05–19, dept. develop. and research, 19–34; *Bell Tel. Labs, 34–, loading engineer.* Development of loading for telephone circuits.

Shaw, Thomas M(artin), 1111 Grizzly Peak Blvd, Berkeley, Calif. *Physics.* Philadelphia, Pa, Nov. 9, 10. B.S, George Washington, 36, A.M, 40; California, 41– Asst, Brown Instrument Co, Philadelphia, 28–30; sci. aide, bur. chem. and soils, *U. S. Dept. Agr,* 30–36, asst. physicist, 38–39, *assoc. physicist, west. regional research lab, bur. agr. chem. and eng, 39–; physicist, radiation lab, California, 42–* Physical Soc. Dielectric constant, freezing point, specific surface and particle size distribution of soils; local field in dielectrics; dielectric properties of enzymes and electrolytic solutions.

Shaw, Dr. William T(homas), Fresno State College, Fresno, Calif. *Zoology.* Woodburn, Ont, Can, Feb. 10, 73. B.Agr, Minnesota, 98, B.S, 99; M.S, Mich. State Col, 00; Ph.D, Stanford, 26. Instr. zool, Mich. State Col, 00; asst. entom, Iowa State Col, 01; instr. zool, Oregon State Col, 01–07; asst. prof, State Col. Wash, 08–09, prof, 09–25, zoologist, Exp. Sta, 09–25; lecturer zool, Stanford, 25–26; acting head dept. biol, Redlands, 27; assoc. prof. *zool, Fresno State Col,* 28–42, *prof, 42–* Curator, Chas. O'Connor Museum, 08–25. A.A; Soc. Mammal. (chairman cmt. life histories); Soc. Ecol; Pacific Northwest. Bird and Mammal Soc. Mammal life histories; birds of Washington State.

Shawhan, Dr. E(lbert) N(ell), University of Minnesota, Minneapolis, Minn. *Physics.* Morrow, Ohio, Oct. 15, 08. A.B, Ohio Wesleyan, 30, fellow, 30–32, A.M, 32; Ph.D, Ohio State, 35. Asst. physics, Ohio State, 32–35; *instr. math. and mech, Minnesota, 35–; assoc. physicist, Naval Ordnance Lab, 41–* Band spectra of lead monoxide, lead and stannous sulfide.

Shawhan, Prof. Fae M(cClung), 3403 Cottage Grove, Des Moines, Iowa. *Zoology.* Elkhart, Iowa, March 20, 03. A.B, Drake, 24, A.M, 26. Instr. *zool, Drake,* 24–26, *asst. prof, 26–,* acting head dept. biol, 30–31. A.A; Eugenics Soc; Iowa Acad. Genetics; vertebrate anatomy.

Shea, Prof. Alice Leahy, University of Minnesota, Minneapolis, Minn. *Psychology.* Minneapolis, Minn, Dec. 21, 91. A.B, Minnesota, 14, Ph.D, 35; A.M, Columbia, 24. Teacher, pub. sch, Minneapolis, 14–27; asst. *psychol,* Stanford, 27–28; asst. prof, Minnesota, 27–35; Catholic Univ, 35–37; *assoc. prof, Minnesota, 37–* Assoc. Psychol. Asn; Asn. Social Workers. Measures of environment; intelligence.

Shea, Sister Ann Elizabeth, St. Mary College, Leavenworth, Kans. *Mathematics.* St. Joseph, Mo, Sept. 16, 00. A.B, Kansas, 27; A.M, Wisconsin, 31, Ph.D, 34. Instr. math, high sch, Kans, 27–30; *St. Mary Col. (Kans),* 31–33, *prof. math. and registrar, 34–* Summers, prof, Mt. Mary Col, 37; Nazareth Col, 42. A.A; Math. Asn; Council Teachers Math; Asn. Collegiate Registrars; Kans. Asn. Collegiate Registrars (sec'y).

Shea, Dr. F(rederick) L(eo), Jr, Texas Co, Beacon, N. Y. *Chemical engineering.* Philadelphia, Pa, Oct. 9, 13. B.S, Pennsylvania, 36, M.S, 37, Ph.D, 40. *Chem. engineer, Texas Co, 40–* Heat transmission.

Shea, Dr. John D(inwiddie), College of the City of New York, New York, N. Y. *Physics.* Los Angeles, Calif, March 25, 01. A.B, California, 22, James Monroe McDonald scholar, 23–24, fellow, 24–25, Ph.D, 26. Asst. *physics,* Mills Col, 25–26; asst. prof, Tulane, 26–29; Miami (Fla), 29–30; *instr, Col. City of N. Y, 30–* Physical Soc; Asn. Physics Teachers. Band spectroscopy; least squares; theoretical astronomy.

Shea, Prof. Thomas F(rancis), 159 Radford St, Yonkers, N. Y. *Physical chemistry.* West Springfield, Mass, May 20, 99. B.S, Mass. State Col, 23; M.S, Washington (Seattle), 27; Ph.D, Hopkins, 33. Instr. *chem,* Oregon State Col, 23–29; asst. prof, U. S. Naval Postgrad. Sch, 30–31; assoc, Hopkins, 32–36; *prof, Col. Mt. St. Vincent, 36–* A.A; Chem. Soc. Emulsions; adsorption.

Shea, T(imothy) E(dward), Western Electric Co, 195 Broadway, New York, N. Y. *Engineering.* Newton, Mass, Aug. 6, 98. B.S, Mass. Inst. Tech, 18, M S, 19; B S, Harvard, 19. Asst. and instr, Mass. Inst. Tech, 18–20; develop. engineer, mfg. and eng. depts, West. Elec. Co, 20–25, mem. tech. staff, Bell Tel. Labs, 25–39; v. pres. and director eng, Elec. Research Products, Inc, 39–41; *director nat. defense labs, Columbia, 41–; chief engineer, elec. research products div, West. Elec. Co, 41–* Instr, Bell Tel. Labs, 26–28; Mass. Inst. Tech, 28. Fel. Motion Picture Eng. (treas. and mem, board governors, 34–38, 40); fel. Acoustical Soc; assoc. Elec. Eng. Theory of telephone transmission, particularly transmission networks; acoustic and photographic processes relating to sound recording and reproduction.

Sheaff, Dr. Howard M(artin), 827 N. East Ave, Oak Park, Ill. *Biochemistry.* Hastings, Nebr, Feb. 4, 89. A.B, Nebraska, 10; Ph.D, Chicago, 19, M.D, Rush, 21. Instr. physiol. chem, *Chicago,* 18–20, asst. clin. med, *Rush Med. Col,* 23–25, instr. and later asst. clin. prof. med, 23–35, *assoc. clin. prof, 35–* Asst. attending physician, Presb. Hosp, Chicago, 24– A.A; Cent. Soc. Clin. Research; Chicago Soc. Int. Med; Inst. Med. Chicago. Tissue consumption of oxygen; vascular disease.

Sheals, Ralph A(ugustus), U. S. Department of Agriculture, Washington, D. C. *Forestry.* Brushton, N. Y, March 26, 93. B.S, Syracuse, 17. Field asst, bur. plant indust, U. S. Dept. Agr, 17–19; asst. state entomologist, R. I, 19–26; agent, bur. plant indust, *U. S. Dept. Agr,* 27–28, assoc. plant quarantine inspector, div. domestic plant quarantines, *bur. entom. and plant quarantine,* 29–36, senior plant quarantine inspector, 36–41, *prin. entomologist in charge div. gipsy and brown-tail moths control, 42–* Soc. Foresters (exec. cmt, New Eng. sect, 19–26); Soc. Econ. Entom. (sec'y, plant quarantine and inspection sect, 38–). Forest pathology; plant quarantine; insect pest control; white pine blister rust control; forestry in Rhode Island; transit inspection in the enforcement of federal plant quarantines.

Shealy, Dr. A(rthur) L(iston), University of Florida, Gainesville, Fla. *Animal husbandry.* Prosperity, S. C, Sept. 6, 95. B.S, Clemson Col, 15; D.V.M, McKillip Vet. Col, 17. Instr. *vet. science,* Purdue, 17–18; *prof, Florida, 19–, veterinarian, Exp. Sta, 19–, head dept. animal industry, 28–* Junior bacteriologist, Dept. Health, Chicago, 17; asst. state veterinarian, S. C, 19. Vet.C, U.S.A, 18. Soc. Animal Production; Vet. Med. Asn; U. S. Live Stock Sanit. Asn; Soc. Parasitol; Fla. Acad; Fla. Vet. Med. Asn. (sec'y, 22–28). Nutritional diseases of live stock; beef cattle; swine; meats.

Shear, Dr. C(ornelius) L(ott), U. S. Department of Agriculture, Washington, D. C. *[*1]Phytopathology, Mycology.* Coeymans Hollow, N. Y, March 26, 65. B.S, Nebraska, 97, A.M, 01; Ph.D, George Washington, 06. Asst. agrostologist, bur. plant indust, U. S. Dept. Agr, 98–01, asst. pathologist, 01–02, pathologist, 02–23, senior pathologist in charge plant disease surv. and path. collections, 24–28, prin. pathologist in charge mycol. and disease surv, 28–35; *retired.* Collaborator mycol. and disease surv, 35– Ed, 'Asa Gray Bul,' 98–00; assoc. ed, 'The Plant World,' 00–05; ed. and publisher, 'N. Y. Fungi Exsiccati'; ed. phytopath. and mycol, revision of 'Cent. Dict'; assoc. ed, 'Mycologia,' 09–; ed. taxon. fungi and lichens, 'Biol. Abstracts'; mem. ed. cmt, 'Jour. Agr. Research,' 24–30. Sec'y sect. D, Int. Cong. Arts and Sciences, St. Louis, 04; U. S. del, Pasteur Centennial Celebration, Paris, and Int. Phytopath. Cong, Holland, 23. A.A; Phytopath. Soc. (sec'y-treas, 09–18, pres, 19); Bot. Soc. (v. pres, 08); Hist. Sci. Soc; Soc. Nat; Biol. Soc. Wash; Bot. Soc. Wash; Wash. Acad; Int. Asn. Bot.' Grass and forage plants; plant diseases; diseases of small fruits, especially cranberries and grapes; cotton root-rot; systematic mycology and nomenclature; history of mycology; Ascomycetes.

Shear, E(lmer) V(anderzee), 435 Esplanade, Pelham, N. Y. *Plant pathology.* Feura Bush, N. Y, April 4, 96. Albany Law Sch, 13–15; B.S, Cornell, 22, 22–24. Asst. prof. research, N. Y. State Col. Agr, Cornell, and assoc. in research, Exp. Sta, 23–30; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 30–* A.A; Phytopath. Soc. Fruit and fruit tree diseases.

Shear, Dr. G(eorge) Myron, Virginia Polytechnic Institute, Blacksburg, Va. *Plant physiology.* Takoma Park, Md, April 25, 05. B.S, Maryland, 27; M.S, Illinois, 28, fellow, 29–30, Ph.D, 30. Asst. plant physiologist, *Exp. Sta, Va. Polytech,* 30–39, *assoc. plant physiologist, 39–* Soc. Plant Physiol; Va. Acad. Nutrition; soil reaction and growth.

Shear, Dr. M(urray) J(acob), 409 Battery Lane, Bethesda, Md. *Biochemistry.* Brooklyn, N. Y, Nov. 7, 99. B.S, Col. City of N. Y, 20; A.M, Columbia, 22, Ph.D, 25. Chemist, Pease Labs, Inc, N. Y, 22–23; asst. chem, Columbia, 23–25; chemist and admin. officer, pediat. research lab, Jewish Hosp,

Brooklyn, 25–31; instr. pediat, L. I. Col. Med, 30–31; biochemist, cancer investigations, *U. S. Pub. Health Service*, Harvard Med. Sch, 31–38, senior biochemist, 38–40, *prin. biochemist, nat. cancer inst, 40–* Research fellow, Harvard, 31–39. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Asn. Cancer Research; Wash. Acad. Colloidal gold; bone formation; cancer.

Shear, Dr. S(herwood) W(illiam), University of California, Berkeley, Calif. *Agricultural economics.* Alcove, N. Y, July 2, 92. B.S, Wisconsin, 18, M.S, 20, Ph.D, 24. Fruit farming, Va, 11–12; lab. aid, office of markets, U. S. Dept. Agr, 15–16, sci. asst. marketing and distribution, 17; assoc. rural institutions, *California*, teacher econ, 22–23, 24–25, *research agr. econ*, 23–24, *25–* Hosp. C, U.S.N.R, 18–19. Farm Econ. Asn; Agr. Hist. Soc; West. Farm Econ. Asn. Economics of fruit industries, especially as regards factors affecting supply, demand and prices; deciduous and dried fruits.

Shear, Dr. Sidney K(ingsbury), 2500 Que St, N.W, Apt. 546, Washington, D. C. *Physics.* Akron, Ohio, April 16, 12. A.B, Western Reserve, 34, A.M, 36; Ph.D, Brown, 39. Instr. physics and math, Muskingum Col, 39–40, asst. prof, 40–41; *research physicist, ordnance, U. S. Navy Dept, 41–* Physical Soc; Acoustical Soc. Supersonics; dispersion of supersonic waves in cylindrical rods of polycrystalline silver, nickel and magnesium.

Sheard, Dr. Charles, Mayo Foundation, Rochester, Minn. *Biophysics, Physiological optics.* Dolgeville, N. Y, May 27, 83. A.B, St. Lawrence, 03, hon. Sc.D, 30; A.M, Dartmouth Col, 07; Ph.D, Princeton, 12. Instr, pub. schs, N. Y, 03–05; asst. physics, Dartmouth Col, 05–07; instr, Ohio State, 07–09, asst. prof, 09–14, prof. and director applied optics, 14–19; physiol. opticist and head div. ocular interests, Am. Optical Co, 19–24; *director div. physics and biophys. research, Mayo Clinic, 24–; prof. biophys, Mayo Foundation, Minnesota, 24–; mem, Mayo Aero-Med. Unit, 41–* Collaborator, 'Am. Encyclop. Ophthal'; ed, 'Am. Jour. Physiol. Optics,' 21–27. Thomas Young oration, London, 21. A.A; Optical Soc; Physiol. Soc; Soc. Plant Physiol; Soc. Exp. Biol; Soc. Clin. Path; Asn. Research Ophthal; hon. mem. Optometric Asn; Illum. Eng. Soc; Cong. Physical Therapy; hon. fel. Ophthal. Inst. Gt. Britain. Dynamic tests in ocular refraction; relationships between accommodation and convergence; bioelectric potentials and currents; effects of radiant energy on plant and animal tissues; spectrophotometry and photoelectrometry in biology and medicine; energy exchanges between the body and environment; dark adaptation; visual problems of aviation.

Shearer, David R(obert), 334 E. Main St, Johnson City, Tenn. *Psychology, Electrical engineering.* Collettsville, N. C, Sept. 11, 85. North Carolina, 02–05; Rensselaer Polytech, 06–07; Tennessee, 08–09. Instr. chem. and bacter, Tennessee, 08–09; engineer, Tenn. Copper Co, Copperhill, Tenn, 09–10; Acme Elec. Co, Knoxville, 10–14; consulting engineer, 14–22; elec. engineer, Tenn. East. Elec. Co, Johnson City, 22–25, *manager*, 25–29; *East Tenn. Light and Power Co, 29–* Instr, Fed. Vocational Schs. Lieut, U.S.A, 17–18. A.A; Elec. Eng; Mech. Eng; Asn. Eng; Chem. Soc; Tenn. Acad. Personality and psychological analysis as related to vocational aptitude; mental and personality tests with vocational analysis in industry.

Shearer, Dr. Edwin M(orrill), 477 First Ave, New York, N. Y. *Anatomy.* San Francisco, Calif, Sept. 17, 02. A.B, California, 24; fellow, Princeton, 25–28, Ph.D, 28. Instr. *anat*, Univ. and Bellevue Hosp. Med. Col, 28–31, asst. prof, 31–35, *col. med, N. Y. Univ*, 35–37, *assoc. prof, 37–* Asn. Anat; Harvey Soc. Embryology of circulation in fishes; development of arteries in the anterior limb of rats; human dissection.

Shearer, Prof. P(hineas) S(tephens), Iowa State College, Ames, Iowa. *Animal husbandry.* Melbourne, Iowa, May 24, 89. B.S, Iowa State Col, 12, M.S, 28. Instr. *animal husbandry*, Nebraska, 12; asst. prof, *Iowa State Col*, 13–14, assoc. prof, 14–19, *prof, 19–, head dept, 35–*, asst. chief and research prof. animal breeding, *Exp. Sta*, 19–35, *prof. and head dept. animal husbandry, 35–* A.A; Soc. Animal Production. Animal production; sheep and beef cattle husbandry; animal breeding.

Shearin, Prof. Paul E(dmondson), University of North Carolina, Chapel Hill, N. C. *Physics.* Essex, N. C, Oct. 16, 06. A.B, North Carolina, 29, A.M, 30; Ph.D, Ohio State, 34. Asst. physics, North Carolina, 29–30, instr, 30–31; asst, Ohio State, 31–34; instr. science, high sch, N. C, 34–36; *physics, North Carolina*, 36–39, *asst. prof, 39–* Physical Soc. Infrared spectra of organic liquids and of solid hydrogen chloride; calibration wave-lengths for infra-red spectrometers; electron-electron collisions.

Shearon, Dr. Marjorie O'Connell (Mrs. William Shearon), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Economics, Statistics, Paleontology.* Newark, N. J, Aug. 15, 90. A.B, Columbia, 11, A.M, 12, Ph.D, 16. Lecturer geol, Adelphi Col, 13–14; curator paleont, Columbia, 14–16; Sarah Berliner fellow, 17–18; expert asst. paleont, Am. Museum Nat. Hist, 18–19, asst, 20–22; publicity and sci. writer, 22–29; exec. sec'y, N. Y. Opera Comique, 29–32; research assoc, State Dept. Social Welfare, N. Y, 33–34; asst. director statist, Emergency Relief Bur, N. Y, 35; senior analyst, Works Progress Admin, Washington, D. C, 35–36; social statistician and social science analyst, Social Security Board, 36–41; *senior social science analyst, nat. inst. health, U. S. Pub. Health Service, 41–* Summers, asst, Columbia, 12, 13, instr, 14. Walker 1st prize, Boston Soc. Nat. Hist, 14. Fel. Paleont. Soc; Geol. Soc; Statist. Asn; Econ. Asn. Economic insecurity in old age; social legislation in health and welfare; health and economic problems of our aging population.

Shedd, O(liver) M(arch), University of Kentucky, Lexington, Ky. *Chemistry.* Lexington, Ky, March 8, 80. B.S, Kentucky, 01, M.S, 04. Chemist, Henderson Tobacco Extract Works, 02; *research chemist, Exp. Sta, Kentucky, 02–* Expert, Council Nat. Defense, 17. Chem. Soc. (v. chairman, Lexington sect, 17, 35, 36, sec'y-treas, 20, 34, chairman, 21, councilor, 22); Agr. Chem. (referee, 09–11); Asn. South. Agr. Workers. Agricultural chemistry; biochemistry; soils.

Shedd, Prof. Paul C(ampbell), 8 Mitchell Place, Glen Ridge, N. J. *Electrical engineering.* Dover, N. H, Sept. 12, 01. B.S, Worcester Polytech. Inst, 24; Mass. Inst. Tech, 28; M.S, Columbia, 41. Instr. physics, Worcester Polytech. Inst, 24–28; asst. prof. elec. eng, Washington and Lee, 28–30; research physicist, Am. Steel and Wire Co, 30–31; asst. prof. *elec. eng, Newark Col. Eng*, 31–39, *assoc. prof, 39–* Summers, elec. engineer, West. Elec. Co, 37; Eclipse Aviation Co, 39, 40. Elec. Eng; Eng. Educ. Repulsion motor calculations.

Shedd, Prof. Thomas C(lark), University of Illinois, Urbana, Ill. *Civil engineering.* Worcester, Mass, July 2, 90. Virginia; B.S, Brown, 13; C.E, Illinois, 25, M.S, 32. Instr. mech. eng, Brown, 13–15; draftsman, Phoenix Bridge Co, 15–17; instr. civil eng, Lehigh, 17–18; asst. engineer, Phoenix Bridge Co, 18–22; from assoc. to *prof. struct. eng, Illinois*, 22–Civil Eng; Eng. Educ; Ry. Eng. Asn; Concrete Inst; Ill. Soc. Eng; Ill. Eng. Council (v. pres, 40, pres, 41). Structural engineering; theory of simple structures; structural design in steel.

Shedlovsky, Dr. L(eo), 210 W. 16th St, New York, N. Y. *Physical chemistry.* Polotsk, Russia, April 22, 01. B.S, Mass. Inst. Tech, 22; Ph.D, N. Y. Univ, 35. Indust. research, 22–23; research chemist, Milford Electrolytic Iron Co, 23–24; Combustion Utilities Corp, 25–26; Keuffel and Esser Co, 26–31; teaching fellow, N. Y. Univ, 28–34, R. L. Dickinson research fellow chem, 35–41; *mem. staff, Colgate-Palmolive-Peet Co, 42–* Chem. Soc. Rate of reaction in solution; colorimetry; chemical and physical properties of gels; properties of surface active materials and detergents.

Shedlovsky, Dr. T(heodore), Rockefeller Institute, New York, N. Y. *Physical chemistry.* Leningrad, Russia, Oct. 29, 98. B.S, Mass. Inst. Tech, 18, Ph.D, 25. Asst, Mass. Inst. Tech, 19–21; indust. research, 22–27; asst, *Rockefeller Inst*, 27–29, *assoc, 29–* Chem. Soc; Harvey Soc; fel. N. Y. Acad. (assoc. ed, 38–, v. pres, 42). Electrical conductivity of solutions; solutions of electrolytes; electrophoresis of proteins.

Sheehan, Dr. Donal, New York University College of Medicine, 477 First Ave, New York, N. Y. *Anatomy.* Carlisle, Eng, Aug. 2, 07. B.Sc, Manchester, 26, M.B, Ch.B, 29, M.Sc, 32, M.D, 32, D.Sc, 36. Demonstrator anat, Manchester, 30–32; Dickinson traveling scholar, Vienna, Breslau and Amsterdam, 32–33; Rockefeller fellow, McGill and Yale, 33–35; lecturer neuro-anat, Manchester, 35–37; *prof. anat. and director anat. labs, col. med, N. Y. Univ, 37–* Physiol. Soc. Gt. Britain; Anat. Soc. Gt. Britain and Ireland; Royal Col. Surg. Neurological anatomy; peripheral nerve endings; cerebral cortex; autonomic nervous system.

Sheehan, Dr. John C(lark), Merck and Co, Inc, Rahway, N. J. *Organic chemistry.* Battle Creek, Mich, Sept. 23, 15. B.S, Battle Creek Col, 37; M.S, Michigan, 38, Ph.D, 41. Research assoc, Michigan, 41; *research chemist, Merck and*

Co, Inc, 41– Summers, research chemist, Gen. Foods Corp, 37–39. Chem. Soc. Cancer-producing hydrocarbons; plant hormone substances; vitamins; medicinals.

Sheehan, Dr. John T(imothy), 410 E. 59th St, New York, N. Y. *Organic chemistry.* Boston, Mass, Feb. 22, 13. A.B, Boston Col, 34, M.S, 35; Ph.D, Fordham, 41. Asst. chem, Boston Col, 34–35; Fordham, 35–38, instr, 38–39; *research chemist,* Winthrop Chem. Co, 40–42; *E. R. Squibb and Sons, 43–* Chem. Soc. Carbohydrates; anti-malarials; sulfanilamides.

Sheehan, Prof. Mary R(ose), Hunter College, 68th St. and Park Ave, New York, N. Y. *Psychology.* New York, N. Y, July 29, 04. A.B, Hunter Col, 25; A.M, Columbia, 27, Ph.D, 38. Teacher, high sch, N. Y, 25–26; instr. educ, *Hunter Col, 26–38, prof. psychol. and philos, 40–* A.A; assoc. Psychol. Asn; N. Y. Acad. Pub. Educ. Visual perception.

Sheehan, Dr. Robert F(rancis), 48 Hampton Road, Scarsdale, N. Y. *Neurology, Psychiatry.* Buffalo, N. Y, Dec. 5, 79. M.D, Buffalo, 04; M.S, Manhattan Col, 06; grad, U. S. Naval Med. Sch, 10. Lecturer hygiene, Buffalo, 09–11; psychiatrist, U. S. Naval Med. Sch, 14–16; naval med. officer, Govt. Hosp. for Insane, 14–16; commander, Med. Corps, U. S. Navy, 17–21; *director neurol, Misericordia Hosp. and Community Hosp, 21–;* prof. psychiat, grad. sch. psychol, Fordham, 37–39. Consulting neuro-psychiatrist, Kings Park Hosp; St. Vincent's Retreat; Harlem Valley State Hosp; Benedictine Hosp; attending neurologist, St. Mary's Hosp, Brooklyn; chief neurologist, St. Vincent's Hosp, New York, 21– A.A; Psychiat. Asn; Asn. Research Nervous and Mental Disease; Am. Med. Asn; Asn. Mil. Surg; Eugenics Research Asn; N. Y. Soc. Clin. Psychiat. Behavior; delinquency; military psychiatry.

Sheely, Prof. Clyde Q(uitman), Mississippi State College, State College, Miss. *Chemistry.* Pelahatchie, Miss, July 12, 04. A.B, Miss. Col, 25; M.S, Louisiana, 26, 26–27; Ph.D, Ohio State, 30. Teaching fellow *chem,* Miss. Col, 24–25; asst, Louisiana, 25–27; Ohio State, 27–29; *assoc. prof,* Miss. Agr. and Mech. Col, 29–32, *Miss. State Col, 32–* Summer, research chemist, Ohio Water Works, 28. Chem. Soc; Miss. Acad. (sec'y-treas). Corrosion effect of naphtha solutions of sulfur and sulfur compounds; action of petroleum refining agents on organic sulfur compounds, zeolite softening of lime-treated water; production of liquid mixtures of aldehydes and acids; thermo-allotropic modifications of sulfur; catalytic vapor phase oxidation of hydrocarbons.

Sheerar, Prof. L(eonard) F(rancis), 610 Monroe St, Stillwater, Okla. *Chemical engineering.* Wellsville, N. Y, Sept. 29, 00. B.S, Alfred, 24; U. S. Bur. Mines fellow, 24–25, M.S, Ohio State, 25. Ceramic engineer, Robinson Clay Products Co, 25–27; asst. prof. and later *assoc. prof. chem. eng, Okla. Agr. and Mech. Col, 27–* Ceramic Soc; Chem. Soc; Okla. Asn. Professional Eng. Ceramics; ceramic engineering; nonmetallic minerals.

Sheets, Prof. E(arl) W(ooddell), Mississippi State College, State College, Miss. *Animal husbandry.* Lost Creek, W. Va, Dec. 23, 86. B.S. (Agr), West Virginia, 11; M.S, Illinois, 14; W. Va. Wesleyan Col; D.Agr, Maryland, 33. Instr. agr, W. Va. State Nor. Sch, 11; exten. specialist animal husbandry and agron, West Virginia, 11–12, instr. agr, 12, asst. director agr. exten, 12–13, prof. animal husbandry and animal husbandman, 13–18; exten. animal husbandman, beef cattle investigations, bur. animal indust, U. S. Dept. Agr, 18–19, senior animal husbandman, 19–21, acting chief div. animal husbandry, 21–23, asst. chief, 23–24, chief, 24–35; director agr. drought relief, 35; *prof. animal husbandry, Miss. State Col, 35–, chief animal husbandry, Exp. Sta, 35–* Lecturer, West Virginia, and state granger, 08–12. Assoc. ed, 'W. Va. Farmer,' 06–14. Rep, Soc. Animal Production, Nat. Research Council, 24–35, chairman, cmt. animal breeding, 30–35. A.A; Soc. Animal Production (sec'y, 22–26, v. pres, 26, pres, 28); Genetic Asn. (sec'y, 21–23, councilor, ed. board); Tri-State Sheep Breeders Asn. (sec'y, 11–17); W. Va. Live Stock Asn. (sec'y, 14–18). Meats; nutrition; breeding; record of performance; tests with meat animals; herd and flock improvement; quality and palatability of meats; wools and fibers; farm power; pasture development; duality in cattle; adaptation and improvement of beef cattle; sheep; hogs; horses; mules.

Sheets, Dr. George H(enkle), 602 Allen Ave, Chillicothe, Ohio. *Chemical engineering.* Washington Court House, Ohio, April 22, 15. B.Ch.E, Ohio State, 37; scholar, Lawrence Col. 37–41. M.S, 39, Ph.D, 41. *Develop. engineer, Mead Corp, 41–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Kraft pulping of southern hardwoods; structural viscosity studies of papermaking clays.

Sheffer, Prof. I(sador) M(itchell), 728 Sunset Road, State College, Pa. *Mathematics.* Boston, Mass, Oct. 4, 01. B.S, Harvard, 23, Ph.D, 27; A.M, Rice Inst, 24. Teaching fellow, Rice Inst, 23–25; instr, Michigan, 26–27; nat. research fellow, Chicago and Princeton, 27–29; asst. prof. *math, Pa. State Col,* 29–34, assoc. prof, 34–40, *prof, 40–* Math. Soc; Math. Asn. Functional equations; expansions of functions in the complex plane.

Sheibley, Dr. Fred E(asly), Lewiston, N. Y. *Organic chemistry.* Cleveland, Ohio, Dec. 18, 06. B.S, Case, 31, Ph.D, 39; M.S, Pennsylvania, 37. Research chemist, Grasselli chem. dept, E. I. du Pont de Nemours and Co, 33–35; instr, Case, 39–41; *research chemist, Carborundum Co, 41–* Chem. Soc. Heterocyclic compounds; quinazolines.

Shelnin, Dean John J(acobi), 221 S. Central Park Ave, Chicago, Ill. *Anatomy.* Russia, March 21, 00. B.S, Alabama, 28; fellow, Northwestern, 27–32, M.S, 29, Ph.D, M.B, 32. Instr. *anat,* Alabama, 25–27; *prof. and chairman dept, Chicago Med. Sch, 32–, dean, 35–* A.A; Asn. Anat; Soc. Exp. Biol; Ill. Acad. Neuroanatomy; technomicrology.

Shelanski, Dr. Herman A(lder), 1647 Mayland St, Philadelphia, Pa. *Parasitology, Toxicology.* Philadelphia, Pa, April 2, 12. A.B, Pennsylvania, 33, A.M, 37, Ph.D, 40, 40–*Consultant parasitologist, Phila. Gen. Hosp, 35–; consultant biologist, John Wyeth and Brothers, Inc, 35–; assoc. director, Smyth Labs, 40–* Consultant toxicologist, Hercules Powder Co, 40–; consultant parasitologist, Phila. State Hosp, 42–; lecturer, Pennsylvania. A.A; Pub. Health Asn; Soc. Parasitol; assoc. fel. Am. Med. Asn; Pa. Pub. Health Asn. In vitro and in vivo studies on protozoan and metazoan parasites of man and lower animals; therapeutic action of drugs on human parasites; toxicity of resins and synthetics; industrial health.

Sheldon, Dr. Addison E(rwin), Nebraska State Historical Society, Lincoln, Nebr. *Anthropology, Sociology.* Sheldon, Minn, April 15, 61. A.B, Nebraska, 02, A.M, 04; Ph.D, Columbia, 18. Ed. and homesteader, 84–98; director field work, Nebr. State Hist. Soc, 01–07; Nebr. Legislative Reference Bur, 07–18; *supt. and sec'y, Nebr. State Hist. Soc, 18–* Lecturer, Nebraska, 08–19, conductor Nebr. surveys in archeol. and anthrop, 01– Hist. Asn; Ethnol. and Folk-Lore Soc; Polit. Sci. Asn; Econ. Asn; Nebr. Acad. (sec'y, 05–15). Nebraska sociology and anthropology; western history.

Sheldon, Dr. D(awson) C(lement), Clemson Agricultural College, Clemson, S. C. *Physics.* Chehalis, Wash, May 7, 00. B.S, State Col. Wash, 25; A.M, California, 27, Ph.D, 29. *Assoc. prof. math, Clemson Col, 29–* Radiation in the extreme ultra-violet; mechanics of textile testing machines.

Sheldon, Dr. H(arold) Horton, 80 W. 40th St, New York, N. Y. *Engineering.* Brockville, Ont, Can, 93. B.A, Queen's (Can), 16, M.A, 17; Ph.D, Chicago, 20; E.E, Polytech. Inst. Brooklyn, 34. Research assoc. physics, Chicago, 18–19; instr, Michigan, 20–22; asst. prof, N. Y. Univ, 22–24, assoc. prof, 24–25, assoc. prof. and chairman dept, Wash. Sq. Col, 25–27, prof, 27–36, director science course, div. gen. educ, 36–41; *research and develop. engineer, Auto-Ordnance Corp, 41–* Science ed, 'N. Y. Herald Tribune,' 28–31. Mem, N. Y. and N. J. Smoke Abatement Board. Trustee, Am. Inst. City New York, 26–41, pres, 31–33, managing trustee, 38–41. A.A; Physical Soc; fel. Acoustical Soc; Asn. Consulting Chem. and Chem. Eng; N. Y. Elec. Soc. (pres, 30); N. Y. Eng. Club (sec'y). Adsorption of gases by charcoal; conduction of electricity through crystals; voice analysis; photoelectric color measurement; smoke abatement; ultra high frequencies; sound and sound recording; electronics; precision instruments; x-rays; optical instruments.

Sheldon, Dr. John L(ewis), Morgantown, W. Va. *Botany.* Voluntown, Conn, Nov. 10, 65. B.S, B.Ped, Ohio Northern, 95, M.S, 99; B.S, Nebraska, 99, A.M, 01, fellow, 00–03, Ph.D, 03. Teacher, pub. schs, Conn, 85–90, 95–97; Mt. Hermon Sch, 92–94; prep. sch, Nebr, 98–99; Nebr. State Nor. Sch, 99–00; instr. bot, Nebraska, 00–03; prof. bacter, West Virginia, and bacteriologist, Exp. Sta, 03–07, prof. bot. and bacter, 07–13, bot, 13–19. Collaborator, bur. plant indust, U. S. Dept. Agr, 02–03, 05–22. A.A; Bot. Soc; Phytopath. Soc; Genetic Asn; Sullivant Moss Soc; South. Appalachian Bot. Club. Diseases of plants; flora of West Virginia.

Sheldon, Dr. Pearl G(ertrude), 1001 Triphammer Road, Ithaca, N. Y. *Geology.* Lisle, N. Y, Sept. 26, 85. A.B, Cornell, 08, A.M, 09, Ph.D, 11. Asst, fellow, lecturer and curator geol, Cornell, 07–29. Trustee, Paleont. Research Inst, v. pres, 37–39, pres, 39–41. A.A; Seismol. Soc. Genus Arca; joint planes; faulting; sedimentation.

Sheldon, Dr. William (Herbert), Harvard University, Cambridge, Mass. *Psychology.* Warwick, R. I, 99. A.B, Brown, 19; A.M, Colorado, 23; Ph.D, Chicago, 26, M.D, 33. Instr. psychol, Chicago, 24–26; asst. prof, Chicago and Northwestern, 26–27; Wisconsin, 27–31; intern med, Bobs Roberts Mem. Hosp. for Children, 33–34; Wm. C. Whitney Foundation research fellow *psychol, 34–36; research assoc,* Chicago, 36–38; *Harvard, 38–* Fellow psychiat, Zurich, Vienna, London, New York, 34–36. Psychological and medical factors in personality formation; morphology of personality; constitutional patterning of personality and constitutional immunity.

Shelesnyak, Dr. M(oses) C(hiam), Care of W. O. Kuempel, 1575 Palisade Ave, Ft. Lee, N. J. *Environmental physiology.* Chicago, Ill, June 6, 09. A.B, Wisconsin, 30; fellow, Columbia, 32–33, Ph.D, 33, 33–35. Instr. physiol. and pharmacol, med. sch, Chicago, 35–36; research assoc. oto-path, Mt. Sinai Hosp, New York, 36–40; Friedsam research fellow, Beth Israel Hosp, 40–42; *lieut. (j.g), U. S. Naval Res, 42–* Gen. Educ. Board fellow, Columbia, 36–38, guest instr, New Col, 37; dean boys, Acad, N. Y. Asn. Care Jewish Children, 38–40. A.A; Asn. Study Int. Secretions; Soc. Research Child Develop; Asn. Social Work. Endocrine and reproduction physiology; electrical induction of pseudopregnancy; physiology of adolescence; naso-genital relationship; B-complex and estrogens; aviation physiology.

Shelford, Prof. Victor E(rnest), Vivarium, Wright and Healey Sts, Champaign, Ill. *[3]*Zoology.* Chemung, N. Y, Sept. 22, 77. B.S, Chicago, 03, Ph.D, 07. Asst. and tutor *zool,* West Virginia, 00–01; asst, Chicago, 04–07, assoc, 07–09, instr, 09–14; asst. prof, *Illinois,* 14–20, assoc. prof, 20–27, *prof, 27–,* in charge dept, 39–41. Biologist in charge research labs, Ill. Nat. Hist. Surv, 14–29; in charge marine ecol, Puget Sound Biol. Sta, alternate years, 14–30. Ed, 'Naturalist's Guide'; ed. board, 'Ecology,' 20–28. Mem. board, Grassland Research Corp, 38– Chairman cmt. on ecol. of grasslands, Nat. Research Council, 32–, cmt. on wildlife, 31–36. A.A; Soc. Nat; Soc. Zool; fel. Entom. Soc; Asn. Econ. Entom; Soc. Mammal; Soc. Ichthyol. and Herp; Fisheries Soc; Ecol. Soc. (v. chairman, organizing cmt, 15, pres, 16, chairman, preserves cmt, 17–23, 29–); Forestry Asn; Ornith. Union; Statist. Asn; Audubon Soc; Wilson Ornith. Club; Asn. Geog; Ill. Acad. (cmt. on ecol. surv. of Ill); British Ecol. Soc. Succession, life histories and color pattern of tiger beetles; ecology of aquatic animals; physiological life histories; relations to climate; climate simulation apparatus; marine communities; light effects and measurement; bioecology; fluctuations in numbers and fecundity of organisms.

Shell, John S(amuel), 814 Michigan Ave, Evanston, Ill. *Metallurgy, Chemistry.* Denver, Colo, 98. B.S, California, 21; A.M, Stanford, 34. Instr. chem. and metal, col. dentistry, California, 21–25, asst. prof, 25–37; *director research and develop, Thos. J. Dee and Co, Chicago, 37–* Consulting physical metallurgist. A.A; Chem. Soc; Int. Asn. Dental Research (sec'y, Calif. sect, 23–33). Physical metallurgy and chemistry; metallography of noble metals; use of noble metals in industry, dentistry and jewelry; influence of diet on human saliva; dental ceramics.

Shellenberger, Dr. J(ohn) A(lfred), Corporacion Para La Promocion del Intercambio, Rivadavia 733, Buenos Aires, Argentina, S. Amer. *Chemistry.* Moline, Ill, 00. B.S, Washington (Seattle), 28; M.S, Kans. State Col, 30; Ph.D, Minnesota, 35. Chemist, Fisher Flouring Mills, Seattle, 25–29; asst. prof. and asst. agr. chemist, Idaho, 30–31; asst, Minnesota, 32–35, instr. biochem, 35–36; head products control, Mennel Milling Co, 36–39; head biochem. lab, Rohm and Haas Co, 39–42; agr. consultant, Armour Research Foundation, 42–43; *tech. adviser, Corp. para la Promocion del Intercambio, subsidiara del Ministerio de Hacienda, 43–* A.A; Chem. Soc; Asn. Cereal Chemists (chairman Cincinnati sect, 39); Inst. Food Technol; Soc. Bakery Eng; Asn. Quimica Argentina. Cereal chemistry; microchemical analysis; malting; biochemistry of barley; respiration of stored grain; enzymes.

Shelley, Dr. Robert L(aVere), 4544 Van Buren, Gary, Ind. *Physical chemistry.* Bluffton, Ind, Dec. 9, 03. A.B, Indiana, 25, A.M, 28, Ph.D, 29. Research chemist, Roessler and Hasslacher Chem. Co, 29–31; *instr. chem, pub. sch, Ind, 32–* Ind. Acad. Storage batteries; paste compositions.

Shellow, Dr. Sadie Myers, 2520 E. Stratford Court, Milwaukee, Wis. *Psychology.* Salt Lake City, Utah, Jan. 3, 95. A.B, Smith Col, 15; A.M, Utah, 17; Ph.D, Columbia, 23. Teacher, Sch. for Atypical Children, Utah, 15–16; surv. of feeble-minded, field sec'y and psychologist, 16–17; probation officer and psychologist, Juvenile Court, 17–18; asst. director, Juvenile Psychopath. Inst, Chicago, 18–20; instr. and research psychol, Smith Col, 21–22; *psychologist,* Milwaukee Elec. Ry. and Light Co, 23–34; Police Dept, Milwaukee, 35–37; *Jewish Vocational Service, 37–; teacher eng, science, management and war training program, Wisconsin, 42–* Vocational consultant, Jewish Social Service, 37–38. Summers, psychologist, sch. social work, Smith Col, 22–25; exec. sec'y, Mayor's Youth Cmt, Milwaukee, 35–; supervisor youth service bur, Nat. Youth Admin, 35, training for guidance councilors, 36–38. Board editors, 'Jour. Consulting Psychol.' Mem, Conf. Technique in Foreman Training. Psychol. Asn; fel. Asn. Applied Psychol. (chairman cmt. professional ethics, indust. sect, 40–42, mem. cmt. professional training, 41–); Wis. Asn. Applied Psychol. (pres, 41–). Individual differences in incidental memory; intelligence tests; accident study of motormen; tests for station operations and motor drivers; strong vocational interest blank as an aid in interviewing; job studies; personality development.

Shelmire, Dr. (Jesse) Bedford, Southwestern Foundation College of Medicine, Dallas, Texas. *Dermatology.* Zachary, La, Jan. 19, 94. B.S, Texas, 18; M.D, Columbia, 20; Paris and Vienna, 23–24. Intern, Bellevue Hosp, New York, 20–22; clin. asst. *dermat,* Columbia, 22–23; *prof, col. med,* Baylor, 28–43; *Southwest. Foundation, 43–* Silver medal, sci. exhibit, Am. Med. Asn, Phila, 31. Dermat. Asn; Am. Med. Asn. (sec'y, sect. dermat. and syphilol, 35–); South. Med. Asn. Endemic typhus fever; original investigation of rat mite as vector; experimental creeping eruption; yeast infections of skin; diseases of the oral cavity; tularemia; Hodgkin's disease of the skin; sensitization eczemas.

Shelton, Dr. Elbert M(inor), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Chemistry.* Wakeman, Ohio, Oct. 13, 95. A.B, Oberlin Col, 17; Ph.D, Yale, 24. Research chemist, Cheney Brothers, 24–26, chief chemist, 27–31; research fellow, Yale, 31–32; research chemist, Tannin Corp, 32–39; *senior industrial fellow, Mellon Inst, 39–* Chem. Soc. (chairman, Conn. Valley sect, 31); Leather Chem. Asn; fel. Inst. Chem; Chemists' Club. Chemistry of protein, sericin and fibroin of silk; pharmaceuticals; vegetable tannins.

Shelton, Dr. G(eorge) R(eed), 6614 Delfield St, Chevy Chase, Md. *Chemistry.* Morristown, Tenn, March 17, 89. A.B, Maryville Col, 11; A.B, Cornell, 12, M.S, 20; Corning Glass Works fellow, Illinois, 20–22, Ph.D, 22. Instr, high sch, S. Dak, 12–16; assoc. prof. chem, Maryville Col, 16–18; asst, eng. exp. sta, Illinois, 18–20; research chemist, Eng. Inst. Can, 22–25; assoc. prof. ceramic eng, N. C. State Col, 25–29; Columbus branch, *Bur. Standards,* 29–33, *Washington, D. C, 33–, senior technologist.* A.A; Ceramic Soc. Ceramic chemistry.

Shelton, Prof. J(ames) Reid, Case School of Applied Science, Cleveland, Ohio. *Organic chemistry.* Allerton, Iowa, Jan. 16, 11. B.S, Iowa, 33, M.S, 34, Ph.D, 36. Asst, Iowa, 35–36; instr. *chem, Case,* 36–41, *asst. prof, 41–* Summers, control chemist, Midwest div, Calif. Packing Co, 33, 34. Chem. Soc. O-amino phenol derivatives; synthetic rubber.

Shelton, Dr. Robert S(chember), 6600 Mariemont Ave, Mariemont, Ohio. *Organic chemistry.* Chicago, Ill, Nov. 2, 06. A.B, Illinois, 28; Heckscher fellow, Cornell, 28–31, Ph.D, 33. Asst. chem, Cornell, 31–33; from assoc. prof. *chem.* to *prof. and head dept, Cincinnati Col. Pharmacy, 34–;* org. research chemist, *Wm. S. Merrell Co,* 34–37, *director research, 37–, v. pres, 43–* Summers, chemist, State Water Surv, Ill, 25–27; N. Y. State Biol. Surv, 30–33. A.A; Chem. Soc; Am. Med. Asn; Cincinnati Acad. Med. Synthetic and natural medicinals; synthesis and testing of physiologically active compounds; organo-metallic compounds; synthetic drug manufacturing; chemical patents.

Shelton, Stephen M(atheson), U. S. Bureau of Mines, Reno, Nev. *Metallurgy.* Bennettsville, S. C, Feb. 6, 03. B.S, The Citadel, 23; Yale, 23–26; A.M, George Washington, 31. Junior metallurgist, Bur. Standards, 29–31, asst. metallurgist, 31–35; assoc. metallurgist, *U. S. Bur. Mines,* 35–37, metallurgist, 37–40, senior metallurgist, 40–41, prin. metallurgist, 41–42, *head metal. and regional engineer, 42–* Min. and Metal.

Eng; Electrochem. Soc. Physical metallurgy; electro-metallurgy; ore beneficiation.

Shemin, Dr. David, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* New York, N. Y, March 18, 11. B.S, Col. City of N. Y, 32; A.M, Columbia, 33, Ph.D, 38. Asst. *biochem, col. physicians and surg, Columbia,* 35–40, *instr, 40–* Chem. Soc; Cancer Soc. Amino acid metabolism; peptide syntheses; virus research; immunochemistry.

Shenefelt, Dr. Roy D(avid), State College of Washington, Pullman, Wash. *Systematic entomology.* Evanston, Ill, Jan. 27, 09. A.B, Spokane, 32; M.S, State Col. Wash, 35, Ph.D, 40. *Instr. zool, State Col. Wash, 35–* Braconidae.

Shenk, Prof. D(onald) H(ugh), Clemson Agricultural College, Clemson, S. C. *Mechanical engineering.* Kokomo, Ind, April 9, 01. B.S, Purdue, 24, M.S, 40. With Westinghouse Air Brake Co, 24–26; instr, Purdue, 26–29; *assoc. prof. mech. eng, Clemson Agr. Col, 29–* Eng. Educ; Soc. Heat. and Vent. Eng; S. C. Soc. Eng.

Shenk, Prof. John H(enry), 916 Osage St, Manhattan, Kans. *Chemistry.* Silver Lake, Kans, Nov. 24, 04. B.S, Kans. State Col, 29, M.S, 31; Ph.D, Illinois, 37. Asst. *chem,* Kans. State Col, 29–30, instr, 30–34; asst, Illinois, 34–36; *asst. prof, Kans. State Col, 36–* Chem. Soc. Spectrophotometry of hemoglobins; x-ray diffraction; chemical spectroscopy.

Shenk, W(illiam) E(dwin), 134 Roosevelt Ave, East Orange, N. J. *Electrical engineering.* Erie, Pa, June 5, 06. B.S, Mass. Inst. Tech, 28, M.S, 29. Research engineer, U. S. Steel Corp, Kearny, *N. J,* 29–43; *engineer quality control, Am. Transformer Co, 43–* Assoc. Elec. Eng; Cactus and Succulent Soc. Amer; Cactus and Succulent Soc. N. J. (pres, 42–). Transient stability limit of power systems; effective resistance of laminated armature conductors; magnetic analysis; magnetic properties of transformer steels; electrometric titrations; measurement and control of open hearth temperatures; absolute measurement of energy loss in a single strip of sheet iron under alternating magnetization.

Shenon, Dr. P(hilip) J(ohn), U. S. Geological Survey, Spokane, Wash. *Geology.* Salmon, Idaho, Sept. 19, 97. B.S, California, 22; M.S, Idaho, 24; Ph.D, Minnesota, 26. Geologist, San Francisco Mines of Mex, 26; Continental Oil Co, 27; Idaho Bur. Mines and Geol, 28; asst. prof. geol. and geologist, Mont. Bur. Mines and Geol, 28–30; asst. geologist, U. S. Geol. Surv, 30–31, assoc. geologist, 31–38; asst. chief geologist, Int. Nickel Co, Can, 38–41; consulting geologist, 41–43; *regional geologist, U. S. Geol. Surv, 43–* Co-leader, Nat. Geog. Soc-U. S. Geol. Surv. exped, Salmon River, 35. Soc. Econ. Geol; Miner. Soc; Geol. Soc; Min. and Metal. Eng; Geol. Soc. Wash; Can. Inst. Min. and Metal. Geology of ore deposits.

Shenstone, Prof. A(llen) G(oodrich), 283 Somerset St, W, Ottawa, Ont, Can. *\$*Physics.* Toronto, Ont, Can, July 27, 93. B.S, Princeton, 14, fellow, 19–22, A.M, 20, Ph.D, 22; B.A, Cambridge, 21, M.A, 35. Demonstrator, Toronto, 22–25; asst. prof. *physics, Princeton,* 25–29, assoc. prof, 29–38, *prof, 38–* Mem. cmt. line spectra, Nat. Research Council. Order of the British Empire, 43. A.A; Physical Soc. Photoelectricity; radioactivity; spectroscopy.

Shenton, Prof. Walter F(rancis), American University, Washington, D. C. *Mathematics.* Pottstown, Pa, April 1, 86. A.B, Dickinson Col, 07, A.M, 09; Ph.D, Hopkins, 14. Instr. *math,* Dickinson Sem, 07–10; Hopkins, 14–17; U. S. Naval Acad, 17–20, asst. prof, 20–25; *prof, American Univ, 25–* Math. Asn. Linear and quadratic combinants of systems of binary forms; anaglyphs; mathematical models; bibliography of American mathematics.

Shepard, Dr. Alvin F(rost), 41 Southwood Drive, Kenmore, N. Y. *Chemistry.* Buffalo, N. Y, Feb. 3, 04. Ch.B, Cornell, 24, Ph.D, 29. Midgley Foundation, Columbus, Ohio, 29–34; *chem. director, Durez Plastics and Chem, Inc, North Tonawanda, N. Y, 34–* Lecturer, Ohio State, 29–34. Trustee, Midgley Foundation, 34–35. Chem. Soc; fel. Inst. Chem. Organic chemistry; furane; paraffins; rubber; resins.

Shepard, Dr. Charles E(dward), Stanford University, Calif. *Preventive medicine.* Denver, Colo, Sept. 9, 98. A.B, Minnesota, 20, Mayo Foundation fellow, 20–22, M.S, 22, M.D, 24. Instr. physiol, Minnesota, 21–22; lecturer prev. med, Union Col, 25–28; assoc. prof. *hygiene, Stanford,* 30–38, *prof, 38–* Director hygiene, pub. sch, Palo Alto, Calif, 33–36; lecturer, Minnesota, 36–37. Tissue calcium; vitamins; influenza; tuberculosis; mental hygiene; school hygiene programs.

Shepard, E(dgar) R(aymond), Office of Chief of Engineers, U. S. War Department, Washington, D. C. *Electrical engineering.* Salt Lake City, Utah, March 3, 80. B.S, California, 04; A.M, Harvard, 06. Asst. prof. elec. eng, Oregon State Col, 08–14; elec. engineer, Bur. Standards, 14–22, 30–34; consulting engineer, 22–30; research engineer, bur. pub. roads, U. S. Dept. Agr, 34–38; *senior physicist, office chief of eng, U. S. War Dept, 38–* Stray current electrolysis; soil corrosion; geophysical exploration.

Shepard, Dr. Edwin R(eed), Eli Lilly and Co, Indianapolis, Ind. *Organic chemistry.* Springfield, Ohio, June 24, 17. A.B, Wittenberg Col, 38; Kettering Foundation fellow, Antioch Col. and Ohio State, 39–42; Ph.D, Ohio State, 42. *Org. chemist, Eli Lilly and Co, 42–* Chem. Soc. Chemotherapy.

Shepard, Prof. Elmer I(rwin), 31 School St, Williamstown, Mass. *Statistics.* Winona, Minn, March 3, 78. Carleton Col; A.B, Williams Col, 00, A.M, 04; Columbia; Harvard; Tübingen. Instr. *math, Williams Col,* 03–11, asst. prof, 11–32, *assoc. prof, 32–* Instr, Harvard, 06–08. Major, F.A, 24–32, lieut. col, 32– Assoc. Casualty Actuarial Asn. Statistical treatment of economic and business data; actuarial mathematics.

Shepard, Prof. F(rancis) P(arker), University of Illinois, Urbana, Ill. *\$*Geology.* May 10, 97. A.B, Harvard, 19; Ph.D, Chicago, 22. *Dept. geol, Illinois, 22–,* asst. prof. and *prof; research assoc, Scripps Institution, California.* A.A; Geol. Soc; Seismol. Soc; Geophys. Union; Ill. Acad. Continental shelf; submarine canyons; marine sedimentation; coastal changes.

Shepard, Harold B(laisdell), 1660 Lanier Place, N.W, Washington, D. C. *Forest economy.* Waltham, Mass, May 1, 90. B.S, Boston, 12; M.F, Harvard, 14. Forest inspector, Great Northern Paper Co, Maine, 14–15; forester, East. Mfg. Co, 15–23; consulting forester, Boston, 23–24; special agent, fire ins. companies, 25–29; forest economist, U. S. Forest Service, 29–38, 40–43; logging engineer, N. H, 39; *lumber economist, War Production Board, 43–* C. Eng, U.S.A, 17–18, capt. Soc. Foresters. Available supplies of pulpwood species in United States and Canada; tree planting for pulpwood growing; forest fire insurance; climate and the forest fire hazard.

Shepard, Dr. Harold H(enry), University Farm, St. Paul, Minn. *Entomology.* Templeton, Mass, March 8, 98. B.S, Mass. Col, 24, Ph.D, 31; M.S, Maryland, 27. Asst, Mass. Col, 24–25; Maryland, 25–27; asst. entomologist, bur. entom, U. S. Dept. Agr, 27–31; *asst. prof. entom. and asst. entomologist, Exp. Sta, Minnesota, 31–* Entom. Soc. Amer; Asn. Econ. Entom. Toxicology of insecticides; taxonomy of Hesperidae; stored products insects.

Shepard, Prof. John F(rederick), University of Michigan, Ann Arbor, Mich. *Psychology.* Greenfield, Ill, Jan. 30, 81. B.S, St. Lawrence, 01, hon. Sc.D, 25; Chicago, 02–03; Ph.D, Michigan, 06. Asst. *psychol, Michigan,* 03–06, instr, 06–11, asst. prof, 11–15, assoc. prof, 15–18, *prof, 18–* Psychol. Asn. Organic changes and feelings; circulation and sleep; association; learning processes; phonetics.

Shepard, Dr. N(orman) A(rthur), Hunting Ridge Road, Stamford, Conn. *Chemistry.* New Haven, Conn, April 8, 90. Ph.B, Yale, 10, Ph.D, 13. Instr. chem, Yale, 13–17, asst. prof, 17–19; director chem. research, Firestone Tire and Rubber Co, 19–36; tech. service, *Am. Cyanamid Co,* 36–41, *chem. director, 41–* Consultant production div, contract distribution branch, conversion sect, and office rubber director, War Production Board; U. S. Navy, 43; Baruch Rubber Surv. Cmt, 42; Nat. Defense Research Cmt, 43. A.A; Chem. Soc. (chairman, Akron sect, 24, rubber div, 35–); Inst. Chem. (councilor, 35–41); Soc. Chem. Indust. (director, 35–41, v. chairman, 43–); Chem. Eng. (admissions cmt, 40–43); Chemists' Club; London Chem. Soc; Deuts. Chem. Gesell; Soc. chim. de France. Organic chemistry; synthesis; amines; cyclic nitrogen compounds; industrial poisons; vulcanization and aging of rubber; tire fabrics; carbon black; chemical education.

Shepard, Prof. O(rson) Cutler, Stanford University, Calif. *Metallurgy.* Del Rey, Calif, Dec. 9, 02. A.B, Stanford, 25, Engineer, 28. Research engineer, Anaconda Copper Co, 25; metallurgist, San Luis Mining Co, 25–27; instr. *metal, Stanford,* 28–31, asst. prof, 31–36, *assoc. prof, 36–* Visiting assoc. prof, Mass. Inst. Tech, 40–41; director, San Jose Keystone

Mining Co. Min. and Metal. Eng. Process metallurgy; physical metallurgy; fire assaying.

Shepard, Dr. William K(ent), 265 Church St, New Haven, Conn. *Physics, Mathematics.* Adams, N. Y, Oct. 19, 75. Ph.B, Yale, 97, Ph.D, 00. Asst. physics, Yale, 98–00, instr. math, 00–01, mech, 01–15, asst. prof. strength of materials, 16–20; in charge mech. div, research lab, Barrett Co, 20–21; manager, Bonbright and Co, New Haven, 21–32; *William Kent Shepard, Investments, 32–* Electricity; solutions for copper voltameter; mechan cs; strength of materials.

Shepard, Dr. William P(eacey), Metropolitan Life Insurance Co, 600 Stockton St, San Francisco, Calif. *Public health.* Hull, Iowa, July 6, 95. B.S, Minnesota, 20, M.B, 21, M.D, 22, A.M, 24. Special agent, State Board Health, Minn, 16, 19; instr. clin. micros, Minnesota, 20, pub. health and prev. med. and asst. director students' health service, 20–23; lecturer hygiene, West. Union Col, 23–24; health officer, director health and develop, pub. schs, and med. director, Health Center, Berkeley, Calif, 24–26; *asst. sec'y and Pacific Coast welfare director, Metropolitan Life Ins. Co, 26–;* lecturer indust. hygiene, *med. sch, Stanford,* 28–32, *clin. prof. pub. health and prev. med, 32–* Senior surgeon, U. S. Pub. Health Service Res; pub. health rep, Ninth Service Command, procurement and assignment service, War Manpower Cmn. Chairman, San Francisco Health Council, 27–31. Adj, Base Hosp. No. 26, A.E.F, 17–19. A.A; fel. Pub. Health Asn. (sec'y, west. branch, 28–40, pres, 41, mem. governing council, 34–37, 41–, 3rd v. pres, parent body, chairman, health educ. sect, 34; chairman cmt. professional educ, 40–); Am. Med. Asn; Tuber. Asn. (director); Calif. Heart Asn. (director); North. Calif. Pub. Health Asn. (sec'y, 28); Calif. Acad. Med; Calif. Tuber. Asn. (pres, 42). Rural and urban health; epidemiology; tuberculosis control; industrial hygiene; health education; public health administration; medical social service.

Shepardson, Prof. Cha(rle)s N(oah), Agricultural and Mechanical College of Texas, College Station, Texas. *Dairy husbandry.* Littleton, Colo, Jan. 7, 96. B.S, Colo. Agr. Col, 17; M S, Iowa State Col, 24. Inspector, Colo. State Dairy Cmn, 19; exten. animal husbandman, Wyoming, 20; assoc. prof. animal husbandry, Colo. Agr. Col, 21–28; *prof. dairy husbandry and head dept, Agr. and Mech. Col. Texas, 28–* U. S. del, Int. Dairy Cong, Berlin, 37. Capt, U.S.A, 17–19. Dairy Sci. Asn. Control and eradication of contagious abortion; mastitis investigations; protein requirements for dairy cows.

Shepardson, Dr. H(arry) Clare, 384 Post St, San Francisco, Calif. *Medicine.* Paxton, Ill, Aug. 23, 88. A.B, California, 20, A.M, 21, M.D, 24. Asst. *med, med. sch, California,* 24–30, asst. clin. prof, 30–36, *assoc. clin. prof, 36–* Am. Med. Asn; Col. Physicians; Diabetes Asn; Calif. Acad. Med; Interurban Clin. Club (sec'y). Internal medicine; diabetes mellitus; endocrinology.

Shephard, Dr. Ronald W(illiam), U. S. Naval Proving Ground, Dahlgren, Va. *Mathematical statistics.* Portland, Oregon, Nov. 22, 12. A.B, California, 35, Ph.D, 40. Research fellow, California, 40–42, instr. math, 41–42; *lieut, U. S. Navy, 42–* Math. Soc; Inst. Math. Statist. Mathematical economics.

Shepherd, Dr. David, P. O. Box 918, Menlo Park, Calif. *Entomology.* Paris, Idaho, Sept. 5, 91. A.B, Utah. 18; scholar, Stanford, 23, Sperry fellow, 24, A.M, 24, Royall Victor fellow, 29, Ph.D, 29. Instr. *biol,* Latter Day Saints Col, 19–20. 26–27; *head dept,* Brigham Young, 24–26; *San Mateo Junior Col, 29–* Life history and biology of Echocerus cornutus; development of Ephemerella hecuba; the Trichoptera of Waddell Creek and their relation to the food of Salmo iredeus.

Shepherd, E(arnest) S(tanley), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. *Chemistry.* Remington, Ind, March 30, 79. Indiana, 97–00; A.B, Cornell, 02. Private asst. to Prof. Wilder D. Bancroft, 02–03; asst. electrochem. and research asst, Cornell, 03–05; *asst, geophys. lab, Carnegie Institution, 04–* Chem. Soc. Alloys; high temperature work on minerals; application of physical chemistry to rock magmas; Portland cement; volcanic gases.

Shepherd, Prof. Geoffrey (Seddon), Iowa State College, Ames, Iowa. *Economics.* Deal, Kent, Eng. Ph.D, Harvard, 32. *Assoc. prof. agr. econ, Iowa State Col, 27–* Prin. economist, U. S. Dept. Agr, 41, consultant, commodity credit corp, 41, 42. Farm Econ. Asn; Econ. Asn. Agricultural marketing; price research and general economics.

Shepherd, (George) Martin, National Bureau of Standards, Washington, D. C. *Chemistry.* Brookfield, Mo, Nov. 13, 94. B S, Missouri, 18. Chemist, exp. helium plant, U. S. Bur. Mines, Texas, 18–21; assoc. chemist and *chemist, Bur. Standards, 21–* Chem. Soc. Separation of gas mixtures by fractional distillation at low temperatures and pressures; gas analysis.

Shepherd, Dr. Robert G(ordon), 2028 N. Calvert St, Baltimore, Md. *Organic chemistry, Chemotherapy.* Milwaukee, Wis, Jan. 26, 15. Ph.D, Hopkins, 40. *Asst. pharmacol. and exp. therapeut, sch. med, Hopkins, 40–* Chem. Soc. Protein chemistry.

Shepherd, Dr. W(illiam) G(erald), 14 West End Ave, Summit, N. J. *Physics.* Ft. William, Ont, Can, Aug. 28, 11. B.E.E, Minnesota, 33, Ph.D, 37. Teaching asst. physics, Minnesota, 33–37; *research engineer, Bell Tel. Labs, Inc, 37–* Physical Soc; Radio Eng. Nuclear physics; circuits; electronics.

Shepherd, Dr. W(illia)m Tho(ma)s, 438 Quackenbos St, N. W, Washington, D. C. *Psychology.* Reinersville, Ohio. Ohio Northern; B.S, Gale Col, 99; A.M, Oklahoma, 05, M.S, 06; Ph.D, George Washington, 10. Pres, Ark. Nor. Col, 06; teaching fellow, George Washington, 08–09, fellow by courtesy, 10–12; prof. philos. and English and dean, Waynesburg Col, 13–16; prin, *Columbia Univ. Sch, Washington, D. C,* 16–20, pres, 20–28, *supt, 28–* A.A; Acad. Polit. and Social Sci; Soc. Philos. Inquiry Wash. (v. pres, 28–); fel. Royal Soc. Arts; British Inst. Philos; Acad. World Econ. Comparative psychology; psychology of religion.

Sheppard, Dr. C(harles) W(ilcox), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* May 21, 12. B.S, Calif. Inst. Tech, 37, M.S, 38, Ph.D, 42. Instr. physics, S. Dak. Sch. Mines, 40–41, asst. prof, 41–42; *research assoc, Mass. Inst. Tech, 42–* A.A; Physical Soc; Soc. Physics Teachers. Nuclear physics and geology; the role of radioactivity in the genesis of petroleum.

Sheppard, J(ohn) R(ussell), National Research Council, Ottawa, Ont, Can. *Chemistry, Metallurgy.* Berlin, Ont, 93. B.A, Queen's (Can), 16, M.A, 20. Chief chemist, Ames Holden McCready, Ltd, Montreal, 20–25; Can. Goodrich Co, Ont, 25; develop. and research, Seiberling Rubber Co, Ohio, 25–26; acting director and director research, Eagle-Picher Lead Co, 26–35; consultant chem. and metal, 35–41; director labs. and partner, Urbain Sheppard Labs, 41–42; *research chemist, Nat. Research Council Can, 43–* A.A; Chem. Soc. (chairman, southeast. Kans. sect, 30); Soc. Chem. Indust; Chem. Eng; fel. Can. Inst. Chem. Lead and zinc products and metallurgy; rubber; paint; thermal insulations.

Sheppard, Prof. Oden E(lbridge), 521 S. Willson, Bozeman, Mont. *Chemistry.* Jericho Springs, Mo, July 15, 92. A.B, Missouri, 12, A.M, 14; Ph.D, Chicago, 28. Asst. *chem,* Missouri, 12–14; asst. prof, *Mont. State Col,* 22–29, assoc. prof, 29–31, *prof. and head dept, 31–* Eastman Kodak Co, 28–29. Chem. Soc. (chairman. Mont. sect, 28. 30, 32); London Chem. Soc; Deuts. Chem. Gesell. Radioactivity in water and minerals; indophenols; color theory; organic synthesis.

Sheppard, Dr. S(amuel) E(dward), 183 Monteroy Road, Rochester, N. Y. **Chemistry.* Hither Greene, Eng, July 29, 82. B Sc, London, 03. D.Sc, 06, 1851 Exh'b. scholar, 07–10; Marburg, 07–08; Paris, 08–09; Cambridge, 12. Research chemist, *Eastman Kodak Co,* 13–23, *asst. director research, 23–* Hurter and Driffield medal and Progress medal, Royal Photog. Soc. London, 28; Adelskiold gold medal, Stockholm Photog. Soc, 29; W. H. Nichols medal, Am. Chem. Soc, 30. Chem. Soc; Electrochem. Soc; Standards Asn. (cmt. photographic standards); Motion Picture Eng; fel. London Chem. Soc; hon. fel. Royal Photog. Soc; cor. mem. Soc. biol. de Paris. Photochemistry; colloids; photography.

Sheps, Dr. Louis J(ack), Richards Chemical Works, Ltd, St. Johns. Que, Can. *Organic chemistry.* Winnipeg, Man, Can, Sept. 6, 10. B.Sc, Manitoba, 31; Ph.D, McGill, 34. Asst. chem, McGill, 31–34; Manitoba, 34–36; Dom. Grain Research Labs, Winnipeg, 36–37; with Richards Chem. Works, 37–38, *chief chemist, Richards Chem. Works, Ltd, 38–* Asn. Textile Colorists and Chem; Can. Asn. Textile Chem. and Colorists; fel. Can. Inst. Chem. Carbonyl bridge compounds; vegetable oils; textile chemicals; wetting agents; detergents.

Sher, Dr. Ben C(hompter), 5601 N. Pulaski Road, Chicago, Ill. *Organic chemistry.* St. Joseph, Mo, Sept. 11, 96. B.S, Chicago, 21, Ph.D, 34; M.S, Maryland, 23. Plant chemist,

Abbott Labs, 21; *research chemist, Munic. Tuber. Sanitarium, 23–* Chem. Soc. Chemical aspects of bacterial growth; metallo-organic compounds; chemical aspects of silicosis; electron concept of valence; liquid ammonia extractions of allergens; chemotherapy in tuberculosis.

Sherbakoff, Dr. C(onstantine) D(mitriev), University of Tennessee, Knoxville, Tenn. *Phytopathology.* Ekaterinoslav, Russia, May 24, 78. Grad, Agr. Sch, Kherson, Russia, 01; Col. Forestry, Petrograd, 01–07; B.S.A, Cornell, 11, fellow, 12–14, Ph.D, 15. Assoc. plant pathologist, Exp. Sta, Florida, 14–20; *plant pathologist and head dept, Exp. Sta, Tennessee, 20–* A.A; Phytopath. Soc. (sec'y and councilor, south. div, 32). Diseases of economic plants; Fusaria.

Sherburne, Dr. Barbara J(ean), Psychopathic Clinic, Recorder's Court, Detroit, Mich. *Psychology.* Oakland, Calif, Feb. 4, 14. A.B, Michigan, 38, A.M, 39, Rackham fellow, 39–40, Ph.D, 40. Asst, Michigan, 36–39; *clin. psychologist, Recorder's Court, Detroit, 40–* Midwest. Psychol. Asn; Mich. Psychol. Asn. Experimental and clinical psychology.

Sherburne, Prof. James W(ilson), Oregon State College, Corvallis, Oregon. *Psychology.* Toledo, Ohio, April 8, 05. A.B, Greenville Col, 27; A.M, Michigan, 28; Ph.D, Ohio State, 38. Prof. educational psychol, Wessington Springs Col, 28–29; supt. schs, S. Dak, 29–34; instr. *psychol,* Ohio State, 34–38; asst. prof, *Oregon State Col,* 38–40, *assoc. prof, 40–* Summers, prof, Syracuse, 37, Idaho, 40, 41. Guidance in high school and college.

Sherer, Prof. Charles R(obert), Texas Christian University, Ft. Worth, Texas. *Mathematics.* Jan. 3, 95. A.B, Nebraska, 17, A.M, 21; Chicago. Teacher, high sch, Nebr, 17–18; prof. *math,* Hastings Col, 18–19; instr, Nebraska, 20–28; *prof, Texas Christian, 28–, personnel director.* A.A; Math. Soc; Math. Asn. Mathematical analysis; map projections.

Shereshefsky, Prof. J(udah) Leon, 526 Maple Ridge Road, Bethesda, Md. *Physical chemistry.* Pinsk, Minsk, Russia, Oct. 15, 96. Ch.B, Pittsburgh, 23; Ph.D, Hopkins, 26. Graflin scholar, Hopkins, 26–27, special research fellow, 27–28; indust. fellow, Mellon Inst, 28–30; assoc. prof. and later *prof. chem, Howard, 30–, chairman dept, 32–, head dept, 36–* A.A; Chem. Soc; Chem. Soc. Wash; Physics Colloquium Wash; Wash. Acad; Philos. Soc. Wash. Capillarity; adsorption; surface tension of vapors; structure of liquid surfaces; unimolecular films.

Sherff, Dr. Earl E(dward), 7419 Stewart Ave, Chicago, Ill. *Botany.* Flint, Mich, May 18, 86. A.B, Albion Col, 07; M.S, Chicago, 12, Ph.D, 16. Asst. bot, Albion Col, 05–06, instr, 06–07; prof. biol. and agr, Mt. Morris Col, 07–09; *instr,* high sch, Ill, 09–12; Christian Fenger Pub. High Sch, Chicago, 12–19; Robert Lindblom Tech. High Sch, 19–23; *bot, Chicago Teachers Col, 23–, head dept. science, 29–* Asst, desert lab, div. plant biol, Carnegie Institution, 08; Chicago, 17–29; research assoc, Field Museum, 36– Assoc. ed, 'Bot. Gazette,' 25–43. A.A; Bot. Soc; Soc. Plant Taxon. (councilor, 36–, chairman council, 41–); Chicago Biol. Round Table (pres, 32–36). Ecology of marsh plants; taxonomy of Bidens, Coreocarpus, Coreopsis, Cosmos, Dubautia, Haplostachys, Isostigma, Phyllostegia, Pittosporum, Railliardia, Stenogyne, Tetramolopium, Xanthium and Taraxacum; flora of Illinois and Hawaiian Islands; teaching of science.

Sheridan, Prof. Laurence W(ard), 573 S. Broadway, Yonkers, N. Y. *Meteorology, Physics.* Buffalo, N. Y, June 30, 07. A.B, Canisius Col, 28; Knights of Columbus fellow, Catholic Univ, 28–32, A.M, 29, Ph.D, 32; Buffalo; Columbia; Cornell; N. Y. Univ. Asst. math, Catholic Univ, 30–32; instr, high schs, N. Y, 32–33, 36–37; prof. math. and chairman dept, Scranton, 33–36; *prof. math. and physics and chairman dept. math, Col. of Mt. St. Vincent, 37–* Summers, instr, Catholic Univ, 38; prof, Nazareth Col, 39, instr, exten, Pa. State Col, 41. Assoc. fel. Inst. Aeronaut. Sci; Math. Soc; Math. Asn; Council Teachers Math; Catholic Round Table of Sci. The physics of television; the two-dimensional flow of air past a series of Rankine ovals; meteorological conditions favoring the production of local snows in the vicinity of Buffalo, New York.

Sherk, Dr. Daniel L(eander), Cumberland, Md. *Chemistry.* Wakonda, S. Dak, Sept. 9, 92. A.B, South Dakota, 13; Fritzsche Brothers fellow, Wisconsin, A.M, 18, Ph.D, 20. Research chemist, Gillican-Chipley Co, New Orleans, and Acme Products Co, DeQuincy, 20–25; chemist, research dept, Oxford Paper Co, N. Y, 25–30; indust. fellow wood by-products, Mellon Inst, 30–33, starch technol, 34–35; *research chemist,* Wood Conversion Co, 36–39; *Celanese Corp. Amer, 41–* C.W.S, U.S.A. A.A; Chem. Soc; Asn. Pulp and Paper Indust. Volatile oils; industrial utilization of pulp mill by-products; cellulose derivatives.

Sherk, Prof. K(enneth) W(ayne), Smith College, Northampton, Mass. *Chemistry.* Cottage Grove, Oregon, March 29, 07. A.B, Reed Col, 28; fellow, Rice Inst, 30–31; Ph.D, Cornell, 34. Asst, Cornell, 28–30, 31–33, Pfister fellow, 33–35; asst. prof. *chem, Smith Col,* 35–43, *assoc. prof, 43–* Chem. Soc. Solubility of alkali halides; density of saturated solutions; spectrochemical identification of minerals; oxidation of hydrazine; hydrazoic acid and azides.

Sherman, Althea R(osina), National, via McGregor, Iowa. *Zoology.* Clayton Co, Iowa, Oct. 10, 53. A.B, Oberlin Col, 75, A.M, 82. Instr. drawing and painting, Carleton Col, 82–87; supervisor drawing, pub. schs, Wash, 92–95. A.A; Ornith. Union; Soc. Mammal; Nat. Asn. Audubon Societies; Wilson Ornith. Club; Cooper Ornith. Club; Biol. Soc. Wash. Nesting and feeding habits of birds; life histories of bats.

Sherman, Charles W(inslow), Statler Bldg, Boston, Mass. *Civil engineering.* Kingston, Mass, Sept. 26, 70. B.S, Mass. Inst. Tech, 90; M.C.E, Cornell, 95. Instr. civil eng, Cornell, 91–95; asst. engineer, Boston Water Works, 95–97; asst. engineer and div. engineer, Metropolitan Water Works, Boston, 98–04; prin. asst. engineer, Leonard Metcalf, 04–07, Metcalf and Eddy, 07–13, partner, 13–38; *private practise, 38–* Water commissioner, Belmont, Mass, 08–32. Lieut, Mass. State Guard, 17–19. Civil Eng. (pres, N. E. sect, 26); Boston Soc. Civil Eng. (treas, 10–15, v. pres, 17–19); hon. mem. New Eng. Water Works Asn. (pres, 21). Water works; sewerage; engineering and operation.

Sherman, Dr. Clarence S(teiner), 65 Grove Ave, Verona, N. J. *Chemistry.* Asbury Park, N. J, March 11, 07. B.S, Brown, 27, M.S, 28, Ph.D, 31. Chemist, chem. div, ammonia dept, E. I. du Pont de Nemours and Co, 30–33; instr. *org. and gen. chem, Cooper Union,* 33–38, *asst. prof, 38–* Inst. Chem; Chem. Soc. Metallo-organic chemistry; organic chemistry; chemical education methods.

Sherman, Prof. Franklin, Clemson Agricultural College, Clemson, S. C. *Entomology, Zoology.* Ash Grove, Va, Nov. 2, 77. B.S.A, Cornell, 00; hon. M.S, Md. Agr. Col, 12. Asst. to entomologist, Exp. Sta, Md. Agr. Col, 97–98; deputy nursery inspector, Wis, 99; chief entomologist, State Dept. Agr, N. C, 00–05; prof. entom. and zool, Ont. Agr. Col, 05–06; entomologist, State Dept. Agr, N. C, 06–25; *prof. entom. and zool. and chief div, Clemson Col, 25–* Summer, instr, Cornell, 00. A.A; Asn. Econ. Entom. (past pres); S. C. Acad; N. C. Acad. (past pres). Ornithology; herpetology; entomological fauna of South Carolina.

Sherman, Dr. G(eorge) Donald, U. S. Department of Agriculture, New Orleans, La. *Plant nutrition.* Ulen, Minn, June 4, 04. B.S.Agr, Minnesota, 33, M.S, 37; Ph.D, Mich. State Col, 40. Asst, div. soils, Minnesota, 34–37; Mich. State Col, 37–40; *asst. chemist,* Exp. Sta, Kentucky, 41–42; *south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Soil Sci. Soc; Chem. Soc. Soil chemistry and fertility; dolomitization; minor element deficiencies and manganous-manganic equilibrium of soils; management of organic soils; vitamin C; sweet potato products.

Sherman, Prof. George W(illiam), 333 Forest Hill Drive, West Lafayette, Ind. *Metallurgy.* Slocums, R. I, April 8, 90. B.S, R. I. State Col, 12; M.S, Purdue, 14. Asst. physics, *Purdue,* 12–15, instr, 15–18, asst. prof, 18–25, *assoc. prof,* 25–38, *metal, 38–* Eng. Educ; Ind. Acad. Thermal conductivity of heat insulating materials.

Sherman, Mrs. Hartley Embrey, P. O. Box 2192, Manila P. I. *Biochemistry.* Winchester, Tenn, Dec. 1, 86. A.B, George Peabody Col, 14; Paris; M.S, Chicago. 15. Prof chem, Hollins Col, 15–17; chemist, exp. sta, E. I. du Pont de Nemours and Co, Wilmington, Del, and smokeless powder plant, Nashville, Tenn, 18–19; assoc. physiol. chem, Peking Union Med. Col, 19–23; Bur. Science, P. I, 27–28, Bur. Agr, P. I, 28–29; *Philippine Coconut Industries Asn, Manila, 29–* Special work trop. foods, leper colony, Culion, P. I, 21. Soc. Exp. Biol. Food chemistry; analysis of Chinese foods; the antiscorbutic vitamin; vitamin deficiency in children's diet; vitamins in Oriental foods; chemistry of abaca; nutrition during leprosy; Manila hemp.

Sherman, Dr. H(enry) C(lapp), Bureau of Human Nutrition and Home Economics, U. S. Department of Agriculture,

Washington, D. C. **²Chemistry.* Ash Grove, Va, Oct. 16, 75. B.S, Maryland, 93, Sc.D, 13; A.M, Columbia, 96, Ph.D, 97, Sc.D, 29. Asst. chem, Maryland, 93–95; nutrition investigations, U. S. Dept. Agr, 98–99; anal. chem, Columbia, 97–98, lecturer, 99–01, instr, 01–05, adj. prof, 05–07, prof. org. anal, 07–11, food chem, 11–24, Mitchill prof. chem, 24–43, exec. officer dept, 19–39; *head bur. human nutrition and home econ, U. S. Dept. Agr, 43–* Research assoc, Carnegie Institution, 12–29, 33– Chairman subcmt. on human nutrition, Nat. Research Council, 20–24, v. chairman food and nutrition board, 42– Harvey lecturer, 18; De Lamar lecturer, Hopkins, 29; Forsythe lecturer, 30; Wiley Mem. lecturer, 31; Carnegie Institution lecturer, 36. Am. Inst. Chem. medal; Nichols medal, Am. Chem. Soc, 35. Major, Red Cross Mission, Russia, 17. Nat. Acad; A.A; Chem. Soc. (v. pres, 07); Soc. Biol. Chem. (pres, 25); Physiol. Soc; Pub. Health Asn. (chairman, cmt. on nutrition, 19–33); Soc. Exp. Biol. Chemistry of foods and nutrition; enzymes; vitamins; mineral elements in nutrition; relations of nutrition to health and longevity.

Sherman, Dr. Irene Case, 30 N. Michigan Ave, Chicago, Ill. *Psychiatry.* Peoria, Ill, Oct. 7, 94. Ph.B, Chicago, 16, Ph.D, 24, M.D, Rush, 32. Psychologist, Children's Mem. Hosp, Chicago, Ill, 24–26; investigator, Am. Asn. Museums, 25–26; psychologist, med. sch, Northwestern, 26–28; lecturer, George Washington, 28–29; Rush Med. Col, Chicago, 29–31; Frances Willard Hosp, 31–32; instr. and later *asst. prof. psychiat, col. med, Illinois, 32–* Psychol. Asn; Psychiat. Soc. Psychopathology.

Sherman, Dr. Jack, The Texas Co, Beacon, N. Y. *Chemistry.* San Francisco, Calif, Oct. 2, 07. B.S, California, 29; Ph.D, Calif. Inst. Tech, 32. Asst. chem, Gates chem. lab, Calif. Inst. Tech, 32–36; *with* Universal Oil Products Co, 36–39; *Texas Co, 39–* Chem. Soc. Crystal structure; applications of wave mechanics to structural chemistry; chemistry of petroleum; statistical analysis of experimental data.

Sherman, Prof. James M(organ), Cornell University, Ithaca, N. Y. *Bacteriology.* Ash Grove, Va, May 6, 90. B.S, N. C. State Col, 11; M.S, Wisconsin, 12, Ph.D, 16. Asst. bacter, Wisconsin, 13–14; instr, Pa. State Col, 14–15, asst. prof, 15–17; bacteriologist, U. S. Dept. Agr, 17–23; *prof. bacter. and dairy indust, Cornell, 23–* A.A; Soc. Bact. (sec'y-treas, 23–34, v. pres, 36, pres, 37); Chem. Soc; Dairy Sci. Asn. (v. pres, 29, pres, 30); Soc. Exp. Biol. General and applied bacteriology.

Sherman, Dr. Jane P(eckham), Hope Valley, R. I. *Bacteriology, Pathology.* Hopkinton, R. I, Oct. 12, 94. A.B, Brown, 18, M.S, 23, A.M, Ph.D, 24; Harvard, 24. Technician, Providence Hosp, Washington, D. C, 19; bacteriologist, St. Joseph's Hosp, Providence, 19–21; *bacteriologist and serologist, State Board Health, R. I, 21–* Asst. instr, Brown, 24. Technician, U.S.A, 18–19. Soc. Bact; Pub. Health Asn. Cell changes caused by enzymes and extracts of pathogenic yeasts.

Sherman, Kenneth L(ee), 5334 Nebraska Ave, Washington, D. C. *Geophysics.* Kerhonkson, N. Y, Jan. 1, 05. B.S, George Washington, 31. Asst. physicist, *dept. terrestrial magnetism, Carnegie Institution, 28–38, assoc. physicist, 38–* Geophys. Union; Philos. Soc. Wash. Terrestrial electricity; ionization of gases; apparatus for electrostatic measurements.

Sherman, Prof. Leo Prentiss, 1515 Broad St, Grinnell, Iowa. *Chemistry.* Salem, N. Y, June 11, 88. B.S, Dartmouth Col, 10; M.S, Chicago, 17, Ph.D, 23. Teacher, high sch, Wyo, 11–13; Ky, 13–16; instr. *chem, Grinnell Col,* 17–18, asst. prof, 18–24, assoc. prof, 24–25, *prof, 25–* Chem. Soc; Iowa Acad. (v. pres, 35, pres, 36). Preparation and study of 1, 2-dihydroxy isobutyric acid.

Sherman, LeRoy K(empton), 53 W. Jackson Blvd, Chicago, Ill. *Civil engineering.* Eastham, Mass, July 20, 69. B.S, Mass. Inst. Tech, 92. Ill. Rivers and Lakes Cmn, 13–16; director, U. S. Housing Bur, 19; *pres, Randolph-Perkins Co.* Civil Eng; Asn. Eng. (pres, 20); Geophys. Union (chairman, hydrol. sect, 36); West. Soc. Eng; Ill. Soc. Eng. (past pres). Hydraulics; sanitary engineering; hydrology.

Sherman, Dr. Mandel, University of Chicago, Chicago, Ill. *Psychology, Psychiatry.* Chicago, Ill, June 7, 96. B.S, Chicago, Ph.D, 27, M.D, Rush, 20. Psychiatrist, State Dept. Pub. Welfare, Ill, 22–23; med. sch, Northwestern, 23–28; prof. child psychol, Maryland, 28–31; assoc. prof. and later *prof. educational psychol, Chicago, 31–* Lecturer, Presb. Hosp, Chicago, 24–27; professorial lecturer, George Washington, 28–31; director, Wash. Child Research Center, 28–31. A.A; Am. Med. Asn; Acad. Polit. and Social Sci; Chicago Neur. Soc; Wash. Soc. Nervous and Mental Diseases. Emotional and personality development; sensory and motor development of children; community culture.

Sherman, Ralph A(rthur), 505 King Ave, Columbus, Ohio. *Engineering.* Oskaloosa, Iowa, Dec. 16, 96. A.B, Iowa, 20. Analyst, U. S. Bur. Mines, 16–17, asst. physicist, 20–27, assoc. fuel engineer, 27–28, fuel engineer, 28–30; *supervisor fuels div, Battelle Mem. Inst, 30–* Mech. Eng; (exec. cmt, fuels div, 30–35, chairman, 31–33); Soc. Test. Mat; Heat. and Vent. Eng; Gas Asn; assoc. Naval Eng; Int. Ry. Fuel Asn. Combustion of fuels in marine boiler, ceramic kilns, domestic furnaces and in blast furnaces; pulverized coal; radiation in boiler furnaces; metallurgical furnaces; glass tanks; refractories in boiler furnaces; domestic stokers.

Sherman, Dr. Seymour, U. S. Naval Academy, Annapolis, Md. *Mathematics.* New York, N. Y, April 30, 17. A.B, Cornell, 36, A.M, 37, Ph.D, 40. Instr, Cornell, 37–40; mem, Inst. Advanced Study, 40–41; *instr. math, U. S. Naval Acad, 41–* Math. Soc. Theory of sets and measure.

Sherman, Dr. William B(owen), 60 E. 58th St, New York, N. Y. *Internal medicine.* Providence, R. I, Oct. 17, 07. A.B, Columbia, 26, A.M, 27, M.D, 31. Intern, Presb. Hosp, 31–33; asst. res. physician, Hopkins Hosp, 33–35; asst. med, Hopkins, 33–35; *clin. asst, allergy clinic, Roosevelt Hosp, and dept. med, Presb. Hosp, 35–; asst. med, col. physicians and surg, Columbia, 37–; capt, Med. Res. Corps, U. S. Army, 41–* Soc. Exp. Biol; Soc. Study Asthma and Allied Conditions; Am. Med. Asn. Allergic diseases; capillary physiology; kidney function in mercury poisoning.

Sherman, Dr. W(illiam) C(yrus), Alabama Polytechnic Institute, Auburn, Ala. *Biological chemistry, Nutrition.* Ft. Atkinson, Wis, July 22, 10. B.S, Wisconsin, 32, fellow, 32–36, M.S, 34, Ph.D, 36. *Assoc. animal nutritionist, Ala. Polytech, 37–* Relation of cobalt to livestock production in Alabama; quality in soybeans and cowpeas for human food.

Sherndal, Dr. A(lfred) E(inar), 170 Varick St, New York, N. Y. *Chemistry.* Gothenburg, Sweden, Sept. 24, 85. B.S, St. Lawrence, 07, Sc.D, 43; Ph.D, Munich, 12. Dodge and Olcott, N. Y, 13–17; director chem. labs, H. A. Metz Labs, Inc, 17–26, plant manager, 26–34; *Winthrop Chem. Co,* 34–42, *production manager, 42–,* plant manager, 42, v. pres, 43. A.A; Chem. Soc; Inst. Chem; Chemists' Club. Chemistry and constitution of essential oils; terpenes and hydrocarbons; medicinal chemistry; synthetic anesthetics; arsenicals; chemotherapeutics; antimalarials; American production of medicinals for armed forces and civilian health.

Sherrard, Dr. E(arl) C(harles), U. S. Forest Service, Madison, Wis. *Chemistry.* Montpelier, Ind. Ph.C, Tri-State Col, 04; B.S, Michigan, 13, M.S, 15, Ph.D, 17. Instr. chem, Michigan, 16–17; *chemist,* Goodyear Tire and Rubber Co, 17; *Forest Products Lab, U. S. Forest Service, 17–, in charge div. derived products.* Lecturer, Wisconsin. Chem. Soc. Chemistry of wood and other cellulose containing materials; ethyl alcohol from wood and wastes; lignin plastics; sulfite liquors; sugars obtainable from wood; hydrogenation of lignin.

Sherrill, Dr. James Winn, Scripps Metabolic Clinic, La Jolla, Calif. *Medicine.* Temple, Texas, April 22, 90. B.S, Baylor, 13; M.D, Hopkins, 17. *Director, Scripps Metabolic Clinic, 24–* Diabetes mellitus; nephritis; hypertension.

Sherrill, Prof. Mary L(ura), Mt. Holyoke College, South Hadley, Mass. *Chemistry.* Salisbury, N. C, July 14, 88. A.B, Randolph-Macon Woman's Col, 09, A.M, 11; Ph.D, Chicago, 23. Instr. *chem,* Randolph-Macon Woman's Col, 09–16, adj. prof, 17–18; assoc. prof, N. C. Col. for Women, 18–20; asst. prof, *Mt. Holyoke Col,* 21–24, assoc. prof, 24–31, *prof, 31–* Cmn. Relief Belgium Educ. Foundation fellow, Brussels, 28–29, 36; Sarah Berliner fellow, Am. Asn. Univ. Women, 28–29. Assoc. chemist, C.W.S, 20–21. A.A; Chem. Soc. (sec'y, Conn. Valley sect, 25–27, chairman, 31–34, councilor, 40–43). Organic chemistry; halogen-nitro-methane; methylene-di-salicylic acid; capsaicin; isomerism of phenylphthalimide; nitro-derivatives; chloro-derivatives; isomers of 2-pentene; derivatives of normal heptane; dipole moments and molecular constitution; infra-red absorption of liquid hydrocarbons; hydration of undecyn-9-oic acid; pentadiene-1, 2 and pentadiene-2, 3.

Sherrill, Prof. Miles S(tandish), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Louisville, Ky, Aug. 2, 77. B.S, Mass. Inst. Tech, 99, fellow, 00–02; Leipzig,

00–01; Ph.D, Breslau, 03. Asst. anal. chem, *Mass. Inst. Tech*, 99–00, instr, 03–07, asst. prof. *theoret. chem*, 07–12, assoc. prof, 12–24, *prof, 24–* Research assoc, Calif. Inst. Tech, 25–26; lecturer, Harvard, 28–30. Research chemist high explosives, Ordnance Dept, U.S.A, 18. A.A; Chem. Soc; Am. Acad. Equilibrium conditions; inorganic reactions; complex formation and ionization relations of inorganic substances; reduction potentials.

Sherrill, Prof. R(ichard) E(lls), University of Pittsburgh, Pittsburgh, Pa. *Geology*. Haskell, Texas, Nov. 12, 99. B.S, Washington and Lee, 22; Eleanor Tatum Long fellow, Cornell, 27–28, 32–33, M.S, 28, Ph.D, 33. Mining engineer, Ray Consol. Copper Co, 23–24; asst. prof. geol, Washington and Lee, 24–26; field geologist, Marland Oil Co. and Texas Oil Co, 26–27; instr. geol, *Pittsburgh*, 28–29, asst. prof, 29–34, assoc. prof, 34–37, *prof. geol. and head dept. oil and gas, 37–, head dept. geol, 43–* Consulting geologist, Pa. Topog. and Geol. Surv, 35– A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Petrol. Inst. En echelon faults of Oklahoma; differential compaction of sedimentary rocks; symmetry of foreland folds; oil fields of western Pennsylvania; petroleum geology.

Sherry, Col. B(ertram) J(ohn), 70 Telford Ave, Oakwood, Dayton, Ohio. *Meteorology*. Henrietta, Texas, Oct. 16, 82. Private schs. Asst. observer to meteorologist, U. S. Weather Bur, 03–17; from lieut. to *col, U. S. Army, 17–, officer in charge meteorol. div, Dayton dept, Sig. Corps, 42–* A.A; Meteorol. Soc; Geophys. Union. Sounding balloon ascensions; upper air research with kites and balloons; rate of ascent of pilot balloons; military meteorology.

Sherwin, Dr. Carl P(axson), 40 E. 61st St, New York, N. Y. *Physiological chemistry*. Bristol, Ind, May 21, 85. B.S, Hanover Col, 09; fellow, Indiana, 09–10, M.S, 10; A.M, Illinois, 13; D.Sc, Tübingen, 15; M.D, Fordham, 20, LL.D, 24; Dr.P.H, N. Y. Univ, 23. Asst. chem, Illinois, 10–12; high sch, Ill, 12–13; asst, Tübingen, 13–15; asst. prof. biochem, Fordham, 15–17, prof, 17–33, head dept, 19–24; *practising physician*. Director metabolic service, St. Vincent's Hosp; assoc. attending physician, French Hosp; consulting physician, St. Mary's and Broad St. Hosps; consultant, Misericordia Hosp. Summers, research chemist, Pellagra Hosp, Spartanburg, S. C, 16; food surv, Mex, Cent. and S. Amer, Cent. Europe and N. Africa, 23. Assoc. ed. and director bur, 'Good Housekeeping Mag.' Soc. Biol. Chem; Chem. Soc; Physiol. Soc; Soc. Exp. Biol; fel. Am. Med. Asn; Harvey Soc; fel. N. Y. Acad. Med; N. Y. Acad; West Side Clin. Soc; Deuts. Chem. Gesell; Med. Gesell. Comparative metabolism; synthesis of amino-acid in the animal body; hypertension; diabetes mellitus; defense mechanism of the human body; chemistry of the endocrines and hormones; biochemistry.

Sherwin, Dr. C(halmers) W(illiam), Massachusetts Institute of Technology, Cambridge, Mass. *Physics*. Two Harbors, Minn, Nov. 27, 16. B.S, Wheaton Col. (Ill), 37; Ph.D, Chicago, 40. Asst, Chicago, 40–41; *research assoc, Mass. Inst. Tech, 41–* Physical Soc. Positive ions in gases.

Sherwood, Dr. Edwin M, Apt. 1C, 299 Jackson St, Hempstead, L. I, N. Y. *Physics*. Lorain, Ohio, March 4, 13. B.Eng.Physics, Ohio State, 34, M.S, 35, scholar, 35–37, Battelle Mem. Inst. fellow, 38–40, Ph.D, 40. Research engineer, Battelle Mem. Inst, 37–38; instr. physics, Oberlin Col, 40–41; *asst. project engineer, Sperry Gyroscope Co, 41–* Soc. Metals; assoc. Radio Eng. Counters for nuclear particles; a new approach to the study of austenite-transformation in stainless steels; radio; electron diffraction applied to metallurgy.

Sherwood, Dr. F(rancis) W(ebber), 318 N. Boundary St, Raleigh, N. C. *Chemistry*. Raleigh, N. C, Feb. 9, 90. B.S, N. C. State Col, 09, M.S, 11; Ph.D, Cornell, 21. Exp. Sta, N. C. State Col, 09–11; Fed. Dyestuffs and Chem. Corp, 16–17; E. I. du Pont de Nemours and Co, 19; *assoc. nutrition chemist, Exp. Sta, N. C. State Col, 19–* Lieut, C.W.S, 17–18. A.A; Chem. Soc. (chairman, N. C. sect, 25, v. chairman, 31, chairman, 32); N. C. Acad. (exec. cmt, 31–34, v. pres, 35). Nutrition; phenolsulfonaphthalein; nutritive value and toxicity of cottonseed meal; nutritive value of peanuts.

Sherwood, Prof. G(eorge) E(ulas) F(oster), 400 N. Barrington Ave, Los Angeles, Calif. *Mathematics*. Hillsdale, N. B, Can, Aug. 25, 83. B.A, New Brunswick, 04; A.M, Harvard, 13; Ph.D, Chicago, 23. Prin, schs, Can, 04–06, instr, 06–07; from instr. to assoc. prof, Colo. Sch. Mines, 08–18; assoc. prof. and *prof. math, California at Los Angeles, 19–* Math. Soc; Math. Asn. Algebra; algebraic geometry.

Sherwood, Prof. G(eorge) Ray, 14585 Piedmont Ave, Detroit, Mich. *Chemistry*. Salem, Ind, July 17, 96. A.B, Indiana, 22; A.M, Illinois, 25, Ph.D, 29. Asst. *chem*, Illinois, 24–28; asst. prof, James Millikin, 28–29; instr, Col. City of Detroit, 29–33, *Wayne*, 33–34, asst. prof, 34–41, *assoc. prof, 41–* Chem. Soc. Zirconium; rare earths.

Sherwood, Dr. Marion B(anks), 1 Bronxville Road, Bronxville, N. Y. *Bacteriology*. Mill Hill, Southport, Conn, Aug. 2, 96. A.B, Smith Col, 17; M.S, Yale, 24, Nat. Tuber. Asn. fellow, 24–26, Senior Sterling fellow, 27–28, Ph.D, 28. Lab. asst, Dept. Health, New York, 17–18; asst. bacteriologist, State Dept. Health, Conn, 18–20; technician, Knickerbocker Hosp, New York, 20–21; instr. lab. technique, sch. hygiene, Louisville, 22–23; technician pediat, New Haven Hosp, Conn, 26–27; bacteriologist and asst. director, Fulton County Lab, N. Y, 29–30; asst. chemist, State Dept. Health, N. Y, 30–38; *research bacteriologist, exp. research lab, Burroughs Wellcome and Co, 38–* A.A; Soc. Bact. Cellular reactions in tuberculosis; disinfectants.

Sherwood, Prof. Noble P(ierce), University of Kansas, Lawrence, Kans. *Bacteriology*. Greenfield, Ind, March 24, 82. B.S, Kansas, 05, A.M, 11, Ph.D, 21; Michigan, 11; Chicago, 12, 14; B.M, Minnesota, 23, M.D, 24. Rodman, A. T. and S. F. Ry, 05–06, topographer, 07; transitman and chief party, M. and W, 07–08; instr, high sch, Kans, 09–10; asst. instr. bacter. and bot, *Kansas*, 10–11, instr, 11–14, asst. prof. *bacter*, 14–16, assoc. prof, 16–18, *prof, 18–* Exchange prof, Washington (St. Louis), 18; pathologist, Lawrence Mem. Hosp; consulting pathologist, Watkins Mem. Hosp; consultant, U. S. Pub. Health Service, 38–39; State Board Health, Kans. A.A; Soc. Bact; Asn. Path. and Bact; Asn. Immunol; fel. Am. Med. Asn; fel. Col. Physicians; Kans. State Med. Lab. Asn. (pres, 24); Kans. Acad; Douglas Co. Med. Soc. (pres, 38). Immunology; pleomorphic streptococci; scarlet fever; effect of chemicals upon the hemolytic reaction; anaphylaxis; serology of syphilis; natural antibodies.

Sherwood, Dr. R(eginald) C(arter), 3610 38th St, N.W, Washington, D. C. *Biochemistry*. De Smet, S. Dak, Aug. 6, 91. B.S, S. Dak. State Col, 14, M.S, 16, Ph.G, 19; Ph.D, Minnesota, 25. Asst. chem, S. Dak. State Col, 14–16, asst. chemist, Exp. Sta, 16–19; analyst, State Board Health, Mont, 19–21; asst. prof. chem, Mont. State Col, 20–21; instr. biochem, Minnesota, 21–25, asst. prof, 27–38; director, Minn. State Testing Mill, 24–29; asst. director *research labs, Gen. Mills, Inc*, 29–33, *gen. manager, 33–*, v. pres. special commodities div, 39–43; *asst. chief civilian food requirements branch, War Food Admin, 43–* Managing ed, 'Cereal Chem,' 27–31. U.S.A, 19. A.A; Chem. Soc. (chairman, Minn. sect, 31); Asn. Cereal Chemists (chairman, northwest. sect, 28, nat. v. pres, 32, pres, 33); Inst. Food Technol; Soc. Chem. Indust. Gt. Britain. Agricultural and food chemistry; sugar beets; wheat and flour; milling and baking; enzymic activity; flour strength; protein surveys of Minnesota wheat; wheat germ and germ oil; cereal nutrition; vitamins.

Sherwood, Ross M(adison), Agricultural and Mechanical College of Texas, College Station, Texas. *Poultry husbandry*. Shabbona, Ill, April 16, 86. B.S, Iowa State Col, 10; M.S, Agr. and Mech. Col. Texas, 24. Asst. poultry husbandry, Ohio Exp. Sta, 10–12; from instr. to assoc. prof, Iowa State Col, 12–14; exten. specialist, Kans. State Col, 14–19, prof. in charge poultry dept, 16–17; *chief div. poultry husbandry, Exp. Sta, Agr. and Mech. Col. Texas, 19–* Poultry Sci. Asn. (director, 38–40). Poultry nutrition dealing with southern feeds; effect of feeds on the storage quality of eggs; mineral studies with chicks; vitamin A requirements for laying pullets and chicks.

Sherwood, S(idney) F(orsythe), 1213 Delafield Place, N. W, Washington, D. C. *Chemistry*. Alexandria, Va, June 6, 86. B.S, George Washington, 09. *U. S. Dept. Agr, 03–*, asst. chemist, *bur. plant indust*, 11–29, *senior biochemist, 29–* Chem. Soc; Int. Soc. Sugar Cane Technol. Plant biochemistry; chemistry and biochemistry of sugars and sugar products, sugar cane, sugar beets, honey, maple, grapes and sorgo; sugar producing plants.

Sherwood, Dr. Thomas C(ecil), Southern Baptist Hospital, New Orleans, La. *Medicine*. Jay Co, Ind, July 26, 02. A.B, Kentucky, 28; A.M, Wisconsin, 29, Ph.D, 36, M.D, 42. Asst. zool, Wisconsin, 28–30; instr, Kentucky, 30–31, asst. prof. anat. and physiol, 31–38, assoc. prof, 38–40, acting head dept, 36–37; asst. med, Wisconsin, 39–41; mem. staff, Charity Hosp, *New Orleans*, 41–43; *house physician, South. Baptist Hosp,*

43–; lieut, Med. Corps, U. S. Army, 43– A.A; Physiol. Soc; Ky. Acad. Tissue-vitamin relationships; hormones and basal metabolism; sex hormones and thyroid gland in female; estrogens and thyroid gland in males; seasonal metabolism.

Sherwood, Prof. Thomas K(ilgore), Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering.* Columbus, Ohio, July 25, 03. B.Sc, McGill, 23; M.S, Mass. Inst. Tech, 24, Sc.D, 29. Asst. prof. *chem. eng,* Worcester Polytech, 28–30; *Mass. Inst. Tech,* 30–34, assoc. prof, 34–41, *prof, 41–, in charge grad. students chem. eng, 34–* Chem. eng. consultant. Walker award, Am. Inst. Chem. Eng, 41. Chem. Eng; Chem. Soc. Mechanism of drying of solids; heat transmission between fluids and solids; absorption and extraction; refrigeration.

Sherzer, Prof. Allen F(irman), 1213 Ferdon Road, Ann Arbor, Mich. *Mechanical engineering.* Houghton, Mich, Dec. 12, 90. B.M.E, Michigan, 13. Draftsman, Union Carbide Co, 13–14; supt, Chippewa Edison Co, 14; asst, Michigan, 14–16; pump designer, Kingsford Foundry and Machine Works, 17–20; assoc. prof. *mech. eng, Michigan,* 20–31, *prof, 31–; consulting hydromech. engineer.* Lieut, F.A, 18–19. Hydromechanical engineering; theory and design of centrifugal pumps.

Shetrone, H(enry) C(lyde), Ohio State Museum, Columbus, Ohio. *Archeology.* Millersport, Ohio, Aug. 10, 76. Denison; hon. A.M, Ohio (Athens), 29. Curator archeol, *Ohio State Museum,* 13–28, *director, 28–* Lecturer, Ohio State, 28–29. Explorations, prehist. mounds, Ohio. A.A; Anthrop. Asn. (pres, cent. sect, 30); fel. Ohio Acad. (pres, 43). Archeology of the mound-building cultures; certain mounds and village sites in Ohio; the mound-builders.

Shetter, Dr. David S(ibley), University of Michigan, Ann Arbor, Mich. *Fishery biology.* Pueblo, Colo, March 6, 10. B.S, Michigan, 32, M.S, 33, Ph.D, 37. Junior aquatic biologist, *inst. fisheries research, State Dept. Conservation, Mich,* 37–38, asst. aquatic biologist, 38–43, *assoc. aquatic biologist, 43–* Fisheries Soc. The natural history of game fishes of Michigan as determined by tagging experiments.

Shettles, Dr. Landrum B(rewer), Johns Hopkins University Hospital, Baltimore, Md. *Physiology.* Pontotoc, Miss, Nov. 21, 09. A.B, Miss. Col, 33; fellow, New Mexico, 33–34, A.M, 34; Ph.D, Hopkins, 37. Asst. zool, *Hopkins,* 34–37, Bruce fellow, 37–38, research fellow *obstet, med. sch,* 38–39, *asst, 39–* Summers, junior biologist, U. S. Bur. Fisheries, 34; Marine Biol. Lab, Woods Hole, 35; inst. fisheries research, Michigan, 37. Fellow, Nat. Cmt. Maternal Health, 38– Soc. Zool. Physiology and behavior of protozoa; cell physiology; physiology of human spermatozoa; effects of amino acid and vitamin deficiencies on spermatogenesis in man and animals; intravenous anesthesia.

Shewhart, Dr. W(alter) A(ndrew), 158 Lake Drive, Mountain Lakes, N. J. *Engineering.* New Canton, Ill, March 18, 91. A.B, Illinois, 13, A.M, 14; Whiting fellow, California, 15–16, Ph.D, 17. Asst. physics, California, 14–15; Illinois, 16–17; *engineer,* West. Elec, Co, 18–24, *Bell Tel. Labs, 24–* Lecturer, Stevens Inst. Tech; London; grad. sch, U. S. Dept. Agr; consultant ammunition specifications, War Dept, 35–A.A; Physical Soc; Soc. Test. Mat; Math. Soc; Math. Asn; Econometric Soc; Asn. Symbolic Logic; fel. Statist. Asn. (v. pres, 34, director, 42–); fel. Inst. Math. Statist. (v. pres, 35, pres, 37); Philos. Sci. Asn; fel. Royal Statist. Soc; fel. Royal Econ. Soc. Ripple wave motion; accelerated motion of drops through viscous medium; application of statistics in physics and engineering; microphonic properties of granular carbon; economic control of quality of manufactured products.

Shibley, Dr. G(erald) S(pencer), Lakeside Hospital, Cleveland, Ohio. *Medicine.* London, Eng, March 19, 90. A.B, Columbia, 13, M.D, 16. Assoc. med, Hunan Med. Sch, Yale in China, 19–22; nat. research fellow med. research, 22–24; instr. *med,* col. physicians and surg, Columbia, 24–25, assoc, 26–28, asst. prof, 28–30; assoc. prof, *sch. med, Western Reserve,* 30–36, *assoc. clin. prof, 36–* Asst. visiting physician, Presb. Hosp, 28–30; assoc. physician, Lakeside Hosp, 30– Soc. Exp. Biol; Soc. Clin. Invest; Asn. Immunol; Harvey Soc; Cleveland Acad. Agglutination; common cold; whooping cough; infectious diseases.

Shibli, Prof. J(abir), 525 Sparks St, State College, Pa. *Mathematics.* Betagreen, Lebanon, Syria, Aug. 1, 86. A.B, Oberlin Col, 17; A.M, North Dakota, 18; B.D, McCormick Theol. Sem, 19; A.M, Wisconsin, 22; Ph.D, Columbia, 32. Fargo Col, 18–21; asst. prof. and later *assoc. prof. math, Pa. State Col, 21–* Math. Asn; Nat. Council Teachers Math. Trigonometry; algebra; the teaching of geometry.

Shideler, Prof. W(illiam) H(enry), Miami University, Oxford, Ohio. *Geology.* West Middletown, Ohio, July 14, 86. A.B, Miami (Ohio), 07; Ph.D, Cornell, 10. Asst. prof. zool. and geol, *Miami (Ohio),* 10–20, *prof. geol, 20–* A.A; Paleont. Soc; Ohio Acad; Ind. Acad. Ordovician paleontology and stratigraphy.

Shields, Dr. J(ohn) B(ickford), Golden State Co, 425 Battery St, San Francisco, Calif. *Nutrition, Physical chemistry.* San Francisco, Calif, Aug. 6, 07. B.S, Nevada, 29; Ph.D, Illinois, 35. Asst. animal nutrition, Illinois, 35–41, research assoc, 41–43; *mem. staff, Golden State Co, 43–* Chem. Soc. Calcium and lead metabolism; vitamins.

Shiffman, Dr. M(ax), 333 E. 176th St, Bronx, N. Y. *Mathematics.* New York, N. Y, Oct. 30, 14. B.S, Col. City of N. Y, 35; M.S, N. Y. Univ, 36, Ph.D, 38. *Instr. math, Col. City of N. Y, 39–* Math. Soc. The theory of minimal surfaces and the Morse relations; conformal mapping; Abelian groups.

Shiflett, Prof. C(hester) H(ines), Macalester College, St. Paul, Minn. *Chemistry.* Chula, Mo, June 24, 97. A.B, Kingfisher Col, 21; A.M, Clark, 23; Ph.D, Minnesota, 33. Prof. *chem,* Lincoln Col, 23–29; assoc. prof, *Macalester Col,* 29–38, *prof, 38–* Chem. Soc. Reaction kinetics; effect of alpha-radiation on hydrogen-oxygen combination; polymerization of light and heavy acetylenes; oxidation of cuprene.

Shigley, Prof. J(ames) F(remont), 310 S. Burrows St, State College, Pa. *Animal husbandry, Veterinary science.* Hart, Mich, June 11, 85. B.Pd, Mich. State Nor. Col, 12; D.V.M, Cornell, 15; Pa. State Col. Sch. supt, Mich, 08–11; asst. bacter, Cornell, 13–15, instr. surg, 15–16; chief veterinarian, Beebe Labs, 18–23; *prof. vet. science, Pa. State Col, 23–* Lecturer, Sch. Lab. Technicians, St. Paul, Minn, 20–22; consulting veterinarian, U. S. Silver Fox Farms, 21; visiting lecturer, Pennsylvania, 34. Mem, Board Health, State College, 29–; Certified Milk Cmn, 34– Vet. Med. Asn; Asn. Mil. Surg; Pa. Vet. Med. Asn; Pa. Dairy and Milk Inspectors Asn. (chairman, cmt. communicable diseases, 30–33). Diseases of reproductive tract of domestic animals; endocrine extracts and their value in reproduction; laurel, rhododendron and hemlock as a cause of death of deer in Pennsylvania; minerals in the diet of cattle and their relation to breeding efficiency.

Shildneck, Dr. P(aul) R(ussell), A. E. Staley Manufacturing Co, Decatur, Ill. *Organic chemistry.* Salem, Nebr, Feb. 19, 06. B.S, Nebraska, 28, M.S, 29; Ph.D, Illinois, 32. *Research chemist, A. E. Staley Mfg. Co, 32–* A.A; Chem. Soc. Stereochemistry of diphenylbenzenes; corn and soybean proteins and their hydrolytic products.

Shillinger, Dr. J(acob) E(dward), U. S. Department of Agriculture, Washington, D. C. *Veterinary medicine.* Clarion, Pa, April 23, 90. D.V.M, George Washington, 14; B.S, Maryland, 21, M.S, 22. Bur. animal indust, *U. S. Dept. Agr,* 14–27, *bur. biol. surv, 27–, senior veterinarian in charge investigations diseases wild birds and animals.* Vet. Med. Asn; Soc. Mammal; Soc. Parasitol; Helminth. Soc. Wash; Wash. Acad. Anthelmintics; diseases of fur-bearing animals and wildlife; parasite control; economics and food distribution.

Shils, Dr. Maurice E(dward), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Biochemistry, Nutrition.* Atlantic City, N. J, Dec. 31, 14. A.B, Hopkins, 37, Sc.D, 40. Asst. *biochem, sch. hygiene and pub. health, Hopkins,* 40–41, *instr, 41–* Thiamine deficiency and excretion of bisulfite binding substances and pyruvic acid in urine; manganese deficiency in rats and mice.

Shilts, Prof. Walter L(eonard), P. O. Box 191, Notre Dame, Ind. *Physics.* Columbia City, Ind, Nov. 6, 02. B.S, Notre Dame, 22, M.S, 24; Chicago, 33. From instr. to *prof. physics and civil eng, Notre Dame, 22–,* asst. dean eng, 34–40, *head dept. civil eng, 38–* Eng. Educ; Civil Eng. Civil engineering.

Shimberg, Dr. Myra E(sther), 14 Metropolitan Oval, Bronx, N. Y. *Psychology.* Troy, N. Y, Sept. 22, 01. A.B, Wellesley Col, 22, A.M, 24; Ph.D, Columbia, 29; dipl, N. Y. Sch. Social Work, 37. Asst. psychol. and philos, Wellesley Col, 22–

23; research worker, Bur. Educ. Experiments, 29; clin. psychologist, Judge Baker Foundation, Boston, 23–24, 25–27, director research, 30–35; *case supervisor, New York City Dept. Welfare, 37–* Asn. Social Workers; assoc. Psychol. Asn. Individual mental tests and testing; validity of norms; delinquency.

Shimer, Prof. H(ervey) W(oodburn), Massachusetts Institute of Technology, Cambridge, Mass. *Paleontology.* Martin's Creek, Pa, April 17, 72. Gettysburg Col, 91–93, hon. Sc.D, 16; A.B, Lafayette Col, 99, A.M, 01; Ph.D, Columbia, 04; Harvard, 04–05. Tutor modern languages, Lafayette Col, 99–01; asst. paleont, Columbia, 01–03; non-res. lecturer stratig. geol, *Mass. Inst. Tech,* 03, instr, 03–08, asst. prof. *paleont,* 08–12, assoc. prof, 12–20, prof, 20–42, *emer. prof, 42–* A.A; Paleont. Soc; Geol. Soc; Am. Acad; Wash. Acad; Boston Soc. Nat. Hist. Stratigraphy; evolution; old age in brachiopods and mollusks; stratigraphic work in Massachusetts, New York, Arizona and Canada.

Shimer, Dr. John A(sa), 42 Cottage St, Hingham, Mass. *Economic geology.* Boston, Mass, May 24, 13. B.S, Harvard, 35; M.S, Mass. Inst. Tech, 39, Ph.D, 42. Instr. geol, Suffolk, 40–42; *crystallographer, Am. Jewels Corp, 42–* Min. and Metal. Eng. Spectrographic analyses of rocks.

Shimer, Prof. S(tanley) R(eiss), University of New Hampshire, Durham, N. H. *Animal nutrition.* Bethlehem, Pa, July 9, 96. B.S, Muhlenberg Col, 18; M.S, Pa. State Col, 23; Illinois, 23–24; Cornell, 29–30. Instr, high sch, Pa, 18–19; head dept. chem, State Nor. Sch, East Stroudsburg. 19–20; head dept. physics, high sch, N. J, 20–21; instr. physiol. chem, med. dept, Temple, 21–22; asst. chem, Illinois, 23–24; asst. prof. and later *assoc. prof. agr. and biochem, New Hampshire, and asst. chemist, Exp. Sta, 24–* A.A; Chem. Soc. Protein metabolism.

Shimer, William Robert, Bethlehem Steel Co, Bethlehem, Pa. *Metallurgy.* Easton, Pa, April 30, 83. Lehigh, 04; C.E, Lafayette Col, 05. Engineer tests, Ingersoll-Rand Co, N. J, 05–07; *metal. engineer, Bethlehem Steel Co, 07–* Summer, asst. to chief engineer, Goldsmith-Thermit Co, N. Y, 04. Am. Iron and Steel Inst; Soc. Metals; Soc. Test. Mat; Soc. Automotive Eng. (iron and steel cmt); Zinc Inst. (advisory cmt); Army Ordnance Asn. Overoxidation of steel; effect of finishing temperatures of rails and their physical properties and microstructure.

Shimkin, Dr. Demitri B, 1308 N. Taft St, Arlington, Va. *Anthropology.* Omsk, Siberia, July 4, 16. A.B, California, 36, univ. fellow, 38–39, Ph.D, 39. Research fellow anthrop. and research fellow, inst. child welfare, California, 40–41; *U. S. Army, 41–, major.* In charge ethnog. and psychol. research on Wind River Shoshone Indians, 37–41. Anthrop. Asn. (councilor, 41–); assoc. Psychol. Asn; Wash. Acad. Geography of Siberia; subsistence; education and development; comparative linguistics; ethno-history.

Shimkin, Dr. Michael B(oris), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Cancer research.* Tomsk, Siberia, Oct. 7, 12. A.B, California, 33, M.D, 37. Res. int. med, John Sealy Hosp, Galveston, Texas, 37–38; research fellow, Nat. Cancer Inst, 38–39; asst. surgeon, *U. S. Pub. Health Service,* 39–42, *passed asst. surgeon, 42–* A.A; Asn. Cancer Research; Soc. Exp. Path; Soc. Exp. Biol. Laboratory and clinical research on cancer.

Shine, W(illiam) M(orton), 22 Elizabeth St, Pittsfield, Mass. *Organic chemistry.* St. Louis, Mo, Nov. 24, 12. B.S, Washington (St. Louis), 34; M.S, Illinois, 37. Research chemist biochem, med. sch, Washington (St. Louis), 34–36; *chemist,* Pfanstiehl Chem. Co, 37–41; *plastics dept, Gen. Elec. Co, 41–* Chem. Soc. Carbohydrate metabolism in the liver; synthesis of carbohydrates; amino acids and fine organics; polymer chemistry.

Shingler, Geo(rge) P(inckney), U. S. Department of Agriculture, Lake City, Fla. *Chemistry.* Greenpond, S. C, Nov. 28, 79. B.S, Mercer, 00; Georgia, 03–04; B.S, Mass. Inst. Tech, 06. Acting prof. chem, Emory, 06–08, prof, 08–18; bur. chem. and *bur. indust. and eng. chem, U. S. Dept. Agr,* Savannah, 23–31, chemist and acting chief, *naval stores sta, Fla,* 31–35, *senior chemist in charge, 35–* Mem. State Land Use Planning Board, Fla. Chem. Soc; Inst. Chem. Standards for malt vinegar; walnut stain and its effect on fish life; complex silicates; a fumigant for ships; distillation of oleoresin; turpentine still; composition of turpentine gum-batch; effect of varying quantities of wood impurities in gum and turpentine yields; turpentine-gum refinement.

Shinkle, S(eaples) D(uvall), 317 Lafayette Ave, Passaic, N. J. *Chemistry.* Rural, Ohio, Feb. 18, 88. A.B, Miami (Ohio), 11; Mass. Inst. Tech, 11–12; Michigan, 12–13. Teacher, secondary schs, 14–16; asst. chem. engineer, U. S. Bur. Mines, 17; *with U. S. Rubber Products, 19–* Lieut, C.W.S, 18. Varnish, lacquer and antioxidants for rubber; accelerators of vulcanization.

Shinn, Dr. Erwin Henry, Hotel Roosevelt, Washington, D. C. *Agriculture.* Russellville, Ark, Oct. 10, 80. A.B, Arkansas, 10; B.S, Okla. Agr. and Mech. Col, 17; A.M, M.E, George Washington, 19, Ph.D, 23. Head academic dept, Ark. Polytech. Col, 10–16; asst. supt. educ, Ark, 17–18; asst. agr. instruction, *U. S. Dept. Agr,* 18–21, chief specialist agr. educ, 21–28, *senior agriculturist, exten. service, 28–* Elementary agriculture in rural schools; agricultural education.

Shinn, Prof. F(rederick) L(afayette), 854 18th Ave, E, Eugene, Oregon. *Chemistry.* Montpelier, Ind, April 17, 76. A.B, Indiana, 01, A.M, 02; Yale, 02–03; Ph.D, Wisconsin, 06. Asst. *chem,* Indiana, 01–02; instr, Wisconsin, 03–05; asst. prof, Indiana, 05; instr, Wisconsin, 05–07; asst. prof, *Oregon,* 07–10, prof, 10–41, *emer. prof, 41–* A.A; Electrochem. Soc. Electrical conductivity of solutions in ethylamin; double and triple thiocyanates of caesium, cobalt and silver; optical rotatory power of salts in dilute solutions.

Shinn, Dr. Lawrance E(llsworth), 3921 Langley Court, N.W, Washington, D. C. *Bacteriology, Chemistry.* Cleveland, Ohio, Oct. 19, 10. B.S, Chicago, 31, Eli Lilly fellow, Chicago and St. Luke's Hosp, 33–34; Ph.D, Pittsburgh, 36. *Research staff, inst. path, West. Pa. Hosp, 34–; lieut, U. S. Naval Res.* A.A; Soc. Bact; Chem. Soc; Soc. Exp. Biol. Chemistry of scarlet fever tpxin; cellular metabolism; microbic dissociation; mode of action of sulfonamide drugs; chemistry of sulfonamide drugs; microcinematography and instrumentation.

Shinowara, Dr. George Y(ukio), University Hospital, Columbus, Ohio. *Biochemistry.* Seattle, Wash, Aug. 4, 14. A.B, Wittenberg Col, 35; A.M, Ohio State, 37, Ph.D, 38. Instr. and later *asst. prof. path, med. sch, Ohio State, 38–, chem. pathologist, Univ. Hosp, 38–; lieut, U. S. Army, 43–* A.A; Chem. Soc; assoc. Ohio Soc. Path. Disease of liver and gall bladder; clinical chemistry; toxicology of alcohol; lipid chemistry.

Shiple, Prof. George J(oseph), University of Detroit, Detroit, Mich. *Biochemistry.* Perrysburg, Ohio, June 10, 91. A.B, St. Louis, 18, M.S, 19; Sc.D, Fordham, 22; A.M, Woodstock Col. (Md), 23; Europe, 28–29. Prof. chem, St. John's Col. (Ohio), 27–28; instr. biochem, Jefferson Med. Col, 29–30; *prof. chem, Detroit, 30–, head dept, 31–* Chem. Soc; Soc. Exp. Biol; Soc. Chem. Indust. Gt. Britain; London Chem. Soc; Biochem. Soc. Gt. Britain; Deuts. Chem. Gesell. Origin, derivatives and metabolism of amino-acids, especially glycine and cystine.

Shipley, Dr. Arthur M(arriott), 507 Edgevale Road, Roland Park, Baltimore, Md. *Surgery.* Harmans, Md, Jan. 8, 78. M.D, Maryland, 02; hon. Sc.D, St. John's Col. (Md). Supt, Univ. Hosp, 04–08; assoc. prof. *surg, sch. med, Maryland,* 06–20, *prof. and head dept, 20–* Lieut. col, M.C, 17–19. Surg. Asn; Asn. Thoracic Surg; Soc. Clin. Surg; Col. Surg; Am. Med. Asn; Surg. Research Soc; South. Surg. Asn; Int. Soc. Surg. Clinical surgery.

Shipley, Dr. John H(arvard), Defence Industries, Ltd, Nobel, Ont, Can. *Physical chemistry.* Cambridge, Mass, Nov. 14, 13. B.Sc, Alberta, 35, M.Sc, 36; Nat. Research Council Can. bursar, McGill, 38, Ph.D, 38. Research chemist, Research and Develop. Lab, C.I.L, 38, chief chemist explosives div, 38–39; *Defence Industries, Ltd,* 40–41, tnt supt, 41–42, *tech. supt, 42–* Carnegie research grant, 36; Tech. Asn. Pulp and Paper Indust. grant, 37. Chem. Soc; Can. Inst. Chem. Corrosion of iron; cracking of propane to ethylene and subsequent polymerization at high pressures in the presence of catalysts to gasolines; the heat capacity of water sorbed on cellulose.

Shipley, Dr. Reginald A(lden), Lakeside Hospital, 2065 Adelbert Road, Cleveland, Ohio. *Medicine.* Dayton, Ohio, Oct. 15, 05. B.S, Otterbein Col, 27; M.D, Western Reserve, 31. Intern, Lakeside Hosp, Cleveland, Ohio, 31–33, asst. res. 33–35; teaching fellow, Western Reserve, 35–36; nat. research fellow, med. sch, Yale, 36–38; instr. *med, Western Reserve,* 38–40, senior instr, 40–41, *asst. prof, 41–* Am. Med. Asn; Soc. Exp. Biol; Soc. Clin. Invest; Asn. Study Int. Secretions

Cent. Soc. Clin. Research. Heart; endocrine physiology; metabolism.

Shipley, Prof. W(alter) C(leveland), Wheaton College, Norton, Mass. *Psychology.* St. Louis, Mo, Dec. 29, 03. A.B, Michigan, 26; A.M, Wisconsin, 29; Ph.D, Yale, 33. Psychologist, Mental Hygiene Clinic, Del. State Hosp, 33–35; asst. prof. *psychol,* south. branch, Idaho, 35–41; *assoc. prof, Wheaton Col, 41–* Conditioned reflexes; clinical psychology.

Shipman, Prof. Julia M(ary), Mt. Holyoke College, South Hadley, Mass. *Geography.* Danville, Vt. B.S, Boston, 20; A.M, Clark, 23, fellow, 27–28, Ph.D, 28. Head dept. geog, N. H. State Nor. Sch, Keene, 20–21; Conn. State Nor. Sch, New Britain, 22–25; N. J. State Nor. Sch, Glassboro, 25–26; instr. *geog,* Tennessee, 28–29; Nebraska, 29–30; asst. prof, *Mt. Holyoke Col, 30–37, assoc. prof, 37–* Summers, instr, sch, N. Dak, 27; Nebraska, 28, 29; Clark, 30. A.A; Am. Geog. Soc; Nat. Council Geog. Teachers; Soc. Woman Geog. Urban geography.

Shipp, Dr. J(oseph) H(arrel), 4 Beverly Place, Penny Hill, Wilmington, Del. *Organic chemistry.* Renner, Texas, Nov. 23, 03. A.B, Tusculum Col, 25; Ph.D, Yale, 30. Research chemist, *E. I. du Pont de Nemours and Co, Inc,* 30–37; *director research fine chem. div, org. chem. dept, 38–* Chem. Soc. (chairman Del. sect, 42); Asn. Textile Chem. and Colorists. Alkylation of aromatic amines with alcohols in the vapor phase; surface active chemicals and textile chemicals.

Shippy, Dr. W(illiam) B(yron), Sanford, Fla. *Plant pathology.* Cedar Springs, Ont, Can, July 23, 00. B.S, Iowa State Col, 25, M.S, 27; fellow, Crop Protection Inst, 26, Boyce Thompson Inst. and Crop Protection Inst, 27–29; Ph.D, Columbia, 30. Agent, U. S. Dept. Agr, 26–27; asst. plant pathologist, Exp. Sta, Florida, 29–32, assoc. plant pathologist, 32–42; *grower, 42–* A.A; Phytopath. Soc; Bot. Soc; Torrey Bot. Club; Fla. Acad. Crowngall; physiology of callus formation; pathology of ornamental plants; celery diseases.

Shipstead, Dr. Helge, The Borden Co, 600 N. Franklin St, Syracuse, N. Y. *Chemistry.* Sweden, Sept. 14, 91. Chem.E, Inst. Tech, Charlottenburg, 15, D.C.E, 17. Instr. inorg. chem, Inst. Tech, Berlin, 15–17; research chemist, Norsk Emmissions Inst, Oslo, 17–20; Atmospheric Nitrogen Corp, N. Y, 20–22; Eastman Kodak Co, 22–23; Merrell-Soule Co, 23–25, 26–28; Active Carbon Urbain Corp, 25–26; Borden Co, 28–36; research director, Freia Chocolate Co, Norway, 36–37; *research chemist and asst. director food chem, Borden Co, 37–, director research labs, powdered milk div, 43–* Chem. Soc; Dairy Sci. Asn. Synthetic ammonia process; food chemistry; dairy technology; chemistry of milk products; desiccation of food materials; keeping qualities of milk powder; oxidation of fats; industrial research.

Shipton, Dean Washburne D(enning), Washington University, St. Louis, Mo. *Geology.* Derinda, Ill, Jan. 19, 93. B.S, Coe Col, 14; fellow, Iowa, 15–16, M.S, 16. Asst. *geol,* Iowa, 16–17; instr, *Washington (St. Louis),* 17–19, asst. prof, 19–25, *assoc. prof, 25–,* dean men and asst. dean col. lib. arts, 39–42. Summers, asst, Iowa, 15–17; asst. prof, Colorado, 23; Washington (St. Louis), 24–; Mo. Geol. Surv, 19–22. Miner. Soc; Mo. Acad; Iowa Acad; St. Louis Acad (sec'y, 38, pres, 42). Crystallography; mineralogy; general geology.

Shirck, F(rank) H(oward), 1205 Heyburn Ave, Twin Falls, Idaho. *Entomology.* Waterville, Kans, May 11, 00. B.S, Kans. State Col, 23, M.S, 25. Teacher, high sch, Kans, 22–24; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 25–28, asst. entomologist, 28–43, *assoc. entomologist, 43–* A.A; Asn. Econ. Entom. Control methods for wireworms.

Shires, Prof. L(uke) B(erry), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Chemistry.* Muncy Valley, Pa, Nov. 21, 96. B.S, Ohio Northern, 24, Chem.E, 28; M.S, Pa. State Col, 26. Asst. chem, Pa. State Col, 24–26; instr, *N. Mex. Col,* 26–27, asst. prof, 27–30, *assoc. prof. chem. eng, 36–,* asst. chemist, *Exp. Sta,* 27–36, *assoc. chemist, 36–; asst. state chemist, N. Mex, 27–* A.A; Chem. Soc. Loss of soluble salts in the soil, as found in the drainage water from the irrigated Rio Grande Valley in southern New Mexico.

Shirk, Prof. Claude J(oseph), 5303 Leighton Ave, Lincoln, Nebr. *Botany.* Morrison, Ill, Aug. 18, 75. M.S.D, A.B, McPherson Col, 01, A.M, 02; M.S, Chicago, 09; Ph.D, Nebraska, 24. *Prof.* chem. and physics, McPherson Col, 04–11; math, Ottawa (Kans), 11–13; bot, *Nebr. Wesleyan,* 13–19, *biol. and head dept, 19–* A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Forestry Asn; Nebr. Acad. (pres, 35). Ecology; physiology; salt marshes and alkali lands.

Shirk, Dr. Harold G, 4700 Harvard Road, College Park, Md. *Biochemistry.* Reading, Pa, June 25, 13. B.S, Pa. State Col, 35; M.S, Maryland, 36, Ph.D, 38. Asst. prof. plant biochem, Maryland, 38–41; *capt, Chem. Warfare Service, U. S. Army, and chief chem. div, tech. data licence div, office exports, Board Econ. Warfare, 41–* Freezable and unfreezable water content of seeds; oxygen respiration of plant tissues.

Shirk, Prof. J(ames) A(bram) G(arfield), Kansas State Teachers College, Pittsburg, Kans. *Mathematics.* McPherson, Kans, Jan. 12, 81. A.B, McPherson Col, 01, A.M, 02; M.S, Kansas, 05; Chicago, 06, 10; Michigan, 29; Stanford, 30–31. Prof. math. and physics, McPherson Col, 01–04; asst. instr. math, Kansas, 04–06; prof. math. and physics, Ottawa (Kans), 06–12; asst. prof. physical sciences, *Kans. State Teachers Col, Pittsburg,* 12–14, *prof. math. and head dept, 14–* A.A; Math. Soc; Math. Asn; Kans. Acad. (pres, 15). Mathematical statistics.

Shirley, Dr. Hardy L(omax), U. S. Forest Service, Bankers Securities Bldg, Philadelphia 7, Pa. *Forestry.* Orleans, Ind, Nov. 20, 00. A.B, Indiana, 22; Ph.D, Yale, 28. Instr. and asst. prof. math, Nevada, 22–25; asst. biochem, Boyce Thompson Inst, 27–29; assoc. silviculturist, Lake States Forest Exp. Sta, *U. S. Forest Service,* 29–35, silviculturist, 35–36, senior silviculturist, 36–39, *director, Allegheny Forest Exp. Sta, 39–* Oberlaender Trust fellow, 35. Summer, instr, forest sch, Yale, 26; investigated possibilities forest research Caribbean region, 37. A.A; Soc. Foresters; Bot. Soc; Ecol. Soc; Soc. Plant Physiol; Soc. Pub. Admin; Pa. Acad. Silvics; silviculture; plant physiology; influence of light on the growth of plants; drought and heat resistance of forest trees; treatment and testing of forest tree seeds.

Shirley, Dean J(ames) Clifford, Phillips University, Enid, Okla. *Botany.* Superior, Nebr, Sept. 24, 92. A.B, Phillips, 17, B.S, 22; Chicago, 17, 25; A.M, Missouri, 21; Stanford, 29; Ph.D, California, 38. Instr, univ. high sch, Phillips, 17–19; asst. bot, Missouri, 19; Christian Col, 20; assoc. *prof. biol, Phillips,* 20–22, *prof, 22–,* acting dean *col. arts and sciences,* 36–37, *dean, 37–* Summers, ranger-naturalist, Yosemite Nat. Park, 31–38. A.A; Okla. Acad. Angiosperms of Garfield County, Oklahoma; redwoods of Coast and Sierra.

Shirley, Dr. Mary (Margaret), Indiana University, Bloomington, Ind. *Psychology.* Orleans, Ind, Feb. 7, 99. A.B, Indiana, 22; A.M, Minnesota, 25, Ph.D, 27. Teacher, high sch, Ind, 18–20; instr. Latin and English, Hamline, 22–24; psychol, Minnesota, 26–29, inst. child welfare, 27–29, asst. prof, 29–32; prof, Randolph-Macon Woman's Col, 32–33; Spelman fellow, Nat. Council Parent Educ, 33–34; research fellow, sch. pub. health, Harvard, 34–38; asst. supervisor research, sch. social work, Smith Col, 38–43; *asst. prof. psychol, Indiana, 43–* Asst. prof, univ, and fellow inst. child welfare, California, 39–40; clin. psychologist, Children's Aid Soc. Pa, 41–42; lecturer, Wellesley Col, 43. Soc. Research Child Develop; Orthopsychiat. Asn; Psychol. Asn; Mass. Soc. Clin. Psychol. The motor sequence; intellectual development and personality manifestations during the first two years; lay leadership in parent education; factors influencing the activity of the rat; methods of teaching laboratory psychology; impact of family life on child personality; casework and the work of social agencies.

Shirley, S(amuel) C(rawford), 29 Garretson Road, White Plains, N. Y. *Chemistry.* Orleans, Ind, April 26, 02. A.B, A.M, Indiana, 24. Instr, high sch, Nev, 25; chemist, Grasselli Chem. Co, 26–27; *research chemist, Am. Can Co, 27–* Nat. Lime Asn. fellow, 23. Chem. Soc. Sanitary coatings for interior of metal food containers.

Shive, Dr. John N(orthrup), 31 Rockview Ave, Plainfield, N. J. *Physics.* Baltimore, Md, Feb. 22, 13. B.S, Rutgers, 34; Ph.D, Hopkins, 39. Junior instr. physics, Hopkins, 37–39; *asst. to research physicist, Bell Tel. Labs, 39–* Physical Soc. Contact rectification.

Shive, Prof. J(ohn) W(esley), Rutgers University, New Brunswick, N. J. ***Botany, Plant physiology.* Halifax, Pa, Feb. 13, 77. Ph.B, Dickinson Col, 06, A.M, 07; fellow, Hopkins, 13–15, Ph.D, 15. *Plant physiologist, Exp. Sta, Rutgers, 15–,* assoc. prof. *plant physiol, univ,* 21–23, *prof, 23–* Summer, asst, lab. plant physiol, Carnegie Institution, 13. A.A; Bot. Soc; Soc. Exp. Biol; Chem. Soc; Soc. Plant Physiol. Salt requirements of agricultural plants; plant nutrition.

Shive, Dr. Roy A(llen), Middlebrook Road, Bound Brook, N. J. *Physical chemistry.* York, Pa, Feb. 6, 01. B.S, Pa. State Col, 21; M.S, Illinois, 22, Ph.D, 24. Research chemist, Liberty Yeast Corp, 24–25; U. S. Rubber Co, 25–26; E. I. du Pont de Nemours and Co, 26–32; tech. director, Arco Co, 32–34; chief research and develop, Calco Chem. div, Am. Cyanamid Co, 34–42; *director chem. mfg. and develop, Govt. Synthetic Rubber Program, 42–* Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. Synthetic rubber, pigments and coating compositions.

Shively, Prof. L(evi) S(tephen), 2110 W. Jackson St, Muncie, Ind. *Mathematics.* Cerro Gordo, Ill, Oct. 10, 84. A.B, Michigan, 08; A.M, Chicago, 16, Ph.D, 17. Prof. math, Mt. Morris Col, 08–15, 17–28, acting pres, 18–19, pres, 19–21; assoc. prof. *math, Ball State Teachers Col, 28–41, prof, 41–* Council Teachers Math; Math. Asn; Royal Astron. Soc. Can. Differential geometry.

Shively, Prof. S(amuel) B(urdette), State Teachers College, Wayne, Nebr. *Botany.* Laurel, Nebr, May 19, 95. A.B, Nebraska, 24, A.M, 30, Ph.D, 40. Prin. and supt. schs, Nebraska, 16–37; asst. bot, Nebraska, 37–39; instr. biol, Ill. State Teachers Col, Macomb, 39–40; acting prof, Doane Col, 40–41; *prof. bot, Nebr. State Teachers Col, 42–* Summer, prof, Mo. State Teachers Col, 41. Ecol. Soc; Nebr. Acad. Amount of underground plant material in different grassland climates.

Shiver, Prof. H(enry) E(dwin), Converse College, Spartanburg, S. C. *Chemistry.* Clemson College, S. C, Nov. 30, 95. B.S, Clemson Col, 16; M.S, Virginia, 23, Ph.D, 28. Research chemist, Exp. Sta, Clemson Col, 17–20; instr. *chem,* Virginia, 22–24; *prof. and head dept,* Rollins Col, 24–25; *Converse Col, 25–; consulting chemist, Beaumont Mfg. Co.* Capt, C.W.S. Chem. Soc. (v. chairman, Fla. sect, 24, chairman, S. C. Piedmont sect, 27). Analytical and physical chemistry; equilibrium and dissociation constants; chemical warfare; textile physics and chemistry.

Shlaer, Dr. Simon, 449 W. 123rd St, New York, N. Y. *Physiology, Zoology.* Lubar, Russia, July 15, 02. A.B, Columbia, 25, A.M, 26, Ph.D, 37. Asst. *biophys, Columbia,* 28–42, *research assoc, 42–* Soc. Zool; Physiol. Soc; N. Y. Acad. Receptor process in vision; color vision.

Shlaifer, Dr. Arthur, State Department of Public Health, 420 Sixth Ave, N, Nashville, Tenn. *Animal ecology.* New York, N. Y, Sept. 26, 14. B.S, Col. City of N. Y, 34; M.S, Chicago, 36, univ. fellow, 37–38, Robert Ridgway fellow, 38–39; Ph.D, 39. Visiting investigator animal ecol, New York Aquarium, 39–40; lab. exp. biol, Am. Museum Nat. Hist, 40–41; research fellow, biol. research div, Edmund Niles Huyck Preserve, N. Y, 41, res. biologist, 41; junior entomologist *malaria control, U. S. Pub. Health Service, State Dept. Pub. Health, Tenn, 42, asst. entomologist, 42–* Summers, entomologist, Des Plaines Valley Mosquito Abatement Dist, Lyons, Ill, 37, 38; visiting investigator, fish and wildlife service, U. S. Dept. Interior, Woods Hole, 40. Assoc. Soc. Zool. Mass physiology; schooling and aggregating behavior and physiology of respiration in fish; mosquitoes and mosquito control.

Shock, Dr. N(athan) W(etherill), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physiology.* Lafayette, Ind, Dec. 25, 06. B.S, Purdue, 26, M.S, 27; Ph.D, Chicago, 30. Research assoc. med, Chicago, 30–31, pediat, 31–32; asst. prof. physiol, med. sch, and research assoc, inst. child welfare, California, 32–41; *senior psychophysiologist, gerontology unit, nat. inst. health, U. S. Pub. Health Service, 41–* Visiting physiologist, Baltimore City Hosps, Md, 41– A.A; Psychol. Asn; Psychometric Soc; Soc. Research Child Develop. (chairman, cmt. physiol. and endocrinol); Soc. Exp. Biol; Physiol. Soc. Blood chemistry; physiology of exercise; developmental physiology; gerontology; physiological psychology.

Shockley, Dr. W(illiam), Bell Telephone Laboratories, 463 West St, New York, N. Y. **Physics.* London, Eng, Feb. 13, 10. B.S, Calif. Inst. Tech, 32; Ph.D, Mass. Inst. Tech, 36. Teaching fellow, Mass. Inst. Tech, 32–36; *mem. tech. staff, Bell Tel. Labs, 36–* Physical Soc. Thermionic emission; elementary physics experiments; application of quantum mechanics to the theory of solids; applied physics of vacuum tubes.

Shoemaker, Dr. Bernard H(arvey), Standard Oil Company of Indiana, Whiting, Ind. *Chemistry.* Jamestown, Mich, Nov. 30, 04. A.B, Hope Col, 26; M.S, Ohio State, 28, Ph.D, 30. Research chemist, *Standard Oil Co. of Ind,* 30–33, group leader, 33–40, *sect. leader, 40–* Summer, exp. sta, E. I. du Pont de Nemours and Co, 29. Chem. Soc. Synthesis of diolefines; antioxidants; oxidation and refining of petroleum products; chemistry of hydrocarbons.

Shoemaker, Clarence R(aymond), U. S. National Museum, Washington, D. C. *Zoology.* Washington, D. C, March 12, 74. George Washington. Aid, *div. marine invert, U. S. Nat. Museum,* 10–20, asst. curator, 21–41, *assoc. curator, 42–* Carnegie Institution exped, Virgin Islands, 14. A.A; N. Y. Acad; Wash. Acad; Biol. Soc. Wash. Crustacea; taxonomy of Amphipoda; amphipods of South Georgia, Barbados and Antigua, Congo, Canadian Arctic, Gulf of California, Hudson Bay and Cheticamp.

Shoemaker, Dr. D(aniel) N(aylor), 6800 Eastern Ave, N. W, Washington, D. C. *Horticulture.* Fair Haven, Ohio, Nov. 16, 69. B.S, Earlham Col, 94; fellow, Hopkins, 02–03, Ph.D, 03. Asst. biol, Hopkins, 02–03; teacher and cotton breeder, Hartsville, S. C, 03–04; cotton breeder, U. S. Dept. Agr, 04–10, horticulturist, bur. plant indust, 10–34; *retired.* Bot. Soc. Wash. (pres, 25). Hamamelis virginiana; garden vegetables; Helianthus.

Shoemaker, Prof. H(arold) A(dam), 801 E. 13th St, Oklahoma City, Okla. *Pharmacology.* New Ringgold, Pa, March 11, 96. Ph.G, Ph.C, B.S, Valparaiso, 20; M.S, Washington (Seattle), 24; Ph.D, Yale, 31. Instr. pharmacy, *Oklahoma,* 20–23, asst. prof, 23–25, biochem. and pharmacol, 25–32, assoc. prof, 32–35, *prof. pharmacol, 35–,* asst. dean *sch. med,* 39–42, *acting dean, 42–* Teaching fellow, Washington (Seattle), 23–24. Assoc. Am. Med. Asn; assoc. Soc. Exp. Biol; Soc. Pharmacol. and Exp. Therapeut. Toxicology; chemistry; biochemistry; metabolism of iodine.

Shoemaker, Prof. H(arry) M(elvin), 44 W. Gowen Ave, Philadelphia, Pa. *Mathematics.* Hagerstown, Md, Jan. 3, 80. B.S, Dickinson Col, 02, A.M, 03; Ph.D, Pennsylvania, 18. *Prof. math,* Pa. Mil. Col, 08–10; *North East High Sch, Phila, 10–* Applied mathematics; partial differential equations; Bessel's functions; vibrating membranes.

Shoemaker, Dr. Hurst H(ugh), University of Illinois, Urbana, Ill. *Animal ecology.* Frankton, Ind, May 5, 07. A.B, Earlham Col, 31; Ph.D, Chicago, 38. Instr. biol, Earlham Col, 31–35; asst. *zool,* Chicago, 35–38; lecturer, exten, Indiana, 36–38; nat. research fellow, Stanford, 38–39; *instr, Illinois, 39–* A.A; Soc. Zool; Ecol. Soc. Biology; vertebrate populations; social hierarchy in birds; animal behavior.

Shoemaker, Prof. J(ames) S(heldon), University of Alberta, Edmonton, Alta, Can. *Horticulture.* Montreal, Que, March 19, 98. B.S.A, Toronto, 21; M.S, Iowa State Col, 22; Ph.D, Minnesota, 25. Asst, Iowa State Col, 21–22; H. J. Heinz Co, 23–24; asst. *hort,* Minnesota, 24–25; assoc, Ohio Exp. Sta, 25–34; *prof. and head dept, Alberta, 35–* A.A; Soc. Hort. Sci; Can. Soc. Tech. Agr. Pomology; botany; genetics; plant physiology.

Shoemaker, Dr. Lois Meier (Mrs. M. B. Shoemaker), Upper Ferry Road, Trenton, N. J. *Education.* Ipava, Ill, Oct. 20, 99. A.B, Wellesley Col, 21; A.M, Columbia, 24; Am-German exchange fellow, Frankfurt, 27–28; Ph.D, Columbia, 30. Teacher, high sch, Mass, 21–23; N. Y, 24–26; asst. *science,* Lincoln sch, Teachers Col, Columbia, 26–27; instr. and *asst. prof, N. J. State Teachers Col, Trenton, 29–* Summer, leader field course in Germany, Teachers Col, Columbia, 31, 32. A.A; Nat. Asn. Research Sci. Teaching. Science education in German schools; biology; conservation.

Shohan, Dr. J(acob) B(ernard), J. B. Shohan and Co, Newark, N. J. *Chemistry.* Smorgon, Russia, Sept. 3, 97. A.B, Harvard, 16, Ph.D, 26. Research org. chemist, U. S. Bur. Mines, 26–29; assoc. prof. chem, Howard, 29–33, acting head dept, 29–31; director research, Otto B. May, Inc, 33–39; *pres, J. B. Shohan and Co, 39–, head chem. div, John Wyeth and Brother, Inc, 42–* Chem. Soc. Sulfur content of arsphenamine; isoxazoline oxides; phenols in primary coal tar; chemical composition of coal; utilization of new synthetic organic chemicals for dyestuffs and pharmaceuticals; stabilized diazo compounds; new sedatives; estrogenic substances; sulfa drugs; anti-malarials.

Shohara, Dr. Hide Helen, University of Michigan, Ann Arbor, Mich. *Phonetics.* Tokyo, Japan, Oct. 24, 94. A.B, Michigan, 26, A.M, 27, Ph.D, 32. *Instr. phonetics, dept. speech, Michigan, 32–* A.A; Asn. Teachers Speech; Lin-

guistic Soc; Asn. Disorders of Speech; Mich. Acad; Mich. Asn. Teachers Speech (chairman speech correction program, 41). Genesis and development of language; respiratory movements in speech; palatography; speech pathology and treatment; sound changes in language; foreign languages.

Shohat, Prof. J(ames) A(lexander), University of Pennsylvania, Philadelphia, Pa. *[4]*Mathematics.* Russia, Nov. 18, 86. Petrograd, 06–10, fellow, 12–16, Magister pure math, 22. Asst. prof. *math*, Petrograd Polytech. Inst, 13–17, 21–23; instr, Petrograd Mining Inst, 16–17; prof, Ural Univ, 17–21; Petrograd Pedagog. Inst, 21–23; asst, Chicago, 23–24, exten. instr, 23–27; instr, Michigan, 24–25, asst. prof, 25–29; lecturer, *Pennsylvania*, 30–31, asst. prof, 31–36, assoc. prof, 36–42, *prof, 42–* A.A; Math. Soc; Math. Asn; Inst. Math. Statist; Soc. math. de France. Functions deviating the least from zero; algebraic continued fractions; orthogonal Tchebysheff polynomials; approximation of functions of a real variable; definite integrals.

Shohl, Dr. Alfred T(heodore), Children's Hospital, 300 Longwood Ave, Boston, Mass. *Pediatrics.* Cincinnati, Ohio, Dec. 29, 89. A.B, Harvard, 10, M.D, 14. Asst. pediat, Hopkins, 15–17, urol, 17–20, assoc. and assoc. prof. chem. hygiene, 20–21; pediat, Yale, 21–26, research assoc. biochem, 27–28; assoc. prof. *pediat*, Western Reserve, 28–33; *research assoc, Harvard, 34–* Chem. Soc; Soc. Exp. Biol; Soc. Biol. Chem; Soc. Clin. Invest; Pediat. Soc. Physiology of acid-base and mineral metabolism.

Shollenberger, Dr. Clarence L, Jr, Hahnemann Medical College and Hospital, Philadelphia, Pa. *Surgery.* Wilmington, Del, Oct. 18, 95. Dickinson Col; M.D, Hahnemann Med. Col. (Pa), 21. *Assoc. prof. anat, Hahnemann Med. Col. (Pa), 23–, assoc. surgeon, Hahnemann Hosp, 23–* Asst. visiting surgeon, Abington Mem. Hosp, 26–38; surgeon, Women's Homeopath. Hosp, 38– Am. Med. Asn; fel. Col. Surg. Anatomical study of hernia; cross sectional surgical anatomy.

Shollenberger, Prof. Forest J(ay), 415 Vincent St, Alliance, Ohio. *Physics.* Canton, Ohio, June 9, 95. B.S, Mt. Union Col, 18; M.S, Pittsburgh, 25, Ph.D, 33. Instr. *physics, Mt. Union Col, 18–25, prof. and head dept, 25–, instr. radio courses, eng, science and management war training and ground instr, Civilian Aeronautics Admin.* A.A; Physical Soc. Thermal conductivity of coke; a vibrating reed oscillograph; an analysis of the topical emphasis in college physics texts and tests; wind tunnel research.

Shollenberger, J(oseph) H(ellman), 218 Parkside Drive, Peoria, Ill. *Agricultural economics.* Hepburnville, Pa, Dec. 8, 88. B.S, Pa. State Col, 13. Milling and baking investigations, U. S. Dept. Agr, 14–28; private milling business, 28–31; wheat specialist, Europe, bur. agr. econ, U. S. Dept. Agr, 31–34, prin. wheat specialist, 34–37; grain standards specialist, nat. grain and elevator cmn, Argentina Ministry Agr, S. Amer, 37–39; prin. agr. technologist in charge commodity develop. div, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 39–43; *agr. adviser, Am. for. service auxiliary, U. S. State Dept, 43–* Asn. Cereal Chemists; Asn. Milling and Baking Tech. (v. pres, 21). Grain standardization; milling and baking characteristics of American and foreign wheats; European wheat requirements.

Shomate, Dr. C(harles) Howard, U. S. Bureau of Mines, University of California, Berkeley, Calif. *Physical chemistry.* Bakersfield, Calif, Jan. 28, 15. A.B, Stanford, 35, A.M, 36, Ph.D, 39. Research chemist, Kelco Co, 40–41; *assoc. chemist, U. S. Bur. Mines, 42–* Chem. Soc. Specific heats at low and high temperatures; heats of solution.

Shonka, Dr. Francis R, 1036 W. Belden Ave, Chicago, Ill. *Physics.* Linwood, Nebr, April 18, 06. B.S, St. Procopius Col, 28; M.S, Chicago, 31, Ph.D, 41. Prof, St. Procopius Col, 28–30; *head dept. physics,* Fu Jen Univ, Peiping, 31–33; *De Paul, 38–* Physical Soc. New evidence for the existence of penetrating neutral particles.

Shonka, Dr. (William) J(oseph) J(ohn), St. Procopius College, Lisle, Ill. *Physics, Mathematics.* Linwood, Nebr, Jan. 25, 02. A.B, St. Procopius Col, 25; M.S, Chicago, 30, Ph.D, 33. Instr, *St. Procopius Col,* 25–29, *prof. physics and math, 33–* Instr, De Paul. Physical Soc. Effect of thermal agitation on the intensity of reflection of x-rays from crystals; ionization in gases.

Shonle, Horace A(bbot), Eli Lilly and Co, Indianapolis, Ind. *Chemistry.* Tuscola, Ill, May 14, 92. B.S, Illinois, 16, M.S, 17. Biochemist, U. S. Dept. Agr, 17–18; *research in org. chem, Eli Lilly and Co, 19–* C.W.S. and M.C, U.S.A. 18–19. Chem. Soc. (chairman, Ind. sect, 25); Pharmaceut. Asn; Ind. Acad. Organic medicinal chemicals; synthetic hormones and vitamins; correlation of pharmacological action and chemical structure.

Shook, Dr. C(larence) A(lbert), 1122 W. Broad St, Bethlehem, Pa. *Mathematics.* Akron, Ohio, June 11, 95. A.B, Western Reserve, 16; A.M, Harvard, 18; Ph.D, Hopkins, 23. Instr. *math*, U. S. Naval Acad, 19–23; Yale, 23–27, asst. prof, 27–30; *Lehigh*, 30–36, *assoc. prof, 36–* Math. Soc; Math. Asn. Hydrodynamics; celestial mechanics.

Shook, Prof. G(lenn) A(lfred), Wheaton College, Norton, Mass. *Physics.* Osgood, Ind, July 16, 82. A.B, Wisconsin, 07; Ph.D, Illinois, 14. Instr. physics, Purdue, 07–11; Illinois, 11–14; Michigan, 14–15; Williams Col, 15–18; *prof. physics, Wheaton Col. (Mass), 18–* Optical Soc; Astron. Soc. Radiation pyrometry; spectrum analysis; refractometry; mobile color.

Shoop, Prof. C(harles) F(ranklin), 1001 E. River Road, Minneapolis, Minn. *Mechanical engineering.* Bainbridge, Pa, May 24, 78. B.S, Pa. State Col, 01, M.E, 03. Instr. math. and physics, Pa. State Col, 03–05; *prof. mech. eng, Minnesota, 05–* Mech. Eng. (local chairman, 30); Eng. Educ. (local sec'y, 30, chairman, 32). Concrete roads; rotary pumps; mechanical engineering laboratory practise.

Shope, Prof. P(aul) F(ranklin), University of Colorado, Boulder, Colo. *Mycology.* Harrisburg, Pa, Feb. 3, 94. B.S, Pa. State Col, 23; M.S, Colorado, 25; Ph.D, Washington (St. Louis), 31. Instr. *biol, Colorado,* 23–31, *asst. prof, 31–* A.A; Mycol. Soc; Bot. Soc; Phytopath. Soc. The Polyporaceae of Colorado and the Rocky Mountain region; wood decay.

Shope, Dr. R(ichard) E(dwin), Rockefeller Institute, Princeton, N. J. *[d]*Pathology, Medicine.* Des Moines, Iowa, Dec. 25, 01. M.D, Iowa, 24; hon. M.S, Yale, 36. Instr. pharmacol. and mat. med, col. med, Iowa, 24–25; asst, dept. animal path, *Rockefeller Inst,* 25–30, assoc, 30–34, assoc. mem, 34–40, *mem, 40–* Semi-Centennial research award, Sigma Xi, 36; John Phillips Mem. medal, Am. Col. Physicians, 37; Alvarenga prize, Col. of Physicians of Phila, 38. Nat. Acad; A.A; Am. Physicians; Soc. Exp. Path; Soc. Exp. Biol; Harvey Soc; hon. mem. Royal Soc. Med. Gt. Britain. Swine influenza; filterable tumors of rabbits; pseudo-rabies; epidemiology of virus diseases.

Shorb, Dr. D(oys) Andrew, U. S. Department of Agriculture, Beltsville, Md. *Helminthology.* Caldwell, Idaho, Feb. 19, 05. B.S, Col. of Idaho, 28; Sc.D, Hopkins, 32. Prof. biol, Davis and Elkins Col, 32–33; junior parasitologist, div. zool, *bur. animal indust, U. S. Dept. Agr,* 33–39, asst. parasitologist, 39, ruminant parasites research, 34–41, *horse parasite research,* 41–42, *assoc. parasitologist, 42–* Parasites of rats, ruminants and horses.

Shore, Henry, Office of Strategic Services, Q Bldg, 25th and E Sts, N.W, Washington, D. C. *Engineering.* Boston, Mass, Jan. 14, 03. B.S, Mass. Inst. Tech, 24, 26–27; fellow, Carnegie Inst. Tech, 24–25, M.S, 25; fellow, Wisconsin, 25–26; P.E, Univ. State of N. Y, 31; N. Y. Law Sch, 35–38, LL.B, 38. Junior engineer, Pub. Service, N. J, 24; asst, Mass. Inst. Tech, 26–27; design engineer, RCA Communications, Inc, 27–35, patent engineer, patent dept, Radio Corp. Amer, 35–42; major, *U. S. Army,* 42–43, *lieut. col, 43–* Lecturer, Stevens Inst. Tech, 41–42. A.A; Physical Soc; Radio Eng; Soc. Rheol; Photog. Soc. Lubrication; radio.

Shorr, Dr. Ephraim, 815 Park Ave, New York, N. Y. *Internal medicine.* New Haven, Conn, June 1, 97. A.B, Yale, 19, M.D, 22. *Research assoc, Russell Sage Inst, 24–;* instr. *med, med. col, Cornell,* 23–33, asst. prof, 33–42, *assoc. prof, 42–* Asst. attending physician, Bellevue Hosp, 25–33; New York Hosp, 32–42, assoc. attending physician, 42– Physiol. Soc; Soc. Clin. Invest; Soc. Exp. Biol; Soc. Study Int. Secretions. Diseases of metabolism and ductless glands in animals and man; application of vaginal smear method to diagnosis and therapy of disturbances in female sex physiology; intermediary metabolism of diabetes and of the steroidal hormones.

Short, Prof. Byron E(lliott), 502 E. 32nd St, Austin, Texas. *Thermodynamics, Heat transfer.* Putnam, Texas, Dec. 29, 01. B.S, Texas, 26, M.S, 30; fellow, Cornell, 35–36, M.M.E, 36, Ph.D, 39. Instr. mech. eng, Texas, 26–29, asst. prof, 29–35; research and teaching fellow, Cornell, 35–36;

assoc. prof. *mech. eng, Texas,* 36–39, *prof, 39–* Summers, asst. to power engineer, The Texas Co, 27–30. Mech. Eng. (chairman, cmt. heat transfer in unfired exchangers, 41–); Eng. Educ. Heat transfer in shell-and-tube heat exchangers; flow, measurement and pumping of fluids; ice melting and freezing rates; specific heats of foodstuffs.

Short, Frank, Burke, Va. *Engineering.* Cleveland, Ohio, Oct. 7, 90. M.E, Cornell, 13; M.S, Union (N. Y), 14. Student engineer, Gen. Elec. Co, 13–14; instr. elec. eng, Alabama and Pennsylvania, 14–16; efficiency engineer, West. Elec. Co, 17; v. pres, Flakice Corp, 24–35; special engineer, Frick Co, 37–38; state senior elec. engineer, Conn, 38–40; engineer, Henry and Wright Mfg. Co, 40–41; ordnance engineer, *U. S. Army,* 41–42, *major, Ordnance Dept, 42–* Capt. and ordnance engineer, U.S.A, 17–23. Mechanical and electrical engineering; inventions.

Short, Prof. James J(oseph), 502 Park Ave, New York, N. Y. *Medicine.* Ontario Co, N. Y, April 18, 95. M.D, Buffalo, 18. Instr. chem, N. Y. Post-Grad. Med. Sch, 18–20; *med,* col. physicians and surg, Columbia, 21–23; instr. and assoc. *N. Y. Post-Grad. Med. Sch, Columbia,* 23–30, asst. prof. and *assoc. clin. prof, 31–; U. S. Naval Res, 42–, commander.* Chief med. clinic and assoc. attending physician, N. Y. Post-Grad. Hosp; attending physician and director med, Dept. Correction Hosps, New York; attending physician, Welfare Hosp. Conf. Biol. Chemists, 19–26. A.A; Am. Med. Asn; Col. Physicians. Biological and medical sciences.

Short, Prof. Jessie M(ay), 2224 N. E. 44th Ave, Portland, Oregon. *Mathematics, Astronomy.* College Springs, Iowa, June 5, 73. A.B, Beloit Col, 00; A.M, Carleton Col, 11; fellow, Chicago, 14–16; California, 25. Prin, high sch, Minn, 01–09; instr. math, Carleton Col, 09–14, dean women, 11–14; Rollins Col, 17–18; office supervisor, Nat. Workmen's Compensation Service Bur, 18–20; instr. *math, Reed Col,* 20–26, *asst. prof, 26–* Mem. Board Educ, Portland, Oregon, 34– Math. Asn; fel. Astron. Soc. Actuarial mathematics; system of algol; photographic distortion of the reflector field; cost of living survey, housing and housing administration of Portland; statistics; teachers' salaries compared with living costs and general community standards; women in the teaching profession.

Short, Prof. M(axwell) N(aylor), University of Arizona, Tucson, Ariz. *[7]Geology.* Pembina, N. Dak, March 21, 89. B.S, California, 12; Ph.D, Harvard, 23. Mining engineer, Mex. and Ariz, 12–17; instr. econ. geol, Harvard, 23–24, lecturer, 27–28; junior geologist, *U. S. Geol. Surv,* 24–26, asst. geologist, 26–30, *assoc. geologist, 30–; prof.* optical miner, *Arizona,* 31–32, *petrog, 32–* Soc. Econ. Geol; fel. Miner. Soc. (pres, 39); Min. and Metal. Eng. Optical mineralogy and petrology; determination and paragenesis of the ore minerals.

Short, R(obert) L(ouis), 6932 Amherst Ave, University City, St. Louis, Mo. *Mathematics.* Danville, Ill, Sept. 18, 66. A.B, Chaddock, 90; Illinois; Northwestern; Munich, 97–98. Tutor math, Wesleyan Sem, 85–87; instr, Chaddock, 87–90, prof, 93–94; v. pres. and prof. math, Ft. Worth, 94–97; instr, high sch, Ill, 98–99; Illinois, 00–01, asst. prof, 01–02; ed, D. C. Heath and Co, 02–07; asst. prin, high sch, Ohio, 07–11, prin, 11–16, *director high schs,* 16–20; *St. Louis, Mo, 20–* A.A; Math. Soc; Eng. Educ. Algebra; geometry; unification of secondary mathematics; mathematics for industrial and technical schools; mastery of numbers.

Short, Prof. W(illiam) T(homas), Oklahoma Baptist University, Shawnee, Okla. *Mathematics.* Irving, Kans, Jan. 28, 84. A.B, Okla. Baptist Col, 11; Chicago, 16, 19, 20; A.M, Oklahoma, 34. *Prof.* math. and science, Southwest. Baptist Col, 12–13; science and philos, Decatur Baptist Col, 13–15; *math, Okla. Baptist Col, 15–* Math. Asn. Mathematics of finance; rule for the extraction of the n^{th} root of arithmetical numbers; solution of cubic equations by use of hyperbolic functions.

Shortess, Prof. George S(eldel), York Junior College, York, Pa. *Biology.* Beavertown, Pa, Jan. 17, 97. A.B, Hopkins, 22, Ph.D, 40; A.M, Columbia, 30. *Prof. biol,* Mt. St. Mary's Col, 23–30; Elizabethtown Col, 30–43; *York Junior Col, 43–* Effects of radiation on protoplasm.

Shortley, Dr. George H(iram), Ohio State University, Columbus, Ohio. *Physics.* Minneapolis, Minn, March 3, 10. B.E.E, Minnesota, 30; Gordon MacDonald fellow, Princeton, 31–32, A.M, 32, Porter Ogden Jacobus fellow, 32–33, Ph.D, 33. Nat. research fellow, Mass. Inst. Tech. and Harvard, 33–35; instr. *physics, Ohio State,* 35–37, *asst. prof, 37–* Fel. Physical Soc; Astron. Soc; Ohio Acad. Theoretical physics; quantum mechanics; theoretical spectroscopy; numerical methods.

Shotts, Prof. Reynold Q(uinn), Apt. W–12, Old Citadel, Charleston, S. C. *Geology, Chemistry.* Double Springs, Ala, Feb. 1, 09. B.S, Alabama, 30, M.S, 31; U. S. Bur. Mines fellow, 30–31. Prof. chem. and math. and registrar, Rabun Gap-Nacoochee Junior Col, 36–41; *asst. prof. chem. and geol, The Citadel, 41–* Physical metallurgy of coal.

Shotwell, Dr. Anna M(arkt), State Colony and Training School, Alexandria, La. *Clinical psychology.* Oregon, Mo, April 20, 00. A.B, Northwestern, 25, A.M, 28, Ph.D, 41; California. Director personnel, Nat. Col. Educ, 25–33; *sch. psychologist, Southfield Sch, La, 34–; asst. psychologist, State Colony and Training Sch, 42–* A.A; assoc. Psychol. Asn. Five and ten year old children's concept of mother.

Shotwell, Robert L(eslie), U. S. Entomological Laboratory, Bozeman, Mont. *Entomology.* Denver, Colo, Dec. 15, 94. Colo. Agr. Col, 13–14; A.B, Denver, 20; A.M, Colorado, 24; Mont. State Col, 30–31. Asst. entomologist, *grasshopper investigations, div. cereal and forage insects, bur. entom. and plant quarantine, U. S. Dept. Agr, Mont,* 23–36, *entomologist,* 36– Asn. Econ. Entom. Life histories, habits and ecology of grasshoppers; the relation of weather to the abundance of grasshoppers; control measures.

Shoudy, W(illiam) A(llen), 233 Broadway, New York 7, N. Y. *Mechanical engineering.* Brooklyn, N. Y, April 5, 78. M.E, Stevens Inst. Tech, 99. Instr. exp. eng. and asst. prof. eng. practise, Stevens Inst. Tech, 03–11; asst. to manager, Baltimore Copper Ref. and Rolling Co, 11–12; engineer of tests, Brooklyn Edison Co, 12–16; asst. mech. engineer, J. G. White Eng. Co, 16–19; power engineer, Am. Sugar Ref. Co, 19–21; supt. steam stations and advisory engineer, N. Y. Power and Light Corp, 21–24; assoc. and assoc. prof. mech. eng, Columbia, 23–37; power engineer, Chem. Construction Corp, 41–43; *consulting engineer, 43–* Lecturer, Stevens Inst. Tech, 29. Mech. Eng. Steam power generation; combustion.

Shoup, Prof. Charles S(amuel), Vanderbilt University, Nashville, Tenn. *Physiology.* Mexico, Mo, July 8, 05. A.B, Cent. Col. (Mo), 26; A.M, Princeton, 27, fellow, 28–29, Ph.D, 29. Asst. biol, Princeton, 26–27, physiol, 27–28; asst. prof. *biol, Vanderbilt,* 29–40, *assoc. prof, 40–* Summers, biologist, State Div. Game and Fish, Tenn, 38–41. Trustee Reelfoot Lake Biol. Sta, Tenn. Acad, 36– A.A; Fisheries Soc; Mycol. Soc; Tenn. Acad. (v. pres, 41, pres, 42). Cellular physiology; bioluminescence; physiology of respiration; tissue oxidations; limnology.

Shoupp, Dr. W(illiam) E(arl), 941 S. Braddock Ave, Wilkinsburg, Pa. *Physics.* Troy, Ohio, Oct. 5, 08. A.B, Miami (Ohio), 31; A.M, Illinois, 33, Ph.D, 37. Asst. physics, Illinois, 31–37, instr, 37–38; research fellow, *Westinghouse Research Labs,* 38–40, research physicist, 40–42, sect. engineer, 42–43, *manager electronics dept, 43–* Physical Soc. Spectroscopy in short ultraviolet; nuclear physics; microwaves.

Show, S(tuart) B(evier), U. S. Forest Service, Phelan Bldg, San Francisco, Calif. *Forestry.* Waco, Nebr, April 9, 86. A.B, Stanford, 09; M.F, Yale, 10. Tech. asst, Shasta Nat. Forest, *U. S. Forest Service,* 10–15, asst, Feather River Forest Exp. Sta, 15–17, in charge forest research, regional office, 17–26, *regional forester in charge Calif. region, 26–* Soc. Foresters (councilor, 30–). Forest fire control on national forests; silvicultural and logging methods to obtain regrowth on forest lands; methods and technique of forest planting.

Showalter, Dr. A(mos) M(artin), Madison College, Harrisonburg, Va. *Biology, Cytology, Genetics.* Harrisonburg, Va, Dec. 15, 91. A.B, Goshen Col, 18; A.M, Wisconsin, 20, Ph.D, 22. Asst. bot, Wisconsin, 19–22; Cmn. Relief Belgium Educ. Foundation exchange fellow, 22–24; nat. research fellow, 24–27; asst. prof. bot, Washington (St. Louis), 28–30; assoc. prof. *biol,* Bridgewater Col, 31–34; *prof, Madison Col, 34–* A.A; Bot. Soc; Genetics Soc; Va. Acad. Syngamy in plants; sexual differentiation and inheritance; sex chromosomes.

Showalter, Dr. D(onald) F(ox), Arkansas State College, State College, Ark. *Psychology.* Davenport, Nebr, May 4, 91. A.B, Nebraska, 16, A.M, 17; Ph.D, Kansas, 31. Asst. psychol, Nebraska, 16–17; sch. supt, Kans, 21–30; *head dept. psychol. and educ,* Ark. Agr. and Mech. Col, 30–33, *Ark. State Col, 33–, dean, 37–* Summers, instr, Kans. State Teachers Col, Emporia, 24, Ft. Hays Kans. State Col, 31; Kans. State Col, 28. A.A; assoc. Psychol. Asn; Midwest. Psychol. Asn. Analysis of human learning activities.

Showalter, Dr. Harrison A, 37 James St, Stratford, Ont, Can. *Chemistry.* Toronto, Ont, July 23, 11. B.A, McMaster, 31; M.A, Toronto, 32, Nat. Research Council Can. scholar, 34–35, Ph.D, 35. Instr, lab, 31–34; research, lab, J. F. Hartz Co, 35–36; *mem. Can. branch, Citrus Products Co, 36–* Fel. Can. Inst. Chem. Citrus juices; essential oils; flavors; carbonated beverages.

Showalter, Prof. Merle Franklin, 2820 Barmettler St, Raleigh, N. C. *Agricultural chemistry.* Middletown, Ind, Sept. 17, 92. A.B, Indiana, 18; M.S, Purdue, 21; Columbia, 27–29. Asst. qualitative chem, Indiana, 18; gen. chem, Purdue, 19–21; prof. chem, N. Dak. State Nor. Sch, Maryville, 21–23; asst. prof. educ, Arkansas, 23–27; *assoc. prof. chem, N. C. State Col, 29–* Chem. Soc.

Shpiner, Dr. Leonard Benjamin, 420 Memorial Drive, Cambridge, Mass. *Physiology.* Tulchien, Russia, July 24, 04. B.S, Chicago, 25, M.S, 27, Ph.D, 29, M.D, Rush, 31. *Practising physician, 31–; capt, Med. Corps, U. S. Army, 42–* A.A. Pancreas and thyroid; myrtillin in diabetes; myrtillin overdosage; ergotamine and the blood sugar; physiology of secretin; hyperglycemia and glycosuria in experimental hyperthyroidism.

Shrader, Prof. Earl (Altemus), 622 Elm Terrace, Riverton, N. J. *Biochemistry.* Camden, N. J, Aug. 27, 94. B.S, Pennsylvania, 17, Chem.E, 26; M.S, Jefferson Med. Col, 23; Ed.D, Temple, 33. Asst. chemist, Gen. Chem. Co, 17–19; supt, Heyden Chem. Co, 19–21; demonstrator *physiol. chem,* Jefferson Med. Col, 21–24; assoc, *sch. med, Temple,* 24–32, asst. prof, 32–41, *assoc. prof, 41–* Chem. Soc. Vitamins; milk secretions.

Shrader, Dr. Erwin F(airfax), Case School of Applied Science, Cleveland, Ohio. *Physics.* Wilkinsburg, Pa, Nov. 1, 16. A.B, Swarthmore Col, 37; Ph.D, Yale, 41. *Instr. physics, Case, 40–* Physical Soc. Separation of the chlorine isotopes and the study of their nuclei.

Shrader, Prof. J(ames) E(dmond), Drexel Institute, Philadelphia, Pa. *Physics.* Harrisville, W. Va, May 7, 76. A.B, Ohio State, 09, A.M, 10; Ph.D, Chicago, 22. Instr. physics, Tufts Col, 11–12; Williams Col, 12–15; research physicist, Westinghouse Elec. and Mfg. Co, 16–22; *prof. and head dept. physics, Drexel Inst, 22–* John Price Wetherill medal, Franklin Inst, 35. A.A; Physical Soc. High vacuum; insulating materials; radioactivity; vibration and vibration instruments.

Shrader, Dr. J(ames) H(ouston), 339 Springdale Ave, East Orange, N. J. *Chemistry.* Washington, D. C, Sept. 30, 85. A.B, George Washington, 09; Ph.D, Hopkins, 13. Asst. chem, Hopkins, 12–13; lab. director, Gibbs Preserving Co, 13–17; chem. technologist, bur. plant indust, U. S. Dept. Agr, 17–19; chief chemist, Coconut Products Corp, 19–21; director bur. chem. and food, Health Dept, Baltimore, 21–28; pres. research lab, Nat. Dairy Products Corp, Inc, 28–35; instr. chem. hygiene, sch. hygiene and pub. health, Hopkins, 30–35; sec'y, Sealtest System Labs, Inc, 35–37; *prof. chem. and chairman div. science, East. Nazarene Col.* Lecturer, N. Y. Univ, 41. A.A; Inst. Food Technol. (pres, N. Y. soc, 42); Chem. Soc; Dairy Sci. Asn; Pub. Health Asn; Int. Asn. Milk Sanitarians (ed, 'Jour. Milk Technol'). Industrial utilization of plant products; canning-house wastes; vegetable oils; food packing; dairy technology; food biochemistry; pure food control; industrial hygiene; food technology.

Shrader, Dr. Ross E(dmond), RCA Research Laboratories, Princeton, N. J. *Physics.* Richwood, Ohio, Nov. 30, 06. A.B, Pennsylvania, 28; Ph.D, Cornell, 36. Research assoc. physics, Cornell, 36–39; *physicist, RCA Research Labs, 39–* Physical Soc. X-ray spectroscopy; relative intensities of x-ray satellites; fluorescence; phosphorescence.

Shrader, Dr. Sterl A(mos), 101 Varner Court, Midland, Mich. *Chemistry.* Huntersville, W. Va, April 20, 06. B.S, W. Va. Wesleyan Col, 31; M.S, Maryland, 33, Ph.D, 35. Teaching fellow and asst, Maryland, 31–35; junior org. chemist, U. S. Bur. Mines, 35–36; *micro-chemist, Dow Chem. Co, 36–* Chem. Soc. Organic chemistry; microanalysis.

Shreve, Dr. Darrell R(hea), 311 Hillside, Webster Groves 19, Mo. *Algebraic geometry.* Sulphur, Okla, Feb. 20, 08. A.B, Tulsa, 29; Wichita, 29; M.S, Okla. Agr. and Mech. Col, 31; Ph.D, Illinois, 38. Instr. math, Murray State Sch. Agr, 31–35; Purdue, 38–42; *dept. eng, McDonnell Aircraft Corp, 42–* A.A; Math. Soc; Math. Asn; Inst. Aeronaut. Sci; Eng. Educ. Symmetric hypersurfaces; diagnostic testing.

Shreve, Dr. Forrest, P. O. Box 471, Tucson, Ariz. ***³***Botany.* Easton, Md, July 8, 78. A.B, Hopkins, 01, Ph.D, 05. Instr. in charge phanerogamic bot, Cold Spring Harbor, 04–05; Bruce fellow, Hopkins, 05–06; assoc. prof. bot, Goucher Col, 06–08; staff mem, dept. bot. research, *Carnegie Institution,* 08–27, *in charge desert investigations, 28–* Ed, 'Plant World,' 11–19. A.A. (pres, southwest. div, 29); Soc. Nat; Bot. Soc; Ecol. Soc. (sec'y-treas, 15–19, pres, 21); Asn. Geog. (v. pres, 40); Soc. Foresters; West. Soc. Nat; Asn. Pacific Coast Geog. (pres, 42); Calif. Bot. Soc. Development of Sarracenia; plant life of Maryland; ecology and physiology of the mountain rainforests of Jamaica; rainfall and temperature in mountains; vegetation and climate in the United States; soil temperature; ecology of the coastal mountains of California; soil conditions in relation to the distribution of desert vegetation; ecological life histories and water economy of desert plants; phytogeography of the deserts of northern Mexico.

Shreve, Mrs. Forrest (Edith Coffin Bellamy), 297 N. Main St, Tucson, Ariz. *Plant physiology.* Grand Rapids, Mich, Nov. 7, 82. A.B, Chicago, 03. Instr. physics, Goucher Col, 07–09; asst. plant physiol, Hopkins, 11–12; vol. investigator, Carnegie Institution, 12–39; *research biochemist, Desert Sanatorium and Research Inst, 40–* A.A; Ecol. Soc; West. Soc. Nat. Water relations of desert plants; colloidal gels; leaf temperature; imbibition; seasonal behavior of transpiration; osmotic value of sap; transpiration; blood chemistry.

Shreve, Prof. R(andolph) Norris, Purdue University, Lafayette, Ind. *Chemical engineering.* St. Louis, Mo, March 9, 85. A.B, Harvard, 07. In charge mfg. chemicals, Mallinckrodt Chem. Works, 02–04, 07–11; Lamar Chem. Works, 11–15; Marden, Orth and Hastings Corp. and Calco Chem. Co, 15–19; consulting chemist, 19–30; *prof. chem. eng, Purdue, 30–* Consultant, U. S. Bur. Mines; bur. chem. and soils, U. S. Dept. Agr; War Production Board. A.A; Chem. Eng; Chem. Soc. (organizer and sec'y, dye div, 18–24, chairman, 24–26, med. chem. div, 35, div. indust. and eng. chem, councilor-at-large, 36–39, chairman unit process symposia, 37–43); Eng. Educ; Asn. Textile Chem. and Colorists; Chemists' Club. Chemistry and engineering; textile dyes and intermediates; medicinal dyes; alkaloids; potash from American sources; greensand; explosives; classification of dyes by intermediates; alkylation in unit processes; elementary and advanced chemical German; organic solvents in inorganic reactions; barium and strontium compounds; unit processes.

Shrewsbury, Prof. Charles L(eslie), 1008 Ravinia Road, West Lafayette, Ind. *Animal nutrition.* Livonia, Ind, Oct. 19, 98. A.B, William Jewell Col, 23; Washington (St. Louis), 23–25; Ph.D, Missouri, 28. Asst, William Jewell Col, 21–23; Washington (St. Louis), 23–25; Missouri, 25–26, instr. 27–29; asst. prof. *chem. and animal nutrition, Exp. Sta, Purdue,* 29–31, *assoc. prof, 32–* Chem. Soc. Mineral requirements of live stock; quality of pork; vitamin A; spectrophotometry; determination of plant pigments.

Shriner, Dr. Ralph L(loyd), Indiana University, Bloomington, Ind. ***⁶***Chemistry.* St. Louis, Mo, Oct. 9, 99. B.S, Washington (St. Louis), 21; M.S, Illinois, 23, Ph.D, 25. Instr. *chem,* Washington (St. Louis), 21–22; assoc. research and asst. prof, N. Y. Exp. Sta, 25–27; asst. prof, Illinois, 27–30, assoc. prof, 30–35, prof, 35–41; *prof. and chairman dept, Indiana, 41–* A.A; Chem. Soc. (sec'y, org. div, 35–40, councilor at large, 43–). Catalysis; waxes; phytosterols; salts of nitrocompounds; drugs; alkaloids; local anesthetics; urethans; sulfones; sulfoxides and sulfonanilides; mutarotation; coumaranones; identification of organic compounds; flavylium salts; anthocyanins.

Shriver, Dr. G(eorge) Edward, U. S. Rubber Co, Passaic, N. J. *Physical chemistry.* Baltimore, Md, June 5, 08. A.B, Western Maryland Col, 29; M.S, N. Y. Univ, 32, Ph.D, 34. Teaching fellow chem, Wash. Sq. Col, N. Y. Univ, 29–34; research chemist, Ekroth Labs, Brooklyn, N. Y, 34–35; *research chemist, gen. labs, U. S. Rubber Co, 35–* Lecturer, Metropolitan Sch. Physiotherapy, New York, 35, 36. Chem. Soc. Photochemistry; application of electron tubes and photoelectric cells to physiochemical measurements; rubber latex chemistry; technology and process development.

Shrock, Prof. R(obert) R(akes), Massachusetts Institute of Technology, Cambridge, Mass. *Geology, Paleontology.* Waupecong, Ind, Aug. 27, 04. A.B, Indiana, 25, A.M, 26, Ph.D, 28. Asst. *geol,* Indiana, 23–26; Wisconsin, 28–29, instr, 29–31, *asst. prof,* 31–37; *Mass. Inst. Tech, 37–* A.A; Geol. Soc; Paleont. Soc; Ind. Acad; Wis. Acad. Stratigraphic geology and paleontology; sedimentation.

Shroyer, Dr. John H(enry), 203 S. Maplewood Ave, Peoria, Ill. *Organic chemistry.* Cambridge City, Ind, Dec. 12, 03. A.B, Alma Col, 25; M.S, Chicago, 28, Ph.D, 32. Teacher, high sch, Mich, 25–26; instr. *chem,* Flint Junior Col, 28–30, 32–40; *prof, Bradley Polytech, 40–* A.A; Chem. Soc. Colored derivatives of phenobarbital.

Shrum, Prof. G(ordon) M(erritt), University of British Columbia, Vancouver, B. C, Can. *Physics.* Smithville, Ont, Jan. 14, 96. B.A, Toronto, 20, M.A, 21, Can. Advisory Council fellow, 22–24, Ph.D, 23. Research assoc, Toronto, 21–24; research physicist, Corning Glass Works, 24–25; asst. prof. *physics, British Columbia,* 25–28, assoc. prof, 28–37, *prof, 37–, head dept, 38–* Mem, Nat. Research Council Can. Physical Soc; Optical Soc; fel. Royal Soc. Can. Low temperatures; liquefaction of helium; spectroscopy; aurora borealis; radiology.

Shryock, Dr. Alfred (Quinby), College of Medical Evangelists, Loma Linda, Calif. *Histology, Embryology.* Earlville, Iowa, May 29, 71. A.B, Pacific Union Col, 15; M.D, American Med. Missionary Col, 99. *Prof. anat, Col. Med. Evangelists, 10–* Trustee, Col. Med. Evangelists, 14– Fel. Am. Med. Asn. Teaching methods.

Shryock, Dr. (Edwin) Harold, Loma Linda, Calif. *Microscopic anatomy.* Seattle, Wash, April 14, 06. B.S, Pacific Union Col, 30; M.D, Col. Med. Evangelists, 34; A.M, Southern California, 39. Instr. *anat, Col. Med. Evangelists,* 34–40, *asst. prof, 40–* Fel. Am. Med. Asn. Embryology, cytology and neuropathology.

Shuck, Prof. G(ordon) R, University of Washington, Seattle, Wash. *Electrical engineering.* Kasson, Minn, April 22, 82. E.E, Minnesota, 06. Supt. shops, Westinghouse Elec. Co, Seattle, 09–14; supt, Citizens Light, Power and Water Co, Alaska, 14–17; *Washington (Seattle),* 18–29, assoc. prof. *elec. eng,* 29–37, *prof, 37–* Elec. Eng. (nat. cmt. instruments and measurements, 39; chairman Seattle sect, 40); Illum. Eng. Soc. Electric metering.

Shudeman, Dr. C(onrad L. B), Southern College, Lakeland, Fla. *Physics.* Fayette Co, Texas, Sept. 5, 79. B.S, Texas, 02, M.S, 04; Ph.D, Harvard, 08. Instr. physics, Texas, 08–11; Lewis Inst. (Ill), 18; worker, Inst. Advanced Study, 34–36; *asst. prof. physics and astron, Southern Col, 37–* Visiting prof, Haverford Col, 43– Fla. Acad. Mathematical physics; demagnetizing factors of iron rods; residual charge in dielectrics; equivalent electrons and their spectroscopic terms.

Shue, Dr. George L(lewellyn), 6445 Malvey St, Ft. Worth, Texas. *Physics, Applied geophysics.* Denver, Colo, May 15, 03. Chem.E, Colo. Sch. Mines, 26, M.S, 29; Ph.D, Southern California, 36. Teaching fellow chem, Colo. Sch. Mines, 26–27; instr. physics, 27–30; asst. prof, Mont. Sch. Mines, 30–36, prof, 36–42; *engineer, Consol. Aircraft Corp, 42–* Seismol. observer, Mont. Sch. Mines and U. S. Coast and Geod. Surv. Summers, tech. asst, Complex Ores Recovery Co, Denver, Colo, 26. Physical Soc; Mont. Soc. Eng. (sec'y, 36–). Earth resistivity measurement.

Shuey, Dr. Audrey M(ary), Randolph-Macon Woman's College, Lynchburg, Va. *Psychology.* Westfield, Ill, April 22, 00. A.B, Illinois, 22; A.M, Wellesley Col, 23; Laura Spelman Rockefeller fellow, Columbia, 26–27, Ph.D, 31. Asst. *psychol,* Wellesley Col, 22–23; instr, North. Ill. State Teachers Col, 23–26; lecturer, Barnard Col, Columbia, 27–29; instr, Wash. Sq. Col, N. Y. Univ, 29–43; *assoc. prof, Randolph-Macon Woman's Col, 43–* Assoc. Psychol. Asn. After images; learning behavior of kittens; race differences; personality.

Shuey, Ralph C(lement), Bakelite Corp, Los Angeles, Calif. *Chemical engineering.* Lancaster Co, Pa, Jan. 7, 83. B.S, Kansas, 07, fellow, 07–10; fellow, Mellon Inst, 11–14. Asst. prof. chem, Idaho, 10–11; prof. tech. chem, Pittsburgh, 13–14; process develop, Armour Auxiliary Indust, 15–17; asst. supt, Armour Soap Works, 17–19; engineer in charge equipment and construction, Redmanol Chem. Products Co, 20–24; sales and eng. service, Chicago dist, *Bakelite Corp,* 24–26, west. rep, develop. branch, 27–32, *research chemist, 32–* Chem. Soc; fel. Inst. Chem. Oil and resin polymerization; gelatin manufacture; diastase.

Shuger, Dr. Leroy W(oodrow), 150 S. Calverton Road, Baltimore, Md. *Chemistry.* Baltimore, Md, Jan. 11, 10. B.S, Hopkins, 30, Ph.D, 34. Chemist, du Pont Cellophane Co, 30–31; *tech. director, Baltimore Paint and Color Works, 34–* Chem. Soc. Colloidal chemistry as applied to chemical specialties such as polishes, waxes and adhesives; theoretical consideration of the chemistry of paints and varnishes.

Shugert, Prof. Stanley P(ulliam), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Berryville, Va, Dec. 21, 85. A.B, Roanoke Col, 05; A.M, Pennsylvania, 09, Ph.D, 14. Instr. *math,* Delaware Col, 07–08; *Pennsylvania,* 08–19, asst. prof, 19–28, *prof, 28–* Math. Soc. Theory of algebraic invariants.

Shuhart, Dr. D(onald) V(incent), 3059 Wabash St, Ft. Worth, Texas. *Horticulture, Forestry.* San Antonio, Texas, Sept. 12, 94. Texas; Ecole nat. d'Hort, France; B.S, Agr. and Mech. Col. Texas, 20; Iowa State Col; M.S, Okla. Agr. and Mech. Col, 25; California; Ph.D, Chicago, 31. Teacher, high sch, Texas, 16–17; asst. prof. hort, N. Texas Agr. Col, 20–21, prof, 21–23; asst. prof, Okla. Agr. and Mech. Col, and asst. horticulturist, Exp. Sta, 23–33; landscape architect, Nat. Park Service, 33–35; supervising technician, *soil conservation service, U. S. Dept. Agr,* 35, assoc. forester, 35–36, assoc. regional forester, region 7, 36–37, assoc. information specialist and acting regional information officer, 37–39, assoc. soil conservationist, *region 4,* 39–42, *soil conservationist, project planning div, 42–* 2nd lieut, U.S.A, 18–19. Soc. Hort. Sci; Okla. Acad. The pecan, especially the differentiation and development of its flowers; anatomy and morphology of pecan fruit; ecological aspects of soil erosion; soil conservation.

Shukers, Prof. Carroll F(ranklin), 1209 McAlmont St, Little Rock, Ark. *Biochemistry.* Sedan, Kans, Sept. 30, 05. A.B, Kansas, 27, A.M, 33; fellow, Hopkins, 27–28; M.D, Chicago, 39. Asst. biochemist, Merrill-Palmer Sch. and Children's Hosp. of Mich, 28–31; instr. anat, sch. med, Kansas, 32–33; *biochem, sch. med, Arkansas,* 33, asst. prof, 34–38, *assoc. prof, 39–* A.A; fel. Inst. Chem; fel. Am. Med. Asn; Asn. Mil. Surg. Biological values of proteins; hematology, nutrition and metabolism of women during pregnancy and lactation; mineral metabolism of infants.

Shuler, Prof. (Caroline) Eucebia, 312 W. Church St, Americus, Ga. *Mathematics.* Holly Hill, S. C, 95. A.B, Winthrop Col, 17; A.M, George Peabody Col, 24, Ph.D, 33. Prin, grade sch, S. C, 17–19, head dept. math, high sch, 20–22; N. C, 22–23; Flora Macdonald Col, 24–30; asst. *math,* Tenn. State Teachers Col, Memphis, 33–35; *prof. and head dept, Ga. Southwest. Col, 35–* Council Math. Teachers; Math. Asn. Teaching of mathematics.

Shuler, Dr. Ellis W(illiam), Southern Methodist University, Dallas, Texas. *Geology.* Comers Rock, Va, Oct. 15, 81. A.B, Emory and Henry Col, 03; A.M, Vanderbilt, 07; fellow, Harvard, 13–14, A.M, 14, Ph.D, 15. Asst. biol, Vanderbilt, 07–08; prof. biol. and geol, Polytech, Ft. Worth, Texas, 08–13; asst. *geol,* Harvard, 14–15; assoc. prof, *South. Methodist,* 15–17, *prof, 18–,* chairman *grad. sch,* 23–26, *dean, 26–* Shaler Mem. exped, south Appalachians, 16; acting geologist, State Bur. Econ. Geol, Texas, 17. A.A; fel. Geol. Soc; Asn. Petrol. Geol; fel. Texas Acad. Stratigraphic geology; physiography; paleontology.

Shuler, Prof. Robert H(all), University of Georgia School of Medicine, Augusta, Ga. *Physiology.* Superior, Nebr, June 26, 14. B.S, Hastings Col, 35; M.S, Nebraska, 37; fellow, Chicago, 39–41, Ph.D, 41. Asst. zool. and parasitol, Nebraska, 35–38; assoc. prof. biol, Peru State Teachers Col, Nebr, 38–39; *asst. prof. physiol, sch. med, Georgia, 42–* Taxonomic parasitology; hemodynamics.

Shulits, Lieut. Samuel, P. O. Box 516, Charleston, S. C. *Hydraulic engineering.* Lawrence, Mass, Dec. 7, 02. B.S, Mass. Inst. Tech, 24; Berlin Tech. Univ, 28–29; Freeman traveling fellow, Boston Soc. Civil Eng, 28–30. Res. engineer, State Highway Cmn, Mass, 24–25; junior engineer, U.S. Engineer Office, Buffalo, 25–26; engineer, I. P. Morris Corp, Phila, 27–28; translator, Schoklitsch's 'Hydraul. Structures,' Czechoslovakia, 30–33; asst, U. S. Waterways Exp. Sta, Vicksburg, Miss, 33; asst. and assoc. engineer, bur. reclamation, U. S. Dept. Interior, 34–36; asst. prof. mech. and hydraul. in charge fluid mech. lab, Colo. Sch. Mines, 36–39; assoc. engineer, U. S. Engineer Office, Louisville, Ky, 39–40; assoc. engineer and chief eng. dept. research centers, U. S. Waterways Exp. Sta, Miss, 40–41; hydraul. engineer, *U. S. Engineer Office, Charleston, S. C,* 41–42, *exec. asst. to dist. engineer, 42–* Summer, lecturer, grad. sch, Iowa, 38. Mem. advisory cmt, soil conservation service, U. S. Dept. Agr. Lieut, C.Eng.Res. Civil Eng; Geophys. Union; Int. Asn. Hydraul. Structures Research; Int. Asn. Navig. Cong. Hydraulics; hydrodynamics; fluid mechanics; river engineering.

Shull, Prof. A(aron) Franklin, 431 Highland Road, Ann Arbor, Mich. **²Zoology, Genetics.* Miami Co, Ohio, Aug. 1, 81. A.B, Michigan, 08; Ph.D, Columbia, 11. Asst. *zool,* Michigan, 05–08; Columbia, 09–11; acting asst. prof, *Michigan,* 11, instr, 11–12, asst. prof, 12–14, assoc. prof, 14–21, *prof, 21–* Summer, entomologist, Mich. Biol. Surv, 08, prof, California, 38. A.A; Soc. Nat. (sec'y, 20–26, v. pres, 29, pres, 34); Soc. Zool; Soc. Study Speciation; Entom. Soc; Genetic Asn; Eugenics Soc; Mich. Acad. (pres, 21). Life cycles in rotifers, aphids and thrips; sex determination and heredity in rotifers and insects; crossing over in Drosophila; developmental genetics in aphids; genetics in relation to evolution and distribution.

Shull, Prof. Charles A(lbert), University of Chicago, Chicago, Ill. **⁴Botany.* Clark Co, Ohio, Jan. 19, 79. Antioch Col, 00–02; B.S, Chicago, 05, fellow, 05–06, Ph.D, 15; Cold Spring Harbor, 07. Asst. prof. biol, Transylvania Col, 06–08, prof. biol. and geol, 08–12; asst. prof. bot, Kansas, 12–15, assoc. prof. plant physiol. and genetics, 15–18; prof. plant physiol. and head dept. bot, Kentucky, 18–21; assoc. prof. *plant physiol, Chicago,* 21–25, *prof, 25–* Hon. fellow, Hopkins, 23; visiting plant physiologist, West Virginia, 28; Oregon State Col, 31; Okla. Agr. and Mech. Col, 38; Stephen Hales lecturer, St. Louis, 35. Summer, asst, Chicago, 11. Ed. in chief, 'Plant Physiol'; assoc. ed, 'Bot. Gazette.' Stephen Hales prize, Pittsburgh, 34. A.A. (asst. sec'y, 23, sec'y, council, 30–38); Soc. Nat; Bot. Soc. (chairman, physiol. sect, 19); hon. mem. Soc. Plant Physiol. (pres, 24, 27, exec. cmt, 35–); Soc. Hort. Sci; Asn. Biol. Teachers; Cowles Bot. Soc. (pres, 43); Ill. Acad. Plant physiology; germination; permeability, absorption and colloidal behavior of soils and seeds; water relations and sap ascent; energy relations; respiration; plant metabolism; x-ray stimulation of plant growth; mineral nutrition of plants; penetration of ultraviolet; dynamics of evaporation.

Shull, Dr. Clifford G, 28 John St, Beacon, N. Y. *Physics.* Pittsburgh, Pa, Sept. 23, 15. B.S, Carnegie Inst, 37; Ph.D, N. Y. Univ, 41. Teaching asst, N. Y. Univ, 37–41; *research physicist, Beacon lab, Texas Co, 41–* A.A; Physical Soc; Soc. X-ray and Electron Diffraction. Nuclear physics; x-ray diffraction.

Shull, Prof. Geo(rge) H(arrison), 60 Jefferson Road. Princeton, N. J. **²Botany, Genetics.* Clark Co, Ohio, April 15, 74. B.S, Antioch Col, 01, hon. LL.D, 40; Ph.D, Chicago, 04; hon. Sc.D, Lawrence Col, 40, Iowa State Col, 42. Student asst, bur. forestry, U. S. Dept. Agr, 01; bot. asst, U. S. Nat. Museum, 02; bot. expert, bur. plant indust, U. S. Dept. Agr, 02–04; asst. plant physiol, Chicago, 03–04; bot. investigator, Carnegie Institution, 04–15; prof. *bot. and genetics, Princeton,* 15–42, *emer. prof, 42–* Lecturer, Rutgers, 29–30; v. pres, Genetics Inc, 40– Ed. 'Genetics,' 16–26; ed. for genetics, 'Bot. Abstracts,' 18–22. Gold medal, DeKalb Agr. Asn. A.A; Soc. Nat. (v. pres, 11, pres, 17); Genetic Asn. (chairman, plant sect. 12); Ecol. Soc; Bot. Soc; Soc. Plant Physiol; Genetics Soc; Eugenics Research Asn; Eugenics Soc; Philos. Soc; Torrey Bot. Club; Wash. Acad; hon. mem. Deuts. Bot. Gesell; Deuts. Gesell. für Vererbungswissenschaft; Soc. linn. de Lyon; Inst. int. d'Anthrop; hon. mem. Gesell. Pflanzenzüch. Wien. Gross morphology; variation; heredity; plant breeding; heredity of sex and of other characters in Melandrium; linkage and mutation in Oenothera; duplication, cross and self sterility, species hybridization and geographical distribution in Capsella; pure-line method of corn-breeding.

Shull, J(ames) Marion, U. S. Department of Agriculture, Washington, D. C. *Botany.* Clark Co, Ohio, Jan. 23, 72. Valparaiso, 94–95; Art Students' League, 02–03. Instr. art, Antioch Col, 96–98, bot, 97–98; bot. artist, *U. S. Dept. Agr,* 08–24, *assoc. botanist, 24–* Bot. Soc. Wash; Hort. Soc. (director, 26–36). Plant morphology; plant breeding; botanical illustration.

Shull, Prof. W(esley) E(arl), University of Idaho, Moscow, Idaho. *Entomology.* Newton, Iowa, 99. B.S, Iowa State Col, 23, Ph.D, 32; M.S, Idaho, 27. Asst. prof. *entom, Idaho,* 27–32, *assoc. prof, 32–, head dept, 39–,* asst. entomologist and later assoc. entomologist, *Exp. Sta. and exten. div,* 27–39, *entomologist, 39–* Entom. Soc. Amer; Asn. Econ. Entom. Insect physiology; Miridae; economic entomology.

Shulman, Dr. Emanuel V(eritus), 400 13th St, N. E, Washington, D. C. *Pharmacognosy.* Baltimore, Md, Oct. 9, 05. Ph.G, Maryland, 25, Ph.C, 28, B.S, 29, M.S, 31, Ph.D, 35. *Asst.* bacter, *sch. pharmacy, Maryland,* 29–34, *bot. and pharmacog, 28–* Pharmaceut. Asn. Microanalysis; pharmaceutical chemistry; plant anatomy.

Shultz, Dr. Irvin Tabor, Friends University, Wichita, Kans. *Psychology.* Oregon, Feb. 25, 92. A.B, Earlham Col, 18; A.M, Columbia, 22; Ph.D, Pennsylvania, 28. Assoc. prof. psychol, Butler, 24–40; prof, *Friends,* 40–41, *dean, 41–* Assoc. Psychol. Asn. Teacher training; psychology of tuberculosis; learning.

Shultz, J(ohn) Floid, 75 Village No. 1, Sheffield, Ala. *Physical chemistry.* Galena, Kans, July 16, 96. B.S, Nebraska, 18, M.S, 23. Prin, high sch, Nebr, 19, teacher, 19–22; asst. chem, Nebraska, 22–23; teacher, high sch, Iowa, 23–24; anal. chemist, Great West. Sugar Co, Nebr, 24–25; junior chemist, fixed nitrogen research lab, bur. chem, U. S. Dept. Agr, 25–26, asst. chemist, 26–27, bur. chem. and soils, 26–40, *assoc. chemist,* indust. farm products div, 40, north. regional research lab, bur. agr. chem. and eng, 40–41; *Tenn. Valley Authority, 41–* Oxidation of nitrogen in air in the silent electrical discharge at elevated temperatures; oxidation of phosphorus by carbon dioxide and water vapor at elevated temperatures; testing ammonia catalysts at one hundred atmospheres pressure; water-gas equilibria.

Shumaker, Prof. John B(enjamin), 1019 High St, Des Moines, Iowa. *Chemistry.* Sterling, Ill, May 28, 97. A.B, Cornell Col. (Iowa), 20; M.S, Iowa State Col, 23, Ph.D, 30. Miner Labs, Chicago, Ill, 22–23; instr, Iowa State Col, 23–29; *prof.* chem, Des Moines Col. Pharmacy, 29–38; *pharmaceut. chem, col. pharmacy, Drake, 38–* Chem. Soc. Food chemistry; caramel.

Shuman, Dr. A(lbert) C(ornwell), Central Laboratories, General Foods Corp, Hoboken, N. J. *Chemistry.* Charlotte, N. C, March 6, 08. Ch.B, Cornell, 30, Ph.D, 35. Chemist in charge filtration plant, Cornell, 33–35; *research chemist,* Diamond Crystal Salt Co, *Gen. Foods Corp,* 35–39, *physical chem. div, cent. labs, 39–* Chemistry of rare elements; occurrence of elements; chemical spectroscopy; crystallization; physical properties of fats, oils and waxes.

Shuman, Dr. John R(andall), Merck and Co, Rahway, N. J. *Plant breeding.* Montgomery, Pa, June 6, 10. B.S, Pa. State Col, 34, scholar, 34–35; N. Y. Bot. Garden, 36; Ph.M, Wisconsin, 37, fellow, 37–38, Ph.D, 38. Asst. genetics, Wisconsin, 35–37; instr, Purdue, 39–41; assoc. prof. plant path. and plant breeding, Georgia, 41–42; *plant geneticist, Merck and Co, 42–* Maize genetics; cinchona.

Shumway, Prof. Waldo, University of Illinois, Urbana, Ill. *Zoology.* New Brunswick, N. J, May 8, 91. A.B, Amherst Col, 11; A.M, Columbia, 13, Ph.D, 16. Asst. zool, Columbia, 14–15; biol, Amherst Col, 15–16, instr, 16–17; asst. prof, Dartmouth Col, 19–22; assoc. prof. *zool; Illinois,* 22–29, *prof, 29–,* asst. dean col. lib. arts and sciences, 26–31. Board visitors, dept. biol, Amherst Col, 28– Amherst Col. biol. exped, Patagonia, 11–12. Cmn. on Standardization of Biol. Stains. Lieut, U.S.A, 17–19, major, O.R.C, 19–26. A.A; Soc. Nat; Soc. Zool; Asn. Anat. Protozoology; vertebrate embryology.

Shunk, Prof. I(van) V(aughan), 1809 Park Drive, Raleigh, N. C. *Botany, Bacteriology.* Sherrodsville, Ohio, Feb. 6, 91. A.B, West Virginia, 13, A.M, 16; Ph.D, Rutgers, 28. Instr. bot. and bacter, West Virginia, 16–17; *bot, N. C. State Col,* 19–21, asst. prof, 21–28, *assoc. prof, 28–* A.A; Soc. Bact. Soil microbiology.

Shupp, Dr. Asher Franklin, Hendersons, Inc, Johnstown, Pa. *Chemistry.* Effort, Pa, Oct. 8, 87. A.B, Muhlenberg Col, 10; fellow, Pittsburgh, 15–17, Ph.D, 17. Prof. chem, Thiel Col, 10–15; research chemist, E. I. du Pont de Nemours and Co, 17–19; fellow, Mellon Inst, 19–23; manager, Am. Inst. Laundering, Inc, Ill, 24–26; v. pres. and gen. manager, Barnes Laundry Co, 26–28; sec'y-treas. and gen. manager, Henderson Brothers Corp, 28–36; *pres, Hendersons Inc, 37–* Chem. Soc. Organic chemistry; phthalic acid; phenolphthalein.

Shurrager, Dr. P(hil) S(heridan), 1800 K St, N.W, Washington, D. C. *Physiological psychology.* Erie, Pa, Dec. 26, 07. B.S, Muskingum Col, 30; A.M, Ohio (Athens), 31; Ohio State, summers, 33–36; fellow, Clark, 35–36; Rochester, 38–39; Ph.D, Illinois, 39. Instr. biol, Ohio (Athens), 30–35; asst. physiol. psychol, Illinois, 36–38; teaching fellow psychol, Rochester, 38–39; nat. research fellow, 39–40; visiting asst. prof, Pennsylvania, 40–41; instr, St. Lawrence, 41–42; *tech. expert, British Ministry Supply Mission, 42–* Assoc. Psychol. Asn. Neural basis of learning; spinal conditioning; cortical localization of learning.

Shuster, Prof. C(arl) N(athaniel), 2393 Pennington Road, Trenton, N. J. *Mathematics.* Frenchtown, N. J, Feb. 16, 90. B.S, Columbia, 15, A.M, 18, Ph.D, 40. Head dept. *math,* high sch, N. J, 20–29; *visiting prof, Columbia, 26–; prof. and head dept, N. J. State Teachers Col, Trenton, 29–* Summers, instr, Bowling Green Univ, 20, 21; Pa. State Col, 26. Math. Soc; Math. Asn; Council Teachers Math. (chairman defense cmt). Applications of mathematics; problems in teaching the slide rule.

Shute, E(mmett) R(ay), 60 Hudson St, New York, N. Y. *Electrical engineering.* Coal City, Ind, May 26, 89. B.S, Purdue, 12. Eng. asst, *West. Union Tel. Co,* 12–17, asst. traffic engineer, 17–19, gen. supervisor traffic and costs, 19–21, operating engineer, 21–29, gen. supt. traffic, 29–38, *v. pres, 38–; lieut. col, Sig. Corps, U. S. Army, 42–* Chairman telegraph cmt, Defense Communication Board. Director, Ramp Bldgs. Corp; Int. Ocean Tel. Co; Pacific and Atlantic Tel. Co; Gold and Stock Tel. Co; N. Y. Mutual Tel. Co. Radio Eng. (director, 33); Elec. Eng; Asn. Railways. Printing telegraphs; point to point radio; ocean cable operation.

Shutt, Donald B(ethune), Ontario Agricultural College, Guelph, Ont, Can. *Dairy bacteriology.* Toronto, Ont, July 27, 93. B.S.A, Ont. Agr. Col, 22; Mich. State Col, 23–25. Asst. prof. *bacter,* Man. Agr. Col, 22–25; *lecturer, Ont. Agr. Col, 25–; mem, Can. Army.* A.A; Can. Soc. Tech. Agr. Flavor and color defects in butter, including yeast and mold contamination; water contaminations causing surface flavor on butter; explosion of chocolates by yeasts; spoilage of cottage cheese; causes of rancid flavor and mottled color in Canadian Cheddar cheese.

Shutt, Dr. R(ichard) S(tanley), Glidden Co, Cleveland, Ohio, *Chemistry.* Mt. Vernon, Ohio, Oct. 18, 01. A.B, Kenyon Col, 23; du Pont fellow, Ohio State, 27–30, M.S, 28, Ph.D, 30. Teacher, high sch, Ohio, 22–27; asst, Ohio State, 27–30; consulting chemist, Barnebey-Cheney Eng. Co, Columbus, 30; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 30–37; research chemist, Sherwin-Williams Co, Chicago, 37–38; tech. sales service, Am. Cyanamid and Chem. Corp, Pittsburgh, 38; director chem. research, Battelle Mem. Inst, 38–43; *mem. staff, Glidden Co, 43–* Chem. Soc. (chairman cols. sect, 40); Chem. Eng; Inst. Chem. Paints; pigments; resins.

Shuttleworth, Dr. Frank K(ayley), 106 Morningside Drive, New York, N. Y. *Educational psychology.* Ocheyedan, Iowa, Feb. 16, 99. A.B, Iowa, 21, A.M, 23, Ph.D, 25. Asst. prof. character educ, Iowa, 26–28; Sterling fellow, Yale, 28–29, lecturer *educ,* 29–36, research assoc, inst. human relations, 35–36, *asst. prof,* 36–39; *Col. City of N. Y, 39–* Gen. Educ. Board fellow, 34–36. Soc. Research Child Develop; Psychol. Asn. Measurement and organization of character; hereditary and environmental influences; psychology of adolescence; sexual maturation and physical growth of girls; vocational guidance.

Shwartzman, Dr. Gregory, Mt. Sinai Hospital, 1 E. 100th St, New York, N. Y. *Bacteriology, Immunology.* Odessa, Russia, May 26, 96. M.D. Brussels, 20. Research worker, Lister Inst, London, Eng, 20; prof. bacter. and pub. health, N. Y. Homeop. Med. Col, 23–27; *head dept. bacter, Mt. Sinai Hosp, 26–* Clin. prof, Columbia. A.A; Soc. Bact; Asn. Immunol; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Exp. Path; Harvey Soc; N. Y. Path. Soc; N. Y. Acad. Med; N. Y. Acad; Int. Soc. Microbiol. Vitamins on bacterial growth; bacteriophage; immunological reactions in tissue cultures; phenomenon of local skin reactivity to bacterial filtrates; viruses; electron microscopy.

Sibert, Prof. H(arold) W(ard), University of Cincinnati, Cincinnati, Ohio. *Mathematics.* Bowling Green, Ky, May 9, 92. M.E, Cornell, 14; A.M, Cincinnati, 27, Ph.D, 30. Instr. *math, Cincinnati,* 22–23, asst. prof, 23–32, *assoc. prof, 32–; major, Air Forces, U. S. Army, Wright Field, 42–* Elasticity stresses in circular plates; airplane stress analysis.

Sibley, Dr. C(harles) K(err), 755 S. Price Road, Clayton, Mo. *Zoology.* Stamford, N. Y, Nov. 26, 98. B.S, Cornell, 20, Ph.D, 25. Asst, Cornell, 20–25; *instr. zool, John Burroughs Sch, 25–* A.A; Entom. Soc. Biology of Trichoptera; food of fishes.

Sibley, Robert, Stephens Union, Berkeley, Calif. *Electrical engineering.* Round Mountain, Ala, March 28, 81. B.S, California, 03, E.E, 22; Stanford, 30. Chief elec. engineer, Mariposa Commercial and Mining Co, 03; prof. elec. eng. and dean eng. sch, Montana, 03–07; consulting engineer, 07–11; prof. mech. eng, California, 11–15; ed, 'Jour. Elec,' 16–23; *consulting engineer, 23–* Pacific Coast ed, 'Elec. World,' 19–23; 'Elec. Merchandising,' 19–23; pres, McGraw-Hill Co, 20–23. U. S. del, World Power Conf, London, 24, Berlin, 30, Scandinavia, 33. Fel. Elec. Eng. (past v. pres); fel. Mech. Eng. (past v. pres, past chairman, San Francisco sect). Uses of fuel oil; steam power generation; water power and hydroelectric development; elements of fuel oil and steam engineering.

Siceloff, Prof. L(ewis) Parker, Columbia University, New York, N. Y. *Mathematics.* Butler, Mo, Jan. 21, 80. A.B, Cent. Col. (Mo), 00; Ph.D, Columbia, 12. Instr. *math,* Buchanan, 00–04; Col. City of N. Y, 05–06; *Columbia,* 06–12, asst. prof, 12–26, assoc. prof, 26–38, *prof, 38–* Math. Soc; Math. Asn. Theory of groups.

Sichel, Dr. Ferdinand J. M(orris), University of Vermont College of Medicine, Burlington, Vt. *Physiology.* Hamilton, Ont, Can, Oct. 22, 06. B.Sc, McGill, 28; M.S, N. Y. Univ, 30, fellow, 33–34, Ph.D, 34. Demonstrator bot, McGill, 27–28; asst. instr. biol, N. Y. Univ, 28–33; instr. zool, Pennsylvania, 34–35, Royal Soc. Can. fellow, Eldridge Reeves Johnson Foundation, 35–36; instr. *physiol, col. med,* Howard, 36–37; *Vermont,* 37–40, asst. prof, 40–43, *assoc. prof, 43–* Instr, Marine Biol. Lab, Woods Hole, 33– A.A; Soc. Zool; Physiol. Soc. Microdissection and injection of single muscle fibers; physical properties of isolated skeletal muscle fibers; excitable and contractile systems in skeletal muscle; stimulation by ultraviolet light.

Sickels, Dr. Jackson P(yburn), Continental Oil Co, Ponca City, Okla. *Organic chemistry.* Vilas Co, Wis, Nov. 16, 13. B.S, Oklahoma, 35, 35–36; Ph.D, Yale, 39. Asst. *chem,* Yale, 39–40; instr, *Western Maryland Col,* 40–42; *research chemist, Continental Oil Co, 42–* A.A; Chem. Soc. Alkamine esters of certain pyrrole dicarboxylic acids.

Sickles, Grace M(ary), 2201 12th St, Troy, N. Y. *Bacteriology.* Troy, N. Y, Jan. 12, 98. A.B, N. Y. State Col. for Teachers, 18. Technician, labs, U. S. Army, 18–20; asst. bacter, *div. labs. and research, State Dept. Health, N. Y,* 20–25, asst. bacteriologist, 25–32, *assoc. bacteriologist, 32–* Asn. Immunol; Asn. Path. and Bact; Soc. Exp. Biol; Soc. Bact. (chairman, east. N. Y. branch, 35–38); N. Y. State Asn. Pub. Health Labs. Infection and immunity.

Sickman, Dr. Darrell V(ance), Catholic University, Washington, D. C. *Chemistry.* Boulder, Colo, Sept. 15, 05. A.B, Colorado, 27; Ph.D, Princeton, 32. Asst, Harvard, 31–35; research assoc, Columbia, 35–36; fellow, Hopkins, 36–38; *asst. prof. chem, Catholic Univ, 38–* Chem. Soc. Catalysis; adsorption; gas reactions; photochemistry; deuterium compounds.

Sidener, Prof. C(harles) F(rederick), 1320 Fifth St, S. E, Minneapolis, Minn. *Chemistry.* Huntsville, Ill, Feb. 25, 58. B.S, Minnesota. Instr. *chem, Minnesota,* 83–93, asst. prof, 93–06, prof, 06–23, *emer. prof, 23–* A.A; Chem. Soc. Determination of aluminum; phosphorus in vanadium steel and ferro-vanadium; separation of molybdenum from vanadium; the iodometric determination of vanadium.

Sideris, Dr. Christos P(lutarch), Pineapple Research Institute, P. O. Box 3166, Honolulu, Hawaii. *Plant physiology.* Leka, Samos, Greece, Jan. 27, 91. B.C, Samos Lyceum, 09; B.S, California, 21, Ph.D, 24; Asn. Hawaiian Pineapple Canners fellow, Hawaii, 24. Instr. bot, *Hawaii,* 24, lecturer plant path, 25, plant physiologist and pathologist, *Exp. Sta, Asn. Pineapple Research Inst,* 25–29, *plant physiologist, 29–, sch. trop. agr, 31–* Collaborator plant disease surv, U. S. Dept. Agr. A.A; Soc. Plant Physiol; Bot. Soc; Phytopath. Soc; Chem. Soc; Soc. Study Develop. and Growth; Am. Acad; Hawaiian Bot. Soc. (v. pres, 28, 30, pres, 42). Physiology; biocolloids; mineral nutrition; nitrogen assimilation; iron in plant metabolism; physiology of disease resistance, mineral toxicity and plant tolerance; pathogenicity of pythiaceous fungi; colorimetric chemical analysis.

Sidhu, Dr. S(uraln) S(ingh), University of Pittsburgh, Pittsburgh, Pa. *Physics.* India, June 8, 02. B.S, Pittsburgh, 25, M.S, 26, Ph.D, 37. Asst. physics, Pittsburgh, 25–27; research physicist, Union Switch and Signal Co, Swissvale, Pa, 28–32; lecturer physics, *Pittsburgh,* 37–38, *physicist in charge cooperative x-ray lab, 38–, asst. prof. physics, 42–* Soc. X-ray and Electron Diffraction; Indust. Radium and X-ray Soc; Physical Soc. Crystalline and magnetic nature of pyrrhotite; critical potentials of copper and iron; x-ray studies of

menthol, acetylsalicylic acid in sugars, chromic oxides, silver-magnesium alloys and incandescent molybdenum filaments.

Sidwell, Dr. A(lbert) E(dwin), Jr, 535 N. Dearborn St, Chicago, Ill. *Chemistry.* Spring Lake, N. J, Aug. 23, 09. B.S, Brown, 31; Ph.D, Chicago, 34. Asst. chem, Chicago, 31–35, research assoc, 35–37, instr, 37–38; chemist, *Am. Med. Asn,* 38–41, *director lab, 41–* Chem. Soc. Reactions in liquid ammonia solution; thermal dissociation of hydrides; spectrophotoelectric studies; drug analysis.

Sidwell, Prof. Raymond, 2610 22nd St, Lubbock, Texas. *Geology.* Nebo, Ill, May 23, 92. A.B, Iowa, 25, M.S, 26, Ph.D, 28. *Asst. prof. geol, Texas Tech. Col, 28–* A.A; Asn. Petrol. Geol; Iowa Acad. Sedimentation; origin of sediments; extent of change or alteration of the materials; type of terrain that produced the materials.

Siebert, Dr. Clarence A(rnold), University of Michigan, Ann Arbor, Mich. *Metallurgical engineering.* Detroit, Mich, May 31, 07. B.S.E, Col. City of Detroit, 30; M.S.E, Michigan, 31, Ph.D, 34. Engineer, motor products div, U. S. Rubber Co, Detroit, 33; instr, col. eng, Wayne, 33–36; asst. prof. *metal. eng, Michigan,* 36–43, *assoc. prof, 43–; consultant, Houdaille Hershey Corp, 37–* Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn. Ferrous metallurgy.

Siebert, Dr. W(alter) J(oseph), Washington University School of Medicine, St. Louis, Mo. *Pathology.* St. Louis, Mo, Sept. 26, 99. M.D, Washington (St. Louis), 26. Asst. *path, sch. med, Washington (St. Louis),* 26–27, instr, 27–29, *asst. prof, 29–,* instr. neuropath, 28–34. Pathologist, St. Louis Children's Hosp, 29–31; Lutheran Hosp, 34–; De Paul Hosp, 36–; St. Joseph's Hosp, Alton, Ill, 38– Soc. Exp. Path; Asn. Path. and Bact; Soc. Exp. Biol. Experimental myocarditis; transplantation of the thyroid gland into the brain; tissue culture of the thyroid gland; effects of various anterior pituitary preparations and iodine upon basal metabolism; edema of the lung; effect of heat upon transplantation of tissues; absorption and excretion rates of sulfonamids; fiberglas health hazard investigation; fibrositis.

Sieg, Pres. L(ee) P(aul), University of Washington, Seattle, Wash. *[3]*Physics.* Marshalltown, Iowa, Oct. 7, 79. B.S, Iowa, 00, fellow, 00–03, M.S, 01, Ph.D, 10, LL.D, 41; LL.D, Pittsburgh, 34. Asst. *physics,* Iowa, 99–00; instr. and head dept, Carleton Col, 03–06; instr, Iowa, 06–08, asst. and assoc. prof, 08–19, prof, 20–24; prof. and head dept, Pittsburgh, 24–25, dean col. and grad. sch, 25–34, acting dean educ, 31–34; *pres, Washington (Seattle), 34–* Capt, science and research div, A.S, 18–19. A.A; fel. Physical Soc. Elasticity; optical properties of crystals and of selenium; air resistance; crystal structure.

Siegel, Dr. Benj(amin) M(orton), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Superior, Wis, March 26, 16. B.S, Mass. Inst. Tech, 38, Ph.D, 40. Mem. faculty, Calif. Inst. Tech, 40–41; *research assoc, heat research lab, Mass. Inst. Tech, 41–* Photochemical kinetics.

Siegel, Dr. Carl L(udwig), Institute for Advanced Study, Princeton, N. J. *[7]*Mathematics.* Berlin, Germany, Dec. 31, 96. Ph.D, Göttingen, 20. Lecturer, Hamburg, 20; privatdocent, *Göttingen,* 21, guest lecturer, 30, *prof, 38–;* Frankfurt, 22–37; *mem, Inst. for Advanced Study, 40–* Rockefeller Foundation fellow, 25; visiting lecturer, Princeton and Inst. for Advanced Study, 35. Theory of function; theory of numbers.

Siegel, Dr. Morris, 5107 Tilden Road, Decatur Heights, Hyattsville, Md. *Anthropology.* Feb. 12, 06. B.S, Col. City of N. Y, 36; Ph.D, Columbia, 40. Asst, Columbia, 38–42; research fellow, Chicago, 42; instr. sociol. and anthrop, Brooklyn Col, 42; information analyst, Office Coordinator Inter-Am. Affairs, 42–43; *research analyst, Office Strategic Services, 43–* Anthrop. Asn; Ethnol. Soc; Folk-Lore Soc. Social anthropology; social theory; primitive art and religion; food economics.

Siegel, Dr. Sidney, Westinghouse Research Laboratories, East Pittsburgh, Pa. *Physics.* New York, N. Y, Jan. 10, 12. A.B, Columbia, 32, Ph.D, 36. Asst. physics, Columbia, 33–38; *research engineer, Westinghouse Research Labs, 38–* Lecturer, Pittsburgh, 39– Physical Soc. Elastic and magnetic properties of metals and alloys.

Siegel, Dr. Stanley, 7705 Eastern Ave, Takoma Park, Md. *Physics.* Waterloo, Iowa, Feb. 5, 15. B.S, Chicago, 36, M.S, 38, Ph.D, 41. Asst, Chicago, 39–40; Duke, 40–41; *assoc. physicist, Bur. Standards, 41–* X-ray crystallography.

Siegler, Dr. E(douard) H(orace), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Philadelphia, Pa, Aug. 29, 88. B.S, Pa. State Col, 11; M.S, Maryland, 29, Ph.D, 33. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 11–, senior entomologist, Beltsville, Md.* Asn. Econ. Entom; Insecticide Soc. Wash; Entom. Soc. Wash. Insecticides; control of fruit insects.

Siegler, Dr. E(ugene) A(lfred), U. S. Horticultural Field Station, Beltsville, Md. *Pathology.* Philadelphia, Pa, July 28, 91. B.S, Pa. State Col, 15, M.S, 18; Ph.D, Maryland, 34. U. S. Dept. Agr, 16–18; path, Pa. State Col, 19; *pathologist, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 20–* Soc. Plant Physiol; Phytopath. Soc; Bot. Soc. Wash; Wash. Acad. Fruit diseases; crown gall; plant propagation; rootstocks; plant anatomy; root primordia and rooting responses.

Sieglinger, John B(eardsley), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agriculture.* Newton, Kans, Aug. 24, 93. B.S, Okla. Agr. and Mech. Col, 13; M.S, Kans. State Col, 15. *Div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 15–, agronomist.* Sorghums and broomcorn; crop improvement; genetics.

Sieling, Dr. Dale Harold, Massachusetts State College, Amherst, Mass. *Soil chemistry.* McCracken, Kans, June 7, 09. B.S, Kans. State Col, 31, M.S, 32; Ph.D, Iowa State Col, 36. Instr. chem, Iowa State Col, 34–37; soil chem, Purdue, 37–38, asst. prof, 38–40; *research prof. chem, Exp. Sta, Mass. State Col, 40–; lieut, Sanit. Corps, U. S. Army, 42–* Soil Sci. Soc; Soc. Agron. Blood analysis; colorimetric iron determination; plant nutrition; influence of fertility on plant composition; base exchange capacity determination; lime requirement study of soils; anion adsorption of soils.

Sielke, Albert V(ictor), 475 Fifth Ave, New York, N. Y. *Engineering.* Mt. Vernon, N. Y, July 9, 94. C.E, Columbia, 13. Engineer, W. H. McElfatrick, N. Y, 10–12; U. S. Realty and Improv. Co, 12–14; Degnon Contracting Co, 14–17; reinforced concrete engineer, Turner Construction Co, 17–18; H. D. Best Co, 18–19; engineer and v. pres, Aljon Construction Co, 19–20; chief draftsman and designing engineer, Nugent Construction Co, 20–21; *consulting engineer, 21–* Expert engineer to comptroller, City of New York, 21–26; consulting engineer, Dept. Parks, New York, 27–33. Civil Eng; Inst. Consulting Eng; Nat. Soc. Professional Eng; N. J. Soc. Professional Eng. and Land Surveyors. Subways, dams, bridges, structures and buildings; difficult foundations and underpinning problems; railroads; valuations; improvement of West Side, New York; land reclamation.

Siems, Dr. H(erman) B, Swift and Co, Chicago, Ill. *Chemistry.* March 31, 95. B.S, Chicago, 19, Swift fellow, 21–22, Ph.D, 22. Instr. chem, Chicago, 22–24; *chief chemist, Swift and Co. Fertilizer Works, 24–* A.A; Chem. Soc. (chairman, fertilizer div); Soc. Agron; Soc. Plant Physiol; Nat. Fertilizer Asn. (chairman, plant food research cmt); Asn. South. Agr. Workers. Equilibrium between manganates and permanganates; preparation of manganates in liquid ammonia; manufacture of plant foods and of superphosphates; use of anhydrous ammonia in the manufacture of fertilizer materials; phosphate rock recovery in mining.

Siems, V(alentine) Bernard, 11 Broadway, New York, N. Y. *Engineering.* Baltimore, Md, Oct. 30, 87. B.S, Milton, 09; M.S, Washington Col. (Md), 19; Maryland, 19–22; C.E, Gettysburg Col, 23. Eng. asst, Md. Elec. Ry, 08–09; from asst. engineer to conservation and distribution engineer, Water Dept, Baltimore, 09–18, asst. water engineer, 18–23, water engineer and pres. water board, 23–26; v. pres, N. Am. Water Works Corp, 26–28; v. pres. and chief engineer, Nat. Water Works Corp, 28–31, pres. and director subsidiary companies; *pres, Siems and Woodbury Management, Utilities and Industries, V. Bernard Siems and Co, and mem. firm, Geo. H. Siems and Co, 31–* Instr, Md. Inst, 13–18; lecturer, Milton Univ, 19; mem. zoning cmn, salary and wage cmt, retirement cmn. and chairman lab. cmt, Baltimore, 23–25. Ed. advisory board, 'Water Works Eng. Magazine,' 23– Supervising and consulting engineer to construction div, U.S.A, 18–19. Civil Eng; Water Works Asn; Asn. Eng; Soc. Mil. Eng. Civil and sanitary engineering; water, gas and electric systems; organization and management of public utilities and industries.

Sieplein, Dr. O(tto) J(ulius), P. O. Box 215, Coral Gables, Fla. *Chemistry.* Cleveland, Ohio, Dec. 21, 77. B.S, Case, 99, M.S, 02; Ph.D, Bonn, 06. Instr. org. and applied chem, Case, 99–04; asst. to head dept, Bonn, 05–06; head dept. chem, Grove City Col, 06–26; Miami (Fla), 26–32; *owner manager, Paint Proving Grounds and Chem. Lab, 28–* Special investigator nat. gas, Pa. Geol. Surv, 16–17; director, Miami Sun-Ray Research, 28–38. A.A; Chem. Soc. Paint proving; sun ray values and effects.

Sievers, A(rthur) F(rederic), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* New Holstein, Wis, March 22, 85. Ph.G, Wisconsin, 05, B.S, 07. Asst. pharmaceut. chem, Wisconsin, 05–07; expert, *bur. plant indust, U. S. Dept. Agr,* 07–09, chem. biologist, 09–24, assoc. biochemist, 24–26, biochemist, 26–28, *senior biochemist, 28–* Chem. Soc; Pharmaceut. Asn. Drug and poisonous plants; plant insecticides; volatile and vegetable oils.

Sievers, Prof. C(lement) H(enry), University of Wichita, Wichita, Kans. *Psychology.* Moscow, Idaho, Jan. 18, 04. A.B, Idaho, 26; M.S, Stanford, 27; Ph.D, Iowa, 31; Chicago, 38. Asst. psychol, Iowa, 29–31; instr. educ. and psychol, East. Ill. State Teachers Col, 31–32; dean, Boise Jr. Col, 32–35; *assoc. prof. psychol. and director univ. reading clinic, Wichita, 35–* Assoc. Psychol. Asn. Remedial reading.

Sievers, F(red) J(ohn), Massachusetts State College, Amherst, Mass. *Soils.* North Milwaukee, Wis, Oct. 1, 80. B.S, Wisconsin, 10, M.S, 23. Prin, pub. schs, Wis, 04–05, high sch, 05–07; instr. soils, Wisconsin, 10–12; agronomist and supt, Milwaukee County Agr. Sch, Wis, 12–17; prof. soils and head dept, State Col. Wash, and chief div. soils, Exp. Sta, 17–28; *director grad. sch. and Exp. Sta,* Mass. Col, 28–31, *Mass. State Col, 31–* A.A; Soc. Agron. (pres, west. div, 24). Soil management; soil organic matter; effect of various external factors on the nutrition and resultant composition of the plant; water in irrigation practise.

Sievers, Dr. Rudolph F(red), National Institute of Health, U. S. Public Health Service, Washington, D. C. *Public health.* Scribner, Nebr, Jan. 4, 09. B.S, Nebraska, 32, M.D. and Ph.D, 39. Intern, Marine Hosp, Norfolk, Va, 39–40; *asst. surgeon, nat. inst. health, U. S. Pub. Health Service, 40–* A.A; fel. Am. Med. Asn. Pharmacology of local anesthetics; carbon monoxide; industrial hygiene.

Sifton, Prof. H(arold) B(oyd), University of Toronto, Toronto, Ont, Can. *Botany.* Strathroy, Ont, 89. B.A, Toronto, 14, fellow, 14–15, M.A, 15, Ph.D, 22. Seed analyst, Dept. Agr, Ottawa, 15–19; asst. prof. *bot, Toronto,* 20–28, assoc. prof, 28–41, *prof, 41–* Lecturer, Toronto, 20. A.A; Bot. Soc; Can. Inst; Royal Soc. Can. Anatomy of vascular plants; seed germination; ecology.

Sigerfoos, Prof. Charles P(eter), Arcanum, Ohio. *Zoology.* Arcanum, Ohio, May 4, 65. B.S, Ohio State, 89; Ph.D, Hopkins, 97. Instr. zool, Ohio State, 89–91; biol, Virginia, 91–92; asst. zool, Hopkins, 95–97; asst. prof. animal biol, *Minnesota,* 97–00, prof. *zool,* 00–30, *emer. prof, 30–* Instr, Cold Spring Harbor, 97–02. A.A; Soc. Nat; Soc. Zool. Shipworms.

Sigerist, Prof. Henry E(rnest), 1900 E. Monument St, Baltimore, Md. *Medicine.* Paris, France, April 7, 91. London, 11; Munich, 14; M.D, Zurich, 17; D.Litt, Witwatersrand, 39; LL.D, Queen's (Can), 41. Lecturer *hist. med,* Zurich, 21–23, prof, 24–25; Leipzig, 25–32; *prof. and director inst. hist. med, Hopkins, 32–* Karl Sudhoff medal, 33. A.A; Halle Akad. der Naturforscher; fel. Col. Physicians Madrid; cor. mem. Royal Soc. Med. Budapest; hon. mem. Greek, Rumanian and Swiss Societies Med. Hist; Int. Acad. Hist. Sci. History and sociology of medicine.

Sigley, Dr. D(aniel) T(ell), 1710 Fairchild, Manhattan, Kans. *Mathematics.* Bristol, W. Va, April 4, 08. A.B, Kansas, 27, fellow, 27–28, A.M, 28; fellow, Illinois, 31–32, Ph.D, 32. Asst. *math,* Illinois, 28–31, 32–33; instr, Univ. Kansas City, 33–38; asst. prof, *Kans. State Col,* 38–40, *assoc. prof, 40–; physicist, applied physics lab, Hopkins, 43–* Math. Soc; Math. Asn. Group theory; applied mathematics; college algebra; solid geometry and mensuration.

Sigmon, Dr. H(ugh) W(illiam), 23 Park Ave, Brevard, N. C. *Chemistry.* Newton, N. C, May 18, 05. A.B, Lenoir-Rhyne Col, 27; M.S, N. C. State Col, 28; Ph.D, Duke, 35. Chief chemist, A. M. Johnson Rayon Mills, 28–30; chemist, Liggett and Myers Tobacco Co, 30–34; N. Am. Rayon Corp, 35–39; *chief control chemist, Ecusta Paper Corp, 39–* Chem. Soc. Aliphatic sulfonic acids and cellulose.

Signalgo, Dr. Frank K(err), Shipley Road, Wyckwood, Wilmington, Del. *Chemistry.* Detroit, Mich, Dec. 1, 07. B.S, Michigan, 30; Ph.D, Wisconsin, 35. *Chemist,* research labs, Gen. Motors Corp, 30–33; *exp. sta, E. I. du Pont de Nemours and Co, 35–* Chem. Soc. Organic chemistry; hydrocarbons; pyrrole derivatives; internal combustion knocking; catalysis; hydrogenation.

Silpola, Elsa M(argareeta), 42 West St, Northampton, Mass. *Psychology.* Fitchburg, Mass, March 15, 08. A.B, Smith Col, 29, A.M, 31; Mary E. Ives scholar, Yale, 36–37, Ph.D, 39. Asst. *psychol, Smith Col,* 29–31, instr, 31–34, *asst. prof,* 34–36, *37–* Assoc. Psychol. Asn. Learning and memory; personality.

Silber, Dr. R(obert) H(oward), 12 University Circle-1, Linden, N. J. *Biological chemistry.* Hermann, Mo, April 26, 15. A.B, Washington (St. Louis), 37, Ph.D, 41. *Senior research worker, Merck Inst. Therapeut. Research, 41–* Chem. Soc. Biochemistry; physiology; amino acids; vitamins; nutrition.

Siler, Col. J(oseph) F(rankiin), U.S.A. (retired), 3434 34th Place, N.W, Washington, D. C. *Medicine.* Orion, Ala, June 8, 75. B.S, Ala. State Nor. Col, 95; M.D, Virginia, 98. Med. officer, U. S. Army, 03–39; in charge professional service div, Surgeon Gen. Office, 25–29; chief health officer, Panama Canal, 29–34; asst. commandant, med. dept, Professional Service Schs, and director, Army Med. Sch, 35–39; *retired.* Lecturer, N. Y. Post-Grad. Med. Sch, chief lab. med. zool. Thompson McFadden Pellagra Cmn. Pres, Army Med. Research Board, 23–25; director, Gorgas Mem. Inst, pres, 42–43. A.A; fel. Col. Physicians; Col. Surg; Soc. Trop. Med. (pres, 25); Asn. Study Pellagra (v. pres, 12–15, pres, 15); Asn. Mil. Surg; Acad. Trop. Med. (pres, 39); Wash. Acad. Med. (pres, 42, 43). Pellagra; sanitation; hygiene; transmission of dengue fever; prevention of typhoid.

Siler, Dr. Kenneth A(ndrew), 5704 R, Little Rock, Ark. *Pharmacology, Physiology.* Van Wert Co, Ohio, Feb. 14, 05. A.B, Cincinnati, 30; A.M, Wisconsin, 32, Ph.D, 35. Asst. instr. zool, Cincinnati, 28–30; Wisconsin, 30–32; instr. physiol, Kansas, 34–38; *asst. prof. physiol. and pharmacol, sch. med, Arkansas, 38–* Cardio-vascular physiology.

Silker, Dr. Ralph E(dward), 1425 Humboldt St, Manhattan, Kans. *Chemistry.* Epworth, Iowa, June 26, 05. A.B, Dubuque, 27; M.S, Iowa, 31, Ph.D, 34. Asst. chem, Iowa, 31–34; prof. and head dept, Doane Col, 34–37; prof, Nebr. State Teachers Col, 37–41; instr. *org. chem, Kans. State Col,* 41–43, *asst. prof, 43–* Chem. Soc. The replacement of halogen by the nitro radical in certain phenolic compounds; behavior of polyhalogenated phenols toward nitrating agents; nitration of acyl derivatives of 4, 5-dibromo- and 4, 5, 6-tribromoguaiacol.

Siller, Dr. C(harles) W(illiam), 234 Lafayette Ave, Palmerton, Pa. *Physical chemistry.* Mount Joy, Pa, Aug. 29, 07. B.S. Franklin and Marshall Col, 31; M.S, Pa. State Col, 34, Ph.D, 39. Asst, Pa. State Col, 31–35; *research investigator, N. J. Zinc Co, 36–* Chem. Soc; Eng. Club Lehigh Valley. Alloy systems; pigments; catalysis; low temperature calorimetry.

Silsbee, Dr. Francis B(riggs), National Bureau of Standards, Washington, D. C. *Physics.* Lawrence, Mass, July 8, 89. B.S, Mass. Inst. Tech, 10, M.S, 11; Ph.D, Harvard, 15. From asst. physicist to *chief elec. instruments sect, Bur. Standards, 12–* A.A; fel. Physical Soc; Elec. Eng; Philos. Soc. Wash. (pres, 36); Wash. Acad. (cor. sec'y, 22–26, v. pres, 36). Electrical measurements; ignition; superconductivity.

Silver, A(rthur) E(lmer), Ebasco Services, Inc, 2 Rector St, New York, N. Y. *Electrical engineering.* Dexter, Maine, Aug. 14, 79. B.S, Maine, 02. Expert elec. course, Gen. Elec. Co, 02–04; in charge meter dept, Raleigh Elec. Co, and elec. supt. and chief engineer, Carolina Power and Light Co, Raleigh, N. C, 04–10; elec. engineer, Elec. Bond and Share Co. *and consulting elec. engineer, Ebasco Services, Inc, 10–* Award, Am. Inst. Elec. Eng, 32. A.A; fel. Elec. Eng; Edison Elec. Inst. Electrical power system engineering; high voltage transmission and substation problems; electric power transmission and distribution.

Silver, Dr. Bernard E(uric), 476 Clinton Ave, Brooklyn, N. Y. *Biochemistry.* New York, N. Y, May 8, 05. B.S, Ford-

ham, 29, Ph.D, 35; A.M, Columbia, 30. Research chemist, Texas Co, 31–32; instr. org. chem, Fordham, 34–35; teacher chem, high schs, New York, 35–36, 38–39; research chemist, Hiram Walker and Sons, Inc, 37; *chairman food science dept, Food Trades Vocational High Sch, New York, 39–* Inst. Food Technol. Nutrition; metabolism of amino acids; pyrimidines and purines; food analysis.

Silver, James, 55 Maddox Drive, N.E, Atlanta, Ga. *Biology.* Kansas City, Mo, March 9, 90. Colo. Sch. Agr, 12. Asst. biol, bur. biol. surv, U. S. Dept. Agr, 13–36, *biologist and regional director,* 36–41, *fish and wildlife service, U. S. Dept. Interior, 41–* Wildlife Soc; Soc. Mammal. Economic mammalogy; game management; control of injurious species of mammals.

Silver, Prof. S(amuel), University of Oklahoma, Norman, Okla. *Physics.* Philadelphia, Pa, Feb. 25, 15. A.B, Temple, 35, A.M, 37; fellow, Mass. Inst. Tech, 39–40, Ph.D, 40. Teaching fellow *physics,* Temple, 35–37; Mass. Inst. Tech, 38–39; asst, Ohio State, 40–41; instr, *Oklahoma,* 41–42, *asst. prof, 42–* Summer, instr, exten. div, Pa. State Col, 41. Physical Soc; Asn. Physics Teachers. Theoretical physics; molecular structure.

Silver, Dr. Samuel L(ewis), 296 Broadway, Passaic, N. J. *Chemistry.* Leeds, Eng, Jan. 23, 11. Ch.B, Pittsburgh, 30, Ph.D, 34. Asst. director, Gray Indust. Labs, Newark, 34–35; chemist, Zemmer Co, Pittsburgh, 35–41; gen. manager, Pro-Medico Labs, 41–42; *chief chemist, Purity Drug, 42–* Pharmaceut. Asn; Chem. Soc. Pharmaceutical analysis; pharmaceutical production problems.

Silverman, Prof. Alexander, 1514 Denniston Ave, Pittsburgh, Pa. *Chemistry.* Pittsburgh, Pa, May 2, 81. Ph.B, Pittsburgh, 02, M.S, 07, hon. Sc.D, 30; A.B, Cornell, 05; hon. Sc.D, Alfred, 36. Chemist, Macbeth-Evans Glass Co. 02–04; instr. *inorg. chem, Pittsburgh,* 05–09, asst. prof, 09–12, *prof, 12–, head dept. chem, 18–* Consultant on glass, office production research and develop, War Production Board, 43–Div. chem. and chem. technol, Nat. Research Council, 38–41. Pittsburgh award, Am. Chem. Soc, 40. Del, Int. Union Chem, Liége, 30, Lucerne, 36; Int. Cong. and Int. Union, Madrid, 34, Rome, 38. A.A; Chem. Soc; fel. Inst. Chem; Electrochem. Soc; fel. Ceramic Soc. (v. pres, 31, trustee, 32); Pa. Acad; Chemists' Club; fel. British Soc. Glass Technol. Technology and manufacture of glass; microscope illumination.

Silverman, Dr. Daniel, Box 591, Tulsa, Okla. *Geophysics, Electrical engineering.* Montreal, Que, Can, June 24, 05. B.S, California, 27, 28–29; M.S, Mass. Inst. Tech, 29, Sc.D, 30. Asst, California, 27–28, Heller traveling fellow, 28–30; research engineer, Westinghouse Elec. and Mfg. Co, 30–34; research and develop. engineer, Arma Eng. Co, 34–36; asst. prof. mech. eng, California, 36–37; *supervisor joint geophys. lab, West. Geophys. Co. and Stanolind Oil and Gas Co, 37–* Min. and Metal. Eng; Soc. Explor. Geophys; Geophys. Union; Asn. Petrol. Geol; Acoustical Soc; Radio Eng; Seismol. Soc; Elec. Eng. Heat power, vibration and acoustical engineering; rectifier circuits and gaseous conduction phenomena in the mercury arc rectifier; welding arc phenomena; scientific instruments.

Silverman, Prof. L(ouis) L(azarus), Dartmouth College, Hanover, N. H. *Mathematics.* Suvalk, Russia, April 21, 84. A.B, Harvard, 05, A.M, 07; Ph.D, Missouri, 10. Instr. math, Missouri, 07–09; Cornell, 09–17; with Gen. Elec. Co, 17–18; asst. prof. *math, Dartmouth Col,* 18–24, *prof, 24–* Math. Soc; Math. Asn; Moscow Math. Soc. Divergent series.

Silverman, Dr. M(ilton), University of Chicago, Chicago, Ill. *Biochemistry.* Boston, Mass, April 6, 13. B.S, Mass. State Col, 37; Ph.D, Iowa State Col, 41. Bacterial chemist, Franklin Serum Co, 40–41; *research assoc. biochem, Chicago, 41–* Soc. Bact; Asn. Sci. Workers. Microbial metabolism.

Silverman, Dr. S(hirleigh), 6701 Apt. 1E, Park Heights Ave, Baltimore, Md. *Physics.* Baltimore, Md, Jan. 12, 07. A.B, Hopkins, 27, Ph.D, 30. Instr. physics and math, Hopkins, 28–34; research physicist, rayon dept, E. I. du Pont de Nemours and Co, 34–43; *research supervisor sect. T, Office Sci. Research and Develop, 43–* A.A; Physical Soc; Optical Soc. Adsorption on crystals; infra-red spectra of solids; influence of Brownian motion on measurements; radiometric technique; optical methods of chemical analysis; elastic properties of plastics; physical applications to organic chemistry.

Silvette, Dr. Herbert, Box 1353, University, Va. *Pharmacology.* McKee's Rocks, Pa, Dec. 23, 07. Porter fellow, Virginia, 30–32, B.S, M.S, 32, Ph.D, 34. Instr. biochem, *Virginia,* 28–30, asst. physiol, 30–34, instr, 34–38, *asst. prof. pharmacol, 38–* Soc. Pharmacol; Physiol. Soc. Pharmacology of the kidneys; hormones; barbiturates; medical history and bibliography.

Silvey, Prof. J. K. G(wynn), North Texas State Teachers College, Denton, Texas. *Zoology.* Clarendon, Texas, March 31, 07. B.S, South. Methodist, 27; A.M, Michigan, 29, Ph.D, 32. Instr. biol, South. Methodist, 28–29; zool, Michigan, 29–32; prof. *biol,* McMurry Col. (Texas), 32–35; assoc. prof. and later *prof, N. Texas State Teachers Col, 35–* Mem. cmt. density currents, div. geol. and geog, Nat. Research Council, 38– Ecol. Soc; Entom. Soc. Amer; Limnol. Soc; Mich. Acad; Texas Acad. Limnology; limnological features of large reservoir lakes.

Silvey, Prof. O(scar) W(illiam), Agricultural and Mechanical College of Texas, College Station, Texas. *Physics.* Fishers, Ind, April 3, 80. A.B, Indiana, 07, A.M, 10; Ph.D, Chicago, 15. Instr. *physics,* Purdue, 08–14, asst. prof, 15–16; *prof, Agr. and Mech. Col. Texas, 16–* A.A; Physical Soc; Optical Soc; Eng. Educ; Asn. Physics Teachers. Point discharge in electrostatic and magnetic fields; fall of a droplet in a gas and in a liquid.

Simanton, Dr. W(illiam) A(ldrich), Gulf Research and Development Corp, Pittsburgh, Pa. *Entomology.* Fargo, N. Dak, Feb. 17, 11. B.S, Mich. State Col, 31; fellow, Iowa State Col, 31–32, M.S, 32, Ph.D, 35. Instr, Iowa State Col, 33–34; *entomologist, Gulf Research and Develop. Corp, 34–* Asn. Econ. Entom; Entom. Soc. Amer. Toxicology; commercial insecticides; external parasites of domestic animals; pyrethrum culture.

Simard, Dr. Gerald L(ionel), 505 King Ave, Columbus, Ohio. *Physical chemistry.* Lewiston, Maine, May 11, 12. B.S, Bates Col, 33; Ph.D, Mass. Inst. Tech, 37. Research chemist, Atlantic Ref. Co, 37–38; research assoc, *Battelle Mem. Inst,* 38–39, *research engineer, 39–* Chem. Soc. Structure of matter; thermodynamics; lubrication; physics and chemistry of surfaces.

Simard, Dr. Roger G(érard), 612 Old Gulph Road, Penn Valley, Pa. *Physical chemistry.* Lewiston, Maine, Feb. 3, 09. B.S, Mass. Inst. Tech, 31, Ph.D, 35. *Senior physicist, research and develop. dept, Atlantic Ref. Co.* Ultraviolet absorption spectroscopy; separation of isotopes of hydrogen; fundamental investigations of friction and wear; infra-red and Raman spectroscopy.

Sime, Palmer R(udolph), 2427 26th, Lubbock, Texas. *Wildlife.* Northwood, Iowa, Oct. 19, 10. B.S, Luther Col, 34; M.S, Michigan, 36; N. Dak. State Col. Asst, Conn. State Col, 36–38; game manager, State Game, Fish and Oyster Cmn, Texas, 38–39; junior biologist, *soil conservation service, U. S. Dept. Agr,* 39–40, asst. biologist, 40–41, *assoc. biologist, 41–* Wildlife Soc; assoc. Soc. Mammal; Wilson Ornith. Club. (membership cmt). Home and seasonal ranges of the eastern cottontail in Connecticut; internal parasites of cottontail rabbits in Connecticut; feeding habits of the eastern and New England cottontail; barbed wire conserves soil and wildlife.

Simeone, Dr. F(lorindo) A(nthony), Massachusetts General Hospital, Boston, Mass. *Physiology, Surgery.* St. Ambrose, Italy, Jan. 20, 08. A.B, Brown, 29, M.S, 30; M.D, Harvard, 34. Surg. house officer, Mass. Gen. Hosp, 34–36; nat. research fellow and teaching fellow physiol, *Harvard Med. Sch,* 36–38, asst. surg, 38–40, *genito-urinary surg,* 40, instr, 40–41, *assoc, 41–; fifth gen. hosp, Med. Corps, U. S. Army, 42–, major.* Fellow, Peter Bent Brigham Hosp, 40–41; asst, Mass. Gen. Hosp, 41– Physiology of reproduction; physiology of the autonomic nervous system, smooth muscle and the urinary bladder.

Simer, Prof. Parke H(arvey), University of Illinois College of Medicine, Chicago, Ill. *Anatomy.* Towanda, Ill, Oct. 16, 97. B.E, Ill. State Nor. Univ, 24; A.M, Illinois, 26, Ph.D, 28. Prof. biol, Ill. Wesleyan, 28–30; instr. *anat, col. med, Illinois,* 30–33, assoc, 33–36, asst. prof, 36–41, *assoc. prof, 41–* Summers, instr, Ill. State Nor. Univ, 24–26, 28–30; asst, Illinois, 24–28. Asn. Anat; Micros. Soc. Parasitology; omental lymphatics and adhesions; drainage from peritoneal cavity.

Simerl, Major L(inton) E(arl), 3055 Albion St, Denver, Colo. *Chemistry.* Chillicothe, Ohio, Dec. 2, 11. B.Ch.E, Ohio State, 35; M.S, Lawrence Col, 37, Ph.D, 39. Mem. develop. dept. Mead Corp, 39–41; *Chem. Warfare Service, U. S. Army, Edgewood Arsenal and Rocky Mountain Arsenal,*

41–, major. Photocolorimetric determination of starch in paper; coloring matter of sulphite liquor.

Simha, Prof. R(obert), Howard University, Washington, D. C. *Physical chemistry.* Vienna, Austria, Aug. 4, 12. Ph.D, Vienna, 35. Research assoc, Vienna, 35–38; visiting fellow, Columbia, 39–40, research assoc, 40–41; instr. *chem,* Polytech. Inst. Brooklyn, 41–42; *asst. prof, Howard, 42–* Faculty fellow, Columbia, 39–40; lecturer, grad. div, Brooklyn Col, 40–42; Polytech. Inst. Brooklyn, 41–42; consulting chemist. Lalor Foundation award, 40. A.A; Chem. Soc; Soc. Rheol; N. Y. Acad; Chem-Physikalische Gesell, Vienna. Hydrodynamics; viscosity of gases, liquids and solutions; kinetics of polymerization and degradation reactions of high molecular weight substances; mechanical properties and structure of high polymers.

Simington, Dr. Robert M, 102 Blue Rock Road, Wilmington, Del. *Chemistry, Bacteriology.* Longmont, Colo, Nov. 22, 02. B.S, Oregon State Col, 24; M.S, Wisconsin, 25, du Pont fellow, 26–27, Ph.D, 27. Asst. instr, Wisconsin, 24–26; research chemist, *E. I. du Pont de Nemours and Co,* 27–38, *manager cyanide products, 38–* Organic synthesis and catalysis.

Siminovitch, Dr. David, University Farm, St. Paul, Minn. *Plant physiology, Biochemistry.* Montreal, Que, Can, May 29, 16. B.Sc, McGill, 36, M.Sc, 37, Nat. Research Council Can. bursar, 37–38, student, 38–39, Ph.D, 39. Asst. gen. physiol. and bot, McGill, 39–40; *Royal Soc. Can. research fellow, Minnesota, 41–* A.A; Chem. Soc. Plant cell physiology; frost-hardiness; plant proteins.

Simkins, Prof. C(leveland) S(ylvester), Creighton University School of Medicine, Omaha, Nebr. *Anatomy, Embryology.* Salem, Oregon, Jan. 2, 89. A.B, Oregon, 16; fellow, Bermuda, 19; Ph.D, Harvard, 21. Austin teaching fellow, Harvard, 19–20; instr. zool, West Virginia, 20–21; asst. prof. histol, Tennessee, 21–23, assoc. prof. embryol. and anat, 23–37; *anat, sch. med, Creighton,* 38–39, *prof. and head dept, 39–* Marine Biol. Lab, Woods Hole, 20; Marine Biol. Lab, Bermuda, 22. A.A; Asn. Anat. Migration and extraregional origin of primordial germ cells; origin of the pigment and germ cells in Ectirnascidia; migration of the germ cells of Trionyx; human embryology; germ cells of Calotes; human hermaphroditism; effect of pituitary hormones on gestation in the rat; history of the human teeth; the human ovary.

Simley, Prof. O(le) A(ndrew), University of Arizona, Tucson, Ariz. *Psychology.* Black Earth, Wis. A.B, Carleton Col, 19, A.M, 20; fellow, Wisconsin, 30–31, Ph.D, 31. Asst. *psychol,* Wisconsin, 21–24, 26–27; asst. prof, Oberlin Col, 24–26; assoc. prof. and *prof, Arizona, 27–* Summers, instr, Iowa State Teachers Col, 24, 25. Assoc. Psychol. Asn. Student guidance.

Simmonds, Dr. Nina, 1355 Willard St, San Francisco 17, Calif. *Nutrition.* Albany, Wis, Aug. 11, 93. B.S, Wisconsin, 15; A.M, Hopkins, 22, Sc.D, 24. Asst. agr. chem, Wisconsin, 15–17; from asst. to assoc. prof. biochem, sch. hygiene and pub. health, Hopkins, 17–28; research assoc, *col. dentistry, California,* 34–37, *lecturer nutrition, 37–* Lecturer, med. sch, California, 34– A.A; Pub. Health Asn; Home Econ. Asn. Nutrition and its relation to dental, medical and public health problems; dental caries; orthodontia; paradentosis.

Simmonds, Dr. P(rye) M(orton), Dominion Laboratory of Plant Pathology, Saskatoon, Sask, Can. *Plant pathology.* Parrsboro, N. S, March, 97. B.S.A, McGill, 21; M.S, Wisconsin, 25, Ph.D, 28. Asst. plant pathologist, *Dom. lab. plant path, Can. Dept. Agr, Saskatoon,* 21–23, plant pathologist, 23–28, *senior plant pathologist in charge, 28–* Plant disease inspector, Can. Dept. Agr, 20, 21. A.A; Phytopath. Soc; Can. Soc. Tech. Agr; Can. Soc. Phytopath. Diseases of cereals.

Simmons, Prof. C(harles) W(ellington), Lehigh University, Bethlehem, Pa. *Chemical engineering.* Kingston, Ont, Can, Sept. 28, 97. B.Sc, Queen's (Can), 20; Byllesby fellow, Lehigh, 26–28, M.S, 28. British Chem. Co, Trenton, Ont, 14–18; Deloro research labs, M. J. O'Brien, Ltd, 20–26; from instr. to *prof. chem. eng, Lehigh, 28–; consulting chem. engineer.* C.E.F, 14–18. Chem. Eng; Chem. Soc. (chairman, Lehigh Valley sect, 37); fel. Can. Inst. Chem. Absorption; drying oils, varnishes and resins.

Simmons, Prof. Geo(rge) Finlay, Loyola University, Chicago, Ill. *Zoology.* Sherman, Texas, Oct. 25, 95. Rice Inst, 15–16; A.B, Texas, 21, A.M, 22; Ph.D, Chicago, 34. Asst. biol, Rice Inst, 15–16; sec'y police, Houston, 16–17; asst. gen. zool. and comp. anat, Texas, 19–21, instr. zool, 21–22; naturalist, State Game, Fish and Oyster Cmn, Texas, 21–23, chief deputy commissioner, 23; curator ornith, Cleveland Museum Nat. Hist, 26–29; lecturer biol, Cleveland Col, Western Reserve, 26–31; research zool, Hull labs, Chicago, 31–34; asst. prof, Montana, 34–36, prof. zool. and pres, 36–43; *asst. prof. anat, sch. med, Loyola (Ill), 43–* Nat. lecturer, Alber and affiliated bureaus, 28–31. Asst. ed. and ed. in chief, 'Longhorn Magazine,' Texas, 19–22. Leader, Blossom South Atlantic exped, Cleveland Museum Nat. Hist, 23–26. Soc. Mammal; Soc. Ichthyol. and Herp; Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club; Ohio Acad; Biol. Soc. Wash. Evolution; experimental physiology of reproduction; mechanism of reproductive periodicity; ornithology of Texas, northwestern Africa and Atlantic islands.

Simmons, Prof. H(arvey) A(lexander), 3312 Dartmouth Place, Evanston, Ill. *Mathematics.* Gates, Tenn, Sept. 26, 94. B.S, Chicago, 19, M.S, 22, Ph.D, 25. Instr. *math,* Ga. Tech, 19–20; Michigan, 20–23; asst. prof, Pittsburgh, 23–24; *Northwestern,* 25–28, *assoc. prof, 28–* Asst, Chicago, 23–24. Book rev. ed, 'Nat. Math. Mag.' Math. Soc; Math. Asn. Calculus of variations; diophantine analysis; inequalities; plane trigonometry.

Simmons, Pres. H(ezzleton) E(rastus), 331 Beechwood Drive, Akron, Ohio. *Chemistry.* Lafayette, Ohio, Oct. 30, 85. B.S, Buchtel Col, 08; M.S, Pennsylvania, 12; Sc.D, Col. of Wooster, 34; LL.D, Toledo, 37. Asst. chem, Buchtel Col, 06–08; instr. qualitative anal, Pennsylvania, 08–10; prof. chem, *Akron,* 10–33, *pres, 33–* Chem. Soc; Deuts. Chem. Gesell. (sec'y-treas, rubber div, 26–34). Rubber technology.

Simmons, Brig. Gen. James S(tevens), Office of the Surgeon General, Washington, D. C. **7Pathology, Bacteriology, Medicine.* Newton, N. C, June 7, 90. B.S, Davidson Col, 11, hon. Sc.D, 37; North Carolina, 11–13; M.D, Pennsylvania, 15; grad, Army Med. Sch, 17; Ph.D, George Washington, 34; D.P.H, Harvard, 39; hon. Sc.D, Duke, 42. Instr. biol, Davidson Col, 09–11, English, 11; embryol, histol. and path, North Carolina, 12–13; res. physician, Univ. Hosp, Pennsylvania, 15–16, bacteriologist, Wm. Pepper Lab, 16–17; chief various army corps areas and hosp. labs, Med. Corps, U. S. Army, 17–24; chief div. bacter. and asst. director and director labs, Army Med. Sch, 24–28, 30–34; director dept. prev. med, Army Med, Dental and Vet. Schs, 34–36; asst. to corps area surgeon, *U. S. Army,* Boston, 36–40, *chief div. prev. med, Office of Surgeon Gen, 40–* Visiting lecturer, med. sch, Hopkins, 41–; lecturer, Yale, 43; professorial lecturer, George Washington, 43. Mem. health cmt. and chairman subcmt. trop. diseases, Lehman Cmn. Acting ed, 'Abstracts of Bacter,' 24–26; ed. sect. med. bacter. and med. microbiol, 'Biol. Abstracts,' 26–; assoc. ed, div. med. research, 'Philippine Jour. Science,' 28–30; for. collaborator, 'Revista de Parasitol,' Clin. y Lab, Cuba, 36. Mem. cmt. inter-Am. cultural Relations, U. S. State Dept, 41. Cmt. med. research, Office Sci. Research and Develop, 41; div. med. sciences, Nat. Research Council, 41. Pres, Army Med. Research Board, Manila, P. I, 28–30; director, Philippine Research Inst, 29–30; Board for Control Leprosy, P. I, 30; Army mem, Nat. Board Med. Examiners, 33–34; Nat. Malaria Cmt, 36, pres, 42; mem. exec. board, typhus cmt, U. S. Army, 43. Del, Eighth Pan Am. Sci. Cong. Organizer and commander overseas stationary lab. No. 6, Yale Army Lab. sch, 18; pres, Army Med. Research Board, Ancon, C. Z, 34. Col, M.C. A.A; Soc. Bact. (v. pres. and pres, D. C. branch, 31–33); Soc. Trop. Med; Acad. Trop. Med; Soc. Exp. Biol; Soc. Exp. Path; Asn. Path. and Bact; fel. Am. Med. Asn; fel. Col. Physicians; Pub. Health Asn. (board study typhoid vaccine, 34); Asn. Mil. Surg; Am. Physicians; Wash. Acad; Med. Asn. Isthmus Canal Zone (sec'y, 34, v. pres. and pres, 36). Medical bacteriology; preventive and tropical medicine; malaria; dengue fever; insect transmission of virus and protozoan diseases.

Simmons, Prof. J(ohn) P(aul), New York University, New York, N. Y. *Chemistry.* Yonkers, N. Y, Oct. 12, 80. B.S, N. Y. Univ, 04, Sc.D, 10. Instr. *chem, N. Y. Univ,* 07–10, asst. prof, 10–17, assoc. prof, 17–27, *prof. and director, Nichols chem. bldg, 27–; prof. chem, Webb Inst. Naval Archit.* Chem. Soc. Lithium compounds.

Simmons, Prof. J(oseph) E, 234 N. 30th St, Corvallis, Oregon. *Bacteriology.* Hazel Green, Wis, May 11, 91. B.S, Wisconsin, 16, M.S, 17; Bowman fellow, Rockefeller Inst, 18. Instr, Wisconsin, 16–17; *bacter, Oregon State Col,* 19–20, asst. prof, 20–27, assoc. prof, 27–38, *prof, 38–,* assoc. bacteriologist,

Exp. Sta, 27–38, bacteriologist, 38– Lieut, U.S.A, 18–19. Bacteriology of milk; methods in analyzing milk; food spoilage.

Simmons, Dr. Norwood L(ee), Jr, Eastman Kodak Co, 6706 Santa Monica Blvd, Hollywood, Calif. *Physical chemistry.* Washington, N. C, Sept. 22, 12. B.S, North Carolina, 33, Ph.D, 37; M.S, Calif. Inst. Tech, 35. Teaching fellow chem, Calif. Inst. Tech, 33–34; North Carolina, 34–37; *research chemist, Eastman Kodak Co, 37–* Soc. Motion Picture Eng. Photochemistry of gases; electrochemistry of solutions; phase rule; viscosity of gases.

Simmons, Orlen W(illiam), 1748 Kenny Road, Columbus, Ohio. *Metallurgy.* Ilion, N. Y, Feb. 10, 11. B.S, Michigan, 35. Apprentice metallurgist, Carnegie-Ill. Steel Co, 36; heat-treat inspector, Packard Motor Car Co, 36–40; instr. chem. eng, Rose Polytech. Inst, 40–42; *research engineer, Battelle Mem. Inst, 42–* Chem. Soc; Chem. Eng; Soc. Metals. Gray and malleable cast iron.

Simmons, Perez, 712 Elizabeth St, Fresno, Calif. *Economic entomology.* Boston, Mass, June 4, 92. B.S, Mass. Col, 16; grad. sch, U. S. Dept. Agr, 23–25; George Washington, 25–27. Deputy nursery inspector, State Board Agr, Mass, 16–17, 19; collaborator, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 17, stored product insect investigations, 19–33, *fruit insect investigations, 34–* Agent, bur. plant indust, U. S. Dept. Agr. and State Board Agr, Mass, 17. A.A; Entom. Soc. Amer; Asn. Econ. Entom. (v. chairman, Pacific Slope branch, 30). Bean weevils; insect pests of cured meats; Angoumois grain moth; dried fruit insects; fig insects.

Simmons, R(aymond) S(amuel), Keystone Steel and Wire Co, Peoria, Ill. *Metallurgy.* Boston, Mass, Aug. 15, 89. A.B, Harvard, 13, Met.E, 15. Metallurgist, Ill. Steel Co, 13–19; *chief metallurgist,* Pittsburgh Steel Co, 19–35; *Keystone Steel and Wire Co, 35–* Soc. Metals; Soc. Test. Mat.

Simmons, Dr. Samuel J(ames), 76 Hillside Road, Watertown, Mass. *Physics.* Pittsburgh, Pa, March 24, 10. A.B, Ohio State, 31, M.S, 32; Ph.D, California, 39. Asst, radiation lab, California, 37–39; *Buhl Foundation grant senior research fellow physics, Pittsburgh, 39–; mem. dept. elec. eng, Mass. Inst. Tech, 40–* A.A; Physical Soc. Proton scattering in hydrogen; spectroscopy; nuclear physics; biological tracers.

Simmons, Dr. Samuel W(illiam), U. S. Department of Agriculture, Panama City, Fla. *Medical entomology.* Benton Co, Miss, June 5, 07. B.S, Miss. Agr. and Mech. Col, 31; A.M, George Washington, 34; U. S. Dept. Agr. Grad. Sch, 35; Ph.D, Iowa State Col, 38. Field asst, bur. entom, U. S. Dept. Agr, 28; asst. zool. and entom, Miss. Agr. and Mech. Col, 29–31; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–35, asst. entomologist, 35–42, assoc. entomologist, 42, *entomologist, 42–; collaborating entomologist, U. S. Pub. Health Service, 43–* Part-time asst. inspector, state plant board, Miss, 30–31. Entom. Soc. Amer; Asn. Econ. Entom. Bacteriology.

Simms, Dr. B(ennett) T(homas), U. S. Department of Agriculture, Auburn, Ala. *Veterinary medicine.* Ramsey, Ala, Jan. 26, 88. D.V.M, Ala. Polytech, 11; Chicago and Rush, 12–14, 16. Instr. physiol, N. C. State Col, 11–13; prof. vet. med, Oregon State Col, 13–38; *director regional lab. animal disease research, bur. animal indust, U. S. Dept. Agr, 38–* A.A; Vet. Med. Asn. Parasitic diseases of domestic animals; Johne's disease.

Simms, Prof. Henry S(wain), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* South Manchester, Conn, May 26, 96. Maine, 14–16, 17–18; B.S, Mass. Inst. Tech, 20; Ph.D, Columbia, 22. Fellow, asst. and assoc. chem, Rockefeller Inst, New York, 20–26, div. animal path, Princeton, N. J, 26–31; biochem, Calif. Inst. Tech, 31–32; research assoc. and *asst. prof. biochem, dept. path, col. physicians and surg, Columbia, 32–* Pres. and trustee, Med. Mem. Fund. A.A; Chem. Soc; Harvey Soc; Club for Research on Ageing. Lipoids; enzymes; weak electrolytes; protein ionization; lactenin; milk secretion; tissue cultures; adult arteries in vitro; arteriosclerosis; process of aging; wound healing.

Simms, Prof. J(ohn) C(olbert), North Georgia College, Dahlonega, Ga. *Physical chemistry.* Rose Hill, Miss, Nov. 4, 03. B.S, Millsaps Col, 24; M.S, Vanderbilt, 28; Ph.D, Western Reserve, 32. Instr. *chem,* Tulane, 29–30; Western Reserve, 30–32; *prof,* Lambuth Col, 32–37; *N. Ga. Junior Col, 37–* Tenn. Acad. Rate of diffusion on nickel into iron; conductivity of various salts in isopropyl alcohol.

Simon, Dr. Arthur, 2129 N. 53rd St, Milwaukee, Wis. *Electrophysics.* Ebersheim, Germany, May 21, 81. E.E, Tech. Univ, Darmstadt, Germany, 02; hon. Sc.D, Marquette, 34. Develop. and research engineer, *Cutler-Hammer, Inc,* 03–25, *eng. and patent consultant, 25–;* consulting invention engineer, 20–38, *patent attorney, 38–* A.A; fel. Elec. Eng; Mech. Eng; Am. Acad. Polit. and Social Sci; Wis. Acad; Eng. Soc. Milwaukee (past pres). Electromechanics; control of electrical energy; electrical and mechanical inventions.

Simon, Prof. Clarence T(urkle), Northwestern University, Evanston, Ill. *Psychology.* Newton, Iowa, May 13, 97. A.B, Wittenberg Col, 19; A.M, Northwestern, 22; Ph.D, Iowa, 25. Instr, *Northwestern,* 20–23, *prof.* psychol. of speech, sch. speech, 25–29, *speech therapy and director speech clinic, 29–,* asst. dean sch. speech, 37–42. Assoc. ed, 'Jour. Speech Educ,' 28–32; ed, 'Speech Monographs,' 33–42. A.A; Speech Correction Asn. (v. pres, 38–40); Psychol. Asn; Nat. Asn. Teachers Speech (pres, 31). Speech pathology; psychology of sound; phonology.

Simon, J(ames) R(obert), 3204 McComb Ave, Cheyenne, Wyo. *Zoology.* North Platte, Nebr, Feb. 13, 08. A.B, Wyoming, 31, A.M, 33. Instr. zool, Wyoming, 36–37; junior aquatic biologist, U. S. Bur. Fisheries, 37–38; *state fish commissioner, Wyo, 38–* Summers, field investigator, U. S. Bur. Fisheries, 34; ranger naturalist, U. S. Park Service, 36. Taxonomy of fish parasites; taxonomy of fishes; life history of fishes.

Simon, Col. Leslie E(arl), Ballistic Research Laboratory, Aberdeen Proving Ground, Md. *Ballistics, Ordnance engineering.* Memphis, Tenn, Aug. 11, 00. B.S, U. S. Mil. Acad, 24, Mass. Inst. Tech, 29. Mem, U. S. Coast Artil, 24–27; ordnance property officer, Field Artil. Sch, 29–33; chief metal shops, Picatinny Arsenal, 33; asst. chief mfg, 34–36, planning div, 34–36, officer in charge mfg. quality control, 36–37; asst. director, *Ballistic Research Lab, Aberdeen Proving Ground,* 37–40, *director, 40–* Lecturer, Ordnance Sch, 37–39; Navy Post Grad. Sch, 39; instr, grad. sch, U. S. Dept. Agr, 41–42; War Dept. rep, Am. Standards Asn, 41– Fel. Inst. Math. Statist; Statist. Asn; Standards Asn. (emergency tech. cmt, 41–). Quality control in manufacture; statistical methods for economical inspection techniques and procurement specifications; proof-testing and surveillance of munitions; exterior ballistics of projectiles launched from aircraft; engineering of guns and mechanisms.

Simon, Dr. Morris A, 4855 Queen Mary Road, Montreal, Que, Can. *Pathology.* Cleveland, Ohio, Sept. 1, 03. A.B, Western Reserve, 25, Crile fellow, 28, M.D, 31. Asst, Cushing Lab. Exp. Med, 30; clin. intern, Cleveland City Hosp, 31–32, res. pathologist, 33–34; asst. res. pathologist, Inst. Path, 32–33, res. pathologist, 34–36; pathologist, Lutheran Hosp, 36–38; E. E. Wolf traveling fellow, 38; *pathologist and director labs, Jewish Gen. Hosp, Montreal, 38–* Senior instr, Western Reserve; demonstrator, McGill. Asn. Path. and Bact; Soc. Exp. Biol. Experimental amyloidosis; pulmonary hypertension; renal rickets.

Simon, Dr. S(idney) L(ash), University of Chicago, Chicago, Ill. *Physical chemistry.* Chicago, Ill, April 10, 13. B.S, Chicago, 35, Ph.D, 39. Asst. chem, *Chicago,* 37–39, infrared analysis, Fels Foundation, 40–41, *research asst. chem, 41–* Chem. Soc. Nuclear physics; cyclotron; infra-red gas analysis.

Simon, Dr. Webster G(odman), Western Reserve University, Cleveland, Ohio. *Mathematics.* Cincinnati, Ohio, Oct. 3, 92. A.B, Harvard, 14, A.M, 15; Ph.D, Chicago, 18. Instr. *math, Western Reserve,* 18–20, asst. prof, 20–24, assoc. prof, 24–26, *prof, 26–, dean faculties arts and sciences, grad. sch. and Adelbert and Mather cols, 36–, v. pres, univ, 40–* A.A; Math. Soc; Math. Asn. Differential equations in infinitely many variables; theory of functions.

Simonds, Dr. Austin O(nell), Colorado State College, Ft. Collins, Colo. *Plant morphology.* Rock Port, Mo, Nov. 22, 01. A.B, Mo. Wesleyan Col, 25; fellow, Iowa State Col, 26–27, 30–32, M.S, 27, Ph.D, 32. Instr. biol, Heidelberg Col. (Ohio), 27–30; exten. div, Iowa State Col, 32–33; *asst. prof. bot, Colo. State Col, 34–* Iowa Acad; Colo-Wyo. Acad. Histological studies of the development of the root and crown of alfalfa; weed morphology; phytopathological histology.

Simonds, Prof. James P(ersons), Northwestern University Medical School, Chicago, Ill. *Pathology.* Cleburne, Texas, March 19, 78. A.B, Baylor, 01; M.D, Rush, Chicago, 07, Ph.D, Chicago, 23; Dr.P.H, Harvard, 14. Asst. city bac-

teriologist, St. Louis, 07–08; director lab. path. and bacter, State Board Health, Ind, 08–12; prof. bacter. and hygiene, Texas, 12–14; assoc. prof. *path, Northwestern*, 14–22, *prof*, 22–, acting dean, 24–25. Lecturer, Indiana, 10–12; special investigator gas gangrene, Rockefeller Inst, Belgium, 16; coroner's physician, 18–20. Attending pathologist, Wesley Mem. Hosp, Chicago, 17–, Cook County Hosp, 18–, Passavant Mem. Hosp, 28– A.A; Asn. Path. and Bact; Soc. Exp. Path; Am. Med. Asn. (chairman, sect. path. and physiol, 41); Inst. Med. Chicago (pres, 37); Chicago Path. Soc. (pres, 18). Gas gangrene; anaphylaxis; peptone poisoning; intracellular ferments; low blood pressure; surgical shock; fat embolism; hyperthyroidism; liver function; renal function.

Simons, Dr. Francis L(loyd), George La Monte and Son, Nutley, N. J. *Industrial chemistry.* Pawtucket, R. I, 97. Ph.B, Brown, 19, M.S, 20; Ph.D, Yale, 23. Instr. chem, Brown, 23–26; research staff, Skinner, Sherman and Esselen, Inc, Boston, 26–28; tech. adviser, Rogers Fibre Co, Maine, 28–30; research director, Skinner and Sherman, Inc, Boston, 30–37; *tech. director, George La Monte and Son, 37–, plant supt, 40–* Chem. Soc; Chem. Eng. Colloids; paper and fiber technology; inks; documents; safety papers; lithography.

Simons, Dr. Harold L(ester), 11–25 44th Road, Long Island City, N. Y. *Chemistry.* New York, N. Y, July 15, 97. A.B, Col. City of N. Y, 17; A.M, Columbia, 18, Ph.D, 21. *Pres. and gen. manager, Harold L. Simons, Inc; treas, George J. Fries and Co, Inc.* Chem. Soc. The initial velocity in the hydrolysis of sucrose by invertase; dimethyl tartronate; determination of gases in metals.

Simons, Dr. Howard P(erry), 412 Beverly Ave, Morgantown, W. Va. *Chemical engineering.* Canton, Ohio, July 14, 07. A.B, Ohio State, 28, M.S, 30, univ. fellow, 38–39, Ph.D, 40; Phila. Textile Sch, 29; Pennsylvania, 30–33. Instr. chem, Drexel, 30–32; director research, Phoenix Hosiery Co, Milwaukee, 33–37; asst. prof. *chem. eng, West Virginia*, 39–43, *assoc. prof, 43–* Chem. Eng; Chem. Soc; Eng. Educ; W. Va. Acad; W. Va. Soc. Professional Eng. Textile processing, especially silk and rayon; reaction kinetics; graphical calculations; chemical engineering design; explosives.

Simons, Dr. J(ohn) K(enson), 1622 Watova Road, Toledo, Ohio. *Organic chemistry.* Aldan, Pa, Feb. 9, 09. B.S, Pennsylvania, 29, Ph.D, 33. Instr. chem, Pennsylvania, 29–36; fellow, Mellon Inst, 36–41; *research chemist, Plaskon div, Libbey-Owens-Ford Glass Co, 41–* Chem. Soc. Organic compounds of germanium; synthetic resins.

Simons, Prof. J(oseph) H, Pennsylvania State College, State College, Pa. *Physical chemistry.* Chicago, Ill, May 10, 97. B.S, Illinois, 19, M.S, 22; Ph.D, California, 23. Asst. chem, Illinois, 20–22; teaching fellow, California, 22–24; prof, Puerto Rico, 25–26; asst. prof, Northwestern, 26–32; visiting prof, *Pa. State Col*, 33–34, assoc. prof. *physical chem*, 34–36, *prof, 36–* Int. Educ. Board fellow and nat. research fellow, Cambridge, 28–29; civilian consultant, Chem. Warfare Service, U. S. Army, 35– A.A. (sec'y, C, 32–36); Chem. Soc. Fluorine; hydrogen fluoride; halogen compounds; thermodynamics; kinetics; ion scattering.

Simons, Dr. Lao G(enevra), 875 West End Ave, New York, N. Y. *History of mathematics.* San Jose, Calif, March 29, 70. A.M, Columbia, 12, Ph.D, 25. Asst. prof. *math, Hunter Col*, 16–25, assoc. prof, 25–28, prof. and head dept, 28–40, *emer. prof, 40–* Rev. ed, 'Scripta Mathematica.' A.A; Math. Soc; Math. Asn; Hist. Sci. Soc. Introduction of algebra into American schools in the eighteenth century; bibliography of early American text-books on algebra; Fabre and mathematics.

Simonsen, Dr. D(aisy) G(race), Los Angeles County Hospital, Los Angeles, Calif. *Biochemistry.* Bergen, Minn, May 18, 04. B.S, Hamline, 26; Mayo Foundation fellow, Minnesota, 29–32, Ph.D, 32. Chemist, Mayo Clinic, 26–29; E. S. Miller Labs, 33–36; Pottenger Sanatorium, 36–41; *mem. dept. med, Southern California, 41–* A.A; Chem. Soc; Genetic Asn; assoc. fel. Am. Med. Asn; Asn. Study Int. Secretions. Thyroxine; relation of sulphydryl compounds to biological oxidation and reduction; pharmaceutical chemistry; adrenal hormones; sex hormones.

Simonson, Dr. Roy W(alter), U. S. Department of Agriculture, Knoxville, Tenn. *Soils.* Agate, N. Dak, Sept. 7, 08. B.S, N. Dak. Agr. Col, 34; Ph.D, Wisconsin, 38. Asst. soil scientist, bur. chem. and soils, U. S. Dept. Agr, 35, 37, Farm Credit Admin, 36; asst. prof. soils, Iowa State Col, 38–42; *senior soil scientist, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 43–* A.A; Soil Sci. Soc. Morphology and genesis of soils; the relations of soil profile characteristics to productivity of the soil for corn; morphology and chemical characteristics of prairie and associated soils.

Simpson, Prof. B(enjamin) R(oy), 3181 Sycamore Road, Cleveland Heights, Ohio. *Educational psychology.* Drumbo, Ont, Can, Aug. 13, 77. B.A, McMaster, 99; Chicago, 05; Ph.D, Columbia, 12. Teacher, Victoria, B. C, 00–02; prin, high sch, Cumberland, B. C, 02–05; instr. psychol. and educ, Training Sch. for Teachers, Brooklyn, 08–22; psychol, Cleveland Sch. Educ, 22–28; chairman div, senior teachers col, *Western Reserve*, 26–28, *prof. educ. psychol, sch. educ, 28–* Summer, instr, Georgia, 10. A.A; Psychol. Asn; Educ. Research Asn; Soc. Study Educ. Correlation of mental abilities; psychology of learning.

Simpson, Dr. Burton T(horne), 113 High St, Buffalo, N. Y. *Pathology.* Belleville, N. Y, July 30, 73. M.D, Buffalo, 03. Clin. pathologist, Buffalo Gen. Hosp, 06–10; pathologist, *State Inst. for Study Malignant Diseases*, 10–23, *director, 23–; assoc. prof. prev. med, Buffalo, 30–* Lecturer, Buffalo, 05–10. Mem. Cancer Council, 37– Asn. Cancer Research; Soc. Control Cancer (pres, 34–36); Radium Soc; Am. Acad. Med. Cancer; adenoma of the thyroid and prostate; goiter; malignant leiomyoma; chemotherapeutic experiments on spontaneous mouse cancer.

Simpson, Dr. C(harles) T(rueman), Rohm and Haas Co, 222 W. Washington Square, Philadelphia, Pa. *Chemistry.* Oxford, N. S, Can, Feb. 28, 04. B.S, Mt. Allison, 27; M.S, Pa. State Col, 33, Ph.D, 35. Chemist, Int. Nickel Co, 27–29; Rohm and Haas Co, 29–31; asst. chem, Pa. State Col, 31–35; *chemist, Rohm and Haas Co, 35–* Chem. Soc. Dehydration of alcohols; analytical methods.

Simpson, Prof. Cohen T(homas), 311 Pelham St, Montgomery, Ala. *Analytical chemistry.* Montgomery, Ala, Sept. 1, 07. A.B, Talladega Col, 28; M.S, Iowa, 31, Ph.D, 41. Prin, sch, Ala, 28–30; instr. *chem*, Straight Col, 31–35; *Ala. State Teachers Col, Montgomery, 35–39, prof, 41–, chairman science div, 42–* A.A; Chem. Soc. X-ray crystal structure of some inorganic compounds that exist in several forms; the dropping mercury electrode; fluoride.

Simpson, Prof. F(rank) M(orton), Bucknell University, Lewisburg, Pa. *Physics.* Clifford, Pa, Nov. 8, 72. B.S, Bucknell, 95, M.S, 97. Prof. *physics, Bucknell*, 00–42, *emer. prof, 42–*, director physical lab, 21–42. A.A; Physical Soc; Asn. Physics Teachers.

Simpson, Dr. G(eddes) W(ilson), University of Maine, Orono, Maine. *Economic entomology.* Scranton, Pa, Aug. 15, 08. A.B, Bucknell, 29; A.M, Cornell, 31, Ph.D, 35. Asst. entom, N. Y. State Col. Agr, Cornell, 30–31; *asst. entomologist, Exp. Sta, Maine, 31–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Phytopath. Soc; Pa. Acad. Aphid biology and insect transmission of plant virus diseases.

Simpson, Dr. George Gaylord, American Museum of Natural History, New York, N. Y. **Geology, Vertebrate paleontology.* Chicago, Ill, June 16, 02. Ph.B, Yale, 23, Dana fellow, 23–24, Marsh fellow, 24–26, Ph.D, 26. Nat. research fellow biol, 26–27; asst. curator *vert. paleont, Am. Museum Nat. Hist*, 27–28, *assoc. curator, 29–* Summer, field asst, Am. Museum Nat. Hist, 24. Leader museum exped, San Juan Basin, N. Mex, 29; expeds, Fla. and South. states, 29, 30; Scarritt exped, Am. Museum Nat. Hist, Patagonia, 30–31, 33–34, Montana, 35, director research and reports, 31–; exped. to Venezuela, 38–39. Nat. Acad; A.A; Soc. Vert. Paleont. (sec'y-treas, 40–42, pres, 42); fel. Paleont. Soc; Soc. Mammal; fel. Geol. Soc; Philos. Soc; Explorers Club; cor. mem. Zool. Soc. London; cor. mem. Soc. Argentina de Estudios Geog. Fossil mammals; Mesozoic, Paleocene and American Eocene mammals; extinct and fossil mammals of Florida; evolution of the Sirenia; Cretaceous-Tertiary transition in Patagonia; South American mammalian faunas; classification of Mammalia; early mammals and lower Tertiary stratigraphy of South America; principles of evolution.

Simpson, Dr. Harold E(llis), Mellon Institute, Pittsburgh, Pa. *Ceramics.* Columbus, Ohio, June 16, 03. B.Cer.E, Ohio State, 25, M.S, 26, Ph.D, 29, hon. Cer.E, 38. U. S. Bur. Mines research fellow, 26–27; Bur. Standards research fellow, 27–28. Research engineer, eng. exp. sta, Ohio, 29; asst. prof. ceramic eng, Rutgers, 29–30; ceramic engineer, Battelle Mem. Inst, 30–36; Pittsburgh Plate Glass Co. indust. fellow, *Mellon Inst*, 36–

38, *U. S. Gypsum Co. indust. fellow, 38–* Ceramic Soc. (chairman film library cmt); Ceramic Eng; Soc. Test. Mat. (cmt. gypsum); British Ceramic Soc. Specific heat of clays; enamels; heavy clays; refractories; glass; gypsum; plaster; building materials.

Simpson, Prof. J(ames) C(rawford), McGill University, Montreal, Que, Can. *Histology, Embryology.* Brockville, Ont, June 3, 76. B.Sc, McGill, 07; 1851 Exhib. scholar, 07–09; hon. LL.D, Mt. Allison, 31. Demonstrator zool, McGill, 04–07; asst, Cambridge, 08–09; acting prof, McGill, 09–10, assoc. prof. histol. and embryol, 19–28, prof, 28–41, sec'y faculty med, 23–41, assoc. dean, 36–40, dean, 40–41; *retired.* Invertebrate and vertebrate embryology.

Simpson, Dr. Jean I(rwin), University of Illinois, Urbana, Ill. *Home economics.* Buffalo, N. Y. B.A, Toronto, 21; M.S, Chicago, 27, Ph.D, 39. Instr, Macdonald Col, McGill, 23–26; Cornell, 27–30; mem. ed. staff, Curtis Publishing Co, 30–34; lecturer, Toronto, 39–40, asst. prof, 40–41; *assoc. prof. home econ, Illinois, 41–* A.A; Home Econ. Asn; Dietetic Asn; assoc. Inst. Food Technol. Chemistry of food; chemical and histological studies of the disintegration of cell-membrane materials in vegetables during cooking.

Simpson, Prof. Jennie L(aura) S(ymons), Hunter College, 695 Park Ave, New York, N. Y. *Botany.* Waterloo, Que, Can, April 12, 94. B.A, McGill, 17, M.Sc, 21, Ph.D, 25. Demonstrator *bot,* McGill, 21–24, lecturer, 24–25; acting asst. prof, Swarthmore Col, 26–27; asst, Toronto, 27–28; *asst. prof, Hunter Col, 28–*

Simpson, Dr. John N(athan), West Virginia University, Morgantown, W. Va. *Medicine.* Mason, W. Va, March 19, 69. A.B, Nashville, 93; M.D, Hopkins, 02. Prof. physiol. and anat. and head med. faculty, *West Virginia,* 02–12, prof. med. and dean *sch. med,* 12–35, *emer. prof. hist. of med. and emer. dean, 35–* Director, State Hygienic Lab, W. Va, 13–17. Major, M.R.C. Am. Med. Asn; fel. Col. Physicians (gov, W. Va); Am. Acad. Med; W. Va. Med. Asn. (pres, 23).

Simpson, Prof. Miriam E(lizabeth), University of California, Berkeley, Calif. *Anatomy.* Sheridan, Wyo, 94. A.B, California, 15, A.M, 16, Ph.D, 20; M.D, Hopkins, 23. Instr. *anat, California,* 23–26, asst. prof, 26–30, *assoc. prof, 31–* Asn. Anat. Hematology; vital staining of normal blood; leukemic blood and vital stains; endocrinology and sex physiology, especially the function of the anterior lobe of the hypophysis.

Simpson, Prof. O(liver) C, Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Mo, 10. B.S, Illinois, 30, Ph.D, 34. From asst, molecular physics research labs, to *assoc. prof. physics, Carnegie Inst. Tech, 34–, coordinator, Civilian Pilot Training Program, 42–* Atomic and molecular beam; nuclear physics; low temperature research; metals.

Simpson, Prof. Ray H(amill), Box 1911, University, Ala. *Psychology.* Indiana Co, Pa, Sept. 2, 07. B.S, Pa. State Teachers Col, 30; A.M, Columbia, 34, Ph.D, 38. Teacher, schs, Pa, 25–34; lecturer psychol, Barnard Col, Columbia, 34–36, instr, 36–39, supervisor research for Prof. H. L. Hollingworth, univ, 35, 36; asst. prof. psychol, Alabama, 39–42; *lieut, Adj. Gen. Dept, U. S. Army, 42–* Consultant, Progressive Educ. Workshop, 39; oral examiner, Ala. State Welfare Dept, Ala, 41. Summers, asst, Teachers Col, Columbia, 34, 35, prof, 42. Assoc. Psychol. Asn; N. Y. Acad. Influence of discussion; improving reading and related study skills of college women; remedial reading; self-evaluation of work; social psychology.

Simpson, Dr. Ray Mars, 2738 Grant St, Evanston, Ill. *Psychology.* Hersman, Ill, Aug. 23, 95. A.B, Columbia, 20; A.M, Harvard, 21; Chicago, 28–29; Ph.D, Northwestern, 37. Dept. psychol, East. Ill. State Teachers Col, 23–25; research and clin. psychologist, Inst. Juvenile Research, Chicago, 30–35; dept. psychol, Evanston Collegiate Inst, 37–43; *industrial psychologist, Stevenson, Jordan and Harrison Indust. Engineers, Inc, 43–* Lecturer, Northwestern, 37–41; career counselor, Evanston Township High Sch, Ill, 39–43. Director, Encyclopaedia Britannica Fellowship, 39–40. Assoc. Psychol. Asn; Vocational Guidance Asn; Midwest. Psychol. Asn; Ill. Soc. Consulting Psychol. Effect of muscular tension on visual and tactile thresholds; brain lesion and circus movements in dogs; mechanical aptitude tests; classification of criminals.

Simpson, Prof. Stephen G(ershom), Massachusetts Institute of Technology, Cambridge, Mass. *Analytical chemistry.* Pittsfield, Maine, April 1, 94. B.S, Mass. Inst. Tech, 16, M.S, 31, Ph.D, 33. Chemist, Great North. Paper Co, 17–18; instr. *anal. chem, Mass. Inst. Tech,* 19–34, asst. prof, 34–40, *assoc. prof, 40–* C.W.S, U.S.A, 18–19. A.A; Chem. Soc. Rare elements; determination of zirconium in ores and alloys.

Simpson, Dean T(homas) McN(ider), Jr, 206 College Ave, Ashland, Va. *Mathematics.* Ettrick, Va, Jan. 12, 82. A.B, Randolph-Macon Col, 01; fellow, Virginia, 01–05, A.M, 07; fellow, Chicago, 15–17, Ph.D, 17. Acting prof. math. and physics, St. Stephen's Col, 05–06; instr. *math,* Virginia, 06–07; prof, Converse Col, 07–15; instr, Texas, 17–18; *prof, Randolph-Macon Col, 19–, dean, 39–* Summers, Virginia, 09–17, 20–29; Richmond, 36, 37, 40, 41. A.A; Math. Asn; Va. Acad. (pres, 32). Relations between metric and projective theories of space curves; comet observations; standards for faint stars.

Simpson, Prof. T(homas) M(arshall), University of Florida, Gainesville, Fla. *Mathematics.* Addison, Maine, Feb. 19, 81. A.B, Harvard, 05; A.M, Wisconsin, 10, Ph.D, 16. Instr. *math,* Wisconsin, 08–18; *prof, Florida, 18–, dean grad. sch, 40–* Math. Soc; Math. Asn. (past chairman, southeast. sect). Functional equations.

Simpson, T(homas) P(atrick), General Laboratories, Socony-Vacuum Oil Co, Inc, Paulsboro, N. J. *Chemical engineering.* Bakersfield, Calif, Oct. 26, 03. B.S, Calif. Inst. Tech, 25. Chem. engineer, process lab, Gen. Petrol. Corp, 24–25; Lovell Gasoline Co, Calif, 25–26; nat. gasoline lab, Standards Gasoline Co, 26–27; process lab, Gen. Petrol. Corp, 27–33, asst. manager, 33–35; *asst. director research, research and develop. div, Socony-Vacuum Oil Co, Inc, 35–* A.A; Chem. Soc. Petroleum processing; catalytic cracking; thermal cracking; polymerization; isomerization; alkylation; solvent and chemical refining; development of static and moving bed catalytic cracking processes; development of clay and catalyst kilns.

Simpson, Dr. Walter M(alcolm), Miami Valley Hospital, Dayton, Ohio. *Pathology.* Lynn, Mass, Dec. 25, 95. B.S, Michigan, 22, M.S, 23, M.D, 24. Asst. anat. and histol, Michigan, 20–22, path, 22–23, instr, 23–24, senior instr, 24–26; instr. surg. path, Hopkins, 26–27; *director diagnostic labs, Miami Valley Hosp, 27–; capt, Med. Corps, U. S. Naval Res.* Director, Kettering Inst. Med. Research, 27–; lecturer, Ohio State, 40–; consultant in diagnosis. Gold medal, Am. Med. Asn, 28; Ward Burdick research award, Soc. Clin. Path, 29. Chevalier, Légion d'honneur, 37. A.A; Soc. Clin. Path. (pres, 32); Asn. Path. and Bact; Am. Med. Asn; Asn. Study Goiter; Cent. Soc. Clin. Research; Ohio Acad; Mich. Acad. Tularemia; undulant fever; artificial fever therapy; internal medicine.

Simpson, Dr. William L(oyal), Washington University School of Medicine, St. Louis, Mo. *Anatomy, Histology, Cytology.* Houston, Pa, Sept. 29, 12. B.S, Chicago, 34, Ph.D, 38. Teaching fellow anat, Chicago, 34–36, asst, 36–39; instr. anat, histol. and embryol, *sch. med,* Tennessee, 39–40; *research assoc, Washington (St. Louis), 40–* Research assoc, Barnard Free Skin and Cancer Hosp, 40– Asn. Anat. Altmann technic of freezing-drying; Golgi apparatus; localization of mineral salts in cells and tissues; experimental carcinogenesis; histospectrography; histochemistry.

Sims, Clarence E, Battelle Memorial Institute, Columbus, Ohio. *Metallurgy.* Chicago, Ill, July 1, 93. B.S, Illinois, 15; M.S, Utah, 16. Metallurgist, Aluminum Co. Amer, 19–21; supervising metallurgist, U. S. Bur. Mines, 21–26; asst. director research, Am. Steel Foundries, 26–36; *supervising metallurgist, Battelle Mem. Inst, 36–* R. W. Hunt award, Am. Inst. Mining and Metal. Engineers, 32. C.W.S, U.S.A, 18–19. Soc. Metals; Min. and Metal. Eng; Foundrymen's Asn. Process and physical metallurgy of iron and steel.

Sims, Dr. Hugh D(avis), Magnolia Petroleum Co, Box 900, Dallas, Texas. *Chemical engineering.* Gainesville, Ga, Aug. 2, 04. B.S, Ga. Tech, 28; M.S, Emory, 29; Sc.D, Mass. Inst. Tech, 33. Foreman chemist, Ga-La. Corp, 28–29; asst. chem. eng, Mass. Inst. Tech, 29–31; research chemist, Swann Chem. Co, 34; instr. chem. and chem. eng, Ga. Tech, 35; junior chem. engineer, Tenn. Valley Authority, 35–36, asst. chem. engineer, 36–37, assoc. chem. engineer, 37–38; *chem. engineer, Magnolia Petrol. Co, 38–* Instr, Tennessee, 35–36. Chem. Soc. Petroleum; phosphate technology.

Sims, I(van) H(enry), U. S. Forest Service, Washington, D. C. *Forestry.* Dayton, Ohio, Nov. 15, 00. B.S, Michigan, 26, M.F, 28. Junior forester, Appalachian Forest Exp. Sta, *U. S. Forest Service,* 26–30, asst. silviculturist, 30–35, assoc.

silviculturist, div. silvics, 35–37, silviculturist, Northeast. Forest Exp. Sta, 37–38, *senior silviculturist*, div. forest influences, 38–41, *research admin, 41–* Junior instr, sch. forestry and conservation, Michigan, 27–29. A.A; Soc. Foresters; Geophys. Union; Wildlife Soc. Forest ecology; silviculture; forest influences.

Sims, Prof. V(erner) M(artin), University of Alabama, University, Ala. *Psychology.* Mt. Olivet, Ky, April 12, 00. A.B, Transylvania Col, 20; A.M, Yale, 24, Ph.D, 26; Michigan, 36, 37. Prof. *psychol,* dept. educ, La. Polytech, 26–28; assoc. prof, *sch. educ, Alabama,* 28–38, *prof, 38–* Mem. staff, South. Asn. Study in Secondary Schs. and Cols, 38– Psychol. Asn; Educ. Research Asn; S. Soc. Philos. and Psychol. Mental measurements; social psychology; educational psychology.

Sinai, Prof. Nathan, University of Michigan, Ann Arbor, Mich. *Public health, Hygiene.* Stockton, Calif, Nov. 28, 94. D.V.M, San Francisco Col, 15; M.S, Michigan, 23, Dr.P.H, 26. Director, City Div. Sanitation, Stockton, Calif, 16–21, health officer, 21–23; instr. *hygiene and pub. health, Michigan,* 24–27, asst. prof, 27–29, assoc. prof, 29–32, *prof, 32–* Consultant, U. S. Pub. Health Service; Associated Hosp. Service of New York. Hon. fel. Col. Dentists; fel. Pub. Health Asn; hon. mem. Washtenaw Co. (Mich) Med. Soc. Health insurance; incidence of illness and the receipt and costs of medical care; medical relief administration; medical services and health agencies in Michigan.

Sinclair, Col. Cha(rle)s G(eorge), Sixth Service Command Laboratory, Ft. Sheridan, Ill. *Bacteriology.* Toronto, Ont, Can, Nov. 12, 89. B.S, Michigan, 12, M.D, 14; Army Med. Sch, 16, 21. Asst. hygiene, Michigan, 11–13; instr. path, Army Med. Sch, 25–27, bacter, 27–30; microbiol. and path, Army Sch. Nursing, 25–30; director dept. prev. med. and clin. path, Army Med. Sch, 40–42; *commanding officer, Sixth Service Command Lab, U. S. Army, 42–* Acting ed, sect. med. bacter, 'Biol. Abstracts,' 28–30. M.C, U.S.A, 15– Fel. Col. Physicians. Medical bacteriology; epidemiology; microbiology for nurses; microbiology and pathology.

Sinclair, Dr. David, Columbia University, New York, N. Y. *Physics.* New York, N. Y, Dec. 1, 01. A.B, Wisconsin, 24; Ph.D, Columbia, 37. Asst. physics, Columbia, 28–30, 31–35, mining, 37–40; instr. physics, Sarah Lawrence Col, 35–36; N. Y. Univ, 36–37; *research assoc, Nat. Defense Research Cmt, 40–* Fel. Physical Soc. Afterglow in mercury vapor; lifetimes of potassium doublets; photoelasticity; interferometry; scattered radiation.

Sinclair, Dr. Donald B(ellamy), Crescent Road, Concord, Mass. *Electrical engineering.* Winnipeg, Man, Can, May 23, 10. B.S, Mass. Inst. Tech, 31, M.S, 32, Sc.D, 35. Asst. elec. eng, Mass. Inst. Tech, 32–35, research assoc, 35–36; *engineer, Gen. Radio Co, 36–* Research and develop. div, Gen. Radio Co, Cambridge, Mass, 34– Radio Eng. (mem. cmt. papers; cmt. television; cmt. transmitters and antennas). High-frequency electrical measurements.

Sinclair, J(esse) D(onald), U. S. Forest Service, Glendora, Calif. *Forestry.* Santa Rosa, Calif, July 6, 00. B.S, California, 26, M.S, 29. Asst. forest ecologist, *California Forest and Range Exp. Sta, U. S. Forest Service,* 29–35, silviculturist, 35–42, *senior silviculturist, 42–* Soc. Foresters. Soil erosion; forest influences; watershed management.

Sinclair, Prof. John G(eorge), University of Texas School of Medicine, Galveston, Texas. *Histology, Embryology.* Grand Haven, Mich, July 6, 88. B.S, Chicago, 11, fellow, 12–13; M.S, North Dakota, 25; Ph.D, Wisconsin, 28. Asst. genetics, desert lab, div. plant biol, Carnegie Institution, 13–16; assoc. zool, Chicago, 17–18; asst. prof. anat. and physiol, sch. med, North Dakota, 21–24, assoc. prof. anat, 25–26; prof. anthrop, Beloit Col, 26–27; instr. anat, Wisconsin, 27–28; *prof. histol. and embryol, sch. med, Texas, 28–, chairman dept. anat.* A.A; Genetic Asn; Asn. Anat; Texas Acad. Histogenesis; osteogenesis; thyroid-parathyroid.

Sinclair, Prof. Mary Emily, Oberlin College, Oberlin, Ohio. *Mathematics.* Worcester, Mass, 78. A.B, Oberlin Col, 00; A.M, Chicago, 03, Ph.D, 08. Instr. *math,* Nebraska, 04–07; *Oberlin Col,* 07–08, assoc. prof, 08–25, *prof, 25–, head dept, 39–* Math. Soc; Math. Asn. Calculus of variations; theory of equations.

Sinclair, Prof. R(obert) D(aniel), College of Puget Sound, Tacoma, Wash. *Psychology.* Allerton, Iowa, April 7, 94. A.B, Iowa, 21, A.M, 24, Ph.D; 28; Iowa State Col, 22. Teacher and prin, high schs, Iowa, 21–23; instr. psychol. and educ, Coe Col, 24–25; *prof,* Huron Col, 26–28, psychol. and philos, 28–30; *psychol, Col. Puget Sound, 30–* Summer, prof, South Dakota, 29. Psychology of arithmetic; character education; a comparative study of those who report the experience of the Divine Presence and those who do not.

Sinclair, Prof. R(obert) D(avid), University of Alberta, Edmonton, Alta, Can. *Animal husbandry.* Innisfail, Alta. B.Sc, Alberta, 18; M.S, Iowa State Col, 26; Can. Soc. Tech. Agr. overseas scholar, 30; Ph.D, Aberdeen, 32. Instr. animal husbandry, sch. agr, Alberta, 19–20; live-stock ed, 'Farmers Advocate,' Man, 20–22; assoc. prof. *animal husbandry, Alberta,* 22–35, *prof, 35–, dean faculty agr, 42–* Soc. Animal Production; Can. Soc. Tech. Agr. (v. pres. Alta. branch, 32, pres, 34); West. Can. Soc. Animal Production (v. pres, 29, pres, 36). Animal nutrition; mineral and vitamin requirements of swine.

Sinclair, Prof. R(obert) Gordon, Queen's University, Kingston, Ont, Can. *Biochemistry.* Fenelon Falls, Ont, June 23, 03. B.A, Queen's (Can), 24; Ph.D, Rochester, 28. Asst. biochem, sch. med. and dentistry, Rochester, 25–28; instr. pharmacol, 28–31, asst. prof. biochem. and pharmacol, 31–34, assoc. prof, 34–37; *prof. biochem, Queen's (Can), 37–* A.A; fel. Royal Soc. Can. Fat absorption; metabolism and composition of phospholipids.

Sinclair, Dr. Walton B, Citrus Experiment Station, University of California, Riverside, Calif. *Chemistry.* Norwood, N. C, Nov. 15, 00. B.S, Oglethorpe, 22; M.S, Minnesota, 26, Ph.D, 29. Teaching fellow biochem. and pharmacol, med. sch, California, 25–26; instr. biochem, Minnesota, 26–28; research chemist biol. products and glandular derivatives, Wilson Labs, Chicago, Ill, 28–29; labs, Nat. Biscuit Co, New York, 29–32; research assoc. *plant physiol, Citrus Exp. Sta, California,* 32–39, *asst. prof, 39–* Summer, asst, U. S. Dept. Agr, 22, 23. Chem. Soc. Effect of alkali hydrolysis on the sulfur in amino-acids; behavior of the proteins of the cereal grains in salt solutions; physical and chemical factors affecting the strength of wheat flour; plant metabolism; plant enzymes.

Sinden, Prof. James W(haples), Pennsylvania State College, State College, Pa. *Plant pathology.* Oak Park, Ill, Nov. 12, 02. A.B, Kansas, 24; Ph.D, Cornell, 37. Asst. instr. plant path, Cornell, 24–25, instr, 25–30; asst. prof. *bot, Pa. State Col,* 30–39, *assoc. prof, 39–* A.A; Phytopath. Soc; Mycol. Soc. A basidiomycetous disease of honeysuckle; bean anthracnose physiology; mushroom culture; economic mycology; physiology of fungus infection in plants.

Singer, George, 4330 37th St, Washington, D. C. *Physics.* Milwaukee, Wis, Feb. 1, 05. A.B, Morningside Col, 28; George Washington, 35– Junior physicist, *Bur. Standards,* 28–36, asst. physicist, 36–38, assoc. physicist, 38–41, *physicist, 41–* X-ray protective materials; x-ray dosage measurements; quality specification in dosage measurements; performance of x-ray machines; supervoltage x-ray generators and supervoltage x-ray dosage measurements.

Singer, Dr. J(ames), 3054 Bedford Ave, Brooklyn, N. Y. *Mathematics.* New York, N. Y, July 3, 05. A.B, Cornell, 26; J. S. K. fellow, Princeton, 26–27, A.M, 28, Ph.D, 31. *Instr. math,* Princeton, 27–34; Abraham Lincoln High Sch, 34–36; *grad. sch, Brooklyn Col, 35–* Instr, grad. sch, Hunter Col, 36–38. A.A; Math. Soc; Math. Asn. Analysis situs; algebra.

Singer, Dr. Marcus, Harvard Medical School, Boston, Mass. *Zoology.* Pittsburgh, Pa, Aug. 28, 14. B.S, Pittsburgh, 38; A.M, Harvard, 40, Ph.D, 42. Austin teaching fellow biol, Harvard, 38–39, 41–42, teaching fellow, 39–41; *asst. anat, Harvard Med. Sch, 42–* Autonomic nervous system; experimental morphology; nerve regeneration.

Singer, Dr. Rolf, Harvard University, Cambridge, Mass. *Mycology.* Schliersee, June 23, 06. Ph.D, Vienna, 31; Dr.Biol, Acad. Sciences U.S.S.R, 40. Prof, Barcelona, 34–35; senior sci. specialist, bot. inst, Acad. Sciences Leningrad, 35–40; *research assoc, Farlow Herbarium, Harvard, 41–* Mem. sci. mission to Caucasus Mountains, Acad. Sciences, Vienna, 28–29; to Pyrenees, Junta de Ciencies Naturals, Barcelona, 34; to Altai Mountains, Acad. Sciences U.S.S.R, 37; Guggenheim Mem. Foundation fellow, subtrop. Amer, 42–43. Mycol. Soc; Mich. Acad. Taxonomy of the Agaricales; Polyporaceae; Russula; Crinipellis; Leucopaxillus.

Singer, Prof. S(imon) A(ugustus), 2322 E. Main St, Columbus, Ohio. *Mathematics.* Canton, Ohio, Jan. 31, 71. A.B, Capital Univ, 96, A.M, 23, D.Ed, 37; Cornell, 97–98,

summers, 98–00. Teacher, pub. sch, 90–92; instr. *math, Capital Univ*, 96–97, *prof, 98–*, treas, 13–33. A.A; Math. Asn.

Singewald, Prof. Joseph T(heophilus), Jr, Johns Hopkins University, Baltimore, Md. **Geology.* Baltimore, Md, Sept. 25, 84. A.B, Hopkins, 06, fellow, 07–08, Ph.D, 09. Junior geologist, U. S. Bur. Mines, 10–20; assoc. prof. *econ. geol, Hopkins*, 13–22, *prof, 22–, chairman dept. geol, 39–* Geologist, Md. Geol. Surv, 13–; director, State Dept. Geol, Mines and Water Resources, Md, 43– Williams Mem. exped, S. Amer, 19–; Ellsworth exped, Peru, 24. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Soc; Min. and Metal. Eng; Explorers Club; Eng. Club Baltimore; Geol. Soc. Wash; Freiberger Geol. Gesell; hon. mem. Soc. Geol. del Peru. Mineral mining; geology of South America.

Singewald, Prof. Quentin D(reyer), University of Rochester, Rochester, N. Y. *Economic geology.* Baltimore, Md, Sept. 28, 02. Baltimore Polytech; A.B, Hopkins, 22, Ph.D, 26. *U. S. Geol. Surv*, 21–23, *28–*; Md. Geol. Surv, 23; Compañía Transcontinental de Petroleo, Mex, 26–27; asst. prof. *geol*, Colo. Sch. Mines, 27–29; *Rochester*, 29–34, *assoc. prof, 34–* Summers, eng. dept, W. Va. Coal and Coke Co, 18; geol. dept, Midwest Ref. Co, 19–21; Sun Oil Co, 25. Mem, Ellsworth exped, Hopkins, to S. Amer, 24. A.A; Asn. Petrol. Geol; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Min. Soc. Economic geology and petrography of central Colorado, Mexico, Colombia, Peru and European countries.

Singletary, Prof. B(enjamin) Henry, University Station, Baton Rouge, La. *Horticulture.* Grant, La, June 20, 90. Fellow, Louisiana, 23–25, B.S, 25, M.S, 27; fellow, Cornell, 31–32. Prin, pub. schs, 14–20; instr, *Louisiana*, 25–28, asst. prof. *hort*, 28–34, *prof, 34–, head dept, 32–* Tomatoes; roses; the Singletary pea.

Singleterry, Prof. Curtis R(andolph), Aurora College, Aurora, Ill. *Chemistry.* Wanette, Okla, Jan. 31, 00. A.B, Aurora Col, 21; M.S, Chicago, 26, Ph.D, 40. *Prof. chem, Aurora Col, 21–* Chem. Soc. Solutions of electrolytes; paper coating.

Singleton, Dr. F(rederick) G(ray), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Ft. Meade, Fla, March 16, 14. B.S, Florida, 35, Ph.D, 40; Inst. Int. Educ. fellow, Paris, 38–39. Asst, Florida, 35–37, instr. physical sciences, 37–38; org. chem, Kans. State Col, 40–41; *indust. fellow, Mellon Inst, 41–* A.A; Chem. Soc; Inst. Chem. Color and chemical constitution; reactions of aldehydes with amines; detection of aldehydes; synthetic resins in protective coatings.

Singleton, H(arold) P(ayne), Prosser, Wash. *Agronomy.* Jacksonville, Mo, Jan. 1, 97. B.S, State Col. Wash, 20, M.S, 25. Asst. farm crops, *Exp. Sta, State Col. Wash*, 20–23, farm crops and soils, 23–29, *assoc. agron, 29–, agronomist, irrig. branch exp. sta, 21–, supt, 29–* Soc. Agron. Irrigated crops and soil fertility.

Singleton, Dr. W(illard) Ralph, Connecticut Agricultural Experiment Station, New Haven, Conn. *Genetics.* Jacksonville, Mo, April 24, 00. B.S, State Col. Wash, 22, fellow, 22–24, M.S, 24; M.S, Harvard, 26, Sc.D, 30. Asst. supt, Harvard Bot. Garden, Soledad, Cienfuegos, Cuba, 25–26, asst. zool, Harvard, 26–27; asst. geneticist, *Conn. Exp. Sta*, 27–35, *assoc. geneticist, 35–* With bur. plant indust, U. S. Dept. Agr, Missouri, 37; prof, Minnesota, 41. A.A; Genetics Soc; Soc. Agron. Botany; genetics and cytology of corn; effects of inbreeding and crossing maize.

Singmaster, J(ames) A(rthur), Durham Road, Lawrence Park W, Bronxville, N. Y. *Metallurgical and chemical engineering.* Schuylkill Haven, Pa, Aug. 7, 78. A.B, Gettysburg Col, 98, A.M, 01; Lehigh, 99. N. J. Zinc Co, 00–27, tech. director; *pres, Singmaster and Breyer, New York, 27–* Min. and Metal. Eng; Min. and Metal. Soc; Chem. Soc; Chem. Eng; Soc. Chem. Indust; Asn. Consulting Chem. and Chem. Eng; Zinc Inst. The manufacture and products of zinc; artificial silk; pigments; magnesium.

Sink, Prof. Emory Walter, 1546 Packard St, Ann Arbor, Mich. *Hygiene, Public health.* North Chili, N. Y, Oct. 14, 87. A.B, Michigan, 11, M.S, 15, M.D, 20. Asst. zool, *Michigan*, 12–15, instr. anat, 16–18, *physician, student health service, 20–, asst. prof. hygiene and pub. health, 23–* Am. Med. Asn; Pub. Health Asn; Mich. Soc. Indust. Physicians and Surg. Industrial hygiene.

Sink, R(ussell) S(eely), Remington Arms Co, Denver, Colo. *Mechanical engineering.* Newtown, Ind, Dec. 19, 95. 103

B.S, Purdue, 18, M.E, 25. Sales promotion engineer, Service Motors, Inc, 18–20; asst. tool engineer, S. F. Bowser and Co, 20–24; instr, Purdue, 24–26; asst. prof, Kans. State Col, 26–30; prof. mech. eng, Wyoming, 30–41, chairman dept, 33–41; *senior engineer, Remington Arms Co, 41–* Eng. Educ; Mech. Eng. Photoelastic study of machine parts, especially gear teeth of the conventional shapes and special shapes to eliminate highly stressed areas.

Sinkinson, Prof. Eric (Spencer), Lehigh University, Bethlehem, Pa. *Chemical technology.* Derby, Eng, Jan. 17, 87. Univ. Sheffield; B.Sc, London, 09, D.I.C, 18. Asst. chem. master, Stramongate Sch, Kendal, England, 05–06; asst. analyst, A. H. Allen and Partners, Sheffield, England, 10–12; demonstrator metal, Sheffield, 12–14; lecturer chem. technol, Imp. Col. Science, London, 14–23; asst. prof. quantitative analysis, *Lehigh*, 23–27, *assoc. prof. fuel technol. and ore dressing*, 27–Sec'y, Nat. Union Sci. Workers, England, 19–20. A.A; Min. and Metal. Eng; London Chem. Soc; British Inst. Elec. Eng; Inst. Chem. Gt. Britain and Ireland. Filtration; metals; alloys; gaseous combustion; transition of coal to coke; decanting and washing precipitates; carbonization of coal; electrolytic generator for pure hydrogen; flameless combustion; coal conductivity cell; adsorption of carbon dioxide by coal; power alcohol; flotation of magnesites; activated carbon from anthracite; electrical carbonization of coal.

Sinkov, Dr. A(braham), 1412 Chapin St, N. W, Washington, D. C. *Mathematics.* Philadelphia, Pa, Aug. 21, 07. B.S, Col. City of N. Y, 27; A.M, Columbia, 29; Ph.D, George Washington, 33. Teacher, high schs, N. Y, 27–30; *cryptanalyst, Signal Corps, U. S. Army, 30–, major.* Math. Soc. Abstract group theory; cryptanalysis.

Sinness, Dr. L(ester) S(nowdon), E. I. du Pont de Nemours and Co, Richmond, Va. *Physical chemistry.* Minnewaukan, N. Dak, April 7, 09. A.B, Carleton Col, 31; Ph.D, Wisconsin, 35. *Asst. director viscose rayon research, E. I. du Pont de Nemours and Co.* A.A; Chem. Soc. Viscose rayon.

Sinnett, Prof. R(alph) V(ernon), 95 Oak Hill Ave, Delaware, Ohio. *Chemistry.* Bucksport, Maine, March 12, 97. B.S, Maine, 20; Ph.D, Ohio State, 36. Chemist, East. Mfg. Co, South Brewer, Maine, 18–19; Nat. Aniline and Chem. Co, Buffalo, 20–29; instr. *chem, Ohio Wesleyan*, 29–30, asst. prof, 30–36, *assoc. prof, 36–* Chem. Soc; Ohio Acad. Analytical chemistry; chemical education.

Sinnott, Prof. Edmund W(are), Yale University, New Haven, Conn. **Botany.* Cambridge, Mass, Feb. 5, 88. A.B, Harvard, 08, A.M, 10, Sheldon traveling fellow, Australasia, 10–11, Ph.D, 13. Instr. wood technol, Harvard, 13–15; prof. bot. and genetics, Conn. Agr. Col, 15–28; *bot*, Barnard Col, Columbia; 28–40; *Sterling prof, Yale, 40–* Mem. board managers, N. Y. Bot. Garden, 33–40. Ed. in chief, 'Am. Jour. Bot,' 26–32. Nat. Acad; A.A. (v. pres, G, 36); Soc. Nat. (treas, 25–27); Bot. Soc. (treas, 17–21, pres, 37); Genetics Soc; Philos. Soc; Torrey Bot. Club (pres, 30–33); fel. Am. Acad. Plant morphology and embryology; plant morphogenesis; plant genetics.

Sipe, Prof. Frank P(erry), University of Oregon, Eugene, Oregon. *Botany.* Iowa, July 10, 88. B.S. (Agr), Missouri, 16, B.S. (Educ), 18; fellow, Iowa State Col, 22–23, M.S, 23. Instr. *bot*, Oregon State Col, 23–30, asst. prof, 30–32; *Oregon*, 32–34, *assoc. prof. and head dept, 34–* Summers, assoc. botanist, U. S. Dept. Agr, 34, 35. Ecol. Soc; Sullivant Moss Soc. Ecology; lichens; fungi.

Sipe, Prof. G(uy) R(udisill), Mississippi State College, State College, Miss. *Poultry husbandry.* Cherryville, N. C, Aug. 21, 99. B.S, N. C. State Col, 21; Miss. State Col; Cornell; M.S, Purdue, 38. Exten. poultry specialist, 21–28; *prof. poultry husbandry*, Miss. Agr. and Mech. Col, 28–32, *Miss. State Col, 32–* Poultry Sci. Asn. (v. chairman, teaching sect); Am. Poultry Asn. (judge). Poultry house construction; egg preservation; the effect of cotton seed meal ration on eggs in cold storage; storage of eggs; inheritance in poultry; value of charcoal; comparison of standard agglutination tests; pasture and vitamin studies; pullet production practises in Indiana.

Sipple, Dr. Horace L(awson), 40 Stratford Road, Scarsdale, N. Y. *Food chemistry.* Indianapolis, Ind, Oct. 14, 05. B.S, Pittsburgh, 26, Ph.D, 30. Asst, Pittsburgh, 26–29, research fellow, 32–33; *research chemist*, Air Reduction Co, New York, 29–32; *Am. Can Co*, Chicago, 33–41, *New York, 41–* Inst. Food Technol; Chem. Soc. The chemistry of vitamin C; food

preservation; canning technology of food and non-food products.

Sisam, Prof. Charles H(erschel), Colorado College, Colorado Springs, Colo. **3Mathematics.* Cedar Rapids, Iowa. Sept. 8, 79. A.B, Michigan, 02; A.M, Cornell, 03, fellow. 03-04, Ph.D, 06. Instr. *math,* U. S. Naval Acad, 04-06; assoc. Illinois, 06-09, asst. prof, 09-18; *prof, Colo. Col, 18–* Asst. ed, 'Econometrica,' 36. Math. Soc. (assoc. ed, 'Trans,' 30-36); Math. Asn. Systems of curves lying on algebraic surfaces; special types of surfaces.

Siscoe, Dr. Dwight L(ewis), 205 Beacon St, Boston, Mass. *Internal medicine.* Augusta, Kans, July 18, 89. A.B, Colo. Col, 13, A.M, 14; M.D, Harvard, 19, Dr.P.H, 21. Med. intern, Mass. Gen. Hosp, 20-22; int. health div, Rockefeller Foundation, 22-23; Wolcott teaching fellow *med, Harvard Med. Sch,* 24-25, *asst, 27–; assoc. physician, Mass. Gen. Hosp, 29–* Am. Med. Asn; Col. Physicians. Physiology.

Sisk, Prof. Augustus, 217 Miller St, Maryville, Tenn. *Mathematics.* Marion, N. C, June 5, 89. A.B, Maryville Col, 17; A.M, Kentucky, 23; Chicago; Ph.D, Cornell, 32. Teacher, high schs, 18-21; asst. *math,* Kentucky, 21-23; instr. and asst. prof, Tennessee, 23-38; *prof, Maryville Col, 38–* Math. Asn; Tenn. Acad. Plane symmetric quintic Cremona involutions.

Sisk, Prof. T(herman) K(elley), Alabama State Teachers College, Livingston, Ala. *Psychology.* Burke Co, N. C, Feb. 7, 78. A.B, Nashville, 02; A.M, George Peabody Col, 23, Gen. Educ. Board scholar, 24-25, Ph.D, 25. Teacher, pub. schs, Tenn, 02-16; prof. educ, Tenn. Polytech, 16-20; assoc. prof, Clemson Col, 20-24; *prof. psychol. and dean, Ala. State Teachers Col, 25–* Assoc. Psychol. Asn; S. Soc. Philos. and Psychol. General school surveys; speed of reaction.

Sisler, Prof. Harry H(all), 1113 W. Tenth St, Lawrence, Kans. *Inorganic chemistry.* Lawrence Co, Ohio, March 13, 17. B.S, Ohio State, 36; M.S, Illinois, 37, Ph.D, 39. Instr. *chem,* Wright Junior Col, 39-41; *Kansas,* 41-42, *asst. prof, 42–* Chem. Soc. Reactions in liquid ammonia solutions; aquo ammono sulfuric acids; α-halogen acids in liquid ammonia; reactions of hexavalent chromium compounds with liquid ammonia.

Sison, Dr. A(gerico) B(enito) M(ariano), 1551 V. Esguerra St, Singalong Sub, Manila, P. I. *Internal medicine.* Lingayen, Pangasinan, P. I, Dec. 1, 98. A.B, Ateneo de Manila, 16; M.D, Philippines, 21. Instr. *med, Philippines,* 23-35, *asst. prof, 35–* Managing ed, 'Bul,' San Juan de Dios Hosp, Manila, 27-35. Med. referee, Philippine branch, W. Coast Life Ins. Co, 35. Philippine del, Cong. Far East. Asn. Trop. Med, Tokyo, 25. Nat. Research Council P. I. Am. Med. Asn; P. I. Med. Asn; Manila Med. Soc. Diagnosis and treatment of internal diseases.

Sisson, Dr. E(arl) Donald, Louisiana State University, Baton Rouge, La. *Psychology.* Lynn, Mass, May 20, 09. A.B, Wesleyan, 31, A.M, 32; Ph.D, Minnesota, 36. Instr. psychol, Wesleyan, 35-38; acting asst. prof, *Louisiana,* 38-39; *instr. psychol. and director guidance, jr. div, 39–* Psychol. Asn; Col. Personnel Asn. Prediction of vocational success; vocational guidance.

Sisson, Dr. Wayne A(ndrew), American Viscose Corp, Marcus Hook, Pa. *Chemistry.* Otey, Va, July 21, 04. B.S, Roanoke Col, 25, A.M, 28; Cornell, 25-26; Ph.D, Illinois, 31; Leeds, 33-34. Asst. prof. chem, Roanoke Col, 26-28; asst, Illinois, 28-30, asst, 30-32, Textile Foundation fellow and special research assoc. chem, 32-35; assoc. cotton technologist, U. S. Dept. Agr, 35; *research chemist,* Boyce Thompson Inst, 36-40; *Am. Viscose Corp, 40–* Collaborator, U. S. Dept. Agr, 32-36. Chem. Soc. X-ray diffraction analysis of structure and orientation of materials; cold rolled metals; protein fibers; cellulose fibers; non-cellulosic materials in plant fibers; relation of structure to fiber properties; rayon fibers.

Sitler, Prof. Ida, Hollins College, Va. *Zoology.* New Mahoning, Pa, April 24, 81. A.B, Michigan, 10, M.S, 18. Instr. biol, Pa. State Teachers Col, Bloomsburg, 05-08; Miss. Col. for Women, 10-11; Cumberland Valley State Teachers Col, 11-14; prof, Lake Erie Col, 14-19; lecturer hygiene, Smith Col, 19-20; *prof. zool, Hollins Col, 20–* A.A; Va. Acad. (pres, 35). Embryology and histogenesis of chick hypophysis; museum problem in Virginia.

Sitterly, Prof. B(ancroft) W(alker), Wesleyan University, Middletown, Conn. *Astronomy.* Madison, N. J, Sept. 11, 95. A.B, Princeton, 17, A.M, 20, Ph.D, 22. Instr. *astron,* Missouri, 22-23; *asst. prof, Wesleyan, 23–* A.A; Astron. Soc; fel. Royal Astron. Soc. Eclipsing variable stars, stellar magnitudes and colors.

Sitton, Dr. B(enjamin) G(affard), P. O. Box 812, Bogalusa, La. *Pomology.* Pendleton, S. C, Feb. 27, 97. B.S, Clemson Col, 18; M.S, Mich. State Col, 28, Ph.D, 31. Nursery inspector, State Board Hort, Ala, 19-22; teacher, high sch, Tenn, 22-24; farmer, S. C, and asst, Clemson Col, 24-26; hort, Mich. State Col, 26-29; *assoc. pomologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 29–* Soc. Hort. Sci; Soc. Plant Physiol. Defective graft unions in apples and pears; callus formation in grafting of the black walnut; the influence of foliage on set, size and filling of pecan nuts; root distribution, pruning, propagation, culture and irrigation of the pecan; mineral nutrition of the tung.

Sivertz, Prof. Christian, University of Western Ontario, London, Ont, Can. *Physical chemistry.* Point Roberts, Wash, Sept. 30, 97. B.A.Sc, British Columbia, 23; M.Sc, McGill, 24, Ph.D, 26. Asst. prof. and *assoc. prof. chem, Western Ontario, 26–* Summers, research chemist, Eastman Kodak Co, 29-30.

Sivertz, Dr. V(ictorian), University of Washington, Seattle, Wash. *Chemistry.* Victoria, B. C, Can, Jan. 25, 00. B.S, Washington (Seattle), 22; M.S, West Virginia, 24; Nat. Research Council Can. bursar, McGill, 25-26, Ph.D, 26. Instr. *chem, Washington (Seattle),* 26-36, *asst. prof, 36–* Chem. Soc. Colloidal gold and platinum in silicic acid gels; intermolecular attraction in gases; surface tensions of colloidal solutions; electrical conductivities of solutions.

Sivickis, Prof. P. B, V. D. Universitetas, Kaunas, Lithuania. *Zoology.* Zaiginys, Lithuania. B.S, Valparaiso, 11; A.B, Missouri, 17; fellow, Chicago, 20-22, Ph.D, 22. Prof. zool, Philippines, 22-28, head dept, 24-28; *ord. prof. comp. anat. and embryol, V. D. Universitetas, 29–* A.A. Regeneraton; morphogenesis; planarians; teredoes; embryology; oils.

Six, Prof. Ray L, 1302 S. W. Husband St, Stillwater, Okla. *Geology.* Amos, W. Va, Jan. 10, 97. A.B, Oklahoma, 19, M.S, 28, 29-31; Th.M, Phillips, 20, A.M, 21; Univ. Nanking, 19; Ph.D, Iowa, 43. Field geologist, oil companies, Texas, 16-17; instr. geol, Phillips, 20-21; educ. missionary, United Christian Missionary Soc, China, 21-26; instr. *geol,* Oklahoma, 28-30; *assoc. prof. and head dept, Okla. Agr. and Mech. Col, 30–* Radio lecturer. Summer, field geologist, Okla. Geol. Surv, 29. State adviser, student vol. movement for for. missions, Okla, 29– U.S.A, 18-19. Okla. Acad. (v. pres, sect. B, 31); Tulsa Geol. Soc; fel. Royal Geog. Soc; fel. Royal Asiatic Soc; fel. Geol. Soc. China; fel. China Soc. Sci. and Arts. Physiography; petroleum and natural gas; petrography; general geology; paleontology; geography of Asia; religion; religious education prior to the council of Nicea; surveys in China; the Reagan sandstone; military geology.

Sizer, Dr. Irwin W(hiting), Massachusetts Institute of Technology, Cambridge, Mass. *Physiology.* Bridgewater, Mass, April 4, 10. A.B, Brown, 31; Ph.D, Rutgers, 35. Asst, Rutgers, 31-35; instr. *physiol, Mass. Inst. Tech,* 35-39, asst. prof, 39-42, *assoc. prof, 42–* Summer, director oyster pest control investigation, Bur. Fisheries, Bivalve, N. J, 35. X-ray photography of insects; chemical stimulation of animals; enzyme kinetics as related to temperature and oxidation-reduction potential.

Sjogren, Dr. C(harles) Norman, 615 Temple Ave, Long Beach, Calif. *Physical and organic chemistry.* Proctor, Vt, April 4, 14. B.S, Mass. State Col, 36; Ph.D, Mass. Inst. Tech, 40. Teaching fellow, Mass. Inst. Tech, 36-39, instr. gen. chem, 39-40; *research chemist, Union Oil Co, Calif, 40–* Chem. Soc. Petroleum products.

Sjogren, Oscar W(arner), 6709 Cedar St, Huntington Park, Calif. *Agricultural engineering.* Hildreth, Nebr, Aug. 15, 87. B.S, Nebraska, 15; Agr.E, Iowa State Col, 22. Instr. agr. eng, Nebraska, 09-12, 15-16, asst. prof, 16-17, assoc. prof, 17-18, prof. and acting head dept, 18-20, chairman dept, 20-29; *sales manager, Killefer Mfg. Corp, Ltd, 29–* Engineer in charge tests, nat. tractor demonstration, Kans, 18; mem, State Board Tractor Tests, Nebr, 19-29. Agr. Eng. (pres, 26); Soc. Automotive Eng. Tractor testing; corn planter accuracy tests: draft of tillage implements; ventilation of farm buildings; agricultural implements and road tools; design of farm implements.

Sjostrom, Otto A(ugust), 6204 S. Maplewood Ave, Chicago, Ill. *Chemistry.* Kristianstad, Sweden, June 9, 68. B.S.

Lund, 90, Ph.L, 99; Tech. Hochschule, Braunschweig, Germany, 99–00. Asst. chem, Lund, 91–95; miner, Griefswald, Germany, 95–98; indust. chemist, 00–02; chemist, Lignum Production Co, Chicago and Hattiesburg, Miss, 02–06; research chemist, Corn Products Ref. Co, 06–40; *retired.* Chem. Soc; Chicago Chemists Club (pres, 35). Mineral chemistry; waste water treatment; glucose; starch.

Skaggs, Prof. Ernest Burton, Wayne University, Detroit, Mich. *Psychology.* Gatesville, Texas, July 7, 93. A.B, Michigan, 16, M.S, 20, Ph.D, 23. Instr. *psychol,* Pa. State Nor. Sch, Millersville, 16–19; asst. prof, Ohio Wesleyan, 20–22; instr, Michigan, 22–24; *prof,* Col. City of Detroit, 24–33, *Wayne, 33–* Psychol. Asn; Mich. Acad. Individual differences; personality.

Skaperdas, Dr. George T(heodore), 414 W. 120th St, New York, N. Y. *Chemical engineering.* New York, N. Y, Jan. 25, 14. B.Eng, McGill, 36; M.S, Mass. Inst. Tech, 38, Sc.D, 40. Asst, Mass. Inst. Tech, 38–40; *chem. engineer, M. W. Kellogg Co, 40–* Chem. Eng. Absorption column performance; corrosion of steel; process development engineering; a simplified Pitot-tube traverse; corrosion of steel by dissolved carbon dioxide and oxygen; pressure drop in the flow of compressible fluids.

Skaptason, Dr. Joseph Bjorn, U. S. Rubber Co, Naugatuck, Conn. *Plant pathology.* Winnipeg, Man, Can, 11. B.Sc, Alberta, 33, Nat. Research Council Can. fellow, M.Sc, 35; Ph.D, Cornell, 42. Asst, Cornell, 36–42; *plant pathologist, chem. and reclaiming develop. div, U. S. Rubber Co, 42–* Fungicide and insecticide dusts for potatoes; compatibility copper and insecticide dusts; copper content of potato soils; bacterial ring rot of potatoes.

Skarstedt, Dr. Marcus, San Francisco Junior College, San Francisco, Calif. *Mathematics.* Chicago, Ill, April 8, 84. A.B, Augustana Col. (Ill), 10, A.M, 12; B.L.S, Illinois, 11; M.S, Iowa, 17; Ph.D, California, 24. Prof. math, Augustana Col. (Ill), 11–17; pub. librarian, Ill, 17–20; instr. math, Calif. Polytech. Sch, 20–22; prof, Whittier Col, 22–40; *librarian, San Francisco Junior Col, 40–* Summers, instr, California, 23, 24. A.A; Math. Asn. Geometry of four space; geometric magnitudes.

Skarstrom, Dr. C(harles), Columbia University, New York, N. Y. *Physics.* New York, N. Y, April 6, 06. A.B, Columbia, 29, A.M, 33; du Pont sr. research fellow, Virginia, 38–39, Ph.D, 39. Radium technician, Mem. Hosp, New York, 24–26; asst. physics, Columbia, 29–34; in charge assembly and calibration of aircraft instruments, Aeromarine Instrument Co, Bronx, N. Y, 34–36; research assoc. physics, Virginia, 38–40; asst. physicist, U. S. Naval Research Lab, 40–41; *visiting scholar, Columbia, 41–* Trustee asst, Columbia, 30–33. Physical Soc. Concentration of isotopes by ultracentrifuge; development of electrically-driven centrifuge; theory and applications of ultracentrifuge.

Skartvedt, Prof. P(eter) M(arcus), Gustavus Adolphus College, St. Peter, Minn. *Chemistry.* Canton, S. Dak, March 2, 86. A.B, St. Olaf Col, 06; A.M, Minnesota, 13; Chicago, 21; Wisconsin, 24; Minnesota, 25, 38. Teacher, high sch, Minn, 06–08; prin, Wash, 13–15; *prof. chem, Gustavus Adolphus Col, 15–* Chem. Soc; Minn. Acad. Determination of phosphorus in vanadium steel; essentials of first year general chemistry; general chemistry for college students.

Skau, Dr. Evald L(aurids), U. S. Department of Agriculture, New Orleans, La. *Chemistry.* Hartford, Conn, May 13, 97. B.S, Trinity Col. (Conn), 19, M.S, 20; fellow, Yale, 23–24, du Pont fellow, 24–25, Ph.D, 25. Chemist, Emerson Lab, Mass, 20–21; instr. chem, Trinity Col. (Conn), 21–22, asst. prof, 27–36; research fellow, Yale, 25–26; nat. research fellow, Mass. Inst. Tech, 26–28; consultant, 36–37; Int. Cancer Research Foundation fellow, Yale, 37–39; *senior chemist, south. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 39–* Guggenheim Mem. Foundation fellow, Munich, Frankfurt and Int. Bur. Physico-Chem. Standards, Brussels, 30–31. Chem. Soc. Purification and criteria of purity of organic compounds; freezing points; binary systems; dynamic isomerism; enzymes; thermodynamics; physical constants; sterol chemistry.

Skau, Dr. N(is) H(ansen), 709 E. Cold Spring Lane, Baltimore, Md. *Physical chemistry.* Denmark, Nov. 9, 97. B.S, Royal Tech. Col, Copenhagen, 22; Ph.D, Hopkins, 41. Chemist, Société de la Nouvelle Montagne, Belgium, 24–28; Celanese Corp. of Amer, Md, 30–37; instr, Hopkins, 37–41; *research chemist, Consol, Gas and Elec. Co, Baltimore, 41–* Chem. Soc. Catalysis; hydrogenation of benzene.

Skeats, Wilfred F(rancis), 121 Windsor Ave, Lansdowne, Pa. *Electrical engineering.* Newton Highlands, Mass, Dec. 14, 01. A.B, Columbia, 23, E.E, 25. Advanced course eng, *Gen. Elec. Co,* 25–28, *switch gear dept, 28–,* in charge interrupting capacity test plant, 31–36, *tech. asst. to engineer, Phila. works, 36–* Elec. Eng. Electric circuit breakers; circuit interruption.

Skeels, Dr. D(orr) C(ovell), Princeton Junction, N. J. *Geology, Geophysics.* Wallace, Idaho, Aug. 6, 08. A.B, Montana, 30; Rhodes scholar, Oxford, 30–33, B.A, 33; Ph.D, Princeton, 36. Asst. geol, Princeton, 33–36; geophys. computer, Carter Oil Co, 36–38; *research geophysicist, Standard Oil Develop. Co, 38–* Min. and Metal. Eng; Geophys. Union; Soc. Explor. Geophys; Asn. Petrol. Geol. Structural geology; gravity anomalies and their relation to geologic structure; isostasy.

Skeels, Dr. Harold M(anville), State University of Iowa, Iowa City, Iowa. *Psychology.* Denver, Colo, March 8, 01. B.S, Iowa State Col, 27; A.M, Iowa, 30, Ph.D, 32. Asst, *child welfare research sta, Iowa,* 28–32, research assoc, 32–36, asst. prof. *psychol,* 36–41, *assoc. prof, 41–* Psychologist, Iowa State Orphanages, 32–34; director div. psychol. services, Board of Control of State Institutions, Iowa, 34– Summers, asst. prof, Iowa State Col, 36–37; N. Y. State Col. for Teachers, 38. A.A; Psychol. Asn; Asn. Applied Psychol; Asn. Mental Deficiency; Midwest. Psychol. Asn. Mental development of children in adoptive homes and of children from underprivileged homes.

Skeen, Dr. John R(obsin), 313 W. Manheim St, Philadelphia, Pa. *Plant physiology, Chemistry.* Philadelphia, Pa, June 28, 99. B.S, Pa. State Col, 21; A.M, Pennsylvania, 24, Ph.D, 26. Asst. bot, Pennsylvania, 21–24, asst. instr, 24–25, instr, 25–30; *research chemist and group leader, United Gas Improv. Co, 30–; acting chief chem. branch, civilian supply, War Production Board, 42–* Prof, La Salle Col, 27–30. A.A; Bot. Soc; Chem. Soc; Pa. Acad. Plant nutrition; ecology; gas equilibria; water control; surface coatings; petroleum pyrolysis; chemicals distribution.

Skell, Dr. Philip S(olomon), 140 Cole Court, Peoria, Ill. *Organic chemistry.* New York, N. Y, Dec. 30, 18. B.S, Col. City of N. Y, 38; A.M, Columbia, 40; univ. fellow, Duke, 39–41, Ph.D, 42. Instr. chem, Col. City of N. Y, 38–39; *asst. research chemist, north. regional research lab, U. S. Dept. Agr, 42–* Chem. Soc; Oil Chem. Soc. Elimination reactions; reactions of electrophilic reagents with alkyl halides; chemistry of unsaturated fatty acids.

Skellett, Dr. A(lbert) M(elvin), 25 Woodcliff Drive, Madison, N. J. *Physics.* St. Louis, Mo, July 14, 01. A.B, Washington (St. Louis), 24; fellow, 25–27, M.S, 27; Ph.D, Princeton, 33. Instr. physics, Florida, 27–28, asst. prof, 28–29; *research physicist, Bell Tel. Labs, New York, 29–* Summer, research physicist, Westinghouse Elec. and Mfg. Co, 26. Physical Soc; Astron. Soc. Electronics; vibration of crystals; astrophysical factors affecting radio transmission through the upper atmosphere; study of solar corona without an eclipse.

Skelton, Prof. F(rederick) M(adison), South Dakota State College, Brookings, S. Dak. *Dairy chemistry.* London, Ont, Can, Nov. 4, 15. B.S.A, Ont. Agr. Col, 37; M.S, Vermont, 39; fellow, Wisconsin, 39–41, Ph.D, 41. Instr. dairying, Vermont, 39; *asst. prof. dairy husbandry, S. Dak. State Col, 41–* Dairy Sci. Asn. Dairy bacteriology; physico-chemical factors affecting cream viscosity; adsorption indicators for argentometric titrations.

Skey, Dr. A(rthur) J(ames), 562 Huron St, Toronto, Ont, Can. *Physical chemistry.* Kamloops, B. C, Jan. 19, 14. B.A, Toronto, 35, M.A, 36; Ph.D, McGill, 39. Senior research asst, Nat. Research Council, Can, 39–41; *Can. Army, 41–* Heats of wetting of cellulosic materials.

Skidmore, Don Inskeep, 4452 Volta Place, N. W, Washington, D. C. *Agriculture, Animal industry.* West Mansfield, Ohio, Oct. 25, 81. V.S, Ohio State, 04. Private practise, 04–05; meat inspection service, *bur. animal indust, U. S. Dept. Agr,* 05–14, biochem. div, 14–17, *virus-serum control div,* 17–20, *chief div, 20–* Lecturer, Mass. Col, 14. Vet. Med. Asn; U. S. Live Stock Sanit. Asn. Production of clear anti-hog cholera serum; methods and equipment for most effective pasteurization of serums and other products.

Skidmore, Dr. Louis V(allieres), 3859 Dudley St, Lincoln, Nebr. *Animal pathology, Hygiene.* New York, N. Y, Dec. 22, 89. B.S. (Agr), Missouri, 12; D.V.M, Kans. State Col, 20. Asst. vet. science, Missouri, 11; instr. *animal path. and hygiene, col. agr, Nebraska,* 20–25, asst. prof, 25–29, *assoc. prof,* 29– Conf. Research Workers Animal Diseases of N. Amer; Vet. Med. Asn; Nebr. Vet. Med. Asn. Veterinary science; parasitology.

Skiles, Prof. W(illiam) Vernon, Georgia School of Technology, Atlanta, Ga. *Mathematics.* Mendota, Ill, April 23, 79. B.S, Chicago, 06; A.M, Harvard, 11; hon. Sc. D, Georgia, 26. *Prof. math, Ga. Tech, 11–, dean, 25–* A.A; Eng. Educ; Ga. Acad.

Skilling, Prof. Hugh (Hildreth), Stanford University, Calif. *Electrical engineering.* San Diego, Calif, Sept. 2, 05. A.B, Stanford, 26, Engineer, 27, fellow, 30, Ph.D, 31; M.S, Mass. Inst. Tech, 30. Engineer, South. Calif. Edison Co, 27–29; instr. *elec. eng, Stanford,* 31–35, asst. prof, 35–39, assoc. prof, 39–42, *prof, 42–, acting exec. head dept, 41–; lieut, U. S. Naval Res.* Summer, lecturer, Mass. Inst. Tech, 34. A.A; Elec. Eng. Electric power transmission; high voltage; transient electric currents; fundamentals of electric waves.

Skinker, Dr. Murray F(ontaine), 112 N. Mountain Ave, Montclair, N. J. *Physics.* Denver, Colo, April 12, 98. B.S, Colorado, 19, M.S, 21; Rhodes scholar, Oxford, 21, Ph.D, 24. Instr. eng. math, Colorado, 19–21; asst. research engineer, Brooklyn Edison Co, 24–26, asst. director research, 26–37; assoc. director research, Consol. Edison Co, 37–42; chief develop. engineer, rectifier div, *Fed. Tel. and Radio Co,* 42–43, *manager selenium rectifier div, 43–* Physical Soc; fel. Elec. Eng; Soc. Test. Mat. Motions of ions and electrons in gases; electrical insulation.

Skinner, Prof. B(urrhus) F(rederic), University of Minnesota, Minneapolis, Minn. **7Psychology.* Susquehanna, Pa, March 20, 04. A.B, Hamilton Col, 26; A.M, Harvard, 30, Ph.D, 31. Research fellow gen. physiol, Harvard, 31–33, mem. soc. of fellows, 33–36; instr. *psychol, Minnesota,* 36–37, asst. prof, 37–41, *assoc. prof, 41–* A.A; Psychol. Asn. Behavior of organisms; hunger; conditioning; language.

Skinner, Dr. C(harles) E(dward), 215 Elmore Road, Wilkinsburg, Pa. *Engineering.* Redfield, Ohio, May 30, 65. Ohio (Athens), 84–85, Sc.D, 27; M.E, Ohio State, 90, D.Eng, 35. Lab, Westinghouse Elec. and Mfg. Co, 90–95, elec. engineer, 95–06, engineer in charge research div, 06–19, manager research dept, 19–21, asst. director eng, 21–32; *retired; senior elec. engineer and battery coordinator, Ft. Monmouth Signal Labs, 43–* Iwadare Foundation lecturer, Japan, 34. Chairman, Am. Eng. Standards Cmt, 25–27; director, Am. Eng. Council, 30. Lamme medal, Ohio State, 31. Special rep, Inst. Elec. Eng, Cmt. on Elec. Standards, London, 15; chairman, Am. delegation, Int. Electrotech. Cmn, Brussels, 20, Geneva, 22, del, London, 24, The Hague, 25; World's Power Conf, London, 24, Bellagio, 27; Int. Asn. Test. Mat, Brussels, 06; del, World Eng. Cong, Tokyo, 29. Elec. Eng. (manager, 14–19, v. pres, 19, pres, 31); Physical Soc; Electrochem. Soc; Franklin Inst; Soc. Test. Mat; Eng. Soc. West. Pa; Pittsburgh Acad; Int. Standards Asn. (councilor, 31–33). High tension and high frequency phenomena; insulating materials as applied to electrical apparatus; aging of iron and steel in dynamos and motors; effect of temperature on insulating materials.

Skinner, Dr. C(harles) E(dward), University of Minnesota, Minneapolis, Minn. *Bacteriology.* Brainerd, Minn, March 18, 97. B.S, State Col. Wash, 21, M.S, 23; fellow, Rutgers, 23–25, Ph.D, 25. Instr. bacter, State Col. Wash, 21–23; Int. Educ. Board fellow soil microbiol, Rothamsted Lab, England, 25–26; instr. *bacter, Minnesota,* 26–34, *asst. prof,* 34– Soc. Bact; Soc. Exp. Biol; Int. Soc. Soil Sci. Sanitary water analysis; soil algae; vitamin synthesis by microorganisms; microbial proteins as food for animals; amino acid synthesis by microorganisms; microbial tyrosinase.

Skinner, Prof. C(harles) E(dward), New York University, New York, N. Y. *Psychology.* Newark, Ohio, April 24, 91. Cornell, 13–14; B.S, Ohio (Athens), 14; A.M, Chicago, 16; Columbia, 22–23; Ph.D, N. Y. Univ, 23. Teacher, schs, Ohio, 09–10; asst. prof. psychol. and educ, Ohio, 14–19; prof. psychol, Mt. Union Col, 19–20; instr. educ, Pa. State Nor. Sch, Indiana, 20–22; educ. psychol, N. Y. Univ, 22–23; prof. educ, Miami (Ohio), 23–25; asst. prof. educ. psychol, *N. Y. Univ,* 25–28, assoc. prof, 28–30, *prof. educ, 30–* Psychol. Asn; Asn. Applied Psychol. Educational, clinical and child psychology; mental hygiene.

Skinner, Prof. Charles H(enry), 1948 W. Keefe Ave, Milwaukee, Wis. *Physics.* Kempton, Ind, April 9, 89. A.B. Indiana, 13, Ph.D, 25; M.S, Iowa, 16. Instr. *physics,* DePauw, 13–15; Washington (St. Louis), 15–18; asst. prof, Ohio Wesleyan, 18–20, assoc. prof, 20–26; *prof, Marquette, 26–* A.A; Physical Soc; Ind. Acad. Sound; light; optical properties of hexagonal crystals of selenium; anomalous action of the Rayleigh disk.

Skinner, Dr. Clarence A(urelius), Kensington, Md. **2Physics.* Loudoun Co, Va, Jan. 6, 71. B.S, Nebraska, 93; Ph.D, Berlin, 99. Demonstrator physics, Nebraska, 99–01, adj. prof, 01–03, asst. prof, 03–09, prof. and head dept, 06–19; chief optics div, Bur. Standards, 19–41; *retired.* Physical Soc. (councilor, 10–13, ed. board, 13); Optical Soc; Philos. Soc. Wash; Wash. Acad. Passage of electricity through gases; relation of voltaic series to the electrode drop in gases; atomic ions in gases; optical properties of magnetic metals; plane double refraction normal to magnetic field in liquids; phase change by reflection from substances possessing selective absorption; electrode polarization in gases.

Skinner, Ernest M(artin), 78 Beacon St, Chestnut Hill, Mass. *Acoustics.* Clarion, Pa, Jan. 15, 66. Pub. schs. Tech. engineer, Hutchings Organ Co, 98–04; founder and pres, Ernest M. Skinner Co, 05–20; *v. pres,* Skinner Organ Co, 20–32, Aeolian Skinner Organ Co, 32–36, *Ernest M. Skinner and Son Co, Methuen, 36–* Lecturer, Am. Guild Organists. Acoustical Soc. Production of sound waves in organ pipes; piano playing and organ mechanism; organ pipes reproducing orchestral voices or instruments.

Skinner, Dr. E(ugene) W(illiam), 311 E. Chicago Ave, Chicago, Ill. *Physics.* Anamosa, Iowa, Feb. 28, 96. A.B, Grinnell Col, 19; M.S, Iowa, 25, Ph.D, 30. Instr. chem, Doane Col, 21; teacher, high sch, Iowa, 22–24; asst. physics, Iowa, 24–25; prof. physics and math, Olivet Col. (Mich), 25–30; asst. prof. basic dental technol, sch. dentistry, Western Reserve, 30–33, assoc. prof, 33–34; *physics, Northwestern Dental Sch,* 34–42, *prof, 42–* A.A; Physical Soc; Min. and Metal. Eng; Dental Asn. (research cmn); Int. Asn. Dental Research (sec'y dental materials group, 38–). Dental materials.

Skinner, Col. Geo(rge) A(lfred), U.S.A. (retired), 640 The Alameda, Berkeley 8, Calif. *Medicine.* Osage, Iowa, June 11, 70. M.D, Rush, Chicago, 92. Intern, Cook County Hosp, Chicago, Ill, 93–95; various ranks to col, M.C, U. S. Army; *retired;* lecturer, *Nebraska,* 34, prof. *pub. health, col. med,* 34–38, *emer. prof, 38–* D.S. medal, 18; Wellcome medal, 31. Fel. Col. Surg; fel. Am. Med. Asn; Asn. Mil. Surg. Military medicine.

Skinner, Prof. Glenn S(eymour), 74 Amstel Ave, Newark, Del. *Organic chemistry.* Columbus, Kans, June 1, 90. A.B, Kans. State Teachers Col, 13; A.M, Illinois, 15, Ph.D, 17. Instr, Pittsburgh, 17; asst. prof. *chem,* Oberlin Col, 19–20; Wisconsin, 20–24; *Delaware,* 28–34, *assoc. prof, 34–* Lieut, C.W.S, 18–19. A.A; Chem. Soc. Decomposition of aliphatic diazo compounds; synthesis of barbituric acid derivatives.

Skinner, Prof. H(arley) Clay, State Teachers College, Tempe, Ariz. *Psychology, Education.* Newark, Ohio, May 3, 95. B.S, Ohio (Athens), 17; A.M, Ohio State, 22; Columbia, 22; Ph.D, N. Y. Univ, 27. Teacher and prin, pub. schs, Ohio, 13–21, sch. supt, 23–24; asst. prof. educ, Drake, 24–25; instr. psychol, N. Y. Univ, 25–26; head dept, Pa. Col. for Women, 26–30; asst. prof. educ, Temple, 30–38; *prof. psychol. and head dept, Ariz. State Teachers Col, Tempe, 38–; lieut, Adj. Gen. Dept, U. S. Army, 42–* Instr, summer and exten. sessions, Pa. State Col, 26–30. A.A; assoc. Psychol. Asn; Asn. Applied Psychol; Nat. Soc. Col. Teachers Educ. Educational psychology and special education; guidance; mental hygiene.

Skinner, Prof. (Henry) Alan (Lawson), 125 St. James St, London, Ont, Can. *Anatomy.* Erin, Ont, Sept. 26, 99. M.B, Toronto, 22. Asst. *anat,* Toronto, 26–28; *assoc. prof, Western Ontario, 28–* Fel. Royal Col. Surg. Can; Ont. Med. Asn. Human anatomy; origin of acoustic nerve tumors; histologic features of the cranial nerves; myelination.

Skinner, Henry T(homas), Morris Arboretum, Chestnut Hill, Philadelphia, Pa. *Botany.* East Sutton, Eng, Sept. 24, 07. B.S, Cornell, 36, M.S, 38; Pennsylvania, 40. Asst. propagation, Hillier Nurseries, Winchester, England, 27–29; Arnold Arboretum, Harvard, 29–31; propagator and instr. ornamental hort, Cornell, 31–40; *curator, Morris Arboretum, Pennsylvania, 40–* Soc. Hort. Sci; Asn. Bot. Gardens and Arboretums (v. chairman, 40–). Aspects of the propagation of ericaceous

plants by cuttings; factors affecting flower development and vegetative growth in rhododendrons and azaleas.

Skinner, Hervey (Judson), Skinner and Sherman, Inc, 246 Stuart St, Boston, Mass. *Chemistry, Engineering.* Wakefield, Mass, Oct. 7, 77. B.S, Mass. Inst. Tech, 99. Asst, Mass. Inst. Tech, 99–00; chemist and asst. supt, Gen. Chem. Co, Phila, 00–02; v. pres, Arthur D. Little, Inc, Cambridge, 02–19; *pres, Skinner and Sherman, Inc, 19–* Chem. Soc; Soc. Test. Mat; Asn. Pulp and Paper Indust; Chem. Eng; Electrochem. Soc; Water Works Asn; New Eng. Water Works Asn. Cellulose.

Skinner, Dr. J(ohn) T(aylor), 460 Park Ave, Lexington, Ky. *Agricultural chemistry.* Whitesville, Ky, Jan. 18, 03. B.S, West. Ky. State Teachers Col, 26; M.S, Wisconsin, 28, Ph.D, 32. Asst. agr. chem, Wisconsin, 29–32; assoc. prof. chem, West. Ky. State Teachers Col, 33–42; *asst. chemist, Exp. Sta, Kentucky, 42–* A.A; Chem. Soc; Ky. Acad. Role of manganese in animal nutrition; food value of mold mycelium.

Skinner, Dr. J(oshua) J(ohn), U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* Hertford. N. C, June 30, 82. B.S, North Carolina, 03, M.S, 04; Ph.D, American Univ, 17. Scientist, bur. soils, *U. S. Dept. Agr,* 04–14, *biochemist,* bur. plant indust, 14–27, bur. chem. and soils, 27–35, *bur. plant indust, 35–* Longstreth medal, Franklin Inst, 19; Chilean Nitrate of Soda award, Soc. Agron, 30. Chem. Soc. (asst. ed, 'Abstracts,' 18–33); Bot. Soc. (ed, 'Abstracts,' 19–26); Soc. Agron. (joint cmt. fertilizer placement); Asn. South. Agr. Workers (fertilizer cmt); Wash. Acad. Biochemistry of plants, soils and fertilizers; effect of organic compounds on plants; effect of aldehydes on crops and soils; fertilizer requirements of soil types; fertilization of pecans, citrus and cotton; truck soils of the South; concentrated fertilizers; fertilizer placement; cotton nutrition.

Skinner, M(ilton) P(hilo), 345 E. Ocean Blvd, Long Beach 2, Calif. *Ecology, Zoology.* Brooklyn, N. Y, Dec. 14, 79. B.S, Polytech, Inst. Brooklyn, 99. Roosevelt field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 22–42; *lecturer,* 28– Soc. Mammal; Ornith. Union; Cooper Ornith. Club. Animal and bird life of America; birds and bears in the Yellowstone; the American antelope.

Skinner, Dr. Selby M(illmore), University of Chicago, Chicago, Ill. *Physics.* Boston, Mass, July 19, 05. B.S, Washington (Seattle), 29; Ph.D, Calif. Inst. Tech, 33. Instr, Ariz. State Teachers Col, Tempe, 32–33, asst. prof, 33–35; research assoc. *physics,* Teachers Col, Columbia, 35–37; *asst. prof, Chicago, 37–;* major, *C.A.C, U. S. Army,* 41–42, *lieut. col, 42–* Physical Soc; Asn. Physics Teachers. Ionizing particle counters; positrons; artificial radioactivity; theory of lubrication.

Skinner, Dr. W(illiam) Woolford, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Baltimore, Md, 74. B.S, Maryland, 95, Sc.D, 17; M.S, George Washington, 97. Asst. chemist, Maryland, 95–99; Exp. Sta, Arizona, 99–02, assoc. chemist, 02–04; food inspection chemist, bur. chem, *U. S. Dept. Agr,* 04–08, asst. chief miscellaneous div, 08–14, chief water lab, 14–21, asst. chief bur, 21–27, chem. and technol. research, bur chem. and soils, 27–35, asst. chief, 35–42, *chief bur. agr. and indust. chem, 42–* Asst. chemist, Ariz. Sch. Mines, 04. Sec'y, Board Regents, Maryland, 17–35, chairman, 35–41; State Board Agr, Md, 35–41; Fed. Food Standards Cmt, 22–27; rep, U. S. Dept. Agr, joint cmn. to study pollution of Potomac River and Chesapeake Bay, 10–13. Del, Int. Cong. Chem, Rome, 38. Agr. Chem. (sec'y-treas, 21–, chairman, board editors, referee); Chemists' Club; Chem. Soc. Wash. (past pres). Forage products; range forages; volatilization of elements on ashing plant materials; copper in irrigating waters; mineral springs; lithia iodids, bromids and chlorids in mineral waters and brines; food flavors; beverages; citrus by-products; insecticides; toxicology; flavors, aromas and perfumes.

Sklar, Dr. Alfred L(ee), Catholic University of America, Washington, D. C. *Physical chemistry.* Baltimore, Md, Aug. 11, 14. B.S, Hopkins, 34, Ph.D, 37. Asst, Hopkins, 38; lecturer, grad. sch, U. S. Dept. Agr, 39–40; asst. *physics, Catholic Univ,* 40–42, *asst. prof, 42–* Lecturer, grad. sch, Bur. Standards, 39–40. Assoc. ed, 'Jour. Chem. Physics,' 43– A.A; Chem. Soc; Physical Soc. Spectra of polyatomic molecules; quantum mechanics; color of dyes; chemical effects of corona discharge; oils, fats and waxes.

Skogland, Dr. John E(dmund), Louisiana State University Medical Center, New Orleans, La. *Neuropsychiatry.* Aurora, Minn, June 17, 12. M.B, Minnesota, 35, M.D, 37, M.S, 39, Ph.D, 40. Clin. instr. *neuropsychiat,* Minnesota, 39–40, instr, 40–41; *asst. prof, med. center, Louisiana, 41–* George Chase Christian Mem. scholar, Harvard, 40–41; visiting physician, Charity Hosp. of La, 41– Federation Clin. Research. Meningitis; use of vitamins in muscular diseases; equilibrium in human subjects.

Skogsberg, Prof. (Karl Jonas) Tage, Stanford University, Pacific Grove, Calif. *Zoology.* Gothenburg, Sweden, Nov. 5, 87. M.A, Upsala, Sweden, 12, Ph.D, 20. Asst. zool, Zool. Inst, Upsala, 17–20; Hopkins Marine Sta, Stanford, 20–21; sci. asst, State Fish and Game Cmn, Calif, 21–22; asst, California, 23–26, assoc, 26; instr, *Hopkins Marine Sta, Stanford,* 26–28, assoc. prof, 28–34, *prof. marine biol. and oceanog, 34–* Musée de l'Oceanog. de Monaco, 16. Summer, instr, Stanford, 25. A.A; Soc. Zool. Ostracods; commercial fisheries; dinoflagellates; oceanography.

Skok, Dr. John, University of Illinois, Urbana, Ill. *Plant physiology.* Rumania, Nov. 18, 09. B.Ed, North. Ill. State Teachers Col, 35; M.S, Chicago, 37, fellow, 37–39, Ph.D, 41. Asst. bot, Chicago, 40–41; *assoc. veg. crops, Illinois, 42–* A.A; Soc. Plant Physiol; Soc. Hort. Sci; Ill. Acad. Plant nutrition; physiology of vegetable crops.

Skolnik, Dr. Herman, 6 N. Cannon Drive, Edge Moor Gardens, Wilmington, Del. *Organic and physical chemistry.* Harrisburg, Pa, March 22, 14. B.S, Pa. State Col, 37; M.S, Pennsylvania, 41, Ph.D, 43. Chemist, Roosevelt Oil Co, 37–38; State Highway Dept, Pa, 38–39; Barrett div, Allied Chem. Co, 39–42; *Hercules Powder Co, 42–* Chem. Soc. Petroleum, paints and allied products; coal tar products; kinetic studies; organic syntheses; terpenes; fractional distillation; countercurrent extraction; fatty acids.

Skoog, Dr. Folke (Karl), Johns Hopkins University, Baltimore, Md. *Plant physiology.* Sweden, July 15, 08. B.S, Calif. Inst. Tech, 32, Ph.D, 36. Nat. research fellow, California, 36–37; instr. and tutor biol, Harvard, 37–41; *assoc. prof. bot, Hopkins, 41–* Visiting plant physiologist, Exp. Sta, Hawaii, 38. Bot. Soc; Soc. Plant Physiol; Soc. Study Growth. Growth of plants.

Skovholt, Dr. Oscar, Quality Bakers of America, 120 W. 42nd St, New York, N. Y. *Agricultural biochemistry.* Dwight, N. Dak, Jan. 24, 97. B.S, North Dakota, 21, M S, 23; Ph.D, Minnesota, 35. Asst. chemist, N. Dak. State Mill and Elevator Co, Grand Forks, N. Dak, 23–25; chemist, Cascade Milling and Elevator Co, Cascade, Mont, 25 28; Am. Dry Milk Inst. research fellow biochem. Minnesota, 29–36; *director lab. and chem. research, Quality Bakers of Amer, 36–* A.A; Chem. Soc; Asn. Cereal Chemists (treas, 37–41). Effect of milk solids on yeast activity and enzyme reactions in bread doughs; free and bound water in bread doughs; baking quality of variously processed dried milk.

Skow, Dr. Norman A(lexander), 230 Grove St, Bloomfield, N. J. *Chemistry.* Soldier, Iowa, Dec. 22, 04. B.S, Iowa, 26, fellow, 26–27, M.S, 27; Ph.D, Cornell, 30; Chem.E, Iowa, 35. Asst, Cornell, 27–30; *research chemist, Bakelite Corp, Bloomfield, 30–* Chem. Soc; fel. Inst. Chem; fel. Chem. Eng. Filtration; rare metals; plastics; photomicroscopy.

Skowronski, Stanislaus, Raritan Copper Works, Perth Amboy, N. J. *Chemical engineering.* Bex, Switzerland, July 8, 81. Mass. Inst. Tech, 04. Chemist, Republic Rubber Co, 05–06; Am. Smelting and Ref. Co, 06–09; C. L. Constant Co, 09–12; *research engineer, Raritan Copper Works, 12–* Chem. Soc; Electrochem. Soc; Soc. Metals; British Inst. Metals. Refining of copper.

Skramstad, Dr. Harold K(enneth), National Bureau of Standards, Washington, D. C. *Physics.* Tacoma, Wash, July 26, 08. B.S, Col. of Puget Sound, 30; Ph.D, Washington (Seattle), 35. Instr, high sch, Wash, 30–31; teaching fellow, Washington (Seattle), 31–35; junior physicist, *Bur. Standards,* 35–38, asst. physicist, 38–42, *assoc. physicist, 42–* Instr, Columbia Tech. Inst, 41– Summers, acting instr, Col. of Puget Sound, 31, 32, 34, 35. Physical Soc. Ionization of gases; aerodynamics.

Skutch, Dr. Alexander F(rank), Finca 'Los Cusingos,' Quizarrá de Pérez Zeledón, Costa Rica. *Ornithology, Botany.* Baltimore, Md, May 20, 04. A.B, Hopkins, 25, Ph.D, 28. Asst. bot, Hopkins, 25–28, Johnston scholar, 28–30, nat. research fellow, 30–31. Research, Jamaica, 26; Panama, 28–29, 35; Honduras, 30; Guatemala, 32–35; Costa Rica, 36–42; Ecuador, 39; curator plants, Museo Nacional de Costa Rica, 40; botanist,

rubber surv. in Peru, Ecuador and Colombia, U. S. Dept. Agr, 40–41. Ornith. Union. Succession following forest fires; anatomy of Mertensia maritima; anatomy and physiology of the banana; habits of neotropical birds; floral behavior of Heliconia bihai, avocada and palms; flora of Central America.

Slack, Dr. C(harles) M(orse), 378 Forest Ave, Glen Ridge, N. J. *Physics.* Marietta, Ohio, Dec. 4, 01. B.S, Georgia, 22; A.M, Columbia, 23, Ph.D, 26. Instr. physics, Columbia, 26–27; *research physicist, Westinghouse Elec. and Mfg. Co, 27–, asst. director research, lamp div, 43–* A.A; Physical Soc. X-rays; electrons.

Slack, Prof. Edgar P, 1905 Third Ave, Spring Lake, N. J. *Physics.* Abington, Mass, Oct. 5, 85. B.S, Mass. Inst. Tech, 08; M.S, N. Y. Univ, 37. Instr. physics, Mass. Inst. Tech, 08–10; physicist, nutrition lab, Carnegie Institution, 10–12; engineer, Underwriters' Lab, 12–16; instr. *physics,* Pratt Inst, 14–20; *Polytech. Inst. Brooklyn,* 24–25, asst. prof, 25–39, *assoc. prof, 39–* Instr, Wentworth Inst, 08–09. Eng. Educ. Electricity. .

Slack, Prof. Francis G(oddard), Vanderbilt University, Nashville, Tenn. *Physics.* Superior, Wis, Nov. 1, 97. B.S, Georgia, 18; Ph.D, Columbia, 26. Test engineer, Gen. Elec. Co, 20–21; from asst. to lecturer *physics,* Columbia, 21–28; assoc. prof, *Vanderbilt,* 28–39, *prof. and chairman dept, 39–; mem. staff div. war research, Columbia, 41–* Cutting traveling fellow, Columbia, 26–27. Board editors, 'Am. Jour. Physics,' 41– Pilot's cmn. in reserve, A.S, 19. A.A; fel. Physical Soc. (chairman southeast. sect, 40); Optical Soc; Eng. Educ; Asn. Physics Teachers (councilor, 41–); Southeast. Asn. Physicists (sec'y, 36); Tenn. Acad. (pres, 32). Radiation from the hydrogen atom; magneto-optics; uranium fission.

Slack, Dr. Harry R(ichmond), Jr, 1100 N. Charles St, Baltimore, Md. *Otolaryngology.* Lagrange, Ga, Nov. 29, 88. A.B, Georgia, 08; M.D, Hopkins, 12. Instr. clin. laryngol, sch. med, *Hopkins,* 13–19, *assoc. and visiting otolaryngologist, Hopkins Hosp, 19–* Visiting prof, Peking Union Med. Col, 22–23. Am. Red Cross, France, 14–15. A.A.

Slack, Dr. John M(adison), 410 S. 39th St, Omaha, Nebr. *Bacteriology.* Polson, Mont, March 9, 14. A.B, Minnesota, 36, M.S, 37, Ph.D, 40. *Instr. path. and bacter, col. med, Nebraska, 40–; Sanit. Corps, U. S. Army.* Source of infection in actinomycosis; medical bacteriology.

Slack, Searcy B(radfield), Decatur, Ga. *Highway engineering.* Lagrange, Ga, June 9, 91. B.S, Georgia, 11; A.M, Harvard, 12. City engineer, Lagrange, Ga, 12–13; adj. prof. civil eng, Georgia, 13–16; consulting engineer, Garrett and Slack, Ala, 16–20; bridge engineer, State Highway Dept, Ga, 20–33; *consulting engineer and contractor, 33–* U.S.A, 18. Civil Eng; Concrete Inst; Ga. Acad. Highway and bridge construction and design.

Slade, Dr. H(utton) D(avison), 62 University Place, Staten Island, N. Y. *Bacteriology.* London, Eng, Aug. 6, 12. B.S, Maryland, 35, fellow, 35–36, M.S, 36; fellow, Iowa State Col, 38–42, Ph.D, 42. Senior bacteriologist, City Health Dept, Baltimore, 36–37; asst. bacter, Maryland, 37–38; *research bacteriologist, Wallerstein Labs, 42–* Anaerobic dissimilation of citric acid by Streptococcus paracitrovorus; assimilation of $C^{13}O_2$ by certain heterotrophic bacteria; assimilation of acetic and succinic acids containing heavy carbon by Aerobacter indologenes; bacterial metabolism.

Slade, Prof. J(ames) J(eremiah), Jr, 177 Somerset St, New Brunswick, N. J. *Engineering.* Uruapan, Michoacán, Mex, June 25, 00. Cornell, 19–20; North Carolina, 21–23, B.S, 29, M.S, 30. Engineer, Michoacán Transportation Co, Tzatzio, Mex, 23–24, chief engineer, 25, 26–27; instr. *eng. mech,* North Carolina, 29–31; asst. prof, *Rutgers,* 31–35, *assoc. prof, 35–* Locating engineer, Mex. govt, 26; assoc. engineer, Miss. Valley cmt, U. S. Geol. Surv, 34–35. A.A; Eng. Educ; Geophys. Union. Generalized frequency distributions; analysis of flood characteristics; velocity distributions in settling basins; sedimentation in turbulent basins; wave propagation in channels; Heaviside's operational calculus; vibrations of tall buildings; failure of materials.

Sladen, Dr. F(rank) J(oseph), 2209 Seminole Ave. Detroit, Mich. *Internal medicine.* West Point, N. Y, Jan. 6, 82. A.B, Yale, 02; M.D, Hopkins, 06. Asst. med, Hopkins, 06–08, instr, 08–10, assoc. and res. physician, Hopkins Hosp, 10–13; chief med. clinic, Detroit Gen. Hosp, 14–15; *physician in chief, Henry Ford Hosp, 15–* Lecturer, Michigan. Mem, Beaumont Lectureship Foundation. Trustee, Henry Ford Hosp; McGregor Fund; McGregor Health Foundation; sch. nursing, Henry Ford Hosp. Major, M.C, 18–19. A.A; fel. Col. Physicians; Cent. Soc. Clin. Research; Rheumatism Asn; Mich. Med. Service (director); Mich. Med. Soc. (chairman, med. sect, 24–26); Mich. Acad; Detroit Acad. Med. Coagulation of blood; infectious jaundice; epidemic cerebrospinal meningitis; internal hydrocephalus; vagotomy and sympathicotony; influenza; venous thrombosis in myocardial insufficiency; basal blood pressure readings; undulant fever; nutritional factors in chronic arthritis; responsibility of the hospital staff in graduate medication.

Slagle, Dr. Fred B(arnes), Standard Oil Co. of N. J, 26 Broadway, New York, N. Y. *Chemistry.* Woodbine, Md, Aug. 17, 09. B.S, Hopkins, 30, Ph.D, 33. Chem. engineer, Canton refinery, Baltimore, *Standard Oil Co. of N. J,* 34–38, test engineer, tech. service dept, 38–42, *petrol. engineer, mfg. dept, 42–* X-ray of fatty acids and mixtures of fatty acids; cracking and distillation equipment.

Slagle, Dr. Kenneth H(ood), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Chemistry.* Lower Marlboro, Md, Dec. 27, 03. B.S, Hopkins, 26, Ph.D, 29. Am. Petrol. Inst. fellow, Hopkins, 29–30; instr. physical chem, Lafayette Col, 30–37, asst. prof, 37–40, in charge physical chem. lab, 30–40; div. head research and develop. lab, Jones and Laughlin Steel Corp, 41; *industrial fellow, Mellon Inst, 42–* Chem. Soc. (business manager, Lehigh Valley sect, 35–40, ed, 'Octagon,' 35–40). Kinetics of reactions in solution and of thermal decomposition of ketones; electrochemistry of solutions; reactions of normal and secondary mercaptans in hydrocarbon solutions; coke oven by-products; pyridine and nicotinic acid; chemistry of wool and felting.

Slama, Dr. Frank J(ames), 1609 Chilton St, Baltimore Md. *Botany, Pharmacognosy.* Baltimore, Md, May 16, 01. Ph.G, Maryland, 24, Ph.C, 25, B.S, 28, M.S, 30, Ph.D, 35. Asst. *bot. and pharmacog, Maryland,* 25–28, instr, 28–38, *asst. prof. and head dept, 38–* Pharmaceut. Asn. (pres, Baltimore branch, 42); Md. Pharmaceut. Asn; Md. Acad. Pharmaceutical preparations; taxonomy and morphology of the Maryland sennas; palisade ratios; fungal culture growths.

Slanetz, Dr. C(harles) A(rthur), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Pathology, Bacteriology.* Islip, N. Y, Oct. 15, 99. B.S, Conn. Agr. Col, 22; M.S, Yale, 23, Ph.D, 26. *Asst.* bacter, Conn. Exp. Sta, 26–28; *animal path,* Rockefeller Inst, 28–30; *col. physicians and surg, Columbia, 30–, curator animal husbandry.* Soc. Bact. Comparative pathology; bacterial metabolism; bacterium abortus-melitensis group; relation of diet to immunity; canine distemper.

Slanetz, Dr. Lawrence W(illiam), University of New Hampshire, Durham, N. H. *Bacteriology.* Islip, N. Y, April 14, 08. B.S, Conn. Agr. Col, 29; Ph.D, Yale, 32. Asst. serologist, State Dept. Health, Conn, and asst. instr. bacter, Yale, 31–32; instr. *bacter, New Hampshire,* 32–38, asst. prof, 38–41, *assoc. prof, 41–,* asst. bacteriologist, *Exp. Sta,* 38–41, *bacteriologist, 41–* Soc. Bact. (pres, 40). Fusiform bacteria; streptococci; bovine mastitis; staphylococci; staphylococcus bacteriophage.

Slanina, Prof. Stephen Joseph, 511 W. Broad St, Angola, Ind. *Chemistry.* Mt. Pleasant, Pa, Dec. 23, 04. B.S, Tri-State Col, 29; M.S, Notre Dame, 35, Ph.D, 37. Instr, Tri-State Col, 27–34; asst. instr, Notre Dame, 34–37; *prof. chem. and head dept. org. chem, Tri-State Col, 37–* Chem. Soc; Soc. Metals. Acetylene and its derivatives.

Slate, George L(ewis), New York Agricultural Experiment Station, Geneva, N. Y. *Pomology.* Bernardston, Mass, June 27, 99. B.S, Mass. Col, 21; M.S, Harvard, 26. Asst. *pomol. N. Y. Exp. Sta, Geneva,* 22–28, *research assoc, 28–* A.A; Soc. Hort. Sci. Breeding of Rubus, Ribes, Fragaria and Corylus.

Slate, William L(orenzo), Connecticut Agricultural Experiment Station, New Haven, Conn. *Agronomy.* Norwalk, Ohio, Jan. 15, 84. B.S, Ohio State, 09. Asst. agronomist, Exp. Sta, New Hampshire, 09–11; assoc. prof. agron, Maine, 11–13; *agronomist, Storrs Exp. Sta, Connecticut, 13–, director, 23–, director, Conn. Exp. Sta, 23–* Lecturer, sch. forestry, Yale, 22–32. Chairman, State Planning Board, Conn, 33–37. A.A; fel. Soc. Agron. Field crop production, especially pasture; soil science.

Slater, Clarence S(heldon), U. S. Department of Agriculture, College Park, Md. *Soil chemistry.* Pelican Rapids, Minn, Dec. 13, 97. B.S, North Dakota, 21, M.S, 26. Instr.

chem, Yankton Col, 27-28; junior chemist, Bur. Standards, 29-30; asst. chemist, bur. chem. and soils, *U. S. Dept. Agr*, 30-36, *soil technologist, soil conservation service, 36–* Physical-chemical properties of soils, eroded materials and run-off; soil hydrology; trace elements in soils and fertilizers; conservation.

Slater, Prof. James R(odenburg), 3009 N. 11th St, Tacoma, Wash. *Zoology.* Cairo, N. Y, June 11, 90. Litt.B, Rutgers, 13; A.M, Syracuse, 17, M.Pg, 19; Washington (Seattle), summers, 29, 30, 31. Prin, high sch, Md, 13-14; Leland, 14-15; teaching fellow, Syracuse, 16-17; *prof. biol, Col. Puget Sound, 19–* U.S.A, 17-19, capt, Inf, 19-26, major, O.R.C, 26– A.A; Soc. Ichthyol. and Herp. (director); Pacific Northwest Bird and Mammal Soc. (treas, 41–); Puget Sound Entom. Soc. (pres, 42–); Puget Sound Acad. (v. pres, Tacoma branch, 42–). Amphibians and reptiles.

Slater, Dr. J(ohn) C(larke), Massachusetts Institute of Technology, Cambridge, Mass. ***Physics.* Oak Park, Ill, 00. A.B, Rochester, 20; A.M, Harvard, 22, Ph.D, 23. Instr. *physics*, Harvard, 24-26, asst. prof, 26-29, assoc. prof, 29-30; *prof. and head dept, Mass. Inst. Tech, 30–* Nat. Acad; Physical Soc. (councilor, 37-40); Philos. Soc; Am. Acad. Theoretical physics; quantum mechanics; structure of complex atoms and polyatomic molecules; equation of state of gases; electronic structure of metals.

Slater, Prof. Leon B(eecher), Bowling Green State University, Bowling Green, Ohio. *Psychology.* Grand Rapids, Mich, Sept. 28, 92. A.B, Olivet Col. (Mich), 17; A.M, Michigan, 22, Ph.D, 28. Instr. psychol, Michigan, 22-23; prof, Fairmount Col, 23-26, dean, 24-26; instr. *psychol*, Michigan, 26-28; asst. prof, Pittsburgh, 28-29; assoc. prof, Ohio Wesleyan, 29-32; *prof*, Bowling Green State Col, 32-35, *Bowling Green State Univ, 35–* A.A; Midwest. Psychol. Asn. Memory of the preschool child; mirrored visual image and meaningful experience; effect of noise and music on work; a self-recording human maze.

Slaughter, Prof. Donald (Horace), Southwestern Medical Foundation, Dallas, Texas. *Pharmacology, Physiology.* Shelby, Iowa, July 13, 05. B.S. and M.D, Iowa, 29. Instr. pharmacol, Iowa, 29-31, assoc, 32-37; asst. prof, col. med, Baylor, 37-39, assoc. prof, 39-42; prof. pharmacol. and physiol. and chairman dept, col. med, Vermont, 42-43; *prof. pharmacol, chairman dept. physiol. and pharmacol. and acting dean sch. med, Southwest. Med. Foundation, 43–* Summer, acting chief pharmacol, Tennessee, 37. Certificate of Merit, Am. Med. Asn, 42. A.A; Soc. Pharmacol; Soc. Exp. Biol; fel. Am. Med. Asn. Metabolism and cholinergic actions of morphine; physiology and pharmacology of pain; biological actions of carnosine; pharmacology of transentin; pharmacology and morphine potentiating aspects of neostigmine.

Slavin, Arthur D(aniel), 1510 41st St, Des Moines, Iowa. *Horticulture. Botany.* Rochester, N. Y, Aug. 18, 03. B.S, M.S, Notre Dame. Park horticulturist, Rochester, N. Y, 29-34; *senior horticulturist, soil conservation service, U. S. Dept. Agr, 34–* Rep, Conifer Conf, Royal Hort. Soc, 31. Lecturer, Rochester, 33-34. Hort. Soc; Mass. Hort. Soc; Royal Hort. Soc. Conifers; street trees; rhododendrons; magnolias; flowering crabs; fastigiate forms of trees.

Slavin, Dr. Howard B(ernard), 260 Crittenden Blvd, Rochester, N. Y. *Internal medicine, Bacteriology.* Rochester, N. Y, Feb. 14, 08. M.D, Rochester, 33. Asst. path, sch. med, Rochester, 33-34; asst. res. pathologist, *Strong Mem. Hosp*, 33-34, interne med, 34-35, asst. res. physician, 35-36, res. physician, 36-37; *asst. physician, 37–*; asst. med, *sch. med, Rochester*, 35-36, instr, 36-41, *asst. prof. med. and bacter, 41–* Soc. Bact; Federation Clin. Research. Virus diseases of man and animals; infectious disease.

Slawson, Prof. Chester B(aker), University of Michigan, Ann Arbor, Mich. *Mineralogy.* Greenville, Mich, April 12, 98. B.S, Michigan, 19, A.M, 20, Ph.D, 25. Asst. *miner, Michigan*, 19-20, instr, 20-21, 25-31, *asst. prof, 31–* Geologist, Mich. Geol. Surv, 24-28. Miner. Soc; Mich. Acad. Physical and optical crystallography; petrology; gems and gem materials.

Slay, Dr. Ronald J(ames), 508 E. Eighth St, Greenville, N. C. *Science education.* Robeline, La, Nov. 15, 90. B.S, Mississippi, 12; A.M, Columbia, 23, Ph.D, 28. Head dept. science, Miss. State Teachers Col, Hattiesburg, 12-23; *director science instruction, E. Carolina Teachers Col, Greenville, 23–* Summers, North Carolina, 31, 34; Duke, 34– Elementary science.

Sleator, Dr. W(illiam) W(arner), R. R. 5, Ann Arbor, Mich. *Physics.* Dexter, Mich, May 24, 83. A.B, Michigan, 09, A.M, 11, Ph.D, 17. Instr. *physics, Michigan*, 09-17, asst. prof, 17-35, *assoc. prof, 35–* Physicist, dept. eng. research, Michigan, 29-31. A.A; Physical Soc; fel. Optical Soc; Asn. Physics Teachers. Infra-red spectrum; absorption of radiation by water vapor and by gasoline components; theory of light; general physics.

Sledd, Prof. Arthur P(urefoy), Judson College, Marion, Ala. *Chemistry.* Wake Forest, N. C, Feb. 22, 95. B.S, Wake Forest Col, 16; A.M, North Carolina, 22, Ph.D, 40. Asst. prof, Coker Col, 18-19; Wake Forest Col, 19-20; head dept. science, high sch, 22-25, prin, 25-29; *prof. chem, Judson Col, 29–* Chem. Soc; Ala. Acad. Synthesis of 2-isopropyl-5-methylsulfanilamide and some of its derivatives.

Sleeper, Dr. F(rancis) H(arper), State Department of Mental Health, 100 Nashua St, Boston, Mass. *Psychiatry.* Houlton, Maine, Oct. 5, 00. M.D, Boston, 24. Res. physician, Evans Mem, Mass. Mem. Hosp, 25-26; asst. endocrinol, 28-35; clin. director, Worcester State Hosp, 27-28, asst. supt, 28-30, 35, 38, res. director research, 30-37; director hosp. inspection, *State Dept. Mental Health, Mass, 38-41, asst. commissioner, 41–* Asn. Mental Deficiency; Psychiat. Asn; Am. Med. Asn; New Eng. Psychiat. Soc; Mass. Psychiat. Soc. Dementia praecox; vital functions; incidence of coexisting endocrine disorders; endocrine and other forms of therapy in schizophrenia.

Sleesman, Dr. J(ay) P(eterson), Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Scottdale, Pa, Sept. 16, 04. A.B, Ohio Northern, 26; A.M, Ohio State, 27, Ph.D, 29. *Asst. entomologist, Ohio Exp. Sta, 29–* Entom. Soc. Amer; Asn. Econ. Entom. Homoptera, especially Cicadellidae; economic entomology; vegetable crop insect pests; taxonomy and ecology of the genus Euscelis.

Sleeth, Dr. Balley, U. S. Department of Agriculture, Salinas, Calif. *Plant pathology.* Linn, W. Va, Nov. 1, 00. B.S, West Virginia, 27, M.S, 28, Jones fellow, 30-32, Ph.D, 32. Asst. plant path, West Virginia, 32-33; asst. forest pathologist, bur. plant indust, U. S. Dept. Agr, 33-41; asst. exten. plant pathologist, West Virginia, 42; *assoc. pathologist, rubber plant investigations, bur. plant indust, U. S. Dept. Agr, 42–* Phytopath. Soc. Forest pathology; butt rot of oaks; rust of southern pines; guayule diseases.

Sleeth, Dr. Clark K(endall), Harlingen, Texas. *Medicine.* Marion Co, W. Va, April 10, 13. A.B, West Virginia, 33, B.S, 35; M.D, Chicago, 38. Asst. physiol, *sch. med, West Virginia*, 35-36, instr, 36-37, asst. prof. path, 38-39, *asst. prof. med. and head dept, 41–* Am. Med. Asn. Physiology of anoxia, especially as related to the gastro-intestinal tract; basic medical science and clinical medicine.

Sleight, Prof. Edwin Roscoe, 410 Allen Place, Albion, Mich. *Mathematics.* Laingsburg, Mich, Aug. 21, 77. B.S, Albion Col, 01, A.M, 02, hon. Sc.D, 31; Clark, 01-02; senior scholar, N. Am. Acad, Uruguay, 02-04; Edinburgh, 38. Instr. *math*, Mich. Mil. Acad, 04-06; Carthage Col, 06-08; prof. and *W. W. Brockway prof, Albion Col, 08–* A.A; Math. Soc; Math. Asn. (past chairman, Mich. sect); Mich. Acad. College algebra; trigonometry; analytic and modern geometry; calculus; differential equations; higher algebra.

Sleight, Dr. Virgil George, University of Arkansas, Fayetteville, Ark. *Geology.* Chicago, Ill, Jan. 31, 03. B.S, Northwestern, 25, Ph.D, 33; M.S, Brown, 27. Instr. *geol*, Hamilton Col, 27-29; Arkansas, 31-33; DePauw, 33-34; Ball State Teachers Col, Ind, 34-35; teacher, high sch, Ill, 35-37; instr, *Arkansas*, 37-38, *asst. prof, 38–* Summers, instr, Northwestern, 34, 40–; North. Mich. State Teachers Col, 35. Geology of Ogishkemuncie Lake, Minnesota area; Precambrian geology and mineralogy; carboniferous sandstones of northwestern Arkansas.

Slemons, Dr. J(osiah) Morris, 309 S. Westmoreland Ave, Los Angeles, Calif. *Gynecology.* Salisbury, Md, Nov. 9, 76. A.B, Hopkins, 97, M.D, 01; Berlin, 05; hon. A.M, Yale, 15. From instr. to assoc. prof. obstet, Hopkins, 01-13; prof. gynec. and obstet, med. sch, California, 13-15; sch. med, Yale, 15-20; *chief staff, Hosp. of the Good Samaritan, Los Angeles, 20–* Director obstet. surv. of France, Red Cross, 17; major, M.C, 18-19. A.A; Gynec. Soc. (councilor, 17); Col. Surg. (board governors, 18); Soc. Clin. Invest. (councilor, 16-19). Obstet-

rics; physiology of pregnancy; nutrition of the fetus; placentation; puerperal infection; induction of labor.

Slepian, Dr. Joseph, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Physics, Electrical engineering.* Boston, Mass, Feb. 11, 91. A.B, Harvard, 11, A.M, 12, Ph.D, 13. Instr, Cornell, 14–15; *assoc. director* research lab, *Westinghouse Elec. and Mfg. Co*, 16–38, *labs, 38–* Nat. Acad; A.A; Physical Soc; Elec. Eng; Electrochem. Soc; Math. Soc. Transients in electrical systems; electrical discharges in gases; high voltage phenomena; circuit interrupters; rectifiers.

Slesser, Dr. A(braham) E(dward), 240 Alpine Place, Tuckahoe, N. Y. *Pharmaceutical chemistry.* Lafayette, Ind, March 4, 14. B.S, Purdue, 35, Eli Lilly and Co. fellow, 36–39, M.S, 37, Ph.D, 40. Instr. pharmacy and pharmaceut. chem, Valparaiso, 39–40; pharmaceut. chem, N. Pacific Col, 40–41; prof. pharmacy, Louisville Col. Pharmacy, 41–42; *research chemist, Burroughs Wellcome and Co, Inc, 42–* Fluorescence analysis as applied to some alkaloids and crude drugs; preparation and study of silver antiseptics with and without ephedrine.

Slichter, Prof. Cha(rle)s S(umner), 636 N. Frances St, Madison, Wis. *[2]*Mathematics.* St. Paul, Minn, April 16, 64. B.S, Northwestern, 85, A.M, 86, Sc.D, 16. Instr. math, Chicago Atheneum, 85–86; *Wisconsin*, 86–89, asst. prof, 89–92, prof. applied math, 92–35, dean *grad. sch*, 20–35, *emer. dean, 35–* Asst. hydrographer, U. S. Geol. Surv, 97–02; commissioner and sec'y, Wis. Geol. and Nat. Hist. Surv, 99–02; consulting engineer, U. S. Reclamation Service, and engineer in charge investigation of motion of underground waters, 03–11. A.A; Math. Soc; Geophys. Union; Wis. Acad. (pres, 99–02); Circolo Mat. di Palermo. Theoretical investigations on the motions of ground water and other work in hydrodynamics; theoretical and field work.

Slichter, Prof. L(ouis) B(yrne), Massachusetts Institute of Technology, Cambridge, Mass. *Geophysics.* Madison, Wis, May 19, 96. A.B, Wisconsin, 17, A.M, 20, Ph.D, 22. Physicist, Submarine Signal Co, 22–24; mem. firm, Mason, Slichter and Gauld, 24–31; assoc. prof. *geophys, Mass. Inst. Tech*, 31–32, *prof, 32–* Mem. div. 6, Nat. Defense Research Cmt. Ensign, U.S.N.R, 17–19. A.A; Physical Soc; Min. and Metal. Eng; Seismol. Soc; Geophys. Union; Geol. Soc. Acoustics; electromagnetics; seismology.

Slichter, Prof. Walter I(rvine), Columbia University, New York, N. Y. *Electrical engineering.* St. Paul, Minn, May 7, 73. Col. City of N. Y, 88–90; E.E, Columbia, 96. Student and asst. to C. P. Steinmetz, Gen. Elec. Co, 97–05, engineer, ry. and traction dept, 05–09, consulting engineer, 09–10; prof. elec. eng. and head dept, *Columbia*, 10–41, *emer. prof, 41–* Assoc. ed, 'Pender's Handbook of Elec. Eng'; 'Peele's Handbook of Mining Eng'; 'Int. Encyclop.' A.A; fel. Elec. Eng. (manager, 19–23, v. pres, 23–25, treas, 30–); fel. Mech. Eng; N. Y. Acad. Alternating currents, motors and systems; design of electrical machinery; economics of power.

Slifer, Dr. Eleanor H, University of Iowa, Iowa City, Iowa. *Zoology.* Glenside, Pa, Aug. 30, 00. B.S, Temple, 23; M.S, Pennsylvania, 26, Ph.D, 30. Nat. research fellow biol, *Iowa*, 30–31, research assoc, 31–33, assoc. *zool*, 33–37, *asst. prof, 37–* Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Soc. Zool; Soc. Nat. Physiology of insect development.

Slipher, E(arl) C(arl), Lowell Observatory, Flagstaff, Ariz. *[5]*Astronomy.* Mulberry, Ind, March 25, 83. A.B, Indiana, 06, A.M, 08. Fellow, *Lowell Observatory*, 06–08, *astronomer, 08–* Mem. eclipse exped, Spain, 05; Lowell exped. to Andes to observe Mars, 07; eclipse exped, Kans, 18. Medal, Soc. Astron. de Mex, 11. Astron. Soc. Planetary investigations.

Slipher, Dr. V(esto) M(elvin), Lowell Observatory, Flagstaff, Ariz. *[3]*Astronomy.* Mulberry, Ind, Nov. 11, 75. A.B, Indiana, 01, A.M, 03, Ph.D, 09, hon. LL.D, 29; hon. Sc.D, Arizona, 23, Toronto, 35. Astronomer, *Lowell Observatory*, 01–15, asst. director, 15–16, acting director, 16–26, *director, 26–* Lalande prize, Paris Acad, 19; Henry Draper gold medal, Nat. Acad, 32; gold medal, Royal Astron. Soc, London, 33; Bruce gold medal, Astron. Soc. Pacific, 35. Nat. Acad; A.A. (pres, southwest. div, 23, v. pres, D, 33); Astron. Soc; Philos. Soc; Am. Acad; Astron. Soc. Pacific; for. assoc. Royal Astron. Soc; Soc. astron. de France. Spectroscopy of planets, stars, nebulae, starlit sky and aurora; rotation and phenomenal velocities of spiral nebulae.

Sloan, Prof. A(lbert) R(ussell), Carson-Newman College, Jefferson City, Tenn. *Mathematics.* Rutherford, Tenn, Jan. 12, 11. B.S, Carson-Newman Col, 32; A.M, Vanderbilt, 33; Duke, 35; Kentucky, 35–36, summers, 36, 38, 39. Prin, high sch, Ark, 33–35; teaching fellow, Kentucky, 35–36; *prof. math, Carson-Newman Col, 36–* Math. Asn; Tenn. Acad. The Lie theory of one-parameter transformation groups.

Sloan, Dr. A(rthur) W(illiam), The B. F. Goodrich Co, Akron, Ohio. *Organic chemistry.* Carthage, Ill, Nov. 25, 00. B.S, Illinois, 22; A.M, Harvard, 24, Ph.D, 26. Research chemist and later *director rubber chem. research, B. F. Goodrich Co, 26–* Chem. Soc. Chemistry of trivalent carbon compounds containing the xanthyl nucleus and aliphatic groups; accelerators of vulcanization anti-oxidants and special chemicals used in rubber.

Sloan, Prof. Everette Askins, Erskine College, Due West, S. C. *Organic chemistry.* Fayetteville, Tenn, Nov. 26, 95. A.B, Erskine Col, 15; M.S, Vanderbilt, 30; Ph.D, Chicago, 38. *Prof.* chem. and physics, Bryson Col, 19–29; Columbia, 25; *chem*, Tenn. Polytech, 30–36; *Erskine Col, 38–* Lieut, Ordnance Dept, 17–19. S. C. Acad. Stereoisomeric hydrazones and ketazines.

Sloan, Dr. Hubert J(ohn), University Farm, St. Paul, Minn. *Poultry husbandry.* Nauvoo, Ill, May 28, 03. B.S, Illinois, 26, M.S, 27; Corning Glass Works fellow, Cornell, 27–29, Ph.D, 29. Asst. animal husbandry, Illinois, 26–27, 29–31, assoc. poultry husbandry, 31–36; *prof. poultry husbandry, Minnesota, 36–* Chairman, State Poultry Indust. Cmt, Minn. A.A; Poultry Sci. Asn. Poultry nutrition.

Sloan, Dr. Louise L(ittig), Johns Hopkins Hospital, Baltimore, Md. *Psychology.* Baltimore, Md, May 31, 98. A.B, Bryn Mawr Col, 20, Ph.D, 26; Hopkins, 21–22. Munsell Research Lab, Baltimore, 25–27; lecturer exp. psychol, Bryn Mawr Col, 27–28; research ophthal, Harvard Med. Sch, 28–29; instr, *sch. med, Hopkins*, 29–32, physiol. optics, 32–37, *assoc. ophthal, 37–; mem. staff, research sect, Sch. Aviation Med, Randolph Field, Texas, 42–* Optical Soc. (colorimetry cmt); Psychol. Asn. Physiological optics; experimental psychology; visibility curve and brightness sensitivity of the eye; functional testing in relation to eye diseases; adaptation of the eye to the dark; glaucoma; perimetry; color vision; color blindness.

Sloan, Dean R(oyal) D(aniel), 1913 Indiana St, Pullman, Wash. *Electrical engineering.* Mt. Vernon, Mo, June 29, 91. B.S, Montana, 13; E.E, Mont. State Col, 21; M.S, Mass. Inst. Tech, 36. Gen. Elec. Co, 14–15; Great Falls Power Co, Mont, 15–16; instr. elec. eng, Mont. State Col, 16–17, asst. prof, 19–22; Yale, 22–23; assoc. prof. and *prof, State Col. Wash, 23–*, v. dean col. eng. and mech. arts, 28–42, *dean eng, 42–* Lieut, U.S.N.R, 17–19. Elec. Eng. (sec'y, dist. 9, 30, chairman, Spokane sect, 36); Eng. Educ.

Sloan, Prof. W(illiam) H(enry), Stanford University, Calif. *Chemistry.* Mayfield, Calif, June 23, 77. A.B, Stanford, 03, A.M, 04; Leipzig, 04–05. Asst. chem, Stanford, 02–04; Board Health, San Francisco, 05–06; instr. *chem, Stanford*, 06–15, asst. prof, 15–23, assoc. prof, 23–37, prof, 37–42, *emer. prof, 42–* Chem. Soc. Conductivity of lime-concentrated solutions; new lime factors in water analysis and water sources.

Sloat, Prof. C(harles) Allen, 38 E. Broadway, Gettysburg, Pa. *Chemistry.* Cashtown, Pa, Dec. 12, 98. B.S, Gettysburg Col, 23; A.M, Haverford Col, 24; Ph.D, Princeton, 30. Asst. *chem*, Haverford Col, 23–24; Princeton, 24–27; asst. prof, *Gettysburg Col*, 27–37, *assoc. prof, 37–; capt, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc; Soc. Metals. Inorganic chemistry; surface forces at crystal faces; adsorption of solutes by crystals in relation of compatibility of space lattice.

Slobin, Prof. Hermon L(ester), University of New Hampshire, Durham, N. H. *Mathematics.* Moscow, Russia, June 19, 83. A.B, Clark, 05, fellow, 05–08, Ph.D, 08. Instr. *math*, Mich. State Col, 08–09; Minnesota, 09–14, asst. prof, 14–19; *prof. and head dept, New Hampshire, 19–*, chairman grad. study, 20–27, *director summer sch, 21–, dean grad. sch, 27–* Math. Soc; Math. Asn; Eng. Educ; Authors' Club London. Plane quintic curves; algebraic and transcendental curves, numbers and equations; sequences and series; calculus.

Slobod, Dr. R(obert) L(ouis), 463 West St, New York, N. Y. *Physical chemistry.* Pittsburgh, Pa, April 8, 14. B.S, Union Col, 35; Ph.D, Northwestern, 39. Physical chemist and later *research chemist, Bell Tel. Labs, 39–* Chem. Soc. Physical chemistry and electronics.

Slocum, Prof. Frederick, Wesleyan University, Middletown, Conn. **[3]Astronomy.* Fairhaven, Mass, Feb. 6, 73. A.B, Brown, 95, A.M, 96, Ph.D, 98, Sc.D, 38. Instr. math, Brown, 95–00, asst. prof. astron, 00–09; instr. astrophys, Chicago, and astronomer, Yerkes Observatory, 09–11, asst. prof. astron, 11–14; *prof.* nautical science, Brown, 18–20; *astron, Wesleyan, and director, Van Vleck Observatory,* 14–18, *20–* Acting director, Ladd Observatory, 04–05. Summers, lecturer, N. Y. Univ, 08; prof, Columbia, 23; research assoc, Carnegie Institution, 20; vol. asst, Royal Astrophys. Observatory, Potsdam, 08–09. Div. physical sciences, Nat. Research Council, 34–37. Instr. navig, U. S. Shipping Board, 17–18. A.A. (v. pres, D, 34); Astron. Soc. (v. pres, 35–37); Am. Acad; Royal Astron. Soc; Astron. Gesell; Soc. astron. de France. Nautical science; solar observations with the spectroheliograph and spectrohelioscope; eclipses; stellar parallax.

Slocum, Dr. Glenn G(erald), U. S. Food and Drug Administration, Washington, D. C. *Bacteriology.* Indianola, Iowa, Feb. 26, 06. A.B, Simpson Col, 28; fellow, Iowa State Col, 29–30, M.S, 30; George Washington, 31–32; Ph.D, Maryland, 39. Junior bacteriologist, *food and drug admin,* U. S. Dept. Agr, 30–35, asst. bacteriologist, 36–39, *assoc. bacteriologist, Fed. Security Agency, 40–* Soc. Bact; Pub. Health Asn. Antiseptics; bacterial food poisoning.

Slocum, Dr. Lois T(ripp), 18 Chauncy St, Cambridge, Mass. *Astronomy.* New Bedford, Mass, May 9, 99. A.B, Smith Col, 21, A.M, 24; Lick Observatory fellow, California, 27–29, Ph.D, 30. Teacher, Misses Allen Sch, 21–22; asst. astron, Smith Col, 22–24, instr, 24–25; Wellesley Col, 25–27, asst. prof, 30–31; asst, Wesleyan, 31–32; instr, Smith Col, 32–34, asst. prof, 34–43; *special research assoc, radio research lab, Harvard, 43–* A.A; Astron. Soc; Asn. Variable Star Observers. Stellar photometry; occultations; planet and comet orbits.

Slocum, Dr. S(tephen) E(lmer), Ardmore, Pa. *Mathematics.* Glenville, N. Y, June 5, 75. B.E, Union (N. Y), 97; Ph.D, Clark, 00. Instr. civil eng, Cincinnati, 00–01, applied math, 01–04, asst. prof, 04–05; math, Illinois, 05–06; prof. applied math, Cincinnati, 06–20; *consulting engineer, 20–* Gold medal, Soc. Naval Eng, 27. Civil Eng; hon. mem. Naval Eng. Strength of materials; applied mechanics; marine engineering; marine propulsion; vibration.

Slonaker, Dr. J(ames) Rollin, Stanford University, Calif. *Zoology, Physiology.* Farmland, Ind, June 17, 66. B.S, Wisconsin, 93; Ph.D, Clark, 96. Asst. prof. zool, Indiana, 96–01; asst. neur, Chicago, 01–02, assoc, 02–03; asst. prof. *physiol, Stanford,* 03–25, assoc. prof, 25–30, prof, 30–31, *emer. prof, 31–* A.A; Soc. Nat; Physiol. Soc; West. Soc. Nat; fel. Calif. Acad; fel. Ind. Acad. Anatomy and physiology of the eyes of vertebrates; the eyes of the mole; accommodation in the eye of the bird; the optic tracts in the brain of a congenitally blind pigeon; the daily activity of the white rat from birth to natural death; the influence of food on the growth and activity of the white rat; sex problems in the white rat.

Sloss, Prof. Laurence L(ouis), Montana School of Mines, Butte, Mont. *Geology.* Mountain View, Calif, Aug. 26, 13. A.B, Stanford, 33; Ph.D, Chicago, 37. Instr. *geol, Mont. Sch. Mines,* 37–39, asst. prof, 39–43, *assoc. prof, 43–; geologist, State Bur. Mines and Geol, Mont, 37–* A.A; Paleont. Soc; Asn. Petrol. Geol. Mississippian stratigraphy in the northern Rocky Mountains; lower Cretaceous stratigraphy and sedimentology in the northern Great Plains.

Sloss, Dr. Margaret W(ragg), Iowa State College, Ames, Iowa. *Veterinary pathology.* Cedar Rapids, Iowa, Oct. 8, 01. B.S, Iowa State Col, 23, M.S, 32, D.V.M, 38; Iowa, 25–26. Technician *vet. path, Iowa State Col,* 23–25, 27–29, asst, 29–40, instr, 40–43, *asst. prof, 43–* Microscopic anatomy of the digestive tract of Sus scrofa domestica; laboratory aids in veterinary diagnosis; spurious parasites in a dog.

Slotin, Dr. Louis (Alexander), University of Chicago, Chicago, Ill. *Physics, Chemistry.* Winnipeg, Man, Can, Dec. 1, 12. B.Sc, Manitoba, 32, M.Sc, 33; Ph.D, London, 36. Research assoc. chem, *Chicago,* 37–39, physics, 39–42, *research assoc. and instr. biochem, 39–* Physical Soc; Faraday Soc. Physical chemistry; nuclear physics; biochemistry; radioactive tracers in biology; spectroscopy; carbohydrate metabolism.

Slotnick, Dr. M(orris) M(iller), Humble Oil and Refining Co, Houston, Texas. *Mathematics.* Zelva, Russia, Dec. 21, 01. Yale, 18–19; B.S, Harvard, 22, A.M, 25, Ph.D, 26. Rogers traveling fellow from Harvard, Hamburg, 26–27; nat. research fellow, Princeton, 27–28; instr. math, Harvard, 22–26, 28–29; asst. prof, Grinnell Col, 29–30; research mathematician, *dept. geophys, Humble Oil and Ref. Co,* 30–36, *in charge geophys. computing, 36–* Ed, 'Geophysics,' 37–39. A.A; Geophys. Union; Seismol. Soc; Math. Soc; Math. Asn; Soc. Explor. Geophys. Differential geometry; applied geophysics.

Slotterbeck, Dr. Ober C(arter), Ridge Road, Hillcrest, Rahway, N. J. *Organic chemistry.* Bloomdale, Ohio, May 20, 03. A.B, Ohio State, 24, M.S, 31, Ph.D, 36. Teacher, pub. schs, 24–32; instr. educ, Miami (Ohio), 33–36; *research chemist, Standard Oil Develop. Co, 36–* Chem. Soc. Diolefins; unsaturated alcohols and ketones.

Sloviter, Dr. Henry A(llan), 6235 Christian St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, June 16, 14. A.B, Temple, 35, A.M, 36; Ph.D, Pennsylvania, 42. Asst. instr. chem, Temple, 35–36; *assoc. chemist, U. S. Navy Yard, 36–* A.A; Chem. Soc. Organic and analytical chemistry; bromination of diphenyl compounds; analysis of organic mercury and arsenic compounds; spectrochemical analysis.

Sluss, Prof. A(lfred) H(iggins), 827 Mississippi St, Lawrence, Kans. *Engineering.* Tuscola, Ill, Sept. 29, 77. B.S, Illinois, 01. Instr. physics, Illinois, 03–07; from instr. to *prof. mech. and indust. eng, Kansas, 08–* Mech. Eng; Heat. and Vent. Eng. (pres, Kansas City, Mo, sect). Heating and ventilation; garage ventilation; intermittent heating.

Slutzky, Dr. B(en), Creighton University School of Medicine, Omaha, Nebr. *Medicine.* June 3, 05. B.S, Creighton, 27, M.D, 29. Supervisor clin. clerks, *Creighton,* 34–38, instr. *med, sch. med,* 38–42, *asst. prof, 42–, asst. to head dept, 38–* Asst. attending physician, St. Joseph's Hosp; assoc. attending physician, Douglas County Hosp. Assoc. Col. Physicians. Gastro-intestinal physiology.

Sly, Dr. Caryl, 803 W. 32nd St, Wilmington, Del. *Chemistry.* Green River, Wyo, July 18, 99. B.S, Nebraska, 22, M.S, 23; Ph.D, Minnesota, 27. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Organic chemistry.

Slye, Prof. Maud, 5825 Drexel Ave, Chicago, Ill. *Pathology.* Minneapolis, Minn, Feb. 8, 79. A.B, Brown, 99, hon. Sc.D, 37; Chicago, 06, fellow, 08–11. Prof. psychol. and pedag, R. I. State Nor. Sch, 99–05; *mem. staff, Sprague Mem. Inst, Chicago, 11–,* instr. *path, univ,* 19–22, asst. prof, 22–26, *assoc. prof, 26–* Gold medal, Am. Med. Asn, 14; Ricketts prize, Chicago, 15; gold medal, Radiol. Soc. N. Amer, 22. Asn. Cancer Research; Am. Med. Asn; Asn. Sci. Workers; N. Y. Acad; Ill. Acad; hon. mem. South. Calif. Med. Soc; Chicago Inst. Med. (past v. pres); hon. mem. Seattle Acad. Surg. Biology; cancer; tumors; heredity and evolution.

Smadel, Dr. Jos(eph) E(dwin), Rockefeller Institute Hospital, 66th St. and York Ave, New York, N. Y. *Pathology, Bacteriology.* Vincennes, Ind, Jan. 10, 07. A.B, Pennsylvania, 28; M.D, Washington (St. Louis), 31. Asst. path, Washington (St. Louis), 31–32, med, 33–34; intern med, Barnes Hosp, 32–33; asst. med, *hosp, Rockefeller Inst,* 34–38, *assoc. med. and acting pathologist, 38–* Asn. Path. and Bact; Asn. Immunol; Soc. Clin. Invest; Soc. Bact; Soc. Exp. Path; Soc. Exp. Biol; Harvey Soc; N. Y. Path. Soc; N. Y. Acad. Experimental nephritis; virus diseases.

Small, Prof. L(loyd) L(eroy), Lehigh University, Bethlehem, Pa. *Mathematics.* Columbus, Kans, Sept. 23, 88. A.B, Washington (Seattle), 11, A.M, 12; Ph.D, Columbia, 13. Instr. *math,* Washington (Seattle), 13–21, asst. prof, 21–23; Oregon, 23–25; assoc. prof, Texas, 25–26; *Lehigh,* 26–29, *prof, 29–* A.A; Math. Soc; Math. Asn. Summability of divergent series; vector analysis; infinite series; theory of functions; hydrodynamics; aerodynamics.

Small, Dr. James C(raig), 213 Argyle Road, Ardmore, Pa. *Bacteriology, Medicine.* Franklin Co, Pa, March 13, 88. B.S, Gettysburg Col, 11, Sc.D, 29; M.D, Illinois, 17. Asst. biochem, col. med, Illinois, 13–17; intern, Cook County Hosp, 17, 19–20; instr. bacter, sch. med, Washington (St. Louis), 19; bacteriologist, Phila. Gen. Hosp, 20–27, director labs, 27–29; asst. prof. bacter, *grad. sch. med, Pennsylvania,* 21–35, *instr. med, 35–* Lieut, M.C, 17–19. A.A; fel. Am. Med. Asn; Soc. Exp. Path; fel. Col. Physicians; Phila. Bact. Soc; Path. Soc. Phila; Physiol. Soc. Phila; Phila. Rheumatic Soc. (pres, 36–). Soluble starch; bacterial antigens; pneumonia; influenza; serology of Bacillus influenzae; epidemic respiratory disease; typhoid fever; scarlet fever; experimental rat sarcoma;

etiology of devil's grip; rheumatic fever and antitoxic serum for treatment of rheumatic fever; bacterial antigens for treatment of chronic arthritis, chorea and rheumatic carditis.

Small, Prof. John A(lvin), 51 Comstock St, New Brunswick, N. J. *Botany.* Palmyra, Maine, Oct. 10, 00. B.S, Maine, 24; M.S, Rutgers, 26, Ph.D, 28. State seed inspector, N. J, 24–32; instr. *bot, N. J. Col. for Women, Rutgers,* 28–30, asst. prof, 30–43, *assoc. prof, 43–* Bot. Soc; Soc. Plant Physiol; Ecol. Soc; Torrey Bot. Club. Plant physiology; ecology.

Small, Dr. L(yndon) F(rederick), National Institute of Health, U. S. Public Health Service, Bethesda, Md. ***⁶***Organic chemistry.* Allston, Mass, Aug. 16, 97. B.S, Dartmouth Col, 20; A.M, Harvard, 22, Ph.D, 26. Instr. *chem,* Mass. Inst. Tech, 22–23; Harvard, 24–26, Sheldon traveling fellow, 26; nat. research fellow, 27; research assoc, Virginia, 28–39; consultant, *U. S. Pub. Health Service,* 29–39, *head chemist, 39–* Ed, 'Jour. Org. Chem,' 38– Tech. adviser, U. S. delegation, Geneva Narcotics Conf, 31; U. S. del, opium assay cmn, health sect, League Nations, 37– Nat. Acad; Chem. Soc; Wash. Acad. Alkaloid chemistry; chemotherapy; malaria; narcotics.

Smalley, H(arold) R(yland), 616 Investment Bldg, Washington, D. C. *Soils.* Madison Co, Ind, May 30, 87. B.S, Purdue, 11, M.S, 13. Research chemist soils, Exp. Sta, Purdue, 11–13; county agr. agent, 13–15, 16–19; asst. agriculturist, U. S. Dept. Agr, 15–16; agronomist, soil improv. cmt, *Nat. Fertilizer Asn,* 20–25, director north. div, 25–29, nat. director, 29–31, chief agronomist, 31–37, *nat. director, 37–* Del, Int. Soil Cong, 35; Int. Grassland Cong, 37. Fel. Soc. Agron. Soil acidity and nitrification; management of muck land; practical soil fertility and fertilizers; analysis of potential market for fertilizers, and factors that affect their economic use.

Smallwood, Dr. Hugh M(olleson), 445 Garfield Ave, Eau Claire, Wis. *Chemistry.* Perth Amboy, N. J, Oct. 25, 03. B.S, Hopkins, 24, du Pont fellow, 26–27, Ph.D, 27. Instr. chem, Hopkins, 27–29; Harvard, 29–34; research chemist, *U. S. Rubber Co,* Passaic, N. J, 34–41, product control, Des Moines ordnance plant, 41–42, *tech. director, Eau Claire ordnance plant, 42–* Chem. Soc. Chemical physics; elementary reactions in the gas phase; chemistry and physics of rubber; statistical methods in research and quality control.

Smallwood, Prof. Julian C(hase), Johns Hopkins University, Baltimore, Md. *Mechanical engineering.* New York, N. Y, March 2, 81. M.E, Columbia, 03; fellow, Hopkins, 16–17, A.M, 17. Asst. prof. and *assoc. prof.* exp. eng, Syracuse, 10–16; *mech. eng, Hopkins, 16–* Mech. Eng. (sec'y, Baltimore sect, 22–25, chairman, 25–). Analysis of steam engine indicator drum motion and reducing wheels; chimney performance; uses of steam in the canning factory; industrial and domestic applications of heat and heat engineering.

Smallwood, Prof. W(illiam) M(artin), 525 Euclid Ave, Syracuse, N. Y. ***¹***Zoology.* Warsaw, N. Y, April 30, 73. A.B, Syracuse, 96, A.M, 97; Ph.D, Harvard, 02. Instr. biol, Syracuse, 96–98; prof. biol. and geol, Allegheny Col, 98–02; assoc. prof. zool, Syracuse, 03–07, prof. comp. anat, 07–42, head dept, 21–42; *retired.* A.A; Soc. Zool; N. Y. Sci. Teachers Asn. (pres, 09). Cytology and embryology of Opisthobranchia; nudibranchs; cytology of nerve cells; maturation of Hydrachnia and Pennaria; starvation in Necturus and Amia; diseases of fishes; restocking waters with fish; nerve-net in the earthworm; development of carp; starvation in Amia calva; biology; history of biology.

Smart, Mrs. Helen F(ox), U. S. Department of Agriculture, Washington, D. C. *Bacteriology.* Westfield, Mass, Oct. 23, 91. A.B, Michigan, 18. Junior pathologist and asst. pathologist, plant path. lab, *U. S. Dept. Agr,* 18–28, div. fruit and veg. crops and diseases, bur. plant indust, 28–36, asst. bacteriologist, agr. chem. research div, bur. agr. chem. and eng, 36–43, *assoc. marketing specialist, special commodities branch, fish products div, War Food Admin, 43–* Soc. Bact. Food bacteriology; microbiology of frozen pack fruits and vegetables; fish liver oils; vitamins A and D.

Smart, Prof. Robert F(orte), University of Richmond, Richmond, Va. *Botany.* Tyro, Miss, April 9, 05. A.B, Miss. Col, 27; Austin scholar, Harvard, 28–29, 32–33, A.M, 29, Ph.D, 35. Asst. prof. *biol,* Miss. Col, 27–28; assoc. prof, *Richmond,* 29–40, *prof, 40–, chairman div. sciences, 41–* Bot. Soc. (sec'y systematic sect, 38); Mycol. Soc; Va. Acad. (councilor, 37–, pres. elect, 43). Mycology; biology; myxomycetous flora of Virginia; physiology of Myxomycetes; physiology of the fungi; taxonomy of fungi.

Smeaton, Prof. William Gabb, University of Michigan, Ann Arbor, Mich. *Physical chemistry.* Picton, Ont, Can, Sept. 8, 74. B.A, Toronto, 98; 1851 Exhib. scholar, 98; Leipzig, 98–02. From instr. chem. eng. and gen. chem. to prof. *gen. and physical chem, Michigan,* 02–42, *emer. prof, 42–* A.A; Chem. Soc; Hist. Sci. Soc; Mich. Acad. Metallurgy; history and bibliography of science.

Smelser, Dr. George K(elser), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Anatomy.* Anderson, Ind, Dec. 14, 08. A.B, Earlham Col; Ph.D, Chicago, 32. Asst. zool, Chicago, 30–32; nat. research fellow, Cambridge, 32–33, *col. physicians and surg, Columbia,* 33–34, instr. *anat,* 34–38, assoc, 38–39, *asst. prof, 39–* Research ophthalmologist, Presbyterian Hosp. Asn. Anat; Soc. Exp. Biol; Soc. Zool; Harvey Soc. Endocrines and reproduction; sex hormone antagonism; light and ovarian functions; compensatory hypertrophy of the testis; sterility; the thyroid and reproduction; exophthalmos.

Smeltz, Dr. George Washington, University Club, Pittsburgh, Pa. *Psychopathology.* Bryan, Ohio, Feb. 7, 84. M.D, Ohio Med. Univ, 07. Chief res. physician, psychopathic ward, St. Francis Hosp, Pittsburgh, 10–12; physician-in-charge, Markleton Sanitarium, Pa, 13–17; *asst. prof. psychiat, sch. med, Pittsburgh.* Mem. staff, St. Francis and West. Pa. Hosps. Capt, U.S.A. Psychopath. Asn; Psychiat. Asn; Psychoanal. Asn; Am. Med. Asn.

Smeltzer, Prof. C(larence) H(arry), Temple University, Philadelphia, Pa. *Psychology.* Bellefonte, Pa, Sept. 4, 00. B.S, Columbia, 22, A.M, 23; Ph.D, Ohio State, 31. Teacher, sch, N. Y, 20–24; instr. *psychol,* Temple, 24–29; Ohio State, 29–31; asst. prof, *Temple,* 31–33, assoc. prof, 33–41, *prof, 41–, acting chairman dept, 41–* Tech. consultant, State Emergency Relief Admin, Pa, 35–37; consultant, state civil service, Dept. Labor and Indust, Pa, 37–39; special lecturer, Moore Inst. Indust. Arts, Phila; consultant, employment board, State Dept. Pub. Assistance, Pa, 39–42; State Civil Service Cmn, 42– Summers, Pa. State Col; Temple; Ohio State; Miami (Ohio). Psychol. Asn; Asn. Applied Psychol; Nat. Soc. Col. Teachers Educ. Personnel problems in colleges and industry; industrial tests and measurements; learning; special skills; personality.

Smetana, Dr. H(ans), 255 Haven Ave, New York, N. Y. *Pathology.* Roemerstadt, Moravia, April 5, 94. M.D, Vienna, 22. Asst. *path,* Vienna, 21–23, 27–29; instr, sch. med, Hopkins, 23–25; assoc, Peking Union Med. Col, 25–27; *asst. prof,* Columbia Sch. Trop. Med, Puerto Rico, 29–30, *col. physicians and surg, Columbia, 39–; Med. Corps, U. S. Army, 42–, lieut. col.* Soc. Path; Soc. Exp. Path; Soc. Exp. Biol. (ed); Harvey Soc; N. Y. Acad. Med. Amyloid; coccidiosis; photodynamic action; nephrosis.

Smidth, Dr. Leonard, 536 W. 113th St, New York, N. Y. *Organic chemistry.* Schulenburg, Texas, July 4, 99. A.B, Rice Inst, 21; A.M, Columbia, 23, du Pont fellow, 23–24, Ph.D, 25. West. Elec. Co, 21–23; asst. chem, Columbia, 24–25; research chemist, E. G. Budd Mfg. Co, 25–27; chem. engineer, Pyridium Corp, 27; *pres,* Aldur Corp, 27–32; *Luco Products Corp, 28–;* director N. Y. lab, Sylvania Indust. Corp, 40–42; *tech. director, Sylvan Plastics, 42–* Consultant, Freeport Sulphur Co, 38–39; Oval Wood Dish Co, 40. A.A; Chem. Soc. The action of sulfur on p-toluidine; synthetic resins; urea-formaldehyde condensation products; olefin-sulfur dioxide reaction products; plastics.

Smiley, Prof. Charles H(ugh), Brown University, Providence, R. I. *Astronomy,* Camden, Mo, Sept. 6, 03. A.B, California, 24, A.M, 25, Ph.D, 27. Teaching fellow math, California, 24–27; instr, Illinois, 27–29; Guggenheim Mem. Foundation fellow, 29–30; asst. prof. math, *Brown,* 30–38, *assoc. prof. astron, 38–, chairman dept, 38–, director, Ladd Observatory, 38–* A.A; Math. Soc; Math. Asn; Astron. Soc. (councilor, 39–42); Asn. Variable Star Observers (councilor, 39–); Royal Astron. Soc; British Astron. Asn. Mathematical astronomy; determination of orbits; comets; modern astronomical cameras.

Smiley, Prof. Frank Jason, Occidental College, Los Angeles, Calif. *Botany.* Piqua, Ohio, July 1, 80. A.B, Stanford, 13; A.M, Harvard, 15, Ph.D, 17. Asst. bot, Stanford, 13–14; Gray Herbarium, Harvard, 15; instr, California, 15–16, asst. prof. econ. bot, 19–20; *bot. and geol, Occidental Col,* 16–19, *prof, 20–* Bot. Soc; fel. Am. Geog. Soc; Seismol. Soc Geographic botany; paleontology of California.

Smiley, Prof. M(alcolm) F(inlay), Lehigh University, Bethlehem, Pa. *Mathematics.* Monmouth, Ill, Dec. 15, 12. B.S, Chicago, 34, M.S, 35, Ph.D, 37. Mem. sch. math, Inst. Adv. Study, 37–38; instr. *math, Lehigh,* 38–41, *asst. prof, 41–; lieut, U. S. Naval Res, 42–* Math. Soc; Math. Asn. Calculus of variations; lattice theory.

Smiley, Dr. William G(ooding), U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Elberta, Utah, April 29, 15. B.S, Chicago, 35, fellow, 36–38, Ph.D, 39. Asst. chem, Chicago, 35–36; junior chemist, regional soybean indust. products lab, bur. agr. chem. and eng, *U. S. Dept. Agr,* 39–42, *asst. chemist, north. regional research lab, bur. agr. and indust. chem, 42–* Chem. Soc. Proteins; dielectric measurements; hemoglobin; soybean proteins.

Smillie, Dr. W(ilson) G(eorge), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Epidemiology.* Eaton, Colo, Nov. 2, 86. A.B, Colo. Col, 08, hon. Sc.D, 39; M.D, Harvard, 12, Dr.P.H, 16. Instr. prev. med, Harvard, 14–16; fellow, Rockefeller Inst, 16–17; asst. prof, State Med. Sch, São Paulo, Brazil, 18–20, prof, 20; asst. director for U. S, int. health div, Rockefeller Foundation, 23–27; *prof.* pub. health admin, sch. pub. health, Harvard, 28–37; *pub. health and prev. med. and head dept, med. col, Cornell, 37–* Sci. director, int. health div, Rockefeller Foundation, 32–35. Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med; Am. Physicians. Bacteriology; parasitology.

Smirnow, Dr. M(ax) R(uskin), 1142 Chapel St, New Haven, Conn. *Internal medicine.* Elizabethgrad, Russia, March 13, 81. M.D, Yale, 06; Hopkins, 07; Harvard, 10; Berlin and Vienna, 11. Med. supt, Denver and Baltimore, 06–09; instr. bacter. and path, sch. med, Yale, 09–17; *internist, Grace Hosp, 17–* Med. staff, Henry Phipps Inst, Pennsylvania, 07–09; asst. pathologist, New Haven Hosp, 09–17. Int. Cong. Tuber, Rome, 11. Am. Med. Asn; Am. Med. Soc. Vienna. Symbiosis; biological variations of bacteria; intracavital injections in tubercular hemorrhage; home treatment of tuberculosis.

Smiser, Dr. Jerome S, Boyce and Smiser, Houston, Texas. *Geology.* Atoka, Okla, Aug. 19, 06. B.S, Texas Christian, 28, M.S, 29; Nat. Research Council Storrow fellow, Princeton, 30–31, Ph.D, 31. Instr. geol, Texas Christian, 29; prof. physical geog. and geol, Sul Ross State Teachers Col, 29–30; instr. geol, Princeton, 31–34; Cmn. Relief Belgium Educ. Foundation fellow, Musée Royal d'Hist. nat. de Belgique, Brussels, 34–35; geologist, Salt Dome Oil Corp, 35–41; *consulting geologist and petrol. engineer, 41–* Partner, Boyce and Smiser. Asn. Petrol. Geol; Paleont. Soc. Evaluation engineering; petroleum engineering; Cretaceous echinoids.

Smith, Albert A(lonzo), Jr, American Smelting and Refining Co, Barber, N. J. *Physical metallurgy.* N. J, Dec. 28, 04. B.S, Yale, 26, M.S, 28. *Research metallurgist,* Metrop. Eng. Co, 28–35; *Am. Smelting and Ref. Co, 35–* Min. and Metal. Eng. (papers cmt, 35–); Soc. Metals. Non-ferrous physical metallurgy.

Smith, Dr. A(lbert) C(harles), Arnold Arboretum, Jamaica Plain, Mass. *Botany.* Springfield, Mass, April 5, 06. A.B, Columbia, 26, Ph.D, 33. Asst. curator, N. Y. Bot. Garden, 28–31, assoc. curator, 31–40; *curator herbarium, Arnold Arboretum, Harvard, 40–, ed, 'Jour,' 41–;* 'Sargentia,' 42– Bishop Museum fellow, Yale, 33–34. Bot. expeds, Colombia, 26–27, Peru and Brazil, 29, Fiji, 33–34; Terry-Holden exped, British Guiana, 37–38. Del, Int. Bot. Cong, Amsterdam, 35. A.A; Bot. Soc; Soc. Plant Taxon; Fern Soc; Torrey Bot. Club; New Eng. Bot. Club. Taxonomy of flowering plants.

Smith, Dr. Albert C(harles), 129 N. Warren Ave, Apartment B, Big Rapids, Mich. *Pharmacy, Pharmaceutical chemistry.* Monroeville, Ohio, Nov. 10, 06. B.S, Ohio State, 29; M.S, Purdue, 31, Am. Pharmaceut. Asn. scholar, 39, Ph.D, 42. Instr. bot. and mat. med, Tennessee, 34–35; asst. pharmacy, Purdue, 29–33; *prof. pharmacy and bacter, Ferris Inst, 36–* Pharmaceut. Asn. Assay of santonin-bearing drugs; a new method for the assay of aloin in aloe; color tests for aloe and aloin.

Smith, Dr. A(lbert) F(arls), Westwood Manor, Wilmington, Del. *Chemistry.* Mulhall, Okla, June 16, 13. B.S, Okla. Agr. and Mech. Col, 32; Ph.D, Illinois, 36. Asst. chem, Okla. Agr. and Mech. Col, 32–33; Illinois, 33–36; *chemist, E. I. du Pont de Nemours and Co, 36–* Chem. Soc; Rheol. Soc. X-ray diffraction; synthetic fibers; resins; rheology; organic high polymers.

Smith, Dr. A(lbert) L(orenzo), U. S. Department of Agriculture, Experiment, Ga. *Plant pathology, Agronomy.* Chickasha, Okla, April 16, 05. B.S, Okla. Agr. and Mech. Col, 28; M.S, Arkansas, 29; Ph.D, Wisconsin, 32. Agent, rice breeding, rice exp. sta, div. cereal crops and diseases, *bur. plant indust, U. S. Dept. Agr,* Crowley, La, 32–33, asst. forest pathologist, Dutch elm disease, div. forest path, Morristown, N. J, 33–36, *assoc. pathologist and assoc. agronomist, cotton breeding and diseases, Exp. Sta, Georgia, 36–* Phytopath. Soc. Diplodia stalk rot of corn; epidemiology and pathologic histology of the Dutch elm disease; cotton wilt, nematodes and breeding.

Smith, Dr. Alexander H(anchett), 511 Keech Ave, Ann Arbor, Mich. *Mycology.* Crandon, Wis, Dec. 13, 04. A.B, Lawrence Col, 28; A.M, Michigan, 29, Ph.D, 33. Asst, *herbarium, Michigan,* 33–34, asst. curator *fungi,* 34–39, *assoc. curator, 39–* A.A; Mycol. Soc; Torrey Bot. Club; Mich. Acad. Cytology of Basidiomycetes; taxonomy; fleshy fungi; cytology and classification of Agaricaceae.

Smith, Dr. Allan K(ay), U. S. Department of Agriculture, Peoria, Ill. *Physical chemistry.* Anamosa, Iowa, Jan. 18, 95. B.S, Coe Col, 19; A.M, Columbia, 24, Ph.D, 26. Instr, Sioux Falls Col, 19–21; asst. prof, Kans. State Teachers Col, 21–23; asst. chem, Columbia, 23–26; asst. prof, N. Dak. Col, 26–32; guest, Minnesota, 32–34; research, Inst. Paper Chem, Lawrence Col, 34–37; *senior chemist,* U. S. Regional Soybean Indust. Products Lab, bur. agr. chem. and eng, *U. S. Dept. Agr,* 37–43, *north. regional research lab, bur. agr. and indust. eng, 43–* Interdiffusion of electrolytes by a calorimetric method; conductivity of mixed salt solutions; paper sizing; soybean proteins; industrial utilization and chemistry.

Smith, Dr. Allen S(tratton), 1227 Lutz Ave, Ann Arbor, Mich. *Chemical engineering.* La Salle, Ill, Feb. 10, 06. B.S, Minnesota, 26, Chem.E, 35; M.S, Louisville, 31; Ph.D, Michigan, 40. Asst, Louisville, 26–27; research chem. engineer, Atmospheric Nitrogen Corp, 27–31; assoc. physical chemist, U. S. Bur. Mines, Amarillo, Texas, 31–36; teaching fellow chem. eng, Michigan, 36–38; *chem. engineer, Blaw-Knox div, Blaw-Knox Co, Pittsburgh, Pa, 38–* Chem. Soc; Chem. Eng. Distillation; extraction; petroleum.

Smith, Sister Alonza, Loretto Heights College, Loretto, Colo. *Physical chemistry.* Stark, Kans, May 10, 05. A.A, St. Mary's Col, 25; B.S, Webster Col, 30; M.S, St. Louis, 32, Ph.D, 38. Instr. *chem,* Webster Col, 32–39; *Loretto Heights Col, 39–* A.A; Chem. Soc. Determination of mercury and cadmium in minute quantities; lyotropic effect of potassium salts on surface tension; structure of nickel carbonyl.

Smith, Dr. Alpheus W(ilson), 232 E. 16th Ave, Columbus, Ohio. *[4]*Physics.* Philippi, W. Va, Jan. 15, 76. A.B, West Virginia, 00; A.M, Harvard, 03, Ph.D, 06; hon. Sc.D, Ohio Wesleyan, 41. Instr. *physics,* Haverford Col, 06–07; Wisconsin, 07–09; asst. prof, *Ohio State,* 09–17, *prof, 17–, chairman dept. physics and astron, 26–,* dean grad. sch, 38. A.A; Physical Soc; Asn. Physics Teachers (exec. cmt, 37). Expansion and compressibility of ether and of alcohol in the neighborhood of their boiling points; variation of Hall effect in metals with change of temperature; the Hall and Leduc and allied effects in metals and alloys; reversal of Corbino effect in iron; magnetic susceptibility of mixtures of liquids; infra-red absorption in glasses; thermo-electromotive force in a magnetic field; thermal conductivity of alloys; absorption in organic compounds; absorption of light by metallic vapors.

Smith, Prof. Alva W(ellington), Ohio State University, Columbus, Ohio. *Physics.* Fayette, Ohio, Aug. 26, 85. A.B, Ohio State, 12, A.M, 14, Ph.D, 21. Asst. physics, Ohio State, 12–14; asst, West. Elec. Co, 14–15; instr. *physics, Ohio State,* 15–21, asst. prof, 21–30, assoc. prof, 30–40, *prof, 40–* Bur. Standards, 23. A.A; Physical Soc. Magnetism; electrical measurements; ultrasonics.

Smith, Arnold H(arry), 549 N. Taylor Ave, Kirkwood, Mo. *Chemistry.* Akron, Ohio, May 29, 96. B.S, Armour Inst. Tech, 17. Rubber chemist, Bur. Standards, 17–19; research chemist, Goodyear Tire and Rubber Co, 19–20; chief chemist, Thermoid Rubber Co, 20–22; tech. sales, Rubber Service Labs, U. S. and Europe, 22–35; director and manager, rubber chem. div, Monsanto Chem, Ltd, London, 35–40, *asst. sales manager, Monsanto Chem. Co, St. Louis, Mo, 40–* Soc. Automotive Eng; Chem. Soc. (sec'y, rubber div, 18–27, chairman, 28). Technical aspect of rubber goods manufacture; use of chemicals in rubber manufacture; petroleum refining.

Smith, Dr. Arthur Bessey, 1033 W. Van Buren St, Chicago, Ill. *Physics.* Altoona, Iowa, Aug. 10, 75. B.S, Nebraska, 01; E.E, Purdue, 07; Ph.D, Northwestern, 26. Various positions in the telephone operating field, 01–05; asst. prof. telephone eng, Purdue, 05–09; asst. sales manager, Automatic Elec, Inc, 09–11, *chief research engineer,* 11–31; *Associated Elec. Labs, Inc, 31–* Lecturer, Lewis Inst. (Ill), 13–16; Automatic Elec. Co. Sch. A.A; Physical Soc; Radio Eng; fel. Elec. Eng; Standards Asn; Nat. Elec. Mfrs. Asn; West. Soc. Eng. Determination of the space and time distribution of Foucault current in a cylinder and the release of a relay armature; Hughes induction balance; radio interference; automatic telephony; electrical transmission of the voice; telephone transmission apparatus and circuits; high pressure steam.

Smith, Prof. Arthur D(wight), Utah State Agricultural College, Logan, Utah. *Plant ecology.* Brigham City, Utah, Nov. 8, 07. B.S, Utah State Col, 36; M.S, California, 37. *Asst. prof. range management, Utah State Col, 37–* Soc. Foresters; Ecol. Soc. Vegetation distribution; ecology of burned chaparral areas; methods of vegetation analyses.

Smith, Prof. Arthur H(enry), Wayne University College of Medicine, Detroit, Mich. *Physiological chemistry.* Sandusky, Ohio, Jan. 27, 93. B.S, Ohio State, 15, M.S, 16; Ph.D, Yale, 20. Junior chemist, U. S. Bur. Mines, 17–18; asst, Rockefeller Inst, 19; instr. *physiol. chem,* Yale, 20–24, asst. prof, 24–30, assoc. prof, 30–37; *head dept, col. med, Wayne, 37–* 2nd lieut, C.W.S, 18–19. A.A; Soc. Biol. Chem; Physiol. Soc; Soc. Exp. Biol; Chem. Soc; Inst. Nutrition. Relation of diet to various aspects of growth; deficiency diseases; mineral metabolism.

Smith, Prof. Arthur W(hitmore), University of Michigan, Ann Arbor, Mich. *Physics.* Hartford, Vt, May 11, 74. B.S, New Hampshire, 93; Cornell, 93–94; M.S, Wesleyan, 95; fellow, Hopkins, 02–03, Ph.D, 03; Cambridge, 11–12; Victoria (England), 12. Physical asst, U. S. Dept. Agr, 94–99; asst. physics, Wesleyan, 95–96, 98–99; instr. physics and elec. eng, Tulane, 00–01; *prof.* elec. and elec. eng, Mississippi, 01–02; *physics, Michigan, 03–* Int. Elec. Cong, St. Louis, 04. A.A; Physical Soc; Soc. Test. Mat. (cmt. on magnetic properties); Mich. Acad. Calorimetric determinations of energy of foods; energy losses in condensers; heat of fusion of ice; resistance of voltaic cells; heat of evaporation of water; measurement of magnetic permeability; time lag in magnetization; demagnetization and neutral magnetization in iron; magnetic testing of short bars; chemical constitution and the magnetic properties of steel; radioactivity; magnetic permeameter.

Smith, Dr. Aubrey H(enderson), Purdue University, West Lafayette, Ind. *Mathematics.* Westchester, N. S, Can, Oct. 3, 05. B.S, Mt. Allison, 25; junior univ. fellow, Brown, 27–28, M.S, 28, Ph.D, 32. Part-time instr. *math,* Brown, 25–27, 28–29, 33–34; instr, Swarthmore Col, 29–31; *Purdue,* 35–39, *asst. prof, 39–* Math. Soc. Summability of trigonometric series.

Smith, Dr. Augustine V(ivian) P(ollitt), Central High School, Washington, D. C. *Plant ecology.* Martinsburg, W. Va, Oct. 11, 02. A.B, St. John's Col. (Md), 22; Ph.D, Catholic Univ, 38. *Teacher biol, Central High Sch, 26–* Instr, Catholic Univ, 38–39. Fern Soc; Biol. Soc. Wash; Bot. Soc. Wash. Plant successions in swamps.

Smith, A(ugustus) Ledyard, 2511 N. Farwell Ave, Milwaukee, Wis. *Archeology.* Milwaukee, Wis, Oct. 18, 01. B.S, Harvard, 25. *Archeologist, Carnegie Institution, 31–* Carnegie Institution expeds, Uaxactun, Petén, Guatemala, 27–Am. Geog. Soc. Maya archeology.

Smith, Dr. Austin E(dward), 5723 Kimbark Ave, S, Chicago, Ill. *Pharmacology, Therapeutics.* Belleville, Ont, Can, Nov. 25, 12. M.D, Queen's (Can), 38, fellow, 38–39, M.Sc, 40. Med. consultant, *council pharmacy and chem, Am. Med. Asn,* 40–41, acting sec'y, 42, *sec'y, 42–; research assoc. and instr. pharmacy, Chicago, 41–* A.A; Soc. Exp. Biol; Soc. Pharmacol; assoc. fel. Am. Med. Asn; Can. Pub. Health Asn; Can. Med. Asn; Can. Physiol. Soc. Posterior pituitary gland; water balance; sedatives.

Smith, Dr. B(enjamin) H(arrison), Indiana State Teachers College, Terre Haute, Ind. *Botany.* Crawfordsville, Ind, April 1, 92. A.B, Wabash Col, 17; M.S, George Washington, 21; Ph.D, Ohio State, 31. Asst. plant pathologist, U. S. Dept. Agr, 18–21; assoc. prof. and *prof. bot, Ind. State Teachers Col, 21–* A.A; Ind. Acad. Fresh-water algae; algae of Indiana; algae of lower Wabash Valley; Ailanthus altissima as a honey plant; a new species of Spirogyra; science teaching; marihuana.

Smith, Prof. Ben(jamin) W(arfield), North Carolina State College, Raleigh, N. C. *Plant cytology, Genetics.* Hampden-Sydney, Va, March 29, 13. A.B, Virginia, 34, Blandy Exp. Farm fellow, 35–36, A.M, 36; Ph.D, Wisconsin, 39. Asst. genetics, Wisconsin, 36–39; *asst. agronomist, Exp. Sta, N. C. State Col, 39–, asst. prof. agron, 41–* A.A; Genetics Soc; Genetic Asn; Bot. Soc; N. C. Acad. Inheritance in maize; cytology and genetics of grasses and legumes.

Smith, Bernard H(oward), Virginia Dare Extract Co, Brooklyn, N. Y. *Chemistry.* Middlefield, Mass, Dec. 16, 78. B.S, Mass. Col. and Boston, 99; M.S, George Washington, 02; LL.B, Nat. Univ, 05. Asst, bur. chem, U. S. Dept. Agr, 02–05, chief, Boston Food Inspection Lab, 05–12; supt. and chemist, Baker Extract Co, 12–19; Garrett and Co, 19–23; *pres, Virginia Dare Extract Co, 23–* Chem. Soc. (chairman, Conn. Valley sect, 18). Food chemistry; mineral waters; detection of formaldehyde and formic acid; flavoring extracts.

Smith, Dr. Bertram G(arner), R. R. 3, Box 178A, Albuquerque, N. Mex. *Zoology, Embryology, Histology.* Painesville, Ohio, Oct. 7, 76. A.B, Michigan, 07; Ph.D, Columbia, 12. Asst. zool, Michigan, 04–06; instr. biol, Lake Forest Col, 07; zool, Syracuse, 07–09; Wisconsin, 09–11; asst. prof, Mich. State Nor. Col, 12–16, assoc. prof, 16–21; anat, N. Y. Univ, 21–29, prof, 29–42; *retired:* Summer, instr, Marine Biol. Lab, Woods Hole, 12. A.A; Soc. Zool; Asn. Anat; Harvey Soc; Mich. Acad. (chairman, zool. sect, 13); N. Y. Acad. Med. Habits of amphibians and fishes; embryology of Cryptobranchus; vital staining in the study of amphibian development; individuality of the germ-nuclei during cleavage; chromosomal vesicles; anatomy of Chlamydoselachus; the menstrual cycle; early diagnosis of pregnancy; embryology of Heterodontus.

Smith, Dr. Beverly C(hew), 3 E. 85th St, New York, N. Y. *Surgery.* Franklin, La, Feb. 7, 96. A.B, Virginia, 15, M.D, 19. Nat. research fellow, 21; *assoc. surg, Columbia; asst. visiting surgeon, Presb. Hosp.* Fel. Col. Surg; Am. Med. Asn; N. Y. Acad. Med; N. Y. Surg. Soc. Surgery of the abdomen, breast and extremities.

Smith, Dr. Burke, 5729 Kimbark Ave, Chicago, Ill. *Astronomy, Mathematics, Engineering.* Forrest, Ill, March 26, 78. B.S, Washington (Seattle), 99; Ph.D, Yale, 04. Instr. math, Northwestern, 00–01; Yale, 02–03; engineer, N. Y. Telephone Co, 03–04; instr. math, Purdue, 04–06, eng, 06–07; engineer, Chicago Telephone Co, 07–12; cent. group of Bell Tel. Companies, 12–14; Ill. Bell Tel. Co, 14–43, transmission engineer, 18–43; *mem. staff, Yerkes Observatory, Chicago, 43–* Instr, Lewis Inst, 16–21. A.A; Math. Soc; Elec. Eng. (chairman Chicago sect, 36); Astron. Soc; West. Soc. Eng. (chairman elec. sect, 36). Stellar spectroscopy; astrophysics; differential geometry; deformation of surfaces; determination of associated surfaces; inductive disturbances on telephone lines; depreciation and replacement of telephone plants; telephone toll plants; education and eminence in engineering; radial velocity studies of Leporis and beta Cephei.

Smith, Dr. Burnett, W. Lake St, Skaneateles, N. Y. *Paleontology.* Skaneateles, N. Y, June 28, 77. B.S, Pennsylvania, 00, Ph.D, 05. Asst. geol. and miner, Pennsylvania, 02–05, Harrison research fellow, 05–06, instr, 06–07; instr. and prof. paleont, Syracuse, 07–28; temporary geologist, N. Y. State Museum, 26–35; *trustee, Paleont. Research Institution, 33–,* v. pres, 35–37, pres, 37–39. A.A; Paleont. Soc; Geol. Soc; Soc. Vert. Paleont; Acad. Nat. Sci. Phila; Boston Soc. Nat. Hist. Central New York stratigraphy, malacology and paleoconchology.

Smith, Dr. C(aleb) Lothrop, State University of Iowa, Iowa City, Iowa. *Chemistry.* Winterset, Iowa, Aug. 14, 06. A.B, Grinnell Col, 28; M.S, Iowa, 29, Ph.D, 31. Instr. *chem, Iowa,* 31–39, *assoc, 39–* A.A; Chem. Soc. (sec'y, Iowa sect, 34, pres, 35); Iowa Acad. Electromotive force; qualitative microanalysis.

Smith, Dr. Carl C(linton), Cardiac Laboratory, General Hospital, Cincinnati, Ohio. *Biological chemistry.* Lima, Ohio, July 12, 14. A.B, DePauw, 36; M.S, Cincinnati, 37, Ph.D, 40. *Research assoc. cardiol, med. col, Cincinnati, 40–, instr. biol. chem, 42–* Choline esters, cholinesterase and the mediation of nerve impulses; blood lipids in psoriasis; prepa-

ration of extracts for use in the treatment of human and experimental hypertension; periarteritis in animals.

Smith, Prof. Carl E(llsworth), 124 Union Ave, Saratoga Springs, N. Y. *Psychology.* Framingham, Mass, Nov. 25, 96. A.B, Bates Col, 20; A.M, Harvard, 33, Ph.D, 34. Asst. *psychol,* Harvard, 30–34, tutor, 34–35; *prof, Skidmore Col, 35–* Psychol. Asn. Personality; emotions; psychopathology; physiological psychology.

Smith, Dr. Carl H(enry), 103 E. 84th St, New York, N. Y. *Pediatrics.* New York, N. Y, July 14, 95. A.B, Col. City of N. Y, 15; A.M, Columbia, 17; M.D, Cornell, 22. Asst. *clin. pediat, med. col, Cornell,* 28–31, instr, 31–33, assoc, 33–38, *asst. prof, 38–* Assoc. attending pediatrist, N. Y. Hosp; visiting pediatrician, Beekman Hosp; consultant pediatrician, St. Joseph's Hosp, Far Rockaway; Sea View Hosp, N. Y. Summers, asst, Columbia, 19. A.A; fel. Am. Med. Asn; Acad. Pediat; Soc. Pediat. Research; Soc. Exp. Biol; N. Y. Acad. Med. Blood coagulation; isoagglutinins in the newborn; icterus neonatorum; tuberculosis of infancy and childhood; supravital blood studies; blood sedimentation tests in infancy and childhood; adsorption of methylene blue by blood of infants and children; diagnosis of anemias of early infancy; nutritional anemia and leukemia in childhood; infectious lymphocytosis; Mediterranean anemia.

Smith, Dr. C(arleton) N(elkirk), 17 Harwood Drive, Snyder, N. Y. *Chemistry.* Green Springs, Ohio, March 28, 01. A.B, Oberlin Col, 23; M.S, Michigan, 27, Ph.D, 29. Instr, Michigan, 23–28; research chemist, Nat. Carbon Co, Cleveland, 29–38; *div. head, Linde Air Products Co, 38–* Chem. Soc. Theoretical and applied colloid and physical chemistry; cleaning specialties; insecticides; synthetic resins; electrochemistry; inorganic chemicals and processes; automotive coolants and lubricants.

Smith, Dr. C(arlton) G(eorge), University of Toronto, Toronto, Ont, Can. *Neurology.* Kitchener, Ont, Nov. 8, 05. B.A, Toronto, 28, M.D, 35, Ph.D, 36; M.Sc, Western Ontario, 30. Instr. anat, Western Ontario, 28–31; demonstrator physiol, *Toronto,* 35–37, lecturer *anat,* 37–40, *asst. prof, 40–* Banting Research Foundation, 29, 33, 34. Reeve prize, 38. Asn. Anat; Can. Physiol. Soc. Changes with age in brain, olfactory nerves, olfactory mucosa and joints.

Smith, Dr. Charles C(linton), Soil Conservation Service, Alice, Texas. *Ecology.* Olmetz, Kans, April 30, 10. B.S, Cent. State Teachers Col, Okla, 32; M.S, Oklahoma, 34, research fellow, 38–39, Ph.D, 39. Educational adviser, Civilian Conserv. Corps, 34–35; asst. prof. biol, Cent. State Teachers Col, Okla, 35–36; special instr. bot, Oklahoma, 36–37, research assoc, univ. biol. surv, 39–40; instr. science, Louisiana, 40–41; *asst. soil conservationist, soil conserv. service, U. S. Dept. Agr, 41–* Bot. Soc; Ecol. Soc; Soc. Zool; Okla. Acad. Effect of overgrazing on mixed-grass prairie; recovery of abandoned eroded farmland; ecological distribution of toads and grasshoppers.

Smith, Dr. C(harles) E(dward), 2398 Sacramento St, San Francisco, Calif. *Public health.* St. Joseph, Mo, Sept. 7, 04. A.B, Stanford, 27, M.D, 31; Rockefeller Foundation fellow, Toronto, 33–34, D.P.H, 34. Instr. pub. health and prev. med, med. sch, Stanford, 32–33, asst. prof, 34–36; assoc. surv. prev. med. instruction, Rockefeller Foundation, 36–37; assoc. prof. *pub. health and prev. med, sch. med, Stanford,* 37–42, *prof, 42–, exec. officer dept, 39–* Consultant epidemic diseases to Sec'y of War, 41– Mem, State Board Pub. Health, Calif, 40– Fel. Pub. Health Asn; fel. Am. Med. Asn; Soc. Bact; Epidemiol. Soc; Federation Clin. Research. Coccidioidomycosis.

Smith, C(harles) E(gan), Agricultural Center, University Branch, Baton Rouge, La. *Entomology.* Bernice, La, Sept. 10, 87. B.S, Louisiana, 16, M.S, 24. Asst. state entomologist, La, 16–17; *with bur. entom. and plant quarantine, U. S. Dept. Agr, 17–, entomologist in charge field lab, div. truck crop and garden insects investigations, agr. research admin.* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. Truck crop insects; the sweet potato weevil; strawberry insects of Louisiana; the spotted cucumber beetle; chemotactic studies on the cabbage looper and related species; cabbage caterpillars.

Smith, Dr. Charles (Grover), 75 Terrace Road, Medford, Mass. *Physics.* Waco, Texas, Oct. 27, 88. A.B, Texas, 11; Ph.D, Harvard, 36. Aeronaut. mech. engineer, U. S. Govt, 17–18; research engineer, Am. Radio and Research Corp, 20–21; *physicist, Raytheon Mfg. Co, 22–* A.A; Physical Soc; Elec. Eng. Mercury arc cathode; ring discharge; arcs with mobile cathode spot.

Smith, Dr. Charles Hendee, 125 E. 74th St, New York, N. Y. *Medicine.* Milwaukee, Wis, Nov. 17, 76. B.S, Cornell, 97; M.D, Columbia, 01. *Prof.* clin. diseases of children, Columbia, 20–30; pediat, col. med, N. Y. Univ, 30–42. Mem, State Board Med. Examiners, N. Y, 41– Am. Med. Asn; Pediat. Soc; Acad. Pediat; N. Y. Acad. Med. (chairman sect. pediat, 17, 42). Pediatrics; infant feeding; pneumonia; heart disease; tuberculosis in childhood.

Smith, Dr. C(harles) L(inton), Pecan Field Station, Box 589, Brownwood, Texas. *Plant physiology.* Covin, Ala, April 3, 92. B.S, Ala. Polytech, 21; M.S. Maryland, 27, Ph.D, 29. Asst. and instr. plant physiol, Maryland, 28–31; assoc. physiologist, *pecan field sta, U. S. Dept. Agr,* Ga, 31, *Texas,* 31–38, *physiologist, 38–* Soc. Hort. Sci; Soc. Plant Physiol. Physiology, breeding, flowering and fruiting of the pecan.

Smith, Dr. Charles Loren, Doggett-Pfeil Laboratories, Inc, Springfield, N. J. *Entomology.* Trumansburg, N. Y, Dec. 31, 11. B.S, Rutgers, 33, M.S, 34, Ph.D, 37. Exec, Doggett-Pfeil Labs, Inc; *research fellow, Rutgers.* Organic insecticides; prolongation of toxicity of organic insecticides; relation between particle size of insecticidal agents and toxicity.

Smith, Charles M(eldrum), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Philadelphia, Pa, Dec. 19, 89. B.S, Pennsylvania, 10. Chemist, Phila. Storage Battery Co, 10–11; asst. chemist, *bur. chem. and soils, U. S. Dept. Agr,* 11–23, assoc. chemist, 23–24, chemist and *senior chemist, 24–* Chem. Soc; Asn. Econ. Entom; Wash. Acad. Chemistry of insecticides.

Smith, Dr. Charles Piper, P. O. Box 410, Saratoga, Calif. *Botany.* St. Catharines, Ont, Can, April 25, 77. B.S, Purdue, 03; A.M, Stanford, 08, Ph.D, 27. Forester, Monterey County Water Works, Calif, 06–07; acting asst. prof. zool, Utah Col, 08–09, asst. prof. bot, 09–12; assoc. prof, Maryland, 12–14; seed inspection officer, State Board Agr, Md, 12–19; teacher, high sch, San Jose, Calif, 20–42. Ornith. Union; Ind. Acad. Lupinus.

Smith, Prof. C(harles) S(purgeon), San Marcos, Texas. *Physiology.* Columbus, Texas, 86. B.S, Baylor, 10; M.S, Chicago, 21, Donnelly fellow, 27–28, Ph.D, 28. *Prof. biol, Texas State Teachers Col, San Marcos, 14–* Effect of pituitary feeding on white rats; water retention under low barometric pressure; arterior-venous meshwork in the frog's kidney; the elimination of hemoglobin; essential renal units as demonstrated by regeneration in the dog.

Smith, Dr. Charles S(ydney), Jr, University of Pittsburgh, Pittsburgh, Pa. *Physics.* Lorain, Ohio, April 29, 16. B.S, Case, 37; Sc.D, Mass. Inst. Tech, 40. *Instr. physics, Pittsburgh, 40–* Physical Soc. Physics of metals; x-ray diffraction.

Smith, Prof. Charles V(ictor) L(ovett), 515 Raub St, Easton, Pa. *Mathematics.* Everett, Mass, July 31, 09. A.B, 39–41, *asst. prof. 41–; lieut, U. S. Naval Res, and instr, post grad. sch, U. S. Naval Acad.* The Laplace integral; fractional derivative of a Laplace integral.

Smith, Prof. Christianna, Mt. Holyoke College, South Hadley, Mass. *Zoology.* Kearny, N. J, March 27, 93. A.B, Mt. Holyoke Col, 15; A.M, Cornell, 19, Schuyler fellow, 21–23, Ph.D, 23. Asst, Mt. Holyoke Col, 15–17, instr, 17–18; asst. histol, Cornell, 18–19; instr, *Mt. Holyoke Col,* 19–21, asst. prof. *zool,* 23–26, assoc. prof, 26–32, *prof, 32–* Investigator, London, 32. Summers, instr, Marine Biol. Lab, Woods Hole, 21, 22, 24. Elizabeth Thompson Science Fund award, 38; award, Nat. Research Council; Penrose Fund; Am. Philos. Soc; Am. Soc. Arts and Sciences; Am. Asn. Advancement Science. A.A; Soc. Zool; Asn. Anat. Histology; blood; thymus; aging.

Smith, Dr. C(larence) A(lbert), 595 Madison Ave, New York 22, N. Y. *Biochemistry.* Northampton, Mass, Oct. 14, 88. B.S, Mass. Col, 11; M.S, Jefferson Med. Col, 14, Ph.D, 16. Instr. agr. chem, Pa. State Col, 11–13; demonstrator, Jefferson Med. Col, 13–20, assoc, 20–23; research and consulting biochemist, Food Research Labs, Inc, 23–26; biochemist, dept. applied research, Fleischmann Co, 26–29; asst. director dept. applied research, *Standard Brands, Inc,* 29–34, *tech. director special products dept, 34–* A.A; Chem. Soc; Physiol Soc; Soc. Exp. Biol. Nutrition; metabolism; digestion.

Smith, Dr. C(larence) B(eaman), 1 Montgomery Ave, Takoma Park, Md. *Agriculture.* Howardsville, Mich, Sept. 21, 70. B.S, Mich. State Col, 94, M.S, 95, Sc.D, 17; Halle; Bonn. Hort. ed, 'Exp. Sta. Record,' U. S. Dept. Agr, 97–07, research in farm management, 08–13, chief office cooperative exten. work, 14–38; *retired; collaborator, fed. exten. service, U. S. Dept. Agr, 43–* Farm Management Asn; Bot. Soc. Wash. Agronomy; economics; adult education.

Smith, Prof. C(larence) DeWitt, Box 544, State College, Miss. *Mathematics.* Jackson, Miss, Aug. 9, 91. A.B, Miss. Col, 15; M.S, Iowa, 25, Ph.D, 27. *Prof. math. and head dept,* La. Col, 19–29; Miss. Agr. and Mech. Col, 30–32; *Miss. State Col, 32–* Summer, instr, Iowa, 25. Lieut, U.S.A, 17–18. Math. Soc; Math. Asn; La. Acad. Mathematical statistics; geometry.

Smith, Prof. Clarence R(aymond), Aurora College, Aurora, Ill. *Physics.* Galesburg, Ill, July 19, 90. B.S, Aurora Col, 14; M.S, Iowa, 23. Teacher, high sch, Iowa, 15–16; *prof. physics, Aurora Col, 16–* Teacher, Army specialized training program, Iowa, 43. Summers, draftsman, Richards-Wilcox Mfg. Co, intermittently, 16–23. A.A; Physical Soc; Asn. Physics Teachers (v. pres, Chicago chap, 41, pres, 42); Cent. Asn. Sci. and Math. Teachers; Ill. Acad. Light; photography; laboratory equipment; mastodon remains at Aurora, Illinois.

Smith, Clayton O(rville), 4291 12th St, Riverside, Calif. *Plant pathology.* Willsboro, N. Y, July 18, 71. B.S, Middlebury Col, 99; A.M, Cornell, 02. Asst. bot, Cornell, 00–02; Delaware Col, 03–05; asst. plant path, Citrus Exp. Sta, California, 06–10, instr, 11–16, research assoc, 16–30, assoc, 30–41; *retired.* A.A. Walnut bacteriosis; resistance to crown gall; crown rot of walnuts.

Smith, Prof. C(layton) S(idney), Ohio State University, Columbus, Ohio. *Biochemistry.* Newark, N. J, April 23, 87. B.S, Rutgers, 09, M.S, 12; Ph.D, Columbia, 13; M.D, Northwestern, 20. Asst. biochem, Columbia, 10–12; asst. pharmacologist, bur. chem. and soils, U. S. Dept. Agr, 12–14; assoc. physiol. chem, col. med, Illinois, 14–18; physiol, Northwestern, 18–20; asst. prof. *physiol. chem. and pharmacol, Ohio State,* 20–21, *prof, 21–* Chem. Soc; fel. Am. Med. Asn. Chemistry of crude drugs; toxicology; legal medicine.

Smith, Dr. C(leveland) Scudder, (Jr), Thomson Laboratory, General Electric Co, 920 Western Ave, West Lynn, Mass. *Physics.* New Orleans, La, Jan. 15, 13. B.S, Southwestern (Tenn), 34; M.S, Virginia, 37, Ph.D, 38. Junior engineer, Tenn. Valley Authority, 34–35; *physicist, river works, Gen. Elec. Co, 38–* Summer, fellow, research lab, Gen. Elec. Co, 38. High rotational speeds in vacuum; dry rectifiers.

Smith, Prof. Clifford E(dward), San Diego State College, San Diego, Calif. *Astronomy.* Olmstead Co, Minn, July 30, 00. A.B, Carleton Col, 23; A.M, Swarthmore Col, 26; Ph.D, California, 36. Asst. math. and astron, Swarthmore Col, 25–26; instr, Carleton Col, 26–27; Fresno State Col, Calif, 28–29; Mills Col, 30–31; fellow *astron,* Lick Observatory, California, 31–32, part-time asst. and asst, 34–36; asst. prof, Fresno State Col, Calif, 32–34; *San Diego State Col,* 37–40, *assoc. prof, 40–; lieut, U. S. Navy, 41–* A.A; Astron. Soc; Math. Soc; Astron. Soc. Pacific; Royal Astron. Soc. Photographic positions of asteroids; absorption of light in the Aquila region of the milky way.

Smith, Dr. Cloyd M(offett), Munsey Bldg, Washington, D. C. *Mining.* Chicago, Ill, June 8, 98. B.S, Illinois, 20, M.S, 28, E.M, 34, Ph.D, 35. Tech. asst, research dept, Anaconda Copper Mining Co, Mont, 20; chief clerk, mining dept, Integrity Mutual Casualty Co, Chicago, 21; asst. and assoc. mining eng, Illinois, 21–26, research assoc. and research asst. prof, 26–37; *consultant mine ventilation and ed, 'Mechanization,' 37–* Transitman, H. E. Willson Eng. Co, W. Va, 22; mine transitman, Seymour and McCarthy, Marion, Ill, 23; geologist, Ala. Geol. Surv, 30. Min. and Metal. Eng. Mine ventilation; mine safety; friability of coal; utilization of mine wastes.

Smith, Dr. Clyde F, North Carolina State College, Raleigh, N. C. *Entomology.* Riverdale, Idaho, Aug. 10, 13. B.S, Utah State Agr. Col, 35, M.S, 37; univ. fellow, Ohio State, 38–39, Ph.D, 39. Asst, Ohio State, 36–38; asst. entomologist and later *assoc. entomologist, Exp. Sta, N. C. State Col, 39–* Asn. Econ. Entom; Entom. Soc. Amer. Taxonomy; applied entomology.

Smith, Dr. Cornelia Marschall, Baylor University, Waco, Texas. *Biology.* Llano, Texas, Oct. 15, 95. A.B, Baylor, 18; A.M, Chicago, 23; Ph.D, Hopkins, 28. Instr. bot, Baylor, 28–30, asst. prof, 30–35; prof. biol. and head dept, J. B. Stetson, 35–40; *prof. biol, Baylor, 40–, head dept, 43–* A.A; Bot. Soc; fel. Texas Acad. Differentiation of the sporangia in Marsilia quadrifolia; development of Dionaea muscipula; flower and seed; germination of seed and development of seedling into mature plant.

Smith, Dr. Cyril Stanley, American Brass Co, Waterbury, Conn. *Physical metallurgy.* Birmingham, Eng, Oct. 4, 03. B.Sc, Birmingham, England, 24; Sc.D, Mass. Inst. Tech, 26. Research assoc. physics, Mass. Inst. Tech, 25–27; *research metallurgist, Am. Brass Co, 27–; special war research, 43–* Mem. war metal. cmt, Nat. Acad. Sciences and Nat. Research Council, 42–43. Hunt award, Am. Inst. Min. and Metal. Eng, 33; award, Inst. Metals London, 36. Soc. Test. Mat; Min. and Metal. Eng; Soc. Metals; Physical Soc; Newcomen Soc; Inst. Metals London; London Iron and Steel Inst. Constitution and tranformations of metallic alloys; magnetic, thermal, electrical and other physical properties of alloys; history of metal science.

Smith, Dr. Dana W(entworth), 697 Eighth St, Oakmont, Pa. *Metallurgy.* Hyde Park, Mass, Nov. 13, 07. Mo. Sch. Mines, 25–27; B.S, Yale, 29, Sterling fellow, 31–32, Ph.D, 32. *Research metallurgist,* Carnegie Inst. Tech, 32–34; *research labs, Aluminum Co. of Amer, 34–* Min. and Metal. Eng; Soc. Metals. Widmanstätten structures; etching figures; age-hardening and preferred orientation in wrought metals.

Smith, Prof. D(avid) C(lyde), University of Wisconsin, Madison, Wis. *Plant breeding, Genetics.* Bountiful, Utah, Nov. 27, 05. B.S, Utah Col, 26; M.S, Oregon State Col, 28; Ph.D, Minnesota, 34. Asst, Oregon State Col, 26–28, instr, 28–31; asst, Minnesota, 31–34; agent, hop disease investigations, div. drug and related plants, bur. plant indust, U. S. Dept. Agr, 34–36, div. forage crops and diseases, 36–38, assoc. geneticist, 38–41; *assoc. prof. agron. and assoc. agronomist, Wisconsin, 41–* Asst. prof, Oregon State Col, 34–36. Soc. Agron. Farm crops; physiology of effects of seed treatments on germination and growth; hop breeding; inheritance of disease resistance in cereals; grass breeding and genetics; intergeneric hybridization.

Smith, Prof. David Eugene, 501 W. 120th St, New York, N. Y. *[1]*Mathematics.* Cortland, N. Y, Jan. 21, 60. Ph.B, Syracuse, 81, Ph.M, 84, Ph.D, 87, LL.D, 05; Sc.D, Columbia, 29; L.H.D, Yeshiva Col, 36. Teacher math, N. Y. State Nor. Sch, Cortland, 84–91; prof, Mich. State Nor. Sch, 91–98; prin, N. Y. State Nor. Sch, Brockport, 98–01; prof. *math, Teachers Col, Columbia,* 01–26, *emer. prof, 26–* Summers, lecturer, Harvard, 00–03. Math. ed, 'New Int. Encyclop'; 14th edition, 'Encyclop. Britannica.' V. pres, Int. Cmt. on Teaching Math, 12–20, pres, 28–; mem, Int. Cmt. Hist. Science; Int. Cong. Math, Zurich, 32. A.A; Math. Soc. (ed, 'Bul,' librarian, 02–22); Math. Asn. (pres, 19); Hist. Sci. Soc. (pres, 27); hon. mem. British Math. Asn; Deuts. Math. Verein; hon. mem. Calcutta Math. Soc. History and teaching of mathematics.

Smith, Dr. David F(rederick), R.F.D. 1, Bound Brook, N. J. *Chemistry.* Springdale, Conn, Sept. 10, 97. Syracuse, 16–17; B.S, Calif. Inst. Tech, 20, European traveling fellow, 20, Ph.D, 22. Asst, Calif. Inst. Tech, 19, teaching fellow, 20–22, research fellow and instr. in charge physical chem. lab, 22–23; research assoc. and nat. research fellow chem, California, 23–26; supervising physical chemist, U. S. Bur. Mines, 26–30; director physical chem. research, A. O. Smith Corp, 30–32; prof. chem, Buffalo, 32–39; div. chief, bur. agr. chem. and eng, U. S. Dept. Agr, 39–40; develop. director, Mich. Alkali Co, 40–42; *asst. to pres. and mem. board directors, Johnson and Johnson Research Foundation, 42–* Instr, California, 24; consultant, Hercules Powder Co, 34–36; chem. adviser, Hooker Electrochem. Co, 32–39; expert consultant and adviser, U. S. Dept. Agr, 43. Cooperating expert, Int. Critical Tables, 27. A.A; Chem. Soc; Gas Asn. (chem. cmt, 28); Chem. Eng. Solubility; electrode potentials; free energy and equilibria; special apparatus; chemical reaction velocity; catalysis; high pressure reactions; combustion; industrial organic chemistry; industrial electrochemistry; chemical engineering and economics; metallurgy; soda ash, caustic soda and chlorine; medical and surgical supplies; gas technology.

Smith, Prof. David M(elville), Georgia School of Technology, Atlanta, Ga. *Mathematics.* Nashville, Tenn, July 27, 84. A.B, Vanderbilt, 05, A.M, 06; Ph.D, Chicago, 16. Southern Univ, 09–12; assoc. prof. and *prof. math, Ga. Tech, 13–, head dept, 34–* Math. Soc; Math. Asn. Calculus of variations.

Smith, Dr. David T(illerson), Duke Hospital, Durham, N. C. *Medicine, Bacteriology.* Anderson Co, S. C, Oct. 1, 98. A.B, Furman, 18; M.D, Hopkins, 22. Intern, Hopkins, 22–23; bacter. and path, Rockefeller Inst, 23–24; bacteriologist and pathologist, N. Y. State Hosp. for Incipient Tuber, Ray Brook, 25–30; *assoc. prof. med, sch. med, Duke, 30–, prof. bacter, 32–* Lecturer, Trudeau Post-Grad. Sch. for Tuber, 24–30. Asn. Path. and Bact; Tuber. Asn; Asn. Anat; Asn. Thoracic Surg; Am. Physicians. Pigmented cells and tumors; bactericidal and bacteriostatic action of dyes; diet and experimental tuberculosis; chronic non-tuberculous infection of the lungs; fuso-spirochetal diseases; etiology of blacktongue; the use of liver and nicotinic acid in blacktongue and pellagra.

Smith, Dr. Dietrich C(onrad), University of Maryland School of Medicine, Baltimore, Md. *Physiology.* Pekin, Ill, March 21, 01. A.B, Minnesota, 23, A.M, 24; Ph.D, Harvard, 28. Nat. research fellow, Harvard, 28–30; Munich, 30–31; independent investigations, Naples, Kaiser Wilhelm Inst. and Bermuda Biol. Sta, 31–33; instr. *physiol,* Tennessee, 33–37; *assoc. prof, sch. med, Maryland, 37–* A.A; Zool. Soc; Physiol. Soc. Physiology of chromatophores; ventricular fibrillation; endocrinology; physiology of vitamins.

Smith, Dr. Donald M(ilton), R. D. 2, Wilmington, Del. *Organic chemistry.* Danville, Ill, Feb. 18, 02. B.S, California, 25, M.S, 26, Ph.D, 29. Teaching fellow chem, California, 28–29; *chemist, ammonia dept, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. The rate of reaction of ethylene and chlorine; physical properties of methyl alcohol-isobutyl alcohol-water system; determination of aldehydes, of ketones, of anhydrides, of hydroxyl and of water in organic liquids; influence of structure on saponification; use of Karl Fischer reagent in analysis.

Smith, Prof. Donald P(ritchard), 10 Orchard Circle, Princeton, N. J. *Physical metallurgy.* Helena, Mont, 79. A.B, Williams Col, 02; Ph.D, Göttingen, 07. Instr. *physical chem, Princeton,* 08–11, asst. prof, 11–22, *assoc. prof, 22–* Min. and Metal. Eng; Chem. Soc; Electrochem. Soc; British Inst. Metals. Occlusion.

Smith, Dr. Dorothea E(gleston), 88 Battle Road, Princeton, N. J. *Immunology, Bacteriology.* Washington, D. C, Aug. 28, 90. A.B, Radcliffe Col, 13, A.M, 24, Ph.D, 26. Vol. worker, Rockefeller Inst, Princeton, N. J, 16–19; lecturer physiol. and biochem, Bryn Mawr Col, 27–29, assoc, 29–31; instr. bacter, sch. med, Pennsylvania, 31–33, assoc, 33–37, grad. sch, 32–37. A.A; Physiol. Soc. Phila. Chemistry of capsular substance of the colon bacillus; effect of organisms of the typhoid-paratyphoid group on the metabolism of the colon bacillus; biochemistry of fats; chemical reactions of immune sera; chemistry of disinfection by mercurials; mercury-protein compounds.

Smith, Dr. Douglas E(lstow), 10958 84th Ave, Edmonton, Alta, Can. *Physiological psychology.* Sydenham, Ont, March 10, 12. B.A, Queen's (Can), 33, M.A, 34; Chicago, 34–35; Ph.D, Harvard, 37. *Lecturer psychol, Alberta, 37–; Can. Army, 41–, major.* Capt, Can. Army, 38–41. Assoc. Psychol. Asn; Can. Psychol. Asn. Cerebral localization of sensory and sensori-motor capacities.

Smith, Dr. Dudley C(ozby), 901 Landis Ave, Vineland, N. J. *Physical chemistry.* Charleston, S. C, Aug. 3, 05. B.S, Col. of Charleston, 25; M.S, Union Col. (N. Y), 28; Ph.D, Virginia, 34. Research, Bell Tel. Labs, 28–30; assoc, Penniman and Browne, Baltimore, 34–37; mem. staff, *Kimble Glass Co,* 37–38, *chief chemist, 38–* Chem. Soc; Ceramic Soc; Fire Protection Asn. Sea water corrosion of steel, copper and aluminum; atmospheric dust and sulphur dioxide in the air; hydrometry and thermometry; determination of higher alcohols in distilled liquors; microchemical determination of silica and alumina in glass.

Smith, Dr. D(udley) C(rofford), University of Virginia Hospital, Charlottesville, Va. *Dermatology.* Lafayette Springs, Miss, Dec. 15, 92. B.S, Mississippi, 14; M.D, Virginia, 16. Instr. bacter. and path, *Virginia,* 16–17, from instr. to *prof. dermat. and syphilol, med. sch, 19–,* intern and res. physician, univ. hosp, 17–19, *chief dept. dermat. and syphilol, univ. hosp. and clinic, 19–* Certificate of merit, sci. exhibit, Am. Med. Asn, 35, 40. A.A; Am. Med. Asn; Acad. Dermat. and Syphilol; Soc. Investigative Dermat; Dermat. Asn. (v. pres, 35); fel. Col. Physicians; Atlantic Dermat. Soc; South. Med. Asn. (sec'y dermat. sect, 32, 33, chairman, 42, 44); Baltimore-Washington Dermat. Asn. (pres, 36). Syphilology.

Smith, Prof. Dudley T(hompson), 170 Seventh Ave, North Troy, N. Y. *Mineralogy, Geology.* Greenwich, Conn, May 22, 02. C.E, Rensselaer Polytech, 25, M.C.E, 33. Instr. *geol. and miner, Rensselaer Polytech,* 25–31, *asst. prof, 31–* Int. Conf. Soil Mech; Miner. Soc. Dielectric constants.

Smith, Prof. Earl B(renton), College of the City of New York, New York, N. Y. *Mechanical engineering.* Scranton, Iowa, June 13, 78. B.S, Missouri, 03, M.E, 05. Asst. prof. exp. eng, Drexel Inst, 04–14; assoc. mech. eng, bur. pub. roads, U. S. Dept. Agr, 14–16, mech. engineer, bur. soils, 16–19, engineer of tests, bur. pub. roads, 19–25; research prof. *mech. eng,* Iowa State Col, 25–31; *assoc. prof, sch. technol, Col. City of N. Y, 31–* Engineer of construction, U. S. Kelp-Potash Plant, Calif. Capt, U.S.A, 18–19. Soc. Test. Mat; Mech. Eng. Strength of materials; power engineering.

Smith, Dr. E(arl) Cooper, Mesilla Park, N. Mex. *Analytical chemistry.* Bridgeport, Ill, April 20, 06. B.S, Illinois, 30, grad. scholar, 30–31, M.S, 31; Ph.D, Cornell, 39. Asst. research, N. Y. State Agr. Exp. Sta, Geneva, 31–35; asst, Cornell, 35–37, 38–39, acting instr, 37–38; *instr. chem, N. Mex. Col, and asst. chemist, Exp. Sta, 39–; lieut, Air Forces, U. S. Army, 42–* Chem. Soc. Processing of fruit juices; coprecipitation with barium sulphate; effect of irrigation and cropping on desert soils.

Smith, Dr. E(arl) Dillon, 4912 N. 26th St, Arlington, Va. *Industrial engineering.* Philadelphia, Pa, May 25, 07. B.S, Iowa State Col, 31, M.S, 32; fellow, Columbia, 33–34, Ph.D, 37. Instr. mech. eng, Col. City of N. Y, 32–35; in charge dept. econ. and indust. admin, Pratt Inst, 35–37; asst. to pres, Transcontinental and West. Air, Inc, 37–38; prof. eng, Redlands, 38; mech. eng, Col. City of N. Y, 39; prin. analyst, Civil Aeronautics Authority, 39–40, statistician, 40, acting asst. chief sci. services, 40–41, head statistical research, 41–42; *organization specialist, U. S. Weather Bur, 42–; special investigator, cmt. appropriations, U. S. House Representatives, 43–* Indust. consultant, 34–39. Asst. to pres, Transcontinental and West. Air, Inc, 37–38. A.C, U.S.A, 29. Mech. Eng; Indust. Eng; Econ. Asn; Statist. Asn; Eng. Educ; Math. Soc; Econometric Soc; Acad. Polit. Sci; Acad. Polit. and Social Sci. Air transport operation; traffic analysis; rate making; marketing; statistics; economics; mechanical engineering; industrial engineering and administration; personnel and industrial relations; electronics; facsimile; radio communications.

Smith, Earle C, Republic Steel Corp, Cleveland, Ohio. *Metallurgy.* New Brighton, Pa, Jan. 20, 91. E.M, Ohio State, 13. *Chief metallurgist, Republic Steel Corp.* A.A; Chem. Soc; Soc. Test. Mat; Soc. Metals; Min. and Metal. Eng; Iron and Steel Inst; Foundrymen's Asn; British Inst. Metals; British Iron and Steel Inst; Verein Deuts. Eisenhüttenleute.

Smith, Dr. E(astman), 2209 E. Kenilworth Place, Milwaukee, Wis. *Physics.* Springfield, Mass, April 2, 97. B.S, Mass. Inst. Tech, 22, M.S, 31, du Pont fellow, 31–32, Sc.D, 34. Wright Aero, 22–23; in charge production schedule control, Gilbert Clock Co, 23; research, Mack Trucks, 23–25; city engineer's office, Miami Beach, 25; tech. writer, 25–26; engineer, advertising dept, Johns-Manville Corp, 26–27; instr. and lecturer science, N. Y. Univ, 27–29; asst. prof. physics, Newark Col. Eng, 33–35, assoc. prof, 35–39; consulting engineer, Shaw-Porter Automatic Transmission, 39–41; optical and mech. engineer, Pioneer div, Bendix Aviation Corp, 41–42; optical mech. consulting engineer, Perfex Corp, 42–43; *director research and develop, Milwaukee Gas Specialty Co, 43–* Asst. prof, Connecticut, 40. Ambulance war service, 18–19; Ordnance Officers Res, 23–25. A.A; Mech. Eng; Optical Soc. Mechancial engineering; education; general science; vibration measurement; optics.

Smith, Dr. E(dgar) R(eynolds), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Wilmington, Del, May 13, 97. B.S, Mass. Inst. Tech, 20, M.S, 21, Ph.D, 23. Asst. physical chem, Mass. Inst. Tech, 21–23, research assoc, 23–24; asst. prof. chem, Louisiana, 24–26; assoc. chemist, *Bur. Standards,* 26–30, chemist, 30–36, *senior chemist, 36–* Summers, instr, Mass. Inst. Tech, 23, 24. Lecturer, George Washington, 28–29, 30–31. Chem. Soc; Wash. Acad. Electrochemistry.

Smith, Prof. Edward S(taples), 1 Hedgerow Lane, Clifton, Cincinnati. Ohio. *Mathematics.* Miller School, Va. M.E. Brown, 04; M.S, Virginia, 12, Ph.D, 16. Instr. drawing, Mo. Sch. Mines, 06–09; *math,* Virginia, 09–12; Princeton, 12–13; *Cincinnati,* 13–16, asst. prof, 16–19, assoc. prof, 19–25, *prof,*

25– Major, C.Eng. Math. Soc; Math. Asn. Mathematical statistics; calculus.

Smith, Prof. Edward S(taples) C(ousens), Union College, Schenectady, N. Y. *Geology.* Biddeford, Maine, Aug. 23, 94. B.S, Bowdoin Col, 18; A.M, Harvard, 20. Asst. *geol,* Radcliffe Col, 20–23; instr, *Union Col. (N. Y),* 23–25, asst. prof, 25–29, assoc. prof, 29–31, *prof, 31–* Cmt. on field data of earthquakes, Nat. Research Council. Geol. Soc; Paleont. Soc; Geophys. Union; Soc. Research on Meteorites; N. Y. Geol. Asn. (pres, 30); Maine Min. and Geol. Soc. Geology and physiography of the State of Maine; mineral fluorescence.

Smith, Edwin, Box 99, Wenatchee, Wash. • *Horticulture.* Lodi, N. Y, Nov. 27, 88. B.S, Mich. State Col, 12. Fruit transportation and storage research, Can, 12–17; *U. S. Dept. Agr,* 17–20, for. market specialist for fruits, 24–29, *senior horticulturist, div. fruit crops and diseases, bur. plant indust, 29–* Soc. Hort. Sci. Fruit precooling, transportation and storage; marketing fruit in Europe.

Smith, Dr. Edwin L(ee), 1853 W. Polk St, Chicago, Ill. *Physiology.* Shelton, Nebr, Aug. 12, 07. Ph.G, Nebraska, 29, B.S, 35, M.S, 38; Sidney Walker III scholar, Chicago, 38–39, fellow, 39–40, Ph.D, 41. *Instr. physiol, col. med, Illinois, 41–* Asn. Social Workers. Experimental renal hypertension; digitalis assay; barbiturates.

Smith, Prof. Edwin R(aymond), Iowa State College, Ames, Iowa. *Mathematics.* Danville, Ill, Jan. 13, 79. A.B, Illinois, 05; A.M, Wisconsin, 08; Ph.D, Munich, 11. Instr. *math,* Wisconsin, 05–09; asst. prof, Pa. State Col, 11–14, assoc. prof, 14–20, *prof,* 20–21; *Iowa State Col, 21–* Summers, director, Pa. State Col, 14–20; assoc, Illinois, 20, 21. Math. Soc. Series; difference equations; statistics.

Smith, Prof. Elinor VanDorn, 5 Middle St, Hadley, Mass. *Bacteriology.* Hadley, Mass, Aug. 21, 04. A.B, Brown, 25, A.M, 30, Ph.D, 37. Lab. technician, State Labs, Conn, 25–26; instr. *bacter, Smith Col,* 26–32, *asst. prof, 32–* Soc. Bact; Asn. Immunol; Pub. Health Asn. Serology; bacterial extracts; coliform bacteria.

Smith, Dr. Elizabeth R(obison) B(aker), 321 Harrison Ave, San Antonio, Texas. *Physiological chemistry.* Fulton, Mo, May 7, 08. A.B, Bryn Mawr Col, 30; Ph.D, Yale, 33. Asst. physiol. chem, Yale, 31–32, hon. research fellow physiol, 33–39, asst, 39–41; *substitute teacher and tutor sciences, St. Mary's Hall, 42–* Soc. Biol. Chem; Chem. Soc. Gastric physiology; chemistry of enzymes; physical chemistry of proteins and amino acids.

Smith, Prof. Elliott, University of Cincinnati, Cincinnati, Ohio. *Astronomy.* Blue Earth Co, Minn, 75. A.B, Minnesota, 03; fellow, Lick Observatory, California, 05–06; Ph.D, Cincinnati, 10. Asst. astron, Minnesota, 02–03; Lick Observatory, California, 03–05; asst, *observatory, Cincinnati,* 07–11, astronomer, 11–40, *director, 40–, prof. astron, univ, 29–* A.A; Astron. Soc; Astron. Soc. Pacific. Micrometric photographic and meridian circle observations of position; meridian circle observation of position of all stars of known proper motion.

Smith, Prof. Elmer G(illam), Agricultural and Mechanical College of Texas, College Station, Texas. *Physics.* Mt. Vernon, N. Y, March 9, 97. A.B, Amherst Col, 19; M.S, Agr. and Mech. Col. Texas, 25, B.S (M.E), 34, M.E, 39; Ph.D, Texas, 41. Teacher, high sch, N. Y, 19–21; asst. *physics,* Purdue, 21–24; instr, *Agr. and Mech. Col. Texas,* 24–26, asst. prof, 26–38, *assoc. prof, 38–* A.A; Asn. Physics Teachers; Heat. and Vent. Eng; Eng. Educ; Physical Soc; fel. Texas Acad. Mechanical engineering; factors affecting the circulation of hot water by gravity in closed circuits; pipe sizes for hot water heating systems; transient heat flow in intermittently heated buildings.

Smith, Emil L, E. R. Squibb and Sons, New Brunswick, N. J. *Biochemistry, Biophysics.* New York, N. Y, July 5, 11. B.S, Columbia, 31, Ph.D, 37. Asst. zool, Columbia, 31–34, biophys, 34–36, instr, 36–38; Guggenheim Mem. Foundation fellow, Cambridge, 38–40; Rockefeller Inst, 40–42; *biophysicist, biol. lab, E. R. Squibb and Sons, 42–* Research fellow, Yale, 40. A.A; N. Y. Acad; Biochem. Soc. Gt. Britain. Photoreceptor process in vision; mechanism of photosynthesis; visual purple; chlorophyll; proteins; proteolytic enzymes.

Smith, Prof. Erma Anita, Iowa State College, Ames, Iowa. *Physiology.* Larned, Kans, 95. A.B, Kansas, 20; A.M, Vassar Col, 22; Ph.D, Chicago, 26, M.D, Rush, 31. Instr. *physiol,* Vassar Col, 20–23; *assoc. prof, Iowa State Col, 26–* Am. Med. Asn. grant, 32, 33. A.A; Physiol. Soc; Soc. Exp. Biol; Iowa Acad. Factors influencing the lethal action of illuminating gas; physiological effects of daily exposure to illuminating gas; the alimentary tract in experimental scurvy; the hypophysis.

Smith, Prof. E(rnest) C(harles), 330 S. Meldrum St, Ft. Collins, Colo. *Botany.* Augusta, Maine, May 3, 64. A.B, Bowdoin Col, 84; A.M, S.T.B, Harvard, 88; M.S, Colo. Agr. Col, 26. Pastor, Unitarian Church, 88–09; sec'y, West. Unitarian Conf, 09–19; pastor, Unitarian Church, and instr, Theol. Sch, Meadville, 19–23; instr, Colo. Agr. Col, 25–29, asst. prof. and *assoc. prof. bot. and curator herbarium,* 29–35, *Colo. State Col, 35–* A.A; Bot. Soc; Colo-Wyo. Acad. Germination of Myxomycetes; physiology and ecology of Myxomycetes; Colorado willows.

Smith, Prof. Ernest Rice, 309 Greenwood Ave, Greencastle, Ind. *Geology, Paleontology.* Cameron, Mo, July 3, 91. A.B, Oberlin Col, 12, A.M, 19. Instr. math. and geol, Fisk, 12–14; asst. geol, Cornell, 16–17; petrol. geologist, Sinclair Oil Co, 17–18; instr. *geol,* Michigan, 19–20; acting asst. prof, Oberlin Col, 20–21; from asst. prof. to *prof, DePauw, 21–* U.S.A, 18–19. A.A; Paleont. Soc; Asn. Petrol. Geol; Ind. Acad; Ohio Acad; Mich. Acad; Soc. géol. de France. Stratigraphy; petroleum geology.

Smith, Dr. Eugene R(andolph), 676 Hammond St, Chestnut Hill, Mass. *Mathematics.* Oswego, N. Y, March 18, 76. A.B, Syracuse, 96, A.M, 98, Pd.D, 37; hon. Pd.D, N. Y. State Col. Teachers, 27. Instr. math, Syracuse, 96–97; head dept, Cazenovia Sem, 97–98; instr, Syracuse, 98–99; head dept, high sch, N. J, 99–08; Polytech. Prep. Sch, Brooklyn, 08–12; *head master,* The Park Sch, Baltimore, 12–22; *Beaver Country Day Sch, Brookline, Mass, 21–* Summers, instr, Hopkins, 15, 18; Harvard, 22, 36; California, 29; lecturer, Boston, 29–; Wellesley Col, 33–39. Chairman cmt. evaluation and recording, cmn. relation of sch. and col, cmt. sch. and col. relations and treas, Educational Records Bur. V. chairman, Am. Council Educ, 37, chairman cmt. cumulative records. Past assoc. ed, 'The Math. Teacher.' A.A; Fed. Teachers Math. and Nat. Sci. (sec'y-treas, 10–12); Soc. Study Educ; Progressive Educ. Asn. (chairman, exec. cmt, 19–23, pres, 23–25, v. pres, 25–); Headmasters Asn. (pres, 33); Asn. Teachers Math. New Eng; Asn. Math. Teachers Middle States and Md. (sec'y, 07–10, pres, 13–15, chairman, N. Y. sect, 10–12, south. sect, 16–18); Asn. Teachers Math. New Eng. Mathematical pedagogy; progressive education; pupil analysis; school architecture.

Smith, Prof. F. Raymond, Pennsylvania State College, State College, Pa. *Physics.* Grand Ledge, Mich, Nov. 17, 91. A.B, Albion Col, 14; A.M, Michigan, 21, Ph.D, 27. Instr. physics, Kans. State Col, 16–18; engineer, West. Elec. Co, 18–19; asst. prof. *physics, Pa. State Col,* 19–26, *assoc. prof, 26–* A.A; Physical Soc; Soc. X-Ray and Electron Diffraction. Spectroscopy; molecular physics; x-ray diffraction; crystal structure.

Smith, Dr. Falconer, University of Tennessee, Knoxville, Tenn. *Physiological entomology.* Great Falls, Mont, April 12, 12. B.S, Washington (Seattle), 37, univ. fellow, 36–39, M.S, 39; Atkins scholar, Cuba, 41; Ph.D, Harvard, 42. *Instr. zool, Tennessee, 41–* A.A; Puget Sound Entom. Soc; Tenn. Acad; B. C. Entom. Soc. Nutritional physiology in insects; polymorphism in ants.

Smith, Prof. Finley W(oodward), Lafayette College, Easton, Pa. *Electrical engineering.* Dunbar, Pa, Sept. 11, 04. B.S, Pa. State Col, 27; M.S, Lafayette Col, 32; summers, Mass. Inst. Tech, 36, Michigan, 37. Instr. *elec. eng, Lafayette Col,* 28–37, asst. prof, 37–42, *assoc. prof, 42–* Elec. Eng. (manager and v. chairman, Lehigh Valley sect); Eng. Educ; Radio Eng. Electronic control; radio waves.

Smith, Dr. Floyd F(ranklin), U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Brunswick, Ohio, July 27, 00. B.S. (Agr), 23; M.S, Ohio State, 24, fellow, 28–29, Ph.D, 29. Field asst, bur. entom, U. S. Dept. Agr, 21, bur. plant indust, 22–24; nursery inspector, State Dept. Agr, Pa, 24–28; assoc. entomologist, div. cereal and forage insects, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 29–31, *entomologist, insects affecting ornamentals, div. truck crops and garden insects, 31–* Phytopath. Soc; Entom. Soc. Amer; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash; Insecticide Soc. Wash. Insects of greenhouse and ornamental plants; insects as plant disease vectors; physiology and life history of Homoptera; biology and control of economic pests.

Smith, Dr. Floyd R(ussell), University of California, Davis, Calif. *Dairy bacteriology.* Franklin, Pa, Dec. 15, 07. A.B, Bucknell, 29; A.M, Stanford, 30; California, 32–36; Ph.D, Cornell, 37. Teaching asst. bacter, Stanford, 30–31; teaching and research assoc, *dairy bacter,* California, 32–36; research assoc, Cornell, 37; instr, *California,* 38–42, *asst. prof, 42–* Soc. Bact; Dairy Sci. Asn. Factors affecting the growth of lactic streptococci; application of ultraviolet light to food preservation.

Smith, Prof. Frances Grace, Smith College, Northampton, Mass. *Botany.* Springfield, Mass, Dec. 27, 71. A.B, Smith Col, 93, A.M, 00; Ph.D, Chicago, 06. Asst. *bot, Smith Col,* 00–03, instr, 05–11, assoc. prof, 11–29, prof, 29–38, *emer. prof, 38–* Fellow, Bishop Museum, Honolulu, 28–29. A.A; Bot. Soc; Ecol. Soc; British Ecol. Soc. Morphology and anatomy of cycads; ferns.

Smith, Dr. Francis A(lbert), 341 Willard Ave, Chevy Chase, Md. *Chemistry.* Peoria, Ill, Sept. 24, 97. George Washington, 16–17; A.B, Stanford, 22, A.M, 23, Ph.D, 26. Asst. chem, *Bur. Standards,* 26–29, assoc. chemist, 29–42, *chemist, 42–* A.A; Chem. Soc. Conductance of acids and salts in liquid ammonia; properties of flames; properties of gases.

Smith, Dr. Francis L(orin), University Farm, Davis, Calif. *Plant breeding.* Woodruff, Ariz, June 18, 02. B.S, Arizona, 27; M.S, Kans. State Col, 29; Ph.D, California, 38. Agent, U. S. Dept. Agr, Kans. State Col, 27–29, junior agronomist, Sacaton field sta, 29–30; asst. genetics, *Exp. Sta, California,* 30–31, tech. asst, 31–32, asst, 32–34, junior agronomist, 34–42, *asst. agronomist, 42–* Crop improvement in beans and corn; seed coat color inheritance in beans.

Smith, Dr. F(rank) B(arry), 4108 Oak Court, Midland, Mich. *Organic chemistry.* Nashville, Mich, Nov. 27, 07. A.B, Kalamazoo Col, 28; M.S, Brown, 30, Ph.D, 34. *Research chemist,* Dow Chem. Co, Midland, 30–31; Calco Chem. Co, Bound Brook, N. J, 33–35; *Dow Chem. Co, Midland,* 35–40, tech. service div, 40–41, *priorities dept, 41–* Chem. Soc. Metallo-organic chemistry; liquid ammonia; insecticides; wood preservatives; plastics.

Smith, Dr. Frank E(ngelbert), Brooklyn College, Brooklyn, N. Y. *Mathematics.* Paterson, N. J, July 14, 03. A.B, Cornell, 24; Knights of Columbus fellow, Catholic Univ, 24–28, A.M, 25, Ph.D, 28. Instr. *math,* Catholic Univ, 26–28; tutor, Col. City of N. Y, 28–31; instr, *Brooklyn Col,* 31–35, *asst. prof, 35–* Math. Asn. Projective geometry; triangles in and circumscribed to plane rational curves.

Smith, Dr. Frank H(erschel), Oregon State College, Corvallis, Oregon. *Botany.* Ft. Smith, Ark, Sept. 5, 06. B.S, Arkansas, 29; M.S, State Col. Wash, 30; Ph.D, Wisconsin, 32. Instr. *bot,* St. Lawrence, 35–36; *Oregon State Col,* 36–40, *asst. prof, 40–* Bot. Soc. Floral anatomy; chromosome and nuclear structure.

Smith, Dr. Franklin C(hapin), Lincoln National Life Insurance Co, Joliet, Ill. *Mathematics.* Lebanon, Ind, Sept. 29, 09. A.B, Michigan, 31, A.M, 32, Ph.D, 34. Instr. math, Col. of St. Francis, 34–37, asst. prof, 37–38, prof, 38–43; *actuarial dept, Lincoln Nat. Life Ins. Co, 43–* Math. Soc; Math. Asn. The asymptotic developments of functions defined by Maclaurin series; generalized hypergeometric equation.

Smith, Dr. F(ranklin) D(anford), Monsanto Chemical Co, 1724 S. Second St, St. Louis, Mo. *Chemistry.* Burton, Ohio, Jan. 12, 03. A.B, Hiram Col, 25; A.M, Michigan, 27, Ph.D, 29. Research fellow, Michigan, 29–30; *tech. service dept, Monsanto Chem. Co, St. Louis, 30–* Chem. Soc. (chairman St. Louis sect, 40).

Smith, Dr. Fred M, University Hospital, Iowa City, Iowa. *Medicine.* Yale, Ill, May 31, 88. B.S, Chicago, 13, M.D, Rush, 14. Asst. clin. prof. med, Rush Med. Col, Chicago, 24; *prof. theory and practise of med. and head dept, Iowa, 24–* Ed. and later ed. in chief, 'Am. Heart Jour,' 38– Soc. Clin. Invest; Soc. Exp. Biol. (councilor, 30–); Physiol. Soc; Am. Physicians; Col. Physicians. Cardiovascular disorders.

Smith, Prof. Frederic F(ranklin), 313 Ontario St, Storm Lake, Iowa. *Zoology.* Walpole, Mass, Aug. 12, 74. B.S, Tufts Col, 05; M.S, Iowa, 23; Sc.D, Buena Vista Col, 40. *Prof. biol, Buena Vista Col, 19–* Mem, State Board Examiners in Basic Sciences, Iowa, 37– A.A; fel. Iowa Acad. Pedicellariae and Sphaeridia of echinoids.

Smith, Dr. Frederick, McGill University, Montreal, Que, Can. *Bacteriology.* Bradford, Eng, Feb. 27, 03. B.A, Cambridge, 25, M.A, M.B, B.Ch, 29; L.R.C.P, London, 27. Fellow, Rockefeller Inst, 29–30, asst, 30–31; lecturer *bacter, McGill,* 31–36, asst. prof, 36–38, *assoc. prof, 38–* Soc. Bact; Pub. Health Asn; Path. Soc. Gt. Britain and Ireland; Royal Col. Surg. Capillary physiology; streptococcal infections.

Smith, Dr. F(rederick) B(urean), University of Florida, Gainesville, Fla. *Soils.* Hart Co, Ga, July 11, 96. B.S, Georgia, 22; M.S, Iowa State Col, 23, Ph.D, 26. Instr, high sch, La, 23–24; assoc. prof, Colo. Agr. Col, and assoc. agronomist, Exp. Sta, 26–27; asst. prof. soils, Iowa State Col, 27–32, assoc. prof, 32–37, asst. chief soil chem. and bacter, Exp. Sta, 27–32, research assoc. prof. *soils,* 32–37; *prof, Florida, 37–, microbiologist, Exp. Sta, 37–* Expert exten. agron, program, Western Slope, Colo, 26. A.A; Soil Sci. Soc. (treas, 37, 38); Soc. Agron. (sec'y-treas, 32, 37, 38); fel. Inst. Chem; Fla. Acad; Fla. State Hort. Soc; Soil. Sci. Soc. Fla. (pres, 41); Int. Soc. Soil Sci. (sec'y-treas, Am. branch, 38). Soil fertility; bacteriology; soil genesis and morphology; soil classification; soil management; soil chemistry; soil microbiology; decomposition of organic matter; soil fungi; soil algae.

Smith, Prof. F(rederick) G(eorge) Walton, University of Miami, Coral Gables, Fla. *Marine zoology.* Bristol, Eng, Jan. 28, 09. B.Sc, London, 31, A.R.C.S, 31, Ph.D, 34. Commonwealth fellow, Princeton, 34–36; biologist, Sponge Fishery Investigations, Bahamas Govt, 36–40; asst. prof. *zool, Miami (Fla),* 40–43, *assoc. prof, 43–, coordinator Civil Aeronaut. Admin. war training service, 42–, director univ. marine lab, 43–* Biologist, Oceanog. Institution, Woods Hole, 43. Achievement medal, Fla. Acad. Science, 42. A.A; Geophys. Union; Soc. Zool; Marine Biol. Asn; Asn. Southeast. Biol; Fla. Acad. Embryology of marine invertebrates; problems in commercial fisheries.

Smith, Dr. F(rederick) Gordon, 320 Warren Road, Toronto, Ont, Can. *Geochemistry.* Toronto, Ont, March 27, 14. B.Sc, Manitoba, 37, M.Sc, 39; Nat. Research Council Can. student, Toronto, 39–41, fellow, 41–42, Ph.D, 42; Alumni Research Foundation scholar, Wisconsin, 37–38. *Research testing engineer, research lab, Int. Nickel Co, Can, 42–* Geochemistry of sulphide ore deposits; synthesis and properties of sulphide minerals.

Smith, Dr. F(rederick) Janney, 2405 Burns Ave, Detroit, Mich. *Medicine.* Baltimore, Md, Nov. 18, 88. A.B, Hopkins, 09, M.D, 13. Instr. med, sch. med, Hopkins, 14–15; res. physician, *Henry Ford Hosp,* 15–17, *physician in charge cardiorespiratory div, 19–* Extramural lecturer, Michigan. Lieut. and capt, M.C, 17–19. Am. Med. Asn; Clin. and Climat. Asn; Heart Asn; Col. Physicians; Trudeau Soc; Cent. Soc. Clin. Research. Subacute bacterial endocarditis; coronary artery disease; experimental production of heart lesions by deep x-ray; cardiac features of hyperthyroidism; pulmonary infarction and embolism; auricular and ventricular fibrillation; carcinoma and hernia of the lung; coronary artery thrombosis; chemotherapy of pneumonia; reactors to tuberculin.

Smith, Prof. F(rederick) McI(ntosh), Box 223 F.E, College Station, Texas. *Organic chemistry.* Fame, Okla. B.S, Nevada, 31; M.S, Syracuse, 33, Ph.D, 37. *Asst. prof. chem, Agr. and Mech. Col. Texas, 37–* Chem. Soc. Electrolytic reduction of sugars; action of chlorine on tungstic oxide.

Smith, Prof. G(eorge) E(dson) P(hilip), University of Arizona, Tucson, Ariz. *Irrigation engineering.* Lyndonville, Vt, Dec. 29, 73. B.S, Vermont, 97, C.E, 99, hon. D.E, 29; Wisconsin, 10–11. Instr. civil eng, Vermont, 97–00; *prof, Arizona,* 00–06, *irrig. eng. and irrig. engineer, Exp. Sta, 06–* Consulting engineer, Agr. Products Corp, 16–21. A.A; Civil Eng. (past pres, Ariz. sect); Asn. Eng; Agr. Eng; Geophys. Union; West. Irrig. and Drainage Research Asn. (pres, 29–31). Ground waters; distributaries; soil moisture and consumptive use; water law; Colorado River problem.

Smith, Dr. George E(dson) P(hilip), Jr, 125 Morningside Drive, Akron, Ohio. *Chemistry.* Tucson, Ariz, Oct. 31, 05. B.S, Arizona, 26; Shell Develop. Co. fellow, Stanford, 29–30, Ph.D, 30. Teaching fellow, Stanford, 27–29; instr. chem, Yale, 30–35; *research chemist, Firestone Tire and Rubber Co, 35–* Chem. Soc. (sec'y Akron sect, 39). Reactions of mixed aquo-ammono carbonic acids; ammono ketones; metallic amides; liquid ammonia solutions; natural and synthetic rubber chemistry.

Smith, Dr. Geo(rge) E(dward), 138 Mumford, Columbia, Mo. *Soils.* Mo, Oct. 12, 13. B.S. (Agr), Missouri, 34, A.M, 34, Ph.D, 37. *Instr. soils, Missouri, 37–* Soc. Agron. Soil fertility; effect of soil treatments on nutrient value of feeds.

Smith, Dr. G(eorge) F(rancis) M(aurice), 52 Parkway Ave, Toronto, Ont, Can. *Marine biology.* Toronto, Ont, Jan. 1, 12. B.A, Toronto, 35, M.A, 37, Ph.D, 39. Sci. asst, oyster investigation, Fisheries Research Board, Can, 34–37, lobster fishery investigation, Fisheries Research Board, Can, 34–37, lobster fishery investigation, 37–42; *research fellow aviation med. research, Banting-Best dept. med. research, Toronto, 42–* Economic fishery research; aviation medicine; lobster and oyster fisheries in eastern Canada.

Smith, Prof. G(eorge) Frederick, 801 Pennsylvania Ave, Urbana, Ill. *[7]*Chemistry.* Lucasville, Ohio, July 29, 91. B.S, Michigan, 17, M.S, 19, du Pont fellow, 19–21, Ph.D, 22. Chemist, Nat. Lamp Works, Gen. Elec. Co, 17–18; instr. *chem, Illinois,* 21–24, assoc, 24–27, asst. prof, 27–34, assoc. prof, 34–38, *prof, 38–* Pres, G. F. Smith Chem. Co, Columbus, 28–; Aeration Processes, Inc, Columbus, 34– J. T. Baker Fellowship Cmn. Chem. Soc; Soc. Chem. Indust; Elec. Soc; Soc. Test. Mat; Leather Chem. Asn; Ceramic Soc. Quantitative analysis; general inorganic and perchlorate chemistry; analytical chemical manufacture; manufacture and distribution of aerated food products.

Smith, Prof. George H(athorn), Yale University, New Haven, Conn. *Bacteriology, Immunology.* Maine, Sept. 25, 85. A.B, Bates Col, 09, Sc.D, 34; A.M, Brown, 10, Ph.D, 15; hon. A.M, Yale, 26. Research immunologist, H. K. Mulford Co, 12–17; asst. prof. bacter. and path, *Yale,* 17–23, assoc. prof, 23–26, *prof. immunol, 26–, asst. dean sch. med, 40–* Bacteriologist, New Haven Hosp. and New Haven Dispensary. A.A; Soc. Bact; Asn. Immunol; Soc. Exp. Biol. Preventive medicine.

Smith, Dr. G(eorge) H(ume), 1925 Central Ave, Indianapolis, Ind. *Botany.* Indianapolis, Ind, March 1, 96. A.B, Wabash Col, 18, A.M, 19; Ph.D, Cornell, 23. Asst. plant path, Cornell, 18–19; instr. bot, Illinois, 23–27; ed. staff, 'Biol. Abstracts,' 27–29; acting asst. prof. bot, Missouri, 29–30; Seessel research fellow, Yale, 31–32; field asst, Dutch Elm Disease Surv, 34; prof. biol. and chem, Passaic County Junior Col, 34–35; acting asst. botanist, div. cotton and fiber crops, bur. plant indust, U. S. Dept. Agr, 35–36. Summer, asst, Michigan, 20. Mem. indexing staff, 'Biol. Abstracts,' 29– Bot. Soc; Phytopath. Soc. Ranalian flower; anatomy of buds and leaves of deciduous trees.

Smith, Prof. George M(cClellan), Vanderbilt University, Nashville, Tenn. *Analytical chemistry.* Fayetteville, Tenn, Dec. 28, 03. B.S, Bryson Col, 24; Peabody Col, summers, 25, 26; A.B, Vanderbilt, 26, fellow, 26–27, M.S, 27; univ. fellow, Michigan, 35–36, Ph.D, 37. Teacher, high sch, Tenn, 24–25; lab. asst. chem, *Vanderbilt,* 25–26, instr, 27–37, *asst. prof. chem. and asst. to dean men, 37–* Chem. Soc; Tenn. Acad. Electrochemistry; deposition of copper and zinc from cyanide solutions; anodic deposition of cobalt from fluoride solution; electrodeposition of copper and copper alloys from organic solvents; determination of mercury, tin, zinc, cadmium and perrhenate with tetraphenylarsonium chloride.

Smith, Dr. G(eorge) M(ilton), Pine Orchard, Conn. *Surgery.* Hongkong, China, July 5, 79. A.B, Yale, 01; M.D, Columbia, 05. *Med. director, Anna Fuller Fund for Cancer Research, 34–* Mem, Nat. Advisory Cancer Council, 39–42; board sci. advisers, Jane Coffin Childs Mem. Fund, Yale. A.A; Col. Surg. Cancer.

Smith, Prof. G(eorge) Milton, (Jr), College of the City of New York, New York, N. Y. *Psychology.* Southington, Conn, 02. B.S, Harvard, 24; Ph.D, Columbia, 33. Lecturer *psychol,* Barnard Col, Columbia, 29–30; instr, *Col. City of N. Y,* 30–37, *asst. prof, 37–* Assoc. Psychol. Asn. Statistics of mental organization; sensory changes at high altitude; abnormal psychology.

Smith, Dr. Geo(rge) Otis, Skowhegan, Maine. *[2]*Geology.* Hodgdon, Maine, Feb. 22, 71. A.B, Colby Col, 93, A.M, 96, LL.D, 20; Ph.D, Hopkins, 96; Sc.D, Case, 14, Colo. Sch. Mines, 28. Asst. geologist, U. S. Geol. Surv, 96–01, geologist, 01–07, director, 07–30; chairman, Fed. Power Cmn, 30–33; *retired.* Director, Cent. Maine Power Co. U. S. Coal Cmn, 22–23. Trustee, Nat. Geog. Soc; chairman trustees, Colby Col. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng. (v. pres, 27, pres, 28); Geol. Soc. Wash. (pres, 09); Wash. Acad. (v. pres, 08). Areal geology in Michigan, Washington, Utah and New England; economics of mineral and power resources.

Smith, Dr. G(eorge) V, U. S. Steel Corp, Kearny, N. J. *Metallurgy.* Clarksburg, W. Va, April 7, 16. B.S, Carnegie Inst. Tech, 37, Tillman Mem. fellow, 39–41, Sc.D, 41. Asst, metals research lab, Carnegie Inst. Tech, 37–39; *mem. staff, research lab, U. S. Steel Corp, 41–* Min. and Metal. Eng; Soc. Metals. Ferrous metallurgy.

Smith, Dr. George Van S(icien), Free Hospital for Women, Brookline, Mass. *Gynecology.* New York, N. Y, Sept. 17, 00. A.B, Harvard, 22, M.D, 26. Student house officer, *Free Hosp. for Women,* 23–26, house officer, 26–27, res. surgeon, 27–28, surgeon to outpatients, 28–30, 2nd asst. visiting surgeon, 30–32, *director research, 28–,* pathologist, 29–38; research fellow *gynec, Harvard Med. Sch,* 30–37, instr, 37–39, asst. prof, 39–42, *Wm. H. Baker prof, 42–,* asst. visiting surgeon, 33–35, *visiting surgeon, 36–* Am. Med. Asn; Col. Surg; Soc. Exp. Biol; Gynec. Soc; Asn. Study Int. Secretions; New Eng. Surg. Soc; New Eng. Cancer Soc; New Eng. Obstet. and Gynec. Soc; Mass. Med. Soc; Boston Obstet. Soc. (sec'y, 36–39). Physiology of menstruation and pregnancy; pituitary and ovarian dysfunction; toxemias of pregnancy; ovarian tumors; experimental and clinical cancer.

Smith, Prof. Gilbert B(rown) L(orenzo), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Inorganic chemistry.* Mansfield, N. Y, March 17, 94. A.B, Colgate, 15; A.M, Wisconsin, 16; Ph.D, Cornell, 23. Asst, Colgate, 15; asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 16–17; asst. chem, Wisconsin, 19–21; Heckscher asst. inorg. chem, Cornell, 22–24; asst. prof. chem, St. John's Col. (Md), 24–25; *Polytech. Inst. Brooklyn,* 25–37, assoc. prof. *anal. chem,* 37–42, *prof, 42–* Summer, research chemist, Atlas Powder Co, 25. Sergt, U.S.A, 19. A.A; Chem. Soc; fel. Inst. Chem. Azido-dithiocarbonic acid; selenium; monoaryl guanidines; properties of aryl biguanides; preparation and reduction of nitroguanidine; selenium oxychloride as a solvent; the selenyl chloro-system; aminoguanidine; separation of gold and tellurium; determination of zinc; catalytic hydrogenation; electro-chemical reduction.

Smith, Prof. Gilbert M(organ), Stanford University, Calif. *[5]*Botany.* Beloit, Wis, Jan. 6, 85. B.S, Beloit Col, 07, Sc.D, 27; Ph.D, Wisconsin, 13. Asst. *bot,* Wisconsin, 09–10; instr, Pomona Col, 10–11; asst, Wisconsin, 11–12, instr, 12–17, asst. prof, 17–19, assoc. prof, 19–25; *prof, Stanford, 25–* A.A. (v. pres, G, 41); Bot. Soc. (v. pres, 42); Micros. Soc. (pres, 28); Am. Acad. Cryptogams, especially algae.

Smith, Glenn M(arsh), 707 Hayes St, West Lafayette, Ind. *Plant pathology.* Muscatine, Iowa, Jan. 9, 92. B.S, Iowa State Col, 16; M.S.A, Purdue, 20. Instr. hort, Purdue, 17–19; *assoc. agronomist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 19–* Phytopath. Soc. Breeding sweet corn for resistance to root stalk and ear rots; resistance to bacterial wilt; field performance of certain hybrid and commercial strains of sweet corn; breeding pop corn for yield, expansion, quality and disease and insect resistance.

Smith, Dr. Glenn O(rren), 918 Highland Bldg, Pittsburgh, Pa. *Medicine.* Derry, Pa, Feb. 26, 98. M.D, Pittsburgh, 25. Instr. physiol. chem, *med. sch, Pittsburgh,* 26–41, *asst. prof. med, 38–* Assoc. mem. med. staff, St. Francis Hosp, 31–41; asst. mem, Magee Hosp, 31–41; mem. advisory med. staff, Eye and Ear Hosp, 36–41; senior med. staff, Presbyterian Hosp, 42. Fel. Am. Med. Asn; Pittsburgh Acad. Med. (v. pres, 40). Gastric analysis of medical students; chronic hereditary hemolytic jaundice.

Smith, Glenn S(anborn), North Dakota Agricultural College, Fargo, N. Dak. *Agronomy.* Antler, N. Dak, Dec. 21, 07. B.S, N. Dak. Col, 29; M.S, Kans. State Col, 31. Junior agronomist, *bur. plant indust, U. S. Dept. Agr,* 29–35, asst. agronomist, 35–42, *assoc. agronomist, 42–* Durum wheat genetics and improvement.

Smith, Dr. Grant W(arren), 659 Sunset View Drive, Akron, Ohio. *Physical and analytical chemistry.* O'Neill, Nebr, Feb. 22, 07. A.B, Grinnell Col, 28; fellow, Minnesota, 30–31, Ph.D, 32; Mass. Inst. Tech, 38. Asst. chem, Minnesota, 28–30, 31–32; instr, Itasca Junior Col, Minn, 32–34; Grinnell Col, 34–35; asst. prof. anal. chem, Univ. Kansas City, 35–42; *research chemist, Koroseal div, B. F. Goodrich Co, 42–* Summers, chemist, State Highway Dept, Minn, 31, 32. A.A; Chem. Soc. (chairman, Kansas City sect, 43); Mo. Acad. Electrokinetic potentials; adsorption; catalysis; surface tension; semimicro analysis; polymerization.

Smith, Dr. Guy D(onald), University of Illinois, Urbana, Ill. *Soils.* Atlantic, Iowa, June 20, 07. B.S, Illinois, 30, Ph.D, 40; A.M, Missouri, 34. Head land acquisition, region III, Resettlement Admin, 34–36; *assoc. soil physics and soil surv, Illinois, 36–* Soil Sci. Soc. Soil genesis and classification.

Smith, Prof. Guy-Harold, Ohio State University, Columbus, Ohio. *Geography.* LaFarge, Wis, Jan. 1, 95. Ph.B, Wisconsin, 21, Ph.D, 27. Instr. *geog,* Pennsylvania, 22–23; Wisconsin, 21–22, 23–27; assoc, Illinois, 28–29; asst. prof, *Ohio State,* 27–28, 28–34, assoc. prof, 37, *prof, 37–, chairman dept, 34–* Summers, lecturer, George Peabody Col, 29–30, Washington (Seattle), 35, Western Reserve, 37; N. Y. State Teachers Col, Buffalo, 38; Columbia, 39, 41, 42. A.A; Geog. Soc; Asn. Geog. (v. pres, 37, treas, 38–); Nat. Council Geog. Teachers; Ohio Acad. (v. pres, 35). Geomorphology; climatology; cartography; population distribution; economic geography.

Smith, Dr. Guy W(atson), 1730 Illinois St, Lawrence, Kans. *Mathematics.* Castle Rock, Colo, Oct. 7, 85. B.S, Colorado, 08, M.S, 09; Ph.D, Illinois, 17. Instr. eng. math, Colorado, 09–13; asst. math, Illinois, 13–16; instr. math. and physics, Beloit Col, 17–18; Kentucky, 18–20; asst. prof. *math, Kansas,* 20–27, assoc. prof, 27–33, *prof, 33–* Math. Soc; Math. Asn. Linear associative algebra.

Smith, Dr. Harold DeWitt, 10 E. 40th St, New York, N. Y. *Physics, Chemistry.* Bayonne, N. J, Sept. 27, 96. Chem.E, Lehigh, 20; Ph.D, Berlin, 30. Textile chemist, Wellington Sears and Co, New York, 22–27; guest worker, Kaiser Wilhelm Inst, Germany, 28–29; *textile technologist, A. M. Tenney Associates, New York, 30–* A.A; Asn. Textile Chem. and Colorists; Chem. Soc; Faraday Soc; fel. Textile Inst; Textile Research Inst. (v. pres); Royal Soc. Arts. Cellulose and textile chemistry and physics; rheology of rayon filaments, particularly flow and relaxation under small stresses and strains.

Smith, Prof. H(arold) D(uncan), University of British Columbia, Vancouver, B. C, Can. *Physics.* Port Hood, N. S, Aug. 30, 06. B.A, British Columbia, 27, M.A, 29; Nat. Research Council Can. bursar, Toronto, 29–30, student, 30–31, fellow, 31–32, M.A, 30, Ph.D, 33. Asst. math, British Columbia, 27–29; physics, Toronto, 33–35; director research and plant supt, Carbo-Ice Co, 35–38; lecturer *physics, British Columbia,* 38–39, asst. prof, 39–43, *assoc. prof, 43–* War research, radio sect, Nat. Research Council Can, 41, 42. A.A; Optical Soc. Apparatus for long optical paths; Raman effects with hydrocarbons; low temperature research.

Smith, Dr. Harold H(ill), U. S. Department of Agriculture, Beltsville, Md. *Genetics.* Arlington, N. J, April 24, 10. B.S, Rutgers, 31; A.M, Harvard, 34, Ph.D, 36. Asst, dept. genetics, Carnegie Institution, Cold Spring Harbor, 31–32; bot, Harvard, 34–35; *asst. geneticist, tobacco investigations, bur. plant indust, U. S. Dept. Agr, 35–* Genetics Soc; Genetic Asn; Bot. Soc; N. Y. Acad; Va. Acad; Bot. Soc. Wash. Size inheritance; polyploidy and heteroploidy; alkaloids in Nicotiana; genetics and breeding of tobacco.

Smith, Dr. Harold L(add), Jr, 1279 Lake Ave, Rochester, N. Y. *Organic chemistry.* Proctor, Vt, April 25, 15. A.B, Amherst Col, 36, Moore fellow, 36–37; du Pont fellow, Mass. Inst. Tech, 38–39, Ph.D, 39. Teaching fellow org. chem, Mass. Inst. Tech, 37–38; *chemist, Eastman Kodak Co, 39–* Chem. Soc. Organic esters of cellulose; thermal stability of di-ortho substituted benzoic acids; preparation and industrial application of cellulose esters, especially in plastics and lacquers.

Smith, Col. Harold L(ee), Weather Central Division, Directorate of Weather, 24th and M Sts, N.W, Washington, D. C. *Meteorology.* Washington, Pa, May 15, 04. B.S, U. S. Mil. Acad, 30; M.S, Calif. Inst. Tech, 38, 41. Base weather officer and acting regional control officer, March Field, Calif, *Air Forces, U. S. Army,* 38–41, *chief weather central div, Office Director of Weather, 41–* Climatology.

Smith, Harold M(anton), U. S. Bureau of Mines, Bartlesville, Okla. *Chemistry.* Cranston, R. I, June 22, 01. A.B, Clark, 21, A.M, 22. Research chemist, Cent. Dyestuff and Chem. Co, Newark, 22–23; from junior petrol. chemist to *senior petrol. chemist, petrol. exp. sta, U. S. Bur. Mines, 23–* Chem. Soc. (treas, Okla. sect, 28, v. chairman, 29, chairman, 41; petrol. group, 30); Soc. Test. Mat. Composition of crude oil and lubricants; pyrolysis of gaseous paraffin hydrocarbons; aviation gasoline; hydrocarbon properties; relationships of crude oils and producing horizons.

Smith, Dr. Harold T(heodore) U(hr), University of Kansas, Lawrence, Kans. *Geology, Physiography.* Castle Shannon, Pa, July 4, 08. B.S, Col. of Wooster, 30; A.M, Harvard, 33, Ph.D, 36. Austin teaching fellow physiog, Harvard, 31–35; instr. *geol, Kansas,* 35–36, *asst. prof, 36–* Summers, geologist, Kans. State Geol. Surv, 36–39, 41; mem. staff, Geneva Lake Inst. Nat. Science, 40–41; geologist, Imp. Oil, Ltd, 43. A.A; Geol. Soc; Kans. Acad. Tertiary and Quaternary geology of north-central New Mexico and central High Plains; geomorphology of sand dunes; periglacial phenomena; application of aerial photos to geologic and geomorphic studies.

Smith, H(arris) P(earson), College Station, Texas. *Agricultural engineering.* Poplarville, Miss, Aug. 3, 91. B.S, Miss. Agr. and Mech. Col, 17; M.S, Agr. and Mech. Col. Texas, 26; A.E, Agr. and Mech. Col. Texas, 40. U. S. Dept. Agr, 17–19; assoc. prof. agr. eng, *Agr. and Mech. Col. Texas,* 19–30, *chief div. agr. eng, Exp. Sta, 30–* Agr. Eng. Farm machinery and equipment; cotton harvesting machinery; cotton planting equipment; mechanical harvesting of cotton.

Smith, Dr. Harry E(dward), Main and George Sts, Newark, N. J. *Chemistry.* Bowie, Md, March 1, 02. B.S, Hopkins, 24, Ph.D, 27. Research chemist, Standard Oil Co. of N. Y, 27–28; E. I. du Pont de Nemours and Co, 28; research chemist and plant manager, Carboloid Products Co, 28–29; research chemist and lab. supervisor, Devoe and Raynolds Co, 29–30; research chemist, Foster D. Snell, Inc, 30–32; *chief chemist,* Legrand Bleach Co, 32–33; *Darpro Chem. Corp, 34–; Clarion Chem. Corp, 34–, v. pres, 39–.* Physical and industrial chemistry; adsorption; pigments; synthetic resins; silver plating; acid sludge disposal; refractories; paints; varnishes; lubricating oils; textile specialties.

Smith, Prof. Harry L(aVerne), 1007 W. Cross St, Ypsilanti, Mich. *Physics.* Ypsilanti, Mich, Oct. 31, 94. B.Pd, Mich. State Nor. Col, 15; B.S, Michigan, 19, M.S, 21, Ph.D, 28. Instr, high schs, Mich, 16–17, 19–20, sch. supt, 17–18; asst. prof. *physics, Mich. State Nor. Col,* 20–26, assoc. prof, 26–36, *prof, 36–, head dept. physics and astron, 41–* U.S.A, 18–19. Asn. Physics Teachers. Simultaneous ionization and excitation of diatomic molecules by impacts with positive ions and excited atoms.

Smith, Prof. H(arry) P(ratt), State University of Iowa College of Medicine, Iowa City, Iowa. *Pathology.* Johnson Co, Iowa, Feb. 18, 95. A.B, California, 16, Geo. Williams Hooper Foundation fellow, 17–19, M.S, 18, M.D, 21. Asst. and instr. *path,* Hopkins, 21–23; nat. research fellow, 23–24; asst. prof, Rochester, 24–30; *prof, col. med, Iowa, 30–* Ward Burdick research award, Am. Soc. Clin. Path, 41. A.A; Soc. Exp. Path. (sec'y-treas, 40–); Asn. Path. and Bact; Soc. Clin. Path; Physiol. Soc. Plasma protein regeneration; blood volume; bile salt metabolism; vital staining; chloroform poisoning; prothrombin assay technic; purification of prothrombin and thrombin; thrombin as a hemostatic agent; role of liver in manufacture of prothrombin; clinical and experimental studies on vitamin K; hemorrhagic disease of newborn.

Smith, Prof. Harry S(cott), Citrus Experiment Station, Riverside, Calif. *Entomology.* Aurora, Nebr, Nov. 29, 83. A.B, Nebraska, 07, A.M, 08. Asst. state entomologist, Nebr, 08; expert, bur. entom, U. S. Dept. Agr, 08–12; supt. insectary div, State Cmn. Hort, Calif, 13–19; chief bur. pest control, 19–23; assoc. prof. *entom, California,* 23–32, *prof, 32–, entomologist, Citrus Exp. Sta, 23–* Chairman standing cmt. Pacific entom, Pacific Sci. Cong, 34. A.A; Asn. Econ. Entom. (v. pres. and chairman, Pacific Slope branch, 24; pres, 40); Ecol. Soc; West. Soc. Nat. Sphecoidea of Nebraska; Ceratinidae of North America; parasitic and predatory insects; use of entomophagous insects to control insect pests; laws of population growth.

Smith, Prof. H(arry) W(oodbury), 382 College Ave, Orono, Maine. *Biochemistry.* Hudson, Maine, Nov. 20, 86. B.S, Maine, 09, M.S, 21; Ph.D, Rutgers, 34. Instr. bacter, *Maine,* 12–14, asst. prof, 14–18, *biochem,* 20–29, *prof, 29–* A.A; Chem. Soc; Soc. Agron. Organic and agricultural chemistry; food analysis; organic matter in soils.

Smith, Dr. Henry Clay, 130 Robinson Parkway, Burlington, Vt. *Psychology.* Catonsville, Md, May 9, 13. A.B, St. John's Col. (Md), 34; Ph.D, Hopkins, 39. Social investigator, Dept. Pub. Welfare, Baltimore, 38–40; *instr. psychol, Vermont, 40–*

Assoc. Psychol. Asn; East. Psychol. Asn. Color discrimination; psychology of personality.

Smith, Dr. Henry Lee, 4313 St. Paul St, Baltimore. Md. *Medicine.* Ashland, Va, March 23, 68. M.D, Maryland, 94; hon. A.M, St. John's Col. (Md), 10. Res. physician, Hosp. for Women of Md, 95-96; instr. bacter. and prof. pediat. and med, Woman's Med. Col. of Baltimore, 99-06; asst. med, Hopkins, 06-09, instr, 09-22, assoc, 30-35; *retired.* Visiting cardiologist, U. S. Veterans' Admin. Major, M.R.C, retired. Am. Med. Asn; Royal Soc. Arts. Bacteriology of milk; synesthesia; buckwheat poisoning; agglutination of colon bacilli; thoracic aneurism; percussion; lipodystrophia progressiva; epidermolysis bullosa hereditaria.

Smith, H(enry) Millard, General Electric Co, Schenectady, N. Y. *Electronics.* Wellsville, Kans, Jan. 11, 06. B.S, Kansas, 28. Asst. instr. elec. eng, Kansas, 28; mem. test dept, *Gen. Elec. Co,* 28-29, eng. gen. dept, 29, vacuum tube dept, 30-37, vacuum tube engineer, 38-39, *mem. staff, research lab, 39–* Charles A. Coffin Foundation award, Gen. Elec. Co, 35. Radio Eng. Television camera tubes; cathode-ray tubes; photo-electric cells; electronic control tubes.

Smith, Dr. H(enry) Monmouth, 25 Cotswold Road, Brookline, Mass. *Chemistry.* Middletown, Conn, Aug. 31, 68. A.B, Wesleyan, 91, A.M, 94; Ph.D, Heidelberg, 98. Assoc. prof. physical science, Hampden-Sydney Col, 98-99; instr. *chem,* Syracuse, 99-00, assoc. prof, 00-02, prof, 02-13; research assoc, nutrition lab, Carnegie Inst.tution, 13-20; prof, Mass. Inst. Tech, 20-32; *retired.* Asst. chemist, Storrs Exp. Sta, Conn. Agr. Col, 91-93; special agent, U. S. Dept. Agr, 95. A.A; Chem. Soc; Am. Acad. Metabolism during exercise.

Smith, Dr. Herbert A(lexander), 135 Linwood Ave. Buffalo, N. Y. *Medicine.* Port Huron, Mich, Aug. 15, 80. M.D, Buffalo, 07. Instr. *surg, Buffalo,* 10-27, asst. prof. and assoc. prof, 27-34, *prof, 34–* Surgeon in chief, Buffalo Gen. Hosp, 41– Fel. Col. Surg; Buffalo Acad. Med. (trustee, 20-23, pres, 34); Buffalo Nat. Sci. Soc; Buffalo Hist. Soc. Surgery.

Smith, Dr. Herbert A(ugustine), The Ontario, Washington, D. C. *Forestry.* Southampton, Mass, Dec. 6, 66. A.B, Yale, 89, Foote scholar, 89-90, Douglas fellow, 90-92, Ph.D, 97. Instr. English, Sheffield Sci. Sch, Yale, 92-94, univ, 94-98; ed, *U. S. Forest Service,* 01-20, asst. forester in charge *branch pub. relations,* 20-26, special assignments, 26-37, *collaborator, 38–* Ed. writer, New York 'Evening Post' and 'World's Work,' 00-01; chairman subcmt, Pres. Theodore Roosevelt's Cmt. Departmental Methods, 06. A.A; fel. Soc. Foresters (chairman, Wash, D. C, sect, 31, ed. in chief, 'Jour. Forestry,' 35-37; chairman cmt. hist. of forestry, 38-); Agr. Hist. Soc. Forest policy; history of forest policy and forestry movement in United States.

Smith, H(erbert) D(wight), 209 River St, Hoboken, N. J. *Entomology.* New Haven, Conn, June 29, 94. B.S, Mass. Col, 17. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 20–,* assoc. entomologist, *entomologist* in France and *div. for. parasite introd, field sta, N. J.* U.S.N, 17-19. Entom. Soc; Asn. Econ. Entom; Soc. entom. de France. Anatomy of ichneumonid larvae; ecology and biology of hymenopterous parasites; biological control.

Smith, Dr. Herbert J(ohnson), Ralston-Purina Co, St. Louis, Mo. *Physical chemistry.* Kosciusko, Miss, Jan. 27, 82. B.S, Miss. Agr. and Mech. Col, 06; Ph.D, Chicago, 17. Asst. chemist, State Chem. Lab, Miss, 06-10; asst. prof. chem, Clemson Col, 11; assoc. prof, Miss. Agr. and Mech. Col, 11-17, prof, 17-25; *director research, Ralston-Purina Co, 25–* Chem. Soc. Equilibrium in systems; metallic carbonates; carbon-dioxide and waters; cereal chemistry; animal nutrition.

Smith, Prof. H(erman) Lyle, Louisiana State University, Baton Rouge, La. *Mathematics.* Pittwood, Ill, July 7, 92. B.S, Chicago, 14, M.S, 15, Ph.D, 26. Instr. *math,* Northwestern, 15-16; Princeton, 16-18; Cornell, 19; Wisconsin, 19-21; prof, Philippines, 21-24; asst. prof, Minnesota, 24-26; *Louisiana,* 26-31, *prof, 31–* Math. Soc; Math. Asn; La. Acad. (pres, 28). General mathematical analysis; analysis situs.

Smith, Prof. Herman W(alton), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Mathematics.* Thomson, Ga, March 22, 92. B.S, Georgia, 16; M.S, Chicago, 26; Ph.D, Texas, 39. *Okla. Agr. and Mech. Col, 26–,* asst. prof. *math,* 29-39, *assoc. prof, 39–* Math. Soc; Math. Asn; Okla. Acad.

Smith, Dr. Herschel, Frankford Arsenal, Philadelphia, Pa. *Physics.* Scio, Oregon, Nov. 27, 98. A.B, Reed Col, 25; M.S, N. Y. Univ, 27, Ph.D, 31. Instr. physics, N. Y. Univ, 27-36; *physicist, Frankford Arsenal, 36–* Discharge of electricity in gases.

Smith, Prof. Hilton A(lbert), University of Tennessee, Knoxville, Tenn. *Chemistry.* Plymouth, N. Y, Sept. 4, 68. A.B, Oberlin Col, 30; A.M, Harvard, 32, Ph.D, 34. Asst. *chem,* Harvard, 30-33, asst, 34-35; instr, Lehigh, 35-39, asst. prof, 39-41; *prof, Tennessee, 41–* Chem. Soc. (sec'y-treas, Lehigh Valley sect, 37); Pa. Chem. Soc; Tenn. Acad. Photochemistry; calorimetry; phase diagrams; chemical kinetics; catalysis.

Smith, Dr. Hobart M(ulr), University of Rochester, Rochester, N. Y. *Herpetology.* Stanwood, Iowa, Sept. 26, 12. A.B, Kans. State Col, 32; M.S, Kansas, 33, Ph.D, 36. Nat. research fellow, 36-37; Walter Rathbone Bacon traveling scholar, Smithsonian Institution, 38-41; *instr. zool, Rochester, 41–* Soc. Ichthyol. and Herp. (v. pres, 37); Kans. Acad; Biol. Soc. Wash. Mexican herpetology.

Smith, Dr. Homer J(ames), University of Tulsa, Tulsa, Okla. *Paleontology.* Portsmouth, Ohio, Oct. 14, 01. B.S, Chicago, 24, M.S, 31, Ph.D, 35. Asst. curator, Walker museum, Chicago, 32-35; *asst. prof. geol, Tulsa, 37–* Paleont. Soc; Okla. Acad. (v. pres, 41). Sedimentation; fauna of the Buckhorn Asphalt.

Smith, Dr. Homer P(ine), U. S. Rubber Co, Providence, R. I. *Physical chemistry.* Providence, R. I, Jan. 1, 08. A.B, Brown, 29, M.S, 30, Ph.D, 33. Asst. biol, Harvard, 33-36; L. I. Biol. Lab, Cold Spring Harbor, 36-37; *mem. develop. dept, U. S. Rubber Co, 37–* Asst, Oceanog. Inst, Woods Hole, 33-36. Atlantis' Caribbean cruise, 33. Chem. Soc. Photochemistry; chemistry of sea water; chemical effects of x-rays; uniformity of vulcanization.

Smith, Prof. Homer W(illiam), 477 First Ave, New York, N. Y. ****Physiology.* Denver, Colo, Jan. 2, 95. A.B, Denver, 17; Sc.D, Hopkins, 21; hon. M.S, Yale, 37. Hygiene lab, U. S. Pub. Health Service, 19; research physiologist, Eli Lilly and Co, 21-22; nat. research fellow *physiol,* Harvard, 22-24; *prof,* Virginia, 25-28; *col. med, N. Y. Univ, 28–, director physiol. lab, 28–* Research assoc, N. Y. Zool. Soc; Guggenheim Mem. Foundation fellow, Africa, 28; Siam, Java, Malaya, 30; visiting lecturer, med. sch, Yale, 36; Porter lecturer, 39; Harvey lecturer, 40; div. mem, Nat. Defense Research Cmt, 42; Welch lecturer, 43. Assoc. ed, 'Jour. Comp. Cell Physiol'; 'Chem. Abstracts'; 'Am. Jour. Physiol.' Mem. sci. advisory cmt, Mem. Hosp. Trustee, Mt. Desert Biol. Lab. A.A; Physiol. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Ichthyol. and Herp; Am. Physicians; Harvey Soc; fel. N. Y. Acad. Med. Comparative physiology of vertebrates; metabolism; evolution of kidney; renal function.

Smith, Dr. Howard A(gnew), Beech Aircraft Corp, Wichita, Kans. *Physical metallurgy, Chemistry.* Topeka, Kans, Nov. 14, 03. B.S, Illinois, 28, Standard Oil Co. of Ind. fellow, 28-31, M.S, 29, Ph.D, 31. Asst, Illinois, 28-31, chem, 32-33; research physicist, A. O. Smith Corp, Milwaukee, 31-32; nat. research fellow, Carnegie Inst. Tech, 33-35; research assoc, Mass. Inst. Tech, 35-37; metallurgist, Republic Steel Corp, 37-39; *research* metallurgist, Rustless Iron and Steel Corp, 39-41; Universal-Cyclops Steel Corp, 41; chief metallurgist, Tubular Alloy Steel Corp, 41-43; *Metal. engineer, Beech Aircraft Corp, 43–* A.A; Min. and Metal. Eng; Chem. Soc; Soc. Metals; Soc. Test. Mat. Physical and production metallurgy of metals and alloys; corrosion of metals and alloys; x-ray metallography; radiography; applied spectroscopy; explosions and detonations in gases.

Smith, Dr. Howard D(exter), Dalton Road, Chelmsford, Mass. *Chemistry.* North Scituate, R. I, July 27, 81. B.S, R. I. State Col, 01; Ph.B, Brown, 03, A.M, 04; Ph.D, Tufts Col, 06. Instr. chem, Beloit Col, 06-09; Lowell Textile Sch, 09-18; *research chemist, Carleton and Hovey Co, 18–* A.A; Chem. Soc. Analytical chemistry.

Smith, H(oward) I(ra), U. S. Geological Survey, Washington, D. C. *Mining.* Finleyville, Pa. Feb. 15, 84. B.S, Pa. State Col, 07, E.M, 28. Instr. mining and metal, Pa. State Col, 07-09; mining engineer, Corona Copper Co, Ariz, 09-10; from junior mining engineer to dist. mining engineer, U. S. Bur. Mines, 10-17; asst. gen. supt, Vandalia Coal Co, Ind, 17-19; mining mem. tech. mission, Yugoslavia, 19-20; *chief* mineral leasing div, U. S. Bur. Mines, 20-25; *mining div, U. S. Geol. Surv. 25–* Summer, Portland Gold Mining Co, Colo.

07. Order of St. Sava V. Min. and Metal. Eng. (sec'y and chairman, Wash, D. C, sect; v. chairman, indust. min. div). The use and dangers of booster and auxiliary fans; aerial photographic maps; methane accumulation; analysis of mine and car samples of coal; American potash development.

Smith, Prof. Howard O(tis), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Biochemistry.* Des Moines, Iowa, March 18, 95. A.B, Simpson Col, 17; Ph.D, Iowa State Col, 35. Head dept. *chem,* Guilford Col, 24–26; instr, Iowa State Col, 27–35; asst. prof, *N. Mex. Col,* 35–42, *assoc. prof, 42–* A.A; Chem. Soc.

Smith, H(oward) R(emus), 700 Exchange Bldg, Union Stock Yards, Chicago, Ill. *Animal husbandry.* Addison, Mich, April 16, 72. B.S, Mich. Agr. Col, 95; Wisconsin, 99–00. Teacher, Tilford Collegiate Acad, Iowa, 95–97; high sch, Ill, 97–99; acting prof. agr, Missouri, 00–01; prof. animal husbandry, Nebraska, 01–12; Minnesota, 12–15; live stock specialist, James J. Hill interests, 15–17; live stock commissioner tuber. eradication, Chicago Live Stock Exchange, 17–21; *in charge educ. work on tuber. eradication at all markets, Nat. Live Stock Exchange, 21–* Reduction of live stock losses in transit and from bruising; elimination of tuberculosis from poultry to reduce losses from this type of infection in poultry and swine.

Smith, Prof. H(oward) V(ernon), University of Arizona, Tucson, Ariz. *Agricultural chemistry, Soils.* Ringwood, Ill, Aug. 20, 99. B.S, Illinois, 23, M.S, 24. Instr. *agr. chem, Arizona,* 24–26, asst. prof, 27–36, *assoc. prof, 36–* Soil Sci. Soc; West. Soc. Soil Sci; Int. Soc. Soil Sci. Climate of Arizona; caliche in Arizona; effect of copper carrying pyrite on plant growth; cause of mottled enamel; effect upon humans of fluorine in drinking water and in plant materials; removal of fluorine from drinking water; soil survey; minor elements.

Smith, Prof. Hugh B(urnice), John Tarleton Agricultural College, Stephenville, Texas. *Plant genetics.* Castle Rock, Colo, April 6, 97. B.S, Colo. Agr. Col, 19; M.S, Mich. State Col, 21; Ph.D, Michigan, 26. Asst. biologist, Exp. Sta, Maine, 23–26; Ill. Wesleyan, 26–27; *prof. bot. and head dept. biol, John Tarleton Col,* 27– Bot. Soc; Genetic Asn; Texas Acad; N. Texas Biol. Soc. Annual versus biennial growth habit and its inheritance in Melilotus alba; chromosome counts in the varieties of Solanum tuberosum and allied wild species; stomatol behavior of plants in greenhouses in winter.

Smith, Prof. H(ugh) Grayson, University of Toronto, Toronto, Ont, Can. *Physics.* Toronto, Ont, May 16, 00. B.A Toronto, 21, M.A, 22, Ph.D, 26. Demonstrator physics, Toronto, 24–27; meteorologist, Dom. Meteorol. Service, 27–29; asst. prof. *physics,* British Columbia, 29–32; lecturer, *Toronto,* 32–35, asst. prof, 35–38, *assoc. prof, 38–* Metrol. div, Nat. Research Council Can, 40. Physical Soc; Royal Soc. Can. Spectroscopy; meteorology; superconductivity, physical properties of liquid helium and other low temperature problems.

Smith, Irvin Webster, 1126 13th St, Fargo, N. Dak. *Mathematics.* Danville, Ill, June 3, 77. A.B, Illinois, 08, A.M, 09, 25; Michigan, 24. Instr. math, N. Dak. Col, 09–10, asst. prof, 10–12, assoc. prof, 12–15, prof. and head dept, 15–37; *actuary, Ancient Order United Workmen, 37–* Lecturer, various life insurance companies. Math. Soc; Math. Asn. Statistics and mathematics of finance; mathematics of life insurance.

Smith, Prof. Isabel F(othergill), Scripps College, Claremont, Calif. *Geology.* Greeley, Colo, Nov. 15, 90. A.B, Bryn Mawr Col, 15, A.M, 19, M. Carey Thomas European fellow, 20–21, Ph.D, 22. Teacher, The Mary C. Wheeler Sch, R. I, 15–17; Concord Acad, Mass, 22–23; instr. *geol,* Smith Col, 23–25, asst. prof, 25–28, assoc. prof, 28–29; *prof, Scripps Col, 29–, hist. of science, 35–,* dean, 29–35. A.A. Petrography; history of science.

Smith, Dr. Isabel S(eymour), 145 Woodland Ave, Oberlin, Ohio. *Botany.* Hillsdale, Mich, Oct. 22, 64. A.B, Oberlin Col, 01; M.S, Chicago, 05, Ph.D, 22. Teacher, high sch, Ohio, 91–95; asst. bot, Oberlin Col, 97–02; instr. *biol, Ill. Col,* 03–05, asst. prof, 05–09, prof, 09–27, *emer. prof, 27–* Asst. curator herbarium, Oberlin Col, 28–34. Marine Biol. Lab, Woods Hole, 03, 10. Bot. Soc; Ill. Acad. (v. pres, 19). Nutrition of the egg in Zamia; native trees of Morgan County, Illinois; seedling anatomy of Nelumbo lutea; herbarium work in flowering plants and fungi.

Smith, Prof. J. Frank, University of Southern California, Los Angeles, Calif. *Chemistry.* Glouster, Ohio, April 18, 86. B.S, Ohio Northern, 09; A.B, Michigan, 15; A.M, Iowa, 20. Sch. supt, Mich, 12–13; prof. chem. and dean, John Fletcher Col, 15–17; asst. chem, Univ. Iowa, 17–18; sch. supt, Iowa, 18–20; asst. prof. *chem, Southern California,* 20–35, *assoc. prof, 35–* Summers, asst. prof, Washington (Seattle), 29; assoc. prof, Michigan, 36. A.A; Chem. Soc; Inst. Chem; N. Y. Acad. Specific and micro tests in qualitative analysis.

Smith, Dr. J. Harold, Massachusetts State College, Amherst, Mass. *Physical and inorganic chemistry.* Fielding, Utah, Oct. 5, 14. B.S, Utah, 36, A.M, 38; Ph.D, Wisconsin, 41. Asst, Utah, 36–38; Wisconsin, 38–41; instr. *chem,* Illinois, 41–43; *assoc. prof, Mass. State Col, 43–* Summer, lab. asst, Bur. Standards, 37. Chem. Soc. Chemical kinetics.

Smith, Dr. Jack C(arlton), 1911 Eutaw Place, Baltimore, Md. *Physics.* Kansas City, Mo, May 8, 13. B.E, Ohio State, 35, M.S, 36; Ph.D, Calif. Inst. Tech, 42. *Assoc. physicist, U. S. Navy, 40–* Physical Soc. Conductivity of strong electrolytes at high frequencies.

Smith, J(ames) Brookes, Baltimore Life Insurance Co, Baltimore, Md. *Mechanics.* Lexington, Ky, March 11, 85. A.B, A.M, Virginia, 06, fellow, 09–10. Adj. prof. math, Ga. Tech, 06–07; head dept, high sch, Va, 07–09; asst. prof, Hampden-Sydney Col, 10–11, prof, 11–18; asst. actuary, Jefferson Standard Life Ins. Co, 19–22; *actuary,* Shenandoah Life Ins. Co, 23–30; *Baltimore Life Ins. Co, 31–,* sec'y, 36–42, *treas, 42–* Lieut, Q.M.C, 18–19. Actuarial science.

Smith, Dr. James H(enderson), St. Lukes Hospital, Richmond, Va. *Clinical medicine.* Leesburg, Va, Sept. 18, 82. A.B, Fredericksburg Col, 00; M.D, Univ. Col. Med, 10. *Med. staff, St. Lukes Hosp; prof. clin. med, Med. Col. of Va.* Am. Med. Asn; Clin. and Climat. Asn; South. Med. Soc; Va. Acad. Climatology.

Smith, Dr. James H(ollingsworth) C(lemmer), Carnegie Institution, Stanford University, Calif. *Chemistry.* Forest, Ohio, Dec. 3, 95. A.B, Monmouth Col, 17; M.S, Chicago, 20, Ph.D, 21; Graz, 27; Zurich, 27–28. Junior chemist, U. S. Pub. Health Service, 19–21; asst. prof. and assoc. prof. chem, Colo. Col, 21–25; Pomona Col, 25–27; *mem. staff, cent. lab, div. plant biol, Carnegie Institution, 27–* Assoc. ed, 'Annual Rev. Biochem.' C.W.S, U.S.A. A.A; Chem. Soc; Soc. Plant Physiol. Arsenical drugs; autoxidation; micromolecular weight methods; plant pigments; photosynthesis.

Smith, Dr. James M(iller), Jr, 199 Sandford Ave, North Plainfield, N. J. *Organic chemistry.* Big Stone Gap, Va, April 3, 14. A.B, Hampden-Sydney Col, 34; M.S, Va. Polytech, 36; Ph.D, Virginia, 39. *Research chemist, Calco chem. div, Am. Cyanamid Co, 39–* Summers, instr, Hampden-Sydney Col, 37, 38. 1, 2, 4-butanetriones; dyes and intermediates; pharmaceuticals.

Smith, Dr. Jay A(lfred), Chicago Medical School, 710 S. Wolcott Ave, Chicago, Ill. *Physiology.* Vincennes, Ind, Sept. 21, 13. A.B, DePauw, 36; A.M, Hopkins, 38, Ph.D, 39. Asst, Hopkins, 36–39; head dept. biol, Springfield Col, 39–40; instr. *physiol, Chicago Med. Sch,* 40–43, *asst. prof, 43–* Mem. tech. staff, Marine Biol. Lab, Woods Hole, 37–41. Sex inversion in molluscs; use of synthetic resins in microtechnic; freezing point curves; effects of temperature on growth of Chilomonas.

Smith, Dr. J(oe) Fred, Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Geology.* Celina, Texas, Oct. 17, 11. B.S, South. Methodist, 33; A.M, Harvard, 36, Ph.D, 39. *Instr. geol, Agr. and Mech. Col. Texas, 38–* Asn. Petrol. Geol; Texas Acad. Structural and stratigraphical geology.

Smith, John B(lackmer), Rhode Island State College, Kingston, R. I. *Agricultural chemistry.* Williamstown, Vt, June 11, 94. B.S, Tufts Col, 16; M.S, R. I. State Col, 27. Asst. chemist, Exp. Sta, Mass. Col, 16–17, 19–20; Exp. Sta, Agr. and Mech. Col. Texas, 20–23; assoc. chemist, *Exp. Sta, R. I. State Col,* 23–27, *chemist, 27–, prof. agr. chem, col, 41–* U.S.A, 17–18. A.A; Chem. Soc; Soc. Agron; Agr. Chem; Soc. Plant Physiol; Asn. Feed Control Officials. Nitrogen relationship between soil and the plant; magnesium fertilization of plants.

Smith, Prof. John E(arl), New Mexico Military Institute, Roswell, N. Mex. *Physics.* Lawrenceburg, Ind, Nov. 19, 83. A.B, Indiana, 12, Ph.D, 24; A.M, Wisconsin, 15. Instr. *physics,* Kans. State Col, 15–18, asst. prof, 18–19; *prof,* Franklin Col, 19–30; *N. Mex. Mil. Inst, 30–* A.A; Meteorol. Soc; Asn. Physics Teachers. Instantaneous photography of explosions.

Smith, John E(liphalet), 2751 Orchard St, Corvallis, Oregon. *Geology, Geography.* Polk Co, Oregon, Jan, 78. B.S,

Oregon State Col, 02; Chicago, 08, 09, 10; M.S, Iowa State Col, 11; fellow, Missouri, 11–12. Teacher, high sch, Oregon, 05–08; instr. geol, North Carolina, 12–17; asst. prof, Iowa State Col, 17–37. Field asst, Iowa Geol. Surv, 11; geologist, N. C. Geol. Surv, 13–17. A.A; N. C. Council Geog. Teachers (sec'y, 15–17); Iowa Acad. Agricultural geology and geography; fertilizer materials; glacial deposits; transportation.

Smith, Dr. J(ohn) F(innie) Downie, United Shoe Machinery Corp, Beverly, Mass. *Mechanical engineering.* Linlithgow, Scotland, Oct. 13, 02. Diploma, Royal Tech. Col, Scotland, 23; B.Sc, Glasgow, 23; M.S, Ga. Tech, 25; M.E, Va. Polytech, 28; nat. research fellow, Harvard, 28–32, M.S, 30, Sc.D, 33. Apprentice and engineer, Albion Motor Car Co, Glasgow, 18–23; asst. prof. exp. eng, Ga. Tech, 24–26; eng. drawing, Va. Polytech, 26–28; asst, eng. sch, Harvard, 28–32, instr. mech. eng, grad. sch. eng, 32–36; exec. engineer research and develop, E. G. Budd Mfg. Co, 36–40; *chief engineer, aircraft sect, United Shoe Machinery Corp, 40–* Mech. Eng. (standing cmt. research; past chairman subdiv. rubber and plastics; chairman cmt. thermo-physical properties; power test code on displacement compressors and blowers). Heat transmission; physical measurements; hydrodynamics; machine design.

Smith, Prof. J(ohn) F(ranklin), 24 E. Main St, Canton, N. Y. *Physics.* Heuvelton, N. Y, Jan. 27, 92. A.B, St. Lawrence, 15, A.M, 20. Asst. prof. *physics, St. Lawrence,* 21–28, *prof, 28–* Physical Soc; Asn. Physics Teachers; Illum. Eng. Soc. Spectroscopy; nuclear physics.

Smith, Prof. J(ohn) J(effrey), 109 Lakeside, New Concord, Ohio. *Psychology.* Claysville, Pa, March 26, 84. A.B, Bethany Col. (W. Va), 08, A.M, 09; B.D, Yale, 12, A.M, 12, Ph.D, 15. Teacher, Beckley Inst, 08–10; asst. prof, Drake, 16–18; sch. supt, Iowa, 18–20; *prof. psychol, Muskingum Col, 20–* A.A. Social psychology; psychology of social attraction and repulsion; character measurement; religious development of children.

Smith, Dr. J(oseph) Edward, Box 386, Wilmington, Del. *Chemistry.* Chattanooga, Tenn, Jan. 14, 07. B.S, Chattanooga, 27; M.S, Brown, 28, fellow, 28–30, du Pont fellow, 30, Ph.D, 31. *Chemist,* Jackson lab, *E. I. du Pont de Nemours and Co,* 30–32, *tech. lab, 32–* Chem. Soc. Azo colors; organo-boron compounds; colloidal electrolytes; theory of substantive dyeing; textile assistants.

Smith, Dr. J(oseph) Roy, Babies Hospital, W. 167th St. and Broadway, New York, N. Y. *Neurophysiology.* Verona, Pa, April 24, 10. A.B, Pittsburgh, 32; A.M, Clark, 33, Ph.D, 35. Gen. Educ. Board fellow, Normal Child Develop. Clinic, 35–36; *instr. diseases of children, col. physicians and surg, Columbia, 36–* A.A; assoc. Psychol. Asn; Soc. Research Child Develop. Sense organ function; nervous processes of the vertebrate retina; electric action potentials of the human brain.

Smith, Prof. J(oseph) Russell, Swarthmore, Pa. *Geography.* Lincoln, Va, Feb. 3, 74. B.S, Pennsylvania, 98, Ph.D, 03; Leipzig, 01–02; Sc.D, Columbia, 29. Instr. science and hist, Abington Friends Sch, Pa, 95–96; hist, George Sch, Pa, 96–97, 98–99; econ. investigator, Isthmian Canal Cmn, 99–01; instr. commerce, Wharton Sch. Finance and Commerce, Pennsylvania, 03–06, asst. prof. geog. and indust, 06–07, indust, 07–08, prof, 09–19; *econ. geog, Columbia,* 19–40, *emer. prof, 40–* Harmon Foundation prize, 27. Special trade expert, bur. research, W.T.B, 18. A.A; Asn. Geog. (v. pres, 16, pres, 42); North. Nut-Growers Asn. (pres, 16); hon. mem. Swedish Soc. Geog. and Anthrop. Economic, industrial and human geography; soil conservation; tree crop agriculture; influence of the great war on shipping; the world's food resources; regional geography of North America; organization of ocean commerce; elementary geographies; industrial and commercial geography.

Smith, Prof. Josephine M(itchell), State College of Washington, Pullman, Wash. *Child development.* Honey Grove, Texas, March 24, 04. A.B, Missouri, 27, A.M, 28; Ph.D, Iowa, 35. Instr. psychol, Missouri, 29–32; prof, McPherson Col, 35–37; Stockton Jr. Col, 37–40; research assoc. child psychol, California, 40–41; *asst. prof. child develop, State Col. Wash, 41–* Summer, prof, California at Los Angeles, 41. Assoc. Psychol. Asn. Vision of young children.

Smith, Dr. Julian F(rancis), Alien Property Custodian, Field Bldg, Chicago, Ill. *Chemistry.* Liscomb, Iowa, Nov. 1, 93. B.S, Illinois, 16; M.S, California, 20; fellow, Chicago, 21–22, Ph.D, 22. Research librarian, Nat. Aniline and Chem. Co, N. Y, 16–19, 20–21; asst. chem, California, 19–20; research information dept, Commercial Solvents Corp, Ind, 22–23; tech. librarian, B. F. Goodrich Co, 23–28; Smith and Smith Reference Service, 28–30; intel. div, exp. sta, E. I. du Pont de Nemours and Co, 30–39; assoc. director, Hooker Sci. Library, Central Col. (Mo), 39–42; tech. librarian and ed, Inst. Gas Technol, 42–43; *senior chem. specialist, Alien Property Custodian, 43–* A.A; Chem. Soc. Bivalent nitrogen; molecular rearrangements; chemical literature.

Smith, Dr. Karl U(lrich), University of Rochester, Rochester, N. Y. *Psychology.* Zanesville, Ohio, May 1, 08. A.B, Miami (Ohio), 31; A.M, Brown, 33, Ph.D, 35. Instr. *psychol,* Brown, 35–36; *Rochester,* 36–38, *asst. prof, 38–* A.A; Psychol. Asn; N. Y. Acad. Psychology and physiology of vision and learning in animals; neurophysiology of perception and motor capacity in the human individual.

Smith, Dr. Kenneth O(rville), 573 Park St, Upper Montclair, N. J. *Physics.* Morley, Iowa, May 10, 98. A.B, Cornell, 21; A.M, Illinois, 23, Ph.D, 29. Teacher, Illinois, 21–29; research dept, Westinghouse Lamp Co, 29–32; *teacher, N. J. State Teachers Col, 32–* Electrical physics.

Smith, Dr. K(insley) R(ichard), Pennsylvania State College, State College, Pa. *Industrial psychology.* Chicago, Ill, Aug. 13, 06. B.S, Pennsylvania, 28, A.M, 30, Ph.D, 36. Asst. instr. psychol, Pennsylvania, 30–35; labor statistician, Philco Radio Corp, 35–36; *asst. prof. psychol, Pa. State Col, 36–* A.A; assoc. Psychol. Asn; Asn. Applied Psychol. (sec'y indust. sect, 41–). Ventilation and behavior; psychological tests; job analysis.

Smith, Prof. Knowles (Burdette), 1347 Leeper Ave, South Bend, Ind. *Geology, Mining engineering.* South Bend, Ind, Sept. 30, 88. B.S, Mich. Col. Mines, 01, E.M, 02; Ph.D, Notre Dame, 17. Instr, Mich. Col. Min. and Tech, 01–02; consulting geologist and mining engineer, Ariz. and Ont, Can, 02–08; *Notre Dame, 08–, prof. mining eng. and dean dept. mining eng. and geol.* Conservation commissioner, Ind, 29– Miner. Soc; Asn. Petrol. Geol. Determinative mineralogy.

Smith, Dr. Laura Lee W(eisbrodt) (Mrs. Ora Smith), Cornell University, Ithaca, N. Y. *Chemistry.* Georgetown, Ohio, July 16, 03. B.S, Miami (Ohio), 25; M.S, Iowa State Col, 27; Ph.D, California, 30. Asst, Iowa State Col, 25–27; teaching fellow, California, 27–30; Smith Incubator Co. fellow, Cornell, 30–31, dept. veg. crops, 31–37, instr. home econ, 37–41; teacher adult educ, schs, Ithaca, N. Y, 41–42. Chem. Soc. Esterase of Penicillium roquefortii; development of vitamin A during ripening of tomatoes; light and the carotinoid content of certain fruits and vegetables; vitamin A and the carotinoid content of fruits.

Smith, Prof. Laurence L(owe), University of South Carolina, Columbia, S. C. *Economic geology.* Delaware, N. J, July 30, 96. B.S, Lafayette Col, 19, M.S, 20; Ph.D, Hopkins, 24. Instr. *geol,* Lafayette Col, 19–22; assoc. prof, *South Carolina,* 24–30, *prof, 30–* A.A; fel. Geol. Soc; Carolina Geol. Soc. (pres, 40). Iron ore deposits of Pennsylvania and New Jersey; solution depressions; weather pits.

Smith, Prof. Lawrence S(outhwick), Massachusetts Institute of Technology, Cambridge, Mass. *Applied mechanics.* Peabody, Mass, Sept. 27, 79. B.S, Mass. Inst. Tech, 00. Asst. mech. eng, *Mass. Inst. Tech,* 00–01, instr, 01–13, asst. prof. *applied mech,* 13–22, *assoc. prof, 22–* Reinforced concrete; machine design; strength of materials; dynamics of machines.

Smith, Dr. Lawrence W(eld), Temple University School of Medicine, Philadelphia, Pa. *Pathology.* Newton, Mass, June, 95. A.B, Harvard, 16, M.D, 20. Instr. path, Harvard Med. Sch, 20–22; prof. path. and bacter, Philippines, 22–23; faculty instr. *path,* Harvard, 23–26, asst. prof, 26–28; med. col, Cornell, 28–32, assoc. prof, 32–34; *prof, sch. med, Temple, 35–* Pathologist, Boston Floating Hosp, 20–22, 24–28; path, New Eng. Deaconess and Baptist Hosps, 24–28; asst. pathologist, Boston Children's Hosp. and Boston Dispensary, 26–28; pathologist, N. Y. Hosp, 28–34; Willard Parker Hosp, 29–35; Nursery and Child's Hosp, 31–32; Temple Univ. Hosp, 35– Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Soc. Exp. Path; Soc. Clin. Path; Soc. Trop. Med; Asn. Cancer Research; Path. Soc. Phila; Col. Physicians Phila; Int. Asn. Med. Mus. Poliomyelitis; infectious diseases; cancer; essentials of pathology.

Smith, Prof. Lee Irvin, 815 S. Seventh St, Minneapolis, Minn. **Organic chemistry.* Indianapolis, Ind, July 22, 91.

A.B, Ohio State, 13, A.M, 15; A.M, Harvard, 17, Ph.D, 20. Asst. chem, Ohio State, 13–15; Austin teaching fellow, Harvard, 15–17, instr, 17–18, 19; *org. chem, Minnesota,* 20–21, asst. prof, 21–28, assoc. prof, 28–32, *prof, 32–,* acting chief *div. org. chem,* 31–32, *chief, 32–,* administrative asst, sch. chem, 36–37. Mem. board editors, 'Jour. Org. Chem'; 'Org. Syntheses,' ed. in chief, 42–43. U.S.A, 18–19. A.A; Chem. Soc. (assoc. ed, 'Jour'; chairman, exec. cmt, 42); fel. Inst. Chem; London Chem. Soc; Deuts. Chem. Gesell; Soc. chim. de France; Swiss Chem. Soc. Reaction mechanisms; quinones; methylated benzenes; vitamin E and related compounds.

Smith, Dr. Leighton B(ruerton), 143 Colon St, Beverly, Mass. *Physical chemistry.* Newton, Mass, Sept. 12, 96. B.S, Mass. Inst. Tech, 18; du Pont fellow, 18–19, M.S, 19, Swett fellow, 19–20, Savage fellow, 20–21, Ph.D, 23. Asst. chem, Mass. Inst. Tech, 21–23, research assoc, 23–29, asst. prof, 29–35; *research, Lever Brothers, Cambridge, Mass, 35–* Am. Acad; Chem. Soc; Inst. Chem. Equation of state for gases; thermodynamic properties of gases and liquids; vapor pressures of liquids; properties of steam; phase equilibria; x-ray crystallography.

Smith, Prof. Lemuel F(ish), 1614 Grove St, Kalamazoo, Mich. *Chemistry.* Ky, Feb. 9, 73. A.B, William Jewell Col, 97; M.S, Chicago, 11; Sc.D, Kalamazoo Col, 34. Teacher, high sch, Mo, 97–02; acad, Ind, 02–08; Northwest Mo. State Teachers Col, Maryville, 08–10; *prof. chem, Kalamazoo Col, 11–* Chem. Soc.

Smith, Prof. Leon E(lkanah), Denison University, Granville, Ohio. *Physics.* Kemper, Ill, June 16, 94. B.S, Ottawa (Kans), 19; Ph.D, Pennsylvania, 26. Instr. *physics,* Pennsylvania, 20–28; *prof, Denison, 28–* A.A; Physical Soc; Acoustical Soc; Asn. Physics Teachers; fel. Ohio Acad. (v. pres, sect. F, 39); Ohio Physics Club (pres, 38). Luminescence of pure barium bromide.

Smith, Leonard S(ewall), 106 Via Monte D'oro, Redondo Beach, Calif. *Civil engineering.* East Troy, Wis, Feb. 14, 64. B.C.E, Wisconsin, 90, C.E, 95. Instr. civil eng, *Wisconsin,* 94–96, asst. prof. topog. and geod. eng, 97–05, prof, 05–20, city planning, 20–28, *emer. prof. eng, 28–; city planning engineer, National City, Calif, 31–* Temporary aid, U. S. Coast and Geod. Surv, 96–00; topographer, U. S. and Mex. Int. Boundary Surv, 92–94; hydrographer in charge, Wis. Nat. Hist. and Geol. Surv, 97–05; engineer, State Levee Cmn, 01–05; U. S. Geol. Surv, 06–09; city planning engineer, Appleton, Waukesha and Oshkosh, Wis, 22–26. Civil Eng; Inst. City Planning; Wis. Eng. Soc. (sec'y, 16–26); Int. Inst. Town Planning. Accuracy of stadia measurements; water powers of Wisconsin; theory and practise of surveying; reconstruction of Tokyo.

Smith, Prof. L(eslie) J(ohn), State College of Washington, Pullman, Wash. *Agricultural engineering.* Petoskey, Mich, May 25, 81. B.S, Mich. State Col, 06, M.E, 28. Instr, Mich. State Col, 05–06, in charge dept. agr. eng, 06–10; *prof.* mech. and eng, Manitoba, 10–20; *agr. eng. and head dept, State Col. Wash, 20–* Mem. council, bur. agr. eng, U. S. Dept. Agr. Agr. Eng. Mechanical drawing; rural electrification; farm building design.

Smith, Dr. Leslie M(alcolm), University Farm, Davis, Calif. *Entomology.* Yolo Co, Calif, 03. B.S, California, 26, M.S, 27, Ph.D, 33. Field asst, bur. entom, U. S. Dept. Agr, 26–27; asst. entom, *California,* 27–33, junior entomologist, *div. entom. and parasitol,* 33–38, *asst. entomologist, 38–* Asn. Econ. Entom; Pacific Coast Entom. Soc; Calif. Entom. Club; Pasteur Soc. Cent. Calif. Economic and taxonomic entomology.

Smith, Dr. Lincoln G(ilmore), Palmer Laboratory, Princeton, N. J. *Physics.* Irvington, N. Y, Feb. 12, 12. A.B, Williams Col, 33; Ph.D, Princeton, 37. Instr. *physics, Princeton,* 37–42, *asst. prof, 42–* Fel. Physical Soc. Infra-red spectroscopy.

Smith, Dr. L(ivingston) W(addell), Lexington, Va. *Mathematics.* Lexington, Va, May 30, 76. A.B, Washington and Lee, 96, A.M, 98, Ph.D, 02; Hopkins, 03. Instr. chem, Mass. Inst. Tech, 04–06; *prof. math, Washington and Lee, 06–* A.A; Math. Asn.

Smith, L(loyd) E, 1609 44th St, N. W, Washington, D. C. *Organic chemistry.* Verdon, S. Dak, June 1, 97. B.S, Drake, 20; M.S, Iowa State Col, 23. *Chemist,* Bur. Standards, 24–27; *bur. entom. and plant quarantine, U. S. Dept. Agr, 27–* A.A; Asn. Econ. Entom; Chem. Soc. Structure of rotenone; heterocyclic chemistry; synthetic organic insecticides.

Smith, Dr. Lloyd F(rancis), 1000 Federal Office Bldg, New Orleans, La. *Silviculture.* Haven, Kans, March 1, 01. A.B, Kansas, 30; M.F, Yale, 32, Ph.D, 38. Instr. forestry, Pa. State Col, 34–35; assoc. prof, Kans. State Col, 35–40; *assoc. silviculturist, South. Forest Exp. Sta, U. S. Forest Service, 40–* Kans. Acad. Establishment and survival of eastern white pine.

Smith, Dr. Lloyd P(reston), Cornell University, Ithaca, N. Y. *Physics.* Reno, Nev, Nov. 6, 03. B.S, Nevada, 25; Coffin fellow, 26–27; Ph.D, Cornell, 30. Research lab, Gen. Elec. Co, 25–26; instr. physics, Cornell, 27–30; nat. research fellow, Calif. Inst. Tech, 30–31; int. research fellow, Munich, 31–32; asst. prof. *physics, Cornell,* 32–36, *prof, 36–* Physical Soc. Theoretical physics; theory of detection in high vacuum tubes; emission of positive ions from tungsten and molybdenum; minute electric currents of known magnitude; evaluation of the matrix components for helium; ionization and thermionics; quantum mechanics; nuclear physics.

Smith, Dr. Loule H(enrie), University of Illinois, Urbana, Ill. *Agronomy.* Crystal Lake, Ill, 72. B.S, Illinois, 97, M.S, 99; Ph.D, Halle, 07. Asst. chemist, *Exp. Sta, Illinois,* 99–03, chief asst. chem. and plant breeding, 03–05, asst. chief, 05–11, chief, 11–20, *in charge publications, soil surv,* 20–40, *emer. chief, 40–,* asst. prof. plant breeding, univ, 05–11, prof, 11–20, acting head dept. agron, 13–14, 18–19. A.A; Soc. Nat; Soc. Agron. (treas, 10, asst. ed, 'Jour,' 13–23); Chem. Soc; Ill. Acad. Corn breeding; improvement of farm crops in chemical composition and in productiveness; transmission of plant characters by heredity; soils.

Smith, Dr. Luther, University of Missouri, Columbia, Mo. *Genetics, Cytology.* Patton, Mo, March 8, 09. A.A, Will Mayfield, 29; B.S, Missouri, 32, Ph.D, 36. Agent *cereal crops, bur. plant indust, U. S. Dept. Agr,* 36–41, *assoc. geneticist, 41–;* research assoc. field crops, Missouri, 37– Genetics Soc; Bot. Soc; Soc. Agron. Plant breeding; cytogenetics of naturally occurring and x-ray induced mutants in wheat and barley; relation of polyploidy to heat and x-ray effects on cereals; linkage in diploid wheat; interspecific and intergeneric hybrids in wheat and barley.

Smith, Capt. Lybrand (Palmer), Navy Department, Washington, D. C. *Engineering.* Decatur, Ill, Jan. 24, 91. Grad, U. S. Naval Acad, 11; Sc.D, American Univ, 35. Mem. staff eng, gunnery and navigation, *U. S. Navy,* 11–19, cabinet posts, Dominican Republic, 19–21, commercial supt, Naval Communication Service, 21–23, senior asst. engineer, U.S.S. 'Colorado,' 24–25, chief engineer, 25–26, bur. eng, 26–28, commanding officer, U.S.S. 'Zeilin' and later U.S.S. 'Claxton,' 28–30, officer in charge boiler lab, 31–33, boiler desk, design div, bur. eng, 33–34, propeller desk, and exp. model basin, 34–36, engineer officer, staff of commander of battleships, U. S. Fleet, 36–38, head research branch, bur. eng, construction and repair and bur. ships, 38–41, *asst. coordinator research and develop, 41–, mem.* research council, 39–41; *Nat. Defense Research Cmt, 41–; War Metal. Cmt, 41–* Advisory cmt, Nat. Indust. Conf. Board, 31–33; mem, Cmt. Standard Merchant Vessels, 34–36; Uranium Cmt, 41– Soc. Test. Mat. (chairman, subcmt. domestic and indust. fuel oil, 31–33); Mech. Eng. (Diesel fuel cmt, 31–33); Naval Eng. (councilor, 36, 40). Hydromechanics; marine propellers; steam generators; gas turbines.

Smith, Dr. Lyman B(radford), 228 Highland Ave, Winchester, Mass. *Botany.* Boston, Mass, Sept. 11, 04. A.B, Harvard, 25, A.M, 28, Sheldon traveling fellow, Brazil, 28–29, Ph.D, 30. Asst, *Gray herbarium, Harvard,* 31–36, asst. curator, 36–37, junior curator, 37–43, *curator, 43–* New Eng. Bot. Club. Systematic botany; taxonomy of the Bromeliaceae; plant distribution; causes of hay-fever in New England; flora of Massachusetts.

Smith, Dr. Madorah E(lizabeth), care of J. Addison Smith, 5515 56th Ave. S, Seattle 8, Wash. *Psychology.* Shanghai, China, July 2, 87. A.B, Fargo Co, 07; A.M, Iowa, 18, Ph.D, 25. Teacher, girls high sch, China, 11–17; Colo, 19–21; research asst, child welfare research sta, Iowa, 21–26; teacher psychol. and educ, Territorial Nor. Sch, Honolulu, 27–31; asst. prof, Hawaii, 31–44; *retired.* A.A; Psychol. Asn; Soc. Research Child Develop. Children's vocabularies; hero stories of western history; physical growth of two generations; reading direction; the effect of foreign language school attendance on learning to read; language development of

bilingual children; Hawaii English usage tests; neuroticism and causes of inferiority feelings.

Smith, Dr. Manning A(mison), Bowdoin College, Brunswick, Maine. *Organic chemistry.* East Orange, N. J, Dec. 23, 15. A.B, Swarthmore Col, 37; Ph.D, Mass. Inst. Tech, 40. Asst, Mass. Inst. Tech, 40–41; *instr. chem, Bowdoin Col, 41–* Chem. Soc. Cottonseed hulls; explosives.

Smith, Dr. Margaret Cammack, El Encanto Estates, Tucson, Ariz. *Nutrition.* Minn, 95. A.B, Minnesota, 17; A.M, Columbia, 18, Ph.D, 25. Asst. gen. chem, Teachers Col, Columbia, 18–19, instr, 19–25; assoc. prof. home econ, *Arizona,* 25–28, *prof. nutrition, 28–, nutrition chemist, Exp. Sta, 28–, head dept. nutrition, 38–* A.A; Inst. Nutrition; Asn. Biol. Chem; Home Econ. Asn; Int. Asn. Dental Research. Vitamin content of and the effect of certain conditions upon foodstuffs; cause of mottled enamel of human teeth; hemoglobin; measurement of nutritional status.

Smith, Dr. Margaret E(sther), Presbyterian Hospital, New York, N. Y. *Biochemistry.* Oxford, N. Y, Aug. 24, 02. A.B, Syracuse, 23; M.S, Pa. State Col, 31, Ph.D, 35. Teacher, high sch, N. Y, 23–30; asst, Pa. State Col, 31–35; instr. chem, Auburn Collegiate Center, 35–36; biochem, Pomona Col, 36–39; Wellesley Col, 39–41; research, Presbyterian Hosp, New York, 41–42; *mem. fifth gen. hosp, U. S. Army, 42–* Chem. Soc. Electrophoresis; blood banks.

Smith, Dr. Margaret G, Washington University School of Medicine, St. Louis, Mo. *Pathology.* Carnegie, Pa, 96. A.B, Mt. Holyoke Col, 18; M.D, Hopkins, 22. Asst. *path,* Hopkins, 22–23, instr, 23–26, assoc, 26–29; asst. prof, *sch. med, Washington (St. Louis),* 29–43, *assoc. prof, 43–* Soc. Path. and Bact. Neurotropic viruses, especially the virus of St. Louis encephalitis; virus disease of salivary gland.

Smith, Dr. Margaret Monroe (Mrs. Frank Calton Smith), 2219 Radcliff Ave, Charlotte, N. C. *Optics.* Asheville, N. C. A.B, Mt. Holyoke Col, 15; Ph.D, Bryn Mawr Col, 22. Asst, grad. sch. med, Pennsylvania, 21–23, director research lab, 22–24; *perimetrist, Charlotte Eye, Ear and Throat Hosp, 29–* Psychological optics; perimetry; the minimum visible; form and color fields in normal and pathologic perimetry.

Smith, Dr. Marian W(esley), Columbia University, New York, N. Y. *Ethnology.* New York, N. Y, May 10, 07. A.B, Columbia, 29, A.M, 34, Ph.D, 38. Asst. *anthrop, Columbia,* 37–38, *instr, 38–* Ethnol. Soc. (treas, 40–); Folk-Lore Soc.

Smith, Dr. Marion (Ashton), U. S. Department of Agriculture, 5630 Ingleside Ave, Chicago, Ill. *Pathology.* Oberlin, Kans, Jan. 27, 97. B.S, Kans. State Col, 22; M.S, Iowa State Col, 25; Ph.D, Illinois, 41. Investigator, Crop Protection Inst, Illinois, 27–31; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr,* 31–42, *Barnes lab, Chicago, 42–* Market diseases of fruits and vegetables; blister spot disease of apples; fungicidal properties of flotation sulphur.

Smith, Dr. Marion E(stelle), Massachusetts State College, Amherst, Mass. *Taxonomic entomology.* Marion, Mass, March 2, 13. B.S, Mass. State Col, 35, M.S, 36; fellow, Illinois, 36–38, Ph.D, 38. *Tech. asst. entom. and curator insect collection, Mass. State Col, 38–* Entom. Soc. Amer. Taxonomy of Arctiidae; taxonomy of immature stages of insects.

Smith, Dr. M(arion) R(ussell), U. S. Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D. C. *Entomology.* Pendleton, S. C, June 19, 94. B.S, Clemson Col, 15; M.S, Ohio State, 17; Ph.D, Illinois, 27. Asst. entom, Clemson Col, 16; sci. asst, bur. entom, U. S. Dept. Agr, 17–18; asst. entom, Clemson Col, 18–19; exten. entomologist, N. C, 19–20; field entomologist, bur. entom, U. S. Dept. Agr, 20; instr. vocational agr, Ft. Mill, S. C, 20–21; asst. entomologist, State Plant Board, Miss, 21–24; asst. entom, Illinois, 24–26; assoc. prof, Miss. Agr. and Mech. Col, 26–32, Miss. State Col, 32–36; *assoc. entomologist, div. insect identification, bur. entom. and plant quarantine, U. S. Dept. Agr, 37–* Agent in charge Argentine ant surv, bur. entom. and plant quarantine, U. S. Dept. Agr, 31–33, assoc. entomologist, Mayaguez, P. R, 35–36. Summer, assoc. entomologist, South. Forest Exp. Sta. and bur. entom. and plant quarantine, U. S. Dept. Agr, 37. Entom. Soc. Amer; Entom. Soc. Wash. Formicidae; taxonomy, biology, distribution and control of North American ants.

Smith, Dr. Marshall E(verett), 613 S. Newport Ave, Tampa, Fla. *Chemistry.* Jacksonville, Fla, Feb. 2, 12. B.S, Florida, 32, M.S, 35, Ph.D, 36; M.D, Hopkins, 41. Instr. chem, N. Dak. Col, 36–37; intern, Henry Ford Hosp, Detroit, 41–42; *res. surgeon, Charity Hosp, New Orleans, La, 42–* Summers, chemist, Marine Biol. Lab, 37–40. Cyclic organic nitrogen compounds.

Smith, Prof. Martha E(lizabeth), Mt. Holyoke College, South Hadley, Mass. *Organic chemistry.* Olivet, Mich, May 31, 08. A.B, Mt. Holyoke Col, 29, A.M, 31; univ. fellow, Wisconsin, 35–37, Ph.D, 37. Asst. chem, Mt. Holyoke Col, 29–31, instr, 32–34; research asst, Thorndike Mem. lab, Boston City Hosp, 31–32; *asst. prof. chem,* Woman's Col, North Carolina, 37–41; *Mt. Holyoke Col, 41–* A.A; Chem. Soc. Isomers of 2-pentene; dipole moments and molecular constitution; relations between reactivity and structure of organic compounds.

Smith, Dr. M(artin) B(ristow), 297 E. Grand Blvd, Detroit, Mich. *Rubber chemistry.* Owatonna, Minn, Feb. 18, 16. B.S, Chicago, 36, Ph.D, 42. Junior chemist, Universal Oil Products Co, 36–38; *physical chemist, U. S. Rubber Co, 42–* Heats of mixing of aqueous solutions of non-reacting strong electrolytes; compounding of synthetic rubber for tires.

Smith, Dr. M(ary) Doreen, University of Montreal, Montreal, Que, Can. *Food chemistry.* Toronto, Ont. B.A, Toronto, 27; M.A, 30, Ph.D, 34. Asst. hygiene and prev. med, Toronto, 30–37, lecturer food chem, 37–42; *director inst. nutrition and dietetics, Montreal, 42–* Summers, asst, Marine Biol. Lab, Woods Hole, 28, 29, 30, 31. Can. Physiol. Soc; fel. Can. Inst. Chem; Can. Dietetics Asn. Preventive medicine; detoxifying factors present in ox-bile and human bile; the phosphatase test for pasteurized milk; determination of the tannin in fruits; digestibility of milk products.

Smith, Dr. Mary Katherine, Box 212, Athens, Ohio. *Clinical psychology.* Barnesville, Ohio, July 11, 13. A.B, Muskingum Col, 35; A.M, Ohio State, 36; Ph.D, Northwestern, 40. Instr. gen. and abnor. psychol, Cent. State Teachers Col, Mich, 38–39, gen. psychol. and freshman guidance, 40–41; *psychologist, State Bur. Juvenile Research, Ohio,* 41–42, *Ohio (Athens) branch, 42–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Vocabulary.

Smith, Prof. Maurice Edward, 70 Coolidge Road, Worcester, Mass. *Analytical chemistry.* Fredericton, N. B, Can, July 20, 91. B.A, New Brunswick, 17; M.A, Toronto, 19, Ph.D, 21. Asst. chem, Toronto, 17–21; lecturer org. chem, Queen's (Can), 21–22; analyst, food and drug lab, Dept. Health Can, 22–24; instr, *Worcester Polytech,* 24–27, *asst. prof. chem, 27–* Chem. Soc. Sanitation; bacteriology of water, sewage and milk; Friedel-Craft reaction; wood preservatives; anaerobic spore test on milk; quality of artesian well water of Worcester.

Smith, Dr. Maurice I(sadore), U. S. Public Health Service, Bethesda, Md. *Pharmacology.* B.S, Col. City of N. Y, 09; M.D, Cornell, 13. Instr. pharmacol, Michigan, 14–17; prof, Nebraska, 17–20; pharmacologist, U. S. Pub. Health Service, 20–26; director glandular and pharmaceut. dept, Lederle Antitoxin Labs, 26–27; senior, prin. and *chief pharmacologist, U. S. Pub. Health Service,* 27– A.A; Soc. Pharmacol; Soc. Exp. Biol; Physiol. Soc. Synergism of morphin and scopolamin; optochin; stovain; anaphylactic fever; nicotin tolerance; elimination of strychnin; anaphylaxis; bio-assay; phenol esters; selenium; chemotherapy.

Smith, Pres. Merlin G(rant), A. M. Chesbrough Seminary, North Chili, N. Y. *Mathematics.* Delta, Ohio, Aug. 26, 94. A.B, Greenville Col, 15; A.M, Illinois, 16, Ph.D, 18. Instr. math, Northwestern, 18–19; prof. and head dept, Greenville Col, 19–26; *pres,* Spring Arbor Sem. and Junior Col, 26–34; *A. M. Chesbrough Sem, 33–* Differential equations; boundary problems in one dimension.

Smith, Dr. M(orden) W(hitney), Atlantic Biological Station, St. Andrews, N. B, Can. *Biology.* Burford, Ont, Feb. 5, 05. B.A, Queen's (Can), 28, M.A, 29; Ph.D, Toronto, 34. *Asst. biologist, Atlantic Biol. Sta, Biol. Board Can, 29–* Summers, field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 27, 28. A.A; Fisheries Soc; Limnol. Soc; Can. Physiol. Soc; N. S. Inst. Sci. Limnology; fertilizing of fresh waters; use of fish poisons in aquiculture; fresh-water planktonic Crustacea.

Smith, Dr. Morris K(ellogg), 33 E. 68th St, New York, N. Y. *Surgery.* Hanover, N. H, March 18, 86. A.B, Dartmouth Col, 07, A.M, M.D, 11. *Asst. prof. clin. surg, med. col, Cornell.* Assoc. attending surgeon, St. Luke's Hosp, 27, attending surgeon, 35. A.A; Surg. Asn; fel. Col. Surg; Am. Med. Asn; N. Y. Surg. Soc; N. Y. Acad. Med. Clinical surgery.

Smith, Nathan R(aymond), U. S. Department of Agriculture, Beltsville, Md. *Bacteriology.* Whitehall, N. Y, Sept. 10, 88. B.S, Vermont, 11. Sci. asst, *U. S. Dept. Agr,* 11–18, assoc. bacteriologist, 19–23, bacteriologist, 23–28, *senior bacteriologist, 28–* Mem, Nat. Research Council, 41–43. A.A; Soc. Bact. (v. pres, Wash. branch, 40, pres, 41); Soc. Agron; Bot. Soc. Wash. (cor. sec'y, 29, recording sec'y, 31, v. pres, 33, pres, 34); Wash. Acad. (v. pres, 33–35, cor. sec'y, 36–40, archivist, 41–). Soil microbiology and microflora; life cycles of bacteria; decomposition of organic materials in soil.

Smith, Dr. Ned R(udolph), Route 6, Sand Springs Road, Tulsa, Okla. *Psychology.* Bethany, Mo, April 7, 84. A.B, Michigan, 12, A.M, 15, M.S, 17, Dr.P.H, 18, M.D, 21. Instr. neur, Michigan, 23–26; assoc. prof. psychol, Tulsa, 30–33; *med. director, Oakwood Sanitarium, 33–* Am. Med. Asn; Psychiat. Asn. Psychiatry; neurology.

Smith, Prof. N(ewland) F(arnsworth), 109 Rosemont Lane, Abington, Pa. *Physics.* Downer's Grove, Ill, Jan. 28, 70. Ph.B, Northwestern, 92; Ph.D, Chicago, 09. Acting prof. *physics,* Grinnell Col, 00–01; prof, Olivet Col. (Mich), 01–09; Centre Col, 09–19; prof. and head dept, The Citadel, 19–43; *retired; research engineer, Philco Radio and Television Corp, 43–* A.A; Physical Soc; Asn. Physics Teachers. Effect of tension and torsion on electrical and thermal conductivity; effect of magnetic fields on thermal conductivity.

Smith, Dr. N(icol) H(amilton), 802 Knorr St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, April 20, 99. B.S, M.S, Pennsylvania, Ph.D, 27. Instr. chem, Pennsylvania, 25–27; research chemist, Solidon Products, Inc, 27–32; *assoc. director chem, museum, Franklin Inst, 32–* Chem. Soc. Analytical chemistry; atomic weight of scandium.

Smith, Dr. N(orman) O(bed), University of Manitoba, Winnipeg, Man, Can. *Physical chemistry.* Winnipeg, Man, Jan. 23, 14. B.Sc, Manitoba, 35, M.Sc, 36; Ph.D, N. Y. Univ, 39. Teaching fellow *chem,* N. Y. Univ, 36–39; asst, *Manitoba,* 39–40, *lecturer, 40–* Assoc. Can. Inst. Chem; assoc. Can. Col. Organists. Intensive drying; heterogeneous equilibria; solid solutions; hydrates.

Smith, Prof. Olga A(ugusta), 303 River Drive, Appleton, Wis. *Biology.* Marshfield, Wis, Nov. 13, 00. A.B, Lawrence Col, 24; California; M.S, Columbia, 32. Teacher science, high sch, 24–29; instr. biol. and bact, *Lawrence Col,* 29–40, *asst. prof, 40–, research asst, Inst. Paper Chem, 33–* Soc. Bact; Wis. Acad. Bacterial variations; bacteria of pulp slime and paper; scientific illustrating; photochronography of swelling fibers; horticulture.

Smith, Dr. O(live) Watkins (Mrs. George Van Siclen Smith), Free Hospital for Women, Brookline, Mass. *Biochemistry.* Worcester, Mass, April 29, 01. A.B, Vassar Col, 23; Harvard; Ph.D, Radcliffe Col, 28. Asst. instr. chem, Wellesley Col, 24–25; *research asst,* Huntington Mem. Hosp, Boston, 26–27; Harvard Med. Sch, 28–29; *Fearing research lab, Free Hosp. for Women, 30–* Carbohydrate metabolism; biochemical and physiological effects of female sex hormones; determination of sex hormones in blood, urine and placenta of normal and toxemic pregnant women and in urine of non-pregnant women.

Smith, Dr. O(liver) F(uhrman), University of Nevada, Reno, Nev. *Plant pathology.* Preston, Idaho, Oct. 6, 07. B.S, Utah State Col, 30; M.S, Wisconsin, 32, Ph.D, 34. Asst. agron. and plant path, Wisconsin, 30–34; agent, *div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr,* 34–37, asst. agronomist, 37–40, *assoc. pathologist, 40–* Soc. Agron; Phytopath. Soc. Alfalfa diseases.

Smith, Prof. Ora, Cornell University, Ithaca, N. Y. *Horticulture.* Freeburg, Ill, April 13, 00. B.S, Illinois, 23; M.S, Iowa State Col, 24; Ph.D, California, 29. Asst. hort, Iowa State Col, 23–24, instr, 24–27; asst. truck crops, California, 27–29; asst. prof. hort, Okla. Agr. and Mech. Col, 29–30; *veg. crops, Cornell,* 30–38, *prof, 38–* Hort. rep, production credit div, farm credit admin, Wash, D. C, 34; collaborator, bur. chem. and soils, U. S. Dept. Agr, 31–34, bur. plant indust, 35–38; European traveling fellow, Cornell, 38. A.A; Soc. Hort. Sci; Soc. Plant Physiol; Potato Asn. (pres, 39); Soc. Agron. Vegetable crops; composition and quality of potatoes; soil reaction and potato quality; mineral nutrition of vegetable crops; green manures and cover crops; irrigation and soil moisture; hormones and plant growth; light intensity, temperature and plant growth.

Smith, Prof. Orma J(acob), 1822 Dearborn St, Caldwell, Idaho. *Biology.* New Jasper, Ohio, May 3, 79. B.S.A, Ohio State, 07; M.S.A, Iowa State Col, 09; Colorado, 24. Instr. hort, Iowa State Col, 07–08; Ohio State, 09; *prof. biol, Col. of Idaho, 10–,* dean, 37–38, acting pres, 38–39. A.A; Northwest Sci. Asn. Paleobotany; Tertiary plants of the Payette formation in Idaho; fossil life.

Smith, Prof. Orrin H(arold), DePauw University, Greencastle, Ind. *Physics.* Iveyville, Iowa, Sept. 1, 84. A.B, Knox Col, 08; A.M, Illinois, 09, Ph.D, 14. Instr, high sch, Ill, 09–10; asst. *physics,* Illinois, 10–14; *prof,* Cornell Col. (Iowa), 14–25; *DePauw, 25–* China Med. Board and Rockefeller Foundation visiting prof, Southeast. Univ, Nanking, China, 22–23. A.A; Physical Soc; Iowa Asn. Sci. Teachers (pres, 23–25); Iowa Acad. (v. pres, 23, pres, 24); Ind. Acad. Retrograde rays from the cold cathode.

Smith, Dr. Osgood R(uel), U. S. Fish and Wildlife Service, Stanford University, Calif. *Biology.* Swarthmore, Pa, June 28, 07. B.S, Hamilton Col, 30; M.S, Cornell, 31, Ph.D, 33. Asst. biol. and econ. entom, Cornell, 33–34; leader surv. party, Calif, U. S. Bur. Fisheries, 35; asst. econ. entom, Cornell, 35, instr, 35–36; aquatic biologist, U. S. Resettlement Admin, 36–37; *asst. aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 37–* Asst. conservationist aquatic biol, U. S. Forest Service, 35. Summer, asst, State Stream Surv, N. Y, 32. Soc. Ichthyol. and Herp; Fisheries Soc; Limnol. Soc; Wildlife Soc. Aquatic biology; ecology of trout streams; pilchard investigations.

Smith, Dr. Otto J(oseph) M(itchell), Tufts College, Medford, Mass. *Electrical engineering.* Urbana, Ill, Aug. 6, 17. B.S, Okla. Agr. and Mech. Col, 38; B.S, Oklahoma, 38; Ph.D, Stanford, 41. Asst, H. J. Ryan high-voltage lab, Stanford, 38–41; *instr. elec. eng, Tufts Col, 41–* Prize, San Francisco sect, Am. Inst. Elec. Engineers, 40. A.A. High voltage engineering; a direct measurement of the field strength about a wire in corona.

Smith, Dr. Otto M(itchell), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Chemistry, Chemical engineering.* Yates Center, Kans, May 12, 84. B.S, Drury Col, 07; Pennsylvania, 08–10; M.S, Illinois, 18, Ph.D, 19. Chemist, eng. exp. sta, Iowa, 10–13; Am. Water Works and Elec. Co, N. Y, 13–16; Ill. Water Surv, 17–19; supervising and research chemist, Procter and Gamble Co, Ohio, 19–21; supt. and chief chemist, Rossville Chem. Co, Ind, 21–22; asst. prof. chem, Iowa State Col, 22–23; *prof. chem. and chem. eng. and head depts, Okla. Agr. and Mech. Col, 23–* A.A; Chem. Soc. (councilor, 29–, chairman cmt. examinations and tests); Chem. Eng; Eng. Educ; Water Works Asn; Southwest Water Works Asn; Okla. Acad. (pres, 29). Water purification; sewage treatment; teaching methods and tests in chemistry; quantitative chemical analysis for engineers; semimicro qualitative analysis; semimicro laboratory methods for general chemistry; analyses of waters in Oklahoma.

Smith, Lieut. Commander Paul A(lbert), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy, Oceanography, Cartography.* Morning Sun, Iowa, Jan. 9, 01. B.S, Michigan, 24. Asst. astron, Michigan, 23–24, instr. surveying, 24; precise triangulation, *U. S. Coast and Geod. Surv,* 24, coastal surveys, Gulf Coast, 25–26, southwest Alaska, 27–28, precise triangulation, 29–31, coastal surveys, P. I, 32–33, sect. field work, Wash, D. C, 34–37, coastal surveys, Atlantic coast, 38–39, *chief aeronaut. chart branch, 39–* Conductor speed trials for vessels holding ocean mail contracts, 35–37; tech. adviser, U. S. Dept. Justice, 37–40. Eng. award, Wash. Acad. Science, 39. Del, Int. Geog. Cong, Amsterdam, 38; mem, Am. Cong. Surv. and Mapping. A.A; fel. Geol. Soc. (chairman, subcmt. ocean bottoms, 41); Soc. Mil. Eng; Geophys. Union; Civil Eng; Am. Geog. Soc; Philos. Soc. Wash. (gen. cmt, 41–); Wash. Acad. (election and program cmt, 41); Geol. Soc. Wash. Travel of sound in sea water; surveying and mapping; geology; cartography; submarine physiography.

Smith, Dr. Paul Albert, 350 Madison Ave, New York, N. Y. *Bacteriology.* New Philadelphia, Ohio. B.S, Cornell, 37, Ph.D, 41. Asst. bacter, Cornell, 37–40; *bacteriologist,* Crown Can Co, 40–41; *Borden Co, 41–* Soc. Bact. Food bacteriology.

Smith, Prof. Paul A(lthaus), Columbia University, New York, N. Y. **Mathematics.* Lancaster, N. H, May 18, 00. B.S, Dartmouth Col, 21; Ph.D, Princeton, 26. Nat. research fellow, Harvard, 26–27; instr. *math,* Barnard Col, *Columbia,* 27–29, asst. prof, 29–40, *assoc. prof, univ, 40–* Math. Soc.

(treas, 37, mem, ed. board, 'Bul,' 38–). Pure mathematics; point-set theory; analysis situs; abstract groups.

Smith, Dr. Paul G(ordon), University of California College of Agriculture, Davis, Calif. *Truck crops.* Fair Oaks, Calif, March 19, 15. B.S, California, 37; Ph.D, Wisconsin, 41. Asst. plant path. and agron, Wisconsin, 37–40; *instr. truck crops, col. agr, California, and junior olericulturist, Exp. Sta, 41–* Soc. Hort. Sci. Breeding for disease resistance in carrots, tomatoes, peppers and peas.

Smith, Dr. Paul K(enneth), School of Aviation Medicine, Randolph Field, Texas. *Pharmacology, Physiological chemistry.* Brashear, Mo, Sept. 10, 08. A.B, Westminster Col. (Mo), 30; Ph.D, Yale, 34. Asst. physiol. chem, Yale, 32–34, Emerson fellow pharmacol, 34–36, instr, 36–39, asst. prof, 39–41; research, aero-med. research lab, Wright Field, Dayton, Ohio, 41–42; *chief lab. pharmacol. and biochem, Sch. Aviation Med, and capt, Air Corps, U. S. Army, 42–* Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Pharmacol. Electrolyte and water metabolism; physical chemistry of amino acids; pharmacology of analgesics; aviation physiology.

Smith, Dr. Paul L(aurens), Naval Research Laboratory, Washington, D. C. *Physics.* Bloomington, Ill, May 21, 12. B.S, Ill. Wesleyan, 34; M.S, Pa. State Col, 35, fellow, 35–37, Ph.D, 37. Research assoc, Bur. Standards, 37–41; asst. physicist, *Naval Research Lab,* 41–42, *assoc. physicist, 42–* A.A; Physical Soc; Ceramic Soc; Acoustical Soc; assoc. Radio Eng; Philos. Soc. Wash. Diffusion of gases through glass; pyrometric cones; chipping of porcelain enamels; stress analysis; supersonics; underwater sound.

Smith, Dr. Paul W(inston), 801 E. 13th St, Oklahoma City, Okla. *Pharmacology.* El Dorado Springs, Mo, Sept. 28, 07. B.S, Kans. State Teachers Col, 28; M.S, Tennessee, 29; Ph.D, Illinois, 34. Teaching fellow, Tennessee, 28–29; assoc, Southern California, 29–31; instr. physiol, Illinois, 31–34, assoc, 34–37; *asst. prof,* Tennessee, 37–41; *pharmacol, Oklahoma, 41–* A.A; Soc. Exp. Biol; Physiol. Soc. Chemistry of muscle contraction; blood; heart.

Smith, Dr. Percey F(ranklyn), Yale University, New Haven, Conn. **Mathematics.* Nyack, N. Y, Aug. 21, 67. Ph.B, Yale, 88, Ph.D, 91; Göttingen, Berlin and Paris, 94–96. Instr. *math, Sheffield Sci. Sch, Yale,* 88–94, asst. prof, 95–00, James E. English prof, 00–36, *James E. English emer. prof, 36–* Math. Soc. (v. pres, 07); Conn. Acad. Analytic spherical geometry; transformation theory; differential geometry.

Smith, Prof. Philip E(dward), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. ***Anatomy.* DeSmet, S. Dak, Jan. 1, 84. B.S, Pomona Col, 08; M.S, Cornell, 10, Ph.D, 12. Asst. *anat,* Cornell, 10–11, instr, 11–12; California, 12–17, asst. prof, 17–21, assoc. prof, 21–26; Stanford, 26–27; *prof, col. physicians and surg, Columbia, 27–* Charles Mickle fellow, 40. Chevalier, Légion d'honneur, 38. Exec. cmt, div. med. sciences, Nat. Research Council, 37–40. Nat. Acad; A.A; Asn. Anat. (pres, 40–42); Asn. Study Int. Secretions (pres, 39); Physiol. Soc; Soc. Exp. Biol. (pres, 36); Harvey Soc. (v. pres, 36, pres, 38). Endocrinology; reproduction.

Smith, Dr. Philip S(idney), U. S. Geological Survey, Washington, D. C. *Geology.* Medford, Mass, July 28, 77. A.B, Harvard, 99, A.M, 00, Ph.D, 04. Asst, Harvard, 02–04, instr, 04–06; geologist, *U. S. Geol. Surv,* 06–15, admin. geologist and acting director, 15–25, *chief Alaskan geologist, 25–* Pan-Pacific Sci. Cong, Java, 29; chairman Am. del, Int. Geol. Cong, Moscow, 37. A.A; Geol. Soc; Asn. Geog; Soc. Econ. Geol; Min. and Metal. Eng; Soc. Mil. Eng; Am. Geog. Soc; Geol. Soc. Wash; Wash. Acad. Areal and economic geology; physiography.

Smith, Dr. P(hilip) T(human), RCA Research Laboratories, Princeton, N. J. *Physics.* St. Paul, Minn, Sept. 16, 02. A.B, Minnesota, 27, Ph.D, 31. Asst. to Prof. John T. Tate, Minnesota, 32–33; nat. research fellow, Princeton, 34; instr. physics, Mass. Inst. Tech, 35–37; *with RCA Radiotron Corp, 37–* Physical Soc; Radio Eng. The ionization of gaseous molecules under electron impact; isotope abundance ratios.

Smith, P(reston) R(oberts), P. O. Box 265, Rutherford, N. J. *Industrial chemistry.* Rahway, N. J, Aug. 26, 98. B.S, Rutgers, 18; A.M, Columbia, 22. *Research chemist,* Celluloid Co; Cupra, Inc; Edward C. Worden; Barber Asphalt Co; *Flintkote Co.* A.A; Chem. Soc; Soc. Chem. Indust; Chem. Eng; Inst. Chem.

Smith, Dr. R. Dale, College of Our Lady of the Elms, Chicopee, Mass. *Biology.* Ambridge, Pa, July 1, 14. B.S, Pittsburgh, 36, M.S, 38, Ph.D, 39. Asst. physiol, Pittsburgh, 36–37, anat, 37–39; *head dept.* pre-med, Gonzaga, 39–40; *biol, Col. of Our Lady of the Elms, 40–* Endocrinology; mouse thyroid relations; embryology of mouse thyroid.

Smith, Prof. Ralph E(liot), University of California, Berkeley, Calif. *Plant pathology.* Boston, Mass, Jan. 9, 74. B.S, Mass. Col, 94; Munich, 98; hon. Sc.D, Mass. State Col. 34. Instr. bot, Mass. Col, 94–95, asst. prof, 95–03; *plant path, California,* 03–08, assoc. prof, 08–09, *prof, 09–* A.A; Phytopath. Soc. Vegetable pathology.

Smith, Dr. Ralph G(rafton), Tulane University, New Orleans, La. *Pharmacology.* Oxford Co, Ont, Can, March 15, 00. B.A, Toronto, 21, fellow, 21–22, M.A, 22, M.B, 25; Ph.D, Chicago, 28. Research asst, Connaught Labs, Toronto, 23–25; intern, Toronto Gen. Hosp, 25–26; nat. research fellow med, Washington (St. Louis), 26–27; Chicago, 27–28; instr. *pharmacol,* Michigan, 28–29, asst. prof, 29–37, assoc. prof, 37–43; *prof, Tulane, 43–* Ed, pharmacol. sect, 'Biol. Abstracts,' 41– Chairman subgroup ergot assay, U. S. Pharmacopoeia. A.A; Soc. Pharmacol. (councilor, 41–43); Biol. Soc; Mich. Acad. (sect. chairman, 38). Alveolar air from normal dogs; excitation of the respiratory center by caffeine; urinary sulfur and thiocyanate excretion in cyanide poisoning; diffusible calcium of blood serum; action of phenanthrene derivatives on skeletal muscle; assay of ergot.

Smith, Dr. Ralph H(enry), University of California at Los Angeles, Los Angeles, Calif. *Entomology.* Kincaid, Kans, June 7, 88. A.B, Kansas, 16; A.M, California, 18, Ph.D, 25. Teaching fellow, Oregon State Col, 16–17; zool, California, 17–18; assoc. entomologist, Exp. Sta, Idaho, 18–22; research entomologist, Calif. Cent. Creameries, 22–24; research asst, *California,* 25, asst. entomologist, 26–27, assoc. entomologist, 27–30, *entomologist, 31–,* lecturer *entom,* 36–37, *prof, 37–* Acting asst. prof, Stanford, 25–26. A.A; Entom. Soc; Asn. Econ. Entom; Nat. Shade Tree Conf; West. Soc. Nat; Pacific Coast Entom. Soc; South. Calif. Acad; South. Calif. Hort. Inst; Kans. Hort. Soc; Ill. Hort. Soc; Entom. Soc. S. Africa. Insects affecting ornamental plants; oil sprays; insect ecology.

Smith, Lieut. Ralph Ingram, R.F.D. 2, Falls Church, Va. *Zoology.* Cambridge, Mass, July 3, 16. A.B, Harvard, 38, A.M, 40, Ph.D, 42. *Lieut, Air Corps, U. S. Army, 42–* Physiology of the invertebrates; aviation physiology.

Smith, Prof. Ralph P(aterson), 22 Chestnut St, Halifax, N. S, Can. *Pathology, Bacteriology.* Greenock, Scotland, Nov. 5, 95. M.B, Ch.B, Glasgow, 18, D.P.H, 22, M.D, 27. Asst. Glasgow, 20–23; col. med, Durham, England, 23–27; *prof. path. and bacter, Dalkousie, 27–; provincial pathologist, N. S, 27–* Asn. Path. and Bact; Can. Med. Asn; British Soc. Path. and Bact. Typhoid carriers.

Smith, Ralph W(aldo), U. S. Department of Agriculture, Dickinson, N. Dak. *Agronomy.* Spring Valley, Minn, Oct. 9, 77. B.S, N. Dak. Col, 14, M.S, 27. Teacher, pub. schs, 01–12; asst. agronomist and *assoc. agronomist, Dickinson substa, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 14–* Soc. Agron; N. Dak. Hort. Soc. Wheat breeding.

Smith, Dr. Raymond C(lifford), 548 S. University Blvd, Norman, Okla. *Physics.* Indianapolis, Ind, April 29, 09. B.S, Texas Christian, 27, M.S, 29; Michigan, 29–31; Ph.D, Texas, 41. Asst. prof. physics, Miss. State Col, 41–42; *ground sch. instr, U. S. Naval Air Sch, 42–* Relative atomic stopping powers of elements of low atomic number.

Smith, Prof. R(aymond) S(tratton), University of Illinois, Urbana, Ill. *Agronomy.* Andover, Ohio, April 9, 80. B.S, Pomona Col, 07; Illinois, 13; Ph.D, Cornell, 18. Instr, Pa. State Col, 13–14, asst. prof, 14–16; assoc. *soil physics, Illinois,* 18–20, asst. prof, 20–23, assoc. prof, 23–25, *prof, 25–* Soc. Agron; Soil Sci. Soc; Ill. Acad. Soil science; soil morphology; physical properties and producing capacity of soil types.

Smith, R(eading) Barlow, 7426 Olcott Ave, Hammond, Ind. *Chemistry.* Rome, Ga, March 23, 04. N. Y. Univ; B.S, Bucknell, 27; Mass. Inst. Tech. *Exp. engineer, develop. dept, Sinclair Ref. Co, East Chicago, Ind, 29–* Chem. Soc. Gases; critical conditions; phase conditions of hydrocarbon mixtures.

Smith, Dr. R(ichard) A, State Office Bldg, Lansing, Mich. *Geology.* DeWitt, Mich, Nov. 12, 76. A.B, A.M, Michigan, 11; Sc.D, Mich. State Col, 32. Sch. supt, Mich, 03–07; asst. state geologist, Mich, 11–19; *state geologist and chief div.*

geot. surv, State Dept. Conservation, 19– Mich. State Board Land Certification, 23– A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. Petroleum; limestone; gypsum; Portland cement; coal.

Smith, Prof. Richard H(arbert), 281 Park St, Newton, Mass. *Aeronautics.* Dillsboro, Ind, Jan. 15, 94. B.S, Moore's Hill Col, 15, Mass. Inst. Tech, 18; A.M, Hopkins, 28, Ph.D, 29. From research assoc. to assoc. physicist, aerodynamic lab, Navy Dept, Wash, D. C, 18–29; assoc. prof. *aeronaut. eng, Mass. Inst. Tech,* 29–31, *prof, 31–* Theoretical and experimental aerodynamics; wind tunnel models; the resistance of airship forms; the heat dissipation and resistance of radiators; mathematical struts; agreement between the Rankine and the Joukiroski theories; equilibrium and stability of and pressure distribution on airships; theoretical flow about bodies of revolution; aerodynamics of wings.

Smith, Prof. Richard H(olladay), State Teachers College, East Radford, Va. *Chemistry.* Fincastle, Va, Oct. 2, 01. B.S, Miss. Agr. and Mech. Col, 22; Ph.D, Hopkins, 30. Asst. chemist, State Lab, Miss, 22–25; Exp. Sta, Miss. State Col, 25–27; *prof. chem, Va. State Teachers Col, 30–* Chem. Soc. Specific heats of organic compounds.

Smith, Dr. Richard M(ason), 330 Dartmouth St, Boston, Mass. *Pediatrics.* Stamford, Conn, March 8, 81. A.B, Williams Col, 03, hon. Sc.D, 28; M.D, Harvard, 07. *Thomas Morgan Rotch prof. pediat, Harvard, and physician in chief, Children's and Infant's Hosps, Boston, Mass.* Mem. Pub. Health council, State Dept. Pub. Health, Mass. Mem. corp, Simmons Col; trustee, Northfield Schs. Pediat. Soc; Acad. Pediat; Am. Med. Asn; New Eng. Pediat. Soc; Mass. Med. Soc.

Smith, Richard Thomas, State Department of Fisheries, 1308 Smith Tower, Seattle, Wash. *Fisheries biology.* Seattle, Wash, July 27, 04. B.S, Washington (Seattle), 32, M.S, 37. *Biologist, State Dept. Fisheries, Wash, 35–* Lecturer, Washington (Seattle), 40–41. A.A; Soc. Ichthyol. and Herp; Pacific Fisheries Soc. Life history of marine fishes; rehabilitation of the fisheries of the Lewis River, Washington; food and disease in salmon hatcheries.

Smith, Richard W(ellington), U. S. Bureau of Mines, Tuscaloosa, Ala. *Economic geology.* Gardner, Mass, Oct. 3, 98. B.S, Mass. Inst. Tech, 21; M.S, Cornell, 26. Asst. geologist, Tenn. Geol. Surv, 21–25; asst. geol, Cornell, 25–26; asst. state geologist, Ga. Geol. Surv. and geol. div, State Dept. Forestry and Geol. Develop, Ga, 26–33, 38–39, state geologist, 33–38; mineral technologist, *U. S. Bur. Mines, 40–42, dist. engineer, Ala-Miss, 42–* Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. (exec. cmt, 35–40, v. pres, indust. mineral div, 41); Ga. Miner. Soc; Soc. Ga. Archeol. (sec'y-treas, 35–39); Carolina Geol. Soc; Miss. Geog. Soc. Phosphate deposits of Tennessee; sedimentary kaolins, shales, brick clays, mica, feldspar and primary kaolin deposits of Georgia; clays, bauxites and talc of the southeast; red iron ore and graphite deposits of Alabama.

Smith, Dr. R(obert) Blackwell, Jr, U. S. Food and Drug Administration, Washington, D. C. *Pharmacology.* Petersburg, Va, Nov. 2, 15. B.S, Med. Col. Va, 37; M.S, Florida, 38; univ. fellow, Chicago, 38–41, Ph.D, 41. Asst. pharmacologist, *food and drug admin, Fed. Security Agency,* 41–42, *assoc. pharmacologist, 42–* Auxiliary mem. subcmt. biol. assays, cmt. revision, U. S. Pharmacopoeia, 41. A.A. Digitalis deterioration; diuretics; posterior pituitary bioassay.

Smith, Prof. Robert E(dward), Atlantic Christian College, Wilson, N. C. *Mathematics.* Erie, Pa, Nov. 23, 05. A.B, Allegheny Col, 36; fellow, North Carolina, 36–37, A.M, 37, 37–39; Michigan, 40; Brown, 42. Instr. *math,* Campbell Col, 37–38; North Carolina, 38–39; *prof, Atlantic Christian Col, 40–* Math. Soc; Math. Asn. Topology; mechanics; applied mathematics.

Smith, R(obert) O(tto), U. S. Bureau of Fisheries, Beaufort, S. C. *Fisheries.* Peru, Ind, July 1, 03. Purdue, 20–22; A.B, DePauw, 25. Teacher, high sch, P. R, 23–24; temporary asst, *Bur. Fisheries,* 25–26, asst. to chief div. sci. inquiry, 26–30, asst. to biologist in charge oyster investigations, 30–33, *asst. aquatic biologist and oyster investigator, 33–* In charge Gulf Coast Oyster Lab, Apalachicola, Fla, Bur. Fisheries, 35–36. Nat. Shellfisheries Asn; Biol. Soc. Wash. Mullet investigations; effect of crude oil and sulfate pulp mill wastes on ciliary activity and rate of feeding of oysters; oyster culture along South Atlantic and Gulf Coasts; oyster pest control; experimental oyster culture.

Smith, Dr. Robert W(orth), 719 E. Wellington St, Flint, Mich. *Physics.* Detroit, Mich, May 4, 09. B.S, Chattanooga, 29; Ph.D, Michigan, 33. Instr, Michigan, 29–30, research assoc, 30–35; *research physicist, A. C. Spark Plug Co, 35–* Spectrographic analysis; conduction of electricity through gases; thermionic emission.

Smith, Dr. Rodney P(erkins), 596 Sherwood Parkway, Westfield, N. J. *Physical chemistry.* Plymouth, N. H, 02. B.S, New Hampshire, 24; Ph.D, Yale, 28. Instr. chem, Sterling chem. lab, Yale, 28–39; *physical chemist, U. S. Steel Corp, 40–* Determination of activity coefficient of strong electrolytes from the boiling point elevation; the activity coefficient of potassium-chloride solutions at 0° from electromotive force and freezing point data.

Smith, Prof. Roger C(letus), Kansas State College, Manhattan, Kans. *Entomology.* Dayton, Ohio, June 7, 88. A.B, Miami (Ohio), 11; A.M, Ohio State, 15; Ph.D, Cornell, 17. Prin, high sch, Ohio, 12–14; asst. entom, Cornell, 15–17; assoc. lecturer nat. hist, pub. museum, Milwaukee, 17–18; sci. asst, bur. entom, U. S. Dept. Agr, 18–20; asst. prof. *entom, Kans. State Col,* 20–22, assoc. prof, 22–26, *prof, 26–, head dept, 43–* Head dept. zool. and entom, Service Technique, Port-au-Prince, Haiti, 28–29; director, École cent, 29–30; state entomologist, Kans, 43– Mem. ed. board, 'Jour. Econ. Entom,' 35–40. Walker prize, 19. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Kans. Acad. (v. pres, 30, pres, 31, sec'y, 35–41). Neuroptera; household insects and medical entomology; alfalfa insects; climate and insect life; literature of the zoological sciences; common insects of Kansas.

Smith, Prof. R(onald) G(ibson), Kansas State Teachers College, Pittsburg, Kans. *Mathematics.* Lamoni, Iowa, Oct. 10, 02. A.B, Kansas, 24, A.M, 26, Ph.D, 30. Asst, Kansas, 24–26; Calif. Inst. Tech, 27–28; instr, Kansas, 26–27, 28–30; *prof. math, Kans. State Teachers Col, 30–* Math. Asn; Math. Soc. Projective differential geometry; determinants.

Smith, Dr. Ronald N(eville), Purdue University, Lafayette, Ind. *Physics.* Vancouver, B. C, Can. B.A, British Columbia, 31, M.A, 33; Ph.D, Purdue, 41. *Instr. physics, Purdue, 41–* Physical Soc. War research; nuclear physics.

Smith, Prof. Rose, 127 W. Broadway, Winona, Minn. *Biology.* Saybrook, Ill. A.B, Illinois, 11, A.M, 16; scholar, Wisconsin, 25–26, Ph.D, 26. Asst. prin, high sch, Ill, 11–15; instr. biol, Col. of St. Teresa, 15–24; research assoc. plant path, Wisconsin, 26–30; *prof. biol, Col. of St. Teresa, 30–* Summer, agent, U. S. Dept. Agr, 28. A.A. Botany; plant pathology; cytology and physiology of plants.

Smith, R(owland) D(ouglas), 12 Woodlawn Ave, Corning, N. Y. *Chemistry.* Battle Creek, Mich, April 21, 93. B.Ch.E, Michigan, 16. *Chemist, Corning Glass Works, 16–* Chem. Soc; Ceramic Soc; Chem. Eng; British Soc. Glass Technol. Analysis, durability and frosting of glass; sealing of metals to glass; press moulds and tools for glass.

Smith, Dr. R(uby) G(reen), 302 Fall Creek Drive, Ithaca, N. Y. *Biology, Sociology.* Knightstown, Ind, Jan. 6, 78. A.B, Stanford, 02, A.M, 04; Ph.D, Cornell, 14. Asst, Stanford, 02–03; instr. bionomics, Stanford, 04–05; urban leader, exten. service, U. S. Dept. Agr, 17–18; asst. director, State Food Cmn, N. Y, 18–19; *prof. and state leader, N. Y. State Exten. Service, Cornell, 19–* A.A. Theories of evolution; adult education.

Smith, Dr. Scott W(infield), The Kelley-Koett Manufacturing Co, Covington, Ky. *Physics.* Boone, Iowa, June 17, 97. A.B, Coe Col, 22, M.S, 24; Ph.D, Pittsburgh, 31. Instr. physics, Coe Col, 23–27, asst. prof, 27–28; instr, Pittsburgh, 28–31; Rochester, 31–32, asst. prof, 32–37; manager, Ind. territory, *The Kelley-Koett Mfg. Co,* 37–42, *tech. service dept, 42–; instr. radiol. physics, Indiana, 41–* Physical Soc; Optical Soc; Asn. Physics Teachers; Iowa Acad; Pittsburgh Physical Soc; Rochester Optical Soc. X-ray; radiology; distribution of x-rays in water; economic filtration of x-rays; index of refraction of liquids for x-rays; structure of thin organic films.

Smith, Dr. S(edgwick) E, U. S. Plant, Soils and Nutrition Laboratory, Ithaca, N. Y. *Animal physiology.* Elkins, W. Va, April 4, 14. B.S, Pa. State Col, 35; Ph.D, Cornell, 39. Agent, div. animal nutrition, *bur. animal indust, U. S. Dept. Agr,* 39–42, *plant, soils and nutrition lab, 42–,* research instr. fur animal nutrition, Cornell, 39–42. Genetic Asn; Soc. Animal Production. Vitamin A and D requirements of fur animals; nutri-

tional basis of urinary calculi; calcium requirements of fur animals; digestion; animal genetics and nutrition; endocrines and reproduction.

Smith, Dr. Septima, Box 1446, University, Ala. *Zoology.* Dallas, Texas. A.B, Texas, 22, fellow, 22–23, A.M, 23; fellow, Hopkins, 25–27, Sc.D, 27. Asst. zool, Texas, 21–22; med. zool, sch. hygiene and pub. health, Hopkins, 24–25; asst. prof. *zool, Alabama, 27–29, assoc. prof, 29–* A.A; Soc. Parasitol; Soc. Trop. Med; Limnol. Soc; Ala. Acad. (sec'y, 35–40). Embryology; parasitology.

Smith, Prof. Sherman E(verett), University of North Carolina, Chapel Hill, N. C. *Physical chemistry.* Custer, S. Dak, April 10, 09. B.S, S. Dak. Sch. Mines, 30, fellow, 30–31; Ph.D, Ohio State, 35. Asst. *chem,* Ohio State, 31–35; du Pont research assoc, *North Carolina,* 35–36, asst. prof, 36–41, *assoc. prof, 41–* Chem. Soc; Elisha Mitchell Sci. Soc. Viscosity of gases; gas permeabilities of high-polymer films; sorption by high polymers; heats of wetting.

Smith, Dr. S(idney) D(ayton), 1630 Franklin Ave, Charleston, W. Va. *Chemistry.* Hamilton, N. Y, July 24, 04. A.B, Colgate, 30; Ph.D, Pa. State Col, 35. Asst, Pa. State Col, 35–36; *research chemist, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Physical chemistry; x-rays; ammonia; alcohols.

Smith, Prof. Stanley, University of Alberta, Edmonton, Alta, Can. *Physics.* Brixham, Devon, Eng, Aug. 30, 88. B.A, Oxford, 11, M.A, B.Sc, 14. Demonstrator, elec. lab, Oxford, 11–14; lecturer, *Alberta,* 14–20, asst. prof. *physics,* 20–21, assoc. prof, 21–26, *prof, 26–,* chairman dept, 29–31, *head dept, 31–* Capt, R.A.F, 18. Fel. Royal Soc. Can. Ionization; aeronautical measuring instruments; stability of aeroplanes; diffraction; spectroscopy.

Smith, Dr. S(tanley) G(eorge), McGill University, Montreal, Que, Can. *Cytogenetics.* Morden, Eng, Feb. 6, 09. B.Sc, McGill, 35, M.Sc, 36, Royal Soc. Can. fellow, 37–38, Ph.D, 38. *Cytologist, Dom. Dept. Agr, 39–;* research fellow, *McGill,* 40–41, *research assoc. genetics, McGill, 41–* Genetics Soc. Cytology in relation to insect systematics and hymenopteran parthenogenesis; chromosome structure and mechanics; cytogenetics of cereals.

Smith, Prof. Sterling B(ishop), 35 Grandview Terrace, Wethersfield, Conn. *Chemistry.* New Haven, Conn, May 7, 99. Ph.B, Yale, 20, M.S, 23; Ph.D, N. Y. Univ, 27. Instr. *chem, Trinity Col. (Conn),* 23–26, asst. prof, 27–38, *assoc. prof, 38–* Instr, Hillyer Inst, 24–25. Chem. Soc. (sec'y, local sect, 31–33, v. chairman, 41, chairman, 42). Phase rule studies of solubilities in three- and in four-component systems; carbonates and bicarbonates of sodium and potassium and of phthalates and acid phthalates.

Smith, Prof. Stevenson, University of Washington, Seattle, Wash. *Psychology.* Philadelphia, Pa, April 29, 83. B.S, Pennsylvania, 04, Ph.D, 09; Heidelberg, 04; Columbia, 04–05. Asst. psychol, Columbia, 05–06; prof. philos. and psychol, Hampden-Sydney Col, 06–11; asst. prof. *psychol, Washington (Seattle),* 11–13, assoc. prof, 13–15, *prof, 15–* Summers, instr, Columbia, 11–14; California, 21, California at Los Angeles, 26; Chicago, 31; Mills Col, 36; research prof, Hawaii, 23–24. Director, State Inst. Child Develop, Wash. Psychol. Asn; West. Psychol. Asn. (pres, 30). Animal behavior; mental tests; race differences.

Smith, Susan Gower, Box 3803, Duke Hospital, Durham, N. C. *Nutrition.* Greenville, S. C, Dec. 9, 96. A.B, Barnard Col, Columbia, 19, A.M, Columbia, 24. Chemist, N. Y. State Hosp. Incipient Tuber, 27–30; instr. *nutrition, dept. med, sch. med, Duke,* 31–36, *assoc, 36–* Chem. Soc. Vitamin G in rats; dehydration symptoms in rats deprived of water; vitamin deficiency; treatment of pellagra with nicotinic acid; anemia; vitamin B complex deficiencies in dogs and swine.

Smith, Sybil L(aura), U. S. Department of Agriculture, Washington, D. C. *Nutrition.* Gardner, Mass, July 5, 82. A.B, Smith Col, 04; A.M, Columbia, 11. Teacher, sch, Mass, 04–12; prof. chem, Milwaukee-Downer Col, 12–18; *ed. staff, 'Exp. Sta. Record,' U. S. Dept. Agr, 18–,* exp. sta. administrator, *home econ, office exp. stations,* 26–39, *prin. exp. sta. administrator, 39–* Summers, instr, Columbia, 17, 19–25. Cmt. food composition, board food and nutrition, Nat. Research Council. A.A; Chem. Soc; Home Econ. Asn. (advisory board, 'Jour,' 24–); Dietetic Asn; Pub. Health Asn; Inst. Nutrition. Vitamins.

Smith, Prof. T(heodore) Townsend, University of Nebraska, Lincoln, Nebr. *Physics.* Charleston, S. C, Nov. 9, 84. A.B, Harvard, 07, A.M, 08, Ph.D, 16. Instr. physics, Kansas, 10–13, asst. prof, 13–19; *prof. exp. physics, Nebraska, 19–* Asst. physicist, Bur. Standards, 18. Physical Soc. Electrical measurements; optical instruments.

Smith, Dr. Thomas B(enton), 2220 Lincolnwood Drive, Evanston, Ill. *Chemistry.* Bedford, Pa, Nov. 26, 04. B.S, Franklin and Marshall Col, 28; M.S, Maryland, 30, Ph.D, 33. Asst. chem, Maryland, 28–33; anal. chemist, coal research lab, Carnegie Inst. Tech, 33–36, research chemist, 36–41; *research and develop. chemist, Simoniz Co, 41–* Chem. Soc. Catalytic decomposition of glycol; microanalytical technique and investigations; constitution of coal tar, particularly the phenols; hydrogenation of coal.

Smith, Prof. T(homas) D(armon), 360 S. College Ave, Newark, Del. *Civil engineering.* Milford, N. J, Jan. 3, 89. B.S, Rutgers, 13, C.E, 25. Instr. civil eng, Gettysburg Col, 13–14; construction engineer, Dept. Pub. Works, Phila, 14–18; *asst. prof. civil eng,* Florida, 18–20; *Delaware, 20–* Asn. Eng.

Smith, Prof. T(homas) L(atham), College of the Ozarks, Clarksville, Ark. *Zoology.* Key, Ala, Aug. 8, 90. B.S, Col. of Wooster, 17; M.S, Chicago, 26; Ph.D, Columbia, 36. Instr. biol, Col. of Ozarks, 19–22, prof. and head dept, 22–29; asst. zool, Columbia, 29–33; *prof. biol. and head dept, Col. of Ozarks, 33–, dean men, 37–* Sigma Xi grant, 33–36; Nat. Research Council grant, 33–35; Am. Acad. Arts and Sciences grant, 36–37. Capt, U. S. Artil. Corps, 17–18. A.A; Soc. Zool; Genetics Soc; Ark. Acad. (v. pres, 37, pres, 40). Genetics, biology and parthenogenesis of normal-mutant mosaics; gynandromorphs; phenomenal production of heat and inter-racial crosses of the wax moth, Galleria mellonella.

Smith, Prof. T(homas) M(arshall), New York University, University Heights, New York, N. Y. *Chemistry.* Cynthiana, Ky, Oct. 4, 83. B.S, Kentucky, 04, M.S, 05; Chicago, 15; Ph.D, N. Y. Univ, 21. Teacher chem, Vincennes, 05–10; chem. and physics, King Col, 10–14; *prof. anal. chem, N. Y. Univ, 16–, asst. director, Havemeyer chem. lab, 21–* Chem. Soc. Analytical chemistry; separations of nickel and cobalt; the preparation and use of hydrated oxalic acid as a standard in oxidimetry.

Smith, T(odd) O(rin), University of New Hampshire, Durham, N. H. *Chemistry.* Carrollton, Ohio, Oct. 27, 85. A.B, Indiana, 10; M.S, New Hampshire, 16. Asst. chemist, *Exp. Sta, New Hampshire,* 10–17, *assoc. chemist, 17–* A.A; Chem. Soc. Rare earth separations; plant biochemistry; potassium deficiency.

Smith, Prof. T(urner) L(inn), 1109 Milton Ave, Pittsburgh, Pa. *Mathematics.* Oxford, N. Y, May 23, 98. M.E, Rensselaer Polytech, 19; A.M, Harvard, 25, Ph.D, 31; Harvard scholar, Germany, 27–28. Instr, Rensselaer Polytech, 20–23; Harvard, 23–26; *asst. prof. math, Carnegie Inst. Tech, 29–* Math. Soc.

Smith, Dr. Victor C(laude), 2051 W. Grand Blvd, Detroit, Mich. *Chemical engineering.* Beaufort, S. C, May 16, 99. B.S, Mass. Inst. Tech, 24, Sc.D, 30. Research assoc, Mass. Inst. Tech, 29–35; *research in fuels, Gen. Motors Corp, 35–* Chem. Soc. Fuels and their combustion.

Smith, Waldo E(dward), U. S. Soil Conservation Service, Washington, D. C. *Hydraulic engineering, Hydrology.* New Hampton, Iowa, Aug. 20, 00. B.E, Iowa, 23, M.S, 24. Asst. engineer, Burns and McDonnell Eng. Co, Kansas City, Mo, 24–26; Black and Veatch, 26–27; instr. theoret. and applied mech, Illinois, 27–28; assoc. prof. civil eng. and acting head dept, Robert Col, Istanbul, 28–31; asst. prof, N. Dak. Col, 31–35; hydraul. engineer, Muskingum Water Conservancy Dist, 35–39; flood control, U. S. Engineer Office, Huntington, W. Va, 39–40; *soil conservation service, U. S. Dept. Agr,* 40–41, *head sect. hydrol. land use, hydrol. div, office of research, 41–* Collaborator, soil conservation service, U. S. Dept. Agr, 37–40. Summers, asst. state engineer, N. Dak, 32, 34. Civil Eng; Geophys. Union. Water supply; water power; flood control; water conservation.

Smith, Prof. Wallace (Franklin), P. O. Box 788, Montgomery, W. Va. *Mathematics.* Livingston Co, Ky, Dec. 7, 91. A.B, West. Ky. State Teachers Col, 24; scholar, Kentucky, 27–28, A.M, 30. Instr. math, West. Ky. State Teachers Col, 26–27; asst, Kentucky, 28–29; instr, Indiana, 30; asst. prof. math. and shop, *New River State Col,* 30–33, *math,* 33–37, *prof, 37–.*

head dept, 33– A.A; Math. Soc; Math. Asn. Theory of numbers.

Smith, Dr. Ward (Conwell), U. S. Geological Survey, Washington, D. C. *Geology.* St. Louis, Mo, Feb. 9, 06. A.B, Stanford, 31; Ph.D, Yale, 36. Instr. geol, Yale, 35–36; Pomona Col, 36–37, asst. prof, 37–38; junior geologist, *U. S. Geol. Surv,* 38–39, asst. geologist, 39–42, assoc. geologist, 42–43, *geologist, 43–* Summer, asst. director geol. camp, Stanford, 36–38, director, 38. Petrography; economic geology.

Smith, Prof. W(arren) D(u Pré), University of Oregon, Eugene, Oregon. *Geology, Geography.* Leipzig, Germany, May 12, 80. B.S, Wisconsin, 02, Ph.D, 08; A.M, Stanford, 04; fellow, Chicago, 04–05. Field asst, Wis. Geol. Surv, 01–03; asst, geol. lab, Stanford, 04; geologist, Mining Bur, P. I, 05–06, chief div. mines, Bur. Science, 07–14, 20–22; *prof. geol, Oregon, 14–, head dept, 14–* Consulting geologist, Owyhee Dam, bur. reclamation, U. S. Dept. Interior, 27. Pacific Shore Line Cmt, Nat. Research Council; v. chairman, mining research cmt, State Planning Council, Oregon; Governor's Special Mining Cmt. Director geol, Univ. Oregon geog. and bot. cruise, Yukon River, 32. U. S. del. from P. I, Int. Geol. Cong, Toronto, 13; Univ. Oregon del, Pan-Pacific Sci. Cong, Honolulu, 20, Victoria, 32. Geol. Soc. (councilor, Cordilleran sect, 18, pres, 25); Asn. Mus. (v. pres, Pacific sect, 19); Northwest. Sci. Soc; Asn. Pacific Geographers; Philippine Eng. Soc. (pres, 13). Geology and geography of the Philippines, Oregon and the Pacific.

Smith, Prof. W(arren) R(ufus), Route 1, Suttons Bay, Mich. *Chemistry.* Litchfield, Maine, July 10, 69. A.B, Bowdoin Col, 90; Ph.D, Chicago, 94. Asst. chem, Bowdoin Col, 94–95; instr, high sch, Mass, 95–96; Lewis Inst. (Ill), 96–01, asst. prof, 01–05, prof, 05–39. State Foods Standards Cmn, Ill, 30–41. A.A; Chem. Soc; Soc. Chem. Indust. General inorganic chemistry.

Smith, Dr. W(endell) V(andervort), General Laboratories, U. S. Rubber Co, Passaic, N. J. *Physical chemistry.* Caldwell, Idaho, April 16, 12. B.S, Col. of Idaho, 33; Ph.D, California, 37. *Research chemist, U. S. Rubber Co, 37–* Chem. Soc. Ionic entropies; new rubber products; synthetic rubber.

Smith, Prof. Wilbur C(leveland), Tulane University, New Orleans, La. *Anatomy.* Independence, Kans, Aug. 9, 84. M.D, Kansas City Med. Col, 08. Instr. anat, Univ. and Bellevue Hosp. Med. Col, 11–13; prof, Wake Forest Col, 13–16; asst. prof, *Tulane,* 16–18, *prof. gross anat, 18–, head dept, 33–* A.A. Conus arteriosus in teleosts; left vena cava superior in man; the levator ani muscle, especially its structure in man and its comparative relationships.

Smith, Dr. Wilbur K(enneth), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Anatomy.* Md. Oct. 30, 02. A.B, Hopkins, 23, M.D, 27. Asst. *anat,* Hopkins, 27–28, instr, 28–30; asst. prof, *sch. med. and dentistry, Rochester,* 30–35, *assoc. prof, 35–* Asn. Anat; Physiol. Soc. Neurology; anatomy and physiology of the nervous system; control of respiratory movements by the cerebral cortex; nervous control of bladder activity; innervation of ocular movements.

Smith, Wiley C, 2101 N. Rolfe St, Arlington, Va. *Chemistry.* Flora, Miss, May 28, 95. B.S, Miss. Col, 16; M.S, George Washington, 22. Assoc. chemist, bur. chem. and soils, and chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 19–43; *paint consultant, construction div, War Production Board, 43–* Mem. paint tech. cmt, Fed. Specifications Cmt. Soc. Test. Mat. Chemistry and technology of turpentine, rosin and related products; processing oleoresins; preservation of textile fabrics; surface coatings.

Smith, Prof. Wiley (Francis), Appalachian State Teachers College, Boone, N. C. *Psychology.* Milan, Tenn, Sept. 26, 97. A.B, Union (Tenn), 24; LL.B, Blackstone Inst, 26; A.M, George Peabody Col, 28, Ph.D, 31. Instr. *psychol,* George Peabody Col, 30–31; adj. prof, South Carolina, 31–33; Asheville Nor. and Teachers Col, 35–36; *prof, Appalachian State Teachers Col, 36–* Summers, instr, Will Mayfield Col, 29; George Peabody Col, 31; Asheville Nor. and Teachers Col, 36. Assoc. Psychol. Asn; S. Soc. Philos. and Psychol. Child psychology; visual and auditory perception.

Smith, Dr. Wilfred W(inter), 803 River Road, Riverside Gardens, Wilmington 280, Del. *Chemistry.* New Haven, Conn, Sept. 29, 06. B.S, Yale, 26, Ph.D, 29. Research chemist, cent. exp. sta, E. I. du Pont de Nemours and Co, 29–31; *patent div, rayon dept, E. I. du Pont de Nemours and Co,* Buffalo, 31–41, *Del, 41–* Chem. Soc. Derivatives of naphthalene; local anesthetics.

Smith, Dr. W(illiam) K(enneth), University of Wisconsin, Madison, Wis. *Genetics.* Banffshire, Scotland, Oct. 21, 00. B.Sc, Aberdeen, Scotland, 23; M.S.A, Saskatchewan, 28; fellow, State Col. Wash, 28–31, Ph.D, 31. Asst. stem rust research, Saskatchewan, 26–28; agent, U. S. Dept. Agr, 30–31; nat. research fellow genetics, *Wisconsin,* 32–34, research assoc. and instr. genetics and biochem, 34–37, *asst. prof. genetics and agron, 37–; agent, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr, 34–* Genetics Soc; Genetic Asn. Disease resistance in wheat; nature of gene action; plant breeding.

Smith, Prof. W(illiam) M(ackey), Lafayette College, Easton, Pa. *Mathematics.* Oxford, Pa, May 18, 81. Ph.B, Lafayette Col, 03; fellow, Columbia, 10–11, Ph.D, 11; Cambridge, 24–25; Rome, 31–32. Instr. *math,* Lafayette Col, 05–09, 11–12; asst. prof, Oregon, 12–13, prof, 13–15; assoc. prof, *Lafayette Col,* 15–25, *prof, 25–, registrar, 15–, head dept, 34–, director war studies, 43–* Summers, instr, Columbia, 11–13. A.A; Math. Soc; Math. Asn. Geometrical aspects of differential equations.

Smith, W(illiam) O(gden), U. S. Department of Agriculture, Washington, D. C. *Physics.* Ithaca, N. Y, Aug. 19, 98. B.S, Pittsburgh, 21; California, 25–26; Calif. Inst. Tech, 26–27. Asst. physics, Pittsburgh, 21–22, instr, 22–25; indust. fellow, Mellon Inst, 27–30; physicist, Gulf Research Lab, 30–32; asst. soil conservationist, soil conservation service, *U. S. Dept. Agr,* 35–36, *assoc. physicist,* div. soil chem. and physics, bur. chem. and soils, 36–38, *soil and fertilizer investigations, bur. plant indust, 38–* Soil Sci. Soc. Colloidal and capillary physics; surface chemistry; hydromechanics; thermal conduction; radiation; soil physics.

Smith, Dr. W(illia)m Rusler, 5100 Sixth St, Port Arthur, Texas. *Chemistry.* A.B, Miami (Ohio), 35; fellow, Western Reserve, 35–36, M.S, 37, Ph.D, 40. Asst, org. chem. lab, Western Reserve, 36–39; *mem. staff, research lab, Texas Co,* N. Y, 40–42, *Texas, 42–* Summers, research lab, Standard Oil Co. of Ohio, 35–39. Physical and organic chemistry.

Smith, Dr. W(illiam) S(idney) Tangier, 1231 Hoover St, Menlo Park, Calif. *Geology.* Stockton, Calif, April 2, 69. B.L, California, 90, fellow, 95–97, Ph.D, 96; Hopkins, 90–91. Prof. math. and nat. science, Occidental Col, 94–95; math, Calif. State Nor. Sch, Chico, 97–98; asst. miner, California, 99–00; asst. geologist, U. S. Geol. Surv, 00–07; assoc. prof. geol. and miner, Nevada, 06, prof, 07–13; *consulting geologist, 12–* Asst, California, 98; lecturer, Bryn Mawr Col, 22–23; field asst, U. S. Geol. Surv, 96, 97, 98. A.A; Geol. Soc. (councilor, 13, v. chairman, Cordilleran sect, 35); Geophys. Union; Soc. Econ. Geol. Petroleum geology; physiography; metasomatism; ore deposits; petrology; graphic methods in geology.

Smith, Prof. W(illia)m T(homas), Jr, University of Tennessee, Knoxville, Tenn. *Physical chemistry.* Wilmington, N. C, July 12, 03. A.B, Virginia, 25; A.M, Ohio State, 28, Ph.D, 30. Instr. *chem, Tennessee,* 25–27, asst. prof, 31–39, *assoc. prof, 39–* Chem. Soc. Thermodynamic properties.

Smith, Dr. W(illia)m W(atson), University of New Hampshire, Durham, N. H. *Horticulture.* Gilford, N. H, 01. B.S, New Hampshire, 24, M.S, 29; Ph.D, Mich. State Col, 35. Asst, Mich. State Col, 33–35; *research asst. hort, New Hampshire, 36–, research horticulturist.* Respiration of apple fruits; composition of pear fruits and formation of stone cells; storage of fruit; development of apple varieties; selection and improvement of native fruits, especially the blueberry.

Smith, Prof. W(illiam) W(esley), Purdue University, Lafayette, Ind. *Animal husbandry.* Nevada, Iowa, Dec. 13, 78. B.S, Iowa State Col, 03, M.S, 06, M.Agr, 20. Asst. and instr. *animal husbandry,* Iowa State Col, 04–05; instr, *Purdue,* 05–07, from asst. prof. to *prof, 07–* A.A; Soc. Animal Production; Genetic Asn. (advisory cmt). Animal nutrition and breeding; pork production; live stock judging.

Smith, Dr. Willie W(hite), Alfred I. du Pont Institute, Nemours Foundation, Wilmington, Del. *Physiology, Biochemistry.* Appling, Ga, Aug. 24, 07. A.B, Agnes Scott Col, 27; A.M, Columbia, 28, Ph.D, 38; fellow, N. Y. Univ, 37–39. Asst. instr, N. Y. Univ, 28–30, instr. biochem, med. sch, 36–37;

Hunter Col, 31–34; zool, Smith Col, 39–41; *research assoc, Alfred I. du Pont Inst, Nemours Foundation, 41–* Asst, Columbia, 30–32. Physiol. Soc; Soc. Study Develop. and Growth. Contracture in frog gastrocnemius; diffusion coefficients; renal excretion and blood flow.

Smith, Dr. Winford H(enry), Johns Hopkins Hospital, Baltimore, Md. *Medicine.* West Scarboro, Maine, July 11, 77. A.B, Bowdoin Col, 99, Sc.D, 18; M.D, Hopkins, 03. Res. gynecologist, Lakeside Hosp, Cleveland, 03–05; hosp. physician, Dept. Health, New York, 05–06; med. supt, Hartford Hosp, 06–09; gen. med. supt, Bellevue and allied hosps, 09–11; *director, Hopkins Hosp, 11–* Hosp. administrator; consultant hosp. construction and management. Am. Med. Asn; Am. Hosp. Asn. (pres, 16); Med. and Chirurg. Faculty Md. Hospitalization, planning, construction and management.

Smith, Prof. Winslow Whitney, 3551 University Ave, Los Angeles, Calif. *Bacteriology.* Salt Lake City, Utah, May 14, 07. A.B, Utah, 33, A.M, 36; Ph.D, Wisconsin, 39. Asst. bacteriologist, City Health Dept, Salt Lake City, Utah, 34–36; bacteriologist, State Conserv. Dept, Wis, 37–40; visiting lecturer *bacter, Southern California,* 40–41, *asst. prof, 41–* A.A; Limnol. Soc; Soc. Bact; Pub. Health Asn. Microbial physiology; microbiology and hygiene of water; antibiosis among bacteria; bacterial diseases of trout.

Smith, Prof. Zens L(awrence), 5810 Woodlawn Ave, Chicago, Ill. *Mathematics.* Kansas City, Mo, Jan. 9, 89. B.S, Knox Col, 10; M.S, Chicago, 31. Prin, high sch, Ill, 13–17; asst. to pres, Knox Col, 27–30; head dept. *math,* Morgan Park Jr. Col, 32–35; *asst. prof, Chicago, 36–, asst. dean col, 39–* Math. Asn; Council Math. Teachers. The learning process in elementary mathematics and elementary physical science at the junior college level.

Smithburn, Dr. Kenneth C, Yellow Fever Institute, Entebbe, Uganda, East Africa. *Medicine.* Noblesville, Ind, Oct. 19, 04. B.S, Indiana, 26, M.D, 28. Intern, Indianapolis City Hosp, 28–29, *med. research,* 29–30; Rockefeller Inst, 30–38; *Rockefeller Foundation, 38–* Soc. Exp. Biol; Asn. Immunol; Soc. Trop. Med; Soc. Bact; Soc. Path. and Bact; Harvey Soc; Royal Soc. Trop. Med. Meningococcic meningitis; symptoms, treatment and complications of pernicious and secondary anemia; cellular reactions to lipoids from acid-fast organisms; experimental tuberculosis; colony morphology and variations in virulence of tubercle bacilli; yellow fever; neurotropic viruses.

Smither, Frederick W, National Bureau of Standards, Washington, D. C. *Chemistry.* Hampton, Va, Aug. 11, 76. B.S, Va. Polytech, 95; Virginia, 95–97. Chemist with Dr. H. Froehling, 97–98; druggist, 99; *chemist,* Lucius P. Brown Co, 99–07; U. S. Dept. Agr, 07–14; *Bur. Standards, 14–* A.A; Chem. Soc; Oil Chemists Soc; Soc. Test. Mat; Chem. Soc. Wash. (pres, 26). Detergents; cements; lime; corrosion; miscellaneous products.

Smith-Petersen, Dr. M. N, 266 Beacon St, Boston, Mass. *Orthopedic surgery.* Norway, Nov. 14, 86. B.S, Wisconsin, 10; M.D, Harvard, 14. *Chief orthop. service, Mass. Gen. Hosp, 29–; clin. prof. orthop. surg, Harvard Med. Sch, 35–* Am. Med. Asn; Acad. Orthop. Surg; Orthop. Asn; Col. Surg; New Eng. Surg. Soc; Int. Soc. Orthop. Surg. Hip arthroplasty.

Smithson, Prof. Frederick C(harles) M(axted), 271 Eaton Ave, Socorro, N. Mex. *Chemistry.* London, Eng, Oct. 19, 93. A.B, Ill. Wesleyan, 14, M.S, 16; Illinois, 23–25; Ph.D, Chicago, 30. Instr. *chem,* Ill. Wesleyan, 16–19; asst. prof, Louisville, 19–23; instr, Illinois, 23–25; asst. prof, Wabash Col, 25–28, assoc. prof, 30–34; *prof, N. Mex. Sch. Mines, 34–* Chem. Soc; Inst. Chem. Inorganic, organic and physical chemistry; furfural derivatives; reactions of hypochlorous acid on organic compounds.

Smith-Stocking, Dr. Helen Berenice (Mrs. Hobart E. Stocking), 509 Jefferson St, Morgantown, W. Va. *Genetics.* St. Paul, Minn, June 28, 01. B.S, Penn Col. (Iowa), 26; scholar, Bryn Mawr Col; Ph.D, Hopkins, 30. Asst. to Dr. C. W. Metz, dept. embryol, Carnegie Institution, 30–36. Cytology; yolk formation in the egg of Echinometra lacunter; effects of modifications of the culture medium on length of life and fecundity in the rotifer; selective segregation in Sciara coprophila.

Smock, Prof. R(obert) M(umford), Cornell University, Ithaca, N. Y. *Pomology.* Erie, Pa, Oct. 21, 08. B.S, Muskingum Col, 30; M.S, Ohio State, 32, fellow, 32–33, Ph.D, 34. Asst, California, 34–37; *asst. prof. pomol, Cornell, 37–* Soc. Hort. Sci. Cold storage and controlled atmosphere; storage of fruit.

Smoke, Prof. Kenneth L(udwig), 1505 Mifflin St, Huntingdon, Pa. *Psychology.* Lorain, Ohio, Nov. 1, 03. A.B, Ohio State, 24, A.M, 25, Ph.D, 31; Northwestern, 25–27; Cornell, 29–30. Asst. prof. philos. and psychol, Gettysburg Col, 27–29; *prof. psychol,* Mary Baldwin Col, 31–38; *Juniata Col, 38–* Assoc. Psychol. Asn. Concept learning; social psychology; personnel.

Smoker, Dr. Edward H(eise), 319 Arch St, Philadelphia, Pa. *Chemistry.* Columbia, Pa, Dec. 29, 05. B.S, Franklin and Marshall Col, 26; A.M, Cincinnati, 27, Ph.D, 29. Asst, Cincinnati, 26–29; Nat. Aniline and Chem. Co, 29–30; *with United Gas Improv. Co, 30–, manager develop. lab.* Nat. Aniline and Chem. Co, 29–30. Chem. Soc; Chem. Eng. Reaction of sodium with metallic halides in liquid ammonia; industrial and city gases; distillation theory and practice; high temperature cracking of hydrocarbons with recovery and purification of products.

Smoley, C(onstantine) K(enneth), 415 Vine St, Scranton, Pa. *Engineering.* Dwinsk, Russia, April 27, 69. C.E, Fed. Polytech, Switzerland, 95. Struct. draftsman, Variety Iron Works, Ohio, 95–96; chief draftsman, Van Dorn Iron Works, 96–02; struct. engineer, Wellman, Seaver and Morgan Eng. Co, Ohio, 02–04; construction engineer, German-Am. Portland Cement Works, Ill, 04–05; struct. engineer, Ill. Steel Co, 05–06; North. Pacific Ry. Co, Minn, 07–09; director schs. civil and struct. eng. and in charge instruction and preparation textbooks, Int. Correspondence Schs, 09–26; *pres, C. K. Smoley and Sons, Publishers.* Parallel tables of slopes and rises; logarithms and squares; logarithms of the English system of linear measure; segmental functions.

Smoley, Dr. E(ugene) R(alph), The Lummus Co, 420 Lexington Ave, New York, N. Y. *Chemical engineering.* Cleveland, Ohio, April 7, 98. B.S, M.S, Sc.D, Mass. Inst. Tech, 30. Tech. service, Aluminum Co. of Amer. and N. J. Zinc Co, 20–28; staff, Mass. Inst. Tech, 28–30; tech. director, Nederlandsche Koloniale Petrol. Maatschappij, 30–33; chem. engineer, M. W. Kellogg Co, 33–34; *sales engineer, Lummus Co, 34–* Chem. Soc; Chem. Eng; Soc. Chem. Indust. Rectification of heavy naphthas; production of lubricating oils; combination selective cracking; polyform and gas reversion processes.

Smoluchowski, Dr. Roman, General Electric Co, Schenectady, N. Y. *Physics.* Zakopane, Poland, Aug. 31, 10. M.A, Warsaw, 33; Dr.Phys. and Math, Groningen, 35. Mem, Inst. Adv. Study, 35–36; research assoc, Warsaw, 36–39; head sect. physics, inst. metals, Inst. Tech, Warsaw, 36–39; instr. and research assoc, Princeton, 40–41; *research physicist, Gen. Elec. Co, 41–* Soc. Metals; Physical Soc; Polish Physical Soc. Crystal structure of metals; x-ray spectroscopy; modern theory of solids; magnetostriction; thermionic emission; aging of alloys.

Smyth, Prof. Charles P(helps), Princeton University, Princeton, N. J. **5Physical chemistry.* Clinton, N. Y, Feb. 10, 95. A.B, Princeton, 16, A.M, 17; Ph.D, Harvard, 21. Asst. chemist, Bur. Standards, 17; instr. *chem, Princeton,* 20–23, asst. prof, 23–27, assoc. prof, 27–38, *prof, 38–* Lecturer, Chem. Soc. Inst. Chem, 27. Cooperating expert, Int. Critical Tables, 24; assoc. ed, 'Jour. Chem. Physics,' 33–36; ed. board, 'Annual Tables Physical Constants.' 2nd lieut, O.R.C, lieut, C.W.S, 18; lieut-commander, U.S.N.R, 37–41, retired. A.A; Chem. Soc; fel. Physical Soc; Philos. Soc; fel. N. Y. Acad. Properties of amalgams; dielectric constants; refractive indices; dipole moments and molecular structure; vapor pressures; molecular rotation in solids.

Smyth, Dr. Francis Scott, University of California Hospital, San Francisco, Calif. *Pediatrics.* Oregon City, Oregon, Oct. 7, 95. A.B, California, 17, Hooper Foundation fellow, 19, A.M, 21, M.D, 22. Instr. *pediat,* California, 25–26, asst. prof, 26–28; sch. med, Washington (St. Louis), 28–30; assoc. prof, *California,* 30–32, *prof, 32–, dean, 42–* Research, inst. physiol, Buenos Aires, 40. Ed. board, 'Am. Jour. Diseases of Children,' 40– A.A; fel. Am. Med. Asn; Pediat. Soc; Soc. Pediat. Research (pres, 36); Acad. Pediat; Diabetic Asn; Calif. Acad. Med. Secretions of the bile acids; blood of the new-born; chemical changes occurring after certain diseases; allergy; juvenile diabetes mellitus.

Smyth, Dr. F(rederic) Hastings, The Oratory of St. Mary and St. Michael, 12 Putnam Ave, Cambridge, Mass. *Physical*

chemistry, Philosophy. Clinton, N. Y, Sept. 28, 88. A.B, Hamilton Col, 09, A.M, 10; Berlin, 09–10; M.S, Mass. Inst. Tech, 14, Ph.D, 15. Instr. chem, Mass. Inst. Tech, 15–17; physical chemist, geophys. lab, Carnegie Institution, 19–25; curate, St. Martin's Church, Brighton, England, 32–33; *superior, Soc. Catholic Commonwealth, Oratory of St. Mary and St. Michael, 34–* Capt, C.W.S, 18. Electrolysis of metallic ammonia solutions; dissociation of copper oxide; the system calcium oxide-carbon dioxide at high temperatures and pressures.

Smyth, Dr. Harold T(homas), 1012 Audubon Parkway, Louisville, Ky. *Physics.* Lisburn, North Ireland, Feb. 7, 10. B.Sc, Queen's (Ireland), 31, M.Sc, 32; Ph.D, Mass. Inst. Tech, 36. Musgrave demonstrator physics, Queen's (Ireland), 31–32; teaching fellow, Mass. Inst. Tech, 32–36; *research physicist, Corhart Refractories Co, 36–* Physical Soc; Ceramic Soc. Intensity measurements in atomic spectra; physics of electrocast refractories.

Smyth, Prof. H(enry) D(eWolf), Princeton University, Princeton, N. J. **[1]Physics.* Clinton, N. Y, May 1, 98. A.B, Princeton, 18, A.M, 20, Ph.D, 21; Ph.D, Cambridge, 23. Nat. research fellow *physics,* Cambridge and Princeton, 21–24; instr, *Princeton,* 24–25, asst. prof, 25–29, assoc. prof, 29–36, *prof, 36–, chairman dept, 35–* Guggenheim Mem. Foundation fellow, Göttingen, 31–32. Subcmt. physics, Nat. Research Council, 28–35, 41– Assoc. ed, 'Physical Rev,' 27–30. A.A; fel. Physical Soc. (councilor, 39–). Ionization of gases; positive ray analysis; molecular structure.

Smyth, Dr. Henry Field, Smyth Laboratories, 34th below Chestnut St, Philadelphia, Pa. *Public health, Industrial hygiene.* Philadelphia, Pa, Nov. 1, 75. Certificate, Pennsylvania, 93, M.D, 97, Dr.P.H, 12; Vienna, 99–00. Res. physician, Phila. Home for Incurables, 97; Germantown Hosp, 98; practicing physician, Phila, Pa, and Odessa, Del, 00–11; Wood fellow hygiene, Pennsylvania, 12–13, Scott fellow, 13–14, instr. hygiene and bacter, 14–20, asst. prof, 20–21, indust. hygiene, 21–39, prof, 39–41, acting director lab. hygiene, 17–19, director pro tem, 32–39; *consultant, 15–; director, Smyth Labs, 41–* Mem. Board Health, Radnor Township, Del. Co, Pa, 14–17, sec'y, 16–19, consultant, 28–; mem. health cmt, Chamber of Commerce, Phila, 32–; sci. investigator, State Dept. Labor and Indust, Pa, 20–24; mem, State Cmn. on Sch. Ventilation, 32; mem, State Cmn. on Occupational Disease Compensation, 32–33; consultant, State Dept. Health, 39– Mem. advisory health cmt, Nat. Safety Council, 27–; Am. Conf. Indust. Health, 41– Passed asst. surgeon, U. S. Pub. Health Service Res, 17–19. Fel. Am. Med. Asn; fel. Pub. Health Asn. (chairman, indust. hygiene sect, 23–25, councilor, 23–28, 33–35; chairman, cmt. anthrax, 23–; cmt. skin irritants, 28–36; cmt. volatile solvents, 33–37); fel. Col. Physicians; fel. Asn. Indust. Physicians and Surg. (director, 33–36); Standards Asn; Pa. Pub. Health Asn. (pres, 32, councilor, 40–); Path. Soc. Phila; fel. Col. Physicians Phila. (chairman, pub. health, prev. med. and indust. hygiene sect, 26; mem. pub. health cmt, 29–33). Bacteriology; tissue culture; industrial health and working conditions; industrial toxicology; industrial microbiology; public health; industrial anthrax; toxicology of pharmaceutical products.

Smyth, Dr. Henry F(ield), Jr, Mellon Institute, Pittsburgh, Pa. *Hygiene, Bacteriology.* Philadelphia, Pa, June 5, 03. B.S, Pennsylvania, 25, Ph.D, 34. Special investigator, Dept. Labor and Indust, Pa, 25–26; private consultant, 26–28; instr. sanit. chem, Pennsylvania, 28–37; *Union Carbide Co. fellow, Mellon Inst, 37–* A.A; fel. Inst. Chem; Pub. Health Asn; Chem. Soc; Indust. Hygiene Asn. Determination of toxic materials in air; industrial toxicology and hygiene.

Smyth, Prof. Henry Lloyd, 55 Brattle St, Cambridge, Mass. **[1]Geology.* Near St. Mary's, Ont, Can, Jan. 11, 62. A.B, Harvard, 83, C.E, 85. Instr. *mining and metal, Harvard,* 93–95, asst. prof, 95–00, prof, 00–24, *emer. prof, 24–* Geol. Soc; Min. and Metal. Soc; Min. and Metal. Eng; Am. Acad. Economic geology.

Smyth, Dr. John B(ridges), 4771 Santa Cruz Ave, San Diego, Calif. *Physics.* Pembroke, Ga, June 8, 14. B.S, Georgia, 34, M.S, 37; Ph.D, Brown, 42. Teacher, high sch, 34–35; asst. physics, Georgia, 35–37; physicist, Tenn. Eastman Corp, 37–38; asst. physics, Brown, 38–42; *assoc. physicist, U. S. Navy Radio and Sound Lab, 42–* Supersonics; ultra high frequency electromagnetic wave propagation; galvanomagnetic phenomena.

Smyth, Prof. Thomas, State Teachers College, Indiana, Pa. *Zoology.* Blacksburg, Va, Oct. 15, 98. B.S, Va. Polytech, 20; A.M, Cornell, 23, Ph.D, 25. Prof. biol, Hampden-Sydney Col, 21–22; asst. ornith, Cornell, 23–25; assoc. prof. zool, South Carolina, 25–28; *prof. biol. and head dept. science, Pa. State Teachers Col, 28–* Summers, field zoologist, Finger Lakes fish surv, N. Y. State Conservation Cmn, 27, Erie watershed stream surv, 28, field zoologist in charge Catskill grouse surv, 31, predator food studies, 33; special instr, Pittsburgh, 38; Pa. State Col, 40; nature director, Camp Tonkawa, 41. S.A.T.C, 18; 2nd lieut, O.R.C, 20–25. A.A; Biol. Teachers Asn; Ornith. Union; Wildlife Soc; Pa. Acad. Ornithology; conservation.

Smyth, Prof. William I(saac), University of Nevada, Reno, Nev. *Metallurgy, Mining.* Carters, Calif, Oct. 6, 92. B.S, Nevada, 14, E.M, 27. Mining and metallurgical experience, 14–25; *analyst, State Anal. Lab, Nevada, 25–,* instr. metal, *univ,* 25–28, asst. prof, 28–33, *assoc. prof,* 33–39, *metal. and mining, 39–* Min. and Metal. Eng. Mine ventilation.

Smythe, Dr. C(arl) V(incent), University of Pittsburgh, Pittsburgh, Pa. *Biochemistry.* Stockton, Ill, Aug. 3, 03. A.B, Illinois, 26; M.S, Pa. State Col, 29; Ph.D, California, 30. Nat. research fellow, Rockefeller Inst, 30–31, Kaiser-Wilhelm Inst, 31–32, asst, 32–33; asst. biophys. chemist, Burroughs Wellcome and Co, 33–34; asst. physical chem, Rockefeller Inst, 34–38; asst. prof. biochem. in bacter, med. sch, Pennsylvania, 38–39; *Buhl Foundation research fellow and asst. prof. chem, Pittsburgh, 39–* Chem. Soc; Soc. Biol. Chem. General biochemistry; oxidations and fermentations.

Smythe, Donald de Cou, 163 Campbell Ave, Santa Cruz, Calif. *Geology.* Madison, S. Dak, March 24, 95. B.S, Oregon, 19; M.S, Cornell, 21; Calif. Inst. Tech, 31–32. Instr. geol, Cornell, 19–21; geologist, Cerro de Pasco Copper Corp, Peru, 21–22; engineer, Silver Dyke Min. Co, Mont, 22–23; prof. geol. and head dept, Pei Yang Univ, 23–26; instr, Wyoming, 26–27; chief geologist, Moctezuma Copper Co, Mex, 27–31; supt, Calif. and Ariz. Min. Co, 34–35; chief geologist, North. Min. and Develop. Co, P. I, 35–36; Gen. Management Co, P. I. and Kenya Colony, 36–38; manager, Rhamba Mine, Kenya Colony, 38; *mining consultant, 38–* Sergt, C.Eng, 17–18. Philippines Geol. Soc. Field geology.

Smythe, Prof. William R(alph), California Institute of Technology, Pasadena, Calif. *Physics.* Cañon City, Colo, July 5, 93. A.B, Colo. Col, 16; A.M, Dartmouth Col, 19; Ph.D, Chicago, 21. Prof. physics, Philippines, 22–23; nat. research fellow, *Calif. Inst. Tech,* 23–27, asst. prof. *physics,* 27–34, assoc. prof, 34–40, *prof, 40–* A.A; Physical Soc. Spectrum of fluorine; separation of isotopes; velocity filter for ions; electromagnetic theory; static and dynamic electricity.

Snader, Prof. D(avid) L(evi), Stevens Institute of Technology, Hoboken, N. J. *Engineering.* Westminster, Md, July 8, 88. Duke; Arch.E, Ohio Northern, 13, C.E, 14, M.S, 18; Michigan; A.M, Columbia, 26, Trowbridge fellow, Ph.D, 37. Instr. eng, Ohio Northern, 13–14; prof. in charge dept. archit. and struct. eng, Valparaiso, 14–17, acting dean col. eng, 17; prof. in charge dept. physics and organization, dept. eng, Southwest. Presb. Col, 17–19; *prof. civil eng. and head dept,* S. Dak. State Col, 19–24; *Stevens Inst. Tech, 24–* Consulting architect and engineer, S. Dak. Assoc. ed, 'The Architect,' 18. A.A; Asn. Eng. (past v. pres, S. Dak. chap); Civil Eng; Ind. Soc. Archit. (past v. pres, past director, mem, board arbitration). Architecture; structural engineering; deterioration of plain and reinforced concrete; constitution of Portland cement; properties of cement components with relation to disintegration of concrete; microscopic science of concrete structures.

Snapp, Oliver (Irvin), Box 527, Ft. Valley, Ga. *Entomology.* Winchester, Va, Aug. 1, 95. B.S, Va. Polytech, 16; Maryland; M.S, Miss. Agr. and Mech. Col, 25. Supt, agr. sch, Turbeville, Va, 16–17; *bur. entom. and plant quarantine, U. S. Dept. Agr, 14–, entomologist, 17–* Exp. Sta, Delaware, 15; Ohio Exp. Sta, 17. Entom. Soc; Asn. Econ. Entom. (v. pres, 40); Asn. Cotton States Entom. (sec'y-treas, 27–39, pres, 39); Asn. South. Agr. Workers; Ga. Hort. Soc; Ga. Entom. Soc. (v. pres, 42–). Deciduous fruit insects.

Snapp, Prof. Roscoe R(aymond), 310 Michigan Ave, Urbana, Ill. *Animal husbandry.* Findlay, Ill, Dec. 13, 89. B.S, A.B, Illinois, 13, M.S, 21, Ph.D, 35. Instr. animal husbandry, West Virginia, 14–15; asst. prof. and assoc. prof. *beef cattle husbandry, Illinois,* 15–39, *prof, 39–* Beef cattle.

Snapper, Dr. Ernst, 82 Linden Lane, Princeton, N. J. *Mathematics.* Groningen, Holland, Dec. 2, 13. A.M, Princeton, 39, Ph.D, 40. *Instr. math, Princeton.* A.A; Math. Soc. Algebra.

Snavely, Prof. Benj(amin) L(ichty), Lehigh University, Bethlehem, Pa. *Physics.* Lancaster, Pa, Aug. 27, 06. B.S, Lehigh, 28; Ph.D, Princeton, 35. Instr. *physics, Lehigh,* 31–38, *asst. prof, 38–; mem. staff, Naval Ordnance Lab.* A.A; Physical Soc; Optical Soc. Atomic physics; processes of ionization.

Sneath, Dr. P(aul) A(lfred) T(urner), His Majesty's Colonial Medical Service, Care of Surgeon-General, Georgetown, British Guiana. *Hygiene, Preventive medicine.* Vancouver, B. C, Can, Feb. 16, 98. M.B, Toronto, 21, D.P.H, 27, M.D, 28; London Sch. Trop. Med. and Hygiene, 22. Med. officer and later med. officer of health, W. African Med. Service, Gold Coast Colony, 23–27; demonstrator hygiene and prev. med, sch. hygiene, Toronto, 29, lecturer, 31–37, asst. Connaught Labs, 28, research assoc, 30–37; *first asst. govt. med. officer health, His Majesty's Colonial Med. Service, 37–* Capt, Can. M.C. British Med. Asn; fel. Royal Soc. Trop. Med. and Hygiene. Medical zoology; active immunization to tetanus.

Snedecor, Prof. George W(addel), 521 Forest Glen, Ames, Iowa. *Statistics.* Memphis, Tenn, Oct. 20, 81. B.S, Alabama, 05; A.M, Michigan, 13. Prof. math, Austin Col, 07–10; asst. physics, Michigan, 10–13; asst. prof. *math, Iowa State Col,* 13–14, assoc. prof, 14–30, *prof, 31–,* statistician, *Exp. Sta,* 33–34, *research prof. and director statist. lab, 34–* A.A; Statist. Asn; Math. Asn; Inst. Math. Statist; Iowa Acad. Statistical methodology.

Sneed, Prof. M. Cannon, University of Minnesota, Minneapolis, Minn. *Chemistry.* Nashville, Tenn, Jan. 2, 86. A.B, George Peabody Col, 11; A.M, Cincinnati, 13, Ph.D, 16. Asst. prof. *chem,* Cincinnati, 16–17; assoc. prof, *Minnesota,* 18–24, *prof, 24–* A.A; Chem. Soc. Inorganic chemistry; qualitative analysis; Beckman's rearrangement of hydroxamic acids; methylmercuric acetate and hydroxide; systematic analysis of the anions.

Sneeden, Dr. Vinton D(onald), 3181 S. W. Marquam Road, Portland, Oregon. *Pathology.* Ill, April 23, 11. A.B, Linfield Col, 32; M.D, Oregon, 36. Intern, French Hosp, San Francisco, Calif, 36–37, res, 38–39; *path, med. sch, Oregon,* 37–38, instr, 39–42, *asst. prof, 42–; U. S. Army, 42–* Pacific Northwest Soc. Path. (sec'y-treas, 42).

Snelgrove, Dr. A(lfred) K(itchener), Michigan College of Mining and Technology, Houghton, Mich. *Geology.* St. John's, Newfoundland, April 7, 02. B.Sc, McGill, 27, Leroy fellow, 27–28, M.Sc, 28; Ph.D, Princeton, 30. Asst, Princeton, 28–30, instr. geol, 30–35, asst. prof, 35–40; *prof. geol. and mineral. and head dept, Mich. Col. Min. and Tech, 40–* Geologist, various mining companies, Newfoundland, cent. Can. and Wyo, 26–30; govt. geologist, Newfoundland, 34–43; consulting geologist to Newfoundland Govt, 43– Leader, Princeton expeds, Newfoundland, 29, 31–33. Barlow Mem. prize, Can. Inst. Min. and Metal, 31. A.A; Geol. Soc; Soc. Econ. Geol; Miner. Soc; Geophys. Union; Min. and Metal. Eng; Mich. Acad; Can. Inst. Min. and Metal. Geology and mineral deposits of Newfoundland and northern Michigan.

Snell, Dr. Albert M(arkley), Mayo Clinic, Rochester, Minn. *Medicine.* Lake Park, Minn, June 9, 96. B.S, Minnesota, 16, M.B, M.D, 18, M.S, 27. In charge clin. labs, Univ. Hosp, Minneapolis, 19–20; practising physician, Mankato Clinic, Minn, 20–24; asst. *med, Mayo Clinic,* 24–25, *assoc, 25–, head sect, 29–;* instr. and *prof, Mayo Foundation, Minnesota; capt, U. S. Naval Res.* U.S.N, 17–19, lieut-commander, U.S.N.R. Am. Med. Asn; Col. Physicians; Soc. Exp. Path; Soc. Clin. Invest; Am. Physicians; Gastro-Enterol. Asn; Cent. Soc. Clin. Research (pres, 32); Minn. Soc. Int. Med; Minn. Acad. Med; S. Minn. Med. Asn. Addison's disease; diseases of the biliary and gastro-intestinal tracts and the liver; metabolic and endocrine disorders.

Snell, Dr. Arthur H(awley), University of Chicago, Chicago, Ill. *Physics.* Montreal, Que, Can, March 10, 09. B.A, Toronto, 30; M.S, McGill, 31, Nat. Research Council Can. bursar, 31–32, student, 32–33, Ph.D, 33. 1851 Exhib. scholar, California, 34–37; *instr. physics, Chicago, 38–* Nuclear physics; Stark effect in molecular hydrogen and in deuterium.

Snell, Dr. Cornelia T(yler), 66 Park Ave, New York, N. Y. *Chemistry.* Binghamton, N. Y, Nov. 22, 96. B.S, Syracuse, 19; A.M, Columbia, 25, Ph.D, 30. Asst. chem, Columbia, 29–30, Teachers Col, 30; pediat. research, Fifth Ave. Hosp, 31–33; asst, col. physicians and surg, Columbia, 33; *tech. writer, 33–* Summer, asst, Columbia, 31. A.A; Chem. Soc. (sec'y, N. Y. sect, 37–). Chemical treatment of trade waste; colorimetric methods of analysis; semipermeable membranes; detergents; chemicals of commerce.

Snell, Prof. Esmond E(merson), University of Texas, Austin, Texas. *Biochemistry, Bacteriology.* Salt Lake City, Utah, Sept. 22, 14. A.B, Brigham Young, 35; A.M, Wisconsin, 36, Ph.D, 38. Research asst. biochem. and agr. bacter, Wisconsin, 36–39; research assoc. *chem, Texas,* 39–41, *asst. prof, 41–, research biochemist, 41–* A.A; Soc. Bact; Chem. Soc. (sec'y cent. Texas sect, 39); Soc. Biol. Chem. Nutritional requirements of microorganisms; microbiological assay methods; vitamins.

Snell, Dr. Foster D(ee), 305 Washington St, Brooklyn, N. Y. *Chemistry.* Binghamton, N. Y, June 29, 98. B.S, Colgate, 19; A.M, Columbia, 22, Ph.D, 23. Asst. chem, Columbia, 19–20; tutor, Col. City of N. Y, 20–21, teaching fellow, 21–23; instr, Pratt Inst, 23–28; *pres, Foster D. Snell, Inc; Chemsearch, Inc.* Consulting chemist, 19– A.A; Chem. Soc. (councilor); Soc. Test. Mat; Chem. Eng; fel. Inst. Chem. (councilor); Oil Chemists Soc; Soc. Chem. Indust. (sec'y, Am. sect, 24–37, v. pres, 37–40, v. chairman, 40–42, chairman, 42–); Chemists' Club; fel. London Chem. Soc; Soc. de Chim. indust. Organic and industrial chemistry; trade waste; by-product recovery; magnesia cements; building materials; industrial alkalies; acid proof cement; coal briquettes; chemical specialties; physical chemistry of wetting power, interfacial and surface tension; detergents and their manufacture; structure versus properties and functions of surface active agents; textile fibers.

Snell, Dr. George D(avis), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Genetics.* Bradford, Mass, Dec. 19, 03. B.S, Dartmouth Col, 26; M.S, Harvard, 28, Sc.D, 30. Instr, Dartmouth Col, 29–30; Brown, 30–31; nat. research fellow zool, Texas, 31–33; asst. prof, Washington (St. Louis), 33–34; *research assoc, Roscoe B. Jackson Mem. Lab, 35–* A.A; Genetics Soc; Genetic Asn; Soc. Zool. Genetics of the house mouse; physiology of growth; translocations; probability; radiation genetics.

Snell, Dr. J(ohn) F(erguson), Macdonald College, Que, Can. *Chemistry.* Brampton, Ont, Oct. 14, 70. B.A, Toronto, 94; Ph.D, Cornell, 98. Asst. chem, Cornell, 94–95, 96–98; Wesleyan, 98–99; nutrition investigations, U. S. Dept. Agr, Conn, 98–01; instr. *chem,* Cincinnati, 01–04, asst. prof, 04–07; *Macdonald Col, McGill,* 07–09, prof, 09–36, *emer. prof, 36–,* acting dean, 32–34. Asst. chemist, Storrs Exp. Sta, Conn. Agr. Col, 00–01. Sec'y-treas, Can. Cmt. Sugar Analysis, 35– A.A; Chem. Soc. (sec'y, Cincinnati sect, 02, pres, 04); Soc. Chem. Indust. (chairman, Montreal sect, 27); Agr. Chem. (assoc. referee on maple products, 17–19, 29–38); fel. Can. Inst. Chem. (sec'y, Que. sect, 24–27, exam. board, 30–35); Can. Soc. Tech. Agr. Applications of physical chemistry to agriculture and foods; maple sap products.

Snell, Prof. M(aynard) G(oldman), Louisiana State University, University, La. *Animal industry.* Lampasas, Texas, Nov. 12, 00. B.S, Agr. and Mech. Col. Texas, 21; A.M, Missouri, 22; Ph.D, Iowa State Col, 28. Instr. animal husbandry, N. Mex. Col, 22–25; Colo. Agr. Col, 25–26; fellow, Iowa State Col, 26–28; asst. prof. *animal indust, Louisiana,* 28–30, *assoc. prof, 30–; major, U. S. Army.* A.A; Soc. Animal Production. Animal nutrition; applied animal nutrition.

Snell, Prof. R(obert) S(inclair), Utah State Agricultural College, Logan, Utah. *Plant anatomy, Morphology.* Sturbridge, Mass, June 23, 06. B.S, Mass. Col, 29; M.S, Rutgers, 31; Ph.D, Cornell, 35. Instr. *bot,* Miami (Ohio), 35–36; *asst. prof, Utah State Col, 36–* A.A; Bot. Soc; Torrey Bot. Club. Cytology; anatomy of the spikelets and flowers of Carex and related genera; anatomy of the short shoots of conifers; anatomy of Utah range and crop plants.

Snell, Dr. Walter H(enry), Brown University, Providence, R. I. *Plant pathology.* West Bridgewater, Mass, May 19, 89. A.B, Brown, 13, A.M, 15; Ph.D, Wisconsin, 20. Forest pathologist, *bur. plant indust, U. S. Dept. Agr,* 18–20, *collaborator, 20–;* asst. prof. and assoc. prof. *bot, Brown,* 20–42, *Stephen T. Olney prof, 42–* Summers, asst. forest pathologist, State Conservation Dept, N. Y, 23–40. A.A; Phytopath. Soc; Bot. Soc; Mycol. Soc. (v. pres, 41); R. I. Bot. Club (pres, 25–38,

sec'y-treas, 38–); Audubon Soc. R. I. (pres). Forest pathology; mycology.

Snelling, Dr. Walter O(theman), 1509 Linden St, Allentown, Pa. *Chemistry.* Washington, D. C, Dec. 13, 80. B.S, George Washington, 04, Ph.D, 07; B.S, Harvard, 05; M.S, Yale, 06. Chemist, U. S. Geol. Surv, 07; chemist in charge explosives chem. lab, U. S. Bur. Mines, 08–12, research, 12–16; *director research, Trojan Powder Co, 17–* Asst, George Washington, 06, 07, instr, 07. Chem. Soc; Soc. Chem. Indust; Min. and Metal. Eng; Electrochem. Soc; Franklin Inst; Deuts. Chem. Gesell. Military and mining explosives; prevention of accidents; oils; oil cracking.

Snider, Dr. L(uther) C(rocker), University of Texas, Austin, Texas. *Geology.* Mt. Summit, Ind, Sept. 13, 82. A.B, Indiana, 08, A.M, 09; Ph.D, Chicago, 15. Asst. director, Okla. Geol. Surv, 09–15; geologist, Pierce Oil Corp, 15–16; Cosden Oil and Gas Co, 16–17; asst. chief geologist, Empire Gas and Fuel Co, 17–19, chief geologist, 19–25; consulting geologist, Henry L. Doherty and Co, 25–35; Cities Service Co, 35–37; Petrol. Advisers, Inc, 37–40; *prof. geol, Texas, 41–* A.A; Geol. Soc; Asn. Petrol. Geol. (ed, 33–36, pres, 41); Soc. Econ. Geol; Min. and Metal. Eng. General and petroleum geology.

Snider, Dr. Ray S, Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy, Physiology.* Ill, Jan. 27, 11. Ph.D, Washington (St. Louis), 37. Instr. human anat, sch. med, Nebraska, 37–39; fellow surg, *sch. med, Hopkins,* 39–41, *instr. physiol, 41–* Asn. Anat. Anatomy and physiology of the central nervous system.

Snieszko, Prof. Stanislas Francis, University of Maine, Orono, Maine. *Bacteriology.* Krzyz, Poland, Jan. 28, 02. M.S, Jagellonian Univ, 24, Ph.D, 26; Leipzig, 28–29; Rockefeller Foundation fellow, Wisconsin, 30–31. Asst. bacter, Jagellonian Univ, 23–34, instr, 34–35, asst. prof. soil microbiol, 35–36, prof. and head dept, 37–39; asst. *bacter, col. agr, Maine,* 39–41, *asst. prof, 41–* Soc. Bact; Polish Bot. Soc; Polish Bact. Soc. Decomposition of cellulose; precipitins; bacterial fish diseases and myxobacteria; soil microbiology.

Snipes, Dr. B(enjamin) Thomas, State Department of Agriculture, Powell, Wyo. *Entomology.* DeKalb, Mo, June 14, 13. B.S, Nebraska, 33, M.S, 34; Ph.D, Iowa State Col, 37. Asst. entomologist, State Dept. Agr, Nebr, 35–36; chairman dept. biol, Escola Superior de Agr. e Veterinaria, Vicosa, Minas Gerais, Brazil, and state entomologist, Brazil, 36–41; *state entomologist, Wyo, 41–* Asn. Econ. Entom; Entom. Soc; Soc. Entom. Brazil. Applied control of injurious insects.

Snoddy, A(rnon) O(wsley), R. D. 6, Cincinnati, Ohio. *Chemistry.* Glasgow, Ky, Dec. 10, 92. B.S, Kentucky, 13. Asst. chemist, *Procter and Gamble Co,* 13–15, research chemist, 15–20, chem. supervisor branch plant, Dallas, 20–22, *research chemist, 22–* In charge gen. chem. and qualitative and quantitative anal, night sch, Ohio Mechanics' Inst, Cincinnati, Ohio, 18–28. Chem. Soc. (past sec'y, chairman, trustee and councilor, Cincinnati sect). Specific gravity of glycerin; catalytic hydrogenation of fats; analytical chemistry.

Snoddy, Dr. George S(amuel), 728 22nd St, Santa Monica, Calif. *Psychology.* Emporia, Kans, April 21, 82. A.B, B.S, Kansas, 12, A.M, 13; Ph.D, Clark, 15. Assoc. prof. psychol, Utah, 15–17, prof. and head dept, 17–25; prof, Indiana, 25–40. A.A; Psychol. Asn; Utah Acad. Physiological psychology; voluntary control; human learning.

Snoddy, Prof. L(eland) B(radley), University of Virginia, Charlottesville, Va. *Physics.* Hiram, Ohio, March 4, 98. B.S, Kentucky, 21, A.M, 23; California, 23–25; Ph.D, Virginia, 29. Prof. physics, Lynchburg Col, 25–28; Edison research fellow, Gen. Elec. Co, 29–30, physicist, 30–33; fellow, *Virginia,* 33–36, asst. prof. *physics,* 36–40, assoc. prof, 40–43, *prof, 43–* Physical Soc; Optical Soc. Transient phenomena in vacuum arc and spark discharge; investigation of spark discharge in air at atmospheric pressure.

Snodgrass, J(ames) M(arion), 132 N. Main St, Oberlin, Ohio. *Electrophysiology.* Marysville, Ohio, May 3, 08. A.B, Oberlin Col, 31; Pennsylvania, 35–36; Harvard, 37–38. Asst. psychol, Oberlin Col, 32–34, 36–37; research assoc, fertility clinic, Free Hosp. for Women, Brookline, Mass, 38–39; instr. psychol, Oberlin Col, 39–42; *mem. tech. staff, div. war research, Columbia, 42–* A.A; Acoustical Soc. Physiological movement analysis; physiological acoustics; electrobiology.

Snodgrass, Dr. O(liver) T(heodore), New Mexico State Teachers College, Silver City, N. Mex. *Mathematics.* Delta, 105 Iowa, March 4, 02. B.S, Dakota Wesleyan, 24; M.S, Iowa, 27; Ph.D, Missouri, 36. Instr, Purdue, 27–28; Mont. Sch. Mines, 29–31; correspondence instr, Missouri, 31–37; prof. math. and astron, Yankton Col, 37–42; *head dept. science and math, N. Mex. State Teachers Col, 42–; lieut, Air Corps, U. S. Army, 43–* Multiplicative representations of the elements of a ring.

Snodgrass, R(obert) E(vans), 3706 13th St, N. W, Washington, D. C. **Zoology, Entomology.* St. Louis, Mo, July 5, 75. A.B, Stanford, 01. Asst. prof. entom, State Col. Wash, 01–03; *bur. entom. and plant quarantine, U. S. Dept. Agr,* 06–10, *17–, senior entomologist.* A.A; Soc. Nat; Entom. Soc. Amer; Entom. Soc. Wash; hon. fel. Royal Entom. Soc. London. Insect anatomy.

Snoke, H(ubert) R(eese), 15 Williams Lane, Chevy Chase, Md. *Chemistry.* Mowersville, Pa, Aug. 11, 94. A.B, Lebanon Valley Col, 20. Asst. chemist, *Bur. Standards,* 20–31, assoc. chemist, 31–37, *chemist, 37–* Soc. Test. Mat. Bituminous roofing; waterproofing and road materials; the weathering qualities and extent of use of roofing materials in the United States.

Snook, Dr. Theodore, 514 Kensington Road, Syracuse, N. Y. *Histology, Embryology.* Titusville, N. J, April 14, 07. B.S, Rutgers, 29, M.S, 30; Ph.D, Cornell, 33. Asst. zool, Rutgers, 29–30; instr. histol. and embryol, Cornell, 30–34; *col. med, Syracuse,* 34–37, *asst. prof. anat, 37–* Asn. Anat; Soc. Exp. Biol. Pharyngeal tonsil development; bursa pharyngea.

Snow, Dr. A(dolph) J(udah), 1320 Ashland Ave, Wilmette, Ill. *Industrial psychology.* Rzeszow, Austria, Jan. 9, 94. A.B, Ohio State, 16, A.M, 17; Ph.D, Columbia, 19. Instr. *psychol,* Columbia, 18–20; asst. prof, Pittsburgh, 20–21; instr, Northwestern, 21–27; professional lecturer, 27–28; director retail personnel, Sears, Roebuck and Co, 28–29, manager merchandise develop. dept, gen. merchandise office, 29–40, tech. director, 40–42; *consultant on costs, purchasing div, Office Production Management, 41–; tech. director and consultant, Aviation Corp. and subsidiaries.* Psychol. Asn; Philos. Asn; Hist. Sci. Asn; Am. Acad. Polit. and Social Sci; N. Y. Acad; British Psychol. Soc. Scientific methods; psychology in business relations; matter and gravity in Newton's physical philosophy; psychology in personal selling; effective selling.

Snow, Albert G(ranville), Jr, U. S. Forest Service, New Haven, Conn. *Forestry.* Seattle, Wash, Jan. 13, 07. B.S, State Col. Wash, 33; M.S, Yale, 35. Junior plant physiologist, *Northeast. Forest Exp. Sta, U. S. Forest Service,* 35–39, *asst. plant physiologist, 39–* Soc. Foresters; Bot. Soc; Soc. Plant Physiol. Tree physiology; transpiration; silvics; forest genetics.

Snow, Arthur, 1656 Newton St, N. W, Washington, D. C. *Astronomy.* Blakesburg, Iowa, Nov. 24, 67. Asst, Nautical Almanac Office, 04–24, assoc. astronomer, 24–29; astronomer, U. S. Naval Observatory, 29–30, senior astronomer, 30–38; asst. director, Am. Ephemeris, 29–38; *retired.* Astron. Soc. Asteroid orbits; elements of occultations visible in the United States; star tables; star catalogues.

Snow, Prof. Charles E(rnest), University of Kentucky, Lexington, Ky. *Physical anthropology.* Boulder, Colo, April 11, 10. A.B, Colorado, 32; A.M, Harvard, 35, Ph.D, 38. Asst. anthropometrist, bur. home econ, U. S. Dept. Agr, 37–38; physical anthropologist, Works Progress Admin, Ala. Museum Nat. Hist, 38; instr. anthrop, Birmingham-Southern Col, 40–41; asst. project technician, Works Progress Admin, Ky. Archeol. Surv, 41–42; asst. prof. *anthrop. and archeol, Kentucky,* 42–43, *assoc. prof, 43–* A.A; Asn. Physical Anthrop; Soc. Am. Archeol. Growth; skeletal research; Indian remains.

Snow, Dr. Charles H(enry), 12 Lake Ave, Yonkers, N. Y. *Civil engineering.* New York, N. Y, March 24, 63. C.E, N. Y. Univ, 86; hon. Sc.D, Pittsburgh, 98. Prof. *civil eng, N. Y. Univ,* 91–30, *emer. prof, 30–,* dean col. eng, 95–30, Daniel Guggenheim Sch. Aeronautics, 25–30; *practising civil engineer, 86–* Civilian director nat. army training detachment, and sect. B, S.A.T.C, N. Y. Univ, 18; appraisal expert, service at large, Bur. Aircraft Production, 19. A.A; Civil Eng; Min. and Metal. Eng. (director, 05–10). Materials of construction; economic woods.

Snow, Dr. Chester, National Bureau of Standards, Washington, D. C. *Physics.* Salt Lake City, Utah, June 1, 81. A.B,

Harvard, 06; fellow, Wisconsin, 12–14, Ph.D, 14. Prof. physics, Brigham Young, 06–11; assoc. prof. math, Idaho, 14–16, prof, 16–20; *physicist, Bur. Standards, 20–* Physical Soc. Mathematics; magneto-optics; electricity.

Snow, Prof. F(ranklin) C(hadwick), Georgia School of Technology, Atlanta, Ga. *Civil engineering.* Avon, Ohio, Dec. 26, 83. C.E, Ohio State, 06; Sc.D, Georgia, 23. Asst. city engineer, Sandusky, Ohio, 06–07; Elyria, 08; city engineer, Findlay, 07–08; instr. civil eng, Mont. State Col, 08–09, asst. prof, 09–20; *prof.* highway eng, *Ga. Tech,* 20–23, *civil eng. and director highway materials lab, 23–* Consulting highway and bridge engineer, Fulton Co, Atlanta, Ga, 23–; consulting engineer, Bozeman Testing Lab, 13–20; consulting sanit. engineer, State Board Health, Mont, and asst. city engineer, Bozeman, 15–20. Civil Eng; Asn. Eng; Eng. Educ. Concrete; asphalts; subsoils.

Snow, Prof. John E(dwin), Illinois Institute of Technology, Chicago, Ill. *Electricity.* Athens, Ohio, April 4, 66. B.S, Ohio (Athens), 92, M.S, 96, A.M, 04; E.E, Armour Inst. Tech, 01. Instr, Ohio (Athens), 93–94; *dept. elec. power production, Armour Inst. Tech,* 94–37, *emer. prof, 37–* Elec. Eng.

Snow, Dr. John E(lbridge), 219 Gregory Ave, Passaic, N. J. *Organic chemistry.* Marion, Ohio, June 4, 15. A.B, Oberlin Col, 38; M.S, Cornell, 40, Ph.D, 42. *Org. research chemist, Heyden Chem. Corp, 42–* Chem. Soc. Derivatives of sulfanilamide; pentaerythritol and its derivatives; polyhydroxy compounds and their properties and reactions.

Snow, Prof. Laetitia M(orris), 290 Laurel Ave, Pacific Grove, Calif. *Botany.* Baltimore, Md, March 31, 74. A.B, Goucher Col, 95; Baltimore Asn. Adv. Educ. Women fellow and Am. Asn. Univ. Women fellow, Chicago, Ph.D, 04. Instr. science, Girls' Latin Sch, Baltimore, 97–01; head dept. biol, Va. State Nor. Sch, Farmville, 04–08; instr. *bot, Wellesley Col,* 08–11, assoc. prof, 11–32, prof, 32–39, *emer. prof, 39–* A.A; Bot. Soc; Soc. Bact. Plant ecology; root-hair development; coastal vegetation; agricultural bacteriology.

Snow, Prof. O(ren) L(eone), Michigan State College, East Lansing, Mich. *Physics.* Eaton Co, Mich, Sept. 3, 85. B.S, Mich. Agr. Col, 10. Instr. and asst. prof. physics, Mich. Agr. Col, 10–18; physicist, United Engine Co, Lansing, 18–21; *assoc. prof. physics,* Mich. Agr. Col, 21–25, *Mich. State Col, 25–* Electrical physics.

Snow, Lieut. Col. Robert D(ewey), Edgewood Arsenal, Md. *Chemistry.* Le Claire, Iowa, Feb. 13, 99. B.S, Iowa, 23, M.S, 24, Ph.D, 26. Research chemist, Mid-Continent Petrol. Corp, Tulsa, 26–28; Gen. Motors Labs, Detroit, 28–29; research asst. prof, Illinois, 29–32; research chemist and sect. chief, Phillips Petrol. Co, Bartlesville, Okla, 32–36; prof. and director coal research, Armour Inst. Tech, 36–37; mem. staff, Phillips Petrol. Co, 37–41; *lieut. col, Chem. Warfare Service, and chief protective develop. div, Edgewood Arsenal, 41–* A.A; Chem. Soc. (treas, Okla. sect, 36); Chem. Eng. Vapor pressures of aqueous solutions; hydrogen electrodes; phenols in petroleum products; hydration of olefins; partial oxidation of organic compounds; chemistry of coal; olefin-sulfur dioxide reactions.

Snow, Dr. Roland B(liss), U. S. Steel Corp Research Laboratory, Kearny, N. J. *Mineralogy.* Toledo, Ohio, Aug. 18, 10. A.B, Ohio State, 32, B.S, 33, Ph.D, 36. Petrographist, metal. lab, south work, Carnegie Ill. Steel Corp, 36–38; *petrographer,* Battelle Mem. Inst, 38–39; *research lab, U. S. Steel Corp, 39–* Ceramic Soc; Miner. Soc. Petrographic examination of slags; refractories and equilibrium studies in silicate systems.

Snow, William B(oring), Columbia University Laboratory, P. O. Box 271, New London, Conn. *Acoustics.* San Francisco, Calif, May 16, 03. A.B, Stanford, 23, E.E, 25. *Mem.* tech. staff, Bell Tel. Labs, 23–24, 25–41; *sci. staff, div. nat. defense research, Columbia, 41–* A.A; Acoustical Soc; Radio Eng; Elec. Eng. Properties of hearing and requirements for electroacoustic systems; sound recording.

Snow, Dr. William F(reeman), 464 Riverside Drive, New York, N. Y. *Public health.* Quincy, Ill, July 13, 74. A.B, Stanford, 96, A.M, 97, M.D, 00. Instr. physiol. and biol, Stanford, 01–02, asst. prof. hygiene, 02–03, assoc. prof, 03–09, prof. hygiene and pub. health, 09–20; sec'y and exec. officer, State Board Health, Calif, 09–14; *gen. director, Am. Social Hygiene Asn, 14–* Lecturer, sch. hygiene and pub. health, Hopkins, 20–26; Columbia, 27–39; N. Y. Univ, 29–36; special consultant, U. S. Pub. Health Service, 35– Pres, Conf. State and Provincial Boards Health, 13; chairman exec. cmt, U. S. Interdepartmental Social Hygiene Board, 18; pres, Nat. Health Council, 28–35; chairman, League of Nations Cmn. to Study Traffic in Women and Children, 24–28; rep, Fed. Interdepartmental Venereal Disease Cmt, 41– Mem. board editors, 'Sight Saving Rev'; ed, 'Jour. Social Hygiene.' Col, M.R.C, 19– A.A; Pub. Health Asn; Am. Med. Asn; Soc. Trop. Med; N. Y. Acad. Med. Epidemiology; communicable diseases.

Snowden, Dr. R(oy) R(oss), 3509 Fifth Ave, Pittsburgh, Pa. *Medicine.* Sharon, Pa, April 22, 85. A.B, Washington and Jefferson Col, 07, A.M, 12; M.D, Hopkins, 11. *Assoc. prof. med, Pittsburgh, 37–* Am. Med. Asn; Col. Physicians (governor, west. Pa, 36–); Clin. and Climat. Asn. Hydronephrosis; nephritis; hypertension.

Snowdon, Dr. Ralph C(uthbert), The Hooker Electrochemical Co, Niagara Falls, N. Y. *Chemistry.* Pittston, Pa, Feb. 3, 82. A.B, Cornell, 04, A.M, 06, Ph.D, 09. Asst. chem, Cornell, 04–05, instr, 05–09; chemist, The Nitrogen Co, N. Y, 09–11; *expert, Hooker Electrochem. Co, 11–* Chem. Soc. Electrochemistry; inorganic chemistry; the electrolytic reduction of nitrobenzene.

Snuggs, Prof. R(oland) E(dward), Agricultural and Mechanical College of Texas, College Station, Texas. *Agricultural chemistry.* Canton, S. China, Oct. 22, 99. A.B, Georgetown Col, 20; M.S, Florida, 23; B.S, Agr. and Mech. Col. Texas, 37. Asst. prof. chem, The Citadel, 20–22; lab. asst, Florida, 22–23; instr, N. C. State Col, 23; *asst. prof.* physics, Judson Col, 24; *chem, Agr. and Mech. Col. Texas, 24–* Chem. Soc. (chairman membership cmt, 40, program cmt, 41). Organic chemistry; reduction of 1-nitro 2-methyl anthraquinone to the hydroxylamine.

Snyder, Dr. A(aron) M(oyer), Duquesne University, Pittsburgh, Pa. *Clinical psychology, Psychometrics.* Reading, Pa, July 18, 76. A.B, Franklin and Marshall Col, 03; Ph.D, Pennsylvania, 10. From instr. to prof. psychol, Pittsburgh, 11–28; visiting prof, N. Y. Univ, 28–29; educational adviser, home study dept, Columbia, 29–31; director parole and west. Pa. supervisor juvenile state parolees, Pa. Training Sch, 31–33; educational adviser, high sch. students, LaSalle Exten. Univ, 33–35; supervisor and instr. psychol, North Braddock Junior Col, 35–39; *grad. asst. prof. psychol, Duquesne, 39–* Laterality and personality factors in speech difficulties; rating scale for problem deviates in public schools.

Snyder, Prof. Arthur D(odd), Union College, Schenectady, N. Y. *Mathematics.* Stockton, N. J, Jan. 20, 89. A.B, Lafayette Col, 11; A.M, Wisconsin, 19. Instr. *math,* Lafayette Col, 12–17; *Union Col. (N. Y),* 17–18, asst. prof, 21–32, *assoc. prof, 32–* Math. Soc; Math. Asn.

Snyder, Prof. C(harles) D(avid), 4709 Keswick Road, Roland Park, Baltimore, Md. *Physiology.* Circleville, Ohio, April 30, 71. A.B, Stanford, 96; M.S, California, 04, Ph.D, 05; Columbia table, Naples Zool. Sta, 06. Instr, high schs, Calif, 96–05; fellow, *Hopkins,* 07–08, instr. *physiol, sch. med,* 08–09, assoc, 09–11, assoc. prof, 11–21, prof, 21–41, *emer. prof, 41–* A.A; Physiol. Soc; Bot. Soc; Chem. Soc. Experimental morphology; biokinetics; heat production and metabolism in tissues and organs; nature of excitation, conduction and tonus; physiology of the liver.

Snyder, Prof. Earle Stanley, Ontario Agricultural College, Guelph, Ont, Can. *Poultry genetics.* Kitchener, Aug. 14, 93. B.S.A, Ont. Agr. Col, 18; M.S, Wisconsin, 23. Temporary demonstrator, *Ont. Agr. Col,* 17–18, demonstrator, 18–19, asst. poultry exten. and experimentalist, 19–21, lecturer *poultry husbandry,* 21–30, asst. prof, 30–40, *assoc. prof, 40–* Poultry Sci. Asn. Inheritance of the A factor in pigeons; inheritance of hatchability in barred Plymouth Rocks; caponizing.

Snyder, Lieut. Edward B(urns), 512th Ordnance Co, Ft. George G. Meade, Md. *Physical chemistry.* Mansfield, Ohio, Dec. 7, 10. B.Chem, Cornell, 33, Chem.E, 34; Ph.D, Mass. Inst. Tech, 39. Lab. director, Ruth div, Kimble Glass Co, 40–42; *lieut, Ordnance Dept, U. S. Army, 42–* Chem. Soc. Heat capacity of deutero-ammonium chloride; an adiabatic calorimeter.

Snyder, E(dward) F(rank), U. S. Civil Service Commission, Washington, D. C. *Chemistry.* Livonia, N. Y, July 22, 95. B.S, Catholic Univ, 18. Asst. instr. chem, Catholic Univ, 17–18; chemist, Corby Yeast Plant, Washington, D. C, 18; asst. chemist, bur. plant indust, U. S. Dept. Agr, 18–19, asst. biochemist, 19–27, bur. chem. and soils, 27–30, assoc. chem-

ist, 30-35, bur. plant indust, 35-39, north. regional research lab, bur. agr. chem. and eng, 39-42; *examiner, physics and chem. unit, U. S. Civil Service Cmn, 42-* Lieut, Mil. Int. Div, U.S.A, 18-19. Chem. Soc; fel. Inst. Chem. Hydrogen ion and oxidation reduction; dissociation constants of indicators; hydrogen-ion methods for soils; starch methods.

Snyder, Elmer, U. S. Department of Agriculture, Fresno, Calif. *Pomology.* Ghent, N. Y, July 13, 92. B.S, Cornell, 14, 14-15. Asst. instr, Cornell, 14-15; from sci. asst. to *pomologist, div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr, 15-* A.A; Soc. Hort. Sci. Viticulture; grape production and breeding; resistant rootstocks; cytology.

Snyder, Dr. Franklin F(aust), Harvard University Medical School, Boston, Mass. *Obstetrics.* Lancaster, Pa, Dec. 29, 97. B.S, Princeton, 19; M.D, Hopkins, 23. Fellow, embryol. lab, Carnegie Institution, 23-24; asst. prof. anat, sch. med, Rochester, 24-28; from instr. to assoc. prof. obstet, sch. med, Hopkins, 28-38; asst. prof. obstet. and gynec, sch. med, Chicago, 38-42; *assoc. prof. anat. and obstet, Harvard Med. Sch, 42-* Asn. Anat; Physiol. Soc; Soc. Mammal; Soc. Exp. Biol. Physiology of reproduction.

Snyder, Dr. Fred H(ugh), 1056 Springfield, Wyoming, Ohio. *Biochemistry.* Connersville, Ind, March 20, 13. A.B, DePauw, 33; A.M, Illinois, 34; Ph.D, Purdue, 37. Instr. biol. chem, sch. med, Loyola, 37-40; *research chemist, skin research dept, Procter and Gamble Co, 40-* A.A; Chem. Soc. Amino acid metabolism; mineral metabolism; biochemistry of the skin.

Snyder, Prof. Geo(rge) E(dward), Johnstown Center, University of Pittsburgh, Johnstown, Pa. *Cytology.* Reading, Pa, Oct. 29, 04. B.S, Albright Col, 27; M.S, Pittsburgh, 29, Ph.D, 36. Teacher, high sch, Pa, 27-28; asst. *biol, Johnstown Center, Pittsburgh,* 28-29, instr, 29-38, *asst. prof, 38-* Cytology of the germ cell cycles in animals.

Snyder, Dr. H(arold) R(ay), University of Illinois, Urbana, Ill. *Organic chemistry.* Mt. Carmel, Ill, May 20, 10. B.S, Illinois, 31; Ph.D, Cornell, 35. Asst. chem, Cornell, 31-35; research chemist, Solvay Process Co, 35-36; asst. *chem, Illinois,* 36-37, instr, 37-39, assoc, 39-41, asst. prof, 41-43, *assoc. prof, 43-* Chem. Soc. Organic compounds of boron; stereochemistry of biphenyls; reactions of anils; cleavage of quaternary ammonium salts; synthesis of amino acids.

Snyder, Dr. J(ames) E(dward), Care of Goodyear Co, Akron, Ohio. *Chemistry.* Carlisle, Pa, March 17, 03. B.S, Iowa State Col, 24, M.S, 25; Ph.D, Pa. State Col, 28. Instr, Pa. State Col, 27-28; research chemist, Cellophane div, E. I. du Pont de Nemours and Co, 28-37; *research div, Goodyear Tire and Rubber Co, 37-; Field Artil, U. S. Army, 41-, lieut. col.* Chem. Soc. Solubilities in vanadium oxytrichloride; activation of gases in an electrical discharge; adhesives for water-repellent sheetings; transparent sheetings; technical service; Cellophane; Pliofilm.

Snyder, Prof. John A(mos), Philadelphia Observatory, Broad and Green Sts, Philadelphia, Pa. *Astronomy, Geology.* Philadelphia, Pa, June 24, 84. A.B, Pennsylvania, 06, A.M, 27. Prof. astron. and math, Cent. High Sch. Phila. 06-40; *acting director, Phila. Observatory, 41-* Astron. Soc; fel. Royal Astron. Soc. Evolution of solar and star systems; star and planet interiors; earthquakes; universal volcanic force; the cause and mechanics of sunspots; Jupiter and the giant planets; locating centers of the milky way and the local star cluster; transformation of the elements in nature; high-pressures and their effects upon matter inside heavenly bodies.

Snyder, Prof. J(ohn) O(tterbein), 757 Tennyson Ave, Palo Alto, Calif. *Zoology.* Butler, Ind, Aug. 14, 67. Indiana, 90-91; A.B, Stanford, 97, A.M, 99. Sch. supt, Wash, 93-94; asst. *zool, Stanford,* 97-99, instr, 99-03, asst. prof, 03-11, assoc. prof, 11-25, prof. and head dept, 25-32, *emer. prof, 32-* Instr, Hopkins Marine Sta, Stanford, 07, 08; asst, U. S. Fish Cmn, 97, 99, 02, 04, 06, 09; expert ichthyologist, U. S. Nat. Museum, 14; fisheries expert, State Fish and Game Cmn, Calif, 19-31, chief bur. fish conservation, 31-; director, Bur. Fisheries Lab, Woods Hole, 25- Naturalist, 'Albatross' exped, Hawaii, Alaska and Japan, 02-06. A.A; Calif. Acad. (cor. sec'y, 20-). Geographical distribution and classification of fishes of Mexico, Japan and Hawaii; origin and relationships of fish faunas of rivers and lakes of western America; life history of salmon.

Snyder, Joseph M, Soil Conservation Service, Williamsport, Pa. *Agronomy.* Altoona, Pa, Jan. 6, 89. B.S, Pa. State Col. Scientist, soil surv, U. S. Dept. Agr, 13-23; asst. fertilizer investigations, Exp. Sta, Maryland, 23-29; field agent, Chilean Nitrate of Soda, New York, 29-30; scientist, soil erosion investigations, and supt, Piedmont sta, bur. chem. and soils, *U. S. Dept. Agr,* Statesville, N. C, 30-33, Zanesville, Ohio, 33-36, senior soil scientist, region I, and later *chief cartographic div. surveys and project plans, soil conservation service, 36-* Soil surveys.

Snyder, Dr. Laurence H(asbrouck), Ohio State University, Columbus, Ohio. ****Zoology.* Kingston, N. Y, July 23, 01. B.S, Rutgers, 22; M.S, Harvard, 24, Sc.D, 26. Asst. genetics, Carnegie Institution, 22; Austin teaching fellow, Harvard, 22-23; instr. *zool,* N. C. State Col, 23-24, asst. prof, 24-25, assoc. prof, 25-30; *Ohio State,* 30-33, prof, 33-42, *chairman dept, 42-, prof. med. genetics, 34-* Visiting prof, Duke, 41. Cmt. on blood grouping, Nat. Research Council, chairman, cmt. human heredity, 34- Ed. in chief, 'Ohio Jour. Science,' ed. board, 'Eugenical News.' A.A; Soc. Nat. (v. pres, 41); Soc. Zool. (v. pres, 43); Genetic Asn; Eugenics Research Asn. (pres, 37); Ecol. Soc; Ornith. Union; Ohio Acad. Variation; selection; biological effect of x-rays; germ plasm; isohemagglutination; inheritance and racial distribution of the blood groups; taste deficiency and linkage in man; mental characters and their inheritance; gene-frequency derivations; medical genetics.

Snyder, Dr. Leon C(arlton), South Dakota State College, Brookings, S. Dak. *Mycology.* Sheppard, Mich, March 11, 08. B.S, M.S, Washington (Seattle), 31, Ph.D, 35. Teaching fellow, Washington (Seattle), 32-35; instr. bot, Wyoming, 35-36; *S. Dak. State Col,* 36-39, asst. prof, 39-41, *asst. prof. hort, 41-* Mycol. Soc. Taxonomy of the operculate discomycetes; western rusts; ornamentals; tomato breeding.

Snyder, L(ester) L(ynne), Royal Ontario Museum of Zoology, 100 Queen's Park, Toronto, Ont, Can. *Ornithology.* Panora, Iowa, July 11, 94. Iowa, 13-17. Technologist, *Royal Ont. Museum Zool,* 17-25, assoc. ornith, 25-35, *curator birds, 35-, asst. director, 38-* Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Wilson Ornith. Club. Systematics; distribution and ecology of birds; faunal survey of Ontario; museum methods.

Snyder, Prof. Marshall (Lovejoy), University of Michigan Medical School, Ann Arbor, Mich. *Bacteriology.* North Conway, N. H, July 7, 07. Ph.B, Brown, 30; Hopkins, 31; M.S, Colorado, 32, Ph.D, 35. Child research fellow *bacter,* sch. med, Colorado, 31-37; research assoc, hygienic lab, *med. sch, Michigan,* 37-38, instr, 38-41, *asst. prof, 42-; capt, U. S. Army.* Soc. Bact. (pres, Mich. branch, 41). Normal bacterial flora of man; anaerobic bacteriology; dental caries; infant diarrhea.

Snyder, Prof. M(orris) K(ay), State College of Washington, Pullman, Wash. *Civil engineering.* Cambria, Mich, Dec. 29, 74. Hillsdale Col, 91-96; B.S, State Col. Wash, 07. Instr. math. and civil eng, *State Col. Wash,* 07-09, asst. prof. civil eng, 09-12, *prof. sanit. eng, 12-, head dept. civil eng, 31-* City engineer, Ritzville, Wash, 07; Pullman, 08-14, 20-21; mayor, Pullman, 23-27. Expert bulk grain handling, U. S. Govt, 18; commissary, S.A.T.C, 18-19. Civil Eng; Eng. Educ; Northwest Sci. Asn. Properties of concrete; sewage disposal.

Snyder, Prof. R(obert) S(hirley), University of Idaho, Moscow, Idaho. *Agricultural chemistry.* Bertram, Iowa, June 6, 90. B.S, Coe Col, 11; M.S, Idaho, 24. Asst. soil chemist, Iowa State Col, 12-19; *assoc. prof. agr. chem, Idaho, 19-, acting head dept, 41-,* assoc. agr. chemist, *Exp. Sta,* 19-41, *acting agr. chemist, 41-* Chem. Soc. Soils; plants; nutrition; dairy products.

Snyder, Prof. Rufus H(ammer), 432 University Drive, Athens, Ga. *Physics.* Manheim, Pa. Jan. 29, 98. B.S, Lebanon Valley Col, 19; A.M, Columbia, 22; Ph.D, Ohio State, 28. Teacher, high sch, 19-21; asst, Columbia, 21-22; instr. physics and math, Mich. Col. Min. and Tech, 22-23; physics, Ohio State, 23-27; *assoc. prof. physics,* Richmond, 27-28; *Georgia, 28-* Physical Soc. Stark effect of silver and lithium.

Snyder, Dr. T(homa) M(ees van't Hoff), Princeton University, Princeton, N. J. *Physics.* Baltimore, Md, May 22, 16. Dr.P.H, Hopkins, 40. Jr. instr, Hopkins, 38; grad. asst, Maryland, 38-39; *instr. physics, Princeton, 40-* Physical Soc. X-ray spectra theory and experiment; electron scattering theory; experimental nuclear physics.

Snyder, Dr. Tho(ma)s E(llot), 7423 Hampson St, New Orleans, La. *Forest entomology.* New York, N. Y, Feb. 6, '85. A.B, Columbia, 07; M.F, Yale, 09; Ph.D, George Washington, 20. Entomologist and *senior entomologist, forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 09–* A.A; Entom. Soc; Asn. Econ. Entom; Soc. Foresters; Soc. Zool; Wood-Preservers' Asn; Entom. Soc. Wash; Biol. Soc. Wash. (sec'y, 20–30); Wash. Acad; New Orleans Acad. (pres, 43); hon. mem. Panama Canal Nat. Hist. Soc. Biology; taxonomy; genetics; insects attacking forest products; 'powder post' beetles; termites.

Snyder, Dr. Virgil, 214 University Ave, Ithaca, N. Y. **Mathematics.* Dixon, Iowa, Nov. 9, 69. B.S, Iowa State Col, 89; Cornell, 90–92, fellow, 92–93; Ph.D, Göttingen, 94; H.C.D, Padua, 22. Instr. *math, Cornell,* 94–03, asst. prof, 03–10, prof, 10–38, *emer. prof, 38–* Visiting prof, Brown, 42–43. Math. Soc. (ed, 'Bul,' 03–20, v. pres, 09–11, pres, 27); Am. Acad; Deuts. Math. Verein; Circolo Mat. di Palermo. Geometry of the line and sphere; configurations of ruled surfaces; birational transformations.

Snyder, W(erner) T(hadeus), 326 E. 11th St, Brookville, Ind. *Agronomy.* Rockport, Ind, Aug. 9, 93. B.S.A, Purdue, 15, M.S.A, 28; Minnesota, 15; Washington (St. Louis), 25; Illinois, 26. Teacher, high sch, Minn, 15–16; asst. parish agr. agent and teacher, La, 16–17; teacher, high sch, Ind, 17–18; farmer, 18–21; prin, high sch, Ind, 21–22; Ill, 22–27; asst. prof. agron, Maine, 27–34; instr. vocational agr, *high sch, Ind,* 36–38, *Smith-Hughes agr. instr,* 38–40, Flat Rock, 41–42; *Brookville, 43–* A.A; Soc. Agron; Genetic Asn; Vocational Asn; Visual Educ. Soc. Amer; Soil Sci. Soc. Wheat; plant pathology.

Snyder, Wilbert F(rank), National Bureau of Standards, Washington, D. C. *Physics.* Marion, Ohio, April 19, 04. A.B, N. Cent. Col, 26; A.M, Illinois, 27. Junior physicist, *Bur. Standards,* 27–29, asst. physicist, 29–36, *assoc. physicist, 36–* Fel. Acoustical Soc. (exec. councilor, 39–); Philos. Soc. Wash. Sound and building acoustics.

Snyder, Dr. William C(owperthwaite), 1926 Napa Ave, Berkeley, Calif. *Plant pathology.* Berkeley, Calif, July 26, 04. B.S, California, 27; Ph.D, Wisconsin, 32. Asst. plant path, California, 27–29; Wisconsin, 29–32; assoc, California, 33–34; nat. research fellow biol. sciences, Biol. Reichsanstalt, Germany, 34–35; instr. *plant path, California,* 35–37, asst. prof, 37–43, *assoc. prof, 43–,* junior plant pathologist, *Exp. Sta,* 35–37, asst. plant pathologist, 37–43, *assoc. plant pathologist, 43–* A.A; Phytopath. Soc; Bot. Soc; Mycol. Soc. Fusarium taxonomy; fungus and virus diseases of legumes.

Snyder, Dr. William E(noch), Louisiana Polytechnic Institute, Ruston, La. *Plant physiology.* Neosho, Mo, Aug. 15, 14. A.B, Colorado, 36; M.S. and Ph.D, Chicago, 40. *Asst. prof. biol, La. Polytech, 40–* Bot. Soc; La. Acad. Effects of light and temperature on floral initiation in Biloxi soybean and cocklebur.

Snygg, Prof. Donald, 154 W. Fifth St, Oswego, N. Y. *Psychology.* Magnet, Nebr, Sept. 24, 04. A.B, Nebr. State Teachers Col, 24; A.M, Iowa, 31; Ph.D, Toronto, 35. Prin, high sch, Nebr, 24–30, supt. schs, 30–33; clin. psychologist, Ont. Dept. Health, 34; exten. lecturer, Toronto, 34–36; director mental hygiene clinic, Toronto Infants Home, 36–37; *prof. psychol. and head dept, N. Y. State Teachers Col, Oswego, 37–* Psychologist, Toronto Juvenile Court, 35–36. Psychol. Asn; East. Psychol. Asn; N. Y. State Asn. Applied Psychol. Learning; mental hygiene; motivation.

Sobatzki, Dr. R(aymond) J(oseph), 541 Ashmead Road, Cheltenham, Pa. *Chemistry.* Chicago, Ill, Nov. 22, 03. B.S, Notre Dame, 25, M.S, 26; Ph.D, Northwestern, 30. Research chemist, E. I. du Pont de Nemours and Co, 28–35; asst, Pa. State Col, 35; research chemist, Resinous Products and Chem. Co, 35–42; *plastics develop, Rohm and Haas Co, 42–* Chem. Soc. Organic compounds of mercury; anthraquinone dyestuffs; resins; plastics.

Sobczyk, Dr. Andrew, 32 Bow St, Lexington, Mass. *Mathematics.* Duluth, Minn, May 4, 15. A.B, Minnesota, 35, A.M, 36; J.S.K. fellow, Princeton, 36–38, Ph.D, 39. Instr. *math,* Princeton, 38–39; *Oregon State Col,* 39–42, *assoc. prof, 42–; staff mem, radiation lab, Mass. Inst. Tech.* Math. Soc; Math. Asn. Topology; newer theories in algebra and analysis; linear transformations in Banach spaces.

Sobel, Albert E(dward), Jewish Hospital of Brooklyn, Brooklyn, N. Y. *Chemistry.* Luko, Hungary, Sept. 24, 06. B.S, Cooper Union, 30, Chem.E, 35; A.M, Columbia, 36; Ph.D, Polytech. Inst. Brooklyn, 40. Asst. biochem, Rockefeller Inst, 25–30; staff chemist, pediat. research lab, *Jewish Hosp. of Brooklyn,* 31–33, director lab, 33–36, *director chem. labs, 36–, instr. biochem; blood chem, Hunter Col, 43–* Instr, Brooklyn Col, 42–43. Soc. Exp. Biol; Chem. Soc; Soc. Biol. Chem; N. Y. Acad. Mechanism of bone formation; mechanism of lead deposition and removal; reactions and properties of sterols; preparation and physiological behavior of vitamin D; quantitative micro and ultramicro methods; chemical composition of body fluids in various diseases; role of protein and pepsin in gastric ulcer; survival of the virus poliomyelitis.

Sober, Dr. Herbert A(lexander), 2600 E. Baltimore St, Baltimore 24, Md. *Biochemistry.* New York, N. Y, Feb. 24, 18. B.S, Col. City of N. Y, 38; M.S, Wisconsin, 40, Ph.D, 42. Fellow biochem, Wisconsin, 42; *asst. toxicologist, Edgewood Arsenal, 42–* A.A; Chem. Soc. Nutrition of the guinea pig; thiamine deficiency on citric acid cycle; riboflavin deficiency on d-amino acid oxidase; vitamins and enzymes.

Sobotka, Dr. Harry H(ermann), Mt. Sinai Hospital, New York, N. Y. *Chemistry.* Vienna, Austria, Aug. 4, 99. Vienna, 17–18; Ph.D, Munich, 22. Asst, Munich, 21–24; Int. Educ. Board fellow and asst, Rockefeller Inst, 24–26; research assoc. bacter, Univ. and Bellevue Hosp. Med. Col, 26–28; *chemist, Mt. Sinai Hosp, 28–* A.A; Soc. Exp. Biol; Chem. Soc; Soc. Biol. Chem; Harvey Soc; N. Y. Acad. Med; N. Y. Acad; fel. Chem. Soc. Gt. Britain; Biochem. Soc. Gt. Britain. Organic synthesis; steroids; fermentation; enzymes; pathological chemistry.

Soday, Dr. Frank J(ohn), The United Gas Improvement Co, Philadelphia, Pa. *Organic chemistry.* Coaltown, Pa. March 10, 08. B.S, Grove City Col, 29; M.S, Ohio State, 30, Ph.D, 32. Asst, Ohio State, 29–32; research chemist, Pa. Grade Crude Oil Asn, 33–34; group leader, Thomas and Hochwalt Labs, 34–37; asst. lab. manager, United Gas Improv Co, 37–42; *tech. director, Copolymer Corp, 43–* A.A; Chem. Soc; Soc. Archeol; Soc. Pa. Archeol. (v. pres, 41–); Pa. Archeol. Soc. (pres, southeast. chap, 41–); Archeol. Soc. N. J; N. Y. State Archeol. Asn; Archeol. Soc. Del; Ohio State Archeol. Soc. and Hist. Soc; Colo. Archeol. Soc; Ark. Archeol. Soc. Nuclear syntheses of olefines and diolefines; vapor phase pyrolysis of hydrocarbons; catalytic oxidation of alcohols; polymerization and chemical utilization of unsaturated hydrocarbons; solvent refining of lubricating oils; synthetic rubber.

Sodeman, Dr. William A(nthony), 1430 Tulane Ave, New Orleans, La. *Preventive medicine.* Charleroi, Pa, June 13, 06. B.S, Michigan, 29, M.D, 31. Instr. med, *sch. med, Tulane,* 32–38, asst. prof, 38–41, *prof. prev. med. and head dept, 41–* Med. consultant, U. S. Marine Hosp; Eye, Ear, Nose and Throat Hosp; senior visiting physician, Charity Hosp. Soc. Clin. Invest; Col. Physicians; Soc. Exp. Biol. (sec'y south. sect, 41, chairman, 42). Internal medicine; cardiology and peripheral vascular disease; temperature mechanisms of body.

Soderberg, Prof. C. Richard, Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Ulvöhamn, Sweden, Feb. 3, 95. N.A, Chalmers Inst. Tech, 19; Am-Scandinavian Foundation fellow, 19–20; B.S, Mass. Inst. Tech, 20. Hull design draftsman, New York Shipbuilding Co, 20–22; develop. engineer, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 22–28; in charge turbo generators, Swedish Gen. Elec. Co, 28–30; chief turbine engineer, *Westinghouse Elec. and Mfg. Co,* 31–38; *prof. mech. eng, Mass. Inst. Tech, 38–* Consulting engineer. A.A; Mech. Eng. (chairman, publications cmt); Eng. Educ; Aeronaut. Asn; Soc. Automotive Eng; Franklin Inst; fel. Am. Acad; British Inst. Mech. Eng; Svenska Teknologföreningen. Vibration in high speed rotating machinery; design of turbo generators; heat flow; mechanical strength; moisture precipitation in condensing turbines; high temperature machinery.

Soderberg, (Karl) Gustaf, 412 Turner, Chevy Chase, Md. *Electrochemistry.* Helsingborg, Sweden, Sept. 15, 04. Orebro Col. (Sweden), 22; Chem.E, Royal Tech. Col. (Sweden), 26. Chemist, Dirigold Corp, Kokomo, Ind, 26–28; from chemist to tech. director, Udylite Co, 29–43; *head indust. specialist, War Production Board, 43–* Electrochem. Soc; Chem. Soc; Soc. Test. Mat; Electroplaters Asn; Faraday Soc; Electrodepositors Tech. Soc. Anode condition in plating baths; bright plating baths; tarnishing of plated coatings; plating equipment.

Soderwall, Dr. Arnold L(arson), 743½ E. 11th Ave, Eugene, Oregon. *Endocrinology.* Portland, Oregon, Nov. 13, 14. A.B, Linfield Col, 36; A.M, Illinois, 38; nat. research fellow, Brown and Yale, 38–40; Ph.D, Brown, 41. Asst. *zool,* Illinois, 36–38; *instr, Oregon, 41–* Physiology of reproduction; duration of the fertilizing capacity of mammalian spermatozoa; sensitivity of rodents to sex hormone administration after ablation of certain endocrine glands.

Soff, Dr. LeRoy D(avenport), 5–49 46th Ave, Long Island City, N. Y. *Chemical engineering.* Providence, R. I, Sept. 17, 00. A.B, Columbia, 20, Chem.E, 23, Ph.D, 32. Chemist and chem. engineer, Ralph H. McKee, New York, 23–25; *chief chemist, Paragon Paint and Varnish Corp, Long Island City, 26–, sec'y, 34–* A.A; Chem. Soc; fel. Inst. Chem; Soc. Chem. Indust; Chem. Eng. Oil and water paint.

Soffer, Dr. Milton D(avid), Smith College, Northampton, Mass. *Organic chemistry.* New York, N. Y, Dec. 11, 14. B.S, Arkansas, 37; A.M, Harvard, 39, Ph.D, 42; fellow, Purdue, 41–42. Indust. chemist, Wm. R. Rogers, Inc, N. Y, 37; *instr. chem, Smith Col, 42–* Summer, asst, Harvard, 40. Chem. Soc. Structure of natural products; the structure of cadinene; the oxidation and determination of the molecular weight of polynuclear aromatic compounds; war research.

Sohl, Dr. W(illia)m Ed(ward), R. F. D. 10, White Bear Lake, St. Paul, Minn. *Chemistry.* Cleveland, Ohio, Nov. 10, 06. B.S, Case, 28; M.S, Illinois, 31, fellow, 32–33, Ph.D, 33. Chemist, B. F. Goodrich Co, Akron, 28–30; chem. engineer, Belle works, E. I. du Pont de Nemours and Co, 33–37; *research chemist,* Arco Co, Cleveland, 37; *Minn. Mining and Mfg. Co, 37–* Chem. Soc. (sec'y, Kanawha Valley sect, 35–37). Synthetic organic chemistry; chemical engineering.

Sohlberg, R(udolph) G(ust), 225 Bush St, San Francisco, Calif. *Exploration geophysics, Petroleum geology.* Peshtigo, Wis, May 15, 07. B.S, Michigan, 30, 30–31; Stanford, 31–32. Asst. geol, Michigan, 29–31; teaching fellow miner, Stanford, 31–32; geologist and chemist, Santa Clara Holding Co, 33; mineralogist, Idaho Md. Mines Co, Calif, 33–34; asst. geologist, Board Water Supply, Honolulu, 34–35; *geologist and geophysicist,* Coast Explor. Co, 36–37; *Standard Oil Co, Calif, 37–* Geol. asst, Mich. Geol. Surv, 30. Miner. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Soc. Explor. Geophys; Asn. Professional Eng. Alta. Application of geophysics to exploration for oil and gas, particularly seismic methods.

Sohon, Prof. F(rederick) W(yatt), S.J, Georgetown University, Washington, D. C. *Seismology.* South Bethlehem, Pa, June 3, 94. Chem.E, Columbia, 15; A.B, Woodstock Col. (Md), 22, A.M, 23; Ignatius Col, Netherlands, 24–28; Ph.D, Georgetown, 33. Instr. math, Col. of Holy Cross, 15–16; asst. prof. chem. and seismolog'st, Fordham, 23–24; *prof.* astron, *Georgetown,* 28–32, *math. physics and head dept. math, 32–,* asst. director observatory, 28–29, *director seismol. observatory, 29–,* dean grad. sch, 34–36. Mem, Georgetown eclipse exped, Friburg, 32. A.A; Seismol. Soc. (sec'y, east. sect, 35–37); Math. Soc; Math. Asn; Geophys. Union; Philos. Soc. Wash; Astron. Gesell. Variable stars; rotation and perversion groups in Euclidean space of four dimensions; philosophy of mathematics; theoretical seismology; microseismic activity; vector analysis and mathematical physics.

Sohon, Dr. Harry, 1511 Lynnewood Drive, Upper Darby, Pa. *Electrical engineering.* New York, N. Y, Nov. 24, 04. E.E, Cornell, 26, M.E.E, 30, Ph.D, 32. Gen. Elec. Co, 26–28; McMullen research scholar elec. eng, Cornell, 28–30, 33–36, instr. *elec. eng,* 30–42; *asst. prof,* Connecticut, 42–43; *Pennsylvania, 43–* A.A; Eng. Educ; Elec. Eng; assoc. Radio Eng. Electrical communications; applied mathematics.

Sokolnikoff, Dr. Elizabeth S(tafford) (Mrs. Ivan S(tephan) Sokolnikoff), Shorewood, Madison, Wis. *Mathematics.* Providence, R. I, April 25, 02. Ph.B, Brown, 23, M.S, 24; fellow, Wisconsin, 28–30, Ph.D, 30. Instr. pure math, Texas, 24–25; asst. prof, Texas Tech. Col, 25–31; instr, Wisconsin, 31–40, lecturer math, 42–43. Math. Soc. Algebra.

Sokolnikoff, Prof. I(van) S(tephan), Shorewood, Madison, Wis. *Mathematics.* Chernigov, Russia, Nov. 10, 01. B.S, Idaho, 26, fellow, 25–27; Ph.D, Wisconsin, 30. Instr. *math, Wisconsin,* 27–30, asst. prof, 30–36, assoc. prof, 36–41, *prof, 41–* Summers, prof, grad. sch, Brown, 41, 42. Math. Soc; Math. Asn. Theory of elasticity; partial differential equations; boundary value problems.

Sokoloff, Dr. V(ladimir) P(etrovich), University of California at Los Angeles, Los Angeles, Calif. *Agricultural chemistry.* Tomsk, Siberia, Nov. 8, 04. Ph.D, California, 37. Junior chemist, Citrus Exp. Sta, California, 37–43; *asst. prof. bacter, California at Los Angeles, 43–* A.A; Soil Sci. Soc; Phytopath. Soc. Transformations of nitrogen in soils; entomophytic bacterial pathogens of noxious insects.

Solakian, Dr. Haig Nerses, A. F. Holden Co, New Haven, Conn. *Metallurgy.* Armenia, Feb. 22, 93. A.B, Cent. Col, 11; B.S, Mass. Inst. Tech, 17, M.S, 23, Sc.D, 24. Supt, The Pyrites Co, Ltd, 17–18; chief metallurgist, Remington Works, 19–22; research metallurgist, U. S. Smelting, Ref. and Mining Co, 24–26; metallurgist, Bur. Standards; *chief metallurgist and director research,* Geometric Tool Co; *A. F. Holden Co.* Min. and Metal. Eng. Metallurgy of iron and steel; overstrain and elastic constants of steels; high speed steel and its heat treatment; micro-structure of aluminum and aluminum alloys.

Solandt, Dr. D(onald) Y(oung), University of Toronto, Toronto, Ont, Can. *Physiology.* Ottawa, Ont, March 11, 07. B.A, Toronto, 29, M.A, 30, M.D, 33; Ph.D, London, 35. Research assoc, *Toronto,* 33–36, asst. prof. *physiol,* 36–41, *assoc. prof, 41–,* research assoc. *physiol. hygiene,* 38–41, *acting head dept, 41–; surgeon commander, med. research unit, Royal Can. Navy, 41–* Sec'y cmt. naval med. research, Nat. Research Council Can, 41–, chairman cmt. indust. hygiene. Physiol. Soc; Soc. Exp. Biol; Can. Physiol. Soc; Physiol. Soc. England. Cardiovascular reflexes; ganglionic transmission; respiration of diving mammals; respiratory pigments; time factors of excitation; muscle metabolism and excitation; experimental cardiology; experimental neurology; special senses physiology; atrophy in skeletal muscle; various applications of physiological knowledge and techniques to industrial and naval problems.

Solberg, Prof. Archie N(orman), 3215 Kylemore Road, Toledo, Ohio. *Embryology, Radiology.* Lemmon, S. Dak, Jan. 4, 09. B.S, N. Dak. Col, 30, M.S, 33; univ. fellow, Columbia, 36–37, Ph.D, 38. Instr. zool, N. Dak. Col, 30–33; asst, Columbia, 33–36; instr. *biol, Toledo,* 37–39, *asst. prof, 39–* John S. Newberry prize, Columbia, 36; Sigma Xi award, 40. A.A; Biol. Photog. Asn; Mich. Acad; fel. Ohio Acad. Embryology of fishes; effects of x-rays on germ cells and embryos.

Solberg, H(arry) L(eland), 630 Rose St, West Lafayette, Ind. *Mechanical engineering.* Brookings, S. Dak, March 30, 98. B.S, S. Dak. State Col, 20; B.S. (M.E), Purdue, 21, M.S, 23. From instr. to *head sch. mech. eng, Purdue, 21–* Mech. Eng; Eng. Educ. Steam generation at pressures up to 3,500 pounds per square inch and temperatures up to 1,400 degrees Fahrenheit.

Soley, Dr. Mayo H(amilton), University of California Hospital, San Francisco, Calif. *Internal medicine.* Malden, Mass, April 14, 07. B.S, Bowdoin Col, 29; M.D, Harvard, 33. House officer, Mass. Gen. Hosp, 33–35; asst. med, *med. sch, California,* 35–37, instr, 37–38, med. and pharmacol, 38–39, asst. prof, 39–42, *assoc. prof. med, 42–* A.A; Soc. Exp. Biol; Am. Med. Asn; Am. Heart Asn; Soc. Study Int. Secretions; Federation Clin. Research; Soc. Clin. Invest; Calif. Heart Asn. Diseases of the thyroid and iodine metabolism; respiratory physiology, particularly the effects of oxygen and carbon dioxide and hyperventilation; anxiety states and their physiological manifestations; exophthalmos.

Soley, Dr. R(ussell) C(lyne), Pulp and Paper Research Institute, Montreal, Que, Can. *Physical chemistry.* Economy, N. S, Dec. 27, 15. B.Sc, Mt. Allison, 36; Ph.D, McGill, 40. Research chemist, Can. Industries, Ltd, 40–42; *research assoc, Pulp and Paper Research Inst, 42–* Specific volume of cellulose.

Soley, William (George), 929 Creekside Drive, Niagara Falls, N. Y. *Chemical engineering.* Wilkes-Barre, Pa, May 27, 94. B.S, Pa. State Col, 19. *Research chem. engineer, Carborundum Co, 20–, head patent dept, 42–* Thermal conductivity of refractories; cements; properties of metals and alloys; special adhesives; drying and burning of ceramic articles; pulp and paper; patents; abrasives.

Solheim, Prof. W(ilhelm) G(erhard), University of Wyoming, Laramie, Wyo. *Botany.* Stoughton, Wis, May 13, 98. A.B, Iowa State Teachers Col, 24; A.M, Illinois, 26, Ph.D, 28. Instr. *bot,* N. Dak. Col, 28–29; asst. prof, *Wyoming,* 29–32, assoc. prof, 32–34, *prof, 34–, chairman dept, 31–* A.A; Phytopath. Soc; Mycol. Soc; Micros. Soc; Soc. Plant Taxon; Colo-Wyo. Acad. (exec. cmt, 41–); Ill. Acad; Calif. Bot. Soc. Fungi; morphology of Cercospora; Rocky Mountain fungi and algae; physiology of fungi.

Solinger, Dr. Julian L(ouis), Simmons College, Boston, Mass. *Physiology.* Providence, R. I, Dec. 10, 06. Ph.B, Brown, 28, M.S, 34, Ph.D, 38; B.Ed, R. I. Col. Educ, 39. Asst. physiol. and biochem, Brown, 33–36; instr. *biol, Simmons Col,* 39–43, *asst. prof, 43–* A.A; Soc. Zool; Asn. Biol. Teachers. Physiological effect of high frequency currents; physiological changes during insect metamorphosis.

Solis-Cohen, Dr. Myer, 2110 Spruce St, Philadelphia, Pa. *Medicine.* Philadelphia, Pa, May 24, 77. A.B, Pennsylvania, 97, M.D, 00. *Asst. prof. med, grad. sch. med, Pennsylvania, 20–* Lecturer, Women's Med. Col. of Pa, 24–41. Am. Med. Asn; Col. Physicians Phila; Path. Soc. Phila; Pediat. Soc. Phila; Phila. Laryngol. Soc. Focal infection; vaccino-therapy; immunology; tuberculosis; heart; public health.

Solis-Cohen, Dr. S(olomon), Cheltenham and Mountain Aves, Philadelphia, Pa. *Medicine, Therapeutics.* Philadelphia, Pa, Sept. 1, 57. A.B, Cent. High Sch, Phila, 72, A.M, 77; M.D, Jefferson Med. Col, 83, hon. Sc.D, 33; D.H.L, Jewish Theol. Sem. Amer, 28. Demonstrator path. and micros, Phila. Polyclinic, 83–85; chief med. clinic and lecturer special therapeut, *Jefferson Med. Col,* 85–89, clin. lecturer med, 89–02, senior asst. prof, 02–04, prof. *clin. med,* 04–27, *emer. prof, 27–* Prof, Phila. Polyclinic and Col. for Graduates, 87–02; physician, Jewish Hosp, 87–89, consultant, 29–; physician, Phila. Gen. Hosp, 89–26, consultant, 26–; lecturer, Dartmouth Col, 90–92; consultant, Rush Hosp. for Consumptives, 93–20; Jefferson Med. Col. Hosp, 02– Ed. staff, 'Med. News,' 87–95; 'Universal Annual Med. Sciences,' 90–94; 'Am. Jour. Med. Sciences,' 90–96; 'Am. Med,' 01–05; ed. and contributing ed, 'Phila. Polyclinic,' 95–99; 'System of Physiol. Therap,' 01–05. Trustee, U. S. Pharmacopoeia, 20–40. Mem, Board Educ, Philadelphia, Pa, 25– A.A; Am. Med. Asn. (chairman, sect. therapeut, 03); Am. Physicians (recorder, 01–15); hon. fel. Therapeut. Soc; hon. mem. Med. and Chirurg. Faculty Md; fel. Col. Physicians Phila. (ed, 91–93). Autonomic and endocrine disturbances; therapeutics of tuberculosis; pharmacotherapeutics; diagnosis.

Sollenberger, Paul, U. S. Naval Observatory, Washington, D. C. *Astronomy.* Kokomo, Ind, Aug. 14, 91. B.S, Marion Nor. Col, 13. Asst, *U. S. Naval Observatory,* 14–19, *in charge time service, 19–,* astronomer, 29–38, *prin. astronomer, 38–* World longitude determination, San Diego, 26; Naval Observatory eclipse exped, P. I, 29. A.A; Astron. Soc; Geophys. Union; Philos. Soc. Wash; Int. Astron. Union. Meridian transit observations; determination of time; transmission and measurement of time signals; radio recording apparatus; quartz crystal controlled timepieces.

Soller, Dr. Theodore, 41 Hurd Road, Belmont, Mass. *Physics.* Youngstown, Ohio, Aug. 27, 99. A.B, Oberlin Col, 22; A.M, Wisconsin, 24, Ph.D, 31. Instr. *physics,* Wisconsin, 25–28; *Amherst Col,* 28–32, asst. prof, 32–39, *assoc. prof, 39–; staff mem, radiation lab, Mass. Inst. Tech, 41–* A.A; Physical Soc; Acoustical Soc. Emission of secondary electrons from metals; magnetism.

Soller, Prof. Walter, R. R. 9, Box 451, Cincinnati, Ohio. *Physics.* Aug. 9, 94. B.S, Cincinnati, 17, M.E, 17, A.M, 21, Baldwin fellow, 21–25, Ph.D, 25. Instr. mech. eng, Cincinnati, 19–21, asst. physics, 21–25; assoc. prof, Arizona, 26–36; *director basic science research lab, Cincinnati, 36–* Production engineer, U. S. Navy Yard, 18–19. A.A; Physical Soc; Asn. Physics Teachers. Precision x-ray spectrometer; amplification of direct currents by single tube balanced circuit; the crystal structure of cuprous ferrite; dynamics; determination of diffraction pattern line intensities; testing and measuring potentials; balanced electron tube circuits; oscillator systems; constitution and physical properties of materials.

Solley, Dr. Fred P(almer), 25 E. 92nd St, New York, N. Y. *Medicine.* Newark, N. J, Oct. 10, 66. A.B, Yale, 88, Ph.B, 89; M.D, Columbia, 92. Tutor med, Columbia, 01–04, instr, 04–10; attending physician, *Knickerbocker Hosp, New York,* 20–35, *consulting physician, 35–* Asst, Presb. Hosp, New York, 00–10. A.A; Am. Med. Asn; N. Y. Acad. Med. (v. pres, 32–35). Clinical medicine; malarial fever in New York.

Sollmann, Prof. Torald (Hermann), Western Reserve University School of Medicine, Cleveland, Ohio. **²Pharmacology.* Coburg, Germany, Feb. 10, 74. Private study in pharmacy, chem. and med, U. S. and Paris, 87–94; M.D, Western Reserve, 96; hon. Sc.D, Ohio State, 34. Demonstrator physiol, *sch. med, Western Reserve,* 95–98, lecturer pharmacol, 98–01, asst. prof. *pharmacol. and mat. med,* 01–03, assoc. prof, 03–04, *prof, 04–, dean, 28–* Prof, Cleveland Sch. Pharmacy, 09–16; consultant, U. S. Pub. Health Service, 35– Exec. revision cmt, U. S. Pharmacopoeia, 10–30. A.A; Soc. Pharmacol. (pres, 13–16); Physiol. Soc; Am. Med. Asn. (chairman, sect. therapeut. and pharmacol, 11, chairman, council on pharmacy and chem, 36–); Col. Physicians; Am. Physicians; Soc. Exp. Biol; Soc. Biol. Chem; Asn. Med. Cols. (chairman, cmt. on med. aptitude tests, 29–36); Am. Acad. Bismuth; mercury; bronchial reactions.

Sollner, Dr. Karl, University of Minnesota, Minneapolis, Minn. *Chemistry.* Vienna, Austria, Jan. 9, 03. Ph.D, Vienna, 26. Demonstrator chem, Vienna, 22–26; research assoc. and asst, Kaiser Wilhelm Inst, 27–33; Weston fellow, Am. Electrochem. Soc, 30–31; privat-docent, Berlin, 33; indust. consultant and research guest, dept. chem, univ. col, London, 33–37; research chemist, dept. agron, Cornell, 37–38; assoc. chemist, *dept. physiol, Minnesota,* 38–39, *chemist, 39–, asst. prof. physiol. chem, 41–* Chem. Soc. Colloid chemistry; applied physical chemistry; electrochemistry of membranes; application of ultrasonic waves in colloid chemistry; sonic dispersion and coagulation; emulsification and emulsions; rubber latexes; adsorption; gels.

Solman, Dr. V(ictor) E(dward) F(rick), 24 Sorauren Ave, Toronto 3, Ont, Can. *Zoology, Ecology.* Toronto, Ont, May 24, 16. B.A, Toronto, 38, M.A, 39, Ph.D, 42. Asst. zool, Toronto, 36–42; *meteorol. asst. grade three, Meteorol. Service, Can, 42–* Summers, asst, Ont. Fisheries Research Lab, Toronto, 36–38; field biologist, Ducks Unlimited, Can, 39–42. Limnol. Soc. Cladocera of Costello Creek, Algonquin Park, Ontario; ecological relations of waterfowl with special reference to predatory fish.

Solnitzky, Prof. Othmar C(harles), Georgetown University School of Medicine, Washington, D. C. *Anatomy.* Craiova, Rumania, Oct. 22, 97. B.A, Saskatchewan, 17; Knights of Columbus scholar, Catholic Univ, 17–20, A.M, 18, Ph.D, 20; M.D, George Washington, 26. Asst. prof. *anat,* George Washington, 26–35; assoc. prof, *sch. med, Georgetown,* 35–37, *prof, 37–, director brain research inst.* Asn. Anat; Soc. Exp. Biol. Histology; embryology; neurology; embryology of nervous system.

Solomon, Prof. Alfred P, 30 N. Michigan Ave, Chicago, Ill. *Neurology, Psychiatry.* Fresno, Calif, Nov. 26, 97. A.B, California, 20; M.D, Illinois, 24. Intern, Cook County Hosp, 25; *asst. prof. psychiat, col. med, Illinois.* Assoc. attending neuro-psychiatrist, St. Luke's Hosp, senior attending neuro-psychiatrist; assoc. attending neurologist, Cook County Hosp; attending psychiatrist, inst. psychiat, Research and Educational Hosps. Psychiat. Asn; Asn. Research Nervous and Mental Disease; Cent. States Neuropsychiat. Soc; Ill. Psychiat. Soc; Chicago Soc. Personality Study (pres, 29; sec'y, 37); Chicago Neur. Soc. Correlations of blood pressure; galvanic skin reflex and electroencephalographic reactions with psychoanalytic concepts of the dynamics involved.

Solomon, Dr. A(rthur) K(askel), Harvard Medical School, Boston, Mass. *Physical chemistry, Physics.* Pittsburgh, Pa, Nov. 26, 12. A.B, Princeton, 34; A.M, Harvard, 35, Ph.D, 37; Cambridge, 37–39. Res. assoc. physics and chem, Harvard, 39–41, *res. fellow, Harvard Med. Sch, 39–* Chem. Soc; Physical Soc. Biological applications of nuclear physics.

Solomon, Dr. H(arry) C(aesar), 270 Commonwealth Ave, Boston, Mass. *Neuropsychiatry.* Hastings, Nebr, Oct. 25, 89. B.S, California, 10; M.D, Harvard, 14. Intern, *Psychopathic Hosp, Boston,* 14–15, asst. physician, 15, chief staff, 16–17, chief therapeut, 19–43, *director, 43–;* instr. psychiat. and neuropath, *Harvard Med. Sch,* 15–25, asst. prof. *psychiat,* 25–36, assoc. prof, 36–40, clin. prof, 40–43, *prof, 43–* Investigator, State Dept. Mental Diseases, Mass, 15–; asst. neurologist, Mass. Gen. Hosp, 23–; neurologist, Beth Israel Hosp, 16– Advisory cmt, State Dept. Pub. Welfare, Mass. Mem. subcmts. neurol, personnel and training, Nat. Research Council, 40– Contract surgeon, instr. psychiat, M.C, 17–18, lieut, 18–19. Psychiat. Asn; Psychopath. Asn; Neur. Asn; Am. Med. Asn; Mass. Psychiat. Asn; Boston Soc. Psychiat. and Neur. (pres, 27); Greater Boston Med. Soc. (pres, 28). Neuropsychiatry; neurosyphilis; spinal fluids.

Solomon, Meyer, 185 N. Wabash Ave, Chicago, Ill. *Psychiatry, Neurology.* New York, N. Y, Dec. 3, 87. M.D, Cornell, 09. Res. physician, St. Elizabeth Hosp, 09–12; instr. neur. and psychiat, col. med, Illinois, 13–15; asst. prof, Chicago Col. Med. and Surg, 15–17; neurologist, Chicago Health Dept, 23–29; director, City Munic. Psychopath. Lab, Chicago, 29–31;

prof. psychiat, Cook County Grad. Sch. Med, 35–; assoc. nervous and mental diseases, med. sch, Northwestern, 35– Attending neurologist, Cook County Hosp, 25–30; neurologist and psychiatrist, Woodlawn Hosp, 29–; Mt. Sinai Hosp, 30–; Edgewater Hosp, 30–; Englewood Hosp, 39–; consultant, Cook County Psychopathic Hosp. Lieut, M.C, 18–19. Fel. Am. Med. Asn; fel. Psychiat. Asn; Psychopath. Asn; Asn. Research Nervous and Mental Disease; fel. Speech Correction Asn. (past v. pres); Cent. Neuropsychiat. Asn; Chicago Neur. Soc. (past pres); fel. Chicago Soc. Personality Study (past pres); fel. Chicago Acad. Criminol. (past sec'y and pres). Personality, behavior and speech disorders.

Solowey, Dr. M(athilde), 52 Morton St, New York, N. Y. *Bacteriology.* New York, N. Y, July 12, 10. B.S, N. Y. Univ, 31; Women's Med. Col, 31–33; A.M, California, 35; Ph.D, Columbia, 42. Asst. sanit. science, DeLamar inst. pub. health, Columbia, 37–41; *special research, Pneumonia and Influenza Funds, U. S. War Dept, Columbia and N. Y. Univ, 42–* Serological classification of the viridans streptococci with special reference to those isolated from subacute bacterial endocarditis.

Solt, Dr. Irvin H(enry), U. S. Office of Education, Washington, D. C. *Physics.* Northampton, Pa, Feb. 7, 95. A.B, Yale, 17, Ph.D, 21; Paris, 19. Instr. physics, Lafayette Col, 21–22; instr. and asst. prof, Cincinnati, 22–29; research engineer, Westinghouse Elec. and Mfg. Co, 29–32; asst. prof. *physics, New Hampshire,* 38–41; specialist *physics educ, eng, science and management war training, Fed. Security Agency, U. S. Office Educ,* 41–42, *senior specialist, 42–* Physical Soc. Electric waves; magnetism; rectifiers.

Soltau, Dr. David L(ivingstone), University of Redlands, Redlands, Calif. *Physics, Civil engineering.* Launceston, Tasmania, July 14, 90. B.S, Northwestern, 09, A.M, 27; Ph.D, Washington (Seattle), 35. Rodman, instrumentman and res. engineer, State Highway Dept, Wash, 09–10; asst. physics, Washington (Seattle), 10–11, fellow, 33–35; practising civil engineer, Port Angeles, Wash, 11–12; draftsman and transitman, North. Pacific Ry, Tacoma, 12–16; field service rep, Oregon, Wash. and Idaho, McGraw-Hill Publishing Co, 16–17; Am. Presb. Mission, Pyengyang, Korea, treas. and prof. physics, Union Christian Col, prin, Pyengyang For. Sch, architect and consulting engineer for missions, 21–29; prof. physics, Col. of Puget Sound, 29–30; physics and eng. math, Whitworth Col. (Wash), 30–33; prof. physics, Seattle Pacific Col, 35–36; physics and math. and pres, Lower Columbia Junior Col, 36–40; coordinator eng, science and management war training program, Southern California, 41–43; *prof. physics and head dept, Redlands, 43–* A.S, 17–20, capt, Eng. O.R.C. A.A; Physical Soc; Asn. Physics Teachers; Civil Eng. High frequency currents; highways; transportation; railroad construction; magnetic analysis.

Somers, Dr. G(eorge) Fred(rick), Cornell University, Ithaca, N. Y. *Biochemistry.* Garland, Utah, July 9, 14. B.S, Utah State Col, 35; B.A, Oxford, 38, Rhodes scholar, B.Sc, 39; Ph.D, Cornell, 42. *Instr. biochem, Cornell, 41–* Soc. Plant Physiol. Organic acid metabolism in higher plants; intermediate reactions in carbohydrate metabolism of higher plants.

Somers, Dr. Ira I(ben), 2141 Buchanan St, San Francisco, Calif. *Plant physiology.* Garland, Utah, June 28, 16. B.S, Utah State Col, 38; Ph.D. Rutgers, 42. Chief chemist, Rocky Mountain Packing Corp, 35–39; *research asst, lab. for research in canning industry, California, 42–* Interrelations of iron and manganese in the growth of plants; canning industry.

Somers, Dr. Ransom Evarts, Gulf Oil Corp, Gulf Bldg, Pittsburgh, Pa. *Economic geology.* Waltham, Mass, July 28, 85. A.B, Harvard, 08, A.M, 10; Ph.D, Cornell, 15. Asst. prof. econ. geol, Cornell, 16–19; prof. oil and gas geol, Pittsburgh, 19–25, geol. and head dept, 25–28; *asst. staff geologist, Gulf Oil Corp, 28–* Lecturer, Pittsburgh. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. Oil and gas geology.

Somerville, Dr. A(lbert) A(lexander), The Vanderbilt Co, 230 Park Ave, New York, N. Y. *Physics.* Milroy, Ind, Jan. 28, 83. Ph.D, Cornell, 10. Physicist, U. S. Rubber Co; *v. pres. and manager rubber dept, Vanderbilt Co.* Physical Soc.

Sommer, Dr. Anna L(ouise), Alabama Polytechnic Institute, Auburn, Ala. *Chemistry.* Cucamonga, Calif, Jan. 9, 89. B.S, California, 20, M.S, 21, Ph.D, 24. Teaching fellow bot, California, 22, 24, plant nutrition, 24, asst, 24–26; research fellow, Minnesota, 26–29; *assoc. prof. plant nutrition and assoc. soil chemist, Ala. Polytech, 30–* A.A; Soc. Plant Physiol; Soil Sci. Soc; Int. Soc. Soil Sci. Inorganic chemistry; inorganic nutrition of plants; plant metabolism.

Sommer, Dr. Hermann, Hooper Foundation, Second and Parnassus Aves, San Francisco, Calif. *Chemistry.* Zurich, Switzerland, Feb. 8, 99. Ph.D, Zurich, 23. Asst. chem, Zurich, 23, pharmacol, 24; Ferdinand Stabel research assoc, *Hooper Foundation, California,* 24–26, research assoc. bacter, 26–28, *asst. prof. research med, 28–* A.A; Chem. Soc; Soc. Exp. Biol; Pasteur Soc. North. Calif; Schweiz. Chem. Gesell. Amino-acids and amines; catalytic hydrogenation; dye chemistry; bacterial toxins and enzymes; toxicology and chemistry of seashore animals, especially mussel poisoning.

Sommer, Prof. H(ugo) H(enry), 710 Huron Hill, Madison, Wis. *Dairy industry.* Timothy, Wis, Sept. 4, 96. B.S, Wisconsin, 18, M.S, 19, Ph.D, 22. Asst. agr. chem, Wisconsin, 17–20; chemist, North. Calif. Milk Producers Asn, 20; asst. prof. *dairy indust, Wisconsin,* 20–25, assoc. prof, 25–27, *prof, 27–* Dairy Sci. Asn; Chem. Soc. Dairy chemistry; oxidized fat flavors in dairy products; acidity of milk; milk grading; solubility of metals in milk; curd strength and rennet coagulation of milk in relation to mastitis; the theory and practise of ice cream making; market milk and related products.

Sommerman, Dr. George M(iller) L(ouis), 9204 Flower Ave, Silver Spring, Md. *Electrical engineering.* Baltimore, Md, July 2, 09. B.E, Hopkins, 29, D.E, 33. High voltage cable research, Hopkins, 29–30; research engineer, Am. Steel and Wire Co, 34–42; *physicist war research, sect. T, Office Sci. Research and Develop, 42–* Alfred Noble eng. prize, 37. A.A; Elec. Eng; Physical Soc. Dielectrics; electrical measurements; electrical oscillations; high voltage cables.

Sommers, Dr. Henry S(tern), Jr, 20 Gilbert Road, Belmont, Mass. *Physics.* St. Paul, Minn, April 21, 14. A.B, Minnesota, 36; Ph.D, Harvard, 41. Instr, Harvard, 41–42; *mem. staff, Mass. Inst. Tech, 42–* Physical Soc. Nuclear physics; measurements on beta ray spectra.

Sommerville, Prof. R(ichard) C(larke), 307 Vernon St, Lynchburg, Va. *Psychology.* White Post, Va, Oct. 12, 75. A.B, Hampden-Sydney Col, 95, A.M, 96; Harvard, 04; Ph.D. Columbia, 25. Teacher, pub. schs, 96–11; pres, Greenbrier Col, 11–16; Texas Presb. Col, 16–18; prof. psychol. and philos. Arkansas Col, 19–23; dean sch. educ, La. Col, 24–25; *prof philos, Southwestern Col, 25–28; psychol. and educ, Lynchburg Col, 28–* Summers, lecturer, Univ. of the South, 26, 27. A.A; assoc. Psychol. Asn; Archeol. Inst; S. Soc. Philos. and Psychol; Va. Acad. (sec'y, 34–36, chairman, sect. psychol, 30–32); Tenn. Acad. Physical, motor and sensory capacities in their relation to intelligence and success.

Somogyi, Dr. Michael, 216 S. Kingshighway St, St. Louis, Mo. *Biochemistry.* Reinersdorf, Austria, March 7, 83. C.E, Technische Hochschule, Budapest; Ph.D, Budapest. Asst. biochem, Budapest, 05–06; med. col, Cornell, 06–07; head chemist, munic. labs, Budapest, 09–21; instr. biochem, sch. med, Washington (St. Louis), 21–26; *biochemist, Jewish Hosp. of St. Louis, 26–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Metabolism of carbohydrates and of ketone bodies; diastase; analytical methods.

Sondern, Dr. Clarence W(illiam), George A. Breon and Co, Kansas City, Mo. *Pharmacy.* Milwaukee, Wis, March 24, 06. B.S, Wisconsin, 28, M.S, 29, fellow, 31–32, Ph.D, 32. Junior chemist, U. S. Dept. Agr, 29–30; research, E. R. Squibb and Sons, Brooklyn, 30–31; Wm. S. Merrell Co, Cincinnati, 32–33; sci. director, Strong, Cobb and Co, Cleveland, Ohio, 34–35; *director research, George A. Breon and Co, 36–, research chem. div, labs, 42–* A.A; Asn. Study Int. Secretions; Chem. Soc. (sec'y Kansas City sect, 40–); Pharmaceut. Asn. (pres, Cincinnati sect, 34). Medicinal chemistry; blood bismuth studies; estrogens; thymotinic compounds; pharmaceutical chemistry.

Sondern, Dr. Frederic Ewald, 108 W. 58th St, New York, N. Y. *Pathology.* Stuttgart, Germany, March 30, 67. M.D, Columbia, 89. Prof. clin. path, N. Y. Post-Grad. Med. Sch, Columbia, 05–16; director labs, Lying-in Hosp, New York, 10–31; clin. path, Bellevue Hosp, 31–36; *retired.* Soc. Clin. Path; N. Y. Path. Soc; Med. Soc. N. Y. (past pres); N. Y. Acad. Med. (trustee, 37). Clinical pathology.

Sonkin, Prof. Simon, College of the City of New York, New York, N. Y. *Physics.* New York, N. Y, April 3, 01. B.S, Col. City of N. Y, 20; E.E, Polytech. Inst. Brooklyn, 22; A.M, Columbia, 24, Ph.D, 33. Tutor physics, *Col. City of N. Y,*

18–20, instr, prep. dept, 20–28, *physics*, 28–33, asst. prof, 33–41, *assoc. prof, 41–*, chairman dept, 38–41; *research assoc, Mass. Inst. Tech, 42–* Physical Soc. Electron emission.

Sonneborn, Dr. Henry, III, 6701 Park Heights Ave, Baltimore, Md. *Chemistry.* Baltimore, Md, March 11, 18. A.B, Hopkins, 38, Ph.D, 41. Asst. tech. director, L. Sonneborn Sons, Inc, 41–42; *ensign, U. S. Naval Res, 41–* Chem. Soc. Physical organic chemistry; organic free radicals.

Sonneborn, Prof. Tracy M(orton), Indiana University, Bloomington, Ind. **7Zoology.* Baltimore, Md, Oct. 19, 05. A.B, Hopkins, 25, Ph.D, 28. Nat. research fellow, 28–30; asst. *zool*, Hopkins, 30–31, research assoc, 31–33, assoc, 33–39; assoc. prof, *Indiana*, 39–43, *prof, 43–* A.A; Genetics Soc; Soc. Zool; Soc. Nat. Genetics of Protozoa.

Sonnenblick, Dr. Benjamin P(aul), Queens College, Flushing, N. Y. *Biology.* New York, N. Y, May 31, 10. B.S, Col. City of N. Y, 30; Michigan, 31–32; Ph.D, N. Y. Univ. 38. Teaching fellow *biol*, N. Y. Univ, 33–37; research assoc. and later *instr, Queens Col. (N. Y), 38–* Guggenheim Mem. Foundation fellow, 41–42. Soc. Zool; Genetics Soc. Insect embryology; genetics; embryology of Drosophila melanogaster; x-radiation genetics.

Sonnichsen, Dr. H(arold) M(arvin), 1835 Niagara Ave, Niagara Falls, N. Y. *Organic chemistry.* Hancock, Minn, April 4, 12. A.B, Texas Col. Mines, 34; M.S, Harvard, 35, Ph.D, 39. *Research chemist, electrochem. dept, E. I. du Pont de Nemours and Co, 39–* Tautomerism of hindered carbonyl compounds; properties and applications of synthetic high polymers.

Sontag, Dr. L(ester) W(arren), Antioch College, Yellow Springs, Ohio. *Medicine.* Heron Lake, Minn, May 16, 01. B.S, Minnesota, 24, M.B, 25, M.D, 26. Col. physician, *Antioch Col, 27–29, director, Samuel S. Fels Research Institute, 29–* A.A; Am. Med. Asn; assoc. fel. Acad. Pediat; Soc. Research Child Develop. (ed. 'Monographs'); Soc. Research Psychosomatic Problems (cmt. psychosomatic problems of infancy and early childhood). Child development; fetal behavior and physical growth.

Sooter, Dr. Clarence A, Malheur National Wildlife Refuge, Burns, Oregon. *Biology.* Leslie, Ark, Dec. 14, 11. B.S, Okla. Agr. and Mech. Col, 33, M.S, 35; Ph.D, Iowa State Col, 41. Teaching fellow, Iowa State Col, 35–36, asst, 36–37; *junior biologist, fish and wildlife service, U. S. Dept. Interior, 37–* Waterfowl management; life history and management of the American coot; life history and management of the Canada goose and the sandhill crane; marsh management and ecology; the relation of grazing and haying to waterfowl breeding activities.

Soper, Prof. E(dgar) K(irke), University of California at Los Angeles, Los Angeles, Calif. *Geology.* Calif, 86. A.B, Stanford, 08; A.M, Minnesota, 15, Ph.D, 17. Instr. econ. geol, Cornell, 08–10; Minnesota, 10–16; asst. prof. mining eng, Idaho, 16–17, assoc. prof, 17; dean, Oregon Sch. Mines, 17–18; petrol. geologist, S. Pearson and Son, Ltd, London, 18–19; geologist, Sinclair Consol. Oil Corp, 19–26; *consulting geologist, 26–; assoc. prof. geol, California at Los Angeles, 27–* Field geologist, U. S. Geol. Surv, 11, geologist, 18; Minn. Geol. Surv, 12–16; Am. Smelting and Ref. Co, 13; consulting geologist, Texas Co, 28–31. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng. Economic geology; clay and shale deposits of Minnesota; peat deposits; mining districts of Idaho; petroleum geology.

Soper, Dr. Fred L(owe), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Medicine, Hygiene.* Hutchinson, Kans, Dec. 13, 93. A.B, Kansas, 14, M.S, 16; M.D, Rush, Chicago, 18; Dr.P.H, Hopkins, 25. *Field staff, int. health div, Rockefeller Foundation, 20–* A.A; Soc. Trop. Med; fel. Pub. Health Asn; Acad. Trop. Med; Soc. Parasitol; Royal Soc. Trop. Med; cor. mem. Acad. Nac. Med. Brazil; cor. mem. Acad. Nac. Med. Colombia. Hookworm disease; yellow fever; public health administration; malaria.

Soper, Dr. George A(lbert), 2651 16th St, N.W, Washington, D. C. *Sanitary engineering, Epidemiology.* New York, N. Y, Feb. 3, 70. B.S, Rensselaer Polytech, 95; A.M, Columbia, 98, Ph.D, 99. Transitman, west. div, Boston Water Works, 95; engineer, Cumberland Mfg. Co, 95–97; engineer in charge sanit. cleaning, Galveston, Texas, 99; sanit. engineer, Dept. Health, New York, 02; typhoid expert, State Dept. Health, N. Y, 03; Williams Col, Cornell Univ, Watertown and Lawrence, N. Y, 04–07; *consulting sanit. engineer and epidemiologist; consultant sanitation, Fed. Pub. Housing Authority, 41–* Pres, Metropolitan Sewerage Cmn, New York, 08–14. Major, Sanit.C, 18–19. A.A; Chem. Soc; Soc. Bact; Pub. Health Asn; Civil Eng; Asn. Cancer Research; Soc. Control Cancer (managing director, 23–28); hon. fel. Royal Sanit. Inst. Water and sewage purification; street cleaning and refuse disposal; epidemiology.

Soper, J(oseph) Dewey, 827 Riverwood Ave, Winnipeg, Man, Can. *Ornithology, Mammalogy.* Near Guelph, Ont, May 5, 93. Alberta, 21–24. Naturalist, Can. Arctic exped, Nat. Museum Can, 23–26, field naturalist, 24–27; surv. mammals, int. boundary, Alta-Man, 27; Arctic investigator, Wood Buffalo Park, Dept. Interior, Ottawa, 28–32, in charge investigations, 32–34; *chief fed. migratory birds officer, Nat. Parks Bur. Can, Alta, Sask. and Man, 34–* Leader, Nat. Museum Can. Arctic exped, 24–26; Dept. Interior, Can. exped. to Foxe Peninsula, Baffin Island, 28–29, exped. to Lake Harbour, Baffin Island, 30–31. Ornith. Union; Soc. Mammal; fel. Am. Geog. Soc; Wilson Ornith. Club; Cooper Ornith. Club; Ottawa Field Nat. Club; fel. Can. Geog. Soc. Geography; breeding grounds of the blue-goose, Foxe basin coast, Baffin Island; life history of the northern bison.

Sorber, D(aniel) Glenn, U. S. Department of Agriculture, Albany, Calif. *Chemistry.* Meadow, Nebr, Sept. 26, 95. A.B, George Washington, 26; M.S, Southern California, 29. Chem. laboratorian and junior chemist, meat inspection lab, *U. S. Dept. Agr*, 20–26, from junior chemist to assoc. chemist, fruit and veg. chem. lab, bur. chem. and soils, 26–41, chemist and later *senior chemist, west. regional research lab, bur. agr. and indust. chem, 41–* A.A; Inst. Food Technol; Chem. Soc. Rancidity of fats; unsaponifiable matter; preservation of fruits with sulfur dioxide; chemical composition of fruits; application of ethylene to the pear and walnut harvest; preservation of fruits and fruit products by freezing.

Sorensen, Dr. Andrew J(ensen), 1204 East End Ave, Edgewood, Pa. *Physics.* Skjellerup, Denmark, Nov. 10, 87. A.B, Iowa State Teachers Col, 21; M.S, Iowa, 22, fellow, 22–24, Ph.D, 24. *Research dept, Union Switch and Signal Co, Swissvale, Pa, 24–* Magnetic properties of thin films of ferromagnetic metals.

Sorensen, Prof. Royal W(asson), California Institute of Technology, Pasadena, Calif. *Electrical engineering.* Wabaunsee Co, Kans, April 25, 82. B.S, Colorado, 05, E.E, 28, hon. Sc.D, 38. Testman, Gen. Elec. Co, 05–06, designing engineer, 06–10; asst. prof. *elec. eng*, Throop, 10–11, *prof*, 11–20, *Calif. Inst. Tech, 20–* Lecturer, California, 18–20; consulting engineer, Pacific Light and Power Co, 13–17; South. Calif. Edison Co; U. S. Elec. and Mfg. Co, 17–29, 31–33; Gen. Elec. Co, 29–30; Petrol. Rectifying Co. of Calif; mem. board consulting engineers, Metropolitan Water Dist. of South. Calif, 32– Mem. eng. div, Nat. Research Council. A.A; fel. Elec. Eng. (chairman, Los Angeles sect, 21–22, v. pres, 33–35, director, 36–40, pres, 40); Eng. Educ; Los Angeles Joint Tech. Soc. (chairman, 26). Insulation; switching; polyphase connections and polarity; design of high voltage equipment; high voltage phenomena; lightning protection.

Sorenson, Prof. Alfred E(dward), 150 Patton Ave, Princeton, N. J. *Mechanical engineering, Hydraulics.* Meriden, Conn, Sept. 3, 02. M.E, Rensselaer Polytech, 24. Instr. *mech. eng*, Rensselaer Polytech, 24–26; *Princeton*, 26–31, asst. prof, 31–41, *assoc. prof, 41–*; ground instr, Civil Aeronautics Admin, 39–42. Summers, asst. to H. DeB. Parsons, New York, 26; asst. to engineer, Walker Gordon Lab, Inc, 28; asst. to supt. grounds and bldgs, Princeton, 29–40. Army Ordnance Asn; Mech. Eng; Eng. Educ. Determination of the pressure at which cavitation begins.

Sorenson, C(harles) J(ames), Utah State Agricultural College, Logan, Utah. *Entomology.* Hyrum, Utah, May 3, 84. B.S, Utah Col, 14, A.M, 27; summers, Washington (Seattle), 16, California, 19. Instr. and asst. prof. zool. and entom, Utah Col, 14–20; agr. agent, Weber Co, Utah, 21; dist. agr. inspector, State Dept. Agr, Utah, 21–25; asst. entomologist, *Exp. Sta*, Utah Col, 26–29, *Utah State Col*, 29–30, assoc. entomologist, 30–38, *research assoc. prof. entom, 38–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Utah Acad. Insect pests of forage, alfalfa-seed, cereals, orchard fruits and stored products.

Sorenson, Pres. Herbert, Duluth State Teachers College, Duluth, Minn. *Educational psychology.* Dawson, Minn, April 12, 98. B.S, Minnesota, 24, A.M, 25, Ph.D, 28. Asst. educ.

psychol, Minnesota, 25–26, instr, 26–28, asst. prof, 28–37, assoc. prof, 37–38; *pres, Duluth State Teachers Col, 38–* A.A; assoc. Psychol. Asn. General psychology; educational psychology; adult abilities; statistics; higher education.

Sorg, L(eonard) V(etter), 5811 Wayne Ave, Kansas City, Mo. *Chemistry.* Hesston, Kans, March 8, 06. A.B, Kansas, 27; A.M, Univ. Kansas City, 40. *Research chemist,* Larabee Flour Mills Co, 27–30; *Standard Oil Co. of Ind, 30–* Chem. Soc. (chairman, Kansas City sect, 42). Determination of hydrogen-ion concentration of flour extracts; sunlight color stabilization of gasolines; auto-oxidation of gasoline to form gums; surface tension of alcohols by method of pendant drops.

Sorgenfrey, Dr. R(obert) H(enry), 405 Hilgard Ave, Los Angeles, Calif. *Mathematics.* Sunbury, Iowa, Aug. 14, 15. A.B, California at Los Angeles, 37; Ph.D, Texas, 41. *Instr. math,* Case, 41–42; *California at Los Angeles, 42–* Math. Soc. Structure of continua; point set topology.

Sorokin, Mrs. Helen P, 8 Cliff St, Winchester, Mass. *Botany.* St. Petersburg, Russia, July 11, 94. Grad, Petrograd, 17; Ph.D, Minnesota, 25. Instr, Petrograd, 17–22; asst, Prague, 22–24; Exp. Sta, Minnesota, 25, bot, univ, 25–30; with Bussey Inst, Harvard, 31–32; *private research, 36–* Bot. Soc. Cytology.

Soroos, Dr. H(arold), 1600 W. Eight Mile Road, Detroit, Mich. *Organic chemistry.* Valley City, N. Dak, Nov. 2, 02. A.B, N. Dak. State Teachers Col, 27; M.S, Iowa, 32, Ph.D, 34. *Research chemist, Ethyl Corp, Detroit, 34–* Chem. Soc. The reactions of bromoamines with Grignard reagents; synthesis and properties of hydrocarbons; organometallics.

Sorrels, Prof. J(oseph) H(arrell), Agricultural and Mechanical College of Texas, College Station, Texas. *Sanitary engineering.* Ft. Worth, Texas, Aug. 15, 04. A.B, Texas Christian; M.S, Vanderbilt. Chemist, Terrell's Labs, 26–37; chemist stream pollution, State Health Dept, Texas, 38–39, water and sewage, 39–41; *assoc. prof. sanit. eng, Agr. and Mech. Col. Texas, and research assoc, eng. exp. sta, 41–* Chem. Soc. Treatment of water supplies; recovery of essential oils from native and cultivated plants.

Sorum, Prof. C(larence) Harvey, 938 University Bay Drive, Madison, Wis. *Chemistry.* Preston, Minn, Aug. 30, 99. A.B, St. Olaf Col, 19; M.S, Wisconsin, 25, Ph.D, 27. Instr. *chem, Wisconsin,* 27–29, asst. prof, 29–39, assoc. prof, 39–43, *prof, 43–* Chem. Soc. (v. pres, Wis. sect, 32). Colloidal chemistry of ferric oxide; gold and foams.

Soske, Dr. Joshua L(awrence), California Institute of Technology, Pasadena, Calif. *Geology, Paleontology.* Ardmore, S. Dak, May 16, 03. G.E, Colo. Sch. Mines, 29; M.S, Calif. Inst. Tech, 32, Ph.D, 35. Miner, Park Utah Consol. Mines Co, 25–26; geophysicist, Standard Oil Co. of Calif, 29–31; teaching fellow applied geophys, *Calif. Inst. Tech,* 31–35, *research assoc. geol. and paleont, 35–* Consulting geophysicist, 32–35; in charge elec. surv. gold bearing gravels, Salyer Consol. Properties, 33; pres, Geophys. Eng. Corp. of Del, 35– Earth magnetism and its anomalies over geologic features of local and regional extent; variations of diurnal changes; applied seismology; reflection method of seismographic investigation.

Soskin, Dr. Samuel, Michael Reese Hospital, Chicago, Ill. *Physiology, Medicine.* New York, N. Y, 04. M.D, Toronto, 26, fellow, 26–27, M.A, 27, Ph.D, 29. Demonstrator physiol, Toronto, 27–29; director metabolic and endocrine research, *Michael Reese Hosp,* 29–43, *med. director, 43–;* asst. prof. *physiol, Chicago,* 32–41, *professorial lecturer, 41–; mem. cmt. med. research, Office Sci. Research and Develop, 43–* Grant, cmt. sci. research, Am. Med. Asn, 38; Nat. Foundation Infantile Paralysis, 39–42; Johnson Research Foundation, 40–42. A.A; Physiol. Soc. (permanent sec'y, metabolic discussion group, 36–); Soc. Exp. Biol. (chairman, Ill. sect, 40); Inst. Nutrition; Soc. Clin. Invest; Cent. Soc. Clin. Research; Inst. Med. Chicago; Chicago Soc. Int. Med. Carbohydrate metabolism; diabetes; functions of the liver; endocrines and endocrine regulation of metabolism.

Sosman, Dr. M(errill) C(lary), 721 Huntington Ave, Boston, Mass. *Medicine.* Chillicothe, Ohio, June 23, 90. A.B, Wisconsin, 13; M.D, Hopkins, 17. Instr. roentgenol, *Harvard Med. Sch,* 22–28, asst. prof. med, 28–40, *clin. prof. roentgenol, 40–* Am. Board Radiol, 34–; Nat. Research Council, 34–37. Capt, M.C, 18–22. Am. Med. Asn; Radiol. Soc. N. Amer; Roentgen Ray Soc. (pres, 40); New Eng. Roentgen Ray Soc. (pres, 30); Harvey Cushing Soc. (pres, 36). Roentgenology.

Sosman, Dr. Robert B(rowning), U. S. Steel Corp, Kearny, N. J. *[3]*Chemistry.* Chillicothe, Ohio, March 17, 81. B.S, Ohio State, 03, hon. Sc.D, 38; Mass. Inst. Tech, 04, Ph.D, 07. Lab. of Arthur D. Little, Boston, 06–08; asst. physicist, geophys. lab, Carnegie Institution, 08–11, physicist, 11–28, acting director, 18–20; *physical chemist, research lab, U. S. Steel Corp, 28–; mem. war metal. cmt, War Production Board, 41–* Lecturer, Mass. Inst. Tech, 25–26. Investigator optical glass, W.I.B, 17–18; consulting chemist, nitrate div, Ordnance Dept, 18. Min. and Metal. Eng; Chem. Soc. (pres, Wash. sect, 16, N. Jersey sect, 36); Geol. Soc; Physical Soc; Ceramic Soc. (v. pres, 36, pres, 37); Geophys. Union; Philos. Soc. Wash. (pres, 20); Wash. Acad. (cor. sec'y, 17–21, ed, 19–21, pres, 28); N. Y. Miner. Club; British Ceramic Soc; Keramische Gesell. Aqueous solutions at 0° to 300°; gas thermometry to 1600°; specific volume of minerals at fusion; refractory oxids; iron-oxygen system; silica and silicates; geophysics; industrial pyrometry.

Sottery, Prof. C(onstantine) Theodore, Annandale-on-Hudson, N. Y. *Chemistry.* Smyrna, Asia Minor, July 30, 96. A.B, Clark, 16; A.M, Columbia, 23, Ph.D, 25. Chemist, Merrimac Chem. Co, 16–17; Am. Optical Co, 17; instr. science, Troy Conf. Acad, 17–18; chem, Bradford Durfee Textile Sch, 18–22; asst. *chem,* Columbia, 23–25; prof, Albright Col, 25–28; asst. prof, St. Stephen's Col, *Columbia,* 28–32, assoc. prof, 32–35, *fellow,* 34–35, *Bard Col, 35–,* assoc. prof, 35–37, *prof, 37–* Reader, Col. Ent. Exam. Board, 30–32. Summer, prof, Columbia, 43. A.A; Chem. Soc. Organic chemistry; science education.

Souder, Dr. Wilmer, National Bureau of Standards, Washington, D. C. *Physics.* Salem, Ind, 84. A.B, Indiana, 10, A.M, 11; Ph.D, Chicago, 16. Asst, Chicago, 14–17; asst. physicist, *Bur. Standards,* 17–18, assoc. physicist, 18–20, physicist, 20–29, *prin. physicist, 29–* A.A; Chem. Soc; hon. fel. Col. Dentists; hon. mem. D. C. Dental Soc; hon. mem. Columbus Dental Soc; hon. mem. 1st Dist. Dental Soc. N. Y; Wash. Acad; Int. Asn. Dental Research (pres, 40); Int. Asn. Chiefs of Police; Int. Asn. Identification. Sound; photoelectric discharges; metrology; thermal expansivity; dental research; scientific crime detection.

Souders, Dr. (Samuel) Mott, Jr, 125 Requa Road, Piedmont, Calif. *Chemical engineering.* Red Lodge, Mont, Dec. 10, 04. B.S, Mont. State Col, 26; M.S, Michigan, 27, fellow, 27–29, Ph.D, 31. Tech. adviser, *Mont. Indust. Co,* 26–28, *v. pres, 28–* Ref. design and develop. engineer, Smith Eng. Co, 29–30; consulting engineer, 30–35; Sterling fellow, Yale, 35–37; Shell Develop. Co, 37– Chem. Eng; Chem. Soc. Gaseous explosions; distillation; heat transfer; properties, processing and utilization of petroleum and petroleum products; thermodynamics of complex mixtures.

Soukup, Dr. Roy, 5102 Evelyn Byrd Road, Richmond, Va. *Chemistry.* Chicago, Ill, Jan. 9, 02. B.S, Illinois, 24, M.S, 26, Ph.D, 28. *Research supervisor tech. div, rayon dept, E. I. du Pont de Nemours and Co, 28–* Chem. Soc. Industrial and synthetic yarn chemistry.

Soule, Dr. Byron A(very), University of Michigan, Ann Arbor, Mich. *Analytical chemistry.* Allegany, N. Y, May 28, 91. B.S, Michigan, 18, M.S, 20, Sc.D, 24. Anal. chemist, E. I. du Pont de Nemours and Co, 19–20; instr. *anal. chem, Michigan,* 20–35, asst. prof, 35–43, *assoc. prof, 43–* Asst. to director, chem. lab, Michigan, 19–20; res. fellow, Library of Congress, 41–42. A.A; Chem. Soc. Analytical methods.

Soule, Floyd M(elville), Woods Hole, Mass. *Physics.* Ripon, Wis, July 19, 01. Ph.B, Ripon Col, 23; B.S, George Washington, 27. Junior physicist, Bur. Standards, 23–27; observer, dept. terrestrial magnetism, Carnegie Institution, 28–33; senior physical oceanographer, *U. S. Coast Guard,* 33–40, *prin. physical oceanographer, 40–* Mem. sci. staff, 7th cruise, 'Carnegie,' 28–29; Wilkins-Ellsworth Arctic submarine exped, 'Nautilus,' 31; oceanographer, Int. Ice Patrol, 33–; research assoc, Oceanog. Institution, Woods Hole. Geophys. Union; Philos. Soc. Wash. Terrestrial magnetism; physical oceanography.

Soule, Dr. Malcolm H(erman), University of Michigan, Ann Arbor, Mich. *Bacteriology, Chemistry.* Allegany, N. Y, Dec. 5, 96. B.S, Michigan, 21, M.S, 22, Sc.D, 24; LL.D, St. Bonaventure's Col, 28. Instr. anal. chem, *Michigan,* 19–20, *bacter,* 23–25, asst. prof, 25–28, assoc. prof, 28–31, *prof, 31–, head dept, 35–, chairman hygiene lab, 35–* Visiting prof, Columbia Sch. Trop. Med, Puerto Rico, 30–31. Summer,

visiting prof, Chicago, 31. Assoc. ed, 'Jour. Lab. Clin. Med,' 28–; ed. board, 'Am. Jour. Path,' 40– Mem. med. board, Am. Leprosy Foundation. Gold medal, Am. Med. Asn, Detroit, 30. Chairman, Am. cmt. Int. Cong. Microbiol, Paris, 30, sec'y, 31–; consultant to director div. health and sanitation and coordinator Inter-Am. affairs, Pan-Am. Sanit. Conf, Rio de Janeiro, 42. A.A. (sec'y, N, 37); Soc. Bact. (councilor-at-large, 37); Chem. Soc; Asn. Path. and Bact. (councilor, 41); Soc. Exp. Biol; Soc. Trop. Med. (v. pres, 40); Acad. Trop. Med; Bot. Soc; Micros. Soc; Asn. Immunol; Soc. Exp. Path; Pub. Health Asn; Mich. Acad; Path. and Bact. Soc. Gt. Britain and Ireland; cor. mem. Soc. de Path. exot; Soc. belge de Méd. trop; cor. mem. Soc. Medico-Quirurgica del Guayas; Polish Microbiol. Soc; Int. Leprosy Asn; Int. Soc. Hist. Med. Colloidal chemistry of gels; respiration and dissociation of microorganisms; chemistry of bacteria on synthetic mediums; undulant fever; leprosy; gas metabolism of bacteria; cultivation of herpetomonads; Leishman-Donovan bodies; viruses; goiter; tropical medicine.

Soule, S(tephen) B(arber), Vashon, Wash. *Engineering.* Dickinson, N. Y, Aug. 16, 67. B.S, Minnesota, 95, M.S, 97. Computer, U. S. Naval Observatory, 06; construction engineer, Minneapolis and St. Paul R. and D. Elec. Traction Co, 08–10; Gt. Northern Ry, 11; dist. engineer, water resources branch, U. S. Geol. Surv, 11–38; *retired.* River discharge; astronomical observation.

Sourwine, J(ames) A(rthur), 2006 R St, N. W, Washington, D. C. *Engineering.* Buffalo, N. Y, June 8, 84. A.B, Pomona Col, 06; C.E, Cornell, 12; Ecole des Ponts et Chaussées, France, 19. Eng. field work, Pacific Light and Power Co. and Los Angeles Interurban Ry, 06–07; Los Angeles Aqueduct, 07–08; city engineer, Upland, Calif, 08–10; mem, Sourwine and Mahoney, Engineers, San Bernardino, Calif, 12–17; senior highway engineer, bur. pub. roads, *U. S. Dept. Agr,* 19–22, special rep, with Am. Forces in Germany, and Am. Graves Registration Service in France, 22–23, war materials board, 23–27, *senior highway engineer, bur. pub. roads, 28–* County engineer, San Bernardino County, Calif, 15–17; engineer in charge design and construction Old Trails Highway Bridge over Colo. River, office Indian affairs, U. S. Dept. Interior, 15–16; engineer mem. exec. cmn, S. Counties Flood Control Asn, Calif, 17; Mojave River Cmn; 16–17; design dept, Nat. Highway Research Board. Order of the Purple Heart. C.Eng, 17–19, capt. Bridges; capillarity; ground freezing; stream control; non-freezing and non-heaving earthen foundation; waterproof concrete and other cement products.

Sousley, Prof. C(larence) P(ersall), 92 Potomac Ave, Terre Haute, Ind. *Mathematics.* Winchester, Ky, Aug. 5, 89. A.B, A.M, Ky. Wesleyan Col, 09; Ph.D, Hopkins, 15. Prof. *math,* Mt. St. Mary's Col, 15–16; assoc. prof, Pa. State Col, 16–20; *prof, Rose Polytech, 20–* Math. Asn. Invariants and covariants of the Cremona cubic surface.

South, Dr. Lillian Herrald (Mrs. H. H. Tye), 620 S. Third St, Louisville, Ky. *Bacteriology.* Bowling Green, Ky, 78. A.B, Porter Col, 98; M.D, Woman's Med. Col. of Pa, 04. *Director bur. bacter, State Board Health, Ky, 11–* Am. Med. Asn; fel. Pub. Health Asn; South. Med. Asn. Leprosy and hookworm in Kentucky.

Southall, Prof. James P(owell) C(ocke), Edgewood Lane, Charlottesville, Va. **3*Physics.* Norfolk, Va, April 4, 71. Richmond, 86–88; A.M, Virginia, 93; fellow by courtesy, Hopkins, 98–99. Instr. physics, Virginia, 91–93; prof. physics and math, Miller Manual Training Sch, Albemarle, Va, 93–98; Prendergast prof. *physics,* Hobart Col, 99–01; prof, Ala. Polytech, 01–14; asst. prof, *Columbia,* 14–17, assoc. prof, 17–22, prof, 22–40, *emer. prof, 40–,* director professional courses in optometry, 14–40. Faculty, California, 17. Mem, Optical Munitions Board; cmt. on physiol. optics, Nat. Research Council. D.S. medal, Foundation in Optometry, 30. A.A; fel. Physical Soc; Optical Soc. (assoc. ed, 'Jour,' councilor, pres, 21); Franklin Inst; Va. Hist. Soc. (exec. councilor); fel. London Physical Soc. Geometrical, physical and physiological optics; mirrors, prisms and lenses.

Southard, Dr. John C(ampbell), 962 Rankine Road, Niagara Falls, N. Y. *Chemistry.* Willard, Ohio, Sept. 14, 06. B.S, Baldwin-Wallace Col, 27; Ph.D, Hopkins, 30. Asst. chemist and assoc. chemist, U. S. Dept. Agr, 30–37; assoc. chemist and chemist, Bur. Mines, 37–42; *metallurgist, Titanium Alloy Mfg. Co, 42–* Physical Soc. Physical chemistry; metallurgical thermodynamics.

Souther, Dr. B(enjamin) L(eslie), U. S. Industrial Chemicals, Inc, 41 Magee Ave, Stamford, Conn. *Chemistry.* Colman, S. Dak, Sept. 15, 94. B.S, Minnesota, 16; M.S, Purdue, 18; Ph.D, Harvard, 21. Instr. chem, Illinois, 21–24; indust. fellow, Mellon Inst, 24–37; *research chemist, U. S. Indust. Chem, Inc, 37–* A.A; Chem. Soc. Organic chemistry; petroleum; sugar; alkaloids; solvents.

Southern, Prof. J(ohn) A(lbert), Furman University, Greenville, S. C. *Analytical chemistry.* Sneedville, Tenn, Dec. 27, 04. B.S, Furman, 27; M.S, Vanderbilt, 30; Ledoux fellow, North Carolina, 36–37, Ph.D, 38. Head dept. science, high sch, N. C, 27–29; chemist, Am. Cast Iron Pipe Co, Birmingham, Ala, 30–33; Tenn. Valley Authority, Muscle Shoals, 34; *prof. chem, Furman, 34–; capt, Chem. Warfare Service, U. S. Army.* Instr, Vanderbilt, 30–31. A.A; Chem. Soc. (chairman S. C. sect); South. Asn. Sci. and Indust; S. C. Acad. The electrodeposition of brass; semi-micro qualitative analysis; application of organic reagents to inorganic analysis.

Southgate, Dr. Harriet A(lden), Marshfield, Mass. *Chemistry.* Newton, Mass, May 1, 04. A.B, Radcliffe Col, 24; A.M, Mt. Holyoke Col, 27; Ph.D, Pa. State Col, 34. Instr. science, Woodward Inst, Quincy, Mass, 25; chem, Mt. Holyoke Col, 28, 29; asst, Children's and Infants' Hosps, Boston, 32; E. L. Patch Co, Stoneham, Mass, 33; instr. *chem, Simmons Col,* 35–39, asst. prof, 39–43, *assoc. prof, 43–* Chem. Soc; New Eng. Chem. Teachers Asn. Solubility of plasma proteins; aliphatic hydrocarbons.

Southwick, Dr. W(alter) E(dward), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Eugenics.* Franklin, Mass, Aug. 30, 07. B.S, Mass. Col, 29; A.M. Harvard, 30, scholar, 29–31, Ph.D, 33. Austin teaching fellow, Harvard, 31–33, instr. and tutor, 33–34, research, 34–35; wildlife technician, Nat. Park Service, 35–36; *archivist and research, eugenics record office, dept. genetics, Carnegie Institution, 36–* Summer, fellow, Bermuda, 33. A.A; Eugenics Soc. Methods of eugenical analysis; description and definition of traits; measurement of interrelated kinship bonds; filing systems; procedure outlines for field studies.

Southworth, Dr. G(eorge) C(lark), Clover Lane, Rumson, N. J. *Physics.* Little Cooley, Pa, Aug. 24, 90. B.S, Grove City Col, 14, M.S, 16, hon. Sc.D, 31; Columbia, 16–17; Ph.D, Yale, 23. Asst. physicist, Bur. Standards, 17–18; instr, Yale, 18–23; *research engineer, Am. Tel. and Tel. Co. and Bell Tel. Labs, 23–* A.A; fel. Physical Soc; fel. Radio Eng; Wash. Acad. Production of short electric waves and their application to communication problems.

Sowa, Dr. Frank J(oseph), 305 E. 46th St, New York, N. Y. *Chemistry.* Woodburn, Oregon, Aug. 3, 06. B.S, Notre Dame, 30, M.S, 31, Ph.D, 33. Instr. chem, Notre Dame, 31–36, director org. research, 33–36; chem. research, Bendix Aviation Corp, 36–38; *v. pres,* Sowa Labs, Inc, 38–39; *Sowa Chem. Co, 39–* Farm Chemurg. Council; Inst. Chem; Asn. Textile Chem. and Colorists; Chem. Soc; Ind. Acad. Organic chemistry; organic reactions with boron fluoride; cleavage of diphenyl ethers in liquid ammonia; rearrangements and condensations with olefins; catalysis; corrosion; actuating fluids; plastics; tobacco; germicides.

Sowden, Dr. John C(linton), Banting Institute, 100 College St, Toronto, Ont, Can. *Organic chemistry.* Brantford, Ont, Sept. 27, 10. B.A, Western Ontario, 32, M.A, 33; Ph.D, Northwestern, 37. Du Pont fellow, Ohio State, 37–39; asst, *Banting Inst,* 40–41, *Corn Industries Research Foundation fellow, 42–* Chem. Soc. Carbohydrates.

Sowder, A(rthur) M(errill), U. S. Department of Agriculture, Washington, D. C. *Forestry.* Washburn, Wis, Sept. 30, 00. B.S, Idaho, 25, M.S, 27; M.F, Yale, 35; American Univ, 39–41. Logging engineer, 25–26; exten. forester, sch. forestry, Idaho, 27–30, asst. prof. forestry, 30–36; assoc. forester, U. S. Forest Service, 36–39; *exten. forester, exten. service, U. S. Dept. Agr, 39–* Forest economics.

Soyenkoff, Prof. Basil C, New York University College of Dentistry, 209 E. 23rd St, New York, N. Y. *Chemistry.* Odessa, Russia. B.S, Robert Col, Constantinople, 23; A.M, Columbia, 27, Ph.D, 31. Instr. *chem, col. dentistry, N. Y. Univ,* 26–31, *asst. prof, 31–* Chem. Soc. Colloids and related subjects.

Soyster, H(ale) B(ryan), 5509 Fairglen Road, Bethesda, Md. *Geology.* Minneapolis, Minn, Nov. 1, 99. A.B, California, 22. Assoc. petrol. technologist, U. S. Bur. Mines, 24–

25; *petrol. engineer, U. S. Geol. Surv, 25–, chief oil and gas leasing div. and conservation branch.* Lieut-commander, U.S.N.R. Petroleum geology, production and engineering.

Spacht, Prof. Ronald B(urns), Kent State University, Kent, Ohio. *Organic chemistry.* Williamstown, Ohio, April 9, 09. B.S, Kent State Univ, 29; A.M, Ohio State, 34, Ph.D, 36. Instr, high sch, Ohio, 29–32; *asst. prof. chem, Kent State Univ, 35–* Chem. Soc. Absorption spectra of indigoid and thioindigoid dyes.

Spaeth, Prof. J(ohn) Nelson, University of Illinois, Urbana, Ill. *Forestry.* Rochester, N. Y, Nov. 10, 96. B.S, Cornell, 19; M.F, Harvard, 20; Ph.D, Yale, 33. Asst. to director forest sch, Harvard, 20–24, instr. lumbering, business sch, 21–23; research asst. prof. *forestry,* Cornell, 24–38; *prof. and head dept, Illinois, 38–, chief, Exp. Sta, 38–* Summers, agent, blister rust control, div. plant disease control, U. S. Dept. Agr, chief forester, N. Y. project, soil conservation service. A.A; Soc. Foresters; Ill. Acad. Forest ecology; seed physiology and nursery practice; silvicultural management and growth of eastern American forest trees; forest planting.

Spain, Dr. Will Cook, 116 E. 53rd St, New York 22, N. Y. *Internal medicine.* Murfreesboro, Tenn, Aug. 10, 91. A.B, Michigan, 14; M.D, Vanderbilt, 18. *Chief asthma clinic, N. Y. Post-Grad. Med. Sch. and Hosp, 24–;* instr. clin. pediat, Cornell, 33–34; *prof. clin. med, N. Y. Post-Grad. Med. Sch, Columbia, 37–;* assoc. prof. med, med. col, N. Y. Univ, 40–43; chief asthma clinic, Flower-Fifth Ave. Hosp, 40–43. Am. Med. Asn; Asn. Immunol; Soc. Study Asthma and Allied Conditions (sec'y-treas, 24); N. Y. Acad. Med. Allergy.

Spalding, Prof. Effie S(outhworth), 2626 S. Catalina St, Los Angeles, Calif. *Botany.* North Collins, N. Y, Oct. 29, 60. B.S, Michigan, 85; fellow, Bryn Mawr Col, 85–87; fellow, Barnard Col, Columbia, 93–95; M.S, Southern California, 23. Asst. pathologist, bur. plant indust, U. S. Dept. Agr, 88–93; asst. prof. bot, Southern California, 20–26; *retired.* Fungi; changes in form and growth of cacti in relation to water supply; mycology.

Spanagel, Dr. Edgar W(illiam), 1411 Hamilton St, Wilmington, Del. *Organic chemistry.* LeRoy, Wis, July 25, 05. A.B, Lawrence Col, 28; Ph.D, McGill, 33. *Research chemist, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. Cyclopropanes; cyclopentenones; long chain and large ring compounds.

Spangler, M(erlin) G(rant), 1517 Grand Ave, Ames, Iowa. *Structural engineering.* Des Moines, Iowa, Dec. 5, 94. B.S, Iowa State Col, 19, C.E, 25, M.S, 27. Bridge designer, State Highway Cmn, Iowa, 19–23; asst. engineer, eng. exp. sta, *Iowa State Col,* 23–27, assoc. structural engineer, 27–39, *research assoc. prof. civil eng, 39–* Civil Eng. Structural design of underground conduits; soil mechanics; stresses in rigid pavements; stress distribution in concrete bridge floors; pressures on retaining walls; structural design of flexible pavements; mechanics; structures; construction and soil engineering.

Spangler, Prof. R(obert) C(lifton), 729 Naomi St, Morgantown, W. Va. *Botany.* Peterstown, W. Va, Aug. 11, 84. A.B, West Virginia, 14, A.M, 16; Ph.D, Chicago, 25. *West Virginia, 14–, prof. bot.* Bot. Soc. Morphology of plants; Cladosporium fulvum; female gametophyte of Trillium sessile; Phytophthora pini.

Spangler, Dr. Ross D(avis), State Teachers College, La Crosse, Wis. *Physics.* Cirtsville, W. Va, Sept. 10, 04. A.B, Berea Col, 28; M.S, Iowa, 30, Ph.D, 32. Assoc. prof. physics, Berea Col, 30–31; dept. physics, Iowa, 32–33; *instr. physics and chairman dept, Wis. State Teachers Col, 33–* Physical Soc; Asn. Physics Teachers. X-ray diffraction in liquids.

Sparhawk, William N(orwood), 3315 Rowland Place, N. W, Washington, D. C. *Forestry.* West Swanzey, N. H, July 20, 88. A.B, Yale, 08, M.F, 10. *U. S. Forest Service, 10–, forest economist.* Ed, forestry sect, 'Biol. Abstracts'; assoc. ed, 'Jour. Forestry.' A.A; Soc. Foresters (sec'y, 22–24, treas, 29); Wash. Acad; Soc. Forestry, Finland. Economic and social aspects of forestry; forest resources of the world.

Sparks, C(aroline) Matilda, 3901 Connecticut Ave, N.W, Washington, D. C. *Physics.* Baltimore Co, Md, Aug. 16, 91. A.B, Goucher Col, 14; Hopkins, 15. Asst. physics, Goucher Col, 14–18; lab. asst, *Bur. Standards,* 18–20, asst. physicist, 20–41, *assoc. physicist, 41–* Absolute determination of the ohm; alternating current method for measuring effective mutual inductance; capacitance and power factor of a mica capacitor.

Sparks, Dr. Chiles Emory, 2911 Franklin St, Wilmington, Del. *Chemistry.* Sandy Hook, Ky, Oct. 10, 09. A.B, Georgetown Col, 30; fellow, Florida, M.S, 31; Ph.D, Purdue, 36. Asst, Purdue; *research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Hydrolysis of alkyl halides; mono-alkyl ethers of unsymmetrical glycols; o-aminophenol derivatives; azo dyes.

Sparks, Prof. Fred W(inchell), Box 94, Tech. Station, Lubbock, Texas. *Mathematics.* Georgetown, Texas, Nov. 13, 91. A.B, Southwestern (Texas), 20, A.M, 22; M.S, Chicago, 23, Ph.D, 31. Instr. *math,* Southwestern (Texas), 20–22; asst. prof, Agr. and Mech. Col. Texas, 23–24; assoc. prof, La. State Nor. Col, 24–26; *Texas Tech. Col, 26–28, prof, 28–* A.A. (chairman, math. sect, southwest. div, 36, mem. exec. cmt, southwest. div, 36–40); Math. Soc; Math. Asn. (v. chairman, Texas sect, 29, 35, chairman, 36). Theory of numbers.

Sparks, Dr. Meredith P(leasant) (Mrs. Wm. J. Sparks), 1 Stratford Terrace, Cranford, N. J. *Organic chemistry.* Palestine, Ill, Dec. 9, 05. A.B, Indiana, 27, A.M, 28; Ph.D, Illinois, 36. Library chemist, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 29–34; research chemist, Northam Warren Corp, New York, 39; *chemist, Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Nitro compounds; oxazoles; oxazolines.

Sparks, Dr. W(illiam) Joseph, 1 Stratford Terrace, Cranford, N. J. *Chemistry.* Wilkinson, Ind, Feb. 26, 05. A.B, Indiana, 26, A.M, 29; Ph.D, Illinois, 36. Chemist, Sherwin-Williams Paint Co, 26–29; research chemist, E. I. du Pont de Nemours and Co, 29–34; Standard Oil Develop. Co, 36–39; prin. chemist, U. S. Dept. Agr, 39–40; *asst. director chem. lab, Standard Oil Develop. Co, 40–* Chem. Soc. Organic chemistry; petroleum derivatives; synthetic rubber; hydrocarbon polymers; plastics; vegetable oils.

Sparrow, Dr. Arnold H(icks), Harvard University, Cambridge, Mass. *Genetics, Cytology.* Saskatoon, Sask, Can, Oct. 2, 14. B.Sc, Saskatchewan, 35, M.Sc, 38; Nat. Research Council Can. bursar, McGill, 38–39, student, 39–40, fellow, 40–41, Ph.D, 41. Asst. biol, Saskatchewan, 35–38; investigator pomol, N. Y. Exp. Sta, Geneva, 41–42; *nat. research fellow, Harvard, 42–* Summers, asst, McGill, 39; dept. genetics, Carnegie Institution, 40, 41. Genetics Soc. Cytogenetics; chromosome structure and mechanics; induced polyploidy; effects of colchicine and x-rays on chromosomes.

Sparrow, Prof. F(rederick) K(roeber), Jr, University of Michigan, Ann Arbor, Mich. *Botany.* Washington, D. C, May 11, 03. B.S, Michigan, 25; A.M, Harvard, 26, Ph.D, 29. Austin teaching fellow, Harvard, 27–29; instr. evolution and *asst. prof.* biol, Dartmouth Col, 29–36; *bot. Michigan, 36–* Asst, biol. lab, Cold Spring Harbor, 26–30; Radcliffe Col, 27. Nat. research fellow, Cornell, 31–32, Cambridge and Copenhagen, 32–33. Fellow, Oceanog. Inst, Woods Hole, 34–36. Assoc. ed, 'Mycologia.' Mycol. Soc; Bot. Soc; New Eng. Bot. Club; Mich. Acad. (sec'y). Mycology, especially Phycomycetes; morphology and taxonomy of marine and fresh-water fungi and flowering plants.

Spatz, Dr. Sydney M(artin), National Aniline Division, 1051 S. Park Ave, Buffalo 5, N. Y. *Organic chemistry.* New York, N. Y, July 10, 12. A.B, Iowa, 35, M.S, 37; Ph.D, Iowa State Col, 41. Research chemist, Nat. Defense Research Cmt, Iowa State Col, 42–43; *research and develop, Nat. Aniline div, Allied Chem. and Dye Corp, 43–* A.A; Chem. Soc. Organometallics of nitrogen heterocycles; synthetic antimalarials; synthetic analgesics; organolead chemistry; arsenicals; organic synthesis.

Spaulding, Dr. E(arle) H(enry), Temple University School of Medicine, Philadelphia, Pa. *Bacteriology.* Rutland, Vt, Jan. 31, 07. A.B, Wesleyan, 29; Ph.D, Yale, 36. Asst. Storrs Exp. Sta, Conn. Agr. Col, 29–33; instr. *bacter, sch. med, Temple,* 36–37, assoc, 37–38, *asst. prof, 38–,* assoc. bacteriologist, *Univ. Hosp,* 36–38, *chief bacteriologist, 38–* A.A; Soc. Bact. Isolation and cultivation of anaerobic bacteria; methods of anaerobic culture; disinfectants.

Spaulding, Prof. Major Franklin, Langston University, Langston, Okla. *Agronomy.* Clarkton, N. C, Sept. 18, 00. B.S.A, N. C. State Col, 25; B.S, Cornell, 27, M.S, 28; Ph.D, Mass. State Col, 35. Dean sch. agr. and prof. biol. and agr. science, N. C. State Col, 28–38; agronomist and prof. tech. agr, Prairie View State Col, 38; research prof. and agronomist, Tuskegee Inst, 39–40; *director agr. and agronomist, Langston, 41–* Lecturer, Rosenwald Sch. Negro Exten. Agents, S. C.

State Col, 30; asst, Mass. State Col, 32–35. A.A; Soc. Agron; Soc. Plant Physiol; fel. Am. Geog. Soc; Asn. Agr. and Home Econ. Workers Among Negroes (pres, 41); Int. Soc. Soil Sci. Decomposition of plant tissue; plant quality as affected by soils.

Spaulding, Prof. M(ilo) H(errick), 122 N. Bozeman Ave, Bozeman, Mont. *Zoology.* Rutland, Vt, June 10, 79. A.B, Stanford, 03, A.M, 06. Res. zoologist, Gulf Biol. Sta, La, 06–08; *Mont. State Col, 08–, prof. zool.* Field asst, Alaska Salmon Investigations, 03; asst. naturalist, 'Albatross,' 04. A.A; Soc. Mammal; Asn. Anat; Micros. Soc. Mammalian anatomy; embryology.

Spaulding, Dr. Perley, 360 Prospect St, New Haven, Conn. *Forest pathology.* South Royalton, Vt, Sept. 19, 78. B.S, Vermont, 00; M.S, Washington (St. Louis), 03, Ph.D, 06. Asst. hort, Maine, 01; biol, Vermont, 01; sci. aid, bur. chem. and soils, *U. S. Dept. Agr,* 01, special agent, *bur. plant indust,* Miss. Valley Lab, 02–03, sci. asst, 03–07, pathologist, lab. forest path, 08–13, path. inspector, fed. hort. board, 13–14, pathologist, *div. forest path,* 14–30, *senior pathologist, 30–, in charge New Haven branch, 41–,* pathologist, *Northeast. Forest Exp. Sta, U. S. Forest Service,* 25–30, *senior pathologist, 30–* Ed, 'Phytopathology,' 21, 22, 24. A.A; Soc. Foresters; Phytopath. Soc; New Eng. Bot. Soc. Bitter-rot of apples; damping off in coniferous seedlings; structure of wood cell walls; diseases of broad-leaved trees; white pine blister rust; decay of lumber slash; epidemic forest tree diseases of the Northeast; decays of living trees of balsam fir and northern hardwoods; European larch canker; Nectria canker of hardwoods.

Spawn, Prof. Gerald B(ishop), South Dakota State College, Brookings, S. Dak. *Economic entomology.* Chester, S. Dak, Dec. 6, 07. B.S, S. Dak. State Col, 31, M.S, 33; fellow, Iowa State Col, 33–34, Ph.D, 41. Asst. entom. and zool, S. Dak. State Col, 31–33; wildlife research, Iowa State Col, 34–35; junior refuge manager, bur. biol. surv, U. S. Dept. Agr, 35–38; instr. *entom. and zool, S. Dak. State Col,* 38–42, *asst. prof, 42–, asst. entomologist, Exp. Sta, 38–* Wilson Ornith. Club. Wildlife; food habits of shore birds in northwestern Iowa; tillage methods in grasshopper control.

Speakman, Dr. H(orace) B(radbury), 43 Queen's Park, Toronto, Ont, Can. *Bacteriology.* Rochdale, Lancashire, Eng, April 23, 93. B.Sc, Manchester, 14, M.Sc, 15, D.Sc, 28. Chief bacter. dept, British Acetone, Ltd, Toronto, 16–19; director research zymology, Toronto, 19–29; *director, Ont. Research Foundation, 28–* Director, Research Corp, New York. Ministry munitions, 15–19. Microbiology.

Spealman, Dr. C(lair) R(aymond), Medical College of Virginia, Richmond, Va. *Physiology.* Xeta, Calif, Aug. 28, 09. B.S, California, 32, A.M, 33, Ph.D, 36. Instr. physiol, med. sch, St. Louis, 36–37; assoc. physiol. and pharmacol. and later *asst. prof. physiol, Med. Col. Va, 37–* A.A; Physiol. Soc; Soc. Exp. Biol. Photodynamic action; physiological effects of ions.

Spear, Dr. Carleton S(outhwick), 9 Lorenz Ave, New Rochelle, N. Y. *Chemistry.* East Glastonbury, Conn, April 28, 98. B.S, Wesleyan, 19, M.S, 20; Brown, 20–21, du Pont fellow, 21–22; Cmn. Relief Belgium Educ. Foundation fellow, Ghent, 23–24, D.Sc, 24. Asst. chem, Wesleyan, 20; Brown, 20–21, asst. instr, 22–23; head dept. science, New Hampton Lit. Institution, N. H, 24–25; *head dept. chem, high sch, New Rochelle, 25–, asst. prin, 32–, chairman dept. science, 42–; instr. outlines of science, sch. commerce, accounts and finances, N. Y. Univ, 41–* N. Y. State Teachers Asn. (chairman, div. chem. teachers, 31). Organic and physical chemistry; absorption spectra; reduction products of benzal pinacoline; anilido quinones; dye intermediates.

Spear, Prof. Joseph, 31 Matchett St, Brighton, Mass. *Mathematics.* Boston, Mass, Aug. 25, 91. A.B, Harvard, 13; A.M, Boston, 33. Instr. math. and German, Maine, 13–16; *math, Northeastern, 19–, prof. and chairman dept.* U.S.A, 18–19. A.A; Math. Soc; Math. Asn; Eng. Educ. Analysis; equations and solutions; Galois theory.

Speas, Prof. William E(ugene), Wake Forest, N. C. *Physics.* East Bend, N. C, Dec. 1, 85. A.B, Wake Forest Col, 07; A.M, Hopkins, 13; Ph.D, Cornell, 27. Instr. *physics,* Clemson Col, 13–16, asst. prof, 16–18, assoc. prof, 18–20; *Wake Forest Col,* 20–29, *prof, 29–* Physical Soc; N. C. Acad. (pres, 37). Photometrics of the fluorescence of iodine vapor; changes produced in the absorption bands of organic fluorescent dye solutions by alterations of concentration and temperature.

Spease, Edward, 205 W. Wacker Drive, Chicago, Ill. *Pharmacy.* Dresden, Ohio, March 31, 83. Ph.C, Ohio State, 05, B.S, 07; hon. Pharm.M, Phila. Col. Pharmacy, 36. Asst. pharmacy, Ohio State, 05, 07–08, instr, 08–14, asst. prof, 14–16, sec'y col. pharmacy, 15–16; prof. pharmacy and dean sch. pharmacy, Western Reserve, 16–40; *director professional relations, Nat. Asn. Retail Druggists, 40–* Directing pharmacist, Univ. Hosps. of Cleveland, 31–41. A.A; Pharmaceut. Asn. (sec'y, sect. educ. and legislation, 19, chairman, board of canvassers); Asn. Cols. Pharm. (pres, 27); Acad. Med. Cleveland. Pharmaceutical mathematics; development of hospital pharmacy; minimum standards for hospital pharmacies.

Specht, Dr. H(einz), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Physiology.* Utica, N. Y, March 9, 07. B.S, Princeton, 30; Ph.D, Hopkins, 33. Adam T. Bruce fellow, Hopkins, 33–34; asst. physiol, col. med, N. Y. Univ, 34–36; assoc. research physiologist, *nat. inst. health, U. S. Pub. Health Service,* 36–41, *physiologist, 41–* Physiol. Soc. Mammalian and general physiology.

Specht, Dr. R(obert) D(ickerson), University of Florida, Gainesville, Fla. *Mathematics.* Seattle, Wash, May 11, 13. A.B, Florida, 36, M.S, 38; summers, Chicago, 37, Brown, 41, fellow, 42; Ph.D, Wisconsin, 42. *Instr. math, Florida, 36–* Math. Soc. Applied mathematics; elasticity.

Speck, Prof. F(rank) G(ouldsmith), University of Pennsylvania, Philadelphia, Pa. ****Anthropology.* Brooklyn, N. Y, Nov. 8, 81. A.B, Columbia, 04, A.M, 05; fellow, Pennsylvania, 07–08, Ph.D, 08. Instr. *anthrop, Pennsylvania,* 09–11, asst. prof, 11–25, *prof, 25–,* asst. curator ethnol, univ. museum, 09–11. Lecturer, Swarthmore Col, 23–27. Asst. ed, 'Am. Anthrop,' 20–37; 'Am. Jour. Archeol,' 20–23. Anthropologist, exec. cmt, Nat. Research Council, 25. Expeds, Bur. Am. Ethnol, Am. Museum Nat. Hist, Museum Am. Indian and Univ. Pa. to Indian Territory, Okla. and Que, 04–36. A.A; Anthrop. Asn; Folk-Lore Soc. (pres, 20–22); Ethnol. Soc; Archeol. Soc; Anthrop. Soc. Phila. (pres, 20–22). American Indian ethnology and linguistics.

Speck, Dr. Marvin L(uther), 1403 Eutaw Place, Baltimore, Md. *Bacteriology.* Middletown, Md, Oct. 6, 13. B.S, Maryland, 35, M.S, 37; Ph.D, Cornell, 40. Instr. bacter, Maryland, 40–41; asst. bacteriologist and later *assoc. bacteriologist, research labs, Sealtest Inc, 41–* Soc. Bact; Dairy Sci. Asn. General bacteriology; dairy and applied bacteriology.

Spector, Dr. A(aron), Queens College, Flushing, N. Y. *Physical chemistry.* Albany, N. Y, Jan. 30, 09. B.S, Col. City of N. Y, 29; fellow, N. Y. Univ, 29–35, Ph.D, 35. Teacher science, schs, New York, 36–41; *instr. physics, Queens Col. (N. Y), 42–* Asn. Physics Teachers. Photosensitive surfaces; surface phenomena; phase changes.

Spector, Prof. B(enjamin), Tufts College Medical School, Boston, Mass. *Anatomy.* Brooklyn, N. Y, July 8, 93. M.D, N. Y. Univ, 22. Asst, Univ. and Bellevue Hosp. Med. Col, 15–17, instr, 17–22; asst. prof. *anat, med. sch, Tufts Col,* 22–24, assoc. prof, 25–32, *prof, 33–, hist. of med, 39–* Research, Mt. Desert Biol. Lab, 28, mem; Mayo Research Farm, 30; Utrecht and Groningen, 32; inst. embryol, Carnegie Institution, 33. Asn. Anat; Am. Med. Asn; Am. Med. Editors' Asn; Hist. Sci. Soc; Med. Library Asn; Asn. Hist. Med; Mass. Med. Soc; Boston Med. Hist. Club (sec'y, 35); fel. Royal Micros. Soc; Int. Asn. Dental Research. Internal ear in mammals; circulation in joints and in teeth; defective pericardial sac and interatrial septa and atresia of pulmonic orifice; history of medicine; bone repair.

Spedding, Prof. Frank H(arold), Iowa State College, Ames, Iowa. *Physical chemistry.* Hamilton, Ont, Can. Oct. 22, 02 B.S, Michigan, 25, M.S, 26; Ph.D, California, 29. Teaching fellow, California, 26–29, instr, 29–30, nat. research fellow, 30–32, instr, 32–34; Guggenheim Mem. Foundation fellow, Europe, 34–35; George Fisher Baker fellow, Cornell, 35–37; assoc. prof. in charge *physical chem, Iowa State Col,* 37–41, *prof, 41–* Assoc. ed, 'Jour. Chem. Physics,' 38–41. A. C. Langmuir prize, Am. Chem. Soc, 33. Chem. Soc. Nature of energy states in solids and solutions, and the correlation of the physical and chemical properties of the substances with such states

Speed, Dr. J(ames) S(pencer), 869 Madison Ave, Memphis, Tenn. *Surgery.* Rapid City, S. Dak, July 30, 90. A.B, Virginia, 12; M.D, Hopkins, 16. *Orthop. surgeon, Dr. Willis C. Campbell Clinic, Memphis, 20–* Assoc. prof, Tennessee. Attending orthopedist, Baptist Mem. Hosp; St. Joseph's Hosp; Methodist Hosp; Hosp. Crippled Adults; U. S. Marine Hosp

No. 12; Crippled Children's Hosp. Sch. Lieut, M.C, 17–19. Fel. Col. Surg; Orthop. Asn; Am. Med. Asn. (sec'y, orthop. sect, 30); Clin. Orthop. Soc; Acad. Orthop. Surg; S. Soc. Clin. Surg; South. Med. Asn. (sec'y, orthop. sect, 25–28, chairman, 29); South. Surg. Asn. Operative reconstruction of fractures; osteomyelitis; synovectomy of the knee joint; transference of crest of the ilium for flexion contracture of the hip; bone grafts in ununited fractures; bone syphilis.

Speed, Dr. Kellogg, 122 S. Michigan Ave, Chicago, Ill. *Surgery.* Cleveland, Ohio, Jan. 17, 79. B.S, Chicago, 01, M.D, Rush, 04. Prof. *surg,* Northwestern, 04–19; from asst. prof. to *prof, Rush Med. Col, Chicago, 19–* Attending surgeon, Presb. and Highland Park Hosps. Trustee, Rush Med. Col, Chicago. Lieut. col, M.C, 17–19. Surg. Asn; fel. Col. Surg; Am. Med. Asn; Orthop. Asn. Fractures; dislocations.

Speer, Dr. John H(oward), 8040 Long Ave, Skokie, Ill. *Organic chemistry.* New Haven, Conn, June 2, 06. A.B, Yale, 27, Ph.D, 34. Research chemist, Upjohn Co, Kalamazoo, Mich, 27–31; asst. chem, Yale, 32–33; research chemist, Nat. Aniline and Chem. Co, Buffalo, N. Y, 34–36; *G. D. Searle and Co, Chicago, Ill,* 36–41, *chief chemist,* 42– Chem. Soc. (sec'y div. med. chem, 40–42, chairman, 42). Mineral metabolism; lipoids; purines; medicinal chemicals.

Speer, Dr. Robert J(ames), Southland Paper Mills, Inc, Lufkin, Texas. *Organic chemistry.* Denton, Texas, May 29, 19. A.B, N. Texas State Teachers Col, 37; A.M. and Ph.D, Texas, 41. *Research chemist, Gen. Aniline and Film Corp, 41–* Chem. Soc. Synthetic sedatives, hypnotics and antispasmodics from nitrogen heterocylic compounds; dyestuffs; photographic sensitizers.

Spees, Dr. A(dam) H(enry), Union College, Schenectady, N. Y. *Physics.* Akron, Ohio, April 26, 14. B.S, Michigan, 35, M.S, 37, Ph.D, 40. *Instr.* physics and math, Detroit Inst. Tech, 39–41; *physics, Union Col. (N. Y), 41–* Physical Soc. Specific charge of beta-rays.

Speicher, Dr. B(enjamin) R(obert), 104 N. Main St, Orono, Maine. *Zoology.* Swatow, China, Jan. 23, 09. A.B, Denison, 29; M.S, Pittsburgh, 31, Ph.D, 33. Asst, Pittsburgh, 29–33; visitor, Carnegie Institution, 33–35; nat. research fellow, Columbia, 35–37; from instr. to *assoc. prof. zool, Maine, 37–* Visiting instr, Seton Hill Col, 31; asst, Amherst Col, 35. Summers, in charge instruction, marine lab, Maine, 37– A.A; Genetics Soc. Insect cytology; cytology of sex in wasps; phenogenetics; genetics of Habrobracon.

Speidel, Dr. C(arl) C(askey), University of Virginia, Charlottesville, Va. *[*5]Zoology, Anatomy.* Washington, D. C, Oct. 26, 93. Ph.B, Lafayette Col, 14, hon. Sc.D, 43. Maule fellow, Princeton, 16–17, Ph.D, 18. Asst. biol, Princeton, 14–16; instr. zool, Akron, 17–18; acting prof. biol, St. Lawrence, 19–20; asst. prof. *anat, Virginia,* 20–22, assoc. prof, 22–31, *prof, 31–* Summers, instr, Virginia, 21–28. Trustee, Marine Biol. Lab, Woods Hole. Va. Acad. Science research prize, 27, shared, 30; Pres. and Visitors' prize, Virginia, 30, 33, 34, 36. A.A.A.S. prize, 31. U.S.A, 18, sergt. A.A; Asn. Anat. (exec. cmt, 41–); Soc. Nat; Soc. Zool; Va. Acad; L. I. Biol. Asn. Experimental anatomy.

Speidel, Dr. Edna Warweg, 322 W. 46th St, Indianapolis, Ind. *Physiological chemistry.* Indianapolis, Ind, June 14, 08. B.S, Butler, 29; fellow, Michigan, 29–31, A.M, 30; Ph.D, Iowa, 35. Asst, Iowa, 31–35; research fellow, Tennessee, 35–36. Composition of blood in health and disease; acacia in nephrosis; plasmapheresis; intermediary metabolism of plants; plant enzymes.

Speidel, Prof. Thomas D, 322 W. 46th St, Indianapolis, Ind. *Orthodontics.* Iowa City, Iowa, Feb. 19, 08. D.D.S, Iowa, 30, M.S, 32. Asst. orthodontics and child welfare, Iowa, 30–32, pediat. and dentistry, 33–34, assoc. prof. *orthodontics,* 36–41; asst. prof, Tennessee, 34–36; *prof, Indiana, 41–* Ed, 'Jour. Dental Educ,' 39– Dental Asn. (sec'y research sect, 40; mem. cmt. library and indexing service, 41–); Asn. Orthodontics (director, 42); Int. Asn. Dental Research. Dental and facial development.

Speirs, Dr. Mary, Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Nutrition.* New London, Conn, June 19, 10. A.B, Wellesley Col, 30; A.M, Columbia, 32, Ph.D, 36. Asst. food chem, Columbia, 30–34; asst. home economist, *Exp. Sta, Georgia,* 34–39, assoc. home economist, 39–41, *home economist, 41–* Dietetic Asn; Ga. Dietetic Asn; Atlanta Dietetic Asn. (pres, 41). Food chemistry.

Speiser, Dr. Rudolph, U. S. Department of Agriculture, Chestnut Hill, Philadelphia, Pa. *Physical chemistry.* New York, N. Y, Feb. 15, 11. A.B, Ohio State, 39, A.M, 40; fellow, Polytech. Inst. Brooklyn, 40–42, Ph.D, 42. Asst. chemist, *east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr,* 42–43, *assoc. chemist, 43–* Chem. Soc. Reaction kinetics; physical chemistry of high polymers.

Speller, Dr. Frank N(ewman), 6411 Darlington Road, Pittsburgh, Pa. *Metallurgy.* Toronto, Ont, Can, Jan. 1, 75. B.A.Sc, Toronto, 94, D.Sc, 23. Metal. engineer, Nat. Tube Co, 04–26, head metal. and research dept, 26–40; *retired.* Lecturer, Toronto, 98; metal. consultant. Longstreth medal, Franklin Inst, 27; Am. Iron and Steel Inst. medal, 31. Min. and Metal. Eng; Electrochem. Soc; Soc. Test. Mat; Am. Iron and Steel Inst; Mech. Eng. Corrosion of metals.

Spelt, Prof. David K(irby), Mary Baldwin College, Staunton, Va. *Psychology.* Camden, N. J, June 24, 08. A.B, Haverford Col, 30; Brown, 32–33; Ph.D, North Carolina, 38. Asst. *psychol,* Brown, 32–33; instr, North Carolina, 33–38; asst. prof, Mississippi, 38–41; *prof. and head dept, Mary Baldwin Col, 41–* A.A; Psychol. Asn; Va. Acad. Physiological psychology; conditioning; learning.

Spence, Prof. Bartholomew J(ohn), Northwestern University, Evanston, Ill. *Physics.* Chicago, Ill, June 4, 83. B.S, Northwestern, 05; fellow, Princeton, 07–09, Ph.D, 09. Asst. *physics,* Wisconsin, 05–06; instr, Illinois, 06–07; Princeton, 09–10; asst. prof. and assoc. prof, North Dakota, 10–18, prof. and head dept, 18–20; assoc. prof, *Northwestern,* 20–25, *prof. and chairman dept, 25–* A.A; Physical Soc; Optical Soc. Refractive indices of gold, platinum and silver; infra-red reflecting power of ice and of anilin dyes; thermal properties of clay; absorption spectra of alkaloids; optical pyrometry; infra-red band spectra.

Spence, D(avid), P. O. Box 209, Pacific Grove, Calif. *Chemical engineering.* Aberdeenshire, Scotland, 81. Royal Tech. Col, Glasgow, 03; Jena, 03–06; Liverpool, 06–08. Asst. biochem, Liverpool, 08; director research develop, Diamond Rubber Co. and B. F. Goodrich Co, 09–14; v. pres. and gen. manager, Norwalk Tire and Rubber Co, 14–25; v. pres. in charge develop, Intercontinental Rubber Co, New York, 25–31. In charge rubber div, Nat. Research Council, 18. Chem. Soc; Soc. Chem. Indust; fel. Inst. Chem; fel. Inst. Rubber Indust; fel. Royal Soc. Arts; Deuts. Chem. Gesell. Rubber chemistry and technology.

Spence, G(eorge) K(nox), Johnsonburg, Pa. *Chemistry.* New York, N. Y, Dec. 10, 72. B.S, Pa. State Col, 95, M.S, 10. Asst. chemist, Ohio Steel Co, 95–98; chemist, *N. Y. and Pa. Co, Paper Makers,* 98–02, supt. pulp dept, 02–08, elec. bleach plant, 08–10, *chief eng. chemist, 10–; Castanea Paper Co, 23–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. (pres, 25–27). Preparation of wood pulp; utilization of by-products.

Spence, Prof. Kenneth W(artenbee), State University of Iowa, Iowa City, Iowa. *Psychology.* Chicago, Ill, May 6, 07. B.A, McGill, 29, M.A, 30; Ph.D, Yale, 33. Asst. psychol, McGill, 28–30; comp. psychobiol, Yale, 30–33, nat. research fellow biol. sciences, 33–34, asst. psychobiol, 34–37; asst. prof. *psychol,* Virginia, 37–38; assoc. prof, *Iowa,* 38–42, *prof. and head dept, 42–* Soc. Exp. Psychol; Psychol. Asn. Experimental psychology; statistics; scientific method in psychology; theory of learning; visual acuity and higher modes of adaptation.

Spence, Dr. LeRoy U(mberger), 8322 Cedar Road, Elkins Park, Pa. *Organic chemistry.* Council Grove, Kans, March 25, 03. B.S, Illinois, 24; M.S, Northwestern, 25, Ph.D, 28. Am. Petrol. Inst. fellow, Northwestern, 26–28; Harvard, 28–29; *research chemist, Rohm and Haas Co, Phila, 29–* Chem. Soc. Thermal decomposition of hydrocarbons.

Spence, Prof. Ralph B(eckett), Teachers College, Columbia University, New York, N. Y. *Psychology.* La Crosse, Wis, April 1, 01. A.B, Wisconsin, 22; A.M, Columbia, 24, Ph.D, 27. Instr. *educ, Teachers Col, Columbia,* 25–27, asst. prof, 27–35, assoc. prof, 35–39, *prof, 39–* A.A; assoc. Psychol. Asn. Teaching methods in educational psychology; college marking systems; achievement tests; individual differences.

Spencer, Dr. Arthur C(oe), 3250 Highland Place, Washington, D. C. *[*2]Geology.* Carmel, N. Y, Sept. 27, 71. B.S, Case,

92; Ph.D, Hopkins, 96. Asst. geologist, U. S. Geol. Surv, 96–02, geologist, 02–39; *retired*. A.A; Geol. Soc; Min. and Metal. Eng; Geol. Soc. Wash. (sec'y, 06). General geology and ore deposits in Virginia, Colorado, Wyoming, Alaska and Cuba; the zinc and iron deposits in the Precambrian rocks of New Jersey; Triassic iron ores of Pennsylvania; Precambrian of Texas, including iron ores; copper ores of Nevada and New Mexico; geology of reservoir sites.

Spencer, Prof. C(layton) C(ree), Syracuse University, Syracuse, N. Y. *Organic chemistry*. Plainfield, Vt, June 16, 94. B.S, Tufts Col, 16; M.S, Syracuse, 21, Ph.D, 28. Holderness Prep. Sch, N. H, 16–18; premed. sch, Tufts Col, 18–20; asst. prof. *chem, Syracuse*, 28–31, assoc. prof, 31–37, *prof, 37–* Chem. Soc. (chairman, Syracuse sect, 32). Acetolysis of cellulose; cellobiose; carbohydrates.

Spencer, D(amon) A(lvin), U. S. Department of Agriculture, Washington, D. C. *Animal husbandry*. Maple Grove, Mich, March 15, 87. B.S, Mich. State Col, 12. Instr. animal husbandry, Mich. State Col, 12–14; Okla. Agr. and Mech. Col, 14–16, asst. prof, 16–17; sheep exten. specialist, *bur. animal indust, U. S. Dept. Agr*, 18–20, *senior animal husbandman in charge sheep, goat and animal fiber investigations, 20–* A.A; Soc. Animal Production; Genetic Asn. Sheep and goat husbandry; technology in wool, mohair and meat.

Spencer, Prof. Domina Eberle, 4105 46th St, N.W, Washington, D. C. *Mathematics, Physics*. New Castle, Pa, Sept. 26, 20. B.S, Mass. Inst. Tech, 39, M.S, 40, Ph.D, 42; George Washington, 40, Harvard, 39–41. *Asst. illum. eng, Mass. Inst. Tech, 42–; asst. prof. physics, American Univ, 42–* Math. Soc; Optical Soc; Illum. Eng. Soc. Tensors and their application; illumination calculations; geometry of colorspace.

Spencer, Prof. D(onald) C(layton), Stanford University, Calif. *Mathematics*. Boulder, Colo, April 25, 12. A.B, Colorado, 34; B.S, Mass. Inst. Tech, 36; Ph.D, Cambridge, 39. Instr. *math*, Mass. Inst. Tech, 39–42; *assoc. prof, Stanford, 42–* Math. Soc; London Math. Soc; fel. Cambridge Philos. Soc. Mathematical analysis; theory of functions of a complex variable; diophantine approximation; theory of numbers.

Spencer, Dr. E(dwin) R(ollin), Lebanon, Ill. *Botany, Plant pathology*. Rushville, Ill, Feb. 13, 81. A.B, Illinois, 11, A.M, 14, Ph.D, 20. Supervisor, high schs, 11–13, 14–17; prof. biol, Southeast Mo. State Teachers Col, 20–25; McKendree Col, 26–40. Consulting botanist, 18– A.A; Phytopath. Soc; Bot. Soc. Causes of the decay of Brazil nuts; the beautification of rural school yards; weeds.

Spencer, Dr. Ernest L(eavitt), University of Florida Vegetable Crops Laboratory, Bradenton, Fla. *Plant physiology*. Saco, Maine, Jan. 2, 06. B.S, Mass. Col, 28; M.S, Rutgers, 30, Ph.D, 32. Plant physiologist, Rockefeller Inst, 32–43; *assoc. soil chemist, veg. crops lab, Exp. Sta, Florida, 43–* Soc. Plant Physiol; Phytopath. Soc; Bot. Soc. Plant nutrition; filterable viruses; soil chemistry.

Spencer, Dr. Frank Clarence, Adams State Teachers College, Alamosa, Colo. *Education, Anthropology*. Polk, Ohio, Nov. 24, 69. B.S, Colorado, 94; Ph.D, Columbia, 99. Sch. supt, Colo, 94–97; hon. fellow, Clark, 99–00; prof. math, Buena Vista Col, 20–21; prof. math. and dean men, Olivet Col, 21–24; prof. psychol, hist. and math, *Adams State Teachers Col, Colo*, 25–40, *emer. prof. social studies, 40–* Primitive education; origin of primitive ideas; the San Luis valley, Colorado; history of Colorado.

Spencer, Prof. G(eorge) J(ohnston), University of British Columbia, Vancouver, B. C, Can. *Entomology*. Yercaud, South India, 88. Victoria (England); Ont. Agr. Col; B.S.A, Toronto, 14; M.S, Illinois, 24. Demonstrator entom. and zool, Ont. Agr. Col, 14–19, lecturer, 19–24; asst. prof. *zool, British Columbia*, 24–35, *assoc. prof, 35–* Asst. to provincial entomologist, Ont, 13–15; in charge field lab, European cornborer work, 20–24. Capt, C.O.T.C, 14–16; lieut. and acting capt, C.E.F. Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc; Can. Soc. Tech. Agr; Ont. Entom. Soc; Entom. Soc. B. C. Economic insects; biology of range grasshoppers; ectoparasites of birds and mammals of British Columbia.

Spencer, Dr. H. Earl, Presbyterian College, Clinton, S. C. *Mathematics*. St. Catherines, Ont, Can, Sept. 17, 98. B.S, Rochester, 21; A.M, Cornell, 29, Ph.D, 33. Teacher, high sch, N. Y, 21–24; math, Genesee Wesleyan Sem, Lima, N. Y, 24–28; asst. physics, Cornell, 29, instr. *math*, 29–36; *prof, Presb. Col. (S. C), 36–* Math. Asn. Analysis.

Spencer, Prof. H(arold) F(oster), Whittier College, Whittier, Calif. *Cytology*. Gardena, Calif, March 25, 10. A.B, Whittier Col, 31; M.S, Southern California, 33; Ph.D, Cornell, 38. Instr. biol, Whittier Col, 31–35; asst. cytogenetics, Mich. State Col, 37–38; *prof. biol. and dean, Whittier Col, 38–* Summer, lecturer, Southern California, 38. Bot. Soc; Calif. Bot. Soc. Nuclear behavior in centric diatomes; cytology of the avocado, with particular reference to embryo sac development.

Spencer, Dr. Henry James, 24 W. Tenth St, New York, N. Y. *Medicine*. Tokyo, Japan, April 10, 84. A.B, Syracuse, 07; A.M, Williams Col, 08; M.D, Columbia, 13. Instr. biol, Williams Col, 07–08; Columbia, 08–10; *practising physician, 13–*; instr. med, med. col, Cornell, 16–18, 31–32, asst. prof. clin. med, 32–35, assoc. prof, 35–38. Marine Biol. Lab, Woods Hole, 09–10; asst. attending physician, Willard Parker Hosp, 20–25, attending physician, 25–30, pres. med. board, 28–30, consulting physician, 30–; asst. attending physician, Lincoln Hosp, 23–26, assoc. attending physician, 26–27, attending physician, 27–28; assoc. attending physician, Bellevue Hosp, 28–32, attending physician and director service, 32–39, consulting physician, 39–; assoc. attending physician, N. Y. Hosp, 30–39; attending physician, Manhattan Gen. Hosp, 35– A.A; Am. Med. Asn; Inst. Nutrition; Diabetic Asn; Harvey Soc; N. Y. Acad. Med. Etiology, metabolism and treatment of diabetes and obesity; the organized handling of contagious diseases.

Spencer, Dr. Herbert, U. S. Army, Camp Shelby, Miss. *Entomology*. Washington, D. C, April 7, 94. B.S, N. C. State Col, 15, M.S, 17; Ph.D, Ohio State, 22. Instr. zool. and entom, N. C. State Col, 15–18, 19–20, asst. prof, 20–21; assoc. entomologist, Va. Truck Exp. Sta, 22–23, entomologist, 23–25; assoc. entomologist, La. Exp. Sta, 25–30; *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–; entomologist and asst. med. inspector, U. S. Army, 41–* M.C, U.S.A, 18–19, major, Sanit.R.C. Entom. Soc; Asn. Econ. Entom; Ohio Acad. Dusting and spraying of vegetable crops; control of nematodes; parasites and hyperparasites of aphids; control of squash insects; potato tuber moth; sugar-cane borer; fumigation of stored grain; control of insects attacking citrus and subtropical fruits; mosquito control; insects and diseases.

Spencer, Dr. H(oward) C(amac), The Dow Chemical Co, Midland, Mich. *Biochemistry*. Yates Center, Kans, April 8, 08. A.B, Col. of Emporia, 31; M.S, Nebraska, 33, Ph.D, 36. Instr. biochem, col. med, Nebraska, 35–37; *mem. staff, biochem. lab, Dow Chem. Co, 37–* Chem. Soc. Biochemistry and metabolism of muscular dystrophies; industrial toxicology.

Spencer, Prof. Hugh M(iller), University of Virginia, Charlottesville, Va. *Physical chemistry*. Winfield, Mo, Nov. 24, 97. A.B, Missouri, 19, A.M, 21; Ph.D, California, 24. Instr. *physical chem*, Missouri, 20–21; Yale, 24–27; *asst. prof, Virginia, 27–* A.A; Chem. Soc. Free energy of lead compounds; chemical equilibria; constant humidity systems; thermodynamics of solutions; thermochemistry.

Spencer, Lieut. Joseph Nuten, 6216 25th N.E, Seattle, Wash. *Physiology*. Tacoma, Wash, June 30, 08. B.S, Washington (Seattle), 31, M.S, 33; fellow, Colorado, 37–39, Child Research Council fellow, 39–42, Ph.D, 40. Asst. physiol, Washington (Seattle), 29–31, teaching fellow, 31–33, asst, 34–37; asst. prof. physiol. and pharmacol, sch. med, Colorado, 41–42; *lieut, U. S. Army, 42–* Child physiology.

Spencer, Prof. Leland, Cornell University, Ithaca, N. Y. *Agricultural economics*. Canton, Pa, April 25, 96. B.S, Cornell, 18, Ph.D, 23. Instr. farm management, Mass. Col, 19–20; *N. Y. State Col. Agr, Cornell*, 20–23, asst. prof. *marketing*, 23–25, *prof, 25–* Special expert in charge field investigation milk and cream costs, U. S. Tariff Cmn, 26; acting assoc. economist, Giannini Foundation, California, 30; dairy marketing economist, Farm Credit Admin, 34–36; consultant in charge study milk distribution costs, State Dept. Agr, N. J, 42. Research director, Joint Legislative Cmt, N. Y, to Investigate Milk Indust, 32; director investigation costs and profits of milk dealers, Milk Control Board, N. Y, 33; mem, Gen. Board Dairy Research. Farm Econ. Asn. (v. pres, 35); Int. Asn. Agr. Econ. Marketing dairy products.

Spencer, Dr. L(lewellyn) T(ruman), 88 Ardmore Road, West Hartford 7, Conn. *Psychology*. Hartford, Conn, April 17, 97. A.B, Yale, 20, A.M, 21, Ph.D, 23. Asst. prof. psychol, Yale, 22–29; statist, Easland and Co, 29–39; Tifft Brothers, 39–42; Ordnance Dept, U. S. Army, 42–43; *asst. to treas, Keeney Mfg. Co, 43–* Psychol. Asn. Animal and human central inhibition.

Spencer, Dr. Ray(mond) C(hester), 484 Huxley Drive, Snyder, N. Y. *Metallurgy.* Russellville, Ind, June 27, 02. B.S, Purdue, 25; M.S. and Ph.D, Notre Dame, 28. Instr, Notre Dame, 27–29; metallographer, Caterpillar Tractor Co, Peoria, Ill, 29–32, lab. foreman physical testing, 32–34; *metallurgist, Bliss and Laughlin, Buffalo, 34–* Soc. Metals (chairman Notre Dame group, 28, exec. cmt, Buffalo sect, 36, 38). Case carburization; physical properties of cold finished steels.

Spencer, Prof. R(aymond) G(eorge), 704 S. Maple Ave, Oak Park, Ill. *Metallurgy, Physics.* Lake Benton, Minn, June 20, 98. B.S, Kans. State Teachers Col, 22; M.S, Chicago, 26, Ph.D, 32. Teacher, high sch, Kans, 22–25; instr. physics, Albion Col, 26–29, asst. prof, 29–32, assoc. prof, 32–36, prof. and head dept, 36–41; chief physicist, *metal. div, Armour Research Foundation,* 41–42, *chairman, 42–* A.A; Physical Soc; Soc. Metals; Soc. X-ray and Electron Diffraction. X-ray absorption; structure of matter; physics of metals; fatigue of metals.

Spencer, Dean R(obert) L, 46 Delaware Ave, Newark, Del. *Mechanical engineering.* St. Johnsbury, Vt, March 7, 87. B.S, Iowa State Col, 12. Instr. mech. eng, Iowa State Col, 07–12; asst. prof, Lehigh, 12–18; combustion engineer, Bethlehem Steel Co, 18–20; Midwest Ref. Co, Wyo, 20–21; Standard Oil Co. of Ind, Wyo, 21–23; test and service engineer, Heine Boiler Co, St. Louis, 23–25, mech. engineer, 25–27; proposition engineer, steam generation dept, Int. Combustion Eng. Corp, 27–28; chief engineer, McAleenan Corp, Pittsburgh, 28; *dean eng, Delaware, 28–, prof. mech. eng, 28–* Director, Del. Safety Council. A.A; Mech. Eng; Eng. Educ; Newcomen Soc. England. Combustion, thermodynamics and heat transfer as applied to the steam raising unit and the Diesel engine.

Spencer, Dr. Roscoe (Roy), U. S. Public Health Service, Washington, D. C. *Bacteriology, Immunology.* King William Co, Va. A.B, Richmond, 09; M.D, Hopkins, 13. In charge plague suppressive measures, *U. S. Pub. Health Service,* 19–20, in charge Rocky Mt. spotted fever investigations, 22–28, *research med. bacter, nat. inst. health, 28–,* asst. chief, *nat. cancer inst,* 37–43, *chief, 43–;* assoc. prof. *hygiene and prev. med, George Washington,* 32–41, *adj. prof, 41–* Gold medal, Am. Med. Asn, 30. Sanit. adviser, U.S.N, 17–18. A.A; Soc. Bact. (pres, Wash. branch, 34); Asn. Mil. Surg. Communicable and infectious diseases; bubonic plague; Rocky Mountain spotted fever; tularemia; dysentery; cancer.

Spencer, Prof. Roy C(larence), University of Nebraska, Lincoln, Nebr. *Physics.* Pennellville, N. Y, April 14, 01. A.B, Cornell, 22, fellow, 24–25; fellow, Swarthmore Col, 22–23; Ph.D, Columbia, 32. Heckscher research asst. x-rays, Cornell, 23–24; radio tube develop. engineer, Westinghouse Lamp Co, 25–27; instr. *physics,* Columbia, 27–31; *Nebraska,* 31–34, asst. prof, 34–41, *assoc. prof, 41–; mem. staff radiation lab, Mass. Inst. Tech, 41–* A.A; Physical Soc. Applied mathematics; x-ray spectroscopy.

Spencer, Prof. Sam Riley, Baylor University, Waco, Texas. *Physics, Chemistry.* Sanger, Texas, July 11, 74. A.B, Baylor, 11; Ph.D, Iowa, 25. Instr. physics and chem, *Baylor,* 11–16, *prof. physics, 17–,* dean col. arts, 19–25. A.A; Physical Soc.

Spencer, Prof. V(ictor) E(lwin), University of Nevada, Reno, Nev. *Soils.* Chicago, Ill, Nov. 17, 93. B.S, Illinois, 15, M.S, 26. Assoc. soil fertility, dept. agron, Illinois, 20–28; *assoc. prof. soils research, Exp. Sta, Nevada, 28–*

Spencer, Dr. W(arren) P(oppino), College of Wooster, Wooster, Ohio. *Zoology.* New Athens, Ohio, Jan. 16, 98. A.B, Col. of Wooster, 19; M.S, Ohio State, 24, Ph.D, 29. Instr. *biol,* Assiut Col, Egypt, 19–21; *Col. of Wooster,* 21–23, 24–26, asst. prof, 26–29, *prof, 29–* Gen. Educ. Board fellow, 36–37. A.A; Soc. Zool; Genetics Soc; Ohio Acad. Genetics of Drosophila.

Spencer, Prof. W(arren) R(ussell), 318 W. Lafayette St, Fayetteville, Ark. *Civil engineering.* Russellville, Ind, Aug. 15, 89. A.B, Indiana, 12; B.S, Rose Polytech, 16, C.E, 21; M.S, Iowa State Col, 26. Sch. supt, Ind, 12–14; instr. *civil eng,* Rose Polytech, 16–18; *prof, Arkansas, 19–* Civil Eng; Water Works Asn; Eng. Educ. Cement; concrete; road and structural materials.

Spengeman, Dr. W(illard) F(rederick), 256 Vanderpool St, Newark, N. J. *Chemistry.* Jersey City, N. J, June 28, 07. B.S, Wisconsin, 30, Ph.D, 35; M.S, Purdue, 31. *Research chemist,* Kimberly Clark Corp, 35–37; *E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Pigment and paint chemistry; non-aqueous solutions; pigment synthesis; behavior of pigments in paint systems.

Speratl, Dr. Carleton A(ngelo), 391 Elm St, Arlington, N. J. *Organic chemistry.* Fergus Falls, Minn, Sept. 1, 18. A.B, Luther Col, 38; scholar, Illinois, 38–39, A.M, 39, fellow, 39–41, Ph.D, 41. *Chemist, plastics dept, E. I. du Pont de Nemours and Co, 41–* Summer, lab. asst, Union Oil Co, Calif, 40. Chem. Soc. Polycarbonyl compounds; stable vinyl alcohols; polymeric materials.

Sperr, F(rederick) W(illiam), Jr, Vineland, N. J. or Lake Worth, Fla. *Chemistry.* Jefferson, Ohio, Dec. 27, 85. A.B, Ohio State, 06. Chemist, Westinghouse Elec. and Mfg. Co, 06–08; civil and mining engineer, 08–10; chief chemist, by-products coke plants, 10–15; Koppers Co, 15–25, director research, 25–30; senior fellow, Mellon Inst, 16–30; pres, Koppers Research Corp, 30–31; *research consultant, 31–* Beal medal, Am. Gas Asn, 20, 26. Chem. Soc; Chem. Eng; Franklin Inst. By-products of coal and gas; phytochemistry.

Sperry, Prof. Arthur B(radley), Kansas State College, Manhattan, Kans. *Geology.* Jan. 3, 95. B.S, Chicago, 19, 24, 26. Instr. *geol, Kans. State Col,* 21–27, *prof, 27–* A.A. Soil mineralogy; petrography.

Sperry, Charles C(arlisle), U. S. Department of the Interior, Denver, Colo. *Biology.* Beverly, Kans, Sept. 28, 95. A.B, Kansas, 18. Asst. biologist and *assoc. biologist, fish and wildlife service, U. S. Dept. Interior.* Soc. Mammal; Ornith. Union. Food habits of birds and mammals.

Sperry, D(avid) R(ockwell), 189 Main St, Batavia, Ill. *Engineering.* Batavia, Ill, Jan. 24, 83. B.S, Wisconsin, 07, M.E, 10. Factory engineer, Gen. Elec. Co, 09–12; v. pres. and later *pres, D. R. Sperry and Co, 12–* Chem. Soc. (chairman, filtration symposium, 21, div. indust. and eng. chem, 22–24). Filtration; fundamental laws in filtration; methods of conducting filtration tests; design and use of filter presses.

Sperry, Dr. John J(erome), Agricultural and Mechanical College of Texas, College Station, Texas. *Plant morphology.* Falls City, Nebr, Jan. 13, 12. A.B, Nebraska, 36, Ph.D, 42; A.M, Missouri, 38. Asst. bot, Nebraska, 36–37, 38–41; Missouri, 37–38; plant ecol, Carnegie Institution, 37–41; *instr. bot, Agr. and Mech. Col. Texas, 41–* A.A; Bot. Soc; Texas Acad; Nebr. Acad. Plant anatomy and ecology; vegetative reproduction in Chlorophytum elatum; morphology and anatomy of Polygonum viviparum.

Sperry, Dr. Omer E(dison), Sul Ross State Teachers College, Alpine, Texas. *Botany.* Falls City, Nebr, March 21, 02. A.B, Nebr. State Teachers Col, 25; A.M, Nebraska, 31, Ph.D, 34. Instr. bot, Nebraska, 30–35; *head dept. biol, Sul Ross State Teachers Col, 35–* A.A; Ecol. Soc; Torrey Bot. Club; Texas Acad. Flora of the Big Bend of Texas.

Sperry, Prof. Pauline, University of California, Berkeley, Calif. *Mathematics.* Peabody, Mass, March 5, 85. A.B, Smith Col, 06, fellow, 07–08, A.M, 08, traveling fellow, 12–13; M.S, Chicago, 14, fellow, 15–16, Ph.D, 16. Instr. *math,* Smith Col, 08–12, asst. prof, 16–17; instr, *California,* 17–23, asst. prof, 23–31, *assoc. prof, 31–* Math. Soc; Math. Asn. Projective differential geometry.

Sperry, Dr. R(oger) W(olcott), Yerkes Laboratories of Primate Biology, Orange Park, Fla. *Neurology.* Hartford, Conn, Aug. 20, 13. A.B, Oberlin Col, 35, A.M, 37, fellow, 37–38; Ph.D, Chicago, 41. Lab. asst. psychol, Oberlin Col, 35–37; teaching asst. zool, Chicago, 38–41; *research fellow biol, Harvard, 41–,* nat. research fellow zool, 41–42; *research assoc, Yerkes Labs. Primate Biol, 42–* Consultant, Govt. Research Project, 42– Central nervous integration determined by action potentials; transplantation of peripheral nerves and end-organs and brain lesions.

Sperry, Dr. Theodore M(elrose), 648 Oakland Court, Decatur, Ill. *Botany.* Toronto, Ont, Can, Feb. 20, 07. B.S, Butler, 29; M.S, Illinois, 31, fellow, 32–33, Ph.D, 33. Asst. bot, Illinois, 29–32; examiner, U. S. Forest Service, 33–34, tech. foreman, 35–36; senior foreman and ecologist, Nat. Park Service, 36–41; *Air Corps, U. S. Army,* 41–43, *lieut, 43–* A.A; Ecol. Soc; Soc. Plant Taxon; Wis. Acad; Ind. Acad; Ill. Acad. Plant ecology; weather forecasting.

Sperry, Prof. Warren M(yron), N. Y. State Psychiatric Institute and Hospital, 722 W. 168th St, New York, N. Y. *Biochemistry.* Chili, N. Y, June 30, 00. Ch.B, Cornell, 21; M.S, Illinois, 22; Ph.D, Rochester, 25. Instr. *biochem,* sch. med. and dentistry, Rochester, 25–27, *asst. prof,* 27–30; *col.*

physicians and surg, Columbia, 30– Chemist, Babies' Hosp, New York, 30–38; prin. research neurochemist, N. Y. State Psychiat. Inst. and Hosp, 38– A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; Soc. Pediat. Research; Inst. Nutrition; Biochem. Soc. London; Soc. philomat. de Paris. Lipid excretion; cholesterol metabolism; biochemistry of nervous tissue.

Sperti, Dr. George Speri, Institutum Divi Thomae, 1840 Madison Road, Cincinnati, Ohio. *Biophysics.* Covington, Ky, Jan. 17, 00. E.E, Cincinnati, 23, Baldwin fellow, 23–25, fellow, 26–35, nat. research fellow, 29–31; Rockefeller Foundation traveling fellow, 30–31; Sc.D, Dayton, 34, Duquesne, 36. Asst. chief meter labs, Union Gas and Elec. Co, Cincinnati, 22; asst. to research director, Duncan Elec. Co, Ind, 23; asst, Cincinnati, 24–25, research prof. and director basic science research lab, 26–35; *research prof. and director research, Institutum Divi Thomae, Athenaeum of Ohio, 35–* Board directors, Gen. Develop. Labs, Inc, New York, 31–35; Sperti Lamp Corp, 35– Lecturer, Dayton, Mt. St. Joseph-on-the-Ohio, 35–40. Trustee, Athenaeum, Ohio, 35– A.A; Chem. Soc; Optical Soc; Physical Soc; Soc. Ital. di Fisica. Biochemistry; biology; physics; biophysics; medicine; quantum theory in biology; the light treatment process; K-va meter; biodynes.

Spessard, Prof. E(arle) A(ugustus), Hendrix College, Conway, Ark. *Botany.* Chewsville, Md, Sept. 16, 87. A.B, Lebanon Valley Col, 11; M.S, Chicago, 20, Ph.D, 24. *Prof. biol,* Joliet Junior Col, 22–24; Ouachita Col, 26–30; *Hendrix Col, 30–* Summer, asst. prof, Chicago, 23. Chairman, Basic Science Board, Ark, 29–36. Lebanon Valley Col. exped, Bermuda, 10. A.A; Soc. Plant Physiol. Prothallia of Lycopodium in America; anatomy of Lycopodium sporeling; fertilization in Oedogoniums; longevity of algae in cultures; quantitative measurements of light absorption by green algae in hermetically sealed containers.

Spicer, Prof. Clyde A(llen), Western Maryland College, Westminster, Md. *Mathematics.* Hanover Co, Va, Jan. 19, 99. A.B, 23; A.M, Hopkins, 27, Ph.D, 29. Prin, high sch, 23–25; asst. *math,* Hopkins, 25–29; *prof. and head dept, Western Maryland Col, 29–* A.A; Math. Soc. Algebraic geometry.

Spicer, H(erbert) Cecil, 216 Buffalo Ave; Takoma Park, Md. *Physics, Geology.* Pittsburg, Kans, Oct. 10, 98. B.S, Kans. State Teachers Col, 20; Arizona, 27–28. Educ. director, Ala. Power Co, 20–21; prin, high sch, and supt. schs, Kans, 21–23; prin. and teacher, Ariz, 23–29; Kans, 29–30; Wyo, 30–31; junior sci. aide, *physical lab, U. S. Geol. Surv,* 31–35, junior scientist, 35–36, junior physicist, 36–39, asst. physicist, 39–42, *Assoc. scientist, 42–* Summers, asst, Kans. State Teachers Col, Pittsburg, 22, 23. Geophys. Union; Physical Soc; Wash. Acad; Geol. Soc. Wash. Temperatures in the earth; mathematical tables; geothermal gradient and age of a non-radioactive earth; rock temperatures and depths to the normal boiling point of water in the United States; geophysical prospecting with electrical methods at dam sites and over salt deposits; physical properties of rocks; radioactivity of geological materials.

Spicer, Prof. W(illiam) Monroe, Georgia School of Technology, Atlanta, Ga. *Physical chemistry.* Hanover, Va, Dec. 22, 08. B.S, Randolph-Macon Col, 32; du Pont research fellow, Virginia, 35–36, Ph.D, 36. *Asst. prof. chem, Ga. Tech, 36–* Chem. Soc. Thermodynamics.

Spiegel, Prof. Ernest A, Temple University School of Medicine, Philadelphia, Pa. *Neurology.* Vienna, Austria, July 24, 95. M.D, Vienna, 18. Asst, Neur. Inst. and Polyclinic, Vienna, 18–24; docent, Univ. Vienna, 24–30; *prof. exp. and applied neur. and head dept. exp. neur, sch. med, Temple, 30–* Ed, 'Confinia Neurol.' A.A; Neur. Asn; Therapeut. Soc; Asn. Research Nervous and Mental Disease; Soc. Exp. Biol; Physiol. Soc; Phila. Neur. Soc; Physiol. Soc. Phila. Tonus; centers of vegetative system; experimental neurology; oto-ophthalmoneurology; cortical centers of labyrinth; epilepsy; visceral and vascular pain.

Spiegel, J(acob) B(irk), 217 Elmwood Ave, Topeka, Kans. *Engineering.* Calumet, Mich, Sept. 6, 89. B.S, Michigan, 13. Patrolman, Ill. and Miss. Canal, 10, timekeeper, 10–11; inspector concrete locks, Sault Ste. Marie, Mich, 13; eng. asst. to Gardner S. Williams, Ann Arbor, Mich, 13–14; junior engineer, U. S. Geol. Surv, 14–18, asst. engineer, 18–22, dist. engineer, 22–27; asst. engineer, State Water Resources Div, Kansas, 27–28; *dist. engineer, U. S. Geol. Surv, 28–* Geophys. Union. Inventory of surface waters of Arizona, New Mexico, Colorado, Wyoming, Iowa, Nebraska, Kansas and Oklahoma.

Spiegel-Adolf, Prof. Anna Simona, Temple University School of Medicine, Philadelphia, Pa. *Chemistry.* Vienna, Austria, Feb. 23, 93. M.D, Vienna, 18, docent, 31. Asst, Vienna, 20–31; *prof. colloid chem. and head dept, sch. med, Temple, 30–* Adviser, Serotherapeut. Inst, Vienna. A.A; Soc. Biol. Chem; Chem. Soc; Biochem. Soc. London; Soc. Exp. Biol. Colloid chemistry; physico-chemistry of proteins and lipoids; effects of short-wave light on proteins; reversibility of heat-denaturation in serum albumen; conditions underlying tissue-polarization.

Spiegelberg, Dr. Carl H(enry), Pineapple Research Institute, Box 3166, Honolulu, Hawaii. *Plant pathology.* St. Louis, Mo, Aug. 26, 98. B.S, State Col. Wash, 24, M.S, 25; Maryland, 26–27; Ph.D, Wisconsin, 40. Junior plant quarantine inspector, Port of New York, 26; asst. prof. hort. and bot, Puerto Rico, 27–28; asst. plant pathologist, *Pineapple Research Inst,* 30–40, *assoc, 40–* A.A; Soc. Bact; Phytopath. Soc; Hawaiian Bot. Soc; Meteorol. Soc. Hawaii; Hawaiian Acad. Diseases of pineapple fruits.

Spieker, Prof. Edmund M(aute), Ohio State University, Columbus, Ohio. *Geology.* Baltimore, Md, Feb. 25, 95. A.B, Hopkins, 16, Ph.D, 21. Geol. aid, *U. S. Geol. Surv,* 17–18, asst. geologist, 18–19, assoc. geologist, 19–21, geologist, 21–24, *assoc. geologist, 24–;* asst. prof. *geol, Ohio State,* 24–28, assoc. prof, 28–32, *prof, 32–* Asst. geologist, Imp. Oil Co, 19; geologist, B. C, Can, 20. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner. Stratigraphic and structural geology; sedimentation; economic geology of coal and petroleum.

Spielman, Dr. M(arvin) A(ndrew), Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* Dotson, Minn, Jan. 10, 06. B.S, N. Dak. Col, 29; Ph.D, Minnesota, 33. Nat. research fellow, Yale, 33–34; Illinois, 34–35; research assoc. zool, Wisconsin, 35–36, asst. prof. org. chem, 36–40; *research chemist, Abbott Labs, 40–* Synthetic drugs.

Spier, Prof. Leslie, P. O. Box 880, Santa Cruz, Calif. **Anthropology.* New York, N. Y, Dec. 13, 93. B.S, Col. City of N. Y, 15; Cutting fellow, Columbia, Ph.D, 20. Asst. anthrop, Am. Museum Nat. Hist, 16–20; lecturer, California, 20; instr, Washington (Seattle), 20–21, asst. prof, 21–27; prof, Oklahoma, 27–29; prof. and director museum, Washington (Seattle), 29; visiting prof. *anthrop,* Chicago, 30; research assoc, Yale, 31–33, assoc. prof, 33–39; *prof, New Mexico, 39–* Asst, N. J. Archeol. and Geol. Surveys, 13; nat. research fellow, 23; visiting prof, Harvard, 39. Summers, Columbia, 21, 23, 26, 32; California, 24, 25, 27. Mem. div. anthrop. and psychol, Nat. Research Council, 34–37. Ed, 'Am. Anthropologist,' 34–39; 'Gen. Series in Anthrop.' Archeol. and ethnol. expeds, west. U. S. A.A. (chairman, H, 42); Anthrop. Asn. (councilor, pres, 43). Antiquity of man in America; ethnology of western Indians.

Spies, Dr. John W(illiam), 1612 D St, Galveston, Texas. *Surgery, Radiology.* Paris, Texas, April 10, 97. M.D, Harvard, 24; A.B, Texas, 29; M.S, Yale, 30. Intern, St. Luke's Hosp, New York, 24–26; res. surgeon and fellow path, Gen. Mem. Hosp, New York, 26–28; Gen. Mem. Hosp. fellow and Cmn. Relief Belgium Educ. Foundation fellow, Europe, 29, 36; instr. surg. and surg. path, sch. med, Yale, 29–31; assoc. prof. surg, Peiping Union Med. Col, 31–35; director, Tata Mem. Hosp, Bombay, India; *prof. prev. med. and pub. health and dean med. branch, Texas.* A.A; Radium Soc; Asn. Cancer Research; Asn. Path. and Bact. Pathology; neoplastic diseases; calcium and phosphorus metabolism; oncology; tuberculosis.

Spies, Dr. Joseph R(euben), 507 N. Monroe St, Arlington, Va. *Chemistry.* Madison, S. Dak. Nov. 5, 04. A.B, South Dakota, 27; M.S, Maryland, 31, Ph.D, 34. Lab. instr, Maryland, 28–29; junior chemist, Chem. Warfare Service, Edgewood Arsenal, 29–30; bur. chem. and soils, *U. S. Dept. Agr,* 30–35, asst. chemist, bur. entom. and plant quarantine, 35–36, chemist, bur. chem. and soils, 36–41, *senior chemist, bur. agr. chem. and eng, 41–* A.A; Soc. Exp. Biol; Chem. Soc; Washington-Md. Microchem. Soc. (chairman, 39). Examination of poisonous plants; determination of nicotine; croton resin and crotonoside from Croton tiglium; micro-analysis; recovery of silver and iodine from silver iodide; chemistry of allergens.

Spies, Dr. Tom D(ouglas), Cincinnati General Hospital, Cincinnati, Ohio. *Internal medicine.* Ravenna, Texas, Sept. 21, 02. A.B, Texas, 23; M.D, Harvard, 27. Intern path, Peter Bent Brigham Hosp, Boston, 28–29; asst, Boston City Hosp,

29–30; intern, Lakeside Hosp, Western Reserve, 30–31, teaching fellow, univ, 31–32, instr. *med*, 32–34, senior instr, 34–35; asst. prof, *col. med, Cincinnati*, 35–36, *assoc. prof*, 36–; *prof. med. research, med. branch, Texas, 38–; sch. med, Alabama, 41–* Director nutrition clinic, Hillman Hosp, Birmingham, Ala, 36– A.A; Asn. Path. and Bact; Am. Med. Asn; Soc. Trop. Med; Soc. Clin. Invest; Soc. Exp. Biol; Cent. Soc. Clin. Research; Tri-State Med. Asn; South. Med. Asn. Tuberculosis; arteriosclerosis; deficiency diseases.

Spieth, Prof. Alda May, Box 22, Livingston, Ala. *Botany.* Jeffersonville, Ind, April 5, 98. A.B, Woman's Col. of Ala, 18; M.S, Chicago, 25, Ph.D, 31. Instr. *biol*, Woman's Col. of Ala, 18–19; Mansfield Col, 19–23; instr. and adj. prof, Randolph-Macon Woman's Col, 25–28; *prof, Ala. State Teachers Col, 30–* A.A; Bot. Soc; Ala. Acad. Plant morphology; ecology.

Spieth, Prof. G(eorge) E(dward), 188 Oak St, Hillsdale, Mich. *Organic chemistry.* New Bavaria, Ohio, Sept. 9, 85. A.B, Defiance Col, 11; M.S, Chicago, 18, Ph.D, 25. *Prof. chem*, Palmer Col, 11–15; Defiance Col, 15–16; *Hillsdale Col, 16–* A.A; Chem. Soc; Electrochem. Soc; Mich. Acad. The tetra-carbon saccharinic acids.

Spieth, Dr. Herman T(heodore), College of the City of New York, New York, N. Y. *Zoology.* Charlestown, Ind, Aug. 21, 05. A.B, Ind. Cent. Col, 26; fellow, Indiana, 30–31, Ph.D, 31. Asst. zool, Indiana, 26–30, instr, 31–32; *biol, Col. City of N. Y*, 32–35, *asst. prof, 35–* Instr, biol. lab, Cold Spring Harbor, 31–38; lecturer, Columbia, 38– Soc. Zool; Entom. Soc. Amer; N. Y. Entom. Soc. (v. pres, 38, pres, 39, treas, 40–); Limnol Soc. Biology and taxonomy of the Ephemeridae.

Spiker, Cha(rle)s J(olley), Branchport, N. Y. *Ornithology.* Liberal, Mo, April 3, 95. A.B, Morningside Col, 26; A.M, Syracuse, 31. *Field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 27–* East. Bird Banding Asn. Biological reconnaissance of the Peterboro swamp and the Labrador pond areas; summer birds of the Finger Lakes and the Catskills; winter conditions affecting deer in the Adirondacks; bird banding.

Spilhaus, Prof. Athelstan F(rederick), New York University, University Heights, New York, N. Y. *Meteorology, Physical oceanography.* Cape Town, S. Africa, Nov. 25, 11. B.Sc, Cape Town, 31; M.S, Mass. Inst. Tech, 33. Asst. meteorol, Mass. Inst. Tech, 34–35; asst. to director tech. services, Union of S. Africa Defense Forces, 35–36; research oceanog, *Oceanog. Institution, Woods Hole*, 36–37, investigator physical oceanog, 38–40, *physical oceanographer, 40–*; asst. prof. *meteorol, N. Y. Univ*, 37–40, assoc. prof, 40–42, *prof, 42–, chairman dept, 38–* Mem. subcmt. meteorol, Nat. Advisory Cmt. Aeronautics, 41– Meteorol. Soc. (chairman cmt. meteorol. educ, 41); Geophys. Union; assoc. fel. Inst. Aeronaut. Sciences; N. Y. Acad. (v. pres, 41–; chairman sect. meteorol. and oceanog, 41–); fel. Royal Meteorol. Soc; Royal Soc. S. Africa. Meteorological dynamics; thermodynamics; meteorological instruments; physical oceanography; oceanographic instruments for determining physical properties of sea water.

Spinden, Dr. H(erbert) J(oseph), Brooklyn Museum, Brooklyn, N. Y. *[8]Anthropology.* Huron, S. Dak, Aug. 16, 79. A.B, Harvard, 06, A.M, 08, Ph.D, 09. Austin teaching fellow, Harvard, 06–09; asst. curator anthrop, Am. Museum Nat. Hist, 09–20, in charge indust. and decorative art exhib, 19; curator Mex. archeol. and ethnol, Peabody Museum, 20–29; *curator Am. Indian art and primitive cultures, museum, Brooklyn Inst, 29–* Lecturer, Coordinator Latin Am. Affairs, Peru, Chile and Argentine universities. Angrand prize, 18. Del. Int. Cong. Prehist. and Sciences, London, 32; chairman sect. I, Am. Science Cong, 40. Anthrop. Asn. (pres, 36); Folk-Lore Soc; Ethnol. Soc; fel. Am. Acad; fel. Royal Geog. Soc; Ecuatoriana de Estudios Hist. Am; Soc. des Américanistes de Paris; Maya Soc. Mandan and Nez Percé Indians; ethnology and archeology of Mexico, Central America and South America; historical developments in art; primitive agriculture; use of primitive art in modern industrial decorations; correlation of Central American calendar and chronology with European chronology; the Venus calendar; Maya astronomy; peopling of the New World; Latin American colonial and folk art.

Spindler, Dr. L(loyd) A(ncil), U. S. Department of Agriculture, Beltsville, Md. *Parasitology.* Garnett, Kans, Jan. 7, 00. B.S, Kans. State Col, 26, M.S, 27; Sc.D, Hopkins, 29. Asst. zoologist, *zool. div, bur. animal indust, U. S. Dept. Agr*, 29–36, assoc. zoologist, 36–40, *zoologist, 40–; lecturer zool, George Washington, 40–* Summer, mem. exped. for study human ascariasis, Va, 28. Soc. Parasitol; Helminth. Soc. Wash; Wash. Acad. Human and animal parasitology.

Spink, Dr. Wesley W(illiam), University of Minnesota, Minneapolis, Minn. *Internal medicine.* Duluth, Minn, Dec. 17, 04. A.B, Carleton Col, 26; M.D, Harvard, 32. Asst. *med*, Harvard Med. Sch, 35–37; asst. prof, *med. sch, Minnesota*, 37–41, *assoc. prof, 41–* Res. physician, Thorndike mem. lab, Boston City Hosp, 34–37. A.A; Soc. Clin. Invest. (sec'y, 42–); fel. Am. Med. Asn; Soc. Exp. Path; Asn. Immunol; Soc. Pharmacol; Soc. Exp. Biol; fel. Col. Physicians; Cent. Soc. Clin. Research; Cent. Interurban Clin. Club; Minn. Soc. Int. Med; Minn. Path. Soc. Infectious diseases; bacteriology and immunology; streptococcal, gonococcal and staphylococcal infections; trichinosis; undulant fever; sulfonamides.

Spinks, Dr. J(ohn) W(illiam) T(ranter), University of Saskatchewan, Saskatoon, Sask, Can. *Chemistry.* Methwold, Eng, Jan. 1, 08. Scholar, London, 25–28, B.Sc, 28, Ph.D, 30; Darmstadt, Germany, 33–34. Asst. prof. chem, *Saskatchewan*, 30–39, *prof. physical chem, 39–* Assoc. Inst. Chem; Chem. Soc; Faraday Soc; fel. Can. Inst. Chem. (councilor, 40–); fel. Royal Soc. Can. Photochemistry; molecular structure; crude oil.

Spinney, Prof. L(ouis) B(evier), Iowa State College, Ames, Iowa. *Physics.* Bradford, Ill, May 27, 69. B.M.E, Iowa State Col, 92, B.S, 93; Cornell, 93–94, 98–00; Berlin, 94–95; Zurich, 95–96. Asst. physics, *Iowa State Col*, 93–97, *prof.* physics and elec. eng, 97–09, physics and illum. eng, 09–14, *physics, 14–* A.A; Physical Soc; Elec. Eng; Illum. Eng. Soc; Eng. Educ. Elastic properties of glass; analysis of vowel sounds; illumination; carbon arc.

Spirer, Dr. Jess, Western State Penitentiary, Pittsburgh, Pa. *Criminology, Clinical psychology.* Verona, Pa, May 13, 11. A.B, Pittsburgh, 31, A.M, 33, Ph.D, 39. *Senior psychologist, West. State Penitentiary, 34–; lecturer psychol, Pittsburgh, 43–* Race and crime; criminal responsibility; legal psychology.

Spitzer, Dr. Lyman, Jr, Yale University, New Haven, Conn. *[7]Astronomy, Astrophysics.* Toledo, Ohio, June 26, 14. A.B, Yale, 35; Cambridge; Ph.D, Princeton, 38. Nat. research fellow, Harvard, 38–39; *instr. astron. and physics, Yale, 39–* Astron. Soc; fel. Physical Soc; Royal Astron. Soc. Pressure-broadening theory; stellar atmospheres; origin of the solar system; interstellar matter.

Spitzer, Dr. William Carl, 1916 W. 78th St, Chicago, Ill. *Organic chemistry.* Chicago, Ill, Sept. 15, 14. B.S, Chicago, 36, Ph.D, 40. *Org. research chemist, Sherwin-Williams Co, 40–* Chem. Soc. Steric inhibition of resonance of nitro and cyano-aryl halides; conjugation of drying oil fatty acids; natural and synthetic drying oils and resins.

Spivak, Dr. J(oseph), Canadian Geological Survey, Victoria Museum, Ottawa, Ont, Can. *Geology.* Winnipeg, Man, Can, March 19, 12. B.Sc, Manitoba, 31, M.Sc, 34; Ph.D, Chicago, 42. Lab. asst, Manitoba, 32–34; geologist, Vanson Manitoba Gold Mines, 35; Gurney Gold Mines, 35–39; lab. asst, Chicago, 41–42; *asst. geologist, Can. Geol. Surv, 42–* Physico-chemical petrology; the system $NaAlSiO_4$-$CaSiO_3$-Na_2SiO_3.

Spivey, Dr. R(obert) C(harles), Shell Oil Co, Inc, Midland, Texas. *Micro-paleontology.* Jacksboro, Texas, April 22, 09. A.B, Texas Tech. Col, 31; M.S, Iowa, 36, Ph.D, 38. Ranger naturalist, Yellowstone Nat. Park, 35, 36; instr. gen. geol, Iowa, 38–40; *micro-paleontologist and stratigrapher, Shell Oil Co, 40–* Summers, geologist, Iowa State Geol. Surv, 37; S. Dak. Geol. Surv, 38. Paleont. Soc. Use of the Fusulinidae in stratigraphy, particularly as related to exploration for petroleum; ostracodes.

Spizizen, Dr. John, Loyola University School of Medicine, Chicago, Ill. *Bacteriology.* Winnipeg, Man, Can, Feb. 7, 17. B.A, Toronto, 39; Ph.D, Calif. Inst. Tech, 42. Asst. biol, Toronto, 38–39; teaching fellow biochem. and bacter, Wm. G. Kerckhoff labs, Calif. Inst. Tech, 39–42; nat. research fellow med. sciences, Vanderbilt, 42–43; *assoc. bacter, sch. med, Loyola (Ill), 43–* Urea synthesis in mammalian liver; microchemical methods for urea and citrullinae; kinetics of bacterial filtrate-bacteriophage reaction; metabolic cellular reactions associated with virus multiplication.

Spock, Prof. L(eslie) Erskine, New York University, Washington Square East, New York, N. Y. *Geology.* London, Eng, July 3, 00. A.B, Cornell, 23; A.M, Columbia, 24, Ph.D, 29. Asst. Cornell, 22-23; Columbia, 23-24; instr. *geol, N. Y. Univ,* 24-29, asst. prof, 29-32, *assoc. prof, Wash. Sq. Col, 32-* Asst, Am. Museum Nat. Hist, 25, 29. Geologist, Cent. Asiatic expeds. of Am. Museum Nat. Hist, 28. A.A; fel. N. Y. Acad. (v. pres, 40). Petrology; physiography; geologic reconnaissance in the Gobi desert.

Spoehr, Dr. Alexander, Field Museum of Natural History, Chicago, Ill. *Anthropology.* Tucson, Ariz, Aug. 23, 13. A.B, Chicago, 34, Ph.D, 40. Asst. curator and later *curator N. Am. ethnol. and archeol, Field Museum Nat. Hist, 40-* Anthrop. Asn. (councilor); Soc. Am. Archeol. American Indian social organization; archeology of the Southwest and of the Mississippi Valley; ethnological work among Indian tribes of southeastern United States.

Spoehr, Dr. Herman A(ugustus), Carnegie Institution, Stanford University, Calif. **[1]*Plant physiology.* Chicago, Ill, June 18, 85. B.S, Chicago, 06, fellow, 08-09, Ph.D, 09, hon. Sc.D, 29; Berlin, 06-07; Paris, 07-08. Assoc. chem, Chicago, 09-10; staff mem, desert lab, *Carnegie Institution,* 10-20, coastal lab, 21-26, asst. director, 26-28, *chairman div. plant biol,* 28-29, *31-* Director nat. sciences, Rockefeller Foundation, 30-31. Summer, acting prof, Stanford, 24. A.A; Soc. Nat; hon. mem. Soc. Plant Physiol; Chem. Soc; Bot. Soc; Philos. Soc; for. mem. Linnean Soc. London; cor. mem. Deuts. Bot. Gesell. Chemistry; photosynthesis; plant respiration; carbohydrates.

Spoerl, Prof. Howard Davis, 75 Oak Grove Ave, Springfield, Mass. *Psychology.* Brooklyn, N. Y, March 19, 03. B.S, Tufts Col, 25; A.M, Maine, 31; Ph.D, Harvard, 34. Instr. *psychol,* Northeastern, 35-36; asst, Harvard, 35-36; *prof. and director dept, Am. Int. Col, 36-. director guidance, 39-* Assoc. Psychol. Asn. Social and religious psychology; educational personnel problems; vocational investigations; psychological dynamics of secondary social groups.

Spoerri, Prof. Paul E(mmanuel), 226 Lincoln Place, Brooklyn, N. Y. *Chemistry.* Neuchâtel, Switzerland, April 30, 00. Chem.E, Burgdorf, Switzerland, 20; Zurich, 23-27; Ph.D, Berne, 29. Instr. *chem, Polytech. Inst. Brooklyn,* 29-35, *asst. prof, 35-* Chem. Soc; Schweiz. Chem. Gesell. Natural coloring matter; syntheses in the pyrazine series; steryl sulfates; microchemistry as applied to analysis and synthetic organic chemistry.

Spofford, Prof. Charles M(ilton), 136 Marlborough St, Boston, Mass. *Civil engineering.* Georgetown, Mass, Sept. 28, 71. B.S, Mass. Inst. Tech, 93. Asst. *civil eng,* Mass. Inst. Tech, 96-97, instr, 97-03, asst. prof, 03-05; prof, Polytech. Inst. Brooklyn, 05-09; Hayward prof, *Mass. Inst. Tech,* 09-40, *emer. prof, 40-,* chairman faculty, 25-27. Designer and expert adviser, bridges, warehouses and piers, 00-; Boston Terminal Cmn, 15-16; mem. firm, Fay, Spofford and Thorndike, 14-Civil Eng. (director, 25-28, v. pres, 42-); Ry. Eng; Am. Acad; Boston Soc. Civil Eng. (pres, 18); British Inst. Civil Eng. Theory of structures and arches.

Spofford, Dr. Walter R(ichardson), II, Gateway Lane, Nashville, Tenn. *Zoology, Anatomy.* Hackensack, N. J, Nov. 25, 08. B.S, Tufts Col, 31; Ph.D, Yale, 38. Asst. zool, Yale, 31-34; *anat,* med. col, Cornell, 35-38, instr, 38-40; *med. sch, Vanderbilt,* 40-42, *asst. prof, 42-* Ornith. Union; Linnaean Soc. New York. Experimental embryology; potency of a gastrulating ectoderm; neuroanatomy; axon-terminals.

Spohn, Dr. Adelaide, Elizabeth McCormick Memorial Fund, 848 N. Dearborn, Chicago, Ill. *Nutrition.* Chicago, Ill, May 25, 86. B.S, Chicago, 08, M.S, 13; Ph.D, Columbia, 22. Instr, high schs, Ill, 08-11; research asst. to Dr. Oscar Riddle, Chicago, and sta. for exp. evolution, dept. genetics, Carnegie Institution, 11-15; instr. chem, Teachers Col, Columbia, 15-16; chem. asst, dept. physiol, Columbia, 16-18; instr. chem, Northwestern, 18-19; Pratt Inst, 19-20; asst. food chem, Columbia, 20-22; asst. prof. home econ, Cornell, 22-24, prof, 24-31; director nutrition service, State Emergency Relief Cmn, Ill, 32-36; *Elizabeth McCormick Mem. Fund, 32-* Visiting fellow, Yale, 30-32. A.A; Chem. Soc; Home Econ. Asn; Dietetic Asn; Inst. Nutrition. Nutrition; the nutritive value of foods and the changes which take place in the processes of preparation.

Sponer, Prof. Hertha D. E, Duke University, Durham, N. C. **[7]*Physics.* Neisse, Germany, Sept. 1, 95. Ph.D, Göttingen, 20. Asst, physical inst, Göttingen, 21-25, privat-docent, 25-32, asst. prof, 32-34; visiting prof, Oslo, 34-36; *prof. physics, Duke, 36-* Rockefeller Foundation fellow, California, 25-26. Fel. Physical Soc; N. C. Acad. Electron impact; molecular spectra and their relation to chemical problems.

Sponsler, Dr. O(lenus) L(ee), University of California at Los Angeles, Los Angeles, Calif. **[6]*Botany, Forestry.* Akron, Ohio, June 17, 79. A.B, Michigan, 10; A.M, Nebraska, 12; Ph.D, Stanford, 22. Adj. prof. forestry and bot, Nebraska, 10-11, assoc. prof. in charge, 11-12; assoc. prof, Michigan, 12-17; wood technologist, Forest Products Lab, U. S. Forest Service, 17-18; instr. *bot, California at Los Angeles,* 22-24, asst. prof, 24-26, assoc. prof, 26-28, *prof, 28-* Forest surv, Mich. Geol. Surv; State Board Forestry, Wis. A.A; Bot. Soc; Soc. Exp. Biol; Soc. Plant Physiol; Soc. Growth and Develop; West. Soc. Nat. (pres, south. Calif. sect, 24). Plant physiology; molecular structure of biological materials as shown by x-ray methods; molecular structure in protoplasm.

Spooner, Dr. Laurence W(hipple), 100 Woodlawn Ave, Pittsfield, Mass. *Chemistry.* Brimfield, Mass, Oct. 12, 08. B.S, Mass. State Col, 30, Ph.D, 34; Edward Hart fellow, Lafayette Col, 30-31, M.S, 31. Asst. chem, Harvard, 31-32; Mass. State Col, 32-34; *physical chemist, lab, Gen. Elec. Co, 35-* Summer, asst, Harvard, 32. Chem. Soc; Soc. Rheol; Inst. Physics. Viscometry and molecular association; semi-conducting materials; Rescons.

Spooner, Thomas, Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Electrical engineering.* Whitefield, N. H, Jan. 1, 84. A.B, Bates Col, 05; B.S, Mass. Inst. Tech, 09. Elec. construction, Stone and Webster, 05-06; paper mill design, Odell Mfg. Co, 07-08; *research engineer, Westinghouse Elec. and Mfg. Co, 09-,* manager gen. div, research labs, 27-36, research labs, 36-41, asst. to director, 29-36, *manager, eng. labs. and standards, 41-* Fel. Elec. Eng; fel. Physical Soc; Soc. Test. Mat. (chairman, magnetic properties cmt, 25-); Pittsburgh Physical Soc. Properties and testing of magnetic materials; magnetic properties, magnetic testing and core losses in rotating machines; electrical measuring instruments; noise; sound analysis.

Spoor, Prof. William A(rthur), University of Cincinnati, Cincinnati, Ohio. *Zoology, Physiology.* New York, N. Y, Dec. 14, 08. B.S, Washington (Seattle), 31; Ph.D, Wisconsin, 36. Instr. *zool, Cincinnati,* 36-41, *asst. prof, 41-* Assoc. Soc. Zool; Fisheries Soc; Soc. Ichthyol. and Herpetol; Limnol. Soc. Fish life history; absorption; fish physiology.

Spotts, Prof. M(erhyle) F(ranklin), Northwestern University, Evanston, Ill. *Applied mechanics.* Battle Creek, Iowa, Dec. 5, 95. B.S, Ohio Northern, 23; A.M, Ohio State, 33; Ph.D, Michigan, 38. Detailer and designer, Brown Steel Co, 27-32; designer, Jeffrey Mfg. Co, 33-35; teaching fellow, Michigan, 36-38; assoc. *mech. eng,* Hopkins, 38-41; asst. prof, *northwest. tech. inst, Northwestern,* 41-43, *assoc. prof, 43-* Mech. Eng. Machine design; stress analysis; applied elasticity; vibration in engineering; theory of structures.

Spragg, Dr. S(idney) D(urward) Shirley, Queens College, Flushing, N. Y. *Psychology.* North Battleford, Sask, Can, June 18, 09. A.B, Washington (Seattle), 31, M.S, 32; Ph.D, Yale, 35. Asst. and teaching fellow psychol, Washington (Seattle), 30-33; asst. comp. psychobiol, sch. med, Yale, 33-35, asst, labs. primate biol, 35-37; *instr. psychol,* Barnard Col, Columbia, 37-40; *Queens Col. (N. Y), 40-* A.A; Psychol. Asn; East. Psychol. Asn; N. Y. Acad. Comparative and experimental psychology; serial learning experiments with white rats and chimpanzees; morphine addiction in chimpanzees; animal behavior; psychology of learning.

Sprague, Prof. Atherton H(all), 227 S. Pleasant St, Amherst, Mass. *Mathematics.* Amherst, Mass, Dec. 19, 97. A.B, Amherst Col, 20; A.M, Princeton, 23, Ph.D, 41. Instr. *math,* Amherst Col, 20-22, 23-24; Princeton, 24-25; assoc. prof, *Amherst Col,* 26-40, *prof, 40-,* dean freshmen, 28-33. Math. Soc. Differential geometry; nets R.

Sprague, Prof. Austin D(ever), Elon College, N. C. *Physics.* Portsmouth, Ohio, Dec. 24, 07. A.B, Miami (Ohio), 29; M.S, Ohio State, 31, Ph.D, 36. Instr. physics, Armour, 34-39; *asst. prof. math. and head dept, Elon Col, 39-; research worker, bur. ordnance, Navy Dept, 41-* A.A; Asn. Physics Teachers; N. C. Acad. Infrared spectrum of hydrogen sulfide; molecular spectra.

Sprague, Dr. G(eorge) F(rederick), Iowa State College, Ames, Iowa. *Agronomy.* Crete, Nebr, Sept. 3, 02. B.S, Nebraska, 24, M.S, 26; Ph.D, Cornell, 30. Junior agronomist,

bur. plant indust, U. S. Dept. Agr, 24–28, asst. agronomist, 28–35, assoc. agronomist, 35–42; *res. collaborator, Iowa State Col, 42–*; asst. prof. field crops, Missouri, 35–42. A.A. Genetics; plant breeding.

Sprague, Prof. H(oward) B(ennett), New Jersey Experiment Station, New Brunswick, N. J. *Plant physiology, Agronomy.* Cortland, Nebr, Dec. 11, 98. B.S, Nebraska, 21, M.S, 23; Ph.D, Rutgers, 26. Asst. *agron,* Nebraska, 21–23; instr, Rutgers, 23–26; asst. prof, Minnesota, 26–27; *Rutgers,* 27–28, assoc. prof, 28–31, *prof, 31–, agronomist, N. J. Exp. Sta, 27–* A.A; Soc. Plant Physiol; Genetic Asn; fel. Soc. Agron. (v. pres, northeast. sect, 30, pres, 35, chairman, crops sect, 36). Plant nutrition; ecology of crop plants; plant breeding; turf culture; pasture management.

Sprague, Dr. James M(ather), Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy.* Kansas City, Mo, Aug. 31, 16. A.B, Kansas, 38, A.M, 40; Ph.D, Harvard, 42. Systematic asst, museum of mammals, Kansas, 36–38, asst. instr. zool, 38–40; teaching fellow biol, Harvard, 40–42; asst. *anat, sch. med, Hopkins,* 42–43, *instr, 43–* Soc. Mammal; Asn. Anat; Soc. Vert. Paleont. Taxonomy and distribution of mammals; comparative anatomy of rodents, bats and insectivores.

Sprague, Dr. James M(aurice), 347 Lakeview Ave, Drexel Hill, Pa. *Organic chemistry.* Trafalgar, Ind, July 10, 08. A.B, Franklin Col, 30; Ph.D, Wisconsin, 34. Asst. chem, Wisconsin, 30–34; Sterling research asst, Yale, 34–37; *org. chemist, Sharp and Dohme, Phila, 37–, director org. chem. research, med. research div, 43–* A.A; Chem. Soc. Catalytic hydrogenation; the Claisen reaction; pyrimidines; action of chlorine sulfur compounds; synthetic medicinal products.

Sprague, Dr. Randall G(eorge), Mayo Clinic, Rochester, Minn. *Medicine, Physiology.* Chicago, Ill, Sept. 22, 06. B.S, Northwestern, 30, M.D. and M.S, 35; Ph.D, Minnesota, 42. *Consulting physician, div. med, Mayo Clinic, 40–* Diabetes Asn. Carbohydrate metabolism; physiology of adrenal cortex; experimental diabetes.

Sprague, Dr. Roderick, Northern Great Plains Field Station, Mandan, N. Dak. *Phytopathology.* Skagway, Alaska, Jan. 10, 01. B.S, State Col. Wash, 24, fellow, 24–25, M.S, 25; Ph.D, Cincinnati, 29. Asst. bot, Wisconsin, 26; instr, Cincinnati, 26–29; asst. pathologist, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29–36, assoc. pathologist, 36–41, *pathologist, 41–* Field asst, blister rust control, U. S. Dept. Agr, 22–23, 25. A.A; Phytopath. Soc; Mycol. Soc; Soc. Agron; Soil Sci. Soc. Diseases of cereals and grasses.

Sprague, Dr. V(ance) G(lover), U. S. Regional Pasture Research Laboratory, State College, Pa. *Plant physiology.* Minneapolis, Minn, Feb. 17, 09. A.B, Northland Col, 31; M.S, Wisconsin, 33, Ph.D, 36. Asst. agron, Wisconsin, 31–36; Illinois, 36–37; assoc. agronomist and later *agronomist, regional pasture research lab, bur. plant indust, U. S. Dept. Agr,* 37– Soc. Agron; Soc. Plant Physiol. Agronomy of pasture and forage crops; environment and growth of forage plants, especially effects of light, temperature and management.

Sprague, Dr. Victor, Marshall College, Huntington, W. Va. *Protozoology.* Fayette Co, Ill, Nov. 16, 08. B.Ed, South. Ill. State Nor. Univ, 32; California, 35; M.S, Illinois, 38, Ph.D, 40. Prin, sch, Ill, 33–37; asst. zool, Illinois, 37–40; *instr. zool. and bacter, Marshall Col, 40–* A.A; Soc. Zool; Soc. Parasitol; Micros. Soc. Cytology of the protozoa; nuclear studies in the parasitic protozoa.

Sprang, Dr. C(ornelius) Austin, 5347 Fox Road, Mt. Airy, Cincinnati, Ohio. *Organic chemistry.* Hardin Co, Ohio, Feb. 29, 12. B.S, Ohio Northern, 36; M.S, Purdue, 38, Ph.D, 41. Asst, Purdue, 36–40; *research chemist, Emery Industries, Inc, 40–* Condensation products of nitroparaffins with aldehydes.

Spraragen, William, American Welding Society, 33 W. 39th St, New York, N. Y. *Electrical engineering.* Warwick, N. Y, May 20, 95. B.E, Union (N. Y), 16. Testing engineer, Westinghouse Elec. and Mfg. Co, 16–17; instr. elec. eng, Okla. Agr. and Mech. Col, 17–18; Washington (Seattle), 19–20; sec'y eng. div, Nat. Research Council, 20–34; pres, Spraragen Eng. Corp, 34–38; *ed, 'Jour,' Am. Welding Soc,* 22–, tech. sec'y, 27–42. Miller medal, 40. Exec. cmt, highway research board, Nat. Research Council, 26–34. Sec'y, Am. Bur. Welding, 21–36; welding research cmt, Eng. Foundation, 36–Ballistic inspector, War Dept, 18; asst. chairman welding research cmt, Nat. Research Council and Emergency Fleet Corp, 18–19. Elec. Eng; Welding Soc; Soc. Metals. Welding; mathematics applied to engineering; trade association; methods in research.

Spratt, Dr. Nelson T(racy), Johns Hopkins University, Baltimore, Md. *Zoology, Experimental embryology.* Atlanta, Ga, Dec. 26, 11. A.B, Emory, 35; fellow, Rochester, 39–40, Ph.D, 40. Instr. biol, Emory, 35–36; asst, Rochester, 36–38; asst. embryol, *Hopkins,* 40–42, *instr. biol, 42–* Soc Zool. Physiology of development of the early chick blastoderm.

Spray, Prof. Robb S(palding), West Virginia University School of Medicine, Morgantown, W. Va. *Bacteriology, Hygiene.* Omaha, Nebr, Feb. 19, 90. B.S, Purdue, 14; M.S, Pa. State Col, 17; Logan fellow, Chicago, 20–21, Ph.D, 23. Instr. bot, Pa. State Col, 15–18; asst. animal pathologist, Purdue, 18–20; assoc. prof. *hygiene and bacter, West Virginia,* 21–25, *prof, 26–* Summers, instr, Chicago, 21–23. Soc. Bact; W. Va. Pub. Health Asn; W. Va. Sci. Soc. Pulmonary diseases of animals; human food poisoning epidemics; dehydrated bacteriologic mediums; anaerobic cultivation and identification.

Spremulli, Dr. Gertrude H(aspeslagh), 150 Secatogue Ave, Farmingdale, L. I, N. Y. *Physical chemistry.* Bucyrus, Ohio, Dec. 21, 12. B.S, Heidelberg Col, 33; M.S, Western Reserve, 38; Ph.D, Pa. State Col, 42. *Research chemist, Ranger Aircraft Engines, 42–* Chem. Soc. Synthetic rubber and plastics.

Spremulli, Dr. Paul F(rancis), 150 Secatogue Ave, Farmingdale, L. I, N. Y. *Physics.* Monongahela, Pa, June 25, 11. B.S, Western Reserve, 36, M.S, 38; Ph.D, Pa. State Col, 42. *Physicist in charge x-ray diffraction, Ranger Aircraft Engines, 42–* Physical Soc. X-ray diffraction applied to metals.

Sprince, Dr. Herbert, Massachusetts Institute of Technology, Cambridge, Mass. *Biochemistry.* Lewiston, Maine, Dec. 18, 12. B.S, Bates Col, 34; univ. scholar, Harvard, 34–35, A.M, 35, Thayer fellow and univ. fellow, 38–39, Ph.D, 39. Lab. asst. physiol, Harvard, 35–38, Parker fellow, med. col, Cornell, 39–40; *research asst, Huntington Mem. Hosp, 41–* A.A; Chem. Soc; assoc. N. Y. Acad. Carbohydrate and fat metabolism in yeast; tumor metabolism; vitamins.

Spring, Dr. Dorothy, State Bureau of Laboratories, Philadelphia, Pa. *Dermatology.* Revere, Mass, July 21, 95. A.B, Smith Col, 18; M.S, Pennsylvania, 28, Ph.D, 31. Technician, lab. dermat. research, dept. cutaneous med, sch. med, Pennsylvania, 25–30, asst, 30–37, asst. instr, 37–40, instr, 40–43; *asst. bacteriologist, bur. labs, State Dept. Health, Pa, 43–* Medical mycology.

Spring, Ernest W(alker), Detroit Edison Company, Detroit, Mich. *Electrical engineering.* New Haven, Conn, June 1, 03. B.S, Yale, 24. Elec. engineer, operating dept, *Detroit Edison Co,* 24–29, in charge elec. div, *research lab,* 29–40, *engineer elec. system, 40–* Nat. prize, Am. Inst. Elec. Eng, 30. Elec. Eng. (chairman, cmt. student selection and guidance, Mich. sect, 35, 36–; mem, exec. cmt, 36–); Eng. Soc. Detroit; Yale Eng. Asn. High voltage underground cable and other dielectrics; specifications for rubber insulation.

Spring, Dean Samuel N(ewton), New York State College of Forestry, Syracuse University, Syracuse, N. Y. *Forestry.* Sioux City, Iowa, Feb. 5, 75. A.B, Yale, 98, M.F, 03. Field asst, U. S. Forest Service, 03; prof. forestry, Maine, 03–05; forest asst. and asst. forest inspector and chief office exten, U. S. Forest Service, 05–09; state forester, Conn, and forester, Conn. Exp. Sta, 09–12; prof. silviculture, Cornell, 12–32; asst. dean, *N. Y. State Col. Forestry, Syracuse,* 32–33, *dean, 33–* Soc. Foresters. Silviculture.

Springer, Dr. Alfred, 312 E. Second St, Cincinnati, Ohio. *[1]*Chemistry, Physics.* Cincinnati, Ohio, Feb. 12, 54. Ph.D, Heidelberg, 72; hon. Dr. Nat. Sci, Ruperto Carola, Germany, 31. Owner, Alex. Fries and Bro, Cincinnati, 74–30; *retired.* John Scott medal, Franklin Inst, 91. A.A. (sec'y, subsect. chem, 81, sec'y, C, 82, asst. gen. sec'y, 83, gen. sec'y, 84, v. pres, 92); Chem. Soc; cor. mem. British Asn. The torsion balance; aluminum sound boards; fermentation without combined nitrogen; anti-putrescent effects of copper salts.

Springer, Dr. Alfred, Jr, 4000 Beechwood Ave, Cincinnati, Ohio. *Physical chemistry.* Cincinnati, Ohio, Nov. 1, 88. A.B, Yale, 09; Ph.D, Hopkins, 12; Göttingen, 12–13. Chemist, Alex. Fries and Brother, Cincinnati, 13–34; *physicist, Bur. Ordnance, U. S. Navy, 41–* Conductivity and dissociation of organic acids.

Springer, Prof. C(harles) E(ugene), University of Oklahoma, Norman, Okla. *Mathematics.* Storm Lake, Iowa, Oct.

25, 03. A.B, Oklahoma, 25, A.M, 26; Rhodes scholar, Oxford, 27–29, 39, B.Sc, 40; Ph.D, Chicago, 38. Instr. *math*, Oklahoma, 26–27; instr, Iowa State Col, 30; *Oklahoma*, 30–31, asst. prof, 31–39, assoc. prof, 39–41, *prof, 41–* Math. Soc; Math. Asn. Differential geometry; metric geometry of surfaces in four-dimensional space; dual geodesics on a surface.

Springer, Prof. G(eorge) P(errcy), 306 Varsity Apt, West Lafayette, Ind. *Civil engineering.* Whitehall, Mich, Sept. 14, 83. B.S, Mich. State Col, 11, C.E, 21; Michigan; George Washington. Asst. engineer valuation, Chicago, Burlington and Quincy R.R, 12–13; assoc. prof. civil eng, Maryland, 13–18; asst. to officer in charge civil eng. branch, construction div, U. S. War Dept, Washington, D. C, 18–21; asst. dist. engineer in charge bridges, dist. No. 4, State Highway Dept, Mich, 21–24; asst. prof. *civil eng*, Drexel Inst, 24–26; *Purdue*, 27–41, *assoc. prof, 41–* Civil Eng; Asn. Eng; Concrete Inst; Eng. Educ; Road Builders Asn; Soc. Mil. Eng; Nat. Soc. Professional Eng. Highway design and construction.

Springer, William M(oore), 60 Courter Ave, Maplewood, N. J. *Industrial chemistry.* Brooklyn, N. Y, Feb. 13, 93. Chem.E, Columbia, 15. Dyestuffs census, U. S. Dept. Commerce, 15; *Bristol-Myers Co, Hillside, N. J*, 16–18, director research, 19–40, *asst. v. pres. in charge research, 40–* A.A; Chem. Soc; Statist. Asn; Soc. Test. Mat; Faraday Soc; Am. Inst. Dyestuffs and intermediates; synthetic pharmaceuticals; saline equilibria; colloids; collapsible tubes; economic statistics; advertising; solar and terrestrial relations and health.

Sprinkle, Dr. Marshall R(oseboro), 459 Cass Ave, Edwardsville, Ill. *Petroleum engineering.* Rusk, N. C, Nov. 3, 06. A.B, Wake Forest Col, 28, A.M, 29; Ph.D, Wisconsin, 32. Chemist, *Shell Oil Co, Inc*, 33–35, technologist, 35–41, head treating dept, 41–42, *asst. head* toluene plants, 42–43, *asst. head alkylation plants, 43–* Acid-base equilibria.

Sprissler, Brother G(regory) Paul, La Salle College, Philadelphia, Pa. *Biological chemistry.* Philadelphia, Pa, Oct. 16, 07. B.S, Catholic Univ, 32, M.S, 38, Ph.D, 42. Instr. *chem*, La Salle Col, 33–37; De La Salle Col, 37–41; *asst. prof, La Salle Col, 41–* Chem. Soc. Proteinase of the gastric mucosa of shark; an improved method for the estimation of lipases.

Sproat, Ira E(lmer), 54 Gorham Ave, Westport, Conn. *Ceramics.* Webster, Ohio, May 1, 87. Cer.E, Ohio State, 11. Ceramic engineer, Dayton Grinding Wheel Co, 11–14; U. S. Bur. Mines, 15–16; Ga. Kaolin Co, 17–18; Sebring Pottery Co, 19–21; *sales manager and director ceramic research, R. T. Vanderbilt Co, 22–* A.A; Ceramic Soc; Ceramic Eng; Miner. Soc; Welding Soc; N. J. Ceramic Asn. Refining of Georgia kaolins and their use in all American whiteware bodies; use of pyrophyllite in earthenware and vitreous bodies; use of organic deflocculants in casting slips.

Sprong, S(evern) D, Monroe, Orange County, N. Y. *Electrical engineering.* East Greenbush, N. Y, Oct. 27, 73. Supt. elec. dept, Consol. Gas Co. of N. J, Long Branch, 98–01; chief engineer, Cent. Elec. Co, N. J, 01–02; asst. chief engineer, N. Y. Edison Co, 03–07; asst. elec. engineer, United Elec. Light and Power Co, New York, 07–10; chief elec. engineer, J. G. White Co, 10–12; elec. engineer, Brooklyn Edison Co, 12–22; v. pres. and gen. manager, Orange County Pub. Service Corp. of N. Y, 22–24; *consulting engineer, New York, 24–; pres, Eng. Products Corp, New York.* Fel. Elec. Eng. (v. pres, 12); Mech. Eng; N. Y. Elec. Soc. Alternating current net-work protector; Condercell and Condulene system of cable high tension jointing; fault localizer for cables, balanced coil and core series alternating current circuit regulator for street lighting; double element instrument for control of induction regulators.

Sproule, Prof. Gordon (St. George), 39 Thornhill Ave, Westmount, Que, Can. *Metallurgy.* Montreal, Que, April 23, 85. B.Sc, McGill, 08, M.Sc, 09, fellow, 09–10. From inspector to engineer of tests, Can. Pacific Ry, 10–16; inspector steel, Imp. Ministry Munitions, 16–18; from lecturer to *assoc. prof. metal, McGill, 18–* Plummer medal, Eng. Inst. Can, 23. Soc. Metals (chairman, Montreal chap, 29, papers cmt); Can. Inst. Min. and Metal; Eng. Inst. Can; Asn. Professional Eng. Que. Inspection of failed mechanical parts; design; physical metallurgy; metallography.

Sproull, Dr. Reavis C(laton), 36 E. Housatonic St, Pittsfield, Mass. *Chemistry.* Taylorsville, Ga, Aug. 4, 13. A.B, Mercer, 32, A.M, 36; Ph.D, N. Y. Univ, 41. Prin, high sch, Ga, 32–35; asst. chem, Mercer, 31–32, 35–36; teaching fellow, N. Y. Univ, 36–39, asst. therapeutics, med. sch, 39–41; *chem. engineer, Gen. Elec. Co, 41–* A.A; Chem. Soc; Chemists' Club. Analytical and organic chemistry; determination of bismuth in biological materials; factors influencing the absorption of bismuth compounds into the animal body.

Sproull, Dr. Robert L(amb), RCA Laboratories, Princeton, N. J. *Physics.* Lacon, Ill, Aug. 16, 18. A.B, Cornell, 40, Charles A. Coffin fellow, 41–42, Ph.D, 43. Asst, Cornell, 42–43; *research engineer, RCA Labs, 43–* Summers, mem. staff, Eastman Kodak Co, 40; Bell Tel. Labs, 41. Physical Soc. Electronics, especially thermionic emission; centimeter waves and devices.

Sproull, Dr. Wayne T(reber), General Motors Research Laboratories, Detroit, Mich. *Experimental physics.* Racine, Wis, Aug. 3, 06. B.S, Akron, 27; M.S, Lehigh, 29; Ph.D, Wisconsin, 32. Teaching asst. physics, Lehigh, 27–29; Wisconsin, 29–32, *research physicist,* Alumni Research Foundation, 32; *Gen. Motors Research Labs, 33–* Physical Soc. Electron and x-ray diffraction; thermoelectricity.

Sprowls, Prof. J(esse) W(illiam), University of Maryland, College Park, Md. *Psychology.* Claysville, Pa, Aug. 17, 87. B.S, Valparaiso, 10; A.B, B.S, Pittsburgh, 14; A.M, Clark, 18, Ph.D, 19. Prof. educ, Bethany Col. (W. Va), 15–17; acting prof, Vermont, 19–20; *prof.* secondary educ, Tennessee, 20–23; *psychol*, St. John's Col. (Md), 24–27; *Maryland, 27–* Summers, lecturer, Pittsburgh, 15, 19; prof, George Washington, 24, 25. Chairman, State Cmn. Secondary Educ, Tenn, 21–23. Social and educational psychology; mental measurements.

Sprowls, Dr. J(oseph) B(arnett), 1020 Ninth St, Boulder, Colo. *Bacteriological chemistry.* LaJunta, Colo, Jan. 26, 12. B.S, Colorado, 36, M.S, 39, Ph.D, 41. Asst. pharmacy, *col. pharmacy, Colorado*, 36–37, instr, 37–39, mat. med, 39–43, *asst. prof. mat. med, 43–* Pharmaceut. Asn. (ed, 'Jour,' 43). Disinfectant powers of astringent salts and solutions; disinfectant and bacteriostatic powers of astringent substances in combination with commonly used antiseptics; incompatibilities of suspensoids.

Sprowls, Dr. Willard R(utherford), 270 W. 11th St, New York, N. Y. *Organic chemistry.* Philadelphia, Pa, Nov. 10, 11. B.S, Chicago, 31, M.S, 34, Ph.D, 38. Asst. research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 34–36; *research chemist*, chem. labs, Standard Oil Develop. Co, 38–41; electrochem. dept, E. I. du Pont de Nemours and Co, 41–43; *research chemist, Baker Castor Oil Co, 43–* Chem. Soc. Relative electronegativity of organic radicals; deuterium exchange reactions; aliphatic hydrocarbon reaction; ceramic color development; castor oil by-product development.

Sprules, Dr. W(illiam) M(emberry), Dunnville, Ont, Can. *Zoology.* Hamilton, Ont, Dec. 28, 16. B.A, Toronto, 39, Ph.D, 42. Asst, Ont. Fisheries Research Lab, 38–42; *meteorologist, Royal Can. Air Force, 42–* Asst, Toronto, 39–42. Aquatic biology; factors affecting the distribution of aquatic insects in running waters.

Sprung, Dr. Murray M(unroe), General Electric Co, Schenectady, N. Y. *Chemistry.* Wahpeton, N. Dak, June 14, 04. B.S, Minnesota, 25, Ph.D, 28. Asst, Minnesota, 25–28; nat. research fellow, Harvard, 28–30; research fellow, Minnesota, 30–31, asst. prof, 31–32; research assoc, Princeton, 32–33; *research chemist, Gen. Elec. Co, 33–* Chem. Soc. Chemistry and reaction mechanism of organic polymer systems.

Sprunk, George C, 4800 Forbes St, Pittsburgh, Pa. *Microscopy.* Blissfield, Mich, Oct. 4, 05. B.S, Mich. State Col; M.S, Carnegie Inst. Tech; fellow, U. S. Bur. Mines and Carnegie Inst. Tech, 29–30. Asst. chemist, Am. Gas Asn, 30–31; asst. microscopist, *U. S. Bur. Mines*, 31–38, *assoc. microscopist, 38–* Summers, Mich. Geol. Surv, 28, 29. Origin and constitution of coal; relation of petrography of coal to chemical, coking, by-product and hydrogenation properties; correlation of coal beds; mineral matter in coal.

Sprunt, Dr. Douglas H(amilton), Duke Hospital, Durham, N. C. *Pathology.* Wilmington, N. C, Aug. 2, 00. B.S, Virginia, 22; M.D, Yale, 27, M.S, 29, Sterling fellow, 29–30. Asst, Yale, 27–28, instr, 28–29; asst, hosp, Rockefeller Inst, 30–32; *assoc. prof. path, Duke, 32–* Acting res. pathologist, New Haven Hosp, 27–28, res. pathologist, 28–29; consultant for epidemic diseases to U. S. Sec'y War. A.A; Asn. Immunol; Asn. Study Int. Secretions; Soc. Exp. Biol; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Path. (councilor, 41). Viruses; endocrines; bacterial toxins; effect of nutrition and water balance on viral susceptibility.

Sprunt, Dr. T(homas) P(eck), 1035 N. Calvert St, Baltimore, Md. *Medicine.* Augusta Co, Va, Feb. 16, 84. A.B, Davidson Col, 03; M.D, Hopkins, 09. From asst. to assoc. path, *Hopkins,* 09–12, instr. and assoc. med, 13–18, *assoc. med, 19–;* assoc. prof. med. and *prof. clin. med, sch. med, Maryland.* Asst. visiting physician and visiting physician, Hopkins Hosp; attending physician, Univ. Hosp, Maryland. A.A; Am. Med. Asn; Clin. and Climat. Asn; Col. Physicians; Am. Physicians; South. Med. Asn. Internal medicine; pathology.

Spurlin, Dr. H(arold) M(orton), Hercules Powder Co, Wilmington, Del. *Chemistry.* Atlanta, Ga, April 4, 05. B.S, Ga. Tech, 25; Ph.D, Yale, 28. Research chemist, *exp. sta, Hercules Powder Co,* 28–40, *leader gen. research group, 40–* A.A; Chem. Soc. (v. chairman, cellulose div, 41, chairman, 42). Explosives; colloid chemistry; cellulose derivatives; resins; polymers; naval stores products.

Spurr, J(osiah) E(dward), 324 Henkel Circle, Winter Park, Fla. **Geology.* Gloucester, Mass, Oct. 1, 70. A.B, Harvard, 93, A.M, 94. Mining engineer and geologist to Sultan of Turkey, 01–02; geologist, U. S. Geol. Surv, 02–06; chief geol. dept, Am. Smelting and Ref. Co, Am. Smelter Securities Co. and Guggenheim Explor. Co, 06–08; pres, Spurr and Cox, 08–11; v. pres. in charge mining, Tonopah Mining Co, Nev, 11–17; ed, 'Eng. and Mining Jour,' 18–27; prof. geol, Rollins Col, 31–35; *consultant, 35–* Cmt. on mineral imports, W.T.B. and U. S. Shipping Board, 17–18; exec. war minerals investigations and chief metal mining eng, U. S. Bur. Mines, and chief eng, War Minerals Relief, 18–19. Geol. Soc; Soc. Econ. Geol. (pres, 23); Min. and Metal. Soc. (pres, 21); Min. and Metal. Eng. Economic geology; Mesaba iron-bearing rocks; Yukon gold diggings; geology applied to mining; ore magmas.

Spurr, Dr. Robert Anton, Aircraft Engine Research Laboratory, Cleveland, Ohio. *Physical chemistry.* Lansdowne, Pa, March 23, 13. A.B, Rollins Col, 36, B.S, 37; Ph.D, Calif. Inst. Tech, 42. Teaching fellow, Calif. Inst. Tech, 38–42; *asst. physical chemist, Aircraft Engine Research Lab, Nat. Advisory Cmt. Aeronautics, 42–* Chem. Soc. Molecular structure; theory of lubrication.

Spurr, Stephen H(opkins), Harvard Forest, Petersham, Mass. *Forestry, Ecology.* Washington, D. C, Feb. 14, 18. B.S, Florida, 38; M.F, Yale, 40. Tech. asst. forestry research, *Harvard,* 40–41, *instr. forestry and ecol, 41–* Soc. Foresters; Fla. Acad. Forest succession; stand composition; Florida ferns; silvics.

Spurway, Dr. C(harles) H(enry), 436 Division St, East Lansing, Mich. *Soils.* Watford, Ont, Can, Feb. 26, 83. B.S, Mich. State Col, 09, M.Agr, 14, M.S, 26, Ph.D, 30. Instr. *soils, Mich. State Col,* 09–14, asst. prof, 14–20, research assoc, Exp. Sta, 20–34, assoc. prof, 34–40, *prof, 40–* A.A; Chem. Soc; Hort. Soc. Soil chemistry.

Squire, Prof. Edward J(acob), 200 E. 18th St, Brooklyn, N. Y. *Engineering.* Watertown, N. Y, Dec. 29, 86. C.E, Polytech. Inst. Brooklyn, 10; M.S, N. Y. Univ, 17. Instr. civil eng, *Polytech. Inst. Brooklyn,* 10–17, asst. prof, 17–24, assoc. prof, 24–36, *prof. struct. eng, 27–, head dept. civil eng, 38–; consulting struct. engineer, 20–* Civil Eng. Structures; structural design.

Squires, Dr. H(enry) Dayton, 130 John Muir Court, Modesto, Calif. *Geology, Chemistry.* Fredericton, N. B, Can, Aug. 23, 97. B.A, New Brunswick, 22; M.Sc, McGill, 24, Nat. Research Council Can. bursar, 24–25; Ph.D, Wisconsin, 27. Instr. geol, Ohio State, 28–30; asst. prof, sch. mines, Oregon State Col, 30; fellow, Wisconsin, 30–32; asst. prof. geog. and geol, Armstrong Junior Col, Berkeley, Calif, 33–34; *instr. geol. and chem, Modesto Junior Col, 34–* Ohio Acad; Wis. Acad. Horizontal faulting along the margin of the Bay of Fundy syncline.

Squires, Dr. Paul C(hatham), College Hill, Clinton, N. Y. *Psychology.* Clinton, N. Y, Aug. 15, 94. A.B, Hamilton Col, 17, A.M, 22; A.M, Princeton, 24, Ph.D, 26. Assoc. prof. psychol, Vermont, 25–28; asst. prof, Kansas, 28–29; *psychol. consultant, attorney and counselor at law.* Summers, lecturer, Rochester, 25, 26, 27. Rep, Psychol. Corp. Assoc. Psychol. Asn. Legal psychology; mental tests; experimental psychology; abnormal psychology; personality studies of musical and literary genius.

Staack, J(ohn) G(eorge), 1520 Webster St, N. W, Washington, D. C. *Topographical surveying.* Middleton, Wis, Nov. 19, 78. B.S, Wisconsin, 04. Various grades topog. engineer, *U. S. Geol. Surv,* 04–29, chief topog. engineer, 29–43, *asst. chief topog, 43–* Chairman, Fed. Board Surveys and Maps, 32–34. Civil Eng; Soc. Mil. Eng; Soc. Photogrammetry; Wash. Soc. Eng. Topographic maps.

Staats, Prof. J. Riley, State Teachers College, California, Pa. *Geography.* Sumner, Ill, Sept. 9, 95. B.Ed, Ill. State Nor. Univ, 29; Ph.M, Wisconsin, 31, Ph.D, 33. Asst, Wisconsin, 29–33, instr, 33–35; *prof. geog, Pa. State Teachers Col, 35–* Geography of portion of India; regional division of the state of Mississippi; geography of central Wisconsin.

Stabler, Dr. Edward L(incoln), Golf Club Road, Greenwich, Conn. *Mathematics.* Brooklyn, N. Y, April 20, 65. A.B, Columbia, 85, fellow, 85–88, A.M, 86, Ph.D, 88. Actuary, Manhattan Life Ins. Co, 89–98; Cent. Leather Co. and U. S. Leather Co, 02–31; *retired.*

Stabler, Dr. E(dward) R(ussell), Hofstra College, Hempstead, L. I, N. Y. *Mathematics.* Greenwich, Conn, Sept. 14, 06. A.B, Harvard, 26, Ed.M, 27, A.M, 33, Ed.D, 35. Teacher *math,* schs, 27–36; instr, N. J. State Teachers Col, Montclair, 36–39; instr. and asst. prof, Baldwin-Wallace Col, 40–41; teaching fellow, Michigan, 41–42; *asst. prof, Hofstra Col, 42–* Math. Asn; Math. Soc. Postulational methods.

Stabler, Dr. H(oward) P(arker), Williams College, Williamstown, Mass. *Physics.* Brooklyn, N. Y, Oct. 26, 03. B.S, Harvard, 25, A.M, 29, Ph.D, 31. Instr. and tutor *physics,* Harvard, 30–31; instr, *Williams Col,* 31–37, asst. prof, 37–42, *assoc. prof, 42–; staff mem, radiation lab, Mass. Inst. Tech, 43–* Radio Eng; Physical Soc; Asn. Physics Teachers. Thermoelectric properties of single metal crystals; electronic devices.

Stabler, Dr. Robert M(iller), Glen Mills, Pa. *Zoology.* Washington, D. C, Oct. 1, 04. A.B, Swarthmore Col, 27; Pennsylvania; fellow, Hopkins, 30–31, Sc.D, 31. Asst. instr. zool, Pennsylvania, 29–30; asst. protozool, sch. hygiene and pub. health, Hopkins, 30–31; instr. *zool, Pennsylvania,* 31–41, *asst. prof, 41–* Mem. exped, Panama, 31. A.A; Soc. Trop. Med; Soc. Parasitol. Protozoology; morphology; cytology and pathology of human intestinal amoebae; Protozoa of lower animals; incidence of intestinal Protozoa in man.

Stack, Prof. J(oseph) W(illiam), 1028 Chesterfield Parkway, East Lansing, Mich. *Zoology.* Jefferson, Ohio, Feb. 2, 93. B.S, Notre Dame, 15, M.S, 18. From instr. to *prof. zool,* Mich. Agr. Col, 15–25, *Mich. State Col, 25–, director,* W. K. Kellogg sch. biol, 29–36, *univ. museums, 41–* Assoc. ed, 'Bird Banding,' 29– Sec'y, Mich. Non-Game License Cmn, 24–25. Wilson Ornith. Club (councilor, 25, treas, 27–30, pres, 30–32); Inland Bird-Banding Asn. (councilor, 24–27, sec'y, 27–31, ed, 'News,' 29–31); Mich. Audubon Soc. (councilor, 25, advisory board, 25–27, exec. cmt, 27–); Mich. Acad. Ecology; ornithology; aquatic zoology.

Stackpole, M(iner) R(eginald), U. S. Geological Survey, 143 Cony St, Augusta, Maine. *Engineering.* Sanford, Maine, July 12, 89. B.S, Maine, 17. Junior engineer, U. S. Geol. Surv, 17–20; asst. engineer, State Water Power Cmn, Maine, 21–23; assoc. engineer, *U. S. Geol. Surv,* 24–27, *dist. engineer, 28–* Civil Eng; Geophys. Union; Maine Asn. Eng. (pres, 43); Boston Soc. Civil Eng. Surface water resources, including floods, droughts, water power, precipitation and evaporation.

Stacy, Dr. L(eland) J(ohnson), 33 Gladding Road, Caldwell, N. J. *Physics.* Canton, N. Y, Aug. 11, 89. A.B, St. Lawrence, 09; Ph.D, Chicago, 19. *Develop. engineer,* West. Elec. Co, 19–25; *Bell Tel. Labs, 25–* A.A; Physical Soc. Coefficients of slip in air.

Stadie, Dr. William C(hristopher), University of Pennsylvania, Philadelphia, Pa. *Medicine.* New York, N. Y, June 15, 86. B.S, N. Y. Univ, 07; M.D, Columbia, 16. Intern, Presb. Hosp, New York, 16–18; assoc, Rockefeller Inst, 18–21; asst. prof. med, Yale, 21–24; assoc. prof. *research med, Pennsylvania,* 24–41, *prof, 41–* A.A; Soc. Clin. Invest; Soc. Biol. Chem; Am. Physicians; Harvey Soc. Blood chemistry; physical chemistry of biological systems; diabetes; insulin action.

Stadler, Prof. L(ewis) J(ohn), U. S. Department of Agriculture, University of Missouri, Columbia, Mo. **Botany, Genetics.* St. Louis, Mo, July 6, 96. B.S.A, Florida, 17; A.M, Missouri, 18, Ph.D, 22; Cornell, 19. Asst. *field crops, Missouri,* 19–20, instr, 20–21, asst. prof, 21–25, assoc. prof, 25–37, *prof, 37–;* senior geneticist, *bur. plant indust, U. S. Dept. Agr,* 30–37, prin. geneticist, 37–40, *agent, 40–* Nat. research fellow,

Harvard, 25–26. Nat. Acad; A.A; Soc. Nat; Genetic Asn; Genetics Soc. (pres, 38); Soc. Agron; Bot. Soc; Philos. Soc. Plant breeding; mutation.

Stadnichenko, Taisia M(aximovna), 917 18th St, N.W, Washington, D. C. *Chemistry, Geology.* Crimea, Russia, Oct. 9, 94. Vladivostok Gym, 12; Petrograd, 17. Chemist, Russian Geol. Surv. exped, Island of Sackalin, 17; research fellow, Illinois, 18–19; chemist, Far East. Geol. Surv, 19–22; instr. chem, Vassar Col, 22–25; research assoc, Nat. Research Council and Am. Petrol. Inst, 25–31; *assoc. geologist, U. S. Geol. Surv, 31–* A.A; Soc. Econ. Geol; Miner. Soc; Soc. Econ. Paleont. and Miner; Wash. Acad; Geol. Soc. Wash. Origin, constitution and microscopic structure of coal and other carbonaceous sedimentary deposits.

Staehle, Dr. Henry C(arl), Huntington Hills, Wisner Road, Rochester, N. Y. *Physical chemistry.* Schenectady, N. Y, April 18, 07. B.S, Union (N. Y), 29; M.S, Ph.D, Colorado, 33. *Physical chemist, research lab, Eastman Kodak Co, 33–* Magnetic birefringence; science and practice of photography.

Staff, Major E(dgar) J(onathan), First Service Command Laboratory, 281 South St, Jamaica Plain, Mass. *Bacteriology.* Brockton, Mass, March 13, 92. Ph.B, Brown, 15, A.M, 16, M.S, 20. Bacteriologist, Milk Dept, Providence, 16–17; director lab, City Hosp, Providence, 20–24; bacteriologist, State Dept. Pub. Health, R. I, 28–36, chief div. labs, 36–41; bacteriologist, Sta. Hosp, Camp Edwards, Mass, *Sanit. Corps, U. S. Army,* 41–42, chief lab. service, 42, *officer in charge dept. bacter, First Service Command Lab, 42–, major.* Instr, Brown, 16, 17, 20. Bacteriologist, Navy Base Hosp. No. 4, 18–19. A.A; Soc. Bact; Pub. Health Asn. Post-influenzal pneumonia; food poisoning; nose and throat organisms.

Stafford, Dr. Anna A(delaide) (Mrs. Douglas E. Henriques), University of Utah, Salt Lake City, Utah. *Mathematics.* Chicago, Ill, Aug. 20, 05. A.B, Western Col, 26; M.S, Chicago, 31, Ph.D, 33; Inst. Advanced Study, 33–35. Teacher, St. John Baptist Sch, N. J, 26–28, 29–31, 33–35; instr. *math, Nebraska,* 35–37; instr. and *asst. prof, Utah, 37–* A.A; Math. Soc; Math. Asn; Asn. Symbolic Logic; Utah Acad. Topology.

Stafford, Prof. E(thelbert) W(ithrow), Mississippi State College, State College, Miss. *Zoology, Entomology.* Toronto, Ont, Can, Oct. 26, 87. B.S.A, Toronto, 09; M.S, Miss. Agr. and Mech. Col, 14; Minnesota, 23, 24, 25; Ph.D, Cornell, 38. Asst, Minnesota, 09–11; N. J. Exp. Sta, 11; asst. entomologist, Pa. Chestnut Tree Blight Cmn, 12–13; Ill. Hort. Inspection, 14–17; from instr. to *assoc. prof. zool. and entom,* Miss. Agr. and Mech. Col, 17–32, *Miss. State Col, 33–* Summer, prof, Purdue, 22. Entom. Soc; Asn. Econ. Entom; Soc. Parasitol. Mallophaga.

Stafford, Dr. E(ugene) M(arshall), Route 8, Box 512, Fresno, Calif. *Economic entomology.* Los Angeles, Calif, Sept. 2, 10. B.S, California, 33, M.S, 35; Ph.D, Cornell, 40. *Junior entomologist, Exp. Sta, California, 40–* Entom. Soc. Amer; Asn. Econ. Entom. Control of insect pests of olives.

Stafford, Prof. Irving B(oynton), 242 Kensington Place, Syracuse, N. Y. *Horticulture.* Fall River, Mass, Nov. 17, 98. B.S, Mass. Col, 19; M.S, Syracuse, 23. Manager, Alderbrook Fruit Farm, Tolland, Mass, 19; instr. hort, Syracuse, 20–21, asst. prof. pomol, 21–25, assoc. prof, 25–35; asst. agronomist, *soil conservation service, U. S. Dept. Agr,* 35–38, assoc. soil conservationist, 38–39, area conservationist, 39–41, state coordinator, 41–42, *state conservationist, 42–* Soc. Hort. Sci. Systematic pomology and plant propagation; commercial apples; public markets; effects of light upon seed germination.

Stafford, Jane, Science Service, 1719 N St, N.W, Washington 6, D. C. *Medicine.* Chicago, Ill. A.B, Smith Col, 20. Chem. technician, Evanston Hosp, Ill, 22–25; asst. ed, 'Hygeia,' 25–27; *med. staff writer, Science Service, 28–* Pub. Health Asn. Public health; popularization of medical sciences.

Stafford, Dr. John W(illiam), Catholic University of America, Washington, D. C. *Experimental psychology.* Beaver, Okla, Aug. 28, 08. A.B, St. Viator Col, 30; Illinois, summers, 30–33; A.M, Catholic Univ, 34; Ph.L, Louvain, 38, Ph.D, 39. *Instr. psychol,* St. Viator Col, 34–36; Col. of St. Francis, 35–36, 39–40; *Catholic Univ, 40–* A.A; assoc. Psychol. Asn; Soc. Study Educ; Catholic Philos. Asn; Chicago Soc. Catholic Psychol. (pres, 40). Association.

Stafseth, Prof. Henrik J, 509 Grove St, East Lansing, Mich. *Bacteriology.* Aalesund, Norway, Nov. 8, 90. B.S, N. Dak. Col, 15; D.V.M, Mich. Agr. Col, 17, M.S, 30, Ph.D, 35. Instr. and asst, Mich. Agr. Col, 17, asst. prof. and research assoc, 18–20; dist. veterinarian, Norway, 20–21; assoc. prof. and research assoc, Mich. Agr. Col, 21–25, *Mich. State Col,* 25–30, *prof. pathogenic bacter, 30–* Exchange prof, Royal Hungarian Vet. Col, 25–26. Tech. adviser, Bur. Animal Indust, Mex, 33. Lieut, V. C, 18–19. A.A; U. S. Livestock Sanit. Asn. (chairman cmt. communicable diseases of poultry, 41); Soc. Bact; Vet. Med. Asn; Poultry Sci. Asn; Conf. Research Workers in Animal Diseases of N. Amer. Infectious and bovine abortions; fowl pox; avian coccidiosis; pullorum disease; avian tuberculosis; tapeworm infestation; streptococcal infection in dogs; Pseudomonas infection in turkeys.

Stagner, Dr. B(ert) A(llen), 1121 S. Hill St, Los Angeles, Calif. *Chemistry.* Chillicothe, Mo. A.B, Missouri, 10, A.M, 11; Ph.D, Chicago, 14. Head dept. chem, Fresno Junior Col, Calif, 11–13, 14–17; research fellow, Mellon Inst, 17–20; supervisor chem. research, Union Oil Co. of Calif, 20–29; *consulting and research chemist, Stagner Lab, Los Angeles, 28–* Chem. Soc. (chairman, south. Calif. sect, 32); Chem. Eng. Triarylhydroxylamin derivatives; keratin products; petroleum products and refining processes; chemical refining of petroleum; sulfuric acid from refinery acid sludge.

Stagner, Prof. Ross, Dartmouth College, Hanover, N. H. *Psychology.* Waco, Texas, June 15, 09. A.B, Washington (St. Louis), 29; A.M, Wisconsin, 30, Ph.D, 32. Asst. psychol, Wisconsin, 29–32, 33–34, Social Science Research fellow, 32–33; instr. *psychol,* People's Junior Col, Chicago, 34–35; *asst. prof,* Akron, 35–39; *Dartmouth Col, 39–* Psychol. Asn; East. Psychol. Asn; Soc. Psychol. Study Social Issues. Personality measurement; social and political attitudes.

Stahl, Dr. Arthur L(ouis), 651 Tuscawilla Ave, Gainesville, Fla. *Horticulture.* Massillon, Ohio, May 31, 03. B.S, Mich. State Col, 25; M.S, Rutgers, 27, Ph.D, 29. Asst. plant physiol, Rutgers, 25–29, instr. bot. and bacter, 27–29; asst. horticulturist, *Exp. Sta, Florida,* 29–32, *assoc. horticulturist, 32–* Bot. Soc; Soc. Plant Physiol; Fla. Hort. Soc. Plant nutrition and physiology; physiological importance of trace elements in plants; maturity of avocados; composition and maturity of sub-tropical fruits; cold storage of citrus fruits; preparation and preservation of citrus juices; dehydration and concentration of fruits and vegetables and their juices.

Stahl, C(orwin) F(loyd), Oxford, N. C. *Entomology.* McCool, Ind, Sept. 26, 89. B.S, Pomona Col, 11. Office truck crop insect investigations, bur. entom, U. S. Dept. Agr, 13–24; *entomologist,* trop. plant research foundation, Cuban Exp. Sta, 24–29; *truck crop insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–* Entom. Soc; Asn. Econ. Entom. Beet leaf-hopper and curly-top of sugar beets; sugar-cane mosaic; celery insects; tobacco insects.

Stahl, Prof. E(lmer) M(cClellan), 620 E. Military Ave, Fremont, Nebr. *Mathematics.* Berlin, Pa, Aug. 14, 64. A.B, Pa. Col. (Gettysburg Col), 94, A.M, 00; Grinnell Col, 90–92. Teacher, pub. sch, Pa, 81–86; Iowa, 86–89; prin, Glenville Acad, 96–10; *prof. math. and astron, Midland Col, 10–* Mem. state permanent certificate cmt, Pa; tech. educ. cmt, 10– Nebr. Acad. Fossil and present-day flora of Somerset County, Pennsylvania; lava outflow of South Mountains; analytic properties of space; analysis of imaginary and complex numbers.

Stahl, Dr. Karl F(riedrich), 839 Chislett St, Pittsburgh, Pa. *Chemistry.* Zwiefalten, Germany, March 14, 55. Tech. Hochschule, Stuttgart, 72–75; D.Sc.Nat, Tübingen, 76, 26. Supt. chem. works, Johnstown, Pa, 85–90; James Irwin and Co, 90–99; *Gen. Chem. Co,* 99–14, *consulting chemist, 14–* A.A; Chem. Soc. (chairman, Pittsburgh sect, 16, emer. chairman, 42–); Soc. Chem. Indust; Eng. Soc. West. Pa. (chairman, chem. sect, 02); Verein Deuts. Chemiker. Inorganic chemistry; hydrofluoric and hydrofluosilicic acids, their salts and their applications to glass.

Stahly, Dr. E(ldon) E(verett), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Danvers, Ill, Feb. 13, 08. A.B, Bluffton Col, 29; A.M, Ohio State, 31; fellow, Pa. State Col, 31–33, Ph.D, 34. Asst, Ohio State, 29–31; research chemist, Gen. Elec. Co, 34; Mallinckrodt fellow, Pa. State Col, 34; research chemist, Standard Oil Co. of La, 35–41; *indust. fellow, Mellon Inst, 41–* A.A; Chem. Soc. Open chain forms of maltose derivatives; polymerization and depolymerization of olefins; alkyd resins; barbiturates; application of polymerization, alkylation, isomerization, aromatization and hydrogena-

tion reactions to synthesis of motor and aviation fuels; naphthalene chemistry.

Stahly, Prof. Grant L(ee), Ohio State University, Columbus, Ohio. *Bacteriology.* Milford, Nebr, Sept. 26, 98. B.S, Nebraska, 23; M.S, Michigan, 25; Ph.D, Iowa State Col, 35. Teacher, high sch, Nebr, 26–31, Junior Col, Grand Island, 31–32; asst, Iowa State Col, 32–35; *asst. prof. bacter, Ohio State,* 35–42, *assoc. prof, 42–* Soc. Bact. (councilor, 41–; pres, Ohio branch, 42–). Physiology of bacteria; fermentations; antibiotic substances.

Stahmann, Dr. Mark A(rnold), 1410 York Ave, New York, N. Y. *Chemistry.* Spanish Fork, Utah, May 30, 14. A.B, Brigham Young, 36; fellow, Wisconsin, 36–42, Ph.D, 41. *Asst, Rockefeller Inst, 42–* Chem. Soc. Biological and organic chemistry; 4-hydroxycoumarins; plant biochemistry; mustard oils.

Stahnke, Dr. Herbert L(udwig), 902 Mill Ave, Tempe, Ariz. *Zoology.* Chicago, Ill, June 10, 02. A.A, Hannibal-LaGrange Junior Col, 26; B.S, Chicago, 28; A.M, Arizona, 34; Ph.D, Iowa State Col, 39. Head *science* dept, high sch, Ariz, 28–41; *assoc. prof, Ariz. State Teachers Col, Tempe, 41–* A.A. Scorpions of Arizona.

Staib, Dr. Ludwig A(dolph), Jr, Bristol-Myers Co, Hillside, N. J. *Chemistry.* Baltimore, Md, Oct. 5, 05. A.B, Hopkins, 26, Ph.D, 29. *Research chemist,* Eastman Kodak Co, 29–32; *Bristol-Myers Co, 33–* Chem. Soc. Photochemistry; adsorption; corrosion; heterogenous reaction kinetics.

Stainbrook, Prof. M(errill) A(ddison), Tech Station, Lubbock, Texas. *Geology, Paleontology.* Brandon, Iowa, Feb. 27, 97. A.B, Iowa, 21, M.S, 22, Ph.D, 27. Asst, Iowa, 22–25; instr. zool, Tennessee, 26–27; asst. prof. *geol, Texas Tech. Col,* 27–28, assoc. prof, 28–37, *prof, 37–* Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol; Iowa Acad. Invertebrate paleontology and stratigraphy; Devonian Brachiopoda; Devonian corals; corals and brachiopods of Cedar Valley beds of Iowa; Comanchean faunas of the Texas Panhandle.

Stainsby, Dr. W(endell) J(ohnson), George F. Geisinger Memorial Hospital, Danville, Pa. *Medicine.* St. Thomas, Ont, Can, Jan. 29, 98. B.A, Saskatchewan, 20; M.D, McGill, 25. Intern, Peking Union Med. Col, 25–26, asst. res, 26–27; research fellow, med. col, Cornell, 28–32, instr. clin. med, 31–32, med, 32–36, asst. prof, 36–38; *physician in chief, Geisinger Mem. Hosp, 38–* Asst. physician, Cornell Clinic, 28–31, physician, 31–32; asst. visiting physician, Bellevue Hosp, 30–33; asst. physician, N. Y. Hosp, 32–38. Soc. Bact; Rheumatism Asn; Soc. Exp. Biol; fel. Am. Med. Asn; Asn. Immunol; fel. N. Y. Acad. Med. Bacteriology; arthritis; rheumatic fever; pulmonary diseases.

Stair, Prof. Edw(ard) C(lement), Purdue University, Lafayette, Ind. *Horticulture.* Brook, Ind, Nov. 7, 89. B.S.A, Purdue, 14, M.S, 25. Teacher, high sch, Ind, 14–20; farmer, Ind, 20–23; asst. prof. *hort. veg. gardening, Purdue,* 23–36, *assoc. prof, 36–, asst. hort, Exp. Sta.* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Ind. Hort. Soc; Ind. Veg. Growers Asn; Ind. Acad. Vegetable gardening; tomato breeding.

Staker, Dr. E(rnest) V(ernon), Cornell University, Ithaca, N. Y. *Agronomy.* Mt. Pleasant, Utah, July 31, 00. A.B, Utah Col, 23, M.S, 24; Ph.D, Minnesota, 30. Research instr. agron, *N. Y. Exp. Sta, Cornell,* 29–31, *asst. prof. soil technol, 32–* A.A; Soc. Agron; Chem. Soc. Organic soils of New York State.

Stakman, Dr. E(lvin) C(harles), University Farm, St. Paul, Minn. ****Plant pathology, Mycology.* Algoma, Wis, May 17, 85. A.B, Minnesota, 06, A.M, 10, Ph.D, 13; hon. Dr. Nat. Sci, Halle, 38. Instr. *plant path, Minnesota,* 09–13, asst. prof, 13–16, assoc. prof, 16–18, *prof, 18–,* asst. plant path, *Exp. Sta,* 09–10, asst. plant pathologist, 10–13, *head sect. plant path, 13–, chief div. plant path. and bot, 40–* Pathologist and agent, U. S. Dept. Agr, 18–; guest prof, Halle, 30–31. Assoc. ed, 'Phytopathology,' 16, ed. in chief, 25–29; Am. ed, 'Phytopath. Zeitschrift,' 31– Mem. div. biol. and agr, Nat. Research Council, 31–, v. chairman, 37. Hansen prize and gold medal, Copenhagen, 28. Nat. Acad; A.A; Soc. Nat; Phytopath. Soc. (councilor, v. pres, pres, 22); Bot. Soc. (board control, 'Bot. Abstracts,' 23); Genetic Asn; Soc. Exp. Biol; Philos. Soc; Soc. Agron; Philos. Sci. Asn; Hist. Sci. Soc; hon. mem. Col. Allergists; Am. Acad; Torrey Bot. Club; Minn. Mycol. Soc. (pres, 19–28); Minn. Hist. Soc; Minn. Acad; Wash. Acad; British Mycol. Soc; Halle Akad. der Naturforscher; cor. mem. Verein für Angewandte Bot. Cereal smuts and rusts; the nature of the resistance and immunity to cereal rusts; genetics of phytopathogenic fungi.

Stalder, Walter, Crocker Bldg, San Francisco, Calif. *Geology.* Oakland, Calif, April 6, 81. B.S, California, 04, M.S, 07. Chemist, San Francisco Chem. Co, 04–07; oil geologist for M. L. Requa, 09–14; *consulting oil geologist, 14–* Private expeds. to investigate petrol, U. S. and Can. A.A; Asn. Petrol. Geol; Chem. Soc; Min. and Metal. Eng. Geology of the California oil fields; decrease curve method of estimating oil reserves; petroleum resources of northern California; oil conservation; history of California oil development.

Staley, Prof. Raymond C(offey), 321 Cambridge St, Grand Forks, N. Dak. *Mathematics.* Carrollton, Mo, Dec. 13, 88. A.B, Colorado, 16, A.M, 26; Ph.D, Michigan, 38. Teacher, high sch, Colo, 16–18, 19–25; instr. *math,* Kans. State Col, 25–27; asst. prof, *North Dakota,* 27–35, assoc. prof, 35–39, *prof, 39–* Summer, prof, Cent. Mo. State Teachers Col, 39. Math. Asn. Series; difference equations.

Staley, Prof. W(alter) J, Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Rural Retreat, Va, July 11, 91. A.B, Roanoke Col, 12, A.M, 13; Columbia, 14, 15; Pittsburgh, 21, 26, 27. Head dept. science, Daleville Col, 13–17; asst. prof. *physics,* Miss. Agr. and Mech. Col, 19–20; *Carnegie Inst. Tech,* 20–34, assoc. prof. and later *prof, 34–* Mathematical physics.

Stalker, Edward A(rchibald), Dow Chemical Co, Bay City, Mich. *Aeronautical engineering.* Cheboygan, Mich, Sept. 23, 97. B.S, Michigan, 19, M.S, 23. Aeronaut. engineer in charge fuselage designs, Stout Eng. Labs, 20–22; instr. aeronaut. eng, Michigan, 22, asst. prof, 25–27, assoc. prof, 27–29, prof, 29–42, head dept, 30–42; *aeronaut. engineer, Dow Chem. Co, 42–* Inst. Aeronaut. Sci; Soc. Automotive Eng. Principles of flight.

Stalker, Dr. H(arrison) D(ailey), University of Rochester, Rochester, N. Y. *Genetics.* Detroit, Mich, July 3, 15. A.B, Col. of Wooster, 37; Ph.D, Rochester, 41. Teaching asst, *Rochester,* 37–41, *research asst. zool, 41–* Genetics Soc; Soc. Study Speciation. Drosophila genetics; sex determination; comparative genetics of Drosophilidae; population studies.

Stallard, Dr. Harvey, Medico-Dental Bldg, San Diego, Calif. *Botany.* Onaga, Kans, Jan. 18, 88. Ph.B, Ottawa (Kans), 09; fellow, Minnesota, 12–17, Ph.D, 17; D.D.S, Illinois, 20. Instr, sch, Minn, 09–10; Bethel Acad, 10–12; asst. instr. bot, Minnesota, 12–17; mem, Board Dental Examiners, Calif, 25–29, pres, 29–31. Bot. surv, Minn, 12–16. Ed, 'San Diego Dental Bul,' 34–36. A.A; Pacific Coast Soc. Orthodont; Gnathol. Soc. Calif; N. Y. Acad. Dentistry; San Diego County Dental Soc. (pres, 33); San Diego Pub. Health League (pres, 35). Plant succession; origin of sphagnum atolls; etiology of malformed jaws; physiology of chewing; mechanics of mastication; residual oral food odors; oral conditions of San Diego County school pupils; gnathology; influence of rachitis on mouth development.

Stallcup, Dr. W(illiam) David, Box 389, Jacksonville, Fla. *Organic chemistry.* Cleveland, Ohio, Oct. 25, 13. B.S, Florida, 34, M.S, 38, Ph.D, 42. *Research chemist,* Stamford labs, Am. Cyanamid Co, 42–43; *naval stores div, Glidden Co, 43–* Chem. Soc. Oxidations of pure terpenes; purification of terpenes.

Stallings, Dr. J(ames) H(enry), War Food Administration, Washington, D. C. *Soils.* Bryan, Texas, Sept. 20, 92. B.S, Agr. and Mech. Col. Texas, 14; M.S, Iowa State Col, 17, Ph.D, 25. Agronomist and farm director, high sch, Miss, 14–16; teaching fellow, Iowa State Col, 17–19, asst. prof. farm crops and soils, 19–20; assoc. prof. agron, Agr. and Mech. Col. Texas, 20–23, prof, 23–26; agronomist, The J. C. Penney-Gwinn Corp, Penney Farms, Fla, 26–29; soil improv. work, Nat. Fertilizer Asn, 29–33; state coordinator, soil conservation service, *U. S. Dept. Agr,* N. C, 34–37, senior soil conservationist, *Washington, D. C,* 37–42, *prin. indust. specialist, war food admin, 42–* Summer, asst. agronomist, Ala. Exp. Sta, 16. Soil Sci. Soc; Soc. Agron; Int. Cong. Soil Sci; Asn. South. Agr. Workers. Soil fertility.

Stallings, W(illiam) S(idney), Taylor Museum, Colorado Springs, Colo. *Anthropology, Dendrochronology.* Mexico City, Mex, 10. A.B, Arizona, 31, A.M, 32; Yale, 37–38; Harvard, 39–41. Dendrochronologist and archeologist, *Lab. Anthrop,* 31–39, *research assoc, 39–;* mem. advisory board,

Taylor Museum, 39–41, research director, 41–; research assoc, tree ring lab, Arizona, 42–; Air Forces, U. S. Army, 42– Archeol. ed, 'Tree Ring Bul,' 39– Anthrop. Asn. (councilor, 37–); Soc. Am. Archeol; fel. Tree-Ring Soc. Cultural history and process; southwestern and Mexican archeology.

Stallmann, Dr. Otto, E. I. du Pont de Nemours and Co, Pennsgrove, N. J. *Chemistry.* Allendorf, Germany, Jan. 24, 96. Ph.D, Giessen, Germany, 22. *Research chemist,* Newport Chem. Co. and *E. I. du Pont de Nemours and Co,* Wis, 22–37, *dye works, N. J, 37–* Chem. Soc; Asn. Textile Chem. and Colorists. Organic synthesis; vat color; development and manufacture of organic pigments.

Stalnaker, Prof. Elizabeth M(attingly), 354 Spruce St, Morgantown, W. Va. *Psychology.* Gaithersburg, Md, Dec. 3, 82. A.B, West Virginia, 02; A.M, Columbia, 15; Ph.D, Hopkins, 23. Teacher modern languages, Shepherd Col. Nor. Sch, W. Va, 02–05; Fairmont State Nor. Sch, 07–15; educ, Marshall Col, 15–23, head dept. psychol, 23–25; assoc. prof. educ, *West Virginia, 25–28, prof. psychol, 28–* Psychoclinician, Huntington State Hosp, W. Va, 19–25; mental examiner, juvenile delinquents, Charleston. Assoc. Psychol. Asn. Comparison of certain mental and physical measurements of school and college students; difference between city and country children in mental and motor abilities; non-promoted children; responses and language of the preschool child.

Stalnaker, John M(arshall), 3 Queenston Place, Princeton, N. J. *Psychology.* Duluth, Minn, Aug. 17, 03. B.S, Chicago, 25, A.M, 28. Instr. psychol, Purdue, 26–30, asst. prof. educ. and psychol, 30–31; examining staff, Chicago, 31–36; from research assoc. to *assoc. prof. psychol, Princeton, 36–* Director attitude measurement for cmt. on physical educ. and athletics, Minnesota, 30–31; research assoc, Col. Ent. Exam. Board, 36–37, consultant examiner, 37– Assoc. Psychol. Asn; Psychometric Soc; Statist. Asn; Educ. Research Asn. Tests and measurements.

Stambaugh, Dr. R(ichard) B(ulla), 1107 N. Main St, Akron, Ohio. *Physics.* Boston, Mass, July 27, 13. A.B, Kenyon Col, 34; Sc.D, Mass. Inst. Tech, 41. *Research physicist, Goodyear Tire and Rubber Co, 40–* Physical electrical properties of synthetic rubber and plastics.

Stamberg, Dr. Olof E(rnest), University of Idaho, Moscow, Idaho. *Chemistry.* Sweden, March 25, 09. B.S, Illinois, 34; M.S, Minnesota, 36, Ph.D, 38. Assoc. chemist agr. biochem, Minnesota, 36–40; research assoc. chem, Stanford, 40–43; *prof. agr. chem, Idaho, and chemist, Exp. Sta, 43–* A.A; Chem. Soc; Asn. Cereal Chem. Cereal chemistry; technology and chemistry of baking; starch constituents; amylase activity; dried milk; proteins of cereals and milk.

Stamm, Dr. Alfred J(oaquin), U. S. Forest Service, Madison, Wis. *Chemistry.* Los Angeles, Calif, Dec. 29, 97. B.S, Calif. Inst. Tech, 21; M.S, Wisconsin, 23, Ph.D, 25. Chemist, Gen. Petrol. Corp, Los Angeles, 21–22, asst. chem, Wisconsin, 22–25; assoc. chemist, *Forest Products Lab, U. S. Forest Service,* 25–28, chemist, 28–36, senior chemist, 36–39, *prin. chemist, 39–* Rockefeller Foundation fellow, Upsala, Sweden, 28–29. U. S. del, Int. Forestry Convention, Stockholm, 29. Chem. Soc. (sec'y-treas, colloid div, 33, chairman, 34). Colloid and physical chemistry; interfacial surface tension; particle distribution in emulsions; fine capillary structure, electrical properties and moisture content of wood; cellulose; hygroscopicity of paper making materials; lignin solutions; swelling of cellulose and wood; improving wood by forming synthetic resins within the cell wall structure; resin treated compressed wood.

Stamm, Dr. Robert Franz, American Cyanamid Co, Stamford, Conn. *Physical chemistry.* Mt. Vernon, Ohio, March 28, 15. A.B, Kenyon Col, 37; Ph.D, Iowa State Col, 42. *Raman spectroscopist, physics div, research labs, Am. Cyanamid Co, 42–* Chem. Soc; Optical Soc. Raman spectra.

Stammelman, Dr. Mortimer J(acob), 119 W. 23rd St, New York 11, N. Y. *Physical chemistry.* New York, N. Y, Dec. 27, 97. A.B, Columbia, 20, A.M, 21, Ph.D, 23. Chemist, Int. Arms and Fuse Co, 17; chief chemist, Dusenberg Motors Corp, 18; asst. chem, Columbia, 18–22; *pres, Atmos Products Corp, New York, 25–* Sec'y hypodermic medication, pharmaceut. and biol. sect, C. F. Kirk Co, Bloomfield, N. J, 32–34. Chem. Soc; fel. Inst. Chem; N. J. Chem. Soc. Hydrogen ion measurements; activity coefficients of certain acids over a wide range of concentration; viscose process and applications; humidification.

Standen, Dr. J(ohn) H(erman), University of Delaware, Newark, Del. *Plant pathology.* Seattle, Wash, March 26, 03. B.S, Beloit Col, 26; A.M, Wisconsin, 31; Ph.D, Iowa State Col, 41. Assoc. exten. pathologist, Iowa State Col, 37–42; *research fellow, Delaware, 42–* Phytopath. Soc. Corn pathology; variability and pathogenicity of Nigrospora on maize; application of coal tar derivatives as fungicides and bactericides.

Stander, Dr. H(enricus) J(ohannes), New York Hospital, 525 E. 68th St, New York, N. Y. *Obstetrics, Gynecology.* Georgetown, Cape Colony, S. Africa, June 21, 94. S. African Col, 11–13; Harvard, 13–14; M.S, Arizona, 16; M.D, Yale, 21. Chemist and asst. gen. manager, Yaryan R. and T. Co, Ga, 16–17; asst. radiol, sch. med, Yale, 18–19, obstet. and gynec, 19–21; chemist, Hercules Powder Co, Del, 21–22; assoc. obstet, Hopkins Univ. and Hosp, 22–27, assoc. prof, 27–30; *prof. obstet. and gynec. and head dept, N. Y. Hosp, Cornell Med. Col. Asn, 31–* A.A; fel. Gynec. Soc. (v. pres, 41); fel. Col. Surg; Am. Med. Asn; fel. N. Y. Obstet. Soc. (pres, 41). The flotation process; placental interchange; blood volume, heart output, toxemias, urea excretion, basal metabolism and acidosis in pregnancy; eclampsia; chloroform poisoning; the respiratory quotient of the human fetus; nephritis; acute yellow atrophy of liver; purine metabolism.

Standley, Dr. George P(rince), Industrial Rayon Corp, Cleveland, Ohio. *Organic chemistry.* Beverly, Mass, July 1, 04. B.S, Mass. Inst. Tech, 27, Ph.D, 32. Asst. chem, Mass. Inst. Tech, 27–30; *research chemist,* du Pont Rayon Co, 31–40; *Indust. Rayon Corp, 40–* Chem. Soc. Aliphatic hydrocarbons; cellulose chemistry.

Standley, Paul C(arpenter), Field Museum of Natural History, Chicago, Ill. ***Botany.* Avalon, Mo, March 21, 84. Drury Col, 03–06; B.S, N. Mex. Col, 07, M.S, 09. Asst. bot, N. Mex. Col, and asst. botanist, Exp. Sta, 07–09; asst. curator div. plants, U. S. Nat. Museum, 09–20, assoc. curator, 20–28; herbarium, *Field Museum Nat. Hist, Chicago,* 28–37, *curator, 37–* A.A; Fern Soc. Systematic botany of America.

Stanfield, Prof. J(oseph) Fisher, Chicago Teachers College, Chicago, Ill. *Botany, Plant physiology.* Lewisburg, Ky, June 4, 01. A.B, West. State Col, Colo, 27; A.M, Colorado, 30; Ph.D, Iowa, 37. Teacher, high schs, Colo, 27–29; asst. prof. *biol,* Knox Col, 31–33, 35–38; *prof, Chicago Teachers Col, 39–* Research assoc, Iowa, 43. Summers, instr, Colorado, 30–31. A.A; Bot. Soc; Soc. Plant Physiol. (business manager, 41–); Ill. Acad. Osmotic pressure; physiology of sex in dioecious plants; teaching methods.

Stanford, Prof. E(rnest) E(lwood), College of the Pacific, Stockton, Calif. *Botany.* Rowe, Mass, April 17, 88. B.S, Mass. Col, 15; M.S, N. C. State Col, 17; Ph.D, Harvard, 24. Asst. plant path, Exp. Sta, N. C. State Col, 15–17; sci. asst, bur. chem, U. S. Dept. Agr, 17–19, acting pharmacognosist, in charge pharmacog. lab, 19; *prof,* Western Reserve, 19–26; *bot, Col. of Pacific, 26–; Stockton Junior Col, 35–* Bot. expert, U. S. Tariff Cmn, 18–19, 20, 28. Bot. Soc. General and economic botany; bacterial wilt of solanaceous plants; chemistry and histology of cotton plants; opium, coca leaves; botanical drugs; systematic botany of genus Polygonum; hay-fever plants; plants and the war effort.

Stanford, Dr. Ernest H(all), University Farm, Davis, Calif. *Plant breeding.* Bardolph, Ill, Dec. 9, 11. B.S, Minnesota, 37; Ph.D, California, 40. *Junior agronomist, California, 41–; U. S. Army.* A.A; Genetics Soc; Soc. Agron. Genetics and breeding of flax and other oil and fiber crops.

Stanford, Dr. J. S(edley), Utah State College, Logan, Utah. *Zoology, Entomology.* Salt Lake City, Utah, July 14, 91. B.S, Utah Col, 17; Ph.D, Cornell, 28. Entomologist, U. S. Dept. Agr, 17–19; from teacher to sch. supt, Idaho, 21–26; instr. *zool. and entom,* Utah, 29–30; *asst. prof, Utah State Col, 30–* U.S.A, 18–19. A.A; Entom. Soc. Amer; Soc. Mammal; Ornith. Union; Utah Acad. Distribution and life history of birds, mammals and ectoparasites; human biology.

Stanford, Prof. Spencer C(larendon), Union College, Schenectady, N. Y. *Physical chemistry.* Rowe, Mass, Dec. 27, 07. B.S, Mass. State Col, 30; M.S, Western Reserve, 33, Ph.D, 35. Instr. chem, Alderson-Broaddus Col, 34–36; science, Wayland Junior Col, 36–37; *chem,* Col. of Wooster, 37–40; *Union Col,* 40–41, *asst. prof, 41–* A.A; Chem. Soc; fel. Inst. Chem. Physical properties of pure organic compounds and binary mixtures; spectroscopy of hydrogen bond.

Stanforth, Dr. Alva T(hurman), Sewanhaka High School, Floral Park, N. Y. *Psychology.* Martinsville, Ohio, June 27, 89. B.S, Muskingum Col, 14; A.M, N. Y. Univ, 27, Ph.D, 28. Sch. supt, W. Va, 21–27; teacher, Jamaica Training Sch. for Teachers, New York, 27–28; director supervised teaching, Indiana, 28–29; Colorado, 29–30; head dept. psychol, Pa. Col. for Women, 30–33; *supervising prin, Sewanhaka High Sch, Floral Park, N. Y, 33–* Psychol. Asn. Social psychology; psychology of teaching.

Stang, Dr. A(mbrose) H(enry), 331 Upshur St, N. W, Washington, D. C. *Physics.* Auburn, Pa, July 10, 89. C.E, Syracuse, 10; A.M, Michigan, 15, Ph.D, 16. Instr. physics, Ohio Wesleyan, 10–14; asst, Michigan, 14–16; asst. prof, Oklahoma, 16–19; asst. physicist, *Bur. Standards,* 19–20, assoc. physicist, 20–26, engineer physicist, 26–30, *senior engineer, 30–* Wason medal, Am. Concrete Inst, 36. A.A; fel. Physical Soc; Soc. Test. Mat; Am. Concrete Inst; Wash. Acad. Infra-red absorption spectrum of naphthalene; engineering mechanics; pressure tanks; steel columns; girder hooks; masonry walls; floor slabs; welded rails; Mesnager concrete hinges; incased steel columns; stress distribution.

Stangel, Prof. W(enzel) L(ouis), Texas Technological College, Lubbock, Texas. *Animal husbandry.* Stangelville, Wis, Aug. 16, 90. B.S, Agr. and Mech. Col. Texas, 15; M.S, Missouri, 16. Instr. *animal husbandry,* Agr. and Mech. Col. Texas, 16–18, assoc. prof, 18–20, prof, 20–25; *prof. and head dept, Texas Tech. Col, 25–* Manager, live-stock exhibits and shows, Texas Centennial Expos, 35–37. Soc. Animal Production; Texas Agr. Workers Asn. (v. pres, 42). Beef cattle and sheep feeding.

Stanger, Dr. D(aniel) Warren, 1504 Judson Ave, Ravinia, Ill. *Organic chemistry.* Ravinia, Ill, July 18, 04. B.S, Chicago, 25, Ph.D, 35. Research Corp. fellow chem, *Chicago,* 35–36, research chemist, Sprague Mem. Inst, 36–41, *instr. chem, dept. path, 41–* Chem. Soc. Anomalous rotations of alkaloid salts; sterols.

Stanger, Otto (Charles), 9 S. Clinton St, Chicago, Ill. *Chemistry.* Centralia, Ill, June 16, 82. B.S, Illinois, 09. Asst. chief chemist, Armour Soap Works, 09–20; research fellow, *Miner Labs,* 20–22, *assoc. director,* 22– Chem. Soc.

Stanier, Dr. R(oger) Y(ate), National Research Council, Ottawa, Ont, Can. *Microbiology.* Victoria, B. C, Can, Oct. 22, 16. B.A, British Columbia, 36; A.M, California at Los Angeles, 40; fellow, Stanford, 41–42, Ph.D, 42. Asst. bacter, California at Los Angeles, 38–39; microbiol, Hopkins Marine Sta, 40; *junior research biologist, Nat. Research Council Can, 42–* Soc. Bact. Microbial decomposition of polysaccharides; bacterial classification; biology of myxobacteria.

Stanliand, Prof. Albert E(dward), 2642 Library Road, Pittsburgh, Pa. *Mathematics.* Pittsburgh, Pa, June 9, 98. B.S, Denison, 21; A.M, Pittsburgh, 26, Ph.D, 32. Instr. *math, Pittsburgh,* 26–34, asst. prof, 34–43, *assoc. prof, 43–* Geophys. Union. Geometry of the complex domain.

Stanley, Dr. Alfred R(eeves), Commercial Solvents Corp, Terre Haute, Ind. *Bacteriology.* Des Moines, Iowa, April 9, 07. A.B, Penn Col. (Iowa), 30; M.S, West Virginia, 32, Ph.D, 35. Asst. plant path, col. agr, West Virginia, 30–35, instr. bacter, sch. med, 35–43; *bacterial research dept, Commercial Solvents Corp, 43–* Bacterial plant diseases; anaerobes.

Stanley, Prof. Allan J(ohn), Louisiana State University, Baton Rouge, La. *Endocrinology, Embryology.* Huntsville, Ala, Oct. 25, 99. A.B, Simpson Col, 22; M.S, Iowa, 35, Ph.D, 36. Research assoc. zool, Iowa, 36–37; instr. comp. anat. and physiol, *Louisiana,* 37–39, *asst. prof. zool, 39–; physiol, sch. med, Oklahoma, 43–* Mem. faculty, St. John's Col. (Md), 42–43. Summers, instr, Iowa State Teachers Col, 36, Louisiana, 37. Soc. Zool; Wilson Ornith. Club; Iowa Acad; La. Acad. Pituitary; sex hormones; lactation; embryology of sex glands of hawks.

Stanley, Dr. Douglas, 33 Riverside Drive, New York, N. Y. *Acoustics.* London, Eng, April 7, 90. A.C.G.I, London, 12; M.S, N. Y. Univ, 24; D.Mus, Col. Puget Sound, 38. Voice research, med. dept, N. Y. Univ, 23–29; research, Elec. Research Products, Inc, 32–35. A.A; fel. Acoustical Soc. Acoustic, physiological and psychological aspects of voice and vocal technique; the science of voice; production and reproduction of the voice.

Stanley, Prof. E(rnest) B(rooke), University of Arizona, Tucson, Ariz. *Animal husbandry.* Corvallis, Mont, July 14, 97. B.S, Mont. State Col, 19; M.S, Iowa State Col, 23. Asst. prof. *animal husbandry, Arizona,* 20–24, assoc. prof, 24–27, *prof, 27–, head dept, 34–,* asst. animal husbandman, *Exp. Sta,* 20–22, acting animal husbandman, 23–24, *animal husbandman, 24–* Live-stock feeding.

Stanley, Dr. George M, University of Michigan, Ann Arbor, Mich. *Geology.* Detroit, Mich, March 15, 05 B.S, M chigan, 28, A.M, 30, Ph.D, 32. Instr. *geol, Michigan,* 30–38, *asst. prof, 38–* Geologist, Cranbrook Inst. Science, 34, 35. A.A; Geol. Soc. Glacial and shoreline geology; glacial geology in Michigan; history of the Great Lakes.

Stanley, Dr. John, Queen's University, Kingston, Ont, Can. *Entomology.* London, Eng, June 25, 05. B.A, British Columbia, 27; A.M, Minnesota, 29, Ph.D, 31. Asst. zool, Minnesota, 27–28, entom, 28–30; asst, Exp. Sta, Asn. Hawaiian Pineapple Canners, 30–32; asst. prof. *biol, Queen's (Can),* 32–37, *assoc. prof, 37–;* 2nd lieut, *Can. Army,* 41–42, pilot officer, *Royal Can. Air Force,* 42, *flying officer, 42–* Junior research investigator, research labs, Nat. Research Council Can, Ottawa, 32. Summers, field work, Can. Entom. Branch, 25–28, 37. A.A; Can. Soc. Physiol. Mathematical theories of growths of populations, particularly of Tribolium confusum.

Stanley, Dr. Lester N(elson), Standard Oil Development Co, Linden, N. J. *Organic chemistry.* Worcester, Mass, March 15, 10. B.S, Tufts Col, 31; M.S, Mass. Inst. Tech, 32, Ph.D, 35. *Research chemist,* Monsanto Chem. Co, 35–41; *Standard Oil Develop. Co, 41–* Chem. Soc. Preparation and chemiluminescent oxidation of cyclic hydrazides; catalytic and thermal vapor phase oxidation and dehydrogenation; polymerization and thermoplastics; petroleum hydrocarbon chemistry; organic synthesis and halogenation.

Stanley, Dr. Louise, U. S. Department of Agriculture. Washington, D. C. *Chemistry.* Nashville, Tenn, June 8, 83. B.S, George Peabody Col, 03; B.Ed, Chicago, 06; A.M, Columbia, 07; Ph.D, Yale, 11; hon. LL.D, Missouri, 40. Instr. home econ, Missouri, 07–11, asst. prof, 11–14, assoc. prof, 14–17, prof. and chairman div, 17–23; chief bur. home econ, *U. S. Dept. Agr,* 23–43, *special asst. to research administrator, agr. research admin, 43–* Fed. agent, home econ. educ, 18–19. Chem. Soc; Home Econ. Asn. Food chemistry; organic and inorganic phosphorus; purin enzymes; temperatures for baking.

Stanley, Dr. Oran B(ert), Colgate University, Hamilton, N. Y. *Botany, Forestry.* Mooresville, Ind, June 2, 09. B.S, Butler, 31; Ph.D, Yale, 36. *Instr. bot, Colgate, 34–* Summers, field asst, U. S. Forest Service, 30, 31, research forest, Yale, 32, 33. Bot. Soc; Forestry Asn. Dendrology; plant indicators.

Stanley, Dr. W(endell) M(eredith), Rockefeller Institute, Princeton, N. J. **7Chemistry.* Ridgeville, Ind, Aug. 16, 04. B.S, Earlham Col, 26, Sc.D, 38; M.S, Illinois, 27, Ph.D, 29; Sc.D, Harvard, 38, Yale, 38. Assoc, Illinois, 29–30, instr, 30; nat. research fellow, Munich, 30–31; asst, *Rockefeller Inst,* 31–35, assoc, 35–37, assoc. mem, 37–40, *mem, 40–* Hitchcock lecturer, California, 40; Vanuxem lecturer, Princeton, 42. A.A.A.S. prize, 36; Rosenberger medal, Univ. Chicago, 38; Adler prize, Harvard, 38; John Scott award, City of Philadelphia, 38; gold medal, Am. Inst, 41; Copernican citation, Princeton, 43. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem; Phytopath. Soc; Philos. Soc; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Lepracidal compounds; diphenyl stereochemistry; sterol chemistry; biochemistry of virus proteins.

Stanley, Dr. Willard F(rancis), 134 Center St, Fredonia, N. Y. *Zoology.* Ames, Iowa, May 11, 01. A.B, N. Cent. Col, 27; scholar, Illinois, 27–28, A.M, 28, Ph.D, 32. Asst. zool, Illinois, 28–31; prof. biol, N. Dak. State Teachers Col, Minot, 31–35; *head dept. science, N. Y. State Teachers Col, 35–* Summers, asst. zoologist, Ill. Nat. Hist. Surv, 29, 35. A.A; Soc. Zool; Soc. Ichthyol. and Herp; N. Y. Acad; Biol. Soc. Wash. Experimental zoology; genetics; herpetology.

Stanley, Prof. W(illia)m E(dward), Cornell University, Ithaca, N. Y. *Sanitation.* Burrton, Kans, Aug. 14, 91. B.S, Kans. State Col, 12; C.E, Purdue, 16. Bridge inspector, State Highway Engineer's Office, Kans, 12; chairman and instrumentman, U. S. land survs, Gen. Land Office, 12; instr. hydraul, Purdue, 13–17; research engineer, Pearse and Greeley, Charleston, W. Va, 19–20; field research engineer, Decatur Impounding Dam, Ill, 20–22; asst. engineer, Pearse, Greeley and Hanson, Chicago, 22–25; jr. partner and assoc. consulting

engineer, Greeley and Hanson, 25–36; *prof. sanit. eng, Cornell, 36–; prin. sanit. engineer water supply and sewerage, construction div, U. S. Army, 41–, major.* Ill. award, Ill. Eng. Soc, 35. Capt, C.Eng, 17–19. - Water Works Asn. (chairman water distribution safety cmt, 38–); Pub. Health Asn; Civil Eng. (chairman cmt. trickling filter materials, 25–35); Pub. Health Asn; Eng. Educ; N. Y. State Sewage Works Asn. Cost considerations in engineering design; water supply, water treatments and sewage disposal problems.

Stannard, Dr. J(ames) Newell, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Pharmacology, Physiology.* Owego, N. Y, Jan. 2, 10. A.B, Oberlin Col, 31; A.M, Harvard, 34, Ph.D, 35. *Asst.* physiol, Harvard, 32–34, biol, 34–35; instr. physiol, sch. med. and dentistry, Rochester, 35–39; pharmacol, Emory, 39–41, asst. prof, 41; *pharmacologist, nat. inst. health, U. S. Pub. Health Service, 41–* Physiol. Soc; Soc. Exp. Biol. Cellular respiration; effects of temperature on biological processes; muscle physiology.

Stansby, Maurice (Earl), U. S. Department of the Interior, 2725 Montlake Blvd, Seattle, Wash. *Chemistry.* Cedar Rapids, Iowa, April 25, 08. Ch.B, Minnesota, 30, M.S, 33. Junior chemist, Bur. Fisheries, 31–37, asst. technologist, 37–40, *technologist, fish and wildlife service, U. S. Dept. Interior, 40–, in charge* fishery products lab, 40–42, *fishery technol. lab, 42–* Inst. Food Technol; Chem. Soc. Fluorine analysis; analysis and preservation of fish.

Stansel, R(oy) H(arrison), Texas Agricultural Experiment Station, Angleton, Texas. *Agronomy, Horticulture.* Gueydan, La, Sept. 14, 03. B.S, Louisiana, 24; M.S, Agr. and Mech. Col. Texas, 26. Asst. crops, *Exp. Sta, Agr. and Mech. Col. Texas,* 24–26, *supt. substa. No. 3, 26–* Summer, junior entomologist, U. S. Dept. Agr, 24. A.A; Soc. Agron; Soc. Hort. Sci; Genetic Asn; Texas Agr. Workers Asn. Cotton; corn; pasture crops.

Stansfield, Prof. A(lfred), 3182 Westmount Blvd, Montreal, Que, Can. *Metallurgy.* Bradford, Eng, March 18, 71. Bradford Tech. Col, 86–88; Royal Col. Science, London, 88–91; assoc, Royal Sch. Mines, 91, D.Sc, 98. Instr. assaying, Royal Sch. Mines, 98–01; prof. *metal, McGill,* 01–36, *emer. prof, 36–* Asst. to Sir W. Roberts-Austen in researches on alloys for London Inst. Mech. Eng, 91–98; Carnegie research scholar, 00–01. Min. and Metal. Eng; Electrochem. Soc; fel. Royal Soc. Can; Can. Inst. Min. and Metal; Eng. Inst. Can; British Asn; British Inst. Metals; Iron and Steel Inst. Gt. Britain; fel. London Chem. Soc; fel. London Soc. Arts. Thermoelectric pyrometer; alloys; interdiffusion of solid metals; electric smelting of ores.

Stansfield, Prof. Edgar, University of Alberta, Edmonton, Alta, Can. *Chemical engineering.* Bradford, Eng, Aug. 25, 78. B.Sc, Victoria Univ. (Manchester), 00, M.Sc, 03. Demonstrator and lecturer, Sunderland Tech. Col, England, 02–06; chemist, Dom. Iron and Steel Co, N. S, 06–07; chief chemist to investigation of Can. coals, McGill, 07–10; chief eng. chemist, fuel testing div, Can. Dept. Mines, Ottawa, 10–21; *research prof. fuels, Alberta, and chief chem. engineer, Research Council, Alta, 21–* Chief chem. engineer, Lignite Utilization Board, Can, 18–21. Plummer medal, Eng. Inst. Can, 37. Can. Inst. Min. and Metal; Eng. Inst. Can. (councilor, 30). Fuels; coal; spontaneous combustion; carbonization; briquetting; drying of wheat.

Stansfield, Dr. John, 1002 W. California St, Urbana, Ill. *Geology.* Brighouse, Eng, March 28, 85. B.A, Cambridge, 07, M.A, 20; M.Sc, McGill, 12, Ph.D, 29. Explorer for Rajah of Sarawak, 09–10; Geol. Surv. Can, 10–18; asst. prof. geol, Illinois, 23–25; prof, Mont. State Sch. Mines, 25–26; assoc. prof, Washington (St. Louis), 26–27; mineral examiner, U. S. Forest Service, 30–31; State Div. Highways, Ill, 35–41; *commercial explor, 19–* Lecturer, McGill, 10–20. Can. Inst. Min. and Metal. Economic geology; exploration; laboratory investigation; physical chemistry.

Stanton, Dr. Hazel M(artha), 3452 S. W. Falcon St, Portland, Oregon. *Psychology.* Stromsburg, Nebr, July 16, 90. A.B, Nebraska, 12; A.M, Iowa, 18, Ph.D, 21. Prin, pub. schs, 12–17; instr. psychol, Iowa, 20–21; psychologist in music, Eastman Sch. Music, Rochester, 21–33, prof. psychol, Rochester, 30–33; *consulting psychologist, 33–* A.A; Psychol. Asn; Asn. Applied Psychol; N. Y. Asn. Applied Psychol. Psychology of music; the inheritance of specific musical capacities; psychological tests of musical talent; genetics; controlling human behavior; psychology of teaching and learning.

Stanton, Dr. Ralph E(vans), 58 Kneeland St, Edgewood, R. I. *Biology.* Providence, R. I, May 5, 96. Ph.B, Brown, 20, Ph.D, 22. Asst. physiol. chem, Brown, 18–22; chemist, Providence Milk Dept, 22–24; private lab, Providence, 24–34; *senior toxicologist, State Dept. Health, R. I, 34–* Summers, biochemist, U. S. Pub. Health Service, 17–20. Chem. Soc; R. I. Medico-Legal Soc. Public health; toxicology.

Stanton, T(homas) R(ay), 4305 Sheridan St, Hyattsville, Md. *Agronomy.* Grantsville, Md, Sept. 23, 85. B.S.A, Maryland, 10, M.S, 21. Asst. agronomist, Exp. Sta, Md. Agr. Col, 10–11; agent, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 11–12, sci. asst. in charge cereal investigations, Arlington Exp. Farm, Va, 12–16, asst. agronomist, 16–22, agronomist *in charge oat investigations,* 22–28, *senior agronomist, 28–* A.A; Soc. Agron; Genetic Asn; Agr. Hist. Soc; Phytopath. Soc; Bot. Soc. Wash. Production, distribution, classification, genetics, breeding, disease and cold resistance of oats.

Stanton, Dr. T(imothy) W(illiam), 54 S St, N. W, Washington, D. C. *[1]*Geology, Paleontology.* Monroe Co, Ill, Sept. 21, 60. B.S, Colorado, 83, M.S, 96, Sc.D, 24; Hopkins, 88–89; Ph.D, George Washington, 97. Asst. state librarian, Colo, 85–88; asst. paleontologist, U. S. Geol. Surv, 89–00, paleontologist, 00–03, geologist in charge paleont. and stratig, 03–30, acting chief geologist, 30–32, chief geologist, 32–35; *retired.* Custodian Mesozoic invertebrates, U. S. Nat. Museum, 93–; instr, George Washington, 95–03, asst. prof, 04. A.A; Paleont. Soc. (pres, 21); Geol. Soc. (v. pres, 21); Biol. Soc. Wash; Geol. Soc. Wash. (v. pres, 10, pres, 12); Wash. Acad. Invertebrate fauna and stratigraphy of the Mesozoic; lower Cretaceous fauna of the Texan region; Mesozoic invertebrates and stratigraphy of North America.

Stanton, Dr. W(illiam) A(lexander), Parlin, N. J. *Organic chemistry.* Washington, D. C, Sept. 9, 15. B.S, Maryland, 36, Ph.D, 41. Teaching fellow inorg. and org. chem, Maryland, 36–40; *research chemist photo products dept, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Structure and properties of pyrethrosin for an inert bitter principle of pyrethrum flowers; photographic chemistry.

Stanton, Dr. W(illiam) Layton, 2127 First St, Bakersfield, Calif. *Geology.* Morristown, N. J, Jan. 9, 06. B.S, Calif. Inst. Tech, 31–35; *geologist, Union Oil Co, 35–* Structural geology; Indio hills; central California coast ranges.

Staples, Dr. Lloyd W(illiam), University of Oregon, Eugene, Oregon. *Mineralogy, Economic geology.* Jersey City, N. J, July 8, 08. A.B, Columbia, 29; fellow, Michigan, 29–30, M.S, 30; fellow, Mich. Col. Mines, 30–31; Ph.D, Stanford, 35. Mich. Geol. Surv, 30–31; instr. geol, Mich. Col. Min. and Tech, 31–33; teaching fellow miner, Stanford, 33–34, research assoc, 35–36; instr. geol, Oregon State Col, 36–37; *chief geologist, Horse Heaven Mines, Sun Oil Co, 37–;* instr. *geol, Oregon,* 39–41, *asst. prof, 41–; chief geologist, Cordero Mining Co, Nev, 41–* Fel. Miner. Soc; Min. and Metal. Eng. (chairman, Oregon, 41); Mich. Acad. Molybdenite ore from Climax, Colorado; mineralogy of adamite; description of austinite; test for silicon; microchemical methods applied to mineral determination; petrography of the Wallowa Mountains; geology of quicksilver; strategic minerals of Oregon.

Stapley, Prof. Edward R(ay), 27 College Circle, Stillwater, Okla. *Sanitary engineering.* Geneseo, N. Y, Oct. 23, 89. C.E, Cornell, 14, M.C.E, 30; fellow, Harvard, 38–39, M.S, 39. Asst. city engineer, Ithaca, and instr. civil eng, Cornell, 14–16; res. engineer for city of Wilson, N. C, 16–17; sec'y-treas. and asst. manager, Geneseo Automobile Co, Inc, 19–24; civil engineer, Sterling Salt Co, Cuylerville, N. Y, 25; assoc. prof. *civil eng, Okla. Agr. and Mech. Col,* 25–37, prof, 37–41, acting head dept, 41–42, *acting dean eng, 42–* Am. Water Works Asn. award, 41. 2nd lieut, F.A. and A.S, 17–19. Civil Eng. (pres, Okla. sect, 29); Eng. Educ; Water Works Asn; Pub. Works Asn. Efficiency of sewage sprinkling filter nozzles; design of Imhoff tanks; hydrology; municipal sanitation.

Starbuck, Prof. Edwin D(iller), University of Southern California, Los Angeles, Calif. *[2]*Psychology, Philosophy.* Bridgeport, Ind, Feb. 20, 66. A.B, Indiana, 90; A.M, Harvard, 95; Ph.D, Clark, 97. Teacher, high sch, Ind, 90–91; prof. math, Vincennes, 91–93; asst. prof. educ, Stanford, 97–04; prof, Earlham Col, 04–06; philos, Iowa, 06–30, head dept, 27–30, director inst. character research, 23–30; *prof. philos, Southern California,* 30–38, *psychol, 38–* Lecturer, Pacific Theol. Sem, 02–03; Inst. Comp. Study Human Culture, Nor-

way, 25; psychol. adviser, Beacon Press, Boston, 12. Summers, Western Reserve, 03; Woodbrook Summer Sch, England, 03; Summer Sch. of the South, 04. A.A; Psychol. Asn; Philos. Asn. The psychology of religion; religious education of children; the after effects of kindergarten instruction; lines of growth in children as shown by psychophysical tests; the psychological content of religion; the physical basis of mental peculiarities; psychophysical studies of children; the lower senses in esthetic appreciation; character education.

Starch, Dr. Daniel, 420 Lexington Ave, New York, N. Y. ****Psychology.* La Crosse, Wis, March 8, 83. A.B, Morningside Col, 03; A.M, Iowa, 04, fellow, 04–06, Ph.D, 06; Harvard, 07–08. Instr. psychol, Iowa, 06–07; exp. psychol, Wellesley Col, 07–08; psychol, Wisconsin, 08–12, asst. prof, 12–17, assoc. prof, 17–20; asst. prof, Harvard, 20–23, assoc. prof, 23–26; *consulting psychologist and director research dept, Am. Asn. Advertising Agencies, 24–* Summers, instr, Iowa, 05, 06; prof, Washington, 15; N. Y. Univ, 22. Capt, aviation sect, O.R.C. A.A; Psychol. Asn; Marketing Soc. Educational and applied psychology; educational tests; sound localization; business psychology and marketing.

Starcher, Dr. George W(illiam), Northwood Drive, Athens, Ohio. *Mathematics.* Ripley, W. Va, Jan. 14, 06. A.B, Ohio (Athens), 26; A.M, Illinois, 27, Ph.D. 30. Asst. prof. *math, Ohio (Athens),* 30–37, assoc. prof, 37–40, *prof, 40–* Math. Soc; Math. Asn. Q-difference equations and q-identities.

Stare, Dr. Fredrick J(ohn), Harvard Medical School, Boston, Mass. *Biochemistry.* Columbus, Wis, April 11, 10. B.S, Wisconsin, 31, M.S, 33, Ph.D, 34; M.D, Chicago, 41. Asst. biochem, Wisconsin, 31–34; nat. research fellow, sch. med, Washington (St. Louis), 34–35; Gen. Educ. Board fellow, Cambridge, 35–36, Szeged, Hungary, 36, Zurich, 37; research assoc, Bowman cancer foundation, Wisconsin, 37–39; intern, Barnes Hosp, St. Louis, Mo, 41–42; *asst. prof. nutrition, Harvard Med. Sch. and sch. pub. health, Harvard, 42–; junior assoc. med, Peter Bent Brigham Hosp, 42–* Chem. asst, State Geol. and Nat. Hist. Surv, Wis, 29, 30, 31. Ed, 'Nutrition Reviews,' 42– A.A; Inst. Nutrition; Chem. Soc; Soc. Biol. Chem; Pub. Health Asn; Biochem. Soc. Gt. Britain. Nutrition; tissue respiration; applied nutrition in medicine and public health.

Stareck, Dr. J(esse) E(dwin), 2751 E. Jefferson Ave, Detroit, Mich. *Chemistry.* Petersburg, Mich, March 17, 05. B.S, Kansas, 28, A.M, 32, Cross fellow, 33, Ph.D, 34. Asst. instr. chem, Kansas, 28–33; research develop, Kansas City Testing Labs, 34–35; *electroplating research, United Chromium, Inc,* 35–38, tech. director electrocolor div, 38–43, *director research, 43–* Physical chemistry; electrochemistry; electrolytic color plating; pyrophosphate copper plating; bright zinc; anozinc; metal stripping.

Starin, Prof. W(illiam) A(lfred), Ohio State University, Columbus, Ohio. *Bacteriology.* Netawaka, Kans, Feb. 25, 78. A.B, A.M, Kansas, 08; Ph.D, Chicago, 23. Asst. prof. *bacter,* Okla. Agr. and Mech. Col, 09–10; *Ohio State,* 10–18, *prof, 18–* Fellow by courtesy, sch. hygiene and pub. health, Hopkins, 32; Columbia, 32. A.A; Soc. Bact; Asn. Path. and Bact; Pub. Health Asn. Immunity; filterable virus; canine distemper; antigenic properties of gelatin; botulism; pathogenic fungi.

Stark, Dr. Arvil L(ane), Utah State Agricultural College, Logan, Utah. *Horticulture.* Raymond, Alta, Can, Aug. 26, 04. B.S, Utah Col, 29; M.S, Iowa State Col, 31, Ph.D, 34. Asst. horticulturist, Utah State Col, 34–35; N. Mex. Col, 35–36; *exten. horticulturist, Utah State Col, 36–* Soc. Hort. Sci; Soc. Plant Physiol. Winter hardiness in plants.

Stark, Prof. C(lifford) N(icks), N. Y. State College of Agriculture, Ithaca, N. Y. *Bacteriology.* Cumberland Furnace, Tenn, June 14, 91. B.S, Middle Tenn. State Teachers Col, 20; B.S, George Peabody Col, 23, A.M, 24; Ph.D, Cornell, 27. Teacher, high sch, 14–16; prin. and instr. vocational agr, Tenn, 20–22; Ky, 23–24; instr. *bacter, N. Y. State Col. Agr, Cornell,* 25–27, asst. prof, 27–32, *prof, 32–* Soc. Bact; Soc. Exp. Biol; Pub. Health Asn; Dairy Sci. Asn.

Stark, Dr. Henry M(oronl), Faulk Road, R. F. D. 2, Wilmington, Del. *Chemistry.* March 28, 00. B.S, Brigham Young, 23; M.S, Wisconsin, 27, Ph.D, 29. Instr, Gila Col. (Ariz), 23–25; asst. chem, Wisconsin, 25–29; *research chemist, E. I. du Pont de Nemours and Co, 29–* Phosphoric acid; coagulation of ferric oxide sols by gas bubbles.

Stark, Dr. J(ohn) Ben(jamin), U. S. Department of Agriculture, Albany, Calif. *Organic chemistry.* Wash, April 11, 16. A.B, Linfield Col, 35; M.S, Oregon State Col, 37, Ph.D, 41. *Chemist, commodity processing div, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Apparent molal volume of salts in methanol; chemical constituents of Yucca mohavensis.

Stark, Prof. J(ohn) T(homas), 900 Greenwood Blvd, Evanston, Ill. *Geology.* Jackson, Tenn, 88. B.S, Northwestern, 21, A.M, 22; Ph.D, Chicago, 27. Instr. *geol, Northwestern,* 22–24, assoc. prof, 28–39, *prof, 39–, chairman dept. geol. and geog, 37–* A.A; Geol. Soc; Geophys. Union; Soc. Econ. Geol; Miner. Soc; Ill. Acad. Structural geology; Precambrian of Lake Superior region, Sawatch Range, Colorado; geology of South Park, Colorado; geology of Leeward Islands, South Seas; geology of Los Pinos range, New Mexico.

Stark, Dr. Marian E(sther) (Mrs. Ellis Kimble), Barbra Ave, Fountain City 18, Tenn. *Chemistry.* Boise, Idaho, March 10, 95. A.B, Smith Col, 17; Ph.D, Wisconsin, 32. Asst. med, Wisconsin, 30–32; instr. clin. chem, Wis. Gen. Hosp. and Wis. Psychiat. Inst; asst. chemist, Wis. Gen. Hosp, 32–34, chemist, 34–42; *retired.* Wis. Acad. Basal metabolism; standards in pre-adult years; age-curves over puberty; vitamin A and carotene in blood; photocolorimetric method and applications; vitamins A and C in blood; vitamin A in milk; pregnancy and lactation; mothers and newborn.

Stark, Dr. Marion E(lizabeth), Wellesley College, Wellesley, Mass. *Mathematics.* Norwich, Conn, Aug. 23, 94. A.B, Brown, 16, Lyra Brown Nickerson fellow, 16–17, A.M, 17; fellow, Chicago, 24–25, Ph.D, 26. Prof. *math,* Meredith Col, 17–19; instr, *Wellesley Col,* 19–27, asst. prof, 27–36, *assoc. prof, 36–* A.A; Math. Soc; Math. Asn; Asn. Teachers Math. New Eng. (councilor, 31–33). Calculus of variations.

Stark, Prof. Mary B, New York Medical College and Flower Hospital, New York, N. Y. *Genetics.* Harris, Minn. Ph.B, Hamline, 02, A.M, 04, hon. Sc.D, 38; Ph.D, Columbia, 19. Teacher, schs, Minn, 02–08; head dept. biol, St. Olaf Col, 08–12; asst. state bacteriologist, Minn, 14–15; *prof. embryol. and histol,* N. Y. Woman's Med. Col, 15–18; N. Y. Homeop. Med. Col, 19–36, *N. Y. Med. Col, 35–* A.A; Soc. Nat; Soc. Exp. Biol; Asn. Anat; Genetic Asn. Lethal factors in Drosophila; hereditary tumors in Drosophila; tumor cells; cytology by means of ultra-violet light photomicrographs of living cells; development of tumors from embryonic rests.

Stark, Prof. Orton K(irkwood), Miami University, Oxford, Ohio. *Botany.* Cromwell, Ind, Sept. 21, 98. A.B, DePauw, 22; fellow, Illinois, 25–26, Ph.D, 26. Asst. bot, Illinois, 22–25; assoc. prof. biol, La. State Nor. Col, 26–27; asst. prof. bot, Wyoming, 27–29; *Miami (Ohio),* 29–38, *assoc. prof. bacter, 38–* Summers, agent, U. S. Dept. Agr, 23–26, A.A; Pub. Health Asn; Soc. Bact. Plant physiology; bacteriology; protein metabolism of the soy-bean; osmosis; an improved evaporimeter; physiology of bacteria; disinfectants.

Stark, Dr. W(illiam) H(ubbard), Joseph E. Seagram and Sons, Inc, Louisville, Ky. *Biochemistry, Bacteriology.* Tiffany, Wis, March 5, 15. B.S, Wisconsin, 36, M.S, 37, Ph.D, 39. Asst. agr. bacter, Wisconsin, 36–39; bacteriologist, *research and develop. dept, Joseph E. Seagram and Sons, Inc,* 39–40, in charge fermentation div, 40–41, *asst. director, 41–* A.A; Soc. Bact; Chem. Soc. Freshwater bacteriology; butyric acid anaerobes; yeast fermentation and related industrial processing and 2–3 butylene glycol fermentation.

Starke, Dr. A(lbert) C(arl), 321 Porter St, Easton, Pa. *Organic chemistry.* Cleveland, Ohio, Jan. 14, 16. B.S, Fla. Southern Col, 36; Florida, 36–37; Ph.D, Northwestern, 40. Instr, dental sch, Northwestern, 37–40, Nat. Defense Research Cmt. fellow, 40–42; *research chemist, Gen. Aniline and Dyestuff Corp, 42–* Chem. Soc. Synthetic organic chemistry; physiological chemistry.

Starke, Prof. Emory P(otter), 321 Grant Ave, New Brunswick, N. J. *Mathematics.* Brooklyn, N. Y, Jan. 31, 96. A.B, Columbia, 16, A.M, 17, Ph.D, 27. Instr, Col. City of N. Y, 17–18; *math, Rutgers,* 19–25, asst. prof, 25–30, *assoc. prof, 30–* Assoc. ed, 'Nat. Math. Mag.' 2nd lieut, C.A.R.C, 18. Math. Soc; Math. Asn. Uniform functions of rational functions; theory of functions of the complex variable.

Starker, Prof. T(hurman) J(ames), Oregon State College, Corvallis, Oregon. *Forestry.* Grenola, Kans, July 14, 90. B.S, Oregon State Col, 10; M.S.F, Michigan; Wisconsin. For-

est examiner, U. S. Forest Service, 09–19; manager box bur, West. Pine Manufacturers Asn, 19–22; *prof. forestry, Oregon State Col, 22–* Visiting prof, Pa. State Col, 31–32. Wood preservation; silviculture.

Starkey, Dr. Florence T(enney), Crest Road, Dewey Heights, New Brunswick, N. J. *Microbiology.* Pawtucket, R. I, Oct. 3, 01. B.S, Conn. Agr. Col, 25; M.S, Rutgers, 27, Ph.D, 28. Asst. soil microbiol, N. J. Exp. Sta, 25–28, research assoc. bacter, Rutgers, 29–30; instr, N. J. Col. Women, Rutgers, 39–40; food chemist and bacteriologist, Titman Egg Co, 42; *assoc. bacteriologist, biol. labs, E. R. Squibb and Son, 42–* Soc. Bact. Soil microbiology; decomposition of organic matter; chemical composition of microbial cells.

Starkey, Prof. L(awrence) V(incent), Clemson Agricultural College, Clemson, S. C. *Animal husbandry.* Ravenswood, W. Va, March 27, 88. B.S, Illinois, 14; M.S, Wisconsin, 17. Teacher, Platteville State Nor. Sch, Wis, 14, 15, 18; exten. livestock specialist, West Virginia, 18–19; *prof. animal husbandry and head dept, Clemson Agr. Col, 19–* Asn. South. Agr. Workers. Sheep, pork and beef production in South Carolina.

Starkey, Prof. Otis P(aul), University of Pennsylvania, Philadelphia, Pa. *Economic geography.* Buffalo, N. Y, April 14, 06. B.S, Columbia, 27, A.M, 30, Ph.D, 39. Instr. econ, Washington and Jefferson Col, 27–28; ed. work, 28–31; instr. *geog, Pennsylvania,* 31–41, *asst. prof, 41–; geographer, U. S. War Dept, 42–* Am. Geog. Soc. Economic and historical geography of Lesser Antilles, northwestern Europe and eastern Pennsylvania.

Starkey, Dr. R(obert) L(yman), N. J. Agricultural Experiment Station, New Brunswick, N. J. *Soil microbiology.* Fitchburg, Mass, Sept. 27, 99. B.S, Mass. Col, 21; M.S, Rutgers, 23, Ph.D, 24. Asst, N. J. Exp. Sta, 22–24; instr. bacter, Minnesota, 24–26; asst. prof. and *assoc. prof. soil microbiol, Rutgers, and assoc. microbiologist, N. J. Exp. Sta, 26–* A.A; Soc. Bact; Soil Sci. Soc; Int. Soc. Soil Sci. Oxidation of sulfur by bacteria; decomposition of organic materials in soil; partial sterilization of soil; transformations of iron in soil; relations between higher plants and soil microorganisms; sulfate reduction; nitrogen fixation.

Starkey, Dr. William F(rederick), Allegheny General Hospital, Pittsburgh, Pa. *Biology.* Pittsburgh, Pa, Jan. 2, 10. B.S, Pittsburgh, 32, M.S, 35, Ph.D, 37, M.D, 43. Instr. biol, Pittsburgh, 37–39; asst, Duquesne, 39–40; *research assoc, W. H. Singer Mem. Research Lab, Allegheny Gen. Hosp, 39–* Asn. Study Int. Secretions; Pa. Acad. Endocrinology and metabolism; sex hormones; thyroid.

Starkweather, Dr. Howard W(arner), 815 Augusta Road, Westover Hills, Wilmington, Del. *Chemistry.* Carbondale, Pa, Sept. 25, 90. B.S, Bucknell, 11, M.S, 15; A.M, Harvard, 15, fellow, 24–25, Ph.D, 25. Instr. science, Phillips Exeter Acad, 12–15; asst. prof. chem, Hobart Col, 16–18; research chemist, E. I. du Pont de Nemours and Co, 18–21; instr. chem, Brown, 21–22; Harvard, 23–24, research chemist under Milton Fund, 25–29; exp. sta, *E. I. du Pont de Nemours and Co,* 29–34, *Jackson lab,* 34–35, *head polymerization div, 35–* A.A; Chem. Soc. Atomic weights; gas densities; polymerization; high pressure reactions; neoprene; elastomers.

Starling, Dr. James H(olt), Washington and Lee University, Lexington, Va. *Ecology.* Troy, Ala, June 28, 12. A.B, Alabama, 33, A.M, 37; Ph.D, Duke, 42. *Instr. biol, Washington and Lee, 42–* Ala. Acad. Ecological and taxonomic studies of the Pauropoda of Duke forest; human intestinal protozoa; freezing myriapods for photographing.

Starr, Dr. Anna Spiesman (Mrs. Henry E. Starr), 157 College Ave, New Brunswick, N. J. *Psychology.* Olean, N. Y, Dec. 28, 91. A.B, Elmira Col, 13, L.H.D, 34; A.M, Pennsylvania, 20, Ph.D, 23. Parole officer, Glen Mills Reform Sch. for Girls, Sleighton Farm, 13–15; probation officer, Munic. Court of Phila, 15–18, psychologist, 18–25; *consulting psychologist, 25–; asst. director psychol. and mental hygiene clinic, Rutgers, 29–* A.A; Psychol. Asn; Asn. Applied Psychol. Diagnostic value of the audito-vocal digit memory span; psychology of childhood and the delinquent adolescent; clinical psychology; drawing at the preschool level.

Starr, Dr. Charles D(avid), Trinity College, Hartford, Conn. *Physical chemistry.* Mason City, Iowa, March 27, 13. A.B, Grinnell Col, 35; Ph.D, Hopkins, 39. *Instr.* physical and anal. chem, Washington and Lee, 39–40; *physical chem, Trinity Col. (Conn), 40–* Chem. Soc. Gels; adsorption.

Starr, Dr. C(hauncey), Cabin John, Md. *Physics.* Newark, N. J, April 14, 12. E.E, Rensselaer Polytech, 32, Ph.D, 35. Charles A. Coffin fellow and research fellow physics, Harvard, 35–37; with P. R. Mallory and Co, 37–38; research assoc. physical chem, Mass. Inst. Tech, 38–41; *physicist, D. W. Taylor model basin, bur. ships, U. S. Navy Dept, 41–* Physical Soc; Am. Inst. Min. and Metal. Eng. Physics of metals; magnetism; low temperatures; electronics.

Starr, Dr. David W(right), Southern Methodist University, Dallas, Texas. *Mathematics.* Anna, Texas, Dec. 8, 12. A.B, Southern Methodist, 33; A.M, Illinois, 37, fellow, 37–38, Ph.D, 40. Instr. math, high sch, Texas, 33–34, 34–37, prin, 34, asst, Illinois, 38–40; instr. *math, Southern Methodist,* 40–43, *asst. prof, 43–, ground sch. instr. aviation, 40–, coordinator, Civil Aeronaut. Admin. War Training Sch, 41–* Math. Soc; Math. Asn. The Schrodinger wave equation from the point of view of singular integral equations.

Starr, Dr. D(onald) (Fay), U. S. Department of Agriculture, Calzada Mexico-Tacuba 295, Colonia Anahuac, D. F, Mexico. *Chemistry.* Grand Island, Nebr, March 11, 08. A.B, Grand Island Col, 29; M.S, Iowa State Col, 31, fellow, 31–33, Ph.D, 33. Instr. chem, Nebr. State Sch. Agr, 29–30; asst, Inst. Paper Chem, Lawrence Col, 34; instr. chem, Iowa State Col, 34–35; senior chemist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–37, assoc. chemist, 38–43, *chemist, 43–* Chem. Soc. Synthesis, physical chemistry and toxicology of nitrogen heterocyclic compounds; biochemistry of butylacetonic fermentations; attractants for Mediterranean, melon and Mexican fruitflies; statistics of trap-data; rubber latices of Mexico.

Starr, Prof. E(ugene) C(arl), Oregon State College, Corvallis, Oregon. *Electrical engineering.* Falls City, Oregon, Aug. 6, 01. B.S, Oregon State Col, 23, E.E, 38. Mem. testing dept, Gen. Elec. Co, N. Y, 23, high voltage eng. lab, Pittsfield, Mass, 25–27; instr. *elec. eng, Oregon State Col,* 27–30, asst. prof, 31–37, assoc. prof, 37–38, *prof, 39–* Consulting elec. engineer, Bonneville Power Admin, Portland, Oregon, 39– Special adviser, Nat. Defense Research Cmt. A.A; fel. Elec. Eng. (cmt. research); Radio Eng. High-voltage corona loss measurements; high-voltage gaseous-conductor lamps; high voltage discharges; aircraft precipitation-static radio interference; lightning protection of distribution systems; series capacitors for transmission circuits.

Starr, Frank M(artin), 1769 Rugby Road, Schenectady, N. Y. *Electrical engineering.* Fowler, Colo, Feb. 26, 05. B.S, Colorado, 28, E.E, 32. *Elec. engineer,* dept. gen. eng, *Gen. Elec. Co, Schenectady,* 28–31, *dept. cent. sta. eng, 31–* Elec. Eng. Circuit analysis; substation design; economics of electric power transmission and distribution; theory of networks; analysis of appliance loads on power systems.

Starr, Prof. George Herman, University of Wyoming, Laramie, Wyo. *Plant pathology.* Bismarck, Ill, Nov. 24, 98. B.S, S. Dak. State Col, 25; M.S, Nebraska, 28; Ph.D, Minnesota, 32. Asst. Nebraska, 27–28; instr. plant path, Exp. Sta, Minnesota, 29–32; *assoc. prof. agron, Wyoming, and plant pathologist, Exp. Sta, 31–* Phytopath. Soc; Colo-Wyo. Acad. Potato, bean and alfalfa diseases.

Starr, Dr. Isaac, 505 Cresheim Valley Road, Chestnut Hill, Pa. *Medicine, Physiology, Pharmacology.* Philadelphia, Pa, March 6, 95. B.S, Princeton, 16; M.D, Pennsylvania, 20. Instr. pharmacol, *Pennsylvania,* 22–28, asst. prof. clin. pharmacol. and assoc. med, 28–33, *Hartzell research prof. therapeut, 33–* Acting physician, univ. hosp, Pennsylvania, 25–33, ward physician, 33– Revision cmt, U. S. Pharmacopoeia, 30– A.A; Am. Physicians; Physiol. Soc; Soc. Clin. Invest. (sec'y, 38, pres, 39); Col. Physicians; Soc. Pharmacol. Renal physiology; cardiac output of normal and abnormal persons; peripheral vascular disease; clinical pharmacology; therapeutic effect of choline derivatives; effect of drugs on cardiac output; physiology of congestive failure; ballisto-cardiogram; normal changes in the circulation on arising; sub and super normal circulation in clinical conditions; counter irritation; incoordination of circulation.

Starr, Dr. John V(ertrees), Standard Oil Company of New Jersey, Elizabeth, N. J. *Industrial chemistry.* Winamac, Ind, July 19, 02. A.B, Wabash Col, 24; Ph.D, Cornell, 28. Research chemist, *Standard Oil Co. of N. J,* 28–38, local manager *tech. service div,* 38–40, *manager, 40–* Chem. Soc. Semiplant scale development in lubricating oils and waxes.

Starr, Dr. L(eland) E(dson), 2004 Carter Blvd, Roanoke, Va. *Zoology, Animal pathology.* West Unity, Ohio, July 26,

89. D.V.M, M.S, Ohio State, 22; Ph.D, Virginia, 33. Lab. director, De Vine Labs, 22–25; State Bur. Animal Indust, N. J, 25–27; asst. animal pathologist, Va. Polytech, 27–37; asst. dean, sch. vet. med, Ala. Polytech, 37–41; *private practise, 41–* A.A; Vet. Med. Asn; Soc. Parasitol; Va. Vet. Med. Asn; Va. Acad. Abortion control; transmission of infectious abortion; agglutinating properties of Bacillus abortus antigen under various conditions; Brucella infection in cattle and swine and its relation to undulant fever in Virginia; mastitis in dairy cattle; etiology of neoplasms of dairy cattle.

Starr, Dr. M(erle) A(rthur), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Portland, Oregon, April 8, 11. A.B, Reed Col, 33; A.M. and Ph.D, California, 37. Research asst. physics, Washington (St. Louis), 37–39; instr, Oregon, 39–41; *Nat. Defense Research Cmt. research assoc, Mass. Inst. Tech, 41–* Physical Soc. Cosmic ray showers; nuclear and atomic physics.

Starr, Dr. Mortimer P(aul), Brooklyn College, Brooklyn, N. Y. *Bacteriology.* New York, N. Y, April 13, 17. A.B, Brooklyn Col, 38; M.S, Cornell, 39, Ph.D, 43. *Instr. bacter, Brooklyn Col, 39–* Phytopath. Soc; Soc. Bact. (sec'y-treas, New York branch, 42–). Lipase activity; physiology and taxonomy of phytopathogenic bacteria.

Starr, Victor P(aul), University of Chicago, Chicago, Ill. *Meteorology.* Dover, Del, March 23, 09. A.B, N. Y. State Teachers Col, 30; M.S, Mass. Inst. Tech, 38. Asst. meteorologist, U. S. Weather Bur; *instr. meteorol, Chicago.* Dynamic meteorology in relation to weather forecasting.

Starrett, Ruth C(olvin), U. S. Department of Agriculture, Bethesda, Md. *Plant pathology.* Flora, Ind, Feb. 19, 93. A.B, Indiana, 14, A.M, 16; Maryland, 30. Asst, Indiana, 15–16; teacher, high sch, 16–19; sci. asst, cotton and truck cereal office, *U. S. Dept. Agr,* 19–23, junior plant pathologist, office of fruit disease investigations, 23–25, *asst. plant cytologist, div. sugar plant investigations, bur. plant indust, 25–* Phytopath. Soc. A new host of sugar beet curly-top; flower and seed of sugar cane and sugar beet; suberization and wound periderm formation as affected by temperature and relative humidity; histology and cytology of sugar beet seedlings with curly-top.

Starring, C(larence) C(ecil), Soil Conservation Service, Bethesda, Md. *Horticulture.* Iowa, 87. B.S, S. Dak. State Col, 11; M.S, California, 23. Idaho, 11–12; horticulturist, Hood River Exp. Sta, 13–14; asst, Exp. Sta, Mont. State Col, 15, asst. horticulturist, 15–26, assoc. horticulturist, 27–34; *assoc. forester, soil conservation service, U. S. Dept. Agr.* Soc. Hort. Sci. (sec'y, Great Plains sect, 31); Potato Asn; Northwest. Asn. Hort, Entom. and Plant Path; Mont. Potato Improv. Asn. Rooting of cuttings; premature seeding of celery; vegetable transplants; factors influencing productiveness of potatoes.

Stasney, Dr. Joseph, Jefferson Medical College, Philadelphia, Pa. *Pathology, Hematology.* Budapest, Hungary, May 12, 04. M.D, Royal Hungarian Univ, 29; Mayo Foundation fellow, Minnesota, 34–37, M.S, 37. Asst, path. inst, Hamburg, 31–32; asst, Michael Reese Hosp, Chicago, Ill, 32–33; teaching fellow, post-grad. sch, Minnesota, 33–34; instr. path. and bacter, med. sch, Louisiana, 37–42; *asst. prof. path, Jefferson Med. Col, 42–* Soc. Exp. Biol. Blood in experimental cirrhosis of the liver; infectious mononucleosis; cytology of bone marrow; production of leucomoid reaction; lymphoblastoma; effect of anti-anemic principles upon immature erythrocytes.

State, Dr. Harold M, Allegheny College, Meadville, Pa. *Analytical chemistry.* Washington, Mo, April 15, 10. A.B, Cent. Col. (Mo), 32; A.M, Princeton, 35, Ph.D, 36. Asst. prof. *chem,* Culver-Stockton Col, 36–37; instr, *Allegheny Col,* 37–40, *asst. prof, 40–* Visiting asst. prof, Illinois, 40–41. Chem. Soc. Use of Werner complexes in analytical chemistry.

Staten, Prof. Hi W(illiamson), 724 McElroy St, Stillwater, Okla. *Agronomy.* Pikeville, Ky, Oct. 29, 95. B.S, Okla. Agr. and Mech. Col, 24, M.S, 30. Teacher sch, Okla, 24–25; plant breeder, Commercial Seed Co, Okla, 25–26; county agr. agent, Okla, 26–28; cotton breeder and technologist, Texas, 28–29; asst. prof. agron. and research specialist, Okla. Agr. and Mech. Col, 30–36; soil conservation service, U. S. Dept. Agr, 36–37; asst. prof. agron. and research cotton technologist, *Okla. Agr. and Mech. Col,* 37–41, *prof. agron. and research specialist forage crops and pastures, 41–* Soc. Agron. Factors affecting quality of cotton fibers; grasses in erosion control; teaching general field crops; soil conservation of the Great Plains states; effect of carbon disulphide on milling and baking quality of wheat.

States, Dr. M(arshall) N(ey), Central Scientific Co, 1700 Irving Park Blvd, Chicago, Ill. *Physics.* Punxsutawney, Pa, Jan. 13, 93. B.S, Pittsburgh, 16; Ph.D, Chicago, 22. Instr. physics, Kentucky, 16–19; asst. prof. math, Mercer, 19–20; asst. physics, Chicago, 20–22; assoc. prof, Kentucky, 22–29, prof, 29–31; *director research and develop, Cent. Sci. Co, 31–* A.A; Physical Soc; Asn. Physics Teachers (exec. cmt, 30–31); Optical Soc. Kinetic theory; coefficients of viscosity and slip in gases; high vacuum.

Staub, Prof. Hans Heinrich, Stanford University, Calif. *Physics.* Zurich, Switzerland, Jan. 20, 08. Sc.D, Tech. Hochschule Zurich, 34; Int. exchange student, Calif. Inst. Tech, 37–38. Asst. *physics,* Zurich, 31–37; instr, *Stanford,* 38–41, *asst. prof, 41–* Physical Soc. Solid state nuclear physics.

Stauber, Dr. Leslie A(lfred), Squibb Institute for Medical Research, New Brunswick, N. J. *Biology.* Newark, N. J, June 6, 07. B.S, Rutgers, 29, M.S, 30; Logan fellow, Chicago, 31, 32, Ph.D, 37. Asst, malaria studies, Panama, 31; asst. biologist, oyster research lab, N. J. Exp. Sta, 35–43; *assoc, div. pharmacol, Squibb Inst. Med. Research, 43–* A.A; Soc. Parasitol; Soc. Trop. Med; Limnol. Soc; Shellfisheries Asn. (sec'y, 38–40, v. pres, 40–42). Avian malaria; marine zoology; parasitology; problems of the oyster and its associates.

Staud, Dr. Cyril Jerome, 203 Rutgers St, Rochester, N. Y. *Organic chemistry.* Rochester, N. Y, Oct. 29, 98. B.S, Rochester, 20, M.S, 22; Ph.D, Mass. Inst. Tech, 24. Asst. to Dr. S. P. Mulliken, Mass. Inst. Tech, 23; *research chemist, Eastman Kodak Co, 24–,* sec'y cellulose div, 27–31, *in charge emulsion research lab, 31–* Ordnance Dept, U.S.A, 22. A.A; Chem. Soc. (sec'y, cellulose div, 27–31). Cellulose and its derivatives; photographic emulsions.

Stauffer, Dr. Charles H(enry), 8 Blair St, Worcester, Mass. *Physical chemistry.* Harrisburg, Pa, April 17, 13. A.B, Swarthmore Col, 34; A.M, Harvard, 36, Ph.D, 37. Lab. asst. org. chem, Harvard, 34–36; instr. *chem, Worcester Polytech,* 37–43, *asst. prof, 43–* Asst. prof. affiliate, Clark, 41. Chem. Soc. Enolization of some unsymmetrical ketones; the gaseous formation and decomposition of some tertiary alkyl halides.

Stauffer, Dr. Clinton R(aymond), University of Minnesota, Minneapolis, Minn. *Geology.* Polo, Ill, Oct. 2, 75. B.S, Ohio State, 03, A.M, 06; fellow, Chicago, 07–09, Ph.D, 09. Prin, high sch, Ohio, 03–05; instr. *geol,* Ohio State, 06–07; Western Reserve, 09–10; asst. prof, Sch. Mining, Kingston, Ont, Can, 10–11; assoc. prof, Western Reserve, 11–14; *Minnesota,* 14–17, *prof, 17–* Asst. geologist, Ohio Geol. Surv, 07–10, 13–17; Geol. Surv. Can, 10–13; Minn. Geol. Surv, 21–; petrol. geologist, Greenwood Co, 17–19. A.A; fel. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Paleont. Soc; Min. and Metal. Eng; fel. Ohio Acad; Minn. Acad. The middle Devonian of Ohio; geology of the Columbus region; the Devonian of southwestern Ontario, Minnesota and California; the Dunkard series of Ohio; the Jordan sandstone; limestones of Minnesota; Ordovician, Devonian and Pennsylvanian conodonts; Paleozoic of southeastern Minnesota.

Stauffer, Dr. J(ames), Earlville Road, Hamilton, N. Y. *Genetics.* Butler, Pa, April 27, 02. A.B, Michigan, 22, A.M, 28; Ph.D, Cornell, 34. Instr, Berea Col. (Ky), 26–28; *biol, Colgate, 30–* A.A; Genetic Asn. Human genetics.

Stauffer, Dr. J(ohn) F(rederick), University of Wisconsin, Madison, Wis. *Plant physiology.* Vance, Miss, July 24, 07. B.S, Miss. Col, 28, M.S, 30; Ph.D, Wisconsin, 33. Instr. *bot,* Miss. Col, 28–29, asst. prof, 29–30; asst, *Wisconsin,* 30–34, instr, 34–37, *asst. prof, 37–* Bot. Soc; Wis. Acad. Photosynthesis and respiration.

Stauffer, Dr. L(ynn) H(ughes), General Electric Co, Schenectady, N. Y. *Physics.* Mendon, Utah, Feb. 1, 06. B.S, Utah Col, 27; Ph.D, California, 30. Teaching fellow, California, 27–30; asst. prof. physics, Idaho, 30–41; *develop. engineer, eng. lab, Gen. Elec. Co, 41–* Elec. Eng; Physical Soc. Soils physics; electro-optics; electronics; acoustics.

Stauffer, Dr. R(obert) Eliot, 353 Oakridge Drive, Rochester, N. Y. *Physical chemistry, Photographic chemistry.* Chicago, Ill, June 9, 13. A.B, Mt. Union Col, 32; A.M, Harvard, 34, Ph.D, 36. *Research chemist, Eastman Kodak Co, 36–* Chem. Soc. Viscosity and other properties of strong electrolytes;

acid-base and related properties of proteins; chemistry and physics of photographic emulsions.

Stauffer, Dr. R(ussell) S(cott), R.F.D. 1, Urbana, Ill. *Agronomy.* New Bethlehem, Pa, April 16, 89. B.S, Pa. State Col, 17; M.S, Illinois, 23, Ph.D, 33. Teacher, rural schs, Pa, 07–09, high sch, 11–13, farmer, 19–21, teacher, sch, Pa, 21–22; asst. *soil physics, Illinois,* 23–24, asst. and instr, 24–26, assoc, 26–39, *asst. prof, 39–* Lieut, U.S.A, 17–19. Soc. Agron; Soil Sci. Soc; Geophys. Union. Soils; soil physics; origin, formation, water movement and conservation of soils.

Stauss, Dr. H(enry) E(manuel), Baker and Co, Murray and Austin Sts, Newark, N. J. *Physics, Metallurgy.* St. Louis, Mo, May 26, 02. A.B, Washington (St. Louis), 23; A.M, California, 25, Ph.D, 27. Instr, Nebraska, 27–29; nat. research fellow, Chicago, 29–30; *physicist, Baker and Co, 30–; chief rare metals sect, miscellaneous minerals div, War Production Board, 42–* Assoc. Physical Soc; Min. and Metal. Eng. Reflection and refraction of x-rays; physics and metallurgy of precious metals.

Stavely, Dr. F(rederick) W(alter), 208 Overwood Road, Akron, Ohio. *Chemistry.* Lyndon, Kans, July 17, 94. A.B, Sterling Col, 16; M.S, Chicago, 17, Ph.D, 22. Research chemist, U. S. Rubber Plantation Co, D. E. I, 17–21; *Firestone Tire and Rubber Co,* Akron, 22–28, sales, 32–34, develop. and control depts, Los Angeles, 28–32, sales, 34–38, personnel director, *Akron,* 38–42, *develop. self sealing fuel cells, 42–* Chem. Soc. The behavior of mercuric salts of organic acids towards heat; latex; cord tire fabrics; rubber technology.

Stavely, Dr. H(omer) E(aton), Squibb Institute for Medical Research, New Brunswick, N. J. *Chemistry.* Junction City, Kans, July 18, 07. A.B, Redlands, 29; fellow, Arizona, 29–31, M.S, 31; Ph.D, Iowa State Col, 35. Instr. chem, Arizona, 30–31; asst, Iowa State Col, 32–35; research fellow, Yale, 35–38; *assoc. chemist, div. org. chem, Squibb Inst. Med. Research, 38–* Chem. Soc. Biochemistry; chemical aspects of cancer; steroids; hormones; organic chemistry.

Stavsky, Dr. William Harold, Children's Service Center, Wilkes-Barre, Pa. *Psychology.* Kobryn, Poland, May 25, 07. B.S, Harvard, 29, A.M, 31, Ph.D, 32. Instr. psychol, Harvard and Radcliffe Col, 32–37; *psychologist,* Worcester Child Guidance Clinic, 37–38; *Children's Service Center, Wilkes-Barre, 38–; lieut, Adj. Gen. Dept, U. S. Army, 42–* Animal tropisms and learning; child psychology.

Steacle, Dr. E(dgar) W(illiam) R(ichard), National Research Laboratories, Ottawa, Ont, Can. *Physical chemistry.* Westmount, Que, Dec. 25, 00. B.Sc, McGill, 23, M.Sc, 24, Nat. Research Council Can. student, 25–26, Ph.D, 26. Demonstrator chem, McGill, 23–25, Sterry Hunt fellow, 26–28, lecturer, 28–30, asst. prof, 30–37, assoc. prof, 37–39; *director div. chem, Nat. Research Labs, Ottawa, 39–* Research fellowship, Frankfurt and Leipzig, 34–35, King's Col. London, 35. Fel. Royal Soc. Can. Chemical kinetics; photochemistry.

Stead, Dr. Eugene A(nson), Jr, Grady Hospital, 50 Armstrong St, Atlanta, Ga. *Medicine.* Atlanta, Ga, Oct. 6, 08. B.S, Emory, 28, M.D, 32; fellow, Harvard, 33–34. Med. intern, Peter Bent Brigham Hosp, 32–33, surg. intern, 34–35, assoc. med, 39–42, acting physician in chief, 42; instr. *med,* Cincinnati, 35–37; asst, Harvard Med. Sch, 37–39, instr, 40–41, assoc, 41–42; *prof, med. sch, Emory, 42–* Asst. res, Cincinnati Gen. Hosp, 35–36, res, 36–37; res. physician, Thorndike Mem. Lab, and asst, Boston City Hosp, 37–39; physician in chief, univ. div, Grady Hosp, 42– Soc. Clin. Invest. Normal and abnormal physiology of the cardiovascular system.

Stead, Frank W(alter), 66 E. 83rd St, New York, N. Y. *Geology.* New York, N. Y, March 24, 12. B.S, Col. City of N. Y, 35; A.M, Columbia, 37. Tutor geol, Col. City of N. Y, 37–38; instr, Lehigh, 41; *junior geologist, U. S. Geol. Surv, 42–* Miner. Soc; N. Y. Acad. Stratigraphy of Lake Champlain region.

Steadman, Dr. L(uville) T(aylor), University of Rochester, Rochester, N. Y. *Physics.* Billtown, N. S, Can, Dec. 22, 04. B.A, Acadia, 25; fellow, Yale, 25–26, Ph.D, 29. Reader physics, Yale, 26–27, asst, 27–29; instr, *Rochester,* 29–35, asst. radiol, *sch. med. and dentistry,* 35–37, research fellow, 37–39, research assoc, 39–43, *assoc. radiol, 43–* Physical Soc; Optical Soc; Asn. Physics Teachers. Radioactivity; electronics; spectrochemical analysis.

Steadman, Dr. Thomas R(ee), B. F. Goodrich Co, 500 S. Main St, Akron, Ohio. *Organic chemistry.* Erie, Pa, March 15, 17. B.S, Rensselaer Polytech, 37; A.M, Harvard, 38, Ph.D, 41. Assoc. chemist, Hormel Research Foundation, Minnesota, 40–41; *research chemist, B. F. Goodrich Co, 41–* Chem. Soc. Stereochemistry; chemistry of glycerides and of vinyl polymers.

Steagall, Dr. Mary M(inerva), Southern Illinois State Normal University, Carbondale, Ill. *Zoology.* Golconda, Ill, Nov. 22, 67. B.Ed, Chicago, 05, Ph.B, 06, M.S, 24, Ph.D, 26. Teacher, schs, 86–98; critic teacher, Mich. State Nor. Col, 00–08; *South. Ill. State Nor. Univ,* 08–12, teacher science, 12–18, *zool,* 18–38, *head dept, 38–* A.A; Ecol. Soc; Ill. Audubon Soc; Ill. Acad. (sec'y, 24). Bryophytes; pteridophytes; ferns of southern Illinois; distribution of Illinois ferns; soil acidity; earthworms; objects of scientific interest found in Giant City State Park in southern Illinois.

Steahly, Dr. George W(ayne), 5716 Lansdowne Ave, St. Louis, Mo. *Organic chemistry.* Portsmouth, Ohio, Oct. 26, 17. A.B, Ohio State, 37; A.M, Nebraska, 39, Avery fellow, 40–41, Ph.D, 41. Asst, Nebraska, 37–40; *research chemist, Monsanto Chem. Co, 41–* Chem. Soc. Action of diazomethane on fully acylated sugar acid chlorides.

Stearn, Prof. Allen E(dwin), 10 Sunset Hill, Columbia, Mo. *Physical chemistry, Bacteriology.* Lafayette, Ind, Sept. 14, 94. A.B, Stanford, 15, A.M, 16; fellow, Illinois, 16, M.S, 17, Ph.D, 19. Asst. chem, Stanford, 14–15; Illinois, 17–18, instr, 19–20; asst. prof. physical chem, West Virginia, 20–21; *chem, Missouri,* 21–25, assoc. prof, 25–37, *prof. and chairman dept, 37–* Research fellow, Calif. Inst. Tech, 24, research assoc, 25. Summers, plant chemist, Mallinckrodt Chem. Works, 15–25, 31. A.A; Chem. Soc. (sec'y, Univ. Mo. sect, 27, pres, 29); Electrochem. Soc; Soc. Bact; Pub. Health Asn. Chemotherapy; bacteriophysics; biophysical equilibria; stoichiometry in biological reactions; oxidation-reduction potentials; aqueous solutions; physicochemical behavior of living cells and of cell constituents; reaction kinetics.

Stearn, Dr. Esther W(agner) (Mrs. Allen E(dwin) Stearn), Christian College, Columbia, Mo. *Bacteriology.* Decatur, Ill, Sept. 14, 97. Lewis Inst. (Ill), 16; A.B, Illinois, 19, M.S, 21; Ph.D, Missouri, 27. Asst. bacteriologist, Water Surv, Ill, 18; bacteriologist, State Board Health, 19; instr. chem, West Virginia, 20; Missouri, 21–22; State Pub. Health Lab, Mo, 22; *head dept. science, Christian Col, 23–* Hon. fellow, Missouri, 31–36. Research bacteriologist, Pasadena Hosp, 24–25. Soc. Bact; Pub. Health Asn. Mutation; life cycles of bacteria; staining; dye therapy; physicochemical behavior of bacteria.

Stearn, Dr. John T(heodore), 4528 S. Rocheblave St, New Orleans, La. *Chemistry.* Townline, N. Y, June 24, 97. C.E, Swiss Polytech, 22, Sc.D, 23. Asst, anal. dept, Swiss Polytech, 22–24; physical chemist, Plaut research lab, Lehn and Fink, Inc, N. J, 24–26; chemist in charge, Monsanto Chem. Works, 26–29; fellow, Mellon Inst, 29–31; chief chemist, Plaskon Co, 31–32; fellow, Mellon Inst, 32–36; *with* United Gas Improv. Co, 36–37; *U. S. Dept. Agr, 37–, chemist, south. regional research lab, bur. agr. chem. and eng.* Chem. Soc; Chem. Eng. Industrial chemistry; molding plastics; hydrocarbon resins; cotton finishing; rubber replacement.

Stearn, Dr. Noel H(udson), 4525 Fair Ave, St. Louis, Mo. *Geology.* Lafayette, Ind, Sept. 23, 96. A.B, Stanford, 17, A.M, 18; Ph.D, Wisconsin, 26. Chief field party, Wis. Geol. Surv, 21–23; D. M. and M. Co, 24–25; instr, Wisconsin, 24–26; chief geophys. div, W. C. McBride, Inc, 26–30, chief geologist, *W. C. McBride, Inc,* 30–40, *v. pres, 40–;* chief geologist, Silurian Oil Co, 30–40; v. pres, *Southwest. Quicksilver Co,* 31–42, *pres, 42–* Geol. subcmt, Nat. Research Council advisory cmt. for A Century of Progress Expos, Chicago, 33. A.A; Geol. Soc; Asn. Petrol. Geol; Soc. Explor. Geophys; Soc. Econ. Geol; Min. and Metal. Eng; Geophys. Union; St. Louis Acad; Mo. Acad. Geomagnetics; mid-continent stratigraphy.

Stearnes, Dr. R(eaumur) C(oleman), 7 Surrey Lane, Hempstead, L. I, N. Y. *Mathematics.* Dublin, Va, April 8, 66. A.B, A.M, Richmond, 87; A.M, Columbia, 25; Ph.D, N. Y. Univ, 36. Instr. math. and chem, Alleghany Inst. (Va). 87–91; div. supt. schs, Va, 92–06, sec'y, State Board Educ, 06–13, state supt. pub. instruction, 13–18; war camp community service rep. in south. states, 18–21; instr. math, N. Y. Univ, 25–39. Chairman exec. cmt, Cooperative Educ. Asn, Va, 13–18; mem. board visitors, Virginia, Va. Mil. Inst, Va. Polytech, Sch. Deaf and Blind and state teachers cols, 13–18. Mathematical statistics; school administration; teaching mathe-

matics for the practical and recreational stimulation of its general appeal.

Stearns, Dr. A(lbert) Warren, Billerica, Mass. *Psychiatry.* Billerica, Mass, Jan. 26, 85. M.D, Tufts Col, 10, hon. Sc.D, 43. Intern, Boston City Hosp, 10; asst. physician, Danvers State Hosp, 11; asst. *neur, Tufts Col,* 11–16, asst. prof, 16–27, assoc. prof, 27–29, *prof, 29–, dean med. sch,* 27–; *commander, Med. Corps, U. S. Naval Res.* First asst. physician, Boston Psychopathic Hosp, 12–15; fellow, Harvard Med. Sch, 13–17; physician and psychiatrist, various institutions. State commissioner correction, Mass, 29–32, assoc. state commissioner mental diseases, 35– Gold medal, Pan-Pacific Expos, 15. Psychiat. Asn; Psychopath. Asn; Am. Med. Asn; Inst. Criminal Law and Criminol; Prison Asn; Am. Acad; Mass. Psychiat. Soc. (pres, 31); Boston Soc. Psychiat. and Neur. (pres, 34). General and social psychiatry; criminology; personality of criminals.

Stearns, Dr. Carl L(eo), Wesleyan University, Middletown, Conn. *Astronomy.* Westbrook, Maine, Sept. 14, 92. A.B, Wesleyan, 17; Ph.D, Yale, 23. Asst, Dudley Observatory, Union (N. Y), 17–18; instr. math. and astron, Wesleyan, 18–20; asst, observatory, Yale, 20–25; research assoc, Van Vleck Observatory, *Wesleyan,* 25–42, *assoc. prof. astron, 42–* Visiting instr, Trinity Col. (Conn), 40–41. A.A; Astron. Soc. Stellar photometry and parallax.

Stearns, Charles E(dward), Billerica, Mass. *Geology.* Billerica, Mass, Jan. 20, 20. A.B, Tufts Col, 39; Calif. Inst. Tech, 39–40; A.M, Harvard, 42. Instr. geol, Tufts Col, 41–42; *ensign, A-V(S), U. S. Naval Res, 42–* Physiography.

Stearns, Prof. Genevieve, Children's Hospital, Iowa City, Iowa. *Biochemistry.* Zumbrota, Minn, Dec. 24, 92. B.S, Carleton Col, 12; M.S, Illinois, 20; Ph.D, Michigan, 28. Teacher, high sch, 12–18; asst. chem, Illinois, 18–20; research assoc. child welfare, *Iowa,* 20–25, *pediat,* 27–30, research asst. prof, 30–31, research assoc. prof, 31–43, *research prof, 43–* Mineral metabolism during growth.

Stearns, Dr. Harold T(hornton), 333 Federal Bldg, Honolulu, Hawaii. *Geology.* Wallingford, Conn, Aug. 25, 00. B.S, Wesleyan, 21; Ph.D, George Washington, 26. Asst. geol, Wesleyan, 19–21; mineral examiner, Gen. Land Office, 21–23; asst. geologist, *U. S. Geol. Surv,* 23–26, assoc. geologist, 26–29, geologist, 29–36, *senior geologist, 36–, in charge Hawaiian ground-water investigations, in charge Pacific investigations, 43–* Summers, field asst, Conn. Geol. and Nat. Hist. Surv, 19–21; sci. exped, 24, 25; consultant for Armed Forces at Pacific Bases, 43. Geol. Soc; Seismol. Soc; Geophys. Union; Geol. Soc. Wash; Hawaiian Acad. Volcanology; ground water; geology of dam and reservoir sites.

Stearns, Prof. Howard O(liver), 80 Prospect St, Wellesley Hills, Mass. *Physics.* Haverhill, Mass, Sept. 20, 91. B.S, Dartmouth Col, 15, M.S, 17; Hopkins; Yale; Harvard. Asst. physicist, Bur. Standards, 18–19; physicist, Mayo Clinic, 19–24; asst, Yale, 24–25; *asst. prof. physics, Simmons Col, 25–* Consultant physicist, Mass. Gen. Hosp, 28–35. A.A; Asn. Physics Teachers. Air speed indicators; radium.

Stearns, Prof. J(oyce) C(lennam), 2153 S. St. Paul, Denver, Colo. *Physics.* Meadville, Mo, June 23, 93. A.B, Kingfisher Col, 17; M.S, Chicago, 25, Ph.D, 29. Instr. *physics,* Albion Col, 23–25; asst, Chicago, 26–29; prof, *Denver,* 29–40, *chairman dept, 41–; mem. staff metal. lab, Chicago, 42–* A.A; Physical Soc; Asn. Physics Teachers. Viscosity of air and relative humidity; ferro-magnetism; cosmic ray intensity; solar component of cosmic rays; east-west asymmetry of cosmic ray shower radiation and production; effects of temperature on Geiger counter efficiency.

Stearns, Prof. Louis A(gassiz), University of Delaware, Newark, Del. *Entomology.* Holden, Mass, Sept. 28, 92. A.B, Ohio Wesleyan, 15; M.S, Ohio State, 17, Ph.D, 28. Asst. zool. and entom, Ohio State, 15–17; prof. and acting head dept. biol, Alma Col, 17–18; asst. entomologist, State Crop Pest Cmn, Va. and Exp. Sta, 18–19, assoc. state entomologist, 19–24; asst. and assoc. prof. entom, Va. Polytech, 19–24; asst. entomologist, N. J. Exp. Sta, 24–27; Ohio Exp. Sta, 27–29; *prof. research and exten. entom. and head dept, Exp. Sta, Delaware, 29–; major, Sanit. Corps, U. S. Army, 42–* Summers, field asst, bur. entom, U. S. Dept. Agr, 16–18. Entom. Soc; Asn. Econ. Entom. (v. pres, 32, 34, chairman, exten. sect, 32, east. branch, 34); East. Asn. Mosquito-Control Workers (pres, 41, 42). Systematic and economic entomology; Hemiptera; Homoptera; insects and insecticides.

Stearns, Dr. Norah Dowell, 916 17th N.W, Washington, D. C. *Geography, Geology.* Ogden, Utah, June 14, 91. Ph.B, Brown, 13, A.M, 14, Ph.D, 16. Instr. psychol, pedag. and geog, N. H. State Nor. Sch, Plymouth, 16–17; asst. geol, Smith Col, 17–18, instr, 18–20; asst. geologist, U. S. Geol. Surv, 20–26; *special research, 26–; free lance writer; geologist, U. S. Geol. Surv, 43–* Geographer, Office Strategic Services, 42–43. Ground-water hydrology; volcanology; popularization of geology.

Stearns, Dr. T(homas) W(esley), Iowa State College, Ames, Iowa. *Biochemistry.* New York, N. Y, June 17, 09. B.S, Florida, 34, Naval Stores fellow, 34–35, M.S, 37; Ph.D, Minnesota, 40. Research chemist, Florida, 36–37; asst. Brucella, Minnesota, 38–39; *asst. prof. vet. research, Iowa State Col, 40–* Chem. Soc. Physico-chemistry of Brucella; biochemistry of animal diseases.

Stebbins, Dr. G(eorge) Ledyard, Jr, University of California, Berkeley, Calif. **[7]** *Botany.* Lawrence, N. Y, Jan. 6, 06. A.B, Harvard, 28, A.M, 29, Ph.D, 31. Asst. bot, Harvard, 30–31; instr. biol, Colgate, 31–35; junior geneticist, *Exp. Sta, California,* 35–39, asst. prof. *genetics,* 39–40, *assoc. prof, 40–* Bot. Soc; Genetics Soc; Calif. Bot. Soc; New Eng. Bot. Club. Systematic revision of species of Calamagrostis; cytology of normal and parthenogenetic species of Antennaria; cytology of Paeonia; taxonomy and cytology of Crepidineae; cytogenetics of forage grasses.

Stebbins, Prof. Joel, Washburn Observatory, University of Wisconsin, Madison, Wis. **[8]** *Astronomy.* Omaha, Nebr, July 30, 78. B.S, Nebraska, 99, 99–00, LL.D, 40; Wisconsin, 00–01, Sc.D, 20; fellow, Lick Observatory, California, 01–03, Ph.D, 03; Munich, 12–13. Instr. *astron,* Illinois, 03–04, asst. prof, 04–13, *prof,* 13–22; *Wisconsin, and director, Washburn Observatory, 22–; research assoc, Mt. Wilson Observatory, Carnegie Institution, 31–* Eclipse exped, Labrador, 05; Wyo, 18; Calif, 23; Conn, 25; N. H, 32; Peru, 37. Rumford, Draper and Bruce medals. Nat. Acad; A.A. (v. pres, D, 20); Astron. Soc. (sec'y, 18–27, v. pres, 30–32, pres, 40–); Physical Soc; Optical Soc; Philos. Soc; Am. Acad; for. assoc. Royal Astron. Soc. Stellar photometry; variable stars; interstellar absorption.

Stebinger, Eugene, 30 Rockefeller Plaza, New York, N. Y. *Geology.* Portland, Oregon, Oct. 19, 83. California, 02–05; B.S, Chicago, 07. Asst, U. S. Geol. Surv, 07–09; instr. geol, Hunter Col, 10–11; geologist, U. S. Geol. Surv, 11–20; chief geologist, Standard Oil Companies of Argentina and Bolivia, 20–28; pres, Standard Oil Co. of Bolivia, 29–33; *chief geologist, Standard Oil Co. of N. J, 33–* A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng. Structure of the South American Cordillera; petroliferous formations of South America.

Stebnitz, Dr. V(irgil) C(harles), Chicago Dairy and Food Products Laboratories, 6930 N. Clark St, Chicago, Ill. *Dairy industry.* Arena, Wis, Dec. 2, 00. Wis. State Teachers Col, 24; B.S, Wisconsin, 31, M.S, 32, Ph.D, 35. Asst. dairy indust, Wisconsin, 30–37; director research, Beatrice Creamery Co. 37–39; *owner and director, Chicago Dairy and Food Products Labs, 39–* Dairy Sci. Asn. Condensed milk; oxidation of butter fat.

Stechschulte, Rev. Dr. V(ictor) C(yril), S.J, Xavier University, Cincinnati, Ohio. *Seismology.* Leipsic, Ohio, Oct. 2, 93. A.B, St. Louis, 18, A.M, 19, M.S, 20; Ph.D, California, 32. Instr. physics, St. Mary's Col. (Kans), 20–23; asst. seismol, St. Louis, 26–27; assoc, California, 28–29; *prof. physics and director seismol. observatory, Xavier (Ohio), 32–* Seismol. Soc. (v. chairman, east. sect, 32, chairman, 33); Geophys. Union (v. pres, sect. seismol, 41–); Math. Soc. Deep focus earthquakes; interior of the earth.

Steck, Dr. Edgar A(lfred), 411 State St, Albany 6, N. Y. *Organic chemistry.* Philadelphia, Pa, Dec. 24, 18. A.B, Temple, 39; N. Y. Univ, 39; Chicago, 39–40; Merck fellow, Pennsylvania, 40–41, M.S, 41, Ph.D, 42. *Research org. chemist, Winthrop Chem. Co, 42–* A.A; Chem. Soc; Franklin Inst. Heterocyclic compounds; medicinals.

Steck, Dr. I(rving) E(lihu), 6 N. Michigan Ave, Chicago, Ill. *Physiology.* Poland, Dec. 29, 03. B.S, Illinois, 30, M.S, M.D, 33. Asst. and *instr. physiol. and instr. med, col. med, Illinois, 33–* Vitamin D, its effects on metabolic rate and on arthritis and serum phosphatase; vitamin D intoxication; effect of carbon dioxide inhalation on the peripheral blood flow in the normal and sympathectomized patient; effect of the

inhalation of gases with a low oxygen and an increased carbon dioxide tension on the peripheral blood flow in man.

Steckbeck, Prof. D(avid) Walter, University of Pennsylvania, Philadelphia, Pa. *Botany.* Lebanon, Pa, Aug. 14, 80. B.S, A.M, Pennsylvania, 11, Ph.D, 15. Asst. *bot, Pennsylvania,* 09–11, instr, 11–17, asst. prof, 17–35, *assoc. prof, 35–* Lecturer, Pa. Sch. Hort, 14–18; arboretum, Barnes Foundation, 41– A.A; Bot. Soc. Sensitive plants; plant anatomy; morphology of angiosperms; plants poisonous to livestock.

Steckel, Dr. H(arry) A, Syracuse University College of Medicine, Syracuse, N. Y. *Psychiatry.* Catasauqua, Pa, Dec. 13, 86. M.D, Pennsylvania, 10. Intern, St. Francis Gen. Hosp, Trenton, N. J, 10–11; res. physician, N. J. State Hosp, 11; Mt. Pleasant State Hosp, Iowa, 12; intern, res. physician and senior asst. physician, Kings Park State Hosp, N. Y, 12–24; senior asst. physician, Binghamton State Hosp, N. Y, 24–25, director clin. psychiat, 25–29; supt, Newark State Sch. for Mental Defectives, N. Y, 29–30; *prof. psychiat, col. med, Syracuse, and director, Syracuse Psychopathic Hosp, 30–* Lecturer, Elmira Col, 26–31. Cmt. neuropsychiat, Nat. Research Council. Div. psychiatrist, 26th Div, U.S.A, 18–19. Psychiat. Asn. (chairman mil. mobilization cmt); Asn. Mil. Surg; Nat. Cmt. Mental Hygiene; Broome County Med. Soc. (treas, 28).

Steckel, Dr. Minnie L(ouise), Alabama College, Montevallo, Ala. *Psychology.* Woodbine, Kans, March 19, 90. A.B, Kansas, 17; A.M, Chicago, 25, Ph.D, 29. Prin, high schs, Kans. and Iowa, 14–24; sch. supt, Iowa, 24–26; N. Dak. State Teachers Col, 26–27; psychologist, clinic, Sioux City, 27–29; *student counselor, Ala. Col, 29–* Assoc. Psychol. Asn; South. Psychol. Asn. Intelligence and birth order in families; parental age and intelligence of the offspring; the restandardization of the intelligence quotient of different tests; mentally defective girls; Gesell's development schedule scaled; occupational status of Alabama business and professional women.

Steckle, Prof. L(ynde) C(harles), Denison University, Granville, Ohio. *Psychology.* Dalton, N. Y, July 29, 07. A.B, Miami (Ohio), 33; A.M, Ohio State, 34, Ph.D, 37. Teaching asst. *psychol,* Ohio State, 34–39; asst. prof, *Denison,* 39–43, *assoc. prof. and head dept, 43–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Animal and human learning; conditioning; animal social behavior.

Stedman, Dr. C(ecil) K(ingsley), Boeing Aircraft Co, Seattle, Wash. *Physics.* Sept. 4, 08. M.S, Purdue, 31, Ph.D, 36. Instr. physics, Purdue, 35–38, asst. prof, 38–41; special research assoc, Harvard, 41–43; *physicist, Boeing Aircraft Co, 43–* Applied physics; electronics; acoustics.

Stedman, Dr. D(onald) F(rank), National Research Council, Ottawa, Ont, Can. *Physical chemistry.* Sussex, Eng, April 4, 00. B.A, British Columbia, 22; 1851 Exhib. scholar, Toronto, 22; Ph.D, London, 25. Chemist, Trail Smelter, Consol. Mining and Smelter Co, 18–26; mem. dept. electrochem, Toronto, 28–30; *physical chemist, Nat. Research Council, Ottawa, 30–* Synthesis of formaldehyde; chemistry of slags; high temperature furnaces; fractionating columns; separation of isotopes; structure of rubber; sea-water stills; physics of frost formation.

Stedman, J(ohn) M(oore), 48 Mountainview St, Springfield, Mass. *Entomology.* Brockport, N. Y, Nov. 2, 64. B.S, Cornell, 88. Instr. entom. and invert. zool, Cornell, 88–90; biologist, U. S. Dept. Agr, 90–91; prof. biol, Trinity Col. (N. C), 91–93; prof. biol, Ala. Polytech, and biologist, Exp. Sta, 93–95; prof. entom, Missouri, and entomologist, Exp. Sta, 95–07; exten. specialist, U. S. Dept. Agr, 07–34; *retired.* A.A; Micros. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Economic entomology; biological entomology; biology.

Steece, Henry M(ortimer), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Burlington, Iowa, July 1, 92. B.S, Louisiana, 13; A.M, George Washington, 22. Cotton and corn investigations, bur. plant indust, *U. S. Dept. Agr,* 14–17, 19–20, specialist agron. and later *senior agronomist and administrator, office exp. stations, 20–* Field crops ed, 'Exp. Sta. Record,' 20–, 'Webster's New Int. Dict'; agr. contributor, 'New Int. Yearbook.' U.S.A, 17–19. Soc. Agron. Crop production; plant genetics; American Indian agriculture.

Steed, Prof. D(aniel) Victor, University of Southern California, Los Angeles, Calif. *Mathematics.* Boissevain, Man, Can, Oct. 17, 90. A.B, Southern California, 14; Ph.D, California, 21. Asst. *math,* California, 19–21; asst. prof, *Southern California,* 21–29, *assoc. prof, 29–* Math. Soc; Math. Asn. Differential geometry.

Steedman, Prof. Elsie Vlault, 24 Central Park South, New York, N. Y. *Anthropology.* Peekskill, N. Y. A.B, Hunter Col, 14; A.M, Columbia, 21. Tutor, high sch, N. Y, 14–15; asst. instr. and instr, *Hunter Col,* 15–29, *asst. prof. anthrop, dept. sociol-anthrop, 29–* Anthrop. Asn; Ethnol. Soc; Asn. Physical Anthrop. Ethnobotany of Thompson Indians of British Columbia.

Steel, Prof. E(rnest) W(illiam), Box 273, College Station, Texas. *Sanitary engineering.* Philadelphia, Pa, Aug. 1, 93. C.E, Cornell, 20. Project engineer, State Highway Dept, Va, 20–21; junior civil engineer, War Dept, 21–22; sanit. engineer, Rockefeller Foundation, 22–23; State Dept. Health, Texas, 23–25; city sanit. engineer, Waco, Texas, 25–26; *prof. munic. and sanit. eng. and head dept, Agr. and Mech. Col. Texas, 26–, director sanit. research lab, 29–; lieut. col, Eng. Res, U. S. Army.* Fuertes medal, Cornell, 28. Fel. Pub. Health Asn; Eng. Educ; Civil Eng; Soc. Mil. Eng. Stream pollution; sewage and water treatment; treatment of industrial wastes.

Steel, Prof. Matthew, Long Island College of Medicine, Brooklyn, N. Y. *Biochemistry.* Bushmills, Ireland, June 3, 79. B.S, N. Mex. Col, 01, M.S, 02; Ph.D, Columbia, 08. Sci. aid, U. S. Dept. Agr, 03–04; asst. chemist, Exp. Sta, R.I. State Col, 04–06; asst. biochem, Columbia, 07–08, instr, 08–10; chief chemist, research lab, dairy dept, U. S. Dept. Agr, 10–11; Missouri, 10–11, asst. prof. biochem, 11–12; L. I. Col. Hosp, 12–14, *prof.* org. chem. and biochem, 14–30, *biochem, L. I. Col. Med, 30–* Biochemist, L. I. Col. Hosp, 28– A.A; Soc. Biol. Chem; Chem. Soc. Metabolism; paranucleoprotagon; urinary ammonia nitrogen; aluminum in food; influence of electrotherapeutic currents on metabolism; organic chemistry; biophysics; biochemical properties and pharmacological action of colloidal metals; biochemistry and pharmacology of quinine bi-salicylo-salicylate; metabolic factors influencing normal and pathological growth; biological and clinical chemistry.

Steele, Dr. Albert Edward, 23 Bay State Road, Boston, Mass. *Medicine.* Peabody, Mass, July 7, 77. M.D, Harvard, 00. Instr. bacter, Harvard Med. Sch, 13–21; *hosp. pathologist and head Steele Lab.* Asn. Path. and Bact; Am. Med. Asn.

Steele, Prof. Dewey G(eorge), University of Kentucky, Lexington, Ky. *Genetics.* Quaker City, Ohio, Feb. 23, 98. A.B, Muskingum Col, 20; B.S, Ohio State, 21; Ph.D, Wisconsin, 26. Instr. biol, Yale, 26–29; asst. prof. *genetics,* Conn. Agr. Col, 29–33, Conn. State Col, 33–39; *Kentucky,* 39–42, *assoc. prof, 42–* A.A; Soc. Animal Production; Ky. Acad. Animal breeding.

Steele, Frank John, 123 E. Ross St, Lancaster, Pa. *Pharmacy.* Crawford Co, Pa, April 16, 05. Allegheny Col, 24; Pittsburgh, 25–28, Ph.G, 30; Pa. State Col, 30. Res. pharmacist, West. Pa. Hosp, Pittsburgh, 28–39; pharmacist and asst. manager store No. 86, Nevin Drug Co, Baltimore, Md, 39–40, 41; *pharmacist,* Eby's Pharmacy, Lancaster, Pa, 40–41; *Hopkins Hosp, 41–; commissioner of deeds, Commonwealth of Va. in Md, 42–* Asst. pharmacist, W. Va, 30; Pa, 28, pharmacist, 30, Md, 39. Mem. corp, Phila. Col. Pharmacy; col. pharmacy, Columbia. Fel. Col. Apothecaries (professional relations cmt, 41); Pharmaceut. Asn; hon. mem. Nat. Asn. Drug Clerks; hon. fel. Int. Faculty Sciences, London (local rep, 32, asst. sec'y, Am. nat. council, 33). Microchemical detection of cocaine and substitutes.

Steele, Dr. F(rederick) A(bbott), Minnesota Mining and Mfg. Co, St. Paul, Minn. *Physical chemistry.* Wabash Co. Ind, Dec. 4, 99. B.S, Notre Dame, 23, M.S, 26; Ph.D, Pa. State Col, 28. Research chemist, N. J. Zinc Co, 28–37; chief research chemist, C. K. Williams and Co, 37–40; *chief inorg. research, Minn. Mining and Mfg. Co, 40–* Chem. Soc. (sec'y. St. Joseph Valley sect, 24, v. chairman, Lehigh Valley sect, 30–34, chairman, 34); Physical Soc. X-rays and crystal structure; development of paint and rubber pigments; optics of paper.

Steele, H(arold) K(oons), 24 Wiltshire St, Bronxville, N. Y. *Chemistry.* Whiteagle, Okla, Oct. 11, 03. B.Ch.E, Arkansas, 28. Chemist, Am. Bauxite Co, Ark, 28; junior chemist, U. S. Dept. Agr, 28–29; *chemist, Fleischmann labs, Standard Brands, 29–* Chem. Soc. Vitamins.

Steele, Prof. H(erd) C(leveland), Mississippi Southern College, Hattiesburg, Miss. *Chemistry.* Morton, Miss, Nov. 6, 83. A.B, Harperville Col, 04; B.S, Miss. Col, 10; Miss. Agr.

and Mech. Col, summers, 13–14; Chicago, 15; Ph.D, Indiana, 37. Instr. chem, Miss. Agr. and Mech. Col, 13–14; asst. prof, Miss. Col, 14–18; prof. chem. and dean, Miss. Woman's Col, 37–40; *prof. science, Miss. South. Col, 40–* Chem. Soc; Miss. Acad. The throwing power of nickel plating solutions.

Steele, Dr. J(ohn) Gordon, 2919 McKinley St, N.W, Washington, D. C. *Soils.* Brookville, Pa, Dec. 7, 05. B.S, Pa. State Col, 27; M.S, Ohio State, 32, du Pont fellow, 33–34, Ph.D, 34. Asst. agron, Ohio Exp. Sta, 27–33; soil scientist, *soil conservation service, U. S. Dept. Agr,* 34–36, *senior soil scientist, 36–* A.A; Soc. Agron; Soil Sci. Soc; Am. Geog. Soc; Geophys. Union; Int. Soc. Soil Sci. Soil survey; soil physics; mapping physical land factors; classifying capability of land for use.

Steele, Dr. J(ohn) Murray, Jr, Goldwater Memorial Hospital for Chronic Diseases, New York, N. Y. *Medicine.* Newport, R. I, June, 00. A.B, Harvard, 21; M.D, Hopkins, 25. Instr. med, Chicago, 27–29; asst. res. physician, Rockefeller Inst. Hosp, 29–32, asst. *med,* 29–36, assoc, 36–39; *assoc. prof, col. med, N. Y. Univ, 39–, director univ. third med. div, Goldwater Mem. Hosp, 39–* Soc. Clin. Invest; Harvey Soc; Physiol. Soc; Soc. Exp. Biol; Heart Asn. (advisory ed. board, 'Jour,' 38–); N. Y. Acad. Med; N. Y. Clin. Soc. Clinical physiology; the arterial system; peripheral circulation.

Steele, Dr. Sydney, E. I. du Pont de Nemours and Co, Wilmington, Del. *Engineering.* Stockport, Eng, Nov. 2, 05. B.A, Cambridge, 28, M.A. and Ph.D, 32. Extra engineer, Cunard liner, 'Laconia,' 27; demonstrator, eng. dept, Cambridge, 28–30; instr, Hopkins, 32–33; research engineer, I. C. I, Ltd, England, 33–35; Gordon McKay fellow, Harvard, 35; project engineer, Roessler and Hasslacher chem. dept, *E. I. du Pont de Nemours and Co,* 35–36, indust. engineer, 36–37, process supervisor, 37–39, area engineer, 39–40, develop. div, 40–43, *electrochem. dept, sales div, 43–* Research engineer, British Air Ministry, 29–30; Commonwealth Fund fellow, Hopkins, 30–33; guest worker, Bur. Standards, 31–33. Chem. Soc; Chem. Eng. Research and development engineering; internal combustion engines; chemical and physical investigations of combustion; fuel-knock; radiation heat transfer; gas absorption; steam and power plant reorganization; plant distillation; control instrumentation; evaporation; plant location; chemical economics.

Steen, Prof. Edwin B(enzel), 2340 Waite Ave, Kalamazoo, Mich. *Parasitology.* Wheeling, Ind, July 23, 01. A.B, Wabash Col, 23; Chicago, summers, 24–25; A.M, Columbia, 26; Ph.D, Purdue, 38. Instr. zool, Wabash Col, 23–25, actiag head dept, 26–27; asst. biol, N. Y. Univ, 25–26; instr. zool, Cincinnati, 27–31; Purdue, 31–34, fish and game, 34–37, asst, Exp. Sta, 34–37; tutor biol, Col. City N. Y, 38–40; *asst. prof. anat. and physiol, West. Mich. Col. Educ, 41–* Ind. Acad. Ultraviolet irradiation of Drosophila; life cycles of Trematodes.

Steen, Prof. F(rederick) H(enry), Georgia School of Technology, Atlanta, Ga. *Mathematics.* Brooklyn, N. Y, Nov. 27, 07. A.B, Colgate, 29; James Mills Pierce scholar, Harvard, 30–31, A.M, 31, Ph.D, 34. Asst. instr. physics, Colgate, 28–29; instr. *math,* Harvard, 31–34; *Ga. Tech,* 34–35, *asst. prof, 35–* Math. Soc; Math. Asn. Analysis.

Steen, Dr. W(illiam) Brooks, Desert Sanatorium, Tucson, Ariz. *Anatomy.* Joliet, Ill, July 14, 04. B.S, Chicago, 26, Ph.D, M.D, 31. Asst. anat, Chicago, 26–28, instr, 28–31; intern, Cook County Hosp, Chicago, 31–33, res. path, 33–34; asst. med, Chicago, 34–37; assoc. physician, Desert Sanatorium, 37–38; *res. physician,* Pima County Gen. Hosp, 38–39; *Tucson Clinic, 39–; capt, Med. Corps, U. S. Army.* Function of the segments of the urineferous tubules of the kidney; reabsorption of water in the frog's bladder; special secretory cells in the frog's kidney; a roentgenologic criterion of dermoid cyst; value of the blood xanthoprotein reaction in diagnosis and prognosis.

Steenbergen, Prof. W(illiam) A(rthur), University of Arizona, Tucson, Ariz. *Agricultural engineering.* Yakima, Wash, July 21, 02. B.S, 29. Hydrographer, Roosevelt Irrig. Dist, 29–30; instr. and *asst. prof. agr. eng, col. agr, Arizona, and asst. irrig. engineer, Exp. Sta, 30–; major, Air Corps, U. S. Army.* Land use planning specialist, Resettlement Admin, Ariz, 35–37; bur. agr. econ, U. S. Dept. Agr. Assoc. Civil Eng. Water and soil relationships; hydraulics; irrigation economics.

Steenbock, Dr. Harry, 2117 W. Lawn Ave, Madison, Wis. ****Physiology, Biochemistry.* Charlestown, Wis, Aug. 16, 86. 107

B.S, Wisconsin, 08, M.S, 10, Ph.D, 16, Sc.D, 38; Yale, 12; Berlin, 13. Asst. agr. chem, *Wisconsin,* 08–10, instr, 10–16, asst. prof, 16–17, assoc. prof, 17–19, *prof,* 19–38, *biochem, 38–* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Mineral metabolism; vitamins; biological action of light; ultra-violet light; anemia; animal nutrition.

Steer, Dr. Henry B(ake), U. S. Forest Service, Washington, D. C. *Forest economics.* Spencertown, N. Y, May 28, 93. B.S, Cornell, 14, M.F, 15; Ph.D, American Univ, 37. Asst. forestry, Maryland, 13–14; forest supervisor, U. S. Indian Forest Service, 15–30, *senior forest economist, U. S. Forest Service, 30–* Soc. Foresters; Forestry Asn. Prices of forest products, especially standing timber, logs and lumber; development of price trends and their relation to those of other commodities.

Steere, Dr. William C(ampbell), University of Michigan, Ann Arbor, Mich. *Botany.* Muskegon, Mich, Nov. 4, 07. B.S, Michigan, 29, A.M, 31, Ph.D, 32; Pennsylvania, 29–31. Asst. *bot,* Michigan, 27–29; instr, Temple, 29–31; *Michigan,* 31–36, asst. prof, 36–42, *assoc. prof, 42–, mem. staff, univ. biol. sta, 39–* Collaborator, N. Y. Bot. Garden; botanist, Univ. Mich-Carnegie Institution exped, Yucatan, 32; exchange prof, Puerto Rico, 39–40. Ed. in chief, 'The Bryologist,' 38–; assoc. ed, 'Annales Bryologici,' 36– A.A; Bot. Soc; Torrey Bot. Club; Fern Soc; Sullivant Moss Soc. (pres, 36–38); Mich. Acad. (ed, 38–41); British Bryological Soc. Taxonomy; bryophytes of North America; fossil mosses.

Steese, Gen. Ja(me)s G(ordon), U.S.A, The Panama Canal, Balboa Heights, C. Z. *Civil engineering.* Mt. Holly Springs, Pa, Jan. 21, 82. A.B, Dickinson Col, 02, A.M, 06; B.S, U. S. Mil. Acad, 07; Army Eng. Sch, 10; Sc.D, Alaska, 32. From 2nd lieut. to col, U. S. Army, 07–18, asst. chief engineer, 17–18, mem. gen. staff and chief sect, 18–20, special mission overseas, 19; dist. engineer, rivers and harbors, Alaska, 21–27, director pub. works, 23–27; gen. manager, S. Am. Gulf Oil Co, 27–32; chairman board and pres, Guajillo Corp. and affiliated companies, 32–41; pres, Slate Creek Placers, Inc, 36–41; *asst. engineer of maintenance, Panama Canal, 41–* Asst. engineer, Isthmian Canal Cmn, 08–12; instr. and asst. prof, U. S. Mil. Acad, 13–17; pres, Alaska Road Cmn, 20–27; consulting engineer, U. S. Dept. Commerce, 21–27; chairman and chief engineer, Alaska Ry, 23–24; brig. gen, Alaska Nat. Guard, 26–27, 35–37. Mem. special cmn. on fur seal rookeries, Russia, Japan and Amer, 22. Trustee, Dickinson Col, 19– U. S. del, Int. Navig. Cong, Cairo, 26, Venice, 31, Brussels, 35; Int. Geog. Cong, Paris, 31, pres. sect. cartography, Warsaw, 34, Amsterdam, 38; chairman, Int. Cong. Surveyors, London, 34; Petrol. Cong, Paris, 37. Officier de l'Instruction pub; La Solidaridad, II class, Panama; mil. cross, II class of Greece; officer and commander, Danilo I of Montenegro, silver medal for bravery; D. S. medal. A.A; Civil Eng; Min. and Metal. Eng; Soc. Mil. Eng; fel. Am. Geog. Soc; fel. Royal Geog. Soc. Military, railway and hydraulic engineering.

Steeves, Dr. W(illiam) H(orace), 504 W. Main St, El Dorado, Ark. *Chemistry.* Moncton, N. B, Can, Sept. 11, 09. B.Sc, Mt. Allison, 32; Ph.D, McGill, 36. Research chemist, Sylvania Indust. Corp, 36–38; consulting chemist, Mt. Allison, 38–39; chief chemist and supt, Reanite Corp, Ltd, 39–40; *chief chemist,* Welland Chem. Works, 40–42; *Chem. Construction Corp, 42–* Fel. Can. Inst. Chem. Azoxy derivatives; hard and soft wood lignin.

Stefansson, Dr. V(ilhjalmur), Harvard Club, 27 W. 44th St, New York, N. Y. *Geography.* Arnes, Man, Can, Nov. 3, 79. A.B. Iowa, 03, LL.D, 22; fellow, Harvard, 04–05, A.M, 23; LL.D, Michigan, 21, North Dakota, 30, Manitoba, 37, Pittsburgh, 38; Ph.D, Iceland, 30. Private exped, Iceland, 04; Harvard archeol. exped, 05, asst. anthrop, univ, 05–06; anthropologist, Leffingwell-Mikkelson Arctic exped, 06–07; commander, Am. Museum Nat. Hist. exped, Arctic, Alaska and Can, Geol. Surv. Can, 08–12; Can. Naval Service Arctic exped, 13–18; *aviation consultant.* Hon. fellow, Am. Museum Nat. Hist. Medalist, Am. Geog. Soc; Nat. Geog. Soc; Geog. Soc. Phila; Chicago Geog. Soc; Explorers Club; Royal Geog. Soc. London; Soc. géog. de Paris. A.A; hon. fel. Am. Geog. Soc; Anthrop. Asn; Explorers Club (pres, 37); hon. fel. N. Y. Acad; Acad. Nat. Sci. Phila; cor. mem. Royal Geog. Soc; Anthrop. Inst. Gt. Britain and Ireland; Gesell. für Erdkunde zu Berlin; hon. fel. Ital. Geog. Soc. Ethnography; anthropology.

Steffen, Prof. E(dwin) H(erman), 1808 Monroe St, Pullman, Wash. *Forestry.* Storm Lake, Iowa, Dec. 18, 89. Buena Vista Col, 06–08; B.S.F, Iowa State Col, 13, M.F, 22. Forest asst, U. S. Forest Service, 13–17, forest examiner, 17–19; *prof.*

forestry and range management and head dept, State Col. Wash, 19– Collaborator, U. S. Forest Service. Soc. Foresters; Ecol Soc; Northwest Sci. Asn. (trustee).

Steffen, Dr. Gustav I(var), Bureau of Laboratories, City Department of Health, 125 Worth St, New York, N. Y. *Bacteriology.* Malmo, Sweden, Aug. 2, 89. Polytech. Inst, Sweden, 05–08; Tech. Hochschule, Germany, 08–11; Ph.D, Cornell, 30. Asst, N. Y. Neur. Inst, 13–15; lab. director, Hosp. Deformities and Joint Diseases, New York, 15–17; assoc. bacteriologist, U. S. Pub. Health Service, 19–23; director, Steffen Biol. Lab, New York, 23–26; instr. bacter, med. col, Cornell, 29–32, applied path. and bacter, 32–40; *asst. director bur. labs, New York City Dept. Health, 40–* 2nd lieut, Sanit.C, 17–19. A.A; Soc. Bact. (councilor, 37); Pub. Health Asn; N. Y. Acad. Immunization and serum therapy in experimental pneumonia; biochemistry of Bacillus tetani; immunology.

Steffens, Dr. Carsten (Conover), Solvay Process Co, Syracuse, N. Y. *Chemistry.* Plainfield, N. J, July 18, 08. A.B, Syracuse, 30; fellow, Calif. Inst. Tech, 31–34, Ph.D, 34. Asst, Calif. Inst. Tech, 30–31; nat. research fellow chem, Mass. Inst. Tech, 34–35; chemist, Gen. Printing Ink Corp, 35–38, director pilot plant, 38–40, asst. research director, 40–43; *Solvay Process Co, 43–* Chem. Soc; Physical Soc; Electrochem. Soc. Colloids, pigments; printing inks; thermodynamics; inorganic chemistry.

Steffens, Dr. H(erman) Walter, University of Idaho, Moscow, Idaho. *Zoology.* Trenton, Ill, Feb. 24, 04. B.S, Idaho, 29, M.S, 30; Ph.D, Harvard, 40. Instr. *zool, Idaho,* 31–38, *asst. prof, 38–* Cytology of the liver.

Steffey, Prof. W(alter) W(hite), Centre College, Danville, Ky. *Physics.* Rural Retreat, Va, March 22, 92. A.B, Emory and Henry Col, 13; Ph.D, Hopkins, 23. Instr. *physics,* Ga. Tech, 17–18; Maine, 19–20; Drexel Inst, 20–21; Polytech. Inst. Brooklyn, 23–24; *prof,* Austin Col, 24–32, 34–42; *Centre Col, 42–* A.A; Asn. Physics Teachers.

Stegeman, Prof. Gebhard, University of Pittsburgh, Pittsburgh, Pa. *Physical chemistry.* Holland, Mich, June 14, 90. A.B, Hope Col, 13; A.M, Ohio State, 15, Ph.D, 17. Instr. *chem,* Washington (Seattle), 17; asst. prof, *Pittsburgh,* 19–23, *prof, 23–* Chem. Soc. Electrochemistry; thermodynamics of organic reactions.

Stegeman, Prof. LeRoy C(alkins), New York State College of Forestry, Syracuse University, Syracuse, N. Y. *Zoology, Wildlife management.* Ann Arbor, Mich, April 18, 99. B.S, Mich. State Col, 28; M.S, Michigan, 29. *Asst. prof. zool, N. Y. State Col. Forestry, Syracuse, 29–; capt, U. S. Army, 42–* Summers, asst. biologist, U. S. Forest Service. Mammalogy; zoology.

Steggerda, Prof. F(rederic) R(ussell), University of Illinois, Urbana, Ill. *Physiology.* Holland, Mich, May 5, 03. A.B, 25; A.M, Minnesota, 27, Ph.D, 29. Instr. *physiol,* col. med, Tennessee, 29–33; assoc, *Illinois,* 33–36, asst. prof, 36–41, *assoc. prof, 41–* A.A; Physiol. Soc. Water metabolism; relation of pituitary to water interchange in amphibians; physiology of colon; calcium requirements in the adult man.

Steggerda, Dr. Morris, Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Zoology, Anthropology.* Holland, Mich, Sept. 1, 00. A.B, Hope Col, 22; A.M, Illinois, 23, Ph.D, 28. Field worker, Carnegie Institution, Jamaica, 26–28; asst. prof. zool, Smith Col, 28–30; *investigator, dept. genetics, Carnegie Institution, 30–* A.A; Soc. Zool; Asn. Physical Anthrop; Eugenics Research Asn. Human heredity; effect of bodily injury on egg-laying in fowls; racial anthropology; eugenics.

Stehle, Prof. Raymond Louis, McGill University, Montreal, Que, Can. *Pharmacology.* Columbus, Ohio, May 22, 88. A.B, Ohio State, 12, A.M, 13; Ph.D, Yale, 15. Instr. physiol. chem, Pennsylvania, 15–19, asst. prof, 19–21; *pharmacol, McGill,* 21–23, assoc. prof, 23–24, *prof, 24–* A.A; Soc. Pharmacol; Soc. Biol. Chem; Chem. Soc. Purine metabolism; catalase; excretion of bases in acid intoxication; determination of total nitrogen and urea; pharmacology of anesthetics, mercury and scillaren; cinematographic observation of coronary flow; separation, chemical nature and pharmacology of pituitary extract; origin of adrenaline.

Stehr, Dr. W(illia)m C(arl), Ohio University, Athens, Ohio. *Zoology, Entomology.* Platteville, Wis, April 12, 95. B.S, Minnesota, 27, M.S, 28, Ph.D, 30. Teacher, pub. schs, Wis, 23–26; teaching fellow, Minnesota, 27–30; instr. biol, *Ohio (Athens),* 30–32, asst. prof, 32–38, assoc. prof. *entom,* 38–43, *prof, 43–* A.A; Micros. Soc; Entom. Soc. Amer; Ecol. Soc; Ohio Acad. Ecology of night-flying insects; lady beetles and ground beetles.

Steidle, Dean Edward, State College, Pa. *Mining engineering.* Williamsport, Pa, June 23, 87. B.S, Pa. State Col, 11, E.M, 14. Mining engineer, U. S. Bur. Mines, 13–17, consulting mining engineer, 19–29; head dept. mining and supervisor cooperative mining, fuel technol. and metal. research, Carnegie Inst. Tech, 19–28; *dean sch. mineral industries, Pa. State Col, 28–* Consulting engineer, Mine Safety Appliances Co, 19–29. Summers, miner and millman, north. Ont. and Southwest, 08–12, 13. Capt, U.S.A, 17–19. Min. and Metal. Eng; Coal Min. Inst; Nat. Mine Rescue Asn; Eng. Soc. West. Pa. Prevention and limitation of mine explosions; mine safety and health.

Steidtmann, Prof. Edward, Lexington, Va. *Geology.* Merrimack, Wis, Aug. 5, 81. A.B, Wisconsin, 06, A.M, 07, Ph.D, 10. Asst. prof. *geol,* Wisconsin, 12–22; *prof, Va. Mil. Inst, 22–* Asst. state geologist, Wis, 12–13; assoc. geologist, U. S. Geol. Surv, 18–24. A.A; Geol. Soc; Min. and Metal. Eng; Va. Acad. Structural geology; metamorphism; sedimentation.

Steidtmann, Prof. W(aldo) E(dward), Bowling Green State University, Bowling Green, Ohio. *Botany.* Prairie du Sac, Wis, April 27, 96. A.B, Wisconsin, 23; M.S, Michigan, 29, Cole fellow, 34–35, Ph.D, 35. Instr. bot, Marquette, 23–32; teaching fellow, Michigan, 32–34; instr. *biol,* Wis. State Teachers Col, La Crosse, 35–36; asst. prof, *Bowling Green State Univ,* 36–39, *assoc. prof, 39–* Instr, Michigan, 28–29. Summers, asst, biol. sta, Michigan, 29, 31–34, 36; instr, Michigan, 30. Bot. Soc; Mich. Acad; fel. Ohio Acad. Paleobotany; plant histology; plant anatomy.

Steiger, Geo(rge), U. S. Geological Survey, Washington, D. C. *Chemistry.* Columbia, Pa, May 27, 69. B.S, George Washington, 90, M.S, 92. Chemist, U. S. Geol. Surv, 92–16, chief chemist, 16–30, chemist, 30–39; *retired.* A.A; Chem. Soc; Miner. Soc; Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad. Geochemistry; certain natural and artificial minerals; inorganic analytical methods.

Steigman, Dr. J(oseph), 260 Riverside Drive, New York, N. Y. *Chemistry.* New York, N. Y, May 10, 13. A.B, Columbia, 32, Ph.D, 41. Asst. chem, Columbia, 32–36, artificial radioactivity, 37–39; instr. chem, Col. City N. Y, 39–42; grad. sch, Brooklyn Col, 39–42; *mem. staff,* Tech. Research Labs, Inc, 42–43; *Gussack Machined Products Co, 43–* Phenyl anthranilic acids; artificial radioactivity; physical organic chemistry; Walden inversion; high-speed rotating cathode plating; uranium fission; self diffusion of metals; concentration methods for radioactive metals; redox indicators; nonreflecting films.

Steik, Dr. Karl T(heodor), 42 Aubrey Road, Upper Montclair, N. J. *Organic chemistry.* Lemsal, Latvia, July 12, 84. A.M, Harvard, 11; Ph.D, Chicago, 19. Prof. chem, Wyoming, 11–20; research chemist, Standard Oil Co, Ind, 20–22; prof. chem, Florida, 22–23; research chemist, Sun Oil Co, 23–25: Standard Oil Co, N. J, 25–32; *director* research, Nat. Oil Products Co, 32–40; *Livon Labs, 40–; special lecturer chem. of mineral oil and chem. of animal and veg. oils and fats, Polytech. Inst. Brooklyn.* Chem. Soc; Inst. Chem. Chemistry of oils and fats; mineral oil; fats; antiseptics; antioxidants; emulsions; cyclic hydrocarbons; organic mercury compounds.

Steil, Prof. W(illiam) N(icholas), 1926 N. 53rd St, Milwaukee, Wis. *Botany.* Highland, Wis, Sept. 4, 76. Ph.B, Wisconsin, 11, Ph.D, 16. Teacher, secondary schs, 97–10; asst. bot, Wisconsin, 10–11, instr, 11–22; *prof. bot. and head dept. biol, Marquette, 22–* A.A. Apogamy; ferns; cytology.

Stein, Dr. Charles W. C, 910 Summit Ave, Westfield, N. J. *Organic chemistry.* Philadelphia, Pa, April 28, 14. B.S, Pennsylvania, 36, M.S, 39, Ph.D, 42. Asst. instr. chem, Lehigh, 37; Drexel Inst, 37–42; *research chemist, Gen. Aniline and Film Corp, 42–* Chem. Soc; Franklin Inst. Reactions of aldehydes and amines with retenequinonimine or phenanthraquinonimine; synthesis of 2 substituted oxazoles; vinyl compounds; dyestuff intermediates.

Stein, Dr. C(larence) D(insmore), U. S. Department of Agriculture, Washington, D. C. *Pathology.* Pittsburgh, Pa, July 17, 89. D.V.M, Pennsylvania, 11. *Path. div, bur. animal indust, U. S. Dept. Agr, 11–, veterinarian.* Vet. Med. Asn; Soc. Bact; D. C. Vet. Med. Asn. Bacteriology; immunology;

equine infectious anemia; immunization against anthrax; anthrax in domestic animals.

Stein, Capt. George J(ay), 2249 Strauss St, Brooklyn, N. Y. *Bacteriology.* Brooklyn, N. Y, Jan. 3, 09. B.S, N. Y. Univ, 35, M.S, 37, Ph.D, 42; Harvard, 36. Instr, col. med, N. Y. Univ, 36–42; *capt. and bacteriologist, Med. Corps, U. S. Army, 42–* A.A; Soc. Bact. Spirochetal diseases; rickettsial diseases; chemotherapy.

Stein, Prof. Hilda A, Southern Illinois State Normal University, Carbondale, Ill. *Zoology.* Belleville, Ill, Feb. 4, 96. B.Ed, South. Ill. State Nor. Univ, 25; M.S, Illinois, 29. Supervisor nature study, *South. Ill. State Nor. Univ,* 25–28, *assoc. prof. zool, 30–* A.A; Ill. Acad. Animal communities of cypress swamps.

Stein, I(rving) Melville, 3128 W. Coulter St, Philadelphia, Pa. *Electricity.* Long Branch, N. J, March 30, 94. N. Y. Edison Tech. Sch, 12; Columbia, 17; Alexander Hamilton Inst. Meter dept, N. Y. Edison Co, 11–12, test dept, 12–14, chief standardizing lab, 14–18; *Leeds and Northrup Co, 19–, director research and mem. exec. cmt, 28–* Personal asst. to Thos. A. Edison, 17. Sig.C, 18–19. A.A; Elec. Eng. (v. pres, 37, chairman, Phila. sect, 27, nat. sections cmt, 33–); Physical Soc; Chem. Soc; Electrochem. Soc; Franklin Inst; Soc. Test. Mat; Illum. Eng. Soc; Acad. Polit. and Social Sci; Acad. Polit. Sci; Faraday Soc. Electrical measurements; automatic combustion control; automatic controls; temperature and flow measurements; industrial recorders.

Stein, Prof. J(ohn) Bethune, New York University College of Dentistry, New York, N. Y. *Physiology, Histology.* New York, N. Y, Aug. 13, 69. M.D, Columbia, 92. Prof. physiol. and histol, N. Y. Col. Dentistry, 95–25; *physiol, col. dentistry,* N. Y. Univ, 25–40, *emer. prof, 40–* Prof, sch. vet. med, N. Y. Univ, 97–09. A.A. Relationship of the lymph spaces to the lymph capillaries; the blood and lymph supply of the teeth; structure and development of the enamel of the human teeth; reciprocal innervation of muscle.

Stein, Prof. K(athryn) F, Mt. Holyoke College, South Hadley, Mass. *Zoology.* Annville, Pa, Nov. 24, 02. A.B, Mt. Holyoke Col, 24; M.S, Chicago, 28, Mary E. Woolley fellow, Ph.D, 31. Asst. *zool, Mt. Holyoke Col,* 24–25, instr, 25–27, 28–30, 31–34, asst. prof, 34–41, *assoc. prof, 41–* Hon. fellow, sch. med, Yale, 40. A.A; Genetics Soc; Asn. Anat. Embryology; chorio-allantoic grafting; early differentiation of pituitary and headfold region of chick; endocrinology; avian pituitary glands in salamanders; sex differences in young castrated rats; thyroidectomy in rats.

Stein, Dr. M(ichael) Russell, 157 W. 57th St, New York, N. Y. *Physical anthropology, Dental anatomy.* New York, N. Y, Sept. 4, 05. D.D.S, N. Y. Univ, 27. Instr. dental anat, N. Y. Univ, 27–28; oral anat, *Columbia,* 29–36, *lecturer anthrop, 37–, research assoc, 41–; tech. and research consultant, Universal Dental Co, 39–* Asn. Physical Anthrop; Dental Asn; N. Y. Acad; Int. Asn. Dental Research. Anatomy, evolution and anthropological aspects of human dentition.

Steinbach, Prof. H(enry) Burr, Washington University, St. Louis, Mo. *Zoology, Physiology.* Dexter, Mich, Oct. 7, 05. A.B, Michigan, 28; A.M, Brown, 30; Ph.D, Pennsylvania, 33. Asst. physiol. and biochem, Brown, 28–30; instr. zool, Pennsylvania, 30–33; nat. research fellow, 33–35; instr. *zool,* Minnesota, 35–37, asst. prof, 37–38; asst. prof. zool, Columbia, 38–42; *assoc. prof, Washington (St. Louis), 42–* Mem. corp, Marine Biol. Lab, Woods Hole. Managing ed, 'Biol. Bul,' 42– Soc. Zool; Physiol. Soc. Insect respiration; bioelectric potentials; electrolyte balance in cells.

Steinbach, Prof. O(tto) F, 8529 123rd St, Richmond Hill, N. Y. *Physical chemistry.* New York, N. Y, May 16, 03. B.S, Polytech. Inst. Brooklyn, 26, M.S, 27; Ph.D, N. Y. Univ, 31. *Prof. chem, Hartwick Col, 30–* A.A; Chem. Soc. Nitroguanidine and guanidine nitrate; chemical kinetics.

Steinbach, Prof. W(arren) H, Varcum Chemical Corp, Niagara Falls, N. Y. *Organo-physical chemistry.* Genoa, Nebr, May 1, 04. B.S, Hastings Col, 26; M.S, Nebraska, 29, Ph.D, 31. Instr, schs, Nebr, 26–27; prof. chem, Nebr. State Teachers Col, Kearney, 31–37; instr, *Arkansas,* 37–39, *asst. prof. inorganic chem,* 39–43; *asst. tech. director, Varcum Chem. Corp, 43–* Summers, prof, Colo. State Col. Educ, Greeley, 38, Denver, 39. Chem. Soc. Thermochemistry of carbohydrates in alkaline solutions; derivatives of ortho dichlorobenzene; drill exercises for agricultural and home economics chemistry students; germanium dioxide.

Steinbauer, Dr. C(larence) E(mil), U. S. Horticultural Field Station, Meridian, Miss. *Plant physiology.* Owatonna, Minn, Oct. 20, 05. B.S, Minnesota, 30, M.S, 31; Ph.D, Maryland, 36. Instr. applied plant physiol, Minnesota, 30–31; junior plant physiologist, *bur. plant indust, U. S. Dept. Agr,* 31–35, *assoc. physiologist, 35–* Soc. Hort. Sci; Soc. Plant Physiol. Biochemistry and physiology of vegetable crops; temperature and other relations in the rest period in tubers and seeds; temperature and other relations in vegetable development.

Steinbauer, Dr. George P(eter), University of Maine, Orono, Maine. *Botany.* Owatonna, Minn, Aug. 17, 03. B.S, Minnesota, M.S, 25, Ph.D, 27. Instr. plant path. and bot, Minnesota, 26–28; asst. prof. *bot, Maine,* 29–37, *assoc. prof, 37–, seed analyst, Exp. Sta, 31–* A.A; Soc. Plant Physiol; Asn. Seed Anal; Bot. Soc; Josselyn Bot. Soc. Light in relation to plant growth; mineral nutrition of plants; physiology of seed germination.

Steinberg, Dr. Arthur G(erald), McGill University, Montreal, Que, Can. *Genetics.* Port Chester, N. Y, Feb. 27, 12. B.S, Col. City N. Y, 33; A.M, Columbia, 34, univ. fellow, 39–40, Ph.D, 41. Asst. zool, Columbia, 35–37, lab. asst, 37–39; *lecturer genetics, McGill, 40–* Genetics Soc; Soc. Zool. Interchromosomal effects of inversions on crossing over and the mode of action of the gene in development.

Steinberg, Dr. Bernhard, Toledo Hospital, Toledo, Ohio. *Pathology.* New York, N. Y, June 18, 97. Fordham, 16–18; M.D, Boston, 22. House officer, hosp. div, Med. Col. of Va, 22–23; asst. physician, Boston Psychopathic Hosp, 23–24; nat. research fellow, sch. med, Western Reserve, 24–26, Crile research fellow, 26–27; *director labs. and inst. med. research, Toledo Hosp, 27–* Lecturer, Toledo. Consulting pathologist, Bixby Hosp, Adrian, Mich; Detwiler Mem. Hosp, Wauseon, Ohio. Mem. board experts, State Indust. Cmt, Ohio. Grant, Am. Med. Asn, 32; silver medal, Am. Soc. Clin. Path, 37. Fel. Am. Med. Asn; Asn. Path. and Bact; Soc. Exp. Path; Soc. Clin. Path; Soc. Exp. Biol; Asn. Study Allergy. Peritonitis; toxin and antitoxin of Bacillus coli; cellular immune processes; sickle-cell anemia; pathology of asthma; degenerative diseases of the appendix; etiology of appendicial diseases; experimental pulmonary embolism and infarction; peritoneal protection; inflammation of serous surfaces; infections of the peritoneum.

Steinberg, Dr. John C(hristian), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Lakota, Iowa, June 21, 95. B.S, Coe Col, 16, M.S, 17; Ph.D, Iowa, 22. *Mem. tech. staff,* West. Elec. Co, 22–25, *Bell Tel. Labs, 25–* 2nd lieut, A.S, 17–19. A.A; Physical Soc; Acoustical Soc. (exec. councilor, 36–39). Acoustics; Hall effect; physical and physiological properties of speech and hearing; physical properties of music waves; effects of transmission distortion on speech and music.

Steinberg, Dr. Robert A(aron), U. S. Department of Agriculture, Washington, D. C. *Plant physiology.* New York, N. Y, Oct. 19, 90. B.S, George Washington, 14; A.M, Columbia. 17, Ph.D, 19. Junior chemist, *bur. plant indust, U. S. Dept. Agr,* 19–23, asst. physiologist, 23–35, *assoc. physiologist, 35–* Asst. chemist, U.S.N, 17. A.A; Soc. Plant Physiol; Bot. Soc; Torrey Bot. Club. Nutrient solution and the essential trace elements required by plants.

Steinberg, Dean S(amuel) S(idney), University of Maryland, College Park, Md. *Civil engineering.* New York, N. Y, Sept. 18, 91. B.E, Cooper Inst, 10, C.E, 13. Practising engineer, 10–18; asst. prof. *civil eng, Maryland,* 18–20, *prof. and head dept, 20–,* acting dean *col. eng,* 36–37, *dean, 37–,* director eng. exp. sta, 37–41; *regional adviser eng. defense training, U. S. Office Educ, 40–; consultant training in industry, Office Production Management, 41–* Consulting engineer, Am. Road Builders Asn, 35– Summers, highway research specialist, bur. pub. roads, U. S. Dept. Agr, 20–23. Asst. director in charge Washington, D. C, office, highway research board, Nat. Research Council, 24–27, ed, 'Proc,' 25–27. Chairman, State Highway Safety Planning Council, Md, 38; v. chairman, State Traffic Safety Cmn, 39–; advisory board, State Bur. Control Surveys and Maps, 39–; State Water Resources Cmn, 40; mem, State Board Registration Professional Engineers and Land Surveyors, 41– Mem. joint cmt. land surveys and titles, Am. Soc. Civil Engineers and Am. Bar Asn, 37– Civil Eng. (chairman, cmt. map information offices); Road Builders Asn. (pres, educ. div, 36–38; director, 36–; ed, 'Proc,' 37–; pres. planning div, 40–); Eng. Educ; Geophys. Union; Md. Asn. Eng. (director, 29–37, v. pres, 32, pres, 34–36); Int. Asn. Bridge and

Struct. Eng; Asn. int. permanente de Congrès de la Route. Highway and bridge research; bridge inspection.

Steindler, Dr. Arthur, State University of Iowa, Iowa City, Iowa. *Surgery.* June 22, 78. M.D, Vienna, 02. *Prof. orthop. surg, col. med, Iowa, 13–* Prof, Mexico. A.A; fel. Col. Surg; Am. Med. Asn; Orthop. Asn; West. Surg. Asn; hon. mem. Cong. Physical Therapy; Acad. Orthop. Surg; hon. mem. Sciencias y Artes Mex; hon. mem. Mex. Orthop. Soc; hon. mem. Soc. Gen. Hosps. Mex; cor. mem. Argentine Orthop. Soc; hon. mem. Brazilian Orthop. Soc; hon. mem. Soc. belge de Chirurg; cor. mem. Soc. orthop. de Belg; Int. Orthop. Soc. Reconstructive surgery; operative orthopedics; deformities and disabilities of the spine and thorax; locomotion in man; orthopedic operations, indications, technique and end results; relation of trauma to diseases of the spine.

Steiner, Dr. Arnold B(yron), 5905 Waverly Ave, La Jolla, Calif. *Physical chemistry.* Duluth, Minn, Nov. 29, 10. A.B, Stanford, 33, Ch.E, 34, Charles A. Coffin Foundation fellow, 34–36, Ph.D, 37. Chemist, Shell Oil Co, 36–38; *chief research chemist, Kelco Co, 38–* Chem. Soc. Photochemistry and colloidal chemistry; petroleum products; algin products.

Steiner, Dr. Gabriel, Wayne University College of Medicine, Detroit, Mich. *Neuropathology.* Ulm, Germany, May 26, 83. M.D, Strasbourg, 07; Munich; Wurzburg. Privat-docent, med. sch, Strasbourg, 13–18; prof, Heidelberg, 19–35; visiting lecturer, med. sch, Louisiana, 37; *prof. neuropath. and neur, col. med, Wayne, 37–, director brain disease registry, 40–* Asn. Path. and Bact; Mich. Acad. Multiple sclerosis; neurosyphilis and other organic disorders of the central and peripheral nervous system.

Steiner, Dr. G(otthold), U. S. Department of Agriculture, Washington, D. C. *Zoology.* Signau, Switzerland, April 8, 86. Ph.D, Bern, 10. Privat-docent, Bern; Seessel research fellow, Yale; senior nematologist and *prin. nematologist, div. nematology, bur. plant indust, U. S. Dept. Agr.* A.A; Soc. Zool; Soc. Parasitol; Phytopath. Soc; Micros. Soc; Torrey Bot. Club; N. Y. Acad; Soil Sci. Soc. Fla; Biol. Soc. Wash; Helminth. Soc. Wash; Wash. Acad; Wis. Acad; Deuts. Zool. Gesell; Schweiz. Zool. Gesell; Schweiz. Naturforsch. Gesell. Comparative anatomy; nematology; invertebrates; parasitology.

Steiner, Prof. H(arold) M, Arendtsville, Pa. *Economic entomology.* Rawson, Ohio, Sept. 20, 09. B.S, Ohio State, 31, M.S, 33. Tech. asst, Ohio Agr. Exp. Sta, 30–32; N. Y. Agr. Exp. Sta, 33–37; instr. *econ. entom, Pa. State Col,* 38–41, asst. prof, 41–43, *assoc. prof, 43–* Fruit insect control.

Steiner, Dr. John, 1312 N. Ritchie Court, Chicago, Ill. *Chemistry.* Milwaukee, Wis, July 21, 08. B.S, Wisconsin, 29, M.S, 32, Ph.D, 33. Instr. chem, Wisconsin, 29–33, assoc, 33–34; develop. chemist, Milwaukee Gas Specialty Co, 35–36; *research chemist,* Globe-Union, Inc, Milwaukee, 36–37; *Miner Labs, 38–* Chem. Soc; Electrochem. Soc. Electrochemistry; limnology; ceramics; dentifrices; soybeans.

Steiner, L(oren) F(ranklin), U. S. Department of Agriculture, Vincennes, Ind. *Entomology.* Bluffton, Ohio, July 26, 04. B.S. (Agr), Ohio State, 26, M.S, 27. Asst. entom, Exp. Sta, Purdue, 27–30; asst. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* Cornelia, Ga, 30–34, *in charge fruit insect lab, Vincennes, 34–,* assoc. entomologist, 35–40, *entomologist, 40–* Entom. Soc. Amer; Asn. Econ. Entom. Codling-moth and oriental fruit-moth behavior and control.

Steiner, Dr. L(uke) E(by), Oberlin College, Oberlin, Ohio. *Chemistry.* Columbus Grove, Ohio, Dec. 11, 00. A.B, Oberlin Col, 24; Sterling junior fellow, Yale, 26–27, Ph.D, 27. Asst. chem, Yale, 24–26, instr. physical chem, 27–28; asst. prof. *chem, Oberlin Col,* 28–37, assoc. prof, 37–43, *prof, 43–* A.A; Chem. Soc. Physical chemistry; thermochemistry; thermodynamics.

Steiner, Dr. Paul E(by), University of Chicago, Chicago, Ill. *Pathology.* Columbus Grove, Ohio, Oct. 9, 02. A.B, Col. City of Detroit, 26; M.S, Northwestern, 31, M.D, 32; nat. research fellow, 32–34; Ph.D, Chicago, 33. Instr. *path, Chicago,* 34–37, asst. prof, 37–42, *assoc. prof, 42–* A.A; Asn. Path. and Bact; Asn. Cancer Research; Soc. Exp. Biol; Soc. Exp. Path; Chicago Path. Soc. Oncology; Hodgkin's disease; human cancerogenic substances.

Steinfeld, Dr. Helen M(cDonald), 2371 Oak St, Berkeley, Calif. *Zoology.* Burlington, Ind, Feb. 26, 41. A.B, Butler, 21; M.S, Wisconsin, 22; Ph.D, California, 27. Asst. zool, Wisconsin, 21–22; head dept. science, William Woods Col, 22–25; teaching fellow, *California,* 25–27, *research fellow, 39–* Psychogenetic factors in the etiology of cancer.

Steinhardt, Dr. Jacinto, 1548 East-West Highway, Silver Spring, Md. *Physical chemistry, Biochemistry.* New York, N. Y, May 20, 06. A.B, Columbia, 27, A.M, 28, Ph.D, 34. Asst. biol, Col. City of N. Y, 27–28; zool, Columbia, 28–29, instr. biophys, 29–34; nat. research fellow, Copenhagen, 34–35, Gen. Educ. Board fellow, 35–37; Rockefeller Foundation fellow, 37–38; research fellow physical chem, Harvard Med. Sch, 36–38; physical chemist, research lab, textile foundation, Bur. Standards, 38–42; *research assoc, div. war research, Columbia, 42–* Soc. Biol. Chem; Chem. Soc; N. Y. Acad; Wash. Acad. Physical chemistry of proteins and enzymes; other macromolecules.

Steinhaus, Prof. Arthur H, 5315 Drexel Ave, Chicago, Ill. *Physiology.* Chicago, Ill, Oct. 4, 97. B.S, Chicago, 20, M.S, 25, Ph.D, 28; B.P.E, George Williams Col, 21, M.P.E, 26. Instr. biol, *George Williams Col,* 20–25, *prof. physiol. and director lab. for physiol. research in physical educ, 26–* Guggenheim Mem. Foundation fellow, 31, 32. Summers, mem. faculty, California, 37, 39, 41; Colorado, 42; Wisconsin, 43. Roberts-Gulick award, 40. A.A; Physical Educ. Asn. (chairman, research sect, 30, v. chairman health div, 41); Physiol. Soc; Acad. Physical Educ. (sec'y-treas, 36–41, v. pres, 41–43, pres, 43–). Physiology of exercise; effect of exercise on basal metabolism, gastro-intestinal motility and the growing heart; blood changes in exercise; mitogenetic radiation; muscle tension and resiliency.

Steinhaus, Dr. Edward A(rthur), U. S. Public Health Service, Hamilton, Mont. *Bacteriology.* Max, N. Dak, Nov. 7, 14. B.S, N. Dak. State Col, 36; Ph.D, Ohio State, 39. Asst. bacter, Ohio State, 36–39, Muellhaupt scholar, 39–40; asst. bacteriologist, *U. S. Pub. Health Service,* 40–41, *assoc. bacteriologist, Rocky Mountain lab, 42–* A.A; Soc. Bact; Soc. Trop. Med; Pub. Health Asn; Mont. Acad. Physiology of bacteria; bacteriostasis; microbiology of insects; biologic relationships between bacteria and insects; rickettsiae and rickettsial diseases; tularemia.

Steininger, Dr. Grace, Cornell University, Ithaca, N. Y. *Nutrition.* Sedalia, Mo, Oct. 30, 01. B.S, Kans. State Col, 25, M.S, 27; fellow, Chicago, 36–38, Ph.D, 39. Asst. prof. home econ, Okla. Agr. and Mech. Col, 27–36; asst, Chicago, 38–39; director sch. home econ, Ohio (Athens), 39–43; *asst. prof. foods and nutrition, Cornell, 43–* Ohio Home Econ. Asn. (v. pres, 40–42, pres, 42). Vitamin A.

Steininger, H(erbert) M(arvin), 6156 Kenwood Ave, Kansas City, Mo. *Chemistry.* Sterling, Nebr, June 24, 99. A.B, Kansas, 21. Teacher, high sch, Kans, 21–23; petrol. research chemist, Kansas City Testing Lab, 23–29; *Standard Oil Co. of Ind,* 29–31, *chief chemist, Sugar Creek, Mo, 31–* Chem. Soc. (sec'y-treas, Kansas City sect, 26–29, chairman, 32, 41). Vapor phase clay treatment of gasoline.

Steinle, Dr. J(ohn) Vernon, 1012 16th St, Racine, Wis. *Chemistry.* Marinette, Wis, April 28, 98. B.S, Wisconsin, 20, M.S, 21, Ph.D, 23. Instr. chem, Wisconsin, 21–24; assoc. prof, Marquette, 24–25; research chemist, *S. C. Johnson and Son,* 25–32, *research director, 33–* A.A; Farm Chemurg. Council; Oil Chem. Soc; Soc. Chem. Indust; Chem. Soc; fel. Inst. Chem. Protective coatings and polishes; physical and chemical investigations of waxes and wax products; source and production of natural waxes; commercial wax emulsions.

Steinman, Dr. D(avid) B(arnard), 117 Liberty St, New York, N. Y. *Engineering.* New York, N. Y, June 11, 86. B.S, Col. City of N. Y, 06, fellow, 06–09; A.M, C.E, Columbia, 09, Ph.D, 11. Engineer, 06–10; prof. civil eng, Idaho, 10–14; bridge engineer, 14–17; prof. in charge civil and mech. eng, Col. City of N. Y, 17–20; *consulting engineer, 20–* Lecturer, Columbia, Princeton, Yale, Rensselaer Polytech, Lehigh, Lafayette Col, North Carolina, Rutgers, Polytech. Inst. Brooklyn, Illinois, Union, Manhattan Col. and Carnegie Inst. Tech. Cmt. on bridge legislation, Am. Eng. Council, 30–34; pres, Nat. Council State Boards Eng. Examiners, 31–32; v. chairman, State Board Examiners Professional Engineers and Land Surveyors, N. Y, 31–33, chairman, 33–35, 41–43; state chairman, Nat. Cmt. Trade Recovery, N. Y, 33; nat. councilor, Nat. Econ. League; exec. cmt, Engineers Council Professional Develop. J. James R. Croes medal, Soc. Civil Eng, 19, Norman medal, 23, Thomas Fitch Rowland prize, 29; Artistic Bridge award, Am. Inst. Steel Construction, 30, 32, 37, 38, 39; prize, Am.

Asn. Eng, 26; Townsend Harris medal, Col. City of N. Y, 34, Alumni Service medal, 36; Alfred T. White prize, Brooklyn Eng. Club, 34. A.A; Asn. Eng. (pres, 25); Civil Eng. (chairman, struct. div, 31–33, v. pres, metropolitan sect, 33); Ry. Eng. Asn; Concrete Inst; Inst. Steel Construction (tech. advisory board); Soc. Mil. Eng; Eng. Educ; Soc. Test. Mat; Soc. Automotive Eng; Am. Inst; Nat. Soc. Professional Eng. (pres, 34–36); Acad. Polit. and Social Sci; fel. Am. Geog. Soc; Math. Soc; Toll Bridge Asn. (pres, 32); fel. Aerial League Amer; Professional Eng. Ore; Idaho Soc. Eng; hon. mem. Archit. and Eng. Alliance; hon. mem. Ohio Soc. Professional Eng; hon. mem. Ky. Soc. Professional Eng; hon. mem. Texas Soc. Professional Eng; N. Y. State Soc. Professional Eng. (pres, 30–33, chairman board trustees, 33–43); Brooklyn Eng. Club (pres, 31–33); Eng. Inst. Can; Corp. Professional Eng. Que; hon. mem. Soc. des Ing. Professionels; Int. Asn. Bridge and Struct. Eng. (U. S. councilor). Bridge engineering; new influence line methods and charts for design of railway bridges; improvements in suspension bridge design; new system of design loading for railway bridges; analysis for bridge design; suspension bridges; spectrophotometry; stress measurements and secondary stresses in long-span bridges.

Steinmayer, Prof. Reinhard A(ugust), 7933 Oak St, New Orleans, La. *Geology.* La Salle, Ill, Feb. 14, 92. B.S, Illinois, 16; Chicago, 23. *Consulting geologist and engineer, 22–; curator museum, Tulane, 22–,* asst. prof. and later *prof. geol. and head dept, 24–, liaison agent for armed services, 42–* Asst. geologist, Roxana Oil Production Corp, 19; geologist, Atlantic Oil Production Co, 20; consulting geologist, State of La, 22–; Board of Levee Cmn, Port of New Orleans, 25. Geol-archeol. exped, Spanish Honduras, 23. State geol. expert witness, La, 26, 33. Soil expert, U. S. Engineers, 32, 35. Major, Eng. R.C. A.A; Asn. Petrol. Geol; fel. Am. Geog. Soc; La. Eng. Soc. (director, 41); New Orleans Acad. (pres, 41); New Orleans Geol. Soc. (v. pres, 41). Salt domes; phases of sedimentation; engineering geology; bottom sediments of lakes.

Steinmetz, Dr. F(erdinand) H(enry), University of Maine, Orono, Maine. *Plant physiology, Plant pathology.* Edwardsville, Ill, Aug. 19, 86. B.S, Illinois, 15; M.S, Minnesota, 21, Ph.D, 26. Teacher, high sch, Minn, 15–18; asst. prof. and asst, Exp. Sta, 18–19; instr, Minnesota, and asst, Exp. Sta, 19–26; *prof. bot, Maine, 27–, head dept. bot. and entom, 29–* Agent, bur. agr. econ, U. S. Dept. Agr, 24–25; collaborator, 25–26. A.A; Soc. Plant Physiol. (exec. cmt, New Eng. sect, 34–, chairman, 37); Asn. Plant Path; Bot. Soc; Josselyn Bot. Soc. (pres, 34–). Winter hardiness; plant diseases; flora of Maine.

Steinour, Dr. Harold H(eiges), Portland Cement Association, 33 W. Grand Ave, Chicago, Ill. *Chemistry.* Topeka, Kans, May 6, 02. B.S, Southern California, 23; fellow, Calif. Inst. Tech, 25–28, M.S, 26, Ph.D, 28. Chemist, Celite Products Co, Calif, 23–24; *research chemist,* Riverside Cement Co, 28–40; *Portland Cement Asn, 40–* A.A; Chem. Soc. Electrochemistry; chemistry of Portland cement; theory of sedimentation.

Stekol, Prof. Jakob A, 129 Kenner Ave, Nashville, Tenn. *Biochemistry, Nutrition.* Samara, Russia, Nov. 1, 05. B.S, California, 31, A.M, 32; Sc.D, Fordham, 34. Assoc. *biochem,* California, 32; instr, Fordham, 32–36, *asst. prof,* 36–41; *med. sch, Vanderbilt, 41–; capt, Sanit. Corps, U. S. Army, 42–* Summer, vol. asst, inst. exp. med, Mayo Clinic, 36. Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol; N. Y. Acad. Metabolism of amino acids and pyrimidines; sulfur metabolism; metabolism during growth; detoxication of organic compounds in relation to nutrition; nutrition survey in man.

Stelly, Dr. Matthias, Louisiana State University, Baton Rouge, La. *Agronomy.* Arnaudville, La, Aug. 7, 16. B.S, Southwest. La. Inst, 37; M.S, Louisiana, 39; Ph.D, Iowa State Col, 42. Asst. agronomist, Exp. Sta, Louisiana, 42–43; *U. S. Navy, 43–* Soil fertility; forms of inorganic phosphorus in the lower horizons of some Iowa soils as indicated by plant availability and chemical methods.

Stelson, Prof. H(ugh) E(ugene), 540 S. Lincoln St, Kent, Ohio. *Mathematics.* Elmdale, Kans, Jan. 16, 03. A.B, Kans. Wesleyan, 23; A.M, Northwestern, 24; Ph.D, Iowa, 30. Head dept. *math,* Hedding Col, 24–26; asst. and instr, Iowa State Col, 26–28; assoc. prof, Marshall Col, 29–30; asst. prof, Kent State Col, Ohio, 30–32, assoc. prof, 32–35, *Kent State Univ,* 35–36, *prof, 36–* Mathematical analysis.

Stelzner, Prof. W(illiam) B(oyd), 434 Highland Ave, Fayetteville, Ark. *Electrical engineering.* Wamego, Kans, Oct. 24, 85. B.S, Arkansas, 07, E.E, 11; M.S, Ohio State, 18. Engineer, Gen. Elec. Co, 07–08; electrician, Empire Dist. Power Co, 08–09; *prof. elec. eng, Arkansas, 09–* Elec. Eng; Eng. Educ. Economics of electrical distribution.

Stempel, Prof. Guido H(ermann), Jr, 5220 Forbes St, Pittsburgh, Pa. *Organic chemistry.* Bloomington, Ind, Oct. 7, 06. A.B, Indiana, 27, A.M, 28, Ph.D, 34. Asst. chem, Indiana, 28–29; instr. physics, *Carnegie Inst. Tech,* 29–30, *chem,* 30–36, *asst. prof, 36–* Chem. Soc. Application of physical methods to organic chemistry; sugar hydrazones; organic qualitative analysis; synthetic rubber.

Stempel, Prof. W(aldemar) M(atthaeus), Stevens Institute of Technology, Hoboken, N. J. *Physics.* Ft. Madison, Iowa, Aug. 29, 81. A.B, Indiana, 05; A.M, Illinois, 06. Instr. physics, Cornell, 06–07; Illinois, 07–11; elec. eng, Pa. State Col, 12–15; radio aid, U.S.N, 15–16; asst, Columbia, 16–21; instr. *physics, Stevens Inst. Tech,* 21–22, *asst. prof,* 22– Physical Soc; Radio Eng; Eng. Educ; Asn. Physics Teachers. Applied optics; automobile accidents.

Stene, Prof. A(ndrew) E(dward), Rhode Island State College, Kingston, R. I. *Pomology.* Ashby, Minn, Aug. 14, 72. B.S.A, Minnesota, 97, 97–98; M.S, Cornell, 02. Sch. prin, Minn, 98–01; asst. hort, Exp. Sta, R. I. State Col, 03–04, supt. col. exten, 04–14; director exten. service and county agent leader, 14–25; pomologist, Exp. Sta, R. I. State Col, 25–31, research prof. pomol, 31–40; entomologist, State Board Agr, R. I, 04–09, state entomologist, 09–27; chief bur. entom, State Dept. Agr, R. I, 27–35, state entomologist, 35–40; *retired.* A.A; Soc. Hort. Sci; Asn. Econ. Entom; hon. mem. R. I. Nurserymen's Asn; hon. mem. R. I. Arborists' Asn.

Stenger, Dr. V(ernon) A(rthur), Dow Chemical Co, Midland, Mich. *Analytical chemistry.* Minneapolis, Minn, June 11, 08. B.S, Denver, 29, M S, 30; Baker fellow, Minnesota, 32–33, Ph.D, 33. Asst, Eastman Kodak Co, 29–30; anal. chemist, Minnesota, 33–35; *anal. research chemist, Dow Chem. Co, 35–* Chem. Soc. Analytical methods.

Stenquist, Dr. J(ohn) L(angdon), 3 E. 25th St, Baltimore, Md. *Education, Psychology.* Engelvale, N. Dak, May 9, 85. B.S, Columbia, 14, A.M, 15, Ph.D, 21. Director dept. indust. educ, Idaho State Nor. Sch. 08–12; asst. psychol, Teachers Col, Columbia, 13–14; instr, N. Y. Training Sch. Teachers, 14–17; asst. to director, Bur. Reference, Research and Statist, New York, 19; *director bur. educ. research, Baltimore Pub. Schs, 22–* Lecturer, Hopkins, 23–29; instr, Maryland, 28–31; Harvard, 31. Summers, prof, Ohio State, 21–23; instr, Hopkins, 23–26; California, 26–28; lecturer, Maryland, 23– Contrib. ed, 'Jour. Educ. Research,' 24. Lieut, Sanit.C, 18–19. A.A; Psychol. Asn; Educ. Research Asn. Tests of mechanical ability; practical application of tests in education; statistical forms and devices.

Stenström, Dr. (Karl) Wilhelm, 1517 E. River Road, Minneapolis, Minn. *Physics, Radiology.* Gothenburg, Sweden, Jan. 28, 91. Fil. kand, 13, Fil. mag, 15, Fil. lic, 19; Ph.D, Lund, 19. Asst. physics, Lund, 16–19; Swedish-Am. Foundation fellow, 19–20; physicist, State Inst. Study Malignant Disease, Buffalo, 20–26; asst. prof. and assoc. prof. physiol, *Minnesota,* 26–35, *prof. biophys, 35–* A.A; fel. Physical Soc; Optical Soc; Asn. Cancer Research; Radium Soc; Radiol. Soc. N. Amer; Roentgen Ray Soc; Soc. Exp. Biol. Biophysics; x-rays; radiology; light.

Stenzel, Dr. H(enryk) B(ronislaw), University of Texas, Austin, Texas. *Geology.* Pabianice, Poland, Feb. 7, 99. Ph.D, Breslau, 22. Asst. geol, Breslau, 22–24; instr, Agr. and Mech. Col. Texas, 25–29, asst. prof, 29–34; *geologist, bur. econ. geol, Texas, 34–* Geologist, sch. dist, Czechoslovakia, 23; fellow, Kaiser Wilhelm Inst; research geologist, Shell Petrol. Corp, 37. Geol. Soc; Geophys. Union; Asn. Petrol. Geol; Malacol. Union; Soc. Econ. Paleont. and Miner. (sec'y-treas, 38–); S. Texas Geol. Soc. Structural geology; tectonics of intrusive rocks; Tertiary paleontology and stratigraphy.

Stenzel, Dr. R(ichard) W(erner), 3725 Via Palomino, Palos Verdes Estates, Calif. *Chemistry.* Dresden, Germany, Nov. 14, 98. B.S, Calif. Inst. Tech, 21; Am. Petrol. Inst. fellow, 29; M.S, Michigan, 30, fellow, 30–32, Ph.D, 32. Head dept. science, Tung Wen Inst, Amoy, China, 22–25; research engineer, Petrol. Rectifying Co, Long Beach, Calif, 28–29; chief chemist, Dept. Water, Pasadena, 32–33; chem. engineer, Metropolitan Water Dist, South. Calif, 33–36; chief chemist, *Petrol. Rectifying Co,* 36–42, *director research, 43–* A.A;

Chem. Soc. Cement chemistry; surface and petroleum chemistry.

Stephan, Prof. Elmer F(rederick), 48 E. Main St, Allegany, N. Y. *Organic chemistry.* Allegany, N. Y, March 3, 11. B.S, St. Bonaventure Col, 39, M.S, 41. *Asst. prof. chem, St. Bonaventure Col, 39–* Chem. Soc; N. Y. Acad. Chemical analysis of water extracts of barks; antidims.

Stephan, Prof. Frederick F(ranklin), Cornell University, Ithaca, N. Y. *Statistics.* Chicago, Ill, May 17, 03. A.B, Illinois, 24; A.M, Chicago, 26. Instr. sociol, Pittsburgh, 27–29, asst. prof, 30–34; director bur. social research, Pittsburgh Federation Social Agencies, 31–34; coordinator statist. projects, Fed. Emergency Relief Admin, 34; sec'y-treas. and ed, Am. Statist. Asn, 35–40; *prof. sociol. and statist, Cornell, 40–; chief statist. services and consultant, War Manpower Cmn, 42–* Lecturer, Columbia, 38; research adviser, Office Production Management, 41; chief scheduling sect, machine tool branch, War Production Board, 42. Mem. Cent. Statist. Board. Popul. Asn. Amer. del, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, Paris, 37. A.A; Statist. Asn; Sociol. Soc; Econ. Asn; Popul. Asn; Inst. Math. Statist; Social Research Asn. Population; urban sociology; statistical sampling.

Stephano, Dr. C(onstantine) S(tephen), 1014–16 Walnut St, Philadelphia, Pa. *Mining engineering.* Philadelphia, Pa, July 29, 02. E.M, Colo. Sch. Mines, 25; M.S, Mass. Inst. Tech, 26, Sc.D, 28. *Mining engineer and metallurgist, 29–; in charge tech. operations, Stephano Brothers.* Min. and Metal. Eng. Tobacco manufacture; chemistry of tobacco; tobacco smoke, tars and aromatics.

Stephens, D(avid) E(dmund), Moro, Oregon. *Agronomy.* Malad, Idaho, May 15, 79. B.S, Utah Col, 04; California, 05. Instr, Utah Col, 06–07; exec. asst, *U. S. Dept. Agr,* 08–11, field sta. supt, 12–15, agronomist, *bur. plant indust,* 16–21, *prin. agronomist, div. cereal crops and diseases, 22–* Soc. Agron. Cereal crop improvement.

Stephens, Prof. Eugene, Box 628, Warson Road, Route 2, Clayton, Mo. *Mathematics.* St. Louis, Mo, July 16, 79. B.S, Chicago, 29; M.S, Washington (St. Louis), 29. Instr. *math, Washington (St. Louis),* 18–28, *asst. prof, 28–* Math. Soc; Math. Asn. Elementary theory of operational mathematics.

Stephens, Dr. H(enry) L(e Roy), Western Kentucky State Teachers College, Bowling Green, Ky. *Plant physiology.* Dodgeville, Wis, Sept. 13, 98. B.S, Wisconsin, 24, indust. fellow, 25–27, M.S, 26, fellow, 29–32, Ph.D, 32. Instr. *biol, West. Ky. State Teachers Col,* 27–29, *assoc. prof, 31–,* head dept, 40. Bot. Soc. Light effects and nitrate assimilation in plants; nitrogen relation of fungi.

Stephens, Dr. H(enry) N(ewburn), 821 Lake Ave, White Bear Lake, Minn. *Organic chemistry.* Glencairn, Ont, Can, July 14, 97. B.A, McMaster, 20; M.A, Toronto, 21; Ph.D, McGill, 23. Instr. chem, Minnesota, 23–26, asst. prof, 26–37; *director research, Minn. Mining and Mfg. Co, 37–* A.A; Chem. Soc; Can. Inst. Chem. Mechanism of oxidations of organic substances by elementary oxygen; chemical activation; high polymers; adhesives and adhesion.

Stephens, J(ames) L(ouis), Coastal Plain Experiment Station, Tifton, Ga. *Agriculture.* Selmer, Tenn. Dec. 3, 02. B.S.A, Georgia, 26, M.S, 31. Asst, State Dept. Agr, Ga, 27–28; agent, *U. S. Dept. Agr,* 28–31, *forage crop specialist in charge, Coastal Plain Exp. Sta, bur. plant indust, 31–* Pasture grass; winter cover crops; summer legumes.

Stephens, Prof. Jessica Young (Mrs. Eugene Stephens), Box 628, Warson Road, Route 2, Clayton, Mo. *Astronomy.* St. Louis, Mo, March 21, 93. A.B, Washington (St. Louis), 14; M.S, California, 15, fellow, 15–17, fellow, Lick Observatory, 17, Ph.D, 20. Prof. math. and physics, Col. St. Teresa, 18; instr. astron. and math, Northwestern, 18–19, astron, 19–20; *math. and astron, Washington (St. Louis),* 20–23, *asst. prof, 23–* A.A; Astron. Soc; Math. Soc; Math. Asn. Comet orbits; the cause of the non-appearance of periodic comets; orbits of visual binary stars.

Stephens, J(ohn) M(organ), Northern Great Plains Field Station, Mandan, N. Dak. *Agronomy.* Malad, Idaho, Oct. 25, 78. B.S, Utah Col, 05. Instr. agron. and soil physics, Utah Col, and asst. agronomist, Exp. Sta, 06–08; supt. in charge cooperative agron. investigations, Mont. Branch Exp. Sta, *bur. plant indust, U. S. Dept. Agr,* and Mont. State Exp. Sta, 08–17, *dist. supervisor, U. S. and state cooperative exp. stations, and prin. agriculturist and supt, North. Great Plains Field Sta, div. dry land agr, 18–* Agronomic investigations in dry land and irrigation crop production.

Stephens, Prof. J(ohn) M(ortimer), Johns Hopkins University, Baltimore, Md. *Psychology.* Reston, Man, Can, Nov. 16, 01. B.A, Manitoba, 25; Toronto, 27–28; Ph.D, Columbia, 32. Assoc. educ, *Hopkins,* 30–37, *assoc. prof.* psychol, 37–41, *educ, 41–; lieut, Air Corps, U. S. Army, 43–* Psychol. Asn. Educational psychology; psychology of learning; psychological study of education.

Stephens, Dr. Maynard M(oody), Ryder-Scott Co, Bradford, Pa. *Petroleum engineering, Economic geology.* Connersville, Ind, April 25, 08. A.B, Minnesota, 30, A.M, 31, Ph.D, 34, P.E, 43. Research geologist, Minnesota, 31–36; supervisor petrol. and nat. gas exten, Pa. State Col, 36–41; *petrol. eng. geologist, Ryder-Scott Co, 41–* Director nature study, Minn. Y.M.C.A, 33–35; director, Minneapolis Library Museum of Nat. Science, 34–36; Minneapolis Sch. Board Adult Educ, 34–35; lecturer, counselors training camp, Minn. Camp Asn, 35. Summers, asst, Minn. Geol. Surv, 29–33. Min. and Metal. Eng; Asn. Petrol. Geol; Independent Petrol. Asn. Polished surface of ores; photomicrography; petroleum and natural gas engineering; petroleum production; refining engineering; secondary recovery of oil.

Stephens, Dr. P(hilip) H(olcomb), Farm Credit Administration, Wichita, Kans. *Statistics.* Westfield, N. Y, Feb. 17, 96. B.S, Nebraska, 20; M.S, Illinois, 27; Ph.D, Cornell, 29. Assoc. prof. and prof. agr. econ. in charge farm management, Okla. Agr. and Mech. Col, 28–33; *director research, Farm Credit Admin, 34–* Farm. Econ. Asn; Statist. Asn. Loan experience; credit analysis; farm management; agricultural prices; agricultural credit.

Stephens, Robert A(aron), Oak Lane, Westwood, Easton, Pa. *Chemistry.* Mt. Arlington, N. J, Jan. 28, 09. B.S, Lafayette Col, 30, du Pont fellow, 30–31, M.S, 31. *Research chemist and chief chem. eng. sect, research dept, C. K. Williams and Co, 31–* Chem. Soc. Development of synthetic iron oxides; viscosity of very viscous materials.

Stephens, Prof. R(oswell) P(owell), University of Georgia, Athens, Ga. *Mathematics.* Barnesville, Ga, Nov. 4, 74. A.B, Georgia, 96; Ph.D, Hopkins, 05. Instr. *math,* Wesleyan, 05–07; adj. prof, *Georgia,* 07–10, assoc. prof, 10–19, *prof, 19–,* acting dean, 25–26, *dean grad. sch, 29–* A.A; Math. Soc; Math. Asn; Ga. Acad. (pres, 22). Analytic geometry; vector analysis.

Stephens, Dr. Rothwell (Clifford), Knox College, Galesburg, Ill. *Mathematics.* Kansas City, Mo, Dec. 30, 06. F.A.B, Oklahoma, 26, A.B, 27, fellow, 27–28, A.M, 29; Ph.D, Iowa, 31. Asst, Oklahoma, 28–29; Iowa, 29–31; instr. *math, Knox Col,* 31–35, asst. prof, 35–37, assoc. prof, 37–39, *prof, 40–* Instr, Princeton, 39–40; mem, Inst. Adv. Study, 39–40. Math. Soc; Math. Asn. Abstract spaces.

Stephens, Prof. T(homas) C(alderwood), Morningside College, Sioux City, Iowa. *Biology.* Adrian, Mich, March 9, 76. A.B, Kansas City Univ, 01; M.D, Kansas, 04. Instr. embryol, Kansas City Univ, 01–02; lecturer histol, Kansas, 02–04; fellow, Chicago, 04–06; *prof. biol, Morningside Col, 06–* Summers, asst, Chicago, 05–07; staff, Lakeside Lab, 11–18, 40–42. Ed, 'The Wilson Bul,' 25–38. Ornith. Union; Cooper Ornith. Club; Wilson Ornith. Club (pres, 14); Iowa Conservation Asn. (pres, 15); Iowa Acad. (pres, 19); Nebr. Ornith. Union (pres, 15). The behavior of birds; birds, mammals and Mollusca of Iowa.

Stephens, Dr. W(illiam) E(dwards), University of Pennsylvania, Philadelphia, Pa. *Physics.* St. Louis, Mo, May 29, 12. A.B, Washington (St. Louis), 32, M.S, 34; Ph.D, Calif. Inst. Tech, 38. Westinghouse research fellow, Westinghouse Research Lab, 38–40; *instr. physics,* Stanford, 40–41; *Pennsylvania, 41–* Lecturer, Pittsburgh, 39. Physical Soc. Nuclear physics.

Stephens, Prof. W(illiam) R(ichmond), Baylor University, Waco, Texas. *Chemistry.* Stroud, Ala, March 27, 92. B.S, Ala. Polytech, 19, M.S, 21; Ph.D, Iowa, 29. Dean and prof. *chem,* Meridian Col, 19–22; asst. prof, *Baylor,* 22, assoc. prof, 29, *prof, 30–* A.A; Chem. Soc; fel. Texas Acad. Solubilities in liquid sulfur dioxide; solubility; solutions; oxidation; free energy.

Stephenson, Dr. Bird R(ichard), 66 Mapleridge Ave, Buffalo 15, N. Y. *Therapeutics.* Ferry, Mich, July 23, 88. A.B,

Albion Col, 16; A.M, Illinois, 17; Ph.D, Michigan, 26. Instr. physics, Illinois, 17–19; Peking Union Med. Col, 19–25; research physicist, Marland Oil Co, Okla, 25–28; *assoc. therapeut, sch. med, Buffalo, and physicist, E. J. Meyer Mem. Hosp, 28–* A.A; Physical Soc. X-rays; physiotherapy; radiation.

Stephenson, Rear Admiral C(harles) S, 4457 Q St, N.W, Washington, D. C. *Preventive medicine, Epidemiology.* Aetna, Tenn, May 21, 87. M.D, Vanderbilt, 12; M.S, Columbia, 32; Army Indust. War Col, 36. Med. Corps, U. S. Navy, 13–36, capt. *in charge div. prev. med, Bur. Med. and Surg, Navy Dept,* 36–42, *rear admiral, 42–; head dept. hygiene and prev. med, U. S. Naval Med. Sch, 36–* Instr, Peiping, 27; lecturer, Hopkins, 40–; liaison officer, sect. for. health relations, U. S. Pub. Health Service; naval observer, Am. Embassy, London, England. Advisory councilor, U. S. Pub. Health Service; div. health and safety, Tenn. Valley Authority; mem, Fed. Interdept. Safety Council; Interdept. Cmt. Venereal Disease; director, U. S. Typhus Cmn. Liaison officer, med. sciences div, Nat. Research Council. Order of the Purple Heart, 18. Soc. Trop. Med; Pub. Health Asn; Am. Med. Asn; Am. Physicians; Social Hygiene Asn. Cholera; plague; cancer; applied physiology.

Stephenson, Dr. C(lark) C(onkling), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Augusta, Kans, Dec. 28, 11. A.B, Kansas, 32; Coffin research fellow, California, 34–35, Ph.D, 36. Fellow, Mellon Inst, 36–37; *instr. chem, Mass. Inst. Tech, 37–* Chem. Soc. Thermodynamics; low temperature physics.

Stephenson, Dr. Edward B(eattie), 1912 37th St, N. W, Washington 7, D. C. *Physics.* Sparta, Ill, Jan. 19, 82. B.S, Knox Col, 03, M.S, 07, hon. Sc.D, 43; fellow, Illinois, 07–09, Ph.D, 10. Teacher, high sch, Ill, 03–06; instr. math, Knox Col, 06–07; asst. physics, Illinois, 09–10; instr, North Dakota, 10–13, asst. prof, 14–17; physicist, C.Eng, 19–25; *prin. physicist, sound div, Naval Research Lab, Washington, D. C, 25–* Award, Navy Dept, 31. Capt, C.Eng, 17–19, major, Eng.O.R.C. A.A; Physical Soc; fel. Acoustical Soc; Geophys. Union; Philos. Soc. Wash. Heusler alloys; searchlights; sound ranging; propagation of sound in water; supersonics; piezoelectric crystals; vibration analyses.

Stephenson, Prof. Eugene A(ustin), University of Kansas, Lawrence, Kans. *Mining.* Franklin, Mich, 84. B.S, Adrian Col, 05; Ph.D, Chicago, 17. Instr. geol, Chicago, 15–18; chief geologist, South. Penn Oil Co, 18–25; with Ralph E. Davis, Pittsburgh, 25–30; prof. *petrol. eng,* Mo. Sch. Mines, 30–37; *prof. and head dept, Kansas, 37–, exec. director univ. research foundation, 43–* A.A; Min. and Metal. Eng. (sec'y-treas, petrol. div, 33–38, chairman, 41). Decline and production of the Ranger field, Texas; proration on the basis of gas energy; valuation of natural gas properties; basic data for oil and gas wells; basis for operating pressures of oil wells.

Stephenson, Dr. H(ubert) Kirk, 20 Chauncy St, Cambridge, Mass. *Geophysics.* Youngstown, Ohio, Feb. 14, 13. B.S, Mt. Union Col, 37; Ph.D, Princeton, 41. Teaching asst. geol, Princeton, 38–41; nat. research fellow, Mass. Inst. Tech, 41–42; *tech. aide,* sect. D-3, instruments, *Nat. Defense Research Cmt,* 42–43, *div. 16, optics and camouflage, 43–* Magnetic properties of minerals.

Stephenson, Dr. L(loyd) W(illiam), U. S. Geological Survey, Washington, D. C. **⁶Geology.* Scio, Ohio, Aug. 31, 76. Ph.B, Scio Col, 03; Ph.D, Hopkins, 07. Junior geologist, *U. S. Geol. Surv,* 07–09, asst. geologist, 09–11, paleontologist, 11–14, *geologist, 14–,* chief sect. coastal plain investigations, 22–36. Substitute prof, California, 14. A.A; Geol. Soc. (3rd v. pres, 42); Paleont. Soc. (pres, 41); Asn. Petrol. Geol; Geol. Soc. Wash. (pres, 25); Wash. Acad; Paleont. Soc. Wash. (pres, 40). Geology and underground water resources of the coastal plain of North Carolina, Georgia, Mississippi and Arkansas; Cretaceous paleontology of North Carolina and Texas; Upper Cretaceous stratigraphy and invertebrate paleontology of Atlantic and Gulf coastal plain; geology of eastern Mexico and northern Venezuela.

Stephenson, Dr. N(orman) R(obert), Banting Institute, University of Toronto, Toronto 5, Ont, Can. *Biochemistry.* Toronto, Ont, March 15, 17. B.A, Toronto, 38, M.A, 40, Ph.D, 42. Asst. chemist insulin cmt. lab, Toronto, 38–39, asst. med. research, 39–42; *med. research unit, Royal Can. Navy, 42–* Assoc. Can. Inst. Chem; Toronto Biochem. and Biophys. Soc. Histaminase; purification; reaction catalysed by the enzyme and its value in the therapy of histamine shock.

Stephenson, Dr. R(eginald) J(oseph), 5725 Maryland Ave, Chicago, Ill. *Physics.* Nottingham, Eng, Aug. 11, 03. B.Sc, London, 23; M.Sc, Reading, 29; Ph.D, Chicago, 33. Lecturer *physics,* Mem. Univ. Col, Newfoundland, 26–29; instr, Worcester Polytech, 29–31; *Chicago,* 34–39, *asst. prof, 39–* Asn. Physics Teachers; assoc. Inst. Physics; Physical Soc. X-rays; cosmic rays.

Stephenson, Prof. R(oscoe) E(lmo), Oregon State College, Corvallis, Oregon. *Agriculture.* Campbellsburg, Ind, Nov. 15, 85. B.S, Purdue, 15; M.S, Illinois, 17; Ph.D, Iowa State Col, 20. Asst. chemist soils, West Virginia, 19–20; exten. specialist *soils,* Kentucky, 20–23; assoc. prof, *Oregon State Col,* 23–38, *prof, 38–* West. Soc. Soil Sci. (pres, 35). Soil acidity; physical properties of orchard soils.

Stephenson, Prof. S(eymour) Town, 503 Jordan Road, Pullman, Wash. *Physics.* San Jose, Calif, Nov. 28, 10. A.B, DePauw, 30; Ph.D, Yale, 33. Asst, Yale, 31–32; asst. prof. *physics, State Col. Wash,* 33–39, *assoc. prof, 39–* Soc. X-Ray and Electron Diffraction; Physical Soc; Northwest Sci. Asn. X-rays; extended fine structure of x-ray absorption edges; diffraction.

Stericker, Dr. W(illiam), 540 Riverview Ave, Swarthmore, Pa. *Chemistry.* Ft. Collins, Colo, Dec. 1, 95. B.S, Wisconsin, 17; Mellon Inst, 19–22; Ph.D, Pittsburgh, 22. Chemist, Westinghouse Lamp Co, 17–19; fellow, Mellon Inst, 19–22; research chemist, *Phila. Quartz Co,* 22–25, asst. manager chem. dept, 25–29, chief chemist, 29–36, *develop. chemist, 36–* Chem. Soc. (councilor, 26–); Inst. Chem; Franklin Inst. Silica and its derivatives; sodium silicates; detergents; inorganic coatings; cements.

Sterling, E(rnest) A(lbert), Cornell Club, New York, N. Y. *Forestry.* Brooklyn, Pa, June 27, 78. Bucknell, 98–00; F.E, Cornell, 02. Forest asst, U. S. Forest Service, 02–04, asst. forester, 04–07; forester, Pa. R. R. Co, 07–12; consulting forester, 12–15; manager and later *v. pres, J. D. Lacey and Co, 15–* Consulting forester. Soc. Foresters; Wood Preservers Asn. (past pres). Forest engineering; causes and effects of forest fires; wood preservation; forest economics.

Stern, Alexander W, Municipal Bldg, Brooklyn, N. Y. *Physics, Engineering.* New York, N. Y, Nov. 30, 98. Cooper Union, 16–20; Col. City of N. Y, 21–22; Michigan, summers, 31–33. *Civil engineer, office pres, Borough Brooklyn, 22–* A.A; Physical Soc; N. Y. State Soc. Professional Eng. Theoretical aspects of atomic and nuclear physics; the uncertainty principle; the significance and philosophical implications of modern physics; quantum theory; the validity of atomic concepts when applied to nuclear phenomena; cosmic rays.

Stern, Prof. Curt, University of Rochester, Rochester, N. Y. **⁶Zoology.* Hamburg, Germany, Aug. 30, 02. Ph.D, Berlin, 23. Investigator, Kaiser Wilhelm Inst, 23–33; privat-docent, Berlin, 28–33; research assoc. zool, *Rochester,* 33–35, asst. prof, 35–37, assoc. prof, 37–41, *prof. zool. and chairman div. biol. sciences, 41–* Int. Educ. Board fellow, 24–26; visiting prof, Western Reserve, 32; fellow, Rockefeller Foundation, 32–33. A.A; Genetics Soc; Soc. Nat; Zool. Soc. Cytology; genetics of Drosophila; general genetics.

Stern, Dr. E(rnest) George, Box 361, Blacksburg, Va. *Engineering.* Würzburg, Germany, Aug. 10, 12. B.Arch, Tech. Univ, Munich, 34, M.Sc, 36; M.S, Pa. State Col, 38, Ph.D, 41. Asst. eng. research, Pa. State Col, 36–41; *research engineer in charge wood research lab, Va. Polytech, 41–* Consulting engineer. A.A; assoc. Civil Eng; Soc. Test. Mat; Pa. Asn. Archit. Timber structures and engineering; utilization of wood; testing and research on wood, plywood and plastics.

Stern, Dr. Kurt G(uenter), 254 W. 31st St, New York, N. Y. *Biochemistry.* Tilsit, Germany, Sept. 19, 04. Ph.D, Berlin, 30. Carl Duisberg fellow, Rockefeller Inst, 30–31; research chemist, Virchow Hosp, Berlin, Germany, 31–33; visiting sci. guest, Courtauld Inst. Biochem, London, 33–35; visiting lecturer physiol. chem, *Yale,* 35–37, Alexander Brown Coxe Mem. fellow, 37–38, research asst. and asst. prof. physiol. chem, 38–42; *chief chemist, Overly Biochem. Research Foundation, Inc, 42–* Chem. Soc; Soc. Biol. Chem; N. Y. Acad. Sciences. Chemistry and action mechanism of enzymes; biological oxidation; physical chemistry of active proteins.

Stern, Prof. Otto, 1060 Morewood Ave, Pittsburgh, Pa. **⁶Physics.* Sohrau, Germany, Feb. 17, 88. Ph.D, Breslau, 12; LL.D, California, 30. Privat-docent, Tech. Hochschule, Zurich, 13–14; Frankfurt, 14–21; prof, Rostock, 21–22; Hamburg, 23–33; *research prof, physics dept, research lab. molecular*

physics, Carnegie Inst. Tech, 33– A.A; Danish Royal Akad. Thermodynamics; molecular physics; molecular and quantum theory; molecular rays.

Stern, Dr. Robert M(alcolm), National Canners Association, 1739 H St, N.W, Washington, D. C. *Biochemistry, Bacteriology.* Milwaukee, Wis, June 7, 15. B.S, Wisconsin, 37, M.S, 38, Ph.D, 40. Teaching asst. agr. bacter, Wisconsin, 37–38, asst, 38–40; *research bacteriologist and chemist, Nat. Canners Asn, 40–* Nutritional studies on canned foods; bacteriological studies on spoilage organisms in canned foods.

Sternberg, George F(riar), 603 Elm St, Hays, Kans. *Vertebrate paleontology.* Lawrence, Kans, Aug. 26, 83. Hon. M.S, Ft. Hays Kans. State Col, 33. Collector vert. fossils, Middle West, 97–11; collector and preparator, Can. dinosaur beds of Alta, Am. Museum Nat. Hist, 11–13; Geol. Surv. Can, 13–18; chief collector and preparator, Can. dinosaur beds of Alta, Edmonton, Can, 20–22; mammalian fossil beds of Patagonia, Argentina, Field Museum, Chicago, 22–24; independent collector and preparator, Cretaceous chalk, Oakley, Kans, 24–27; field asst, U. S. Nat. Museum, 28–42; *curator,* museum geol. and paleont, *Ft. Hays Kans. State Col,* 27–37, *museums, 37–* Collection and preparation of dinosaur specimens; the fossil fish, Portheus molossus; fossil mososaurs.

Sterne, Dr. T(heodore) E(ugene), Harvard University, Cambridge, Mass. *Astronomy, Physics.* New York, N. Y, Nov. 23, 07. B.S, Princeton, 28; Ph.D, Cambridge, 31. Nat. research fellow physics, Harvard and Mass. Inst. Tech, 31–33; assoc, *col. observatory, Harvard,* 33–34, *lecturer astrophys, 34–;* lieut, *Field Artil, U. S. Army,* 41–42, capt, *Ordnance Dept,* 42, *major, 42–* Mem. advisory council, Watson astron. computing bur, Columbia. Astron. Soc; fel. Physical Soc; Astron. Soc. Pacific; Royal Astron. Soc; Int. Astron. Union (cmn. int. constitution of stars). Statistical mechanics; electrical phenomena in metals; statistics of nuclear transmutations; source of stellar energy; variable stars; statistical methods; binary stars; stellar radiometry; exterior ballistics.

Sterner, Dr. James H, Laboratory of Industrial Medicine, Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Medicine.* Bloomsburg, Pa, Nov. 14, 04. B.S, Pa. State Col, 28; M.D, Harvard Med. Sch, 32. Intern, Lankenau Hosp, Philadelphia, Pa, 32–34, chief res. physician, 34–36; *director lab. indust. med, Eastman Kodak Co, 36–; instr. med, sch. med. and dentistry, Rochester, 40–* A.A; Am. Med. Asn; Chem. Soc; Asn. Indust. Physicians and Surg; Indust. Hygiene Asn; Pub. Health Asn. Experimental and clinical problems in industrial hygiene and toxicology.

Sterrett, Dr. R(obert) R(horer), 53 Dunn Ave, Naugatuck, Conn. *Chemistry.* Lebanon, Ky, Nov. 7, 09. B.S, Purdue, 31; M.S, St. Louis, 32; Ph.D, Illinois, 35. Asst. chem, St. Louis, 31–33; Illinois, 33–36; *chemist,* gen. labs, U. S. Rubber Products Co, Passaic, N. J, 36; *Naugatuck Chem. Co, 36–* X-ray diffraction of lubricants.

Stetkewicz, Dr. Joseph D(aniel), Rutgers University, New Brunswick, N. J. *Chemical engineering.* Jersey City, N. J, Jan. 30, 11. A.B, Columbia, 32, B.S, 33, Chem.E, 34, Goldschmidt fellow, 34–36, Ph.D, 39. Asst. prof. chem. eng, Bucknell, 37–41; chem. eng. research, Am. Zirconium Corp, 41–42; *assoc. prof. mech. eng. and in charge metal, Rutgers, 42–* Titanium dioxide pigments.

Stetson, George A(lbert), 29 W. 39th St, New York, N. Y. *Mechanical engineering.* New Haven, Conn, May 6, 89. Ph.B, Yale, 10, M.E, 15. Instr. and asst. prof. mech. eng, Yale, 13–23; assoc. prof, N. Y. Univ, 24–28; assoc. ed, *Soc. Mech. Eng,* 28–30, *ed, 30–* Eng. Educ; Mech. Eng; Newcomen Soc.

Stetson, Dr. Harlan True, Massachusetts Institute of Technology, Cambridge, Mass. *[5]*Astronomy, Geophysics.* Haverhill, Mass, June 28, 85. Ph.B, Brown, 08; M.S, Dartmouth Col, 10; Ph.D, Chicago, 15. Asst. physics, Dartmouth Col, 08–10, instr, 11–13; astron, Northwestern, 13–14, physics, 16; astron, Harvard, 16–21, asst. prof, 21–29; prof. and director, Perkins Observatory, Ohio Wesleyan, 29–34; *research assoc. geophys,* Harvard, 34–36; *Mass. Inst. Tech, 36–; director lab. cosmic terrestrial research, 40–* Exchange prof, west. univs, 29; lecturer, grad. sch, Ohio State, 30–34; James Arthur Foundation lecturer, Smithsonian Institution, 38. Summers, asst, Yerkes Observatory, Chicago, 09; instr, Middlebury Col, 12–14; mem. McCormick eclipse exped, Calif, 23; leader Harvard expeds, Conn, 25, Sumatra, 26, Malaya, 29; Perkins Observatory exped, Maine, 32; asst, Smithsonian Institution exped, Norway eclipse, 27. Ed. cmt, Sci. Book Club, 29– A.A. (exec. cmt, D, 29–40, sec'y, 33–40, prize cmt, 36); Astron. Soc. (councilor, 33–36); Physical Soc; Optical Soc; Radio Eng; Geophys. Union (chairman special cmt. cosmic terrestrial relations, 37–; cmt. meetings, 41); Am. Acad; Meteorol. Soc; Astron. Soc. Pacific; Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; Int. Astron. Union (cmn. variations in latitude, eclipses and on solar radiation); Int. Union Geod. and Geophys. (cmn. earth tides). Thermoelectric method in photographic photometry; short period variables; solar eclipse observations; lunar effect on latitude variation; correlation of sun-spots with radio reception; variation of longitude; variability of velocity of time signal radio waves; lunar tides in ionosphere; variation in atmospheric ions; cosmic terrestrial relations.

Stetson, H(enry) C(rosby), Harvard University, Cambridge, Mass. *Geology.* Cambridge, Mass, Oct. 10, 00. A.B, Harvard, 23, A.M, 25. Asst. curator *paleont, museum comp. zool, Harvard,* 28–34, research assoc, 34–42, *research fellow, 42–* Research assoc, Oceanog. Inst, Woods Hole, 31–41, submarine geologist, 41– A.A; Geol. Soc; Paleont. Soc; Geophys. Union. Morphology and relationships of early vertebrates; marine sedimentation and sedimentary environments; geologic structure of continental shelves.

Stetson, Prof. John M(inor), College of William and Mary, Williamsburg, Va. *Mathematics.* New Haven, Conn, Sept. 6, 87. A.B, Yale, 09; Ph.D, Princeton, 14. Instr. math, Vermont, 10–12; lecturer geometry, Alberta, 14–15; instr. *math,* Western Reserve, 15–17; Yale, 19–21; Illinois, 21–27; *prof. and head dept, Col. of William and Mary, 28–* U.S.A, 17–18. A.A; Math. Soc; Math. Asn. Differential geometry; transformations of conjugate systems.

Stetson, Prof. R(aymond) H(erbert), 157 N. Professor St, Oberlin, Ohio. *Psychology.* North Ridgeville, Ohio, 72. Ph.B, Oberlin Col, 93, A.M, 96; Ph.D, Harvard, 01. Instr. chem, Oberlin Col, 93–94; prof. zool, Tabor Col, 96–99; psychol. and philos, Beloit Col, 05–09; prof. *psychol.* and head dept, *Oberlin Col,* 09–39, *emer. prof, 39–* Mem. permanent int. council, Int. Cong. Phonetic Sciences. A.A; Psychol. Asn; Linguistic Soc. Rhythm and movement; skilled movements; skin sensations; phonetics.

Steunenberg, Prof. Ancil K(eppel), 1903 Everett St, Caldwell, Idaho. *Physics.* Caldwell, Idaho, Jan. 20, 96. A.B, Col. of Idaho, 19; A.M, Southern California, 31. Asst. chem, *Col. of Idaho,* 21–24, *prof. physics, 24–* Effects of phase and time shifts on binaural sensation of direction.

Steve, Prof. W(illiam) F(rederick), University of Wisconsin, Madison, Wis. *Physics.* Verona, Wis, Feb. 20, 74. A.M, Wisconsin, 09. Prin, schs, Wis, 97–05; asst. *physics, Wisconsin,* 07–09, instr, 09–15, asst. prof, 15–30, assoc. prof, 30–43, *prof, 43–* Physical Soc.

Stevens, Dr. Alexander R(aymond), 65 E. 66th St, New York, N. Y. *Surgery.* Baltimore, Md, May 9, 76. A.B, Hopkins, 96, M.D, 03. Asst. and asst. prof. *urol,* N. Y. Univ, 10–23; assoc. prof, *Cornell,* 24–37, *prof, 37–; attending surgeon and director urol, N. Y. Hosp, 37–* Consulting urologist, Beekman St, Reconstruction, Somerset, Tarrytown, Stamford, Sharon, Englewood, St. Vincent's and Mary Immaculate Hosps; attending surgeon and director urol, Bellevue Hosp, 23–38. A.A; fel. Col. Surg; Urol. Asn; Asn. Genito-Urinary Surg; Am. Med. Asn; N. Y. Acad. Med; Soc. int. d'Urol. Urology; surgery of the urinary tract.

Stevens, Dr. Belle A(lice), St. Nicholas School, Seattle, Wash. *Zoology.* Seattle, Wash, April 4, 94. B.S, Washington (Seattle), 19, M.S, 24, Ph.D, 31. *Head dept. science,* high sch, Wash, 19–23; *St. Nicholas Sch, 23–* Research assoc, Washington (Seattle), 33– Summers, asst, Puget Sound Biol. Sta, 24; Washington (Seattle), 28. A.A; Chem. Soc. Carcinology; taxonomy and ecology of marine decapod Crustacea; Paguridae; Callianassidae; Carides.

Stevens, Dr. Charles D(avid), General Hospital, Cincinnati, Ohio. *Biochemistry.* Pittsburgh, Pa, Feb. 1, 12. A.B, Cincinnati, 33, M.S, 34, univ. scholar, 33–37, Ph.D, 37. Asst, Kettering Foundation, Antioch Col, 31–32; research biochemist, DeCourcy Clinic, Cincinnati, Ohio, 35–38; *research assoc,* Fels Foundation, 38; cardiac lab, *Cincinnati Gen. Hosp,* 38–42, *aviation lab, 42–;* asst. biochem, *Cincinnati,* 39–40, *research asst. surg. and instr. biochem, 40–* Biochemist, Chem. Novelties Co, 37. Chem. Soc; Asn. Study Goiter. Iodine metabolism; nucleic acid chemistry; arterio-venous aneurysm physiology; antipressor kidney extracts; aviation physiology.

Stevens, Prof. C(lark) L(eavitt), Durham, N. H. *Forestry.* North Stratford, N. H, April 9, 95. B.S, New Hampshire Col, 17; M.F, Yale, 26, Ph.D, 30. Instr. *forestry, New Hampshire,* 19–22, asst. prof, 22–37, assoc. prof, 37–38, *prof, 38–* Silviculture; root growth in white pine; relation of forest wildlife to forestry; forest litter and soils.

Stevens, Dr. D(aniel) S(heldon), 6139 Ellis Ave, Chicago, Ill. *Physics.* Buffalo, N. Y, Oct. 12, 03. B.S, Rochester, 25; M.S, Chicago, 28, Ph.D, 31. Instr. physics, Florida, 28–29; asst. med, Chicago; *mem. staff, De Vry Corp.* Physical Soc. Band spectroscopy.

Stevens, Donald R(aymond), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Dover, Ohio, May 7, 98. Ch.B, Cornell, 20; M.S, Pittsburgh, 22; Ph.D, Chicago, 24. *Indust. fellow, Mellon Inst, 24–* Chem. Soc. Petroleum chemistry.

Stevens, Prof. Edith, Metz, W. Va. *Botany.* Metz, W. Va, Feb. 14, 97. A.B, West Virginia, 21, A.M, 24; Ph.D, Chicago, 28. Teacher, pub. sch, W. Va, 17–19, 21–23, 24–26; *assoc. prof. biol, Va. State Teachers Col, Farmville, 28–* A.A. Plant morphology; cytology of Gymnosporangium juniperi-virginianae.

Stevens, Prof. E(dward) H(umphrey), P. O. Box 203, Golden, Colo. *Geology.* Chicago, Ill, Oct. 7, 08. B.S, Chicago, 31, Ph.D, 38. Instr. *geol, Colo. Sch. Mines,* 35–38, *asst. prof, 38–* Asn. Petrol. Geol. Details of the geologic structures of the Colorado Front Range near Golden; inertia as a possible factor in the mechanics of low-angle thrust faulting; geology of the Sheep Mountain remnant of the Heart Mountain thrust sheet, Park County, Wyoming.

Stevens, H(arold) E(dwin), Orlando, Fla. *Plant pathology.* Pruitt, Ky, March 29, 80. B.Agr, Ky. State, 06; M.S, Illinois, 10. Field asst. bot, Ky. Exp. Sta, 06; agr. inspector, Bur. Agr, P. I, 07, acting supt. exp. farm, 08; asst. plant path, Exp. Sta, Arkansas, 10–11, adj, 11–12; plant pathologist, Exp. Sta, Florida, 12–20; agr. adviser, Lee Co, Fla, 20–24; plant pathologist and entomologist, Stripes Citrus Packing Co, 24–26; research pathologist, Ft. Myers, 26–27; *senior pathologist, investigation citrus and subtrop. diseases, bur. plant indust, U. S. Dept. Agr, 28–* A.A; Phytopath. Soc. Diseases of citrus fruits and trees; avocado and mango diseases; diseases of the royal palm.

Stevens, Dr. Hazel Hansford, Indiana University School of Medicine, Indianapolis, Ind. *Psychology.* Romona, Ind, March 15, 91. A.B, Indiana, 13, scholar, 18–19, Ph.D, 20. Head, outpatient dept, Madison State Hosp, North Madison, Ind, 19–33; *psychologist,* Family Welfare Soc, 33–40; *med. center, Indiana, 40–* Psychol. Asn; Asn. Social Workers; Ind. Soc. Mental Hygiene (sec'y, 33–). Clinical psychology.

Stevens, Dr. Henry, U. S. Department of Agriculture, Washington, D. C. *Biochemistry.* St. Albans, Vt, Feb. 11, 96. B.S, Wisconsin, 21, M.S, 23; Ph.D, George Washington, 34. Asst, dept. path. and bacter, Rockefeller Inst, 26–29; research fellow, *bur. chem. and soils, U. S. Dept. Agr,* 29–36, *in charge allergen investigations, 36–* Chem. Soc; Soc. Exp. Biol; Wash. Acad. Physiological properties of gossypol; chemical nature of allergens.

Stevens, Prof. Howard E(lmore), 9 Rankin Ave, Troy, N. Y. *Machine design.* Auburn, N. Y, July 1, 94. M.E, Rensselaer Polytech, 16. Draftsman, McIntosh, Seymour Corp, N. Y, 15; asst. master mechanic, Int. Harvester Co, N. Y, 16–17; tool designer, Corona Typewriter Co, N. Y, 17–18; struct. engineer, Corning Glass Works, N. Y, 18; chief mech. engineer, Norfolk South. R. R, Va, 18; chief tool designer, Bowen Products Corp, N. Y, 19–20; instr. *machine design, Rensselaer Polytech,* 20–24, asst. prof, 24–38, *assoc. prof, 38–* A.A; Eng. Educ; Mech. Eng. Design of steam and internal combustion engines; strength of materials; the dynamic pressure on submerged flat plates; production engineering; industrial engineering.

Stevens, J(ohn) C(yprian), Spalding Bldg, Portland, Oregon. *Hydraulics.* Moline, Kans, Jan. 9, 76. B.S, Nebraska, 05, C.E, 28; D.E, Oregon State Col, 38. Engineer, U. S. Geol. Surv, 04–10; *consulting engineer, 10–, senior mem, Stevens and Koon, 20–* Civil Eng. (past director, sec'y, special cmt. irrig. hydraul, 22–23; director, 32–34; chairman, special cmt. hydraulic research, 34–); Elec. Eng; Geophys. Union; Professional Eng. Oregon. Hydraulic research; civil engineering.

Stevens, Dr. Joseph R(ussell), 1088 Midwood Drive, Rahway, N. J. *Organic chemistry.* Thompson Falls, Mont, Feb. 28, 07. B.S, Mass. Inst. Tech, 30, Ph.D, 32. *Asst. research director, Merck and Co, Rahway, 31–* Chem. Soc; Chem. Eng. Organic synthesis; vitamins and medical chemicals.

Stevens, Prof. K(arl) K(renkell), University Club, University Place, Pittsburgh, Pa. *Chemistry.* Saginaw, Mich, March 7, 77. B.S, Michigan, 98. Asst. chem, Ill. Steel Co, 98–02; *chief chemist,* Ga. Coal and Iron Co, 02; Dayton Coal and Iron Co, Tenn, 03–06; *Toledo Furnace Co, 07–; prof. chem, Carnegie Inst. Tech, 07–* Chief inspector of explosives, Italian Govt, 16. Ordnance Dept, U.S.A, 17–18. Chem. Soc; Soc. Test. Mat. Chemical analysis and technology; effect of smoke on paint coatings; inspection and testing of trinitro toluol; paint and varnish analysis.

Stevens, Prof. Kenneth P(orter), Central College, Fayette, Mo. *Zoology.* Danbury, Conn, Nov. 18, 93. A.B, Wesleyan, 18, A.M, 20; Yale, 19–20; Francis Hinton Maule fellow, Princeton, 21–23, Ph.D, 27. Asst. *biol,* Wesleyan, 18–20; instr, Princeton, 23–27, asst. prof, 27–31; *prof, Cent. Col. (Mo), 31–* A.A; Mo. Acad. Physiology of bioluminescence; tissue culture.

Stevens, Dr. Kenneth R(ichards), 257 E. Fifth North St, Logan, Utah. *Bacteriology, Biochemistry.* Ferron, Utah, Dec. 9, 98. B.S, Brigham Young, 27; M.S, Rutgers, 29, Ph.D, 32. Bacteriologist, Robert Beyer Corp, N. Y, 30–31; instr. *bacter, Utah State Col,* 31–33, asst. prof, 33–41, *assoc. prof, 41–,* asst. bacteriologist, *Exp. Sta,* 31–38, *assoc. bacteriologist, 38–* A.A; Utah Acad. Soil microbiology; nature and origin of organic matter in peat, forest and mineral soils; role of micro-organisms in permanent soil fertility; utilization of Jerusalem artichokes and potatoes in the d-lactic acid fermentation; cellulose decomposing micro-organisms in arid soils; influence of alkali salts on the infection of alfalfa by Rhizobium meliloti.

Stevens, Dr. Neil E(verett), University of Illinois, Urbana, Ill. *[6]*Botany, Plant pathology.* Portland, Maine, April 6, 87. A.B, Bates Col, 08; Ph.D, Yale, 11. Instr. bot. Kans. State Col, 11–12; pathologist, bur. plant indust, U. S. Dept. Agr, 12–36; *prof. bot, Illinois, 36–* Professorial lecturer, George Washington, 31–36. Summers, specialist, Wis. Dept. Agr, 37–41. Del, Int. Bot. Cong, 30, 35. A.A. (council, 33–36, chairman, G, 39); Bot. Soc. (v. pres, 40); Phytopath. Soc. (v. pres, 33, pres, 34, councilor, 35–37); Mycol. Soc. (councilor, 32); Hist. Sci. Soc; Bot. Soc. Wash. (sec'y, 26, pres, 30). Diseases of small fruits; distribution of plant diseases; history of botany in the United States.

Stevens, Prof. O(rin) A(lva), North Dakota Agricultural College, Fargo, N. Dak. *Biology.* Blue Rapids, Kans, Oct. 17, 85. B.S, Kans. State Col, 07; M.S, N. Dak. Col, 23. Asst. *bot,* Kans. State Col, 07–09; asst. prof, *N. Dak. Col,* 09–26, *assoc. prof, 26–,* seed analyst, 09–33. A.A; Bot. Soc; Ecol. Soc; Soc. Plant Taxon; Wildlife Soc; Wilson Ornith. Club; hon. mem. Asn. Seed Anal. (v. pres, 31, pres, 32); Inland Bird Banding Asn. (sec'y, 39–); N. Dak. Acad. (pres, 24). North Dakota weeds; seed testing; North Dakota birds, bees and wasps; pollination; geographical distribution; history of botany.

Stevens, Dr. Philip G(reeley), Yale University, New Haven, Conn. *Organic chemistry.* St. Albans, Vt, Aug. 16, 02. A.B, Harvard, 24, A.M, 26, Ph.D, 29; Zurich, 30–31. Asst, dept. org. chem, Rockefeller Inst, 29–30; research assoc. chem, Pa. State Col, 31–32; guest, Mass. Inst. Tech, 32–35; exp. sta, E. I. du Pont de Nemours and Co, 35–37; asst. prof. *chem,* McGill, 37–40; *instr, Yale, 40–* Stereo-chemistry; beta lactones; long chain hydrocarbons; acid iodides; reaction of Grignard reagents; organic phosphorous compounds; reduction of halogenated ketones; nitration of hydrocarbons; quaternary bases and xanthates; constitution of the musk of the muskrat.

Stevens, Raymond (Sawtell), 30 Charles River Road, Cambridge, Mass. *Industrial research.* Nashua, N. H, April 15, 94. B.S, Mass. Inst. Tech, 17. Asst. to pres, service manager and *v. pres, Arthur D. Little, Inc, 19–, ed, 'Indust. Bul.'* Director surv. research in industry, Nat. Research Council and Nat. Resources Planning Board, 40–41; chairman cmt. war use of research facilities, Nat. Acad. Sciences-Nat. Research Council, 42–43. Consultant, War Production Board, 42. Second lieut, C.W.S, 18. Chem. Soc. (chairman northeast sect, 32; councilor, 34); Inst. Physics (council applied physics, 40–); Chem. Eng; Inst. Food Technol; Asn. Mfrs. (advisory cmt. patents and research). Organization and administration of industrial research.

Stevens, Prof. Richard D(on), University of Arkansas, Fayetteville, Ark. *Forestry.* Colebrook, N. H, 02. B.S, New Hampshire, 24; M.F, Yale, 28, Forest Production Fund fellow, 29–30; Am-Scandinavian Foundation fellow, Skogshögskolan, Stockholm, 30–31. Forest inspector, Conn. Valley Lumber Co, 24–25; instr. forestry, New Hampshire, 25–27; forester, Kershaw Forest Estate, Marlboro, N. H, 32–35; pulpwood project, Coos County, 35; exten. forester, Ark, 35–36; *asst. prof. forestry, Arkansas, 36–; U. S. Army, 41–* Soc. Foresters. Silviculture; utilization.

Stevens, Dr. Roger G(reenleaf), 1609 Chanttom Drive, New Orleans, La. *Chemical engineering.* Chicago, Ill, April 1, 98. B.S, Illinois, 20, M.S, 22; A.M. and Ph.D, Harvard, 27. *Research chem. engineer,* West. Elec. Co, 27–28; *Continental Can Co, 28–* Rare earths; complex cobalt and chromium ammines.

Stevens, R(ollin) E(lbert), U. S. Geological Survey, Washington, D. C. *Geochemistry.* Rapid City, S. Dak, July 20, 05. A.B, South Dakota, 27; A.M, George Washington, 32. Analyst, Dow Chem. Co, Mich, 27–28; junior chemist, Bur. Standards, 28–31; *asst. chemist, U. S. Geol. Surv,* 31–39, assoc. chemist, 39–42, *chemist, 42–* Chem. Soc; fel. Miner. Soc; Geol. Soc. Wash; Wash. Acad.

Stevens, Pres. S(amuel) N(owell), Grinnell College, Grinnell, Iowa. *Psychology.* Eastport, Md, Oct. 22, 00. A.B, Wesleyan, 22; A.M, Northwestern, 24, Ph.D, 26. Instr. psychol, Northwestern, 25–28, asst. prof, 28–31, assoc. prof, 31–40, dean univ. col; *pres, Grinnell Col, 40–* Psychotechnology; mental hygiene in industry and business.

Stevens, Dr. S(tanley) S(mith), Harvard University, Cambridge, Mass. *†Psychology, Psychophysiology.* Ogden, Utah, Nov. 4, 06. A.B, Stanford, 31; Ph.D, Harvard, 33. Asst. psychol, *Harvard,* 33–34, nat. research fellow biol. science, 34–35, Gen. Educ. Board fellow, 35–36, instr. *psychol,* 36–38, *asst. prof, 38–* Psychol. Asn; Physiol. Soc; Acoustical Soc. Visual perception; auditory perception; physiology of hearing.

Stevens, Prof. T(errill) D(ryden), Michigan State College, East Lansing, Mich. *Forest ecology.* Los Angeles, Calif, March 27, 03. B.S.F, Montana, 36; Ph.D, Yale, 40. *Asst. prof.* range management, Colo. State Col, 36–37; asst. prof. *forestry, Mich. State Col, 41–* A.A; Soc. Foresters; Ecol. Soc. Silviculture; forest succession.

Stevens, W(elby) R(eed), U. S. Weather Bureau, New Orleans, La. *Meteorology.* Carey, Ohio, May 27, 02. Ohio State, 19–23; A.B, George Washington, 29, 29–31. Observer, *U. S. Weather Bur,* Ala, 23–25, aerological div, Washington, D. C, 25–29; meteorologist, forecast div, 29–35, *forecaster, New Orleans, 35–* Meteorol. Soc; Geophys. Union; Math. Soc; Math. Asn. Frequency and distribution of tornadoes in Alabama; diurnal variation of temperature at the surface and in the free air; thermodynamics of the free air; weather forecasting.

Stevens, W(esley) A(ddison), R. F. D. 2, Glen Allen, Va. *Mathematics.* Hamilton, N. Y, April 23, 83. B.S, Colgate, 07; A.M, Columbia, 25. *Head dept. math, Va. Union,* 07–12, *18–* Teaching of mathematics.

Stevens, Prof. W(illiam) C(hase), University of Kansas, Lawrence, Kans. *Botany.* Princeton, Ill, Feb. 21, 61. A.B, Kansas, 85, M.S, 93; Bonn, 97. Instr, high sch, Kans, 85–89; asst. nat. hist, *Kansas,* 89–94, assoc. prof. *bot,* 94–99, *prof, 99–* A.A; Bot. Soc; Bot. Cent. States. Sporogony in pteridophytes and spermatophytes; adaptation to environment in plants through tissue modification.

Stevens, Prof. William E(merson), 490 Post St, San Francisco, Calif. *Urology.* San Francisco, Calif, July 6, 77. M.D, California, 99. *Chief urol. dept, San Francisco Polyclinic, 12–; assoc. clin. prof. obstet. and gynec, div. female urol, sch. med, Stanford, 19–* Visiting urologist, San Francisco County Hosp, 18–38. Urol. Asn; Asn. Genito-Urinary Surg; Am. Med. Asn; Am. Neisserian Asn; Col. Surg; Calif. Acad. Med.

Stevenson, Dr. A(lexander) R(ussell), Jr, 6 Union St, Schenectady, N. Y. *Electrical engineering.* Schenectady, N. Y, May 28, 93. C.E, Princeton, 14; M.S, Union (N. Y), 15, Ph.D, 17. Power and mining eng. dept, *Gen. Elec. Co,* 19–23, *eng. gen. dept, 23–, staff asst. to v. pres. in charge eng.* Summers, pattern shop, Am. Locomotive Co, 08; eng. corps, Cumberland Valley R.R, 12–13; standardization lab, Gen. Elec. Co, 15, testing dept, 16. Lieut, A.S, 17–19. Fel. Elec. Eng; Soc. Refrig. Eng. (director, 29–32, v. pres, 31–33, pres, 33); fel. Mech. Eng. (chairman cmt. educ. and training for industries); Private Fliers Asn. (past pres). Calculation of flywheels for synchronous motors and engine driven generators; power factor; magnetic flux plotting; refrigeration; air conditioning; post-collegiate engineering education by industry.

Stevenson, Prof. A(rthur) F(rancis) C(hesterfield), University of Toronto, Toronto, Ont, Can. *Applied mathematics.* Sellinge, Kent, Eng, 99. B.A, Cambridge, 22, M.A, 26, Ph.D, 32. Lecturer math, *Toronto,* 22–26, asst. prof, 26–32, *assoc. prof. applied math, 32–* Physical Soc; fel. Royal Soc. Can. Mathematical physics.

Stevenson, Dr. C(harles) E(dward), 472 Union Ave, Elizabeth, N. J. *Chemistry.* Mt. Vernon, N. Y, Feb. 26, 13. B.S. Pa. State Col, 34, M.S, 37, Ph.D, 41. Asst. petrol. ref, Pa. State Col, 34–42; *research chemist, Standard Oil Develop. Co, 42–* Chem. Soc. Petroleum chemistry; reactions of the methylamines; oxidation of hydrocarbon oils.

Stevenson, Dr. David P(aul), Shell Development Co, 4560 Horton St, Emeryville, Calif. *Chemical physics.* Alameda, Calif, Jan. 14, 14. B.S, California, 34; Ph.D, Princeton, 38. Nat. research fellow, Calif. Inst. Tech, 38–39, Asphalt Inst. fellow, 39–40; research fellow, Westinghouse Elec. and Mfg. Co, 40–42; *chemist, Shell Develop. Co, 42–* Chem. Soc. Molecular structure; mass spectroscopy.

Stevenson, Earl P(lace), 106 Shornecliffe Road, Newton, Mass. *Chemistry.* Logansport, Ind, Oct. 2, 93. B.S, Wesleyan, 16; M.S, Mass. Inst. Tech, 18. Instr. chem, Mass. Inst. Tech, 16–18; director research, *Arthur D. Little, Inc,* 20–35, v. pres, 22–35, *pres, 35–* Director, Gen. Printing Ink Corp; v. pres, N. E. Indust. Research Foundation, Inc; chief div. 11, Nat. Defense Research Cmt. A.A; Chem. Soc; Chem. Eng; Soc. Chem. Indust. Gt. Britain; Inst. Metals Gt. Britain. Petroleum; soap; paper; plastics.

Stevenson, Dr. E(dward) C(arl), Navy Postgraduate School, Annapolis, Md. *Physics.* Sumpter, Oregon, March 9, 07. B.S.E, Virginia, 28, M.S, 29, Ph.D, 31. Naval Research Lab, 30–32; Bartol Research Foundation, 32–34; univ. fellow, Harvard, 34–35, instr. physics and tutor physical sciences, 35–42; *U. S. Naval Res, 42–* Research prize, Va. Acad, 31. Fel. Physical Soc. Kerr effect in gases; cosmic rays and nuclear physics.

Stevenson, Dr. E(dward) L(uther), 17 Lake Ave, Yonkers, N. Y. *History, Geography.* Rozetta, Ill, Oct. 18, 60. A.B, Franklin Col, 81, A.M, 83, LL.D, 14; Hopkins, 87–88; Jena, Halle and Heidelberg, 88–91, Ph.D, Heidelberg, 91; Litt.D, Rutgers, 24. Sch. supt, Ind, 83–84; Ill, 84–87; prof. hist, Rutgers, 92–11. Non-res. lecturer, Hopkins, 04, 09; California, 17; lecturer, Columbia, 06–07. N. J. commissioner, Jamestown Expos, 07. Comendador de Isabel la Catolica; Order of the Liberator, Venezuela; grand officer, Order of the Nile, Egypt, 25. 10th Int. Geog. Cong, Italy, Cairo, 25, 12th, Cambridge, chairman cmt. reproduction of old maps, 13th, Paris. A.A; Antiq. Soc; Am. Hist. Asn; Hispanic Soc; Medieval Acad; Hist. Soc; Royal Acad; Real Acad. de Ciencias y Arts, Spain; Real Soc. Geog, Madrid; hon. mem. Cuba Acad. Hist. The interrelations of history and geography; historical geography, especially in cartography; early exploration and discovery with special reference to its geographical and cartographical features.

Stevenson, Dr. E(lmer) C(lark), 2010 Roanoke St, Hyattsville, Md. *Plant pathology.* Pine City, Wash, Aug. 20, 15. B.S, Maryland, 37; Ph.D, Wisconsin, 42. Asst. plant path, Wisconsin, 38–42; *asst. plant pathologist, drug plant investigations, U. S. Dept. Agr, 42–* Phytopath. Soc. Corn diseases; diseases of drug and related plants.

Stevenson, Dr. Frank E, 32 Burns Ave, Wyoming, Ohio. *Pediatrics.* Circleville, Ohio, Nov. 4, 95. A.B, Miami (Ohio), 19; M.D, Cincinnati, 23, A.M, 26. Asst. prof. *pediat, col: med, Cincinnati, 24–32, assoc. prof, 32–* Asst. res, Cincinnati Gen. Hosp, 24–25, res, 25–26, asst, 26–27. Chvostek's sign in the new-born; immunity; therapeutic value of scarlet fever antitoxin; reinforcement of the knee jerk in children.

Stevenson, Dr. F(rederick) J(ames), 508 Ethan Allen Ave, Takoma Park, Md. *Plant breeding.* P.E.I, Can, May 2, 86. B.S, State Col. Wash, 22, M.S, 25, Ph.D, 29. Asst. farm crops, State Col. Wash, 19–22, instr. and supt. practise teaching, 22–25; asst. prof. agron. and plant genetics, Min-

nesota, 25–30; geneticist and *senior geneticist, potato breeding investigations, div. fruit and veg. crops and diseases, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 30–* A.A; Soc. Agron. Rye-wheat and wheat-rye hybrids; genetic characters in relation to chromosome numbers in a wheat species cross; potato breeding; correlation between yielding ability and reaction to diseases; inheritance of reaction to differential characters in oats; resistance to disease in potatoes.

Stevenson, Dr. George S, 1790 Broadway, New York, N. Y. *Psychiatry.* Philadelphia, Pa, Oct. 5, 92. B.S, Bucknell, 15, M.S, 19, Sc.D, 40; M.D, Hopkins, 19. Asst. neuropath, N. Y. State Psychiat. Inst, 20–22; clin. instr. psychiatry, med. sch, Cornell, 20–22, 29–34; research psychiatrist, Training Sch, 22–24; asst. prof. psychiatry, Minnesota, and director, State Clinic, 24–26; field consultant and later director div. community clinics, *Nat. Cmt. Mental Hygiene,* 26–39, *med. director, 39–* Attending neurologist and psychiatrist, ward service, Minneapolis Gen. Hosp, 25–26. Mem, cmt. mental health and cmn. children in wartime, children's bur, U. S. Dept. Labor. Trustee, Nat. Child Labor Cmt. Psychiat. Asn; fel. Am. Med. Asn; Orthopsychiat. Asn. (sec'y-treas, 27–34, 35, pres, 34, treas, 37); Asn. Mental Deficiency; Soc. Research Child Develop. (exec. board); Conf. Social Work (exec. cmt); Cent. Neuropsychiat. Asn; Minn. Neur. Soc; N. Y. State Charities Aid Asn. (chairman New York cmt). Opportunities confronting various professional groups, especially teachers, doctors, social workers and ministers in helping people with their problems at the earliest possible point of identification.

Stevenson, Dr. Gladys T(lmson) (Mrs. C. H. Stevenson), 1714 Pier Ave, Santa Monica, Calif. *Nutrition.* Fullerton, Nebr, June 15, 03. A.B, Nebr. State Teachers Col, 26; M.S, Iowa State Col, 32, Ph.D, 38. Teacher, high schs, Nebr. and Wyo, 26–30; asst. nutrition, Iowa State Col, 31–37; asst. prof. home econ. and assoc. home economist, Va. Polytech, 37–38; instr. and later *asst. prof. home econ, California at Los Angeles, 38–* Home Econ. Asn. Biological value of the proteins of pork muscle; vitamin A.

Stevenson, Dr. Halsey B(ldwell), 111 Duncan Ave, McDaniel Heights, Wilmington, Del. *Organic chemistry.* Cayuga, N. Y, Dec. 22, 11. B.Chem, Cornell, 33, Ph.D, 37. Curator chem. museum, Cornell, 31–32, asst. chem, 32–37, asst. to non-res. lecturer, 37; *research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Aminofurans; synthetic resins.

Stevenson, Dr. H(olland) N(ewton), 421 Huguenot St, New Rochelle, N. Y. *Medicine.* Pittsfield, Mass, March 24, 86. Ph.B, Yale, 08; M.D, Hopkins, 12. Instr. path, Hopkins, 12–15; asst. and assoc. cancer research, Columbia, 15–18; prof. bacter. and surg. path, Creighton, 18–19; *practising physician, 19–* A.A; Am. Med. Asn; fel. Laryngol, Rhinol. and Otol. Soc; Asn. Cancer Research; Asn. Path. and Bact; Am. Board Otolaryngol; fel. Col. Surg. Inflammation in relation to the sensory nerves; cancer immunity.

Stevenson, James O(sborne), Fish and Wildlife Service, U. S. Department of the Interior, Chicago, Ill. *Zoology.* Chicago, Ill, April 16, 08. A.B, Occidental Col, 30; A.M, Western Reserve, 32; California, 31–34. Asst, Baldwin Bird Research Lab, Ohio, 30–31; collector, White Mountains, Ariz, for univ. museum, Arizona, 34; wildlife technician, Nat. Park Service, 35–38; *refuge manager and biologist, fish and wildlife service, U. S. Dept. Interior, 38–* Soc. Mammal; Wildlife Soc; assoc. Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club. Wildlife surveys and management; distribution and behavior of birds.

Stevenson, John A(lbert), U. S. Department of Agriculture, Washington, D. C. *Botany.* Woonsocket, S. Dak. July 16, 90. B.S, Minnesota, 12. Asst. bot. Minnesota, 12–13; asst. pathologist, Sugar Planters Exp. Sta, P. R, 13–14; pathologist, Insular Exp. Sta, P. R, 14–18; path. inspector, fed. hort. board, *U. S. Dept. Agr,* 19–20, chief path. inspector, 20–25, botanist in charge agr. explorations, for. plant introd, 25–27, *senior mycologist in charge mycol. collections, bur. plant indust, 27–* A.A; Mycol. Soc; Bot. Soc; Phytopath. Soc; Bot. Soc. Wash; Wash. Acad; British Mycol. Soc; Soc. mycol. de France. Mycology.

Stevenson, Dr. John S(inclair), Department of Mines, Victoria, B. C, Can. *Economic geology.* New Westminster, B. C, Sept. 21, 08. B.A, British Columbia, 29, B.A.Sc, 30; Ph.D, Mass. Inst. Tech, 34. Instr. and asst. geol, Mass. Inst. Tech, 31–34; engineer in charge, Longacre Long Lac Gold Mines, Ont, 34–35; asst. res. mining engineer, *Dept. Mines, Victoria,* 35–36, assoc. mining engineer, 36–41, *mining engineer, 41–* Summers, asst, Geol. Surv. Can, 27–32. Min. and Metal. Eng; Miner. Soc; Soc. Econ. Geol; fel. Soc. Research on Meteorites; Can. Inst. Min. and Metal. Structural geology and mineralogy of mining properties; exsolution and metamorphism of ore minerals; investigations of mercury, tungsten and molybdenum deposits in British Columbia.

Stevenson, Prof. Lewis D, 410 E. 57th St, New York, N. Y. *Neuropathology.* Dunfermline, Scotland, April 13, 89. B.A, M.D, Queen's (Can), 16. Asst. prof. and later *assoc. prof. neuropath, Cornell, 33–, clin. neur, 36–; neuropath, N. Y. Univ, 35–* Neur. Asn; N. Y. Acad. Med. Spinal fluid pressure; sleep; brain tumors; vascular diseases of nervous system; pathology of alcoholism and yellow fever; pathology of encephalitis.

Stevenson, Prof. Louisa S(tone), Mt. Holyoke College, South Hadley, Mass. *Chemistry.* Lowell, Mass, Dec. 5, 79. A.B, Vassar Col, 01, fellow, 01–02; fellow, Cornell, 03–04, 09–11, Ph.D, 11. Asst. *chem,* Vassar Col, 02–03, instr, 05–09; Wellesley Col, 11–13; assoc. prof, Sweet Briar Col, 13–15; instr, *Mt. Holyoke Col,* 15–16, assoc. prof, 16–19, *prof, 19–* Fluorescence of anthracene.

Stevenson, Dr. Paul H(uston), 5844 Enright Ave, St. Louis, Mo. *Public health.* Monmouth, Ill, Dec. 22, 90. B.S, Hiram Col, 13; M.D, Washington (St. Louis), 16; A.M, Western Reserve, 22; M.P.H, Hopkins, 40, Dr. P.H, 41. Med. service, China, 17–20; asst. anat, Peiping Union Med. Col, 20–23, assoc. and assoc. prof, 23–41; *senior surgeon, U. S. Pub. Health Service, and mem, Burma-Yunnan Ry. Med. Cmn. to China, 41–; lieut. col, U. S. Army.* A.A; Asn. Physical Anthrop; Asn. Anat; Pub. Health Asn. Racial anatomy; anthropology; mental hygiene in public health.

Stevenson, Prof. Reston, College of the City of New York, New York, N. Y. *Chemistry.* Wilmington, N. C, May 5, 82. A.B, North Carolina, 02, A.M, 03; Ph.D, Columbia, 08. Asst. instr. chem, Cornell, 03–05; anal. chemist, Gen. Chem. Co, 05–06; tutor *chem, Col. City of N. Y,* 06–08, instr, 08–12, asst. prof, 12–20, assoc. prof, 20–32, *prof, 32–* Légion d'honneur. Major, U.S.A. Chem. Soc; Electrochem. Soc. Physical chemistry.

Stevenson, Dr. Vera M, State Hospital for Mental Diseases, Howard, R. I. *Psychiatry.* B.A, British Columbia, 25; A.M, Oregon, 28; M.D, Hopkins, 31. Asst. animal biol, Oregon, 25–26, instr. zool, 26–27; res. house officer, Henry Phipps Psychiat. Clinic, Hopkins, 31–32; asst. physician, State Hosp. Mental Diseases, R. I, 32–34; instr. psychiat, med. sch, Hopkins, asst. res, Henry Phipps Psychiat. Clinic and asst. dispensary physician, Hopkins Hosp, 34–35; instr. psychiat. and mental hygiene, sch. med, Yale, 35–39, asst. prof, 39–41; asst. clin. director, *State Hosp. Mental Diseases, R. I,* 41–42, *clin. director, 42–* Asst. psychiatrist, New Haven Hosp, 35–39, attending psychiatrist, 39–41. Innervation of skeletal muscles; psychiatric treatment procedures.

Stevenson, Dr. William Henry, Iowa State College, Ames, Iowa. *Soils.* Freeport, Ill, Sept. 4, 72. A.B, Ill. Col, 93, Sc.D, 23; B.S.A, Iowa State Col, 05. Asst. soils, Illinois, 01–02; prof, *Iowa State Col,* 02–10, prof. farm crops and soils and head dept, 10–32, *v. director, Exp. Sta, 12–,* acting head dept. agron, 37–38. Sec'y, State Drainage Asn, Iowa, 04–13; exec. cmt, State Drainage and Conservation Cmn, Iowa, 08–10; director, Iowa Soil Surv, 10–32. U. S. permanent del, Int. Inst. Agr, Rome, 21–22. A.A; Soil Sci. Soc; fel. Soc. Agron; Iowa Acad. Soil physics, fertility, management and survey.

Stevinson, Dr. Melvin R(aymond), 872 Colonial Ave, Union, N. J. *Organic chemistry.* Orrick, Mo, March 14, 08. A.B, Cent. Col. (Mo), 30; M.S, Nebraska, 32, Parke, Davis and Co. fellow, 33–34, Ph.D, 34. Instr. chem. and math, Cent. Col. (Mo), 30–31; asst. chem, Nebraska, 31–33; research chemist, Reilly Tar and Chem. Co, Ind, 34–35; *Gen. Aniline Works, Grasselli, N. J,* 35–36, *plant chemist, 36–* Chem. Soc. Catalytic hydrogenation of arsenicals; organic arsenic compounds; phenol-aldehyde resins; vat dyes of the anthraquinone series.

Steward, Prof. Albert N(ewton), University of Nanking, Nanking, China. *Botany.* Near Fullerton, Calif, July 23, 97. B.S.A, Oregon State Col, 21; A.M, Harvard, 27, Ph.D, 30. Instr. bot, Montana, 20–21; botanist, Nanking, 21–26; asst, Harvard, 27–30; *prof. bot, Nanking, 30–* Collaborator, U. S. Dept. Agr, 31– Ecol. Soc; Sci. Soc. China. Economic, systematic and geographic botany; flora of central China.

Steward, Dr. Julian H, Bureau of American Ethnology, Washington, D. C. *Anthropology.* Washington, D. C, Jan. 31, 02. A.B, Cornell, 25; A.M, California, 26, Ph.D, 29. Lecturer anthrop, Michigan, and curator ethnography and anthrop, museum, 28–29, instr. anthrop. and head dept, 29–30; assoc. prof. and director anthrop. museum, Utah, 30–33; lecturer, California, 34; assoc. anthropologist, *Bur. Am. Ethnol,* 35–37, senior anthropologist, 37–43, *director Inter-Am. anthrop. insts, 43–* A.A; Soc. Applied Anthrop; Anthrop. Asn; Am. Geog. Soc; Wash. Acad; Anthrop. Soc. Wash; Inter-Am. Soc. Anthrop. Geog. Ethnography and archeology of western and southwestern United States, British Columbia and South America; ecology; acculturation; method and theory.

Steward, Dr. Wendell B(elding), 2720 Leeland Ave, Houston, Texas. *Geophysics.* Highgrove, Calif, Oct. 8, 08. A.B, Pomona Col, 29; A.M, Dartmouth Col, 31; Ph.D, Ohio State, 35. Asst. physics, Dartmouth Col, 29–31; Ohio State, 31–35; engineer and *chief engineer, Schlumberger Well Surv. Corp,* Mich. and *Texas, 35–* Physical Soc; Soc. Metals. Band spectra; geophysical electrical and thermometric parameters.

Stewart, Alex, 80 Laurel Hill Road, Mountain Lakes, N. J. *Engineering.* Germantown, Pa, Dec. 29, 92. Pratt Inst, 09–12; Brooklyn Polytech. Inst, 13–18. Chemist, Ringwalt Linoleum Co, 18–20; chief chemist, C. L. Constant Co, 20–30; *director research, Nat. Lead Co, 30–* Ceramic Soc; Chem. Soc; Chem. Eng; Soc. Test. Mat; Oil and Color Chem. Asn; Textile Research Inst; Inst. Metals London; Soc. Chem. Indust. Gt. Britain. Lead pigments; nonferrous metallurgy; tin and lead production; magnesium; ferro-silicon process.

Stewart, Prof. Belle Katherine, Limestone College, Gaffney, S. C. *Botany.* Waynesburg, Pa, March 30, 03. A.B, Waynesburg Col, 22; M.S, Cornell, 24, 27–28; fellow, Colorado, 39, Ph.D, 40. Prof. *biol,* Stonewall Jackson Col, 24–27; LaGrange Col, 28–34; asst, Colorado, 35–38; *asst. prof. biol, Limestone Col, 40–* Summers, instr, Colorado, 37, 38. Am. Philos. Soc. grant, Waynesburg Col. Bot. Soc; Pa. Acad. Plant anatomy; paleobotany; ecology.

Stewart, C(arlos) Kern, 1312 Park St, McKeesport, Pa. *Chemistry, Metallurgy.* McKeesport, Pa, Jan. 28, 98. Pittsburgh, 17–20. Anal. chemist, Carnegie Steel Co, 17–23; anal. and research chemist and metallographer, Westinghouse Air Brake Co, 23–27; chief chemist, Buckmaster Labs, Inc, 27; consulting chemist and metallurgist, 27–29; research metallurgist, Westinghouse Research Labs, 29–30; consulting engineer, 31–34; commanding officer, C.C.C. camp S-61, 34–37; inspector, Carnegie-Ill. Steel Co, 37–38, develop. metallurgist, 38–41; *major, U. S. Army, 41–* Soc. Metals. Fundamentals of arc welding; selection and use of engineering materials; surface protection; non-ferrous alloys; high current arcs; spark testing; metallic coatings; chemical and physical methods of testing.

Stewart, Prof. Chester A, Louisiana State University School of Medicine, New Orleans, La. *Pediatrics.* Hannibal, Mo, Nov. 6, 90. M.D, Minnesota, 20, Ph.D, 22. Clin. prof. *pediat,* Minnesota; *prof. and director dept, sch. med, Louisiana, 41–* Senior visiting physician, Charity Hosp. A.A; Acad. Pediat; Tuber. Asn. Inanition and growth; vital capacity of the lungs; tuberculosis in children.

Stewart, Prof. Colin C(ampbell), Dartmouth College, Hanover, N. H. *[1]*Physiology.* Owen Sound, Ont, Can, Aug. 15, 73. B.A, Toronto, 94; fellow, Clark, 95–97, Ph.D, 97. Asst. *physiol,* Harvard Med. Sch, 97–98; tutor, col. physicians and surg, Columbia, 98–00; demonstrator, Pennsylvania, 00–03, asst. prof, 03–04; assoc. prof, *Dartmouth Med. Sch,* 04–07, *prof, 07–,* sec'y, 13–24, acting dean, 25–27, *Brown prof, Dartmouth Col, 08–* Summers, instr, Clark, 95–97; Pennsylvania, 02. A.A; Physiol. Soc; Am. Med. Asn; N. H. Med. Soc; N. H. Surg. Club; N. H. Acad. The physiology of mammalian smooth muscle; the nerve supply of the viscera; alcohol; muscle physiology; the Golgi method; cardiac muscle.

Stewart, Dewey, U. S. Department of Agriculture, Washington, D. C. *Pathology.* Eva, Ala, Dec. 4, 98. B.S.A, Ala. Polytech, 22; M.S, Mich. State Col, 24. Asst. bot, Ala. Polytech, 21–22; Mich. State Col, 22–24; junior pathologist, *U. S. Dept. Agr,* 25–26, asst. pathologist, 26–29, assoc. pathologist, 29–42, *pathologist, 42–* Instr, Cornell, 27–28. Phytopath. Soc; Mycol. Soc; Genetic Asn. Sugar beet diseases and breeding for disease resistance; Cercospora leaf spot of sugar beets.

Stewart, Dr. Dorothy R(obson), 5 Tyler Road, Hanover, N. H. *Physiology.* Owen Sound, Ont, Can, Aug. 17, 00. A.B, Mt. Holyoke Col, 21; M.S, Washington (St. Louis), 23; fellow, Bryn Mawr Col, 23–24; Ph.D, Pennsylvania, 31. Asst. *biol,* Washington (St. Louis), 21–23; Bryn Mawr Col, 24–25; instr, Lake Erie Col, 25–27; asst. prof, Skidmore Col, 29–36, assoc. prof, 36–42; med. sch, Pennsylvania, 42–43. Mem. corp, Marine Biol. Lab, Woods Hole. A.A. Physiology of the cell, especially its permeability.

Stewart, Dr. Duncan, Jr, Lehigh University, Bethlehem, Pa. *Geology.* Detroit, Mich, Oct. 2, 05. B.S, Michigan, 28, Ph.D, 33; M.S, Brown, 30. Asst. geol, Michigan, 26–28; Brown, 28–30; museum paleont, Michigan, 31–33; instr. *geol,* Carleton Col, 33–35; Mich. State Col, 35–39, asst. prof, 39; Carleton Col, 39–41; *Lehigh,* 41–43, *assoc. prof, 43–* Summer, asst, Mich. Geol. Surv, 27. Asst. geologist, Univ. Mich. exped, Greenland, 28. Miner. Soc; Soc. Econ. Paleont. and Miner; Geol. Soc; Mich. Acad; Minn. Acad; Pa. Acad. Antarctic petrography.

Stewart, Prof. F(red) C(arleton), New York State Agricultural Experiment Station, Geneva, N. Y. *Plant pathology, Mycology.* French Creek, N. Y, Feb. 13, 68. B.S, Iowa State Col, 92, M.S, 94. Asst. botanist, Exp. Sta, Iowa State Col, 91–94; mycologist, N. Y. Exp. Sta, Geneva, 94–98, botanist, 98–19, chief research *bot,* 20–36; prof, *N. Y. Agr. Col, Cornell,* 20–36, *emer. prof, 36–* A.A; Phytopath. Soc. (pres, 13); Mycol. Soc. Fungus flora of the Seventh Lake region, Adirondack Mountains.

Stewart, Prof. F(red) C(harles), 751 McKee St, State College, Pa. *Mechanical engineering.* Wrenshall, Minn, Dec. 26, 99. B.S, Wisconsin, 23, M.E, 30; M.S, Texas, 27. Supt. buildings and grounds, Albion Col, 23–25; instr. *mech. eng,* Texas, 25–27; *assoc. prof,* Ga. Tech, 27–30; *Pa. State Col, 30–* Mech. Eng; Soc. Refrig. Eng; Eng. Educ. Heat transfer; automotive engine lubrication; refrigeration; power plants; Diesel engines.

Stewart, Dr. Fred W(aldorf), Memorial Hospital, New York, N. Y. *Pathology.* Binghamton, N. Y, June 11, 94. A.B, Cornell, 16, Ph.D, 19; Am. Field Service fellow, Lyons, 20–21; Trudeau Foundation fellow, 24; M.D, Harvard, 24. Instr. anat, med. col, Cornell, 18–20; nat. research fellow med, 25–26; asst. path, Rockefeller Inst, 26–27, assoc, 27–28; asst. pathologist, *Mem. Hosp,* 28–30, assoc. pathologist, 30–36, *pathologist, 36–, acting director, 43–; assoc. prof. surg. path, Cornell; chief diagnostic pathologist, div. labs. and research, State Dept. Health, N. Y.* Consulting pathologist, Roosevelt Hosp; Hosp. Special Surg; New York Infirmary; New York Eye and Ear Hosp; U. S. Veterans Facility No. 81, Bronx; Jersey City Med. Center; Meadowbrook Hosp; Nassau County Hosp; United Hosp, Portchester; White Plains Hosp; Greenwich Hosp. A.A; Asn. Path. and Bact; Soc. Exp. Path; Asn. Cancer Research; Am. Med. Asn; Harvey Soc; N. Y. Acad. Med. Tuberculosis; meningitis; poliomyelitis; virus diseases; tumors.

Stewart, Dr. Geo(rge), U. S. Forest Service, Ogden, Utah. *Agronomy, Genetics, Ecology.* Tooele, Utah, Nov. 7, 88. B.S, Utah Col, 13; M.S, Cornell, 18; Ph.D, Minnesota, 26. Instr. agron, Utah Col, and asst. agronomist, Exp. Sta, 13–16, prof. and assoc. agronomist, 17–18, prof. and agronomist, 19–30; *senior forest ecologist, Intermountain Forest and Range Exp. Sta, U. S. Forest Service, 30–* A.A; Soc. Agron. (v. pres, 30–32); Genetic Asn; Ecol. Soc; Soc. Foresters. Alfalfa; public domain; plant breeding; irrigation; desert and mountain vegetation in the Great Basin; revegetation of depleted ranges and watersheds.

Stewart, Dr. George A(dolph), 3301 N. Charles St, Baltimore, Md. *Surgery.* Philadelphia, Pa, Feb. 28, 85. A.B, Hopkins, 07, M.D, 11. *Assoc. surg, sch. med, Hopkins, 18–; col, Med. Corps, U. S. Army, 41–* Visiting surgeon, St. Agnes and Bon Secours Hosps; asst. visiting surgeon, Johns Hopkins Hosp. Fellow, Am. Board Surg; fel. Col. Surg; Asn. Thoracic Surg. Cancer; treatment of infected wounds and empyema; subacute osteomyelitis and its resemblance to sarcoma.

Stewart, Dr. George F(ranklin), 2607 Knapp St, Ames, Iowa. *Chemistry.* Mesa, Ariz, Feb. 22, 08. B.S, Chicago, 30; Inst. Am. Poultry Industries fellow, Cornell, 31–33, Ph.D, 33. Chemist, Cent. Cold Storage Co, Chicago, 28–31; research chemist, Omaha Cold Storage Co, 33–38; *research prof. poultry products technol, Iowa State Col, 38–* Chem. Soc;

Poultry Sci. Asn; Inst. Food Technol. Poultry products technology.

Stewart, Dr. G(eorge) W(alter), State University of Iowa, Iowa City, Iowa. *[*1]Physics.* St. Louis, Mo, Feb. 22, 76. A.B, DePauw, 98, hon. Sc.D, 28; Ph.D, Cornell, 01; hon. Sc.D, Pittsburgh, 31. Asst. *physics,* Cornell, 99–01, instr, 01–03; asst. prof, North Dakota, 03–04, prof, 04–09; *prof. and head dept, Iowa, 09–* Summers, instr, Lehigh, 02; Missouri, 03. Oersted medal, 42. Nat. Acad; A.A; Physical Soc. (pres, 41); Acoustical Soc; Eng. Educ; Asn. Physics Teachers; fel. Am. Acad; Iowa Acad; Sigma Xi (pres, 30–32). Radiation; distribution of energy in spectra; architectural acoustics; relation between illuminating power, viscosity and density of kerosene oils; acoustic shadow of a sphere, phase and intensity; sound diffraction and localization; binaural localization and beats; propagation in an irregular atmosphere; action of conical horns; acoustic transmission with branch lines; measurement of acoustic impedance; theory of Herschel-Quincke tube; uncertainty principle in acoustics; x-ray diffraction in liquids; association in liquids; variation in liquid; association with molecular structure; the cybotactic condition in liquids; internal changes from gas to liquid states; acoustics; structure in aqueous electrolytic solutions.

Stewart, Dr. Grace A(nne), Ohio State University, Columbus, Ohio. *Geology.* Minnedosa, Man, Can, Aug. 4, 93. B.A, Alberta, 18, M.A, 20; fellow, Chicago, 21–22, Ph.D, 22. Asst. *geol,* Alberta, 18–20; instr, *Ohio State,* 23–28, asst. prof, 28–37, *assoc. prof, 37–* Summers, asst, Alta. Research Council, 19, 20; asst. paleontologist, Geol. Surv. Can, 21, 22; asst. geologist, Ohio Geol. Surv, 24–31. Paleont. Soc; Geol. Soc; Ohio Acad. Invertebrate paleontology; Devonian corals; Devonian ostracodes.

Stewart, Dr. Guy R(obertson), U. S. Department of Agriculture, Washington, D. C. *Soils, Ecology.* Madoc, Can, 81. B.S, California, 06, 06–07; fellow, Cornell, 30–31, Ph.D, 31. Asst. agr. chem, California, 05–07; asst. chemist, bur. chem, U. S. Dept. Agr, 07–09; analyst and investigator, State Board Health, Calif, 09–13; asst. prof. agr. chem, California, 13–19; sta. chemist, Exp. Sta, Hawaiian Sugar Planters' Asn, Honolulu, 20–30; senior forest ecologist, Northeast. Forest Exp: Sta, U. S. Forest Service, 31–36; *asst. to chief div. research, soil conservation service, U. S. Dept. Agr, 36–* Capt, Sanit.C, 18–19. A.A; Chem. Soc. (chairman, Hawaiian sect, 24); Soc. Agron; Hawaiian Acad. (pres, 27); Int. Soc. Soil Sci. Soil science; plant physiology.

Stewart, Prof. H(arold) E(dison), Wayne University, Detroit, Mich. *Geography.* Butler, Ohio, May 24, 03. B.S, Ohio State, 25, A.M, 27, Ph.D, 37; Chicago, 33. Asst. *geog,* Ohio State, 25–27; instr, *Wayne,* 27–35, asst. prof, 35–42, *assoc. prof, 42–* Am. Geog. Soc; Council Geog. Teachers; Mich. Acad. Development of the American whiteware industry; urban geography.

Stewart, Dr. Harold J(ullan), New York Hospital, 525 E. 68th St, New York, N. Y. *Medicine.* Accomac, Va, Feb. 17, 96. A.B, Hopkins, 15, M.D, 19, William Bingham fellow, 21–22, A.M, 23. Res. physician, St. Luke's Hosp, New York, 19–21; asst. physician, Hopkins Hosp, 21–22; asst. res. physician, Rockefeller Inst, 22–28, asst. med, 22–29, res. physician, 28–30, assoc. med, 29–32; *attending physician, N. Y. Hosp, 32–; assoc. prof. med, med. col, Cornell, 32–* A.A; assoc. Am. Physicians; Soc. Exp. Biol; Soc. Clin. Invest; Harvey Soc; N. Y. Acad. Med. Cardiac physiology and pathology; diseases of the heart.

Stewart, Dr. Harold L(eroy), National Cancer Institute, U. S. Public Health Service, Bethesda, Md. *Pathology.* Houtzdale, Pa, Aug. 6, 99. Dickinson Col; Pennsylvania; M.D, Jefferson Med. Col, 26; grad, Army Med. Sch, 29. Lieut, M.R.C, 26–27; M.C, 27–29; Martin fellow, Jefferson Med. Col, 29–30, instr. path, 30–32, demonstrator, 32–34, assoc, 34–36, asst. prof, 36–37; pathologist, officer cancer investigations and later *senior pathologist, Nat. Cancer Inst, U. S. Pub. Health Service, 37–; research fellow, Harvard Med. Sch, 37–* Asst. pathologist, Jefferson Hosp, Phila, and Phila. Gen. Hosp, 29–37. Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; New Eng. Path. Soc. Human and experimental pathology; liver; cancer.

Stewart, Dr. Hugh W(endell), Calco Chemical Division, American Cyanamid Co, Bound Brook, N. J. *Organic chemistry.* Dundee, Ky, May 11, 12. B.S, Kentucky, 36; Ph.D, Illinois, 41. *Research chemist,* West. Cartridge Co, 36–37; regional soybean indust. products lab, U. S. Dept. Agr, 38–41; *Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Vat dye chemistry; restricted rotation in aryl amines.

Stewart, Prof. Irwin D(ickey), Whitman College, Walla Walla, Wash. *Mathematics.* Irwin, Pa, Dec. 17, 04. A.B, Muskingum Col, 26; Chicago, 29–30; A.M, California, 38. Instr. *math,* Bryson Col, 26–29; *asst. prof, Whitman Col, 30–* Math. Asn; Astron. Soc. Pacific. Applied mathematics.

Stewart, Prof. Isabel C(larissa), MacMurray College, Jacksonville, Ill. *Psychology, Philosophy.* Jefferson Co, Pa, Aug. 30, 97. B.S, Washington (Seattle), 20, M.S, 21; Ph.D, Hopkins, 24. Instr, Cent. State Teachers Col, Mich, 25; *prof.* philos. and psychol, *MacMurray Col, 26–33, psychol, 33–* A.A; assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; Midwest. Psychol. Asn; Ill. Acad. Learning problems; social psychology; child psychology.

Stewart, Dr. James K(idder), 8228 S. Sangamon St, Chicago, Ill. *Chemistry.* Norfolk, Nebr, June 20, 91. A.B, Kansas, 15; Yale, 19; M.S, Purdue, 20; Lowenthal fellow, Chicago, 22, Ph.D, 22. Research chemist, Int. Filter Co, 22–24; Firestone Tire and Rubber Co, 24–26; tech. assoc. sales training, Sherwin-Williams Co, 27–29; director indust. naphtha research, Anderson-Prichard Oil Corp, 29–39; *tech. rep, pigment, color and chem. div, Sherwin-Williams Co, 39–* A.A; Chem. Soc; Soc. Test. Mat. Petroleum solvents; molecular rearrangement of organic compounds; dye intermediates; ozone formation in silent discharge.

Stewart, Dr. John A(rchibald) M(ueller), Florida Southern College, Lakeland, Fla. *Botany.* Beaver, Pa, Dec. 19, 86. A.B, Allegheny Col, 12, M.S, 18; Cornell; Ph.D, Pittsburgh, 25. Instr, high sch, Pa, 13–17; Allegheny Col, 18–22; bot, Pittsburgh, 22–24; prof. *biol.* and head dept, Thiel Col, 24–30; Geneva Col, 30–37; *assoc. prof, Fla. South. Col, 37–* Summers, conductor travel course of West, Pittsburgh, 24–26. Bot. Soc. West. Pa. The water supply in Beaver, Pennsylvania; ecological and taxonomic survey of flora of Beaver County, Pennsylvania.

Stewart, Dr. John D(unham), 462 Grider St, Buffalo, N. Y. *Biochemistry, Clinical surgery.* Monroe, N. C, Nov. 7, 03. A.B, Virginia, 24; M.D, Harvard, 28. Res. surg, Mass. Gen. Hosp, Boston, 32–34, Dalton scholar, 36–37; research fellow, Harvard Med. Sch, 34–35, assoc. *surg,* 38–41; *prof, med. sch, Buffalo, 41–* Chief surgeon, E. J. Meyer Mem. Hosp, 41– Soc. Clin. Invest; Col. Surg. Obstructive jaundice; water balance; shock; malnutrition.

Stewart, Prof. J(ohn) Q(uincy), 200 Mercer St, Princeton, N. J. *[*5]Astronomy, Physics.* Harrisburg, Pa, Sept. 10, 94. B.S, Princeton, 15, Ph.D, 19. Engineer, develop. and research dept, Am. Tel. and Tel. Co, 19–21; asst. prof. *astron. physics, Princeton,* 21–27, *assoc. prof,* 27– Solar eclipse exped, mid-Pacific, 37. Lieut, C.Eng, 17–19, sound ranging, A.E.F. A.A; Geophys. Union; Astron. Soc; fel. Physical Soc; Am. Geog. Soc; A.A.U.P. (first v. pres, 40–42). The gyromagnetic effect; speech-sounds; physical conditions in the stars; opacity and refractivity of gases; speculative extension of thermodynamics; theory of Fraunhofer spectrum and of stellar atmospheres; physical methodology in the social sciences; social influence of distance; variation of sun-spots; navigation.

Stewart, Leroy C(arlyle), 1113 W. Park Drive, Midland, Mich. *Chemical engineering.* Cleveland, Ohio, Sept. 13, 96. B.S, Case, 18, Chem.E, 21. *Chem. engineer, Dow Chem. Co, Midland, 18–* Chem. Soc; Soc. Test. Mat; Chem. Eng. Plastic magnesia cements; soil road stabilization.

Stewart, Dr. Lincoln, Montana School of Mines, Butte, Mont. *Geology.* Peru, Ind, Sept. 13, 89. A.B, Stanford, 14; A.M, California, 17; Yale, 32–33; Ph.D, Columbia, 36. Asst. geol, Standard Oil Co. of Calif, 18–20; instr, high schs, Calif, 20–32; head dept. geol, Potomac State Sch, Keyser, W. Va, 35–42; *mem. faculty, Mont. Sch. Mines, 42–* Ordnance Dept, U.S.A, 17–18. Petrology; economic geology; mineralogy.

Stewart, Prof. L(owell) O, 430 Lynn Ave, Ames, Iowa. *Civil engineering.* Watervliet, Mich, April 4, 95. B.S, Mich. State Col, 17; M.S, Iowa, 27, C.E, 28. From deck officer to hydrographic and geodetic engineer, U. S. Coast and Geodetic Surv, 17–23; foreman, Schumacher Construction Co, Albion, Mich, 23–24; chief of party, State Highway Dept, Mich, 24; from instr. to *prof. civil eng. and head dept, Iowa State Col, 24–,* eng. personnel officer. Civil Eng. (sec'y Iowa sect, 39–);

Eng. Educ. (v. pres, north midwest sect); Iowa Eng. Soc. City planning; public land surveys; requirements and opportunities of an engineering career; history of retracement of public land surveys in Iowa.

Stewart, Maude G(ertrude), 410 Winona St, Northfield, Minn. *Physics.* Elgin, Minn, March 5, 66. B.L, Carleton Col, 88; Chicago, 94; A.M, Columbia, 13. Instr, high sch, Ill, 92–03; *head dept. science,* Salem Col, 06–12; *high sch,* Faribault, Minn, 12-20; Pipestone, 20–22; Farmington, 22–25; *Northfield, 25–* A.A; Physical Soc. Radioactivity.

Stewart, Dr. M(orris) A(lbion), College of Agriculture, University of California, Berkeley, Calif. *Entomology, Parasitology.* Bath, Maine, April 8, 02. B.S, New Hampshire, 24; M.S, Cornell, 26, Ph.D, 29. Research staff, Crop Protection Inst, 23; junior biologist, bur. biol. surv, U. S. Dept. Agr, 24–26; instr. biol, Rochester, 26–27; Rice Inst, 27–35; asst. prof. entom, *col. agr, California,* 35–41, *assoc. prof,* 41–43, *parasitol, 43–,* asst. entomologist, *Exp. Sta,* 35–41, *assoc. entomologist, 41–* Consultant orthopedics, Jefferson Davis Hosp, Houston, Texas, 32–34; consulting pathologist, 34–35; consultant in charge research and bacter, Methodist Hosp, Houston, 32–35, in charge instruction bacter, Sch. Nursing, 34–35. A.A; Asn. Econ. Entom. (publications cmt, 40–); Soc. Parasitol; fel. Entom. Soc. Amer; Soc. Bact. (sec'y-treas, N. Calif-Hawaiian branch, 37-39); Pub. Health Asn. (exec. cmt. sylvatic plague cmn, 36–); Pacific Coast Entom. Soc. (v. pres, 42–); Texas Entom. Soc. (sec'y-treas, 28–35, pres, 35); fel. Texas Acad; Pasteur Soc. Cent. Calif; hon. mem. 7th Dist. Med. Soc, La; hon. fel. Houston Acad. Medical entomology; helminthology; plague; taxonomy of the Siphonaptera; animal ecology.

Stewart, Prof. Norman H(amilton), 148 Brown St, Lewisburg, Pa. *Zoology.* Hamilton, Ont, Can, July 13, 85. A.B, Rochester, 08; M.S, Michigan, 10; Ph.D, Cornell, 23. *Prof. zool, Bucknell, 10–* Pa. Acad. Entomology; fishes; Amphibia; reptiles; parasitic Diptera.

Stewart, Prof. O(lus) J(esse), University of Kentucky, Lexington, Ky. *Chemistry.* Freeport, Ohio, Jan. 27, 84. A.B, Ohio State, 10; M.S, Purdue, 12; Ph.D, Harvard, 29. Asst. prof. *chem,* New Hampshire, 14–19; *Kentucky,* 19–34, assoc. prof, 34–43, *prof, 43–* Chem. Soc. Atomic weight of neodymium, praseodymium, samarium and thulium; sodium coulometer; action of lithium on glass; theory of matter; energy; motion; complexions.

Stewart, Prof. O(scar) M(ilton), 211 Westmount Ave, Columbia, Mo. *[1]Physics.* Neosho, Mo, Nov. 3, 69. Ph.B, DePauw, 92, hon. Sc.D, 28; fellow, Cornell, 95–96, Ph.D, 97. Prof. physics and chem, Baker, 92–94; asst. *physics,* Cornell, 96–98, instr, 98–01; asst. prof, *Missouri,* 01–03, asst. prof. in charge, 03–05, prof, 05–40, *emer. prof, 40–* Ed. board, 'Physical Rev,' 17–19, 22–24. A.A; fel. Physical Soc. (chairman, educ. cmt, 24–28); Asn. Physics Teachers; Eng. Educ. Electrical conductivity of gases; theory of instruments; college and high school texts in physics.

Stewart, Prof. Paul R, Waynesburg College, Waynesburg, Pa. *Biology, Geology.* Spraggs, Pa, 87. A.B, Waynesburg Col, 09, hon. Sc.D, 24; A.M, Columbia, 16. Instr. chem. and geol, *Waynesburg Col,* 10–11, prof. chem. of geol, 11–19, chem, geol. and biol, 19–21, acting pres, 21–22, *pres. and prof. biol. and geol, 22–* Trustee, Waynesburg Col. A.A; South. Appalachian Bot. Soc. (hon. sec'y, 24–); Pa. Acad. Habitat studies of Appalachian flora; history of Waynesburg College.

Stewart, Dr. Ralph (Bentley), U. S. Geological Survey, Washington, D. C. *Geology, Paleontology.* Pa, June 29, 01. B.S, Washington (Seattle), 23; Ph.D, Hopkins, 28. *With U. S. Geol. Surv, 30–* California geology and paleontology; fossil Mollusca.

Stewart, Dr. Ralph R(andles), Gordon College, Rawalpindi, India. *Botany.* West Hebron, N. Y, April 15, 90. A.B, Columbia, 11, A.M, 15, Ph.D, 16. Prof. biol, *Gordon Col. (India),* 11–14, 17–34, v. prin, 28–34, *prin, 34–* Asst, Columbia, 14–16, Cutting fellow, 16–17. Punjab Agr. Research Council. Systematic botany; Pteridophytes and flowering plants of Punjab and northwest Himalaya.

Stewart, Dr. Ralph T(homas), Office of Economic Warfare, Washington, D. C. *Agronomy.* Preston, Mo, Feb. 11, 95. B.S, Iowa State Col, 24, fellow, 24–25, M.S, 25, Ph.D, 28. Asst. farm crops and soils, Iowa State Col, 25–26; assoc. prof. agron, Agr. and Mech. Col. Texas, 26–36; asst. range examiner, Rio Grande dist, soil conservation service, U. S. Dept. Agr, 36–38, assoc. economist, bur. agr. econ, 38–40, land economist, soil conservation service, 40–42; *senior econ. analyst, Office Econ. Warfare, 42–* A.A; Soc. Agron. Soybean breeding; grass improvement.

Stewart, Prof. Reid T(homas), 312 N. E. 15th Ave, Ft. Lauderdale, Fla. *Mechanical engineering.* Parnassus, Pa, April 22, 61. Ph.B, Pittsburgh, 84, C.E, 85, Ph.M, 87, Sc.D, 15. *Mem. faculty, Pittsburgh, 85–,* prof. exp. mech. eng, 26–33, *emer. prof. mech. eng, 33–* Consultant, Nat. Tube Co; Stromberg Carburetor Co. U. S. Fuel Cmn, 17–19. Mech. Eng; Eng. Soc. West. Pa. Seamless steel tubes; carburetion of fuels; collapsing pressures of steel tubes; the properties of carbonic acid and the conditions of its economic storage for transportation.

Stewart, Dean Robert, University of Nevada, Reno, Nev. *Chemistry.* American Fork, Utah, Aug. 16, 77. B.S, Utah Col, 02; Chicago, 04–05; fellow, Illinois, 08–09, Ph.D, 09. Asst. chemist, Exp. Sta, Utah Col, 02–05, asst. prof. chem, col, 05–07, prof, 07–15; assoc. prof. soil fertility, Illinois, 15–18, prof, 18–20; *dean col. agr, Nevada, 20–* Soc. Agron. Agricultural chemistry; agronomy; soil fertility; chemical composition of arid farm crops; use of irrigation water.

Stewart, Dr. Robert A(therton), Quaker Oats Research Laboratories, 345 E. 25th St, Chicago, Ill. *Nutrition.* St. Louis, Mo, May 8, 13. A.B, Butler, 35; scholar, Pa. State Col, 36–40, M.S, 38, Am. Potash Inst. fellow, 38–39, Ph.D, 40. *Mem. staff, Quaker Oats Research Labs, 40–* Biological value of cereal proteins; methods of analysis for vitamins.

Stewart, R(obert) Meldrum, Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* Gladstone, Man, Dec. 15, 78. B.A, Toronto, 02, M.A, 03. Supt. time service, *Dom. Observatory,* 05–08, astronomer, 08–18, asst. director, 18–24, *director, 24–, dom. astronomer, 36–* Chairman nat. cmt. for Can, Int. Astron. Union. A.A. (chairman, D, 38); Astron. Soc; fel. Royal Astron. Soc. Can. (pres, 24, hon. pres, 31); fel. Royal Soc. Can. (pres. sect. III, 41); fel. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France. Radioactivity; meridian work; time service; longitude by wireless; theory of errors.

Stewart, R(oscoe) E(merson), P. O. Box 745, Ventura, Calif. *Geology. Paleontology.* Coldwater, Mich, July 28, 94. Northwestern, 15–16; B.S, Chicago, 23; Columbia, 25–26; M.S, Southern California, 35. *Geologist and engineer, Chanslor-Canfield Midway Oil Co, 23–; research assoc. micro-invertebrates, San Diego Museum Nat. Hist, 34–* Lecturer, Southern California, 31, sch. research, 35. F.A, U.S.A, 17–19. Asn. Petrol. Geol; Oceanog. Soc. Pacific; San Diego Soc. Nat. Hist. American west coast post-Miocene paleontology; stratigraphy and structural geology; petroleum geology and engineering.

Stewart, Dr. Sarah E(lizabeth), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Bacteriology.* Tecalitlan, Jalisco, Mex, Aug. 16, 06. B.S, N. Mex. Agr. Col, 27; fellow, Mass. State Col, 29–30, M.S, 30; fellow, Colorado, 33–35; Ph.D, Chicago, 39. Asst. bacteriologist, Exp. Sta, Colorado, 30–33; *nat. inst. health, U. S. Pub. Health Service,* 36–40, assoc. bacteriologist, 40–42, *bacteriologist, 42–* Asst, Chicago, 37–38. Soc. Bact. Soil bacteriology; gas gangrene; toxins and toxoids; tetanus toxoids.

Stewart, Dr. T(homas) Dale, University of California, Berkeley, Calif. *Chemistry.* Sumner, Wash, 90. B.S, California, 13, M.S, 14, Ph.D, 16. Asst. *chem,* California, 13–16; research assoc, Chicago, 16–17; instr, *California,* 17–20, asst. prof, 20–25, assoc. prof, 25–35, *prof, 35–* Capt, C.W.S, 17–18. Chem. Soc. (chairman Calif. sect, 41). The electric carrier in metals; structure and basicity of nitrogen compounds; reactivity of ethylenes; organic chemistry.

Stewart, Dr. T(homas) D(ale), Route 1, McLean, Va. *Anthropology.* Delta, Pa, June 10, 01. A.B, George Washington, 27; M.D, Hopkins, 31. Aid *physical anthrop, U. S. Nat. Museum,* 27–31, asst. curator, 31–39, assoc. curator, 39–42, *curator, 42–* Franklin P. Mall scholar, 31; visiting prof, sch. med, Washington (St. Louis), 43. Contributing ed, 'Handbook Latin Am. Studies,' 38–; ed, 'Am. Jour. Physical Anthrop,' 43– Mem. Smithsonian Institution field trips, Alaska, 27, Mex, 39, Peru, 41. Asn. Physical Anthrop; Anthrop. Soc. Wash. (treas, 36–); Wash. Acad. Physical

anthropology; dental caries; separate neural arches; myology of Primates; anthropometry of American Indians and Eskimos.

Stewart, Prof. V(ernon) T(heodore), 367 High St, Newark, N. J. *Chemical engineering.* Silver Creek, N. Y, Nov. 13, 83. Ph.B, Syracuse, 05; B.S, Mass. Inst. Tech, 15. Chief chemist, Thos. A. Edison, Inc, 17–20; Carleton Ellis, Montclair, N. J, 20–21; *prof. chem. and chem. eng, Newark Col. Eng, 21–* Chem. Soc; assoc. Chem. Eng.

Stewart, Dr. Vincent E(vans), State Department of Agriculture, Tallahassee, Fla. *Organic chemistry.* New York, N. Y, Feb. 11, 13. B.S, Florida, 34, scholar, 34–36, fellow, 36–37, Ph.D, 37. Chief chemist, State Racing Cmn, *Fla,* 37–39; *asst. chemist, chem. div, State Dept. Agr, 39–* Chem. Soc; Inst. Chem; Asn. Food and Drug Officials. Synthesis of derivatives of morpholine and piperazine; addition to conjugate systems; toxicology and microidentification of drugs; methods of analysis of food and drugs.

Stewart, W(illiam) D(orsey), B. F. Goodrich Co, Akron, Ohio. *Biochemistry.* Sylacauga, Ala, Oct. 15, 04. B.S, Ala. Polytech, 26; M.S, Illinois, 29. Asst. biochemist, Boyce Thompson Inst, 29–36; *research chemist,* Malayan labs, *B. F. Goodrich Co,* 36–39, *Ohio, 39–* Field botanist, Edison Rubber Project, Ala. and Fla. Summer, instr, West. Ill. State Teachers Col, Macomb, 29. Effect of light intensity and quality on reproduction, growth and chemical changes in plants; culture of rubber; biochemistry of latex; synthetic rubber.

Stewart, Dr. William S, U. S. Department of Agriculture, Washington, D. C. *Plant physiology.* San Diego, Calif, Nov. 14, 14. A.B, California at Los Angeles, 36, A.M, 37; Ph.D, Calif. Inst. Tech, 39. Teaching asst, California at Los Angeles, 36–37; teaching fellow, Calif. Inst. Tech, 37–39; *asst. plant physiologist, bur. plant indust, U. S. Dept. Agr, 39–* Plant hormones and their application in agriculture.

Stewart, Dr. William T(homas), 1370 Berkeley Way, Berkeley, Calif. *Organic chemistry.* Globe, Ariz, Sept. 6, 15. B.S, Arizona, 37, M.S, 38; Kelco fellow, Calif. Inst. Tech, 38–39, Ph.D, 41. Asst. chem, Arizona, 37–38; Calif. Inst. Tech, 38–39, teaching fellow, 39–41; *research chemist, Standard Oil Co, Calif, 41–* Chem. Soc. Hemicelluloses from lemon wood; derivatives of alginic acid; structure of alginic acid; hydration of unsaturated compounds; chromatographic analysis of lignite; carbohydrates and physico-organic chemistry.

Steyermark, Dr. A(l), 77 Hawthorne Ave, Nutley, N. J, *Chemistry.* St. Louis, Mo, Jan. 29, 04. Illinois, 23; fellow, Washington (St. Louis), 27–30, B.S, M.S, 28, Ph.D, 30. *Org. research chemist,* Thomas and Hochwalt Labs, Inc, Dayton, Ohio, 31–33; research lab, S. C. Hooker, Brooklyn, N. Y, 33–36; *sci. dept, Hoffmann-La Roche, Inc, Nutley, N. J, 36–* Summers, instr, Mabel Evans Sch, St. Louis, 28, 29. Chem. Soc; Metrop. Microchem. Soc. (pres, 43). Organic chemistry; anthrone series; naphthoquinones; synthetic drugs; inks; carbon and hectograph papers; vitamin K; organic compounds of nitrogen; micro-chemistry.

Steyermark, Dr. Julian A(lfred), Field Museum of Natural History, Chicago, Ill. *Botany.* St. Louis, Mo, Jan. 27, 09. A.B, Washington (St. Louis), 29, scholar, 29–30, M.S, 30, Rufus J. Lackland fellow, 30–31, 32–33, Ph.D, 33; scholar, Harvard, 31–32, A.M, 32. Asst. to Dr. R. E. Woodson, Jr, Mo. Bot. Garden, 33–34; instr. biol, high sch, Mo, 35–37; *asst. curator herbarium, Field Museum Nat. Hist, 37–* Bot. exped, west. Texas, 31; collector, Washington (St. Louis)-Mo. Bot. Garden exped, Panama, 34–35; taxonomist and ecologist, plant surv, U. S. Forest Service, Mo, 36, exped, 32–35, 36–38; mem. Field Museum nat. hist. exped, Guatemala, 39–40, 41–42. Ecol. Soc; Bot. Soc; Soc. Plant Taxon; Midwest Hort. Soc. (director); Ill. Wild Flower Preservation Soc. (director); Ill. Acad; St. Louis Acad. (assoc. ed, 'Bul,' 35–37). Taxonomy and plant geography of phanerogamic flora of Missouri and adjacent Ozark region; flora of Central and South America; plant distribution in relation to geology; taxonomy of Compositae; flora of Guatemala.

Stibitz, Dr. George R(obert), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Mathematics.* York, Pa, April 30, 04. B.S, Denison, 26; M.S, Union (N.Y), 27; Ph.D, Cornell, 30. *Research mathematician, Bell Tel. Labs, 30–; tech. aide, Nat. Defense Research Cmt.* Applied mathematics; theory of elastic membranes; theory of non-linear circuits; probability; electric music; computing devices.

Stickel, Paul W, 339 Plymouth St, Missoula, Mont. *Forestry.* New York, N. Y, Aug. 20, 99. B.S, Syracuse, 23; M.F, Yale, 24. Junior forester, *U. S. Forest Service,* 24–27, asst. silviculturist, 27–29, assoc. silviculturist, Northeast. Forest Exp. Sta, 29–40, *silviculturist, North. Rocky Mountain Forest and Range Exp. Sta, 40–* Soc. Foresters. Weather and forest fire danger; forest fire damage; forest influences.

Stickley, Dr. E(lmer) E(ugene), 345 S. Aiken Ave, Pittsburgh, Pa. *Physics.* Brackenridge, Pa, Jan. 23, 15. B.S, Carnegie Inst. Tech, 37; M.S, Pittsburgh, 40, Ph.D, 42. Asst, Pittsburgh, 37–42; indust. fellow, Mellon Inst, 42–43; *physicist, glass research div, Pittsburgh Plate Glass Co, Creighton, Pa, 43–* Instr, Pa. Col. for Women, 38–42. A.A; Physical Soc. Musical acoustics; artificial radioactivity; x-ray diffraction; electronic control; properties of glass.

Stickney, George H(oxie), Box 5056, Sea Breeze, Daytona Beach, Fla. *Engineering.* Buffalo, N. Y, Oct. 4, 72. M.E, Cornell, 96. Student engineer, Gen. Elec. Co, Schenectady, 96–98, asst. to commercial engineer, Lynn, Mass, 98–05, asst. to illuminating engineer, 05–09, Schenectady, N. Y, 09–11, illuminating engineer, Edison Lamp Works, N. J, 11–30; consulting engineer, incandescent lamp dept, Gen. Elec. Co, Cleveland, 30–37. Medal, San Francisco Expos. Mem. exec. cmt, Int. Cmn. on Illumination, 29–, pres, U. S. nat. cmt, 35–37, sec'y-treas, 37– A.A; fel. Elec. Eng; Illum. Eng. Soc. (pres, 17). Arc and incandescent lamp and equipment; photometry and photometric methods; distribution; glare; illuminating engineering as related to electric lamps and lighting.

Stickney, Dr. J(ohn) Clifford, West Virginia University, Morgantown, W. Va. *Physiology.* Vancouver, Wash, July 15, 09. B.S, Wheaton Col, 33; M.S, Washington (Seattle), 36; Ph.D, Minnesota, 40. Lab. asst. gen. zool, Wheaton Col, 31–33, instr. zool, 35–36; teaching asst. *physiol,* Minnesota, 37–40; *instr, sch. med, West Virginia, 40–* Summer, biol. deck hand, oceanog. labs, Washington (Seattle), 35. Potassium balance; anoxia; gastro-intestinal tract.

Stickney, Prof. M(alcolm) E(nos), Denison University, Granville, Ohio. *Botany.* Brownville, Maine, April 18, 74. A.B, Bates Col, 98; A.B, Harvard, 99, A.M, 00; Wisconsin. Instr. *bot, Denison,* 03–04, asst. prof, 04–09, *prof, 09–* A.A; Bot. Soc; fel. Ohio Acad. (v. pres, 11, 12, 16, trustee, 17–19, exec. councilor, 25, 32); Wis. Acad. Morphology; cytology and ecology of algae; cytology of sporogenesis; plant distribution.

Stiebeling, Dr. Hazel K(atherine), The Westchester Apartment, Cathedral Ave. at 39th St, Washington, D. C. *Food economics.* Haskins, Ohio, March 20, 96. B.S, Columbia, 19, A.M, 24, Ph.D, 28. Sch. supervisor home econ, Ohio, 15–18; supervising teacher home econ, Kans. State Teachers Col, Emporia, 19–23; instr. nutrition, Teachers Col, Columbia, 24–26, asst. food chem, 26–30; senior food economist in charge *food econ. sect, bur. home econ, U. S. Dept. Agr,* 30–43, *asst. chief, 43–* Home Econ. Asn; Chem. Soc; Inst. Nutrition. Relation of vitamin D to calcium deposition; iron content of vegetables and fruits; dietary habits of the population of the United States.

Stiefel, Dr. K(arl) J(ohann) J(akob), Raytheon Mfg. Co, Waltham, Mass. *Electrical engineering.* Zurich, Switzerland, Oct. 5, 05. Dipl.El.Ing, Eidgenössische Technische Hochschule, Zurich, 30, Dr.Ing, 39; exchange fellow, Mass. Inst. Tech, 34–36. *Instr.* mech. eng, Eidgenössische Technische Hochschule, Zurich, 30–34; *elec. eng, Worcester Polytech, 38–; engineer, Raytheon Mfg. Co.* Elec. Eng; Eng. Educ; Inst. Radio Eng. Electrical breakdown in high vacuum; vacuum tubes; acoustics.

Stiegler, Dr. H(arold) W(infred), American Cyanamid Co, Stamford, Conn. *Chemistry.* Lawrence, Mass, April 5, 95. Lowell Textile Inst, 18; B.S, Mass. Inst. Tech, 20; fellow, Northwestern, 21–24, M.S, 22, Ph.D, 24. Research staff, Nat. Aniline and Chem. Co, 19, 21; instr, Lowell Textile Inst, 24–27; research, Cheney Silks, 27–31; textile chem. div, Rohm and Haas Co, Inc, Phila, 31–34; asst. director research, Richards Chem. Works and Onyx Oil and Chem. Co, 34–36; *head textile div, Stamford research labs, Am. Cyanamid Co, 36–; major, Chem. Warfare Service, U. S. Army, 42–* Chemist, Avery Chem. Co; Am. Woolen Co. Offense research, C.W.S, major, C.W.Res. A.A; Chem. Soc; Asn. Textile Chem. and Colorists (councilor, 38–; mem. research cmt; chairman cmt. water resistance of textiles); fel. Inst. Chem; Soc. Test. Mat; N. Y. Acad. Organic and textile chemistry; organic arsenicals; dyes.

Stieglitz, Dr. Edward J(ulius), 1727 Eye St, N.W, Washington 6, D. C. *Medicine.* Chicago, Ill, June 6, 99. B.S, Chicago, 18, M.S, 19, M.D, Rush, 21. Asst. anat, Chicago, 17–19, path, 19, assoc. anat, 20; nat. research fellow, Hopkins, 22–23; clin. instr. med, Rush Med. Col, Chicago, 26–27, asst. clin. prof, 28–35, assoc. clin. prof, 35–38; med. adviser, div. labor standards, U. S. Dept. Labor, 39–40; research assoc. in charge investigations in gerontology, nat. inst. health, U. S. Pub. Health Service, 40–41, consultant, gerontology, 41–43. Asst. attending internist, Presb. Hosp, Chicago, 25–38; attending internist, Chicago Lying-in Hosp, 26–31; Chicago Mem. Hosp, 32–38, chairman dept. med, 36–38; visiting physician, med. service, Baltimore City Hosps, 41–43. Fel. Am. Med. Asn; fel. Col. Physicians; Am. Heart Asn; Diabetic Asn; Inst. Med. Chicago. Histophysiology by histochemical methods; the mechanism of renal secretion; hypertensive arterial diseases; nephritis; obstetric medicine; experimental therapeutics; gerontology and preventive geriatrics.

Stieglitz, Dr. Mary Rising (Mrs. Julius Stieglitz), 4041 Terracina Drive, Riverside, Calif. *Chemistry.* Ainsworth, Nebr, July 21, 89. A.B, Mt. Holyoke Col, 12; Ph.D, Chicago, 20. From instr. to assoc. prof. chem, Chicago, 20–34, research assoc, 34–37. Chem. Soc. Organic chemistry; synthetic drugs; the biuret reaction.

Stiegman, Dr. C(larence) A(lbert), 1344 Garrett Ave, Niagara Falls, N. Y. *Inorganic chemistry.* Piper City, Ill, March 23, 10. B.S, Illinois, 32, M.S, 34, Ph.D, 37. Asst, Illinois, 33–37; *production chemist, Oldbury Electro-Chem. Co, 37–* A.A; Chem. Soc; Electro-Chem. Soc. Stereochemistry of complex inorganic molecules.

Stiehler, Dr. Robert D(aniel), Climatic Research Laboratory, Lawrence, Mass. *Chemistry.* Springfield, L. I, N. Y, July 16, 10. Rensselaer Polytech, 26–29; Garvan N. Y. State fellow, Hopkins, 29–33, Ph.D, 33. Nat. research fellow, Calif. Inst. Tech, 33–34; Lewisohn research fellow, Wilmer inst, sch. med, Hopkins, 34–36, asst. ophthal, 36–38; rubber research, B. F. Goodrich Co, 39–42; *senior chemist, Quartermasters Corps, U. S. Army, 42–* A.A; Chem. Soc. Thermochemistry; rubber chemistry; biochemistry.

Stier, Dr. Howard L(ivingston), University of Maryland, College Park, Md. *Horticulture.* Delmar, Del, Nov. 28, 10. B.S, Maryland, 32, M.S, 37, Ph.D, 39. Agent potato breeding investigations, bur. plant indust, U. S. Dept. Agr, 33–35; asst. *olericult, Maryland, 35–39, instr, 39–, asst. olericulturist, Exp. Sta, 39–;* lieut, *Quartermaster Corps, U. S. Army,* 41–42, *major, 42–* A.A; Soc. Hort. Sci; Soc. Plant Physiol. Physiological study of germination of true potato seed; physiology of growth and development of vegetable crops; nutrition of vegetable crops; response of vegetable crops to phytohormone treatments; plant breeding.

Stier, Dr. Robert F. E, 478 Medical Dental Bldg, Spokane, Wash. *Bacteriology.* N. J, Sept. 24, 94. B.S, Rutgers, 15; M.D, Columbia, 19; M.S, Gonzaga, 34. *Lecturer med. bacter, Gonzaga, 25–;* instr. *bacter. and pub. health, State Col. Wash,* 25–35, asst. prof, 35–40, *assoc. prof, 40–* Am. Med. Asn; Soc. Clin. Path; Pacific Northwest Soc. Path. (pres, 41); Northwest Sci. Asn. (chairman, board trustees, 38–). Allergy; clinical pathology.

Stier, Dr. T(heodore) J(ames) B(lanchard), Indiana University School of Medicine, Bloomington, Ind. *Physiology.* Sayreville, N. J, 03. B.S, Rutgers, 25; A.M, Harvard, 27, Ph.D, 29. Austin teaching fellow, Harvard, 25–26, asst. and tutor, 26–28, instr. and tutor, 28–29; nat. research fellow, 29–31; instr. gen. physiol, Harvard, 31–33, asst. prof, 33–41, assoc. director lab. gen. physiol, 32–35; U. S. Govt, 41; *assoc. prof. physiol, sch. med, Indiana, 42–* A.A; Physiol. Soc; Soc. Zool. Cellular physiology; synthesis of carbohydrates and lipids in yeast; mechanism of cellular dissimilation; metabolic control of heart rhythmicity; spontaneous activity of animals.

Stifler, Prof. W(illiam) W(arren), Amherst College, Amherst, Mass. *Physics.* Davenport, Iowa, Dec. 22, 83. A.B, Shurtleff Col, 02; fellow, Illinois, 06–07, 10–11, A.M, 08, Ph.D, 11; hon. A.M, Amherst, 34. Instr. chem. and physics, Ewing Col, 02–06; asst. physics, Illinois, 07–09, instr, 09–10; Columbia, 11–17; head dept. physics and dean pre-med. sch, Peking Union Med. Col, 17–22; China Med. Board visiting prof. physics, Canton Christian Col, 22–23; research, Harvard, 23–24; acting prof. *physics,* Williams Col, 24–25; assoc. prof, *Amherst Col,* 25–31, *prof, 31–* Visiting prof, Columbia, 41–42. A.A; Physical Soc; Optical Soc. Magnetic properties of cobalt at high temperatures; x-ray scattering; improved apparatus for x-ray spectroscopy; physical properties of rubber at various temperatures.

Stiles, Dr. Geo(rge) W(hitfield), 517 Custom House, Denver 2, Colo. *Bacteriology.* Orangeburgh, N. Y, June 14, 77. B.S, Okla. Agr. and Mech. Col, 00; M.D, George Washington, 05, Ph.D, 09. Asst. biol, Okla. Agr. and Mech. Col, 00–01; sci. aid, path. div, bur. animal indust, *U. S. Dept. Agr,* 01–04, asst, 04–05, bacter, 05, bacter. chemist, bur. chem, 05–12, chief bacter. lab, 12–18, bacteriologist, *bur. animal indust,* 18–26, *bacteriologist in charge branch path. lab, path div,* 26–A.A; Soc. Bact; Pub. Health Asn; Conf. Research Workers Animal Diseases; U. S. Live Stock Sanit. Asn; Poultry Sci. Asn; Colo-Wyo. Acad; hon. mem. Colo. Vet. Med. Asn; hon. mem. Okla. Vet. Med. Asn; hon. mem. Denver County Med. Asn. Sewage pollution of oysters; dried and frozen eggs; American spring waters; diseases of sheep; anaplasmosis in cattle; farm sanitation; diseases of poultry; diagnostic problems of domestic live stock; tuberculosis in domestic animals; coccidioidal granuloma in cattle.

Stiles, Prof. H(arold), Iowa State College, Ames, Iowa. *Physics.* Richwood, Ohio, Oct. 11, 74. Ph.B, Kenyon Col, 96; A.M, Harvard, 04; fellow, Northwestern, 07–09, Ph.D, 09. Instr. *physics,* Northwestern, 04–07; prof, Morningside Col, 09–14; *assoc. prof, Iowa State Col, 14–* Summers, lecturer, Iowa, 12, 13. A.A; Iowa Acad. Wave-length determinations for mercury spectrum; thermal conductivity of heat insulators.

Stiles, Prof. Henry Wilson, Syracuse University, Syracuse, N. Y. *Anatomy.* M.D, Ensworth Cent. Med. Col, 01; Missouri; Stanford. Instr. *anat,* Michigan, 06–09; asst. prof, Tulane, 09–10; *prof, Syracuse, 10–* Asn. Anat. A stereoscopic atlas of anatomy.

Stiles, Dr. H(ugh) R(aymond), Commercial Solvents Corp, Terre Haute, Ind. *Biochemistry, Bacteriology.* Lake Mills, Wis, Dec. 25, 99. B.S, Wisconsin, 24, M.S, 25, Ph.D, 29. Asst, Wisconsin, 23–26; *bacter. research dept, Commercial Solvents Corp, 26–* A.A; Poultry Sci. Asn; Inst. Food Technol; Inst. Chem; Chem. Soc. Acetone butyl alcohol fermentation; grain and molasses ethyl alcohol fermentation; acetic, propionic, butyric and lactic acid; mannitol and vinegar fermentation; biological synthesis of vitamins; vitamin assays.

Stiles, Prof. Karl A(mos), 238 24th St. Drive, S. E, Cedar Rapids, Iowa. *Biology.* Banfield, Mich, Nov. 19, 97. A.B, Battle Creek Col, 27; M.S, Michigan, 31, Ph.D, 35. Teacher, high sch, Mich, 27–28; instr. biol, Battle Creek Col, 28–30; zool, Michigan, 31–34; *prof. biol. and head dept, Coe Col, 34–, chairman div. nat. sciences, 39–* 'Collecting Net' scholar, Marine Biol. Lab, Woods Hole; Gen. Educ. Board fellow, Columbia, 41–42, mem. aviation educ. research group, 42. Summer, mem. staff, Wild Life Sch, Iowa, 39. Research grant, Am. Asn. Adv. of Science, 38, 40, 43. Mem, Cmn. Standardization Biol. Stains; mem. sci. advisory cmt, Iowa State Conservation Cmn. A.A; Genetic Asn; Genetics Soc; Soc. Zool; Eugenics Soc; Iowa Asn. Sci. Teachers; Iowa Acad. (chairman, zool. sect, 37). Experimental zoology; microtechnique; histology; genetics.

Stiles, Dr. Merritt H(enry), 113 W. Chestnut Hill Ave, Philadelphia, Pa. *Medicine.* Stiles, N. Dak, Sept. 10, 99. Washington (Seattle), 16–17, 19–20; M.D, Pennsylvania, 24. Asst. med, *Germantown Dispensary and Hosp,* 25–30, *physician, thyroid clinic, 28–;* children's clinic, *Chestnut Hill Hosp,* 27–29, *assoc. physician, 32–; major, Med. Corps, U. S. Army.* Asst, cardiol. clinic, Penna. Hosp, 26–28. A.A; Soc. Bact; Am. Med. Asn; Col. Physicians. Clinical and laboratory medicine; bacteriology; clinical and immunological phases of low grade chronic illness with special emphasis on hematological changes, significance of hypothyroidism and hepatitis; bacterial antigen therapy.

Stilgenbauer, Prof. F(loyd) A(dlai), 17233 Annchester Road, Detroit, Mich. *Geography.* Shepherd, Mich, June 23, 92. A.B, Michigan, 24, A.M, 25, Ph.D, 29. Prin, high sch, Mich, 15–16; sch. supt, Mich, 16–22; instr. *geog,* Michigan, 24–26; Col. City of Detroit, 26–28, asst. prof, 29–33, *Wayne,* 33–34, *assoc. prof, 34–* Soc. Geog. Research; Nat. Council Geog. Teachers; Mich. Council Geog. Teachers (pres, 29); Mich. Acad. Geographic aspects of the Prince Edward Island fur industry; sugar supply of the United States; chicory; economic geography of Canadian asbestos; population outline and relief maps; urban geography of Saginaw, Michigan; world map projection; polar world map projection; air cargo map of the world.

Still, Alfred, 6038 34th Ave, N. E, Seattle, Wash. *Electrical engineering.* Gloucestershire, Eng, Jan. 28, 69. Col. de Dieppe, France; grad, Finsbury Tech. Col, England. Chief designer elec. machinery, Edison and Swan Co, England, 95–00; Cowans, Ltd, 00–11; chief elec. engineer, Lake Superior Corp, Can, 11–13; prof. elec. eng, Purdue, 13–34; *retired.* Fel. Elec. Eng; British Inst. Elec. Eng. Physics; history of science; electrical transmission of energy; transformer design; elements of electrical design.

Still, Dr. Eugene U(pdyke), 900 N. Franklin St, Chicago, Ill. *Physiology.* Kirksville, Mo, Aug. 20, 98. Fellow, Chicago, 26–28, Ph.D, 28. Instr. physiol, Chicago, 28–30, asst. prof, 30–36; *director research, Eugene U. Still Labs, 36–* Physiol. Soc; Soc. Exp. Biol; Chem. Soc. Physiology and chemistry of the gastro-intestinal tract, especially of the liver and pancreas; physiology and chemistry of vitamins and of ultra high frequency radiations.

Still, Dr. Kathleen Sullivan, Drake Hotel, Chicago, Ill. *Physiology.* Richmond, Ky. B.S, Kentucky, 16; M.S, Chicago, 25, Ph.D, 29. Head dept. home econ, East. Ky. State Teachers Col, 16–21; Northeast Mo. State Teachers Col, 21–26; *research, Chicago, 26–; pres, Biochem. Research Labs.* Nutrition.

Stillians, Prof. Arthur William, 1373 Hudson Ave, Chicago, Ill. *Dermatology.* Chicago, Ill, Dec. 24, 71. M.D, Illinois, 99. Instr. *dermat. and syphilol,* Illinois, 07–14; clin. prof, col. med. and surg, Chicago, 14–18; prof, Loyola (Ill), 18–19; *Northwestern,* 19–41, *emer. prof, 41–* Dermat. Asn; Am. Med. Asn; Inst. Med. Chicago. Syphilology.

Stillinger, C(harles) R(oy), 618 Realty Bldg, Spokane, Wash. *Plant pathology.* Grants Pass, Oregon, June 15, 89. A.B, Idaho, 13, M.S, 15; Washington (Seattle), 15–16; Oregon State Col, 16–17. Instr, high sch, Idaho, 13–14; teaching fellow bot, Washington (Seattle), 15–16; bot. and plant path, Oregon State Col, 16–17; sci. asst, *office blister rust control,* bur. plant indust, *U. S. Dept. Agr,* 17–18, *assoc. pathologist,* 19–28, *bur. entom. and plant quarantine, 28–* 2nd lieut, U.S.A, 18–19. Phytopath. Soc; Mycol. Soc; Soc. Foresters; Northwest Sci. Asn. Phytopathology; entomology; forest pathology; quarantine.

Stillman, Dr. Jesse W(ilbur), 12 Lindsey Place, Willmington, Del. *Chemistry.* Pawcatuck, Conn, Feb. 1, 93. B.S, Dartmouth Col, 14; A.M, Columbia, 15, Ph.D, 20. Acting instr. chem, Dartmouth Col, 14; asst. anal. chem, Columbia, 16–17; research chemist, *E. I. du Pont de Nemours and Co,* 17–20, *head anal. div, Exp. Sta, 20–,* tech. adviser, pub. relations dept, 41–42. Chem. Soc. Analytical chemistry.

Stillman, Dr. Ralph G(riffiths), 525 E. 68th St, New York, N. Y. *Medicine.* New York, N. Y, Feb. 21, 82. A.B, Yale, 03; M.D, Columbia, 07. Demonstrator physiol, Columbia, 09–11; attending physician, Seton Hosp, 11–13; instr. clin. med, *Cornell,* 12–22, *asst. prof. clin. path, 22–* Clin. pathologist, N. Y. Hosp, 12–, asst. director div. labs, 20–32; consulting physician, Rahway Hosp, 21– A.A; Am. Med. Asn; Asn. Path. and Bact; Soc. Clin. Path. (v. pres, 40); Soc. Exp. Biol; Soc. Bact; Harvey Soc; N. Y. Acad. Med; N. Y. Path. Soc; N. Y. State Soc. Path. Chemistry of urine; clinical pathology.

Stillman, R(onald) C(laire), 1578 Reid Ave, College Hill, Cincinnati, Ohio. *Chemistry.* Brookfield, N. Y, Jan. 9, 08. A.B, Marietta Col, 29. Develop. chemist, *Procter and Gamble Co,* 29–31, *research chemist, 31–* Chem. Soc. (sec'y-treas, Cincinnati sect, 38–42, chairman, 42); Oil Chemists Soc. Physical and inorganic chemistry; methods of analysis for soap and oils; methods for measuring colors; physical chemistry of soaps and oils.

Stillson, Dr. Gordon H(amilton), Gulf Research and Development Co, Box 2038, Pittsburgh, Pa. *Organic chemistry.* Chicago, Ill, Aug. 10, 06. B.S, Chicago, 30, Ph.D, 33. Chief lecture asst. chem, Chicago, 30–33; research chemist, Girdler Corp, 34; Mellon Inst, 34–35; *Gulf Research and Develop. Co,* 35–36, head org. chem. sect, 36–43, *process chemist, 43–* Chem. Soc. Intramolecular rearrangements; purification of industrial gases; organic reactions in liquid ammonia; microchemistry; gasoline antioxidants; additives for petroleum lubricants; analysis of petroleum refining processes.

Stillwell, Albert G(ladding), Care of Stillwell and Gladding, 130 Cedar St, New York, N. Y. *Chemistry.* Brooklyn, N. Y, Aug. 8, 76. Polytech. Inst. Brooklyn; B.S, Columbia, 98. Asst. chemist, Stillwell and Gladding, 98–03; *pres, Stillwell Labs, Inc, 03–* Official chemist, N. Y. Produce Exchange, 03–09; Nat. Asn. Importers, 09–; U. S. Shellac Asn, 24–Chem. Soc. (director, N. Y. sect, 09). Analytical chemistry; fertilizers; oils.

Stillwell, Dr. Charles W(illiam), Dennison Mfg. Co, Framingham, Mass. *Chemistry.* Brooklyn, N. Y, April 5, 01. Ch.B, Cornell, 22, Ph.D, 26. Asst. prof. chem, Vermont, 26–29; assoc, Illinois, 30–33; *research chemist, Dennison Mfg. Co, Framingham, Mass, 34–* Chem. Soc. Applied x-rays; x-ray diffraction studies of materials, especially electrodeposited alloys, other metallic coatings and wood; adhesives; paper; lacquers; protective papers.

Stillwell, Dr. William D(uncan), 3831 E. Antisdale Road, Cleveland Heights, Ohio. *Chemistry.* Tillamook, Oregon, Dec. 3, 07. A.B, San Diego State Teachers Col, 29; M.S, Tulane, 31; Ohio Chem. Co. fellow, 31–32; Ph.D, Western Reserve, 33. *Research, Harshaw Chem. Co, Cleveland, 33–* Ceramics; gas chemistry.

Stilwell, Prof. E(mma) Frances, Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Cytology.* Tarentum, Pa, Sept. 10, 99. A.B, Smith Col, 22, A.M, 24; scholar, Chicago, 24–25, fellow, 27–28; fellow, Bryn Mawr Col, 35–37, Ph.D, 38. Asst. zool, Smith Col, 22–23, instr, 23–29, asst. prof, 29–35; asst. prof. and later *assoc. prof. anat, Woman's Med. Col. Pa, 39–* Asn. Anat; Soc. Zool. Tissue culture in vitro; cytology.

Stimpert, Dr. Fred (Dewey), Research and Biological Laboratories, Parke, Davis and Co, Detroit, Mich. *Bacteriology.* Benson, Ill, April 7, 99. A.B, Montana, 21; Pasteur Inst, Paris, 27; Ph.D, Southern California, 37. Instr, Montana, 22–26; director hygienic lab, State Board Health, Mont, 27–35; med. microbiologist, Los Angeles Co. Gen. Hosp, 37–40; head virus div, *research and biol. labs, Parke, Davis and Co,* 40–43, *asst. director research, 43–* Prof, Carroll Col, 31–35; director clin. lab, St. Peters Hosp, Helena, Mont, 34–35; special lecturer, Soc. Clin. Lab. Technicians, Los Angeles, 37–40; instr, med. sch, Southern California, 38–40. Fel. Pub. Health Asn; Soc. Bact. Viruses and virus diseases.

Stimpson, Dr. Edwin G(reenwood), 1403 Eutaw Place, Baltimore, Md. *Biochemistry.* Brooklyn, N. Y, Dec. 3, 08. A.B, Maryland, 30, Ph.D, 37. Chemist, research labs, Nat. Dairy Products Corp, 30; control chemist, Nat. Juice Corp, Fla, 31; asst. chem, Maryland, 34–37; *research chemist, Sealtest Inc, 37–* Chem. engineer, U. S. Pub. Health Service, 37. Chem. Soc. Nutritional value of the black-eyed pea; methods of producing lactic acid; new uses for casein.

Stimson, Dr. A(rthur) M(arston), 414 Raymond St, Chevy Chase, Md. *Public health.* Rome, N. Y, Nov. 30, 76. M.D, L. I. Col. Med, 98. Med. officer, U. S. Pub. Health Service, 02–41, chief div. sci. research, 22–30, heart disease investigations, 30–41; *retired.* A.A; Pub. Health Asn; Am. Med. Asn; Am. Heart Asn. Public health aspects of human pathology; rabies; yellow fever; laboratory technique; sanitary research; heart disease.

Stimson, Dr. Clinton Rufus, 668 Riverside Drive, New York 31, N. Y. *Chemistry.* Palmer, Mass, Oct. 21, 15. B.S, Cornell, 35, Ph.D, 39; M.S, Iowa State Col, 36. Asst. to director research, Int. Salt Co, Inc, 40; research librarian, plastics div, Monsanto Chem. Co, Mass, 40–41; head dept. *chem,* Col. of Our Lady of the Elms, 41–42; *instr, Manhattan Col, 42–; Col. City of N. Y, 43–* A.A; Chem. Soc; Special Libraries Asn. Biological and nutritional chemistry; comparison of certain sulfonated derivatives of cholesterol with other antirachitic supplements for chicks; carotene and vitamin A content of fresh and frosted green peas and sweet corn.

Stimson, Dr. H(arold) F(rederic), National Bureau of Standards, Washington, D. C. *Physics.* Leicester, Mass, April 1, 90. A.B, Clark, 10, A.M, 11, Ph.D, 15. Asst. to Prof. A. G. Webster, 11–16; *physicist, Bur. Standards.* A.A; Physical Soc; Optical Soc; Philos. Soc. Wash. (treas, 38, v. pres, 42); Wash. Acad. Sound; calorimetry; heat measurement.

Stimson, Sister Miriam Michael, Siena Heights College, Adrian, Mich. *Organic chemistry.* Chicago, Ill, Dec. 24, 13. B.S, Siena Heights Col, 36; M.S, Institutum Divi Thomae, 39. *Asst. prof. chem, Siena Heights Col, 39–, head research lab, 40–* Charles Williams award, 42. Chem. Soc. Application of ultraviolet absorption spectroscopy to the identification of organic structure; application of fluorescence and chromatography to the purification of organic compounds.

Stinchcomb, Prof. G(eorge) A(lfred), Heidelberg College, Tiffin, Ohio. *Physics.* Attica, Ohio, Dec. 2, 93. B.S, Heidelberg Col, 15; A.M, Michigan, 22; Ph.D, Ohio State, 29. Teacher, high sch, Ohio, 15–17; *prof. physics and head dept, Heidelberg Col, 19–* Officer, U.S.A, 17–19. Physical Soc; Asn. Physics Teachers. Infra-red absorption spectrum.

Stinchfield, Dr. S(ara) M(ae) (Mrs. C. L. Hawk), University of Southern California, Los Angeles, Calif. *Psychology.* Auburn, Maine, Sept. 29, 85. A.B, Pittsburgh, 14; A.M, Iowa, 20; Ph.D, Wisconsin, 22; Vienna and London, 31. Teacher, high sch, Pa, 14–18; asst, Iowa, 18–20; Wisconsin, 20–22; instr. *psychol,* Mt. Holyoke Col, 22–24, asst. prof, 24–27, assoc. prof, 27–32; *lecturer, Southern California, 32–* Psychologist, Polytech. Elem. and Jr. High Sch, Pasadena; speech clinic, Orthop. Hosp, Los Angeles. Summers, staff, Pa. State Col, 22–24, 26–29, 37. Asst. ed, 'Quarterly Jour. Speech Educ,' 22– Psychol. Asn; Soc. Study Disorders Speech (sec'y, 25–30); Am. Acad. Speech Correction (past pres). Speech correction; psychology of speech; child psychology.

Stine, Dr. C(harles) M(ilton) A(tland), 1100 Greenhill Ave, Wilmington, Del. *[*5]Chemistry.* Norwich, Conn, Oct. 18, 82. A.B, Pa. Col, 01, B.S, 03, A.M, 04, M.S, 06, hon. Sc.D, 26; fellow, Hopkins, 06–07, Ph.D, 07; hon. LL.D, Cumberland, 32, Temple, 41. Prof. chem, Maryland, 03–05; research chemist in charge org. chem, east. lab, *E. I. du Pont de Nemours and Co,* 07–16, head org. div, chem. dept, 16–19, asst. director, 19–24, chem. director, 24–30, *v. pres, mem. exec. cmt. and director, 30–* Pres, Del. Hosp, Wilmington. Trustee and chairman board, Gettysburg Col; trustee, Tower Hill Sch, Del; Delaware. Perkin medal, 40. Advisory board, C.W.S. A.A; Chem. Soc. (councilor, 23, 29–31, chairman, Del. sect, 22, councilor-at-large, 34–36); Chem. Eng; Asn. Directors Indust. Research; Franklin Inst; Acad. Nat. Sci. Phila. (trustee). Hydrates in binary electrolytes; synthetic resins; high explosives; detonating compounds; dyes and intermediates; paints; varnishes; lacquers; propellant powders; solvents; organic chemicals.

Stine, Dr. Dan G(ish), 22 N. Eighth St, Columbia, Mo. *Medicine.* Hopkinsville, Ky, Oct. 24, 84. A.B, Missouri, 07; M.D, Harvard, 11. Assoc. prof. clin. med, *Missouri,* 16–17, prof, 17–30, *med, 30–, director med. services and chief of staff, univ. hosps, 30–, student health service, univ, 37–* Attending specialist, U. S. Pub. Health Service, 18–20. Fel. Col. Physicians; Am. Med. Asn; Student Health Asn. (councilor, 39); Miss. Valley Med. Soc. (director, 35–40, pres, 41–); fel. Kans. City Acad. Med; hon. mem, St. Louis Med. Soc. Cardiac function; evaluation of cardiac murmurs; vagohypotonic individual; use of the esophagram to determine the size of the left auricle.

Stine, Dr. J(ames) Bryan, Kraft Cheese Co, Chicago, Ill. *Bacteriology.* Pecos, Texas, June 27, 11. B.S, Texas Tech. Col, 33; fellow, Iowa State Col, 33–35, M.S, 34, Ph.D, 36. *Kraft Cheese Co, 35–* Milk products; flavoring products of butter; defects of cheese spreads; Roquefort type cheese; manufacture of malted milk.

Stine, Dr. O(scar) C(lemen), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Sandyville, W. Va, Nov. 13, 84. Ph.B, Ohio (Athens), 08; Ph.D, Wisconsin, 21. Asst. agr. econ, Wisconsin, 14–16; asst. farm econ, *bur. agr. econ, U. S. Dept. Agr,* 16–19, assoc. agr. economist, 19–20, agr. economist, 20–21, in charge agr. hist. research, 21–22, *in charge statist. and hist. research,* 22– Lecturer, American Univ, 30–34, 37–; Brookings Institution, 33–36; California, 36. Mem, Cent. Statist. Board, 33–36, 37–40. Ed, 'Jour. Farm Econ,' 22–24; 'Agr. Hist,' 27–31. Del, Int. Inst. Agr, 26, 34; mem. agr. advisory cmt, Social Science Research Council, 35–42, sec'y, 39–42. Farm Econ. Asn. (pres, 31); fel. Statist. Asn. (v. pres, 39, director, 41); Agr. Hist. Soc. (pres, 24); Council For. Relations. Agricultural economic history; prices.

Stinetorf, Prof. Roscoe, 186 Janeway St, Greenwood, S. C. *Physics.* Rockford, Ill, Nov. 28, 00. A.B, Earlham Col, 29; M.S, Pennsylvania, 31, Ph.D, 34. Teacher science, Boy's Sch, Palestine, 29–30; prof, Southern Union Col, 36–37; *prof. math. and head dept, Lander Col, 37–* S. C. Acad. Absorption of excited helium for its own radiation in the visible spectrum.

Stinson, Prof. Karl W(illson), Ohio State University, Columbus, Ohio. *Engineering.* Hebron, Ohio, June 19, 93. B.M.E, Ohio State, 16, M.E. 24. Lubrication engineer, Firestone Tire and Rubber Co, Ohio, 19; asst. chief engineer, Seagrave Corp, 19–21; instr. mech. eng, *Ohio State,* 21–24, asst. prof, 24–30, assoc. prof. *automotive eng,* 30–34, *prof, 34–* Lieut, A.S, 18. Soc. Automotive Eng; Mech. Eng; Eng. Educ; Inst. Automotive Eng. Gt. Britain and Ireland. Automotive engineering; automotive fire engines; centrifugal pumps; torsional vibration of crank shafts; coefficient of friction between tires and road surfaces.

Stipe, Prof. C(larence) George, 307 Agate St, Houghton, Mich. *Mathematics.* West Unity, Ohio, March 13, 97. A.B, Michigan, 22, Ph.D, 39; A.M, South Dakota, 26; B.S, Mich. Col. Min. and Tech, 31, M.S, 32, C.E, 35. Instr. math, South Dakota, 22–27; asst. prof, *Mich. Col. Min. and Tech,* 27–38, *assoc. prof. math. and surveying, 38–* Geodesy; ordinary differential equation; civil engineering uses of geophysical prospecting methods; strength of figure formula in triangulation.

Stirewalt, Prof. Margaret A(melia), Flora Macdonald College, Red Springs, N. C. *Zoological anatomy.* Hickory, N. C, Jan. 18, 11. A.B, Randolph-Macon Woman's Col, 31; A.M, Columbia, 35; du Pont fellow, Virginia, 34–38, Ph.D, 38. Teacher, high sch, Va, 31–33; asst, Virginia, 38–40; *asst. prof. biol, Flora Macdonald Col, 40–* Research grant, Va. Acad. Science, 38–40; instr, Woman's Col, North Carolina, 39. A.A; Va. Acad. Histology and physiology of the genus Microstomum; taxonomy of the Rhabdocoeles and Alloeocoeles; excretion in the genus Microstomum; yolk production in Microstomum lineare; history of the American Acoeles, Alloeocoeles and Rhabdocoeles; Turbellaria.

Stirling, M(atthew) W(illiams), 3319 O St, N. W, Washington, D. C. *Anthropology.* Salinas, Calif, Aug. 28, 96. A.B, California, 20; A.M, George Washington, 22; Sc.D, Tampa, 43. Asst. curator div. ethnol, U. S. Nat. Museum, 21–24; *chief, Bur. Am. Ethnol, 28–* Explored archeol. caves in south. France and north. Spain, 22; ethnol. exped, Dutch New Guinea, 26–27; various expeds, N. Cent. and S. Amer. A.A; Anthrop. Asn; Anthrop. Soc. Wash; Wash. Acad. Ethnology; archeology.

Stirton, Dr. A(lexander) J(ames), U. S. Department of Agriculture, Chestnut Hill Post Office, Philadelphia, Pa. *Organic chemistry.* Gagetown, Mich, Feb. 9, 07. B.S, Wayne, 30; A.M, George Washington, 32; Ph.D, Maryland, 38. Junior chemist, bur. agr. chem. and eng, *U. S. Dept. Agr,* 30–36, asst. chemist, 36–39, *chemist,* 39–40, *east. regional research lab,* 40–43, *bur. agr. and indust. eng, 43–* Chem. Soc; Inst. Chem; Oil Chem. Soc. Friedel and Crafts reaction; amination by ammonolysis; synthesis of vat dye intermediates; surface active agents; antioxidants; rubber in latex form from guayule, cryptostegia and kok-saghyz.

Stirton, Dr. Robert I(ngersoll), Union Oil Co. of California, Singapore, Straits Settlements. *Chemistry.* Port Huron, Mich, March 3, 08. B.S, Calif. Inst. Tech, 30, Inspiration Consol. Copper Co. fellow, 31–34, Ph.D, 34. Research chemist, *Union Oil Co. of Calif,* 34–38, *tech. sales rep, for. service, 38–* Soc. Automotive Eng. Electrolytic metallurgy; Diesel engine lubrication.

Stirton, R(uben) A(rthur), University of California, Berkeley, Calif. *Vertebrate paleontology.* Muscotah, Kans, Aug. 20, 01. A.B, Kansas, 25; A.M, California, 31, Ph.D, 40. Asst, museum nat. hist, Kansas, 22–25; mammalogist, Donald R. Dickey expeds, El Salvador, Cent. Amer, 25–27; *curator fossil mammals, museum paleont, California, 28–, lecturer paleont; hon. curator Donald R. Dickey mammal collection, California at Los Angeles, 41–* Soc. Mammal; Paleont. Soc; Geol. Soc; Soc. Vert. Paleont. Tertiary stratigraphy; fossil and recent mammals.

Stitt, Rear Admiral E(dward) R(hodes), 1625 R St, N. W, Washington, D. C. *Medicine.* Charlotte, N. C, July 22, 67. A.B, South Carolina, 85, LL.D, 17; M.D, Pennsylvania, 89, Sc.D, 24; Jefferson Med. Col, 20; LL.D, Michigan, 21. Asst. surgeon, U. S. Navy, 89–92, passed asst. surgeon, 92–00, surgeon, 00–10, med. inspector, 10–14, med. director with rank of capt, 14–17, with rank of rear admiral, 17–20, director labs. and head dept. med, Naval Med. Sch, 11–16, commanding officer, 16–20, surgeon gen, 20–28; *retired.* Assoc. prof, Philippines, 09–11; prof, Georgetown and George Washington, and lecturer, Jefferson Med. Col, 11–20; consultant trop. med. to U. S. Sec'y War, 41– A.A; Col. Physicians; Col. Surg; Am. Physicians; Soc. Trop. Med; Soc. Parasitol; Royal Soc. Med. Bacteriology; animal parasitology; diagnostics of tropical medicine.

Stitt, Dr. Fred, 1 Whitaker Ave, Berkeley, Calif. *Chemistry.* Butler, Pa, Sept. 23, 11. B.S, Carnegie Inst. Tech, 32, M.S, 33; Ph.D, Calif. Inst. Tech, 36. Research fellow chem, Calif. Inst. Tech, 36–37; nat. research fellow, Harvard, 37–39; instr, Indiana, 39–41; *assoc. chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Raman and infra-red spectra; solution kinetics; magnetic susceptibility; heat capacity; thermal conductivity.

Stoa, T(heodore) E, North Dakota Agricultural College, Fargo, N. Dak. *Agronomy.* Buxton, N. Dak, Jan. 30, 90. B.S, N. Dak. Col, 15, M.S, 21. Sci. asst, office cereal crops, U. S. Dept. Agr, 15–20; asst. agronomist, *N. Dak. Col,* 20–34, *agronomist, 34–* Soc. Agron; N. Dak. Acad. Crop production in North Dakota.

Stobbe, Prof. Helen (Ruth), Baldwin House, Northampton, Mass. *Geology.* Brooklyn, N. Y, March 13, 02. A.B, Smith Col, 24; A.M, Columbia, 31. Teacher geol. and chem, Stuart Hall, Va, 24–26; asst. geol, Columbia, 27–28; geol. asst, Amerada Petrol. Corp, 28–30; curator, *Smith Col,* 30–32, instr, 32–40, *asst. prof. geol, 40–* A.A; Miner. Soc. Petrography and petrology; pegmatites southwest of Custer, South Dakota; extrusive and related rocks of northeastern New Mexico.

Stock, Dr. C(harles) Chester, 2101 Constitution Ave, Washington, D. C. *Biochemistry.* Terre Haute, Ind, May 19, 10. B.S, Rose Polytech, 32; John Archbold fellow, Hopkins, 36–37, Ph.D, 37; M.S, N. Y. Univ, 41. Instr. bacter, col. med, N. Y. Univ, 37–41; volunteer worker, Rockefeller Hosp. Med. Research, 41–42; *tech. aide, cmt. treatment gas casualties, div. med. sciences, Nat. Research Council, 42–* Chem. Soc; Harvey Soc. Biochemistry of enzymes and viruses; effects of enzymes upon influenza virus; the action of soaps upon lymphocytic choriomeningitis virus; hypertension.

Stock, Prof. Chester, California Institute of Technology, Pasadena 4, Calif. *[8]*Geology, Paleontology.* San Francisco, Calif, Jan. 28, 92. B.S, California, 14, Ph.D, 17. Asst. paleont, California, 17–19, instr, 19–21, asst. prof, 21–26; *prof. paleont, Calif. Inst. Tech, 26–; research assoc, Carnegie Institution, 26–; curatorial consultant, Los Angeles Museum, 31–; senior geologist, U. S. Geol. Surv, 43–* Visiting prof, California at Los Angeles, 39; Guggenheim Mém. Foundation fellow, Mexico, 39–41. A.A; Paleont. Soc; Geol. Soc. (chairman cordilleran sect, 41); Soc. Vert. Paleont; Soc. Mammal; Soc. Nat; Am. Acad; North. Ariz. Soc. Sci. and Arts; Wash. Acad. Pleistocene and Tertiary mammals of western United States and of Mexico; vertebrate paleontology and morphology; historical geology; early man in the Southwest; cretaceous reptiles of California.

Stockard, Prof. Alfred H(enry), 1431 E. Park Place, Ann Arbor, Mich. *Zoology.* Lewisville, Texas, Aug. 10, 99. A.B, Wyoming, 25, A.M, 27; Ph.D, Michigan, 32. Prin, high sch, Texas, 20–24; asst. *zool,* Wyoming, 24–25, instr, 25–28; *Michigan,* 28–32, *asst. prof, 32–,* sec'y *biol. sta,* 31–39, *director, 40–* A.A; Mich. Acad. (ed, 'Papers,' 34–38). Vertebrate morphology, embryology and natural history; cyclic changes in the female reproductive tract of mammals.

Stockbarger, Prof. D(onald) C(harles), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Walkerton, Ind, Oct. 19, 95. B.S, Mass. Inst. Tech, 19, Sc.D, 26. Asst. *physics, Mass. Inst. Tech,* 20–23, instr, 23–27, asst. prof, 27–35, *assoc. prof, 35–; official investigator, Nat. Defense Research Cmt, 40–* Consulting physicist, Cooper Hewitt Elec. Co, 21–31; United Shoe Machinery Corp, 24–31; Vitaglass Corp, 28–31; Courier-Citizen Co, 34–39; Patterson Screen Co, 40–42. C.W.S, U.S.A, 18. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Am. Acad. Quartz mercury arc; mixed gas discharges; application of ultra-violet radiation in biology and photochemistry; photoelectric sound reproduction; ultra-violet transmitting glass; radiation measurements; spectrograph slit irradiation; large scale crystallization of lithium fluoride; diffraction grating replicas; temperature gradient control; luminescent materials; production of crystals for optical use.

Stockberger, Dr. W(arner) W, U. S. Department of Agriculture, Washington, D. C. *Botany.* Croton, Ohio, July 10, 72. B.S, Denison, 02, hon. Sc.D, 37; Ph.D, George Washington, 07. Sch. supt, Ohio, 95–97; asst. science, Denison, 97–01, instr. bot, 01–03; expert in histol, bur. plant indust, *U. S. Dept. Agr,* 03–09, pharmacognosist, 09–10, physiologist, 10–13, in charge drug, poisonous and oil plant investigations, 13–40, departmental director personnel, 25–38, *special adviser to U. S. Sec'y Agr, 38–* Asst. sec'y, Pharmaceut. Convention, 20–30. A.A; hon. mem. Oil Chemists Soc; Bot. Soc. Wash. (pres, 12). Variation and heredity.

Stockdale, Prof. Paris B(uell), University of Tennessee, Knoxville, Tenn. *Geology.* Frankfort, Ind, Aug. 30, 96. A.B, Indiana, 19, A.M, 21, Ph.D, 30; Chicago, 24–25. Asst. geol, Indiana, 18–20; asst. instr, Williams Col, 20–21; instr, Ohio State, 21–24; asst, Chicago, 24–25; instr, Ohio State, 25–29, asst. prof, 29–33, assoc. prof, 33–41; *prof. geol. and geog. and head dept, Tennessee, 41–* Summers, Roxana Petrol. Co, 18; Ind. Geol. Surv, 19, 26, 27, 28; Ohio Geol. Surv, 30– A.A; fel. Geol. Soc; fel. Paleont. Soc; Carolina Geol. Soc; fel. Ohio Acad; fel. Ind. Acad; Tenn. Acad. Intraformational solution in rocks; Mississippian stratigraphy and sedimentation; structural geology; meteorology.

Stocker, Prof. George Patrick, 904 W. Maple St, Fayetteville, Ark. *Civil engineering.* Platteville, Wis, Feb. 9, 83. B.S, Wisconsin, 09; Cornell, 16–17; M.S, Iowa State Col, 24. Head dept. *civil eng,* N. Mex. Agr. and Mech. Col, 09–16; Swarthmore Col, 17–18; Miss. Agr. and Mech. Col, 18–19; *prof, Arkansas, 19–,* head dept, 19–36, *dean col. eng, 36–* Eng. Educ; Newcomen Soc. Stresses in concrete culverts; flow formulae for submerged weirs.

Stocking, Prof. C(harles) H(oward), University of Michigan, Ann Arbor, Mich. *Pharmaceutical chemistry.* Stockbridge, Mich, Aug. 27, 82. Ph.C, Michigan, 07, B.S, 09, M.S, 25. Prof. pharmacy and dean, Kansas City Col. Pharmacy, 09–11; research chemist, The Upjohn Co, 11–12; prof. pharmacy and dean sch. pharmacy, Oklahoma, 12–17; Eli Lilly and Co, 17–18; 'Pharmaceut. Era,' 18–19; asst. prof. *pharmacy, Michigan,* 20–27, *assoc. prof, 27–,* sec'y *col. pharmacy, 42–* A.A; Pharmaceut. Asn; Asn. Cols. Pharm. (pres, 32); Conf. Pharmaceut. Faculties (v. pres, 22). Pharmacy; influence of viscosity on emulsification of oils; isolation of alkaloids; arithmetic of pharmacy; pharmacy laboratory manual.

Stocking, C(lifford) Ralph, 816 Park St, Turlock, Calif. *Plant physiology.* Riverside, Calif, June 22, 13. A.A, Riverside Jr. Col, 34; B.S, California, 37, M.S, 39. *Assoc. bot, Exp. Sta. and col. agr, California, 39–* A.A; Bot. Soc. Internal water relations of plants.

Stocking, Hobart E, 27 Ann Arbor Ave, West View, Pa. *Geology.* Clarendon, Texas, Nov. 16, 06. A.M, Hopkins, 38; Chicago, 38–40. Instr. geol, West Virginia, 40–41, asst. prof, 41–43; *dist. geologist, dist. one, Petrol. Admin. for War, 43–* Summer, assoc. econ. statistician, War Production Board, 42. A.A. Lore of birthstones; eruption of Mont Pelee; the Galveston hurricane; coral islands and coral reefs.

Stockmayer, Dr. W(alter) H(ugo), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Rutherford, N. J, April 7, 14. B.S, Mass. Inst. Tech, 35, Ph.D, 40; B.Sc, Oxford, 37. Instr. *chem,* Mass. Inst. Tech, 39–41; Columbia, 41–43; *asst. prof, Mass. Inst. Tech, 43–* Chem. Soc. Compressibility of gases and gas mixtures; intermolecular forces; high polymers.

Stockton, Prof. A(ndrew) B(enton), Stanford University School of Medicine, San Francisco, Calif. *Therapeutics.* Spokane, Wash, Jan. 18, 00. A.B, Stanford, 23, M.D, 28. Asst. pharmacol, Stanford, 26–28; asst. res. med, Lane Hosp. 28–29; instr. *therapeut, sch. med, Stanford,* 29–36, *asst. prof, 36–* Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Asn. Pharmacology; medicine; reactions of crop muscles; digitalis assay; mechanism of diuresis; clinical actions of synephrine, apocodeine, bismuth sodium tartrate, dinitrophenol, phenothiazine and eosinophilia.

Stockton, Robert S(ummers), Craigantler Ranch, Thompson Falls, Mont. *Engineering.* Oquawka, Ill, June 5, 72. E.M, Colo. Sch. Mines, 95. Instr. math. and surveying, Colo. Sch. Mines, 95–96, asst. prof, 96–99, prof. surveying, 99–00, math. and surveying, 00–03; engineer, U. S. Reclamation Service, 03–11; supt. operation and maintenance, west. sect. irrig. system, dept. nat. resources, Can. Pacific Ry. Co, 11–35; *retired.* Consulting engineer, irrig. and land develop. A.A; Civil Eng; Northwest Sci. Asn; Eng. Inst. Can. Mining surveying; methods and appliances in irrigation; irrigation systems.

Stockwell, Dr. C(lifford) H(oward), Geological Survey, Ottawa, Ont, Can. *Geology.* Estevan, Sask, Sept. 26, 97. B.A.Sc, 24; Ph.D, Wisconsin, 30. Asst. geologist, *Geol. Surv. Can,* 27–29, assoc. geologist, 29–39, *geologist, 39–* Fel. Royal Soc. Can. Precambrian geology of Great Slave Lake and Manitoba; chromite deposits of Canada.

Stockwell, Prof. F(rank) C(lifford), Stevens Institute of Technology, Hoboken, N. J. *Electrical engineering.* Warwick, Mass, April 22, 83. A.B, Bates Col, 05; B.S, Mass. Inst. Tech, 07. *Depts. physics and elec. eng, Stevens Inst. Tech, 07–, Anson Wood Burchard prof. elec. eng. and dean grad. sch.* In charge tech. training and educ. director, N. Y. Edison Co, 14–33. Elec. Eng; Eng. Educ. Electrical network theory as applied to communication; theory and design of electric wave filters.

Stockwell, (William) Palmer, U. S. Forest Service, Berkeley, Calif. *Cytological taxonomy.* Alvin, Texas, July 7, 98. B.S, Arizona, 31, M.S, 32; Ph.D, Stanford, 40. Southwest. arboretum, Boyce Thompson Inst, Superior, Ariz, 27–29; div. plant biol, Carnegie Institution, 32–35; with soil conservation service, U. S. Dept. Agr, 35–37; *inst. forest genetics, Calif. Forest and Range Exp. Sta, U. S. Forest Service,* 37–40, *in charge div. forest genetics and director inst, 40–* Genetics Soc; West. Soc. Nat; Calif. Bot. Soc. Genetics; cytology; taxonomy; Pinus.

Stoddard, Dr. George D(insmore), State Education Department, Albany, N. Y. *Psychology.* Carbondale, Pa, Oct. 8, 97. A.B, Pa. State Col, 21; diploma, Paris, 23; Ph.D, Iowa, 25. Assoc. psychol. and educ, Iowa, 25–26, asst. prof, 26–28, assoc. prof. psychol, 28–29, prof, 29–42, head dept, 38–39, acting director, child welfare research sta, 28–29, director, 29–42, dean grad. col, 36–42; *state commissioner educ, N. Y, and pres, Univ. State of N. Y, 42–* Am. Council Educ. A.A; Psychol. Asn; Educ. Research Asn; Soc. Study Educ; Soc. Research Child Develop. (chairman, 36–38). Child psychology.

Stoddard, Herbert L(ee), Sherwood Plantation, Thomasville, Ga. *Ornithology.* Rockford, Ill, Feb. 24, 89. Cooperative agent, bur. biol. surv, U. S. Dept. Agr, 24–30; with Cooperative Quail Study Asn, 30–43. Field Museum Nat. Hist; Milwaukee Pub. Museum. A.A; Ornith. Union; Soc. Mammal; Cooper Ornith. Club; Wilson Ornith. Club; Nat. Asn. Audubon Societies. Life history and ecology of the bobwhite quail; wildlife management.

Stoddard, Prof. K(enneth) B(erkeley), 302 Le Conte Hall, University of California, Berkeley, Calif. *Physics.* Newport, R. I, Oct. 20, 04. A.B, California at Los Angeles, 28; A.M, Stanford, 30, Ph.D, 31. Asst. physics, Stanford, 28–30, instr, 30–31; asst. prof, Ariz. State Teachers Col, Tempe, 31–32; instr, Stanford, 32–35; physicist, 35–37; asst. prof. *optom, California,* 38–43, *assoc. prof, 43–, physicist, radiation lab, 42–* A.A; Optical Soc. Spectroscopy; x-rays; physiological optics.

Stoddard, Dr. Laurence G(arnett), 1207 S. Harvard Blvd, Los Angeles, Calif. *Astrophysics.* Newport, R. I, Nov. 30, 11. A.B, California at Los Angeles, 34, A.M, 35; Steward Observatory fellow, Arizona, 37–38; Ph.D, California, 40. Teaching asst, California, 36–37; junior astronomer, U. S. Naval Observatory, 39–42; *research engineer, Lockheed Aircraft Corp, 42–* Astron. Soc. Pacific. Absorption in dark nebulae; meridian astronomy; aircraft flutter.

Stoddart, Dean C(harles) W(illiam), Pennsylvania State College, State College, Pa. *Chemistry.* Boscobel, Wis, Oct. 14, 77. A.B, Columbia, 00, A.M, 01; Ph.D, Wisconsin, 09. Asst. prof. soils, Wisconsin, 04–10; prof. agr. chem, *Pa. State Col,* 10–20, acting dean sch. nat. science, 20–24, *dean sch. lib. arts, 20–* A.A. Soil acidity and phosphates; rare earths; chemistry of agriculture.

Stoddart, Dr. L(aurence) A, Utah State Agricultural College, Logan, Utah. *Plant ecology.* Trinidad, Colo, July 17, 09. B.S, Colo. Agr. Col, 31, fellow, 31–32, M.S, 32; Ph.D, Nebraska, 34. Range agent, soil conservation service, U. S. Dept. Agr, 34–35; *prof. range management, Utah State Col, 35–,* acting dean sch. forestry, 42–43, *range ecologist, Exp. Sta.* Ed. board, 'Ecol,' 40– Ecol. Soc; Soc. Foresters. Range management; soil erosion; drought resistance of native plants; osmotic pressure and water content; range capacity.

Stodola, Dr. Frank H, U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Hopkins, Minn, June 18, 05. B.S, Minnesota, 28, Ph.D, 33. Nat. Tuber. Asn. fellow, Yale, 34–37; research fellow, Kaiser Wilhelm Inst. für Biochem, Berlin-Dahlem, 37–38; research chemist, Mayo Foundation, Minnesota, 38–40; instr. org. chem, Columbia, 40–42; *chemist, fermentation div, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc. Lipids of the tubercle bacillus; adrenal gland hormones; microanalysis.

Stoesser, Dr. A(lbert) V, University Hospitals, Minneapolis, Minn. *Pediatrics.* St. Paul, Minn, Nov. 28, 01. B.S, Minnesota, 22, M.D, 25, Ph.D, 29. From instr. to *prof. pediat, med. sch, Minnesota, asst. to chief pediat. service, univ. hosps.* Chief pediat. and contagious disease div, Minneapolis Gen. Hosp. Director, Univ. and Minneapolis Gen. Hosps, Pediat. Allergy Clinics. Staff pediatrician, Minn. Pub. Health Asn. A.A; Soc. Pediat. Research; Soc. Exp. Biol; Asn. Study Allergy; Am. Board Pediat; Northwest. Pediat. Soc. (treas, 35, pres, 36, permanent sec'y, 41–); Minn. Path. Soc. Growth and care of premature and newborn infants; mineral metabolism in asthma; relationship of blood lipid changes to immunity in acute infections and to etiology in allergic diseases of the child.

Stoesz, Dr. A(braham) D(ietrich), Soil Conservation Service, Lincoln, Nebr. *Botany.* St. James, Minn, April 26, 94. A.B, Bluffton Col, 23; A.M, Minnesota, 28, Ph.D, 31. Prof. biol, Tabor Col, 23–24; asst. *bot,* Minnesota, 25–28, instr, 28–29; asst. prof, N. Dak. Col, 29–35; *regional nurseryman, soil conservation service, U. S. Dept. Agr, 35–* Summers, asst, forestry sch, Minnesota, 27, 28. A.A; Ecol. Soc. Plant ecology; role of subterranean organs of Helianthus scaberrimus.

Stoever, Prof. H(erman) J, Iowa State College, Ames, Iowa. *Thermodynamics.* Evansville, Ind, June 8, 07. B.S, Purdue, 28; M.S, Illinois, 30, Ph.D, 34. Research engineer, Westinghouse Elec. and Mfg. Co, 30–32; Linde Air Products Co, 34–35; instr, Calif. Inst. Tech, 35–36; asst. prof, Purdue, 36–37; designer, United Engineers and Constructors, 37–38; *assoc. prof. thermodynamics, Iowa State Col, 38–* Mech. Eng. Heat transmission; measurement of convection heat transfer coefficients.

Stogdill, Dr. Ralph M(elvin), 149 E. Weber Road, Columbus, Ohio. *Psychology.* Convoy, Ohio, Aug. 29, 04. A.B. and A.M, Ohio State, 30, Ph.D, 34. Adjustment psychologist, Wayne County Training Sch, Mich, 36–37; *psychologist, State Bur. Juvenile Research, Ohio, 37–; lieut, U. S. Maritime Service.* Assoc. Psychol. Asn; Asn. Applied Psychol; Asn. Mental Deficiency. Clinical and social psychology; construction of tests and standardized interviews; factors which determine adjustment to psycho-clinical treatment; measurement of parental attitudes and parent-child relationships; learning of neurotic behavior.

Stogdill, Dr. (Zoe) Emily L(eatherman) (Mrs. R. M. Stogdill), 149 E. Weber Road, Columbus, Ohio. *Psychology.* Ohio, July 13, 93. A.B, Ohio Wesleyan, 15; A.M, Ohio State, 23, Ph.D, 28. Prin, high sch, Ohio, 15–23; asst. *psychol, Ohio State,* 23–29, instr, 29–34, *asst. prof, 34–, clinician for women, 23–* Psychol. Asn. Clinical and abnormal psychology; mental hygiene and maladjustments of college students

Stohler, Dr. R(udolf), 1584 Milvia St, Berkeley, Calif. *Zoology.* Basle, Switzerland, Dec. 5, 01. Geneva, 21; M.A. and Ph.D, Basle, 28; Int. Exchange student, California, 28–30. Research assoc. *zool, California,* 32–34, instr, 34–35, *research assoc, 35–* Soc. Ichthyol. and Herp; Soc. Bot. de Geneva; Schweiz. Zool. Gesell; Schweiz. Naturforschende Gesell; Basler Naturforschende Gesell. Cytology in genus Bufo; sex reversal in fish; genetics in human twins.

Stohlman, E(dward) F(rederick), National Institute of Health, U. S. Public Health Service, Washington, D. C. *Pharmacology.* Louisville, Nebr, April 21, 01. B.S, Nebraska, 30; LL.B, Wash. Col. Law, 37. Junior pharmacologist, *nat. inst. health, U. S. Pub. Health Service,* 29–41, *asst. pharmacologist, 41–* A.A; Genetics Soc. Standardization of ergot; pharmacology of phenol esters; experimental anemia; toxicity of selenium; influence of dietary protein on sulfanilamide toxicity; liver function; toxicity of insecticides.

Stolber, Prof. Richard E(dwin), Dartmouth College. Hanover, N. H. *Economic geology.* Cleveland, Ohio, Jan 28, 11. A.B, Dartmouth Col, 32; Ph.D, Mass. Inst. Tech, 37. Instr. *geol, Dartmouth Col,* 35–36, 37–39, *asst. prof, 40–; Sig. Corps, U. S. Army.* Summers, mem. staff, U. S. Geol. Surv. and Newfoundland Geol. Surv. Miner. Soc; Min. Eng; Geophys. Union. Mineralogy of ore deposits; minor elements content of ore minerals.

Stokdyk, Dr. E(llis) A(dolph), Berkeley Bank for Cooperatives, Berkeley, Calif. *Agricultural economics.* Wilson, Wis. April 11, 97. B.S, Wisconsin, 20, fellow, 28–29, Ph.D, 30; M.S, Kans. State Col, 24. Asst. state club leader, Wisconsin, 20–21; assoc. prof. plant path, Kans. State Col, 21–25, agr. econ, 25–29; assoc, California, 29–31, assoc. prof, 31–33; *pres, Berkeley Bank for Cooperatives, Farm Credit Ad-*

min, 33–, deputy governor, 38–39. Farm Econ. Asn. (assoc. ed, 30); Asn. Marketing Officials; Potato Asn. (director, 30). Plant pathology; marketing.

Stoke, Prof. Stuart M, 6 Stanton Ave, South Hadley, Mass. *Psychology.* Kirkville, Iowa, Sept. 25, 95. A.B, Taylor, 16; Ed.M, Harvard, 24, Ed.D, 26. Asst, psycho-educ. clinic, Harvard, 24–26; asst. prof. psychol, Buffalo, 26–27; assoc. prof, Ohio (Athens), 27–31; prof. educ. and chairman dept, *Mt. Holyoke Col,* 31–40, *prof. psychol. and educ. and chairman dept, 40–* Summers, instr, Rutgers; Lehigh; Illinois. Assoc. Psychol. Asn; Educ. Research Asn; Progressive Educ. Asn. Educational psychology; child development; college personnel.

Stoker, Prof. James J(ohnston), Jr, New York University, New York, N. Y. *Mathematics, Mechanics.* Dunbar, Pa, March 2, 05. B.S, Carnegie Inst. Tech, 27, M.S, 31; Math.D, Ecole Polytech, Zurich, 36. Mining engineer, 27–28; instr. mech, Carnegie Inst. Tech, 28–31, asst. prof, 31–37; *math, N. Y. Univ,* 37–41, *assoc. prof, 41–* Math. Soc. Differential geometry; elasticity.

Stoker, Prof. Warren C(ady), Rensselaer Polytechnic Institute, Troy, N. Y. *Communication engineering.* Union Springs, N. Y, Jan. 30, 12. E.E, Rensselaer Polytech, 33, M.E.E, 34, Ph.D, 38. Instr. *elec. eng, Rensselaer Polytech,* 34–41, *asst. prof, 41–* Assoc. Radio Eng. Radio communication; measurement of dielectric properties at high frequencies; electronic control.

Stokes, Prof. C. Newton, Temple University, Philadelphia, Pa. *Mathematics.* Crossville, Ill, Aug. 17, 90. A.B, McKendree Col, 13; A.M, Illinois, 14; Ph.D, Minnesota, 29. Teacher, high schs, 14–26; Minnesota, 26–32; *Temple, 32–, prof. math. and chairman dept.* Math. Soc; Council Teachers Math. Prognosis in freshman college mathematics; finding relation between students' previous knowledge of mathematics as measured by tests and achievement in college courses.

Stokes, Dr. Henry N(ewlin), 1207 Q St, N. W, Washington, D. C. *Chemistry.* Moorestown, N. J, Oct. 24, 59. B.S, Haverford Col, 78; Ph.D, Hopkins, 84; Munich, 85–86; Polytech, Zurich, 86–89. Chemist, U. S. Geol. Surv, 89–92, 94–03; asst. prof. inorg. chem, Chicago, 92–94; assoc. chemist, Bur. Standards, 03–09; *ed, 'O. E. Library Critic.'* Chem. Soc. (cmt. papers and pub); Min. Eng; Deuts. Chem. Gesell; Soc. chim. de Paris. Inorganic chemistry; silicon compounds; phosphorus-nitrogen compounds; chemistry of ore deposition, especially sulfids.

Stokes, Dr. J(acob) L(eo), Merck and Co, Inc, Rahway, N. J. *Microbiology.* Warsaw, Poland, Sept. 27, 12. B.S, Rutgers, 34, Ph.D, 39; M.S, Kentucky, 36. Asst. bacter, Kentucky, 34–36; marine bacter, Rutgers, 36–37, soil microbiol, 37–39; *microbiologist, research labs, Merck and Co, Inc, 39–* A.A; Soc. Bact. Lactose fermentation by paracoli bacteria; relation of bacteria to diatoms in the sea; nitrogen fixation by algae; relation of algae to other microorganisms in soil; anti-bacterial agents obtained from microorganisms; microbial growth factors.

Stokes, Prof. James R(aysor), Georgia State College for Women, Milledgeville, Ga. *Botany.* Walterboro, S. C, July 7, 00. B.S, Georgia, 22; M.S, Wisconsin, 28; Ph.D, Chicago, 37. Asst. prof. *biol,* Ga. State Womans Col, 23–28, *prof,* 28–35; *Ga. State Col. for Women, 36–* A.A; Bot. Soc; Genetic Asn; Ga. Nat. Hist. Soc. Cytology of the Myricaceae.

Stokes, Dr. John H(inchman), 4228 Spruce St, Philadelphia, Pa. *Dermatology.* Munich, Germany, Sept. 1, 85. A.B, Michigan, 08, M.D, 12. Instr. anat, Michigan, 13, res. dermat. and syphilol, 13–14, instr, 14; Illinois, 15–16; assoc. prof. and prof. med, Minnesota, and chief sect. dermat. and syphilol, Mayo Clinic, 16–24; *prof. dermat. and syphilol, sch. med. and grad. sch. med, Pennsylvania, 24–, director inst. syphilis control, 37–* Chairman, Cmt. Research in Syphilis, 28; U. S. Pub. Health Service rep. on cmt. experts on syphilis, League Nations Health Organization, 28–35; special consultant, U. S. Pub. Health Service, senior surgeon, reserve. Mem. venereal disease subcmt, Nat. Research Council. A.A; Dermat. Asn; Am. Med. Asn; Social Hygiene Asn; Phila. Dermat. Soc; Col. Physicians Phila; cor. mem, British, French, Danish, Vienna and Argentine Dermat. Societies. Syphilology; acoustic complex of the opossum; the black fly bite; cutaneous sensitization and tuberculosis; disease prevention; neurogeneous factors in dermatoses.

Stokes, Dr. Joseph, Jr, 1740 Bainbridge St, Philadelphia, Pa. *Pediatrics.* Moorestown, N. J, Feb. 22, 96. M.D, Pennsylvania, 20. Instr, *sch. med, Pennsylvania,* 23–24, *pediat,* 24–28, assoc, 28–31, Wm. H. Bennett asst. prof, 31–33, asst. prof, 33–38, *William H. Bennett prof, 38–, chief pediat. service, univ. hosp, 39–* Physician in chief, Children's Hosp, Philadelphia, 39– Director cmn. measles and mumps, Board Investigation and Control Epidemic Diseases, cmn. cross infections; consultant to surgeon gen, U. S. Army. Chairman joint cmt. pub. health and prev. med, Col. Physicians, Philadelphia and Philadelphia County Med. Soc, 38– Soc. Pediat. Research (pres); Am. Med. Asn; Pediat. Soc. Influenza; measles; viruses; prevention of cross infection.

Stokes, R(obert) T(homas), Room 3514, 233 Broadway, New York, N. Y. *Chemistry.* Brooklyn, N. Y, June 6, 85. B.S, Dartmouth Col, 07. Instr. chem, Hobart Col, 07–08; indust. chemist, 08–11; tutor chem, Col. City of N. Y, 11–16; rubber mfg, 16–18; Sears, Roebuck and Co, 18–22; *sec'y, Biscuit and Cracker Mfrs. Asn, 22–* Assoc. ed, 'Jour. Indust. and Eng. Chem,' 22.

Stokes, Prof. Ruth W(yckliffe), Winthrop College, Rock Hill, S. C. *Mathematics.* Greenville, S. C, Oct. 12, 93. A.B, Winthrop Col, 11; scholar, A.M, Vanderbilt, 23; fellow, Duke, 28–31, Ph.D, 31. Instr, high sch, S. C, 17–22; asst. prof. math, Winthrop Col, 23–28; asst, Duke, 28–31, instr, 31–32; assoc. prof, N. Texas State Teachers Col, 32–35; *prof,* Mitchell Col, 35–36; *astron. and math, Winthrop Col, 36–* Hon. fellow, Duke, 35–36. Math. Soc; Math. Asn. (v. pres. southeast. sect, 41–); Council Teachers Math. (cmt. visual aids); S. C. Educ. Asn. (pres. math. sect, 41); S. C. Acad. Pure mathematics; analysis; a geometric theory of solution of linear inequalities.

Stokes, W(illiam) E(ugene), University of Florida, Gainesville, Fla. *Agronomy.* Bamberg, S. C, Aug. 21, 89. B.S, Clemson Col, 11; M.S, Wisconsin, 14. Asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 11–12; asst. prof. agron, New Hampshire, and asst. agronomist, Exp. Sta, 13–14; Clemson Col, 18–20; *agronomist, Exp. Sta, Florida, 21–* Soc. Agron; Fla. Hort. Soc. Farm crops; pastures; land utilization; soil fertility.

Stokes, Dr. W(illiam) Lee, Cleveland, Utah. *Paleontology, Stratigraphy.* Hiawatha, Utah, March 27, 15. B.S, Brigham Young, 37, M.S, 38; Ph.D, Princeton, 41. Asst, Princeton, 41–42; *junior geologist, U. S. Geol. Surv, 42–* Soc. Vert. Paleont; Utah Acad. Mesozoic stratigraphy and paleontology.

Stokey, Prof. Alma G(racey), Mt. Holyoke College, South Hadley, Mass. *Botany.* Canton, Ohio, June 17, 77. A.B, Oberlin Col, 04; Ph.D, Chicago, 08. Asst. *bot,* Oberlin Col, 03–06; instr, *Mt. Holyoke Col,* 08–11, assoc. prof, 11–16, prof, 16–42, *emer. prof, 42–* Visiting prof, Women's Christian Col, Madras, India, 29–31, 36–37. A.A; Bot. Soc; Torrey Bot. Club; Sullivant Moss Soc. Morphology and anatomy of pteridophytes.

Stokinger, Dr. Herbert E, University of Rochester, Rochester, N. Y. *Biochemistry, Immunology.* Boston, Mass, June 19, 09. A.B, Harvard, 30; Ph.D, Columbia, 38. Instr. chem, Col. City N. Y, 32–39; *research assoc.* chemotherapy, col. physicians and surg, Columbia, 37–39; *bacter, sch. med. and dentistry, Rochester, 39–* Soc. Bact; Chem. Soc; Microchem. Soc. N. Y. Chemistry of bacterial toxins; biochemistry of the gonococcus.

Stokley, James, 1662 Randolph Road, Schenectady 8, N. Y. *Astronomy.* Philadelphia, Pa, May 19, 00. B.S, Pennsylvania, 22, A.M, 24. Asst. psychol, Pennsylvania, 22; teacher, high sch, Pa, 22–25; staff writer and asst. treas, Science Service, 25–31; assoc. director, Franklin Inst, and director, Fels Planetarium, 31–39; director, Buhl Planetarium and Inst. Popular Science, 39–40; ed. physical science, Science Service, Inc, 40–41; *special writer, Gen. Elec. Research Lab, 41–* Astron. contributor, Science Service, 31–39, 41–; lecturer, Pittsburgh, 39–40; assoc. lecturer, Hayden Planetarium, Am. Museum Nat. Hist, 40–41. In charge, Franklin Inst. eclipse exped, 32. A.A; Astron. Soc; Hist. Sci. Soc; Franklin Inst. (cmt. sci. and arts, 31–); Asn. Sci. Writers; Documentation Inst; Astron. Soc. Pacific; Rittenhouse Astron. Soc. Phila. (pres, 32); fel. Royal Astron. Soc; Royal Photog. Soc; Soc. astron. de France. Popular science; scientific journalism; scientific museum and planetarium operation; scientific exhibits; eclipse observations.

Stokstad, Dr. E(van) L(udvig) Robert, Lederle Laboratories, Pearl River, N. Y. *Biochemistry.* China, March 6, 13. B.S, California, 34, Ph.D, 37. Biochemist, West. Condensing Co, 37–39; Golden State Co, Ltd, 39–40; Lalor fellow, Calif.

Inst. Tech, 40–41; *biochemist, Lederle Labs, 41–* Chem. Soc; Poultry Sci. Asn. Water soluble growth factors for chicks; bacterial nutrition.

Stoland, Prof. O(le) O(lufson), 1845 Learnard Ave, Lawrence, Kans. *Physiology.* Beresford, S. Dak, July 30, 81. A.B, South Dakota, 05; M.S, Chicago, 11, Ph.D, 13. Teacher, high sch, S. Dak, 05–06; instr. biol, South Dakota, 06–11, prof, 13–16; asst. physiol, Chicago, 11–13; *chairman dept, Kansas, 16–18, prof. physiol. and pharmacol, 18–, sec'y sch. med, 24–* A.A; Physiol. Soc; Kans. Acad. Toxicity of normal and hypertrophied thyroids; effect of pituitrin on renal activity; effect of parathyroid tetany on the liver and pancreas; temperature as a factor in the control of thyroid activity; anaphylaxis; coronary circulation.

Stoll, Dr. Marion Rush, Southbridge, Mass. *Psychology, Philosophy.* Lakewood, Ohio, March 24, 02. A.B, Oberlin Col, 24; A.M, Bryn Mawr Col, 26, Ph.D, 29; B.S, Ohio State, 40. Psychologist, Syracuse State Sch, N. Y, 27–28; asst. psychol, Michigan, 28–29; refractionist and asst, Hopkins Hosp, 29–30, asst. research ophthal, sch. med, Hopkins, 30–32, physiol. optics, 32–34; refractionist, Mass. Eye and Ear Infirmary, 34–39; mem. staff, *bur. visual science, Am. Optical Co,* 40–41, optometrist, 41–43, *mem. staff, 43–* A.A; Psychol. Asn. Physiological optics.

Stoll, Dr. Norman R(udolph), Rockefeller Institute, Princeton, N. J. *Parasitology, Helminthology.* North Tonawanda, N. Y, Sept. 4, 92. B.S, Mt. Union Col, 15, hon. Sc.D, 41; M.S, Michigan, 18; fellow, Hopkins, 21–23, Sc.D, 23. Asst. zool, Michigan, 17–18; head dept. biol, Detroit Junior Col, 19–21; assoc. parasitol, Peking Union Med. Col, 23–24; helminthol, sch. hygiene and pub. health, Hopkins, 25–26; *assoc. mem, dept. animal and plant path, Rockefeller Inst, 27–* Hookworm investigations, Puerto Rico, 22, China, 23–24, Panama, 26. Chairman ed. cmt, 'Jour. Parasitol,' 38–43. A.A; Soc. Parasitol. (sec'y-treas, 30–32, councilor, 33–); Soc. Zool; Soc. Nat; Acad. Trop. Med; Soc. Trop. Med; N. Y. Soc. Trop. Med; Wash. Acad; Royal Soc. Trop. Med. and Hygiene. Biology of free-living stages of hookworm; severity of hookworm infection; hookworm in the American tropics and China; self-cure and protection against nematodes by sheep; worm-host problem in domestic animals; Haemonchus; Moniezia; in vitro culture of parasitic nematodes.

Stoll, Dr. Walter C(lericus), U. S. Geological Survey, Washington, D. C. *Mining geology, Mining engineering.* Seattle, Wash, May 12, 15. B.S, Washington (Seattle), 39; M.S, Mass. Inst. Tech, 41, Ph.D, 42. Mining engineer and geologist, Alaska Pacific Consol. Mining Co, 39–40; teaching fellow geol, Mass. Inst. Tech, 41–42; *junior geologist, U. S. Geol. Surv, 42–* Ore deposits.

Stoller, H(ugh) M(ontgomery), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Electrical engineering.* Schenectady, N. Y, 91. B.E, Union (N. Y), M.S, 15. West. Elec. Co, 13–25; *engineer, apparatus develop. dept, Bell Tel. Labs, 25–* Elec. Eng; Acoustical Soc. Voltage and speed regulation of dynamo electric machines; synchronization control systems for sound picture and television systems.

Stoller, Prof. James H(ough), Union College, Schenectady, N. Y. *Geology.* Johnstown, N. Y, Dec. 11, 57. A.B, Union (N. Y), 84, A.M, 87, Sc.D, 24; Munich, 86–87; Ph.D, Leipzig, 98. Instr. nat. hist, *Union (N. Y),* 84–89, adj. prof, 89–92, prof. geol. and biol, 92–19, *geol,* 19–25, *emer. prof, 25–;* staff, dept. geol, N. Y. State Museum, 12–23. Soc. Nat; fel. Geol. Soc. Glacial geology of Schenectady, Saratoga and Cohoes quadrangles; glacial geology of lower Mohawk and middle Hudson valleys; geology of the Mohawk Valley region.

Stoltz, Prof. R(obert) B(ear), Ohio State University, Columbus, Ohio. *Dairying.* Bradford, Ohio, March 6, 90. B.S, Ohio State, 12; Wisconsin, 17. Instr. dairying, *Ohio State,* 12–14, asst. prof, 14–23, *prof,* 23–29, *dairy technol. and chairman dept, 29–* Summer, dairy specialist, U. S. Dept. Agr, 17. Dairy Sci. Asn. (v. pres, 32–34, pres, 34, sec'y, 36). Plant management; curriculum for students in dairy technology.

Stoltz, Dr. Spencer G(ordon), College of St. Scholastica, Duluth, Minn. *Chemistry.* Gettysburg, Ohio, Aug. 7, 85. B.S, Chicago, 16, M.S, 18, Ph.D, 31. Chemist, Ill. Steel Co, 16–17; instr, high sch, Wis, 17–18; *chem. and physics,* Junior Col, Mason, Iowa, 18–21; *chairman dept,* Col. of St. Catherine, 21–36; *Col. of St. Scholastica, 36–* Chem. Soc. (chairman, Minn. sect, 34). Organic chemistry.

Stone, Dr. Alan, U. S. National Museum, Washington, D. C. *Entomology.* Brooklyn, N. Y, Jan. 23, 04. B.S, Cornell, 26, Ph.D, 29. Asst. parasitol, Cornell, 25–29; instr. zool, Dartmouth Col, 29–31; assoc. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–39, *entomologist, 39–* Entom. Soc. Amer; Entom. Soc. Wash; Wash. Acad. Taxonomy of Diptera.

Stone, Dr. Albert M(ordecai), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Boston, Mass, Dec. 24, 13. A.B, Harvard, 34; Ph.D, Mass. Inst. Tech, 38. Teaching fellow physics, Mass. Inst. Tech, 35–36, research assoc, 38–39; instr, Middlesex Col, 36–38; physicist, U. S. Naval Torpedo Sta, 40–41; asst. prof. physics, Montana State Col, 41–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Electronics; gaseous discharges.

Stone, Prof. Calvin P(erry), Stanford University, Calif. **Psychology.* Portland, Ind, Feb. 28, 92. B.S, Valparaiso, 10; A.M, Indiana, 16; Ph.D, Minnesota, 21. Prin, high sch, Ind, 10–12, supt, 13–14; teaching fellow, Minnesota, 16, 19–21, instr. psychol. and histol. anat, 21–22; director research, psychol. lab, Ind. Reformatory, 16–17; asst. prof. *psychol, Stanford,* 22–25, assoc. prof, 25–29, *prof, 29–,* acting chairman dept, 35–36. Inst. Juvenile Research, 28–29; Am. Psychol. Asn. rep, Nat. Research Council, 31–33, 36– Psychol. examiner, U.S.A, 17–19. Nat. Acad; A.A. (exec. cmt, 36–, v. pres, I. 38); Psychol. Asn. (councilor, 31–33, pres, 41); Soc. Exp. Biol; Asn. Study Int. Secretions; West. Psychol. Asn. (pres, 32); West. Soc. Nat. Animal psychology and behavior; adolescent psychology; learning.

Stone, Prof. Charles Leonard, 8 Sanborn Road, Hanover, N. H. *Psychology.* Concord, N. H, Feb. 4, 89. A.B, Dartmouth Col, 17, A.M, 21; Columbia; Harvard. Prin, schs, 08–14; instr. *psychol, Dartmouth Col,* 17–20, asst. prof, 20–26, *prof, 26–* Asst. prof, exten, Columbia, 21–22; lecturer, Mass. Inst. Tech, 19–31. Summers, asst. prof, Kentucky, 21; Rochester, 22; Columbia, 23; prof, Colorado, 38. Scholastic aptitude cmn, Col. Ent. Exam. Board. Cmt. morale, State Council Defense, N. H. A.A; assoc. Psychol. Asn; N. H. Acad. The relation of intelligence to social traits and social circumstances; history; attitudes; instruction; esthetics.

Stone, Dr. C(harles) T(urner), University of Texas School of Medicine, Galveston, Texas. *Clinical medicine.* Caldwell, Texas, July 24, 90. A.B, Southwestern, 11; M.D, Texas, 15. Instr. med, *sch. med, Texas,* 15–18, adj. prof. clin. med, 18–23, assoc. prof, 23–26, *prof. med, 26–* A.A; Heart Asn; Soc. Study Int. Secretions; Col. Physicians; South. Med. Asn. Internal medicine; etiology of heart disease, especially in the South; chemotherapy of polycythemia vera; control of pneumococcic infections.

Stone, E(rnest) A(lbert), 23 Park Road, Toronto, Ont, Can. *Civil engineering.* Charlottetown, P. E. I, July 16, 70. B.A.Sc, McGill, 91, Ma.E, 94; M.Eng, King's Col, 22. With railways, 91–02; asst. struct. engineer, Can. Foundry Co, Toronto, 02–07; prof. civil eng, Dalhousie, 07–08; prof. civil eng. and dean eng. sch, New Brunswick, 08–11; consulting engineer, 11–14; prof. gen. eng, Queen's (Can), 14–18; struct. engineer, Mil. Hosp. Cmn, 18–20; bridge engineer, Grand Trunk Arbitration, 20–22; prof. math, King's Col, 22–23; *consulting engineer, 23–* Civil Eng; Eng. Educ; Eng. Inst. Can. Impact stresses.

Stone, Dr. Florence M(ercedes), 248 Baltic St, Brooklyn, N. Y. *Bacteriology, Biochemistry.* Pittsburgh, Pa, Aug. 16, 97. A.B, Rollins Col, 19; A.M, Columbia, 27, Ph.D, 32. Director dept. science, Chowan Col, 19–20; Queens Col, 20–28; asst. and instr. bacter, col. physicians and surg, Columbia, 29–34, asst. sanit. science, DeLamar inst. pub. health, 35–36; dept. path. research, *L. I. Col. Med,* 37–41, *instr. bacter. and director bacter. lab, King County Hosp. Div, 41–* Attending bacteriologist, Mary Immaculate Hosp, 40–41; consulting bacteriologist, 42– Optical Soc; Soc. Bact. Bacterial variation; streptolysin; chemistry of bacteria; spectroscopic methods in biology.

Stone, Prof. Gilbert C. H, 511 W. 232nd St, New York, N. Y. *Biochemistry.* New York, N. Y, Jan. 16, 04. B.S, Col. City of N. Y, 25; A.M, Columbia, 27, Ph.D, 33. Rockefeller Inst, 25–27; research chemist, Nestlé's Food Co, 27–29; tutor *biochem, Col. City of N. Y,* 29–34, instr, 34–42, *asst. prof, 42–* A.A; Chem. Soc. Physical chemistry of the proteins; effect of proteins on activity of salts; dialysis of protein solutions; spatial relation of polar groups in protein molecule; aliphatic disulfonic acids; chemistry of allergy.

Stone, Dr. Harvey B(rinton), 18 W. Franklin St, Baltimore, Md. *Surgery.* Baltimore, Md, Nov. 22, 82. A.B, Hopkins,

02, M.D, 06. Adj. prof. surg, Virginia, 07–10; instr, *sch. med, Hopkins*, 12–20, assoc, 20–30, asst. prof. clin. surg, 31–32, *assoc. prof. surg, 32–* V. chairman directing board, Procurement and Assignment Service for Physicians, Dentists and Veterinarians. A.A; Surg. Asn. (pres, 41); Soc. Clin. Surg; Surg. Research Soc; Am. Med. Asn. (mem. council med. educ. and hosps); S. Surg. Asn. (pres, 36). Pathology of the intestinal tract; the abdominal organs.

Stone, Prof. H(osmer) W(ard), University of California at Los Angeles, Los Angeles, Calif. *Chemistry.* Kalamazoo, Mich, 92. A.B, Wisconsin, 16, A.M, 18, fellow, 20, Ph.D, 21. Instr. chem, Pa. State Col, 17; instr, *California at Los Angeles,* 21–24, asst. prof. *inorg. chem,* 23–39, *assoc. prof, 39–* 2nd lieut, Sanit.C, 18. Chem. Soc. Selenic and selenious acids; non-specific immunity; potassium chlorate; methylene iodide; amalgamated zinc reduction; chemistry of chromous compounds; heats of wetting activated coconut carbons.

Stone, Dr. Isabelle, 1500 31st St, N. W, Washington, D. C. *Physics.* Chicago, Ill, Oct. 18, 68. A.B, Wellesley Col, 90; M.S, Chicago, 96, Ph.D, 97. Teacher, Bryn Mawr Prep. Sch, Baltimore, 97–98; instr. physics, Vassar Col, 98–06; head, Sch. for Am. Girls, Rome, Italy, 07–14; prof. physics, Sweet Briar Col, 18–23; *head, the Misses Stone's Sch. for Girls, 23–* Reader in physics, Col. Ent. Exam. Board, 01. Physical Soc. Electrical resistance of thin films; color in platinum films; properties of thin films when deposited in a vacuum.

Stone, Dr. L(eon) S(tansfield), Yale University School of Medicine, New Haven, Conn. *Anatomy.* Newton, N. J, Feb. 14, 93. Ph.B, Lafayette Col, 16; Ph.D, Yale, 21. Asst. instr. *anat, sch. med, Yale,* 19–21, instr, 21–24, asst. prof, 25–28, assoc. prof, 28–40, *Bronson prof. comp. anat, 40–* Rockefeller Foundation fellow, 29–30. Physiologist, Gas Warfare; instr, Yale Army Med. Sch. A.A; Asn. Anat; Soc. Exp. Biol. Experimental embryology and ophthalmology.

Stone, Dr. Margaret H(odgman) (Mrs. Earl L. Stone, Jr), 218 Delaware Ave, Ithaca, N. Y. *Botany.* Cleveland, Ohio, May 20, 14. A.B, Western Reserve, 36, scholar, 36–37, A.M, 37, Ph.D, 40; Wisconsin, 39. Squire Valleevue Farm asst. bot, Western Reserve, 37–40; director, Garden Center of Greater Cleveland, 40–41; *res. doctor bot, Cornell, 41–* A.A; Bot. Soc; Ohio Acad. Soil reaction in relation to native plant growth; dormant buds in pine.

Stone, Prof. M(arshall) H(arvey), Harvard University, Cambridge, Mass. **5Mathematics.* New York, N. Y, April 8, 03. A.B, Harvard, 22, A.M, 24, Ph.D, 26; Sc.D, Kenyon Col, 39; hon. Dr, Univ. San Marcos, 43. Instr. *math,* Harvard, 22–23; Columbia, 25–27; Harvard, 27–28, asst. prof, 28–31; assoc. prof, Yale, 31–33; *Harvard,* 33–37, *prof, 37–,* chairman dept, 42. Walker Ames lecturer, Washington (Seattle), 42; visiting lecturer, Univ. Buenos Aires, 43. Summer, acting assoc. prof, Stanford, 33. Assoc. ed, 'Trans. Am. Math. Soc,' 31–40; 'Annals of Math,' 33–; 'Am. Jour. Math,' 38– Nat. Acad; A.A; Math. Soc. (councilor, 36–42, pres, 43–); Math. Asn; Philos. Soc. Fourier series and related problems; linear transformations in Hilbert space and their applications to analysis and modern physics; Boolian algebras and their applications to topology.

Stone, Dr. M(orris) D, 1023 Milton St, Regent Square, Pittsburgh, Pa. *Engineering.* Cambridge, Mass, Dec. 2, 02. B.S, Harvard, 23, M.S, 25; Lamme fellow, Tech. Hochschule, Berlin, and Univ. Berlin, 30–31; Ph.D, Pittsburgh, 33. Steam research, Am. Soc. Mech. Eng, 23–25; research engineer, engineer-in-charge and head design sch, Westinghouse Elec. and Mfg. Co, 25–34; *manager develop. dept, United Eng. and Foundry Co, 34–* Lecturer, Pittsburgh, 28–34. Mech. Eng. (chairman wartime cmt. forging of shells; cmt. bombs). Theory of vibrations; mathematical theory of elasticity.

Stone, Prof. Ralph B(ushnell), 615 Russell St, West Lafayette, Ind. *Mathematics.* Templeton, Mass, June 4, 82. A.B, Bowdoin Col, 02; A.M, Harvard, 04; Turin, 05–06; Munich, 06–07. Instr. *math,* Bowdoin Col, 07–11; from instr. to *assoc. prof, Purdue, 12–, registrar, 18–* Math. Soc.

Stone, R(alph) W(alter), State Topographic and Geological Survey, Harrisburg, Pa. *Geology.* Camden, N. Y, Nov. 17, 76. Ph.B, Hamilton Col, 99; A.B, Harvard, 00, A.M, 01; Sc.D, Lebanon Valley Col, 38. Asst. geol, Harvard, 00–01; asst. geologist, U. S. Geol. Surv, 01–17, geologist, 17–21; *asst. state geologist, Pa, 22–* Geologist, Munic. Water Supply Dam, Bogota, Colombia, 30. Instr, summer sch. for Cuban teachers, Harvard, 00. Jury awards, Pan-Pacific Expos, 15. A.A; Geol. Soc; Soc. Econ. Geol; Nat. Speleological Soc. (governor, 42); Geol. Soc. Wash; Pa. Acad. (ed, 26–39, pres, 39). Stratigraphy in western Pennsylvania; bituminous coal; gas and oil; Waynesburg and Elders Ridge, Pennsylvania, quadrangles; coal resources of southwestern Alaska, Russell Fork, Virginia, Kentucky and Central Montana; stratigraphy relations of the Livingston formation of Montana; coal and stratigraphy of Black Hills and Powder River, Wyoming; gypsum, phosphate rock, sand and gravel, magnesite, magnesium, salt, bromin and calcium chloride resources of the United States; molding sand, building stone and caves in Pennsylvania.

Stone, Dr. Raymond G(lenn), University of Kansas City, Kansas City, Mo. *Zoology.* Lucasville, Ohio, Oct. 18, 02. B.S, Kenyon Col, 23; A.M, Ohio Wesleyan, 26; Ph.D, Missouri, 31. Instr, Missouri, 27–31; nat. research fellow, 31–33; instr, Missouri, 33–34; *chairman dept. biol, Univ. Kansas City, 34–* Summers, investigator, Tortugas lab, Carnegie Institution, 31–33, 35. Soc. Zool. Radium and x-ray effects on regeneration; oligochaete and polychaete regeneration; cytology of radiation effects.

Stone, Dr. R(aymond) V(an Buren), 829 S. Sixth St, Alhambra, Calif. *Public health.* Compton, Calif, April 17, 92. California, 12–13, summers, 14, 24; D.V.M, San Francisco, 17. Cutter Lab, Berkeley, *Calif,* 13–17, director anthrax serum and vaccine production, 17–23; *director labs, Los Angeles County Health Dept, 23–; deputy state bacteriologist, 29–* Asst. naturalist, U.S.S. 'Albatross,' U. S. Geol. Surv, 12; from lecturer to asst. prof, Col. Med. Evangelists, Los Angeles, 29–Summer, lecturer, California, 34. Mem. pub. health sect, Nat. Board Med. Examiners, 30–; mem. cmt. tech. examiners, State Board of Health, Calif, 41–; advisory cmt. paper containers in food industry as nat. defense, 41– Ed. staff, 'The Sanitarian.' A.A; Inst. Food Technol; fel. Pub. Health Asn. (acting chairman, lab. sect, 34; referee standard methods dairy products, 35–; mem. cmt. sanitation of glassware, 36–; chairman, cmt. aspects vet. science in pub. health, 36; chairman, lab. sect, west. branch, 40); Soc. Bact. (pres, south. Calif. chap, 37; past regional counselor); Calif. Asn. Med. Lab. Technicians; South. Calif. Pub. Health Asn. (pres, 37); assoc. mem. State and Provincial Pub. Health Lab. Directors; Int. Asn. Dairy Sanit; Int. Asn. Milk Sanitarians (cmt. sanit. control ice cream, 37–). Food poisoning; bacteriological, serological and physical laboratory equipment; bacteriological methods; serological methods in public health; diphtheria; anthrax; syphilis serology.

Stone, Robert G(ranville), Blue Hill Meteorological Observatory, Harvard University, Milton, Mass. *Climatology, Geography, Meteorology.* Schenectady, N. Y, June 27, 07. Antioch Col, 25–29; summers, Chicago, 29, Grenoble, 30; A.B, Ohio State, 30, A.M, 31; fellow, Clark, 31–32. Asst. geog, Ohio State, 29–30, reader, 30–31; asst, Mt. Washington Observatory, 33–34; chief observer and asst. climat, *Blue Hill Meteorol. Observatory, Harvard,* 34, asst, 34–39, *research fellow, 39–, librarian, 34–* Special collaborator, Nat. Park Service, 37–; research assoc, N. Y. Univ, 40– Ed, sect. biometeorol, 'Biol. Abstracts,' 39– Mem, Int. Cmn. Snow, 37– A.A; Meteorol. Soc. (asst. sec'y and asst. ed, 34–36, ed, 36–); fel. Am. Geog. Soc; Geophys. Union; Asn. Geog; Biol. Soc; N. Y. Acad; N. H. Acad; Austrian Meteorol. Soc. Distribution of fog; history of mountain meteorology in the United States; mountain meteorology and climatology; geography of the Appalachians; climatology of Guatemala; air mass climatology; snowcover of New York and New England; heat deaths; tropical meteorology and climatology; meteorology of Caribbean, Virgin Islands and Puerto Rico; bioclimatology; tropical acclimatization; bibliography of meteorology and of snow and ice; classification of snow; winter-sports climatology.

Stone, Prof. R(obert) L(eGrande), State College Station, Raleigh, N. C. *Ceramic engineering.* Norwalk, Ohio, Aug. 16, 12. B.S, Mo. Sch. Mines, 34; M.S, N. C. State Col, 36. Teaching fellow ceramic eng, N. C. State Col, 34–36, instr, 36–39; plant manager, Hale Mfg. Co, 39–41; asst. prof, N. Y. State Col. Ceramics, 41; *assoc. prof. ceramic eng. and acting head dept, N. C. State Col, 42–* Ceramic Soc. (chairman papers and program cmt, struct. clay products div, 41–43, v. chairman, 41, sec'y, 43–). Development of forsterite refractories; development of pyrophyllite refractories; development of a porcelain button; low-loss steatite having low firing shrinkage.

Stone, Prof. Rob(er)t S(pencer), University of California Hospital, San Francisco, Calif. *Radiology.* Chatham, Ont,

Can, June 5, 95. B.A, Toronto, 19, M.A, 22, M.B, 24, M.D, 28. Asst. anat, Peking Union Med. Col, 19–21; instr. *roentgen, med. sch, California*, 28–29, asst. prof, 29–31, assoc. prof, 32–37, *prof, 37–* Am. Med. Asn; fel. Col. Radiol; Radiol. Soc. N. Amer. Roentgenological diagnosis; the stomach; the chest; bones; brain; roentgen therapy; supervoltage, high frequency x-ray tube; neutron therapy on cyclotron; radiophosphorus in leukemia.

Stone, Prof. Robert William, Pennsylvania State College, State College, Pa. *Bacterial chemistry.* Redland, Oregon, April 17, 10. B.S, Oregon State Col, 32, 32–33; Ph.D, Iowa State Col, 36. Asst. prof. and later *assoc. prof. bacter, Pa. State Col, 37–* Soc. Bact. Fermentation of silage; bacterial dissimilation of hydrocarbons; bacterial glycolysis.

Stone, Prof. Theodore T(haddeus), 30 N. Michigan Ave, Chicago, Ill. *Nervous and mental diseases.* Chicago, Ill, Aug. 3, 97. B.S, Illinois, 18, M.D, 20; M.S, Northwestern, 32, Ph.D, 35. Asst. prof. and *assoc. prof. nervous and mental diseases, med. sch, Northwestern, 30–* Attending neurologist, Cook County Hosp, Chicago, Ill, 35– 1st and 2nd Int. Neur. Congs. Asn. Research Nervous and Mental Disease; Neur. Asn; Am. Med. Asn; Inst. Med; Cent. Neuropsychiat. Asn; Chicago Neur. Soc. (sec'y, 28–34, pres, 34); Chicago Path. Soc; Chicago Acad. Criminol. Brain tumors; brain and spinal cord pathology; epilepsy; Huntington's chorea; electrodiagnosis in neurology.

Stone, Dr. U(dell) B(ennett), 627 Park Ave, Rochester, N. Y. *Fisheries biology.* Spencerport, N. Y, July 27, 12. A.B, Rochester, 34, M.S, 37; Ph.D, Cornell, 40. *Biologist, State Conservation Dept, N. Y, 40–* Summers, asst, biol. surv, State Conservation Dept, N. Y, 35–39. Fisheries Soc; Soc. Ichthyol. and Herp. Life history of fresh water fishes, particularly those belonging to the genus Leucichthys.

Stone, Dr. W. S, Cornell University, Ithaca, N. Y. *Veterinary science.* Binghamton, N. Y, Aug. 19, 12. D.V.M, Cornell, 35, M.S, 36, Ph.D, 40. Co-operator Bang's disease, *Cornell,* 35–36, *instr. vet. research, Exp. Sta, 36–* Vet. Med. Asn; N. Y. State Vet. Med. Soc. Brucellosis in animals.

Stone, Dr. Willard John, Professional Bldg, Pasadena, Calif. *Medicine.* Gloversville, N. Y, May 31, 77. B.S, Michigan, 99, M.D, 01. Physician-in-chief, Flower Hosp, Toledo, Ohio, 08–17; *attending physician, Huntington Mem. Hosp; clin. prof. med, Southern California.* Major, M.C, 17–19. Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn; Miss. Valley Med. Asn. (pres, 17); Los Angeles Acad. Med. Medical diagnosis.

Stone, Dr. William E(llis), Wayne University College of Medicine, Detroit, Mich. *Physiological chemistry.* Colton, Calif, Jan. 22, 11. B.S, Calif. Inst. Tech, 33; Ph.D, Minnesota, 39. Alexander Brown Coxe Mem. fellow, lab. neurophysiol, Yale, 39–40; *research assoc. surg, col. med, Wayne, 40–, instr. physiol. chem, 41–* Int. League against Epilepsy. Biochemical aspects of brain function; vitamin C and healing of wounds.

Stone, W(illiam) E(rnest), Laboratorio Entomologico, Apartado 3, Colonia Anahuac, Mex, D. F. *Entomology.* Pittsburgh, Pa, Dec. 2, 95. B.S.A, Florida. Sweet potato weevil investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 19–25, celery leaf-tier investigations, 26–29, *in charge,* 28–29, ecol. research, Mediterranean fruit-fly investigations, 29–30, *Mex. fruit-fly lab, 30–, asst. to div. leader, 36–* A.A; Entom. Soc; Asn. Econ. Entom. Ecology of the celery leaf-tier and of the Mediterranean fruit-fly.

Stone, Dr. William S(pencer), Office of the Surgeon General, U. S. Army, Washington, D. C. *Tropical medicine.* Ogden, Utah, March 20, 02. B.S, Idaho, 24, M.S, 25; M.D, Louisville, 29; Army Med. Sch, 31, 38. Med. officer, *U. S. Army,* 29–34, chief protozool. and virus disease sect, Army Med. Sch, 34–38, mem, Army Med. Research Board, Ancon, C. Z, 38–39, bacteriologist, Board Health Lab, Panama, 39–40, *chief sanit. and labs. div, Office Surgeon Gen, 41–* Am. Med. Asn; Soc. Trop. Diseases. Bacteriology; immunity; medicine.

Stone, Prof. Wilson S(tuart), University of Texas, Austin, Texas. *Biology.* Junction, Texas, Oct. 6, 07. A.B, Texas, 31, A.M, 32, Ph.D, 35. Instr. *zool, Texas,* 32–36, *assoc. prof, 36–* Genetics; cytology.

Stoner, Dr. D(ayton), New York State Museum, Albany, N. Y. *Zoology.* North Liberty, Iowa, Nov. 26, 83. A.B, Iowa, 07, M.S, 09, Ph.D, 19. Asst, museum, Iowa, 08–14, instr. zool, 14–19, assoc, 19–20, asst. prof, 20–28; field asst, bur. entom, U. S. Dept. Agr, 28–31; *state zoologist, N. Y. State Museum, Albany, 32–* Summers, field ornithologist, Roosevelt Wild Life Forest Exp. Sta, 28–31. Instr, Lakeside Lab, Iowa, 16; biol. sta, Michigan, 19–20. Insectary asst, Iowa State Col. zool. exped, Vancouver Island, 13; mem, Univ. Iowa exped, Barbados and Antigua, 18, Fiji and New Zealand, 22. A.A; Soc. Mammal; mem. Ornith. Union; Nat. Audubon Soc; Wildlife Soc; Wilson Ornith. Club; Bird-Banding Asn; fel. Iowa Acad; Iowa Ornith. Union. Ornithology; entomology; mammalogy; life history, distribution and ecology; Hirundinidae; Pentatomoidea.

Stoner, Dr. George G(reen), 505 King Ave, Columbus, Ohio. *Organic chemistry.* Wilkinsburg, Pa, Jan. 29, 12. A.B, Col. of Wooster, 34; A.M, Ohio State, 36; Ph.D, Princeton, 39. *Research chemist,* Wallace Labs, 39; Columbia chem. div, Pittsburgh Plate Glass Co, 39–42; *Battelle Mem. Inst, 42–* A.A; Chem. Soc. Purification of linoleic acid; preparation of mercapto aliphatic acids; transparent and thermoset resins.

Stoner, R(eginald) C, 225 Bush St, San Francisco, Calif. *Geology.* Bakersfield, Calif, Aug. 21, 89. B.S, California, 12. *V. pres. and director, Standard Oil Co. of Calif.* Paleont. Soc. Paleontology.

Stoner, Dr. W(illiam) H(oy), Schering Corp, Bloomfield, N. J. *Biochemistry.* Thurmont, Md, March 9, 87. A.B, 08, A.M, 10, Ph.C, 10, Phar.D, 13; M.D, Medico-Chirurg. Col. Phila, 15, hon. Sc.D, 41. Instr. chem, Medico-Chirurg. Col. Phila, 08–10, assoc. prof. biochem, Pennsylvania, 19–25, biochem. and diseases of metabolism, grad. sch. med, 22–26; med. director, E. R. Squibb and Sons, 26–29; Hoffmann-La Roche, Inc, 29–32; research consultant, exp. research labs, Burroughs Wellcome and Co, Inc, 32–37; *med. research div, Schering Corp, 37–; Med. Corps, U. S. Army, 42–* M.R.C, U. S. Army and Royal Army Med. Corps, 18–19. Am. Med. Asn; fel. Col. Physicians; Am. Heart Asn; fel. N. Y. Acad. Med. Metabolism; endocrinology.

Stookey, Dr. Byron, Neurological Institute, Ft. Washington Ave. and W. 168th St, New York, N. Y. *Surgery.* Belleville, Ill, Jan. 4, 87. A.B, Southern California, 08; A.M, Harvard, 09, M.D, 13; Geneva, 05–06; Vienna and Berlin, 13–14. Instr. neuro-anat, *col. physicians and surg, Columbia,* 19–22, assoc, 22–24, asst. prof. *neuro-anat. and neur. surg,* 24–29, assoc. prof, 30–37, *prof, 37–,* director neurosurg, N. Y. Post-Grad. Med. Sch, 24–37; asst. prof. clin. surg, Cornell, 24–35. Asst. surgeon, neur. inst, Columbia, 19–22, assoc. surgeon, 22–29, attending surgeon, 29–35; senior attending neurological surgeon, 35–37, director neurosurg. service, 37–; asst. attending surgeon, Bellevue Hosp, 24–37; consultant, St. Luke's, Memorial, New Rochelle, Nassau, Middlesex Gen. Capt, Royal Army Med.C, 15–16; major, M.C, U.S.A, 17–19. A.A; fel. Col. Surg; Surg. Asn; Soc. Neur. Surg; Neur. Soc; Asn. Research Nervous and Mental Disease; N. Y. Surg. Soc; N. Y. Neur. Soc; N. Y. Acad. Med. Anatomy, physiology and surgery of peripheral nerves; artificial nerve branches; multiple cranial nerve paralysis; hyperneurotization; tumors of the spinal cord; spinal fluid pressure relations; adhesive spinal arachnoiditis; transmission of pain and temperature sense; bladder and rectal disturbances; trigeminal root; glossopharyngeal neuralgia; meralgia paraesthetica; extradural cervical chondroma; epilepsy; neurological surgery.

Stookey, Dr. S(tanley) D(onald), 145 Pritchard Ave, Corning, N. Y. *Physical chemistry.* Hay Springs, Nebr, May 23, 15. A.B, Coe Col, 36; Edward Hart research fellow, Lafayette Col, 36–37, M.S, 37; Ph.D, Mass. Inst. Tech, 40. Teaching fellow, Mass. Inst. Tech, 37–40; *research chemist, Corning Glass Works, 40–* Study and development of opal glasses.

Stookey, Dean S(tephen) W(harton), Coe College, Cedar Rapids, Iowa. *Geology.* Marion, Iowa, April 3, 59. B.S, Coe Col, 84, M.S, 87, LL.D, 04; Iowa, 91–93; Chicago, 95, 96. Sch. supt, Iowa, 84–91; prof. nat. science, Coe Col. 91–99, geol. and bot, 01–07; pres, Bellevue Col. (Nebr), 08–14; prof. geol. and bot. and dean, *Coe Col,* 14–33, *emer. dean and emer. prof. geol, 33–* Iowa exped, Bahama, 93; Iowa Geol. Surv. Bot. Soc; Iowa Acad; Nebr. Acad. Geology of Iowa and Poweshiek Counties, Iowa.

Stoops, Dr. J(ames) A(merman), Ashland Junior College, Ashland, Ky. *Chemistry.* Greencastle, Ind, Oct. 4, 12. A.B, DePauw, 33; A.M, Indiana, 35, Ph.D, 38. *Head dept. science, Ashland Junior Col, 38–; instr. eng, science and management war training, Kentucky, 43–* Mem. research staff, Ashland

Oil Ref, 39–40; consultant, Ohio Calcium Co, 40–41; instr. eng, science and management war training, Ohio (Athens), 42–43. Chem. Soc; Ky. Acad. Physical and analytical chemistry; the effect of sodium chloride, potassium chloride, sodium sulfate and potassium sulfate on glass membrane potentials.

Stoops, Dr. W(illiam) N(elson), 3705 Washington St, South Charleston, W. Va. *Physical chemistry.* West Liberty, W. Va, July 17, 05. B.S, Col. of Wooster, 26; A.M, Princeton, 27, Ph.D, 29. Research engineer, Westinghouse Elec. and Mfg. Co, 29–34; *research chemist, Carbide and Carbon Chem. Corp, 34–* Chem. Soc. Fundamental research in dielectrics; polymer distribution in vinyl ester resins; polymerization of vinyl resins.

Stopher, Dr. Emmet C(arson), Jr, State Teachers College, Brockport, N. Y. *Topology.* Noblesville, Ind, June 5, 10. A.B, Miami (Ohio), 32; B.S, Kent State Univ, 32; M.S, Iowa, 33, Ph.D, 37. Asst. prof. math, Ashland Col, 37–39, assoc. prof, 39–42; *mem. dept. math. and science, N. Y. State Teachers Col, 42–* Math. Soc. Point set theory; objective tests.

Stoppel, Prof. A(rthur) E(dward), University of Minnesota, Minneapolis, Minn. *Chemistry.* Rochester, Minn, Feb. 27, 97. B.S, Minnesota, 20, Chem.E, 21, Ph.D, 24. Instr. *chem, Minnesota, 23–26, asst. prof, 26–* Chem. Soc. Analytical and technological chemistry.

Storch, Dr. H(enry) H(erman), 4800 Forbes St, Pittsburgh, Pa. *Chemistry.* New York, N. Y, Sept. 8, 94. B.S, Col. City of N. Y, 15; A.M, California, 15, Ph.D, 23. Junior chemist, Bur. Standards, 16–17; tutor chem, Col. City of N. Y, 18–19; research assoc, Mass. Inst. Tech, 20–21; instr. chem, Utah, 23–24; chief chemist, Burnham Chem. Co, Calif, 24–25; research chemist, Roessler and Hasslacher Chem. Co, N. Y, 25–28; supervising engineer, non-metallic minerals exp. sta, *U. S. Bur. Mines,* N. J, 28–31, *prin. physical chemist, exp. sta, Pittsburgh, 31–* Asst. ed, Nat. Research Council, 39–42. Chem. Soc. Catalysts and equilibria in synthesis of oxygenated organic compounds from water gas; extraction of potash from polyhalite; kinetics of thermal decomposition and polymerization of hydrocarbons; hydrogenation of coal; coal utilization.

Storer, Prof. N(orman) Wyman, 1716 Mississippi St, Lawrence, Kans. *Astrophysics.* Pittsburgh, Pa, April 13, 00. B.S, Wesleyan, 23, A.M, 24; Ph.D, California, 28. Instr. *astron,* Smith Col, 27–29; Wesleyan, 29–30; asst. prof, Ohio Wesleyan, 30–32; asst, Van Vleck Observatory, Wesleyan, 32–34; asst. prof, Smith Col, 34–35; *Kansas, 35–38, assoc. prof, 38–* Summers, visiting prof, Columbia, 34–36; Illinois, 38. A.A; Astron. Soc. Spectrophotometry; stellar parallax; photoelectric and photographic photometry; celestial navigation.

Storer, Dr. Tracy I(rwin), College of Agriculture, University of California, Davis, Calif. *Zoology.* San Francisco, Calif, Aug. 17, 89. B.S, California, 12, M.S, 13, Ph.D, 25. Asst. instr. zool, *California,* 12–14, asst. curator birds, museum vert. zool, 14–19, field naturalist, 19–23, asst. prof. *zool, col. agr,* 23–26, assoc. prof, 26–32, *prof, 32–, zoologist, Exp. Sta, 32–* Summers, instr, California, 14, 20, 29. Assoc. ed, 'Ecol,' 39–41; ed, 'Jour. Wildlife Management,' 42– Lieut, Sanit.C, 17–19, capt, res, 25–35. A.A; Wildlife Soc; Ornith. Union; Soc. Mammal; Soc. Ichthyol. and Herp; Ecol. Soc; Cooper Ornith. Club; Wilson Ornith. Club; Calif. Acad. Vertebrate zoology; habits, ecology and distribution of California vertebrates; economic relations of vertebrates; introduction of alien species; game birds of California; Yosemite animal life.

Storey, Margaret (Hamilton), Box 1606, Stanford University, Calif. *Zoology.* San Francisco, Calif, July 31, 00. A.B, Cornell, 22; A.M, Stanford, 36. Asst, bibliography fishes and Dean library, Am. Museum Nat. Hist, 32–35; research, museum, *Stanford, 35–40, asst. curator zool. collections, nat. hist. museum, 40–* A.A; Soc. Ichthyol. and Herp. (sec'y-treas, west. div, 37–40, pres, 41); Malacol. Union; Ecol. Soc; West. Soc. Nat. Taxonomy, morphology, distribution and ecology of marine vertebrates and invertebrates, especially of fishes and marine mollusks.

Storey, O(liver) W(endell), C. F. Burgess Laboratories, Inc, 180 N. Wabash Ave, Chicago, Ill. *Chemical and metallurgical engineering.* Grafton, Wis, Sept. 15, 88. B.S, Wisconsin, 10, Chem.E, 13. Chem. engineer, Nat. Metal Molding Co, Pittsburgh, 10–12; instr. chem. eng, Wisconsin, 12–14; chemist and director corrosion sect, U. S. Bur. Mines, 14–15; chem. and metal. engineer, *C. F. Burgess Labs, Inc, 15–, sec'y-treas; sec'y, Burgess Battery Co, 38–* Chem. Soc; Soc. Test. Mat; Electrochem. Soc. (v. pres, 29–31, 37–39); Tech. Club Madison (pres, 29). Metallurgy of iron and steel; corrosion of iron and steel; galvanizing; electrodeposition; dry cells.

Storey, Dr. William B(icknell), University of Hawaii, Honolulu, Hawaii. *Genetics, Plant breeding.* Honolulu, Hawaii, March 31, 07. B.S, Hawaii, 35, fellow, 35–37, M.S, 37; Clinton DeWitt Smith fellow, Cornell, 39–40, Ph.D, 40. Sci. aide, *Exp. Sta, Hawaii,* 36–38, junior pomologist, 38–40, *asst. horticulturist, 40–* A.A; Soc. Hort. Sci; Hawaiian Bot. Soc; Hawaiian Acad. Genetics, cytology and breeding of Carica Papaya; introduction, variety testing and selection of tropical fruits and nuts.

Stork, Prof. Harvey Elmer, Carleton College, Northfield, Minn. *Botany.* Zoar, Ind, March 28, 90. A.B, Ind. State Nor. Sch, 14; A.M, Indiana, 15; Ph.D, Cornell, 20. Asst. prof. *bot, Carleton Col,* 20–26, *prof, 26–* Carleton Col. exped, Costa Rica, 28; second in command, Univ. California bot. garden exped, Andes, 38–39. A.A; Bot. Soc; Minn. Acad. (pres, 33). Cytology of fungi; anatomy of Central American woods; flora of Peru.

Storm, Dr. C(hristian) G(eorge), U. S. War Department, Washington, D. C. *Chemistry.* Boscobel, Wis, Nov. 20, 77. B.S, Columbian, 98, M.S, 99; Ph.D, George Washington, 16. Asst. and instr. chem, Columbian, 99–01; explosives chemist, Navy Powder Works, 01–09; U. S. Bur. Mines, Pittsburgh, 09–15; directing chemist, Aetna Explosives Co, 15–17; research chemist, Pa. Trojan Powder Co, 19; prof. chem. eng, Ordnance Sch. of Application, 20–21; *explosives chem. engineer, office chief of ordnance, War Dept, 21–* Consulting explosives chemist, Ordnance Dept, 17, lieut. col, 17–19, col, Ordnance R.C, 23– Chem. Soc. (sec'y, Pittsburgh sect, 14–16). Explosives.

Storm, Prof. Paul J(ennings), University of Pennsylvania, Philadelphia, Pa. *Geology, Mineralogy.* Moravia, N. Y, Dec. 12, 95. B.S, Syracuse, 20; M.S, Pennsylvania, 26, Ph.D, 30. Instr. *geol,* Texas, 20–23; Iowa, 23–24; *geol. and miner, Pennsylvania, 24–36, asst. prof, 36–,* asst. to dean col. arts and science, 31–37, *exec. sec'y dept. earth sciences, 40–* Phila. Miner. Soc; Phila. Geol. Soc. Sedimentation in the Conestoga limestone; physiography of southeastern Pennsylvania.

Stormont, Dr. R(obert) T(ulloch), 609 S. 15th St, La Crosse, Wis. *Pharmacology.* La Crosse, Wis, April 28, 12. B.S, Wisconsin, 34, Ph.D, 39; M.D, Chicago, 42. Research asst. pharmacol, Wisconsin, 34–39; Chicago, 39–42; *lieut, U. S. Naval Res, 43–* Soc. Pharmacol. Respiratory alkalosis and anesthesia.

Storvick, Prof. Clara A(manda), 4009 15th Ave, N. E, Seattle, Wash. *Nutrition.* Emmons, Minn, Oct. 31, 06. A.B, St. Olaf Col, 29; M.S, Iowa State Col, 33; Ph.D, Cornell, 41. Instr. chem, Augustana Acad, 30–32; asst, Iowa State Col, 32–34; nutritionist, Fed. Emergency Relief Admin, Minnesota, 34–36; asst. prof. nutrition, Okla. Agr. and Mech. Col, 36–38; asst, Cornell, 38–41; *asst. prof. nutrition, Washington (Seattle), 41–* A.A; Dietetic Asn. Calcium and phosphorus metabolism in rats; ascorbic acid metabolism in normal adults.

Story, Dr. E(noch) F(rancis), Jr, 5201 S. Blackstone Ave, Chicago, Ill. *Chemistry.* Essex, Mass, Nov. 21, 12. B.S, R. I. State Col, 35, M.S, 37; Ph.D, Mass. State Col, 40. Teaching fellow, Mass. State Col, 37–40; *chemist and chem. engineer, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Physical and inorganic chemistry; determination of the standard potential of mercury-mercurous oxalate; vapor phase oxidation of an aliphatic hydrocarbon.

Story, George F. E(dmunds), Federal Bldg, Worcester, Mass. *Animal nutrition.* Essex, Vt, Oct. 2, 85. Vermont; B.S.A, Ohio State, 10. Instr, exten. dept, Ohio State, 10–11; Mass. Col, 11–15; prof. animal and dairy husbandry, Vermont, 15–18; *manager, Worcester County Exten. Service, 18–*

Stose, Dr. Anna Jonas (Mrs. George W. Stose), U. S. Geological Survey, Washington, D. C. *Geology.* Bridgeton, N. J, Aug. 17, 81. A.B, Bryn Mawr Col, 04, A.M, 05, Ph.D, 12. Demonstrator, geol. lab, Bryn Mawr Col, 05–06, asst. curator geol. museum, 08–09; dept. geol. and invert. paleont, Am. Museum Nat. Hist, 16–17; cashier, Williamstown Glass Co, 17–19; *geologist,* Md. and Pa. Geol. Surveys, 19–37; *Va. Geol. Surv, 26–; U. S. Geol. Surv, 30–* A.A; fel. Geol. Soc; Geophys. Union; Precambrian Asn. (councilor, 34–37); Geol. Soc. Wash; Wash. Acad. Petrology; stratigraphy; metamorphic rocks.

Stose, George W(illis), U. S. Geological Survey, Washington, D. C. **Geology.* Chicago, Ill, Oct. 5, 69. B.S, Mass. Inst.

Tech, 93, 94. Asst. geologist, U. S. Geol. Surv, 94–00, prin. geologist and ed. geol. maps, 00–43; *retired; geol. maps of N. Amer. and S. Amer, Geol. Soc. Amer. and Am. Geog. Soc, 43–* Va. Geol. Surv; Md. Geol. Surv; Pa. Geol. Surv. A.A; Geol. Soc. (councilor, 31–34); Geol. Soc. Wash. (treas, 02–04, v. pres, 20, pres, 21); Wash. Acad. (v. pres, 22). Structure and stratigraphy; geology and mineral resources of Pennsylvania, Maryland, West Virginia, Virginia, Colorado and Tennessee; barite and strontium mineral production; geologic maps of the United States and several states; manganese deposits of southern Appalachians.

Stose, Harold F(rederick), 2070 Campus Road, Toledo, Ohio. *Chemical engineering.* April 1, 98. B.S, Mass. Inst. Tech, 21, M.S, 22. Research lab. applied chem, Mass. Inst. Tech, 22–23; Hood Rubber Co, 23–28; research chem. engineer, Victor Talking Machine Co, 28–30, RCA Victor Co, 30–32; research chemist, Flintkote Co, N. J, 34–35; chief chemist, Vulcan Corp, 35–37; gen. research lab, *Owens-Ill. Glass Co,* 37–40, *research library, 41–* A.A; Chem. Soc. Applied chemistry; plastic materials; flow of materials; library research methods.

Stosick, Dr. A(rthur) J(ames), 354 S. Chester Ave, Pasadena, Calif. *Chemistry.* Milwaukee, Wis, Dec. 1, 14. B.S, Wisconsin, 36; Ph.D, Calif. Inst. Tech, 39. Research fellow, *Calif. Inst. Tech,* 39–40, instr. gen. chem, 40, *research fellow, 41–* Molecular structure investigations by x-ray and electron diffraction; crystal structure of the nickel salt of glycine; crystal structure of the molecular compound; naphthalene-p-dinitrobenzene.

Stotz, Prof. Carl L(ouis), 1101 Cathedral of Learning, Pittsburgh, Pa. *Geography.* Detroit, Mich, Feb. 6, 08. A.B, Wayne, 30; Ph.D, Clark, 37. Geographer, Robert Col. (Istanbul), 30–35; assoc. prof. *geog,* Mt. Holyoke Col, 37–38; *asst. prof,* N. Y. State Nor. Sch, Fredonia, 38–39; *Pittsburgh, 39–* Lecturer, Pittsburgh, 37–39. Fel. Am. Geog. Soc; Polar Soc; Council Geog. Teachers; Young Geographers Asn. Geography of the Near East; weather and climate.

Stotz, Dr. Elmer (Henry), N. Y. State Agricultural Experiment Station, Geneva, N. Y. *Biochemistry.* Boston, Mass, July 29, 11. B.S, Mass. Inst. Tech, 32; Ph.D, Harvard, 36. Instr. biochem, Pittsburgh, 36–37; Chicago, 37–38; Harvard Med. Sch, 38–43; *prof. agr. and biochem, Cornell, 43–* Director labs, McLean Hosp, 38–43. Soc. Biol. Chem. Tissue respiration; analytical methods.

Stoudt, Dr. Harry N(athaniel), Lower Camden County Regional High School, Lindenwold, N. J. *Botany.* Bernville, Pa, Dec. 27, 08. B.S, Temple, 31, M.Ed, 33; Albright Col, 31; Cornell, 32; Ph.D, Hopkins, 39. Asst. biol, Temple, 31–33, instr, 33–36, 37–38; asst. bot, Hopkins, 36–37, 38–39; teacher biol, *Lower Camden County Regional High Sch,* 41–43, *head science dept, 43–* Bot. Soc. Vegetative propagation in Crassulaceae; floral morphology.

Stouffer, Prof. E(llis) B(agley), University of Kansas, Lawrence, Kans. **4*Mathematics.* Melbourne, Iowa, Nov. 7, 84. B.S, M.S, Drake, 07, LL.D, 31; fellow, Illinois, 08–11, Ph.D, 11. Instr. *math,* Drake, 07–08; Illinois, 11–14; asst. prof, *Kansas,* 14–17, assoc. prof, 17–21, *prof, 21–, dean grad. sch, 22–,* asst. to chancellor, 23–26. Guggenheim Mem. Foundation fellow, Italy, 26–27. A.A; Math. Soc. (v. pres, 36–); Math. Asn. (v. pres, 33). Projective differential geometry; invariants of differential equations; determinants.

Stouffer, Prof. Samuel A(ndrew), University of Chicago, Chicago, Ill. *Statistics, Sociology.* Sac City, Iowa, June 6, 00. A.B, Morningside Col, 21, LL.D, 40; A.M, Harvard, 23; Ph.D, Chicago, 30. Instr. sociol, Chicago, 30–31; asst. prof. social statist, Wisconsin, 31–34, *prof,* 34–35; *sociol, Chicago, 35–; research, Special Services Branch, U. S. War Dept, 41–* Social Science Research Council fellow, London, 31–32; mem. staff, Cent. Statist. Board, Wash, D. C, 34–35. Popul. Asn. Amer. del, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, Paris, 37. Statist. Asn; Sociol. Soc; Sociol. Research Asn; Psychometric Soc; Popul. Asn; Inst. Math. Statist. Improvements of statistical techniques for application in sociology and related fields.

Stough, Prof. Howard B(rown), 920 W. C St, Moscow, Idaho. *Neurology, Cytology.* Lena, Ill, Oct. 29, 87. A.B, Midland Col, 07; A.M, Kansas, 09; Ph.D, Harvard, 25. Asst. prof. *zool, Idaho,* 25–27, assoc. prof, 27–30, acting head dept, 28–30, *prof. and head dept, 30–* A.A; Micros. Soc; Genetic Asn. Morphology and physiology of the giant nerve fibers of the earthworm; somatic mitoses of the chick embryo.

Stoughton, Dean Bradley, Lehigh University, Bethlehem, Pa. *Metallurgy.* New York, N. Y, Dec. 6, 73. Ph.B, Yale, 93; B.S, Mass. Inst. Tech, 96. Asst. mining and metal, Mass. Inst. Tech, 96; asst. to Prof. H. M. Howe, Columbia, 97; metallurgist, supt. and manager, steel mfg. companies, 98–01; instr. metal, sch. mines, Columbia, 02–03, adj. prof, 03–08; *consulting metal. engineer, 02–;* head dept. metal, Lehigh, 23–39, prof. and dean col. eng, 36–39; *head heat treating equipment sect, War Production Board, 41–* Jury awards, Pan-Pacific Expos, 15; gen. eng. cmt, Nat. Council Defense, 18; head div. metal. and v. chairman div. eng, Nat. Research Council, 17–20. Chairman cmt. on metallurgical text-books, McGraw-Hill Book Co. Grasselli medal, Soc. Chem. Indust, 29. Min. and Metal. Eng. (sec'y, 13–20, chairman, iron and steel cmt, 22); Am. Iron and Steel Inst; Electrochem. Soc. (v. pres, 26–31, pres, 31, chairman, electrothermic div); Soc. Test. Mat; Soc. Metals (treas, 39, v. pres, 40, pres, 41); Eng. Club Lehigh Valley (pres, 28); cor. mem. Can. Inst. Min. and Metal; British Iron and Steel Inst. Metallurgy of iron and steel; engineering metallurgy; alloys of iron and silicon.

Stoughton, Dr. Raymond W, 2523 Piedmont Ave, Berkeley, Calif. *Chemistry.* Tehachapi, Calif, Aug. 6, 16. B.S, California, 37, Ph.D, 40. Instr. chem, Agr. and Mech. Col. Texas, 40–41; *research fellow,* radiation lab, *California,* 41–42, *chem, 42–* Photochemistry; reaction kinetics; fluorescence; radioactivity.

Stoughton, Dr. Roger W(olcott), Mallinckrodt Chemical Works, 3600 N. Second St, St. Louis, Mo. *Chemistry.* Saco, Maine, Jan. 22, 06. B.S, Middlebury Col, 27, M.S, 28; Ph.D, Illinois, 32. Asst. chem, Illinois, 28–32; research assoc, sch. med, Vanderbilt, 32–41; *research chemist, Mallinckrodt Chem. Works, 41–* A.A; Soc. Pharmacol; Chem. Soc. Anthelmintics; anesthetics; hypnotics.

Stout, Prof. Albert W(ilbur), Western Pine Research Laboratory, Portland, Oregon. *Chemistry.* Waterford, Calif, Jan. 18, 08. B.S, Oregon State Col, 30; Ph.D, Wisconsin, 34. Asst. chem, Wisconsin, 30–34; instr, Linfield Col, 34–36, asst. prof, 36–42; *research chemist, West. Pine Research Lab, 42–* Chem. Soc. Fatty oil analysis; procedures in quantitative chemical analysis; utilization of wood and wood wastes.

Stout, Dr. A(rlow) B(urdette), New York Botanical Garden, New York, N. Y. **1*Botany.* Jackson Centre, Ohio, March 10, 76. A.B, Wisconsin, 09; Ph.D, Columbia, 13. Instr. bot, Wisconsin, 09–11; *curator educ. and labs, N. Y. Bot. Garden, 11–* Thomas Roland medal, Mass. Hort. Soc, 37; William Herbert medal, Am. Amaryllis Soc, 39. Del, Int. Bot. Cong, Cambridge, 30. A.A; Soc. Nat; Bot. Soc; Genetic Asn. (advisory cmt); Genetics Soc; Amaryllis Soc; Torrey Bot. Club; hon. mem. Wis. Archeol. Soc; hon. mem. Ohio Archeol. and Hist. Soc; hon. mem. Pa. Hort. Soc; fel. N. Y. Acad; Wis. Acad; hon. fel. Royal Hort. Soc. Archeology; genetics; cytology; sterility in plants.

Stout, Dr. A(rthur) P(urdy), College of Physicians and Surgeons, Columbia University, New York, N. Y. *Surgical pathology.* New York, N. Y, Nov. 30, 85. A.B, Yale, 07; M.D, Columbia, 12. Instr. *surg, col. physicians and surg, Columbia,* 14–21, asst. prof, 21–28, *assoc. prof, 28–* Asst. surgical pathologist, Presb. Hosp, New York, 14–32, attending surgical pathologist, 32–; consulting pathologist, New York Orthop. Hosp, Ruptured and Crippled Hosp, Hackensack Hosp, N. J, and Roosevelt Hosp, New York. Harvey Soc; Asn. Cancer Research; N. Y. Acad. Med; fel. Royal Soc. Arts. Tumors in general and of the peripheral nervous system.

Stout, Prof. G(erald) J(ohn), Pennsylvania State College, State College, Pa. *Horticulture.* Cedar Springs, Mich, Jan. 9, 01. B.S, Mich. State Col, 24, M.S, 26; Ph.D, Ohio State, 34. Asst, Mich. State Col, 24–26; instr. veg. gardening, Mass. Col, 26–29; Pa. State Col, 29–31; asst, Ohio State, 31–32; instr. *veg. gardening, Pa. State Col,* 32–35, *asst. prof, 35–* Summers, exp. sta, H. J. Heinz and Co; State Dept. Agr, Mich. Soc. Hort. Sci. Fertilizer requirements of truck crops; vegetables; methods of hotbed heating; water relations in greenhouse crops; processing of horticultural crops.

Stout, Gilbert L(eonidas), State Department of Agriculture, Sacramento, Calif. *Botany, Plant pathology.* Cincinnati, Ohio, July 14, 98. A.B, Miami (Ohio), 23; Ohio State, 25–26; A.M, Illinois, 28, 28–30. Asst. bot, Illinois, 23–24; instr, Miami (Ohio), 25–26; field botanist, State Nat. Hist. Surv, Ill, 26–30; *assoc. plant pathologist, State Dept. Agr, Calif, 30–* Collaborator, U. S. Dept. Agr, 26–, in charge fed, state and county cooperative peach mosaic control and eradication proj-

ect, Calif, 36–38, collaborating pathologist, 38– Summer, asst, Miami (Ohio), 23. Phytopath. Soc; Ill. Hort. Soc. Parasitic fungi; Hemisphaeriaceae; diseases of fruit, grain and ornamentals; epidemiology; disease surveys; diagnosis and treatment of plant diseases; peach mosaic; ringspot of peach and almond; Pierce's disease of grape; fungi of the corn plant; virus diseases of deciduous fruit trees, almonds and grapes.

Stout, Dr. J(ohn) W(illard), Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Seattle, Wash, March 13, 12. B.S, California, 33, Ph.D, 37. Instr. chem, California, 37–38, Lalor fellow, 38–39; *instr. chem, Mass. Inst. Tech, 39–* Chem. Soc. The third law of thermodynamics; low temperature calorimetry; magnetic cooling; magnetic susceptibility and entropy of paramagnetic salts; electrical resistance of metals at low temperatures.

Stout, Prof. Lawrence E(dward), Washington University, St. Louis, Mo. *Chemical engineering.* Seymour, Ind, March 30, 98. A.B, DePauw, 19; M.S, Ohio State, 21, Ph.D, 23, Chem.E, 34. Asst. *chem,* Ohio State, 19–23; asst. prof, Miami (Ohio), 23–27; assoc. prof, *Washington (St. Louis),* 27–37, *prof, 37–, head dept, 39–* Chem. Soc; Electrochem. Soc; Chem. Eng. Applied electrochemistry; molded plastics; fluid flow; drying.

Stout, Prof. Melville B(igham), 1417 Morton Ave, Ann Arbor, Mich. *Electrical engineering.* Pittsburgh, Pa, Oct. 17, 95. B.S, Michigan, 20, M.S, 24. Elec. engineer, Westinghouse Airbrake Co, 20–22; instr. *elec. eng, Michigan,* 22–28, asst. prof, 28–35, assoc. prof, 35–43, *prof, 43–* Elec. Eng; Eng. Educ. Power transmission; circuit analysis.

Stout, Dr. Perry R(obert), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Calif, Feb. 9, 09. A.B, California, 30, Ph.D, 39. Analyst, California, 30–36, assoc, Exp. Sta, 36–40, junior chemist, 40–42; research assoc. elec. eng, *Mass. Inst. Tech,* 42, *mem. staff radiation lab, 42–* A.A; Soc. X-ray and Electron Diffraction; West. Soc. Soil Sci. Chemical and physical investigations in soil science and plant nutrition.

Stout, Prof. Presley D(owns), New York University, Washington Square East, New York, N. Y. *Psychology.* Philadelphia, Pa, 91. A.B, N. Y. Univ, 12; B.D, Union Theol. Sem, 15; A.M, Harvard, 17. Instr. *psychol, N. Y. Univ,* 22–25, asst. prof, 25–29, assoc. prof, 29–33, *prof, 33–, chairman dept, Wash. Sq. Col, 25–* Systematic and experimental psychology.

Stout, W(ilber), 154 Erie Road, Columbus, Ohio. *Geology.* Chester, Ohio, Aug. 21, 76. B.E, Ohio State, 15. Chemist, 02–11; asst. geologist, *Ohio Geol. Surv,* 11–28, *geologist,* 28–A.A; Geol. Soc; Ceramic Soc; Min. and Metal. Eng; Gas Asn; Ohio Acad. Geology of coal formations in Ohio; clays of Ohio.

Stoutemyer, Dr. Vernon T(heodore), U. S. Plant Introduction Garden, Glenn Dale, Md. *Horticulture.* Chatsworth, Ill, Jan. 9, 05. B.S, Illinois, 28; Ph.D, Iowa State Col, 37. Asst. pomol, Iowa State Col, 30–37; *assoc. horticulturist, div. plant explor. and introd, bur. plant indust, U. S. Dept. Agr, 37–* Plant propagation.

Stovall, Prof. J(ohn) Willis, University of Oklahoma, Norman, Okla. *Vertebrate paleontology.* Montague, Texas, Jan. 28, 91. B.S, Union, 23; M.S, Vanderbilt, 27; Yale, 28; Ph.D, Chicago, 38. Instr, Union, 22–25; asst, Vanderbilt, 25–27; asst. prof. geol. and later *prof. paleont, Oklahoma, 30–* Summers, instr, George Peabody Col, 29; field work, Okla. Geol. Surv, 30, 36, 37. Paleont. Soc; Geol. Soc; Okla. Acad. Geology of the Cimarron River valley in Oklahoma; fossil vertebrate osteology; vertebrate paleontology of Oklahoma.

Stovall, Dr. W(illiam) D(avison), 205 Princeton Ave, Madison, Wis. *Hygiene.* Longtown, Miss, Oct. 31, 87. B.S, Mississippi, 06; M.D, Tulane, 11, 13–14. Intern, St. Vincent's Hosp, Birmingham, 11–12; U. S. Marine Hosp, 13–14; bacteriologist, *State Lab. Hygiene, Wis,* 14–15, *director, 15–*; assoc. prof. *hygiene, Wisconsin,* 15–25, *prof, 25–* Clin. pathologist, Wis. Gen. Hosp, 24; mem. staff, Madison Gen, St Mary's and State of Wis. Gen. Hosps. Am. Med. Asn; Pub. Health Asn. (chairman, cmt. diagnostic procedures and reagents, standard methods cmt); Soc. Bact; Soc. Clin. Path. (chairman, bact. div, research cmt); Soc. Control Cancer (state chairman); Wis. Med. Asn. (chairman, cancer cmt). Bacteriology; pathology.

Stover, Prof. Arthur R(eece), 710 S. Wolcott Ave, Chicago, Ill. *Biochemistry.* Iowa Co, Iowa, April 20, 69. A.B, Baker, 87, A.M, 90; Kansas, 87–89; Arkansas, 91–92; M.D, Mo. Med. Col, 93; M.S, Chicago, 17. Prof. chem, med. sch, Arkansas, 07–26, acting dean, 23–24, instr. *physiol. and pharmacol,* 28–31; *prof, Chicago Med. Sch, 31–* Fel. Am. Med. Asn. Physiology.

Stover, Dr. E(rnest) L(incoln), Eastern Illinois State Teachers College, Charleston, Ill. *Botany.* Bellbrooke, Ohio, Aug. 28, 93. B.S, Ohio State, 17, M.S, 21; fellow, Chicago, 21, Ph.D, 24. Asst. *bot,* Ohio State, 19–21, instr, 21–23; *prof. and head dept, East. Ill. State Teachers Col, Charleston, 23–* Visiting prof, Illinois, 43. Chairman cmt. instruction in biol. sciences, Nat. Research Council. A.A; Bot. Soc. (chairman, cmt. on teaching, 37–40); Sci. Teachers Asn; Ill. Biol. Teachers Asn; Ill. Acad. (chairman cmt. teacher training); fel. Ohio Acad. Morphology; anatomy of grasses; ecological plant anatomy.

Stover, Dr. H(oward) J(ames), 95 South Hill, Fayetteville, Ark. *Agricultural economics.* Sanborn, N. Y, March 8, 06. Miami (Ohio), 22–24; B.S, Cornell, 26, Ph.D, 30. Asst. prof. accounting and statist, Agr. and Mech. Col. Texas, 28–29; instr. prices and statist, Cornell, 26–28, 29–31; asst. prof. agr. econ, Giannini Foundation, California, 31–36; *statistician, Farm Foundation, Chicago, 36–* Farm Econ. Asn; Statist. Asn. Statistical analysis.

Stover, Prof. W(ilmer) G(arfield), Ohio State University, Columbus, Ohio. *Plant pathology.* Hancock Co, Ohio, Oct. 3, 81. A.B, Miami (Ohio), 09, A.M, 10; Ph.D, Wisconsin, 21. Asst. *bot,* Miami (Ohio), 07–10; acting instr, Ohio State, 10–11; asst. prof, Okla. Agr. and Mech. Col, 11–12; instr, *Ohio State,* 12–14, asst. prof, 14–22, *prof, 22–,* exten. plant pathologist, 18–20. Summers, bur. plant indust, U. S. Dept. Agr, 16–43; assoc, Ohio Exp. Sta, 26–28. A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc; Ohio Acad. Mycology; virus diseases of plants; higher Basidiomycetes.

Stow, Prof. Marcellus H(enry), Washington and Lee University, Lexington, Va. *Geology.* Washington, D. C, May 19, 02. A.B, Cornell, 26, A.M, 27, scholar, 30–31, Ph.D, 31. Asst. *geol,* Cornell, 24–26, instr, 26–27; asst. prof, *Washington and Lee,* 27–34, assoc. prof. and acting head dept, 34–37, *prof. and head dept, 37–; asst. administrator mining branch, War Production Board, 42–* Summers, rodman, U. S. Geol. Surv, 23, 24, 26; Lehigh Valley Coal Co, 25; asst. prof, Cornell, 29–32. Yellowstone-Beartooth-Bighorn Project, 33–41. A.A; fel. Miner. Soc; fel. Geol. Soc; Geophys. Union; Va. Acad. (sec'y, geol. sect, 34–35, chairman geol. sect, 36; pres, 42); Wash. Acad; Yellowstone-Bighorn Research Asn. (councilor, 35–42, pres, 40). Sedimentary petrography; petrography and stratigraphy of the Oriskany formation and of Bighorn Basin.

Stowe, Prof. Allen B(yron), Kalamazoo College, Kalamazoe, Mich. *Chemistry.* Mich, Sept. 12, 96. B.S, Kalamazoo Col, 20; A.M, Clark, 21, Ph.D, 23. *Prof.* chem, Olivet Col, 23–28; *physical chem, Kalamazoo Col, 28–* Chem. Soc. Solubility of salts in non-aqueous solvents.

Stowe, Dr. Vernon M(onroe), Aluminum Ore Co, East St. Louis, Ill. *Chemistry.* Brownsdale, Minn, Dec. 11, 97. B.S, Hamline, 21; M.S, Iowa, 24, Ph.D, 27. Instr. inorg. chem, N. Dak Col, 25–26, asst. prof, 27–28; *research chemist,* Atmospheric Nitrogen Corp, 28–35, nitrogen div, Solvay Process Co, 35–40; *Aluminum Ore Co, 40–* A.A; Inst. Chem; Chem. Soc. Solubility; surface tension; catalysis in water gas reaction; ammonia synthesis and oxidation; activated alumina as catalyst.

Stowell, Dr. Averill, Johns Hopkins University School of Medicine, Baltimore, Md. *Neurophysiology.* Buffalo, N. Y, Aug. 12, 12. A.B, Princeton, 34; M.D, Hopkins, 38. Intern surg, Hopkins Hosp, 38–39; asst. res. neurol, Neurol. Inst, N. Y, 39–40, neurosurg, 40–41; instr. physiol, sch. med, Hopkins, 41–42; asst. res. surgeon, univ. hosp, Maryland, 42–43; *Med. Corps, U. S. Army, 43–* A.A. Afferent projections to the cerebellum; atrophies in the central nervous system; function of the corpus callosum.

Stowell, Dean Charles J(acob), McKendree College, Lebanon, Ill. *Mathematics, Economics.* Bloomington, Ill, Dec. 29, 83. Chicago, 01–02; B.S, Ill. Wesleyan, 11; A.M, Illinois, 12, Ph.D, 17. Marionville Col, 12–14, 17–18; Bethany Col, 18–19; high sch, Ill, 19–20; *prof. math. and dean, McKendree Col, 20–* Summer, West Virginia, 19. Math. Asn.

Stowell, Dr. Robert E(ugene), Washington University School of Medicine, St. Louis, Mo. *Experimental pathology.*

Cashmere, Wash, Dec. 25, 14. A.B, Stanford, 36, M.D, 41; fellow, Washington (St. Louis), 40–42. Fellow, *Barnard Free Skin and Cancer Hosp*, 40–42, *research assoc, 42–*; asst. res. *path, Barnes Hosp*, 42–43, *res, 43–*; asst, *sch. med, Washington (St. Louis)*, 42–43, *instr, 43–* Asn. Anat; Asn. Cancer Research. Microscopical technique and cancer research.

Stoyanow, Prof. Alexander, University of Arizona, Tucson, Ariz. *Geology.* Jelesnovodsk, Russia, Aug. 7, 79. Ph.D, Moscow, 06. Asst. geol, Museum Acad. Science, Petrograd, 06; asst. geologist, Geol. Surv, Russia, 11–15, geologist, 15–17; Sinclair Consol. Oil Corp, 20–22; assoc. prof. *geol, Arizona*, 23–26, *prof, 26–* Research work, Caucasus, 04–07; N. Persia, 07; W. China, 08; Caucasus and Armenia, 09–11; Southwest. Siberia, 11–14; Persia and Turkish Armenia, 15–16; Northeast. Russia, 17; Portuguese Timor, 21–22. A.A; Paleont. Soc; Geol. Soc; Soc. paleont. russe (sec'y, 15–17); Imp. Miner. Soc. Petrograd. Invertebrate paleontology; Permian of Eurasia; geology of Siberia; stratigraphical paleontology of Arizona.

Strachan, Dr. C(harles) C(ampbell), Experimental Station, Summerland, B. C, Can. *Horticulture.* Portland, Oregon, July 30, 10. B.S.A, British Columbia, 31; M.S, Oregon State Col, 35; Ph.D, Mass. State Col, 41. *Horticulturist* fruit products, *exp. sta, Dom. Exp. Farm Service*, 31–32, *fruit and veg. products, 32–, asst. supt, 37–* Inst. Food Technol. Fruit and vegetable products; dehydration of fruits and vegetables.

Strachauer, Dr. A(rthur) C(larence), University of Minnesota, Minneapolis, Minn. *Surgery.* Minneapolis, Minn, May 1, 84. Berlin; M.D, Minnesota, 08. Instr. *surg*, med. sch, *Minnesota*, 11–15, asst. prof, 15–18, assoc. prof, 18–19, *prof, med. sch. and post-grad. med. sch, 19–*, chief dept, 18–30, director cancer inst, 25–30, *surgeon, univ. hosp.* Surgeon, Eitel and Northwest. Hosps; chief surgeon, Minneapolis, St. Paul and Sault Ste. Marie Ry; Abbott Hosp. Fel. Col. Surg; Am. Med. Asn; Asn. Surg. of Trauma; West. Surg. Asn; Minn. Acad. Med. Cancer.

Strader, K(enneth) H(arold), 7119 Card Lane, Pittsburgh, Pa. *Chemical engineering.* Decatur, Ill, Oct. 8, 96. B.S, Illinois, 23; M.S, Pittsburgh, 27. Chemist, A. V. plant, Am. Smelting and Ref. Co, 19–21, chief chemist, 23–24; indust. fellow, Mellon Inst, 24–25; *chief chemist, Lee S. Smith and Son Mfg. Co, Pittsburgh, 26–*, director research, 35–38, *v. pres. production and research, 38–* Chem. Soc; Min. and Metal. Eng; Soc. Metals. Ore sampling; lead smelting and refining; hydrometallurgy of zinc; dental materials.

Strain, Dr. D(aniel) E, Talley Road, Wilmington, Del. *Chemistry.* Bainbridge, Ind, July 28, 03. A.B, DePauw, 25; A.M, Ohio State, 27, Ph.D, 29. Asst, Ohio State, 25–29; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Organic chemistry.

Strain, Dr. Harold H(enry), Stanford University, Calif. *Chemistry.* San Francisco, Calif, Jan. 12, 04. A.B, Stanford, 23, A.M, 24, Ph.D, 27. Chemist, Libby, McNeill and Libby, 24; *staff mem, Carnegie Institution, 27–* Rockefeller Foundation fellow, Carlsberg Lab, Copenhagen, 37–38. Chem. Soc. Photosynthesis; carbohydrates; leaf pigments; ammonia system of compounds.

Strain, Dr. William H(enry), 23 Suburba Ave, Rochester, N. Y. *Chemistry.* Darien, Ga, June 27, 03. B.S, N. Y. State Col. for Teachers, 21; M.S, Northwestern, 23; Ph.D, Mass. Inst. Tech, 31. Chemist, West. Elec. eng. dept, Bell Tel. Labs, 23–24; instr, Williams, 27–30; Mass. Inst. Tech. traveling fellow, Technische Hochschule, Munich, 31–32; fellow, *sch. med. and dentistry, Rochester*, 32–36, *research assoc. radiol. 36–* Asst. and Hoover fellow, Northwestern; asst, Mass. Inst. Tech; chemist, Eastman Kodak Co, 37–43. Chem. Soc. Pyrroles; reaction velocity; bile acids; physiological porphyrins; pigment metabolism; radiopaque compounds; dyes.

Stralt, Dr. Louis A(vrom), 204 Grand View Ave, San Francisco 14, Calif. *Biophysics.* Denver, Colo, Sept. 27, 07. A.B, Colorado, 30, A.M, 32; Ph.D, California, 37. Instr. physics, Colorado, 30–32; teaching asst, *California*, 32–37, instr. *biophysics*, 38–42, *asst. prof, 42–* A.A; Optical Soc; Physical Soc; Asn. Physics Teachers. Application of spectrographic analysis to problems of cancer and experimental epilepsy; war research.

Stralton, Prof. A(rchie) W, University of Texas, Austin, Texas. *Electrical engineering.* Tarrant Co, Texas, Aug. 27, 07. B.S, Texas, 29, A.M, 31, Ph.D, 39; Michigan, 34. Mem. inspection dept, Bell. Tel. Labs, 29–30; assoc. prof. eng, Texas Col. Arts and Indust, 31–41, prof. and director eng, 41–43; *assoc. prof. elec. eng, Texas, 43–* Instr, Texas, 37–38. Eng. Educ. (director, Texas sect, 32–35). Electrical physics; measurement of electrical characteristics of filters; harmonic solution of differential equations.

Straka, Dr. Robert P(aul), U. S. Department of Agriculture, Albany, Calif. *Bacteriology.* Pittsburgh, Pa, Dec. 6, 99. B.S, Maryland, 24, M.S, 26; Ph.D, Iowa State Col, 38. Asst. bacter, Maryland, 24–26, instr, 26–27, 28–29; junior bacteriologist, bur. plant indust, *U. S. Dept. Agr*, 29, asst. bacteriologist, div. food research, bur. chem. and soils, 29–34, div. indust. farm products, 34–37, assoc. bacteriologist, 37–40, bacteriologist, *west. regional research lab, bur. agr. chem. and eng*, 40–42, *senior chemist, 42–* A.A; Inst. Food Technol; Soc. Bact; Pub. Health Asn. Microbiology; food spoilage and deterioration; food poisoning; food preservation; microbiological utilization of farm wastes and by-products; freezing preservation of poultry and poultry products; dehydrated foods.

Straley, H(arrison) W(ilson), III, Box 5532, Friendship Station, Washington, D. C. *Geology, Geophysics.* Princeton, W. Va, May 12, 07. A.B, Concord State Teachers Col, W. Va, 25; Ph.D, North Carolina, 38, Chicago, 39. Mem. staff, Seneca Trail Oil Co, 26–28; Pocatello Coal and Coke Co, 30–31; asst. struct. geol, Chicago, 31–33; instr. geol. eng, North Carolina, 34–39; assoc. prof. geol. and head dept, Baylor, 39; *consultant, Worthington Consulting Service, 40–* Consultant, Pocatello Coal and Coke Co, 33–40; Pathfinder Prospecting Co, 36; Johnson and Straley, 36–39. A.A; Min. and Metal. Eng. (geophysical educ. cmt, educ. div, 38–41, sec'y, 40, indust. minerals cmt, 39); Eng. Educ; Asn. Petrol. Geol; Geophys. Union; Meteorol. Soc; Seismol. Soc; Soc. Explor. Geophys; Carolina Geol. Soc. (pres, 38). Mining; petroleum; geomagnetics; structural geology; basic science in geological engineering; tracing pegmatite dikes geophysically; the geological southern Atlantic coastal plain.

Straley, Dr. James M(adison), General Aniline and Film Corp, Easton, Pa. *Organic chemistry.* Madison, Wis, Nov. 12, 09. B.S, Illinois, 32; M.S, Kans. State Teachers Col, 33; Ph.D, Iowa State Col, 36. *Research chemist,* Eastman Kodak Co, Rochester, N. Y, 36–42; *Gen. Aniline and Film Corp, 43–* Chem. Soc. Synthetic organic chemistry; organometallics; physiological action of organic compounds; relative aromaticities of organic nuclei; high molecular-weight polymers.

Straley, Prof. Joseph W(ard), 3023 W. Bancroft St, Toledo, Ohio. *Spectroscopy.* Paulding, Ohio, Oct. 6, 14 B.S, Bowling Green State Univ, 36; M.S, Ohio State, 37, univ scholar, 39–40, Ph.D, 41. Asst, Ohio State, 37–38, 40–41; acting instr. *physics*, Heidelberg Col, 38–39; instr, *Toledo* 41–42, *asst. prof, 42–, acting head dept, 43–* Absorption spectra of PbSe, PbTe and SnSe; infra-red spectra of SiH_4 and GeH_4.

Stranathan, Prof. J(ames) D(ocking), University of Kansas, Lawrence, Kans. *Physics.* Kansas City, Mo, Nov. 2, 98 B S, Kansas, 21, M.S, 24; Ph.D, Chicago, 28. Asst. *physics Kansas*, 20–21, instr, 21–25, asst. prof, 25–27, assoc. prof, 28–34, *prof, 34–, chairman dept, 41–* A.A; fel. Physical Soc; Asn Physics Teachers. High frequency resistance and effect of adsorbed gases; viscosities; dielectric properties of vapors and dilute solutions; permanent electrets.

Stranathan, Dr. Robert K(enneth), College of the City o New York, New York, N. Y. *Physics.* Wilsey, Kans, Apri 3, 09. A.B, Kansas, 31, A.M, 32; Ph.D, N. Y. Univ, 35. Grad asst, N. Y. Univ, 32–36; *instr. math, Col. City of N. Y, 36* Spectroscopy; hyperfine structure and nuclear magneti moments.

Strand, Pres. A(ugust) L(eroy), Oregon State College Corvallis, Oregon. *Entomology.* Victoria, Texas, Feb. 12, 94 B.S, Mont. State Col, 17; M.S, Minnesota, 25, Ph.D, 28. Asst state entomologist, Exp. Sta, Mont. State Col, 17–23; extension entomologist, Pa. State Col, 23–24; instr, Minnesota, 24–28 asst. prof, 28–31; prof. entom. and head dept, Mont. State Col 31–37, *pres*, 37–42; *Oregon State Col, 42–* A.A; Entom. Soc Asn. Econ. Entom. Insecticides; stored-product insects ecology.

Strand, Dr. K(aj) Aa(ge Gunnar), Swarthmore College Swarthmore, Pa. *Astronomy.* Hellerup, Denmark, Feb. 27 07. Mag.Scient, Copenhagen, 31, Ph.D, 38. Geodesist, Geod Inst, Copenhagen, 31–33; personal asst. to director, observatory, Leiden, 33–38; *research assoc. astron, Swarthmore Col*

38– Am.-Scandinavian Foundation fellow, 38–39; recipient, Rask-Oersted Foundation, 39–40. Astron. Soc; Netherlands Astron. Soc; Int. Astron. Union. Motion of minor planets; longitude-latitude determination; photographic and visual observations of double stars; orbital motion in multiple systems.

Strandine, Dr. Eldon J(ohn), 2168 Leland Ave, Chicago, Ill. *Zoology, Ecology.* Cohoes, N. Y, May 30, 09. B.S, Northwestern, 31, A.M, 32, Ph.D, 39. *Instr.* zool, North Park Col, 32; *chem, Swedish Covenant Hosp, 33–* Ecol. Soc. Activity of snails in relation to light, humidity and temperature; distribution of land snails in relation to soil.

Strandskov, Dr. H(erluf) H(aldan), University of Chicago, Chicago, Ill. *Zoology.* Lindsey, Nebr, Nov. 4, 98. A.B, Iowa State Teachers Col, 23; M.S, Illinois, 25; Ph.D, Chicago, 31. Asst. prof. biol, Louisville, 25–28; instr. and later *asst. prof. zool, Chicago, 32–* A.A; Genetic Asn. Human genetics; the inheritance of human blood groups; birth ratios; inheritance of factors of intelligence.

Strate, Prof. J(oseph) T(ayler), Colorado State College of Agricultural and Mechanical Arts, Ft. Collins, Colo. *Mechanical engineering.* Neenah, Wis, Sept. 14, 98. N. Dak. State Col, 16–19; B.S, Wisconsin, 21; M.S, Iowa State Col, 28. Asst. engineer, Commonwealth Edison Co, 21–22; instr. *mech. eng,* Texas, 22–24; asst. prof, Arkansas, 24–32; *prof. and head dept,* S. Dak. State Col, 32–37; *Colo. State Col, 37–* Mech. Eng; Eng. Educ. Internal combustion engines.

Stratman, Sister Mary Agatha, Immaculate Heart College, 2021 N. Western Ave, Los Angeles, Calif. *Botany.* Mo, Nov. 30, 94. A.B, Immaculate Heart Col, 28; Ph.D, Catholic Univ, 35. *Chairman dept. biol, Immaculate Heart Col, 35–* A.A; Catholic Round Table Science. Key to the Pteridophyta, the Gymnospermae and the Monocotyledoneae of the State of California; taxonomy.

Stratman-Thomas, Dr. W(arren) K(idwell), State Department of Public Health, Nashville, Tenn. *Medicine.* Dodgeville, Wis, June 19, 99. A.B, Wisconsin, 23, A.M, 25, Ph.D, 26, M.D, 28; D.T.M. and H, London, 30. Asst. bacter, Wisconsin, 23–24, research pharmacologist, 24–28; Guggenheim Mem. Foundation fellow, Lab. d'Etat, Leopoldville-Est, Congo Belge and Inst. Pasteur, Brazzaville, Afrique Equatoriale Française, 28–30; mem. staff, int. health div, Rockefeller Foundation, 30–38, director bur. malaria control, Nicosia, Cyprus; *malariologist, State Dept. Pub. Health, Term, 38–* Royal Soc. Trop. Med. and Hygiene. Tropical medicine; chemotherapy of experimental and human trypanosomiases; malariology; malaria therapy.

Stratton, Prof. Charles Edward, 685 Commonwealth Ave, Boston, Mass. *General science.* Cambridge, Mass, Jan. 25, 81. A.B, Harvard, 03. Teacher, pub. schs, Mass, 04–20; *prof. and head dept. science and math, Boston, 22–* East. Physics Teachers Asn. A general educational program in science.

Stratton, Dean Dorothy C(onstance), 1007 Ravinia Road, West Lafayette, Ind. *Psychology, Education.* Brookfield, Mo, March 24, 99. B.A, Ottawa, 20, LL.D, 38; A.M, Chicago, 24; Ph.D, Columbia, 33. Dean girls and v. prin, sr. high sch, San Bernardino, Calif, 24–31, 32–33; assoc. prof. *psychol, Purdue, 33–39, prof, 39–, dean women, 33–* A.A; assoc. Psychol. Asn. Education of women.

Stratton, Dr. E(verett) F(ranklin), 121 S. 17th St, Mattoon, Ill. *Geology, Geophysics.* Cambridge City, Ind, July 1, 07. A.B, DePauw, 28; A.M, Harvard, 31, Sc.D, 32. Teaching fellow and instr. geol, Harvard, 28–32; asst. physics and chem. of gen. motors, Delco-Remy Corp, 33–36; *div. engineer and geologist, Schlumberger Well Surv. Corp, 36–* Summers, geologist and geophysicist, Mason, Slichter and Gauld, 29; instr, Colorado, 30; geologist, M. A. Hanna Iron Mining Co, 31. Min. and Metal. Eng; Asn. Petrol. Geol; Soc. Explor. Geophys. Magnetic exploration for iron ores; application of geological and geophysical data on the exploration for and production of oil.

Stratton, Prof. G(eorge) M(alcolm), University of California, Berkeley, Calif. *[1]Psychology.* Oakland, Calif, Sept. 26, 65. A.B, California, 88, fellow, 91–92; A.M, Yale, 90; Ph.D, Leipzig, 96. Instr. philos, California, 92–94, psychol, 96–97, asst. prof, 97–99, assoc. prof. and director psychol. lab, 99–04; prof. exp. psychol. and director psychol. lab, Hopkins, 04–08; prof. *psychol, California,* 08–35, *emer. prof, 35–* Lecturer, Philos. Union, California, 99–00; Taylor lecturer, Yale, 20; Philippines, 21; Illinois, 26; Tokyo, 32; Prague, 36; Duke, 36. Summers, lecturer, Columbia, 08; Chicago, 24; California at Los Angeles, 39. Chairman div. anthrop. and pyschol, Nat. Research Council, 25–26; Psychol. Corp. Leader round-table conf, Riverside, 30; Reed Col, 30; Williamstown Inst. Politics, 31; Mills Col, 41. Officer in charge psychol. sect, med. research lab, A.S, 18. Nat. Acad; Psychol. Asn. (pres, 08); hon. mem. Nat. Inst. Psychol; West. Psychol. Asn. Perception of change; visual space; eye movements and esthetics; emotion; psychology of religion; psychology of international conduct.

Stratton, Prof. George W(eatherworth), University of Kansas, Lawrence, Kans. *Organic chemistry.* Saguache, Colo, Sept. 18, 86. A.B, Colorado, 07; fellow, Ohio State, 07–09, A.M, 09, Ph.D, 12. Instr. *chem,* Ohio State, 09–12; asst. prof, *Kansas,* 12–13, 14–18, assoc. prof, 18–23, *prof, 23–* Fellow, Mellon Inst, 13–14. Capt, C.W.S, 18–19. A.A; Chem. Soc. Constitution of hydroxyazo compounds; chlorination and oxidation of hydrocarbons; carbon black manufacture; synthetic rubber.

Stratton, Prof. J(ullus) A(dams), Massachusetts Institute of Technology, Cambridge, Mass. *[2]Physics.* Seattle, Wash, May 18, 01. B.S, Mass. Inst. Tech, 23, M.S, 25; Sc.D, Zurich, 27. Asst. prof. elec. eng, *Mass. Inst. Tech,* 28–30, *physics,* 30–35, assoc. prof, 35–41, *prof, 41–* Physical Soc; Elec. Eng. Theoretical physics; electromagnetic theory and mechanics.

Stratton, Dean Leon D(upree), 205 Penn St, Ridley Park, Pa. *Chemistry.* Camden, N. J, Jan. 13, 88. B.S, Pennsylvania, 09, M.S, 17, Ph.D, 24. Instr. *chem, Drexel Inst,* 09–17, asst. prof, 17–20, *prof, 20–, dean men, 30–* Chem. Soc; Eng. Educ; Chem. Eng. Index of metabolism; urinary creatine and creatinine applied to epileptics.

Stratton, Prof. Robert, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Botany, Plant pathology.* Georgetown, Ohio, Nov. 18, 83. A.B, Miami (Ohio), 15; A.M, Ohio State, 17; hon. scholar, Wisconsin, 29–30. Asst. bot, Cornell, 15–16; instr, Miami (Ohio), 16–17; prof. biol, Westminster Col. (Mo), 17–18; asst. prof. bot, Ala. Polytech, 18–20; *Okla. Agr. and Mech. Col,* 20–29, *assoc. prof. bot. and plant path, 29–, curator herbarium.* Summer, research work, Mo. Bot. Garden, 40. A.A; Bot. Soc; Nature Asn; Soc. Plant Taxon; Torrey Bot. Club; fel. Okla. Acad. Taxonomy; the Fimetariales of Ohio; Leguminosae; the flowering behavior of the hollyhock; edible wild greens and salads of Oklahoma; laboratory instructions for the study of general botany.

Stratton, Prof. W(illiam) T(imothy), 511 N. Sunset Ave, Manhattan, Kans. *Mathematics.* Redkey, Ind, Dec. 10, 80. A.B, Indiana, 06, A.M, 14; Ph.D, Washington, 31. Teacher, high schs, Ind. and Ill, 00–10; from instr. to asst. prof. *math, Kans. State Col,* 10–23, *prof, 23–, head dept, 37–* Summer, teacher, Kans. State Teachers Col, 27. Math. Soc; Math. Asn; Kans. Asn. Math. Teachers (pres, 26–28). Agricultural arithmetic; plane trigonometry; general equation in polar coordinates.

Straub, Prof. Frederick G(uy), University of Illinois, Urbana, Ill. *Chemical engineering, Metallurgy.* Chicago, Ill, Aug. 31, 96. B.S, Illinois, 20; M.S, Pa. State Col, 23, Met.E, 28. Research, Mellon Inst, 20; Semet-Solvay Co, Syracuse, 20–21; instr. metal, Pa. State Col, 21–23; metal. research, Guggenheim Brothers, N. Y, 23–24; special research assoc. and special research asst. prof. *chem. eng, Illinois,* 24–36, special research assoc. prof, 36–41, *special research prof, 41–* Chem. Eng; Chem. Soc. Embrittlement of boiler plate and steam boiler water treatment.

Straub, Prof. L(orenz) G(eorge), University of Minnesota, Minneapolis, Minn. *Structural engineering, Hydraulics.* Kansas City, Mo, June 7, 01. B.S, Illinois, 23, M.S, 24, fellow, 26–27, Ph.D, 27, C.E, 30. Freeman traveling fellow, Soc. Civil Eng, Europe, 27–29; chief special studies sect, U. S. Eng. Dept, Missouri River, 29–30; *prof. hydraul. and head dept, Minnesota, 30–,* admin. asst, inst. technol, 36–38. Engineer, Nat. Water Resources Board, 34, 36–37; mem. consulting board, Loup River Pub. Power Dist, 35; consulting engineer and supervisor construction, Works Progress Admin, St. Anthony Falls Hydraulic Lab, 36, director lab, 38–; consulting engineer, U. S. Eng. Dept, 38, 41–42. Mem. cmt. hydrology, Nat. Research Council. A.A; Civil Eng. (cmt. hydraul. research, 34–); hon. mem. Asn. Power Eng; Eng. Educ; Soc. Mil. Eng; Geophys. Union (chairman, cmt. dynamics of streams, 31–; cmt. floodwaves, 37–); Mech. Eng; Concrete Inst; Verein Ing. Theoretical and applied hydraulics; elastic theory of struc-

tures; plastic flow in concrete arches; waterway engineering; hydraulic and sedimentary characteristics of rivers.

Straughn, Prof. J(ohn) Lloyd, 97 W. Green St, Westminster, Md. *Organic chemistry.* Lancaster, Pa, April 20, 10. B.S, Pa. State Teachers Col, 29; A.M, Hopkins, 37, Ph.D, 42. Asst. prof. chem, Northeast Mo. State Teachers Col, 31–32; instr, high sch, Pa, 34–35; chem. and math, Md. State Teachers Col, Salisbury, 35–42; *asst. prof. chem, Western Maryland Col, 42–* Chem. Soc. Synthesis of pyrrole derivatives; preparation of certain substituted pyrroles and methanes; selective treatment of carboxyl and carbethoxy groups of certain substituted pyrroles.

Straus, Dr. William L(ouis), Jr, Johns Hopkins University School of Medicine, Baltimore, Md. *Anatomy.* Baltimore, Md, Oct. 29, 00. A.B, Hopkins, 20, Ph.D, 26. Nat. research fellow *anat,* Western Reserve, 26–27; instr, *Hopkins,* 27–30, assoc, 30–43, *assoc. prof, 43–* Guggenheim Mem. Foundation fellow, London, 37–38. A.A; Asn. Anat; Asn. Physical Anthrop; Soc. Mammal. Muscular and nervous systems; anatomy and evolution of primates.

Strausbaugh, Prof. P(erry) D(aniel), West Virginia University, Morgantown, W. Va. *Botany.* Republic, Ohio, March 21, 86. B.S, Col. of Wooster, 13; fellow, Chicago, 18–19, Ph.D, 20. Teacher, schs, Ohio, 02–05; prin, high sch, 09–10; instr. biol, Col. of Wooster, 13–15, asst. prof. and prof. bot, 15–23; *prof. and head dept, West Virginia,* 23–37, *bot. and zool, 37–; major, Air Corps, U. S. Army, 42–* A.A; Bot. Soc; Ecol. Soc; Soc. Plant Physiol. Plant physiology and ecology.

Strauser, Dr. E(mory) R(oss), 7624 Constance Ave, Chicago, Ill. *Pathology, Bacteriology.* Plainfield, Iowa, May 25, 96. B.S, Iowa, 24; Ph.D, Chicago, 29, M.D, 32. *Instr.* anat, Chicago, 26–30, immunol, 30–31; internal med, Illinois, 32–33; *path, Northwestern, 33–, pathologist, Wesley Mem. Hosp.* Immunology.

Strauss, Dr. Frank A(braham), 202 E. 44th St, New York, N. Y. *Chemistry.* Wilkes-Barre, Pa, Oct. 16, 93. A.B, Cornell, 13; A.M, Columbia, 15, Ph.D, 20. Lecturer electrochem, Columbia, 19–20; chief chemist, Standard Varnish Works, Staten Island, 20–35; *v. pres, Barsky and Strauss, Inc, 36–* Instr, U.S.A. Sch, 18. A.A; Chem. Soc; Asn. Consulting Chem. and Chem. Eng. (director, 39–42); Chemists' Club; Staten Island Inst. Arts and Sciences (v. pres, 36–, trustee); Staten Island Hist. Soc. (sec'y, 33–42). Organic chemistry; chemistry of vegetable oils, paints, varnishes and plastics.

Strauss, Jerome, Vanadium Corp. of America, 420 Lexington Ave, New York, N. Y. *Metallurgy.* New York, N. Y, Feb. 12, 93. M.E, Stevens Inst. Tech, 13. Metal. dept, Ill. Steel Co, 13–14; chemist and metallurgist, West. Drop Forge Co, 14–17; chemist and metallurgist and later material engineer, U. S. Naval Gun Factory, 19–28; chief research engineer, *Vanadium Corp. of Amer,* 28–35, *v. pres. in charge research and develop, 35–* Lieut, Ordnance Dept, 17–19. Soc. Test. Mat. (chairman, cmt. A10; mem. exec. cmt); Foundrymen's Asn. (chairman, nonferrous div, 34–36); Min. and Metal. Eng; Soc. Metals (chairman, Wash. chap, 25, 27, v. chairman, Pittsburgh chap, 35, chairman, 36); Standards Asn. (director); British Inst. Metals; British Iron and Steel Inst. Low-alloy steels; corrosion-resisting steels; tool steels; aluminum bronze; nitriding steels; ferro-alloys.

Strauss, Dr. Maurice B(enjamin), 270 Commonwealth Ave, Boston, Mass. *Medicine.* Brooklyn, N. Y, March 5, 04. A.B, Amherst Col, 24; M.D, Hopkins, 28. Asst. *med, Harvard Med. Sch,* 30–36, instr, 36–39, *assoc, 39–* House officer, Boston City Hosp, 28–30, asst, 30–38, junior visiting physician, 38–, asst. res. physician, Thorndike Mem. Lab, 30–36, research fellow, 36–39, asst. physician, 39–; consulting hematologist, Faulkner Hosp, 39– Am. Med. Asn; Soc. Clin. Invest; Asn. Research Nervous and Mental Disease. Etiology and treatment of pernicious anemia; anemia in pregnancy; toxemia of pregnancy; etiology of alcoholic and gestational polyneuritis; genetics of hereditary ovalocytosis and of familial microcytic anemia.

Strayer, Prof. George D(rayton), Teachers College, Columbia University, New York, N. Y. *Education.* Wayne, Pa, Nov. 29, 76. A.B, Hopkins, 03; Ph.D, Columbia, 05, Litt.D, 29; LL.D, Col. of William and Mary, 25, Bucknell, 30. Instr. educ, *Teachers Col, Columbia,* 05–07, adj. prof, 07–10, prof. educ. admin, 10–23, *educ,* 23–43, *emer. prof, 43–* Director div. field studies, inst. educ. research, Columbia, 21–43; director, Nat. Educ. Finance Inquiry, 21–24; mem, Nat. Advisory Cmt. Educ, 30– Butler medal, 23. A.A; Soc. Study Educ. (pres, 18). Educational administration; the financing of public education; surveys of school systems.

Strean, Dr. Lyon P(eter), 4928 Grosvenor Ave, Montreal, Que, Can. *Bacteriology.* Montreal, Que, March 19, 02. D.D.S, McGill, 23, M.Sc, 40, Ph.D, 42. *Director dept. bacter, Ayerst, McKenna and Harrison, Ltd, 37–* Soc. Bact; Pub. Health Asn; fel. Acad. Diseases and Surg. of Mouth (regent for Can); Can. Pub. Health Asn; Can. Dental Asn; Montreal Physiol. Soc; assoc. fel. Montreal Medico-Chirurg. Soc; assoc. Mt. Royal Dental Soc, Montreal; Col. Dental Surg. Que. Immunity; whooping cough; skin test for susceptibility to pertussis; toxid-vaccine for active immunization; combined anti-bacterial and antitoxic serum for passive immunization.

Strecker, Dr. Edward A, 111 N. 49th St, Philadelphia, Pa. *Psychiatry, Psychology.* Philadelphia, Pa, Oct. 16, 86. A.B, La Salle Col, 07, A.M, 11; M.D, Jefferson Med. Col, 11; Sc.D, St. Joseph's Col, 33. *Prof. psychiat. and chairman dept, Pennsylvania; special consultant to U. S. Sec'y War for Air Forces, 43–* Chief clinic and consultant, inst, Pa. Hosp, Phila; neurologist, Pa, Phila. and Germantown Hosps; consultant, Bryn Mawr Col; U. S. Veterans' Bur; U. S. Pub. Health Service. Cmt. psychiatry, Nat. Research Council. A.A; Psychiat. Asn; Neur. Asn; Am. Med. Asn; Col. Physicians; Interurban Clin. Club; Col. Physicians Phila; Royal Medico-Psychol. Asn. Gt. Britain. Clinical psychiatry; emotional problems of adults; behavior problems in children.

Street, Dr. J(abez) C(urry), Harvard University, Cambridge, Mass. *[6]*Physics.* Opelika, Ala, May 5, 06. B.S, Ala. Polytech, 27; M.S, Virginia, 30, Ph.D, 31. Fellow, Bartol Research Foundation, 31–32; *cosmic ray research, Harvard, 32–* Physical Soc. Electrical discharges in gases.

Street, Dr. J(ohn) N(orthcott), 540 Avalon Ave, Akron, Ohio. *Chemistry.* Belleville, Ont, Can, Sept. 19, 98. B.S, Syracuse, 21, M.S, 23; Iowa, 23–24; Ph.D, Wisconsin, 26. Research chemist and asst. director chem. research, *Firestone Tire and Rubber Co, Akron,* 26–36, *director chem. and physical research, 36–* A.A; Inst. Chem; Chem. Soc; Chem. Eng. Organic and physical chemistry; rubber chemistry and technology.

Street, Dr. Orman E(lery), Tobacco Experimental Laboratory, R. D. 3, Lancaster, Pa. *Agronomy.* Revillo, S. Dak, Jan. 5, 03. B.S, S. Dak. State Col, 24; D. M. Ferry fellow, Mich. State Col, 26–28, M.S, 27, Ph.D, 33. Investigator agron, Mass. Col, 24–26; instr. plant physiol, Mich. State Col, 28–29; plant physiologist, tobacco substa, Conn. Exp. Sta, 29–39; *agronomist, div. tobacco investigations, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 39–* Seed viability; water cultures; curing, fermentation, rate of growth and intake of bases of Connecticut tobacco; fertilization, manuring, mulching, irrigation, breeding, seedbed culture of Pennsylvania tobacco; lysimeter studies.

Street, Dr. Robert E(lliott), Dartmouth College, Hanover, N. H. *Applied mathematics.* Belmont, N. Y, Dec. 11, 12. B.S, Rensselaer Polytech, 33; A.M, Harvard, 34, Ph.D, 39. Instr. math, Rensselaer Polytech, 37–41; asst. physicist, Nat. Advisory Cmt. Aeronautics, Langley Field, Va, 41–43; *asst. prof. physics, Dartmouth Col, 43–* Math. Soc; Physical Soc; Inst. Aeronaut. Sciences. Mathematical problems in fluid mechanics.

Streeter, Dr. George L(inius), 3707 St. Paul St, Baltimore 18, Md. *[2]*Anatomy, Embryology.* Johnstown, N. Y, Jan. 12, 73. A.B, Union (N. Y), 95, hon. Sc.D, 30; M.D, A.M, Columbia, 99; Berlin and Leipzig, 02–03; hon. Sc.D, Dublin, 28; LL.D, Michigan, 35. Intern, Roosevelt Hosp, New York, 99–00; demonstrator anat. of nervous system, Albany Med. Col, Union (N. Y), 01–02; asst. anat, Hopkins, 04, instr, 05–06; assoc. prof, Wistar Inst, 06; prof. anat. and director lab, Michigan, 07–14; research assoc, *Carnegie Institution,* 14–18, director dept. embryol, 18–40, chairman div. animal biol, 35–40, *research assoc, 40–* Assoc. ed, 'Am. Jour. Anat.' Nat. Acad; A.A; Soc. Nat; Asn. Anat. (pres, 26); Soc. Zool; hon. fel. Gynecol. Soc; Philos. Soc; hon. mem. Anat. Soc. Gt. Britain and Ireland; for. mem. Zool. Soc. London; fel. Royal Soc. Edinburgh; Inst. int. d'Embryol. Utrecht. Human embryology; development of the central nervous system; the internal ear; experimental embryology.

Streeter, H(arold) W(arner), 4810 Beverly Hills Drive, Cincinnati, Ohio. *Sanitary engineering.* Saratoga, N. Y, June 22, 84. Mass. Inst. Tech, 02–05, 07. Chemist and bacteriolo-

gist, Dept. Water Supply, New York, 07–11; supt. filtration, Clarksburg, W. Va, 12; supervising chemist, Sewage Disposal Works, Baltimore, 13; sanit. engineer, senior sanit. engineer and *sanit. engineer and director in charge stream pollution investigations, U. S. Pub. Health Service, 14–* U. S. rep, health sect, League of Nations, Gt. Britain, 26; mem, Conf. State Sanit. Engineers. A.A; Civil Eng. (pres, Cincinnati sect, 29, mem. exec. cmt, sanit. eng. div, 35, sec'y, 36, chairman, 38); Pub. Health Asn; Sewage Works Asn. (mem, board control, chairman, membership cmt). Stream pollution; natural purification of streams; efficiency and limitations of water purification; water purification processes; natural oxidation and reaeration phenomena in polluted waters.

Streeter, Prof. Victor L(yle), 3300 Federal St, Chicago, Ill. *Hydraulics.* Marcellus, Mich, Nov. 21, 09. B.S, Michigan, 31, M.S, 32, Sc.D, 34; Göttingen, 35–36; Soc. Mech. Eng. Freeman traveling scholar, Technische Hochschule, Karlsruhe, 36. Junior engineer, bur. reclamation, U. S. Dept. Interior, Denver, Colo, 34–35, asst. engineer, 37–38, assoc. engineer, 38–39; assoc. hydraul. engineer, Int. Boundary Cmn, U. S. and Mex, 39–41; *assoc. prof. hydraulics, Ill. Inst. Tech, 41–* Civil Eng; Mech. Eng; Eng. Educ; Geophys. Union.

Streets, Prof. R(ubert) B(urley), University of Arizona, Tucson, Ariz. *Plant pathology.* Helena, Mont, May 22, 95. B.S, Mont. State Col, 18; M.S, Wisconsin, 22, Ph.D, 24. Asst. plant pathologist, office cereal investigations, U. S. Dept. Agr, 18–20; asst. *plant path,* Wisconsin, 20–22, instr, 22–24; asst. prof, *Arizona, 24–27, assoc. prof, 27–* A.A; Phytopath. Soc. (pres, Pacific div, 41); Wis. Acad. Flax wilt; brown rot of stone fruits; Texas root rot; diseases of date palm, citrus and subtropical plants.

Streett, Prof. J(ames) Clark, Jr, Texas Christian University, Ft. Worth, Texas. *Experimental embryology.* St. Louis, Mo, Aug. 13, 13. A.B, Princeton, 36, A.M, 38, Ph.D, 39. Instr. *biol, Texas Christian, 39–41, asst. prof, 41–; lieut, Air Corps, U. S. Army.* A.A. Origin of the organization center in the embryos of amphibia.

Streib, Dr. J(ohn) F(redrick), 4107 18th St, N.W, Washington, D. C. *Physics.* Avalon, Pa, March 21, 15. B.S, Calif. Inst. Tech, 36, Ph.D, 41. Asst. physicist, Carnegie Institution, 41; *Bur. Standards,* 41–42, assoc. physicist, 42–43, *physicist, 43–* Nuclear physics; transmutation of fluorine by protons.

Strem, Carl E(ric) S(amuel), 601 S. Acacia St, Compton, Calif. *Physics, Chemistry.* DeKalb, Ill, Sept. 5, 91. A.B, Whittier Col, 17; M.S, Southern California, 26. Instr, Illinois, 19–20; Kansas, 21; prof. physics, Whittier Col, 21–30; *chairman dept, physical sciences, Compton Dist. Junior Col, 30–* Research, C.W.S, 18. Chem. Soc. Application of the photoelectric cell in transmission of pictures by radio.

Strickhouser, Dr. S(herman) I(srael), U. S. Rubber Co, Providence, R. I. *Chemistry.* York, Pa, Oct. 25, 01. B.S, Pa. State Col, 22; M.S, Illinois, 23, Ph.D, 26. Chemist, State Water Surv. Div, Ill, 23–26; *develop. dept, U. S. Rubber Co,* 26–41, *manager, 41–* Rubber latex; chemistry of sewage disposal.

Strickland, Dr. A(rthur) G(eorge) R(ené), California Institute of Technology, Pasadena, Calif. *Biology.* London, Eng, Sept. 27, 85. B.A, Lausanne, 04; Dipl.Ing, Zurich, 08; Ph.D, Stanford, 39. Asst. biol, Stanford, 35–39, research assoc, 39; visiting lecturer protozool, *Calif. Inst. Tech,* 39, *research fellow, 39–* Physiology of the Protozoa.

Strickland, Dr. B(arney) R(alph), 133 E. Third Ave, Roselle, N. J. *Organic chemistry.* Nahunta, Ga, Dec. 29, 12. B.S, Berry Col, 35; M.S, Purdue, 37, fellow, 37–38, Ph.D, 39. Teaching asst. chem, Purdue, 35–37; *research chemist, Standard Oil Develop. Co, 38–* Chem. Soc. Preparation of detergents from kerosene.

Strickland, Prof. E(dgar) H(arold), University of Alberta, Edmonton, Alta, Can. *Entomology.* Erith, Kent, Eng, May 29, 89. M.S, Harvard, 12. In charge Dom. Entom. Lab, Lethbridge, Alta, 13–21; *prof. entom, Alberta, 22–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Ont. Parasites of insects; cutworms; wireworms.

Strickler, Dr. A(lvin), Evansville College, Evansville, Ind. *Chemistry.* Caledonia, Mich, Sept. 1, 89. A.B, Mich. State Nor. Col, 13; B.S, Michigan, 14, M.S, 15; Ph.D, Wisconsin, 21. Instr. chem, Mich. State Nor. Col, 13–14, asst. prof, 16–18; asst. to chief chemist, Nat. Biscuit Co, 18–19; instr. org. chem, Wisconsin, 19–21; *director chem, Evansville Col, 21–, prof.* A.A; Chem. Soc; fel. Inst. Chem; Ind. Acad; Ind. Chem. Soc. Electroendosmose; effect of ultra-violet light on food and animals; forensic chemistry.

Strickler, Dr. Herbert S(harpless), 201 W. Hutchinson Ave, Pittsburgh, Pa. *Chemistry.* Columbia, Pa, Aug. 18, 08. B.S, Carnegie Inst. Tech, 30, fellow, 31–35, M.S, 32, Sc.D, 36. Instr. *physiol. chem, sch. med, Pittsburgh, 36–41, asst. prof, 41–* A.A; Chem. Soc; Pa. Chem. Soc. Peat bacteriology; coal ash fusibility; thermodynamics of metallic systems; determination of blood iodine; hormone derivatives in urine.

Strickler, Prof. P(aul) M(eredith), Sterling College, Sterling, Kans. Indianapolis, Ind. *Physics.* Haddam, Kans, May 22, 06. A.B, Col. Emporia, 28; A.M, Kansas, 29, Ph.D, 37. Asst. prof. *math. and physics,* Tarkio Col, 29–32; Park Col, 35–37; *prof,* Ind. Cent. Col, 37–42; *Sterling Col, 42–* Conductivity and capacity of adsorbed water films on Pyrex glass.

Strieby, M(aurice) E(dward), 175 Sagamore Road, Maplewood, N. J. *Engineering.* Colorado Springs, Colo, May 2, 93. A.B, Colo. Col, 14; B.S, Mass. Inst. Tech, 16, Harvard, 16. Engineer, N. Y. Telephone Co, 16–17; dept. research, Am. Tel. and Tel. Co, 19–29; Bell Tel. Labs, *New York,* 29–34, carrier transmission research eng, 34–40; *engineer of transmission, long lines dept, Am. Tel. and Tel. Co, 41–* Consultant to U. S. Sec'y War, 41– Capt, Sig.C, 17–19. Inst. Elec. Eng. prize, 35. Elec. Eng; Radio Eng. Telephone engineering; transmission.

Strieter, Dr. O(ttomar) G(eorge), National Bureau of Standards, Washington, D. C. *Chemical engineering.* Frankenmuth, Mich, Sept, 92. A.B, Nebraska, 15; A.M, Columbia, 22, Ph.D, 25. *Research chemist, asphalt roofing industry bur, Bur. Standards, 26–* Chem. Soc; Soc. Test. Mat; Chem. Eng. Asphalts.

Stringfield, G(len) H(erbert), Agricultural Experiment Station, Wooster, Ohio. *Agronomy.* Stella, Nebr, Sept. 2, 93. B.S, Nebraska, 24; M.S, Ohio State, 27; Wisconsin, 27–28. Asst. agronomist, *Ohio Exp. Sta,* 24–29, *assoc. agronomist, 29–;* agent, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 29–36, agronomist, 36–42, *senior agronomist, 42–* A.A; Soc. Agron; Genetics Soc. Corn breeding and production.

Stringfield, V(ictor) T(imothy), U. S. Geological Survey, Washington, D. C. *Geology.* Franklinton, La, Sept. 10, 02. B.S, Louisiana, 25; M.S, Washington (St. Louis), 27. Asst. geol. and geog, Washington (St. Louis), 25–27; instr. geol, Okla. Agr. and Mech. Col, 27–28; asst. prof, N. Mex. Sch. Mines, 28–30; asst. geologist, *U. S. Geol. Surv,* 30–36, assoc. geologist, 36–39, geologist *in charge ground investigations in southeast. states,* 39–43, *senior geologist, 43–* Geologist, N. Mex. Bur. Mines, 28–30. Asn. Petrol. Geol; Geophys. Union; Soc. Econ. Geol; Geol. and Min. Soc. Am. Univs; Geol. Soc; Geol. Soc. Wash. Economic geology, especially that relating to ground-water.

Stringham, Prof. Bronson F(errin), University of Utah, Salt Lake City, Utah. *Geology, Mineralogy.* Salt Lake City, Utah, July 28, 07. B.S, Utah, 33; Ph.D, Columbia, 41. Asst. geol, Columbia, 33–36; instr. *geol. and miner, Utah,* 37–41, *asst. prof, 41–* Miner. Soc; Min. and Metal. Eng; Utah Acad. Petrology; strategic minerals.

Stritar, Dr. Joseph, 7243 East End Ave, Chicago, Ill. *Bacteriology.* Chicago, Ill, Nov. 2, 02. B.S, Iowa State Col, 29, M.S, 31; Ph.D, Chicago, 36, M.D, 37. Instr. bacter, Washington (St. Louis), 38–40; *research bacteriologist, research labs, Am. Meat Inst, Chicago, 40–* Soc. Bact. Staphylococcus food poisoning; vaccinia; rabies; bacteriology of meats.

Strobel, Dr. Charles F(rederick), North Carolina State College, Raleigh, N. C. *Mathematics.* Buffalo, N. Y, April 22, 11. A.B, Buffalo, 35, A.M, 37; Ph.D, Illinois, 41. Asst, Buffalo, 35–37; math, Illinois, 37–41; *instr. math, N. C. State Col, 41–* Math. Asn; Eng. Educ. Pencils of conics and conditions for relatedness; the quadrilinear form.

Strock, Dr. Lester W(illiam), Saratoga Springs Commission, Saratoga Springs, N. Y. *Geochemistry.* Chambersburg, Pa, Jan. 23, 06. B.S, Phila. Col. Pharmacy, 27; M.S, Pennsylvania, 29, Harrison fellow, 29–31, Ph.D, 31. Instr. physics and miner, Phila. Col. Pharmacy, 27–29; fellow, Rockefeller Inst, 31–32; guest research worker, miner. inst, Jagellonian Univ, Poland, 32–33; Göttingen, 33–35; Adam Hilger Lab, London,

35–36; spectroscopist, Lucius Pitkin, Inc, New York, 36–37; research assoc, Geological Museum and Norwegian Dept. Commerce, Oslo, Norway, 37–38; *geochemist and spectrochemist, Saratoga Springs Cmn, 39–* Asst, Acad. Nat. Sciences, Phila, 27–29; research stipend, Wagner Free Inst, 32–33; Phila. Col. Pharmacy and Science, 34–35; Am. Philos. Soc, 37–38, 40–41. Optical Soc; Soc. Test. Mat. (consulting mem, spectrographic cmt); Econ. Geol. Soc; Miner. Soc; Phila. Miner. Soc. (sec'y, 29–31); Acad. Nat. Sci. Phila. Spectrochemical analysis; geometrical crystallography; spectrographic ore prospecting; chemistry ore deposits; geology; crystal structure and chemistry; inorganic chemistry.

Strode, Dr. George K(ing), 49 W. 49th St, New York, N. Y. *Public health.* Pennsbury Township, Chester Co, Pa, Jan. 16, 86. B.S. Haverford Col, 08, hon. Sc.D, 42; M.D, Pennsylvania, 12; M.P.H, Harvard, 27. Director div. pub. service, State Dept. Health, Pa, 15–16, div. sch. hygiene, 19–20; field director, *int. health div, Rockefeller Foundation,* 16–19, 20–27, asst. director, 28–38, *assoc. director, 38–, v. director health cmn, 40–* Mem. mission to Russia, Am. Red Cross, 41, Iceland, 42, N. Africa, 43. Capt, M.C, 17–19. A.A; fel. Pub. Health Asn; Soc. Trop. Med. Public health and hygiene; preventive medicine.

Strodt, Dr. Walter (Charles), Columbia University, New York, N. Y. *Mathematics.* Brooklyn, N. Y, March 11, 15. A.B, Columbia, 36, A.M, 37, univ. fellow, 37–38, Ph.D, 39. Asst. *math,* Columbia, 36–37; Fine instr, Princeton, 38–40; *instr, Columbia, 40–* Differential equations; integral functions; difference equations.

Strohecker, Prof. H(enry) F(rederick), Kenyon College, Gambier, Ohio. *Biology.* Macon, Ga, Oct. 15, 05. A.B, Mercer, 26; Ph.D, Chicago, 36. Teacher, high sch, Ga, 26–33; asst, Chicago, 33–36; *asst. prof.* zool, Miami (Fla), 36–37; *biol, Kenyon Col, 37–* Assoc. Soc. Zool; Ga. Soc. Nat. Ecology; taxonomy and ecology of Orthoptera; light and heat in ecology.

Strom, Dr. Carl W(alther), U. S. Department of State, Washington, D. C. *Mathematics.* Albert Lea, Minn, Dec. 22, 99. A.B, Luther Col, 19; A.M, Iowa, 24; Rhodes scholar, Oxford, 24–27, B.A, 27; Ph.D, Illinois, 31. Instr, Luther Col, 19–23, 27–29; asst, Iowa, 23–24; asst, Illinois, 29–30; prof. math, Luther Col, 30–35; U. S. for. service officer, 35; Am. vice consul, Vancouver, B. C, Can, 35–36; For. Service Sch, 36–37; Am. vice consul, Zurich, Switzerland, 37–41; mem, *U. S. Dept. State,* 41–43, *sec'y of embassy, Mex, 43–* 2nd lieut, U.S.A, 18. Iowa Acad. (chairman, math. sect, 31). Invariant theory; group theory.

Stroman, Dr. G(ovan) N(apoleon), State College, N. Mex. *Plant breeding.* Gonzales, Texas, May 14, 95. B.S, Agr. and Mech. Col. Texas, 17; M.S, Wisconsin, 20, Ph.D, 23. Asst. genetics, Wisconsin, 21–22; agronomist and farm supt, Exp. Sta, Agr. and Mech. Col. Texas, 22–23, cotton breeder, 23–25; commercial plant breeder, 25–28; *assoc. prof. agron, N. Mex. Col, and assoc. agronomist and cotton breeder, Exp. Sta, 28– Capt, U. S. Army.* 2nd lieut, U.S.A, 17–19. A.A; Genetic Asn; Soc. Agron. Genetics.

Stromberg, Prof. Eleroy L(eonard), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Psychology.* Keene, Nebr, June 16, 11. A.B, Nebr. Wesleyan, 32; A.M, Oregon, 34; Ph.D, Minnesota, 37. Asst. *psychol,* Oregon, 32–34; Minnesota, 34–37; *asst. prof, Okla. Agr. and Mech. Col, 37–; lieut, U. S. Naval Res.* Lecturer, schs, Minneapolis, Minn, 36–37. Summer, instr, Minnesota, 37. Assoc. Psychol. Asn; Col. Personnel Asn; Midwest. Psychol. Asn; Okla. Acad. Relationship of visual characteristics to reading skill; factors in adjustment of students to college life and scholastic achievement.

Strömberg, Dr. Gustaf (Benjamin), Mt. Wilson Observatory, Carnegie Institution, Pasadena, Calif. ***Astronomy.* Gothenburg, Sweden, Dec. 16, 82. Cand. phil, Stockholm, 15; Ph.D, Lund, 16. Instr. astron, Stockholm, and asst, Observatory, 06–14; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 17–* A.A; Astron. Soc. Pacific; Royal Astron. Soc; Royal Soc. Sci. Uppsala; Astron. Gesell; Soc. astron. de France; Svenska Astron. Sällskapet; Int. Astron. Union. Stellar motions, statistics and luminosities; psycho-physical interaction; organization fields in animals.

Stromberg, Dr. Hans B(ernhard Severin), Procter and Gamble Co, Ivorydale, Ohio. *Chemical engineering.* Proctor, Minn, Nov. 20, 06. Ch.B, M.S, Minnesota, 29, Ph.D, 32, fellow, Mayo Foundation, 29–32. Asst. sanit. engineer, State Board Health, Minn, 32–33; *process supervisor, Procter and Gamble Co, 33–* Chem. Soc. Water sanitation; detergents.

Strömgren, Dr. Bengt (Georg Daniel), Observatory, Copenhagen, Denmark. *Astronomy.* Gothenburg, Sweden, Jan. 21, 08. M.Sc, Copenhagen, 27, Ph.D, 29. Asst, observatory, Copenhagen, 26–36, lecturer, 32–36; asst. prof. theoret. astrophys, Chicago, 36–37, assoc. prof. astron, Yerkes Observatory, 37–38; *director, Observatory, Copenhagen, 38–* Meridian astronomy; determination of orbits; theory of stellar interior and atmospheres.

Stromsten, Dr. Frank A(lbert), State University of Iowa, Iowa City, Iowa. *Zoology.* Corydon, Iowa, April 5, 72. B.S, Iowa, 00, M.S, 02, fellow, 02–03; fellow, Princeton, 04–06, Sc.D, 05. Asst. instr. *animal biol, Iowa,* 03–04, instr, 06–10, asst. prof, 10–19, *assoc. prof, 19–* Asst. research, marine lab, Carnegie Institution, 07; asst, fresh-water mussel surv, Iowa River, 08; acting director, Lakeside Lab, Iowa, 23–26. A.A; Asn. Anat; Iowa Acad. The anatomy and development of the venous system of Chelonia; development of the posterior lymph hearts of turtles; musk glands of turtles; Entomostraca of Iowa; fresh-water mussels of the Iowa River; anatomy and development of the lymphatic system of reptiles; circulatory system of the logger-head turtle; temperature of dissolved gases and hydrogen ion studies of Iowa lakes; mammalian anatomy and kinesiology; development of gonads in the goldfish.

Strong, Prof. Cora, Woman's College, University of North Carolina, Greensboro, N. C. *Mathematics.* Laurens Co, S. C, Jan. 22, 77. Grad, Agnes Scott Inst, 97; A.B, Cornell, 03; A.M, Michigan, 31; summers, California, 22, Wisconsin, 35, Colorado, 40. Teacher *math,* Chicora Col, 98–00; Minn. State Nor. Sch, Duluth, 03–05; assoc, N. C. Col. for Women, 05–21, *prof,* 22–32, *Woman's Col, North Carolina, 32–* Math. Asn; N. C. Acad.

Strong, Prof. E(dgar) E(llis), Due West, S. C. *Bacteriology.* Atoka, Tenn. A.B, Erskine Col, 00, A.M, 02; A.M, Columbia, 30. Dept. educ, Bryson Col, 21–27; *prof. biol, Erskine Col, 27–* S. C. Acad. General biology; physiology.

Strong, Prof. Edward K(ellogg), Jr, Stanford University, Calif. ***Psychology.* Syracuse, N. Y, Aug. 18, 84. B.S, California, 06, M.S, 09; Ph.D, Columbia, 11. Asst. psychol, Barnard Col. Columbia, 09–10, fellow, 11–12, 12–14; *prof.* psychol. and psychol. of educ, George Peabody Col, 14–19; vocational educ, Carnegie Inst. Tech, 19–23; *psychol, Stanford, 23–* Cmt. on classification of personnel in U.S.A, 17–19. A.A. (sec'y, I, 12–18, chairman, 19); Psychol. Asn; Soc. Study Educ; S. Soc. Philos. and Psychol. (pres, 19); West. Psychol. Asn. (pres, 33); Sierra Club. Psychology of advertising and selling; personnel psychology; vocational interests and guidance.

Strong, Prof. E(verett) M(ilton), Cornell University, Ithaca, N. Y. *Electrical engineering.* Portland, Maine, Jan. 23, 00. B.S, Mass. Inst. Tech, 22. Engineer, nat. lamp works, Gen. Elec. Co, 22–24; instr. *elec. eng, Cornell,* 24–29, asst. prof, 29–41, assoc. prof, 41–43, *prof, 43–* Summers, mem. staff, Westinghouse, Sharon, Pa; Elmira Water, Light and Power Co, Ithaca, N. Y; mem. faculty, Cornell. Eng. Educ; Illum. Eng. Soc. (cmt. papers, 37–39; cmt. educ, 37–; local rep, 40–; mem. research coordinating cmt, 41–); Elec. Eng. (cmt. production and application of light, 36–, chairman, 41–43; mem. cmt. educ, 37–39; student branch cmt, dist. 1, 36–40, chairman, 38–40; mem. cmt. student branches, 38–, sec'y, 39–41). Principles and practise of electrical engineering; illumination.

Strong, Prof. Forrest C(ook), 1213 N. Walnut St, Lansing, Mich. *Botany.* Chicago, Ill, Aug. 16, 96. B.S, Mich. State Col, 24, M.S, 27. Instr. *bot, Mich. State Col,* 26–29, *asst. prof, 30–* Summer, field asst, div. forest path, U. S. Dept. Agr, 27. A.A; Phytopath. Soc; Mich. Acad. Plant pathology; mycology; black root of strawberries; chestnut blight in Michigan; leaf spot diseases of forest and shade trees.

Strong, Prof. F(rank) M(organ), University of Wisconsin, Madison, Wis. *Chemistry.* Brewerton, N. Y, Sept. 7, 08. A.B, Syracuse, 28, A.M, 29; Ph.D, Wisconsin, 32. Asst. biochem, Wisconsin, 32–33, instr. and research assoc, 33–35; Rockefeller fellow, Zurich and Utrecht, 35–36; instr. and research assoc. *biochem, Wisconsin,* 36–38, *asst. prof,* 38–41, *assoc. prof, 41–* Chem. Soc; Soc. Biol. Chem. Organic and biological chemistry; local anesthetics derived from beta-acetyl piperidine; synthetic compounds related to riboflavin;

microbiological determination of riboflavin and pantothenic acid; distribution of B-vitamins in foods.

Strong, Dr. Helen M(abel), U. S. War Department, Washington, D. C. *Geography.* Cleveland, Ohio. B.S, Chicago, 17, Ph.D, 21. Asst. prof. geog, Missouri, 21–23; special surv, trade in agr. products, U. S. Dept. Commerce, 23–24, geographer, bur. for. and domestic commerce, 24–33; U. S. Coast and Geod. Surv, 33–35; Nat. Resources Cmt, 35–36; soil conservationist, soil conservation service, U. S. Dept. Agr, 36–41; consultant mil. intel. service, Gen. Staff, U. S. War Dept, 41–43; *analyst, For. Econ. Admin, 43–* Research, Col. House's Cmn, 18–19. Summers, asst. prof, Northwestern, 22; Pa. State Col, 23, 24. U. S. Geog. Board; Fed. Board Surveys and Maps. Asn. Geog; fel. Geog. Soc; Soc. Woman Geog. (sec'y-treas); fel. Royal Geog. Soc. Commercial geography; resources and industry of Cleveland, Ohio; distribution of agricultural products; value and volume of agricultural exports; arable land; manufacturing regions; soil conservation.

Strong, Dr. John (Donovan), 382 E. California St, Pasadena, Calif. *[7]*Physics.* Riverdale, Kans, Jan. 15, 05. A.B, Kansas, 26; M.S, Michigan, 28, Ph.D, 30. Instr. physics, Michigan, 27–29, asst. investigator, dept. eng. research, 29–30; nat. research fellow physics, *Calif. Inst. Tech,* 30–32, research fellow, astrophys. observatory, 32–37, *asst. prof. physics, 37–* Longstreth medal, Franklin Inst. Optical Soc; Physical Soc. Mechanical properties of rubber and plastic sulfur; properties of nonaqueous solution; growth of large crystals from fused salt; infra-red spectroscopy; evaporation of metals in vacuum; surface films to diminish the reflection of glass; soldering; atmospheric ozone.

Strong, Prof. J(ohn) Gordon, Tarkio College, Tarkio, Mo. *Organic chemistry.* Loda, Ill, Aug. 1, 93. B.S, Muskingum Col, 15; A.M, Ohio State, 16; Ph.D, Colorado, 34. Chem. and physics, Gordon Col, Rawal Pindi, India, 16–20; *prof. chem, Tarkio Col, 20–* Chem. Soc; Mo. Acad. Sanitary chemistry; codeine.

Strong, Dr. Laurence E(dward), 128 Cabot St, Newton, Mass. *Physical chemistry.* Kalamazoo, Mich, Sept. 3, 14. A.B, Kalamazoo Col, 36; Ph.D, Brown, 40. Asst. *physical chem, Harvard Med. Sch,* 40–41, *research assoc, 41–* Chem. Soc. Physical chemistry of proteins.

Strong, Dr. Leon H(enri), University of Michigan Medical School, Ann Arbor, Mich. *Embryology.* Richmond, Va, Feb. 16, 89. A.B, Arizona, 11, B.S, 15; Washington (Seattle), 17, 22; Ph.D, California, 25. Teacher, high schs, Oregon, 16–18; instr. zool, Oregon State Col, 18–19; prof. biol, Pacific, 20–22; teaching fellow zool, California, 22–24, assoc, 25; asst. prof. *anat,* sch. med, Indiana, 25–27; assoc. prof, sch. med, Utah, 27–28; instr, *med. sch, Michigan, 28, asst. prof, 29–* Soc. Zool; Genetic Asn; Asn. Anat. Mammalian embryology; development of hydroids; cervical and thoracic venous drainage in mammals, including man; choroid plexus; vascularization of the neural tube; mechanism of human laryngeal pitch; nasopharyngeal closure; gross anatomy.

Strong, Dr. L(eonell) C(larence), Yale University School of Medicine, New Haven, Conn. *Genetics.* Renovo, Pa, Jan. 19, 94. B.S, Allegheny Col, 17, hon. Sc.D, 39; Ph.D, Columbia, 22. Asst. biol, Allegheny Col, 15–17; exten. dept, Columbia, 18–20, zool, 20–21; assoc. prof. biol, St. Stephen's Col, 21–25; Gen. Educ. Board fellow cancer research, Bussey Institution, Harvard, 25–26, research fellow, Harvard Med. Sch, 26–27; *research assoc,* cancer fund, Michigan, 27–29; Roscoe B. Jackson Mem. Lab, 29–35; *anat, sch. med, Yale, 35–* Honorarium, sta. for exp. evolution, dept. genetics, Carnegie Institution, 19–21; grant, Inst. Cancer Research, 22; research grant, Rockefeller Inst, 22–25; Josiah Macy, Jr, Foundation grant, 32–35; Int. Cancer Research grant, 34–38; Anne Fuller Fund grant, 35–; Jane Coffin Childs Mem. Fund Med. Research, 38–Instr. war hygiene, S.A.T.C, Columbia, 18. Soc. Nat; Genetic Asn; Soc. Zool; Eugenics Research Asn; cor. mem. French Asn. Cancer Research. Genetics of cancer; mutations in cancerous tissue and transplantable tumors; influence of essential oils on incidence of cancer in mice; hemoglobin in relation to susceptibility to cancer; relation of hormones to cancer; tolerance to salicylaldehyde; porphyrins; xanthine dehydrogenase; genetic analysis of susceptibility to tumors induced by carcinogens.

Strong, Dr. Martha Thompson, Indiana University School of Medicine, Bloomington, Ind. *Anatomy.* Ashton, Nebr, Sept. 6, 97. B.S, Knox Col, 20; A.M, California, 25; Ph.D, Indiana, 36. Teaching fellow zool, California, 20–24; asst. *anat,* Michigan, 28–31; instr, *sch. med, Indiana,* 36–42, *asst. prof, 42–* Development of venous drainage in mammals.

Strong, M(iriam) C(arpenter) (Mrs. Forrest C. Strong), 1213 N. Walnut St, Lansing, Mich. *Plant pathology.* Lansing, Mich, May 21, 99. B.S, Mich. State Col, 22, M.S, 24. Asst. *plant path, Mich. State Col,* 22–24, *research asst, 24–* Mycol. Soc; Mich. Acad. Tomato and strawberry diseases; genus Fusarium.

Strong, Dr. Oliver S(mith), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *[1]*Zoology, Neurology.* Red Bank, N. J, Dec. 30, 64. A.B, Princeton, 86, A.M, 88; fellow, Columbia, 91–92, Ph.D, 95. Asst, Lake Lab, Milwaukee, Wis, 90–91; biol, Columbia, 92–93, tutor comp. neur. and asst. nor. histol, col. physicians and surg, 95–04, instr. histol, 04–09, anat, 09–18, asst. prof. neur, 17–18, assoc. prof, 19–27, prof. neur. and neurohistol, 27–37; *retired.* Instr, Marine Biol. Lab, Woods Hole, 94–99, in charge chem. room, 04–35. Assoc. ed, 'Jour. Comp. Neur,' 96–04; 'Jour. Comp. Neur. and Psychol,' 04–; 'Neur. Bul,' 18–21. A.A; Soc. Nat; Soc. Zool; hon. mem. Neur. Asn; Neur. Inst; Asn. Anat. Asn. Research Nervous and Mental Disease; Harvey Soc; assoc. fel. N. Y. Acad. Med. Cranial nerves of vertebrates; histology of the human central nervous system; neurohistological methods; cranial nerves of Squalus acanthus; congenital unilateral atrophy of the cerebellum; clinical neurology; development and structure of the nervous system; nerve tissue.

Strong, Prof. Ralph Kempton, Rose Polytechnic Institute, Terre Haute, Ind. *Chemistry.* Kentville, N. S, Can, June 21, 82. B.A, Acadia, 05, B.Sc, 06; A.M, Harvard, 07; Ph.D, Chicago, 17. Tech. chemist, 07–11; head dept. chem, du Pont Manual Training Sch, Louisville, Ky, 11–15; assoc. chem, Chicago, 15–17; prof. indust. chem. and head dept. chem. eng, Oregon State Col, 17–20; prof. indust. chem. and head dept. chem, Reed Col, 20–33; *prof. and head dept. chem. eng. and chem, Rose Polytech, 33–* A.A; Chem. Soc. (chairman, Oregon sect, 20–22, councilor, 22–24); Soc. Chem. Indust; Chem. Eng; Eng. Educ. Industrial chemistry; mesothorium; phosphates; wood chemicals; organic solvents.

Strong, Prof. R(euben) M(yron), Loyola University School of Medicine, Chicago, Ill. *[1]*Anatomy, Zoology.* West Allis, Wis, Oct. 8, 72. A.B, Oberlin Col, 97; A.M, Harvard, 99, Ph.D, 01; Frankfurt, 09; Naples, 10. Instr. zool. and physics, Lake Forest Acad, 97–98; biol, Haverford Col, 02–03; Carnegie research asst, 03–04; assoc. zool, Chicago, 04–07, instr, 07–14; prof. anat, Mississippi, 14–16; assoc. prof, Vanderbilt, 16–17, prof. micros. anat, 17–18; *prof. anat. and head dept, sch. med, Loyola, 18–, sec'y faculty, 18–* Instr, Marine Biol. Lab, Woods Hole, 02–05; prof, lake lab, Michigan, 16–17. A.A; Soc. Nat; Soc. Zool; Asn. Anat. (exec. cmt, 16–19); Ornith. Union; Am. Med. Asn; Inst. Med. (board governors, 35–); Wilson Ornith. Club (pres, 94–01, 20–21). Comparative anatomy; neurology; hair and feathers; variation; animal behavior; heredity; bone architecture; structure and pigmentation of integument; ossification; bibliography of birds.

Strong, Prof. Richard P(earson), Harvard Medical School, Boston, Mass. *[2]*Medicine, Biology.* Fortress Monroe, Va, 72. Ph.B, Yale, 93, hon. Sc.D, 14; M.D, Hopkins, 97; hon. Sc.D, Harvard, 16. Res. house physician, Hopkins Hosp, 97–98; lieut. asst. surgeon, med. dept, U. S. Army, 98–02, pres, Board Investigation Trop. Diseases, P. I, 99–01, director, Army Path. Lab. and Govt. Biol. Lab, Manila, 01–13; prof. trop. med, Philippines, 07–13; chief med. dept, P. I. Gen. Hosp, 10–13; prof. *trop. med, Harvard Med. Sch,* 13–38, *emer. prof, 38–; consultant to U. S. Sec'y War, 41–; col, Med. Corps, U. S. Army, and director trop. med, Army Med. Sch, 42–* U. S. sci. investigator infectious diseases, Berlin, 03; mem, Mass. Pub. Health Council, 21– Trustee, Carnegie Institution, 34–Del, Int. Cong. Hygiene and Demography, 07; del. and hon. v. pres. sect. path. and bacter, Int. Cong. Tuber, Washington, D.C, 08; del, Int. Plague Conf, Peking, 11. Director, Int. and Am. Red Cross Sanit. Cmns, Siberia, 15; col, M.C, mem. med. board, Council Nat. Defense, 17; gen. headquarters investigation cmt, B.E.F; U.S.A. rep, Inter-Allied Sanit. Cmn; director dept. med. research and intel, Am. Red Cross, 18–19; gen. med. director, League of Red Cross Societies, 19–20. A.A. (v. pres, N, 23); Am. Med. Asn; Soc. Trop. Med. (pres, 14); Soc. Exp. Biol; Am. Physicians (pres, 25); Asn. Path. and Bact; Soc. Exp. Path; Soc. Parasitol. (pres, 27); Am. Acad; Boston Soc. Nat. Hist; hon. fel. Royal Soc. Trop. Med. and Hygiene; assoc. Soc. de Path. exot; cor. mem. Soc. de

Biol. de Paris; hon. mem. Soc. belge de Méd. trop; Soc. Med. Chirurg. Bologna; Soc. Med-Quirurg. Guayaquil. Tropical medicine; bacteriology; plague; amebic dysentery; bacillary dysentery; tropical intestinal parasites; cholera; beri-beri; pneumonic plague; leprosy; framboesia; chemotherapy; verruca peruviana; Oroya fever; African tick fever; trypanosomiasis; Malta fever; tropical ulcerations of the skin; trench fever; flagellate infections; filariasis and onchocerciasis.

Strong, Dr. Wendell M(elville), Glen Ridge, N. J. *Mathematics.* Indianapolis, Ind, Feb. 6, 71. A.B, Yale, 93, Ph.D, 98; A.M, Cornell, 94; LL.B, N. Y. Univ, 03. Instr. math, Yale, 95–00; v. pres. and actuary, Mutual Life Ins. Co. of N. Y, 00–41; *retired.* Math. Soc; Actuarial Soc. (ed, 'Trans,' 09–16, sec'y, 16–22, v. pres, 22–24, 26–28, pres, 30–32); Inst. Actuaries; Casualty Actuarial Soc; London Math. Soc. Non-quaternion number systems; actuarial science; interest rate.

Strong, Dr. W(illia)m Duncan, Columbia University, New York, N. Y. ***Anthropology.* Portland, Oregon, Jan. 30, 99. A.B, California, 23, Ph.D, 26. Asst. anthrop, California, 23–26; asst. curator, N. Am. ethnol. and archeol, Field Museum Nat. Hist, 26–29; prof. anthrop, Nebraska, 29–31; senior anthropologist, bur. Am. ethnol, Smithsonian Institution, 31–37; assoc. prof. and later *prof. anthrop, Columbia, 37–; director ethnogeog. board, Nat. Research Council, Am. Council Learned Societies, Social Science Research Council and Smithsonian Institution, 42–* Asst. ed, 'Am. Antiquity,' 35. Trustee, Lab. Anthrop, Santa Fe, N. Mex, 34–; mem. cmt. state archeol. surv, Nat. Research Council, 35–, mem. div. anthrop. and psychol, 35– Anthrop. consultant, Cmn. Indian Affairs, 35. Anthropologist, Rawson-MacMillan sub-Arctic exped. of Field Museum Nat. Hist, 27–28; director, Univ. Nebraska archeol. surv, Nebr. 29–31; anthropologist, Smithsonian Institution exped, Honduras, 33; leader, Civil Works Admin-Smithsonian Institution archeol. project, Calif, 34; Smithsonian Institution-Harvard exped, Honduras, 36; Columbia Univ. exped, Peru, 40; Andean Inst. exped, 41. A.A; Anthrop. Asn; Ethnol. Soc; Soc. Archeol; Folk-Lore Soc; Nebr. Acad; Anthrop. Soc. Wash; Wash. Acad. Ethnology and archeology of northern Labrador and southern California; social organization of aboriginal peoples of the southwestern United States; archeology of the Great Plains, the middle Columbia River Valley, Spanish Honduras and Peru.

Strong, Dr. W(illiam) W(alker), 500 S. York St. Mechanicsburg, Pa. *Physics.* Good Hope, Pa, May 16, 83. B.S, Dickinson Col, 05; fellow, Hopkins, 07–08, Ph.D, 08. Carnegie asst. physics, Hopkins, 08–11; prof. elec. theory, Pittsburgh, 11–13; *physicist, Sci. Instrument and Elec. Machine Co, 13–* Instr, Carnegie Inst. Tech, 14–15; physicist, Research Corp, 15, 19. A.A; fel. Physical Soc. Absorption and spark spectra; ionization; radioactivity; electrical precipitation of fumes, dust and smoke; fume mask; diamond surface glass; structure of ether; deblooming of oil; corona discharge; anti-aircraft apparatus; magneto-psychology; ancient Greek stone-script in Pennsylvania.

Strongin, Dr. E(dward) I, 722 W. 168th St, New York, N. Y. *Psychology.* New York, N. Y, Feb. 21, 08. B.S, Cornell, 31, Standard Brands fellow, 33–35, Ph.D, 35. Heckscher asst, Cornell, 31–33; asst, Psychiat. Inst, 35–36, Markle Foundation fellow, 36–40; *research assoc. psychiatry, sch. med, Columbia, 40–; capt, Adj. Gen. Dept, U. S. Army.* Psychol. Asn. Effect of alcohol, caffeine and cigarette smoke on human behavior; mechanism of mental disease as manifest by autonomic nervous system activity; effect of emotional situations upon visual efficiency.

Stroop, Prof. J(ohn) Ridley, David Lipscomb College, Nashville, Tenn. *Psychology.* Murfreesboro, Tenn, March 21, 97. B.S, George Peabody Col, 24, A.M, 25, Ph.D, 33. Prin, consol. sch, Miss, 21–22; instr. math. and English, David Lipscomb Col, 22–23, modern languages, 24–28, prof. psychol. and educ, 28–32, dean faculty, 28–29; sub. instr. psychol, Fisk, 31; research work, Tenn. Educ. Cmn, 33–34; prin, high sch, Tenn, 35–36; *research director, registrar and prof. psychol, David Lipscomb Col, 36–* Summer, special instr, Tenn. Polytech. Inst, 35. South. Soc. Philos. and Psychol. Interference.

Stross, Dr. Fred (Helmut), 1400 Grizzly Peak Blvd, Berkeley, Calif. *Petroleum chemistry.* Alexandria, Egypt, Aug. 22, 10. B.S, Case, 34; Standard Oil Co. fellow, California, 37–38, Ph.D, 38. *Chemist, Shell Develop. Co, 38–* Kinetics and mechanism of chemiluminescence of 3-aminophthalhydrazide; oxidation and adhesion of asphalts; hydrocarbon catalysis.

Strother, Prof. C(harles) R(iddell), State University of Iowa, Iowa City, Iowa. *Clinical psychology, Speech pathology.* Yreka, Calif, Oct. 4, 07. A.B, Washington (Seattle), [illegible] A.M, 32; Ph.D, Iowa, 35. Instr. and asst. prof. speech path., Washington (Seattle), 29–39; *assoc. prof. speech path. and clin. psychol, Iowa, 40–, chief psychologist, univ. hosp.* Speech consultant, Children's Orthopaedic Hosp, Seattle, Wash; director mobile psychol. and speech clinics, State Dept. Educ. Assoc. Psychol. Asn; Asn. Applied Psychol; fel. Speech Correction Asn. Extent of dyssynergia in stuttering; vocal consequences of various surgical procedures for relief of recurrent paralysis of the larynx; diagnosis of organic disorders of voice.

Strother, Dr. C(orneille) O(sburn), Linde Air Products Co, Tonawanda, N. Y. *Chemistry.* Columbus, Ga, April 7, 08. A.B, Williams Col, 30; A.M, Oberlin Col, 31; A.M, Princeton, 32, Ph.D, 33. Int. exchange fellow, Munich, 33–34; *research chemist,* Carbide and Carbon Chem. Corp, 35–39; *Linde Air Products Co, 39–* Chem. Soc. Kinetics; catalysis; absorption spectroscopy; organic colloids.

Strother, Prof. W(alter) D(ennis), 2729 Kirby St, Columbia, S. C. *Pharmacy.* Clarksburg, W. Va, Aug. 11, 96. Ph.C, Michigan, 23, B.S, 24, M.S, 28. Instr. *pharmacy,* West Virginia, 24–25; *assoc. prof, South Carolina, 25–* Pharmaceut. Asn; S. C. Pharmaceut. Asn. Status of official and non-official preparations in prescription practise.

Stroud, Prof. J(ames) B(art), State University of Iowa, Iowa City, Iowa. *Psychology.* Hiawassee, Ga, 97. A.B, Lincoln Mem. Univ, 20; A.M, Chicago, 27, Ph.D, 30. Instr, Young Harris Col, 20–26; psychologist, Inst. Juvenile Research, Chicago, Ill, 27–28; assoc. prof. and prof. exp. psychol, Kans. State Teachers Col, Emporia, 29–38, head dept, 35–38; *assoc. prof. educ. and psychol, Iowa, 38–* A.A; Psychol. Asn; Midwest. Psychol. Asn. Learning; reading.

Stroud, Dr. P(aul) W(allace), 1533 Parkview Ave, Whiting, Ind. *Chemical engineering.* Cucamonga, Calif, July 17, 02. A.B, Pomona Col, 25; A.M, Columbia, 28; Sc.D, Colo. Sch. Mines, 34. Research chemist, Bell Tel. Labs, 25–29; instr. petrol. eng, Colo. Sch. Mines, 29–34; *research chemist, Standard Oil Co. of Ind, 34–* Insulating and dielectric materials; accelerated oxidation tests; use of anti-oxidants; chemical treating and solvent extraction of petroleum products; utilization of petroleum by-products.

Stroup, Dr. P(hilip) T(rimble), Aluminum Co. of America, New Kensington, Pa. *Metallurgy.* Mishawaka, Ind, Feb. 17, 04. A.B, Indiana, 25, Grasselli fellow, 25–26, A.M, 26; fellow, Wisconsin, 28–29, Ph.D, 29. Research chemist, du Pont-Pathé Corp, 26–27; physical chemist, *Aluminum Co. of Amer,* 29–36, metallurgist, 36–42, *chief* chem. develop. div, 42–43, *process metal. div, 43–* Gas Asn; Army Ordnance Asn; Electrochem. Soc; Chem. Soc; Min. and Metal. Eng; Soc. Metals. Fluorine; tellurium; aluminum; magnesium.

Strouse, Dr. G(eorge) C(lifford), 524 Fillmore Ave, East Aurora, N. Y. *Organic chemistry.* Brink Haven, Ohio, Oct. 13, 99. B.S, Col. of Wooster, 20; M.S, Ohio State, 25, Ph.D, 27. *Research chemist,* E. I. du Pont de Nemours and Co, 27–37; *Nat. Aniline div, Allied Chem. and Dye Corp, 37–* Chem. Soc. Carbohydrates; dyestuffs; intermediates.

Strouse, Dr. Solomon, 2210 W. Third St, Los Angeles, Calif. *Medicine.* Baltimore, Md, June 29, 82. A.B, Hopkins, 02, M.D, 06. Res. house officer, Hopkins Hosp, 06–07; research worker, med. labs, 07–09; assoc. pathologist, Michael Reese Hosp, Chicago, 09–12, assoc. attending physician, 12–25, attending physician, 25–36; assoc. prof. *med,* med. sch, Northwestern, 17–27; assoc. clin. prof, Rush Med. Col, Chicago, 27–36; *Southern California,* 36–41, *clin. prof, 41–* Attending physician, Los Angeles County Hosp, 36– Cmt. sci. research grant, Am. Med. Asn, 38. Am. Med. Asn; assoc. Am. Physicians; Soc. Exp. Biol; Inst. Med. Chicago. Pneumonia; hay fever; diabetes; blood chemistry; metabolism.

Strout, Roger S(tackpole), Box 426, Kentfield, Calif. *Physics.* Brunswick, Maine, Aug. 29, 01. B.S, Bowdoin Col, 23; M.S, Chicago, 27. Instr. physics, Ga. Tech, 28, asst. prof, 28–31; travel, writing and lecturing, 31–39; *instr.* physics and math. Stockton Junior Col, 39–40; *math. and shop, Marin Junior Col, 40–; U. S. Naval Res, 43–* Summer, mem. faculty, California [illegible] tz crystal oscillators.

Struck, Dr. F[illegible] [illegible]sity of Illinois College of Medicine, Chicago [illegible]. Chicago, Ill, Nov. 17, 06. B.S, Illinois, [illegible]. Northwestern, 33. Asst.

physiol, *col. med, Illinois*, 32–35, instr, 35–37, assoc, 37–41, *asst. prof. pharmaceut. therapeutics, 41–* A.A; Physiol. Soc. Metabolism; nutrition; vitamins.

Struik, Prof. D(irk) J(an), 179 Oakley Road, Belmont, Mass. **5Mathematics.* Rotterdam, Netherlands, Sept. 30, 94. Ph.D, Leiden, 22. Teacher, high sch, Alkmaar, 17; asst, Technische Hoogeschool, Delft, 17–24; Int. Educ. Board fellow, 24–26; lecturer *math, Mass. Inst. Tech*, 27–28, asst. prof, 28–30, assoc. prof, 30–40, *prof, 40–* Teacher, high sch, Amsterdam, Netherlands, 26; privat-docent, Utrecht, 24–30. Ed. board, 'Philos. of Science'; 'Jour. Math. and Physics'; 'Sci. and Soc.' Math. Soc. (ed. board, 'Trans'); Am. Acad; Hist. Sci. Soc; hon. mem. Mex. Acad; Deuts. Math. Verein; Circolo Mat. di Palermo; Wiskundig Genootschap Amsterdam; Genootschap voor Geschiedenis der Genees-, Natuur- en Wiskunde, Leiden. Differential geometry; tensor and vector calculus; probability; hydrodynamics; history of science.

Strumia, Prof. Max M(aurice), Penn Valley, Pa. *Pathology.* Turin, Italy, Sept. 23, 96. B.A, B.Sc, Turin, 14, M.D, 20; Sc.D, Pennsylvania, 23. Asst, med. clinic R, Turin, 20–21; instr. *path, sch med, Pennsylvania*, 23–32, *assoc. prof, 32–* Asst, instr. research cutaneous diseases, Pennsylvania, 23–24, research mem, Henry Phipps Inst, 29–30. Pathologist, Misericordia Hosp, Phila, 24–; director lab, Bryn Mawr Hosp, 32– Subcmt. blood substitutes, Nat. Research Council. Officer, M.C, Italian Army, 18–21. Fel. Asn. Path. and Bact; Soc. Bact; fel. Col. Physicians Phila; Path. Soc. Phila. Immunology; bacteriology; diseases of the blood; plasma.

Struthers, Prof Parke Hardy, Syracuse University, Syracuse, N. Y. *Vertebrate zoology.* Minneapolis, Minn, May 29, 91. Ph.B, Brown, 15; A.M, Syracuse, 24, Ph.D, 26. Instr, Pa. State Col, 1517; prof. bot, Porto Rico, 19–22; instr. *zool, Syracuse*, 22–24, asst. prof, 24–29, assoc. prof, 30–38, *prof, 38–* Res. collector vertebrates, Am. Museum Nat. Hist, Caribbean Sea, 20–22; director, Museum Nat. Science, Syracuse, 26–32; carp control studies, N. Y. Conservation Dept, 27–31; Syracuse-Andean expedition, 31; director, Merriconn Biol. Lab, 33. Soc. Mammal; Audubon Soc; Explorers Club. Birds of Puerto Rico and of Mona Island; effect of sunlight on the domestic fowl; prenatal skull of the Canadian porcupine; breeding habits and development of aortic arteries of the porcupine; development of the extra hepatic ducts in porcupine; carp control.

Struthers, Dr. R(obert) R(olf), 906 Drummond Medical Bldg, Montreal, Que, Can. *Pediatrics.* Sudbury, Ont, Sept. 28, 93. B.A, McGill, 14, M.D, 18. *Prof. pediat, McGill, 38–* Acad. Pediat; Pediat. Soc; Rheumatism Asn; fel. Royal Col. Physicians Can; Can. Soc. Study Diseases of Children (pres, 42). Clinical investigation; determination of activity of rheumatic fever in childhood.

Struve, Prof. Otto, Yerkes Observatory, University of Chicago, Williams Bay, Wis. **5Astronom, Astrophysics.* Kharkov, Russia, Aug. 12, 97. Diploma, Kharkov, 19; Ph.D, Chicago, 23; Sc.D, Case, 39. Junior instr, Kharkov, 19; asst. stellar spectros, *Chicago*, 21, instr. *astrophy Yerkes Observatory*, 24–27, asst. prof, 27–30, assoc. prof, 30–2, *prof, 32–*, asst. director, 31–32, *director, 32–, McDonal Observatory, Chicago-Texas*, 32– Int. Educ. Board fellow, Mt. Wilson Observatory, Carnegie Institution, 26, vol. research, 30; Harvard Observatory, 27; Guggenheim Mem. Foundation fellow, Cambridge, 28–29. Ed, 'Astrophys. Jour,' 32– Ordre de la Couronne, Belgium, 39. Lieut, Imp. Russian Army, 1920. Nat. Acad; A.A. (v. pres, 43); Astron. Soc. (councilor, 3[illegible]v. pres, 41); Philos. Soc; Am. Acad; Astron. Soc. Pacific; Wash. Acad; for. assoc. Royal Astron. Soc; Soc. astron. de France; Astron. Gesell; cor. mem. Soc. Royale des Sciences de Liége. Stellar spectroscopy; radial velocities; spectroscopic binaries; interstellar matter; formation of stellar absorption lines.

Struve, Dr. William S(cott), 59 Second St, Penns Grove, N. J. *Organic chemistry.* Utica, N. Y, May 15. B.S, Michigan, 37, M.S, 38, Ph.D, 40. Du Pont fellow, Michigan, 40–41; *chemist, Jackson lab, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Carcinogenic hydrocarbons; industrial research.

Stryker, Dr. Walter A(lbert), University of Michigan Medical School, Ann Arbor, Mich. *Pathology.* Grand Rapids, Mich, Dec. 4, 10. A.B, Michigan, 32; M.D. and Ph.D, Chicago, 40. Asst. *path, med. sch[illegible]* 40–40; *instr, Michigan, 42–* Experimental general pathology.

Stuart, Prof. C(harles) [illegible], Brown University, Providence, R. I. *Biology.* [illegible]n, N. Y, May 26, 93. [illegible]0;

Ph.B, Brown, 19, M.S, 21, Ph.D, 23. Instr. *biol, Brown*, 23–25, asst. prof, 25–31, *assoc. prof, 31–* Lecturer, R. I. Hosp; consulting bacteriologist, Charles V. Chapin Hosp. Chairman, State Board Basic Science Examiners, R. I. A.A; Soc. Bact; Pub. Health Asn; Soc. Exp. Biol; Asn. Immunol. Bacteriology; serology; infectious mononucleosis; human and rabbit blood groups; biochemical and serological relationships of the Enterobacteriaceae.

Stuart, Dr. Charles E(dward), College Station, Durham, N. C. *Psychology.* Nanticoke, Pa, Dec. 5, 07. A.B, Duke, 32, W. F. Prince Mem. fellow, 36–41, Ph.D, 41. Research assoc. parapsychol, Duke, 35–42; *ed, 'Jour. Parapsychol,'* 42– A.A; assoc. Psychol. Asn. Parapsychology.

Stuart, Elmer H(enry), Box 636, R. R. 6, Indianapolis, Ind. *Pharmaceutical chemistry.* Clinton Co, Ind, Feb. 25, 91. A.B, Indiana, 14, A.M, 15. *Pharmaceut. research, Eli Lilly and Co, Indianapolis, 16–* Chem. Soc. Atropine sulfate from Datura stramonium; the occurrence of methylbenzylamine in the extract of ma huang; antineuritic vitamin concentrate for parenteral use; stabilization of fluid extract of ergot.

Stuart, Dr. Harold C(oe), 55 Shattuck St, Boston, Mass. *Pediatrics.* Pocantico Hills, N. Y, Aug. 17, 91. Litt.B, Princeton, 14; M.D, Columbia, 18. Asst. path, col. physicians and surg, Columbia, 18; intern, Presb. Hosp, New York, 18–19, asst. res. physician, 19–20; asst. pediat, *Harvard Med. Sch*, 21–25, instr, 25–27, *asst. prof.* child hygiene, 27–31, *pediat. and child hygiene, 31–*, instr, *sch. pub. health, Harvard*, 27–28, *asst. prof, 28–* Director, Center Research Child Health and Develop, 33– Asst. res. pathologist, Presb. Hosp, New York, 18; junior asst. physician, Children's Hosp, Boston, 22–25, asst. physician, 25–31, assoc. physician, 31–; asst. visiting physician, Infants' Hosp, Boston, 22–27, visiting physician, 27– Mem. health cmn. to Europe, Rockefeller Foundation, 40–41. A.A; Pediat. Soc; Acad. Pediat; Am. Med. Asn; Pub. Health Asn; Soc. Pediat. Research; Soc. Research Child Develop. (chairman, 40, 41); New Eng. Pediat. Soc. Child hygiene, growth pediatrics and public health teaching and organization; nutrition.

Stuart, Prof. Homer Ohliger, Box 158, Kingston, R. I. *Animal husbandry.* Pittsburgh, Pa, Sept. 12, 03. B.S, Pa. State Col, 25; M.S, Kans. State Col, 27. Poultry husbandman, New Hampshire, 27–31; *prof. poultry husbandry and head dept, R. I. State Col, 31–, poultry husbandman, Exp. Sta, 31–*, acting dean sch. agr. and acting director exten. service, 40–42, *director exten, 43–*, acting county agent leader, 40–42, *county agent leader, 43–* Poultry Sci. Asn; World's Poultry Sci. Asn. Poultry.

Stuart, Dr. L(aurence) C(ooper), University of Michigan, Ann Arbor, Mich. *Zoology.* Dubois, Pa, July 9, 07. B.S, Michigan, 30, M.S, 31, Ph.D, 33. Instr. and later asst. prof. zool. and research assoc, *museum zool, Michigan*, 33–38, *research assoc. lab. vert. biol, 38–* Research assoc, Cranbrook Inst. Sciences, 39– Soc. Ichthyol. and Herp; Mich. Acad; Biol. Soc. Wash. Herpetology; zoogeography; neotropical reptiles and amphibians with special reference to taxonomy and distribution.

Stuart, L(eander) S(cales), 4328 Montgomery Ave, Bethesda, Md. *Bacteriology.* Pepperell, Mass, Nov. 15, 03. B.S, Maryland, 25, M.S, 28. Fieldman, Interstate Milk Products Asn, Phila, 25–27; asst. bacter, Maryland, 27–28; bacteriologist, Liberty Dairies, Pittsburgh, Pa, 28–29; asst. bacteriologist, food research div, bur. chem. and soils, *U. S. Dept. Agr*, 29–30, assoc. bacteriologist, indust. farm products research div, 30–40, east. regional research lab, bur. agr. chem. and eng, 40–41, *bacteriologist, agr. chem. research div, bur. chem. and soils, 41–* Chem. Soc; Soc. Bact; Pub. Health Asn. Microbial thermogenesis; bacteriology of sugar and common salt; halophilism; microbial lipases and proteases; fluorine in gelatine; fermentation of vegetable tanning materials; hide and leather damages; animal skin fat; salt curing of hides; fermentation of albumin; dehydration of eggs and meat; bacteriocidal substances.

Stuart, Prof. Milton C(aleb), Lehigh University, Bethlehem, Pa. *Mechanical engineering.* Md, March 31, 86. B.S, Pennsylvania, 09, M.E, 24. Instr, Rensselaer Polytech, 09–12; asst. steam engineer, Cambria Steel Co, 12–15; mech. engineer, U. S. Naval Eng. Exp. Sta, 15–20; prof. mech. and marine eng, U. S. Naval Post-Grad. Sch, 20–26; *prof. exp. mech. eng, Lehigh, 26–*, acting head dept, 31–32. Mech. Eng. (chairman, Baltimore sect, 24); Eng. Educ; Heat. and Vent.

Eng; Franklin Inst. Steam and power machinery; thermodynamics.

Stuart, Dr. Neil W(ade), U. S. Department of Agriculture, Beltsville, Md. *Plant physiology.* Clarksville, Mich, Jan. 25, 08. B.S, Mich. State Col, 29; M.S, New Hampshire, 32; fellow, Maryland, 32–34, Ph.D, 34. Asst, Exp. Sta, New Hampshire, 30–32; asst. physiologist, Maryland, 34–36; *assoc. physiologist, hort. sta, U. S. Dept. Agr, 36–* Soc. Plant Physiol. Light, nutrition and growth substances in floriculture.

Stuart, Prof. Richard R(oy), Nebraska State Teachers College, Wayne, Nebr. *Zoology.* Davenport, Iowa, Aug. 8, 06. B.S, Iowa, 30, M.S, 33, Ph.D, 35. Assoc, Iowa, 35–36; instr, Cornell Col. (Iowa), 36; *prof. biol, Nebr. State Teachers Col, 36–* Summers, instr, Monmouth Col, 32; Iowa, 34. Insect anatomy and development.

Stuart, Dr. W(illia)m, U. S. Department of Agriculture, Washington, D. C. *Horticulture.* St. Remi, Que, Can, May 21, 65. B.S, Vermont, 94, hon. Sc.D, 26; M.S, Purdue, 96. Asst. botanist, Exp. Sta, Purdue, 94–01, assoc. horticulturist, 01–02; prof. hort, Vermont, and horticulturist, Exp. Sta, 02–09; expert, *bur. plant indust, U. S. Dept. Agr,* 09–12, horticulturist, 12–35, *collaborator, 35–* A.A; Potato Asn; Vt. Hort. Soc. (sec'y, 03–09); Wash. Bot. Club. Rose and lettuce growing with chemical fertilizers; disease resistance in potatoes; prevention of corn and oat smut; etherization of plants for forcing purposes; Montreal market muskmelon culture; Mendelian inheritance in carnations; group classification and varietal description of some American potatoes; culture, uses and history of potatoes; a historical résumé of the development of the potato since its discovery.

Stubblebine, Dr. Warren, 949 Salisbury Court, Lancaster, Pa. *Textile chemistry.* Reading, Pa, Jan. 18, 17. B.S, Pa. State Col, 38, Pa. Laundryowners Asn. fellow, 38–42, M.S, 40, Ph.D, 42. Asst. chem, Pa. State Col, 38–42; *research chemist, research lab, Armstrong Cork Co, 42–* A.A; Chem. Soc. Chemical properties of tall oil with possible uses in resinous binders.

Stubblefield, Dr. H(enry) I(ngham), Western Illinois State Teachers College, Macomb, Ill. *Bacteriology.* St. Louis, Mo, July 13, 97. B.S, Southeast Mo. State Teachers Col, 20; fellow, Nebraska, 24–26, Ph.D, 26; M.D, Northwestern, 32. Prof. chem, Doane Col, 21–24; research chemist, biol. lab, Swan-Myers Co, Indianapolis, 26–28; Patton fellow bacter, med. sch, Northwestern, 28–32; private practise, Nebr, 32–36; *chairman dept. health and physical educ, West. Ill. State Teachers Col, 36–* Fel. Am. Med. Asn; Asn. Health and Physical Educ; Sch. Health Asn. Biochemistry; hydrolysis of proteins; bacterial metabolism.

Stubbs, Prof. E(van) L(ee), 39th St. and Woodland Ave, Philadelphia, Pa. *Veterinary medicine.* Oxford, Pa, Jan. 3, 90. D.V.M, Pennsylvania, 11. Veterinarian, Bur. Animal Indust, Pa, 13–23, poultry disease specialist, 23–28, director div. labs, 26–28; *prof. vet. path, Pennsylvania, 27–* World's Poultry Cong, 27, 30, 33, 36, 39; Int. Vet. Cong, 30, 34, 38. Vet. Med. Asn. (chairman, poultry disease cmt, 28–); Soc. Bact. (pres, East. Pa. chap, 35); Asn. Path. and Bact; Path. Soc. Phila. Diseases of poultry and other small animals; tuberculosis; tumors; leukemia; brucellosis; periodic ophthalmia.

Stubbs, Prof. F(rank) W(hitworth), Jr, Rhode Island State College, Kingston, R. I. *Civil engineering.* Mancos, Colo, May 28, 98. B.S, Colorado, 21, C.E, 26; M.S, Illinois, 32. Instr. eng. math, Colorado, 21–23; inspector, Lakeside Construction Co, 23–25; draftsman, Ill. Cent. R.R, 25–26; instr, assoc. and asst. prof. *civil eng,* Illinois, 26–36; *prof, R. I. State Col, 36–* Mem. staff, Atchison, Topeka and Santa Fe Ry, 22; Smith, Hinchman and Gralls, 27–28; State Div. Highway, Ill, 36. Civil Eng; Eng. Educ; Concrete Inst.

Stubbs, Capt. J(oseph) J(ames), Chemical Warfare Service, Camp Detrick, Frederick, Md. *Organic chemistry, Biochemistry.* Cheraw, S. C, April 21, 01. B.S, The Citadel, 23; A.M, George Washington, 32; Ph.D, American Univ. (D. C), 36. Research chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 27–42; *Chem. Warfare Service, U. S. Army, 42–, capt.* Chem. Soc. Catalytic oxidation of organic compounds; industrial fermentation.

Stubbs, Prof. M(orris) F(rank), Carthage College, Carthage, Ill. *Chemistry.* Sterling, Kans, May 25, 98. A.B, Sterling Col, 21; M.S, Chicago, 25, Ph.D, 31. Instr. science, Elgin Junior College, 21–23; prof. chem, Athens sch, Univ. Chattanooga, 23–26; Tenn. Wesleyan Col, 26–31, dean, 31–42; *prof. chem. and head dept, Carthage Col, 42–* Chem. Soc. (chairman east. Tenn. sect, 40); Tenn. Acad. Calcium; calcium hydride; hydrogen; compounds of indium.

Stuckey, Dr. H(enry) P(erkins), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Horticulture.* Darlington Co, S. C, Oct. 3, 80. B.S.A, Clemson Col, 06, Sc.D, 37; Cornell, 08; Missouri, 14. Asst. hort, Ala. Polytech, 07; *horticulturist,* Winthrop Nor. and Indust. Col, S. C, 08; *Exp. Sta, Georgia, 08–, director, 19–* A.A; Bot. Soc; Ga. Hort. Soc; Ga. Agr. Soc; Ga. Acad. (pres). Pecans; grapes; tomatoes; peaches; watermelons; home gardening; quick freezing of foods; uses of pimiento pepper.

Stuckey, Dr. Irene H(awkins), Rhode Island State College, Kingston, R. I. *Plant physiology.* Griffin, Ga, April 6, 11. A.B, Vanderbilt, 32; Ph.D, Cornell, 36. *Asst. plant physiol, Exp. Sta, R. I. State Col, 37–* Bo. Soc; Soc. Plant Physiol. Pasture grass investigations.

Stuckey, Dr. James M(orlan), P. O. Box 323, Kingsport, Tenn. *Physical chemistry.* Texarkana, Texas, Nov. 27, 15. B.S, Centenary Col. La, 36; A.M, Duke, 37, Ph.D, 40. *Chemist, Tenn. Eastman Corp, 40–* Chem. Soc. Vapor pressures of some organic compounds; solubility of organic compounds in water; esterification of cellulose.

Stuckey, Prof. Jasper L(eonidas), North Carolina State College, Raleigh, N. C. *Geology, Mineralogy.* Princeton, N. C, July 24, 91. A.B, North Carolina, 18, A.M, 20; Grenoble, 19; Ph.D, Cornell, 24. Instr. geol, North Carolina, 21; Cornell, 22–24; asst. geologist N. C. Geol. and Econ. Surv, 20–21; state geologist, Dep. Conservation and Develop, N. C, 25–26; *prof. geol, N. C. State Col, 26–* State geologist, N. C, 40– Summers, asst. geologist, N. C. Geol. and Econ. Surv, 22–24; senior gologist, C. Eng, 30; emergency coordinator mines, N. C, 41–2. A.A; Miner. Soc; Min. and Metal. Eng; Ceramic Soc; fel Geol. Soc; Soc. Econ. Geol; N. C. Acad. The dehydration temperature of pyrophyllite and sericite; pyrophyllite deposits of North Carolina; geology of the slate belt, of clays and of arite deposits of North Carolina; origin of cyanite; physical roperties of marble.

Stücklen, Prof. Hildegard, Sweet Briar College, Sweet Briar, Va. *Physics.* Berlin, Germany, May 3, 91. Ph.D, Göttingen, 19. Asst. physics, Inst. Tech. Delft-Holland, 21–22; physics and physical chem, Zürich, 22–33; privat-docent *physics,* 31–39; research instr, M.I. Holyoke Col, 31–32, 34–37, *asst. prof,* 37–43; *Sweet Briar Col, 43–* Visiting prof, Calif. Inst. Tech, 40. Grants, Nat. Research Council and Rockefeller Foundation, 34–39. Fel. Physical Soc; Asn. Physics Teachers; Physical Soc. Zurich. Discharges in gases; molecular spectra and their relation to problems of organic chemistry.

Studer, Prof. Frank J(on), Union University, Schenectady, N. Y. *Physics.* Shelby, Mich, April 6, 01. B.A, British Columbia, 21; M.S, Washington, 23; Ph.D, Wisconsin, 26. Instr. and asst. prof. physics, Emory, 26–29; lecturer, Wisconsin, 29–30; asst. prof. *Union (N. Y.),* 30–38, *assoc. prof, 38–* A.A; Physical Soc; Optical Soc; Asn. Physics Teachers. Fluorescence of mercury vapor in a magnetic field; Hall effect and other electrical properties of the alkali metals; contact resistance.

Studhalter, Prof. Richard) A(rthur), Texas Technological College, Lubbock, Texas. *Plant morphology.* Basle, Switzerland, Aug. 87. A.B, Texas, 12; A.M, Washington (St. Louis), 17; Ph.D, Chicago, 32. Asst. bot, Kans. State Col, 12; agent, Ace forest path, U. S. Dept. Agr, 12–14, asst. botanist, 17–20; Exp. Sta, Mont. State Col, 16–17; head dept. *biol,* Sul Ross State Teachers Col, Texas, 20–25; *prof. and head dept, Texas Tech. Col, 25–* U.S.N, 18–19. A.A; Bot. Soc; Ecol. Soc; Sullivant Moss Soc. (sec'y-treas, 36–39). Morphology of flowerworts; anatomy of woody plants.

Studt, C(harl) W(otring), Independence, Kans. *Geology.* St. Louis, Mo, Nov. 23, 92. A.B, Washington (St. Louis), 16, M.S, 21. Teaching fellow geol, Washington (St. Louis) 16–18; asst. geologist, Okla. Producing and Ref. Corp, 18–19; State Bur. Geol. and Mines, Mo, 19–20; Producers and Refiners Corp, 20–24; chief geologist, Southwest. Gas Co, 24–26; Union Gas Corp, 26–33; *v. pres. and operating manager, Sagamore Oil and Gas Co, 33–* Manager exploration and production in Ill, Nat. Ref. Co.. Soc. Econ. Paleont; Am. Petrol. Geol; Kans. Acad; Kans. Geol. Soc. Petroleum Geology.

Stuewer, Dr. F(rederick) W(illiam), State Department of Conservation, Lansing, Mich. *Mammalogy.* Howard City, Mich, July 14, 14. B.S, Mich. State Col, 37, Ph.D, 41. *Game biologist, State Dept. Conservation, Mich, 39–* Soc. Mammal; Wildlife Soc. Life history and management of the raccoon in Michigan.

Stuhlman, Prof. Otto, Jr, University of North Carolina, Chapel Hill, N. C. **²Physics.* Elberfeldt, Germany, Nov. 12, 84. A.B, Cincinnati, 07; A.M, Illinois, 09; fellow, Princeton, 09–11, Ph.D, 11. Instr. *physics, Illinois,* 07–09; Stevens Inst. Tech, 11–12; Pennsylvania, 12–17; asst. prof, Iowa, 17–19; West Virginia, 19–20; assoc. prof, *North Carolina,* 20–24, *prof, 24–,* head dept, 28–34. Airplane sound ranging, Nat. Research Council, 17–18, div. physical science, 29–32; contributor, Int. Critical Tables. A.A; Physical Soc. (pres, southeast. sect, 39); Elisha Mitchell Sci. Soc. (pres, 23, assoc. ed, 29–); N. C. Acad. Photoelectric effects; homologous series as a function of atomic numbers; thin metallic mirrors and wedges; coefficient of absorption of electrons; contact difference of potential; theory of the electrometer; critical potential method of measuring wave-lengths; radiographic localization; thermionic meggar; high frequency electrodeless discharge characteristics; mechanics of effervescence; magnetic fields of coils oscillating at radio frequencies; intensity of spectra of high frequency glow discharge; nonlinear transmission characteristics of the auditory ossicles; theoretical response of living cells to contact with solids; biophysics.

Stuhr, Prof. Ernst T(hedore), Oregon State College, Corvallis, Oregon. *Pharmacology, Pharmacognosy.* Shelby, Iowa, Oct. 27, 00. Ph.G, Ph.C, Nebraska, 22, B.S, 25; M S, Florida, 27. Asst. pharmacy, physiol. and pharmacol, Nebraska, 20–22; instr. pharmacog, Florida, 25–27; asst. prof. mat. med. and pharmacog, *Oregon State Col,* 27–29, *assoc. prof. pharmacol. and pharmacog, 29–, in charge dept, 30–* Consulting pharmacist and naturalist. Mem. cmt. pharmacog. and pharmaceut. bot, div. biol. and agr, Nat. Research Council. A.A; Pharmaceut. Asn. Experimental pharmacology; medicinal plants of Florida, Nebraska, Oregon and the Pacific Coast; medicinal trees of the United States; drug plant culture.

Stult, Prof. Dewey B(ernard), University of Iowa, Iowa City, Iowa. *Psychology.* Fulton, Ill, Jan. 24, 09. B.S, Illinois, 31, M.S, 32, Ph.D, 34. Instr. *psychol,* Carleton Col, 34–36; *assoc. prof,* Teachers Col, Nebraska, 36–38; *Iowa, 38–; lieut, U. S. Naval Res.* Summer, prof, Ohio State, 41. Fel. Asn. Applied Psychol; Col. Personnel Asn; Ed. Research Asn; Vocational Guidance Asn; assoc. Psychol. Asn. Educational personnel; vocational guidance; tests and measurements.

Stull, Dr. Arthur, Surgeon General's Office, Washington, D. C. *Organic chemistry.* Alderson, Pa, Aug. 28, 98. B.S, Princeton, 21; Mass. Inst. Tech, 21–22; A.M, Columbia, 24, Ferguson fellow, 24–25, Ph.D, 25; Graz, 27. Chemist, The Celluloid Co, 23; asst. chem, Columbia, 23–24, Selenium fellow, 25–26; research chemist, State Dept. Health, N. Y, 26–29; N. Y. Hosp, 29–32; research chemist and director lab, dept. allergy, Roosevelt Hosp, 32–42; *capt, Sanit. Corps, U. S. Army, 42–* A.A; Chem. Soc. Benzothiazoles; aromatic, disulfide and organic selenium compounds; chemistry of bacteria; pollens and isolation of protein material active in hay-fever; biological identity of certain grasses causing hay-fever; preparation and standardization of pollen extracts for treatment of hay-fever; chemistry and serology of the mechanism of reaction and protection in allergy.

Stull, Dr. D(aniel) R(ichard), 1413 W. Union St, Midland, Mich. *Physical chemistry.* Columbus, Ohio, May 28, 11. B.S, Baldwin-Wallace Col, 33; Ph.D, Hopkins, 37. Prof. chem, East Carolina Teachers Col, N. C, 37–40; *mem. staff physical research lab, Dow Chem. Co, 40–* Chem. Soc. Low temperature thermodynamics.

Stull, Dr. Olive G. (Mrs. Loy E. Davis), Purdue University, West Lafayette, Ind. *Herpetology.* Rochester, N. Y, Feb. 10, 05. A.B, Smith Col, 26; Hinsdale Museum fellow, Michigan, 27–29, A.M, 28, Ph.D, 29. Teaching fellow, Syracuse, 26–27; prof. biol, Va. State Teachers Col, Fredericksburg, 29–30; nat. research fellow, museum comp. zool, Harvard, 30–31; *research asst. vet. science, Purdue.* Soc. Ichthyol. and Herp. Systematic work, distribution, geographic variation and phylogeny of snakes; Pituophis; Boidae; Tropidophis.

Stull, R(ay) T(homas), 3511 Davenport St, Washington, D. C. *Ceramics.* Elkland, Pa, March 12, 75. E.M, Ohio State, 02. Chemist, Am. Terra Cotta and Ceramic Co, Crystal Lake, Ill, 02–04; supt, Mt. Savage Enamel Brick Works, Md, 05–06; Steiger Terra Cotta and Pottery Co, San Francisco, 07; from instr. to acting head dept. ceramics, Illinois, 07–15; ceramic engineer, Dunn Wire Cut-lug Brick Co, Conneaut, Ohio, 15–17; chief ceramist, U. S. Bur. Mines, Columbus, 17–23; asst. gen. indust. agent, Cent. Ga. Ry, and consulting ceramic engineer, Savannah, Ga, 23–27; *chief heavy clay products sect, Bur. Standards, 27–* Ceramic Soc. (pres, 19); hon. mem. Ill. Clay Manufacturers Asn. Glazes and glaze colors; enamel brick engobes; electrical porcelain; laboratory and industrial kilns and apparatus; bonding clays and graphites for crucibles; Georgia clays and bauxites; coal formation clays; pore structure of clay products; low cost glazes for structural clay products; physical properties of products made from deaired clays; properties of cellular clay products.

Stull, Prof. William D(eMott), Central College, Fayette, Mo. *Biology.*. Madison, N. J, July 3, 12. B.S, Middlebury Col, 34, fellow, 34–36, M.S, 36; fellow, Maryland, 36–40, Ph.D, 40. Instr. *biol. and geol, Cent. Col. (Mo),* 40–41, asst. prof, 41–43, *assoc. prof, 43–* Summers, asst. prof, Va. State Teachers Col, Radford, 40, 41. A.A; Mo. Acad. Water balance in amphibians.

Stultz, Dr. Walter Alva, University of Vermont College of Medicine, Burlington, Vt. *Anatomy.* St. John, N. B, Can, March 14, 04. B.A, Acadia, 27; Ph.D, Yale, 32. Prin, sch, N. B, Can, 22–24; asst. biol, Yale, 27–30; instr, Spring Hill Sch, Conn, 30–31; instr. and acting head dept, Trinity Col. (Conn), 31–32; prof, Mt. Union Col, 32–33; instr, Hopkins Grammar Sch, Conn, 33–34; asst, Yale, 33–34; fellow anat, sch. med, Georgia, 34–35, histol. and embryol, 35–36; instr. *anat,* Med. Col. State of S. C, 36–37; asst. prof, *col. med, Vermont,* 37–43, *assoc. prof, 43–* A.A; Asn. Anat; Soc. Zool. Experimental embryology; transplantation of hind extremity in Amblystoma; symmetry relations; determination of axes; neuro-embryology.

Stumbo, Dr. Charles R(aymond), 536 N. Green, Ottumwa, Iowa. *Bacteriology.* Kans, July 25, 14. B.S, Kans. State Col, 36, M.S, 37, Ph.D, 41. Instr. bacter, S. Dak. State Col, 37–39; agent, div. soil microbiol, U. S. Dept. Agr, Kans, 39–41; research bacteriologist and chemist and later *asst. director sci. research, John Morrell and Co, 41–* Microbiology of meats and meat products.

Stumm, Dr. Erwin C(harles), Oberlin College, Oberlin, Ohio. *Geology.* Berkeley, Calif, Sept. 15, 08. A.B, George Washington, 32, A.M, 33; Ph.D, Princeton, 36. Sci. aid, U. S. Dept. Agr, 26–30; U. S. Geol. Surv, 30–33, 36–37; *instr. geol, Oberlin Col, 37–* Paleozoic paleontology and stratigraphy.

Stump, Dr. A(lexander) B(ell), Pine Bluff, N. C. *Zoology.* Emmorton, Md, Jan. 13, 05. B.S, Virginia, 30, A.M, 31, Ph.D, 34. Research assoc, Virginia, 34–35; *prof. biol, Flora Macdonald Col, 36–; U. S. Army.* A.A. Protozoology; reproduction of the Testacea.

Stunkard, Prof. H(orace) W(esley), New York University, New York, N. Y. **⁵Zoology.* Monmouth, Iowa, Aug. 23, 89. B.S, Coe Col, 12, Sc.D, 37; A.M, Illinois, 14, fellow, 14–16, Ph.D, 16. Asst, Illinois, 12–14; instr. *biol, N. Y. Univ,* 16–19, asst. prof, 19–22, assoc. prof, 22–25, *prof. and head dept, 25–* Research assoc, Am. Museum Nat. Hist, 21–; investigator, England and France, 24–25, France and Germany, 31–32, 38–39; Guggenheim Mem. Foundation fellow, 31–32; Oberlaender Trust fellow, 38–39. Sect. ed, 'Biol. Abstracts.' A. Cressy Morrison prize, N. Y. Acad. Science, 29. Int. Cong. Zool, Padua, 30; Int. Cong. Entom, Berlin, 38; Int. Cong. Trop. Med, Amsterdam, 38; Int. Cong. Microbiol, New York, 39. Lieut, A.S, 17–19. A.A; Soc. Zool; Soc. Parasitol. (sec'y, 33–37, pres, 39); Asn. Anat; Soc. Exp. Biol; Soc. Trop. Med; Micros. Soc. (v. pres, 29, 34, exec. cmt, 30, 33, pres, 36); Soc. Nat; N. Y. Soc. Trop. Med. (pres, 40); fel. N. Y. Zool. Soc; fel. N. Y. Acad. (cor. sec'y, 25–36, v. pres, 30, 36, pres, 37, 42); cor. mem. Helminth. Soc. Wash; fel. Royal Soc. Trop. Med. and Hygiene; Soc. zool. de France. Head segmentation in vertebrate embryos; parasitology; morphology, physiology, distribution, taxonomy, biology, life history and development of parasitic worms.

Stuntz, Dr. D(aniel) E(lliot), University of Washington, Seattle, Wash. *Mycology, Plant pathology.* March 15, 09. B.S, Washington (Seattle), 35; Ph.D, Yale, 40. *Instr. bot, Washington (Seattle), 40–* Bot. Soc; Mycol. Soc. Taxonomy of Agaricaceae; forest pathology.

Stupka, Arthur, Great Smoky Mountains National Park, Gatlinburg, Tenn. *Zoology.* Cleveland, Ohio, Oct. 24, 05. B.S, Ohio State, 31, M.S, 32. *Park naturalist,* Acadia Nat. Park, 32–35; *Great Smoky Mountains Nat. Park, 35–* Ornith. Union; Wildlife Soc; Soc. Mammal; Wilson Ornith. Club; S. Appalachian Bot. Club; Tenn. Ornith. Soc; Tenn. Acad. Food habits of raptorial birds; natural history of the southern Appalachian Mountains; nature education.

Stuppy, Dr. George William, 8 S. Michigan Ave, Chicago, Ill. *Medicine.* Ind, March 11, 98. B.S, Purdue, 20, M.S, 22; Ph.D, Chicago, 29, M.D, 32. Asst. prof. bacter, Agr. and Mech. Col. Texas, 22–24; instr. hygiene and bacter, Chicago, 28–31; *practising physician, 33–; major, Med. Corps, U. S. Army.* Asst. attending physician, Rush Med. Col, Chicago, and Presb. Hosp. Fel. Am. Med. Asn; assoc. Col. Physicians. Internal medicine; hygiene; bacteriology; immunity to experimental pneumococcus infections; influenza; streptococci; focal infections.

Sturdivant, Prof. Harwell P(resley), Union College, Barbourville, Ky. *Zoology.* West Point, Ga, Dec. 15, 02. B.S, Emory, 25, A.M, 26; Ph.D, Columbia, 34. Asst, Emory, 25–26. instr, 26–27; Wash. Sq. Col, N. Y. Univ, 27–29; Columbia, 28–31; Emory, 31–32; *prof. biol, Union Col. (Ky), 32–* Visiting prof, Simpson Col, 41–42. A.A. Cytology; the centriole; nonflagellated sperm.

Sturdivant, Dr. J(ames) H(olmes), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Greenville, Texas, June 22, 06. A.B, Texas, 26, A.M, 27; Ph.D, Calif. Inst. Tech, 30. Instr. math, Texas, 26–27; teaching fellow chem, *Calif. Inst. Tech,* 27–30, research fellow, 30–35, senior fellow chem. research, 35–38, *asst. prof. chem, 38–* Chem. Soc; Physical Soc. Differential equations; crystal structure.

Sturgeon, Prof. Myron T(homas), Michigan State Normal College, Ypsilanti, Mich. *Geology.* Salem, Ohio, April 27, 08. A.B, Mt. Union Col, 31; A.M, Ohio State, 33, Ph.D, 36. *Asst. prof. geol, Mich. State Nor. Col, 37–* Summers, asst. geologist, Geol. Surv. Ohio and Ohio Water Supply Board. A.A; Paleont. Soc; Ornith. Union; Wilson Ornith. Club; Mich. Miner. Soc; Mich. Acad; Ohio Acad; Mich. Audubon Soc. Stratigraphy and paleontology of the Allegheny formation; stratigraphy of the Sharon conglomerate; invertebrate paleontology.

Sturgeon, Prof. W(illiam) E(lias), Beaver College, Jenkintown, Pa. *Chemistry.* Alamo, Tenn, Oct. 16, 80. A.B, Texas Christian, 09; Ph.D, Chicago, 29. Sch. supt, Texas, 09–14; teacher, high sch, Texas, 14–25; asst. prof. *chem,* Notre Dame, 27–30; *prof. and head dept, Beaver Col, 30–* A.A; Chem. Soc. Organic chemistry; molecular rearrangements; organic microanalysis.

Sturges, Dr. Stuart, Duanesburg, N. Y. *Chemical engineering.* Altamont, N. Y, July 1, 13. Ch.E, Rensselaer Polytech, 35, M.S, 39, Ph.D, 41. Asst, Albany Med. Col, 35–37, instr, 39–41; asst. instr. chem. eng. and chem, Rensselaer Polytech, 37–39; senior chem. engineer, Merck and Co, Inc, 41–43; Winthrop Chem. Co, 43–44; *prin. chem. engineer, Corps Engineers, U. S. War Dept, 44–* Chem. Eng; Chem. Soc. Chemistry and carcinogenesis; chemistry of growth; physical chemistry of biological compounds; polarographic analysis; inorganic analysis; phenol manufacturing.

Sturges, Dr. William S(helton), Cudahy Packing Co, South Omaha, Nebr. *Bacteriology.* Shelton, Conn, Oct. 10, 92. Ph.B, Yale, 14, M.S, 16, Ph.D, 20. *Bacteriologist,* New Haven Sewage Disposal Investigation, 17–18; Lederle Antitoxin Labs, 18–19; *Cudahy Packing Co, 20–* Sanit.R.C, lieut. col. Soc. Bact; Pub. Health Asn. Autolysis of bacteria; anaerobic bacteria; biochemistry of bacteria; bacterial flora of curing brines and salts; bacteriology of curing and processing meats; packing house sewage.

Sturgis, Dr. Bernard M(iller), 333 Laurel Ave, Pitman, N. J. *Organic chemistry.* Butler, Ind, Nov. 27, 11. A.B, DePauw, 33; fellow, Mass. Inst. Tech, 35–36, Ph.D, 36. Research chemist, rubber div, *Jackson lab, E. I. du Pont de Nemours and Co,* 36–42, *head auxiliary chem. sect, elastomer div, 42–* Chem. Soc. Homoamines and homoacids; Friedel-Crafts reaction; rubber chemicals and chemistry of rubber; chemicals for synthetic elastomers.

Sturgis, Dr. Cyrus C(ressey), University of Michigan, Ann Arbor, Mich. *Medicine.* Pendleton, Oregon, April 2, 91. B.S, Washington (Seattle), 13; M.D, Hopkins, 17. Med. house officer, Peter Bent Brigham Hosp, Boston, 17–18, asst. res. physician, 19–20, res. physician, 20–22, physician, 25–27; teaching fellow *med,* Harvard Med. Sch, 20–22, instr, 22–25, asst. prof, 25–27; *prof, Michigan, 27–, director, Thomas Henry Simpson mem. inst, 27–, chairman dept. internal med, Univ. Hosp, 28–* Assoc. physician, Collis P. Huntington Mem. Hosp, Boston, 25–26. Lieut, M.C, 18–19. A.A; Soc. Clin. Invest. (sec'y, 29–32); Am. Physicians; Col. Physicians; Cent. Soc. Clin. Research. Anemias.

Sturgis, Prof. Madison B, Louisiana State University, Baton Rouge, La. *Soils.* Winters, Texas, May 10, 96. B.S, Agr. and Mech. Col. Texas, 24; M.S, Iowa State Col, 27, Ph.D, 35. Instr. *agron,* Agr. and Mech. Col. Texas, 24–25, asst. prof, 27–30; *Louisiana,* 30–34, assoc. prof, 34–35, *prof, 35–, head dept, 41–,* asst. soil technologist, *Exp. Sta,* 30–34, assoc. soil technologist, 34–35, *soil technologist, 35–* A.A; Soc. Agron; Chem. Soc; Soil Sci. Soc; La. Acad; Int. Soc. Soil Sci. Decomposition of organic matter in cane soils; profile studies of the coastal prairie soils; soil divisions of Louisiana; oxidation-reduction equilibrium in rice soils; legumes; liming and winter cover corps; fertilizers for rice; chemical classification of the soils of Louisiana according to their productivity.

Sturgis, Prof. Russell D(avis), Ursinus College, Collegeville, Pa. *Physical chemistry.* Wilmington, Del, July 9, 97. B.S, Delaware, 19; M.S, Pennsylvania, 21, Ph.D, 24. Instr. *chem,* Pennsylvania, 20–24; *prof,* Franklin and Marshall Col, 24–25; *Ursinus Col, 25–* Chem. Soc. Electromotive force measurements of aqueous solutions.

Sturkie, Prof. D(ana) G(ibson), Alabama Polytechnic Institute, Auburn, Ala. *Agronomy, Soils.* Smith Station, Ala, Aug. 5, 97. B.S, Ala. Polytech, 20; M.S, Iowa State Col, 23; Ph.D, Mich. State Col, 31. Instr. farm crops, Agr. and Mech. Col. Texas, 20–22; asst, Iowa State Col, 22–23; *asst. prof.* agron, Clemson Col, 23–24, agr. educ, 24–25; *agron, Ala. Polytech, 25–* Soc. Agron; Genetic Asn. Root reserves in Johnson grass; lint development in cotton; lawns; forage crops; oil crops.

Sturkie, Dr. Paul David, Alabama Polytechnic Institute, Auburn, Ala. *Poultry husbandry.* Proctor, Texas, Sept. 18, 09. B.S, Agr. and Mech. Col. Texas, 33, M.S, 36; Ph.D, Cornell, 39. Asst. poultry husbandry, Agr. and Mech. Col. Texas, 34–36; animal breeding, Cornell, 36–39; *assoc. poultry husbandman, Exp. Sta, Ala. Polytech, 39–* A.A; Genetics Soc; Poultry Sci. Asn. Genetics and physiology of the domestic fowl; inheritance of resistance to disease and other characters; suppression of genetic characters by experimental means.

Sturm, Dr. R(olland) G(eorge), Aluminum Co. of America, New Kensington, Pa. *Engineering, Mathematics.* Riverview, Ill, March 24, 99. B.S, Nebraska, 24, C.E, 38. M.S, Illinois, 26, Ph.D, 36. Junior struct. engineer, bur. pub. roads, U. S. Dept. Agr, Omaha, Nebr, 24–26; instr. eng. mech, Illinois, 26–29; *research engineer physicist, Aluminum Co. of Amer, 29–* Special research, Soc. Civil Eng; lecturer, Pittsburgh. Summers, engineer, Kinsey Eng. Co, Peking, Ill, 27, 28. Civil Eng; Mech. Eng; Math. Asn; Soc. Rheol. Application of the theory of elasticity; plastic flow and creep; vibration; design of tanks, pipe lines, cables, heavy machinery and dampers; instability of structures.

Sturmer, Prof. J(ulius) W(illiam), 601 Lees Ave, Collingswood, N. J. *Pharmacy, Chemistry.* Niagara Co, N. Y, March 6, 70. Ph.G, Purdue, 91, Sc.D, 34; Phar.D, Buffalo, 12; Ph.M, Phila. Col. Pharmacy, 17. Instr. pharmacy, Purdue, 91–94, prof, 94–12; prof. and dean dept, Medico-Chirurg. Col. Phila, 12–16; prof. indust. chem. and dean science, Phila. Col. Pharmacy, 16–43; *retired.* A.A; Pharmaceut. Asn; Asn. Cols. Pharm. (pres, 30); Chem. Soc; Pa. Pharmaceut. Asn. Pharmaceutical chemistry.

Sturtevant, Prof. A(lfred) H(enry), California Institute of Technology, Pasadena, Calif. **3*Zoology.* Jacksonville, Ill, Nov. 21, 91. A.B, Columbia, 12, fellow, 12–15, Ph.D, 14. Asst, Carnegie Institution, 15–28; *prof. genetics, Calif. Inst. Tech, 28–* Visiting Carnegie prof, Birmingham, 32; Univ. Leeds and Armstrong Col, Durham, 33; visiting lecturer, Harvard, 40. Nat. Acad; A.A; Soc. Nat. (v. pres, 22); Soc. Zool. (pres, 34); Philos. Soc. Taxonomy and behavior of Drosophila; genetics of Oenothera and Drosophila; ants.

Sturtevant, Dr. Arnold P(arker), 1314 Kearney St, Laramie, Wyo. *Bacteriology, Apiculture.* Denver, Colo, Sept. 2, 89

A.B, Clark, 12; Mass. Inst. Tech, 12-14; Ph.D, George Washington, 23. Asst, Mass. Inst. Tech, 13, research assoc, 14; in charge tuberculin lab, H. K. Mulford Co, Pa, 14–15; in charge bee disease investigations, Exp. Sta, Mass. Col, 15–16; *bur. entom. and plant quarantine, U. S. Dept. Agr*, 16–25, *in charge intermountain bee culture field sta, Laramie, 25–* Soc. Bact. Bacteriology and control of bee diseases.

Sturtevant, Dr. Julian M(unson), 14 Merrill Road, Watertown, Mass. *Chemistry.* Edgewater, N. J, Aug. 9, 08. A.B, Columbia, 27; Ph.D, Yale, 31. Instr. org. chem, Yale, 31–40, asst. prof, 40–42; *staff mem, radiation lab, Mass. Inst. Tech, 43–* Chem. Soc. Organic reaction velocities and heats.

Sturznickle, Dr. D(onald) McC(lelland), The Texas Co, 135 E. 42nd St, New York, N. Y. *Chemical engineering.* Erie, Pa, Dec. 16, 06. B.S, Mass. Inst. Tech, 28, M.S, 29, Sc.D, 32. Process engineer, Struthers-Wells Co, 33–34; operating engineer, Penn-Kans. Petrol. Co, 34–35; *process design engineer, Texas Co, New York, 36–* Chem. Soc. Photographic study of flame propagation; combustion; fired heaters for various petroleum refinery applications.

Stutsman, Dr. Paul S(nell), Box 264, Fishkill, N. Y. *Organic chemistry.* Chicago, Ill, Sept. 15, 10. B.S, Illinois, 34; Ph.D, Wisconsin, 38. *Research chemist, Texas Co, 38–* Chem. Soc. Hydrogenation and hydrogenolysis of beta diketones.

Stutz, Dr. G(eorge) F(rederick) A(delbert), 422 Edgemont Ave, Palmerton, Pa. *Physics, Chemistry.* Washington, D. C, June 3, 00. Chem.E, Lehigh, 22; A.M, Hopkins, 24, Ph.D, 29. Investigator, research div, *N. J. Zinc Co*, 22–28, chief fundamental research div, 28–32, pigment research div, 32–37, asst. chief research div, 37–43, *chief develop. eng. div, 43–* A.A; Physical Soc; Chem. Soc; Soc. Test. Mat. Optical properties of paints and pigments; ultra-violet absorption and transmission; the particle size of pigments.

Stutzman, Dr. J(acob) W(illiam), 1316 Randall Court, Madison, Wis. *Medical physiology.* Berlin, Pa, Jan. 17, 17. B.S, Franklin and Marshall Col, 37; Ph.D, Wisconsin, 41, M.D, 43. Asst. *med. physiol, Wisconsin*, 37–40, *instr, 40–* Effects of inhalation anesthetics on the cardio-vascular system.

Stutzman, Dr. Milo J, 1029 Bertrand St, Manhattan, Kans. *Metallurgy.* Harlan, Iowa, 96. A.B, McPherson Col, 20; M.S, Nebraska, 22; Ph.D, Iowa State Col, 27. Asst, Iowa State Col, 23–27; research, Standard Sanitary Mfg. Co, 27–30; Foxburg Silica Co, Pittsburgh, Pa, 30–31; instr. metal, Pittsburgh, 31–34; asst. prof, Kans. State Col, 34–40; *metallurgist, Yates-Am. Machine Co, 40–* Soc. Metals. Physical chemistry; metallography; effect of nickel in malleablizing; gas carburizing; oil flotation; gray cast iron; electroplating.

Styri, Dr. Haakon, Mayfair House, Lincoln Drive, Philadelphia, Pa. *Metallurgy.* Oslo, Norway, March 17, 86. M.E, Oslo, 07, Chem.E, 09; Am-Scandinavian Foundation scholar, Carnegie Inst. Tech, 10; Dr.Ing, Tech. Hochschule, Aachen, 12. Asst. prof. metal, Norway Tech. Inst, 12–17; metallurgist, Hussey Binns Steel Co, Pittsburgh, 17; asst. prof. metal, Carnegie Inst. Tech, 17–19; *director research, S. K. F. Industries, 20–* Min. and Metal. Eng; Soc. Metals; Soc. Test. Mat; Mech. Eng; Iron and Steel Inst; Franklin Inst. Metallurgy of copper and steel; metallography and heat treatment of steel; endurance and friction in ball and roller bearings; magnetic testing of steel.

SubbaRow, Dr. Y(ellapragada), Lederle Laboratories, Pearl River, N. Y. *Biochemistry.* Madras, India, July 1, 96. M.B. and B.S, Madras, 21; fellow, Harvard, 25–28, Rockefeller Foundation fellow, 28–30, Ph.D, 30. Austin teaching fellow biochem, Harvard Med. Sch, 30–36, instr, 36–38, assoc. prof, 38–40; assoc. director research, *Lederle Labs*, 40–42, *research director, 42–* Grant, Proctor Fund, Harvard, 35–37; Ella Sachs Plotz Foundation, 37–38; Markle Foundation, 39–40. Chem. Soc. Methods of determination of phosphorus; acid soluble phosphorus compounds; anti-anemic factor in liver; experimental black tongue; sprue; bios factors; penicillin; bacterial nutrition.

Suchy, Prof. J(ohn) F(rank), University of Montana, Missoula, Mont. *Pharmacy, Chemistry.* Olmitz, Kans. Ph.C, B.S, Montana, 17; M.S, Colorado, 28, Ph.D, 32. From asst. prof. to *prof. pharmacy, Montana, 19–* A.A; Pharmaceut. Asn; Chem. Soc. (chairman Mont. sect, 41–43). Toxicology, pharmacology, properties, methods of preparation and analyses of strychnine benzoates; adsorption of strychnine sulfate; potent medicaments in sugar-coated pills and in confections.

Sudds, Dr. R(ichard) H(uyette), West Virginia University, Morgantown, W. Va. *Pomology.* Gouverneur, N. Y, Jan. 14, 00. B.S, Pa. State Col, 25, M.S, 27; Ph.D, Ohio State, 35. Asst. pomol, dept. hort, Pa. State Col, 25–26, instr, 26–31, asst. prof, 31–37; asst. *hort, West Virginia*, 37–40, *assoc, 40–* Soc. Hort. Sci; State Hort. Asn. Pa. (sec'y, 31–37). Fruit tree rootstocks; soil fertility.

Sudler, Dr. Mervin T(ubman), 800 Massachusetts St, Lawrence, Kans. *Surgery.* Westover, Md, Aug. 9, 75. B.S, Maryland, 94, M.S, 01; Ph.D, Hopkins, 99; M.D, Col. Physicians and Surg, Baltimore, 01. Instr. anat, Hopkins, 99–02; med. col, Cornell, 02–03; assoc. prof, sch. med, Kansas, 05–06, prof, 06–24, dean, 12–24; *practising surgeon.* Fel. Col. Surg. Anatomy of the gallbladder; embryology of Penilia schmacheri; development of the human pharynx; development of the nose.

Sudro, Dean W(illiam) F(rederick), North Dakota Agricultural College, Fargo, N. Dak. *Pharmacy.* Elyria, Ohio, Nov. 15, 84. B.S, Michigan, 06; M.S, Wisconsin, 19. Chemist, Benton, Hall and Co, Cleveland, 06–07; instr. pharmacog, *N. Dak. Col*, 07–09, asst. prof, 09–11, *prof*, 11–19, *pharmacol, 11–*, head *sch. pharmacy*, 19–26, *dean, 26–* Près, Northwest Pharmaceut. Bur, 26. Pharmaceut. Asn. (sec'y, hist. sect, 26, chairman, 27, mem. cmt. on standards of drugs and chem. products); N. Dak. Pharmaceut. Asn. (sec'y, 21–37, 42); N. Dak. Acad. Pharmaceutical and toilet preparations.

Suer, Werner J(ohn), 6660 Afton Ave, Cincinnati, Ohio. *Chemistry.* Cincinnati, Ohio, Nov. 26, 91. A.B, Cincinnati, 14; M.S, Iowa State Col, 17; Chicago, 12, 15, 17. Instr, high sch, Ohio, 11–13; chem, Iowa State Col, 14–17; chemist, Ault and Wiborg Co, Cincinnati, 17–20; Cincinnati Chem. Works, 21; U. S. Playing Card Co, Norwood, Ohio, 23–31; *research chemist, dept. physiol, col. med, Cincinnati, 32–* Chem. Soc. Carbohydrates of the corn cob; hydration and dehydration of proteins; synthesis of base protein acid compounds; nature of livering in paint mixtures.

Suffa, Prof. Mary Clegg, Elmira College, Elmira, N. Y. *Mathematics.* Smithfield, R. I, May 28, 88. A.B, Brown, 10, A.M, 15; Chicago, 15–17. Teacher, high sch, Conn, 10–11; math, R. I, 11–13; Latin Sch, Chicago, Ill, 17–18; instr, Beloit Col, 18–20; *prof. math. and astron, Elmira Col, 20–* A.A; Math. Soc; Math. Asn.

Suffel, Dr. G(eorge) Gordon, Noranda, Que, Can. *Geology.* Inkerman, Ont, July 4, 04. B.Sc, Queen's (Can), 25, M.Sc, 27; Ph.D, Stanford, 29. Asst. miner, Queen's (Can), 25–27; *geologist, Noranda Mines, Ltd, Noranda, 29–* Summers, field geologist, Dept. Mines, Ont, 25–27, 29; Okla. Geol. Surv, 28. Soc. Econ. Geol; Can. Inst. Min. and Metal. Mineralogy; economic geology.

Sugarman, Dr. Nathan, 1621 Hyde Park Blvd, Chicago, Ill. *Physical chemistry.* Chicago, Ill, March 3, 17. B.S, Chicago, 37, Ph.D, 41. Am. Philos. Soc. fellow, *Chicago*, 41–42, *research assoc. metal. project, 42–* Chem. Soc. Magnetic susceptibilities of alkali metals in liquid ammonia; spectroscopic studies of rare earths; radio chemistry.

Sugdan, Dr. John W(illiam), 601 Judge Bldg, Salt Lake City, Utah. *Ornithology, Entomology.* Salt Lake City, Utah, June 29, 96. A.B, Utah, 18, A.M, 20; M.D, Rush, Chicago, 22. Instr. bacter, *Utah*, 18–20, *lecturer biol, 37–, obstet, 38–; surgeon, Holy Cross Hosp, 28–; lieut, Med. Corps, U. S. Naval Reserves, 32–* Fel. Col. Surg; Am. Med. Asn; Ornith. Union; Cooper Ornith. Club; Utah Acad. Birds of Utah; Cicadidae.

Sugg, Prof. John Y(oung), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Bacteriology, Immunology.* McEwen, Tenn, Aug. 11, 04. A.B, Vanderbilt, 26, M.S, 28, Ph.D, 31. Asst. *bacter. and immunol*, sch. med, Vanderbilt, 28–30, instr. 30–32; *med. col, Cornell*, 32–35, *asst. prof, 35–* Soc. Bact; Asn. Immunol; Asn. Path. and Bact; Soc. Exp. Biol; Harvey Soc. Immunological relationships among the pneumococci; hypersensitiveness to diphtheria bacterial products; loss of immune substances from the body; serological studies on sugar; influence of sucrose upon production of serologically reactive material.

Sugiura, Dr. Kanematsu, Memorial Hospital, New York. N. Y. *Chemistry.* Nagoya, Japan, June 5, 92. B.S, Polytech. Inst. Brooklyn, 15; A.M, Columbia, 17; D.M.Sc, Kyoto Imp. Univ, 25. Asst, Harriman research lab, Roosevelt Hosp, 11–17, assoc, 17–28; *Harriman research fund fellow*, Univ. and Bellevue Hosp. Med. Col, 29–35, *col. med, N. Y. Univ, 35-*

Research chemist, Mem. Hosp, 17– A.A; Chem. Soc; Soc. Exp. Biol; Asn. Cancer Research; Japanese Inst. Sci. N. Amer. (sec'y, 30–); Japan Cancer Soc. Copper salts of amino-acids and polypeptids; enzymes; nutrition in normal and in cancerous animals; etiology of and immunity to cancer; chemotherapy of cancer; biological action of x-ray, radium and ultra-violet radiations and radioactive isotopes.

Suit, Dr. R(oss) F(risbie), New York State Agricultural Experiment Station, Geneva, N. Y. *Plant pathology.* St. Joseph, Mo, Nov. 4, 04. B.S, Iowa State Col, 27, M.S, 29, Ph.D, 31. ~Asst, Kans. State Col, 27–28; agent, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, Iowa State Col, 28–31; asst. prof. plant path, Macdonald Col, McGill, 31–36; investigator, Crop Protection Inst, 36–38; *assoc. research, N. Y. Exp. Sta, Geneva, 38–* Phytopath. Soc. Crowngall and hairy-root on apple nursery stock; secondary tumors; winter injury of apple trees; common scab of potatoes; fungicides, particularly red copper oxide; diseases of small fruits; spray injury.

Suits, Dr. C(hauncey) G(uy), General Electric Co, Schenectady, N. Y. *Physics.* Oshkosh, Wis, March 12, 05. A.B, Wisconsin, 27; D.Sc, Tech. Hochschule, Zurich, 29. Research physicist, *Gen. Elec. Co,* 30–40, *asst. to director research, 40–* Mem. div. 14 and chief div. 15. Nat. Defense Research Council. Eta Kappa Nu award, 37, 'America's Young Men' award, 41. Fel. Elec. Eng; fel. Physical Soc. Non-linear circuits; vacuum tube methods of harmonic analysis; high pressure arc temperatures by sound waves; interpretation of high pressure arcs by heat transfer methods and application to circuit breakers; arcs in 1000 atmosphere range.

Sulkin, Dr. S(imon) Edward, 3505 Maple Ave, Dallas, Texas. *Medical bacteriology.* Boston, Mass, Oct. 21, 08. B.S, R. I. State Col, 30; Ph.D, Washington (St. Louis), 39. Bacteriologist in charge, St. Louis Isolation Hosp, *Mo,* 35–37; research bacteriologist, City Health Div, St. Louis, 37–41, director virus lab, 41–43; instr. *bacter, immunol. and pub. health,* sch. med, Washington (St. Louis), 39–43; *assoc. prof, Southwest. Med. Foundation, 43–* Director virus lab, City Health Div, St. Louis, Mo, 41–43. Soc. Exp. Biol; Soc. Bact; fel. Pub. Health Asn. Bacteriophage; viruses; venereal diseases.

Sullivan, Dr. B(etty), 4825 Queen Ave, S, Minneapolis, Minn. *Biochemistry.* Minneapolis, Minn, May 31, 02. B.S, Minnesota, 22, Ph.D, 35; Int. Educ. Board scholar, Paris, 24–25. Asst. chemist, *Russell Miller Milling Co,* 22–24, *chief chemist,* 27– Chemistry of wheat and flour; fermentation.

Sullivan, Dr. Elizabeth T(eresa), 903 Heliotrope Drive, Los Angeles, Calif. *Psychology.* Los Angeles, Calif, Jan. 6, 77. Grad, Calif. State Nor. Sch, 95; California, 01–03; A.B, Stanford, 06, A.M, 18; Ph.D, Columbia, 22. Teacher and prin, pub. schs, Calif, 95–01; training teacher, Calif. State Nor. Sch, Los Angeles, 03–08; teacher, high sch. and junior col, Los Angeles, 08–13, v. prin. and dean women, 13–19, supervisor dept. psychol. and educ. research, city schs, 22–23; instr. *psychol,* exten. div, California at Los Angeles, 22–33, *lecturer,* 25–33; *univ. col, Southern California, 33–, psychologist, Santa Rita Clinic, Los Angeles, 25–* Instr, Immaculate Heart Col, 28–30, prof. and director sch. educ, 30–32, 34–; educ. psychologist, Los Angeles County Schs, 37– A.A; Psychol. Asn; West. Psychol. Asn; South. Calif. Soc. Mental Hygiene (director, 23–29). Elementary education in America previous to 1800; mood in relation to performance; a comparison of accelerated, average and retarded children; Indian dreams; English in foreign schools; psychographic record blank; tests of mental maturity.

Sullivan, Dr. Ellen B(lythe), 919 S. Sherbourne Drive, Los Angeles, Calif. *Psychology, Education.* Moberly, Mo, Oct. 20, 88. A.B, Southern California, 15; Ph.D, Stanford, 24. Instr. *psychol,* Calif. State Nor. Sch, Los Angeles, 12–18; asst. prof. and *assoc. prof, California at Los Angeles, 18–* Director, Calif. Bur. Juvenile Research, Whittier State Sch, 25–29; director educ. and psychol. clinic, Children's Hosp, 25–; organizer and director mental hygiene clinic, Los Angeles County Health Dept, 30–32; adviser test construction and examining, Civil Service, Los Angeles County, 33–; director, Los Angeles Psychiat. Service, 42– Ed, 'Jour. Delinquency,' 25–29. A.A; Psychol. Asn; Asn. Applied Psychol; S. Calif. Acad. Criminol. Clinical psychology; relation of attitude to learning; personnel; delinquency; tests; statistics; maladjustment; mental hygiene.

Sullivan, Dr. E(ugene) C(ornelius), Corning Glass Works, Corning, N. Y. **Chemistry.* Elgin, Ill, Jan. 23, 72. B.S, Michigan, 94, hon. Sc.D, 33; Göttingen, 96; Ph.D, Leipzig, 99. Instr. anal. chem, Michigan, 99–03; chem. lab, U. S. Geol. Surv, 03–08; lab. chief, *Corning Glass Works,* 08–21, v. pres. in charge mfg, 21–28, pres, 28–30, *v. chairman, 30–, director research, 37–* Mem. consulting board, C.W.S. Shared Howard N. Potts medal, Franklin Inst, 28; Perkin medal, Soc. Chem. Indust. and Electrochem. Soc, 29. Chem. Soc; Chem. Eng; Electrochem. Soc; Ceramic Soc; Min. and Metal. Eng; Wash. Acad; hon. fel. British Soc. Glass Technol. Glass manufacture; iodin compounds; influence of one substance in solution on the solubility of another; reactions between minerals and water solutions; relation between chemical composition and physical properties of glass.

Sullivan, Prof. Frank A. V, 230 Bala Ave, Bala-Cynwyd, Pa. *Biochemistry.* Philadelphia, Pa, July 19, 05. B.S, St. Joseph's Col. (Phila), 27, M.S, 30; Ph.D, Fordham, 37. Instr, St. Joseph's Col. (Phila), 28–30, asst. prof. *chem,* 30–32; instr, Mt. St. Vincent, 32; Fordham, 32–35; asst. prof, *St. Joseph's Col. (Phila),* 35–40, *prof, 40–* Metabolism; physical chemistry; biochemical methods; physico-chemical apparatus and methods.

Sullivan, Dr. F(rederick) W(illiam), Jr, Flossmoor, Ill. *Chemistry.* Erie, Pa, May 25, 95. B.S, Michigan, 18, M.S, 19, Ph.D, 21. Instr. org. chem, Michigan, 20–23; asst. director research, Standard Oil Co. of Ind, 23–31, director research, 31–35, gen. research director, 35–38; manager chem. research, Barrett div, Allied Chem. and Dye Corp, 40–42; *tech. director, Inst. Gas Technol, Ill. Inst. Tech, 42–* 2nd lieut, Sanit.C. Chem. Soc. (chairman, petrol. div, 33; councilor); Chem. Eng; Petrol. Inst; Chemists Club; Chicago Chemists Club (pres, 35). Chemistry of hydrocarbons of petroleum, coal tar and natural and manufactured gas and derivatives of these hydrocarbons.

Sullivan, Dean Geo(rge) L(eonard), University of Santa Clara, Santa Clara, Calif. *Mechanical engineering.* Jackson, Nebr, Oct. 16, 81. B.S, Nebraska, 08; M.E, Colorado, 10; Ph.D, Santa Clara, 14. Instr. mech. eng, Colorado, 08–11; asst. prof, Mont. State Col, 11–12; prof, *Santa Clara,* 12–19, *dean col. eng, 19–; consulting engineer, 15–* Design engineer, Phelps-Dodge Corp, 18–19. Civil Eng; Mech. Eng; assoc. Elec. Eng; Eng. Educ. Combustion in internal combustion engines.

Sullivan, Dr. Harris M(artin), Rensselaer Polytechnic Institute, Troy, N. Y. *Physical metallurgy.* Boaz, Ky, March 12, 09. B.S, Kentucky, 31, M.S, 33; Ph.D, Pa. State Col, 38. *Instr.* physics, Kentucky, 31–35; Pa. State Col, 35–38; *metal. eng, Rensselaer Polytech, 38–* Physical Soc; Soc. Metals. X-ray metallography; radiographic inspection; physical properties of metals and alloys.

Sullivan, Dr. Harry Stack, 9003 Bradley Blvd, Bethesda 14, Md. *Psychiatry.* Norwich, N. Y, Feb. 21, 92. M.D, Chicago Col. Med. and Surg, 17. Med. exec. officer, Fed. Board for Vocational Educ, 19–20; psychiatrist, Pub. Health Inst, 21–22; St. Elizabeth's Hosp, 22–23; assoc. prof. psychiat, sch. med, Maryland, and director clin. research, Sheppard and E. Pratt Hosp, 23–30; *pres, Wash. Sch. Psychiat, 36–* Consultant psychiat. to director, Selective Service System, 40–41, consultant psychiatry, President's Advisory Cmt. Selective Service, 41– Trustee, William Alanson White Psychiat. Foundation, 35–, pres, 35–42. Assoc. ed, 'Am. Jour. Psychiat,' 27–39; co-editor, 'Psychiatry; Jour. Biol. and Path. of Interpersonal Relations,' 38– Junior mem. board examiners, M.C, U.S.A, 17–18, asst. med. officer, 18–19. A.A; Psychiat. Asn. General psychiatry; interrelation of personality and culture; psychiatry of personnel selection; psychiatry, morale and psychiatric strategy of total war.

Sullivan, Sister Helen, Mt. St. Scholastica College, Atchison, Kans. *Mathematics.* Effingham, Kans, April 10, 07. A.B, St. Benedict's Col, 30; A.M, Catholic Univ, 31, Ph.D, 34. From instr. to *prof. math, Mt. St. Scholastica Col, 34–* Summer, instr, Mt. St. Scholastica Col, 31, 34, 35, 41. Math. Soc; Math. Asn; Physical Soc. Quadrilaterals in and circumscribed to rational quartic.

Sullivan, John D(aniel), 505 King Ave, Columbus, Ohio. *Chemistry.* Columbia Falls, Mont, Feb. 4, 00. B.S, Washington (Seattle), 21, M.S, 22. Teaching fellow, dept. chem, Washington (Seattle), 21–22; junior chemist, U. S. Bur. Mines, Seattle, Wash, 22–23, asst. physical chemist, Berkeley,

Calif, 23–27, assoc. metal. chemist, Tucson, Ariz, 27–31; *chief chemist, Battelle Mem. Inst, 31–* Chairman process research div, War Metal. Cmt. Nat. Acad. (tech. advisory cmt. metals and minerals, chairman alumina group); Min. and Metal. Eng; Electrochem. Soc; Ceramic Soc; Soc. Glass Technol; British Ceramic Soc; London Chem. Soc; Deuts. Chem. Gesell; Deuts. Keramische Gesell. Chemical engineering; ceramics; metallurgy; thermodynamics; hydrometallurgy of copper; analytical chemistry; ore dressing; refractories; enamels; residual metals in steel; copper patina; heavy liquids for mineralogical analysis.

Sullivan, Dr. J(ohn) M(agruder), 2 Park Ave, Jackson, Miss. *Chemistry, Geology.* Woodville, Miss, Aug. 16, 66. A.B, Centenary Col, 87; A.M, Mississippi, 90; A.M, Vanderbilt, 97, Ph.D, 00; Chicago, 07, 08, 11. Prin, Centenary Prep. Sch, 87–89; *prof.* nat. science, Centenary Col, 89–02; *chem. and geol, Millsaps Col, 02–* A.A; Chem. Soc; Paleont. Soc; Miss. Acad. (pres, 20). Nashville coal-tar and pitch; geology of the Mississippi petrified forest; paleontology of Mississippi.

Sullivan, Dr. John W(adsworth) W(illiam), 1167 Brentwood Road, Cleveland Heights, Ohio. *Engineering.* Boston, Mass, Nov. 16, 01. B.S, Mass. Inst. Tech, 23, M.S, 25, Sc.D, 27. Asst, Milford Electrolytic Iron Co, Conn, 23; draftsman, Louden Machinery Co, Boston, 23–24; mining engineer, Utah Apex Co, 24; chem. engineer, Tide Water Oil Co, N. J, 27–28; research engineer, A. O. Smith Corp, Milwaukee, 28–32; metallurgist, Beryllium Develop. Corp, Maryville, Mich, 32–33; research metallurgist, Am. Steel and Wire Co, 35–41; *prin. engineer, Cleveland Ordnance Dist, 41–* Army Ordnance Asn; Soc. Metals. Metallurgical engineering; collapsing strength of steel tubes; metallic coatings; production and inspection control; application of probability mathematics to inspection.

Sullivan, Dr. (John) Wentworth, 408 Polk St, Marietta, Ga. *Geology.* Atlanta, Ga, Sept. 10, 11. A.B, Colgate, 33, A.M, 35; Ph.D, Yale, 40. Teaching fellow geol, Colgate, 33–35; asst, Yale, 36–37; *instr. geol. and geog, Colgate, 37–; lieut, U. S. Naval Res.* Summers, geologist, Geol. Surv. Newfoundland, 36, 37, 38; Ga. Geol. Surv, 40, 41. A.A. Stratigraphic and structural geology; coal fields of Georgia.

Sullivan, Rev. Joseph J(ohn), S.J, Weston College, Weston, Mass. *Chemistry.* Boston, Mass, March 2, 92. A.B, Woodstock Col. (Md), 18, A.M, 25; Ph.D, Hopkins, 28. Prof. chem, Canisius Col, 18–21; *dean dept. chem,* Boston Col, 29–33; Col. of Holy Cross, 33–42; *Weston Col, 42–* A.A; Chem. Soc; Franklin Inst; Faraday Soc; fel. London Chem. Soc; Deuts. Chem. Gesell. Reaction rates; dynamic isomers; vitreous state.

Sullivan, Dr. J(oseph) T(imothy), 235 Woodland Drive, State College, Pa. *Plant physiology.* Lawrence, Mass, Jan. 8, 00. B.S, Mass. Col, 22; M.S, New Hampshire, 24; Ph.D, Purdue, 35. Asst. agr. chem, New Hampshire, 22–24; asst. biochemist, Boyce Thompson Inst, 24–26; asst. chemist, Exp. Sta, Purdue, 26–36, assoc. chemist, 36–37; *physiologist, regional lab. for pasture research, U. S. Dept. Agr, 37–* A.A; Chem. Soc; Soc. Plant Physiol. Plant chemistry; composition of forage plants; carbohydrates in plants.

Sullivan, Dr. M(ichael) X(avier), Georgetown University, Washington, D. C. *Biochemistry.* Fall River, Mass, Oct. 25, 75. A.B, Harvard, 99; A.M, Brown, 02, Ph.D, 03. Asst. chem, Harvard, 99–00; private tutor, Providence, R. I, 00–03; instr. physiol. and biochem, Brown, 03–07; fertility expert, bur. soils, U. S. Dept. Agr, 07–15; biochemist, U. S. Pub. Health Service, 15–31; *director chemo-med. research inst, Georgetown, 31–* Asst, Marine Biol. Lab, Woods Hole, 05, 06. Soc. Biol. Chem; Chem. Soc. (pres, Wash. sect, 14); Soc. Bact; Wash. Acad. (v. pres, 14). Chemistry in relation to health and disease; muscular dystrophies; sulfur metabolism; biochemical defense; chemo-medical research; cancer; arthritis; allergies; development of highly specific and reliable tests for important biological constituents.

Sullivan, Dr. Mildred M(arie), Queens College, Flushing, N. Y. *Mathematics.* Boston, Mass, Nov. 16, 07. A.B, Radcliffe Col, 29, A.M, 30, Ph.D, 32. Asst. math, Harvard, 32–33; nat. research fellow, Rice Inst, 33–34; *instr. math,* Houston, 34–35; *Queens Col. (N. Y), 38–* Math. Soc. (ed. asst, 37). Mathematical analysis; potential theory.

Sullivan, Dr. R(oy) R(ichard), Weyerhaeuser Timber Co, Longview, Wash. *Physics.* Wesley, Ark, March 24, 05. A.B, Arkansas, 28; A.M, Missouri, 30; Ph.D, Minnesota, 35. Research electron tubes, Bell Tel. Labs, 30–31; head dept. physics and astron, Moberly Junior Col, 35–37; dept. physics, Tennessee, 37–42; *develop. dept, Weyerhaeuser Timber Co, 42–* Physical Soc. Electron physics; optics; spectroscopy; physics of textiles; physics of wood substances and products.

Sullivan, Russell, 2908 N. Meridian St, Indianapolis, Ind. *Astronomy.* Indianapolis, Ind, Nov. 23, 81. A.B, Yale, 05. A.A; Astron. Soc; fel. Royal Astron. Soc. Popular astronomy; dark and planetary nebulae; celestial motions; star clusters.

Sullivan, Prof. W(alter) E(dward), University of Wisconsin, Madison, Wis. *Anatomy.* Ludlow, Maine, July 22, 85. A.B, Bates Col, 07; A.M, Brown, 09, Ph.D, 12. Instr. biol, Western Reserve, 11–13; asst. prof. *anat,* Marquette, 13–15; *prof, med. sch,* Tufts Col, 15–20; *Wisconsin, 20–* Visiting prof, sch. med, Washington (St. Louis), 43. A.A; Asn. Anat. Vertebrate morphology and embryology; x-ray.

Sullivan, W(illiam) N(icholas), U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Lawrence, Mass, June 23, 08. B.S, Mass. State Col, 30, M.S, 39. Junior entomologist, *control investigations, bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–37, asst. entomologist, 37–42, *assoc. entomologist, 42–* Asn. Econ. Entom; Entom. Soc. Wash; Wash. Insecticidal Soc. Insecticides.

Sullivan, Dr. William R(ichard), 304 Hillside Ave, Nutley, N. J. *Chemistry.* Niles, Ohio, Oct. 22, 16. A.B, Western Reserve, 37, A.M, 39; Ph.D, Wisconsin, 42. Asst. biochem, Wisconsin, 39–42; *research chemist, Hoffmann-La Roche, Inc, 42–* Chem. Soc. Carbohydrate chemistry; anticoagulant coumarins; bio-organic chemistry.

Sulzberger, Prof. Marion B(aldur), 962 Park Ave, New York, N. Y. *Dermatology, Syphilology.* New York, N. Y, March 12, 95. Harvard, 12–13; Mass. Inst. Tech, 16–17; Geneva, 20–21; Paris, 22; M.D, Zurich, 26. Mem. staff, Int. Products Co, 14–16; intern, Kantonspital, Zurich, Switzerland, 25–26; asst. dermat. and syphilis, Dermat. Clinic, 26–29; dermat. and syphilol, Univ. Clinic, Breslau, 29; assoc. and instr. dermat, *N. Y. Post-Grad. Med. Sch, Columbia,* 29–35, *asst. clin. prof.* dermat, *skin and cancer unit,* 35–38, *dermat. and syphilol, 38–;* lieut. commander, *Med. Corps, U. S. Naval Res,* 40–43, *commander, 43–* Private practise, New York, 29–; assoc. attending dermatologist, Montefiore Hosp, 31–, assoc. attending physician in charge dermat. and syphilol, 2nd med. div, French Hosp, 34–38, consultant, 38–; asst. attending dermatologist and syphilologist, N. Y. Post-Grad. Hosp, 35–, assoc. attending dermatologist and syphilologist, dispensary, skin and cancer unit, 35–38, attending dermatologist and syphilologist, 38–; visiting physician, 3rd med. div, Welfare Hosp, 41–; research assoc, med. col, Cornell, 42– Co-editor, 'Year Book of Dermat. and Syphilol,' 31–43, ed, 43–; ed. dept. dermat. and syphilol, 'Jour. Allergy,' 35–, ed. board, 39–; ed. for N. Amer, 'Dermatologica'; ed. 'Jour. Investigative Dermat,' 38–; mem. advisory ed. board, 'Psychomatic Med,' 39– U. S. Navy, 17–19; lieut, U.S.N.R. Acad. Dermat. and Syphilol. (director, 38–; mem. cmt. publications, 42–); Dermat. Asn; Soc. Investigative Dermat. (director, 37–); Am. Med. Asn. (cmt, indust. dermatoses, council indust. health, 35–); Soc. Study Allergy; Asn. Immunol; Soc. Exp. Biol; Soc. Study Asthma and Allied Conditions; fel. N. Y. Acad. Med. (cmt. hon. fellowships, 40–; consultant, cmt. med. information, 41–); N. Y. Co. Med. Soc. (cmt. pharmacol; cmt. econ); Bronx Dermat. Soc. (pres, 39); hon. mem. Cuban Dermat. Soc; Argentine Med. Asn; Soc. Study Allergy Argentine Republic; hon. mem. Brazilian Dermat. Soc; hon. mem. Hungarian Dermat. Soc; Swiss Dermat. Asn; Swiss Soc. Prev. Venereal Diseases. Allergy; applied immunology.

Sumerford, Prof. W(ooten) Taylor, University of Georgia, Athens, Ga. *Pharmaceutical chemistry, Organic chemistry.* Valdosta, Ga, March 4, 09. B.S, Georgia, 30, S. Sternau and Co. fellow, 31–32, M.S, 33; H. A. B. Dunning fellow, Maryland, 37–38, Ph.D, 39. Instr. *pharmacy, Georgia,* 31–35, asst. prof, 35–40, *prof, 40–* Abstractor, 'Pharmaceut. Abstracts,' 39– Pharmaceut. Asn. (cmt. board rev. of papers, 'Jour,' 41–); Chem. Soc. Schiff bases; p-nitrosophenols.

Summerbell, Prof. R(obert) K(err), Northwestern University, Evanston, Ill. *Chemistry.* Le Grand, Iowa, 04. A.B, Defiance Col, 25; fellow, Ohio State, 27–28, Ph.D, 28. From instr. to *prof. chem, Northwestern, 28–* A.A. Grignard reagent; derivatives of dioxan; chlorination of ethers.

Summerby, Prof. Robert, Macdonald College, Que, Can. *Agronomy.* Beech Ridge, Que. B.Sc. (Agr), McGill, 11;

M.S, Cornell, 21. Asst. *agron, Macdonald Col, McGill*, 11–13, lecturer, 13–19, *prof, 19–* Soc. Agron; Can. Soc. Tech. Agr. Field crops; soil heterogeneity; field experiment technique.

Summers, Dr. Donald B(alch), 624 Ridgewood Road, Maplewood, N. J. *Chemistry.* Maplewood, N. J, Oct. 18, 02. B.S, Wesleyan, 24, A.M, 26; A.M, Princeton, 29; Ph.D, Columbia, 32. Asst, Wesleyan, 24–26; instr. chem, Amherst Col, 26–27; Princeton, 27–29; research and develop. chemist, Thomas A. Edison Co, 29–30; Chas. Pfizer and Co, 30–33; consulting chemist and instr. chem, high sch, Columbia, 33–42; *lieut, Chem. Warfare Service, U. S. Army, 42–* Lecturer, South Orange-Maplewood Adult Sch, West Orange Adult Sch. and Pelham Adult Sch, N. J, 37–42. Chemists advisory cmt, Maplewood Office Civilian Defense. Fel. Inst. Chem; Chem. Soc; Electrochem. Soc. Catalysis; electrochemistry; electro-organic chemistry; oxidations and reductions; chemical process patents; pharmaceuticals; war gases.

Summers, Dr. Eaton M(elroy), U. S. Sugar Plant Field Station, Houma, La. *Plant pathology.* Council Bluffs, Iowa, Jan. 11, 01. B.S, Nebraska, 22; fellow, Iowa State Col, 27–30, M.S, 28, Ph.D, 35. Teacher and supt, high schs, Iowa and Nebr, 22–26; asst. pathologist, *div. sugar plants, bur. plant indust, U. S. Dept. Agr*, 30–42, *assoc. pathologist, 42–* Summers, field agent, barberry eradication, bur. plant indust, U. S. Dept. Agr, 22–27. Phytopath. Soc. Chemical weed control; rôle of fungi in heating of stored grain; mosaic disease of cucumbers; diseases of sugar-cane; recovery of sugar-cane from mosaic; strains of virus, insect vectors and epidemiology of sugar-cane mosaic.

Summers, Dr. Francis M(arion), College of the City of New York, New York, N. Y. *Zoology.* Fredericktown, Mo, June 8, 06. A.B, California, 30; fellow, Col. City of N. Y, 30–31; A.M, Columbia, 31, Ph.D, 35. Tutor, Col. City of N. Y, 31–34; tutor and instr. biol, Bard Col, Columbia, 34–37; *instr.* anat, med. col, Cornell, 37–38; *biol, Col. City of N. Y, 38–* Protozoology; parasitology.

Summers, H(enry) E(lijah), 4610 Edison St, Los Angeles, Calif. *Zoology.* Rochester, N. Y, Aug. 18, 63. B.S, Cornell, 86, fellow, 86–88. Assoc. prof. biol, Tennessee, 88–91; asst, State Lab. Nat. Hist, Ill, 92–93; asst. and assoc. prof. physiol, Illinois, 93–97; prof. zool, Iowa State Col, 98–17; state entomologist, Iowa, 98–17. Asn. Econ. Entom. (sec'y, 04, 05, v. pres, 09); Micros. Soc; Entom. Soc. Wash; Iowa Acad. (pres, 02, treas, 07–09). Heteroptera; economic entomology.

Summers, Prof. R(embrandt) D(ewees), Western Maryland College, Westminster, Md. *Physics.* Philadelphia, Pa, Nov. 27, 99. A.B, Pennsylvania, 22, fellow, 32–35, Ph.D, 34. Instr. *physics,* Pennsylvania, 22–42; *prof, Western Maryland Col, 42–* Optics.

Summers, Prof. R(obert) E(dward), University of Minnesota, Minneapolis, Minn. *Mechanical engineering.* Condon, Oregon, July 1, 01. B.S, Oregon State Col, 24, M.S, 33; Kans. State Col, 24–25. Asst, Port of Portland, Oregon, 23–35; from instr. to assoc. prof. *mech. eng,* Oregon State Col, 25–38; assoc. prof, *Minnesota,* 38–43, *prof, 43–* Asst, materials testing lab, Kans. State Col, 24–25. Reserve officer, specialist div, Eng.C, U.S.N. Boiler-water; fuels and combustion; power production; process industries.

Summers, Dr. William A(llen), 637 Lowerline St, New Orleans, La. *Medical parasitology.* Gary, Ind, April 22, 14. A.B, Illinois, 35, M.S, 36; Ph.D, Tulane, 40. Teaching fellow, Louisiana, 36–37; parasitologist, State Board Health, Fla, 40–42; instr. biol, Jacksonville Junior Col, 42; *parasitologist and lieut, Sanit. Corps, U. S. Army, 42–* A.A; Soc. Parasitol; Soc. Trop. Med. Parasites of snakes; gill parasites of fish; transmission of Dirofilaria immitis; public health aspects of human parasitism by hookworm; laboratory methods used in the diagnosis of intestinal parasites.

Summerson, Prof. William H(enry), 1300 York Ave, New York, N. Y. *Biochemistry.* Decatur, Ala, April 12, 06. B.Chem, Cornell, 27, A.M, 28, Ph.D, 37. Instr. *biochem, col. med, Cornell,* 29–39, *asst. prof, 39–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Harvey Soc. Role of copper in nutrition; methods of colorimetric analysis; tissue metabolism; clinical chemistry.

Sumner, Prof. Francis B(ertody), Scripps Institution of Oceanography, La Jolla, Calif. *²Zoology.* Pomfret, Conn, Aug. 1, 74. B.S, Minnesota, 94; Ph.D, Columbia, 01. Instr. nat. hist, Col. City of N. Y, 99–06; director biol. lab, Bur. Fisheries, Woods Hole, 03–11; asst. prof. *biol, Scripps Institution, California,* 13–19, assoc. prof, 19–26, *prof, 26–* Naples Zool. Sta, 99, 00, 10; research assoc, Carnegie Institution, 27–30. Naturalist, 'Albatross,' 12–13. Mem. Columbia Univ. zool. exped, Egyptian Sudan, 99. Nat. Acad; A.A. (chairman, F, 38); Soc. Nat; Soc. Zool; Soc. Mammal; Genetic Asn; Soc. Exp. Biol; Ecol. Soc; Soc. Ichthyol. and Herp; Philos. Soc; West. Soc. Nat; fel. Calif. Acad; fel. San Diego Nat. Hist. Soc; cor. mem. Phila. Acad. Sci. Early development of bony fishes; osmotic relations between fishes and the surrounding medium; fauna of the Woods Hole region; heredity and influence of environment in the white mouse; physical conditions of San Francisco Bay; geographic variation and heredity of the deermouse; mechanism of color changes in fishes; efficacy of protective coloration; respiration and temperature acclimatization in fishes.

Sumner, Prof. F(rancis) C(ecil), 1116 Fairmont St, N. W, Washington, D. C. *Psychology.* Pine Bluff, Ark, Dec. 7, 95. A.B, Lincoln (Pa), 15, A.M, 17; A.B, Clark, 16, fellow, 17–18, 19–20, Ph.D, 20. Instr. German and psychol, Lincoln (Pa), 16–17; prof. psychol. and philos, Wilberforce, 20–21; W. Va. Col, 21–28; assoc. prof. *psychol, Howard,* 28–31, *prof, 31–,* acting head dept, 28–30, *head dept, 30–* Summer, instr, Southern (La), 21; Hampton Inst, 34. Sergt, Inf, 18–19. A.A; Psychol. Asn. Mental hygiene; legibility of copy; retinal rivalry; religious psychology; viewpoints in modern psychology.

Sumner, Prof. J(ames) B(atcheller), 119 Heights Court, Ithaca, N. Y. *Biochemistry.* Canton, Mass, Nov. 19, 87. A.B, Harvard, 10, A.M, 13, Ph.D, 14. Temporary prof. chem, Mt. Allison, 11; teaching fellow, Worcester Polytech, 11–12; asst. prof. *biochem, med. col, Cornell,* 14–29, *prof, 29–* Cmn. Relief Belgium Educ. Foundation fellow, 21–22; Guggenheim Foundation fellow, 37–38. Gold medal, Swedish Chem. Soc, 37. A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Chemistry of enzymes and proteins.

Sumner, Dr. John K(emp), 231 Huntingdon Road, Abington, Pa. *Organic chemistry.* Cambridge, Mass, Nov. 24, 03. B.S, Mass. Inst. Tech, 26, Ph.D, 34. Tech. aid, Hood Rubber Co, Watertown, Mass, 26–31; *research chemist, Resinous Products and Chem. Co, Phila, 34–* Chem. Soc; fel. Inst. Chem. Reaction of organic compounds with tertiary butyl hypochlorite.

Sumner, Dr. Robert J(ocelyn), Mellon Institute, Pittsburgh, Pa. *Biological chemistry.* Springfield, Mass, Oct. 26, 15. A.B, Hobart Col, 37; Ph.D, Cornell, 41. Asst, N. Y. State Exp. Sta, Geneva, 38–41; *indust. fellow, Mellon Inst, 41–* Chem. Soc; Asn. Cereal Chem. Relationship between carotene oxidation and the enzymic oxidation of unsaturated fats.

Sumner, Prof. Ruth, Colorado State College, Ft. Collins, Colo. *Physiology.* Breckenridge, Colo, Oct. 12, 07. A.B, Colo. State Teachers Col, 26; A.M, Colorado, 32, Ph.D, 35. Asst. biol, Colo. State Teachers Col, 23–26; teacher science, high sch, Colo, 26–30; asst. zool, Colorado, 31, instr, 32–35; *asst. prof. physiol, Colo. State Col, 38–* A.A; Soc. Zool; Colo-Wyo. Acad. Morphology and taxonomy of bees; effects of thyroid and vitamin B on growth, reproduction and endocrines.

Sumpter, Prof. Ward C(ullin), Western Kentucky State Teachers College, Bowling Green, Ky. *Chemistry.* Bowling Green, Ky, April 27, 03. A.B, Ogden Col, 22; M.S, Florida, 23; Ph.D, Yale, 30. Prof. chem, Ogden Col, 27–28; instr, West. Ky. State Teachers Col, 28–29; prof. and head dept, Col. of Ozarks, 30–33; gen. manager, J. B. Sumpter and Brother, 33–38; *assoc. prof. chem, West. Ky. State Teachers Col, 38–* Chem. Soc; Ky. Acad. Organic iodine compounds, especially derivatives of oxindole and dioxindole.

Sumrall, Dr. W(illiam) H(erbert), Mississippi College, Clinton, Miss. *Psychology.* Laurel, Miss, Dec. 2, 88. A.B, Miss. Col, 25; Ph.D, Indiana, 28. *Prof.* hist, Clarke Col, 16–18; sociol. and econ, *Miss. Col,* 27–30, educ. and psychol, 31–40, *psychol, 41–, academic dean, 32–* A.A. Social, economic and vocational status of graduates of a liberal arts college for men.

Sumstine, Dr. David R(oss), King Edward Apartments, Pittsburgh, Pa. *Mycology.* Somerset, Pa, Jan. 21, 70. A.B, Thiel Col, 90, Ped.D, 31; M.S, Pittsburgh, 08; Sc.D, Pa. Col, 10. *Asst, sect. bot, Carnegie Museum, Pittsburgh, 98–,* director curriculum study and educ. measurement and research, 26–39. Teacher, high sch, Pa, 09–12, prin, 12–26. A.A; Torrey Bot. Club; Bot. Soc. West. Pa. (pres, 06). Fungi of

Pennsylvania; the Mucoraceae and Hyphomycetes of North America.

Sumwalt, Dr. Margaret (Mrs. G. P. McCouch), Rose Tree Road, Media, Pa. *Physiology.* Brooklyn, N. Y, April 21, 01. A.B, Goucher Col, 23; B.S, Washington (St. Louis), 25; Dean Van Meter Alumnae fellow from Goucher Col, Pennsylvania, Ph.D, 29. Asst. zool, Washington (St. Louis), 23–25; asst. instr. physiol, Pennsylvania, 25–27, 31–33, nat. research fellow, 33–34; assoc, Woman's Med. Col. of Pa, 27–30, asst. prof, 30–31; asst. pharmacol, Michigan, 35–36, research instr, 36–39; fellow, nat. inst. health, U. S. Pub. Health Service, 39–40; assoc. physiologist, 40–41; instr. physiol, Temple, 41–42. Summers, instr, Marine Biol. Lab, Woods Hole, 31–33, mem. corp. A.A; Physiol. Soc. Trematode morphology; electrophysiology; permeability and water balance; pharmacology of morphine derivatives.

Sumwalt, Prof. Robert Llewellyn, 733 Sweetbriar Road, Heathwood, Columbia, S. C. *Engineering.* July 8, 95. B.S, Delaware, 18, C.E, 21; B.S, Mass. Inst. Tech, 20. Asst. supt. construction, U. S. Pub. Health Service, Augusta, Ga, 20–21; res. engineer, State Highway Dept, S. C, 21–23; from agent to supervisor agents, Atlantic Life Ins. Co, Richmond, 23–26; *prof. civil eng, South Carolina, 26–, dean sch. eng; consulting engineer.* Summers, eng. camp, Mass. Inst. Tech, 18; asst. engineer, du Pont Eng. Co, Wilmington, 19; detailer, Am. Bridge Co, Phila, 26; eng. sch, South Carolina, 27–29; chief party, State Highway Dept, S. C, 30; chief valuation engineer, S. C. Power Rate Investigating Cmt, 31; statistician, Fed. Home Loan Organization, S. C, 32; designer and supt. construction stadium, South Carolina, 33; engineer, Nat. Resources Planning Board, 34; asst. state director community sanitation and malaria control projects, U. S. Pub. Health Service and State Board Health, S. C, 35, chairman special short course sanit. science and pub. health, 36; engineer, State Park, S. C, 37; Pub. Works Admin. and Works Progress Admin. projects, South Carolina, 38–43. Past sec'y, S. C. Cmt. on Trade Recovery; chairman, State Planning Board; past chairman, State Board Housing; mem. State Council Nat. Defense. Eng. R.C, 18–19. Geophys. Union; Soc. Photogrammetry; Civil Eng. (past pres, S. C. sect; mem. cmt. control surveys; cmt. land titles; state cmt. civilian protection in wartime); Eng. Council (cmt. surveying and mapping; cmt. pub. affairs); Soc. Photogrammetry; Soc. Mil. Eng; Eng. Educ. (cmt. geod. surveying); Road Builders Asn. (director, 37–); S. C. Soc. Eng. (past pres; past sec'y-treas; chairman, cmt. pub. affairs); S. C. Acad.

Sun, Dr. K(uan) H(an), Kodak Research Laboratories, Rochester, N. Y. *Chemistry.* Shaohsing, Chekiang, China, June 7, 14. B.S, Nat. Univ. Chekiang, 36; Nat. Tsin-Hui fellow, Pittsburgh, 37–40, M.S, 38, Ph.D, 40. Research fellow, Pittsburgh, 40–42; *research chemist, Eastman Kodak Co, 42–* Chem. Soc; Ceramic Soc. Chemistry of glass; physical chemistry; development of new optical glasses; relationship between properties and compositions of glass; physical constants of ceramic compound.

Sunderlin, Dr. C(harles) Eugene, U. S. Naval Academy, Annapolis, Md. *Organic chemistry.* Reliance, S. Dak, Sept. 28, 11. A.B, Montana, 33; Rhodes scholar, Oxford, 33–36, B.A, 35; Ph.D, Rochester, 39. *Instr. chem,* Union Col. (N. Y), 38–41; *U. S. Naval Acad, 41–* Chem. Soc. Organic phosphorus compounds; aliphatic nitro compounds.

Sunderlin, Prof. Gertrude, Purdue University, Lafayette, Ind. *Nutrition.* Delmar, Iowa, 94. B.S, Iowa State Col, 19, fellow, 25–28, M.S, 26, Ph.D, 28. Instr, S. Dak. State Col, 23–25; assoc. prof. research home econ, Louisiana, 28–31; asst. prof. *foods and nutrition, Purdue,* 31–41, *assoc. prof, 41–* Soc. Bact; Home Econ. Asn. Synthesis of vitamins by microorganisms; home canning; intestinal hydrogen ion concentration in rickets; foods.

Sunderman, Prof. F(rederick) William, University of Pennsylvania, Philadelphia, Pa. *Medicine.* Altoona, Pa, Oct. 23, 98. B.S, Pa. Col, 19; M.D, Pennsylvania, 23, M.S, 27, Ph.D, 29. Instr, Gettysburg Acad, 19; asst. dermat, Pennsylvania, 23; res. physician, Pa. Hosp, 23–25; instr. *research med, Pennsylvania,* 25–30, *asst. prof, 30–, assoc. in charge chem. div, Wm. Pepper lab. clin. med, univ. hosp, 34–, ward physician.* Asst. physician, Pa. Hosp, 26–39, physician, 39–, chemist, 29–34, chief diabetic and metabolic clinics, 29–; physician, Pa. Hosp, 39. Ed. board and assoc. ed. tech. sect, 'Am. Jour. Clin. Path.' Lieut. commander, M.C, U.S.N.R, 36. Am. Hist. Med; Diabetic Asn; Soc. Clin. Path; Am. Med. Asn; Soc. Biol. Chem; Soc. Clin. Invest; Physiol. Soc. Phila; Col. Physicians Phila. Electrolytes of blood and tissue; metabolism; chemical aspects of medical research; biochemistry.

Sunderville, Dr. Earl, Cornell University, Ithaca, N. Y. *Veterinary medicine.* Newark, N. Y, Oct. 5, 86. D.V.M. Cornell, 08. Asst. *vet. anat, Cornell,* 08–09, instr, 09–14, asst. prof, 14–34, *prof, 34–* Vet. Med. Asn; N. Y. Vet. Med. Asn. Lymphatic system of cattle; post-mortem anatomy of chicken; tonsils in the dog.

Sundstroem, Dr. E(dward) S(igfrid), University of California, Berkeley, Calif. *Biochemistry.* Finland, March 18, 80. M.D, Helsingfors, Finland, 10. Physiologist, Inst. Trop. Med, Townsville, Queensland, Australia, 20–22; instr. *biochem, California,* 16–20, asst. prof, 22–27, *assoc. prof, 27–* Soc. Biol. Chem; Soc. Exp. Biol. Physiological effect of high altitudes and tropical climate; acclimatization; biochemistry of climate; cancer.

Sundwall, Prof. John, University of Michigan, Ann Arbor, Mich. *Hygiene, Public health.* Fairview, Utah, 81. B.S, Chicago, 03, fellow, 04–06, Ph.D, 06; M.D, Hopkins, 12. Asst. anat, Chicago, 06–07; prof, Utah, 07–10; asst. surgeon, U. S. Pub. Health Service, 12–13; *prof.* anat, Kansas, 13–18; hygiene, Minnesota, 18–21; *hygiene and pub. health, Michigan, 21–* Advisory cmt. training of sanitarians, U. S. Pub. Health Service, 22–, cmt. costs med. care. A.A; fel. Pub. Health Asn. (cmt. pub. health training, 25–, pres, 28–); fel. Am. Med. Asn. (v. chairman, sect. prev. med, 23); Social Hygiene Asn. (advisory educ. cmt); Asn. Sch. Physicians (v. pres, 31, pres, 36); Sch. Health Asn. (pres, 38). Gland structures; the growth of tissue in plasms; tissue alteration in pellagra; structure of the choroid plexus; subcutaneous atrophy; school health; education; preventive medicine; organization and administration of university health services; professional education of public health personnel.

Suneson, Colt A(lfred), University Farm, Davis, Calif. *Agronomy.* Missoula, Mont, Jan. 3, 03. B.S, Mont. State Col, 28; M.S, Kans. State Col, 30; Nebraska, 30, 35; California, 38, 40. Asst, Kans. State Col, 28–30; junior agronomist, *U. S. Dept. Agr.* in cooperation Exp. Sta, Nebraska, 30–35, asst. agronomist, 35–36, assoc. agronomist. *in cooperation col. agr, California,* 36–41, *agronomist, 42–* Regional coordinator, Wheat Improv. Program, 37– Soc. Agron. (sec'y west. sect, 39). Cold resistance in winter wheat; effect of awns on yield; genetics of and breeding for Hessian fly resistance; a male sterile character in barley; production, breeding, genetics and physiology of wheat, barley and oats.

Suntzeff, Dr. V(alentina), Washington University School of Medicine, St. Louis, Mo. *Pathology.* Kasan, Russia, Feb. 28, 91. M.D, Women's Med. Inst, Petrograd, 17. Physician, dept. int. med. and dispensary, Perm Canon Works Hosp, Russia, 18; physician in chief, Isolation Hosp, Perm Zemstvo, 18–19; physician, Army Hosp, Chita, 19–20; dept. int. med, Cent. Hosp, Harbin, Manchuria, 22–23; research asst. path, *sch. med, Washington (St. Louis),* 30–40, *research assoc,* 40–41, *cytol, 41–* Experimental investigation of tumors.

Suomela, A(rnie) J(ohn), 2725 Montlake Blvd, Seattle, Wash. *Fisheries.* Ilwaco, Wash, July 27, 02. B.S, Washington (Seattle), 24, M.S, 31; George Washington, 33–34. Warden. Alaska fisheries service, *U. S. Bur. Fisheries,* 24–28, junior aquatic biologist, 31–37, asst. aquatic biologist, 37–39, *assoc. aquatic biologist, 39–* Lecturer, Washington (Seattle), 35– Transplanting and restocking salmon runs blocked by Grand Coulee Dam, upper Columbia River, to tributary streams below that structure.

Supple, Prof. Lee F(rancis), Lewis Institute, Chicago, Ill. *Chemistry.* Columbia City, Ind, Aug. 15, 85. B.S, Michigan, 13. Instr. chem, *Ill. Inst. Tech,* 13–19, asst. prof, 19–30, assoc. prof, 30–36, *prof. org. chem, 36–* Lieut, Sanit.C, 18–19. Eng. Educ; Chem. Soc. (sec'y, Chicago sect, 24–28, chairman, 33–34). Fats, waxes and oils.

Supplee, Dr. G(eorge) C(ornell), The Borden Co. Bainbridge, N. Y. *Chemistry, Nutrition, Bacteriology.* Reading, N. Y, Dec. 5, 89. B S, Cornell, 13, M.S. (Agr), 14, Ph.D, 19. Instr. bacter, Cornell, 12–19; director research labs, Dry Milk Co, 19–36; *director biol. and chem, research div, Borden Co, and assoc. director div, 36–* Summers, special assignments, U. S. Dept. Agr, 13–15, 17, 18. Billings medal and award, Am. Med. Asn, 36. Fel. Inst. Chem; Inst. Food Tech; Chem. Soc; Dairy Sci. Asn; fel. Pub. Health Asn; Chemists' Club; Int. Asn. Milk Sanitarians (v. pres, 23–25, pres, 25). Chem-

istry and biology of milk and its derivatives; vitamins, nutrition and irradiation research and development; food processing; physical principles as applied to processing of milk; isolation and purification of milk constituents.

Supplee, Dr. W(illiam) C(arleton), Inspection and Regulatory Service, College Park, Md. *Chemistry,* Del Ray, Va, Dec. 21, 03. B.S, Maryland, 26, fellow, 26–31, M.S, 27, Ph.D, 31. *Chemist,* Maryland, 31–41; *Inspection and Regulatory Service Md, 41–* Nutrition and chemistry of foods.

Surber, Eugene W(icker), U. S. Department of the Interior, Kearneysville, W. Va. *Fisheries.* White Sulphur Springs, W. Va, Oct. 4, 04. B.S, Minnesota, 27, M.S, 29. Special investigator and later *assoc. aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 28–, in charge exp. sta, 32–* A.A; Fisheries Soc; Limnol. Soc. Aquatic biology; culture of bass and trout; control of vegetation in fish ponds.

Surber, T(haddeus), 1539 Dayton Ave, St. Paul, Minn. *Biology.* White Sulphur Springs, W. Va, Feb. 19, 71. Field naturalist for Outram Bangs, Boston, 94; Southwest. States and Mich, 95–97; official collector, Field Museum Nat. Hist. 99–01; Bur. Fisheries, 03–16, fish culturist, 05–09, sci. asst, Fairport lab, 10–14, foreman, Homer sta, 14–15, Duluth Hatchery, 14–16; biologist, State Game and Fish Dept, Minn, 17–23, supt. fish propagation, 23–37; *tech. adviser, 39–* Aquatic biology; mammalogy; ornithology; fish culture; natural hosts of fresh-water mussels.

Sure, Prof. Barnett, University of Arkansas, Fayetteville, Ark. *Agricultural chemistry.* Vilkomir, Lithuania, Feb. 7, 91. B.S, Wisconsin, 16, M.S, 17, Ph.D, 20. Asst. agr. chem, Wisconsin, 16–17; biochem, Hopkins, 17–18; asst. prof. *agr. chem, Arkansas,* 20–21, assoc. prof, 21–27, *prof, 27–* Soc. Biol. Chem; Inst. Nutrition; Soc. Exp. Biol. Amino-acids in nutrition; dietary requirements for reproduction; vitamin E in reproduction and lactation; vitamin B requirements of nursing young; pathology of avitaminosis; enzymic efficiency in malignancy; vitamin B_x essential for lactation; vitamin interrelationships; vitamins in health and disease.

Surface, Dr. Frank M(acy), 1 W. 72nd St, New York, N. Y. ***Biology, Statistics.* Eaton, Ohio, April 22, 82. A.B, Ohio State, 04, A.M, 05; Harrison fellow, Pennsylvania, 05–07, Ph.D, 07. Assoc. biologist, Exp. Sta, Maine, 07–10; biologist, Exp. Sta, Kentucky, 10–13; Exp. Sta, Maine, 13–17; director trade finance bur, 'Wash. Herald,' 20–21; ed, 'Surv. Current Business,' Bur. Census, 21–23; in charge surv. world trade in agr. products, Bur. For. and Domestic Commerce, 23–24, asst. director, 26–33; economist, U. S. Grain Corp. and Am. Relief Admin, 24–26; *director sales research, Standard Oil Co. of N. J, 33–* Acting prof, grad. sch. business, Stanford, 29–30. Del, 4th Int. Genetics Conf, Paris. Asst. chief statist. div, U. S. Food Admin, 17–19; chief statistician, U. S. Relief Admin, 19–20. A.A; Soc. Nat; Soc. Zool; Bot. Soc; Am. Marketing Soc. (pres, 35). Genetics; physiology of reproduction; statistics of food and agriculture; marketing.

Surrey, Dr. Alexander R(obert), 92 Hawthorne Ave, Albany, N. Y. *Organic chemistry.* New York, N. Y, March 13, 14. B.S, Col. City of N. Y, 34; fellow, N. Y. Univ, 37–40, Ph.D, 40. Fellow, Cornell, 40–41; *research chemist, Winthrop Chem. Co, 41–* Chem. Soc. Heterocyclic sulfides and sulfones.

Susie, Dr. Alfred G(eorge), 33 Standish Road, Melrose, Mass. *Organic chemistry.* Midland, Pa, Jan. 18, 10. B.S, Ohio Northern, 32; Indust. Research Foundation fellow, Purdue, 36–39, Ph.D, 39; M.S, Toledo, 37. Chemist, Sun Oil Co, Toledo, Ohio, 32–36; *research chemist, Gustavus J. Esselen, Inc, 39–* Chem. Soc. Preparation and properties of nitroolefins.

Sussman, Dr. Sidney, Permutit Co, Birmingham, N. J. *Organic chemistry.* Brooklyn, N. Y, Aug. 29, 14. B.S, Polytech. Inst. Brooklyn, 34; Ph.D, Mass. Inst. Tech, 37. *Research chemist,* E. I. du Pont de Nemours and Co, 37–40; *Permutit Co, 40–* Chem. Soc; Franklin Inst. Catalytic hydroxylation of olefins; high pressure catalytic organic syntheses; synthesis of organic ion exchangers and their applications in the process industries.

Sutcliffe, Walter D(raper), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy.* West Park, N. Y, July 17, 91. C.E, Syracuse, 13. From aid to geod. engineer, *U. S. Coast and Geod. Surv,* 13–17, *geod. mathematician, 17–* Geophys. Union (sec'y, sect. geodesy, 37–); Am. Cong. Surveying and Mapping; Wash. Soc. Eng; Philos. Soc. Wash; Wash. Acad. Precise traverse and base lines.

Suter, Dr. C(hester) M(erle), Winthrop Chemical Co, Rensselaer, N. Y. *Chemistry.* Dunnell, Minn, Dec. 13, 02. A.B, Southwestern Col. (Kans), 23; M.S, Kansas, 26, Ph.D, 27. Metz fellow, Yale, 27–28; instr. chem, Northwestern, 28–31, asst. prof, 31–36, assoc. prof, 36–42, prof. and chairman dept, 42; *director chem. research, Winthrop Chem. Co, 42–* A.A; Chem. Soc. (councilor, 39). Organic chemistry of sulfur; synthesis of germicides; physiologically active amines.

Suter, Dr. Max, 405 W. Elm St, Urbana, Ill. *Engineering.* Zurich, Switzerland, Feb. 11, 89. Dipl. Ing, Fed. Polytech. Sch, Zurich, 13; Ph.D, Illinois, 35. Consulting engineer, Peiffer and Suter, Herrin, Ill, 20–25; Caldwell Eng. Co, Jacksonville, Ill, 25–31; *engineer, State Water Surv, Ill, 36–* Civil Eng; Water Works Asn; Soc. Bact; Cent. State Sewage Works Asn. Sewage and water treatment; water resources.

Sutermeister, E(dwin), 799 Main St, Westbrook, Maine. *Chemistry.* Milton, Mass, Nov. 29, 76. B.S, Mass. Inst. Tech, 99. Chemist, S. D. Warren Co, 99–07; U. S. Forest Service, 07–10; *research chemist, S. D. Warren Co, 10–* A.A; Soc. Chem. Indust; Chem. Soc; Tech. Asn. Pulp and Paper Indust. Soda pulp manufacture; bleaching; casein; testing of wood pulps; paper coating; sizing.

Sutherland, Dr. Arthur H(oward), College of the City of New York, New York, N. Y. *Psychology.* Minonk, Ill, Nov. 19, 78. A.B, Grand Island Col, 99; fellow, Chicago, 08–09, Ph.D, 09; Columbia, 31. Asst. philos, Wisconsin, 07–08; abnormal psychol, Govt. Hosp. for Insane, Washington, 09–10; instr. exp. psychol, Illinois, 10–14; psychol, Yale, 14–17; psychologist and director dept. educ. research, city sch. dist, Los Angeles, 17–24; director, Sutherland Sch. Educ. Research, 24–26; Scarborough Sch, 26–27; independent research applied psychol, 27–28; research, Personnel Research Federation, 29; director educ, Irving Trust Co, 30; *instr. educ, Col. City of N. Y, 32–* A.A; Psychol. Asn; Asn. Applied Psychol; Soc. Study Educ; Asn. Col. Teachers Educ; Commercial Ed. Asn; West. Psychol. Asn. (pres, 22). Word-associations in abnormal subjects; intelligence tests and school reorganization; workbook in economic geography.

Sutherland, Dr. B(rian) P(orter), Consolidated Mining and Smelting Co, Ltd, Trail, B. C, Can. *Chemistry.* Birkenhead, Eng, July 25, 04. B.A.Sc, British Columbia, 25; M.Sc, McGill, 26, Nat. Research Council Can. bursar, 26–27, student, 27–28, Ph.D, 28. Fellow, Nat. Research Council Can, McGill, 28–29; *chief research, chem. and fertilizer dept, Consol. Mining and Smelting Co, Ltd, 29–* Propylene-halogen hydride reaction; effect of molecular attraction on total pressure of gas mixtures; viscosity of gases.

Sutherland, Prof. (Clarence) Hale, Lehigh University, Bethlehem, Pa. *Civil engineering.* Foxcroft, Maine, 84. A.B, Harvard, 06; B.S, Mass. Inst. Tech, 11. Asst. prof. and assoc. prof. struct. eng, Mass. Inst. Tech, 19–30; *prof. civil eng. and head dept, Lehigh, 30–* Prof, Robert Col, Constantinople, 26–27. Civil Eng. Structural engineering; reinforced concrete; structural theory and design.

Sutherland, Dr. George F, Darnall General Hospital, Danville, Ky. *Neuro-physiology, Psychiatry.* Seattle, Wash, May 17, 00. M.D, McGill, 28, M.Sc, 32. Instr. physiol, McGill, 29–34; research assoc, Cornell, 35–40; *research fellow, Harvard, 38–* Physiol. Soc. Conditioned reflexes in animals and man; the experimental neurosis.

Sutherland, Dr. L(eslie) Hunt, 117 Beverly Drive, Indianapolis, Ind. *Chemistry.* New Bedford, Mass, June 11, 15. A.B, Dartmouth Col, 36; M.S, Pa. State Col, 38, du Pont fellow, 39–40, Ph.D, 40. Am. Petrol. Inst. research fellow, Pa. State Col, 40–41; *chemist, Reilly Tar and Chem. Corp, 41–* Chem. Soc. Coal tar chemicals; organic chemistry.

Sutherland, Dr. M(arjorie) L(eslie), Univeristy of Toronto School of Hygiene, Toronto 5, Ont, Can. *Microbiology, Statistics.* Bismarck, N. Dak, May 7, 16. Ph.D, Manitoba, 42. Asst. bacter, Manitoba, 36–43; *research asst. epidemiol. and biometrics, Toronto, 43–* Methods of improving the plate count technique, as applied to numbers of bacteria in soil.

Sutherland, O(rlando) P(latt), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy.* Springville, Ind, April 20, 89. Valparaiso and Indiana, 06–16. Prin. and sch. supt, Ind, 10–16; mathematician, *U. S. Coast and Geod. Surv,* 16–27, chief computing div, Manila Field Sta, P. I, 27–29, mathematician, 29–40, *senior mathematician, 40–* Triangulation in Massachusetts, Kansas and the Philippine Islands; triangula-

tion and traverse in Louisiana; triangulation; methods of adjustment.

Sutherland, Prof. Richard O(rlin), College Hill, Clinton, N. Y. *Physical chemistry.* Chicago, Ill, May 5, 09. Ph.B, Yale, 31, M.S, 34; Ph.D, Wisconsin, 36. Prof. chem. and physics and dean men, Northland Col, 36–37; instr. *chem,* Carleton Col, 37–39; *asst. prof, Hamilton Col, 39–* Chem. Soc. Thermodynamics of solutions; chemical kinetics.

Sutliff, Dr. W(heelan) D(wight), W. H. Park Laboratory, Foot of E. 15th St, New York, N. Y. *Medicine.* Rhinelander, Wis, June 20, 00. A.B, Wisconsin, 21, M.S, 22; M.D, Cornell, 24. Asst. med, Harvard Med. Sch, 29–30, instr, 31–34; research instr, Chicago, 34–37; *asst. director bur. labs, City Dept. Health, New York, 37–* Soc. Clin. Invest. Pneumonia.

Sütö-Nagy, Dr. G(yula Ilon) de, Yale University School of Medicine, New Haven, Conn. *Pathology, Biochemistry.* Cegléd, Hungary, Aug. 19, 10. M.D, Budapest, 35, M.Sc, 38. Asst. path, Budapest, 30–33, exp. path, 35–36, instr, 36–37, asst. prof, 37–39; exchange fellow chem, grad. sch, *Yale,* 39–40, Alexander Brown Coxe Mem. fellow physiol. chem, 40–41, *instr. path, 41–* A.A; Chem. Soc. Experimental pathology; pyrimidine chemistry; sexual hormones; blood coagulation.

Suttie, Prof. Roscoe H(enry), 35 Mill Rock Road, New Haven, Conn. *Hydraulic and sanitary engineering.* Lisbon, N. H, Feb. 24, 86. Ph.B, Yale, 11, C.E, 13. Instr. civil eng, Yale, 13–18; asst. engineer, U. S. Geol. Surv, 18–19; asst. prof. *civil eng, Yale,* 19–28, *assoc. prof, 28–* Hydraul. engineer, State Geol. Surv. and Nat. Hist. Surv, Conn, 26–28. Civil Eng; Eng. Educ; Pub. Health Asn; New Eng. Sewage Works Asn. (pres, 43); New Eng. Water Works Asn; Conn. Soc. Civil Eng. Water resources of Connecticut.

Suttie, Prof. A(ndrew) D(illard), Mississippi State College, State College, Miss. *Agronomy.* Louisville, Miss, June 22, 90. B.S, Miss. Agr. and Mech. Col, 15, M.S, 20; M.S, Cornell, 21, Ph.D, 24. Instr. agron, Miss. Agr. and Mech. Col, 16, bot, 17; agron, Agr. and Mech. Col. Texas, 17–21; asst, Cornell, 21–24; bur. plant indust, U. S. Dept. Agr, 24; *prof. agron,* Miss. Agr. and Mech. Col, 24–32, *Miss. State Col, 32–* Plant breeding; genetical inter-relation of different types of dwarf corn; linkage of genes for crest and frizzle in the domestic fowl.

Sutton, Prof. A(rle) H(erbert), Box 337, Rosiclare, Ill. *Geology.* Columbus, Ind, Aug. 4, 96. Ph.D, Chicago, 27. Asst. prof. *geol,* Colo. Col, 24–25; instr, *Illinois,* 27–29, asst. prof, 29–34, *assoc. prof, 34–* Geologist, fluorspar dist, Aluminum Co. Amer, 42–43. Summers, asst. geologist, Ky. Geol. Surv, 25–31; consulting geologist, 32–40; geologist, fluorspar dist, Aluminum Co. Amer, 41, consultant, 41–42. A.A; Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont; Paleont. Soc; Ill. Acad. Paleontology; stratigraphy.

Sutton, Dr. Don (Carlos), 30 N. Michigan Ave, Chicago, Ill. *Medicine.* Sidney, Ill, March 28, 86. M.S, Northwestern, 24, M.D, 11. *Assoc. prof. med, med. sch, Northwestern; attending physician and chairman med. div, Cook County Hosp.* Am. Med. Asn; Soc. Clin. Invest; Chicago Soc. Int. Med. (pres, 37); Inst. Med. Chicago. Clinical medicine; physiology; physiology of the pituitary body; heart pain; diseases of the coronary arteries; physical diagnosis.

Sutton, Dr. E(ileen), Johns Hopkins University, Baltimore, Md. *Biology, Cytogenetics.* Bishop's Stortford, Eng, July 8, 13. B.A, Oxford, 34; Ph.D, London, 39. Research worker, John Innes Hort. Institution, London, 34–38; asst. cytogenetics, dept. genetics, Carnegie Institution, 38–43; *instr. biol, Hopkins, 43–* Lecturer, McGill, 42–43. Genetics Soc; Genetics Soc. Gt. Britain. Cytogenetics of Drosophila melanogaster.

Sutton, Dr. George M(iksch), Cornell University, Ithaca, N. Y. *Ornithology.* Lincoln, Nebr, May 16, 98. B.S, Bethany Col. (W. Va), 23; Ph.D, Cornell, 32. Asst. curator birds, Carnegie Museum, 19–24; instr. ornith, Pittsburgh, 21–24; state ornithologist, Pa, and chief bur. research and information, State Board Game Commissioners, Pa, 25–29; *curator birds, Cornell, 32–; capt, Air Corps, U. S. Army, 43–* Fellow, Cranbrook Inst. Science. Contributing ed, 'Audubon Magazine,' 41– Hon. trustee, Oglebay Inst. Carnegie Museum ornith. expeds, Labrador, 20, Hudson Bay, 23, 26, 31, Cape Sable region, Fla, 24, south. Labrador, 28, Southampton Island, 29–30, Sask, 32, Rio Grande Valley, 33, B. C, 34; Cornell exped, south. states, 35, Okla, 36, 37; Cornell and Carnegie Museum exped, Rio Grande Valley, 35; Cornell exped, Mex, 38, 39, Ariz, 40; Cornell-Carleton exped, Mex, 41. Fel. Ornith. Union; Cooper Ornith. Club; Polar Soc; Wilson Ornith. Club (v. pres, 25–29, pres, 41); Biol. Soc. Wash. Life histories, plumages and taxonomy of birds; bird illustrations.

Sutton, Dr. J(oseph) Bartlett, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Bridgeport, W. Va, Oct. 26, 09. B.S, West Virginia, 32, M.S, 33, Ph.D, 35. Asst. chem, West Virginia, 32–35; *research chemist, E. I. du Pont de Nemours and Co, 35–, head research div, 40–* Summers, research fellow, Exp. Sta, West Virginia, 35. Chem. Soc. Adsorption; pigment chemistry; non-ferrous metallurgy.

Sutton, Dr. Lee E(dwards), Jr, Medical College of Virginia, Richmond, Va. *Pediatrics.* Richmond, Va, Dec. 9, 91. B.S, Va. Polytech, 14; Hopkins, 14–16; M.D, Harvard Med. Sch, 21. Acting res. pathologist, Roosevelt Hosp, New York, 16–18; pathologist, influenza cmn, Boston City Hosp, 19, asst. physician, 22–28; asst. *pediat, Med. Col. Va,* 28–30, asst. prof, 30–32, assoc. prof, 32–38, *prof, 38–,* acting dean, 29–32, *dean,* 32–42, *pediatrist, col. hosp. div.* Asst, Harvard Med. Sch, 26–28; pediatrist, Crippled Children's Hosp. Director, Children's Mem. Clinic, Richmond, Va, pres. board directors, 33–35. A.A; Am. Med. Asn; fel. Acad. Pediat; South. Med. Asn. Problems related to pediatrics.

Sutton, Prof. Mary C(atherine), 603 N. Meridian St, Newberg, Oregon. *Botany.* Tecumseh, Mich, Jan. 4, 88. A.B, Washington (Seattle), 11; A.M, Oregon, 28. Teacher, high sch, Wash, 14–15; instr. *biol, Pacific Col. (Oregon),* 11–14, 15–26, *prof,* 27– Food plants of the Northwest.

Sutton, Dr. Paul Porter, North Carolina State College, Raleigh, N. C. *Chemistry, Physics.* Baltimore, Md, Dec. 19, 10. Maryland fellow, Hopkins, 29–33, Ph.D, 34; Princeton, 34–35. Prof. science, Junior Col, Paducah, Ky, 35; instr. physical chem, Arkansas, 36; prof. chem, Bluefield Col, 36–37; instr. and later *asst. prof. physical chem, N. C. State Col, 37–* Measurement of electron affinities; theory of metals.

Sutton, Dr. Richard L(ightburn), 5400 Ward Parkway, Kansas City, Mo. *Dermatology.* Rockport, Mo, July 9, 78. M.D, Univ. Med. Col. Kansas City, 01, George Washington, 03; grad, U. S. Naval Med. Sch; Hopkins; London; Hamburg; Berlin; Paris; hon. LL.D, Missouri, 22; hon. Sc.D, Washburn Col, 25. Assoc. prof. and prof. *dermat,* Univ. Med. Col. Kansas City, 07–12; *sch. med, Kansas,* 12–40, *emer. prof, 40–* Asst. surgeon, U. S. Navy, retired. Head Univ. Mo. expeds, Africa, 23–24, India and Indo-China, 25–26; Univ. Kans. African-Asiatic exped, 29–30; Univ. Kans. Arctic exped, 32. Dermat. Asn; Am. Med. Asn. (chairman, dermat. sect, 13); Jackson County Med. Soc. (pres, 13); Kansas City Med. Library Asn. (pres, 18); fel. Royal Soc. Edinburgh; fel. Royal Geog. Soc. Diseases of the skin; mycoses; elementary dermatology.

Sutton, Dr. Richard L(ightburn), Jr, 31 E. 62nd St, Kansas City, Mo. *Dermatology.* Kansas City, Mo, May 11, 08. B.S, Michigan, 27, A.M. and M.D, 29; L.R.C.S. and L.R.C.P, Edinburgh, 32; L.R.F.P.S, Glasgow, 32. Asst. dermat, sch. med, Kansas, 33–36, instr, 36–40, asst. prof, 40–43; *capt, Med. Corps, U. S. Army, 43–* Fel. Am. Med. Asn; Dermat. Asn; Acad. Dermat. and Syphilol; Soc. Investigative Dermat; fel. Royal Geog. Soc. Gt. Britain; fel. Royal Soc. Edinburgh. Skin carcinoma; diseases of the skin; acne vulgaris a pustular lipoidosis.

Sutton, Dr. Richard M(anliffe), Haverford College, Haverford, Pa. *Physics.* Denver, Colo, Jan. 23, 00. B.S, Haverford Col, 22; Ph.D, Calif. Inst. Tech, 29. Instr. *physics,* Miami, 22–25; teaching fellow, Calif. Inst. Tech, 25–31; asst. prof, *Haverford Col,* 31–37, assoc. prof, 37–42, *prof, 42–* Lecturer, Denver, 41; Minnesota, 41–42. Solar eclipse exped, Colo, 18; leader, European Physics Tour, 38. Fel. Physical Soc; Asn. Physics Teachers (exec. cmt, 38–; pres, 40); Franklin Inst; Physics Club Phila. (pres, 37). Ionization by slow positive ions; demonstration experiments; mathematical instruments.

Sutton, Prof. T(homas) S(cot), 142 Leland Ave, Worthington, Ohio. *Animal husbandry.* Hammondsville, Ohio, Jan. 10, 02. B.S. (Agr), Ohio State, 28, M.S, 29, Ph.D, 34. Instr. *animal husbandry, Ohio State,* 29–36, asst. prof, 36–40, *assoc. prof, 40–,* asst, *Exp. Sta,* 30–35, *assoc, 35–* Ed, 'Jour. Dairy Science,' 38– Soc. Animal Production; Inst. Nutrition; Dairy Sci. Asn; Ohio Acad. Animal nutrition; physiology of reproduction.

Sutton, Prof. Willard J(ames), 24 High St, Alfred, N. Y. *Ceramics.* Hornell, N. Y, July 22, 95. B.S, Alfred, 17; Ph.D, Pittsburgh, 24. Mem. dept. chem, Fukien Christian Univ. (China), 24–41, chairman dept, 30–41; *asst. prof. ceramics, N. Y. State Col. Ceramics, Alfred, 41–* Chem. Soc; Ceramic Soc. Effect of various clay deflocculents on the strength of plaster molds.

Suydam, Dr. B(ergen) R(andolph), U. S. Naval Proving Ground, Dahlgren, Va. *Physics.* Tennent, N. J, Oct. 12, 16. B.S, Pa. State Col, 37; Sc.D, Mass. Inst. Tech, 40. Asst. physicist in charge velocity measuring sect, *U. S. Naval Proving Ground,* 41, *assoc. physicist in charge electronics sect, 41–* Electromagnetic radiation from a hyperbolic horn; design of specialized electronics equipment in connection with the war effort.

Suydam, Dr. John R(ichard), St. Mark's School, Southborough, Mass. *Chemistry.* New York, N. Y, May 9, 86. A.B, Harvard, 08; Chem.E, Columbia, 12, A.M, 15, Ph.D, 17. Asst. chemist, Standard Paint Co, 12; Gen. Chem. Co, 12–14; research chemist, Standard Textile Products Co, 19–22; L. Martin Co, 22–24; *teacher science, St. Mark's Sch, 25–* Lieut, C.A.C, 17–18, C.W.S, 18, major, C.W.R.S, 26. Industrial chemistry; decomposition of coal and hydrocarbons.

Suydam, Prof. V(ernon) A(ndrew), 1224 Porter Ave, Beloit, Wis. *Physics.* Waupaca, Wis, March 21, 72. B.S, Wisconsin, 96; fellow, Princeton, 09–10, Ph.D, 12. Prin. and sch. supt, Wis, 96–04; asst. instr. physics, Wisconsin, 04–07; instr. mech, Indiana, 07–09; head instr. *physics,* Princeton, 10–13; prof. and head dept, New Mexico, 13–14; prof, Medico-Chirurg. Col. Phila, 14–16; *prof. and head dept,* New Hampshire, 16–18; Grinnell Col, 18–23; *Beloit Col, 23–* Math. Soc; Franklin Inst; Iowa Acad. Total radiation from metals; resistivity of metals at high temperatures; electricity; electromagnetism.

Sveda, Dr. Michael, Grasselli Chemicals Department, E. I. du Pont de Nemours and Co, Cleveland, Ohio. *Organic and inorganic chemistry.* West Ashford, Conn, Feb. 3, 12. B.S, Toledo, 34; Eli Lilly research fellow, Illinois, 37–39, Ph.D, 39. Asst. chem, Toledo, 31–35; Illinois, 35–37; *research chemist, Grasselli chem. dept, E. I. du Pont de Nemorus and Co, 39–* Chem. Soc. Organic and inorganic compounds of nitrogen and sulfur; sulfamic acid and derivatives; polymers.

Svenson, Prof. Carl L(ouis), Massachusetts Institute of Technology, Cambridge, Mass. *Thermodynamics.* Buffalo, N. Y, Aug. 15, 96. B.S, Mass. Inst. Tech, 18, M.S, 33. Asst. mech. eng, *Mass. Inst. Tech,* 19–20, instr, 20–30, asst. prof. *heat eng,* 30–38, *assoc. prof, 38–* Mech. Eng; Eng. Ed; Soc. Refrig. Eng. (chairman Boston sect, 39). Refrigeration.

Svenson, Dr. H(enry) K(nute), Brooklyn Botanic Garden, Brooklyn, N. Y. *Botany.* Sweden, Jan. 13, 97. A.B, Harvard, 20, A.M, 22, Ph.D, 28. Instr. biol, Union (N. Y), 22–25, asst. prof, 25–27; asst. curator plants, *Brooklyn Bot. Garden,* 30–36, *curator herbarium, 36–* Guggenheim Mem. Foundation fellow, 39. Astor exped, Galapagos and Cocos Islands, 30. A.A; Bot. Soc; Torrey Bot. Club; Fern Soc. (treas, 35–); New Eng. Bot. Club. Systematic botany; Cyperaceae; flora of the Galapagos Islands, western South America, New York and eastern United States.

Sverdrup, Dr. Harald U(lrik), Scripps Institution of Oceanography, La Jolla, Calif. *Oceanography, Meteorology.* Sogndal, Norway, Nov. 15, 88. Ph.D, Oslo, 17. Research assoc. oceanog. and meteorol, Oslo, 11–13; Leipzig, 13–17; in charge sci. work, 'Maud' exped, 17–25; *research assoc, Carnegie Institution, 26, 28–;* prof. dynamical meteorol, Geophys. Inst, Bergen, Norway, 26–30; *research prof. geophys, Chr. Michelsen Inst, Bergen, 31–; prof. oceanog, California, and director, Scripps Institution, 36–* In charge sci. work, 'Nautilus exped,' 31. A.A. (pres, Pacific div, 40); cor. mem. Am. Geog. Soc; hon. mem. N. Y. Acad; cor. mem. Calif. Acad; hon. mem. Royal Meteorol. Soc; hon. mem. Deuts. Meteorol. Gesell; Deuts. Geophys. Gesell; hon. mem. Geog. Soc. Oslo; hon. mem. Geog. Soc. Hamburg; hon. mem. Geog. Soc. Leipzig; for. mem. Geog. Soc. Stockholm; cor. mem. Geog. Soc. Copenhagen; Norway Geophys. Asn; Oslo Acad; cor. mem. State Russian Geog. Soc; Inst. Meteorol. Organization. Dynamical oceanography and meteorology; terrestrial magnetism and electricity; aurora borealis.

Svihla, Prof. Arthur, University of Washington, Seattle, Wash. *Zoology.* Chicago, Ill, Oct. 19, 02. A.B, Illinois, 25; M.S, Michigan, 28, Hinsdale fellow, 29–30, Ph.D, 31. Biologist, State Dept. Conservation, La, 25–27; asst. prof. *zool,* State Col. Wash, 30–37, *assoc. prof,* 37–38; *Washington (Seattle), 38–, exec. officer, 43–* Walker prize, 31. A.A; Soc. Mammal; Soc. Ichthyol. and Herp. (sec'y, west. div, 33–36); Pacific Northwest Bird and Mammal Soc. Life histories, distribution and growth of amphibians, reptiles, birds and mammals.

Svihla, Dr. Ruth Dowell, University of Washington, Seattle, Wash. *Zoology, Botany.* R. I, Jan. 30, 97. A.B, Smith Col, 20; M.S, Illinois, 23; Ph.D, Michigan, 30. Asst. bot, Illinois, 20–23; museum, Michigan, 27–30; asst. field biologist, State Dept. Conservation, La, 24–27; *research assoc. zool. and bot, Washington (Seattle),* 40– Soc. Plant Taxon; Northwest Bird and Mammal Soc; Sullivant Moss Soc. Mammalogy; life history; ecology; hepatics; orchids.

Svirbely, Dr. J(oseph) L(ouis), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Pharmacology.* Duquesne, Pa, Aug. 6, 06. B.S, Pittsburgh, 28. Ph.D, 31. Inst. Int. Educ. fellow, Univs. Szeged, Debrecen and Pécs, Hungary, 31–33; fellow biochem, Mayo Clinic, 33–34; science, Margaret Morrison Carnegie Col, Carnegie Inst. Tech, 34–36, asst, 36–41; *assoc. pharmacologist, nat. inst. health, U. S. Pub. Health Service, 41–* A.A; Chem. Soc; Biochem. Soc. Gt. Britain. Vitamins; nutrition; metabolism.

Svirbely, Dr. W(illiam) J, University of Maryland, College Park, Md. *Chemistry.* Duquesne, Pa, March 2, 08. B.S, Carnegie Inst. Tech, 31, M.S, 32, Sc.D, 35. Instr. chem, Carnegie Inst. Tech, 34–35; physics, Canisius Col, 35–36, asst. prof, 36–37; instr. *chem, Maryland,* 37–40, asst. prof, 40–42, *assoc. prof, 42–* A.A; Chem. Soc. Reaction kinetics in solutions; polarization and dipole moment studies in solutions.

Swaim, Prof. V(erne) F(rank), 218 Cooper Blvd, Peoria, Ill. *Physics.* Bloomingdale, Ind, April 21, 86. B.S, Earlham Col, 09; Ph.D, Chicago, 14. Math. and coach, Friends, 09–11; *prof. physics, Bradley Polytech, 13–* A.A; Physical Soc; Optical Soc; Eng. Educ; Asn. Physics Teachers. Spectroscopy; pressure shift of the lines of the zinc spectra at low pressures.

Swain, Dr. Ralph B(rownlee), P. O. Box 752, Gulfport, Miss. *Entomology.* Benton, Ill, Oct. 20, 12. B.S, Iowa State Col, 34; M.S, Colorado State Col, 36; Ph.D, Colorado, 40. Teaching fellow, Colo. State Col, 34–36; asst. biol, Colorado, 36–38; *agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 38–* Asn. Econ. Entom; Kans. Entom. Soc. Biological control of the white-fringed beetles, with especial reference to parasitic nematodes; biological control of the fall webworm, the floret moth and the Mormon cricket in relation to range vegetation.

Swain, Dr. Robert C(uthbertson), American Cyanamid Co, Stamford, Conn. *Chemistry.* Palo Alto, Calif, Sept. 14, 07. A.B, Stanford, 28; Alexander von Humboldt fellow, Berlin, 29–32, Ph.D, 32. Nat. research fellow, Stanford, 32–34; research chemist, *Am. Cyanamid Co,* 34–41, asst. director research div, 41–42, *director chem. research div, 42–* Chem. Soc; fel. Inst. Chem. Physical and colloidal chemistry; synthetic resins; high pressure reactions.

Swain, Prof. R(obert) E(ckles), 634 Mirada Ave, Stanford University, Calif. **°*Chemistry.* Hollister, Calif, Jan. 5, 75. A.B, Stanford, 99; M.S, Yale, 01, Ph.D, 04; LL.D, Col. of Pacific, 29; Strassburg and Heidelberg, 01–02. Asst. *chem, Stanford,* 98–00, instr, 00–02, asst. prof, 02–07, assoc. prof, 07–12, prof, 12–41, *emer. prof, 41–,* exec. head dept, 17–41, acting pres, 29–33. Special agent, U. S. Dept. Justice, 10–11; expert chemist, referee board, U. S. Dept. Agr, 10–11; commissioner, smelter smoke investigations, Salt Lake Valley, U. S. Fed. Court, 20–21; Chandler lecturer and medal, Columbia, 23; chairman board overseers, Calif. Col. in China, 30–34; pres, board regents, 34– Chevalier, Légion d'honneur. Del, Int. Cong. Chem, Rome, 38. A.A; Chem. Soc. (pres, Calif. sect, 19, 35, chairman, div. chem. educ, 35, director, 38–42); Soc. Biol. Chem; fel. London Chem. Soc; Int. Union Chem. (v. pres, 38–). Relation of molecular weight to lowering of freezing-point; products of uric acid feeding in dogs; products of tryptic digestion; urine of the coyote; formation of kynurenic acid in the animal body; smelter smoke; physiological action of thallium salts; chemistry of marine animals; effects of fatigue on the composition of the blood; sulfur dioxide on plants.

Swain, Dr. R(obert) L(omond), University of Wisconsin, Madison, Wis. *Mathematics.* St. Louis, Mo, April 19, 13.

A.B, Reed Col, 34; Ph.D, Texas, 41. *Instr. math,* Texas, 37–41; *Wisconsin, 41–* Math. Soc. Point set theory.

Swain, Stephen M(cKee), 3403 Spangler Road, Cleveland Heights, Ohio. *Ceramics.* Hornell, N. Y, July 22, 03. B.S, Alfred, 25. Junior fellow, Mellon Inst, 25–29; ceramic engineer, Kier Fire Brick Co, 29–31; Gen. Refractories Co, 31–34; *N. Am. Refractories Co,* 34–40, *director research, 40–* Soc. Test. Mat. (cmt. refractories); Ceramic Soc. Physical testing of refractories; manufacture of fireclay refractories.

Swaine, Dr. J(ames) M(alcolm), Canadian Department of Agriculture, Ottawa, Ont, Can. *Zoology.* Barrington, N. S, Oct. 16, 79. B.S.A, Cornell, 05, M.S, 06, Ph.D, 19. Asst. entom. and zool, Cornell, 05–07; lecturer, Macdonald Col, McGill, 07–11; asst. entomologist, *Can. Dept. Agr,* 11–18, chief div. forest insects, 18–23, assoc. Dom. entomologist, 23–34, *director* research, 34–37, *science service, 37–* Entom. Soc; Asn. Econ. Entom; fel. Royal Soc. Can; Ont. Entom. Soc; Can. Soc. Forest Eng. Entomology; beetles of the families Scolytidae, Cerambycidae and Buprestidae; forest insects; the nervous system of lepidopterous larvae; ambrosia fungi.

Swales, Dr. Dorothy E(lizabeth) Newton (Mrs. William E. Swales), Macdonald College, Que, Can. *Botany.* Montreal, Que, 01. B.S.A, McGill, 21, M.Sc, 22; Hudson Bay fellow, Manitoba, 23–24, Nat. Research Council Can. fellow, 24–25, Ph.D, 32. Acting lecturer, Manitoba, 26–27; asst, British Columbia, 27–28; lecturer plant path, Macdonald Col, McGill, 30–35. Que. Soc. Protect. Plants. Marine spore-forming bacteria; sexuality in the higher fungi; floral survey of the eastern townships of Quebec; anatomy of grass leaves; the vegetative characters of native and naturalized pasture grasses.

Swales, Dr. W(illiam) E(ardley), Macdonald College, Que, Can. *Parasitology.* Ulceby, Lincolnshire, Eng, Dec. 31, 07. V.S, B.V.Sc, Toronto, 30; Ph.D, McGill, 35. Inspector diseases of domesticated animals, path. div, Can. Dept. Agr, 31–32; research asst, inst. parasitol, Macdonald Col, McGill, 32–35, lecturer parasitol, 35–39; *assoc. animal pathologist, Science Service, Can. Dept. Agr, 39–* Hon. research assoc, McGill, 32–33, 35, 41–43, research fellow, 43– Vet. Med. Asn; Conf. Research Workers Animal Diseases of N. Amer; Can. Soc. Tech. Agr; Ont. Vet. Asn. Helminth parasites of vertebrates; biology and histopathology of liver-fluke disease; parasitic diseases of sheep; chemotherapy of helminthiases; pharmacology of phenothiazine; natural resistance to helminth infections.

Swallen, Jason R(ichard), U. S. Department of Agriculture, Washington, D. C. *Botany.* Alliance, Ohio, May 1, 03. A.B, Ohio Wesleyan, 24; M.S, Kans. State Col, 25. Asst. bot, Kans. State Col, 24–25; junior botanist. *bur. plant indust, U. S. Dept. Agr,* 25–31, asst. botanist, 31–36, *assoc. botanist, 36–* Bot. Soc; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Biol. Field Club; Wash. Acad; Mich. Acad. Agrostology; taxonomy of grasses.

Swallen, Dr. L(loyd) C(layton), 205 W. Harrison Road, Lombard, Ill. *Chemistry.* Alliance, Ohio, July 9, 01. A.B, Ohio Wesleyan, 22; M.S, Ohio State, 24, Ph.D, 26. *Research chemist,* E. I. du Pont de Nemours and Co, 26; Commercial Solvents Corp, 27–36; Corn Products Ref. Co, 36–42; *Great Lakes Carbon Corp, 43–* A.A; Chem. Soc. Organic chemistry.

Swan, Clifford M(elville), 271 Madison Ave, New York, N. Y. *Acoustics.* Boston, Mass, Aug. 6, 77. B.S, Mass. Inst. Tech, 99; A.M, Harvard, 08. Instr. physics, Mass. Inst. Tech, 02–11; *consulting engineer, 11–* A.A; fel. Acoustical Soc. Architectural acoustics.

Swan, Dr. Donald R(obert), 55 Clay Ave, Rochester, N. Y. *Chemistry.* Toledo, Ohio, Sept. 28, 08. B.S, Toledo, 30; A.M, Ohio State, 32, Ph.D, 34. Asst. physiol, Ohio State, 34–35; *chemist, Eastman Kodak Co, 35–* Chem. Soc. Carbohydrates; synthetic resins; wetting agents.

Swan, Dr. Major M(artin), 4015 Cambridge, Kansas City, Kans. *Physiology.* Fremont, Nebr, Aug. 17, 06. A.B, Kansas, 33, Ph.D, 41, M.D, 43. Asst. instr. physiol, Kansas, 34–38, instr, 38–41; *2nd lieut, M.A, U. S. Army, 42–* Effect of acute, severe hemorrhage, diurnal variation and seasonal temperature on the blood lactic acid level of the dog.

Swan, Dr. S(tewart) D(uffield), The Dentists Supply Co, 220 W. 42nd St, New York, N. Y. *Chemistry.* New Wilmington, Pa, Jan. 1, 91. A.B, Monmouth Col, 12; A.M, Columbia, 16; fellow, Chicago, 19–21, Ph.D, 22. Chemist, Perth Amboy Chem. Works, 16–17; *research chemist,* Procter and Gamble Co, 21–22; *Dentists Supply Co, 22–* C.W.S, 18–19. Chem. Soc; Ceramic Soc; Chemists' Club. Physical, organic, ceramic and colloidal chemistry; dental products; porcelain and ceramic colors.

Swan, Dr. Thomas H(adden), Mellon Institute, Pittsburgh, Pa. *Physical chemistry.* Monmouth, Ill, July 8, 96. Monmouth Col; B.S, Mississippi, 18; A.M, Columbia, 21; Ph.D, Ohio State, 24. Asst. chem, Columbia, 19–21; Ohio State, 21–24; fellow, *Mellon Inst,* 24–34, senior fellow, 34–42, *fellow, 42–,* senior fellow, Pittsburgh, 24–37, Troy, N. Y, 37–42. A.A; Chem. Soc. Determination of vapor pressures of organic compounds of low volatility; corrosion and prevention of corrosion of metallic surfaces; textiles; synthetic resins; cellulose.

Swan, Prof. William O(rr), University of Chattanooga, Chattanooga, Tenn. *Chemistry.* Monmouth, Ill, March 20, 98. B.S, Mississippi, 19; M.S, Virginia, 21, Ph.D, 22. Acting asst. prof. anal. chem, Virginia, 22–23; asst. prof, West Virginia, 23–25; prof. *chem.* and head dept, Southwestern (Tenn), 25–35; Va. Mil. Inst, 35–40; prof, Louisiana Col, 40–41; *assoc. prof, Chattanooga, 41–* A.A; Chem. Soc. (sec'y, southeast Tenn. sect, 41–); Va. Acad; Tenn. Acad. Physical and analytical chemistry; vapor pressure of solutions; hygroscopicity.

Swanback, T(ore) R(obert), 40 Maple Ave, Windsor, Conn. *Agronomy.* Soderhamn, Sweden, May 24, 92. B.Sc, Royal Inst. Agr, Sweden, 21; M.S, Mass. Col, 28. Asst. agron, Mass. Col, 26–27; sci. asst, *tobacco substa, Conn. Exp. Sta,* 27–28, *agronomist, 28–* Nutritional work on tobacco.

Swanbeck, Prof. G(odfrey) W(illard), Augustana College, Rock Island, Ill. *Science.* Chicago, Ill, July 12, 07. A.B, Iowa, 30; Colorado, 31; summers, Washington (Seattle), 32, Northwestern, summers, 36, 37; M.S, Michigan, 35; Chicago, 37–38, summers, 38, 39, 40. Instr, high sch, Minn, 30–31; Deadwood, S. Dak, 31–34; Luther Jr. Col, Minn, 34–35; high sch, Ill, 35–37; George Williams Col, 37–38; *prof. science and registrar, Augustana Col, 38–* A.A; Soc. Study Ed; Progressive Ed. Asn; Chem. Soc; Lutheran Personnel Officers Asn. (pres, 40). Science survey courses in college of liberal arts.

Swanberg, Dr. Harold, 209–224 W. C. U. Bldg, Quincy, Ill. *Radiology, Anatomy.* Philadelphia, Pa, July 23, 91. B.S, M.D, Loyola (Ill), 16; mil. sch. roentgenol, U.S.A, 17–18; Harvard, 22; Vienna, 31. Med. research, Mich. State Inst. for Feeble-Minded, and instr. anat, sch. med, Loyola (Ill), 17; *practising radiologist, 19–* Past pres. staff and radiologist, St. Mary's Hosp, Quincy; radiologist, Blessing Hosp; director, Quincy X-ray and Radium Labs. Founder and ed, 'The Radiol. Rev.' and 'Miss. Valley Med. Jour'; former ed, 'Quincy Med. Bul,' 24–30. M.C, 17–19, capt; major, M.O.R.C, 24–29. A.A; Radiol. Soc. N. Amer; Roentgen Ray Soc; fel. Am. Med. Asn; fel. Col. Physicians; Miss. Valley Med. Editors' Asn. (sec'y); Ill. Radiol. Soc. (v. pres, 24, pres, 26); Ill. State Med. Soc. (past sec'y and pres, sect. radiol, and past sec'y and pres, secretaries conf); Adams County Med. Soc. (past pres. and sec'y); Miss. Valley Med. Soc. (sec'y); Chicago Roentgen Ray Soc. Medical uses of x-rays and radium; anatomy and histology of the intervertebral foramina; radium uterine applicator.

Swaney, Dr. Miller W(oodson), Esso Laboratories, Standard Oil Development Co, Elizabeth, N. J. *Chemistry.* Gallatin, Tenn, Feb. 29, 12. B.E, Vanderbilt, 31, M.S, 32; Ph.D, Purdue, 35. *Research chemist,* Ellis Labs, Montclair, 35–39; *Esso Labs, Standard Oil Develop. Co, 39–* Chem. Soc. (councilor, North Jersey, 43). Synthetic rubber and petroleum chemistry; soilless growth of plants; organic chemistry; organic nitrogen compounds.

Swank, Dr. Howard W(ilton), 4616 Sylvan Road, Richmond, Va. *Analytical chemistry.* Butler, Ohio, Jan. 30, 10. B.S, Mt. Union Col, 32; M.S, Purdue, 34, Ph.D, 37. *Research chemist, rayon dept, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Spectrophotometric study of ferron and thioglycollic acid as reagents for determining iron; colorimetric methods in analytical chemistry.

Swank, Dr. R(oy) L(aver), Peter Bent Brigham Hospital, Boston, Mass. *Anatomy.* Camas, Wash, March 5, 09. B.S, Washington (Seattle), 30; M.D, Ph.D, Northwestern, 35. Asst. anat, med. sch, Northwestern, 30–34; intern, Passavant Mem. Hosp, Chicago, 34–35; *house officer, Peter Bent Brigham Hosp, 36–* Asn. Anat. Anatomy of the nervous system; staining of degenerating myelin with osmic acid; the pyramidal and other descending tracts in mammals.

Swann, Dr. David H(enry), Brown University, Providence, R. I. *Geology.* Montevideo, Minn, May 15, 15. B.S, Michigan, 37, Ph.D, 41. *Instr. geol, Brown, 40–* A.A; Paleont. Soc; Mich. Acad. Invertebrate paleontology; Paleozoic corals.

Swann, Prof. H(oward) G(ray), University of Texas Medical School, Galveston, Texas. *Physiology.* Toronto, Ont, Can, March 8, 06. A.B, Harvard, 28; M.S, Chicago, 32, Ph.D, 35. Instr. *physiol,* Chicago, 35–41; *asst. prof, med. sch, Texas, 42–; Air Forces, U. S. Army.* Physiol. Soc; Asn. Study Int. Secretions. Brain mechanism; diabetes insipidus; adrenal cortex; drug addiction.

Swann, Dr. Ralph C(lay), 4900 Davis St, Skokie, Ill. *Organic chemistry.* Barboursville, W. Va, May 17, 12. B.S, Morris Harvey Col, 33; Ph.D, Mass. Inst. Tech, 41. Research chemist, Standard Ultramarine Co, 33–38; *senior research chemist, Pure Oil Co, 41–* Chem. Soc. The cyclobutane series.

Swann, Dr. S(herlock), Jr, University of Illinois, Urbana, Ill. *Chemistry.* Baltimore, Md, Sept. 30, 00. B.S, Princeton, 22; Ph.D, Hopkins, 26. Chemist, Columbia Gas Co, 26–27; asst. *chem. eng, Illinois,* 27–29, research assoc, 29–32, research asst. prof, 32–37, research assoc. prof, 37–41, *research prof, 41–* Summers, Penniman and Browne; U. S. Indust. Alcohol Co. Cmt. org. electrochem, Nat. Research Council, 38. A.A; Chem. Soc; Electrochem. Soc. (manager, 34–40, 43–, v. pres, 41–43; sec'y electro-org. div, 40–42, v. chairman, 42–). Organic electrochemistry.

Swann, Dr. W(illiam) F(rancis) G(ray), Bartol Research Foundation, Swarthmore, Pa. **3*Physics.* Ironbridge, Eng, Aug. 29, 84. B.Sc, London, 05, D.Sc, 10; hon. A.M, Yale, 24; Sc.D, Swarthmore Col, 29. Asst. demonstrator physics, Royal Col. Science, London, 05–07; asst. lecturer, Sheffield, 07–13; chief physicist, dept. terrestrial magnetism, Carnegie Institution, 13–17; physicist, Bur. Standards, 17–18; prof. physics, Minnesota, 18–23; Chicago, 23–24; Yale, 24–27, *director,* Sloane lab, 24–27; *Bartol Research Foundation,* 27– Lecturer, Pennsylvania. Summers, lecturer, Columbia, 20, 29; Cornell, 29; California, 30; Ohio State, 32. Assoc. ed, 'Physical Rev,' 20–22; 'Jour. Franklin Inst,' 23– Advisory board, Biochem. Research Foundation; Nat. Research Council, 21–23; trustee, Am. Oncologic Hosp. A.A. (v. pres, B, 23); fel. Physical Soc. (councilor, 24–, pres, 30–32); Optical Soc; Geophys. Union; Franklin Inst; Philos. Soc. (sec'y, 39–); Wash. Acad; Philos. Soc. Wash. (gen. cmt, 16); British Asn; London Physical Soc; Int. Geophys. Union. Thermal measurements; electro-magnetic theory; electrical conductivity; relativity; terrestrial magnetism; atmospheric electricity; atomic structure; cosmic rays.

Swanson, A(rthur) F(rithiof), Ft. Hays Experiment Station, Hays, Kans. *Agronomy.* Wahoo, Nebr, June 7, 91. B.S, Kans. State Col, 19; M.S, Minnesota, 23. From sci. asst. to *assoc. agronomist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, Ft. Hays Exp. Sta, Kans. State Col, 19–* Soc. Agron; Genetic Asn; Genetics Soc; Kans. Acad. Cereal crops; sorghums; winter wheat.

Swanson, Carl E(verett), 1860 Eleanor Ave, St. Paul, Minn. *Electrical engineering.* Valley City, N. Dak, Jan. 6, 06. B.S, Minnesota, 27, M.S, 37, E.E, 37. Radio engineer, Westinghouse Elec. and Mfg. Co, 27–29; instr. elec. eng, Minnesota, 29–31, math. and mech, 31–39; *director research, Northwest Airlines Inc, 39–* Soc. Automotive Eng. (ignition research cmt, 41). Electro-acoustics; transverse acoustic waves in rigid tubes; supercharged aircraft ignition systems.

Swanson, Prof. C(arl) Loyal W(illiam), University of New Hampshire, Durham, N. H. *Soils.* Peterson, Iowa, April 3, 10. A.B, Coe Col, 33; M.S, Iowa State Col, 38, Ph.D, 41. Teaching and research fellow *agron,* Iowa State Col, 37–41; *asst. prof, New Hampshire, 41–* Soil genesis and morphology; soil structure.

Swanson, Prof. Carl P(ontius), Michigan State College, East Lansing, Mich. *Plant cytogenetics.* Rockport, Mass, June 24, 11. B.S, Mass. State Col, 37; A.M, Harvard, 39, Ph.D, 41; fellow, Missouri, 41. *Research asst. and asst. prof. bot, Mich. State Col, 41–; lieut, U. S. Naval Res.* A.A; Genetics Soc. Cytogenetics of plants.

Swanson, Dr. Carroll Arthur, Ohio State University, Columbus, Ohio. *Plant physiology.* Burlington, Iowa, Sept. 6, 15. A.B, Augustana Col, 37; univ. scholar, Ohio State, 37–38, M.S, 38, Ph.D, 42. Asst. *bot, Ohio State,* 38–40, *instr, 40–* Effect of biologically produced chemicals on respiration.

Swanson, Prof. C(harles) O(scar), Kansas State College, Manhattan, Kans. *Cereal chemistry.* Jönköping, Sweden, Nov. 1, 69. A.B, Carleton Col, 99, Sc.D, 40; M.Agr, Minnesota, 05; Ph.D, Cornell, 22. Prin, high sch, Minn, 99–00, teacher, 00–03; instr. agr. chem, Purdue, and asst. chemist, Exp. Sta, 05–06; asst. chemist, Exp. Sta, *Kans. State Col,* 06–14, assoc. chemist, 14–23, instr. agr. chem, 06–09, asst. prof, 09–14, assoc. prof, 14–20, prof, 20–23, *prof. milling indust, 23–,* head dept, 23–39. Osborne medal, Am. Asn. Cereal Chemists, 38. A.A; Asn. Cereal Chemists. Wheat and flour chemistry; mill fumigants and by-products; loss of nitrogen and organic matter in cultivated soils; alfalfa; sorghums; silage; nutrition of swine; milling and baking qualities of wheat; colloidal properties of dough; physical properties of wheat; physical properties of dough.

Swanson, Prof. C(larence) O(tto), University of British Columbia, Vancouver, B. C, Can. *Geology.* Oshkosh, Wis, Oct. 21, 00. B.Sc, British Columbia, 21, M.Sc, 22; Ph.D, Wisconsin, 24. Instr. geol, Wisconsin, 25–28; prof. and head dept, Mich. Col. Min. and Tech, 28–36; *prof. geol, British Columbia, 36–* Fel. Geol. Soc; fel. Royal Soc. Can. Petrology.

Swanson, Prof. Donald E(klund), Hamline University, St. Paul, Minn. *Psychology.* Saronville, Nebr, Oct. 26, 09. A.B, Nebr. Wesleyan, 30; A.M, Oregon, 32; Ph.D, Iowa, 34. Asst. psychol, Oregon, 30–32; Iowa, 32–34, research assoc. psychol. and director reading clinic, 34–35, instr. psychol, 35–36; *prof. psychol. and director student personnel, Hamline, 36–* Summer, instr, Iowa, 36. Assoc. Psychol. Asn; Col. Personnel Asn; Minn. Soc. Applied Psychol. (v. pres, 40). Experimental psychology; silent reading; student personnel.

Swanson, Prof. Gustav (Adolph), University Farm, St. Paul, Minn. *Ornithology, Mammalogy.* Kandiyohi Co, Minn, Feb. 13, 10. B.S, Minnesota, 30, A.M, 32, Ph.D, 37; Michigan, 31. Teaching asst. zool, Minnesota, 30–34; biologist, State Dept. Conservation, Minn, 35–36; asst. prof. game management, Maine, 36–37; econ. zool, Minnesota, 37–41; assoc. regional inspector, U. S. Fish and Wildlife Service, 41–42; *assoc. prof. econ. zool, Minnesota, 42–* Summer, field biologist, Minn. Museum Nat. Hist, 32. Assoc. Ornith. Union; Wildlife Soc. (councilor, 38); Soc. Mammal; Soc. Ichthyol. and Herp; Wilson Ornith. Club (treas, 38–42); Minn. Acad; Wis. Soc. Ornith; Minn. Ornith. Union. Wildlife management and ecology; birds and mammals of Minnesota; economic ornithology.

Swanson, Dr. J(ohn) Chester, Box 305, Balboa, C. Z. *Physics.* Rison, Ark, Jan. 9, 04. A.B, Richmond, 26; fellow, Duke, 28–29, A.M, 29, Ph.D, 35. Instr, Hargrave Mil. Acad, 26–28; Duke, 28–29; schs, C. Z, 34–36; statist. engineer, Panama Canal, 36–37, director vocational educ, 37–40, safety engineer, 40–41; *senior educationist, U. S. Office Educ, 41–* Physical Soc; Asn. Physics Teachers. Supersonic interferometry; pressure coefficients of acoustic velocity.

Swanson, Dr. J(ohn) M(elvin), 501 N. Rodney St, Wilmington, Del. *Physical chemistry.* Ishpeming, Mich, July 26, 15. B.S, Mich. Col. Min. and Tech, 37; Ph.D, Wisconsin, 40. *Research chemist, E. I. du Pont de Nemours and Co, 40–* High polymers.

Swanson, Dr. Leonard E, University of Florida, Gainesville, Fla. *Parasitology.* Potomac, Mont, Aug. 13, 98. B.S, Ohio State, 25, D.V.M, 27. City meat and milk inspector, Dayton, Ohio, 29–30; state field veterinarian, Ohio, 30–31; junior zoologist, bur. animal indust, U. S. Dept. Agr, 31–36, assoc. parasitologist, 36–37, asst. parasitologist, 37–38, assoc. parasitologist, 38–41; *parasitologist, exp. sta, Florida, 41–* Liver-flukes; parasitic diseases of all animals; anthelmintics.

Swanson, Prof. Pearl P(auline), Iowa State College, Ames, Iowa. *Nutrition.* Cokato, Minn, Sept. 13, 95. B.S, Carleton Col, 16; M.S, Minnesota, 24; Sterling fellow, Yale, 27–29, Alexander Browne Cox fellow, 29–30, Ph.D, 30. Instr, high sch, Minn, 16–18; chem, Carleton Col, 20–22; asst. prof. home econ, Mont. State Col, 24–27; assoc. prof. *foods and nutrition, Iowa State Col,* 30–36, *prof, 36–* Chem. Soc; Home Econ. Asn; Inst. Nutrition. Effects produced in the rat by diet deficient in inorganic constituents; vitamins; rôle of meats in nutrition.

Swanson, Prof. Roy E(dwin), University of Minnesota, Minneapolis, Minn. *Obstetrics, Gynecology.* St. Thomas, N. Dak, Sept. 18, 90. B.S, Minnesota, 15, M.D, 16, Ph.D, 26. Teaching fellow *obstet. and gynec, Minnesota,* 23–25, instr, 26–27, *asst. prof, 28–* Attending obstetrician, Abbott, North-

west, Fairview and Univ. Hosps; chief staff, Fairview Hosp, 30. Am. Board Obstet. and Gynec. Major, M.C, 17–19. Col. Surg; Am. Med. Asn; Cent. Asn. Obstet; Minn. Acad. Med; Minn. Obstet. Soc. Growth of the human female pelvis.

Swanson, Dr. W(illiam) F(redin), 5326 Pocusset St, Pittsburgh, Pa. *Bacteriology.* Arroyo, Pa, Dec. 19, 93. B.S, Pa. State Col, 15; D.D.S, Pittsburgh, 20, M.S, 30. Asst. prof. *bacter, Pittsburgh, 22–37, assoc. prof, 37–* A.A; Dental Asn; fel. Col. Dentists; Int. Asn. Dental Research. Pulpless teeth as foci of infections; respiration of streptococci from pulpless teeth.

Swanson, Prof. W(illiam) W(alfred), Northwestern University, Evanston, Ill. *Pediatrics.* Sweden, July 19, 92. A.B, Colorado, 19; M.S, Minnesota, 24, M.D, 25. Instr. physiol. chem, Minnesota, 22–24, *pediat,* 26–27, asst. prof, 27–28, *assoc. prof,* 28–30; Chicago, 30–39; *Northwestern, 41–* Nat. research fellow, Hopkins, 29–30. Soc. Pediat. Research; Pediat. Soc; Soc. Biol. Chem. Physiological chemistry; chemical problems of diseases of children; kidney function tests; chemical composition of blood; composition of growth in infants with respect to minerals.

Swanton, Dr. John R(eed), Smithsonian Institution, Washington, D. C. *²*Anthropology.* Gardiner, Maine, Feb. 19, 73. A.B, Harvard, 96, A.M, 97, Ph.D, 00; Columbia, 98–00. Asst. ethnologist, *Bur. Am. Ethnol,* 00–03, *ethnologist, 03–* Assoc. ed, 'Am. Anthropologist,' 10, 12–20, ed, 11, 21–23. Social Science Research Council, 26–27; exec. cmt, div. anthrop. and psychol, Nat. Research Council; chairman, U. S. De Soto Exped. Cmn. Nat. Acad; A.A. (v. pres, H, 37); Anthrop. Asn. (pres, 32); Folk-Lore Soc. (pres, 09); Anthrop. Soc. Wash. (sec'y, 08, pres, 15–17); Wash. Acad; cor. mem. Soc. des Américanistes de Paris. Chinook, Dakota, Haida and Tlingit Indian languages; ethnology and mythology of the Haida; sociology and mythology of the Tlingit; languages of the Tunica, Natchez, Chitimacha, Atakapa, Ofo and other southeastern Indians; history and ethnology of the Indians of the Gulf region and their neighbors; geographical distribution of Indian tribes; early contacts between whites and Indians in the Southeast.

Swart, W(alter) G(oodwin), 916 Union St, Alameda, Calif. *Metallurgy.* Fredonia, N. Y, Feb. 19, 68. Cornell; Denver; hon. E.M, Colo. Sch. Mines, 16. Metallurgist, Blake-Morscher Electrostatic Ore Separator, 00–07; west. manager, Am. Zinc Co, 07–15; *v. pres. and manager, Mesabi Iron Co, 15–* Consulting engineer, gold mining. Min. and Metal. Eng. Ore dressing.

Swartout, Dr. J(ohn) A(rthur), Clinton Laboratories, Oakridge, Tenn. *Physical chemistry.* Madison, Wis, March 17, 16. A.B, Buffalo, 37; Ph.D, Northwestern, 40. *Research chemist, E. I. du Pont de Nemours and Co, 40–* Chem. Soc; Inst. Chem; Va. Acad. Surface tension; isotopes of oxygen and hydrogen; cellulose acetate; textile chemistry.

Swartwout, Prof. H(arold) G(ordon), University of Missouri, Columbia, Mo. *Horticulture.* Springdale, Ark, May 12, 95. B.S. (Agr), Missouri, 18, A.M, 24. Instr. *hort, Missouri,* 18–25, *asst. prof, 25–* Soc. Hort. Sci; Pomol. Soc. Pomology; grape and berry culture, with special reference to nutrition; spray injury.

Swartz, Dr. Carl E(verett), 16800 St. Clair Ave, Cleveland, Ohio. *Metallurgy.* Olney, Ill, Oct. 7, 00. B.S, Illinois, 23; M.S, Wisconsin, 24, Ph.D, 26. Metallurgist, research dept, Am. Smelting and Ref. Co, 26–35; *chief metallurgist, Cleveland Graphite Bronze Co, 35–* Min. and Metal. Eng. (chairman Inst. Metals div, 42); Soc. Test. Mat. (sec'y cmt. nonferrous metals and alloys); Soc. Metals (chairman Cleveland chap, 41); Iron and Steel Inst. Gt. Britain; British Inst. Metals. Physical metallurgy; bearings.

Swartz, Dr. C(harles) A(lbert), P. O. Box 2038, Pittsburgh, Pa. *Physics.* Concordia, Kans, Feb. 4, 05. B.S, Calif. Inst. Tech, 27, Ph.D, 31. Research physicist, Union Switch and Signal Co, 30–33; *geophysicist, Gulf Research and Develop. Co, 33–* Assoc. Am. Petrol. Inst; Calif. Inst. Tech. Surface tension of gas saturated petroleum; cataphoresis of colloidal particles.

Swartz, Dr. Charles K(ephart), 2601 Lyndhurst Ave, Baltimore, Md. *Geology.* Baltimore, Md, Jan. 3, 61. A.B, Hopkins, 88, fellow, 03–04, Ph.D, 04; fellow, Clark, 89–90; B.D, Oberlin Col, 92. Instr. geol, *Hopkins,* 04–05, assoc, 05–06, assoc. prof. geol. and paleont, 07–10, collegiate prof. *geol,* 10–31, *emer. prof, 31–* A.A; Geol. Soc. (v. pres, 36); Paleont. Soc. (pres, 35). Paleontology; Paleozoic geology; Silurian, Devonian and Carboniferous of Maryland.

Swartz, Prof. Daphne B(ell), Bradley Polytechnic Institute, Peoria, Ill. *Plant physiology.* Abilene, Kans, Sept. 1, 97. A.B, Washburn Col, 23; A.M, Kansas, 25; Ph.D, Chicago, 41. Instr. *biol, Bradley Polytech,* 27–31, asst. prof, 31–41, *assoc. prof, 41–* A.A. Effect of various growth-regulating substances upon several species of plants.

Swartz, Prof. Delbert, University of Arkansas, Fayetteville, Ark. *Botany.* Metamora, Ind, April 24, 00. A.B, Miami (Ohio), 22; M.S, Mich. Agr. Col, 24; Emma J. Cole fellow, Michigan, 28–29, Ph.D, 31. Asst. *bot,* Mich. Agr. Col, 22–24; instr, Cincinnati, 24–26; Michigan, 26–27; asst. prof, *Arkansas,* 29–34, *assoc. prof, 34–* Bot. Soc; Mycol. Soc. Mycology; plant pathology; morphology; physiology of fungi; bacteriology.

Swartz, Prof. Frank M(cKim), 728 N. Atherton St, State College, Pa. *Paleontology, Stratigraphy.* Bellevue, Ohio, May 19, 99. A.B, Hopkins, 21, Ph.D, 26. Instr. business geog, North Carolina, 23–24; *geol. and paleont, Pa. State Col,* 25–27, asst. prof, 27–31, *assoc. prof, 31–* Summers, assoc. geologist, Pa. Geol. Surv, 30– Paleont. Soc; assoc. Soc. Econ. Paleont. and Miner; fel. Geol. Soc. Devonian fauna of Bolivia; Helderberg group and Silurian deposits of Virginia, West Virginia and Pennsylvania; Silurian and Devonian Ostracoda.

Swartz, Dr. Jacob H, 371 Commonwealth Ave, Boston, Mass. *Dermatology, Mycology.* Russia, May 10, 96. Tufts Col, 14–16; M.D, Harvard Med. Sch, 20. Asst. *dermat. and syphilol, grad. sch, Harvard, and Harvard Med. Sch,* 27–30, instr, 30–40, assoc, 40–43, *asst. prof, 43–* Dermat. Asn; Mycol. Asn; Soc. Investigative Dermat. Medical mycology.

Swartz, Dr. J(oel) H(oward), 2601 Lyndhurst Ave, Baltimore, Md. *Geophysics.* Bellevue, Ohio, Nov. 10, 93. A.B, Hopkins, 15, fellow, 19–20, Ph.D, 23. Prof. chem, physics and biol, McKendree Col, 15–16; asst. *geol,* Hopkins, 20–21, instr, 21–23; asst. prof, *North Carolina,* 23–26, assoc. prof, 26–31, *non-res. prof, 31–;* consultant, U. S. Bur. Mines, 29, asst. geophysicist, 30, *senior geophysicist,* 30–36; U. S. Geol. Surv, 36–42; *U. S. Bur. Mines, 42–* Asst. geologist, Md. Geol. Surv, 16; geologist, Co. Transcontinental de Petroleo, Tampico, Mex, 20; Tenn. Geol. Surv, 21–22, 27. Fel. Geol. Soc; Geophys. Union; Soc. Explor. Geophys; Geol. Soc. Wash. Geophysical methods, especially electrical resistivity.

Swartz, Dr. Keith T(ruex), 3306 W. 65th St, Chicago, Ill. *Organic chemistry.* Chicago, Ill, July 16, 04. B.S, Chicago, 27, M.S, 28, Ph.D, 30. Chemist, Interstate Co, Chicago, 31–32; research fellow chem, med. sch, Northwestern, 32–33; *canning technologist, Continental Can Co, 33–* Chem. Soc. The action of sodium ethylate on phenylacetonitrile and alpha-phenylbutyronitrile.

Swartzlow, Dr. Carl R(obert), Lassen Volcanic National Park, Mineral, Calif. *Geology.* Sparta, Wis, Dec. 20, 01. Ph.B, Lawrence Col, 24; A.M, Missouri, 29, fellow, 29–30, Ph.D, 32. Instr. geol, Missouri, 30–35; *park naturalist, Lassen Volcanic Nat. Park, 35–* Geol. technician, U. S. Nat. Park Service, 34; acting park naturalist, Crater Lake Nat. Park, 35. A.A; fel. Geol. Soc; Miner. Soc. Secondary oolites; origin of dolomite; dendrites; ice caves; areal geology; sedimentary rocks; volcanism of southern Cascade range.

Swartzwelder, Dr. J(ohn) Clyde, Louisiana State University School of Medicine, New Orleans, La. *Medical parasitology.* Lynn, Mass, April 1, 11. B.S, Mass. State Col, 33; M.S, Tulane, 34, Ph.D, 37. Research and teaching fellow med. parasitol, *sch. med,* Tulane, 33–37; instr. med. parasitol. and entom, *Louisiana,* 37–40, *asst. prof. med. parasitol, 40–; Sanit. Corps, U. S. Army, 41–, capt.* Visiting parasitologist, Charity Hosp, La, 38– Sanit.Res.C, U. S. Army, 34– Soc. Trop. Med; Soc. Parasitol; Malaria Soc. (cmt. med. research, 41–43); Soc. Exp. Biol; Federation Clin. Research. Amebiasis; malaria; helminth infections of man.

Swayne, William H(udson), Anaconda Copper Mining Co, Butte, Mont. *Geology.* Piedmont, Calif, Jan. 15, 13. A.B, California, 34, 34–36. Teaching fellow, California, 35–36; *geologist, geol. research lab, Anaconda Copper Min. Co, 40–* Instr, Mont. Sch. Mines, 43. Min. and Metal. Eng; Miner. Soc. Ore deposition, particularly of copper, chromium and magnesium.

Sweadner, Dr. Walter R(ichard), R. F. D. 2, Sharpsburg, Pa. *Zoology.* Beaver, Pa, Aug. 11, 03. B.S, Carnegie

Inst. Tech, 27; M.S, Pittsburgh, 31, Ph.D, 34. Asst. *zool, Pittsburgh*, 29–34, lecturer, 34–35, instr, Erie branch, 35–41, *asst. prof, 41–* Research, Mercy Hosp, Pittsburgh, 30–32; visiting prof, Thiel Col; asst, sect. entom, Carnegie Museum, asst. curator entom, 41– Pa. Acad. Preparation of maggots for surgical use; hybridization in relation to the species problem, especially in the genus Platysamia.

Sweany, Dr. Henry C(laris), 5601 N. Pulaski Road, Chicago, Ill. *Physiology.* Cottage Grove, Oregon, Aug. 1, 90. Oregon, 08–10; Northwestern, 10–11; M.D, Rush, Chicago, 21. Med. director research and labs, Munic. Tuber. Sanitarium, Chicago, Ill, 21–43; *asst. prof. med, Northwestern, 43–* Research assoc, Chicago, 38–41, professorial lecturer, 41. Am. Med. Asn. (chairman path. sect, 36); Tuber. Asn. (v. pres, 36); Col. Physicians; Soc. Clin. Path; Soc. Exp. Biol; Trudeau Soc. (pres, 42). Blood chemistry; bacteriology and pathology of tuberculosis; treatment of tuberculosis; pathology and x-ray studies of pneumoconiosis; lung cancer.

Swearingen, Dr. Judson S(terling), 121 Madison Ave, New York 16, N. Y. *Chemical engineering.* Bexar Co, Texas, Jan. 11, 07. B.S, Texas, 29, M.S, 30, Ph.D, 33. Partner, San Antonio Ref. Co, 33–38; asst. prof. chem. eng, Texas, 39–40, assoc. prof, 40–41, prof, 41–42; designing engineer, Elliott Co, 42–43; *process engineer, M. W. Kellogg Co, 43–* Tech. adviser and consultant, Camp Production Co, 37–38. Chem. Eng; Chem. Soc; Min. and Metal. Eng. Petroleum processing, especially cracking; high pressure gas-condensate production and processing; blowers and turbines.

Swearingen, Prof. Lloyd E(dward), 902 Lahoma Ave, Norman, Okla. *Physical chemistry.* Rosendale, Mo, Aug. 30, 97. B.S, Oklahoma, 20, M.S, 21; Ph.D, Minnesota, 26. Prof. physical science and head dept, Southwest. State Teachers Col, Okla, 21–23; asst. prof. *chem, Oklahoma,* 23–26, assoc. prof, 26–27, *prof, 28–; col, Chem. Warfare Service, U. S. Army, and chief chem. warfare branch, eighth service command, Service of Supply, 42–* Chem. Soc. (councilor, 29, pres, Okla. sect, 28). Adsorption; catalysis; physical properties of binary and ternary systems; thermodynamic properties of aqueous and non-aqueous solution.

Sweazey, Prof. G(eorge) B(eaty), Westminster College, Fulton, Mo. *Organic chemistry.* Allensville, Ind, April 12, 75. A.B, Wabash Col, 97, A.M, 00; LL.D, Parsons Col, 23; Bonn, Germany; Utah; California; Chicago; Cornell. Prof. math, Westminster Col. (Utah), 97–17, dean, 13–17; *prof. math, Westminster Col. (Mo), 17–, dean, 20–, head dept, 28–*

Swedenborg, Edward A(ndrew), 1229 S. Spruce St, Casper, Wyo. *Engineering.* Hallock, Minn, Feb. 26, 95. A.B, George Washington, 24, M.S, 26. Asst. chemist, *U. S. Geol. Surv,* 26–29, assoc. chemist, 29–30, assoc. gas engineer, 30–34, nat. gas engineer, 34–40, *dist. engineer, 40–* Min. and Metal. Eng. Petroleum production; analysis of waters of the Salt Creek Field; water encroachment in the first wall creek sand in Salt Creek Field, Wyoming; value of ceramic tests in subsurface correlation of Cretaceous shales in central Wyoming.

Sweeney, Dr. Beatrice M(arcy), 310 14th Ave, S.W, Rochester, Minn. *Plant physiology.* Newton, Mass, Aug. 11, 14. A.B, Smith Col, 36; A.M, Radcliffe Col, 38, Ph.D, 42. *Lab. technician endocrinol, Inst. Exp. Med, 42–* A.A; Bot. Soc. Effect of auxin on protoplasmic streaming in Avena.

Sweeney, Prof. H(enry) Morrow, University of South Dakota, Vermillion, S. Dak. *Physiology.* Sutherland, Iowa, Iowa, March 8, 06. B.S, Iowa State Col, 29, M.S, 30; Ph.D, Tulane, 34. Instr. *physiol,* Iowa State Col, 29–30; instr, Tulane, 30–37; *prof. physiol. and head dept. physiol. and pharmacol, South Dakota, 37–* Physiol. Soc; Soc. Exp. Biol. Experimental hypervitaminosis D; effect of radiant energy on healing of fractures and wounds; sinus caroticus; brain metabolism during anesthesia and following central nervous system stimulants.

Sweeney, Prof. J(ames) Shirley, Medical Arts Bldg, Dallas, Texas. *Internal medicine.* Waco, Texas, July 30, 96. A.B, Texas Christian, 17, A.M, 18, LL.D, 39; M.D, Vanderbilt, 21; Rockefeller fellow, Hopkins, 21–24, M.P.H, 23, Sc.D, 24. Instr. biol, Texas Christian, 15–17; Vanderbilt, 18–21; epidemiologist, State of La, 24–25; from clin. instr. to *assoc. prof. clin. med, col. med, Baylor, 25–; lieut. col, Med. Corps, U. S. Army.* Field director, int. health board, Rockefeller Foundation, 21–24. A.A; fel. Am. Med. Asn; fel. Col. Physicians. Population growth; metabolic phenomena; glucose tolerance.

Sweeney, Prof. O(rland) R(ussel), Iowa State College, Ames, Iowa. *Chemical engineering.* Martin's Ferry, Ohio, March 27, 83. B.S, Ohio State, 09, A.M, 10, Chem.E, 34; Ph.D, Pennsylvania, 16. Asst. anal. chem, Ohio State, 10; instr. chem, Pennsylvania, 10–16; indust. chem, Ohio State, 17; prof, N. Dak. Col, 18; Cincinnati, 19–20; *prof. chem. eng. and head dept, Iowa State Col, 20–* Major, C.W.S, 18–19. A.A; Chem. Soc; Chem. Eng; Iowa Eng. Soc. Industrial and analytical chemistry; chemical engineering.

Sweeney, Dr. William J(oseph), Standard Oil Development Co, Elizabeth, N. J. *Chemistry.* Boston, Mass, May 6, 98. B.S, Mass. Col, 19; M.S, Pa. State Col, 24; du Pont fellow, Mass. Inst. Tech, 27–28, Sc.D, 28. Instr. and asst. prof. chem, Pa. State Col, 19–26, director indust. research, 28–29; research chemist and engineer, Standard Oil Co. of La, 29–32, asst. director develop. and research lab, 32–34, director, 34–35, manager, 35–36; *assoc. director, Esso labs, Standard Oil Develop. Co,* 36– Manager, Jasco, Inc, 35–36. Chem. Soc; Chem. Eng; Soc. Automotive Eng. High pressure oil hydrogenation; theory of corrosion; solvents; fuels; constitution of petroleum; manufacture and quality of aviation fuels.

Sweeney, W(illiam) T(imothy), Vernon-Benshoff Co, P. O. Box 1587, Pittsburgh, Pa. *Physics.* Gainesville, Va, April 30, 02. A.B, George Washington, 27, 29–31. Sci. aid, Bur. Standards, 22–28, junior physicist, 28–32, Am. Dental Asn. fellow and research assoc, 32–41; *director research, Vernon-Benshoff Co, 41–* A.A; Soc. Metals; Chem. Soc; Va. Acad; hon. mem. Va. State Dental Soc; Int. Asn. Dental Research (exec. cmt. and treas, material group, 40–). Physical properties of dental materials; thermal expansion of materials; development of methods of testing; physical properties of plastics and resins; substitutes for critical war materials; material for anatomical restorations.

Sweet, Dr. A(lbert) W(hitman), State Department of Health, Freehold, N. J. *Bacteriology.* Riverpoint, R. I, April 14, 87. Ph.B, Brown, 11, A.M, 12, Ph.D, 15. Instr. biol, Brown, 12–13, bacter, 13–14; bacteriologist, Newport Water Works, R. I, 14–17; prof. bacter. and pub. health, col. med, Tennessee, 19–20; director hygiene and health, Florida, 20–25, prof. bacter. and director health, 25–27; *dist. health officer, State Dept. Health, N. J, 27–; U. S. Army, 40–, lieut. col, Sanit. Corps.* Bacteriologist, R. I. Shell-Fish Cmn, 13–14; State Board Health, R. I, 16–17; Board Health, Newport, 17; Red Cross, 17; State Board Health, Tenn, 20–21; Fla, 22–27; director, mil. sanit, Med. Field Service Sch, Carlisle, Pa, 34–Lieut-col, Sanit.C, 17–19, O.R.C. Pub. Health Asn. Epidemiology; infectious diseases; Neisser infections; skin parasites; bile and bile products; nitrogen determinations; serum reactions; cold vaccine; toxoids in immunization; waste disposal; water purification; public health administration.

Sweet, Carroll V(an Rensaeleer), Old Middleton Road, Madison, Wis. *Forestry.* Phoenix, N. Y, March 14, 92. B.S, Syracuse, 15, M.F, 16. Timber engineer, West. Elec. Co, Chicago, 16–18; dry kiln specialist, Forest Products Lab, U. S. Forest Service, 18–20; officer in charge timber seasoning div, Forest Research Inst, Dehra Dun, India, 20–23; *chief sect. indust. investigations, Forest Products Lab, U. S. Forest Service, 23–* Soc. Foresters. Seasoning of American and Indian woods; selection of woods for use requirements; improved methods of wood utilization.

Sweet, Donald H(oward), 189 W. Madison St, Chicago 2, Ill. *Physics.* Beaver Falls, Pa, Sept. 16, 89. A.B, Western Reserve, 13; B.S, Case, 13; LL.B, Chicago-Kent Col. Law, 21. Asst. acoustical research to Dayton C. Miller, 10–11; instr. physics, Carnegie Inst. Tech, 13–14; research thermal expansion, Bur. Standards, 15–16; U. S. Patent Office, 16–19; *patent and develop. work, 19–* A.A; Philos. Soc. Wash. Metallurgy; magnetostriction of nickel steel at low temperatures; bibliography on invar and related steels; new legislation relating to intellectual property.

Sweet, Prof. Herman R(oyden), Tufts College, Medford, Mass. *Bacteriology, Mycology.* Attleboro, Mass, Nov. 3, 09. A.B, Bowdoin Col, 31; A.M, Harvard, 34, Ph.D, 40. Austin teaching fellow bot, Harvard, 34–36, univ. asst. *biol,* 36–37; instr, *Tufts Col,* 37–42, *asst. prof, 42–* Visiting instr, Northeastern, 42. Bot. Soc; Mycol. Soc; Soc. Bact; Ornith. Union. Physiology of Ascomycetes and bacteria.

Sweet, Prof. J(oshua) E(dwin), Unadilla, N. Y. *Surgery.* Unadilla, N. Y, Aug. 9, 76. A.B, Hamilton Col, 97, A.M, 00, Sc.D, 22; M.D, Giessen, 01. Thomas A. Scott fellow, Penn-

sylvania, 01–02; fellow, Rockefeller Inst, 02–06; asst. prof. exp. surg, sch. med, Pennsylvania, 06–07, prof. *surg. research*, 17–26; *med. col, Cornell*, 26–41, *emer. prof, 41–* Root fellow, Hamilton Col, 07–08. Lieut. col, M.C; consulting surg. research, U.S.A. A.A; Col. Surg; Surg. Research Soc; Am. Med. Asn; Physiol. Soc; Soc. Exp. Path; Soc. Exp. Biol; N. Y. Surg. Soc; N. Y. Acad. Med; Phila. Acad. Surg. Problems of surgery.

Sweet, Dr. Leon A(lbert), 1029 Cadieux Road, Grosse Pointe Park, Mich. *Chemistry.* Polo, Ill, May 17, 09. A.B, Carthage Col, 30; M.S, Nebraska, 31, Parke, Davis and Co. fellow, 31–33, Ph.D, 33. Asst. chem, Nebraska, 30–31; research chemist, *Parke, Davis and Co*, 33–37, asst. director research, 37–42, *junior sci. director, 42–* A.A; Pharmaceut. Asn; Chem. Soc. Organic compounds of arsenic and antimony; synthetic drugs; pharmaceuticals.

Sweet, Dr. Robert D(ean), New York State College of Agriculture, Cornell University, Ithaca, N. Y. *Vegetable crops.* Fairview, Ohio, April 6, 15. B.S, Ohio (Athens), 36; M.S, Cornell, 38, Ph.D, 41. Asst, *N. Y. State Col. Agr, Cornell*, 36–40, exten. instr. veg. crops, 40–43, *asst. exten. prof, 43–* A.A; Soc. Hort. Sci. Fertilizers for vegetable crops.

Sweet, Prof. R(oger) S(pencer), 222 Donaldson St, Highland Park, N. J. *Chemistry.* Florence, Colo, Aug. 25, 04. A.B, Denver, 27, A.M, 28; Ph.D, Illinois, 32. *Asst. prof. chem, N. J. Col. for Women, Rutgers, 31–* Organic chemistry.

Sweeting, Dr. Orville J(ohn), Cornell University, Ithaca, N. Y. *Organic chemistry.* Rochester, N. Y, Oct. 26, 13. A.B, Cornell, 35, Ph.D, 42. *Instr.* science and math, high sch, N. Y, 35–37, math, 37–38; *chem, Cornell, 42–* Stereochemistry; dipole moments.

Sweetman, Prof. Harvey L(eroy), Massachusetts State College, Amherst, Mass. *Entomology.* Las Animas, Colo, Jan. 29, 96. B.S, Colo. Agr. Col, 23; M.S, Iowa State Col, 25; Ph.D, Mass. Col, 30. Field asst. entom, Colo, 22; junior entomologist, bur. entom, U. S. Dept. Agr, Mont, 23; asst, Iowa State Col, 23–25; instr. entom, Minnesota, 26; asst. research entomologist, Wyoming, 27–29; *asst. prof. entom*, Mass. Col, 30–31, *Mass. State Col, 31–* Summers, asst. prof, marine lab, Maine, 32, 33. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc; Soc. Zool; Limnol. Soc; Royal Entom. Soc. London. Animal ecology.

Sweetman, Prof. Marlon D(eyoe), University of Maine, Orono, Maine. *Home economics.* Mason City, Iowa, Nov. 6, 98. Drake; B.S, Iowa State Col, 21, M.S, 22; Columbia; Ph.D, Minnesota, 27. Dubuque, 23; Iowa State Col, 24; from asst. prof. to *prof. home econ, Maine, 27–* Collaborating home economist, Exp. Sta, Maine, 29– Home Econ. Asn; Dietetic Asn. Value of foods in use, especially effects of processing on nutritive quality and palatability.

Sweeton, Dr. Frederick H(umphrey), Collinsville, Conn. *Physical chemistry.* Brattleboro, Vt, Oct. 13, 16. B.S, Connecticut, 38; Ph.D, Yale, 41. *Asst. chemist, Tenn. Valley Authority, 41–* Chem. Soc. Conductance of hydrochloric acid in water; purification of gases used for direct synthesis of ammonia.

Sweetser, Prof. E(rnest) O(sgood), Washington University, St. Louis, Mo. *Civil engineering.* Cumberland Center, Maine, Oct. 19, 83. B.S, Maine, 05, C.E, 12. Instr. civil eng, *Washington (St. Louis)*, 05–10, asst. prof, 10–17, assoc. prof, 19–25, *prof.* struct. eng, 25–37, *civil eng, 37–* Capt, C.Eng, 17–19. Civil Eng. (pres, St. Louis sect, 28); Eng. Educ. (pres, Mo. sect, 35); Concrete Inst; Soc. Test. Mat; Ry. Eng. Asn. Structures and structural materials; concrete; reinforced concrete; steel; impact on steel bridges; St. Louis tornado report.

Sweigert, Dr. R(ay) L(eslie), 1115 Peachtree Battle Ave, N.W, Atlanta, Ga. *Mechanical engineering.* Freeport, Ill, Nov. 24, 98. B.S, Illinois, 20; A.M, Iowa, 30, Ph.D, 35. Engineer, Deere and Co, 20–25; supervisor vocational educ, East Peoria and East Chicago, 26–29; asst. prof. *mech. eng, Ga. Tech*, 29–31, assoc. prof, 31–36, *prof, 36–, director freshman eng, 34–, director gen. eng, 41–* Consultant, 30–; special work design research sect, bur. ships, Navy Dept, 41–42. A.A; Mech. Eng; Eng. Educ. (nat. councilor, 36–39); Ga. Eng. Soc. (governing board, 42). Thermodynamics; internal combustion engines; engineering education; combustion.

Sweitzer, Dr. Carl W(illiam), Columbian Carbon Co, 214 44th St, Brooklyn, N. Y. *Chemistry.* Crediton, Ont, Can, Oct. 24, 99. B.A, Toronto, 23, M.A, 24, Nat. Research Council Can. bursar, 24–25, student, 25–26, fellow, 26–27, Ph.D, 27. Asst. chem, Toronto, 23–24; senior indust. fellow, Mellon Inst, 27–38; *chief chemist and manager research lab, Columbian Carbon Co, 38–* Chem. Soc. Carbon black.

Swenson, B(ernard) V(ictor), 110 Tullamore Road, Garden City, L. I, N. Y. *Electrical engineering.* Chicago, Ill, May 3, 72. B.S, Illinois, 93; M.E, 01; E.E, Wisconsin, 01. Instr. physics and elec. eng, Illinois, 93–95, asst. prof. elec. eng, 95–98; Wisconsin, 98–05; sec'y and treas, Am. St. and Interurban Ry. Asn, 05–10; *St. and Interurban Ry. Advertising, 10–* Summers, in charge dept. elec, Wisconsin, 01–03; asst. supt. elec. ry. tests, Elec. Ry. Test Cmn; jury awards and expert in charge elec. eng. sect, La. Purchase Expos, 04. Elec. Eng; N. Y. Elec. Soc; N. Y. Eng. and Ry. Clubs. Dynamo electric machinery; photometry; illumination; electric railways.

Swenson, Dr. Engelbrekt A(ugust), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Anatomy.* Lindsborg, Kans, March 26, 93. A.B, Bethany Col. (Kans), 13; A.M, Kansas, 23, Ph.D, 26. Asst. instr. anat, Kansas, 21–23; instr. biol, Western Reserve, 23–25; Wistar Inst, 25, fellow, 26, nat. research fellow zool, 26–28, instr. *anat, sch. med, Pennsylvania*, 28–31, *assoc, 31–* Living mammalian embryos; development of movement of mammalian embryos; mammalian behavior; anesthesia; motion pictures.

Swenson, Dr. Frank A, U. S. Geological Survey, Washington, D. C. *Geology.* Davenport, Iowa, Feb. 3, 12. A.B, Augustana Col, 36; Northwestern, 38; M.S, Iowa, 40, Ph.D, 42. Surveyman and geologist, U. S. Engineer Corps, 37–38; asst. geol, Iowa, 38–42; junior geologist, ground water div, *U. S. Geol. Surv*, 42, *asst. geologist, mil. geol. branch, 42–* Summer, surveyman and geologist, U. S. Engineer Corps, 39. Geophys. Union; Iowa Acad; Geol. Soc. Wash. Stratigraphy; physiography; sedimentation; ground-water; military geology.

Swenson, Prof. George Warner, Michigan College of Mining and Technology, Houghton, Mich. *Electrical engineering.* Willman, Minn, Aug, 93. B.S, Minnesota, 17, E.E, 20. Equipment engineer, Northwest. Bell Tel. Co, 17; West. Elec. Co, 18; instr. and asst. prof. *elec. eng*, Minnesota, 19–28; *prof. and head dept, Mich. Col. Min. and Tech, 28–* Summers, elec. engineer, Bur. Standards, 23, 24. Elec. Eng. (student councilor, 29–); Eng. Educ. (institutional rep, 29–, pres, northmidwest sect, 37); Lake Superior Min. Inst; Minneapolis Eng. Club. Sparking at relay contacts; artificial telephone lines; loading toll cables and telephone lines; elements of radio communication; electrical equipment in mining; radio field strengths in ore bearing regions.

Swenson, Dr. Harold A(lfred), Stephens College, Columbia, Mo. *Psychology.* Red Wing, Minn, March 3, 97. B.S, Northwestern, 21, A.M, 25; fellow, Frankfort, 26–27; Ph.D, Chicago, 32. Asst. prof. psychol, Florida, 28–29; instr, Chicago, 29–32, asst. prof, 32–40; *psychol. consultant, Stephens Col, 40–* Space perception; general psychology.

Swenson, Dr. Hugo N(athanael), Queen's College, Flushing, N. Y. *Physics.* New Richland, Minn, March 4, 04. A.B, Carleton, 25; M.S, Illinois, 27, Ph.D, 30. Asst. physics, Illinois, 25–29; head dept, Earlham Col, 29–30; Am-Scandinavian Foundation fellow, Bohr's Inst, Copenhagen, 30–31; instr. *physics*, Barnard Col, Columbia, 31–37; *Queen's Col. (N. Y)*, 37–41, *asst. prof, 41–* Spectroscopy.

Swenson, Prof. S(tanley) P(rescott), State College of Washington, Pullman, Wash. *Agronomy.* Wood Lake, Minn, Feb. 11, 08. B.S, Minnesota, 32, M.S, 35, Ph.D, 36. Asst. plant genetics, Minnesota, 32–36; asst. prof. agron, S. Dak. State Col, 36, assoc. prof, 36–41, asst. agronomist, Exp. Sta, 36, assoc. agronomist, 36–41; *assoc. prof. farm crops, State Col. Wash, and assoc. geneticist, Exp. Sta, 41–* Summers, agent, office barberry eradication, U. S. Dept. Agr, 29–31. A.A; Genetic Asn; Genetics Soc. Genetics and breeding of cereal crops, particularly wheat and barley.

Swenson, T. L(owell), U. S. Department of Agriculture, Albany, Calif. *Biochemistry, Bacteriology.* Marquette, Mich, Dec. 19, 94. B.S. (Bacter), Ph.C, B.S. (Pharmacy), M.S, Ph.D. Bacteriologist in charge lab, Hazelwood Dairy Co, Ltd, Wash, 23–26; technician in charge acidophilus milk production, West. Labs, Wash, 26–27; bacteriologist in charge lab, Carnation Milk Co, Seattle, 28–29; assoc. bacteriologist, food research div, bur. chem. and soils, *U. S. Dept. Agr*, 29–35, chemist, 35–38, prin. chemist in charge west. surv. for regional

research labs, *bur. agr. chem. and eng*, 38-39, *head chemist and director west. regional research lab*, *39–* Inst. Food Technol; Soc. Bact; Pub. Health Asn. Chemistry technology; food microbiology; enzymes.

Swern, Dr. Daniel, U. S. Department of Agriculture, Chestnut Hill, Philadelphia, Pa. *Organic chemistry.* New York, N. Y, Jan. 21, 16. B.S, Col. City of N. Y, 35; A.M, Columbia, 36; Ph.D, Maryland, 40. Junior chemist, *U. S. Dept. Agr*, 37-39, asst. chemist, *east. regional research lab, bur. agr. chem. and eng*, 39–42, *assoc. chemist*, *42–* Chem. Soc; Oil Chemists Soc. Chemistry of fatty acids and allied materials; Friedel-Crafts reaction; oxidation.

Swett, Prof. George W(right), 77 Massachusetts Ave, Cambridge, Mass. *Machine design.* Troy, N. Y, March 6, 81. B.S, Mass. Inst. Tech, 03. Asst. instr, *Mass. Inst. Tech*, 03–05, instr, 05–14, asst. prof, 14–22, assoc. prof, 22–29, *prof. machine design*, *29–*, *sec'y faculty*, *34–* Soc. Test. Mat; Eng. Educ. Use of materials in machine design.

Swett, W(alter) W(hittier), 212 Maple Ave, Takoma Park, Washington, D. C. *Dairy husbandry.* Deerfield, N. H, Jan. 3, 92. B.S, New Hampshire, 15; A.M, Missouri, 16. Instr. dairy husbandry, Missouri, 16–19, asst. prof, 19–20, assoc. prof, 20–22; from assoc. dairy husbandman to *senior dairy husbandman*, *bur. dairy indust, U. S. Dept. Agr*, *22–* Dairy Sci. Asn. The dairy cow; relationship between the conformation anatomy and producing capacity of dairy cows; physiology of lactation; development and structure of the mammary glands.

Swett, Dr. Wilber F(rank), 490 Post St, San Francisco, Calif. *Ophthalmology.* San Francisco, Calif, Feb. 12, 94. A.B, Stanford, 17, M.D, 22. Instr. surg, *Stanford*, 23–25, *asst. clin. prof. surg, dept. ophthal*, *25–* Ophthalmologist, South. Pacific R. R. A.A; Pacific Coast Oto-Ophthal. Soc. Surgical procedures; abnormal cases; color investigations on the retina.

Swezey, Dr. F(enton) H(endy), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Westfield, N. Y, Sept. 17, 99. B.Chem, Cornell, 21, Ph.D, 25. Research chemist, E. I. du Pont de Nemours and Co, 27–34, research supervisor, 34–40, du Pont Rayon Co, 34–40, research manager *acetate research sect, E. I. du Pont de Nemours and Co*, 40–42, asst. director, 42–43, *director*, *43–* Chem. Soc. Inorganic and colloid chemistry; rayon; plastics.

Swezey, Otto H(erman), Hawaiian Sugar Planters' Experiment Station, Honolulu, Hawaii. *Entomology.* Rockford, Ill, June 7, 69. A.B, Lake Forest Col, 96; fellow, Northwestern, 96–98, M.S, 97; fellow, Ohio State, 02–03. Instr. biol, Northwestern, 98–02; asst. nursery and orchard inspector, State Dept. Agr, Ohio, 03–04; asst. entomologist, *Exp. Sta, Hawaiian Sugar Planters' Asn*, 04–14, entomologist, 15–33, *consulting entomologist*, *33–* Hon. curator, Bishop Museum, Honolulu, 07–19, consulting entomologist, 20–; entom. surv, Guam, 36. Summers, mem. faculty, Hawaii, 34, 37. A.A; Entom. Soc. Amer; Asn. Econ. Entom; Hawaiian Entom. Soc; Hawaiian Bot. Soc; Hawaiian Acad. Life histories of insects; biological control of sugar-cane insects; life histories and parasites of Hawaiian insects; insect faunas of Hawaiian trees.

Swezey, Prof. W(illiam) W(eekley), Defiance College, Defiance, Ohio. *Biology.* Chippewa Lake, Ohio, Aug. 10, 08. B.S, Mt. Union Col, 30; Sc.D, Hopkins, 33. Asst. protozool, Hopkins, 34–35; *prof. biol*, York Col, 35–36; *Defiance Col*, *36–* Exten. lecturer, Ft. Wayne center, Indiana, 39– Soc. Bact; Soc. Parasitol; Soc. Trop. Med. Parasitic infusoria; malaria.

Swezy, Dr. Olive, Box 1252, Carmel, Calif. *Zoology, Anatomy.* Shohola, Pa, Nov. 1, 78. B.S, California, 13, M.S, 14, Ph.D, 15. Assoc. zool, California, 15–16, zoologist, Scripps Institution, California, 16–18, Nat. Research Council asst. protozool, 19, Sarah Berliner fellow, 19–20, research assoc. zool, 22–25, anat, 25–31, inst. exp. biol, 31–33. Physiology; endocrinology; cytology; marine plankton; parasitic protozoa; cytology of protozoa; protozoa and human disease; chromosomes of man and the rat; origin of germ cells in adult Mammalia; sexual rhythm and ovogenesis; ovogenesis and hypophyseal hormones.

Swick, Clarence H(erbert), U. S. Coast and Geodetic Survey, Washington, D. C. *Geodesy.* Wilson, N. Y, June 1, 83. C.E, Cornell, 07. Aid, *U. S. Coast and Geod. Surv*, 07–09, *mathematician*, *10–*, *chief* sect. gravity and astron, 24–42, *sect. triangulation*, *42–* A.A; Astron. Soc; Geophys. Union (sec'y, sect. geodesy, 31–37, pres, 38–41); Soc. Mil. Eng; Cong. Surv. and Mapping; Wash. Soc. Eng; Philos. Soc. Wash; Wash. Acad. Triangulation; gravity; astronomy; isostasy; figure of earth.

Swietoslawski, Dr. Wojciech A, 416 Morewood Ave, Pittsburgh, Pa. *Physical chemistry.* Kiryjowka, Poland, June 21, 81. E.E, Inst. Tech. Kiev, 06; hon. Dr, Rumania, Tech. Univ. Budapest and Kiev, 17. Asst, Inst. Tech, Kiev, 08–10; Moscow, 11–12, privat-docent chem, 12–18; prof. physical chem, Warsaw Polytech, 19–39, rector, 28–29; visiting prof, Pittsburgh, 40; Iowa, 41; *indust. fellow, Mellon Inst*, *41–* Mem. Senate and Minister of Educ, Poland, 35–39; director coal dept, Warsaw Chem. Research Inst. Chem. Soc; hon. mem. Soc. de Chim. indust; hon. mem. Italian Asn. Chem. Socs; hon. mem. Austrian Chem. Soc; hon. mem. Soc. chim. de Belg; hon. mem. Polish Chem. Soc; Polish Acad. Sci. (v. pres, 25–41); hon. mem. Rumanian Chem. Soc; Int. Union Chem. (v. pres; chairman int. cmt. physico-chem). Thermochemistry; calorimetry; microcalorimetry; physico-chemical properties of coals and physico-chemistry of coke formation process; activation of carbon.

Swift, Prof. Charles H(enry), University of Chicago, Chicago, Ill. *Anatomy.* New Castle, Ky, Aug. 17, 81. A.B, Chicago, 03, B.S, 06, fellow, 08–09, Ph.D, 13, M.D, Rush, 10. Asst. *anat, Chicago*, 10–13, assoc, 13–14, instr, 15–18, asst. prof, 18–29, *assoc. prof*, *29–* A.A; Asn. Anat. Primordial germ-cells in the chick; yolk nucleus of Balbiani.

Swift, Prof. Elijah, University of Vermont, Burlington, Vt. *Mathematics.* Buffalo, N. Y, Oct. 23, 82. A.B, Harvard, 03, A.M, 04; Ph.D, Göttingen, 07. Instr. *math*, Princeton, 07–09, preceptor, 09–14; *Williams prof, Vermont*, *14–*, asst. dean *col. arts*, 22–31, *dean*, *31–* Math. Soc; Math. Asn; Asn. Teachers Math. New Eng.

Swift, Prof. E(lijah), Jr, Indiana University, Bloomington, Ind. *Physical chemistry.* Princeton, N. J, June 15, 10. B.S, Harvard, 32, A.M, 33, Ph.D, 37. Asst, Harvard, 34–37; instr. chem, Harvard, 37–38; asst. prof, Knox Col, 38–39; *chem*, Lawrence Col, 39–42; *instr, Indiana*, *42–* Chem. Soc. (v. chairman local sect, 41); Ill. Acad. Sodium amalgams; conductance; heavy water density determinations; non-aqueous conductance; amines.

Swift, Prof. Ernest H(aywood), California Institute of Technology, Pasadena, Calif. *Chemistry.* Chase City, Va, July 2, 97. Randolph-Macon Col, 14–17; B.S, Virginia, 18; M.S, Calif. Inst. Tech, 20, Ph.D, 24. Instr. *anal. chem, Calif. Inst. Tech*, 20–28, asst. prof, 28–38, assoc. prof, 38–43, *prof*, *43–* Chem. Soc. Inorganic and analytic chemistry.

Swift, Prof. Harold C(layton), University of Maine, Orono, Maine. *Agronomy, Agricultural engineering.* Auburn, Maine, Dec. 19, 95. B.S, Maine, 18, M.S, 23. Asst. to city engineer, Lewiston, Maine, 19–20; instr. *agron. and agr. eng, Maine*, 20–24, *asst. prof*, *24–* U.S.A, 18–19. Soc. Agron. Soil science.

Swift, Dr. Homer F(ordyce), Rockefeller Institute, New York, N. Y. ***Medicine.* Paines Hollow, N. Y, May 5, 81. Ph.B, Western Reserve, 02; M.D, N. Y. Univ, 06, hon. Sc.D, 31. Intern, Presb. Hosp, New York, 06–08; asst. path. and instr. dermat, Univ. and Bellevue Hosp. Med. Col, 09–10; asst. res. physician, Rockefeller Hosp, 10–12, res. physician, 12–14; attending physician, Presb. Hosp, and assoc. prof. med, Columbia, 14–17; Cornell, 17–19; assoc. mem, *Rockefeller Inst*, 19–22, *mem*, *22–*, *physician, hosp.* Consultant to U. S. Sec'y War. Board sci. directors, Russell Sage Inst; mem. council, N. Y. Univ, 42– Chairman gen. advisory cmt, N. Y. State Cardiac Program. U.S.A, 17–19, col; Am. Red Cross Trench Fever Cmn. A.A; Am. Med. Asn; Am. Physicians; Soc. Exp. Biol; Soc. Clin. Invest. (pres, 28); Soc. Bact; Asn. Immunol; Cosmopolitan Clin. Soc; Harvey Soc. (pres, 25). Bacteriology; syphilis; rheumatism; trench fever; streptococcal infections.

Swift, Lloyd W(esley), U. S. Forest Service, Washington, D. C. *Wildlife management.* Ione, Calif, Sept. 4, 04. B.S, California, 27, M.S, 30. Junior range examiner, *U. S. Forest Service*, 29–34, assoc. range examiner, Calif. region, 35–37, forest ecologist, Calif. Forest and Range Exp. Sta, 37–38, range examiner, Rocky Mountain region, 39–41, *asst. chief div. wildlife management*, *42–* Wildlife Soc; Soc. Foresters. Range management.

Swift, Prof. Raymond W(alter), 723 McKee St, State College, Pa. *Nutrition.* East Longmeadow, Mass, June 12, 95. B.S, Mass. State Col, 20; M.S, Pa. State Col, 25; Ph.D, Roches-

ter, 31. Analyst, Exp. Sta, Mass. Col, 20–22; asst. *animal nutrition, inst. animal nutrition, Pa. State Col,* 23–25, assoc, 25–34, instr, 34–35, asst. prof, 35–36, assoc. prof, 36–38, *prof, 38–* Asst, Rochester, 30–31. A.A; Inst. Nutrition; Soc. Animal Production. Human and animal nutrition; direct and indirect calorimetry; energy metabolism; proteins; vitamins; minerals.

Swigart, Prof. J(ohn) Irvin, University of Utah, Salt Lake City, Utah. *Experimental physics.* Metcalf, Ill, Jan. 31, 04. B.S, Ill. Wesleyan, 29; A.M, Indiana, 30, Ph.D, 38. Lab. asst. *physics,* Ill. Wesleyan, 27–29; asst, Indiana, 29–30; asst. prof, Bethany Col. (W. Va), 30–31; instr, *Utah,* 31–39, *asst. prof, 39–* Consulting physicist, Follansbee Bros. Co, W. Va, 30–31. Fel. Utah Acad. Acoustics and electricity; precision apparatus for measuring the velocity of sound in solid rods; frequency measurement in alternating current circuits.

Swindells, Dr. Frank E(vans), Towanda, Pa. *Physical chemistry.* Washington, D. C, Feb. 23, 99. B.S, Carnegie Inst. Tech, 21; M.S, Pennsylvania, 23, Harrison fellow, 23–25, Ph.D, 25. Asst. chemist, Bur. Standards, 21–22; research chemist, Patterson Screen Co, 25–35, *research director,* 35–43, *Patterson screen div, E. I. du Pont de Nemours and Co, 43–* A.A; Chem. Soc; Optical Soc; Chemists' Club. Determination of gases in metals; thermodynamics of solutions; preparation and properties of luminescent substances; manufacture of fluorescent screens; x-ray sensitometry.

Swindle, Prof. P(ercy) F(ord), 561 N. 15th St, Milwaukee, Wis. *Physiology.* Newtonia, Mo, 89. A.B, B.S, Missouri, 11; A.M, 12; Ph.D, Berlin, 15. Instr. exp. psychol, Ohio State, 15–16; research fellow, Harvard, 16–17; instr. physiol, Tufts Col, 17–18; asst. prof. exp. psychol. and in charge dept, Missouri, 19–20; physiol. and pharmacol, *sch. med, Marquette,* 20–21, assoc. prof, 21–22, director dept, 22–25, *prof. physiol. and director dept, 25–* A.A; Soc. Nat; Soc. Mammal; Genetic Asn; Soc. Exp. Biol. Circulation; respiration.

Swindler, Prof. J(ames) A(lbert), 227 N. Market St, New Wilmington, Pa. *Physics.* Advance, Ind, May 20, 87. B.S, Cent. Nor. Col, 08; A.B, Indiana, 13, A.M, 15, Ph.D, 25. Instr. *physics,* Pittsburgh, 16–17; asst. prof, Pa. State Col, 17–19; *prof, Westminster Col. (Pa), 19–,* registrar, 20–36, sec'y faculty, 21–33, dean, 34–35. A.A; Physical Soc; Asn. Physics Teachers. The effect of changes in potential and frequency on the line spectrum of certain gases.

Swinehart, Dr. C(arl) F(rancis), 4102 Silsby Road, University Heights, Cleveland, Ohio. *Inorganic chemistry.* Bainbridge, Ohio, Aug. 26, 07. A.B, Ohio Wesleyan, 29; Ph.D, Western Reserve, 33. Asst, Cleveland Col, Western Reserve, 29–32; *research chemist, Harshaw Chem. Co, Cleveland, 32–.* Chem. Soc. Fluoride gases; manufacture of fluorides.

Swingle, Dr. Charles F(letcher), Soil Conservation Service, Manhattan, Kans. *Horticulture.* Manhattan, Kans, May 13, 99. B.S. (Agr), Kans. State Col, 20; Ph.D, Hopkins, 27. Commercial nursery work, Calif, 18, 20–22; nursery stock investigations, bur. plant indust, *U. S. Dept. Agr,* 22–33, *horticulturist, soil conservation service, 33–* Int. Educ. Board nat. research fellow, Leeds, 27–28. Humbert-Swingle exped, Madagascar, 28. Am. rep, Int. Hort. Cong, Vienna, 27; mem, Int. Cmt. on Pomol. A.A; Soc. Hort. Sci; Soc. Plant Physiol; Soc. Foresters; Explorers Club; Wash. Acad. Botany of Madagascar; anatomy and physiology of plant propagation; graft hybrids; erosion control plants.

Swingle, Prof. D(eane) B(ret), Montana State College, Bozeman, Mont. *Botany.* South Canaan, Pa, Jan. 6, 79. B.S, Kans. State Col, 00; M.S, Wisconsin, 01, Ph.D, 31. Asst. plant path, U. S. Dept. Agr, 01–06; *prof. bot. and head dept, Mont. State Col, 06–, dean div. science, 32–* A.A; Bot. Soc; Soc. Bact; Phytopath. Soc. Plant pathology; cytology of fungi.

Swingle, Prof. Homer S(cott), Auburn, Ala. *Fisheries.* Columbus, Ohio, July 29, 02. B.S, Ohio State, 24, M.S, 25. Field asst, bur. entom, U. S. Dept. Agr, 23, junior entomologist, 25–26, asst. entomologist, 26–29; research assoc. prof. zool. and entom, *Exp. Sta, Ala. Polytech,* 29–38, assoc. fish culturist, 38–39, *fish culturist, 39–* Fisheries Soc. Fish culture.

Swingle, Dr. Karl F(rederick), Brownsville Road, R. D. 1, Library, Pa. *Biochemistry.* Bozeman, Mont, Jan. 7, 15. B.S, Mont. State Col, 37; Chicago, 37–40; Ph.D, Wisconsin, 42. *Research chemist, inst. path, West. Pa. Hosp, 42–* Oxidative enzymes; wound healing.

Swingle, M(illard) C(urtiss), P. O. Box 1262, Sanford, Fla. *Entomology.* Columbus, Ohio, July 26, 05. A.B, Ohio State, 26, M.S, 28. Junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 27–28, asst. entomologist, 28–37, assoc. entomologist, 37–42, *entomologist in charge insecticide testing lab, 42–* Chem. Soc; Asn. Econ. Entom. Insect physiology and toxicology.

Swingle, Dr. P(aul) M(ecartney), Box 277, State College, N. Mex. *Mathematics.* Columbus, Ohio, June. 99. B.C.E, Ohio State, 22, fellow, 26–27; Ph.D, Michigan, 29. Teaching fellow civil eng, Purdue, 22–23; instr. math, Colorado, 23–24; asst, Ohio State, 25–26; Cornell, 27–28; Michigan, 28–29; Ohio State, 29–32; nat. research fellow, Michigan and Hopkins, 32–33; asst. prof. and later *assoc. prof. math, N. Mex. Col, 38–* Analysis situs.

Swingle, Dr. Walter T(ennyson), U. S. Department of Agriculture, Washington, D. C. *[*1]Botany, Agriculture.* Canaan, Pa, Jan. 8, 71. B.S, Kans. State Col, 90, M.S, 96, Sc.D, 22; Bonn, 95–96; Leipzig, 98–99. Asst. botanist, Exp. Sta, Kans. State Col, 88; special agent, div. veg. physiol. and path, *U. S. Dept. Agr,* 91, agr. explorer, 98–02, in charge plant life hist. investigations, 02–10, senior physiologist and *prin. physiologist in charge crop physiol. and breeding investigations,* div. hort. crops and diseases, *bur. plant indust,* 10–32, *div. plant explor. and introd, 32–* Exec. cmt, div. biol. and agr, Nat. Research Council, 21–23, div. for. relations, Pacific sect, 23– A.A; Bot. Soc; Torrey Bot. Club; Bot. Soc. Wash. (pres, 19); Wash. Acad; cor. mem. Acad. Nat. Sci. Phila; Soc. bot. de France; Soc. nat. d'Acclimatation de France; Soc. géog. de Paris; cor. mem. Acad. d'Agr. de France; hon. mem. Soc. d'Hort. d'Algérie; for. mem. Bot. Soc. Japan. Cytology; physiology; taxonomic botany; metaxenia in date palms and in other plants; centrosomes in plants; plant breeding; hybridizing of Citrus and related genera; the history of botany, agriculture and pharmacology in China and Japan.

Swingle, Prof. W(ilbur) W(illis), 200 Jefferson Road, Princeton, N. J. *[**]Zoology.* Warrensburg, Mo, Jan. 11, 91. A.B, Kansas, 15, fellow, 15–16, A.M, 16; fellow, Princeton, 19–20, Ph.D, 20. Instr. zool, Kansas, 17–18; biol, Yale, 20–21, asst. prof. biol, 21–26; prof. zool. and head dept, Iowa, 26–29; prof. *biol, Princeton,* 29–33, *Conklin prof, 33–* Board directors, Cold Spring Harbor, 25– Soc. Nat; Soc. Zool; Asn. Anat; Physiol. Soc; Soc. Exp. Biol. (councilor, 27, pres, Iowa sect, 27); Eugenics Soc. (advisory council, 27–31); Soc. Endocrinol. (councilor, 31–); Kans. Acad; Acad. Nat. Sci. Phila. Physiology of internal secretions.

Swings, Dr. P(ol), 1035 Prospect Blvd, Pasadena 3, Calif. *[*1]Astronomy, Astrophysics.* Ransant, Belgium, Sept. 24, 06. Ph.D, Liége, 27, D.Sc, 31; Paris, 27–28; Warsaw, 28–30; fellow, United States, 31, 35. Astronomer, Paris Observatory, 27–28; prof. astrophys, Liége, 32–39; visiting scientist, Belgian Am. Educational Foundation, 39; visiting asst. prof. astrophys, Yerkes Observatory, Chicago, 39–40, visiting assoc. prof, 40–42, visiting prof, 42–43; *war research, Ray Control Co, 43–* Visiting lecturer, Poland, 39; prof, Ecole Libre des Hautes Etudes, New York, 41–; Morrison research assoc, Lick Observatory, California, 42. Prix Mailly; Prix de Potter. Astron. Soc; Astron. Soc. Pacific; Royal Astron. Soc; Soc. belge de Physique; Soc. belge d'Astron; Soc. royale des Sciences de Liége; Int. Astron. Union. Stellar spectroscopy; nebulae; comets.

Swinnerton, Prof. A(llyn) C(oats), Antioch College, Yellow Springs, Ohio. *Geology.* New Berlin, N. Y, Sept. 1, 97. A.B, Williams Col, 19; A.M, Harvard, 20, Ph.D, 22. Geol. aid, U. S. Geol. Surv, 20–24, asst. geologist, 24–36; *prof. geol, Antioch Col, 22–, asst. to pres, 32–* Summer, acting assoc. prof, Stanford, 25; prof. in charge sch. field geol, Harvard, 26, 30, 35, prof, 29; cave investigations, Bermuda, 28. Consultant, Tenn. Valley Authority, 33. Hydrology cmt, div. physical sciences, Nat. Research Council, 36. A.A. (sec'y, E, 40); fel. Geol. Soc; Am. Geog. Soc; Geophys. Union; fel. Ohio Acad. (v. pres, geol. sect, 17). Physiography; hydrology limestone terranes; caves.

Swinton, Prof. Roy Stanley, University of Michigan, Ann Arbor, Mich. *Mechanics.* Calumet, Mich, Sept. 10, 86. B.C.E, Michigan, 10, M.S.E, 20. Instr. eng, Philippines, 11–13; inspector, Dam 29, Ohio River, 13–14; Lincoln Mem, Washington, D. C, 14–15; from instr. to *assoc. prof. eng. mech, Michigan, 15–* Cmn. engineer, Arlington Mem, Va; Geo. A. Fuller Co. Int. Road Cong, France. Inspector, War Dept, 13–15. A.A; Civil Eng; Eng. Educ. Highway engineering;

wind stresses in overhead electric structures; wear of gravel roads; photographic method of time sampling and traffic study.

Swinyard, Dr. C(hester) A(llan), University of Utah School of Medicine, Salt Lake City, Utah. *Anatomy.* Logan, Utah, Oct. 21, 06. B.S, Utah State Col, 28, M.S, 29; Ph.D, Minnesota, 34. Charlton research fellow, Tufts Col, 35–36, instr. *anat,* 36–37; asst. prof, Med. Col. S. C, 37–40; *assoc. prof, med. sch, Utah, 40–* Asn. Anat. Innervation of the endocrine glands; volumetric studies on the human suprarenal glands; distribution of peripheral nerves.

Swisher, Prof. Carl A, 2628 Cleinview Ave, Apt. 301, Cincinnati, Ohio. *Organic chemistry.* Center Point, W. Va, Sept. 4, 04. Ph.C. and B.S, Colorado, 26, M.S, 32, Ph.D, 33. Instr. pharmaceut. chem, *Western Reserve,* 37–41, *prof. chem. and chairman dept, Cincinnati Col. Pharm, 41–* Chem. Soc; Pharmaceut. Asn. Chemical microscopy; organic chemistry.

Swisher, Prof. C(harles) L(ee), 1135 Eighth St, N, Fargo, N. Dak. *Physics.* Sheldon, Ill, Jan. 27, 80. A.B, Illinois, 09; A.M, Michigan, 13; Ph.D, Cornell, 17. Instr. physics, Ga. Tech, 09–10; Grinnell Col, 10–13; Cornell, 13–16; prof. physics and in charge physics and elec. eng, S. Dak. Sch. Mines, 16–20; assoc. prof. *physics,* Vanderbilt, 20–22; *prof,* North. Nor. and Indust. Sch, S. Dak, 22–24; *N. Dak. Col, 24–, teacher radio, eng, science and management war training.* Asst. prof, Yale, 27–28. Summer, teacher eng. defense training, Pa. State Col, 41. A.A; N. Dak. Acad. Electrical properties of metallic calcium; distortion factors in alternating currents.

Swisher, Prof. Margaret C, 3503 Main St, Buffalo, N. Y. *Organic chemistry.* Moundsville, W. Va, June 26, 99. Ph.G. Colorado, 19, Ph.C, 20, B.S, 21, M.S, 22, Ph.D, 25. Asst. chem, Colorado, 18–22, instr, 22–25; Purdue, 25–27; research chemist, Eli Lilly and Co, 27–29; *asst. prof. chem, Buffalo, 29–* Chem. Soc; Pharmaceut. Asn. Pharmaceutical and biological chemistry.

Swiss, Dr. J(ack), Westinghouse Research Laboratories, East Pittsburgh, Pa. *Organic chemistry.* Columbus, Nebr, Jan. 30, 12. B.S, Nebraska, 33, M.S, 34; Ph.D, Iowa State Col, 39. Fellow, Iowa State Col, 39–40; *research engineer, research labs, Westinghouse Elec. and Mfg. Co, 40–* A.A; Chem. Soc. Organometallic compounds; derivatives of dibenzofuran and biphenyl; synthetic resins.

Switzer, Prof. F(rederick) G(eorge), 4 Sniffen Court, New York 16, N. Y. *Hydraulics, Mechanics.* New York, N. Y, May 18, 91. M.E, Cornell, 13, M.M.E, 14. Elec. designing engineer, Crocker Wheeler Co, 14–16; instr. hydraul. eng, Cornell, 16–17, asst. prof, 17–24, prof, 24–40, head dept. mech. eng, 37–40; *div. engineer, City Board Water Supply, 40–* Consulting hydraul. and elec. engineer, 16– Mech. Eng; Civil Eng.

Switzer, Dr. George, Yale University, New Haven, Conn. *Mineralogy.* Petaluma, Calif, June 11, 15. A.B, California, 37; Ph.D, Harvard, 42. *Instr. miner, Yale, 40–* Miner. Soc. Glaucophane schists of California.

Switzer, H(erbert) B(razilla), 959 Eighth Ave, New York, N. Y. *Bacteriology.* Bradford, N. Y, June 25, 88. B.S.A, Cornell, 12. Instr. dairy bacter. and market milk, Purdue, 12–15, asst. prof, 15–17; bacteriologist, bur. chem, U. S. Dept. Agr, 17–28, chief sta. import milk inspection, food and drug admin, 28–32, bacteriologist, east. dist, 32–39; *field director good housekeeping bur, 'Good Housekeeping Mag,' 39–* Inst. Food Technol. Sanitation of food production.

Switzer, Prof. J(esse) E(lmer), 523 S. Park Ave, Bloomington, Ind. *Geography.* Waynetown, Ind, 76. B.S, Chicago, 11; Ph.D, Clark 23. Head dept. geog, N. Dak. State Teachers Col, Valley City, 11–21; asst. prof. *geog, Indiana,* 23–25, assoc. prof, 25–36, *prof, 36–* A.A; Meteorol. Soc; Ind. Acad. Geography of North Dakota; weather types in the climate of Mexico and the West Indies; utilization of inland waterways of the United States; geographic interdependence; geography of Indiana.

Switzer, Prof. S(t. Clair) A(dna), Bonham Road, Oxford, Ohio. *Psychology.* Milford, Mich, July 9, 02. A.B, Miami (Ohio), 28; A.M, Wisconsin, 29; Ph.D, Yale, 34. Asst, Wisconsin, 28–29; instr. *psychol,* Miami (Ohio), 29–30, asst. prof, 30–32; asst, inst. human relations, Yale, 32–33, instr, univ, 33–34; asst. prof, *Miami (Ohio),* 34–39, *assoc. prof, 39–; capt, Air Corps, U. S. Army, 42–* Summers, special instr, Camp Indianola, Wis, 29, 30; psychologist, U. S. Northeast. Penitentiary, Pa, 36. Mem, Cmt. Study Factors Affecting Fertility in U. S. Psychol. Asn; Midwest. Psychol. Asn. Learning; conditioned reactions; suggestibility; social psychology.

Switzler, R(oyall) H(ill), 1301 Lewis St, St. Louis, Mo. *Engineering.* Columbia, Mo, Aug. 5, 76. A.B, Missouri, 98, A.M, 99. V. pres. and gen. manager and *pres, St. Louis Refrig. and Cold Storage Co.* Director, Associated Industries Mo, 26– Chairman, Am. delegation, Int. Cong. Refrig, London, 24. Inst. Refrig. (pres, 24–29); Warehousemen's Asn. (chairman, cold storage div, 14–16, gen. pres, 41). Refrigeration; cold storage warehousing; warehouse accounting; financing operations of cold storage warehouses.

Swope, Henrietta H(ill), Harvard Observatory, Cambridge, Mass. *Astronomy.* St. Louis, Mo, Oct. 26, 02. A.B, Barnard Col, Columbia, 25; A.M, Radcliffe Col, 28. *Research asst, Harvard Observatory, 28–* Astron. Soc. Variable stars in the Milky Way.

Swope, Prof. W(ilbur) D(avid), 122 Sparks St, State College, Pa. *Dairy husbandry.* Colfax, Pa, Feb. 25, 86. B.S, Pa. State Col, 19, M.S, 24. Instr. *dairy husbandry, Pa. State Col,* 19–21, asst. prof, 21–24, assoc. prof, 24–30, *prof, 30–* Dairy Sci. Asn. (chairman sub-cmt. chem. methods). Testing dairy products; factors affecting solids in milk; determination of factors affecting color in milk; preservation of dairy products for analysis.

Sy, Prof. Albert P(hilip), University of Buffalo, Buffalo, N. Y. *Chemistry.* Altamont, Ill, Aug. 7, 72. B.S, Illinois, 94, M.S, 99; Ph.D, Buffalo, 08. Instr. chem, Buffalo, 95–98; Illinois, 98–99; asst. prof, Buffalo, 99–00; asst. chemist, Frankford Arsenal, Ordnance Dept, U.S.A, 00–03, chemist, Sandy Hook, N. J, 03–04; asst. prof. *chem, Buffalo,* 04–07, *prof,* 07– Chem. Soc. Physiological and food chemistry; toxicology; forensic chemistry; silicosis.

Sykes, Dr. C(larence) S(herbourne), 2201 Market St, Galveston, Texas. *Ophthalmology.* Galveston, Texas, May 30, 98. B.S, Texas, 23, M.D, 25; Vienna, 27–28. Instr. *ophthal, Texas,* 29–34, assoc. prof, 34–37, *prof,* 37– Am. Med. Asn; Acad. Ophthal. and Otolaryngol; South. Med. Asn. Retinal detachment.

Sykes, Prof. Geo(rge) F(rancis), Tufts College Medical School, Boston, Mass. *Anatomy, Zoology.* Suffield, Conn. Nov. 10, 78. Ph.B, Brown, 09, A.M, 10. Asst. comp. anat, Brown, 10; instr. zool. and physiol, Oregon State Col, 10–12, asst. prof, 13, prof, 14–21; teaching fellow, Harvard Med. Sch, 21–23; *asst. prof. anat, Tufts Col, 23–* Instr, Cold Spring Harbor, 23–29. A.A; Asn. Anat; Soc. Mammal; Cooper Ornith. Club; Pacific Fisheries Soc. (past sec'y); West. Soc. Nat. Development, morphology and physiology of salmon; spiral trends in the musculature of the vertebrate alimentary canal; morphogenic aberrancies in the embryo heart.

Sykes, Godfrey G(lenton), Desert Botanical Laboratory, Tucson, Ariz. *Geography.* London, Eng, May 25, 61. Brewood Sch, England; private educ. Eng. dept, Great West. Ry, England, 79–81; hydraul. and mining engineer, Japan, 86–87; Australia, 88–89; practising civil engineer, 90–06; mem. staff, lab. plant physiol, *Carnegie Institution,* 06–29, *research assoc. physiog. investigation of the Delta of the Colorado, 29–* Explorations in Ariz, Calif, Sonora, Libyan desert and Sudan, 01–12. Fel. Am. Geog. Soc; fel. Royal Geog. Soc; fel. Royal Soc. Arts; Inst. Mech. Eng. Gt. Britain. Eremography; Spanish cartography; development in the Southwest; hydrology and physiography of the Colorado River and the Delta.

Sykes, Dr. J(oseph) F(rederick), Michigan State College, East Lansing, Mich. *Physiology.* Paris, Ont, Can. B.S.A, Ont. Agr. Col, 29, fellow, 29–31; M.S.A, Toronto, 33, Ph.D, 36. Asst. physiol, Toronto, 32–36; *asst. prof. and research asst. physiol. and pharmacol, Mich. State Col, 36–* Physiol. Soc; Dairy Sci. Asn; Soc. Animal Production. Circulatory system of dairy cattle; hormones affecting milk secretion of cattle.

Sykes, W(esley) P(ope), 1331 Chardon Road, Euclid, Cleveland, Ohio. *Metallurgy.* Cleveland, Ohio, 93. B.S, Case, 16, Met.E, 20. *Research metallurgist, Cleveland Wire Works, Gen. Elec. Co. 16–* Lecturer, Case, 34. Howe medal, Am. Soc. Steel Treat, 27. A.A; Min. and Metal. Eng; Soc. Metals; British Inst. Metals. Tungsten, molybdenum and their alloys; physical properties of metals at elevated temperatures.

Sylvester, A(lbert) H(ale), 154 S. Franklin St, Wenatchee, Wash. *Geology, Forestry.* Woodside, Calif, May 25, 71. B.S, California, 95. Topographer, U. S. Geol. Surv, 97–08; forest

supervisor, U. S. Forest Service, 08–31; *retired.* A.A; Soc. Foresters; Am. Geog. Soc; Geol. Soc. Wash; Columbia River Archeol. Soc. Glaciers and physiography, including the volcanology of Mount Hood, Oregon; geology and physiography of the Wenatchee River country, Washington; place names of California, Oregon and Washington.

Sylvester, Dr. Mildred (West) Loring, University of Pennsylvania, Philadelphia, Pa. *Psychology.* Tacoma, Wash, May 4, 91. A.B, Washington (Seattle), 12, A.M, 13; Ph.D, Hopkins, 16. Sarah Berliner fellow, Hopkins, 16–17; instr. psychol, Washington (Seattle), 17–19; professorial lecturer psychol, Minnesota, 20–21, asst. prof, 21–22; *exec. officer and examining psychologist, psychol. clinic, Pennsylvania, 31–, assoc. psychol, 43–* Psychol. Corp. Asst, A.S, U.S.A, 20. Psychol. Asn; Vocational Guidance Asn; East. Psychol. Asn; Pa. Asn. Clin. Psychol. Experimental psychology; special senses; association reaction time; retinal sensitivity; clinical psychology; speech; guidance.

Sylvester, Prof. R(euel) H(ull), 545 39th St, Des Moines, Iowa. *Psychology.* Lynnville, Iowa, March 18, 81. A.B, Iowa, 08; fellow, Pennsylvania, 12–13, Ph.D, 13. Prof. psychol. and educ, Penn Col. (Iowa), 09–10; asst. prof. *psychol,* Iowa, 13–19; *prof, Drake, 19–, head dept.* A.A; Psychol. Asn; Iowa Acad. Tone variator; form-board tests; clinical psychology.

Symmers, Dr. Douglas, Department of Hospitals, 125 Worth St, New York, N. Y. *Pathology.* Columbia, S. C, Sept. 17, 79. M.D, Jefferson Med. Col, 01. Research fellow pharmacol, col. physicians and surg, Columbia, 05–06; asst. pathologist, N. Y. Hosp, 06–13; instr. path, Univ. and Bellevue Hosp. Med. Col, 07–08, prof, 12–19; asst. director labs, Bellevue and Allied Hosps, 16–18, *director,* 18–29, *div. labs, dept. hosps, 29–, prof. path, 34–, col. med, N. Y. Univ, 35–* Ed, 'Ziegler's Gen. Path,' 20. Asn. Path. and Bact; N. Y. Path. Soc. Pathological anatomy and chemistry.

Symonds, Prof. Percival M(allon), Teachers College, Columbia University, New York, N. Y. *Education, Psychology.* Newtonville, Mass, April 18, 93. A.B, Harvard, 15; A.M, Columbia, 20, Ph.D, 23. Asst, inst. educ. research, Teachers Col, Columbia, 21–22; prof. educ. and psychol, Hawaii, 22–24; assoc. *educ, Teachers Col, Columbia,* 24–25, asst. prof, 25–28, assoc. prof, 28–34, *prof, 34–,* chairman div. theory and techniques of measurement and research, 33–37, head dept. research methods, 37–42. A.A. (sec'y, Q, 37); Educ. Research Asn; Psychol. Asn; fel. Orthopsychiat. Asn; Asn. Applied Psychol. (pres, 34, v. pres, sect. educ. psychol, 37); Progressive Educ. Asn; Soc. Research Child Develop; East. Psychol. Asn. (councilor, 36). Dynamic psychology; personality; mental hygiene; psychology of thinking; mental testing.

Symons, Dr. George E(dgar), 155 E. 44th St, New York, N. Y. *Sanitary science.* Danville, Ill, April 20, 03. Wisconsin, 22–24; B.S, Illinois, 28, M.S, 30, Ph.D, 32. Research chemist, State Water Surv, Ill, 28–33; Freeport Sulphur Co, Texas, 33–34; consultant, Sullivan, Ill, 34–35; engineer, Greeley and Hansen, Ind, 35–36; chief chemist, Buffalo Sewer Authority, 36–43; *assoc. ed, 'Water Works and Sewerage,' 43–* Instr, Illinois, 31–33; chemist, Interstate Water Co, Ill, 18–21, 24–25; Sanit. Dist, Decatur, Ill, 25–26; asst, State Water Surv, Ill, 26–28; asst. prof, Canisius Col, 40–41; lecturer, med. sch, Buffalo, 42–43. Kenneth Allen award, N. Y. State Sewage Works Asn, 40. Chem. Eng; Civil Eng; Water Works Asn; Chem. Soc; N. Y. Sewage Works Asn. Water purification; sewage treatment; sanitary chemistry, bacteriology and engineering; sewage sludge digestion and methane fermentation; sewage chlorination and disinfection; sludge conditioning and disposal; methods for sewage and sludge analysis.

Symons, Dr. Thomas B(addeley), University of Maryland, College Park, Md. *Zoology.* Easton, Md, Sept. 2, 80. B.S, Maryland, 02, M.S, 04, D.Agr, 18. Asst. state entomologist, Md, 02, assoc. state entomologist, 03, state entomologist and prof. entom. and zool, *Maryland,* 04–17, dean sch. hort, 12–14, *exten. director, 14–,* acting dean, *col. agr,* 38–39, *dean, 39–* A.A; Asn. Econ. Entom; Md. Agr. Soc. (treas). Economic entomology; agricultural extension methods and administration.

Synge, Prof. J(ohn) L(ighton), Ohio State University, Columbus, Ohio. *Mathematics.* Dublin, Ireland, March 23, 97. M.A, Dublin, 22, D.Sc, 26. Lecturer, Trinity Col, Dublin, 20; asst. prof. math, Toronto, 20–25; fellow and prof. nat. philos, Dublin, 25–30; prof. applied math, Toronto, 30–43; *prof. math. and chairman dept, Ohio State, 43–* Math. Soc; Royal Soc. Can; Royal Soc. London; London Math. Soc; Royal Irish Acad. (treas, 29). Relativity; elasticity; hydrodynamics.

Syverton, Dr. Jerome T, University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Bacteriology, Medicine.* Courtenay, N. Dak, March 29, 07. A.B, North Dakota, 27; M.D, Harvard, 31. Instr. bacter, North Dakota, 28–29; res. house officer, Duke Hosp, 31–32; asst, Rockefeller Inst, 32–34; instr. *bacter, sch. med. and dentistry, Rochester,* 34–37, asst. prof, 37–39, *assoc. prof, 39–; lieut, U. S. Naval Res, 41–* Lilly award and medal, 38. A.A; Soc. Exp. Path; Soc. Exp. Biol; Asn. Cancer Research; Soc. Bact; Soc. Clin. Invest; Harvey Soc. Pathology; filterable viruses; infectious diseases.

Syvertsen, Prof. R(olf) C(hristian), Dartmouth Medical School, Hanover, N. H. *Anatomy.* Taunton, Mass, March 22, 96. B.S, Dartmouth Col, 21, 20–23; M.D, Rush Med. Col, 36. Asst. biol, Dartmouth Col, 19–21, instr, 21–22, evolution, 22–23, *anat, Dartmouth Med. Sch,* 23–32, asst. prof, 32–38, *prof, 38–, sec'y, 24–* Research, Mary Hitchcock Mem. Hosp, 35–36. U.S.A, 17–19. A.A. Clinical relationships.

Syz, Dr. Hans (Caspar), 27 E. 37th St, New York, N. Y. *Psychiatry.* Zurich, Switzerland, Aug. 1, 94. Munich, 17; Staatsexamen, Zurich, 19; M.D, Geneva, 21. Asst, univ. hosp, Zurich, 20–21; house officer, Phipps Psychiat. Clinic, Hopkins Hosp, 22–23, instr. psychiat, Hopkins, 23–27; asst, N. Y. Hosp, 29–32; physician, Cornell Med. Clinic, 30–32; asst. psychiat, N. Y. State Psychiat. Inst, 30–38; *psychiatrist, N. Y. Hosp. Cornell Med. Col. Asn, 32–, instr. clin. psychiat, med. col.* Research assoc, Lifwynn Foundation, 27– A.A; Psychiat. Asn; Am. Med. Asn; Psychopath. Asn; Psychol. Asn; Sociol. Soc. Experimental convulsions; psychogalvanic reflex; phylopathology; memory disorders.

Szász, Dr. Otto, 635 Probasco Ave, Cincinnati, Ohio. *[6]*Mathematics.* Alsószucs, Hungary, Dec. 11, 84. Ph.D, Budapest, 11. Docent, Frankfurt, 14–20, prof, 20–33; visiting prof, Mass. Inst. Tech, 33–36; *research fellow, grad. sch, Cincinnati, 36–* Visiting lecturer, Brown, 34–35. G. König medal, 30. Math. Soc; London Math. Soc; Deuts. Math. Verein; Berlin Math. Gesell; Budapest Math. and Physical Soc; Circolo Mat. di Palermo. Trigonometric polynomials; Fourier series; analytic functions; problems of approximation; determinants; continued fractions; number theory; theory of summability of infinite series.

Sze, Dr. Morgan Chuan-Yuan, 1405 Lee St, Charleston, W. Va. *Chemical engineering.* Tientsin, China, May 27, 17. B.S, Mass. Inst. Tech, 39, Sc.D, 41. *Chem. engineer,* Universal Trading Corp, 41–42; *ammonia dept, Belle works, E. I. du Pont de Nemours and Co, 42–* Chem. Eng. Nitrogen fixation; chemical reactions during vlucanization.

Szego, Dr. Clara M, University of Minnesota School of Medicine, Minneapolis, Minn. *Physiological chemistry.* Budapest, Hungary, March 23, 16. A.B, Hunter Col, 37; M.S, Minnesota, 39, Ph.D, 42. Asst. physiol. chem, *sch. med, Minnesota,* 41–43, teaching asst. *physiol,* 42–43, *instr, 43–* A.A; Asn. Study Int. Secretions. Chemical methods for the determination of sex steroids; metabolism of the estrogens in specific animal tissues; sex hormone excretion in normal and pathological states, with and without the administration of crystalline hormones.

Szegö, Prof. G(abor), Stanford University, Calif. *[6]*Mathematics.* Kunhegyes, Hungary, Jan. 20, 95. Ph.D, Vienna, 18. Privat-docent, Berlin, 21–26; *prof. math,* Univ. Königsberg, 26–34; Washington (St. Louis), 34–38; *Stanford, 38–* J. König prize, Math-Physics Soc. Budapest, 27. Math. Soc; Hungarian Math. Soc. Theory of functions; orthogonal polynomials; conformal mapping; location of zeros.

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Taber, Prof. Stephen, University of South Carolina, Columbia, S. C. *Geology.* Victory, N. Y, April 24, 82. A.B, Stanford, 06; Ph.D, Virginia, 12. Assayer and chemist, Santa Maria de Guadalupe y Anexas Mines, Mex, 06–07; instr. econ. geol, Virginia, 09–12; *prof. geol. and miner. and head dept. geol, South Carolina, 12–* State geologist, S. C, 14–; acting prof, Stanford, 20; field asst, Calif. Earthquake Investigation Cmn, 06; asst. geologist, Va. Geol. Surv, 09–12; P. R. Seismol. Cmn, 18–19. A.A; Geol. Soc; fel. Miner. Soc; Min. and Metal. Eng; Seismol. Soc. (chairman, east. sect, 31); Geophys. Union; S. C. Acad. (pres, 29); fel. Geol. Soc. London; Soc.

géol. de France. Seismology; dynamic and engineering geology; frost heaving and perennially frozen ground.

Tabern, Dr. Donalee L(evi), Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* Bowling Green, Ohio, Jan. 27, 00. B.S, Michigan, 21, M.S, 22, Ph.D, 24. Instr. chem, Michigan, 23–25; lecturer and Heckscher research fellow, Cornell, 25–26; *research chemist, Abbott Labs, 26–* Chem. Soc. (sec'y, med. div, 34–36, chairman, 36); Chicago Chemists Club (pres, 37). Organic derivatives of germanium; acridyl radicals; radiographic media; hypnotics; diuretics.

Tabor, Dr. F(lorence) S(arah), Dover Plains, N. Y. *Biochemistry.* Dover Plains, N. Y, Dec. 24, 02. B.S, Skidmore Col, 23; M.S, N. Y. Univ, 29; Ph.D, Pa. State Col, 35. Instr. *chem,* Wilson Col, 24–27; asst, N. Y. Univ, 27–30, 31–32; *instr,* Vassar Col, 30–31; *Pratt Inst, 35–* A.A; Chem. Soc; N. Y. Acad. Vitamins with special reference to interrelation of A and D.

Tack, Dr. Peter I(saac), 135 Gunson St, East Lansing, Mich. *Fisheries biology.* Marion, N. Y, April 15, 11. B.S, Cornell, 34, Ph.D, 39. Asst. biologist, State Conservation Dept, N. Y, 39–40, biologist, 40; *instr. zool, Mich. State Col, 40–* Limnol. Soc; Fisheries Soc. Life history and ecology of the crayfish, Cambarus immunis Hagen.

Taebel, Dr. W. A, 76 Day St, Bloomfield, N. J. *Chemistry.* Chicago, Ill, April 18, 07. B.S, Elmhurst Col, 35; M.S, Illinois, 36, fellow, Ph.D, 38. Asst, Illinois, instr. chem, 38–41; *chemist, Westinghouse Elec. and Mfg. Co, 41–* Chem. Soc. Rare earths; preparation of new fluorescent substances; properties of fluorescent powders; improvement of fluorescent materials or phosphors.

Taff, Joseph A(lexander), 628 Cowper St, Palo Alto, Calif. *Geology.* Ten Mile, Tenn, Nov. 20, 62. Arkansas, 86–88; fellow, Texas, 93–94, B.S, 94. Asst. geologist, Ark. Geol. Surv, 88–89; Texas Geol. Surv, 89–94; geologist, U. S. Geol. Surv, 94–09; South. Pacific Co, 09–32; chief geologist, Associated Oil Company, 21–29; consulting geologist, 29–37. A.A; hon. mem. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Calif. Acad; Geol. Soc. Wash. Stratigraphic structural and economic geology; geology of Ouachita, Arbuckle and Wichita Mountains in Oklahoma; Cretaceous of northern Texas; coal fields of West Virginia, Colorado, Wyoming, Utah and Oklahoma; mid-continent oil field; Pacific Coast oil fields.

Taft, Alan C(owie), State Division of Fish and Game, Ferry Bldg, San Francisco, Calif. *Biology.* Rothsay, Minn, April 20, 97. A.B, Stanford, 27, A.M, 28. Asst. aquatic biologist, Bur. Fisheries, 28–37; *chief bur. fish conservation, State Div. Fish and Game, Calif, 37–* A.A; Soc. Ichthyol. and Herp; Wildlife Soc; West. Soc. Nat. Biology of fishes; life history of Pacific salmon and trout.

Taft, Dr. Annie Elzina, Bryn Mawr, Pa. *Neuropsychiatry, Neuropathology.* Castleton, Ill. M.D, Tufts Col, 07. Path. lab, Boston City Hosp, 07–09; med. research officer, Monson State Hosp, Mass, 09–10; Neur. Inst, Frankfurt, and serol. lab, Samariterhaus, Heidelberg, 11; curator dept. neuropath, Harvard Med. Sch, 12–17; res. physician, dept. nervous and mental diseases, Pa. Hosp, 18–20; neuropsychiat. research, *Neur. Inst, New York,* 32–33, *neuropath. research, 33–* Neuropsychiat. research, Boston Psychopathic Hosp, 20–21; neuropathologist, Pa. Hosp. Nervous and Mental Diseases, and psychiatrist, Community Health Center, Phila, 22–27; Laura Spelman Rockefeller fellow, Pennsylvania, 27–31. A.A; Psychiat. Asn; Phila. Psychiat. Soc. Intercellular substance of the cerebral cortex; pigmented cells of pia and of meningeal tumors.

Taft, Prof. C(harles) H(atfield), University of Texas School of Medicine, Galveston, Texas. *Physiology, Pharmacology.* Brooklyn, N. Y, Jan. 9, 91. A.B, Wesleyan, 15; A.M, Columbia, 26. Instr. biol, Tufts Col, 19–22, asst. prof, 22–28; instr. physiol, sch. med, Yale, 28–30; *assoc. prof. pharmacol, sch. med, Texas, 30–* A.A. Physiology of the kidney; pharmacology of barbituric acid derivatives.

Taft, Dr. Clarence E(gbert), Ohio State University, Columbus, Ohio. *Botany.* Romeo, Mich, Nov. 13, 06. A.B, Mich. State Nor. Sch, 29; M.S, Oklahoma, 31; Ph.D, Ohio State, 34. Teaching asst. *bot,* Oklahoma, 29–31; asst, *Ohio State,* 31–33, chief lab. asst, 33–35, instr, 35–40, *asst. prof, 40–* Exchange prof, Cornell, 37. Desmids of Oklahoma; Oedogoniaceae and Zygnemataceae of Oklahoma; Volvocales.

Taft, Dr. Jessie, 2410 Pine St, Philadelphia, Pa. *Psychology.* Dubuque, Iowa, June 24, 82. A.B, Drake, 04; fellow, Chicago, 09–12, Ph.D, 13. Teacher, high sch, Iowa, 05–09; asst. supt, State Reformatory for Women, N. Y, 13–15; social service director, State Charities Aid Asn, N. Y, 15–18; director child study, Children's Aid Soc, Pa, 18–33; lecturer, *Pa. Sch. Social Work,* 18–33, *assoc. prof. social case work, 33–* Director, Girls' Aid, Phila, 24–26. Fel. Orthopsychiat. Asn; Asn. Social Workers. Psychological treatment of children; personality development; social case work.

Taft, Dr. Robert, 1713 Louisiana St, Lawrence, Kans. *Chemistry.* Tokyo, Japan, March 24, 94. A.B, Grand Island Col, 16; M.S, Iowa, 19; Ph.D, Kansas, 25. Instr. *chem,* Iowa, 18–19; prof, Ottawa (Kans), 19–22; instr, *Kansas,* 22–26, asst. prof, 26–28, assoc. prof, 28–37, *prof, 37–* Emerson medal, 35. Chem. Soc; Kans. Acad. (councilor, 30–32, pres, 32; ed, 'Trans,' 41–). Non-aqueous solutions; electrodeposition of metals; history of photography.

Taft, Dr. Robert B(urbidge), 103 Rutledge Ave, Charleston, S. C. *Radiology.* Charleston, S. C, Sept. 20, 99. B.S, Col. of Charleston, 23, A.M, 34; M.D, Med. Col. of State of S. C, 23; Michigan; Vienna. Intern, Bellevue Hosp, New York, 23–24; asst. radiol. to Dr. Augustus R. Taft, 24–27; *practising radiologist, 27–; prof. radiol, Med. Col. of State of S. C.* Radiologist, Baker Mem. Sanatorium; St. Francis Xavier Infirmary. Silver medal, Am. Roentgen Ray Soc, 36, 42; certificate of merit, 38; Jefferson gold medal, S. C. Acad. Sciences, 39. U.S.A, 18. Fel. Col. Radiol. (councilor, S. C, 42); Am. Med. Asn; Roentgen Ray Soc. (chairman cmt. use and rental of radium, 39); Radiol. Soc. N. Amer. (2nd v. pres, 34; state counselor, S. C, 36–); Radium Soc. (ed. dept. technique, 'Jour,' 31–); Physical Soc; S. C. Acad. (exec. councilor, 40); S. C. State Med. Asn. (ed. dept. radiol, 'Jour,' 30–); S. C. X-Ray Soc. (pres, 36, sec'y, 41). Measurement of radium; radioactivity of thorotrast.

Taft, Prof. Theodore H(oward), Massachusetts Institute of Technology, Cambridge, Mass. *Mechanical engineering.* Dedham, Mass, April 8, 80. B.S, Mass. Inst. Tech, 02. From asst. to *assoc. prof. mech. eng, Mass. Inst. Tech, 03–* Head turbine sch, Mass. Inst. Tech, 17–19. Mech. Eng; Eng. Educ; Nat. Asn. Power Eng. Engineering thermodynamics; power plant engineering.

Taggart, Prof. Arthur F(ay), Columbia University, New York, N. Y. *Mineral dressing.* New York, N. Y, Oct. 1, 84. A.B, Stanford, 09, E.M, 10. Instr. and asst. prof. mining, Yale, 12–19; *prof. mineral dressing, Columbia, 19–* Min. and Metal. Eng; Chem. Soc. Ore dressing; crushing; flotation concentration; lubrication; oil cracking; oil refining.

Taggart, Dr. M(illard) S(eals), Jr, 753 W. 42nd Ave, Houston, Texas. *Organic chemistry.* Waco, Texas, Jan. 13, 09. A.B, Rice Inst, 31, A.M, 32, fellow, 32–35, Ph.D, 35. Instr. chem, Agr. and Mech. Col. Texas, 35-37; *junior research engineer, Humble Oil and Ref. Co, 37–* Chem. Soc. Barbituric acid derivatives; simple pyrrole alcohols; constitution of sapogenine; geochemical oil prospecting patents; geochemistry.

Taggart, W. G, University Station, Baton Rouge, La. *Sugar chemistry.* Latimer, S. C, Sept. 17, 83. B.S, Miss. Agr. and Mech. Col, 06; M.S, Louisiana, 33. Asst. chemist, Miss. Agr. and Mech. Col. and asst, Exp. Sta, 06; asst. research chemist and asst. director, *sugar exp. sta, Louisiana,* 08–41, *director, 41–* Sugar-cane varieties; fertilizers; rotation experiments.

Tague, Dr. Glenn C(harles), Williams College, Williamstown, Mass. *Geomorphology.* Huron, N. Y, Aug. 5, 05. A.B, Michigan, 30, M.S, 34, Ph.D, 42. Instr. geol. and geog, Flint Junior Col, 35–40; miner, petrol. and geol, Texas, 42–43; *asst. prof. geol, Williams Col, 43–* Summers, junior geologist, Mich. Emergency Conservation Works, 35; instr, Cent. State Teachers Col, Mich, 39. A.A; Meteorol. Soc; Mich. Acad; Mich. Geol. Soc. Lake history and the development of coastal dunes in the Lake Michigan basin.

Tahmisian, Dr. T(heodore) N(ewton), State University of Iowa, Iowa City, Iowa. *Physiology.* Caesaria, Turkey, June 22, 09. A.B, Fresno State Col, Calif, 35; M.S, Iowa, 39, Ph.D, 42. Asst. biol, Fresno State Col, Calif, 34–37; tech. asst. *zool, Iowa,* 38–42, *research assoc, 42–* Enzymes in ontogenesis; choline-esterase in developing Melanoplus differentialis eggs.

Tainter, Dr. M(aurice) L(ane), Winthrop Chemical Co, Rensselaer, N. Y. *Pharmacology.* Carroll, Iowa, May 10, 99.

Iowa, 16–20; A.B, Stanford, 21, A.M, 24, M.D, 25. Asst. pharmacol, sch. med, Stanford, 22–24, instr, 24–27, asst. prof, 27–29, assoc. prof, 29–35, *prof*, 35–43; *applied physiol, Albany Med. Col, Union (N. Y), 43–; research director, Winthrop Chem. Co, 43–* Nat. research fellow, 26–27; London, 30; prof, Col. Physicians and Surg. Dental Sch, San Francisco, 34–43. A.A; Soc. Pharmacol; Soc. Exp. Biol; Physiol. Soc; Am. Med. Asn; hon. mem. Soc. Anesthetists; hon. mem. Ariz. State Dental Asn; Chem. Soc; hon. mem. Calif. State Dental Asn; Calif. Acad. Med; Int. Asn. Dental Research. Anaphylactoid reactions; influence of decerebration on erection; role of adrenals in prevention of edema; cocaine; post-pituitary hormone; digitalis; calcium; nerve mechanisms in edema; sympathomimetic amines; phenylenediamine and inflammatory edemas; dinitrophenol; local anesthesia; dental pharmacology.

Tait, Prof. John, McGill University, Montreal, Que, Can. *Physiology.* Orkney Islands, Scotland, April 18, 78. B.Sc, Edinburgh, 01, M.B, Ch.B, 03, M.D, 06, D.Sc, 07. House surgeon, Leith Hosp, 04–05; asst. physiol. Edinburgh, 05–07, lecturer exp. physiol, 07–19; prof. physiol, McGill, 19–40, director exp. med, 21–27. Crichton research scholar, Carnegie fellow and Fothergill gold medal, Edinburgh. Neill medal, Royal Soc. Edinburgh, 19. Capt, R.A.M.C. Physiol. Soc; hon. mem. Otol. Soc; Col-Oto-Rhino-Laryngol; fel. Royal Soc. Can; British Asn. (sec'y, physiol. sect, 11–19). Nerves; the heart; blood coagulation; phagocytosis; zoology of Crustacea; spleen; labyrinth; hearing; the voice.

Tait, Prof. William D(unlop), 2276 Regent Ave, Montreal, Que, Can. *Psychology.* Hopewell, N. S, Nov. 20, 79. B.A, Dalhousie, 05; A.M, Harvard, 06, Ph.D, 09. Lecturer philos, Dalhousie, 06–07; sessional lecturer, *McGill*, 09–10, lecturer, 10–12, asst. prof, 12–22, assoc. prof, 22–24, *prof. psychol. and chairman dept, 24–, director psychol. lab.* A.A; fel. Royal Soc. Arts. Memory; tests; emotions; gifted children; dreams; childhood repressions; handwriting; vocational guidance; educational tests.

Takahashi, Dr. William N(oburu), University of California, Berkeley, Calif. *Plant pathology.* Oakland, Calif, Aug. 14, 05. B.S, California, 28, Ph.D, 32. Asst. *plant path, California*, 30–38, *instr, 38–*, assoc, *Exp. Sta*, 30–38, *junior plant pathologist, 38–* Director agr. research, War Relocation Authority, Ariz, 42–43; visiting doctor, Cornell, 43– A.A; Phytopath. Soc. Plant viruses; micro-technique.

Talbert, Prof. Ernest L(ynn), 266 Albion Place, Cincinnati, Ohio. *Psychology.* A.B, Chicago, 02, Ph.D, 09. Exten. instr. philos. and psychol, Chicago, 11–14; instr. philos, *Cincinnati*, 14–15, *psychol*, 15–18, asst. prof, 18–26, *assoc. prof, 26–* A.A. Psychology of primitives; psychology of religion.

Talbert, Prof. George A(ddison), University Station, Grand Forks, N. Dak. *Physiology.* Fall River, Wis, Aug. 30, 65. B.S, Ohio Wesleyan, 88, M.S, 91; Hopkins, 88–89, fellow, 18–19; Berlin, 98–99; fellow, Chicago, 19–20, Ph.D, 21. Prof. biol, Wis. State Nor. Sch, Stevens Point, 02–07; Ripon Col, 08–15; Fairmount Col, 20–21; assoc. prof. *physiol*, Nebraska, 21–24; *prof, North Dakota, 24–* A.A; Physiol. Soc; N. Dak. Acad; Wis. Acad; Ind. Acad. Cerebral localization; plethysmographic and pneumographic records in hypnosis; the reaction and the constituents of sweat and their respective relationships to the urine and the blood.

Talbert, Prof. T(homas) J(esse), Sunset Hill, Columbia, Mo. *Horticulture.* Exeter, Mo. B.S. (Agr), Missouri, 13, A.M, 17. Asst. entom. and deputy state nursery inspector, Missouri, 13–14; exten. entomologist, Kans. State Col, 14–15; exten. asst. prof. entom, Missouri, 15–17, exten. assoc. prof. hort, 19; supt. farmers insts. and exten. schs, Kans. State Col, 20–22; *prof. hort. and chairman dept, Missouri, 22–* Assoc. ed, 'Am. Fruit Growers Magazine,' 30. Exec. sec'y, Food Admin, Mo, 17–19. A.A; Soc. Hort. Sci; Pomol. Soc. (pres, 41). Spray residue; feeding spray chemicals to albino rats.

Talbot, Dr. Fritz B(radley), 266 Beacon St, Boston, Mass. *Biochemistry.* Boston, Mass, Jan. 30, 78. A.B, Harvard, 00, M.D, 05. Collaborator, nutrition lab, Carnegie Institution, 11–19; *emer. prof. pediat, Harvard Med. Sch; consultant, Mass. Gen. Hosp.* Int. Red Cross Cong, Cannes, 19. A.A; Am. Med. Asn; Pediat. Soc; Acad. Pediat; Chem. Soc; Soc. Clin. Invest. Metabolism; respiratory exchange; nutrition and metabolism of infants and children; anaphylaxis; endocrine diseases.

Talbot, Prof. Marion, 5758 Kenwood Ave, Chicago 37, Ill. *Household administration.* Thun, Switzerland, July 31, 58. A.B, Boston, 80, A.M, 82, LL.D, 24; B.S, Mass. Inst. Tech, 88; LL.D, Cornell Col. (Iowa), 04, Tulane, 35. Instr. domestic science, Wellesley Col, 90–92; dean women, *Chicago*, 92–25, asst. prof. sanit. science, 92–95, assoc. prof, 95–04, prof. and *emer. prof. household admin, 04–* Acting pres, Constantinople Woman's Col, 27–28, 31–32. A.A; Home Econ. Asn; Pub. Health Asn; Inst. Social Sci; Hist. Asn. House sanitation; the modern household; education of women.

Talbot, Prof. Mary, Lindenwood College, St. Charles, Mo. *Ecology.* Columbus, Ohio, Nov. 30, 03. B.S, Denison, 25; A.M, Ohio State, 27; Ph.D, Chicago, 34. Asst. prof. biol, Omaha, 27–28; instr, Stephens Col, 28–30; Mundelein Col, 35–36; *prof. zool, Lindenwood Col, 36–* A.A. Entomology; ants.

Talbot, Prof. Mignon, South Hadley, Mass. *Paleontology.* Iowa City, Iowa, Aug. 16, 69. A.B, Ohio State, 92; Ph.D, Yale, 04. Teacher, high sch, Ohio, 96–02; head dept. *geol, Mt. Holyoke Col*, 04–08, prof, 08–35, *emer. prof, 35–* A.A; Paleont. Soc; fel. Geol. Soc.

Talbot, M(urrell) W(illiams), U. S. Forest Service, University of California, Berkeley, Calif. *Forestry, Botany.* Appleton City, Mo, Aug. 18, 89. B.S, Missouri, 13. Investigator and administrator, U. S. Forest Service, 13–24, botanist, in charge weed investigations, office bot, U. S. Dept. Agr, 24–31, senior forest ecologist in charge range research, *Calif. Forest and Range Exp. Sta, U. S. Forest Service*, 31–40, *acting director, 41–* U.S.A, 18. A.A; Soc. Foresters; Forestry Asn; Ecol. Soc. Range, watershed and wildlife management; forage plants of the West; erosion control; weed control.

Talbot, Dr. Samuel A(rmstrong), Johns Hopkins University Hospital, Baltimore, Md. *Biophysics.* Holderness, N. H, April 19, 03. A.B, Cornell, 25; M.S, Trinity Col. (Conn), 31; A.M, Harvard, 32, Ph.D, 38. Master science and math, Loomis Sch. for Boys, 27–30; instr. and tutor physics, Harvard, 30–35; instr. *physiol. optics, med. sch, Hopkins*, 35–43, *assoc, 43–* Physiol. Soc; Optical Soc. Neurophysiology of vision; relation of perception to neural function; oscillographic methods; electronic and optical design; pupillography.

Talbot, Dr. S(iegmund) Benton, Davis and Elkins College, Elkins, W. Va. *Helminthology.* Elkins, W. Va, April 24, 02. B.S, Davis and Elkins Col, 24; B.S.S, Bowling Green Business Univ, 25; Chicago, 25–26; biol. sta, Michigan, summers, 28, 30–32, 34–37; Sc.D, Hopkins, 33. *Prof. biol, Davis and Elkins Col*, 27–31, *34–* A.A; Soc. Parasitol; Micros. Soc; W. Va. Acad. Life history and morphology of Trematodes.

Talbot, Dr. Walter R(ichard), Lincoln University, Jefferson City, Mo. *Mathematics.* Pittsburgh, Pa, Dec. 9, 09. A.B, Pittsburgh, 31, A.M, 33, Ph.D, 34. Asst. prof. *math, Lincoln (Mo)*, 34–40, *assoc. prof, 40–* Math. Soc; Math. Asn. Theory of groups; fundamental regions; invariant points.

Talbot, Dr. W(illia)m F(letcher), Edmands Road, Framingham, Mass. *Chemistry.* Loup City, Nebr, Oct. 29, 03. B.S, Hastings Col, 23; Ph.D, Iowa, 29. Instr. chem, Nebr. Sch. Agr, 23–24, 25–26; asst. org. chem, Iowa, 28–29; *research chemist*, E. I. du Pont de Nemours and Co, 29–31; Gustavus J. Esselen, Inc, Boston, 31–37; *Dennison Mfg. Co, 37–* Summer, lecturer, Iowa, 29. Chem. Soc. Mixed acyl derivatives of aminonaphthols; condensation of reactions of substituted benzaldehydes; chemistry of highly unsaturated aliphatic hydrocarbon; inks and documents.

Talbott, Prof. F(rancis) Leo, Catholic University of America, Washington, D. C. *Physics.* Lancaster, Ohio, July 17, 03. A.B, St. John's (Ohio), 24; A.M, Catholic Univ, 26, Ph.D, 28. Instr. *physics, Catholic Univ*, 26–38, *asst. prof, 38–* Physical Soc; Optical Soc. Dielectrics; physical optics.

Taliaferro, Dr. Lucy Graves, 5612 Blackstone Ave, Chicago, Ill. *Zoology.* Cleveland, Ohio, July 25, 95. A.B, Goucher Col, 17; Sc.D, Hopkins, 25. *Research assoc. parasitol. and bacter, Chicago, 25–* Malaria Soc. Immunology of parasitic protozoa and helminths.

Taliaferro, Prof. Nicholas L(loyd), University of California, Berkeley, Calif. *Geology.* Augusta, Ky, Oct. 6, 90. B.S, California, 13, Ph.D, 20. Geologist, Standard Oil Co. of N. Y, 14–16; junior engineer, U. S. Bur. Mines, 17; instr. geol, California, 18–20; chief geologist, Ventura Consol. Oil Fields, 22–26; assoc. prof. *geol, California*, 26–36, *prof, 36–, chairman dept, 37–* Fel. Geol. Soc; Asn. Petrol. Geol; Seismol. Soc; Min. and Metal. Eng. Geology of the central coast ranges; structure and stratigraphy of the Sierra Nevada of California.

Taliaferro, Dr. W(illiam) H(ay), University of Chicago, Chicago, Ill. **Zoology, Immunology.* Portsmouth, Va, Feb. 10, 95. B.S, Virginia, 15; Ph.D, Hopkins, 18. Asst. biol, Virginia, 13–15; Hopkins, 15–17, instr. protozool, sch. hygiene and pub. health, 19–20, assoc, 20–23, assoc. prof, 23–24; *parasitol, Chicago,* 24–27, prof, 27–39, *Eliakim H. Moore Distinguished Service prof, 39–, chairman dept. parasitol. and bacter, 32–,* assoc. dean *div. biol. sciences,* 31–35, *dean, 35–* Ed. cmt, 'Jour. Parasitol'; ed. in chief, 'Jour. Infectious Diseases'; mem. ed. board, 'Jour. Immunol'; 'Rivista di Malariologia'; advisory ed, 'Jour. Bacter.' Chalmers medal, Royal Soc. Trop. Med. and Hygiene, 35. Nat. Acad; A.A; Soc. Nat. (v. pres, 39); Philos. Soc; Soc. Bact; Malaria Soc; Soc. Zool; Am. Acad. Trop. Med. (councilor, 36–40); Soc. Parasitol. (councilor, 26–32, v. pres. 32, pres, 33); Asn. Immunol; Pub. Health Asn; Soc. Trop. Med; hon. mem. Harvey Soc; Wash. Acad; Inst. Med. Chicago. Cytology and behavior of lower invertebrates; cytology, genetics, immunology and physiology of the parasitic protozoa; immunology of the parasitic infections; cellular basis of immunity.

Talley, Dr. Eugene A(lton), U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Organic chemistry.* Glen Allen, Va, June 5, 11. B.Ch, Col. of William and Mary, 36; M.S, Richmond, 38; Ph.D, Ohio State, 42. *Asst. chemist, carbohydrate div, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 42–* Chem. Soc. Synthesis of mannosido-glucose octaacetates and related compounds; starch and its derivatives.

Talley, Prof. Paul J(udson), Texas Agricultural and Mechanical College of Texas, College Station, Texas. *Plant physiology, Botany.* Mangum, Okla, Nov. 9, 06. A.B, Baylor, 28; M.S, Iowa, 30; Ph.D, Wisconsin, 32. Asst. bot, Iowa, 28–30; Wisconsin, 30–32, fellow, 32–34; instr. *biol, Agr. and Mech. Col. Texas,* 34–35, asst. prof, 35–39, *assoc. prof, 39–* Agent, cotton div, bur. plant indust, U. S. Dept. Agr, 38–39, collaborator, 39– Summers, instr, Baylor, 28–29; plant physiologist, Exp. Sta, Texas, 39– Bot. Soc; Soc. Plant Physiol. Plant differentiation and growth; physiology of causal organism of cotton root rot.

Talley, Dr. S(amuel) K(inter), 1246 S. Farwell St, Eau Claire, Wis. *Physical chemistry.* Dauphin, Pa, April 29, 07. A.B, Harvard, 29, A.M, 31, Ph.D, 33. Asst. chem, Radcliffe Col, 29–32; asst. photochem. and electrochem, Harvard, 29–32; research chemist, Shell Petrol. Corp, Wood River, Ill, 33–36; head research dept, Houston Ref, Shell Oil Co, 36–40; lubrication research, Shell Develop. Co, 41–42; asst. tech. director Eau Claire ordnance plant, U. S. Rubber Co, 42–43. Soc. Metals; Chem. Soc. Precision viscometry; propane dewaxing; lubrication oils; gasoline treating, distillation and cracking; small arms ammunition manufacture.

Talley, Prof. T(homas) W(ashington), 908 17th Ave, N, Nashville, Tenn. *Inorganic chemistry.* Shelbyville, Tenn. A.B, Fisk, 90, A.M, 92; Sc.D, Cent. Tenn. Col, 96; M.S, Chicago, 31. Instr. science, Alcorn Agr. and Mech. Col, Miss, 91; v. pres, Fla. Agr. and Mech. Col, 96; instr. applied chem, Tuskegee Inst, 00; *prof. chem, Fisk, 03–* A.A; Chem. Soc. Chronology of creation; chemical behavior of the boron hydrides.

Tallmadge, Dr. G(uy) Kasten, 425 E. Wisconsin Ave, Milwaukee, Wis. *Anatomy, Medicine.* Milwaukee, Wis, April 27, 01. A.B, Wisconsin, 23, A.M, 24, Ph.D, 36; M.D, Pennsylvania, 26. Lecturer classical humanities, Mt. Mary Col, 30–31; *instr. anat, sch. med, Marquette, 31–* Am. Med. Asn. Philosophy; history of medicine.

Tallman, Gladys G(riffith), 780 Riverside Drive, New York, N. Y. *Psychology.* New York, N. Y. A.B, Barnard Col, Columbia, 11, B.Mus, A.M, Columbia, 13. Psychologist, Clearing House for Mental Defectives, 15–17; *director dept. psychol, Neur. Inst. N. Y, 17–; instr. psychol. testing, exten. div, Columbia,* 28– A.A; assoc. Psychol. Asn; fel. Asn. Applied Psychol. (exec. board, 30–32, treas, 34–); N. Y. Asn. Applied Psychol. (sec'y, 42–); Rorschach Inst. (treas, 37–).

Tallman, Dr. Ralph C(olton), 16 Cooper Square, New York, N. Y. *Organic chemistry.* Cedar Rapids, Iowa, Oct. 6, 05. A.B, Cornell Col. (Iowa), 27; Ph.D, Cornell, 31. Instr. org. chem, Cornell, 30–35; *director research,* Schieffelin and Co, 35–43; *cent. research lab, Allied Chem. and Dye Corp, 43–* Chem. Soc; N. Y. Acad. Reactions of ethers; preparation of drugs and pharmaceuticals.

Tallman, Prof. W(illia)m Duane, Montana State College, Bozeman, Mont. *Mathematics.* Sterling, Ark. B.S, Wisconsin, 96. Teacher *math,* high sch, Wis, 96–97, 98–99; fellow, Wisconsin, 97–98, instr, 99–01; *prof, Mont. State Col, 01–* Math. Soc; Eng. Educ. Duality in geometry; correspondences; a regression coefficient in the study of linear correlations; fractional derivatives; ellipsoidal grouping of the point of a normal scattered distribution.

Tallyn, Prof. W(illiam) H(arold), Eastern Washington College of Education, Cheney, Wash. *Organic chemistry.* Benson, Ill, Dec. 8, 95. B.S, Shurtleff Col, 21; M.S, Illinois, 25. Instr. science, Ewing Col, 24–25; *chem, East. Wash. Col. Educ,* 25–42, *asst. prof, 42–* A.A; Chem. Soc; Northwest Sci. Asn. Optimum conditions for the pyrogenic decomposition of acetone and other ketones.

Talmage, Prof. Sterling B(ooth), New Mexico School of Mines, Socorro, N. Mex. *Economic geology.* Salt Lake City, Utah, May 21, 89. B.S, Utah, 09; M.S, Lehigh, 23; Emmons fellow, Harvard, 24–25, Ph.D, 25. Curator, Desert Museum, Salt Lake City, Utah, 11–18; consulting geologist, 15–22; asst. prof. geol, Northwestern, 25–29; *prof. geol. and miner, N. Mex. Sch. Mines, 30–; geologist, State Bur. Mines and Mineral Resources, N. Mex, 31–, ed, 40–* A.A; fel. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Eng. Educ; Soc. Mil. Eng; N. Mex. Asn. Adv. Sci. (pres, 33); fel. Royal Micros. Soc. Microscopic study of ores; economic geology of New Mexico.

Tam, Dr. R(ichard) K(wock), Pineapple Research Institute, University of Hawaii, Honolulu, Hawaii. *Agricultural bacteriology.* Honolulu, Hawaii, Nov. 30, 11. A.B, Hawaii, 33, M.S, 34; Ph.D, Wisconsin, 39. Sci. aide, Pineapple Research Inst, Hawaii, 34–37; mem. staff Herman Frasch Foundation agr. chem, Wisconsin, 37–39; *asst. chemist, Pineapple Research Inst, Hawaii, 39–* Biochemistry; soil organic matter; cross-inoculation of tropical legumes; nitrogen nutrition of pineapples; respiratory enzymes of the root-nodule bacteria; soil sterilants.

Tamarkin, Prof. J(acob) D(avid), Brown University, Providence, R. I. **Mathematics.* Tshernigov, Russia, July 11, 88. M.A.M, Petrograd, 17. Prof. *math,* Petrograd, 17–25; asst. prof, Dartmouth Col, 25–27; *Brown,* 27–28, *prof, 28–* Sch. Railroads, 10–25; prof, Petrograd Electrotech. Sch, 16–25; Naval Acad, 22–25. Ed, 'Math. Rev.' Del, Int. Cong. Math, Zurich, 32. A.A; Math. Soc. (ed, 'Trans,' 32–36, chairman, colloquium publication cmt, 37–42; v. pres, 42); fel. Am. Acad; Soc. Sci. Warsaw; Petrograd Physical-Math. Soc. (v. chairman, 25); for. mem. Polish Math. Soc. Pure and applied mathematics.

Tamblyn, Dr. John Ware, 261 Oakridge Drive, Rochester, N. Y. *Physical chemistry.* London, Ont, Can, April 10, 10. Ph.D, Harvard, 38. *Research chemist, Eastman Kodak Co, 38–* Photochemistry; physical properties of resins.

Tamele, Dr. M(iroslav) W, 53rd and Horton Sts, Emeryville, Calif. *Chemistry.* Prague, Czechoslovakia, Aug. 20, 99. R.N.D, Charles Univ, Prague, 25. Asst, Charles Univ, Prague, 23–25; research assoc. chem. and int. research fellow, California, 25–27; *research chemist,* Calif. Ink Co, Berkeley, 27–29; *Shell Develop. Co, Emeryville, 29–* Chem. Soc. Electrochemistry; organic and physical chemistry.

Tamura, Dr. Joseph T, University of Cincinnati College of Medicine, Cincinnati, Ohio. *Bacteriology.* Japan, March 25, 01. B.S, Oregon, 29; M.S, Cincinnati, 32, Ph.D, 35. Asst. *bacter, col. med, Cincinnati,* 34–36, *research assoc, 36–,* instr, 37–43, *asst. prof, 43–* Attending bacteriologist, Cincinnati Gen. Hosp, 37– Soc. Bact. Bacterial nutrition.

Tanberg, Dr. A(rthur) P(ercival), 2302 Delaware Ave, Wilmington, Del. *Chemistry.* Dubuque, Iowa, June 20, 85. A.B, Swarthmore Col, 10, A.M, 13, Leedom fellow, 13–14; Ph.D, Columbia, 15. Instr. chem, Swarthmore Col, 11–13; org. chemist, *E. I. du Pont de Nemours and Co,* 15–17, head *org. div, exp. sta,* 17–19, asst. director, 19–20, *director, 20–* A.A; Electrochem. Soc; Min. and Metal. Eng; Soc. Chem. Indust; Chem. Soc; Farm Chemurg. Council; Franklin Inst; Faraday Soc.

Tanch, Prof. J(oseph) W(illiam), Dartmouth College. Hanover, N. H. *Physics.* Annapolis Royal, N. S, Can, Oct. 10, 78. B.S, Acadia, 12; Ph.D, Yale, 19; A.M, Dartmouth Col, 28. Instr. physics, Yale, 15–19; math, *Dartmouth Col,* 19–20, asst. prof. *physics,* 20–28, *prof, 28–* Physical Soc; Optical Soc. Spectroscopy; new and old quantum theory.

Tang, Prof. K(wan) Y(au), 164½ W. Northwood Ave, Columbus, Ohio. *Electrical engineering.* Honolulu, Hawaii, July 3, 00. B.S, Michigan, 24, M.S, 25; Ph.D, Ohio State, 28. Asst. elec. eng, Michigan, 23–24, dept. eng. research, 24–25; instr. *elec. eng, Ohio State,* 25–31, asst. prof, 31–41, *assoc. prof, 41–* Eng, Robbins and Myers, Inc, Springfield, Ohio, 36. Summers, engineer light signals, Union Switch and Signal Co, Pa, 28, 30. Elec. Eng. (sec'y, Columbus sect, 31, v. chairman, 32; mem. basic sci. cmt, 39–42); assoc. Illum. Eng. Soc. (chairman, nat. lighting cmt, 38; local rep, 42–); Eng. Educ. Prediction of illumination from light courts; visual performance under daylight, incandescent, mercury vapor and their mixtures; variation of visual performance with intensity of daylight illumination; visual performance under different levels of daylight illumination; alternating current circuits.

Tangco, Prof. Marcelo, University of the Philippines, Manila, P. I. *Anthropology.* Manila, P. I, Jan. 16, 93. A.B, Philippines, 16, B.S.E, 18; fellow, Harvard, 21–23, A.M, 22; fellow, California, 23–25. Teacher, high sch, P. I, 16–18; asst. instr. anthrop, *Philippines,* 18–21, instr. *anthrop. and ethnol,* 21–27, *asst. prof, 27–* Nat. Research Council P. I. Assoc. ed, 'Nat. and Applied Science Bul,' P. I. Assoc, 2nd Cong. Prehist. Research Far East. P. I. Sci. Soc; P. I. Acad. Social Sci. Physical anthropology and ethnology, especially the peoples of the Philippines.

Tanghe, Dr. Leo J(oseph), 120 Barnard St, Rochester, N. Y. *Organic chemistry.* Ontario, N. Y, Feb. 6, 09. B.S, Rochester, 29, M.S, 31; Ph.D, Ohio State, 37. *Research chemist, Eastman Kodak Co,* 30–34, *37–* Chem. Soc. Condensation of benzyl cyanide with dibenzalacetone; aldehydo derivatives of dibenzylideneglucose.

Tanner, Dr. Amy E(liza), 9 Hawthorne St, Worcester, Mass. *Psychology.* Owatonna, Minn, March 21, 70. A.B, Michigan, 93; Ph.D, Chicago, 98. Assoc. philos, Chicago, 98–03; prof, Wilson Col, 03–07; research asst. psychol, Clark, 07–18. A.A. Genetic and child psychology.

Tanner, Prof. F(red) W(ilbur), 803 W. Michigan Ave, Urbana, Ill. *Bacteriology.* Buffalo, N. Y, Feb. 15, 88. B.S, Wesleyan, Sc.D, 43; M.S, Illinois, Ph.D, 16. Bacteriologist, State Water Surv, Ill, 12–15; from asst. to asst. prof. *bacter, Illinois,* 15–26, *head dept, 23–, prof, 26–* Ed, 'Food Research.' A.A; Soc. Bact; Soc. Exp. Biol; assoc. fel. Am. Med. Asn; fel. Pub. Health Asn; Chem. Soc; Int. Asn. Dairy and Milk Inspection. Sanitary chemistry; bacterial metabolism; food bacteriology; mycology of foods; yeasts.

Tanner, Dr. Fred W(ilbur), Jr, U. S. Department of Agriculture, Peoria, Ill. *Bacteriology.* Urbana, Ill, April 5, 17. B.S, Illinois, 38, M.S, 39; Ph.D, Cornell, 42. Investigator chem, N. Y. Exp. Sta, Geneva, 42–43; *asst. bacteriologist, north. regional research lab, bur. agr. and indust. chem, 43–* Soc. Bact; Inst. Food Technol. Industrial fermentations; vitamin assays; yeasts.

Tanner, Dr. H(erbert) G(iles), 57 Lawson Ave, Claymont, Del. *Chemistry.* Atchison, Kans, Nov. 30, 93. B.S, Ottawa (Kans), 15; A.M, Nebraska, 16; Ph.D, Stanford, 29. Asst. physics, Ottawa (Kans), 15; asst. instr. chem, Nebraska, 16; Cornell, 17; research chemist, E. I. du Pont de Nemours and Co, 17–19; chief chemist, kelp-potash sta, bur. soils, U. S. Dept. Agr, 19–21; asst. prof. chem, Oregon, 21–25, assoc. prof, 25–27; instr, Stanford, 28; research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–42; *capt, Chem. Warfare Service, U. S. Army, 42–* A.A; Chem. Soc. (sec'y, Oregon sect, 26, sec'y, Del. sect, 34). Sorptive charcoals; catalysis; explosives; textile physics.

Tanner, Dr. Howard A(lbert), 1631 Ridge Road West, Rochester, N. Y. *Physical chemistry.* Alliance, Ohio, Oct. 10, 10. B.S, Mt. Union Col, 32; M.S, Ohio State, 35; Goodyear fellow, North Carolina, 36, Ph.D, 36. *Research chemist, Eastman Kodak Co, 36–; lieut, U. S. Naval Res, 42–* A.A; Chem. Soc. Porous metal membranes; polymerization; cellulose esters; plastics.

Tanner, Lieut. James T(aylor), 16½ N. Church St, Cortland, N. Y. *Field zoology, Ecology.* Homer, N. Y, March 6, 14. B.S, Cornell, 35, M.S, 36, Nat. Audubon Soc. fellow, 37–40, Ph.D, 40. Asst. prof. biol, Tenn. State Teachers Col, Johnson City, 40–42; *lieut, U. S. Naval Res, 42–* Wildlife Soc; Ornith. Union. Life history and ecology of the ivory-billed woodpecker.

Tanner, Dr. Vasco M(yron), Brigham Young University, Provo, Utah. *Zoology, Entomology.* Payson, Utah, Oct. 29, 92. A.B, Brigham Young, 15; A.M, Utah, 20; scholar and fellow, Stanford, 24–25, Ph.D, 25. Head dept. biol, Dixie Col, 16–24; state crop pest inspector, south. Utah, 22–24; *prof. and head dept. zool. and entom, Brigham Young, 25–* Ed, 'Great Basin Naturalist,' 39– Entom. Soc. Amer; Soc. Mammal; Micros. Soc; Soc. Ichthyol. and Herp. (pres, west. div, 33); Cooper Ornith. Club; Ecol. Soc; Pacific Coast Entom. Soc; Entom. Soc. Wash; Biol. Soc. Wash; Utah Acad. (permanent sec'y, 28–39). Coleoptera; fish; amphibians and reptiles.

Tanner, W(ellington) L(ee), 732 N. W. 36th St, Miami, Fla. *Organic chemistry.* Roseville, Ohio, Sept. 5, 89. Grad, Sprague Mem. Inst, 08; Int. Correspondence Schs, 12; Chicago, 30. Chief chemist, Bethlehem Steel Co, 15–19; research chemist, Grasselli Chem. Co, 21–25; chief chemist, Reade Mfg. Co, 28–39; *proprietor, Tropic Chem. Works, 39–* A.A; Chem. Soc; fel. Inst. Chem. (councilor, 23). Economical production of the fruit acids by fermentation processes; organic insecticides.

Tanquary, Prof. M(aurice) C(ole), University Farm, St. Paul, Minn. *Entomology.* Lawrenceville, Ill, Nov. 26, 81. A.B, Illinois, 07, A.M, 08, Ph.D, 12; Harvard, 10. Asst. entom, Illinois, 09–12; instr, Kans. State Col, 12–13, asst. prof, 16–18, assoc. prof, 18–19; state entomologist, Texas, 19–24; commercial beekeeping, 24–28; *prof. apicult, Minnesota, 28–* Zoologist, Crocker Land exped, Arctic, 13–16. A.A; Entom. Soc; Asn. Econ. Entom. (v. pres, 24). Insect embryology and behavior; control of economic insects; beekeeping.

Tansey, Prof. V. O, 339 Washington Ave, Fayetteville, Ark. *Geology.* Burlington, Iowa, April 3, 91. B.S, Chicago, 13, Ph.D, 21. Instr. *geol, Arkansas,* 25–28, asst. prof, 28–41, *assoc. prof, 42–* A.A. Invertebrate paleontology.

Tanton, Dr. T(homas) L(eslie), Geological Survey, Ottawa, Ont, Can. *Geology.* London, Ont, Feb. 5, 90. B.A, Toronto, 11, fellow, 11–12, M.A, 12; Vienna, 12–13; Ph.D, Wisconsin, 15. Instr. physiog, Wisconsin, 13–14; *geologist, Geol. Surv. Can, 15–* Min. and Metal. Soc; Geol. Soc; Royal Astron. Soc. Can; fel. Royal Soc. Can; Can. Inst. Min. and Metal. Petrography; Precambrian and economic geology.

Tanzer, Dr. Charles, 600 W. 218th St, New York, N. Y. *Bacteriology, Immunology.* New York, N. Y, Dec. 4, 12. B.S, Long Island, 33; M.S, N. Y. Univ, 36, Ph.D, 41. *Instr. sciences, Bronx High Sch. of Science, 38–; parasitol, col. pharmacy, Columbia, 42–* Mem, Mt. Desert Island Biol. Lab, 40– Mem, Nat. Cmt. Science Teaching, 40– Gen. Sci. Teachers Asn; N. Y. Asn. Biol. Teachers (sec'y). Serological studies with free-living Protista; effects of body fluids on bacteriophage; photographic aids to science teaching.

Tape, Dr. Gerald F(rederick), Cornell University, Ithaca, N. Y. *Physics.* Ann Arbor, Mich, May 29, 15. A.B, Mich. State Nor. Col, 35; M.S, Michigan, 36, Ph.D, 40. Asst. *physics,* Mich. State Nor. Col, 33–35; Michigan, 36–39; *instr, Cornell, 39–; staff mem. radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Nuclear physics; artificial radioactivity; beta-ray spectra.

Tapke, Dr. V(ictor) F(erdinand), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Cincinnati, Ohio, May 7, 90. B.S, 14; Ph.D, Cornell, 27. Instr. plant path, Cornell, 16–18; asst. pathologist, *U. S. Dept. Agr,* 18–23, assoc. pathologist, 23–29, *pathologist, div. cereal crops and diseases, bur. plant indust, 29–* A.A. Smut diseases of cereals.

Tapley, Dr. Mark W(atkins), 36 Ridge Road, New Rochelle, N. Y. *Pharmacy.* Bloomington, Ill, Nov. 20, 97. B.S, Chicago, 20, Ph.D, 23. Pharmaceut. research, E. R. Squibb and Sons, New York, 23–35; *new products div, Bayer div, Sterling Drug, Inc, 35–* A.A; Chem. Soc; Am. Inst. Chemistry; medicine; medicinal chemicals.

Tapley, W(illiam) T(horpe), New York Agricultural Experiment Station, Geneva, N. Y. *Horticulture.* Revere, Mass, Oct. 5, 93. B.S, New Hampshire, 16; M.S, Minnesota, 20. Asst, Minnesota, 16–17, 19–20, asst. prof. hort. in charge veg. gardening, 20–23; prof, Pa. State Col, 23–30; *assoc. veg. crops, N. Y. Exp. Sta, Geneva, 30–* U.S.A, 17–19. Pa. Acad. Plant morphology; fertilizer; plant breeding.

Tapp, Dr. J(ames) S(tewart), 13 Butternut Terrace, Ottawa, Ont, Can. *Physical chemistry.* Hensall, Ont, Dec. 11, 08. B.A, Western Ontario, 30; M.A, McGill, 31, Ph.D, 33; 1851 Exhib. scholar, London, 33–36, Ph.D, 36, D.I.C, 36. Instr,

McGill, 30–33; Imp. Col, London, 33–36; *asst. research chemist, Nat. Research Council Can, 36–* Assoc. Can. Inst. Chem. Densities in the neighborhood of the critical point; production of silica springs for weight determinations in limited space; leather and plastics.

Tappan, Dr. A(nna) Helen, Western College, Oxford, Ohio. *Mathematics.* Mt. Pleasant, Iowa, 88. A.B, Western Col, 09; A.M, Cornell, 12, fellow, 13–14, Ph.D, 14. Instr. *math,* Western Col, 09–11; Iowa State Col, 14–17, asst. prof, 17–21, assoc. prof, 21–25; *prof, Western Col; 25–,* dean women, 27–41, *academic dean, 41–* A.A; Math. Soc; Math. Asn. Pure geometry.

Tappan, Prof. F(rank) G(irard), 452 College Ave, Norman, Okla. *Electrical engineering.* Mt. Pleasant, Iowa, Sept. 20, 82. A.B, Washington and Jefferson Col, 04, A.M, 09; M.E, Cornell, 07. Instr. *elec. eng,* Cornell, 07–17; assoc. prof, *Oklahoma,* 17–18, *prof. and director sch. elec. eng, 18–,* acting dean col. eng, 35–36. Eng. Educ; fel. Elec. Eng.

Tapy, Prof. Ralph W(ilver), University of New Mexico, Albuquerque, N. Mex. *Electrical engineering.* Terre Haute, Ind, Sept. 17, 02. B.S, Rose Polytech, 26, E.E, 36; M.S, Michigan, 33. Jr. engineer, station operation dept, Milwaukee Elec. Ry. and St. Co, 26–28; instr. *elec. eng,* Detroit, 28–34, asst. prof, 34–39; assoc. prof. and later *prof. and head dept, New Mexico, 39–* Senior elec. engineer, Wilson and Co, 42. Elec. Eng; Eng. Educ. (v. chairman Mich. sect, 37, chairman, 38; director new southwest sect, 41–). Static electric charges in operating room; calculation of voltage drops for rural electric lines.

Tarasov, Dr. L(eo) P(eter), Norton Co, Worcester, Mass. *Physical metallurgy, Physics.* London, Eng, Feb. 2, 13. B.S, Case, 33; Sc.D, Mass. Inst. Tech, 37. Asst. metallographer, Cleveland Wire Works, Gen. Elec. Co, 33–34; teaching fellow physics, Mass. Inst. Tech, 35–37; mem. research staff, research lab, Gen. Elec. Co, 37–40; *metallurgist,* Beryllium Corp, Pa, 40–41; *research labs, Norton Co, 41–* Soc. Metals. Grinding phenomena; ferromagnetism; x-ray diffraction.

Tarassuk, Dr. N(ikita) P(aul), 214 Rice Lane, Davis, Calif. *Dairy chemistry.* Kovel, Russia, April 16, 04. B.S, California, 31, M.S, 33; Ph.D, Minnesota, 37. Asst. agr. biochem, Minnesota, 34–36; *instr. dairy indust, col. agr, California, and junior dairy chemist, Exp. Sta, 36–* Dairy Sci. Asn; Inst. Food Technol. Properties of the adsorption membrane around the fat globules in cream; significance of lipolysis in the curd tension and rennet coagulation of milk; foaming of casein; hydrolytic rancidity in milk and milk products.

Tarbell, Dr. D(ean) S(tanley), University of Rochester, Rochester, N. Y. *Organic chemistry.* Hancock, N. H, Oct. 19, 13. A.B, Harvard, 34, A.M, 35, Ph.D, 37. Asst, Radcliffe Col, 36–37; Illinois, 37–38; instr. *org. chem, Rochester,* 38–42, *asst. prof, 42–* Chem. Soc. Organo metallic compounds; optical activity; phenolic ethers.

Tarboux, Prof. J(oseph) G(alluchat), 910 Woodside St, Knoxville, Tenn. *Electrical engineering.* Juiz de Fora, Minas Geraes, Brazil, S. Amer, Aug. 15, 98. B.S, Clemson Col, 18; E.E, Cornell, 22, M.E.E, 25, Ph.D, 37. Asst. prof, Cornell, 19–29; *prof. elec. eng. in charge dept, Tennessee, 29–* Instr, Cornell, 37. Elec. Eng; Eng. Educ. Transmission of electrical energy.

Tarbutton, Dr. Grady, Box 833, East Florence Branch, Florence, Ala. *Chemistry.* Wesson, Miss, Nov. 17, 02. B.S, Millsaps Col, 28; M.S, Iowa, 29; Ph.D, Duke, 33. Instr. chem, Millsaps Col, 28–30; Duke, 30–32; asst. chemist, *Tenn. Valley Authority,* 34–37, assoc. chemist, 37–40, chemist, 41, *senior chemist and asst. to chief of research, 41–* Chem. Soc. (chairman Wilson Dam sect, 38; councilor, 40). Voltaic cells; phase rule of non-aqueous salt solutions; vapor pressure of phosphoric acid; recovery of fluorine from phosphoric acid plant; phosphorus-halogen compounds; electric furnace smelting of phosphates; production of magnesium metal from dolomite.

Targow, Dr. A(bram) M(orris), 2408 Tesla Terrace, Los Angeles, Calif. *Allergy.* Rochester, N. Y, June 19, 07. A.B, Michigan, 27; Ph.D, Chicago, 33, M.D, 34. Assoc, Chicago, 30–34; asst. path, Cook County Hosp, 35–36; *private practise, 36–* Chief allergy clinic, Mt. Sinai Hosp. and Clinic, 41–; allergy clinic, med. dept, California at Los Angeles, 41–; attending allergist, Los Angeles Sanatorium, 42–; junior attending physician and assoc, Los Angeles County Gen. Hosp, 43– A.A. Physiology of pituitary.

Tarr, Dr. H(ugh) L(ewis) A(ubrey), Fisheries Experimental Station, Vancouver, B. C, Can. *Bacteriology, Biochemistry.* Clevedon, Eng, Nov. 17, 05. B.S.A, British Columbia, 26, M.S.A, 28; Nat. Research Council Can. student, McGill, 31, Ph.D, 31; 1851 Exhib. scholar and external research student, Cambridge, 31–34, Ph.D, Cambridge, 34. Asst, British Columbia, 26–28; indust. and cellulose chem, McGill, 29; *research bacteriologist,* Rothamsted Exp. Sta, 34–38; *Fisheries Exp. Sta, Can, 38–* Biochem. Soc. Gt. Britain. Agricultural bacteriology and biochemistry; bacteriology and biochemistry of fish; bacterial enzymes.

Tarski, Dr. Alfred, University of California, Berkeley, Calif. *Mathematics, Logic.* Warsaw, Poland, Jan. 14, 02. Ph.D, Warsaw, 23. Instr. logic, Pedag. Inst. Warsaw, 22–25; docent and adj. prof. math. and logic, Warsaw, 25–39; research assoc. math, Harvard, 39–41; Guggenheim Mem. Foundation fellow, 41–42; mem, Inst. Advanced Study, 42; *lecturer math, California, 42–* Prof, Zeromski's Lycee, Warsaw, 25–39; fellow, Rockefeller Foundation, 35; visiting prof, Col. City of N. Y, 40. Math. Soc; Asn. Symbolic Logic (exec. cmt, 40–); Polish Logical Soc. (v. pres); Polish Math. Soc. Set theory and its applications; theory of measure; foundations of mathematics; mathematical logic and semantics.

Tartar, Prof. Herman V(ance), University of Washington, Seattle, Wash. *Chemistry.* Airlie, Oregon, Jan. 4, 82. B.S, Oregon State Col, 02; California, 02–03; Chicago, 08, Ph.D, 20; Michigan, 14. Chemist, State Food Cmn, Oregon, 03–05; Clark, Woodward Drug Co, 05–06; instr. chem, Oregon State Col, 07–09, assoc. prof, 13–18, research chemist, Exp. Sta, 09–11, chemist, 11–18; asst. prof. *chem, Washington (Seattle),* 18–22, assoc. prof, 22–27, *prof, 27–* Lecturer, Mass. Col, 16. A.A; Chem. Soc. Hops; sulfid insecticides; lead arsenates; ammonia and sulfur in soils; electrolytic deposition of metals; polysulfids of the alkali and alkaline earth metals; calcium arsenate; fixation of nitrogen; electrode potentials; calcium phosphates; adsorption; surface tension; passivity of metals; sulfonic acids; colloidal electrolytes; chemical conductance; thermodynamic properties of solutions; chemical equilibria.

Tartar, Dr. Vance, State Oyster Laboratory, Gig Harbor, Wash. *Protozoology.* Corvallis, Oregon, Sept. 11, 11. B.S, Washington (Seattle), 33, M.S, 34; Ph.D, Yale, 38. Instr. zool, Vermont, 39–42; *mem. staff, State Dept. Fisheries, 43–* Regeneration in protozoa; oyster biology.

Tartler, Prof. A(lexander), 309 Baily Road, Yeadon, Pa. *Mathematics.* Budapest, Hungary, March 14, 05. A.B, Pennsylvania, 28, Ph.D, 33. Instr. *math, Drexel Inst,* 28–33, *asst. prof, 33–* Math. Soc; Math. Asn. Analysis.

Tarver, Dr. H(arold), Biochemistry Department, University of California, Berkeley, Calif. *Biochemistry.* Wigan, Eng, June 7, 08. B.Sc, Alberta, 32, M.Sc, 35; Ph.D, California, 39. Asst, Alberta, 32–35; teaching asst, *California,* 36–37, asst, 37–39, research fellow, 39–41, *instr. biochem, 41–* Metabolism of sulfur investigated with the radioactive isotope.

Tarzwell, Dr. Clarence M(athew), Tennessee Valley Authority, Decatur, Ala. *Fisheries.* Deckerville, Mich, Sept. 29, 07. A.B, Michigan, 30, M.S, 32, Ph.D, 36. Fellow, Inst. Fisheries Research, Michigan, 30–33; stream improvement supervisor, Mich. E.C.W, 33–34; asst. aquatic biol, Bur. Fisheries, 34; asst. range examiner, U. S. Forest Service, 35, 36–38; Mich. Lake Surveys, 36; asst. aquatic biologist, *Tenn. Valley Authority,* 38–40, *assoc. aquatic biologist, 40–* Soc. Ichthyol. and Herp; Fisheries Soc; Limnol. Soc; Wildlife Soc. Fisheries biology and management; methods and evaluation of stream improvement and management.

Taschek, Dr. Richard F(erdinand), P. O. Box 5370, Metropolitan Station, Los Angeles 55, Calif. *Physics.* Chicago, Ill, June 5, 15. A.B, Wisconsin, 36, fellow, 38–41, Ph.D, 41; M.S, Florida, 38. Asst, Wisconsin, 38–41; research physicist, Oldbury Electro-Chem. Co, 41–42; physicist, Nat. Defense Research Cmt, Princeton, 42–43. Physical Soc; Electrochem. Soc; assoc. Radio Eng. Infra-red spectroscopy; scattering of protons from light elements.

Tascher, Prof. W(endell) R(ussel), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Ashkum, Ill, Aug. 31, 98. B.S, Illinois, 24, M.S, 27; Ph.D, Missouri, 29. Asst. prof. field crops, Missouri, 29–33, exten. asst. prof. and specialist soil conservation, 33–42; *soil conservationist, exten, soil conservation service, U. S. Dept. Agr, 42–* Soc. Agron. Field crops; composition of maize seeds in relation to vigor; x-ray effects on crop plants.

Tashiro, Prof. Shiro, University of Cincinnati, Cincinnati, Ohio. *Physiological chemistry.* Togo, Satsuma, Japan, Feb. 12, 84. B.S, Chicago, 09, fellow, 10–12, Ph.D, 12; D.M.Sc, Kyoto, 23. Asst. *physiol. chem,* Chicago, 10, 12–13, assoc, 13–14, instr, 14–18, asst. prof, 18; *prof, Cincinnati, 18–* Asst. director biochem. service, Cincinnati Gen. Hosp, 25– A.A; Soc. Biol. Chem; Physiol. Soc; Chem. Soc; Soc. Exp. Biol; Soc. Nat; Ohio Acad. (v. pres, 31); Soc. de Chim. biol. Carbon dioxid production in nerve fibers, ganglia and eggs; chemical basis of protoplasmic irritability; metabolic factors in animal behavior; chemical sign of life; anesthetics; tropical metabolism; microchemical analysis of gases; chemistry of bile salts; effects of different rays on the metabolism of the tissue; biochemical factors in gastric ulcer production; chemical and physiological properties of dacryorrhetin; synthetic antigens; chromodacryorrhea.

Tasker, Col. Arthur N(ewman), 317 Tuscany Road, Baltimore, Md. *Medicine.* Washington, D. C, Feb. 3, 78. A.B, Wesleyan, 02; M.D, George Washington, 06; student officer, U. S. Army Med. Sch, 07–08; Hopkins, 20; student officer, U. S. Army Chem. Warfare Sch, 36. Instr, sch. med, George Washington, 03–06; U. S. Mil. Acad, 12–16; N. Y. Post-Grad. Med. Sch, Columbia, 14–17; prof. trop. med, L. I. Col. Hosp, 13–17, clin. prof, 17–28; *U. S. Army, 28–38, col. retired, 38–* Lecturer, col. physicians and surg, Columbia; med. col, Cornell; Woman's Med. Col. of N. Y, 17; instr, U. S. Army Med. Sch, 20–27; asst. librarian, Army Med. Library, 21–25; prof, sch. med, Georgetown, 40–41. Ed, 'Index Medicus,' 22–24. Chevalier, Légion d'honneur; Order of the Purple Heart; Victory medal; Mexican Border medal; Nat. Defense medal. A.A; fel. Am. Med. Asn; fel. Col. Surg; Asn. Mil. Surg; Med. and Chirurg. Faculty Md. Medical zoology; history of medicine; medical editorship and classification of medical literature.

Tasker, C(yril), American Society of Heating and Ventilating Engineers, 51 Madison Ave, New York, N. Y. *Engineering.* Manchester, Eng, Jan. 8, 99. B.Sc, Manchester, 21, M.Sc, 23. Officer in charge, H. M. Coal Surv, N. Staffordshire, England, 26–30; senior research fellow, Ont. Research Foundation, 30–43; *director research, Am. Soc. Heat. and Vent. Engineers, 43–* Heat. and Vent. Eng. (cmt. on research, 36–41, 43; councilor, 41–43; pres, Ont. sect, 41); Soc. Metals; Inst. Fuel Gt. Britain. Fuels; heating and ventilating; low temperature carbonization of coals; technology of lignite fuels; comfort standards in air conditioning.

Tasker, Prof. Roy C(arleton), Bucknell University, Lewisburg, Pa. *Zoology.* Angola, Ind, Feb. 19, 96. A.B, Hillsdale Col, 21; A.M, Michigan, 22; Schuyler fellow, Cornell, 29–31, Ph.D, 34. Asst. zool, Michigan, 21–22; instr, DePauw, 22–25; Yenching Univ, 25–26; prof. and director biol. supply service, Soochow Univ, 26–29; instr, Cornell, 31–34; asst. prof. *biol, junior col, Bucknell,* 34–39, *assoc. prof, 39–* Summers, instr, Ind. State Nor. Sch, Muncie, 23; Cornell, 30; biologist, conservation dept, State Biol. Surv, N. Y, 31–A.A; Soc. Zool; Ind. Acad; Pa. Acad; Peking Soc. Nat. Hist. Vertebrate anatomy and development; ichthyology; comparative anatomy; gonopodium of poeciliid fishes; pigment development in Platypoecilus maculatus; taxonomy, distribution and habits of New York and Pennsylvania fishes.

Tate, Dr. G(eorge) H(enry) H(amilton), Gaston Road, Washington Valley, Morristown, N. J. *Mammalogy.* London, Eng, April 30, 94. B.S, Columbia, 27, A.M, 31; D.Sc, Montreal, 37. N. Y. field asst, *Am. Museum Nat. Hist,* 21–30, asst. curator S. Am. mammals, 31–42, *assoc. curator mammals, 42–* Expeds, Ecuador, Bolivia, Venezuela, Brazil, British New Guinea and West Africa. Soc. Vert. Paleont; Soc. Mammal. Systematic and ecological aspects of mammals of South America and Indo-Australian region; zoogeography in South America.

Tate, Prof. H(erbert), 484 Strathcona Ave, Westmount, Que, Can. *Mathematics.* Cork, Ireland, Oct. 4, 94. B.Sc, Nat. Univ. Ireland, 15; B.A, Dublin, 17, M.A, 20. From asst. to prof. physics, Univ. Col, Cork, 15; senior math. master, Portora Royal Sch, 17–20; asst. prof. *math, McGill,* 21–32, *assoc. prof, 32–* Math. Soc. Mathematical treatment of depreciation in cost and management; interest, annuities and bonds; intermediate algebra.

Tate, Dr. H(erman) D(ouglas), University of Nebraska, Lincoln, Nebr. *Entomology.* New Albany, Miss, April 17, 05. B.S, Miss. State Col, 30; M.S, N. C. State Col, 31; Ph.D, Iowa State Col, 36. Asst. zool, N. C. State Col, 30–31; asst. entomologist, Exp. Sta, Iowa State Col, 31–35; bur. entom. and plant quarantine, U. S. Dept. Agr, 35–36, assoc. entomologist, 36–38; state exten. entomologist, Iowa State Col, 38–39; assoc. prof. *entom, Nebraska,* 39–40, *prof, 40–,* v. chairman dept, 40–41, *chairman dept, 41–, entomologist, Exp. Sta, 40–* Soc. Econ. Entom; Entom. Soc. Amer. Economic entomology; truck crop insect pests; supplementary spray materials.

Tate, Prof. Jennie (Leatitia), 1301 Orange St, Abilene, Texas. *Mathematics.* Abilene, Texas, 92. A.B, Simmons (Texas), 18; A.M, Wisconsin, 24. Teacher, high sch, Texas, 18–22; *prof. math. and head dept, McMurry Col, 23–, dean women, 35–* Math. Asn; South. Intercollegiate Math. Asn. (exec. board, 33–35, sec'y-treas, 35–40). Division algebras and ideal numbers.

Tate, Dean John T(orrence), University of Minnesota, Minneapolis, Minn. *[3]*Physics.* Adams Co, Iowa, July 28, 89. B.S, Nebraska, 10, fellow, 10–12, A.M, 12, hon. Sc.D, 36; Ph.D, Berlin, 14. Instr. *physics,* Nebraska, 14–16; *Minnesota,* 16–17, asst. prof, 17, *prof, 19–, dean col. science, lit. and art, 37–, director univ. col, 39–* Mem, Advisory Council Applied Physics, 35–; fellowship board, Nat. Research Council, 36–Ed, 'Physical Rev,' 26–; 'Reviews of Modern Physics,' 29–; 'Physics,' 31–36. Lieut, A.S.A.P, 17–18. A.A. (v. pres, B, 35); Am. Inst. Physics (governing board, 32–, chairman, 36–39); Physical Soc. (v. pres, 38, pres, 39); Optical Soc; Soc. Rheol; Asn. Physics Teachers; Philos. Soc. Electron impact phenomena in gases and vapors.

Tatel, Dr. H(oward Edwin), Johns Hopkins University Applied Physics Laboratory, 8621 Georgia Ave, Silver Spring, Md. *Physics.* New York, N. Y, Dec. 22, 13. B.S, Mass. Inst. Tech, 35, M.S, 36; Ph.D, Stanford, 41. Research physicist, Michigan, *Office Sci. Research and Develop,* 39–41, *physicist,* dept. terrestrial magnetism, Carnegie Institution, 41–43, *applied physics lab, Hopkins, 43–* Physical Soc. Nuclear physics; war research.

Tatham, Prof. G, 273 Bloor St, W, Toronto, Ont, Can. *Geography.* Kendal, Eng, Jan. 24, 07. B.A, Liverpool, 29, M.A, 32; Commonwealth fellow, Clark, 32–34, Ph.D, 34. Lecturer *geog,* univ. col, London, 30–32; Birmingham, 34–35; Armstrong Col, Durham, 35–36; Univ. Col, Hull, 36–39; *asst. prof, Toronto, 39–* Regional and political geography.

Tatnall, Dr. Rob(er)t R(ichardson), 1100 W. Tenth St, Wilmington 27, Del. *Physics.* Wilmington, Del, Feb. 4, 70. B.S, Haverford Col, 90, A.M, 91; Ph.D, Hopkins, 95. Instr. physics, Pennsylvania, 95–97; acad, Northwestern, 99–01, univ, 01–05, asst. prof, 05–09, assoc. prof, 09–14; prof, Syracuse, 14–19; research engineer, J. E. Rhoads and Sons, 19–38; *retired.* Hon. fellow, Clark, 97–98. A.A; Acad. Nat. Sci. Phila. Power transmission by belting; flora of the Delaware-Maryland-Virginia peninsula; systematic botany.

Tatum, Prof. A(rthur) L(awrie), University of Wisconsin, Madison, Wis. *[7]*Physiology, Pharmacology.* Wall Lake, Iowa, May 17, 84. B.S, Penn Col. (Iowa), 05; fellow, Iowa, 05–07, M.S, 07; fellow, Chicago, 10–11, Ph.D, 13, M.D, Rush, 14. Instr. chem, Colorado, 07–10; pharmacol, Wisconsin, 11–13; asst. physiol, Chicago, 13–14; instr, Pennsylvania, 15–16; prof. pharmacol, South Dakota, 16–18; asst. prof. pharmacol. and physiol, Chicago, 18–25, assoc. prof. *pharmacol,* 25–28; *prof, Wisconsin,* 28– Charles Mickle fellow, Toronto, 42. A.A; Soc. Pharmacol. (treas, 24–29, v. pres, 33, 34, pres, 37, 38); Physiol. Soc; Soc. Exp. Biol; Soc. Anesthetists; Inst. Med. Chicago. Morphology, physiology and chemistry of the thyroid gland, pancreas and suprarenal glands; narcotic, hypnotic and arsenical drugs; bismuth.

Tatum, Dr. E(dward) L(awrie), Stanford University, Calif. *Chemistry, Bacteriology.* Boulder, Colo, Dec. 14, 09. A.B, Wisconsin, 31, Ph.D, 35. Asst. agr. chem. and agr. bacter, Wisconsin, 31–36; Gen. Educ. Board fellow bacteriological chem, Utrecht, 36–37; research assoc. *biol, Stanford,* 37–41, *asst. prof, 41–* West. Soc. Nat. Microbiology; growth requirements of micro-organisms and insects; biochemistry of genetically controlled reactions in Drosophila and Neurospora.

Tatum, Prof. G(ordon) R(ussell), 825 Speight Ave, Waco, Texas. *Physics.* Fincastle, Texas, Nov. 30, 04. A.B, Baylor, 28; A.M, Texas, 31; Gen. Educ. Board fellow, Harvard, 34–37, Ph.D, 37. Prin, high sch, Texas, 25–26, instr, 26–27; *physics, Baylor,* 28–31, asst. prof, 31–34, assoc. prof, 37–39, *prof, 39–; mem. staff, Cruft lab, Harvard, 41–* Summer, lecturer, Harvard, 36. Physical Soc; Acoustical Soc; Asn. Physics Teachers; Texas Acad. Acoustics.

Tatum, Dr. Loyd A(llen), Iowa State College, Ames, Iowa. *Plant breeding.* Glendale, Ariz, July 21, 17. B.S, Arizona, 38; fellow, Iowa State Col, 38, M.S, 40, Ph.D, 42. Research assoc, Iowa State Col, 39–40; junior plant breeder, *bur. plant indust, U. S. Dept. Agr,* 41–42, *asst. plant breeder, 42–; U. S. Army.* Genetics Soc. Plant physiology.

Taub, Prof. Abraham, 115 W. 68th St, New York, N. Y. *Chemistry.* New York, N. Y, Sept. 21, 01. Ph.C, Columbia, 21, B.S, 22, A.M, 27. Instr, *col. pharmacy, Columbia,* 22–27, asst. prof. *chem,* 27–37, *assoc. prof,* 37– Asst, revision cmt, U. S. Pharmacopoeia, 20–30; Nat. Formulary, 37. Co-recipient, Ebert medal, 23. A.A; Chem. Soc; Pharmaceut. Asn; fel. Inst. Chem; N. Y. Acad; N. Y. Pharmaceut. Asn. Analytical chemistry; colorimetry; spectrophotometry; influence of light on medicinal chemicals; dental anesthetics; dyes; antiseptics; synthetic waxes; vitamins; hormones.

Taub, Dr. A(braham) H(askel), Palmer Physical Laboratory, Princeton, N. J. *Mathematics.* Chicago, Ill, Feb. 1, 11. B.S, Chicago, 31; fellow, Princeton, 32–34, Ph.D, 35. Asst, Princeton, 34–35; Inst. Advanced Study, 35–36; instr. *math, Washington (Seattle),* 36–39, *asst. prof, 39–; mem. staff, Palmer physical lab, Princeton.* Mem, Inst. Advanced Study, 40–41. A.A; Math. Soc; fel. Physical Soc. Quantum mechanics; relativity.

Taub, Prof. Harry, 208–01 36th Ave, Bayside, New York, N. Y. *Chemical microscopy.* Latvia, March 15, 99. Ph.G, Col. Pharmacy N. Y, 20; Ph.C, Columbia, 21, B.S, 22, A.M, 27; N. Y. Univ, 35–39. *Asst. prof. pharmacol, Columbia, 22–; chemist in charge chem. lab, bur. food and drugs, Dept. Health, New York, 40–* Consultant, food, drug and cosmetic indust, 25–; pres, Bayside Jewish Center, 41–42. Permanent sec'y, N. Y. Asn. Clin. Labs. Pharmaceut. Asn; Pub. Health Asn; Soc. Am. Med. Technol; N. Y. Acad; fel. N. Y. Micros. Soc. (pres, 37–39). Microscopy of waxes, furs, textiles, foods and botanical drugs; quantitative microscopical analyses.

Tauber, Dr. Henry, Schwarz Laboratories, Inc, 202 E. 44th St, New York, N. Y. *Biochemistry.* Kohlenhof, Hungary, July 17, 97. Ph.D, Vienna, 27. In charge biochem. lab, Israel-Zion Hosp, Brooklyn, N. Y, 27–29, Beth Moses Hosp, 29–30; instr. biochem, N. Y. Homeop. Med. Col, 30–35, N. Y. Med. Col, 35–36; *research biochemist,* McLeod Infirmary, 37–38; Johnson Suture Corp, Ill, 38–40; *Schwarz Labs, Inc, 40–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; fel. Inst. Chem. Chemical composition of plants; enzyme chemistry; enzyme technology; biochemical micro methods; vitamins.

Tauber, Dr. Oscar E(rnst), Iowa State College, Ames, Iowa. *Physiology.* Decatur, Ill, May 23, 08. B.S, James Millikin, 30; Illinois, 30; M.S, Iowa State Col, 32, Rockefeller fellow, 32–34, Ph.D, 35. State Nat. Hist. Surv, Ill, 30; instr, James Millikin, 31–32; *exp. zool, Iowa State Col,* 34–36, asst. prof, 36–42, *assoc. prof, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Soc. Exp. Biol; Micros. Soc; Iowa Acad. Chitin distribution and formation in invertebrates; hemolymph of invertebrates; factors affecting mitotic cell division; fat metabolism of insects.

Taussig, Prof. Albert E(rnst), 4500 Olive St, St. Louis, Mo. *Medicine.* St. Louis, Mo, May 6, 71. A.B, Harvard, 91; M.D, Washington (St. Louis), 94. Prof. physiol, *sch. med, Washington (St. Louis),* 09, assoc. prof. and later prof. *clin. med,* 14–41, *emer. prof, 42–* Physician, hosps. Am. Physicians. Internal medicine; diseases of the circulatory system.

Taverner, P(ercy) A(lgernon), National Museum of Canada, Ottawa, Ont, Can. *Ornithology.* Guelph, Ont, June 10, 75. Asst. curator, Nat. Museum of Can, 11–14, zoologist, 14–36, chief div. ornith, 36–42; *retired.* Mem, Can. Wildlife Advisory Board. Fel. Ornith. Union (councilor, 30); Wilson Ornith. Club; Cooper Ornith. Club; hon. mem. Linnaean Soc. N. Y; colonial mem. British Ornith. Union; fel. Royal Soc. Can. Canadian ornithology.

Tawney, Dr. Gerald L(eon), Sperry Gyroscope Co, Inc, Garden City, N. Y. *Electronics.* Harrisburg, Pa, March 13, 14. B.S, Drexel Inst, 36; Sc.D, Mass. Inst. Tech, 39. Teaching fellow physics, Mass. Inst. Tech, 36–39; Westinghouse research fellow, west. research labs, Westinghouse Elec. and Mfg. Co, 39–40; *project engineer, Sperry Gyroscope Co, Inc, 40–* Physical Soc; Radio Eng; assoc. Optical Soc. Radio; radiation; detection; research and engineering development.

Tax, Dr. Sol, University of Chicago, Chicago, Ill. *Anthropology.* Chicago, Ill, Oct. 30, 07. Ph.B, Wisconsin, 31; Ph.D, Chicago, 35. *Investigator ethnol, Carnegie Institution, 34–; research assoc. anthrop, Chicago, 40–* Anthrop. Asn. Ethnology; social anthropology; sociology of Middle America.

Taylor, Dr. Adrian S(tevenson), Clifton Springs Sanitarium and Clinic, Clifton Springs, N. Y. *Surgery.* Mobile, Ala, May 25, 83. M.D, Virginia, 05, Harvard, 16. Acting asst. surgeon, U. S. Pub. Health and Marine Hosp. Service, 05–06; chief surgeon, Yangchow Baptist Hosp, 07–14; asst. surg, Hopkins, 17–18, instr, 18–20; prof, Peking Union Med. Col, 18–27; *supt. and chief surgeon, Clifton Springs Sanitarium and Clinic.* Fel. Col. Surg; S. Surg. Asn. Hernia; the thyroid.

Taylor, Dr. A(lbert) H(oyt), 2910 Pennsylvania Ave, S. E, Washington, D. C. *Physics.* Chicago, Ill, Jan. 1, 79. B.S, Northwestern, 02; Ph.D, Göttingen, 09. Instr. physics, Mich. State Col, 00–03; Wisconsin, 03–05, asst. prof, 05–08; prof. and head dept, North Dakota, 09–17; lieut, U.S.N.R, 17–18, lieut. commander, 18–19, *commander, N.R, 19–, supt.* radio div, *Naval Research Lab,* 23–32, radio research div, 32–33, *radio div, 33–;* prin. physicist, *U. S. Navy,* 33–37, head physicist, 38–42, *chief physicist, 42–* Medal of honor, Inst. Radio Engineers, 42; John Scott medal, 42. A.A; Physical Soc; fel. Radio Eng; Geophys. Union; Elec. Eng. Radio engineering.

Taylor, Dean A(lbert) LeRoy, 258 University St, Salt Lake City, Utah. *Engineering.* Logan, Utah, May 14, 87. B.S, Utah, 07; M.S.E, Michigan, 18. Instr. elec. eng, *Utah,* 14–18, asst. prof. mech. eng, 18–22, assoc. prof, 22–26, *prof. elec. eng. and head dept, 26–, dean mines and eng, 39–* Elec. Eng. (chairman, Utah sect, 32, nat. v. pres, 40–42); Mech. Eng. (chairman, Utah sect, 26); Eng. Educ. Mechanical and electrical engineering; automotive friction.

Taylor, Dr. Alfred, 3102 Kerbey Lane, Austin, Texas. *Zoology.* Pawtucket, R. I, Jan. 11, 96. A.B, Oregon, 32; A.M, Oregon State Col, 33, Ph.D, 35. Asst. zool, Oregon State Col, 32–35, instr, 35–40; *research biologist, Texas, 40–* Summers, in charge vert. work, Oregon Marine Inst, 40. A.A; Soc. Zool. Blood cells of insects; skeletal changes associated with increasing body size in mammals; thyroid gland of the salamander in relation to tissue structure; mitotic index; oxygen consumption; B vitamins and embryological development; tumor growth and blood hemoglobin level.

Taylor, Dr. Alfred E(rnest), 1828 Kenyon St, Washington, D. C. *Chemistry.* Portland, Conn, Oct. 16, 71. A.B, Wesleyan, 92; A.M, Harvard, 94; Ph.D, Cornell, 96. Asst. chem, Cornell, 96–00; chemist, U. S. Customs Service, N. Y, 00–07; bur. chem, U. S. Dept. Agr, 07–27, prin. chemist in charge import div, food and drug admin, 27–41; *retired.* A.A; Chem. Soc. Food and drug chemistry; physical chemistry.

Taylor, Dr. Alfred H(enry), Jr, P. O. Box 203, Tuckahoe, N. Y. *Physical chemistry.* Norfolk, Va, April 28, 07. B.S, New Hampshire, 30, M.S, 33; Ph.D, Columbia, 41. Instr. anal. chem, New Hampshire, 30–33; asst. chem, Columbia, 34–37, col. pharmacy, 37–39; *physical chemist, exp. research labs, Burroughs Wellcome and Co, Inc, 39–* Chem. Soc; Optical Soc. Reaction kinetics; physical assay of substances of medical importance.

Taylor, Dr. A(lonzo) E(nglebert), Stanford University, Calif. **²Pathology.* Iowa, March 19, 70. Cornell Col. (Iowa), 86–88; DePauw, 88–90; Berlin, 90–91; M.D, Pennsylvania, 94, hon. Sc.D, 30; LL.D, Wisconsin, 20. Asst. director, Pepper lab, Pennsylvania, 96–98; prof. path, California, 99–10; physiol, Pennsylvania, 10–11, Benjamin Rush prof. physiol. chem, 11–21; director *food research inst, Stanford,* 21–36, *emer. director, 36–; consultant, Gen. Mills, Inc, Minneapolis, Minn, 37–* Soc. Nat; Am. Physicians; Soc. Biol. Chem; Soc. Exp. Biol. Nutrition; food supplies.

Taylor, Dr. A(lton) R(obert), Duke Hospital, Durham, N. C. *Biochemistry.* Bolton Landing, N. Y, March 11, 07. B.S, Wesleyan, 30; Harvard, 33–34; E. R. Squibb and Sons fellow, Princeton, 37, 38, Ph.D, 39. Asst. biol, Princeton, 30–34; research assoc. and instr. endocrine physiol, 34–39; *research assoc. exp. surg, sch. med, Duke, 39–* A.A; Chem. Soc; Electron Microscope Soc. Endocrine physiology and biochemistry; chemical and physical properties of animal viruses.

Taylor, Dr. A(lvah) Lloyd, 516 Boulevard, Westfield, N. J. *Chemistry.* Blanchard, Iowa, May 24, 93. B.S, Penn Col. (Iowa), 23; scholar, Iowa, 23–24, M.S, 24, Ph.D, 27. Acting head dept. chem, Geneva Col, 24–26; instr, Iowa, 26–27; head dept. science, West. Tenn. State Teachers Col, 27–28;

prof. chem. and head dept. physical science, Tenn. State Teachers Col, Murfreesboro, 28–30, 31–33; physical chemist, research labs, E. R. Squibb and Sons, Brooklyn, 30–31; *director* chem, Pease Labs, Inc, New York, 33–40; *director research, Oakite Products, Inc, 40–* Research chemist, Girdler Corp, Louisville, 33. A.A; Chem. Soc. (v. pres, Nashville sect, 30, councilor, N. Y. sect, 34); Inst. Chem. (sec'y-treas, N. Y. sect, 43; N. Y. chap. rep. to nat. council, 43); Asn. Textile Chem. and Colorists; Pharmaceut. Asn; Tenn. Acad. Adsorption of vapors of certain alkyl chlorides; cerelose jells; derivatives of cedrene; oxidation of fruit acids and of xylose; hydrogen ion concentration and conductivity; water soluble organo bismuth antisyphilitics; decomposition products of amino alcohols; corrosion prevention; effectiveness of germicides; food packaging; pharmaceuticals and medicinals; detergents; surface chemistry; heavy chemicals; industrial cleaning.

Taylor, Dr. A(ngus) E(llis), University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* Craig, Colo, Oct 13, 11. B.S, Harvard, 33; Ph.D, Calif. Inst. Tech, 36. Instr. *math,* Calif. Inst. Tech, 36–37; nat. research fellow, Princeton, 37–38; instr, *California at Los Angeles,* 38–40, *asst. prof, 40–* Math. Soc; Math. Asn. Abstract spaces; theory of functions; integral invariants.

Taylor, Prof. Aravilla M(eek), Lake Erie College, Painesville, Ohio. *Botany.* Andes, N. Y. B.L, Allegheny Col, 04; B.S, Chicago, 15, M.S, 16, Ph.D, 19. Teacher, pub. schs, 05–15; Frances Shimer Junior Col, 17–18; bot. and zool, Milwaukee-Downer Col, 18–19; zool, Oregon State Col, 19–20; bot. and physiol, Newcomb Col, Tulane, 21–24; *prof. bot. and zool. and head dept. biol, Lake Erie Col, 24–* A.A; Genetic Asn; Sullivant Moss Soc; Fern Soc; Forestry Asn; Ecol. Soc; Torrey Bot. Club; Ohio Acad; N. Y. Acad. Ecology of mosses of the Chicago region and the Catskill Mountains; natural reforestation and ferns of the Catskills; ecological habitats in Louisiana.

Taylor, Dr. A(ubrey) B(ryant), University of Illinois, Urbana. Ill. *Zoology.* Palmyra, Mo, Dec. 11, 03. Ph.B, Brown, 27; M.S, Iowa, 29, Ph.D, 35. Asst. zool, Iowa, 27–29, instr, 29–30, asst, 30–35, Rockefeller research assoc, 35–36; instr. *physiol, Illinois,* 36–41, *assoc, 41–* Summers, instr, Iowa, 34–38. A.A; Micros. Soc; Soc. Zool. Bio-electric currents; parasites of Acrididae; action currents; cellular respiration.

Taylor, Bert (Sidney), 137 N. Meadowcroft Drive, Akron, Ohio. *Chemistry.* Springfield, Ill, April 30, 02. B.S, Illinois, 23; A.M, Harvard, 25. Chemist, *B. F. Goodrich Co, Akron,* 25–27, manager works lab, 27–30, raw materials inspection and develop. dept, 30–35, *processing div,* 35–38, *gen. supt, 38–* Chem. Soc; Chem. Eng. Rubber chemistry; engineering; organic chemistry; raw materials; technical personnel.

Taylor, Dr. Carl C(leveland), 5166 Tilden St, N.W, Washington, D. C. *Sociology.* Harlan, Iowa, Dec. 16, 84. A.B, Drake, 11; A.M, Texas, 14; Ph.D, Missouri, 18. Instr. pub. speaking, Texas, 11–13; sociol, Mt. Holyoke Col, 15–16; asst. prof. and assoc. prof, Missouri, 16–20; prof, N. C. State Col, 20–23, dean grad. sch, 23–31; research and lecturer, 31–33; subsistence homesteads div, U. S. Dept. Interior, 33–34; land policy sect, Agr. Adjust. Admin, 34–35; *head div. farm popul. and rural welfare, bur. agr. econ, U. S. Dept. Agr, 35–;* asst. administrator, Resettlement Admin, 35–37. A.A; Sociol. Soc. (chairman, rural sect. and rural research cmt, 24); Econ. Asn; Child Labor Asn; Am. Acad; Country Life Asn. (pres, 35); Rural Sociol. Soc. (pres, 39); N. C. Acad. Rural sociology; standard of living of North Carolina farm families; rural primary groups in Wake County, North Carolina; rural-urban relations; commodity marketing associations; human relations; people of the great plains; disadvantaged classes in American agriculture; rural life in Argentina.

Taylor, Prof. Carlton F(ulton), West Virginia University, Morgantown, W. Va. *Plant pathology.* Williamsdale, N. S, Can, Feb. 8, 06. B.S.A, McGill, 29; Ph.D, Cornell, 36. Asst. provincial entomologist, N. S. Dept. Agr, Can, 29; asst. plant path, Cornell, 29–38; *asst. plant pathologist, Exp. Sta, West Virginia, 38–, asst. prof. plant path, 40–* Phytopath. Soc. Diseases of fruit trees; injury problems connected with fruit sprays.

Taylor, Prof. C(harles) Fayette, Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* New York, N. Y, Sept. 24, 94. Ph.B, Yale, 15, M.E, 20. In charge engine lab, Air Service, U. S. Army, McCook Field, Dayton, Ohio, 19–23; asst. chief engineer, Wright Aeronaut. Corp, Paterson, N. J, 23–26; *prof.* aeronaut. eng. and later *automotive eng, Mass. Inst. Tech, 26–* U.S.N.R, 17–19, lieut. Soc. Automotive Eng; fel. Inst. Aeronaut. Sci. Internal combustion engines; aeronautical engines.

Taylor, Cha(rle)s H(enry), 440 Liberty National Bldg, Oklahoma City, Okla. *Geology.* Dwight, Kans, 77. B.S, Chicago, 07, M.S, 09. Instr, high sch, Kans, 03–04, prin, 04–05; science, Wis. State Nor. Sch, River Falls, 07–08; assoc. prof. geol, Oklahoma, 09–10, prof. miner, 10–11, geol, 11–16; *consulting geologist, 16–* Asn. Petrol. Geol. (ed, 17–19). Economic geology; granites of Oklahoma.

Taylor, Dr. C(harles) V(incent), 562 Gerona Road, Palo Alto, Calif. **Biology.* Whitesville, Mo, Feb. 8, 85. A.B, Mt. Morris Col, 11; A.M, California, 15, Ph.D, 17. Instr. zool, California, 17–19, asst. prof, 20–25; assoc. prof, *Stanford,* 25–26, prof, 26–31, *Herzstein prof. biol, 31–, dean sch. biol. sciences, 34–* Johnston scholar, Hopkins, 19–20; acting asst. prof, Michigan, 24; visiting prof, Chicago, 30–31. Nat. Acad; A.A; Soc. Exp. Biol; Soc. Zool; Soc. Nat; West. Soc. Nat. Morphology and physiology of Protozoa; structure and properties of protoplasm; development of marine ova.

Taylor, Prof. C(lara) M(ae), Teachers College, Columbia University, New York, N. Y. *Nutrition.* Vineland, N. J, March 15, 98. B.S, Columbia, 20, A.M, 23, Ph.D, 37. Instr. home econ, acad, Bridgeton, N. J, 20–22; R. I. State Col, 22–26; asst. *nutrition, Teachers Col, Columbia,* 26, instr, 27–39, asst. prof, 39–43, *assoc. prof, 43–* A.A; Soc. Res. Child Develop; Dietetic Asn; Am. Acad. Polit. and Social Sci. Energy metabolism and mechanical efficiency of young boys; the basal metabolism in pregnancy; influence of age on the basal metabolism of boys throughout six consecutive years; food values in shares and weights.

Taylor, Colin A(lexander), Post Office Bldg, Pomona, Calif. *Irrigation.* Seattle, Wash, Sept. 20, 99. B.S, Washington (Seattle), 22. *Div. irrig, bur. agr. eng, U. S. Dept. Agr, 24–, assoc. irrig. engineer.* Soc. Hort. Sci; Agr. Eng; assoc. Civil Eng. Water requirements; plant-soil moisture relations.

Taylor, Cyril S(tead), Aluminum Club, New Kensington, Pa. *Chemistry.* Worthington, Minn, Dec. 18, 87. B.S, Minnesota, 13; M.S, Carnegie Inst. Tech, 35. Asst. chemist, Bur. Standards, 13–18, assoc. chemist, 18–20; physical chemist, *research labs, Aluminum Co. of Amer,* 20–29, *chief physical chemist, 29–* Chem. Soc; Electrochem. Soc; Pa. Chem. Soc. Refrigeration constants; glass blowing; electrochemistry; physical and chemical properties of aluminum and its compounds.

Taylor, Dr. David L(awrence), Care of Columbia University, New York, N. Y. *Botany.* Fargo, N. Dak, Nov. 16, 15. B.S, North Dakota, 38; Ph.D, Columbia, 42. Teaching asst. bot, Columbia, 38–42; *2nd lieut, Chem. Warfare Service, U. S. Army, 42–* Bot. Soc. Mineral nutrition; plant respiration.

Taylor, Dr. E(dson) H(omer), Eastern Illinois State Teachers College, Charleston, Ill. *Mathematics.* Robinson, Ill, July 31, 74. B.S, Nat. Nor. Univ, 96; A.M, Harvard, 05, Ph.D, 09. *Head dept. math, East. Ill. State Teachers Col, 99–* Chairman cmt. on nor. schs. in the U. S, Int. Cmn. on the Teaching of Math. A.A; Math. Asn; Nat. Council Teachers Math. (v. pres, 20). Conformal mapping; pedagogy of mathematics.

Taylor, E(dward) A(nderson), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Cleveland, Ohio, Sept. 4, 89. B.S, Case, 11. Assayer and asst. mining engineer, Chisos Mining Co, Texas, 11–12; anal. chemist, Grasselli Chem. Co, 12–13, research chemist, 13–17, *director* chem. lab, 17–25, research and new products dept, 25–28, *chem. div, Grasselli chem. dept, E. I. du Pont de Nemours and Co, 28–* Chem. Soc; Chem. Eng. Chemical research and development.

Taylor, Dr. E(dward) G(odfrey), Queen's University, Kingston, Ont, Can. *Physical chemistry.* Pembroke Dock, Wales, Aug. 8, 10. B.Sc, Univ. Col. Wales, 32, Ph.D, 35; M.S, Brown, 38. Asst, Univ. Col. Wales, 34–36; British Commonwealth fellow and hon. fellow, Brown, 36–38; *lecturer chem, Queen's (Can), 38–* Chem. Soc; assoc. Inst. Chem. Gt. Britain and Ireland. Solutions of electrolytes.

Taylor, Prof. Edward H(arrison), University of Kansas, Lawrence, Kans. *Herpetology, Mammalogy.* Maysville, Mo, April 23, 89. A.B, Kansas, 12, M.S, 20, Ph.D, 26. Chief div. fisheries, Bur. Science, P. I, 16–20; head dept. *zool,* Philippines, 23–24; asst. prof. *Kansas,* 27, assoc. prof, 28–34, *prof, 34–* Explor. in Philippines, 12–16, 20–23. Soc.

Mammal; Soc. Zool; Soc. Ichthyol. and Herp. (v. pres, 35–); Biol. Soc. Wash; Kans. Acad. Lizards, snakes, Amphibia, turtles and mammals of the Philippines; the lizard genus Eumeces; amphibians and reptiles of Mexico.

Taylor, Prof. Edward S(tory), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* New York, N. Y, Jan. 26, 03. B.S, Mass. Inst. Tech, 24. Engineer, Pub. Service of N. J, 24–25; Wright Aero Corp, 25–27; instr. automotive eng, *Mass. Inst. Tech,* 27–29, asst. prof, 29–37, assoc. prof, 37–42, *prof. aircraft engines, 42–* Consulting engineer, Wright Aero Corp, 36– Mem. power plants cmt, Nat. Advisory Cmt. Aeronautics, 40–; consultant, Office Production Management, Nat. Defense Cmt. and Office Sci. Research and Develop, 40–42. Sylvanus Albert Reed prize, 36. Fel. Inst. Aeronaut. Sci. Internal combustion engines; vibration, combustion and design of internal combustion engines.

Taylor, Prof. Edward (W. D), Pomona College, Claremont, Calif. *Mechanics.* Portland, Oregon, May 18, 76. C.E, Minnesota, 98; A.M, Southern California, 26. Sch. supt, Oregon, 16–18; prof. math, Pacific (Oregon), 18–20; assoc. prof. mech, *Pomona Col,* 20–29, *prof. eng. math, 29–* Application of mathematics to problems of machine design and to vibration problems; form and formula of the long profile of streams.

Taylor, Dr. Ellison H(all), Cornell University, Ithaca, N. Y. *Physical chemistry.* Kalamazoo, Mich, Sept. 6, 13. B.Chem, Cornell, 35; A.M, Princeton, 37, Ph.D, 38. *Instr.* chem, Utah, 38–40; *chem. eng, Cornell, 40–* Chem. Soc. Catalysis.

Taylor, E(stes) P(ark), 'Agricultural Leaders Digest,' 139 N. Clark St, Chicago, Ill. *Horticulture.* Loveland, Colo, Sept. 17, 79. B.S, Colo. Agr. Col, 02. Asst. entomologist and botanist, Exp. Sta, Kentucky, 02; asst. entomologist, Illinois, 03–05; Exp. Sta, Colo. State Col, 06–07; Mo. Fruit Exp. Sta, 08–09; entomologist and hort. inspector, Mesa County, Colo, 10–11; consulting horticulturist, 11–12; field horticulturist, Idaho, 13–16; director agr. exten. and asst. dean, col. agr, Arizona, 16–20; exten. div, Anaconda Copper Co, 20–21; director organization, Am. Farm Bur. Federation, 21–27; ed, 'Am. Farming' and *'Agr. Leaders Digest,'* 27–30, *ed. and publisher, 30–* Collaborator, bur. entom, U. S. Dept. Agr. Entom. Soc; Asn. Econ. Entom. Coccidae of Missouri orchards; aphids of Colorado orchards; insects injurious to fruits; orchard irrigation; cooperative fruit marketing; rural organization and sociology.

Taylor, Dr. Ewing, 153 Academy St, Poughkeepsie, N. Y. *Medicine.* Poughkeepsie, N. Y, Sept. 24, 74. A.B, Williams Col, 95; M.D, Harvard, 03. Austin teaching fellow histol. and embryol, Harvard Med. Sch, 03–05; assoc. anat, Pennsylvania, 05–07; instr. histol, med. col, Cornell, 07–09; asst. director diagnosis lab, Dept. Health, New York, 09–18; pathologist, U. S. Marine Hosp, Stapleton, N. Y, 21–33; *retired.* Capt, M.C, 18–20. A.A; hon. fel. Am. Med. Asn; Asn. Anat; Asn. Mil. Surg; Soc. Bact. Bacteriology; pathology.

Taylor, Dr. F(rancis) H(enry) L(askey), 107 Church St, Winchester, Mass. *Chemistry.* Bristol, Eng, Nov. 23, 00. B.Sc, Saskatchewan, 22, M.Sc, 24; Ph.D, Wisconsin, 28. Asst. chem, Saskatchewan, 20–24; prof, Regina Col, 24–27; asst. limnology, Wisconsin, 27–28; fellow *med, Harvard,* 28–38, *research assoc, 38–, tutor biochem. sciences, 41–* Chemist, Thorndike Mem. lab, Boston City Hosp, 28–; consulting chemist, Mass. State Cancer Hosp, 30–; lecturer, Danforth Dunbar Sch, 34–; consulting biochemist, Robert Brigham Hosp, 37– Chem. asst, Eng. Inst. Can; field chemist, Wis. Geol. and Nat. Hist. Surv. Physiological and colloidal chemistry; biochemical methods for potassium, mercury and iron; heavy metal metabolism; metabolism of malignant tumors; chemical changes in malignancy; nitrogen metabolism in anemia; metabolism of cevitamic acid; nutrition; coagulation of blood; hemostatic agents and enzyme systems.

Taylor, Frank A(ugustus), 6605 32nd St, N.W, Washington, D. C. *Engineering.* Washington, D. C, March 25, 03. B.S, Mass. Inst. Tech, 28; LL.B, Georgetown, 34. Instr, Catholic Univ, 31; *curator div. eng, U. S. Nat. Museum, Smithsonian Institution, 32–* Mech. Eng. History of science, engineering and industry.

Taylor, Frank O(wen), Parke, Davis and Co, Detroit, Mich. *Chemistry.* Ill, Oct. 29, 79. Ph.B, Cincinnati Col. Pharmacy, 99, Ph.C, 00. Mem. staff, *Parke, Davis and Co,* 02–24, *chief chemist, 24–* Mem. revision cmt, U. S. Pharmacopoeia, 20–30, 40–, exec. cmt. A.A; Chem. Soc. (past chairman div. med. products; pres, Detroit sect); Pharmaceut. Asn. (v. pres); Drug Mfrs. Asn. (chairman contact cmt). Standardization of medicinal preparations.

Taylor, Prof. F(ranklin) V(eazey), Princeton University, Princeton, N. J. *Psychology.* Proctor, Vt, Dec. 13, 10. Ph.B, Brown, 32; A.M, Princeton, 34, Ph.D, 35. Asst, Yale, 35–36; instr. *psychol, Princeton,* 36–41, *asst. prof, 41–* Assoc. Psychol. Asn. Human and animal learning; human visual perception.

Taylor, Dr. Fred A(nderson), Singer Memorial Research Laboratory, Pittsburgh, Pa. *Chemistry.* Hightstown, N. J, Jan. 1, 93. Ph.B, Yale, 15; Ph.D, Columbia, 22. Junior physiologist, U. S. gas investigation, Conn, 17; from fellow to assoc, Rockefeller Inst, 18–23; *chemist, Singer Mem. Lab, 23–* A.A; Chem. Soc; Soc. Biol. Chem; Deuts. Chem. Gesell. Clinical biochemistry; chemistry of higher fatty acids; pneumonoconiosis.

Taylor, Prof. Fred H(erbert), Clemson Agricultural College, Clemson, S. C. *Botany.* Groton, Mass, April 27, 10. B.S, Mass. State Col, 33; A.M, Harvard, 34, Ph.D, 39. Asst. bot, Radcliffe Col, 35; Austin teaching fellow, Harvard, 35–36, asst. biol, 36–39; instr. *bot, Clemson Agr. Col,* 39–41, *asst. prof, 41–* A.A; Bot. Soc; New Eng. Bot. Soc. Comparative anatomy of the secondary xylem in the Violaceae and associated families.

Taylor, Dr. F(red) Lowell, 510 McDonald St, Midland, Mich. *Organic chemistry.* Platteville, Wis, Dec. 30, 07. B.S, Wisconsin, 30; Ph.D, Minnesota, 35. *Research chemist,* Monsanto Chem. Co, 35–37; *Dow Chem. Co, 37–* Summers, Wis. Geol. and Nat. Hist. Surv. Chem. Soc; Soc. suisse de Chim. Polymethyl benzenes; organomercury compounds; resins from petroleum.

Taylor, F(red) W(ellington), University of New Hampshire, Durham, N. H. *Agronomy.* Wooster, Ohio, Jan. 25, 76. B.S.A, Ohio State, 00. Soil expert, bur. soils, U. S. Dept. Agr, 01–03; prof. agr, *New Hampshire,* 03–08, agron, 08–32, dean *col. agr,* 15–32, *director commercial depts, 32–, agronomist, exp. sta.* Soc. Agron; Asn. Seed Anal. (pres, 21–23). Soils; seeds; fertilizers.

Taylor, Frederic W(illiam), 3939 W. Seventh St, Los Angeles, Calif. *Agriculture.* Weeping Water, Nebr, April 13, 60. Private study. Nurseryman; prof. hort, Nebraska, 91–93, sec'y, Exp. Sta, 94–95; irrig. engineer, Denver, 07–11; director agr, P. I, 11–14; director gen. agr, El Salvador, 23–27. Supt, Nebr. Fruit Exhibit, Columbian Expos, 93; supt. agr. and hort, Omaha Expos, 98; chief hort, forestry and foods, Buffalo Expos, 01; chief agr. and hort. dept, La. Purchase Expos, 04. Officier, Légion d'honneur; Order of the Rising Sun, Japan; Royal Crown of Italy; Order of Christ, Portugal. Am. Geog. Soc; Nebr. Hort. Soc. (sec'y, 92–95); fel. Royal Geog. Soc. Horticulture; small fruits; foreign cereals; irrigation; tropical agriculture; Kherson oats.

Taylor, Dr. Garvin L(awrence), 3212 Green, Ft. Worth, Texas. *Geology.* Spencer, Okla, March 14, 08. A.B, Wichita, 29; M.S, Iowa, 31, Ph.D, 34. Asst, Lee and Garlough, Wichita, Kans, 28–30; *geol. dept, Stanolind Oil and Gas Co, 34–* Asn. Petrol. Geol; Kans. Geol. Soc. Granites of the Black Hills, South Dakota; mechanical analysis of sedimentary rocks; geology of the Hugoton, Kansas, gas area.

Taylor, Prof. Geo(rge) E(lls), Rutgers University, New Brunswick, N. J. *Dairy husbandry.* Hiawatha, Kans, Nov. 20, 00. B.S, Kans. State Col, 23; M.S, Mich. State Col, 25, D.V.M, 33. Asst, Mich. State Col, 23–25, instr, 25–28, asst. prof. *dairy husbandry,* 28–38; *prof, Rutgers, 38–* Dairy Sci. Asn. Dairy cattle breeding, nutrition and diseases.

Taylor, Dr. George F(rederic), Chanute Field, Rantoul, Ill. *Meteorology, Geology.* Denver, Colo, March 6, 08. California at Los Angeles, 24–26; B.S, Calif. Inst. Tech, 29, M.S, 31, Ph.D, 33. Geologist, Union Oil Co. of Calif, 29–30; junior geologist, U. S. Geol. Surv, 30–36; meteorologist, West. Air Express, 33–35; chief meteorologist, Am. Airlines, 35–37; West. Air Express Corp, 37–39; *instr, Air Corps, U. S. Army, 39–, major.* Asst. and teaching fellow, Calif. Inst. Tech, 29–33. A.A; Inst. Aeronaut. Sci; Meteorol. Soc. Aeronautical meteorology.

Taylor, George F(rederick), 1817 Hawthorne Drive, Grosse Point Woods, Mich. *Physics.* Granite Falls, N. C. A.B, North Carolina; Inst. du Radium, Sorbonne, 19–20. Assoc. physicist, bur. plant indust, U. S. Dept. Agr, 20–27; *research physicist, Gen. Elec. Co,* Schenectady, N. Y, 27–36, Euclid,

Ohio, 36–39, *Detroit, 39–, physicist and research metallurgist, Carboloy Co, Inc.* Chem. Soc; Soc. Metals; Physical Soc. Metallurgy; process for making fine wire from non-ductile metals; thin metallic films; electrical temperature recording; resistance thermometers and thermocouples; sintered metallic compounds; hard cemented carbides; diamond impregnated carboloy; origin, crystallography and industrial application of diamonds; powder metallurgy; fabrication of metals from powder by plastic forming and extrusion.

Taylor, Geo(rge) H(olmes), 303 Federal Bldg, Salt Lake City, Utah. *Hydraulic engineering.* Villisca, Iowa, Feb. 21, 01. B.S, Nebraska, 24. Asst. engineer dam construction, Winnemucca, Nev, 24, inspector state highways, 24; transitman, Chicago, Burlington and Quincy Ry, Lincoln, Nebr, 25–26; from junior to assoc. hydraulic engineer, div. ground water, water resources branch, U. S. Geol. Surv, 26–40; capt, *C.Eng, U. S. Army,* 40–42, *major and asst. operation and training branch, office chief of engineers, 42–* Soc. Mil. Eng; assoc. Civil Eng; Geophys. Union. Ground water investigations.

Taylor, Prof. (George) Rood, 4222 Harriet Ave, Minneapolis, Minn. *Pediatrics.* Columbia, S. Dak, May 12, 85. M.D, Michigan, 10; Ph.D, Minnesota, 17. Teaching fellow pediat, Minnesota, 14–17, Mayo Clinic, 17–19; asst. prof. pediat, med. sch. and grad. sch, Minnesota, 18–32, assoc. prof, 32–37; *practising physician.* Pediat. Soc; Am. Med. Asn. Celiac disease; digestion; care of new born and premature born; encephalitis; poliomyelitis.

Taylor, Dr. G(eorge) Wellford, Washington University, St. Louis, Mo. *Physiology.* Richmond, Va, July 16, 07. A.B, Richmond, 29; A.M, Princeton, 30, Ph.D, 32. Nat. research fellow biol, Princeton, 32–34; instr. and *asst. prof. zool, Washington (St. Louis), 34–* A.A. General physiology.

Taylor, Dr. Grace A(delaide), New Jersey State Teachers College, Jersey City, N. J. *Educational psychology.* Nashua, N. H, April 9, 89. A.B, Wellesley Col, 11; Ph.D, Columbia, 23. Asst. psychol, Teachers Col, Columbia, 20–22; asst. prof. educ, Smith Col, 22–23; lecturer educ. psychol, Teachers Col, Columbia, 23–24; director educ. research, Westchester County Children's Asn, N. Y, 24–25; asst. prof. elementary educ, Pittsburgh, 25–26; head psychologist, Board Educ, Newark, 26–29, asst. ed. curriculum, 29–30; *head dept. psychol, N. J. State Teachers Col, Jersey City, 30–* Summers, lecturer, Toronto, 21; asst, Stanford, 22. Lecturer, Cent. Sch. Hygiene and Physical Educ, 23–25; psychologist, Classification Clinic, N. Y, 22–30. Psychol. Asn. Educational psychology in elementary education; subnormal and gifted children; learning in young children.

Taylor, Prof. Griffith, University of Toronto, Toronto, Ont, Can. *Geography.* London, Eng, Dec. 1, 80. B.Sc, Sydney, 04, B.E, 05, D.Sc, 16; B.A, Cambridge, 10. Physiographer, Commonwealth Weather Service, Australia, 10–20; head dept. *geog,* Sydney, 20–28; *prof,* Chicago, 29–35; *Toronto, 35–* Acting Commonwealth geologist, Australia, 12; hon. lecturer, Commonwealth Flying Sch, Australia, 14–18. Joint ed, 'Econ. Geog'; 'Zeitschrift für Rassenkunde,' Breslau. Senior geologist and leader west. parties in Capt. Scott's Antarctic exped, 10–13. King's medal for polar explor, 13; Royal Geog. Soc. medal, 13; Syme medal, 15; Thompson medal, 17; Livingstone medal, Am. Geog. Soc, 23. Asn. Geog. (v. pres, 38, pres, 41); Can. Geog. Soc. (director); British Asn. (pres, geog. sect, 38). Australian settlement; south polar regions; climatology; Cambrian paleontology; world ethnology; environmental control.

Taylor, Dr. Guy B(aker), 2306 Saymour Road, Wilmington, Del. *Physical chemistry.* Lexington, Ky, Oct. 5, 88. B.S, Kentucky, 08, M.S, 09; fellow, Princeton, 11–13, Ph.D, 13. *Chemist,* E. I. du Pont de Nemours and Co, 09–11; U. S. Bur. Mines, 13–18; *E. I. du Pont de Nemours and Co, 18–* A.A; Chem. Soc. Equilibrium; coal; explosives; oxidation of ammonia.

Taylor, Dr. H(arden) F(ranklin), Atlantic Coast Fisheries Co, 111 John St, New York, N. Y. *Chemistry, Fisheries.* West Plains, Mo, July 15, 90. A.B, Trinity Col. (N. C), 13; hon. Sc.D, Duke, 36. Prin, high sch, N. C, 13–15; sci. asst, Bur. Fisheries, 15–18, chief technologist, 18–22, chief div. fishery industries, 22–23; director research lab, *Atlantic Coast Fisheries Co,* 23–25, v. pres. for sci. research, 25–30, *director, 27–, pres, 30–* Summers, sci. asst, U. S. Fisheries Lab, Beaufort, N. C, 11–14; Bur. Fisheries rep, Interdept. Cmt. on Fats and Oils; vitamin A sub-cmt, revision cmt, U. S. Pharmacopoeia. Cmt. fish technol, Pacific Science Cong. A.A; Chem. Soc; Fisheries Soc; fel. Inst. Chem; Franklin Inst; Am. Inst. (trustee); N. Y. Acad; Inst. Int. du Froid. Biology; fisheries technology; salting of fish; preservation of fish nets; refrigeration and cold storage of fish; pearl essence; commercial fish products; high vitamin oils; determination of vitamin A.

Taylor, Dr. Harold C(laire), Western Electric Co, Chicago, Ill. *Psychology.* Barnes City, Iowa, Dec. 21, 05. Ph.B, Chicago, 29; M.S, Yale, 32, Ph.D, 34. Tech. asst. on research, Procter and Gamble Co, 34–36; chief psychol. and statist. studies sect, *West. Elec. Co,* 36–42, *chief personnel research dept,* 42– Lecturer, Northwestern, 40– Psychometric Soc; fel. Asn. Applied Psychol; assoc. Psychol. Asn. Tests and measurements; statistics; personnel.

Taylor, Prof. H(awley) O(tis), 330 E. Union Ave, Wheaton, Ill. *Physics.* North Derby, Vt, June 4, 76. A.B, Cornell, 09, Ph.D, 13. Asst. physics, Cornell, 08–09, instr, 09–13; research assoc, Mass. Inst. Tech. and Harvard, 13–16; research physicist, Nat. Elec. Signaling Co, 16–17; consulting physicist, Bur. Standards, 18–19, assoc. physicist, 19–21; head elec. instruction, Franklin Union, 21–24; prof. physics, John Brown, 24–26, dean, 25–26; assoc. prof, *Wheaton Col. (Ill), 27–28, prof. physics and math. and chairman dept, 28–* Special adviser, Submarine Defense Asn, 17–18; radio engineer, Sig.C, 18. A.A; Physical Soc; Acoustical Soc; Math. Asn; Asn. Physics Teachers; Ill. Acad. Acoustics; electricity; sound absorption; vibrating telephone diaphragms; wave analysis; even and odd harmonic waves; radio telegraphy; efficiency of telephonic instruments and circuits; mathematics; astronomy; navigation.

Taylor, Dr. Haywood M(aurice), Duke University Hospital, Durham, N. C. *Biochemistry.* Edgecomb Co, N. C, May 11, 98. Du Pont fellow, North Carolina, 19–20, B.S, 20, M.S, 21, Ph.D, 24. Instr. org. chem, North Carolina, 20–24, pharmaceut. chem, 25; research chemist, E. R. Squibb and Sons, N. Y, 25–27; org. research chemist, Fisk Rubber Co, Springfield, Mass, 27–28; instr. ophthal. and head dept. chem, Wilmer ophthal. inst, Hopkins, 28–30; asst. prof. *biochem. and toxicol, sch. med, Duke,* 30–38, *assoc. prof, 38–* Visiting fellow, N. Y. Univ, 34. 2nd lieut, Inf, 18, lieut, C. W. Res. Chem. Soc; Soc. Exp. Path; Elisha Mitchell Sci. Soc; N. C. Acad. Toxicology; organic chemistry; P-cymene studies; narcotic principle of Liatris odoratissima; application of United States Pharmacopoeia yeast fermentation test to colloidal silver compounds; tinctures of vanilla; rubber derivatives; chemistry of the eye; iodine ointments; alcohol studies.

Taylor, Prof. H(enry) Austin, New York University, University Heights, New York, N. Y. *Physical chemistry.* St. Helens, Lancashire, Eng, Aug, 99. B.Sc, Liverpool, 20, Ph.D, 22. Asst. *chem,* Princeton, 23–24; instr, *N. Y. Univ,* 24–26. asst. prof, 26–30, assoc. prof, 30–35, *prof, 35–* A.A; Chem. Soc. Heterogeneous gas reactions; photochemistry; infrared absorption; phosphorescence; radiation; reaction kinetics.

Taylor, Dr. Henry C(harles), 600 S. Michigan Ave, Chicago, Ill. *Agriculture.* Stockport, Iowa, April 16, 73. B.S.A, Iowa State Col, 96, M.S.A, 98; Ph.D, Wisconsin, 02, LL.D, 33; London Sch. Econ, 99; Halle, 00; Berlin, 00–01. Instr. commerce, Wisconsin, 01, chairman dept. agr. econ, 08–19; chief office farm management, U. S. Dept. Agr, 19–21, chief bur. agr. econ, 21–25; prof. agr. econ, Northwestern, and sec'y, Inst. for Research in Land Econ. and Pub. Utilities, 25–28; research prof. agr. econ, Vermont, and director, Cmn. on Country Life, Vt, 28–31; mem. appraisal cmn, Laymen's Cmt. on For. Missions, 31–32; special research on nat. policy affecting agr, 32–33; U. S. mem. permanent cmt, Int. Inst. Agr, 33–35; *director, Farm Foundation, 36–* Farm Econ. Asn; Econ. Asn. Agricultural economics; rent of farm lands; marketing and cost of farm products.

Taylor, Prof. Howard R(ice), 1893 Garden Ave, Eugene, Oregon. *Psychology, Education.* Franklin, Nebr, July 9, 92. A.B, Pacific, 14; A.M, Stanford, 22, Ph.D, 28. Prin, high sch, Wash, 15–17, sch. supt, 17–22; asst. educ, Stanford, 22–25, asst. prof, 25–28, assoc. prof, 28–29; director personnel research, *Oregon,* 29–42, *prof. psychol, 30–,* assoc. dean grad. div, 37. West. Psychol. Asn. (pres, 39). Influence of the teacher on pupil achievement in elementary school reading and arithmetic; the effectiveness of independent study; reliability and validity of scholastic aptitude tests and other measures of college success.

Taylor, Prof. Hugh S(tott), 115 Broadmead, Princeton, N. J. **⁴Physical chemistry.* St. Helens, Lancashire, Eng, Feb

6, 90. B.Sc, Liverpool, 09, M.Sc, 10, D.Sc, 14; Nobel Inst, Stockholm, 12–13; Tech. Hochschule, Hanover, 13–14; hon. D.Sc, Louvain, 37; LL.D, Providence Col, 38; hon. Sc.D, Rutgers, 41. Instr. physical chem, *Princeton*, 14–15, asst. prof, 15–21, assoc. prof, 21–22, prof, 22–27, acting chairman *dept. chem*, 26, *chairman*, 26–, *David B. Jones prof*, 27– Lecturer, California, 30; prof, Manchester, 31; Francqui prof, Louvain, 36. Cmt. on contact catalysis, Nat. Research Council, 19–35, chairman cmt. on photochem, 25–, cent. petrol. cmt, 26–31. Nichols medal, N. Y. sect, Am. Chem. Soc, 28; Mendel medal, Villanova, 33; cross of Order of Leopold II, 37; Longstaff medal, Chem. Soc. London, 42. Research chemist, Munitions Inventions Dept, England, 17–19. A.A; Chem. Soc. (councilor); Physical Soc; Electrochem. Soc. (v. pres, 30–31); Philos. Soc; Faraday Soc; fel. Royal Soc; Bunsen Gesell; hon. mem. Soc. chim. de Belg; Pontifical Acad. Catalysis; thermodynamics; photochemistry; atomic hydrogen; activated adsorption.

Taylor, Dr. James A(lonzo), Girdler Corp, Louisville, Ky. *Chemistry*. Davenport, Iowa, Oct. 8, 06. B.S, Iowa, 28; Pittsburgh, 28–30; U. S. Bur. Mines fellow, Washington (Seattle), 30–32, Ph.D, 32. Asst. chem, Pittsburgh, 28–30; asst. chem. engineer, northwest exp. sta, U. S. Bur. Mines, 32–34; asst. prof. fuel technol, Pa. State Col, 34–42; *chem. engineer*, Pittsburgh Coke and Iron Co, 42–43; *Girdler Corp, 43–* Summers, chemist, B. F. Goodrich Co, 28. Harshaw Chem. Co, 29. Chem. Soc. Coal flotation; softening temperatures of coal ash; clinkering of coal ash on grates; blast furnace coke; use of anthracite in cupola; active carbon; heat transfer.

Taylor, Dr. J(ames) Earl, 127 Hillcrest Ave, Louisville, Ky. *Chemistry*. Greenfield, Ind, Dec. 17, 99. A.B, Wittenberg Col, 22; A.M, Ohio State, 24, Charles E. Coffin fellow, 27, Ph.D, 27. Asst. prof. chem, Wittenberg Col, 22–26; *research chemist*, Procter and Gamble Co, 27–42; *Girdler Corp, 42–* Chem. Soc; Oil Chemists Soc. Catalysis; high pressure hydrogenation; vegetable oil shortenings; chemical education.

Taylor, Prof. James H(enry), George Washington University, Washington, D. C. *Mathematics*. Sharon, Pa, Feb. 21, 93. B.S, Nebraska, 16; A.M, Princeton, 20; Ph.D, Chicago, 24. Instr, Nebraska, 20–22; nat. research fellow *math*, 24–25; asst. prof, Lehigh, 25–26; Wisconsin, 26–29; *prof, George Washington, 29–* A.A; Math. Soc; Math. Asn; Philos. Soc. Wash; Wash. Acad. Calculus of variations; differential geometry.

Taylor, Dr. J(ames) H(enry), Procter and Gamble Co, Ivorydale, Ohio. *Psychology*. Wooster, Ohio, Sept. 4, 08. A.B, Ohio Wesleyan, 30, fellow, 30–31, A.M, 31; Ph.D, Ohio State, 33. Instr, Ohio Wesleyan, 30–31: Ohio State, 31–34; assoc. prof, Wittenberg Col, 34–36; research assoc, *Procter and Gamble Co*, 36–37, health, safety and service work, 37–38, *head health, safety and service dept, indust. relations div, 38–* Work and fatigue; safety; industrial health; employee plans; labor legislation.

Taylor, J(ames) N(orman), 2019 Eye St, N. W, Washington, D. C. *Chemistry*. Smyrna, Del, Aug. 23, 85. B.S, George Washington, 13, M.S, 22. Lab. asst, bur. animal indust, U. S. Dept. Agr, 08–13, chemist, 13–27; *acting chief chem. staff, U. S. Dept. Commerce, 27–* Instr, Wash. Prep. Sch, 16–22; George Washington, 21–22. U. S. Dept. Commerce del, U. S. Pharmacopoeial Convention, 30. Chem. Soc; fel. Inst. Chem. (sec'y, Wash, D. C, chap, 23–25, chairman, 28). Chemical education and economics.

Taylor, Prof. J(ames) S(turdevant), University of Pittsburgh, Pittsburgh, Pa. *Mathematics*. Danbury, Conn, May 4, 95. A.B, California, 16, A.M, 17, Ph.D, 18. Instr. *math*, Mass. Inst. Tech, 19–24; asst. prof, *Pittsburgh*, 24–26, assoc. prof, 26–30, *prof, 30–, head dept, 39–* Cmn. Relief Belgium Educ. Foundation fellow, 21–22. A.A; Math. Soc; Math. Asn. (sec'y-treas, Allegheny Mt. sect, 33–38); Pa. Acad. Geometry of complex domain; theories of depreciation and testimony; postulate theory.

Taylor, Dr. John Fuller, Washington University School of Medicine, St. Louis, Mo. *Physiological chemistry*. Jamestown, N. Y, June 10, 12. A.B, Cornell, 33; Francis P. Garvan fellow, Hopkins, 33–37, Ph.D, 37. Nat. research fellow med. sciences, Harvard Med. Sch, 37–39, teaching fellow biol. chem, 39–41; biochemist, Lederle Labs, Inc, 41–43; *asst. prof. biol. chem, sch. med, Washington (St. Louis), 43–* Chem. Soc. Oxidation-reduction potentials of biological systems; hemochromogens; hemoglobin; proteins.

Taylor, Dr. John K(eenan), 6210 43rd Ave, Hyattsville, Md. *Physical chemistry*. Mt. Rainier, Md, Aug. 14, 12. B.S, George Washington, 34; M.S, Maryland, 38, Ph.D, 41. Sci. aide, *Bur. Standards*, 29–36, junior chemist, 36–40, asst. chemist, 40–42, *assoc. chemist, 42–* Chem. Soc. Optical properties of water; density of water; preparation of pure platinum metals; electrochemistry of solutions; standard electrode potentials; separation of isotopes.

Taylor, J(ohn) W(alter), 22 S. Oak St, Clarendon, Va. *Agronomy*. Delmont, S. Dak, Feb. 24, 90. B.S, N. H. State Col, 14; M.S, Ohio State, 17. Instr, high sch, W. Va, 14–16; from asst. agronomist to *senior agronomist, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 19–* Soc. Agron; Genetic Asn; Bot. Soc. Wash. Genetics.

Taylor, Dr. J(ulius) D(avid), 58 Raleigh St, Rochester, N. Y. *Physiological chemistry*. Erie, Pa, Dec. 18, 13. B.S, Pittsburgh, 36; Ph.D, Rochester, 40. Instr. biochem, sch. med. and dentistry, Rochester, 40–41; *org. research chemist, Distillation Products, Inc, 41–* Brain lipids; vitamins.

Taylor, Lauriston S(ale), National Bureau of Standards, Washington, D. C. *Physics*. Brooklyn, N. Y, June 1, 02. A.B, Cornell, 26, 26–27, 29–30. Bell Tel. Labs, 22; asst. physicist, Bur. Standards, 27–29, assoc. physicist, 29–35, senior physicist, 35–41, chief x-ray sect, 41–43, prin. physicist, 42, chief proving ground group, 42–43; *Air Forces, U. S. Army, 43–* Assoc. ed, 'Am. Jour. Roentgenol,' 30–; ed, atomic physics, 'Radiology,' 31– Mem. div. A, sect. E, Nat. Defense Research Cmt, 41–, sect. H, 42– Director, Pan-Am. Cancer Union, 39. Am. rep, Int. X-Ray Protection Cmn, Stockholm, 28, Paris, 31, Zurich, 34, Chicago, 37. Int. X-Ray Units Cmn, Paris, 31, Zurich, 34, Chicago, 37. Fel. Physical Soc; Roentgen Ray Soc; Radiol. Soc. N. Amer; Wash. Acad. Med. X-rays; vacuum tube oscillators; medical dosage, measurements and protection in x-rays; x-ray satellites; ionization of liquids; high voltage measurements; photometry; ordnance and aircraft developments.

Taylor, Prof. Leland H(art), West Virginia University, Morgantown, W. Va. *Entomology*. Peabody, Mass, April 29, 93. B.S, Mass. Col, 14; M.S, Harvard, 20, Sc.D, 22. Deputy nursery inspector, State Dept. Agr, Mass, 15–18, asst. director div. plant pest control, 19; instr. *zool, West Virginia*, 22–'24, asst. prof, 24–27, assoc. prof, 27–39, *prof, 39–* Summer, senior entomologist, bur. entom, U. S. Dept. Agr, 28. A.A; Entom. Soc; W. Va. Acad. Zoology; biology of wasps.

Taylor, Prof. Lewis W(alter), University of California, Berkeley, Calif. *Poultry husbandry*. East Troy, Wis, Oct. 23, 00. B.S, Wisconsin, 22, 25–27, Ph.D, 31; Kans. State Col, 24, M.S, 25. Instr. poultry husbandry, Mass. Col, 22–23; asst, Kans. State Col, 23–24; *poultry*, Kentucky, 27–28; assoc, *California*, 28–31, asst. prof, 31–36, assoc. prof, 36–43, *prof, 43–* acting head, *poultry div*, 33–34, *head, 34–* A.A; Poultry Sci. Asn. (pres, 40); Genetic Asn; Ornith. Union; Cooper Ornith. Club; World's Poultry Sci. Asn; Calif. Acad. Poultry genetics; embryonic mortality.

Taylor, Prof. L(loyd) W(illiam), Oberlin College, Oberlin, Ohio. *Physics*. Pittsfield, Maine, Jan. 4, 93. B.S, Grinnell Col, 14; Ph.D, Chicago, 22. Instr. physics and math, Grinnell Col, 15–17; asst. *physics*, Chicago, 20–22, instr, 22–24; *prof. and head dept, Oberlin Col, 24–* Assoc. ed, 'Rev. Sci. Instruments,' 30–35; 'Jour. Optical Soc. Amer,' 30–35; 'Am. Physics Teacher,' 33–37. Lieut, C.A.C, 17–19. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers (pres, 43); Ohio Acad. Spectroscopy.

Taylor, Prof. Lucien B(radford), Farm St, Dover, Mass. *Physics*. Taunton, Mass, Dec. 20, 93. B.S, Boston, 18, A.M, 20; A.M, Harvard, 26. Instr. *physics, Boston*, 20–39, *prof, 39–* A.A; Physical Soc; Asn. Physics Teachers. Grid structure in echelon lines; crossed Lummer plates in hyperfine structures.

Taylor, Prof. L(uther) R(ufus), Linfield College, McMinnville, Oregon. *Chemistry*. Stone Co, Mo, June 8, 92. B.S, Linfield Col, 15; M.S, State Col. Wash, 28; Washington (Seattle); Chicago. Chemist and metallurgist, Bilrowe Alloys Co, Tacoma, Wash, 17–21; teacher, high schs, Wash, 21–26; teaching fellow *chem*, State Col. Wash, 26–28; *assoc. prof. and head dept, Linfield Col, 28–* Mineral resources div, Oregon Planning Cmn. Chem. Soc. Surface tension and lubrication; analysis of ferro-manganese and manganese slags; electrolytic deposition of manganese.

Taylor, Dr. M(arion) D, 208 Panoramic Way, Berkeley, Calif. *Physical chemistry.* San Diego, Calif, Nov. 6, 07. A.B, Iowa, 27, M.S, 28; Ph.D, California, 32. *Research chemist, Shell Develop. Co, 32–* Activity coefficients from vapor pressure measurements; heat capacities of aqueous solutions; manufacture of iso octane; petroleum production; synthetic rubber manufacture.

Taylor, M(aurice) C(raig), 3040 Delancy Road, Niagara Falls, N. Y. *Chemistry.* Howe, Ind, Feb. 28, 94. B.S, Purdue, 18. Research chemist, *Mathieson Alkali Works, Inc,* 19–24, chief research chemist, 25–30, asst. director research, 31–41, *manager research, 41–* 2nd lieut, C.W.S, 18. Chem. Soc; Electrochem. Soc; fel. Inst. Chem; London Chem. Soc. Hypochlorites; chloramines; chlorites; electrolytic cells; bleaching.

Taylor, Prof. Mildred E(llen), Mary Baldwin College, Staunton, Va. *Mathematics.* Virginia, Ill, July 25, 98. A.B, Oxford Col, 21; Illinois, 21–22, A.M, 22, Ph.D, 31. Instr, high sch, Ill, 22–23; *math,* Knox Col, 23–30; *prof, Mary Baldwin Col, 30–* A.A; Math. Soc; Math. Asn. Cremona transformations.

Taylor, Prof. M(ilton) Wight, Rutgers University, New Brunswick, N. J. *Biochemistry.* Chatham, Mass, Jan. 12, 04. B.S, Mass. Col, 25; M.S, Iowa State Col, 27, Ph.D, 30. Asst, Iowa State Col, 25–30; instr. nutrition and agr. biochem, *Rutgers, 30–35, asst. prof. agr. biochem, 35–, asst. biochemist, N. J. Exp. Sta, 30–* Chem. Soc. Nutrition; domestic animals; vitamins A, B_1 and D.

Taylor, Dr. Nelson W(oodsworth), Minnesota Mining and Manufacturing Co, St. Paul, Minn. *Chemistry, Ceramics.* Pincher Creek, Alta, Can, April 26, 99. B.Sc, Saskatchewan, 18; Ph.D, California, 23. Lecturer and asst, Saskatchewan, 19–20; teaching fellow, California, 20–23, instr. chem, 23–25; asst. prof, Minnesota, 25–33; prof. ceramics and head dept, Pa. State Col, 33–43; *mem. research dept, Minn. Mining and Mfg. Co, 43–* Guggenheim Mem. Foundation fellow, Berlin and Göttingen, 29–30. Ed, 'Rheol. Bul,' Am. Inst. Physics, 41– A.A; Chem. Soc. (chairman cent. Pa. sect, 40); fel. Ceramic Soc. (chairman refractories div, 39; glass div, 40); fel. British Soc. Glass Technol. Gas solubility; mechanism of acid taste; thermodynamics of liquid alloys; paramagnetism of 'odd' molecules; reaction kinetics; mineral flotation; crystal structure; reactions between solids; physical properties and structure of glass.

Taylor, Norman, 10 Rockefeller Plaza, New York, N. Y. *Botany, Horticulture.* Birmingham, Eng, May 18, 83. Cornell, 00–01. Museum aid, N. Y. Bot. Garden, 04–07, custodian plantations, 08, asst. curator, 09–11; curator plants, Brooklyn Bot. Garden, 11–29; *director, Cinchona Products Inst, 37–* Ed, 'Torreya,' 11–21; 'Jour. Int. Garden Club,' 17–21; assoc. ed, 'Ecology,' 20–29; bot. ed, 'Webster's Dict,' 26–; ed, 'Garden Dict,' 36– Expeds, Bahamas, 04, Haiti, 05, Cuba, 06, Santo Domingo, 09, Yucatan, 28, Brazil, 29, Puerto Rico, 38, Guatemala, 39. Gold medal, Mass. Hort. Soc, 36. A.A; Ecol. Soc; Torrey Bot. Club; fel. N. Y. Acad; assoc. fel. N. Y. Acad. Med. Flora and ecology of Long Island, New York; tropical American economic plants.

Taylor, Dr. N(orman) B(urke), 133 Inglewood Drive, Toronto, Ont, Can. *Physiology.* Toronto, Ont. M.D, Toronto; L.R.C.P, London, 16. Asst. prof. *physiol, Toronto,* 22–26, assoc. prof, 26–31, *prof, 31–* Physiol. Soc; fel. Royal Soc. Can; fel. Royal Col. Physicians Can; London Physiol. Soc; Royal Col. Surg. England; fel. Royal Col. Surg. Edinburgh. Blood-flow measurements in man; parathyroid function; calcium metabolism; intestinal obstruction; blood substitutes.

Taylor, Dr. N(orris) O(nslow), S. S. White Dental Mfg. Co, Philadelphia, Pa. *Metallurgy, Metallography.* Toulon, Ill, Oct. 7, 95. B.S, Illinois, 18, M.S, 20; Ph.D, Iowa, 23. Instr. in charge metal. div, dept. chem, Iowa, 20–23, assoc, 23–26, asst. prof, 26–28; senior research assoc. for Dental Asn, Bur. Standards, 28–31; metallurgist in charge research and develop, Spyco Smelting and Ref. Co, 31–39; *in charge precious metals and orthodontic materials, S. S. White Dental Mfg. Co, 39–* Chem. Soc. (sec'y-treas, Iowa sect, 24, v. chairman, 25, chairman, 26). Alloys of aluminum-zinc-tin, silver-bismuth, silver antimony, aluminum-tungsten and aluminum-tantalum; dental alloys; amalgam alloys; casting golds; inlay waxes; impression compounds.

Taylor, Dr. Paul B(elville), Wright Field, Dayton, Ohio. *Physics.* Santa Monica, Calif, Sept. 21, 91. A.B, California, 13, A.M, 19; Mass. Inst. Tech, 20–22; Ph.D, Pennsylvania, 27. Asst. math, California, 12–14, physics, 17–18; junior physicist, U. S. Bur. Mines, 19–20; instr. physics, Mass. Inst. Tech, 20–22; assoc. physicist and optical engineer, Bur. Standards and Ordnance Dept, 22–24; instr. math, Drexel Inst, 25–26; physicist, Victor Talking Machine Co, 27–29; radio engineer, Westinghouse Elec. and Mfg. Co, 29–33; *assoc. physicist, aircraft radio lab, Signal Corps, Wright Field.* A.S, U.S.A, 17–19. Physical Soc. (v. chairman Ohio sect, 41–); Acoustical Soc; Radio Eng. (v. chairman Cincinnati sect, 39–). Radio aids to aircraft navigation; radio; electrochemistry; optical instruments; spectrum analysis.

Taylor, Prof. Paul K(ingdon), Oberlin College, Oberlin, Ohio. *Physics.* Buffalo, N. Y, Sept. 22, 02. A.B, Rochester, 24; M.S, Northwestern, 26, Ph.D, 31. Instr. *physics,* Northwestern, 24–28, 30–31; asst. prof, Furman, 28–30; prof, N. Dak. State Teachers Col, Minot, 31–40; *asst. prof,* Ashland Col, 40–43; *Oberlin Col, 43–* Summer, prof, De Paul, 31. Physical Soc; Asn. Physics Teachers. Radio frequency measurements; electronics.

Taylor, Prof. Philip H(arwood), 2832 Brattleboro Ave, Des Moines, Iowa. *Astronomy.* Santa Ana, Calif, Oct. 12, 05. A.B, California at Los Angeles, 34; M.S, Case, 36; Ph.D, Pennsylvania, 40. Asst. astronomer, Pennsylvania, 40–41; research optics, Rochester, 41–42; *asst. prof. astron. and acting head dept, Drake, 42–* Astrophysics; variable stars.

Taylor, Ralph H(awley), 1557 39th St, Sacramento, Calif. *Pomology.* Oakland, Calif, Dec. 13, 84. B.S, California, 10. Teacher, high sch, Calif, 10–12; instr. pomol, col. agr, California, Davis, 12–15, asst. prof, 15–19; asst. to chief, State Dept. Agr, Calif, 19–21; in charge field dept, Calif. Almond Growers Exchange, 21–24; *exec. sec'y, Agr. Council Calif, 24–* Soc. Hort. Sci; Statist. Asn. Deciduous fruits and nuts; refrigeration of fruits; the almond in California.

Taylor, Dr. R(aymond) F(rank), U. S. Forest Service, Philadelphia, Pa. *Forestry.* Brooklyn, N. Y, May 1, 97. B.S.F, Washington (Seattle), 25; M.F, Yale, 27, Charles Lathrop Pack fellow, 30–31, Ph.D, 34. Junior forester, *U. S. Forest Service,* Alaska, 25–28, asst. forester, 28–34, silviculturist, Wash, D. C, 34–35, silviculturist in charge div. silvics, Rocky Mt. Forest and Range Exp. Sta, 35–39, senior silviculturist in charge div. forest management, Northeast. Forest Exp. Sta, 39–42, *chief div. forest management, Allegheny Forest Exp. Sta, 42–* A.A; Soc. Foresters. Silviculture; forest ecology.

Taylor, R(aymond) L(aVerne), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physical chemistry.* Auburn, Wash, 05. B.S, State Col. Wash, 28; A.M, Columbia, 39. *Mem. research staff, Bell Tel. Labs, 28–* Chem. Soc; Electrochem. Soc. Electrical properties of insulating materials; diffusion of water through organic materials; photochemical deterioration of organic insulations; electrolytic devices.

Taylor, Prof. Raymond L(eech), College of William and Mary, Williamsburg, Va. *Entomology, Botany.* New York, N. Y, Sept. 8, 01. B.S, Cornell, 24; M.S, Harvard, 27, Sc.D, 29. Austin teaching fellow bot, Harvard, 27–28; Radcliffe Col, 28–29; asst. entomologist, State Forest Service, Maine, 29–30; instr. entom, N. Y. State Col. Forestry, Syracuse, 30–31; asst. prof. *biol, Col. of William and Mary,* 31–34, *assoc. prof, 34–* Kenan visiting prof, North Carolina, 39. Summer, in charge nature study, Mt. Desert Island Biol. Lab, 31, director, Dorr Sta, 32; mem. staff, Mt. Lake biol. sta, Virginia, 34, 37; North Carolina, 38, 39; collaborator, Am. Council Educ, Chicago, 40. A.A; Entom. Soc. Amer; Va. Acad. (chairman, zool. sect, 37, 42). Insect parasites of white pine weevil; biology and control of birch leaf-mining sawfly; bibliography of parasitic Hymenoptera of North America.

Taylor, Dr. R(ichard) M(oreland), Caixa Postal 89, Rio de Janeiro, Brazil, S. Amer. *Public health.* Owensboro, Ky, Oct. 10, 87. M.D, Michigan, 10; Dr.P.H, Hopkins, 26. Asst. bacter, Univ. and Bellevue Hosp. Med. Col, 10–11; instr, N. Y. Post-Grad. Med. Sch. and Hosp, 11–12, path, 12, asst. prof, 13–15, prof, 16–19; med. director, Am. Red Cross Cmn, Poland, 20–21; *field director, int. health div, Rockefeller Foundation, 22–* U.S.A, 17–19. A.A; Asn. Path. and Bact. Bacteriology; epidemiology.

Taylor, Dr. Robert F(ranklin), Edgewood Apt. 9, Terre Haute, Ind. *Organic chemistry.* Cambridge, Ill, Feb. 7, 15. B.S, Beloit Col, 37; Ph.D, Wisconsin, 41. *Research chemist, Commercial Solvents Corp, 41–* Chem. Soc. Chlorination of organic compounds; organic metathetical reactions.

Taylor, Dr. Robert S(eth), Servel, Inc, Evansville, Ind. *Physical chemistry, Technology.* Ft. Worth, Texas, April 13, 98. A.B, Texas, 19, A.M, 20; Ph.D, Mass. Inst. Tech, 23. Research assoc, Mass. Inst. Tech, 23–24; technologist, Bur. Fisheries, 24–26; research engineeer, Electrolux Servel Corp, 26–34, *chief engineer, Servel, Inc, 34–* Chem. Soc; Soc. Refrig. Eng. Thermodynamic properties of methane and of ether; pressure-volume temperature relationships for nitrogen; colloidal chemistry of proteins; absorption refrigeration.

Taylor, R(obert) W(oodd), Buffalo, Ala. *Horticulture.* Buffalo, Ala, Jan. 19, 02. M.S, Ala. Polytech, 26. Asst. prof. hort. and asst. horticulturist, Exp. Sta, Ala. Polytech, 24–42, asst. agron, 34–42; *commercial plant breeder and poultryman, 42–* A.A; Soc. Hort. Sci. Experimental field work; crop production.

Taylor, Dr. Roger K(irkbride), 3122 N. Calvert St, Baltimore, Md. *Physical chemistry.* Wilmington, Del, Sept. 18, 99. A.B, Hopkins, 20, Ph.D, 23. Chemist, Eastman Kodak Co, 20–21; instr. chem, Hopkins, 23–25, assoc, 25–30; research chemist, Silica Gel Corp, 30–31; chief chemist, Porcelain Enamel and Mfg. Co, 34–42; *research chemist, Davison Chem. Corp, 42–; part-time radium technician, Kelly Clinic, Baltimore, Md, 23–; U. S. Marine Hosp, 42–* Chem. Soc. Vapor pressures of solutions.

Taylor, Dr. Sam(ue)l A(lfred), 939 Gulf Bldg, Pittsburgh, Pa. *Engineering.* North Versailles, Pa, Oct. 24, 63. C.E, Pittsburgh, 87, Sc.D, 19. Draftsman, Carnegie Steel Co, 87–88; asst. eng. construction, Pa. R.R, 88–93; *consulting engineer, 93–* Trustee, Pittsburgh, 13; West. Pa. Sch. for Deaf. Tech. adviser, U. S. Fuel Admin, 17–18. Min. and Metal. Eng. (pres, 26); Coal Min. Inst. (pres, 11); Min. Cong. (pres, 10); Eng. Soc. West. Pa. (pres, 14).

Taylor, Prof. S(amuel) N(ewton), 2514 Maryland Ave, Baltimore, Md. *Physics.* Farmingdale, N. Y, April 24, 58. Ph.B, Wesleyan, 87; fellow, Clark, 93–96, Ph.D, 96; German univs, 02–03. Exp. electrician, Thomson-Houston Elec. Works, 87–91; teacher science, Maine Wesleyan Sem, 91–93; instr. physics, Purdue, 96–99; assoc. prof, Syracuse, 99–02; prof. elec. eng, Pittsburgh, 03–08; Cincinnati, 08–11; *physics, Goucher Col,* 11–33, *emer. prof, 33–* In charge time service, Allegheny Observatory, Pittsburgh, 04–05. A.A; Elec. Eng; Eng. Educ; Ind. Acad. Absolute electromotive force of cadmium cells; mass and velocity of ions in cathode rays; potential phenomena in vacuum tubes.

Taylor, Dr. S(arah) Helen, Ashland Junior College, Ashland, Ky. *Mathematics.* Jacksonville, Ill, March 21, 99. A.B, Ill. Col, 20; scholar, Illinois, 21–22, A.M, 22, Ph.D, 31. Instr. math, high sch, Iowa, 20–21; univ. high sch. and supervisor practise teaching math, Illinois, 22–37; prof. and head dept. *math,* Huntingdon Col; *head dept, Ashland Junior Col.* Summer, actuarial position, Equitable Life Ins. Co. of New York, 29; faculty pension investigation, Illinois, 31; director clinic remedial math, Michigan, 37, 38. Nat. Council Math. Teachers; Math. Asn. Statistics; probability; actuarial theory; teaching of mathematics; mathematical recreations; individual differences in mathematics; remedial arithmetic; testing; reading ability and problem solving.

Taylor, Dr. T(homas) Ivan, 5402 Connecticut Ave, Apt. 306, Washington, D. C. *Chemistry.* Farwest, Utah, Sept. 11, 09. B.S, Idaho, 31, M.S, 33; univ. fellow, Columbia, 36–37, Ph.D, 38. Asst. and instr. chem, Idaho, 31–35; asst. physical chem, Columbia, 35–36, 37–38; instr. chem, Minnesota, 38–41, asst. prof, 41–42; *research chemist, Bur. Standards, 42–* A.A; Chem. Soc. (sec'y Minn. sect, 40). Inorganic chemistry; physical chemistry; separation and use of isotopes in chemical research; colloids; kinetics of reactions.

Taylor, Prof. T(homas) M(ayne) C(uninghame), University of Toronto, Toronto, Ont, Can. *Botany.* Pretoria, Transvaal, S. Africa, July 7, 04. B.A, British Columbia, 26; M.S, Wisconsin, 27; Ph.D, Toronto, 30. Senior demonstrator *bot, Toronto,* 27–30, lecturer, 30–33, *asst. prof, 33–* Fern Soc; Soc. Plant Taxon. Systematic botany; plant geography; vascular flora of Ontario; pteridophytes of Canada.

Taylor, Dr. T(homas) S(mith), 45 Grover Lane, Caldwell, N. J. *Physics.* Peoli, Ohio, Jan. 30, 83. A.B, Yale, 06, Ph.D, 09. Asst. physics, Yale, 07–09; instr, Illinois, 09–12; fellow, Manchester, 12–13; instr, Yale, 13–15, asst. prof, 15–17; research physicist, Westinghouse Elec. and Mfg. Co, 17–24; chief research physicist, Bakelite Corp, 24–34; prof. physics and head dept, Washington and Jefferson Col, 34–37; *manager eng. lab. and exp. dept, elec. div, Singer Mfg. Co, Elizabethport, N. J, 37–;* prof. physics in charge grad. sch. program, Newark Col. Eng, 37–43; *chief engineer in charge develop, selenium rectifier div, Fed. Tel. and Radio Corp,* 43–Magnesia Asn. fellow, 20. Subcmt. physics, Nat. Research Council, 28. A.A; Physical Soc; Elec. Eng; Optical Soc; Chem. Soc; Heat. and Vent. Eng; Soc. Refrig. Eng; Soc. Test. Mat. (sec'y, cmt. D–9, 26–30, chairman, 34–42). Radioactivity; properties of alpha rays; determination of gas densities by the microquartz balance; theory of heat; heat conduction; dissipation of heat; measurement of air flow; impact of molded and sheet materials; power factors and losses in insulating materials; tensile strengths of materials; heat transmission through insulating material.

Taylor, Dr. Walter A(llen), 114 E. Main St, Clinton, Conn. *Chemistry.* Alta, Can, April 15, 08. B.S, Tenn. State Teachers Col, 33; M.S, Iowa, 36, Ph.D, 37. Teacher, high sch, Tenn, 33–34; senior operator, water purification plant, Iowa, 36–37; research chemist, research lab, Atlas Powder Co, 37–41; *asst. director research, Pond's Extract Co, 41–* Chem. Soc. Industrial and sanitary chemistry; preparation of xylose from oat hulls.

Taylor, Dr. Walter P(enn), Agricultural and Mechanical College of Texas, College Station, Texas. *Zoology.* Elkhorn, Wis, Oct. 31, 88. B.S, California, 11, Ph.D, 14. Asst. biol, Throop, 06–08; asst. curator mammals, museum vert. zool, California, 09–11, curator, 11–16; asst. biologist, *fish and wildlife service, U. S. Dept. Interior,* 16–24, biologist, 24–28, senior biologist, Arizona, 28–35, *senior biologist in charge cooperative wildlife research, Exp. Sta, Agr. and Mech. Col. Texas, 35–* Prof, Arizona, 32–35; head dept. wild game, sch. agr, Agr. and Mech. Col. Texas, 37– Advisory cmt. for protection of migratory birds, U. S. Dept. Agr, 13–16, leader field parties for investigation of higher vertebrates, Calif, Nev, Ariz, Texas and Wash, 08–38. A.A; Soc. Mammal. (treas, 19, pres, 41, 42); Ecol. Soc. (pres, 34); Wildlife Soc. (v. pres, 41, pres, 43); West. Soc. Nat; assoc. Ornith. Union; Cooper Ornith. Club; Biol. Soc. Wash; fel. Texas Acad. (v. pres. in charge dept. conservation, 37); fel. Calif. Acad. Distribution and ecology of mammals and birds; biology of farm, forest and grazing range.

Taylor, Dr. Ward H(astings), University of Minnesota, Minneapolis, Minn. *Mathematics, Education.* Avon. Ill, May 10, 82. A.B, Illinois, 10, A.M, 13; Ph.D, Iowa, 25. Asst. instr. math, Illinois, 10–13; instr, South. Ill. State Nor. Univ, 13–17; Iowa, 18–19; Arkansas, 20–24; asst. to pres, Iowa, 25–26; prof. math. and registrar, Hamline, 26–28; prof. math. and head dept, Ala. Col, 28–31; statistician, employment stabilization research inst, Minnesota, 31–35; statist. supervisor, Works Progress Admin, 35–39, statistical analyst, 39–42; *civilian instr. elec, naval training sch, Minnesota, 42–* Statistician, Ill. Health Ins. Cmn, 18. Summers, statistician, Peoples Gas Co, Chicago; U. S. Grain Growers, Inc. Statistics; educational measurements.

Taylor, Dr. Wendell H(ertig), Lawrenceville School, Lawrenceville, N. J. *Chemistry.* Uniontown, Pa, June 15, 05. B.S, Princeton, 26, A.M, 30, Charlotte Elizabeth Procter fellow, 31–32, Ph.D, 33. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 26–29; asst. chem, Princeton, 29–31, 32–33, instr, 33–37, asst. prof, 37–43; *chairman science dept, Lawrenceville Sch, 43–* Chem. Soc. Organic sulfur compounds; phenol-aldehyde condensations; hydramides; history of science.

Taylor, Dr. W(illiam) A(nthony), W. A. Taylor and Co, 7300 York Road, Baltimore, Md. *Chemistry.* Jarrettsville, Md, Nov. 6, 86. A.B, A.M, Randolph-Macon Col, 08; Ph.D, Hopkins, 14. Research chemist, Carnegie Foundation, 14–16; instr. org. chem, Wisconsin, 15–16; chief sulfur color dept, E. I. du Pont de Nemours and Co, 16–21; chief org. dept, Chem. Warfare Service, Edgewood Arsenal, 21–24; v. pres, LaMotte Chem. Products Co, 24–26, *pres,* 26–29; *W. A. Taylor and Co, 30–* Chem. Soc; Chem. Eng. Organic chemistry; acids, bases and salts; glucose; mucic acid and its lactones; conductivity of solution of electrolytes; colorimetric determination of hydrogen ion concentration; reaction velocities.

Taylor, W(illiam) C(hittenden), 120 E. Fifth St, Corning, N. Y. *Chemistry.* San Francisco, Calif, March 3, 86. B.S, Mass. Inst. Tech, 08. Asst. chemist, U. S. Agr. Exp. Sta, Mayaguez, P. R, 09–10; *Corning Glass Works,* 08–09, 10–20, chief chem. div, 20–39, *director glass technol, 39–* Shared

Potts medal, Franklin Inst, 28; Mod. Pioneer award, Nat. Asn. Mfrs, 40. A.A; Chem. Soc; fel. Ceramic Soc. (chairman glass div, 42); fel. British Soc. Glass Technol. Glass development.

Taylor, Dr. William C(lare), University of Cincinnati, Cincinnati, Ohio. *Mathematics.* Wichita, Kans, Aug. 28, 10. A.B, Wyoming, 30; A.M, Wisconsin, 32, fellow, 32–33, Ph.D, 36. Lab. asst, Midwest Ref. Co, 31; asst. and instr. *math*, Wisconsin, 31–32, 33–34; *instr*, Harvard, 34–35; Mass. Inst. Tech, 35–38; *Cincinnati, 38–* Math. Soc; Math. Asn. Differential equations; difference equations.

Taylor, Dr. W(illiam) D(ixon), 98 Hillside Ave, Mimico, Ont, Can. *Physical chemistry.* Amherst, N. S, Oct. 28, 12. B.A, Mt. Allison, 36; Can. Pulp and Paper Asn. scholar, McGill, 37–40, Ph.D, 40. *Develop. chemist, Can. Industries, Ltd, 40–* Effect of surrounding media on the apparent volume of cellulose.

Taylor, Dr. W(illiam) Harold, University of Alabama, University, Ala. *Engineering.* Carleton Place, Ont, Can, Nov. 21, 91. B.Sc, McGill, 15; B.C.E, Manitoba, 17; Sc.D, Michigan, 33. From rodman to office engineer, Greater Winnipeg Water Dist, 14–18; designing engineer, Barnett McQueen Co, Can, 18–20; mech. engineer and supt, Turner Construction Co, Buffalo, 20–21, designing engineer substructures, Water Filtration Plant, 21–24; chief engineer, Gravel Products Corp, 25–28; designing engineer and estimator, Chisholm-Moore hoist div, Columbus-McKinnon Chain Co, Tonawanda, N. Y, 28–29; instr, Buffalo, 29–31; elec. designer and later asst. project engineer, Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co, 33–36; assoc. prof. and *prof. eng. drawing and surveying and head dept, Alabama, 36–, director placement bur, col. eng, 36–*, col. eng, Birmingham branch, 38, *supervisor eng, science and management war training program.* Part-time instr, Buffalo, 24–29. Summer, instr, Buffalo, and director student activities, 32–34. Mech. Eng; Eng. Educ. Vibration problems pertaining to certain types of impellers and blades.

Taylor, Dr. William J(ohnson), National Bureau of Standards, Washington, D. C. *Physical chemistry.* Chengtu, China, Dec. 3, 16. A.B, Denison, 37; Ph.D, Ohio State, 42. Instr. chem, California, 41–42; *research assoc, research project 44, Am. Petrol. Inst, Bur. Standards, 42–* Chem. Soc. Thermal conductivity of gases at low temperatures; physical and thermodynamic properties of hydrocarbons.

Taylor, Dr. W(illia)m Randolph, University of Michigan, Ann Arbor, Mich. **Botany.* Philadelphia, Pa, Dec. 21, 95. B.S, Pennsylvania, 16, M.S, 17, fellow, 17–18, Ph.D, 20. Asst. *bot*, Pennsylvania, 15–17, instr, 18–22, asst. prof, 22–27, *prof*, 27–30; *Michigan, 30–, curator herbarium, 30–* Summers, instr, Marine Biol. Lab, Woods Hole, 19–; research assoc, Acad. Nat. Sciences Phila, 25–30. Assoc. ed, 'Stain Technol,' 26– Hancock exped, Galapagos Islands, S. Amer. and Cent. Amer, 33–34, Cent. Amer. and Caribbean, 39. Trustee, corp, Marine Biol. Lab, Woods Hole, 39–; Bermuda Sta. Biol. Research. A.A; Soc. Nat; Bot. Soc. (sec'y, gen. sect, 24); Sullivant Moss Soc; Limnol. Soc; Torrey Bot. Club; New Eng. Bot. Club; Mich. Acad. (chairman bot. sect, 37); Phila. Bot. Club; Acad. Nat. Sci. Phila; cor. mem. Soc. Venezolana Cienc. Nat. Cytology; morphology of chromosomes; microscopical technique; marine algae of New England, Florida, the Caribbean and South America; freshwater algae of British Columbia and Newfoundland.

Taylor, Prof. W(illiam) S(entman), Smith College, Northampton, Mass. *Psychology.* Passaic, N. J, March 15, 94. B.S, Gettysburg Col, 16; A.M, Harvard, 20, Ph.D, 21; M.S, Wisconsin, 23. Lecturer psychol, Bryn Mawr Col, 21–22; instr. philos, Wisconsin, 22–23; *prof*, Maine, 23–26; *psychol, Smith Col, 26–* Summers, instr, Wisconsin, 24; Harvard, 26, 27; Chicago, 28. U.S.N.R, 18–19. A.A; Asn. Applied Psychol; Psychol. Asn; Psychopath. Asn; Philos. Asn. Abnormal psychology.

Taylor, Dr. William T, 2221 40th Place, N.W, Washington, D. C. *Hematology, Histology.* March 21, 09. A.B, Fordham, 31, M.S, 33, Ph.D, 40. *Instr.* bot, zool, embryol. and histol, Georgetown, 35–36; anat. and histol, St. Francis Col, 36–37; *bot, zool. and anat, Georgetown, 37–* Experimental leucemias.

Teagarden, Dr. Florence M, University of Pittsburgh, Pittsburgh, Pa. *Psychology.* Dallas, W. Va, Sept. 5, 87. A.B, Pittsburgh, 15, A.M, 16; Ph.D, Columbia, 24. Teacher, schs, Pa, 08–13; teaching fellow *psychol, Pittsburgh,* 15–16, instr, 16–19, asst. prof, 19–29, assoc. prof, 29–31, *prof, 31–* A.A; Psychol. Asn; fel. Asn. Applied Psychol; fel. Soc. Res. Child Develop; Orthopsychiat. Asn; Pa. Asn. Clin. Psychol. Child psychology; behavior intelligence.

Teague, Dr. M(erwyn) C(larence), 87 Madison Place, Ridgewood, N. J. *Chemistry.* Pendleton, Ind, June 17, 90. A.B, Wabash Col, 14; A.M, Princeton, 17, Ph.D, 20. Prof. chem, Vincennes, 14–15; in charge admin. and supervising chemist, Holland Vehicular Tunnel, 19–20; research chemist, gen. labs, U. S. Rubber Co, 20–26; sales manager, Naugatuck Chem. Co, 26–34; *in charge* dept. sales promotion, U. S. Rubber Products, Inc, 34–38; in charge *new products dept, U. S. Rubber Co, 38–* Sales manager, Dispersions Process, Inc, 29–34. Capt. in charge canister research, C.W.S, 17–19. Chem. Soc. Physical and colloidal chemistry as applied to rubber and latex; gas warfare; automobile exhaust gases; rubber compounding; properties and commercial uses of latex; new rubber processes and products.

Teague, Dr. Robert S(terling), University of Alabama, University, Ala. *Pharmacology.* Montgomery, Ala, July 13, 13. A.B, Alabama, 33; fellow, Northwestern, 35–36, M.S, 36; M.D, Chicago, 37, Ph.D, 39. Asst. pharmacol, Chicago, 37–39; instr, Tulane, 39–43, asst. prof, 43; *assoc. prof. physiol. and pharmacol, Alabama, 43–* Lewis Cass Ledyard Jr. fellow, New York Hosp, 41–42. Pituitary hormones; estrogens.

Teal, Dr. Gordon K(idd), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Chemistry.* Dallas, Texas, Jan. 10, 07. A.B, Baylor, 27; M.S, Brown, 28, fellow, 28–30, Ph.D, 31. *Research chemist, Bell Tel. Labs, 30–* Chem. Soc. Reactions in liquid ammonia; Raman spectra; photoelectric phenomena; secondary emission; television; semi-conductors.

Tear, Dr. James D(e Graff), Ford Instrument Co, Rawson St. and Nelson Ave, Long Island City, N. Y. *Physics.* Warren, Ill, June 8, 92. B.S, Beloit Col, 16; Ph.D, Yale, 22. Nela Research Lab, 20–25; *research lab,* Gen. Elec. Co, 25–33; *Ford Instrument Co, 33–, head research dept, 37–* A.A; fel. Physical Soc. Short electric waves; infra-red radiometers; radiation pressure; aircraft instruments; automatic control of aircraft in flight; gun fire control.

Teare, Prof. B(enjamin) R(ichard), Jr, Carnegie Institute of Technology, Pittsburgh, Pa. *Electrical engineering.* Menomonie, Wis, Jan. 12, 07. B.S, Wisconsin, 27, M.S, 28; D.E, Yale, 37. Mem. staff, Gen. Elec. Co, 29–33; instr. and asst. prof. *elec. eng,* Yale, 33–39; *prof, Carnegie Inst. Tech, 39–* Summer, mem. staff, Naval Ordnance Lab, 41. Elec. Eng; Radio Eng; Eng. Educ. Electrical properties of living tissue; hysteresis motor torque; alternating current resistance of conductors

Tebbens, Dr. Wilke Gerhard, Evergreen Hall Apts, Woodbury, N. J. *Organic chemistry.* Chicago, Ill, July 9, 17. B.S, Pa. State Col, 39; Ph.D, North Carolina, 43. Asst. org. chem, North Carolina, 40, *mem. staff,* Rockefeller tannin project, 41–43; *east. lab, explosives div, E. I. du Pont de Nemours and Co, 43–* Relationship between chemical constitution and the tanning effect; synthetic organic chemistry.

Tebeau, Prof. Carl P(reston), University of Georgia, Athens, Ga. *Chemistry.* Guyton, Ga, Sept. 18, 11. A.B, Newberry Col, 32; M.S, Georgia, 37; Illinois, 39; Ph.D, North Carolina, 41. Asst, Georgia, 36–37; instr. *chem,* West. Ga. Col, 38–39; *Georgia,* 40–41, *asst. prof, 41–* Martin Reynolds Smith Mem. prize, 38. Chem. Soc. Inorganic chemistry; physical chemistry; electrodeposition of copper from monoethanolamine solution of copper sulfate; heteropoly salts of columbium and tantalum.

Tedesche, Dr. Leon G(reenfield), 2201 Gest St, Cincinnati, Ohio. *Pathology.* Cincinnati, Ohio, Sept. 28, 78. A.B, Cincinnati, 02, M.D, 05. Biologist, Cincinnati Water Works, 07–10; biochemist, Med. Milk Cmn, 10–12; prof. bacter. and path, Eclectic Med. Col, 14–29; *director, West End Indust. Dispensary, 30–* Lecturer, Cincinnati Vet. Col; Cincinnati Col. Pharmacy; Cincinnati Dental Col. A.A; Pub. Health Asn; Am. Med. Asn; Asn. Indust. Physicians and Surgeons; Asn. Mil. Surg; Daniel Drake Research Soc. Clinical pathology; method of studying for medical and pharmaceutical students; outlines of histology and pathology.

Teele, Ray P(almer), 3713 Jenifer St, N.W, Washington, D. C. *Optics.* Washington, D. C, July 12, 03. B.S, Michigan, 27; M.S, George Washington, 29. Junior physicist, *Bur. Standards,* 27–31, asst. physicist, 31–36, assoc. physicist, 36–39, *physicist, 39–* Optical Soc; Illum. Eng. Soc; Philos. Soc. Wash. Physical photometry; photometry of phosphorescent

and fluorescent substances and materials; photometry; lighting.

Teesdale, Laurence V(ictor), U. S. Forest Service, Madison, Wis. *Forestry.* Constantine, Mich, Jan. 15, 89. Chicago Tech. Col. Practicing architect, Chicago, Ill, 14–17; mem. staff, Forest Products Lab, U. S. Forest Service, 18–20; engineer, Imp. Forest Service, Burma, India, 20–23; in charge sect. timber physics and seasoning and *senior engineer, Forest Products Lab, U. S. Forest Service, 24–* Ill. Soc. Archit. Physical properties of wood; seasoning characteristics of woods; temperature and vapor pressure distribution within walls and roofs; building design involving wood; dry kiln design; moisture distribution in trees; ship design involving wood.

Teeter, Prof. Charles E(dwin), Jr, Cambridge School of Liberal Arts, 49 Washington Ave, Cambridge, Mass. *Chemistry.* Newark, N. J, Nov. 21, 02. A.B, Harvard, 23, A.M, 26, Ph.D, 27. Instr. math, Dartmouth Col, 27; nat. research fellow chem, 28–29; instr, Mass. Inst. Tech, 29–33; instr. and tutor biochem. sciences, Harvard, 33–34; *prof. chem. and physics, Cambridge Sch. Lib. Arts, 35–* A.A; Chem. Soc; Soc. de Chim. physique. Thermodynamics of amalgams; application of ultrasonic waves to the study of very rapid reactions; heat functions of gases.

Teeter, Dr. Howard M(aple), 913 Linn St, Peoria, Ill. *Organic chemistry.* Peoria, Ill, Oct. 14, 15. B.S, Bradley Polytech, 37; M.S, Illinois, 38, univ. fellow, 38–40, Ph.D, 40. *Instr. chem, Bradley Polytech, 40–* Chem. Soc. Stereochemistry of biphenyls; relative effects of hydroxyl and methoxyl groups on restricted rotation; chemistry of gossypol derivatives; synthesis of desapogossypolone tetramethyl ether.

Teeter, Prof. T(homas) A(nderson) H(endricks), 167 Seymour Ave, S. E, Minneapolis, Minn. *Civil engineering.* Rolling Prairie, Ind, Feb. 12, 86. B.S, Purdue, 07; Cornell, 11–13; Wisconsin, 15. Asst. civil eng, Purdue, 07–08; instr, Pennsylvania, 08–09; mech, Pa. State Col, 09–10; asst. prof, Southern California, 10–11; instr, Cornell, 11–13; prof. irrig. and hydraul, Oregon State Col, 13–20; assoc. prof. eng, *gen. exten. div, Minnesota,* 22–29, acting director, 29–30, *assoc. prof. eng, 30–,* assoc. director *summer session,* 30–37, *director, 39–* Summer, asst. engineer, seepage loss investigation, Oregon Desert Land Board, 14. A.A; Minneapolis Eng. Club. Drainage in Oregon; engineering education for adults.

Teeters, Dean Wilber John, State University of Iowa, Iowa City, Iowa. *Pharmacy.* Alliance, Ohio, Oct. 10, 66. B.S, Mt. Union Col, 93, M.S, 97; Ph.C, Michigan, 95. Demonstrator chem, col. med, *Iowa,* 95–02, asst. prof. pharmacy, 02, dean *col. pharmacy,* 03–37, *emer. dean, 37–* Trustee, Mt. Union Col, 31. Pharmaceut. Asn; Asn. Cols. Pharm. (sec'y-treas, 13–17, pres, 20); Iowa Pharmacy Asn. Toxicology.

Teeters, Dr. Wilber O(tis), 20 Sylvan Ave, Bergenfield, N. J. *Chemistry.* Toledo, Ohio, Aug. 14, 08. B.S, Iowa, 30; M.S, Illinois, 33, Nat. Textile research fellow, 32–34, fellow, 34–35, Ph.D, 35. Anal. and research chemist, Jackson lab, E. I. du Pont de Nemours and Co, Deepwater, N. J, 30–31; research chemist, Rohm and Haas Co, Bristol, Pa, 35; ammonia dept, E. I. du Pont de Nemours and Co, 36–40; *supervisor org. research, Barrett div, Allied Chem. and Dye Corp, 40–* A.A; Chem. Soc. Organic and biological chemistry; protein chemistry; chemistry of wool; synthetic organic medicinals; methods of organic syntheses.

Teeters, Dr. W(ilbur) O(idroyd), Knickerbocker Road, Cresskill, N. J. *Chemistry.* Dover, Ohio, May 31, 08. B.S, Butler, 29; M.S, N. Y. Univ, 31, Ph.D, 35. Teaching fellow, N. Y. Univ, 29–34; gen. manager, Hoke, Inc, *New York,* 35–36; engineer, Air Reduction Sales Co, 37–38; *pres, Hoke, Inc, 39–* A.A; Chem. Soc; Inst. Chem.

Tee-Van, John, 120 E. 75th St, New York, N. Y. *Ichthyology, Oceanography.* Brooklyn, N. Y, July 6, 97. Asst, dept. trop. research, N. Y. Zool. Soc, 17–24, gen. asst, 25–30, gen. assoc, 31–42, *exec. sec'y, N. Y. Zool. Park and Aquarium, 42–, acting curator reptiles, 42–* Expeds, British Guiana and Venezuela, 17–24, Noma Galapagos, 23, oceanog. exped, 'Arcturus,' 25, Haiti, 27, bathysphere oceanog. expeds, Bermuda, 29–35, 37; Lower Calif, 36; Cent. Amer, 37–38; Australia and China, 41. A.A; Soc. Ichthyol. and Herp; Ornith. Union; fel. N. Y. Zool. Soc; fel. N. Y. Acad. Systematics and life history of western Atlantic and eastern tropical Pacific fishes; oceanographic apparatus and technique; bathysphere equipment and operation.

Tefft, Dr. Ralph F(rancis), 312 Rochelle Ave, Rochelle Park, N. J. *Physical chemistry.* Weeping Water, Nebr, Sept. 28, 03. B.S, Nebraska, 24, M.S, 25; Dalton fellow, Mass. Inst. Tech, 26–27, Saltonstall fellow, 27–28, Ph.D, 28. *Research chemist,* gen. labs, U. S. Rubber Co, Passaic, N. J, 28–36; Barrett Co, Edgewater, 36–42; *Gen. Cable Corp, Bayonne, 42–* Chem. Soc. Theory of solutions; oxidation potentials; rubber chemistry.

Tegge, Dr. B(ruce) R(obert), 6 Garden Drive, Roselle, N. J. *Chemical engineering.* Haddon Heights, N. J, May 31, 17. B.S, Pa. State Col, 38, M.S, 40, Ph.D, 42. Asst. petrol. refining, Pa. State Col, 40; *chem. engineer, Standard Oil Develop. Co, 42–* Chem. Soc. Equilibrium relationships between sulfur dioxide and pure binary hydrocarbon mixtures; performance of solvent extraction equipment; butyl rubber development.

Tehon, Dr. Leo R(oy), Illinois Natural History Survey, Urbana, Ill. *Botany.* Dumont, S. Dak, June 21, 95. A.B, Wyoming, 16; A.M, Illinois, 20, Ph.D, 34. Asst, Illinois, 16–17, 24–25; teacher, high sch, Ind, 17–18; asst. plant pathologist, U. S. Dept. Agr, 19–20, 21, 22; with Mt. Arbor Nurseries, Iowa, 20–21; *botanist and head sect. applied bot. and plant path, State Nat. Hist. Surv, Ill, 21–* Consulting pathologist, Davey Tree Expert Co, 34–42. U.S.A, 18–19. A.A; Bot. Soc; Mycol. Soc; Phytopath. Soc. Plant pathology; mycology; Illinois flora.

Teichmann, Prof. Frederick K(urt), New York University, University Heights, New York, N. Y. *Aeronautical engineering.* Cologne, Germany, May 6, 05. Aero.E, N. Y. Univ, 28; M.M.E, Polytech. Inst. Brooklyn, 35; Minnesota, 38–39. Instr, *Daniel Guggenheim sch. aeronautics, N. Y. Univ,* 27–30, asst. prof. *aeronaut. eng,* 30–40, assoc. prof. and acting chairman dept, 40–42, *prof. and chairman dept, 42–* Instr, Princeton, 29–30; exchange lecturer, Minnesota, 38–39. Summers, junior engineer, Junkers Flugzeugwerke, Germany, 29; assoc. aeronaut. engineer, matériel div, Wright Field, Air Corps, U. S. Army, 38, 39. Observer, Daniel Guggenheim Fund for Promotion of Aviation, 29–30. Ed, 'Aviation Equipment,' 42– Mech. Eng; Inst. Aeronaut. Sci; Eng. Educ. Airplane design; wind tunnel testing; structural testing and stress analysis of aircraft structures.

Teitelbaum, Dr. Harry A(llen), 1411 Eutaw Place, Baltimore, Md. *Neurology.* Brooklyn, N. Y, Oct. 7, 07. B.S, Maryland, 29, summers, Friedenwald fellow, 31, 32, Hitchcock fellow, 32–33, M.D, 35, Weaver fellow, 35–36, Ph.D, 36. Instr. anat, sch. med, Maryland, 36–37; intern, Montefiore Hosp, New York, 37–38; psychiat. div, Bellevue Hosp, 38–39, res. *neur,* 39–40; *asst, sch. med, Maryland, 40–, instr, anat, 41–; asst. neur, med. sch, Hopkins, 40–* Mem. staff epilepsy clinic and children's psychol. clinic, Hopkins Hosp, 41. Asn. Anat. Anatomy and physiology of the autonomatic nervous system; organic and psychogenic nervous disease; aphasia; endocrinology.

Teitsworth, C(lark) S(alem), Socony Vacuum Co, 26 Broadway, New York, N. Y. *Chemical engineering.* Minneapolis, Minn, Nov. 10, 95. A.B, Stanford, 19. Teaching fellow, Minnesota, 19–20; Calif. Inst. Tech, 21–23; research chemist, fixed nitrogen research lab, U. S. Dept. Agr, 20–21; research chemist and research engineer, Celite Co, Lompoc, Calif, 23–26; research chemist and asst. manager process labs, Gen. Petrol. Corp. of Calif, Los Angeles, 26–34; *mfg. dept, Socony Vacuum Oil Co, 34–, v. chairman mfg. cmt, 41–* Chem. Soc; Ceramic Soc. Purification of hydrogen; development of diatomaceous earth insulating materials and filter aids; oil refinery process engineering.

Telfair, Dr. D(avid), 36 Winton St, Springfield, Mass. *Physics.* Sabina, Ohio, Aug. 12, 12. A.B, Earlham Col, 36; A.M, Haverford Col, 37; Ph.D, Pa. State Col, 41. *Research physicist, Monsanto Chem. Co, 41–* Physical Soc; Asn. Physics Teachers. Supersonic velocity and absorption measurements in gases and gas mixtures.

Telford, Prof. C(harles) W(itt), University of North Dakota, Grand Forks, N. Dak. *Psychology.* Bountiful, Utah, July 15, 03. B.S, Idaho, 26, M.S, 27; Ph.D, George Peabody Col, 29. Teacher, pub. schs, Idaho, 21–24; teaching fellow, George Peabody Col, 28–29; asst. prof. *psychol, North Dakota,* 29–34, assoc. prof, 34–35, *prof, 35–* Psychol. Asn. Social and experimental psychology; tests.

Telford, Dr. Horace S(pooner), North Dakota Agricultural College, Fargo, N. Dak. *Entomology, Aquatic biology.* Idaho

Falls, Idaho, Dec. 16, 09. B.S, Utah, 33; M.S, Minnesota, 37, Ph.D, 41. Teaching fellow zool, Utah, 33–34; asst. biologist, U. S. Bur. Fisheries, 34; asst. entom, Minnesota, 35–38; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 38–39; asst. entomologist, Exp. Sta, *N. Dak. Agr. Col*, 40–41, *acting chairman dept. entom. and acting state entomologist, 41–* Exchange instr, Macalester Col, 37; asst. aquatic biologist, Mich. Inst. Fisheries Research, 37; special investigator, State Game and Fish Dept, N. Dak, 41– A.A; Entom. Soc. Amer; Limnol. Soc; Asn. Econ. Entom; N. Dak. Acad. Taxonomy and biology of North American Syrphidae; economic entomology; management of artificial lakes and ponds in relation to agriculture and wildlife.

Telford, Dr. Ira R(ockwood), George Washington University Medical School, Washington, D. C. *Anatomy*. Idaho Falls, Idaho, May 6, 07. A.B, Utah, 31, A.M, 33; California, 37–40; Ph.D, George Washington, 42. Teaching fellow zool, Utah, 31–33; teacher, schs, Idaho, 33–37; teaching fellow *anat*, California, 37–40; *George Washington*, 40–41, instr, *med. sch*, 41–43, *asst. prof, 43–* Soc. Exp. Biol. Histology, muscle and nerve studies in vitamin E deficiency; vitamins; amphibian histology.

Telkes, Dr. Maria, 410 Memorial Drive, Cambridge, Mass. *Physical chemistry*. Budapest, Hungary, Dec. 12, 00. B.A, Budapest, 20, Ph.D, 24. Instr. physics, Budapest, 23–24; biophysicist, Cleveland Clinic Foundation, 26–37; research engineer, research dept, Westinghouse Elec. and Mfg. Co, 37–39; *research assoc, Mass. Inst. Tech, 39–* Chem. Soc; Electrochem. Soc. Thermoelectricity; solar energy utilization.

Teller, Dr. Edward, George Washington University, Washington, D. C. ***Physics*. Budapest, Hungary, Jan. 15, 08. Inst. Tech, Karlsruhe, Germany, 26–28; Munich, 28–29; Ph.D, Leipzig, 30. Research assoc, Leipzig, 29–31; Göttingen, 31–33; Imp. Chem. Industries, 34–35; visiting prof. *physics, George Washington*, 35–36, *prof, 36–; war research, dept. physics, Chicago*. Lecturer, London, 34–35. Rockefeller fellow, Copenhagen. Fel. Physical Soc; Chem. Soc; Philos. Soc. Wash. Molecular and nuclear physics.

Teller, L(eslie) W(ayne), Public Roads Administration, Federal Works Agency, Washington, D. C. *Civil engineering*. Coldwater, Mich, Dec. 1, 93. B.S, George Washington, 22, C.E, 32. Chief party, Topog. Surv, Dominican Republic, 19; from transitman to *prin. engineer tests, pub. roads admin, Fed. Works Agency, 20–* Highway research board, Nat. Research Council. Lieut, Artil.C, 17–18. Civil Eng; Soc. Test. Mat; Soc. Mil. Eng. Concrete pavement; bridge design; motor truck impact.

Temple, C(harles) E(dward), 3785 Granada Ave, San Diego, Calif. *Plant pathology*. Stanberry, Mo, Nov. 4, 77. A.B, Nebraska, 06, A.M, 09. Instr. bot, Michigan, 09–11; prof, Idaho, and state botanist, Idaho, 11–14; exten. pathologist, Maryland, 14–20, prof. plant path, Maryland, and state pathologist, Md, 15–40; *retired*. A.A; Phytopath. Soc; Bot. Soc. Wash. Resistance of plants to disease; diseases of potatoes and peas.

Temple, Dr. J(ohn) W(ilfred), 13015 E. Outer Drive, Detroit, Mich. *Chemistry*. Templeville, Md, Oct. 17, 97. B.S, Lafayette Col, 21; Ph.D, Columbia, 28. Junior chemist, Chem. Warfare Service, Edgewood Arsenal, Md, 21–23; *research chemist, U. S. Rubber Co*, 23–24, *28–* Asst, Columbia, 26–28. Chem. Soc. Rubber chemistry.

Temple, Dr. Sterling, E. I. du Pont de Nemours and Co, Niagara Falls, N. Y. *Chemistry*. Morristown, Minn, Oct. 22, 82. A.B, Hamline, 05, A.M, 06; Ph.D, Minnesota, 15. Teacher chem, Rayen Sch, Ohio, 07–10; prof, Dakota Wesleyan, 10–13; Hamline, 14–15; assoc. prof. indust. chem, Minnesota, 16–17; research chemist, *Roessler and Hasslacher chem. dept, E. I. du Pont de Nemours and Co*, 19–32, *director research, 32–* Jacob F. Schoellkopf gold medal, west. N. Y. sect, Am. Chem. Soc, 38. Capt, Ordnance Dept, and major, C.W.S, 18. Chem. Soc; Electrochem. Soc. (v. pres, 32–).

Templeman, Dr. W(ilfred), Memorial University College, St. John's, Newfoundland. *Marine biology*. Bonavista, Newfoundland, Feb. 22, 08. B.Sc, Dalhousie, 30; M.A, Toronto, 31, Ph.D, 33. Sci. asst. zool, Biol. Board Can, 30–34; lecturer zool, McGill, 34–36; *assoc. prof. and head dept. biol, Mem. Univ. Col, Newfoundland, 36–* Summers, special research biologist, Fisheries Research Inst, Newfoundland, 37– Mem, Fisheries Research Advisory Board, Newfoundland. Assoc. Ornith. Union; Fisheries Soc; Marine Biol. Asn. United Kingdom. Life history of the lobster; relative growth in Crustacea; local variation in body form in same species of crustaceans; life history of the capelin, cod and squid; sea birds of the western North Atlantic.

Templeton, Dr. Frederic E, 950 E. 59th St, Chicago, Ill. *Radiology*. Portland, Oregon, May 11, 05. B.S, Washington (Seattle), 27; M.D, Oregon, 31. Instr. *roentgenol, Chicago*, 35–36, asst. prof, 36–41, *assoc. prof, 41–* Am. Med. Asn; Roentgen Ray Soc; Cent. Soc. Clin. Research; Chicago Roentgen Soc. (councilor). New roentgenologic diagnostic procedures of the gastrointestinal tract; methods of examination and the diagnostic criteria of the esophagus, stomach and duodenum.

Templeton, Geo(rge) S(treator), Fontana, Calif. *Biology*. Rich Hill, Mo, Jan. 1, 87. B.S, Missouri, 11. Instr, Agr. and Mech. Col. Texas, 11–12, asst. prof, 12–13; head dept. animal husbandry, exten. service and Exp. Sta, Ala. Polytech, 13–20; Agr. and Mech. Col. Texas, 20–23; head dept. animal husbandry, Miss. Agr. and Mech. Col, and head dept. and v. director, Exp. Sta, 23–29; asst. director educ. service, Nat. Cottonseed Products Asn, 29; *biologist in charge rabbit exp. sta, div. fur resources, U. S. Dept. Interior, 34–* Mem, Mo. Int. Livestock Judging Team, 10. Soc. Animal Production. Nutritional and management problems with beef cattle, hogs, sheep and mules; nutritional and production problems of the domestic rabbit.

Templeton, Dr. Hugh L(ongwill), Fairmont Creamery Co, Omaha, Nebr. *Organic chemistry*. Madison, Wis, May 30, 99. Beloit Col, 17–19; A.B, Wisconsin, 21, M.S, 22, Ph.D, 25. Research chemist forest products, U. S. Forest Service, 25–26; indust. research fellow dairy indust, Wisconsin, 26–37; tech. director, Roberts Dairy Co, 37–40; *mfg. supervisor, Fairmont Creamery Co, 40–* Chem. Soc; Dairy Sci. Asn; Inst. Food Technol; Int. Asn. Milk Dealers (sec'y lab. sect, 39, chairman, 40). Tannin content of western hemlock bark; action of arsenious chloride on phenyl-p-toluidine; water extractives and the coloring matter of redwood; use of citric acid and citrates in milk; processed cheese and related products; acidified milk for infant feeding; milk and milk products.

Templeton, Dr. J(ustus) S(tevens), 802 W. Green St, Urbana, Ill. *Geology*. Princeton, Ill, July 11, 14. A.B, Princeton, 36; Wisconsin, 36–38; Ph.D, Illinois, 40. Asst, Ill. Geol. Surv, 37–40; asst. prof. geol, North Dakota, 41–42; instr, Illinois, 42–43; *ensign, U. S. Naval Res, 43–* Summers, asst. geologist, Ill. Geol. Surv, 41–43. Ill. Acad. Ordovician stratigraphy and paleontology of northwestern Illinois; structural and Pleistocene geology of northwestern Illinois.

Templin, R(ichard) L(aurence), Aluminum Co. of America, New Kensington, Pa. *Engineering*. Minneapolis, Kans, Jan. 20, 93. B.S, Kansas, 15, M.S, 26; fellow, Illinois, 15–17, M.S, 17. Bur. Standards, 17–19; *asst. director research and chief engineer tests, Aluminum Co. of Amer, 19–* Mem. structures cmt, Nat. Advisory Cmt. Aeronautics. Dudley medal, Soc. Test. Mat, 34; Charles Fitch Rowland prize, Am. Soc. Civil Eng, 36; Longstreth medal, Franklin Inst, 40. Civil Eng; Soc. Metals; Soc. Test. Mat. (exec. cmt, 37–39); Min. and Metal. Eng; Mech. Eng. Structural design; engineering materials; working of metals; mechanical properties of metals; mechanical testing; design of engineering structures; mechanical testing apparatus; field tests of large engineering structures.

ten Brink, Dr. Karl C(ornelius), Rice Institute, Houston, Texas. *Chemical engineering*. Wichita Falls, Texas, Dec. 5, 16. B.S, Rice Inst, 37, fellow, 37–40, A.M, 39, Ph.D, 40. *Instr. chem. eng, Rice Inst, 40–* Adsorptive properties of colloidal clays.

TenBroeck, Dr. Carl, Rockefeller Institute, Princeton, N. J. ***Bacteriology*. Parsons, Kans, 85. A.B, Illinois, 08; M.D, Harvard, 13. Asst. comp. path, Harvard Med. Sch, 13–15; asst. and assoc. animal path, Rockefeller Inst, 15–20; assoc. prof. and prof. bacter, Peking Union Med. Col, 20–27; *mem. and director dept. animal and plant path, Rockefeller Inst, Princeton, 27–* A.A; Soc. Exp. Biol; Asn. Immunol; Soc. Parasitol; Soc. Bact. Animal pathology.

Ten Broeck, Dr. W(alter) T(ryon) L(ivingston), Goodyear Rubber Plantation Co, Dolok Merangir, East Coast Sumatra, Netherlands East Indies. *Chemistry*. Newburgh, N. Y, July 28, 05. B.S, Rutgers, 27, M.S, 28, Ph.D, 30. Asst. chem, Rutgers, 27–28, instr, 28–30; *research chemist*, Goodyear Tire and Rubber Co, 30–34, *Goodyear Rubber Plan-*

tation Co, 34– Chem. Soc. Metal pyridine fluosilicates; investigation of electrodes for determining hydrogen ion concentration of Hevea latex; crude rubber and latex; rotenone in derris root.

Tendler, Dr. A(lexander) D, 3 Beatrice Court, Far Rockaway, N. Y. *Psychology.* Russia, Jan. 25, 93. B.S, N. Y. Univ, 16; A.M, Columbia, 18, Ph.D, 23. From clin. asst. to assoc. *neur. and psychiat,* N. Y. Post-Grad. Med. Sch, 19–31; *assoc, Columbia, 31–* Case consultant, Jewish Board Guardians, 22–24, director research and chief psychologist, psychol. clinic, 24–27; instr, Col. City of N. Y, 25–38; director mental hygiene clinic, Brooklyn Hebrew Orphan Asylum, 27–; consultant psychologist, Lakeview Home, Staten Island, 24–34; Beekman St. Hosp, 30–; attending psychologist, N. Y. Post-Grad. Med. Sch, Columbia, 35– Summers, instr, Hunter Col, 25– A.A; Psychol. Asn; Asn. Applied Psychol. Mental status of psychoneurotics; measurable factors of adjustment in juvenile delinquents; intelligence and emotion in maladjusted children; test for emotional insight; reorientation in psychotherapy; associative tendencies in psychoneurotics; diagnostic free association test.

Tenhet, Joseph N(esbitt), P. O. Box 5271, Richmond, Va. *Entomology.* Marion, S. C, June 5, 97. B.S, Clemson Agr. Col, 18. Sci. asst, bur. entom, *U. S. Dept. Agr,* 19–23, junior entomologist, 23–28, asst. entomologist, 28–34, *bur. entom. and plant quarantine,* 34–42, *assoc. entomologist, 42–, in charge stored tobacco insect investigations.* Asn. Econ. Entom; Fla. Entom. Soc. Tobacco insects; wireworms; molecrickets; economic insects affecting stored and manufactured tobacco.

Tennant, Dr. Robert, 20 S. Hudson St, Hartford, Conn. *Pathology.* Waterbury, Conn, Jan. 30, 04. B.S, Yale, 26, M.D. 29. Instr. path, *Yale,* 31–34, nat. research fellow med, 34–35, asst. prof. path, 35–36, path. and surg, 36–41, *assoc. clin. prof. path, 41–* Asst. pathologist, Hartford Hosp, 41– Asn. Path. and Bact; Am. Med. Asn. Cancer.

Tennent, Dr. David M(addux), Yale University, New Haven, Conn. *Physiological chemistry.* Bryn Mawr, Pa, Oct. 2, 14. A.B, Yale, 36, Ph.D, 40. *Asst. applied physiol, Yale, 40–* Summers, asst, Dry Tortugas Lab, 35, 36, 37; Henry Phipps Inst, 39. Chem. Soc. Effect of alcohol on carbohydrate metabolism; the chemistry of the tubercle and leprosy bacilli.

Tenney, Dr. Alvan H(oward), Columbia University, New York, N. Y. *Chemical engineering.* New York, N. Y, April 16, 12. B.S, Columbia, 32, Chem.E, 33, Ph.D, 41. Fellowship asst, Mellon Inst, 33–34, indust. fellow, 34–36; research, *Columbia,* 36–38, *instr. chem. eng, 38–* Chem. Soc. (councilor, 40, 42); Chem. Eng. Agitation; corrosion inhibition; chlorine; heavy chemicals; reaction kinetics.

Tenny, Lloyd S(tanley), Hilton, N. Y. *Agricultural economics.* Hilton, N. Y, Dec. 24, 76. A.B, Rochester, 02; Cornell, 09–10. Asst. plant path, U. S. Dept. Agr, 02–05, research fruit storage and transportation diseases pomol, 05–10, asst. chief and later chief, bur. agr. econ, 21–27; Cornell, 11–13, prof. exten; v. pres, Calif. Vineyardists Asn, 28–29; pres, Fed. Fruit Stabilization Corp, Calif, 29; gen. manager, Chicago Mercantile Exchange, 29–43; *retired.* Advisory cmt, War Finance Corp, 21. Standardization and marketing of agricultural products.

Teodoro, Prof. A(nastasio) L(alota), College of Agriculture, University of the Philippines, Laguna, P. I. *Agricultural engineering.* Santa Cruz, Laguna, P. I, April 15, 97. B.S. (Agr), Philippines, 18; M.S, Cornell, 21, Ph.D, 28; Philippine Govt. pensionado, U. S, 19–21, 26–28. Instr. *agr. eng, Philippines,* 21–25, asst. prof, 26–32, *assoc. prof, 32–,* acting head dept, 28–33, *head dept, 33–* Chairman sect. farm machinery, Nat. Research Council, P. I. A.A; Soc. Automotive Eng; Philippine Soc. Adv. Research; P. I. Soc. Tech. Agr; Los Baños Biol. Club (pres). Strength of structural bamboo; plows and plowing; irrigation practises; gasoline, kerosene and alcohol as fuels for internal combustion engines; fuels; draft of plows.

Teodoro (y Gregorio), Dr. N(icanor) G(onzalo), Los Baños Economic Garden, Los Baños, Laguna, P. I. *Plant pathology.* Santa Cruz, Laguna, P. I, Jan. 10, 90. B.S. (Agr), Philippines, 15; M.S, Wisconsin, 20, Ph.D, 23. Sci. asst, Bur. Agr, *P. I,* 17–23, plant pathologist and mycologist, Bur. Science and Bur. Agr, 23–24, acting chief plant pests control div. and chief plant quarantine inspector, Bur. Agr, 24–27, plant pathologist in charge Pandacan lab, *Bur. Plant Indust,* 27–32, *plant pathologist and ornamental horticulturist, Los Baños Econ. Garden, 32–, in charge, 35–; lecturer biol, Philippines.* Mycologist, Nat. Research Council P. I, 34. Collaborator, Int. Inst. Agr, Rome, Italy. Int. Phytopath. Cong, 22. Bot. Soc; Hort. Soc; Soc. Bact; P. I. Sci. Soc. Mycology; ornamental horticulture; diseases of economic plants; systematic enumeration of Philippine fungi; economic botany.

Tepper, Dr. A(lbert) E(dward), R.F.D. 1, Concord, N. H. *Poultry nutrition.* Roselle, N. J, Oct. 31, 06. B.S, Pa. State Col, 28; M.S, New Hampshire, 30; Ph.D, Maryland, 41. Certification inspector, New Hampshire, 30–32, instr. poultry husbandry, 32–40, asst. prof, 40–42, asst. poultry husbandman, Exp. Sta, 32–42; *poultry specialist, Merrimack Farmer's Exchange, Inc, 42–* A.A; Poultry Sci. Asn. Problem of moisture in poultry house litter; gizzard lesions in day old chicks; protein requirements of chickens; vitamin A studies.

Terhune, Dr. William Barclay, New Canaan, Conn. *Medicine, Psychiatry.* Senoia, Ga, Nov. 7, 93. M.D, Tulane, 15. Intern, Touro Infirmary, New Orleans, La; physician, La. Hosp. for Insane, Jackson; instr. psychiatry, sch. med, Yale, 19–22; physician, Austen Riggs Foundation, 22–29, assoc. med. director, 29–34; *med. director, Silver Hill Foundation, 34–; assoc. clin. prof. psychiat, sch. med, Yale.* Consultant, Norwalk Gen. Hosp. Mem. sci. admin. cmt, Nat. Cmt. Mental Hygiene. Neuropsychiatrist, U. S. Army, France, 17–19. Am. Med. Asn; Psychiat. Asn; Col. Physicians; New Eng. Psychiat. Soc; Conn. Psychiat. Soc; Conn. Soc. Mental Hygiene (med. director, 19–22; pres). Psychoneuroses; hysteria; Bacillus epilepticus; brain tumors; psychiatry in relation to nursing; mental hygiene in women's colleges; individual mental hygiene; psychotherapy; mental hygiene; marital maladjustments; usual psychopathological manifestations; depressive reactions in middle-aged men.

Terman, Prof. Frederick Emmons, Stanford University, Calif. *Electrical engineering.* English, Ind, June 7, 00. A.B, Stanford, 20, E.E, 22; Sc.D, Mass. Inst. Tech, 24. Instr. *elec. eng, Stanford,* 25–27, asst. prof, 27–30, assoc. prof, 30–37, *prof. and exec. head dept, 37–; director radio research lab, Harvard, 42–; mem. div. 14 and 15, Nat. Defense Research Cmt.* Elec. Eng; Radio Eng. (v. pres, 40, pres, 41). Long distance transmission of power; circle diagrams of transmission networks and electrical machinery; vacuum tubes; radio circuits; detection and modulation; amplifiers; oscillators; communication measurements; resonant transmission lines; micro-waves.

Terman, Prof. Lewis M(adison), Stanford University, Calif. ***Psychology.* Johnson Co, Ind, Jan. 15, 77. A.B, Indiana, 02, A.M, 03, LL.D, 29; fellow, Clark, 03–05, Ph.D, 05. Prin, high sch, Calif, 05–06; prof. child study and pedag, Calif. State Nor. Sch, Los Angeles, 06–10; asst. prof. educ, *Stanford,* 10–12, assoc. prof, 12–16, prof, 16–22, prof. *psychol.* and head dept, 22–42, *emer. prof, 42–* Summers, lecturer, Washington (Seattle), 12; N. Y. Univ, 16; Columbia, 17. Cmt. on classification of personnel, War Dept, 17–19, cmt. on classification of recruits, 17–19; major, U.S.A, 18–19. Nat. Acad; A.A; Psychol. Asn. (councilor, 19–22, pres, 23); Sch. Hygiene Asn. (v. pres, 14, councilor, 14–, pres, 16); Soc. Study Educ. Child psychology and hygiene; sleep of school children; genius and stupidity; Binet intelligence tests; measurement of intelligence; intelligence of school children; gifted children; group tests of mental ability; achievement tests; genetic studies of genius; sex differences in mental traits; psychological factors in marital happiness.

Termohlen, W(illiam) D(ewey), 6638 32nd Place, N. W, Washington, D. C. *Agricultural economics.* Storm Lake, Iowa, June 20, 98. B.S, Iowa State Col, 25, M.S, 28. Commercial work, 25–26; asst. agr. econ, Iowa State Col, 26–27, asst. exten. prof. and asst, 27–33; senior agr. economist, poultry unit, gen. crops sect, *agr. adjust. admin, U. S. Dept. Agr,* 33–34, prin. agr. economist in charge poultry sect, div. marketing and marketing agreements, 34–42, *head agr. economist in charge poultry div, surplus marketing admin, 42–, asst. chief dairy and poultry branch, food distribution admin, 42–* Poultry Sci. Asn. (assoc. ed, 'Poultry Science,' 33–38); World's Poultry Sci. Asn. (councilor). Economic surveys of the egg and poultry industry; marketing of poultry products.

Terplan, Dr. K(ornel) L, 100 High St, Buffalo, N. Y. *Pathology.* Aranyosmarot, Austria-Hungary, Oct. 19, 94. Univ. Klausenburg; Budapest; M.D, German Univ, Prague, 19. Asst. path, 20–24; privat-docent, Prague, 26–30, assoc. prof, 30; prof. *path. and bacter, sch. med, Buffalo,* 30–34, *head dept, 34–* In charge, German Path. Inst, Prague, 28–30; chief

pathologist, Buffalo Gen. and Children's Hosps, 30– Asn. Path. and Bact; Soc. Exp. Path; Buffalo Path. Soc; Deuts. Math. Verein; Deuts. Path. Gesell; Int. Soc. Geog. Path; Int. Asn. Med. Mus. Pathologic anatomy of the sympathetic nervous system; Huntington's chorea; Hodgkin's disease; tuberculosis.

Terrell, Prof. D(aniel) V(oiers), University of Kentucky, Lexington, Ky. *Civil engineering.* Bedford, Ky, Oct. 5, 86. B.C.E, Kentucky, 10, C.E, 14. Prof. highway eng, *Kentucky,* 13–16, acting dean *civil eng,* 16–17, *prof. and head dept,* 17–, *asst. dean eng,* 42–, *director highway research lab.* Civil Eng; Eng. Educ; Soc. Test. Mat. Concrete; highway materials; sanitary engineering; design and construction of the University of Kentucky stadium; ready-mix concrete; field control of concrete.

Terrell, Dr. Edward E(ugene), Cranford, N. J. *Medicine.* San Marcos, Texas, Feb. 2, 03. B.S, Arizona, 25; M.D, Chicago, 30. Asst. med, Chicago, 27–30; intern, dept. med, New Haven Hosp, 30–32; asst. res. physician, Rockefeller Inst. Hosp, 32–34; *practising physician, 34–* Pneumococcus.

Terrill, Dr. Clair E(lman), U. S. Department of Agriculture, Dubois, Idaho. *Animal husbandry.* Rippey, Iowa, Oct. 27, 10. B.S, Iowa State Col, 32; Ph.D, Missouri, 36. Asst. animal husbandry, Missouri, 32–36; asst. animal husbandman, Exp. Sta, Georgia, 36; sheep exp. sta, *bur. animal indust, U. S. Dept. Agr, Dubois,* 36–37, assoc. animal husbandman, *west. sheep breeding lab,* 37–40, *animal husbandman, 40–* A.A; Asn. Anat; Genetic Asn; Soc. Animal Production. Animal genetics; reproductive physiology; sheep breeding and production.

Terroux, Dr. F. R(ichard), McGill University, Montreal, Que, Can. *Experimental physics.* Montreal, Que, 02. B.A, Loyola, 21; B.Sc, McGill, 25, Nat. Research Council Can. bursar, 25–26, M.Sc, 26, student, 26–27, fellow, 27–28; 1851 Exhib. scholar and Emmanuel Col. Sci. student, Cambridge, 27–30, Ph.D, 31. Senior demonstrator *physics, McGill,* 31–34, lecturer, 35–41, *asst. prof, 42–* Electrical discharge in gases; applications of the expansion chamber to the study of fast beta-rays; nuclear physics.

Terroux, Dr. K. Godwin, McGill University, Montreal, Que, Can. *Zoology.* Quebec, Que, 01. B.A, McGill, M.Sc, 22, Philip Carpenter fellow, 23–26, Ph.D, 30; Moyse fellow, Cambridge, 27–28, Can. Club fellow, 28–29. Demonstrator zool, McGill, 26–27, lecturer, 29–30; research, Cambridge, 30–31; asst. *zool, McGill,* 31–33, *lecturer, 33–* Experimental zoology; plankton; enzymes; respiratory pigments; elastic changes in muscular contraction; tyrosinase; iso-electric point of haemoglobin; influence of salts on buffering snail haemocyanin.

Terry, Dr. Benjamin T(aylor), Tacoma General Hospital, Tacoma, Wash. *Pathology.* Birmingham, Ala, June 10, 76. A.B, Vanderbilt, 98, A.M, 00; M.D, Hopkins, 04. Asst. chem, Vanderbilt, 98–99; fellow path, Chicago, 04–05; protozool, Rockefeller Inst, 06–08, asst, 08–10, assoc, 10–13; instr. and assoc. path, Columbia, 13–18; prof, Vanderbilt, 18–25; director labs, Toledo Hosp, 25–26; research, Mayo Clinic, 26–32; acting prof, Texas, 32–33; director labs, Tacoma Gen. Hosp, 33–39; practising pathologist, 39–42; *director labs, Tacoma Gen. Hosp, 42–* Director labs, Kings County Hosp, Brooklyn, 13–18. Assoc. ed, 'Jour. Exp. Med,' 11–13. A.A; Soc. Clin. Path; fel. Am. Med. Asn. Immunity and chemicotherapy in trypanosome infections; standardization of Wassermann reaction; method of preparing tissues for microscopical examination; tissue stains.

Terry, C(yrl) W(aldie), Consolidated Aircraft Corp, San Diego, Calif. *Experimental engineering.* Brooklyn, Pa, July 15, 05. M.E, Cornell, 26, M.M.E, 29. Teacher exp. eng, Cornell, 26–29, machine design, 30–36, asst. prof. automotive and aero. eng, 36–41; mem. tech. service dept, Sears, Roebuck and Co, Chicago, Ill, 29–30; director instruction, Luscombe Airplane Co, Trenton, N. J, 36; ground sch. supervisor, Plains Airways, Inc, Cheyenne, Wyo, 41; *aeronaut. engineer, aerodynamics and flight test dept, Consol. Aircraft Corp, 42–* A.A. Automotive and aeronautical work; testing of gasoline and Diesel engines; the cost of operating small airplanes.

Terry, Dr. Daniel H(etfield), 23 Wilson Ave, Woodstown, N. J. *Organic chemistry.* Plainfield, N. J, June 18, 12. B.S, Randolph-Macon Col, 36; Ph.D, Virginia, 40. *Research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Diketones; triketones; ketonic acids; organic intermediates; vitamins and hormones.

Terry, Prof. Elwood I(dell), Winthrop College, Rock Hill, S. C. *Forestry.* Coxsackie, N. Y, May 1, 79. B.S, Harvard, 07, M.F, 18. Chief forest investigations, Mont. dist, U. S. Forest Service, 08–11; director sch. forestry, Colo. Col, 12–17; exchange prof. forestry, Harvard, 17–18; prof, Middlebury Col, and manager, Battell Forest, 19–23; forester, Mass. Forestry Asn, 23–25; prof, Berry Schs, 25–30; *prof. geol, geog. and conservation, Winthrop Col, 30–* Soc. Foresters; S. C. Acad. Geography; conservation; regeneration of white pine in New England; regeneration of southern pines and hardwoods; grazing and timber production in the South.

Terry, Dr. Ethel Mary (Mrs. Herbert McCoy), 1226 Westchester Place, Los Angeles 6, Calif. *Chemistry.* Hamilton, N. Y, 87. A.B, Chicago, 07, Ph.D, 13. Instr. chem, Chicago, 12–18, asst. prof, 18–27, research assoc, 27–38. Chem. Soc. Physico-organic chemistry; catalysis; hydrolysis of esters; fumaric and maleic acids; oxidation.

Terry, Dr. Henrietta (Pearl), University of Illinois, Urbana, Ill. *Algebra.* Virden, Ill, Dec. 30, 04. B.S, Shurtleff Col, 26; A.M, Illinois, 29, Ph.D, 34. *Instr. math,* Am. Col. for Girls, Turkey, 34–35; *Illinois, 35–; lieut. (jg), U. S. Naval Res, 43–* Subgroups of groups of isomorphisms of groups of order p^n and type 1, 1, 1, . . . ; group theory.

Terry, Prof. Ralph E(ugene), University of Illinois College of Pharmacy, Chicago, Ill. *Pharmacy.* Aurora, Ill, Nov. 16, 99. Ph.G, Illinois, 20, B.S, 25; M.S, Southern California, 26. Asst. prof. *pharmacy, col. pharmacy,* Oregon State Col, 26–27; *Illinois,* 27–36, *assoc. prof, 36–* A.A; Pharmaceut. Asn. Pharmacognosy of Ephedra nevandensis; pharmaceutical preparations.

Terry, Dr. R(obert) J(ames), Washington University School of Medicine, St. Louis, Mo. *[2]Anatomy.* St. Louis, Mo, Jan. 24, 71. Cornell, 90–92; M.D, Mo. Med. Col, 95; Edinburgh, 98; A.B, Washington (St. Louis), 01; Freiburg, 03. Austin teaching fellow, Harvard, 06–07; demonstrator *anat,* Mo. Med. Col, 96–99; asst. prof, *sch. med, Washington (St. Louis),* 99–00, prof, 00–41, *emer. prof, 41–,* head dept. anat. in charge gross anat, 28–41. Chairman cmt. on Am. Negro, div. anthrop. psychol, Nat. Research Council, 24–28. Collaborator, 'Am. Jour. Anat,' 01–02; assoc. ed, 'Am. Jour. Physical Anthrop.' Medal, Edinburgh, 98. Sec'y anat, Int. Cong. Arts and Sciences, St. Louis, 04. Dean, Officers Sch. Oral, Plastic and Neur. Surg, U.S.A, 17. A.A. (chairman, H, 27); Asn. Anat. (exec. cmt, 08–12, 21–24); Soc. Research Child Develop; Eugenics Soc; Asn. Physical Anthrop. (pres, 39–41); Anthrop. Asn; Genetic Asn; Mo. Acad; St. Louis Acad. (pres, 35–37); Anat. Soc. Gt. Britain. Human anatomy; physical anthropology; the American Negro; variation; symmetry; cranium; lung.

Terry, Prof. Wallace I(rving), 2712 Broadway, San Francisco, Calif. *Surgery.* Sacramento, Calif, Nov. 26, 68. B.S, California, 90, M.D, 92. Instr. *surg, med. sch, California,* 99–06, asst. prof, 06–12, prof, 12–32, clin. prof, 32–39, *emer. clin. prof, 39–* Surg. Asn; Pacific Coast Surg. Asn; Calif. Acad. Med. Surgery for goiter; surgery of the abdomen.

Tervet, Dr. Ian W(hite), University Farm, St. Paul, Minn. *Plant pathology, Botany.* Glasgow, Scotland, Dec. 7, 07. B.Sc, Glasgow, 31; West of Scotland Col. Agr; Commonwealth Fund fellow, Minnesota, 33–35, Ph.D, 40. Demonstrator and asst. lecturer bot, Glasgow, 31–33; asst. lecturer bot, East of Scotland Col, Agr, 35–37; instr. and asst. prof. plant path, Minnesota, 37–43; *pathologist, bur. plant indust, U. S. Dept. Agr, 43–* Mycol. Soc; Phytopath. Soc; British Mycol. Soc; fel. Bot. Soc. Edinburgh. Cereal smuts; diseases of grasses; breeding disease resistant grasses; soybean diseases and storage.

Terwilliger, Prof. Charles V(an) O(rden), U. S. Naval Academy, Annapolis, Md. *Electrical engineering.* Albany, N. Y, May 14, 94. B.E, Union (N. Y), 16, M.S, 19; M.S, Harvard, 22; D.E, Hopkins, 38. Instr. math, Union (N. Y), 16–17, 18–21; *elec. eng,* Harvard, 22–24; asst. prof, Ohio State, 24–25; *post-grad. sch, U. S. Naval Acad,* 25–28, *assoc. prof, 28–, head dept, 29–* Gen. Elec. Co, 17–18. A.A; Elec. Eng. (exec. cmt, Baltimore sect, 29–); Eng. Educ. Naval fire control; dielectric phenomena; electrical design.

Terzaghi, Karl (Charles), Harvard University, Cambridge, Mass. *Engineering.* Prague, Czechoslovakia, Oct. 2, 83. Dr. tech, Tech. Hochschule, Graz, 11. Supt. construction on reinforced concrete bldgs. and hydro-electric development, Austria, Hungary, Croatia, and Russia, 05–11; construction

work, United States, 12–14; prof. civil eng, Robert Col. (Istanbul), 25; foundation eng, Mass. Inst. Tech, 25–29; Tech. Hochschule, Vienna, 29–38; *lecturer soil mech. and eng. geol, Harvard, 38–* Consulting engineer, United States and Central Amer, 25–29; Vienna, 29–38; consulting engineer, 38–; lecturer. Norman medal, Am. Soc. Civil Eng. Civil Eng. Soil mechanics; engineering geology; foundations of dams and buildings; soft ground tunneling.

Tesh, Prof. K(endall) S(iebert), 4315 Dakota St, Pittsburgh, Pa. *Organic chemistry.* Millville, Pa, May 6, 95. Ch.B, Pittsburgh, 18, M.S, 22, Ph.D, 24. Lecture asst, *Pittsburgh,* 17–18, instr. inorg. chem, 19–24, asst. prof, 24–29, prof. *chem.* and head Uniontown Center, 29–33, Johnstown Center, 33–37, *prof, univ, 37–* Illinium fellow, Illinois, 27–28. Chem. Soc. Electrolytic organic chemistry.

Tessman, Mrs. Jennie Lasby, 2462 Riverside Drive, Santa Ana, Calif. *Astronomy.* Northfield, Minn, Aug. 23, 83. A.B, Carleton Col, 04; A.M, Mt. Holyoke Col, 06. Mt. Wilson Observatory, Carnegie Institution, 06–14; Goodsell Observatory, Carleton Col, 16–18; *instr. hist. and astron, Santa Ana Junior Col, 19–* Astron. Soc. Solar rotation; radial velocity; asteroid positions.

Test, Charles D, U. S. Department of Agriculture, Riverside, Calif. *Chemistry.* Dundee, Ill, June 18, 74. B.M.E, Purdue, 94, A.C, 96. Asst. prof. chem, Colo. Sch. Mines, 07–18; chief chemist, West. Potash Works, 18; chem. expert, U. S. Tariff Cmn, 18–19; research chemist, fixed nitrogen research lab, American Univ, 19–20; Tungsten Products Co, 20–24; head dept. chem, Riverside Junior Col, 24–41; *chemist, regional salinity lab, bur. plant indust, U. S. Dept. Agr, 41–* Chem. Soc. Inorganic and analytical chemistry; analysis of lime nitrogen; nicotine derivatives.

Test, Dr. Frederick H(arold), University of Michigan, Ann Arbor, Mich. *Zoology.* Rolla, Mo, April 16, 12. B.S, Purdue, 34; A.M, Cornell, 35; Ph.D, California, 40. *Instr. zool, Michigan, 40–* A.A; Soc. Mammal; Cooper Ornith. Club. Natural history of vertebrates; speciation; carotenoid pigmentation; population studies.

Tester, Dr. Albert L(ouis), Pacific Biological Station, Nanaimo, B. C, Can. *Biology.* Toronto, Ont, Nov. 27, 08. B.A, Toronto, 31, M.A, 32, Ph.D, 36. *Sci. asst. biol, Pacific Biol. Sta, 31–* Marine fisheries; fluctuations in the abundance of the Pacific herring.

Tester, Prof. Allen C(rawford), 228 Woolf Ave, Iowa City, Iowa. *Geology.* New Haven, Mo, Oct. 30, 97. A.B, A.M, Kansas, 21; Ph.D, Wisconsin, 29. Instr. geol, Kansas, 21–22; Wisconsin, 24–25; assoc, Iowa, 25–29, asst. prof, 29–35, assoc. prof, 35–37; geologist in charge dist, Socony-Vacuum Co. of Colombia, S. Amer, 38–40; *prof. geol, Iowa, 40–; capt, C.Eng, U. S. Army, 42–* Asst. state geologist, Iowa Geol. Surv, 34–37. Expeds, U. S. Geol. Surv, Kans. Geol. Surv, Iowa Geol. Surv. Fel. Geol. Soc; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; fel. Iowa Acad. (chairman, geol. sect, 26). Stratigraphy; sedimentation; the Comanchean and 'Dakota' formation of Kansas and Iowa; the Pennsylvanian of Iowa; ground water of Iowa; primary structures of sedimentary rocks; petroleum geology in Colombia, South America.

Tetrault, Prof. P(hilippe) A(rmand), 235 DeHart St, West Lafayette, Ind. *Bacteriology.* Southbridge, Mass, Sept. 6, 89. A.B, Clark, 12; M.S, Purdue, 14; Pasteur Inst, Paris, 23–24; Ph.D, Wisconsin, 29. Asst. prof. *biol, Purdue,* 17, assoc. prof, 21–29, *prof, 30–* Soc. Bact; Ind. Acad. Bacterial decomposition of cellulose.

Teuscher, Henry, Montreal Botanical Garden, 4101 Sherbrooke St, E, Montreal, Que, Can. *Horticulture.* Berlin, Germany, May 29, 91. Hort. Col, Dahlem, Berlin, 20; Berlin, 19–20. Asst, Bot. Garden, Dahlem, Berlin, 19–21; botanist in charge, Morton Arboretum, Lisle, Ill, 22–29; director, Boyce Thompson Arboretum, Yonkers, N. Y, 29–31; dendrologist, N. Y. Bot. Garden, 32–35; *director tech. services, Montreal Bot. Garden, 35–* A.A; Inst. Park Exec; Soc. Can. d'Hist. Plant propagation; disease resistance; hardiness.

Te Winkel, Prof. Lois E(velyn), Smith College, Northampton, Mass. *Zoology.* Bellaire, Ohio, Aug. 31, 03. A.B, Oberlin Col, 25; A.M, Columbia, 26, Ph.D, 36. Asst. biol, Wash. Sq. Col, N. Y. Univ, 25–26; *zool,* Barnard Col, Columbia, 26–30, lecturer, 30–32; instr, *Smith,* 33–35, asst. prof, 35–43, *assoc. prof, 43–* Summers, asst, Columbia, 27–28. A.A. Vertebrate zoology, anatomy and histology; minute teleosts; embryonic yolk absorption; elasmobranchs.

Thacker, Dr. C(arlisle) M(onroe), Pure Oil Co, Chicago, Ill. *Chemistry.* Latta, S. C, April 14, 04. B.S, The Citadel, 24; Ph.D, Virginia, 30. *Research chemist,* E. I. du Pont de Nemours and Co; A. O. Smith Corp, Milwaukee; Gen. Chem. Co; *tech. div, Pure Oil Co.* Chem. Soc. Catalysis; kinetics; thermodynamics; petroleum.

Thalhimer, Dr. William, 111 E. 80th St, New York, N. Y. *Pathology.* San Francisco, Calif, Oct. 12, 85. B.S, Richmond, 03; M.D, Hopkins, 08. Surg. intern, Mt. Sinai Hosp, New York, 08–10, asst, lab, 14–18, adj. attending surgeon, 18; instr. path, Virginia, 10–11; *director* labs, Columbia Hosp, 18–29; Nelson Morris inst, Michael Reese Hosp, 29–35; *Manhattan Convalescent Serum Lab, 36–* A.A; Asn. Path. and Bact; Am. Med. Asn; Col. Physicians; N. Y. Acad. Med. Experimental pathology and surgery; rheumatic fever; regeneration of bone; gastric ulcer; gastric carcinoma; lethargic encephalitis; nondiabetic acidosis; carbohydrate metabolism; convalescent human serums; normal human serum and plasma; methods of concentrating serum and human isoagglutinins.

Thalman, Prof. Wellington A(lbert), 802 W. Cherry St, Carbondale, Ill. *Psychology.* Radcliffe, Iowa, April 18, 93. A.B, Ellsworth Col, 17; A.M, Cornell, 22, Ph.D, 29. Sch. supt, Iowa, 17–18; prin, high sch, Iowa, 19–27; assoc. prof. and later *prof. psychol. and educ, South. Ill. State Nor. Univ, 29–, director col. bur. child guidance.* Mem. collaboration center, Chicago, 40–41. Summers, exten. work, Iowa State Teachers Col, Cedar Falls, 24–28; Cornell Col. (Iowa). U.S.A, 18–19. Assoc. Psychol. Asn. After images; differentiation of attensity and intensity; use of intelligence tests and objective tests in public schools in Illinois.

Thannhauser, Prof. S(iegfried) J(oseph), 93 Toy St, Brookline, Mass. *Medicine.* Munich, Germany, June 28, 85. M.D, Munich, 10, Ph.D, 13. Asst. prof. med, univ. clinic, Munich, 21–24; prof. int. med. and head poliklinik, Heidelberg, 24–27; prof. and head internal clinic, Med. Akad, Düsseldorf, 27–30; univ. clinic, Freiburg, 30–33; *clin. prof. med, med. sch, Tufts Col, 35–* Am. Physicians; hon. mem. Ital. Accad. Med; hon. mem. Med. Soc. Bulgaria; hon. mem. Nat. Spanish Acad. Metabolism; nucleic acids; carbohydrate; fats and lipids.

Tharaldsen, Prof. C(onrad) E(ngerud), New York Medical College, New York, N. Y. *Biology.* Battle Lake, Minn, May 20, 84. B.S, St. Olaf Col, 07; A.M, Columbia, 18, Ph.D, 25. Instr, high sch, Wis, 07–09; biol, N. Dak. State Nor. Sch, Mayville, 09–17; asst. prof. zool, Northwestern, 18–20, 21–25, assoc. prof, 25–27, acting head dept, 24–27; *prof. anat. and head dept,* N. Y. Homeop. Med. Col, 27–35, *N. Y. Med. Col, 35–, director William Waldo Blackman lab. anat, 41–* Summer, instr, Columbia, 18. A.A; Soc. Exp. Biol; Hist. Sci. Soc; Asn. Anat; hon. mem. N. Y. Acad. Path. Sci. (pres, 38–42); fel. N. Y. Acad. Cytology; experimental embryology; morphology; anatomy.

Tharp, Prof. B(enjamin) C(arroll), 506 Bellevue Place, Austin, Texas. *Botany.* Pankey, Texas, Nov. 16, 85. A.B, Texas, 14, A.M, 15, Ph.D, 25. Assoc. prof. biol, Sam Houston State Teachers Col, Texas, 17–19; instr. *bot, Texas,* 19–20, adj. prof, 20–25, assoc. prof, 25–33, *prof, 33–* A.A; Bot. Soc; Ecol. Soc. Taxonomy; ecology.

Tharp, Dr. W(illiam) H(ardy), U. S. Department of Agriculture, Fayetteville, Ark. *Physiology.* Bristol, Va, Jan. 6, 00. B.S, Mont. State Col, 29; Corona Chem. Co. fellow, Wisconsin, 29–32, M.S, 31, Ph.D, 32. Nat. research fellow biol, Cornell, 32–33, instr. bot. and plant anat, 33–34; asst. pathologist, div. forest path, *bur. plant indust, U. S. Dept. Agr,* N. J. and Ariz, 34–36, assoc. physiologist, *div. cotton and other fiber crops and diseases, Ark,* 36–41, *physiologist, 41–* Phytopath. Soc. Plant pathology; anatomy; physiology and developmental anatomy of graminaceous seed; physiology of resistance to plant disease; physiology and pathology of forest tree diseases; physiology of plant disease resistance; cotton plant nutrition; physiology of cottonseed products.

Thatcher, Prof. Charles G(arrett), Swarthmore College, Swarthmore, Pa. *Mechanical engineering.* Wilmington, Del, Oct. 20, 91. A.B, Swarthmore Col, 12; M.E, Cornell, 16; Hopkins, 36–38. Asst. eng, Swarthmore Col, 12–13; draftsman, James Boyd and Co, Phila, 13–14; instr, Sibley Col, Cornell, 14–16; maintenance engineer, Midvale Steel and Ordnance Co, Phila, 16–17; asst. prof. *mech. eng, Swarthmore Col,* 18–27, *assoc. prof, 27–,* chairman div. eng, 27–36. Combustion engineer, Phila. Elec. Co, 23–24. Treas. board trus-

tees, Schofield Nor. and Indust. Sch, S. C. Junior aeronaut. engineer, Naval Aircraft Factory, Phila, 17–18. Mech. Eng; Soc. Automotive Eng; Eng. Educ; Soc. Metals. Sampling of flue gases in steam power boilers; reheat factors and condition curves for expansion of steam in turbines.

Thatcher, Prof. E(verett) W(hiting), 2221 Almeria Road, Schenectady, N. Y. *Physics.* Jefferson, Ohio, Jan. 24, 04. A.B, Oberlin Col, 26, A.M, 27; Purdue, 26–27; Nebraska, 27–29; Ph.D, Michigan, 31. Asst. *physics,* Purdue, 26–27; instr, Nebraska, 27–29; Michigan, 29–31; asst. prof, *Union (N. Y),* 31–43, *assoc. prof, 43–,* instr. aerodynamics, meteorol. and radio, civilian pilot training program, 39–43, coordinator, 40–43, instr. electronics, eng. defense training, 40–41. Physical Soc; Asn. Physics Teachers. Propagation of radio waves; statistical fluctuations in electron currents under space charge; thermal agitation of electric charge in conductors; multiple space charge; properties of monomolecular films.

Thatcher, Dr. F(rederick) S(idney), Macdonald College, Que, Can. *Agricultural bacteriology.* Dovercourt, Eng, Feb. 12, 10. B.Sc.A, McGill, 33, M.Sc, 35, Ph.D, 39. Junior plant pathologist, Dom. Dept. Agr, Can, 37–41; *lecturer bacter, Macdonald Col, McGill, 42–* Royal Soc. Can. fellow, Minnesota, 39–40. Phytopath. Soc. Cellular physiology in relation to plant parasitism; the microflora of the rhizosphere in relation to plant disease.

Thaxton, Prof. H(ubert) Mack, Agricultural and Technical College of North Carolina, Greensboro, N. C. *Mathematical physics.* Va, Dec. 28, 12. B.S, Howard, 31, M.S, 33; A.M, Wisconsin, 36, Ph.D, 39. *Prof. physics and head dept, Agr. and Tech. Col. N. C, 39–* A.A; Physical Soc; Math. Soc. Scattering of protons by protons; theories of nuclear forces; chemical binding.

Thayer, Prof. Clark L(eonard), Massachusetts State College, Amherst, Mass. *Floriculture.* Enfield, Mass, Nov. 17, 90. B.S, Mass. Col, 13. Asst. *floricult,* Mass. Col, 13–14; asst. and instr, Cornell, 14–19; *prof. and head dept,* Mass. Col, 19–31, *Mass. State Col, 31–* The genus Phlox; gourds.

Thayer, Floyd K(inyon), Waukegan, Ill. *Chemistry.* Castle Rock, Colo, July 22, 96. A.B, Denver, 18; A.M, Illinois, 20. Asst. chem, Illinois, 19–20; research chemist, *Abbott Labs, Ill,* 20–25, manager *chem. sales dept,* 25–42, *director, 38–, chem. div, 43–* Consultant drugs, War Production Board, 42–43. C.W.S, 18, major, C.W.Res, 24–38. Chem. Soc; Pharmaceut. Mfrs. Asn. (director, 38–). Mixed alkyl sulfates; anesthetic antiseptics; pharmaceutical chemistry.

Thayer, Horace R(ichmond), 1207 Oxford Road, Cleveland Heights, Ohio. *Structural engineering.* Blackstone, Mass, Sept. 3, 77. B.S, Mass. Inst. Tech, 98; M.S, Lehigh, 06. Prof. civil eng, Carnegie Inst. Tech, 06–12; Int. Correspondence Schs, 23–28; asst. prof. mech. drawing, Pa. State Col, 29–42; *struct. engineer, A. G. McKee Co, 42–* Civil Eng; Eng. Soc. West. Pa. (past chairman). Arch analysis; mathematics of skew structures; elastic arches; failures of structures; structural design; blue print reading; industrial drawing.

Thayer, Dr. James R(ussell), 4588 Parkview Place, St. Louis, Mo. *Chemistry.* Medina, Ohio, Sept. 7, 97. A.A, Ohio (Athens), 21; M.S, Wisconsin, 26, Ph.D, 28. Asst. chem, Ohio (Athens), 21–22; Wisconsin, 24–28; research chemist, Parke, Davis and Co, 28–29; asst. prof. pharmacol, Calif. Col. Pharmacy, 29–30; *prof. chem, St. Louis Col. Pharmacy, 30–* A.A; Chem. Soc; St. Louis Acad. Piperidine derivatives as local anesthetics.

Thayer, Prof. Lewis A(tkinson), Centenary College, Shreveport, La. *Plant physiology.* Mercur, Utah, Dec. 25, 03. B.S, State Col. Wash, 25, M.S, 26; Am. Petrol. Inst. fellow, Stanford, 27–30, Ph.D, 35. Asst. *biol,* Stanford, 26–27, 30–32; Sacramento Junior Col, Calif, 32–33; assoc. prof. and acting head dept, *Centenary Col,* 33–41, *prof. and head dept, 41–* Summer, acting instr, State Col. Wash, 26; investigator, Carnegie Institution, Yellowstone Nat. Park, 29; research, Calif. Inst. Tech, 38–41. Chem. Soc; Bot. Soc; La. Acad. Morphology of Polypodium; colorimetric determination of silica; methane fermentation; diatom water blooms; formation of petroleum by bacteria; plant growth hormones.

Thayer, Prof. Sidney (Allen), 1108 N. Drive, Warson Woods, St. Louis, Mo. *Biochemistry.* Milwaukee, Wis, July 2, 02. B.S, Beloit Col, 25; fellow, St. Louis, 25–26, Ph.D, 30. Asst. *biochem, St. Louis,* 26–29, senior asst, 29–30, instr, 30–34, senior instr, 34–38, *asst. prof, 38–* Distribution, preparation, isolation and chemistry of theelin; isolation of theelol; the follicular hormone, dihydrotheelin; purification; isolation of vitamins K_1 and K_2; methods of bioassay of estrogens and vitamins K_3 and K_4.

Thayer, Dr. Thomas P(rence), U. S. Geological Survey, Washington, D. C. *Geology.* Scarsdale, N. Y, May 22, 07. A.B, Oregon, 29; A.M, Northwestern, 31; Ph.D, Calif. Inst. Tech, 34. Instr. geol, Nevada, 34–35; junior geologist, U. S. Eng. Dept, 35–37; asst. geologist, *U. S. Geol. Surv,* 37–42, *assoc. geologist, 42–* Geol. Soc; Soc. Econ. Geol. Chromite and related rocks; petrology and structure of Tertiary volcanics in Oregon and Death Valley region.

Thearle, E(rnest) L(athrop), R. D. 1, Rexford, N. Y. *Mechanical engineering.* Chicago, Ill, March 2, 95. Calif. Sch. Mech. Arts, 15–17; M.E, Cornell, 23. Instr. applied mech, Cornell, 20–25; head dept. mech. eng, Arkansas, 25–28; research engineer, *research lab, Gen. Elec. Co, Schenectady,* 28–33, *head mech. research sect, 33–* Mech. Eng. Vibrations; dynamic balancing; mercury vapor process.

Theis, Dr. Cha(rle)s V(ernon), U. S. Geological Survey, Albuquerque, N. Mex. *Geology.* Newport, Ky, March 27, 00. C.E, Cincinnati, 22, Ph.D, 29. Instr. geol, Cincinnati, 23–29; junior geologist, U. S. Engineers, 29–30; from asst. to *senior geologist, U. S. Geol. Surv, 30–* Geologist, Cincinnati Resource Surv, 24, 25. Summers, asst. geologist, Ky. Geol. Surv, 23–28. A.A; Geol. Soc; Geophys. Union; Geol. Soc. Wash. Geology of areas in Kentucky; ground water hydrology; engineering geology.

Theis, Prof. Edwin R(aymond), Lehigh University, Bethlehem, Pa. *Chemistry.* Newport, Ky, July 8, 96. Chem.E, Cincinnati, 21, Ph.D, 26. Research assoc. and assoc. director, tanners research lab, Cincinnati, 21–26; assoc. sci. director, Frederick Stearns and Co, Detroit, 27; assoc. prof. *chem. eng, Lehigh,* 27–38, *prof, 38–, director tanning research.* Chem. Soc. (sec'y, div. leather and gelatin chem, 28, chairman, 29); Leather Chem. Asn. Industrial biochemistry, especially in the leather industry and sewage disposal; soaking, liming, bating and tanning of hides and skins; textile chemistry; soaking and throwing of silk.

Thelen, Rolf, 2212 Rowley Ave, Madison, Wis. *Physics.* Rising City, Nebr, Sept. 3, 85. B.S, California, 04. *U. S. Forest Service, 04–, prin. engineer in charge timber physics, Forest Products Lab.* Timber physics; seasoning of wood.

Thelin, Prof. Ernst, 1022 Lancaster Ave, Syracuse, N. Y. *Psychology.* Sheffield, Pa, 88. A.B, Marietta Col, 14; A.M, Montana, 17; Ph.D, Chicago, 26. Asst. prof. psychol, Cincinnati, 26–27; assoc. prof, Fla. State Col. for Women, 27–28; assoc. prof. *psychol, Syracuse,* 28–35, *prof, 35–, head dept, 31–, director psychol. lab, 28–* A.A; assoc. Psychol. Asn. Perception of relative visual motion; investigation of bluffing; identification of ocular function.

Theobald, Rev. John A, Loras College, Dubuque, Iowa. *Mathematics.* Meyer, Iowa, Aug. 25, 88. A.B, St. Joseph Col. (Iowa), 11; S.T.B, Catholic Univ, 15; St. Paul Sem, 11–15. *Prof. math,* Columbia Col. (Iowa), 20–39, *Loras Col, 39–* Math. Soc; Math. Asn; Midwest Meteor Asn; Iowa Acad. Astronomy; freshman mathematics.

Theobald, Prof. John J(acob), College of the City of New York, New York, N. Y. *Engineering, Public administration.* New York, N. Y, Sept. 8, 04. A.B, Columbia, 25, B.S, 26, C.E, 28, Ph.D, 35. Supt. pub. works, Lawrence, N. Y, 28–31; asst. prof. and later *assoc. prof. civil eng, sch. tech, Col. City N. Y, 31–* Consulting engineer, 30–; admin. consultant, Westchester Charter Revision Cmn, N. Y, 31–32; govt. consultant, State Cmn. Revision Tax Laws, 33–34; eng. consultant, Works Progress Admin, 35–39; admin. consultant, U. S. Bur. Budget, 39–41. Civil Eng; Eng. Educ; Road Builders Asn. Highway administration; administration of federal mapping; municipal engineering.

Theodorsen, Dr. Theodore, National Advisory Committee for Aeronautics, Langley Field, Va. *Aeronautics.* Sandeherred, Norway, Jan. 8, 97. Dipl. Ing, Norwegian Inst. Tech, 22, fellow, 22–23; Ph.D, Hopkins, 29. Instr. mech. eng, Norwegian Inst. Tech, 23–24; Hopkins, 24–29; assoc. physicist, *Nat. Advisory Cmt. Aeronautics,* 29–30, physicist, 30–31, senior physicist, 31–35, prin. physicist, 35–37, *head physicist, 37–, chief physical research div, 31–* Mem. subcmt. vibration and flutter, Nat. Advisory Cmt. Aeronautics; advisory board, sch.

advanced mech, Brown. A.A; fel. Inst. Aeronaut. Sci. Theoretical aerodynamics; vibration in airplanes; noise in aircraft; propeller and cowling research; theory of airplane flutter.

Theophilus, Dr. D(onald) R(ichard), University of Idaho, Moscow, Idaho. *Dairying.* Pittsburgh, Pa, Jan. 6, 99. B.S, Iowa State Col, 20, M.S, 24, Ph.D, 35. Asst. dairy mfg, Iowa State Col, 22–23; in charge dairying, West. Ky. Teachers Col, 23–27; assoc. prof. in charge dairy mfg, *Idaho,* 27–35, *prof. dairy husbandry and head dept,* 35– Dairy Sci. Asn. Dairy bacteriology; dairy manufacturing.

Theriault, Emery J(oseph), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Chemistry.* Van Buren, Maine, Aug. 31, 90. A.B, St. Mary's Col, 08; B.S, Catholic Univ, 13. Asst. chemist, Exp. Sta, Maine, 14–15; sanit. bacteriologist, *U. S. Pub. Health Service,* 15–18, chemist, 19–30, *prin. chemist,* 30– Capt, U.S.A, 18–19. Chem. Soc. (sec'y, div. water, sewage and sanitation, 31); Pub. Health Asn. Sanitary chemistry; bacterial oxidations; dissolved oxygen; reaction velocities; biozeolites; chemistry of tuberculosis.

Thibodeaux, B(en) H, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Breaux Bridge, La, Dec. 13, 03. B.S, Louisiana, 25; M.S, Iowa State Col, 28; Social Science fellow, Harvard, 32–33, Gen. Educ. Board fellow, 40–41. Field agent, bur. agr. econ, U. S. Dept. Agr, 25–26; instr, Louisiana, 26–27, 28–29; *research,* bur. agr. econ, *U. S. Dept. Agr,* 29–41, *office for. agr. relations, 41–* Farm Econ. Asn. Agricultural production economics; foreign agricultural relations.

Thiel, Prof. A(lbert) F(rederic), Woman's College, University of North Carolina, Greensboro, N. C. *Botany.* Staples, Minn, April 26, 87. A.B, Minnesota, 16; A.M, Nebraska, 17; Ph.D, Chicago, 31. Asst. bot, Nebraska, 16–17; field asst, bur. plant indust, U. S. Dept. Agr, 17–19, asst. pathologist, 19–20, assoc. pathologist and pathologist, 20–29; asst. prof. *bot, Woman's Col, North Carolina,* 31–35, *assoc. prof,* 35– A.A; Bot. Soc; N. C. Acad. Morphology; anatomy; vascular anatomy of hypocotyl; cereal rusts.

Thiel, Prof. Geo(rge) A, University of Minnesota, Minneapolis, Minn. *Geology.* Staples, Minn, Nov. 19, 92. A.B, Minnesota, 17, A.M, 20, Ph.D, 23. Teaching fellow animal biol, *Minnesota,* 16–17, *prof. geol. and miner,* 20– Field geologist, Minn. Geol. Surv, 20– Engineer, Sanit.C, 18–19. A.A; Geol. Soc; Soc. Econ. Geol; Geophys. Union. Gas and petroleum accumulation; the manganese minerals; iron sulfides and high temperature veins; stilpnomelane; magnetite slates; deposition of sedimentary manganese; enrichment of aluminum ores; the reduction of sulfate waters; bacteria and chemical denudation; sedimentation; marl beds and glacial deposits; sedimentary structures; sedimentary petrography.

Thiele, Dr. Ludwig A(lois), 130 Walnut St, Gowanda, N. Y. *Chemistry.* Offenbach, Germany, Sept. 4, 75. Ph.D, Halle, 99; D.Sc, Brussels, 30. Sworn chemist, Potash Syndicate, Germany, 02–03; supt, Schill and Seilacher, Stuttgart, 03–04; gen. supt, Bayer A. G. Heufeld, 04–05; tech. director chem, Fabrik, Oswitz, 05–06; gen. manager, Holland Gelatine Works, Holland, Mich, 06–14; consulting chemist and chem. engineer, Columbus, 14–22; *chem. engineer, East. Tanners Glue Co, Gowanda, 22–* Exped, Celebes. Lieut. col, C.W.S. Chem. Soc; fel. Inst. Chem; Chem. Eng. Organic, inorganic and industrial chemistry; plant engineering; gelatine; glue; sulfuric acid; extraction by volatile solvents; catalytic oxidation of natural gas; stream pollution; sewage disposal; reclamation and utilization of waste products; industrial water purification.

Thielemann, Rudolf H(arold), 1415 Curry Road, Schenectady, N. Y. *Physical metallurgy.* Portland, Oregon, Oct. 6, 12. B.S, Oregon State Col, 34, M.S, 36. *Research engineer, research lab, Gen. Elec. Co.* Soc. Metals. Development of materials for service at elevated temperatures.

Thielke, Dr. R(uben) C(hristian), Monsanto Chemical Co, 1700 S. Second St, St. Louis, Mo. *Chemistry.* Medford, Wis, July 26, 04. B.S, Oregon State Col, 29, M.S, 31; Ph.D, Michigan, 35. Asst, Oregon State Col, 29–31; teaching fellow, Michigan, 31–35; *research chemist, Monsanto Chem. Co, St. Louis, 35–* Chem. Soc. Terpenes; complex cyanides of molybdenum; oxidation-reduction indicators of the diphenylamine series; oxidation-reduction reactions in alkaline solutions.

Thielman, Prof. H(enry) P(eter), Iowa State College, Ames, Iowa. *Mathematics.* Altonau, Russia, Aug. 3, 02. A.B, Bluffton Col, 26; A.M, Ohio State, 27, Ph.D, 30. Instr. *math,* Bluffton Col, 27–28; Ohio State, 30–34; prof, Col. of St. Thomas, 34–42; *asst. prof, Iowa State Col, 42–* Asst. prof, Minnesota, 37, instr, exten. div, 41– Summers, prof, N. Texas State Teachers Col, 37–40. A.A; Math. Soc; Math. Asn; Applications of functional operations to Bessel functions and integral equations occurring in physics; function space geometry; convex functions.

Thienes, Dr. C(linton) H(obart), University of Southern California School of Medicine, Los Angeles, Calif. *Pharmacology.* Evansville, Ind, Aug. 9, 96. A.B, Oregon, 18, A.M, M.D, 23; Ph.D, Stanford, 26. Asst. zool, Oregon, 17–18, instr. anat, med. sch, 21–22, pharmacol, 22–24; nat. research fellow med, Stanford, 25; asst. prof. *pharmacol,* Oregon, 26–29; assoc. prof, *sch. med, Southern California,* 29–31, *prof. and head dept, 31–* A.A; Soc. Pharmacol; Soc. Exp. Biol; fel. Am. Med. Asn. Mycotic dermatoses; gastro-intestinal absorption of drugs; nicotine poisoning; autonomic drugs and epinephrine substitutes; innervation of the intestine; local anesthetics; embryology of veins; coronary circulation.

Thies, H(erman) R(oderick), Goodyear Tire and Rubber Co, Akron, Ohio. *Chemistry.* Peck, Kans, Sept. 27, 95. A.B, Phillips, 17; M.S, Chicago, 20. Director testing lab, Miller Rubber Co, 22–26, asst. director research, 26–30; research compounder, *Goodyear Tire and Rubber Co,* 30–33, in charge new product sales, 33–37, *asst. manager, new products develop, and manager pliolite sales, 37–* C.A.C, 17–18, lieut. Chem. Soc. (treas. and v. chairman, Akron sect). Compounding ingredients for rubber; new rubber derivatives; paper coating; paint.

Thies, Prof. O(scar) J(ulius), Jr, Box 384, Davidson, N. C. *Chemistry.* Charlotte, N. C, Dec. 11, 96. B.S, Davidson Col, 18, A.M, 23; A.M, Cornell, 25. Instr. *chem, Davidson Col,* 19–21, asst. prof, 21–25, *assoc. prof, 25–* A.A; Chem. Soc; N. C. Acad. (v. pres. and mem. exec. cmt). Inorganic and analytical chemistry.

Thies, W(ilbur) H(erman), Massachusetts State College, Amherst, Mass. *Pomology.* Leland, Mich, Oct. 24, 92. B.S, Mich. State Col, 19, M.S, 25. Instr, Mich. State Col, 20–24; *exten. horticulturist,* Mass. Col, 24–31, *Mass. State Col, 31–* Soc. Hort. Sci. Orcharding; orchard pest control.

Thiesmeyer, Dr. L(incoln) R(euber), Office of Scientific Research and Development, Washington, D. C. *Geology.* Brooklyn, N. Y, Feb. 11, 08. A.B, Wesleyan, 28; A.M, Harvard, 33, Ph.D, 37. Asst. geol, Wesleyan, 26–28; instr, Dartmouth Col, 28–29; teaching fellow, Harvard, 29–30, 33–36, instr, 36–37; asst. prof. and curator, Lawrence Col, 37–39, assoc. prof. geol, 39–41, chairman dept. physical sciences and math, 40–41; *assoc. prof. geol, Ill. Inst. Tech, 41–,* geologist and student counselor, Inst. Gas Technol, 41–42, educational director, 42–43; *research assoc, Office Sci. Research and Develop, 43–* Asst, Radcliffe Col, 34–37; leader science courses, Boston Center Adult Educ, 34–37; research, U. S. Geol. Surv, 39–41. Summers, director sch. geol, Harvard, 37; assoc. director, La. State Geol. Sch, 38. Peirce prize, Wesleyan, 26. A.A; fel. Am. Geog. Soc; Asn. Col. Geol. Teachers (v. pres, 40, pres, 41); Miner. Soc; Wis. Acad; Boston Geol. Soc. Fibrous quartz; varved deposits; heavy minerals; Precambrian geology of Virginia; geology of oil and gas; glacial geology of New England.

Thiessen, Major Alfred Henry, U.S.A. (retired), 1618 S. Arlington Ridge Road, Arlington, Va. *Meteorology.* Troy, N. Y, April 8, 72. B.S, Cornell, 98. Meteorologist, U. S. Weather Bur, 98–17, 19–20; capt, *U. S. Army,* 18, 20–36, meteorol. officer, France, 18, Ft. Monmouth, N. J, 20–21, office chief signal officer, 22–26, 32–36, Wright Field, Ohio, 26–30, Ft. Monmouth, N. J, 30–32, *retired.* Mem. staff, Science Service, 37–41. Meteorol. Soc. Visibility meter; hysteresis of iron at low and high temperatures; twilight and moonlight illumination at Salt Lake City; meteorology of great floods in the eastern United States.

Thiessen, A(rthur) E(astham), General Radio Co, Cambridge, Mass. *Radio engineering.* San Francisco, Calif, Aug. 8, 04. B.S, Hopkins, 26. Tech. staff, Bell Tel. Labs, 26–28; engineer, *Gen. Radio Co,* 28–37, *commercial eng. manager,* 37– Consultant, Nat. Defense Research Cmt; mem, Radio Indust. Advisory Cmt. Radio Eng. (cmt. on radio receivers, 32–); Elec. Eng. Gain measurements in electronic amplifiers; production testing methods; radio acoustic range finding equipment; radio communication measuring equipment; sub-

marine cable terminal apparatus; broadcast transmitter tests and control apparatus; engineering administration.

Thiessen, Prof. G(arrett) W(illiam), 408 N. Tenth St, Monmouth, Ill. *Chemistry.* Stanwood, Iowa, Jan. 9, 02. A.B, Cornell Col. (Iowa), 24; M.S, Iowa, 25, Ph.D, 27. *Asst. prof.* chem. and math, Geneva Col, 27–30; *chem, Monmouth Col, 30–* Chem. Soc. Electro-organic chemistry.

Thiessen, Dr. Gilbert, 6625 Woodwell St, Pittsburgh, Pa. *Chemistry.* Kiel, Wis, Oct. 20, 05. Sheffield, England, 25–26; Ch.B, Pittsburgh, 25, Ph.D, 30. U. S. Bur. Mines, intermittently, 21–25; asst, Pittsburgh, 26–29; tech. dept, Am. Tar Products Co, 29–31; geochem. sect, Ill. Geol. Surv, 31–37; *asst. tech. director, tech. dept, tar and chem. div, Koppers Co, 37–* A.A; Min. and Metal. Eng; Chem. Soc; Ill. Acad. Chemistry of humic acids; constitution of coal; coal carbonization; technology of coal carbonization by-products.

Thimann, Prof. Kenneth V(ivian), Harvard University, Cambridge, Mass. **[7]Botany, Plant physiology.* Ashford, Kent, Eng, Aug. 5, 04. B.Sc, London, 24, Ph.D, 28. Instr. bacter, London, 26–28, Beit fellow, 29–30; instr. biochem, Calif. Inst. Tech, 30–36; asst. prof. *plant physiol, Harvard,* 36–39, *assoc. prof, 39–, tutor biol, 36–* Lecturer, Harvard, 35–36. Summer, asst. lecturer, Hopkins Marine Sta, Stanford, 34. Stephen Hales prize, Am. Soc. Plant Physiol, 36. Bot. Soc; Soc. Plant Physiol; Soc. Growth and Develop. (sec'y, 41–); Biochem. Soc. Gt. Britain; assoc. Royal Col. Sci; London Chem. Soc. General biochemistry; proteins and amino acids; growth, hormones and correlation in plants; physiology of bacteria and Protozoa.

Thing, Dr. Curtis W(illard), Gorham, N. H. *Chemistry.* Arcadia, Nebr, Nov. 14, 94. B.S, Lenox Col, 14; M.S, Washington (Seattle), 17, Ph.D, 20. Teacher, high sch, Calif, 17–18; assoc. chem, Washington (Seattle), 19–20; *research chemist, Brown Co, Berlin, N. H, 20–* Potash from incinerator ashes; passivity of cobalt; cacodyl derivatives.

Thode, Dr. Harry G(eorge), 89 Dalewood Ave, S, Hamilton, Ont, Can. *Physical chemistry.* Dundurn, Sask, Sept. 10, 10. B.S, Saskatchewan, 30, M.S, 32; Ph.D, Chicago, 34. Instr. chem, Pa. Col. for Women, 35–36; asst, Columbia, 36–38; mem. staff, U. S. Rubber Co, 39; asst. prof. *chem, McMaster,* 39–42, *assoc. prof, 42–* Chem. Soc; N. Y. Acad; fel. Royal Soc. Can. Electrical discharges in gases; magnetic susceptibilities; separation of isotopes; vapor pressures.

Thoenen, J(ohn) R(oy), 603 Union Life Bldg, Little Rock, Ark. *Engineering.* Ithaca, Mich, Nov. 8, 86. Mich. State Col; Mich. Col. Mines. Mining and consulting engineer, various companies, U. S, Can. and Europe; *U. S. Bur. Mines, 27–, dist. engineer, Ark. and La.* Min. and Metal. Eng. (chairman, indust. mineral div, 37). Metal and non-metallic mining methods and economics; cost finding; underground stone mining; seismic vibrations from heavy surface or underground blasting; mining.

Thoennes, Prof. Gregory, St. Mary's College, Winona, Minn. *General physiology.* Kansas City, Mo, Feb. 9, 09. A.B, DePaul, 30, M.S, 32; Ph.D, St. Louis, 40. Instr. *biol, St. Mary's Col. (Minn),* 33–37, *assoc. prof, 40–* A.A; Soc. Plant Physiol; Genetic Soc; Minn. Acad. Microanatomy; protoplasm in the vitreous state; induced polyploidy.

Thom, Dr. Charles, Port Jefferson, N. Y. ***[4]Botany, Microbiology.* Mihonk, Ill, Nov. 11, 72. A.B, Lake Forest Col, 95, A.M, 97, Sc.D, 36; Ph.D, Missouri, 99. Instr. biol, Missouri, 97–99, bot, 99–01, asst. prof, 01–02; asst, Cornell, 02–04; mycologist, U. S. Dept. Agr, 04–14, in charge microbiol. lab, bur. chem, 14–27, in charge soil microbiol, bur. chem. and soils, 27–34, bur. plant indust, 34–42; *retired.* Lecturer, Maryland, 30–; grad. sch, U. S. Dept. Agr. Del, Int. Dairy Cong, 05. Nat. Acad; A.A; Bot. Soc. (gen. sect. rep, ed. board, 'Am. Jour. Bot,' 37); Phytopath. Soc; Soc. Bact. (pres, 40); Soc. Nat; Soc. Agron; Acad. Med. D. C; Bact. Soc. Wash. (pres, 18); Wash. Acad. (recording sec'y, 31–37, pres, 37); Int. Soc. Soil Sci. Food microbiology; saprophytic molds, especially Penicillium and Aspergillus; cheese and cheese ripening; food poisoning; soil microbiology; molds in allergy.

Thom, Dr. D(ouglas) A(rmour), 520 Commonwealth Ave, Boston, Mass. *Psychiatry.* Boston, Mass, Oct. 4, 87. M.D, Vermont, 12, A.M, 35. *Director, Habit Clinic for Child Guidance, Mass, 21–, State Div. Mental Hygiene, 23–; prof. psychiat, med. sch, Tufts Col, 28–; lieut. col, Med. Corps, U. S. Army.* Consultant psychiatrist, Smith Col, 25–32; St. Paul's Sch, Concord, N. H, 28–30; pres, Boston Sch. Occupational Therapy, 33– Med. council, U. S. Veterans Bur, 21–30, U. S. Veterans Admin, 30– Am. Med. Asn; Neur. Asn; Psychiat. Asn; New Eng. Soc. Psychiat. and Neur; Royal Medico-Psychol. Asn; Soc. médico-psychol. de Paris. Epilepsy; mental health of the child.

Thom, Prof. W(illiam) T(aylor), Jr, Princeton University, Princeton, N. J. **[5]Geology.* Roanoke, Va, June 9, 91. B.S, Washington and Lee, 13, hon. Sc.D, 36; fellow, Hopkins, 16–17, Ph.D, 17. Surveyor, D. C. Water Dept, 09–10; chief plan sect, bur. statist. U. S. Fuel Admin, 17–19; geologist, U. S. Geol. Surv, 19–27, in charge coal sect, 23–24, sect. fuel geol, 24–27; assoc. prof. *geol, Princeton,* 27–35, prof, 35–37, *Blair prof, 37–, chairman dept. geol. eng, 41–* Walter B. Sharp fellow, Rice Inst, 31–32. Summers, field asst, U. S. Geol. Surv, 12–16. Chairman cmt. on studies petrol. geol, Nat. Research Council, 31–35. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Geophys. Union (chairman, cmt. geophysics and geol. of continents, 35–); Seismol. Soc; Min. and Metal. Eng; Geol. Soc. Wash; Wash. Acad. Geology of petroleum and coal; structural geology.

Thoma, Prof. Kurt H(ermann), 53 Bay State Road, Boston, Mass. *Pathology.* Basle, Switzerland, Dec. 2, 83. D.M.D, Harvard, 11. Asst. and instr, Harvard Med. Sch. and dental sch, *Harvard,* 12–19, asst. prof, 19–27, prof. oral path, 27–41, *Charles A. Brackett prof. oral path. and prof. oral surg, sch. dental med, 41–* Oral surgeon and chief dental clinic, Mass. Gen. Hosp. Ed, oral surg. sect, 'Am. Jour. Orthodont. and Oral Surg.' Acad. Dental Sci. (pres, 41); Mass. Dental Soc; N. Y. Dental Soc; First Dist. Dental Soc. N. Y; Int. Asn. Dental Research. Oral anesthesia; oral roentgenology; teeth, diet and health; clinical pathology of the jaws; oral diagnosis and treatment planning; oral pathology; oral abscesses; traumatic surgery of the jaws; oral diagnosis.

Thomas, Adrian, Huron Milling Co, Harbor Beach, Mich. *Chemistry.* Savannah, Ga, Dec. 18, 89. B.S, Richmond Col, 14; A.M, Clark, 15. Pathologist, Bur. Fisheries, 15–16; acting pathologist, Va. Dept. Game and Inland Fisheries, 16–17; anal. and consulting chemist, 16–17; research chemist, Parke, Davis and Co, 19–25; assoc. and research chemist, *Huron Milling Co,* 25–34, *chief chemist, 35–* Summers, investigator, Bur. Fisheries, 11–15. 2nd lieut, Sanit.C, 18, capt, Sanit. O.R.C, 23–38. A.A; Chem. Soc; Fisheries Soc. Physiological chemistry; toxicology of fishes and stream pollution; osmotic pressure and viscosities of lipoid suspension; starch and starch products.

Thomas, Prof. Ancil R(idgway), 831 Laporte Ave, Valparaiso, Ind. *Physics.* Amboy, Ind, May 18, 01. B.S, Earlham Col, 25; M.S, Washington (St. Louis), 27, Ph.D, 30. Asst. prof. physics, *Valparaiso,* 29–33, *assoc. prof,* 33–37, *physics and math, 37–* Resonance radiation.

Thomas, Prof. Arthur W(aldorf), Columbia University, New York, N. Y. *Chemistry.* New Brunswick, N. J, Feb. 18, 91. Chemist, Columbia, 12, A.M, 14, Ph.D, 15. Instr. food chem, *Columbia,* 12–17, asst. prof, 19–23, assoc. prof, 23–28, *prof. chem, 28–* Mem, Perkin Medal Cmt, 20–27; Nichols Medal Cmt, 27–32; Chandler Medal Cmt, 27– Trustee, N. Y. Col. Pharmacy, 36– Sanit.C, 17–19, capt. A.A; Chem. Soc. (sec'y, leather div, 21–27, chairman, 28, v. chairman, N. Y. sect, 26, chairman, 27); Soc. Biol. Chem; Pharmaceut. Asn; Oil Chemists Soc; Soc. Exp. Biol; Inst. Food Technol. Colloids; food technology.

Thomas, Dr. B(ertram) D(avid), Battelle Memorial Institute, Columbus, Ohio. *Chemistry.* Renton, Wash, May 5, 03. B.S, Washington (Seattle), 29, fellow, 29–32, du Pont fellow, 32–33, Ph.D, 33. Chemist, Pacific Car Foundry Co, 27–29; research assoc. oceanog, Washington (Seattle), 33–34; physical chemist, *Battelle Mem. Inst,* 34–37, asst. to director, 37–42, *acting director, 42–* Oceanography; theory of solutions; industrial chemistry; industrial research.

Thomas, Prof. Byron H(enry), Iowa State College, Ames, Iowa. *Animal nutrition.* Oakland, Calif, Oct. 9, 97. B.S, California, 22; scholar, Wisconsin, 23–24, M.S, 24, indust. fellow, 26–29, Ph.D, 29. Instr. animal husbandry, California, 22–23; asst, Wisconsin, 24–25, teaching fellow, 25–26; director nutrition, Walker-Gordon Lab. Co, N. J, 29–31; *prof. animal husbandry, Iowa State Col, and head animal nutrition and chem, Exp. Sta, 31–* Soc. Animal Production; Inst. Nutrition. Animal nutrition and chemistry; influence of

diet on antirachitic potency of cow's milk; the quantity of vitamins A and D occurring in hen's eggs; vitamin E requirements of domestic animals.

Thomas, Dr. C(armen) C, 1930 Chestnut St, Philadelphia, Pa. *Dermatology, Syphilology.* Germany, April 15, 08. A.B, Delaware, 29; M.D, Woman's Med. Col. Pa, 32; D.Sc, Pennsylvania, 40. *Instr. dermat. and syphilol,* Woman's Med. Col. Pa, 36–39; *sch. med, Pennsylvania, 36–; prof, Woman's Med. Col. Pa, 41–* Fel. Am. Med. Assn; Soc. Investigative Dermat; Am. Med. Women's Assn. Oral bismuth treatment in early syphilis; lupus erythematosus; sarcoid disease with special reference to tuberculin neutralizing substances; rotenone in human parasitic infections; attempts to produce immunity in recurrent herpetic infections.

Thomas, Dr. Caroline Bedell (Mrs. Henry M. Thomas, Jr), Johns Hopkins Hospital, Baltimore, Md. *Physiology.* Ithaca, N. Y, Nov. 29, 04. A.B, Smith Col, 25; Smith Col. Alumnae fellow, Hopkins, 25–26, M.D, 30. House officer, dept. med, Hopkins Hosp, 30–31, asst. res, 31–33; asst. med, med. sch, Hopkins, 31–33; nat. research fellow, dept. neuropath, Harvard, 33–34; research fellow physiol, *med. sch, Hopkins,* 34–35. instr. *med, physiol. dir,* 35–41, *assoc, 41–* Physiol. Soc; Am. Heart Asn; Soc. Clin. Invest; Med. and Chirurg. Faculty Md. Cardiac arrhythmias; cerebral circulation; carotid sinus reflex; experimental hypertension; rheumatic fever.

Thomas, Dr. Cha(rle)s Allen, Monsanto Chemical Co, Dayton, Ohio. **Chemistry.* Scott Co, Ky, Feb. 15, 00. A.B, Transylvania Col, 20, Sc.D, 33; M.S, Mass. Inst. Tech, 24. Research chemist, Gen. Motors Research Corp, 23–24; Ethyl Gasoline Corp, 24–25; Thomas and Hochwalt Labs, Inc. 26–28, pres, 28–36, *cent. research director, Monsanto Chem. Co, 36–; deputy chief div. 8, Nat. Defense Research Cmt.* Director research, Sharples Solvents Corp, 32–34. Curator, Transylvania Col. Trustee, Antioch Col; John and Olga Queeny Educational Foundation; director, Monsanto Chem. Co. A.A; Chem. Soc. (chairman, Dayton sect, 30–32, councilor, 36, director at large, 42–; board eds); fel. Inst. Chem; Chem. Eng; Am. Inst; British Chem. Soc. Synthetic resins from petroleum hydrocarbons; the formation of diolefines, olefines and aromatics by the pyrolysis of hydrocarbons; plastics; synthesis of various aliphatic compounds; anhydrous aluminum chloride in organic chemistry.

Thomas, Prof. Charles A(ubrey), Kennett Square, Pa. *Entomology.* Kennett Square, Pa, May 29, 95. B.S, Pa. State Col, 21; Pennsylvania, 25–27. Junior entomologist, Japanese Beetle Lab, Riverton, N. J, 22–25; asst. prof. and *assoc. prof. econ. entom, Pa. State Col, 25–* Asn. Econ. Entom; Entom. Soc; Entom. Soc. Amer; N. Y. Entom. Soc. Truck crop, greenhouse, mushroom and drug crop insects.

Thomas, Prof. Charles D(anser), West Virginia University, Morgantown, W. Va. *Physics.* Weston, W. Va, Nov. 5, 08. A.B. and M.S, West Virginia, 30; Ph.D, Chicago, 37. Instr. *physics, West Virginia,* 32–38. asst. prof, 39–43, *assoc. prof,* 43– Physical Soc. Field theory; electro-magnetic waves.

Thomas, Lieut. Col. Charles D(ura), 147 Harvard St, Hempstead, N. Y. *Engineering.* Brownville, Maine, Dec. 27, 73. B.C.E, Maine, 95, C.E, 25. Asst. bldg. constructor, L. F. Rogers, Boston, 95; rodman, with city engineer, Taunton, Mass, 95–96; rodman and instrumentman, Metropolitan Water and Sewerage Cmn, Boston, 96–01; in charge construction surveys, U. S. Navy Yards, Boston and New York, 01–06; chief precise surveys and asst. engineer, Pa. Ry. tunnels under Hudson River, 06; office of pres, borough of Manhattan, 06–09; *asst. chief and sect. engineer, Board Transportation, New York, 09–* U. S. Govt. World War medal. Capt, C.Eng, 17–19, major, O.R.C, 25–37, lieut. col, 37– Asn. Eng. (cmt, N. Y. chap, 25); Civil Eng; Soc. Mil. Eng.

Thomas, Prof. Charles F(rank), Case School of Applied Science, Cleveland, Ohio. *Mathematics.* Union City, Pa, June 24, 75. A.B, Amherst Col, 05; M.S, Case, 27. Instr. *math,* Amherst Col, 05–06; *Case,* 06–18, asst. prof, 18–20, assoc. prof, 20–29, *prof,* 29– A.A; Math. Soc; Math. Asn; Eng. Educ.

Thomas, Dr. Charles L(a Mar), Universal Oil Products Co, Riverside, Ill. *Organic chemistry.* Hendersonville, N. C, Oct. 13, 05. B.S, North Carolina, 28, M.S, 29; fellow, Northwestern, 29–31, Ph.D, 31. Asst. chem, North Carolina, 26–29; research chemist and *assoc. director research, Universal Oil Products Co, 31–* Chem. Soc; Soc. Automotive Eng; Inst. Chem. Cymene; ketene; aliphatic hydrocarbons; catalytic cracking of petroleum.

Thomas, Prof. C(larence) D(elmar), Missouri School of Mines and Metallurgy, Rolla, Mo. *Physics.* Bozeman, Mont, Oct. 14, 00. B.S, Northeast Mo. State Teachers Col, 27; A.M, Missouri, 31, Ph.D, 38. Asst. *physics,* Missouri, 29–30; instr, *Mo. Sch. Mines,* 30–36, *asst. prof, 36–* Summer, mem. eng, sci. and management defense training program, Pa. State Col, 41. Physical Soc; Mo. Acad. Oxyluminescence efficiencies; diffraction of x-rays by liquids.

Thomas, Prof. Dale E(dmund), Allegheny College, Meadville, Pa. *Biology, Geology.* Linesville, Pa, April 3, 93. B.S, Allegheny Col, 17, M.S, 24; Ph.D, Cornell, 32. Prin, high sch, Geneva, Ohio, 19–22; instr. *biol. and geol, Allegheny Col,* 22–25, asst. prof, 25–32, *assoc. prof, 32–* Instr, Cornell, 31–32. Bot. Soc. Paleobotany.

Thomas, Dr. Donald G(ordon), Indiana University, Bloomington, Ind. *Organic chemistry.* Detroit, Mich, May 20, 13. A.B, Michigan, 34, Ph.D, 40. Asst, Michigan, 39–40, *instr. org. chem,* 40–41; *Indiana, 41–* Chem. Soc. Sex hormone analogs; Arndt-Eistert reaction.

Thomas, Dr. E(dmund) B(lanchfield), John Carroll University, Cleveland, Ohio. *Physical chemistry.* Ferguson, Mo, July 19, 10. B.S, St. Louis, 31, fellow, 31–36, M.S, 33, Ph.D, 36. Instr. *physical chem, John Carroll,* 36–39, *asst. prof, 39–* Chem. Soc. Summers, Mallinckrodt Chem. Works, St. Louis, 30–36. Reactions in the fused state; oxidation-reduction potentials.

Thomas, Edward S(inclair), Ohio State Museum, Columbus, Ohio. *Natural history.* Woodsfield, Ohio, April 22, 91. A.B, Ohio State, 13, LL.B, 16. *Curator nat. hist, Ohio State Museum, 31–* A.A; Ornith. Union; Soc. Ichthyol. and Herp; Entom. Soc. Amer; Wilson Ornith. Club; Inland Bird Banding Asn. (v. pres, 31–35); Ohio Acad. (treas, 40–42). Orthoptera; natural history.

Thomas, Prof. Evan, 40 Robinson Parkway, Burlington, Vt. *Mechanics.* Llangranog, South Wales, Aug. 25, 53. B.S, Denison, 76; B.D. Yale, 80; Dartmouth Col, 84–86, D.Ed, 38. Instr, prep. dept, Oberlin Col, 76–78; minister and journalist; instr. math, *Vermont,* 92–02, asst. prof, 06–12, assoc. prof, 12–13. prof. *math. and mech, col. eng,* 13–28, *emer. prof, 28–,* prof, col. arts and sciences, 30–33. A.A; Math. Soc; Eng. Educ; Vt. Soc. Eng. Mathematics; mathematical pedagogy.

Thomas, Dr. F(rank) L(incoln), Agricultural and Mechanical College of Texas, College Station, Texas. *Entomology.* Waltham, Mass, Oct. 16, 87. B.S, Mass. Col, 10, Ph.D, 14. Asst. entomologist, Exp. Sta, Ala. Polytech, 15–18, assoc, 20–23, acting entomologist, 24, asst. prof. zool. and entom, inst, 15–18, exten. entomologist, 18–19, acting head dept. zool. and entom, 24; *chief div. entom, Exp. Sta, Agr. and Mech. Col. Texas, 24–; state entomologist, Texas, 24–* A.A; Entom. Soc; Asn. Econ. Entom. (exec. cmt); Texas Entom. Soc. (pres, 29); Texas Acad. Cotton, truck crop and citrus fruit insect investigations.

Thomas, Prof. Franklin, California Institute of Technology, Pasadena, Calif. *Civil engineering.* Red Oak, Iowa, May 19, 85. B.E, Iowa, 08, C.E, 13. Construction foreman, Mines Power Co, Cobalt, Ont, Can, 09–10; instr. eng, Michigan, 10–12; designer, Ala. Power Co, 12–13; assoc. prof. and *prof. civil eng, Calif. Inst. Tech, 13–,* chairman div. eng, 24. Asst. engineer, U. S. Reclamation Service, 19– Colo. River dam-site explor, U. S. Geol. Surv, 22; v. chairman board directors, Metropolitan Water Dist, South. Calif. 28– Civil Eng. (pres, Los Angeles sect, 24, director, 29–); Seismol. Soc. Irrigation hydraulics; silt deposits; water supply.

Thomas, Dr. Franklin S(toakes), 6518 41st Ave, University Park, Hyattsville, Md. *Physical chemistry.* Traer, Iowa, May 14, 11. A.B, Iowa, 32, M.S, 36, Ph.D, 38. *Chemist, Naval Research Lab,* 39– Chem. Soc. Effect of gelatin on the solubility of thallous salts in water; war research.

Thomas, Dr. G(eorge) B(rinton, Jr), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Boise, Idaho, Jan. 11, 14. Spokane, 30–33; A.B, State Col. Wash. 34, A.M, 36; Ph.D, Cornell, 40. Teaching fellow, State Col. Wash. 34–36; *instr. math,* Cornell, 37–40; *Mass. Inst. Tech, 40–* Math. Soc. Theory of numbers.

Thomas, Prof. Harold A(llen), 7405 Hutchinson Ave, Pittsburgh, Pa. *Hydraulic engineering.* Ann Arbor, Mich. A.B, Columbia, 06, C.E, 08. Instr, Washington (Seattle), 09–10; *prof,* Rose Polytech, 11–22; *civil eng, Carnegie Inst. Tech, 23–* City hydraulic engineer, Pittsburgh, 27; senior engineer, U. S. War Dept, 28; consulting engineer, Pittsburgh Flood Cmn 28– A.A; Civil Eng; Eng. Educ. Flood control engineering; hydraulics of flood waves in rivers; pulling-out and collapsing strength of well casing; annealing methods for chains; water resources of the Delaware River Valley; cavitation in dams; hydraulic models.

Thomas, Dr. Harold A(llen), Jr, Harvard University, Cambridge, Mass. *Engineering.* Terre Haute, Ind, Aug. 14, 13. B.S, Carnegie Inst. Tech, 35; M.S, Harvard, 37, Sc.D, 38. *Instr. sanit. eng, Harvard, 38–* Sanitary and hydraulic engineering.

Thomas, Dr. Harold E, University of California, Berkeley, Calif. *Plant pathology.* Watsonville, Calif, March 25, 00. B.S, California, 24, Ph.D, 28. Asst, div. plant path, *California,* 25–27, junior plant pathologist, 27–30, asst. plant pathologist, 30–37, *assoc. plant pathologist, 37–, asst. prof. plant path, 39–* A.A; Phytopath. Soc. Diseases of deciduous fruit trees; strawberry and bushberry diseases; root rots of deciduous fruit trees.

Thomas, H(arold) E(dgar), 303 Federal Bldg, Salt Lake City, Utah. *Geology.* Chicago, Ill, June 16, 06. B.S, Chicago, 26, 29–31. Instr, Ohio State, 27–29; junior geologist, *U. S. Geol. Surv,* 29–35, asst. geologist, 35–40, *assoc. geologist, 40–; capt, U. S. Army.* Geophys. Union. Geology and ground water in Mokelumne area, California, and in Utah.

Thomas, Dr. H(arvey) Earl, University of California, Berkeley, Calif. *Plant pathology.* Grant, Va, Nov. 18, 90. B.S, Va. Polytech, 15, M.S, 16; Ph.D, Columbia, 20. Asst. plant pathologist, Exp. Sta, Va. Polytech, 16–17; Mayaguez, P. R, 17; asst. exten. prof. plant path, Cornell, 20–21, asst. prof, 22–31; Pa. State Col, 21–22; assoc. plant pathologist, *Exp. Sta, California,* 31–39, *plant pathologist, 39–* Vigor of plants in relation to disease; diseases of fruit trees.

Thomas, Prof. Henry C(arrison), Yale University, New Haven, Conn. *Physical chemistry.* Cheraw, S. C, Jan. 30, 10. B.S, North Carolina, 31, M.S, 32; Ph.D, Yale, 35. Research chemist, explosives dept, E. I. du Pont de Nemours and Co, 35–37; instr. *chem, Yale,* 37–41, *asst. prof, 41–* A.A; Chem. Soc; N. Y. Acad. Applications of artificial radioactivity in chemistry.

Thomas, Dr. Henry M, Jr, 1201 N. Calvert St, Baltimore, Md. *Clinical medicine.* Dec. 30, 91. B.S, Haverford Col, 12; M.D, Hopkins, 16. Intern, Mass. Gen. Hosp, 16–17; res. physician, Boston City Hosp, 19–20; asst. res. physician and res. physician, *Hopkins Hosp,* 20–22, *physician in charge med. dispensary, 22–,* asst. visiting physician, hosp, and assoc. med, *med. sch, Hopkins,* 24–39, *assoc. prof. med, 39–* Lieut, M.R.C, 18–19, major, 41–42, lieut. col, 42–43, col, 43– Am. Med. Asn; Col. Physicians; assoc. Am. Physicians; Clin. and Climat. Asn; Asn. Study Int. Secretions; Med. and Chirurg. Faculty Md. Pneumonia; thyroid heart; pulmonary infarction; diabetes; diseases of the bone; meningitis.

Thomas, Dr. H(erbert) Rex, Purdue University, Lafayette, Ind. *Plant pathology.* Riverside, Calif, April 13, 13. B.S, California, 35, Ph.D, 41; Purdue, 38–39. Agent plant path, *U. S. Dept. Agr,* 37–41, asst. pathologist and later *assoc. pathologist, div. fruit and veg. crops and diseases, bur. plant indust. in cooperation with Exp. Sta, Purdue, 41–* Soc. Hort. Sci; Phytopath. Soc; Ind. Acad. Diseases of tomato and carrot, especially fungus diseases.

Thomas, Prof. Horace D(avis), 810 Clark St, Laramie, Wyo. *Geology.* Laramie, Wyo, March 25, 05. A.B, Wyoming, 26, A.M, 28; Ph.D, Columbia, 35. Asst, Wyoming, 28; asst. curator paleont, Columbia, 29–30; instr, *Wyoming,* 31–34, asst. prof. *geol,* 34–38, *assoc. prof, 38–;* mem, *Wyo. Geol. Surv,* 33–41, *director and state geologist, 41–* Consulting petrol. geologist, Union Oil Co, Calif, 36–41; Union Pacific R.R, 38; collaborator, U. S. Coast and Geod. Surv, 41– Summers, instr, Wyoming, 29–31. Stratig. cmt, Nat. Research Council. Paleont. Soc; Asn. Petrol. Geol. (geol. names and correlations cmt, 41–). Late Paleozoic and Mesozoic stratigraphy and paleontology of Wyoming; Rocky Mountain petroleum geology.

Thomas, H(oward) R(ice), Taylor Model Basin, U. S. Navy Department, Carderock, Md. *Civil engineering.* Montvale, Va, July 12, 87. C.E, Texas, 12; fellow, Illinois, 12–14, M.S, 14. Asst. testing engineer, joint cmt, Am. Soc. Civil Eng. and Am. Ry. Eng. Asn, 14–18; testing engineer, Emergency Fleet Corp, 18–19; Texas, 19–28; special research prof. eng. materials, Illinois, 28–41; *senior physicist, Taylor Model Basin, U. S. Navy Dept, 41–* Soc. Test. Mat. Concrete materials; stresses in railroad track; rails; stresses in ship structure.

Thomas, Prof. J(acob) Earl, Jefferson Medical College, Philadelphia, Pa. *Physiology.* Steilcoom, Wash, Jan. 31, 91. B.S, M.D, St. Louis, 18, M.S, 24. Asst. *physiol,* St. Louis, 14–18, instr, 18–20, asst. prof, 20; assoc. prof, West Virginia, 20–21; St. Louis, 21–27; *prof, Jefferson Med. Col, 27–* A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Asn; Gastro-Enterol. Asn; Col. Physicians Phila. Gastric sphincters; regulation of gastric motility; enterogastric reflex; innervation of organs of digestion; gastrointestinal secretions.

Thomas, Dr. James L(ouis), National Bureau of Standards, Washington, D. C. *Physics.* Kenova, W. Va, Sept. 5, 94. A.B, Texas, 17, A.M, 23, Ph.D, 32. Instr. physics, Texas, 23–27; asst. physicist, *Bur. Standards,* 27–30, assoc. physicist, 30–36, *physicist, 36–* Lieut, U.S.A, 17–20. Manganin resistance standards; primary resistance standards of pure metals; freezing point of water; electrical resistance alloys; absolute measurements of resistance.

Thomas, J(ohn) Elmer, 501 Rivercrest Drive, Ft. Worth, Texas. *Geology, Economics.* Toledo, Ohio, Sept. 9, 92. B.S, Chicago, 12. Mining geologist, Mex, 12–13; petrol. geologist, Minnehoma Oil Co, Okla, 14–15; chief geologist, Sinclair Oil and Gas Co, 16–17; Chicago Oil Co, 17–18; consulting geologist and independent oil operator, San Antonio, Chicago and Ft. Worth, 19–28; petrol. analyst, Fenner and Beane, 28–30; v. pres, Bavarian Oil and Gas Co, Munich, 30–33; independent oil operator, Ft. Worth, San Antonio and Houston, 33–41; *assoc. price exec, fuel sect, Office Price Admin. and special asst. to Deputy Petrol. Coordinator, 41–* Chairman cmt. petrol. econ, Fed. Oil Conservation Board, 30; mem, Petrol. Admin. Board, Nat. Recovery Admin, 33. 2nd lieut, A.S, 18. Asn. Petrol. Geol. (pres, 17); Min. and Metal. Eng. Petroleum geology.

Thomas, Dr. J(oseph) J(ames), Rohm and Haas Co, 222 W. Washington Square, Philadelphia, Pa. *Biochemistry.* Columbia, Pa, Sept. 10, 09. B.S, Pa. State Col, 30, M.S, 32, Ph.D, 35. Asst. research, N. Y. Exp. Sta, Geneva, 30; instr. agr. biochem, Pa. State Col, 31–36; *biochemist, Rohm and Haas Co, 36–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Nicotine content and effect of fertilizers on composition and quality of tobacco; industrial use of enzymes with special reference to paper manufacture.

Thomas, Prof. Joseph Miller, Duke University, Durham, N. C. ***Mathematics.* Ridley Park, Pa, Jan. 16, 98. A.B, Pennsylvania, 18, Ph.D, 23. Instr. *math,* Pennsylvania, 19–24; nat. research fellow, Princeton, Harvard and Paris, 24–27; asst. prof, Pennsylvania, 27–30; *Duke,* 30–35, *prof, 35–* A.A; Math. Soc; Math. Asn; Soc. math. de France. Differential geometry; differential equations.

Thomas, Dr. Joseph S(mith), Westvaco Chlorine Products Corp, Carteret, N. J. *Chemistry.* West Springfield, Mass, July 24, 05. B.S, Bowdoin Col, 26; M.S, Middlebury Col, 28; A.M, Harvard, 32, Ph.D, 34. Instr. chem, Middlebury Col, 30–31, 34–35; *research chemist, Westvaco Chlorine Products Corp, 35–* Chem. Soc. Atomic weights; inorganic chemistry.

Thomas, Dr. Leonard C(olburn), Box 429, Midland, Texas. *Geology.* Traer, Iowa, May 14, 07. A.B, Iowa, 27, M.S, 28, Ph.D, 32. Geologist, Venezuela Gulf Oil Co, 29–31; research assoc, Iowa, 32–34; geologist, production dept, Texas Co, 34–43; *consulting geologist, 43–* Asn. Petrol. Geol. Structural geology; Precambrian of the Black Hills; petroleum geology.

Thomas, Prof. L(ewis) E, 211 Maiden Lane, Lexington, Va. *Organic chemistry.* Lima, Ohio, May 18, 13. B.S, Ohio Northern, 35; M.S, Purdue, 37. Asst, Purdue, 35–39; instr. *chem, Va. Mil. Inst,* 40–42, *asst. prof, 43–* Chem. Soc. Summers, chemist, Sun Oil Co, 35–36. Preparation of esters of 2-methyl-2-methoxyproponal; thermal decomposition of hexachloroethane and preparation of polychloropropanes.

Thomas, Prof. L(ewis) F(rancis), 7556 Stanford Ave, St. Louis, Mo. *Geography.* Pioneer, Ohio, Nov. 1, 86. B.S.

Denison, 10; fellow, Missouri, 16–18, A.M, 17; Ph.D, Chicago, 25. Prof. geol, Drury Col, 12–16; instr, Missouri, 16–18; from asst. to *prof. geog, Washington (St. Louis), 19–* Summers, Mo. State Nor. Sch, Springfield, 14–16; Colorado, 20–24, 40; Minnesota, 28–30, 32, 38. Asn. Geog; Nat. Council Geog. Teachers. Urban geography of St. Louis; the localization of business activities in metropolitan St. Louis.

Thomas, Prof. L(lewellyn) H(illeth), Ohio State University, Columbus, Ohio. ***Physics.* London, Eng, Oct. 21, 03. B.A, Cambridge, 24, Isaac Newton student, 25–28, fellow, 26–30, 1851 Exhib. scholar, 27–29, Ph.D, 27, M.A, 28; Univ. Inst. Teoret. Fysik, Copenhagen, 25–26. Asst. prof. *physics, Ohio State,* 29–30, assoc. prof, 30–36, *prof, 36–* A.A; Physical Soc; British Asn; Royal Astron. Soc; Cambridge Philos. Soc. Theoretical astrophysics and atomic physics; dynamics of the spinning electron; passage of electrified particles through matter; stellar structure.

Thomas, Dr. Lloyd B(rewster), University of Missouri, Columbia, Mo. *Chemistry.* LeMars, Iowa, June 2, 09. A.B, Missouri, 30; Ph.D, Minnesota, 35. Instr. *chem, Missouri,* 35–39, asst. prof, 39–43, *assoc. prof, 43–* Molecular activation by electron impact and collision of the second kind; sensitized electron activated reactions; resonance radiation and chemical reaction; accommodation coefficient as function of temperature.

Thomas, Prof. Lloyd E(verett), University of Missouri, Columbia, Mo. *Biochemistry.* Alma, Nebr, Oct. 4, 03. B.S, Washington (Seattle), 31, M.S, 33; Ph.D, Stanford, 38. Instr. *biochem, Missouri,* 37–39, asst. prof, 39–43, *assoc. prof, 43–* Physiological properties of insulin; methods for the quantitative determination of some amino acids; proteins of mammalian spermatozoa; arginase content of blood and tissues.

Thomas, Prof. L(yell) J(ay), University of Illinois, Urbana, Ill. *Zoology.* Minnewauken, N. Dak, Sept. 14, 92. B.S, Fargo, 17; M.S, Illinois, 21, fellow, 22–23, Ph.D, 23. Asst. chem, Fargo, 16–17; prin, Williams Consol. Sch, N. Dak, 19; asst. zool, *Illinois,* 19–22, instr. in charge zool. I labs, 23–24, assoc, 25–27, asst. prof. in charge zool. I, 27–40, *assoc. prof. zool, 41–* Summers, Puget Sound Biol. Lab, 21, 24; instr, Ill. State Nor. Sch, 25; teaching and research staff, biol. sta, Michigan, 27–; hosp. lab, Ft. Sheridan, U.S.A, 29. U.S.A, 17–18, 2nd lieut, Sanit.R.C, 25–40. A.A; Soc. Zool; Soc. Parasitol; Micros. Soc; Ill. Acad. (sec'y, ed, 'Trans,' 27–29). Parasitology; life histories of nematodes; pseudophyllidean and tetraphyllidean cestodes; trematodes; moose disease; teaching zoology; ossification centers; petrosal; marine aquaria; hydroids.

Thomas, Dr. McCalip J(oseph), A. E. Staley Manufacturing Co, Decatur, Ill. *Chemistry.* Yazoo City, Miss, Jan. 1, 14. B.S, Miss. State Col, 36; M.S, Vanderbilt, 38, Ph.D, 41. Asst. chemist, Exp. Sta, Miss. State Col, 36–37; research fellow, Northwestern, 41–42; *research chemist, A. E. Staley Mfg. Co, 42–* Chem. Soc. Organic chemistry; terpenes; sterols; carbohydrates.

Thomas, Dr. Marguerite Willcox (Mrs. L. N. Thomas), 761 Lawrence Ave, East Aurora, N. Y. *Chemistry.* Worcester, Mass, June 23, 92. A.B, Mt. Holyoke Col, 13; A.M, Ph.D, Bryn Mawr Col, 16. Asst. prof. chem, Agnes Scott Col, 16–18; Wells Col, 18–19; Wellesley Col, 19–20; chemist, Nat. Aniline and Chem. Co, 20–22; asst. prof. *chem,* Skidmore Col, 22–23; *private tutor, 23–* Summer, anal. chemist, Nat. Aniline and Chem. Co, 19. Reversible replacement of alcohols in aldehyde alcoholates.

Thomas, Prof. M(elvin) A(ubrey), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Electrical engineering.* New Castle, Nebr, Jan. 5, 03. B.S, Wisconsin, 25; M.S, Texas, 31. Hydroelec. sta. operator, Utah Power and Light Co, 25–28; instr. *elec. eng,* Texas, 28–31; from asst. to *prof, N. Mex. Col, 31–* Elec. Eng; Eng. Educ. Protective relays for power systems and for control.

Thomas, Dr. M(oyer) D(elwyn), 700 McCornick Bldg, Salt Lake City, Utah. *Agricultural chemistry.* Salt Lake City, Utah. A.B, Utah, 14; Rhodes scholar, Oxford, 14–19, B.A, 16, B.Sc, 19, M.A, 21, D.Sc, 36. Assoc. prof. agron, Utah Col, and assoc. soil chemist, Exp. Sta; chemist and *agronomist, agr. dept, Am. Smelting and Ref. Co, Utah, 26–* Chem. Soc; West. Soc. Soil Sci. (sec'y, 24, pres, 25). Soil alkali; soil structure; action of smelter waste products on soil and vegetation.

Thomas, Norman L(ouis), Box 38, Bakersfield, Calif. *Geology.* Transfer, Pa, Feb. 14, 97. B.S, Denison, 20; Chicago, 20–22, 24–25; Wisconsin, 22–23; Columbia, 25–26. Geologist, Superior Oil Corp, 23–24; paleontologist, *Pure Oil Co,* 26–38, *div. geologist, 38–* A.A; Geol. Soc; Paleont. Soc; Soc. Econ. Paleont. and Miner. (pres, 34–); Asn. Petrol. Geol; Texas Acad. Geological correlations; paleontological fossil descriptions and evolution.

Thomas, Olive J(ackman), 16 Lathrop St, Madison, Wis. *Geography.* Chicago, Ill, Aug. 15, 91. B.S, Chicago, 13; M.S, Wisconsin, 24. Teacher science, Hillside Home Sch, Wis, 13–14; Milwaukee-Downer Sem, Wis, 15–18; asst. prof. geol, geog. and physics, Milwaukee-Downer Col, 18–28; geol. and geog, Rochester, 28–31; instr. geog, Wisconsin, 31–34; critic teacher and prof. geog, Wis. State Teachers Col, Whitewater, 34–43; *prof. mil. geog, Wis. State Teachers Col, Milwaukee, 43–* A.A; fel. Am. Geog. Soc; Nat. Council Geog. Teachers. The geographic factor.

Thomas, Dean Ralph W(illiam), 624 E. Beau St, Washington, Pa. *Mathematics.* Claysville, Pa, April 30, 92. B.S, Washington and Jefferson Col, 15, fellow, 15–17, M.S, 22; Ph.D, Pittsburgh, 34. Head dept. physical science, high sch, Pa, 17–19; instr. and asst. prof. math, *Washington and Jefferson Col,* 19–41, *dean students, 35–* Math. Asn. Four-space representation of chain congruences in the plane of two complex variables.

Thomas, Dr. Robert M(elvin), 426 Montrose Drive, South Charleston, W. Va. *Organic chemistry.* Lima, Ohio, March 17, 16. A.B, DePauw, 38; M.S, Purdue, 40, fellow, 41–42, Ph.D, 42; North Carolina, 39–40. Asst, North Carolina, 39–40; Purdue, 40–41; *research chemist, Westvaco Chlorine Products Corp, 42–* Chlorination of cyclopropane; preparation and properties of chlorofluoropropanes and chlorofluoropropenes.

Thomas, Dr. R(oy), Washington University, St. Louis, Mo. *Physics.* Prince Rupert, B. C, Can, Aug. 8, 14. B.Sc, Alberta, 38; Ph.D, California, 42. Teaching fellow, California, 38–42; *instr. physics, Washington (Seattle), 42–* Physical Soc. Theoretical problems in atomic physics.

Thomas, Roy C(urtis), Ohio Agricultural Experiment Station, Wooster, Ohio. *Plant pathology.* Chesterville, Ohio, Dec. 31, 87. A.B, Col. of Wooster, 13; Ohio State, 15–16; A.M, Michigan, 17. Teacher, high sch, Ohio, 13–15; asst. bot, Michigan, 16–17; *assoc. plant pathologist, Ohio Exp. Sta, 19–* Collaborator, seed dept, bur. plant indust, U. S. Dept. Agr, 15. Bacteriologist, base hosps. 25 and 53, U.S.A, 17–19. A.A; Phytopath. Soc; Soc. Plant Physiol; fel. Ohio Acad. Bacterial diseases of plants; bacterial dissociation.

Thomas, Dr. Roy Z(achariah), 620 Aiken Ave, Rock Hill, S. C. *Chemistry.* Frederick, Md, March 19, 79. A.B, Western Maryland Col, 00; Hopkins, 00–02; A.M, West Lafayette Col, 03; Ph.D, Univ. Kansas City, 04; Columbia. V. pres. and prof. science and math, West Lafayette Col, 03–06, acting pres, 06–07; prof. science and oratory, Newberry Col, 07–13; chem. and head dept, Winthrop Col, 13–26; *pres, Thomas Educ. Tours Travel Bur.* Chautauqua lecturer; state food inspector, S. C. Contrib. ed, 'Jour. Chem. Educ.' Chem. Soc; S. C. Chem. Soc. (pres); S. C. Acad. (v. pres). Food and household chemistry.

Thomas, Prof. R(oyle) P(rice), University of Maryland, College Park, Md. *Agronomy, Soils.* Sullivan, Ind, Sept. 26, 97. B.S, Illinois, 19; fellow, Iowa State Col, 24–25, M.S, 25; Ph.D, Wisconsin, 28. Soil exp. field asst, Illinois, 19–24; asst. soils, Wisconsin, 25–28; assoc. prof. *soil technol, Maryland,* 28–37, *prof, 37–* A.A; Soc. Agron; Soil Sci. Soc; Md. Biol. Soc; Int. Soc. Soil Sci. Soil organic matter; brown root rot of tobacco; soil fertilization; rapid soil testing; soil classification; relation of minor elements to soil fertility.

Thomas, Dr. S(amuel) B(enson), 550 The Alameda, Berkeley, Calif. *Physical chemistry.* San Francisco, Calif, May 24, 05. A.B, Stanford, 27, Chem.E, 28, Ph.D, 30. Anal. chemist, Santa Cruz Portland Cement Co, 28–29; Shell fellow, Stanford, 30–31; assoc. physical chemist, U. S. Bur. Mines, 31–35; *with Shell Develop. Co, 35–* Chem. Soc. Measurement of specific heats by the Nernst method; measurement of specific heats at high temperatures by the radiation method; properties of simple organic and inorganic glasses; the reduction of iron ores by natural gas.

Thomas, Prof. Stanley (Judson), Lehigh University, Bethlehem, Pa. *Bacteriology.* Scranton, Pa, Feb. 10, 89. B.S,

Lafayette Col, 12; M.S, Lehigh, 13, A.M, 16; Ph.D, Pennsylvania, 28. Asst. biol, Lehigh, 12–13, instr, 13–16, asst. prof, 16–17; research bacteriologist, H. K. Mulford Co, 17, asst. director biol. lab, 17–19, assoc. director, 19–22; assoc. prof. *bacter., Lehigh*, 22–28. *prof, 28–, head dept. biol, 37–* Major, Sanit.R.C. A.A; Soc. Bact; Pub. Health Asn; Social Hygiene Asn. Sanitary chemistry; taxonomy of the sporulative anaerobes.

Thomas, Prof. T(racy) Y(erkes), University of California at Los Angeles, Los Angeles, Calif. **5*Mathematics.* Alton, Ill, Jan. 8, 99. A.B, Rice Inst, 21; A.M, Princeton, 22, Ph.D, 23. Nat. research fellow, 23–26; asst. prof. *math*, Princeton, 26–31, assoc. prof, 31–38; *prof, California at Los Angeles, 38–*, faculty research lecturer, 42. Nat. Acad; A.A; Math. Soc. (v. pres, 40–42); Math. Asn. Tensor analysis and differential invariants; differential geometry; theory of relativity.

Thomas, Prof. Walter, Pennsylvania State College, State College, Pa. *Agricultural chemistry.* Swansea, Wales, Dec. 3, 80. B.Sc, Wales, 05, D.Sc, 28. Asst. in research, Univ. Col, Wales, 05–06; asst. research chemist, Wellcome Chem. Research Labs, London, 06–07; Can. Dept. Agr, 08–09; assoc. chem, *Pa. State Col*, 10–15, asst. prof. agr. chem, 17–22, assoc. prof, 22–27, *prof, 27–37, plant nutrition, 37–* Mem. court governors, Univ. Col, Wales, 35– British C.W.S, 15–17. A.A; Chem. Soc; Soc. Agron; Soc. Plant Physiol; Soc. Hort. Sci; Pa. Acad; Int. Soc. Soil Sci. Therapeutically active constituents of plants; rarer elements in soils and plants; nitrogen and carbohydrate metabolism of plants; fertilizer requirements of soils; soil and plant interrelationships; plant nutrition.

Thomas, Dr. Walter S(tevens), 1321 Highland Ave, Rochester, N. Y. *Pathology.* Weimar, Texas, Aug. 23, 84. M.D, Texas, 06. Fellow path, Hopkins, 08–09, asst, 09–10; instr. and assoc, Washington (St. Louis), 11–17; director labs, Clifton Springs Sanitarium, 17–38; *assoc. path, sch. med. and dentistry, Rochester, 30–; director, Monroe County Labs, 38–* M.C, 17–19, major. A.A; Asn. Path. and Bact; Soc. Clin. Path. (pres, 43); Soc. Bact; Soc. Exp. Biol; Am. Med. Asn; fel. Col. Physicians; Asn. Cancer Research. Blood in malignant disease; hydrocephalus; intestinal Protozoa; nephritis; biological stains.

Thomas, W(illiam) A(ndrew), Box 116, Oxford, N. C. *Entomology.* Bennettville, S. C, Oct. 1, 83. B.S, Clemson Col, 08. Acting state entomologist, 08–09; asst. entom, Exp. Sta, Clemson Col, 09–13, asst. prof. zool. and entom, 13–18; exten. entomologist for N. C, *bur. entom. and plant quarantine, U. S. Dept. Agr*, 18–19, agent and expert, 19–20, collaborator, 20–21, junior entomologist, 21–25, *asst. entomologist, 25–* Teacher, high sch, N. C, 21. A.A; Entom. Soc; Asn. Econ. Entom. Southern corn-root worm; cabbage harlequin bug; cotton and strawberry root aphis; corn lantern fly; strawberry weevil; Puerto Rico mole-cricket; spinach wireworm; seed-corn maggot of potatoes; melon and pickle worms; bean leaf beetle; squash lady bird; cabbage webworm.

Thomas, Dr. W(illiam) B(enjamin), Maine Mills Laboratory, Lewiston, Maine. *Organic chemistry.* Monroe, Wis, March 14, 06. B.S, Illinois, 28; Ph.D, Wisconsin, 32. Asst. chem, Wisconsin, 28–34; instr, Bates Col, 34–39, asst. prof, 39–43; *research chemist, Maine Mills Lab, 43–* Chem. Soc. Organic nitrogen compounds; acetoacetic ester condensation.

Thomas, William D(avid), Jr, 833 Summer St, Stamford, Conn. *Petroleum chemistry.* Edwardsville, Pa, July 21, 12. B.S, Pa. State Col, 34; M.S, Columbia, 36, 36– Asst. chem. eng, Columbia, 34–40; *head petrol. chem. lab, Am. Cyanamid Co, 40–* A.A; Chem. Soc. Asphalt; stabilization of petroleum products; antioxidants; corrosion inhibitors.

Thomas, Dr. W(illiam) Hersey, 145 E. Gorgas Lane, Mt. Airy, Philadelphia, Pa. *Urology.* Philadelphia, Pa, Aug. 9, 73. A.B, Cent. High Sch, Phila, 91; M.D, Pennsylvania, 94, Medico-Chirurg. Col, 02; Vienna; Berlin; Paris; London. Asst. prof. surg, Medico-Chirurg. Col, 05–16; *prof. urol, med. sch, and urologist, univ. hosp, Temple, 16–* Asst. surgeon, Medico-Chirurg. Hosp, 03–16; Phila. Gen. Hosp, 05–16, urologist, 24– Col. Surg. Surgery.

Thomassen, Prof. L(ars), 2115 Woodside Road, Ann Arbor, Mich. *Chemical engineering.* Östre Aker, Norway, Jan. 3, 96. Chem.E, Norway Inst. Tech, 19; Int. Educ. Board fellow, 24–26; Ph.D, Calif. Inst. Tech, 28. Asst, State Raw Material Cmt, Oslo, Norway, 19–24, 27–29; asst. miner, Univ. Oslo, 22–24, 27–29; *asst. prof. chem. eng, Michigan, 29–* Chem. Soc; Physical Soc; Soc. Metals. Geochemical distribution laws; crystal structure.

Thompson, Dr. A(lberto) F(rederic), Jr, Massachusetts Institute of Technology, Cambridge, Mass. *Organic chemistry.* Waltham, Mass, Dec. 1, 07. B.S, Dartmouth Col, 28; A.M, Harvard, 31, Ph.D, 33. Instr. chem, Dartmouth Col, 28–30; Parker traveling fellow from Harvard, Munich, 33–34; *instr. org. chem*, Minnesota, 34–37; *Mass. Inst. Tech, 37–* Chem. Soc. Organic synthesis.

Thompson, Dr. A(lfred) Paul, 135 N. Craig St, Pittsburgh, Pa. *Chemistry, Metallurgy, Ceramics.* Florence, Colo, Nov. 6, 93. B.S, Mont. State Col, 15; M.S, Illinois, 23, du Pont fellow, 24–25, Ph.D, 25. From testing engineer to acting chief chemist, Anaconda Copper Mining Co, Anaconda and Great Falls, Mont, 15–22; asst. chem, Illinois, 22–25; research engineer, Gen. Chem. Co, N. Y, 25–28; research engineer and consultant, Int. Nickel Co, N. Y, 28–32; *fellow, Mellon Inst, 32–* A.A; Chem. Soc; Ceramic Soc. Chemistry and metallurgy of non-ferrous and rare metals; inorganic and heavy chemicals; physical chemistry; refractories; abrasives.

Thompson, Ben(jamin) H(unter), National Park Service, Washington, D. C. *Biology.* Cincinnati, Ohio, June 29, 04. A.B, Stanford, 28; A.M, California, 33. Wildlife div, *Nat. Park Service*, 29–35, asst. chief, 35, asst. to director, 35–37, deputy asst. director, 37–38, *chief land planning div, 38–* Soc. Mammal. (cmt. conservation land mammals). Conservation of national park wildlife and of the white pelican; national parks as an implement of conservation; wildlife research and management.

Thompson, B(rowder) J(ulian), RCA Laboratories, Princeton, N. J. *Electronics.* Roanoke, La, Aug. 14, 04. B.S, Washington (Seattle), 25. Vacuum tube research and develop, research lab, Gen. Elec. Co, 26–31; in charge research sect, research and eng. dept, radiotron div, RCA Mfg. Co, 31–40, *assoc. director* research labs, 40–41; *gen. research, RCA Labs, 42–* Morris Liebmann prize, Inst. Radio Eng, 36. A.A; fel. Physical Soc; Radio Eng. (director, 37–). Ultra-high frequency electronics; electronic fluctuation phenomena; high frequency amplifiers; television electronics; electrometer tubes; screen-grid tubes.

Thompson, Dr. C(arl) P(ollard), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal husbandry.* Garrison, Kans, July 19, 84. B.S, Kans. State Col, 04; M.S, Okla. Agr. and Mech. Col, 22; M.S, Iowa State Col, 23, Ph.D, 37. Exten. specialist, Kans. State Col, 15–18; *prof. animal husbandry, Okla. Agr. and Mech. Col, 18–* Soc. Animal Production. The effect of a low protein diet upon the prenatal and postnatal development of rats and swine; cottonseed meal as a protein supplement for swine; the use of charcoal, slack coal and wood ashes in the swine ration; the preparation of grains for feeding hogs.

Thompson, Dr. Charles Baker, New York University College of Medicine, New York, N. Y. *Psychiatry.* A.B, Haverford Col, 09; M.D, Hopkins, 13. First asst. res. psychiatrist, Henry Phipps Psychiat. Clinic, Hopkins, 14–16, asst. dispensary psychiatrist, 16–22; psychiatrist, schs, Baltimore, Md, 22–27; instr. psychiat, col. physicians and surg, Columbia, 27–29; *senior psychiatrist, City Dept. Hosps, New York, 29–;* instr. *psychiat, col. med, N. Y. Univ*, 33–41, *asst. clin. prof, 41–* In charge psychiat. div, out-patient dept, Sinai Hosp, Baltimore, 19–22; attending physician, Vanderbilt Clinic, 27–29; sci. asst, Lifwynn Foundation, 32–, v. pres; in charge mental hygiene clinic, Bellevue Hosp, 39– Ed, 'Mental Health,' 23–26. A.A; Am. Med. Asn; Psychiat. Asn; Psychopath. Asn; South. Med. Asn; N. Y. Acad. Med; Med. and Chirurg. Faculty Md. Mental disorders; psychiatric approach to crime; relation of psychosis, mental defect and personality types to crime; psychiatric study of recidivists; normal competitive madness; effects of incarceration on the adult criminal.

Thompson, Prof. Claude E(dward), 1029 Madison St, Evanston, Ill. *Psychology.* Ky, Sept. 19, 10. A.B, Wittenberg Col, 34, A.M, 36; Ph.D, Ohio State, 39. Instr, Wittenberg Col, 35–36; asst. personnel director, Ohio Fuel Gas Co, 36–38; instr. and research assoc, Ohio State, 36–39; psychologist, U. S. Pub. Health Service, 39–40; *asst. prof. psychol, Northwestern, 40–* A.A; Asn. Applied Psychol; assoc. Psychol. Asn; Midwest. Psychol. Asn. Motor and mechanical abilities; effects of conditions of work and various suggested attitudes on production and feelings of tiredness and boredness; psy-

chology of personnel methods; a new test for determining vocational interests.

Thompson, Dr. Clyde L(owry), 4922 New Plymouth Road, Pittsburgh, Pa. *Ceramic engineering.* Mt. Vernon, Ill, April 22, 03. B.S, Illinois, 27, M.S, 30, Ph.D, 36. Asst, Illinois, 27–28, instr. ceramic eng, 28–34, assoc, 34–36; *manager Hays lab, Harbison-Walker Refractories Co, 36–* Summers, ceramic research, Ill. Geol. Surv, 29; ceramic engineer, Ludowici-Celadon Co, Coffeyville, Kans, 30. A.A; Miner. Soc; fel. Ceramic Soc. Micro-structure and thermal expansion of glazes; mineral changes in clays during firing; refractories.

Thompson, Prof. D(aisy) Ruth, 309½ N. Eighth St, Sterling, Kans. *Chemistry.* New Concord, Ohio. A.B, Sterling Col, 18; fellow, Kansas, 19–20, A.M, 20. *Prof. chem, Sterling Col, 20–* A.A; Chem. Soc; Kans. Acad. Thio-imidazolones.

Thompson, Dr. David H(iram), 239 Natural History Bldg, University of Illinois, Urbana, Ill. *Zoology.* Dayton, Ind, Feb. 27, 97. B.S, Purdue, 19; M.S, Illinois, 21, fellow, 23–24, Ph.D, 24. Asst. zool, Illinois, 19–23; *zoologist, Ill. Nat. Hist. Surv, 23–, in charge aquatic biol. and fisheries research, 26–* Field asst, Ind. Geol. Surv, 17; lookout, Selway Nat. Forest, U. S. Forest Service, 18; collector, Puget Sound Marine Sta, 21. Limnol. Soc; Soc. Ichthyol. and Herp; Ill. Acad. Fisheries biology; management of inland waters; population densities, rates of growth, migrations, variations, growth forms, reactions, diseases, foods, habits and life histories of fishes; statistics; genetics; structural and functional properties of genes; interrelation of species, geographical races and natural hybrids; relative growth in fishes.

Thompson, Dr. Dorothy D(ewhurst), Wheaton College, Norton, Mass. *Chemistry.* Newton, Mass, May 22, 09. A.B, Mt. Holyoke Col, 31, Skinner fellow, 31–32, A.M, 32; Ph.D, Mass. Inst. Tech, 35. Instr. *chem, Wheaton Col. (Mass),* 35–39, *asst. prof, 39–* Chem. Soc; New Eng. Asn. Chem. Teachers. Purification and physical properties of organic compounds; dipole moments and Raman spectra.

Thompson, Dr. E(ustis) H(enry), 1301 St. Paul St, Baltimore, Md. *Electrical engineering.* Baltimore, Md, March 10, 83. E.E, M.E, Cornell, 05; hon. D.E, Am. Int. Acad, 31. Tests, Gen. Elec. Co, 05–08, supt. construction, steam turbines and elec. machinery, 09–15, exec. eng, 12–13; consulting engineer, 15–18; elec. designer, Bethlehem Steel Co, 18–20; elec. engineer, Universal Steel Co, 20–21; asst, eng. dept, West Penn Power Co, 21–22; research and lubrication engineer, Baltimore Copper Smelting and Rolling Co, 25–32; statistician, traffic surv, Baltimore, Md, 33–35; power surv, Curtis Bay plant, U. S. Indust. Alcohol Co, 35–38; inspection dept, Glenn M. Martin Aircraft Corp, 38–40; *asst. mech. engineer, Chem. Warfare Service, U. S. Army, 40–* Lecturer, Am. Soc. Mech. Eng, 30. Assoc. ed, 'Power,' 22–25. Trustee, Am. Int. Acad. Silver double wreath medal, Am. Int. Acad, 31. Elec. Eng; Mech. Eng. Steam turbines; economy of generation and use of steam; efficiency of lubrication; vibration meter; economical method for controlling electric furnace electrode current.

Thompson, Dr. G(eorge) E(dward), University of Georgia, Athens, Ga. *Plant pathology.* Belmont, Ont, Can, Oct. 20, 03. B.S.A, Ont. Agr. Col, 27; Nat. Research Council Can. scholar, Toronto, 29–30, M.A, 31; Ph.D, Cornell, 37. Asst. bot, Toronto, 27–31; *plant path,* Cornell, 31–36, instr, 36–37; asst. prof, *Georgia,* 37–41, *assoc. prof, 41–* Mycol. Soc; Path. Soc. Fungi of Georgia.

Thompson, Dr. Harold, Council of Scientific and Industrial Research, Cronulla, N. S. W, Australia. *Fisheries.* Aberdeen, Scotland, Oct. 12, 90. M.A, Aberdeen, 12, B.Sc, 20, D.Sc, 27. Asst. prof. biochem, Edinburgh, 21–22; naturalist, Fishery Board, Scotland, 22–31; director, Fishery Research Lab, St. John's, Newfoundland, 31–37; *chief div. fisheries, Council Sci. and Indust. Research, Australia, 37–* Biology; biology of haddock and cod; systematics of Tunicata; plankton ecology.

Thompson, Dr. Harold Lincoln, 1930 Wilshire Blvd, Los Angeles, Calif. *Anatomy, Surgery.* Bayard, Iowa, May 23, 97. A.B, Iowa, 19; M.S, Chicago, 21, M.D, Rush, 23; fellow, Minnesota, 26–30, Ph.D, 30. House surgeon, N. Y. Hosp, 25; teaching fellow surg, med. sch, Minnesota, 25–26; instr. *surg,* sch. med, Southern California, 31–36; *asst. prof, Col. Med. Evangelists, 36–; attending surgeon, Los Angeles County Gen. Hosp, 32–* Assoc. attending surgeon, St. Vincent's Hosp, 30–; Hosp. Good Samaritan, 34– Fel. Col. Surg. (sec'y-treas, South. Calif. chap, 40–); Los Angeles Surg. Soc. (sec'y-treas, 41). Clinical surgery; experimental surgery.

Thompson, Dr. Helen, 12 E. 86th St, New York, N. Y. *Psychology.* Huntington, L. I, N. Y, March 14, 97. A.B, Vassar Col, 19; A.M, Columbia, 23, Ph.D, 27. Prof. math, Ky. Col. for Women, 19–22; asst, Teachers Col, Columbia, 24–25, Lincoln Sch, 25–26; research assoc. anthropometry and statist, psycho-clinic, Yale, 26–31, biometry, clinic child develop, 31–41; *assoc. attending psychologist, N. Y. Post-Grad. Med. Sch. and Hosp, Columbia, 41–* Consulting psychologist, Cannon St. Health Center, Brightside Day Nursery and Kindergarten, 39–; Spence-Chapin Adoption Service, 41– A.A; Psychol. Asn; Asn. Applied Psychol; Asn. Physical Anthrop; fel. Soc. Research Child Develop. Education of deaf mutes; anthropometry of infants; genetic and developmental psychology; mental measurement; twins; clinical child psychology.

Thompson, Prof. Helen B(ishop), University of California at Los Angeles, Los Angeles, Calif. *Biochemistry.* B.S, Kans. State Col, 03, M.S, 07; A.M, Columbia, 13; Ph.D, Yale, 17. Prof. household econ, Lincoln, 07–09; R. I. State Col, 09–12; prof. and dean women, New Hampshire, 13–15; prof. nutrition and dietetics, Conn. Col. for Women, 15–18; prof. nutrition and dietetics and dean div. home econ, Kans. State Col, 18–23; prof. *home econ, California at Los Angeles,* 23–42, *emer. prof, 42–* Lecturer, Brown, 11–12. A.A; Home Econ. Asn; Calif. Dietetic Asn. Nutrition; growth in the albino mouse; biology and chemistry of food; physical development of children; comparative studies of dietaries in public homes for children.

Thompson, Prof. Henry Dewey, Hunter College, 68th St. and Park Ave, New York, N. Y. *Geology.* Montebello, Va, May 21, 98. B.S, Bridgewater Col, 22; A.M, Columbia, 27; Ph.D, N. Y. Univ, 35. Teacher, high sch, W. Va, 22–24, prin, 24–28; instr. *geol, Hunter Col,* 28–35, asst. prof, 35–40, *assoc. prof, 41–, chairman dept. geol. and geog, 42–* Summers, instr, Concord State Teachers Col, Athens, W. Va, 25, 27. A.A; fel. Am. Geog. Soc; N. Y. Acad. Appalachian geomorphology; general earth science.

Thompson, Dr. H(enry) Theron, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Ephraim, Utah, Jan. 19, 11. A.B, Utah, 32; Ph.D, Harvard, 37. Asst. org. chem, Harvard, 37–39; *research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 39–* A.A; Chem. Soc. Oxidation-reduction potentials of quinone anils.

Thompson, Dr. Herbert E(lmer), Jr, University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Biochemistry.* Rochester, N. Y, June 18, 10. B.S, Rochester, 32, M.S, 33, Ph.D, 39. Asst. plant chemist, Gen. Foods Corp, 34–35; research fellow, *sch. med. and dentistry, Rochester, and Strong Mem. Hosp,* 36–42, *research assoc. obstet. and gynec, 42–* Chem. Soc. Physiological action of the antisyphilitic bismuth drugs.

Thompson, Prof. H(omer) C, New York State College of Agriculture, Ithaca, N. Y. *Horticulture.* Montgomery Co, Md, Jan. 5, 85. B.S, Ohio State, 09, M.S, 23, Ph.D, 26. Asst. prof. hort. and asst. horticulturist, Miss. Agr. and Mech. Col, 09–10; assoc. prof. hort, Clemson Col, 10–11; asst. horticulturist, U. S. Dept. Agr, 11–14, horticulturist, 14–18; *prof. veg. crops and investigator veg. crops, Exp. Sta, Cornell, 18–, head dept, 21–* A.A; Soc. Hort. Sci. (v. pres, 24, pres, 25); Soc. Plant Physiol. Vegetable crops; vegetable production and storage; vegetable cultivation; ecological factors and growth response of vegetable crops.

Thompson, Prof. Hugh M, Milligan College, Tenn. *Chemistry.* Davidson, N. C, May 11, 00. A.B, Wake Forest Col, 20; scholar, Hopkins, 20–21; M.S, N. C. State Col, 26, Ph.D, 28. Prin, high sch, N. C, 21–22; prof. chem. and gen. sci, Mars Hill Junior Col, 22–24; teaching fellow, N. C. State Col, 24–28; *prof. chem. and physics, Milligan Col, 28–* Preparation of furfural and oxalic acid from cotton seed hulls; lipolytic action with particular reference to the influence of various preservatives and other added substances.

Thompson, Prof. I(an) Maclaren, University of Manitoba, Winnipeg, Man, Can. *Anatomy.* Harbour Grace, Newfoundland, Sept. 13, 96. B.Sc, Edinburgh, 19, Baxter scholar, M.B, Ch.B, 20. Lecturer *anat,* McGill, 20–24, asst. prof, 24–27; assoc. prof, California, 27–32, prof, 32–36, chairman div, 34–36; *prof, Manitoba, 36–* Consultant, Winnipeg Gen. Hosp, Children's Hosp, Winnipeg and St. Boniface Hosp. A.A; Asn. Anat; Anat. Soc. Gt. Britain and Ireland; British Med. Asn. Hepatic vessels and ducts; cutaneous innervation.

Thompson, Prof. James S(tratton), 5540 Kenwood Ave, Chicago, Ill. *Physics.* Bedford, Iowa, Nov. 13, 99. B.S, Chicago, 22, Ph.D, 30. Asst. prof. and assoc. prof. *physics, Ill. Inst. Tech, 29–33, prof. and chairman dept, 33–* Physicist, Chicago Radium Inst. A.A; fel. Eng. Educ; Asn. Physics Teachers (pres, Chicago sect, 35); Physical Soc; Chicago Physics Club (pres, 43); Swedish Eng. Soc, Chicago. Motion of positive ions in gases; reflection of positive ions; radioactivity; medical application.

Thompson, J(ohn) Eric (Sidney), Carnegie Institution, 10 Frisbie Place, Cambridge, Mass. *Archeology.* London, Eng, Dec. 31, 98. Winchester Col, England; Cambridge. Asst. curator, Field Museum Nat. Hist, Chicago, 26, 28–35; *mem. staff, div. hist. research, Carnegie Institution, 35–* Hon. prof, Museum Nac. Arch. Hist. Etnog, Mex; research assoc, Field Museum Nat. Hist. Carnegie expeds, Cent. Amer, 26, 36, 38, 42; archeologist, British Museum exped, British Honduras, 27; Marshall Field expeds, Cent. Amer, 27, 28, 29, 31, 34. Cor. mem. Royal Anthrop. Inst; cor. mem. Soc. de Hist. e Geog. de Guatemala. Latin American archeology; ancient civilizations of Maya, Mexico and South America.

Thompson, Dr. J(ohn) G(raham), National Bureau of Standards, Washington, D. C. *Metallurgy.* Eau Claire, Wis, Aug. 11, 94. Ch.B, Cornell, 15, Ph.D, 20. Bur. Standards and U. S. Dept. Agr, 21–29; Cerro de Pasco Copper Corp, 29–30; *senior prin. metallurgist, Bur. Standards, 30–* Min. and Metal. Eng; Soc. Metals; Wash. Acad. Pure and rare metals; gases in metals.

Thompson, Dr. J(ohn) G(rant), 1919 N. Grand Ave, Sherman, Texas. *Physics.* B.Sc, Trinity Col. (England), 20; B.S. and A.M, Columbia, 23; Ph.D, Zurich, 35. *Prof,* McGill; Norwich; Bern Acad, Switzerland; physics and math, Austin Col; *Denison.* Heat changes in analysis; heat properties and control.

Thompson, Dr. J(ohn) M(urray), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Kokomo, Ind, Dec. 22, 02. A.B, DePauw, 25; M.S, Lehigh, 29; Ph.D, California, 35. Asst. math, Lehigh, 27–29; instr, Purdue, 29–32; Rice Inst, 32–34; exten. specialist agr. econ, California, 35–37; *with agr. adjust. admin, U. S. Dept. Agr, 37–* Math. Soc; Econometric Soc; Farm Econ. Asn. Mathematics; mathematical economics.

Thompson, Dr. J(oseph) J(ohn), 1400 Traver Road, Ann Arbor, Mich. *Analytical chemistry.* Newark, N. J, May 17, 00. A.B, Michigan, 27, M.S, 28, Ph.D, 31; LL.B, La Salle Exten. Univ, 40. Asst, Michigan, 27–31; in charge anal. research, A. O. Smith Corp, Milwaukee, 31–33; instrs. Milwaukee exten, Wisconsin, 33–34; research chemist, *W. K. Kellogg Co, Battle Creek, 34–36, in charge production research, 36–* Shared Am. Pharmaceut. Mfrs. Asn. prize, 30. Chem. Soc; Inst. Chem; Soc. Metals. The macro- and micro-determination of halogens and metals in organic compounds; determinations of perchlorates; determinations of mercury, lead and manganese by means of periodate; lead periodate.

Thompson, Prof. Joseph O(sgood), Amherst College, Amherst, Mass. *[1]Physics.* Weymouth, Mass, July 29, 63. A.B, Amherst Col, 84; Ph.D, Strassburg, 91. Instr. math, Amherst Col, 87–89; *physics,* Haverford Col, 91–94; assoc. prof, *Amherst Col,* 94–18, prof, 18–28, *emer. prof, 28–* Fellow by courtesy, Yale, 20. A.A; Physical Soc. Elasticity of metals.

Thompson, Prof. J(oseph) Trueman, 3802 Juniper Road, Baltimore, Md. *Civil engineering.* Baltimore, Md, March 28, 91. B.S.E, Hopkins, 17. Rodman, construction dept, Baltimore and Ohio R. R. Co, 10–11; instrumentman, Roland Park Co, Baltimore, 11–13; exp. engineer, Black and Decker Mfg. Co, 18–19; instr. and assoc. *civil eng, Hopkins,* 19–22, assoc. prof. and *prof, 22–* Director highway traffic advisory cmt, U. S. War Dept, 42–43. Summers, inspector, Chas. T. Maine, Boston, 20; highway research specialist, bur. pub. roads, U. S. Dept. Agr, 21–41, chief highway engineer, pub. roads admin, Fed. Works Agency, 41– Highway research board, Nat. Research Council. Manager, Int. Road Cong, D. C, 30. C.Eng, 17–18, capt. Civil Eng. Models in civil engineering instruction; load tests on concrete; cement in reinforced concrete columns; static and impact strains in concrete; effects of pavement type on impact reaction; arch construction; legislative regulation of motor vehicles; weights and dimensions of trucks; study of motor vehicles in passing.

Thompson, Dr. Laura, University of Chicago, Chicago, Ill. *Anthropology.* Honolulu, Hawaii, Jan. 23, 05. A.B, Mills Col, 27, Radcliffe Col, 28; Ph.D, California, 33. Asst. ethnologist, Bishop Museum, Honolulu, 29, fellow, Fiji Islands, 33; research assoc, Am. Council, Inst. of Pacific Relations, 37; anthrop, Hawaii, 38; social scientist, community surv. educ, Territory of Hawaii, 40; *coordinator research on Indian educ, cmt. human develop, Chicago, 41–; consultant, U. S. Office Indian Affairs, 41–* Consultant, U. S. Naval Govt, Guam, 38. Anthrop. Soc. Human development; administration of minority groups; ethnography and applied anthropology in Fiji; education and applied anthropology in Guam; personality development among the Indians of the Southwestern United States.

Thompson, Prof. Lawrence D(orland), Washington University School of Medicine, St. Louis, Mo. *Medicine.* Rajaburee, Siam, April 1, 92. B.S, Rutgers, 17; M.D, Cornell, 22. Asst. med, *sch. med, Washington (St. Louis),* 24, instr, 25–28, *asst. prof. clin. med, 28–* Lecturer, Oklahoma, 27–29; Kansas, 28–30. Am. Med. Asn; Cent. Soc. Clin. Research (sec'y, 28–). Internal medicine; clinical pathology.

Thompson, Dr. L(eonard) G(arnett), Jr, Grazing Service, Lyon Bldg, Reno, Nev. *Soils.* Deer Lodge, Mont, March 24, 03. B.S. Mont. State Col, 28; fellow, Iowa State Col, 28–30, M.S, 29, Ph.D, 31. Teaching fellow, Iowa State Col, 30–31; teacher agr. and physics, Tenn. State Teachers Col, Johnson City, 31–32; instr. bacter, Tennessee, 34–35; prof. agron, Panhandle Agr. and Mech. Col, 35; *asst. soil surveyor,* soil conservation service, U. S. Dept. Agr, 35–40; *grazing service, U. S. Dept. Interior, 40–* Soil fertility and bacteriology.

Thompson, Dr. L(ewis) R(yers), 17 Virgilia St, Chevy Chase, Md. *Surgery.* Lafayette, Ind, Aug. 6, 83. M.D, Louisville, 05. Philippine Constabulary, 06–09; asst. surgeon, *U. S. Pub. Health Service,* 10–14, passed asst. surgeon, 14–20, surgeon, 20–30, *asst. surgeon gen. and chief div. sci. research, 30–, director nat. inst. health, 37–* Gilman Thompson lecturer, Cornell; DeLamar lecturer, Hopkins. Mem. div. med. sciences, Nat. Research Council; sci. director, int. health div, Rockefeller Foundation, 32–34. Am. Med. Asn; Pub. Health Asn; fel. Col. Dentists. Industrial hygiene.

Thompson, Dr. Louis T(en) E(yck), 340 E. Maple Road, Indianapolis, Ind. *Physics.* South Haven, Mich, Oct. 24, 91. B.S, Kalamazoo Col, 14; A.M, Clark, 15, Ph.D, 17. Instr. and asst. prof. physics, Clark, 17–19, research fellow, ballistic inst. and indust. research labs, 19–20; nat. research fellow, 20–23; prof. physics, Kalamazoo Col, 23–24; physicist, Naval Proving Ground, 23–35, prin. physicist, 35–41, head physicist, 41–43; *director research and develop, Carl L. Norden, Inc, 42–* A.A; Physical Soc; Va. Acad. Ballistics; ordnance.

Thompson, Prof. Luther, Mayo Clinic, Rochester, Minn. *Bacteriology.* South Londonderry, Vt, Jan. 3, 90. A.B, Clark, 16; A.M, Illinois, 23, Ph.D, 25. Instr. *bacter,* Pennsylvania, 20–21; asst, Illinois, 21–24; instr, *Mayo Foundation, Minnesota,* 25–29, *asst. prof, 30–;* first asst. clin. path, *Mayo Clinic,* 25–30, *bacteriologist, sect. clin. path, 30–* Soc. Bact; Pub. Health Asn. Food poisoning; blood agar classification of spore-forming anaerobic bacteria; Rhinoscleroma; synthetic media; vegetable extracts in culture mediums; mass-forming cocci; bacteremias due to gram negative anaerobic organisms; culture medium for diphtheria bacilli; actinobacillosis of cattle; systematic relationship of actinobacillus; gram negative bacilli of the genus Bacteroides; culture methods for Neisseria.

Thompson, Prof. M(arcus) L(uther), University of Kansas, Lawrence, Kans. *Geology, Paleontology.* Liberty, Miss, July 12, 06. B.S, Miss. State Col, 30; M.S, Iowa, 33, Ph.D, 34. Research assoc, Iowa, 34–36; paleontologist, Shell Oil Co, 37–38; geologist and paleontologist, Phillips Petrol. Co, 38–39; asst. prof. geol. and paleont, N. Mex. Sch. Mines, 39–40, assoc. prof, 40–42; *asst. prof. geol, Kansas, 42–; geologist, Kans. Geol. Surv, 42–* A.A; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Geol. Soc; Geol. Soc. Switzerland. Upper Paleozoic stratigraphy; micropaleontology.

Thompson, Prof. Mark J, Northeast Experiment Station of the University of Minnesota, Duluth, Minn. *Agricultural engineering.* Winsted, Minn, July 28, 84. B.S, Minnesota, 11, M.S, 12. Field agent, div. farm management, U. S. Dept. Agr, 12–13; *assoc. prof. farm eng, Minnesota, and supt, Northeast Exp. Sta, 13–* A.A; Minn. Acad. Farm management; reclamation of timber lands; northern field crops; stump and stone land reclamation; farm management in cut-over country of the Lake States.

Thompson, Dr. Marvin R(ussell), 113 W. 18th St, New York, N. Y. *Pharmacology, Therapeutics.* Waubay, S. Dak, July 11, 05. Ph.C, Minnesota, 26; B.S, George Washington, 30; Ph.D, Hopkins, 34; hon. Ph.M, Phila. Col. Pharmacy, 38. Assoc. prof. pharmacol, George Washington, 28–30; prof. pharmacol. and therapeut, sch. pharmacy, Maryland, 30–38; *director, Warner Inst. Therapeut. Research, 38–* Assoc. pharmacologist, food and drug admin, U. S. Dept. Agr, 27–30; consultant pharmacologist, 34–35; pres, Gustavus and Louise Pfeiffer Research Foundation. Ebert medal, Am. Pharmaceut. Asn, 30. A.A; Pharmaceut. Asn. (Ebert prize cmt, 30, pres, Baltimore branch, 32); Agr. Chem; Minn. Pharmaceut. Asn; Md. Biol. Soc. Chemical and biological assays; general pharmacology; chemical isolation and pharmacology of ergosterine and other alkaloids of ergot; glycosides of digitalis; amino acid metabolism; therapeutic detoxication.

Thompson, Prof. M(aurice) de Kay, Massachusetts Institute of Technology, Cambridge, Mass. *Electrochemistry.* Covington, Ky, July 23, 77. B.S, Mass. Inst. Tech, 98; Ph.D, Basle, 03. Asst. physics, *Mass. Inst. Tech,* 98–01, instr. *electrochem,* 01–07, asst. prof, 07–13, assoc. prof, 13–30, prof, 30–42, *emer. prof, 42–* Electrochem. Soc; Am. Acad. Applied electrochemistry; dielectric constant of liquid ammonia; Siemens process for winning copper; free energy of some halogen and oxygen compounds; equilibria of monovariant systems at high temperatures; electroplating; over-voltage; fused salts.

Thompson, M(aurice) R(aymond), U. S. Bureau of Mines, Norris, Tenn. *Electrochemistry.* Lexington, Mass, Dec. 5, 88. B.S, Mass. Inst. Tech, 11. *Chemist and metallurgist,* Nat. Carbon Co, 11–12; Chile Explor. Co, 12–16; Gen. Elec. Co, 16–18; Baltimore Copper Smelting and Rolling Co, 18–21; Bur. Standards, 21–41; *Bur. Mines, 41–* C.W.S, U.S.A, 18. Electrochem. Soc. (publication cmt, 26–30, director, 30–33). Electrodeposition of metals and nonmetallics; determination of hydrogen ions; colloids; electrokinetics; leaching.

Thompson, Prof. M(ilton) J(ohn), University of Texas, Austin, Texas. *Aeronautical engineering.* Grand Rapids, Mich, July 28, 04. B.S.E, Michigan, 25, M.S.E, 26; Guggenheim Aeronaut. Foundation fellow, Warsaw Polytech. Sch, 28–30, Sc.D, 30. Instr. math, col. eng, Michigan, 26–28, asst. prof. aeronaut. eng, 30–37, assoc. prof, 37–41; *grad. prof. aeronaut, Texas, 41–* Consulting engineer and patent expert, 30– Assoc. fel. Inst. Aeronaut. Sciences (advisory board, 34–); Mech. Eng; Eng. Educ; Aeronaut. Asn. Theoretical and applied aerodynamics; wind tunnel investigations; aerodynamics of airplane design; fluid mechanics.

Thompson, Noel F(inley), State Capitol, Madison, Wis. *Plant pathology.* Oakland, Calif, Feb. 6, 91. Whitworth Col, 11–14; B.S, Washington (Seattle), 15, M.S, 16; Wisconsin, 20–25. Field asst, U. S. Dept. Agr, 17–18; asst. prof. bot, Idaho, 19–20; assoc. pathologist, office cereal investigations, U. S. Dept. Agr, 20–27; *assoc. plant pathologist, State Dept. Agr. and Markets, Wis, 27–* U.S.A, 18. Phytopath. Soc. Plant disease control in Wisconsin.

Thompson, Norman J(ulien), 184 High St, Boston, Mass. *Metallurgy.* Andover, Mass, March 13, 94. B.S, Mass. Inst. Tech, 16. Metallurgist, Chevrolet Motor Co, 17–18; research engineer, State Indust. Waste Cmn, Conn, 18–21; metallurgist, Stamford Rolling Mills, 21–25; *director, Factory Mutual Labs, 26–, pres, Factory Mutual Research Corp, 41–* Consultant, Nat. Defense Research Cmt. A.A; Chem. Soc; Fire Protection Asn; Standards Asn; Soc. Test. Mat. Fire and explosion prevention; mechanism of combustion; fire extinguishers; chemical warfare.

Thompson, Dr. Ralph B(rewster), Universal Oil Products Co, Riverside, Ill. *Organic chemistry.* Carbondale, Ill, Feb. 22, 13. B.Ed, South. Ill. Nor. Univ, 34; A.M, Harvard, 36, Ph.D, 38. Austin teaching fellow and asst, Harvard, 34–38; asst. to J. B. Conant, 38–39; *research chemist, Universal Oil Products Co, 39–* Chem. Soc. Tautomerism; largering compounds; isomerization and alkylation of paraffin hydrocarbons.

Thompson, Dr. R(alph) L(eroy), 607 N. Grand Ave, St. Louis, Mo. *Pathology.* Lisbon, Maine, Nov. 15, 73. A.B, Bates Col, 96, A.M, 02; M.D, Harvard, 00. Fellow, Rockefeller Inst, 02–03; asst. pathologist, Boston City Hosp, 03–04; assoc. prof. *path, St. Louis,* 04–06, prof, 06–25, *emer. prof, 25–; director, Nat. Path. Lab, 18–* Hosp. commissioner, St. Louis, 33–41. Asn. Path. and Bact; Am. Med. Asn. Immunity; pathological anatomy; surgery and pathology of the thyroid and parathyroid gland.

Thompson, Dr. Randall L(eslie), [illegible]tern Reserv[illegible] versity School of Medicine, Cleveland, Ohio. *Bacteri[illegible]* Utica, Mo, Oct. 22, 05. B.S, Washington (Seattle), 2[illegible] M.S, 28; Sc.D, Hopkins, 31; M.D, Chicago, 40. Instr. [illegible] Western Reserve, 31–33; nat. research fellow, Harvard Sch, 33–34; research assoc, med. sch, George Washington 35; *asst. prof. bacter, sch. med, Weste[illegible] Reserve, 35–* A[illegible] Immunol; Soc. Bact. Immunity; filtera[illegible] viruses.

Thompson, Dr. Richard, University of Colorado School o Medicine, Denver, Colo. *Bacteriology.* T[illegible]mple Sowerby, Eng Oct. 30, 98. A.B, Oregon, 20, M.D, 24. Nat. research fello[illegible] med, 27–29; instr. *bacter,* col. physicians and surg, Co[illegible]mbia 28–31, asst. prof, Sch. Trop. Med, Puerto Rico, 31–[illegible] physicians and surg, univ, 33–38, assoc. prof, 38–41; *prof, sch med, Colorado, 41–* Soc. Bact; Soc. Exp. Biol. Fi[illegible]bl viruses; bacteriology and immunology of the eye; lysoz[illegible]

Thompson, Dr. Robert D(eane), R. D. 1, Ea[illegible] N. Y. *Physical chemistry.* Grand Rapids, Mich, Oct. [illegible] B.S.E. (Chem. Eng) and B.S.E. (Math), Michigan, 31, [illegible] Prescott scholar, 33–34, Ph.D, 37. Teaching fellow ch[illegible] Michigan, 31–33, 34–36, asst, 36–37; Horace H. Rackham fel low, Bur. Standards, 37–38; *research chemist and tec[illegible] viser, Taylor Instrument Co, 38–* Precision electrical ductivity measurements involving redetermination of sta reference values; precision thermometry in connection National Bureau of Standards comparison of thermody[illegible] and international temperature scales; manufacture o[illegible] meters and hydrometers.

Thompson, Robert N(eal), 3604 Linden Ave, Knoxvi[illegible] Tenn. *Physics.* Kingston Springs, Tenn, Aug. 23, 75. B Nashville, 05; Chicago, 06–09; Columbia, 15–16. Instr. *ph[illegible]* Montana, 09–10, asst. prof. and head dept, 10–20; asst. Ga. Tech, 20–22, assoc. prof, 22–28; local rep, Monroe Calcu[illegible] ing Machine Co, 29–43; *instr. physics for air cadets, nessee, 43–*

Thompson, Dr. Ross C(alvin), U. S. Department of Ag culture, Beltsville, Md. *Genetics.* Cambridge, Ohio, Nov. 96. B.S, Colo. State Col, 23, M.S, 24; Ph.D, Maryland, 3[illegible] Asst. horticulturist, Exp. Sta, Colo. State Col, 24–28; assoc horticulturist, *bur. plant indust, U. S. Dept. Agr,* 28–43, *horti culturist, 43–* Bot. Soc. Wash. Vegetable genetics and breed ing.

Thompson, Prof. R(oyal) B(urleigh), 117 Admiral Road Stillwater, Okla. *Poultry husbandry.* Dora, Oregon, Oct. 4, 89. B.S, Oregon State Col, 13. Foreman poultry farm, Exp Sta, Oregon State Col, 13–16; head poultry dept, N. Mex. Col 16–20; Arizona, 20–23; *prof. poultry husbandry and hea[illegible] dept, Okla. Agr. and Mech. Col, 23–* U. S. del, Sixth World's Poultry Cong; chairman youth program, 7th World's Poultry Cong. Poultry Sci. Asn. (director, pres, 37); Asn. South Agr. Workers; World's Poultry Sci. Asn. (v. pres, Am. sect). Poultry feeding, breeding and management.

Thompson, Dr. R(ufus) H(enney), University of Kansas Lawrence, Kans. *Morphology.* St. Louis, Mo, Dec. 16, 08 A.B, Kansas, 36, A.M, 37; Ph.D, Stanford, 41. Asst. instr Kansas, 36–38; teaching asst, Stanford, 38–41; *instr. bot Kansas, 41–* Summers, teaching asst, Marine Biol. Lab, Woods Hole, 40; instr, Chesapeake Biol. Lab, 42. Morphology of the algae and bryophytes.

Thompson, Prof. Russell I(rvin), R. D. 5, Carlisle, Pa. *Educational psychology.* Reading, Pa, Dec. 29, 98. A.B, Dickinson Col, 20; Ph.D, Yale, 32. Teacher Greek and psychol. Williamsport Dickinson Sem, 21–24; director, Wesley House Settlement, New Haven, 24–27; assoc. prof. psychol. and educ, *Dickinson Col,* 27–41, *prof. educ, 41–, registrar, 35–, director summer sch, 42–* A.A. Experimental studies in honesty; libraries.

Thompson, Lieut. Samuel Vincent, 60 Hillside Ave, Tenafly, N. J. *Physiology, Neuropsychiatry.* Mt. Jewett, Pa, Sept 10, 09. B.S, Geneva Col, 31; M.S, Iowa, 35, Ph.D, 37, M.D, 41. Instr. science, Knoxville Col, 31–33; asst, Iowa, 33–34, research assoc, 34–37, instr. pharmacol, 37–41; *med. officer, U. S. Naval Res, 41–* A.A; Chem. Soc; Iowa Acad. Thermal and electrolytic effects on embryonic movements; morphine addiction; myasthenia gravis.

Thompson, Sanford E(leazer), Thompson and Lichtner Co, Inc, 620 Newbury St, Boston, Mass. *Engineering.* Ogdensburg, N. Y, Feb. 13, 67. B.S, Mass. Inst. Tech, 89. Factory construction and operation, 86–96; consulting engineer, 96–17; Thompson and Lichtner Co, 17–25, *pres, Thompson and*

...ner Co, Inc, 36– Mem. Pres. Harding's econ. advisory ...nd. unemployment conf, 21; Hoover Cmt. on Elimination of Waste in Indust, 21; expert consultant to U. S. Sec'y War, ...d Trustee, Chaplain David Sanford Fund. Lieut. col, ...A, 17–18. Civil Eng; Mech. Eng; Soc. Test. Mat. (past ...airman, C-9); hon. mem. Concrete Inst. (past v. pres); ...l. Inst. Management; Taylor Soc. (past pres); Boston Soc. Civil Eng; hon. mem. Inst. Naukowej Orfanizacji, Warsaw. Development of scientific methods in industry and construction; factory organization and management; industrial research; industrial management and construction.

Thompson, Seton H(ayes), 3814 Jocelyn St, Washing... D. C. *Biology.* Seattle, Wash, Jan. 4, 06. B.S, Washington (Seattle), 27, M.S, 29; Stanford, 29–31. Sci. ...Bur. Fisheries, 29–30, junior aquatic biologist, 30–31, asst. ...dir. Alaska fisheries, 31–42; *supply corps, U. S. Naval ...42, lieut. commander.* A.A; Fisheries Soc; Biol. Soc. ...g... Aquatic biology; life history of Pacific salmon; growth ...Pacific coast lamellibranchs; analysis of fishery statistics.

Thompson, Prof. Sophus (Goodwin), 2936 Dyer, Dallas, Texas. *Structural engineering.* Hatton, N. Dak, March 13, ...B.S, N. Dak. Col, 25. Instr. *civil eng,* Arkansas, 26–28; ...st. prof, *South. Methodist,* 28–31, assoc. prof, 31–35, *prof,* ...acting head dept, 32–35, *head dept, 35–* Assoc. Civil Eng; ... Educ.

...mpson, Prof. T(heos) J(efferson), University of Ne...aska, Lincoln, Nebr. *Chemistry.* Northville, S. Dak, Nov. ..., 86. Michigan; Chicago; A.B, Nebraska, 13, A.M, 15, Ph.D, ...1; LL.D, Houghton Col, 40. Instr. chem. and physics, Milton...ale Wesleyan Col, 13–14; asst. chem, Nebraska, 14–15; prof. ... dean men, Miltonvale Wesleyan Col, 15–18; asst. and instr. ...em, *Nebraska,* 18–21, asst. prof, 21–25, assoc. prof, 25–27, ...of. *and dean student affairs, 27–* Chairman, Basic Science ...ard in Med, Nebr. Hercules Powder Co, 18–19; major, ...W.S.R. A.A; Chem. Soc. Solubilities of fatty acid salts; ...hydrolysis of proteins; the relation of diet to blood constitu...ents; synthesis of coumarins, hydantoins, substituted succinic ...acids and benzyl esters; mechanism and vitalism; university ... administration.

Thompson, Prof. Thomas G(ordon), 4002 Burke Ave, Seattle, Wash. *Chemistry.* Rosebank, N. Y, Nov. 28, 88. A.B, Clark, 14; M.S, Washington (Seattle), 15, Ph.D, 18; Carnegie scholar, British Iron and Steel Inst, 15. Asst. chemist, Am. Brass Co, 06–11; Am. Steel and Wire Co, 12; teaching fellow *chem, Washington (Seattle),* 14–17, asst. prof, 19–23, assoc. prof, 23–29, *prof, 29–, director oceanog. labs, 30–; lieut. col, Chem. Warfare Service, U. S. Army, 42–* Travel grant, Rockefeller Foundation, Europe, 30, Nat. Research Council and Nat. Acad. Sciences rep, Int. Geod. and Geophys. Union, Stockholm, 30, Lisbon, 33, Edinburgh, 36, Washington, 39; chairman int. cmt. oceanog. of Pacific, Pacific Science Cong, 35– Capt, C.W.S, 17–19, C.W.S.R, 19–24, major, 24–42. A.A; Chem. Soc. (v. chairman, div. chem. educ, 24, div. water, sewage and sanit, 24, chairman, Puget Sound sect, 22–25); Am. Geog. Soc; Geophys. Union (chairman, oceanog. sect, 35–38); Oceanog. Soc. of Pacific; Int. Asn. Physical Oceanog. Oceanography; inorganic and analytical chemistry; chemistry of the sea; toxic gases.

Thompson, Dr. Thomas R(obert), Agfa Ansco, Binghamton, N. Y. *Organic chemistry.* Chicago, Ill, Jan. 16, 14. B.S, Purdue, 37; A.M, Temple, 39; Eli Lilly and Co. fellow, Texas, 40–41, Ph.D, 42. Lab. asst, Temple, 37–39; instr. chem, Texas, 39–40, asst, research inst, 41–42; *research chemist, Agfa Ansco div, Gen. Aniline and Film Corp, 42–* Chem. Soc. Nuclear methylation of phenols; Grignard reactions; hydantoins; sensitizing dyes.

Thompson, Dean W(alter) P(almer), University of Saskatchewan, Saskatoon, Sask, Can. *Botany.* Jarvis, Ont, April 3, 89. B.A, Toronto, 10, 1851 Exhib. scholar, 10–13; A.M, Harvard, 12, Ph.D, 14. *Prof. biol. and head dept, Saskatchewan, 14–, dean* junior cols, 33–38, *arts and sciences, 38–* Research assoc, California, 29–30. A.A; Bot. Soc; Soc. Nat; Genetics Soc; fel. Royal Soc. Can. (pres, biol. sect, 40). Genetics and cytology of cereals.

Thompson, Dr. W(alter) W, Kansas State College, Manhattan, Kans. *Veterinary pathology.* Winfield, Iowa, July 22, 01. D.V.M, Mich. State Col, 29. Vet. practitioner, 29–30; asst. bacter, Mich. State Col, 30–36; *asst. prof. vet. path, Kans. State Col, 36–* Vet. Med. Asn. Lymphocytomatosis of domestic animals; various aspects of bovine tuberculosis.

Thompson, Prof. W(arren) O(sborne), 985 Gilbert St, Boulder, Colo. *Geology.* Palo Alto, Calif, Oct. 14, 98. A.B, Colorado, 22; Ph.D, Stanford, 35. Instr. geol, Washington (St. Louis), 22–23, 24–25, geologist, Midwest Ref. Co, Denver, 23–24; instr. *geol, Colorado,* 26–28, asst. prof, 29–35, assoc. prof, 35–41, *prof, 41–* Geologist, California Co, Denver, Colo, 38–39; Standard Oil Co, B. C, Can, 38–39; Phillips Petrol. Co, 43. Grant-in-aid to study Calif. beaches. Nat. Research Council, 31. Asn. Petrol. Geol; Rocky Mt. Asn. Petrol. Geol. (v. pres, 36–38, pres, 39). Petrography; sedimentation; oil geology.

Thompson, Dr. Warren S(impson), Miami University, Oxford, Ohio. *Sociology, Statistics.* Weeping Water, Nebr, April 29, 87. A.B, Nebr. Wesleyan, 07; A.M, Nebraska, 11; Chicago, 11–12; Ph.D, Columbia, 15. Instr. sociol, Michigan, 13–18; acting prof. rural sociol, Cornell, 19–20, prof, 20–22; *director, Scripps foundation for research in popul. problems, Miami (Ohio), 22–* Statist. expert, War Dept, 18–19; special agent, Bur. Census; consultant in popul, Nat. Resources Cmt. Trustee, Science Service, 36– Popul. Asn. Amer. del, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, Paris, 37. A.A; Sociol. Soc; Statist. Asn; Social Sci. Research Council; Popul. Asn. Amer. (pres, 36). The growth and distribution of population.

Thompson, Dr. Will S(croggs), 804 Quackenbos St, Washington 11, D. C. *Analytical chemistry.* Crawfordsville, Iowa, July 19, 04. A.B, Muskingum Col, 25; A.M, Columbia, 29, Ph.D, 34. Instr. chem, St. Francis Col. (N. Y), 30–33; research chemist, New York City lab, Borden Milk Co, 35–36; gen. labs, U. S. Rubber Co, Passaic, N. J, 36–38; instr. chem, Adelphi Col, 38–39, asst. prof. and chairman dept, 39–42; *industrial specialist, plastics sect, chem. div, War Production Board, 42–* Chem. Soc. Conditions influencing co-precipitation in analytical barium sulfate precipitates; vinyl polymers.

Thompson, Prof. Willard C(handler), Rutgers University, New Brunswick, N. J. *Poultry husbandry.* Sun Prairie, Wis, Nov. 24, 90. B.S.A, Wisconsin, 12; Ph.D, N. Y. Univ, 34. Acting head dept. animal husbandry, Arkansas, 12–13; *prof. poultry husbandry, Rutgers, and poultry husbandman, N. J. Exp. Sta, 13–* Director nat. inst. poultry husbandry, Harper Adams Agr. Col, England, 24–26. Assoc. ed, 'Poultry Science,' 26–29. Commander, Order of Merit, Spain. 2nd lieut, Sanit.C, 18. Poultry Sci. Asn; Statist. Asn; Int. Asn. Poultry Husbandry (exec. cmt. for England, 24–26). Poultry nutrition, housing and environment; commercial poultry breeding and rabbit culture for fur and wool; water-fowl culture; pigeon production for table purposes; egg farming; biometric analysis.

Thompson, Prof. Willard C(urtis), Lee Junior College, Goose Creek, Texas. *Organic chemistry.* Marion, Kans, Sept. 15, 94. A.B, Kansas, 18, M.S, 22; Am. Petrol. Inst. fellow, Texas, 28–30, Ph.D, 30. Chemist, Bonner Portland Cement Co, 19; Ft. Worth Lab, 19–20; instr. chem, Iowa State Col, 20–21; asst. city chemist, Kansas City, Mo, 22–23; prof. chem, Daniel Baker Col, 23–27; Ga. State Col. for Men, 31–33; Westminster Col, 35–36; city chemist, Mexia, Texas, 36–37; *prof. chem, Lee Junior Col, 37–* Chem. Soc; fel. Inst. Chem. Isothiourea ethers; thiazolidines; nitrogen compounds in petroleum.

Thompson, Dr. Willard O(wen), 700 N. Michigan Ave, Chicago, Ill. *Medicine.* Fredericton, N. B, Can, Feb. 17, 99. B.A, Dalhousie, 19; M.D, Harvard Med. Sch, 23. Intern, Boston City Hosp, 23–25; fellow med, Harvard Med. Sch, 25–28, Henry P. Walcott fellow, 28–29, asst. chem, Harvard, 27; asst. clin. prof. *med,* Rush Med. Col, Chicago, 29–35, assoc. clin. prof, 35–41; *assoc. prof, col. med, Illinois, 41–* Asst, Mass. Gen. Hosp, 25, fellow in charge metabolism lab, 26–29; nat. research fellow, Harvard, 26–28; assoc. attending physician, Presb. Hosp, Chicago, 30–, research assoc, Cook County Hosp, 34–40. A.A; Soc. Clin. Invest; Am. Med. Asn; fel. Col. Physicians; Asn. Study Goiter; Asn. Study Int. Secretions; Soc. Exp. Biol; assoc. Am. Physicians; Cent. Soc. Clin. Research. Blood volume; effect of posture on circulation; chemistry, physiology and pathology of the thyroid, parathyroid, pituitary, sex and adrenal glands; cerebrospinal fluid.

Thompson, Dr. W(illiam) F(rancis), University of Washington, Seattle, Wash. *Zoology.* St. Cloud, Minn, April 3, 88. A.B, Stanford, 11, Ph.D, 30. Asst. ichthyol, Stanford, 09–13; asst. fish and game commissioner, Calif, 13; sci. asst, B. C, 14–17; director, State Fisheries Lab, Calif, 17–24; Int. Fisheries Cmn, 25–39; *prof. fisheries, Washington (Seattle), 30–, director sch. fisheries, 30–* Director Int. Pacific Salmon

Fisheries Cmn, 37– A.A; Soc. Ichthyol. and Herp. (pres, west. div, 30); West. Soc. Nat. Fishes of Japan and South America; economic survey of Mollusca of British Columbia; life history of the sardine, albacore and halibut; condition of the Pacific halibut fishery; sockeye salmon of Fraser River.

Thompson, Dr. W(illiam) H(ertzog), University of Omaha, Omaha, Nebr. *Clinical psychology.* Greeley, Colo, June 16, 95. A.B, Omaha, 17; A.M, Nebraska, 25; Ph.D, Ohio State, 30. Asst. prof, Nebraska, 29–30; *prof. psychol. and head dept. philos. and psychol, Omaha, 30–, dean col. arts and sciences, 42–; director child study service, schs, Omaha, Nebr, 37–* Assoc. Psychol. Asn; Asn. Applied Psychol; Asn. Mental Deficiency. Brain surgery and psychology; analysis of errors in written composition by deaf children; a Mongolian with superior attainment in the language arts; an experiment with the Dalton plan.

Thompson, Dr. William R(ae), 883 Warren St, Albany, N. Y. *Biochemistry, Mathematics.* New York, N. Y, July 29, 96. A.B, Columbia, 23; Ph.D, Yale, 30. Asst, lab. biophys. research, Mem. Hosp, New York, 22–24; path, sch. med, Yale, 24–36; *senior biochemist, div. labs. and research, State Dept. Health, Albany, 36–* A.A; Math. Soc; Soc. Biol. Chem; Statist. Asn; Inst. Math. Statist. Biophysics; irradiation effects upon enzymes and living systems; algebraic number theory; respirometry; enzyme chemistry and viscosimetric estimation; projectometry; mathematical statistics; volumetric calibration apparatus.

Thompson, Dr. W(illiam) R(obin), Farnham House Laboratory, Farnham Royal Bucks, Eng. *Entomology.* London, Ont, Can, June 29, 87. B.S.A, Ont. Agr. Col, 09; M.S, Cornell, 12; D.Sc, Paris, 21; Ph.D, St. Maximin, France, 24. Bur. entom, U. S. Dept. Agr, 09–10, 12–13, 19–28; *asst. director, Imp. Inst. Entom, London, England, 28–; teacher entom, faculty science, London, 39–* Asst, Cornell, 11; demonstrator, Cambridge, 14–15; British Navy, 15–19. Prix Passet, Soc. entom. de France, 22. Fel. Royal Soc; Asn. Econ. Biol. England (v. pres. and councilor, 32); Entom. Soc. London (councilor, 38). Problems relating to the biology, development and anatomy of insect parasites.

Thoms, Prof. Herbert, Yale University School of Medicine, New Haven, Conn. *Obstetrics, Gynecology.* Waterbury, Conn, Jan. 5, 85. M.D, Yale, 10; Hopkins, 14–15. Intern, Mem. Hosp, New London, Conn, 10–11; asst. res, Sloane Hosp. for Women, 12; asst. obstet. and gynec, *sch. med, Yale,* 15–16, path, 16–17, assoc. clin. prof. *obstet. and gynec,* 25–27, *assoc. prof,* 27– Consulting obstetrician, Milford Hosp, 21–, Meriden Hosp, 22–, Charlotte Hungerford Hosp, 23–; consulting surgeon, William W. Backus Hosp, 33–; assoc. obstetrician and gynecologist, New Haven Hosp. and Dispensary. Ed, 'Yale Jour. Biol. and Med'; literary ed, 'Conn. State Med. Jour.' Sec'y, Conn. Clin. Cong. Fel. Col. Surg; fel. Gynec. Soc; fel. New Eng. Surg. Soc; fel. N. Y. Acad. Med; Conn. Med. Soc. (v. pres, 37); Conn. Acad; New Haven County Med. Asn. (pres, 26). Variations of the female pelvic architecture; constitution studies in relation to parturition; history of obstetrics in America.

Thomsen, Dr. F(rederick) L(undy), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Newport News, Va, Aug. 7, 98. B.S, Md. Agr. Col, 17; M.S, Wisconsin, 19, Ph.D, 25. Asst. prof. agr. econ, Kans. State Col, 19–20; asst, Wisconsin, 23–24; from asst. prof. to prof, Missouri, 25–36; *prin. and head agr. economist, bur. agr. econ, U. S. Dept. Agr, 36–, head div. marketing and transportation research.* Marketing and prices of farm products.

Thomsen, Prof. Lillian C(lara), Mary Baldwin College, Staunton, Va. *Biology.* Farmington, Mo, March 2, 94. B.S, Southeast Mo. State Teachers Col, 20; M.S, Cornell, 29, Ph.D, 35. Supt. nature study, schs, Cleveland Heights, Ohio, 20–24; prof. *biol,* Pa. State Teachers Col, Edinboro, 25–32; teacher, Valle Crucis Sch. for Girls, 34–36; instr, Bethany Col, 36–37; *prof, Mary Baldwin Col, 37–* Va. Acad; Va. Ornith. Soc. Life histories of Cratopogonidae.

Thomson, Andrew, 149 Admiral Road, Toronto, Ont, Can. *Meteorology.* Owen Sound, Ont, May 18, 94. M.A, Toronto, 16. *Assoc. physicist, dept. terrestrial magnetism, Carnegie Institution, 22–;* director, Apia Observatory, Samoa, 24–29; aerologist, Meteorol. Services, New Zealand, 30; chief physicist, *Meteorol. Service Can,* 32–39, *asst. controller, 39–* Meteorol. Soc. (councilor, 37–39, v. pres, 40); fel. Royal Soc. Can. Upper winds over south Pacific and Canada.

Thomson, Dr. Betty F(landers), Connecticut College, New London, Conn. *Plant morphology.* Cleveland, Ohio, May 10, 13. A.B, Mt. Holyoke Col, 35, A.M, 38; Ph.D, Columbia, 42. Asst. *bot,* Mt. Holyoke Col, 36–38; Barnard Col, Columbia, 38–41; *instr,* Vermont, 41–43; *Conn. Col, 43–* A.A; Bot. Soc. Floral morphology.

Thomson, Prof. D(avid) L(andsborough), McGill University, Montreal, Que, Can. *Biochemistry.* Aberdeen, Scotland, Nov. 14, 01. M.A, Aberdeen, 21, B.Sc, 24; 1851 Exhib. scholar, Cambridge, 25–27, Ph.D, 28; Grenoble; Graz. Lecturer *biochem, McGill,* 28–29, asst. prof, 29–33, assoc. prof, 33–36, *prof, 36–, chairman dept, 41–, dean faculty grad. studies and research, 42–* Fisheries Research Board Can. Exec. cmt, Can. Council Nutrition. Soc. Biol. Chem; Can. Physiol. Soc; fel. Royal Soc. Can; fel. Can. Inst. Chem; Biochem. Soc. Gt. Britain. Pigments of insects; muscle conductivity; hormones of the placenta, parathyroid and anterior pituitary.

Thomson, Prof. Earl W(entworth), U. S. Naval Academy, Annapolis, Md. *Physics.* Worcester, Mass, Dec. 30, 93. A.B, Clark, 13; A.M, Dartmouth Col, 15; Chicago; Hopkins. Asst. instr. and instr. physics, Dartmouth Col, 13–16; asst. prof. math. and physics, Hobart Col, 16–17; instr. physics, Case, 19; from instr. to senior prof. elec. eng. and physics, U. S. Naval Acad, 19–42; *col, Coast Artil. Corps, U. S. Army,* 42–U.S.A, 17–18, capt; C.A.R, 19–28, lieut. col, 28–36, colonel, 36– A.A; Asn. Physics Teachers; Coast Artil. Asn. Gunnery for field service; electrical measurements; gyroscope; physics of aviation; sound detection; optics.

Thomson, Pres. Francis A(ndrew), Montana School of Mines, Butte, Mont. *Mining, Metallurgy.* London, Eng, Dec. 21, 79. E.M, Colo. Sch. Mines, 04, M.S, 14, Sc.D, 23; Ecole des Mines, Paris; Royal Sch. Mines, London. Professional practise, west. states and Can, 95–07; prof. mining and metal, State Col. Wash, 07–11, acting dean faculty, 14–16; dean sch. mines, Idaho, 17–28; *pres, Mont. Sch. Mines,* 28– Consulting engineer, U. S. Bur. Mines, 18–27; director, Idaho Bur. Mines and Geol, 19–28; Mont. Bur. Mines and Geol, 28– Min. and Metal. Soc; Min. and Metal. Eng. (director; chairman, Columbia sect, 14, 25; Mont. sect, 34); Eng. Educ; Northwest Sci. Asn. (pres, 30); Mont. Soc. Eng. Cyanidation of gold and silver ores; flotation; geology of gold and silver deposits; economics of the mineral industry.

Thomson, Dr. George, 1031 Metropolitan Ave, Milton, Mass. *Organic chemistry.* Chicago, Ill, March 7, 99. M.S, Mass. Inst. Tech, 22, Ph.D, 30. Instr. physics, Mass. Inst. Tech, 22–26, research assoc, research lab. org. chem, 30–36; *research chemist, W. B. Wescott Lab, Dover, 37–* Chem. Soc. Pyrolysis of hydrocarbons.

Thomson, Prof. J. Ellis, University of Toronto, Toronto, Ont, Can. *Mineralogy.* Toronto, Ont, July 27, 82. B.A.Sc, Toronto, 07; Ph.D, Harvard, 29. Demonstrator *miner, Toronto,* 12–14, lecturer, 14–21, asst. prof, 21–29, assoc. prof, 29–33, *prof, 33–, head dept, 43–* Field work, Geol. Surv. Can, 18–26; Ont. Dept. Mines, 10, 15, 16. Fel. Miner. Soc. (pres, 38); fel. Geol. Soc; Soc. Econ. Geol; Can. Inst. Min. and Metal. (sec'y, Toronto branch, 21–24, chairman, 24); fel. Royal Soc. Can; Royal Can. Inst. (hon. sec'y, 27–31, 2nd v. pres, 31–35, pres, 35–38); British Asn; London Miner. Soc; Eng. Speaking Union (pres, Ont. branch, 43–). Mineralography.

Thomson, Prof. J(ames) C(laude), 99 Claremont Ave, New York, N. Y. *Organic chemistry, Biochemistry.* Sprakers, N. Y, April 18, 89. B.S, Rutgers, 10, fellow, 10–12, M.S, 11, B.D, 16; A.M, Columbia, 16, Rockefeller fellow, 23–24, Ph.D, 33. Instr. *chem,* Rutgers, 16–17; *prof. and head dept, Nanking, 18–* A.A; Chem. Soc; Chem. Soc. China; Sci. Soc. China; Far East. Asn. Trop. Med. Foods; nutrition; chemistry of Chinese wood oil, eleostearic acids and Chinese foods.

Thomson, Dr. James E(dgar), Department of Mines, Parliament Bldgs, Toronto, Ont, Can. *Geology.* Hensall, Ont, Feb. 14, 06. M.A, Toronto, 29; fellow, Wisconsin, 30–32, Ph.D, 32. *In charge geol. field parties, Ont. Dept. Mines, 30–,* asst. geologist, 36–41, *assoc. provincial geologist, 41–* Coleman gold medal, Toronto, 28. Geology and mineral deposits of different areas in Ontario.

Thomson, Dr. J(ohn) D(avid), 309 E. Fairchild, Iowa City, Iowa. *Physiology.* Onawa, Iowa, April 11, 12. A.B, Morningside Col, 33; M.S, Chicago, 36; Ph.D, Iowa, 40. Asst. zool, *Iowa,* 37–39, *physiol, col. med,* 40–41, *research assoc, 41–* Iowa Acad. Physiology of neuromuscular regeneration.

Thomson, Prof. J(oseph) F(raser), Tulane University, New Orleans, La. *Mathematics.* New Orleans, La, March 18, 04. B.E, Tulane, 25; M.S, Union (N. Y), 27; fellow, Michigan, 30–32, Ph.D, 32. Student engineer, Gen. Elec. Co, 25–27; instr. *math,* Tulane, 27–30; Michigan, 30–32; *Tulane,* 33, *asst. prof, 34–* Math. Soc; Math. Asn; La. Eng. Soc; New Orleans Astron. Soc. (sec'y, 35). The three body problem.

Thomson, Dr. K(enneth) B(ogue), National Smelting Co, 6700 Grant Ave, Cleveland, Ohio. *Physics.* Strathroy, Ont, Can, June 10, 01. B.A, Western Ontario, 23, M.A, 24; Ph.D, Michigan, 32. Lecturer physics, Queen's (Can), 28–30, 32–33; instr, Michigan, 30–31; research assoc, cancer research labs, grad. sch. med, Pennsylvania, 33–34; physics, Michigan, 34–37; *with Nat. Smelting Co, 37–* Physical Soc; Optical Soc. Fluorescence of solid nitrogen; collision processes in gases; spectrographic intensity measurements; quantitative spectrographic analysis.

Thomson, Malcolm M(acmillan), The Dominion Observatory, Ottawa, Ont, Can. *Astronomy.* Nelson, B. C, Jan. 3, 08. B.A, Manitoba, 29. *Astronomer, Dom. Observatory, 30–* Royal Astron. Soc. Can. Time service; transmission and reception of time by wireless.

Thomson, Prof. R(obert) B(oyd), University of Toronto, Toronto, Ont, Can. *Botany.* Prescott, Ont, Sept. 16, 70. B.A, Toronto, 99. From lecturer to prof. *plant morphol, Toronto,* 06–41, *emer. prof, 41–,* head dept. bot, 28–41. Pres. sect. morphol. and anat, Int. Bot. Cong, 35. A.A; Bot. Soc; Royal Soc. Can; Int. Sci. Agr. Council. Phanerogamic botany; anatomy and reproduction of gymnosperms; experimental morphology; teratological features of conifers.

Thomson, Prof. Stewart C(raig), Loyola University School of Medicine, Chicago, Ill. *Anatomy.* Valley Park, Miss, May 3, 05. A.B, Illinois, 27; M.D, Loyola (Ill), 36, M.S, 38. Intern, Mercy Hosp; teaching fellow *anat, sch. med, Loyola (Ill),* 36–37, assoc, 37–41, *asst. prof, 41–, asst. dean, 42–* A.A; Asn. Anat; Asn. Hist. Med; Ill. Acad. Comparative anatomy; history of medicine.

Thomson, Dr. W(alter) W(ilfred), National Research Council, Ottawa, Ont, Can. *Chemistry.* Schreiber, Ont, April 22, 97. B.Sc, McGill, 21, M.Sc, 23, Nat. Research Council Can. student, 24–25, Ph.D, 25. Demonstrator gen. chem, McGill, 21–24, Sterry Hunt research scholar and lecturer physical chem, 25–26; indust. research, Bennett's Ltd, Chambly Canton, Que, 26–27; lecturer gen. chem, Haverford Col, 27–28; prof. chem. and director dept, Broaddus Col, 28–29; junior chemist, mines branch, Dept. Mines, Ottawa, 29; asst. chemist, forest products labs, Dept. Interior, Montreal, 29–30; *research investigator, ed, 'Can. Jour. Research,' Nat. Research Council Can, 30–* Mem. subcmt. editorial practice, panel cmt. and editorial cmt, Can. Govt. Purchasing Standards, 30– Soc. Chem. Indust; N. Y. Acad; fel. Can. Inst. Chem. Preparation and properties of the margarines; halogenation of paraldehyde and acetaldehyde; derivatives of the diquinolines; penetration of liquids into wood.

Thomssen, Dr. E(dgar) G(eorge), Winona, Minn. *Chemistry.* Masulipatam, India, 86. B.S, Columbia, 07, A.M, 08, Ph.D, 11. Chemist, Bayer and Co, 08–09; asst. chem, Columbia, 09–10; chemist, Lightfoot Schultz Co, 11–13; research chemist, dairy div, U. S. Dept. Agr, 13–14; v. pres. and sec'y, Lightfoot Schultz Co, 14–23; *chief chemist, J. R. Watkins Co, 23–* Cmt. disinfectant standards, Bur. Standards, 37– Contributing ed, 'Am. Perfumer and Essential Oil Rev,' 20–37; 'Soap,' 37–; 'Soap and Cosmetics,' London, England, 38–39. A.A; Chem. Soc; Soc. Test. Mat. (cmt. soap standards, 35–); Nat. Asn. Disinfectants and Insecticides Mfg. (research cmt, 36–41). Food products; pharmaceuticals; fats; oils; soap; insecticides, disinfectants.

Thone, Dr. Frank (Ernest Aloysius), 1719 N St, N.W, Washington, D. C. *Plant ecology.* Davenport, Iowa, April 12, 91. B.S, Grinnell Col, 15; Hopkins, 19–20; Ph.D, Chicago, 22. Instr. biol, N. Dak. Col, 23; assoc. prof. bot, Florida, 23–24; *staff mem, Science Service, 24–* Summers, naturalist-lecturer, Yellowstone Nat. Park, 22–24. A.A; Ecol. Soc; Bot. Soc; Soc. Plant Physiol; Soc. Mammal; Wildlife Soc; Wash. Acad. Science popularization; ecology of the Starved Rock region, Illinois; atmometry.

Thor, Dr. C(lifford) J(ames) B(yron), The Visking Corp, Chicago, Ill. *Biochemistry.* Eagle Bend, Minn, Feb. 24, 07. B.S, Minnesota, 28, Ph.D, 31; Grasselli fellow, Oberlin Col; 28–29, A.M, 29. Asst. agr. biochem, Minnesota, 29–31; agent, U. S. Dept. Agr, 31–34; *research chemist, Visking Corp, 34–* A.A; Chem. Soc. Plant physiology; pecan, girasole; colloids; adsorption by gels; proteins; cystine; carbohydrates; cellulose; chitin.

Thorek, Dr. Max, 850 W. Irving Park Road, Chicago, Ill. *Surgery.* Hungary, March 10, 80. M.D, Rush, Chicago, 04; LL.D, Lincoln Mem. Univ, 42. *Surgeon in chief, Am. Hosp. of Chicago, 10–; prof. surg, Cook County Postgrad. Sch. Med, 32–* Lecturer, Washington (Seattle), 14; asst. prof. and assoc. prof, West Side Dispensary; prof, Loyola (Ill); consulting surgeon, Munic. Tuber. Sanitarium, 30–; attending surgeon, Cook County Hosp, 32– Knight, Crown of Italy, 27; chevalier, Légion d'honneur, 37; commander, Order of St. Alexander, Bulgaria, 39; Gold Medal of Honor, Venezuela, 41. U. S. del, Int. Cong. Hepatic Insufficiency, France, 37; Distinguished Citizens' medal. Cor. mem. Nat. Acad; fel. Am. Med. Asn; Eugenics Soc; fel. Nat. Gastroenterol. Soc; cor. mem. Soc. das Sci. and Med, Lisbon; cor. mem. Russian Endocrinol. Asn; cor. mem. Surg. Acad. Mex; cor. fel. Peruvian Surg. Soc; fel. Brazilian Col. Surg; fel. Nat. Acad. Med, Colombia; hon. cor. mem. Egyptian Med. Asn; Int. Col. Surg. (int. exec. sec'y, 35); Int. Hosp. Asn; Int. Soc. Gastroenterol; fel. Int. Col. Anesthetists; Int. Anesthetic Research Soc. Surgery of the brain and spinal cord; the human testis and its diseases; surgical errors and safeguards; surgical technique.

Thorkelson, H(alsten) J(oseph Berford), 609 Tree Court, Kohler, Wis. *Physics.* Racine, Wis, Jan. 18, 75. B.S, Wisconsin, 98, M.E, 00. Instr. and prof. steam and gas eng, col. eng, Wisconsin, 02–14, business manager, 14–21; director div. cols. and univs, Gen. Educ. Board, New York, 21–28; asst. to prés, *Kohler Co, Wis,* 28–37, *v. pres, 37–* Trustee, Milwaukee-Downer Col. A.A. Compressed air.

Thorn, Dr. George W(ldmer), 983 Memorial Drive, Cambridge, Mass. *Internal medicine.* Buffalo, N. Y, Jan. 15, 06. Col. of Wooster, 23–25; M.D, Buffalo, 29. Instr. med. and physiol, Buffalo, 31–34; Rockefeller fellow, Harvard Med. Sch, 34–35; asst. prof. and assoc. prof. physiol, Ohio State, 35–36; Rockefeller fellow, Hopkins, 36–37, assoc. med, 37–38, assoc. prof, 38–42; *Hersey prof. theory and practice of physics, Harvard, 42–* Physician in chief, Peter Bent Brigham Hosp, 42– Gold medal, Am. Med. Asn, New Orleans, 32, St. Louis, 39. Asn. Physicians; Soc. Clin. Invest; Physiol. Soc; Col. Physicians. Clinical investigation; adrenal cortex; diseases of the endocrine glands and metabolism.

Thorn, Prof. Sister M. Doloretta, Villa Maria College, Erie, Pa. *Chemistry.* Clearfield, Pa, Oct. 16, 85. B.S, Canisius Col, 26; M.S, Notre Dame, 31, Ph.D, 36. Instr, Villa Maria Acad, 02–15; high sch, 15–21; *chem, Villa Maria Col,* 26–31, *prof. and head dept, 31–* A.A; Chem. Soc. (sec'y Erie sect, 39–41; councilor, 39–); N. Y. Acad. Organic chemistry; quantitative procedures; dialkylacetylenes.

Thorn, Dr. Robert J(erome), U. S. Rubber Co, Detroit, Mich. *Physical chemistry.* Constantine, Mich, Dec. 1, 14. B.S, Alma Col, 38; Ph.D, Illinois, 42. Glassblower, regional soybean indust. products lab, U. S. Dept. Agr, 41–42; *research chemist, U. S. Rubber Co, 42–* Chem. Soc. Methods of detecting molecular beams; electrodeposition of brass.

Thornber, Prof. J(ohn) J(ames), University of Arizona, Tucson, Ariz. *Botany.* Rantoul, Ill, Feb. 8, 72. B.S, S. Dak. Col, 95; A.M, Nebraska, 01. Instr, high sch, Nebr, 97–01; biologist, *Arizona,* 01–22, dean col. agr, 22–28, prof. bot, 28–41, botanist, *Exp. Sta,* 01–21, director, 21–28, botanist, 28–41, *taxonomist, 41–* Asst, Nebr. Bot. Surv, 97–01. Bot. Soc; Torrey Bot. Club; Hort. Soc; Bot. Cent. States; Wash. Acad. Ecological aspects of the flora of eastern Nebraska; taxonomy and ecology of the flora of Arizona; range conditions in Arizona; western wild flowers; Cactaceae.

Thornberry, Dr. H(albert) H(ouston), University of Illinois, Urbana, Ill. *Plant pathology.* Corydon, Ky, Dec. 28, 02. B.S, Kentucky, 25, fellow, 25–26, M.S, 26; Ph.D, Minnesota, 34. Asst. plant path, Minnesota, 26–28; hort, Illinois, 28–31; fellow plant path, Rockefeller Inst, 34–35; junior plant pathologist, Citrus Exp. Sta, California, 35–36; asst. pathologist, Kentucky, 36–37; pathologist, bur. plant indust, U. S. Dept. Agr, 37–38; *asst. prof. plant path, Illinois, 38–;* lieut, *U. S. Army,* 42–43, *capt, 43–* Summer, agent, U. S. Dept. Agr, 28. A.A; Chem. Soc; Soc. Bact; Phytopath. Soc; Ill. Hort. Soc. Bacterial and virus diseases of plants; toxicity and spraying materials; filtration of plant viruses; purification of enzymes and plant viruses.

Thornberry, Martin H(armon), 4065-A Hartford St, St. Louis, Mo. *Metallurgy.* Newtonia, Mo, July 13, 82. B.S, Mo.

Sch. Mines, 12, B.S. (Metal), 17, Met.E, 20. Director state mining exp. sta, Mo. Sch. Mines; *metal. engineer.* Min. and Metal. Eng; Ceramic Soc. Chemistry; flotation; ore dressing; clays.

Thornburg, Prof. C(harles) L(ewis), Lehigh University, Bethlehem, Pa. *Mathematics, Astronomy.* Barboursville, W. Va, April 17, 59. Marshall Col, 76; fellow, Vanderbilt, 80–83, B.S, 81, B.E, 82, C.E, 83, Ph.D, 84; LL.D, Lehigh, 25. Teacher, pub. schs, W. Va, 77–79; asst. eng, Vanderbilt, 84, instr, 85–87, adj. prof, 87–95; prof. *math. and astron, Lehigh,* 95–25, *emer. prof,* 25– Math. Soc. Calculus; elementary differential equations.

Thornbury, Prof. William D(avid), 1003 E. Hunter Ave, Bloomington, Ind. *Geology, Physiography.* English, Ind, April 23, 00. A.B, Indiana, 25, Ph.D, 36; A.M, Colorado, 28. Teacher, high schs, Ind, 19–22; asst. geol, Colorado, 26–28; instr. geol. and geog, *Indiana,* 28–35, asst. prof. *geol,* 35–43, *assoc. prof, 43–* A.A; fel. Ind. Acad. Glaciation in the Colorado Rockies; glacial geology and physiography of Indiana.

Thorndike, Prof. Edward L(ee), Teachers College, Columbia University, New York, N. Y. *[*1]Psychology.* Williamsburg, Mass, Aug. 31, 74. A.B, Wesleyan, 95, Sc.D, 19; A.B, Harvard, 96, A.M, 97, LL.D, 34; Ph.D, Columbia, 98, Sc.D, 29; LL.D, Iowa, 23, Edinburgh, 36; hon. Sc.D, Chicago, 32, Univ. Athens, Greece, 37. Instr. educ. and teaching, col. for women, Western Reserve, 98–99; psychol, *Teachers Col, Columbia,* 99–01, adj. prof, 01–03, prof. *educ. psychol,* 04–40, *emer. prof, 40–,* director div. psychol, inst. educ. research, 22–40. Head dept. comp. psychol, Marine Biol. Lab, Woods Hole, 00–02; Messenger lecturer, Cornell, 28–29; visiting prof, Hopkins, 32; William James lecturer, Harvard, 42–43. Butler medal. Chairman cmt. on classification of personnel, U.S.A, 17–18. Nat. Acad; A.A. (chairman, H and L; pres, 34); Soc. Nat; Psychol. Asn. (pres, 12); Econ. Asn; Sociol. Soc; Philos. Asn; Philos. Soc; Am. Acad; fel. N. Y. Acad. (pres); hon. mem. British Psychol. Soc; hon. mem. Comenius Ed. Asn. Czecho-Slovakia. Animal psychology; educational psychology; educational statistics.

Thorndike, Dr. Edward M(oulton), University of Southern California, Los Angeles, Calif. *Physics.* New York, N. Y, Sept. 25, 05. B.S, Wesleyan, 26; A.M, Columbia, 27; Ph.D, Calif. Inst. Tech, 30. Research fellow *physics,* Calif. Inst. Tech, 30–31; instr, Polytech. Inst. Brooklyn, 31–38; Queens Col. (N. Y), 38–39, asst. prof, 39–43; *assoc. prof, Southern California, 43–* A.A; Physical Soc. The theory of relativity; optics.

Thorndike, Prof. Robert L(add), 106 Morningside Drive, New York, N. Y. *Psychology.* Montrose, N. Y, Sept. 22, 10. A.B, Wesleyan, 31; A.M, Columbia, 32, Ph.D, 35. Instr. psychol, George Washington, 34–35, asst. prof, 35–36; *educ. psychol, Teachers Col, Columbia,* 36–40, *assoc. prof, 40–* A.A; Psychol. Asn. Educational psychology; tests and measurements.

Thorndike, Dr. Samuel L(othrop), 28 Upland Road, Wellesley, Mass. *Astronomy.* Boston, Mass, March 16, 05. A.B, Harvard, 27; fellow, California, 30–32, Ph.D, 32. Asst. astron, California, 29–30; computing asst, Mt. Wilson Observatory, Carnegie Institution, 32–33; asst, Harvard Observatory, Harvard, 33–41; asst. *astron,* Wellesley Col, 37–38, *instr,* 38–43; *Williams Col, 43–* A.A; Astron. Soc; Astron. Soc. Pacific. Spectrophotometry; variable stars.

Thorne, Dr. Charles J, University of Michigan, Ann Arbor, Mich. *Applied mathematics.* Pleasant Grove, Utah, May 28, 15. A.B, Brigham Young, 36; M.S, Iowa State Col, 38, Ph.D, 41. Teaching fellow *math,* Iowa State Col, 36–38, asst, 38–41; *instr, Michigan, 41–* Summers, actuarial dept, Metrop. Life Ins. Co, 40; fellow, Brown, 42. Math. Soc; Math. Asn. Differential equations; elasticity; thin plate theory.

Thorne, Prof. D(avid) W(ynne), Utah State Agricultural College, Logan, Utah. *Soil fertility.* Perry, Utah, Dec. 19, 08. B.S, Utah State Col, 33; fellow, Iowa State Col, 33–36, M.S, 34, Ph.D, 36. Asst. soils, Iowa State Col, 36, acting research asst. prof, 36–37; *assoc. prof. soils,* Agr. and Mech. Col. Texas, 37–39; *Utah State Col, 39–* Summers, research assoc, Wisconsin, 37, 38. A.A; Soc. Agron; Soil Sci. Soc; West. Soc. Soil Sci; Utah Acad. (chairman sect. applied biol, 41–); Int. Soc. Soil Sci. Physiology of root-nodule bacteria; legume inoculation; orchard soil management; fertility problems of alkaline calcareous soils.

Thorne, Dr. Frederick Charles, Brandon, Vt. *Psychology.* New York, N. Y, May 30, 09. A.B, Columbia, 30, A.M, 31, Ph.D, 34; M.D, Cornell, 38. Asst. psychol, Columbia, 31–34; instr, Long Island, 34–36; Hunter Col, 36–39; *psychiat, Vermont,* 39–42, *asst. prof, 42–; director, Brandon State Sch, 39–* Mental hygiene clin. psychiatrist, 39–, Asn. Mental Deficiency; assoc. Psychol. Asn. Medicine; psychiatry; personality.

Thorne, (George) Gerald, 477 Federal Bldg, Salt Lake City, Utah. *Parasitology.* Vernal, Utah, July 6, 90. B.S, Utah State Col, 18; M.S, Utah, 24. *Assoc. nematologist, bur. plant indust, U. S. Dept. Agr, 18–* Wash. Acad; Helminth. Soc. Wash; Utah Acad. Nematology; free-living and plant parasitic nematodes.

Thorne, H(arold) M(onroe), U. S. Bureau of Mines, Laramie, Wyo. *Chemical engineering.* Waukomis, Okla, Jan. 21, 01. B.S, Oklahoma, 24. Junior chemist, *U. S. Bur. Mines,* Bartlesville, Okla, 24–26, asst. chemist, Boulder, Colo, 26–28, assoc. ref. engineer, Boulder, Colo, Laramie, Wyo, and Bartlesville, Okla, 28–35, ref. engineer, *Laramie, Wyo,* 35–43, *senior refinery engineer, 43–* Petrol. Inst. Chemistry and refining of petroleum; natural gas; shale oil.

Thorne, Prof. P(erley) L(enwood), New York University, University Heights, New York, N. Y. *Mathematics.* Auburn, Maine, Jan. 28, 84. A.B, Colby Col, 07; M.S, N. Y. Univ, 09; Harvard, 11–12. Asst. math, *N. Y. Univ,* 07–08, instr, 08–14, asst. prof, 14–19, director freshman instruction, 19–21, asst. dean and assoc. prof, 21–26, *prof. math, 26–* Math. Soc.

Thorner, Major Melvin (Wilfred), Medical Corps, School of Aviation Medicine, Randolph Field, Texas. *Neuropsychiatry.* New York, N. Y, July 29, 07. B.S, Pennsylvania, 28, M.S, 37, D.Sc, 40; M.D, Jefferson Med. Col, 32. Assoc. and later *asst. prof. neur, Pennsylvania, 37–; director sect. research neuropsychiat, Sch. Aviation Med, 40–* Am. Med. Asn; Psychiat. Asn; Pa. Psychiat. Soc. Electroencephalography; neurophysiology.

Thornthwaite, Dr. C(harles) Warren, 4708 Calvert Road, College Park, Md. *Geography, Climatology.* Bay City, Mich, March 7, 99. A.B, Cent. State Teachers Col, Mich, 22; fellow, California, 24–27, Ph.D, 30. Asst. prof. geog, Oklahoma, 27–34; geographer, study popul. redistribution, Pennsylvania, 34–35; *chief climatic and physiographic div, soil conservation service, U. S. Dept. Agr, 35–* Geographer, State Geol. Surv, Ky, 25–31. Asn. Geog; Geophys. Union (pres. meteorol. sect, 41–); Ecol. Soc; Wash. Acad. Geomorphology; physical climatology; population; regional geography.

Thornton, Bruce J(ay), 1507 Peterson St, Ft. Collins, Colo. *Botany.* Berthoud, Colo, Aug. 9, 95. B.S, Colo. Agr. Col, 18, M.S, 27. Farming and farm management, 18–24; asst. botanist, Colo. Agr. Col, 27–29, *assoc. botanist,* 30–35, *Colo. State Col, 35–, head seed lab. and in charge seed and weed investigations, 41–* A.A; Colo-Wyo. Acad.

Thornton, Prof. C(harles) S(tead), Gambier, Ohio. *Biology.* Skipton, Eng, July 22, 10. A.B, Harvard, 32; Maule fellow, Princeton, 34–35, A.M, 35, Ph.D, 37. Instr. *biol,* Tome Sch, 32–33; asst, Princeton, 33–34, 35–36; *asst. prof, Kenyon Col, 36–* Cytology of development; histogenesis of limb regeneration in amphibians.

Thornton, Dr. F(rederick) E(dward), West Virginia Institute of Technology, Montgomery, W. Va. *Physiology.* Beaver Falls, Pa, Jan. 22, 06. A.B, West Virginia, 29; Ph.D, Pennsylvania, 35. Instr. zool, Pennsylvania, 29–35; N. C. State Col, 35–36; physiol, Ohio State, 37–40; *asst. prof. biol, W. Va. Inst. Tech, 41–* Effect of temperature and salts on viscosity of protoplasm.

Thornton, Prof. G(eorge) R(ussell), Purdue University, Lafayette, Ind. *Social psychology.* Adrian, Minn, Nov. 12, 08. A.B, Morningside Col, 30; A.M, Nebraska, 35, Ph.D, 38. Asst. instr. *psychol,* Nebraska, 36–38, instr, 39; *asst. prof, Purdue, 39–* Psychol. Asn. Tests of persistence; judgments of personality traits from photographs and first impressions; psychomotor effects of benzedrine and caffeine; terms used in general psychology courses; Rorschach test.

Thornton, Prof. H(arold) R(ay), University of Alberta, Edmonton, Alta, Can. *Dairying.* Wallaceburg, Ont, May 16, 93. B.Sc, Alberta, 22; scholar and fellow, Wisconsin, 24–27, Ph.D, 27. Asst. prof. bacter, N. Dak. Col, 27–29; *prof. dairying, Alberta, 29–* Dairy Sci. Asn; Soc. Bact; Pub. Health Asn; Can. Pub. Health Asn; Int. Asn. Milk Sanit. Dairy bacteriology.

Thornton, Dr. Marian Wilder, 115 S. E. Bedford, Minneapolis, Minn. *Mathematics.* Shakopee, Minn, 05. B.S, Minnesota, 27, A.M, 30, Ph.D, 33. Teacher, high sch, Minn, 27–29; asst. math, Minnesota, 29–31, biometry, 31–34, statistician, 35, asst, cmtl on educ. research, 35–39; mem. staff, State Dept. Health, Minn, 39–42. Math. Soc; Math. Asn; Inst. Math. Statist; Statist. Asn. Statistics; mathematical theory of statistics; use of statistics in medical and psychological data.

Thornton, M(armaduke) K(nox), Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Chemical engineering.* Helena, Ark, Feb. 8, 92. B.S, Miss. Agr. and Mech. Col, 09; A.M, Columbia, 14. Chemist, Tenn. Coal, Iron and Ry. Co, Ala, 09–11; instr, Agr. and Mech. Col. Texas, 11–15; junior chemist, ordnance dept, Picatinny Arsenal, N. J, 15–18; shift supervisor, Hercules Powder Co, 18–19; prof. indust. chem, *Agr. and Mech. Col. Texas,* 19–35, leather specialist, exten. service, 35–38, *exten. agr. chemist, 38–* Chem. Soc. Explosives; fuels for internal combustion engines; lubricating oils; lubrication of engines; cottonseed oil milling and refining; paints; timber preservation; cottonseed products; leather and leather products; fertilizers; soils.

Thornton, Prof. Nan(nie) V(irginia), Randolph-Macon Woman's College, Lynchburg, Va. *Chemistry.* Waynesboro, Va, May, 95. A.B, Randolph-Macon Woman's Col, 15, A.M, 19; fellow, Chicago, Ph.D, 32. Instr. *chem, Randolph-Macon Woman's Col,* 17–19, adj. prof, 19–22, assoc. prof, 24–30, *prof, 30–* A.A; Chem. Soc. Reactions of elementary fluorine on chromium and chromium compounds; reactions of dichlorodifluoro and of chloro-trifluoro methane.

Thornton, Dr. Norwood C(harles), Boyce Thompson Institute, 1086 N. Broadway, Yonkers, N. Y. *Plant physiology.* Bethel, Md, July 3, 06. B.S, Maryland, 27, fellow, 27–28, M.S, 28; fellow, Cornell, 31, Ph.D, 33. Control chemist, East. Alcohol Corp, N. J, 28–29; Dry-Ice Corp. of Amer; biochemist, *Boyce Thompson Inst,* 29–30, asst. plant physiol, 31–36, assoc. plant physiologist, 36–38, *biochemist, 38–* A. Cressy Morrison prize, N. Y. Acad. Sciences, 38. Bot. Soc; Chem. Soc; Soc. Hort. Sci. Carbon dioxide storage of fruits, vegetables and flowers; respiration; seed germination; vitamin C; oxygen regulation of dormancy.

Thornton, Prof. Robert A(mbrose), Talladega College, Talladega, Ala. *Physics.* Houston, Texas, July 6, 97. B.S, Howard, 22; M.S, Ohio State, 25. *Prof. physics,* Shaw, 22–26; Kittrell Col, 26–28; *Talladega Col, 28–* Physical Soc; Asn. Physics Teachers. Short methods and applications in the theory of ordinary differential equations; derived solutions of differential equations of mathematical physics; physical theory and the logical foundations of physics.

Thornton, Prof. R(obert) L(yster), Washington University, St. Louis, Mo. *Physics.* Wootton, Bedfordshire, Eng, Nov. 29, 08. B.Sc, McGill, 30, Nat. Research Council Can. bursar, 31–32, scholar, 32–33, Ph.D, 33. Demonstrator, McGill, 30–31; research assoc, radiation lab, California, 33–36, 38–40; instr. *physics,* Michigan, 36–38; *assoc. prof, Washington (St. Louis), 40–* Moyse traveling scholar, McGill, 33–34. Fel. Physical Soc. Spectroscopy; nuclear physics; cyclotron technique.

Thornton, Dr. S(amuel) F(arrar), F. S. Royster Guano Co, Norfolk, Va. *Soils, Chemistry.* Lockhart, S. C, April 26, 95. B.S, Clemson Col, 16; M.S, Purdue, 30, Ph.D, 35. Chemist, Parker Lab, Charleston, 16–17; deputy state chemist, Exp. Sta, Purdue, 17–20; chemist, South. States Phosphate and Fertilizer Co, Savannah, 20–21; Calumet Fertilizer Co, Ind, 21–24; Paul Smith Lab, Indianapolis, 24–27; asst. chemist, Exp. Sta, Purdue, 27–35, assoc. chemist, 35–36, soil chemist, 36–38; *director research and farm service dept, F. S. Royster Guano Co, 38–* A.A; Chem. Soc; Soc. Agron; Soc. Plant Physiol; Soil Sci. Soc; Inst. Chem. Fertilizer chemistry; determination of nutrient deficiencies in soils and plants; plant nutrition and composition; importance of calcium, sulfur and magnesium in fertilizers.

Thornton, Dr. William M(ynn), Jr, 2 Chancery Square, Baltimore, Md. *Chemistry.* Charlottesville, Va, Feb. 7, 84. A.B, Hampden-Sydney Col, 04; A.M, Virginia, 07; Ph.D, Yale, 14. Asst. chem, Mass. Col, 07–08; chemist, Va. Geol. Surv, 08–11; tutor, Col. City of N. Y, 14–15; chemist, E. I. du Pont de Nemours and Co, 15–17; assoc. chem, Hopkins, 19–36; assoc. chemist, U. S. Bur. Mines, 39–42; *fellow, Loyola Col. (Md), 43–* A.A; Chem. Soc; Soc. française de Miner. Analytical chemistry; laboratory appliances; mineralogy; titanium; explosives; metrology.

Thorp, Prof. E(ldon) M(arion), 8934 La Mesa Blvd, La Mesa, Calif. *Geology.* Indian Territory, Jan. 9, 07. A.B, Texas Tech. Col, 27; Iowa, 27–28; fellow, California, 28–33, M.S, 31, Ph.D, 34. Research assoc, Scripps Institution, California, 34; prof. geol. and geog. and head dept, Baylor, 34–39; *asst. geologist, soil conservation service, U. S. Dept. Agr, 39–; U. S. Army, 43–* A.A; Geol. Soc; Soc. Econ. Paleont. Sedimentation; marine geology; microbiology; calcium carbonate deposits; soil erosion.

Thorp, Dr. Frank, Jr, Michigan State College, East Lansing, Mich. *Pathology.* Panora, Iowa, Oct. 15, 00. D.V.M, Iowa State Col, 26; fellow, Virginia, 26–27, M.S, 27; Ph.D, Illinois, 36. Instr. bacter, Mich. State Col, 27–28; assoc. animal path, Exp. Sta, Illinois, 28–35; assoc. pathologist, Exp. Sta, Colo. State Col, 36–40; *research assoc. animal path, Mich. State Col, 40–; cooperative agent avian path, regional poultry research lab, U. S. Dept. Agr, 40–* Vet. Med. Asn. (sec'y, sect. poultry diseases, 31, chairman, 32; sec'y, sect. research, 39, chairman, 41; mem. cmt. nomenclature and vital statist); Soc. Bact; Poultry Sci. Asn; Soc. Exp. Biol; Official Research Workers in Animal Diseases Amer. Animal pathology; pathogenic bacteriology.

Thorp, James, 2210 Smith St, Lincoln, Nebr. *Soils.* Westtown, Pa, Jan. 12, 96. B.S, Earlham Col, 21. Soil surveyor, U. S. Dept. Agr, 21–33; chief soil technologist, nat. geol. surv. of China, China Foundation for Promotion of Educ. and Culture, 33–36; asst. inspector soil surveys, *bur. plant indust, U. S. Dept. Agr,* 36–41, *prin. soil scientist and inspector soil surveys, 42–; soil science prof, conservation and surv. div, Nebraska, 42–* Teacher and prin, high sch, Colo, 23–27; lecturer, Puerto Rico, 32–33; Nanking Univ, 36; acting head dept. geol, Earlham Col, 41. A.A; Soil Sci. Soc; Am. Geog. Soc; Asn. Geog; Geol. Soc. China; Int. Soc. Soil Sci. Geography of the soils of China; phases of soil science and geology in the United States, Puerto Rico and China; morphology, genesis, classification and geography of soils.

Thorpe, Dr. Malcolm R(utherford), 10 Silver Sands Road, East Haven, Conn. *Geology, Paleontology.* Bristol, Conn, March 12, 91. A.B, Yale, 13, Ph.D, 16. Preparator, Peabody Museum, *Yale,* 19, asst. *vert. paleont,* 19–22, fellow and asst. curator, 22–23, research assoc. and asst. curator, 23–27, curator, 27–38, instr, univ, 21–22, asst. prof, 23–32, assoc. prof, 32–38, *assoc. fellow, Davenport Col, 33–* Field expeds. A.A; fel. Geol. Soc; fel. Am. Geog. Soc; Soc. Mammal; Soc. Vert. Paleont; Conn. Acad; Acad. Nat. Sci. Phila. Vertebrate paleontology.

Thorpe, Dr. Melvin A(lexander), Mallinckrodt Chemical Works, St. Louis, Mo. *Organic chemistry.* Williamsburg, Va, April 7, 05. Ch.B, Col. of William and Mary, 26; fellow, Lehigh, 26–28, M.S, 28; fellow, Northwestern, 29; fellow, Pa. State Col, 30, Ph.D, 32. Paint chemist, E. I. du Pont de Nemours and Co, 26; *org. research chemist, Mallinckrodt Chem. Works, 31–* Summer, instr, Col. of William and Mary, 28– Chem. Soc. Coke oven gas by-products; organic mercury compounds; synthetic medicinals.

Thorvaldson, Prof. T(horbergur), University of Saskatchewan, Saskatoon, Sask, Can. *Chemistry.* Iceland, Aug. 24, 83. B.A, Manitoba, 06; A.M, Harvard, 09, Ph.D, 11, 13–14; Tech. Hochschule, Dresden, 11–12; Liverpool, 12–13. Asst. *chem,* Manitoba, 06–08; asst. prof, *Saskatchewan,* 14–17, *prof, 17–, head dept, 19–* Assoc. cmt. of chemists, Nat. Research Council Can, 19–23, assoc. cmt. on grain research, 26–37. Knight, Royal Order of the Falcon, Iceland, 39. A.A; Chem. Soc; fel. Royal Soc. Can. (pres, sect. III, 43); Can. Inst. Chem. (pres, 41); cor. mem. Sci. Soc. Iceland. Atomic weights of iron and lead; thermochemistry; hydraulic cements.

Thrall, Dr. Robert M(cDowell), University of Michigan, Ann Arbor, Mich. *Mathematics.* Toledo, Ill, Sept. 23, 14. A.B, Ill. Col, 35; A.M, Illinois, 35, Ph.D, 37. Instr. math, Michigan, 37–40; mem, Inst. Adv. Study, 40–42; *asst. prof. math, Michigan, 42–* Math. Soc. Algebra; representations of groups.

Threlkeld, Prof. W(illiam) L(ogan), Virginia Polytechnic Institute, Blacksburg, Va. *Zoology.* Versailles, Ky, Aug. 8, 93. A.B, Georgetown Col. (Ky), 15; Chicago, summers, 22–25; fellow, Virginia, 28, A.M, 29, Ph.D, 34. Asst. prin, high sch, Ky, 15–17; instr, sch, Mich, 20–21; Hargrave Acad, Va, 22–27; biol, Virginia, 27; *asst. prof. zool, Va. Polytech, 29–, asst, Exp. Sta, 38–* U.S.A, 17–19. A.A; Va. Acad. Animal pathology; parasitic Protozoa; morphology and pathogenicity;

life history of parasitic nematodes and their control in ruminants.

Throckmorton, Prof. R(ay) I(ams), Kansas State College, Manhattan, Kans. *Soils.* Waynesburg, Pa, Dec. 10, 86. B.S, Pennsylvania, 11; M.S, Kans. State Col, 22. Asst. soils, *Kans. State Col*, 11–14, assoc. prof, 14–18, *prof*, 18–25, *agron*, 25– Consulting agronomist, U. S. Dept. Agr, 38– A.A; fel. Soc. Agron. (v. pres, 30–33, pres, 34); fel. Soil Sci. Soc. Soils; soil fertility.

Throne, Prof. Alvin L(eroy), State Teachers College, Milwaukee, Wis. *Plant ecology.* Milwaukee, Wis, Jan. 5, 97. B.S, Wisconsin, 26; M.S, Michigan, 36. Teacher biol, high sch, Wis, 23–24; lecturer nat. hist, pub. museum, Milwaukee, 24–26; *prof. bot, Wis. State Teachers Col, 26–* Summer, prof, Lost Lake Biol. Camp, Wis, 39, 40; Eagle River Conservation Camp, 41. A.A; Ecol. Soc; Wis. Acad; Wis. Soc. Ornith. Evaporation from plants; life history of birds.

Thronson, Prof. Silas M(elvin), Rochester Athenaeum and Mechanics Institute, Rochester, N. Y. *Chemistry.* Houston, Minn, March 2, 04. A.B, St. Olaf Col, 27; M.S, Florida, 31. Asst, Mass. Inst. Tech, 27–28; gen. chem, Wisconsin, 28–29; agr. chem, Florida, 29–30, special chemist naval stores research, indust. farm products div, 30–32, instr. chem, 31–33, research fellow chem. eng, 33–34, photog. chemist and photographer, photog. lab, 35–38; *prof. photog. chem, Rochester Athenaeum and Mech. Inst, 38–* Teaching fellow, Florida, 30–31. Chem. Soc; Photog. Soc; Fla. Chem. Soc. Tung oil paints and lacquers; naval stores; gas and oils; photographic developers and toners; photography in criminal identification; aerial photography; cathode ray photography; imbibition dyes.

Thrun, Prof. Walter E(ugene), Valparaiso University, Valparaiso, Ind. *Chemistry.* Bloomfield, Wis, March 22, 92. A.B, Michigan, 12, M.S, 14; Ph.D, Missouri, 17. Asst. chemist, Exp. Sta, Missouri, 14–17; instr. physiol. chem, Illinois, 17; fellow, sch. hygiene and pub. health, Hopkins, 19; prof. *chem*, col. med, Baylor, 19–20; assoc. prof, Miss. Agr. and Mech. Col, 20–23; asst. prof, Louisville, 23–24; instr, Lehigh, 25–27; Mich. State Col, 27–29; asst. prof, *Valparaiso*, 29–31, assoc. prof, 31–39, *prof, 39–, head dept, 32–* U.S.A, 17–18. A.A; Chem. Soc; fel. Inst. Chem. Amino-acids of bovine flesh proteins; detection of carotin; flat luminous flames; protective colloids for lakes; lakes of aurintri-carboxylic acid; karaya gum.

Thuener, Sister M(ary) Domitilla, St. Walburg Convent, R. R. 2, Box 33, Covington, Ky. *Mathematics.* Pittsburgh, Pa, Oct. 25, 80. A.B, Xavier (Ohio), 20; A.M, Catholic Univ, 23, Ph.D, 32. Teacher *math.* and head dept, *Villa Madonna Col*, 20–22, 23–29, *prof. and head dept, 32–*, teacher physics, 34–37. Math. Soc; Math. Asn. The number and reality of self-symmetric quadrilaterals; the triangular symmetric rational quartic.

Thuma, Prof. B(urton) D(oan), 909 Church St, Ann Arbor, Mich. *Psychology.* Cincinnati, Ohio, June 21, 02. B.S, Michigan, 23, M.S, 24, Ph.D, 30. Asst, Stanford, 25–26; instr. *psychol, Michigan*, 28–31, asst. prof, 31–39, *assoc. prof, 39–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Experimental psychology.

Thurber, Dr. C(larence) H(owe), 1255 E. Calaveral, Altadena, Calif. *Education.* Brattleboro, Vt, Sept. 19, 88. A.B, Colgate, 12; A.M, Columbia, 21, Ph.D, 22. Prin, elementary schs, Vt, 06–08; instr, Phillips Acad, 12–13; prof. pub. speaking and debate, Wabash Col, 13–15; head div. speech and debate, Purdue, 15–20; assoc. prof. sch. admin. and asst. director exten. div, Syracuse, 22–24; prof. educ, exec. sec'y and director summer session, Buffalo, 24–30, director inst. munic. affairs; dean faculty and director educ. program, Colgate, 30–33; pres, Redlands, 33–38; *lecturer, State Dept. Educ, Calif, 38–* Lecturer, Col. of William and Mary, 22. Summers, prof, Wisconsin, 30; California at Los Angeles, 38; Colo. State Col. Educ, 39, 40. Educ. Research Asn. The cost and support of state higher education; vitalizing the college program; inter-American relations.

Thurber, Dr. F(rancis) H, Apt. 22, 211 Delaware Ave, S.W, Washington, D. C. *Chemistry.* Ellsworth, Wis, Dec. 27, 89. A.B, Lawrence Col, 13; A.M, Nebraska, 15; Ph.D, Chicago, 24. Teacher, high sch, 15–18; asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 18; instr. chem, State Col. Wash, 18–19; asst. prof. org. chem, Oregon State Col, 21–23, assoc. prof, 23–30; assoc. chemist, paper sect, Bur. Standards, 30–31; bur. chem. and soils, *U. S. Dept. Agr*, 31–34, *senior chemist*, 34–41, *south. regional research lab, bur. agr. chem. and eng, 41–* Mem. U. S. Govt. Mission to Peru, 41. Chem. Soc. Organic chemistry; optical activity; carbohydrates, especially starch.

Thurber, Dr. Walter A(rthur), State Teachers College, Cortland, N. Y. *General science.* East Worcester, N. Y, Nov. 27, 08. B.S, Union Col, 33; M.S, N. Y. State Col. for Teachers, 38; Pack fellow, Cornell, 38–40, Ph.D, 41. Teacher, schs, N. Y, 26–29, 33–38; asst. educ, Cornell, 38–39; *mem. science dept, N. Y. State Teachers Col, 40–* Elementary science education; Plecoptera; activity-suggestions in elementary science courses; life history and habits of Allocapnia pygmaea.

Thuringer, Prof. J(oseph) M(arion), 801 E. 13th St, Oklahoma City, Okla. *Histology, Embryology.* Altstätten, Canton St. Gall, Switzerland, March 23, 86. M.D, Creighton, 11. Asst. histol. and embryol, Harvard, 15–16; asst. prof. anat. and head dept, Alabama, 16–18; asst. prof, Tulane, 18–20; *prof. histol. and embryol, Oklahoma, 20–* Swiss vice consul, Alaska and Wash, 13–15. Am. Med. Asn; Asn. Anat; Okla. Acad; fel. Royal Micros. Soc. Histological methods; regeneration of stratified squamous epithelium; dental histology; thick walled arteries of the vasa vasorum of the aorta.

Thurlow, O(scar) G(owen), 600 N. 18th St, Birmingham, Ala. *Engineering.* Newburyport, Mass, June 7, 81. B.S, Mass. Inst. Tech, 04; Sc.D, Alabama, 27. Chief engineer, Ala. Power Co, 15–30, v. pres. in charge eng; v. pres, Dixie Construction Co, 18–30; Allied Engineers, Inc, 30–31; in charge eng, *south. div, Commonwealth and South. Corp. of N. Y*, 31–32, *consulting engineer, 32–* Consulting engineer, U. S. Govt, 18–Howard E. Potts award, Franklin Inst, 28. Civil Eng; Mech. Eng. Hydraulic engineering.

Thurlow, Dr. Willard R(owand), Psychological Research Unit No. 1, Nashville Army Air Center, Nashville, Tenn. *Experimental psychology.* New York, N. Y, Sept. 5, 18. A.B, Brown, 39, Grand Army of the Republic fellow, 39–40; A.M, Princeton, 41, Walker fellow, 41–42, Ph.D, 42. *U. S. Army, 42–* Assoc. Psychol. Asn; East. Psychol. Asn. Psychology and physiology of hearing.

Thurman, Dr. (Edgar) Neal, 528 Cedar Lane, Swarthmore, Pa. *Chemistry.* Somerset, Ky, Dec. 20, 01. B.S, Kentucky, 21; M.S, Northwestern, 22, Ph.D, 24. Research chemist, cellulose products div, *E. I. du Pont de Nemours and Co*, 24–27, supervisor research, automotive products div, 27–36, asst. to chem. director fabrics and finishes dept, 36–39, research supervisor *finishes div*, 39–41, *lab. director, 41–* Chem. Soc. The preparation and reactions of certain organic mercury compounds; paints; varnishes; lacquers.

Thurmond, Dr. G(ilbert) I(vo), American Enka Corp, Enka, N. C. *Chemistry.* Nashville, Tenn, April 25, 98. A.B, Vanderbilt, 19; A.M, Virginia, 20, Ph.D, 23. Teaching fellow org. chem, Virginia, 19–23; instr. physical chem, Cincinnati, 23–27; research chemist, du Pont Rayon Co, 27–28; Indust. Rayon Co, 28–30; *research chemist in charge chem. research, Am. Enka Corp, 31–* Chem. Soc. Organic and physical chemistry; lactic acid and its anhydrides; manufacture and development of viscose rayon.

Thurston, Prof. Edward D(ay), Jr, Sharon, Conn. *Mechanical engineering.* New York, N. Y, Oct. 23, 82. A.B, Columbia, 05, M.E, 07. Asst. mech. eng, Columbia, 07–08, tutor, 08–09, instr, 09–15, asst. prof, 15–20, assoc. prof, 20–28, prof. 28–31; *retired.* Lieut, U.S.N.R, 17–19. Mech. Eng. Gas power.

Thurston, Prof. H(enry) W, Jr, Pennsylvania State College, State College, Pa. *Plant pathology.* La Grange, Ill, Jan. 3, 93. B.S, Illinois, 15; Ph.D, Columbia, 23. Assoc. prof. plant path. and physiol, Nebraska, 17–18; pathologist, office cereal investigations, bur. plant indust, U. S. Dept. Agr, 19–20; asst. prof. *plant path, Pa. State Col*, 20–34, *assoc. prof, 34–* Phytopath. Soc; Mycol. Soc; Pa. Acad. (treas, 29–40, pres, 41). Fruit diseases, especially of apple, and their control; uredinales or rust fungi from point of view of their taxonomy and geographical distribution.

Thurston, Prof. H(erbert) S(tanley), University of Alabama, Tuscaloosa, Ala. *Algebra.* Sanford, N. S, Can, Sept. 13, 96. B.Sc, Acadia, 22; M.S, Brown, 26; Ph.D, Wisconsin, 42. Instr. math, science and French, Acadia Acad, 18–24; instr. *math*, Brown, 24–27, 28–30; asst. prof, Acadia, 27–28; *Alabama*, 30–37, *assoc. prof, 37–* Math. Soc. Matrices; p-adic numbers.

Thurston, Dr. J(ack) T(heo), P. O. Box 68, Riverside, Conn. *Organic chemistry.* Montello, Nev, Nov. 4, 08. B.S, Nevada, 31; M.S, Illinois, 33, Ph.D, 35. Research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 35–37; *Am. Cyanamid Co,* 37–40, group leader, 40–43, *asst. director research, Stamford labs, 43–* Chem. Soc. (director, west. Conn. sect, 42). Investigation of the chemical properties of cyanamide and related compounds; formulations for anion and cation exchange resins; amino-aldehyde resins; triazines.

Thurstone, Prof. L(ouis) L(eon), University of Chicago, Chicago, Ill. **[4]*Psychology.* Chicago, Ill, May 29, 87. M.E, Cornell, 12; Ph.D, Chicago, 17. Asst. psychol, Carnegie Inst. Tech, 15–17, instr, 17–18, asst. prof, 18–19, assoc. prof, 19–20, prof, 20–23; psychologist, Inst. for Govt. Research, 23–24; assoc. prof. *psychol, Chicago,* 24–27, prof, 27–38, *Charles F. Grey distinguished service prof, 38–* Psychologist, Inst. Juvenile Research, Chicago, 25–27. Nat. Acad; A.A; Psychol. Asn. (councilor, pres, 32); Eng. Educ. (councilor); Am. Acad. Psychological measurement; psychophysics; factor theory.

Thurstone, Dr. Thelma Gwinn (Mrs. Louis Leon Thurstone), 5642 Kimbark Ave, Chicago, Ill. *Psychology.* Hume, Mo, Dec. 11, 97. A.B, Missouri, 17, B.S, 22; A.M, Carnegie Inst. Tech, 23; Ph.D, Chicago, 26. *Statistician, Am. Council Educ; instr. psychol, Chicago Teachers Col, 38–* Assoc. Psychol. Asn. Mental measurement.

Thut, Prof. Hiram F(rederick), Eastern Illinois State Teachers College, Charleston, Ill. *Plant physiology.* Beaverdam, Ohio, Oct. 21, 00. A.B, Bluffton Col, 25; A.M, Ohio State, 26, Ph.D, 30. Instr. *bot,* Ohio State, 30–31; *asst. prof,* Ala. Polytech, 31–32; *East. Ill. State Teachers Col, Charleston, 32–* A.A; Bot. Soc; Soc. Plant Physiol; Ill. Acad; Ohio Acad. Water relations; teaching of botany.

Thwaites, F(redrik) T(urville), University of Wisconsin, Madison, Wis. *Geology.* Madison, Wis, Dec. 23, 83. A.M, Wisconsin, 08. Asst. geologist, Wis. Geol. and Nat. Hist. Surv, 08–11; curator geol. museum, *Wisconsin,* 11–27, lecturer *geol,* 28–40, *asst. prof, 40–; geologist, Wis. Geol. and Nat. Hist. Surv,* 16–28, *in charge well records, 28–* Geol. Soc; Wis. Hist. Soc; Wis. Acad; Mich. Acad. Glacial geology; underground waters in Paleozoic formations of Wisconsin; physiography; stratigraphy; aerial mapping.

Thwing, Dr. Charles B(urton), 3339 Lancaster Ave, Philadelphia, Pa. **[1]*Physics.* Theresa, N. Y, March 9, 60. A.B, Northwestern, 88; Ph.D, Bonn, 94. Instr. physics, acad, Northwestern, 88–93; Wisconsin, 94–96; prof, Knox Col, 96–01; Syracuse, 01–05; research, Western Reserve, 05–06; *mfr. pyrometers and paper testing instruments, Phila, 06–* A.A; Physical Soc; Optical Soc; Electrochem. Soc; Ceramic Soc. Dielectric constant; gravitation; color photography; thermoelectric properties of alloys; pyrometry.

Thygeson, Dr. P(hillips), 635 W. 165th St, New York, N. Y. *Ophthalmology.* St. Paul, Minn, March 28, 03. A.B, Stanford, 25, M.D, 28; Oph.D, Colorado, 30, M.S, 33. Intern, Colo. Gen. Hosp, 27–28, assoc. visiting ophthalmologist, 28–31; nat. research fellow med, 31–32; asst. prof. *ophthal,* col. med, Iowa, 31–36; *col. physicians and surg, Columbia,* 36–39, *prof. and exec. officer dept, 39–; major, Med. Corps, U. S. Army, 42–* A.A; fel. Am. Med. Asn; Soc. Bact; Asn. Bact. and Path; Acad. Ophthal. and Otolaryngol; Ophthal. Soc; Asn. Research Ophthal. External diseases of the eye.

Thysell, J(ohn) C(arl), U. S. Department of Agriculture, Mandan. N. Dak. *Agronomy.* Hawley, Minn, June 12, 84. B.S, N. Dak. Col, 08. Asst, N. Dak. substa, *div. dry land agr, bur. plant indust, U. S. Dept. Agr,* 09–15, supt. and asst. agronomist, 16–19, asst. and *assoc. agronomist, North. Gt. Plains field sta, 19–* A.A; Soc. Agron; Soil Sci. Soc. Crop rotation and tillage; soil moisture behavior; crested wheat grass; soil pressure; forage crop investigations under dry land conditions.

Tibbals, Dean C(harles) Austin, Jr, Illinois Institute of Technology, Chicago, Ill. *Chemistry.* New York, N. Y, July 23, 81. Columbia, 99–02; A.B, Wisconsin, 04, A.M, 06, Ph.D, 08. Asst. *chem,* Wisconsin, 03–05, instr, 05–08; asst. prof, *Ill. Inst. Tech,* 08–10, assoc. prof, 10–27, *prof,* 27–, asst. dean, 36–37, assoc. dean, 37–38, *dean* col. eng, 38–43, *students, 43–* Special chemist, Underwriters' Labs, Inc, 19–32. Capt, Ordnance Dept, 18–19, Ordnance Res, 19– A.A; Chem. Soc; Eng. Educ; Col. Personnel Asn; Asn. Deans and Advisers Men; West. Soc. Eng. Inorganic chemistry; chemistry of tellurium; high explosives; fire protection chemistry; college personnel problems.

Tiber, Dr. L(eon) J(ulius), 5410 Wilshire Blvd, Los Angeles, Calif. *Obstetrics, Gynecology.* Russia, Feb. 12, 93. B.S, Minnesota, 18, M.B, 19, M.D, 20, fellow, 27–30, Ph.D, 30; Vienna, 26–27. *Instr. obstet, White Mem. Hosp, Los Angeles, 31–* Am. Med. Asn. (pres, Vienna, 26); Los Angeles Obstet. Soc; St. Paul Obstet. Soc. Infection in the puerperium; the effects of birth moulding on the child's head; abruptio placentae; fibroids and ovarian cysts complicating pregnancy; placenta praevia.

Tice, Dr. F(rederick) Gordon, Box 2004, Roanoke, Va. *Psychology.* Roanoke, Va, June 17, 13. B.S, Virginia, 36, A.M, 39, Ph.D, 41. *Instr. psychol, Hollins Col, 41–* Assoc. Psychol. Asn; South. Soc. Philos. and Psychol; Va. Acad. Individual differences; visual processes; personality and aptitude studies.

Tice, Dean L(inwood) F(ranklin), 43rd and Kingsessing, Philadelphia, Pa. *Pharmaceutical chemistry.* Salem, N. J, Feb. 17, 09. Ph.G, Phila. Col. Pharmacy and Science, 29, B.S, 33, M.S, 36, Iodine Educational Bur. fellow, 29–30, Wm. R. Warner fellow, 31–35, Edible Gelatin Mfrs. Research Soc. Amer. fellow, 35–38. Prof. *pharmacy,* Baylor, 30–31; asst. prof, *Phila. Col. Pharmacy and Science,* 38–40, *prof, 40–, asst. dean, 41–* Consultant, Edible Gelatin Mfrs. Research Soc. Amer, 38– Ed, 'Am. Jour. Pharmacy,' 40– Pharmaceut. Asn; Chem. Soc; Inst. Chem; Franklin Inst. Capsicum; colloid properties of gelatin; emulsions.

Tichenor, Dr. Robert L(auren), 1179 Lake Ave, Rochester, N. Y. *Physical chemistry.* Ft. Atkinson, Wis, Sept. 1, 18. B.S, Montana, 39; A.M, Harvard, 41, Ph.D, 42. Ed. asst, 'Jour,' Am. Chem. Soc, 39–41; *physical chemist, Nat. Defense Research Council, Eastman Kodak Co, 42–* Summer, chemist, Gen. Elec. Co, 41. Chem. Soc. Claisen rearrangement; cellulose plastics.

Tickell, Prof. Frederick G(eorge), Stanford University, Calif. *Petroleum geology.* Belleville, Ont, Can, April 19, 86. B.S, California, 12, E.M, 27. Geologist, South. Pacific and Assoc. Oil Companies, 16–21; *prof. petrol. eng, Stanford, 21–,* exec. head dept. mining eng, 36. A.A; Asn. Petrol. Geol; Petrol. Inst; Min. and Metal. Eng. Correlation of sub-surface strata; detrital minerals; analytical spectroscopy; fragmental rocks.

Tidd, George W(ashington), 602 Sanford Place, Columbia, Mo. *Engineering.* Wakefield, Ohio, Sept. 28, 73. B.S, Valparaiso, 98; M.S, Iowa, 11. Head dept. science, Steinman, 98–04; teacher, pub. sch, and engineer, 04–13; head dept. physics, Kans. State Nor. Sch, 13–17; prof. math. and eng, Phillips, 17–18; head dept. eng, Marion Mil. Inst, 18–19; private practise, 19–20; gen. manager, Ala. Concrete Products Co, 20–23; Carolina Eng. Co, 23–24; city engineer, Union, S. C, 24–25; land develop. engineer and private practise, 25–28; highway engineer, 28–31; consulting engineer, 31–33; city engineer and elec. engineer, 33–41; chief computing engineer, Piatt and Lee, 41–42; teacher math, Biltmore Col, 42–43; *dept. physics, Missouri, 43–* A.A; Elec. Eng; Asn. Eng; Physical Soc; Chem. Soc; Okla. Eng. Soc; Piedmont Eng. Club (v. pres). Civil and electrical engineering; strength of materials; optical properties of metals; structures and pavements; densifying and ornamenting concrete; hydroelectric surveys; improved dam analysis.

Tidd, Dr. J(oseph) S(hepard), Dartmouth College, Hanover, N. H. *Botany.* Taunton, Mass, April 8, 07. B.S, Dartmouth Col, 28, A.M, 31; Cole fellow, Michigan, 34–35, Ph.D, 35. Instr. *bot,* Dartmouth Col, 29–31; asst, Michigan, 31–34; *instr, Dartmouth Col, 35–* Bot. Soc; Phytopath. Soc. Mycology; plant pathology; genetics of disease resistance.

Tidd, Dr. Wilbur M(etellus), Ohio State University, Columbus, Ohio. *Zoology, Entomology.* McGuffey, Ohio, Oct. 4, 03. A.B, Ohio State, 25, Cent. Ohio Hunters and Anglers Club scholar, 27, M.S, 29, Ph.D, 37. Asst. zool, Ohio State, 27–28; asst. biologist, State Dept. Conservation, Ohio, 28–29; instr. *zool. and entom, Ohio State,* 30–42, *asst. prof, 42–* A.A; Soc. Parasitol; Limnol. Soc; Micros. Soc; Ohio Acad. Taxonomy and life history of parasitic copepods; limnology of Great Lakes.

Tidwell, Dr. Herbert C(ollier), Southwestern Medical Foundation, Dallas, Texas. *Biochemistry.* Mexia, Texas, Sept. 30, 97. A.B, A.M, Baylor, 19; Ph.D, Hopkins, 30. Instr. chem, Agr. and Mech. Col. Texas, 24–27; asst. prof, Carnegie

Inst. Tech, 28–30; instr. pediat, Hopkins, 30–35; *biochem*, Duke, 35–36; assoc. prof, sch. med, Wake Forest Col, 36–38; *prof. and chairman dept*, col. med, Baylor, 38–43; *med. sch, Southwest. Med. Foundation, 43–* A.A; Chem. Soc; Texas Acad. Esterification; intravenous fat; nutrition; fat metabolism; carbohydrate metabolism in fatty livered animals; ketosis.

Tiedcke, Dr. Carl H(einrich) W(ilhelm), 366 Fifth Ave, New York, N. Y. *Chemistry.* Lübeck, Germany, March 1, 04. Ph.D, Hamburg, 28. Asst, chem. inst, Hamburg, 28–31, inst. pharmacol, 31–33, head microchem. dept, research inst. for tuber. and cancer, 31–37, chem. div, 33–37; *director, Lab. of Microchem, New York, 37–* Assoc. ed, 'Mikrochemie,' 38– A.A; Chem. Soc; Metrop. Microchem. Soc; Austrian Microchem. Soc. General and applied microchemistry; toxicology; foods.

Tiedeman, Prof. John A(lbert), Woman's College, University of North Carolina, Greensboro, N. C. *Physics.* Schenectady, N. Y, March 8, 04. B.S, Union (N. Y), 26, M.S, 28; Ph.D, Virginia, 31. Lab. asst, gen. eng. lab, Gen. Elec. Co, 26–27, engineer, 28–29; *asst. prof. physics, Woman's Col, North Carolina, 31–; lieut, U. S. Naval Res, 41–* Physical Soc; Asn. Physics Teachers. Mechanism of the electric spark; photography.

Tiedeman, W(alter von) D(ohlen), State Department of Health, Albany, N. Y. *Sanitation, Bacteriology.* Brooklyn, N. Y, April 23, 91. B.E. and M.C.E, Union Col, 14, Hopkins, 22. Sanit. bacteriologist, U. S. Pub. Health Service, 15–17, asst. sanit. engineer, in charge extra-cantonment zone sanit. including malaria control, Ga, 18–19, field director malaria control activities in state, 19–20; city asst. sanit. engineer, Cleveland, Ohio, 17–18; city engineer and supt. water works, Americus, Ga, 20–22; special staff mem, int. health board, Rockefeller Foundation, P. I, 22–24; from asst. milk sanitarian to *chief milk sanitarian in charge milk and restaurant sanit, State Dept. Health, N. Y, 25–* Lecturer, Albany Med. Col; sch. pub. health, Harvard; Cornell; Mich. State Col; Mass. Inst. Tech; Rensselaer Polytech; Michigan; Columbia. Pub. Health. Asn; Inst. Food Technol; N. Y. State Asn. Milk Sanit. (sec'y-treas; ed, 'Proceedings'); Int. Asn. Milk Sanitarians (third v. pres). Disease prevention; malaria in the Philippines; efficiency of chlorinating sewage tank effluents; variations in bacteria counts of identical milk samples; safe dishwashing technics.

Tiedemann, D(imitry) P(eter), 546 Chester Ave, Mt. Royal, Montreal, Que, Can. *Electrical engineering.* Lublin, Poland, June 25, 06. B.S, Wisconsin, 28, M.S. Asst. physics, Purdue, 29; develop. engineer, elec. methods div, *North. Elec. Co, Montreal*, 29–34, chem. methods div, 34–40, *vacuum tube develop. and mfg. engineer, 40–* Manufacture of telephone apparatus in Canada.

Tiedjens, Prof. Victor A(lphons), Rutgers University, New Brunswick, N. J. *Olericulture.* Brillion, Wis, June 13, 95. B.S, Wisconsin, 21, M.S, 22; Harvard, 24–25; Ph.D, Rutgers, 32. Asst. agron, Wisconsin, 19–23; asst. research prof. veg. gardening, Mass. Col, 23–30; research specialist hort, Rutgers, 30–32; director research, Yoder Brothers, Ohio, 32–34; *assoc. prof. veg. gardening, Rutgers, 34–* A.A; Soc. Hort. Sci. Plant nutrition; nitrogen assimilation in plants; plant fertilizer relationships; liquid fertilizers; soilless culture of plants.

Tieje, Prof. Arthur J(errold), University of Southern California, Los Angeles, Calif. *Geology, Paleontology.* Dayton, Ohio, Dec. 24, 91. A.B, Cornell, 13, A.M, 14; Ph.D, Minnesota, 20. Instr. sci. composition, Minnesota, 14–17, geol, 18–20; asst. prof, Colorado, 20–22; *consulting geologist and paleontologist, Los Angeles, 23–*; assoc. prof. *geol, Southern California, 24–27, prof, 27–*, chairman dept, 27–33. Summers, in charge session geol, Columbia, 30–33. A.A; Asn. Petrol. Geol; Paleont. Soc. Cambrian stratigraphy of Wyoming; red beds of Colorado; Pliocene and Pleistocene of southern California; Foraminifera of California and Burma.

Tiemann, Harry D(onald), U. S. Forest Service, Madison, Wis. *Forestry.* Brooklyn, N. Y, March 26, 75. M.E, Stevens Inst. Tech, 97; M.F, Yale, 03. Teacher, Pennsylvania, 99–00; *U. S. Forest Service, 00–*, in charge timber testing lab, sch. forestry, Yale, 03–09, *senior physicist, Forest Products Lab, 10–; lecturer forest products, Wisconsin, 10–* Consulting engineer, New Eng. Westinghouse Co, 15–16; Winchester Repeating Arms Co, 16; tech. adviser, Australian and New Zealand Governments, 21–22. Govt. adviser in kiln drying war materials, 17–18. Soc. Foresters; Int. Asn. Wood Anat. Wood technology; structure and properties of wood; kiln drying of lumber.

Tietz, Prof. Harrison M(orton), 446 E. Hamilton Ave, State College, Pa. *Entomology.* New York, N. Y, July 4, 95. B.S, Mass. Col, 21, M.S, 23, Ph.D, 28. Gipsy-moth lab, bur. entom, U. S. Dept. Agr, Mass, 24–26; asst. prof. and *assoc. prof. zool. and entom, Pa. State Col, 26–* Entom. Soc. Amer; N. Y. Entom. Soc; Brooklyn Entom. Soc. Alimentary tract of the Carolina locust; solubility of arsenic in the digestive fluids of honey-bees; genotypes of North American Hadeninae; human physiology and its applications; the Macrolepidoptera of Pennsylvania.

Tiffany, Dr. B(urton) E(phraim), 11832 Ohio, Detroit 4, Mich. *Physical chemistry.* Barkhamsted, Conn, March 13, 05. B.S, Yale, 27, Ph.D, 30. *Chief chemist*, Kelvinator Corp, *Detroit*, 30–36; Norge div, Borg-Warner Co, 36–40; *Ford Motor Co, 40–* A.A; Chem. Soc. Refrigeration; magnesium production.

Tiffany, Dr. E(lberton) J(ay), Hoagland Laboratory, 335 Henry St, Brooklyn, N. Y. *Bacteriology.* Pittsfield, Maine, June 23, 01. B.S, Bates Col, 24; M.D, L. I. Col. Med, 35. Asst. *bacter*, L. I. Col. Hosp, 26–27, instr, 27–30; *L. I. Col. Med*, 27–35, *asst. prof, 35–* A.A; Soc. Bact; Soc. Trop. Med. Bacteriophage; leptospirosis.

Tiffany, H(arold) E(dward), 16 Amstel Ave, Newark, Del. *Chemistry.* Tunkhannock, Pa, Nov. 14, 81. B.S, Bucknell, 05, M.S, 06; Harvard, 06; Columbia, 18–19. Instr. chem, Delaware, 06–08, asst. prof, 08–17; research chemist, E. I. du Pont de Nemours and Co, 18–19; asst. prof. geol. and miner, Hunter Col, 19–20; assoc. prof. chem, Delaware, 21–23; *director and organizer, Wilmington Research and Testing Labs, 23–* Chemist to Attorney Gen; coroner's chemist, New Castle County, Del; Internal Revenue chemist. Chem. Soc; Soc. Test. Mat; Tech. Asn. Pulp and Paper Indust. Recovery of molybdenum; electrolytic purification of zinc fibers; heats of combustion of certain related organic compounds; economic production of zinc sulfate from low grade zinc ores; plastic resins; cold water paints.

Tiffany, Prof. L(ewis) H(anford), Northwestern University, Evanston, Ill. *Botany.* Lawrenceville, Ill, July 29, 94. B.S, Chicago, 19; M.S, Ohio State, 21, Ph.D, 23. Instr, high sch, Ill, 15–17; bot, Ohio State, 20–25, asst. prof, 25–28, assoc. prof, 28–32, prof, 32–37, Franz Theodore Stone lab, 28–37; *prof. bot. and chairman dept, Northwestern, 37–* Summers, algologist, Surv. of Ohio Fishes, 20–30; lakeside lab, Iowa State Col, 23. Cmt. hydrobiol, Nat. Research Council, 30–35. Business manager, 'Ohio Jour. Science,' 21–30; asst. ed. algae, 'Bot. Abstracts,' 22–25. 2nd lieut, F.A, 18. A.A; Bot. Soc; Limnol. Soc. (v. pres, 37, pres, 39); Ecol. Soc; Micros. Soc. (v. pres, 30, pres, 34); Soc. Plant Physiol; Soc. Plant Taxon; Soc. Nat; Ohio Acad. (v. pres, 29); Ill. Acad; Chicago Acad. Sci. (governor, 40–). Physiology and taxonomy of freshwater algae; algal food of fishes; Oedogoniaceae; teaching of botany.

Tiffin, Prof. Joseph (Harold), Purdue University, Lafayette, Ind. *Psychology.* Falls City, Nebr, July 4, 05. A.B, South Dakota, 27; A.M, Iowa, 28, Ph.D, 30. Nat. research fellow psychol, Iowa, 30–31, asst. prof. psychol. and speech, 31–35, assoc. prof, 35–37; director voice science lab, Brooklyn Col, 37–38; assoc. prof. *indust. psychol, Purdue*, 38–40, *prof, 40–* Psychol. Asn. Industrial psychology, vision; vocational tests.

Tigert, Pres. Jno. (John) J(ames), University of Florida, Gainesville, Fla. *Psychology, Education.* Nashville, Tenn, Feb. 11, 82. A.B, Vanderbilt, 04; B.A, Oxford, 07, M.A, 15; Minnesota, 16; LL.D, Kentucky, 21, Rhode Island, 23, Bates Col, 24, New Mexico, 24, Dickinson Col, 28, Rollins, 35, J. B. Stetson Univ, 35, Louisiana, 43; D.C.L, Hillsdale Col, 28; L.H.D, Muhlenberg Col, 28; D.Litt, Southern Col. (Fla), 33. Prof. philos, Cent. Col. (Mo), 07–09; pres, Ky. Wesleyan, 09–11; prof. philos, Kentucky, 11–17, psychol, 17–21; U. S. Commissioner Educ, 21–28; *pres, Florida, 28–* Trustee, Vanderbilt. V. chairman, Fed. Board Vocational Educ, 24–28; Fed. Board Maternity and Infant Hygiene, 21–28; chairman, Fed. Council Citizenship Training, 25–28. Chairman educ. sect, 1st Pan-Pacific Conf. Educ; hon. mem. 2nd Pan-Am. Sci. Cong. Educ.C, U.S.A, 18–19; lieut. col, R.C. Asn. Land-Grant Cols. and Univs. (exec. cmt). The child, his nature and his needs; rural life.

Tilden, Prof. C(harles) J(oseph), Yale University, New Haven, Conn. *Civil engineering.* Brookline, Mass, Oct. 3, 73. B.S, Harvard, 96; hon. A.M, Yale, 19. Struct. draftsman,

97–00; asst. engineer, N. Y. Rapid Transit Cmn, 01–03; instr. civil eng, Cornell, 04; Michigan, 05–06, asst. prof, 06–08, junior prof, 08–11; prof. eng. mech. and head dept, 11–13; prof. civil eng, Hopkins, 13–19; prof. *eng. mech.* and chairman dept, *Yale,* 19–39, *emer. prof, 39–* Highway research specialist, bur. pub. roads, U. S. Dept. Agr, 22–; pres, Eno Foundation for Highway Traffic Regulation, Inc, 31–; civilian worker, Sig. Corps, U. S. Army, 42– Capt, R.C.Eng, 17–37; dept. educ. and training, Emergency Fleet Corp, 18. A.A; Civil Eng; Eng. Educ; Soc. Mil. Eng. Structural steel work; eccentric tension in angles; reinforced concrete highway bridges; stress distribution in girders; civil engineering history; highway traffic regulation.

Tilden, Dr. Evelyn B(utler), Northwestern University Dental School, Chicago, Ill. *Biochemistry, Bacteriology.* Lawrence, Mass, March 28, 91. A.B, Brown, 13; A.M, Columbia, 26, Ph.D, 29. Asst. path. and bacter, Rockefeller Inst, 28–31; asst. prof. bacter, Colo. Agr. Col, 31–32; assoc. research bacter, med. sch, Northwestern, 32–36; bacteriologist, nat. inst. health, U. S. Pub. Health Service, 36–42; *assoc. prof. bacter, dental sch, Northwestern, 42–* A.A; Soc. Bact; Chem. Soc. Herpetomonads of insects and plants; spirochetes; vitamin A deficiency in the monkey; inclusion blennorrhea; biological oxidations; bacterial amylases.

Tilden, Josephine E(lizabeth), 'Ia ora na,' Hesperides, Lake Wales, Fla. *Botany.* Davenport, Iowa. B.S, Minnesota, 95, M.S, 97. Instr. bot, Minnesota, 98–02, asst. prof, 02–10, prof, 10–37; *retired.* Del, Pan-Pacific Sci. Conf, Honolulu, 20, Melbourne and Sydney, 23, Tokyo, 26; Pan-Pacific Food Conservation Conf, Honolulu, 24. A.A; Bot. Soc; Fisheries Soc; Soc. Nat. South Pacific algae; Myxophyceae of North America; index Algarum universalis; algae and their life relations.

Tileston, Prof. Roland R(ay), Pomona College, Claremont, Calif. *Physics.* Randolph, Mass, April 28, 86. A.B, Dartmouth Col, 07, A.M, 11; Sc.D, Colo. Col, 25. Asst. *physics,* Dartmouth Col, 08–11; *prof,* Colo. Col, 13–25; *Pomona Col, 25–,* director civilian pilot training, 40–41; personnel procurement, Naval Research Lab, 42–43; *director premeteorol. program, Air Forces, U. S. Army, 43–* Civil engineer, Mass, Colo. and Utah, 08–18. Director, Army Radio Sch, Colorado Springs, 18. A.A; Asn. Physics Teachers. Illumination investigation and design.

Tileston, Prof. Wilder, 15 Edgehill Road, New Haven, Conn. *Medicine.* Concord, Mass, Jan. 22, 75. A.B, Harvard, 95, M.D, 99. Asst. clin. chem, Harvard Med. Sch, 01–03, clin. med, 06–08; asst. prof. *med, Yale,* 09–19, *clin. prof, 19–* Past asst. visiting physician, L. I. Hosp, Boston; consulting physician, Mass. Charitable Eye and Ear Infirmary; visiting physician, New Haven Hosp. Am. Physicians; Soc. Clin. Invest. Internal medicine; hematology; tuberculosis; the digestive system; diseases of the pancreas and liver.

Tilford, Dr. Paul E(dward), Ohio Agricultural Experiment Station, Wooster, Ohio. *Plant pathology.* Hammond, Ill, Dec. 10, 00. B.S, Mich. State Col, 23; M.S, Ohio State, 26; Ph.D, Wisconsin, 35. Asst. plant pathologist, *Ohio Exp. Sta,* 23–28, *assoc. plant pathologist, 28–* A.A; Phytopath. Soc. Potato diseases; diseases of ornamentals, shade and forest trees; fungicides.

Tiller, Prof. F(rank) M(onterey), Vanderbilt University, Nashville, Tenn. *Chemical engineering.* Louisville, Ky, Feb. 26, 17. B.Ch.E, Louisville, 37; M.S, Cincinnati, 39. Chemist, Colgate-Palmolive-Peet Co, Ind, 37; civil engineer, U. S. Engineers, Louisville, Ky, 39; chem. engineer, C. M. Hall Lamp Co, Mich, 40; instr. *chem. eng,* Cincinnati, 40–42; *asst. prof, Vanderbilt, 42–* Chem. Eng. Commercial application of infra-red radiant heat; applications of finite differences to stagewise processes; multicomponent fractionation.

Tilles, Dr. Abe, University of California, Berkeley, Calif. *Electrical engineering.* New York, N. Y, March 10, 07. B.S, California, 28, M.S, 32, Ph.D, 34. Elec. tester, Bur. Power and Light, Los Angeles, Calif, 28–30; junior testing engineer, State Highway Testing and Research Labs, 30; assoc. *elec. eng, California,* 30–32, instr, 32–37, *asst. prof, 37–,* lecturer, exten. div, 31, 38, instr. defense training courses, 41. Junior elec. engineer, frequency change div, City Bur. Power and Light, Los Angeles, 36; elec. designer, Pacific Gas and Elec. Co, San Francisco, 37, 38; associated with L. S. Ready, pub. utility consultant, 39; assoc. elec. engineer, U. S. Navy Yard, Mare Island, 41; elec. engineer, Southwest. Eng. Co, 42; develop. engineer, Richmond Shipyard No. 3, Kaiser Co, 42– Alfred Noble prize, Am. Inst. Elec. Eng, 36. Eng. Educ; Elec. Eng. (counselor univ. California branch, 36–39). Sparkover; electrical communication networks; power distribution.

Tillett, Dr. William S(mith), New York University College of Medicine, 477 First Ave, New York, N. Y. *Medicine.* Charlotte, N. C, July 10, 92. A.B, North Carolina, 13; M.D, Hopkins, 17. Asst. and assoc, Rockefeller Inst. Hosp, 22–30; assoc. prof. med, Hopkins, 30–37; *prof.* bacter, *col. med, N. Y. Univ,* 37–38, *med, 38–* Assoc. Am. Physicians; Soc. Clin. Invest. (pres, 36); Asn. Immunol; Harvey Soc; Soc. Bact; Soc. Exp. Biol; N. Y. Acad. Med. Internal medicine.

Tilley, Prof. A(rthur), Washington Square College, New York University, New York, N. Y. *Mathematics.* Giessen, Hesse, Germany, Sept. 4, 91. Royal Tech. Col, Berlin; M.E, N. Y. Univ, 23, M.S, 25, Ph.D, 33. Asst. prof. *math, N. Y. Univ,* 26–34. *assoc. prof, 34–* Math. Soc; Math. Asn. Abstract sets.

Tilley, Dr. Frank W(illiam), 1311 21st St, N. W, Washington, D. C. *Bacteriology.* Providence, R. I, Nov. 1, 78. A.B, Bucknell, 98; M.D, Harvard, 02. Instr. path. and bacter, col. med, Syracuse, 02–03, lecturer, 03–04; *bacteriologist, bur. animal indust, U. S. Dept. Agr, 07–* A.A; Soc. Bact. Bacterial metabolism; disinfection; disinfectants.

Tillman, Dr. Arthur G(eorge), 360 N. Normal St, Macomb, Ill. *Geography, Geology.* La Crosse, Wis, May 1, 90. A.B, Wisconsin, 17, A.M, 26, Ph.D, 28. Teacher, high sch, Wis, 12–15, 19–25; asst. geog, Wisconsin, 25–28; teaching fellow, 27–28; *head dept. geog. and geol, West. Ill. State Teachers Col, 28–* Educ. sec'y, Y.M.C.A, U.S.A, 17–18. A.A; Nat. Council Geog. Teachers; Ill. Acad. (chairman, geog. sect, 29); Ill. Geol. Soc. Meteorology; astronomy; the Mississippi Gorge and successive adjustments to the environment between La Crosse, Wisconsin, and Winona, Minnesota; physiography and geology of Antarctica; railway versus water traffic on the Great Lakes.

Tillman, Dr. Florence W(hitbeck) (Mrs. Arthur George Tillman), Macomb, Ill. *Geology, Geography.* Schuylerville, N. Y, May 25, 98. A.B, Wisconsin, 19, fellow, 20–21, A.M, 21, Ph.D, 27. Dept. geog. and geol, Wellesley Col, 19–20; instr. geog, Puerto Rico, 21–23; Bryn Mawr Col, 24; geog. and geol, Rochester, 24–28. Summers, asst, div. mil. intel, War Dept, 18; draftsman, Wis. Geol. Surv, 19. Geography of Puerto Rico; geography of waterways.

Tillman, Gen. S(amuel) E(scue), Century Association, 7 W. 43rd St, New York, N. Y. *Chemistry, Geology.* Shelbyville, Tenn, Oct. 2, 47. Grad, U. S. Mil. Acad, 69; A.M, Yale, 06. Officer, E.C, 72–81; prof. chem, elec, miner. and geol, U. S. Mil. Acad, 79–11; *retired.* Asst. astronomer, U. S. transit of Venus exped, Tasmania, 74–75; asst. engineer, U. S. Geog. Surv, War Dept, west of 100th meridian, 73–74, 76–79; supt, U. S. Mil. Acad, 17–19, brig. gen, 19. D.S. medal. Electricity; descriptive general chemistry; heat; mineralogy.

Tillotson, Dr. E(dwin) Ward (Jr), Mellon Institute, Pittsburgh, Pa. *Chemistry, Ceramics.* Farmington, Conn, Feb. 28, 84. A.B, Yale, 06, fellow, Ph.D, 09. Asst. chem, Yale, 06–07; indust. fellow, Kansas, 09–13; *asst. director, Mellon Inst, 13–* Chem. Soc. (chairman, Pittsburgh sect, 20); fel. Ceramic Soc. (sec'y, glass div, 19–21, v. pres, 22, pres, 25); fel. Soc. Glass Technol; Optical Soc. Organic chemistry; the relation between the optical properties and the chemical composition of glass.

Tillson, Dr. Albert H(olmes), U. S. Department of Agriculture, Glenn Dale, Md. *Morphology.* Washington, D. C, May 27, 10. A.B, Col. of Wooster, 34; M.S, Maryland, 35, Ph.D, 38. Asst. bot, Maryland, 34–37; junior morphologist, *U. S. Dept. Agr,* 37–38, *junior botanist, div. plant explor. and introd, bur. plant indust, 38–* Bot. Soc; Soc. Plant Taxon; Bot. Soc. Wash. Anatomy, morphology and genetics of economic plants; floral anatomy of citrus relatives; floral anatomy of Kalanchoideae; wood anatomy of Quercus; bud differentiation of Prunus Mahaleb.

Tillson, Benjamin F(ranklin), 35 Greenview Way, Upper Montclair, N. J. *Engineering.* Norwich, N. Y, April 11, 84. Ph.B, Yale, 05; E.M, Columbia, 07. Asst. mine capt, N. J. Zinc Co, 07–10, head mining dept. and asst. supt, 10–30; *consulting engineer, 30–* Consultant, U. S. Bur. Mines, chairman advisory board, research of rock drill steel; research of steel hoisting ropes, Bur. Standards. Director, exec. cmt, v. pres. and chairman mining sect, Nat. Safety Council. Min.

and Metal. Eng. (chairman, cmts); Elec. Eng; Min. and Metal. Soc; Chem. Soc; Soc. Automotive Eng; Radio Eng; Mech. Eng; Math. Soc. Mining methods; steel hoisting ropes; rock drills; storage battery mine locomotives; power plant design, installation and operation; electric transmission and control; ore dressing and concentrating; silicosis; bridge and tunnel construction; mining, mechanical, electrical, civil, metallurgical, chemical and efficiency engineering; mine plant design.

Tillyer, Dr. Edgar D(erry), 20 Maple St, Southbridge, Mass. *Optics.* Dover, N. J, 81. B.S, Rutgers, 02, M.S, 05, hon. Sc.D, 28; M.S, George Washington, 03. Asst, 'Nautical Almanac' Office, 02-06; U. S. Naval Observatory, 06-11; Bur. Standards, 11-16; optical designer and later *director research, Am. Optical Co, 16–* Mod. Pioneer award, Nat. Asn. Mfrs. A.A; Optical Soc; Physical Soc; Ceramic Soc; Radio Eng; Wash. Acad. Astronomy; optical design; aberration-free ophthalmic lenses; oscillating crystals; special glass compositions.

Tilt, Prof. Jennie, Florida State College for Women, Tallahassee, Fla. *Nutrition.* West Lafayette, Ind, Oct. 25, 86. B.S, Purdue, 07, M.S, 10; Ph.D, Chicago, 23. Asst. chem, Purdue, 07–10; instr, Wellesley Col, 10–15; Radium Research Lab, 17–20; research prof. nutrition, *Fla. State Col. for Women,* 23–33, *prof. chem. and nutrition, 33–* A.A; Chem. Soc; Dietetic Asn; Inst. Nutrition; Fla. Acad. Basal metabolism of girls; the nutritional value of Florida products.

Tilton, Prof. J(ohn) Warren, Yale University, New Haven, Conn. *Educational psychology.* Hammonton, N. J, Nov. 10, 91. B.S, Pennsylvania, 14; A.M, Columbia, 21, Ph.D, 26. Teacher and supervisor, pub. schs, 15–23; instr. psychol, N. Y. Univ, 24–26; asst, inst. educ. research, Teachers Col, Columbia, 25–27; asst. prof. *educ. psychol, grad. sch. educ, Yale,* 27–33, *assoc. prof, 33–* A.A; assoc. Psychol. Asn; Educ. Research Asn; Statist. Asn. Relation between association and the higher mental processes; adult learning; motion pictures and history teaching; opportunity schools of South Carolina; effect of forgetting upon individual differences; effect of right and wrong upon learning.

Tilton, L(eroy) W(illiam), 1823 Kalorama Road, N. W, Washington, D. C. *Physics.* Hammonton, N. J, Sept. 27, 88. A.B, George Washington, 20. Asst. physicist, *Bur. Standards,* 21–24, assoc. physicist, 24–38, *physicist, 38–* Tech. staff, Ordnance Dept, U.S.A, 19–21. A.A; Optical Soc; San Antonio Sci. Soc. (mem, governing board, 16). Refractometry; refractive index, density and dispersion.

Timberlake, P(hilip) H(unter), Citrus Experiment Station, Riverside, Calif. *Economic entomology.* Bethel, Maine, June 5, 83. A.B, Bowdoin Col, 08; A.M, Harvard, 10. Entom. asst, bur. entom, U. S. Dept. Agr, 10–15; asst. entomologist, Exp. Sta, Hawaiian Sugar Planters' Asn, 16–24; *assoc. entomologist, Citrus Exp. Sta, California, 24–* A.A; Asn. Econ. Entom; Entom. Soc; Entom. Soc. Wash; Hawaiian Entom. Soc. Insect parasites; biology and taxonomy of Hymenoptera; Coccinellidae.

Timble, Prof. W(illiam) H(enry), 295 Highland Ave, West Newton, Mass. *Electrical engineering.* Pittsfield, Mass, Aug. 20, 77. A.B, Williams Col, 01. Head dept. applied science, Wentworth Inst, 11–18; *prof. elec. eng. and indust. practise, Mass. Inst. Tech, 19–* Ed. in chief, cmt. educ. and special training, War Dept, 18–19. Fel. Elec. Eng. (v. pres, 35–37); East. Asn. Physics Teachers (pres, 14). Industrial electricity; alternating current.

Timby, Prof. Elmer K(nowles), 208 Library Place, Princeton, N. J. *Civil engineering.* Salt Lake City, Utah, Dec. 19, 05. B.C.E, Ohio State, 28, C.E, 33; Carnegie Inst. Tech, 32; Michigan, 35. Instr. *civil eng,* Ohio State, 27–28; *Princeton,* 28–34, asst. prof, 34–39, *assoc. prof, 39–; lieut, U. S. Naval Res, 43–* Consulting engineer, 41–43. Summers, chief party, U. S. Geol. Surv, 28; asst, Arch Dam cmt, Am. Soc. Civil Eng, 29; junior engineer, Robinson and Steinman, 30; research engineer, State Highway Dept, Calif, 31; with George E. Beggs, 33, 36, 37; instr, Princeton, 34. Advisory cmt. investigation long span suspension bridges, Pub. Roads Admin, 41– Civil Eng. (cmt. applied mech; cmt. forces acting on structures; cmt. annual meeting; cmt. Nobel prize); Inst. Consulting Eng; Concrete Inst; Eng. Educ. Stress analysis by means of structural models using the Beggs deformeter; photoelastic and loaded models; stress analysis of suspension bridges by means of structural models.

Timm, Prof. John A(rrend), 125 Arnold Road, Newton Centre, Mass. *Chemistry.* New Haven, Conn, Oct. 31, 98. Ph.B, Yale, 19, Ph.D, 22. Asst. chem, Yale, 19–22, instr, 22–27, asst. prof, 27–41, fellow, Trumbull col, 33–41; *prof. chem. and chairman dept, chairman div. science and director sch. science, Simmons Col, 41–* Chem. Soc. (chairman, New Haven sect, 36). Structure of cellulose; cyclic acetals; derivatives of barbituric acid; acetanilide; solutions.

Timme, Dr. Walter, 11 E. 68th St, New York, N. Y. *Neurology.* New York, N. Y, Feb. 24, 74. B.S, Col. City of N. Y, 93; M.D, Columbia, 97. Chief clinic, Vanderbilt Clinic, 13–15; asst. attending physician, *Neur. Inst, New York,* 15–20, director dept. neuro-endocrinol, 16–36, attending physician, 20–29, *senior attending physician, 29–, consultant endocrinol, 41–; prof. clin. neur, Columbia.* Prof, Broad St. Hosp, 20–A.A; Neur. Asn; Am. Med. Asn. (chairman, sect. nervous and mental diseases, 23); Asn. Research Nervous and Mental Disease (pres, 19–30); Asn. Study Int. Secretions (pres, 24); Therapeut. Soc; N. Y. Neur. Soc. (pres, 19–21); N. Y. Acad. Med; N. Y. Endocrinol. Soc. (pres, 32). Neuroendocrinology; growth and pituitary disturbances; pluriglandular syndromes.

Timonin, Dr. M(ichael) I(van), Science Service, Department of Agriculture, Ottawa, Ont, Can. *Soil microbiology.* Novoyzensk, Russia, Nov. 14, 00. B.S.A, Manitoba, 32, Nat. Research Council Can. fellow, 33–34, M.Sc, 34; Ph.D, Rutgers, 39. Instr. mycol, Manitoba, 32–34; asst. entomogenous fungi, div. bot, Cent. Exp. Farm, Ottawa, 34–36; *agr. scientist soil microbiol, div. bacter. and dairy research, science service, Dept. Agr, Can, 36–* Can. Soc. Tech. Agr; Professional Inst. Civil Service Can. Interaction of higher plants and soil microorganisms; production of antibacterial substances by fungi.

Timoshenko, Prof. Gregory (Stephen), University of Connecticut, Storrs, Conn. *Electrical engineering.* St. Petersburg, Russia, Nov. 1, 04. Dipl.Ing, Tech. Hochschule, Berlin, 29; Ph.D, Michigan, 32. Asst. elec. eng, Michigan, 32–33, research assoc. eng. research, 33; instr. *elec. eng,* Mass. Inst. Tech, 34–39; asst. prof, *Connecticut,* 39–42, *assoc. prof, 42–* Consulting engineer, Pratt and Whitney Aircraft, 42– Elec. Eng; fel. Physical Soc. Conduction of electricity through gases; photometry; aircraft ignition.

Timoshenko, Prof. S(tephen), Stanford University, Calif. *Mechanics.* Kiew, Russia, Dec. 23, 78. Eng. diploma, Inst. Eng. St. Petersburg, 01; Adj. Applied Mech, Kiew Polytech. Inst, 07. Asst. prof, St. Petersburg Polytech. Inst, 03–06; prof. and director material testing lab, Kiew Polytech. Inst, 06–11; prof. Polytech. and Electrotech. Inst. St. Petersburg, 13–18; Polytech. Inst. Zagreb, Yugoslavia, 20–22; research engineer, Westinghouse Elec. and Mfg. Co, 23–27; *prof. eng. mech,* Michigan, 27–36; *Stanford, 36–* Jouravsky's prize and gold medal, 11. Nat. Acad; A.A; Mech. Eng; Soc. Automotive Eng; Math. Soc; cor. mem. French Acad. Sci. France; Verein Ing; Gesell. für angewandte Math. und Mech; cor. mem. Acad. Sci, St. Petersburg; Acad. Sci, Kiew. Applied elasticity; theory of elasticity and of structures; vibration in engineering; strength of materials.

Timoshenko, Dr. Vladimir P(rokop), 427 Tennyson Ave, Palo Alto, Calif. *Economics, Statistics.* Ukraine, Russia, April 25, 85. Candidate, Econ. Sciences, Polytech. Inst. St. Petersburg, 11; Int. Educ. Board fellow, 26–27; Ph.D, Cornell, 27. Asst. prof, Prague, 21–23, assoc. prof, 23–25, prof, 25–28; instr, bur. business research, Michigan, 28–30, lecturer, 30–34; senior agr. economist, U. S. Dept. Agr, 34–36; research assoc, *food research inst, Stanford,* 28, 30, 36–40, *economist and prof. commodity econ, 40–* Imp. Econ. Soc. Russia; Inst. slave de Prague. Wheat prices and world wheat market; the rôle of agricultural fluctuations in the business cycle; the Danube Basin as producer and exporter of wheat; agricultural Russia and the wheat problem; world agriculture and the depression; Soviet agricultural reorganization; monetary influences on postwar wheat prices.

Tims, Dr. E(ugene) C(hapel), Louisiana State University, Baton Rouge, La. *Plant pathology.* Learned, Miss, July 19, 94. B.S, Miss. Agr. and Mech. Col, 19; Ph.D, Wisconsin, 24. Asst. plant pathologist and *assoc. plant pathologist, Exp. Sta, Louisiana, 24–* A.A; Phytopath. Soc; Bot. Soc.

Tindal, Dr. Charles H(oward), 7 Linnaean St, Cambridge, Mass. *Physics.* Lakewood, Ohio, July 17, 14. B.S, Case, 36, M.S, 38; Ph.D, Ohio State, 41. Asst. physics, Case, 36–38; Ohio State, 38–41; instr, Mt. Holyoke Col, 41–42; *special research assoc, Nat. Defense Research Cmt, Harvard, 42–* Sum-

mer, prof, Davis and Elkins Col, 41. A.A; Physical Soc; Asn. Physics Teachers. Geiger counter efficiency; infra-red spectra of germanium tetrahydride and silicon hydride.

Tingey, Prof. D(elmar) C(live), Utah State Agricultural College, Logan, Utah. *Agronomy.* Brigham, Utah, May 19, 97. B.S, Utah Col, 22, A.M, 24; Minnesota, 39–40. Asst. agron, Utah Col, 22–25, instr, 25–27, asst. prof, 27–29, Utah State Col, 29–35, assoc. prof, 35–36; assoc. agronomist, soil conservation service, U. S. Dept. Agr, 36–37; *assoc. prof. agron, Utah State Col, 37–; senior agronomist, bur. plant indust, U. S. Dept. Agr, 43–* Cereal breeding; weed control; guayule production.

Tingey, Dr. H(arold) C(alvert), U. S. Rubber Co, Passaic, N. J. *Chemistry.* Boston, Mass, Dec. 4, 97. A.B, Harvard, 21; Ph.D, Mass. Inst. Tech, 28. Sheldon traveling fellow, 21–22; instr. chem, Colby Col, 22–23; Mass. Inst. Tech, 23–25; Vassar Col, 25–27, asst. prof, 27–29; *research chemist, develop. dept, U. S. Rubber Co, 29–* Chem. Soc. Reaction rate; absorption of ultra-violet light.

Tingley, Dr. Mary A(lberta), Milwaukee-Downer College, Milwaukee, Wis. *Plant physiology.* Calais, Maine, Aug. 17, 04. B.S, New Hampshire, 33, M.S, 37; Goldwin Smith fellow, Cornell, 38–39, Ph.D, 41. Asst. hort, New Hampshire, 34–35, Exp. Sta, 36–38; bot. and plant physiol, Cornell, 40–41; *instr. bot, Milwaukee-Downer Col, 41–* Great Bay branch, Am. Asn. Univ. Women award, 33, 40. Bot. Soc. Winter injury to apple trees; concentration of plant exudates as related to translocation in plants.

Tinker, Dr. Martin B(uel), Cornell Heights, Ithaca, N. Y. *Surgery.* Granville, Mass, March 17, 69. M.D, Jefferson Med. Col, 93; B.S, Harvard, 95; M.D, Berlin, 99. Asst. physiol, Harvard, 94–96; demonstrator surg. and path, Jefferson Med. Col, 97–00; first asst. res. surgeon, Hopkins Hosp, 00–03; lecturer surg, Cornell, 03–09, asst. prof, 09–11; *practising surgeon.* Mem. Am. Board Surg. Del, Int. Goiter Conf. Lieut. col, M.R.C. A.A; Surg. Asn; Col. Surg; Am. Med. Asn. (sec'y, surg. sect, 11); Am. Acad. Med; Asn. Study Goiter; N. Y. State Med. Soc. (chairman, surg. sect, 12, past pres); Deuts. Gesell. für Chirurg; Int. Soc. Surg. Thyroid and abdominal surgery; hand disinfection; surgical tuberculosis.

Tinker, Prof. Miles A(lbert), University of Minnesota, Minneapolis, Minn. *Psychology.* Huntington, Mass, Aug. 22, 93. A.B, Clark, 21, A.M, 22; Ph.D, Stanford, 27. Asst. psychol, Clark, 20–23; Stanford, 25–27, acting asst. prof. educ, 26–27; asst. prof. *psychol, Minnesota,* 27–35, assoc. prof, 35–42, *prof, 42–* Summer, instr, Stanford, 26. A.A; Psychol. Asn; Ed. Research Asn; fel. Distinguished Service Foundation of Optometry. Experimental and educational psychology; history of psychology.

Tinkle, Dr. William J(ohn), 2256 Fourth St, La Verne, Calif. *Biology.* Marion, Ind, Nov. 20, 92. A.B, Manchester Col, 16; A.M, Ohio State, 27, Ph.D, 32; Wisconsin, 29. Teacher, high sch, Ind, 24–26; prof. nat. science, Mission House Col, 27–29; head dept. biol, Juniata Col, 29–31; asst. zool, Ohio State, 31–32; instr. *biol,* Marshall Col, 32–33; *prof. and head dept,* Taylor, 33–39; *La Verne Col, 41–* Lecturer, World's Purity Federation, 22–23. Genetic Asn; Ind. Acad. (membership cmt; program cmt, 36). Zoology; inheritance of nomadism; inheritance of deafness; teaching methods in biology.

Tinklepaugh, Dr. O(tto) L(elf), Old Well Road, White Plains, N. Y. *Psychology.* Kalkaska, Mich, Aug. 18, 94. A.B, California, 23, A.M, 26, Ph.D, 27. Teaching fellow, California, 24–27; asst, Yale, 27–29, research assoc. comp. psychobiol, labs. comp. psychobiol, 29–33; director research, Lennen and Mitchell Advertising Agency, New York, 34–35; *director* personnel, Vick Chem. Co, 36–38; *research, J. M. Mathes, Inc, 38–* A.A; Psychol. Asn; Personnel Research Federation; Am. Col. Personnel Asn; Soc. Mammal. Psychobiology of monkeys and apes; sex behavior and reproduction; representative factors; memory; applied psychology.

Tinley, Dr. J(ames) M(addison), 671 Santa Barbara Road, Berkeley, Calif. *Agricultural economics.* Vryburg, S. Africa, Oct. 22, 97. B.Econ, South Africa, 23; Ph.D, Minnesota, 28. Official, Govt. of S. Africa, 17–30; economist, Dept. Agr, S. Africa, 29–30; assoc. agr. econ, *Giannini foundation, California,* 30–39, *agr. economist, 39–, assoc. prof. agr. econ, col. agr, 35–,* assoc. agr. econ, *Exp. Sta,* 30–39, *agr. economist, 39–; capt, U. S. Army, 43–* Collaborator, div. cooperative marketing, bur. agr. econ, U. S. Dept. Agr, 27–28, prin. agr. economist, agr. adjust. admin, 34. Grant, Carnegie Corp. S. African del, World's Poultry Cong, Ottawa, 27. Farm Econ. Asn; Econ. Asn; Marketing Asn. Economic analysis of marketing agricultural commodities, especially tobacco, eggs and market milk; factors affecting prices of agricultural commodities and methods of increasing efficiency of marketing; native labor problem of South Africa; food in wartime.

Tintner, Prof. Gerhard, Iowa State College, Ames, Iowa. *Mathematical economics.* Nuernberg, Germany, Sept. 29, 07. Ph.D, Vienna, 29. Research assoc, Austrian Inst. Trade Cycle Research, 29–36; instr. econometrics, Colo. Col, 36–37; asst. prof. *econ. and math, Iowa State Col,* 37–39, *assoc. prof, 39–* Rockefeller fellow, 34–36; research fellow, Cowles Cmn. Research in Econ, Chicago, 36–37. Fel. Econometric Soc; Math. Soc. Mathematical statistics; econometrics.

Tippetts, Dr. Emerson A(dair), 5200A New Kent Road, Richmond, Va. *Chemistry.* Lake Shore, Utah, Feb. 27, 08. A.B, Utah, 30; fellow, Purdue, 31–34, M.S, 32, Ph.D, 34. Asst. chem, Utah, 29–30; Purdue, 30–34; research chemist, *rayon dept, E. I. du Pont de Nemours and Co,* 35–40, research supervisor, 40–42, *research manager, 42–* Chem. Soc. Thermodynamics of solutions of strong electrolytes; viscose rayon.

Tippo, Prof. Oswald, University of Illinois, Urbana, Ill. *Botany.* Milo, Maine, Nov. 27, 11. B.S, Mass. State Col, 32; A.M, Harvard, 33, Ph.D, 37. Austin teaching fellow, Harvard, 32–35; teaching asst. biol, Radcliffe Col, 35–37; instr. *bot, Illinois,* 37–39, assoc, 39–41, *asst. prof, 41–; assoc. biologist, wood sect, test. lab, U. S. Navy Yard, Phila.* Summer, fellow from Harvard, Atkins Institution, Arnold Arboretum, Cuba, 37. A.A; Bot. Soc; Int. Asn. Wood Anat; New Eng. Bot. Club; Ill. Acad. Plant anatomy; plant morphology; phylogeny of the angiosperms.

Tipson, Dr. R(obert) Stuart, Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Wadshelf, Derbyshire, Eng, Nov. 23, 06. B.Sc, Birmingham, England, 26, B.Sc, 27, Priestley scholar, 27–28, Ph.D, 32. Instr, Birmingham, England, 28–29; fellow, McGill, 29–30; asst, Rockefeller Inst, 30–36, assoc, 36–39; *fellow, Mellon Inst, 39–* Lecturer, grad. sch, Brooklyn Col, 38–39. Asst, Biol. Board Can, Prince Rupert, B. C, 30. A.A; Soc. Biol. Chem; Chem. Soc; Harvey Soc; London Chem. Soc. Bacterial polysaccharides; ring structure of sugar derivatives; nucleosides; synthetic nucleotides; cinchona alkaloids.

Tipton, Prof. S(amuel) R(idley), Wayne University College of Medicine, Detroit, Mich. *Physiology.* Sylvester, Ga, Oct. 6, 07. A.B, Mercer, 28; Ph.D, Duke, 33. Fellow *physiol,* med. sch, Rochester, 33–34, instr, 34–35; Ohio State, 35–41; *asst. prof, col. med, Wayne, 41–* Physiol. Soc; Soc. Exp. Biol; Soc. Zool. Respiration of erythrocytes; ionic equilibria in nerve; potassium chloride contracture in muscle; chemistry of muscular activity; tissue metabolism as affected by endocrine alterations.

Tirrell, Prof. Loring V(inson), University of New Hampshire, Durham, N. H. *Animal husbandry.* South Weymouth, Mass, Sept. 28, 96. B.S, Mass. State Col, 20, M.S, 41. Instr, Mass. Agr. Col, 20–21; New Hampshire, 21–23, asst. prof, 23–25; live stock specialist, Conn. Agr. Col, 25–30; *prof. animal husbandry, New Hampshire, 30–* Soc. Animal Production. Grass silage for sheep and horses.

Tisdale, Dr. W(endell) H(olmes), E. I. du Pont de Nemours and Co, Wilmington, Del. *Plant pathology.* Georgiana, Ala, Jan. 5, 92. B.S, Ala. Polytech, 14; M.S, Wisconsin, 15, Ph.D, 17. U. S. Dept. Agr, 16–18; Exp. Sta, N. C. State Col, 18–19; bur. plant indust, U. S. Dept. Agr, 19–26; *fungicide and insecticide dept, E. I. du Pont de Nemours and Co, 26–* A.A; Phytopath. Soc; Bot. Soc; Wash. Acad. Diseases of tomatoes, flax, corn, wheat, barley, oats and rice; fungicides; insecticides; herbicides.

Tisdale, Dr. W(ilbur) E(arle), National Research Council, B and 21st St, Washington, D. C. *Physics.* Cedar Rapids, Iowa, Sept. 29, 85. B.S, Iowa, 12, A.M, 15, Ph.D, 17. Instr. physics, Rice Inst, 17–19; asst. prof, Iowa, 18; Yale, 19–20; sci. asst. to supt. bur. lighthouses, Staten Island, 20; research assoc, Wisconsin, 21; exec. sec'y div. physical sciences, Nat. Research Council, and research fellowship board in physics, chem. and math, 21–26; fellowship admin. in nat. sciences, *European office, Rockefeller Foundation,* 26–34, *asst. director, 34–* A.A; Physical Soc. Production and properties of tellurium and selenium crystals.

Tisdale, Dr. W(illiam) B(urleigh), Florida Agricultural Experiment Station, Gainesville, Fla. *Botany.* Georgiana,

Ala, Sept. 13, 90. B.S, Ala. Polytech, 14; M.S, Wisconsin, 17, Ph.D, 20. Instr. bot, Miss. Agr. and Mech. Col, 15–16; plant path, Wisconsin, 19–22; plant pathologist in charge tobacco investigations, Exp. Sta, Florida. Quincy, 22–28, plant pathologist and head dept, Gainesville, and State Plant Board, Fla, 29–32; *head dept. bot, Florida, and plant path, Exp. Sta, 39–* A.A; Phytopath. Soc; Mycol. Soc; Fla. Acad. Plant pathology.

Tisdall, Dr. Frederick F(itzGerald), 170 St. George St, Toronto, Ont, Can. *Pediatrics.* Clinton, Ont, Nov. 3, 93. M.B, Toronto, 16, M.D, 21; L.R.C.P, London, 17. *Asst. physician, Hosp. for Sick Children, 21–; assoc. pediat, dept. med, Toronto, 21–, director research labs, dept. pediat, 28–* A.A; Pediat. Soc; Acad. Pediat; Soc. Clin. Invest; Soc. Biol. Chem; Soc. Exp. Biol; East. Soc. Pediat. Research; fel. Can. Soc. Study Diseases Children; fel. Royal Col. Physicians Can; Royal Col. Surg. Nutrition; ultra-violet irradiation; sunshine.

Tishler, Dr. M(ax), Merck and Co, Inc, Rahway, N. J. *Organic chemistry.* Oct. 30, 07. B.S, Tufts Col, 28; A.M, Harvard, 33, Ph.D, 34. Asst. chem, Tufts Col, 27–28; Harvard, 30–34, research assoc, 34–36, instr, 36–37; *with research labs, Merck and Co, 37–, research sect. head in charge process develop, 40–* A.A; Chem. Soc; N. Y. Acad. Theoretical organic problems; substances present in liver; chemistry of organic compounds; synthetic vitamins; isolation of chemotherapeutic agents from bacteria.

Tissot, Dr. A(rchie) N(ewton), Florida Agricultural Experiment Station, Gainesville, Fla. *Entomology.* Mowrystown, Ohio, Jan. 22, 97. B.S, Ohio State, 23, M.S, 25, Ph.D, 31. Asst. zool. and entom, Ohio State, 23–25, instr, 25; asst. entomologist, *Exp. Sta, Florida,* 25–32, *assoc. entomologist, 32–* A.A; Entom. Soc; Asn. Econ. Entom; Fla. Entom. Soc. (sec'y-treas, 26–30); Fla. Acad. Aphididae of Florida; insect control.

Tisza, Dr. L(aszlo), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* July 7, 07. Göttingen, 28–30; Leipzig, 30; Ph.D, Budapest, 32. Research fellow, Phys. Tech. Inst, Kharkov, 35–37; Col. de France, 37–40; George Washington, 41; *instr, Mass. Inst. Tech, 41–* Lecturer, Kiev, 36. Physical Soc. Theoretical physics; molecular physics; solid state.

Titelbaum, Dr. Sydney, 5550 S. Maryland Ave, Chicago, Ill. *Physiology.* Rovno, Russia, April 24, 13. Ph.B, Chicago, 33, Ph.D, 38, J.D, 42. Asst. physiol, Chicago, 36–38; *chief physiologist and medicolegal consultant, Chicago Biol. Research Lab, 39–; lieut, Air Corps, U. S. Army.* Physiology of sleep; physiology of the higher nervous system; electrical skin resistance; scientific lie-detection; medical jurisprudence.

Titiev, Prof. Mischa, 2604 Brockman Blvd, Ann Arbor, Mich. *Ethnology.* Kremenchug, Russia, Sept. 11, 01. A.B, Harvard, 23, A.M, 24, Ph.D, 35. Asst. museum curator and junior archeologist, Nat. Park Service, 35–36; instr. *anthrop, Michigan,* 36–39, *asst. prof, 39–* A.A; Anthrop. Asn. (councilor; sec'y-treas, cent. states branch, 39–41); Folk-Lore Soc; Oriental Soc; Inst. Pacific Relations (Am. council); Mich. Acad. (acting ed, 39, treas, 40–). Ethnology of the Hopi Indians.

Titsworth, Prof. Waldo A(lberti), Alfred University, Alfred, N. Y. *Mathematics.* New Market, N. J, Sept. 17, 79. A.B, Rutgers, 00; A.M, Alfred, 02, Sc.D, 38; M.S, Wisconsin, 09. Instr, Alfred, 00–07; asst. math. and physics, Wisconsin, 07–09; *prof.* math, Des Moines, 09–12; physics, *Alfred,* 12–20, *math, 20–, registrar, 15–,* director summer sch, 24–41. Summer, supervisor, dept. audits and records, War Risk Bur, 18. A.A; Math. Asn; Asn. Col. Registrars. Higher mathematics.

Titt, Prof. Edwin W(arren), 2206 Newfield Lane, Austin, Texas. *Mathematics.* Kingfisher, Okla, Jan. 14, 07. A.B, Wichita, 27; Ph.D, Princeton, 32. Nat. research fellow, Chicago, 32–34; instr. *math,* Brown, 34–35; Princeton, 35–37; asst. prof, Maryland, 37–41; *assoc. prof, Texas, 41–* Math. Soc. Differential equations.

Tittler, Dr. I(rving) A(lbert), Brooklyn College, Brooklyn, N. Y. *Zoology.* New York, N. Y, Aug. 28, 08. B.S, Bethany Col. (W. Va), 29; A.M, Columbia, 31, Ph.D, 35. Asst. biol, Bethany Col. (W. Va), 28–29; zool, Columbia, 29–33, *instr. biol,* exten. div, Brooklyn Col, 35; Yeshiva Col, 35–37; *Brooklyn Col, 37–* Soc. Zool. Protozoology; cytology; morphology; regeneration.

Tittsler, Dr. Ralph P(orter), Bureau of Dairy Industry, U. S. Department of Agriculture, Washington, D. C. *Bacteriology.* New Bedford, Pa, April 10, 99. B.S, Pa. State Col, 22, M.S, 26; Ph.D, Rochester, 33. Instr. bacter. and asst. animal path, R. I. State Col, 22–24; instr. bacter, Pa. State Col, 24–26, asst. prof, 26–30; instr, sch. med. and dentistry, Rochester, 30–33, asst. prof, 33–38; *assoc. bacteriologist, bur. dairy indust, U. S. Dept. Agr, 38–* Soc. Bact; Wash. Acad. Bacterial electrophoresis; bacteria and ultra-violet light; poultry diseases; bacteriostatic action of indole and skatole; metabolism of the Escherichia-Aerobacter and the Lactobacillus genera; bacteriophage; environment and the growth of Propionibacterium; bacterial symbiosis; bacterial synthesis of riboflavin; vitamins in the nutrition of bacteria.

Titus, Dr. Albert C(larence), General Electric Co, Schenectady, N. Y. *Chemistry.* Somerset Heights, Md, Nov. 12, 03. B.S, Utah, 25, A.M, 27; Harvard, 30, Ph.D, 34. Teaching fellow chem, Utah, 25–27; Austin teaching fellow, Harvard, 27–28, asst, 28–32, research chemist, Harvard Sch. Pub. Health, 34–35; instr. chem, Utah, 35–39, asst. prof, 39–41; *chemist, works lab, Gen. Elec. Co, 41–* Summers, research chemist, Harvard Sch. Pub. Health, 28–30. Chem. Soc. Constant boiling hydrochloric acid; atomic weight of iodine; welding fumes; adsorption of air on solids; determination of iron and of zinc; analytical methods.

Titus, Dr. E(dward) G(aige), 1228 Bryan Ave, Salt Lake City, Utah. *Entomology, Genetics.* Quaker Street, N. Y, May 26, 73. B.S, Colo. Agr. Col, 99, M.S, 01; Sc.D, Harvard, 11. Teacher, pub. schs, Colo, 97, 98, 00; asst. zool, physiol. and entom, Colo. Agr. Col, 00–01; field asst. to state entomologist, Ill, 01–03; special field agent, bur. entom, U. S. Dept. Agr, 03–07, in charge gipsy-moth lab, 06–07; assoc. prof. zool. and entom, Utah Col, 07–08, prof, 08–16, entomologist, Exp. Sta, 07–16; technologist, sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 16–20; director agr. research, Utah-Idaho Sugar Co, 20–27; Am. agr. research, Gebrüder Dippe A. G. of Germany, Salt Lake City, 27–31; *consulting agriculturist.* In charge cor. course, exten. dept, Utah, 27–41. Utah State Hort. Cmn, 09–12, 16–18; asst. state supervisor, Works Progress Admin, Utah, 41–43; statistician, State Board Health, 43– A.A; Asn. Econ. Entom; Genetics Soc; Eugenics Soc; fel. Utah Acad. (sec'y, 11, pres, 12); Utah Geneal. Soc; Utah Eugenics Soc. (sec'y, 12–). Apoidea; economic entomology; sugar-beet breeding; inheritance of valuable human characters.

Titus, Dr. Harry W(altner), U. S. Department of Agriculture, Beltsville, Md. *Animal nutrition.* Laramie, Wyo, March 30, 96. A.B, Wyoming, 18, A.M, 25; Am-Scandinavian Foundation fellow, Stockholms Högskola and Nobelinstitutet, 19–20; Ph.D, George Washington, 31. Asst. state chemist, Wyo, 18–19; head dept. chem, Okla. Sch. Mines and Metal, 20–21; nutrition chemist, N. Mex. Col, 21–24, nutrition, 24–26; assoc. biochemist, *bur. animal indust, U. S. Dept. Agr,* 26–30, biochemist and *senior biochemist in charge poultry nutrition investigations, 30–* A.A; Chem. Soc; Agr. Chem; Soc. Biol. Chem; Inst. Nutrition; Poultry Sci. Asn; Soc. Exp. Biol; Wash. Acad; Int. Poultry Sci. Asn. Nutritive value of special types of feeds; effect of a variation in proportion of nutrients on digestibility; poultry nutrition and reproduction.

Titus, Dr. John, Yerkes Observatory, University of Chicago, Williams Bay, Wis. *Astronomy.* Kansas City, Mo, Sept. 18, 10. A.B, Columbia, 33, Ph.D, 38. *Instr. astron,* Columbia, 34–38; *Chicago, 38–* Astron. Soc. Stellar parallaxes; clusters; spectra.

Titus, Dr. R(olla) W(illiams), 300 W. Sixth St, Marysville, Ohio. *Chemistry, Nutrition.* Topeka, Kans, Jan. 9, 84. A.B, Washburn Col, 09; A.M, Kansas, 14; Cornell, 09–10; Ph.D, Wisconsin, 27. Instr, high sch, Kans, 10–17; research chemist, Kans. State Col, 17–18, 23–29; control chemist, Wis. Condensed Milk Co. and Nestlé's Food Co, 18–21; instr. chem, Emporia High Sch. and Kans. State Nor. Sch, 21–23; *director research and in charge control lab, Nestlé's Milk Products, Inc, 29–* A.A; Chem. Soc; Soc. Bact; Pub. Health Asn; Dairy Sci. Asn. Storage of copper and manganese in the animal body; nutritional value of copper in milk powder; copper-manganese-iron complex in hemoglobin building; protein surrounding fat globules in milk; destruction of vitamin A in milk with ultra-violet light; ultra-violet and rickets.

Tobey, Elmer R(obert), 5 Pond St, Orono, Maine. *Chemistry.* Norridgewock, Maine, April 8, 89. B.S, Maine, 11, M.S, 17, Chem.E, 20. Asst. chemist, Exp. Sta, Maine, 11–16; asst. research chemist, Va-Carolina Chem. Co, 16; asst. chemist, *Exp. Sta, Maine,* 17–20, assoc. chemist, 20–25, research chemist.

25–35, *chief chemist, 35–* Chem. Soc; Agr. Chem. Animal nutrition; fertilizer and soil investigations; seed disinfection of potatoes; spray residues on fruits and vegetables.

Tobey, Dr. James A(iner), 10 Rockefeller Plaza, New York, N. Y. *Public health.* Quincy, Mass, July 15, 94. B.S, Mass. Inst. Tech, 16, Dr.P.H, 27; LL.B, Southeastern Univ, 22, LL.D, 38; M.S, American Univ, 23. Asst. health officer, Summit, N. J, 16–17; health officer, W. Orange, N. J, 17–18; sci. asst, U. S. Pub. Health Service, 18; State Dept. Health, N. J, 19; asst. director health service, Red Cross, 20–21; sec'y, Nat. Health Council, 22–24; senior staff, Inst. Govt. Research, 25–27; *director* health service, Borden Co, 26–37; *Am. Inst. Baking, 37–; lieut. col, U. S. Army.* Lecturer, Mass. Inst. Tech; Columbia; Yale; Harvard. Assoc. ed, 'Jour. Pub. Health,' 18–29. Chairman health div, Nat. Conf. Social Work, 26. Lieut, Sanit.C, 18–19, lieut. col, Sanit. R.C. A.A; fel. Pub. Health Asn. (chairman, health educ. and publicity sect, 25, councilor, 26); assoc. fel. Am. Med. Asn; Soc. Bakery Engineers; Asn. Cereal Chemists; Chem. Soc; Inst. Food Technol. (chairman nat. defense cmt, 40); Westchester Tuber. and Pub. Health Asn. (pres, 35–37). Public health administration, especially its legal aspects; national government and public health; public health law; milk control; nutritional aspects of bakery products.

Tobie, Dr. John E(dwin), Tulane University, New Orleans, La. *Medical parasitology.* Collison, Ill, Dec. 26, 11. A.B, Illinois, 35; M.S, Louisiana, 36; Ph.D, Tulane, 40. Teaching fellow, Louisiana, 34–37; tech. asst, nat. inst. health, U. S. Pub. Health Service, 37–40; research fellow trop. med, *Tulane, 40–41, instr, 41–42, parasitol, 42–* Soc. Trop. Med; Soc. Parasitol. Pathogenicity and pathology in amebiasis; in vitro and in vivo studies on amebicidal drugs; complement fixation reactions in amebiasis.

Toble, Dr. Walter C(ary), American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Biochemistry, Microbiology.* Portland, Maine, Nov. 5, 03. B.S, Mass. Inst. Tech, 28, Ph.D, 33. Ventilation engineer, State Cmn. Ventilation, N. Y, 28–29; asst. biochem. and enzyme chem, Mass. Inst. Tech, 30–34, instr, 34–35; biochemist, Destileria Serralles, P. R, 35–39; asst. chemist, W. B. Wescott Lab, Mass, 39–40; *in charge microbiol. sect, biochem. dept, Stamford labs, Am. Cyanamid Co, 40–; capt, Sanit. Corps, U. S. Army, 42–* Chem. Soc; Soc. Bact; for. mem. Soc. des Sci. Nat. Nancy. Bacterial pigments; amino acids; proteolytic enzymes of molds and bacteria; antimildew testing; manufacture and analysis of alcohol and distilled liquors; reproducing inks.

Toble, Dr. Walter Eaton, 3 Deering St, Portland, Maine. *Surgery.* Lewiston, Maine, Dec. 12, 69. M.D, Maine, 99. Asst. demonstrator and lecturer anat. and instr. surg, *Maine,* 03–06, *prof. anat, 06–; surg, Bowdoin Col, 17–* Pathologist, Maine Gen. Hosp, 02–03, adj. surgeon, 03–06, assoc. surgeon and visiting surgeon, 06–; surgeon, Maine Eye and Ear Infirmary. State Board Anat, Maine. Asn. Anat; Am. Med. Asn; Maine Med. Asn. (sec'y, 03–08). Pathology; renal casts; congenital cystic kidney; surgical anatomy of the abdominal wall; female perineum; spinal anesthesia.

Tobin, Dr. C(harles) E(mil), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Endocrinology, Embryology.* Charleston, S. C, Oct. 26, 11. B.S, Col. Charleston, 34; univ. fellow, Yale, 37–38, Ph.D, 38. Asst. zool, Col. Charleston, 32–34; Yale, 34–37; instr. *anat, sch. med. and dentistry, Rochester,* 38–42, *asst. prof, 42–* Fetal function of the adrenal cortex in the rat; general function of the adrenal cortex as related to reproduction in the rat; relationship of the thyroid to the ovary of the rat; use of oil solvents for hormones; injection media to demonstrate blood vessels.

Tobin, Dr. Elise, 2911 Fillmore Ave, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, Feb. 23, 94. B.S, Barnard Col, Columbia, 15; Ph.D, Bryn Mawr Col, 19. Research chemist, Fleischmann Yeast Co, 19–20; Merck and Co, 20–23; instr. *chem,* Wells Col, 23–25, asst. prof, 25–28; asst, Barnard Col, Columbia, 28–31; instr, *Brooklyn Col, Col. City of N. Y,* 31–36, *asst. prof, 36–* A.A; Chem. Soc; N. Y. Acad. Limits of esterification.

Tobin, Rev. John A(loysius), S.J, Boston College, Chestnut Hill, Mass. *Physics.* Boston, Mass, June 19, 94. A.B, Woodstock Col. (Md), 17, A.M, 18, Ph.D, 31. Prof. *physics,* Boston Col, 19–22; *head dept,* Fordham, 26–28; *Boston Col, 29–* S.A.T.C, U.S.A, 18–19. A.A; Physical Soc; Asn. Physics Teachers. Piezo-electric effects; constant coupling systems in radio.

Tobiska, J(oseph) W(illiam), 1212 S. College Ave, Ft. Collins, Colo. *Chemistry.* Wilber, Nebr, March 15, 87. A.B, Nebraska, 12, A.M, 13. Asst. chemist, Exp. Sta, Colo. State Col, 14–16; commercial chemist, Los Angeles Col, 16–18; assoc. research chemist, Am. Refineries, Inc, Okmulgee, Okla, 18–20; assoc. chemist, *Exp. Sta, Colo. State Col,* 20–33, *chemist in charge, 33–* Chem. Soc. Soils; agricultural biochemistry.

Tocantins, Dr. L(eandro) M(anés), Jefferson Medical College, Philadelphia, Pa. *Physiology, Medicine.* Pará, Brazil, Jan. 8, 01. Cornell, 19–22; M.D, Jefferson Med. Col, 26. J. Ewing Mears research fellow biol. and med, *Jefferson Med. Col,* 31–36, asst. path, 36–37, assoc. *med,* 37–41, *assoc. prof, 41–* Physiol. Soc; Soc. Clin. Invest; Col. Physicians; Am. Med. Asn; Soc. Exp. Biol; Col. Physicians Phila; Soc. d'Hemat. française. Physical characters of blood clots; blood platelets; hemorrhagic diseases; bone marrow.

Toch, Dr. Maximilian, 50 Central Park West, New York, N. Y. *[3]Chemistry.* New York, N. Y, July 17, 64. LL.B, N. Y. Univ, 86; Columbia, 96; Chem.E, Cooper Union; D.Sc, Peking Univ, 24. Lecturer org. chem, Columbia, 05–06; munic. lecturer paint, Col. City of N. Y, 09; adj. prof. indust. chem, Cooper Union, 19–24; hon. prof. chem. eng. and indust. chem, nat. inst. tech, Peking Univ, 24; prof. chem. of artistic painting, Nat. Acad. Design, 25–35; *pres. and chief chemist, Toch Brothers, Inc; chairman board, Standard Varnish Works.* Exec. cmt. and pres. sect. paints, Int. Cong. Applied Chem, New York, 12. In charge camouflage, U.S.A, 17–19. A.A; Chem. Soc; Inst. Chem. (pres); Soc. Chem. Indust. (past chairman, N. Y. sect); Chem. Eng; Soc. Test. Mat; fel. Photog. Soc; Micros. Soc. N. Y; Chemists' Club (past pres); fel. Royal Photog. Soc; fel. London Chem. Soc; London Soc. Chem. Indust. (past v. pres); London Paint and Varnish Soc. Chemistry and technology of paints; materials for permanent painting; painting of permanent pictures; protection and decoration of concrete; paint, painting and restoration; China wood oil; camouflage.

Todd, Dr. Arlie C, Louisiana State University, Baton Rouge, La. *Parasitology.* Kaleva, Mich, Sept. 9, 15. A.B, Kalamazoo Col, 37; M.S, Kans. State Col, 38; Ph.D, Nebraska, 42. Asst. *zool,* Kans. State Col, 37–38; asst. instr, Nebraska, 38–42; *instr, Louisiana, 42–* Soc. Zool; Micros. Soc; Soc. Parasitol. Biology of nematodes parasitic in insects.

Todd, Prof. C(lare) C(hrisman), State College of Washington, Pullman, Wash. *Chemistry.* McMinnville, Oregon, March 4, 80. B.S, State Col. Wash, 06; fellow, Chicago, Ph.D, 14. From instr. to *prof. org. and physiol. chem. and head dept. chem, State Col. Wash, 07–, dean col. sciences and arts.* A.A; Chem. Soc. Organic chemistry.

Todd, Prof. F(rancis) C(artwright), Pennsylvania State College, State College, Pa. *Physics.* Cloud Chief, Okla, Oct. 13, 04. B.S, Agr. and Mech. Col, 25; M.S, Carnegie Inst. Tech, 30; Ph.D, Chicago, 33. Research engineer arc rupture, Westinghouse Elec. and Mfg. Co, 25–30; plant electrician, Southwest. Light and Power Co, Lawton, Okla, 34–35; research engineer, Reda Pump Co, Bartlesville, 35–37; *asst. prof. petrol. and nat. gas research, Pa. State Col, 37–* A.A; Elec. Eng; Min. and Metal. Eng; Physical Soc. Measurement of moisture in fuel gases by colorimetric and infra-red spectrophotometric methods.

Todd, Frank E(dward), Division of Bee Culture, Beltsville, Md. *Apiculture.* Elyria, Ohio, Sept. 17, 95. B.S, Ohio State, 20. Asst. state entomologist, Ariz, 20–24; entomologist, Am. Cyanamid Co, New York, 24–27; State Dept. Agr, Calif, 27–31; apiculturist, Pacific States bee culture field lab, *div. bee culture, bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–42, *senior apiculturist and asst. div. leader, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Calif. Entom. Club. Olive insects control; honeybee disease eradication and buckeye poisoning; economic aspects and cost of production of the honey industry; trapping and chemical composition of pollen; the role of pollen in hive economy; pollen grains in nectar and honey; use of honeybees in the pollination of crops.

Todd, Dr. H(enry) Russell, 2015 S. 22nd Ave, Broadview, Ill. *Sanitary chemistry.* White Hall, Ill, Jan. 13, 07. A.B, Ill. Col, 32; M.S, Illinois, 33, Ph.D, 37. *Chemist, Am. Can Co, 37–* Inst. Food Technol. Acid intermediates in the methane fermentation.

Todd, Dr. J(ohn) B(ruce), Experiment Station, Hercules Powder Co, Wilmington, Del. *Inorganic chemistry.* Springfield, Mo, Aug. 20, 13 B.S, Drury Col, 34; A.M, Syracuse,

40; Ph.D, Cornell, 41. Teaching asst. gen. chem, Syracuse, 34–37; Cornell, 37–39; *explosives research chemist, Hercules Powder Co, 40–* A.A; Chem. Soc; Mo. Acad. Methods for preparing anhydrous acetic acid; chemistry of azido-carbon-disulfide and the azido-dithiocarbonates; chemistry of explosives.

Todd, Dr. John L, care of Royal Trust Co, Montreal, Que, Can. *Parasitology.* Victoria, B. C, Can, Sept. 10, 76. B.A, McGill, 98, M.D, 00; L.R.C.P, London, 07; hon. D.Sc, Liverpool, 09. House surgeon, Royal Victoria Hosp, Montreal, 00–01; asst. and asst. lecturer, Liverpool Sch. Trop. Med, 01–05, director research labs, 05–07; assoc. prof. parasitol, McGill, 07–26; *retired.* Liverpool Sch. Trop. Med. exped, Gambia, 01, 11, Congo, 02–05; League of Red Cross Societies typhus exped, Poland, 20. Mary Kingsley medal, Liverpool Sch. Trop. Med, 10. Asn. Path. and Bact; Soc. Exp. Biol; Soc. Trop. Med; Soc. de Path. exot. Tropical medicine; trypanosomiasis; tick fever; typhus.

Todd, Prof. J(ohn) W(elhoff), University of Southern California, Los Angeles, Calif. *Psychology.* Aurora, Ind, Nov. 20, 80. A.B, Indiana, 05, A.M, 10; Ph.D, Columbia, 12. Asst. exp. psychol, Indiana, 09–10; Columbia, 10–12; assoc. prof. *psychol,* North Dakota, 12–20; *prof, Southern California, 20–* Acting director exp. psychol. labs. and psychol. clinic, Indiana, 15–16; lecturer, Chicago, 27. Summer, Utah, 24. Psychol. Asn. Experimental psychology; reaction time; association; fatigue; educational measurements.

Todd, Prof. Leslie J(ay), 1641 Crestmont Drive, Huntington, W. Va. *Chemistry.* Hendrysburg, Ohio, Sept. 17, 00. A.B, Muskingum Col, 24; A.M, Columbia, 28, Ph.D, 31. Teacher, high sch, Ohio, 24–27; asst. *chem,* Columbia, 28–31; assoc. prof, *Marshall Col,* 31–34, *prof, 34–, head dept, 31–* A.A; Chem. Soc; fel. Inst. Chem. Colloidal and aluminum hydrosol chemistry.

Todd, Dr. Ramona L(ucile), University of Minnesota, Minneapolis, Minn. *Mycology, Bacteriology.* Ada, Okla, April 25, 10. A.B, Oklahoma, 31, Balyeat fellow, 31–32, M.S, 33; scholar, Iowa, 33–34, Ph.D, 36; M.B, Minnesota, 41, M.D, 42. Teaching asst. bot, Oklahoma, 32–33; asst. med. mycol, Iowa, 33–35, bacter, 35–36; bacteriologist, div. preventable diseases, State Dept. Health, Minn, 36–37; intern, univ. hosps, *Minnesota,* 41–42, *physician health service, 42–* Soc. Bact; Okla. Acad. Soil microbiology; medical bacteriology; morphology of fungi of medical significance; yeast-like organisms present in normal persons; pulmonary fungus infections; serology of the pathogenic fungi.

Todd, Dr. Robert E(merson), Jr, Colgate University, Hamilton, N. Y. *Experimental embryology.* Hartford, Conn, Dec. 10, 06. A.B, Bowdoin Col, 29; A.M, Harvard, 35, Ph.D, 38. Austin teaching fellow, Harvard, 34–35, lab. asst. *zool,* 35–38; *instr, Colgate, 38–* Cellular components of centrifuged frog eggs.

Todd, Dr. Samuel S(paulding), U. S. Department of Agriculture, New Orleans, La. *Physical chemistry.* Arcata, Calif, Feb. 15, 07. A.B, Stanford, 27, Chem.E, 29, Ph.D, 36. Teacher, high sch, 29–31; teaching lab. asst, Stanford, 33–35, asst, 35–36; prof. chem. and physics, Albany Col, 36–38; assoc. prof. math, Hastings Col, 38–39; chem, N. Dak. State Col, 39–40; instr, San Jose State Col, Calif, 40–42; *asst. chemist, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Teaching asst, Stanford, 41. Chem. Soc. Heat capacity, entropy and free energy of organic compounds; physical properties of cottonseed and peanut oils.

Todd, W(alter) E(dmond) Clyde, Carnegie Museum, Pittsburgh, Pa. *Ornithology.* Smithfield, Ohio, Sept. 6, 74. High sch. Asst, bur. biol. surv, U. S. Dept. Agr, 91–99; *curator ornith, Carnegie Museum, Pittsburgh, 99–* Fel. Ornith. Union; Biol. Soc. Wash. Ornithology of western Pennsylvania and the Hudson Bay region; geographic distribution of birds; neo-tropical birds.

Todd, Dr. W(ilbert) R(emington), University of Oregon Medical School, Portland, Oregon. *Biochemistry.* Milwaukee, Wis, July 5, 06. B.S, Wisconsin, 28, M.S, 31, Ph.D, 33. Nutritional research dept, *med. sch, Oregon,* 33–36, *biochem. dept,* 36–37, asst. prof, 37–42, *assoc. prof, 42–* Trace elements in animal nutrition; metabolism of sugar alcohols; vitamin D estimation and content in biological materials; calcium and phosphorus metabolism.

Todhunter, Prof. E(lizabeth) Neige, University of Alabama, University, Ala. *Nutrition.* New Zealand, July, 01. B.Sc, New Zealand, 26, M.H.Sc, 28; Ph.D, Columbia, 33. Asst. prof. *nutrition,* State Col. Wash, 34–38, assoc. prof, 38–41; *assoc. prof. and head dept, Alabama, 41–* A.A; Inst. Nutrition; Chem. Soc; Dietetic Asn. Factors influencing vitamin content of food; evaluation of nutritional status; dietetics; methods and materials for nutrition teaching.

Toenjes, Walter, Graham Horticultural Experiment Station, R. R. 5, Grand Rapids, Mich. *Horticulture.* Ida, Mich, April 1, 95. B.S, Colo. Agr. Col, 26; M.S, Mich. State Col, 28. Asst. hort, *Mich. State Col,* 28–30, *supt. Graham hort. exp. sta, 30–* Soc. Hort. Sci. Fall versus spring fertilization of apple trees; girdling of apple trees and fruit production; fruit variety testing; cultural practises and pear blight; sod versus cultivation in orchards; orchard cover crops; residual effect of various fungicides on apple trees; codling moth.

Toennies, Dr. Gerrit, Lankenau Hospital Research Institute, Philadelphia, Pa. *Organic chemistry.* Hamburg, Germany, Jan. 31, 98. Ph.D, Kiel, 24. *Research chemist,* Texas Oil Co, N. J, 25–28; *Lankenau Hosp, Phila, 29–* Chem. Soc; Soc. Biol. Chem; Asn. Cancer Research; Soc. Study Develop. and Growth. Biological chemistry; chemistry of biological sulfur compounds, amino acids and proteins; non-aqueous acid-base systems.

Toepelman, Prof. W(alter) C(arl), 1427 Cascade Ave, Boulder, Colo. *Geology.* Madison, Wis, Sept. 22, 94. Wisconsin, 12–15; A.B, Oklahoma, 16; fellow, Chicago, 17–20, Ph.D, 25. Geologist, S. Dak. Geol. and Nat. Hist. Surv, 19–22; asst. prof. *geol,* South Dakota, 20–22; *Colorado,* 22–26, assoc. prof, 26–28, *prof, 28–* Asst, Oklahoma, 15–16; geologist, Kans, 16; Colo. Geol. Surv, 22–27; Can. Rockies, 28–30. Paleont. Soc; Soc. Econ. Paleont. Paleontology and geology of South Dakota; areal geology of eastern Colorado; water resources in the Arkansas Valley; Colorado stratigraphy; critical minerals; micropaleontology.

Toepfer, Dr. E(dward) W(illiam), 242 St. Lawrence Ave, Beloit, Wis. *Chemistry.* Lansing, Mich, July 18, 04. B.S, Beloit Col, 27, M.S, 30; Ph.D, Columbia, 36. Instr. chem, Beloit Col, 27–30; asst, Columbia, 30–31, 34–36; *chemist, Am. Chlorophyll, Inc, 36–* Sulfur in biological material; calcium and phosphorus in nutrition.

Tolar, Prof. Blanche (Hall), Fenn College, Cleveland, Ohio. *Mathematics.* Franklin, Ky, Oct. 8, 96. A.B, Georgetown Col. (Ky), 20; A.M, Illinois, 21. Instr. math, Georgetown Col. (Ky), 21–24; prof. physics, Shurtleff Col, 28–30, acting prof. *math,* 30–31; instr, *Fenn Col,* 31–36, *assoc. prof, 36–*

Tolbert, Dr. V(assal) G(radington), Edyth K. Thomas Memorial Hospital, 556 Garfield Ave, Detroit, Mich. *Anatomy.* Smithville, Texas, May 28, 99. Fisk, 17–20; M.D, Meharry Med. Col, 24; Pennsylvania, 27–28. Prof. anat. and asst. prof. gynec, Meharry Med. Col, 30–38; *surgeon in chief, Edyth K. Thomas Mem. Hosp, 38–* Nat. Med. Asn; Tenn. Med. Soc; R. F. Boyd Med, Dental and Pharmaceut. Soc. Gross anatomy.

Toll, Prof. Charles H(ansen), Amherst College, Amherst, Mass. *Psychology.* Denver, Colo, May 21, 82. A.B, Hamilton Col, 04; A.M, Harvard, 05, John Harvard fellow, 06–08; A.M, Amherst, 34; Ph.D, Freiburg, 09. Asst. prof. philos, *Amherst Col,* 09–12, assoc. prof, 12–24, *prof. philos. and psychol, 24–* Chief psychol. examiner, Camp Custer, 18. Psychol. Asn; Philos. Asn. Intelligence tests.

Tolle, Dr. Chester D(e Belle), 2041 Huidekoper Place, N. W, Washington, D. C. *Biochemistry.* Nevada, Mo, Aug. 26, 97. B.S, Kans. State Col, 24; fellow, Cornell, 27–30, Ph.D, 30. Chemist, Exp. Sta, Kans. State Col, 25–27; chemist in charge nutrition lab, Bur. Fisheries, 30–33; asst. deputy administrator, food div, Nat. Recovery Admin, 33–35; *biochemist, vitamin div, food and drug admin,* U. S. Dept. Agr, 35–39, *Fed. Security Admin, 39–* Chem. Soc. Fluorine metabolism; vitamin content of fish and fish liver oils; control work in foods and drugs claiming vitamin potency.

Tollefson, Dr. Richard (Corley), Air Reduction Co, 60 E. 42nd St, New York, N. Y. *Organic chemistry.* Mellette, S. Dak, Aug. 8, 14. A.B, South Dakota, 37, A.M, 38; fellow, Maryland, 41–42, Ph.D, 42. Teaching fellow, Maryland, 38–41; *research chemist, Air Reduction Co, Inc, 42–* Chem. Soc. Catalytic reduction of ortho-, meta- and para-nitrobenzoyl chlorides.

Tolley, Howard Ross, U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Howard Co, Ind,

Sept. 30, 89. B.S, Ind. Nor. Col, 06; A.B, Indiana, 10. Instr, high sch, Ind, 10–11; U. S. Coast and Geod. Surv, 12–14, from clerk to senior agr. economist, office farm management, bur. pub. roads and bur. agr. econ, U. S. Dept. Agr, 15–28, asst. chief, bur. agr. econ, 28–30; prof. agr. econ, California, agr. economist and director, Giannini foundation, and agr. economist, Exp. Sta, 30–33; consulting specialist, agr. adjust. admin, *U. S. Dept. Agr*, 33, chief economist, 33–34, director program planning div, 34–35, special asst. to administrator, 35–36, administrator, 36–38, *chief bur. agr. econ, 38–* Econ. Asn; Farm Econ. Asn; Statist. Asn.

Tollman, Dr. J(ames) P(erry), University of Nebraska College of Medicine, Omaha, Nebr. *Pathology.* Nebr, Nov. 6, 04. B.S. and M.D, Nebraska, 29. Asst. prof. *clin. path, col. med, Nebraska*, 31–39, assoc. prof, 39–41, *prof, 41–* Am. Med. Asn; Soc. Clin. Path. (councilor, 37–). Effects of toxic gases; tissue changes in endocrine disturbances.

Tolmachoff, I(nnokenty) P(avlovich), Carnegie Museum, Pittsburgh, Pa. *Geology, Geography, Paleontology.* Irkutsk, Siberia, April 13, 72. Grad, St. Petersburg, 97. Asst. prof. geol, Dorpat Univ, 97–99; curator geol, museum. Russian Acad. Sciences, St. Petersburg, 99–13, chief curator, 13–20; prof. geol. and paleont, Far East. Polyteeh. Inst, Siberia, 20–22; *curator invert. paleont, Carnegie Museum, Pa. 22–*; prof, Pittsburgh, 26–33. Prof. and director, Geog. Inst, St. Petersburg, 16–19; prof, Agr. Inst, Omsk, Siberia, 18; prof. and dean sch. mines, Far East. Polytech. Inst, 21–22; head, Khatanga exped, Siberia, 05, Chukotsk exped, 09; v. director, Far East. Geol. Surv, Vladivostock, 20–22. A.A; Asn. Petrol. Geol; Paleont. Soc; Min. and Metal. Eng; Geol. Soc; Geog. Soc; Seismol. Soc; Aeroarctic; Geophys. Union; Swiss Geol. Soc; Russian Geog. Soc; Russian Paleont. Soc; Russian Acad; St. Petersburg Miner. Soc; St. Petersburg Soc. Nat; Swedish Geol. Soc. Petrology; geology of Siberia; geography and geology of the Polar lands of Eurasia; micropaleontology.

Tolman, Prof. Carl, Washington University, St. Louis, Mo. *Geology.* Lacombe, Alta, Can, May 7, 97. B.A, British Columbia, 24; M.S, Yale, 25, fellow, 26–27, Ph.D, 27. Student asst, Geol. Surv. Can, 21–26; asst. prof. *geol, Washington (St. Louis)*, 27–38, *assoc. prof, 38–*; *mem. staff, Office Econ. Warfare, 43–* Asst. geologist, Geol. Surv. Can, 27, geologist, 27–30, 35–36; Bur. Mines and Geol, Mo, 31–32, 40; Kayak Syndicate, Labrador, 33; Bur. Mines, Que, 38, 41; consulting geologist, 38–43; geologist, U. S. Geol. Surv, 42. Summers, asst. prof, Colorado, 28. Geol. Soc; Soc. Econ. Geol; Miner. Soc. (councilor, 39–42); Min. and Metal. Eng. (sec'y St. Louis sect, 38–43). Economic and Precambrian geology; ore deposits.

Tolman, Dr. Edward C(hace), University of California, Berkeley, Calif. **[5]***Psychology.* West Newton, Mass, April 14, 86. B.S, Mass. Inst. Tech, 11; A.M, Harvard, 12, Ph.D, 15. Instr. *psychol,* Northwestern, 15–18; *California,* 18–20, asst. prof, 20–23, assoc. prof, 23–28, *prof, 28–* Div. anthrop. and psychol, Nat. Research Council, 36–39. Nat. Acad; A.A; Psychol. Asn. (councilor, 32–34, pres, 37); Soc. Psychol. Study Social Issues (chairman, 40). Experimental and theoretical psychology; animal behavior.

Tolman, L(ucius) M(oody), 7217 Yale Ave, Englewood Station, Chicago, Ill. *Chemistry.* Brookfield, Vt, April 7, 75. B.S, Pomona Col, 96; M.S, California, 98. Chemist, Board Health, Oakland, Calif, 98–99; asst. chemist, bur. chem, U. S. Dept. Agr, 00–06; chemist, bur. internal revenue, U. S. Treasury Dept, 06–07; chief food inspection lab, bur. chem, U. S. Dept. Agr, 07–13; food inspection div, 13–14, cent. food and drug inspection dist, 14–17; chief chemist, Wilson and Co, Chicago, 17–22; v. pres, United Chem. and Org. Products Co, 22–25; *pres, Cent. Chem. Co, 25–, gen. manager research and tech. dept, Wilson and Co, 28–* Chairman, Joint Cmt. on the Unification of Methods of Anal. of Fats and Oils. A.A; Chem. Soc. (v. pres, 06, pres, Wash. sect, 10, pres, Chicago sect, 17); Chem. Eng; Agr. Chem; Leather Chem. Asn; Soc. Cotton Products Analysts. Chemistry of fats and oils, sugars, food products and distilled liquors; effect of age on the composition of whiskies; vinegar; denatured alcohol.

Tolman, Dean Richard C(hace), California Institute of Technology, Pasadena, Calif. **[3]***Physics, Chemistry.* West Newton, Mass, March 4, 81. B.S, Mass. Inst. Tech, 03, Dalton fellow, 05–07, Ph.D, 10; Berlin and Crefeld, 03–04; Sc.D, Princeton, 42. Asst. tech. anal, Mass. Inst. Tech, 04–05, instr. theoret. chem, 07–09, research assoc. physical chem, 09–10; instr, Michigan, 10–11; asst. prof, Cincinnati, 11–12; chem, California, 12–16; prof. physical chem, Illinois, 16–18; assoc. director fixed nitrogen research lab, nitrate div, Ordnance Dept, U.S.A, 19–20, director, 20–22; *prof. physical chem. and math. physics, Calif. Inst. Tech, 22–, dean grad. sch, 35–*; *v. chairman, Nat. Defense Research Cmt, 40–* Chief dispersoid sect. and major, C.W.S, 18. Nat. Acad; A.A. (pres, Pacific div); Physical Soc; Chem. Soc; Optical Soc; Philos. Soc; Am. Acad; Wash. Acad. Ionization; colloids; relativity of motion; metallic conductors; principle of similitude; statistical mechanics; rate of reaction; quantum theory; cosmology; relativistic thermodynamics.

Tolonen, Frank J(ohn), 34 Park Ave, Dakota Heights, Houghton, Mich. *Metallurgy.* Paltamo, Finland, March 26, 91. B.S, E.M, Mich. Col. Mines, 26, M.S, 29. Research engineer and instr. metal, *Mich. Col. Min. and Tech*, 26–35, *asst. prof. research, 35–* A.A; Min. and Metal. Eng; Lake Superior Min. Inst. Ore dressing; iron ore beneficiation; copper metallurgy.

Tolstead, Dr. W(illiam) L(awrence), 15th Hospital Center, Camp Barkeley, Texas. *Biology.* Iowa, Nov. 25, 09. A.B, Luther Col, 33; M.S, Iowa State Col, 36; Ph.D, Nebraska, 42. Biologist, conservation and surv. div, Nebraska, 36–42; *U. S. Army, 42–* Ecol. Soc; Asn. Plant Taxon. Ecology and taxonomy of vegetation of prairies, Nebraska sand hills and Great Plains; farm forestry; windbreaks.

Toman, Dr. James (Edward Philip), University of Vermont College of Medicine, Burlington, Vt. *Physiology.* Manchester, Conn, July 11, 15. A.B, Clark, 37; Ph.D, Princeton, 40. *Instr.* physiol, sch. med, Maryland, 40–43, dental sch, 41–43; *physiol. and pharmacol, col. med, Vermont, 43–* Electroencephalography; vision; muscle action potentials; regeneration.

Tombaugh, Clyde W(illiam), Lowell Observatory, Flagstaff, Ariz. *Astronomy.* Streator, Ill, Feb. 4, 06. A.B, Kansas, 36, A.M, 39. Asst, *Lowell Observatory*, 29–38, *asst. astronomer, 38–* Jackson-Gwilt medal, Royal Astron. Soc. England, 31. Soc. Research Meteorites; Astron. Soc. The ninth planet, Pluto; astronomical photography and Blink-microscope-comparator examination of plates in trans-Neptunian planet search; apparent distribution and classification of types of extra-galactic nebulae; telescopic studies of the moon's surface features.

Tomboulian, Prof. D(iran) H, 107 Crescent Place, Ithaca, N. Y. *Physics.* Constantinople, Turkey, Nov. 1, 02. A.B, A.M, Rochester, 27; Pres. White fellow, Cornell, 33–34, Ph.D, 35. Asst. *physics,* Rochester, 27–29, instr, 29–31; asst, *Cornell*, 31–32, 34–35, instr, 35–40, *asst. prof, 40–* Physical Soc. Analysis of line spectra; hyperfine structure; soft x-rays.

Tomer, Prof. S(tephen) J(ames), San Francisco Junior College, San Francisco, Calif. *Chemistry.* Painesville, Ohio, Dec. 13, 00. A.B, Heidelberg Col. (Ohio), 22; A.M, Stanford, 33. From instr. to prof. chem, St. Mary's Col. (Calif), 24–37, head dept, 28–37, dean sch. science, 35–37; *prof. chem, San Francisco Junior Col, 37–* Physiological action of organic selenium compounds.

Tomhave, A(rthur) E(dward), University of Delaware, Newark, Del. *Animal industry.* Fergus Falls, Minn, March 11, 96. B.S, Pa. State Col, 21; M.S, Delaware, 23. Instr. animal husbandry, *Delaware*, 21–24, animal husbandman, *Exp. Sta*, 24–30, *research poultryman and animal husbandman and head dept. animal and poultry indust, 30–* Soc. Animal Production; Poultry Sci. Asn. Nutrition of farm animals and poultry; protein supplements for dairy cattle, swine and poultry; protein levels for poultry; intensity of fall and winter egg production; breeding and selection of Holstein cattle.

Tomhave, W(illiam) H(enry), 7 Dexter Park Ave, Chicago, Ill. *Animal husbandry.* Fergus Falls, Minn, Dec. 19, 81. B.S, Minnesota, 07; M.S, Pa. State Col, 20. Asst. animal husbandry, Pa. State Col, 07–08; live stock expert, Chinese Govt, Manchuria, 08–10; exten. specialist, Minnesota, 10–12; prof. animal husbandry, Pa. State Col, 12–27; *sec'y, Am. Aberdeen Angus Breeders' Asn, 27–* Trustee, East. States Expos, Springfield, Mass. Director and treas, Nat. Live Stock and Meat Board. Soc. Animal Production. Cattle feeding; meat and meat products.

Tomlinson, Prof. Alfred Harding, Ontario Agricultural College, Guelph, Ont, Can. *Horticulture.* Plymouth, Eng, Oct. 1, 80. B.S.A, Toronto. Asst. govt. horticulturist, British Columbia, 13–16; lecturer and *assoc. prof. hort, Ont. Agr. Col,*

16– Can. Soc. Tech. Agr; Can. Florist and Gardeners' Asn. (past pres); Rose Soc. Ont. (director). Ornamental horticulture.

Tomlinson, Dr. C(harles) W(eldon), 509 Simpson Bldg, Ardmore, Okla. *Geology.* Detroit, Mich, April 23, 92. A.B, Wisconsin, 13, fellow, 13–14, A.M, 14; fellow, Chicago, 15–16, Ph.D, 16. Asst. geol, Minnesota, 14–15; prof, Miss. Agr. and Mech. Col, 16–17; assoc, Illinois, 17–18; geologist, Gulf Oil Corp, 18–21; Schermerhorn-Ardmore Co, 21–35; *special lecturer, Oklahoma, 38–* A.A; Geol. Soc; Asn. Petrol. Geol. Origin of red beds; Paleozoic stratigraphy of the northern Rocky Mountain states; petroleum geology and orogeny of the mid-continent region.

Tomlinson, Dr. George H(erbert), II, 312 Sydney St, Cornwall, Ont, Can. *Organic chemistry.* Fullerton, La, May 2, 12. B.A, Bishop's (Can), 31; Howard Smith scholar, McGill, 32–35, Ph.D, 35. Research assoc, McGill, 35–36; *chief chemist, Howard Smith Chemicals, Ltd, 37–, research director, Howard Smith Paper Mills, Ltd, 41–* Chem. Soc; Tech. Asn. Pulp and Paper Indust; Soc. Test. Mat; Can. Pulp and Paper Asn. (chairman wood chem. cmt, 43); Paper Makers Asn. Gt. Britain and Ireland. Structure of lignin; pulp and paper; vanillin manufacture; plastics.

Tomlinson, Dr. Hazel M, 1816 Chandler St, Philadelphia, Pa. *Chemistry.* Huntingdon Valley, Pa, May 15, 07. A.B, Temple, 26, A.M, 28; Ph.D, Columbia, 39. Instr. *chem, Temple,* 28–43, *asst. prof, 43–* Physical chemistry; analytical chemistry; effect of dielectric on kinetics of ions in solution.

Tompkins, Dr. C(harles) B(rown), II, Princeton University, Princeton, N. J. *Mathematics.* Jasper, Fla, Aug. 30, 12. B.S, Maryland, 32, M.S, 33; Ph.D, Michigan, 36. Instr. *math,* Maryland, 35–36; nat. research fellow, Inst. Advanced Study, 36–38; *instr, Princeton, 38–; lieut, U. S. Naval Res, 42–* Visiting lecturer, Wisconsin, 41–42. Math. Soc; Math. Asn. Differential geometry.

Tompkins, Dr. C(hristian) Milton, 1639 Walnut St, Berkeley, Calif. *Biology.* Jan. 15, 96. B.S, Colo. Agr. Col, 21, M.S, 22; Ph.D, Wisconsin, 25. Deputy state horticulturist. Colo. Agr. Col, 17–25; asst. prof. biol, Carleton Col, 25–26; asst. pathologist, div. sugar plants, U. S. Dept. Agr, 26–30; pathologist, Goodyear Rubber Plantations Co, Sumatra, 30–32; asst. plant pathologist and later *assoc. plant pathologist, div. plant path, California.* A.A; Phytopath. Soc. Virus and fungus diseases of truck crops and ornamentals.

Tompkins, Dr. Edna H(utchinson), Vanderbilt University School of Medicine, Nashville, Tenn. *Anatomy.* Philadelphia, Pa. A.B, Radcliffe Col, 13; M.D, Hopkins, 24. Asst, nutrition lab, Carnegie Institution, Boston, 13–16; Peter Bent Brigham Hosp, Boston, 16–17, 18–19; med. intern, New Haven Gen. Hosp, 25–26; assoc. in research, *sch. med, Vanderbilt,* 26–29, asst. prof. *anat,* 29–37, *assoc. prof, 37–,* hematologist, *univ. hosp,* 32–36, *consultant hematol, 36–* Asst, Gen. Hosp. No. 9, U.S.A, 17–18. Asn. Anat; Soc. Exp. Path; Women's Med. Asn. Respiratory metabolism; tissue changes in tuberculosis; blood cytology; lipoids.

Tompkins, Prof. Frederick N(eale), Brown University, Providence, R. I. *Electrical engineering.* Providence, R. I, Sept. 30, 93. B.S, Brown, 18. Instr. *elec. eng, Brown,* 18–23, asst. prof, 23–28, *assoc. prof, 28–* Consulting engineer, 18–Summers, Narragansett Elec. Lighting Co, 16–18. Elec. Eng. (past sec'y and past chairman, Providence sect; student councilor, 29–); Illum. Eng. Soc; Eng. Educ; Providence Eng. Soc. Illuminating engineering; thermionics.

Tompkins, Dr. Paul C(arter), Stanford University, Calif. *Biological chemistry.* Walla Walla, Wash, April 11, 14. A.B, Whitman Col, 35; Ph.D, California, 41. Asst. biochem, California, 40–41; *chem, Stanford,* 41–42, *research assoc, 42–* Analytical chemistry, particularly vitamins and proteins.

Tomsicek, Prof. W(illiam) J(oseph), 3 Benhill Road, St. Paul, Minn. *Analytical chemistry.* La Crosse, Wis, March 12, 95. B.S, Michigan, 22, M.S, 26; Ph.D, Minnesota, 34. *Prof. chem, Col. of St. Thomas, 22–* Chem. Soc. Electrometric titrations; redox-potentials.

Tone, Dr. Frank J(erome), Carborundum Co, Niagara Falls, N. Y. *Chemical engineering.* Bergen, N. Y, Oct. 16, 68. E.E, Cornell, 91; Sc.D, Pittsburgh, 35. Gen. Elec. Co, 91–93; Pittsburgh Ry. Co, 93–95; works manager and pres, *Carborundum Co,* 95–42, *chairman board, 42–* Jacob F. Schoellkopf gold medal, Am. Chem. Soc, 31; Acheson medal, Electrochem. Soc, 35; Wm. H. Perkin medal, Am. Soc. Chem. Indust, 38. Chem. Eng; Chem. Soc; Soc. Chem. Indust; Electrochem. Soc. (pres, 18); Min. and Metal. Eng; Ceramic Soc. Silicon; silicon compounds; artificial abrasives; high temperature refractories.

Tong, Dr. J(ames) A(lfred), Apartado Nacional 1140, Bogotá, Colombia. *Stratigraphy, Paleontology.* April 7, 96. B.S, Arizona, 19; Rhodes scholar, Oxford, 18, B.A, 21, M.A, 30; Ph.D, Hopkins, 31. Mem. management cmt, Kern Mex Oilfields, Ltd, Mex, 21–22; geologist, Venezuela Gulf Oil Co, Maracaibo, 23–29; research, Hopkins, 30; geologist, Standard Oil Co. of N. Y, Maracaibo, 31–32; consulting geologist, Venezuela, 33–34; chief geologist, *Socony-Vacuum Oil Co,* Sociedad Anónima, Venezuela, 34–40, *manager, Colombia, 41–* A.C. and capt, R.O.T.C. Asn. Petrol. Geol; Min. and Metal. Eng; Am. Geog. Soc. Oil exploration in Venezuela and Colombia.

Tongberg, Dr. C(arl) O(tto), 735 Embree Crescent, Westfield, N. J. *Chemistry.* Lynn, Mass, Nov. 8, 06. B.S, Harvard, 27, A.M, 30; Ph.D, Pa. State Col, 36. Asst, Harvard, 27–28, chem, 28–30; research assoc, Pa. State Col, 30–37; *chemist, Standard Oil Develop. Co, 37–* Chem. Soc. Polymerization under high pressure; oxidation of organic compounds; hemoglobin; identification of constituents of petroleum; vapor liquid equilibria; fractional distillation.

Tongren, Dr. John C(orbin), Hammermill Paper Co, Erie, Pa. *Chemistry.* Ridgway, Pa, Sept. 22, 09. B.S, Pa. State Col, 32; M.S, Lawrence Col, 34, Ph.D, 37. *Research chemist, Hammermill Paper Co, 37–* Chem. Soc; Tech. Asn. Pulp and Paper Indust. Deterioration of color in bleached sulfite pulp; sulfite pulping process; pulp bleaching; analytical methods for chemical wood pulps.

Tonkin, William H(enry), 2655 W. 19th St, Chicago, Ill. *Chemistry of foods.* Carbondale, Pa, July 9, 93. B.S, George Washington, 20, M.S, 22. Chemist, bur. chem, U. S. Dept. Agr, 21–23; research chemist, Fleischmann lab, *Standard Brands Inc,* 23–27, *research chemist and chemist in charge Chicago mfg. branch, 27–* Chem. Soc; fel. Inst. Chem; Inst. Food Technol. Insecticides; chemistry of fermentation; chemistry and bacteriology of frozen and dried foods; manufacture and processing of vitamin products.

Tonks, Dr. Lewi, General Electric Co, Schenectady, N. Y. *[5]Physics.* New York, N. Y, Dec. 13, 97. B.S, Columbia, 17, Tyndall fellow, 20–21, Barnard fellow, 21–22, Ph.D, 24. Asst. physics, Columbia, 17–18; special govt. expert, New London, 19–20; *research physicist, Gen. Elec. Co, 23–* Lecturer, electronics inst, Michigan, 37. Physical Soc. Low pressure arcs; ferromagnetism; microwaves; sparks.

Tonney, Dr. Fred O, 6739 N. Greenview Ave, Chicago, Ill. *Public health.* Vinton, Iowa, March 7, 81. A.B, Chicago, 04, 05, 06, 10; M.D, Loyola (Ill), 09. Chemist, *Board Health, Chicago,* 06–09, director labs. and research, 09–30, asst. commissioner health, 30–32, director tech. service and research, 32–37, *exec. officer, 37–* Pub. health consultant; med. officer, Fed. Trade Cmn, Washington, D. C, 38–39; director, Delta County Health Unit, Mich, 39–43; health director, Toledo Scale Co, Ohio, 43; director, Health Dist. North. Ill, 43– Fel. Pub. Health Asn. (radio director, 31–36); Am. Med. Asn; fel. N. Y. Acad; Soc. Ill. Bact. (v. pres, 35–37). Actinic sunshine and vitamin D; amebiasis; water analysis technique; communicable disease; control of milk supplies.

Tool, Dr. Arthur Q(uincy), National Bureau of Standards, Washington, D. C. *Physics.* Monroe, Iowa, Dec. 5, 77. B.S, Grinnell Col, 04; A.M, Nebraska, 06; Ph.D, Berlin, 14. Instr. physics, Nebraska, asst. prof, 16–18; assoc. physicist and *physicist, Bur. Standards, 18–* A.A; fel. Physical Soc; Optical Soc; Ceramic Soc; fel. Soc. Glass Technol; Wash. Acad; Physik. Gesell. Optical constants of metals; mobility of ions in gases; photoelectric effect; physical properties of glasses.

Toole, Dr. Eben H(enry), U. S. Department of Agriculture, Washington, D. C. *Botany.* Baraboo, Wis, Jan. 6, 89. A.B, Wisconsin, 15, A.M, 16, fellow, 19–20, Ph.D, 20. Asst. bot, Wisconsin, 15–16; instr, Kans. State Col, 16–17; asst. prof. plant physiol. and path, Purdue, 17–19; assoc. physiologist, seed lab, *bur. plant indust, U. S. Dept. Agr,* 20–31, *physiologist, seed investigations, 31–* Asst. pathologist, office cereal investigations, U. S. Dept. Agr, 18–19. A.A; Bot. Soc; Wash. Acad. Plant physiology; plant anatomy; seed germination; seed production.

Toole, Dr. E(ben) Richard, Alabama Polytechnic Institute, Auburn, Ala. *Forest pathology.* Baraboo, Wis, July 1, 13.

B.S, Syracuse, 35; A.M, Duke, 38, Ph.D, 40. Junior forester, U. S. Forest Service, 35–37; *div. forest path, bur. plant indust, U. S. Dept. Agr*, 38–39, *junior forest pathologist, 40–; Air Forces, U. S. Army, 42–* Soc. Foresters; Phytopath. Soc. Forest tree diseases.

Toomer, Prof. J(ames) E(dwin), University of Toronto, Toronto, Ont, Can. *Metallurgy.* Wilmington, N. C, Nov. 13, 83. B.S, N. C. State Col, 09. Asst. chemist, Govt. Exp. Stations of Pa, Ala. and S. C, 09–12; Tenn. Copper Co, 12–14; chief chemist, Am. Zinc Co. of Tenn, 14–18; research chemist, Am. Zinc, Lead, Smelting and Chino Copper Co, 18–20; *asst. prof. metal, Toronto, 20–* Royal Can. Inst; Royal Astron. Soc. Can; Can. Inst. Min. and Metal. Metallurgical engineering.

Toomey, Dr. John A(ugustus), City Hospital, 3395 Scranton Road, Cleveland, Ohio. *Pediatrics.* Cleveland, Ohio, May 25, 89. A.B, John Carroll, 10, A.M, 12; LL.B, Cleveland Law Sch, 13; M.D, Western Reserve, 19. Demonstrator anat, *Western Reserve*, 20–22, med, 21–22, instr. pediat, 22–24, sr. instr. contagious diseases, 24–28, asst. prof, 28–31, pediat, 31–33, assoc. prof, 33–40, *prof. clin. pediat. and contagious diseases, 40–* A.A; fel. Acad. Pediat; fel. Col. Physicians; fel. Am. Med. Asn; fel. Pub. Health Asn; Pediat. Soc; Soc. Exp. Biol. and Med; fel. Soc. Bact; Soc. Develop. Child Research; fel. Ohio Acad. Infectious diseases; poliomyelitis; whooping cough; scarlet fever.

Toonder, Dr. Frank E(arl), 418 Biddle Ave, Wyandotte, Mich. *Chemistry.* Kalamazoo, Mich, Nov. 25, 07. A.B, Kalamazoo Col, 29; M.S, Brown, 30, Ph.D, 33. Research chemist, Standard Oil Develop. Co, 34–39, patent adviser, 39–41; *research chemist*, Mich. Alkali Co, 41–43, *Wyandotte Chem. Corp, 43–* Chem. Soc. Metallo-organic preparations and reactions; methyl gallium derivatives and their reactions in liquid NH_3; lube oil addition agents; production of lead alkyls; production of diolefins; production and utilization of calcium and magnesium compounds.

Toone, Dr. Gilbert C(oult), 124 North St, Hamburg, N. Y. *Organic chemistry.* Needham Heights, Mass, Nov. 6, 05. B.S, Mass. Inst. Tech, 28, M.S, 30, Ph.D, 34. Asst, Mass. Inst. Tech, 28–33; *research chemist, Nat. Aniline div, Allied Chem. and Dye Corp, 33–* Chem. Soc. Organic qualitative analysis.

Toops, Prof. Herbert A(nderson), Ohio State University, Columbus, Ohio. *Psychology.* Kiousville, Ohio, Sept. 18, 95. A.B, B.S, Ohio State, 16, A.M, 17; Ph.D, Columbia, 21. Asst. psychol, Ohio State, 16–17; indust. personnel work, 20–21; research assoc, inst. educ. research, Teachers Col, Columbia, 21–23; asst. prof. *psychol, Ohio State*, 23–27, *prof, 27–* Lecturer, Metropolitan Hosp. Sch. for Nurses, 19–20; consulting statistician, Minnesota and Ohio Inst, 24–25. U. S. Employment Service and Nat. Research Council, 19–20. Trade test cmt, War Dept, 18–19. A.A; Psychol. Asn; Soc. Study Educ; Personnel Research Federation; Statist. Asn. (v. pres, 35–37); Nat. Vocational Guidance Asn; Educ. Research Asn; Math. Soc; Math. Asn; Am. Geog. Soc; Psychometric Soc; Inst. Math. Statist; Soc. Psychol. Study Social Issues; Eugenics Soc; Econometric Soc; Soc. Col. Teachers Educ; Midwest. Psychol. Asn; Ohio Educ. Research Asn; Ohio Hort. Soc; Ohio Asn. Consulting Psychol; Ohio Acad. Statistics; guidance; personnel; motivation; mental tests; questionnaire technique.

Toops, Dr. Laura (Merrill) Chassell (Mrs. H. A. Toops), 1430 Cambridge Blvd, Columbus, Ohio. *Educational psychology.* Sundance, Wyo, March 24, 93. A.B, Cornell Col. (Iowa), 12; M.Di, Iowa State Teachers Col, 13; A.M, Northwestern, 14; Chicago, 15; Margaret Hoe scholar and Am. Univ. fellow, Columbia, 17–18, Ph.D, 20. Teacher, high sch, S. Dak, 13; instr. educ. and Eng, Ill. Woman's Col, 14–15; modern for. languages, Wis. State Nor. Sch, La Crosse, 15–17; asst. educ. psychol, Teachers Col, Columbia, 18–19; instr. psychol, Ohio State, 20–23. Educ. measurements, Scarborough Sch, 18–19; research worker, dept. educ. and lit, board for. missions, Methodist Episcopal Church, 19; special psychol. examiner, Horace Mann Sch, Columbia, 20; special instr, E. Ky. State Teachers Col, 26; nat. fellow, Columbia, 27–28. Summers, instr, Coe Col, 15, 16; asst, Teachers Col, Columbia, 20. Psychol. Asn; Ohio Acad. Child development; tests for originality; good citizenship; religious ideas; qualities associated with success; sectioning of college students; motor difficulties of gifted children; training of young children; personality studies; measurement of success in marriage and in parenthood; parental attitudes; parent-child housing project; research for teachers in training.

Top, Prof. Franklin H(enry), Herman Kiefer Hospital, Detroit, Mich. *Epidemiology.* Grand Rapids, Mich, Feb. 1, 03. A.B, Calvin Col, 25; M.D, Pennsylvania, 28; M.P.H, Hopkins, 35. *Director div. communicable disease and epidemiol, Dept. Health, Detroit, 35–;* asst. prof. *prev. med. and pub. health, Wayne*, 35–41, *assoc. prof, 41–* Lecturer, sch. pub. health and postgrad. sch, Michigan, 35–; consultant to Sec'y of War, Hemolytic Streptococcus Cmn, 41–; med. director, Herman Kiefer Hosp, 42– A.A; fel. Am. Med. Asn; fel. Pub. Health Asn; assoc. Col. Physicians. Communicable diseases; epidemiology of measles, poliomyelitis and scarlet fever.

Topanellan, E(dward), Jr, Gulf Research and Development Co, Box 2038, Pittsburgh, Pa. *Engineering.* Worcester, Mass, Oct. 23, 01. B.S, Worcester Polytech, 23, E.E, 25. Asst. efficiency engineer, Worcester Elec. Light Co, 21–22; motor test engineer, Westinghouse Elec. and Mfg. Co, 22–23, grad. engineer, high voltage research, 23–25, ry. equipment engineer, 25–30; chief elec. engineer, H. K. Porter Co, 30–31; sales rep, Equitable Life of Iowa, 31–33; engineer in charge pump develop, *Gulf Research and Develop. Co*, 33–40, *asst. chief engineer, 40–* Assoc. Elec. Eng; Soc. Safety Eng. Gas and oil; electric locomotives; rotary pump design and calculation; hydraulic instruments; oil field engineering; rigs and pumping equipment; internal combustion engines; superchargers; bearings; safety management.

Topel, Rev. B(ernard) J(oseph), Carroll College, Helena, Mont. *Physics.* Bozeman, Mont, May 31, 03. A.B, Mt. St. Charles Col, 23; Montreal, 23–24; S.T.B, Catholic Univ, 26, A.M, 27; A.M, Harvard, 34; Ph.D, Notre Dame, 38. *Prof.* physics, Mt. St. Charles Col, 27–32; *math*, Carroll Col, 34–37; Notre Dame, 38–39; *Carroll Col, 39–* Math. Soc; Math. Asn; Mont. Acad. (pres, 42). Mathematics; metric geometry; foundations of mathematics.

Topp, Dr. A(llan) C(rickington), Saguenay Inn, Arvida, Que, Can. *Physical chemistry.* Halifax, N. S, March 17, 10. B.Sc, Dalhousie, 37, M.Sc, 39; Ph.D, McGill, 41. *Research chemist, Aluminum Co. Can, 41–* Properties of explosive antimony; critical phenomena of methyl fluoride; war research.

Topping, Dr. Norman H(awkins), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Infectious diseases.* Mo, Jan. 12, 08. A.B, Southern California, 33, M.D, 36. Asst. surgeon, *nat. inst. health, U. S. Pub. Health Service*, 36–39, *passed asst. surgeon, 39–* Epidemiol. Soc; Soc. Trop. Med. Rickettsial diseases; Rocky Mountain spotted fever; typhus fever and allied diseases.

Torda, Dr. C(lara), Cornell University Medical School, 1300 York Ave, New York, N. Y. *Physiology, Pharmacology.* Budapest, Hungary, April 1, 10. Ph.D, Budapest, 33; M.D, Milan, 38. Research worker, univ. col, London, 38–39; Johnson foundation, Pennsylvania, 39–40; *Cornell*, 40–42, *Macy scholar, 42–* Physiol. Soc. Mechanism of neuro-muscular transmission; adrenals; vitamin C; choline esterase; headache; myasthenia gravis.

Tordella, Dr. Louis W(illiam), 7431 Kenwood Ave, Chicago, Ill. *Mathematics.* Garrett, Ind, May 1, 11. B.S, Loyola (Ill), 33, A.M, 35; Ph.D, Illinois, 39. Teaching fellow, Loyola (Ill), 33–35, instr. math, 35–36; teaching asst, Illinois, 36–38; instr. *math, Loyola (Ill)*, 38–42, *asst. prof, 42–; lieut, U. S. Naval Res, 42–* Math. Soc; Catholic Round Table Science. Groups of order p^6; p an odd prime.

Torgesen, Prof. J(ohn) L(au), University of New Hampshire, Durham, N. H. *Physical chemistry.* Soda Springs, Idaho, Sept. 13, 09. B.S, Idaho, 35, M.S, 37; Ph.D, Columbia, 42. *Asst. prof. chem, New Hampshire, 41–* Chem. Soc Colloid chemistry.

Tormey, Prof. Harold J(oseph), St. Bonaventure College, St. Bonaventure, N. Y. *Chemistry.* Richland Center, Wis, March 15, 02. B.S, Wisconsin, 25, M.S, 30. Asst. engineer, Forest Products Lab, U. S. Forest Service, 22; asst. instr. *chem*, Wisconsin, 24–26; asst. prof, St. Viator Col, 26–27; instr, high sch, Wis, 27–29; *prof, St. Bonaventure Col, 29–, head dept, 32–* Lieut, C.W.Res. Fel. Inst. Chem; Chem. Soc; Catholic Round Table Science. Local anesthetics; barbitals; identification of organic compounds; chemical constitution and physiological activity.

Tornheim, Dr. Leonard, 4246 West End Ave, Chicago, Ill. *Mathematics.* Chicago, Ill, Aug. 20, 15. B.S, Chicago, 35, M.S, 36, fellow, 37–38, Ph.D, 38. Instr. math, Chicago Pub. Junior Cols, 38–40; math. and statist, Antioch Col, 40–41;

lieut, Ordnance Dept, U. S. Army, 42– Math. Soc. Algebras over function fields.

Toro, Prof. Rafael A(ndres), Mayaguez, P. R. *Plant pathology.* San German, P. R, Nov. 29, 97. B.S, Porto Rico, 21; M.S, Cornell, 25; A.M, Harvard, 36. Teacher, continuation sch, 21–22; deputy inspector agr, 22–23; asst. pathologist, Insular Exp. Sta, P. R, 23–26; prof. bot. and plant path, Escuela de Agr, Medillin, Colombia, 26–28; pathologist, Nat. Dept. Agr, Bogotá, 28–29; mycologist, Insular Exp. Sta, P. R, 29–30; *prof. bot, col. agr, Puerto Rico, 30–* Exped, Venezuela, 32. Summer, N. Y. Bot. Garden, 25. Phytopath. Soc; Bot. Soc; British Mycol. Soc; hon. mem. Venezuelan Soc. Nat. Hist. Puerto Rican pyrenomycetes; mycology; fungi; tropical American perisporiales.

Torpin, Dr. Richard, University of Georgia School of Medicine, Augusta, Ga. *Obstetrics, Gynecology.* Oakdale, Nebr, March 26, 91. A.B, Nebr. Wesleyan, 13; B.S, Chicago, 15; M.D, Rush, 17. Intern, Cook Co. Hosp, 18–20; mem. staff, Norwegian Am. Hosp, 29–35; clin. asst. obstet. and gynec, Rush Med. Col, Chicago, 30–36, assoc. gynecologist, 32–33, assoc. prof. *obstet. and gynec.* and chairman dept, sch. med, *Georgia,* 36–37, *chief, univ. hosp, 36–* Am. Med. Asn; South Atlantic Obstet. and Gynec. Soc. Roentgenpelvimetry; placentation; resuscitation of the newborn; an automatic postpartum uterine packer; eclampsia; pelvimetry in labor; pelvic inlet variations.

Torrance, Dr. C(harles) C(hapman), Case School of Applied Science, Cleveland, Ohio. *Mathematics.* Yonkers, N. Y, Feb. 1, 02. M E, Cornell, 22, A.M, 27, Ph.D, 31. Instr, Cornell, 27–31; Stanford, 31–32; asst, Inst. Advanced Study, 33–34; instr. *math, Case,* 34–40, *asst. prof, 40–* Math. Soc; Math. Asn; Eng. Educ. Algebraic geometry; quantum mechanics; linear operators; abstract spaces.

Torrence, Prof. Frank M(iller), Pennsylvania State College, State College, Pa. *Mechanical engineering.* Punxsutawney, Pa, Feb. 19, 79. B.S, Pa. State Col, 05. M.E, 12. Baldwin Locomotive Works, 05–07; Louisville and Nashville Ry, 07–08; Pa. R. R, 08–11; *Pa. State Col, 11–, assoc. prof. mech. eng.* Trustee, Centre County Hosp, Pa, 29–32. Mech. Eng.

Torres, Dr. J(uan) P(laton), Bureau of Plant Industry, Manila, P. I. *Plant breeding.* Santo Tomas, Batangas, P. I. Dec. 27, 96. B.Agr, Philippines, 19; M.S, Cornell, 24, Ph.D, 26. Asst. rural econ, Philippines, 19; agron, Bur. Agr, P. I, 19–20, in charge Alabang rice exp. sta, 20–23, agr. asst, 23–26, asst. agronomist and in charge gen. plant breeding, 27–30, asst. plant breeder, 30–31; asst. horticulturalist and in charge *plant breeding sect, Bur. Plant Indust, P. I,* 31–34, *chief, 35–* Nat. Research Council, P. I, 34. Philippine Soc. Tech. Agr. Rice, citrus, pineapple, avocado, papaya and sugar cane breeding; rice hybridization.

Torreson, Oscar W(illiam), 5421 Broad Branch Road, N. W, Washington, D. C. *Terrestrial magnetism.* Cleveland, Ohio, Jan. 23, 98. B.S, Case, 23. *Physicist and observer, dept. terrestrial magnetism, Carnegie Institution, 23–* Observer-in-charge, Huancayo Magnetic Observatory, Peru, 27–28, 34–36; mem. sci. staff and exec. officer and navigator, yacht 'Carnegie,' Carnegie Institution, 28–29. Geophys. Union; Philos. Soc. Wash; Wash. Acad. Ion-content of the atmosphere near the earth's surface; rates of production and methods of destruction of different classes of ions; terrestrial magnetism.

Torrey, Prof. G(eorge) S(afford), University of Connecticut, Storrs, Conn. *Botany.* Dorchester, Mass, March 14, 91. A.B, Harvard, 13, A.M, 15; Diplôme d'Etudes supérieures, Paris, 19. Asst, Gray Herbarium, Harvard, 13–14. Austin teaching fellow, 14–15; from instr. to *prof. bot,* Conn. Agr. Col, 15–33, Conn. State Col, 33–39, *Connecticut, 39–,* registrar, 18–26. A.A; Bot. Soc; Mycol. Soc; Phytopath. Soc; New Eng. Bot. Club; Conn. Bot. Soc; Soc. mycol. de France. Mycology; taxonomy of seed plants.

Torrey, Dr. Harry Beal, 2801 Stuart St, Berkeley, Calif. *[1]Biology.* Boston, Mass, May 22, 73. B.S, California, 95, M.S, 98; fellow, Columbia, 00–01, Ph.D, 03; M.D, Cornell, 27. Asst. zool, California, 95–98, instr, 98–00, 01–04, asst. prof, 04–08, assoc. prof, 08–12; prof. biol, Reed, 12–20; zool, Oregon, 20–26, director research med. science and prof. exp. biol, med. sch, 20–26; consultant, Am. Social Hygiene Asn, 26–28; prof. hygiene and physical educ, *Stanford,* 28–33, *biol,* 33–38, *emer. prof, 38–* Mem. staff, Marine Biol. Asn. of San Diego, 02–12; temporary asst, Bur. Fisheries, 06; director, Children's Hosp. of East Bay, Oakland, Calif, 38–42. A.A; Soc. Exp. Biol; Asn. Study Int. Secretions; Am. Med. Asn; West. Soc. Nat. (pres, 14, 24, 37). Taxonomy, embryology, non-sexual reproduction, regeneration and behavior of invertebrates; experimental biology and medicine; the role of the thyroid; cell differentiation; factors of differentiation; history of science.

Torrey, Dr. H(enry) C(utler), Pennsylvania State College, State College, Pa. *Physics.* Yonkers, N. Y, April 4, 11. B.S, Vermont, 32; A.M, Columbia, 33, G. W. Ellis fellow, 33–34, univ. fellow, 35–36, Ph.D, 37. Instr. *physics,* Princeton, 37; *Pa. State Col,* 37–41, *asst. prof, 41–* A.A; Asn. Physics Teachers; Physical Soc. Viscosity; nuclear moments; molecular beams; radio-frequency spectra.

Torrey, Prof. John C(utler), Cornell University Medical College, York Ave. and 69th St, New York, N. Y. *Bacteriology.* Burlington, Vt, April 19, 76. A.B, Vermont, 98, hon. Sc.D, 22; Ph.D, Columbia, 02. Asst. zool, Columbia, 00–01; bacteriologist, Sea Side Hosp, Staten Island, 03–04; asst. instr. histol. and bacter, *med. col, Cornell,* 03–04, fellow, 04–07, lecturer hygiene and instr. exp. path, 08–10, asst. prof. exp. path. and lecturer hygiene, 10–16, prof. hygiene, 16–27, pub. health and prev. med, 27–32, *epidemiol,* 32–41, *emer. prof, 41–* Ed. board, 'Jour. Immunol.' A.A; Soc. Bact; Soc. Exp. Biol; Asn. Immunol. Intestinal bacteriology; gonococcus; bacterial variation; diet and intestinal flora; anaerobes; complement fixation.

Torrey, Prof. Marian M(arsh), Mary Fisher Hall, Towson, Md. *Mathematics.* Malden, Mass, Dec. 9, 93. A.B, Brown, 16, A.M, 17; Ph.D, Cornell, 24. Instr. *math,* West Virginia, 20–23; Illinois, 24–25; *Goucher Col,* 25–27, asst. prof, 27–32, assoc. prof, 32–42, *prof, 42–, asst. to dean, 37–* Inst. Math. Statist; Math. Soc; Math. Asn. Cremona transformations.

Torrey, Paul D, The Sloan and Zook Co, 229 Shell Bldg, Houston, Texas. *Geology.* Nashville, Tenn, June 28, 03. B.S, Pittsburgh, 25, Petrol.E, 28. U. S. Geol. Surv, 25–26; geologist, Northwest. Pa. Oil Producers Asn, 26–27; consulting geologist and pres, Torrey, Fralich and Simmons, Ltd, 27–37; *with Sloan and Zook Co, 37–* Lecturer, Pa. State Col, Pittsburgh, Princeton. Summers, U. S. Geol. Surv, 23–25. Asn. Petrol. Geol; Min. and Metal. Eng; Am. Geog. Soc. Increasing oil recovery; oil field waters; geology of oil and gas fields of New York and Pennsylvania.

Torrey, Prof. R(ay) E(than), Massachusetts State College, Amherst, Mass. *Botany.* North Leverett, Mass, Dec. 15, 87. B.S, Mass. Col, 12; A.M, Harvard, 16, fellow, 16–17, Sheldon traveling fellow, 17–18, Ph.D, 18. Asst. prof. biol, Grove City Col, 12–15; Wesleyan, 18–19; instr. biol, Mass. Col, 19–21, asst. prof. *bot,* 21–31, *Mass. State Col,* 31–33, assoc. prof, 33–37, *prof, 37–* Morphology; relation of science to education; philosophy of science.

Torrey, Dr. Theodore W(illett), Indiana University, Bloomington, Ind. *Zoology.* Woodbine, Iowa, Jan. 14, 07. A.B, Denver, 27; A.M, Harvard, 29, Ph.D, 32. Teaching fellow, Harvard, 29–32; instr. *zool, Indiana,* 32–37, asst. prof, 37–43, *assoc. prof, 43–* A.A; Soc. Zool. Nervous system; degeneration of nerves and sense organs; embryological sense organs; embryology and physiology of vertebrate excretory organs.

Torrie, Prof. James H(iram), University of Wisconsin, Madison, Wis. *Agronomy.* Macleod, Alta, Can, Aug. 8, 08. B.Sc, Alberta, 31, M.Sc, 34; Minnesota, 34; Ph.D, Wisconsin, 38. Asst. plant breeding, Alberta, 29–34; from asst. to *asst. prof. agron, Wisconsin, 35–* Genetic studies and breeding for disease resistance and desirable agronomic type with oats, soybeans and red clover; adaptation trials for sugar beets and flax; statistics in evaluation of agronomic crops; growth substances on the yield and growth of agronomic crops.

Torvik-Greb, Dr. Magnhild M, 4355 Endover Terrace, Pittsburgh, Pa. *Genetics.* Sisseton, S. Dak, Dec. 10, 03. A.B, South Dakota, 25; M.S, Chicago, 26; Ph.D, Pittsburgh, 31. Asst. genetics, Pittsburgh, 26–27, 30–31, asst. to Dr. P. W. Whiting, 31–33; *with Pittsburgh Skin and Cancer Foundation, 33–* Summers, asst, Chicago, 26, 30. Grant, Pa. Acad. Sci. Genetics of Habrobracon; hydrogen ion concentration of soils as affecting the growth and distribution of earthworms; genetics and cytology of diploid males of Habrobracon juglandis; variable eye-spotting trait of Habrobracon.

Tory, Dr. H(enry) Marshall, Buena Vista Road, Rockcliffe Park, Ottawa, Ont, Can. *Mathematics.* Guysboro, N. S, Jan. 11, 64. B.A, McGill, 90, M.A, 96, LL.D. 08, D.Sc, 03;

LL.D, St. Francis Xavier Col. (Can), 06, Toronto, 27, Saskatchewan, 28, Alberta, 28, McMaster, 32, British Columbia, 32, Western Ontario, 33; D.C.L, Acadia, 35. Lecturer math, McGill, 92–03, demonstrator physics, 92–98, assoc. prof. math, 03–08; pres, Alberta, 08–28; Nat. Research Council Can, 23–35, director labs, 27–35; *retired.* Governors' fellow, McGill, 05–08, non-res. fellow, 08–15. Mem. exec. cmt, Univs. Bur. British Empire, 12–26; Imp. Educ. Cmt; Can. Govt. commissioner on agr. credits, 23–24. Mem. Royal Conservation Cmn. for Can; Am. Cmn. Study Agr. Credit in Europe, 13; chairman, Coal Classification Cmt, 23–35; Can. Govt. special commissioner, Pan-Pacific Science Cong, Japan, 26; chairman, Royal Cmn. to Study Fruit Indust. in N. S, 30; pres, Pacific Science Cong, 30–34; Royal Commissioner on coal industry, 36. Col. director educ. service, C.E.F, 17–19. A.A; fel. Royal Soc. Can. (chairman, physico-chem. sect, 27, pres, 40); fel. Royal Hist. Soc. Physics; pyrometry; agricultural credit; taxation.

Toth, Prof. Louis A(ndrew), Tulane University School of Medicine, New Orleans, La. *Physiology.* South Bend, Ind, Aug. 23, 09. A.B, Kentucky, 31, M.S, 32; fellow, Washington (St. Louis), 32–33; fellow, Rochester, 33–36, Ph.D, 36. Asst. *physiol,* Kentucky, 31–32; instr, *sch. med, Tulane,* 36–40, *asst. prof, 40–* Physiol. Soc; Soc. Exp. Biol. Kidney function; anoxia; posture and circulation.

Toth, Dr. S. J, New Jersey Agricultural Experiment Station, New Brunswick, N. J. *Soil chemistry.* Elizabeth, N. J, Feb. 19, 12. B,S, Rutgers, 33, M.S, 35, Ph.D, 37. Specialist forest soils, *Rutgers,* 37–39, *instr. agr. chem, 39–; asst. soil chemist, N. J. Exp. Sta, 39–* A.A. Soil colloids; plant nutrition; fertilizers; pedology.

Totten, Prof. H(enry) R(oland), Chapel Hill, N. C. *Botany.* Matthews, N. C, Nov. 6, 92. A.B, North Carolina, 13, A.M, 14, Ph.D, 23; Paris, 19. Instr. *bot, North Carolina,* 14–17, 19–23, asst. prof, 23–25, assoc. prof, 25–29, *prof, 29–;* capt, *Field Artil, U. S. Army,* 42–43, *major, 43–* 2nd lieut, U.S.A, 17–19. A.A; Bot. Soc; Pharmaceut. Asn; Taxon. Soc; N. C. Acad. (sec'y-treas, 27–33, pres, 34); Elisha Mitchell Sci. Soc. (cor. sec'y and treas, 20–24, v. pres, 24, pres, 25); Asn. Southeast. Biol. (v. pres, 38). Trees and shrubs of the southeastern states; Rhizopogon; Coprinus; drug plants.

Totter, Dr. John R(andolph), University of Arkansas School of Medicine, Little Rock, Ark. *Physiological chemistry.* Saragosa, Texas, Jan. 7, 14. A.B, Wyoming, 34, A.M, 35; Ph.D, Iowa, 38. *Instr.* biochem. West Virginia, 38–39; *physiol. chem, sch. med, Arkansas, 39–* Chem. Soc. Amino acids; chemistry; metabolism.

Tottingham, Prof. W(illiam) E(dward), University of Wisconsin, Madison, Wis. *Biochemistry.* Templeton, Mass, Nov. 2, 81. B.S, Mass. Col, 03; M.S, Wisconsin, 08; Ph.D, Hopkins, 17. Asst. chem, Exp. Sta, Mass. Col, 05, instr, 06; asst. chemist, N. Y. Exp. Sta, Geneva, 07; instr. *biochem, Wisconsin,* 07–10, asst. prof, 10–17, *assoc. prof, 17–* A.A; Chem. Soc; Soc. Plant Physiol. (pres, 31). Climatic effects in the nutrition and metabolism of plants.

Touceda, Prof. Enrique (Augusto), 943 Broadway, Albany, N. Y. *Metallurgy.* Cuba, 62. C.E, Rensselaer Polytech, 87. Mech. engineer, Troy Steel and Iron Co, 87–94, chief chemist and metallurgist, 94–97; engineer and metallurgist, W. A. Wood Mowing and Reaping Machine Co, 97–98; prof. *metal, Rensselaer Polytech,* 07–37, *emer. prof, 37–* Consulting engineer and metallurgist; director, Touceda Labs, 98–; consulting engineer, Malleable Founders' Soc, 12– John A. Penton medal, Am. Foundrymen's Asn; Légion d'honneur. Min. and Metal. Eng; Civil Eng; Soc. Automotive Eng; Soc. Test. Mat; Soc. Metals; Am. Iron and Steel Inst; Tech. Asn. Pulp and Paper Indust; hon. mem. Foundrymen's Asn; British Iron and Steel Inst; hon. mem. Inst. British Foundrymen. Materials used in the foundry; metallurgical apparatus; foundry problems.

Touchstone, Prof. James H(erbert), Philander Smith College, Little Rock, Ark. *Chemistry.* Maud, Ga, March 10, 89. A.B, Clark (Ga), 16; Rosenwald Fund fellow, Illinois, 29–30, M.A, 30; Columbia, 20–21. Teacher, high sch, S. C, 18–19; instr. French and science, Clark (Ga), 19–20, chem. and physics, 20–23; Rust Col, 23–29; *prof. chem. and director, Philander Smith Col, 29–, acting dean.* Prof, Sam Houston Col, 29. Sergt, Inf, 18–19. Chemistry of rarer elements.

Toulmin, Dr. Lyman (Dorgan), Jr, Geological Survey of Alabama, University, Ala. *Paleontology, Geology.* Mobile, Ala, July 4, 04. A.B, Alabama, 26, A.M, 34; Ph.D, Princeton, 40. Asst, Alabama, 25–27; teacher, schs, Ala, 29–34; Univ. Mil. Sch, 34–35; asst, Princeton, 35–38; instr. geol, Agr. and Mech. Col. Texas, 38–41, asst. prof, 41–42; *staff geologist, Geol. Surv. Ala, 42–* Summer, geologist, Geol. Surv. Ala, 41. Asn. Petrol. Geol; Paleont. Soc; Texas Acad. Wilcox Foraminifera; Paleocene and Eocene stratigraphy of Alabama; geology and structure of the Jackson fault region; paleontology of the Salt Mountain limestone.

Toulouse, Dr. J(ulian) H(arrison), 1817 Potomac Drive, Toledo, Ohio. *Chemical engineering.* Marne, Iowa, Nov. 12, 99. B.S, Iowa State Col, 26, fellow, 26–29, Ph.D, 29, Chem.E, 30. Asst, chem. sect, Exp. Sta, Iowa State Col, 23–26, asst. to head dept, 29–31; lab. director, Am. Bottlers of Carbonated Beverages, 31–34; chemist, *Owens-Ill. Glass Co,* 35–36, chem. engineer, 37–38, *chief service engineer, 39–;* chief glass container and closure sect, containers branch, War Production Board, 41–43; *expert consultant, mil. planning div, Office of Quartermaster Gen, 43–* A.A; Ceramic Soc; Chem. Soc; Inst. Food Technol; Pub. Health Asn; Chem. Eng. Sterilization of equipment used in food industries; sanitary inspection and scoring; bacteriological methods in plant inspection; processing of packaged foods; brewing, fermenting and distilling; container and equipment design; testing and quality control of glass containers.

Tour, Prof. R(euben) S, University of Cincinnati, Cincinnati, Ohio. *Engineering.* Troy, N. Y, Aug. 20, 89. B.S, Michigan, 10, M.S.E, 15, Chem.E, 27. Asst. supt, Consol. Gas Co, N. Y, 11–13; asst. prof. gas eng, California, 13–17; chem. engineer, nitrate div, Ordnance Dept, U.S.A, 19–21; *prof. chem. eng. and head dept, Cincinnati, 21–* Consulting chem. engineer. Capt, U.S.A, 17–19; U. S. Fixed Nitrogen Cmn, Europe, 19; lieut-col, O.R.C. A.A; Chem. Soc; Chem. Eng; Gas Asn. Nitrogen fixation; fluid dynamics.

Tourtellotte, Dr. Dee, 203 S. Market St, Johnstown, N. Y. *Physiological chemistry.* Glenn, Mich, Jan. 11, 04. A.B, Kalamazoo Col, 25, Upjohn fellow, 25–26, M.S, 26; scholar, Hopkins, 28–30, Sc.D, 30. Asst, Michigan, 26–28; research chemist, Upjohn Co, 30–31; *Gen. Foods Corp,* 31–39, *director research, Knox Gelatine Co, 39–* A.A; Chem. Soc; Inst. Nutrition; Mich. Acad. Fat of ovarian residue; calcium balance in human; spectrographic determination of aluminum; sterol chemistry; nutrition; protein chemistry.

Tousey, Dr. Richard, U. S. Naval Research Laboratory, Anacostia, Washington, D. C. *Physics.* Somerville, Mass, May 18, 08. A.B, Tufts Col, 28; A.M, Harvard, 29, Whiting fellow, 29–31, John Tyndall scholar, 31–32, Bayard Cutting fellow, 32–33, 35–36, Ph.D, 33. Instr. *physics,* Harvard, 33–36, tutor, 34–36; *research instr, Tufts Col, 36–;* assoc. physicist, *Naval Research Lab,* 41–42, physicist, 42–43, *senior physicist, 43–* Physical Soc; Optical Soc; Philos. Soc. Wash. Optical properties of substances for the extreme ultra-violet.

Tower, Prof. J(ames) Allen, Birmingham-Southern College, Birmingham, Ala. *Geography.* Northport, Wash, June 3, 05. A.B, Washington (Seattle), 28, M.S, 33, Ph.D, 36. Instr, American Univ. Beirut, 28–31; teaching fellow geog, Washington (Seattle), 31–32; economic specialist, State Land Classification Surv, Wash, 34; asst. prof. *geog, Birmingham-Southern Col,* 36–41, *assoc. prof, 41–;* lieut, *Air Corps, U. S. Army,* 42–43, *capt, 43–* Am. Asn. Adv. of Science grant in aid, 39, 40, 41. Summer, asst. prof, Washington (Seattle), 39. A.A; Am. Geog. Soc; Meteorol. Soc; Council Geog. Teachers (Ala. director, 40; mem. exec. cmt, 42–); Agr. Hist. Soc; South. Asn. Sci. and Indust; Asn. Pacific Coast Geog; Ala. Acad. (v. pres. geog. and conservation, 40). Geography of the South and of Asia.

Tower, Prof. O(lin) F(reeman), Mount Dora, Fla. **[2]*Physical chemistry.* Brooklyn, N. Y, March 19, 72. A.B, Wesleyan, 92, A.M, 93; Ph.B, Leipzig, 95. Asst. *chem,* Wesleyan, 93–94, 96–98; instr, *Adelbert Col, Western Reserve,* 98–01, asst. prof, 01–07, prof. and head chem. lab, 07–42, *emer. prof, 42–* Asst. chemist, food investigation, U. S. Dept. Agr, Middletown, Conn, 95–98. A.A; Chem. Soc. Manganese superoxid electrodes; conduct of aqueous solutions of various organic salts of nickel and cobalt; transport number of sulfuric acid; action of nitrogen on water vapor at high temperatures; formation of Liesegang rings.

Tower, Dr. Sarah S(heldon), Cowpens Road, Baltimore County, Md. *Neurology.* Yellow Springs, Ohio, June 8, 01. B.S, Chicago, 22, Ph.D, 26; M.D, Hopkins, 28; Cambridge, 32. Asst. physiol, Chicago, 22–23; instr, med. sch, North-

western, 23–26; asst. *anat, sch. med, Hopkins,* 28–29, instr, 29–31, *assoc, 31–* Physiol. Soc; Asn. Anat; Neur. Asn. Reaction of muscle to denervation; sensory innervation of muscle and cornea; pyramidal and extrapyramidal action from the cerebral cortex.

Towl, Forrest M(ilton), Room 3418, 30 Rockefeller Plaza, New York, N. Y. *Civil engineering.* Parma, Ohio. C.E, Cornell, 86; M.C.E, Cornell, 35. Eng. dept, Nat. Transit Co, 86–01; manager pipe line dept, Pacific Coast Oil Co, 02–03; gen. supt. pipe lines, Standard Oil Co, 04–07, engineer, 07–11; pres, *South. Pipe Line Co, S. W. Pa. Pipe Line Co, Eureka Pipe Line Co. and Cumberland Pipe Line Co, Inc,* 11–32, *chairman board, 32–* Hon. lecturer, Columbia; research, Cornell, 34–A.A; Civil Eng; Mech. Eng; Min. and Metal. Eng. Pipe line transportation of oil and gas; measurement of gas; specific viscosity; pipe line flow.

Towle, Prof. Norman L(incoln), Cooper Union, New York, N. Y. *Electrical engineering.* Fall River, Mass, Nov. 24, 95. B.S, Worcester Polytech, 17, E.E, 20. Westinghouse Elec. and Mfg. Co, 17–19; Iowa State Col, 19–20; *prof. elec. eng. in charge dept, Cooper Union, 20–* Elec. Eng; Eng. Educ.

Towle, Dr. Warren L(add), 133 N. Portage Path, Akron, Ohio. *Chemical engineering.* Glenside, Pa, April 14, 13. B.S, Mass. Inst. Tech, 34, M.S, 35, Sc.D, 37. Exp. operator, Atlantic Ref. Co, 35; staff asst, Mass. Inst. Tech, 35–36; research chemist, E. I. du Pont de Nemours and Co, Inc, 37–40; in charge inorg. pilot plant, *Columbia chem. div, Pittsburgh Plate Glass Co,* 40–42, *in charge eng. group in research dept, 42–* Chem. Soc; Chem. Eng. Mass transfer by eddy diffusion in a turbulent air stream; rayon tire cord; chlorination of ores; manufacture of synthetic resins.

Town, Dr. Clara Harrison, 100 Ashland Ave, Buffalo, N. Y. *Psychology.* Philadelphia, Pa, Oct. 11, 74. B.S, Temple, 07; Ph.D, Pennsylvania, 09; Paris, 20–21. Res. psychologist, Friends Asylum, Frankford, Pa, 05–10; asst, psychol. clinic, Pennsylvania, 09–11; state psychologist, Lincoln State Sch. and Colony, Ill, 11–14; psychologist, orthogenic clinic, Rush Med. Col, Chicago, 14–16; prof. psychol, Colo. State Teachers Col, Greeley, 16–18; psychologist, child welfare research sta, Iowa, 18–19; director orthogenic clinic and classes, pub. schs, Kansas City, Mo, 19–20; psychol. clinic, Children's Aid Soc, Buffalo, 22–35; *consulting psychologist, 35–* Summers, instr, Pittsburgh, 13, 18, 19; Lehigh, 22. Psychol. Asn. (chairman clin. sect); Asn. Applied Psychol. Abnormal, clinical and racial psychology.

Town, Prof. G(eorge) G(alloway), East Broadway Heights, Waukesha, Wis. *Chemistry.* Detroit, Mich, Feb. 11, 91. B.S, Wisconsin, 18, M.S, 20, Ph.D, 22. Asst. chemist, Forest Products Lab, U. S. Forest Service; chief chemist, Thompson's Malted Food Co, Wis; from asst. prof. to *prof. chem, Wisconsin; consulting chemist.* Chem. Soc. Evaporation of creosote; hygroscopicity of hide glue; vapor pressure of selenium oxychloride; action of selenium oxychloride on the metals and oxides of the second group in the periodic system; determination of alkaloids and of hardness in water; qualitative and quantitative analysis; syllabus of general chemistry; quantitative chemical analysis.

Towne, Dr. E(dward) B(ancroft), 2629 Pierce St, San Francisco, Calif. *Surgery.* West Newton, Mass, Aug. 16, 83. A.B, Harvard, 06, M.D, 13. Asst. *surg,* Harvard, 16–17; instr, *sch. med, Stanford,* 20–21, asst. prof, 21–23, assoc. prof, 23–26, *assoc. clin. prof, 26–* Soc. Neur. Surg; Am. Med. Asn; Calif. Acad. Surgical pathology; experimental surgery; poliomyelitis; the pituitary gland, especially in relation to diabetes insipidus; tumors of the brain and spinal cord.

Townend, Dr. R(obert) V(ose), 101 Seeley Ave, Arlington, N. J. *Chemistry, Chemical engineering.* Fitchburg, Mass, Aug. 17, 92. B.S, Mass. Inst. Tech, 14; Ph.D, Hopkins, 27. Instr, Mass. Inst. Tech, 14–16; research chemist and chem. engineer, Solvay Process Co, 16–20; chief chemist, Victor Talking Machine Co, 20–25; prof. chem, Delaware, 25–28; consultant and chem. director, Pilot Labs, Inc, 27–33; tech. staff, Calco Chem. Co, 30–31; mitarbeiter, Physikal-chem. Inst, Berlin, 32; research chemist, Am. Cyanamid Co, 33; *tech. director and supt, William Zinsser and Co, 33–* Mem. cmt. on admission, grad. dept. chem, Hopkins, 30; sec'y board and chem. cmt, U. S. Shellac Importers Asn, 34–36; hon. sec'y, Mass. Inst. Tech, 37– Ed, 'Syracuse Chemist,' 20. A.A; Chem. Soc. (sec'y, Syracuse sect, 20); Chem. Eng; Soc. Test. Mat; N. Y. Acad. Physical chemistry; applied chemistry; chemical education.

Townes, Dr. C(harles) H(ard), 463 West St, New York, N. Y. *Physics.* Greenville, S. C, July 28, 15. A.B. and B.S, Furman, 35; A.M, Duke, 37; Ph.D, Calif. Inst. Tech, 39. Asst. physics, Calif. Inst. Tech, 37–39; *mem. tech. staff, Bell Tel. Labs, 39–* A.A; Physical Soc. Isotopes; high frequency radiation; electron emission; gaseous discharges.

Townes, Dr. C(harles) H(enry), Box 477, Virginia State College for Negroes, Ettrick, Va. *Physics, Physical chemistry.* Petersburg, Va, May 30, 15. B.S, Va. State Col, 35; M.S. Pa. State Col, 38, Gen. Educ. Board fellow, 40–42, Rosenwald fellow, 42, Ph.D, 42. Prin, Lightfoot Training Sch, Va, 35–36; teacher physics, *Va. State Col,* 36–37, *instr. chem. and physics, 38–* Physical Soc. X-ray study of age-hardening in copper-aluminum alloys; x-ray study of orientations in metals; conductivities of binary mixtures of fatty acids at low concentrations.

Townes, Dr. Henry K(eith, Jr), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Greenville, S. C, Jan. 20, 13. B.S. and A.B, Furman, 33; Ph.D, Cornell, 37. Instr. zool, Syracuse, 37–38; entom, Cornell, 38–40; nat. research fellow, Acad. Nat. Sciences Phila, 40–41; junior entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 41, *assoc. entomologist, 41–* Summers, research, State Conservation Dept, N. Y, 34–38; field aide, bur. entom. and plant quarantine, U. S. Dept. Agr, 39. Entom. Soc. Amer; Entom. Soc; Limnol. Soc. Taxonomy of insects, especially of Ichneumonidae; ecology of aquatic insects.

Townes, Prof. S(tanmore) B(rooks), University of Oklahoma, Norman, Okla. *Mathematics.* Atlanta, Ga, April 23, 99. A.B, Oklahoma, 23, A.M, 25; Ph.D, Chicago, 36. Instr. math, Oklahoma, 25–30; instr, East. Ill. State Teachers Col, Charleston, 30–31; asst. prof. *math, Oklahoma,* 31–39, *assoc. prof, 39–; lieut, Air Corps, U. S. Army, 42–* Asst, Chicago, 29–30. Math. Asn; Okla. Acad. Theory of numbers; partial differential equations.

Townley, Prof. Sidney D(ean), Stanford University, Calif. *Astronomy.* Waukesha, Wis, April 10, 67. B.S, Wisconsin, 90, fellow, 90–92, M.S, 92; fellow, California, 92–93; Sc.D, Michigan, 97. Asst. astron, Wisconsin, 90–92; instr, Michigan, 93–98; California, 98–03; astronomer in charge, Int. Latitude Observatory, Ukiah, Calif, 03–07; asst. prof. applied math, *Stanford,* 07–09, assoc. prof, 09–18, prof, 18–25, math, 25–29, *astron. and geod,* 29–32, *emer. prof, 32–* Lecturer, California, 04–07; Harvard, 25–26. A.A; Astron. Soc; Seismol. Soc. (sec'y-treas, chief ed, 'Bul,' 11–30, pres, 35); Astron. Soc. Pacific (pres, 16); Calif. Acad; Wis. Acad; Astron. Gesell. Practical astronomy; variable stars; asteroids; comets; variations of latitude; earthquakes.

Townsend, Dr. Agnes (Mrs. C. F. Wiebusch), Mountain View Road, Millington, N. J. *Physics.* Albany, N. Y, March 27, 02. A.B, Texas, 23, A.M, 24; Ph.D, Columbia, 35. Tutor *physics,* Texas, 23–26, instr, 26–27; asst, *Barnard Col, Columbia,* 27–30, *lecturer, 30–; evening session, Hunter Col, 36–* Summer, instr, library sch, Columbia, 39. Physical Soc; Asn. Physics Teachers. Ferromagnetism; photometry; photography.

Townsend, Dr. C(harles) H(askins), 3985 Douglas Road, Coconut Grove, Fla. *Zoology.* Parnassus, Pa, Sept. 29, 59. Acad. Nat. Sciences Phila, 82–83; hon. Sc.D, Wasihngton and Jefferson Col, 09. Asst, U. S. Fish Cmn, 83; naturalist, U. S. S. 'Corwin,' Arctic exped, 85; res. naturalist, 'Albatross' exped, 86–96; chief div. fisheries, U. S. Fish Cmn, 97–02; director, N. Y. Aquarium, 02–37; *retired.* U. S. Fur-seal Cmn, 96–97; fishery expert, Russo-Am. arbitration, The Hague, 02; acting director, Am. Museum Nat. Hist, 10–11. Ornith. Union; Fisheries Soc. (pres, 12); fel. N. Y. Zool. Soc; Oceanog. Inst. Paris (councilor). Oceanography; general zoology.

Townsend, Dr. Charles H(enry) T(yler), Fazenda Casagrande Velha, Itaquaquecetuba, São Paulo, Brazil, S. Amer. *Biology, Cosmology.* Oberlin, Ohio, Dec. 5, 63. George Washington, 87–90, B.S, 08, Ph.D, 14. Asst. entomologist, U. S. Dept. Agr, 89–91; prof. entom, zool. and physiol, N. Mex. Col, and entomologist, Exp. Sta, 91–93; curator museum, Inst. Jamaica, 93–94; temporary field agent, bur. entom, U. S. Dept. Agr, 94–98, expert in charge dipterous parasites, gipsy moth lab, 07–09, asst, 14–19; biogeographer and syst. entomologist, Exp. Sta, N. Mex. Col, 98–99; teacher, sch, P. I, 04–06; in charge collections Muscoidea, U. S. Nat. Museum, 07–09; govt. entomologist, Peru, 09–14; state entomologist, São Paulo, Brazil, 19–22; in charge cyanogas ant work, Am. Cyanamid Co, Brazil, 23; director cotton plagues lab, Piura, Peru, 23–24;

expert, cotton plagues and culture, Chamber Commerce and Agr, Loreto, Peru, 25; chief entom. sect. and director, Inst. de Parasitol. Agr, Peru, 26–29; entomologist, Cia Ford Ind. do Brasil, 32–35. Custodian muscoid Diptera, U. S. Nat. Museum, 14–25. Flies; medical entomology; ecology; biogeography; anthropology; physics.

Townsend, Prof. E(dgar) J(erome), 510 E. John St, Champaign, Ill. **3*Mathematics.* Litchfield, Mich, Feb. 22, 64. Ph.B, Albion Col, 90, LL.D, 15; Ph.M, Michigan, 91; Ph.D, Göttingen, 00. Instr. *math*, Chicago Manual Training Sch, 91–93; asst. prof, *Illinois*, 93–95, assoc. prof, 95–05, prof, 05–29, *emer. prof, 29–*, dean col. science, 05–13. Math. Soc. Foundations of geometry; calculus; functions of a complex variable and of real variables.

Townsend, Dr. Eleanor W(inthrop), Grady Hospital, Atlanta, Ga. *Clinical pathology.* Edisto Island, S. C, Nov. 20, 95. A.B, Chicora Col. Women, 13; Col. Charleston, 21–22; M.D, Med. Col. State S. C, 29. Intern, Mercy Hosp, Bay City, Mich, 29–30; res. path, Willard Parker Hosp, New York, 31; instr. and assoc. clin. path, Med. Col. State S. C, 31–40; *asst. prof. path. and bacter, sch. med, Emory, 40–* Mem. assoc. staff, St. Francis Xavier Infirmary, Charleston, S. C, 31–40; clin. pathologist, Grady Hosp, Atlanta, Ga, 40– Am. Med. Asn; Soc. Clin. Path; South. Med. Asn; S. C. Acad. Malaria; fractional gastric analysis; sickle cell anemia; normal thrombocyte counts and thrombocytopenia.

Townsend, Dr. G(eorge) R(ichard), Everglades Experiment Station, Belle Glade, Fla. *Plant pathology.* Orchard Park, N. Y, Jan. 13, 05. B.S, Cornell, 27, Ph.D, 32. *Plant pathologist, Everglades Exp. Sta, Florida, 32–* Phytopath. Soc. Diseases of vegetable crops, particularly beans, potatoes and celery.

Townsend, J(ames) S(winton), U. S. Department of Agriculture, Stoneville, Miss. *Technology.* Rockville, S. C, March 26, 75. Porter Mil. Acad, S. C, 91–95; Int. Correspondence Sch. Installing and operating roller gins, 96–00; in charge gin dept, Cameron and Barkley Co, S. C, 01–08; partner, J. C. Seabrook, growing sea-island cotton, 09–19; installing and operating cotton gins, Arvin, Shafter and Wasco, Calif, and Cotton Growers Asn, 20–21; specialist cotton gin installation, assoc. technologist and *technologist, div. cotton, rubber and other trop. plants, bur. plant indust, U. S. Dept. Agr, 22–* Tropical plants; cotton; rubber; ginning pima cotton in Arizona; ginning and preparing upland and long staple cotton for market; special attachments for roller gins to straighten the fiber and prevent bending and for cotton planters to remove dry top soil and press seed into the soil.

Townsend, John R(obert), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Engineering.* Baltimore, Md, Nov. 15, 95. Polytech. Inst. Brooklyn. *Mem. tech. staff, Bell Tel. Labs, 19–, materials standards engineer, 35–* Dudley medal, Soc. Test. Mat, 30. Computer and test engineer, math. and dynamics div, Ordnance Dept, 18–19. Soc. Test. Mat. (chairman, cmt. B 6 on die cast metals and alloys, sect. indentation hardness testing, special research cmt. on springs); Mech. Eng; Welding Soc; Standards Asn. (mem. and Bell System rep, cmt. on screws, nuts and bolts). Magnetic, metallic and insulating materials; fatigue of metals; x-ray technique; welding; metallurgy of brass; nickel silver and phosphor bronze; die casting; vibration of structures; elasticity; testing of metals; plastics; high speed photography; meterology.

Townsend, Dr. Lee H(ill), University of Kentucky, Lexington, Ky. *Entomology.* Leland, Miss, Jan. 20, 03. B.S, Virginia, 25; M.S, Illinois, 32, Ph.D, 35. Instr, high sch, Miss, 25–27; asst. entom, Illinois, 27–30; asst. entomologist, State Nat. Hist. Surv, Ill, 32–36; instr. *agr. entom, Kentucky*, 36–39, asst. prof, 39–42, *assoc. prof, 42–* Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. Larvae and anatomy of Neuroptera; larvae of cyclorrhaphous Diptera.

Townsend, Prof. M(yron) T(homas), Illinois Wesleyan University, Bloomington, Ill. *Biology.* Westhampton, Mass, May 8, 97. B.S, Bates Col, 18; M.S, Illinois, 21, fellow, 23–24, Ph.D, 25. Asst. zool, Illinois, 19–23; asst. prof. biol, St. John's Col. (Md), 24–28; assoc. prof. histol, sch. med, Oklahoma, 28–30; *prof. biol, Ill. Wesleyan, 30–* Summers, field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 27–39. A.A; Ecol. Soc; Soc. Mammal; Pub. Health Asn. Zoology; animal ecology; reactions of the jelly-fish, Aequorea; the burrowing reaction of the American toad; the breaking-up of hibernation in the codling-moth larva; vertical stratification of forest insects; ecology of small mammals and the white-tailed deer.

Townshend, Alvin S, 349 Prince Edward Drive, Toronto, Ont, Can. *Chemistry.* Clinton, Ont, Sept. 30, 99. B.Sc, Queen's (Can), 24, Nat. Research Council Can. bursar, 24–25, M.Sc, 25; M.A, Toronto, 26, Nat. Research Council Can. student, 28–29. Asst, sch. eng. research, Toronto, 25–26, dept. chem. eng, 26–28; plant supt, Guaranty Silk Dyeing and Finishing Co, St. Catharines, 29–40; *consulting engineer, Donald Inspection, Ltd, 40–* Chem. Soc; Can. Chem. Asn; Can. Inst. Chem. The reactions of diphenyl succinic acid and its derivatives; the action of alkali on esters dissolved in their corresponding alcohols.

Tozzer, Prof. Alfred M(arston), Harvard University, Cambridge, Mass. **3*Anthropology.* Lynn, Mass, July 4, 77. A.B, Harvard, 00, A.M, 01, Ph.D, 04. Instr. archeol, *Harvard*, 05–12, asst. prof. *anthrop*, 12–19, assoc. prof, 20–21, *prof, 21–*, asst. and *curator, Peabody Museum, 05–* Am. fellow, Archeol. Inst, 02–05; exped, Cent. Amer, 02–05; in charge, Peabody Museum, Harvard, exped, Cent. Amer. and British Honduras, 09; director, Int. Sch. Archeol. and Ethnol, Mex, 13–14. Nat. Acad; A.A; Anthrop. Asn. (pres, 29); Antiq. Soc; Folk-Lore Soc; fel. Ethnol. Soc; Am. Acad; Philos. Soc; Mass. Hist. Soc; Mass. Colonial Soc; Royal Anthrop. Inst; Royal Geog. Soc; cor. mem. Soc. des Américanistes de Paris; Soc. de Hist. de Guatemala; Hispanic Soc. Ethnology and archeology of Central America; sociology.

Trabue, Dean M(arion) R(ex), Pennsylvania State College, State College, Pa. *Psychology, Education.* Kokomo, Ind, April 30, 90. A.B, Northwestern, 11; A.M, Columbia, 14, Ph.D, 15. Instr. educ. admin, Teachers Col, Columbia, 14–16, asst. prof. educ, 17–22, director bur. educ. service, 19–22; prof. educ. admin, North Carolina, 22–37, director bur. educ. research, 23–37, div. educ, 35–37; tech. director occupational research, U. S. Employment Service, Washington, 34–36; staff, Am. Youth Cmn, Washington, 36; *dean sch. educ. and director summer session, Pa. State Col, 37–* Exec. sec'y cmt. on individual diagnosis and training, employment stabilization research inst, Minnesota, 31–33; head div. diagnosis, Adjust. Service for Unemployed, N. Y, 33. Assoc. ed, 'Jour. Educ. Research'; 'Elementary Eng. Rev.' Chairman subcmt. learning and training, emergency cmt. psychol, Nat. Research Council, 41–43. Pres, Nat. Conf. Research English, 32. Chief psychol. examiner, Sanit.C, 17–18. A.A. (v. pres, 40); Asn. Applied Psychol. (chairman cmt. relations with ed. profession, 39–); Psychol. Asn; Soc. Study Educ. (director, 32–39); Educ. Research Asn. (pres, 25); Eugenics Research Asn; Statist. Asn; Vocational Guidance Asn. (trustee, 42–). Measurements of intelligence, educational achievements and occupational qualifications.

Tracey, Prof. J(oshua) I(rving), 84 McKinley Ave, New Haven, Conn. *Mathematics.* Upperco, Md, Aug. 19, 83. B.S, Dickinson Col, 06; fellow, Hopkins, 10–12, Ph.D, 12. Instr. *math, Yale*, 12–16, asst. prof, 16–26, *assoc. prof, 26–, fellow, Timothy Dwight Col, 35–* A.A; Math. Soc; Math. Asn. Analytical geometry; differential and integral calculus.

Tracy, Prof. F(rederick), 173 Walmer Road, Toronto, Ont, Can. *Philosophy.* Claremont, Ont, May 18, 62. B.A, Toronto, 89, fellow, 90–92; fellow, Clark, 92–93, Ph.D, 93; LL.D, McMaster, 27. Commercial master, Pickering Col, 85; lecturer philos, *Toronto*, 93–05, assoc. prof, 05–16, prof. *ethics*, 16–32, *emer. prof, 32–* Lecturer, McMaster, 01–07. Philos. Asn; Religious Educ. Asn; Ill. Soc. Child Study; Ont. Child Study Asn. Left-handedness; the psychology of childhood and adolescence; theory of knowledge; child study; ethics.

Tracy, Prof. Gordon F(rederick), 2257 Fox Ave, Madison, Wis. *Electrical engineering.* Toronto, Ont, Can, Feb. 2, 96. B.A.Sc, Toronto, 21; M.S, Mass. Inst. Tech, 25. Asst, Toronto, 21–24; instr, *Wisconsin*, 25–28, asst. prof. *elec. eng*, 28–38, *assoc. prof, 38–* Elec. Eng. (sec'y, Madison sect, 30–32, chairman, 32); Eng. Educ. Performance of synchronous generators and motors; power transients in and torque-measurements of synchronous motors.

Tracy, Prof. Henry C(arroll), University of Kansas, Lawrence, Kans. *Anatomy.* Hartford, Vt, July 11, 79. A.B, Dartmouth Col, 02; A.M, Brown, 05, Ph.D, 10. Submaster, high sch, Vt, 02–04; asst. physiol, Brown, 04–07; asst. biologist, R. I. Fish Cmn, 07–10; instr. *anat*, Northwestern, 10–13; *prof*, Marquette, 13–20; *Kansas, 20–* Sci. asst, U. S. Bur. Fisheries,

Marine Biol. Lab, Woods Hole, 10, 11, 23; biol. surv, Mt. Desert Biol. Lab, 26–31. Asn. Anat. Life histories of fishes; the swim-bladder; nervous system in fishes.

Tracy, Prof. J(ohn) C(layton), 345 Winthrop Ave, New Haven, Conn. *Mathematics.* Willimantic, Conn, Nov. 3, 69. Ph.B, Yale, 90, C.E, 92. Struct. engineer, King Bridge Co, 90–91; instr. civil eng, *Yale,* 91–02, asst. prof. struct. eng, 02–15, prof. *civil eng,* 15–36, *emer. prof, 36–* Eng. Educ. Descriptive geometry; surveying; mechanics applied to the calculation of stresses and the strength of materials.

Tracy, Prof. P(aul) H(ubert), University of Illinois, Urbana, Ill. *Dairy husbandry.* Paris, Ill, Nov. 2, 94. B.S, Illinois, 20, M.S, 22, Ph.D, 30. *Dairy dept, Illinois, 20–,* from asst. prof. to *prof. dairy manufacture,* from asst. chief to *chief, Exp. Sta.* U.S.A, 17–19. Ice cream; market milk; condensed milk; milk powder.

Tracy, Dr. Ralph L, California Institute of Technology, Pasadena, Calif. *Bacteriology, Biochemistry.* Stanberry, Mo, Nov. 6, 07. A.B, Stanford, 30; A.M, California, 32; Ph.D, Southern California, 37. Asst. food products, California, 30–32; instr. bacter, California at Los Angeles, 32–35; asst. and teaching fellow, med. sch, Southern California, 35–37, instr. med. bacter. and parasitol, 37–38; *research bacteriologist, rare metals inst, Calif. Inst. Tech, 38–* Soc. Bact; Pub. Health Asn. Germicidal properties of heavy metal ions; bacterial nutrition.

Tracy, Prof. S(tephen) J(erome), College of the City of New York, New York, N. Y. *Applied thermodynamics.* New York, N. Y, Nov. 22, 04. M.E, Stevens Inst, 28; M.S, Pittsburgh, 33, Ph.D, 39. Draftsman, dept. inventions and design, Nat. Cash Register Co, 28–30; instr. *mech. eng,* Pittsburgh, 30–38; *asst. prof, Col. City N. Y, 38–* Mech. Eng; Eng. Educ. Investigation of the bleeding points in a two-stage 160,000 K.V.A. steam turbine.

Trager, Earl A(dam), U. S. Bureau of Mines, Washington, D. C. *Geology.* South Bend, Ind, June 17, 93. Mich. Agr. Col, 13–14; Nebraska, 14–15; B.S, Chicago, 17. In charge subsurface geol. lab, Empire Gas and Fuel Co, Okla, 17–20; in charge sect. stratig, Marland Oil Co, Okla, 20–21, chief geologist, Mex, 21–25, in charge geol. sect, research dept, Ponca City, Okla, 25–26; Earl Oliver and Co, 26–28; chief geologist, Skelly Oil Co, Tulsa, Okla, 28–30; consulting geologist, Tulsa, Okla, 30–32; chief naturalist div, Nat. Park Service, 32–40; v. pres. in charge Washington branch, Bell and Howell Co, 40–42; chief mining econ. sect, War Production Board, 42–43; *special liaison officer, admin. staff, U. S. Bur. Mines, 43–* Contact officer, expositions, Nat. Park Service. Asn. Petrol. Geol; Geol. Soc; Civic and Planning Asn; Geol. Soc. Wash. (councilor). Physical geology; oil-water emulsions; distillation of oil shale; kerogen and the origin of oil; subsurface stratigraphy of oil fields; aiding mines producing critical minerals and metals.

Trager, Dr. W(illiam), Rockefeller Institute, Princeton, N. J. *Biology.* Newark, N. J, March 20, 10. B.S, Rutgers, 30; A.M, Harvard, 31, Ph.D, 33. Nat. research fellow med, 33–34; fellow, *dept. animal and plant path, Rockefeller Inst,* 34–35, asst, 35–40, *assoc, 40–; lieut, U. S. Army.* A.A; Soc. Parasitol; Soc. Zool; Entom. Soc. Insect physiology; tissue culture; growth of larvae; nutritional requirements; relation of insects to disease transmission; malaria.

Trainer, Prof. David W(oolsey), Jr, 42 University Ave, Hamilton, N. Y. *Mineralogy, Petrography.* Huntington, L. I, N. Y, Aug. 6, 99. B.S, Dartmouth Col, 21; M.S, Northwestern, 23; Ph.D, Cornell, 26. Asst. geol, Northwestern, 21–23; Cornell, 23–25, instr. *miner. and geol,* 25–31; *asst. prof, Colgate, 31–* Geologist in charge molding sands, Md. Geol. Surv. and Wis. Geol. Surv, 24. Summer, asst, Ill. Geol. Surv, 23. Miner. Soc. Sedimentary petrography; molding sands.

Trame, Prof. E(lmer) J(oseph), S.J, Regis College, Denver, Colo. *Biology.* Covington, Ky, Nov. 13, 98. A.B, St. Louis, 23, A.M, 24, fellow, 32–33, Ph.D, 35. Asst. prof. *biol,* Creighton, 25–26; instr, St. Louis, 26–28; prof. and head dept, John Carroll, 34–37; *prof, Regis Col, 37–* A.A. Endocrinology; embryology; effect of sex hormones on embryogenesis and embryological developments; effect of gonadokinetic hormones on embryogenesis in fowl.

Transeau, Prof. E(dgar) N(elson), Ohio State University, Columbus, Ohio. *[*3]Botany.* Williamsport, Pa, Oct. 21, 75. A.B, Franklin and Marshall Col, 97; Chicago, 00–01; Ph.D, Michigan, 04. Prof. biol, Alma Col, 04–06; staff, Cold Spring Harbor, 06–07; *prof. bot,* East. Ill. State Teachers Col, 07–15; *Ohio State, 15–, chairman dept, 18–, director bot. garden, 30–* Staff, Cold Spring Harbor, 23–24; agent, bur. entom, U. S. Dept. Agr, Europe, 27. A.A; Soc. Nat; Bot. Soc. (pres, 40); Am. Geog. Soc; Asn. Geog; Ecol. Soc. (pres, 24); Ohio Acad. (pres, 24). Plant physiology and ecology; vegetation of the Ohio Valley; Zygnematales.

Transue, Dr. L(aurence) F(rederick), Summerfield, Kans. *Physical chemistry.* Summerfield, Kans, April 2, 14. A.B, Tarkio Col, 36; fellow, Nebraska, 37–41, A.M, 39, Ph.D, 41. Asst, Nebraska, 37–41; *research chemist,* rayon dept, *E. I. du Pont de Nemours and Co,* 41–42, *photoproducts dept, 42–* Chem. Soc. Accuracy attainable in measuring the spreading pressures of organic liquids on water.

Trantham, Dr. J(oseph) C(ollier), Westwood Hills, Fishkill, N. Y. *Chemistry.* Waco, Texas, Aug. 28, 18. A.B, Baylor, 39; E. L. Marston scholar, Brown, 39–41, univ. fellow, 41–42, Ph.D, 42. *Research chemist, Texas Co.* Physical and analytical chemistry; molecular association in non-polar solvents; boiling point elevation and isopiestic method.

Trask, Dr. John W(illiam), U. S. Public Health Service, Washington, D. C. *Public health.* Bay City, Mich, Feb. 18, 77. M.D, Michigan, 01. Asst. surgeon, *U. S. Pub. Health Service,* 02–07, passed asst. surgeon, 07–14, surgeon, 14–30, *med. director, 30–,* asst. surgeon gen. and in charge div. sanit. reports and statist, 09–18. Med. director, U. S. Employees Compensation Cmn, 18–22; in charge, U. S. Marine Hosp, Buffalo, 22–26, Baltimore, 26–30, Chicago, 30–35, Boston, 35–40. Pub. Health Asn. (chairman, sect. vital statist, 15–17); Col. Physicians. Sanitation; vital statistics; tuberculosis; malaria; spread and geographic distribution of disease.

Trask, Dr. Parker D(avies), 8 Edgehill Drive, Alexandria, Va. *[*6]Geology.* Springfield, Mass, May 7, 99. A.B, Texas, 17; A.M, California, 20, Ph.D, 23. James M. Goewey traveling fellow, Europe, 23–24; instr. geol, Yale, 24–26; research assoc, Am. Petrol. Inst, 26–31; *senior geologist, U. S. Geol. Surv, 31–* Summers, asst. geologist, Texas Bur. Econ. Geol, 16; geol. explor. for oil, 17–25. Director research project on source beds, Am. Petrol. Inst, 29–42; chairman cmt. sedimentation, Nat. Research Council, 35– Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Geophys. Union; Soc. Econ. Paleont. and Miner. (v. pres, 42); Geol. Soc. Wash. Sedimentation; oceanographical geology; source beds of petroleum; California areal geology; strategic minerals investigations of manganese in the United States and Mexico.

Trattner, Dr. Harry (Robert), 1010 Hanna Bldg, 1422 Euclid Ave, Cleveland, Ohio. *Urology.* Denver, Colo, Nov. 4, 95. A.B, Colorado, 16; M.D, Western Reserve, 19, A.M, 23. Demonstrator surg, *Western Reserve,* 21–29, *clin. instr. genito-urinary surg, 30–; visiting surgeon urol, Cleveland City Hosp, 25–, in charge, 30–* Assoc. surgeon urol, St. Vincent's Charity Hosp. Urol. Asn; fel. Col. Surg; Soc. Exp. Biol. Physiology and pathology of the ureter; hydrophoragraph for recording contractions of the human ureter and the spinal fluid pressure; partition catheter for x-ray and treatment of the parenchyma of the prostate gland.

Traub, Dr. Hamilton P(aul), U. S. Department of Agri culture, Salinas, Calif. *Plant physiology.* Crozier, Iowa. June 18, 90. Harvard; A.B, Minnesota, 22, M.S, 24, Ph.D, 27 Asst. hort, Exp. Sta, Minnesota, 24–26, asst. horticulturist, 26–28; chief div. hort, Exp. Sta, Agr. and Mech. Col. Texas, 28–30; *prin. horticulturist,* div. fruit and veg. crops and diseases, *bur. plant indust, U. S. Dept. Agr,* 30–42, *emergency guayule rubber project, 42–* Ed, 'Nat. Hort. Mag,' 22–26; 'Herbertia,' 34– A.A; Soc. Plant Physiol; Soc. Hort. Sci; Bot. Soc; Genetic Asn.

Traum, Prof. J(acob), University of California, Berkeley, Calif. *Veterinary science.* Galicia, Austria, Nov. 23, 82. D.V.M, Cornell, 05, M.S, 23. Bur. animal indust, U. S. Dept. Agr, 05–14; assoc. prof. and *prof. vet. science, col. agr, California, 14–* U. S. Foot and Mouth Cmn, Europe, 25–27. Vet. Med. Asn; Soc. Exp. Biol. Infectious abortion in cattle; bovine tuberculosis; foot and mouth diseases.

Traut, Dr. Herbert F(rederick), University of California Hospital, San Francisco, Calif. *Obstetrics, Gynecology.* Muscotah, Kans, April 3, 94. B.S, Whitman Col, 17; M.D, Hopkins, 23. Res. house officer and asst. res. surgeon, Hopkins Hosp, 23–25, asst. res. and res. house officer gynec, 25–29, asst. res. obstet, 29–31, instr, sch. med, Hopkins, 24–31, asst. path, 25–29; assoc. prof. obstet. and gynec, med. col, Cornell, 30–42;

attending obstetrician and gynecologist, New York Hosp, 31–42; *prof. gynec. and obstet, sch. med, California, 42–* Gynec. Soc; Asn. Path. and Bact; Cancer Research Soc; N. Y. Acad; N. Y. Obstet. Soc; Harvey Soc. Anatomy and physiology of kidney and ureter; pathology of placenta; plastic surgery; pathology of endometrium; urinary tract infections in pregnancy; histology of vaginal epithelium; endometrium in tissue culture; degenerative changes in myomata; ovarian tumors; gynecological cancer.

Trautman, Mrs. Mary A(uten), Franz Theodore Stone Laboratory, Put-in-Bay, Ohio. *Zoology.* Rawson, Ohio, Feb. 10, 98. A.B, Bluffton Col, 20; A.M, Ohio State, 22, Ph.D, 33. Adj. prof. biol, Randolph-Macon Woman's Col, 22–27; asst. prof, Ohio Northern, 27–30; prof, Bluffton Col, 30–31; asst, Agnes Scott Col, 33–34; asst. prof, Ashland Col, 34–40; *research assoc, Franz Theodore Stone Lab, Ohio State, 42–* Fel. Ohio Acad. Entomology; embryology.

Trautman, Milton B(ernhard), Franz Theodore Stone Laboratory, Put-in-Bay, Ohio. *Zoology.* Columbus, Ohio, Sept. 7, 99. Asst, bur. sci. research, Ohio Div. Conservation, 30–34; asst. curator fishes, museum zool, Michigan, 34–39, asst. director inst. fisheries research, 34–35, *research assoc,* 35–36; *Franz Theodore Stone Lab, Ohio State, 39–* Mem. zool. exped, Yucatan. Fisheries Soc; Ornith. Union; Soc. Ichthyol. and Herp. (governor, 33–); Limnol. Soc; Nat. Audubon Soc; Wilson Ornith. Club (treas, 43); fel. Ohio Acad. Ichthyology; ornithology; taxonomy, distribution and ecology of fishes and birds; fisheries biology; conservation; wildlife management.

Trautmann, Prof. W(illiam) J(ohn), 1743 Emerson St, Beloit, Wis. *Chemistry.* Horicon, Wis, Sept. 6, 85. Ph.B, Wisconsin, 09, Ph.M, 19, Ph.D, 21. Prin, high sch, Minn, 09–11; Wis, 11–16; instr. chem, Wisconsin, 19–21; asst. prof. and assoc. prof. *chem, Beloit Col,* 21–24, *prof, 24–* A.A; Chem. Soc. Higher oxides of zinc and cadmium; reductions with silicon; radioactivity of lead salts.

Trautz, Prof. Otto R(udolf), 209 E. 23rd St, New York, N. Y. *Chemistry.* Oberbaldingen, Germany, Oct. 16, 99. Munich, 23–25; Ph.D, Heidelberg, 27. Instr. physical chem, Heidelberg, 27–28; *chem, N. Y. Univ,* 28–31, *asst. prof, 31–* N. Y. Acad; N. Y. Miner. Club. Specific heat of gases; organic micro-analysis; crystal structure analysis.

Traver, Dr. J(ay) R, Massachusetts State College, Amherst, Mass. *Entomology, Limnology.* Willoughby, Ohio, Aug. 2, 94. A.B, Cornell, 18, A.M, 19, Ph.D, 31. Acting head dept. biol, Shorter Col. (Ga), 23–24; asst. prof, N. C. Col. for Women, 24–30; instr. limnol. and ecol, Cornell, 32–33, research limnol, 33–36; hon. fellow, Cornell, 35–36; *instr. zool, Mass. State Col, 36–* Hon. fellow, Cornell, 35–36. A.A; fel. Entom. Soc. Amer; Limnol. Soc. Food and breeding habits of the black-nosed dace; ecology and taxonomy of May-flies of North America, Puerto Rico and the Himalayas; biology of May-flies.

Travis, Dr. Bernard V(alentine), Box 3391, Orlando, Fla. *Economic entomology.* Uncompahgre, Colo, March 29, 07. B.S, Colo. State Col, 30; M.S, Iowa State Col, 32, Ph.D, 37; Fla. State Col. Women, 38. Asst. entomologist, Colo. State Col, 30; Iowa State Col, 30–34, wildlife specialist, exten, 34–35, asst, 30–35; asst. entomologist, *div. insects affecting man and animals, bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–42, *assoc. entomologist, 42–* Asn. Econ. Entom; Entom. Soc. Amer; Micros. Soc; Soc. Parasitol; Wilson Ornith. Club; Fla. Entom. Soc. Screwworm control; fire ant control; mosquito control; mosquito repellents.

Travis, Prof. Irven (Albert), 1622 Minnesota Ave, S.E, Washington, D. C. *Electrical engineering.* McConnelsville, Ohio, March 30, 04. B.S, Drexel, 26; M.S, Pennsylvania, 28, Sc.D, 38. Instr. and later *asst. prof. elec. eng, Moore sch. elec. eng, Pennsylvania, 28–; U. S. Naval Res, 41–, lieut. commander.* Consulting engineer, Gen. Elec. Co, 39, 40. Mem. cmt. math. tables and calculating devices, Nat. Research Council. Elec. Eng. Electric circuits; computing devices; fire control.

Travis, Prof. L(ee) E(dward), University of Southern California, Los Angeles, Calif. *Psychology, Physiology.* Imperial, Nebr, June 23, 96. A.B, Iowa, 22, A.M, 23, Ph.D, 24. Nat. research fellow psychol, Iowa, 24–27, assoc. prof, 27–28, prof, 28–38, director psychol. and speech clinic, 28–38, head dept, 37–38; *prof. psychol. and director psychol. clinic, Southern California, 38–* A.A; Psychol. Asn; Physiol. Soc; Soc. Exp. Biol; Nat. Asn. Teachers Speech; Acoustical Soc; Speech Correction Asn. (pres); Soc. Study Educ. Speech pathology; threshold variations in abnormal mental states; stuttering; action currents from muscle and nervous tissue; brain potentials; deep reflex response latencies; tremor frequencies and extents; eye movements and pupillary reflexes.

Travis, Pierce Mason, 334 Franklin Ave, Ridgewood, N. J. *Chemical engineering.* Sacketts Harbor, N. Y, Sept. 3, 87. Rensselaer Polytech; Columbia; B.S, Cooper Union, 14. Chemist, Standard Oil Co, 10; E. I. du Pont de Nemours and Co, 10–11; Dept. Health, New York, 11–17; consulting chemist, 20–23; in charge research and develop, Nat. Homogenizer Corp, 23–36; pres, Travis Colloid Research Co, 26–34; mem. firm, Boyle, Tolman and Travis, 30–36; *consulting chemist, 36–* Plastics research, U. S. Govt, 43. Capt, A.E.F, 17–19; major, O.R.C, 23–26. Chem. Soc; Chem. Eng. Colloids and their commercial application; mechano-chemistry; preparation of colloid mineral colors; measurements of average particle size by sedimentation and other physical means; apparatus for measurement of particle size; plastics; colloids.

Travis, Prof. Roland C(harles), Stanford University, Calif. *Psychology.* Denver, Colo, July 8, 99. A.B, Iowa, 23, A.M, 24, fellow, 24–25, Ph.D, 26. Asst, Iowa, 23–26; nat. research fellow, inst. psychol, Yale, 26–28, research assoc, inst. psychol, and asst. prof, univ, 28–29; assoc. prof. psychol, Western Reserve, 29–42, asst. dean, Adelbert Col, 29–35; *assoc. prof. psychol, Stanford, 42–* A.A; Psychol. Asn. Adaptation and refractory phase in vision; personality tests and hypnosis; perception of bodily motion; vestibular reflexes; ocular pursuit; optic nystagmus; correlates between eye-movement characteristics and adaptive behavior in humans; muscle thickening; motor skills; reading.

Trawick, Lieut. MacEldin, Bureau of Medicine and Surgery, U. S. Navy Department, Washington, D. C. *Psychology.* Tampa, Fla, July 5, 12. A.B, Richmond, 34; A.M, Columbia, 36, Ph.D, 40. Asst. psychol, Columbia, 37–38, instr. and tutor, Bard Col, 38–39; instr, Hawaii, 40–41; *lieut, U. S. Naval Res, 41–* Assoc. Psychol. Asn. Psychological factors in the success of naval aviators.

Trawick, Dr. M(artin) W(hitford), 17 Stuart Ave, Glenolden, Pa. *Physics.* Wilmington, N. C, Feb. 8, 03. A.B, Davidson Col, 25; A.M, North Carolina, 29; Ph.D, Cornell, 34. Instr. physics, North Carolina, 27–29; asst, Cornell, 29–31, instr, 31–35; teacher math. and physics, Biltmore Col, 36; instr. physics, Washington and Jefferson Col, 36–37; prof. physics and math, West Liberty State Teachers Col, W. Va, 37–39; asst. physicist, Naval Aircraft Factory, 39–41, assoc. physicist, 41–42, physicist, 42–43; *senior physicist, Naval Air Exp. Sta, Naval Air Material Center, Phila, 43–* Asn. Physics Teachers; Physical Soc. Spectroscopy of highly ionized atoms; aircraft instruments.

Traxler, Dr. Ralph N(ewton), The Texas Co, Port Neches, Texas. *Chemistry.* Lamar, Colo, Dec. 20, 97. A.B, Colorado, 20, A.M, 22; Ph.D, Wisconsin, 26. Research chemist, Great West. Sugar Co, Denver, 20–21; asst, Colorado, 21–22; teacher, high sch, Colo, 22–23; prof. chem, Highland Col, 23–24; asst, Wisconsin, 24–26; assoc. prof, Macalester Col, 26–27; research chemist, Cuban-Am. Sugar Co, 27–29; research div, Barber Asphalt Co, 29–38; *director asphalt research, The Texas Co, 38–* Summer, fellow, Minnesota, 27. A.A; Chem. Soc; Asn. Asphalt Paving Tech; Soc. Rheol. Absorption; iodides of phosphorus; barium de-sugaring of discard molasses; properties of mineral powders; interfacial tension; osmosis and dialysis; emulsions; viscosity and plasticity; asphalts and bituminous materials.

Trayer, Geo(rge) W(illiam), U. S. Forest Service, Washington, D. C. *Engineering.* Lansing, Iowa, Nov. 3, 88. B.S, Wisconsin, 12, C.E, 22. Engineer, river and harbor, U. S. War Dept, 12–14; gen. contracting engineer, 14–16; senior engineer timber mech. Forest Products Lab, *U. S. Forest Service,* 20–35, *chief div. forest products research branch, 35–* Materials cmt, Nat. Advisory Cmt. Aeronaut. C.Eng, U.S.A, 17–19. A.A. Wood in aircraft construction; influence of form of wood member on its structural strength; elastic instability of wood members and structures; torsion; utilization of forest products.

Treacy, C(yril) S(tanton), 315 Heathcote Road, Scarsdale, N. Y. *Chemical engineering.* New York, N. Y, Feb. 5, 92. B.S, N. Y. Univ, 15. Research chemist, Chas. Pfizer and Co, New York, 15–17; Geo. H. Morrill Co, Norwood, Mass, 17–18, 19; supt, Robt. Gilchrist and Co, Elizabeth, N. J, 19–20; manager, neon products div, Air Reduction Co, 20–27; v. pres. and

chief engineer, Int. Neon Corp, 27–30; chem. engineer, United Research Corp, Long Island City, N. Y, 30–36; Calco Chem. Co, 36–38; textile research, Merck and Co, 38–41; *v. pres, Mamaroneck Chem. Corp, 42–* C.W.S, U.S.A, 17–18, C.W.Res, 23–32. Photosensitivity of selenium; separation and purification of the rare gases; small scale plants for manufacture of toxic intermediates; textile emulsions and moth-proofing.

Treadway, Dr. Robert H(olland), 7705 Elm Ave, Chestnut Hill, Philadelphia, Pa. *General and physical chemistry.* Bloomington, Ind, Nov. 10, 10. A.B, Indiana, 32, A.M, 34, Ph.D, 36. Teaching asst. chem, Indiana, 33–36; research chemist, E. I. du Pont de Nemours and Co, 36–40; A. E. Staley Mfg. Co, 40–41; *assoc. chem. technologist, asst. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Reactions in non-aqueous solutions; alkali silicates; starch.

Treadwell, Dr. Aaron L(ouis), Vassar College, Poughkeepsie, N. Y. *[1]*Zoology.* Redding, Conn, Dec. 23, 66. B.S, Wesleyan, 88, M.S, 90, Sc.D, 38; Ph.D, Chicago, 99. Asst. nat. hist, Wesleyan, 88–91; prof. biol. and geol, Miami, 91–00; biol, *Vassar Col,* 00–14, *zool,* 14–37, *emer. prof, 37–* Staff, Marine Biol. Lab, Woods Hole, 98–06, 13; Carnegie Institution at Dry Tortugas, Bermuda, P. R, Tobago, Fiji, Samoa and Jamaica, 09–21; hon. curator, Am. Mus. Nat. Hist, 08–18, research assoc, 18–; research staff, N. Y. Zool. Soc, 30–31. A.A; Soc. Nat. (sec'y, 12); Soc. Zool. (v. pres, 21). Annelid morphology and embryology; West Indian polychaetes.

Treadwell, Prof. C(arleton) R(aymond), Southwestern Medical Foundation Medical School, Dallas, Texas. *Biochemistry.* Burlington, Mich, Dec. 28, 11. A.B, Battle Creek Col, 34; M.S, Michigan, 35, Ph.D, 39. Asst. biol. chem, Michigan, 35–39; instr. *biochem,* col. med, Baylor, 39–42, asst. prof, 42–43; *assoc. prof, med. sch, Southwest. Med. Foundation, 43–* A.A. Cholesterol metabolism; composition of tissue lipids; fat metabolism; interrelationships of carbohydrate and fat metabolism.

Treasher, Ray(mond) C(larence), 1115 E. M St, Grants Pass, Oregon. *Geology.* Chicago, Ill, July 28, 98. B.S, State Col. Wash, 24, M.S, 25. Office asst, State Highway Dept, Yakima, Wash, 22–23; teaching fellow geol, State Col. Wash, 24–25, instr, 25–26; teaching fellow, Oregon, 26–27; head sci. dept, high sch, Longview, Wash, 27–36; econ. geologist, State Planning Board, Oregon, 36; *geologist,* U. S. Engineer Dept, Portland, 36–37; *State Dept. Geol. and Mineral Industries, 37–* Min. and Metal. Eng; Seismol. Soc; Northwest Sci. Asn; Geol. Soc. Oregon Country. Origin of the loess of the Palouse Region and of the Columbia Plateau; simplified detail work of mineralography; bibliography of geology of Oregon; field identification of minerals; dredging in southwestern Oregon; geologic history of the Portland area; refractory clays of western Oregon; manganese in southwestern Oregon.

Treat, Dr. Asher E(ugene), College of the City of New York, New York, N. Y. *Biology, Physiology.* Antigo, Wis, July 6, 07. A.B, Wisconsin, 29; Ph.D, Columbia, 41. *Instr. biol, Col. City of N. Y, 30–; lieut, Air Corps, U. S. Army, 42–* Instr, physiol, Columbia, 41–42. Summers, lecturer, Iowa, 30–33. A.A; Folk-Lore Soc; N. Y. Acad. Neurophysiology; circulation.

Trebler, Dr. H(enning) A(strup), 1403 Eutaw Place, Baltimore. Md. *Chemical engineering.* Oslo, Norway, May 15, 96. Chem.E, Zurich, 19, Dr.Ing, 21. Research chemist, Guggenheim Bros, N. Y, 23–26; Detroit Edison Co. indust. research fellow, Cornell, 27–29; *chem. engineer and chief utilities div, research labs, Nat. Dairy Products Corp, 30–* Chem. Soc. Synthesis of terpenes; corrosion of metals in milk; milk flavor; efficiency of cleaners and water softeners; dairy sewage and waste disposal.

Treece, Prof. E(lbert) Lee, 1635 Mississippi St, Lawrence, Kans. *Bacteriology.* Blue Mound, Kans, Oct. 25, 92. B.S, Kansas, 15, M.S, 19, Ph.D, 26. Asst. bacteriologist, State Water and Sewage Lab, Kans, 16–17; instr. *bacter, Kansas,* 17–21, asst. prof, 21–25, *assoc. prof, 25–* Asst. city chemist, Kansas City, Mo, 16–17. Soc. Bact; Pub. Health Asn. Bacterial metabolism; classification of bacteria.

Trefethen, Prof. Joseph M(uzzy), 16 College Heights, Orono, Maine. *Geology, Geography.* Kent's Hill, Maine, May 27, 06. A.B, Colby Col, 31; M.S, Illinois, 32; Ph.D, Wisconsin, 35. Instr. *geol,* Missouri, 35–38; asst. prof, *Maine,* 38–42, *assoc. prof, 42–* Field geologist, Maine Geol. Surv, 29–32, director, 42–; field geologist, Wis. Geol. Surv, 35; visiting lecturer, Stephens Col, 35–36. A.A. Structural and applied geology.

Treffers, Dr. Henry P(eter), Harvard Medical School, Boston, Mass. *Chemistry.* Brooklyn, N. Y, Aug. 21, 12. A.B, Columbia, 33, scholar, 33–34, Ph.D, 37. Asst. chem, univ. exten, Columbia, 33–36, instr. biol. chem, 36–42; *asst. prof. comp. path. and biochem, Harvard Med. Sch, 42–* Asst, Presb. Hosp, 36–42. Asn. Immunol; Chem. Soc; Harvey Soc. Chemistry of non-aqueous solutions; viscosity of proteins; chemistry of immune reactions.

Tregidga, Dr. Angus C(ampbell), 4545 W. Augusta Blvd, Chicago, Ill. *Radio.* Burnley, Eng, Aug. 28, 10. B.A, British Columbia, 32, B.A.Sc, 33, M.A, 35; Ph.D, Calif. Inst. Tech, 39. Instr. elec. eng, Kans. State Col, 39–41; *radio engineer, Galvin Mfg. Corp, 41–* Assoc. Radio Eng. Electronics.

Treichler, Dr. Ray, Patuxent Research Refuge, Bowie, Md. *Biochemistry, Nutrition.* Rock Island, Ill, Sept. 10, 07. B.S. and M.S, Pa. State Col, 29; Ph.D, Illinois, 39. Asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 29–37, 39–40; special asst. animal nutrition, Illinois, 37–38, visiting scientist, 40–41; asst. chemist, *fish and wildlife service, U. S. Dept. Interior,* 41–42, assoc. technologist, 42–43, *assoc. chemist, 43–* A.A; Chem. Soc; Soc. Animal Production. Vitamins; animal nutritional requirements; toxic materials used as rodenticides; natural and synthetic economic poisons; chemical studies on fishery products.

Trelease, Prof. Sam F(arlow), Columbia University, New York, N. Y. *[5]*Plant physiology.* St. Louis, Mo, July 3, 92. A.B, Washington (St. Louis), 14; Ph.D, Hopkins, 17. Asst. plant physiol, Hopkins, 16–17; asst. prof, Philippines, 17–19, assoc. prof, 19–20; instr, Hopkins, 20–23; asst. prof, Louisville, 23–25; assoc. prof. *bot, Columbia,* 25–29, prof, 29–37, *Torrey prof, 37–* Lecturer, Forest Sch, P. I, 19–20; collaborator, Bur. Forestry, P. I, 19–20; board managers, N. Y. Bot. Garden, 29– Ed, 'Philippine Agriculturist,' 19–20; 'Am. Jour. Bot,' 33–39; ed. board, 'Philippine Jour. Sci,' 19–20; 'Bot. Abstracts,' 20–26. A.A. (asst. sec'y, 21–23, sec'y, council, 21–30, program ed, 22–30, sec'y, G, 25–36, grants cmt, 36–39, councilor, 37–40); Soc. Nat; Soc. Plant Physiol; Bot. Soc. (sec'y, 32, v. pres, 41); Phytopath. Soc; Torrey Bot. Club (assoc. ed, 'Bul,' 25–35); Soc. bot. de France. Mineral requirements of plants; photosynthesis; selenium toxicity; physiological pathology.

Trelease, Prof. William, University of Illinois, Urbana, Ill. *[1]*Botany.* Mt. Vernon, N. Y, Feb. 22, 57. B.S, Cornell, 80; Sc.D, Harvard, 84; LL.D, Wisconsin, 02, Missouri, 03, Washington (St. Louis), 07. Prof. bot, Wisconsin, 83–85; Washington (St. Louis), 85–13; director, Mo. Bot. Garden, 89–12; prof. *bot.* and head dept, *Illinois,* 13–26, *emer. prof,* 26– Special agent on cotton insects, U. S. Dept. Agr, 79; lecturer, Hopkins, 83–84. Summers, in charge bot, Harvard, 83–84. Chairman Am. editors, 'Bot. Zentralblatt,' 00–20. City Planning Cmn, St. Louis, 11–12; Ill. Board Nat. Resources and Conservation, 17– Jury, St. Louis Int. Expos; int. expos, Soc. nat. d'Hort. de France, Paris. Nat. Acad. (1st chairman, sect. bot); A.A. (chairman, G, 00); Soc. Nat. (pres, 03); Bot. Soc. (chairman, organization cmt, pres, 95, 18, sec'y, 06); Torrey Bot. Club; Philos. Soc; fel. Am. Acad; Bot. Cent. States (pres, 05); Mass. Hort. Soc; Wis. Hort. Soc. (sec'y, 82–85); Ill. Acad. (pres, 16); Wis. Acad; Calif. Acad; Iowa Acad; Boston Soc. Nat. Hist; Cambridge Entom. Club (pres, 88); St. Louis Acad. (sec'y, 96–03, pres, 09–12); Acad. Nat. Sci. Phila; Phila. Col. Pharmacy; Edinburgh Bot. Soc; cor. mem. Deuts. Bot. Gesell; Bot. Verein Brandenburg; Soc. d'Acclimat. de France; Soc. bot. de France; Soc. linn. de Lyons; Soc. Nat. Sci. Cherbourg; Copenhagen Bot. Soc; Soc. royale de Bot. de Belg; Soc. Centr. Forest Belg; Soc. bot. de Genève; Soc. Cient. Ant. Alz; Acad. int. de Géog. bot. (pres, 96). Botany and entomology, especially pollination arrangements, parasitic fungi and certain groups of flowering plants; Agaveae; Yucceae; Phoradendron; Quercus; Piperaceae; the flora of Azores and Madeira.

Treleaven, Prof. Clifford L(eRoy), Columbia University, New York, N. Y. *Physiological optics.* Ont. Can, Oct, 92. B.A, Toronto, 14, M.A, 15. Instr. physics, Toronto, 14–15; prof. math. and physics, Regina Col, 15–16, 19–20; instr. *physics, Columbia,* 20–23, asst. prof, 30–41, *assoc. prof, 41–* Research, anti-submarine div, British Admiralty, 16–19. Physical Soc; Optical Soc; Optometrical Asn; Acad. Optometry; N. Y. Optometrical Asn; N. Y. Acad. Optometry (pres). Residual ionization in gases; dynamic skiametry; optometry.

Treloar, Prof. Alan E(dward), University of Minnesota, Minneapolis, Minn. *Biology, Medicine.* Melbourne, Australia, Sept. 27, 02. B.Sc.Agr, Sydney, 26; Farrer Mem. scholar, Minnesota, 26–27, Int. Educ. Board fellow, 27–29, M.S, 29, Ph.D, 30. Demonstrator geol, Sydney, 24–25; instr. *biometry, Minnesota,* 29–30, asst. prof, 30–39, *assoc. prof, 39–* A.A; Inst. Math. Statist; Statist. Asn; Pub. Health Asn. Statistical biology; vital statistics; statistical method.

Tremblay, Prof. J(ean)-L(ouis), Laval University, Quebec, Que, Can. *Biology.* Eboulements, Que, Nov. 22, 06. B.A, Laval, 27, B.Sc, 31, Provincial Govt. scholar, 31–34, 35–36, D.Sc, 35; Strasbourg, 31–33. Lecturer *biol, Laval,* 34–35, *prof, 36–, director dept, faculty science, 38–, St. Lawrence Biol. Sta, 40–* Price's grant, 28–30; silver medal, Lieut-Gov, Quebec, 31. Mem, Fisheries Research Board, Can, 40– A.A; Limnol. Soc; assoc. Can. Inst. Chem; Linnean Soc. Que. (chairman, 39); Marine Biol. Asn. United Kingdom; Soc. Physical Biol. Strasbourg. Biophysic and marine biology.

Tremblay, Prof. (Joseph Thomas) Althéod, 367 St. Cyrille St, Quebec, Que, Can. *Mathematics.* Montreal, Que, 77. M.A, Laval, 23. Office aid in land surv. office, J. P. B. Casgrain, 91–92, draughtsman, 92–01; asst. engineer, Soulanges Canal Construction, 01–03; with Can. Pacific Ry, 03–06; Transcontinental Ry. Construction, 06–12; *prof. math, Laval, 08–* A.A. Algebra.

Trembley, Prof. Francis J(ohn), 654 Highland Ave, Bethlehem, Pa. *Vertebrate zoology.* Naples, N. Y, Jan. 16, 04. B.S, Hobart Col, 28; M.S, Lehigh, 31; Ph.D, Pennsylvania, 40. Asst. *biol, Lehigh,* 28–31, instr, 31–38, asst. prof, 38–40, *assoc. prof, 40–* Summers, mem. staff, State Conservation Dept. Biol. Surv, N. Y, 27–30. Ornith. Union. Economic ornithology; conservation.

Trengove, Dr. Stanley A(lvin), 305 W. 11th St, Rolla, Mo. *Mining engineering, Geology.* Tower, Minn, Jan. 26, 98. E.M. Minnesota, 28, Ph.D, 34. Instr. mining, Minnesota, 28–36, asst. prof, 36–38; production engineer, Oliver Iron Mining Co, 38–40, asst. dist. supt, 40–41; *prof. mining eng. and head dept, Mo. Sch. Mines, 41–* Mining consultant. Origin of iron and manganese ores; mining iron ores; excavation engineering.

Trenner, Dr. N(elson) R(ichards), 840 Tice Place, Westfield, N. J. *Physical chemistry.* New York, N. Y, Dec. 2, 05. B.S, N. Y. Univ, 29, Inman fellow, 30, M.S, 30, univ. fellow, 32, Ph.D, 32. Teaching asst, N. Y. Univ, 31, asst, 33; nat. research fellow, Princeton, 33–35, research fellow, 35–37; *research chemist, Merck and Co, 37–* Chem. Soc. Phase rule; thermal and photochemical kinetics of gases; electrochemistry of electrode processes; catalysis; physico-chemistry of vitamins; chemo and microbial therapeutics.

Trenor, A(lbert) Delafield, Crows Nest, Gloucester, Mass. *Mechanical engineering.* New York, N. Y, Jan. 29, 88. M.E, Stevens Inst. Tech, 11; M.S, Princeton, 12. Engineer, *Hammond Research Corp, Gloucester,* 13–28, *v. pres, 28–, asst. treas.* V. pres, Radio Eng. Co. of N. Y; director, Hammond Museum. A.A; assoc. Mech. Eng. Dynamic control of torpedos and airplanes; sound reproduction.

Trent, Dr. Horace M(aynard), Naval Research Laboratory, Washington, D. C. *Physics.* Chattanooga, Tenn, Dec. 20, 07. A.B, Berea Col, 28; A.M, Indiana, 29, Ph.D, 34. Asst, Indiana, 28–29; instr. physics, Miss. Agr. and Mech. Col, 29–30, asst. prof, 30–32; instr, Miss. State Col, 32–33; asst, Indiana, 33–34; instr, Miss. State Col, 34–35, asst. prof, 35–37, assoc. prof, 37–40; asst. physicist, *Naval Research Lab,* 40–41, assoc. physicist, 41–43, *physicist, 43–* Physical Soc; Acoustical Soc; Ind. Acad; Miss. Acad; Philos. Soc. Wash. Variable velocity of sound in solutions; diaphragmless microphones; simplified mercury still; dimensional analysis; underwater phenomena.

Trent, Prof. J(oseph) A(aron), 1922 S. Locust St, Pittsburg, Kans. *Botany.* Eidson, Tenn, May 8, 00. A.B, Carson-Newman Col, 26; A.M, Illinois, 29; Ph.D, Ohio State, 39. Asst. prof. *biol, Kans. State Teachers Col, Pittsburg,* 29–40, *assoc. prof, 40–* Summer, prof, Broaddus Col, 29. Assoc. ed, 'Am. Biol. Teacher,' 38– Kans. Acad. (assoc. ed, 'Trans,' 40–). Life history of Specularia perfoliata; morphology and ecology of Eryngium yuccifolium; etiology of chrysanthemum leaf spot; periodicity of mitotic phases in root tips of Allium cepa.

Trentham, Prof. Shannon O(tis), Mars Hill College, Mars Hill, N. C. *Biology.* Gatlinburg, Tenn, Nov. 16, 94. B.S, Carson-Newman Col, 25; A.M, Duke, 30, 35–36. Asst. *biol,* Carson-Newman Col, 24–25; teacher, *Mars Hill Col,* 25–29, *prof. nat. sciences, 30–* Asst, Duke, 29–30. A.A. Zoology; botany; ecology; taxonomy.

Treon, Dr. J(oseph) F(rederick), University of Cincinnati, Cincinnati, Ohio. *Chemistry.* Aurora, Ind, April 12, 08. A.B, Indiana, 30; A.M, Cincinnati, 32, Ph.D, 35. Tutor chem, Indiana, 28–30; asst, Cincinnati, 30–35; expert tech. adviser, Atlantic Ref. Co, 35; *instr. toxicol, Kettering lab. applied physiol, Cincinnati, 36–* Chem. Soc; Indust. Hygiene Asn. Industrial toxicology; physiological response to alicyclic compounds, mononitroparaffins, isopropyl ether and gasoline; hydrogen chloride; determination of mononitroparaffins and sulfates; metabolism of mononitroparaffins and fluorine; action of alkali upon aliphatic nitrocompounds.

Trepp, Dr. Samuel G(ottlieb), 323 S. Chester Road. Swarthmore, Pa. *Chemistry.* Near Glengarry, Mont, Aug. 11, 06. B.S, Michigan, 29, M.S, 30, Ph.D, 32. *Research chemist,* Nat. Aniline and Chem. Co, Buffalo, N. Y, 32–37; *United Gas Improv. Co, Phila, 37–* Chem. Soc. Hydrocarbons; intermediates; resins; synthetic rubber.

Tressler, Dr. Donald K(iteley), General Electric Co, Bridgeport, Conn. *Chemistry.* Cincinnati, Ohio, Nov. 7, 94. A.B, Michigan, 13; Ph.D, Cornell, 18. Scientist, bur. soils, U. S. Dept. Agr, 17; instr. chem, Oregon State Col, 17–18; asst, Bur. Fisheries, 18–19; indust. fellow, Mellon Inst, 20–29; chief chemist, Birdseye Labs, Gloucester, Mass, 29–33; chief research and head div. chem, N. Y. Exp. Sta, Geneva, 33–42; prof. agr. chem, Cornell, 33–42, chem, nutrition sch, 42; *mem. food refrig. staff, Gen. Elec. Co, 42–* Del, U. S. Dept. Commerce, Brazilian Centennial Expos, 22–23, exhibitor's gold medal, 23. Chem. Soc. (v. pres, 34); Pub. Health Asn; Soc. Refrig. Eng. (director, 41–); Inst. Food Technol. (councilor, 42–). Soil chemistry; preservation and nutritive value of fish; fishery and beet sugar by-products; quick-freezing; food refrigeration; preservation and fermentation of fruit juices; vitamin content of fruits and vegetables.

Tressler, Dr. Willis L(attanner), University of Maryland, College Park, Md. *Zoology.* Madison, Wis, Sept. 30, 03. A.B, Wisconsin, 26, A.M, 28, Ph.D, 30. Asst. *zool,* Wisconsin, 27–28, instr, 28–30; Buffalo, 30–39; *asst. prof, Maryland, 40–* Summers, asst, N. Y. Lake Surv, 27, 28; Wis. Lake Surv, 29; limnologist, Ohio Lake Surv, 30; N. Y. Lake Surv, 31, 33–39; planktologist, Chesapeake Biol. Lab, 40– Limnologist, Woltereck-Wallacea exped, P. I, 32. A.A; Soc. Zool; Ecol. Soc; Fisheries Soc; Limnol. Soc. (v. pres, 41); Micros. Soc; Paleont. Soc. Wash; Wis. Acad; Int. Limnol. Soc. Limnology of New York and Philippine lakes; plankton of Chesapeake Bay; taxonomy and ecology of recent and post-Tertiary marine and freshwater Ostracoda.

Tretsven, Prof. J(ohn) O(scar), Montana State College, Bozeman, Mont. *Dairy production.* Milltown, Wis, Feb. 9, 85. B.S, Mont. State Col, 22; M.S, State Col. Wash, 33. Dairy herdsman, Exp. Sta, *Mont. State Col,* 09–18, asst. animal indust, col, 18–22, dairy specialist, exten. service, 22–25, *prof. dairy production, 25–* Dairy Sci. Asn. Feed and weed flavors in milk.

Trevett, Dr. Gordon I(ra), 615 N. Wolfe St, Baltimore, Md. *Internal medicine.* Lackawanna, N. Y, Nov. 28, 11. A.B, Oberlin Col, 32; M.D, Cornell, 36. *Instr.* med, sch. med. and dentistry, Rochester, 39–40; *prev. med, med. sch, Hopkins, 40–* Resident, Strong Mem. Hosp, Rochester, N. Y, 39–40. Chemotherapy of infectious diseases.

Trevithick, Prof. Gladys I(rene), 2360 Van Ness Ave, San Francisco, Calif. *Chemistry.* Elkton, S. Dak, Aug. 31, 96. A.B, Dakota Wesleyan, 16; M.S, Okla. Agr. and Mech. Col, 21; Columbia; Chicago; California. Instr. chem. and teaching fellow, Okla. Agr. and Mech. Col, 19–21; prof, North Texas State Teachers Col, Denton, 21–23; instr. and head dept, high sch, Calif, 23–25; *prof.* physiol. and org. chem, Hood Col, 25–28; *chem, Lux Junior Col, San Francisco, 28–, dean, 36–,* director, 42. Blood chemistry as related to medicine.

Trevithick, H(arry) P(hillips), New York Produce Exchange, 2 Broadway, New York, N. Y. *Chemistry.* New Britain, Conn, June 26, 86. Ph.B, Wesleyan, 07; B.S, Mass. Inst. Tech, 10. Dist. chemist, South. Cotton Oil Co, 09–15; chemist, Insecticide and Fungicide Labs, Washington, D. C, 15; *N. Y. Produce Exchange,* 15–17, *chief chemist, 17–* Oil Chemists Soc. (pres, 28); Soc. Test. Mat. (chairman cmt. soaps and other detergents, 36–); Asn. Consulting Chem. and

Chem. Eng. (pres, 42); Chem. Soc; Inst. Chem; Agr. Chem. Methods of analysis of oils and soaps; vegetable oil chemistry; foods.

Trewartha, Prof. Glenn T(homas), University of Wisconsin, Madison, Wis. *Geography.* Hazel Green, Wis, Nov. 22, 96. Ph.B, Wisconsin, 21, Ph.D, 25; A.M, Harvard, 22. Asst. prof. *geog, Wisconsin,* 26–29, assoc. prof, 29–37, *prof, 37–* Guggenheim Mem. Foundation fellow, 26–27. Asn. Geog. Regional geography of Japan; geography of the Driftless Area.

Trexler, Prof. P(hilip) C(harles), University of Notre Dame, Notre Dame, Ind. *Bacteriology.* Paradise, Calif, July 30, 11. B.S, Notre Dame, 34, M.S, 36; fellow, Inst. Path, 36–37; fellow, Harvard, 39; Cornell, 40. Research assoc, lab. bacter, *Notre Dame,* 36–42, *asst. prof. biol, 42–* Guest, Mass. Inst. Tech, 40. Soc. Bact. Bacteriological engineering; instrumentation.

Trezise, Prof. F(rederick) W(illiam), Lawrence College, Appleton, Wis. *Engineering, Geology.* Ironwood, Mich, Sept. 20, 93. B.S, Mich. State Col, 16, C.E, 28; M.S, Wisconsin, 34. From instr. to *prof. eng, Lawrence Col, 20–; consulting engineer, 22–* Hydraulic engineer, Tenn. Valley Authority, 37–38. F.A, U.S.A. Min. and Metal. Eng; Geophys. Union; Eng. Educ. Synoptic charts of historical geology; application of principles of geophysics to engineering foundations and structures; hydrology of Lake Michigan and Lake Huron.

Trezise, Dr. W(illard) J(oseph), 729 N. Walnut St, West Chester, Pa. *Zoology, Physiology.* Minersville, Pa, March 30, 08. B.S, Lebanon Valley Col, 31; M.S, Hopkins, 32, fellow, 35, Ph.D, 36. Teacher, high sch, Pa, 30; instr. math, Lebanon Valley Col, 30–31; biol, Hopkins, 32–36; zool, bot. and math, Frostburg State Col, Md, 36–38; *mem. dept. science, Pa. State Teachers Col, West Chester, 38–* Teacher, high sch, Pa, 30–31; asst. instr, Hopkins, 32–36; head biochem. research lab, Nat. Foam System, Inc, 42– Summer, Marine Biol. Lab, Woods Hole, 33. A.A; Pa. Acad; Franklin Inst. Biochemistry; pigment migration in the eye of the beetle, Dineutes nigroir; sensitivity to light; the relation between reaction time, intensity of light and light and dark adaptation time in Dineutes; effect of bacteriostatic agents on industrial solutions; relation of bacteriostatic agents hydrogen ion concentration control, fermentation and protein decomposition.

Trichel, Dr. Gervais W(illiam), Frankford Arsenal, Philadelphia, Pa. *Electrical engineering.* Trichel, La, Sept. 10, 98. B.S, U. S. Mil. Acad, 18; M.S, Mass. Inst. Tech, 35; Ph.D, California, 38. *U. S. Army, 18–,* instr. elec. eng, Coast Artil. Sch, 30–34; asst. *fire control instrument design, Frankford Arsenal,* 38–41, *head dept, 41–; col, Ordnance Dept.* Summer, asst. mil. attaché, Paris, France, 40. Antiaircraft directors; mechanical computation; electrical transmission of data; positive and negative corona in air.

Triebold, Prof. H(oward) O(ltas), 216 S. Patterson St, State College, Pa. *Chemistry.* Washington Co, Minn, Feb. 15, 02. B.S, Minnesota, 23, Strietman fellow, 24–26, M.S, 26, Ph.D, 29. Asst. prof. *agr. and biol. chem, Pa. State Col,* 27–32, assoc. prof, 32–36, *prof, 36–* Chem. Soc; Asn. Cereal Chemists. Agricultural and biological chemistry; chemistry of rancidity; fractional distillation studies on fats.

Trimble, Dr. Clinton E(dward), Vultee Aircraft, Inc, Downey, Calif. *Chemistry.* San Francisco, Calif, Aug. 3, 02. A.B, California at Los Angeles, 32; M.S, Southern California, 33, Ph.D, 37. *Instr.* anal. chem, Southern California, 36–37; *chem,* Ga. Sch. Tech, 37–38; Los Angeles City Col, 39–42; *instr. chem, eng. science and management war training, Southern California, 42–; research physicist and group leader, Vultee Aircraft, Inc, 42–* A.A; Acoustical Soc; Chem. Soc; Physical Soc; Soc. Test. Mat. Chemistry of rare earth elements, particularly so-called serial order; thermal dissociation; preparation of compounds; physical and chemical properties of plastics and high polymeric substances.

Trimble, Dr. Frank H(enshaw), 81 N. Park Road, La Grange, Ill. *Physics.* Liberty, Mo, July 11, 04. A.B, William Jewell Col, 25; Kansas, 29–30; A.M, Missouri, 32, Ph.D, 38. Asst. physics, Missouri, 30–36; prof, Northeast Mo. State Teachers Col, 36–41; *research physicist metal, Armour Research Foundation, Ill. Inst. Tech, 41–* Physical Soc; Soc. X-ray and Electron Diffraction; Soc. Metals. Effect of temperature on the atomic distribution in liquid sodium.

Trimble, Prof. Harry C(lyde), Harvard Medical School, Boston, Mass. *Physiological chemistry.* Geneva, Iowa, March 7, 89. A.B, Cornell Col. (Iowa), 10; M.S, Chicago, 16, Ph.D, 18. Teacher, high sch, Iowa, 10–12; asst. physics and biol, Bradley Polytech, 12–14; org. chem, Chicago, 15–17; instr. chem, North Dakota, 17–18, asst. prof, 18–21, assoc. prof, 21–24; *asst. prof. biochem, Harvard Med. Sch, 24–* Nat. research fellow, Harvard Med. Sch, 23–24. A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; fel. Inst. Chem; Int. Asn. Dental Research (pres, Boston sect, 38–). Organic chemistry; molecular rearrangements of amins, amids and amidins; phosphotungstic acids; intermediary metabolism of carbohydrates and nitrogenous substances; uric acid; chemistry of saliva.

Trimble, Prof. H(arvey) M(cCormick), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Physical chemistry.* Indiana, Pa. B.S, Michigan, 18, M.S, 24, Ph.D, 26. Instr. *chem,* Arkansas, 18–21; Michigan, 21–26; *prof, Okla. Agr. and Mech. Col, 26–* A.A; Chem. Soc. Solubility; surface tension; electrochemistry; heat capacities.

Trimble, Dr. Otis C(arroll), 412 Hamilton St, N.W, Washington 11, D. C. *Psychology.* Osage, Ark, Nov. 17, 96. B.S, Arkansas, 22, M.S, 24; fellow, Iowa, 26–27, Ph.D, 28. Asst. psychol, Iowa, 27–28; asst. prof. psychol. and educ, Bradley Polytech, 28–29, assoc. prof, 29–30; nat. research fellow psychol, Harvard, 30–31; instr, Purdue, 31–32, asst. prof, 32–34, assoc. prof, 34–40; asst. educational statistician and assoc. training specialist, Fed. Security Agency, 41–42; asst. personnel technician, *Adj. Gen's Office, U. S. War Dept,* 43, *assoc. personnel technician, 43–* Summer, prof, Kent State Univ, 30. A.A; Psychol. Asn; British Psychol. Soc. Audition; auditory space perception; sound localization; tests and measurements.

Trimmer, Prof. John D(ezendorf), 59 Cherry St, Braintree, Mass. *Physics.* Washington, D. C, Sept. 19, 07. A.B, Elizabethtown Col, 26; M.S, Pa. State Col, 33; Ph.D, Michigan, 36. Indust. physicist, Walker Mfg. Co, 36–37; asst. *aeronaut. eng, Mass. Inst. Tech,* 37–38, instr, 38–40, *asst. prof, 40–* Physical Soc; Acoustical Soc. Acoustics; vibration measurement; instrumentation.

Trinkle, Col. R(obert) J(acob), 606 Stonewall St, Lexington, Va. *Engineering.* Dublin, Va, Oct. 15, 93. B.S, Va. Mil. Inst, 14; M.S, Mass. Inst. Tech, 26. Indust. engineer, 19–21; instr. and asst. prof. *elec. eng, Va. Mil. Inst,* 21–27, assoc. prof, 27–41, *prof. mech. eng, 41–* Commanding officer, U.S.A, 17–19. Mech. Eng; Eng. Educ. Electrical and mechanical engineering.

Trinks, C. L. W(ilibald), 1016 Murrayhill Ave, Pittsburgh, Pa. *Mechanical engineering.* Dec. 10, 74. B.S, Tech. Hochschule, Charlottenburg. Chief engineer, Wm. Tod Co, Ohio. 02–05; prof. mech. eng, Carnegie Inst. Tech, 05–43; *director project five, Am. Soc. Mining and Metal. Engineers, 43–* Consulting engineer, commercial companies, 08– Mech. Eng; Am. Iron and Steel Inst; Iron and Steel Eng; Soc. Mil. Eng; Soc. Metals; Eng. Soc. West. Pa. Furnaces and rolling mills.

Tripp, Francis, New Bedford State Textile School, New Bedford, Mass. *Textile chemistry.* New Bedford, Mass, Aug. 25, 07. B.S, N. C. State Col, 30; M.S, North Carolina, 38, Ch.E, 39. Research chem. engineer, E. L. Patch Co, 30–41; *head dept. chem, New Bedford State Textile Sch, 41–* Chem. Soc; Asn. Textile Chem. and Colorists. Dyeing; biochemistry; nutrition; vitamins; food research; citrus fruits; fish oils; cereals; poultry nutrition; animal nutrition; textiles.

Tripp, Prof. Harley P(rice), 109 W. Main St, Carthage, Ill. *Chemistry.* Bolivar, Mo, Aug. 9, 03. A.B, Colo. State Col. Educ, 25, A.M, 26; Ph.D, Chicago, 34, 41; Cambridge, 39. Prof. chem, Palmer Col, 26–28; Tenn. Col, 28–29, 35–37; instr. biol, Middle State Teachers Col, Tenn, 36–37; head dept. science, Snead Junior Col, Ala, 37–41; prof. *chem,* Panhandle Agr. and Mech. Col, 30–31; *asst. prof, Carthage Col, 41–* A.A; Chem. Soc. Maximum bubble pressure method for the measurement of surface tension; a general science course for the junior high school based on social activities.

Tripp, Dr. John T(heodore), 516 Bartlett St, Lansing, Mich. *Biochemistry.* White Lake, S. Dak, Jan. 25, 03. B.S, S. Dak. State Col, 24, M.S, 31; Ph.D, Purdue, 36. Teacher and prin, high sch, S. Dak, 24–28; instr. gen. and anal. chem, S. Dak. State Col, 30–31; *physiol. chemist, State Dept. Health, Mich, 35–; capt, Sanit. Corps, U. S. Army.* Chem. Soc; Pub. Health Asn. Biochemistry and concentration of antibodies; enzyme action.

Tripp, Prof. M(yron) O(wen), Springfield, Ohio. *Mathematics.* Grand Haven, Mich, March 19, 74. B.S, Valparaiso, 95; A.B, Indiana, 01; Ph.D, Columbia, 09. Instr. *math,* Col.

City of N. Y, 03–12; prof, Olivet Col. (Mich), 14–17; asst. prof, Maine, 17–19, assoc. prof, 19–21; prof, *Wittenberg Col*, 21–38, *emer. prof, 38–* Theory of abstract groups.

Tripp, Dr. Ralph Harry, Grumman Aircraft Engineering Corp, Bethpage, N. Y. *Mathematics.* Mont, March 11, 15. A.B, Drake, 37; M.S, Iowa State Col, 39, Ph.D, 42. Instr. math, Iowa State Col, 38–42; *vibrations engineer, Grumman Aircraft Eng. Corp, 42–* Math. Soc; Inst. Aeronaut. Sciences. Airplane vibration; flutter; elasticity.

Trippensee, Dr. R(euben) E(dwin), Massachusetts State College, Amherst, Mass. *Ecology.* Flint, Mich, April 20, 94. B.S, Mich. State Col, 20; M.S, Michigan, 33, Ph.D, 34. Teacher, Mich, 24–31; junior instr, sch. forestry, Michigan, 31–34; game management, U. S. Forest Service, Milwaukee, Wis, 34–36; *prof. wildlife management, Mass. State Col, 36–, acting head dept. forestry, 42–* Wildlife Soc. Wildlife management; life history and ecology of the cottontail rabbit; forestry in relation to wildlife; yields of wildlife; building of wildlife management plans.

Trischka, Dr. J(ohn) W(ilson), Cornell University, Ithaca, N. Y. *Physics.* Bisbee, Ariz, Dec. 30, 16. B.S, Arizona, 37; Ph.D, Cornell, 43. Student engineer, Gen. Elec. Co, 37–38; asst. *physics, Cornell, 39–42, instr, 42–* Physical Soc. Structure in the x-ray K absorption edges of potassium and chlorine in potassium chloride.

Trister, Dr. S(aul) M(ichael), 198 Niagara St, Newark, N. J. *Chemistry.* Oct. 21, 07. B.Sc, McGill, 29, Nat. Research Council Can. bursar, 31–32, H. Bronfman fellow, 33–34, Ph.D, 34. Chemist, St. Lawrence Sugar Refineries, Montreal, 30; research assoc, McGill, 34–36, Rockefeller research fellow, dept. pharmacology, 36–38; research fellow, Princeton, 38–41; *chemist, Otto B. May, Inc, 41–* Chem. Soc. Cellulose chemistry; cyclic acetals; properties of furane and its derivatives; conversion of furfuryl alcohol into levulinic acid; isolation and chemical constitution of the posterior pituitary hormones; carbohydrates; galactose and mannose; proteins; dyes; vitamins; pharmaceuticals.

Trivelli, A(drian) P(eter) H(erman), 14 Riverside St, Rochester. N. Y. *Physical chemistry.* Batavia, D. E. I, May 28, 79. Chem.E, Tech. Univ, Delft, 05. Research work photog, private lab, 05–17; head dept. photomicrog, *Eastman Kodak Co*, 17–31, *asst. supt. emulsion research lab, 31–* A.A; Optical Soc; Micros. Soc; fel. Royal Photog. Soc; Netherland Chem. Soc. Microscopical problems in photography; photography in micrography; photographic emulsions; photography and latent image problems.

Trivich, Dr. Dan, United Chromium, Inc, 2751 E. Jefferson Ave, Detroit, Mich. *Physical chemistry.* Jenkins, Ky, May 20, 16. A.B, Ohio State, 38, Ph.D, 42. Asst, Ohio State, 38–42; *research chemist, United Chromium, Inc, 42–* Chem. Soc. Reaction kinetics in solution; electrochemistry; electroplating; dry rectifiers and photocells.

Tritzinsky, Prof. W(aldemar) J(oseph), University of Illinois, Urbana, Ill. **©Mathematics.* Rostoff-on-Don, Russia, March 9, 01. A.B, California, 24, A.M, 25, Ph.D, 26. Instr. *math*, Texas, 26–27; asst. prof. and acting head dept, Valparaiso, 27–28; instr, Lehigh, 28–29, asst. prof, 29–30; nat. research fellow, Harvard, 30–32; instr, Northwestern, 32–34; asst. prof, *Illinois*, 34–35, assoc. prof, 35–39, *prof, 39–* Mem, Inst. Advanced Study, 40–41. A.A; Math. Soc. (councilor, 37–40); Soc. math. de France. Indefinitely differentiable functions; quasi-analytic functions; composition of singularities; linear and non-linear differential and difference problems; partial differential equations; general monogenic functions; quantum mechanics; integral equations.

Troescher-Elam, Dr. (Edna) Elizabeth, 2998 Shasta Road, Berkeley, Calif. *Biochemistry.* Weiser, Idaho, Aug. 31, 14. B.S, Col. of Idaho, 35; Ph.D, Washington (Seattle), 40. Research assoc. and Merck fellow, inst. exp. biol, *California*, 40–41, *research assoc, med. sch, 42–* A.A. Vitamin B complex; histamine and allergy.

Troiano, Prof. Alexander R(orbert), University of Notre Dame, Notre Dame, Ind. *Physical metallurgy.* Boston, Mass, Sept. 5, 08. A.B, Harvard, 31, Sc.D, 39; M.S, Mass. Inst. Tech, 37. Instr. physics, Middlesex Col, 31–35; asst. instr. *physical metal*, Harvard, 37–39; *assoc. prof, Notre Dame, 39–* R. W. Hunt award, Am. Inst. Min. and Metal. Eng, 40. Soc. Metals; Min. and Metal. Eng; Soc. X-Ray and Electron Diffraction. Phase relationships and transformations in the solid metallic state and the heat treatment of steel.

Troisi, Dr. R(aphael) A(ngelo), 6245 N. 18th St, Philadelphia, Pa. *Biology.* Avellino, Italy, Feb. 14, 04. A.B, Temple, 27; A.M, Pennsylvania, 30, Ph.D, 33. *Instr. biol, Temple, 27–* A.A; Micros. Soc; Soc. Parasitol. Parasitology; movement of organisms; action of ultra-violet rays on protoplasm; histology; general physiology.

Troller, Prof. Th(eodore) H(enry), 1300 E. Triplett Blvd, Akron, Ohio. *Aerodynamics.* Haida, Austria, June 19, 03. Darmstadt, 21–26; D.Ing, Aachen, 30. Asst. prof, Tech. Col, Aachen, Germany, 27–30; asst. director, *Daniel Guggenheim Airship Inst, Akron*, 31–34, director, 34–41, *tech. consultant, 41–, prof. aeronaut. eng, univ, 40–* Lecturer, Mass. Inst. Tech, 40– Inst. Aeronaut. Sciences. Fluid mechanics; aeronautics; blowers and fans.

Trosper, Prof. Ralph S, University of Louisville, Louisville, Ky. *Mechanical engineering.* Grays, Ky, Sept. 7, 91. B.Pd, Berea Col, 16; Beaun (France), 18–19; B.S, Kentucky, 25; M.S, Tennessee, 29. Instr, Tennessee, 28–29; *prof. mech. eng, Louisville, 30–, head dept, 39–* Mech. Eng.

Trost, John F(rancis), Purdue University, West Lafayette, Ind. *Plant pathology.* Indianapolis, Ind, May 30, 97. B.S.A, Purdue, 18, M.S, 22. Asst. plant pathologist, *bur. plant indust, U. S. Dept. Agr*, 18–24, assoc. plant pathologist and later *plant pathologist, 24–* Phytopath. Soc; Soc. Plant Physiol. Root and stalk rots of corn.

Trostel, Louis J(acob), 4302 Miami Place, Baltimore, Md. *Engineering.* Galion, Ohio, Dec. 31, 93. B.Ch.E, Ohio State, 18, Chem.E, 36, Cer.E, 37. Steel examiner, British Ministry of Munitions in United States, 18; junior engineer, Standard Chem. Co, Pa, 18–19; Exp. Sta, U. S. Bur. Mines, 20–21; asst. engineer, bur. chem, U. S. Dept. Agr, 21–23; *chief chemist, Gen. Refractories Co, 23–* Chem. Soc; Soc. Test. Mat. (sec'y cmt. on refractories, 26–32); Chem. Eng; Ceramic Eng; Ceramic Soc. (chairman refractories div, 28; v. pres, 33, pres, 42); Mech. Eng. (special research cmt. boiler furnace refractories); Refractories Inst. (tech. advisory cmt, 26–); Ohio Ceramic Indust. Asn; Can. Ceramic Soc. Hazardous gases and explosive dusts; physical chemistry of refractory products; refractories testing methods; product development and industrial applications.

Trott, Prof. (George) Richard, Blue Mountain College, Blue Mountain, Miss. *Mathematics, Physics.* Pleasant City, Ohio, Sept. 1, 04. A.B, Marietta Col, 26; A.M, North Carolina, 30; Ph.D, Hopkins, 34. Teacher, high sch, Pa, 26–29; instr, North Carolina, 30–32; Hopkins, 32–34; *prof. math, Blue Mountain Col, 35–* The canonical form of a non-singular pencil of Hermitian matrices.

Trotter, Dr. Allen R(ichard), Robstown, Texas. *Plant genetics.* New Iberia, La, March 12, 11. B.S, Louisiana, 35; Ph.D, Cornell, 40. *Plant breeder, Associated Seed Growers, Inc, 40–* A.A; Soc. Hort. Sci. Plant breeding.

Trotter, Dr. Herbert, Jr, Sylvania Electric Products, Inc, Ipswich, Mass. *Physics.* Woodstock, Va, Jan. 1, 10. B.S, Hampden-Sydney Col, 31; M.S, Virginia, 32, Ph.D, 35. Instr, Virginia, 34–35, research fellow, 35–36; asst. prof. and assoc. prof. physics, Washington and Lee, 36–41; research physicist, dept. terrestrial magnetism, Carnegie Institution, 42; applied physics lab, Hopkins, 42; *mem. new products dept, Sylvania Elec. Products, Inc, 42–* Physical Soc. Acceleration of electrons to high energies.

Trotter, Prof. Ide P(eebles), Agricultural and Mechanical College of Texas, College Station, Texas. *Agronomy.* Brownsville, Tenn, Dec. 12, 95. A.B, Miss. Col, 15; B.S, Miss. State Col, 18, M.S, 21; Ph.D, Wisconsin, 33. Asst. prin, high sch, Miss, 15–16; foreman and asst, Delta Branch Exp. Sta, Miss, 21–23; exten. agronomist, col. agr, Missouri, 23–36; *prof. agron. and head dept, Agr. and Mech. Col. Texas, 36–* Director agr, Base Hosp, Camp Travis and Fort Sam Houston, Texas, 18–19. A.A; fel. Soc. Agron. (chairman crops sect, 37; consulting crops ed, 'Jour'); Soil Sci. Soc; Texas Acad; Texas Agr. Workers Asn; Int. Soc. Soil Sci. Effectiveness of teaching methods in adult education.

Trotter, Prof. Mildred, Washington University, St. Louis, Mo. *Anatomy.* Monaca, Pa, Feb. 3, 99. A.B, Mt. Holyoke Col, 20; M.S, Washington (St. Louis), 21, fellow, 20–22, Ph.D, 24. Asst. *anat, Washington (St. Louis)*, 20–24, instr, 24–26, asst. prof, 26–30, *assoc. prof, 30–* Nat. research fellow, Oxford, 25–26. Assoc. ed, 'Am. Jour. Physical Anthrop,' 43. A.A; Asn. Anat; Asn. Physical Anthrop. Human anatomy; hair; skeleton; physical anthropology.

Trout, Dr. David M(cCamel), 421 S. Kinney, Mount Pleasant, Mich. *Psychology.* Elmira, Mo, Sept. 7, 91. A.B, William Jewell Col, 16; A.M. and B.D, Chicago, 22, Ph.D, 24; hon. L.H.D, Hillsdale Col, 39. Instr. relig. educ, Union Theol. Col, 23–24, prof, 24–25; psychol, Hillsdale Col, 25–37, dean men, 26–37; *head dept. psychol. and educ, Cent. Mich. Col. Educ, 37–, dean students, 41–* Coordinator, State Cooperative Teacher Educ. Study, Mich, 42; consultant, State Secondary Sch. Curriculum Study, 41. A.A; Mich. Acad. Psychology of religion; religious education and behavior.

Trout, Prof. G(eorge) Malcolm, Michigan State College, East Lansing, Mich. *Dairying.* Birmingham, Iowa, March 7, 96. B.S, Iowa State Col, 23, M.S, 24; Clinton De Witt Smith fellow, Cornell, 35–36, Ph.D, 36. Instr. dairying, West Virginia, 23–27, asst. prof, 27–28; *dairy mfrs, Mich. State Col,* 28–36, assoc. prof, 37–41, *prof. and research prof, 41–* Dairy Sci. Asn. Dairy manufacture; homogenization; flavors; market milk.

Trout, Dr. Hugh H, Jefferson Hospital, Roanoke, Va. *Surgery.* Staunton, Va, June 8, 78. M.D, Virginia, 02. *Chief surgeon, Jefferson Hosp, 08–* Surg. Asn; Asn. Thoracic Surg; S. Surg. Asn. (pres); Int. Surg. Asn.

Trout, Prof. William E(dgar), Jr, Mary Baldwin College, Staunton, Va. *Chemistry.* Clifton Forge, Va, July 30, 03. A.B, Hopkins, 25, Ph.D, 35. Civilian instr. biol, Va. Mil. Inst, 26–27; prof. nat. science and math, Md. Col. for Women, 27–29; asst. *chem,* Hopkins, 29–32, instr. and junior instr, 32–35; *prof, Mary Baldwin Col, 35–* Summers, instr, Hopkins, 32–35; exten. div, Virginia, 40–41; Richmond, 42. A.A; Chem. Soc. (treas, Va. sect, 41); fel. Inst. Chem; Va. Acad. (chairman, chem. sect, 39); Soc. Chem. Indust. Gt. Britain. Heterogeneous catalysis; metal carbonyls; analytical chemistry.

Trow, Prof. W(illia)m Clark, Barton Hills, Ann Arbor, Mich. *Educational psychology.* Northampton, Mass, Dec. 11, 94. A.B, Colgate, 15; A.M, Columbia, 20, Ph.D, 24. Instr. and asst. prof. *educ. psychol,* Rochester, 19–22; assoc. prof, Cincinnati, 23–26; *Michigan,* 26–31, *prof, 31–, director civil affairs training program and chairman for. area and language study, Army Specialized Training Program.* Visiting assoc. prof, Yale, 25–26. Summer, visiting assoc. prof, Northwestern, 25; Southern California, 40. Psychol. service, U.S.A, 18–19. A.A; assoc. Psychol. Asn; Asn. Applied Psychol. (sec'y, ed. sect, 41–); Educ. Research Asn; Soc. Study Educ. Personality; learning process.

Trowbridge, Albert H(enry), P. O. Box 951, Tucson, Ariz. *Mammal ecology.* Bellows Falls, Vermont, Sept. 8, 06. B.S, Okla. Agr. and Mech. Col, 32; M.S, Oklahoma, 34. Museum asst, Oklahoma, 33–34, asst. zool, 34–36, special instr, 37; *biologist,* U. S. Biol. Surv, 37–40; *fish and wildlife service, U. S. Dept. Interior, 40–; capt. Sanit. Corps, U. S. Army.* Soc. Mammal; Ecol. Soc; Wildlife Soc; British Ecol. Soc. Rabbit and rodent range relationships; ecology of small mammal populations, especially their relationships to forests and western ranges.

Trowbridge, Prof. A(rthur) C(arleton), 1182 E. Court St, Iowa City, Iowa. **Geology.* Glasgow, Mo, March 4, 85. B.S, Chicago, 07, Ph.D, 11. Asst. *geol,* Chicago, 07–09, instr, 09–11; *prof, Iowa, 11–, head dept, 34–; state geologist, Iowa, 34–* Field asst, Ill. Geol. Surv, 07, geologist, 10; asst. geologist, U. S. Geol. Surv, 13–20, geologist, 20–24, assoc. geologist, 24–32; geologist, Turkish Petrol. Co, Ltd, 25–26. A.A; fel. Geol. Soc; Asn. Petrol. Geol; fel. Iowa Acad. (pres, 37). Stratigraphic geology; physiography; sedimentation; petroleum geology.

Trowbridge, Prof. Douglas S(tanley), 114 W. 183rd St, New York, N. Y. *Engineering.* Chicago, Ill, Sept. 16, 88. B.S, N. Y. Univ, 10, Duryea fellow, 10–11, C.E, 11, M.S, 14. Asst, *N. Y. Univ,* 10–12, instr, 12–16, asst. prof. civil eng, 16–26, assoc. prof. *surveying,* 26–28, *prof, 28–* A.A; assoc. Civil Eng; Eng. Educ; Soc. Photogrammetry. Drafting methods.

Trowbridge, Prof. E(dwin) A, University of Missouri, Columbia, Mo. *Animal husbandry.* Mondovi, Wis, April 27, 85. B.S.A, Wisconsin, 06. Asst. *animal husbandry, Missouri,* 06–07, instr, 07–09, asst. prof, 09–11, *prof, 11–, chairman dept. animal husbandry, Exp. Sta, 09–* A.A; Soc. Animal Production (pres, 24); Genetic Asn. Live-stock feeding and breeding.

Trowbridge, Dr. Minnie S(tambaugh), P. O. Box 951, Tucson, Ariz. *Zoology.* St. Marys, Kans, Jan. 15, 08. A.B, Kansas, 31, fellow, 31–32, A.M, 32; fellow, Oklahoma, 36–37, Ph.D, 39. Technician, Oklahoma, 32–36; *junior sci. aid, zool. div, bur. animal indust, U. S. Dept. Agr, 39–* Micros. Soc. Amphibian embryology.

Troxel, Dr. S(hirley) M(onroe), State Teachers College, Trenton, N. J. *Physical chemistry.* DeLand, Ill, Nov. 29, 02. B.S, Ill. Wesleyan, 26; M.S, Illinois, 27, Ph.D, 30. Teacher math. and physics, high schs, Ill, 27–28; research chemist, du Pont Rayon Co, 30–31; research assoc, Nat. Asn. Dyers and Cleaners, Bur. Standards, 31; instr. chem. and physics, *N. J. State Teachers Col,* 31–39, *asst. prof. science, 39–* A.A; Chem. Soc. Heats of dissociation of gases; properties of dry-cleaning solvents; nomography; reclaiming of rubber.

Troxell, Prof. Edward L(effingwell), Trinity College, Hartford, Conn. *Vertebrate paleontology.* Deshler, Nebr, April 15, 84. A.B, Northwestern, 08, A.M, 11; Ph.D, Yale, 14; Paris, 19. Asst, museum, Michigan, 14–17; research assoc. paleont, Yale, 19–25; asst. prof. *geol, Trinity Col. (Conn),* 20–25, *prof, 25–,* dean, 25–28. Supt, State Geol. and Nat. Hist. Surv, Conn, 40– Private collecting expeds. Capt, U.S.A, 17–19. A.A. (exec. cmt, E, 35–); Paleont. Soc; fel. Geol. Soc; fel. Am. Geog. Soc; Archeol. Inst; Acad. Nat. Sci. Phila. Paleontology; general geology; museums.

Troxell, Prof. George Earl, 636 Coventry Road, Berkeley, Calif. *Civil engineering.* Lemon Grove, Calif, Jan. 25, 96. B.S, California, 18. Asst. hydraul. engineer, State Water Cmn, Calif, 19–20; asst. res. bridge engineer, State Highway Cmn, Calif, 20; instr. *civil eng, California,* 20–24, asst. prof, 24–29, assoc. prof, 29–43, *prof, 43–* Consulting struct. engineer, 22– Highway research board, Nat. Research Council. Civil Eng; Concrete Inst; Soc. Test. Mat. Engineering materials; properties of concrete.

Troxell, Harold C(oble), 529-H, U. S. Post Office and Court House, Los Angeles, Calif. *Hydrology.* Abilene, Kans, May 19, 96. A.B, Stanford, 21. From junior hydraul. engineer to *assoc. hydraul. engineer, U. S. Geol. Surv, 21–* . A.A; Civil Eng; Geophys. Union. Movements of water in natural channels; transportation of debris; transpiration of natural plant life along the stream channel.

Troxler, Dr. Lindsay B(oyd), Philip Morris and Co, 7241 Radbourne Road, Upper Darby, Pa. *Chemistry.* Ocala, Fla, May 20, 04. B.S.A, Florida, 27; M.S, Rutgers, 29, Ph.D, 31. Chemist, arsenic lab, citrus fruit inspection bur, State Dept. Agr, Fla, 31–33; research chemist, Columbia, 33; *chemist, research dept, Philip Morris and Co,* 34–35, *in charge Pacific Coast div, 35–* Agricultural biochemistry; the occurrence of vitamin A in green plant tissue as related to chlorophyl and carotin.

Troy, Prof. Hugh C(harles), Cornell University, Ithaca, N. Y. *Dairy industry.* Spencer, N. Y, 67. B.S, Cornell, 96. Chemist, Cayudutta Chem. Co, 96–97; instr. *dairying, Cornell,* 97–12, prof, 12–36, *emer. prof, 36–* Chemist, State Dept. Agr, N. Y, 97–12, consulting chemist, 12– Chem. Soc; Dairy Sci. Asn; N. Y. Dairymen's Asn. (pres, 18–20). Testing of dairy products; analysis of food products; analytical methods for dairy products.

Truax, T(homas) R(oy), 3813 Council Crest, Madison, Wis. *Forestry.* Yale, Iowa, Dec. 3, 86. B.S, Iowa State Col, 12, M.S. Asst. prof. forestry, Iowa State Col, 13–18; wood technologist and *prin. wood technologist, Forest Products Lab, Madison, 18–* Soc. Test. Mat. (cmt. fire tests of materials and construction); Fire Protection Asn. (chairman fireproofing and preservative treatments cmt, 31–). Gluing of wood, especially for aircraft manufacture; fireproofing and inflammability of wood; use of chemicals in forest fire control.

Trudel, Dr. Paul John, J. N. Adam Memorial Hospital, Perrysburg, N. Y. *Biology, Medicine.* Ulm, Germany, June 5, 91. Univ. Tübingen, 10–14; B.S, A.M, Buffalo, 24; Ph.D, Munich, 29. High sch. supt, Germany, 14–20; asst. zool, Buffalo, 22–25, instr, 26–29, asst. prof, 30–31; *bacteriologist and pathologist in charge clin. labs, J. N. Adam Mem. Hosp, and research assoc. and lecturer, Buffalo, 31–* Soc. Bact; Akad. der Wissenschaften. Chemical sense organs in fishes, especially taste and smell; experimental bone and joint tuberculosis.

True, Dr. N(athan) F(rank), Mead Johnson and Co, Evansville, Ind. *Chemistry.* Freeport, Maine, Oct. 3, 96. A.B, Maine, 20; Sc.D, Evansville Col, 34. Asst. chemist, N. Y. Exp. Sta, Geneva, 20–23; *chief chemist, Mead Johnson and Co, 23–*

Chem. Soc; Soc. Bact; Dairy Sci. Asn; Asn. Cereal Chemists; Oil Chemists Soc. Chemical process patents.

True, Dr. R(odney) P(hilip), 706 E. Monroe St, Lake City, Fla. *Forest pathology.* Washington, D. C, March 19, 06. A.B, Pennsylvania, 29, Ph.D, 34. Instr. bot, Pennsylvania, 32-34; field asst. forest path, *Dutch elm disease lab, bur. plant indust, U. S. Dept. Agr,* 34-37, asst. pathologist, 37-42, *assoc. pathologist cooperating with South. Forest Exp. Sta, U. S. Forest Service,* 42- A.A; Phytopath. Soc; Bot. Soc. Woodgate gall rust of conifers; Dutch elm disease; naval stores pathology.

Trueblood, Dr. Harold C(lyde), 3527 S. Hoover St, Los Angeles, Calif. *Electroencephalography.* Heisson, Wash, April 14, 12. B.S, Washington (Seattle), 32, M.S, 34, Ph.D, 38. Teaching fellow, Washington (Seattle), 34-38; lab. technician, Southern California, 38-40, research fellow, 40-41; *asst. director electroencephalography lab, Children's Hosp, Los Angeles, 40-* The scattering and photoelectric absorption of high voltage x-rays in nitrogen.

Trueblood, Dr. H(oward) M(offitt), Bell Telephone Laboratories, 463 West St, New York 14, N. Y. *Thermodynamics.* Richmond, Ind, April 16, 84. B.S, Earlham Col, 02, Haverford Col, 03; Mass. Inst. Tech, 08-09; fellow, Harvard, 12-13, Ph.D, 13. Aid and asst, U. S. Coast and Geod. Surv, 03-08; asst. physics, Harvard, 12-14; instr. and asst. prof. elec. eng, Pennsylvania, 14-17; Am. Tel. and Tel. Co, 17-34, asst. protection develop. engineer, 28-34; foreign systems coordination engineer, *Bell Tel. Labs,* 34-38, *protection develop. director, 38-* A.A; Physical Soc; Acoustical Soc; Elec. Eng. Joule-Thomson effect in superheated steam; protection of communication systems.

Truesdail, Dr. John H(oward), E. I. du Pont de Nemours and Co, Inc, Richmond, Va. *Chemistry.* Quenemo, Kans, Dec. 15, 06. A.B, Redlands, 28; A.M, Oregon, 31; Ph.D, Michigan, 34. Asst, Oregon, 29-31; teaching fellow, Michigan, 31-34; research chemist, du Pont Rayon Co, 34-36; assoc. research prof. chem, Oregon State Col, 36-37; chemist, Truesdail Labs, Inc, 37-39; *with rayon dept, E. I. du Pont de Nemours and Co, 39-* Yeast nutrition; pantothenic acid; quinoidation in triaryl methyl halides; rayon.

Truesdail, Dr. Roger W(illiams), 520 W. Ave. 26, Los Angeles, Calif. *Biological and organic chemistry.* Burlingame, Kans, Feb. 6, 99. B.S, Redlands, 21; M.S, Oregon, 22; Ph.D, Washington (Seattle), 26. Head depts. chem. and physics, Mt. Angel Col, 22-23; acting head dept. chem, Redlands, 23-24; instr, Nevada, 26-27; asst. prof, Pomona Col, 27-31; *pres. chem. and bacter labs, Truesdail Labs, Inc, 31-* Lecturer, Southern California, 35-; consulting nutritionist. Trustee, Redlands, 35- A.A; Chem. Soc; fel. Inst. Chem; Pub. Health Asn; Inst. Food Technol. The vitamin content of fish products, dehydrated vegetables and fermented molasses residues; vitamin assays by chemical, microbiological and physical methods; drug tests upon horse saliva and urine; ultraviolet irradiation of foods; nutritive value of foods; nutritional requirements of the chinchilla and silver fox; ionization of alcohol; anti-anemic properties of foods.

Truesdale, Dr. E(dward) C(ushman), 231 Princeton Ave, Palmerton, Pa. *Chemistry.* Northfield, Minn, June 15, 01. A.B, Carleton Col, 22; A.M, Harvard, 27; Shevlin fellow, Minnesota, 29-30, Ph.D, 31. Instr, high schs, 22-24; chem, Grinnell Col, 25-27; asst, Minnesota, 27-31; *investigator physical chem. and metal, research div, N. J. Zinc Co. of Pa, 31-* Chem. Soc. Chemical effects of alpha particle ionization; zinc alloys; reduction of zinc ores; relative rates of reactions involved in reduction of zinc ores; reduction equilibria of zinc oxide and carbon monoxide.

Truex, Prof. R(aymond) C(arl), 630 W. 168th St, New York, N. Y. *Anatomy.* Norfolk, Nebr, Dec. 11, 11. A.B, Nebr. Wesleyan, 34; M.S, St. Louis, 36; Ph.D, Minnesota, 39. Teaching fellow, St. Louis, 34-36; Minnesota, 36-38; instr. *anat, col. physicians and surg, Columbia,* 38-42, *asst. prof, 42-* A.A; Asn. Anat; Harvey Soc; N. Y. Acad. Neuroanatomy; structure and alterations of sensory ganglia; gross and cross section anatomy.

Truitt, Prof. R(eginald) V(an Trump), University of Maryland, College Park, Md. *Zoology.* Snow Hill, Md, Aug. 12, 91. A.B, Maryland, 14, M.S, 21; Ph.D, American Univ, 29. Prin, high sch, Md, 14-18; asst. zool, *Maryland,* 18-19, asst. prof, 19-22, *prof. aquicult, 22-* Biologist, State Conservation Dept, Md, 22-41. Summers, sci. asst, Bur. Fisheries, 19-22; director, Chesapeake Biol. Lab, 25-41. Chairman, cmt. conservation, Md. Planning Cmn, 34-; director, Md. Dept. Research and Educ, 41-; mem, Board Nat. Resources, Md, 41-; U. S. Fishery Advisory Council, 35- A.A; Audubon Soc; Shellfisheries Asn; Fisheries Soc; Ecol. Soc; Limnol. Soc; fel. Md. Acad; hon. mem. Nat. Hist. Soc. Md; Biol. Soc. Wash; Md. Acad. Oysters; fish; the blue crab.

Trullinger, Robert William, 3115 South Dakota Ave, N.E, Washington, D. C. *Agricultural engineering.* Farragut, Iowa, Feb. 25, 89. B.S, Iowa State Col, 10, A.E, 25; D.E, Rutgers, 41. Bridge inspector, Gt. North. Ry, 10; asst. city engineer, Clarinda, Iowa, and asst. county engineer, Page County, 11; specialist agr. eng. and soils, *office exp. stations, U. S. Dept. Agr,* 12-17, senior agr. engineer and asst. exp. sta. admin, 20-35, prin. agr. engineer and assoc. exp. sta. admin, 35-38, *asst. chief, 38-* Mem. assembly and admin. board, Am. Eng. Council, 31-36, chairman reforestation cmt, 31. John Deere medal, Am. Soc. Agr. Engineers, 41. Research engineer, lieut. and capt, U.S.A, 17-19. Agr. Eng. (chairman, research cmt, 20-25, 31, 32, publications cmt, 27-31, cmt. on awards of merit, 31-36, v. pres, 25, pres, 30); hon. mem. West. Drainage and Irrig. Research Asn. Organization and methodology of engineering research; experiment station administration.

Truman, Dr. Harry V(ern), 3 Tenth St, Havre, Mont. *Botany.* Auburn, Ohio, 01. A.B, Ohio Wesleyan, 23; A.M, Western Reserve, 29; Ph.D, Wisconsin, 33. Instr. biol, Beloit Col, 33-34, asst. prof. bot, 34-35, assoc. prof, 35-37; asst. prof. *biol, Montana,* 37-40, *assoc. prof, 40-* Summers, instr, Western Reserve, 29; prof, Oshkosh State Teachers Col, 32, 34; ranger naturalist, Yellowstone Nat. Park, 39, 40, 41. Botanist, Wis. Land Econ. Surv, 32. Mont. Acad. (4th v. pres, 40). Pollen analysis of peat.

Truman, Dr. Lee C(ampbell), Erie Center, University of Pittsburgh, Erie, Pa. *Invertebrate zoology.* Butler, Pa, April 9, 14. B.S, Pittsburgh, 36, Ph.D, 41. Tech. asst, sect. vert. paleont, Carnegie Museum, 38-41; *instr. biol, Erie Center, Pittsburgh, 41-* Pa. Acad. Ecology of spiders of western Pennsylvania.

Truman, O(rley) H(osmer), 2166 W. Live Oak Drive, Hollywood, Calif. *Astronomy, Geophysics.* Iowa Falls, Iowa, July 9, 88. A.B, Iowa, 11, M.S, 12. Instr, Graceland Col, 12-13; math. and astron, Iowa, 13-19; astronomer, Lowell Observatory, 19-24; geophysicist, Humble Oil and Ref. Co, 24-31; *consulting geophysicist, 31-* Lowell eclipse exped, 18. A.A; Astron. Soc; Seismol. Soc. Spectroscopy of the spiral nebulae; Mars; oil discovery.

Trumbower, John A(bbott), R.F.D, 2, Britt, Iowa. *Botany.* Onalaska, Wis, April 29, 92. B.S, Iowa State Col, 23; M.S, Wisconsin, 26. Asst. plant pathologist, Iowa State Col, 26-29; nat. research fellow, Delaware, 30; asst. botanist, Ill. State Nat. Hist. Surv, 32; agent barberry eradication, bur. entom. and plant quarantine, U. S. Dept. Agr, 33-42; *farm supt, Crystal Lake Exp. Farm, 42-* Iowa Acad. Plant pathology; control of elm leaf spots in nurseries.

Trumbull, Dr. Harlan L(eo), Hudson, Ohio. *Physical chemistry.* Adair, Iowa, May 29, 86. A.B, Washington (Seattle), 07, A.M, 08; Ph.D, Chicago, 11. Instr. chem, Washington (Seattle), 11-16, asst. prof, 16-18; fellow, Mellon Inst, 18-19; research chemist, *B. F. Goodrich Co, Akron,* 19-22, dept. manager, 22-42, *asst. to director research, 42-* Capt, C.W.S, 18-19; expert, War T.B, 19. A.A; Chem. Soc; Chem. Eng. Molecular rearrangement and weight; irradiation of fungi; potash from kelp; toxic gases; rubber.

Trump, Edward N(eedles), 1912 W. Genessee St, Syracuse, N. Y. *Engineering.* Philadelphia, Pa, Nov. 9, 57. Cornell, 77-78. Apprentice, machinist's shop, 74-76; asst. supt, Delaware Beet Sugar Co, 79-81; asst. eng, Solvay Process Co, 82-93, gen. manager and chief engineer, 93-06, director and v. pres, 06-21; *consulting engineer, 21-* Am. Eng. Council, 25-26, director, 30-31; mem, Cent. N. Y. State Park Cmn, 30; treas. and consulting engineer, Sanit. Metal Cap Corp, 33. Mech. Eng. (v. pres, 05-07); Min. Eng; Inst. Chem. Eng. Mechanical and chemical engineering; by-product coke ovens; unaflow steam engines; alkali manufacture; aluminum milk bottle cap; drying plant for eggs; plant to make alumina from bauxite.

Trump, Prof. J(ohn) G(eorge), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Aug. 21, 07. E.E, Polytech. Inst. Brooklyn, 29; A.M, Columbia, 31; Sc.D, Mass. Inst. Tech, 33. Instr. elec. eng, Polytech. Inst. Brooklyn, 29-31; research assoc, *Mass. Inst. Tech,* 34-37, asst.

prof. *elec. eng*, 37–41, *assoc. prof, 41–* High voltage x-rays and cathode rays; super-voltage roentgen ray generators for treatment of deep-seated malignancies; physical properties of high voltage x-rays and cathode rays; use of compressed gases and high vacua as high voltage insulation.

Trump, Prof. Paul L(eroy), Wisconsin High School, Madison, Wis. *Mathematics.* Polo, Ill, June 26, 06. A.B, Cornell Col. (Iowa), 27; M.S, Iowa, 29; Ph.D, Wisconsin, 34. Asst. *math*, Iowa, 27–29; instr, *Wisconsin, 29–35, teacher, univ. high sch, 35–*, asst. prof. *teaching of math, univ*, 37–43, *assoc. prof, 43–* Math. Soc; Math. Asn. (sec'y, Wis. sect, 41–); Council Teachers Math; Cent. Asn. Sci. and Math. Teachers. Algebra; matrix theory.

Trumper, Dr. Max, Cynwyd, Pa. *Toxicology.* Philadelphia, Pa, Feb. 15, 92. B.S, Pa. State Col, 15; A.M, Pennsylvania, 16, Ph.D, 28. In charge biochem. labs, Jefferson Med. Col. and Hosp, 22–25; *consulting med. chemist, 25–; lieut. commander, U. S. Naval Res, Med. Research Inst, Bethesda, Md.* Lecturer, Jefferson Med. Col, 22–25; consulting toxicologist, St. Luke's and Children's Hosp. Mem, Water Cmn. Phila. Trustee, Nat. Farm Sch. U. S. Advisory Board on Hazardous Occupations for Minors. Ordnance Dept, U.S.A, 17–19, A.A; Chem. Soc; Inst. Chem; Franklin Inst; Pa. Pub. Health Asn; Indust. Hygiene Asn. Clinical biochemistry; industrial toxicology; lead poisoning.

Trumpler, Prof. Robert J(ulius), University of California, Berkeley, Calif. ***Astronomy.* Zurich, Switzerland, Oct. 2, 86. Zurich, 06–08; Ph.D, Göttingen, 10. Astronomer, Swiss Geod. Cmn, 11–15; asst, Allegheny Observatory, Pittsburgh, 15–19; Kellogg fellow, Lick Observatory, *California*, 19–20, asst. astronomer, 20–26, assoc. astronomer, 26–29, astronomer, 29–38, *prof. astron, 38–* Nat. Acad; Astron. Soc; Astron. Soc. Pacific (pres, 32); fel. Royal Astron. Soc; Astron. Gesell; Soc. astron. de France; Int. Astron. Union. Telegraphic longitude determinations; proper motions and parallaxes of fixed stars; eclipse test of Einstein theory; Mars; star clusters; interstellar light absorption; stellar statistics.

Truog, Prof. E(mil), University of Wisconsin, Madison, Wis. *Agriculture.* Independence, Wis, March 6, 84. B.S, Wisconsin, 09, M.S, 12. Asst. *soils, Wisconsin*, 09–12, instr, 12–16, asst. prof, 16–17, assoc. prof, 17–21, *prof, 21–, head dept, 39–* Consulting ed, 'Soil Sci.' A.A; Chem. Soc; fel. Soc. Agron. (v. pres, 37, pres, 38, assoc. ed, 'Jour'); Soil Sci. Soc; Wis. Acad; Int. Soc. Soil Sci. Availability of phosphates; soil acidity; feeding power of plants; soil phosphorus and potassium; soil colloids; methods of using fertilizers; methods of soil analysis; treatment of clays for ceramic use.

Trupp, Dr. Malcolm S(tertz), 2029 Adelbert Road, Cleveland, Ohio. *Pharmaceutical chemistry.* Hastings, Nebr, Dec. 22, 08. Ph.C, Washington (Seattle), 32, B.S, 33, fellow, 35–38, M.S, 36, Ph.D, 38. Instr. pharmaceut. chem, St. Louis Col. Pharmacy, 39–40, *asst. prof*, 40–41; *pharmaceut. chem. and pharmacy, sch. pharmacy, Western Reserve, 41–* Chemical examination of essential oils from Abies amabilis and grandis; assay of Colchicum corm; Athyrium filix-foemina; analytical study of tincture of ipecac; phytochemistry; volatile oils; drug assay.

Truscott, Dr. J(ohn) H(enry) L(loyd), Ontario Agricultural College, Guelph, Ont, Can. *Pathology, Physiology.* Alameda, Sask, Jan. 1, 05. B.Sc, Saskatchewan, 29, M.Sc, 30; Nat. Research Council Can. scholar, 31–34, Toronto, Ph.D, 34. Teacher, schs, 22–26; asst. cereal root rots, Saskatchewan, 30–31; class asst, Toronto, 34–35; lecturer in charge cold storage invests, *Ont. Agr. Col*, 35–40, *chief hort. research, 40–* Cereal root rots; strawberry root rots; gas storage of Bartlett pears; storage root rot of celery; quick frozen fruits and vegetables; vitamin C in fresh and processed fruits and vegetables.

Trusler, Dr. Ralf B(arth), The Davies-Young Soap Co, Dayton, Ohio. *Chemistry.* Jamestown, N. Y, June 23, 92. B.S, Syracuse, 16; M.S, Pittsburgh, 22, Ph.D, 26. Acting chief chemist, Carnegie plant, Aetna Explosives Co, 18–19; research fellow, Mellon Inst, 19–30; *director research and plant develop, Davies-Young Soap Co, 30–* A.A; Chem. Soc; Oil Chemists Soc; fel. Inst. Chem; Ind. Acad. Antioxidants; soaps; fat and oil chemistry.

Trusty, A(ubrey) W(ayne), Cotton Valley, La. *Petroleum chemistry.* Pine Valley, Miss, Dec. 31, 04. A.B, Miss. Col, 25. Chief chemist, La. Oil Ref. Corp, 28–33; Ark. Fuel Oil Co, 33–43; *process engineer, Premier Oil Co, 43–* Instr, night sch, Centenary Col. Chem. Soc; La. Acad. Cracking of oils; chemical treatment of oils; refinery corrosion; sulfur compounds in petroleum; detonation in engines.

Tryon, Dr. Caroline McCann, 5835 Kimbark Ave, Chicago, Ill. *Psychology.* Mont, Dec. 15, 99. A.B, Montana, 22; A.M, California, 31, Ph.D, 33. Research assoc, inst. child welfare, California, 28–39; *collaborator and consultant, div. child develop, cmn. teacher educ, Am. Council Educ, 39–* Summers, mem. staff, workshops human develop, Chicago, 40, 41, 42. Assoc. Psychol. Asn; Soc. Research Child Develop. Human development and education; social and personal development.

Tryon, Prof. Clarence Archer, Jr, Montana State College, Bozeman, Mont. *Zoology.* Niagara Falls, N. Y, Nov. 15, 11. B.S, Cornell, 35, Ph.D, 42. Instr. *zool, Mont. State Col*, 37–39, *asst. prof, 39–* Soc. Mammal; Fisheries Soc; Wilson Ornith. Club. Life histories of vertebrates; rodents; parasitology.

Tryon, Henry H(arrington), Cornwall-on-the-Hudson, N. Y. *Forestry.* Rumford, R. I, June 7, 88. A.B, Harvard, 12, M.F, 13. Prof. utilization, N. Y. State Col. Forestry, Syracuse, 15–17; consulting forester, 19–23; exten. forester, S. C, 23–27; *director, Black Rock Forest, 27–* A.A; Soc. Foresters; Ecol. Soc. Fundamental and applied silviculture; forest management; economics; utilization.

Tryon, Prof. Robert C(hoate), 1196 Keith Ave, Berkeley, Calif. ***Psychology.* Butte, Mont, Sept. 4, 01. A.B, California, 24, Ph.D, 28. Nat. research fellow *psychol, California*, 28–30, research assoc, 30–31, asst. prof, 31–37, *assoc. prof, 37–; deputy chief planning staff, Office Strategic Services, 43–* Chief psychol. div, Office of Coordinator of Information, 41–42. Psychol. Asn. Animal behavior; mental measurement and inheritance; social psychology.

Tryon, Dr. Sager, P. O. Box 149, Long Island City, N. Y. *Organic chemistry.* Strasburg, Ohio, Aug. 7, 11. B.S, Otterbein Col, 34; M.S, Ohio State, 35, Ph.D, 36. Assoc. research chemist, *Gen. Chem. Co*, 36–42, *research chemist, 42–* Chem. Soc. Synthesis and absorption spectrum of linoleic acid; synthesis and process development.

Trytten, Prof. M(erriam) H(artwick), 1530 P St, N.W, Washington, D. C. *Physics.* Albert Lea, Minn, Jan. 17, 94. A.B, Luther Col, 16; M.S, Iowa, 24; Am-Scandinavian Foundation fellow, Norway, 20–21; Ph.D, Pittsburgh, 28. Instr. *physics* and head dept, Luther Col, 18–24; *Pittsburgh*, 24–28, *asst. prof, 28–; specialist physics, War Manpower Cmn, 43–* Tech. aide, Nat. Defense Research Cmt, 42–43. A.A; Physical Soc. Magnetism; science education.

Trytten, Dr. Roland (Aaker), 410 E. Sullivan St, Ripon, Wis. *Physical chemistry.* Tower City, N. Dak, Oct. 15, 13. A.B, St. Olaf Col, 35; Ph.D, Wisconsin, 41. Control chemist, Kimberly-Clark Corp, 41–42; *instr. chem, Ripon Col, 42–* Chem. Soc. Foams; the foaming tendency of aqueous aliphatic alcohol solutions.

Tschentke, Dr. H(erman) L(ouis), 11520 Hale Ave, Chicago, Ill. *Chemistry.* Watseka, Ill, Aug. 16, 94. B.S, Illinois, 20, M.S, 25, Ph.D, 29. Asst. chem, Illinois, 24–29; chemist, Am. Med. Asn, 29–36; *research chemist, Universal Atlas Cement Co, 38–* Chem. Soc. Drying and polymerization of linseed oil; medicinal chemistry; admixtures to Portland cement.

Tschudi, Dr. E(rwin) W(illiam), 159 Howard Terrace, Leonia, N. J. *Physics.* Cincinnati, Ohio, June 2, 98. A.B, A.M, Cincinnati, 21; Ph.D, Hopkins, 25. Instr. math, Cincinnati, 19–21; Illinois, 21–22; physics, Hopkins, 22–25; research physicist, Nela Research Lab, 25–26; prof. physics, Winthrop Col, 26–28; in charge planning and research, Black and Decker Mfg. Co, 28–30; mfg. develop, West. Elec. Co, 30–32; acting prof. math, Western Maryland Col, 33–34; instr. physics, Col. City of N. Y, 34–36; independent research long range weather forecasting, 36–42; *instr, aircraft armament sch, Sperry Gyroscope Co, 42–* Summers, asst. physicist, bur. entom, U. S. Dept. Agr, 24. Physical Soc. Duration of impact of solid bars in collision.

Tschudy, Dr. Robert H(aydn), Willamette University, Salem, Oregon. *Botany, Biology.* Pocatello, Idaho, May 7, 08. B.S, Washington (Seattle), 31, M.S, 32, Ph.D, 35; Cornell, 37–38. Teaching fellow, Washington (Seattle), 32–35, asst, 36–37; instr. bot, Wyoming, 35–36; U. S. Navy, bur. ships, Scripps Institution Oceanog, California, 39–41; *asst. prof. biol, Willamette, 41–* Bot. Soc. Marine plant physiology; growth.

Tschudy, Dr. William, 81 N. Buena Vista St, Redlands, Calif. *Engineering.* Basle, Switzerland, July 16, 84. Elec. and Mech. Engineer, Fed. Tech. Univ, Zurich, 08, D.Sc, 12. Research engineer, Siemens-Schuckert Co, Berlin, 08–10; asst. prof, elec. and physical labs, Fed. Tech. Univ, Zurich, 10–12; research engineer, Westinghouse Elec. and Mfg. Co, 13–15; Carnegie Steel Co. and U. S. Bur. Mines, 15–18; engineer in charge construction and operation, Port Huron Gas and Elec. Co, 18–19; private research, 19–23; elec. and mech. designer, South. Calif. Edison Co, Los Angeles, 23–25; *consulting construction and research engineer, 25–* A.A. Vacuum gauge; mercury arc rectifiers; a large capacity mercury arc rectifier based upon the theorem of vacuum or density regulation for vapor rectifiers; alternating current rectification; combustion of natural gas and liquid gases; separation of oxygen from air.

Tseng, Dr. C(heng) K(wei), Scripps Institution of Oceanography, La Jolla, Calif. *Botany.* Tung-An, Fukien, China, June 18, 09. B.Sc, Amoy, 31; Rockefeller Foundation fellow, Lingnan, 32–34, M.S, 34; fellow, Michigan, 40–42, A.M, 41, Sc.D, 42. Asst. bot, Amoy, 30–32, instr. bot. and curator herbarium and bot. garden, 34–35; lecturer bot, Nat. Shantung Univ, 35–37, asst. prof, 37–38, curator herbarium, 35–38; asst. prof. bot. and acting curator herbarium, Lingnan, 38–40; Rackham fellow bot, Michigan, 42–43; *research assoc. oceanog, Scripps Institution, California, 43–* A.A; Oceanog. Soc. Pacific; Mich. Acad; Calif. Bot. Soc; Marine Biol. Asn. China; Bot. Soc. China; Nat. Sci. Asn. China. Marine flora of China and the South China Sea region; economic uses of algae; technology of seaweed products; cultivation, physiology and life history of seaweeds.

Tsien, Dr. H(sue-) S(hen), California Institute of Technology, Pasadena, Calif. *Hydrodynamics.* Shanghai, China, Sept. 1, 10. B.S, Chiao-tung Univ, 34; M.S, Mass. Inst. Tech, 36; Ph.D, Calif. Inst. Tech, 39. Research fellow, *Calif. Inst. Tech,* 39–43, *asst. prof, 43–* Tech. mem. Inst. Aeronaut. Sci. Strength of thin shells; compressibility effects in high-speed airplane design; application of the dynamics of compressible fluids to exterior ballistics; theory of elasticity.

Tuba, Dr. Jules, University of Alberta, Edmonton, Alta, Can. *Biochemistry.* Budapest, Hungary, Aug. 12, 06. B.Sc, Saskatchewan, 32, M.Sc, 37; fellow, Toronto, 38–42, Ph.D, 41. *Lecturer biochem, Alberta, 42–* Enzymes with special consideration of yeast phosphatase; vitamin C.

Tubangui, Dr. Marcos A, Bureau of Science, Manila, P. I. *Parasitology.* Porac, Pampanga, P. I, April 25, 93. D.V.M, Philippines, 18; Philippine fellow, Cornell, 19–21, M.S, 20. Veterinarian, Bur. Agr, P. I, 18–19; asst. prof. parasitol, Philippines, 21–30; *parasitologist, Bur. Science, P. I, 30–* Soc. Parasitol; P. I. Soc. Parasitol. (sec'y-treas, 30–); Los Baños Biol. Club (sec'y, 28). Helminthology; protozoology.

Tuck, Dr. Ralph, 1111 Newhouse Bldg, Salt Lake City, Utah. *Geology.* Cleveland, Ohio, Jan. 24, 04. B.S, Oregon, 26, A.M, 27; Ph.D, Cornell, 30. Instr. econ. geol, Cornell, 27–30; asst. prof. econ. and struct. geol, Cincinnati, 30–31; asst. geologist, Alaskan branch, U. S. Geol. Surv, 31–33; *geologist,* Alaska R.R, 33–37; *U. S. Smelting, Ref. and Mining Co, 37–* Economic geology.

Tucker, Prof. A(lbert) W(illiam), Princeton University, Princeton, N. J. *Mathematics.* Oshawa, Ont, Can, Nov. 28, 05. B.A, Toronto, 28, M.A, 29; Ph.D, Princeton, 32. Nat. research fellow, Cambridge, Harvard and Chicago, 32–33; instr. *math, Princeton,* 33–34, asst. prof, 34–38, *assoc. prof, 38–* Ed, 'Princeton Math. Series.' A.A; Math. Soc. (councilor, 41–); Math. Asn; Inst. Math. Statist; assoc. Actuarial Soc. Topology and its applications.

Tucker, Dr. Beverley Randolph, 212 W. Franklin St, Richmond, Va. *Medicine.* Richmond, Va, April 26, 74. M.D, Med. Col. of Va, 05. Prof. *neur. and psychiat, Med. Col. of Va,* 12–38, *emer. prof, 38–; physician in charge, Tucker Sanitarium.* Int. Pellagra Cmn, 08–11. Am. Med. Asn; Neur. Asn; Therapeut. Soc. Pellagra; pituitary gland disturbance; brain tumors; lethargic encephalitis; von Recklinghausen's disease; hypothalamus.

Tucker, Prof. Carlton E(verett), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Whitman, Mass, Nov. 13, 96. B.S, Mass. Inst. Tech, 18, Harvard, 18. Asst. *elec. eng, Mass. Inst. Tech,* 18–19, instr, 19–24, asst. prof, 24–30, assoc. prof, 30–38, *prof, 38–* Elec. Eng; Eng. Educ; Radio Eng. Electrical machinery and communications.

Tucker, Prof. C(larence) M(itchell), University of Missouri, Columbia, Mo. *Plant pathology.* Centralia, Mo, Oct. 28, 97. B.S, Missouri, 20, Ph.D, 30. Prof. plant path, Puerto Rico, 20–23; plant pathologist, Exp. Sta, Puerto Rico, 23–30; assoc. plant pathologist, Exp. Sta, Florida, 30–31; assoc. prof. *bot, Missouri,* 31–37, *prof. and head dept, 37–, plant pathologist, Exp. Sta, 31–* A.A; Mycol. Soc; Phytopath. Soc; Bot. Soc; Mo. Acad. Plant diseases; mycology.

Tucker, Dr. David A, Jr, 3518 Bayard Drive, Cincinnati, Ohio. *Internal medicine.* Greensburg, Ind, Dec. 21, 90. Chicago; A.M, Michigan, 14; M.D, Cincinnati, 16. Prof. chem, Hillsdale Col, 10–12; asst. zool, Michigan, 12–14; instr. pharmacol, *Cincinnati,* 14–16, asst. prof, 16, assoc. prof. and acting head dept, 16–17, assoc. prof. contagious diseases, 20–35, *asst. to dean col. med, 25–, prof. hist. med, 35–* A.A; fel. Am. Med. Asn; fel. Col. Physicians; Cincinnati Acad. Acute infectious diseases; diseases of metabolism.

Tucker, Dr. Elton B(rink), Standard Oil Co. of Indiana, Whiting, Ind. *Chemical engineering.* Otsego, Mich, June 14, 01. B.S, Michigan, 22; A.M, Columbia, 23, Bridgham fellow, 25–28, Ph.D, 28. Asst. chem, Columbia, 22–23; *research lab,* Nat. Biscuit Co, 23–25; Combustion Utilities Corp, 28–31; *Standard Oil Co. of Ind, 31–* Chem. Soc. (councilor, 31). Petroleum refining technology; petroleum asphalts; colloids and surface active compounds; reactions of organic sulfur compounds in petroleum and natural gas; hydrocarbon reactions.

Tucker, Prof. Forrest G(lenn), Oberlin College, Oberlin, Ohio. *Physics.* Georgetown, Ind, July 3, 92. A.B, Indiana, 14, A.M, 16; Ph.D, Chicago, 22. Asst. prof. *physics,* State Col. Wash, 15–17, 19–20; Reed Col, 22–23; Cornell, 23–26; *prof, Oberlin Col, 26–* C.A.C, 17–19, major. A.A; Physical Soc; Asn. Physics Teachers. Photoelectricity; the solid state.

Tucker, Dr. Gordon H(erschel), Route 10, Woodlawn Pike, Knoxville, Tenn. *Embryology.* New York, N. Y, Aug. 24, 09. B.S, South Carolina, 31, M.S, 34; Ph.D, North Carolina, 39. *Instr.* biol, South Carolina, 34–35; *zool,* Duke, 39–41; *Tennessee, 41–* Summers, instr, North Carolina, 40, 41. N. C. Acad. Ascidian embryology; cell behavior.

Tucker, Dr. Harold H(erbert), 548 Bowman Ave, Merion Station, Pa. *Chemistry.* Galesburg, Ill, Nov. 2, 02. A.B, Bradley Col, 24; Ph.D, Chicago, 30. Chief chemist, J. Laskin and Sons, Inc, Milwaukee, 30–42; *director research, John B. Stetson Co, Phila, 42–* Chem. Soc. (chairman Milwaukee sect, 40). Chemistry of hat manufacturing; structure and application of fur dyes; chemistry of wool and fur.

Tucker, Prof. H(elen) F(arnham), Skidmore College, Saratoga Springs, N. Y. *Biochemistry.* Swampscott, Mass, Jan. 26, 02. A.B, Mt. Holyoke Col, 23; A.M, Vassar Col, 25; Helen Collamore fellow and Mt. Holyoke Col. 1905 Alumnae fellow, Mass. Inst. Tech, 32–33, Ph.D, 33. Asst. *chem,* Vassar Col, 23–35; instr, Mt. Holyoke Col, 25–27; Russell Sage Col, 27–30, asst. prof, 33–34; *Skidmore Col,* 34–35, *assoc. prof, 35–* Research, Harvard, 40–41. Summers, research, med. sch, Michigan, 36–40. Chem. Soc; N. Y. Acad. Thermal stability of bonds in organic molecules; dietary effects of supplementary methionine, cystine, lysine on production of fatty livers; carbonic anhydrase activity in pancreatic juice; source of pancreatic juice bicarbonate.

Tucker, John, Jr, National Bureau of Standards, Washington, D. C. *Engineering.* New York, N. Y, Aug. 10, 90. M.E, Stevens Inst. Tech, 13; Pittsburgh; Carnegie Inst. Tech. Junior engineer, Pub. Service Cmn, N. Y, 14–15; field engineer, Am. Bridge Co, Pittsburgh, 15; asst. physicist, Bur. Standards, 16–17; asst. steam engineer, Am. Steel and Wire Co, Cleveland, 19; instr, Carnegie Inst. Tech, 20–25; *chief cement and concrete sect, Bur. Standards, 26–* U.S.A, 18. Concrete Inst; Wash. Acad. Concrete structural materials; working stresses; application of mathematical statistics to engineering.

Tucker, Dr. Lawrence M(anfred), 203 S. Union St, Cranford, N. J. *Chemistry.* Mich, Oct. 2, 12. A.B, Kalamazoo Col, 34; Ph.D, Brown, 38. Asst. instr, Brown, 34–38; *research chemist, Tide Water Associated Oil Co, 38–* Chem. Soc. Physical and organic chemistry; structure and reaction of high molecular weight hydrocarbons.

Tucker, Prof. Lowell R(ay), Parma Field Station, Parma, Idaho. *Horticulture.* Moultrie Co, Ill, Nov. 21, 00. B.S, Illinois, 26; M.S, New Hampshire, 28. Asst, New Hampshire, 26–28; Illinois, 28–29; instr. *hort,* Kans. State Col, 29–30;

asst. prof, Idaho, 30–, asst. horticulturist, Exp. Sta. Soc. Hort. Sci. Growth of strawberries; biennial bearing in the Baldwin apple; growth and production of grapes; maturity of apples; Italian prune; raspberry; sweet cherry fruit; doubling and cracking.

Tucker, Dr. N(athaniel) Beverley, Procter and Gamble Co, Cincinnati, Ohio. *Organic chemistry.* Lexington, Va, May 28, 09. B.S, Va. Mil. Inst, 29; A.M, Hopkins, 31, du Pont fellow, 31-32, Ph.D, 32. Asst. prof. chem, Va. Mil. Inst, 32–35; *research dept, chem. div, Procter and Gamble Co,* 35–Chem. Soc; Va. Acad; London Chem. Soc. Polymeric and cyclic organic sulfides; aliphatic diamides and crystal structure; soap and synthetic soap substitutes; surface active compounds.

Tucker, Dr. R(ichard) H(awley), 1525 Waverly St, Palo Alto, Calif. ***Astronomy.* Wiscasset, Maine, Oct. 29, 59. C.E, Lehigh, 79, Sc.D, 22. Asst, Dudley Observatory, Union (N. Y), 79–83; instr. math. and astron, Lehigh, 83-84; asst, Argentine Nat. Observatory, Cordoba, 84-93; astronomer, Lick Observatory, California, 93–08, 11–26; director south. observatory, Carnegie Institution, Argentina, 08–11. A.A; Astron. Soc; Seismol. Soc; Philos. Soc; Astron. Soc. Pacific; Astron. Gesell; Soc. astron. de France; Soc. Astron. de Mex. Meridian circle observations; Cordoba Durchmusterung.

Tucker, Prof. Samuel A(uchmuty), 136 E. 79th St, New York, N. Y. *Chemistry.* New York, N. Y, April 29, 69. Ph.B, Columbia, 95. Asst. physics, col. physicians and surg, Columbia, 95–97, head demonstrator physics and chem, 97–98, tutor indust. chem, Columbia, 98–05; adj. prof. and prof. electrochem, 05–19; chief chemist, Chem. Foundation, Inc; asst. prof. electrochem, *Columbia, curator Chandler chem. museum, dept. chem. eng, 34–* Consulting chemist, Ordnance Dept, U.S.A; chem. adviser, W.I.B; major, C.W.S. Chem. Soc. (v. chairman, N. Y. sect, 10); Electrochem. Soc; Soc. Chem. Indust; fel. London Chem. Soc. Electrochemistry; electric furnaces; varnish; storage batteries; carbids; nitrogen fixation.

Tucker, Prof. W(illiam) M(otier), 1556 Roosevelt Ave, Fresno, Calif. *Geology.* Holton, Ind, Nov. 18, 77. A.B, Indiana, 08, A.M, 09, Ph.D, 16. Asst. geog, Ind. State Nor. Sch, 02-03, instr, 07; teaching fellow, Indiana, 08–10; asst. geologist, Ind. Geol. Surv, 09–12, 15–17; head dept. geog, Minn. State Nor. Sch. Moorhead, 13–15; adj. prof. geol, Texas, 17; asst. prof, Ohio State, 17–20; Indiana, 20–23, assoc. prof, 23–27; Fresno State Col, Calif, 27–30, prof, 30–42; *retired.* Asst. geologist, Ohio Geol. Surv, 18–20; state hydrologist, Ind, 20–28. Gimbel exped, British Guiana, 10. A.A; fel. Ind. Acad; fel. Ohio Acad; Calif. Acad. Hydrology of Indiana; pyrite deposits in Ohio coals; Tertiary volcanic activity in the valley of the San Joaquin River.

Tucker, Dr. Winston H(arris), City Department of Health, Evanston, Ill. *Bacteriology, Public health.* Calumet, Mich, June 5, 01. A.B, Olivet Col. (Mich), 26; fellow, Chicago, 26–30, M.S, 27, Ph.D, 30, M.D, 33. Instr. path, Sprague Mem. Inst, Chicago, 30-32; coordinating epidemiologist. div. communicable diseases, State Dept. Pub. Health, Ill, 34-38; *commissioner health, City Dept. Health, Evanston, 38–; professorial lecturer pub. health, dept. med, Chicago, 40–* Pub. Health Asn; Ill. Med. Soc. Bacteriology of meat spoilage; bacteria associated with dental caries; St. Louis type of epidemic encephalitis; epidemic meningitis; scarlet fever; pertussis.

Tuckerman, Dr. L(ouis) B(ryant), Cosmos Club, Washington, D. C. ***Physics, Engineering.* West Williamsfield, Ohio, Sept. 26, 79. A.B, Western Reserve, 01; Nebraska, 01–02; Ph.D, Hopkins, 21. Asst. physics, Ohio State, 02-04; Berlin, 04–06; instr, Nebraska, 06–07, adj. prof, 07–08, asst. prof, 08–13, assoc. prof, 13–16, prof, 16–19; engineer physicist, *Bur. Standards,* 19–25, *asst. chief div. mech. and sound, 25–* Edgar Marburg lecturer, Am. Soc. Testing Materials, 35; Dohme lecturer, Hopkins, 37; Edward Orton Junior fellow and mem. lecturer, Am. Ceramic Soc, 42. John Price Wetherill medal, Franklin Inst, 35. A.A; Physical Soc; fel. Inst. Aeronaut. Sci; Optical Soc. (sec'y, 29–39); Soc. Test. Mat; Wash. Acad. (sec'y, 27–31, mem, board managers, 31–34, pres, 34); Philos. Soc. Wash. (pres, 32); Deuts. Physik. Gesell; Gesell. Tech. Physik. Spectrophotometry; double refraction; materials and structural testing; aeronautics; airship and balloon designing; engineering instruments.

Tuckey, Dr. S(tewart) L(awrence), 919 W. Charles St, Champaign, Ill. *Dairy manufacture.* Browns Valley, Minn, Aug. 24, 05. B.S, Illinois, 28, M.S, 30, Ph.D, 37. Asst. dairy mfg, Illinois, 28–30, instr, 30–32, assoc, 32–37, asst. prof, 37–42; *lieut, Sanit. Corps, U. S. Army, 42–* Borden award, 39. X-ray diffraction analysis of casein and American cheddar cheese; factors influencing the ripening of cheese.

Tuemmler, Dr. Fred(rich) D(onald), 855 Santa Barbara Road, Berkeley 7, Calif. *Analytical chemistry.* Alton, Ill, June 22, 08. B.S, Shurtleff Col, 29; M.S, Illinois, 30; A.M, Harvard, 35, Ph.D, 37. Instr. chem. and physics, Lincoln Junior Col, 30–32; teaching asst. anal. chem, Harvard, 32–37, asst, 36–37; *head anal. dept, Shell Develop. Co, 37–, sec'y standardization cmt, 41–* Chem. Soc. (counsellor, 42–). Determination of atomic weights of calcium, radiogenic and common lead and europium; development and standardization of methods of tests relating to the analysis of petroleum and the many related chemical products.

Tufte, Prof. E(ngebret) T, St. Olaf College, Northfield, Minn. *Biology.* Northwood, N. Dak, April 5, 84. B.S, St. Olaf Col, 09; A.M, North Dakota, 11. Prin, schs, Minn, 09–10; instr, North Dakota, 10–12; *prof. biol. and head dept, St. Olaf Col, 13–* Lieut, Sanit.C, 18–19. A.A; Minn. Acad. (councilor, 32–37, 38–41, v. pres, 38, pres, 42). Embryology of Hosackia americana.

Tufts, Prof. Warren P(orter), College of Agriculture, University of California, Davis, Calif. *Pomology.* Cedarville, Ohio, Jan. 8, 90. B.S, California, 12; M.S, Oregon State Col, 14; Ph.D, Wisconsin, 27. Instr. *pomol,* Oregon State Col, 14–15; *California,* 15–17, asst. prof, 17–28, assoc. prof, 28–37, *prof, 37–, head div, 33–* A.A; Soc. Hort. Sci. (pres. west. sect, 39; v. pres, 42); Bot. Soc; Soc. Plant Physiol. Pollination and pruning of deciduous fruits; morphology of deciduous fruits; climate and fruit production; rootstocks.

Tugman, Prof. Orin, University of Utah, Salt Lake City, Utah. *Physics.* Rockville, Ind, May 26, 80. A.B, Indiana, 03, A.M, 06; Ph.D, Cornell, 09. Asst. physics, Indiana, 03; instr, Purdue, 03-06; Cornell, 06–09; asst. physicist, Bur. Standards, 09–11; engineer, West. Elec. Co, 11–13; assoc. physicist, Eastman Kodak Co, 13–15; assoc. prof. *physics, Utah,* 15–19, *prof, 19–* A.A; fel. Physical Soc; fel. Utah Acad. (pres, 19). Spectroscopy; electrical oscillations; photographic plates; metallic films; photographic reversal; sound.

Tukey, Dr. H(arold) B(radford), New York Agricultural Experiment Station, Geneva, N. Y. *Horticulture.* Berwyn, Ill, Sept. 30, 96. B.S, Illinois, 18, M.S, 20; Ph.D, Chicago, 32. Asst. horticulturist, *N. Y. Exp. Sta, Geneva,* 20-23, assoc. in research and hort, Hudson Valley Fruit Investigations, 23–27, *chief in research and prof. pomol, Cornell,* 27– Lieut, F.A, 18–19. A.A; Soc. Hort. Sci. (sec'y, 27–, ed, 'Proc'); Pomol. Soc. (exec. cmt, 23–); Soc. Plant Physiol; Bot. Soc; Royal Hort. Soc. Plant propagation; rootstocks; fruit culture; developmental morphology; embryo culture.

Tukey, Prof. J(ohn) W(ilder), Princeton University, Princeton, N. J. *Mathematics.* New Bedford, Mass, June 16, 15. B.S, Brown, 36, M.S, 37; A.M, Princeton, 38, Ph.D, 39. Instr. *math, Princeton,* 39–41, *asst. prof, 41–* Math. Soc. Point set topology; analysis.

Tulane, Prof. Victor J(ullus), 1225 S St, N. W, Washington, D. C. *Chemistry.* Montgomery, Ala, April 18, 95. B.S, Howard, 24; M.S, Michigan, 29, Ph.D, 33. Asst. *chem, Howard,* 24–25, instr, 25–36, *asst. prof, 36–* A.A; Chem. Soc; N. Y. Acad. Biochemistry; synthesis of hippuric acid in the animal organism; indicators; sulfur content of keratins.

Tulchin, Simon H, 136 E. 57th St, New York, N. Y. *Clinical psychology.* Odessa, Russia, Sept. 25, 94. Ph.B, Chicago, 20, 25–26; Berlin, 22; Columbia, 27–30. Psychologist, Ill. Inst. Juvenile Research, 20–27; Inst. Child Guidance, New York, 27–33; *lecturer* psychol, Univ. State of N. Y, 35–37; *clin. psychol, sch. social work, Smith Col, 40–; consulting psychologist.* Assoc. Psychol. Asn; Asn. Applied Psychol; Orthopsychiat. Asn. (director, 40–42, v. pres, 42); Nat. Cmt. Mental Hygiene. Genetic psychology; educational disabilities; tests.

Tuley, Dr. W(illiam) F(eagan), U. S. Rubber Co, Williamsport, Pa. *Chemistry.* Palmyra, Mo, July 7, 99. B.S, Oregon State Col, 22; M.S, Illinois, 24, Ph.D, 26. Research chemist, Celotex Co, Chicago, 26–28; research and develop. dept, *U. S. Rubber Co,* Passaic, N. J, 28–34, Naugatuck chem. div, 34–42, *manager, Pa. ordnance works, 42–* Chem. Soc. Heat of formation of nitrogen trichloride; catalytic reduction of cinnamaldehyde to cinnamyl alcohol.

Tulgan, Dr. Joseph, 515 E. 22nd St, Brooklyn, N. Y. *Medicine, Physiology.* New York, N. Y, Nov. 24, 96. A.B, Col. City of N. Y, 20; A.M, Columbia, 21, Ph.D, 23; M.D, N. Y. Univ, 29. Instr. biol, Col. City of N. Y, 20–23; physiol, Columbia, 23–24; N. Y. Univ, 24–25; *practising physician, 29–* A.A. The nervous control of the cardiovascular mechanism; reciprocal action of antagonistic muscles.

Tuller, Dr. Annita, 139–62 Pershing Crescent, Jamaica, N. Y. *Mathematics.* Brooklyn, N. Y, Dec. 30, 10. A.B, Hunter Col, 29; scholar, Bryn Mawr Col, 29–30, A.M, 30, fellow, 35–36, scholar, 36–37, Ph.D, 37. Substitute *math,* Hunter Col, 30–31; teacher, Bryant High Sch, New York, N. Y, 31–35; tutor, *Hunter Col,* 37–39, *instr, 39–* A.A; Math. Soc. Transitive geodesics on three-dimensional manifolds.

Tullis, Dr. E(dgar) C(ecil), P. O. Box 2967, Beaumont, Texas. *Plant pathology.* Lincoln, Nebr, Aug. 23, 01. A.B, Nebraska, 25, A.M, 26; Ph.D, Mich. State Col, 29. Asst. prof. plant path, Arkansas, 28–30; *pathologist, rice investigations, div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr, 30–* A.A. Cereal diseases; rice disease in Arkansas, Louisiana and Texas; straight head stem rot; leaf and sheath spots; sorghum stalk rots in Texas.

Tullis, Prof. Edward L(angdon), South Dakota State School of Mines, Rapid City, S. Dak. *Geology.* Ottumwa, Iowa, Sept. 21, 08. Geol.E, Colo. Sch. Mines, 30; M.S, Idaho, 32; fellow, Chicago, 32–35, Ph.D, 40. Teaching fellow, Idaho, 30–32; asst. geologist, State Geol. Surv, Ill, 35; asst. prof. *geol, S. Dak. Sch. Mines,* 35–40, assoc. prof, 40–41, *prof. and head dept, 41–* Summers, asst. geologist, State Bur. Mines and Geol, Idaho, 31, 32, geophys. demonstrator, Century of Progress Expos, 33–34, geologist, State Geol. Surv, S. Dak, 41. A.A; Min. and Metal. Eng; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Seismol. Soc; Northwest Sci. Asn. Clays of northern Idaho; geology of Latah County, Idaho; Black Hills caves; Black Hills ores; magnetometer investigations in South Dakota.

Tulloch, Prof. George S(herlock), Brooklyn College, Brooklyn, N. Y. *Entomology.* Bridgewater, Mass, Aug. 3, 06. B.S, Mass. Col, 28; M.S, Harvard, 29, Ph.D, 31. Asst. *biol,* Radcliffe Col, 29–30; Harvard, 28–31; instr, *Brooklyn Col, Col. City of N. Y,* 32–36, *asst. prof, 36–; U. S. Army.* Asst. entomologist, State Reclamation Board, Mass, 30; mosquito investigations, Alaska, 31; assoc. entomologist, Puerto Rico Insect Pest Surv, 35–36; chief entomologist, Mass. Mosquito Surv, 39; Yellow Fever Investigations, Brazil, 40–41. Entom. Soc. Amer; Brooklyn Entom. Soc; Cambridge Entom. Club. Morphology of the insect thorax; biology and control of mosquitoes; diseases transmitted by insects.

Tulloss, Pres. Rees E(dgar), 1617 Woodedge Ave, Springfield, Ohio. *Psychology.* Leipsic, Ohio, July 26, 81. A.B, Wittenberg Col, 06, B.D, 09; Ph.D, Harvard, 18; D.D, Lenoir-Rhyne Col, 21; LL.D, Muhlenberg Col, 23. *Pres, Wittenberg Col, 20–* A.A; fel. Royal Soc. Arts. Learning process in telegraphy and typewriting; radio operating.

Tully, Dr. W(ilbur) C(amphell), Lederle Laboratories, Inc, Pearl River, N. Y. *Poultry nutrition.* Ottawa, Ont, Can, March 27, 03. B.S.A, McGill, 25; M.S, Purdue, 29; fellow, Iowa State Col, 34–35, Ph.D, 36. Exten. poultry specialist, N. Dak. Col, 29–30; prof. poultry husbandry, S. Dak. State Col, 30–34; asst. poultry husbandman, agr. exten. div, Va. Polytech, 35–36; manager special products div, Sunset Feed and Grain Co, 37–39; commercial feed nutritionist, 39–42; *feed specialist, Lederle Labs, Inc, 42–* A.A; Poultry Sci. Asn. Selenium toxicity in South Dakota; calcium requirements for hens; calcium and phosphorus requirements for chicks; nutritional value of eggs; nutrition and breeding of turkeys.

tum-Suden, Dr. Caroline, Boston University School of Medicine, Boston, Mass. *Physiology.* San Francisco, Calif, July 14, 00. A.B, California, 22; A.M, Columbia, 27; Ph.D, Boston, 33. Evans fellow, Mass. Mem. Hosp. and sch. med, *Boston Univ,* 28–40, *instr, sch. med, 40–* Physiol. Soc. Endocrinology; vasomotor physiology.

Tunell, Dr. George, 2801 Upton St, Washington, D. C. *[T]*Geology, Crystallography.* Chicago, Ill, April 4, 00. B.S, Harvard, 22, Ph.D, 30. *Crystallographer, geophys. lab, Carnegie Institution, 25–* Research assoc. of Dr. Augustus Locke of San Francisco, 22–25. Miner. Soc; Math. Asn; Soc. Econ. Geol; Geol. Soc; Soc. X-ray and Electron Diffraction (sec'y-treas, 41–); N. Y. Acad; Wash. Acad; Geol. Soc. Wash; Miner. Soc. Gt. Britain and Ireland; Soc. française de Miner. Crystal structures of oxides and tellurides; heterogeneous equilibria in systems involved in the study of mineral deposits; improvements in crystallographic methods.

Tunnicliff, Dr. E(verett) A, 412 W. Koch St, Bozeman, Mont. *Veterinary medicine.* Rawlins, Wyo, Dec. 23, 97. D.V.M, Kans. State Col, 21, M.S, 23. Asst, Kans. State Col, 21–23; assoc, Illinois, 23–28; veterinarian, Exp. Sta, Agr. and Mech. Col. Texas, 28–30; *assoc. pathologist, Exp. Sta, Mont. State Col, 30–,* asst. prof. *vet. research lab,* 31–34, *assoc. prof, 35–* Brucellosis; avian tuberculosis of calves and swine; cholera immunization; pullorin test for pullorum disease; European fowl pest; botulinus toxoid; tetrachlorethylene; intestinal flora of lambs; ovine foot-rot; dysentery and stomatitis of lambs; A. necrophorus in soil cultures; equine infectious anemia; infectious necrotic hepatitis of sheep; balanoposthitis of sheep.

Tunnicliff, Dr. Ruth, 3520 Lake Shore Drive, Chicago, Ill. *Bacteriology.* Macomb, Ill, May 1, 76. A.B, Vassar Col, 96; M.D, Rush, Chicago, 03. Intern, hosp, McCormick Inst, 03–04, research worker, 03–35; Foundation Dental Research, Chicago Col. Dental Surg, 35–40. Contract surgeon, U.S.A, 18. A.A; Soc. Bact; Am. Med. Asn; Inst. Med; Soc. Ill. Bact. (pres, 39); Chicago Path. Soc. (pres, 25). Phagocytosis; fusiform bacilli and other anaerobic bacteria; microbic dissociation; streptococci in measles, influenza, scarlet fever, erysipelas and dental caries.

Turck, Dr. Joseph A(brahm) V(alentine), Jr, Colgate-Palmolive-Peet Co, Jersey City, N. J. *Organic chemistry.* Providence, R. I, Jan. 10, 11. B.S, Illinois, 33; Ph.D, Iowa State Col, 38. Org. research chemist, *Colgate-Palmolive-Peet Co,* 38–41, *chem. engineer, 41–* Chem. Soc; Iowa Acad. Chemical engineering; Friedel-Crafts reaction; organometallic compounds; furan chemistry; catalysis; hydrogenation; dehydrogenation; ketonization; sulfonation; synthesis and manufacture of wetting agents.

Turk, Prof. K(enneth) L(eroy), University of Maryland, College Park, Md. *Dairy husbandry.* Mt. Vernon, Mo, July 14, 08. B.S, Missouri, 30; M.S, Cornell, 31, Ph.D, 34. Asst. animal husbandry, Cornell, 31–34, exten. instr, 34–35, exten. asst. prof, 35–38; *prof. dairy husbandry, Maryland, 38–, head dept, 40–* Dairy nutrition; dairy cattle breeding.

Turk, Prof. L(loyd) M, Michigan State College, East Lansing, Mich. *Soils.* Mt. Vernon, Mo, Jan. 25, 06. B.S, Missouri, 28, A.M, 29, Ph.D, 31. Asst. instr. soils, Missouri, 28–30, instr, 30–32; asst. prof, *Mich. State Col,* 32–40, *assoc. prof, 40–* Soil biology and fertility.

Turkevich, Dr. Anthony (Leonid), 1121 N. Leavitt St, Chicago, Ill. *Physical chemistry.* New York, N. Y, July 23, 16. A.B, Dartmouth Col, 37; Ph.D, Princeton, 40. Asst. molecular spectra, Chicago, 40–41; *research assoc, Nat. Defense Research Council, 42–* Chem. Soc; Physical Soc. Dielectric properties of organic solids; electron diffraction of gas molecules; molecular spectra.

Turkevich, Prof. John, 19 Jefferson Road, Princeton, N. J. *Physical chemistry.* Minneapolis, Minn, Jan. 20, 07. B.S, Dartmouth Col, 28, A.M, 30; A.M, Princeton, 32, Ph.D, 34; Cambridge, 35; Leipzig, 36. Instr, Dartmouth Col, 28–31; *Princeton,* 36–39, *asst. prof. chem, 39–* Chem. Soc. (sec'y Princeton sect, 37, chairman, 38); Soc. Bact. Catalysis as applied to petroleum; molecular structure.

Turley, Prof. Louis A(lvin), 763 Asp Ave, Norman, Okla. *Medicine.* Utah, Feb. 6, 79. B.S, Idaho, 03; A.M, Harvard, 06, Ph.D, 16. *Prof. path, sch. med, Oklahoma, 08–,* asst. dean, 20–28, 35–39. Pathologist, Univ. Hosp, and consulting pathologist, St. Anthony's Hosp, Oklahoma City; consulting pathologist, El Reno Sanitarium; Cent. State Psychopath. Hosp, Norman. Assoc. fel. Am. Med. Asn; Soc. Clin. Path; Okla. Acad. Med. Pathology; histology; bacteriology; carcinoma; myxadenoma of the intestines; chronic nephritis; bacteriology and pathology of tonsils; biological action of radiant light; the spleen in disease; vascular changes in the glomeruli of the kidney; paralysis; philosophy of the history of medicine; relation of lymphocytes to thyrotoxic states; the leucocytic index; relation of lymphocytes to activity of mycobacterium tuberculosis.

Turnbull, Dr. D(avid), Case School of Applied Science, Cleveland, Ohio. *Physical chemistry.* Stark Co, Ill, Feb. 18, 15. B.S, Monmouth Col, 36; Ph.D, Illinois, 39. Instr. *physical chem, Case,* 39–43, *asst. prof, 43–* A.A; Chem. Soc. An

investigation of electron emitters for deviations from Schottky theory; thermodynamic properties of gases at high pressures.

Turnbull, Dr. Robert, 142 Trudeau Blvd, Beauharnois, Que, Can. *Physics.* Oullins, France, Jan. 30, 05. B.A, Toronto, 28, M.A, 29, Nat. Research Council Can. bursar, 29–30, student, 30–32, Ph.D, 33. Teacher math, Niagara Falls Collegiate Inst, 33–34; Runnymede Collegiate Inst, Toronto, 34–39; *chief chemist, St. Lawrence Alloys and Metals, Ltd, 40–* Surface tension; absorption spectra in the ultraviolet and band spectrum of xenon.

Turnbull, Dr. S(tockton) Graeme, Jr, 305 Brandywine Blvd, Gordon Heights, Wilmington, Del. *Organic chemistry.* Bristol, Va, Dec. 5, 12. B.S, Virginia, 34, Ph.D, 38. *Research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 38–* Morphine alkaloids; vitamin D; sterol chemistry.

Turneaure, Dr. F(rederick) E(ugene), University of Wisconsin, Madison, Wis. *Civil engineering.* Freeport, Ill, July 30, 66. C.E, Cornell, 89; hon. D.Eng, Illinois, 05. Instr. civil eng, Washington (St. Louis), 90–92; prof. bridge and hydraul. eng, Wisconsin, 92–03, eng. and dean col. mech. and eng, 03–37; *retired.* City engineer, Madison, 00–02. Henry C. Turner gold medal, 30; Lamme medal, Am. Soc. Prom. Eng. Educ, 37. A.A; Civil Eng; Eng. Educ. (pres, 09); Soc. Test. Mat; West. Soc. Eng; Wis. Eng. Soc. (pres, 09). Reinforced concrete; stresses in bridges under moving train loads; steel columns; water supply engineering.

Turneaure, Dr. F(rederick) S(tewart), care of Cia Min. de Oruro, Oruro, Bolivia. *Economic geology.* Madison, Wis, June 22, 99. B.S, Wisconsin, 21; A.M, Harvard, 31, Emmons Mem. fellow, 31, Ph.D, 33. Instr. econ. geol, Mich. Col. Min. and Tech, 23–27; geologist and examining engineer, Patino Mines and Enterprises, Llallagua, Bolivia, 27–30, 33–37; geologist, Oliver Iron Mining Co, Minn, 37–41; research fellow mining geol, Harvard, 41–42; *consulting geologist, M. Hochschild S.A.M.I, 42–* Soc. Econ. Geol; Min. and Metal. Eng. Ore deposits of Bolivia.

Turner, Prof. Abby H(owe), Mt. Holyoke College, South Hadley, Mass. *Physiology.* Nashua, N. H, 75. A.B, Mt. Holyoke Col, 96, fellow, 01–02; Pennsylvania, 99–00; Chicago, 01–02; Harvard, 09–11, 24–25; Ph.D, Radcliffe Col, 26. Asst. and instr. zool, Mt. Holyoke Col, 96–99, 00–01; instr, Wellesley Col, 03–04; from instr. to prof. *physiol, Mt. Holyoke Col,* 04–40, *emer. prof, 40–* Investigator, Rockefeller Study of Nursing Educ, 19–21; Sarah Berliner fellow, Copenhagen, 30–31. Summers, Marine Biol. Lab, Woods Hole. A.A; Physiol. Soc. Circulation and respiration of young women; blood proteins.

Turner, Dr. A(lice) Willard, Wood, Gundy and Co, Ltd, Toronto, Ont, Can. *Statistics.* Norval, Ont. B.A, McGill, 27, M.A, 28; fellow, Toronto, 28–30, Ph.D, 32; overseas scholar, Cambridge, 30–31. Dom. Bur. Statist, 32–37; *Wood, Gundy and Co, 37–* Director, Toronto Mutual Life Ins. Co; mem. special study reconstruction cmt, Dom. Govt. Statist. Assn; fel. Royal Statist. Soc. Analysis; functions of a real variable; Fourier and Poisson integrals; history and philosophy of mathematics and astronomy; bond indices; cost of living; investments.

Turner, Prof. Alva, Hunter College, 68th St. and Park Ave, New York, N. Y. *Physics.* High Falls, N. Y, July 24, 96. B.S, Columbia, 18, Ph.D, 23. Asst. physics, Columbia, 19–21; tutor math, Col. City of N. Y, 21–22; research, West. Elec. Co, 22–23; instr. *physics, Hunter Col,* 23–26, *asst. prof, 26–* Research submarine detection, Nat. Research Council, 18. Sig.C, U.S.A, 18. A.A; fel. Physical Soc; Radio Eng. Characteristics of magnetically active iron; the shielding of electric and magnetic fields; forces on magnetically shielded conductors.

Turner, Dr. A(rthur) F(rancis), Bausch and Lomb Optical Co, Rochester, N. Y. *Physics.* Detroit, Mich, Aug. 8, 06. B.S, Mass. Inst. Tech, 29; Ph.D, Berlin, 35. Asst. *physics, Mass. Inst. Tech,* 35–36, instr, 36–39; *mem. staff, Bausch and Lomb Optical Co, 39–* Physical optics.

Turner, Prof. B(ird) M(argaret), 354 Spruce St, Morgantown, W. Va. *Mathematics.* Moundsville, W. Va. A.B, West Virginia, 15, A.M, 17; M. Carey Thomas fellow, Bryn Mawr Col, 16, fellow, 19–20, Ph.D, 20. Asst, West Virginia, 13–15; prin, high sch, W. Va, 15–16; asst. director, Phoebe Anne Thorne model sch, Bryn Mawr Col, 17–18, reader *math,* 18–19; instr, Illinois, 20–23; asst. prof, *West Virginia,* 23–25, assoc. prof, 25–31, *prof, 31–* A.A; Math. Soc; Math. Asn. Geometry; theory of plane cubic curves; configurations.

Turner, Dr. Charles R(oot), University of Pennsylvania, Philadelphia, Pa. *Dentistry.* Raleigh, N. C, Nov. 3, 75. A.B, North Carolina, 95; D.D.S, Pennsylvania, 98, hon. Sc.D, 33; M.D, Med. Col. Va, 99, hon. Sc.D, 35. *Prof. prosthetic dentistry,* Med. Col. Va, 00–02; *Pennsylvania, 02–,* dean dental sch, 17–41. Int. Asn. Dental Research. Sciences underlying dentistry; physiology of the human dental mechanism.

Turner, Prof. C(harles) W(esley), 1509 Ross St, Columbia, Mo. *Dairy husbandry.* Chicago, Ill, Jan. 20, 97. B.S.A, Wisconsin, 19, Ph.D, 27; A.M, Missouri, 21. Asst. *dairy husbandry, Missouri,* 19–20, instr, 20–24, asst. prof, 24–30, assoc. prof, 30–37, *prof, 37–* Borden award, 40. A.A; Dairy Sci. Asn. (sec'y, production sect, 30); Soc. Animal Production; Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions; Asn. Cancer Research. Anatomy of the mammary gland; endocrinology, physiology and genetics of milk secretion; hormones of the anterior hypophysis; artificial thyroproteins.

Turner, Prof. C(lair) E(lsmere), Massachusetts Institute of Technology, Cambridge, Mass. *Biology, Public health.* Harmony, Maine, April 28, 90. A.B, Bates Col, 12, hon. Sc.D, 37; A.M, Harvard, 13; C.P.H, Mass. Inst. Tech, 18, Dr.P.H, 28. Acting head dept. biol, Bates Col, 13–14; asst. research, *Mass. Inst. Tech,* 14–15, instr. biol. and assoc. research, 15–19, asst. prof, 19–22, assoc. prof, 22–28, prof. biol. and pub. health, 28–32, *prof. pub. health and head dept, 32–* Instr, Sch. for Health Officers, 15–22; assoc. prof, med. and dental schs, Tufts Col, 19–28; director Malden studies in health educ. and growth, 21–41; special lecturer, Hawaii, 32; Calcutta Univ, 35; Philippines, 36; China Cent. Univ, 36; consultant, Ministry Health and Educ, Nanking, China, 36. Ed. asst, 'Am. Jour. Pub. Health,' 14–15; ed, 'Health Films,' Eastman Kodak Co, 28–33. Trustee, Bates Col, 22– Chairman health sect, World Federation Educ. Asns, 31. Chairman, Nat. Conf. Cooperation in Sch. Health Educ, 40– Sanit. engineer, U. S. Pub. Health Service, 17–19. A.A; fel. Pub. Health Asn; Acad. Physical Educ; Sch. Health Asn; assoc. fel. Am. Med. Asn; Asn. Health, Physical Educ. and Recreation; fel. Am. Acad; hon. mem. Philippine Pub. Health Asn. Sanitation; general hygiene; health education; public health training.

Turner, Dr. C(larence) D(onnell), Northwestern University, Evanston, Ill. *Zoology.* Curryville, Mo, Nov. 30, 03. A.B, Westminster Col. (Mo), 26; A.M, Missouri, 30, Ph.D, 37; Chicago; Wisconsin. Instr. *zool,* Georgia, 30–34, asst. prof, 34–37; instr, *Northwestern,* 37–38, *asst. prof, 39–* A.A; Asn. Study Int. Secretions; Limnol. Soc; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Ill. Acad. Regeneration; taxonomy of oligochaetes; endocrinology; sex physiology.

Turner, Prof. C(larence) L(ester), Evanston, Ill. **Zoology.* Delaware, Ohio, 90. A.B, Ohio Wesleyan, 12, A.M, 14; Ph.D, Wisconsin, 18. Instr. zool, Kansas, 13–14; asst. biol, Wisconsin, 14–15; from instr. to prof, Marquette, 15–17; *zool,* Col. of Wooster, 18; Beloit Col, 20–27; assoc. prof, *Northwestern,* 27–30, *prof, 30–,* chairman dept, 37–40. Biologist, State Board Health, Wis, 26–27. A.A; Soc. Nat; Soc. Zool; Genetic Asn; Asn. Anat; Ohio Acad. Embryology and cytology of vertebrates; ecology and habits of fishes; ecology, distribution and sex-characters of cray-fishes; cytology of fishes; reproductive cycles of fishes; viviparity of fishes; endocrinology of fishes.

Turner, C(laude) A(llen) P(orter), 964 N. High St, Columbus, Ohio. *Civil engineering.* Lincoln, R. I, 69. C.E, Lehigh, 90. Engineer, Edgmore Bridge Co, 91–92; Columbus Bridge Co, 92; Pottsville Iron and Steel Co, 96–97; Gollette Herzog Co, 97–00; Am. Bridge Co, 01; *consulting engineer, 01–* Civil Eng; Mech. Eng; Asn. Eng. Stresses; skew details; elasticity and strength of materials; reinforced concrete; concrete bridge design and construction; theory of flat slabs; economic triangulation of steel trusses; deep foundations and tunnels; chemical mechanics from thermal theory of elasticity; elasticity structure and strength.

Turner, Dr. D(aniel) L(amb), Jefferson Medical College, Philadelphia, Pa. *Organic chemistry.* Toronto, Ont, Can, Aug. 21, 14. B.A, Toronto, 36, M.A, 37; Tech. Hochschule, Munich, 37–39; fellow, Pa. State Col, 40, Ph.D, 41. Asst. chem, Toronto, 36–37; Pa. State Col, 40–41; *research chemist, div. hematol, Jefferson Med. Col, 41–* Chem. Soc. Chlorophyll; sapogenins; sterols; hematopoiesis.

Turner, Dr. Edward L(ewis), Meharry Medical College, Nashville, Tenn. *Internal medicine.* Alton, Ill, Aug. 9, 00. B.S, Chicago, 22, M.S, 23; M.D, Pennsylvania, 28. Adj. prof. physiol, Am. Univ. Beirut, 23–26, assoc. prof. and asst.

dean, med. sch, 28–30, assoc. prof. internal med, 31–33, prof, 33–36, chairman dept, 31–36; *prof. med, head div. med, Meharry Med. Col, 36–, pres, 38–* Res. staff, Billings Hosp, Chicago, 30–31. Soc. Exp. Biol; fel. Col. Physicians; Cent. Soc. Clin. Research. Comparative neurology; pyramidal tract and motor cortex of the Virginia opossum; the racial factors in basal metabolism; basal metabolism and vital capacity of Syrian women; production of immunity against Echinococcus granulosis; survey of hydatid disease in Syria; common pathology of the cervical spine responsible for segmental neuritis; combined fever and x-ray therapy in malignancy; nutritional deficiency underlying jaundice in pneumonia in the Negro.

Turner, Prof. F(rancis) E(arl), Agricultural and Mechanical College of Texas, College Station, Texas. *Geology, Paleontology.* Pigeon, Mich, June 4, 05. B.S, Calif. Inst. Tech, 27, M.S, 28; Ph.D, California, 34. Asst, Oregon, 28–29; California, 29–34; asst. prof. *geol, Agr. and Mech. Col. Texas, 34–37, assoc. prof, 37–; lieut, U. S. Naval Res, 43–* Asn. Petrol. Geol; Paleont. Soc; Geol. Soc. Tertiary stratigraphy and paleontology; Eocene stratigraphy and paleontology in Oregon, California and Texas.

Turner, Francis M(ills), 330 W. 42nd St, New York, N. Y. *Chemistry.* Brockville, Ont, Can, June 19, 90. B.A, Toronto, 14. Research dept, Vanadium Corp. of Amer, 14–17; tech. ed, Chem. Catalog Co, Inc, 17–25, v. pres, 25–28, pres, 28–35, *v. pres. and director, Reinhold Publishing Corp, 35–* Lecturer, Toronto, 23. Chem. technologist, Econ. and Develop. Cmn, Can, 16. A.A; Army Ordnance Asn; Chem. Soc; Soc. Chem. Indust. (exec. cmt, Am. sect, 19–); Electrochem. Soc; Soc. Test. Mat; N. Y. Acad. Corrosion of metals; chemical resistance of engineering materials.

Turner, Dr. G(ordon) H(aslam), 9 Adelaide St, E, Toronto, Ont, Can. *Psychology.* Westmount, Que, 12. B.A, Toronto, 35, M.A, 36, David Dunlap Mem. scholar, 36. Nat. Research Council Can. fellow, 39, Ph.D, 39. Asst. psychol, Toronto, 35–39, exten. lecturer, 37–38; *capt, Canadian Army, 41–* Effect of fixed-pace work upon health.

Turner, H(omer) G(riffield), 420 E. Hamilton Ave, State College, Pa. *Geology.* Toronto, Ont, Can, Nov. 3, 87. B.S, Syracuse, 12, M.S, 14; Chicago, 13. Instr. miner, Syracuse, 14–16, asst. prof, 16–17; geol, Lehigh, 17–26, 27–29, acting head dept, 26–27; *director research, Anthracite Inst, 29–* Summers, Vt. Geol. Surv, 12, 13. Consultant in geol. and fuel technol, 17–30; research assoc, sch. mineral industries, Pa. State Col, 31–35; research engineer, Anthracite Equipment Corp. Mem, Nat. Coal Classification Cmt. Min. and Metal. Eng; Chem. Soc; Water Works Asn; Pa. Waterworks Operators Asn; Pa. Sewage Works Asn; Pa. Acad. Fuel technology; the terranes of Greensboro, Vermont; microscopical structure of anthracite; adsorption of carbon dioxide by coal; constitution and nature of Pennsylvania anthracite with comparisons to bituminous coal; microscopical and x-ray study of Pennsylvania anthracite; chemistry; use of anthracite as a filter medium.

Turner, Prof. H(ubert) M(ichael), 88 Barnett St, New Haven, Conn. *Electrical engineering.* Hillsboro, Ill, July 20, 82. B.S, Illinois, 10, M.S, 15. Asst. instr. *elec. eng,* Illinois, 10–12; instr, Minnesota, 12–18; asst. prof, *Yale,* 18–26, *assoc. prof, 26–* Consulting engineer. 1st prize, New England Convention Elec. Eng, 24. A.A; Elec. Eng; Radio Eng. (director, 33–, pres, 44); Standards Asn; Eng. Educ; Int. Sci. Radio Union. Inductance of coils; transient visualizers; a new property of parallel circuits; determination of high frequency bridge balance; electron tube watt-meters; audio frequency transformer and choke coils; high frequency electrodynamic ammeter; transient currents in transformers.

Turner, Prof. James J(esse), Hiram College, Hiram, Ohio. *Botany.* Hiram, Ohio, 80. Ph.B, Hiram Col, 02, M.S, 13; Ph.D, Chicago, 23. *Prof. biol, Hiram Col, 06–* Morphology of Lycopodium.

Turner, Prof. J(ohn) P(ickett), 430 W. 116th St, New York, N. Y. *Psychology.* Cedar Hill, Tenn, May 5, 76. A.B, Vanderbilt, 00, fellow, 00–01, A.M, 01; Ph.D, Columbia, 10. Teacher, secondary schs, 01–05; pres, Weatherford Junior Col, 05–07; instr. math, Col. City of N. Y, 07–10; prof. mental and moral philos, Vanderbilt, 10–11; instr. *philos, Col. City of N. Y,* 11–13, asst. prof, 13–19, assoc. prof, 19–27, *prof, 27–, head dept. philos, psychol. and anthrop, Brooklyn Col, 30–, prof. philos. and chairman dept, 43–* Lecturer, Adelphi Col, 18; Columbia, 28. Summer, lecturer, Wyoming, 15. A.A; Psychol. Asn; Philos. Asn. Theoretical and abnormal psychology; the character of ideas; English introspective psychology.

Turner, Dr. Kenneth B(urlen), 620 W. 168th St, New York, N. Y. *Internal medicine.* Lynchburg, Va, Jan. 29, 01. A.B, Hamilton Col, 22; M.D, Harvard 26. From asst. to assoc. *med, Columbia,* 28–39, *asst. prof, 39–* Asst. attending physician, Presbyterian Hosp. Liaison officer, cmt. med. research, Office Sci. Research and Develop. Soc. Clin. Invest; Soc. Exp. Biol; Am. Med. Asn; Am. Heart Asn; Harvey Soc. Cardiology; cholesterol metabolism; blood iodine.

Turner, Dr. Lewis M(acDonald), Utah State Agricultural College, Logan, Utah. *Forestry.* Heyworth, Ill, Sept. 7, 98. B.S, Illinois, 23, M.S, 25; Ph.D, Chicago, 31. Teacher, high sch, Ill, 23–24; head dept. biol, Blackburn Col, 25–29; teaching fellow, Chicago, 29–31; asst. prof. forestry, dept. hort. and forestry, Arkansas, 31–37; assoc. conservationist, South Forest Exp. Sta, U. S. Forest Service, 37–39, forester, 39–40, senior forester, div. forest influences, 40–42, asst. chief div, 42–43; *dean sch. forestry and range management, Utah State Col, 43–* Mem. forest service flood control coordinating cmt, U. S. Dept. Agr, 40–41. A.A; Soc. Foresters; Ecol. Soc; Bot. Soc; Geophys. Union; Ark. Acad. (trustee, 33–37, sec'y, 34–37); Ill. Acad. Forest influences; forest ecology; plant ecology; factors influencing the distribution of forest types; relation of site factors, particularly soil characteristics to rate of growth of trees; forest soils; flood control by improved land use and management; relation of forests and forestry to general land use problems.

Turner, Prof. Louis A(lexander), Princeton University, Princeton, N. J. **Physics.* Cleveland, Ohio, Jan. 1, 98. A.B, A.M, Cornell, 20; Ph.D, Princeton, 23. Instr. *physics,* Princeton, 22–23; nat. research fellow, Harvard, 24–25; asst. prof, *Princeton,* 25–29, *assoc. prof, 29–* Guggenheim Mem. Foundation fellow, Göttingen, 29–30. Physical Soc. Spectroscopy and theory of atomic structure.

Turner, Neely, Connecticut Agricultural Experiment Station, New Haven, Conn. *Entomology.* Marionville, Mo, Nov. 7, 01. B.S, Missouri, 22, A.M, 23. Asst, Missouri, 23–25; investigator, Crop Protection Inst, 27–30; *asst. entomologist, Conn. Exp. Sta, 30–* Asn. Econ. Entom. Insect pests of truck crops; household insects.

Turner, Dr. R(ichard) B(aldwin), 88 Barnett St, New Haven, Conn. *Organic chemistry.* Minneapolis, Minn, Oct. 7, 16. A.B, Harvard, 38, A.M, 30, Ph.D, 42. *Research assoc, Harvard, 42–*

Turner, Prof. R(ichard) G, University of Tennessee Junior College, Martin, Tenn. *Plant pathology.* Bells, Tenn, Jan. 15, 94. B.S, Tennessee, 25. Instr. bot, *Tennessee,* 25–27, *assoc. prof. biol, junior col, 27–* Director div. game and fish, Nashville, Tenn, 39–42. Tenn. Acad. General botany.

Turner, Dr. R(obert) G(raham), Brandon, Wis. *Chemistry.* Brandon, Wis, Aug. 21, 98. A.B, Lawrence Col, 20; M.S, Iowa, 22, Ph.D, 27. Instr. physiol. chem, Emory, 22–23; chem, West Virginia, 23–25; asst, Iowa, 25–27; asst. prof. med. research, Detroit Col. Med. and Surg, 27–34, col. med, Wayne, 34–36; *druggist, 36–* Chem. Soc. (chairman, div. chem. educ. Detroit sect, 31); Mich. Acad. Nutrition; vitamin A and its relation to infection of the upper respiratory tract; method for estimation of blood iodine; relation of blood alcohol to intoxication; iodine content of mother's milk.

Turner, Dr. Robert S(tuart), 440B Coleridge Ave, Palo Alto, Calif. *Neuro-anatomy.* Red Oak, Iowa, June 25, 12. A.B, Dartmouth Col, 33; Cramer fellow, Yale, 35–36, Knight fellow, 36–37, Ph.D, 38. Instr. biol, Dartmouth Col, 33–35; asst. research in neuro-anat, med. sch, Yale, 37–38; *instr. anat, Stanford, 38–* Functional anatomy of nervous system.

Turner, Dr. Roy H(ope), 1430 Tulane Ave, New Orleans, La. *Internal medicine.* Dadeville, Ala, June 20, 94. B.S, Ala. Polytech, 20; M.D, Hopkins, 24. Intern med, New Haven Hosp, 24–25; asst. trop. med, *Tulane,* 25–26, instr. med, 26–29, asst. prof. *exp. med,* 29–35, *assoc. prof, 35–; Med. Corps, U. S. Army, 42–* Grant, Am. Med. Asn, 35. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; assoc. Am. Physicians; South. Interurban Club. Physiology of peripheral blood vessels.

Turner, Samuel F(oster), U. S. Geological Survey, Tucson, Ariz. *Hydraulic engineering.* Cleveland, Okla, Oct. 15, 00. B.S, Colo. Agr. Col, 26; A.M, George Washington, 28. Eng. aid, Interstate Commerce Cmn, Washington, D. C, 26–27;

junior civil engineer, bur. pub. roads, U. S. Dept. Agr, 27–29; from asst. to *hydraul. engineer, ground water div, U. S. Geol. Surv, 29–* Geophys. Union; Texas Acad; Geol. Soc. Wash. Ground-water hydrology and geology.

Turner, Dr. Scott, Suite 2824 Graybar Bldg, 420 Lexington Ave, New York, N. Y. *Mining engineering.* Lansing, Mich, July 31, 80. A.B, Michigan, 02, hon. D.E, 30; B.S. and E.M, Mich. Col. Mines, 04, hon. D.E, 32; hon. Sc.D, Colo. Sch. Mines, 30; hon. Sc.D, Kenyon Col, 40. Mine eng. practise, Idaho and Oregon, 02; Ariz, 04; Calif, Nev. and Colo, 05; mine manager, Republic of Panama, 05; examining engineer, Idaho, 06; field engineer, Alaska and Wash, 08; mining geologist, Calif, 09–10; European mine examinations, 11; mine manager, Norway and Spitzbergen, 12–16; mining engineer, Peru, Chile and Bolivia, 16–17; consulting engineer, Can, 19–25; director, U. S. Bur. Mines, 26–35; *mining exec. and consulting engineer, 35–* Chairman, Hoover Medal Board of Award; mem, Nat. Tech. Civil Protection Cmt. Assoc. ed, 'Mining and Sci. Press,' 07. U.S.N.R, 18. Min. and Metal. Eng. (past pres); Min. and Metal. Soc; hon. mem. Coal Min. Inst; hon. mem. Zinc Inst; Geol. Soc. Wash; Can. Inst. Min. and Metal. Mining.

Turner, Dr. Thomas B(ourne), Johns Hopkins University School of Hygiene and Public Health, Baltimore, Md. *Bacteriology.* Prince Frederick, Md, Jan. 28, 02. B.S, St. John's Col. (Md), 21; M.D, Maryland, 25. Jacques Loeb fellow, med. sch, Hopkins, 27–28, instr. med, 28–31, assoc, 31–32; mem. staff, int. health div, Rockefeller Foundation, 32–39; *prof. bacter, sch. hygiene and pub. health, Hopkins, 39–; lieut. col, Med. Corps, U. S. Army, 42–* Am. Physicians; Soc. Clin. Invest; fel. Pub. Health Asn; Soc. Trop. Med; Harvey Soc. Microbiology.

Turner, Dr. Thomas W(yatt), Hampton Institute, Hampton, Va. *Botany.* Md, 77. A.B, Howard, 01, A.M, 05; Ph.D, Cornell, 21; Cold Spring Harbor; Columbia. Teacher, high schs, Md. and Mo, 02–14; prof. applied biol, Howard, 14–21, bot, 21–24; *head dept. biol, Hampton Inst, 24–* Summers, investigator, Presque Isle, Maine, U. S. Dept. Agr, 18–19, collaborator, plant disease surv, 24– A.A; Bot. Soc; Phytopath. Soc; Va. Acad. Plant physiology and pathology; physiological effects of mineral nutrients on root growth in seed plants; physiological effects of nitrogen and of phosphorus upon plants.

Turner, Dr. W(illiam) A(bbey), Bureau of Dairy Industry, U. S. Department of Agriculture, Beltsville, Md. *Chemistry.* Housatonic, Mass, May 13, 87. Ph.B, Yale, 10, A.M, 14, Ph.D, 16. Asst. chem, Mass. Col, 10–12; Yale, 12–16; instr, Pennsylvania, 16–17; asst. prof, Wesleyan, 19–20; St. Lawrence, 20–21; *assoc. chemist, bur. dairy indust, U. S. Dept. Agr, 21–* Lieut, Sanit.C, 17–19. A.A; Chem. Soc; Soc. Biol. Chem. Sulfates; vanadium; mineral metabolism; vitamins.

Turner, Dr. William D, 52 Glendale Road, Belmont 78, Mass. *Psychology.* Heyworth, Ill, Aug. 1, 04. A.A, Blackburn Col, 24; A.B, Illinois, 26; Thayer scholar, Harvard, 27–28, A.M. and Ph.D, 29. Instr. psychol, Tufts Col, 28–29; Social Science Research fellow, Vienna, 29–30; instr. psychol, Ft. Hays Kans. State Col, 30–31; Bryn Mawr Col, 31–35; regional director occupational morbidity and mortality study, U. S. Pub. Health Service, 36; research psychologist, inst, Penna. Hosp, 36–39; Cambridge-Somerville Youth Study, 39–43; *lecturer psychol, Mass. Inst. Tech, 42–* Instr, Simmons Col, 41–42. Summers, instr, Ill. State Nor. Univ, 27–28. A.A; Psychol. Asn; Soc. Research Child Develop; East Psychol. Asn; Mass. Soc. Clin. Psychol. Serial effects in weight-perception; unusual defects in color perception; perception of direction in rats; psychological effects of benzedrine; post-therapeutic test performance in psychosis; evaluation of social services; scale for measuring altruistic tendencies.

Turner, Prof. W(illiam) D(eGarmo), 88 Morningside Drive, New York, N. Y. *Chemical engineering.* Sioux City, Iowa, Sept. 25, 89. B.S, Chicago, 09, Ph.D, 17. Commercial chemist, 09–15; assoc. chem, Chicago, 15–17; asst. prof, Mo. Sch. Mines, 17–18, prof. and head dept, 18–29; *in charge Bakelite research, Columbia, 27–, asst. prof. chem. eng, 29–* A.A; Chem. Eng; Chem. Soc; Soc. Chem. Indust; fel. Inst. Chem; Pub. Health Asn; Water Works Asn. Diffusion of gases; periodic law; potash in United States deposits; Bakelite; water supply; sewage disposal; tobacco improvement; colloidal plant foods; explosives; plastics.

Turner, William F(ranklin), U. S. Department of Agriculture, Chattanooga, Tenn. *Entomology.* Newington, N. H, May 6, 87. B.S, Mass. Col, 08. Instr. entom, Ala. Polytech, and asst. entomologist, Exp. Sta, 08–13; entom. asst, bur. entom, U. S. Dept. Agr, 13–16; asst. entom, State Board Entom, Ga, 16–23; hort. agent, Cent. of Ga. Ry, 23–29; *entomologist, div. fruit insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Plant pathology; insect fumigation; life histories of apple aphids; pecan insects; vectors of virus diseases.

Turney-High, Prof. Harry (Holbert), Montana State University, Missoula, Mont. *Anthropology.* Kansas City, Mo, Feb. 11, 99. A.B, Columbia, 22; A.M, Wisconsin, 24, fellow, 24–25, Wis. State Board Control fellow, 25–28, Ph.D, 28. Asst, Wisconsin, 23–26; asst. prof, South Dakota, 26–27; acting prof, DePauw, 27–28; *prof. anthrop. and sociol. and chairman dept, Montana, 28–; instr. criminal investigation, Provost Marshal Gen's. Sch, European Theater of Operations, U. S. Army, 43–* Visiting prof, Tulane, 37–38. Summer, lecturer, Wisconsin, 31. A.A; Anthrop. Asn. Sociology; cultures of the northern plateau; archeology and ethnohistory of the plains; ethnology of tactics and strategy; techniques of criminal investigation.

Turrell, Dr. Franklin M(arion), 3574 Bandini Ave, Riverside, Calif. *Plant physiology.* Pittsburgh, Pa, March 21, 05. B.E, East. Ill. State Teachers Col, 29; M.S, Iowa, 32, scholar, 32–33, Ph.D, 35; Iowa State Col, 36; Harvard, 36. Asst. bot, Iowa, 31–32, 33–35; instr. plant physiol, Cincinnati, 35–36; junior plant physiologist, *grad. sch. trop. agr. and Citrus Exp. Sta, California,* 36–42, *asst. plant physiologist, 42–* A.A; Bot. Soc; Soc. Plant Physiol; Iowa Acad. Internal surface of foliage leaves; gaseous exchange; physiology of Citrus; physiology of sulphur injury.

Turrentine, Dr. J(ohn) W(illiam), American Potash Institute. Washington, D. C. *Chemistry.* Burlington, N. C, July 5, 80. Ph.B, North Carolina, 01, M.S, 02; Ph.D, Cornell, 08. Instr. chem, Lafayette Col, 02–05; asst, Cornell, 05–08; instr. physical chem, Wesleyan, 08–11; chemist, bur. soils, U. S. Dept. Agr, 11–17, in charge exp. kelp products plant, Calif, 17–22, potash investigations, bur. chem. and soils, 27–35; *pres. and chairman board directors, Am. Potash Inst, 35–* Gold medal, Acad. d'agr. de France. U. S. del, Int. Cong. Pure and Applied Chem, Madrid, 34, Rome, 38. A.A; Chem. Soc; Chem. Eng; Soc. Agron. Electrochemistry; hydronitrogens; potash and other fertilizer resources; technology and economics of potash, phosphates and ammonia; kelp products; adsorbent carbon and silica; iodine; kelp in dietetics and goiter eradication; soil fertility.

Turrittin, Prof. Hugh L(onsdale), University of Minnesota, Minneapolis, Minn. *Mathematics.* Rice, Minn. B.S, Minnesota, 27; M.S, Wisconsin, 32, Ph.D, 33. Instr. mech, Wisconsin, 28–29, math, 31–33; adj. prof. math. and eng, Col. Mines and Metal, Texas, 33–39; *asst. prof. math. and mech, Minnesota, 39–* Math. Asn. Mathematical analysis; asymptotic solutions of linear differential equations.

Tussing, Prof. E(arl) B(yron), Ohio State University, Columbus, Ohio. *Agriculture.* Canal Winchester, Ohio, Dec. 2, 95. B.S. (Agr), Ohio State, 22, M.S, 39. Veg. grower, 22–25; *asst. prof. veg. gardening, Ohio State, 26–* 2nd lieut, A.S, 17–19. Soc. Hort. Sci; Ohio Veg. Growers Asn. (sec'y).

Tuthill, Prof. J(ohn) K(line), University of Illinois, Urbana, Ill. *Engineering.* LeRoy, Ill, May 18, 85. B.S, Illinois, 14, E.E, 25. Manager elec. properties, Ill. Traction System, 14–17; instr, U. S. Sch. Mil. Aeronautics, 17–19; *assoc. prof. ry. elec. eng, Illinois, 20–* Tonnage rating and train resistance tests; steam trains; roller bearing resistance tests of steam railway cars; noise tests of street cars and other city noise; principles and practise of transit engineering.

Tuthill, Dr. Leonard D(ale), Iowa State College, Ames, Iowa. *Entomology.* Baxter Springs, Kans, Jan. 24, 11. A.B, Kansas, 29, A.M, 30; Ph.D, Iowa State Col, 41. *Instr. zool, Iowa State Col, 37–* Entom. Soc. Amer; Kans. Entom. Soc. Systematic entomology; psyllidae and other Homoptera.

Tuttle, Arthur S(mith), 10 E. 40th St, New York, N. Y. *Civil engineering.* Burlington, Conn, March 26, 65. B.S, C.E, N. Y. Univ, 85; D.Eng, Rensselaer Polytech, 42. Asst. engineer, Brooklyn Water Works, 84–01; chief engineer, irrig. and water power develop, Bishop Estate, Honolulu, 01–02; prin. asst. engineer and deputy chief engineer, Board Estimate and Apportionment, New York, 02–20, chief engineer, 21–28, consulting engineer, 28–33; Citizens Budget Cmn, 33; state engineer and state director, Fed. Emergency Admin. Pub. Works, N. Y, 33–37; Queens Midtown Tunnel, 36–37; consulting engineer, Works Progress Admin, 38–41; *practising consulting engineer, 38–; mem. firm, Tuttle, Seelye, Place and*

Raymond, 41– Director Pub. Work Reserve, New York, 41. Mem. New York Admin. Work and Home Relief, 33; trustee, N. Y. Univ. Medal, Pan-Pacific Expos, 15. Civil Eng. (past pres., v. pres, treas. and director; past pres, metropolitan sect); Shore and Beach Preservation Asn. (director); United Eng. Trustees (v. pres. and treas); N. Y. Eng. Club (past pres. and trustee). Water meters for large mains; valve for removal of air from water mains.

Tuttle, Dr. C(harles) Derwood, 15788 Littlefield Ave, Detroit, Mich. *Physical chemistry.* Belding, Mich, Dec. 23, 03. B.S, Mich. State Col, 29, nat. research fellow, 30–33, M.S, 31, Ph.D, 33. Asst, Mich. State Col, 29–30; research chemist and chem. engineer, *Ternstedt mfg. div, Gen. Motors Corp,* 34–38, research chemist in charge die casting, 38–42, *supervisor research labs, aircraft instruments div, 42–* Research chemist, J. C. Miller Co, Grand Rapids, Mich, 33. Chem. Soc. Electroplating; oxidation reduction potentials at the graphite electrode in bacterial culture media; electro-metal cleaners.

Tuttle, Clifton M(ilton), 270 Edgemere Drive, Rochester, N. Y. *Physics.* Evansville, Wis, March 7, 98. A.B, Wisconsin, 22. Asst. physics, Wisconsin, 22–23; instr, Georgia, 23–24; *physicist, research lab, Eastman Kodak Co, 24–* Optical Soc; fel. Soc. Motion Picture Eng. Photography; densitometry; motion picture engineering; photographic printing.

Tuttle, Dr. Franklin E(lliott), 125 E. Maxwell St, Lexington, Ky. *Chemistry.* Hadley, Mass, June 17, 64. A.B, Amherst Col, 89; Ph.D, Göttingen, 93. Instr. chem. and miner, Pa. State Col, 89–93, asst. prof. chem, 93–04, prof. quantitative anal, 04–06; prof. *chem.* and head dept, *Kentucky,* 06–34, *emer. head dept, 34–* U. S. Assay Cmn, 16. Chem. Soc; Soc. Chem. Indust; Deuts. Chem. Gesell; Soc. de Chim. Indust. Analytical chemistry; terpenes; apparatus; crystallography.

Tuttle, Dr. J(ohn) R(oss), Allied Chemical and Dye Corp, New York, N. Y. *Chemistry.* Tweed, Ont, Can, 92. M.A, Queen's (Can), 12, 1851 Exhib. fellow, 13–15; fellow, Columbia, 15–16, Ph.D, 16. *Chemist,* Gen. Chem. Co, 16–20; Atmospheric Nitrogen Corp, 20–27; *Allied Chem. and Dye Corp, 27–* Chem. Soc.

Tuttle, Prof. W(ald) W(right), University of Iowa College of Medicine, Iowa City, Iowa. *Physiology.* Wrightville, Ohio, Sept. 4, 92. A.B, Huntington Col, 15; A.M, South Dakota, 22; fellow, Ohio State, 23–24, Ph.D, 24. Instr. and prin, high schs, Colo. and S. Dak, 15–22; instr. *physiol,* Illinois, 24–25, asst. prof, 25–26; *Iowa,* 26–36, assoc. prof, 36–38, *prof, 38–* Physiol. Soc; Soc. Exp. Biol. The nervous system; physiology of exercise; sports physiology.

Tuttle, Dr. William (McCullough), 307 David Whitney Bldg, Detroit, Mich. *Surgery.* Philadelphia, Pa, April 5, 05. A.B, Hope Col, 27; M.D, Chicago, 31. Asst. anat, Chicago, 30–31, intern surg, univ. clinics, 31–32, Douglas Smith fellow path, 32–33; nat. research fellow surg, sch. med, Washington (St. Louis), and Barnes Hosp, 33–35; *assoc. thoracic surgeon, Herman Kiefer Hosp, Dept. Health, Detroit, 35–; instr. surg, col. med, Wayne, 37–* Am. Med. Asn; Asn. Thoracic Surg; Cent. Soc. Clin. Research; Cent. Surg. Asn; Mich. Trudeau Soc. Thoracic surgery; pulmonary physiology and pathology.

Tuttle, Dr. W(illiam) Norris, Lowell Road, Concord, Mass. *Physics.* Croton-on-Hudson, N. Y, March 29, 02. A.B, Harvard, 24, M.S, 26, Ph.D, 29. Instr. and tutor physics, Harvard, 29–30; *engineer, Gen. Radio Co, 30–* A.A; Physical Soc; assoc. Radio Eng; Acoustical Soc. Harmonic distortion in triode detectors; modulation characteristics of broadcast transmitters; thermionic vacuum-tube characteristics; submarine acoustics; high-resistance measurement; thermionic voltmeters; bridged-T and parallel-T circuits for electrical measurements.

Tuve, Prof. George L(ewis), 2510 Newbury Drive, Cleveland Heights, Ohio. *Mechanical engineering.* Canton, S. Dak, May 26, 96. Augustana Col. (S. Dak); Northwestern; B.S. Minnesota, 20, M.E, 21. Instr, Minnesota, 21–24, asst. prof, 25–26; Montana, 24–25; prof. mech. eng. and head dept, Texas Tech. Col, 26–30; assoc. prof. and *prof. heat-power eng, Case, 30–* Mech. Eng; Heat. and Vent. Eng; Eng. Educ. Engineering measurements; heat transfer; flow of fluids; air conditioning.

Tuve, Dr. M(erle) A(ntony), Department of Terrestrial Magnetism, Carnegie Institution, 5241 Broad Branch Road, N.W, Washington, D. C. ****Physics.* Canton, S. Dak, June 27, 01. Fellow, Minnesota, 21–23, B.S, 22, A.M, 23; Ph.D, Hopkins, 26. Instr. physics, Princeton, 23–24; Hopkins, 24–26; assoc. physicist, *dept. terrestrial magnetism, Carnegie Institution,* 26–28, physicist, 28–38, *chief physicist, 38–* Shared A.A.A.S. prize, 31. Fel. Physical Soc; Geophys. Union; Philos. Soc. Wash. Ionization by positive ions; echo investigations of Kennelly-Heaviside layer; sources of high voltage; high voltage vacuum tubes; penetrating radiation; biophysics; artificial beta and gamma rays; high-speed protons; transmutations of atomic nuclei; neutrons; nuclear forces; artificial radioactivity.

Tweedy, Prof. Wilbur R, Loyola University School of Medicine, Chicago, Ill. *Biological chemistry.* Boonville, Ind. A.B, Indiana, 16; fellow, Chicago, 23–25, Ph.D, 26. Chemist, West. Cartridge Co, Springfield, 16–19; Kans. Wesleyan, 19–23; assoc. prof. *biol. chem, sch. med, Loyola (Ill),* 25–36, *prof. and chairman dept, 36–* A.A. Physiology and chemistry of the parathyroid glands.

Tweney, George Harrison, 8521 Marygrove Drive, Detroit, Mich. *Aeronautics.* Moosejaw, Can, Sept. 16, 15. B.Ae.E, Detroit, 38, Continental Aircraft Motors Design scholar, 38, Aero.E, 42; N. Y. Univ, 40; M.S, Michigan, 42. Asst, aerodynamics lab, Detroit, 36–38; engineer in charge maintenance, Pan-Am. Airways, 38–41, flight test engineer, 40–41; *instr. aeronautics, Detroit, 41–, acting director dept, 42–* Inst. Aeronaut. Sci; Eng. Educ. Effects of the ground and horizontal tail location on the longitudinal stability of a high wing monoplane; wing flutter theory; airplane structures; stressed skin analysis.

Twenhofel, Prof. W(illiam) H(enry), University of Wisconsin, Madison, Wis. ***Geology.* Covington, Ky, April 16, 75. A.B, Yale, 08, A.M. 10, Ph.D, 12. Prof. nat. science, E. Texas Nor. Col, 04–07; asst. prof. *geol,* Kansas, 10–13, assoc. prof, 13–16; *Wisconsin,* 16–21, *prof, 21–, chairman dept, 40–* Shaler Mem. exped, Baltic, 14; state geologist, Kans, 15–16; guide, excursion A 1, Int. Geol. Cong, Toronto, 13; chairman cmt. sedimentation, Nat. Research Council, 24–31, chairman div. geol. and geog, 31–34. Ed, 'Jour. Sedimentary Petrog,' 33– A.A; Geol. Soc. (councilor, 24–26, v. pres, 30–31); Paleont. Soc. (v. pres, 24, pres, 30); Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. (pres, 35); Wis. Acad. Sedimentation; invertebrate paleontology; stratigraphy of Silurian and Comanchean; geology of Anticosti Island, Mingan Islands, Newfoundland and the Upper Mississippi Valley; sediments of lakes.

Tweto, Ogden (Linne), U. S. Geological Survey, Washington, D. C. *Geology.* Abercrombie, N. Dak, June 10, 12. A.B, Montana, 34, A.M, 37; Michigan, 37–39. Teaching fellow, Michigan, 37–39; instr, North Carolina, 39–40; *junior geologist, metals sect, U. S. Geol. Surv, 40–* Geol. Soc. Wash. Metamorphic, structural and metalliferous geology.

Twichell, Trigg, 3208 Harris Park Ave, Austin, Texas. *Engineering.* Austin, Texas, June 24, 01. B.S. Texas. Junior engineer, *water resources branch, U. S. Geol. Surv,* 25–28, asst. engineer, 28–29, assoc. engineer, 29–40, *hydraul. engineer, 40–* Summers, hydrographer, State Board Water Engineers, Texas, 19–25. Civil Eng; Geophys. Union; Nat. Soc. Professional Eng. Surface water supply of the United States.

Twitmyer, Dr. Edward M(arvin), Girard College, Philadelphia, Pa. *Psychology.* Philadelphia, Pa, March 4, 01. A.B, Pennsylvania, 24, A.M, 26, Ph.D, 30. Instr. psychol, Pennsylvania, 24–37, asst. to personnel officer, 30–34; *director student personnel, Girard Col, 37–* Personnel adviser, sch. nursing, Phila. Gen. Hosp; Presb. Hosp, 33–37; lecturer, sch. nursing, Lankenau Hosp, 41–; psychologist, U. S. Army Induction Sta, 43. A.A; fel. Asn. Applied Psychol; East. Asn. Col. Deans and Advisers of Men (sec'y-treas, 35); Pa. Asn. Clin. Psychol. Clinical psychology; visual guidance in motor learning; psychology of learning; personnel.

Twitty, Prof. Victor C(handler), Stanford University, Calif. ***Zoology, Embryology.* Martin Co, Ind, Nov. 5, 01. B.S, Butler, 25; Ph.D, Yale, 29. Instr. zool, Yale, 29–31; nat. research fellow, Kaiser Wilhelm Inst, 31–32; asst. prof. *zool, Stanford,* 32–35, assoc. prof, 35–36, *prof, 36–* Summers, instr, Marine Biol. Lab, Woods Hole, 30; lecturer, Michigan, 41. Experimental embryology of the Amphibia; embryonic transplantation; ciliary action; growth studies on the eye; hybridization of Amphibia; pigment development in Amphibia.

Twomey, Dr. Arthur C(ornelius), Carnegie Museum, Pittsburgh, Pa. *Zoology.* Midland, Ont, Can, Oct. 15, 08.

B.Sc, Alberta, 33; M.S, Illinois, 35, Ph.D, 37. Asst. zool, Illinois, 33–37; *asst. curator and field collector, dept. ornith, Carnegie Museum, 37–* Asst, paleont. exped, 27; conductor expeds, north. Alberta, 28–34, Arctic regions, Hudson Bay, 31–34, 36, 38, Pacific Coast, 33, Utah, 37, N. Mex, 39, Ariz, 40, Oregon, 41, Peru, Chile, Tierra del Fuego and Galapagos Islands, 39, Bahama Islands, 42, Delta of Mackenzie River, 42–43. Ornith. Union. Animal ecology; ornithology; climatology; mammalogy; migration; bird populations in relation to territory; food and seasonal variations; causes of duck sickness.

Tykociner, Prof. J(oseph) T(ykocinski), University of Illinois, Urbana, Ill. *Electrical engineering, Physics.* Vloclavek, Poland, 77. E.E, Cothen and Berlin. Junior electrician, Marconi Wireless Telegraph Co, England, 02–03; research engineer, Wireless Telegraph Co, Berlin, 04; organizer dept. radiotelegraphy, Russian Siemens and Halske Co, Petrograd, 05, engineer in chief, radio dept, 05–08, manager radio dept. and research lab, 08–18; research, Radiol. Lab, and expert radiotelegraphy, State Dept. Post and Tel, Warsaw, 19; research engineer, research dept, Westinghouse Elec. and Mfg. Co, Pittsburgh, 20–21; research asst. prof. *elec. eng, Illinois,* 21–29, *research prof, 29–* A.A; Elec. Eng; fel. Physical Soc; Radio Eng; Eng. Educ; Ill. Acad; Soc. des Radioélectriciens de France. Method of absolute measurements of frequency of electric oscillation; photographic recording and photoelectric reproduction of sound; antennae; oscillations due to corona discharges; piezoelectric vibrations; microwaves; phase angle measurements.

Tyler, Prof. Albert, California Institute of Technology, Pasadena, Calif. ***Zoology, Embryology.* Brooklyn, N. Y, June 26, 06. A.B, Columbia, 26, A.M, 27; Ph.D, Calif. Inst. Tech, 29. Asst. zool, Columbia, 26–28; teaching fellow biol, *Calif. Inst. Tech,* 28–29, instr. *embryol,* 29–38, *asst. prof, 38–* Nat. research fellow, Berlin and Naples, 32–33. Mem. corp, Marine Biol. Lab, Woods Hole. A.A. Experimental embryology; artificial production of double embryos; bilateral symmetry; artificial parthenogenesis; fertilization; energetics of development; immunology.

Tyler, Chaplin, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Washington, D. C, March 28, 98. B.Ch.E, Northeastern, 20; B.B.A, Boston, 22; M.S, Mass. Inst. Tech, 23. Asst. applied chem, Mass. Inst. Tech, 20–22, research assoc, 23–24; asst. ed, 'Chem. and Metal. Eng,' 24–27; chemist, *E. I. du Pont de Nemours and Co,* 27–35, asst. director, 35–41, *mem. develop. dept, 42–* Assoc. journalism, Columbia, 26–27. Chem. Soc; Chem. Eng. Electrodeposition of zinc; electrolysis of sodium sulfate; solubility of gases in rubber; physical properties of cotton; fertilizer processes; nitrogen fixation; economics of chemical industry.

Tyler, Dr. David B(ernard), 773 S. Mentor Ave, Pasadena, Calif. *Physiology, Biochemistry.* New York, N. Y, Jan. 13, 05. A.B, Southern California, 34, Ph.D, 37. *Research fellow, Calif. Inst. Tech, 40–* Soc. Exp. Biol; Physiol. Soc. Insulin and carbohydrate metabolism; brain metabolism.

Tyler, Prof. Leon J(ohn), Cornell University, Ithaca, N. Y. *Plant pathology.* Belle Plain, Iowa, Sept. 28, 02. B.S, S. Dak. State Col, 27, M.S, 29; Ph.D, Minnesota, 34. Instr. bot. and plant path, Louisiana, 30–31; asst, Minnesota, 31–34; instr. *plant path, Cornell,* 34–36, *research prof, 36–* Phyto-path. Soc. Morphology, physiology, cytology and genetics of cereal smut fungi; epiphytology of forest and shade tree diseases.

Tyler, Prof. M(arguerite) G(riffith), Huron College, Huron, S. Dak. *Chemistry.* Owensboro, Ky, Feb. 25, 81. A.B, Michigan, 03; M.S, Chicago, 10; Ph.D, Columbia, 28. Instr, Cincinnati, 04–05; teacher, high sch, Ky, 06–11; instr, State Col. Wash, 11–12; head dept. science, Idaho State Nor. Col, Lewiston, 12–26; asst. chem, Columbia, 27–28; prof. chem. and head dept. science, Limestone Col, 28–33; instr, exten. dept, Kentucky, 33–34; prof, Col. Misericordia, 34–35; prof. chem. and head science dept, Athens Col, 35–41; *prof. chem, Huron Col, 41–* Lecturer, Lewiston Sch. Hort. Chem. Soc; Inland Empire Sci. Teachers Asn. (pres. and sec'y). Exothermic oxidation of seeds; chemistry of enzymes; applications of science in the Northwest.

Tyler, Paul M(cIntosh), 121 W. Bradley Lane, Chevy Chase, Md. *Metallurgy, Economics.* Oberlin, Ohio, April 18, 89. B.S, Mass. Inst. Tech, 12. Asst. chem, and metallog, Mass. Inst. Tech, 12–13; mining eng, Moctezuma Copper Co, Mex, 13–14; metal. research, 14–15, 18; mine supt, Colo, 15–17; chief metals and ceramics divisions, U. S. Tariff Cmn, 18–24, special expert, 25–27; asst. to chief econ. branch and later chief engineer, rare metals and non-metals div, U. S. Bur. Mines, 28–42; chief nonmetallic minerals sect, Board Econ. Warfare, 42–43; *east. regional engineer, U. S. Bur. Mines,* 43– Consulting expert, finance cmt, U. S. Senate, 22; investigator, metal indust. and gen. econ. conditions, Europe, 19–21. Min. and Metal. Eng. (chairman, indust. minerals div, 41). Mineral economics.

Tyler, Prof. Ralph W(infred), University of Chicago, Chicago, Ill. *Education.* Chicago, Ill, April 22, 02. A.B, Doane Col, 21; A.M, Nebraska, 23, Ph.D, 27. Head dept. science, high sch, S. Dak, 21–22; asst. supervisor sciences, Nebraska, 22–27; assoc. prof. *educ,* North Carolina, 27–29; assoc. prof. and research assoc, bur. educ. research, Ohio State, 29–31, prof. and research assoc, 31–38; *prof. educ. and chairman dept, Chicago, 38–, univ. examiner.* A.A. (chairman, Q, 37); Statist. Asn. Educational measurement and statistics; construction of science tests; measuring results of college instruction; evaluation of progressive school programs.

Tyler, Dr. Rayen W(elch), Kodak Research Laboratories, Rochester, N. Y. *Physics.* Bellevue, Nebr, Aug. 31, 03. A.B, James Millikin, 26; A.M, Illinois, 27, scholar, 26–27, Ph.D, 33. Asst. physics, Illinois, 26–31; instr, James Millikin, 31–32; *physicist, Eastman Kodak Co, 34–* Optical Soc. Paramagnetism; electrostatics; electronics.

Tyler, Prof. R(ichard) G(aines), University of Washington, Seattle, Wash. *Engineering.* Georgetown, Texas, Oct. 16, 85. C.E, Texas, 08; B.S, Mass. Inst. Tech, 10. Asst. engineer, State Reclamation Dept, Texas, 12–13; asst. city engineer, Austin, Texas, 13–14; city engineer, Paris, Texas, 14–16; adj. prof. highway and sanit. eng, Texas, 16–19, assoc. prof, 19–20; city engineer, Paris, Texas, 20–21; dean eng, Okla. Agr. and Mech. Col, 21–23, acting pres, 23; assoc. prof. sanit. eng, Mass. Inst. Tech, 24–26, prof, 26–29; dean col. eng, *Washington (Seattle),* 29–35, *prof. sanit. eng, 29–,* head dept. civil eng, 29–37. Capt, Q.M.C, 18–19, major, Eng.O.R.C, 22–32. Civil Eng; Eng. Educ. (sanit. eng. cmt); Water Works Asn; Geophys. Union. Sanitary engineering; water purification; sewage disposal.

Tyler, Prof. Stanley A(llen), University of Wisconsin, Madison, Wis. *Geology.* Aztalan, Wis, Feb. 28, 06. A.B, Wisconsin, 28, A.M, 29, Ph.D, 35. Instr, N. Dak. Agr. Col, 30–31, asst. prof, 31–32; instr. *geol, Wisconsin,* 35–37, *asst. prof,* 37–Fel. Geol. Soc; Wis. Acad. Sedimentation; structural geology; pre-Cambrian geology; geology of iron deposits.

Tyler, Dr. Willard P(hilip), 500 S. Main St, Akron, Ohio. *Analytical chemistry.* Newton, Mass, Nov. 8, 09. B.S, Oregon State Col, 31, M.S, 33; Ph.D, Illinois, 38. Instr. chem. and math, Clark Junior Col, 34–36; *research analyst, B. F. Goodrich Co, 38–* Chem. Soc. Analytical research in field of natural and synthetic rubber, raw materials and products.

Tyndall, Prof. E(dward) P(hilip) T(heodore), 410 Magowan Ave, Iowa City, Iowa. *Physics.* Durban, Natal, S. Africa, April 29, 93. A.B, Richmond Col, 12; Ph.D, Cornell, 22. Teacher, high schs, Va. and N. C, 12–16; asst, Cornell, 16–17; lab. asst. and assoc. physicist, Bur. Standards, 17–19; instr, Cornell, 19–22; eng. dept, West. Elec. Co, N. Y, 22–24; assoc. *physics, Iowa,* 24–25, asst. prof, 25–28, *assoc. prof, 28–* Research assoc, Bur. Standards, 21; cooperating expert, reflectivity of non-metals, Int. Critical Tables, 24–25. Physical Soc; Asn. Physics Teachers; Optical Soc. Ultra-violet and visible optical absorption and reflection; physiological optics; magnetism; metal single crystals.

Tyner, Prof. Edward H(enry), 313 Richwood Ave, Morgantown, W. Va. *Soils.* Chicago, Ill, June 15, 07. B.S, Nebraska, 30; M.S, Wisconsin, 32, Ph.D, 34. Instr. soils, Nebraska, 34–35; asst. soil scientist, bur. chem. and soils, U. S. Dept. Agr, 35–36; prof. soils, N. Dak. Col, 36–38; asst. prof. *agron, West Virginia,* 38–43, *assoc. prof, 43–,* asst. agronomist, *Exp. Sta,* 38–43, *assoc. agronomist, 43–* Soil Sci. Soc; Soc. Agron. Plant nutrition; soils of Crawford County, Wisconsin; tree soil relationships of Great Plains shelterbelt project; chemistry of podsol soil formation; soil dispersion methods.

Tyner, Dr. Howard D(ale), American Viscose Corp, Meadville, Pa. *Physical chemistry.* Stanford, Ill, April 28, 03. B.S, Ill. Wesleyan, 25; M.S, Kans. State Col, 29; Ph.D, Wisconsin, 34. Instr. gen. inorg. and org. chem, Kans. State Col, 26–30;

physical and anal. chem, Grinnell Col, 30–31; senior sci. aid, junior chemist, asst. technologist and asst. chemist, Forest Products Lab, U. S. Forest Service, 34–39; *research chemist in charge cellulose acetate chem. research div, Am. Viscose Corp, 39–* Research chemist, Forest Products Lab, U. S. Forest Service, 34. Summer, chemist, testing dept, Int. Lead Ref. Co, Ind, 26. Chem. Soc. (exec. cmt, Erie sect, 41–, chairman, program cmt, 42). Viscometry, spectroscopy, foams, evaluation and role of chemicals in fire extinction; pressure catalytic hydrogenation; plastics; plasticization; linear polymers; molecular weights and size distribution determinations; cellulose, production and properties of cellulose derivatives.

Tyner, Dr. L(awrence) E, University of Alberta, Edmonton, Alta, Can. *Plant pathology.* Salisbury, N. B, Jan. 26, 02. B.Sc, Alberta, 31, M.Sc.Agr, 33; Ph.D, Minnesota, 39. *Agr. scientist, Science Service, Dom. Dept. Agr, 30–* Physiological and microbiological aspects of soil borne diseases of cereal crops.

Tyrrell, Dr. J(oseph) B(urr), Metropolitan Bldg, Toronto, Ont, Can. *Geology.* Weston, Ont, Nov. 1, 58. B.A, Toronto, 80, A.M, 89, LL.D, 30; B.Sc, Victoria (Ont), 89; LL.D, Queens (Can), 40. Geologist, Geol. Surv. Can, 81–99; *pres, Kirkland Lake Gold Mining Co, Ltd, 99–* Back premium, Royal Geog. Soc; Murchison medal, Geol. Soc. London; Daly medal, Am. Geog. Soc; Flavelle medal, Royal Soc. Can. A.A; Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; hon. mem. Explorers Club; hon. mem. Minn. Hist. Soc; fel. Royal Soc. Can. Metal mining geology; geography and history of northwestern America.

Tysdal, Dr. H(ewitt) M(erlin), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Lee, Ill, Dec. 14, 02. B.S.A, Saskatchewan, 24; M.S, Kans. State Col, 26; Am-Scandinavian Foundation fellow, Sweden, 27–28; Ph.D, Minnesota, 31. Instr, Minnesota, 26–27; asst. agronomist, bur. plant indust, U. S. Dept. Agr, col. agr, Nebraska, 28–30, assoc. agronomist, 30–39, agronomist, 39–43, prof. agron, univ, 36–43; *senior agronomist, bur. plant indust, U. S. Dept. Agr, 43–* Frank Azor Spragg lecturer, Mich. State Col, 42. Soc. Agron; Can. Soc. Tech. Agr. Plant physiology; plant breeding.

Tyson, Prof. F(loyd) T(haddeus), Temple University, Philadelphia, Pa. *Organic chemistry.* York, Pa, Nov. 10, 98. B.S, Pa. State Col, 20; fellow, Yale, 21–23, Ph.D, 23. Asst. chem, Yale, 20–21; chemist, Naval Aircraft Factory, Phila, 24–25; instr. *chem, Temple,* 25–27, asst. prof, 27–33, assoc. prof, 34–41, *prof, 41–* A.A; Chem. Soc. Chemistry of acetylene, isoquinoline and indole derivatives; chemical constitution and physiological action.

Tyson, Prof. George N(oblit), Jr, 600 E. Baseline, Claremont, Calif. *Biochemistry.* Philadelphia, Pa, Jan. 7, 06. A.B, Pomona Col, 35; M.S, Southern California, 39, Ph.D, 41. Asst. chem, Pomona Col, 35–36; research chemist, Union Oil Co, Calif, 36–38; instr. *chem, Pomona Col,* 38–42, *asst. prof, 42–* Chem. Soc. Magnetic susceptibility and configuration studies of complex compounds; nature of catalysis.

Tyson, Prof. J(ames), 439 Hillcrest Ave, East Lansing, Mich. *Soils.* Sherrodsville, Ohio, Dec. 10, 97. B.S, Mich. State Col, 21, fellow, 26–29, Ph.D, 29. Asst. *soils, Mich. State Col,* 21–24, *asst. prof. and research asst, Exp. Sta, 29–* Asst. prof, Iowa State Col, 39–40. Soc. Agron. Influence of soil type, fertilizer treatments and light intensity on chemical composition; enzyme activities and growth of sugar beets; fertilizer results on sugar beets; golf courses; bent grass lawns; effect of soil management and fertilizers on crop production.

Tyson, Dr. Ralph M(aguire), 255 S. 17th St, Philadelphia, Pa. *Medicine, Pediatrics.* Montgomery, Pa, May 9, 88. Bucknell; M.D, Jefferson Med. Col, 15. Assoc. pediat, Jefferson Med. Col, 21–32; prof, Temple, 32–37; *chief service, pediat. dept, Pa. Hosp, 24–; chief service, St. Christopher's Hosp. for Children, 37–* Consultant, Shriners Hosp. for Crippled Children; Montgomery Hosp, Norristown; Grand View Hosp, Sellersville. Chairman, Pediat. Educ. Cmt, 32–36, 41. Fel. Acad. Pediat; Am. Med. Asn. (sec'y, pediat. sect, 33, chairman, 33–37); Asn. Am. Teachers Diseases of Children (sec'y-treas, 29–32); State Med. Soc. Pa. (chairman pediat. sect, 40); Phila. Child Health Soc. (director, 38–); Phila. Pediat. Soc. (milk cmn, 24–; pres, 26, 27). Prematurity; breast milk; neonatal deaths; problems of the newborn.

Tytell, Dr. Alfred A, University of Cincinnati College of Medicine, Cincinnati, Ohio. *Microbiological chemistry.* New York, N. Y, Aug. 1, 15. B.S, Tufts Col, 36; Ph.D, Mass. Inst. Tech, 40. *Research assoc. and instr. biol. chem, med. col, Cincinnati, 40–* A.A; Chem. Soc; Soc. Bact. Growth, respiration and fermentation of Fusaria; enzyme systems of bacteria and fungi; oxidation-reduction potentials and activity of crystalline enzymes; effective soft x-rays on crystalline enzymes; nutrition, toxin production and toxoid production.

Tyzzer, Prof. E(rnest) E(dward), 228 Dundas St, Belleville, Ont, Can. ***Pathology.* Wakefield, Mass, Aug. 30, 75. Ph.B, Brown, 97, A.M, 98, Sc.D, 35; M.D, Harvard, 02. Bullard fellow, *Harvard,* 02–03, asst. path, 03–05, supt. cancer research, 05–16, asst. prof. path, 08–16, George Fabyan prof. comp. path, 16–39, prof. *comp. path. and trop. med,* 39–42, *emer. prof, 42–* Nat. Acad; A.A; Asn. Path. and Bact; Am. Med. Asn; Asn. Cancer Research; Soc. Parasitol. (pres, 34); Philos. Soc; Am. Acad; Boston Soc. Nat. Hist. Protozoa in fishes; Coccidium oviforme in the rabbit's liver; leucocytes of the rabbit; etiology of variola and vaccinia; histology of skin lesions in varicella; pathology of the brown-tail moth dermatitis; inoculable and spontaneous tumors and heredity in mice; verruca peruviana and Oroya fever; a fatal disease of the Japanese waltzing mouse due to Bacillus piliformis; differentiation of Leishmania and Leptomonas of insects; a Monostomum of the European sparrow; blackhead in turkeys; coccidiosis in gallinaceous birds; immunity in protozoan infections; tropical diseases.

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Uber, Dr. Fred M(urray), University of Missouri, Columbia, Mo. *Physics.* Indiana, Pa, March 6, 05. A.B, Dickinson Col, 26; A.M, Syracuse, 28; Whiting fellow, California, 30–31, Ph.D, 31. Teacher, high sch, Pa, 26–27; teaching fellow, Syracuse, 27–28; California, 28–30, research assoc, 31–36, lecturer bot, 35–36; asst. prof. *physics, Missouri,* 36–43, *assoc. prof, 43–* Soc. Exp. Biol; Physical Soc; Genetics Soc. X-ray absorption; microincineration of plants; biological effects of ultra-violet and x-radiation; ultra-violet absorption spectra; stable isotopes as tracers in study of biological reaction mechanisms.

Udall, Prof. D(enny) H(ammond), Cornell University, Ithaca, N. Y. *Veterinary medicine.* Craftsbury, Vt, Feb. 9, 74. B.S. (Agr), Vermont, 98, Sc.D, 38; D.V.M, Cornell, 01. Assoc. prof. surg, vet. dept, Ohio State, 03–08; *prof. vet. med, N. Y. State Vet. Col, Cornell, 08–* Prize, 12th Int. Vet. Cong, 37. Major, V.C, 17–18. Pathology and methods of control of bovine mastitis.

Uehling, Prof. Edwin A(lbrecht), Massachusetts Institute of Technology, Cambridge, Mass. *Theoretical physics.* Lowell, Wis, Jan. 27, 01. A.B, Wisconsin, 25; A.M, Michigan, 30, Ph.D, 32; Leipzig, 33. Radio engineer, Bell Tel. Labs, 25–29; research engineer, RCA, Camden, N. J, 33–34; nat. research fellow, California and Calif. Inst. Tech, 34–36; asst. prof. *physics, Washington (Seattle),* 36–43, *assoc. prof, 43–; research assoc, Nat. Defense Research Cmt, Mass. Inst. Tech, 41–* Physical Soc. Statistical mechanics.

Ufford, Prof. C(harles) W(ilbur), Allegheny College, Meadville, Pa. *Physics.* Cambridge, Mass, Feb. 15, 00. A.B, Haverford Col, 20; B.S, Mass. Inst. Tech, 22; A.M, Harvard, 24, Ph.D, 28. Testing dept, Gen. Elec. Co, 22–23; Sheldon traveling fellow, Leipzig, 28–29; instr. physics, Palmer physical lab, Princeton, 29–33; asst. prof. *physics and astron, Allegheny Col,* 33–36, assoc. prof, 36–39, *prof, 39–* Lecturer, Harvard, 42–43. Fel. Physical Soc. Electric conduction in metals; atomic spectra; theory of metals.

Uhl, Dr. Arthur H(oyt), 1010 Harrison St, Madison, Wis. *Chemistry.* Galesville, Wis, July 31, 00. B.S, Wisconsin, 25, M.S, 26, Ph.D, 30. Instr, Valparaiso, 27–28, asst. prof, 28–29; instr, *Wisconsin,* 29–30, research assoc. *pharmacy,* 30–35, acting director, 35–36, *director, 36–* Pharmaceut. Asn; Inst. Hist. Pharmacy (pres); Wis. Pharmaceut. Asn. Plant and pharmaceutical chemistry; plant constituents; resins and volatile oils.

Uhland, R(ussel) E(dward), Soil Conservation Service, Washington, D. C. *Soils.* Braymer, Mo, April 10, 96. B.S. (Agr), Missouri, 22, A.M, 24. Asst. soils, Missouri, 23–25, instr, 25–29; special agent, alfalfa investigations, bur. plant indust, U. S. Dept. Agr, 29–30, supt. soil erosion exp. sta, bur. chem. and soils, 30–33; regional director soil erosion service, U. S. Dept. Interior, 33–35; *soil conservation service, U. S. Dept. Agr,* 35, regional conservator, 35–37, *liaison officer, research operations div, 37–* Soc. Agron; Soil Sci. Soc; For-

estry Asn. Soil bacteriology; agronomic phases of soil erosion; soil conservation.

Uhlemeyer, Bertha L(ouise) (Mrs. Albert W. Bolay), Sappington, Mo. *Protozoology.* St. Louis, Mo, July 15, 89. A.B, Washington (St. Louis), 17, M.S, 21. Teaching fellow zool, Washington (St. Louis), 18–20, instr, 21–23, asst. prof, 25–32. Asst, sch. med, Washington (St. Louis), 18–19; teaching fellow, California, 25; Marine Biol. Lab, Woods Hole. Morphology and life histories of hypotrichous infusoria.

Uhlenbeck, Prof. George E(ugene), University of Michigan, Ann Arbor, Mich. **7Physics.* Batavia, Java, D. E. I, Dec. 6, 00. Ph.D, Leiden, 27. Asst. theoret. physics, Leiden, 25–27; instr. physics, *Michigan,* 27–28, asst. prof, 28–30, assoc. prof, 30–35, *prof. theoret. physics, 39–* Prof, Utrecht, 35–39. Fel. Physical Soc; Dutch Physical Soc. Theory of atomic structure and quantum mechanics; statistical mechanics and the kinetic theory of matter; nuclear physics.

Uhlenhuth, Dr. Eduard (Carl Adolph), University of Maryland School of Medicine, Baltimore, Md. *Anatomy.* Wolkersdorf, Austria, July 19, 85. Ph.D, Vienna, 09. Asst, Biol. Versuchs-Anstalt, Vienna, 11–13; fellow, Rockefeller Inst, 14–16, assoc, 16–24; guest, dept. anat, Hopkins, 24–25; assoc. prof. anat, *Maryland,* 25–31, *prof.* gross anat, 31–33, *anat, 33–* Marine Biol. Lab, Woods Hole. Van Meter prize, Asn. Study Goiter, 36. A.A; Soc. Exp. Biol; Asn. Anat; Soc. Zool; Harvey Soc. Anatomy and physiology of internal secretion.

Uhler, F(rancis) M(orey), U. S. Department of the Interior, Bowie, Md. *Biology.* St. Peter, Minn, Jan. 26, 02. A.B, Gustavus Adolphus Col, 24; George Washington, 26–28. Junior biologist, div. food habits research, bur. biol. surv, U. S. Dept. Agr, 24–29, asst. biologist, 29–35, *assoc. biologist,* 35–40; *div. wildlife research, fish and wildlife service, U. S. Dept. Interior, 40–* Soc. Mammal; Limnol. Soc; Soc. Ichthyol. and Herp; Ornith. Union; Soc. Plant Taxon; Cooper Ornith. Club; Wilson Ornith. Club; Wash. Biol. Field Club (director, 31, pres, 40–42); Wash. Acad. Economic ornithology; food habits of birds, reptiles and amphibians; aquatic biology; distribution of water fowl foods.

Uhler, Prof. Horace S(cudder), Yale University, New Haven, Conn. **3Physics.* Baltimore, Md, Aug. 5, 72. A.B, Hopkins, 94, fellow, 04–05, Ph.D, 05; hon. A.M, Yale, 37. Asst. physics, Hopkins, 94–96; instr, acad, Northwestern, 96–97; director lab, Univ. Sch, Baltimore, 97–02; Carnegie asst. physical chem, Hopkins, 05; instr. *physics,* Yale, 06–09, asst. prof, 09–22, assoc. prof, 22–25; prof. and head dept, Gettysburg Col, 25–26; assoc. prof, *Sheffield Sci. Sch, Yale,* 26–37, prof, 37–41, *emer. prof, 41–,* lecturer, 41–43. Past assoc. ed, 'Physical Rev'; 'Am. Jour. Sci'; 'Math. Monthly.' Lieut, R.O.T.C. A.A; Physical Soc; Optical Soc; Math. Soc; Math. Asn; Soc. de Physique. Geometrical optics; spectroscopy; x-rays; pure mathematics.

Uhlig, Dr. H(erbert) H(enry), General Electric Co. Schenectady, N. Y. *Metallurgy, Chemistry.* Haledon, N. J, March 3, 07. B.S, Brown, 29; Ph.D, Mass. Inst. Tech, 32. Physical chemist, Rockefeller Inst, 32–33; research chemist, Lever Brothers Co, 34–36, asst. chief chemist, 36–37; research assoc, Mass. Inst. Tech, 37–40; *research metallurgist, Gen. Elec. Co, 40–* Min. and Metak Eng; Soc. Metals; Electrochem. Soc. (v. pres, 43); Chem. Soc. Stainless steels; corrosion and passivity of metals; gases in metals; electropolishing.

Uhlinger, Dr. R(oy) H(eman), 462 Kenmont Ave, Mt. Lebanon, Pittsburgh, Pa. *Chemistry.* Hartford, Ohio, May 15, 87. B.S, Allegheny Col, 10; fellow, Pittsburgh, 10–11, A.M, 11, Ph.D, 14. Chemist, Am. Nitro-Products Co, 14–15; supt, Carbo-Hydrogen Co. of Amer, 15–16; research chemist, Benedum-Trees Oil Co, 16–17, consulting chemist, 19–20; chief chemist, Thermatomic Carbon Co, 20–24; *consulting chem. engineer, 24–; lieut. col, U. S. Army, 41–* Capt, C.W.S, 17–19. Chem. Soc. Engineering; analysis of the zinc group; bromination of oils and fats; natural gas products; production of carbon black; production of hydrogen for ammonia fixation and fat hardening; the thermatomic carbon process.

Uhrbrock, Dr. Esther Gatewood, 218 Worthington Ave, Wyoming, Cincinnati 15, Ohio. *Psychology.* Nashville, Tenn, Nov. 7, 93. A.B, Ohio State, 14, A.M, 15, Ph.D, 19. Instr, Randolph-Macon Woman's Col, 19–20; research, Edison Music Research, 20–22; lecturer, Victor Talking Machine Co, 22–23; asst. prof. psychol, Northwestern, 25–27. Summers, Utah, 25, 26. A.A; Psychol. Asn. Music; education; esthetics.

Uhrbrock, Dr. Richard S(tephen), Procter and Gamble Co, Cincinnati, Ohio. *Psychology.* Baltimore, Md, Aug. 4, 94. Pennsylvania, 17–18; B.S, Carnegie Inst. Tech, 20, A.M, 21; A.M, Columbia, 23, Ph.D, 28. Teaching fellow psychol, Carnegie Inst. Tech, 20–21; employment supervisor, West. Union Tel. Co, New York, 21–23; research worker, Life Ins. Sales Research Bur, Hartford, 23–24; asst. prof. psychol, Wyoming, 24–27, assoc. prof. and director personnel, 27–28; lecturer psychol. and personnel admin, dept. hotel admin, Cornell, 28–30; *head research dept, indust. relations div, Procter and Gamble Co, 30–* Consultant, War Production Board and War Manpower Cmn, 42–43. A.A; fel. Ohio Acad. (v. pres, 33). Job analysis; personal estimates of character traits; interest as an indication of ability; analysis of the Downey will-temperament tests; reciprocal ratings; race and sex differences in finger print patterns; item analysis; wage incentive methods; attitude measurements; personnel administration.

Uhvits, Prof. Rachel, Michigan State Normal College, Ypsilanti, Mich. *Plant physiology.* Russia, Sept. 17, 07. A.B, California at Los Angeles, 32; A.M, Michigan, 33, Ph.D, 37. *Asst. prof. nat. science, Mich. State Nor. Col, 39–* Bot. Soc. Acetaldehyde as intermediate in the aerobic respiration of Algae; saprophytism in Algae.

Uichanco, Prof. L(eopoldo) B(ancaln), College of Agriculture, University of the Philippines, Agricultural College, P. I. *Entomology.* Calamba, Laguna, P. I, April 23, 94. B.S. (Agr), Philippines, 15, M.S, 18; Philippines fellow, Harvard, 19–22, M.S, 20, Sc.D, 22. Asst. *entom, Philippines,* 15–18, instr, 18–19, asst. prof, 22–24, assoc. prof, 24–29, *prof, 29–,* acting head dept, 23–28, *head dept, 28–* Ed. board, 'Philippine Jour. Science'; ed, 'Philippine Agriculturist'; 'Nat. and Applied Science Bul.' Chairman sect. entom, Nat. Research Council P. I. 4th Pacific Science Cong, Java. A.A; Entom. Soc; Asn. Econ. Entom; Philippine Soc. Adv. Research (pres, 32); Philippine Soc. Parasitol; P. I. Sci. Soc; Los Baños Biol. Club (sec'y, 24, pres, 26). Philippine economic entomology; Hemiptera.

Ulich, Dr. L(ynne) H(erman), 21 Lincoln St, Carneys Point, N. J. *Chemistry.* Creston, Iowa, Jan. 2, 92. B.S, Grinnell Col, 14; M.S, Illinois, 18, du Pont fellow, 18–19, Ph.D, 20. Instr, high sch, Iowa, 14–15; science and math, Windom Col. 15–16; asst. chem, Illinois, 16–20; *research chemist,* Newport Co, Wis, 20–37; *dye-works, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Organic chemistry.

Ulke, Dr. Titus, 5000 14th St, Washington, D. C. *Botany, Chemistry.* Washington, D. C, Oct. 17, 66. B.S, Columbian Col, 85, LL.D, George Washington, 08, M.Pat.L, 09; Met.E, Royal Mining Acad, Freiberg, 89; Ph.D, Catholic Univ, 34. Assayer and chemist, Harney Peak Tin Co, Hill City, S. Dak, 90–91; chief chemist, Electrolytic Works, Anaconda, Mont, 92; metallurgist, Columbian Expos, 93; triangulator, U. S. Geol. Surv, 97; asst. inspector, Ordnance Dept, U. S. Army, 98–99; mining engineer, Lake Superior Power Co, Ont, Can, 02–04; asst. to U. S. examiner of patents, 05–17; bot. explorer, 19–21; *patent attorney, 21–* Electrochem. Soc; Biol. Soc. Wash. Mineralogy; chemistry; entomology; archeology; paleobotany.

Ullmann, Prof. H(arry) M(aas), 20 W. Church St, Bethlehem, Pa. *Chemistry.* Springfield, Mo, April 14, 68. A.B, Hopkins, 89, Ph.D, 92; Munich and Paris, 92–94. Instr. quantitative and indust. anal, *Lehigh,* 94–04, asst. prof, 04–10, assoc. prof, 10–14, prof. *chem,* 14–38, *emer. prof, 38–,* head dept. chem. and chem. eng, 16–38. A.A; Chem. Soc; Chem. Eng; Deuts. Chem. Gesell. P-sulfamin benzoic acid; acetins; titanium in cement rocks; ash and phosphorus in coke and coal; absorption wash oils; lead oxides; drying oils.

Ullmann, Dr. H(enry) J(ohnson), 1520 Chapala, Santa Barbara, Calif. *Medicine.* Evanston, Ill, Dec. 16, 81. B.S, Chicago, 10, M.D, 12. *Director dept. cancer research, Santa Barbara Cottage Hosp, 26–* A.A; fel. Am. Med. Asn; fel. Col. Radiol; fel. Col. Physicians; Roentgen Ray Soc; Radiol. Soc. N. Amer; Radium Soc. (pres, 30); Pacific Roentgen Club; Calif. Med. Asn. (councilor, 31–37, mem, cancer cmn, 32–). Cancer therapy; radiation and biochemistry of cancer therapy; roentgen ray therapy; radiology.

Ullock, Dr. Donald S(argeant), 918 Woodland Ave, South Charleston, W. Va. *Chemical engineering.* Chicago, Ill, July 14, 01. B.S, Armour Inst. Tech, 26; Chemists Club scholar, 33–34; Ph.D, Michigan, 35. Instr. and curator chem. eng, Armour Inst. Tech, 26–31; *chem. engineer, Carbide and*

Carbon Chem. Corp, 34– Chem. Soc. Heat transfer; development of plant processes; plant design.

Ullstrup, Dr. Arnold J(ohn), 1610 Ravinia Road, West Lafayette, Ind. *Plant pathology.* Milwaukee, Wis, Jan. 24, 07. B.S, Wisconsin, 31, M.S, 32, Ph.D, 34. Asst. plant path, Wisconsin, 34–35; fellow, Rockefeller Inst, 35, asst, 35–37; *agent office cereal crops, bur. plant indust, U. S. Dept. Agr, 38–* Phytopath. Soc. Corn diseases; nature of disease resistance.

Ullyot, Dr. Glenn E(dgar), 32 Poplar St, Philadelphia, Pa. *Organic chemistry.* Clark, S. Dak, March 11, 10. Ch.B, Minnesota, 33; M.S, Illinois, 35, Ph.D, 38. *Research chemist, Smith, Kline and French Lab, 37–* Fel. Inst. Chem. Mesityl phenyl triketone; the methylation of w-cyanoacetomesitylene.

Ulmer, Prof. Gilbert, 1500 Crescent Road, Lawrence, Kans. *Mathematics.* Alexandria, Ind, Oct. 27, 03. A.B, Butler, 31; A.M, Kansas, 33, Ph.D, 39; Chicago; Columbia. Asst. instr. math, *Kansas,* 31–34, instr. *math. and educ,* 34–39, *asst. prof, 39–, asst. dean col. lib. arts and sciences, 41–* Math. Asn; Council Teachers Math. Projective differential geometry; the teaching of mathematics.

Ulmer, Dr. Richard C(lyde), 409 Berkley, Dearborn, Mich. *Analytical chemistry.* Lancaster, Ohio, July 4, 09. A.B, Ohio State, 30, Nat. Aluminate fellow, 35–36, Ph.D, 36. Chemist, Columbus and South. Ohio Elec. Co, 30–33; asst. chem, Ohio State, 33–34; research chemist, *Detroit Edison Co,* 36–39, *asst. head chem. div, research dept, 39–* Chem. Soc. Effect of the formation or addition of solid matter on the carry-over of boiler water from a steam boiler.

Ulrey, Dr. Clayton T(ridle), North Manchester, Ind. *Physics.* North Manchester, Ind, Sept. 19, 84. A.B, Indiana, 11; A.M, Maine, 13; Ph.D, Columbia, 18. Instr, Maine, 11–13; asst. and instr, Columbia, 13–17, 19–20; research dept, Westinghouse Lamp Co, 20–34; *consultant, 34–* Lieut, Sig.C, 18–19. A.A; Physical Soc. X-rays; x-ray technology; electronics.

Ulrey, Dr. Dayton, RCA Victor Division, Radio Corp. of America, Lancaster, Pa. *Physics.* North Manchester, Ind, Sept. 19, 84. A.B, Indiana, 11, A.M, 12; Ph.D, Stanford, 17. Teaching fellow physics, Indiana, 11–12; instr, Pittsburgh, 12–15, asst. prof, 17–18; asst, Stanford, 15–17; research physicist, Westinghouse Elec. and Mfg. Co, 18–29, manager physics div, research labs, 29–37; power and special purpose tubes div, research and eng. dept, radiotron div, RCA Mfg. Co, 37–42, *chief engineer, Lancaster eng. dept, RCA Victor Div, Radio Corp. of Amer, 42–* A.A; Physical Soc; Optical Soc; Elec. Eng; Radio Eng. Specific inductive capacity; evolution and occlusion of gases by glasses; moisture penetration of insulating materials; electronic tubes; the physicist-engineer in industry.

Ulrich, Dr. Albert, 3048 Life Sciences Bldg, Berkeley, Calif. *Plant physiology.* New York, N. Y, Sept. 7, 07. B.S, California, 30, Ph.D, 39. Junior soil chemist, *California,* 39–43, *asst. soil chemist, 43–* Plant nutrition; inter-relationship of soils and plants.

Ulrich, Dr. E(dward) O(scar), U. S. National Museum, Washington, D. C. **²*Geology.* Cincinnati, Ohio, Feb. 1, 57. Pulte and Ohio Med. Cols, 76–78; A.M, German Wallace, 86, Ph.D, 92. Curator, Cincinnati Soc. Nat. Hist, 77–79; paleontologist, Geol. Surveys of Ill, Minn. and Ohio, 85–89, 91–97; asst. geologist, Ky. Geol. Surv, 89–90; geologist, U. S. Geol. Surv, 97–32; *retired.* Supt. mines, Boulder County, Colo, 80–83. Assoc. ed, 'Am. Geologist,' 88–97. Assoc, U. S. Nat. Museum, 14– Mary Clark Thompson medal, Nat. Acad, 30; Penrose medal, Geol. Soc. Amer, 32. Nat. Acad; Geol. Soc; Paleont. Soc. (pres); Geol. Soc. Wash. (pres); Biol. Soc. Wash; Wash. Acad; cor. Acad. Nat. Sci. Phila; for. mem. London Geol. Soc; cor. mem. Geol. Soc. Stockholm; cor. mem. Senckenberg Naturforscher Gesell. Stratigraphy; invertebrate paleontology; paleogeography.

Ulrich, Dr. E(lmer) B(ixler), Drexel Hill, Pa. *Plant physiology.* Brickerville, Pa, April 5, 80. M.Pd, Pa. State Nor. Sch, West Chester, 99; B.S, Muhlenberg Col, 07; Ph.D, Pennsylvania, 10. Teacher biol, Cent. High Sch. Phila, 08–27; *head dept. science, Simon Gratz High Sch, 27–* Lecturer, Pennsylvania, 10–11. A.A; Pa. Bot. Soc. Leaf movements of Oxalidaceae.

Ulrich, Dr. Floyd E(dward), 2211 Sunset Blvd, Houston, Texas. *Mathematics.* Niskayuna, N. Y, July 8, 04. B.S, Union Col. (N. Y), 26, M.S, 28; A.M, Harvard, 29, Ph.D, 38. Instr. *math,* Union Col. (N. Y), 26–34; asst, *Rice Inst,* 34–38, *instr, 38–* A.A; Math. Soc; Math. Asn. Analysis.

Ulrich, Franklin P, U. S. Coast and Geodetic Survey, 214 Old Mint Bldg, San Francisco, Calif. *Seismology.* Schenectady, N. Y, Oct. 26, 91. B.E, 13; hon. M.S, Union (N. Y), 33. State Eng. Dept, N. Y, 13–14; in charge magnetic observatory, *U. S. Coast and Geod. Surv,* Tucson, Ariz, 14–18, Sitka, Alaska, 18–33, *chief seismological field surv, 33–* A.A; Seismol. Soc. (director, 42); Civil Eng; Geophys. Union; Pacific Coast Bldg. Officials Conf; Struct. Eng. Asn. North. Calif. (sec'y-treas, 39–42, director, 41). Terrestrial magnetism.

Ulrich, Dr. John Linck, 112 St. Johns Road, Baltimore, Md. *Psychology.* Menlo Park, Calif, Dec. 12, 77. B.S, Pennsylvania, 08, M.S, 09; fellow, Hopkins, 10–11, Ph.D, 13. Instr. psychol, Catholic Univ, 13–16, assoc. prof, 16–20; asst. physiol, Hopkins, 20–21, instr, 21–22; Plaut research lab, Lehn and Fink, N. J, 22–28; head dept. physiol, N. Y. Homeop. Med. Col, 28–32; *retired.* Prof, col. dentistry, Maryland, 23–24. A.A. Physiology.

Ulvin, Dr. Gus(tav) B(ennett), Sidney Wanzer and Sons, 130 W. Garfield Blvd, Chicago, Ill. *Botany.* Nobles Co, Minn, March 31, 88. B.S, S. Dak. State Col, 26, M.S, 30; M.S, Chicago, 31, Ph.D, 34. Foreman agron, Exp. Sta, S. Dak. State Col, 26–29, asst. bot, 29–30; *chief chemist and bacteriologist, Sidney Wanzer and Sons, 34–* Farm Chemurg. Council; Dairy Sci. Asn; Pub. Health Asn; Soc. Ill. Bact; Int. Asn. Milk Sanitarians. Morphology; physiology; ecology; nitrate and ammonium nitrogen assimilation by sugar-cane and corn plants at different soil temperatures; chlorophyl production under various environmental conditions.

Umbreit, Stanton, 3 Gregory Ave, West Orange, N. J. *Metallurgy.* Milwaukee, Wis, Feb. 10, 95. B.S, Wisconsin, 16. Research chemist, Newport Chem. Co, 16–17; Gen. Elec. Co, 18–23; Save Lamp Co, 23–24; engineer, Sterling Mfg. Co, 25–29; *metallurgist, RCA Mfg. Co, 30–* Soc. Test. Mat; Min. and Metal. Eng; Soc. Metals. Metallurgy in vacuum tubes.

Umbreit, Dr. Wayne W(illiam), University of Wisconsin, Madison, Wis. *Bacteriology, Biochemistry.* Markesan, Wis, May 1, 13. B.S, Wisconsin, 34, M.S, 36, Ph.D, 39; Rutgers, 37–38. Asst. bacter. and biochem, Wisconsin, 34–36, research assoc, 36–37; *instr.* soil bacter, Rutgers, 37–38; *soil bacter. and bacterial physiol, Wisconsin, 38–* Soc. Bact; Chem. Soc; Int. Soc. Soil Sci. Biochemistry of nitrogen fixation; taxonomy of actinomycetes; physiology of autotrophic bacteria.

Umpleby, Dr. Joseph B(ertram), 4544 55th Ave, N. E, Seattle, Wash. *Geology.* Graysville, Ohio, Nov. 20, 83. A.B, Washington (Seattle), 08; M.S, Chicago, 09, fellow, 08–10, Ph.D, 10. Asst. geol, Washington (Seattle), 06–08; asst. geologist, U. S. Geol. Surv, 08–12, assoc. geologist, 12–14, geologist, 14–20; prof. geol. and director sch. eng. geol, Oklahoma, 19–24; pres, Petrol. Reclamation Co. and Goldelline Oil Corp, 25–28; *independent oil operator, 28–* Geologist, Wash. Geol. Surv, 09, 10; acting assoc. prof, California, 15–16; asst. deputy in charge Pacific slope area, Soil Fuels Coordinator, 42–43. Specialist in charge mineral investigations, Am. Cmn. to Negotiate Peace, Paris, 18–19. A.A; Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng. (chairman, petrol. production eng, 27–, chairman, petrol. div, 29, director, 32–35, mem. petrol. stabilization cmt, 32–36); Geol. Soc. Wash; Okla. Acad; Wash. Acad. Mining and petroleum geology; petroleum production engineering; economic and stratigraphic geology; genesis of ore and petroleum deposits; recovery methods in oil fields.

Underhill, Prof. A(nthony) L(ispenard), 610 Fifth St. S. E, Minneapolis, Minn. *Mathematics.* Bath, N. Y, June 6, 77. B.S, Chicago, 00, Ph.D, 06. Instr. *math,* Princeton, 05–07; Wisconsin, 07–09; asst. prof, *Minnesota,* 09–20, *assoc. prof, 20–* Summers, asst. prof, Chicago, 10– Capt, C.A.C, 17–19. Math. Soc; Math. Asn. Calculus of variations.

Underhill, Prof. Editha, Rockford College, Rockford, Ill. *Inorganic chemistry.* Bath, N. Y, Sept. 2, 94. A.B, Vassar Col, 16; M.S, Minnesota, 25. Asst. chem, Vassar Col, 19–22; instr, Rockford Col, 25–28; asst, Minnesota, 28–30; asst. prof. and *prof. chem, Rockford Col, 30–* Chem. Soc. Duplex vanadates.

Underhill, G(rover) W(illiam), Blacksburg, Va. *Economic entomology.* Wendell, N. C, Sept. 15, 88. B.S, N. C. State Col, 16, M.S, 18. Instr, zool. lab, N. C. State Col, 16–18; asst.

entomologist, Va. Crop Pest Cmn, 18–26; *Exp. Sta, Va. Polytech*, 26–28, *assoc. entomologist, 28–* Asn. Econ. Entom. Tobacco; pale-striped and banded fleabeetles; southern cornstalk borer; squash ladybird; lesser clover weevil; apple woolly aphis life history, migration and control; green stinkbug; dogwood borer; potato tuber moth; apple leaf-hopper; simuliids; Alydus bugs on legumes; some insect pests of ornamentals.

Underhill, Prof. James, Idaho Springs, Colo. *Geology.* New York, N. Y, April 9, 71. A.B, Harvard, 94; A.M, Colorado, 03, Ph.D, 06. *Consulting mining engineer, 96–; assoc. prof. mining, Colo. Sch. Mines, 19–* Colo. Geol. Surv, 07–08; Colo. Board Examiners for Engineers, 24– Min. and Metal. Eng. Geology and mining; mineral land surveying.

Underkofler, Dr. L(eland) A(lfred), Iowa State College, Ames, Iowa. *Biophysical chemistry.* Fairfield, Nebr, April 24, 06. A.B, Nebr. Wesleyan, 28; Ph.D, Iowa State Col, 34. Asst. *chem,* Iowa State Col, 28–33; prof, Westminster Col. (Utah), 33–35; instr, *Iowa State Col,* 35–40, *asst. prof, 40–* A.A; Chem. Soc; Iowa Acad. Fermentation chemistry; production of chemical compounds by action of microorganisms; nutrition of microorganisms.

Underwood, Dr. H(arley) G(lenn), U. S. Food and Drug Administration, 1222 Post Office Bldg, Chicago, Ill. *Chemistry.* Wellington, Kans, June 14, 09. A.B, Col. of Emporia, 29; fellow, Kansas, 29–30, A.M, 31, fellow, 33–34, Ph.D, 34. Asst. instr, Kansas, 30–33; chemist, Fritzel Dairy Products Co, 33–34; asst. prof. chem, Bethany Col. (Kans), 34–35; junior chemist, *food and drug admin,* U. S. Dept. Agr, 35–39, *assoc. chemist, Fed. Security Agency, 39–* Asn. Official Agr. Chem; Chem. Soc. Dithiobiurets; dithiazanes; dithiobiuret derivatives.

Underwood, Dr. J(oseph) C(lyde), 529 E. Willow Grove Ave, Chestnut Hill Station, Pa. *Agricultural chemistry.* Unionville, Pa, July 7, 14. B.S, Pa. State Col, 37, Ph.D, 42. Asst. supervisor chem, exten. dept, Pa. State Col, 41–42; *asst. chemist, U. S. Dept. Agr, 42–* Chem. Soc. Biological chemistry; production of rubber from plants.

Underwood, Dr. Newton, Vanderbilt University, Nashville, Tenn. *Physics.* Ga, 06. B.S, Emory, 28; M.S, Brown, 30, Ph.D, 34. *Instr. physics,* Hood Col, 32–36; *Vanderbilt, 36–* Mem. sci. staff, Nat. Defense Research Cmt, Columbia, 41–42. Physical Soc. Photoelectricity; polarized light; biophysics.

Underwood, Prof. P(aul) H(alladay), Cornell University, Ithaca, N. Y. *Civil engineering.* Ludlowville, N. Y, Dec. 29, 81. C.E, Cornell, 07. Instr. civil eng, *Cornell,* 07–12, asst. prof. *surveying,* 12–22, *head dept, 20–, prof, 22–,* acting director sch. civil eng, 37–38. Asst. engineer, Isthmian Canal Cmn, 11. A.A; Civil Eng; Geophys. Union; Soc. Photogrammetry. Surveying; geodesy; hydraulic engineering; least squares.

Underwood, Prof. R(alph) S(ylvester), Box 23, Texas Technological College, Lubbock, Texas. *Mathematics.* Anoka, Minn, Oct. 3, 91. A.B, Minnesota, 16, A.M, 17; Ph.D, Chicago, 30. Instr. *math,* Purdue, 19–22; asst. prof, Ala. Polytech, 22–27; assoc. prof, *Texas Tech. Col,* 27–31, *prof, 31–* A.A. (v. chairman, math. sect, southwest. div, 38, chairman, 39); Math. Asn. (v. chairman, Texas sect, 42). Number theory; analysis.

Unger, Dr. H(ilbert) J(ohn), Johns Hopkins University, Baltimore, Md. *Physics.* Albany, Ill, Aug. 10, 06. A.B, Reed Col, 28; A.M, Oregon, 30, Ph.D, 32. Asst. physics, Oregon, 28–30, teaching fellow, 30–32, instr, 33–34; asst. prof. physics and math, south. branch, Idaho, 35–38; *assoc. physicist,* bur. engraving and printing, U. S. Treasury Dept, 38–42; *applied physics lab, Hopkins, 42–* Infra-red emission and absorption spectra.

Unger, Prof. W(illiam) Byers, Dartmouth College, Hanover, N. H. *Zoology.* Baltimore, Md, Dec. 19, 98. A.B, Western Maryland Col, 20; M.S, Lafayette Col, 22; Ph.D, Yale, 25; hon. A.M, Dartmouth, 35. Instr. biol, Lafayette Col, 20–22; asst. *zool,* Yale, 22–25; instr, *Dartmouth Col,* 25–27, asst. prof, 27–35, *prof, 35–,* chairman dept, 32–37. Instr, Marine Biol. Lab, Woods Hole, 27–31. A.A; Soc. Zool; Micros. Soc. Protozoology; Paramecium; protozoan sequence; wetting agents upon invertebrates.

Ungnade, Prof. Herbert E(rnst), University of Missouri, Columbia, Mo. *Organic chemistry.* Bodenwerder, Germany, Dec. 29, 11. B.S, Mich. State Col, 33, M.S, 34; Ph.D, Minnesota, 38. Asst, Mich. State Col, 33–34; Minnesota, 34–38, fellow, 38–39; *asst. prof. chem, Missouri, 39–* A.A; Chem. Soc; Mo. Acad; Swiss Chem. Soc. Vitamin E; allylphenylethers; o-thyronine.

Unkauf, Dr. Henry C, 203 Helen St, Syracuse, N. Y. *Organic chemistry.* Syracuse, N. Y, July 19, 03. A.B, Syracuse, 26, A.M, 28, Ph.D, 38. Asst. chem, *Syracuse,* 26–31, *instr. org. chem, 31–* A.A; Chem. Soc. Chemistry of wood; arabo-galactan of western larch wood.

Unklesbay, Dr. A(thel) G(lyde), U. S. Geological Survey, Tallahassee, Fla. *Geology.* Byesville, Ohio, Feb. 11, 14. A.B, Marietta Col, 38; M.S, Iowa, 40, Ph.D, 42. Lab. asst, Iowa Geol. Surv, 38–39; asst. geol, Iowa, 39–42; *junior geologist, ground water div, U. S. Geol. Surv, 43–* Summers, lab. asst, Iowa Geol. Surv, 40; junior geologist, Alaskan branch, U. S. Geol. Surv, 42. Paleont. Soc. Fossil cephalopods.

Unna, Dr. Klaus R(obert) W(alter), Merck Institute for Therapeutic Research, Rahway, N. J. *Pharmacology.* Hamburg, Germany, July 30, 08. M.D, Freiburg, 30. Asst. pharmacol, Hamburg, 32–33; Vienna, 33–37; *research assoc, Merck Inst. Therapeut. Research, 37–* Physiol. Soc; Inst. Nutrition. Regulation of water and mineral metabolism; function of pericardium; curarizing alkaloids; vitamins; therapeutics.

Unnewehr, Prof. E(mory) C(arl), Baldwin-Wallace College, Berea, Ohio. *Physics.* Batesville, Ind, Nov. 9, 85. B.S, Purdue, 09; Ph.D, Columbia, 24. Dept. *physics,* Baldwin-Wallace Col, 12–15; lecturer, Columbia, 16–19; *prof, Baldwin-Wallace Col, 19–* A.A; Physical Soc; Asn. Physics Teachers. Characteristic x-rays.

Updegraff, Dr. Harlan, 1596 E. Mountain St, Pasadena, Calif. *Education.* Sigourney, Iowa, Aug. 22, 74. Ph.B, Cornell Col. (Iowa), 94; A.M, Columbia, 98, fellow, 06–07, Ph.D, 08. Prin. and sch. supt, Iowa and Md, 94–97, 98–00, 02–05; asst. educ, Columbia, 00–02; chief, Alaska div, U. S. Bur. Educ, 07–10, collector, compiler statist. and chief div. sch. admin, 10–12; prof. educ. and head dept, Northwestern, 12–13; educ. admin, Pennsylvania, 13–23; pres, Cornell Col. (Iowa), 23–27; visiting prof, Swarthmore Col, 27; director, State Educ. Surv, N. J, 28–29; educ. consultant, Nat. Advisory Cmt. on Educ, 29–30; legislative cmns, N. Y, N. J. and Miss, 30–31; expert consultant, sch. finance, Nat. Surv. Sch. Finance, U. S. Office Educ, 31–34; *director* research, state dept. Pub. Instruction, Pa, and Cmt. on Higher Educ, 34–35; *Pa. study, Am. Youth Cmn, 36–* Lecturer, George Washington, 08–09; expert asst, conf. chief state educ. officers, 10–13. Summer, visiting prof, California, 27; Cornell, 37. The moving school in Massachusetts; school expenses, boards and chief executive officers; teachers' certificates and salaries; educational finance administration.

Updegraff, Prof. Ruth, Iowa Child Welfare Research Station, Iowa City, Iowa. *Psychology.* Preston, Iowa, June 7, 02. A.B, Vassar Col, 23; Ph.D, Iowa, 28. Asst, Vassar Col, 23–24, instr, 24–25; asst. *child psychol, child welfare research sta, Iowa,* 25–28, research assoc, 28–31, research assoc. and supervisor, preschool labs, 31–36, *research asst. prof, 37–* Psychol. Asn; Asn. Research Child Develop. Experimental child psychology; preschool education.

Updike, Prof. Ira A(mon), Randolph-Macon College, Ashland, Va. *Chemistry.* Huddleston, Va, March 10, 96. B.S, Randolph-Macon Col, 19; Princeton, 19–20; A.M, Columbia, 25, Ph.D, 29. Instr. *chem,* Ga. Tech, 20–23; assoc. prof, *Randolph-Macon Col,* 26–37, *prof, 37–, head dept, 39–* Va. Acad. Science grant, 32. Summers, prof, Richmond, 34, 36, 37; Hampden-Sydney, 38; Randolph-Macon Col, 42. A.A; Chem. Soc. (treas, Va. sect, 33, ed, 34, v. chairman, 36, chairman, 37; councilor, 39, 43); Va. Acad. (asst. sec'y-treas, 38–41). Organic compounds of sulfur; organic compounds as reagents; ion-exchange reactions.

Upham, Charles M(elville), International Bldg, Washington, D. C. *Engineering.* Stoughton, Mass, March 6, 86. B.S, Tufts Col, 08, hon. M.S, 25; hon. C.E, North Carolina, 24. Engineer, Charles River Basin Cmn, 08–09; State Highway Cmn, Mass, 09–12; testing engineer, Coleman du Pont Road, Del, 12, chief engineer, 15–17; du Pont Bur. Inspection, 13–15; county engineer, Sussex County, Del, 17; State Highway Cmn, Del, 17–21; State Highway Cmn, N. C, 21–26; *consulting engineer.* Engineer-director, Am. Road Builders Asn; highway research board, Nat. Research Council; consulting highway engineer, Mex. Fed. Govt; consulting engineer, State Roads Cmn, Md; Cent. Hy. of Cuba, 27; Guatemala, 29; Nicaragua, 38; Pa. Turnpike, 40; Eno Foundation, 42. U. S. rep, Int. Road Cong, The Hague, 38; official adviser to U. S. del, Pan Am. Hy. Cong, Mex, 41. Civil Eng; Concrete Inst;

Soc. Test. Mat; Soc. Munic. Improv; Asn. Professional Eng; Inst. Traffic Eng; Consulting Eng; Chem. Soc; fel. Inst. Highway Eng. London; Asn. de Ing. y Arquit. de Mex; Asn. int. permanente des Congrés de la Route. Highway research.

Upham, Dr. Roy, 45 E. 75th St, New York, N. Y. *Gastroenterology.* Dartmouth, Mass, March 16, 79. M.D, N. Y. Homeopath. Med. Col, 01; N. Y. Polyclinic Med. Sch, 13. Intern, Hahnemann Hosp, *New York,* 01–03; *practising gastroenterologist, 03–;* demonstrator histol, *N. Y. Med. Col,* 03–08, lecturer *gastroenterol,* 12–17, asst. prof, 17–21, assoc. prof, 21–35, *chief sect, 35–* Research, Ryks Hosp, Copenhagen, 12; Vienna, 22, 23, 24, 26, 28, 30; St. Mark's Hosp, London, 33, 34; Kasr-el-Aini Hosp, Cairo, Egypt, 34; attending physician and head gastroenterol. sect, Metrop. Hosp, chief gastrointestinal clinic, out-patient dept. Fel. Col. Surg; Am. Med. Asn; Acad. Path. Sci; Nat. Gastroenterol. Asn. (sec'y-gen); Inst. Homeop; N. Y. Acad. Med; Italian Gastroenterol. Asn; Am. Med. Asn. Vienna; Int. Homeopath. League; Int. Col. Surg. Physiology of the gastrointestinal tract.

Uphof, Prof. J(ohannes) C(ornelis) Th(eodorus), W. Central Ave, Route 3, Orlando, Fla. *Botany.* Amsterdam, Holland, June 11, 86. M.S, Amsterdam; D.Sc, Highland. Instr. bot. and director bot. garden and herbarium, Mich. State Col, 12–13; asst. prof. bot. and plant breeding, Arizona, and asst. botanist and plant breeder, Exp. Sta, 13–18; in charge Plant Breeding Sta, Amsterdam, 18–21; *prof. bot. and head dept. biol, Rollins Col, 22–* Summers, Trop. Plant Research Foundation, Washington, D. C, 28– Research, British Govt, 20; Phytopath. Surv, The Netherlands, 22; research bot, Cuban Govt, 23, Royal Biol. Inst. Sofia, Bulgaria, 36; Bot. Board Econ. Warfare, 42–43. Bot. Soc; Deuts. Bot. Gesell; cor. mem. Dendrol. Gesell; Soc. bot. de France; Vereen voor Wetenschappelijke Teelt; Nederlandsche Bot. Vereen; cor. mem. Dendrol. Soc. Netherlands; cor. mem. Nederlandsche Vereen. voor Ecen. Geog; cor. mem. Royal Netherlands Agr. Soc; cor. mem. Bulgarian Bot. Soc; Int. Verein für Limnol. Plant species; cold resistance in spineless cacti; geographical distribution of cacti; physiological anatomy of xerophytic selaginellas; electric light and plant growth; plant formations on coral reefs; Mendelian factors in radishes; sulfur bacteria; citrus botany.

Upholt, Dr. W(illia)m M(artin), California Spray-Chemical Corp, P. O. Box 1231, Orlando, Fla. *Agricultural entomology.* Grand Rapids, Mich, July 16, 14. B.S, California, 35, M.S, 36, Ph.D, 39. Asst. entomologist, Exp. Sta, Clemson Agr. Col, 39–42; *entomologist, Calif. Spray-Chem. Corp, 42–* A.A; Econ. Entom; Pacific Coast Entom. Soc. Insect distributions in relation to statistical methods; classification of Ephemerida.

Upp, Dr. Charles W(illis), University Station, Baton Rouge, La. *Poultry.* Joplin, Mo, Oct. 17, 98. B.S, Okla. Agr. and Mech. Col, 22, M.S, 26; Ph.D, Iowa State Col, 34. Instr. poultry husbandry, Okla. Agr. and Mech. Col, 22–25, asst. prof. and asst. poultry husbandman, 25–28; assoc. prof. *in charge poultry research, Louisiana, 28–36, prof, 36–* Poultry specialist, poultry service dept, Ralston Purina Mills, 28. Genetics Soc; Genetic Asn; Poultry Sci. Asn. (director, 32–34, second v. pres, 41–). Poultry breeding; embryology; poultry management and feeding; inheritance of resistance to disease in poultry.

Uppal, Dr. B(adri) N(ath), College of Agriculture, Poona, India. *Plant pathology.* Eminabad, Punjab, India, June 28, 00. A.B, Punjab, 21; fellow, Iowa State Col, 24–25, Ph.D, 25. Instr, Iowa State Col, 24, asst, 25–26; *plant pathologist, Govt. of Bombay, 26–* Phytopath. Soc; Bot. Soc; fel. Iowa Acad; Indian Bot. Soc. Physiological plant pathology; toxicity of organic compounds; studies in Peronosporales; breeding for disease resistance in plants; virus diseases of plants.

Upshall, Dr. W(illiam) H(arold), Vineland Station, Ont, Can. *Horticulture.* Port Elgin, Ont, Nov. 25, 01. B.S.A, Ont. Agr. Col, 23; M.S, Mich. State Col, 26; Ph.D, Maryland, 29. *Chief research, hort. exp. sta, Vineland sta, Ont. Dept. Agr, 23–* Soc. Hort. Sci; Can. Soc. Tech. Agr. Vegetative propagation of fruit trees; transplanting fruit trees; identification of varieties of fruits from growth characters.

Upson, Arthur T, U. S. Forest Service, Rio Piedras, P. R. *Forestry.* Odell, Nebr, July 8, 88. B.S, Nebraska, 10. Forest asst. and examiner, U. S. Forest Service, Colo, 10–15, forest supervisor, 15–20, chief lab. operations, Forest Products Lab, 20–21, chief sect. indust. investigations, 21–24; wood technologist and trade exten. manager, Nat. Lumber Mfrs. Asn, 24–35; director, Southwest. Forest and Range Exp. Sta, U. S. Forest Service, 35–42; lumber and lumber products div, War Production Board, 42–43; *director trop. forestry and gen. supt. Insular forests of P. R, U. S. Forest Service, 43–* Soc. Foresters; Forestry Asn. Silviculture; range; forest influences; forest products utilization; practical application of results of forest products research; lumber standardization.

Upson, Dr. Joseph E(dwin II), U. S. Geological Survey, P. O. Box 156, Santa Barbara, Calif. *Geology.* Burlington, Vt, Nov. 3, 10. B.S, Princeton, 33; A.M, Harvard, 35, Ph.D, 38. Asst. geol, Harvard, 35–38; instr, Idaho, 38–40; *jr. geologist, U. S. Geol. Surv, 40–* Geomorphology; ground-water hydrology; Tertiary geology and geomorphology of the west flank of the Culebra range, southern Colorado.

Upson, Dr. Maxwell M(ayhew), Raymond Concrete Pile Co, 140 Cedar St, New York, N. Y. *Engineering.* Milwaukee, Wis, April 22, 76. A.B, North Dakota, 96, D.E, 31; M.E, Cornell, 99. From asst. supt. to managing engineer, Westinghouse, Church, Kerr and Co, 99–05; asst. to pres. and chief engineer, Hockanum Mills Co, Conn, 05–07; from gen. manager to *pres, Raymond Concrete Pile Co, 07–* Pres, Barranquilla Port and Terminal Co; chairman board directors, Int. Contractors, Inc. Longstreth medal, Franklin Inst, 40. Trustee, Cornell. Civil Eng; Concrete Inst. (past pres); Mech. Eng; Soc. Test. Mat. Mechanical engineering.

Upson, Dr. Robert W(illiam), E. I. du Pont de Nemours and Co, Experimental Station, Wilmington, Del. *Organic chemistry.* Odell, Nebr, Aug. 7, 13. B.S, Nebraska, 37, Avery research fellow, 37–38, M.S, 38; Eli Lilly research fellow, Illinois, 39–41, Ph.D, 41. Röhm and Haas asst, Illinois, 38–39; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 41–* Bis-benzimidazoles from dibasic acids; synthetic antimalarials, especially those derived from quinoline.

Upson, Walter L(yman), Litchfield, Conn. *Electrical engineering.* Cleveland, Ohio, July 3, 77. B.S, Princeton, 99, E.E, 02, M.S, 03; London, 07; M.E.E, Harvard, 08. Instr. *elec. eng,* Princeton, 04–06; asst. prof, Ohio State, 08–10; prof, Vermont, 10–12; asst. prof, Union (N. Y), 12–14, assoc. prof, 14–20; prof, Washington (St. Louis), 20–38; *research engineer, Torrington Mfg. Co, 38–* Consulting engineer, Gen. Elec. Co, 18–19, 28–32; Torrington Mfg. Co, 33–38. A.A; Elec. Eng. (chairman, Schenectady sect, 17); Soc. Refrig. Eng. Electrical science; engineering education; aerodynamics.

Upthegrove, Prof. Clair, University of Michigan, Ann Arbor, Mich. *Metallurgical engineering.* Central Lake, Mich, Nov. 30, 84. B.Ch.E, Michigan, 14. Chemist and metallurgist, Detroit Copper and Brass Rolling Mills, 14–16; instr. chem. eng, *Michigan,* 16–17, asst. prof, 19–25, assoc. prof. *metal. eng,* 25–29, *prof, 29–* Capt, Ordnance Dept, 17–19. Min. and Metal. Eng; Soc. Metals; Foundrymen's Asn; Eng. Educ. Physical metallurgy; non-ferrous equilibrium systems; scaling and decarbonization of steels; diffusion in metals.

Upton, Prof. Clifford B(rewster), Teachers College, Columbia University, New York, N. Y. *Mathematics.* Detroit, Mich, May 10, 77. A.B, Michigan, 02; A.M, Columbia, 07; Göttingen, 07; Paris, 08–10. Instr. *math,* secondary sch, 98–00; Horace Mann Sch, *Columbia,* 02–10, asst, *Teachers Col,* 04–07, instr, 07–10, asst. prof, 10–17, assoc. prof, 17–27, prof, 27–42, *emer. prof, 42–,* sec'y, 11–19, provost, 19–24. Math. Soc; Math. Asn; Nat. Council Teachers Math; Asn. Symbolic Logic. The teaching of mathematics in elementary and secondary schools; current business practices in arithmetic; modern calculating machinery and its uses.

Upton, Prof. Morgan, Harvard University, Cambridge, Mass. *Physiology, Psychology.* Princeton, Ind, Aug. 5, 98. B.S, Washington (Seattle), 22; A.M, Harvard, 27, Ph.D, 28. Asst, inst. psychol, Yale, 27–28; nat. research fellow, lab. gen. physiol, *Harvard,* 28–29, instr. gen. physiol. and psychol, 29–31, instr. *gen. physiol,* 31–32, *asst. prof, 32–, chairman board tutors in biol, 31–; asst. director, British Ministry of Supply, Washington, D. C, 41–* Physiol. Soc; Psychol. Asn; Soc. Zool. Audition; animal behavior; central nervous functions.

Urbach, Dr. Franz, 1170 Genesee St, Rochester, N. Y. *Physics.* Vienna, Austria, June 28, 02. Ph.D, Vienna, 26. Research physicist. Institut für Radiumforschung, 26–31; head physics lab, Hosp. City Vienna, 31–34; private indust. research, 34–38; *research physicist, Office of Scientific Research and Develop, Rochester, 41–* Physical Soc; Optical Soc. Physics of solids; photography; colloids; luminescence; photochemistry; instruments.

Urbahns, Theodore D, Yuba City, Calif. *Entomology.* Minden, Iowa. B.S, Colo. Agr. Col, 08. Insecticide tests, Exp. Sta, Colo. State Col, 08; field entomologist, bur. entom, U. S. Dept. Agr, 08–09; Exp. Sta, Minnesota, 09–11; entom. asst, bur. entom, U. S. Dept. Agr, 11–20; field entomologist, State Dept. Agr, Calif, 20–23, entomologist, 23–27; *agr. commissioner, Sutter County, Calif, and quarantine guardian, 27–* Collaborator, fed. hort. board, U. S. Dept. Agr, 20–27. A.A; Asn. Econ. Entom. Economic entomology; alfalfa seed chalcis-fly; grasshopper control for Pacific coast; strawberry leaf beetle; parasites of Bruchophagus funebris; insecticides and orchard insect control.

Urbain, Dr. W(alter) M(athias), 7013 34th St, Berwyn, Ill. *Chemistry.* Chicago, Ill, April 8, 10. B.S, Chicago, 31, Ph.D, 34. *Physical chemist, Swift and Co, 33–* Chem. Soc; Optical Soc; Inst. Food Technol. Activity coefficients; detergent action of soaps; heme pigments of meats; color standards; technology of egg processing; meat curing.

Urban, Dr. Frank, 147 Kenilworth Place, Webster Groves, Mo. *Chemistry.* Metz, Lorraine, France, Feb. 18, 96. Freiburg; Paris; Ph.D, Wisconsin, 28. Instr. and later *asst. prof. physiol. chem, sch. med, Washington (St. Louis).* Physical, colloid and physiological chemistry; refractometric analysis; shift of the water equilibrium; base binding of sugars; membrane phenomena; stream potentials; surface conductivity; electrical double layer structure; osmosis; blood filtrates; glass electrodes; respiration; vision; nerve impulse; muscular contraction.

Urban, Dr. Stephen F(lorenz), Carnegie-Illinois Steel Corp, Chicago, Ill. *Metallurgy.* Steelton, Pa, March 27, 07. B.S.E, Michigan, 30, M.S, 31, Ph.D, 33. Asst, Michigan, 26–33; research engineer, U. S. Steel Corp, Kearny, N. J, 33–36; *metallurgist and research supervision, south works, Carnegie-Ill. Steel Corp, 36–* Soc. Metals; Min. and Metal. Eng. Electrodeposition of chromium; non-metallic inclusions in steel; metallurgy of steel.

Urban, Dr. Walter G(eorge), 72 S. 19th St, Pittsburgh, Pa. *Zoology, Oral surgery.* Pittsburgh, Pa, Feb. 22, 02. D.D.S, Pittsburgh, 29, M.S, 31, Litt.M, 37. *Oral surgeon and director dental clinic, Allegheny County Juvenile Detention Home, 30–; capt, Med. Corps, U. S. Army.* A.A; assoc. fel. Am. Med. Asn; Soc. Oral Surg. and Exodontists; Soc. Bact; Dental Asn; Soc. Am. Med. Technol; fel. Acad. Diseases and Surg. of Mouth; fel. Int. Col. Anesthetists; Int. Anesthesia Research Soc. Transplantation and regeneration of tissue; oral bacteriology.

Urban, Prof. Wilbur M(arshall), Yale University, New Haven, Conn. *Philosophy, Psychology.* Philadelphia, Pa, March 27, 73. A.B, Princeton, 95; Ph.D, Leipzig, 97. Reader philos, Princeton, 97–98; prof. philos. and psychol, Ursinus Col, 98–02; *philos,* Trinity Col. (Conn), 02–20; Dartmouth Col, 20–30; Mills prof, California, 30–31; *prof, grad. sch, Yale, 31–* Asst. ed, 'Dict. Philos. and Psychol.' Philos. Asn. (pres, east. div). The psychology of feelings and emotions, with special reference to the psychology of value; the memory of emotions in connection with esthetic creation and appreciation; experimental psychology of the value-judgment; value theory; philosophy of language; principles of symbolism.

Ure, Prof. William, 1750 Knox Road, University Hill, B. C, Can. *Physical chemistry.* Glasgow, Scotland, Aug. 20, 98. B.A.Sc, British Columbia, 23, M.A.Sc, 24; Ph.D, Calif. Inst. Tech, 28. Asst. chemist, Whalen Pulp and Paper Co, 24; teacher, high sch, B.C, 26; asst. prof. *physical chem, British Columbia,* 28–38, *assoc. prof, 38–* Mem. tech. staff, Int. Joint Cmn. Smelter Smoke, 29. A.A; Royal Astron. Soc. Can. (pres, 35); Can. Chem. Asn. (pres, Vancouver branch, 35); B. C. Acad. (pres, 38–40). Reaction rates in gaseous and liquid systems; periodic precipitation in gels; surface reactions of flotation reagents; testing of newsprint.

Uren, Prof. Lester Charles, University of California, Berkeley, Calif. *Petroleum engineering.* Grass Valley, Calif, Sept. 1, 88. B.S, California, 11. Eagle-Shawmut Mining Co, 04–12; from asst. to *prof. petrol. eng, California, 12–,* acting dean col. mining, 40–41. Petrol. eng. research consultant, 24– Engineer, U. S. Fuel Admin, 18; capt, C.W.S, 18–19. Min. and Metal. Eng; Petrol. Inst; Asn. Petrol. Geol. Factors influencing recovery of petroleum from its reservoir rocks.

Urey, Prof. Harold C(layton), 355 Highwood Ave, Leonia, N. J. **5Physics, Chemistry.* Walkerton, Ind, April 29, 93. B.S, Montana, 17, Sc.D, 35; Ph.D, California, 23; Sc.D, Princeton, 35, Newark, 39. Chemist, Barrett Chem. Co, 17–19; instr. chem, Montana, 19–21; Am-Scandinavian Foundation fellow, Copenhagen, 23–24; assoc. *chem, Hopkins,* 24–29; assoc. prof, *Columbia,* 29–34, *prof, 34–, exec. officer dept, 39–* Ernest Kempton Adams fellow, Columbia, 33–36. Ed, 'Jour. Chem. Physics,' 33–40. Willard Gibbs medal, Am. Chem. Soc, 34; Nobel prize chem, Royal Swedish Acad, 34; Davy medal, Royal Soc. London, 40; Franklin medal, Franklin Inst, 43. Nat. Acad; A.A; Physical Soc; Chem. Soc; Philos. Soc; Am. Acad; N. Y. Acad; Acad. royale des Sciences de Belg; Royal Swedish Acad. The entropy of gases; atomic structure; absorption spectra and structure of molecules; discovery of deuterium; properties and separation of isotypes; exchange reactions.

Urie, Frank D(ickinson), Elgin National Watch Co, Elgin, Ill. *Astronomy, Physics.* Toledo, Ohio, June 27, 87. A.B, Michigan, 09. Asst, Detroit Observatory, Michigan, 09–10; astronomer, Elgin Observatory, 10–16, asst. director, 16–26, director, 26–28; director research, *Elgin Nat. Watch Co,* 28–31, *supt. research and inspection, 31–* A.A; Astron. Soc; Soc. Test. Mat; Soc. Metals; Horol. Inst. (first v. pres). Chronographic registration of radio time signals; watch tests; horology.

Urner, Dr. S(amuel) E(verett), 821 N. Mariposa Ave, Hollywood, Calif. *Mathematics.* Mitchell, Ind, July 29, 87. Ph.B, Baker, 06; Ph.D, Harvard, 11. Instr, high sch, Kans, 06–08; math, Wisconsin, 10–11; asst. prof, Miami (Ohio), 11–18, assoc. prof, 18–19; sec'y-treas, Urner and Janes, Inc, 22–30; *instr. math, Los Angeles City Col, 31–* Math. Soc; Math. Asn. Transformations of real variables; gravitational measurements.

Urquhart, Dr. F(rederick) A(lbert), Royal Ontario Museum of Zoology, Toronto, Ont, Can. *Entomology.* Toronto, Dec. 13, 11. B.A, Toronto, 35, M.A, 38, Ph.D, 41. Insect pest investigator, Dept. Agr, Ottawa, 35–37; lecturer, *Royal Ont. Museum Zool,* acting curator *insects,* 37–41, *curator, 41–; meteorol. officer, Royal Can. Air Force.* Soc. Biol. Ecology of Orthoptera.

Urquhart, Lieut. Col. L(eonard) C(hurch), Office of Chief of Engineers, Washington, D. C. *Engineering.* Cleveland, Ohio, Oct. 24, 86. Western Reserve, 03–05; C.E, Cornell, 09. From instr. to *prof. struct. eng, Cornell, 11–; lieut, Corps Engineers, U. S. Army, 42–* Prof, Drexel Inst, 25–26; Hawaii, 40. Officer, C.Eng, 18–19. Civil Eng; Concrete Inst. Design of concrete and steel structures; stresses in simple structures; civil engineering; elementary structural engineering.

Urry, Dr. W(illia)m D(onald), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. *Chemistry.* Cardiff, Wales, May 1, 05. B.Sc, Wales, 25, A.I.C, 26, Ph.D, 28. Private asst, Berlin, 28; Königsberg Univ, 28–30; Henry E. Johnston scholar, Hopkins, 30–32; assoc, Mass. Inst. Tech, 32–38; *physical chemist, geophys. lab, Carnegie Institution, 38–* Wash. Acad; assoc. Inst. Chem. Gt. Britain and Ireland. Radioactive chemistry and geochronology; rare gases; artificial radioactivity.

Usinger, Dr. Robert L(eslie), University of California College of Agriculture, Davis, Calif. *Entomology.* Ft. Bragg, Calif, Oct. 24, 12. B.S, California, 35, Ph.D, 39; Hawaii, 35–36. Entomologist, Bishop Museum, Honolulu, 35–36; asst. curator entom, Calif. Acad. Sciences, 36–39; *instr. entom, col. agr, and jr. entomologist, Exp. Sta, California, 39–* Mem, entom. surv. of Guam, Hawaiian Sugar Planters Exp. Sta, 36. Ed, 'Pan-Pacific Entomologist,' 39–; ed. board, 'Gen. Catalogue Hemiptera of World,' 42– Mem, Am. Cmn. Sci. Nomenclature in Entom, 42– A.A; Asn. Econ. Entom; Entom. Soc; Soc. Study Speciation; Pacific Coast Entom. Soc; Calif. Acad; Hawaiian Entom. Soc. Biology; systematics and control of heteropterous Hemiptera; zoogeography; speciation.

Uspensky, Prof. J(ames) V(ictor), 511 Hanover St, Palo Alto, Calif. **5Mathematics.* Urga, Mongolia, May 11, 83. Grad, Imp. Univ, St. Petersburg, 06, fellow, 06–08, Ph.D, 11. Prof. *math,* St. Petersburg Univ. for Women, 12–18; instr, Inst. Engineers of Ways of Communication, 07–13, asst. prof, 13–18, prof, 18–29; privat-docent, St. Petersburg, 12–15, prof, 15–23; acting prof, *Stanford,* 29–32, *prof, 32–* Summer, professorial lecturer, Minnesota, 29. Math. Soc; Leningrad Math. Soc. (v. pres, 20–29). Theory of numbers; analysis; probability.

Ussery, H(ugh) D(udley), Virginia Polytechnic Institute, Blacksburg, Va. *Physics.* Kershaw, S. C, May 4, 04. A.B,

Presb. Col. (S. C), 26; A.M, North Carolina, 28. Teaching fellow *physics*, North Carolina, 26–27; asst. prof, The Citadel, 28–33; instr, *Va. Polytech*, 35–38, asst. prof, 39–42, *assoc. prof, 43–* Summer, teacher, Univ. of the South, 27. A.A; Optical Soc; Asn. Physics Teachers; Physical Soc; Va. Acad. Applied spectroscopy.

Utermohlen, Dr. W(illiam) P(erry), Jr, Tennessee Eastman Corp, Kingsport, Tenn. *Chemistry.* Kansas City, Kans, March 10, 16. A.B, Kansas, 36; A.M, Nebraska, 38, Ph.D, 40. Asst. and research fellow chem, Nebraska, 36–40; *research chemist, Tenn. Eastman Corp, 40–* Soc. Bact; Chem. Soc. Synthetic resins; synthetic organic chemistry; quinoline derivatives.

Utley, Evelyn, 545 Bedford St, Stamford, Conn. *Nutrition, Biochemistry.* New London, Conn, April 22, 09. B.S, Conn. Col, 30; A.M, Columbia, 32. Asst. vitamins, Columbia, 30–32; chem. teaching, Conn. Col, 32–34; asst. prof. home econ, Tennessee, 34–36, asst. home economist, Exp. Sta, 36–40; *biochemist, Stamford research labs, Am. Cyanamid Co, 40–* Phosphorus research, Tenn. Valley Authority, 34–36. A.A; Chem. Soc. Availability of phosphorus from dicalcium phosphate; vitamin A values of yellow vegetables and effect of cooking and of storage; human requirements for ascorbic acid; blood ascorbic acid levels in students.

Utter, Dr. L(eonard) Gordon, Brooklyn Botanic Garden, Brooklyn, N. Y. *Plant pathology.* Elmira, N. Y, Jan. 28, 04. B.S, Syracuse, 28, M.S, 29; Ph.D, Columbia, 38. Sci. asst, Brooklyn Bot. Garden, 25–26; asst. bot, Syracuse, 27–29; *research asst, Brooklyn Bot. Garden, 29–* A.A; Bot. Soc; Phytopath. Soc; Genetic Asn; Torrey Bot. Club. Smut diseases of cereals and plant breeding.

Utterback, Prof. C(linton) L(ouis), 3608 47th Ave, N. E, Seattle, Wash. *Physics.* Cloverdale, Ind, 87. B.S, Purdue, 08; M.S, Washington (Seattle), 18; Ph.D, Wisconsin, 26. Assoc. *physics*, Washington (Seattle), 18–23; asst. prof, Ga. Tech, 25–26; *Washington (Seattle)*, 27–30, assoc. prof, 30–34, *prof, 34–, director physics labs.* A.A; Physical Soc; Geophys. Union. High temperature radiation; spectral radiations and emissivity; metallic properties and contamination at high temperatures; optical properties of sea water; radioactivity of sea water and ocean bottom materials.

Utterback, Dr. D(onald) D(esmond), Box 1221, Pampa, Texas. *Geology.* Edmore, Mich, Aug. 18, 04. A.B, M.S. and Ph.D, Illinois. Asst. instr. geol, Illinois, 30–35; treating engineer, Dowell, Inc, 35; *asst. dist. geologist, Texas Co, 36–; lieut, U. S. Army.* Summers, asst. geologist, Ill. Geol. Surv, 30–33. Petroleum geology.

Utterback, Prof. W(illiam) I(rvin), Marshall College, Huntington, W. Va. *Zoology.* Crawfordsville, Ind, Oct. 11, 72. B.S, Wabash Col, 01; fellow, Missouri, 11, A.M, 15. Prin. and teacher, high schs, Ind. and Mo, 01–07, 08–09, 11–17; pres, Sch. of the Ozarks, 07–08; dept. *biol*, Westminster Col, 09–11; high sch, Wash, 17–19; *prof, Marshall Col, 19–, head dept.* Sci. asst, Bur. Fisheries. A.A; W. Va. Acad; W. Va. State Teachers Asn. (chairman, sci. sect, 22–24). Naiades of Missouri; breeding record of Missouri mussels; mussel resources of Missouri; phylogeny and new genus of Naiades; great life cycle; the second triangle.

V

Vaala, Dr. Gordon T(heodore), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Madison, Minn, Sept. 11, 08. A.B, St. Olaf Col, 30; Ph.D, Mass. Inst. Tech, 36. Private asst. to Dr. A. H. Gill, Mass. Inst. Tech, 30–31; *research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 36–* Chem. Soc. Orientation and rearrangements in the Friedel and Crafts reaction; applied organic chemistry; development of and applications for plastic materials.

Vagtborg, Harold (Alfred), 35 W. 33rd St, Chicago, Ill. *Engineering.* Copenhagen, Denmark, Sept. 17, 04. B.S, Illinois, 26; M.S, Armour Inst. Tech, 33. Partner, Allen and Vagtborg, Inc, 30–35; prof. sanit. eng, Armour Inst. Tech, 31–37, *director, Armour Research Foundation, Ill. Inst. Tech, 37–* A.A; Civil Eng; Eng. Educ; Chem. Soc; Physical Soc.

Vahlteich, Dr. Ella McCollum, 46 Hudson Ave, Edgewater, N. J. *Nutrition.* Mansfield, Conn, Jan. 18, 00. B.S, Conn. Col, 21; A.M, Columbia, 23, Ph.D, 31. Asst. food chem, Columbia, 21–23; research chemist, Milk Oil Corp, New York, 23–25; research assoc. nutrition, Teachers Col, Columbia, 25–35; *editorial nutritionist, 36–* Chem. Soc; Inst. Nutrition. Nutritional anemia; utilization of iron in the human being; nutritional evaluations of children's diets; vitamins.

Vahlteich, Dr. H(ans) W(alter), 46 Hudson Ave, Edgewater, N. J. *Food chemistry.* Chicago, Ill, April 15, 96. Ph.C, Illinois, 18; B.S, Michigan, 20, fellow, 20–21, M.S, 21; Ph.D, Columbia, 23. Instr, Illinois, 23–24; *research chemist and v. pres. in charge research and quality control, Best Foods, Inc, 24–* Mem, U. S-Brazilian Veg. Oil Mission, 42. A.A; Inst. Food Technol; Chem. Soc; Oil Chemists Soc. Proteolytic enzymes; edible oils; food manufacture; hydrogenation; emulsions.

Vail, Prof. Gladys E(llen), Kansas State College, Manhattan, Kans. *Foods.* Hume, Mo, June 28, 02. A.B, Southwestern Col, 24; M.S, Chicago, 27; Ph.D, Minnesota, 39. Instr, high sch, Kans, 24–26; *food econ. and nutrition, Kans. State Col*, 27–34, asst. prof, 34–38, assoc. prof, 38–42, *prof, 42–* Summer, instr, Minnesota, 37, 38. The state of water in colloidal gels; bread doughs; meat.

Vail, James G(arrett), 121 S. Third St, Philadelphia, Pa. *Chemistry.* Philadelphia, Pa, Nov. 16, 86. Pennsylvania; Harvard; Tech. Hochschule, Darmstadt, 08–09. Chemist, *Phila. Quartz Co*, 05–12, chem. director, 12–40, sec'y, 20–34, *v. pres, 34–; v. pres, Am. Doucil Co, 24–* Soc. Chem. Indust. medal, 33. Am. del, Chem. Eng. Cong, London, 36. Chem. Soc. (chairman, Phila. sect, 22); Ceramic Soc; Chem. Eng. (director, 31–, v. pres, 40); Franklin Inst; Soc. Chem. Indust. Gt. Britain (exec. cmt, 29–, chairman Am. sect, 36). Soluble silicates; water-softening by base-exchanging materials.

Vail, Dr. W(alter) E(lwood), Box 993, Charleston 24, W. Va. *Chemistry.* Forest Hill, Md, Sept. 23, 91. B.S, Haverford Col, 15; A.M, Harvard, 17, Ph.D, 24. Instr. mech. drawing, Baltimore Polytech. Inst, 11–12; Austin teaching fellow, Harvard, 15–17; instr. chem, Haverford Col, 17–18; Harvard, 19–23; dry cell research, Manhattan Elec. Supply Co, 23–26; *catalyst and high pressure synthesis research, E. I. du Pont de Nemours and Co, 26–* Chem. Soc. (chairman, Kanawha Valley sect, 37). Catalyst and high pressure synthesis.

Valle, Prof. J(oseph) E(dwin), University of Arkansas, Fayetteville, Ark. *Horticulture, Forestry.* Kokomo, Ind, Jan. 13, 02. B.S, Illinois, 28, M.S, 29, Ph.D, 33. Asst. horticulturist and instr. hort, Delaware, 29–30; asst. plant breeding, Illinois, 31–32; asst. prof. hort, *Arkansas*, 36–43, *assoc. prof. hort. and assoc. horticulturist, 43–* Soc. Hort. Sci. Influence of environment on the development of flower parts; hardiness and drought resistance; uneven ripening of American grapes; variety testing and selection; breeding.

Vaillant, Dr. George C(lapp), University of Pennsylvania, Philadelphia, Pa. *[6]*Anthropology, Archeology.* Boston, Mass, April 5, 01. A.B, Harvard, 22, A.M, 25, Winthrop scholar, 26–27, Ph.D, 27. Tutor anthrop, Harvard, 24–25; asst. curator *Mex. archeol, Am. Museum Nat. Hist*, 27–30, assoc. curator, 30–41, *hon. curator, 41–; director univ. museum, Pennsylvania, 41–; senior cultural relations officer, U. S. Embassy, Lima, Peru, S. Amer, 43–* Hon. prof, Nat. Museum, Mex, 41– Field asst, Peabody Museum exped, Southwest, 21, 22; Andover-Pecos exped, 22, 24, 25; Harvard-Boston exped, Egypt, 23–24; Carnegie Institution Chichen-Itza project, 26; Am. Museum Nat. Hist. explorations, Cent. Amer, 28, excavating, Valley of Mex, Zacatenco, 28–29. Ticoman, 29–30, El Arbolillo, 31, Teotihuacan and Gualupita, 31–32, Azcapotzalco, 34, Chiconauhtla, 35, Nonoalco, 36. A.A; Soc. Archeol; Anthrop. Asn; Ethnol. Soc; Am. Geog. Soc; Archeol. Inst. Amer; Philos. Soc; Inter Am. Soc. Anthrop. and Geog; Soc. des Américanistes de Paris; Soc. Cient. Ant. Alz. de Mex. Middle American archeology.

Valasek, Prof. Joseph, 300 Seymour Ave, S. E, Minneapolis, Minn. *Physics.* Cleveland, Ohio, April 27, 97. B.S, Case, 17; A.M, Minnesota, 20, Ph.D, 21. Asst. physicist, Bur. Standards, 17–19; nat. research fellow *physics*, 21–22; asst. prof, *Minnesota*, 22–27, assoc. prof, 28–40, *prof, 41–* A.A; fel. Physical Soc; Optical Soc. Annealing of optical glass; piezoelectric and dielectric properties of crystals; intensities of spectral lines; spark spectra; x-ray spectra.

Valente, Dr. Frank A(nthony), 46–16 43rd Ave, Long Island City, N. Y. *Physics.* Padula, Italy, Jan. 22, 99. B.S, N. Y. Univ, 22, M.S, 24, Ph.D, 39; Hopkins, 29–30. Teaching fellow and instr. physics, N. Y. Univ, 22–25; in charge science dept, high sch, N. Y, 25–26; asst. physicist, Picatinny Arsenal, U. S. War Dept, 26–28; Bur. Standards, 28–30; physicist, De-

voe and Raynolds Co, 30; research physicist, Westinghouse Elec. and Mfg. Co, 30–31; *physicist, Socony-Vacuum Oil Co, Inc, 31–; capt, Sig. Corps, U. S. Army, 42–* Summer, mem. faculty, N. Y. Univ, 42. Physical Soc. Measurement of spark lengths for oscillating potentials; resonance levels for neutron capture of iodine and indium.

Valentine, Dr. Frederick A(lbert), 2338 S. Beverly Glen Blvd, Los Angeles, Calif. *Mathematics.* Portland, Oregon, May 8, 11. A.B, Reed Col, 33; M.S, Chicago, 34, fellow, 34–36, Ph.D, 37. *Instr. math,* Tennessee, 36–37; *California at Los Angeles, 37–* Math. Soc. Calculus of variations; analysis; differential equations.

Valentine, Dr. J(oseph) Manson, National Museum, Washington, D. C. *Zoology.* New York, N. Y, Jan. 19, 02. A.B, Yale, 23, Ph.D, 28. Artist and asst, Tortugas Lab, 25, 26; instr. biol, Western Reserve, 27–29; asst. prof. zool, North Carolina, 29–31, nat. research fellow, 31–33, curator museum nat. hist, 34–37; Yale fellow, Bishop Museum, Honolulu, 37–38; Dazian fellow, 39–40; *assoc. entomologist, div. insects, U. S. Dept. Agr, 41–* Am. Museum Nat. Hist. exped, Panama, 24, N. Africa and Canary Islands, 33, Fiji Islands and N. Z, 37. A.A; Speleol. Soc; Wash. Entom. Soc; Wash. Acad. Taxonomy, evolution and ecology of Carabidae, Cicindelidae, Elateridae; speleology.

Valentine, Dr. Wilbur G(oodrich), Brooklyn College, Brooklyn, N. Y. *Geology.* Meredith, N. Y, Oct. 10, 03. A.B, Rochester, 24, M.S, 26; Ph.D, Columbia, 36. Asst. geologist, Cananea Consol. Copper Co, Mex, 28–31; *tutor and instr, Brooklyn Col, 33–* Instr, night sch, Cooper Union, 33–40; dept. gen. educ, N. Y. Univ, 35–38. Miner. Soc; fel. N. Y. Acad. (ed. 42–). Petrography; economic geology.

Valentine, Prof. W(illard) L(ee), 620 University Place, Evanston, Ill. *Psychology.* Chillicothe, Ohio, Dec. 2, 04. A.B, Ohio Wesleyan, 25, A.M, 26; Ph.D, Ohio State, 29. Asst. psychol. and math, Ohio Wesleyan, 25–26, instr. *psychol,* 26–28; Ohio State, 28–29, asst. prof, 29–32, assoc. prof, 32–40; *prof. and chairman dept, Northwestern, 40–* Summer, asst, Munsell Color Research Lab, Baltimore, 25. A.A; Psychol. Asn. (treas, 37–, business manager publications, 38–); Acoustical Soc; Midwest. Psychol. Asn; Ohio Acad. Text-books for beginning psychology classes; general and experimental psychology and infant behavior.

Valenzuela, Dr. Patrocinio, National Research Council of the Philippines, Manila, P. I. *Pharmacy.* Sta. Ana, Manila, P. I, May 5, 95. A.B, Ateneo de Manila, 15; Ph.G, Philippines, 18, B.S, 19; Phar.D, Univ. Sto. Tomas, 21; Philippine Govt. traveling fellow, 24–26; hon. fellow, Wisconsin, 25, Ph.D, 26. Asst. *pharmacy, col. pharmacy, Philippines,* 19, instr, 19–24, asst. prof, 24–29, *assoc. prof, 29–,* sec'y, 19–35; *exec. sec'y, Nat. Research Council P. I, 34–* Assoc. ed, 'Philippines Nat. and Applied Science Bul,' 30–; ed. in English, 'Jour. of the Philippine Pharmaceut. Asn,' 28–; collaborator, 'Revista Filipina de Medicina y Farmacia,' 29–36, managing ed, 36– Pharmaceut. Asn; Philippine Pharmaceut. Asn. (sec'y, 28, pres, 30); Colegio Medico-Pharmaceut. de Filipinas (v. pres, 29–31, sec'y, 31–); Philippine Sci. Soc. (sec'y-treas, 31–); Manila Pharmacy Soc. (pres, 36–). Phytochemistry of Philippine medicinal and economic plants; pharmacopoeial studies.

Valgren, Dr. V(ictor) N(elson), 2947 Macomb St, N. W, Washington, D. C. *Agricultural economics.* Sweden, June 30, 76. A.B, Gustavus Adolphus Col, 05; A.M, Minnesota, 09; Ph.D, Chicago, 24. Prin, schs, S. Dak, 02–03; sch. supt, 05–08; instr. econ, Nebraska, 09–10; Minnesota, 12–13; asst. prof, Kansas, 13–15; investigator agr, insurance and credit, U. S. Dept. Agr, 15–20, in charge div. farm finance, 20–23; supt. crop and weather dept, Automobile Ins. Co. and Standard Fire Ins. Co, Hartford, 23–26; economist and senior agr. economist, bur. agr. econ, U. S. Dept. Agr, 26–35; *prin. agr. economist, Farm Credit Admin, 35–* Chairman statist. cmt, Farm Fire Prevention Cmt. Econ. Asn; Farm Econ. Asn; Asn. Labor Legis; Agr. Hist. Soc. Agricultural insurance; rural credits.

Vallarta, Dr. M(anuel) S(andoval), Massachusetts Institute of Technology, Cambridge, Mass. **Mathematical physics.* Mexico City, Mex, Feb. 11, 99. B.S, Mass. Inst. Tech, 21, hon. fellow, 23–24, Sc.D, 24; hon. Ph.D, Mexico, 34. Research assoc. *physics, Mass. Inst. Tech,* 23–26, asst. prof, 26–30, assoc. prof, 30–39, *prof, 39–* Guggenheim Mem. Foundation fellow, Berlin and Leipzig, 27–28; hon. prof, Mexico, 31–; visiting prof, Cmn. Relief Belgium Educ. Foundation, Louvain, 35–36; lecturer, Harvard, 37. Ed, 'Jour. Math. and Physics,' 29– Fel. Physical Soc; Math. Soc; Elec. Eng; fel. Am. Acad; Soc. française de Physique; fel. Acad. Nac. de Cienc, Mex. Relativity; cosmic radiation.

Valleau, Prof. W(illiam) D(orney), Kentucky Experiment Station, Lexington, Ky. *Plant pathology.* Minneapolis, Minn, Feb. 17, 91. B.S.A, Minnesota, 13, Ph.D, 17. Asst. fruit breeding, Exp. Sta, Minnesota, 15–17, instr, univ, 17–19; assoc. prof. and *prof. plant path, Kentucky, and pathologist, Exp. Sta, 19–* A.A; Phytopath. Soc; Ky. Acad. (pres, 27). Varietal resistance of plums to brown rot; sterility in Fragaria; inheritance of sex in the grape; corn root rot; tobacco and virus diseases; clover diseases.

Valley, Dr. George, Cheplin Biological Laboratory, Syracuse, N. Y. *Bacteriology.* Estonia, May 10, 87. B.S, Ohio State, 17, M.S, 19; Ph.D, Yale, 26. Asst. soils, Ohio State, 17–19, chemist, exten. dept, 19–24, instr. soils, 22–24; asst. gen. bacter, Yale, 25–26, Sterling research fellow, grad. sch, 26–28, instr. bacter, sch. med, 28–30, asst. prof, 30–43; *mem. staff, Cheplin Biol. Lab, 43–* A.A; Soc. Bact. General bacteriology; carbon dioxide; n-butyl resorcinol and phenol as disinfectants; cysteine in anaerobic cultures; cloudy reaction in agglutination; intestinal flora on low salt diet; penicillin.

Valley, Dr. George E(dward), Jr, 55 Frost St, Cambridge, Mass. *Nuclear physics.* New York, N. Y, Sept. 5, 13. B.S, Mass. Inst. Tech, 35; Ph.D, Rochester, 39. Research assoc. mass spectroscopy, *Harvard,* 39–40, *nat. research fellow nuclear physics, 40–* Physical Soc. Artificial radioactivity; isotope abundances of stable nuclei; nuclear radiation spectra.

Van Allen, Dr. C(hester) M(ontague), Bikaner State Hospital, Bikaner, Rajputana, India. *Surgery.* Madura, India, Jan. 23, 96. A.B, Yale, 18, M.D, 21. Intern, St. Raphael's Hosp, New Haven, 21–22; asst. exp. path, Rockefeller Inst, 22–25; vol. asst, Surg. Inst, Munich, 25–26; assoc. surg, Iowa, 26–27; asst. prof, Chicago, 27–29; assoc, Yale, 29–30; prof, Peiping Union Med. Col, 30–35; surgeon in chief, Tata Mem. Hosp, 36–40; *chief surgeon, Bikaner State Hosp, 40–* Asn. Thoracic Surg; Soc. Exp. Biol; British Med. Asn; Asn. Surg. India; Med. Asn. China. Thoracic surgery; pulmonary pathology and physiology; wound healing.

Van Alstine, Dr. E(rnest), Cornell University, Ithaca, N. Y. *Soils.* Grand Ledge, Mich, April 15, 82. B.S, Mich. State Col, 07; M.S, Illinois, 17; Ph.D, Rutgers, 20. Asst. chemist, Exp. Sta, Illinois, 07–11, assoc. chemist, 11–15, asst. chief soils lab, 15–20; commercial fellow, Rutgers, 21; prof. agr. and exten. agronomist, Vermont, 21–31; *exten. prof. agron, Cornell, 31–* A.A; Soc. Agron. Soil fertility.

Van Alstyne, Dr. D(orothy), 102 Faculty Apts, East Campus, Duke University, Durham, N. C. *Psychology.* Brooklyn, N. Y, Nov. 18, 99. A.B, Vassar Col, 21; A.M, Columbia, 22, Ph.D, 29. Asst, Teachers Col, and psychologist, Horace Mann Sch, Columbia, 22–26; psychologist, Boston Habit Clinics, 28–29; assoc. director and psychologist, Winnetka, Garden Apts. and Chicago Nor. Col. Nursery Schs, 29–34; psychologist, Francis W. Parker Sch, 34–40; *asst. prof.* educ, Colorado, 40–42; *educational psychol, Duke, 42–* Sch. psychologist, Boulder, Colo, 40–42. Asn. Applied Psychol; Soc. Research Child Develop; Psychol. Asn. Child psychology; gifted children; psychology of reading; environment of three-year-old children; preschool vocabulary test; relaxation, learning levels, play interests, behavior and rhythmic responses of preschool children; scale for rating school behavior and attitudes.

Van Antwerpen, F(ranklin) J(ohn), 60 E. 42nd St, New York, N. Y. *Chemical engineering.* Paterson, N. J, Nov. 28, 12. B.S, Newark Col. Eng, 38. Chemist, Am. Zeolite Corp, 30; research chemist, United Piece Dye Works, 30–33; manager, Munitex Corp. 33–38; *assoc. ed, 'Indust. and Eng. Chem,' 38–* Special lecturer, Polytech. Inst. Brooklyn. Chairman junior cmt. professional training, Engineers Council Professional Develop. Chem. Eng. (ed, student chap. bul); Chem. Soc. Cellulose esters and ethers; surface active agents; chemical economics.

VanArendonk, Dr. Arthur M(arion), 6925 Warwick Road, Indianapolis, Ind. *Chemistry.* Grand Haven, Mich, July 24, 08. A.B, Hope Col, 30; Ph.D, Illinois, 34. Asst. instr, Mass. State Col, 31–32; Illinois, 32–34; *research chemist, Eli Lilly and Co, Indianapolis, 34–* Chem. Soc. Stereochemistry of diphenyls and alkaloids; chemistry of toad poisons; sulfanilamides; antimalarials.

Van Arnam, Ralph N(ewcomb), 705 First Ave, Bethlehem, Pa. *Astronomy.* Beaver Falls, N. Y, June 7, 02. E.E, Cornell, 26, M.S, 27. Instr. *math. and astron, Lehigh,* 28–42, *asst. prof, 42–* Summers, asst, Yerkes Observatory, Chicago, 31–34. Yerkes Observatory, Chicago, eclipse exped, New Eng, 32. A.A; Astron. Soc; Math. Asn; Astron. Soc. Pacific; Soc. astron. de France. Spectroscopic binary stars; astrophysics.

VanArsdel, W(allace) B(arnes), U. S. Department of Agriculture, Albany, Calif. *Chemical engineering.* Frankfort, Ind, March 17, 93. B.S, Purdue, 13. Asst. director research, Brown Co, N. H, 14–37; senior chem. engineer, regional soybean research lab, *U. S. Dept. Agr,* 37–38, *prin. chem. engineer, regional research labs. and chief eng. and develop. div, west. regional research lab, bur. agr. and indust. chem, 38–* Chem. Soc; Chem. Eng; Optical Soc; N. H. Acad. (pres, 23). Process and equipment development for and economics of industries based on utilization of farm products.

Van Artsdalen, Dr. Ervin R(obert), Lafayette College, Easton, Pa. *Physical chemistry.* Doylestown, Pa, Nov. 13, 13. B.S, Lafayette Col, 35; Int. Exchange fellow, Munich, 35–36; A.M, Harvard, 39, Ph.D, 41. Asst. *chem,* Harvard, 36–40, teaching fellow, 40–41; instr, *Lafayette Col,* 41–43, *asst. prof, 43–* Chem. Soc. Adsorption indicators and adsorption from solution; reaction kinetics; photochemistry and bond strengths.

Van Atta, Dr. C(hester) M(urray), Radiation Laboratory, University of California, Berkeley, Calif. *Physics.* Portland, Oregon, May 25, 06. A.B, Reed Col, 29; Washington (St. Louis), 30; Ph.D, N. Y. Univ, 33. Asst. physics, Washington (St. Louis), 29–30; N. Y. Univ, 30–33; nat. research fellow, Mass. Inst. Tech, 33–35, research assoc, 35–38, asst. prof, 38–40; develop. research, Naval Ordnance Lab, 40–43; *nuclear research, radiation lab, California, 43–* A.A; Physical Soc. Electronics; hyperfine structure; nuclear physics.

Van Atta, Dr. Elvene A(melia), 79 Wildwood St, Winchester, Mass. *Zoology.* Hartford, Conn, Jan. 3, 03. A.B, Wellesley Col, 24; fellow, Washington (St. Louis), 28–31, M.S, 29, Ph.D, 31. Asst. zool, Washington (St. Louis), 27–28. physiol, sch. med, 31–32. Genetics; mutations produced by radium and x-rays; dominant eye colors; physiology; surface conduction in salt solutions.

Van Atta, Dr. L(ester) C(lare), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Portland, Oregon, April 18, 05. A.B, Reed Col, 27; M.S, Washington (St. Louis), 29, fellow, 29–31, Ph.D, 31. Asst. *physics,* Washington (St. Louis), 27–29; Princeton, 32; *Mass. Inst. Tech,* 32–33, research assoc, 33–37, asst. prof, 37–41, *research assoc, radiation lab, 41–* Physical Soc. Sputtered films; electron collisions in gases; production of high voltage; nuclear research; x-rays.

van Barneveld, Cha(rle)s E(dwin), Chatsworth, Calif. *Mining and metallurgical engineering.* Doetinchem, Holland, Nov, 26, 74. Col. communal, Boulogne; King's Col. (Can); B.Sc, McGill, 93, M.Sc, 16. Mining engineer, 93–96; asst. prof. miner. and practical metal, Ariz. Sch. Mines, 96–97; prof. mining eng, Minnesota, and consulting mining engineer, 98–13; chief dept. mines and metal, Pan-Pacific Expos, 14–15; prof. mining, California, 16; supt. southwest. sta, Bur. Mines, 17–22, Miss. Valley sta, 22–24; *consulting engineer, 25–* Min. and Metal. Eng. Metal mining; copper leaching and concentration; mechanical underground loading in metal mines; iron mining in Minnesota.

VanBibber, Prof. Florence Holliday, Marshall College, Huntington, W. Va. *Psychology.* Wheeling, W. Va, Nov. 4, 90. A.B, Randolph-Macon Woman's Col, 13; A.M, Arizona, 32, Ph.D, 35. *Assoc. prof. psychol, Marshall Col, 37–* A.A. Psychological theories of learning and their educational implications.

Van Biesbroeck, Prof. G(eorge), Yerkes Observatory, Williams Bay, Wis. **4*Astronomy.* Ghent, Belgium, Jan. 21, 80. D.E, Ghent, 02; Lauréat du Concours universitaire, 02–03; hon. D.Sc, Brussels, 35. Engineer, dept. bridges and roads, Brussels, 02–08; asst, Heidelberg Observatory, 05–06; Potsdam Observatory, 06–07; adj. astronomer, Royal Observatory, Brussels, 08–15; visiting prof. *practical astron, Yerkes Observatory, Chicago,* 15–16, asst. prof, 17–23, assoc. prof, 23–26, *prof, 26–* Gold medal, Acad. Copenhagen, 10; Donahoe comet medal, 26, 35. Astron. Soc. (councilor, 40); Royal Astron. Soc; Astron. Gesell; Soc. belge d'Astron. Double stars; comets; stellar parallaxes; variable stars; asteroids.

Van Brunt, Charles (Gershom), General Electric Co, Schenectady, N. Y. *Chemistry.* Boston, Mass, Aug. 30, 70. A.B, Harvard, 93. Chemist, Kansas City Smelting and Ref. Co, 94–02; *research and consulting chemist and engineer, Gen. Elec. Co, 05–* A.A; Chem. Soc.

Van Buskirk, Dr. E(dgar) F(landreau), 118 S. Williams St, Columbia, Mo. *Biology.* Brooklyn, N. Y, Dec. 8, 83. A.B, Rochester, 07; A.M, Columbia, 11; Ph.D, Ohio State, 28. Instr, high schs, New York, 08–18; asst. educ. director, U. S. Pub. Health Service, 18–20, special consultant, 20–24; exec. sec'y, Cincinnati Social Hygiene Soc, 20–27; prof. nat. science, *Stephens Col,* 27–30, head div. science, 30–35, *prof. hygiene and health educ, 35–* Lecturer, Cincinnati, 20–24; asst, Ohio State, 26–27. Summers, prof, Columbia, 29, 30. A.A; Pub. Health Asn; Social Hygiene Asn; Acad. Polit. and Social Sci. Social hygiene, especially sex education; physiology; the effect of thyroidectomy upon the spontaneous activity of white rats.

Van Buskirk, Prof. Harry C(lark), 390 S. Holliston Ave, Pasadena, Calif. *Mathematics.* Wiscoy, N. Y, 72. Ph.B, Cornell, 97. Assoc. prof. *math, Calif. Inst. Tech,* 04–15, *prof, 15–,* registrar, 15–35. A.A; Math. Soc; Math. Asn.

VanCampen, Dr. John H(amilton), Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Olean, N. Y, Nov. 7, 13. B.Chem, Cornell, 35; Chem. Foundation fellow, Illinois, 35–38, M.S, 36, Ph.D, 38. *Org. research chemist, Eastman Kodak Co, 38–* Chem. Soc. Synthetic resin.

Van Campen, Dr. M(arcus) G(eorge), Jr, 4347 Glenway Ave, Deer Park, Cincinnati, Ohio. *Organic chemistry.* Olean, N. Y, Dec. 31, 08. B.S, Illinois, 30; Ph.D, Cornell, 35. Asst. org. chem, Cornell, 30–35, du Pont fellow, 35–36; indust. fellow, Mellon Inst, 36–37; org. pharmaceut. research, *Wm. S. Merrell Co, Cincinnati,* 37–43, *asst. sci. director research labs, 43–* Chem. Soc. Organic synthesis; furan chemistry; chemistry of organic boron compounds; utilization and disposal of organic industrial waste.

Vance, Arlo M(cCrillis), P. O. Box 606, West Lafayette, Ind. *Entomology.* Wheelock, Vt, Sept. 5, 99. B.S, New Hampshire, 22; M.S, Virginia, 25. Junior entomologist, *European corn borer, div. cereal and forage insects, bur. entom. and plant quarantine, U. S. Dept. Agr,* 22–27, asst. entomologist, 27–35, assoc. entomologist, 35–37, *entomologist, 37–* Entom. Soc. Amer; Asn. Econ. Entom. Biology and morphology of immature stages of parasitic Hymenoptera; the European corn borer; ecology; parasites.

Vance, Dr. B(enjamin) M(organ), 119 E. 84th St, New York, N. Y. *Pathology.* Louisville, Ky, Dec. 6, 86. A.B, Harvard, 08; M.D, Pennsylvania, 12. Pathologist, Bellevue Hosp, 12–15, 2nd div, 15–20; asst. med. examiner, *New York,* 20–39, *deputy chief med. examiner, 39–* Instr, col. physicians and surg, Columbia, 20–38, lecturer, 38– M.C, 17–19, capt. Asn. Path. and Bact. Bacteriology.

Vance, Prof. Charles B(lount), 531 S. Rotherwood Ave, Evansville, Ind. *Physics.* Hillsboro, Ohio, 85. B.S, Denison, 12; M.S, Ohio State, 23; Ph.D, Indiana, 31. Prin, high sch, Ill, 12–15; teacher, Ohio, 16–24; prof. physics and chem, Rio Grande Col, 24–29; math, J. B. Stetson, 30, physics, 31–32, biol, 32–35, geol. and geog, 35–42; *prof. physics and head dept. physics and math, Evansville Col, 42–* Asn. Physics Teachers; Physical Soc; Fla. Acad. Sound.

Vance, Dr. E(lbridge) P(utnam), Oberlin College, Oberlin, Ohio. *Topology, Mathematics.* Cincinnati, Ohio, Feb. 7, 15. A.B, Col. of Wooster, 36; Ph.D, Michigan, 39. Asst. *math,* Michigan, 37–39; instr, Nevada, 39–41, asst. prof, 41–43; *visiting lecturer, Oberlin Col, 43–* Generalizations of non-alternating and non-separating transformations.

Vance, Dr. John E(dward), Yale University, New Haven, Conn. *Analytical and physical chemistry.* Dayton, Ohio, May 21, 05. B.S, Yale, 26, Ph.D, 29. Instr. chem, *Yale,* 29–30, Sterling fellow, 30–31, instr. *anal. chem, Sterling chem. lab,* 31–36, asst. prof, 36–41. *assoc. prof, 41–; major, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc; N. Y. Acad. Quantitative analysis; molecular spectra.

Vance, Dr. Rupert B(ayless), University of North Carolina, Chapel Hill, N. C. *Demography.* Plummerville, Ark, March 15, 99. A.B, Henderson-Brown Col, 20; A.M, Vanderbilt, 21; Ph.D, North Carolina, 28. Research assoc, *inst. research in social sciences, North Carolina,* 28–37, *research prof, 37–* Research cmt. popul. problems; advisory cmt, Nat. Resources Cmt, 36; Study Popul. Redistribution, 36. A.A; Sociol. Soc. (exec. cmt, 41–43; pres, 44); Asn. Geog; South. Sociol. Soc.

(sec'y-treas, 35–37, pres, 37). Human geography; cotton culture; regional and population analysis; regional planning.

Vance, Dr. Thomas F(ranklin), 1206 Orchard Drive, Ames, Iowa. *Psychology.* Shenandoah, Iowa, Feb. 11, 85. A.B, Coe Col, 09; A.M, Iowa, 11, Ph.D, 13. Asst. *psychol,* Illinois, 13–14; asst. prof, *Iowa State Col,* 14–15, assoc. prof, 15–27, *prof, 27–* A.A; Psychol. Asn; Soc. Research Child Develop; fel. Iowa Acad. (chairman, psychol. sect). Lower limit of tonality; pitch discrimination; mental tests; child behavior; parent education.

VanCleave, Prof. A(llan) B(ishop), University of Saskatchewan, Saskatoon, Sask, Can. *Physical chemistry.* Medicine Hat, Alta, Aug. 19, 10. B.Sc, Saskatchewan, 31, M.Sc, 33; Nat. Research Council Can. bursar, McGill, 32–35, Ph.D, 35, 1851 Exhib. scholar, Cambridge, 35–37, Ph.D, 37. *Asst. prof. chem, Saskatchewan, 37–* Fel. Can. Inst. Chem; Faraday Soc. Active hydrogen; variation of the viscosity of gases over a large temperature range; catalysis of oxy-hydrogen mixtures by copper and copper-gold alloys; effect of adsorbed gases on the accommodation coefficient of rare gases on metals.

Van Cleave, Prof. C(harles) D(urward), University of North Carolina School of Medicine, Chapel Hill, N. C. *Anatomy.* Holbrook, Nebr, April 8, 04. A.B, Colorado, 25; Ph.D, Chicago, 28. Instr. *anat,* sch. med, Pennsylvania, 28–38; med. col, Cornell, 38–40; asst. prof, *sch. med, North Carolina,* 40–43, *assoc. prof, 43–* Asn. Anat; Harvey Soc. Experimental embryology, induction and regeneration.

Van Cleave, Prof. H(arley) J(ones), University of Illinois, Urbana, Ill. **5Zoology.* Knoxville, Ill, Oct. 5, 86. B.S, Knox Col, 09; fellow, Illinois, 10, M.S, 10, Ph.D, 13. Instr. *zool, Illinois,* 13–16, assoc, 16–19, asst. prof, 19–22, assoc. prof, 22–29, *prof, 29–,* chairman exec. cmt. in charge dept, 36–38, acting head dept, 38–39. Summers, staff, Ill. State Nor. Univ, 13–15; instr, Puget Sound Marine Sta, 16; field naturalist, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 28–34; mem. staff, biol. lab, Cold Spring Harbor, 36; Isles of Shoals Marine Zool. Lab, 39. Sect. ed, 'Biol. Abstracts'; ed. cmt, 'Ill. Biol. Monographs,' 36–; ed. board, 'Jour. Parasitol,' 37–41; ed. staff, 'Am. Midland Naturalist,' 40–; ed. board, 'Ecol. Monograph,' 42– A.A; Soc. Zool; Ecol. Soc; Soc. Nat; Micros. Soc. (treas, 15–18, sec'y, ed, 'Trans,' 25–31, pres, 31); Biol. Soc; Fisheries Soc; Limnol. Soc; Helminth. Soc; Soc. Parasitol. (v. pres, 35); Malacol. Union; Wildlife Soc; Ill. Acad. (v. pres, 24, pres, 27). Parasitology; cell constancy; morphology and classification of Acanthocephala; teaching of zoology; invertebrate morphology; faunistic zoology.

Van Cleef, Prof. Eugene, Ohio State University, Columbus, Ohio. *Geography.* Chicago, Ill, Jan. 17, 87. B.S, Chicago, 08, summers, 09–11; Leipzig, 13–14; Ph.D, Clark, 26. Special investigator, sch. map dept, Rand, McNally and Co, 08–11; head dept. geog, Minn. State Teachers Col, 12–18; climatologist, Latin-Am. div, The House Inquiry, New York, 18; manager for. trade dept, Van Cleef Brothers, Ill, 19–21; asst. prof, *geog, Ohio State,* 21–24, *prof, 24–; expert consultant, mil. intel. service, U. S. Army, 42–* Asst, U. S. Weather Bur, Chicago, 05–08; director, 1st Pub. Welfare Exhibit, Duluth, Minn, 12. Mem. educational cmt, Nat. For. Trade Council. Knight, Order of White Rose, Finland, 37, commander, 41. Summer, Geog. and Econ. Surv, Finland, 23; staff, Clark, 32. A.A; Asn. Geog; Meteorol. Soc; Geophys. Union; Ohio Acad. (pres, 41); Baltic Inst. (collaborator, 36–); cor. mem. Geog. Soc. Finland. Climatology; economic geography; urban geography; foreign trade.

Van Cleve, Dr. Richard, Bureau of Marine Fisheries, Ferry Bldg, San Francisco, Calif. *Fisheries.* Seattle, Wash, March 13, 06. B.S, Washington (Seattle), 27, Ph.D, 36. Scientist, Int. Fisheries Cmn, 26–41; *chief bur. marine fisheries, State Div. Fish and Game, Calif, 41–* Lecturer, sch. fisheries, Washington (Seattle), 35–41. A.A; Soc. Ichthyol. and Herp. Economic biology of fishes; life history of halibut; hydrography.

Vandecaveye, Dr. S(ilvere) C(yril), State College of Washington, Pullman, Wash. *Soils.* Zonnebeke, Belgium, Jan. 11, 88. B.S, Mich. State Col, 20; M.S, Iowa State Col, 21, Ph.D, 23. Bacteriologist, Exp. Sta, *State Col. Wash,* 24–28, *prof. soils, 28–* A.A; Soc. Agron; Soc. Plant Physiol; Soil Sci. Soc; Int. Soc. Soil Sci. Plant nutrition; soil microbiology; soil organic matter; soil fertility.

van de Erve, Prof. J(ohn), Medical College of the State of South Carolina, Charleston, S. C. *Physiology.* Willemstad, Netherlands, Sept. 30, 70. A.B, Hope Col, 95; A.M, Princeton, 97, B.D, 10; M.S, Chicago, 10, M.D, Rush, 11. Presb. minister, 97–11; prof. physiol. and pharmacol, Alabama, 11–13; prof. physiol. and pharmacol, director dept. and assoc. dean, sch. med, Marquette, 13–19; *prof. physiol, Med. Col. State of S. C, 19–* Am. Med. Asn; S. C. Acad. Diastase in blood; stomachics; hunger movements of stomach; capillaries; liver; kidney; reaction of degeneration, respiration and diuresis; barbital poisoning; chronaxie; creatine; gallbladder; phosphatase; muscle tumor; tungsten.

Van de Graaff, Prof. R(obert) J(emison), Massachusetts Institute of Technology, Cambridge, Mass. **6Physics.* Tuscaloosa, Ala, Dec. 20, 01. B.S, Alabama, 22, M.S, 23; B.Sc, Oxford, 26, Ph.D, 28. Nat. research fellow, Princeton, 29–31; research assoc, *Mass. Inst. Tech,* 31–34, *assoc. prof. physics, 34–* Elliott Cresson medal, Franklin Inst, 36. Fel. Physical Soc; Am. Acad. Electrostatic generators; nuclear research.

van de Kamp, Dr. J(acob), Merck and Co, Rahway, N. J. *Chemistry.* Kampen, Holland, June 5, 04. Chem. cand, Utrecht, 24, chem. docts, 29; Ph.D, Virginia, 31, Amsterdam, 33. Du Pont research fellow, Cobb chem. lab, Virginia, 29–31, gen. science research fellow, drug addiction lab, Nat. Research Council, 31–37; *mem. staff, research labs, Merck and Co, 37–* Chem. Soc; Chem. Vereen. Organic chemistry; synthetic pharmaceuticals in the phenanthrene and hydrophenanthrene series.

van de Kamp, Dr. P(eter), Swarthmore College, Swarthmore, Pa. **6Astronomy.* Kampen, Holland, Dec. 26, 01. Cand, Utrecht, 20, Dr, 22; Martin Kellogg fellow, California, 24–25, Ph.D, 25; Ph.D, Groningen, 26. Asst, Kapteyn astron. lab, Groningen, 22–23; research assoc. *astron,* Leander McCormick Observatory, Virginia, 23–24, instr, 25–28, asst. prof, 28–37; assoc. prof, *Swarthmore Col,* 37–38, *prof, 40–, director, Sproul Observatory, 37–* Summer, visiting instr, Harvard, 36. President's and Visitors prize, Virginia, 27, 37, 38. A.A; Astron. Soc; Astron. Soc. Pacific; Va. Acad; Netherlands Astron. Soc; Int. Astron. Union. Motions of the stars; solar motion; mean parallaxes of faint stars; absorption of light in space; the photographic measurement of the diameter of Mars, of double stars and of clusters; reduction and accuracy of photographic positions.

Van den Akker, Dr. J(ohannes) A(rchibald), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Physics.* Los Angeles, Calif, Dec. 5, 04. B.S, Calif. Inst. Tech, 26, Ph.D, 31. Instr. *physics,* Washington (St. Louis), 30–35; *research assoc, Inst. Paper Chem, Lawrence Col, 35–* A.A; Physical Soc; Asn. Physics Teachers; Optical Soc. Atomic structures; spatial distribution of x-ray photo-electrons; physics of paper; instrumentation; color measurement and specification.

Vandenbelt, Dr. J(ohn) M(elvin), 5560 Buckingham, Detroit, Mich. *Physical chemistry.* Holland, Mich, Aug. 9, 12. A.B, Hope Col, 34; A.M, Boston, 36; Parke, Davis and Co. fellow, Mich. State Col, 38–40, Ph.D, 40. Research chemist, *Parke, Davis and Co,* 40–41, *head physical chem. sect, 42–* Chem. Soc. Spectroscopy; interferometry; ultra-violet absorption spectra of vitamin K compounds; spectrophotometric determination of vitamin A; fluorescence determination of riboflavin; optical determination of bacterial culture concentrations; chemical test for pyridoxine.

Vanden Bosche, Prof. E(mil) G(aston), University of Maryland, Baltimore, Md. *Chemistry.* Belgium, Sept. 17, 01. A.B, Lebanon Valley Col, 22; Columbia, summers, 22–24; M.S, Maryland, 24, Ph.D, 27. Instr, *Maryland,* 24–27, asst. prof. inorg. chem, 27–42, *assoc. prof. biochem, 42–* Chem. Soc. Electrode potentials; solubility of fused salts.

Van den Broek, Prof. J(an) A, 785 Arlington Blvd, R. 5, Ann Arbor, Mich. *Mechanics.* Middelharnis, Holland, March 6, 85. B.S, Kansas, 11; Ph.D, Michigan, 18. Detailer, Boston Bridge Works, 11–12; designer, bridge dept, Can. Pacific Ry, 12–14; from instr. to *prof. eng. mech, Michigan, 14–* Carnegie scholar, Iron and Steel Inst. Gt. Britain. Norman gold medal, Am. Soc. Civil Eng, 41. Civil Eng. (cmt. applied mech). Effect of cold working on elastic properties of steel; elastic energy theory; spiral springs; theory of limit design; columns subject to transverse loads; rational column analysis.

van der Bijl, Dr. H(endrik) J(ohannes), Box 1091, Johannesburg, S. Africa. **8Physics.* Pretoria, S. Africa, Nov. 23, 87. B.A, Cape of Good Hope, 08, LL.D, 40; M.A. and Ph.D, Leipzig, 12; D.Sc, Stellenbosch, 32. Instr. physics,

Royal Sch. Tech, Dresden, 12–13; research physicist, West. Elec. Co, 13–20; tech. adviser, bur. mines, S. Africa, 20–23; *chairman, Elec. Supply Cmn, S. Africa, 23–; S. Africa Iron and Steel Indust. Corp, Ltd, 28–; chancellor, Pretoria Univ, 34–; director gen. war supplies, S. Africa, 39–, hon. col, S. African Tank Corps, 42–* Chairman, Indust. Develop. Corp, S. Africa, 40– Mem, Royal Univs. Cmn, S. Africa, 27–28. Medal, Royal Soc. Arts, London. Physical Soc; Elec. Eng; Radio Eng; fel. Royal Soc. S. Africa; S. Africa Elec. Eng. (pres, 27). Conduction of electricity in high vacua; thermionic vacuum tubes; conduction of electricity through ionized liquids; thermionics; electron theory; wireless telegraphy and telephony; electrical engineering.

Vanderbilt, Dr. Byron M, 103 Effingham Place, Westfield, N. J. *Organic chemistry.* Brookston, Ind, March 21, 06. A.B, Indiana, 29; M.S, Purdue, 31, Ph.D, 37. Teaching asst, Purdue, 29–31; *research chemist,* Victor Chem. Works, 31–35; Commercial Solvents Corp, 36–38; Standard Oil Develop. Co, 38–42; *Standard Oil Co, La, 42–* Nitroparaffins; organic phosphates; nitroalcohols; aminoalcohols; butadiene; synthetic rubber.

Vanderburg, William O(range), U. S. Embassy, Lima, Peru, S. Amer. *Mining engineering.* Muskegon, Mich, Jan. 18, 96. E.M, Mich. Col. Mines, 19, B.S, 23. Mining engineer, Plymouth Iron Mining Co, Wakefield, Mich, 23–24; chief engineer, Munro Iron Mining Co, Iron River, Mich, 24; supt, Tonopah Exten. Mining Co, Nev, 24–29; mining engineer and senior mining engineer, rare and precious metals exp. sta, U. S. Bur. Mines, 29–40, for. minerals specialist, *Peru,* 41; *minerals attaché, U. S. Embassy, 42–* Past assoc. field director, Am. Red Cross. U.S.A, 17–19. Min. and Metal. Eng. Mining and metallurgy; conservation.

Vanderford, Dr. H(arvey) B(irch), Box 1418, State College, Miss. *Agronomy.* Maben, Miss, Feb. 18, 10. B.S, Miss. State Col, 34, M.S, 39; Ph.D, Missouri, 42. Asst. agriculturist, Perkinston Junior Col, 34–37; asst. agronomist, *Miss. State Col,* 37–41, *assoc. agronomist, 41–* Soils.

van der Gracht, Dr. W(illem) A(nton) J. M. (van Waterschoot), Heerlen, Holland or Hainfeld Castle, Feldbach, Steiermark, Austria. *Geology.* Amsterdam, Holland, May 15, 73. Dr. at Law, Amsterdam, 99; E.M, Freiberg, 03; hon. Sc.D, Colo. Sch. Mines, 24. Director, Netherlands Geol. Service, 05–17; pres, Roxana Petrol. Co, 17–21; v. pres, Maryland Oil Co, 22–28; *director, Netherlands Bur. Mines, 32–* Sec'y, Netherlands Bur. Mines Council, 05–17. Adviser, Netherlands Colonial Govt. exped, D. E. I, 13–14; consultant mining companies' expeds. to S. Amer, Africa and Can. Int. Geol. Cong. A.A; fel. Geol. Soc; hon. mem. Asn. Petrol. Geol; fel. Okla. Acad; Royal Soc; fel. London Geol. Soc; Deuts. Geol. Gesell; Geol. Soc. Austria; Soc. belge de Géol; Netherlands Royal Acad. Sciences; Netherlands Geol. Soc; hon. mem. Int. Bohrtech. Verband. Subsurface geology of the Netherlands and adjacent territory of northwestern Europe; the North Sea Basin; geology of North America and the Dutch East Indies; salt domes of the gulf coast of Texas and Louisiana; permo-Carboniferous orogenies of North America; continental drift. *(Died, 1943)*

van der Hoeven, B(ernard) J(acob) C(ornelis), Butadiene Division, Koppers United Co, Monaca, Pa. *Chemistry.* Hasselt, Holland. Chem.E, Delft, 22. Asst, Delft, 22–23; research chemist, Lehn and Fink, Inc, 23; asst, Rockefeller Inst, 23–26; operating engineer, Koppers Construction Co, 26–31, research engineer, Koppers Research Corp, 31–35, operating supt, Koppers Co, 35–40, gen. supt, 40–42, *manager operations, Butadiene div, Koppers United Co, 42–* Chem. Eng; Chem. Soc. Isolation of vitamin B; coal, coke and by-products.

VanderHoof, Dr. Douglas, 5501 Cary St. Road, Richmond, Va. *Medicine.* Brooklyn, N. Y, Dec. 31, 79. B.L, Dartmouth Col, 01, A.M, 07; M.D, Hopkins, 05. Asst. *med, Med. Col. of Va,* 06–14, prof, 14–27, *emer. prof, 27–* Am. Med. Asn; Am. Physicians. Internal medicine.

VanderHoof, Dr. V(ertress) L(awrence), Concord, Calif. *Vertebrate paleontology.* Byron, Calif, April 19, 04. A.B, California, 28, A.M, 32, Ph.D, 35. Field and lab. asst, museum paleont, California, 27–36, instr. paleont, univ, and research assoc, museum paleont, 36–42; *geologist, Standard Oil Co, Calif, 43–* Univ. Calif. paleont. expeds, 27–42. A.A; Paleont. Soc. (chairman Pacific Coast branch, 39); fel. Geol. Soc; Soc. Vert. Paleont. Tertiary mammals; stratigraphic geology; history of paleontology.

Van Der Jagt, Prof. Ervin R(aymond), Norwich University, Northfield, Vt. *Zoology.* Cedar Grove, Wis, Feb. 2, 06. B.S, Hope Col, 27; M.S, Iowa, 29, Ph.D, 31; LL.B, Blackstone Col. Law, 41. Asst. *zool,* Iowa, 27–31; asst. prof, *Norwich,* 31–35, *assoc. prof, 35–, acting head dept. biol, 43–; head dept, Vt. Junior Col, 36–* Histological reconstruction work; physiological changes accompanying amphibian metamorphosis; the origin and development of the lymph sacs.

Vanderkleed, Dr. Charles E(dwin), 200 Harvard Ave, Collingswood, N. J. *Chemistry.* Lafayette, Ind, April 24, 78. Ph.G, Purdue, 95, Ph.C, 96, B.S, 99, A.C, 01, hon. Sc.D, 34; hon. Phar.D, Phila. Medico-Chirurg. Col, 08; hon. Ph.M, Phila. Col. Pharmacy, 29. Instr. chem, Purdue, 96–01; anal. chemist, Sharp and Dohme, Baltimore, 01–02; director chem. labs, H. K. Mulford Co, Phila, 02–17; lecturer drug chem, Phila. Medico-Chirurg. Col, 07–08, prof. pharmaceut. chem, 08–16; lecturer chem. control, Phila. Col. Pharmacy, 16–28; supt, Rob't McNeil Co, *Phila,* 20–33; *v. pres, McNeil Labs, Inc, 33–* Treas. and director, Henry C. Blair Co, 08–; chemist, Hercules Powder Co, 18–19; sec'y, Cellulose Silk Co, 20–22. A.A; Chem. Soc; Pharmaceut. Asn. (chairman, sci. sect, 08); Pharmaceut. Mfrs. Asn. (chairman, research board, 31–37, director, 40); Inst. Chem. Analytical and pharmaceutical chemistry.

Van der Merwe, Prof. C(arel) W(illem), 722 Burns St, Forest Hills, N. Y. *Physics.* S. Africa, April 8, 90. B.A, Stellenbosch, 11; M.Sc, Cape Town, 21; Ph.D, Göttingen, 23. Senior lecturer physics, Cape Town, 18–22; research physicist, Atlas Powder Co, Conn, 24–25; instr. *physics, Wash. Sq. Col, N. Y. Univ,* 25, asst. prof, 25–28, assoc. prof, 28–35, *prof, 35–, chairman dept, 34–* Prof, Polytech. Inst. Brooklyn, 35–39; mem. nat. defense sect. div. A, Nat. Defense Research Cmt, 41–42. A.A; Physical Soc. Radioactivity; use of selenium cells for vocal transmission; ranges of alpha particles; light telephony; induced radio-activity; B-ray spectra.

Van der Meulen, Prof. P(eter) A(ndrew), 55 Harrison Ave, New Brunswick, N. J. *Inorganic and physical chemistry.* Makkum, Holland. Ch.B, Cornell, 13, Ph.D, 16. Instr. miner, Cornell, 14–16, acting asst. prof, 16–17; indust. chemist, Barrett Co. Phila, 17–19; asst. prof. and assoc. prof. chem, *Rutgers,* 19–25, *prof. gen. and physical chem, 25–* Chem. Soc. Emulsions; insecticides; complex fluorine compounds.

Van Dersal, Dr. William R(ichard), U. S. Department of Agriculture, Washington, D. C. *Botany.* Portland, Oregon, April 6, 07. A.B, Reed Col, 29; M S, Pittsburgh, 31, Ph.D, 34. Asst, Pittsburgh, 29–35; assoc. biologist, *soil conservation service, U. S. Dept. Agr,* Indiana, Pa, 35–36, biologist, 36–40, senior biologist, 40–42, *prin. admin. officer, 42–* Landscape consultant, Pittsburgh, 33–34. Ecol. Soc; Wildlife Soc; Bot. Soc. Wash; Wash. Acad; Biol. Soc. Wash. Ecology; taxonomy; horticulture.

van der Schalie, Dr. Henry, University of Michigan, Ann Arbor, Mich. *Zoology.* Amsterdam, Holland, Jan. 8, 07. A.B, Calvin Col, 29; M.S, Michigan, 31, Ph.D, 34. *Asst. curator mollusks, museum zool, Michigan, 35–* Exchange prof, Puerto Rico, 40–41. Summers, conchol. exped, south. states, 30, 31; Beaufort lab, Bur. Fisheries, 32; Harvard-Michigan exped, south. states, 33; Carnegie-Univ. Michigan exped, Guatemala, 35. Malacol. Union (councilor, 37–42); Limnol. Soc; Soc. Zool; Mich. Acad. (ed); Conchol. Soc. Gt. Britain and Ireland. Conchology; taxonomy, ecology and distribution of North American Naiades; economic importance of fresh-water mussels; taxonomy; distribution and ecology of mollusks of Guatemala; fauna of Huron River bivalves; distribution of land shells in northern Michigan; land and fresh-water shells of Puerto Rico.

van der Scheer, J(ames), 136 Linwood Ave, Ridgewood, N. J. *Immunology, Chemistry.* Padang, Netherland East Indies, Aug. 12, 88. Chem.E, Inst. Tech, Delft, Holland, 12. Asst. chemist, dept. chem, Rockefeller Inst, 12–15; research chemist, E. I. du Pont de Nemours and Co, 20–23; asst, Rockefeller Inst, 23–27, assoc, 27–39; *research, Lederle Labs, 39–* Immunology; chemistry of antigens; serum proteins.

Vanderslice, Prof. John L(ivezey), University of Maryland, College Park, Md. *Mathematics.* Collegeville, Pa, Aug. 21, 07. B.S, Pennsylvania, 28, A.M, 30; Ph.D, Princeton, 34. Asst. *math,* Pennsylvania, 28–30; instr, Princeton, 31–33; asst, Inst. Advanced Study, 33–35; instr, Lehigh, 35–42; *asst. prof, Maryland, 42–* Math. Soc. Differential geometry.

Van Der Voort, Prof. Grace I(sabel), 146 Oakwood Ave, Troy, N. Y. *Chemistry.* A.B, Russell Sage Col; A.M, Columbia. *Asst. prof. chem, Russell Sage Col.* Chem. Soc.

Vander Wal, Dr. R(obert) J(ohn), 6629 S. Greenwood Ave, Chicago, Ill. *Organic chemistry.* Pella, Iowa, Feb. 28, 04. B.S, Cent. Col. (Iowa), 27; M.S, Iowa State Col, 29, Ph.D, 36. *Research chemist,* E. I. du Pont de Nemours and Co, 29–31; *Armour and Co, Chicago, Ill, 36–* Organometallic compounds; chemistry of furan, fats and oils.

Vanderwilt, Dr. John W, Midland Savings Bldg, Denver 2, Colo. *Geology.* Oskaloosa, Iowa, May 3, 98. A.B, Michigan, 22, M.S, 23; Ph.D, Harvard, 27. Instr. geol, Colorado, 23–25; junior geologist, U. S. Geol. Surv, 27–28; asst. prof. geol, Colorado, 28–29; asst. geologist, div. metalliferous deposits, U. S. Geol. Surv, 29–34; *consulting geologist, 34–* Asst. geologist, Colo. Geol. Surv, 24; chief geologist, Climax Molybdenum Co, New York, 34–37, consulting geologist, 37– A.A; Min. and Metal. Eng; Soc. Econ. Geol; Geol. Soc. Mining geology; petrology; mineragraphy; molybdenite deposits.

Van Deventer, Dr. William C(arl), Stephens College, Columbia, Mo. *Biology.* Salisbury, Mo, Oct. 22, 08. A.B, Cent. Col. (Mo), 30; A.M, Illinois, 32, Ph.D, 35. Asst. biol, Cent. Col. (Mo), 28–30; zool, Illinois, 30–34; biologist, Monroe County Parks, Rochester, N. Y, 34–35; prof. biol, St. Viator Col, 35–38; *teacher zool, Stephens Col, 38–* Summers, instr, Missouri, 39–41. A.A; Ecol. Soc; Soc. Zool. Biology of Crustacea; ecology of birds; human ecology; teaching of biology.

Van de Water, Marjorie, Science Service, 1719 N St, N.W, Washington, D. C. *Psychology.* Brooklyn, N. Y, Aug. 31, 00. C.L.A, Research Univ, 20. Lab. aid, Bur. Standards, 18–20; asst. standardization, nat. intel. tests, Nat. Research Council, 20; psychol. testing, Research Univ, 20–23; psychol. tests, U. S. Civil Service Cmn, 23–27; sec'y, Nat. Asn. for Platoon Sch, 27–28; *staff writer psychol, Science Service, 29–* Population; crime.

Van Dine, D(elos) L(ewis), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Tompkins Co, N. Y, Feb. 2, 78. Stanford, 99–00; B.S, Cornell, 01. Asst. entom, Cornell, 01; entomologist, Exp. Sta, Hawaii, 02–09; special field agent, bur. entom, U. S. Dept. Agr, 09–10, entom. asst, 13–17, entomologist, 19–22; Exp. Sta, Sugar Producers' Asn, Rio Piedras, P. R, 10–13; specialist, exten. entom, Pa. State Col, 22–24; local director, Cuba Sugar Exp. Sta, Trop. Plant Research Foundation, 24–32; *in charge fruit insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 33–* Nat. Malaria Cmt. Capt, Sanit.C, 18–19. A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Insects of tropical crops; fruit insects; insects affecting troops in war; malaria mosquitoes; sugar-cane insects.

Vandiver, Prof. H(arry) S(hultz), University of Texas, Austin, Texas. ***Mathematics.* Philadelphia, Pa, Oct. 21, 82. Pennsylvania, 04–05. Instr. *math,* Cornell, 19–25; assoc. prof, *Texas,* 25–34, research prof, 34–35, *prof, 35–* Guggenheim Mem. Foundation fellow, 27–28, 30; Heckscher Research Foundation grantee, Cornell, 20–23; grantee, Texas, 28, 31, 35, research fellow, 39–40; grantee, Philos. Soc, 34, 39; lecturer, Princeton, 34. Summer, lecturer, Chicago, 22. Asst. ed, 'Annals of Math,' 26–39. Chairman cmt. on algebraic numbers, Nat. Research Council, 23–28. Cole prize, Am. Math. Soc, 31. Nat. Acad; Math. Soc. (councilor, 26–29, v. pres, 33–35, colloquium lecturer, 35); Math. Asn; Circolo Mat. di Palermo. Finite algebras, fields, rings and groups; factorization of integers; Bernoulli's numbers; Fermat's last theorem; cyclotomic and relative Abelian algebraic fields; laws of reciprocity; history of mathematics; semi-groups and semi-rings; foundations of algebra; constructive theories in algebra.

Van Doorninck, Fred, 910 Knox Ave, Easton, Pa. *Chemistry.* Pella, Iowa, Sept. 30, 03. B.S, Cent. Col. (Iowa), 25; M.S, Iowa State Col, 27, 28. Teacher, high sch, Iowa, 25–26; instr. chem. eng, Colorado, 27–29; *chief plant chemist and chem. engineer, C. K. Williams and Co, 29–* Chem. Soc; Chem. Eng. Agricultural waste utilization; ferrous sulfate production and utilization; development and production of various forms of iron oxides.

Van Doren, Prof. Archie, Cornell University, Ithaca, N. Y. *Pomology, Plant physiology.* Wenatchee, Wash, June 18, 09. B.S, State Col. Wash, 37; Ph.D, Cornell, 41. Asst. hort, State Col. Wash, 33–37; *pomol, Cornell,* 37–39, instr, 39–42, *asst. prof, 42–* Influence of controlled atmospheres on the storage life and keeping qualities of apple fruits; influence of controlled atmospheres on vitamin C losses of apples; blossom thinning with caustic sprays; prevention of the pre-harvest drop of apples.

Van Doren, Dr. C(ornelius) A(ustin), Soil Conservation Service, Urbana, Ill. *Agronomy.* Loami, Ill, 05. B.S, Illinois, 28, scholar, 28–29, M.S, 29, Ph.D, 33. Agent, U. S. Dept. Agr, 28, 30; asst. crop production, Exp. Sta, col. agr, Illinois, 29–35; assoc. soil conservationist, *soil conservation service, U. S. Dept. Agr,* 35–36, *soil conservationist, 36–* Soc. Agron; Soil Sci. Soc; Geophys. Union. Soy-bean production and storage; cold resistance of wheat and corn; water relationships; soil and water conservation; vegetal cover aspects; length and per cent. slope studies; grazing management; use of mulches in conservation.

Van Doren, Dr. Lloyd, 340 Greenbrook Road, North Plainfield, N. J. *Chemistry.* Oldwick, N. J, Dec. 11, 89. B.S, Gettysburg Col, 09, M.S, 13; Ph.D, Hopkins, 12. Instr. chem, Lowell Textile Sch, 12–13; asst. prof, Akron, 13–14; prof. and head dept, Earlham Col, 14–19; chem. adviser, Emery, Varney, Blair and Hoguet, 19–20; consulting chemist and patent solicitor, Chem. Foundation, Inc, 20–22; chem. consultant, patents and patent causes, Mayer, Warfield and Watson, 22–29; mem. patent div, Allied Chem. and Dye Corp, 29–31; *chem. consultant patents and patent causes, Watson, Bristol, Johnson and Leavenworth, 31–* Lieut, C.W.S. A.A; Chem. Soc; fel. Inst. Chem. (v. pres, 23–29, chairman, N. Y. chap, 28); Chemists' Club. Osmotic pressure; color lakes; chemical patent procedure.

Van Dusen, Dr. M(ilton) S(heldon), National Bureau of Standards, Washington, D. C. *Physics.* Jamestown, N. Y, Feb. 2, 92. B.S, Syracuse, 13; Ph.D, Hopkins, 21. Asst, Bur. Standards, 13–16, asst. physicist, 16–18, assoc. physicist, 18–20; instr. physics, Hopkins, 20–21; *physicist, Bur. Standards, 22–, chief heat transfer sect, 26–* Physical Soc; Soc. Refrig. Eng; Philos. Soc. Wash; Wash. Acad. Thermal properties of refrigerating media; heat transfer in connection with thermal insulation; thermal properties of building materials.

Van Duyn, Dr. Edward S(eguin), Syracuse University College of Medicine, Syracuse, N. Y. *Surgery.* Syracuse, N. Y, Aug. 20, 72. B.S, Princeton, 94; M.D, Syracuse, 97. *Manager, Syracuse State Inst. for Feeble-Minded, 06–;* prof. *surg, col. med, Syracuse,* 20–32, *emer. prof, 32–,* director surg, univ. hosp. Consultant, Ogdensburg State Hosp. Mem. board visitors, Syracuse State School, 07– Lieut. col, M.C, 17–19. Fel. Col. Surg; Syracuse Acad. Med. (pres, 14). General surgery.

Van Duyne, Dr. Frances O(livia), University of Illinois, Urbana, Ill. *Home economics.* Newark, N. J, Sept. 16, 12. A.B, Vassar Col, 34, A.M, 36; Ph.D, Columbia, 40. Asst. physiol, Vassar Col, 34–36; chem, Columbia, 36–40; *assoc. home econ, Illinois, 40–* Chem. Soc. Chemistry of food and nutrition; effect of increased calcium intake on growth, reproduction and longevity; determination of riboflavin content of tissues of rats reared on different levels of intake; ascorbic acid and riboflavin contents of food.

Van Dyke, Prof. Edwin C(ooper), California Academy of Sciences, Golden Gate Park, San Francisco, Calif. *Entomology.* Oakland, Calif, April 7, 69. B.S, California, 93; M.D, Cooper Med. Col, 95. Asst. prof. *entom, California,* 15–21, assoc. prof, 21–27, prof, 27–39, *emer. prof, 39–* A.A; Entom. Soc; Asn. Econ. Entom; Pacific Coast Entom. Soc. (pres, 08–27); Calif. Acad. Systematic, forest and ecological entomology; Coleoptera; geographical distribution.

Van Dyke, Prof. Geo(rge) D(ewey), Earlham College, Richmond, Ind. *Physics.* Greenup, Ill, Feb. 27, 98. A.B, Park Col, 20; M.S, Iowa, 22; Ph.D, Michigan, 26. Asst, Iowa, 20–22; assoc. prof. physics and head dept, N. Dak. Col, 22–24; instr, Michigan, 24–26; Wisconsin, 26–29; lecturer biophys, Johnson foundation, Pennsylvania, 29–30; *prof. physics and head dept, Earlham Col, 30–, dean, 40–* A.A; Asn. Physics Teachers; Physical Soc. Optical constants of single tellurium crystals; x-rays; L absorption edges for elements immediately below silver in the periodic table; fine structure of absorption edges in calcite compounds.

van Dyke, Dr. H(arry) B(enjamin), Squibb Institute for Medical Research, New Brunswick, N. J. *Pharmacology, Physiology.* Des Moines, Iowa, Jan. 31, 95. Ph.D, Chicago, 21, M.D, Rush, 23. Asst. physiol. chem, Chicago, 18, anat, 19, as-

soc. pharmacol. and physiol, 20–21, asst. prof, 24; nat. research fellow, Edinburgh, Brussels and Freiburg, 24–26; assoc. prof. pharmacol, Chicago, 26–30, prof, 30–32; prof. and head dept, Peiping Union Med. Col, 32–38; *director pharmacol. div, Squibb Inst. Med. Research, 38–* A.A; Physiol. Soc; Soc. Exp. Biol; Biochem. Soc. Gt. Britain. Ion effects; ovarian hormones; physiology of the thyroid; arsenic hyperglycemia; pharmacology of bromides and ergotamine; smooth muscle and ionic environment; pharmacology of digitalis bodies; physiology and pharmacology of anterior and posterior pituitary; chemotherapy.

Van Dyke, Prof. Karl S(killman), Wesleyan University, Middletown, Conn. *Physics.* Brooklyn, N. Y, Dec. 8, 92. B.S, Wesleyan, 16, M.S, 17; Ph.D, Chicago, 21. Eng. dept, Am. Tel. and Tel. Co, 17–19; asst. *physics,* Chicago, 19–21; asst. prof, *Wesleyan,* 21–25, assoc. prof, 25–29, *prof, 29–*; asst. director div. nat. defense research, California, 41–42, assoc. director, 42; *consultant, Sig. Corps, U. S. Army, 42–* A.A; Physical Soc; Acoustical Soc; Radio Eng; Asn. Physics Teachers. Viscosity of gases; piezoelectric resonators; vibratory phenomena.

Van Es, Prof. L(eunis), University Farm, Lincoln, Nebr. *Veterinary medicine.* Melissant, Holland, Oct. 3, 68. V.S, Toronto, 93; M.D, Alabama, 98; hon. Sc.D, Pennsylvania, 35. Demonstrator histol. and bacter, Alabama, 98–03; prof. vet. science, N. Dak. Col, and veterinarian, Exp. Sta, 03–18; *prof. animal path. and hygiene, Nebraska, 18–* Chief state veterinarian, N. Dak, 03–07; director, State Serum Inst, N. Dak, 09–18; bacteriologist and consulting veterinarian, State Live Stock Sanit. Board, N. Dak, 07–18. U. S. del, Cong. Vet. Med, The Hague, 09. A.A; Vet. Med. Asn; Pub. Health Asn; Tuber. Asn; U. S. Live Stock Sanit. Asn. Tetanus; bovine and avian tuberculosis; avian tuberculin test; glanders; hog-cholera; swamp fever; parasitic anaphylaxis; immunity to Bacillus bipolaris; host relations of Bacillus tuberculosis; tuberculosis of swine and other mammals; enzootic liver cirrhosis; epizootology; anthrax; swine erysipelas; principles of animal hygiene and preventive veterinary medicine.

Van Evera, Prof. B(enjamin) D(ouglass), George Washington University, Washington, D. C. *Chemistry.* Davenport, Iowa, May 28, 01. B.S, Coe Col, 23; M.S, Iowa State Col, 25; Ph.D, Iowa, 37. Instr. *chem, George Washington,* 25–30, asst. prof, 30–33, assoc. prof, 33–38, *prof, 38–, exec. officer dept, 32–* A.A; fel. Inst. Chem; Chem. Soc. (councilor, Washington, D. C. sect, 38–40). Vapor pressure of the soil solution; solubility of gases; salting out effect.

Van Fleet, Dr. D(ick) S(cott), Heidelberg College, Tiffin, Ohio. *Botany.* Trenton, N. J, March 23, 12. A.B, Indiana, 36, A.M, 37, Ph.D, 40. Instr. *bot. and geol, Heidelberg Col,* 40–42, *asst. prof, 42–* Sterling research fellow, Osborn bot. lab, Yale, 43–44. Bot. Soc. Physiological plant anatomy; the endodermis of monocotyledonous plants; redox systems in development and differentiation; unsaturated fat oxidase; vascular oxidation-reduction in the differentiation of xylem and phloem.

van Groos, Prof. J(ohn) A(lbert), Oregon State College, Corvallis, Oregon. *Mathematics.* Alkmaar, N. Holland, May 16, 72. B.S, Oregon Col, 99; M.S, Yale, 03. Instr. *math.* and head dept, Portland Acad, 03–16; head dept, high sch, Oregon, 16–19; instr, *Oregon State Col,* 19–22, *asst. prof,* 22– Equilateral hyperbola; an isoperimetric ellipsograph.

Van Gundy, C(harles) P(hilip), 3333 N. Charles St, Baltimore, Md. *Chemistry.* Springfield, Ill, Jan. 5, 67. B.S, Illinois, 88. Asst. chemist, Baltimore and Ohio Ry, 88–90; chemist, Laughlin and Co, Pittsburgh, 90–92; chief chemist, Baltimore and Ohio Ry, 92–20, water engineer, 20–26, engineer of tests, 26–38; *retired.* Chem. Soc; Soc. Chem. Indust; Soc. Test. Mat. (chairman, cmt. D-2, 15–26); Ry. Eng; Ry. Asn; Md. Acad. Water treatment; engineering materials; foundry control.

van Haarlem, J(acobus) R(oelof), Vineland Station, Ont, Can. *Horticulture.* Amsterdam, Holland, Feb. 9, 00. B.S.A, Toronto, 23; M.S, Mich. State Col, 27. Research, *hort. exp. sta, Ont. Dept. Agr,* 23–43, *research chemist, 43–* Soc. Hort. Sci; Soc. Plant Physiol; Can. Soc. Tech. Agr. Biochemistry; soil chemistry; soil management; fruit products.

Van Haitsma, Prof. J(ohn) P(eter), 1027 Benjamin Ave, Grand Rapids, Mich. *Zoology.* Zutphen, Mich, April 1, 84. A.B, Calvin Col, 09; A.M, Chicago, 12; Ph.D, Michigan, 28. Instr, *Calvin Col,* 09–12, *prof. org. science, 12–* Micros. Soc; Soc. Parasitol. Parasitology; morphology, life histories and classification of trematodes.

Van Haltern, Frank, Experiment Station of the University of Georgia, Experiment, Ga. *Plant pathology.* Burr Oak, Kans, Nov. 20, 87. B.S, Kans. State Col, 18; M.S, Iowa State Col, 25. *Assoc. botanist, Exp. Sta, Georgia, 26–* Bot. Soc. Diseases of cantaloupes and watermelons.

Van Harreveld, Dr. A(nthonie), California Institute of Technology, Pasadena, Calif. *Physiology.* Haarlem, Netherlands, Feb. 16, 04. B.A, Amsterdam, 25, M.A, 28, Ph.D, 29, M.D, 30. Asst. *physiol,* Amsterdam, 27–31; chief asst, Utrecht, 31–34; asst, *Calif. Inst. Tech,* 34–35, instr, 35–40, asst. prof, 40–42, *assoc. prof, 42–* Physiology of nerve, muscle and central nervous system.

vanHook, Dr. Andrew (Peter) Lafayette College, Easton, Pa. *Physical chemistry.* Paterson, N. J, June 3, 07. B.S, Polytech. Inst. Brooklyn, 31; Ph.D, N. Y. Univ, 34. Indust. and consulting chemist, 26–29; metal. engineer, Westinghouse Lamp Co, 28–29; instr, N. Y. Univ, 31–34; research chemist, New York, 34–36; instr. *physical chem,* Lafayette Col, 36–38; *asst. prof,* Idaho, 38–42; *Lafayette Col, 42–* Consulting chem. engineer. Chem. Eng; Chem. Soc. Electrochemistry; kinetics; crystallization in theory and practice.

Van Horn, Prof. C(larence) E(ugene), Fisk University, Nashville, Tenn. *Mathematics.* Bradgate, Iowa, Sept. 7, 84. B.S, Des Moines Col, 08; A.M, Colgate, 14, B.D, 15; Cambridge, 14–15; Ph.D, Chicago, 23. Head dept. *math,* Judson Col, Univ. Rangoon, India, 15–26; *prof. and head dept, Fisk, 29–* A.A; Math. Soc; Math. Asn; Tenn. Acad. Mathematical logic; relative existential propositions; axiom in symbolic logic.

Van Horn, Dr. Kent R(obertson), 2748 Belvoir Blvd, Shaker Heights, Ohio. *Metallurgy.* Cleveland, Ohio, July 20, 05. B.S, Case, 26; M.S, Yale, 28, Sterling fellow, 29, Ph.D, 29. *Research metallurgist, aluminum research labs, Aluminum Co. of Amer, 29–* Lecturer, Case, 31– Min. and Metal. Eng. (exec. cmt. iron steel div, 37–40, inst. of metals, 41–); Soc. Metals (chairman, Cleveland chap, 33; treas, 39–41, trustee, 41–43, v. pres, 43–); Soc. Test. Mat; Indust. Radium and X-ray Soc. (chairman Cleveland chap, 43; director, 43); British Inst. Metals; Verein Deuts. Ing. X-ray crystal analysis; radiography; fusible alloys; aluminum alloy systems; metallography.

Van Horn, Prof. L(ester) M(ilton), Milton College, Milton, Wis. *Physiology.* Brookfield, N. Y, Feb. 26, 11. A.B. and B.S, Salem Col. (W. Va), 35; M.S, West Virginia, 36; Wisconsin, summers. 38, 39, 40, 41. Asst. biol, Salem Col. (W. Va), 34–35; nutrition, Exp. Sta, West Virginia, 35–37, physiol, univ, 36–37; *prof. biol, Milton Col, 37–* Intra-ocular transplantation of gonadal fragments in guinea pigs.

Van Horn, Prof. Maurice H, 132 N. Columbus St, Arlington, Va. *Physical chemistry.* Cleveland, Ohio, July 14, 11. A.B, Oberlin Col, 32; A.M, Ohio State, 33, Ph.D, 37. Research chemist, Timken Steel and Tube Co, Canton, Ohio, 33–34; instr. *chem, George Washington,* 36–40, asst. prof, 40–43, *assoc. prof, 43–, acting exec. officer, 43–* Chem. Soc. Quantitative analysis by means of x-rays; spectrometric measurement of intensity of x-ray scattering.

Van Horn, Prof. Robert B(owman), 3847 43rd Ave, N. E, Seattle, Wash. *Hydraulic and sanitary engineering.* Nova, Ohio, July 1, 93. B.S, Washington (Seattle), 16, C.E, 26. Designing engineer, U. S. Reclamation Service, 20–25; asst. prof. *civil eng, col. technol, Washington (Seattle),* 25–34, *assoc. prof, 34–, head dept, 38–; consulting hydraul. and sanit. engineer, 25–* Summers, asst. engineer, Nat. Park Service, 30–33. Civil Eng; Soc. Mil. Eng. Irrigation design and cost estimation; hydraulic losses and designs.

Van Horn, Dr. Willis M(artin), Lawrence College, Appleton, Wis. *Physiology.* Milton, Wis, Nov. 25, 04. A.B, Milton Col, 27; A.M, Wisconsin, 30, Ph.D, 32. Asst. zool, Wisconsin, 28–32; asst. prof. biol, Alfred, 32–33; instr. zool, Wis. State Teachers Col, Superior, 33–34; Bradley Polytech, 34–35; asst. prof. biol, *Lawrence Col,* 35–42, *research asst, Inst. Paper Chem, 42–* Summers, limnologist, State Dept. Conservation, N. Y, 30; junior biologist, State Board Health, Wis, 41. Zoology; limnology; stream pollution.

Van Horne, Dr. Robert Negley, 1501 Sioux Trail, Sioux City, Iowa. *Mathematics.* Manson, Iowa, April 7, 75. Ph.B,

Morningside Col, 00, L.H.D, 43; Hopkins, 00–01. Instr. *math, Morningside Col*, 01–02, *prof*, 02–

Van Horne, Dr. William L(eslie), Rohm and Haas Co, Inc, 5000 Richmond St, Philadelphia, Pa. *Chemistry.* Sioux City, Iowa, Aug. 12, 14. A.B, Morningside Col, 36; A.M, South Dakota, 37; Ph.D, Wisconsin, 40. Teaching fellow chem, South Dakota, 36–37; asst, Wisconsin, 37–40; *research chemist, Rohm and Haas Co, 40–* Chem. Soc; Physical Soc. Physical and inorganic chemistry; solubilities of certain inorganic salts in acetic acid solution; chemical investigations using artificially radioactive isotopes.

Van Houten, Dr. Franklyn B(osworth), 288 Lexington Ave, New York, N. Y. *Geology.* New York, N. Y, July 14, 14. B.S, Rutgers, 36; Ph.D, Princeton, 41. Instr. geol, Williams Col, 39–42; *U. S. Naval Res, 42–, lieut.* Consultant, Va, 41–42. Paleont. Soc. Stratigraphy; vertebrate paleontology; Cenozoic stratigraphy of the Big Horn Basin region, Wyoming; early Eocene mammalian fauna.

Van Houten, Dean Robert W(allace), 20 Norwood Terrace, Maplewood, N. J. *Civil engineering.* Newark, N. J, Jan. 31, 05. B.S, Newark Col. Eng, 30, C.E, 32. Instr. indust. arts, Board Educ, Roselle, N. J, 24–26; math, *Newark Col. Eng*, 30–31, *civil eng*, 31–36, asst. prof, 36–41, *assoc. prof, 41–, in charge summer sessions, 34–*, asst. to pres, 38–40, asst. dean, 41–43, *dean, 43–;* acting supervisor, *Newark Tech. Sch*, 40–41, supervisor, 41–42, *assoc. director, 42–* Summers, highway inspector, Irvington, N. J, 27, 28; inspector piles and pile driving, A. C. Windsor Construction Co, 29; draftsman, Franke and Van Houten Construction Co, 30. Assoc. Civil Eng ; Road Builders Asn; Eng. Educ. Piles and pile driving; highway traffic control.

Van Huysen, Dr. G(rant), 1121 W. Michigan St, Indianapolis, Ind. *Oral diagnosis.* Schenectady Co, N. Y, March 10, 02. Rochester; D.D.S, Pennsylvania, 25. Practising dentist, 25–30; Rockefeller fellow dentistry, dept. path, sch. med. and dentistry, Rochester, 30–36; assoc. anat, Med. Col. of Va, 36–37, asst. prof, 37–38; assoc. prof. clin. oral path, Louisville, 38–42; *prof. oral diagnosis, Indiana, 42–* Morris L. Chaim prize and Centennial medal, N. Y. State Dental Soc. Am. Dental Asn; fel. Col. Dentistry; Int. Asn. Dental Research. Roentgen ray absorption of dentin; histology of dental pulp; salivary sugar.

van Klooster, Prof. H(endrik) S(joerd), 208 Spring Ave, Troy, N. Y. *Physical chemistry.* Groningen, Holland, Nov. 26, 84. Göttingen, 09–10; Ph.D, Groningen, 10; Pasteur Inst, Paris, 14–15. Asst. chem, Groningen, 10–14; chemist, Govt. Testing Lab, Amsterdam, 15; chemist in charge dyeing dept, Elias Cloth Factory, Holland, 15–16; instr. chem, Lafayette Col, 16–18; *Rensselaer Polytech*, 18–21, asst. prof, 21–26, *prof. physical chem, 26–* A.A; Chem. Soc; Chemists' Club. Application of the phase rule to the study of salts and alloys; metallography; colloid chemistry.

VanLandingham, Dr. A(udrey) H(oward), West Virginia University, Morgantown, W. Va. *Agricultural chemistry.* Grady Co, Ga, Oct. 19, 05. B.S, S. Ga. Agr. and Mech. Col, 29; M.S, West Virginia, 31, Ph.D, 34. Asst. agr. chem, *Exp. Sta, West Virginia*, 31–34, asst. chemist, 34–41, *assoc. chemist, 41–* Dairy Sci. Asn; Chem. Soc. (sec'y, north. W. Va. sect, 34); W. Va. Acad. Mineral metabolism; animal nutrition.

Van Lear, Prof. G(eorge) A(llison), Jr, University of Oklahoma, Norman, Okla. *Physics.* Roanoke, Va, Oct. 20, 02. B.S, Va. Polytech, 25; fellow, Michigan, 28–31, M.S, 29, Ph.D, 31. Instr. physics, Va. Polytech, 25–26; asst, Michigan, 26–27; computer, observer and party chief, Geophys. Research Corp, 27–28; asst. prof. *physics, Oklahoma*, 31–37, assoc. prof, 37–39, *prof, 39–; research physicist, Nat. Defense Research Cmt, Michigan, 42–* Assoc. Optical Soc; assoc. Illum. Eng. Soc; Physical Soc; Asn. Physics Teachers. The Brownian motion; photometry of retro-directive reflectors.

Van Leer, Dean Blake R(agsdale), University of North Carolina, Raleigh, N. C. *Hydraulics.* Mangum, Okla, Aug. 16, 93. B.S, Purdue, 15, M.E, 22; M.S, California, 20. Instr. mech. eng, California, 15–17, asst. prof, 20–28; asst. sec'y, Am. Eng. Council, and lecturer hydraul, George Washington, 28–32; *dean eng*, Florida, 32–37; *North Carolina, 37–; lieut. col, U. S. Army, 42–* Mem. advisory cmt, Nat. Hydraul. Lab; Fla. rep, U. S. Coast and Geod. Surv, 33–35; tech. adviser, State Emergency Relief Admin, Fla, 34–35, State Planning Board, 35–36, director, State Mapping Project; water consultant, dist. 4, Nat. Resources Cmt, 36; regional adviser, Eng, Science and Management War Training, Va, N. C. and S. C. Officer, C.Eng, 17–19. Mech. Eng. (chairman, hydraul. div, sec'y, Fla. sect); Eng. Educ. (councilor). Water measurement.

Van Lente, Dr. K(enneth) A(nthony), Southern Illinois State Normal University, Carbondale, Ill. *Physical chemistry.* Holland, Mich, March 29, 03. A.B, Hope Col, 25, M.S, 26; Ph.D, Michigan, 31. Asst, Michigan, 27–31; asst. prof. and *assoc. prof. physical chem, South. Ill. State Nor. Univ, 31–* Chem. Soc. Liquid junction potentials; constant temperature baths.

Van Llere, Dean E(dward) J(erald), University of West Virginia, Morgantown, W. Va. *Physiology.* Kenosha, Wis, Oct. 30, 96. A.B, Wisconsin, 15, M.S, 16; M.D, Harvard, 20; Ph.D, Chicago, 27. Asst. biol, Wisconsin, 14–16; *physiol*, Chicago, 17–18; *prof*, South Dakota, 20–21; *West Virginia, 21–*, acting dean, *sch. med*, 35–37, *dean, 37–* Physiol. Soc; Am. Med. Asn; Soc. Exp. Biol. Zoology; parasitology; physiology of the heart and the gastro-intestinal tract; anoxemia; experimental medicine.

Van Loon, Dr. Edward J(ohn), Albany Medical College, Albany, N. Y. *Pharmacology, Biochemistry.* Danville, Ill, Dec. 3, 11. A.B, Illinois, 36; M.S, Rensselaer Polytech, 37, Ph.D, 39. Research assoc, *Albany Med. Col*, 39–41, *instr. pharmacol, 41–; U. S. Army.* The analgesic-antipyretic drugs relating to their cardiovascular, hematological and respiratory effects.

van Maanen, Dr. A(drlaan), Mt. Wilson Observatory, Pasadena, Calif. ****Astronomy.* Sneek, Holland, March 31, 84. Groningen, 08–10; B.A, Utrecht, 06, M.A, 09, Ph.D, 11. Vol. asst, Yerkes Observatory, Chicago, 11–12; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 12–* Collaborator, Hemel en Dampkring, 21. Astron. Soc; Astron. Soc. Pacific; fel. Royal Astron. Soc; Soc. astron. de France; Astron. Gesell; Nederland. Vereen. voor Weer en Sterrekunde; Utrecht Genootschap; Nat. en Geneesk Genootschap, Amsterdam; Bataafsch Genootschap, Rotterdam; Amsterdam Acad; Int. Astron. Union. Proper motions and parallaxes of stars and nebulae; magnetic field of the sun.

Van Mater, Prof. H(enry) L(ear), 216 S. Third Ave, Highland Park, N. J. *Chemistry.* Hagerstown, Md, Feb. 12, 92. B.S, Rutgers, 13, Ph.D, 36. Calco Chem. Co, 17–19; Nat. Aniline and Chem. Co, 19–21; Am. Dyewood Co, 21–27; instr. *chem, Rutgers*, 27–35, *asst. prof, 35–* Chem. Soc. Reaction kinetics.

Van Meter, Prof. Clarence T(aylor), 1547 Clairtonica St, Pittsburgh 5, Pa. *Chemistry.* Sept. 1, 05. Ph.G, Pittsburgh Col. Pharmacy, 26, B.S, 32; Ph.D, Pittsburgh, 41. Instr. chem, *sch. pharmacy, Pittsburgh*, 27–35, *asst. prof. chem. and physics, 35–* Pharmaceut. Asn; Chem. Soc; Pa. Acad. Organic chemistry; pharmaceutical chemistry; benzenesulfonamide and derivatives.

Van Meter, Prof. R(alph) A(lbert), Massachusetts State College, Amherst, Mass. *Pomology.* Columbus Grove, Ohio, Oct. 4, 93. B.S, Ohio State, 17; M.S, Mass. Col, 30; Ph.D, Cornell, 35. Exten. specialist *pomol*, Mass. Col, 17–23, *prof*, 23–31, *Mass. State Col, 31–, head div. hort, 31–, head dept. pomol, 36–* Soc. Hort. Sci; Pomol. Soc. (manager, 38–). Factors influencing hardiness in raspberries.

Vann, Dr. Herbert M(offett), Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, N. C. *Anatomy.* Pittsylvania Co, Va, Feb. 8, 93. B.S, Wake Forest Col, 15, A.M, 16; M.D, Jefferson Med. Col, 17. Asst. prof. *anat*, Tulane, 26–28; *prof, Bowman Gray sch. med, Wake Forest Col*, 19–26, *28–* Lieut, M.C, 18. Fel. Am. Med. Asn; N. C. Med. Soc.

Van Name, Dr. Ralph G(ibbs), 285 Prospect St, New Haven, Conn. *Chemistry.* New Haven, Conn, Oct. 22, 77. A.B, Yale, 99, Ph.D, 02; Leipzig, 02–03; Göttingen, 03–04. Instr. *chem, Yale*, 04–09, asst. prof, 09–24, assoc. prof, 24–36, *research assoc, 36–* Capt, C.W.S, 18–19. A.A; Chem. Soc; Inst. Chem; Conn. Acad. Rates of solution of metals in certain oxidizing agents; temperature coefficient of a heterogeneous reaction; triiodid equilibria; properties of hypophosphoric acid; electrode potentials.

Van Name, Dr. Willard G(ibbs), American Museum of Natural History, New York, N. Y. *Biology.* New Haven, Conn, April 18, 72. A.B, Yale, 94, Ph.D, 98; Berlin, 99–00. Asst. physiol. chem, Yale, 94–95, biol, 97–99, histol. and embryol, 02–03; specialist and asst. ed, zool. and gen. biol,

'Webster's Int. Dictionaries,' 03–09; zoologist, N. Y. State Museum, Albany, 10–16; asst. invert. zool, *Am. Museum Nat. Hist*, 16–21, asst. curator, 22–26, assoc. curator, 26–42, *emer. assoc. curator, 42–* A.A; Soc. Nat; assoc. Ornith. Union; Ecol. Soc. Zoology; chemical composition of gelatin; embryology of the planarians; ascidians of the Bermuda Islands, the New England coast, the Philippines and the West Indies; isopod crustaceans of America and of the Congo region; conservation of animal life and natural areas.

Van Natta, Dr. Frank J(ohn) (Lewis), Walnut Park Plaza, Philadelphia, Pa. *Chemistry.* Erie, Pa, July 17, 02. B.S, Michigan, 24, M.S, 25, Ph.D, 28. *Research chemist,* exp. sta, *E. I. du Pont de Nemours and Co,* Wilmington, Del, 28–35, *lab, Phila, 35–* Chem. Soc. Monovalent magnesium; polymerization; synthetic resins.

van Niel, Prof. C(ornelis) B(ernardus), N. Camino Real and Fourth, P. O. Box 1833, Carmel, Calif. *Biochemistry.* Haarlem, Holland, Nov. 4, 97. Chem.E, Tech. Univ, Delft, Holland, 23, D.Sc, 28. Conservator, microbiol. lab, Tech. Univ, Delft, Holland, 24–28; assoc. prof. *microbiol, Hopkins Marine Sta, Stanford,* 28–35, *prof, 35–* A.A; Chem. Soc; Soc. Bact; Soc. Plant Physiol; Calif. Acad; Nederlandsche Chem. Vereen; Nederlandsche Vereen. voor Microbiol; Nederlandsche Biochem. Vereen. General microbiology; biochemistry of microorganisms; photosynthesis.

Van Note, Prof. W(illiam) G(ardner), 2214 Whitaker Drive, Raleigh, N. C. *Metallurgical engineering.* Atlantic Highlands, N. J, March 9, 06. Chem.E, Rensselaer Polytech, 29; research fellow, Vermont, 32–33, M.S, 33; scholar, Pa. State Col, 39–41, Ph.D, 41. Metallurgist, Babcock and Wilcox Co, Bayonne, N. J, 30; fellow metal, McGill, 31; instr. chem, Vermont, 31–32; chem. eng, N. C. State Col, 33–35; asst. metal, Carnegie Inst. Tech, 35–36; asst. prof. chem. eng, *N. C. State Col,* 36–41, *assoc. prof,* 41–42, *metal, 42–* Min. and Metal. Eng; Soc. Metals; Eng. Educ. Physical metallurgy; chemistry of engineering materials; electro-chemistry; thermodynamics.

Vannoy, Dr. W(esley) G(abriel), 1104 Woodlawn Ave, Wilmington, Del. *Chemistry.* Burlington, Pa, Feb. 28, 00. B.S, Coe Col, 22; M.S, Cornell, 25, Ph.D, 27. *Chemist, E. I. du Pont de Nemours and Co, 27–* Induced reactions.

Van Nuys, Claude C(ornelius), 9 Putnam Ave, Greenwich, Conn. *Physics.* Shelbyville, Minn, Sept. 5, 78. A.B, Yankton Col, 01, Sc.D, 32; B.S, S. Dak. Sch. Mines, 07, E.M, 09; A.M, Columbia, 08. Prof. physics, S. Dak. Sch. Mines, 08–16; Colo. Sch. Mines, 16–18; *chief physicist, Air Reduction Co, 18–* A.A; Physical Soc. Theory of gaseous and liquid mixtures and their separation; thermodynamics of solutions.

Vanoni, Dr. Vito A(ugust), California Institute of Technology, Pasadena, Calif. *Hydraulics.* Calif, Aug. 30, 04. B.S, Calif. Inst. Tech, 26, M.S, 32, Ph.D, 40. Junior struct. engineer, Bethlehem Steel Corp, 26–28, 30–31; draftsman, Am. Bridge Co, 28–30; *project supervisor, U. S. Dept. Agr. and Calif. Inst. Tech, 35–, asst. prof. hydraulics, inst, 42–* Assoc. Civil Eng. Soil erosion; beach and harbor protection; mechanics of sediment transportation; general hydraulics aspects of soil conservation.

Van Oosten, Dr. John, U. S. Department of the Interior, University Museums, Ann Arbor, Mich. *Ichthyology.* Grand Rapids, Mich, Dec. 10, 91. Calvin Col, 14–16; A.B, Michigan, 18, A.M, 21, Ph.D, 26. Asst. zool, Michigan, 18–21; temporary asst, Bur. Fisheries, 20, field asst, 21–23, fishery expert, 23–25, field asst, 25–28, assoc. aquatic biologist, 28–29, aquatic biologist *in charge Great Lakes fishery investigations,* 29–38, *senior aquatic biologist,* 38–41; *fish and wildlife service, U. S. Dept. Interior, 41–* U. S. mem, Int. Fact-Finding Cmn, Lake Champlain; Int. Board Inquiry for Great Lakes Fisheries. A.A; Fisheries Soc. (chairman, publications cmt; ed. in chief, 37–40; 2nd v. pres, 39, v. pres, 40, pres, 41–); Soc. Ichthyol. and Herp; Limnol. Soc; Mich. Acad. Life histories of the coregonids and of other commercial species of fish of the Great Lakes as determined from a study of scales; Great Lakes fish populations; factors of abundance; fishing gear; regulations of commercial fisheries; limnology, pollution, movements and distribution of fish.

Van Order, Dr. R(obert) Bruce, 124 Woodside Village, Stamford, Conn. *Organic chemistry.* Glenvale, Ont, Can, March 19, 15. B.A, Queen's (Can), 38, Reuben Wells Leonard fellow, 38–39, M.A, 39; Ph.D, N. Y. Univ, 42. Asst, N. Y. Univ, 39–42; *research org. chemist, Stamford research labs, Am. Cyanamid Co, 42–* Summers, asst. chemist, Can. Cement Co, 36–39. Chem. Soc. Investigation of products produced by micro-organisms; indoles.

van Ormer, Prof. Edward B(unn), Pennsylvania State College, State College, Pa. *Psychology.* Norwood, Pa, April 12, 03. A.B, Juniata Col, 24; A.M, Columbia, 27, Ph.D, 32. Instr, high sch, Pa, 24–26; psychol, Col. of Wooster, 27–30; prof. psychol. and educ. and supervisor practice teaching, Wagner Col, 32–34; prof. psychol, St. Joseph's Col. for Women, 32–36, head dept. psychol. and director nursery sch, 34–36; asst. prof. *psychol, Pa. State Col,* 36–43, *assoc. prof, 43–* Summers. instr, Juniata Col, 28, 30, 32; Wagner Col, 34; Hunter Col, 35, 36. Assoc. Psychol. Asn; Asn. Applied Psychol. Experimental psychology; retention after intervals of sleep and waking; social psychology; religious attitudes of college students; behavioristic psychology; educational, social and child psychology.

Van Ornum, Prof. J(ohn) L(ane), 126 Linden Ave, Clayton, Mo. *Civil engineering.* Hartford, Vt, May 14, 64. B.S, Wisconsin, 88, C.E, 91. Chief topographer, Mex. Boundary Surv, 92–94; major, 3rd U. S. Vol. Engineers, 98–99; prof. *civil eng, Washington (St. Louis),* 99–34, *emer. prof, 34–* Munic, ry. and govt. eng. works. A.A; Civil Eng; St. Louis Eng. Club (past pres); Int. Asn. Navig. Cong. Improved field methods of surveying; cements; concrete and reinforced concrete constructions; water and sewage purification; principles of river regulation and harbor improvement. (*Died Nov, 1943*)

Van Orstrand, C(harles) E(dwin), 3906 Morrison St, N. W, Washington, D. C. *Geophysics.* Near Pekin, Ill, Feb. 8, 70. B.S. (C.E), Illinois, 96, B.S, 97; M.S, Michigan, 98. Computer, 'Nautical Almanac' Office, U. S. Naval Observatory, 98–99, asst, 99–01; asst. physical geologist, *U. S. Geol. Surv,* 01–13, assoc. physical geologist, 13–15, physical geologist, 15–24, geophysicist, 24–40; *retired.* Lecturer, George Washington, 10–32. A.A; Physical Soc; Min. and Metal. Eng; Math. Soc; Math. Asn; Astron. Soc; Meteorol. Soc; Seismol. Soc; Am. Geog. Soc; Asn. Petrol. Geol; Petrol. Inst; Genetic Asn; Forestry Asn; Geophys. Union; Geol. Soc. Wash; Philos. Soc. Wash; Wash. Acad; Physical Soc. London. Mathematical physics; mathematical tables; deep-earth temperatures.

Van Osdel, Prof. Edgar B(ates), 821 E. Colton Ave, Redlands, Calif. *Geology.* Warrenville, Ill, Oct. 26, 75. A.B, Knox Col, 94, A.M, 97; Chicago, 94–97; summers, Columbia, 27, Washington (Seattle), 28, Wyoming, 29. Consulting chemist and metallurgist, Spokane, Wash, 97–08, city chemist, 98–99; *prof.* chem. and physics, McMinnville Col, 08–21; *geol. and astron, Redlands, 21–* A.A; Astron. Soc; Seismol. Soc; Astron. Soc. Pacific. Geology of the Redlands Quadrangle and San Bernardino Mountains.

Van Overbeek, Dr. J(ohannes), Institute of Tropical Agriculture, Mayagüez, P. R. *Botany.* Schiedam, Holland, Jan. 2, 08. B.S, Leyden, 28; M.S, Utrecht, 32, Ph.D, 33. Asst. gen. bot, Utrecht, 33–34; asst. plant physiol, Calif. Inst. Tech, 34–37, instr. biol, 37–39, asst. prof, 39–43; *plant physiol, Inst. Trop. Agr, Puerto Rico, 43–* Summers, guest investigator, Carnegie Institution, 40, 41. A.A. (v. pres, eng. div, 42); Eng. Col. Research Asn. (pres, 42); Eng. Educ. (councilor, 43); Soc. Plant Physiol. (sec'y, west sect, 39–41, chairman, 41); Bot. Soc. Growth hormones; physiology of growth and development.

Van Patten, Nathan, Stanford University, Calif. *Chemistry.* Niskayuna, N. Y, March 24, 87. Union Classical Inst; Litt.D, Dartmouth, 36. Librarian, Wolcott Gibbs Library of Chem, Col. City of N. Y, 17–20; reference librarian, Mass. Inst. Tech, 20–21, asst. librarian, 21–23; chief librarian, Queen's (Can), 23–27; *director univ. libraries and lecturer chem, Stanford, 27–* Lecturer, sch. med, California; adviser World War collection, library, Yale, 42– Library Asn; Bibliog. Soc; Med. Library Asn; Library Asn. United Kingdom; British Inst. Metals; Oxford Bibliog. Soc. Corrosion of metals; medical history; bibliography.

Van Pelt, J(ohn) R(obert), Jr, 251 Scott Ave, Winnetka, Ill. *Geology, Mining engineering.* Denver, Colo, April 2, 96. A.B, Cornell Col. (Iowa), 18; B.S, E.M, Mich. Col. Mines, 22; Chicago, 26–28; hon. Sc.D, Cornell Col, 42. Instr. geol, Cornell Col. (Iowa), 22–23, asst. prof, 23–24, prof, 24–28; curator geol, mining and metal, *Museum Science and Indust,* 28–30, asst. director, 30–40, *tech. director, 40–* Geologist, Nat. Park Service, 26; assoc. geologist, Ill. Geol. Surv, 27–30; exec. sec'y, Cornell Col. (Iowa), 22–23. Mem. advisory cmt. exhibits in geol. and mining, Nat. Research Council, 29–34. Pres, Chi-

cago regional group, Eng. Council for Professional Develop, 36–41; mem. Washington Award Cmn, rep. Am. Inst. Min. and Metal. Engineers, 34–36, rep. West. Soc. Engineers, 40–42. 2nd lieut, F.A, 18–19. A.A; Min. and Metal. Eng. (chairman, Chicago sect, 33, nat. director, 41–, v. pres, 44–); Petrol. Inst; Eng. Educ. (chairman mineral tech. div, 42); Asn. Mus; West. Soc. Eng. (pres, 36); Geol. Soc. Chicago; Newcomen Soc. (sec'y, Chicago cmt, 41–). Economic geology.

Van Peursem, Dr. Ralph L(awrence), Rochester Athenaeum and Mechanics Institute, Rochester, N. Y. *Organic chemistry.* Maurice, Iowa, Oct. 27, 07. A.B, Central Col. (Iowa), 29; B.S, Iowa State Col, 28, M.S, 29, Ph.D, 38. Teaching fellow chem, Iowa State Col, 28–29, asst, Exp. Sta, 35–37; instr. gen. and anal. chem, Sheldon Junior Col, 29–35; indust. chem, *Rochester Athenaeum and Mech. Inst,* 37–42, *supervisor chem. dept,* 42– Chem. Soc. Antiseptic hypochlorites by electrolysis; catalytic hydrogenation of furfural; preparation of cholesterilene and various cholestadienes.

Van Royen, Dr. W(illiam), Brooklyn College, New York, N. Y. *Geography.* Utrecht, Holland, June 22, 00. M.A, Utrecht, 26; fellow, Clark, Ph.D, 28. 2nd exec. sec'y, Netherlands Chamber of Commerce, 28–30; *prof. geog,* Nebraska, 30–40; *Brooklyn Col, 40–* Asn. Geog; fel. Soc. Archeol; Am. Geog. Soc; cor. mem. Vereen. voor Econ. Geog. Economic and physical geography.

Van Rysselberghe, Prof. Pierre (Jean), University of Oregon, Eugene, Oregon. *Chemistry.* Brussels, Belgium, May 18, 05. Cand. Ing, Brussels, 24, engineer, 27; Cmn. Relief Belgium Educ. Foundation fellow, Stanford, 27–29, A.M, 28, Ph.D, 29. Instr. *chem,* Stanford, 29–31, asst. prof, 31–41; *Oregon,* 41–42, *assoc. prof, 42–* Visiting Cmn. Relief Belgium lecturer, Belgium, 35–36. A.A; Chem. Soc; Asn. Eng. Inorganic, physical and theoretical chemistry; properties of solutions, especially of strong electrolytes; thermodynamics; electrochemistry.

Van Schaack, Prof. George B(ooth), Michigan State College, East Lansing, Mich. *Mathematics.* Coxsackie, N. Y, Sept. 13, 03. B.S, Harvard, 29, A.M, 32, Ph.D, 35. Instr. math, Harvard, 29–32, 33–35; mem. math. bur, Equitable Life Assurance Soc, N. Y, 35–36; instr. *math,* Rochester, 36–38; *Mich. State Col,* 38–41, *asst. prof, 41–* Math. Soc; Math. Asn; Asn. Symbolic Logic. Critical point theory.

Vansell, G(eorge) H(aymaker), U. S. Department of Agriculture, Davis, Calif. *Entomology.* Muscotah, Kans, Jan. 8, 92. A.B, Kansas, 15, A.M, 17; Harvard; California; Stanford. Asst. prof. entom. and zool, Kentucky, 15–22; instr. entom, California, 22–25; junior apiculturist, Exp. Sta, California, 25–31; assoc. apiculturist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 31–41, *apiculturist, 42–* Exten. specialist, U. S. Dept. Agr. Asn. Econ. Entom; Ky. Beekeeping Asn. (past sec'y and treas); Calif. Beekeeping Asn. (past sec'y and treas); Kans. Hort. Soc. Apiculture.

Vanselow, Dr. Albert P(ercival), 4189 Rubidoux Ave, Riverside, Calif. *Chemistry.* Grand Rapids, Mich, Dec. 19, 97. B.S, Syracuse, 20; Ph.D, California, 24. Org. research chemist, Semet-Solvay Co, 18–19; teaching fellow, *California,* 20–24, *asst. chemist, Citrus Exp. Sta, 24–* Chem. Soc. Freezing points and activity coefficients; replaceable bases in soils; spectrographic analysis.

Vanselow, Dr. W(aldemar), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Grand Rapids, Mich, Sept. 21, 99. B.S, Syracuse, 21, M.S, 22; Ph.D, Wisconsin, 26. Instr. chem, Syracuse, 21–23; Wisconsin, 23–25; *research chemist, Eastman Kodak Co, 26–* Chem. Soc. Photochemical research on silver halides; photochemical reactions related to photography.

Van Sickle, Prof. Guy E(dward), University of Toledo, Toledo, Ohio. *Chemistry.* Springfield, Ohio, March 7, 87. A.B, Ohio State, 09, A.M, 11. Instr, high schs, Ohio, 12–18; assoc. prof. and *prof. chem, Toledo, 18–* Chem. Soc. (sec'y-treas, Toledo sect, 25, pres, 28–30). Organic and analytical chemistry; improved methods in qualitative and quantitative chemical analysis.

Van Slyke, Dr. D(onald) D(exter), 21 Sycamore St, Bronxville, N. Y. **3*Chemistry, Physiology.* Pike, N. Y, March 29, 83. A.B, Michigan, 05, Ph.D, 07, hon. Sc.D, 35; Yale, 25, Northwestern, 40, Chicago, 41; hon. M.D, Oslo, 38. Research chemist, N. Y. Exp. Sta, Geneva, 06; fellow *physiol. chem, Rockefeller Inst,* 07–08, asst, 08–10, assoc, 10–12, assoc. mem, 12–21, *mem, 21–* Visiting prof, Peiping Union Med. Col, 22; Mickel fellow, Toronto, 36. Philip A. Conne gold medal, The Chemists' Club, 37; Order of Jade, China, 41; George M. Kober medal, Asn. Am. Physicians, 42. Nat. Acad; A.A; Chem. Soc; Soc. Biol. Chem. (pres, 21–23); Soc. Exp. Biol; Am. Physicians; Harvey Soc. (pres, 21); hon. mem. Deuts. Gesell. für Naturforschung; hon. mem. Soc. Lombarda di Med; Acad. India; Soc. Biol. Chem. India. Chemistry and physiology of proteins and amino-acids; laws of enzyme action; methods for blood analysis; gasometric microanalyses; respiratory and renal functions; physical chemistry of blood; diabetes; nephritis; quantitative clinical chemistry.

van Slyke, Dr. Edgar, Broadway and Clinton Sts, Nyack, N. Y. *Anatomy.* South Nyack, N. Y, Oct. 12, 97. B.S, Rutgers, 21; fellow, California, 21–23, A.M, 23; Ph.D, Pittsburgh, 31. Research fellow, San Francisco Bay Marine Piling Cmt, Nat. Research Council; asst. prof. biol, Centre Col, 24–26; instr. zool, Pittsburgh, 26–31; research fellow anat, sch. med, Maryland, 31–37; *dept. physiol, Manhattan Col, 37–* Amphibian ecology; internal secretion; hypertension.

Van Stone, Dr. N(athan) E(dward), Midland Bldg, Cleveland, Ohio. *Organic chemistry.* Bridgeport, Conn, May 18, 90. B.S, Michigan, 14, M.S, 15, fellow, 15–16, Ph.D, 16. Research chemist, West. Elec. Co, 16–17; *chem. director dye and intermediate dept, Sherwin-Williams Co, 17–, supt. pyroxylin products dept,* director chem. operations, 30, *v. pres. and director operations, 38–* Chem. Soc. Triphenylmethyl; organic insulation products.

van Straten, Dr. F(lorence W), 105 Lincoln Road, Brooklyn, N. Y. *Physical chemistry.* Darien, Conn, Nov. 12, 13. B.S, N. Y. Univ, 33, M.S, 37, Ph.D, 39. *Asst. instr. chem, N. Y. Univ, 33–; ensign, W.A.V.E, U. S. Naval Res, 42–* Chem. Soc; N. Y. Acad. Metals; catalysis.

Vanterpool, Prof. T(homas) C(lifford), University of Saskatchewan, Saskatoon, Sask, Can. *Phytopathology.* West Indies, April 22, 98. B.S.A, McGill, 23, M.Sc, 25; Hudson's Bay Co. fellow, Manitoba, 25–26. Asst. bot, Macdonald Col, McGill, 23–25, lecturer, 26–28; asst. prof. *plant path, Saskatchewan,* 28–31, *prof, 31–* A.A; Phytopath. Soc; Mycol. Soc; Can. Soc. Tech. Agr; Can. Phytopath. Soc; British Mycol. Soc. Plant diseases; tomato streak; Tilletia tritici; pythium root rot of cereals and grasses; flax diseases.

Van Tuyl, Prof. Francis M(aurice), Colorado School of Mines, Golden, Colo. *Geology.* Denmark, Iowa, Oct. 15, 87. A.B, Iowa, 11, M.S, 12; fellow, Columbia, 12–13, Ph.D, 15; Chicago, 14–15. Asst. geol, Iowa, 11–12; paleont, Columbia, 13–14; asst. geologist, Ill. Geol. Surv, 14–15; instr. geol, Illinois, 15–17; assoc. prof. *geol. and miner, Colo. Sch. Mines,* 17–19, *prof. and head dept, 19–* Geologist, Iowa Geol. Surv, 12–22; asst. geologist, Mo. Bur. Geol. and Mines, 14–15; geologist, Illinois, Hudson Bay exped, 16; Texas Co, 19, 22; Midwest Ref. Co, 20. Advisory cmt. econ, Interstate Oil Compact Cmn, 40, eng. cmt, 40–, research and coordinating cmt, 41–A.A; fel. Geol. Soc; Asn. Petrol. Geol. (research cmt, 40–); Min. and Metal. Eng; fel. Paleont. Soc; Geophys. Union; fel. Iowa Acad; Ill. Acad. Origin of dolomite, geodes, oölite and chert; stratigraphy and paleontology of the Mississippian formations of Iowa; geology of Hudson Bay region; classification of igneous and metamorphic rocks; geology and physiography of the Front Range of Colorado; relation of oil shale to petroleum; origin of petroleum; migration and accumulation of oil and gas; oil possibilities of eastern Colorado.

Van Tuyl, Dr. Mary C(urry), University of Michigan, Ann Arbor, Mich. *Psychology.* Olean, N. Y, Oct. 18, 82. A.B, Michigan, 27, A.M, 30, Ph.D, 33. Asst. *psychol, Michigan,* 26–33, *teaching fellow, 33–* A.A; assoc. Psychol. Asn; Mich. Acad; N. Y. Acad. Monocular depth perception; psychology of religious experience; Hollerith techniques to analyze life history materials.

Van Tyne, Dr. Josselyn, University of Michigan, Ann Arbor, Mich. *Zoology.* Philadelphia, Pa, May 11, 02. A.B, Harvard, 25; Ph.D, Michigan, 28. Asst. curator *birds, museum zool, Michigan,* 28–31, *curator, 31–* Zool. expeds, French Indo-China, Panama, British Honduras, Guatemala and Yucatan. Fel. Ornith. Union; Wilson Ornith. Club (pres, 35–37, ed, 39–); Nuttall Ornith. Club. Ornithology.

Vanuxem, Dr. Mary, Sparta, N. J. *Psychology.* Camden, N. J, July 30, 81. B.S, A.M, Columbia, 16, Ph.D, 25. Teacher, schs, N. J. and Pa, 00–14; asst. educ. psychol, Teachers Col, Columbia, 15–16; assoc. supervisor, N. J. State Nor. Sch, 16–18; asst. psychol, Phila. Nor. Sch, 18–20, head dept, 20–21; lecturer, Woman's Med. Col. of Pa; clin. psychologist, Woman's Hosp, Phila; consulting psychologist, Laurelton State

Village, 20–21, res. psychologist, 21–22, asst. supt. and psychologist, 22–42; *field sec'y, N. Y. State Cmt. Mental Hygiene, 42–; supervisor social workers, State Selective Service Boards, N. Y, 42–* Summers, asst, Teachers Col, Columbia, 16–18. Emergency cmt. mental deficiency, Nat. Research Council. A.A; Psychol. Asn; Asn. Study Feeble-Minded; Asn. Study Mental Deficiency; Asn. Clin. Psychol; Council Women Psychol; Pa. Asn. Clin. Psychol. (treas, 41–); Metrop. Asn. Clin. Psychol. Self-government and education for feeble-minded women; values of institutional training shown by re-examination; children of women admitted to the Laurelton State Village; state educational system for the mentally retarded; mental deficiency; clinical psychology; abnormal psychology.

Van Valkenburg, Prof. Samuel, 11 S. Flagg St, Worcester, Mass. *Geography.* Leeuwarden, Holland, Sept. 14, 91. Utrecht; Berlin; Lausanne; Ph.D, Zurich, 18. Geographer, Netherlands East Indies Govt, 21–26; visiting prof, grad. sch. geog, Clark, 27–28; assoc. prof. *geog,* Col. City of Detroit, 28–32; *Clark,* 32–34, *prof,* 37– Asst. ed, 'Econ. Geog.' Regional, social and economic geography; an economic analysis of Europe.

Van Valkenburgh, Prof. H(orace) B(ulle), 947 University Ave, Boulder, Colo. *Chemistry.* Warren, Ark, 83. B.S, Arkansas, 05, M.S, 12; Ph.D, Chicago, 30. Teacher, high sch, China, 08–11; prof. chem. and physics, Daniel Baker Col, 12–17; from instr. to *prof. chem, Colorado, 17–* Chem. Soc; Colo-Wyo. Acad. Inorganic chemistry.

Van Valzah, Dr. Robert, Goby, Va. *Internal medicine.* Spring Mills, Pa, Nov. 1, 82. A.B, Princeton, 04; M.D, Pennsylvania, 08. Chief res. physician, univ. hosp, Pennsylvania, 09; instr. clin. med, *Wisconsin,* 10–11, asst. prof, 11–13, assoc. prof, 13–18, *prof. med, 18–*

Van Velzer, Prof. C(harles) A(mbrose), 128 E. Johnson St, Madison, Wis. *Mathematics.* Baldwinsville, N. Y, Sept. 2, 51. B.S, Cornell, 76; fellow, Hopkins, 78–81; Ph.D, Hillsdale Col, 83. Instr. *math,* Cornell, 76–77; Wisconsin, 81–83, asst. prof, 83–85, prof, 85–06; *Carthage Col,* 20–36, *emer. prof, 36–* Math. Soc; Math. Asn; London Math. Soc. Compound determinants.

Van Velzer, Prof. H(arry) L(eland), 317 W. Prospect Ave, State College, Pa. *Physics.* Ft. Scott, Kans, Oct. 23, 96. A.B, Kansas, 20; M.S, Pa. State Col, 28, Johnsonburg Radio fellow, 29–30, Ph.D, 32. Asst, research lab, Gen. Elec. Co, 22–26; *physics, Pa. State Col,* 26–32, instr, 32–37, *asst. prof, 37–* U. S. Bur. Mines, 16. Physical Soc. Thermionics.

Van Vleck, Prof. J(ohn) H(asbrouck), Harvard University, Cambridge, Mass. ***¹***Physics.* Middletown, Conn, March 13, 99. A.B, Wisconsin, 20; A.M, Harvard, 21, Ph.D, 22; Sc.D, Wesleyan, 36. Instr. *physics,* Harvard, 22–23; asst. prof, Minnesota, 23–26, assoc. prof, 26–27, *prof,* 27–28; Wisconsin, 28–34; *Harvard, 34–* Guggenheim Mem. Foundation fellow, 30; lecturer, Stanford, 34; visiting prof, Princeton, 37; visiting lecturer, Institut Henri Poincaré, Paris, 39. Summers, lecturer, Stanford, 27, 41; Michigan, 33; Columbia, 34. Assoc. ed, 'Physical Rev,' 26–28, 32–34; 'Jour. Chem. Physics,' 35–43. Cmt. on ionization potentials, Nat. Research Council, 23–25, div. physical sciences, 36–39, 43– Solvay Cong, Brussels, 30; Magnetism Cong, Strasbourg, 39. Nat. Acad; A.A; Physical Soc. (councilor, 32–36); Math. Soc; Philos. Soc; Am. Acad. Quantum theory of atomic structure.

Van Vleet, Dr. Harley S(amuel), 233 Hill Ave, Glen Ellyn, Ill. *Engineering.* Tecumseh, Mich, March 30, 01. B.S, Michigan, 24, M.S, 25, Ph.D, 29. Asst. chem, Michigan, 23–25, 26–28; metal. engineer, West. Elec. Co, 25–26, 28–32; *metallurgist, Am. Can Co, 34–* Consultant, bur. indust. conservation, War Production Board, 42. Soc. Metals (chairman, Chicago chap, 39); Soc. Test. Mat; Min. and Metal. Eng. Metallurgical engineering; metallurgy; austenite decomposition and the changes in magnetic properties; tin plate; can manufacture; temper classification for cold reduced tin plate.

Van Volkenberg, Dr. H(oratio) L(uther), Agricultural and Mechanical College of Texas, College Station, Texas. *Parasitology.* Springville, N. Y, March 16, 93. D.V.M, Cornell, 18, B.S. (Agr), 19, M.S, 21. Instr, N. Y. State Vet. Col, Cornell, 18–21; asst. biologist, bur. biol. surv, U. S. Dept. Agr, 22–23; special investigator, Bur. Fisheries, Alaska, 24–25; parasitologist, Exp. Sta, Puerto Rico, office exp. sta, U. S. Dept. Agr, 26–37; *prof. parasitol. and head dept, Agr. and Mech. Col. Texas, 37–* A.A; Vet. Med. Asn; Soc. Parasitol. Parasites of domestic and wild game animals of Texas.

Van Voorhis, Dr. C(letus) C(linton), Kingston, N. J. *Physics.* Stark Co, Ohio, Feb. 19, 86. Ph.B, Col. of Wooster, 14, M.S, 19; Ph.D, Princeton, 27. Instr. physics, Col. of Wooster, 14–17; research physicist, Westinghouse Lamp Co, 17–23; *research assoc. physics, Princeton, 23–* Physical Soc. Efficiency of ionization in various gases; heats of condensation of electrons and positive ions on metal electrodes; accommodation coefficients of positive ions of argon, neon and helium; light absorption by oxygen; purification of inert gases.

Van Voorhis, Dr. S(tanley) N(ichols), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Hiram, Ohio, Dec. 2, 09. B.S, Case, 30; Ph.D, Princeton, 34. Charlotte Elizabeth Procter fellow, Princeton, 34–35; nat. research fellow, California, 35–37, research assoc, radiation lab, 37–38; Rochester, 38–40; *mem. staff, radiation lab, Mass. Inst. Tech, 40–* Physical Soc. Nuclear physics; electron scattering; electronics.

Van Voorhis, Prof. Walter Roe, Fenn College, Cleveland, Ohio. *Statistics.* Monongahela, Pa, July 23, 04. A.B, Pa. State Col, 30, A.M, 31, Ph.D, 41. Undergrad. admin. head and asst. prof. *math,* Pa. State Col, 34–40; *asst. prof, Fenn Col, 41–* Math. Asn; Inst. Math. Statist; Psychomet. Soc. Statistical procedures and their mathematical bases; improvement of space perception ability by training; error in the use of the standard error; fundamentals of business mathematics.

Van Wagenen, Dr. Alfred, Ohio State University, Columbus 10, Ohio. *Poultry husbandry, Agricultural economics.* East Hampton, N. Y, Aug. 8, 08. B.S, Cornell, 30, Ph.D, 35. Sec'y-treas, Cooperative Official Poultry Breeders, Inc, 30–31; instr. poultry husbandry and asst. marketing, Exp. Sta, Cornell, 31–35, instr. marketing and investigator, 36–42; *assoc. prof. poultry husbandry, exten, Ohio State, 42–; assoc. animal indust, Ohio Exp. Sta, 42–* Poultry Sci. Asn; Farm Econ. Asn; Int. Conf. Agr. Econ. Interior quality of hens' eggs; the marketing of poultry products.

van Wagenen, Dr. Gertrude, Yale University School of Medicine, New Haven, Conn. *Anatomy.* Rock Rapids, Iowa, May 23, 93. A.B, Iowa, 13, Ph.D, 20. Asst, Iowa, 13–20; instr. anat, Stanford, 20–21; med. sch, California, 21–27; inst. veg. physiol, Städtisches Krankenhaus, Frankfurt, 27–29; asst. anat, sch. med, Hopkins, 29–30; *obstet. and gynec, sch. med, Yale,* 31–32, instr, 32–35, asst. prof, 35–38, *assoc. prof, 38–* Barbados-Antigua exped, 18. A.A; Physiol. Soc; Asn. Study Int. Secretions. Endocrinology.

Van Wagenen, Prof. M(arvin) J(ames), 1729 Irving Ave, S, Minneapolis, Minn. *Psychology.* Ohioville, N. Y, Nov. 18, 84. B.S, Columbia, 11, A.M, 12, Ph.D, 18. Instr. psychol, Ohio State, 14–15; asst. prof. and later *assoc. prof. educ. psychol, Minnesota, 17–* Visiting lecturer, California, 25. A.A; Psychol. Asn; Asn. Applied Psychol; Psychometric Soc; Educ. Research Asn; Nat. Soc. Study Educ. Mental and educational measurement; reading; learning experiments.

van Wagtendonk, Dr. W(illem) J(ohan), Oregon State College, Corvallis, Oregon. *Chemistry.* Batavia, Netherland East Indies, April 10, 10. B.A, Rijks Univ. (Holland), 31, M.A, 34, Ph.D, 37. Instr. org. chem, Rijks Univ. (Holland), 35–37; research chemist, org. synthetic chem, N. V. Polak Frutal Works, Amersfoort, 37–39; research assoc. biol, Stanford, 39–41; *sch. science, Oregon State Col,* 41–42, *asst. prof. chem, 42–* A.A; Chem. Soc; Nederlands chem. Vereniging. Biotin as growth factor for Staphylococcus aureus; synthesis of new substances used in perfumes; growth factors for Colpoda duodenaria; vitamins.

Van Wazer, Dr. John R(obert), 997 St. Paul St, Rochester, N. Y. *Physical chemistry.* Chicago, Ill, April 11, 18. B.S, Northwestern, 40; A.M, Harvard, 41, Ph.D, 42. *Physical chemist, Eastman Kodak Co, 42–* Chem. Soc. Surface physics; radioactive exchange; rheology.

van Wert, Dr. Leland Russell, 5515 Wissahickon Ave, Germantown, Pa. *Physical metallurgy.* Raymertown, N. Y, Feb. 29, 92. B.S, Union (N. Y), 16; M.S, Carnegie Inst. Tech, 29; Eveleth scholar, Harvard, 29–30, Sc.D, 30; Arizona; Mass. Inst. Tech; Yale. Instr, high sch, Conn, 16–17; physical metallurgist, Dorr Co, New York, 19–20; metal. engineer, Remington Arms Co, Conn, 20; instr. metal, eng. sch, Harvard, 20–26; asst. prof, Carnegie Inst. Tech, 26–29; lecturer, Harvard, 30–37; research engineer, *Leeds and Northrup Co,* 37–39, *chief metal. div, research dept, 39–* Exten. lecturer, Brown, 30–31. Engineer tests, Ordnance Dept, 18–19. A.A; Min. and Metal. Eng; Soc. Metals; Eng. Educ; Franklin Inst. Thermocouple

alloys; nickel alloys; heat treatment of steel metals and alloys of the instrument industry.

Van Winkle, Dr. Walton, Jr, U. S. Food and Drug Administration, Washington, D. C. *Pharmacology.* Seattle, Wash, July 16, 10. A.B, Stanford, 33, M.D, 38. Asst. pharmacol, med. sch, Stanford, 36–38, instr, 38–41; assoc. pharmacologist and *senior med. officer, food and drug admin, Fed. Security Agency, 41–* Soc. Exp. Biol. and Med; Soc. Pharmacol. and Exp. Therapeut. Effect of insulin and epinephrine on blood amino acids; tissue and urine extracts; sobisminol; acetylation of sulfanilamide; toxicity and metabolism of glycols.

Van Zandt, Dr. J(ohn) Parker, Pan-American Airways Co, Manila, P. I. *Aeronautics.* Chicago, Ill, Jan. 16, 94. B.S, California, 14, Ph.D, 17. Dept. physics, California, 14–17; Air Service, U.S.A, 17–26; Stout Air Service, 25–27; pres, Scenic Airways, Inc, 27–29; European aviation rep, Ford Motor Co, 29–30; for. commissioner to Europe, 30–33; *gen. rep, Pacific div, Pan-Am. Airways Systems, 33–* Dept. exhibits, A Century of Progress Expos, Chicago. Sec'y, civil aviation cmt, U. S. Dept. Commerce, 25; v. pres, United Aviation Corp, 28–29. Inst. Aeronaut. Sci. Civil air transportation.

Van Zwaluwenburg, R(eyer) H(erman), Hawaiian Sugar Planters' Association, Box 411, Honolulu, Hawaii. *Entomology.* Kansas City, Mo, Feb. 5, 91. B.S, Mass. Col, 13. Entomologist, P. R. Exp. Sta, *U. S. Dept. Agr,* 13–17, sci. asst, bur. entom, 17–21; entomologist, United Sugar Companies, Mex, 21–24; asst. entomologist, *Exp. Sta, Hawaiian Sugar Planters' Asn,* 24–29, *assoc. entomologist, 29–* Exped, parasites of fruit flies, W. Africa, 35–36. Pacific Science Cong, Java, 29. A.A; Asn. Econ. Entom; Hawaiian Entom. Soc. (pres, 27); Hawaiian Bot. Soc; Hawaiian Acad; Int. Soc. Sugar Cane Technol. Insects of sugar-cane; taxonomy of Elateridae.

Van Zyl, Prof. Gerrit, 610 State St, Holland, Mich. *Physical chemistry.* Hospers, Iowa, 94. A.B, Hope Col, 18; M.S, Michigan, 20, Ph.D, 23. Instr, Michigan, 20–23; *prof. chem., and head dept, Hope Col, 23–* Chem. Soc. Electrochemistry; decomposition potentials; transfer resistance.

Varian, Russell H, 49 Wyatt Road, Garden City, N. Y. *Physics.* Washington, D. C, April 24, 98. A.B, Stanford, 25, A.M, 27. Research physicist, Farnsworth Television, 30–33; research assoc, Stanford, 34–40; *research engineer, Sperry Gyroscope Co, 40–* A.A; assoc. Physical Soc; assoc. Radio Eng. Micro waves.

Varineau, Dr. Verne J(ohn), 370 N. Ninth St, Laramie, Wyo. *Mathematics.* Escanaba, Mich, March 11, 15. B.S, Col. St. Thomas, 36; A.M, Wisconsin, 38, fellow, 40, Ph.D, 40. Asst, Wisconsin, 36–39; *instr. math, Wyoming, 40–; lieut, U. S. Naval Res.* Math. Soc; Math. Asn. Matrices with elements in a principal ideal ring.

Varner, Prof. W(illiam) R(oy), 1022 N. 29th St, Corvallis, Oregon. *Physics.* Wallowa, Oregon, Aug. 3, 89. B.S, Oregon State Col, 12, M.S, 32, Ph.D, 39; E.E, Westinghouse Grad. Sch, 14. Elec. engineer, Westinghouse Elec. and Mfg. Co, 12–16; Duquesne Steel Co, 16–18; mem. faculty elec. eng. and automotive electricity, Oregon Inst. Tech, 18–29; instr. *physics,* Oregon State Col, 29–33; Oregon, 34–36; asst. prof, *Oregon State Col,* 36–40, *assoc. prof, 40–* A.A; Asn. Physics Teachers (sec'y, 35–41); Professional Engineers of Oregon. Pyrometry; spectrographic analysis.

Varney, Dr. Philip L(eonard), Washington University School of Medicine, St. Louis, Mo. *Bacteriology, Immunology.* McMinnville, Oregon, Aug. 26, 02. B.S, Oregon State Col, 23; fellow, Washington (St. Louis), 24–26, M.S, 26, Ph.D, 33. Asst, Oregon State Col, 21–24; instr. *bacter. and immunol, sch. med, Washington (St. Louis),* 26–36, *asst. prof, 36–* A.A; Soc. Bact; Pub. Health Asn; Soc. Bact. (pres, east. Mo. branch, 42). Fusiform bacilli; etiology of lung abscesses; filterability of bacteria; the simultaneous production of active and passive immunity to tetanus; anaerobiosis; isolating and enumerating bacteria; glass electrodes; fever therapy.

Varney, Dr. Robert(s) N(athan), Washington University, St. Louis, Mo. *Physics.* San Francisco, Calif, Nov. 7, 10. A.B, California, 31, A.M, 32, Ph.D, 35. Instr. *physics,* California, 35–36; instr, N. Y. Univ, 36–38; *asst. prof, Washington (St. Louis), 38–; lieut, U. S. Naval Res, Dahlgren, Va, 41–* A.A; Physical Soc. Ionizing collisions of heavy atomic bodies; spark breakdown; slow neutron absorption; mechanical integrators.

Varnhorn, Dr. Mary C(atherine), 1120 Poplar Grove, Baltimore, Md. *Mathematics.* Baltimore, Md, July 8, 14. A.B, Col. of Notre Dame, Md, 36; A.M, Catholic Univ, 37, Ph.D, 39. *Instr. math,* Col. of Notre Dame, Md, 39–40; *Trinity Col. (D. C), 40–* Math. Asn. Properties of quartic functions of one variable.

Varreiman, Prof. F(erdinand) A(rmin), 1115 Seward St, Evanston, Ill. *Biology.* St. Louis, Mo, June 6, 88. Missouri; Washington (St. Louis); A.B, California, 14; A.M, Columbia, 22; Vienna, 35–36. Mo. Bot. Garden, 09–10; instr. biol, Pa. State Col, 11–13; Christian Col, 13–14; asst. entom, Exp. Sta, California, 14–15; teacher, high schs, Wash. and Calif, 15–18; acting prof. bot, Occidental Col, 18–20; prof. biol, N. Mex. State Teachers Col, 20–21; asst. zool, Columbia, 21–22; biologist, Nat. Research Council and Marine Piling Investigations, 22–24; Marine Fouling Investigation, Bur. Fisheries, 24–26; *prof. biol,* American Univ, 25–37; De Paul, 37–40; *George Williams Col, 40–* Hort. for. econ, Admin. Econ. Warfare, Cent. Amer. U. S. House of Representatives Library Cmt; del. to visit European bot. gardens, 35–36. A.A; Bot. Soc; Torrey Bot. Club; N. Y. Acad. Plant morphology; economic biology; marine investigations.

Vars, Dr. Harry M(orton), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Physiological chemistry.* Edelstein, Ill, July 2, 03. A.B, Colorado, 24; Carrol Cutler fellow, Yale, 25–26, Ph.D, 29. Asst. chem, Cornell, 24–25; physiol. chem, Yale, 26–28, instr, 28–31; research assoc. biol, Princeton, 31–34; Merck fellow physiol, *sch. med, Pennsylvania,* 34–36, assoc, *Harrison dept. research surg,* 36–40, *asst. prof. biochem. in surg. research, 40–* Summer, Colorado, 25. Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; Soc. Exp. Biol. Nutrition; intermediary metabolism; chemistry of amino-acids.

Vartanian, Dr. Richard D, 7 W. Union Ave, Bound Brook, N. J. *Chemistry.* Thompsonville, Conn, Sept. 28, 07. B.S, Mass. Col, 29; Ph.D, Columbia, 34. Instr, Columbia, 29–34; *research chemist,* Hecker Products Corp, 34–39; *Calco chem. div, Am. Cyanamid Co, 39–* Chem. Soc. Colloid and physical chemistry.

Varteressian, Dr. K(egham) A(rshavir), 331 W. College Ave, State College, Pa. *Chemical engineering.* Bahcecik, Turkey, Jan. 25, 08. B.S, Pa. State Col, 30, M.S, 31, Ph.D, 35. Asst. chem, Pa. State Col, 30–31, petrol. research, 31–37, instr. chem. eng, 37–38; with Standard Oil Develop. Co, 38–39; research assoc, *Pa. State Col,* 39–42, *instr. chem. eng, 42–* A.A; Chem. Soc; Inst. Petrol, England. Distillation; oxidation; extraction.

Varvel, Prof. Walter A(lphonso), Jr, Agricultural and Mechanical College of Texas, College Station, Texas. *Psychology.* Fort Scott, Kans, Nov. 18, 08. A.B, Kansas, 32, fellow, 32–33, A.M, 33, Ph.D, 38. Instr. psychol, Kansas, 34–39; Gen. Educ. Board fellow, Iowa, 39–40; asst. *psychol,* Chicago, 40–41; *assoc. prof, Agr. and Mech. Col. Texas, 41–* Assoc. Psychol. Asn. Clinical psychology; mental tests; vocational guidance.

Vass, Prof. A(lonzo) Frederick, University of Wyoming, Laramie, Wyo. *Agronomy, Agricultural economics.* Glasco, Kans. B.S, Kans. State Col, 09; M.S, Wisconsin, 11; Ph.D, Cornell, 26. Instr, Oregon State Col, 12–13, asst. prof, 14–15; assoc. prof, *Wyoming,* 17–20, *prof. agron. and agr. econ. and head dept, 21–* Soc. Agron; Farm Econ. Asn; West. Asn. Agr. Econ; Colo-Wyo. Acad; Int. Asn. Agr. Econ; Int. Cong. Soil Sci. (organizing cmt). Economics of ranch and farm organizations; soils; tax problems; the unappropriated lands problems.

Vass, Dr. John I, 5141 N. Santa Monica Blvd, Milwaukee 11, Wis. *Mathematics.* Blairstown, N. J, March 24, 01. A.B, Cornell, 22; A.M, Northwestern, 25; Ph.D, Wisconsin, 34. *Instr. math,* Northwestern, 22–27; *Wisconsin,* 27–30, *Milwaukee center, 30–* Math. Soc; Math. Asn. Differential equations with boundary conditions.

Vassallo, Brother Godfrey, University of Portland, Portland, Oregon. *Physics.* B.S, Loyola (La), 21; M.S, Notre Dame, 27. Instr, Holy Cross Col, 17–25; high sch, 25–29; *prof. physics, Portland, 29–, head dept. physics and coordinator, Civilian Pilot Training Program, 42–* Physical Soc; Math. Soc; Radio Eng; Astron. Soc. Use of the range finder in the physics laboratory.

Vassel, Dr. Bruno, North Dakota Agricultural College, Fargo, N. Dak. *Biochemistry.* British India, Oct. 17, 08. B.S, Yale, 36; M.S, Michigan, 37, Ph.D, 39. Lab. asst, dept. biochem, Michigan, 38–39; research biochemist, Am. Cyanamid Co, 39–43; *research agr. biochemist, Exp. Sta, N. Dak. Col, 43–* A.A; Chem. Soc. Infectious diseases; carbohydrate and protein metabolism.

Vasti, Dr. Assunta (Mrs. Gerald L. Curtin), 21 Stockbridge Road, Yonkers, N. Y. *Physiology.* Italy, Aug. 29, 02. A.B, Barnard Col, Columbia, 29; Sc.D, Hopkins. 32. Instr. physiol. and hygiene, Goucher Col, 32–35. A.A. Insensible perspiration; biological value of proteins.

(Vaudreuil), Sister Mary Felice, Mt. Mary College, Milwaukee, Wis. *Mathematics.* Chippewa Falls, Wis, Aug. 20, 94. A.B, De Paul, 21; Ph.D, Catholic Univ, 31. *Prof. math, Mt. Mary Col, 31–* Lecturer, Loyola (Ill), 32–35. Math. Soc; Council Teachers Math; Math. Asn. Geometry.

Vaughan, Dr. Alfred L(eland), 2615 38th Ave, S, Minneapolis, Minn. *Physics.* Veedersburg, Ind, Sept. 3, 06. A.B, DePauw, 29; Ph.D, Minnesota, 34. Instr. physics, *gen. col, Minnesota,* 35–40, *assoc. prof. physical science and admin. officer, 40–* Collision phenomena of electrons in gases; ionization potentials; isotopes; mass spectroscopy.

Vaughan, Prof. Edward K(emp), Virginia Polytechnic Institute, Blacksburg, Va. *Plant pathology.* East Las Vegas, N. Mex, Nov. 16, 08. B.S, N. Mex. Col, 29; M.S, Oregon State Col, 32; Caleb Dorr fellow, Minnesota, 32–33, Ph.D, 42. Junior plant quarantine inspector, U. S. Dept. Agr, 29–30, asst. horticulturist, soil conservation service, 34–36, agent, bur. plant indust, 37–41; instr. biol. and physiol, high sch, N. Mex, 33–34; instr. *plant path,* Minnesota, 36–37; *assoc. prof, Va. Polytech, 41–* A.A; Soc. Plant Physiol; Phytopath. Soc. Virus diseases of strawberries; physiologic specialization in the cereal smuts; diseases of tomato plants; diseases of vegetables and small fruits.

Vaughan, Evan W(illiam), 9411 Harvard Ave, Cleveland, Ohio. *Engineering.* Cleveland, Ohio, April 8, 08. B.S, Case, 30, M.S, 33. In charge soil mech. lab, Tenn. Valley Authority, 35–39; Panama Canal, 39–42; *hydraul. engineer, Parsons, Klopp, Brinckerhoff and Douglas, Venezuela, 42–* Assoc. Civil Eng. Soil engineering in the Tennessee Valley; stabilizing earth fill with rock.

Vaughan, Dr. F(rancis) E(dward), 1882 E. Mountain St, Pasadena, Calif. *Geology.* Ludden, N. Dak, Sept. 12, 89. B.S, California, 12, M.S, 16, fellow, 17–18, Ph.D, 18. Mining engineer, Ariz, 12–14; geologist, N. Am. Oil Co, Calif, 14–15; teaching fellow geol. and miner, California, 15–16; Royal Dutch-Shell Combine, 18–30; consulting geophysicist, 31–33; geologist, Shell Oil Co, 33–38; consulting geophysicist, 39; *pres, V. and E. Mfg. Co, 40–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Petrol. Inst. Oil; construction of gravimetric apparatus; tectonic geology; geology of San Bernardino Mountains north of San Gorgonia Pass; the Five Islands, Louisiana; geophysical studies in California; geophysics.

Vaughan, Dr. George Tully, 1718 Eye St, Washington, D. C. *Surgery.* Arrington, Va, June 27, 59. M.D, Virginia, 79; Univ. and Bellevue Hosp. Med. Col, 80; N. Y. Polyclinic, 85; Jefferson Med. Col; Berlin, Paris, Vienna and London, 94–95; LL.D, Georgetown, 19. Asst. surgeon, U. S. Pub. Health and Marine Hosp. Service, 88–92, passed asst. surgeon, 92–00, surgeon, 00–02, asst. surgeon-gen, 02; *prof. surg, Georgetown, 97–* Chief surgeon, Georgetown Univ. Hosp; surgeon, Tuber. Hosp; consulting surgeon, St. Elizabeths Hosp, Washington, D. C; Veterans' Bur. Brigade surgeon, Spanish-Am. War, 98; operating surgeon, U. S. Navy, Vera Cruz, 14, chief surgeon, S. S. 'Leviathan,' 17–19. Commander, M.C, U.S.N, 17–19. Fel. Surg. Asn; fel. Col. Surg; Am. Med. Asn; Asn. Mil. Surg. (pres, 07); fel. South. Surg. Asn; South. Med. Asn; hon. mem. Va. Med. Soc; D. C. Med. Soc. (v. pres); hon. mem. Vanderburg County (Ind) Med. Soc; Wash. Acad; cor. mem. Asn. French Mil. Surg; fel. Int. Surg. Asn. Principles and practise of surgery.

Vaughan, Dean Henry F(rieze), University of Michigan, Ann Arbor, Mich. *Public health.* Ann Arbor, Mich, Oct. 12, 89. B.S, Michigan, 12, M.S, 13, Dr.P.H, 16. Assoc. prof. pub. health, Wayne, 15–37, prof, 37–41; commissioner health, Detroit, Mich, 18–41; *prof. pub. health, chairman dept. pub. health practice and dean sch. pub. health, Michigan, 41–* Lecturer, Michigan, 22–41; Vanderbilt, 35– Trustee, W. K. Kellogg Foundation, 31–; pres. council, State Dept. Health, Mich; mem, State Board Examiners Basic Sciences; sec'y, Asn. Schs. Pub. Health, 41– Chairman, Nat. Health Contest Cmt. Fel. Pub. Health Asn. (governing councilor, 16–; pres, 25). Public health practice and administration; epidemiology; sanitary science.

Vaughan, Dr. H(erbert) E(dward), 907 S. Vine St, Urbana, Ill. *Mathematics.* Ogdensburg, N. Y, Feb. 18, 11. B.S. (C.E), B.S, Michigan, 32, A.M, 33, Ph.D, 35. *Instr. math,* Brown, 35–37; *Illinois, 37–* Alfred H. Lloyd fellow, Michigan, 36–37. Math. Soc; Math. Asn; Asn. Symbolic Logic. Topology; abstract spaces.

Vaughan, Dr. L(awrence) M(oore), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* Ft. Ann, N. Y, June 1, 98. B.S, Cornell, 23, Ph.D, 28. Instr. farm management, Cornell, 24–29, asst. prof, 29–32; exten. economist, *U. S. Dept. Agr,* 32–43, *in charge labor utilization sect, exten. service, 43–* Farm Econ. Asn. Farm management; land utilization; abandoned farm areas of New York; labor utilization.

Vaughan, Prof. L(illian) L(ee), North Carolina State College, Raleigh, N. C. *Mechanical engineering.* Southampton County, Va, April 5, 84. B.S, N. C. Col. Agr. and Mech. Arts, 06; M.E, Columbia, 11. Instr. drawing, N. C. Col. Agr. and Mech. Arts, 06–09, asst. prof. *mech. eng,* 11–15, assoc. prof, 15–17, *N. C. State Col,* 17–20, *prof, 20–, acting dean sch. eng, 42–* Trustee, Elon Col. Mech. Eng. (chairman, Raleigh sect, 31–33); Eng. Educ; N. C. Soc. Eng. Power generation; steam-electricity; heating and ventilation.

Vaughan, Prof. R(ichard) E(nglish), University of Wisconsin, Madison, Wis. *Plant pathology.* Woodstock, Vt, March 27, 84. B.S. (Agr), Vermont, 07; M.S, Wisconsin, 12. Asst. hort, Exp. Sta, Vermont, 07–08; instr. hort. and agron, Boys' Sch, Mt. Hermon, Mass, 09–11; asst. *plant path, Wisconsin,* 11–14, instr, 14–15, asst. prof, 15–19, assoc. prof, 19–26, *prof, 26–, exten. plant pathologist.* Phytopath. Soc; Bot. Soc. Diseases of canning and truck crops.

Vaughan, Dr. Stuart L, 187 Linwood Ave, Buffalo, N. Y. *Hematology.* Rexville, N. Y, July 5, 00. B.S, M.D, Buffalo, 24; Ph.D, Northwestern, 31. Instr, Buffalo, and asst. bacter, Buffalo Gen. Hosp, 25–29; instr. path, Northwestern, and pathologist, Wesley Mem. Hosp, Chicago, Ill, 29–31; assoc. med. and instr. bacter, *Buffalo,* 31–36, assoc, 36–39, *asst. prof. med, 39–;* special asst, *Buffalo Gen. Hosp,* 31–38, bacteriologist, 31–36, *clin. pathologist, 36–, asst. attending physician, 38–* Consulting hematologist, Children's Hosp, Wettlaufer Clinic, Buffalo. A.A; Am. Med. Asn; Soc. Clin. Path; Col. Physicians; Soc. Exp. Biol; Chicago Path. Soc; Chicago Medico-Legal Soc; Buffalo Acad. (sec'y, path. sect, 27–29, chairman, 38). Medical sciences; hematology.

Vaughan, Dr. T(homas) Wayland, 3333 P St, Washington 7, D. C. *[1]*Geology, Oceanography. Jonesville, Texas, Sept. 20, 70. B.S, Tulane, 89; A.B, Harvard, 93, A.M, 94, Ph.D, 03; LL.D, British Columbia, 33, California, 36. Instr. chem. and physics, Mt. Lebanon Col, 89–92; asst, La. Geol. Surv, 92; asst. geologist, U. S. Geol. Surv, 94–02, geologist, 02–03, paleontologist, 03–07, geologist in charge Coastal Plain investigations, 07–23, senior geologist, 24–28, prin. scientist, 28–39; custodian Madreporaria, *U. S. Nat. Museum,* 03–23, *assoc.* marine sediments, 24–42, *paleontol, 42–;* prof. *oceanog.* and director, *Scripps Institution, California,* 24–36, *emer. prof. and emer. director, 36–* Research assoc, Carnegie Institution, 13; div. geol. and geog, Nat. Research Council, 19–26, chairman cmt. on sedimentation, 19–23, organizer and chairman cmt. on submarine configuration and oceanic circulation, 22–32. Agassiz medal, Nat. Acad. Sci, 35. Chairman sect. geol, Eighth Am. Science Cong. Nat. Acad. (cmt. on oceanog); A.A. (pres, Pacific div, 30); Geol. Soc. (councilor, 20–22, 3rd v. pres, 23, chairman, Cordilleran sect, 30, v. pres, 38, pres, 39); Asn. Petrol. Geol; Geophys. Union (chairman, sect. oceanog, 27–29); Asn. Geog; Paleont. Soc. (pres, 23); Philos. Soc; Am. Acad; Oceanog. Soc. Pacific (pres, 35); Pacific Sci. Asn. (chairman, int. cmt. on oceanog. of Pacific, 23–35); Calif. Acad; Geol. Soc. Wash. (pres, 15); Wash. Acad. (pres, 23); cor. mem. Acad. Nat. Sci. Phila; fel. San Diego Soc. Nat. Hist. (pres, 26); Soc. Geog. Cuba; hon. mem. Soc. Geol. Peru; for. fel. Geol. Soc. London; for. mem. London Linnean Soc; for. cor. mem. Zool. Soc. London; for. cor. mem. Konink. Natuurk. Vereen. Ned-Ind. Stratigraphy and paleontology of the Tertiary formations of the southern and eastern United States, West Indies, Central and northern South America; geologic history of the Floridian plateau;

post-Paleozoic fossil and recent corals of northern and tropical America; recent corals of the Hawaiian, Cocos-Keeling, Murray and Fanning Islands and of the east coast of Africa; deep sea corals of the Pacific Ocean; coral reefs; ecology of corals; larger Foraminifera; correlation of the Tertiary formations of the world; marine sediments.

Vaughan, Dr. Warren T(aylor), 201 W. Franklin St, Richmond, Va. *Internal medicine.* Ann Arbor, Mich, Feb. 22, 93. A.B, Michigan, 13, M.D, 16, hon. M.S, 41. House officer, Peter Bent Brigham Hosp, Boston, 16–17; asst. prev. med, Harvard Med. Sch, 19–20; *private practise, 20–* Director, Vaughan-Graham Clinic. Mem. ed. board, 'Jour. Clin. Path,' 'Jour. Allergy,' 'Jour. Digestive Diseases and Nutrition,' ed, 'Jour. Lab. and Clin. Med,' 23– Director, Research Council Problems of Alcohol. Mem. cmt. aerobiol. and cmt. food habits, Nat. Research Council. M.C, 17–19, lieut-col. A.A. (councilor, 38–); Soc. Clin. Path; Am. Med. Asn; Asn. Study Allergy (sec'y-treas, 27–37, pres, 39); Soc. Study Asthma and Allied Conditions (pres, 38); Rheumatism Asn; Va. Acad. (chairman, biol. sect, 31). Allergy; immunology; epidemiology of influenza.

Vaughan, Prof. Wayland F(arries), 46 Kingsbury St, Needham, Mass. *Psychology.* Janesville, Wis, Nov. 3, 01. A.B, Yale, 23; A.M, Harvard, 25, Ph.D, 26. Instr. *psychol, Boston,* 26–28, asst. prof, 28–33, *prof, 33–* A.A; assoc. Psychol. Asn. General, abnormal and social psychology.

Vaughan, William E(ugene), Shell Development Co, Emeryville, Calif. *Chemistry.* Chicago, Ill, Oct. 20, 07. B.S, Chicago, 27, Ph.D, 29. Instr. chem, Jones lab, Chicago, 29–33; private asst. chem, Harvard, 33–37; *chemist, Shell Develop. Co, 37–* Nat. research fellow, Harvard, 31–32; Calif. Inst. Tech, 32–33. Chem. Soc. Photochemistry; reaction rates; physical chemistry; calorimetry; physico-organic chemistry.

Vaughan, W(illiam) Harry, Tennessee Valley Authority, Knoxville, Tenn. *Ceramics.* Marshall, Mo, Feb. 9, 00. B.S, Ga. Tech, 23; M.S, Illinois, 25. Ceramic engineer, Cent. Ga. Ry. Co, 25–27; asst. prof. ceramic eng, Ga. Tech, 27–28, assoc. prof, 28–38, prof. and head dept, 38–40, director state eng. exp. sta, 34–40; chief regional products research div, commerce dept, *Tenn. Valley Authority,* 40–42, *tech. asst. director, 42–* Consulting ceramist, 27–40. A.A; fel. Ceramic Soc; Ceramic Eng; Soc. Test. Mat; Ga. Acad. Heavy clay products; refractories; whitewares; ceramic engineering and technology; chemical and mining engineering; non-metallics.

Vaughn, Dr. Charles L(eClaire), 1560 Ft. Dupont St, S.E, Washington, D. C. *Psychology.* Emporia, Kans, Oct. 5, 11. B.S, Kans. State Teachers Col, 31; scholar, Chicago, 31–32, fellow, 33–35, Ph.D, 36. Asst. psychol, Chicago, 32–33; research assoc. and remedial reading teacher, Wayne Co. Training Sch, Mich, 35–37; clin. psychologist, Psychopath. Clinic, Recorder's Court, Detroit, 37–40; instr. psychol, Arizona, 40–43; *lieut, U. S. Naval Res, 43–* Summers, prof, West. Wash. Col. Educ, 41; clin. psychologist, Psychopath. Clinic, Recorder's Court, Detroit, 42. Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Psychometric Soc. Student personnel work; aptitude tests.

Vaughn, Prof. James, University of Cincinnati, Cincinnati, Ohio. *Psychology.* Emporia, Kans, March 20, 98. B.S, Kans. State Teachers Col, Emporia, 20; A.M, Chicago, 22, Ph.D, 27. Instr, high sch, Colo, 20; sch. supt, Kansas, 20–21; instr. educ, Cent. State Teachers Col, Mich, 22–25; asst. prof. and later *assoc. prof. psychol, Cincinnati, 27–* Nat. Bur. Casualty fellow. Asn. Applied Psychol; Psychol. Asn. Learning; motivation; positive versus negative instruction.

Vaughn, Dr. Reese H(askell), University of California, Berkeley, Calif. *Microbiology.* Farragut, Iowa, Oct. 1, 08. A.B, Simpson Col, 30; fellow, Iowa State Col, 30-34, M.S, 32, Ph.D, 35. Asst, Simpson Col, 28-30; eng. exp. sta, Iowa State Col, 34–36; instr. and junior bacteriologist, div. fruit products, *California,* 36–41, *asst. prof. and asst. bacteriologist, 41–* Inst. Food Technol; Soc. Bact. The colon-aerogenes group of bacteria; waste disposal; microbiology of fruit products; lactic acid and acetic acid bacteria.

Vaughn, Dr. Thomas H(unt), 22120 Balmoral, Grosse Isle, Mich. *Organic chemistry.* Clay, Ky, Nov. 11, 09. Evansville Col; Indiana; B.S, Notre Dame, 31, M.S, 32, Ph.D, 34. V. pres, Vitox Labs, South Bend, Ind, 33–34; head dept. org. research, Union Carbide and Carbon Research Labs, Inc, 34–39; *asst. director research, Wyandotte Chem. Corp, 39–* A.A; Chem. Soc; Chem. Eng; Soc. Test. Mat; Oil Chem. Soc; Inst. Chem; Asn. Textile Chem. and Colorists; Ind. Acad. Alkyne chemistry; liquid ammonia; detergency.

Vawter, Prof. Jamison, University of Illinois, Urbana, Ill. *Civil engineering.* Arkansas City, Kans, April 21, 89. B.S, Kansas, 16, C.E, 23; M.S, Illinois, 34. Asst. prof. mech, Kansas, 20–22; *civil eng, Illinois,* 22–31, assoc. prof, 31–37, *prof, 37–* Capt, C.Eng. Civil Eng; Ry. Eng. Structural engineering; theory of simple structures; structures.

Vawter, Prof. L(yman) R(ay), University of Nevada, Reno, Nev. *Pathology, Bacteriology.* Randolph, Kans, Oct. 27, 92. D.V.M, Kans. State Col, 18; M.S, Cornell, 31. Vet. inspector, bur. animal indust, U. S. Dept. Agr, 18; instr. vet. path, Kans. State Col, 18–20; asst. research prof. *vet. science, Nevada,* 20–29, *assoc. prof, 29–, pathologist, Exp. Sta, 20–* A.A; Vet. Med. Asn; Intermountain Livestock Sanit. Asn. (pres, 34). Bacillary hemoglobinuria of cattle; poisonous plants; etiology of actinomycosis; equine encephalomyelitis; bovine lymphangitis; nutritional pathology; gasoedema diseases of animals.

Veasey, Dr. C(larence) A(rchibald), Paulsen Medical and Dental Bldg, Spokane, Wash. *Medicine.* Pocomoke City, Md, Aug. 9, 69. A.M, Western Maryland, 96; M.D, Jefferson Med. Col, 90. *Practising physician,* Phila, Pa, 90–08; *Spokane, 08–;* clin. asst, Wills Eye Hosp, 91–92; asst. demonstrator surg, Jefferson Med. Col, 91–92, clin. asst. ophthal, Jefferson Med. Col. Hosp, 92–94, chief clin. asst. and asst. ophthal. surgeon, 94–05, demonstrator diseases of the eye, 97–03, asst. prof. ophthal. and asst. ophthalmologist, 05–08; instr. operative ophthal, Phila. Polyclinic, 94–95, adj. prof. diseases of the eye, 95–00; *ophthalmologist, Deaconess and St. Luke's Hosps, Spokane.* Consulting ophthalmologist, Phila. Lying-In Charity Hosp, 92–08; ophthal. surgeon, Methodist Episcopal Hosp, 01–08. Am. Med. Asn. (sec'y, sect. ophthal, 01); fel. Col. Surg; Ophthal. Soc; Asn. for Research in Ophthal; Am. Acad. Med; Acad. Ophthal. and Otolaryngol; Pacific Coast Oto-ophthalmol. Soc. (pres, 16); West. Ophthal. Soc; fel. Col. Physicians Phila. (sec'y, sect. ophthal, 05). Ophthalmology; ophthalmic operations on animals; diseases of the eye.

Veatch, Dr. Collins, Natalio Sanchez 215, Lima, Peru, S. Amer. *Agronomy.* Liscomb, Iowa, Jan. 23, 04. B.S, Va. Polytech, 25; fellow, Iowa State Col, 25–26, M.S, 26; Ph.D, Illinois, 29. Asst. plant breeding, Illinois, 26–28; agronomist, Corn Products Ref. Co, Santo Domingo, 30–32, chem. research, Argo, Ill, 33–43; *senior agronomist, U. S. Dept. Agr, Inst. Inter-Am. Affairs, 43–* A.A; Genetics Soc. Soy-bean genetics and hybrid vigor; characteristics and industrial use of corn proteins.

Veatch, Fred M(ilton), U. S. Geological Survey, Federal Bldg, Tacoma, Wash. *Hydrology.* Bloomington, Ill, Aug. 10, 01. B.S, Idaho, 22. Draftsman, Oregon Short Line R. R. Co; Pocatello, Idaho, 22–23; hydraulic engineer, *water resources branch, U. S. Geol. Surv,* 23–38, *dist. engineer, 38–* Assoc. Civil Eng. Stream-flow.

Veatch, Prof. J(ethro) O(tto), Michigan State College, East Lansing, Mich. *Soils.* Marionville, Mo, Aug. 21, 83. A.B, Missouri, 04; Wisconsin, 05. Asst. state geologist, Ga, 05–11; scientist, bur. soils, U. S. Dept. Agr, 12–21; from research assoc. to *research prof. soils, Exp. Sta, Mich. State Col, 21–,* assoc. prof, *col,* 30–36, *prof, 36–* Study soils, Int. Board Educ. of Amer, Scotland, 25. Soil classification; geography of soils; land classification.

Veatch, N(athan) T(homas), Jr, 701 Mutual Bldg, Kansas City, Mo. *Engineering.* Rushville, Ill, Aug. 25, 86. B.S, Kansas, 09, C.E, 24. Res. engineer, Worley and Black, 09; asst. engineer, State Board Health, Kans, 10–11; prin. asst, Worley and Black, 11–12; supt, City Water Co, Keokuk, Iowa, 12–13; prin. asst. eng, Worley and Black, 13–14, *practising engineer, Black and Veatch, 14–* A.A; Nat. Soc. Professional Eng; Civil Eng; Mech. Eng; Soc. Test. Mat; Water Works Asn; Int. Consulting Eng. Electrical power; water supply; water purification; sewage; sewage disposal.

Veatch, Prof. Ralph W(ilson), University of Tulsa, Tulsa, Okla. *Mathematics.* Ringwood, Okla, May 1, 00. A.B, Tulsa, 25; fellow, Northwestern, 26–27, A.M, 27; Columbia, 28; Chicago, 29, 30, 31, 35, 36. Instr. *math,* Ursinus Col, 27–29, asst. prof, 29–30; *Tulsa,* 30–40, *assoc. prof, 40–* Math. Asn. Physics; applied mathematics; tensor analysis; astronomy; rotation of a rigid body passing through a swarm of meteors.

Veazey, A(lexander) H(olloway), 1619 St. Marys St, Raleigh, N. C. *Agronomy.* Creedmoor, N. C, Jan. 19, 95.

B.S, N. C. State Col, 22. Teacher, high sch, N. C, 22–29; agron. educ. work, Va-Carolina Chem. Corp, Greensboro, N. C, 29–34; *agronomist, soil conservation service, U. S. Dept. Agr*, High Point, N. C, 34–37, *Spartanburg, 37–; lieut. col, U. S. Army*. Crop rotations in soil conservation.

Veazey, Dr. W(illiam) R(eed), Dow Chemical Co, Midland, Mich. *Chemical engineering.* Chase City, Va, Dec. 29, 83. A.B, Westminster Col. (Pa), 03; Ph.D, Hopkins, 07; D.E, Case, 36. Instr. chem, Oregon, 04–05; Case, 07–09, asst. prof, 09–18, assoc. prof, 18–24, prof. chem. eng, 24–36, head dept, 28–36; *research staff, Dow Chem. Co, 15–, director, 27–* Trustee, Westminster Col. (Pa), 30–36; director, Dowell Inc, 40, v. pres, 43; director, Dow-Corning Corp, 43. Chem. Eng; Chem. Soc; Electrochem. Soc. Insecticides; magnesium metal and alloys; sodium metal.

Veblen, Dr. Oswald, Institute for Advanced Study, Princeton, N. J. *[2]*Mathematics.* Decorah, Iowa, June 24, 80. A.B, Iowa, 98; Harvard, 00; Ph.D, Chicago, 03, hon. Ph.D, 41; hon. D.Sc, Oxford, 29; hon. Ph.D, Oslo, 29, Hamburg, 33. Asst. physics, Iowa, 98–99; assoc. *math*, Chicago, 03–05; preceptor, Princeton, 05–10, prof, 10–26, Henry B. Fine prof, 26–32; *prof, sch. math, Inst. Advanced Study, 32–* Deputy for Savilian prof, Oxford, 28–29. A.A.A.S. del, British Asn, 32. Capt. and major, Ordnance Dept, 17–19. Nat. Acad; A.A; Math. Soc. (pres, 23); Math. Asn; Physical Soc; Philos. Soc; Am. Acad; London Math. Soc; cor. mem. Academia Nacional de Ciencias Exactas, Fisicas y Naturales de Lima; hon. fel, Royal Soc. Edinburgh; Soc. math. de France; Circolo Mat. di Palermo. Foundations of geometry; projective geometry; analysis situs; differential invariants; spinors.

Vecchierello, Prof. Hubert, St. Bonaventure College and Seminary, St. Bonaventure, N. Y. *Biology.* Montclair, N. J, Oct. 2, 96. A.B, St. Bonaventure Col, 21, A.M, 24; Ph.D, Catholic Univ, 28. Prof. biol, *St. Bonaventure Col. and Sem*, 21–24, *prof. comp. anat. of vertebrates, assoc. prof. bot. and dean sch. science, 28–* A.A; Bot. Soc; Torrey Bot. Club; Asn. Sci. Teachers Cols. and Secondary Schs. Middle States and Md. Botany; cytology; histology; morphology and histology of Quercus prinus.

Vedder, Col. Edward B(right), 1090 Ardmore, Oakland, Calif. *Medicine.* New York, N. Y, June 28, 78. Ph.B, Rochester, 98, Sc.D, 24; M.D, Pennsylvania, 02, Scott fellow, 02–03, A.M, 03. Research, Rockefeller Inst, 01; lieut. asst. surgeon, *U. S. Army*, P. I, 03–08, capt, M.C, 08–16, major, 16–17, lieut. col, 17–29, *col, 29–*, chief med. research div, Edgewood Arsenal, 22–25, Med. Research Board, Manila, P. I, 25–28, director, Army Med. Sch, 30–32; med. research lab, Chem. Warfare Service, Edgewood Arsenal, 32–33; prof. exp. med, sch. med, George Washington, 33–42. Board for study trop. diseases, Manila, P. I, 10–13; asst. prof, Army Med. Sch, 13–19. Temporary col, U.S.A, 18–19. A.A; Am. Med. Asn; Soc. Trop. Med. (councilor, 32, pres, 34); Acad. Trop. Med; Asn. Mil. Surg; Col. Surg; Col. Physicians. Bacteriology; pathology; beriberi; sanitation for medical officers; syphilis and public health; the medical aspects of chemical warfare.

Veeder, Dr. Borden S(mith), Kent Road, Clayton, Mo. *Medicine.* Fonda, N. Y, Aug. 21, 83. M.D, Pennsylvania, 07; Sc.D, Colgate, 29. Instr. path, Pennsylvania, 09–11; from instr. to *prof. clin. pediat, Washington (St. Louis), 11–* Ed, 'Jour. Pediat.' Pres, Am. Board Pediatrics, 33–41. Lieut. col, M.C, 17–19. Pediat. Soc. (pres, 35); Child Hygiene Asn. Nutrition; diseases of infancy.

Veeder, Curtis H(ussey), 1 Elizabeth St, Hartford, Conn. *Mechanical engineering.* Allegheny, Pa, Jan. 31, 62. M.E, Lehigh, 86, D.Eng, 39. Draftsman, Weed Sewing Machine Co, 86; chief draftsman, Calumet and Hecla Mining Co, Calumet, Mich, 86–89; Thomson-Houston Co, Lynn, Mass, 89–93; Hartford Cycle Co, 94; pres, Veeder Mfg. Co, 95–28; *retired.* Director, Automatic Signal Corp; Veeder-Root Inc. A.A; Mech. Eng; Franklin Inst; Astron. Soc; Soc. Automotive Eng; Am. Geog. Soc; Forestry Asn; Army Ordnance Asn. Cyclometers for bicycles; two speed gear for tricycles; electrical apparatus and photographic shutters; electrical hoist and electromagnetic clutch; automotive regulating apparatus for naval projectors or searchlights; casting machines; hub odometers; tachometers.

Veeder, M(artha) A(nna), 10 Queen St, Lyons, N. Y. *Chemistry.* Fonda, N. Y, Sept. 22, 73. Ph.B, Cornell, 95, 24; A.B, Univ. Cape of Good Hope, 99; Zurich. 10–12; Michigan, 26, 29. Teacher, Newark Union Sch. and Acad, N. Y, 95–97; prof. math. and physics, Huguenot Col, S. Africa, 97–02; assoc. prof, Western Col, 04–15, chem, 20–24, prof, 24–38; *retired.* A.A; Chem. Soc. (councilor, Cincinnati branch, 28). Conductivity of metals at low temperatures; physiological chemistry; hydrogen ion concentration determinations.

Veerhoff, Dr. Otto (Louis), North Carolina State College, Raleigh, N. C. *Plant physiology.* Washington, D. C, July 21, 07. A.B, Colgate, 29, A.M, 31; Ph.D, Hopkins, 39. Instr. biol, Colgate, 29–31; junior botanist and agent, U. S. Dept. Agr, 34–36; *hort. physiologist, N. C. State Col, 36–* Physiology of fruit trees; seed germination.

Vehe, Dr. Karl Leroy, 1943 Lunt Ave, Chicago, Ill. *Anatomy, Surgery.* Palatine, Ill, Oct. 19, 88. A.B, Northwestern, 12, M.D, 15. Instr. anat, med. sch, *Northwestern*, 12–15, clin. asst. and assoc. surg, 17–20, *prof. anat, dental sch, 22–, assoc. surg, med. sch, 35–* Am. Med. Asn; Asn. Dental Schs. (mem. cmt. anat, curriculum surv, 34); Col. Surg. Repair of brachial plexus injuries; sympathetic nervous system; fasciae of the neck; dissection in human anatomy.

Vehse, Prof. Charles H(enry), West Virginia University, Morgantown, W. Va. *Mathematics.* Providence, R. I, March 20, 96. B.S, Brown, 18, M.S, 26, Ph.D, 32. *Asst. prof. math, West Virginia, 29–* Math. Asn. Elasticity.

Veihmeyer, Dr. Frank J, College of Agriculture, University of California, Davis, Calif. *Plant physiology.* Washington, D. C, Dec. 25, 86. B.S, George Washington, 12, C.E, 13; Ph.D, Hopkins, 27. Asst, bur. plant indust, U. S. Dept. Agr, 09–13, asst. irrig. engineer, office exp. stations, 13–17, irrig. engineer, 17–18; asst. prof. *irrig. investigations* and assoc. irrig. engineer, *California*, 18–28, assoc. prof, 28–35, *prof, 35–, irrig. engineer, 28–, head div. irrig, 36–* A.A; Soc. Plant Physiol; Soil Sci. Soc; Geophys. Union; West. Soc. Soil Sci; Soc. Agr. Eng. The water relations of plants; the physics of soil moisture movement; soil and irrigation physics; irrigation engineering.

Veitch, Dr. F(letcher) P(earre), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Baltimore, Md, May 22, 68. B.S, Maryland, 91, hon. Sc.D, 13; M.S, George Washington, 99. Asst, Exp. Sta, Maryland, 91–92; chemist, W. S. Powell and Co, 92–93; asst. chemist, Maryland, 94–99, asst. soil physicist, Exp. Sta, 99–01; asst. chemist, bur. soils, *U. S. Dept. Agr*, 01–02, *bur. chem. and soils*, 02–04, chemist in charge leather and paper lab, 04–27, *prin. chemist in charge* indust. farm products div, 27–35, *naval stores research div, 35–*, chemist in charge enforcement Naval Stores Act, 23–27, *prin. chemist in charge* naval stores control lab, 27–34; *naval stores div, food and drug admin, Fed. Security Agency, 34–* Lecturer, Maryland, 10–14. Chairman paper specification cmt, Congressional Joint Cmt. on Printing, 11–37; cmt. on distinctive papers, U. S. Treasury Dept, 13–15; paper tech. cmt, Fed. Specifications Board, 24–32. Consultant, War Dept, 17–18. A.A; Chem. Soc; Agr. Chem. (referee, 01, 07–09, pres); Leather Chem. Asn. (pres, 11); Soc. Test. Mat. (chairman, subcmt. on turpentine specifications, 14–, chairman, naval stores cmt, 25–); Int. Leather Trades Chem. Asn. Soils; fertilizers; tanning materials; durability and serviceability of paper; leathers; turpentine; rosin; wood products; papermaking materials; wool-scouring wastes; utilization of farm by-products; lime.

Veitch, Dr. F(letcher) P(earre), Jr, Georgetown University School of Medicine, Washington, D. C. *Chemistry.* College Park, Md, Dec. 21, 08. B.S, Maryland, 31, M.S, 33, Ph.D, 35. Instr. org. and physiol. chem, Maryland, 31–35; research chemist, Nat. Canners Asn, 35–37; *instr. biochem, sch. med, Georgetown, 37–* A.A; Chem. Soc. Polymerization of olefines by sulfuric acid; relation between chemical composition and maturity of vegetables for canning; sex hormones.

Veldee, Dr. Milton V(ictor), U. S. Public Health Service, Washington, D. C. *Medicine.* Kitsap Co, Wash. Ph.G, Washington (Seattle), 11, B.S, 13, M.S, 14; M.D, Harvard, 19. Bacteriologist, U. S. Pub. Health Service, 14–15; house officer, Mass. Gen. Hosp, 19–20; assoc. epidemiol, sch. hygiene and pub. health, Hopkins, 20–21; asst. surgeon, *U. S. Pub. Health Service*, 21–25, passed asst. surgeon, 25–29, surgeon, 29–41, *senior surgeon and chief div. biol. control, 41–* Am. Med. Asn; Epidemiol. Soc; Pub. Health Asn. Child hygiene; bacteriology of water pollution; infectious diseases; typhoid fever; scarlet fever; rheumatoid arthritis.

Veldhuis, Dr. M(atthew) K(ermit), U. S. Fruit and Vegetable Products Laboratory, Pullman, Wash. *Chemistry.* Big Timber, Mont, Dec. 17, 06. B.S, Mont. State Col, 29; scholar,

Iowa State Col, 30–35, Ph.D, 34. Asst. chemist, Exp. Sta, Mont. State Col, 29–30; asst. chemist food research div, bur. chem. and soils, and *chemist div. agr. chem. research, bur. agr. and indust. chem, U. S. Dept. Agr, 35–* Chem. Soc; Inst. Food Technol. Industrial fermentations.

Vélez, Dr. Ismael, Polytechnic Institute of Puerto Rico, San German, P. R. *Botany.* Yauco, P. R, June 22, 08. A.B, Polytech. Inst. P. R, 30; M.S, Louisiana, 34, fellow, 34–35, Ph.D, 39. Teacher and prin, high sch, *Polytech. Inst. P. R,* 30–33, *prof. bot, 35–* A.A; Genetic Asn; La. Acad. Sciences. Systematic botany; ecology of southwestern Puerto Rico.

Venable, Dr. Cha(rle)s S, c/o American Viscose Corp, Marcus Hook, Pa. *Organic chemistry.* Chapel Hill, N. C, Sept. 3, 91. A.B, North Carolina, 10, A.M, 11; Ph.D, Mass. Inst. Tech, 17. Adj. prof. org. chem, Virginia, 17; asst. director, research lab. applied chem, Mass. Inst. Tech, 19–22; *director research, Am. Viscose Corp, 22–* Capt, C.W.S, 17–19. A.A; Chem. Soc; Franklin Inst. Production and properties of rayon; synthetic high polymers.

Venable, Emerson, Westinghouse Electric and Manufacturing Co, Sharon, Pa. *Physical chemistry.* Cincinnati, Ohio, Dec. 3, 11. B.S, Pittsburgh, 33. Chemist, Agfa-Ansco Corp, 33–35; research chemist, Mine Safety Appliances Co, 35–37; research engineer, research labs, *Westinghouse Elec. and Mfg. Co,* 37–43, *in charge eng. labs. and pilot plant, Sharon works, 43–; lecturer chem, Pittsburgh, 37–* A.A; Chem. Soc; Pub. Health Asn. Gas detection; physical chemistry of liquid dielectrics; high temperature electrical insulation; industrial hygiene.

Venable, Dr. John H(einz), Emory University, Ga. *Anatomy.* Atlanta, Ga, Dec. 5, 08. B.S, Emory, 29, M.D, 33. Instr. *gross anat, Emory,* 30–32, 34–35, asst. prof, 35–42, *assoc. prof, 42–* Commonwealth Fund fellow, Harvard Med. Sch, 38–39. Asn. Anat; Am. Med. Asn. Accomplishment of medical students; aptitude tests; anomalies; implantation.

Venable, Capt. William Mayo, Blaw-Knox Co, Blawnox, Pa. *Optics.* Cincinnati, Ohio, Feb. 14, 71. B.S, Cincinnati, 92, M.S, 93, C.E, 09. Electrician, 92–98; construction engineer, 00–12; *consulting engineer, Blaw-Knox Co, 12–* A.A; Civil Eng; Optical Soc. The visual sensations and their stimuli; the secondary spectrum of hydrogen and of helium; industrial research.

Venard, Dr. Carl (Ernest), Ohio State University, Columbus, Ohio. *Zoology.* Marion, Ohio, Jan. 10, 09. A.B, Ohio State, 31, M.S, 32; Ph.D, N. Y. Univ, 36. Asst. *zool,* Ohio State, 32–34; N. Y. Univ, 34–36; instr, *Ohio State,* 36–42, *asst. prof, 42–* Summers, instr, Col. City of N. Y, 35, 36. Soc. Parasitol; Micros. Soc; Entom. Soc. Amer; Tenn. Acad; Ohio Acad. Parasites of game birds and fishes; cestode embryology; morphology of Linguatulida; biology and distribution of mosquitoes.

Venemann, Prof. H. G(erald), 269 Littleton St, West Lafayette, Ind. *Refrigeration.* Avon, Mass, March 3, 84. Purdue, 03–06; B.S, Colorado, 07; Harvard, 09–10. Instr. mech. eng, Colorado, 07–08; chief engineer, Colo. Ice and Coal Co, Colorado Springs, 12–16; Des Moines Ice and Cold Storage Co, 16–17; sales engineer, Baker Ice Machine Co, Omaha, Nebr, 17–28; Frick Co, Pittsburgh, 28–29; *assoc. prof. refrig, Purdue, 29–* Soc. Refrig. Eng; Asn. Practical Refrig. Eng. (chairman educational cmt). Thermodynamics of refrigeration; refrigeration theory and applications.

Vennesland, Dr. Birgit, University of Chicago, Chicago, Ill. *Biochemistry.* Kristiansand, Norway, Nov. 17, 13. B.S, Chicago, 34, Ph.D, 38. Asst. *biochem,* Chicago, 38–39; research fellow, Harvard Med. Sch, 39–41; *instr, Chicago, 41–* Anaerobiosis; carbohydrate metabolism.

Venning, Dr. Eleanor M(arguerite), 3727 de l'Oratoire Ave, Montreal, Que, Can. *Physiology.* Montreal, Que, March, 00. B.A, McGill, 20, M.Sc, 21, Ph.D, 33. *Research fellow, univ. clinic, Royal Victoria Hosp.* Physiol. Soc. Fat metabolism; calcium metabolism; endocrinology.

Ventre, Emil K(arl), P. O. Box 8475, University Station, Baton Rouge, La. *Chemistry.* Opelousas, La, Oct. 22, 99. B.S, Louisiana, 22; George Washington. *Senior research chemist, agr. chem. research div, bur. agr. and indust. chem, U. S. Dept. Agr.* Fel. Inst. Chem; Chem. Soc. Sugar technology; sorgo sugar; aconitic acid from sorgo and sugar cane.

Venzke, Dr. W(alter) G(eorge), 426 Fifth St, Ames, Iowa. *Veterinary anatomy.* White Lake, S. Dak, June 18, 12. D.V.M, Iowa State Col, 35, Ph.D, 42; M.S, Wisconsin, 37. Asst. genetics, Wisconsin, 35–37; instr. *vet. anat, Iowa State Col,* 37–41, *asst. prof, 41–* Physiology of reproduction in dairy cattle; growth changes in the endocrine glands of the dog; effects of gonadotropic hormone in chick embryos; development of the endocrine system in the chick embryo.

Vera, Dr. Harriette D(ryden), 2936 St. Paul St, Baltimore, Md. *Bacteriology.* Washington, Pa, Feb. 22, 09. A.B, Mt. Holyoke Col, 30; fellow, Yale, 37–38, Ph.D, 38. Instr. physiol. and hygiene, Goucher Col, 38–41, asst. prof, 41–43; *research bacteriologist, Baltimore Biol. Lab, 43–* A.A; Soc. Bact; Pub. Health Asn. Bacterial variation.

Verder, Dr. (Adah) Elizabeth, National Institute of Health, U. S. Public Health Service, Washington, D. C. *Bacteriology.* Davenport, Iowa, June 18, 00. B.S, Chicago, 23, Ph.D, 28. Instr. bacter, Chicago, 28–32; asst. prof, sch. med, George Washington, 32–35; asst. bacteriologist, State Dept. Health, Baltimore, Md, 35; assoc. bacteriologist, *nat. inst. health, U. S. Pub. Health Service,* 36–40, *bacteriologist, 40–* Soc. Trop. Med; Pub. Health Asn; Soc. Bact; Soc. Exp. Biol. Food poisoning; gastro-intestinal flora; leprosy; classification of hemolytic streptococci; the gonococcus and gonococcal infections.

Verdoorn, Dr. Frans, Waltham, Mass. *Botany.* Amsterdam, The Netherlands, July 24, 06. B.S, Utrecht, 29, M.S, 33, Ph.D, 34. Asst, Bot. Gardens, Buitenzorg, Netherlands East Indies, 30; *managing ed, 'Annales Bryologici,' 27–; 'Chronica Botanica,' 35–; 'A New Series of Plant Science Books,' 38–; research assoc, Harvard, 40–; bot. adviser, Board Netherlands East Indies and Surinam, 42–* Managing ed, 'Hepat. Sel. et Crit,' 30–40; 'Musci Sel. et Crit,' 34–40; assoc. ed, 'The Bryologist,' 39–; 'Receuil des Trav. Bot. Néerl,' 39–; 'Natuurwet. Tijdschrift voor N.O.I,' 41–; 'Farlowia,' 43– Mem. cmt. hepaticae, Int. Nomenclature Cmn, 35–; fellow, Netherlands Am. Foundation, 36. Hon. sec'y morphol. sect, Int. Bot. Cong, 35; hon. sec'y bot. sect, Int. Union Biol. Sciences, 35– A.A; Bot. Soc; Soc. Agron; Hist. Sci. Soc; New Eng. Bot. Club; Calif. Bot. Soc; Sullivant Moss Soc; British Bryol. Soc; Asn. française de Bot; Deuts. Bot. Gesell; Netherlands Bot. Soc. International relations in the plant sciences; botanical history and biography; hepaticology; methods of plant taxonomy and geography; tropical agronomy.

Vergeer, Prof. Teunis, 50 E. 15th St, Holland, Mich. *Medicine.* Rotterdam, Holland, May 2, 01. A.B, Calvin Col, 26; M.S, Michigan, 28, Ph.D, 32. Asst, Michigan, 26–30; instr. biol, Alma Col, 28; assoc. prof, Hastings Col, 29–30; nat. research fellow med, Michigan, 30–31; *prof. biol, Hope Col, 31–* Summers, expeds. on broad fish tapeworm investigations, Mich, north. Minn. and Ont, Can, 27–30. Mem, State Board Examiners in Basic Med. Sciences, Mich, 39–41. Soc. Parasitol; Mich. Acad. Helminthology; Cestoda of the genus Diphyllobothrium; parasites of Carnivora; anthelmintics.

Verhoeff, Dr. F(rederick) H(erman), 395 Commonwealth Ave, Boston, Mass. *Ophthalmology.* Louisville, Ky, July 9, 74. Ph.B, Yale, 95; M.D, Hopkins, 99; A.M, Harvard, 02. Asst. surgeon, Baltimore Eye, Ear and Throat Charity Hosp, 99–00; asst. path, *Harvard Med. Sch,* 00–02, instr. ophthal. path, 07–16, asst. prof, 16–24, prof. *ophthal. research,* 24–40, *emer. prof, 40–;* pathologist, *Mass. Charitable Eye and Ear Infirmary,* 00–32, asst. ophthal. surgeon, 06–13, ophthal. surgeon, 13–32, ophthal. chief research, 25–31, director Howe lab. ophthal, 31–40, *consulting chief, ophthal. service, 32–* Knapp medal, Am. Med. Asn, 22, sci. research medal, 30; Howe medal, Am. Ophthal. Soc, 32. A.A; Am. Med. Asn. (chairman, ophthal. sect, 32); Ophthal. Soc. (pres, 37); Col. Surg; Am. Acad. Pathological anatomy of the eye; physiological optics; diseases of the eye.

Verhoek, Prof. Frank (Henry), Ohio State University, Columbus, Ohio. *Physical chemistry.* Grand Rapids, Mich, Feb. 12, 09. B.S, Harvard, 29; M.S, Wisconsin, 30, Ph.D, 33; Ph.D, Oxford, 35. Rhodes scholar, Oxford, 33–35; Copenhagen, 35–36; asst. *chem,* Wisconsin, 29–33; instr, *Ohio State,* 36–39, *asst. prof, 39–, project supervisor, univ. research foundation, 42–* Research chemist, Gen. Elec. Co, 38; research assoc, Stanford, 40. Chem. Soc. Kinetics of reactions in gases and in solution; strength of acids and bases in non-aqueous solvents.

Vermeulen, Dr. Theodore, Shell Development Co, Emeryville, Calif. *Chemistry.* Los Angeles, Calif, May 7, 16. B.S, Calif. Inst. Tech, 36, M.S, 37; Ph.D, California at Los Angeles, 42. Asst, project 37, Am. Petrol. Inst, 36–37; junior chem.

engineer, Union Oil Co, 37–39; teaching asst. chem, California at Los Angeles, 39–41; *research chemist, process develop. sect, Shell Develop. Co, 41–* Chem. Soc. Petroleum chemistry; calorimetry; structural chemistry of hemoglobin.

Vermillion, Prof. Gertrude, Florida State College for Women, Tallahassee, Fla. *Organic chemistry.* Jacksonville, Texas, Dec. 8, 02. A.B, Furman, 23; B.S, Peabody Col, 25; A.M, Columbia, 27; Ph.D, Duke, 41. Assoc. prof. *chem,* Woman's Col, Furman, 27–30; instr, *Fla. State Col. Women,* 30–41, *asst. prof, 41–* Chem. Soc. Isomerization and the elimination reaction of certain aldoxime derivatives.

Vermillion, Dr. H(erbert) E(dward), 48 North St, Beacon, N. Y. *Chemistry.* Mo, Aug. 4, 08. A.A, Iberia Junior Col, 33; B.S, Monmouth Col, 35; Angier B. Duke Mem. fellow, Duke, 37–38, Ph.D, 39. Instr. chem, Duke, 38–39; Wofford Col, 39–41; *research chemist, Texas Co, 41–*

Verner, Prof. Leif, University of Idaho, Moscow, Idaho. *Horticulture.* Oakmont, Pa, May 15, 00. B.S, Pa. State Col, 24, M.S, 26; Am-Scandinavian Foundation fellow, Upsala, 26–27; Ph.D, Hopkins, 34. Instr, high sch, Pa, 24–26; asst. prof. *hort,* Idaho, 27–30; West Virginia, 30–34; *prof, Idaho, 34–* Soc. Hort. Sci; Soc. Plant Physiol. Plant physiology.

Vernon, Prof. Arthur A(ndrew), Northeastern University, Boston, Mass. *Chemistry.* Schenectady, N. Y, Sept. 9, 02. B.S, Union (N. Y), 24, M.S, 26; fellow, Princeton, 28–29, Ph.D, 30. Research chemist, Gen. Elec. Co, 24–27; asst, Princeton, 29–30; research engineer, du Pont Ammonia Corp, 30–31; instr. physical chem, R. I. State Col, 31–36, asst. prof, 36–38; *prof. chem, Northeastern, 38–, director grad. study, 39–* Chem. Soc. Physical chemistry; conductivity of glass; characteristics of tungsten incandescent lamps; photochemical reactions in liquids; pyrolysis; vapor phase catalysis; solubility in non-aqueous solvents; colloid chemistry.

Vernon, Prof. Clarence C(lark), Box 394, R.F.D. 6, Louisville, Ky. *Organic chemistry.* Milo, Iowa, April 28, 96. B.S, Iowa State Col, 21, M.S, 24, Ph.D, 28. Asst. inorg. chem, Iowa State Col, 21–22, instr, 24–28; asst. prof. org. chem, *Louisville,* 28–33, *org. chem. and quantitative anal,* 33–36, *assoc. prof, 36–, acting head dept, 42–* Chem. Soc. (chairman, Louisville sect, 36, rep, regional advisory cmt. for Louisville area, War Production Board); Ky. Acad. Furane series; Grignard reagent; local anesthetics; organo-vanadium compounds; diphenyl series; effect of synthetic resins on drying oils, especially linseed; synthesis of organic compounds for therapeutic investigation; new examinations for organic courses; premedical education.

Vernon, Dr. Robert O(rion), P. O. Box 631, Tallahassee, Fla. *Geology.* Montevallo, Ala, March 29, 12. B.S, Birmingham Southern Col, 35; M.S, Iowa, 37; Ph.D, Louisiana, 41. Asst. geol, Iowa, 35–38; Louisiana, 38–39; research geologist, *Fla. State Geol. Surv,* 38–40, *asst. state geologist, 41–; lieut, U. S. Naval Res.* Summers, geologist, Phillips Petrol. Co, 37–38. South. Asn. Adv. Sci; Fla. Acad. Gulf coast stratigraphy; paleontology; sedimentation.

VerPlanck, Lieut. Commander D(ennistoun) W(ood), 8304 16th St, Silver Spring, Md. *Electrical engineering.* Swampscott, Mass, Jan. 29, 06. B.S, Mass. Inst. Tech, 28, Swope fellow, 28–29, M.S, 29; D.Eng, Yale, 40. Engineer, Gen. Elec. Co, 29–36; *asst. prof. elec. eng, Yale, 36–;* engineer, Naval Ordnance Lab, 40–42; *lieut. commander, U. S. Naval Res, 42–* Elec. Eng; Eng. Educ. Spark and corona discharges in atmospheric air; magnetization of large steel structures in small fields.

Verplanck, Dr. William S(amuel), Box 45, U. S. Submarine Base, New London, Conn. *Psychology.* Plainfield, N. J, Jan. 6, 16. B.S, Virginia, 37, A.M, 38; Ph.B, Brown, 41. Asst, Brown, 39–41; *psychologist, Nat. Defense Research Cmt, 41–; ensign, U. S. Naval Res.* Temporary instr, Conn. Col, 40. Assoc. Psychol. Asn; East. Psychol. Asn. Learning; perception.

Verrall, Dr. Arthur F(rederic), 6178 Louisville St, New Orleans, La. *Forest pathology.* Britt, Iowa, June 21, 05. B.S, Minnesota, 27, M.S, 28, Ph.D, 34. Instr. forest path, Minnesota, 28–30; *assoc. pathologist, bur. plant indust, U. S. Dept. Agr, 34–* Phytopath. Soc. Fungous stains and decay of wood.

Verrill, A(lpheus) Hyatt, Anhiarka Gardens, Chiefland, Fla. *Ethnology, Archeology.* New Haven, Conn, July 23, 71. Yale, 91. Nat. hist. exped, West Indies, 89–90; Cent. Amer, 92; Bermuda, 02; Dominica Island, W. I, 03–06; Santo Domingo, 06–07; British Guiana, 13–17; Panama, 18–21; Panama, Peru, Bolivia, Chile, 23–32. Remains of hitherto unknown prehistoric race in Panama.

Ver Steeg, Prof. Karl, 1105 Quinby Ave, Wooster, Ohio. *Geology, Physiography.* Pella, Iowa, March 10, 91. B.S, Cent. Col. (Iowa), 14; M.S, Chicago, 26; Ph.D, Columbia, 30. Instr. *geol,* Idaho, 19–20; *prof,* Wis. Sch. Mines, 20–23; *Col. of Wooster, 23–* Summer, special lecturer, Army Air Corps, Mich. Col. Min. and Tech, 43. A.A; fel. Am. Geog. Soc; fel. Geol. Soc; fel. Ohio Acad. (v. pres, 32); N. Y. Acad. Wind gaps and water gaps of the northern Appalachians; warping and features of Appalachian peneplanes; drainage changes; erosion surfaces in eastern Ohio; stalactites; stalagmites; movement of underground water; parks in Ohio; buried topography of Ohio; thickness of glacial drift in Ohio; jointing in coal beds of Ohio; structural geology of Ohio.

Verwiebe, Prof. Frank L(ouis), Hamilton College, Clinton, N. Y. *Physics.* Saratoga Springs, N. Y, March 10, 98. M.E, Cornell, 20; M.S, Chicago, 30, Ph.D, 33. Asst. prof. physics, East. Ill. State Teachers Col, 33–42; Chicago, 42; research assoc, U. S. Army Inst, 42–43; *assoc. prof. physics, Hamilton Col, 42–* A.A; Physical Soc; Asn. Physics Teachers. Radiation from canal ray impact.

Ver Wiebe, Prof. Walter A(ugust), 150 N. Chautauqua St, Wichita, Kans. *Geology.* Schenectady, N. Y, Aug. 26, 87. A.B, Cornell, 11, Ph.D, 18. Asst. geol, Cornell, 10–12, instr, 12–13; Ohio State, 13–18; field geologist, Roxana Petrol. Co, 18–19; Sinclair Oil Co, 19–20; chief geologist, Mex-Sinclair Co, 20–23; instr. *geol,* Michigan, 23–27; *prof, Wichita, 27–* A.A; fel. Geol. Soc; Asn. Petrol. Geol. (ed, 'Bul,' 37–43). Stratigraphy of the petroliferous areas of Ohio, Pennsylvania, Oklahoma, Alaska and Mexico; surface geology of Michigan; oil fields in the United States.

Vesper, Dr. Harold G(ould), 12 Arlington Court, Berkeley, Calif. *Chemistry.* Pueblo, Colo, Feb. 15, 03. B.S, California, 30, Amy Bowles Johnson fellow, 31–33, Ph.D, 34. Teaching fellow, California, 30–31; *research chemist,* Shell Oil Co. of Calif, 34; *Shell Develop. Co, 36–* Chem. Soc. Physical chemistry; photochemistry.

Vessel, Dr. A(nton) J(oseph), Route 2, Box 570-A, Modesto, Calif. *Soils.* Chisholm, Minn, June 17, 06. B.S, Minnesota, 31; M.S, Nebraska, 33, Ph.D, 35. Asst. chem, Nebraska, 31–35; *soil surveyor, div. soil surv, bur. plant indust, U. S. Dept. Agr, 35–* A.A; Soil Sci. Soc. Protein chemistry; fractionation studies of the wheat flour proteins; soils and morphology of soils; suitability of soils for guayule growing.

Vessel, Dr. M(atthew) F(rancis), San Jose State College, San Jose, Calif. *Science education.* Chisholm, Minn, April 21, 12. B.Ed, Minn. State Teachers Col, 36; M.S, Minnesota, 37; Am. Nature fellow, Cornell, 39, 40, Ph.D, 40. Instr. math. and science, junior high sch, Minn, 36–37; field biologist, State Conservation Dept, Minn, 38; *instr. nat. sciences, San Jose State Col, 40–* A.A. Reproductive potential in fresh water fishes; methods in conservation education.

Vesselowsky, Dr. S(ergius) Th(eodore), 2000 Second Ave, Detroit, Mich. *Mechanical engineering.* Poltava, Russia, April 1, 85. B.S, St. Petersburg, 05; M.E, Polytech. Sch, Zurich, 08; Sc.D, Michigan, 33. *Research engineer, research dept, Detroit Edison Co, 25–* Thermodynamic and mechanical problems of power plant engineering; vibrations of structures and machines.

Vest, Dr. Samuel (Alexander), University of Virginia, Charlottesville, Va. *Urology.* N. C, Jan. 21, 05. A.M, Duke, 26; M.D, Hopkins, 30. Assoc. *urol,* Hopkins, 37–39; *prof, Virginia, 39–* Fel. Am. Med. Asn; Urol. Asn; Col. Surg. Endocrinology and chemotherapy as applied to medicine.

Vestal, Prof. Arthur G(ibson), University of Illinois, Urbana, Ill. *Biology.* La Grange, Ill, Sept. 10, 88. A.B, Illinois, 11; A.M, Colorado, 13; fellow, Chicago, 14–15, Ph.D, 15. Instr. biol, Colorado, 11–14; prof. bot, East. Ill. State Nor. Sch, 15–20; asst. prof. biol, Stanford, 20–29; assoc. prof. *bot, Illinois,* 29–40, *prof, 40–* A.A. (sec'y, Pacific div, 27–29); Bot. Soc; Ecol. Soc. (sec'y, 34, 35); Soc. Foresters; Soil Sci. Soc; Geophys. Union; Asn. Pacific Coast Geog; Ill. Acad; Ind. Acad; Calif. Bot. Soc. Ecology and plant geography; vegetation of the prairie region, Rocky Mountains, California.

Vestal, Mrs. A(rthur) G(ibson) (Dr. Wanda (May) Pfeiffer), 309½ W. Columbia Ave, Champaign, Ill. *Botany.*

Red Oak, Iowa, March 11, 82. B.S, Chicago, 04, Ph.D, 08. Asst. bot, Chicago, 09–14, instr. plant path, 14–16. A.A; Cactus and Succulent Soc. Amer; Torrey Bot. Club. Morphology of Azolla and Leitneria.

Vestal, Prof. C(laude) M, 426 Waldron St, West Lafayette, Ind. *Animal husbandry.* Montezuma, Ind, Feb. 25, 83. B.S.A, Purdue, 11. Agr. exten, Purdue, 11–12; *animal husbandry,* Kans. State Col, 12–17; exchange prof, California, 17–18; *assoc. prof, Exp. Sta, Purdue, 18–* Soc. Animal Husbandry. Live-stock feeding, especially swine.

Vestal, Prof. Edgar F(red), Arkansas State College, State College, Ark. *Botany, Agriculture.* Ashland, Oregon, Sept. 5, 90. B.S, Oregon State Col, 16; M.S, Wisconsin, 23; Ph.D, Iowa State Col, 32. Asst. prof. bot, Des Moines, 24–26; assoc. prof, South Carolina, 26–27; prof, Franklin Col, 27–29; fellow bot. and plant path, Exp. Sta, Iowa State Col; prof. biol, Ark. Agr. and Mech. Col, 32–33, Ark. State Col, 33–35; head dept, Agr. Inst, India, 36–42; *prof. agr, Ark. State Col, 42–* A.A; Genetic Asn; Phytopath. Soc. A new virus disease epidemic on onions; environmental factors on the spread of Cercospora leaf spot; yield in checked and drilled sugar beets; pathogenicity; host response and control of cercospora leaf spot of sugar-beets.

Vestal, F(ranklin) E(arl), P. O. Box 245, Columbus, Miss. *Geology.* Near Warsaw, Ill, May 19, 84. A.B, Iowa, 12; M.S, Chicago, 21, 37–38, summers, 25–28. Asst. prof. geol, Miss. State Col, 21–23, assoc. prof, 23–32, acting head dept, 26–27, 30–31; supervising geologist, Tenn. Valley Authority, 33–34, asst. geologist, 34–37; consulting work, 38; *geologist, Miss. State Geol. Surv, 39–* A.A; Paleont. Soc. Paleontology; Mississippian and Cretaceous fossils; Adams County mineral resources.

Vestal, Prof. Paul A(nthony), Rollins College, Winter Park, Fla. *Botany.* Near Roosevelt, Okla, Nov. 2, 08. A.B, Colo. Col, 30; A.M, Harvard, 32, Ph.D, 35. Austin teaching fellow, Harvard, 30–33, univ. fellow, 33–35, Nat. Research fellow, 35, instr. bot, 35–42, research curator, 36–42; *asst. prof. biol, Rollins Col, 42–* A.A; Bot. Soc; Soc. Plant Taxon; New Eng. Bot. Club; Int. Asn. Wood Anat. Utilization of plants by American Indians; pre-historic plant remains; economic botany; plant anatomy in relation to taxonomy.

Vestling, Dr. Carl S(wensson), University of Illinois, Urbana, Ill. *Biochemistry.* Northfield, Minn. A.B, Carleton Col, 34; Patrick Garvan fellow at large, Hopkins, 34–38, Ph.D, 38. Instr. *chem, Illinois,* 38–41, *assoc, 41–* A.A; Chem. Soc. (treas, Illinois sect, 41). Chemistry of blood pigment derivatives; effect of chemical modification on the oxygen capacity of hemoglobin; ascorbic acid.

Vetter, Prof. Geo(rge) B(enjamin), New York University, Washington Square, New York, N. Y. *Psychology.* Breidablik, Wash, Oct. 15, 94. B.S, Washington (Seattle), 17, M.S, 25; Ph.D, Syracuse, 29. *Asst. prof. psychol, Wash. Sq. Col, N. Y. Univ, 26–* Social psychology; personality factors in social and political attitudes; religion; institutional behavior.

Vetter, Joseph J(ames), 902 Garfield Ave, Jersey City, N. J. *Inorganic chemistry, Metallurgy.* Union City, N. J, Nov. 30, 95. Ch.E. and M.S, Polytech. Inst. Brooklyn. *V. pres. and director research, Natural Products Ref. Co.* Chem. Soc; Chem. Eng. Chemistry and metallurgy of chromium.

Vezey, Prof. Edward Earl, Box 247, College Station, Texas. *Physics.* Milton, Kans, 89. C.E, Okla. Agr. and Mech. Col, 10; M.S, Agr. and Mech. Col. Texas, 26. Teacher, Helena State Sch. Agr, Okla, 10–12; eng. work, Okla, Mo. and Texas, 12–15; teacher, high schs, Texas, 15–20; assoc. prof. and *prof. physics, Agr. and Mech. Col. Texas, 20–* Teaching of physics.

Vhay, Dr. John S(tewart), U. S. Geological Survey, Washington, D. C. *Geology.* Detroit, Mich, April 21, 07. B.S, Princeton, 29, A.M, 31, Ph.D, 34. Asst. geol, Princeton, 29–33; asst. physical land surveyor, soil conservation service, U. S. Dept. Agr, 35–37; junior geologist, *U. S. Geol. Surv,* 37–39, asst. geologist, 39–42, *assoc. geologist, 42–* Summer, asst. geologist, Newfoundland Geol. Surv, 36. Geophys. Union (sec'y sect. volcanol, 41–); Soc. Econ. Geol; Geol. Soc. Wash. Economic geology; petrology; ore deposits in volcanic rocks.

Vial, Dr. E(dmund) E(llsworth), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics.* La Grange, Ill, May 8, 00. B.S, Illinois, 22; M.S, Cornell, 24, Potash Importing Corp. fellow, 26–27, Ph.D, 27. Statistician, N. V. Potash Export My, 27–30; *senior agr. economist, bur. agr. econ, U. S. Dept. Agr, 30–* Summer, Cornell, 30, 34. Statist. Asn; Econometric Soc. Statistics and price analysis.

Vibrans, Dr. Frank C(harles), 5739 Maryland Ave, Chicago, Ill. *Chemistry.* Cokeville, Wyo, March 15, 90. A.B, Wabash Col, 13; Harvard, 13–14; Ph.D, Michigan, 17. Asst. chem, Michigan, 14–17; chemist, Detroit Org. Chem. Co, 17; Procter and Gamble Co, 19–29; *chief research chemist, Am. Meat Inst, 29–* Lieut, C.W.S, 18. Chem. Soc; Oil Chemists Soc; Inst. Food Technol. Dicyanodiamid; fats and oils.

Vicari, E(milia), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Zoology, Genetics.* Newark, N. J, May 3, 94. A.B, Smith Col, 15, A.M, 17; fellow, Columbia, 20–23. Asst, Smith Col, 15–16; asst. animal geneticist, Carnegie Inst. Tech, 18–21; asst. prof. zool, Sweet Briar Col, 24–27; assoc. anat, med. col, Cornell; *research fellow, Roscoe B. Jackson Mem. Lab.* A.A; Genetic Asn; Soc. Anatomists. Histology; endocrinology; genetics; experimental zoology.

Vickery, Dr. C(harles) W(atson), Office of Defense Transportation, Interstate Commerce Commission Bldg, Washington, D. C. *Mathematics.* Quitman, Texas, Aug. 16, 06. A.B, Texas, 28, Oldright fellow, 28–29, Ph.D, 32. West. Union Tel. Co, 24–27; instr. pure math, Texas, 29–37; chief statistician, State Highway Dept, Texas, 37–41; assoc. statistician, pub. roads admin, Fed. Works Agency, 41–43; *senior statistician, Office Defense Transportation, 43–* Civil Eng; Econometric Soc; Econ. Asn; Inst. Math. Statist; Statist. Asn; Math. Soc; fel. Royal Statist. Soc. Topology; spaces of uncountably many dimensions; mathematical statistics and economics; random sampling methods; punched card technique; highway planning survey methodology.

Vickery, Dr. F(rederick) P(aul), 2263 12th Ave, Sacramento, Calif. *Geology.* San Rafael, Calif, April 20, 80. B.S, California, 05; A.M, Stanford, 19, Ph.D, 25. Instr. geol, California at Los Angeles, 21–22, asst. prof, 22–26; geologist, Miley Oil Co, 26–29; West. Gulf Oil Co, 29–31; research chemist, 31–32; *instr, Sacramento Junior Col, 32–* Instr, Stanford geol. surv, 19, paleontologist, 22, asst. director, 23; hon. curator, Museum Hist, Science and Art, Los Angeles. Sec'y subcmt. geol, cmt. seismol, Carnegie Institution, 18–19; mem. cmt. features and changes of the shore-line on the Pacific Coast, Nat. Research Council. Structural geology; physiography; strategic minerals.

Vickery, Dr. H(ubert) B(radford), Connecticut Agricultural Experiment Station, New Haven, Conn. **Biochemistry.* Yarmouth, N. S, Can, Feb. 28, 93. B.Sc, Dalhousie, 15, M.Sc, 18; 1851 Exhib. fellow, Yale, 20–22, Ph.D, 22. Teacher, high sch, N. S, Can, 15–17; chemist, Imp. Oil, Ltd, 17–19; teacher chem, Nor. Col, Truro, N. S, 19–20; research chemist, *Carnegie Institution, Conn. Exp. Sta,* 22–28, asst. biochemist, 26–28, *biochemist in charge labs, 28–,* research assoc, institution, 29–38; *lecturer, Yale, 24–* Stephen Hales prize, Am. Soc. Plant Physiol, 33. Nat. Acad; Soc. Biol. Chem. (councilor, 37, ed. board, 'Jour,' 41–); Chem. Soc. (assoc. ed, 'Jour,' 39–); Soc. Exp. Biol; Soc. Plant Physiol. (v. chairman, New Eng. sect, 37); Conn. Acad; London Chem. Soc. Proteins and amino-acids; constitution and metabolism of green plants.

Vickery, Prof. Katherine, Alabama College, Montevallo, Ala. *Psychology.* Dahlonega, Ga, March 5, 98. A.B, N. Ga. Agr. Col, 18; A.M, George Peabody Col, 19, Ph.D, 29. Teacher, high sch, Tenn, 19–23; asst. prof. *psychol, Ala. Col,* 22–28, assoc. prof, 28–36, *prof, 36–* Summer, psychologist, Child Guidance Clinic, Memphis, Tenn, 26; prof, Alabama, 40, 41. A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol; Ala. Mental Hygiene Soc. (sec'y, 30–). Effects of change of work on the work decrement; effects of the interval on right and wrong associations; factors influencing the unreliability of testimony.

Victor, Dr. Joseph, College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Pathology.* New York, N. Y, April 29, 06. B.S, Col. City of N. Y, 26; M.D, Rochester, 30. Instr. path, *Columbia,* 31–33, research fellow, *col. physicians and surg,* 33–38, *assoc, 38–* Exp. pathologist, research service, first div, Welfare Hosp, 38– Soc. Exp. Biol; Soc. Exp. Path; Asn. Path. and Bact; N. Y. Path. Soc. Vital staining; normal and malignant tissue metabolism; effect of endocrines on tissue metabolism; experimental hypertension; experimental cirrhosis of the liver; vitamin deficiency.

Viégas, Dr. Ahmés Pinto, Caixa postal, 28, Campinas, Est. Sao Paulo, Brazil, S. Amer. *Mycology, Plant pathology.* Piracicaba, Est. Sao Paulo, S. Amer, Jan. 30, 05. Ph.D,

Cornell, 38. Sub-asst. genetics, *Instituto Agron. do Estado*, 33–35, asst, 35–37, plant path, 37–40, *head dept. bot, 40–* Brazilian fungi and diseases caused by them.

Viehoever, Dr. Arno, 8701 Riverview Road, S.E, Washington 20, D. C. *Biochemistry.* Wiesbaden, Germany, Nov. 3, 85. Ph.C, Marburg, 08, Ph.D, 13; hon. Pharm.D, 38. Asst, bot. and pharmacog. inst, Marburg, 09–13; director pharmacog. lab, bur. chem, U. S. Dept. Agr, 13–23; biol. dept, Phila. Col. Pharmacy, 23–34, biol. and biochem. research, 34–38; *adviser* to Ministry Econ. Affairs, Dept. Science, Bangkok, Thailand, 39–42; *food supply div, Coordinator Inter-Am. Affairs, 42–* Director, Hyper-Humus Co; Phenol Research Inst; pharm. chemist, Marburg, 08, food chemist, 13. Prize, Marburg, 12; Ebert prize, Pharmaceut. Asn, 17. Chem. Soc; Pharmaceut. Asn. (sec'y and chairman, sci. sect, 22); Franklin Inst. Microphysiology; transparent life studies in mechanism of life; nutrition and medication; biochemistry of plants and animals; evaluation of food and medicinal substances,

Vierheller, A(lbert) F(rank), University of Maryland, College Park, Md. *Horticulture.* Parkersburg, W. Va, Feb. 10, 94. B.S. (Agr), West Virginia, 18; M.S, Maryland, 23. Instr. hort, *Maryland*, 21–24, *exten. horticulturist, 24–* Soc. Hort. Sci; Md. State Hort. Soc. (sec'y). Rooting of apple cuttings.

Vieweg, Dr. Alice M(cNulty), 323 Lawrence Ave, Highland Park, N. J. *Physics.* Buffalo, N. Y, Sept. 20, 98. A.B, Cornell, 20, Grasselli fellow, 23–24, Ph.D, 24. Research chemist, Nat. Aniline and Chem. Co, 20–21; Heckscher asst. chem. and physics, Cornell, 21–23, physics, 27–29; instr. chem, Rockford Col, 24–25; *private research, 29–* Physical Soc. Spectroscopy; o-cresolbenzein and its derivatives; absorption spectra of organic compounds; spectroscopy of the extreme ultra-violet.

Vieweg, Dr. Hermann F(rederick), 323 Lawrence Ave, Highland Park, N. J. *Physical chemistry.* Buffalo, N. Y, Sept. 12, 00. Ch.B, Cornell, 21, Ph.D, 24. Instr. crystallog, Cornell, 20–25; prof. chem, Muhlenberg Col, 25–27; instr. physics, Cornell, 27–29; metallurgist, Aluminum Co. of Amer, 29–30; assoc. prof. ceramics, Rutgers, 30–35, prof, 35; *research engineer, Johns-Manville Corp, New York, 35–; lieut. col, Field Artil, U. S. Army, 41–* Miner. Soc; Ceramic Soc; Chem. Soc; fel. Inst. Chem. Frictional electricity; crystalline dielectrics; recrystallization of aluminum; physical chemistry of clays; crystal optics; silicate systems; magnesia.

Vigé, Prof. L(isé), 127 Amelia St, Lafayette, La. *Biology.* Evangeline Parish, La, May 5, 05. B.S, Southwest. La. Inst, 28; M.S, Louisiana, 29, Ph.D, 39. *Prof. biol, Southwest. La. Inst, 28–* La. Acad. Sciences. Syrphidae.

Vigness, Dr. (Carl) Irwin, Naval Research Laboratory, Washington, D. C. *Physics, Biophysics.* Bismarck, N. Dak, Aug. 21, 05. B.E.E, Minnesota, 29, M.S, 31, Ph.D, 35. Instr. biophys, Minnesota, 35–39; *mem. mech. and electricity sect, Naval Research Lab, 39–* Piezoelectric properties of Rochelle salt.

Vilbrandt, Dr. Charles Frank, 1 Audubon St, Rochester, N. Y. *Physical chemistry.* Oak Harbor, Ohio, Aug. 12, 17. B.S, North Carolina, 39; Ph.D, Wisconsin, 42. *Research chemist, Eastman Kodak Co, 42–* Molecular kinetic behavior of certain nucleic acids.

Vilbrandt, Prof. Frank C(arl), Virginia Polytechnic Institute, Blacksburg, Va. *Industrial chemistry, Chemical engineering.* Fostoria, Ohio, Aug. 12, 93. A.B, Ohio State, 15, A.M, 16, Ph.D, 19, Chem.E, 35. Asst. chem, Ohio State, 13–16, 17–18, instr. indust. chem, 18–21; junior chemist, Bur. Standards, 16–17; assoc. prof. indust. chem, North Carolina, 21–30, head dept. chem. eng, 27–30; prof, Iowa State Col, and chem. engineer, eng. exp. sta, 30–35; *prof. chem. eng. and head dept, Va. Polytech. Inst, 35–* Director exp. sta, Brunswick, Ga, U. S. Bur. Fisheries. Cmt. on substitution of sodium and potassium compounds, Nat. Research Council, 21–26; cmt. for inspection eng. schs, region three, Engineers Council Professional Develop, 38. A.A; Chem. Soc; Chem. Eng; Eng. Educ. (chairman, div. chem. eng, 33–36); Soc. Professional Eng; Va. Soc. Professional Eng. (v. pres, 41); Va. Acad. (research grant cmt, 34–43). Oil shales; gas; coal; emulsions; fats and oils; petroleum products; lubrication; brick clays; quartzware; utilization of shrimp wastes; cholesterol; industrial wastes; agricultural wastes; synthetic lumber and stone; plastics; synthetic resins; soy-bean oil and meal; cotton conversion products; air-condition drying of leather; apple-milk confections; apple by-products; chemical engineering plant design; synthetic rubber; chlorates.

Villadolid, Dr. Deogracias V(illamarin), Department of Agriculture and Commerce, Manila, P. I. *Fisheries.* Nasugbu, Batangas, P. I, March 22, 96. B.Agr, Philippines, 19, B.S.A, 22, M.S.A, 23; Philippines fellow, Stanford, 24–27, Ph.D, 27. Asst. chem, col. agr, Philippines, 19, agr. zool, 19–24, instr, 28, asst. prof, 28–34; tech. asst, Bur. Science, *P. I, 34–40; chief div. fisheries, Dept. Agr. and Commerce, 40–* Del, Philippine Commonwealth Pacific Science Cong, U. S, 39. A.A; Soc. Ichthyol. and Herp; Philippine Soc. Adv. Research; P. I. Sci. Soc; Los Baños Biol. Club. Ichthyology; fisheries; fisheries technology; fresh-water biology; biology of frogs and mollusks.

Villars, Dr. D(onald) S(tatler), U. S. Rubber Co, Passaic, N. J. *Physical chemistry.* Blanchester, Ohio, Dec. 21, 00. A.B, Wilmington Col, 21; M.S, Ohio State, 22, Ph.D, 24. Asst. chem, Wilmington Col, 19–21; Ohio State, 21–24; nat. research fellow, Harvard, 25–26; Göttingen, 27; assoc. chem, Illinois, 27–29; asst. prof. physical chem, Minnesota, 29–30; physicist, research lab, Gen. Elec. Co, Schenectady, 30; *physical chemist*, research lab, Standard Oil Co. of Ind, 31–34; gen. labs, U. S. Rubber Co, Passaic, N. J, 34, plantations research dept, Sumatra, 34–38; *gen. labs, U. S. Rubber Co, 38–* Chem. Soc; Physical Soc. Photochemistry; application of molecular spectroscopy to chemistry; heats of dissociation and predissociation; equilibrium constants; entropy; specific heats; heats of activation; pyrolysis and polymerization of hydrocarbon gases; physical chemistry of latex, rubber and carbon black; statistical significance tests.

Villee, Prof. Claude A(lvin), Jr, University of North Carolina, Chapel Hill, N. C. *Physiological genetics.* Lancaster, Pa, Feb. 9, 17. B.S, Franklin and Marshall Col, 37; Ph.D, California, 41. Research assoc. *zool*, California, 41–42; instr, *North Carolina*, 42–43, *asst. prof, 43–* Asst. prof, Armstrong Col, 41–42. A.A; Soc. Zool; Genetics Soc. Phenogenetics of homoeosis.

Villegas, Prof. Valente (Estrada), College of Agriculture, University of the Philippines, Laguna, P. I. *Animal husbandry.* Los Baños, Laguna, P. I, May 21, 93. B.S. (Agr), Philippines, 13; Ph.D, Iowa State Col, 21. Asst. agr. inspector. Philippine Bur. Agr, 13, agr. asst, 13–17, inspector, 17; instr. animal husbandry, Philippines, 17–18, agron, 18–19; govt. pensionado in U. S, 19–22; asst. prof. *animal husbandry, Philippines*, 22–30, *assoc. prof. and asst. head dept, 30–* Philippines agr. rep, Pan-Pacific Int. Expos, 15. Mem, Nat. Research Council, P. I. A.A; Philippine Soc. Adv. Research (v. pres, 34); P. I. Sci. Soc. Animal nutrition; horses; cattle; water buffaloes; sheep; goats.

Vinal, Dr. Francis E(llsworth), 3810 Jenifer St, N.W, Washington, D. C. *Inorganic chemistry.* Washington, D. C, Sept. 2, 15. A.B, Wesleyan, 36, A.M, 38; Sc.D, Mass. Inst. Tech, 41. Teaching asst, Wesleyan, 36–38; teaching fellow, Mass. Inst. Tech, 38–40; instr, Northeastern, 39–41; research chemist, Bur. Standards, 41–42; *tech. aide, Nat. Defense Research Cmt, 42–* Chem. Soc; Electrochem. Soc. Electrochemical equivalents; inorganic chemistry of less familiar elements.

Vinal, Dr. George Wood, 3810 Jenifer St, Washington, D. C. *Physics.* Ellington, Conn, Dec. 17, 82. A.B, Wesleyan, 06, A.M, 09, Sc.D, 36; Hopkins, 06–07. Aid, U. S. Coast and Geod. Surv, 07; asst. physics, Wesleyan, 08; *Bur. Standards, 08–*, asst. physicist, 10–17, assoc. physicist, 17–20, physicist, 20–29, *prin. physicist, 29–, chief electrochem. sect, 18–* Exchange physicist, Physik. Tech. Reichsanstalt, 31. Gaston Planté medal, Soc. française des Elec, 37. A.A; Elec. Eng. (chairman, cmt. on electrochem. and electrometal, 24–29, Wash. sect, 30); Electrochem. Soc. (v. pres, 30–32); Wash. Acad. (v. pres, 31); Philos. Soc. Wash. Electrochemistry; electric arc between metallic electrodes; the silver voltameter; primary and storage batteries; electrical properties of silver sulfid; standard cells; rectifiers; electrical units and standards.

Vinal, Prof. William G(ould), 10 Taylor St, Amherst, Mass. *Zoology.* Norwell, Mass, Nov. 29, 81. B.S, Harvard, 06, A.M, 07; Ph.D, Brown, 22. Prof. and head dept. geol. and biol, Marshall Col, 07–09; *prof.* geog, Mass. State Nor. Sch, Salem, 10; nature study, R. I. Col. Educ, 11–24; N. Y. State Col. Forestry, Syracuse, 25–28; *nature educ*, sch. educ, Western Reserve, and director nature guide sch, 28–37; *Mass. State Col, 37–* Conductor insts, Nat. Recreation Asn, 36–37. Summers, biologist, Mass, 07–13; U. S. nature guide, Yosemite Nat. Park; ranger naturalist, Glacier Nat. Park, 31, Crater Lake Nat. Park, 33; mem. staff, Nat. Camp, 40– Chairman, Outdoor Recreation Conf, 37– A.A; Nature Study Soc. (past

pres); Camping Asn. (past pres); R. I. Field Naturalists Club (past pres); Cleveland Bird Club (pres, 35). Mollusks; Anomia glabra; nature guiding; nature recreation.

Vincent, Prof. Chester L(eon), 1712 A St, Pullman, Wash. *Horticulture.* Portland, Oregon, March 13, 94. B.S, Idaho, 17; M.S, State Col. Wash, 24; Ph.D, Cornell, 38. Teacher, high sch, Idaho, 17–18, 19–20; instr. *hort, State Col. Wash,* 20–24, asst. prof, 24–36, *assoc. prof, 36–* Corp, U.S.A, 18–19. Soc. Hort. Sci; Northwest Asn. Hort, Entom. and Plant Path; Pacific Northwest Potato Growers Asn; Wash. Hort. Asn. Vegetable crops.

Vincent, Dr. E(lizabeth) Lee, Merrill-Palmer School, 71 E. Ferry Ave, Detroit, Mich. *Psychology.* Victor, Colo, Aug. 6, 97. A.B, Colorado, 19, A.M, 21; Ph.D, Columbia, 24. Instr. psychol, Colorado, 19–20; director psychol. clinic, Denver Juvenile Court, 20–21; Pub. Sch. Surv, Pueblo, 21–22; asst. educ. psychologist, Lincoln Sch, Columbia, 24–25; *psychologist, Merrill-Palmer Sch, 25–* Summers, prof, Nebraska, 25, 26; Cornell, 27; Oregon State Col, 28, 30, 36; Stout Inst. 29; Illinois, 37; Utah State Col, 39. Consulting ed, 'Ladies' Home Jour,' 21–28. Psychol. Asn. Child and educational psychology; parent education; family life.

Vincent, Dr. G(eorge) P(aul), Mathieson Alkali Works, Inc, 60 E. 42nd St, New York, N. Y. *Chemistry.* Cleveland, Ohio, Oct. 20, 01. A.B, Hiram Col, 23; M.S, Cornell, 24, Palmolive fellow, 25–27, Ph.D, 27. Asst. chem, Cornell, 23–25; research chemist, Eastman Kodak Co, 27–30; research chemist and manager research lab, *Mathieson Alkali Works, Inc,* 30–35, dept. research and develop, 35–41, *manager* sales develop. dept, 41–42, *sales develop. and tech. service dept, 42–* Depolarization of hydrogen and its effect in corrosion; colloids; detergent action of soaps; chlorine and alkali; methods for making and uses for chlorites, particularly sodium chlorite.

Vincent, Dr. H(arvard) B(urton), 3840 Sulphur Springs Road, Toledo, Ohio. *Physics.* Prince Edward Co, Ont, Can. B.A, Queen's (Can), 23, fellow, 23–24, M.A, 24; Ph.D, Michigan, 26. Instr, Michigan, 24–26; nat. research fellow, Harvard, 26–27; research physicist, dept. eng. research, Michigan, 27–43; *manager product develop, Insulux div, Owens-Ill. Glass Co, 43–* Collaborator, 'Spectrochimica Acta.' A.A; Physical Soc; Optical Soc; Soc. Test. Mat. (cmt. spectrographic analysis). Small shot effect in vacuum tubes; measurement and reduction of noise in machinery; spectrochemical apparatus and methods; illumination engineering; development of glass products.

Vincent, J(esse) G(urney), Packard Motor Car Co, Detroit, Mich. *Mechanical engineering.* Charleston, Ark, Feb. 10, 80. Int. Correspondence Schs. Supt. invention, Burroughs Adding Machine Co, 03–10; chief engineer, Hudson Motor Car Co, 10–12; *v. pres. eng, Packard Motor Car Co, 12–* Major, Sig.C, 17–18; lieut. col, A.S, 18. Mech. Eng; Soc. Automotive Eng. (pres, 20). Automotive engineering.

Vincent, Dr. J(oseph) F(rancis), 329 Sumatra Ave, Akron, Ohio. *Biochemistry.* Garnsey, Ala, Dec. 12, 12. B.S, Ala. Polytech, 36; A.M, Ohio State, 38, Ph.D, 40. Asst. physiol. chem, Ohio State, 38–40; *research biochemist, Goodyear Tire and Rubber Co, 40–* Chem. Soc. Preservation and nutritional value of foods; toxicity of commercial chemicals.

Vincent, Dr. Stella B(urnham), 160 S. Los Robles, Pasadena, Calif. *Psychology.* Hampton, Ill, 62. B.S, Chicago, 06, Ph.D, 12. Teacher psychol, J. B. Stetson, 02–05; Wash. State Nor. Sch, Ellensburg, 07–09; Chicago Nor. Col, 14–30; *retired.* A.A; Psychol. Asn. Comparative psychology.

Vincent-Daviss, Cedric A(rthur), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Smethwicke, Staffordshire, Eng, 98. B.Sc, Birmingham, 22, hon. chem, 23. Asst. manager, Kramer Radioactive Application, 23–25; chief chemist, Niagara Electrolytic Iron Co, 25–27; research chemist, Carborundum Co, 27–29; chemist, Roessler and Hasslacher chem. dept, *E. I. du Pont de Nemours and Co,* 29–31, *manager* tech. service, 31–33, *sales develop, 33–* Soc. Metals; Chem. Soc; Chem. Eng; Inst. Chem. Gt. Britain and Ireland. Electro-deposition of iron.

Vingee, Dr. Raymond A(rthur), 667 Fellows Ave, Syracuse, N. Y. *Chemistry.* Rochester, N. Y, Oct. 15, 05. B.S, Hobart Col, 26; M.S, Brown, 29, fellow, 29–30, du Pont fellow, 30–31, Ph.D, 31. Instr. chem, Hobart Col, 26–27; asst. physical chem, Brown, 27–29, stockroom director, 31–33; salesman, Air-Way Elec. Appliance Corp, 33–34, substa. operator, Narragansett Elec. Co, 34–35; Eng. Corps, U. S. Army, 35–36; *research chemist, Solvay Process Co, 36–* Summer, chemist, State Biol. Surv, N. Y, 27. Chem. Soc. Properties of electrolytes in non-aqueous solutions from cryoscopic measurements; metallo-organic compounds; liquid ammonia solutions.

Vinograd, Dr. Jerome R(ubin), 53rd and Horton Sts, Emeryville, Calif. *Chemistry.* Milwaukee, Wis, Feb. 9, 13. Minnesota, 29–31; Berlin, 31–33; London, 33–35; A.M, California at Los Angeles, 37; Bristol-Myers fellow, Stanford, 37–41, Ph.D, 40. Teaching asst. chem, California at Los Angeles, 36–37; jr. research assoc. chem, Stanford, 40–41; *research chemist, Shell Develop. Co, 41–* Chem. Soc. Physical and colloid chemistry; diffusion of electrolytes; detergency; surface chemistry.

Vinson, Dr. A(lbert) E(arl), Box 194, R. R. 5, Tucson, Ariz. *Chemistry.* Dayton, Ohio, Oct. 30, 73. B.S, Ohio State, 01; Ph.D, Göttingen, 04. Asst. agr. chem, Ohio State, 96–99, instr, 99–02; assoc. chemist, Arizona, 05–08, chemist, 08–24; Service Technique et de l'Enseignement Professionnel, Haiti, 24–31. U. S. Assay Cmn, 14. A.A; West. Soc. Soil Management and Plant Nutrition (pres, 23). Agricultural chemistry; animal nutrition; soils and irrigation water; ripening and processing of the date.

Vinson, Prof. Carl G(eorge), 101 S. Glenwood, Columbia, Mo. *Horticulture.* Carrollton, Mo, July 16, 91. B.S, Missouri, 16; M.S, Cornell, 21; Ph.D, Minnesota, 26. Instr. pomol, Cornell, 19–20; exten. prof, Pa. State Col, 21–22; biochemist, Boyce Thompson Inst, 26–30; *prof. hort, Missouri, 30–* Lieut, U.S.A, 17–18. A.A; Asn. Adv. Hort. Sci; Chem. Soc; Bot. Soc; Phytopath. Soc. Nitrogenous constituents of plants; chemistry of virus diseases; vitamin content of plants; phytohormones.

Vinti, Dr. John P(ascal), Ballistic Research Laboratory, Aberdeen Proving Grounds, Md. *Physics.* Newport, R. I, Jan. 16, 07. B.S, Mass. Inst. Tech, 27, fellow, 28–30, Sc.D, 32. Harrison research fellow physics, Pennsylvania, 32–34; asst, Mass. Inst. Tech, 34–35; instr, Brown, 36–37; asst. prof, The Citadel, 37–38; instr, Worcester Polytech, 39–41; junior physicist, *Aberdeen Proving Ground,* 41, asst. physicist, *ballistic research lab,* 41–42, *assoc. physicist, 42–* Fel. Physical Soc. Theoretical physics; quantum mechanics; ballistics.

Vinyard, Dr. H(arold) R(oth), Oregon State College, Corvallis, Oregon. *Physics.* Canby, Oregon, Feb. 5, 00. B.S, Oregon State Col, 24, M.S, 28; Ph.D, Pa. State Col, 38. Instr. *physics,* Oregon State Col, 28–29; asst, Pa. State Col, 29–36; *Instr, Oregon State Col, 38–* Ionic conduction in glass; seismography.

Viohl, Dr. Paul, U. S. Rubber Co, Detroit, Mich. *Organic chemistry.* Charleston, S. C, Dec. 12, 13. B.S, Col. of Charleston, 35; Ph.D, Hopkins, 39. Lab. asst. chem, Hopkins, 36–39; *research chemist, U. S. Rubber Co, 39–* Chem. Soc. Pyrroles and dipyrrylmethenes; chemistry and technology of rubber.

Viosca, (Paul) Percy, Jr, 517 Decatur St, New Orleans, La. *Biology.* New Orleans, La, June 24, 92. B.S, Tulane, 13, M.S, 15. Instr. biol, Tulane, 13–15; organizer and *pres, South. Biol. Supply Co, 15–; consulting biologist, 42–* Entomologist, Board Health, New Orleans, 23–24; biologist, La. Dept. Conservation, 17–26, 36–42, director fisheries, 26–29; curator reptiles, amphibians and fishes, La. State Museum, 15–26; instr. med. entom, Tulane, 23–26. A.A; Ecol. Soc; Soc. Ichthyol. and Herp; Fisheries Soc. (v. pres, div. commercial fishing, 29); Nature Study Soc; Limnol. Soc; La. Acad; New Orleans Bot. Soc; New Orleans Zool. Soc. (director, 23–); New Orleans Acad. Ecology; entomology; taxonomy, habits and distribution of reptiles, amphibians and fishes; aquatic life; stream pollution; conservation; fish culture and management.

Virtue, Prof. Robert W(allace), University of Denver, Denver, Colo. *Physiological chemistry.* Denver, Colo, Sept. 12, 04. A.B, Denver, 25, A.M, 26; Ph.D, Michigan, 33. Asst. physiol. chem, Michigan, 29–33; research biochemist, Elgin State Hosp, Elgin, Ill, 33; instr. chem, Cent. State Teachers Col, Mt. Pleasant, Mich, 33–34; biochem, sch. med, Louisiana, 34–37; asst. prof. *chem, Denver,* 37–41, *assoc. prof, 41–* Grant, cmt. sci. research, Am. Med. Asn, 38. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Metabolism of sulfur-containing compounds; formation of bile acids.

Visher, Prof. Stephen S(argent), Indiana University, Bloomington, Ind. *Geography.* Chicago, Ill, Dec. 15, 87. B.S, Chicago, 09, M.S, 10, fellow, 13–14, Ph.D, 14; A.M, South Dakota, 12. Sci. asst, desert lab, Carnegie Institution,

09; instr. geol, South Dakota, 10–13; prof. *geog*, Minn. State Nor. Sch, Moorhead, 15–17; asst. prof, *Indiana*, 19–22, assoc. prof, 22–36, *prof, 36–* Land classifier, U. S. Geol. Surv, 18; scientist, bur. soils, U. S. Dept. Agr, 18, geographer, Ind. Geol. Surv, 19–; Bishop Museum fellow, Yale, 21–22; acting geographer, U. S. Dept. State, 31–32; collaborator, soil conservation service, U. S. Dept. Agr, 36. Summers, acting prof, Colorado, 25; Cornell, 26, 27, 30; Pennsylvania, 28; British Columbia, 37, 40. Field asst, Univ. Chicago ecol. exped, Alaska, 07. A.A; Asn. Geog. (v. pres, 33); Geol. Soc; fel. Meteorol. Soc; Ecol. Soc; Ind. Acad. (v. pres, 40); Royal Meteorol. Soc. Biogeography; regional geography; climatic laws and changes; tropical cyclones; non-average temperature and rainfall conditions; regional contrasts in productivity; climate of Indiana; rainfall intensity.

Vissat, Dr. Peter L(ouisa), 2149 Winston Ave, Louisville, Ky. *Physics.* Italy, Aug. 9, 13. B.S, Pittsburgh, 35, Ph.D, 41. Asst. physics, Pittsburgh, 35–39; asst. prof, Seton Hill Col; instr. Diesel eng, Cornell; *research engineer and physicist, research and develop. dept, Tube Turns Inc.* Lecturer, Pittsburgh. Asn. Physics Teachers. Effect of high electrostatic fields on the electrical conductivity of tungsten.

Visscher, Dr. Frank E(vert), New York University School of Medicine, New York, N. Y. *Biochemistry.* Holland, Mich, May 9, 12. A.B, Hope Col, 34; M.S, Purdue, 36, Ph.D, 41. Biochemist, Scripps Metabolic Clinic, 40–42; asst, dept. genetics, Carnegie Institution, 42–43; *instr. physiol, sch. med, N. Y. Univ, 43–* A.A; Chem. Soc. Fat metabolism; metabolic functions of the hypophysis; renal function.

Visscher, Prof. J(ohn) Paul, Western Reserve University, Cleveland, Ohio. **Zoology, Biology.* Holland, Mich, Sept. 19, 95. A.B, Hope Col, 17; A.M, Hopkins, 20, fellow, 23–24, Ph.D, 24. Instr. zool, Washington (St. Louis), 20–22; special investigator, Bur. Fisheries, 22–25; asst. prof. *biol, Western Reserve,* 24–26, assoc. prof, 26–31, *prof. and head dept, 31–* Instr, Marine Biol. Lab, Woods Hole, 20–23. Lieut, C.W.S, 18. A.A; Soc. Nat; Soc. Zool. (v. pres, 41); Soc. Parasitol; Ohio Acad. (v. pres, sect. A, 42). Protozoology; structure and function of trichocysts; ecology; fouling of ships' bottoms; general physiology and behavior of lower organisms; barnacles.

Visscher, Dr. M(aurice) B, University of Minnesota, Minneapolis, Minn. **Physiology.* Holland, Mich, Aug. 25, 01. A.B, Hope Col, 22; M.S, Minnesota, 24, Ph.D, 25, M.D, 31. From fellow to asst. prof, Minnesota, 22–25; nat. research fellow med, Univ. Col. London, 25–26; Chicago, 26; prof. physiol. and head dept, col. med, Tennessee, 27–29; prof. physiol. and pharmacol, Southern California, 29–31; *physiol,* col. med, Illinois, 31–36; *prof. physiol. and head dept, Minnesota, 36–* Mem. sub-cmt. clin. investigation, div. med. sciences, Nat. Research Council. A.A; Physiol. Soc. (councilor, 39–42); Soc. Exp. Biol. (chairman Ill. sect, 36; mem. ed. board); Chem. Soc; Soc. Study Int. Secretions; Gastro-Enterol. Asn; Am. Med. Asn. (chairman sect. path. and physiol, 38); Minn. Acad; Minn. Acad. Med. Energy exchanges in the heart; distribution of electrolytes in dynamic equilibria in biological systems; physiology of secretion and absorption; physiological aspects of carcinogenesis.

Visser't Hooft, Dr. F(rans), 1740 Military Road, Buffalo, N. Y. *Organic chemistry, Microbiology.* Haarlem, Holland, March 6, 97. Chem.E, Delft Univ, 23, D.Sc, 25. Scholar, Pasteur Inst, Paris, 23–24; chemist, Noury and van der Lande, 25–26; chief chemist, Novadel Process Corp, 26–28; *v. pres, Lucidol Corp. and Novadel-Agene, Ltd, 28–* Chem. Soc; Asn. Cereal Chemists; Oil Chemists Soc; Asn. Mfg. Chemists; Soc. Bact; Chemists' Club; Soc. Nat. Sci. Buffalo (board managers); Soc. de Chim. biol; Nederlandsche Chem. Vereen. Biochemistry of the genus Acetobacter; cereal chemistry; organic peroxides; flavor of bread.

Vitaliano, Charles J(oseph), U. S. Geological Survey, Washington, D. C. *Geology.* New York, N. Y, April 2, 10. B.S, Col. City of N. Y, 36; A.M, Columbia, 38, James Furman Kemp fellow, 39–40. Asst. mineral, Columbia, 37–39, lab. instr. gems and precious stones, exten, 39, 40; instr. ceramic petrog, Rutgers, 40–42; *asst. geologist, U. S. Geol. Surv, 42–* Summers, recorder, U. S. Geol. Surv, 40, junior geologist, 42. Miner. Soc. Contact metamorphism; ceramic petrography; magnesium ores.

Viteles, Prof. Morris S(imon), University of Pennsylvania, Philadelphia, Pa. **Psychology.* Svanetz, Russia, March 21, 98. A.B, Pennsylvania, 18, A.M, 19, Ph.D, 21. Asst. instr. *psychol, Pennsylvania,* 18–19, instr, 19–25, asst. prof, 25–35, assoc. prof, 35–41, *prof, 41–* Am. Field Service fellow, Paris, 22–23; consulting psychologist, Milwaukee Elec. Ry. and Light Co, 20–22; John Wanamaker, Phila, 20–24; Yellow Cab Co, Phila, 24–28, 36–; Phila. Rapid Transit Co, 24–28; Phila. Elec. Co, 27–; Detroit Edison Co; Social Science Research Council fellow, U.S.S.R, 34–35; mem. tech. board, U. S. Employment Service, 34–; consultant training within industry sect, War Manpower Cmn, 40–; Nat. Defense Research Cmt, 41– Assoc. ed, 'Psychol. Clinic'; mem. ed. board, 'Personnel Jour'; 'Vocational Guidance Magazine.' Chairman cmt. selection and training of aircraft pilots, Nat. Research Council, 42– Vocational adviser, Fed. Board for Vocational Educ, 19. A.A; Psychol. Asn; Vocational Guidance Asn. (chairman, program cmt, 29); Asn. Applied Psychol. (chairman indust. sect); Pa. Asn. Clin. Psychol. (pres, 42–). Application of psychology in selection, training and adjustment of workers and in vocational guidance; psychological tests.

Vittum, Dr. Paul W(endell), Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Chemistry.* Reinbeck, Iowa, Sept. 4, 09. A.B, Cornell Col. (Iowa), 29; Ph.D, Cornell, 33. *Research chemist, Eastman Kodak Co, 33–* Chem. Soc. Organic chemistry; photographic chemistry.

Vivell, Prof. A(llen) E(dgar), 40 Edwards Place, Princeton, N. J. *Electrical engineering.* Los Angeles, Calif, Dec. 4, 05. B.Eng, Hopkins, 27, D.Eng, 37. Nat. Elec. Light Asn. research asst. cable insulation, Hopkins, 28–30; elec. engineer, Point Breeze lab, West. Elec. Co, 30–32; *asst. prof. elec. eng, Princeton, 35–* Visiting asst. prof, Swarthmore Col, 41. Elec. Eng; Physical Soc; Eng. Educ. Magnetic testing and nondestructive weld testing.

Vivian, Dean Alfred, 185 Piedmont Road, Columbus, Ohio. *Chemistry.* Mineral Point, Wis, March 14, 67. Ph.G, Wisconsin, 94. Instr. agr. chem, Wisconsin, 94–02; assoc. prof, *Ohio State,* 02–05, prof, 05–32, dean col. agr, 15–32, *emer. dean, 32–* A.A. (councilor, 16); Chem. Soc; Soc. Agron; Home Econ. Asn. Agricultural chemistry; ripening of cheese; substitutes in cheese-making; plant food in soils; phosphorus requirements of soils. *(Died Oct, 1943)*

Vivian, Dr. D(onald) L(indsay), 1812 K St, N.W, Washington, D. C. *Organic chemistry.* Boulder, Colo, Nov. 12, 07. Ph.B, Yale, 29; Ph.D, George Washington, 34. Junior chemist, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–37, asst. chemist, 37–40; Parke-Davis fellow, med. sch, Maryland, 41–42; indust. analyst, *War Production Board, 42, senior chem. economist, 42–* Grignard reaction; diazonium compounds; azo dyes; aliphatic sulfonic acids; insecticides; heterocyclic nitrogen compounds.

Vivian, Prof. Robert E(vans), University of Southern California, Los Angeles, Calif. *Chemical engineering, Metallurgy.* Melvin, Ill, April 20, 93. A.B, Southern California, 17, A.M, 22; Ph.D, Columbia, 33. Asst. chem, Southern California, 17–18; head div. chem, Kern County Union High Sch. and Junior Col, and chief chemist, Kern County Assay Office, Bakersfield, Calif, 18–28; asst. to Prof. Arthur W. Hixson, Columbia, 29–30, Dr. Colin G. Fink, Columbia, 30–31; research chemist and develop. engineer, Gen. Chem. Co, New York, 31–35; director research, Metals Disintegrating Co, Elizabeth, N. J, 35–37; assoc. prof. *chem. eng, Southern California,* 37–38, *prof, 39–,* acting dean *col. eng,* 40–41, *dean, 42–, institutional rep, eng, science and management war training, 40–* Chem. Soc. (councilor, 40; chairman, South. Calif. sect, 43); Electrochem. Soc; Chem. Eng; Eng. Educ. Electrometallurgy; electrochemistry; chemical process patents.

Vivian, Dr. Roxana H(ayward), Wellesley, Mass. *Mathematics.* Boston, Mass, Dec. 9, 71. A.B, Wellesley Col, 94; Ph.D, Pennsylvania, 01. Instr. and prof. math, Wellesley Col, 01–27, director dept. hygiene, 18–21; prof. math. and dean women, Hartwick Col, 29–31; dean girls, Rye High Sch, 31–35. Acting pres. and prof, Constantinople Col, 06–09; financial sec'y, Women's Educ. and Indust. Union, Boston, 13–15. Statistics; administration.

Vladykov, Dr. V(adim) D(mitrij), University of Montreal, Montreal, Que, Can. *Ichthyology.* Kharkow, Russia, March 18, 98. Ph.D, Charles Univ, Prague, 25; Inst. Pasteur, Paris, 28. Fishery expert, dept. lands and forests, and traveling lecturer biol. and agr, Sub-Carpathia, Czechoslovakia, 25–27; acting director, Ethnographique Museum, Uzhorod, Czechoslovakia, 27–28; bacteriologist and phytopathologist, agr. labs, George Truffaut, Versailles, France, 29–30; ichthyologist, Biol. Board Can, 30–36; fishery biologist, Chesapeake Biol. Lab, 36–38; *research prof. ichthyol, Montreal, 38–* Ground fish cmt, North Am. Council Fishery Investigations. Medal, Soc. Cent.

d'Agr. et de Pêche, France, 30. Soc. Ichthyol. and Herp; Fisheries Soc; Soc. zool. de France. Pure and applied ichthyology; marine biology; limnology; marine mammals.

Vlases, Dr. George, Jr, 76 Wallace Ave, Baldwin, N. Y. *Organic chemistry.* St. Louis, Mo, Aug. 12, 03. B.S, Washington (St. Louis), 26; M.S, Polytech. Inst, 31; Ph.D, N. Y. Univ, 39. Assoc. chemist, U. S. Int. Revenue Bur, 26–42, asst. chief lab, 29–42; assoc. chemist, *U. S. Customs Bur,* 42–43, *chemist, 43–* Inactivation in the camphene series; terpenes; alkaloids.

Vliet, Elmer B(ennett), Abbott Laboratories, North Chicago, Ill. *Chemistry.* Joliet, Ill, Jan. 22, 97. B.S, Illinois, 18, M.S, 26. Asst. research chemist, fixed nitrogen research lab, U. S. Dept. Agr, 19–20; research chemist, *Abbott Labs,* 20–35, *manager control labs, 35–* C.W.S, U.S.A, 18. A.A; Chem. Soc. Toxic smoke; preparation and properties of synthetic medicinals and related compounds.

Voegelin, Prof. C(harles) F(rederick), Indiana University, Bloomington, Ind. *Anthropology.* New York, N. Y, Jan. 14, 06. A.B, Stanford, 27; Ph.D, California, 32. Ind. fellow, Yale, 33–34, Am. Council Learned Societies fellow, 34–35, nat. research fellow, 35–36; asst. prof. *anthrop,* DePauw, 36–39, *assoc. prof,* 39–41; *Indiana, 41–* Lecturer, Michigan, North Carolina and Linguistic Inst, 38–41. Anthrop. Asn. (councilor, 39–); Linguistic Soc. (exec. cmt); Ethnol. Soc; Soc. Am. Archeol; Ind. Acad. (chairman anthrop. sect, 42). Musical experimentation; speech of children; Uto-Aztecan and Algonkin linguistics; plains and woodlands ethnography.

Voegelin, Dr. Erminie W(heeler), Indiana University, Bloomington, Ind. *Anthropology.* Oakland, Calif, April 2, 03. A.B, California, 23, A.M, 29; fellow from Indiana, Yale, 34–36, Ph.D, 35. Research assoc, California, 36; *hon. fellow anthrop, Indiana, 41–* Folk-Lore Soc. (rev. ed, 'Jour. Am. Folklore,' 41, ed, 42–); Ethnol. Soc; Hoosier Folklore Soc; Ind. Acad. American Indian ethnography; folklore; American Indian ethnobotany.

Voegtlin, Dr. C(arl), Dorset, Vt. **4*Pharmacology, Toxicology.* Basle, Switzerland, July 28, 79. Ph.D, Freiburg, 02; Manchester, 03–04. Instr. chem, Wisconsin, 04; asst. med, Hopkins, 04–06, assoc. prof. pharmacol, 06–13; chief div. pharmacol, nat. inst. health, U. S. Pub. Health Service, 13–40, director cancer research, 37–38, chief nat. cancer inst, 38–43; *retired.* Harvey lecturer, N. Y. Acad. Med, 19; Herter lecturer, Univ. and Bellevue Hosp. Med. Col, 38; lecturer, Barnard Hosp, 40. 1st and 2nd Int. Confs. Biol. Standards; Int. Pharmacol. cmt. A.A; Am. Med. Asn; Soc. Pharmacol. (pres, 27–30); Physiol. Soc; Soc. Biol. Chem; Chem. Soc; Asn. Cancer Research (pres, 41); Soc. Control Cancer (director); Soc. Exp. Biol; Clino-path. Soc. Wash; Wash. Acad; Acad. Med. Wash. (pres, 38). Metabolism; function of parathyroid; calcium treatment of tetany; anaphylaxis; action of digitalis on coronary artery; dietary theory of pellagra; vitamins and deficiency diseases; chemotherapy of arsenicals and antimonials; serum preservatives; cyanide; heavy metals; biological significance of glutathione; biochemistry of cancerous and normal tissues; cell division; tumor growth.

Voge, Dr. H(ervey) H(arper), 790 Keeler Ave, Berkeley, Calif. *Chemistry.* Zurich, Switzerland, June 29, 10. B.S, California, 31, fellow, 32–34, Ph.D, 34; M.S, Wisconsin, 32. Asst, Wisconsin, 31–32; nat. research fellow chem, Harvard, 34–36; instr, California, 36–38; *chemist, Shell Develop. Co, 38–* Solutions; molecular structure; radioactive sulfur; catalysis; hydrocarbon chemistry.

Vogel, Dr. Henry A, 3440 N. 46th St, Milwaukee, Wis. *Organic chemistry.* London, Eng, May 7, 14. B.S, Wisconsin, 37, M.S, 39, Ph.D, 41. Develop. chemist, Armour and Co, 41–42; *research chemist, Pittsburgh Plate Glass Co, 42–* Chem. Soc; Oil Chem. Soc. Vegetable and paint oils; paints; alkyds.

Vogel, Lieut. Col. Herbert D(avis), U. S. Army Engineering District, Pittsburgh, Pa. *Hydraulics.* Chelsea, Mich, Aug. 26, 00. Michigan, 18–20; grad, U. S. Mil. Acad, 24; grad, U.S.A. Engineer Sch, 26; M.S, California, 28; Inst. Int. Educ. fellow, Germany, 28–29; D.Ing, Tech. Hochschule, Berlin, 29; grad, Command and Gen. Staff Sch, U. S. Army, 36. 2nd lieut, C.Eng, *U. S. Army,* 24–27, lieut, 27–35, capt, Schofield Barracks, Hawaii, 35–38, instr, eng. sch, Ft. Belvoir, 38–40; major and later *lieut. col, U. S. Engineer Dist, Pittsburgh, 40–* Director, U. S. Waterways Exp. Sta, and asst. to pres, Miss. River Cmn, 29–34. Civil Eng; Soc. Mil. Eng. River dynamics; methods of improvement and flood control of the Mississippi and Ohio Rivers and their tributaries.

Vogel, Prof. Howard H, Jr, Wabash College, Crawfordsville, Ind. *Zoology.* New York, N. Y, Nov. 30, 14. A.B, Bowdoin Col, 36; A.M, Harvard, 37, Ph.D, 40. Asst. anat, Harvard, 37–40, Austin teaching fellow biol, 38; asst. prof. *zool, Wabash Col,* 41–43, *assoc. prof, 43–* Ornithologist, Bowdoin-MacMillan Arctic exped, 34. A.A; assoc. Soc. Zool; assoc. Ornith. Union. Skin transplantation in amphibians; ornithology; histology; birds in relation to man.

Vogel, Dr. K(arl), 101 W. 55th St, New York, N. Y. *Medicine.* New Orleans, La, Feb. 14, 77. M.D, Columbia, 00; Munich, 08. Intern, *St. Luke's Hosp,* 00–03, asst. attending physician, 00–15, assoc. attending physician, 15–29, attending physician, 29–36, *consulting physician, 36–,* asst. pathologist, 08–10, clin. pathologist, 10–31; asst. path, *Columbia,* 03–07, instr, 07–09, asst. prof. clin. path, 09–24, assoc. prof, 24–38, *assoc. clin. prof. med, 38–* Asn. Path. and Bact; Soc. Exp. Biol; Col. Physicians; N. Y. Path. Soc. (sec'y, 07–10); N. Y. Acad. Med; Harvey Soc. (sec'y, 18–20). Internal medicine; laboratory diagnosis.

Vogel, M(atthew) A, Ohio Agricultural Experiment Station, Wooster, Ohio. *Entomology.* Carlyle, Ill, July 14, 03. B.S, Illinois, 30; M.S, Ohio State, 32. Asst. entomologist, Ohio Agr. Exp. Sta, 30–33, Grasselli research entomologist, 33–36; *entomologist, E. I. du Pont de Nemours and Co, 37–* Chemical control of insects and plant diseases.

Vogel, Dr. O(liver) G(eorge), 312 S. Maple Ave, Oak Park, Ill. *Physical chemistry.* Chicago, Ill, June 4, 05. B.S, Chicago, 27, Ph.D, 30. *Chem. and eng. research, Edison Gen. Elec. Appliance Co, Chicago, 30–* Chem. Soc; Physical Soc. High temperature electrical insulation; strong electrolytes; heats of dilution; refractory insulators.

Vogel, Dr. O(rville) A(lvin), 506 Oak St, Pullman, Wash. *Agronomy.* Pilger, Nebr, May 19, 07. B.S, Nebraska, 29, M.S, 31; Ph.D, State Col. Wash, 39. Agent forage investigations, *bur. plant indust, U. S. Dept. Agr,* 30, wheat investigations, 31–35, asst. agronomist, 35–42, *assoc. agronomist, 42–* Soc. Agron. Wheat production and improvement; flax production; improved nursery planters and threshers.

Vogt, Prof. Carl J(ames), 928 Hilldale Ave, Berkeley, Calif. *Mechanical engineering.* Stuttgart, Germany, May 20, 99. B.S, California, 26, M.S, 30. Engineer, research and develop. dept, Standard Oil Co, Calif, 26–28; instr. *mech. eng, California,* 28–31, asst. prof, 31–37, *assoc. prof, 37–* Petrol. Inst; Soc. Automotive Eng. Internal combustion engines; fuels and lubrication.

Vogt, Dr. C(larence) C(harles), Armstrong Cork Co, Lancaster, Pa. *Chemistry.* Zanesville. Ohio, April 29, 83. A.B, Col. of Wooster, 04; fellow, Ohio State, 04–05, A.M, 06, Ph.D, 09. Asst. chem, Ohio State, 05–06, instr, 06–09; asst. prof. inorg. and physical chem, Pittsburgh, 09–12, prof. chem. and fellow, Mellon Inst, 12–26; *research chemist, Armstrong Cork Co, 26–* Chemist, U. S. Bur. Mines, and capt, C.W.S, 18. A.A; Chem. Soc; Franklin Inst; London Chem. Soc. Cerium compounds; dental cements; chemistry of preventive dentistry; insulating materials.

Vogt, William, 32 Cunningham Ave, Floral Park, N. Y. *Ecology.* Mineola, N. Y, May 15, 02. A.B, Columbia, 25. Curator, Jones Beach State Bird Sanctuary, N. Y, 32–35; ed, 'Bird-Lore Mag,' 35–39; research ecologist, Peruvian Guano Admin, 39–42; assoc. director, div. science and educ, Coordinator of Inter-Am. Affairs, 42–43; *chief conservation sect, Pan-Am. Union, 43–* Sci. advisory board, Edmund Niles Huyck Preserve. Field research prize, Linnaean Soc. N. Y, 38. Ornith. Union (chairman conservation cmt, 37); Ecol. Soc; Am. Geog. Soc; Wilson Ornith. Club; Linnaean Soc. N. Y. (past pres, sec'y); British Ecol. Soc. Ecology and behavior of birds, especially guano birds of the west coast of South America.

Voigt, Dr. Adolf F(rank), Smith College, Northampton, Mass. *Physical chemistry.* Upland, Calif, Jan. 31, 14. A.B, Pomona Col, 35; A.M, Claremont Cols, 36; Horace H. Rackham fellow, Michigan, 40–41, Ph.D, 42. Teaching fellow *chem,* Michigan, 36–40; *instr, Smith Col, 41–* Chem. Soc. Artificial radioactivity of thallium, lead, bismuth and europium.

Voigt, Dr. G(eorge) Q(uentin), 83 Main St, Winchester, Mass. *Engineering physics.* Boston, Mass, Feb. 1, 08. B.S,

Mass. Inst. Tech, 29, M.S, 30, Ph.D, 32. *Engineer physicist*, Bur. Standards, 29–41; *mem. materials lab, U. S. Navy Yard, Boston, 41–* Asst. chief traffic census research, Mass. Inst. Tech, 33. Civil Eng; Philos. Soc. Wash; Soc. Metals. Fire resistance of materials and construction; welded steel floors; optical glass; photoelasticity; philosophy; spectrophotometry; strength of materials.

Voigtman, Dr. E(dward) H(ugo), Box 293, Neenah, Wis. *Chemistry.* Hoboken, N. J, June 28, 07. B.S, Wisconsin, 30; M.S, Lawrence Col, 32, Ph.D, 33. Lab. technician, M and M Paper Co, Marinette, *Wis*, 25–26; bleaching research, Interlake div, Consol. Water Power and Paper Co, Appleton, 31–32; *tech. staff, Kimberly-Clark Corp, Neenah, 33–* Tech. Asn. Pulp and Paper Indust. (sec'y-treas, Lake States sect). Pulp, paper and rubber technology; theory and mechanism of chlorination bleaching; use of rubber latex in paper industry.

Vokes, Dr. H(arold) E(rnest), American Museum of Natural History, New York, N. Y. *Invertebrate paleontology.* Windsor, Ont, Can, June 27, 08. A.B, Occidental Col, 31; Ph.D, California, 35. Teaching asst. paleont, California, 32–35; hon. fellow, Yale, 35–36; asst. geol, Ill. Geol. Surv, 37; asst. curator *invert. paleont, Am. Museum Nat. Hist*, 37–42, *assoc. curator, 42–, acting chairman dept. invert, 43–* Guggenheim Mem. Foundation fellow, 40. Summer, prof, California, 42. Mem. advisory cmt. geol, Nat. Roster Sci. Personnel. Geol. Soc; Paleont. Soc. (sec'y, 40–); N. Y. Acad. Mesozoic and Tertiary stratigraphy; Mesozoic and Tertiary mollusca; stratigraphy and paleontology of Lebanon Mountains, Lebanon; paleoecology; paleogeography.

Vold, Dr. M(arjorie) J(ean), 5172 Onacrest Drive, Los Angeles 43, Calif. *Chemistry.* Ottawa, Ont, Can, Oct. 25, 13. B.S, California, 34, Ph.D, 36. Junior research assoc. chem, Stanford, 38–39; research assoc, Southern California, 41–43; *research chemist, Union Oil Co, 43–* Chem. Soc. Physical and colloid chemistry; liquid crystalline phases; soaps; paraffin chain compounds; lubricating oils.

Vold, Dr. Robert D(onald), University of Southern California, Los Angeles, Calif. *Chemistry.* Boston, Mass, Dec. 11, 10. A.B, Nebraska, 31, M.S, 32; Ph.D, California, 35. Asst. chem, Nebraska, 31–32; research chemist, Procter and Gamble Co, 35–37; junior research assoc. *chem*, Stanford, 37–38, research assoc, 38–41; *asst. prof, Southern California, 41–* A.A; Chem. Soc. Colloid chemistry; liquid crystalline phases; nature of phase transitions; phase rule studies of soap systems; calorimetry.

Volk, Dr. Garth W(illiam), Auburn, Ala. *Soil chemistry.* Maple Valley, Wis, June 13, 05. B.S, Wisconsin, 33, M.S, 35, Ph.D, 36. Soil chemist, United Fruit Co, 28–33; asst. soil chemist, Okla. Agr. and Mech. Col, 36–38; assoc. soil chemist, *Ala. Polytech*, 38–43, *soil chemist, 43–* Factors affecting the nature and behavior of native and added phosphates in soils; maintenance of soil fertility in peanut soils.

Volk, Dr. N(orman) J(ames), Alabama Polytechnic Institute, Auburn, Ala. *Soil chemistry.* Oconto Falls, Wis, Jan. 16, 01. B.S.A, Wisconsin, 23, M.S, 24, indust. fellow, 30–33, Ph.D, 32. Asst. chemist, Agr. and Mech. Col. Texas, 24–26; soil chemist, United Fruit Co, Tela, Honduras, 26–30, head dept. research, 33–36; assoc. soil chemist, *Ala. Polytech*, 36–39, soil chemist, 39–41, *head dept. agron. and soils, 41–* Soc. Agron; Soil Sci, Soc; Int. Soc. Soil Sci. Fixation of potash in soils; oxidation and reduction in soils; specific gravity and petrographic analysis of soils; nutrition and pathology of the banana.

Volk, Dr. V(ladimir) K(onstantine), Court House, Saginaw, Mich. *Public health.* Rostov on Don, Russia, Feb. 7, 97. Univ. Don, Russia; M.D, Boston, 26; Dr.P.H, N. Y. Univ, 27. Deputy commissioner health and assoc. med. director, Oakland County Contagious Hosp, Pontiac, *Mich*, 27–36; *county health commissioner and med. supt, County Contagious and Tuber. Hosps, Saginaw, 36–* Special lecturer, sch. nursing, St. Joseph Hosp, Pontiac, Mich. Fel. Pub. Health Asn. (sec'y, diphtheria cmt, 36–41, field director, special diphtheria study); fel. Am. Sch. Health Asn. (governing council, 30–41, v. pres, 42); Mich. Pub. Health Asn. (director, 32–); Mich. Sch. Health Asn. (sec'y, 34–40, pres, 41). Diphtheria immunization.

Volker, Dr. Joseph F(rancis), Tufts College School of Dentistry, Boston, Mass. *Biochemistry, Dentistry.* Elizabeth, N. J, March 9, 13. D.D.S, Indiana, 36; Carnegie fellow, Rochester, 37–40, A.B, 38, M.S, 39, senior Carnegie fellow, 40–41, Ph.D, 42. Dental res, Mountainside Hosp, 36–37; asst. prof. dentistry, *sch. dentistry, Tufts Col*, 41–42, *prof. clin. dentistry, 42–; asst. prof. dentistry, sch. med. and dentistry, Rochester.* Int. Asn. Dental Research. Saliva and blood coagulation; acid-soluble dental hard tissues; radiophosphorus metabolism of the teeth; action of fluorine in limiting dental caries.

Volkerding, Dr. Clifford C(harles), 314 Gilbert St, Danville, Ill. *Soil physics.* Ada, Minn, Dec. 5, 15. B.S, N. Dak. Col, 38; Ph.D, Cornell, 42. Junior soil scientist, soil conservation service, U. S. Dept. Agr, 39; asst. agron, Cornell, 38–42; *line foreman mil. explosives, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Soil chemistry; physical and chemical properties of metaphosphate fertilizers.

Volkmann, Dr. Ernest W(ilhelm), 3052 Beechwood Blvd, Pittsburgh, Pa. *Chemical engineering.* Koenigsberg, Germany, Feb. 17, 01. Dipl.Ing, Technische Hochschule, Munich, 24; M.S, Columbia, 33, Ph.D, 35. Chem. engineer, Am. Tar Products Co, 26–31; asst. to tech. director, tar and chem. div, *Koppers Co*, 34–39, *asst. research director, 39–* Chem. Eng; Soc. Rheol; Chem. Soc. Coal carbonization; coal tar technology; distillation practise; viscometry.

Volkmann, Dr. John, Harvard University, Cambridge, Mass. *Psychology.* Sleepy Eye, Minn, June 20, 06. A.B, Harvard, 27, A.M, 29, Ph.D, 31. Instr. psychol, Harvard, 31–37; Columbia, 37–42; *special research assoc, Harvard, 42–* Psychol. Asn. Psychophysics; psychology of judgment.

Volkoff, Prof. G(eorge) M(ichael), University of British Columbia, Vancouver, B. C, Can. *Physics.* Moscow, Russia, Feb. 23, 14. B.A, British Columbia, 34, M.A, 36; Royal Soc. Can. fellow, California, 39–40, Ph.D, 40. *Asst. prof. physics, British Columbia, 40–* Physical Soc. Theoretical nuclear physics.

Vollertsen, J(ohn) J(oseph), Armour and Co, Union Stock Yards, Chicago, Ill. *Chemistry.* Chicago, Ill, Jan. 14, 80. B.S, Chicago, 03. Swift and Co, 03–04; Kennicott Co, 04–06; Morris and Co, 07–08; in business, 08–09; asst. chemist, Morris and Co, 10–16, chief chemist, 16–23; asst. chief chemist, *Armour and Co*, 23–26, chief chemist, 26–39, *chief chem. research develop. dept, 39–* A.A; Oil Chemists Soc. (pres, 25); Chem. Soc; Leather Chem. Asn; Soc. Test. Mat. Fats and oils; food products; general packing house engineering.

Vollmayer, Prof. L(eo) J(ohn), S.J, Xavier University, Cincinnati, Ohio. *Physics.* Toledo, Ohio, Oct. 27, 86. A.B, St. John's Col. (Ohio); M.S, St. Louis, 24. Instr. physics and math, John Carroll, 14–19; *physics*, St. Louis, 23–25, asst. prof, 25–27, assoc. prof, 27–31; *prof*, John Carroll, 31–42; *Xavier (Ohio), 42–* A.A; Physical Soc; Asn. Physics Teachers.

Vollrath, Prof. R(ichard) E(rnest), University of Southern California, Los Angeles, Calif. *Physics.* Munich, Germany, Sept. 8, 00. A.B, Hopkins, 26, du Pont fellow, 28–29, Ph.D, 29. Nat. research fellow *physics*, Calif. Inst. Tech, 29–31; asst. prof, *Southern California*, 31–33, assoc. prof, 33–39, *research prof, 39–, head dept, 41–* A.A; Chem. Soc. Chemistry.

Volman, Dr. David H, Northwestern University, Evanston, Ill. *Physical chemistry.* Los Angeles, Calif, July 10, 16. A.B, California at Los Angeles, 37, A.M, 38; Standard Oil Co. of Calif. fellow, Stanford, 39–40, Ph.D, 40. Asst. chem, California at Los Angeles, 37–38, research chemist, Nat. Defense Research Cmt. project, 41–42; asst. chem, Stanford, 38–39; instr. chem, California, and junior chemist, Exp. Sta, 40–41; *research chemist, Nat. Defense Research Cmt. project, Northwestern, 42–* Chem. Soc. Photo-sensitized ammonalysis of soils; micro-analysis of gases; spectroscopy and photochemistry of aldehydes and ketones; photochemistry of amides and esters; spectra of gases at low pressures.

Volpitto, Dr. Perry P(aul), University of Georgia School of Medicine, Augusta, Ga. *Anesthesiology.* Johnstown, Pa, July 9, 05. B.S, Washington and Jefferson Col, 28; M.D, Western Reserve, 33. Assoc. prof. *anesthesiol, sch. med, Georgia*, 37–38, *prof, 38–* Am. Med. Asn; Soc. Anesthetists; South. Med. Asn; Int. Anesthesia Research Soc. Treatment of barbiturate poisoning; amnesia in labor; treatment of apnea of the newborn; intra-arterial blood pressure in children and during anesthesia.

Volwiler, Dr. E(rnest) H(enry), Abbott Laboratories, North Chicago, Ill. **Chemistry.* Hamilton, Ohio, Aug. 22, 93. A.B, Miami (Ohio), 14; A.M, Illinois, 16, Ph.D, 18.

Instr. chem, Miami (Ohio), 14; asst, Illinois, 14–17; research chemist, *Abbott Labs*, 18–21, chief chemist, 21–30, *director research, 30–, mem. board directors, 30–, v. pres. in charge research and develop, 33–* Ed, 'Chem. Bul,' 22–24. Mod. Pioneer award, Nat. Asn. Mfrs, 39. Chem. Soc. (chairman, Chicago sect, 24, med. products div, 24, councilor-at-large); Pharmaceut. Asn; Asn. Ill. Chemists (pres, 30); Chicago Chem. Club (pres, 30); Deuts. Chem. Gesell. Medicinal chemistry; local and general anesthetics; hypnotics; antiseptics; chemical constitution and physiological action.

Volz, Prof. E(mil) C(onrad), 619 Ash Ave, Ames, Iowa. *Horticulture.* Saginaw, Mich, Sept. 22, 91. B.S, Mich. State Col, 14; M.S, Cornell, 18; Illinois. Instr. floricult. and veg. crops, Iowa State Col, 14–15; floricult, Cornell, 15–18; asst. prof. hort, Illinois, 18–21; *prof. floricult, Iowa State Col, 21–* Lecturer, Mich. State Col, 17. Soc. Am. Florists. Effects of organic materials and water on greenhouse crops; soil and soilless culture of greenhouse crops.

von Bloeker, Jack C(hristian), Jr, University of Southern California, Los Angeles, Calif. *Vertebrate zoology.* Sacramento, Calif, July 11, 09. A.A, Los Angeles City Col, 35; scholar, California at Los Angeles, summers, 33, 34; A.B, California, 37, La Verne Noyes scholar, 36–38, A.M, 38. Instr. nat. hist. and taxidermy, O'Rourke Zool. Inst, San Diego, Calif, 25–28; osteologist, Dickey collections, Calif. Inst. Tech, 28–29; asst. taxidermist, Los Angeles Museum, 29–32; lab. asst, Los Angeles City Col, 32–35; museum asst. vert. zool, California, 35–36; vertebrate zoologist, O. P. Silliman Collections, 36–38; field zoologist, Los Angeles Museum, 38–39, curator ornith. and mammal, 39–41; *curator div. vert. zool, Allan Hancock Foundation, Southern California, 41–* Museum asst, Nat. Hist. Museum, San Diego, Calif, 27–28. Soc. Mammal; Ornith. Union; West. Herp. Asn; Cooper Ornith. Club (sec'y south. div. and governor, 42–); Wilson Ornith. Club. Mammalogy; ornithology; herpetology; entomology; taxonomy, distribution, ecology and parasitology of vertebrates.

von Bonin, Prof. Gerhardt, University of Illinois College of Medicine, Chicago, Ill. *Anatomy.* Warendorf, Germany, July 17, 90. M.D, Freiburg, 15. Asst. anat, Peiping Union Med. Col, 27–29; prosektor, anat. lab, Leiden, 29–30; assoc. *anat, col. med, Illinois,* 30–32, asst. prof, 32–36, assoc. prof, 36–39, *prof, 39–* A.A; Asn. Anat; Asn. Physical Anthrop. Physical anthropology; neurology.

von Brand, Prof. Theodor, Catholic University of America, Washington, D. C. *Physiology, Parasitology.* Ortenberg, Germany, Sept. 22, 99. Ph.D, Munich, 22; M.D, Erlangen, 28. Asst. comp. physiol, physiol. inst, Erlangen, 23–30; protozool, inst. trop. diseases, Hamburg, 31–33; fellow, Copenhagen, 34–35; fellow by courtesy, Hopkins, 36–37; prof. *biol,* Barat Col, 37–40; *assoc. prof, Catholic Univ, 40–* Summers, mem. staff, Zool. Sta, Heligoland, 23, 24, Naples, 25, 26; Oceanog. Institution, Woods Hole, 36–41. Soc. Parasitol; Soc. Exp. Biol. and Med; Helminth. Soc. Wash; Wash. Acad. Chemical composition and metabolism of invertebrates, especially parasites; experimental calcification; nitrogen cycle in the sea.

Von Dach, Dr. Herman, Georgetown University School of Medicine, Washington, D. C. *Physiology.* Columbus, Ohio, Sept. 24, 04. A.B, Ohio State, 26, A.M, 35, Ph.D, 39. Asst. zool, Ohio State, 35–39, Muellhaupt scholar, 39–40; *instr. physiol, sch. med, Georgetown, 40–* A.A; Ohio Acad. Physiology of protozoa.

Vonderahe, Dr. A(lphonse) R(alph), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Anatomy, Pathology.* St. Bernard, Ohio, April 24, 96. A.B, Xavier, 16; B.S, Cincinnati, 19, M.D, 21. Asst. path, Cincinnati, 19–21; intern, Cincinnati Gen. Hosp, 21–22; res. physician, Pa. Hosp, Phila, 22–23; asst. neur, *col. med, Cincinnati,* 23–24, instr. *neuroanat,* 24–28, asst. prof, 28–40, *assoc. prof, 40–* Consultant neuropsychiat, diagnostic center, U. S. Veterans' Bur, 29–33; director neur. service, Chronic Disease Hosp, Cincinnati, Ohio, 29– Am. Med. Asn; Neur. Asn; Asn. Anat; Psychiat. Asn; Phila. Neur. Soc. Anatomy and pathology of the nervous system; pathological changes in senile psychoses; morphine in obstetrics; anamnesis in the psychoses; Liliputian hallucination; support for facial paralyses; paralysis from Jamaica ginger; Bacillus coli meningitis; hypothalamus in diabetes mellitus, gastric ulcer and other diseases.

Vonderlehr, Dr. R(aymond) A(loysius), 19th and Constitution Ave, N.W, Washington, D. C. *Medicine.* Richmond, Va, April 25, 97. M.D, Virginia, 20. Commissioned asst. surgeon, *U. S. Pub. Health Service,* 25–29, passed asst. surgeon, 29–37, *surgeon, 37–,* asst. surgeon-gen, 35–43, director dist. six, San Juan, P.R, 43. Professorial lecturer, George Washington. Pub. Health Asn; fel. Am. Med. Asn; Asn. Mil. Surg. Venereal disease control.

von Elbe, Dr. G(uenther), U. S. Bureau of Mines, Pittsburgh, Pa. *Chemistry.* Potsdam, Germany, Nov. 27, 03. Kiel, 22–23; Liebig fellow, Berlin, 27–28, Ph.D, 28. Notgemeinschaft fellow, Berlin, 29; research assoc, Virginia, 30–32; coal research lab, Carnegie Inst. Tech, 32–42; *physical chemist, U. S. Bur. Mines, 42–* Consulting physical chemist, U. S. Bur. Mines, 31. Chem. Soc. Photochemistry; binary system alcohol hydrocarbon; constitution of caramel; conversion of o- and p-hydrogen; thermodynamic properties of flame gases; flame velocities; kinetics of gas reactions.

von Engeln, Prof. O(skar) D(ietrich), Ithaca, N. Y. *Geology, Geography.* Dayton, Ohio, July 3, 80. A.B, Cornell, 08, Ph.D, 11. Asst. geol, *Cornell,* 05–07, instr. *physical geog,* 07–12, acting head dept, 09–10, asst. prof, 12–21, *prof, 21–* Summers, instr, Missouri, 11; sci. expert, N. Y. Geol. Surv, 22–24. Sci. asst, U. S. Geol. Surv. exped, Yakutat Bay, Alaska, 06; Nat. Geog. Soc. exped, Alaska, 09. Chairman cmt. physical geog, Col. Ent. Exam. Board, 24–36; geog, N. Y. Regents, 25–27. Cornell del, centenary celebration, Soc. géol. de France, 30; mem, Int. Geog. Cong, Paris, 31; del, Cornell and U. S, Warsaw, 34. A.A; fel. Am. Geog. Soc; Geol. Soc; Asn. Geog; N. Y. Geol. Asn. (sec'y, 30). Geomorphology; glaciology; experimental physiography; regional geography.

von Fischer, Prof. William, Case School of Applied Science, Cleveland, Ohio. *Chemistry.* St. Paul, Minn, March 3, 10. B.Chem, Minnesota, 32, M.S, 33, Ph.D, 37. Teaching asst, inst. tech, Minnesota, 33–37; instr. *chem, Case,* 37–40, *asst. prof, 40–* A.A; Chem. Soc. The aging of precipitates; analytical and physical chemistry; paint and varnish chemistry.

Von Glahn, Dr. William C(arson), 477 First Ave, New York, N. Y. *Pathology.* Wilmington, N. C, May 26, 89. B.S, Davidson Col, 11; M.D, Hopkins, 15. Intern, New Haven Hosp, 15–17; instr. path, Hopkins, 17–18, 19–20; Maryland, 19–20; assoc. path, col. physicians and surg, Columbia, 20–23, asst. prof, 23–25, *assoc. prof,* 25–41; *prof. path. and director path. lab, col. med, N. Y. Univ, 41–; director path, Bellevue Hosp, 41–* Asst. res. pathologist, Hopkins Hosp, 17–18; res. pathologist, City Hosps, Baltimore, 19–20; asst. pathologist and res. pathologist, Presb. Hosp, New York, 20–22, assoc. attending pathologist, 22–41. M.C, U.S.A, 18–19. Asn. Path. and Bact; Harvey Soc; N. Y. Path. Soc. (v. pres, 28, 29, pres, 34, 35); N. Y. Clin. Soc. (pres, 41); N. Y. Acad. Med; Int. Asn. Geog. Path. Rheumatic disease of heart and blood vessels; effect of staphylococcus toxin on kidney; effect of heavy metals on liver; diseases of coronary arteries; pancreas in chronic passive congestion; argentophile micro-organisms in liver abscesses; neoplasms of lung.

von Gutfeld, Dr. Fritz J(osef), 111 N. Shields Ave, Richmond, Va. *Bacteriology.* Berlin, Germany, Nov. 14, 88. Freiburg; Munich; Rostock; M.D, Berlin, 13. Asst. path, Charité Berlin, 14–18, sci. mem, Pub. Health Dept, Berlin, Germany, 18–26; head dept. bacter, Hosp. Am. Urban, 26–34; Jewish Hosp, 34–39; assoc. and later *asst. prof. bacter. and parasitol, Med. Col. Va, 39–* Immunology; preventive medicine; disinfection; syphilis; tuberculosis; haemolysins; rules and methods for the prevention of various infections.

von Haam, Dr. Emmerich, Ohio State University, Columbus, Ohio. *Pathology, Bacteriology.* Neulengbach, Austria, Aug. 24, 03. Col. Empress Maria Theresa, Vienna, 21; M.D, Vienna, 26. Res. fellow path, Vienna, 24–26, instr. clin. path. and internal med, 26–28; fellow, Physiat. Inst, Morristown, N. J, 28–29; instr. internal med, Vienna, 29–30; assoc. prof. path, Arkansas, 30–31; asst. prof. path. and bacter, sch. med, Louisiana, 32–37; *chairman dept. path, col. med, Ohio State, 37–* Gold medal, Am. Soc. Clin. Pathologists, 36. Soc. Exp. Biol; Soc. Endocrinol; Asn. Path. and Bact; Soc. Clin. Path; Soc. Trop. Med; Asn. Cancer Research; La. Acad. Physiology and pathology of the spleen; iron metabolism; lymphogranuloma inguinale; cancer; cytology; blood of laboratory animals; virus diseases; pathology of heart failure.

von Herrmann, Charles F(rederick), 585 Hardendorf Ave, N. E, Atlanta, Ga. *Meteorology.* Hartford, Conn, Feb. 10, 62. High sch. U. S. Weather Bur, 84–32, senior meteorologist; *retired.* Elementary mathematical problems in meteorology.

von Hippel, Prof. A(rthur), 265 Glen Road, Weston, Mass. *Electrical engineering.* Rostock, Germany, Nov. 19, 98. Ph.D, Göttingen, 24. Asst, Jena, 24–27, privat-docent, 28–29; Rocke-

feller fellow physics, California, 27–28; privat-docent, Göttingen Physical Inst, 29–33; prof, Istanbul, 33–34; guest prof. theoret. physics, Copenhagen, 35–36; asst. prof. elec. eng, Mass. Inst. Tech, 36–40, *assoc. prof. in charge lab. insulation research, 40–* Physical Soc; Elec. Eng. Cathodic sputtering; gases discharges; electric breakdown; spectroscopy of solids; electric insulation; photoelectricity; semiconductors; ultrahigh frequency.

von Huhn, R(udolf), 1016 16th St, N. W, Washington, D. C. *Statistics.* San Francisco, Calif, Sept. 16, 84. M.E, Ilmenau, Germany, 08. Production engineer, Allgemeine Elek. Gesell, Berlin, 08–11; Gen. Elec. Co, Schenectady, N. Y, 11–12, Diesel eng. dept, Erie, Pa, 12–14; H. Koppers Co, Pittsburgh, Pa, 15–17; statistician, U. S. Food Admin, Wash, D. C, 18–19; chief statistician, Thomas A. Edison, Inc, and Storage Battery Co, 20–21; special agent and chief for. statist. sect, U. S. Dept. Commerce, 21–33; project supervisor, Wash, D. C, and San Juan, P. R, div. research and planning, Nat. Recovery Admin, 33–34, statistician, indust. reporting unit, 35–36; chief graphic anal. sect, Works Progress Admin, 36–39; statistician, St. Lawrence seaway surv, office of sec'y, U. S. Dept. Commerce, 39–40, 41; *chief statistical anal. and presentation sect, div. econ. and statistics, U. S. Maritime Cmn, 42–* Statistician and graphic analyst, advisory cmt, Council Nat. Defense, Office of Adviser on Indust. Materials, 41. Council Nat. Defense, 17–18. A.A; Statist. Asn. Industrial management; statistical methodology; graphic methods; statistical exhibits; foreign trade; statistical and economic analysis of industrial operations.

von Kármán, Dr. Theodor, Guggenheim Aeronautics Laboratory, California Institute of Technology, Pasadena, Calif. ***Physics, Mechanics, Aeronautics.* Budapest, Hungary, May 11, 81. M.E, Royal Tech. Univ, Budapest, 02; Ph.D, Göttingen, 08; hon. D.Ing, Tech. Hochschule, Berlin, 29; hon. D.Sc, Brussels, 37; LL.D, California, 43. Research engineer, Ganz Co, Budapest, and asst, Royal Tech. Univ, Budapest, 03–06; lecturer and asst. prof, Göttingen, 09–12; *prof. and director aerodynamical inst, Tech. Hochschule, Aachen, 13–; director, Daniel Guggenheim Grad. Sch. Aeronautics, Calif. Inst. Tech, 29–* Adviser, Junkers Airplane Works, Germany, 24–28; Kawanishi Airplane Works, Japan, 27–29; visiting lecturer, univs, Japan, China, India, England, France, Belgium and Russia, 26– Sylvanus Reed award, Am. Inst. Aeronaut. Sciences, 41; medal, Am. Soc. Mech. Eng, 41. Chief exp. dept, Austro-Hungarian A.C, 16–17. Nat. Acad; Philos. Soc; Civil Eng; Mech. Eng; Inst. Aeronaut. Sci; Gesell. der Wissensch; for. mem. Royal Acad. Sci, Italy. Theory of elasticity; strength of materials; hydrodynamics; aerodynamics; thermodynamics.

von Loesecke, Harry W(illard), 307 Windsor St, Silver Spring, Md. *Chemistry.* Lynn, Mass, Aug. 15, 98. B.S, Harvard, 22. Research chemist, Gen. Elec. Co, 22–25; Am. Protein Corp, 25–27; United Fruit Co, 27–31; senior chemist in charge citrus products sta, agr. chem. research div, bur. agr. chem. and eng, *U. S. Dept. Agr,* 31–43, *prin. indust. specialist, food distribution admin, 43–* Chem. Soc; fel. Pub. Health Asn; Agr. Chem; Fla. Hort. Soc. Chemistry of the banana; cellulose from bagasse; alcoholic beverages from citrus fruits; citrus fruits, their preservation and by-products; commercial production of proteins from beef blood; gorli seed oil; dehydration of foods.

von Meysenbug, Dr. Ludo, Box 3356, Daytona Beach, Fla. *Pediatrics.* New Orleans, La, Dec. 4, 92. A.B, Washington and Lee, 13; M.D, Harvard, 17; fellow, Minnesota, 19. Instr. pediat, Tulane, 21; prof. clin. pediat, sch. med, Louisiana; *chief pediat. service, Halifax Dist. Hosp, 34–* Fel. Acad. Pediat; fel. Am. Med. Asn; Soc. Exp. Biol; South. Med. Asn. (sec'y, pediat. sect). Rickets; spasmophilia; blood calcium; infant diets; banana diets for infants.

von Nardroff, Prof. R(obert), Columbia University, New York, N. Y. *Physics.* Brooklyn, N. Y, Jan. 12, 95. A.B, Harvard, 15; A.M, Columbia, 15, Ph.D, 24. Instr. *physics,* Polytech. Inst. Brooklyn, 16–17; *Columbia,* 19–29, *asst. prof, 29–, asst. to dean, Columbia Col, 31–* M.C, U.S.A, 17–18, Sig.C, 18–19. Physical Soc. Refraction of x-rays.

Vonnegut, Dr. Bernard, Massachusetts Institute of Technology, Cambridge, Mass. *Physical chemistry.* Indianapolis, Ind, Aug. 29, 14. B.S, Mass. Inst. Tech, 36, Ph.D, 39. Teaching fellow chem, Mass. Inst. Tech, 36–37; research worker, Hartford Empire Co, 39, 41; *research assoc. chem. eng, Mass. Inst. Tech, 41–* Chem. Soc. Freezing points of solutions; chemistry and physics of surfaces.

Von Neumann, Prof. J(ohn), Fine Hall, Princeton, N. J. *Mathematics.* Budapest, Hungary, Dec. 28. 03. E.Ch, Inst. Polytech, Zurich, 26; Ph.D, Budapest, 26. Privat-docent, Berlin, 27–29; Hamburg, 29–30; lecturer, Princeton, 30–31, *prof.* math. physics, 31–33; *math, Inst. Advanced Study, 33–* Nat. Acad; A.A; Math. Soc; Math. Asn; fel. Physical Soc. Theory of sets; axiomatic mathematical logics; group theory; quantum theory; operator theory.

von Oettingen, Dr. W(olfgang) F(elix), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Toxicology.* Marburg, Germany, Dec. 3, 88. Ph.D, Göttingen, 13; M.D, Heidelberg, 16. Instr. chem, Göttingen, 12–13; asst. pharmacol, Heidelberg, 15–17; hosp. service, 18–20; private med. research, 20–25; instr. pharmacol, sch. med, Western Reserve, 25–29, asst. prof, 29–34; director, Haskell Lab. Indust. Toxicol, 34–38; *prin. indust. toxicologist, div. indust. hygiene, nat. inst. health, U. S. Pub. Health Service, 38–* A.A; Soc. Pharmacol; Soc. Exp. Biol. Pharmacology and toxicology of dyes and solvents; pharmacology of bismuth compounds; relation between chemical constitution and pharmacological action; industrial toxicology.

Von Ohlen, Dr. Floyd W(illiam George), Francesville, Ind. *Plant physiology.* Hinckley, Ill, May 9, 96. B.S, Illinois, 20, M.S, 26; Ph.D, Ohio State, 30. Asst. bot, Illinois, 27–28; Ohio State, 28–30; instr. biol, Long Island, 31–34; agent, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–41; *teacher science and vocational agr.* A.A; Soc. Plant Physiol; Bot. Soc. Microchemistry of soy-beans; agriculture.

von Phul, Dr. W(illia)m, Green Acre Lane, Westport, Conn. *Electrical engineering.* New Orleans, La, July 20, 71. B.S, Tulane, 91, M.E, 93, hon. D.Eng, 31. Engineer, Edison Elec. Co, New Orleans, 91–02; Sargent and Lundy, Chicago, 02–05; staff, *Ford, Bacon and Davis, Inc,* 05–12, *mem. firm, 12–, pres. and director, 21–* In charge construction of works and later of operation, Cincinnati Gas and Elec. Co, 02–05. Director, Ford, Bacon and Davis, Inc; Ford, Bacon and Davis Construction Corp; Lackawanna and Wyo. Valley Production Co; Easy Washing Machine Corp; Interstate Nat. Gas Co; L. C. Smith and Corona Typewriters, Inc; South. Natural Gas Co; Lackawanna and Wyo. Valley R.R. Co; Laureal Line Transportation Co. A.A; Civil Eng; Mech. Eng; Acad. Polit. and Social Sci; La. Eng. Soc.

von Schlichten, Prof. Otto Charles, University of Cincinnati, Cincinnati, Ohio. *Geology.* Cincinnati, Ohio, July 19, 86. A.B, Cincinnati, 11; Wisconsin, 12–13. Instr. geol. and German, Cincinnati, 11–12; geologist, Mo. Bur. Geol. and Mines, 13–15; instr. geol, Cincinnati, 15–16; Lehigh, 16–17; *asst. prof. geol. and miner, Cincinnati, 17–* A.A; fel. Miner. Soc. Mineralogy; nickel; cobalt.

von Schrenk, Dr. H(ermann), Tower Grove and Flad Aves, St. Louis, Mo. ***Vegetable pathology, Forestry.* College Point, N. Y, March 12, 73. B.S, Cornell, 93; A.M, Harvard, 94; Ph.D, Washington (St. Louis), 97. Asst. bot, Harvard, 93–94; instr, St. Louis Manual Training Sch, 94–96; Washington (St. Louis), 96–03; in charge, Miss. Valley lab, bur. plant indust, U. S. Dept. Agr, 01–07; *pathologist, Mo. Bot. Garden, 07–; consulting timber engineer, N. Y. Cent. Lines, 12–* Special agent, div. veg. physiol. and path, bur. plant indust, U. S. Dept. Agr, 98–01, in charge div. forest products, U. S. Forest Service, 03–05; tech. expert, South. Cypress Mfg. Co; lecturer, Yale Forest Sch, 02–09; Toronto, 06–07; Biltmore Forest Sch, 06–14; Wisconsin, 09. Ed. veg. path. for U. S. and sec'y, Am. board editors, 'Bot. Zentralblatt,' 07–13. Chairman, State Forest Cmn, Mo, 08–16; eng. div, Nat. Research Council. A.A. (sec'y, G, 02); Soc. Nat. (treas, 04–12); Bot. Soc; Forestry Asn; Civil Eng. (chairman, cmt. on timber, 30–); Ry. Eng; Soc. Test. Mat. (chairman, cmt. on timber, 04–, pres, 34); Mo. Forestry Asn. (pres, 24–32); St. Louis Acad; Deuts. Bot. Gesell. Diseases of plants, especially of trees and timber; preservation of timber.

von Wettberg, Dr. E(düard) F(eltberg), Jr, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering.* New York, N. Y, Nov. 24, 05. B.S, Yale, 27, Ph.D, 30. *Chem. engineer, electrochem. dept, E. I. du Pont de Nemours and Co, 30–* Inst. Chem. Eng. The methanol equilibrium; oxidation of methanol to formaldehyde; use of halogenated hydrocarbons; chemical process cost analysis.

Voorhees, Dr. H(arold) R(obinson), 1643 Portsmouth Ave, Westchester, Ill. *Acoustics.* Coldwater, Mich, Oct. 11, 97. A.B, Albion Col, 20; M.S, Michigan, 22, Ph.D, 28. Instr. physics, Albion Col, 19–21; Michigan, 21–22; prof. and head

dept, Pontiac Junior Col, 22–27; asst. prof, Drexel Inst, 27–28; research engineer, Victor Talking Machine Co, 28–29; Gen. Elec. Co, 29–30; RCA Victor Co, 30–34; *instr*, Pontiac Junior Col, 34–38; *physics, Herzl Junior Col, 38–* Physical Soc; Asn. Physics Teachers. X-ray absorption measurements of iron; acoustic measurements.

Voorhees, Louis A(ugustus), 357 George St, New Brunswick, N. J. *[1]Chemistry, Public health.* New Brunswick, N. J, March 6, 65. A.B, Rutgers, 85, A.M, 88. Asst. chemist, N. J. Exp. Sta, 86–95, chief chemist, 95–05; *chemist, dept. health, New Brunswick, 18–* A.A; Agr. Chem; Pub. Health Asn; Dairy Sci. Asn; Chem. Soc; Inst. Food Technol; N. J. Health Officers Asn; N. J. Health and Sanit. Asn; Int. Asn. Milk Sanitarians. Agricultural and food chemistry; sanitation.

Voorhees, Dr. R(ichard) K(enneth), University of Florida Citrus Experiment Station, Lake Alfred, Fla. *Plant pathology.* Minneapolis, Minn, Nov. 28, 07. B.S.A, Florida, 30, M.S, 31; Ph.D, Minnesota, 40. Asst. plant pathologist and later *assoc. plant pathologist, Citrus Exp. Sta, Florida, 31–* Phytopath. Soc; Mycol. Soc. Mycology.

Voorhees, Dr. Vanderveer, Old Orchard Farm, Homewood, Ill. *Chemistry.* Alton, Ill, Aug. 23, 96. B.S, Illinois, 21, M.S, 22; Ph.D, Wisconsin, 24. Research chemist, Am. Writing Paper Co, 19; Standard Oil Co. of Ind, 24–35; *patent attorney, 35–* Mod. Pioneer award, Nat. Asn. Mfrs. Chem. Soc; fel. Inst. Chem; Patent Law Asn. Platinum oxides; synthetic lubricating oil; gasoline antioxidants.

Voorhies, Prof. E(dwin) C(oblentz), University of California, Berkeley, Calif. *Agricultural economics.* Calif, May 18, 92. B.S, California, 13; Copenhagen, 24–25; Am-Scandinavian Foundation fellow, 24–25; Royal Agr. Col. Denmark, 24–25; Stanford, 26. Asst. to dean col. agr, *California*, 17–19, from asst. prof. to *prof. agr. econ. and agr. economist, Exp. Sta, dean students, univ.* Econ. Asn; Farm Econ. Asn; Royal Danish Agr. Soc. Analyses of commodities of the animal industry.

Voorhies, Prof. Glenn, Oregon State College, Corvallis, Oregon. *Forestry.* Oregon, Aug. 23, 05. B.S, Oregon State Col, 29, M.S, 30, F.E, 40. Dry kiln supt, C. D. Johnson Lumber Corp, 30–36; *asst. prof. wood products, Oregon State Col, 36–* Summers, research staff, Long Bell Lumber Co, 36, 37, 40. Soc. Foresters. Wood products; preservation; seasoning; waste utilization.

Vopicka, Dr. E(dward), 418 Rutherford Blvd, Passaic, N. J. *Organic chemistry.* Cleveland, Ohio, Oct. 15, 11. B.S, Case, 31, M.S, 32; Ph.D, Western Reserve, 35. Asst, Standard Oil Co. of Ohio, 34; research chemist, E. I. du Pont de Nemours and Co, Cleveland, 35; Int. student fellow, Charles Univ, Prague, 35–36; *research chemist, Givaudan-Delawanna, Inc, Delawanna, 37–* Chem. Soc. Interaction of 2,4-dichloroquinazoline in alcohol with ammonia and methyl amine; saponification and thermal decomposition of mixed diacyl derivatives of 2-amino-4-chlorothiophenol; polarographic studies with the dropping mercury cathode LX; influence of buffers and cations in the electroreduction of fumaric and maleic acids.

Vorce, Dr. Lafayette Denton, 20 Norman Road, Montclair, N. J. *Chemical engineering.* Euclid, Ohio, Jan. 1, 65. B.S, Case, 89, hon. D.Eng, 31. Chemist, Standard Oil Co, 89–96; supt, Cleveland Linseed Oil Co, 96–02; Cleveland By-Products Co, 05; Pa. Salt Mfg. Co, 05–15; *chem. engineer, Westvaco Chlorine Products, 15–* Chem. Soc; Chem. Eng; Electrochem. Soc. Electro-chemistry; atomic weight of magnesium; the Vorce cell.

Vorhies, Prof. Cha(rle)s T(aylor), University of Arizona, Tucson, Ariz. *Zoology.* Mt. Pleasant, Iowa, Sept. 7, 79. B.S, Iowa Wesleyan, 02; Ph.D, Wisconsin, 08. Instr. biol, Iowa Wesleyan, 02–04; asst. zool, Wisconsin, 04–08; prof, Utah, 08–15; asst. prof. biol, *Arizona*, 15–16, *prof.* zool, 16–18, entom, 18–36, *econ. zool, 36–* Summer, instr, Cornell, 15. A.A; Soc. Ichthyol. and Herp; Soc. Mammal; Ecol. Soc. (pres, 39); Wildlife Soc; Ornith. Union; Cooper Ornith. Club. Economic zoology, ornithology and mammalogy; grazing range rodents; ecology of desert animals.

Voris, Dr. A(aron) LeRoy, Pennsylvania State College, State College, Pa. *Nutrition.* Burgin, Ky, July 1, 06. A.B, Georgetown Col. (Ky), 27; Kentucky, 27–28; M.S, Pa. State Col, 36; Ph.D, Cornell, 39. Asst. chemist, Exp. Sta, Kentucky, 28; jr. chemist, U. S. Bur. Int. Revenue, 29; research asst. to asst. prof. *nutrition*, Pa. State Col, 29–37; asst, Cornell, 37–38; *asst. prof, Pa. State Col, 39–* A.A; Chem. Soc. Physical chemistry; manganese dioxide; manganous ion electrode; nutrition and physiology; energy, mineral and vitamin metabolism; physiology of lactation.

Voris, Dr. H(arold) C(ornelius), 31 N. State St, Chicago, Ill. *Neurosurgery.* Pleasant, Ind, April 18, 02. A.B, Hanover Col, 23; Ph.D, Chicago, 29, M.D, Rush, 30; M.S, Minnesota, 34. Instr. biol. and physics, Morris Harvey Col, 23–24; anat, Chicago, 26–27; fellow neurosurg, Mayo Clinic, 31–34; assoc. clin. prof. *surg, sch. med, Loyola (Ill)*, 34–36, *clin. prof, 36–* Am. Med. Asn; Col. Surg; Cent. Neuro-Psychiat. Asn; Chicago Surg. Soc; Chicago Neurol. Soc. Clinical neurology and neurosurgery.

Vorwald, Dr. Arthur J(ohn), Saranac Laboratory, Saranac Lake, N. Y. *Pathology.* Dubuque, Iowa, April 12, 04. B.S, Columbia Col. (Iowa), 25; Ph.D, Chicago, 31, M.D, Rush, 32. Asst. path, Chicago, 28–31, instr, 31–32; intern surg, Presby. Hosp, Chicago, Ill, 32; Ford Hosp, Detroit, 32–33; nat. research fellow, Cambridge, 33–34; asst. pathologist, *Saranac Lab*, 34–37, *pathologist, 37–; commander, Med. Corps, U. S. Naval Res, 42–* Trudeau Soc; Soc. Thoracic Surg; Asn. Path. and Bact; Tuber. Asn; Soc. Exp. Path; Am. Med. Asn. Experimental tuberculosis; immunology of tuberculosis; pneumoconiosis; silicosis; pulmonary tumors; respiratory diseases.

Vos, Dr. Bert J(ohn), Jr, 1440 Rhode Island Ave, N.W, Washington, D. C. *Pharmacology.* Bloomington, Ind, Sept. 18, 08. A.B, Indiana, 30; Ph.D, Chicago, 34, M.D, 37. Instr. pharmacol, Chicago, 37, 39; med. intern, Billings Hosp, Chicago, Ill, 38; assoc. pharmacologist, *food and drug admin, Fed. Security Agency*, 39–42, *pharmacologist, 42–* A.A; Soc. Pharmacol. Bioassay; digitalis; ergot.

Vosburgh, Prof. Warren C(hase), Duke University, Durham, N. C. *Chemistry.* Voorheesville, N. Y, June 14, 94. B.S, Union (N. Y), 14, M.S, 16; Ph.D, Columbia, 19. Asst. chem, Union (N. Y), 13–16; Columbia, 16, 19, nat. research fellow, 19–21; chemist, Celluloid Co, 17–18; Bur. Aircraft Production, 18; director research, Eppley Lab, 21–25; instr. *chem*, Iowa, 25–28; from asst. prof. to *prof, Duke, 28–* Exchange prof, Edinburgh, 32–33. A.A; Chem. Soc; Electrochem. Soc. Invertase action; analytical methods; optical rotation of sugars; standard and voltaic cells; complex salts.

Vose, Prof. F(red) H(ale), Case School of Applied Science, Cleveland, Ohio. *Mechanical engineering.* Milltown, N. B, Can, Dec. 22, 78. B.S, Maine, 00; M.E, Case, 27. Instr. *mech. eng*, Maine, 00–02; Washington (St. Louis), 02–07, asst. prof, 07–09; *Case*, 09–12, assoc. prof, 12–14, *prof, 14–* Mech. Eng; Eng. Educ; Cleveland Eng. Soc. (pres, 21).

Vose, Dr. Richard S(hepard), 225 Princeton Ave, Swarthmore, Pa. *Organic chemistry, Chemical engineering.* Somerville, Mass, Jan. 16, 98. B.S, Rutgers, 20; Ph.D, Cornell, 23. Indust. fellow, Mellon Inst, 24; research assoc, Chicago, 24–26; org. research chemist, Mallinckrodt Chem. Works, 26–28; research engineer, electrochem. dept, E. I. du Pont de Nemours and Co, 28–31; *chem. engineer and petrol. technologist, Sun Oil Co, 31–* A.A; Chem. Eng; Chem. Soc. Organic chemistry; sulfonephthaleins; organic medicinal chemical compounds; biological products; petroleum products; sesquicarbonate chemical process development; meat curing; chemical, catalytic and solvent refining processes for petroleum.

Voskuil, Dr. Walter H(enry), State Geological Survey, Urbana, Ill. *Geology.* Cedar Grove, Wis, Aug. 22, 92. B.S, Wisconsin, 21, M.S, 22, Ph.D, 24. Asst, inst. research land econ, Northwestern, 23–24; geog, Wisconsin, 22–24; instr. indust, Wharton sch, Pennsylvania, 24–26, asst. prof, 26–30; *chief mineral economist*, Nat. Indust. Conf. Board, 30–31; *Ill. Geol. Surv, 31–; head research unit, fuels sect, Office Price Admin, 41–* Summers, teacher, Illinois, 25; Northwestern, 26; Pa. State Col, 27–28. A.A; Min. and Metal. Eng; fel. Am. Geog. Soc; Asn. Geog; West. Soc. Eng. Mineral resources; economic geography; depletion of soil phosphorus; phosphate resources; the potash industry; water power development; minerals in modern industry; modern sources of world energy; indestructible properties of land; competitive position of Illinois coal.

Voskuyl, Dr. Roger J(ohn), 515 E. Prairie Ave, Wheaton, Ill. *Physical chemistry.* Cedar Grove, Wis, May 16, 10. A.B, Hope Col, 32; A.M, Harvard, 34, Ph.D, 38. Asst. chem, Harvard, 32–33; Radcliffe Col, 33–38; instr. chem. and physics, *Wheaton Col. (Ill)*, 38–42, *asst. prof. chem*, 42– Chem. Soc. Deuterium-protium ration in waters of natural sources.

Voss, Prof. Elbert, Duquesne University, Pittsburgh, Pa. *Pharmacognosy.* Hector, Ark. B.S, Oklahoma, 28, M.S, 30; Ph.D, Florida, 35. Prof. mat. med, Indianapolis Col. Pharmacy, 30–33; asst. prof. *bot. and mat. med, sch. pharmacy, Duquesne,* 35–36, *prof,* 36– Histology; the histology of Cracca virginiana Linné root; preserving botanical materials; histology of Salvia officinalis; sex hormones of the female.

Voss, Dr. John, 200 Dixon Ave, Peoria, Ill. *Botany.* Peoria, Ill, Dec. 24, 95. B.S, Knox Col, 19; M.S, Chicago, 25, Ph.D, 33. *Head dept. science, Manual Training High Sch, Peoria, Ill, 24–* A.A; Ecol. Soc; Bot. Soc; Wis. Acad; Ill. Acad. Pollen statistics; postglacial vegetation.

Voss, Prof. J(oseph) Ellis, 6225 Morton St, Philadelphia, Pa. *Social psychology.* Philadelphia, Pa, Jan. 24, 98. B.S, Pennsylvania, 25, A.M, 27, Ph.D, 41; LL.B, Temple, 36. Instr. psychol, Pennsylvania, 25–27; indust. research, 27–28; asst. prof. psychol, Arizona, 28–29; prof. and head dept, Col. of Chestnut Hill, 29–38; asst. prof. sociol, Pennsylvania, 38–42; *capt, Adj. Gen. Dept, U. S. Army, 42–* A.A; Sociol. Soc; Psychol. Asn. Urban ecology; criminology; social psychology; personnel research.

Voss, Prof. Walter C(harles), Old Town Road, Wellesley Farms, Mass. *Engineering.* Chicago, Ill, Nov. 16, 87. B.S, Illinois, 12; M.S, Mass. Inst. Tech, 32. Struct. engineer, Chicago, 12–14; head dept. archit. construction, Wentworth Inst, Boston, 14–25; struct. engineer, Portland Cement Asn, Boston, 25–28; *prof. bldg. construction, Mass. Inst. Tech, 28–, head dept. bldg. eng. and construction, 38–* Consultant, archit. construction and materials, 14–; Office Emergency Management, 41– A.A; assoc. Civil Eng. (v. pres, New Eng. sect, 23); Soc. Test. Mat. (cmt. mortars for unit masonry; v. chairman cmt. on lime); Ceramic Soc; Concrete Inst; Eng. Educ. Structural engineering and materials; architectural construction and low-cost housing; concrete work.

Voter, Prof. P(erley) Conant, Middlebury College, Middlebury, Vt. *Chemistry.* Farmington, Maine, April 30, 89. A.B, Bowdoin Col, 09; A.M, Harvard, 11, Austin scholar, 19–20. Austin teaching fellow, Harvard, 10–12; instr. *chem, Middlebury Col,* 12–13, asst. prof, 13–19, *prof. and head dept, 19–,* dean chem. sch, 21–30. Chem. Soc. (chairman, Vt. sect, 18–20, councilor); New Eng. Asn. Chem. Teachers; Deuts. Chem. Gesell; Soc. chim. de France; Soc. suisse de Chim. Analytical chemistry; toxicology; atomic weight of arsenic.

Voth, Prof. Paul D(irks), 6116 Ingleside Ave, Chicago, Ill. *Botany.* Gotebo, Okla, June 12, 05. A.B, Bethel Col. (Kans), 29; M.S, Chicago, 30, fellow, 32–33, Ph.D, 33. Instr. biol, Texas Tech. Col, 30–32; *bot, Chicago,* 33–41, *asst. prof, 41–* Assoc. prof, Texas Tech. Col, 36; exchange instr, Cornell, 37–38. A.A; Bot. Soc; Ecol. Soc; Fern Soc; Sullivant Moss Soc. (sec'y-treas, 40); Ill. Acad. (treas, 37–39). Morphology of bryophytes and pteridophytes; nutrition, photoperiod and speciation of Marchantia polymorpha.

Vulleumier, Dr. Ernest A(lbert), Dickinson College, Carlisle, Pa. *Chemistry.* New City, N. Y, March 1, 94. B.S, Pennsylvania, 14; Ph.D, Bern, 18. Anal. chemist, Powers-Weightman-Rosengarten Co, 14–15, research chemist, 19–20; instr. *chem,* Drexel Inst, 15–16; assoc. prof, *Dickinson Col,* 20–24, *prof, 24–, head dept, 20–,* dean freshman class, 28–33, acting dean, 33–35, *dean, 35–* A.A; Chem. Soc; fel. Inst. Chem; Electrochem. Soc; Pa. Acad. (pres, 41); Verein für Chem. der Univ. Bern. Nickel deposition; alcoholometry.

Vyssotsky, Prof. A(lexander) N, University, Va. **Astronomy.* Moscow, Russia, May 23, 88. Diploma, Moscow, 12; Ph.D, Virginia, 26. Astronomer, Poulkovo Observatory, Russia, 13–15; instr. *astron, Virginia,* 23–28, asst. prof, 28–37, *assoc. prof, 37–* A.A; Astron. Soc; Va. Acad; Int. Astron. Union. Proper motions and parallaxes of stars; stellar photometry; spectral classification of faint stars.

W

Wachter, Dr. Aaron, Shell Development Co, Emeryville, Calif. *Chemistry.* New York, N. Y, April 15, 07. B.S, Col. City of N. Y, 27; Ph.D, California, 30. Nat. research fellow, Calif. Inst. Tech, 30–31, Hopkins, 31–32; *with Shell Develop. Co, 32–* Thermodynamics of solid systems; polymerization of olefines; development of synthetic organic processes; corrosion.

Waddel, Dr. Ramond C(lifford), Naval Research Laboratory, Washington, D. C. *Physics.* Whiteson, Oregon, July 17, 09. A.B, Willamette, 31, senior scholar, 31; Ph.D, N. Y. Univ, 40. Asst. physics, N. Y. Univ, 31–40; *mem. staff, U. S. Naval Research Lab, 40–* Physical Soc. Nuclear physics; electronics; magnetism.

Waddell, Dr. J(ames), 84 Clive St, Metuchen, N. J. *Biochemistry.* Hamilton, Scotland, Aug. 29, 98. B.S.A, Saskatchewan, 20; M.S, Iowa State Col, 22; Ph.D, Wisconsin, 26. Exten. specialist, Saskatchewan, 20–21; asst. chief dairy farm sect. and instr. dairy husbandry, Iowa State Col, 22–23; research assoc, Wisconsin, 26–30; *director biol. lab,* Acetol Products, Inc. *E. I. du Pont de Nemours and Co,* 30–35, *35–* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition; Inst. Food Technol; fel. Inst. Chem. Rôle of mineral elements in the cure and prevention of nutritional anemia; nutritional sterility; vitamin D.

Waddell, Dr. J(ames) A(lexander), University, Va. *Pharmacology.* Near Charlottesville, Va, May 20, 78. A.B, Virginia, 01, M.D, 11; Western Reserve; Harvard. Prin, high sch, Va, 01–02; blind dept, Va. Sch. for Deaf and Blind, 02–07; instr. anat, *Virginia,* 09–11, adj. prof. *pharmacol,* 11–17, *prof, 17–* Summers, epidemiologist, State Dept. Health, Va, 09, 12–15; sec'y, med. faculty, Virginia, 15–43, premed. adviser, 18–24, chairman cmt. on admissions, 20–30, acting prof, 24–25; sec'y, Charlottesville-University-Albemarle Board Health, 23–30. A.A; Soc. Pharmacol; Am. Med. Asn; Med. Soc. Va; Va. Acad. Toxicology; non-voluntary muscle; genito-urinary and circulatory systems; spinal fluid; autonomic nerves; Materia Medica; prescription writing; legal medicine.

Waddington, Prof. Guy, Rollins College, Winter Park, Fla. *Chemistry.* Victoria, B. C, Can, 04. B.A, British Columbia, 28, M.A, 29; Ph.D, Calif. Inst. Tech, 32. Research fellow, Calif. Inst. Tech, 32–35; asst. prof. *chem, Rollins Col,* 35–38, assoc. prof, 38–42, *prof, 42–; physical chemist, U. S. Bur. Mines, 43–* A.A; Chem. Soc; Fla. Acad. Kinetics of the thermal decomposition of gases.

Waddle, Prof. Howard M(effert), 2347 Virginia Place, N.E, Atlanta, Ga. *Organic chemistry.* Americus, Kans, Sept. 13, 05. A.B, Baker, 28; A.M, Colorado, 30; Ph.D, Wisconsin, 40. Asst, Colorado, 28–30; instr. *chem,* Ga. Tech, 30–37; asst, Wisconsin, 37–38; asst. prof, *Ga. Tech,* 38–40, *assoc. prof, 40–* Chem. Soc. (chairman Ga. sect, 41); Ga. Acad. Chlorination of esters; abietic acid and its derivatives.

Wade, Dr. B(ryan) L(ewellyn), U. S. Department of Agriculture, Charleston, S. C. *Genetics.* Oct. 1, 02. B.S. (Agr), West Virginia, 23, M.S. (Agr), 25; Ph.D, Wisconsin, 29. Asst. agron, West Virginia, 23–25; genetics, Wisconsin, 27–29; geneticist, Washburn-Wilson Seed Co, 29–32; assoc. geneticist, *hort. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 32–36, senior geneticist in charge *regional veg. breeding lab,* 36–43, *prin. geneticist, 43–* A.A; Soc. Agron; Genetics Soc; Soc. Hort. Sci; S. C. Acad. Genetics and breeding of vegetables.

Wade, Charles B(arkley), University of Southern California, Los Angeles, Calif. *Ichthyology.* Cincinnati, Ohio, Nov. 30, 08. B.S, Washington (Seattle), 38. Fish culturist, U. S. Bur. Fisheries, 33–37; *curator fishes, Allan Hancock foundation, Southern California, 38–; fisheries biologist, U. S. Army Engineers.* Field collector, Hancock Pacific expeds, 37, 39, 40; ichthyol. research, nat. hist. museum, Stanford, 40–41. Summers, instr, Oregon State Inst. Marine Biol, 38–39. Soc. Ichthyol. and Herp. Taxonomy, morphology, ecology and geographical distribution of fishes; fisheries biology.

Wade, Dr. Frank B(ertram), 5241 College Ave, Indianapolis, Ind. *Chemistry.* New Bedford, Mass, July 8, 75. B.S, Wesleyan, 01, hon. A.M, 38; Lewis Inst. (Ill), 01–03; hon. Sc.D, Wabash Col, 37. Asst, high sch, Mass, 94–96; instr. *chem,* Lewis Inst. (Ill), 01–03; *Shortridge High Sch, Indianapolis,* 03–10, *head dept, 10–* A.A; Chem. Soc. (chairman, Indianapolis sect, 14–15, 20–21); Gemol. Soc; Cent. Asn. Sci. and Math. Teachers (pres, 23); fel. Ind. Acad. (pres, 27, trustee, foundation fund). Teaching of chemistry in secondary schools; application of the physical sciences to the study of precious stones; scientific testing of precious stones.

Wade, Prof. Frank H(enry), 609 Clarence Ave, Oak Park, Ill. *Mechanics.* Saugatuck, Mich, 88. M.E, 09. Instr. physics, Lewis Inst. (Ill), 09–16, asst. prof. eng, 16–28, mech, 28–40, head dept. applied mech, *asst. prof. mech, Ill. Inst. Tech, 40–* Eng. Educ; Cent. Asn. Sci. and Math. Teachers; West. Soc. Eng. Engineering education; mechanics of engineering; theoretical mechanics; elasticity.

Wade, Dr. F(ranklin) Alton, Miami University, Oxford, Ohio. *Geology, Glaciology.* Akron, Ohio, Feb. 5, 03. B.S, Kenyon Col, 25, A.M, 26; Ph.D, Hopkins, 37. Instr. geol. and chem, Delaware, 29–31; geologist, Byrd Antarctic Exped II, 33–35; *asst. prof. geol, Miami (Ohio), 36–; senior scientist, U. S. Antarctic Service, 39–* Congressional Medal of Honor, 37. Min. and Metal. Eng; Miner. Soc; Asn. Study Snow and Ice, Great Britain. The geology of Antarctica; glacial physics.

Wade, Henry H(opkins), Hopkins, Minn. *Metallurgy.* Hopkins, Minn, June 13, 94. E.M, Minnesota, 15. Asst, *mines exp. sta, sch. mines, Minnesota,* 15–19, *metallurgist, 19–* A.A; Soc. Metals; Min. and Metal. Eng. Methods of iron ore concentration.

Wade, Dr. H(erbert) W(indsor), Culion Leper Colony, Culion, Palawan, P. I. *Pathology.* Haddonfield, N. J, Nov. 23, 86. M.D, Tulane, 12. Demonstrator histol, McGill, 08–09; path. and bacter, Tulane, 09–12, instr, 12–15; pathologist and bacteriologist, Bur. Science, P. I, 16–18; prof. path. and bacter, col. med. and surg, Philippines, and chief dept. path, Philippine Gen. Hosp, 18–22; chief pathologist, Culion Leper Colony, Philippine Health Service, 22–31; *med. director, Leonard Wood Mem, 31–* Chairman, Leprosy Examining Cmt, Manila, 17–22. Ed, 'Int. Jour. Leprosy.' U.S. del, Int. Leprosy Conf, Cairo, Egypt, 38. A.A; Asn. Path. and Bact; Am. Med. Asn; Soc. Trop. Med; Far East. Asn. Trop. Med; Manila Med. Soc. (pres, 20); Culion Med. Soc. (pres, 25); Int. Leprosy Asn. Bacteriology; pathology of leprosy.

Wade, Joseph S(anford), U. S. Department of Agriculture, Washington, D. C. *Entomology, Bibliography.* Cumberland Co, Ky, July 20, 80. Fairmount Col; Chicago. *Assoc. entomologist, admin. and research, bur. entom. and plant quarantine, U. S. Dept. Agr, 13–,* field and lab. entom. research, west states, 13–17. A.A; Entom. Soc; Ornith. Union; Asn. Econ. Entom; Kans. Acad; Va. Acad; Entom. Soc. Wash; Biol. Soc. Wash; Wash. Acad; Wash. Audubon Soc. Control of cereal and forage insect pests; taxonomy and life history of Scarabaeidae and Tenebrionidae; biography of scientists; history of zoology; entomological bibliography.

Wade, Dr. Maner L(awton), 2265 Golden, Long Beach, Calif. *Chemistry.* Los Angeles, Calif, Oct. 20, 06. B.S, Univ. of the South, 27; Ph.D, Hopkins, 31. Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 28–29, petrol. research chemist, Union Oil Co, 31–39; *petrol. research, Petrol. Rectifying Co, Calif, 39–* Chem. Soc. Catalytic oxidation of organic compounds.

Wade, Dr. N(elson) J(ohn), St. Louis University School of Medicine, St. Louis, Mo. *Biology.* Saugatuck, Mich, July 18, 05. A.B, Kalamazoo Col, 29; M.S, Kans. State Col, 30; fellow, St. Louis, 31–34, Ph.D, 34. Asst. zool, Kans. State Col, 29–30; biochem, *St. Louis,* 30–31, instr. *biol, sch. med,* 34–39, *asst. prof, 39–* Soc. Exp. Biol; Soc. Study Int. Secretions. Hibernation; physiology of reproduction; endocrinology; tumors.

Wade, Prof. Otis, University of Nebraska, Lincoln, Nebr. *Zoology.* Delphos, Ohio, April 22, 89. B.S, Ohio Northern, 10; M.S, Ohio State, 17; Ph.D, Nebraska, 28. Philippine Insular Service, 10–13; asst. entomologist, Okla. Agr. and Mech. Col, 14–16; asst. zool, Ohio State, 16–17; asst. prof. entom, Okla. Agr. and Mech. Col, 17–21; bur. biol. surv, U. S. Dept. Agr, 21–23; exten. entomologist. Missouri, 23–25; asst. instr. *zool, Nebraska,* 25–27, instr, 27–29, asst. prof, 29–35, *assoc. prof, 35–* A.A; Soc. Mammal; Soc. Vert. Paleont; Nebr. Acad. Anatomy; animal behavior; mammalogy; vertebrate phylogeny; hibernation and temperature regulation.

Wade, Prof. T(homas) L(eonard), Jr, University of Alabama, University, Ala. *Mathematics.* Ridgeway, Va, April 21, 05. B.S, Virginia, 29, M.S, 30, Ph.D, 33. Asst. instr. *math,* Virginia, 29–33; prof, Mercer, 34–39; *asst. prof, Alabama, 39–* Summers, acting instr, Virginia, 32, 33. Math. Soc; Math. Asn. Algebraic concomitants by tensor algebra; irreducible complete system by tensorial methods of Euclidean concomitants for the line and conic; tensor algebra.

Wade, W(arren) B(enjamin), General Mills, Inc, Minneapolis, Minn. *Chemistry.* Rogers, Ark, Oct. 16, 03. A.B, Arkansas, 24; M.S, Emory, 25. Asst. chemist, Arkansas, 21–24; Yale, 26–27; instr. chem, Delaware, 27–29; research chemist. Pilot Labs, Arlington, N. J, 29–30; research labs, *Gen. Mills, Inc,* 30–42, *business manager research dept, 42–* Organic peroxides as flour bleaching agents; rancidity of fats and oils; production of synthetic vitamin D.

Wade, Dr. Worth, 52 E. 41st St, New York, N. Y. *Chemistry.* Sealy, Texas, July 23, 03. A.B, South. Methodist, 25; Ph.D, N. Y. Univ, 30. Asst. chem, South. Methodist, 23–25; chairman dept. chem, Clarendon Col, 25–27; asst. chem, N. Y. Univ, 27–28, instr, 28–30; consulting chemist, patent div, Allied Chem. and Dye Corp, 30–31; *consulting chemist in charge patents, Sylvania Indust. Corp, 31–* Chem. Soc; Inst. Chem; Chemists' Club. Cellulose; latex; chemical patents.

Wadell, Dr. Hakon A(dolf), 6720 Jeffery Ave, Chicago, Ill. *Geology.* Goteborg, Sweden, Dec. 29, 95. Latin Col, Goteborg, 15; Royal Mil. Col. (Sweden), 17; Stockholm, 18–20; Ph.D, Chicago, 32. Mem, Swedish Geol. Surv, 18; chief in charge Swedish exped. to Vatnajökull, Iceland, 19; geologist, North Petrol. Co, Mex, 21–22; consulting geologist, 22–23; geologist in charge exped. to Petén, Guatemala, 23–25; asst. geologist, Ill. Geol. Surv, 29; geologist, Danish-Icelandic geol. surv, Iceland, 36; Socony-Vacuum Oil Co, S. Amer, 37–40. Fel. Geol. Soc; Asn. Petrol. Geol. Sedimentology; petroleum geology; glaciology.

Wadleigh, Dr. Cecil H(erbert), U. S. Department of Agriculture, Riverside, Calif. *Plant physiology.* Gilbertville, Mass, 07. B.S, Mass. Col, 30; M.S, Ohio State, 32; Ph.D, Rutgers, 35. Asst, Rutgers, 33–36; asst. prof. agron, Arkansas, 36–41; agent *regional salinity lab, bur. plant indust, U. S. Dept. Agr,* 41–42, *senior chemist, 42–* A.A; Bot. Soc; Soc. Agron; Soil Sci. Soc; Soc. Hort. Sci; Soc. Plant Physiol. Plant nutrition and chemistry; metabolism of crop plants under saline soil conditions.

Wadley, Dr. F(rancis) M(arion), 3215 N. Albemarle, Arlington, Va. *Entomology, Biometrics.* Utica, Mo, Nov. 17, 92. B.S, Kans. State Col, 16, M.S, 22; fellow, Minnesota, 26–28, Ph.D, 28. Sci. asst, div. truck crop insects, bur. entom, U. S. Dept. Agr, 17–19; field entomologist, Ill. Nat. Hist. Surv, 20; asst, Minnesota, 26–28; sci. asst. and junior entomologist, div. cereal and forage insects, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 21–26, asst. entomologist, 28, assoc. entomologist, div. insect pest surv, 29–33, Dutch elm disease investigations, 34, pests surv, P. R, 35–36, fruit insect div, 36–41, *statistical consultant, 41–, teacher statistics in biol. and agr, grad. sch, 40–* Summers, field asst, bur. entom, U. S. Dept. Agr, 14–16. A.A; Entom. Soc; Statist. Asn; Asn. Econ. Entom; Kans. Entom. Soc; Entom. Soc. Wash. Squash bug; strawberry leaf-roller; variegated cutworm; factors affecting the proportion of alate aphids; cricket nematodes; Hessian flies; chinch bugs; Kansas aphids; green bugs; sugar-cane insects; biometrics; statistical methods in entomology.

Wadsworth, Dr. Augustus (B), New Scotland Ave, Albany, N. Y. **5*Pathology, Bacteriology.* Brooklyn, N. Y, Oct. 25, 72. B.S, Mass. Inst. Tech, 93; M.D, Columbia, 96. Intern, St. Luke's Hosp, 97–99; alumni fellow, Columbia, 99–05, Alonzo Clark scholar, 05–10, asst. and instr. bacter. and hygiene, 99–08, assoc. bacter, 08–09, asst. prof, 09–13; *director div. labs. and research, State Dept. Health, N. Y, 14–* Asst. physician, outpatient dept, Roosevelt Hosp, 05–08, consulting bacteriologist, 09–14. Knight, Order of St. Olaf, 22. Am. rep, Int. Conf. Standardization of Serum and Serol. Tests, health sect, League of Nations, Paris, 22. A.A; Asn. Path. and Bact. (pres, 25); Soc. Bact; Am. Med. Asn; Am. Physicians; Asn. Hist. Med; Soc. Exp. Path; Soc. Clin. Invest; Asn. Immunol. (pres, 33); Pub. Health Asn. (chairman, lab. sect, 20); Soc. Exp. Biol; Harvey Soc. (sec'y, 12); N. Y. Path. Soc. (pres, 13); N. Y. Acad. Med; Soc. de Chim. biol. Infection and immunity; serum and vaccine therapy; coagulation of the blood; production and standardization of antimeningococcus, antipneumococcus and antistreptococcus sera; complement fixation.

Wadsworth, Dr. G(eorge) P(roctor), 95 Park Drive, Boston, Mass. *Mathematics.* Methuen, Mass, April 6, 09. B.S, Mass. Inst. Tech, 30, M.S, 31, Ph.D, 33. *Instr. math, Mass. Inst. Tech,* 31–33, *34–* Math. Soc. Systems of partial differential equations; geometry of algebraic pfaffians.

Wadsworth, Prof. H(arold) A(nderson), University of Hawaii, Honolulu, Hawaii. *Agriculture.* Superior, Wis, March 12, 93. B.S, California, 16. Asst. and instr. irrig. investigations and practise, California, 17–23, asst. prof, 23–28; *assoc. prof. agr, col. agr, Hawaii, 28–, soil physicist, Exp. Sta. and grad. sch. trop. agr, 30–* Irrig. consultant, Exp. Sta, Hawaiian Sugar Planters' Asn, 29– A.A; Hawaiian Bot. Soc;

Hawaiian Acad. (pres, 36). Plant and water relations; responses of the sugar cane plant to irrigation; capillary processes in the highly colloidal soils of Hawaii.

Waelsch, Dr. Heinrich B(enedict), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Biochemistry.* Brno, Czechoslovakia, Jan. 20, 05. M.D, Prague, 29, Ph.D, 30. Asst. physiol. chem, med. sch, Prague, 29–33, privat-docent, med. sch, 33–38; research fellow neur, Neur. Inst, New York, 38–39; *research assoc. biochem, dept. neur, col. physicians and surg, Columbia, 39–* A.A; Chem. Soc; Soc. Biol. Chem. Intermediary metabolism; biochemistry of the nervous system.

Wagar, Prof. J(ohn) V(ernon) K(nox), Colorado State College, Ft. Collins, Colo. *Forestry.* Oct. 19, 98. B.S, Michigan, 20, M.S, 23. U.S. Forest Service, 20–23; asst. prof. forestry, Colo. Col, 23–33; Civilian Conservation Corps, 33–34; *assoc. prof. forestry,* Colo. Agr. Col, 34–35, *Colo. State Col, 35–* Soc. Foresters. Forest recreation; forest wildlife.

Wagener, Dr. Willis W(estlake), U. S. Department of Agriculture, 446 Phelan Bldg, San Francisco, Calif. *Forest pathology.* Salida, Calif, Sept. 10, 92. A.B, Stanford, 18; M.S, California, 28; Charles Lathrop Pack fellow, Yale, 31, Ph.D, 34. Field asst. forest path, *bur. plant indust, U. S. Dept. Agr,* 20–22, junior pathologist, 22–24, asst. pathologist, 24–29, pathologist in charge *San Francisco branch,* 29–37, *senior pathologist, 37–, consulting pathologist, U. S. Forest Service, 29–* A.A; Phytopath. Soc; Soc. Foresters. Forest and shade tree pathology; timber decays; deterioration of forest products.

Wagenhals, E(dward) R(empel), 38 Fairview Ave, Summit, N. J. *Engineering.* Muncie, Ind, July 15, 05. B.S, Denison, 27. Test course, research lab, Gen. Elec. Co, 27–28; *eng. chemist,* Cleveland vacuum tube works, Gen. Elec. Co, 28–30; RCA Ivanhoe Works, 30–32; research lab, *RCA Mfg. Co, Harrison, N. J,* 32–42, engineer in charge gen. eng. dept, *factory one,* 42–43, *asst. supt, 43–* Consultant, 'Glavesprom,' Leningrad, U.S.S.R, 37. Insulating materials for use at high temperatures.

Wagenseller, Prof. B(enjamin) Meade, Box 500, Selinsgrove, Pa. *Physiology, Hygiene.* Selinsgrove, Pa, Jan. 22, 73. A.B, Bucknell, 95; A.M, Pennsylvania, 02; Phar.D, Temple, 23. Teacher, high schs, Pa, 95–00; *prof. chem, physiol. and hygiene, sch. pharmacy, Temple, 06–*

Wager, Prof. Alan T(urner), 938 Ninth Court, W. Birmingham, Ala. *Physics.* Veteran, N. Y, Oct. 27, 04. B.S, Hobart Col, 26; A.M, Cornell, 31; Chicago, 36–41. Master science and math, Donaldson Sch, Md, 26–30; instr. physics, Hobart Col, 30–36; math, Oak Park Junior Col. and Cent. Y.M.C.A. Col, 37–38; physical sciences, George Williams Col, 38–41; asst. prof. *physics, Birmingham-Southern Col,* 42–43, *assoc. prof, 43–* Instr, Armour, 38–39. Physical Soc; Ala. Acad. Band spectroscopy; perturbations in the $b^2 . \Sigma$, v = o band of CN.

Wager, Dr. Ralph W(aldo), Medical College of the State of South Carolina, Charleston, S. C. *Physiology.* DeKalb, Ill, Jan. 26, 12. A.B, Emory, 35, M.S, 36; Michigan, 35; Ph.D, Illinois, 39. Instr. pharmacol. and exp. therapeut, med. sch, Louisiana, 39–40; biochemist, Nat. Biscuit Co, New York, 40–41; asst. prof. veg. crops exten, Illinois, 41; *instr. physiol, Med. Col. State of S. C, 41–* Chem. Soc. Intermediary metabolism of amino acids; plant hormones and phytochemistry; synthetic pharmacological etiotropic agents.

Waggener, Prof. Roy A(lfred), 310 E. Fifth St, Northfield, Minn. *Zoology.* Ewing, Mo, Feb. 3, 92. A.B, LaGrange Col, 16; A.M, Brown, 17; Ph.D, Cornell, 27. Instr. biol, Brown, 22–26, asst. prof, 27–28; *prof. zool, Carleton Col, 28–* A.A; Genetic Asn. Histology; experimental zoology; physiology of Anura and Mammalia; parathyroid function in Rana; endocrinology.

Waggoner, Prof. Harry Dwight, 318 Sherman Ave, Macomb, Ill. *Biology.* Godfrey, Ill, Feb. 1, 77. A.B, Illinois, 09, A.M, 14, Ph.D, 16. Asst. bot, Illinois, 13–16; *prof. biol,* Macalester, 16–17; *West. Ill. State Teachers Col, 17–* A.A; Bot. Soc. Plant physiology and pathology; agronomy; human aspects of modern biology.

Waggoner, Jack H(olmes), Owens-Corning Fiberglas Corp, Newark, Ohio. *Chemical engineering.* St. Joseph, Mo, Jan. 13, 95. B.S, Kansas, 20. Chemist, dept. state chem. research, Kansas, 19–20; asst, N. J. Zinc Co, Pa, 20; instr. tech. anal, Mass. Inst. Tech, 20–21; research chemist, Standard Oil Co. of Ind, 21–22; glass technologist, Libbey Owens Sheet Glass Co, 22–26; indust. fellow glass technol, Mellon Inst, 26–34; consulting ceramist, 34–36; research engineer, Owens-Illinois Glass Co, 36–38; *product control supervisor, Owens-Corning Fiberglas Corp, 38–* Acoustical Soc; Soc. Refrig. Eng; Chem. Soc; Ceramic Soc; Gas Asn; Soc. Test. Mat; Optical Soc; Physical Soc; Soc. Heat. and Vent. Eng; Franklin Inst; British Soc. Glass Technol. Glass technology; manufacture of window, plate, pressed and blown glass; decoration of glassware; development of electrical glasses; manufacture and use of glass for electrical insulation; enamels; building blocks; fiber glass for thermal insulation, air filters and textiles.

Waggoner, Dr. R(aymond) W(alter), 3333 Geddes Road, Ann Arbor, Mich. *Psychiatry, Neurology.* Carson City, Mich, Aug. 2, 01. M.D, Michigan, 24; Sc.D, Pennsylvania, 30. Intern, Harper Hosp, Detroit, 24–25; res, Phila. Orthop. Hosp. and Infirmary Nervous Diseases, 25–26; asst. prof. neur, *med. sch, Michigan,* 29–32, assoc. prof, 32–36, *prof. psychiat. and chairman dept, 36–* Asst. neurologist, gen. hosp, Michigan, 29–32, director neuropsychiat. inst, univ. hosp, 37– A.A; Neur. Asn; Asn. Research Nervous and Mental Disease; Psychiat. Asn; Am. Med. Asn; Cent. Neuropsychiat. Asn; Mich. Soc. Neur. and Psychiat. (pres, 41); Mich. Acad; Phila. Neur. Soc. Personality studies; chorea; the convulsive state; myopathies.

Wagman, Dr. Irving H(enry), University of California Medical School, Medical Center, San Francisco, Calif. *Mammalian physiology.* New York, N. Y, Aug. 15, 16. B.S, Col. City of N. Y, 36; A.M, California, 37, Ph.D, 41. Teaching asst. physiol, *med. sch, California,* 38–41, instr, 42, *research assoc. physiol. and med, 41–* Physiology of the peripheral vascular system and of the nasal mucosa under various environmental conditions; physiology of the pupil of the eye.

Wagman, Dr. N(icholas) E(mory), 3726 Perrysville Ave, Pittsburgh, Pa. *Astronomy.* Saratoga Springs, N. Y, Feb. 22, 05. A.B, Wesleyan, 27, A.M, 28; Ph.D, Pittsburgh, 37. Junior astronomer, U. S. Naval Observatory, 28–30; astronomer, *Allegheny Observatory, Pittsburgh,* 30–41, *acting director, 41–; lecturer, Buhl Planetarium, 39–* A.A; Astron. Soc. Stellar parallax; photographic positions; photographic photometry.

Wagner, Dr. A(rthur) M(attern), 35 Norfolk Ave, Clarendon Hills, Ill. *Chemical engineering.* Lancaster, Pa, July 3, 04. B.S, Franklin and Marshall Col, 25; M.S, Michigan, 27, Thomas Berry fellow, 27–29, Ph.D, 29. Develop. chemist, linoleum div, Armstrong Cork Co, 25–26; develop. engineer, West. Elec. Co, 29–42; *Chem. Warfare Service, U. S. Army, 42–, major.* Chem. Soc. Capt, C.W.Res. Organic finishing materials; electroplating; munitions.

Wagner, C(ary) R(ichard), Route 2, Utica, Ohio. *Chemistry.* Utica, Ohio, Jan. 3, 94. B.S, Col. of Wooster, 15; Purdue, 15–16. Scientist, bur. soils, U. S. Dept. Agr, 16–18; chief chemist, Wood River refinery, Standard Oil Co. of Ind, 18–23; asst. gen. manager, Lion Oil Ref. Co, 23–24; asst. chief chemist and chief chemist, Pure Oil Co, 24–42; *asst. director ref. div, Office Petrol. Coordinator, 42–* A.A; Chem. Soc. (sec'y, petrol. div, 30, chairman, 31, 32, sec'y, 33–; chairman, Chicago sect, 39); Soc. Test. Mat; Petrol. Technol. Fertilizer investigations; petroleum chemistry; petroleum refining technology.

Wagner, Prof. Cha(rle)s C(onroy), Pennsylvania State College, State College, Pa. *Mathematics.* Mt. Jewett, Pa, Nov. 23, 93. B.S, Allegheny Col, 17; A.M, Pa. State Col, 25; Ph.D, Michigan, 31. Assoc. prof. *math, Pa. State Col,* 19–34, *prof, 34–, asst. to dean lib. arts, 36–,* asst. dean, 43, admin. head, lower div, 40. Instr, Michigan, 28–31. Math. Soc; Math. Asn; Statist. Asn. Probability and statistics.

Wagner, Prof. E(rnest) C(arl), 316 N. Princeton Ave, Swarthmore, Pa. *Organic chemistry.* Graterford, Pa, Aug. 3, 89. A.B, Ursinus Col, 10, A.M, 14, Sc.D, 33; Ph.C, Medico-Chirurg. Col. Phila, 13; Ph.D, Pennsylvania, 21. Teacher, Oakwood Sem, N. Y, 10–11; instr. chem, Medico-Chirurg. Col. Phila, 11–16; chemist, du Pont Co, 17–19; prof. *chem,* Juniata Col, 21–23; asst. prof, *Pennsylvania,* 23–31, *prof, 31–* A.A; Chem. Soc; Deuts. Chem. Gesell. General and analytical organic chemistry.

Wagner, Dr. Fred(erick) C(arver), R.F.D. 3, Wilmington, Del. *Chemistry.* Hanover, Pa, Nov. 27, 99. A.B, Dickinson Col, 21; B.S, Mass. Inst. Tech, 24; Ph.D, Hopkins, 29. Chemist, du Pont Dye Works, 24–27; instr. chem, Hopkins, 29–31; *chemist,* Exp. Sta, *E. I. du Pont de Nemours and Co,* 31–35, *Jackson lab, dye works, 35–* Chem. Soc. Organic chemistry.

Wagner, Dr. Frederick E(arl), Woodside Hills, Wilmington, Del. *Chemistry.* Waterford, N. Y, Jan. 5, 98. Chem.E, Rensselaer Polytech, 20, fellow, 25–28, M.S, 26, Ph.D, 28. Research chemist, Barrett Co, N. Y, 20–22; research chemist in charge New York lab, Borden Co, 22–25; *departmental supt, dye works, E. I. du Pont de Nemours and Co, 28–* Summers, chief chemist, biol. surveys watershed, N. Y. Conservation Dept, 26–28. Chem. Soc.

Wagner, Prof. George, 546 Washington Ave, Palo Alto, Calif. *Zoology.* New Ulm, Minn, Feb. 4, 73. Ph.C, Michigan, 93, A.M, 03; A.B, Kansas, 99. Instr. bot. and pharmacog, Northwestern, 93–95; pharmacy, Kansas, 95–97, asst. prof, 97–99, assoc. prof, 99; asst. *zool,* Michigan, 99–03; instr, *Wisconsin,* 03–10, asst. prof, 10–19, assoc. prof, 19–31, prof, 31–43, *emer. prof, 43–* A.A; Soc. Nat; Soc. Zool; Soc. Ichthyol. and Herp; hon. mem. Kans. Acad. Vertebrate zoology; fauna of Wisconsin.

Wagner, Dr. G(eorge) H(oyt), 418 Beard Ave, Buffalo, N. Y. *Physical chemistry.* Mulberry, Ark, Dec. 28, 14. B.S, Arkansas, 37; M.S, Iowa, 39, Ph.D, 41. *Research chemist, Linde Air Products Co, 41–* Chem. Soc. Surface chemistry; physico-chemical measurements.

Wagner, Dr. H(erman) A(lexander), Suite 805, 8 S. Michigan Ave, Chicago, Ill. *Engineering.* Grahamtown, New Zealand, April 17, 64. E.M, Freiberg, 88; Ph.D, Heidelberg, 89. Metallurgist, Dowlais Steel and Iron Co, Wales, 89–90; supt. mines, Barnato Brothers, S. Africa, 90–99; metallurgist, F. A. Heinze, Mont, 01–04; engineer, Kalgurli Gold Mines, Ltd, W. Africa, 04–07; supt, British Guiana Gold Dredging Co, 07–09; contractor, New York, 09–10; consulting engineer, Ill. and Mo, 10–14; chief engineer, Gray Eagle Red Co, Ariz, 14–17; manager, Mayer Ore Purchasing Co, Ariz, 17; *consulting engineer, 17–* Clausen gold medal, Am. Asn. Eng, 32. A.A; Asn. Eng. (nat. director, 25–32, pres, 29); Elec. Eng; Mech. Eng; Min. and Metal. Eng; Eng. Educ; Soc. Mil. Eng. Electrometallurgy; diaphragms; osmosis.

Wagner, Dr. Oscar E(mil), Jr, The Texas Co, Tulsa, Okla. *Geology.* Chicago, Ill, May 30, 06. A.B, Illinois, 28, A.M, 29, Ph.D, 32. Asst. geol, Illinois, 28–32; instr. geog, West. Ky. Teachers Col, 33; Morehead Teachers Col, Ky, 35; *geologist,* Adams La. Co, 35–36; *Texas Co, 36–* Summers, asst. geologist, Ky. Geol. Surv, 29, 30; Ill. Geol. Surv, 34, 35; U. S. Geol. Surv, 34, 35. Petroleum geology; stratigraphy; invertebrate paleontology.

Wagner, Prof. Paul R(aymond), Ursinus College, Collegeville, Pa. *Biology.* Mahanoy City, Pa, Jan. 23, 10. B.S, Ursinus Col, 32; M.S, Pennsylvania, 35, Ph.D, 41. Asst. *biol, Ursinus Col,* 32–35, asst. instr, 35–38, instr, 38–41, *asst. prof, 41–* Soc. Plant Taxon; Pa. Acad; Phila. Bot. Club. Flora of Schuylkill County, Pennsylvania.

Wagner, Dr. Robert W(anner), 199 W. College St, Oberlin, Ohio. *Mathematics.* May 5, 13. A.B, Ohio (Athens), 34; A.M, Michigan, 35, Horace H. Rackham fellow, 36–37, Ph.D, 37. *Instr. math,* Wisconsin, 37–39; *Oberlin Col, 39–; lieut, U. S. Naval Res.* Math. Soc; Math. Asn. Function theory of non-commutative algebras.

Wagner, Dr. R(omeo) B(arrick), Pennsylvania State College, State College, Pa. *Chemistry.* Hopewell, Va, Dec. 14, 17. A.B, Gettysburg Col, 38; M.S, Pa. State Col, 39, Ph.D, 41. Asst. *chem, Pa. State Col,* 41–42, *instr, 42–* Chem. Soc. Steroidal sapogenins and sex hormones.

Wagoner, Dr. George, 5 Polo Road, Bryn Mawr, Pa. *Orthopedic surgery.* Johnstown, Pa, 96. M.D, Pennsylvania, 22. Assoc. path, *sch. med, Pennsylvania,* 25–37, asst. prof. *orthop. research,* 37–39, *prof, 39–,* asst. prof. *orthop. surg, grad. sch. med,* 29–39, *prof, 39–, director lab. orthop. research, 33–; U. S. Naval Res, 42–, commander.* A.A; Am. Med. Asn; Orthop. Asn; Acad. Orthop. Surg; Col. Physicians Phila; Phila. Acad. Surg. Bone growth, repair and tumors.

Wagoner, Dr. Kenneth S(hrout), Washington University, St. Louis, Mo. *Psychology.* Waldron, Ind, July 8, 11. A.B, DePauw, 32; univ. scholar, Washington (St. Louis), 33–34, A.M, 34, fellow, 35–36, Ph.D, 38. Asst. *psychol, Washington (St. Louis),* 32–33, 36–38, *instr. and research asst, 38–* State tech. consultant and test constructor, Pa, 37–38. Summer, state tech. consultant tests and examinations, Pa, 39. A.A; Psychol. Asn. Experimental and physiological psychology; neural correlates of sensation.

Wagoner, Prof. Lovisa C(atharine), Mills College, Oakland 13, Calif. *Psychology.* Eagle Rock, Idaho, June 11, 86. A.B, Washington (Seattle), 10, A.M, 13; Ph.D, Iowa, 25. Teacher and supervisor schs, Wash, 13–18; asst. psychol, Carnegie Inst. Tech, 18–19; child welfare research sta, Iowa, 19–20; instr, Wyoming, 20–21, asst. prof, 21–25; prof, Iowa State Col, 25–27; assoc. prof, Vassar Col, 27–31; *Mills Col,* 31–34, *prof. child develop. and head dept, 34–* A.A; Psychol. Asn. Child psychology; psychology of speech; child development.

Wagreich, Dr. Harry, 610 W. 145th St, New York, N. Y. *Biochemistry.* New York, N. Y, Nov. 29, 07. B.S, Col. City N. Y, 28; A.M, Columbia, 30, Ph.D, 38. *Instr. chem, Col. City N. Y, 28–,* Samuel Greenbaum Fund research grant, 40, Ella Sachs Plotz Foundation grant, 42, teacher chem, Army Student Training Program, cmt. med. research, Office Emergency Management. Chem. Soc. Enzymatic oxidations; detoxication; hormones; plasma; coagulation.

Wahl, Dr. A(rthur) M(unzenmaier), Westinghouse Electric and Manufacturing Co, East Pittsburgh, Pa. *Mechanical engineering.* Churdan, Iowa, 01. B.S, Iowa State Col, 25; M.S, Pittsburgh, 27, Ph.D, 32. *Research engineer, Westinghouse Elec. and Mfg. Co, 25–* Lecturer, Pittsburgh, 31–34. Junior award, Soc. Mech. Eng, 29. A.A; Mech. Eng. Stress analysis of machine parts or structural members; model tests in mechanical engineering; photoelasticity; development of instruments for strain measurement; stress concentration problems; special problems in the design of electrical machinery.

Wahl, Dr. H(arry) Roswell, University of Kansas School of Medicine, Kansas City, Kans. *Pathology.* Minnesota City, Minn, 86. A.B, Wisconsin, 08, A.M, 10; M.D, Hopkins, 12; fellow, Western Reserve, 12–13. Asst. anat, Wisconsin, 08–10; instr. path, Western Reserve, 13–15, assoc, 15–19; *prof. path. and bacter, Kansas, 19–,* acting dean, *sch. med,* 24–27, *dean, 27–* Assoc. visiting pathologist, Lakeside Hosp, Cleveland; director labs, Mt. Sinai Hosp, Cleveland; pathologist, Univ. Kansas Hosps, Kansas City. A.A; Asn. Path. and Bact. Neuroblastomata; Gaucher's disease; toxin titrations in nephrectomized animals; transmission of influenza; cellular reactions after x-ray and radium therapy; alternaria infection.

Wahl, Prof. Herbert A(lexander), Pennsylvania State College, State College, Pa. *Botany.* Rochester, Pa, April 7, 00. B.S, Pa. State Col, 25, M.S, 29, Ph.D, 39; Cornell, 36–37. Instr. *bot, Pa. State Col,* 26–40, *asst. prof, 40–* Cytology of Cyperaceae.

Wahl, Dr. Milton H(eins), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Emden, Ill, Sept. 17, 08. A.B, Cent. Wesleyan Col, 28; fellow, Missouri, 28–29, A.M, 30; fellow, Illinois, 32–33, Ph.D, 33. Asst, Columbia, 33–35; *research chemist, E. I. du Pont de Nemours and Co, 35–* Summer, instr, Missouri, 33. Chem. Soc. Reaction kinetics; molecular rays; isotopes; explosives.

Wahlenberg, W(illiam) G(ustavus), McFadden Place, City Park, R.F.D. 3, New Orleans, La. *Forestry.* College Point, N. Y, June 24, 94. B.S.F, Maine, 17; M.F, Yale, 18. Tech. asst, region I, Missoula, Mont, and North. Rocky Mt. Forest and Range Exp. Sta, *U. S. Forest Service,* 19–27, asst. silviculturist, *South. Forest Exp. Sta,* 27–29, *assoc. silviculturist and forester, 30–* Forester, Inst. Forest Genetics, Calif, 29–30. Soc. Foresters; New Orleans Soc. Plant Sciences. Forest nursery and planting; modification of western yellow pine root systems by fertilization; weed control by chemicals; fertilizers in growing forest planting material; effect of ceanothus brush on the western yellow pine; longleaf pine silviculture; forest management technique for southern pines; methods of forecasting growth in timber stands.

Wahlin, Prof. G(ustaf) E(ric), University of Missouri, Columbia, Mo. *Mathematics.* Cannon Falls, Minn, Dec. 3, 80. A.B, Bethany Col, 03; Ph.D, Yale, 06; Marburg, 12–13. Instr. *math,* Iowa, 06–08; Illinois, 08–12, assoc. and asst. prof, 13–24; *prof, Missouri, 24–* Cmt. on algebraic numbers, Nat. Research Council. A.A; Math. Soc. (councilor, 26–29); Math. Asn. Theory of numbers.

Wahlin, Prof. H(ugo) B(ernard), 705 Harrison St, Madison, Wis. *Physics.* McPherson, Kans, Feb. 28, 94. A.B, Bethany Col. (Kans), 15; fellow, Kansas, 15–16, A.M, 16; fellow, Chicago, 20–21, Ph.D, 21. Asst. *physics,* Missouri, 16–17, instr, 17–20; *Wisconsin,* 21–25, asst. prof, 25–29, assoc. prof, 29–34, *prof, 34–* Physical Soc. Electron affinity of gases; nature of gaseous ions; electron conduction in gases; positive and negative thermionic emission from metals.

Wahlin, Prof. J(oel) G(ottlieb), 12th and McAlmont St, Little Rock, Ark. *Bacteriology.* McPherson, Kans, Feb. 21, 96. A.B, Bethany Col. (Kans), 17; A.M, Kansas, 22, Ph.D, 28. Med. Col. of Va, 26–29; Montana, 29–30; *prof. bacter, sch. med, Arkansas, 30–* A.A; Soc. Bact; Pub. Health Asn. Physiology of bacteria.

Wahlstrom, Prof. Ernest E(ugene), University of Colorado, Boulder, Colo. *Petrology.* Boulder, Colo, Dec. 30, 09. A.B, Colorado, 31, A.M, 33; A.M, Harvard, 36, Woodworth fellow, 38–39, Ph.D, 39. Instr. geol, *Colorado,* 36–38, *asst. prof. geol. and miner, 39–* Miner. Soc. Ore genesis; paragenesis of mineral deposits; petrology of Boulder County, Colorado, igneous intrusives; mineralization in Boulder County, Colorado, with special reference to gold and tungsten.

Wahrhaftig, Dr. Austin L(evy), California Institute of Technology, Pasadena, Calif. *Physical chemistry.* Calif, May 5, 17. A.B, California, 38; Ph.D, Calif. Inst. Tech, 41. *Research fellow chem, Calif. Inst. Tech, 41–* Molecular spectra.

Waibel, Prof. Leo H(einrich), University of Wisconsin, Madison, Wis. *Geography.* Kuetzbrum, Germany, Feb. 22, 88. Ph.D, Heidelberg, 11. Chairman dept. geog, Kiel, 22–29; Bonn, 29–37; research assoc, Hopkins, 39–41; *visiting prof. geog, Wisconsin, 41–* Am. Geog. Soc. Tropical Africa; tropical America; agricultural geography.

Wainscott, M(arion) Martin, 1423 Elgin St, Muskogee, Okla. *Organic chemistry.* Winfield, Kans, Dec. 23, 14. A.B, Southwestern Col, 39; Kansas, 39–40. Chemist and research technician, Roessler and Hasslacher chem. dept, *E. I. du Pont de Nemours and Co,* 33–35, chemist, 36, 37–38; chemist and supervisor, *mil. explosives div,* Carneys Point, N. J, 40–41, senior supervisor main lab, Ind. Ordnance Works, 41–42, *Okla. Ordnance Works,* 42, *supervisor org. chem. processes, 42–* Peroxygen compounds.

Wainwright, Dr. W(illia)m-Ward, University of California College of Dentistry, San Francisco, Calif. *Dentistry.* San Francisco, Calif, Aug. 1, 08. D.D.S, California, 29, M.S, 33. Asst, *California,* 29–35, instr. *dental med, col. dentistry,* 35–38, asst. prof, 39–41, *assoc. prof, 42–* Carnegie fellow, 36–38. Am. Dental Asn; Pasteur Soc; fel. Col. Dentists; Pacific Coast Paradentic Soc. (sec'y, 40); Calif. Acad. Periodontology; Int. Asn. Dental Research. Biochemistry; pathology.

Waisbrot, Dr. S(amuel) W(illiam), U. S. Department of Agriculture, Albany, Calif. *Organic chemistry.* New York, N. Y, Jan. 12, 16. A.B, Ohio State, 38, Ph.D, 41. Asst. anal. chem, Ohio State, 38–41; *asst. chemist, west. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Synthetic carbohydrate research.

Waisman, Dr. Harry A(aron), University of Wisconsin, Madison, Wis. *Nutrition, Biochemistry.* Milwaukee, Wis, April 25, 12. B.S, Wisconsin, 35, M.S, 37, Ph.D, 39. Asst, *Wisconsin,* 35–39, fellow, 39–41, *research assoc. biochem, 41–* A.A; Chem. Soc; Federation Clin. Research. Nutritional resistance to infection; nutrition in the monkey; determination of vitamins; vitamin content of meat and meat products; protein studies; growth factor elucidation for the chick, rat, hamster, mouse and monkey.

Walt, Dr. G(eorge) R(ay), 5241 Broad Branch Road, Washington, D. C. *Physics.* Chase, Kans, Sept. 7, 86. B.S, Kans. State Teachers Col, 14; M.S, Iowa, 17, fellow, 17–19, Ph.D, 20. Asst. instr, Kans. State Teachers Col, 13–14; prin. and head dept. science, high sch, N. Dak, 14–16; asst. physics, Iowa, 19–20; assoc. physicist and *physicist, dept. terrestrial magnetism, Carnegie Institution, 20–* A.A; Physical Soc; Geophys. Union; Philos. Soc. Wash; Wash. Acad; Iowa Acad. Hall effect and specific resistance of thin films; magnetic permeability of metals; atmospheric electricity; atmospheric ionization.

Walt, Dr. Justin F(ederal), Otego, N. Y. *Chemistry, Engineering.* Norwich, N. Y, Sept. 26, 93. M.E, Cornell, 16, M.M.E, 17; Ph.D, Columbia, 33. Asst, Hooker Electrochem. Co, 17; operating chemist, Monsanto Chem. Works, 18; test, design and research engineering in charge of consolidation of plants, Nat. Aniline and Chem. Co, 19–26; Industrial Separators Co, 27–29; Am. Petrol. Engineers and Sun Oil Co, 29–31; practicing patent attorney, 33–35; mem, City Dept. Purchase, New York, 36; consultant to commissioner heavy industries, U.S.S.R, 36–37; consulting engineer, and chemist, agr. centers, Calif. and N. Y, 38–40; Chem. Construction Co, 40; Semet-Solvay Eng. Co, 41; chief engineer and director mech. research, Indust. Tape Corp, 41–43; *develop. engineer, Bendix Aviation Corp, 43–* Inst. Chem. Chemical processes; special equipment for defense work.

Walte, Prof. Frederick C(layton), 144 Locust St, Dover, N. H. *Anatomy, Zoology.* Hudson, Ohio, May 24, 70. Litt.B, Western Reserve, 92, A.M, 94; A.M, Harvard, 96, Ph.D, 98. Instr, high schs, New York, 98–00; N. Y. Univ, 99; asst. anat, Chicago, 00–01; asst. prof. *histol. and embryol, Western Reserve,* 01–04, assoc. prof, 04–06, prof, 06–40, *emer. prof, 40–* A.A; Soc. Nat; Asn. Anat; Soc. Zool; Micros. Soc. (v. pres, 13); Am. Med. Asn; Ohio Acad. (v. pres, 08, pres, 30); Boston Soc. Nat. Hist; Cleveland Acad. Med; hon. mem. Cleveland Dental Soc; Int. Asn. Dental Research. Embryology and morphology of Crustacea; anatomy of Amphibia; medical and dental education and history.

Walte, Herbert A(mes), U. S. Geological Survey, Conservation and Survey Division, University of Nebraska, Lincoln, Nebr. *Hydrology.* A.B, Nebraska, 30, M.S, 37. Asst. geologist, Nebr: Water Surv. and Nebr. Geol. Surv, 31–33, 34–36; junior geologist, *U. S. Geol. Surv,* 33–34, *asst. geologist,* 36–37, *38–* A.A; Geophys. Union. Ground-water hydrology.

Walte, Dr. J(ohn) Herbert, 7 Bay State Road, Boston, Mass. *Ophthalmology.* Bellefonte, Pa, Nov. 24, 89. B.S, M.S, Bucknell, 11, hon. Sc.D, 36; M.D, Harvard, 16. Rockefeller Foundation, Far East, 16–20; intern, res. and teaching fellow, 21–24; instr. *ophthal, Harvard,* 25–29, asst. prof, 29–34, clin. prof, 34–40, *lecturer, 40–* Consulting ophthal. surgeon, Mass. Eye and Ear Infirmary, Infants, New Eng. Deaconess and New Eng. Baptist Hosps; New Eng. Sanitarium; New Eng. Peabody Home for Crippled Children, Children's, Peter Bent Brigham, Winchester and Beth Israel Hosps. Ophthal. Soc; Am. Med. Asn; New Eng. Ophthal. Soc. (pres, 40). Glaucoma; medical ophthalmology.

Walte, Dr. M(erton) B(enway), U. S. Department of Agriculture, Beltsville, Md. **[3]****Plant pathology.* Oregon, Ill, Jan. 23, 65. B.S, Illinois, 87; D.Agr, Maryland, 19. Asst. bot, Illinois, 87–88; asst. pathologist, *bur. plant indust, U. S. Dept. Agr,* 88–01, pathologist in charge diseases of orchard fruits, 01–08, *fruit disease investigations,* 08–24, senior pathologist in charge, 24–28, *prin. pathologist, 28–* A.A; Phytopath. Soc; Ecol. Soc; Biol. Soc. Wash; Bot. Soc. Wash; Wash. Acad. Pear blight; pollination of pomaceous fruits; diseases of orchard fruits; little peach and other peach diseases; pecan and nut diseases; winter injuries; fungicides and methods of controlling plant diseases; ecology of plant diseases.

Walte, Dr. Willis W(illard), Waite's Laboratories, El Paso, Texas. *Medicine.* Milford, Wis, 76. B.S, Wisconsin, 02; M.D, Hopkins, 06. Path. intern, City Hosp, New York, 06–07; bacteriologist, Dept. Health, New York, 07; city bacteriologist, Syracuse, 07–11; *director, Waite's Labs, El Paso, 11–* Pathologist, South. Pacific Ry, Hotel Dieu and County Hosp, El Paso. A.A; Am. Med. Asn; Southwest. Med. and Surg. Asn. (pres); El Paso County Med. Soc. (pres, 24). Pathology; syphilitic aortitis.

Waitkins, Dr. G(eorge) R, Battelle Memorial Institute, Columbus, Ohio. *Chemistry.* Glasgow, Scotland, Feb. 28, 11. B.S, Syracuse, 33, M.S, 34, Ph.D, 38; Stanford, 37–38. *Research engineer, Battelle Mem. Inst, 38–* Chem. Soc. Organic and inorganic chemistry; sulfur and selenium chemistry and utilization.

Wakefield, H(arold) F(rancis), 230 Grove St, Bloomfield, N. J. *Chemistry.* Wellington, Kans, Sept. 6, 96. A.B, Southwestern Col. (Kans), 18; M.S, Wisconsin, 23. Asst. chief chemist, Hutchinson, Kans, plant, Solvay Process Co, 18–21; *research chemist, Bakelite Corp, 24–* A.A; Chem. Soc; Inst. Chem; Soc. Rheol. Synthetic resins; physical chemistry of the synthetic resins.

Wakefield, R(oland) A(dell), 7418 Second Ave, N, St. Petersburg, Fla. *Physical chemistry.* Auburn, Maine, Sept. 22, 93. A.B, Bates Col, 16; A.M, Virginia, 23. Prof. math, Va. Union, 16–18, head dept. chem, 18–31; *prof. chem, St. Petersburg Junior Col, 33–; prin. ground sch. supervisor, region two, war training service, Civil Aeronautics Admin, 43–* Chem. Soc. (ed, 'Bul,' Va. sect, 26). Reaction kinetics.

Wakeham, Prof. Glen (Raymond), 901 University Ave, Boulder, Colo. *Chemistry.* Council Bluffs, Iowa, Nov. 4, 84. B.Sc, London; Ph.D, Colorado, 24. Fachlehrer, Friedensauer Industrielschule, Germany, 04–07; teacher *chem,* Stanborough Col, London, 08–16, head master, 16–22, instr, *Colorado,* 22–

24, asst. prof, 24–29, *assoc. prof, 29–* A.A; fel. London Chem. Soc. Biochemistry; basal metabolism and the menstrual cycle; alkaline tide; anemia; irradiation of nicotine; psychology; theory of habit formation.

Wakeham, Dr. Helmut R(ichard) R(ea), 2100 Robert E. Lee Blvd, New Orleans, La. *Physical chemistry.* Hamburg, Germany, April 15, 16. A.B, Nebraska, 36, A.M, 37; Ph.D, California, 39. Teaching asst. chem, Nebraska, 36–37; California, 37–39; research chemist, Standard Oil Co, Calif, 39–41; *assoc. chemist, chem. and physical div, south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Chem. Soc. The flow of unimolecular surface films; liquid structure of mercury; colloids.

Wakeland, Dr. Claude, 3050 Colorado Blvd, Denver, Colo. *Entomology.* La Jara, Colo, Aug. 2, 88. B.S, Colo. Agr. Col, 14, M.S, 24; Ph.D, Ohio State, 34. Deputy state entomologist, Colo, 14–20; exten. entomologist, Idaho, 20–29, entomologist, Exp. Sta, 22–29, prof. entom. and head dept, 29–38; project leader Mormon cricket control, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 38, field director grasshopper and Mormon cricket control, 39, project leader, 40–41, *chief div. grasshopper control, 42–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. The alfalfa weevil; pea weevil; fruit tree leaf-roller; snowy tree cricket; eleodes beetles; Mineola scitulella; oil sprays in control of fruit insects; codling-moth; Mormon cricket control.

Wakeley, Philip C(arman), Southern Forest Experiment Station, Rural Route 3, New Orleans, La. *Forestry.* Orange, N. J, March 18, 02. B.S, Cornell, 23, M.F, 25. Junior forester, *South. Forest Exp. Sta, U. S. Forest Service,* 24–27, asst. silviculturist, 28–30, assoc. silviculturist, 30–36, *silviculturist, 36–* A.A; Soc. Foresters; Ecol. Soc; New Orleans Soc. Plant Sciences (sec'y, 31, pres, 33); New Orleans Acad. (sec'y, 35, 36, v. pres, 41, pres, 42). Silviculture; artificial forestation.

Wakelin, Dr. James H(enry), Jr, 218 Twin Oak Road, Akron, Ohio. *Physics.* Holyoke, Mass, May 5, 11. A.B, Dartmouth Col, 32; B.A, Cambridge, 34, M.A, 39; Ph.D, Yale, 40. *Senior physicist, B. F. Goodrich Co, 39–* Magnetization near boundaries; x-ray diffraction of natural rubber and synthetic polymers.

Wakeman, Dr. Alfred J(ohn), 181 Edwards St, New Haven, Conn. *Chemistry.* Green's Farms, Conn, Feb. 8, 65. Ph.B, Yale, 87; Ph.D, Leipzig, 94. Instr. chem, Mass. Inst. Tech, 87–89; Sheffield Sci. Sch, Yale, 92–95; physiol. chem. research, Herter Lab, New York, 95–12; protein chem. research, Conn. Exp. Sta, 12–42; *retired.* Soc. Biol. Chem. Physiological chemistry.

Wakeman, Prof. Nellie (Antoinette), 1814 Keyes Ave, Madison, Wis. *Organic chemistry.* Wis, Feb. 20, 84. B.S, Wisconsin, 08, Ph.D, 13. Instr. chem, Mills Col, 11–13; instr. and *asst. prof. pharmacy, Wisconsin, 13–* A.A; Chem. Soc; Pharmaceut. Asn; Wis. Acad. Plant chemistry; phytochemistry; plant pigments; thymoquinone and its derivatives; volatile oils; alkaloids.

Wakeman, Dr. Reginald L(eslie), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Boston, Mass, Sept. 25, 05. B.S, Mass. Inst. Tech, 26, M.S, 27, Bolles fellow, 29–30, Ph.D, 30. Asst. instr, Mass. Inst. Tech, 26–29, Moore traveling fellow, Paris and Zurich, 30–32; research chemist, Nat. Aniline and Chem. Co, 32–35; *indust. fellow, Mellon Inst, 35–* Chem. Soc; Soc. chim. de France; Nederlandsche Chem. Vereen. Hydrocarbon chemistry.

Wakeman, Prof. Seth, Smith College, Northampton, Mass. *Psychology, Education.* Batavia, N. Y, May 18, 93. A.B, Hobart Col, 16, A.M, 17; Ph.D, Cornell, 22. Instr. educ, Cornell, 19–22, asst. prof, 22–25; *prof. educ. and chairman dept. educ. and child study, Smith Col, 25–, director Elizabeth Morrow Morgan nursery sch. and col. day sch, 26–,* prof, sch. psychiat. social work, 28. Summer, prof, Cornell, 26. Psychol. Service, U.S.A, 18–19. A.A; Soc. Study Educ. Educational psychology; experimental education; elementary and preschool education.

Wakerlin, Prof. George E(arle), University of Illinois College of Medicine, Chicago, Ill. *Physiology, Pharmacology.* Chicago, Ill, July 1, 01. B.S, Chicago, 22, Ph.D, 26, M.D, Rush, 29; M.S, Wisconsin, 24. Instr. pharmacol, Wisconsin, 23–25; physiol, Chicago, 25–26, fellow, 26–28; asst. prof. physiol. and pharmacol, sch. med, Louisville, 31–33, assoc. prof, 33–35, prof, 35–37, head dept, 33–37; *prof. and head dept. physiol, col. med, Illinois, 37–* A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Asn; fel. Col. Physicians; Cent. Soc. Clin. Research. Chemotherapy, immunity and serology of experimental and clinical syphilis; motor activity of the gall bladder; hematopoiesis; pathogenesis of pernicious anemia; pathogenesis of essential hypertension; experimental renal hypertension; antihormones.

Wakerling, Dr. R(aymond) K(ornelious), Fresno State College, Fresno, Calif. *Mathematics.* Oakland, Calif, June 16, 14. A.B, California, 36, Ph.D, 39. Instr. *math,* Texas Tech, 39–42; *asst. prof, Fresno State Col, 42–* Math. Soc; Math. Asn. Algebraic geometry.

Wakim, Prof. K(halil) G(eorges), Indiana University School of Medicine, Bloomington, Ind. *Physiology.* Sidon, Syria, July 17, 07. B.A, American Univ, Beirut, 29, M.D, 33; Mayo Foundation fellow, Mayo Clinic, 38–41; Ph.D, Minnesota, 41. Instr. *physiol,* American Univ, Beirut, 33–38; acting prof, col. med, Iowa, 40; assoc. prof, *sch. med, Indiana,* 41–43, *prof, 43–* Soc. Exp. Biol; Physiol. Soc; Federation Biol. Societies. Physiology and experimental surgery.

Waksman, Prof. S(elman) A(braham), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Soil microbiology.* Priluka, Russia, July 29, 88. B.S, Rutgers, 15, M.S, 16, hon. Sc.D, 43; fellow, California, 16–17, Ph.D, 18. Asst. soil microbiol, *N. J. Exp. Sta,* 15–16, *microbiologist, 18–,* lecturer *soil microbiol, Rutgers,* 18–24, assoc. prof, 24–30, *prof, 30–* Research biochemist, Cutter Labs, 17–18; bacteriologist, Takamine Lab, 19–20; marine bacteriologist, Oceanog. Institution, Woods Hole, 31– Ed. board, 'Soil Science'; 'Pedology.' Nat. Acad; A.A; Soc. Agron. (v. pres, 31); Soc. Bact. (pres, 42); Chem. Soc; Mycol. Soc; Soc. Exp. Biol; Soil Sci. Soc; Halle Wissench. Akad; cor. mem. Acad. Sci. France; Swedish Acad. Agr; Indian Chem. Soc; hon. mem. Leningrad Microbiol. Soc; Int. Asn. Soil Sci. (pres, 3rd cmn, 29–35). Soil microorganisms; actinomycetes and fungi; bacteria concerned in oxidation of sulfur; enzymes; decomposition of organic matter by microorganisms; origin and nature of soil humus; marine bacteria; antagonistic effects of microorganisms; formation of antibiotic substances.

Walbridge, Prof. N(elson) L(ee), 1334 North Ave, Burlington, Vt. *Physics.* Montpelier, Vt, June 27, 02. B.S, Vermont, 24, M.S, 26; Ph.D, Chicago, 42. Instr. *physics, Vermont,* 24–41, asst. prof, 41–42, *assoc. prof, 42–, acting head dept, 42–* Physical Soc. X-rays.

Walcott, Dr. Albert J, 4029 N. E. 79th Ave, Portland, Oregon. *Mineralogy.* Zeeland, Mich, Sept. 4, 95. A.B, Michigan, 14, M.S, 15, Ph.D, 26. Instr. miner, Case, 16–17; Michigan, 17–18; research optical glass for war purposes, 18–22; asst. prof. miner. in charge miner. and crystallography, Northwestern, 22–34; research, Field Museum Nat. Hist, Chicago, 34–40; *director, Walcott Sch. Minerals and Gems, 40–* Fel. Miner. Soc; Chem. Soc; Ill. Acad. Crystal habit; crystallography of organic substances; origin and occurrences of gem minerals; asterism in garnet, spinel, quartz and sapphire.

Wald, Dr. George, Harvard University, Cambridge, Mass. *Biology.* New York, N. Y, Nov. 18, 06. B.S, N. Y. Univ, 27; A.M, Columbia, 28, Ph.D, 32. Asst. instr. biol, N. Y. Univ, 27–28; asst. biophys, Columbia, 28–32; nat. research fellow, 32–34; instr. and tutor biochem. sciences, *Harvard,* 34–35, *biol,* 35–39, *faculty instr. and tutor, 39–* Award, Eli Lilly and Co, 39. Mem. corp, Marine Biol. Lab, Woods Hole. A.A; Optical Soc; Physiol. Soc. Chemistry of retinal processes; metabolism of carotenoids and vitamin A.

Waldbauer, Dr. Louis (Julius), General Aniline and Film Corp, Easton, Pa. *Analytical chemistry.* St. Louis, Mo, July 15, 96. Ch.B, Cornell, 17; M.Sc, McGill, 22, Ph.D, 23. Asst. org. chem, Cornell, 16–17; research chemist, E. I. du Pont de Nemours and Co, 17–20; instr. chem, Maine, 20–21; demonstrator physical and org. chem, McGill, 21–23; lecturer physical chem, 23–24; instr. chem, Lehigh, 24–26; Curie Lab, Paris, 26–28; assoc. chem, Iowa, 28–30, acting head anal. div, 30–32, head, 32–43, asst. prof, 32–37, assoc. prof, 37–43; *anal. research chemist, cent. research lab, Gen. Aniline and Film Corp, 43–* Chem. Soc; Physical Soc; Optical Soc. X-ray crystal structure; quantitative spectroscopy; instrumental analytical methods.

Waldbott, Dr. Sigmund, Court and Plum Sts, Cincinnati, Ohio. *Chemistry.* Münchweiler, Bavaria, April 19, 65. Grad, Polytech, Munich, 86; Ph.D, Bern, 89. Instr, Dr. Ustrich's Pädagogium, Munich, 86–89; chemist, Rheinstrom

Brothers, 90–93; Lloyd Brothers, and librarian, Lloyd Library, 93–02; head dept. chem, Ohio Mech. Inst, 01–18; *consulting chemist, Lloyd-Waldbott Anal. Lab, 18–* Denatured alcohol chemist, U. S. Int. Revenue, Ohio, 07– Collaborator, King-Felter-Lloyd's Am. Dispensatory, 98–00. A.A; Chem. Soc. (sec'y, Cincinnati sect, 97–99, pres, 05, abstractor, 'Abstracts,' 12–). Pharmacy; capillarity; alcohol; Lloyd's alkaloidal reagent; technical and pharmaceutical processes.

Walde, Dr. A(rthur) W(illiam), Charles City, Iowa. *Chemistry.* Dent, Minn, Aug. 29, 01. B.S, N. Dak. Col, 29; Commercial fellow, Iowa State Col, 29–34, Ph.D, 33. Asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 34–36; *vet. pharmaceut. research, Dr. Salsbury's Labs, 36–* Summers, asst. chemist, dept. milling, Exp. Sta, N. Dak. Col, 27–29. A.A; fel. Inst. Chem; Chem. Soc. Fatty constituents of flour; quantitative analysis and structure of lignin; ionization constants and heat of ionization of organic acids; minerals in feeds; vitamins in feeds; plant alkaloids; anthelmintics; pharmacology.

Waldeck, Dr. W(illiam) F(rancis), Michigan Alkali Co, Wyandotte, Mich. *Physical chemistry, Chemical engineering.* New York, N. Y, Feb. 25, 10. B.S, N. Y. Univ, 30, Ph.D, 33. Acting director research, Columbia chem. div, Pittsburgh Plate Glass Co, 33–39; *research develop. supervisor, Mich. Alkali Co, 39–* Chem. Soc; Chem. Eng. High temperature phase rule; protective coatings; alkali technology.

Walden, Prof. (Emory) Earl, New Mexico State College of Agriculture and Mechanic Arts, State College, N. Mex. *Mathematics.* Paragould, Ark, May 25, 98. A.B, Hendrix Col, 22; A.M, Colorado, 25; Ph.D, Illinois, 34. Instr, Hendrix Acad, 22–24; prof. *math,* Lambuth Col, 24–31; asst, Illinois, 31–34; prof, Ga. State Col. for Women, 34–42; *assoc. prof, N. Mex. Col, 42–* Math. Soc.

Walden, Dr. G(eorge) H(enry), Jr, Columbia University, New York, N. Y. *Chemistry.* Rochester, N. Y, July 23, 94. B.S, Rochester, 16, M.S, 17; Ph.D, Columbia, 24. Asst. *chem, Columbia,* 19–20, instr, 20–37, *asst. prof, 37–* Chemist, Bur. Aircraft Production, 18–19. Chem. Soc. Inorganic, physical and analytical chemistry.

Walden, Dr. Henry W, 74 W. 52nd St, New York, N. Y. *Aeronautics.* Walden, Mass, Nov. 10, 83. D.D.S, Columbia, 06. Designed, built and piloted first Am. monoplanes, 09–13; designer and builder pusher-type monoplanes, Walden-Dyott Aeroplane Mfg. Co, 10; monoplanes, Walden Aeroplane Mfg. Co, 11–13; biplanes, contractor and builder wings and controlling surfaces, DeHavilland IX, Walden-Hinners Co. and Walden-Butler Co, 17–19; founder, Walden Sch. Aviation, 11, operator, 11–14; exp. research engineer, clipper type high wing-loading monoplanes, 26–31; founder, Walden Aircraft Corp, 30, pres, 30–32; Walden-Cooke Co, 39–40. Development of dive bombers of greater accuracy with greater safety from anti-aircraft fire; three dimensional photography; animated electric signs; coffee packing machinery; plastic and rubberized mending machinery.

Waldie, Dr. Alma T(iedemann), Alden Park, Germantown, Philadelphia, Pa. *Physics.* Pittsburgh, Pa. A.B, Cornell, 09; scholar, Pennsylvania, 09–10, Ph.D, 25. *Teacher physics,* William Penn High Sch, *Phila,* 11–16, Germantown High Sch, 16–34, *Olney High Sch, 34–* A.A; Physical Soc; Asn. Physics Teachers; Franklin Inst. Atomic structure; energy levels of polyatomic molecules; light electric properties of metallic sulfides.

Waldman, Prof. Bernard, University of Notre Dame, Notre Dame, Ind. *Physics.* New York, N. Y, Oct. 12, 13. A.B, N. Y. Univ, 34, Ph.D, 39. Asst. *physics,* N. Y. Univ, 35–38; research assoc, *Notre Dame,* 38–40, instr, 40–41, *asst. prof, 41–* Physical Soc; Asn. Physics Teachers. Nuclear physics; high voltage electrons and x-rays; electrostatic generators.

Waldo, Prof. Allen W(orcester), 1335 N. Van Buren, Stockton, Calif. *Geology.* Philadelphia, Pa, July 27, 04. A.B, Illinois, 27, M.S, 28; A.M, Harvard, 32, Ph.D, 34; Pa. State Col, 37. Teaching fellow, Harvard, 28–33; lab. asst, Radcliffe Col, 29–34; asst. petrog. research, Pa. State Col, 34–37; asst. prof. *geol. and geog, Col. of Pacific,* 37–40, *assoc. prof, 40–*; asst. prof, *Stockton Junior Col,* 37–40, *assoc. prof, 40–, chairman div. nat. sciences, 42–* Summers, asst, Ill. Geol. Surv, 25, 26; asst. geologist, Sladen-Malartic Mining Co, 29; rodman, U. S. Geol. Surv, 30; ranger naturalist, Nat. Park Service, 41, 42. A.A; Miner. Soc; Soc. Econ. Paleont; N. Y. Acad. X-ray identification of ore minerals; petrography of oil sands and limestones; impregnation porous materials.

Waldo, Prof. Edward H(ardenbergh), University of Illinois, Urbana, Ill. *Electrical engineering.* Hornell, N. Y, March 5, 66. A.B, Amherst Col, 88; M.E, Cornell, 90; M.S, Illinois, 14, E.E, 17. Gen. Elec. Co, 90–94; instr. elec. eng, Pennsylvania, 94–04; eng. dept, Crocker-Wheeler Co, 04–07; asst. prof. *elec. eng, Illinois,* 07–31, assoc. prof, 31–34, *emer. assoc. prof, 34–* A.A; Elec. Eng; Illum. Eng. Soc. Economics of transformer design.

Waldo, George F(ordyce), Oregon State Agricultural College, Corvallis, Oregon. *Pomology.* Drayton, N. Dak, Dec. 2, 98. B.S, Oregon State Col, 22; M.S, Mich. State Col, 26. Junior pomologist, *bur. plant indust, U. S. Dept. Agr,* 26–28, asst. pomologist, *small fruit breeding and culture, div. hort. crops and diseases,* 28–37, *assoc. pomologist, 37–* Asn. Adv. Hort; Genetic Asn. Small fruit breeding and culture; fruit-bud differentiation in strawberries; influence of length of daily light period in strawberries and raspberries.

Waldo, John H(ardenbergh), 120 W. 64th St, Indianapolis, Ind. *Organic chemistry.* Philadelphia, Pa, Feb. 15, 98. B.S, Illinois, 19, M.S, 20. Teacher, Morningside Col, 21–22; Purdue, 22; research chemist, *Eli Lilly and Co,* 22–40, *supt. chem. mfg, 40–* Chem. Soc. (sect. director and councilor, 25, chairman, 30); Indianapolis Scientech Club. Biochemistry; insulin; organomercurials; organoarsenicals.

Waldon, Prof. Curtis H(enry), Purdue University, West Lafayette, Ind. *Pharmaceutical chemistry.* Rochester, Minn, July 22, 09. B.S, Minnesota, 35, M.S, 37, Ph.D, 41. Agent, U. S. Dept. Agr, 39–41; *asst. prof,* Montana, 41–42; *pharmaceut. chem, Purdue, 42–* Chem. Soc; Pharmaceut. Asn. Phytochemical and pharmacological study of Hermidium alipes, S. Wats; sulfonation in the alpha position of various aliphatic acids of low molecular weight.

Waldorf, Dr. Sigmund K(ittner), 5701 Chilham Road, Baltimore, Md. *Electrical engineering.* Baltimore, Md, Sept. 23, 04. B.E, Hopkins, 25, D.E, 28. Asst. elec. eng, Hopkins, 28–30, research assoc, 30–33, instr, night classes, 29–31, fellow by courtesy, 33–34; *test engineer, Pa. Water and Power Co, 34–* A.A; Elec. Eng; Physical Soc; Radio Eng. Electric measurements; high voltage corona in air; high voltage cable materials; electric power generation and transmission; communication.

Waldron, Prof. C(lare) B(alley), North Dakota State College, Fargo, N. Dak. *Horticulture.* Ravenna, Ohio, Dec. 6, 65. B.S, Mich. Agr. Col, 87, fellow, 87–89, D.Agr, 39. Instr. bot, Mich. Agr. Col, 87–89; *prof. hort. and forestry, N. Dak. Col, 90–*, dean agr, 15–24. Mem. jury, St. Louis Expos, 04; chairman jury awards, Portland Expos, Oregon, 05. Develop. specialist, U.S.A, 20–21. A.A; N. Dak. Acad. (pres, 10). Tree planting in the Great Plains area; small fruits; the mustard family; North Dakota vegetables; trees and fruit; tree culture; destructive insects; ornamental planting; fruit culture; windbreaks and hedges; trees, shrubs and plants for farmsteads.

Waldron, Dr. L(awrence) R(oot), North Dakota Agricultural College, Fargo, N. Dak. *Agronomy.* Ionia, Mich, Oct. 20, 75. B.S, N. Dak. Col; A.M, Michigan, 02; Ph.D, Cornell, 28. Instr. bot, 99–05; supt, N. Dak. Exp. Sta, Dickinson, 05–16; *plant breeding, dept. agron, Exp. Sta, N. Dak. Col, 16–* A.A; Soc. Nat; Soc. Agron; fel. Linnean Soc. London. Genetics; statistics; farm crops; drought resistance; yield and protein content in wheat; flax seed inheritance.

Waldron, Prof. R(alph) A(ugustus), Pennsylvania State Teachers College, Slippery Rock, Pa. *Botany.* North Rochester, Mass, April 28, 88. B.S, Mass. Col, 10; M.S, Pa. State Col, 12; Ph.D, Pennsylvania, 18. Asst. entom, Mass. Col, 10; instr. bot, Pa. State Col, 10–14; Pennsylvania, 15–18; horticulturist; *prof. biol,* Thiel Col, 22–25; *Pa. State Teachers Col, Slippery Rock, 25–, head dept. science.* Organizer and conductor educational tours, Mex, Bermuda, Can, New Eng. and the West. A.A. Biology; plant pathology; entomology; nature study.

Waldschmidt, Prof. W(illiam) A(lbert), 4840 Tennyson St, Denver, Colo. *Geology.* Riverton, Nebr, April 14, 97. B.S, S. Dak. Sch. Mines, 20, E.M, 21; M.S, Mass. Inst. Tech, 22; Ph.D, Colorado, 38. Curator geol. museum, S. Dak. Sch. Mines, 20–21; instr. geol, Colo. Sch. Mines, 22–24, asst. prof, 24–27, 29–30, assoc. prof, 30–43; *consulting geologist, 43–*

Subsurface geologist, Midwest Ref. Co, 24–32. Asn. Petrol. Geol; Miner. Soc; Soc. Mil. Eng; fel. Geol. Soc; Rocky Mt. Asn. Petrol. Geol. (sec'y-treas, 29–31, pres, 34). Petrography; mineralogy; sedimentation.

Walerstein, Prof. I(sidor), 17 Waldron, West Lafayette, Ind. *Physics.* Lubartow, Poland, March 1, 05. B.A, Toronto, 26; Ph.D, Chicago, 29. Instr. *physics, Purdue,* 29–31, asst. prof, 31–39, *assoc. prof, 39–* Summers, asst, Toronto, 26, 29. Physical Soc; Asn. Physics Teachers. Resonance spectra; polarization of light in canal rays; air-cooled electromagnets; Zeeman effect; mercury spectrum; interference phenomena; hyperfine structure.

Wales, Dr. Horatio, Jr, 4621 N. Chelsea Lane, Bethesda, Md. *Pharmaceutical chemistry.* Polo, Ill, Feb. 12, 94. A.B, Amherst Col, 15; A.M, Columbia, 17, Ph.D, 18. Assoc. chemist, bur. chem. and food and drug admin, U. S. Dept. Agr, 19–28, *chemist, interstate div, food and drug admin,* 28–39, *Fed. Security Agency, 39–* Pharmaceut. Asn. Physical chemistry.

Wales, Joseph H(owe), Mt. Shasta City, Calif. *Ichthyology.* Iowa City, Iowa, Nov. 27, 07. A.B, Stanford, 30, A.M, 31. Asst, *State Div. Fish and Game, Calif,* 31–32, *biologist, 32–* A.A; Fisheries Soc; Soc. Ichthyol. and Herp; West. Soc. Nat. Natural history of fishes; trout diseases; trout nutrition.

Wales, Dr. M(uriel), 280 Bloor W, Toronto, Ont, Can. *Mathematics.* Belfast, Ireland, June 9, 13. B.A, British Columbia, 34, M.A, 37; Ph.D, Toronto, 41. Asst. math, British Columbia, 36–37; *mem. staff, Research Enterprises, Ltd, 41–* Cycle factorization of the fundamental equation of an algebraic function field.

Wales, Dean R(oyal) L(infield), Campus Ave, Kingston, R. I. *Mechanical engineering.* Groveland, Mass, Nov. 24, 78. B.S, Mass. Inst. Tech, 02. Asst. gas, oil and fuels, Mass. Inst. Tech, 02–04; instr. mech. eng, N. C. Col, 04–05; asst. prof. exp. eng, Tennessee, 05–08; *prof. mech. eng, R. I. State Col, 08–, dean eng, 09–* Mech. engineer in carburetion, Bur. Standards, 21. Mech. Eng; Eng. Educ; hon. mem. Asn. Power Eng; Providence Eng. Soc. Power development.

Waletzky, Dr. Emanuel, American Cyanamid Co, 1937 W. Main St, Stamford, Conn. *Zoology.* New York, N. Y, Nov. 25, 13. A.B. and A.M, Wisconsin, 34, scholar, 34–35, fellow, 36–38, Ph.D, 38. Asst. zool, Wisconsin, 35–36, genetics, 39–41; instr. parasitol, North Carolina, 41–43; *parasitologist, Am. Cyanamid Co, 43–* Genetics Soc; Malaria Soc. Genetics; mammalian sex ratios; malaria; filariasis.

Walford, Dr. Lionel A(lbert), U. S. Bureau of Fisheries, Stanford University, Calif. *Ichthyology.* San Francisco, Calif, May 29, 05. A.B, Stanford, 29; A.M, Harvard, 33, Ph.D, 35. Fisheries biologist, Int. Fisheries Cmn, U. S. and Mex, 26–27; biologist, State Div. Fish and Game, Calif, 27–31; asst. biol, Harvard, 34–35; *assoc. aquatic biologist, Bur. Fisheries, 36–* Lecturer, Stanford, 41– Summer, research fellow, Oceanog. Inst, Woods Hole, 34, 36. Soc. Ichthyol. and Herp. (ichthyol. ed, 'Copeia,' 37–). Ecology; biology of fishes; life history of the California barracuda; early life history of the haddock; Mexican and California fish; biology of the Pacific sardine.

Walker, Dr. A(lbert) C(harles), 77 Oakview Terrace, Short Hills, N. J. *Physical chemistry.* Denver, Colo, July 26, 93. Colorado, 14–16; B.S, Mass. Inst. Tech, 18; Ph.D, Yale, 23. Research, East. Mfg. Co, 19; *research chemist,* Winchester Repeating Arms Co, New Haven, Conn, 20–21; Yale, 21–23; *Bell Tel. Labs, New York, 23–* Chem. Soc. Homogeneous equilibrium in aqueous solutions; physical chemistry of textiles and fibers; precise humidity control and recording apparatus; polarography; lead in urine; vitamins and behavior of quaternary ammonium compounds.

Walker, Prof. Alfred, 420 Lincoln Road, Miami Beach, Fla. *Dentistry.* New York, N. Y, May 22, 76. D.D.S, New York Col. Dentistry, 97. Clin. prof. *pulp canal therapy, col. dentistry, N. Y. Univ,* 28–33, asst. prof. and later *prof, 33–* Medallion, alumni federation, N. Y. Univ, 35. Mem. science advisory board, Nat. Research Council, 30. Chairman dentistry, Pan Am. Med. Asn. Cong, 38. A.A; Am. Dental Asn. (chairman, judicial council, 32–35); N. Y. State Dental Soc. (pres, 31); N. Y. Acad. Pulp canal therapy; dentistry in public health; mouth health in relation to general health.

Walker, Dr. A(lfred) O(rpheus), 5428 Woodlawn Ave, Chicago, Ill. *Chemistry.* Mt. Pleasant, Iowa, March 29, 08. B.S, Iowa Wesleyan Col, 30; Ph.D, Chicago, 35. Eli Lilly fellow chem, Chicago, 35–37; research chemist, research foundation, Armour Inst, 37–39; *chief chemist, Nat. Aluminate Corp, 39–.* Chem. Soc. Boron hydrides; directed addition reactions; analytical methods.

Walker, Prof. A(nson) R(obertson), University of Western Ontario, London, Ont, Can. *Plant pathology.* Epsom, Ont, March 13, 93. B.A, Queen's (Can), 19; M.A, Toronto, 21. Instr. bot, Toronto, 19–25; *Western Ontario,* 25–27, asst. prof, 27–29, assoc. prof, 29–36, *prof. plant path, 36–* Lecturer, Queen's (Can), 19. A.A; Phytopath. Soc; Can. Phytopath. Soc; Mycol. Soc; fel. Am. Geog. Soc. Keithia disease of cedar; Botrytis disease of hemp; root-rot of strawberries.

Walker, Dr. Arthur Earl, 950 E. 59th St, Chicago, Ill. *Medicine.* Winnipeg, Man, Can, March 12, 07. B.A, Alberta, 26, M.D, 30. Douglas Smith fellow, Chicago, 31; res. neur. and neurosurg, Chicago, 31–34; instr. neurosurg, Iowa, 34; Rockefeller fellow, Yale, Amsterdam and Brussels, 35–37; instr. neur, *Chicago,* 37–38, *neur. surg,* 38–39, asst. prof, 40–42, *assoc. prof, 42–, chief div, 41–* Neur. Asn; Acad. Neur. Surg. (sec'y-treas, 40–); Col. Surg; Soc. Neur. Surg; Asn. Neuropath. Anatomy and physiology of thalamus; experimental physiology of cerebral cortex; cerebello-cerebral relationships; visual mechanisms; neuro-surgical therapy of pain; physiology of cerebral injuries.

Walker, Arthur L(uclan), Dongan Hills, Staten Island, N. Y. *Metallurgy.* New York, N. Y, Jan. 14, 63. E.M, Columbia, 83. Engineer, Old Dominion Copper Co, Globe, Ariz, 83–88, gen. supt, 88–94; manager, Baltimore Electrolytic Ref. Co, 94–99; Perth Amboy plant, Am. Smelting and Ref. Co, 99–07, director, 07–08; prof. metal, Columbia, 08–28; *retired.* Min. and Metal. Eng. Copper-casting apparatus; electrolytic copper refining.

Walker, Dr. Arthur M(eeker), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Physiology.* Pittsfield, Mass, Sept. 26, 96. A.B, Williams Col, 19; M.D, Harvard, 23. Instr. *pharmacol, sch. med, Pennsylvania,* 25–29, asst. prof, 29–38, *assoc. prof, 38–* Soc. Pharmacol; Soc. Clin. Invest; Physiol. Soc; Physiol. Soc. Phila. Renal physiology.

Walker, Prof. Arthur W(illiam), Sherwood Road, Des Plaines, Ill. *Bacteriology.* Freeport, Maine, Nov. 12, 77. B.A.S, Harvard, 10, 10–12. Asst. chemist, State Board Health, Mass, 99–02; bacteriologist, Water Cmn, New York, 02–05; Metropolitan Water and Sewerage Board, Mass, 05–12; instr. *bacter, med. sch, Northwestern,* 12–24, *assoc. prof, 24–* Bacterial metabolism.

Walker, Dr. Burnham S(arle), 80 E. Concord St, Boston, Mass. *Chemistry.* Hamilton, N. Y, Oct. 22, 01. A.B, Boston, 23, A.M, 24, Ph.D, 26, M.D, 34. Instr. physiol. chem, *sch. med, Boston,* 26–27, asst. prof, 27–30, assoc. prof, 30–35, *prof. biochem, 35–* Assoc. chem, Evans Mem, 28–36, mem, 36– A.A; Chem. Soc; fel. Am. Med. Asn; Soc. Biol. Chem. Function of the kidney; analysis of cerebrospinal fluid; blood phosphorus and magnesium; heme chromoproteins.

Walker, Dr. B(uz) M, Starkville, Miss. *Mathematics.* Starkville, Miss, Aug. 20, 63. B.S, Miss. Agr. and Mech. Col, 83, M.S, 86; Virginia, 85, 86, 87; Göttingen, 88–89; Berlin, 89; Ph.D, Chicago, 06. Instr. math, Miss. Agr. and Mech. Col, 83–84, asst. prof, 84–88, prof, 88–25, director sch. eng, 02–25, v. pres, 13–25, pres, 25–30. Math. Soc; Math. Asn; London Math. Soc; Math. Verein; Circolo Mat. di Palermo. Quadratic one to two and one to three transformation between two planes; the resolution of higher singularities of algebraic curves into ordinary nodes; transformation of algebraic curves; the higher singularities of algebraic curves.

Walker, Dr. Chapman J(ohnston), R. D. 1, Vrooman Ave, Schenectady, N. Y. *Thermodynamics.* McComas, W. Va, Dec. 16, 09. B.S, Va. Mil. Inst, 30; M.M.E, Rensselaer Polytech, 34, D.M.E, 36. *Research engineer, turbine dept, Gen. Elec. Co, 36–* Mech. Eng. Steam and gas turbine performance; prime movers.

Walker, Dr. Charles F(rederic), Franz Theodore Stone Laboratory, Put-in-Bay, Ohio. *Zoology.* Columbus, Ohio, Dec. 27, 04. A.B, Ohio State, 31, M.S, 32; Hinsdale fellow, Michigan, 34–35, Ph.D, 35. Asst, dept. nat. hist, state museum, Ohio, 27–33; biologist, soil conservation service, U. S. Dept. Agr, 35–38; *assoc. prof. zool, Franz Theodore Stone lab, Ohio State, 38–* Wildlife Soc; Ornith. Union; Soc. Ichthyol. and Herp; Wilson Ornith. Club; fel. Ohio Acad. Herpetology; ornithology; ecology.

Walker, Prof. Charles L(eopold), 201 Fairmount Ave, Ithaca, N. Y. *Sanitary engineering.* North Evans, N. Y, July 1, 79. C.E, Cornell, 04. Recorder, U. S. Lake Surv, Detroit, 04–05; instr. civil eng. *col. eng, Cornell,* 05–08, asst. prof, 08–22, *prof. sanit. eng,* 22– . Summers, asst. engineer, State Board Health, N. Y, 07; surv. camps, Cornell, 08–18, 23; asst. engineer, R. W. Pratt, Cleveland, 13–14, 15–16; Lucas County, 14; Emergency Fleet Corp. Housing Projects, Alliance and Lorain, Ohio, 18; research milk waste treatment, 20–21; consultant, Sodus Cooperative Creamery Co, 27–30; in charge stream surv, Maine paper indust, 30; Fla. and Va, 37, 38. Asst. sanit. engineer, Morris Knowles, Camp Meade, Md, 17; C.Eng, 17–19. Civil Eng. (local membership cmt, 37–43); Eng. Educ; Water Works Asn; Pub. Health Asn. (cmt. on training and personnel, subcmt. on training pub. health engineers, 30–); N. Y. Sewage Works Asn. (exec. and pub. cmts, 30, short sch. cmt, 30, chairman, 32). Trade waste disposal; stream pollution; treatment and disposal of milk waste; river and stream conditions in Maine.

Walker, Dr. D(avid) Harold, 5 Bay State Road, Boston, Mass. *Medicine.* Pittsburgh, Pa, Aug. 7, 73. M.D, Harvard, 98. Prof. *otology, Harvard,* 24–33, *emer. prof, 33–* Chairman, Bur. Otol. Research. Otol. Soc. (pres, 30). Bacteriology; scientific progress in otology, especially in deafness.

Walker, Earnest A(rtman), University of Maryland, College Park, Md. *Plant pathology.* Mt. Airy, Md, Aug. 29, 04. B.S, Maryland, 26, M.S, 27, Ph.D, 39. Asst. bot, Mich. State Col, 27–29; instr. bacter. and plant path, S. Dak. State Col, 29–31, asst. prof, 31–35; asst. prof. plant path, Maryland, and asst. pathologist, Exp. Sta. and exten. service, 35–43; *pathologist, U. S. Dept. Agr, 43–* Summers, field asst, mycol. and disease surv, U. S. Dept. Agr, 30–31. Phytopath. Soc; Soc. Bact; Md. Hort. Soc; Wash. Bot. Soc. Bunt of wheat; storage breakdown of peach nursery stock; disinfection action of tooth pastes and mouth washes; bacteriology of sewage and water; association of Bacillus subtilis; storage temperature on seed potatoes; tobacco blue mold, anthracnose, house-burn and fusarium wilt; histology of apple storage scab; peach virus diseases; preservative treatments for cotton cloth.

Walker, Prof. E(dmund) M(urton), University of Toronto, Toronto, Ont, Can. *Entomology.* Windsor, Ont, Oct. 5, 77. B.A, Toronto, 00, M.B, 03. Lecturer zool, *Toronto,* 06–13, asst. prof, 13–17, assoc. prof, 17–26, *prof. invert. zool, 26–* House surgeon, Toronto Gen. Hosp, 03–04; asst. director, Royal Ont. Museum Zool, 18–31, hon. curator invert, 31– Ed, 'Can. Entomologist,' 10–20. A.A; fel. Entom. Soc. Amer. (v. pres, 17, pres, 39); fel. Royal Soc. Can. (chairman, V, 36); Royal Can. Inst. (ed, 'Trans,' 24–); Ont. Entom. Soc. (pres, 11); Ottawa Field Nat. Club; Toronto Field Nat. Club (pres, 25–27); fel. Entom. Soc. London. Insect morphology; Orthoptera and Odonata of Canada; morphology of Grylloblatta.

Walker, E(gbert) H(amilton), Smithsonian Institution, Washington, D. C. *Botany.* Chicago, Ill, June 12, 99. A.B, Michigan, 22; M.S, Wisconsin, 28; Ph.D, Hopkins, 40. Instr, Canton Christian Col, 22–26; asst, Wisconsin, 26–28; aid, *div. plants, U. S. Nat. Museum, Smithsonian Institution,* 28–42, *asst. curator, 42–* A.A; Bot. Soc; Soc. Plant Taxon; Mich. Acad; Wash. Acad; Bot. Soc. Wash; Bot. Soc. China. Systematic botany of China; bibliography of eastern Asiatic botany; flora of the Washington-Baltimore area; Myrsinaceae of North America and Asia.

Walker, Prof. Elda R(ema), University of Nebraska, Lincoln, Nebr. *Botany.* Forest Grove, Oregon, Oct. 2, 77. A.B, Pacific, 01, A.M, 04; fellow, Nebraska, 04–06, Ph.D, 07. Instr. *bot, Nebraska,* 06–07, adj. prof, 07–10, asst. prof, 10–13, *assoc. prof, 13–* Asst. pathologist, U. S. Dept. Agr, 17–18. A.A; Bot. Soc; Micros. Soc. (2nd v. pres, 31); Torrey Bot. Club; Nebr. Acad. (pres, 20). Plant morphology; ecology of algae of some sandhill lakes; the gametophytes of Equisetum laevigatum; structure of the pistils of some grasses; vegetative anatomy of Impatiens pallida; gametophytes of three species of Equisetum; the gametophyte of Equisetum scripoides.

Walker, Prof. Elton D(avid), 704 McKee St, State College, Pa. *Civil engineering.* Taunton, Mass, March 8, 69. B.S, Mass. Inst. Tech, 90. Asst. civil eng, Mass. Inst. Tech, 90–91; civil engineer, Q.M.D, U.S.A, 91–92; mem. firm, Walker and Gallagher, 92–94; instr. civil eng, Union (N. Y), 94–97, asst. prof, 97–00; *Pa. State Col,* 00–01, prof. hydraul. and sanit. eng, 01–39, head dept. *civil eng,* 06–39, *emer. prof, 39–* Res. hydrographer, U. S. Geol. Surv, 98–00; acting dean eng. sch, Pa. State Col, 13–15. Capt, C.Eng, 17–19, major, Eng.R.C, 19–23, lieut. col, 24–33, col, 33– Civil Eng; Water Works Asn; New Eng. Water Works Asn; Pa. Water Works Operators Asn; Pa. Sewage Works Asn. Hydraulic and sanitary engineering; sewage treatment.

Walker, Dr. Eric A(rthur), Harvard University, Cambridge, Mass. *Electrical engineering.* Long Eaton, Eng, April 29, 10. B.S, Harvard, 32, M.S, 33, Sc.D, 35. Instr. elec. eng. and math, Tufts Col, 34–38, asst. prof. elec. eng, 38–39, chairman dept, 39–40; *assoc. prof, Connecticut, 40–; asst. director underwater sound lab, Harvard, 42–* Consulting engineer, Doble Eng. Co, 35–39; Colts Patent Firearms Mfg. Co, 41– Summer, consulting engineer, Gen. Elec. Co, 40. Elec. Eng; Eng. Educ; Physical Soc. High voltage and instrumentation.

Walker, Dr. Ernest Linwood, George William Hooper Foundation, University of California, San Francisco, Calif. *Medicine.* Freeport, Maine, June 24, 70. B.A.S, Harvard, 96, B.S, 03, Sc.D, 08. Bacteriologist, State Board Health, Mass, 96–10; asst. med. zool, Harvard Med. Sch, 08–10; protozoologist, Bur. Science, P. I, 10–13, chief biol. lab, 13–14; assoc. prof. *trop. med, Hooper Foundation, California,* 14–21, prof, 22–40, *emer. prof, 40–* Leprosy investigations, U. S. Pub. Health Service, Honolulu, 27. Soc. Trop. Med. (1st v. pres, 32); Soc. Exp. Biol; Acad. Trop. Med; Royal Soc. Trop. Med. and Hygiene. Tropical medicine; chemotherapeutics.

Walker, Ernest P(illsbury), National Zoological Park, Washington, D. C. *Vertebrate zoology.* Blue Springs, Mo, June 2, 91. Wyoming, 11–13. Deputy fur warden, warden, chief warden and inspector, Bur. Fisheries, Alaska, 13–19; U. S. game warden, Ariz. and south. Calif, 19–21; chief fur warden and U. S. game warden, Alaska, 21–24; chief Alaska fur and game warden, 24–25; chief rep, bur. biol. surv, U. S. Dept. Agr, Alaska, 25–27, asst. reservations and senior biologist, Wash, D. C, 27–30; *asst. director, Nat. Zool. Park, Smithsonian Institution, 30–* Surv. birds, Wyo, and asst, zool. lab, Wyoming, 11–13; bot. collecting, Colo. and Utah, 12–13, Alaska, 14–18; mem, exec. officer and fiscal agent, Alaska Game Cmn, 25–27. Soc. Mammal; Ornith. Union; Biol. Soc. Wash. (councilor, 30–, chairman, program cmt, 30–37, v. pres, 36–40, pres, 40–42); Wash. Biol. Field Club; Pacific Northwest Bird and Mammal Soc; Baird Ornith. Club; Cooper Ornith. Club. Birds of Wyoming; wildlife administration and protection; protection of land fur-bearing animals and game; mammals of the world.

Walker, Dr. Evelyn, 122 Ascan Ave, Forest Hills, N. Y. *Mathematics.* New York, N. Y, Sept. 28, 74. A.B, Hunter Col, 16; A.M, Columbia, 21, Ph.D, 30. Teacher, pub. schs, New York, 93–00; teacher, high sch, head annex, from instr. to assoc. prof. math, Hunter Col, 00–32; *retired.* A.A; Math. Soc; Math. Asn. History of mathematics; indivisibles.

Walker, Prof. Florence, New Jersey College for Women, Rutgers University, New Brunswick, N. J. *Chemistry.* Oriole, Md, Oct. 15, 89. A.B, Randolph-Macon Woman's Col, 09; A.M, Columbia, 18, fellow, 21–22, Ph.D, 22. Instr, Randolph-Macon Woman's Col, 13–17; research work, Carnegie research grant, Columbia, 18–21; prof. *chem,* Russell Sage Col, 22–27; *assoc. prof, N. J. Col. for Women, Rutgers, 29–* Enzymes.

Walker, Dr. George Rea, Stoneville, Miss. *Plant breeding.* Wesson, Miss, Feb. 13, 13. B.S, Miss. State Col, 34, M.S, 36; Virginia, 35; fellow, Cornell, 38, Ph.D, 40. Asst. prof. bot, Miss. State Col, 35–36; asst. plant breeder, *Stoneville Pedigreed Seed Co,* 36–40, *plant breeder, 40–* Soc. Agron; Phytopath. Soc. Cotton qualities; general oat improvement.

Walker, Prof. H(arold) H(armon), University of Tennessee, Knoxville, Tenn. *Public health.* Portland, Maine, July 29, 03. A.B, Bates Col, 26; C.P.H, Yale, 28, Ph.D, 31. Asst. pub. health, sch. med, Yale, 26–30, instr, 30–36; assoc. prof. *pub. health educ, Tennessee,* 36–39, *prof, 39–* Consultant, State Dept. Pub. Health, Tenn, 36– Summers, sanit. inspector, State Dept. Health, Conn, 27–29. Pub. Health Asn; Asn. Health, Physical Educ. and Recreation (v. pres. and director, 42–); Soc. Bact. Metabolic activity of bacterial cells in relation to population cycle phases of cultures; bacterial growth and metabolism.

Walker, Prof. H(arry) B(ruce), College of Agriculture, University of California, Davis, Calif. *Agricultural engineering.* Macomb, Ill, April 13, 84. B.S, Iowa State Col, 10, C.E, 20. Irrig. and drainage engineer, Kans. State Col, 10–17, exten. engineer, 19–21, *prof. agr. eng. and agr. engineer,*

Exp. Sta, 22–28; California, 28– Irrig. engineer, Kans, 13–17; engineer, Kans. Water Cmn, 17–26; director research mech. farm equipment. U. S. Dept. Agr. 27–28. John Deere medal, Am. Soc. Agr. Eng, 39. Chairman. Calif. Cmt. Relation Electricity to Agr, 31– Capt, C.Eng, 17–19. A.A; Agr. Eng; Civil Eng; Eng. Educ; Soc. Sugar Beet Technol. Mechanical equipment; farm structures, water supply and sewage disposal; rural electrification.

Walker, Dr. Harry G(randville), Virginia Truck Experiment Station. Norfolk, Va. *Entomology.* Hesston, Kans, Jan. 10, 02. A.B, Southwestern Col. (Kans), 25; M.S, Kans. State Col, 26; Crop Protection Inst. fellow, 29–31; Ph.D, Ohio State, 30. Asst. zool, Kans. State Col, 25–26; Ohio State, 26–27; *entomologist, Va. Truck Exp. Sta, 31–* Summers, field asst, Ohio Exp. Sta, 27, 28. A.A; Entom. Soc; Asn. Econ. Entom; Va. Acad. (chairman, biol. sect, 36); Kans. Entom. Soc; Entom. Soc. Wash. Contact insecticides; insect control.

Walker, Dr. Harry N(elson), 36 Drake Road, Scarsdale, N. Y. *Electrical engineering.* Brooklyn, N. Y, June 26, 02. E.E, Polytech. Inst. Brooklyn, 26; M.S, Fordham, 36, Ph.D, 39. Instr. elec. eng, Pennsylvania, 26–27; N. Y. Univ, 27–30, asst. prof, 30–39, assoc. prof, 39–42, acting chairman dept, 39–42, chairman dept, 42, supervisor elec. machinery labs, 33–42; *director ignition research, B. G. Corp, 42–* Consultant, U. S. Steel Co, 28–29; chief engineer, Nat. Silver Co, 29–33; chief engineer in charge layout design and installation of all equipment, Transitone-Philco Plant, Queens, N. Y, 29–30; consultant, Jewel Incandescent Lamp Co, 32–; Duro Test Inc, 32–; City Dept. Purchases, New York, 33; Birdseye Lamp Co, 34–36; city examiner, Civil Service Cmn, 36– Summer, consultant in charge research dept, Teleregister Co, 30. Eng. Educ; Elec. Eng. Ignition problems of aircraft; application of the square-wave generator to the study of direct current transients.

Walker, Prof. Helen M(ary), 106 Morningside Drive, New York, N. Y. *Statistics.* Keosauqua, Iowa, Dec. 1, 91. Ph.B, Iowa Wesleyan Col, 12, LL.D, 42; A.M, Columbia, 22, fellow, 26–27, Ph.D, 29; London, 36. Teacher, high sch, 12–21; asst. prof. math, Kansas, 22–24, assoc. prof. teaching math, 24–25; lecturer, *Columbia,* 25–26, assoc, 27–29, asst. prof. *educ,* 29–36, assoc. prof, 36–40, *prof, 40–* Mem. nat. board, Y. W. C. A, 36–43. Fel. Statist. Asn; Inst. Math. Statist; Educ. Research Asn. (sec'y-treas, 40–43). History of statistical method; statistical theory and method; teaching of mathematics.

Walker, Dr. Herbert W(arren), Box 525, Wilmington, Del. *Chemistry.* Boston, Mass, Feb. 22, 03. B.S, Boston, 24; Ph.D, Cornell, 27. *Research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Synthetic rubber.

Walker, H(oward) G(eorge), 744 Crescent Parkway, Westfield, N. J. *Chemistry.* Madrid, N. Y, March 10, 84. A.B, Michigan, 08. Chemist, eng. dept, *West. Elec. Co, New York,* 09–16, *develop. engineer, mfg. dept, 16–* Summer, instr, Michigan, 09. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. (ed, 'Bul,' 24–26). Paper and pulp as insulating material in the electrical industry.

Walker, Dr. I(saac) Chandler, Peter Bent Brigham Hospital, Boston, Mass. *Medicine.* Lovell, Maine, 83. A.B, Hopkins, 05, M.D, 09. Asst. pharmacol, *Harvard Med. Sch,* 13, *med,* 14–15, *asst. prof, 18–; assoc, Peter Bent Brigham Hosp, acting physician, 18–* Lecturer, Iowa. A.A; assoc. Am. Physicians; Soc. Clin. Invest; Soc. Bact. Wassermann reaction; bronchial asthma; hay fever; eczema.

Walker, Prof. J(ames) F(rederick), Station A, Hattiesburg, Miss. *Physiology.* Riverton, Ala, July 30, 04. A.B, Mississippi, 27, M.S, 31; Ph.D, Iowa, 35. Instr. *science, Miss. South. Col,* 26–29, acting head dept, 29–30, *assoc. prof,* 30–31, 32–33, *34–* Asst, Iowa, 31–32. Miss. Acad. (pres, 41). General physiology; cytology; zoology.

Walker, J(ames) Herbert, 432 Arlington Road, Birmingham, Mich. *Mechanical engineering.* Detroit, Mich, March 9, 90. B.S, Michigan, 11, M.E, 37. *Engineer asst. to gen. manager and supt. cent. heating, Detroit Edison Co, 12–* Mech. Eng; Heat. and Vent. Eng; hon. mem. Nat. Dist. Heat. Asn. (pres, 22). District heating; heating and air conditioning of buildings; piping; power plants.

Walker, Dr. Jennie A(da), 4943 Lake Park Ave, Chicago, Ill. *Chemistry.* Rockford, Ill. A.B, Rockford Col; A.M, Columbia, Ph.D, 17. *Research chemist.* Chem. Soc. Industrial chemistry; biochemistry; nutrition.

Walker, Prof. J(ohn) C(harles), University of Wisconsin, Madison, Wis. *Plant pathology.* Racine, Wis, July 6, 93. B.S. Wisconsin. 14, M.S. 15, Ph.D, 18. Sci. asst, *U. S. Dept. Agr,* 17–19. asst. pathologist, *bur. plant indust,* 19–20, pathologist. 20–29, *agent, 29–;* asst. *plant path, Wisconsin,* 14–17, instr. 19, asst. prof, 19–21, assoc. prof, 25–28, *prof, 28–* A.A; Phytopath. Soc. (councilor, 35, v. pres, 42, pres, 43); Bot. Soc: Genetics Soc; Potato Soc: Soc. Nat; Wis. Acad. Truck crop diseases; selection of fusarium resistant cabbage; development of disease resistant vegetables; nature and inheritance of disease resistance in plants; deficiency diseases; relation of plant nutrition to disease development.

Walker, Dr. John F(ortune), 1710 Rockland Ave, Victoria, B. C, Can. *Geology.* Binbrook, Ont, Sept. 17, 93. B.A.Sc, British Columbia, 22; fellow, Princeton, 23, Ph.D, 24. Teaching fellow, Princeton, 22; asst. geologist, Geol. Surv. Can, 24–26, assoc. geologist, 26–34; provincial mineralogist, *Dept. Mines, B. C, 34–37, deputy minister, 37–* Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng; Royal Soc. Can; Can. Inst. Min. and Metal. (councilor, 35–40, v. pres, 41); Asn. Professional Eng. B. C. Geology and the mining industry of British Columbia.

Walker, Prof. J(ohn) Franklin, 1328 E. First St, Tucson, Ariz. *Educational psychology.* St. Clair Co, Mich, May 21, 73. A.B, Albion Col, 96; A.M, Arizona, 16; Stanford, 22–23; Ph.D, California, 24. Prin, schs, Mich, 96–98; sch. supt, Mich, 98–04; prin, high schs, Calif, 04–13; instr, North. Ariz. Nor. Sch, 16–19, v. prin, 19–22; prof. educ. and psychol, Millsaps Col, 24–27; assoc. prof. and *prof. educ. psychol, Arizona, 27–* State high sch. visitor, Ariz, 30–33. The place of certain sensorimotor and kinesthetic abilities in the manual group of school studies; short method for finding zero order coefficients of correlation.

Walker, Dr. (Joseph) Frederic, Box 49, Lewiston, N. Y. *Organic chemistry.* Perth Amboy, N. J, Dec. 7, 03. B.S, Mass. Inst. Tech., 25, du Pont fellow, 26–27, M.S, 28, Ph.D, 29. *Research chemist,* Roessler and Hasslacher Chem. Co, Perth Amboy, N. J, 27–28, *electrochem. dept, E. I. du Pont de Nemours and Co,* 29–32, *Niagara Falls, N. Y, 32–* Chem. Soc. (ed, 'Jour,' west. N. Y. sect, 33–36, sec'y, 38–40, v. chairman, 40–42, chairman, 43–). Formaldehyde chemistry; organic chemistry of sodium; history of chemistry.

Walker, Prof. J(oseph) Henry, University of Alabama, University, Ala. *Zoology.* Griffin, Ga, April 15, 02. B.S, Georgia, 23; M.S, Illinois, 29; Ph.D, Tulane, 37. Asst. instr. *zool,* Illinois, 26–27; instr, Tennessee, 27–28; *Alabama,* 29–31, *asst. prof, 31–* Summers, instr, Mercer, 27, 28. Pres, Univ. Alabama Research Council, 34. A.A; Soc. Parasitol; Micros. Soc; Soc. Trop. Med; Ala. Acad. Helminthology; parasitology; morphology; life cycle; trematology; scientific apparatus.

Walker, L(ester) V(incent), A. Schrader's Son Division, Scovill Manufacturing Co, 470 Vanderbilt Ave, Brooklyn, N. Y. *Physical chemistry.* Babylon, N. Y, Dec. 18, 86. A.B. Cornell, 08, 09–11. Asst. physical chemist, U. S. Bur. Mines, Pittsburgh, 12; physicist, Standard Chem. Co, 13–28; Radium Chem. Co, 19–28; *research engineer, A. Schrader's Son div, Scovill Mfg. Co, 29–* Lieut, C.W.S, 17–19. Chem. Soc. A small carborundum furnace; radioactivity; electrolytic method for the prevention of corrosion of iron in acid waters; testing products used in air valves and air pressure gauges.

Walker, Prof. Leva B(elle), University of Nebraska, Lincoln, Nebr. *Botany.* Forest Grove, Oregon, Dec. 2, 78. A.B, Pacific (Oregon), 01; fellow, Nebraska, 06–08, A.M, 08; Ph.D, Cornell, 27. Teacher, pub. schs, Wash, 01–06; instr. *bot, Nebraska,* 08–11, adj. prof, 11–13, asst. prof, 13–14, *assoc. prof, 14–* Asst. pathologist, U. S. Dept. Agr, 18. A.A; Bot. Soc. (sec'y, mycol. sect, 28–30); Phytopath. Soc; Mycol. Soc; Torrey Bot. Club; Nebr. Acad. Morphology of fungi; phytopathology.

Walker, Prof. Margaret C(ollver), 228 N. Oakland St, Pasadena, Calif. *Geography.* Cleveland, Ohio, July 13, 00. A.B, Mills Col, 22, A.M, 24; Clark, 38. Asst. prof. *geog. and geol, Mills Col,* 25–40, *chairman dept, 32–* Sec'y, Chabot Observatory, Oakland Pub. Schs, 23– A.A; Am. Geog. Soc; Astron. Soc; Astron. Soc. Pacific; Eastbay Astron. Asn. (sec'y, 24, 30–). Popular astronomy; economic geography.

Walker, Dr. M(arion) N(ewman), Box 321, Leesburg, Fla. *Plant pathology.* Fayetteville, Ark, Aug. 22, 00. B.S, Ala. Polytech, 21; Heinz fellow, Wisconsin, 21–24, M.S, 23,

Ph.D, 24. Junior pathologist, U. S. Dept. Agr, 24; plant pathologist, Trop. Plant Research Foundation, Baragua, Cuba, 24–26; asst. plant pathologist, cotton investigations, Exp. Sta, *Florida*, 26–29, assoc. plant pathologist, watermelon disease investigations, field lab, 29–32, *plant pathologist in charge watermelon and grape investigations lab, 32–* Phytopath. Soc; Genetic Asn. Mosaic disease of sugar-cane; cotton physiology and pathology; watermelon diseases; Fusarium wilt; sea island cotton.

Walker, Prof. Osman J(ames), 11103 Saskatchewan Drive, Edmonton, Alta, Can. *Chemistry.* Portage la Prairie, Man, July 23, 92. B.A, Saskatchewan, 13; A.M, Harvard, 20; Nat. Research Council Can. fellow, McGill, 17–20, Ph.D, 20. Asst. prof. and assoc. prof. *chem, Alberta*, 20–34, *prof, 34–, head dept, 42–* Chem. Soc; fel. Can. Inst. Chem. (v. pres, 41). Inorganic and analytical chemistry; chemistry of rubber; iodine in relation to goiter; fluorine in relation to mottled enamel; toxicity of selenium compounds.

Walker, Prof. Paul A(ndrew), Randolph-Macon Woman's College, Lynchburg, Va. *Embryology.* Belmont, Mass, April 5, 10. A.B, Bowdoin Col, 31; Charles Carroll Everett scholar, Harvard, 31–32, A.M, 32, Ph.D, 36. Austin teaching fellow, Harvard, 32–34, asst. *zool*, 34–36; instr, Connecticut, 36–40, asst. prof, 40–42; *assoc. prof, Randolph-Macon Woman's Col, 42–* Soc. Zool. Physical properties of extra-embryonic fluids of chick.

Walker, Percy H(argraves), 2848 Connecticut Ave, N. W, Washington, D. C. *Chemistry.* Huntsville, Ala, July 6, 67. Virginia, 85–87, 89–90; M.S, Iowa, 95; Heidelberg, 96; Berlin, 97. Teacher, sch, Va, 90–92; instr. chem. and miner, Iowa, 92–99; assoc. prof. chem. and physics, Arkansas, 00–02; assoc. chem, Int. Correspondence Schs, 02–04; assayer, bur. chem, U. S. Dept. Agr, 04–06, chief contract lab, 06–14; chemist. Bur. Standards, 14–37, asst. chief chem. div, 27–36, chief, 36–37; consulting chemist, John T. Lewis and Brothers Co, Nat. Lead Co, 37–42; *assoc. chemist*, bur. ships, U. S. Navy Dept, 42–43; *Bur. Standards, 43–* A.A; Chem. Soc; Soc. Test. Mat. (exec. cmt, 24); Chem. Soc. Wash. (pres, 09). Paint and paint materials; oils; inks.

Walker, Dr. Robert J(ohn), Cornell University, Ithaca, N. Y. *Mathematics.* Pittsburgh, Pa, May 5, 09. B.S, Carnegie Inst. Tech, 30; fellow, Princeton, 31–33, Ph.D, 34. Instr. *math*, Princeton, 33–35; *Cornell, 35–38, asst. prof, 38–* Lecturer, Princeton, 40–41. Assoc. ed, 'Duke Math. Jour.' Math. Soc; Math. Asn. (assoc. ed, 'Math. Monthly'). Singularities of algebraic manifolds; magic squares.

Walker, Dr. Robert Y(ule), Ohio State University, Columbus, Ohio. *Aviation.* Vancouver, B.C, Can, Feb. 7, 04. A.B, Oregon, 29, A.M, 30; Ph.D, Iowa, 33. Instr. psychol, Iowa, 33–35; *Ohio State*, 35–40, research assoc, *univ. research foundation*, 40–41, *research supervisor, 41–* Assoc. Psychol. Asn. Vision and reading; motor skills; aircraft pilot competency.

Walker, Dr. Roland, Rensselaer Polytechnic Institute, Troy, N. Y. *Zoology.* Stellenbosch, S. Africa, Feb. 8, 07. A.B, Oberlin Col, 28, A.M, 29; Ph.D, Yale, 34. Asst. biol, Yale, 29–31; instr. physiol, Oberlin Col, 31–32; *biol, Rensselaer Polytech*, 34–42, *asst. prof, 42–* A.A. Neurology of fish and crustacea; fish pathology; teratology; nuclear size.

Walker, Dr. R(udger) H(arper), Utah State Agricultural College, Logan, Utah. *Soil chemistry, Bacteriology.* Rexburg, Idaho, Aug. 20, 02. B.S, Brigham Young, 23; fellow, Iowa State Col, 24–27, M.S, 25, Ph.D, 27. Teacher, high sch, Utah, 23–24; teaching fellow and asst, Iowa State Col, 24–27; asst. prof. agron, Colo. Agr. Col, and asst. agronomist, Exp. Sta, 27–28; asst. chief soil bacter, Exp. Sta, Iowa State Col, 28–31, research assoc. prof. soils, 31–36; conservationist, div. range research, Intermountain Forest and Range Exp. Sta, U. S. Forest Service, 36–38; *dean sch. agr. and director, Exp. Sta, Utah State Col, 38–* Director, regional salinity lab, bur. plant indust, U. S. Dept. Agr, 40. A.A; Soc. Agron; Soil Sci. Soc; Utah Acad; Int. Soc. Soil Sci. Physiology of legume bacteria; nitrification; nitrogen fixing bacteria; effects of lime and soil conditions on soil bacteria; base exchange in soils; legume inoculation and commercial cultures of legume bacteria; soil acidity and liming; soil erosion; soil conditions and artificial reseeding of Western range lands.

Walker, Prof. Ruth I(rene), University of Wisconsin, Milwaukee, Wis. *Botany.* Dansville, Mich, Aug. 2, 96. A.B, Michigan, 20; M.S, Wisconsin, 24, Ph.D, 26. Asst. bot, Michigan, 19–20; instr, high sch, Ind, 20–21; biol, N. C. Col. for Women, 21–23; asst. *bot, Wisconsin*, 23–26, instr, 26–31, *exten. center*, 31–32, asst. prof, 32–38, *assoc. prof, 38–* Am. Asn. Univ. Women fellow, Radcliffe Col, 37–38. A.A; Bot. Soc; Wis. Acad. Cytology of rusts; cytology of Hesperophycus; effect of colchicine on microspores, mother cells and somatic cells; chromosome number and macrogametophyte development in Ulmus.

Walker, Seth S(tetson), 3002 Waverly Ave, Tampa, Fla. *Chemistry.* Orleans, Ind, Jan. 26, 86. B.S, Chicago, 07, M.S, 09. Asst. chem, Purdue, 09–10; asst. chemist, Rubber Regenerating Co. 10–12; Exp. Sta, Florida, 12–15, assoc. chemist, 15–17; chemist, Fla. Fruit Products Co, 17–18; soil chemist, Exp. Sta, Louisiana, 18–20; chemist, Fla. Citrus Exchange and Exchange Supply Co, 20–26; chemist and gen. manager, Fla. Orange Juice Co, 26–27; assoc. chemist, Wood-Thornton Labs, 27–28; private commercial lab, 28–34; *partner, Thornton and Co, 34–* Chem. Soc; Asn. South. Agr. Workers. Citrus fruit fertilizers; soils; fruit products.

Walker, Dr. Sheppard M(atthew), Washington University School of Medicine, St. Louis, Mo. *Physiology.* Perkinston, Miss, Feb. 2, 09. B.S, West. Ky. State Teachers Col, 32, A.M, 33; Ph.D, Louisiana, 41. Instr. biol, Perkinston Junior Col, 33–38; asst. prof. science, Delta State Teachers Col, Miss, 41–42; *instr. physiol, sch. med, Washington (St. Louis), 42–* Physiology of the endocrine glands and the mammary glands.

Walker, Stanton, National Sand and Gravel Association, Munsey Bldg, Washington, D. C. *Engineering.* Vevay, Ind, March 18, 94. B.S, Illinois, 17. Assoc. engineer and prin. asst, lab, Portland Cement Asn, Chicago, 17–26; *director eng. and research div, Nat. Sand and Gravel Asn, 26–* Director, Nat. Sand and Gravel Asn. research foundation, Maryland, and lecturer, univ; director eng, Nat. Ready Mixed Concrete Asn, 30–; consulting engineer, Nat. Indust. Sand Asn, 36– Civil Eng; Soc. Test. Mat; Concrete Inst; Munic. Eng; assoc. Ry. Eng; Min. and Metal. Eng; Foundrymen's Asn; Wash. Soc. Eng. Mineral aggregates and concrete; properties and best methods of use.

Walker, Dr. Vivian T(rombetta), Smith College, Northampton, Mass. *Botany.* New York, N. Y, Sept. 29, 14. A.B, Columbia, 35, Grace Potter Rice fellow, 35–36, A.M, 36, Herbert M. Richards fellow, 38–39, Ph.D, 39. Asst. *bot*, Barnard Col, Columbia, 36–38; *instr, Smith Col, 39–* A.A; Bot. Soc; Genetics Soc; Torrey Bot. Club. Morphogenesis; genetics.

Walker, Prof. W(alter) H(amilton), 307 Brooks St, Charleston, W. Va. *Physical chemistry.* Hominy Falls, W. Va, Nov. 28, 96. A.B. and B.S, Morris Harvey Col, 21; A.M, West Virginia, 29, Jones fellow, 30–32, Ph.D, 32. Instr. science and asst. coach, Morris Harvey Acad, 22–23; prin, Carroll Dist. High Sch, Hamlin, W. Va, 23–24; high sch, Oak Hill, 24–30; athletic director and coach, *Morris Harvey Col*, 32–36, *prof. chem. and physics, 36–* A.A; Chem. Soc; W. Va. Acad. (chairman chem. sect, 39). Solubility relations of the isomeric dihydroxybenzenes; oxidation of propane in iron, glass and silica vessels; high temperature oxidation; solubilities and low pressure.

Walker, Dr. Walter O(wen), Ansul Chemical Co, Marinette, Wis. *Chemistry.* Maywood, Nebr, March 25, 96. A.B, William Jewell Col, 19; M.S, Chicago, 25, fellow, 29–30, Ph.D, 31. Teacher, high sch, Mo, 19–23; asst. prof. chem, William Jewell Col, 23–24, assoc. prof, 24–27, prof, 27–29; research chemist, A. O. Smith Corp, Milwaukee, 30–32; asst. prof. chem, Miami (Fla), 32–33, prof. and head dept, 33–36; *research director, Ansul Chem. Co, 36–* Consultant, Eastman Kodak Co, 35– A.A; Chem. Soc. Thermal decomposition of the cobaltic ammines; application of the electron theory to the teaching of chemical valence and reactions; atomic structure; reactions of platinous chloride dicarbonyl; acetic acid; cobaltic acetate; ore reduction; refrigerants; chloropicrin; colloidal sulfur; fire extinguishers; patents.

Walker, Dr. W(illiam) W(ells), U. S. Public Health Service, E. Third and Kilgour Sts, Cincinnati, Ohio. *Sanitary chemistry.* Mound City, Mo, Nov. 17, 97. B.S, West. Union Col, 30; M.S, Iowa, 31, Ph.D, 35. Chemist, State Dept. Health, Iowa, 31–35; chief chemist, Cedar Rapids Munic. Sewage Treatment Plant, 35–39; asst. chemist Ohio pollution surv, *U. S. Pub. Health Service*, 39–41, *assoc. sanit. chemist munitions waste study, 41–; capt, Sanit. Corps, U. S. Army, 43–* A.E.F, 17–18. Chem. Soc; Indust. Eng; Iowa Acad; Iowa Waste Disposal Asn. (director, 36). Color determination of dissolved

oxygen; inositol and related compounds from organic trade wastes.

Wall, Prof. C(lifford) N(athan), University of Minnesota, Minneapolis, Minn. *Physics.* Dayton, Ohio, July 6, 99. N. Cent. Col, 18–20; Carnegie Inst. Tech, 20–21; A.B, Illinois, 22, M.S, 23, Ph.D, 26. Instr. physics, Illinois, 26–28; Am. Field Service fellow, Paris, France, 28–29; prof. *physics,* N. Cent. Col, 29–42; *lecturer, Minnesota, 42–* Guest, Mass. Inst. Tech, 37. Summer, prof, Illinois, 36; Missouri, 41. A.A; Physical Soc; Asn. Physics Teachers. Theoretical physics; potential energy of space lattices; theory of liquids.

Wall, Dr. Edward (Everett), 5361 Pershing Ave, St. Louis, Mo. *Public health.* Cambridge, Mo, Aug. 15, 60. C.E, Missouri, 84, LL.D, 35. Ry. and munic. eng, 84–92; sewers and water depts, St. Louis, 92–06, asst. water commissioner, 06–11, water commissioner, 11–25, director pub. utilities, 25–26; consulting engineer, 26–33; director pub. utilities, 33–41; *retired.* Thomas Fitch Rowland prize, Am. Soc. Civil Eng, 08. Hon. mem. Civil Eng. (director, 18–21, v. pres, 21–23); hon. mem. Water Works Asn. (trustee, 21–23, councilor of standardization, 24–25); St. Louis Inst. Consulting Eng. (v. pres, 27, pres, 28); hon. mem. St. Louis Eng. Club (pres, 09). Water supply and purification; public utilities; design; construction; operation.

Wall, Florence E(meline), 102 N. Second St, Easton, Pa. *Organic chemistry.* Paterson, N. J, Jan. 4, 93. A.B. and B.Ed, St. Elizabeth Col, 13; A.M, N. Y. Univ, 38. Teacher, schs, 13–17; asst. chemist, Radium Luminous Material Corp, 17; Seydel Mfg. Co, 18; asst. and later deputy chief chemist, Ricketts and Co, 19; research and develop, U. S. Motor Fuel Corp, 19–21; private tutoring, Havana, Cuba, 22–24; director trade educ. and tech. publicity, Inecto, Inc, New York, 24–28; consultant, 29–43; *tech. ed, cent. research lab, Gen. Aniline and Film Corp, 43–* Lecturer, sch. educ, N. Y. Univ, 36–43. Summers, lecturer, Stout Inst, 38; Clemson Agr. Col, 40; Woman's Col, North Carolina, 43. Ed, 'The Chemist," 29–31. A.A; Chem. Soc; Soc. Med. Jurisprudence; fel. Inst. Chem. (nat. councilor, 33–36; N. Y. councilor, 28–30, 31–34). Cosmetology as a new branch of industrial education; qualifications of teachers of cosmetology; cosmetology research in biology, dermatology, physics and several subdivisions of chemistry; general technical writing.

Wall, Dr. Frederick T(heodore), University of Illinois, Urbana, Ill. *Physical chemistry.* Chisholm, Minn, Dec. 14, 12. Ch.B, Minnesota, 33, Ph.D, 37; Calif. Inst. Tech, 33–34. Instr. *chem, Illinois,* 37–39, assoc, 39–41, asst. prof, 41–43, *assoc. prof, 43–* Chem. Soc. (sec'y Illinois sect, 39). Molecular structure; spectroscopy; thermal diffusion; equilibria in solution; polymers.

Wall, Prof. H(ubert) S(tanley), Northwestern University, Evanston, Ill. *Mathematics.* Rockwell City, Iowa, Dec. 2, 02. A.B, A.M, Cornell Col. (Iowa), 24; fellow, Wisconsin, 24–26, Ph.D, 27. Asst, Wisconsin, 26–27; instr. *math, Northwestern,* 27–30, asst. prof, 30–36, assoc. prof, 36–43, *prof, 43–* Mem, Inst. Advanced Study, 37–38. Math. Soc; Math. Asn. Continued fractions; group theory; summability.

Wall, Prof. L(imas) D(unlap), Virginia Union University, Richmond, Va. *Parasitology.* Rockingham, N. C, March 27, 00. B.S, Va. Union, 28; M.S, Michigan, 33, Ph.D, 40. *Prof. zool, Va. Union, 28–* Micros. Soc; Mich. Acad. Life history and the development of the excretory system of Spirorchis parvus; life history of Spirorchis elephantis.

Wall, Dr. Monroe E(liot), U. S. Department of Agriculture, Wyndmoor, Pa. *Biochemistry.* Newark, N. J, July 25, 16. B.S, Rutgers, 36, M.S, 38, Ph.D, 39; fellow, N. J. Exp. Sta, 36–39. Chemist, N. J. Exp. Sta, 39–40; research chemist, Wallerstein Labs, 40; research assoc, Barrett Co, 41; *asst. chemist, east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Effect of nutrition on the chemical composition of the plant; chemistry of New Jersey peat; chemistry of plant and bacterial amylases; extraction of vitamins from vegetable wastes.

Wallace, Dr. A(lexander) D(oniphan), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Hampton, Va, Aug. 21, 05. B.S, Virginia, 35, M.S, 36, Ph.D, 39. Instr. *math,* Virginia, 38–40; Princeton, 40–41; *Pennsylvania,* 41–43, *asst. prof, 43–* Math. Soc; Math. Asn. Topology.

Wallace, Prof. C(larence) W(illiam), Case School of Applied Science, Cleveland, Ohio. *Physics.* South Milwaukee, Wis, Dec. 26, 96. B.S, Case, 21, M.S, 31. *Asst. prof. physics, Case, 27–* Physical Soc; Ohio Acad. Sound waves in resonating tubes; x-ray examination of aluminum under tension; projection cloud chamber for alpha rays.

Wallace, Dr. D(onald) A(bin), 2309 Grey Ave, Evanston, Ill. *Pharmaceutical chemistry.* Dallas Center, Iowa, April 16, 05. A.B, Iowa, 29; M.S, Carnegie Inst. Tech, 30; Ph.D, Chicago, 32. Chemist, Dearborn Chem. Co, 32–33; research chemist, Kraft-Phenix Cheese Corp, 33–35; chief chemist, Petrolagar Labs, Inc, 35–38; assoc. chemist, *Am. Dental Asn,* 38–42, *sec'y council dental therapeut. and director bur. chem, 42–* A.A; Chem. Soc; Int. Asn. Dental Research. Atomic structure; pharmaceutical emulsions; dental medicines and cosmetics.

Wallace, Donald S(anford), U. S. Geological Survey, Ocala, Fla. *Hydraulic engineering.* Kodaikanal, British S. India, April 15, 99. Ph.B, Yale, 20. Chief party, Erie R. R, Ohio, 21; asst. engineer, New York, 21–22; from junior engineer to assoc. engineer, *U. S. Geol. Surv,* 22–30, *hydraul. engineer, Ocala, 30–* Civil Eng. (sec'y-treas, Fla. sect, 35, pres, 36); Water Works Asn. (trustee, 35, v. chairman, Fla. sect, 36, chairman, 37); Fla. Eng. Soc; Geophys. Union. Water resources of the United States.

Wallace, Prof. E(arl) K(eeney), 5806 Murray Hill Place, Pittsburgh, Pa. *Chemistry.* Newmanstown, Pa, May 1, 97. B.S, Pa. State Col, 19; A.M, Columbia, 23, Ph.D, 25. Instr. chem, Pa. Mil. Col, 19–21, asst. prof. math, 21–23; asst. chem, Columbia, 23–25; *prof. chem. and head dept. chem. and physics, Pa. Col. for Women, 25–; asst. administrator eng, science and management war training course, Pa. State Col, 41–* Chem. Soc. (chairman Pittsburgh sect, 40; councilor, 41–); Inst. Food Technol; Inst. Chem; Pa. Chem. Soc; Pittsburgh Chemists Club (councilor, 39–41). Biochemistry; enzymes; fats.

Wallace, Dr. E(dward) W(illiam), University of Cincinnati College of Medicine, Cincinnati, Ohio. *Pharmacology.* Chicago, Ill, Aug. 5, 08. B.S, Chicago, 30, fellow, 30–31, Ph.D, 32, M.D, 35. Asst. pharmacol, Chicago, 31–32, instr. in charge, 32–35; pharmacologist, food and drug admin, U. S. Dept. Agr, 35–36; nat. inst. health, U. S. Pub. Health Service, 36–38; *assoc. prof. pharmacol, col. med, Cincinnati, 38–* Soc. Pharmacol; Asn. Cancer Research; Am. Med. Asn. Digitalis; squill; oxytocics; male and female sex hormones; pituitary physiology and pharmacology; arsenic; lead; cancer.

Wallace, Dr. Edwin G(arfield), 595 Seneca Parkway, Rochester, N. Y. *Organic chemistry.* Akron, Ohio, Jan. 27, 17. A.B, Miami (Ohio), 38; Allied Chem. and Dye Corp. fellow, Ohio State, 41–42, Ph.D, 42. Mem. junior staff, Ohio State, 38–41; *org. research chemist, synthetic chem. div, Eastman Kodak Co, 42–* Chem. Soc. Reactivity of methylated and acetylated 1, 2-glucoseens.

Wallace, Dr. Errett, U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* West Gore, N. S, Can, 77. B.S, Cornell, 08, fellow, 09–11, M.S, 09, Ph.D, 11. Plant pathologist, bur. plant indust, *U. S. Dept. Agr,* 11–27, food and drug admin, 27–28, *senior pathologist* 28–40, agr. marketing service, 40–43, *food distribution admin, 43–* Phytopath. Soc; Bot. Soc. Wash. Fungicides.

Wallace, Dr. F(rankln) G(erhard), University of Minnesota, Minneapolis, Minn. *Parasitology.* Deer River, Minn, April 3, 09. A.B, Carleton Col, 28; A.M, Minnesota, 30, Ph.D, 33. Asst. prof. biol, Lingnan Univ, China, 33–37; instr. *zool, Minnesota,* 37–42, *asst. prof, 42–; capt, Sanit. Corps, U. S. Army, 42–* Micros. Soc; Soc. Parasitol. Biology of amphibians; trematode life histories; parasites of wild animals.

Wallace, Dr. George B(arclay), 477 First Ave, New York, N. Y. *Pharmacology.* Detroit, Mich, Sept. 21, 75. Oregon; M.D, Michigan, 97, hon. A.M, 33; Vienna, 99, 08; Strassburg, 04; hon. Sc.D, N. Y. Univ, 41. Instr. *pharmacol,* Michigan, 97–00; Univ. and Bellevue Hosp. Med. Col, 01–03, lecturer, 03–05, asst. prof, 05–07, *prof,* 07–35, *col. med, N. Y. Univ, 35–* M.C, U.S.A, 17–19. A.A; Soc. Nat; Soc. Pharmacol. (pres, 30); Physiol. Soc; Soc. Physiol. Chem; Soc. Clin. Invest; Soc. Exp. Biol. (v. pres, 19, pres, 21–23, councilor, 30–32); Harvey Soc. (pres, 14–16). Saline cathartics; volatile oils; cyanides; nitrites; diuretics; bile pigments; body water; distribution of ions in body.

Wallace, Dr. George E(gbert), Jr, Carnegie Museum, Pittsburgh, Pa. *Entomology.* Ohio, Ill, March 24, 12. B.S, Pittsburgh, 33, M.S, 36, Ph.D, 40. Asst. zool. and biol, Pittsburgh, 34–37; entom, *Carnegie Museum,* 37–41, *asst. curator sect. entom, 41–; U. S. Army.* Entom. Soc. Amer. Insect

taxonomy; taxonomy of Chalcidoidea, especially of Ptero malidae.

Wallace, Dr. George H(ugh), Firestone Tire and Rubber Co, Akron, Ohio. *Physical chemistry.* Port Jefferson, N. Y, Dec. 9, 94. B.S, Union (N. Y), 17; A.M, Columbia, 22, Ph.D, 25. Chemist, Celluloid Co. of Amer, Newark, 20; *research chemist and compounder, Firestone Tire and Rubber Co, 25–* U.S.N, 17–19. Dissociation pressures of some acid phosphates.

Wallace, Prof. G(eorge) I(ra), University of Illinois, Urbana, Ill. *Bacteriology.* Beardstown, Ill, July 1, 01. B.S, Illinois, 23, M.S, 24, Ph.D, 28. Asst. animal path. and hygiene, *Illinois,* 22–23, *bacter,* 24–28, instr, 28–30, assoc, 30–33, asst. prof, 33–41, *assoc. prof, 41–* A.A; Pub. Health Asn; Soc. Bact. General and pathogenic bacteriology.

Wallace, Prof. Harold E(dward), McKendree College, Lebanon, Ill. *Parasitology.* Fenton, Mich, Feb. 16, 08. A.B, Mich. State Nor. Sch, 34; A.M, Michigan, 37, Ph.D, 40. *Prof. biol, McKendree Col, 40–; U. S. Navy, 42–, ensign.* Summer, state parasitologist, Mich, 41, 42. Micros. Soc; Soc. Parasitol. Trematode life history and embryology.

Wallace, Henry A, Washington, D. C. *Agriculture.* Adair Co, Iowa, Oct. 7, 88. B.S, Iowa State Col, 10, hon. M.S, 20. Assoc. ed, 'Wallace's Farmer,' 10–24, ed, 24–29, 'Wallace's Farmer and Iowa Homestead,' 29–33; Sec'y of Agr, *United States,* 33–40, *V. Pres, 41–* Agricultural economics; agricultural prices and correlations; weather and crop yield relationships; inbreeding and cross breeding of corn.

Wallace, Prof. H(oward) K(eefer), University of Florida, Gainesville, Fla. *Zoology.* Swissvale, Pa, May 7, 07. B.S, Florida, 29, Ph.D, 38; M.S, Pittsburgh, 32. Instr. *biol. and geol, Florida,* 32–41, *asst. prof, 41–* Taxonomic, zoogeographic and ecological investigations of spiders in the family Lycosidae.

Wallace, Hugh E(van), 210 Santa Rita Ave, Modesto, Calif. *Entomology.* Ripley, Miss, Oct. 23, 99. B.S, Miss. Agr. and Mech. Col, 21; M.S, Minnesota, 25. Field asst, int. health board, Rockefeller Foundation, 21–22; junior entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 22–28, asst. entomologist, 28–30, assoc. entomologist, 30–37. Asst, Minnesota, 23–25. A.A; Entom. Soc. Amer. Sugar beet leafhopper; parasites in cockroaches.

Wallace, Dr. Isabel K(ing), 35 S. Goodman St, Rochester, N. Y. *Psychology.* Girard, Ohio, Dec. 21, 94. A.B, Rochester, 16; A.M, Bryn Mawr Col, 23; Ph.D, Chicago, 28. Worker indust, 'Art in Buttons' factory, Rochester, 16–18, director employment and service dept, 18–21; asst. demonstrator psychol, Bryn Mawr Col, 22–23; director indust. service center, Y.W.C.A, Chicago, 24–25; director bur. tests and measurements and prof. psychol, Wis. State Teachers Col, Superior; personnel director, Fla. State Col. for Women, 28–29; *vocational counselor and freshman adviser, women's col, Rochester, 29–* Assoc. Psychol. Asn; Asn. Applied Psychol; Nat. Vocational Guidance Asn. Vocational guidance; personnel.

Wallace, Dr. James M(errill), Citrus Experiment Station, Riverside, Calif. *Pathology.* Ripley, Miss, Oct. 13, 02. B.S, Miss. Agr. and Mech. Col, 23; M.S, Minnesota, 27, Ph.D, 29. Asst. pathologist, State Plant Board, Miss, 24–25; instr. plant path, Minnesota, 25–28; assoc. botanist and plant pathologist, Exp. Sta, Clemson Col, 28–29; *assoc. pathologist,* div. sugar plant investigations, bur. plant indust, U. S. Dept. Agr, 29–41; *Citrus Exp. Sta, California, 42–* A.A; Phytopath. Soc. Epidemiology of black stem rust of grains; curly-top disease of sugar beets and other crops; recovery from virus diseases in relation to acquired immunity in plants; virus diseases of citrus.

Wallace, Dr. L(awrence) W(ilkerson), 15615 S. Moreland Blvd, Cleveland, Ohio. *Engineering.* Webberville, Texas, Aug. 5, 81. B.S, Agr. and Mech. Col. Texas, 03, D.Eng, 43; M.E, Purdue, 12, D.E, 32. Special apprentice, Santa Fe Ry. Co, 03–06; from instr. to prof, Purdue, 06–17, in charge dept. ry. and indust. management, 17; asst. gen. manager, Diamond Chain and Mfg. Co, Ind, 17–19; director, Red Cross Inst. for Blind, Md, 19–21; exec. sec'y, Am. Eng. Council, Wash, D. C, 21–34; v. pres, W. S. Lee Eng. Corp, 34; director equipment research, Asn. Am. R. R, 34–37; eng. and research, Crane Co, 37–41; *v. pres, Trundle Eng. Co, 41–* Exchange lecturer, Michigan, 15; consulting engineering companies. Mem. advisory council, div. simplified practise, U. S. Dept. Commerce. Chairman and engineer director, Study of Waste in Indust; director Ind. indust. surv. for Council of Nat. Defense; chairman board, Eyesight Conservation Council, 20–30; advisory cmt, Wash. branch, Int. Labor Office; chairman, Indust. Research Inst, 41. Cross of Knight, Order White Lion, Czechoslovakia. Mem. Ind. fuel advisory cmt, U. S. Fuel Admin, 17–18. Mech. Eng. (v. pres, 37); Indust. Eng. (pres, 18–21); Soc. Adv. Management (pres, Cleveland chap); Eng. Educ; Acad. Polit. and Social Sci; Wash. Acad. (past sec'y sect. M); hon. mem. Masaryk Acad. Works, Prague; Inst. Sci. Management Poland. Superheated steam in locomotives; air brakes; brake shoes; behavior of locomotive cinders and sparks; steel freight car design; railway and industrial management; fire losses; engineering and government.

Wallace, Dr. Louise B(aird), Hotel Vernon, 2109 Shattuck Ave, Berkeley, Calif. *Zoology.* Newville, Pa, Sept. 21, 67. A.B, Mt. Holyoke Col, 98, hon. Sc.D, 19; Naples Zool. Sta, 01; A.M, Pennsylvania, 04, Ph.D, 08. Asst. zool, Mt. Holyoke Col, 93–96; Smith Col, 96–99; instr, Mt. Holyoke Col, 99–03, assoc. prof, 04–12; prof. biol, Constantinople Col, 12–25, dean faculty, 13–24, v. pres, 24–25; prof. zool, Mt. Holyoke Col, 27–28; Spelman Col, 28–31. Soc. Zool. Axillary gland of Batrachus; the germ-ring in the egg of Batrachus; spermatogenesis and oogenesis of the spider.

Wallace, Dr. P(hilip) R(ussell), Massachusetts Institute of Technology, Cambridge, Mass. *Applied mathematics.* Toronto, Ont, Can, April 19, 15. B.A, Toronto, 37, fellow, 37–40, M.A, 38, Ph.D, 40. *Instr. math,* Cincinnati, 40–42; *Mass. Inst. Tech, 42–* Math. Soc; Physical Soc. Electrodynamics; relativity; hydrodynamics.

Wallace, Prof. Raymond H(arold), University of Connecticut, Storrs, Conn. *Plant physiology, Cytology.* Cowgill, Mo, April 17, 99. A.B, Iowa, 24; Ph.D, Columbia, 27. Nat. research fellow, Columbia, 27–29; asst. prof. *bot,* Conn. Agr. Col, 29–35, Conn. State Col, 35–37, *assoc. prof,* 37–39, *Connecticut, 39–* A.A; Soc. Plant Physiol; Bot. Soc; Torrey Bot. Club. Effects of certain vapors and gases on plants; effects of some animal anesthetics on the sensitive plant; seasonal activity of photosynthesis in evergreens and stem chlorenchymas; the measurement and recording of light; use of cellulose film for insulation; leaf temperatures.

Wallace, Dr. R(obert) C(harles), Queen's University, Kingston, Ont, Can. *Geology.* Orkney, Scotland, June 15, 81. M.A, Edinburgh, 01, B.Sc, 07, 1851 Exhib. scholar, 08–10, D.Sc, 12; Ph.D, Göttingen, 09; St. Andrews, 09–10; LL.D, Manitoba, 28, Queen's (Can), 30, Toronto, 32, Saskatchewan, 36, McMaster, 36, Western, 38, McGill, 38, Temple, 40, St. Lawrence, 42. Science master, 01–05; demonstrator, St. Andrews, 09–10; lecturer geol. and miner, Manitoba, 10–12, prof, 12–28; pres, Alberta, 28–36; *prin, Queen's (Can), 36–* Carnegie fellow, 10. Commissioner, north. Man, 18–21; commissioner of mines, Man, 27–28. Soc. Econ. Geol; Miner. Soc; fel. Royal Soc. Can; Can. Inst. Min. and Metal; fel. Geol. Soc. London. Mineralogy; crystallography; economic geology; silicates; dolomitization; rock magmas; gypsum and anhydrite; gold mineralization; petrology of Precambrian; colloidal precipitation; sedimentary processes; education and educational methods.

Wallace, Prof. S(ebon) Rains, Tulane University, New Orleans, La. *Psychology.* Knoxville, Tenn, Dec. 19, 13. B.S, Virginia, 34, M.S, 35, Ph.D, 37. Instr. *psychol,* Ohio State, 36–37; asst. prof, *Tulane,* 37–41, *assoc. prof, 41–; capt, psychol. sect, headquarters, training sch, Air Forces, U. S. Army, 42–* Chairman cmt. highway illumination, Nat. Research Council, 38–40. Assoc. Psychol. Asn; Optical Soc. Binocular interdependence; color vision; animal learning.

Wallace, Dr. Thomas H(omkowycz), 43 Brooksdale Road, Brighton, Mass. *Spectroscopy.* Boston, Mass, Aug. 27, 12. B.S, Boston Univ, 33, Ph.D, 39; A.M, Harvard, 36. Asst. physics, Boston Univ, 34–35; Williams Col, 35–38; *instr. math. and physics, Northeastern, 39–* Physical Soc; Asn. Teachers Math. New Eng. Separations of the components of the H-alpha complex of hydrogen.

Wallace, Prof. W(ayne) P(aul), Louisiana State University, Baton Rouge, La. *Mechanics.* Wichita, Kans, July 22, 13. B.E, Tulane, 34, C.E, 36; Ph.D, Cornell, 42. Designer and estimator, William Wallace, Gen. Contractor, 34–35; instr. *civil eng, Louisiana,* 36–42, *asst. prof, 42–* Jr. mem. Civil Eng; La. Eng. Soc. Stability of cantilevers and beams of arbitrary thin-walled open section.

Wallace, Prof. William J(ames) L(ord), West Virginia State College, Institute, W. Va. *Physical chemistry.* Salis-

bury, N. C, Jan. 13, 08. B.S, Pittsburgh, 27; Gen. Educ. Board fellow, Columbia, 30–31, A.M, 31; Sage fellow, Cornell, 36–37, Ph.D, 37. Instr. *chem*, Livingstone Col, 27–32; Lincoln Univ. (Mo), 32–33; *W. Va. State Col*, 33–34, asst. prof, 34–37, assoc. prof, 37–43, *prof, 43–* Chem. Soc. The freezing points of aqueous solutions of alpha amino acids; thermodynamic properties of amino acids.

Wallen, Dr. Richard (William), University of Cincinnati, Cincinnati, Ohio. *Psychology.* Petersburg, N. Y, April 27, 14. A.B, Findlay Col, 36; A.M, Ohio State, 38, Ph.D, 40. Asst. *psychol*, Ohio State, 37–39; *instr*, Western Col, 39–41; *Cincinnati, 41–* Assoc. Psychol. Asn; Midwest. Psychol. Asn. Ego-involvement and forgetting; estimates of group attitudes.

Waller, Prof. A(dolph) E(dward), Ohio State University, Columbus, Ohio. *Botany.* Louisville, Ky, Aug. 24, 92. B.S, Kentucky, 14; M.S, Ohio State, 16, fellow, 16–18, Ph.D, 18. Asst. agron, *Ohio State*, 14–16, instr. *bot*, 18–21, asst. prof. and *assoc. prof, 21–, curator bot. garden.* Lecturer, Yazoo and Miss. Ry, 17; collaborating pathologist, U. S. Dept. Agr, 18. Summers, teacher, E. Ill. State Nor. Sch, 19; Bowling Green Nor. Col, 24. Assoc. ed, 'Ecology.' A.A; Bot. Soc; Ecol. Soc; Asn. Geog; Ohio Acad. Physiology; ecology; economic botany; crop centers; xenia; ecology of crop plants.

Waller, Prof. Coleman B, Wofford College, Spartanburg, S. C. *Chemistry, Biology.* March 8, 72. A.B, Wofford Col, 92; Ph.D, Vanderbilt, 02; Hopkins, 03–04. Teacher, pub. schs, S. C, 92–97; asst. prof. math, Clemson Col, 00–03; *prof. chem. and biol. and head dept, Wofford Col, 04–* Chem. Soc.

Waller, Dr. E(rnest) F, University of New Hampshire, Durham, N. H. *Poultry husbandry.* Stewartsville, Mo, Aug. 17, 08. D.V.M, Iowa State Col, 31, M.S, 38; Minnesota, 31–34. Diagnostician, dept. vet. med, Minnesota, 31–34; asst. prof. vet. path, Iowa State Col, 34–40; *asst. prof. poultry husbandry, New Hampshire, and poultry pathologist, Exp. Sta, 40–* A.A; Vet. Med. Asn; Micros. Soc; Poultry Sci. Asn; Asn. Research Workers in Animal Diseases N. Amer; N. H. Vet. Med. Asn. Pathology; parasitology.

Waller, Dr. R(ichard) C(onrad), 4014 Lee St, Richmond, Va. *Physical chemistry.* Victory, Wis, Sept. 24, 15. B.S, State Col. Wash, 38; Ph.D, Iowa State Col, 42. Asst. physical chem, Iowa State Col, 38–42; *research chemist, E. I. du Pont de Nemours and Co, 42–* Absorption spectra of solids; rare earth salts at liquid air temperatures.

Waller, Dr. W(illiam) H(enry), University of South Dakota School of Medical Sciences, Vermillion, S. Dak. *Anatomy.* Frontier, Mich, Aug. 2, 09. A.B, DePauw, 30; Ph.D, Cornell, 33. Asst. lab. instr. histol. and embryol, Cornell, 30–31, *anat*, med. col, 31–32, instr, 32–33; med. sch, George Washington, 33–37; *prof, sch. med. sciences, South Dakota, 37–* Mem. State Board Basic Science Examiners. Asn. Anat; S. Dak. Acad. Neural anatomy and neurophysiology; thalamus and cerebral cortex of the rat and cat.

Wallgren, Prof. A(ndrew) Bennett, University of Pittsburgh, Pittsburgh, Pa. *Botany.* Sweden, Sept. 29, 77. B.S, Upsala, 97; M.D, Pittsburgh, 02. Pathologist and bacteriologist, Pittsburgh, St. Margaret's and Columbia Hosps; med. dept, West. Univ. of Pa, *assoc. prof. bot, dept. bacter, Pittsburgh.*

Wallhauser, Dr. Andrew, University of Pittsburgh School of Medicine, Pittsburgh, Pa. *Pathology, Bacteriology.* Newark, N. J, Nov. 11, 92. M.D, Jefferson Med. Col, 16. Asst. pathologist, Newark City Hosp, 19–26; pathologist, Methodist Hosp, Indianapolis, 26–27; *instr. med. and asst. prof. bacter. and path, sch. med, Pittsburgh, 27–; pathologist, Presb. Hosp, 27–* Soc. Biol. Research; Soc. Clin. Path; fel. Col. Physicians; Pittsburgh Acad. Med. Diseases of the lymphoid system, especially Hodgkin's disease; fungi of medical importance.

Wallihan, Prof. Ellis F(lower), Cornell University, Ithaca, N. Y. *Forestry.* Ontario, Calif, Sept. 20, 11. B.S, California, 34, M.S, 36; Ph.D, Cornell, 38. Asst. forest soils, *Cornell*, 36–38, *asst. prof. forestry, 38–; field engineer, West. Elec. Co, 42–* Charles Lathrop Pack prize, Cornell, 38. A.A; Bot. Soc; Soc. Foresters; Soil Sci. Soc. Physiology of forest trees; mineral nutrition; seed germination; soil moisture relations; radiation.

Wallin, Prof. Ivan E, University of Colorado School of Medicine, Denver, Colo. *Anatomy.* Page Co, Iowa, Jan. 22, 83. B.S, Iowa, 05; fellow, Nebraska, 07–08, A.M, 08; Sc.D, N. Y. Univ, 15. Prof. biol, Upsala, 05–07; head dept. high sch, Wis, 08–10; instr. *anat*, Univ. and Bellevue Hosp. Med. Col, 10–13; Louisville, 13–14; med. col, Cornell, 14–15; asst. prof. and assoc. prof, Marquette, 15–18; *prof. and head dept, Colorado, 18–* A.A; Asn. Anat; Soc. Exp. Biol. Thymus and development of blood in cyclostomes; trematodes; human embryology; cytology; mitochondria; microsymbiosis; evolution; symbionticism.

Wallin, Dr. J(ohn) E(dward) Wallace, 1406 Washington St, Wilmington, Del. *Psychology, Education.* Page Co, Iowa. Jan. 21, 76. A.B, Augustana Col, 97; A.M, Yale, 99, fellow and hon. fellow, 99–01, Ph.D, 01. Asst. psychol, Clark, 01–02: exp. psychol, Michigan, 02–03; demonstrator, Princeton, 03–06; head dept. psychol. and educ, and v. prin, Pa. State Nor. Sch, E. Stroudsburg, 06–09; Nor. Training Sch, Cleveland, 09–10; director psychol. lab, N. J. Village for Epileptics, Skillman, 10–11; asst. prof. educ. psychol, Pittsburgh, 12–13, prof. clin. psychol, 13–14, director psycho-educ. clinic, 12–14; Psycho-Educ. Clinic and special schs, St. Louis, 14–21; prof. clin. psychol. and director bur. special educ. and psycho-educ. clinic, Miami (Ohio), 21–29; director special educ, Baltimore Dept. Educ, 29–30; head dept. psychol, director mental hygiene clinic and psychol. examiner, Atlantic, 30–32; *director div. special educ. and mental hygiene, Dept. Pub. Instruction, Del, and pub. schs, Wilmington, 32–* Psychologist, Mellon Inst, 12–13; lecturer, Harris Teachers Col, 14–21; consulting psychologist, Dept. Educ, Dayton, Ohio, 26–27; consultant special educ, State Dept. Educ, 28–29; lecturer, Hopkins, 29–30; Delaware, 33–37; Rutgers, 37– Summers, prof, The Training Sch; California; Iowa; Montana; N. Y. Univ; Virginia; Duke; N. Y. State Teachers Col, Buffalo; Chicago. Mem. advisory board, 'Jour. Exceptional Children,' 36–; coordinator terms dealing with exceptional children, 'Dictionary of Educ,' 40–42; assoc. ed, 'Jour. of Delinquency'; cooperating ed, 'Jour. Applied Psychol,' 42. Director psychol. research, oral hygiene cmt, Nat. Dental Asn, 10–11; chairman cmt. defective children, Mo. Children's Code Cmn, 15–21; Del. Cmt. Problems Affecting Hard of Hearing, 41. Conductor psychol. clinic, Int. Cong. Sch. Hygiene, 13; Panama-Calif. Expos, 15; cmt. mental hygiene, Mo. Conf. Social Welfare, 19–20; sec'y cmt. F, special classes, White House Conf. Child Health and Protection, 29–31; director, Int. Council Exceptional Children, 37–43; chairman cmt. special educ, Del. Conf. Children in a Democracy, 40–42; sec'y, Nat. Conf. State Directors Special Educ, 41–; chairman, Del. Conf. for Handicapped, 43– Psychol. Asn. (chairman, sect. clin. psychol, 17, 18); Asn. Applied Psychol. (exec. cmt; clin. sec'y, 39); Mo. Mental Hygiene Soc. (treas. and director, 20); Del. Educ. Asn. (chairman sect. special educ. and mental hygiene, 34, 37, 43). Abnormal and clinical psychology; mental tests; defects and mental hygiene; education of handicapped children.

Wallingford, Dr. V(ernon) H(oward), Mallinckrodt Chemical Works, 3600 N. Second St, St. Louis, Mo. *Organic chemistry.* Auburn, Maine, Sept. 26, 97. B.S, Maine, 19; A.M, Harvard, 21, Ph.D, 22. *Research chemist, Mallinckrodt Chem. Works, 23–, director org. research and develop.* Cmn. Relief Belgium Educ. Foundation fellow, Brussels, 22–23. A.A; Chem. Soc. Organic phosphorus compounds; alkaloids; alkyl carbonates.

Wallis, Prof. C(lifford) M(errill), University of Missouri, Columbia, Mo. *Electronics, Radio engineering.* Waitsfield, Vt, March 7, 04. B.S, Vermont, 26; M.S, Mass. Inst. Tech, 28; Sc.D, Harvard, 41. Mem. staff, eng. training course, Gen. Elec. Co, Lynn, Mass, 26–28; instr. *elec. eng, Missouri*, 28–34, asst. prof, 34–39, *assoc. prof, 39–* Summer, prof, Cruft lab, Harvard, 41. Elec. Eng; Radio Eng; Eng. Educ. Half wave gas rectifier circuits; single phase full wave rectifier circuits; current division in tetrode and pentode power tubes; wide range measurement of speed by stroboscope methods.

Wallis, Prof. Everett S(tanley), Princeton University, Princeton, N. J. *[*7]Chemistry.* Waitsfield, Vt, Dec. 17, 99. B.S, Vermont, 21, M.S, 22; A.M, Princeton, 24, Charlotte Elizabeth Procter fellow, 24–25, Ph.D, 25. Instr. *chem*, Vermont, 21–22; asst, Princeton, 22–23; asst. prof, St. John's Col. (Md), 25–26, assoc. prof. and head dept, 26–30; asst. prof, *Princeton*, 30–35, assoc. prof, 35–40, *A. Barton Hepburn prof. org. chem, 40–* Consultant, Nat. Defense Research Cmt, 40–41. Mem. ed. board, 'Jour. Org. Chem.' A.A; Chem. Soc; fel. Inst. Chem. Organic chemistry of nitrogen; molecular rearrangements; optical activity; free radicals; chemistry of sterols, hormones and related compounds.

Wallis, Prof. G(eorge) C(arroll), South Dakota State College, Brookings, S. Dak. *Dairy husbandry.* Independence, Iowa, Dec. 21, 00. B.S, S. Dak. State Col, 23; M.S, Minne-

sota, 31, Ph.D, 34. Prin, high sch, 23–27; sch. supt, 27–30; asst, dairy dept, Minnesota, 31–34; instr. and asst. dairy research, *S. Dak. State Col*, 34–37, asst. prof. *dairy husbandry*, 37–41, *assoc. prof, 41–* A.A; Chem. Soc; Dairy Sci. Asn; Statist. Asn; S. Dak. Acad. Dairy cattle feeding, breeding and management; mineral and vitamin requirements of cattle; nutritional value of milk and dairy products; improvement of methods and administration in higher education.

Wallis, J(ohn) B(raithwaite), School Board Office, Winnipeg, Man, Can. *Entomology.* Erith, Eng, Dec. 26, 77. B.A, Manitoba, 23, M.A, 28. Supervisor nature study, Winnipeg, 03–04; prin, Machray Sch, Winnipeg, 04–21; *asst. supt. schs, Winnipeg, 21–* Entom. Soc. Amer; Ont. Entom. Soc; Nat. Hist. Soc. Man. (pres, 25). Coleoptera; revision of genera Odontaeus, genus Haliplus, Ilybices; Graphoderus; descriptions in Dytiscidae and Gyrinidae.

Wallis, Dr. Ruth Sawtell, 1023 14th Ave, S. E, Minneapolis, Minn. *Anthropology.* Springfield, Mass, March 15, 95. A.B, Radcliffe Col, 19, A.M, 23; traveling fellow, Paris and Munich, 23–25; Ph.D, Columbia, 29. Asst. physical anthrop, Harvard, 20–23; Columbia, 26; anthropologist, Bur. Educ. Experiments, New York, 26–30; research asst. prof. anthrop, child welfare research sta, Iowa, 30–31; asst. prof. sociol, Hamline, 31–35; research with Prof. W. D. Wallis, Minnesota, 35–37; asst. anthropometrist, bur. home econ, U. S. Dept. Agr, 37–38; *labor market analyst, U. S. Employment Service, St. Paul, Minn, 43–* Archeol. excavations, Montardit, French Pyrenees, 25. Physical anthropology; European prehistory; anthropometry and roentgenology of the growth of the normal child; cranial types of western Europe.

Wallis, W(illiam) F(isher), Department of Terrestrial Magnetism, Carnegie Institution, 5241 Broad Branch Road, N. W, Washington, D. C. *Physics.* Baltimore, Md, June 5, 74. A.B, Hopkins, 96, 96–97, 98–99; B.S, Mass. Inst. Tech, 13. Teacher, Baltimore, 97–98, 99–00; magnetic observer, U. S. Coast and Geod. Surv, 00–10; *magnetician, Carnegie Institution, 13–* Philos. Soc. Wash. Terrestrial magnetism; atmospheric electricity; seismology.

Wallis, Prof. Wilson D(allam), 1023 14th Ave, S. E, Minneapolis, Minn. *Anthropology.* Forest Hill, Md, March 7, 86. A.B, Dickinson Col, 07, A.M, 10; Rhodes scholar, Oxford, 07–10, B.Sc, 10; Harrison fellow, Pennsylvania, 10–11, Ph.D, 15. Instr. *anthrop*, Pennsylvania, 11–15; California, 15–16; Junior Col, Fresno, Calif, 16–21; asst. prof, Reed Col, 21–23; assoc. prof, *Minnesota*, 23–26, *prof, 26–* Summer, field ethnologist, Geol. Surv. Can, 14. A.A; Anthrop. Asn. (councilor, 14–, 2nd v. pres, 32). Social and physical anthropology; the Wahpeton division of the Dakota tribe; Messiahs, Christian and pagan; culture; theories of progress; primitive religion; Utopias.

Wallman, Dr. Henry, Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Brooklyn, N. Y, Jan. 24, 15. B.S, Brooklyn Col, 33; A.M, Princeton, 35, Ph.D, 37. Asst, Inst. Adv. Study, 38–40; asst. prof. math, North Carolina, 40–41; instr, Wisconsin, 41–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Math. Soc; Radio Eng. Topology; radio.

Walls, Dr. E(dgar) P(erkins), University of Maryland, College Park, Md. *Horticulture.* Barclay, Md, Sept. 3, 82. B.S, Md. Agr. Col, 03, M.S, 05; Hopkins, 05–06; Ph.D, Maryland, 35. Asst. agronomist, Exp. Sta, Md. Agr. Col, 03–05, asst. prof. bot. and plant path, 08–09; prof. hort, St. Lawrence, 09–10; instr. bot. and plant path, Oregon Agr. Col, 10–14; county agr. agent, Talbot County, Md, 14–27; in charge commercial farm management, 27–31; asst. canning crops work and marketing specialist, *exten. service, Maryland*, 31–35, state leader, rural discussion groups, 35–37, *canning crops specialist, 37–*, assoc. prof. *canning crops technol, univ*, 37–38, *prof, 38–* A.A; Soc. Hort. Sci; Bot. Soc. Wash. Economic botany; taxonomy; plant anatomy; plant pathology; poisonous plants; quality determinations of canning crops; herbs and spices.

Walls, Dr. Gordon L(ynn), Bausch and Lomb Optical Co, Rochester, N. Y. *Zoology.* Malden, Mass, April 4, 05. B.S, Tufts Col, 26; A.M, Harvard, 28; Sc.D, Michigan, 31. Instr. zool, Michigan, 27–31, Lloyd fellow, 31–32, nat. research fellow, 32–34; assoc. zool, Iowa, 34–37; histologist, Gen. Biol. Supply House, 37; teaching fellow anat, col. med, Wayne, 37–38, research assoc. ophthal, 38–42; *mem. science bur, Bausch and Lomb Optical Co, 42–* A.A; Asn. Anat; Soc. Zool; Asn. Research Ophthal; Optical Soc. Physiological optics; comparative ophthalmology.

Walls, Dr. W(illiam) S(parks), 1348 Jennings Ave, Bartlesville, Okla. *Physical and organic chemistry.* Ingleside, Md, Feb. 17, 08. A.B, St. John's Col. (Md), 29; A.M, Princeton, 31, Ph.D, 33. Asst, Princeton, 29–30, 33, teaching asst, 30–32; research fellow, mineral industries exp. sta, Pa. State Col, 33–34; research chemist and analyst, Sloan and Zook Companies, 34–36; *sect. chief production research div, Phillips Petrol. Co, 36–* Chem. Soc; Petrol. Inst; Min. and Metal. Eng. Petroleum production; dielectrics; electric moments and molecular structures of organic molecules; emulsions; recovery of petroleum from oil sands; solution flooding of oil sands; controlled plugging of oil sands; oil saturations and permeabilities of oil sands; phase relations and properties of petroleum hydrocarbons; testing and sampling of oil and gas wells; flow of fluids in porous media; petroleum reservoir engineering.

Walmsley, Prof. Charles, 6 Studley Ave, Halifax, N. S, Can. *Mathematics.* Denton, Eng, Sept. 23, 91. B.A, Cambridge, 13, M.A, 21. Asst. lecturer *math*, Birmingham, 14–16; Univ. Col, Wales, 20–23; Victoria Univ, 24–29; interim lecturer, King's Col, 29–30; *assoc. prof, Dalhousie, 30–* Math. Soc; London Math. Soc. Mathematical analysis.

Walp, Prof. Russell Lee, Marietta College, Marietta, Ohio. *Botany.* Youngstown, Ohio, Oct. 23, 06. B.S, Michigan, 30, M.S, 31. Instr. *biol, Marietta Col*, 31–40, *asst. prof, 40–* Summers, research investigator, Lankenau Marine Lab, 38–42. Bot. Soc; Soc. Study Develop. and Growth; Asn. Biol. Teachers; Limnol. Soc; Torrey Bot. Club; Mich. Acad. Physiology and growth of algae; shrubs of Emmett and Cheboygan County, Michigan; culture technic for quantitative growth studies with Myxophyceae; effect of l-proline on some marine algae.

Walsh, Prof. J(oseph) L(eonard), 474 Widener Library, Cambridge, Mass. ***Mathematics.* Washington, D. C, Sept. 21, 95. Columbia, 12–13; B.S, Harvard, 16, Ph.D, 20; M.S, Wisconsin, 17. Asst. *math, Harvard*, 15–16, instr, 17, 19, 21–24, asst. prof, 24–30, assoc. prof, 30–35, *prof, 35–; lieut. commander, U. S. Naval Res.* Sheldon traveling fellow, Chicago and Wisconsin, 16–17; Paris, 20–21; Int. Educ. Board fellow, Munich, 25–26; Inst. Advanced Study, 34–35. Nat. Acad; A.A; Math. Soc. (councilor, 30–32, v. pres, 37); Math. Asn. (trustee, 34–36); Am. Acad; Deuts. Math. Verein; Soc. Math. de France. Location of roots of polynomials; expansion problems for functions of a real variable and for analytic functions of a complex variable; interpolation and approximation in the complex domain; harmonic functions; circle geometry; conformal mapping.

Walsh, Dr. L. S. N(ewman), 8 Huntleigh Downs, R.R. 5, Box 6079, Kirkwood, Mo. *Pathology.* St. Louis, Mo, 91. M.D, St. Louis, 16; D.V.M, Kansas City Vet. Col, 13. Asst. comp. path, sch. med, Washington (St. Louis), 16–18; res. pathologist, Barnes Hosp, St. Louis, 18–19; asst. *path, med. sch, Washington (St. Louis)*, 19–21, *instr, 21–* Asst. pathologist, St. Louis Children's Hosp, 18–19; Barnes Hosp, 21–; pathologist, St. Luke's Hosp, 26– Asn. Path. and Bact. Comparative pathology; haemagglutination; cancer; the thyroid; tissue culture; spermatoxins.

Walsh, Dr. O(liver) S(ylvester), 2627 Fulton St, Berkeley 4, Calif. *Animal industry.* Salt Lake City, Utah, Sept. 6, 03. B.S, Utah, 35, M.S, 36; Ph.D, California, 40. Teaching asst, Utah, 34–36; California, 37–40, asst, Exp. Sta, 39–41; asst. prof. animal indust. and range management, Mont. State Col, 41–42; *war production training work, 43–* A.A; Wildlife Soc; Nat. Audubon Soc; Ecol. Soc; Calif. Bot. Soc; Mont. Acad. Wildlife and range management; taxonomy and ecology of Zigadenus; passerines in Utah.

Walsh, Dr. Thomas J, 361 Porter Ave, Buffalo, N. Y. *Medicine.* Buffalo, N. Y, Aug. 14, 78. M.D, Buffalo, 02; LL.D, Niagara, 21; Berlin; London; Cornell. *Practicing physician;* instr. obstet, *Buffalo*, 03–07, from instr. to *assoc. prof. med, 08–* Am. Med. Asn; Col. Physicians; Med. Soc. State N. Y. (past pres). Cardiology; internal medicine.

Walsh, Prof. W(illiam) F(rancis), N. Y. Agricultural Experiment Station, Geneva, N. Y. *Chemistry.* Auburn, N. Y, Aug. 26, 88. B.S, Michigan, 16. Parke, Davis and Co, 12–13; *N. Y. Exp. Sta, Geneva, 15–, asst. prof. chem. and assoc. chem. research.* Chem. Soc. Chemistry of fruit and vegetable by-products; clarification and preservation of fruit juices and fruit beverages; manufacture of wines and fermented beverages.

Walsted, Dr. John P(almer), 41 Cottage St, Whitinsville, Mass. *Metallurgy.* June 29, 97. B.S, Oregon State Col, 21;

M.S, Illinois, 23; Sc.D, Mass. Inst. Tech, 29. Instr. physical metal, Mass. Inst. Tech, 29–30, asst. prof, 31–34; materials engineer, Bethlehem Shipbuilding Corp, Ltd, Mass, 34–35; *metallurgist, Whitin Machine Works, 35–; capt, ordnance dept, U. S. Army, and chief inspection dept, Watertown Arsenal, 41–* Soc. Metals. Metallography; case hardening with ammonia; metallurgy of cast iron; welding processes; materials and process control.

Walster, Dr. H(arlow) L(eslie), 1130 Fourth St, North Fargo, N. Dak. *Agronomy.* Sauk Co, Wis, April 20, 83. B.S.A, Wisconsin, 08; A.M, Harvard, 13; Ph.D, Chicago, 18. Instr. and asst. prof. soils, Wisconsin, 08–18; agronomist and director soil surv, *Exp. Sta, N. Dak. Col,* 19–33, *director,* 34–37, *39–,* exten. service, 33–37, *dean sch. agr, 24–* A.A; Soc. Agron; Soil Sci. Soc; Int. Soc. Soil Sci. Educational administration; soil classification; land use.

Walston, Dr. Wayne E(rvan), 1476 Burns Ave, Detroit, Mich. *Organic chemistry.* Stuart, Iowa, June 7, 14. B.S, Mont. State Col, 36; Ph.D, Pittsburgh, 42. Teaching asst, Pittsburgh, 37–42; *research and develop. chemist, develop. div, U. S. Rubber Co, 42–* Chem. Soc. Electro-organic chemistry; organic synthesis; natural and synthetic rubber compounding.

Walter, Prof. A(dolph) S(chinner), New Mexico School of Mines, Socorro, N. Mex. *Mining, Metallurgy.* Denver, Colo, May 7, 89. Virginia, 11–12; E.M, Colo. Sch. Mines, 15. Asst. engineer construction, Florence Goldfield Mining and Milling Co, Nev, 07; with Nev. Goldfield Reduction Works, 08; Modern Smelting and Ref. Co, Colo, 09–11; Durango, Ark. Valley and Pueblo plants, Am. Smelting and Ref. Co, 15–21; consulting engineer, Uinta Oil and Explor. Co, Utah, and Am. Elec. Smelting and Ref. Co, 21–22; prof. chem. and asst. prof. metal, *N. Mex. Sch. Mines,* 22–23, *prof. mining and metal, 23–,* athletic director, 23–24, *dean mining and metal, 39–* Mine appraiser, State Tax Cmn, N. Mex, 29; real estate div, U. S. War Dept, 43; consulting engineer, Peerless Oil and Gas Co, 43. Summers, consulting engineer, Denver City Lode, Crystal, Colo. and Kittimac Mines Co. of Wyo, Eureka, Colo, 12–14. Min. and Metal. Eng; Mining Cong; Colo. Mining Asn; New Mex. Miners and Prospectors Asn. (pres, 40); N. Mex. Eng. Soc. (director, 42). Ore tests; mine appraisal; mining and ore dressing.

Walter, Dr. E(dmund) D(avid), Purdue University, Lafayette, Ind. *Biochemistry.* Jennerstown, Pa, Feb. 26, 96. B.S, Pa. State Col, 22; M.S, Ohio State, 31, Ph.D, 34. Teacher, high sch, Ohio, 22–27; N. Y, 27–28; Pa, 28–29; asst, dept. agr. chem, Ohio State, 30–35, indust. research fellow, 35–37; *asst. chemist, dept. agr. chem, and collaborating agent, regional soybean indust. products lab, Purdue, 37–* Chem. Soc. Isolation of naturally occurring plant compounds; saponins; carbohydrates.

Walter, E(lmer) V(alentine), Box 495, Lafayette, Ind. *Entomology.* Vernon, Iowa, Feb. 13, 91. B.S, Iowa State Col, 16. Exten. entomologist, *bur. entom. and plant quarantine, U. S. Dept. Agr,* cooperating with Iowa State Col, 17–19, *entomologist, 19–* A.A; Asn. Econ. Entom; Entom. Soc. Amer; Ind. Acad. Cereal and forage insects; southwestern corn borer; sugar-cane moth borer on corn; corn aphis; corn earworm; sorghum midge; Texas leaf cutting ant; Lepidoptera of southwestern United States; insect resistance in corn, especially with corn earworm and corn leaf aphid.

Walter, Prof. H(arold) E(dmund), Newark College of Engineering, Newark, N. J. *Mechanical engineering.* Lehighton, Pa, Oct. 25, 93. B.S, Pa. State Col, 17; M.E, Pennsylvania, 22; M.S, N. Y. Univ, 40. Elec. engineer, Ballinger Co, Philadelphia, Pa, 19–20; instr. and asst. prof. mech, Pennsylvania, 20–26; chief chemist and New Eng. sales manager, Hudson Coal Co, Scranton, Pa, 27–36; assoc. prof. and later *prof. mech. eng, Newark Col. Eng, 36–* Eng. Educ. Thermodynamics; heat power.

Walter, Prof. H(erbert) E(ugene), Brown University, Providence, R. I. *[2]*Biology. Burke, Vt, April 19, 67. A.B, Bates Col, 92, Sc.D, 37; A.M, Brown, 93; Freiburg, 93–94, 03; Ph.D, Harvard, 06; Sc.D, Middlebury, 34. Instr, high sch, Ill, 94–04; asst. *biol,* Harvard, 04–06; asst. prof, *Brown,* 06–13, assoc. prof, 13–23, prof, 23–37, *emer. prof, 37–* Instr, Cold Spring Harbor, 06–17, asst. director, 17–27. A.A; Soc. Nat; Soc. Zool; Eugenics Soc; Genetics Asn; hon. assoc. Ornith. Union. Animal behavior; mammary organs; heredity; ornithology; comparative anatomy.

Walter, Dr. James M(unday), Forest Pathology Field Office, Morristown, N. J. *Plant pathology.* Harrodsburg, Ky, Nov. 25, 06. B.S, Kentucky, 28; M.S, Minnesota, 31, Ph.D, 33. Tech. asst, dept. agron, Kentucky, 28–29; asst. plant path, Minnesota, 29–33; supervising technician, *div. forest path, bur. plant indust, U. S. Dept. Agr,* 33–35, assoc. pathologist, Oxford, Eng, 35–38, *N. J,* 38–42, *pathologist, 42–* A.A. The relation of the corn smut fungus to its host; Dutch elm disease and its causal organism; Ceratostomella disease of plane trees.

Walter, L(eon) E(rving), Laramie, Wyo. *Chemistry.* Sherman, S. Dak, Oct. 19, 81. B.S, S. Dak. Col, 04, M.S, 05; N. Dak. Col; South Dakota. *State chemist, Wyo, 20–* Chem. Soc; Agr. Chem; Asn. Feed Control Officials; Asn. Seed Anal; Asn. Dairy, Food and Drug Officials (pres, 29). Crude fiber determination; caffein determination; composition of livestock remedies; national and state food and drug laws and court decisions on these laws.

Walter, Dr. L(ewis) A, 250 High St, Newark, N. J. *Organic chemistry.* Bloomfield, Wis, March 27, 08. A.B, Ripon Col, 30; Ph.D, Wisconsin, 34. Asst. chem, Wisconsin, 30–35; *with Maltbie Chem. Co, 35–* Chem. Soc. Pyridine derivatives.

Walter, Dr. Mable Ruth, Care of National Headquarters, American Red Cross, Washington, D. C. *Genetics, Eugenics.* Groveland, Ill, 04. A.B, N. Cent. Col, 29; A.M, Illinois, 30, Ph.D, 34. Asst, Illinois, 29–34; assoc. prof. biol, MacMurray Col. (Ill), 35–42; *for. service, Am. Red Cross, 42–* A.A. Comparison of human twins; inheritance of multiple births in cattle; inheritance of certain human diseases.

Walter, Prof. O(tto) T(heodore), 1739 Wellesley Ave, St. Paul, Minn. *Zoology.* Germany, Nov. 9, 92. A.B, Dubuque, 14; A.B, Iowa, 16, M.S, 17, Ph.D, 23. Prof. biol, Dubuque, 17–20; asst, Iowa, 20–22; *prof. biol. and head dept, Macalester Col, 22–* A.A; fel. Iowa Acad; Minn. Acad. (pres, 39, councilor, 41). Invertebrate zoology and paleontology; college biology curricula.

Walter, Prof. William G(off), Montana State College, Bozeman, Mont. *Bacteriology.* Lake Placid, N. Y, Nov. 1, 14. B.S, Cornell, 38, M.S, 41. Special investigator, N. Y. Exp. Sta, Geneva, 40–41, asst. research, 41–42; *asst. prof. bacter, Mont. State Col, 42–* Soc. Bact; Pub. Health Asn. General and applied bacteriology.

Walters, Dr. Francis M(arion), Jr, 2343 Green St, S.E, Washington, D. C. *Physics, Metallurgy.* Monticello, Ind, April 25, 88. A.B, Missouri, 11, A.M, 14, Ph.D, 20. Asst. physics, Missouri, 14–15; in charge dept, Montana, 15–16; instr, St. Joseph Junior Col, Mo, 16–18; asst. physicist, Bur. Standards, 18–20, assoc. physicist, 20–21, 22–24; prof. physics, St. John's, Shanghai, China, 21–22; director bur. metal. research, Carnegie Inst. Tech, 24–32, physicist, 32–34; research engineer, Youngstown Sheet and Tube Co, 34–39, metallurgist, *div. physical metal, Naval Research Lab,* 39–43, *head physicist, 43–,* acting supt. *div,* 40–43, *supt, 43–* Howe medal, Soc. Steel Treat, 32. Physical Soc; Min. and Metal. Eng; Soc. Metals; British Iron and Steel Inst. Spectroscopy; regularities in spectra; photographic sensitometry; physical metallurgy.

Walters, Prof. Fred C(harles), University of Puerto Rico, Rio Piedras, P. R. *Psychology.* Yates Center, Kans, Dec. 18, 79. A.B, Kans. State Teachers Col, 16; A.M, Columbia, 17, Ph.D, 27. Instr. educ, Wilmington Col, 17–18; director training sch, Kentucky, 18–19; head dept. educ, Midland Col, 19–21; *assoc. prof. psychol. and director research, Puerto Rico, 24–* Psychol. tests, Bridgeport, Conn, 23–24. A.A; assoc. Psychol. Asn. The time factor in intelligence; measurement; ability and achievement tests; English test in Latin American countries; standardized achievement tests and their use in the standardization of school marks.

Walters, Dr. Orville S(elkirk), McPherson, Kans. *Physiology.* Enid, Okla, July 17, 03. A.B, Kansas, 27, A.M, 32, Ph.D, 34; M.D, St. Louis, 39. Instr. physiol, Kansas, 30–34; sch. med, St. Louis, 34–39; *pres, Cent. Col. (Kans), 39–* Physiol. Soc; Soc. Exp. Biol. Physiological variations of hemoglobin and red blood cells; erythropoiesis.

Walters, Dr. Philip M(arion), E. I. du Pont de Nemours and Co. Experimental Station, Wilmington, Del. *Organic chemistry.* Oblong, Ill, Feb. 10, 16. B.S, Illinois, 38; Ph.D, Wisconsin, 42. Asst. chem, Wisconsin, 38–41; Alumni Research Foundation asst, 41–42; *research chemist, Exp. Sta, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Reductive

alkylation of aniline; preparation of ketone acetals and related compounds; the neutral constituents of the volatile oil of catnip.

Walters, Dr. Waltman, Mayo Foundation, Rochester, Minn. *Surgery.* Cedar Rapids, Iowa, July 29, 95. B.S. Dartmouth Col, 17, Sc.D, 37; M.D, Chicago, 20; M.S, Minnesota, 23. *Prof. surg, Mayo Foundation, Minnesota, 36–* Surgeon, Mayo Clinic, governor, 30– Chief ed, 'Archives Surg'; 'Lewis' Practice of Surg.' Gold medal, Am. Med. Asn, 41. Mem, Nat. Advisory Cancer Council, 42. Capt, M.C, U.S.N.R. Fel. Col. Surg; Surg. Asn; Am. Med. Asn; Soc. Clin. Surg; Urol. Asn; Cent. Soc. Clin. Research; Pan-Am. Med. Asn; South. Surg. Asn; West. Surg. Asn; Cent. Surg. Asn; Minn. State Med. Asn. (cmt. cancer); Minn. Acad. Med; Minn. Acad; Minn. Surg. Soc. (pres, 35); South. Minn. Med. Asn. (pres, 30); Chicago and Northwest Ry. Surg. Asn. (pres, 31); cor. mem. French Urol. Asn. Pathological physiology of the biliary tract; surgery of the pancreas; stricture of the bile ducts; total gastrectomy for carcinoma of the stomach; nervous renal control and renal sympathectomy; diseases of the gallbladder and bile ducts; carcinoma and other malignant lesions of the stomach.

Walters, Dr. W(inston) D(anae), University of Rochester, Rochester, N. Y. *Chemistry.* Houston, Texas, June 9, 14. B.S, Washington (St. Louis), 34; Warner fellow, Hopkins, 34–37, Ph.D, 37. Warner fellow from Hopkins, Leipzig, 37–38; *instr. chem, Rochester, 38–* Chem. Soc. Thermal decompositions; reaction kinetics; isotope exchange reactions.

Walther, Henry, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Nürnberg, Germany, May 26, 95. B.S, Cooper Union, 25; A.M, Columbia, 32. *Research engineer and physicist, Bell Tel. Labs, 22–* Physical Soc; Soc. Metals. Internal dissipation of energy in vibrating solids; crystal structure; crystal growth; effect of internal strain on dissipational and elastic constants of pure metals and alloys.

Walti, Dr. A(lphonse), Merck and Co, Rahway, N. J. *Chemistry.* Zurich, Switzerland, April 6, 97. A.B; A.M; Ph.D, Zurich, 23. Asst, Rockefeller Inst, 26–30, assoc, 30–32; *with Merck and Co, 32–* A.A; Chem. Soc; Schweiz. Chem. Gesell. Biochemistry; carbohydrates; fermentations; enzymes.

Walton, Prof. Arthur C(alvin), Knox College, Galesburg, Ill. *Biology.* Meadville, Pa, Oct, 92. A.B, Northwestern, 13, A.M, 15; Ph.D, Illinois, 23. Asst, Northwestern, 13–15; teaching fellow, Harvard and Radcliffe Col, 15–17; *prof. biol,* N. Cent. Col, 18–24; *Knox Col, 24–, chairman dept, 25–* Summers, instr, Illinois, 23–26; mountain lab, Colorado, 27–35; nat. inst. health, U. S. Pub. Health Service, 40–41. A.A; Soc. Zool; Soc. Parasitol; Micros. Soc; Ill. Acad. Nematology; cytology; ecology.

Walton, C(harles) F(ranklin), Jr, 3051 Legation St, N.W, Washington, D. C. *Chemistry.* Portland, Maine, April 18, 90. A.B, Harvard, 13. Asst. chem, Mass. Inst. Tech, 12–14; investigator nutrition, U. S. Dept. Agr, 14–16; Nat. Carbon Co, Cleveland, Ohio, 16–17; Foote Mineral Co, Phila, Pa, 17–18; assoc. chemist, bur. chem, U. S. Dept. Agr, 18–26; *chemist,* W. B. Roddenbery, 26–29; bur. agr. chem. and eng, *U. S. Dept. Agr,* 29–42, *food distribution admin, 43–* Chem. Soc; Int. Soc. Sugar Cane Technol. Carbohydrate chemistry; manufacture and uses of sugar, syrup and molasses.

Walton, Dr. C(harles) W(illiam), R. F. D. 2, Cuyahoga Falls, Ohio. *Chemistry.* Carlinville, Ill, April 3, 08. B.S, Illinois, 30; M.S, Michigan, 31, du Pont fellow, 33, Ph.D, 33. Lecture and lab. asst, Michigan, 30–31; research chemist, *Goodyear Tire and Rubber Co,* 33–42, *manager tech. coordination, synthetic rubber div, 42–* Summers, chem. analyst, Standard Oil Co. of Ind, 28–30. Chem. Soc. Physical chemistry; surface energy of solids; adhesion of solids and liquids; wetting of pigments; liquid adsorption by pigments; adsorption equilibria; adsorption phenomena of surface-active materials on solids; reinforcement of rubber by pigments; activated charcoals; emulsion formation and breaking; rubber synthesis; synthetic rubber polymerization.

Walton, Geo(rge Robert) P(elham), 6318 33rd St, Chevy Chase, D. C. *Agricultural chemistry.* Richmond, Va, May 26, 88. B.S, George Washington, 12, M.S, 25. Asst. chemist, bur. chem, *U. S. Dept. Agr,* 12–22, assoc. chemist in charge org. nitrogen fertilizer investigations, bur. soils, 22–27, assoc. biochemist, bur. plant indust, 28–39, *assoc. chemist, bur. agr. chem. and eng, 39–* Chairman honey utilization cmt, Am. Honey Inst, 40– A.A; Agr. Chem; Chem. Soc; fel. Inst. Chem; Wash. Acad. Definitions of linseed by-products; fruits of mesquite and related trees as sources of sugar; utilization of by-products of the apple, of cocoa and of wastes from the meat industry as feed or fertilizer materials; municipal wastes disposal; production and assay of vitamin D from by-products; chemistry and technology of American honeys and of honey utilization.

Walton, Prof. George W(illever), 1426 Palm St, Reading, Pa. *Geology.* Irvington, N. J, Oct. 9, 92. Ph.B, Lafayette Col, 15; M.S, Cornell, 24; Sc.D, Albright Col, 36. Dept. nat. science, high sch, Pa, 15–17; prof. biol. and geol, *Albright Col,* 17–28, *prof. bot. and geol. and dean, 28–* A.A; Pa. Acad. Biology.

Walton, Dr. Harold F(rederic), Northwestern University, Evanston, Ill. *Chemistry.* Tregony, Cornwall, Eng, Aug. 25, 12. B.A, Oxford, 34, Ph.D, 37. Jane Eliza Procter visiting fellow, Princeton, 37–38; research chemist, Permutit Co, 38–40; instr. *chem, Northwestern,* 40–43, *asst. prof, 43–* Chem. Soc; Franklin Inst; Faraday Soc. Physical and colloid chemistry; separation of the hydrogen isotopes by electrolysis; general water treatment problems; ion exchange equilibria; membrane potentials; ionic adsorption in colloidal systems.

Walton, Dr. Henry M(iller), 719 W. 180th St, New York 33, N. Y. *Organic chemistry.* Frankfurt am Main, Germany, May 7, 12. Ph.D, Frankfurt, 34, Chicago, 38. Research chemist, Continental Carbon Co, New York, 39; Chas. Pfizer and Co. fellow, Columbia, 40–42; *research chemist, B. T. Brooks Labs, 42–* Chem. Soc. Vitamin A; vitamin B_2; unsaturated aliphatic compounds; organic chemistry of antiseptics; heterocycles.

Walton, Prof. James H(enry), University of Wisconsin, Madison, Wis. *Chemistry.* Deer Isle, Maine, Feb. 26, 78. B.S, Mass. Inst. Tech, 99; Austin traveling fellow, 01–03; Ph.D, Heidelberg, 03. Asst. *chem,* Illinois, 99–00; Mass. Inst. Tech, 00–01; instr, Illinois, 03–06, assoc, 06–07; asst. prof, *Wisconsin,* 07–12, assoc. prof, 12–19, *prof, 19–* Assoc. ed, 'Jour. Physical Chem,' 32–34. Major, C.Eng, 17–19; lieut. col, C.W.S.R, 25–31. Chem. Soc. Catalysis; growth of crystals; dehydration by sulfuric acid; pyrophoric metals; the phosphoric acids; determination of water in organic liquids; autoxidation; activated carbon.

Walton, Dr. Paul T(almage), 4927 Wander Lane, Salt Lake City, Utah. *Geology.* Salt Lake City, Utah, Feb. 4, 14. B.S, Utah, 35, M.S, 40; Ph.D, Mass. Inst. Tech, 42. Dist. engineer, soil conservation service, U. S. Dept. Agr, 35–38; chief geophys. prospecting party, Standard Oil Co, Calif, 38–39; *geologist, Texas Co, 42–* Min. and Metal. Eng; Asn. Petrol. Geol. Geology of the Cretaceous of the Uinta Basin, Utah; stratigraphy of the Rocky Mountains in regard to oil possibilities.

Walton, Prof. R(obert) P(etrie), Medical College of the State of South Carolina, Charleston, S. C. *Pharmacology.* Guthrie, Ky, Jan. 18, 05. B.S, Centenary Col, 24; A.M, Columbia, 25, Ph.D, 29; M.D, Chicago, 41. Chemist, La. Oil Ref. Co, 22, 24; instr. *pharmacol,* sch. med, Tulane, 29–32, asst. prof, 32–37; *prof. and head dept,* sch. med, Mississippi, 37–42; *Med. Col. State of S. C, 42–* Visiting lecturer, Chicago, 38. Soc. Exp. Biol; Soc. Pharmacol; Chem. Soc. (pres, La. sect, 34, 35). Carbohydrates; enzymes; anesthetics; narcotics; drug absorption.

Walton, Dr. S(eth) T(homas), Department of Health, Charlotte, N. C. *Bacteriology.* Jacksonville, N. C, July 15, 97. B.S, N. C. State Col, 20; V.M.D, Ohio State, 22, M.S, 24, scholar, 32–33, Ph.D, 33. Bacteriologist, U. S. Pub. Health Service, Cincinnati, Ohio, 23; bacteriologist and milk inspector, Charlotte, N. C, 25–26; serologist, Henry Ford Hosp, Detroit, 27–32; *director labs. and research, Dept. Health, Charlotte, 34–* Lecturer, Mercy Hosp, Charlotte, 35–36. Mem, Cmn. Standardization of Biol. Stains. A.A; Asn. Immunol; Genetic Asn; Pub. Health Asn; Soc. Bact. (chairman, Mich. branch, 30); N. Y. Acad; N. C. Acad. Differential laboratory diagnosis in spinal fluid specimens; Brucella abortus of animal origin; mechanism of the Wassermann reaction; chemical and physical properties of syphilitic blood; a quick and reliable method for staining Gonococcus smears.

Walton, Prof. Thomas O(rr), W. Main and Kendall Aves, Kalamazoo, Mich. *Mathematics.* Kalamazoo, Mich, Sept. 5 91. A.B, Kalamazoo Col, 14; M.S, Chicago, 26; Ph.D, Michigan, 33. Prof. *math,* William and Vashti, 15–18; Colo. Sch Mines, 18–20; asst. prof, Mich. State Col, 20–21; *Kalamazoo Col,* 21–32, *prof, 32–* Math. Soc; Math. Asn.

Walton, Dr. Warren Lewis, 1411 Hamilton St, Wilmington, Del. *Organic chemistry.* La, Dec. 13, 14. B.S, Millsaps Col, 35; M.S, Louisiana, 37; Ph.D, Illinois, 41. Branch chemist, Coca-Cola Co, 37–38; *research chemist* gen. org. chem, *Hercules Powder Co,* 41–42, *explosives chem, 42–* Chem. Soc. Methoxy-substituted-dienynes.

Walton, Prof. William E(dward), University of Nebraska, Lincoln, Nebr. *Comparative psychology.* Seymour, Iowa, Nov. 4, 02. A.B, Kansas, 26, A.M, 28; Ph.D, Nebraska, 31; Iowa, 32–33. Instr. *psychol,* Nebraska, 30–32; asst, Iowa, 32–33; instr, *Nebraska,* 33–35, *asst. prof, 35–* Psychol. Asn; Midwest. Psychol. Asn. Color discrimination of the lower mammals.

Walton, W(illiam) R(andolph), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Brooklyn, N. Y, Sept. 23, 73. Grad, Stevenson Sch. of Art, Pittsburgh, Pa. Specialist and artist, State Div. Zool, Pa, 06–10; agent and expert, bur. entom. and plant quarantine, U. S. Dept. Agr, 10–17, entomologist in charge cereal and forage insect investigations, 17–23, entomologist and senior entomologist, 23–43; *retired.* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Entom. Soc. Wash. (ed. and past pres). Taxonomy of Diptera; cereal and forage insects.

Waltz, Prof. A(rthur) K(eller), 52 Bay St, Potsdam, N. Y. *Mathematics.* Chewsville, Md. B.S, Gettysburg Col, 09, M.S, 16; Ph.D, Cornell, 27. Instr. *math,* Vermont, 17–20; Pittsburgh, 20–23, 25–29; Cornell, 23–25; asst. prof, *Clarkson Tech,* 29–36, *assoc. prof, 36–* Math. Asn. The steady flow of liquid through a circular hole in an infinite plane.

Waltz, Dr. Joseph E(lmer), 1320 Delaware Ave, Wilmington, Del. *Physical chemistry.* New Palestine, Ind, July 11, 15. A.B, Indiana, 37, A.M, 38, Ph.D, 41. *Research chemist, nylon div, E. I. du Pont de Nemours and Co, 41–* Activity coefficients and transference numbers of sulfuric acid in anhydrous methanol.

Walzl, Dr. E(dward) M(cColgan), Johns Hopkins University School of Medicine, Baltimore, Md. *Otolaryngology.* DeBeque, Colo, Jan. 22, 10. A.M, Hopkins, 34, Ph.D, 35, Brooks fellow, 35–36, M.D, 42. Asst. zool, *Hopkins,* 35–36, pharmacol, *sch. med,* 36–37, instr. otology, 37–38, *assoc,* 38–42, *otolaryngol, 42–* Soc. Zool. Physiology of the molluscan heart; pharmacology of respiratory stimulants; physiology of hearing.

Walz, Prof. Frank C, University of Colorado, Boulder, Colo. *Physics.* Pueblo, Colo, Aug. 16, 99. B.S, Colorado, 22, fellow, 23, M.S, 26; Calif. Inst. Tech, 32. Instr. math, *Colorado,* 24, from instr. to *assoc. prof. physics, 25–* Physical Soc. Electrophysics; electronics; communication and geophysics.

Wampler, Prof. Fred(erick) J(acob), Medical College of Virginia, Richmond, Va. *Preventive medicine.* Harrisonburg, Va, Jan. 7, 83. A.B, Bridgewater Col, 08, A.M, 12; Med. Col. Va, 09–10; M.D, Rush, Chicago, 13; C.P.H, Hopkins, 29. Supt. and chief med. officer, Brethren Hosp, Pingtingchow, Shansi, China, 14–26; assoc. director, Council Health Educ, Shansi, 21–26; health officer, Accomac-Northampton Health Unit, Va, 27–28; *prof. prev. med. and pub. health, Med. Col. Va, 28–,* director outpatient dept, hosp. div, 28–36, *administrator outpatient clinic, 36–* Bountiful Harvest Decoration, sixth class, China, 19, fifth class, 22. Med. mem, Fact Finders Cmn, Laymen's For. Cmn. Inquiry, India and Burma, 30–31. Fel. Pub. Health Asn; fel. Am. Med. Asn; South. Med. Asn; Va. Pub. Health Asn. (sec'y, 29–31); Med. Soc. Va. (chairman cmt. indust. health, 38–). Clinical osteomalacia; calcium and phosphorus metabolism in osteomalacia; calcium and phosphorus metabolism in celiac disease; parasitic diseases.

Wampler, Dr. Roy W(ilson), Libbey-Owens-Ford Glass Co, Toledo, Ohio. *Chemistry.* Girard, Kans, Oct. 3, 98. A.B, McPherson Col, 20; M.S, Kans. State Col, 21; Ph.D, Chicago, 33. Exp. Sta, Kans. State Col, 21–22, instr. chem, col, 22–27, asst. prof, 28–29; research chemist, *Libbey-Owens-Ford Glass Co,* 29–43, *asst. director research, 43–* Chem. Soc; Ceramic Soc; Soc. Test. Mat. Physical chemistry; surface tension of aqueous solutions of organic dibasic acids and their ethyl esters; adsorption from solutions; freezing point depression and activity coefficients; glass technology; safety glass; physical and chemical properties of glass.

Wang, Dr. Chi Che, 323 Belden Ave, Chicago, Ill. *Biochemistry.* Soochow, China. A.B, Wellesley Col, 14; M.S, Chicago, 15, Ph.D, 18; Hopkins, 17. Asst, Chicago, 17–19, instr, 19–20; head dept. chem, Nelson Morris Inst, 20–30; asst. prof. biochem, Cincinnati, and fellow, Pediat. Research Foundation, 31–35; research chemist, dept. surg, Cincinnati, 35–40; chemist, Northwest. Yeast Co, 40–43; *asst. prof. physiol, med. col, Northwestern, 43–* Lecturer, Chicago, 30; research chemist, Children's Mem. Hosp, Chicago, Ill, 43–A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Inst. Med. Chicago. Chemistry of foods; blood chemistry; energy and substance metabolism of under-nourished children; energy metabolism of obese and thin people; protein and mineral metabolism of infants; metabolism in nephrosis and during puberty; vitamins.

Wangaard, Prof. Frederick F(ield), University of Washington, Seattle, Wash. *Forestry.* Minneapolis, Minn, Jan. 3, 11. B.S, Minnesota, 33; M.S, Syracuse, 35, Ph.D, 39. Instr. forestry, *Washington (Seattle),* 36–39, *asst. prof. forest products, 39–* Soc. Foresters (sec'y Puget Sound sect, 40). Physical and mechanical properties of wood; wood anatomy and technology; heat conductivity of wood.

Wangensteen, Dr. Owen H(arding), 145 Melbourne Ave, S. E, Minneapolis, Minn. *Surgery.* Lake Park, Minn, Sept. 21, 98. A.B, Minnesota, 19, M.B, 21, M.D, 22, fellow, 23, Ph.D, 25. Intern, univ. hosp, Minnesota, 22, res. surgeon, 25; fellow surg, Mayo Clinic, 24; instr, Minnesota, 26, asst. prof, 27; asst, Prof. F. deQuervain's Surg. Clinic, Berne, 27–28; assoc. prof. *surg, Minnesota,* 28–31, *prof, 31–, director dept. and surgeon in chief, hosp, 30–* Ed, 'Surgery,' 36– Samuel D. Gross award, 35; John Scott award, 41. A.A; fel. Col. Surg; Am. Med. Asn; Soc. Exp. Biol; Soc. Exp. Path; Asn. Thoracic Surg; Surg. Asn; West. Surg. Soc; Minn. Surg. Soc; Minn. Acad. Med; Int. Surg. Soc. Experimental and clinical surgery; thorax and abdomen.

Wangsgard, Dr. Alton P, Naval Research Laboratory, Washington, D. C. *Physics.* Ogden, Utah, July 27, 06. A.B, Brigham Young, 31; M.S, Utah, 33; Willard Dawson scholar, California, 32–33, 33–34; Ph.D, Pa. State Col, 40. Instr. math, schs, Utah, 34–37; physics, Utah, 37–38, asst. prof, 41–42; asst, Pa. State Col, 38–40; research thermoplastics, Nat. Carbon Co, 40–41; *physicist, Naval Research Lab, 42–* High temperature x-ray; physical properties of thermoplastics; vacuum tube circuits.

Wanless, Prof. Harold R(ollin), University of Illinois, Urbana, Ill. *Geology.* Chicago, Ill, Dec. 5, 98. B.S, Princeton, 20, fellow, 20–21, A.M, 21, fellow, Ph.D, 23. Reader *geol,* Princeton, 21–22; instr, *Illinois,* 23–26, assoc, 26–29, asst. prof, 29–37, *assoc. prof, 37–* Summers, Princeton geol. exped, S. Dak, 20–23; geologist, Ill. Geol. Surv, 25– A.A; Geol. Soc; Paleont. Soc; Geophys. Union; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Ill. Acad. (sec'y, 31, 34, v. pres, 36, pres, 38). Lithology and stratigraphy of White River formation of South Dakota; geology of the Alexis quadrangle, Illinois; geology of the Havana quadrangle, Illinois; stratigraphy of Pennsylvania rocks of Illinois; cyclic sedimentation in late Paleozoic rocks; correlation of Pennsylvanian rocks in eastern United States.

Wann, Dr. Frank B(urkett), Utah State Agricultural College, Logan, Utah. *Plant physiology.* Warsaw, Ind, April 16, 92. A.B, Wabash Col, 14; Ph.D, Cornell, 20. Teaching fellow, Shaw Sch. of Bot, 14–15; instr. bot, Cornell, 15–23, nat. research fellow biol, 23–26; *assoc. prof. bot, Utah State Col, 26–, assoc. plant physiologist, Exp. Sta, 27–* Agent, dept. hort, U. S. Dept. Agr, 31–37. A.A; Soc. Plant Physiol; Bot. Soc. Chlorosis; physiological plant diseases; nutrition of green algae.

Wannamaker, Dr. T(homas) E(lliott), Orangeburg, S. C. *Chemical engineering.* Orangeburg, S. C, Aug. 10, 09. B.S, The Citadel, 30; Ph.D, Cornell, 35. Instr, Cornell, 31–35; chem. engineer, Eastman Kodak Co, 35–37; *pres, Wannamaker Chem. Co, Inc, 37–; capt, U. S. Army.* Chem. Soc. Lubrication; photographic developers; high explosives.

Wanner, Prof. Henry E(ckert), 8 Windsor Ave, Highland Park, Pa. *Chemistry.* York, Pa, May 28, 85. B.S, Pennsylvania, 09, M.S, 21, Ph.D, 26. Prof. *chem,* Lebanon Valley Col, 10–18; assoc. prof. and later *prof, Drexel Inst, 18–* A.A; Chem. Soc. Geology; mineralogy.

Wannier, Dr. Gregory H(ugo), University of Iowa, Iowa City, Iowa. *Theoretical physics.* Basel, Switzerland, Dec. 30, 11. Louvain, 30–31; Cambridge, 33–34; Ph.B, Basel, 35. Asst, Geneva, 35–36; Swiss-Am. exchange fellow, Princeton. 36–37; instr, Pittsburgh, 37–38; asst. lecturer, Bristol, 38–39; instr,

Texas, 39–41; *lecturer physics, Iowa, 41–* Physical Soc; Schweiz. Physikalische Gesell. Statistical mechanics; ferromagnetics and liquids; spectra of insulators; electron scattering; supersonics.

Wanstrom, Prof. Ruth C(ecilia), University of Michigan, Ann Arbor, Mich. *Pathology.* Rockford, Ill, April 10, 93. A.B, Michigan, 14, M.D, 18, A.M, 24. Asst. prof. *path, med. sch, Michigan,* 31–36, *assoc. prof, 36–* Col. Physicians; Asn. Path. and Bact; Mich. State Path. Soc. (pres, 37). Erythroleucoblastosis; rare ovarian neoplasms; iron encrustation of living tissues.

Wantland, Prof. W(ayne) W(arde), Stephens College, Columbia, Mo. *Zoology.* Sheridan, Ill, Sept. 5, 05. B.S, Northwestern, 30, A.M, 32, Ph.D, 35. Sch. supt, Ill, 25–29; asst. zool, Northwestern, 30–35, instr, 35–37; prof. biol, De Paul, 35–37; dept. zool, East. Ill. State Teachers Col, 37–38; *prof. biol. sciences, Stephens Col, 38–* Gen. Educ. Board fellow, Chicago, 41. A.A; Soc. Zool; Soc. Parasitol. Parasitology; physiology; education; trichiniasis; acceleration of calcium deposition; ergosterol toxicity; parasitism of vertebrates.

Warbritton, Dr. Virgene (Mrs. Fred Kavanagh), New Bloomfield, Mo. *Cytology, Plant physiology.* Lanton, Mo, April 20, 07. A.B, Missouri, 30, A.M, 31, Ph.D, 33. Asst, Missouri, 30–31, asst. instr, 31, asst, 31–32, instr, 32–33; head dept. science, Junior Col. and High Sch, Monett, Mo, 33–35; asst, Missouri, 35–37, instr. animal husbandry, 37–40; agent, U. S. Dept. Agr, 37–40; asst. to Drs. A. F. Blakeslee and Wm. J. Robbins, Carnegie Institution and *N. Y. Bot. Garden,* 40–41, *asst, 41–* Genetic Asn; Asn. Anat; Soc. Animal Production; Soc. Zool. Cytology of endocrine glands related to reproduction; vitamins and plant growth.

Warburton, Dr. C(lyde) W(illiam), 20 W. Lenox St, Chevy Chase, Md. *Agronomy.* Independence, Iowa, Dec. 7, 79. B.S, Iowa State Col, 02, hon. Sc.D, 25. Ed, book dept, Webb Publishing Co, Minn, 11–12; asst. agriculturist, office farm management, *U. S. Dept. Agr,* 03–07, agronomist, office cereal investigations, bur. plant indust, 07–10, 12–23, director exten. work, 23–40, *deputy governor, farm credit admin, 40–* Chairman fed. govt. cmt. and v. chairman exec. board, World Poultry Cong. and Expos, Cleveland, 39. A.A; Soc. Agron. (sec'y, 15–19, pres, 25, ed, 'Jour,' 15–21); Bot. Soc. Wash; Wash. Acad. Cereal production and breeding.

Warburton, Prof. Fred W(illiam), University of Kentucky, Lexington, Ky. *Physics.* Howard, N. Y, April 21, 98. A.B, Cornell, 22, Ph.D, 27. Heckscher research asst, Cornell, 22–23, instr. *physics,* 23–27; asst. prof, Oklahoma, 27–31; *Kentucky,* 31–35, *assoc. prof, 35–* Guest, Mass. Inst. Tech, 37. A.A; Physical Soc; Asn. Physics Teachers; Ky. Acad. X-rays; Hall effect in sputtered films; electric units; magnetism; magnetic forces.

Ward, A(lger) L(uman), 319 Arch St, Philadelphia, Pa. *Organic chemistry.* Easthampton, Mass, May 4, 90. B.S, Syracuse, 14, M.S, 15, hon. Sc.D, 41. Instr, Syracuse, 14–15; org. research chemist, E. I. du Pont de Nemours and Co, 15–20; research chemist, *United Gas Improv. Co,* 20–34, *manager chem. labs, 34–* Louis E. Levy medal, Franklin Inst. Assoc. ed. and contributor, 'The Science of Petrol.' Chem. Soc; Gas Asn; Petrol. Inst; Soc. Chem. Indust; Franklin Inst. Technical synthesis of aryl amines, acetic acid, acetone, camphor, glycerine and glycols; synthesis, physical and chemical properties, polymerization, chemical utilization and cracking of hydrocarbons; catalysis; hydrocarbons in manufactured gas; cause and prevention of gums in gas distribution systems; corrosion in gas and holder waters; gas main sealing compounds; refractivity intercept.

Ward, Dr. A(rchibald) R(obinson), 1986 Waverly Ave, Detroit, Mich. *Veterinary science, Bacteriology.* Ithaca, N. Y, Sept. 12, 75. B.S. (Agr), Cornell, 98, D.V.M, 01. Asst. dairy bacter, Cornell, and dairy bacteriologist, Exp. Sta, 98–01; instr. vet. science and bacter, California, and veterinarian to Exp. Sta, 01–03, asst. prof. bacter, 03–10, director, State Hygienic Lab, 05–10; chief, V.C, P. I, 10–14; pathologist, bur. animal indust, U. S. Dept. Agr, 14–18; lab. director, Goshen Labs, Inc; asst. chief dairy research bur, *The Mathews Co, Detroit,* 23–32, *dairy bacteriologist, 32–, director dairy testing lab. and milk quality control service, 32–* Soc. Bact; Vet. Med. Asn; hon. mem. Philippine Vet. Med. Asn. The bacterial flora of the cow's udder; slimy fermentations of milk; bacteriology of market milk; infectious diseases of fowls.

Ward, Dr. Edwin St. John, Baldwinville Road, Templeton, Mass. *Pediatrics, Pathology.* Brookline, Mass, March 31, 80. A.B, Amherst Col, 00, hon. Sc.D, 25; M.D, Columbia, 04. Prof. surg, med. dept, Syrian Protestant Col, Beirut, Syria, and American Univ, Beirut, 11–30, prof. roentgenol. and dean med. faculty, American Univ, Beirut, 25–31; *med. director, Hosp. Cottages for Children, 33–* Pathologist, Henry Heywood Mem. Hosp, Gardner, Mass, 34–; Mary Lane Hosp, Ware, 35–; Leominster Hosp, 40–; Clinton Hosp, 43; acting pathologist, Worcester City Hosp, 42– Chairman cmt. pub. safety, Templeton, Mass, 41– Deputy commissioner, Am. Red Cross Cmn, Palestine, 18–19. Fel. Col. Surg; fel. Am. Med. Asn. Hydatid disease of the liver; elephantiasis of the scrotum; thoracoplasty in pulmonary tuberculosis; indications for operative treatment of gallstones; orthopedics; neurology; pathology; surgery.

Ward, Prof. Elizabeth B(urgess), Butler University, Indianapolis, Ind. *Animal ecology.* Ft. Wayne, Ind, July 8, 12. A.B, Western Col, 33; A.M, Cincinnati, 34, Ph.D, 39. Instr, histol. lab, Eclectic Med. Col, 35–36; teaching fellow zool, Cincinnati, 39–40; instr. *physiol. and health, Butler,* 40–41, *asst. prof, 41–, dean women, 40–* Summer, acting instr, Cincinnati, 39. Limnol. Soc; Ind. Acad. Seasonal population study of Entomostraca of the Cincinnati region.

Ward, Dr. Frances D(ouglas), Mott-Smith Corp, 1506 Shell Bldg, Houston, Texas. *Geology.* Sylvarena, Miss, Jan. 24, 10. A.B, Alabama, 30; A.M, Texas, 31; fellow, Rice Inst, 32–34. Ph.D, 34. Teacher, high sch, Ala, 30; asst, Rice Inst, 32; asst. to geophysicist, Shell Petrol. Corp, 34–35; v. pres, Mott-Smith Corp, 35–41. Cytology; genetics; chromosome number of two wild species of doves; production of mutations in Drosophila by alpha-rays.

Ward, Dr. George E(dward), U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Los Angeles, Calif, June 5, 08. B.S, State Col. Wash, 30; A.M, George Washington, 33; Ph.D, Georgetown, 40. Indust. fermentation, bur. chem. and soils, *U. S. Dept. Agr,* 30–40, *senior chemist, fermentation div, north. regional research lab, bur. agr. and indust. chem, 40–* Chem. Soc; Soc. Bact. Fermentation chemistry; development of new fermentation processes utilizing surplus domestic raw materials.

Ward, Prof. George F(rederic), 240 Loomis St, Burlington, Vt. *Chemistry.* Orwell, Vt, May 29, 04. B.S, Vermont, 26; M.S, St. Michael's Col, 31. *Prof. chem, St. Michael's Col,* 27– Chem. Soc; Asn. Physics Teachers. Physics.

Ward, Dr. George Gray, 101 E. 80th St, New York, N. Y. *Obstetrics, Gynecology.* London, Eng, Aug. 15, 68. Brooklyn Polytech; Holbrook Mil. Acad; M.D, L. I. Col. Hosp, 91; Berlin, 92–93. Prof. *obstet. and gynec, med. col, Cornell,* 16–34, *emer. prof, 34–; chief surgeon, Woman's Hosp, 18–; prof. clin. obstet. and gynec, Columbia, 36–* Prof, N. Y. Post-Grad. Med. Sch, 05–16, emer. prof; consulting gynecologist, N. Y. Post-Grad. Hosp; N. Y. Hosp; Home for Incurables; Booth Mem. Hosp; Monmouth Mem. Hosp, Long Branch; Lawrence Hosp, Bronxville; consulting obstetrician, Berwind Maternity Clinic. Major and surgeon, Inf, Spanish-Am. War. Fel. Gynec. Soc. (past pres); fel. Col. Surg. (founder); Am. Gynec. Club (past pres); Am. Med. Asn. (past chairman, sect. obstet. and gynec. and abdominal surg); N. Y. Acad. Med; N. Y. County Med. Soc. (past pres); N. Y. Obstet. Soc. (past pres); hon. mem. British Cong. Obstet. and Gynec; hon. fel. British Col. Obstet. and Gynec; hon. fel. Obstet. Soc. Edinburgh. Gynecology in operative therapeutics.

Ward, Dr. George W(illiam), 4007 Connecticut Ave, N.W, Washington, D. C. *Geology, Chemistry.* Dublin, Ireland, June 3, 98. B.Sc, Manitoba, 25, M.Sc, 26; Ph.D, Minnesota, 28. Asst, Minnesota, 27–28; research chemist, Minn. Geol. Surv, 28–29; chief chemist and geologist, Portland Cement Asn, 29–37; *research assoc. and Portland Cement Asn. fellow, Bur. Standards, 37–* Summers, asst, Geol. Surv. Can, 27, 28. Chem. Soc; assoc. Can. Inst. Chem. Erosive action of the Red River; chemical and optical properties of the black tourmalines; durability of aggregates and concrete; determining the suitability of aggregates for concrete structures; petrography of Portland cement clinker; structure of Portland cement pastes.

Ward, Prof. Harold B(ernard), 1124 Noyes St, Evanston, Ill. *Geology, Geography.* Mt. Pleasant, Mich, Oct. 10, 89. Chicago, 15, fellow, 16, Ph.D, 34. Prof. geog, Cent. State Teachers Col, 16; *asst. prof. geol. and geog, Northwestern, 20–* A.A; Chicago Geog. Soc. (director); fel. Royal Geog. Soc. Economic and commercial geography and geology; meteorology.

Ward, Dr. Helen L, Lindenwood College, St. Charles, Mo. *Biological science.* Lafayette, Ind, Dec. 10, 10. B.S, Purdue, 33, M.S, 36, Ph.D, 39. Teacher, high sch, Ind, 33–34; asst. biol, Purdue, 34–40; *prof. biol. sciences, Lindenwood Col, 40–* Mo. Acad. Life history of Neoechinorhynchus cylindratus.

Ward, Prof. Henry B(aldwin), University of Illinois, Urbana, Ill. **Zoology.* Troy, N. Y, March 4, 65. A.B, Williams Col, 85, Sc.D, 21; A.M, Ph.D, Harvard, 92; Göttingen, Freiburg, Leipzig and biol. stations, Naples, Heligoland and Ville-Franche-sur-Mer, 88–90; Sc.D, Cincinnati, 20; LL.D, Oregon, 32; Nebraska, 35. Instr, high sch, N. Y, 86–88; *zool,* Michigan, 93; assoc. prof. and prof, Nebraska, 93–06, head prof, 06–09; prof. and head dept, *Illinois,* 09-33, *emer. prof, 33–* State zoologist, Nebr, 93–09; dean col. med, Nebraska, 02–09. In charge biol. work, Mich. Fish Cmn, 94; assoc, biol. surv, Great Lakes, U. S. Fish Cmn, 98–09; Alaska and Pacific salmon investigations, 06–; State Board Museum Advisers, Ill, 17–; State Conservation Cmn, N. Y, 18; State Fish and Game Cmn, Oregon, 25. Ed, 'Studies from Zool. Lab, Univ. Nebr'; asst. ed, 'Am. Naturalist'; 'Wood's Reference Handbook Med. Sciences'; 'Encyclop. Amer'; founder and managing ed, 'Jour. Parasitol,' 18–32. Trustee, Science Service, 35– A.A. (sec'y, F, 01, gen. sec'y, 03, v. pres, 05, permanent sec'y, 33–37, exec. cmt, 37–41); Soc. Nat; Soc. Zool. (pres, 12); Soc. Parasitol. (pres, 25); Ecol. Soc; hon. mem. Micros. Soc. (sec'y, ed, 'Trans,' pres); Fisheries Soc. (pres, 13); assoc. Am. Med. Asn; Am. Med. Cols. (pres, 08); Am. Med. Editors' Asn; Nat. Cent. States; Nebr. Acad. (pres); Ill. Acad. (pres, 19); Soc. zool. de France; for. cor. mem. Royal Acad. Agr. Turin; for. cor. mem. Acad. Sci. Czechoslovakia; for. mem. Russian Soc. Acclim; Soc. Sci. Bohemia (regent); for. cor. mem. Venezuela Acad. Med; Int. Zool. Cong. (mem, permanent cmt). Investigations on the Great Lakes; plankton; parasites of man and domestic animals; worms; life history of Pacific salmon; stream pollution; parasites of man, of fish and of the human eye; fresh water biology; origin of parasitic fauna.

Ward, H(enry) L(evi), 1345 C St, Lincoln, Nebr. *Zoology.* York, N. Y, Oct. 8, 63. Rochester, 85; California, 20. Ward's Nat. Science Estab, 84–87, comp. anatomist, 86–87; Mex. Govt. exped. in search West Indian seal, 86; osteologist, Mex. Geog. Exploring Cmn, 87–91; dept. manager and v. pres, Ward's Nat. Science Estab, 91–02; director, Milwaukee Pub. Museum, 02–20; Kent Sci. Museum, Mich, 22–32; Neville Pub. Museum, 33–41. Mex. cmn, Paris Expos, 89; commissioner, Wis. Geol. and Nat. Hist. Surv, 16–18. Silver and bronze medals, Paris Expos, 89; diploma, Columbian Expos, 93; gold medal, Ill. Acad. Sciences, 41. A.A; Asn. Mus. (v. pres, 11, pres, 12); Wis. Research Bur. (pres, 20); Wis. Nat. Hist. Soc. (v. pres, 04–); Wis. Acad. (pres, 16–18); Wis. Archeol. Soc; Wis. Hist. Soc. Mammals; birds; meteorites; museum administration; general natural history. *(Died Dec, 1943)*

Ward, Prof. H(enry) P(eter), 2713 17th St, N. E, Washington, D. C. *Chemistry.* Worcester, Mass, July 5, 94. A.B, Clark, 16; A.M, Catholic Univ, 19, Ph.D, 23. Asst. *chem,* Wesleyan, 16–17; instr, *Catholic Univ,* 19-26, *assoc. prof, 26–* Research chemist, C.W.S, 18. A.A; Chem. Soc. Organic chemistry.

Ward, Prof. H(enry) T(ibbels), Drexel Institute, Philadelphia, Pa. *Chemical engineering.* Chatsworth, Iowa, July 25, 97. B.S, Michigan, 21, Ph.D, 31; M.S, Wyoming, 28. By-products foreman, Pittsburgh Crucible Steel Co, 22–23; chemist, Newport Dye Co, 23–24; instr. chem, Wyoming, 26–29; research assoc, eng. research dept, Michigan, 29–31; asst. prof. *chem. eng,* Mont. State Col, 31–35, assoc. prof, 35–36; asst. prof, *Drexel Inst,* 36–42, *assoc. prof, 42–, mem. eng, science and management war training cmt.* Consultant, gas div, Mont. Power Co, 35–36. Chem. Soc; Chem. Eng; Eng. Educ. Refinement of petroleum products; decomposition of formic acid with sulfuric acid; knock rating and volatility of motor fuels; utilization of natural gas; boiler water treatment; control of swimming pool water; mechanical separation and classification operations of chemical engineering; solvent extraction of lubricating oils; gas diffusion processes.

Ward, Dr. H(erbert) K(ing), Parker Rust-Proof Co, 2177 E. Milwaukee Ave, Detroit, Mich. *Physical chemistry.* Rockville, Md, March 23, 08. B.S, Maryland, 28; du Pont fellow, Pa. State Col, 32–33, Ph.D, 34. Asst, Pa. State Col, 28–32; *research chemist,* Kimberly-Clark Corp, 34–35; *Parker Rust-Proof Co, 35–* Chem. Soc; Physical Soc; Soc. Rheol. Chemical physics; x-rays; structure of liquids; metal finishing; corrosion prevention.

Ward, Dr. H(iram) Lee, Unadilla, N. Y. *Chemistry.* Laurens, N. Y, May 18, 83. A.B, Yale, 06, Ph.D, 09. Instr. chem, Swarthmore Col, 09–12; Wesleyan, 12–14, assoc. prof, 14–15; instr, Minnesota, 15–18; research physical chemist, Nat. Aniline and Chem. Co, St. Louis, 18–21; asst. prof. chem, Washington (St. Louis), 21–26, assoc. prof, 26–35; *with Unadilla Tie Co, 35–* A.A; Chem. Soc. Oxalates in analysis; distillation of tars; physical properties of organic compounds; solubility; philosophy of science.

Ward, Prof. James A(udley), Delta State Teachers College, Cleveland, Miss. *Algebra.* Timmonsville, S. C, May 19, 10. A.B, Davidson Col, 31; M.S, Louisiana, 34; Ph.D, Wisconsin, 39. Asst. prof. *math,* Davidson Col, 37–38; Tenn. Polytech, 39–40; assoc. prof, *Delta State Teachers Col,* 40–41, *prof. and head dept, 41–; lieut, U. S. Naval Res.* Math. Soc; Math. Asn. (pres, La-Miss. sect, 42). Theory of analytic functions in linear associative algebras.

Ward, Dr. J(ames) J(oseph), 220 Locust St, Clairton, Pa. *Chemistry.* Clairton, Pa, Sept. 11, 05. B.S, Carnegie Inst. Tech, 35, M.S, 38, fellow, 38–42, Sc.D, 42. Chemist, Carnegie-Ill. Steel Corp, 38; staff mem, coal research lab, Carnegie Inst. Tech, 42; *research chemist, Carnegie-Ill. Steel Corp, 42–* Chem. Soc. Chemistry of coal by-products; oxidation of aromatic hydrocarbons; high pressure catalytic hydrogenation of coal; effect of operating variables in high temperature coal carbonization.

Ward, Prof. J(ames) W(ellington), Mississippi State College, State College, Miss. *Zoology.* Weathersby, Miss, Oct. 27, 05. A.B, Alabama, 29, A.M, 32; M.S, Miss. State Col, 31; Oklahoma, 32–33; Minnesota, 36. Teaching asst, Alabama, 26–29; instr. zool. and entom, Miss. State Col, 29–32; zool, Oklahoma, 32–33; asst. prof. and later *assoc. prof. zool. and entom, Miss. State Col, 33–, supervisor med. aid, 64th training detachment, Aircrew, U. S. Army, 43–* Teaching asst, Minnesota, 36–38; collaborating entomologist, McKesson and Robbins; Miss. Game and Fish Cmn, 39– Summers, sanit. inspector, Miss. State Col, 30; inspector, Argentine ant eradication program, State Plant Board, Miss, 31, 32; entomologist in charge termite eradication, Oklahoma, 33. A.A; Soc. Parasitol; Okla. Acad; Miss. Acad. (research fund cmt, 40–); N. Y. Acad. Helminthology; medical entomology.

Ward, Dr. James W(illiam), Vanderbilt Hospital, Nashville, Tenn. *Anatomy.* Amarillo, Texas, Jan. 16, 09. B.S, Vanderbilt, 30, M.S, 31, Ph.D, 35, M.D, 40. Asst. comp. *anat,* Vanderbilt, 30–31, anat, *med. sch,* 32–35, instr, 35–40; nat. research fellow, Hopkins, 36–37; *asst. prof, Vanderbilt, 40–* A.A; Asn. Anat; Soc. Physiol. Neur. Physiological neurology.

Ward, John Thomas, 100 Beacon St. Boston, Mass. *Chemistry, Chemical engineering.* Monson, Mass, Nov. 18, 90. A.B, Clark, 14, A.M, 16. Chem. engineer, Nat. Carbon Co, 18–23; asst. prof. chem. eng, Mass. Inst. Tech, 23–26, assoc. prof. fuel and gas in charge grad. work, 26–28; director research, M. W. Kellogg Co, New York, 28–40; *v. pres. in charge tech. research radio and power sales, Boston Edison Co, 40–* C.W.S, U.S.A, 17–18. Chem. Soc; Mech. Eng; Soc. Automotive Eng. Cracking of petroleum; total heats of hydrocarbons; polymerization of hydrocarbon gases; fuels and combustion.

Ward, Justus C(onrad), 546 Custom House, Denver, Colo. *Pharmacology.* Pueblo, Colo, Oct. 27, 98. B.S, Illinois, 20. Asst. treas, Harrison-Ward Co, Ill, 21–22; chemist in charge, Colo. Exp. Sta. Lab, Rocky Ford, 22–26, in charge Rocky Ford Substa. and Exp. Sta. Lab, 27–28; agent, control methods research lab, bur. biol. surv, U. S. Dept. Agr, 28–31, assoc. pharmacologist, 31–40; *pharmacologist, wildlife research lab, fish and wildlife service, U. S. Dept. Interior, 40–* A.A; Pharmaceut. Asn; Chem. Soc; Soc. Exp. Biol. Chemistry; economic applications of deadly poisons; pharmacology of strychnine, thallium and red squill; variation of strychnine toxicity; bioassay of alkaloidal and organic poisons; toxicology; economic poisons; use of poison gases in rodent control; development of small size gas cartridges for rodent control; economic poisons for use during war time.

Ward, Dr. Lenore (Babcock), Harcum Junior College, Bryn Mawr, Pa. *Genetics.* Syracuse, N. Y, March 30, 87. A.B, Ind. State Nor. Sch, 15; A.M, Michigan, 19, Ph.D, 22. Asst, Michigan, 18–22; asst. prof. physiol. and zool, Wyoming, 26–29; head dept. biol, Port Huron Junior Col, 29–30; special lecturer genetics and eugenics, Mont. State Col, 34–37; *head biol. dept, Harcum Junior Col, Bryn Mawr, Pa,* 37– Special instr, Drexel Inst, 39–42. Summer, Carl Braun fellow, Marine

Biol. Lab, Woods Hole, 21. A.A; Mich. Acad; Colo-Wyo. Acad. Genetics of Drosophila melanogaster.

Ward, Prof. Leon S(tevens), Colorado School of Mines, Golden, Colo. *Chemistry.* Iowa, Jan. 31, 90. A.B, Park Col, 12; A.M, Colorado, 21; Ph.D, Wisconsin, 26. Teacher, high sch, 12–18; prof. *chem,* Iowa Wesleyan, 19–20; asst. prof, Colo. Agr. Col, 20–24; assoc. prof, Mich. Col. Min. and Tech. 26–27; *prof, Colo. Sch. Mines, 27–* A.A; Chem. Soc. Colloid chemistry.

Ward, Dr. Lewis E(des), State University of Iowa, Iowa City, Iowa. *Mathematics.* Plymouth, Mass, Aug. 6, 97. B.S, Harvard, 19, A.M, 20, Ph.D, 25. Instr. *math,* Rice Inst, '21–23; Harvard, 23–25; instr. and asst. prof, *Iowa,* 25–35, *assoc. prof, 35–* A.A; Math. Soc; Math. Asn; Iowa Acad. Expansion of arbitrary functions.

Ward, Prof. Marcus L(lewellyn), 1308 Cambridge Road, Ann Arbor, Mich. *Dentistry.* Howell, Mich, Aug. 5, 75. D.D.S, Michigan, 02, D.D.Sc, 05. Instr, operative techniques and operative dentistry, *sch. dentistry, Michigan,* 03–05, lecturer operative principles, 05–08, prof, 08–12, dental physics and chem, 12–19, dental metal. and crown and bridgework, 19–34, dean faculty, 16–34, *Jonathan Taft prof. dentistry, 34–* Jenkins medal, 38; Jarvie medal, 41; Callahan award, 42; Crouse award, 43. Ed, 'Am. Textbook Operative Dentistry,' 20–41. A.A; Dental Asn. (trustee, 32–35, pres, 39); fel. Col. Dentists; Asn. Adult Educ; Asn. Dental Schs. (pres, 25); Asn. Hist. Med; N. Y. Acad. Dentistry; hon. mem. Conn. State Dental Soc; hon. mem. Ohio State Dental Soc; Mich. State Dental Soc. (pres, 12); Mich. Acad; Int. Asn. Dental Research. Dental metallurgy.

Ward, Prof. Morgan, 265 S. Holliston Ave, Pasadena, Calif. *Mathematics.* New York, N. Y, Aug. 20, 01. A.B, California, 24; Ph.D, Calif. Inst. Tech, 28. Teaching fellow, *Calif. Inst. Tech,* 26–28, research fellow, 28–29, asst. prof. *math,* 29–35, assoc. prof, 35–40, *prof, 40–* Research worker, Inst. Advanced Study, 34–35. Math. Soc; Math. Asn. Number theory; algebra.

Ward, Nairne F(orsyth), Beech Aircraft Corp, Wichita, Kans. *Physical metallurgy.* Lockport, N. Y, Jan. 28, 97. M.E, Cornell, 21, M.M.E, 27. Instr. machine design and thermodynamics, Cornell, 21–27; asst. prof, *California,* 27–37; assoc. prof, 37–42; *senior methods engineer, Beech Aircraft Corp, 42–* Visiting lecturer, Boeing Sch. Aeronaut, 29–; consulting welding engineer, 34–39; mem. staff, eng, science management and war training, Kansas, 43. Min. and Metal. Eng; Welding Soc. (chairman San Francisco sect, 37, 38, v. pres, Pacific Coast, 41); Inst. Aeronaut. Sci. Grain size of steel; surface reactions and diffusional processes in steel; creep in welded steel; plastic forming of metals; development of arc welding equipment; welded designs; control spot and flash welding processes.

Ward, Prof. Nell M(arguerite), 5023 Webster St, Omaha, Nebr. *Chemistry.* Lincoln, Nebr. B.S, Nebraska, 13, A.M, 15; Columbia; Iowa State Col; Ph.D, Iowa, 39. Prin, high sch, 15–16; head dept. science, Cent. Col, 16–18; prof. *chem, Omaha,* 18–30, *assoc. prof, 30–* A.A; Chem. Soc. Analytical chemistry; determinations of cobalt and manganese.

Ward, Prof. Roland, 99 Livingstone St, Brooklyn, N. Y. *Inorganic chemistry.* Scotland, Aug. 22, 02. B.Sc, London, 26; Jeavons fellow, Western Reserve, 29–31, Ph.D, 31. Instr, Illinois, 31–32; *inorg. chem, Polytech. Inst. Brooklyn,* 32–37, *asst. prof, 37–* Chem. Soc. Chemistry of solids; kinetics of solid phase reactions; physical and chemical properties of fused salts.

Ward, Prof. Samuel, 8222 Chesterfield Ave, Parma, Ohio. *Civil engineering, Mechanics.* Tewksbury, Mass, May 17, 89. B.S, Tufts Col, 12, M.S, 20; Wisconsin; Western Reserve. Asst. civil engineer, Harbor and Land Cmn, Mass, 07–08; draftsman, Am. Bridge Co, 12–13; civil engineer, P. I, 13–16; instr. civil eng, Case, 17–20, eng. technol, 20–30; *prof. and head dept.* civil eng, *Fenn Col,* 30–40, *mech. and materials, 40–* Engineer, Ordnance Dept, 16–17; draft board, U.S.A, 17–18, C.Eng.R, 18–19. A.A; assoc. Civil Eng; Road Builders Asn. (chairman cmt. defense training); Nat. Soc. Professional Eng; Eng. Educ. (v. chairman, Ohio sect, 34). Philippine engineering; mechanized intensive agriculture; intrinsic education in civil engineering; reduction of dead load weights in highway bridges; administration of engineering education.

Ward, Dr. T(homas) G(reydon), 615 N. Wolfe St, Baltimore, Md. *Bacteriology.* Athens, La, Sept. 25, 11. Southern Methodist, 28–31; M.D, Baylor, 35; M.P.H, Hopkins, 40, D.P.H, 41. Practicing physician, 35–37; director, Tensas Parish Health Unit, St. Joseph, La, 37–39; *instr. bacter, Hopkins, 40–; lab. officer, U.S.A, 41–* Am. Med. Asn; Statist. Asn; Pub. Health Asn. Leptospirosis.

Ward, Dr. Walter E(mil), University of Southern California School of Medicine, Los Angeles, Calif. *Bacteriology.* Colo, June 21, 12. B.S, California, 35; Ph.D, Chicago, 39. Teaching asst. bacter, Chicago, 36–37, asst, 37–38; teaching fellow, *Southern California,* 38–40, *instr. med. bacter, 40–; med. microbiologist, Los Angeles County Hosp, 40–* Soc. Bact. Bacterial oxidation reduction potentials; efficiency of mechanical dishwashers; chemistry; Gaucher's disease.

Ward, Dr. (Wesley) Kyle, Jr, U. S. Department of Agriculture, 2100 Robert E. Lee Blvd, New Orleans, La. *Organic chemistry.* Beaumont, Texas, Sept. 2, 02. A.B, B.S, Texas, 23; M.S, George Washington, 26; Ph.D, Berlin, 32. Instr, Texas, 23–24; junior chemist, bur. chem. and soils, U. S. Dept. Agr, 24–28; research chemist, Hercules Powder Co, 28–36; bur. chem. and soils, *U. S. Dept. Agr,* 36–38, senior chemist, *south. regional research lab, bur. agr. chem. and eng,* 38–41, *prin. chemist, 41–* A.A; Chem. Soc; Am. Geog. Soc. Cellulose and derivatives; terpenes and related fields; chlorination and oxidation; starch and adhesives; cotton fiber properties.

Wardell, Dr. E(mma) L, 2822 Harview Ave, Baltimore, Md. *Physiological chemistry.* New Haven, Conn. A.B, Goucher Col, 08; M.S, Yale, 17; Ph.D, Iowa, 26. Instr. biochem, N. Y. Post-Grad. Med. Sch, 17–18; assoc. and asst. prof. nutrition, Illinois, 18–25; assoc. toxicologist, *Chem. Warfare Service, U. S. Army,* 27–31, 34–41, *toxicologist, 41–;* biochemist, U. S. Pub. Health Service, 31–34. A.A.

Warden, Prof. Carl J(ohn), 88 Morningside Drive, New York, N. Y. *Psychology.* Hamilton, Mo, March 18, 90. A.B, Cotner Col, 15; A.M, Nebraska, 16, fellow, 16–17; Ph.D, Chicago, 22. Instr. *animal psychol,* Wisconsin, 23–24; *Columbia,* 24–27, asst. prof, 27–37, *assoc. prof, 37–* Assoc. ed, 'Jour. Genetic Psychol,' 28–; 'Genetic Psychol. Monograph,' 28–; 'Jour. Comp. Psychol,' 37– A.A; Psychol. Asn; Nat. Inst. Psychol; East. Psychol. Asn; N. Y. Acad. (v. pres, 34). Animal and genetic psychology; psychology of learning.

Wardle, H(arriet) Newell, University of Pennsylvania, Philadelphia, Pa. *Anthropology.* Philadelphia, Pa, Feb. 26, 75. Friends' Sch, Phila; Mt. Vernon Sem, 91; Acad. Nat. Sciences Phila, 99–05. Asst. to curators, Acad. Nat. Sciences Phila, 05–20, asst. curator in charge dept. archeol, 20–29; asst, *Am. sect, museum, Pennsylvania,* 30–31, *asst. curator, 31–* Acad. Nat. Sciences Phila. del, Int. Cong. Americanists, 15. A.A; Anthrop. Asn. (exec. cmt, 32); Folk-Lore Soc; Soc. Archeol; Acad. Polit. and Social Sci; Soc. Pa. Archeol; Phila. Anthrop. Soc; Geog. Soc. Phila; Acad. Nat. Sci. Phila. Eskimo mythology; American basketry; American symbolism; North American archeology; Polynesian technology; Peruvian technology.

Wardwell, Dr. James F(letcher), 62 Broad St, Hamilton, N. Y. *Mathematics.* Rome, N. Y, Nov. 21, 09. A.B, Hamilton Col, 31; A.M, Hopkins, 34, Ph.D, 35. Instr. *math,* Hopkins, 31–35; *Colgate,* 35–42, *asst. prof,* 42– Math. Soc; Math. Asn. Set theoretic topology.

Ware, Dr. Elinor, 133 Winthrop St, Taunton, Mass. *Organic chemistry.* Geneva, N. Y. A.B, Mt. Holyoke Col, 33, Skinner fellow, 33–34, A.M, 34; univ. fellow, Yale, 36–37, Ph.D, 37. Instr. *chem,* Women's Col, Delaware, 37–38; *Russell Sage Col,* 38–42, *asst. prof, 42–* Chem. Soc. Interconversion of certain amino dibasic acids and their hydantoin derivatives.

Ware, Prof. E(than) E(arl), Florida Agricultural and Mechanical College, Tallahassee, Fla. *Zoology.* Easley, S. C, Nov. 29, 00. B.S, Bates Col, 24; Gen. Educ. Board fellow, Chicago, 30–31; M.S, Cornell, 33. Head dept. biol, Bishop Col, 24–27; instr, *Fla. Agr. and Mech. Col,* 27–28, assoc. prof, 28–30, *prof. biol. and head dept. science, 31–* Trematodes.

Ware, Capt. Frank E(dward), Purdue University, Lafayette, Ind. *Chemistry.* Miles City, Mont, Dec. 19, 97. B.S, Mont. State Col, 21; M.S, Iowa, 24; Ph.D, Iowa State Col, 30. Asst, Iowa, 22–24; instr, Des Moines, 24–26; from asst. to asst. prof, Iowa State Col, 26–30; prof. physical science and head dept, Nebr. State Teachers Col, Peru, 30–39; Slippery Rock State Teachers Col, Pa, 39–42; *capt, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Mercury derivatives of the o-chlorobenzyl radical; dissociation constants of the arsonic acids.

Ware, Dr. J(acob) O(sborn), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Kings Mountain, N. C, Jan. 29, 88. B.S, N. C. State Col, 16, M.S, 18; Ph.D, Cornell, 33. Instr. agron, N. C. State Col. 16–18, 19–20; asst. prof, col. agr, Arkansas, 20–27, assoc. prof, 27–30, prof, 30–34; *senior agronomist, div. cotton and other fiber crops and diseases, bur. plant indust, U. S. Dept. Agr, 35–* U.S.A, 18. A.A; Soc. Agron; Genetic Asn; Wash. Acad. Cotton breeding and genetics.

Ware, John M(cKee), Deep Rock Oil Corp, Tulsa, Okla. *Geology.* Kansas City, Mo, Jan. 20, 05. A.B, Missouri, 26, A.M, 27, 28–29; Columbia, 30. Asst. geol, Missouri, 27–29, instr, 29–30; micropaleontologist, Skelly Oil Co, 30–35; micropaleontologist and geologist, Burke-Greis Oil Corp, 35–40; *asst. manager land and geol. dept, Deep Rock Oil Corp, 40–* Asst, Columbia, 28–29. Micropaleontology; paleontology and stratigraphy of the frontier formation on the east side of the Wind River Mountains, Wyoming; micropaleontology of the Kansas City formation, especially Foraminifera; the Cherokee group of Oklahoma.

Ware, Prof. L(amar) M(ims), Alabama Polytechnic Institute, Auburn, Ala. *Horticulture, Forestry.* Marshallville, Ga, Aug. 10, 95. B.S, Ala. Polytech, 17, M.S, 26. Instr. hort, Ala. Polytech, 23–26, asst. prof, 26–28; prof, Miss. State Col, 29–30, acting head dept. *hort. and forestry,* 31–32; *head dept, Ala. Polytech, 32–* State nursery inspector, Ala, 23. Soc. Hort. Sci. (chairman southeast. sect, 38); assoc. Soc. Foresters; Pomol. Soc; Potato Asn. (exec. cmt, 37–39, 42); Asn. South. Agr. Workers (v. chairman forestry sect, 42). Black locust; slash pine; spacing of pines and their uses; fertilizers for vegetables and fruits; pecans; sweet potatoes as stock feed; natural drying of sweet potatoes; Alayam.

Ware, Dr. L(awrence) A(lbert), State University of Iowa, Iowa City, Iowa. *Electrical engineering.* Bonaparte, Iowa, May 21, 01. B.E, Iowa, 26, M.S, 27, Ph.D, 30, E.E, 35. Transmission engineer, Bell Tel. Labs, New York, 29–33; instr. physics, Mont. State Col, 35–36, asst. prof, 36–37; *elec. eng, Iowa,* 37–42, *assoc. prof, 42–* Elec. Eng. (sec'y Iowa sect, 41, chairman, 42); Radio Eng; Physical Soc. Electrical communication; high frequency transmission; communication circuits.

Ware, Dr. Virgil W(aldo), Rohm and Haas Co, Philadelphia, Pa. *Organic chemistry.* Elkins, W. Va, 03. B.S, Randolph-Macon Col, 26; Ph.D, Mass. Inst. Tech, 34. Chemist, Colonial Beacon Oil Co, 26–31; research chemist, E. I. du Pont de Nemours and Co, 34–41; *tech. rep, plastics dept, Rohm and Haas Co, 41–* Chem. Soc. Reaction rates of benzoyl chlorides with alcohols; micro-determination of water in organic chemicals; development of nitro-cotton and cellulose acetate plasticizers; solvent evaluation for nitro-cellulose lacquers and finishes.

Wareham, Prof. Charles M(ontgomery), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Lakewood, N. J, Jan. 7, 92. B.S, Mass. Inst. Tech, 16. Consultant water anal, 18; asst. prof. *inorg. chem, Mass. Inst. Tech,* 35–41, *assoc. prof, 41–* Chem. Soc. Inorganic chemistry.

Wareham, Dr. Richard T(hurman), Ohio State University, Columbus, Ohio. *Botany.* Shelby, Ohio, Oct. 2, 05. Wooster Col, 24–26; A.B, Ohio State, 31, M.S, 35, Ph.D, 39. Teacher, Hartman Sch, 26–27; Coy Sch, 27–30; Clay Sch, 31–34; grad. asst. *bot, Ohio State,* 34–35, asst, 35–36, *instr, 36–* A.A; Bot. Soc; Sullivant Moss Soc; Ohio Acad. Bryology; ecology.

Wares, Dr. Gordon W(ebb), State Teachers College, Milwaukee, Wis. *Astrophysics.* Tynecastle, Sask, Can, Feb. 10, 11. B.S, Washington (Seattle), 33; univ. fellow, California, 34–35; univ. fellow, Chicago, 36–38, M.S, 37, Ph.D, 40. Teaching asst. astron, California, 35–36; prof. physics, math. and astron, Brenau Col, 39–41; *instr. physics, Wis. State Teachers Col, 41–* Astron. Soc; Astron. Soc. Pacific. Stellar spectrophotometry; partially degenerate stellar models.

Warfel, H(erbert) E(lmer), Yale University, New Haven, Conn. *Vertebrate zoology.* Yorktown, Ind, Sept. 5, 02. A.B, West. State Col, Colo, 26; M.S, Oklahoma, 31. Teacher, pub. schs, 20–31; asst. prof. zool, Mass. State Col, 31–37; Cornell, 37–38; New Hampshire, 39–43; *sci. consultant, Bingham oceanog. lab, Yale, 43–* Biologist, State Fish and Game Dept, N. H, 39–42. Summers, mammalogist, Okla. Biol. Surv, 30–31; instr, Maine, 33. Mem. board, N. H. Conservation Federation. Soc. Ichthyol. and Herp; Soc. Mammal; Fisheries Soc; Limnol. Soc; N. Y. Acad; N. H. Acad. Mammalogy; ichthyology.

Warfield, Prof. Calvin N(orwood), Woman's College, University of North Carolina. Greensboro, N. C. *Physics.* Baltimore, Md, Dec. 6, 01. B.E, Hopkins, 23, A.M, 25, Ph.D, 26. Asst. physicist, Edgewood Arsenal, 24–25; assoc. prof. *physics,* Richmond, 26–29; *prof. and head dept, Woman's Col, North Carolina, 29–; senior physicist, Nat. Advisory Cmt. Aeronautics, 41–* A.A; Physical Soc; Asn. Physics Teachers; N. C. Acad. (v. pres, 41). Radiations.

Warga, Dr. Mary E(lizabeth), University of Pittsburgh, Pittsburgh, Pa. *Astrophysics.* Donora, Pa, Feb. 5, 04. B.S, Pittsburgh, 26, scholar, 26–28, M.S, 28, Ph.D, 37. Indust. asst, Mellon Inst, 28–30, indust. fellow, 30–33; *Pittsburgh,* 34–36, instr. and later *asst. prof. physics and director cooperative spectroscopic lab, 36–* Optical Soc. Spectroscopy; solar radiation; magnesium triplets in arc and solar spectra; natural ultra-violet radiation; radiometry; industrial applications of spectrochemical analysis in metallurgy, ceramics and industrial hygiene.

Waring, Prof. Charles E(mmett), Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Physical chemistry.* Philadelphia, Pa, Jan. 24, 09. B.S, Muskingum Col, 31; M.S, Ohio State, 34, Ph.D, 36. Instr. *physical chem, Polytech. Inst. Brooklyn,* 36–38, *asst. prof, 38–* Lalor Foundation fellow, Trinity Col, Oxford, 39–40. Chem. Soc. Kinetics of thermal decomposition of gaseous higher hydrocarbons and tetralkyls of silicon, tin and lead; thermal decomposition of diazonium; salts in solution; magneto-optic rotation of binary liquid systems.

Waring, G(erald) A(shley), U. S. Geological Survey, Washington, D. C. *Geology.* Ouray, Colo, Sept. 6, 83. A.B, Stanford, 05. U. S. Geol. Surv, 06–17; oil geologist, Tulsa, Okla, 17–18; chief geologist, Trinidad Petrol. Develop. Co, Ltd, B. W. I, 19–23; geologist, Margay Oil Corp, 24–30; U. S. Geol. Surv, 31–37; Socony-Vacuum Oil Co, 38–40; *senior geologist, U. S. Geol. Surv, 40–* Hydrologist, Brazil Govt, 10–13. A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Okla. Acad. (v. pres, 29). Ground water; mineral springs; petroleum geology; coal.

Waring, Prof. (Gerald) Worden, Tulane University, New Orleans, La. *Physical chemistry.* Washington, D. C, Jan. 8, 15. B.Chem, Cornell, 36; fellow, Mass. Inst. Tech, Ph.D, 40. Teaching fellow, Mass. Inst. Tech; instr. *chem, Tulane,* 40–42, *asst. prof, 42–* Chem. Soc. (sec'y, La. sect, 42). Helium gas thermometry; phase rule problems.

Waring, Prof. J(ames) H(oward), 24 University Place, Orono, Maine. *Pomology.* Tyrone, Pa, Sept. 4, 89. B.S, Pa. State Col, 20, M.S, 21; Ph.D, Mich. State Col, 30. Asst. exp. pomol, Pa. State Col, 20–21, instr, 21–23, asst. prof, 23–25; *prof. hort, Maine, 25–* A.A; Soc. Hort. Sci; Pomol. Soc. Apple tree fertilization, growth and yield; plum thinning, growth and yield; apple stocks for winter injury prevention.

Waring, Prof. James J(ohnston), University of Colorado School of Medicine, Denver, Colo. *Medicine.* Savannah, Ga, Aug. 11, 83. Ph.B, Yale, 04; M.D, Colorado, 13. Asst. prof. *med, sch. med, Colorado,* 28–33, *prof, 33–* A.A; assoc. Am. Physicians; fel. Col. Physicians; Clin. and Climat. Asn. (pres, 41); Tuber. Asn. (pres, 35); Am. Med. Asn; hon. mem. Asn. Study Allergy; Denver City and County Med. Soc. (past pres); Denver Sanatorium Asn. (past pres). General medicine; diseases of the chest; allergy.

Waring, Sister Mary Grace, Marymount College, Salina, Kans. *Chemistry.* Oregon, Mo, May 12, 97. A.B, Creighton, 21; M.S, Kans. State Col, 26; Ph.D, Catholic Univ, 31; Institutum Divi Thomae, 39. *Head dept. chem, Marymount Col, 22–, directress, Rose Waller research lab, 40–* A.A; Chem. Soc; Kans. Acad. Organic chemistry; cancer.

Waring, Dr. R(obert) K(err), N. J. Zinc Co, Palmerton, Pa. *Physics.* Baltimore, Md, 03. B.S, Va. Mil. Inst, 24; Ph.D, Hopkins, 28. Instr. elec. eng, Va. Mil. Inst, 25–26; physics, Hopkins, 27–28; research investigation, *N. J. Zinc Co,* 28–33, chief fundamental metal. sect, *research div,* 33–38, *assoc. chief div, 38–* Physical Soc; Min. and Metal. Eng. Metallurgy; applied physics.

Warkany, Dr. Josef, Children's Hospital, Cincinnati, Ohio. *Pediatrics.* Vienna, Austria, March 25, 02. M.D, Vienna, 26. Intern, Vienna, 26–27, asst, 27–32; *fellow, research foundation, Children's Hosp, 32–; asst. prof. pediat, col. med, Cincinnati, 33–* Asst. attending pediatrician, Children's Hosp;

attending pediatrician, pediat. service, and attending physician, contagious div, Cincinnati Gen. Hosp. Soc. Pediat. Research; Am. Med. Asn; Pediat. Soc; Cent. Soc. Clin. Research. Carbohydrate metabolism; phosphorus and calcium metabolism in relation to rickets and D-hypervitaminosis; vitamin D determination in blood serum; atypical chondrodystrophy; cirrhosis of the liver in children; congenital diaphragmatic hernia; experimental production and prevention of congenital malformations.

Warmke, Dr. H(arry) E(arl), Carnegie Institution, Cold Spring Harbor, L. I, N. Y. *Botany.* Twin Falls, Idaho, Aug. 29, 07. A.B, Stanford, 31, Ph.D, 35. Prof. and head dept. biol, Seton Hall Col, 35–38; asst, *dept. genetics, Carnegie Institution,* 38–40, *cytologist, 41–* A.A; Genetics Soc; Bot. Soc; Soc. Nat; Soc. Develop. and Growth; Torrey Bot. Club. Chromosome structure; cytogenetics of sex in Melandrium; experimental polyploidy and gene action.

Warner, Prof. A(rthur) H(oward), University of California at Los Angeles, Los Angeles, Calif. *Physics.* McComb, Ohio, Aug. 26, 93. A.B, Colorado, 17, B.S, 20; Ph.D, Calif. Inst. Tech, 27. Instr. *physics,* Colorado, 19–21; assoc, *California at Los Angeles,* 21–26, instr, 26–35, *asst. prof, 35–; mem. Nat. Defense Research Cmt, radiation lab, Mass. Inst. Tech, 41–; lieut. col, U. S. Army, 42–* Physical Soc. Effect of temperature on photoelectric effect in tungsten; long wave-length limit for tungsten.

Warner, Dr. C(arroll) Gardner, University of Maryland Medical School, Baltimore, Md. *Pathology.* Md, March, 03. A.B, Maryland, 24, M.D, 28. From instr. to *assoc. prof. path, med. sch, Maryland, 29–* Baltimore City Med. Soc.

Warner, Prof. E(arle) H(orace), Route 5, Box 770, Tucson, Ariz. *Physics.* Cedar Falls, Iowa, Sept. 17, 89. A.B, Denver, 12; A.M, Illinois, 14, Ph.D, 18. Asst. physics, Illinois, 12–17, instr, 17–18; research engineer, West. Elec. Co, New York, 18–20; prof. *physics,* Lawrence Col, 20–23; asst. prof, *Arizona,* 23–27, *prof, 27–, head dept, 34–* Physical Soc; Asn. Physics Teachers; Deuts. Physik. Gesell. The direct current corona; solar radiation; atmospheric electricity; solar radiation.

Warner, Dr. Edward N(elson), Ohio State University, Columbus, Ohio. *Ichthyology.* Patchogue, N. Y, Aug. 19, 06. A.B, Marietta Col, 28; M.S, Ohio State, 31, Ph.D, 40. Asst. *zool, Ohio State,* 28–29, *instr, 29–* A.A; Micros. Soc; Ohio Acad. Embryology.

Warner, Edward P(earson), Civil Aeronautics Board, Washington, D. C. *Aeronautics.* Pittsburgh, Pa, Nov. 9, 94. A.B, Harvard, 16; B.S, Mass. Inst. Tech, 17, M.S, 19. Instr. aeronaut. eng, Mass. Inst. Tech, 17–19; chief physicist, Nat. Advisory Cmt. Aeronautics, 19–20; assoc. prof. aeronaut. eng, Mass. Inst. Tech, 20–24, prof, 24–26; asst. sec'y for aeronautics, U. S. Navy, 26–29; ed, 'Aviation,' 29–35; consulting engineer, 35–38; econ. and tech. adviser, Civil Aeronautics Authority, 39, *mem, Civil Aeronautics Board, 39–* Non-res. prof, Mass. Inst. Tech, 26–36, lecturer, 36– Chairman subcmt. aircraft structures, Aeronautics Safety Code Cmt, 23–26; mem, Nat. Advisory Cmt. Aeronautics, 29–, chairman subcmt. operating problems and mem. subcmt. aerodyn. materials; v. chairman, Fed. Aviation Cmn, 34–35. Aeronaut. engineer, A.S, 17–18. A.A; Mech. Eng. (chairman, aeronaut. div, 23); Soc. Automotive Eng. (v. pres. for aviation, 22, councilor, 25, 1st v. pres, 29, pres, 30); Am. Acad; fel. Inst. Aeronaut. Sci; hon. fel. Royal Aeronaut. Soc. Aeronautical engineering; economics of air transportation; aerostatics; airplane design-aerodynamics; aviation handbook; airplane design-performance.

Warner, Prof. Eldon D(ezelle), Adams State Teachers Col, Alamosa, Colo. *Endocrinology.* Whitewater, Wis, Oct. 5, 11. B.Ed, Wis. State Teachers Col, 32; Ph.M, Wisconsin, 38, Ph.D, 41. *Asst. prof. science, Adams State Teachers Col, 41–* Thyroid-pituitary-gonad interrelationship in parabiotic rats.

Warner, Dr. E(mory) D(ean), University of Iowa College of Medicine, Iowa City, Iowa. *Pathology.* North English, Iowa, July 5, 05. B.S, Iowa, 27, M.D, 29. Asst. res. *path,* Rochester, 29–30; asst, *col. med, Iowa,* 30–31, instr, 31–33, asst. prof, 33–38, *assoc. prof, 38–* A.A; Soc. Exp. Path; Asn. Path. and Bact; Soc. Clin. Path; Soc. Exp. Biol; Cent. Soc. Clin. Research. Physiology of blood clotting; hemorrhagic diseases; role of the liver in prothrombin production; methods for measuring prothrombin; vitamin K and prothrombin; transfusion nephritis.

Warner, Dr. Glen W(ones), Wilson College, Chicago, Ill. *Physics.* Decatur, Ind, Oct. 23, 83. A.B, Indiana, 13, Ph.D, 37; A.M, Chicago, 20. Asst. prin, high sch, Ind, 13–17; prin, Ariz, 17–18; lab. asst. *physics,* Chicago, 18–19; head dept, Ill, 19–26; *instr,* Crane Junior Col, 27–33; *Wilson Col, 34–* Summer, mem. summer work shop, Chicago, 40. A.A; Asn. Physics Teachers (mem. board, 38–41); Physical Soc; Cent. Asn. Sci. and Math. Teachers (sec'y, 20–24, pres, 30); Ill. Acad. Effect of frequency and temperature on the velocity of ultrasonic waves in gases.

Warner, J(acob) D(ewey), North Florida Experiment Station, Quincy, Fla. *Agronomy.* Greenwood, S. C, Oct. 26, 99. B.S, Clemson Col, 22; M.S, Kentucky, 23. Asst. agronomist, Clemson Col, 23–29; Exp. Sta, *Florida,* 29–33, assoc. agronomist, *N. Fla. Exp. Sta,* 33–34, agronomist, 34–39, agronomist acting in charge, 39–41, *agronomist in charge, 41–* Soc. Agron. Fertilizers; field crop and pasture improvement.

Warner, Prof. J(ohn) C(hristian), 1344 Denniston St, Pittsburgh, Pa. *Chemistry.* Goshen, Ind, May 28, 97. A.B, Indiana, 19, A.M, 20, Ph.D, 23. Research chemist, Barrett Co, New York, 18; Cosden Co, 21; instr. chem, Indiana, 19, 21–24; research chemist, Wayne Chem. Co, 25–26; instr. chem, *Carnegie Inst. Tech,* 26–28, asst. prof, 28–33, assoc. prof. theoret. chem, 33–36, metal, 36–38, *prof. chem. and head dept, 38–* Chem. Soc. (councilor, 37–40; chairman, Pittsburgh sect, 42); Min. and Metal. Eng; Electrochem. Soc; fel. N. Y. Acad; Pa. Chem. Soc. Physical chemistry of metallurgical reactions; electrochemistry; solution properties; mechanism and kinetics of reactions in solution; conductivity in mixed solvents; infrared absorption spectra; dielectric constants.

Warner, K(enneth) F(isher), Hyattsville, Md. *Animal husbandry.* Roca, Nebr, Sept. 10, 91. A.B, Nebraska, 12; M.S, Minnesota, 15. Instr. animal husbandry, Minn. Agr. Col, 12–15; exten. animal husbandman, Nebraska, 16–19; Armour and Co, Chicago, 20–21; meat investigations, *animal husbandry div, bur. animal indust, U. S. Dept. Agr,* 21–36, *meat exten, 36–* U.S.A, 18. Soc. Animal Production. Meat characteristics in relation to causative factors of production, storage and preparation.

Warner, Dr. Lawrence A(llen), 2 Walnut St, Takoma Park, Washington, D. C. *Geology.* Monroe, Ohio, April 20, 14. A.B, Miami (Ohio), 37; Ph.D, Hopkins, 42. Asst, undergrad. geol. lab, Hopkins, 37–39; geologist, U. S. Antarctic Exped, Marie Byrd Land, 39–41; *mem. Alaskan branch, U. S. Geol. Surv, 42–* Summers, field work, U. S. Nat. Park Service, Ind, 37; U. S. Geol. Surv, Colo, 38, 39. Min. and Metal. Eng. Structure and petrography of the Edsel Ford ranges; geology of Antarctica; ore deposits in southeastern Alaska.

Warner, Dr. Lucien (Hynes), Owenoke Park, Westport, Conn. *Psychology.* Irvington, N. Y, Sept. 9, 00. A.B, Oberlin Col, 21; Ph.D, Columbia, 27. Instr, Peking Univ, 22–23; N. Y. Univ, 26–27; nat. research fellow, 29–31; advising geneticist, Fortunate Fields, Inc, Mont Pelerin, Switzerland, and L'Oeil qui Voit, Vevey, 31–32; research assoc, Pomona Col, 33–35; Duke, 35–37; research director, Hartwell, Jobson and Kibbee, N. Y, 38; v. pres. in charge research, Opinion Research Corp, Princeton, N. J, 39–41; pres, West. World Imports, Inc, New York, 41–42; *chief field intel. div, bur. overseas intel, Office War Information, 42–* A.A; Psychol. Asn; fel. N. Y. Acad. Opinion research.

Warner, Dr. M(ary) La Vinia, Blossom Hill School, Brecksville, Ohio. *Psychology.* Dundas, Ohio, Aug. 11, 95. B.S, Ohio (Athens), 18; A.M, Columbia, 22; Ph.D, Indiana, 28. Teacher, pub. schs, Ohio, 14–16; asst. director, Bur. Educ. and Psychol. Research, and supervisor special classes, Youngstown, Ohio, 18–22; director dept. special educ, Ohio (Athens), 22–28; pub. schs, Bloomington, Ind, 26–28; clin. psychologist, Bur. Juvenile Research, Columbus, 28–31; head dept. psychol, Pa. Training Sch, Morganza, 31–34; *supt, Blossom Hill Sch. of Cleveland, Brecksville, 34–* Summer, lecturer, Cincinnati, 27. Mem. board, Children's Bur, Columbus, 30– A.A; assoc. Psychol. Asn; assoc. Asn. Applied Psychol; Asn. Study Feebleminded; Ohio Educ. Research Asn; Int. Council Educ. Exceptional Children (exec. sec'y, 22–27). Education; influence of mental level in the formation of boys' gangs; the remedial treatment of a case of defective speech due to deafness; special children.

Warner, Dr. Robert C(ollett), U. S. Department of Agriculture, Philadelphia, Pa. *Chemistry.* Denver, Colo, Aug. 31, 13. B.S, Calif. Inst. Tech, 35; M.S, N. Y. Univ, 37, Ph.D, 41.

Teaching fellow biol, Wash. Sq. Col, N. Y. Univ, 35–36, chem, col. med, 36–41; asst. chemist, *east. regional research lab*, bur. agr. chem. and eng, *U. S. Dept. Agr*, 41–42, *assoc. chemist, bur. agr. and indust. chem*, 42– Alkaline hydrolysis of proteins; hydration of protein crystals; electrolyte balance; ascorbic acid oxidation.

Warner, Robert K(eeler), University Club, Washington, D. C. *Mining engineering.* Syracuse, N. Y, Sept. 24, 90. Ph.B, Yale, 11, E.M, 21. Engineer, Colo, 15; asst. preparation mining methods sect, 'Peele's Handbook,' 16–18; instr. mining, Yale, 19–23, asst. prof, 23–34; *consulting engineer, 34–; chief analysis and reports sect, metals and minerals branch, Office Econ. Warfare,* Asst. ed, 'Handbook Mineral Dressing,' 37–42. Min. and Metal. Eng; Econ. Asn. Mining methods; ore dressing; economics of mining.

Warner, Dr. Robert M(alcolm), Firestone Plantations Co, Monrovia, Liberia, W. Africa. *Plant ecology.* Clyde, Ohio, June 16, 08. A.B, Ohio Wesleyan, 30; M.S, Iowa State Col, 37, Ph.D, 40. Instr. biol, American Univ, Beirut, 31–35; teaching fellow bot, Iowa State Col, 36–37, 38–39, instr, 37–38, 40–41; res. supervisor, hillcultural exp. farm, soil conservation service, U. S. Dept. Agr, Floris, Iowa, 39–40; *botanist, research dept, Firestone Plantations Co, 41–* Summers, ecologist, U. S. Resettlement Admin, 36; agent, soil conservation service, U. S. Dept. Agr, 37, 38; asst, Ohio Exp. Sta, 41. A.A; Ecol. Soc. Influence of plant succession on soil erosion; interaction of plant cover and soil structure; rubber; plant physiology; ecology and physiology of Hevea.

Warner, Prof. R(obert) W(ilberforce), 902 W. 23rd St, Austin, Texas. *Electrical engineering.* Freeport, Ill, Aug. 20, 89. A.B, Washburn Col, Sc.D, 41; B.S, Kansas, 18, E.E, 28. Junior engineer, Henry L. Doherty, Colo, 19–20; asst. to chief engineer, Topeka Edison Co, 20–21; instr. elec. eng, Kansas, 21–22; Wisconsin, 22–23; switchboard engineer, Gen. Elec. Co, 23–24; substa. engineer, Kansas City Power and Light Co, 24–28; asst. prof. *elec. eng*, Kansas, 28–29, assoc. prof, 29–33; prof, 33–38, head dept, 36–38; *prof. and chairman dept, Texas, 38–* Exchange prof, Mass. Inst. Tech, 35–36. Engineer tests, Ordnance Dept, 18. Fel. Elec. Eng. (dist. sec'y, 30–32; chairman cmt. educ, 41); Eng. Educ. (dist. sec'y, 30); Texas Acad. Lightning area; lightning troubles and high voltage disturbances on power transmission lines; natural earth currents; cathodic control of corrosion.

Warner, Prof. Russell G(illette), 7 Alden Ave, New Haven, Conn. *Electrical engineering.* New Haven, Conn, Nov. 18, 92. Ph.B, Yale, 14, E.E, 20. Westinghouse Elec. and Mfg. Co, Pittsburgh, 14–16; instr. and asst. prof. elec. eng, Yale, 16–39; *elec. engineer,* Pub. Utilities Co. of Conn, 30–39; *United Illum. Co, 39–* Chairman, Conn. Tech. Council, 40–42. Elec. Eng. (director, 40–); Eng. Educ; Conn. Soc. Civil Eng. Alternating current machinery; utility rates; power economy.

Warner, Dr. S(elden) R(ichard), 1602 L St, Huntsville, Texas. *Botany.* Dunnsville, Va, Jan. 27, 85. B.S, Col. of William and Mary, 10; M.S, Cornell, 23; Ph.D, Chicago, 25. *Head dept. biol,* high sch, Va, 10–12; *Sam Houston State Teachers Col, Texas, 12–* Lackland fellow, Mo. Bot. Garden. A.A; Ecol. Soc; Texas Acad. (v. pres). Ecology and taxonomy of plants.

Warner, W(illiam) L(e Roy), Watertown Arsenal, Watertown, Mass. *Metallurgy.* Burlington, Vt, March 17, 97. B.S, Union (N. Y), 20, M.S, 22. Instr. math, Union (N. Y), 20–22; commercial eng. dept, Gen. Elec. Co, Schenectady, 22–27, welding research and develop, 27–31; *welding engineer, Watertown Arsenal, 31–* Assoc. Welding Soc. Arc welding and its applications; weldability of alloy steels.

Warner, Prof. W(illiam) Lloyd, University of Chicago, Chicago, Ill. *Anthropology, Sociology.* Calif, Oct. 26, 98. A.B, California, 25; fellow, Rockefeller Foundation, 26–27; fellow, Australian Nat. Research Council, 27–29. Instr. anthrop. and asst. prof. social anthrop, Peabody Museum, Harvard, 29–35; assoc. prof. *anthrop. and sociol, Chicago,* 35–41, *prof, 41–* Sci. exped, Australia, 26–29; research, Harvard Business Sch, 30–35; Chicago, 35– Sociol. Soc; Ethnol. Soc; Anthrop. Asn. Anthropology of the northern tribes of Australia; sociology of a modern American city.

Warren, Dr. A(ndrew) J(ackson), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Public health.* Hurdle Mill, N. C, May 16, 91. M.D, Tulane, 14; C.P.H, Hopkins, 30. County health officer, Rowan County, 18; asst. state health officer, N. C, 19; city health officer, Charlotte, N. C, 20; field staff, *int. health div, Rockefeller Foundation,* 21, acting epidemiologist and director rural health, Kans, 21–22, asst. state health officer of rural health work, Oregon, 23, adviser, Nat. Dept. Health, Mex, 24–26, fellowship adviser, 28–37, *asst. director, 36–, in charge work in Europe, Africa and Near East, 38–, mem. health cmn, 40–* Consultant to U. S. Sec'y War and mem, Board Investigating Epidemic Diseases in Army, 41–; consultant health and welfare sect, Tenn. Valley Authority, 41– Mem. visiting cmt, sch. pub. health, Harvard. Fel. Pub. Health Asn; Soc. Parasitol; Soc. Trop. Med. (councilor; mem. cmt. hon. members, 42–; cmt. postwar responsibilities in trop. med, 43). Public health administration; hookworms; parasitology; malaria.

Warren, Prof. A(rthur) Emerson, 136 Bold St, Hamilton, Ont, Can. *Zoology.* Everett, Mass, Feb. 14, 97. B.A, Acadia, 23; Ph.D, Harvard, 33. Asst. biol, Yale, 23–26; instr, Milton Acad, Mass, 26–29; teacher, high sch, N. Y, 29–31; asst. zool, Harvard, 31–32, Austin teaching fellow, 32–33; asst. prof. biol, *McMaster,* 33–40, *assoc. prof,* 40–42, *zool, 42–* A.A; Soc. Zool; Asn. Anat; Soc. Growth and Develop; N. Y. Acad; Can. Physiol. Soc; Can. Conservation Asn; Soc. Biol. Toronto. Experimental embryology; development of limbs in the frog and the chick; xanthophores in Fundulus; growth in mollusks.

Warren, Prof. B(ertram) E(ugene), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Waltham, Mass, June 28, 02. B.S, Mass. Inst. Tech, 24, M.S, 25, Sc.D, 29. Instr. *physics, Mass. Inst. Tech,* 26–34, assoc. prof, 34–38, *prof, 38–* Ceramic Soc; Soc. X-Ray and Electron Diffraction (pres, 42); Physical Soc. X-rays; metals; x-ray study of the structure of silicates; structure of glass.

Warren, Prof. Charles H(yde), Yale University, New Haven, Conn. *Geology.* Watertown, Conn, Sept. 27, 76. Sheffield Sci. Sch, 96, Ph.D, Yale, 99. Instr. miner, Sheffield Sci. Sch, Yale, 00–01; Mass. Inst. Tech, 01–04, asst. prof, 04–09, assoc. prof, 09–12, prof, 12–22; Sterling prof. geol, *Yale,* 22–38, *prof. miner, 38–, dean, Sheffield Sci. Sch, 22–, chairman div. science and math. master, Trumbull Col, 38–* A.A; Geol. Soc; Philos. Soc; Am. Acad. Chemical mineralogy; petrography and mineralogy.

Warren, Prof. Charles O(scar), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Physiology.* Boston, Mass, Aug. 1, 05. A.B, Cornell, 27, M.D, 37; Ph.D, N. Y. Univ, 33. Asst. biol, N. Y. Univ, 27–29, 31–33; instr. physiol, med. col, Cornell, 39–40; Lewis Cass Ledyard Junior fellow, New York Hosp, 40–41; instr. anat, *med. col, Cornell,* 41–42, *asst. prof. anat. and physiol, 42–* Physiol. Soc; Asn. Anat. Metabolism of bone marrow and blood cells.

Warren, Prof. Dana T(hurston), Municipal University of Omaha, Omaha, Nebr. *Physics.* Kobe, Japan, Oct. 8, 06. A.B, Yale, 28, Ph.D, 34. Teacher, Doshisha Univ, Kyoto, Japan, 28–30; instr. *physics,* Yale, 35–36; asst. prof, *Munic. Univ. Omaha,* 37–41, *assoc. prof, 41–* Physical Soc. Ultraviolet spectra of iodine.

Warren, Dr. D(on) C(ameron), Kansas State College, Manhattan, Kans. *Genetics.* Saratoga, Ind, July 16, 90. A.B, Indiana, 14, fellow, 15–17, A.M, 17; fellow, Columbia, 22–23, Ph.D, 23. Sci. asst, Carnegie Institution, 14–15; field agent entom, Exp. Sta, Ala. Polytech, 17–19; asst. state entomologist, State Board Entom, Ga, 19–21; *poultry geneticist, Kans. State Col, 23–* Poultry Science Asn. prize, 33; Borden award, 40. A.A; Soc. Nat; Soc. Zool; Genetics Soc; Poultry Sci. Asn. (pres, 41). Genetics of Drosophila and poultry.

Warren, Prof. Harry V(erney), 1816 Western Parkway, Vancouver, B. C, Can. *Geology, Mineralogy.* Anacortes, Wash, Aug. 27, 04. B.A, British Columbia, 26, B.A.Sc, 27; Rhodes scholar, Oxford, 26–29, B.Sc, 28, D.Phil, 29. Commonwealth Fund fellow, Calif. Inst. Tech, 29–32; lecturer *miner. and petrol, British Columbia,* 32–36, asst. prof, 36–39, *assoc. prof, 39–* Consulting geol. engineer. Fel. Geol. Soc; Min. and Metal. Eng; Can. Inst. Min. and Metal; Asn. Professional Eng. B. C; assoc. Inst. Min. and Metal. Great Britain. Lead and zinc deposits in southwestern Europe; grunerite in the High Pyrenees; relation between the noble and base metals in the western United States; gold and silver deposits in the Pacific Northwest; production of strategic minerals in British Columbia.

Warren, Prof. Herbert S(tetson), Hahnemann Medical College, Philadelphia, Pa. *Anatomy.* New York, N. Y, Aug. 24, 87. B.S, Col. City of N. Y, 11; A.M, Columbia, 20;

Ph.D, Stanford, 26. *Asst. prof. biol, Temple, 30–* Marine Biol. Lab, Woods Hole. A.A; Soc. Parasitol; Entom. Soc; Genetics Soc; Limnol. Soc; Micros. Soc; Genetic Asn; Calif. Acad. Phyllopod Crustaceae; embryology of Artemia salina; human anatomy.

Warren, Howard S(aunders), 420 Lexington Ave, New York, N. Y. *Electrical engineering.* Oldtown, Maine, March 3, 73. A.B, Stanford, 98. Develop. and research work, Bell Tel. System, 99–38; protection develop. engineer, Am. Tel. and Tel. Co, 19–34; director protection develop, Bell Tel. Labs, 34–38; *consulting engineer, 38–* Hon. mem, Joint Cmt. Inductive Interference, Calif, 12–17; chairman research subcmt, Am. Cmt. Electrolysis, 16–35; Am. Research Cmt. on Grounding, 36– A.A; fel. Elec. Eng. (chairman board examiners, 43–). Inductive effects of railroad electrification; coordination of power and telephone systems; telephone protection; electrolysis; lightning.

Warren, Dr. Kenneth Lyle, Apt. 5, Carlson Apts, Hollywood, Fla. *Physics.* Battle Creek, Mich, Dec. 3, 06. B.S, Battle Creek Col, 28, M.S, 30; Ph.D, Mich. State Col, 35. Instr. physics and math, Battle Creek Col, 30–33; math, Mich. State Col, 35–36; head div. physical science, Grand Rapids, 36–42, coordinator and instr, Civilian Pilot Training Service, 39–42; *lieut, U. S. Naval Res, and instr. aerol, U. S. Naval Air Navigation Sch, 42–* A.A; Asn. Physics Teachers; Physical Soc; Math. Soc. Molecular physics; kinetic theory of gases.

Warren, L(ewis) E(ugene), U. S. Food and Drug Administration, Washington, D. C. *Chemistry.* Hillsdale, Mich, Aug. 14, 76. Hillsdale Col, 93–99; Ph.C, Michigan, 03, fellow, 05–07, B.S, 07, hon. M.S, 32. Asst. chem, Hillsdale Col, 98–99; chemist, Merck and Co, Rahway, N. J, 03–05; food and drug inspection chemist, bur. chem, U. S. Dept. Agr, 07–09; assoc. chemist, lab, Am. Med. Asn, 09–17, 19–25; chief research chemist, Warner and Co, 17–19; pharmaceut. chemist, bur. chem, U. S. Dept. Agr, 25–28, *senior chemist, chem. sect, drug div, food and drug admin,* 28–39; *Fed. Security Agency, 39–* Sec'y, U. S. Pharmacopoeial Convention, 30– Ebert prize, Pharmaceut. Asn, 08, 11. Chem. Soc; Pharmaceut. Asn; Asn. Official Agr. Chem. (ed. cmt. methods analysis, 28–). Pharmaceutical and plant chemistry; poisonous plants; analysis of medicines; analytical methods for drugs.

Warren, Prof. L(loyd) A(rthur) H(eber), University of Manitoba, Winnipeg, Man, Can. *Mathematics.* Balderson, Ont, Nov. 18, 79. M.A, Queen's (Can), 02, fellow, 02–04; fellow, Clark, 04–06; Ph.D, Chicago, 13. Tutor math, Queen's (Can), 02–04; asst, Clark, 05–06; lecturer, Queen's (Can), 06–10; *Manitoba,* 10–12, asst. prof, 12–27, prof, 27–37, *prof. actuarial science and head dept, 37–* Fel. Actuarial Soc; fel. Inst. Actuaries; fel. Casualty Actuarial Soc; Statist. Asn; Math. Asn; Royal Astron. Soc. Can. (pres, Winnipeg branch, 15, 19, 28, 29); Winnipeg Sci. Club; fel. Royal Astron. Soc. Actuarial science; insurance; astronomy; celestial mechanics; the problem of three bodies.

Warren, Dr. Madeleine F(ield), 55 Shattuck St, Boston, Mass. *Physiology.* Greenfield, Mass, March 9, 03. A.B, Oberlin Col, 25; Ph.D, Radcliffe Col, 31. Asst. physiol, Mt. Holyoke Col, 25–27; instr. biol, Simmons Col, 27–28; research fellow *physiol, sch. pub. health, Harvard,* 31–32, instr, 32–35, assoc, 35–37, 39–41, *asst. prof, 41–* Am. Asn. Univ. Women fellow, Copenhagen, 34–35. Physiol. Soc. Lymphatics.

Warren, Dr. Marshall Ray, Wm. S. Merrell Co, Lockland Station, Cincinnati, Ohio. *Pharmacology.* Somerset, Ky, Aug. 31, 10. A.B, DePauw, 33; A.M, Cincinnati, 36, Ph.D, 39. Asst. zool, Cincinnati, 34–39; *asst. pharmacologist, Wm. S. Merrell Co, 39–* A.A. Development of new drugs and medicinals.

Warren, Dr. Mortimer, Maine General Hospital, Portland, Maine. *Medicine.* Cumberland Mills, Maine, Dec. 17, 73. A.B, Bowdoin Col, 96, hon. Sc.D, 31; M.D, Hopkins, 00. Asst. clin. path, med. col, Cornell, 02–10; *pathologist,* Roosevelt Hosp, 10–16; *Maine Gen. Hosp, 22–* Special commissioner for infantile paralysis control, Maine, 30–32. Major, M.C, 17–19. A.A; Am. Med. Asn; Soc. Clin. Path; fel. Col. Physicians. Clinical pathology; hematology.

Warren, Dr. Nell, University of Southern California, Los Angeles, Calif. *Psychology.* Athens, Ohio, Jan. 24, 05. A.B, Pacific, 27; A.M, Southern California, 31, Ph.D, 34. Instr. *psychol, Southern California,* 32–37, *asst. prof, 37–, head dept, 38–,* lecturer speech, 33–34; *capt, Air Corps, U. S. Army, 42–* Summer, lecturer, Wisconsin, 37; Washington (Seattle), 40. A.A; Psychol. Asn; Asn. Applied Psychol; Psychometric Soc; West. Psychol. Asn. Experimental phonetics; laterality; motor skills; legal psychology.

Warren, Prof. Paul A(lanson), Tufts College, Medford, Mass. *Botany.* Dover, Maine, June 22, 93. B.S, Maine, 15; fellow, Michigan, 19–22, Ph.D, 22. Asst. plant geneticist, Carnegie Institution, 15–17; prof. bot, Med. Col. of Va, 22–28; assoc. prof. biol, Col. of William and Mary, 22–28, *prof. bot,* 28–31; *Tufts Col, 31–, chairman dept. biol, 40–* A.A; Bot. Soc; Genetics Soc; Mich. Acad; Va. Acad. Genetics of tomatoes.

Warren, Prof. P(ercival) S(idney), 10958 89th Ave, Edmonton, Alta, Can. *Geology.* Brechin, Ont, April 15, 90. A.R.C.S, London, 19; B.A, Toronto, 20, Ph.D, 24. Lecturer *geol, Alberta,* 20–22, asst. prof, 23–26, assoc. prof, 27–32, *prof, 32–* Asst. geologist, Geol. Surv. Can, 26– Geol. Soc; Paleont. Soc; Royal Soc. Can. Paleontology; stratigraphy.

Warren, Dr. S. Reid, Jr, 937 Harper Ave, Drexel Hill, Pa. *Electrical engineering.* Philadelphia, Pa, Jan. 31, 08. B.S, Pennsylvania, 28, M.S, 29, Sc.D, 37. *Research assoc, med. research cmt, Nat. Tuber. Asn, 29–;* instr. *elec. eng, Pennsylvania,* 32–39, *asst. prof, 39–, asst. director x-ray lab, Moore sch. elec. eng, 36–,* assoc. *radiol. physics, grad. sch. med,* 38–42, *asst. prof, 42–* A.A; Elec. Eng; Hist. Sci. Soc. Engineering and physical problems of apparatus and techniques of the medical use of x-rays.

Warren, Dr. Shields, 195 Pilgrim Road, Boston, Mass. **7Pathology.* Cambridge, Mass, Feb. 26, 98. A.B, Boston, 18; M.D, Harvard, 23. Asst, path. lab, Boston City Hosp, 23–25; instr. *path, Harvard Med. Sch,* 25–36, *asst. prof, 36–; lieut. commander, U. S. Naval Res.* Pathologist, New Eng. Deaconess Hosp, 27–; New Eng. Baptist Hosp, 28–; Huntington Mem. Hosp, 28–42; Pondville State Hosp, 28–; consulting pathologist, House of the Good Samaritan, 27–; Channing Home, 35–; director, State Tumor Diagnosis Service, Mass, 28–A.A; Am. Med. Asn; Asn. Cancer Research (v. pres, 41, pres, 42–); Soc. Exp. Path. (sec'y, 34–36, councilor, 37–; pres, 40); Asn. Path. and Bact; Soc. Exp. Biol. Pathology of diabetes mellitus, tumors and radiation.

Warren, Dr. Stafford L(eak), Strong Memorial Hospital, Rochester, N. Y. *Radiology.* Maxwell City, N. Mex, June 19, 96. A.B, California, 18, A.M, M.D, 22. Asst. path, Hopkins, 22; intern, Mass. Gen. Hosp, Boston, 23–24, asst. roentgenol, 25; res. physician, Huntington Mem. Hosp, 25; assoc. prof. med, in charge radiol, *sch. med. and dentistry, Rochester,* 25–40, *prof. radiol, 40–* Chairman cmt. gonorrhea, Int. Conf. Fever Therapy, New York, 37. Am. Neisserian Med. Asn. (exec. cmt); Soc. Clin. Invest; Asn. Cancer Research. Physiological effects of radiation, x-ray, ultra-violet and high frequency current; cardiac and blood diseases; tumors; effects of artificially produced fever; use of isotypes as biological tracers; biophysics.

Warren, T(heodore) R(oosevelt), 1734 N. E. Halsey St, Portland, Oregon. *Dairy husbandry.* Boise, Idaho, May 22, 04. B.S, Idaho, 27; M.S, Kans. State Col, 28. Asst. dairy husbandry, Kans. State Col, 27–29, county agr. agent, 29–30; instr. dairy husbandry, Idaho, 30–35; emergency agr. asst, Idaho County, 33; *west. field rep, Am. Jersey Cattle Club, 33–* Dairy Sci. Asn. Animal nutrition and genetics.

Warren, Dr. T(homas) E(dward), 560 Booth St, Ottawa, Ont, Can. *Chemical engineering.* North Augusta, Ont, June 20, 04. B.A, Queen's (Can), 23, B.Sc, 25; M.Sc, McGill, 26; Sc.D, Mass. Inst. Tech, 29. Asst. and assoc, lab. applied chem, Mass. Inst. Tech, 26–29; chem. engineer, Fed. Phosphorus Co, Ala, 29; *engineer, fuel research labs, Can. Dept. Mines, 29–* Dissociation pressures of ammonium orthophosphates; oxidation of hydrocarbons; high pressure in the synthesis of aromatics; manufacture of diphenyl; the effect of pressure on the pyrolysis of methane; hydrogenation of coal, coal tar and petroleum.

Warren, Walter C(yrus), 609 N. Eufaula St, Eufaula, Ala. *Geology.* Bremerton, Wash, May 17, 07. B.S, State Col. Wash, 32, M.S, 33. Junior geologist, Wash. Geol. Surv, 33; junior topographic engineer, *U. S. Geol. Surv,* 34, field asst, 36–37, *junior geologist, 37–* Geol. Soc. Wash. Tertiary stratigraphy of Cascade Mountains, Washington.

Warren, W(illia)m B(ird), 586 Audubon Ave, Pittsburgh 16, Pa. *Chemistry.* Chicago, Ill, July 13, 02. A.B, California, 25; A.M, Columbia, 27. Tech. staff, Bell Tel. Labs, 25–30;

staff, coal research lab, Carnegie Inst. Tech, 30–38; *director develop, Fisher Sci. Co, 38–* Chem. Soc. Preparation and determination of chemical and physical properties of microphonic carbons; apparatus and process development; coal carbonization and oxidation.

Warren, Prof. William D(wight), 805 E. 17th St, Ada, Okla. *Chemistry.* Akron, N. Y, July 9, 96. B.S, Cornell, 20, M.S, 26, Ph.D, 30. Analyst, Cuban Am. Sugar Co, 20–21; chief chemist, Commercial Lab, 22–25; instr, Western Col, 26–29; *prof. inorg. chem, E. Cent. State Col, Okla, 30–; mem. staff, War Production Board, 42–* Inorganic chemistry.

Warren, Prof. William H(omer), R. D. 2, Moretown, Vt. *Chemistry.* Charleston, S. C, Nov. 4, 66. A.B, Harvard, 89, A.M, 91, Ph.D, 92. Chemist, E. R. Squibb and Sons, Brooklyn, N. Y, 92–96; N. Y. Quinine and Chem. Works, Brooklyn, 96–97; consulting chemist, 97–98; prof. chem, sch. med, Washington (St. Louis), 98–11, dean, 08–11; asst. prof, Clark, 11–12; prof, Wheaton Col. (Mass), 12–17; Peerless Color Co, Plainfield, N. J, 19–22; Noil Chem. and Color Co, 22–25; prof. *chem, Clark,* 25–37, *emer. prof, 37–* Chem. Soc; St. Louis Acad; Deuts. Chem. Gesell. Nitro derivatives of metabromtoluol; reactions of sodic alcoholates with tribrom-dinitrobenzol and tribrom-trinitro-benzol; turmerol; picrolonates of certain alkaloids; apparatus for absolute alcohol; case of alcaptonuria.

Warth, Dr. A(lbin) H(enry), 29 York Court, Baltimore 18, Md. *Chemistry.* Stapleton, N. Y, March 26, 85. B.S, Columbia, 07; D.Sc, Am. Int. Acad, 30. Chemist, Lackawanna Steel Co, 07; Procter and Gamble Mfg. Co, 08; chief chemist, J. L. Hopkins Co, 10; research chemist, Gen. Elec. Co, 12; Celluloid Co, 15; *chem. director, Crown Cork and Seal Co, 15–* Chairman board trustees, Am. Int. Acad. A.A; Chem. Soc; fel. Inst. Chem; Inst. Food Technol. Food; beverages; casein and its industrial applications; waxes; packaging food products; manufacture of bottle caps.

Warthen, Dr. H(arry) J(ustice), Medical College of Virginia, Richmond, Va. *Surgery.* Port Norfolk, Va, 01. M.D, Virginia, 25; Freiburg, 32–33. House officer, St. Elizabeth's Hosp, Richmond, 25–26, res. surgeon, 26–27; asst. surgeon and res. surgeon, Hopkins and Hopkins Hosp, 27–32, instr. *surg,* 27–32; asst. prof, *Med. Col. of Va,* 33–38, *assoc. prof, 38–* Am. Med. Asn; South. Med. Soc; South. Soc. Clin. Surg; South. Surg. Soc; Va. Acad. Intestinal obstruction; carcinoma of bowel; plastic surgery.

Warthin, Prof. A(ldred) S(cott), Jr, Vassar College, Poughkeepsie, N. Y. *Paleontology.* Ann Arbor, Mich, May 14, 04. B.S, Michigan, 25; Ph.D, Columbia. Asst. prof. *geol, Vassar Col,* 29–35, *assoc. prof, 35–* Paleont. Soc; Soc. Econ. Paleont. and Miner; Geol. Soc. Paleozoic micropaleontology.

Wartman, Frank(lin) S(cord), 374 S. 11th East St, Salt Lake City, Utah. *Metallurgy.* Phoenix, Ariz, Aug. 2, 99. B.S, Arizona, 21, M.S, 23. Junior chemist, *U. S. Bur. Mines,* 21–26, asst. metallurgist, 26–35, assoc. metallurgist and later *metallurgist, 35–* Min. and Metal. Eng. Metallurgy of copper, titanium and manganese.

Wartman, Dr. William B(echmann), Western Reserve University, Cleveland, Ohio. *Pathology.* Philadelphia, Pa, June 26, 07. B.S, Pennsylvania, 29, M.D, 32. Intern, Lankenau Hosp, Philadelphia, Pa, 33–35; demonstrator *path, Western Reserve,* 35–37, instr, 37–39, Hanna research fellow, 38–39, *asst. prof, 39–, pathologist in charge, univ. hosps, 39–; major, Med. Corps, U. S. Army, 41–* Asn. Path. and Bact; Soc. Exp. Path; Asn. Cancer Research; Am. Med. Asn; Asn. Hist. Med; Int. Asn. Geog. Path. Chemotropism of leucocytes; venous blood pressure; occlusion of coronary arteries and myocardial infarction; history of tumors.

Warttman, Prof. Paul, Mississippi State College, State College, Miss. *Chemistry.* Cedar Falls, Iowa, July 5, 95. A.B, Iowa State Teachers Col, 18; M.S, Wisconsin, 21; Sage fellow, Cornell, 23–24, du Pont fellow, 24–25, Ph.D, 25. Asst. *chem,* Wisconsin, 19–21; prof, Concordia Col, 21–23; *assoc. prof,* Miss. Agr. and Mech. Col, 25–32, *Miss. State Col, 32–* Chem. Soc. Heavy metal azidodithio carbonates; reaction of sulfur trioxide and hydrogen cyanide.

Warwick, Dr. B(ruce) L(ester), Agricultural and Mechanical College of Texas. College Station, Texas. *Genetics.* Aledo, Ill, Dec. 17, 93. D.V.M, Iowa State Col, 19; M.S, Wisconsin, 22, Ph.D, 25. Asst. vet. science, Wisconsin, 21–23, asst, 25–26; agent animal husbandry, U. S. Dept. Agr, 23–26; asst. animal indust, Ohio Exp. Sta, 26–29; asst. prof. genetics and vet. science, Wisconsin, 29–30; *animal husbandman and geneticist, Exp. Sta, Agr. and Mech. Col. Texas, 30–* A.A; Genetic Asn; Soc. Animal Production; Vet. Med. Asn; Genetics Soc; Soc. Zool; fel. Texas Acad. Genetics in sheep, goats and swine; genetics of disease resistance in mammals.

Warwick, C(harles) Laurence, 260 S. Broad St, Philadelphia, Pa. *Engineering.* July 29, 89. B.S, Pennsylvania, 09, C.E, 26. Asst. prof. struct. eng, Pennsylvania, 09–19; *sec'y-treas, Am. Soc. Test. Mat, 19–; consultant specifications and chief specifications branch, War Production Board.* A.A; Civil Eng; Soc. Metals. Engineering materials; structural engineering; testing materials; engineering specifications.

Wascher, Herman, University of Illinois, Urbana, Ill. *Soils.* Champaign, Ill, Aug. 4, 99. B.S, Illinois, 24, M.S, 34. Asst. *soil surv, Exp. Sta, Illinois,* 26–30, first asst, 30–34, *assoc,* 34–35, *asst. chief, 35–* Soil Sci. Soc. Soil survey; peat; texture of glacial till.

Washa, Dr. G(eorge) W(illiam), 1114 Shorewood Blvd, Madison, Wis. *Mechanics.* Milwaukee, Wis, May 6, 09. B.S, Wisconsin, 30, M.S, 32, Ph.D, 38. Instr. and later *asst. prof. mech, Wisconsin, 30–* Summers, research technician, State Highway Cmn, Wis, 36. Wason medal, Am. Concrete Inst, 41. Concrete Inst; Soc. Metals. Plastic flow of concrete slabs; effects of certain variables on the elastic properties of concrete; comparison of the physical and mechanical properties of hand rodded and vibrated concrete made with different cements.

Washburn, Dr. A(lbert) L(incoln), Hanover, N. H. *Geology.* New York, N. Y, June 15, 11. A.B, Dartmouth Col, 35; Ph.D, Yale, 42. Mem, Nat. Geog. Soc. exped. to Mt. McKinley, 36; asst. geologist, Boyd East Greenland exped, 37; geol. investigations Can. arctic, 38–41; *lieut, Air Corps, U. S. Army, 42–* Trustee, Clark Sch, 39– A.A; fel. Am. Geog. Soc; Geophys. Union; fel. Can. Geog. Soc. Geomorphology; glacial geology.

Washburn, Dr. Alfred H(amlin), 2257 Ash St, Denver, Colo. *Pediatrics.* Boston, Mass, March 14, 95. A.B, Amherst Col, 16; M.D, Harvard, 21. Instr. *pediat,* med. sch, Oregon, 25; California, 26–28, asst. prof, 28–30, assoc. prof, 30; *sch. med, Colorado,* 30–40, *research prof, 40–; director, Child Research Council, Denver, Colo, 30–* A.A; Pediat. Soc; Soc. Pediat. Research; Soc. Research Child Develop; Soc. Exp. Biol; Boylston Med. Soc. Leukemia; chloroma; purpura; rheumatic heart disease; blood diseases in childhood; respiration in infancy; blood cell stains; growth and development studies.

Washburn, Prof. E(dward) Roger, University of Nebraska, Lincoln, Nebr. *Physical chemistry.* Big Rapids, Mich, Sept. 22, 99. B.S, Michigan, 22, M.S, 23, Ph.D, 26. *Nebraska, 26–,* asst. prof. *chem,* 29–34, assoc. prof, 34–41, *prof, 41–* Chem. Soc. (chairman, Nebr. sect, 30, sec'y-treas, 36–38, councilor, 40–). Physical chemistry of solutions of non-electrolytes; surface films.

Washburn, Dr. Harold W(illiams), 1110 Armada Drive, Pasadena, Calif. *Geophysics.* Jacksonville, Oregon, June 23, 02. B.S, California, 24, Ph.D, 32; M.S, Mass. Inst. Tech, 27. Asst, Mass. Inst. Tech, 25–27; student engineer, Gen. Elec. Co, 27–28; instr. elec. eng, California, 28–29, asst. prof, 29–31; instr, Mass. Inst. Tech, 32–33; chief physicist in charge research lab, West. Geophys. Co, Los Angeles, 33–37; *v. pres. in charge research, Consolidated Eng. Corp, 37–* Geophys. Union; Physical Soc; Soc. Explor. Geophys. Electrical breakdown of liquids; Kerr cell electro-optical shutter; seismic prospecting; mass spectroscopy.

Washburn, Dean H(omer) C, 864 14th St, Boulder, Colo. *Pharmacy.* Greenwich, Ohio, Jan. 8, 76. Ph.C, Michigan, 02, B.S, 04. Instr. pharmacy, Oklahoma, 04–05, prof. and dean sch. pharmacy, 05–11; prof, *Colorado,* 11–13, *dean col. pharmacy, 13–* Major, Inf, 17–19, lieut. col, Inf. Res, 20–23, col, 23– A.A; Am. Geog. Soc; Pharmaceut. Asn; Res. Officers Asn; Colo. Pharmacal Asn. Materia medica; pharmacognosy.

Washburn, Ruth Wendell, 5 Acorn St, Boston, Mass. *Psychology.* Northampton, Mass, Jan. 19, 90. A.B, Vassar Col, 13; A.M, Radcliffe Col, 22; Ph.D, Yale, 29. Asst, Iowa, 22–23; psycho-clinic, Yale, 23–29, research assoc. clinic child develop, Inst. Human Relations, 29–34, asst, 37–38, asst. prof. child develop, univ, 34–38; *consultant child develop, 38–* A.A; Psychol. Asn. Child psychology; smiling and laughing of infants; social behavior; children have their reasons.

Washburn, Prof. Sherwood L(arned), College of Physicians and Surgeons, Columbia University, 630 W. 168th St, New York, N. Y. *Primate anatomy.* Cambridge, Mass, Nov. 26, 11. A.B, Harvard, 35, Ph.D, 40. Instr. *anat, col. physicians and surg, Columbia,* 39–42, *asst. prof, 42–* Soc. Physical Anthrop; Anthrop. Asn. Primatology and human evolution; Asiatic monkeys.

Washburne, Alva C(ourtenay), Pittsfield, Mass. *Mathematics.* Mt. Auburn, Ill, 66. Purdue, 84–88; U. S. Mil. Acad, 88–90. Asst. civil engineer, Lafayette, Ind, 82–84; instr. math. and mil. tactics, N. Y. Mil. Acad, Cornwall-on-Hudson, 90–91; Cheltenham Acad, Pa, 91–92; instr, Ogontz Sch. for Young Ladies, 91–92; Ossining Sem, 92–93; St. John's Sch, N. Y, 92–93; asst. prof. math, Mass. Col, 93–95; actuarial dept, Metropolitan Life Ins. Co, N. Y, 95–06; actuary, Hartford Life Ins. Co, 06–10; assoc. actuary, *Berkshire Life Ins. Co,* 10–11, actuary, 11–38, *emer. actuary, 38–* A.A; Math. Soc; Math. Asn; assoc. Actuarial Soc; fel. Statist. Asn. Applied mathematics; engineering; actuarial science.

Washburne, Dr. Chester W(esley), Room 2603, 149 Broadway, New York, N. Y. *Geology.* Eugene, Oregon, Nov. 17, 83. A.B, Oregon, 05, Sc.D, 32; Harvard, 06–07; Chicago, 07–08. Field asst, U. S. Geol. Surv, 00–06, asst. geologist, 07–08, 09–11, 13–14; *consulting geologist, New York, 14–* Special lecturer, Harvard, 22; Wisconsin, 22; Chicago, 22, 24, 27; Oregon, 24, 32; Columbia, 27; Princeton, Cincinnati, Louisiana, Texas, Stanford and California, 32. Mex. Eagle Oil Co, 08–09. Explor, Patagonia, 11–13; oil fields, W. Africa, 14–15; U. S. and S. Amer, 16–24; Alaska, Australia and New Zealand, 25–26; Brazil, 28–29; New Brunswick, 35; W. Texas, 36; Cuba and Venezuela, 37. Fel. Geol. Soc; Soc. Econ. Geol; Asn. Petrol. Geol; Min. and Metal. Eng. Migration, concentration and metamorphism of petroleum; origin of normal faults; mechanics of faulting.

Washburne, Dr. R(obert) N(iles), 4133 Blakiston St, Philadelphia. Pa. *Chemistry.* Pownal. Vt. Sept. 13, 02. A.B, Williams Col, 24, A.M, 27; Ph.D, Hopkins, 28. Nat. research fellow chem, Princeton, 28–30; fellow by courtesy, Hopkins, 30–31; *research chemist, Rohm and Haas Co, Phila, 31–* Chem. Soc. Reaction kinetics; catalytic mechanism.

Washer, Dr. Francis E(arl), 5307 York Lane, Bethesda, Md. *Physics.* Pennellville, N. Y, July 21, 05. A.B, Cornell, 28; M.S, Purdue, 30, Ph.D, 36. Asst. physics, Purdue, 28–30, 32–35; instr. physics and elec. eng, Clarkson Col, 30–32; junior physicist *optics, Bur. Standards,* 35–40, asst. physicist, 40–43, *assoc. physicist, 43–* X-rays and crystal structure; optics; lenses and cameras used in airplane photography for map making and in design of optical equipment.

Washko, Dr. John B(lasius), 11 Highland Hills, Knoxville, Tenn. *Agronomy.* Hatfield, Mass, Dec. 27, 11. B.S, Rutgers, 36, M.S, 38; Ph.D, Wisconsin, 41. Asst. agron, Rutgers, 36–38; Wisconsin, 38–41; *asst. prof. agron, Tennessee, and assoc. agronomist, Exp. Sta, 41–* A.A; Soc. Agron. Soybeans; drying of hybrid seed corn; conducting varietal trials; forage crop and pasture research.

Wasley, Dr. William L(ingel), University of Wisconsin Medical School, Madison, Wis. *Organic chemistry.* Chicago, Ill, Aug. 22, 13. B.S, Chicago, 35; M.S, Louisiana, 36; Ph.D, Stanford, 38. Instr. chem, Armour, 38–40; *cancer research chemist, med. sch, Wisconsin, 40–* Chem. Soc. Synthetical organic chemistry; problems in cancer research.

Wasow, Dr. Wolfgang (Richard), Calton Court, Calton Road, New Rochelle, N. Y. *Mathematics.* Vevey, Switzerland, July 25, 09. Göttingen, 33; Ph.D, N. Y. Univ, 42. *Instr. math,* Goddard Col, 39–40; Conn. Col. for Women, 41–42; *N. Y. Univ, 42–* Math. Soc. Differential equations, in particular boundary layer problems.

Wassermann, Prof. F(riedrich), University of Chicago, Chicago, Ill. *Anatomy.* Munich, Germany, Aug. 13, 84. M.D, Munich, 10. Prof. anat. and head dept. histol. and embryol, Munich, 10–37; assoc. prof. *anat, Chicago,* 38–43, *prof, 43–* A.A; Asn. Anat; Soc. Growth and Develop; Int. Asn. Dental Research. Histology; chromosomes; mitochondria; causal analysis of mitosis; histogenesis and histophysiology of adipose tissue; growth of glands; mineral metabolism of teeth by radio-active phosphorus; formation of enamel in teeth.

Wasteneys, Prof. Hardolph, University of Toronto, Toronto, Ont, Can. *Experimental biology.* Richmond, Eng, April 6, 81 Ph.D, Columbia, 16. Asst. govt. chemist, Queensland, Australia, 00–03; chemist and biologist, Brisbane Board Waterworks, 03–09; asst, Rockefeller Inst, 10–13, assoc. exp. biol, 13–16; assoc. prof. pharmacol, California, 16–18; asst. prof. *biochem, Toronto,* 18–20, assoc. prof, 20–25, *prof, 25–, head dept, 28–* A.A; Soc. Exp. Biol; Soc. Biol. Chem; fel. Royal Soc. Can; Can. Physiol. Soc. (councilor, 37–); Biochem. Soc. Gt. Britain; London Chem. Soc. Water purification; oxidation in sea urchin eggs; antagonistic salt action; artificial parthenogenesis; heliotropism; enzyme chemistry.

Watanabe, Dr. Kenichi, University of Hawaii, Honolulu, Hawaii. *Spectroscopy.* Honolulu, Hawaii, Dec. 17, 11. B.S, Calif. Inst. Tech, 36, Ph.D, 40. Asst, Calif. Inst. Tech, 39–40; *instr. math, Hawaii, 40–* Physical Soc; Optical Soc. Resonance broadening; atmospheric ozone.

Watenpaugh, H(oward) N(orbert), New Mexico College of Agriculture and Mechanic Arts, State College, N. Mex. *Agronomy, Soils.* Solitude, N. C, Oct. 12, 99. B.S, Oregon State Col, 23; M.S, Mont. State Col, 27; Pa. State Col, 27–28, 34–35; Nebraska, 40–41. Asst. farm crops specialist, Oregon State Col, 23–25; asst, Mont. State Col, 25–27; instr. agron, Pa. State Col, 28–29; asst. prof. agron. and soils, N. Mex. Col, 29–31; exten. specialist agron. and irrig, Arizona, 31–34; assoc. prof. soil technol, Pa. State Col, 34–35; agron, N. Mex. Col, 35–36; regional soils specialist, region 12, bur. agr. econ, U. S. Dept. Agr, 36–41; mem. Nat. Resettlement Admin, Salem, Oregon, 41–42; *assoc. agronomist and assoc. prof. agron, N. Mex. Col, 42–* Soc. Agron. Influence of reaction of subsoil on the growth and root development of alfalfa; preservation of manure; cotton quality; crop fertilization; land classification.

Waterfall, Wallace, 7558 Colfax Ave, Chicago, Ill. *Acoustics.* Columbia City, Ind, May 27, 00. B.S, Illinois, 23, Eng. Physicist, 31. Director research, eng. dept, Celotex Corp, 25–42; *mem. staff, div. war research, Columbia, 42–* A.A; fel. Acoustical Soc. (sec'y, 29–); Am. Inst. Physics (board governors); Soc. Heat. and Vent. Eng. Architectural acoustics; sound absorption and transmission; the measurement of noise; thermal insulation; building materials.

Waterhouse, Prof. George B(ooker), Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy.* Sheffield, Eng, May 25, 83. B.Metal, Univ. Sheffield, 01, D.Metal, 37; Ph.D, Columbia, 07. Instr, Columbia, 05; metallographist, metallurgist and metal. and inspecting engineer, Lackawanna Steel Co, Buffalo, 05–22; *prof. metal, Mass. Inst. Tech, 22–* Chairman advisory cmt, metal. div, Bur. Standards; chairman and director alloys of iron research, Eng. Foundation. Min. and Metal. Eng. (chairman, iron and steel div, 29, director, 34–, exec. cmt, 36–); Am. Iron and Steel Inst; Soc. Test. Mat; Soc. Metals (trustee, 34–36, v. pres, 36, pres, 37); British Iron and Steel Inst; British Inst. Metals. Metallurgy of iron and steel.

Waterman, Prof. Alan T(ower), Harvard University, Cambridge, Mass. *Physics.* Cornwall-on-Hudson, N. Y, June 4, 92. A.B, Princeton, 13, A.M, 14, Ph.D, 16. Instr. physics, Cincinnati, 16–17; Yale, 19–23, asst. prof, 23–30, assoc. prof; *mem. staff, Sloane physical lab, Harvard.* Chief reader and chief examiner physics, Col. Ent. Exam. Board. Ed. board, 'Am. Jour. Science.' Lieut, meteorol. sect, Sig.C, 17–19. A.A; fel. Physical Soc. Conduction of electricity through solids; thermionic and photoelectric emission and allied effects.

Waterman, Prof. Allyn J(ay), Williams College, Williamstown, Mass. *Embryology.* Cleveland, Ohio, 02. A.B, Oberlin Col, 25; A.M, Western Reserve, 27; Ph.D, Harvard, 31. Asst, Western Reserve, 25–27; instr. biol, Williams Col, 27–28; Austin teaching fellow and asst, Harvard, 28–31; Cmn. Relief Belgium Educ. Foundation fellow, Univ. Libre de Bruxelles, 31–32; instr. *biol,* Brooklyn Col, Col. City of N. Y, 32–34; asst. prof, *Williams Col,* 34–41, *assoc. prof, 41–* Instr, Marine Biol. Lab, Woods Hole, 36–41, in charge invert. course, 41–, mem. corp. Asn. Zool; Soc. Growth and Develop; Asn. Anat. Experimental embryology and morphology.

Waterman, Dr. Alma M(ay), 11 Bow St, Cranston, R. I. *Forest pathology.* Cranston, R. I, Sept. 23, 93. A.B, Brown, 15, A.M, 16, Ph.D, 28. Collaborator, *U. S. Dept. Agr,* 16–17, field asst, *div. forest path, bur. plant indust,* 17–18, asst. forest path, 18–22, junior pathologist, 22–29, *asst. pathologist, 29–* A.A; Phytopath. Soc; Mycol. Soc. Diseases of ornamental and shade trees, especially conifers.

Waterman, Prof. Earle L(ytton), University of Iowa, Iowa City, Iowa. *Sanitary engineering.* Glover, Vt, Sept. 1, 85. B.S, Vermont, 07, C.E, 13. Asst. instr. civil eng, Pa. State Col, 07–09, instr, 09–11, asst. prof, 11–14, assoc. prof. hydraul. and sanit. eng, 14–19; pub. health, exten. div, *Iowa,* 19–22. *sanit. eng, col. eng,* 22–25, *prof, 25–; civil and sanit. engineer, 22–* Summers, special engineer, State Dept. Health, Mich, 23; Pa, 24; state sanit. engineer, State Board Health, Vt, 31–40. Civil Eng. (pres, Iowa sect, 26, exec. cmt, sanit. eng. div, 36–41, chairman, 41); Pub. Health Asn; Eng. Educ; Water Works Asn. (sec'y, Mo. Valley sect, 29–; director, 38–41); Iowa Eng. Soc. (pres, 28); Iowa City Eng. Club (pres, 24, 34); Iowa Wastes Disposal Asn. (pres, 34, 35). Sewage treatment; water purification; sanitation; water supply engineering.

Waterman, Prof. Frank A(llan), 65 Paradise Road, Northampton, Mass. *[1]Physics.* Oswego, N. Y, July 9, 65. A.B, Princeton, 88, Ph.D, 96. Instr. *physics,* Purdue, 91–92, prof, 92–93; instr, Princeton, 93–97; prof, *Smith Col,* 97–33, *emer. prof, 33–* A.A; Physical Soc; Soc. de Physique. Calorimetry; specific heats of metals.

Waterman, Prof. Frederick A(lexander), Georgetown University School of Medicine, Washington, D. C. *Physiology.* Greenfield, Ohio, Feb. 8, 04. B.S, Ohio State, 28, A.M, 31, Ph.D, 36. Asst. prof. zool, Ohio Wesleyan, 38–39; *prof. physiol, med. sch, Georgetown, 39–* A.A; assoc. Psychol. Asn; Ohio Acad. Respiration and metabolism.

Waterman, Prof. Harriet C(utler), Wellesley College, Wellesley, Mass. *Zoology.* Providence, R. I, Oct. 15, 95. Ph.B, Brown, 17; A.M, Smith Col, 19; Ph.D, Columbia, 30. Asst. *zool,* Vassar Col, 19–20; instr, Smith Col, 20–21; *Wellesley Col,* 21–25, 28–30, asst. prof, 30–35, *assoc. prof, 35–* A.A; N. Y. Acad. Vertebrate evolution; evolution of the primates.

Waterman, Henry C(ate), 3218 Stephenson Place, N. W, Washington, D. C. *Organic and biological chemistry.* Littleton, N. H. B.S, Dartmouth Col, 17. Chem. and biochem. investigations on veg. proteins, protein investigation lab, bur. chem, *U. S. Dept. Agr,* 18–24, milk proteins, food control lab, 24–27, *assoc. chemist, agr, biol. and soil chem, ed. staff, 'Exp. Sta. Record,' office exp. stations, 27–* Mem, Cmn. Standardization Biol. Stains. Chem. Soc. New seed proteins; the comparative digestibility of proteins; determination of milk proteins by isoelectric precipitations; fixation of plant material for microscopic study; methods of critical microscopy; embedding paraffins of low melting points; new reaction for synthesis of certain nitrogen heterocycles.

Waterman, Dr. Herbert, 2100 Roselin Place, Los Angeles, Calif. *Chemical engineering.* Odessa, Russia, May 30, 03. B.S, Col. City of N. Y, 30; B.S, Columbia, 30, Chem.E, 31, Ph.D, 34. Chemical engineer, Colin G. Fink, 31–32; chem. engineer, head research labs, director research and chief eng. plant manager, Aerovox Corp, 32–39; *consulting engineer, 39–*; lecturer *chem. eng, Southern California,* 40–43, *acting head to assoc. prof, 43–* Soc. Chem. Indust; Chem. Soc; Electrochem. Soc. Electrochemistry; unit operations; plant design; electrical insulation, capacitors and their applications; manufacture of chemical products; corrosion; process engineering.

Waterman, Robert E(dward), Spring Valley Road, Morristown, N. J. *Chemistry, Nutrition.* Orange, N. J, Sept. 23, 99. B.S, Mass. Inst. Tech, 21. Mem. eng. dept, West. Elec. Co, 22–26; tech. staff, Bell Tel. Labs, Inc, 26–40; *chemist, Research Corp, 40–; sec'y, Williams-Waterman Fund for Combat Dietary Diseases, 40–* Research assoc, Columbia, 28–33. A.A; Chem. Soc. (councilor, local sect, 41–); Soc. Biol. Chem. Vitamin B_1; nutritional biochemistry; wood preservation; administration of university inventions; administration of funds for research.

Waterman, Prof. W(arren) G(ookin), Frankfort, Mich. *Botany.* Southport, Conn, Sept. 3, 72. A.B, Yale, 92, A.M, 07; Ph.D, Chicago, 17. Instr. nat. science, Fisk, 96–02, prof. geol, 03–11; asst. prof. biol, Knox Col, 12–15; *bot, Northwestern,* 17–23, assoc. prof, 23–33, prof, 33–37, *emer. prof, 37–* Chairman dept, 29–37. State Museum Board, Ill. Bot. Soc; Ecol. Soc. (senior chairman, cmt. on preservation nat. conditions, 23–30); Ill. Acad. (treas, 19–21, pres, 23); Mich. Acad. Dune and forest vegetation of western Michigan; bogs of Illinois and Michigan.

Waters, Dr. A(aron) C(lement), Care of Ochoco Ranger Station, Prineville, Oregon. *[7]Geology.* Waterville, Wash, May 6, 05. B.S, Washington (Seattle), 26, M.S, 27; Ph.D, Yale, 30. Instr. geol, Yale, 28–30; junior geologist, U. S. Geol. Surv, 30; instr. geol, Stanford, 30–31, asst. prof, 31–34, assoc. prof, 34–39, prof, 39–42; *geologist, U. S. Geol. Surv, 42–* Guggenheim Mem. Foundation fellow, Scotland and Scandinavia, 37–38. Mem. div. geol. and geog, Nat. Research Council. Asn. Petrol. Geol; Geophys. Union; Geol. Soc. (v. chairman, Cordilleran sect, 36). Petrology and structural geology; geology of the Columbia Plateau and the Cascade Mountains.

Waters, Dr. A(ubrey) J(ackson), University of Georgia, Athens, Ga. *Endocrinology.* Pembroke, Ga, Sept. 23, 10. B.S, Georgia, 32, M.S, 35; Ph.D, Wisconsin, 40. Asst. *zool,* Georgia, 30–32, 34–35, instr, 35–36; asst, Wisconsin, 36–39; *instr, Georgia, 39–* Reproductive physiology of reptiles; physiology of infection; taxonomy of free-living flatworms.

Waters, Dr. C(ampbell) E(aster), 5812 Chevy Chase Parkway, Washington, D. C. *Chemistry.* Baltimore Co, Md, Sept. 14, 72. A.B, Hopkins, 95, Ph.D, 99. Prof. chem. and physics, Conn. Agr. Col, 00–01; asst. chem, Hopkins, 01–04; asst. chemist, Bur. Standards, 04–09, assoc. chemist, 09–17, chemist, 17–37, asst. chief div. chem, 37–42; *retired.* A.A; Chem. Soc; hon. mem. Fern Soc. (past pres. and sec'y); Md. Hist. Soc; Va. Hist. Soc; Chem. Soc. Wash. (past pres. and sec'y); Wash. Acad. Parasulfaminemetatoluic acid; key to ferns based on the stipes; ferns; action of ozone on carbon monoxide; action of dry hydrochloric acid gas dissolved in anhydrous benzene on zinc; effect of high temperature and sunlight upon lubricating oils; sulfur in rubber; sulfur in petroleum oils; gum arabic; inks.

Waters, Dr. Charles A(lexander), 1100 N. Charles St, Baltimore, Md. *Radiology.* Baltimore, Md, Dec. 14, 88. M.D, Maryland, 11. Asst. *roentgenol, Hopkins,* 11–15, instr, 15–30, *assoc, 30–, asst. roentgenologist, Hopkins Hosp, 15–* Roentgenologist, Union Mem. Hosp; Hosp. for Women of Md; consultant roentgenologist, U. S. Marine Hosp. No. 1. Ed, 'Year Book Radiol.' Roentgen Ray Soc. (chairman, east. sect, 23, exec. councilor, 30, chairman, exec. council, 33, pres, 37); Radiol. Soc. N. Amer; fel. Col. Physicians; Am. Med. Asn; fel. Col. Radiol; Med. and Chirurg. Faculty Md. Injuries and diseases of the bones and joints; urological roentgenology.

Waters, Dr. Charles E(mory), 5812 Chevy Chase Parkway, Washington, D. C. *Chemistry.* Washington, D. C, Nov. 17, 08. Ph.D, Hopkins, 31. *Chemist,* Johns-Manville Corp, New York, 31–37; *Tide Water Associated Oil Co, New York, 37–;* lieut, *Chem. Warfare Service, U. S. Army, Edgewood Arsenal,* 42–43, *capt, 43–* Chem. Soc; Inst. Chem; Soc. Rheol. Thermal decompositions of organic compounds; bituminous compounds; petroleum.

Waters, Prof. Charles W(hite), Montana State University, Missoula, Mont. *Botany, Forestry.* Oketo, Kans, Dec. 7, 97. B.L, Berea Col, 17, B.S, 19; A.M, Ohio State, 21; Ph.D, Michigan, 27. Instr, Syracuse, 21–23; asst. prof, Miami, 24; junior instr, Michigan, 25; asst. prof. bot. and forest path, *Montana,* 26–30, assoc. prof, 30–33, *prof,* 33–37, *bot. and forestry, 37–* Phytopath. Soc; Soc. Foresters; Northwest Sci. Asn; Mich. Acad. Reaction of bean rust when grown on leaves in solution; control of teliospore and urediniospore formation by experimental methods; effects of rusts on anthocyanin formation in leaves; Ribes ecology and white pine blister rust control; algal flora of Montana; mycorrhizal relations of Ponderosa pine.

Waters, Prof. Everett O(yler), 15 Prospect St, New Haven, Conn. *Mechanical engineering.* Cincinnati, Ohio, Jan. 29, 90. A.B, Yale, 11, Ph.B, 12, M.E, 14. Instr. machine design, *Yale,* 14–19, asst. prof, 19–25, *mech. eng,* 25–28, *assoc. prof, 28–* Construction and maintenance div, Ordnance Dept, 18–19. Mech. Eng. (sec'y and chairman, applied mech. div, 34–36); Eng. Educ. Machine design; applied mechanics.

Waters, Dr. George W(illiam), Shell Oil Co, Inc, 50 W. 50th St, New York 20, N. Y. *Physical chemistry.* Leavenworth, Kans, Dec. 30, 12. A.B, Hamilton Col, 35; Elihu Root fellow, Yale, 35–36, univ. scholar, 37–38, Ph.D, 38. Lab. asst, Yale, 35–37; *senior research chemist, Shell Oil Co, Inc, 38–* Chem. Soc. Electrolytic conductance in aqueous and nonaqueous media; application of physical chemistry to petroleum research.

Waters, Dr. Harold A(rthur), Ohio State University, Columbus, Ohio. *Entomology.* Jennings, Okla, Dec. 24, 07. B.S, Idaho, 30; M.S, Ohio State, 33, Ph.D, 35. Junior entomologist, U. S. Dept. Agr, 30–31; asst, *Ohio State,* 31–35, dept. indust. research, 35–38, *research fellow, univ. research foundation, 38–; tech. rep, Sherwin-Williams Co, 38–* Asn.

Econ. Entom. Measurement of tree growth; insect ecology and physiology; insecticides; laboratory rearing of insects.

Waters, James Alton, Sun Oil Co, Dallas, Texas. *Paleontology, Geology.* Elmwood, Nebr, 90. B.S, Nebraska, 13; M.S, Oklahoma, 25; Harvard, 27–28. Engineer, Interstate Commerce Cmn, 13–16; Texas Co, 16–17; Simms Oil Co, 19–20; Aguila Oil Co, 21–23; *geologist, Sun Oil Co, 25–* Asn. Petrol. Geol; Soc. Paleont. Paleozoic Foraminifera.

Waters, Dr. L(evin) Lyttleton), 2101 Constitution Ave, Washington, D. C. *Pathology.* Ruxton, Md, June 7, 10. A.B, Princeton, 32; M.D, Yale, 37. Intern, New Haven Hosp, 37–38, asst. res. pathologist, 38–39; asst. path, sch. med, Yale, 37–39, instr, 39–40, Charles Linnaeus Ives fellow, 38–39; res. pathologist, New Haven Hosp. and New Haven Dispensary, 39–40; asst. pathologist, Mem. Hosp, New York, 40–41; instr. path, sch. med, Yale, 41; *tech. aide, cmt. treatment war gas casualties, Nat. Research Council, 41–* Lesions of the larger vessels following renal artery constriction; effect of hypophysectomy on compensatory renal hypertrophy in dogs.

Waters, Lewis W(illiam), General Foods Corp, 250 Park Ave, New York, N. Y. *Food chemistry.* Orange, Mass, Oct. 3, 88. B.S, Mass. Inst. Tech, 10. Instr. chem, Mass. Inst. Tech, 11; research chemist, Campbell Soup Co, 11–14; instr. biol, Mass. Inst. Tech, 14; director trop. lab, United Fruit Co, 14–17; research chemist, E. I. du Pont de Nemours and Co, 17–20; manager research dept, Minute Tapioca Co, 20–27; chem. engineer, *Gen. Foods Corp,* 27–30, *v. pres. in charge research and develop, 30–, in charge sci. relations, 43–* Lecturer, N. Y. Univ. Mem, Nat. Research Council, 39–41; consultant, sci. cmt, War Production Board. A.A; Chem. Soc. (councilor); Soc. Chem. Indust; Pub. Health Asn; Asn. Mfrs. (cmt. sci. research); Am. Inst; Inst. Food Technol; Am. Acad. Polit. and Social Sci. The extension of industrial research in business.

Waters, Dr. Nelson F(enn), U. S. Department of Agriculture, East Lansing, Mich. *Genetics.* New Haven, Conn, Aug. 10, 99. B.S, Conn. Col, 25; M.S, Harvard, 31, Sc.D, 31. Research assoc. prof. animal breeding and path, R. I. State Col, 25–29; asst. animal breeding, Harvard, 29–31; research assoc. prof. poultry husbandry, Iowa State Col, 31–39; *senior geneticist, regional poultry research lab, bur. animal indust, U. S. Dept. Agr, 39–* A.A; Genetics Soc; Genetic Asn; Poultry Sci. Asn. Poultry genetics; growth; embryonic development; egg size; inbreeding in the domestic fowl; resistance; susceptibility to disease.

Waters, Dr. Ralph M(ilton), Wisconsin General Hospital, 1300 University Ave, Madison, Wis. *Anesthesia.* Ohio, Oct. 9, 83. A.B, 07; M.D, Western Reserve, 12. Practising physician, 16–27; asst. prof. surg, *med. sch, Wisconsin,* 27–28, assoc. prof, 28–33, *prof. anesthesia, 33–* Pres, Am. Board Anesthesiology, 41–42. A.A; Am. Med. Asn; Associated Anesthetists of N. Amer. (pres, 27); Soc. Anesthetists; Asn. Hist. Med; Soc. Pharmacol; Wis. Acad. Anesthesia; absorption of carbon dioxide from anesthetic gases; new anesthetic agents; closed endotracheal and endobronchial anesthesia; oxygen therapy technic.

Waters, Prof. R(olland) H(ays), University of Arkansas, Fayetteville, Ark. *Psychology.* Wellsville, Kans, Feb. 20, 96. A.B, Baker, 20; M.S, Kans. State Col, 24; Ph.D, Chicago, 28. Instr. *psychol,* Arizona, 25–27, asst. prof, 27–28; assoc. prof, *Arkansas,* 28–36, *prof, 36–* Psychol. Asn; Midwest. Psychol. Asn. Learning.

Watkeys, Prof. C(harles) W(illiam), 287 Dartmouth St, Rochester, N. Y. *Mathematics.* Syracuse, N. Y, Sept. 30, 77. A.B, Rochester, 01; A.M, Harvard, 08. Asst. *math, Rochester,* 03–05, instr, 05–06, 08–10, asst. prof, 10–18, *prof, 18–* A.A; Math. Soc; Math. Asn. Elementary functions and applications; orientation in science.

Watkins, Dr. Charles H(amilton), 102 Second Ave, S. W, Rochester, Minn. *Medicine.* Etna, Ohio, July 20, 99. A.B, Ohio State, 24; A.M, Minnesota, 25, Ph.D, 27, B.S, 28, M.B, M.D, 28. Teaching fellow anat, Minnesota, 24–27, instr, 27, asst. med, 28–29; *consulting physician internal med, Mayo Clinic, 29–;* instr. *med, Mayo Foundation, Minnesota.* 29–33, asst. prof, 33–38, *assoc. prof, 38–; commander, U. S. Naval Res.* Lieut-commander, U.S.N.R. Am. Med. Asn; Cent. Soc. Clin. Research; fel. Col. Physicians; Soc. Clin. Invest; Soc. Clin. Path; Cent. Clin. Research Club; Minn. Soc. Int. Med. Hematology.

Watkins, Dr. Frances E(mma), Southwest Museum, Highland Park, Los Angeles, Calif. *Anthropology.* Denver, Colo, Dec. 27, 99. A.B, Denver, 29; Ph.D, Southern California, 42. Librarian, *Southwest Museum,* 29, *asst. curator, 30–* Southwest. Archeol. Federation (sec'y-treas, 34, 42–). American Indian material culture; crafts of Indian women; Indian basketry; southwestern archeology; European prehistory; cranial measurements; California history; archeology and ethnology of New Mexico.

Watkins, Dr. George B(enson), 4941 Rolandale Road, R. R. 8, Toledo, Ohio. *Chemistry.* Tunkhannock, Pa, Nov. 16, 95. B.S, Michigan, 21, Ph.D, 26; M.S, Kans. State Col, 24. Instr. chem, Kans. State Col, 21–24; Michigan, 24–27; *director research, Libbey-Owens-Ford Glass Co, 27–* Chem. Soc; Soc. Test. Mat; Soc. Heat. and Vent. Eng; Soc. Automotive Eng. Gaseous explosions; the heating value of coal; the total carbon in coal; plasticizers in organic cellulosic plastics; laminated safety glass; refraction of tempered plate glass; thermal endurance and strength of flat glass; cellulose acetate plastic improves laminated safety glass; safety plate glass.

Watkins, Dr. G(ustav) M(cKee), Agricultural and Mechanical College of Texas, College Station, Texas. *Botany.* Tehuacana, Texas, Oct. 19, 08. A.B, Texas, 29, A.M, 30; Ph.D, Columbia, 35. Asst. bot, Texas, 27–30; Columbia, 30–35; plant pathologist, Exp. Sta, Agr. and Mech. Col. Texas, 35–41; *assoc. prof. biol, Sam Houston State Teachers Col, 41–; pathologist, plant disease surv, bur. plant indust, U. S. Dept. Agr, 43–* Nat. research fellow, bur. plant indust, U. S. Dept. Agr, 38–39. Summer, instr, Sam Houston State Teachers Col, Texas, 31. Bot. Soc; Mycol. Soc; Phytopath. Soc; Torrey Bot. Club; Texas Acad. Plant chromosomes; plant diseases.

Watkins, Howard R, U. S. Food and Drug Administration, Washington, D. C. *Chemistry.* Grundy Center, Iowa, May 2, 78. A.B, Coe Col, 02; M.S, Iowa State Col, 04. Asst. analyst, Exp. Sta, Iowa State Col, 02–04; asst. chem, Ohio State, 04–05; Kans. State Col, 05–06; asst. chemist, Exp. Sta, State Col. Wash, 06–08; War Dept, 08–23; bur. chem, U. S. Dept. Agr, 23–30, *chemist, chem. sect, drug div, food and drug admin,* 30–40; *Fed. Security Agency, 40–* Analytical and pharmaceutical chemistry; alkaloids.

Watkins, Prof. James M(ilton), 102 E. Main St, Newark, Del. *Agronomy.* Pennington, Ala, May 19, 10. B.S, Michigan, 33; M.S, Mich. State Col, 36; Ph.D, Ohio State, 39. Asst, Mich. State Col, 34–35; soils specialist, Nat. Resettlement Admin, 36; asst, Ohio State, 36–39; *asst. prof. agron, Delaware, and asst. agronomist, Exp. Sta, 39–* Field crops; clover breeding; poultry pastures.

Watkins, Dr. John H(amilton), 310 Cedar St, New Haven, Conn. *Public health.* Parma, Idaho, Dec. 14, 00. Idaho; B.S, Iowa State Col, 25, M.S, 27; Ph.D, Yale, 31. Asst. bacteriologist, eng. exp. sta, Iowa, 25–27; Sanit. Dist, Chicago, Ill, 27–28; asst, *dept. pub. health, sch. med, Yale,* 28–29, instr, 30–36, asst. prof, 36–40, *assoc. prof, 41–; major, U. S. Army.* Consultant, U. S. Pub. Health Service, 40– Fel. Pub. Health Asn; Statist. Asn; Popul. Asn. Bacteriology; vital statistics; biometry.

Watkins, Dr. Raymond E(dward), University of Oregon Medical School, Portland, Oregon. *Gynecology, Obstetrics.* Fairdale, Ill. M.D, Illinois, 09. *Prof. gynec. and obstet, med. sch, Oregon, 29–* Am. Med. Asn. (v. chairman, sect. abdom. surg, gynec. and obstet, 30); Gynec. Soc; Pacific Coast Surg. Asn; Pacific Coast Soc. Obstet. and Gynec. (pres, 38); Portland Acad. Med. (pres, 43); Portland Gynec. Soc. (pres, 31). Uterine retrodisplacements; retrograde menstruation and endometriosis; carcinoma of cervical stump; cancer of the body of the uterus; cancer of the cervix; surgery of the female bladder.

Watkins, Dr. Thomas C(obb), Cornell University, Ithaca, N. Y. *Economic entomology.* Calhoun, Mo, Oct. 1, 09. B.S, Davidson Col, 28; M.S, North Carolina, 30; Ph.D, Cornell, 39. Asst. zool, North Carolina, 28–30; instr. biol, Washington and Lee, 30–33; prin, high sch, Va, 33–36; asst. entom. and plant path, *Cornell,* 36–39, research instr. *econ. entom,* 39–43, *asst. prof, 43–* Asn. Econ. Entom; Phytopath. Soc. Insect pests of vegetable crops in New York.

Watkins, Prof. W(ilbur) E(lis), New Mexico College of Agriculture and Mechanical Arts, State College, N. Mex. *Animal husbandry, Chemistry.* Garnett, Kans, Jan. 14, 98. B.S, McPherson Col, 23; M.S, Kans. State Col, 24; Illinois, 31. Flour chemist, Nat. Biscuit Co, New York, 24–26; *assoc. prof. animal husbandry and nutrition chemist, N. Mex. Col, 26–* Animal nutrition; the digestibility of cottonseed meal as a

supplemental feed for range cattle in New Mexico; calcium and phosphorus balances with beef steers using native New Mexico grass and mineral supplements; deficient calcium and phosphorus areas of principal range grasses of New Mexico.

Watkins, W(illiam) N(eiger), U. S. National Museum, Washington, D. C. *Forestry.* Factoryville, Pa, Oct. 12, 91. B.S, Syracuse, 16, 16–17. *Asst. curator sect. wood technol, U. S. Nat. Museum, 18–* Summers, nursery asst, N. Y. State Col. Forestry, Syracuse, 13; research, wood preservation, Baltimore and Ohio R. R, 15. Smithsonian Institution and U. S. Nat. Museum rep, Nat. Conf. on Utilization Forest Products, Wash, D. C, 24; Am. Forest Week Cmt, 25–27. Soc. Foresters. Wood technology; utilization of forest products; industrial relation of forests.

Watkins, Dr. W(illiam) Warner, 15 E. Monroe St, Phoenix, Ariz. *Medicine.* Keysville, Va, Oct. 30, 83. M.D, Med. Col. of Va, 06. Ed, 'Southwest. Med,' 22–35; chief of staff, St. Joseph's Hosp, Phoenix, 35–37. A.A; Roentgen Ray Soc. (sec'y, 22–24); Radiol. Soc. N. Amer. (v. pres, 33); Col. Radiol. (chancellor, 23–28, 33); Col. Physicians (governor, Ariz, 30–36); Med. and Surg. Asn. Southwest (pres, 21, sec'y, 22–35); Pacific Coast Roentgen Ray Soc. (pres, 21); Ariz. State Med. Asn. (sec'y, 12, 40–42, pres, 18). Radiology.

Watson, Dr. Alfred N(elson), Division of Commercial Research, Curtis Publishing Co, Philadelphia, Pa. *Statistics.* Columbus, Ohio, Nov. 22, 10. A.B, Ohio State, 31, M.S, 32, Ph.D, 34. Assoc. agr. economist and asst. to director personnel, Bur. Census, Wash, D. C, 34–35; biometrician and plant physiologist, office exp. stations, U. S. Dept. Agr, 35–37; Galton lab, Univ. Col, London, 37–38; senior statistical analyst, Bur. Labor Statistics, 38–39; asst. chief statistician, div. statistical research, Bur. Census, 39–40; *statistician and market analyst, div. commercial research, Curtis Publishing Co, 40–* Consulting statistician, War Production Board, 41–42. Inst. Math. Statist; Statist. Asn. (v. pres, 42); Marketing Asn. Sampling techniques and research design with special application to analysis of consumer markets; determination of consumer income and expenditure patterns; tests of significance as applied to market surveys.

Watson, Prof. A(rthur) E(ugene), 30 Congdon St, Providence, R. I. *Electrical engineering.* Providence, R. I, March 4, 66. A.B, Brown, 88, A.M, 98, Ph.D, 05. Draftsman, Thomson-Houston Elec. Co, 88; asst. foreman drafting and eng. dept, Thomson-Houston and Gen. Elec. Companies, 89–95; instr. *physics and elec. eng, Brown,* 95–99, asst. prof, 99–20, assoc. prof, 20–36, *emer. assoc. prof, 36–* Fel. Elec. Eng. Electrical machinery design.

Watson, Dr. Bernard B(ennett), University of Pennsylvania, Philadelphia, Pa. *Physics.* Philadelphia, Pa, May 17, 11. A.B, Temple, 32; Ph.D, Calif. Inst. Tech, 35. Teaching fellow, Calif. Inst. Tech, 34–35; asst. prof. *physics,* Ariz. State Teachers Col, 35–39, assoc. prof, 39–41; asst. physicist, Bur. Standards, 41; *instr. physics, Pennsylvania, 41–* Physical Soc; Asn. Physics Teachers. X-ray spectroscopy.

Watson, Prof. C(ecil) J(ames), 130 Orlin Ave. S. E, Minneapolis, Minn. *Medicine.* Minneapolis, Minn. May 31, 01. B.S, 23, M.B, M.S, 25; M.D, Minnesota, 26, Ph.D, 28. Instr. path, Minnesota, 26–28; path. and int. med, Northwest Clinic, Minot, N. Dak, 28–30; research chem. of hemoglobin derivatives, Munich, 30–32, nat. research fellow, 31–32; res. *med,* Minneapolis Gen. Hosp. and Univ. Hosp, Minnesota, 32–33; instr, *Minnesota,* 33–34, asst. prof, 34–36, assoc. prof, 36–40, *prof, 40–, head dept, 43–* Pathologist, Minneapolis Gen. Hosp, 26–28. A.A; Soc. Clin. Invest; Am. Med. Asn; Asn. Path. and Bact; Am. Physicians; Soc. Exp. Path; Cent. Soc. Clin. Research (councilor, 40–, v. pres, 42–); Minn. Soc. Int. Med. (pres, 41); Minn. Path. Soc. (pres, 41). Liver and biliary tract disease; jaundice and anemia; urobilin and porphyrins.

Watson, Dr. Clarence W(ilford), Box 833, Atlanta, Ga. *Forestry.* Boston, Mass, Dec. 28, 95. Ph.B, Yale, 16, M.F, 20, Ph.D, 30; Am-Scandinavian Foundation fellow, Sweden, 20–21. Assoc. prof, sch. forestry, Idaho, 21–27; nat. research fellow, 30–32; forest supervisor, Civilian Conservation Corps, South Mountain Reservation, Orange, N. J, 33–35; exec. staff, More Game Birds in Amer. Foundation, 36–38; Ducks Unlimited, Can, 39–40; *mem. staff, fish and wildlife service, U. S. Dept. Interior, 41–* Wildlife management.

Watson, Dr. Cyril J(ames), Central Experimental Farm, Ottawa, Ont, Can. *Chemistry.* Ottawa, Ont, Jan. 27, 01. B.S.A, McGill, 21; M.S, Cornell, 24, Ph.D, 28. *Chemist, div. chem, science service, Can. Dept. Agr, 30–* Soc. Animal Production; Soc. Chem. Indust. (hon. sec'y, Can. council, 36–, chairman, Ottawa sect, 36); Can. Soc. Tech. Agr; assoc. Can. Inst. Chem. Animal nutrition.

Watson, Dr. David L(indsay), 4315 N. Pershing Drive, Arlington, Va. *Physical chemistry.* Edinburgh, Scotland, Dec. 25, 01. B.Sc, Edinburgh, 22, Carnegie research scholar, 23–25, Ph.D, 24. Int. Educ. Board fellow, Columbia, 25–26; instr. chem, N. Y. Univ, 26–28; asst. prof. physics, Antioch Col, 28–30; Science Service, 30–32; Josiah Macy, Jr, Foundation grant, 35–37; *chief for. requirements unit, chem. div, War Production Board, 41–* A.A; Chem. Soc. Biological organization from a physico-chemical standpoint; philosophy of science; human aspects of scientific activity and their implications for the methods and epistemology of science; selecting mechanism as a concept for psychiatry; critique of the fundamental assumptions of the social sciences.

Watson, Dr. Dennis W(allace), University of Wisconsin, Madison, Wis. *Agricultural bacteriology.* Morpeth, Ont, Can, April 29, 14. B.S.A, Toronto, 34; M.Sc, Dalhousie, 37; Ph.D, Wisconsin, 41. Sci. asst, Fisheries Research Board, Can, 37–38; asst, *Wisconsin,* 38–41, fellow, 41–42; *research assoc. agr. bacter, 42–* Soc. Bact. Biological and physical properties of tuberculin constituents; the nature of bacterial and animal viruses.

Watson, Prof. E(arnest) C(harles), California Institute of Technology, Pasadena, Calif. *Physics.* Sullivan, Ill, June 18, 92. Ph.B, Lafayette Col, 14. Asst. *physics,* Chicago, 14–17; asst. prof, *Calif. Inst. Tech,* 19–20, assoc. prof, 20–30, *prof, 30–,* chairman faculty board. Mem. div. three, Nat. Defense Research Cmt, 41– U.S.N.R, 17–19. A.A; Physical Soc; Hist. Sci. Soc; Asn. Physics Teachers. Velocity and space distribution of x-ray electrons; history of physics.

Watson, Dr. E(dmond) E(velyn), Queen's University, Kingston, Ont, Can. *Physics.* Montserrat, B. W. I, Dec. 24, 02. B.S, McGill, 25, Moyse traveling fellow, 26–27, M.S, 26; Que. scholar, 27–30; Ph.D, Cambridge, 30. From lecturer to asst. prof. and later *assoc. prof. physics, Queen's (Can), 30–* Hydrographer, Int. Passamaquoddy Fisheries Cmn, 31–33; research assoc, Oceanog. Inst, Woods Hole, 33– Electron scattering in helium; physical oceanography.

Watson, Dr. E(dward) A(rthur), Animal Diseases Research Institute, Ottawa, Ont, Can. *Pathology.* Devon, Eng, Jan. 2, 79. Grad, Ont. Vet. Col, 04; Berlin; Frankfurt; Paris; Cambridge. Asst, bacter. lab, Pretoria, S. Africa, 00–01: asst. pathologist, health of animals branch, Can. Dept. Agr, 05–06, pathologist, 06–20, chief pathologist, 20–42. Assoc, cmt. on tuber. Nat. Research Council Can. Capt, C.E.F, 15–19; bacteriologist, R.A.V.C, B.E.F, 17–19. Vet. Med. Asn. (past v. pres, cmt. on tuber). Tuberculosis; virus diseases.

Watson, Dr. E(dward) H(ahn), Bryn Mawr College, Bryn Mawr. Pa. *Geology.* Baltimore, Md, July 31. 02. A.B. Hopkins. 25, Ph.D. 29. Asst. *geol,* Hopkins, 26–27, instr. 27–30; assoc. *Bryn Mawr Col,* 30–33, assoc. prof, 33–38, *prof, 38–* Asst, U. S. Geol. Surv, 27; asst. geologist, Md. Geol. Surv, 28–; Pa. Geol. Surv, 35–; petrologist, Univ. Mich. and Nat. Research Council exped, San Carlos Mountains, Mex, 30. Fel. Geol. Soc; fel. Miner. Soc; Geophys. Union; Min. and Metal. Eng; Geol. Soc. Wash. Petrology; igneous rocks, especially pegmatites of Maryland; alkaline rocks of Mexico; geology of the Piedmont Province, Pennsylvania.

Watson, Prof. Emery Ernest, Iowa State Teachers College, Cedar Falls, Iowa. *Mathematics.* Stockport, Iowa, 76. B.S, M.S, Iowa, 05; Chicago, 06–08. Prof. math. and physics, Wheaton Col. (Ill), 05–08; asst. prof, State Col. Wash, 08–10; *prof.* math. and astron, Parsons Col, 10–20; *math, Iowa State Teachers Col, Cedar Falls, 20–* Iowa Asn. Math. Teachers (pres, 17–19). General mathematics; projective and Euclidean geometry; functions of complex variable; a test for the nature of the roots of a cubic equation.

Watson, Dr. Fletcher G(uard), 5 Rutland St, Cambridge, Mass. *Astronomy.* Baltimore, Md, April 27, 12. A.B, Pomona Col, 33; A.M, Harvard, 35, Ph.D, 38. Instr, Harvard, 36–38; exec. sec'y and research assoc, Harvard Observatory, 38–42; tech. aide, Nat. Defense Research Cmt, 42–43; *lieut, U. S. Naval Res, 43–* Astron. Soc; Geophys. Union. Meteoric astronomy.

Watson, Prof. F(loyd) R(owe), 1504 Milan Ave, South Pasadena, Calif. **3*Physics.* Lawrence, Kans, April 23, 72. B.S, California, 99, Le Conte fellow, 99, Whiting traveling

fellow, 00; Pres. White fellow, Cornell, 01, Ph.D, 02. Asst. physics, California, 97–99; instr, *Illinois*, 02–04, asst. prof, 04–15, assoc. prof, 15–17, prof. *exp. physics*, 17–40, *emer. prof, 40–* Consultant, war defense work, Calif. Inst. Tech. A.A; Physical Soc; Acoustical Soc; Am. Standards Asn. (chairman, cmt. on methods of absorption and transmission of sound). Acoustics of buildings.

Watson, Prof. Goodwin (Barbour), Teachers College, Columbia University, New York, N. Y. *Educational psychology.* Whitewater, Wis, July 9, 99. A.B, Wisconsin, 20; A.M, Columbia, 23, Ph.D, 25. Asst. physics, Wisconsin, 19–20; director religious educ, Denver, 20–21; New York, 21–23; instr, Union Theol. Sem, 23–25; educ. psychol, *Columbia*, 25–26, asst. prof. *educ*, 26–29, assoc. prof, 29–35, *prof, 35–* Director research, nat. council, Y.M.C.A, 25–31; chief analyst, for. intel. broadcast service, Fed. Communications Cmn, 41–Psychol. Asn; Asn. Applied Psychol; Soc. Psychol. Study Social Issues (pres); Educ. Research Asn; Sociol. Soc; Polit. Sci. Asn; Orthopsychiat. Asn; Soc. Pub. Admin; Nat. Planning Asn. Social psychology; personality adjustment.

Watson, Prof. H(arry) D(exter), University of Maine, Orono, Maine. *Metallography.* Standish, Maine, Feb. 18, 96. B.S, Maine, 20, M.S, 29. Instr. *mech. eng, Maine*, 20–24, asst. prof, 24–29, assoc. prof, 29–36, *prof, 36–, head dept, 40–* Mech. Eng; Eng. Educ; Maine Asn. Eng. Micro-photographic investigation of the crystalline structure of mild steel repeatedly stressed beyond proportional limit.

Watson, Dr. Horace G(eorge) I(sbister), McGill University, Montreal, Que, Can. *Physics.* Stratford, Ont, April 28, 01. B.A, Toronto, 26; M.Sc, McGill, 27, Ph.D, 32. Lecturer and later *asst. prof. physics, McGill, 28–* Electrical measurements; geophysical prospecting; pressure measurement with piezoelectric crystals; cathode ray oscillograph.

Watson, Dr. John B(roadus), William Esty and Co, 100 E. 42nd St, New York, N. Y. **3*Psychology.* Greenville, S. C, Jan. 9, 78. A.M, Furman, 99, LL.D, 18; fellow, Chicago, 01–03, Ph.D, 03. Prin, Batesburg Inst, 99–00; asst. exp. psychol, Chicago, 03–04, instr, 04–08, asst. prof. elec, 08; prof. exp. and comp. psychol. and director lab, Hopkins, 08–20; rep, J. Walter Thompson Co, 20–36, *v. pres*, 24–36; *William Esty and Co, 36–* Psychol. Asn; Physiol. Soc; Am. Acad. Animal psychology; animal education; normal body growth of white rat; kinesthetic and organic sensations of the white rat; behavior of noddy and sooty terns; color vision in monkeys; imitation in monkeys; color and brightness vision in several species of mammals; conditioned motor and secretion reflexes; effect of drugs and distribution of practise on human learning; behavior of the human infant; behaviorism and its ways; psychological care of infant and child.

Watson, Prof. John D(argan), College Station, Durham, N. C. *Civil engineering.* Greenwood, S. C, May 23, 05. A.B, Furman, 25; B.S, North Carolina, 28, M.S, 32; research fellow, Harvard, 36–39, Sc.D, 40. Jr. engineer, Ala. Power Co, 28–30; instr. *civil eng*, North Carolina, 30–34; Lehigh, 34–35; *asst. prof, Duke, 39–* Civil Eng; Geophys. Union. Characteristics of soil for foundation purposes; triaxial compression testing of soil; design of soil filters for underground drains; measurement of pressure distribution in a loaded soil mass.

Watson, Prof. J(ohn) W(ilbur), Virginia Polytechnic Institute, Blacksburg, Va. *Chemistry.* Chatham, Va, June 18, 88. A.B, A.M, Virginia, 10, Ph.D, 13. Asst. chem, Virginia, 09–10, instr, 10–13; *prof. inorg. chem, Va. Polytech, 13–, head dept.* chem. and chem. eng, 25–35, *chem, 35–* Summers, director, Va. Polytech, 23–42. A.A; Chem. Soc; fel. Inst. Chem; Va. Acad. Abstraction of potassium during sedimentation; inorganic, physical and analytical chemistry.

Watson, J(oseph) R(alph), Florida Agricultural Experiment Station, Gainesville, Fla. *Entomology.* Berea, Ohio, Aug. 1, 74. B.S, Baldwin Col, 97; A.M, Western Reserve, 99; Chicago, summers, 03–12. Asst. and instr. biol, Adelbert Col, Western Reserve, 99–01; instr. bot, physics and chem, Berea Col, 01–02; prof. biol, physics and chem, Rochester Col. (Ind), 03–06; instr, high sch, Wis, 06–07; prof. biol, New Mexico, 07–11; *entomologist, Exp. Sta, Florida, 11–* Ed, 'Fla. Entomologist.' A.A; Entom. Soc; Asn. Econ. Entom; Ecol. Soc; Fla. Entom. Soc. (pres, 16). Economic entomology; common plants of Bernalillo County, New Mexico; plant societies of New Mexico; succession of animals; Thysanoptera of Florida; insects of citrus and truck crops in Florida; root knot.

Watson, Dr. Kenneth De P(encler), Princeton University, Princeton, N. J. *Economic geology.* Vancouver, B. C, Can, July 19, 15. B.A.Sc, British Columbia, 37; Ph.D, Princeton, 40. *Instr. econ. geol, Princeton, 40–* Miner. Soc; Min. and Metal. Eng; Can. Inst. Min. and Metal. Engineering geology; mineral deposits.

Watson, Prof. Kenneth M(erle), University of Wisconsin, Madison, Wis. *Chemical engineering.* Herman, Minn, Aug. 17, 03. B.S, Wisconsin, 23, fellow, 23–24, M.S, 24, Ph.D, 29. Develop. branch, West. Elec. Co, Chicago, 24–25; instr. chem. eng, Wisconsin, 25–28, asst. prof, 28–31; chem. engineer, Universal Oil Products Co, 31–36, director eng. research, 36–41; chem. engineer, Gulf Oil Corp, 41–42; *prof. chem. eng, Wisconsin, 42–* Chem. Eng; Chem. Soc. Petroleum refinery technology; general chemical engineering principles.

Watson, Prof. Lloyd R(aymond), Alfred University, Alfred, N. Y. *Entomology, Organic chemistry.* Cuba, N. Y, Sept. 7, 76. A.B, Alfred, 05, A.M, 14; Ph.D, Cornell, 27. Instr. agr. chem, N. Y. State Sch. Agr, Alfred, 11–18; exten. specialist apicult, Conn. Agr. Col, 18–19; asst. apiculturist, bur. entom, U. S. Dept. Agr, 19–21; state apiarist, Texas, 21–22; August Heckscher research asst, N. Y. State Col. Agr, Cornell, 26–27; director research, *Alfred*, 31–34, *prof. chem, 34–; consulting chemist.* Guggenheim Mem. Foundation fellow, 36–37. Am. Acad. Arts and Sciences grant, 41. A.A; Asn. Econ. Entom; Genetic Asn. Apiculture; genetics; bee breeding.

Watson, Dr. Martin C(alvin), P. O. Box 429, Houma, La. *Physics.* Hartington, Nebr, May 28, 06. B.S, Knox Col, 26; M.S, Illinois, 28, Ph.D, 34. Asst. physics, Illinois, 26–33; asst. physicist, State Geol. Surv, Ill, 36–39; *engineer, Schlumberger Well Surveying Corp, 39–* Band spectroscopy.

Watson, Dr. Norman A(llen), 1631 Hilts Ave, Los Angeles 24, Calif. *Physics.* Champaign, Ill, May 11, 09. A.B, Illinois, 29, 30–31; Stanford, 29–30; Ph.D, California, 37. Instr. *physics, California at Los Angeles*, 37–42, *asst. prof, 42–* A.A; fel. Acoustical Soc; Physical Soc. Physics of hearing; bone conduction; scientific prescription of hearing aids; precision measurement of hearing acuity.

Watson, Paul D(owning), U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Clearfield, Pa, Nov. 23, 95. B.S, Pittsburgh, 20. *Research chemist*, chem. div, Edgewood Arsenal, 20–26; *research labs, bur. dairy indust, U. S. Dept. Agr, 26–* Chem. Soc. Warfare screening smokes; Swiss cheese investigations; electrodialysis of whey; lactic acid investigation.

Watson, Dr. R(alph) W(ade), National Research Council, Ottawa, Ont, Can. *Physiological anatomy.* Paris, Ont, March 19, 03. B.A, Toronto, 25, M.A, 26, Ph.D, 42. *Plant physiologist, Nat. Research Council Can, 42–* Plant biochemistry.

Watson, Dr. Robert B(arden), Harvard University, Cambridge, Mass. *Acoustics.* Champaign, Ill, April 14, 14. A.B, Illinois, 34; A.M, California at Los Angeles, 36; Ph.D, Harvard, 41. Teaching asst. physics, California at Los Angeles, 35–36; asst, *Harvard*, 36–37, instr, 37–38, physics and communication eng, 38–40, research assoc. physics, 40–41, *special research assoc, underwater sound lab, 41–* A.A; Acoustical Soc. Modulation of sound decay curves; architectural acoustics; acoustics of music.

Watson, Dr. R(obert) B(riggs), Tennessee Valley Authority, University of Tennessee, Memphis, Tenn. *Medicine.* Clemson, S. C, Jan. 16, 03. B.S, Tennessee, 24, M.D, 30; M.P.H, Hopkins, 39. *Prin. epidemiologist, Tenn. Valley Authority, 34–* Mem. subcmt. trop. diseases, Nat. Research Council. Nat. Malaria Soc; Soc. Trop. Med; fel. Col. Physicians. Malaria; malaria control; anopheline mosquitoes.

Watson, Dr. Robert J(ames), 1508 E. 36th Place, Tulsa, Okla. *Geology, Geophysics.* Shelbourne, Ont, Can, Feb. 4, 04. B.A, Toronto, 25, M.A, 26; fellow, Calif. Inst. Tech, 31–32; Ph.D, Colorado, 32. Asst. geol, Toronto, 25–26; instr, Colorado, 26–29, 30–32, 33–36; *geophysicist*, Midwest Ref. Co, Denver, 29–30; Carter Oil Co, 36–39; Standard Oil Co, Egypt, 39–40; Standard Oil Develop. Co, 40–41; *Carter Oil Co, 41–* Summers, field geol, Ont. and Que, 24–27. Soc. Explor. Geophys; Geophys. Union. Precambrian geology of Ontario; gravity, magnetic and electrical methods of geophysical prospecting.

Watson, Dr. R(oscoe) D(errick), R.F.D. No. 5, Tyler, Texas. *Plant pathology.* Salt Lake City, Utah, Dec. 12, 11. B.S, Utah State Col, 35, M.S, 37; Ph.D, Cornell, 42. Teach-

ing asst. plant path, Cornell, 37–42; *plant pathologist, sub-sta, Exp. Sta, Texas, 42–* Summers, inspector potatoes for seed certification, N. Y. State Col. Agr, Cornell, 40–42. Phytopath. Soc. Ozone as a fungicide; control of rose diseases; breeding and selection of disease-resistant watermelons; selection of wilt and nematode resistant cotton.

Watson, Dr. Samuel H(umes), 2 Paseo Redondo, Tucson, Ariz. *Medicine.* Vinton, Iowa, March 15, 77. Cornell Col, 93–94; M.D, Rush, Chicago, 99. *Attending staff, St. Mary's Hosp, 18–; physician in chief, St. Luke's in the Desert, 26–; Barfield Sanatorium, 21–* Fel. Col. Physicians; Am. Med. Asn; Asn. Study Allergy (v. pres, 26); Tuber. Asn. (director, 26–29); Ariz. Med. Asn. (pres, 28); Ariz. Anti-Tuber. Asn. (pres, 16–). Tuberculosis; allergy.

Watson, Pres. S(heppard) A(rthur), Wilmington College, Wilmington, Ohio. *Biology.* Oskaloosa, Iowa, Nov. 6, 94. A.B, Friends, 18; B.S. (Agr), Kans. State Col, 20, M.S, 23; Ph.D, Ohio State, 27. Prof. biol, Wilmington Col, 20–28; Whittier Col, 28–40; *pres, Wilmington Col, 40–* A.A; Entom. Soc. Applied biology; Miridae.

Watson, Prof. T(rue) G(eorge), 397 W. Tenth Ave, Columbus, Ohio. *Agriculture.* Springfield, Ill, June 13, 90. B.S, Ohio State, 13; M.S, Iowa State Col, 16. Instr, Iowa State Col, 14–15; prin, high sch, Ill, 17–18; instr. *agr. chem. and soils, Ohio State,* 18–21, asst. prof, 21–38, *assoc. prof, 38–, sec'y col. agr, 18–* Agricultural administration.

Watson, Prof. Tully F(ranklin), Northeastern State College, Tahlequah, Okla. *Physics.* Boswell, Okla. A.B, Oklahoma, 28, M.S, 30; Ph.D, Illinois, 35. *Prof. physics and head dept, Northeast. State Col, 35–* Molecular spectra.

Watson, Dr. W(illiam) F(ranklin), 1539 Third Ave, Bradenton, Fla. *Chemistry, Biology.* N. B, Can, May 11, 61. A.B, Colby Col, 87, A.M, 90, Sc.D, 24; Pennsylvania, 92–93; Chicago, 98. Prof. chem. and biol. and curator museum, Furman, 90–11. Lecturer, Dept. Educ, New York, 14–15. Nat. civic fed. inspector educ, Gt. Britain, 08. Medal, S. C. Interstate and W. I. Expos, 02. A.A; Micros. Soc. (v. pres, 06); Health League; Ga. Acad; Royal Soc. Arts; Soc. linn. de Lyon. The extension garage; improved methods in photomicrography; photographing with natural lenses, using the crystalline lens of higher animals and the corneal lenses from the eye of an insect; mechanical inventions.

Watson, Prof. W(illiam) H(eriot), McGill University, Montreal, Que, Can. *Physics.* Edinburgh, Scotland, Dec. 12, 99. M.A, Edinburgh, 21, Ph.D, 25; Carnegie fellow, Cambridge, 28–31, Ph.D, 31. Lecturer *physics,* Edinburgh, 21–28; asst. prof, *McGill,* 31–39, *assoc. prof, 39–* Fel. Royal Soc. Can. X-rays; optical dispersion; electrodynamics; logic of physics.

Watson, Prof. William W(eldon), Yale University, New Haven, Conn. *[5]*Physics.* Eveleth, Minn, Sept. 14, 99. B.S, Chicago, 20, M.S, 22, Ph.D, 24. Instr. *physics,* Chicago, 24–27, asst. prof, 27–28; *Yale,* 28–31, assoc. prof, 31–40, *prof, 40–, director, Sloane lab, 41–* Guggenheim Mem. Foundation fellow, 28. A.A; fel. Physical Soc; Optical Soc. Spectroscopy; band spectra; Zeeman, pressure and isotope effects; isotope separation.

Watt, Prof. George W(illard), University of Texas, Austin, Texas. *Chemistry.* Bellaire, Ohio, Jan. 8, 11. Ph.D, Ohio State, 35. Research chemist, Goodyear Tire and Rubber Co, 35–37; asst. prof. *chem, Texas,* 37–41, *assoc. prof, 41–* Chem. Soc. Non-aqueous solvents.

Watt, Dr. James, U. S. Public Health Service, Washington, D. C. *Epidemiology.* Thomasville, Ga, April 28, 11. A.B, Davidson Col, 31; North Carolina, 31–33; M.D, Hopkins, 35, D.P.H, 36. Res, Herman Kiefer Hosp, Detroit, Mich, 36–38; asst. surgeon, *U. S. Pub. Health Service,* 38–41, *passed asst. surgeon, 41–* Diarrheal diseases, chiefly bacillary dysentery and other enteric infections.

Watt, Dr. James C(rawford), University of Toronto, Toronto, Ont, Can. *Anatomy.* Toronto, Ont, June 15, 86. B.A, Toronto, 08, M.B, 10, M.A, M.D, 18. Asst. anat, *Toronto,* 10–11, lecturer, 11–18, topog. anat, 15–18, asst. prof. *anat,* 18–23, assoc. prof, 23–30, *prof, 30–* Ed. 5th edition, 'Sobatta-McMurrich-Watt Atlas Human Anat.' A.A; Asn. Anat; Asn. Physical Anthrop; Ont. Col. Physicians and Surg; fel. Toronto Acad. Med; Anat. Soc. Gt. Britain and Ireland. Embryology; young human embryos; abnormalities; calcification in bone; calcified areas; variations of arteries in cranium of man; venous sinuses in cranium in man.

Watt, Dr. John Y(in) C(hieh), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Parasitology.* Tientsin, China, March 3, 07. A.B, Iowa, 31; M. S, Illinois, 32; Ph.D, Cornell, 41. Asst. parasitol, Peiping Union Med. Col, 32–34; field parasitologist and director labs, pub. health training inst, Chinese Nat. Health Admin, 34–39; asst. *pub. health and prev. med, med. col, Cornell,* 40–43, *instr, 43–* Prof, Nat. Kweiyang Med. Col, 38; lecturer, L. I. Col. Med, 42. A.A; Soc. Parasitol; Sci. Soc. China (pres, 42–). Immunology in parasitology.

Watt, Prof. Lucy J(eannette), Western College, Oxford, Ohio. *Anatomy.* Oak Park, Ill, 96. A.B, Western Col, 19; A.M, Syracuse, 21; Wisconsin, 20, 24, 35; Chicago, 29; Stanford, 29–30, 32; Michigan, 42. Teacher, high sch, Ill; instr. *biol,* Syracuse, 20–21; Wells Col, 21–24; assoc. prof, *Western Col,* 24–36, *prof, 36–* A.A; Soc. Bact; Pub. Health Asn; Ohio Acad. Ovarian dynamics; prenatal mortality in the mouse.

Wattendorf, Dr. F(rank) L(eslie), 103 W. Riverview, Dayton, Ohio. *Aerodynamics.* Boston, Mass, May 23, 06. A.B, Harvard, 26; M.S, Mass. Inst. Tech, 28; Göttingen, 28–29; Aachen Tech. Inst, 29–30; Ph.D, Calif. Inst. Tech, 33. Research fellow, Daniel Guggenheim Airship Inst, Akron, Ohio, 30–31; Calif. Inst. Tech, 32–35; prof. aeronaut. eng, Nat. Tsing Hua Univ, 36–38; *prin. aeronaut. engineer, materiel command, Air Forces, U. S. Army, Wright Field, 39–* Assoc. fel. Inst. Aeronaut. Sci; assoc. fel. Royal Aeronaut. Soc. Turbulent flow; wind tunnel design and testing.

Watters, Dr. Leon L(aizer), 1010 Fifth Ave, New York. N. Y. *Chemistry.* Salt Lake City, Utah, Nov. 13, 77. B.S, 97; A.M, Columbia, 98, Ph.D, 01. Instr, Columbia, 98–00; prof, Cincinnati, 01–02; asst. chemist, New York, 02–04; *pres, Hosp. Supply Co, New York.* Lecturer, Board Educ, New York; v. pres, Tech. Inst. Boys, New York. A.A; Chem. Soc. Carbide of gold; sterilizing apparatus; sterilization of suture materials; preparation of iodoform and salicylic acid.

Watters, Dr. William Henry, 270 Commonwealth Ave, Boston, Mass. or Boston-Miami Clinic, Coconut Grove, Miami, Fla. *Internal medicine.* Mechanic Falls, Maine, June 23, 76. A.A, McGill, 93, B.A, 97; M.D, Boston, 00, A.M, 06, Ph.D, 08. Lecturer path, *Boston,* 01–04, *prof,* 04–26, *prev. med, 26–; assoc. legal med, Harvard Med. Sch, 41–* Pathologist, Mass. Mem. Hosp, 01–26, consulting pathologist, 26–; assoc. med. examiner, Suffolk County, Mass, 10–; med. director, Boston-Miami Clinic, 26– Am. Med. Asn; Asn. Path. and Bact; Soc. Clin. Path; fel. Col. Physicians; Mass. Medico-Legal Soc. (pres, 29); Mass. Surg. and Gynec. Soc; Int. Asn. Med. Mus. Immunology; vaccine therapy; museum technique; lues.

Watterson, Prof. Ray L(eighton), Department of Zoology, University of California, Berkeley, Calif. *Experimental embryology.* Greene, Iowa, April 15, 15. A.B, Coe Col, 36; Hopkins, 40–41; Ph.D, Rochester, 41. Asst, Rochester, 37–40; Hopkins, 40–41; instr. comp. anat. and embryol, Dartmouth Col, 41–42; *asst. prof. embryol, California, 42–* Summers, teaching asst, Marine Biol. Lab, Woods Hole, 41, instr, 42. Developmental history of melanophores of chick embryos; feather morphogenesis; effects of mechanical disturbances on embryonic development; embryology of pigment cells in tunicates.

Watts, Prof. Arthur S(imeon), Ohio State University, Columbus, Ohio. *Ceramics.* Zanesville, Ohio, March 27, 76. Ohio State; Tech. Hochschule, Berlin. Asst. to Prof. Edward Orton, Jr, Ohio State, 98–01; ceramic engineer, Bell Pottery Co, 02–03; New Lexington High Voltage Porcelain Co, 03–04; Locke Insulator Co, Victor, N. Y, 05–09; quarry technologist, U. S. Bur. Mines, 11–14; assoc. prof. *ceramic eng, Ohio State,* 14–16, *prof. and head dept, 16–* Ceramic Soc. (v. pres, 09, pres, 12). Pottery construction; porcelain for electrical purposes; bone china; transmission insulators; high tension insulation in Europe; dental porcelains; micro-structure of porcelains; deformation of silicate mixtures; kaolin mining in Europe and south Appalachian regions; feldspars; ball clays; dinnerware for the home; steatite porcelains.

Watts, Dr. Betty M(onaghan), University of California, Berkeley, Calif. *Food chemistry.* Johnstown, Pa, June 4, 07. B.S, Wilson Col, 28; Ph.D, Washington (St. Louis), 32. Asst. zool, Washington (St. Louis), 28–32, physiol, med. sch, 33–36; instr. household science and later *asst. prof. home econ,*

California, 37– Biological oxidations; urinary clearances; surface chemistry; colloid chemistry in food technology.

Watts, C(ecil) E(dwin), 5605 Oakmont Place, Bethesda, Md. *Chemistry.* Thompsonville, N. Y, Dec. 15, 88. B.S, Delaware, 12. Assoc. chemist, Edgewood Arsenal, Chem. Warfare Service, 20–22; chemist, Seydel Chem. Co, Nitro, W. Va, 22–23; chief chemist, E. C. Klipstein and Co, Charleston, 23–27; *research analyst, Commercial Solvents Corp, 27–; lieut. col, ordnance dept, Office Chief of Ordnance, U. S. Army, 41–* Chemist, Bur. Ordnance, U.S.N, 12–16; chief chemist, imp. munitions board, Renfrew plant, Dom. Can, 16–18; lieut, Ordnance Dept, 18–19; major, Ordnance R. C. Chem. Soc; Army Ordnance Asn. Chemical analysis and analytical research; analysis of lacquers and lacquer thinners.

Watts, Chester B(urleigh), U. S. Naval Observatory, Washington, D. C. *Astronomy.* Winchester, Ind, Oct. 27, 89. A.B, Indiana, 15. Computer and asst, *U. S. Naval Observatory,* 11–14, 15–24, assoc. astronomer, 24–29, astronomer, 29–31, senior astronomer, 31–38, *prin. astronomer, 38–, in charge six-inch transit circle and standard clocks, 34–* World Longitude Operations, 26, 33. A.A; Astron. Soc; Math. Asn; Int. Astron. Union. Fundamental meridian observations; improvements in transit circle design; irregularities of the moon's limb.

Watts, Lyle F(ord), U. S. Forest Service, Washington, D. C. *Forestry.* Mason City, Iowa, Nov. 18, 90. B.S, Iowa State Col, 13, M.F, 28. Tech. asst, U. S. Forest Service, 13–17, asst. supervisor, 18–19, forest supervisor, 20–26, forest inspector, 27–28; prof. forestry, Utah State Col, 29–30; senior silviculturist, *U. S. Forest Service,* 30–31, director, North. Rocky Mt. Forest and Range Exp. Sta, 31–36, regional forester, N. Cent. region, 36–39, Pacific Northwest region, 39–43, *chief, 43–* A.A; Soc. Foresters; Forestry Asn; Ecol. Soc. The relationship of forest cover to erosion and streamflow.

Watts, Dr. Nellie Perry, Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Pharmacology.* Cordova, Md, Sept. 11, 03. B.S, Phila. Col. Pharmacy and Sci, 36, M.S, 37; Ph.D, Western Reserve, 42. *Instr. pharmacol,* Western Reserve, 40–42; *Woman's Med. Col. Pa, 42–* A.A; Pharmaceut. Asn; Physiol. Soc. Phila. Prolongation of the action of local anesthetics.

Watts, Prof. Oliver P(atterson), 114 N. Spooner St, Madison, Wis. *Electrochemistry, Metallurgy.* Thomaston, Maine. A.B, Bowdoin Col, 89, A.M, 92, Sc.D, 24; Ph.D, Wisconsin, 05. Instr. math. and physical sciences, Franklin Acad, N. Y, 92–98; high sch, Mass, 98–03; in charge Carnegie research on electrolytic iron, *Wisconsin,* 05–06, instr. *applied electrochem,* 06–08, asst. prof, 08–17, assoc. prof, 17–37, *emer. prof, 37–* Aluminothermic process; calcium alloys; silicids; borids; electric furnaces; electroplating, corrosion and protection of metals.

Watts, Prof. Otto O(live), 1925 Simmons Ave, Abilene, Texas. *Chemistry.* Brentwood, Ark, March 21, 93. A.B, Simmons Col. (Texas), 13, Rice Inst, 16; A.M, Colorado, 23; Ph.D, Stanford, 32. Asst. and instr, Colorado, 22–24; *prof. chem,* Simmons, 20–22, 24–34, *Hardin-Simmons, 34–, chairman physical sciences, grad. sch.* Teaching fellow, Stanford, 30–32. Summers, acting asst. prof, Stanford, 30–32; visiting prof, col. mines and metal, Texas, 36, 37, 39; Stephen F. Austin State Teachers Col, 38. Instr, A.E.F. Univ. Beaune, 18. A.A; Chem. Soc; Texas Acad. (v. pres, 37, treas, 39–); Texas Archeol. and Paleont. Soc. (sec'y, 29, 32–). Thermometric titration method; electrical conductivity; viscosity and plasticity in the mesomorphic state; lyotropic properties of starch sols.

Watts, Dr. R(alph) L(evi), 225 E. Foster Ave, State College, Pa. *Horticulture.* Kerrmoor, Pa, June 5, 69. B.Agr, Pa. State Col, 90, M.S, 99; D.Agr, Syracuse, 16; Sc.D, R. I. State Col, 31. Horticulturist, Tennessee, 90–99; lecturer, farmers institutes, 99–08; prof. hort, *Pa. State Col,* 08–12, dean *sch. agr,* 12–39, *emer. dean, 39–,* director, Exp. Sta, 12–39. Trustee, Lingnan Univ, Canton, China. A.A; Soc. Hort. Sci; Veg. Growers Asn. (past pres). Vegetable gardening and forcing.

Watts, Dr. Ruth M(aude), 1302 21st Ave, Longview, Wash. *Chemistry.* Nashua, Iowa, Aug. 12, 99. B.S, Washington (Seattle), 21; M.S, Yale, 25; fellow, Michael Reese Hosp, Chicago, Ill, 28–30; Ph.D, Chicago, 30. Research chemist, Chicago, 30, Douglas Smith research instr, 30–43; *research chemist, pulp div, Weyerhaeuser Timber Co, 43–* A.A; Chem. Soc. Synthetic medicinals; local anesthetics; arsenic compounds; hormones; tumors; natural products.

Watts, Dr. Stephen H(urt), University, Va. *Surgery.* Lynchburg, Va, Aug. 6, 77. A.M, Randolph-Macon Col, 96, LL.D, 22; M.D, Hopkins, 01. From house officer to res. surgeon, Hopkins Hosp, 01–07; prof. surg, Virginia, 07–28; *retired.* Surg. Asn; fel. Col. Surg; Am. Med. Asn; Soc. int. de Chirurg. Suture of blood vessels; surgery of the pancreas.

Watts, Prof. Victor M(artin), University of Arkansas, Fayetteville, Ark. *Horticulture.* Deer Lodge, Tenn. B.S, Pa. State Col, 24; M.S, Wisconsin, 27; Ph.D, Cornell, 33. Instr. *hort,* Wisconsin, 25–27; asst. prof, *Arkansas,* 27–35, *assoc. prof, 35–* Asst, Cornell, 32–33. Soc. Hort. Sci. Physiology of growth and fruiting in tomatoes; physiology of pollination and fertilization; influence of soil reaction on growth of vegetable plants; physiological anatomy of vegetable crop plants; breeding vegetable crops.

Wauchope, Prof. Robert, Tulane University, New Orleans, La. *Anthropology.* Columbia, S. C, Dec. 10, 09. A.B, South Carolina, 31; A.M, Harvard, 33, Ph.D, 43. Mem. exped, Andover-Pecos, N. Mex, 27; Peabody, Stallings Island exped, 28; archeol. and ethnog. expeds. to Uaxactun, Guatemala, Carnegie Institution, 32, Yucatan, Campeche, Quintana Roo and Guatemala, 34, Zacualpa, Guatemala, 35, Kaminaljuyu, 36; research, Mex. and Guatemala, 39, 41; asst. prof. anthrop, Georgia, and director, Ga. Archeol. Surv, 38–40; assoc. prof. anthrop. and director lab. anthrop, North Carolina, 40–42; *director, Middle Am. Research Inst. and assoc. prof. anthrop, Tulane, 42–* Ed, 'Middle Am. Research Records'; 'Philol. and Documentary Studies.' Soc. Archeol; Soc. Ga. Archeol; Archeol. Soc. N. C; Int. Cong. Americanists. Central and North American anthropology.

Waud, Dr. Russell A(mos), 493 Baker St, London, Ont, Can. *Pharmacology.* Norwich, Ont, March 4, 95. M.D, Western Ontario, 21, M.Sc, 25; Ph.D, Chicago, 27. Intern, Victoria Hosp, 21–22; practising physician, 22–23; instr. physiol, *Western Ontario,* 23–27, asst. prof, 28–29, *pharmacol,* 29–30, assoc. prof, 30–35, *prof, 35–* Summer, pharmacologist, Dept. Health, Ottawa, 29. Soc. Pharmacol; Soc. Exp. Biol; Physiol. Soc; West. Ont. Acad. Med. The heart and circulation; physiology; venous pulse; viscosity of the blood; instruments; peptone and histamine shock; plant extracts; electrocardiograph; pharmaceutical alkaloids; fumaraceous plants.

Waugh, Prof. David F(loyd), 567 School St, Belmont, Mass. *Physical biology.* Kirkwood, Mo, Jan. 6, 15. A.B, Washington (St. Louis), 35, fellow, 38–39, Ph.D, 40. Asst. zool, Washington (St. Louis), 36–38, instr, 39–41; *asst. prof. physical biol, Mass. Inst. Tech, 41–* Determination of the molecular structure of cells and protoplasm.

Waugh, Prof. F(rank) A(lbert), Amherst, Mass. *Horticulture.* Sheboygan, Wis, July 8, 69. B.S, Kans. State Col, 91, M.S, 93, hon. Sc.D, 33; Cornell, 97–98; Hort. Sch, Dahlem, Germany, 10; hon. L.H.D, Vermont, 33. Asst. hort, Kans. State Col, 91; prof, Okla. Agr. and Mech. Col, 93–95; Vermont, 95–02; Mass. Col, 02–32, prof. *landscape archit.* and head dept, *Mass. State Col,* 32–39, *emer. prof, 39–* Landscape architecture; country planning; national and state forests and parks.

Waugh, Dr. F(rederick) V(ail), 1006 26th St, S, Arlington, Va. *Agricultural economics.* Burlington, Vt, June 11, 98. B.S, Mass. Col, 22; M.S, Rutgers, 24; Ph.D, Columbia, 29. Specialist in marketing research, Dept. Agr, N. J, 22–25; exten. economist, Conn. Agr. Col, 25–26; director, Mass. Div. Markets, 26–28; senior agr. economist, bur. agr. econ, *U. S. Dept. Agr,* 28–30, prin. agr. economist, 30–32, senior agr. economist in statist. research, 33–35, prin. agr. economist in charge div. marketing research, 35–41, asst. director marketing, 41–42, asst. administrator, agr. marketing admin, 42–43, *chief program analysis and appraisal branch, food distribution admin, 43–* Teacher, grad. sch, Cornell, 30; Social Science Research Council fellow, 32–33. Sec'y, New Eng. Research Council on Marketing and Food Supply, 28–; mem, Nat. Distribution Council. Farm Econ. Asn; Statist. Asn; Econometric Soc; Int. Conf. Agr. Econ. Price analysis; market preferences and premiums paid for quality; marketing of farm products; statistical methods.

Waugh, Dr. George P(almer), 88 Corona Road, Rochester, N. Y. *Organic chemistry.* Mt. Pleasant, Iowa, June 4, 06. B.S, Iowa Wesleyan Col, 28; M.S, Iowa, 29, Ph.D, 31. Asst. chem, Iowa, 28–31; *research chemist, Eastman Kodak*

Co, 31– Chem. Soc. Ethylenimines; cellulose chemistry; synthetic resins.

Waugh, Dr. J(ohn) G(eorge), California Institute of Technology, Pasadena, Calif. *Physics.* St. Louis, Mo, Sept. 1, 09. A.B, B.S, Missouri, 31, scholar, 31–32, A.M, 32; Ph.D, Cornell, 35. Asst. pomol, Cornell, 32–35; agent nut investigations, *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 35–37, asst. physiologist, 37–41, *assoc. physiologist, 41–* Research fellow, Calif. Inst. Tech, 42– Hort. Soc; Soc. Plant Physiol; Chem. Soc. Photosynthetic respiratory activity of apple leaves; chemical composition of pecan tissues; chemical composition and nutrition of peach tissues; effect of salinity stresses on plant tissues.

Waugh, Dr. Karl T(insley), U. S. Office of Education, Washington, D. C. *Psychology.* Cawnpore, India, 79. A.B, Ohio Wesleyan, 00, A.M, 01, LL.D, 27; A.M, Harvard, 06, Ph.D, 07. Prof. philos. and math, Claflin Col, 00–04; asst. philos, Harvard, 06–07; assoc. psychol, Chicago, 07–09; prof. philos. and psychol, Beloit Col, 09–18; dean, Berea Col, 19–23; col. lib. arts and prof. psychol, Southern California, 23–30; prof. psychol. and chairman div. psychol. and educ, Long Island, 30–31; pres, Dickinson Col, 31–33; dean, Charles Morris Price Sch, Phila, 34–38; personnel officer, State Dept. Pub. Assistance, Pa, 39–42; *field rep, student war loans fund, U. S. Office Educ, 42–* Lecturer, Colorado, 09, 14; Northwestern, 21; educ. research, India and China, 16–17. Pres, Calif. branch, Psychol. Corp, 28–30. Supervisor, Fed. Board Vocational Educ, 19; state director, in charge student aid, Nat. Youth Admin, Pa, 35–37. Major, Sanit.C, and chief psychol. examiner, U.S.A, 17–19. A.A; Psychol. Asn; Soc. Psychical Research; Eugenics Research Asn; Acad. Polit. and Social Sci; West. Psychol. Asn; Ky. Acad; N. Y. Acad. Comparative, abnormal and applied psychology; personnel.

Waugh, Dr. Richard C(ampbell), 1924 Lincoln St, Whiting, Ind. *Organic chemistry.* Fayetteville, Ark, Aug. 8, 17. B.S, Arkansas, 37; Ph.D, Colorado, 42. *Chemist,* Tenn. Eastman Corp, 41; *Standard Oil Co, Ind, 41–* Chem. Soc. Reaction of benzamidine with phenylglyoxal.

Waugh, Dr. Theo(dore) R(ogers), McGill University, Montreal, Que, Can. *Pathology.* St. Albans, Vt, June 6, 90. A.B, Yale, 12; M.D, McGill, 20. James Douglas fellow and lecturer *path, McGill,* 21–25, asst. prof, 25–41, *assoc. prof, 41–;* asst. pathologist, *Royal Victoria Hosp,* 25–37, pathologist, 37–40, *pathologist in chief, 40–;* pathologist, *Montreal Homeop. Hosp,* 25–40, *consulting pathologist, 40–* A.A; Am. Med. Asn; Asn. Path. and Bact; Can. Med. Asn; Royal Astron. Soc. Can; Can. Physiol. Soc; Path. Soc. Gt. Britain and Ireland; Int. Asn. Med. Mus. Hematology; hematopathology; hematological technique; fragility of erythrocytes; hypochromic anemia; icterus neonatorum; anemias; cancer.

Wawzonek, Dr. Stanley, University of Tennessee, Knoxville, Tenn. *Organic chemistry.* Valley Falls, R. I. B.S, Brown, 35; Ph.D, Minnesota, 39. Chemist, Minnesota, 39–40; nat. research fellow, Illinois, 40–41, *instr. chem,* 41–43; *Tennessee, 43–* Chem. Soc. Polarography; substituted cyclooctatetraenes.

Way, Prof. Harold E, Knox College, Galesburg, Ill. *Physics.* Colchester, Ill, Jan. 31, 04. B.S, Knox Col, 25; M.S, Pittsburgh, 28; Colorado, 29; Ph.D, Iowa, 36. Instr. *physics, Knox Col,* 27–32, asst. prof, 32–37, *prof. and chairman dept, 37–* Single crystals of zinc.

Way, Prof. Katharine, University of Tennessee, Knoxville, Tenn. *Physics.* Sewickley, Pa, Feb. 20, 03. B.S, Columbia, 32; Ph.D, North Carolina, 38. Huff research fellow, Bryn Mawr Col, 38–39; instr. *physics, Tennessee,* 39–41, *asst. prof, 41–* Physical Soc. Quantitative spectroscopy; nuclear forces; neutron sources.

Way, Dr. Stewart, Westinghouse Research Laboratories, East Pittsburgh, Pa. *Applied mechanics.* Sewickley, Pa, July 22, 08. A.B, Stanford, 29; Göttingen, 30; Sc.D, Michigan, 34. Mem. weight and balance anal. group, Douglas Aircraft Co, 30–31; *research engineer, mech. dept, Westinghouse Research Labs, 33–* A.A; Mech. Eng; Soc. Metals; Int. Asn. Bridge and Struct. Eng. Surface durability of gear teeth and gear materials; theory of elasticity, especially contact stresses and theory of thin plates; gas dynamics.

Way, Dr. Stuart C(lark), 1615 Monterey Blvd, San Francisco, Calif. *Dermatology.* Waterbury, Conn, Aug. 21, 90. B.S. Wake Forest Col, 17; M.D, Louisville, 19. Intern, Louisville City Hosp, 19–20; skin clinic, Rudolph Virchow Hosp, Berlin, 22; Stanford, 23–25; asst, dermat. clinic, Bonn, 25–26; dermat. and syphilis clinic, Hôpital St. Louis, Paris, 26; skin clinic, Edinburgh, and dept. path, Royal Col. Physicians, 26–27; skin clinic, Gen. Hosp, Vienna, 27; assoc. clin. prof. dermat, Stanford, 29–34; *practising physician, 27–* Visiting dermatologist, Mary's Help Hosp. Am. Med. Asn. Cancer; sebaceous glands; syphilis; mycology, especially histopathology of the skin; sudoriporous glands.

Wayland, Prof. (James) Harold, 240 Wisconsin Ave, Long Beach 3, Calif. *Physics.* Boise, Idaho, July 2, 09. B.S, Idaho, 31; M.S, Calif. Inst. Tech, 35, Ph.D, 37. Instr. math, Idaho, 34–35; Am-Scandinavian Foundation fellow, Copenhagen, 37; *asst. prof. physics, Redlands, 38–;* contract employee, Naval Ordnance Lab, 41–42, contract employee and asst. indust. manager, eleventh naval dist, *U. S. Navy,* 42–43, *senior physicist, 43–* Research fellow, Calif. Inst. Tech, 38–42. Physical Soc. Atomic physics; ionization of noble gases by bombardment with accelerated neutral noble gas atoms; numerical solution of determinantal equations.

Wayland, Capt. Russell G(ibson), Arlington Village No. 602, Arlington, Va. *Mining geology, Engineering.* Treadwell, Alaska, Jan. 23, 13. B.S, Washington (Seattle), 34; M.S, Minnesota, 35, Ph.D, 39; A.M, Harvard, 37. Geologist and engineer, Homestake Mining Co, S. Dak, 30–39; geologist, U. S. Geol. Surv, 39–42; *C.Eng, U. S. Army, and mineral specialist, Army and Navy Munitions Board, 42–, capt.* Geologist and engineer, Alaska Juneau Gold Min. Co, 37; instr, Minnesota, 37–39. Min. and Metal. Eng; Miner. Soc; Geol. Soc. Wash. Cumingtonite, an amphibole mineral found in the Black Hills, South Dakota; optical orientation of elongate clastic quartz; isomorphism in the rhodochrosite series.

Wayman, Dr. M(orris), Hawkesbury, Ont, Can. *Organic chemistry.* Can, March 19, 15. B.A, Toronto, 36, M.A, 37, fellow, 40–41, Ph.D, 41. Asst. chem, Toronto, 36–40; research chemist, Dye and Chem. Co, Can, 41–43; *asst. research chemist, Can. Int. Paper Co, 43–* A.A; Chem. Soc; assoc. Can. Inst. Chem. Bios; surface active agents; textile proofing agents.

Wayson, Dr. N(ewton) E(dward), U. S. Public Health Service, San Francisco, Calif. *Bacteriology.* St. Inigoes, Md, Nov. 22, 83. A.B, Hopkins, 04; M.D, Northwestern, 10. Asst. bacter, Wisconsin, 06–07; instr, Northwestern, 07–10; bacteriologist, State Board Health, Ill, 10–11; *med. officer, U. S. Pub. Health Service, 14–,* director leprosy investigation sta, 27–35, nat. inst. health, 37–40, *med. officer in charge plague investigations, 40–* Lecturer, Stanford; California. A.A; Am. Med. Asn; Asn. Mil. Surg. Pasteurelloses; tularemia; plague; poliomyelitis; antisera standardizations; typhoid vaccines; clonorchiasis; leprosy.

Weakley, Cha(rle)s E(dward), Jr, 407 Junior Ave, Morgantown, W. Va. *Agricultural chemistry.* Towson, Md, Feb. 7, 85. A.B, West Virginia, 25, A.M, 30; Minnesota, 30. Works chemist, E. I. du Pont de Nemours and Co, 06–07; asst. chemist, *West Virginia,* 07–38, *assoc. chemist, 38–* Chem. Soc; W. Va. Acad. Effects of high pressure on sterilization; animal nutrition.

Wear, Prof. L(uther) E(wing), 2247 Lambert Drive, Pasadena, Calif. *Mathematics.* Brownwood, Texas, July 2, 81. A.B, Cumberland, 02; Ph.D, Hopkins, 13. Prof. *math,* Trinity (Texas), 04–08; instr, Washington (Seattle), 13–18; *assoc. prof, Calif. Inst. Tech, 18–* A.A; Math. Soc. Geometry.

Wearn, Dr. Joseph T(reloar), Lakeside Hospital, Cleveland, Ohio. *Internal medicine.* Charlotte, N. C, Feb. 15, 93. B.S, Davidson Col, 13, hon. Sc.D, 43; M.D, Harvard, 17. Intern, Peter Bent Brigham Hosp, Boston, 17–18, asst. res. physician, 19–21; instr. pharmacol, Pennsylvania, 21–23; physiol, sch. pub. health, Harvard, 23–24, *med,* Harvard Med. Sch, 23–25, asst. prof, 25–28, assoc. prof, 28–29; *prof, Western Reserve, and director med, Lakeside Hosp, 29–* Visiting physician, Boston City Hosp, 24–29, asst. physician, Thorndike Mem. Lab, 23–28, assoc. director, 28–29. M.C, U.S.A, 18–19. A.A; Am. Med. Asn; Am. Physicians (sec'y); Physiol. Soc; Soc. Clin. Invest. (sec'y, 27–30, v. pres, 31); Clin. and Climat. Asn; Am. Heart Asn; Am. Acad. Physiology of the kidney; blood vessels of the heart; Thebesian circulation; capillaries of the lung; circulation of the heart and lungs; heart disease.

Weatherby, Dr. B(enjamin) B, 1623 E. 29th St, Tulsa, Okla. *Physics.* Millville, N. J, Aug. 7, 99. A.B, Haverford Col, 21, A.M, 22; Ph.D, Pennsylvania, 29. Instr. physics, Lafayette Col, 21–23; asst. prof, Toledo, 23–24, assoc. prof, 24–

25; instr, Pennsylvania, 25–26, 27–29; field chief, *Geophys. Research Corp*, 26–27, geophysicist, 29–31, v. pres, 31–33, *pres, 33–; v. pres. and director, Amerada Petrol. Corp, 41–* Physical Soc; Min. and Metal. Eng; Asn. Petrol. Geol. (assoc. ed, 32–); Soc. Explor. Geophys. (ed, 34–, pres, 35); Geophys. Union. Atomic behavior of gases; soft roentgen rays; petroleum seismology.

Weatherby, C(harles) A(lfred), 27 Raymond St, Cambridge, Mass. *Botany.* Hartford, Conn, Dec. 25, 75. A.B, Harvard, 97, A.M, 98. Asst, *Gray Herbarium, Harvard*, 08, 09, 11, 15, 17–31, asst. curator, 31–37, senior curator, 37–40, *research assoc, 40–* A.A; Bot. Soc; Fern Soc. (sec'y, 14–18, ed, 'Jour,' 15–40); Torrey Bot. Club; Am. Acad; New Eng. Bot. Club (librarian, 28–, assoc. ed, 'Rhodora,' 29–); Conn. Bot. Soc. (v. pres, 10–29, pres, 43–); Vt. Bot. Club. Taxonomy of vascular plants, especially American ferns.

Weatherby, Dr. J(esse) H(owell), 3107 Hawthorne Ave, Richmond, Va. *Pharmacology.* Canton, Miss, March 15, 03. B.S, Miss. Agr. and Mech. Col, 24; A.M, Hopkins, 26, Ph.D, 28. Instr. physiol, Illinois, 28–29; *pharmacol*, sch. med, Indiana, 29–36; *research assoc, Med. Col. of Va, 36–; lieut, U. S. Naval Res.* A.A; Soc. Zool; Soc. Pharmacol. Excretion of nitrogenous substances in Protozoa; pharmacology of amino compounds; chemical irritation; cell membranes; semipermeability.

Weatherby, Prof. LeRoy S(amuel), University of Southern California, Los Angeles, Calif. *Chemistry.* Baldwin, Kans, March 29, 80. A.B, Kansas, 06, A.M, 08; fellow, Chicago, 09–11, Ph.D, 11. Instr. chem. and physics, Baker, 06–08; asst. prof. *chem*, Okla. Agr. and Mech. Col, 08–09; asst. prof. and *prof, Southern California, 11–* Lecturer, Columbia, 24. Summers, exchange prof, Northwestern, 24, 36; Washington, 27; George Washington, 38; Pittsburgh, 41. Chem. Soc; Inst. Food Technol. Physico-organic chemistry; synthetic organic chemistry; nutrition; vitamins.

Weatherford, Dr. Harold L(orraine), Harvard Medical School, Boston, Mass. *Histology.* Unionville, Mo, June 24, 91. A.B, Stanford, 16; A.M, Illinois, 24; Ph.D, Harvard, 28; Freiburg, 30. Instr. anat, Illinois, 23–24; Austin teaching fellow histol, *Harvard Med. Sch*, 24–26, instr. anat, 26–31, *asst. prof.* histol, 31–33, *anat, 33–* Assoc. ed, 'Anat Record,' 32–A.A; Asn. Anat; Anat. Soc. Gt. Britain and Ireland; fel. Royal Micros. Soc. The mechanism of milk secretion; leucocytes and lactation; cytology of the mammary gland; Golgi apparatus and vital staining; mitochondria in inflamed connective tissue; liver and anaphylaxis; intranuclear crystals; cytology of joints; nerve endings.

Weatherill, Prof. Philip F(rancis), 1113 Ferdon Road, Ann Arbor, Mich. *Physical chemistry.* Brunswick, Maine, May 7, 94. A.B, Bowdoin Col, 16; A.M, Harvard, 17, Ph.D, 21. Instr. *gen. and physical chem, Michigan*, 21–27, *asst. prof, 27–* A.A; Chem. Soc; Mich. Acad. Atomic weights.

Weathers, Prof. Curtis L(inville), Long Island University, Brooklyn, N. Y. *Biology.* Wakefield, N. C, April 1, 98. A.B, Wake Forest Col, 20; A.M, North Carolina, 25, Columbia, 27. Teacher, high schs, N. C, 20–25; asst. *biol*, N. Y. Univ, 26–27; Columbia, 27–28; instr, *Long Island*, 28–31, *asst. prof, 31–* Summer, instr, North Carolina, 24. A.A; Soc. Parasitol; N. Y. Acad. Invertebrate zoology.

Weathersbee, Albert A(llen), State Board of Health, Columbia, S. C. *Medical entomology.* Ellenton, S. C. B.S, Clemson Agr. Col, 40; Hopkins, 40–41. Entomologist, sta. for field studies in malaria, Rockefeller Foundation, N. C, 26–28, yellow fever cmn, 29–30, W. African yellow fever cmn, Nigeria, 30–32, sta. malaria research, Fla, 33; special agent, U. S. Pub. Health Service, 34; sci. asst, hygienic lab, *State Board Health, S. C*, 36–37, *med. entomologist, 37–; lieut, med. dept, U. S. Naval Res, 41–* A.A; Malaria Soc; Soc. Trop. Med; S. C. Acad. Malaria; winter activities of anophelines; bionomics of yellow fever vectors; typhus fever vectors; vital staining of mosquito larvae; subsurface drainage of residual water from malaria control ditches; the mosquitoes of South Carolina.

Weatherwax, J(ames) L(loyd), Philadelphia General Hospital, Philadelphia, Pa. *Physics.* Clark, Ohio, Aug. 28, 84. A.B, Oberlin Col, 12; A.M, Missouri, 16. Instr. physics, Nevada, 16–18; research dept, Westinghouse Lamp Co, 18–21; *radiol. dept, Bur. Health, Phila, 21–;* from assoc. to *asst. prof. radiotherapeutic physics, grad. sch. med, Pennsylvania, 21–* A.A; Physical Soc; Radiol. Soc; Roentgen Ray Soc; Radium Soc; Franklin Inst; Phila. Roentgen Ray Soc. Measurements of the penetration and distribution of x-ray and radium radiation to determine a more exact knowledge of dosage as applied to the treatment for malignancy; apparatus to measure x-rays; application of physical measurements to radiation therapy; physics of radiology; fundamentals of radiological physics.

Weatherwax, Prof. Paul, 416 S. Dunn St, Bloomington, Ind. *Botany.* Worthington, Ind, April 4, 88. A.B, Indiana, 14, A.M, 15, Ph.D, 18. Asst. *bot*, Indiana, 13–15, instr, 15–19; assoc. prof, Georgia, 19–21; *Indiana*, 21–35, *prof, 35–* A.A; Soc. Nat; Bot. Soc. (treas, 39–); Genetic Asn; Torrey Bot. Club; Ind. Acad. (pres, 41). Morphology of grasses; Indian corn.

Weaver, Prof. Andrew Thomas, 126 N. Spooner St, Madison, Wis. *Speech, Psychology.* Waukesha, Wis, July 28, 90. A.B, Carroll Col. (Wis), 10; A.M, Wisconsin, 11, Ph.D, 23. Instr, Dartmouth Col, 12–13; Northwestern, 13–17; *prof. speech*, Wis. State Nor. Sch, Whitewater, 17–18; *Wisconsin, 18–, chairman dept, 27–* Summer, chairman dept. speech, California, 25; mem. faculty, Southern California, 31, 39; Hawaii, 40. Ed, 'Quarterly Jour. Speech,' 30–33. Asn. Teachers Speech (research cmt, exec. councilor, ed, research monographs, pres, 26). Vocal expression; voice science.

Weaver, Prof. C(harles) E(dwin), University of Washington, Seattle, Wash. **7Geology, Paleontology.* Utica, N. Y, May 1, 80. B.S, California, 04, Ph.D, 07. Instr. geol, *Washington (Seattle)*, 07–12, asst. prof, 12–18, assoc. prof, 18–21, *prof. paleont, 21–* Summer, asst, U. S. Geol. Surv, Alaska, 06; geologist, Wash. Geol. Surv, 09–11, 13, 14, 17; on leave, geol. research, S. Amer, 19–25. A.A; Geol. Soc. (councilor, 41–; mem. finance and membership cmt); Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Paleont. Soc; Wash. Acad; Paleont. Gesell; Soc. géol. de France. Tertiary paleontology and stratigraphy in Washington and California; geology of northeastern Washington; Jurassic and Cretaceous paleontology and stratigraphy in Argentina and Chile.

Weaver, Dr. Clay, E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Pittsfield, Ill, June 3, 14. B.S, Illinois, 38; Ph.D, Rochester, 41. Special asst, Illinois, 41–42; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 42–* Organoboron compounds; organic sulfur compounds; organometallic compounds.

Weaver, David S(tathem), 520 Daughtridge St, Raleigh, N. C. *Agricultural engineering.* Cincinnati, Ohio, June 19, 96. B.S. (Agr), Ohio State, 20; M.S, N. C. State Col, 25. Instr. and assoc. prof, Miss. Agr. and Mech. Col, 20–23; assoc. prof. and prof. agr. eng, N. C. State Col, 23–36; prin. agr. engineer, *Rural Electrification Admin, N. C*, 36–40, chairman, 40–41, *sec'y, 41–* Agr. Eng. (chairman, south. sect, 29). Control of erosion of cultivated land by surface and subsurface methods; effect of terracing upon the economical use of large field equipment; rural electrification survey in North Carolina.

Weaver, Prof. Earl, Michigan State College, East Lansing, Mich. *Dairying.* Brazil, Ind, July 27, 93. B.S, Okla. Agr. and Mech. Col, 13; M.S, Iowa State Col, 17; Ph.D, Minnesota, 38. Asst. prof. dairying, Minnesota, 17–18; *prof.* dairy husbandry, Iowa State Col, 19–29; *dairying and head dept*, Okla. Agr. and Mech. Col, 29–37; *Mich. State Col, 37–* Dairy Sci. Asn. (pres, 39); Soc. Animal Production. Dairy production.

Weaver, Prof. E(dwin) O(scar), 473 Park Place, Springfield, Ohio. *Physics.* Springfield, Ohio, April 1, 67. A.B, Wittenberg Col, 89, A.M, 92; Chicago, 94; Michigan, 04–06, 15–16; Sc.D, Carthage Col, 20. Instr. math, Wittenberg Acad, 89–93, prin, 93–96; acting prof. math. and physics, *Wittenberg Col*, 95–96, *prof.* physics and biol, 96–04, *physics, 04–* A.A. Magnetic and expansion phenomena attending the recalescence of iron.

Weaver, E(lmer) R(upel), 6315 Connecticut Ave, Chevy Chase, Md. *Chemistry.* Longmont, Colo, May 5, 87. A.B, Stanford, 10. Asst. chemist, Standard Portland Cement Co, 10–12; *Bur. Standards*, 12–17, *chemist, 19–* A.A; Chem. Soc; Wash. Acad. Chemistry and physical chemistry of gases.

Weaver, Dr. George H(owitt), 1020 Ashland Ave, Wilmette, Ill. *Pathology.* Sussex, Wis, Oct. 22, 66. Carroll Col. (Wis), 82–85; Col. of Wooster, 85–86; M.D, Rush Med. Col, 89. Prof. *path*, Woman's Med. Sch, Northwestern, 93–97; asst. prof, *Rush Med. Col, Chicago*, 99–18, *prof, 18–* Physician in charge, Durand Hosp, McCormick Inst, 02–33; attending physician contagious diseases, Cook County Hosp, 05–13. A.A; Asn. Path. and Bact; Soc. Bact; Am. Physicians; Am. Med.

Asn; Chicago Path. Soc; Chicago Soc. Med. Hist. Bacteriology and immunity in contagious diseases.

Weaver, Dr. Harold E(shleman), Mellon Institute of Industrial Research, Pittsburgh, Pa. *Chemistry.* Ronks, Pa, March 21, 11. B.S, Franklin and Marshall Col, 34; fellow, Brown, 38–40, Ph.D, 40. Asst. chem, Brown, 35–38; research chemist, E. I. du Pont de Nemours and Co, 40–41; *indust. fellow, Mellon Inst, 41–* Chem. Soc. Physical and organic chemistry; electrical properties of non-aqueous solutions; cellulose acetate chemistry; plastics and resins.

Weaver, Dr. H(arry) M(erwyn), Wayne University College of Medicine, Detroit, Mich. *Anatomy.* Lancaster, Ohio, March 20, 09. A.B, Ohio State, 35, M.S, 36, Ph.D, 38. Asst. *anat,* Ohio State, 35–38; instr, *col. med, Wayne,* 38–42, *asst. prof, 42–* Asn. Anat; Int. Soc. Dental Research. Peripheral neuro-pathology; poliomyelitis; polarographic studies of normal and diseased peripheral nerves; the lipids of the adrenal cortex.

Weaver, Prof. H(omer) E(llsworth), Oberlin College, Oberlin, Ohio. *Psychology.* Barberton, Ohio, Feb. 19, 98. A.B, Oberlin Col, 24, A.M, 26; Ph.D, Stanford, 30. Asst. *psychol,* Stanford, 26–29; *asst. prof,* Arizona, 29–30; *Oberlin Col, 30–* A.A; assoc. Psychol. Asn. Psychology of music; development of muscular skill; reading; visual perceiving; music.

Weaver, Dr. John C(arl), 2438 Princeton Road, Cleveland Heights, Ohio. *Chemistry.* Gibson Station, Ohio, Aug. 5, 08. B.S, Denison, 30; A.M, Cincinnati, 33, Ph.D, 35. Asst. chem, Cincinnati, 30–34, Laws fellow, 34–35, instr, 35–36; *chemist, Sherwin-Williams Co, Cleveland, 36–* Chem. Soc. Photographic developers; organic analytical reagents; varnishes.

Weaver, Prof. J(ohn) E(rnst), University of Nebraska, Lincoln, Nebr. ***Botany.* Villisca, Iowa, May 5, 84. B.S, Nebraska, 09, A.M, 11; Ph.D, Minneosta, 16. Instr. bot, State Col. Wash, 12–13, asst. prof, 13–14; instr, Minnesota, 14–15; asst. prof, *Nebraska,* 15–17, *prof. plant ecol, 17–* Research assoc, Carnegie Institution, 22–30. Mem. ed. board, 'Ecology,' 23–34, 'Ecol. Monographs,' 31–32, 40–42. Mem. cmt. on ecol. of grasslands of N. Amer, Nat. Research Council, 32–42. A.A; fel. Bot. Soc; Ecol. Soc. (pres, 30); Soc. Physiol; Nebr. Acad. (pres, 36). Plant ecology and physiology; root activities; crop and range ecology; structure of grasslands; drought.

Weaver, Dr. LeRoy E(ugene), Care of Growers Ice and Development Co, Salinas, Calif. *Vegetable breeding.* Superior, Iowa, Oct. 17, 07. B.S, N. Mex. State Col, 34; Ph.D, Oregon State Col, 38. *Research specialist, Growers Ice and Develop. Co.* Pathology and soil problems in connection with the growing of vegetables; virus diseases of small fruits; breeding for resistance to diseases of vegetables.

Weaver, Dr. M(yron) M(cDonald), University of Minnesota, Minneapolis, Minn. *Physiology.* Detroit, Mich, Oct. 19, 01. A.B, 24, M.S, 26; Ph.D, Chicago, 29, M.D, 32. Asst. prof. physiol, sch. med, West Virginia, 26–27, assoc. prof, 27–28; asst. prof, sch. med, Loyola (Ill), 28–29; intern, Presb. Hosp, Chicago, 31–32; asst. prof. health and physiol. educ, Carleton Col, 32–33, assoc. prof, 33–34; director professional relations, Eli Lilly and Co, 34–41; prof. hygiene and director student health, Knox Col, 41–42; *asst. prof. prev. med. and pub. health, Minnesota, 42–* Asst, Chicago, 26, 28. The pancreas; the barbiturates; physical educational tests and standards.

Weaver, Paul, 3443 Inwood Drive, Houston, Texas. *Geophysics, Geology.* Carrollton, Ky, May 18, 88. A.B, Columbia, 08. Aid, U. S. Coast and Geod. Surv, 08–09; asst, U. S. Geol. Surv, 09–10; geologist. Bermudez Co, Venezuela, 10–11; S. Pearson and Son and Mex. Eagle Oil Co, 11–26; *geophysicist, Gulf Oil Corp, 26–* A.A; Soc. Explor. Geophys; Asn. Petrol. Geol; Soc. Econ. Geol; Min. and Metal. Eng; Inst. Petrol. Technol; Seismol. Soc. Petroleum discovery and technology.

Weaver, Prof. R(alph) H(older), 347 Transylvania Park, Lexington, Ky. *Bacteriology.* Waynesburg, Pa, Jan. 13, 03. B.S, Allegheny Col, 22, M.S, 23; Ph.D, Mich. State Col, 26. Asst, Mich. State Col, 22–26; asst. prof. *bacter, Kentucky,* 26–31, assoc. prof, 31–37, *prof, 37–* A.A; Soc. Bact; Ky. Acad. Incipient spoilage of meats; electrophoresis; lactobacilli; organisms from trickling filters which decompose simple organic substances; effects of carcinogenics upon micro-organisms; food poisoning; Pseudomonas.

Weaver, Dr. Richard Lee, University of New Hampshire, Durham, N. H. *Science.* Howard, Pa, April 6, 11. B.S, Pa. State Col, 33; Pack fellow, Cornell, 36–38, Ph.D, 38. Head dept. science, Maumee Valley County Day Sch, 33–36; naturalist, Dartmouth Col, 38–43; *mem. faculty, New Hampshire, 43–* Assoc. Ornith. Union; Nature Study Soc. (chairman membership, 42); Wilson Ornith. Club (chairman membership, 41). Conservation education in the federal agencies of the United States.

Weaver, Dr. W(arren), Rockefeller Foundation, 49 W. 49th St. New York, N. Y. *Electromagnetism.* Reedsburg, Wis, July 17, 94. B.S, Wisconsin, 16, C.E, 17, Ph.D, 21. Asst. prof. math, Throop, 17–18, Calif. Inst. Tech, 19–20; Wisconsin, 20–25, assoc. prof, 25–28, prof. and chairman dept, 28–32; *director nat. sciences,* Gen. Educ. Board, 32–37; *Rockefeller Foundation, 32–* Chairman sect. D-2, Nat. Defense Research Cmt, 40–42, chief applied math. panel, 43– Mem. div. physical sciences, Nat. Research Council, 36–39. 2nd lieut, A.S, 17–19. A.A; fel. Physical Soc; Math. Soc. (trustee, 41–); Math. Asn; Geophys. Union; cor. mem, Christian Michelsens Inst, Norway. Electrodynamics; theory of probability; applied mathematics.

Weaver, Dr. Willis K(uhn), Baxter Laboratory, College Point, L. I, N. Y. *Chemistry.* Tahlequah, Okla, March 8, 83. A.B, Tarkio Col, 06; B.S, Missouri, 13; M.S, Chicago, 22, Ph.D, 28. Teacher and prin, high sch, 08–18; instr. and asst. prof. chem, sch. pharmacy, Illinois, 19–25; chemist, Nat. Path. Lab, Chicago, Ill, 27–29; chemist in med, sch. med, Washington (St. Louis), 29–32; *chief chemist,* U. S. Standard Products Co, Woodworth, Wis, 32–36; *east. div, Baxter Lab, 36–* Pharmaceuticals; biological and medical chemistry; histamine wheals and allergy; pyrogens.

Webb, Prof. Alex(ander) R(affen), 316 S. Johnson St, Ada, Ohio. *Civil engineering.* Chicago, Ill, March 14, 87. B.S, Armour Inst. Tech, 08, C.E, 13; M.S, Michigan, 30. Practical work, 08–15; prof. *civil eng,* Highland Park Col. and Des Moines Col, 15–19; asst. prof, Idaho, 19–21; *prof,* Philippines, 21–24; *Ohio Northern, 24–* Asst, Michigan, 29–30; city engineer, Ada, Ohio, 31–36. Civil Eng. Hydraulic engineering; broad crested weirs with inclined aprons.

Webb, Dr. Byron H(orton), 2904 Ordway St, N. W, Washington, D. C. *Dairy chemistry.* New York, N. Y, May 2, 03. B.S, California, 25; M.S, George Washington, 28; fellow, Cornell, 29–30, Ph.D, 31. Junior dairy mfg. specialist, *bur. dairy indust, U. S, Dept. Agr,* 26–29, assoc. dairy mfg. specialist, 30–36, *dairy mfg. specialist, 36–* Dairy Sci. Asn; Chem. Soc; Wash. Acad. Heat coagulation of milk; manufacture of dairy by-products; development of new dairy products.

Webb, Prof. Carl N(athan), Miami University, Oxford, Ohio. *Chemistry.* Montague, Mich, Sept. 11, 00. B.S, Northwestern, 25, fellow, 25–26, M.S, 26, Ph.D, 35; A.M, Harvard, 28. Asst, Harvard, 26–27, instr, 27–28; *chem, Miami (Ohio),* 28–29, asst. prof, 29–39, *assoc. prof, 39–* Chem. Soc. Organic chemistry.

Webb, Dr. D(onald) L(oomis), Texas Technological College, Lubbock, Texas. *Mathematics.* Wakita, Okla, Nov. 17, 07. B.S, Arizona, 31, M.S, 33; Ph.D, Calif. Inst. Tech, 36. Asst. *math,* Calif. Inst. Tech, 33–36; instr, Ga. Tech, 36–38, asst. prof, 38–42; *Texas Tech. Col,* 42–43, *assoc. prof, 43–* Asn. Symbolic Logic; Math. Soc; Math. Asn. Mathematical logic; algebra of many valued logics.

Webb, Dr. F(rederick) J(arvis), 112 Gregory Ave, Passaic, N. J. *Organic chemistry.* Toronto, Ont, Can, Oct. 9, 11. B.A, Western Ontario, 35; M.A, Toronto, 36; fellow, Iowa State Col, 37–41, Ph.D, 41. Asst. chem, Toronto, 35–37; *research chemist,* div. indust. hygiene, Can. Dept. Pensions and Nat. Health, 41–42; *Ridbo Labs, Inc, 42–* Chem. Soc. Metalation of sulfur-containing organic compounds.

Webb, Dr. Glenn M(iller), Universal Oil Products Co, Riverside, Ill. *Physics.* Hastings, Mich, March 20, 10. B.S, Calif. Inst. Tech, 31; M.S, Washington (St. Louis), 33, fellow, 34–35, Ph.D, 35. Asst, Washington (St. Louis), 31–33, teaching fellow, 33–34; physicist, West. Cartridge Co, 35–37; *physical research on petrol. and study catalysts used in petrol. industry, Universal Oil Products Co, 37–* Chem. Soc; Physical Soc. Atomic physics; electron scattering; ballistics; catalysis.

Webb, Prof. H(anor) A, George Peabody College for Teachers, Nashville, Tenn. *Chemistry.* Nashville, Tenn, April 1, 88. A.B, Nashville, 08; M.S, Chicago, 11; Ph.D, George Peabody Col, 20. Teacher, schs, Ga, Tenn. and Ky, 08–10; asst,

lab, and senior asst, chem. lab, Chicago, 10–12; prof. psychol, West Tenn. State Nor, Sch, 12–14, prof. chem. and biol, 14–17; instr. *chem. and teaching of science, George Peabody Col*, 17–20, assoc. prof, 20–24, *prof, 24–* Ed, 'Current Science,' 27–; chem. ed, 'Science Education'; science ed, 'Education,' 'Keystone Gen. Science Visual Units,' 30– A.A; Chem. Soc. (sec'y, Nashville sect); Asn. Sci. and Math. Teachers; Nat. Asn. Research Sci. Teaching (exec. cmt, 36, pres, 37); Tenn. Acad. (v. pres, 31). Education in science; reaction of children to science; analysis of science texts; visual aids in science.

Webb, Prof. Harold D(onivan), 409 12th Ave, Belmar, N. J. *Physics.* Franklin, Ind, Sept. 23, 09. A.B, Franklin Col, 31; A.M, Indiana, 32, Ph.D, 39. Teacher, junior high sch, Ind, 34–35, 36–39; Tenn, 35–36; prof. math. and physics, West Liberty State Teachers Col, 39–42; *assoc. elec. engineer, U. S. War Dept, Camp Evans, 42–* A.A; Ind. Acad; W. Va. Acad. Photoelectric measurements of the variation of light from a weak source superimposed upon a bright constant source.

Webb, Prof. Harold W(orthington), Columbia University, New York, N. Y. ***Physics.* Ithaca, N. Y, July 27, 84. A.B, Columbia, 05, Ph.D, 09. Instr. *physics, Columbia*, 09–14, asst. prof, 14–24, assoc. prof, 24–29, *prof, 29–* A.A; Physical Soc. (sec'y, 23–28); Optical Soc. Short electric waves; metastable states in mercury vapor; excitation of spectra; recombination; resonance radiation; radiation life time.

Webb, Dr. H(ubert) J(udson), Clemson Agricultural College, Clemson, S. C. *Agricultural chemistry.* Aiken, S. C, June 8, 11. B.S, Clemson Agr. Col, 33; Ph.D, Cornell, 38. Asst. soil microbiol, Cornell, 34–38; asst. chief chemist, *Clemson Agr. Col*, 38, *chief chemist, 39–* Agr. Chem. Legal chemical control of fertilizers and other fertilizer problems.

Webb, Prof. J(ames) S(hepard), University of Minnesota, Minneapolis, Minn. *Physics, Radio engineering.* Valparaiso, Ind, June 28, 94. B.S, Valparaiso, 17; M.S, Chicago, 26; Ph.D, Cornell, 30. Physical and elec. lab, West. Elec. Co, 17–23; instr. physics, Lehigh, 23–28; Cornell, 28–30; *assoc. prof. radio eng, Minnesota, 30–* Physical Soc; Radio Eng. Electricity; radio.

Webb, Dr. Joseph F(rancis), Jr, College of the City of New York, New York, N. Y. *Bacteriology.* Yonkers, N. Y, Dec. 17, 03. A.B, Dartmouth Col, 29; fellow, Col. City N. Y, 29–32; A.M, Columbia, 30, Ph.D, 39. Tutor *biol, Col. City N. Y*, 32–37, *instr, 37–* A.A; Soc. Bact. Immunology.

Webb, Dr. J(ulian) H(ale), 290 Hollywood Ave, Rochester, N. Y. *Physics.* Anderson, S. C, Aug. 23, 02. B.S, Clemson Col, 23; M.S, Wisconsin, 25, Ph.D, 29. Testing course, Gen. Elec. Co, 23–34; asst. physics, Wisconsin, 25–29; instr, Williams Col, 29–31; *physicist, research lab, Eastman Kodak Co, 31–* Physical Soc; Optical Soc. Electrostatics; photographic sensitometry and exposure theory.

Webb, Lewis W(arrington), Jr, Virginia Polytechnic Institute, Norfolk, Va. *Physics.* Norfolk, Va, March 1, 10. B.S, Va. Polytech. Inst, 31, M.S, 32. Asst. prof. physics, *Norfolk div, Col. of William and Mary and Va. Polytech. Inst*, 32–41, assoc. prof, 41–42, *asst. director, 42–, exec. officer, eng, science and management war training, 41–* Asn. Physics Teachers; Va. Acad. Transmission; spectrographic analysis of leaf extract and plastics.

Webb, Prof. L(oule) W(infield), Northwestern University, Evanston, Ill. *Psychology.* Texarkana, Ark, Sept. 8, 83. A.B, Ouachita Col, 06; Th.M, South. Baptist Theol. Sem, 09; A.M, Chicago, 13, Ph.D, 16. Prof. philos, Ouachita Col, 09–11; instr. psychol. and educ, *Northwestern*, 16–18, asst. prof. *educ*, 18–21, assoc. prof, 21–33, *prof, 33–* Psychol. Asn. Educational psychology; transfer of training and retroaction; standard tests in the elementary school; methods of studying; tests.

Webb, Prof. Richard L(ockwood), 1853 W. Polk St, Chicago, Ill. *Anatomy.* Farmer City, Ill, Oct. 14, 02. A.B, Illinois, 24, M.S, 25, Ph.D, 31. Asst. zool, *Illinois*, 24–26, instr. *anat, col. med*, 26–31, assoc, 31–34, asst. prof, 34–39, *assoc. prof, 39–* Summer, instr, Ill. State Nor. Univ, 26. Asn. Anat. Chondrocranium of Necturus; peritoneal fluid; mast cells; omentum; lymphatics; cinematography.

Webb, Dr. Robert W(allace), University of California at Los Angeles, Los Angeles, Calif. *Geology.* Los Angeles, Calif, Nov. 2, 09. A.B, California at Los Angeles, 31; M.S, Calif. Inst. Tech, 32, Ph.D, 37. Asst. *geol, California at Los Angeles*, 32–36, assoc, 36–37, instr, 37–40, *asst. prof, 40–, coordinator, Army Specialized Training Program, 43–* Lecturer, exten. div, California, 36– Fel. Geol. Soc; fel. Soc. Research Meteorites (sec'y, 37–41); Branner Geol. Club (sec'y-treas, 35–37). Petrology; geomorphology; mineralogy.

Webb, Dr. Robert W(illiam), U. S. Department of Agriculture, Washington, D. C. *Plant physiology and pathology.* Anderson, S. C, March 4, 95. B.S, Clemson Col, 18; M.S, Washington (St. Louis), 19, fellow, Mo. Bot. Garden, 18–19, 19–21, Ph.D, 21; Wisconsin, 21–25. Asst, Mo. Bot. Garden, 19–20; sci. asst, office cereal investigation, bur. plant indust, *U. S. Dept. Agr*, 21, asst. pathologist, 23–24, assoc. pathologist, 24–26, assoc. physiologist, 26–27, assoc. cotton technologist, *div. cotton marketing, bur. agr. econ*, 27–29, cotton technologist, 29–30, senior cotton technologist, *in charge cotton utility and standards research sect*, 30–36, *prin. cotton technologist, 36–* Summers, field asst, Exp. Sta, Clemson Col, 17–19. A.A; Soc. Test. Mat. (chairman, subcmt. raw cotton, 34–). Physiology of fungi; root-rot diseases of wheat; virus diseases of wheat and tobacco; physical properties of proteins in tobacco; cotton quality standardization, including fiber, ginning, spinning, yarn and fabric testing and studies.

Webb, Dr. T(homas) J(efferson), Nassau Club, Princeton, N. J. *Physical chemistry.* Anderson, S. C, May 8, 00. B.S, Clemson Col, 21; A.M, Princeton, 23, Ph.D, 24. Nat. research fellow, California, 24–25; physik. inst, Eidgen Tech. Hochschule, Zurich, 25–26; instr, Princeton, 26–28, asst. prof. physical chem, 28–36; research chemist, *Merck and Co, Rahway*, 36–38, *asst. director research, 38–* Chem. Soc. Third law of thermodynamics; non-aqueous solutions of strong electrolytes; hydration energies of ions; statistical mechanics; purity, stability and structural investigations of organic compounds.

Webb, Thomas W(illiam), 400 Denny Road, Columbia, S. C. *Soils.* Aiken, S. C, Oct. 29, 04. B.S, Clemson Col, 29; M.S, Va. Polytech. Inst, 30; Cornell, 32–33. Agr. supervisor, Baptist Orphanage of Va, 30–32; asst, Cornell, 32–33; assoc. soil scientist, soil conservation service, U. S. Dept. Agr, 33–38, soil conservationist, regional office II, 38–42; *asst. state conservationist, S. C, 42–* South. Agr. Workers Asn. Summer, Exp. Sta, Clemson Col, 29. S. C. Acad. Effects of various crops in controlling erosion on different soil types; inoculation of legumes in southern states; correlation of soil, slope, type, land-use and degree of erosion.

Webb, Dr. Wayne, Pennsylvania State College, State College, Pa. *Physics.* Seminole Co, Okla, July 26, 06. A.B, Oklahoma, 29, M.S, 31; Ph.D, Iowa, 38. Instr. *physics*, Univ. Jr. Col, Tonkawa, Okla, 30–36; asst, Iowa, 36–38; instr, *Pa. State Col*, 38–42, *asst. prof, 42–* Physical Soc; Asn. Physics Teachers. Properties of metals in single crystal form; beta brass in single crystal form.

Webb, Prof. William L(eonard), New York State College of Forestry, Syracuse, N. Y. *Vertebrate ecology.* Oct. 5, 13. B.S, Minn, 35, M.S, 40. Junior biologist, U. S. Forest Service, 35–36; asst, Minnesota, 36–37; *asst. prof, N. Y. State Col. Forestry, Syracuse, and junior forest zoologist, Roosevelt Wildlife Forest Exp. Sta, 37–* Wildlife Soc; Soc. Foresters. Wildlife management.

Webb, Prof. W(illia)m S(nyder), University of Kentucky, Lexington, Ky. *Physics.* Greendale, Ky, Jan. 19, 82. B.S, Kentucky, 01, M.S, 02; hon. Sc.D, Alabama, 37. Assoc. prof. *physics, Kentucky*, 13–17, *prof. and head dept, 19–, head dept. anthrop.* Archeologist, Tenn. Valley Authority, 34, 36. Major, F.A, 17–19. A.A. (councilor, 31–); Physical Soc; Anthrop. Asn. (pres, cent. sect, 36); Asn. Physics Teachers (sec'y, 30–36); fel. Soc. Archeol. (councilor, assoc. ed).

Webber, Dr. G(eorge) Cuthbert, University of Delaware, Newark, Del. *Mathematics.* Innisfail, Alta, June 1, 06. B.A, British Columbia, 30, M.A, 32; Ph.D, Chicago, 34. Nat. research fellow, Brown, 34–35; Pennsylvania, 35–36; instr. *math*, Armour Inst. Tech, 36–37; *Delaware*, 37–40, *asst. prof, 40–* Math. Soc. Algebraic and analytic number theory.

Webber, Prof. H(erbert) J(ohn), Citrus Experiment Station, Riverside, Calif. ***Plant physiology.* Lawton, Mich, Dec. 27, 65. B.S, Nebraska, 89, A.M, 90, Agr.D, 13; Ph.D, Washington (St. Louis), 01; LL.D, California, 43. Instr. bot, Nebraska, 89–90; Washington (St. Louis), 90–92; pathologist, U. S. Dept. Agr, 92–99, physiologist in charge plant breeding lab, 00–07; prof. plant biol, Cornell, 07–08, exp. plant breeding, 08–12, acting director col. agr, 09–10; dean grad. sch. trop. agr, California, and director, Citrus Exp. Sta, 13–19, director, Exp. Sta, California, 19–20; gen. manager, Pedigreed

Seed Co, 20–21; prof. *subtrop. hort, California*, 21–36, *emer. prof, 36–*, director, Citrus Exp. Sta, 21–29, acting dean col. agr, 23. Special citrus commissioner, Dept. Agr, Union S. Africa, 24–25. U. S. Dept. Agr. rep, Int. Conf. on Hybridization, 98. A.A; Soc. Nat; Bot. Soc; Soc. Hort. Sci; Ecol. Soc. Plant reproduction; Zamia and Ginkgo; citrus rootstocks and varieties; plant breeding; breeding of oranges, cotton, corn, pineapples, timothy and potatoes.

Webber, Dr. Irma E(leanor) (Schmidt), 3644 Beechwood Place, Riverside, Calif. *Botany.* San Diego, Calif, Aug. 16, 04. A.B, California, 26, A.M, 27, Ph.D, 29. Teaching fellow bot, California, 26–27; asst, Carnegie Institution, 27–29; agent, div. blister rust control, bur. plant indust, U. S. Dept. Agr, 29–31; asst, Citrus Exp. Sta, California, 32–33, *collaborator*, div. west. irrig. agr, *bur. plant indust, U. S. Dept. Agr*, 34, *div. cotton and other fiber crops, 36–; de la Revista Lilloa, 37–* Bot. Soc; Int. Asn. Wood Anat. Anatomy of fossil and modern woods; normal and pathological anatomy of modern herbaceous and woody plants.

Webber, Dr. J(ohn) M(ilton), U. S. Dept. of Agriculture, Riverside, Calif. *Cytology.* Lincoln, Nebr, Sept. 18, 97. B.S, California, 25, M.S, 27, Ph.D, 30. Plant breeder, Coker Pedigreed Seed Co, S. C, 20–22; teaching fellow bot, California, 26–29, asst, 29–30, research assoc, 30–31; *assoc. cytologist, cotton and other fiber crops and diseases, bur. plant indust, U. S. Dept. Agr, 31–* Councilor, Rancho Santa Ana Bot. Garden. A.A; Genetic Asn; Soc. Nat. Botany; agriculture; genetics; Kniphofia; Sphaeralcea; tobacco; cotton; Yucca fiber.

Webber, Ray T(rask), 8 Whippany Road, Morristown, N. J. *Entomology.* Beverly, Mass, Sept. 14, 84. High sch. *U. S. Dept. Agr, 14–, assoc. entomologist*, gipsy-moth lab, Melrose Highlands, Mass, 27–35, *Morristown, N. J, 35–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Economic entomology; systematic Diptera; biology of parasitic Tachinidae.

Weber, Albert L(ouis), College Farm, New Brunswick, N. J. *Chemistry.* Throop, Pa, March 30, 05. B.S, Pa. State Col, 27; M.S, Rutgers, 29. *Chemist, N. J. Exp. Sta, 27–* Chem. Soc; Soc. Hort. Sci. Spray residue removal; poultry nutrition.

Weber, Prof. A(lfred) H(erman), 130 W. Washington Ave, Kirkwood, Mo. *Physics.* Philadelphia, Pa, Jan. 15, 06. A.B, St. Joseph's Col. (Phila), 28, A.M, 31; Ph.D, Pennsylvania, 36. Instr. *physics*, St. Joseph's Col. (Phila), 28–34, asst. prof, 34–36, prof, 36–39; asst. prof, *St. Louis*, 39–40, *assoc. prof, 40–* Physical Soc; Asn. Physics Teachers; Franklin Inst; Mo. Acad. Photoelectricity; design of undergraduate physical apparatus; electrical properties of thin films.

Weber, Prof. A(rthur) D, Kansas State College, Manhattan, Kans. *Animal husbandry.* Muscotah, Kans, June 17, 98. B.S, Kans. State Col, 22, M.S, 26; Ph.D, Purdue, 40. Farm manager, 22–24; instr, Kans. State Col, 24–26; assoc. prof. *animal husbandry*, Nebraska, 26–31; *prof, Kans. State Col, 31–* A.A; Soc. Animal Production (sec'y, 41–43). Livestock production; cattle inheritance; animal nutrition.

Weber, Dr. Arthur G(eorge), 1514 Brandywine Blvd, Wilmington, Del. *Chemistry.* St. Joseph, Mo, Jan. 14, 03. A.B, Kansas, 27; Ph.D, Wisconsin, 30. Asst. instr. chem, Wisconsin, 27–30; *research chemist, ammonia dept, E. I. du Pont de Nemours and Co, 30–* Chem. Soc. Physical and inorganic chemistry; phosphoric acids; high pressure syntheses.

Weber, Prof. C(hristian) O(liver), Wells College, Aurora, N. Y. *Psychology.* Lincoln, Nebr, Dec. 10, 91. A.B, Nebraska, 16, A.M, 18, Ph.D, Nebraska and Harvard, 24; Rostock Univ, Germany; Berlin. Austin teaching fellow, Harvard, 22–23; instr. *psychol*, Nebraska, 23–24; asst. prof, *Wells Col*, 24–26, assoc. prof, 27–30, *prof, 30–* Director psycho-clinic, Nebraska, 23–25. Mil. psychol. service, U.S.A, 18. Psychol. Asn. Intelligence tests; emotional maturity test; kinesthetic space perception; formulae for metal work; perceptual constancy phenomena; visuo-motor coordination; logic; personality and traits; college entrance and curricular studies.

Weber, Dr. C(larence) J(acob), University of Kansas School of Medicine, Kansas City, Kans. *Biochemistry.* Cynthiana, Ind. Oct. 28, 00. B.S, Illinois, 23; Ph.D, St. Louis, 28; M.D. Kansas, 39. Instr. med, *sch. med, Kansas*, 26–35, *asst. director med. research, 35–, asst. prof. med, 39–* Soc. Biol. Chem; Soc. Exp. Biol. Insulin; carbohydrate metabolism; guanidine derivatives.

Weber, Dr. Ernst, Polytechnic Institute of Brooklyn, Brooklyn, N. Y. *Electrical engineering.* Vienna, Austria, Sept. 6, 01. Dipl.Eng, Tech. Hochschule, Vienna, 24, Sc.D, 27; Ph.D, Vienna, 26. Research engineer, Oesterreichische Siemens-Schuckert-Werke, Vienna, 24–29; Siemens-Schuckert-Werke, Berlin, 29–30; visiting prof, *Polytech. Inst. Brooklyn*, 30–31, research prof. *elec. eng*, 31–41, *head grad. dept, 42–* Privat-docent, Tech. Hochschule, Berlin-Charlottenburg, 29. A.A; fel. Elec. Eng; Physical Soc; Radio Eng; Math. Soc; Eng. Educ; Elektrotech. Verein, Berlin. Electrophysics; electrical machinery; conformal mapping; units and dimensions; ultra-high frequencies.

Weber, Dr. Frederic L(udwig), College of the City of New York, N. Y. *Chemistry.* New York, N. Y, Jan. 25, 97. B.S, Col. City of N. Y, 18; A.M, Columbia, 28; Ph.D, Fordham, 30. Asst. chemist, Austen Nichols and Co, 21; instr. *chem, Col. City of N. Y*, 22–36, *asst. prof, 36–* Chem. Soc; fel. Inst. Chem. Organic and general chemistry.

Weber, Dr. F(rederick) C(larence), Keratene Co, Winsted, Conn. *Chemistry.* Columbus, Ohio, Oct. 1, 78. B.S, Ohio State, 01; M.D, George Washington, 08. Asst. chemist, Exp. Sta, Kans. State Col, 01–02; bur. chem, U. S. Dept. Agr, 02–06, chief animal physiol. chem. lab, 06–23; research chemist, Fleischmann Labs, New York, 23–28; Atlantic Coast Fisheries Co, New York, 28–39; *consultant*, 39–40; *Keratene Co, 40–* A.A; Chem. Soc. Influence of food preservatives on health and digestion; food chemistry; nutrition; preservation of foods; utilization of by-products in food industries; vitamins; amino acids.

Weber, Dr. George F(rederick), University of Florida, Gainesville, Fla. *Plant pathology.* Alexandria, S. Dak, 94. B.S, S. Dak. State Col, 16; M.S, Wisconsin, 20, Ph.D, 22. Asst. bot, S. Dak. State Col, 15–16; plant path, Wisconsin, 19–20; asst. plant pathologist, *Exp. Sta, Florida*, 22–23, assoc. plant pathologist, 23–32, plant pathologist, 32–43, acting plant pathologist, 28, *prof. forest path, univ, 37–, plant path, agr. col, 40–* Summers, sci. asst, U. S. Dept. Agr, 19–22. Capt, F.A, 16–19. A.A; Phytopath. Soc. (pres, south. sect, 35, councilor, 37; assoc. ed, 38–40); Bot. Soc; Mycol. Soc. (ed. cmt, 41); Fla. Acad. Mycology; septoria diseases of cereals; phytopathology; diseases of vegetable crops, subtropical fruits and forest trees; classification of fungi.

Weber, Dr. George R(ussell), Iowa State College, Ames, Iowa. *Bacteriology.* Novinger, Mo, Dec. 29, 11. B.S, Missouri, 35; Ph.D, Iowa State Col, 40. Asst. chemist, Exp. Sta, Missouri, 35–36; teaching fellow *bacter, Iowa State Col*, 36–38, asst, 38–39, teaching asst, 39–40, *instr, 40–; food and nutrition div, Sanit. Corps, U. S. Army, 42–, capt.* Soc. Bact. Sanitary and food bacteriology.

Weber, Prof. Harold C(hristian), 67 Vose Hill Road, Milton, Mass. *Chemical engineering.* Boston, Mass, 95. B.S, Mass. Inst. Tech, 18; D.Sc, Eidgenössische Tech. Hochschule, Zurich, 35. Assoc. prof. and *prof. chem. eng, Mass. Inst. Tech.* A.A; Chem. Soc; Chem. Eng. Radio engineering.

Weber, Dr. H(enry) C(harles) P(aul), 421 Locust St, Edgewood, Pa. *Chemistry.* Bloomfield, N. J, July 17, 78. Leipzig, 99–01; Ph.D, Wurzburg, 03. Works chemist, Chas. Cooper and Co, N. Y, 96–99; teacher, high sch, N. J, 03–05; chemist, Bur. Standards, 05–12; assoc. prof. qualitative anal. Illinois, 12–17; *Westinghouse Elec. and Mfg. Co, Pittsburgh, 17–, consulting chemist, research lab.* Cmt. insulating materials, Nat. Research Council. Nichols medal, Am. Chem. Soc, 08. Chem. Soc. (asst. ed, 'Abstracts,' pres, Pittsburgh sect, 21); Electrochem. Soc. (chairman, insulating materials cmt); Ill. Acad; Deuts. Chem. Gesell. Organic and inorganic chemistry; phenanthrene substitution products; preparation of platinum salts; atomic weight of chlorine and of bromine; electrical insulation; synthetic resins; chemistry of shellac.

Weber, Prof. Homer S(quire), Georgia School of Technology, Atlanta, Ga. *Engineering mechanics.* Knoxville, Tenn, Feb. 24, 98. B.S, Ga. Sch. Tech, 24, M.S, 30; Ph.D, Stanford, 41. Instr. *eng. drawing and mech, Ga. Sch. Tech*, 24–25, asst. prof, 25–31, assoc. prof, 31–41, *prof, 41–* Buckling of beams without lateral support.

Weber, Prof. Ione, 35 E. 30th St, New York, N. Y. *Chemistry.* Oshkosh, Wis, April 9, 98. B.S, Chicago, 20; A.M, Columbia, 22, Ph.D, 24. Research chemist, Rockefeller Inst, 20–24; asst. chem, Columbia, 21, physics and household eng, Teachers Col, 26–28; instr. *chem*, Hunter Col, 27–30; *Brooklyn Col, Col. City of N. Y*, 30–36, *asst. prof, 36–* Nucleosi-

dases; phosphoric and sulfuric esters of substituted glucoses; effect of nitrogen compounds on reducing values of sugars; recovery of carbon tetrachloride from tissue.

Weber, Dr. Irving, U. S. Industrial Alcohol Co, Box 1956, Baltimore, Md. *Organic chemistry.* Poland, March 1, 95. A.B, A.M, Texas, 21; Ph.D, Mass. Inst. Tech, 24. Instr. chem, Texas, 20–21; *director* lacquer div. and later *research,* Fiberloid Corp, 24–33; *U. S. Indust. Alcohol Co, 34–* Chem. Soc. Catalytic reduction and dehalogenation of organic substances; nitro-cellulose plastics and lacquers; cellulose esters.

Weber, Prof. J(oseph) E(lliott), Bowling Green State University, Bowling Green, Ohio. *Chemistry.* Greenfield, Ind, May 3, 10. A.B, Indiana, 32, A.M, 33, Ph.D, 37. Research chemist, Am. Can Co, 37; *asst. prof. org. chem, Bowling Green State Univ, 37–* Chem. Soc. Colloidal chemistry.

Weber, Dr. Lawrence A(dna), 8521 114th St, Richmond Hill, N. Y. *Chemistry.* Albany, N. Y, Jan. 25, 07. A.B, Amherst, 28; Ph.D, Columbia, 33. Asst, Columbia, 34–35; research chemist, U. S. Indust. Alcohol Co, 36–42. Chem. Soc. Photochemical gas reactions; absorption spectra; isotopes; catalytic reactions; cancer.

Weber, Prof. Louis R(ussell), Colorado State College, Ft. Collins, Colo. *Physics.* St. Joseph, Mo, Oct. 15, 01. A.B, Park Col, 25; A.M, Michigan, 26, Ph.D, 31. *Prof. physics and head dept,* Friends, 26–38; *Colo. State Col, 38–* Asst, Michigan, 26, 30. Physical Soc; Optical Soc; Asn. Physics Teachers (chairman, Colo-Wyo. sect, 41); Acoustical Soc; Colo-Wyo. Acad. Infra-red absorption spectra of water vapor; pure rotation spectrum of water vapor; measurement of high resistance; modified Pfund refractometer; vacuum tube amplifier model; velocity of sound in methyl methacrylate.

Weber, Prof. Neal A(lbert), University Station, Grand Forks, N. Dak. *Anatomy.* Towner, N. Dak, Dec. 14, 08. A.B, North Dakota, 30, M.S, 32; A.M, Harvard, 33, Atkins scholar and univ. traveling fellow, Cuba, 33, Thayer scholar, 33–34, Ph.D, 35. Nat. research fellow, Imp. Col. Trop. Agr, Trinidad, B. W. I, 34–35; *assoc. prof.* biol, *North Dakota,* 36–43, *anat, 43–* Orinoco Delta exped, 35; British Guiana, 35, 36; British exped, British Guiana-Surinam-Brazil Boundary Cmn, 36; Barro Colorado Island, C. Z, Colombia, 38; Anglo-Egyptian Sudan, Uganda, Kenya, Gt. Britain, 39. A.A; Entom. Soc. Amer; N. Dak. Acad. (pres, 42). Biology and classification of ants, especially neotropical and African; embryology; microscopic anatomy.

Weber, Prof. Paul, 729 Techwood Drive, Atlanta, Ga. *Chemical engineering.* Nashville, Tenn, Feb. 27, 04. B.S, Mo. State Teachers Col, 25; M.S, Mo. Sch. Mines, 27; Ph.D, Purdue, 35. Instr. chem, Ga. Tech, 27–29, 30–31; Purdue, 31–34; asst. prof. *chem. eng, Ga. Tech,* 34–37, assoc. prof, 37–43, *prof, 43–, asst. director, state eng. exp. sta, 41–* Chem. Soc. (chairman, Ga. sect, 37); Soc. Metals; fel. Ga. Acad. Chlorination of paraffins; reactions of paraffin hydrocarbons; naval stores; terpenes; gas producers.

Weber, Prof. Robert L, Pennsylvania State College, State College, Pa. *Physics.* Dayton, Ohio, March 1, 13. A.B, Yale, 34, A.M, 36; Ph.D, Pa. State Col, 38. Instr. *physics, Pa. State Col,* 38–42, *asst. prof, 42–,* asst. physics supervisor state eng. defense training program, summer, 41, eng, science and management defense training, Fed. Security Agency, 41–42. A.A; Physical Soc; Asn. Physics Teachers. Spectroscopy; elastic properties of aluminum; temperature measurement and control; electronics.

Weber, W(illiam) Wallace, U. S. Forest Service, Madison, Wis. *Forestry.* Salamanca, N. Y, 85. B.S, Michigan, 12, M.S.F, 14. *Forest supervisor, U. S. Forest Service,* 20–23, *forester, Forest Products Lab, Madison, 23–; lecturer forestry, Wisconsin.* Soc. Foresters.

Weber, Prof. W(illiam) Wilson, Box 2, College Place, Columbia, S. C. *Mathematics.* Jackson, Miss, Jan. 30, 96. A.B, Emory, 15; A.M, Georgia, 17; Hopkins, 22, 28. Tutor, Georgia, 15–17; prof. math. and dean, Southern Col. (Fla), 19–23; prof. *math,* Lander Col, 23–33, dean, 24–33; *prof, Columbia Col, 33–* Summer, teacher, Furman, 29. Math. Asn; S. C. Acad. Modern geometry; astronomy.

Webersinn, T(heodore) H(enry), 15 Nathan Court, Waterbury, Conn. *Electroplating.* Flushing, N. Y, Jan. 23, 07. A.B, Columbia, 27, B.S, 28, Chem.E, 29. *Manager Waterbury plant, United Chromium, Inc, 29–* Chem. Soc; Electrochem. Soc; Electroplaters Soc. Metal finishing; electroplating; chromium plating; insulating and organic protective coatings.

Webster, Dr. A(ndrew) P(aul), 5061 First St, N.W, Washington 11, D. C. *Biochemistry.* Columbia, Mo, March 16, 11. B.S, Missouri, 31, A.M, 33; Ph.D, Hopkins, 35. Asst. instr. biochem, Hopkins, 34–35; Rockefeller Foundation fellow, neur. inst, med. center, Columbia, 35–36, instr. diseases of children, col. med, 36–39, pediatrics, 39–41; *officer, research div, bur. med. and surg, U. S. Navy, 41–* Physiologically important carbohydrates; synthesis of milk in the mammary glands; nutrition; homeostasis in infancy; growth of physiological phenomena; human growth curves; aviation medicine; submarine physiology.

Webster, Prof. Bruce P(eck), 525 E. 68th St, New York, N. Y. *Internal medicine.* Lansdowne, Ont, Can, Nov. 1, 01. M.D, McGill, 25. Intern, Montreal Gen. Hosp, 25–26, res. med, 26–27; Jacques Loeb fellow med, med. sch, Hopkins, 27–28, instr, 28–29; nat. research fellow, 29–31; *asst. prof. med,* Tulane, 31–32; *med. sch, Cornell, 32–; asst. attending physician, New York Hosp, 32–* Asst. res. physician, Hopkins Hosp, 27–28, asst. attending physician, 28–29; asst, Berne, 29; fellow, col. physicians and surg, Columbia, 29–31; assoc. attending physician, Charity Hosp, New Orleans, La, 31–32; asst. attending physician, New York Hosp, 32. Lieut. col, Med. Res. Soc. Exp. Biol; Soc. Clin. Invest; Inst. Nutrition; Asn. Study Goiter; Asn. Clin. Invest; Harvey Soc; N. Y. Acad. Med. Physiology; anatomy; diseases of the thyroid gland; clinical and public health aspects of syphilis control.

Webster, Prof. David L(ocke), Stanford University, Calif. **³*Physics.* Boston, Mass, Nov. 6, 88. A.B, Harvard, 10, Ph.D, 13. Instr. math, Harvard, 10–11, asst. *physics,* 11–15, instr, 15–17; asst. prof, Michigan, 17; Mass. Inst. Tech, 19–20; *prof. and exec. head dept, Stanford, 20–* A.S, 17–18, capt. Nat. Acad; A.A. (v. pres, B, 32, prize cmt, 36); Physical Soc; Asn. Physics Teachers (v. pres, 33–35, pres, 35–37); Philos. Soc; Am. Acad. X-ray spectra; ultra-high frequency; civilian pilot training.

Webster, Prof. George L(ewis), 808 S. Wood St, Chicago, Ill. *Organic chemistry.* Maquoketa, Iowa, Nov. 30, 00. Ph.G, Illinois, 22; B.S, Michigan, 27, M.S, 31, univ. fellow, 35–36, Ph.D, 37. Asst. chem, *col. pharmacy, Illinois,* 22–25, instr, 25–26, assoc, 27–36, asst. prof, 37–39, assoc. prof. *pharmaceut. chem,* 39–41, *prof, 41–* Chem. Soc; Pharmaceut. Asn. Organic compounds of arsenic; derivatives of sulfanilamide.

Webster, G(ranville) E(ugene), R. D. 2, Morris Plains, N. J. *Metallurgical chemistry.* Sterling, Pa, Aug. 17, 80. B.S, Pa. State Col, 05, Met.Eng, 23; Columbia, 13. Chemist, Cambria Steel Co, 05–07; Robert W. Hunt Co, 07–08; metal. chemist, Watertown Arsenal, 08–09; junior chemist, U. S. Bur. Mines, 09–12; *chemist and chief anal. sect, Picatinny Arsenal, 12–* Lieut, Ordnance Dept, 17–20. Chem. Soc; Inst. Chem; Army Ordnance Asn. Recovery of platinum from contact mass of the Old Hickory Ordnance Plant.

Webster, Dr. Hutton, Box 860, Route 1, Menlo Park, Calif. *Anthropology.* Malone, N. Y, March 24, 75. A.B, Stanford, 96, A.M, 97; Ph.D, Harvard, 04. Austin teaching fellow, Harvard, 02–04; asst. prof. econ, Williams Col, 04–07; prof. social anthrop, Nebraska, 07–33; *lecturer, Stanford, 33–* Summer, prof, California, 13; lecturer, Stanford, 33– A.A; Anthrop. Asn. (councilor, 19); Archeol. Inst; Am. Geog. Soc; Sociol. Soc; Hist. Asn; Folk-Lore Soc; Oriental Soc; Royal Anthrop. Inst; London Folk-Lore Soc; Inst. int. de Sociol. Primitive society and religion; history of civilization.

Webster, Prof. James E(lias), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Agricultural chemistry.* Quaker City, Ohio, Jan. 9, 03. B.S. (Agr), Ohio State, 24, Ph.D, 38. Plant chemist, Boyce Thompson Inst, 24–25; asst. agr. chem, Ohio State, 25–27; asst. prof. *agr. chem. research, Okla. Agr. and Mech. Col,* 27–28, *assoc. prof, 29–* A.A; Chem. Soc; Soc. Plant Physiol. Plant biochemistry; resistance of plants to insect attacks; color development in grapes.

Webster, Dr. Jerome P(ierce), 180 Ft. Washington Ave, New York, N. Y. *Surgery.* Ashland, N. H, Aug. 2, 88. A.B, Trinity Col. (Conn), 10; M.D, Hopkins, 14. Intern, Hopkins Hosp, 14–15, asst. res. in surg, 15–16, 20–21; special asst. to Am. ambassador, Berlin, 16–17; res. in surg, Peking Union Med. Col, 21–22, assoc, 21–23, asst. prof, 23–25, assoc. prof, 25–26; fellow, *Presb. Hosp, New York,* 27–31, *asst. attending surgeon, 31–;* assoc. *surg, col. physicians and surg, Columbia,* 31–35, *asst. prof, 35–* Piece of plate, British Govt, 17; Croix

de Guerre, 18; Order Cha K'o Chang, Wu Teng, 22. Lieut, M.C.R. and M.C, 17. Trustee, Holderness Sch, Plymouth; Trinity Col. (Conn). A.A; Am. Med. Asn; Soc. Exp. Biol; Asn. Plastic Surg. (pres, 41); Surg. Asn; Pan-Am. Med. Asn. (chairman, plastic surg. sect, 35–, v. pres, 35–); N. Y. Acad. Med. (sec'y, hist. and cultural med, 33–35, chairman, 35, chairman, ed. board 'Bul,' 35–); N. Y. Surg. Soc; Harvey Soc. Prison camp inspection; general and plastic surgery; history of medicine.

Webster, Prof. J(ohn) Clarence, Shediac, N. B, Can. *Gynecology.* Shediac, N. B, 63. B.A, Mt. Allison, 82; M.B, Edinburgh, 88, M.D, 90, hon. D.Sc, LL.D. Prof. *obstet. and gynec, Rush Med. Col, Chicago,* 99–20, *emer. prof, 20–* Obstetrician and gynecologist, Presb. Hosp, Chicago. Fel. Gynec. Soc; fel. Col. Surg; fel. Royal Soc. Can; fel. Royal Soc. Edinburgh; fel. Royal Col. Physicians Edinburgh; cor. mem. Soc. Ital. di Ostet. e Ginec; Palermo Reale Accad. di Sci. Med. Anatomical, pathological, embryological and therapeutic obstetrics and gynecology.

Webster, Dr. Merritt S(amuel), Purdue University, Lafayette, Ind. *Mathematics.* Cheyney, Pa, June 5, 09. A.B, Swarthmore Col, 31; A.M, Pennsylvania, 33, Harrison fellow, 33–35, Ph.D, 35. Asst. instr. *math,* Pennsylvania, 31–33; instr, Nebraska, 35–38; *Purdue,* 38–41, *asst. prof, 41–* Math. Soc; Math. Asn. Orthogonal polynomials; interpolation.

Webster, Prof. Rex N, Middlebury College, Middlebury, Vt. *Biology.* Lansing, Mich, Dec. 15, 11. A.B, Butler, 33; Ph.D, Hopkins, 38. Instr. *biol, Middlebury Col,* 38–39, *asst. prof, 39–,* acting chairman dept, 43–44. Summers, technician, Dutch Elm Disease Lab, U. S. Dept. Agr, Morristown, N. J, 35, asst, Marine Biol. Lab, Woods Hole, 38. Mem, Hopkins biol. exped. to Jamaica, B.W.I, 37. Botany and bacteriology; fresh water Rhodophyceae; life history of Tuomeya fluviatilis.

Webster, Prof. R(obert) L(orenzo), State College of Washington, Pullman, Wash. *Entomology.* Lafayette, Ind, Oct. 4, 85. A.B, Illinois, 08; Ph.D, Cornell, 21. Asst. entomologist, Exp. Sta, Iowa State Col, 08–18; prof. agr. entom, N. Dak. Col, and entomologist, Exp. Sta, 21–26; *prof. entom. and head dept. zool, State Col. Wash, and entomologist, Exp. Sta, 26–* A.A; Entom. Soc; Asn. Econ. Entom; Northwest Sci. Asn; Pacific Northwest Bird and Mammal Soc; Entom. Soc. Wash; fel. Iowa Acad. Economic entomology; life histories of North American insects; insecticides.

Webster, Dr. Stewart H(arrison), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Chemistry.* Syracuse, N. Y, Aug. 9, 00. A.B, Pomona Col, 23; scholar, Harvard, 23–25, A.M, 24, Ph.D, 31. Asst. chemist, testing lab, Dept. City Eng, Los Angeles, 25–27; Austin teaching fellow, Harvard, 27–29; asst, Heckscher research foundation, Cornell, 29–32; asst, sch. pub. health, Harvard, 35–37; assoc. chemist, *div. indust. hygiene, nat. inst. health, U. S. Pub. Health Service,* 37–40, *biochemist, 40–* Research, Syracuse, 35. Chem. Soc. Complex ammines; volatile boron compounds; toxicology of lead and vanadium.

Webster, Dr. Victor S(tuart), South Dakota State College, Brookings, S. Dak. *Organic chemistry.* Maquoketa, Iowa, Nov. 4, 08. A.B, Iowa, 30, M.S, 31, Ph.D, 33. Iowa State Planning Board, 33–35; instr. science, Minn. State Teachers Col, Moorhead, 35–36; *chem, S. Dak. State Col,* 36–38, asst. prof, 38–42, *assoc. prof, 42–* A.A; Chem. Soc; S. Dak. Acad. Oxidation of unsaturated acids; condensation of phenols with anhydrides; preparation of urethanes.

Webster, Dr. W(illiam) D(ampier), University of Nebraska, Lincoln, Nebr. *Zoology.* Bennettsville, S. C, Nov. 14, 83. B.S, Guilford Col, 14, Haverford Col, 15; A.M, Columbia, 24; Illinois, 28–30; Ph.D, Nebraska, 31. Teacher, high sch, N. C, 15–18; head dept. science, Ky. Mil. Inst, 18–21; instr. biol, Ohio State, 21–22; Wash. Sq. Col, N. Y. Univ, 22–26; head dept, Ill. Wesleyan, 26–28; asst, *Nebraska,* 30–32, *instr.* bacter. and path, 32–33, *zool, 33–* A.A. The pharyngeal derivatives of Necturus maculosus.

Wechsler, Dr. D(avid), 1060 Park Ave, New York, N. Y. *Psychology.* Lespedi, Rumania, Jan. 12, 96. A.B, Col. City of N. Y, 16; A.M, Columbia, 17, Ph.D, 25; field service fellow, Paris, 19–21. Psychologist, bur. children's guidance, N. Y. Sch. Social Work, 22–25; psychologist, Brooklyn Jewish Soc. Service Bur, 26–31; *chief psychologist, Bellevue Hosp, 31–,* instr. *psychiat, col. med, N. Y. Univ,* 33–38, *asst. clin. prof, 38–, lecturer, sch. educ, 37–* A.A; Psychol. Asn; Psychometric Soc; N. Y. State Asn. Applied Psychol. The psychogalvanic reflex; measurement of emotional reactions; psychology of the emotions; psychological tests; range of human capacities; chronaxie; measurement of adult intelligence; nature of intelligence.

Wechsler, Dr. Israel S(panier), 70 E. 83rd St, New York, N. Y. *Neurology, Psychiatry.* Rumania, May 26, 86. M.D, N. Y. Univ, 07. Instr. *neur, Columbia,* 17–20, assoc, 20–26, asst. prof, 26–27, assoc. prof, 27–31, *prof, 31–* Neurologist and chief service, Mt. Sinai Hosp; consulting neurologist, Montefiore and Sydenham Hosps; senior attending neurologist, Neur. Inst, N. Y. N. Y. State prize in med, 18. Governor, Hebrew Univ, Palestine. A.A; Asn. Research Nervous and Mental Disease; Soc. Psychotherapy and Psychopathol; Neur. Asn; Am. Med. Asn; Psychiat. Asn; N. Y. Neur. Soc. (pres, 34–36); N. Y. Acad. Med. (chairman, neurol. and psychiat. sect, 24). Extrapyramidal system and decerebrate rigidity; comparative anatomy of substantia nigra; psychoneuroses and internal secretion; tonic neck reflexes; sensory changes in neuritides; etiology of polyneuritis; alcohol and avitaminosis in monkeys; abdominal syndromes in disease of the brain; vitamin deficiencies in diseases of the nervous system; textbook of clinical neurology; the neuroses.

Wechter, Dr. Eugene J(acob), Speed, Ind. *Chemistry.* Berne, Ind, July 8, 00. A.B, DePauw, 22; M.S, Wisconsin, 24, Ph.D, 25. Asst. chem, DePauw, 21–22; instr, Wisconsin, 22–23, asst, 23–25; *research chemist, Louisville Cement Co, 25–* U. S. A, 18. Chem. Soc; Inst. Chem. Air oxidation of the selenites to selenate; action of ozone on selenium compounds; patents pending on plastering materials; burning cement; roasting ores; mortar cement.

Weckel, Dr. K(enneth) G, University of Wisconsin, Madison, Wis. *Dairy industry.* Canton, Ohio, Oct. 9, 05. B.S, Wisconsin, 31, M.S, 32, Ph.D, 35. Asst. *dairy indust, Wisconsin,* 31–35, asst. prof, 35–40, *assoc. prof, 41–* Chem. Soc; Dairy Sci. Asn; Inst. Food Technol; Pub. Health Asn; Wis. Dairy Tech. Soc; Int. Asn. Milk Sanitarians. Dairy products manufacture; analysis; irradiation; vitamins.

Weckler, Dr. J(oseph) E(dwin), U. S. National Museum, Smithsonian Institution, Washington, D. C. *Social anthropology, Ethnology.* Mapleton, Iowa, Feb. 24, 06. Ph.B, Chicago, 28, fellow, 38–39, Ph.D, 40. Research fellow, Chicago, 40–41; asst. curator ethnol, U. S. Nat. Museum, 41–42, assoc. curator, 42–43; senior cultural relations officer, Coordinator of Inter-Am. Affairs, 43; *staff mem, Rosenwald Fund, 43–* Social organization of various Polynesian groups; social organization of the Spanish-American communities in the Southwest; comparative sociology.

Weckler, Mrs. Nora, University of Maryland, College Park, Md. *Psychology.* Can, Feb. 16, 15. B.A, Toronto, 37, M.A, 38, fellow, 40–41, Ph.D, 41. Asst. *psychol,* Toronto, 37–40; *instr, Maryland, 42–* Psychol. Asn. Social acceptability of children.

Wedberg, Dr. Stanley E(dward), University of Connecticut, Storrs, Conn. *Bacteriology.* Bridgeport, Conn, Aug. 28, 13. B.S, Connecticut, 37; Ph.D, Yale, 40. *Instr.* immunol, sch. med, Yale, 40–41; *bacter, Connecticut, 41–* Soc. Bact. Factors influencing microbial thermogenesis; influence of exercise on production of antibodies; hemagglutination by the castor bean.

Wedderburn, Prof. J(oseph) H(enry) M(aclagan), Princeton University, Princeton, N. J. ***Mathematics.* Forfar, Scotland, Feb. 26, 82. M.A, Edinburgh, 03, D.Sc, 08. Asst. *math,* Edinburgh, 05–09; asst. prof, *Princeton,* 09–21, assoc. prof, 21–28, *prof, 28–* Ed, 'Annals of Math.' A.A; Math. Soc. (v. pres, 24); fel. Royal Meteorol. Soc; fel. Royal Soc. London; fel. Royal Soc. Edinburgh; Edinburgh Math. Soc; Circolo Mat. di Palermo. Hypercomplex numbers; matrices.

Wedel, P(eter) J, Bethel College, Kans. *Chemistry.* Russia, Jan. 17, 71. A.B, Kansas, 95; A.M, Stanford, 16. Prof. math, Bethany Col. (Kans), 98–02; nat. science, *Bethel Col. (Kans),* 02–25, asst. prof. chem, 25–34, registrar, 19–42, *exec. alumni sec'y, 42–* A.A; Kans. Acad; Am. Asn. Col. Registrars.

Wedel, Dr. Waldo R(udolph), U. S. National Museum, Washington, D. C. *Anthropology.* Newton, Kans, Sept. 10, 08. A.B, Arizona, 30; A.M, Nebraska, 31; Ph.D, California, 36. Archeologist, Nebr. State Hist. Soc, 36; *asst. curator div. archeol, U. S. Nat. Museum, 36–* A.A; Soc. Archeol; Anthrop. Soc. Wash; Wash. Acad. Archeology of Great Plains, eastern United States and California.

Wedell, Prof. Carl H(avelock), Princeton University, Princeton, N. J. *Psychology.* Wakefield, Mass, Jan. 13, 06. Ph.B, Vermont, 27; Ph.D, Princeton, 33. Instr. *psychol, Princeton,* 32–38, *asst. prof, 38–* Psychol. Asn. Audition.

Wedum, Dr. A(rnold) G(erhard), University of Colorado School of Medicine, Denver, Colo. *Bacteriology.* Glasgow, Mont, Jan. 10, 03. A.B, Montana, 25, A.M, 30; Ph.D, Northwestern, 32, B.M, 35, M.D, 37. Research fellow *bacter,* med. sch, Northwestern, 30–37; *asst. prof, col. med,* Cincinnati, 37–43; *sch. med, Colorado, 43–* Soc. Bact. Medical bacteriology; carbohydrate metabolism of bacteria; dissociation of bacteria; allergy.

Weeber, Dr. Lorle Stecher (Mrs. Charles F. Weeber), Box 3468, Honolulu, Hawaii. *Psychology.* St. Louis, Mo, Jan. 1, 91. A.B, Bryn Mawr Col, 12, A.M, 13; Ph.D, Columbia, 16. Psychologist, State Cmn. on Ventilation, N. Y, 15–16; instr. psychol, Temple, 16–17; psychologist, Children's Hosp, New York, 17–18; lecturer psychol, Barnard Col, Columbia, 18–19; research asst. prof, child welfare research sta, Iowa, 19–24; psychologist, The Kamehameha Schs, 25–27; instr. psychol, Territorial Nor. and Training Sch, 27–31; asst. prof, teachers col, Hawaii, 31–33, lecturer educ, 35. A.A; Psychol. Asn. Clinical and educational psychology.

Weech, Dr. A(lexander) A(shley), Children's Hospital Research Foundation, Elland Ave. and Bethesda, Cincinnati, Ohio. *Pediatrics.* Baltimore, Md, Nov. 10, 95. A.B, Hopkins, 17, M.D, 21. Dept. pediat, Hopkins, 21–26, instr. research med, 26–28; assoc. prof. *pediat,* Peiping Union Med. Col, 28–30; asst. prof, col. physicians and surg, Columbia, 30–32, assoc. prof, 32–41, prof, 41–42; *B. K. Rachford prof, col. med, Cincinnati, 42–* Pediat. Soc; Soc. Pediat. Research; Soc. Clin. Invest; Soc. Exp. Biol; Soc. Research Child Develop; Harvey Soc; N. Y. Acad. Permeability of membranes; deficiency diseases in children; low protein types of edema.

Weed, Dr. Alfred, John Powell and Co, 114 E. 32nd St, New York, N. Y. *Entomology.* Ashland, Wis, Feb. 6, 02. B.S.A, Wisconsin, 23, M.S, 25, Ph.D, 28. *Entomologist, John Powell and Co, 29–* Asn. Econ. Entom. Botanical and household insecticides; pyrethrum sprays.

Weed, Alfred C(leveland), Care of Dr. Paul Rudnick, R. D. 1, Princeton, N. J. *Zoology.* North Rose, N. Y, July 28, 81. A.B, Cornell, 05. Aid, div. fishes, U. S. Nat. Museum, 08–13; asst. curator fishes, Field Museum Nat. Hist, 21–37, curator, 37–42; *retired.* A.A; Soc. Ichthyol. and Herp; Biol. Soc. Wash. Classification and relationships of American fishes.

Weed, Dr. Clarence M(oores), 854 Andover St, Lowell, Mass. *[1]*Entomology.* Toledo, Ohio, Oct. 5, 64. B.S, Mich. State Col, 83, M.S, 84; Sc.D, Ohio State, 91. Assoc. ed, 'Prairie Farmer,' 84–85; asst. state entomologist, Ill, 85–87; entomologist, Ohio Exp. Sta, 88–90; prof. zool. and entom, New Hampshire, 91–04; instr. nature study, Mass. State Nor. Sch, Lowell, 04–21, prin, 21–32, pres, Mass. State Teachers Col, Lowell, 32–35. Entomologist, Exp. Sta, New Hampshire. Ed, entom. dept, 'Am. Naturalist,' 93–96. A.A; fel. Entom. Soc; Asn. Econ. Entom. Insect life histories; relations of flowers and insects; Phalangiidae of America; nature study in schools.

Weed, Dr. Lewis H(ill), Johns Hopkins University School of Medicine, Baltimore, Md. *[2]*Anatomy.* Cleveland, Ohio, Nov. 15, 86. A.B, Yale, 08, A.M, 09; M.D, Hopkins, 12; Sc.D, Rochester, 29, Pennsylvania, 42; LL.D, Duke, 38, Tufts Col, 43. Cabot fellow in charge lab. surg. research, Harvard, 12–14; from instr. to assoc. prof. *anat, Hopkins,* 14–19, *prof, 19–,* dean med. faculty, 23–29, *director sch. med, 29–* Lecturer, London, 37. Research assoc, Carnegie Institution, 22–35. Mem. med. fellowship board, Nat. Research Council, 35–39, chairman div. med. sciences, 39–; mem. cmt. med. research, Office Sci. Research and Develop, 41–; chairman med. and health advisory cmt, Am. Red Cross, 43– Trustee, Inst. Advanced Study, 30–; Carnegie Institution, 35– A.A; Asn. Anat. (sec'y-treas, 22–30); Physiol. Soc; Asn. Path. and Bact; Soc. Mammal; Soc. Zool; Soc. Physical Anthrop. Nuclear masses in the medulla; decerebrate rigidity; cerebrospinal fluid; cerebrospinal spaces; brain volume.

Weed, Dr. Lyle A(lfred), Indiana University School of Medicine, Indianapolis, Ind. *Immunology, Bacteriology.* Winterset, Iowa, Jan. 15, 04. A.B, Simpson Col, 27; M.S, Iowa State Col, 28; Ph.D, Western Reserve, 32; M.D, Iowa, 39. Teaching fellow bacter, Iowa State Col, 27–28; asst. syphilis, dept. path, Western Reserve, 29–32; nat. research fellow, med. col, Cornell, 32–33; instr. *bacter,* Iowa, 34–38; *asst. prof, sch. med, Indiana, 39–* A.A; Pub. Health Asn; Orthop. Asn; Soc. Bact. (sec'y-treas, n. cent. branch, 37; v. pres, Ind. branch, 41); Ind. Acad. Phenyl-mercury-compounds as disinfectants; diphtheria toxin; typhoid serology; staphylococcus lipases; toxicity of serum; bacteria in air; gas gangrene; wound healing; wound infection.

Weed, Walter Harvey, 2741 Estado St, Pasadena 8, Calif. *[1]*Geology.* St. Louis, Mo, May 1, 62. E.M, Columbia, 83. Asst. geologist, U. S. Geol. Surv, 83–92, geologist, 92–06; mining geologist, Gen. Develop. Co, 06–09; *consulting geologist, 09–* Geologist, N. C. Geol. Surv, 04. Contrib. ed, 'Eng. and Mining Jour,' 04; ed, 'Mines Handbook,' 11–25. Jury awards, La. Purchase Expos, 04. Geol. Soc; Min. and Metal. Eng. Economic geology, especially ore genesis; geological mapping and investigation of Yellowstone Park and Montana; geology of Mexico, Servia, Ecuador and Peru; coal of Montana; secondary enrichment of ore deposits; copper deposits of the world; gold mines of the Marysville district, Montana.

Weekes, Prof. Donald F(essenden), Agricultural and Mechanical College of Texas, College Station, Texas. *Physics.* Lynn, Mass, Feb. 7, 01. B.S, Middlebury Col, 24; A.M, Amherst Col, 26; Columbia, 26–27; Ph.D, Cornell, 37. Instr. *physics,* Western Reserve, 27–31; *Agr. and Mech. Col. Texas,* 37–39, *asst. prof, 39–* Physical Soc; Texas Acad. Nuclear physics; geophysics.

Weeks, Dr. A(lbert) W(illiam), Petroleum Administration for War, 320 First National Bank Bldg, Denver, Colo. *Geology, Engineering.* Chilton, Wis, Nov. 26, 01. A.B, Wisconsin, 23, A.M, 24; Ph.D, Texas, 41. Geologist, Midwest Ref. Co, 24–25; geologist and dist. geologist, Shell Oil Co, Texas, 25–38; consultant and independent operator, 38–41; research fellow geol, Yale, 41; *prin. petrol. develop. analyst, Petrol. Admin. for War, 42–* Mem. faculty, Texas, 40–41. A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Rocky Mountain Asn. Petrol. Geol; South Texas Geol. Soc. (chairman museum cmt, 32); North Texas Geol. Soc. (v. pres. and chairman program cmt, 36, pres, 37). Stratigraphic and structural geology; petroleum engineering.

Weeks, Prof. David, University of California, Berkeley, Calif. *Agricultural economics.* Aurora, Nebr, Sept. 22, 90. B.S, Nebraska, 15, C.E, 21; M.S, Iowa State Col, 19; Ph.D, California, 28. State hydrographer, Nebr, 12–15; instr. and asst. prof, Iowa State Col, 16–19; chief drainage engineer, Dakota Eng. Co, 20–21; research specialist, Fed. Land Bank of Berkeley and Univ. Calif, 22–27, *assoc. prof. agr. econ. and assoc. agr. economist, Exp. Sta. and Giannini Foundation, California, 28–* Consulting engineer, U. S. Dept. Interior, 24; consultant to pres, Rep. Bolivia, 26; lecturer, Nanking, 32. Farm Econ. Asn. Land economics; economics of land reclamation; land utilization.

Weeks, Prof. Dorothy W(alcott), Wilson College, Chambersburg, Pa. *Physics.* Philadelphia, Pa, May 3, 93. A.B, Wellesley Col, 16; M.S, Mass. Inst. Tech, 23, Horton Hallowell fellow, 29–30, Ph.D, 30; M.S, Simmons, 25. Asst. examiner, U. S. Patent Office, 17–20; asst. physics, Mass. Inst. Tech, 20–21, research assoc, 21–22, instr, 22–24; employment supervisor for women, Jordan Marsh Co, Boston, 25–27; instr. *physics,* Wellesley Col, 28–29; *prof, Wilson Col, 30–; tech. aide, Office Sci. Research and Develop, 43–* Asst, Bur. Standards, 20; instr, Buckingham Sch, Cambridge, 23–24. Summer, expert tech. examiner, Civil Service Cmn, Washington, D. C, 30. A.A; Physical Soc; Optical Soc; Asn. Physics Teachers; Philos. Soc. Wash. Mathematical physics; interference of polarized light by the method of coherency matrices; spectroscopy; measurements of iron spectral lines; analysis of the Zeeman patterns of the spectrum of Fe I.

Weeks, Dr. John E(lmer), 12642 Edgecliff Road, Portland, Oregon. *Ophthalmology.* Painesville, Ohio, Aug. 9, 53. M.D, Michigan, 81, hon. Sc.D, 13; LL.D, N. Y. Univ, 23; Sc.D, Oregon, 40. Intern, Alms House and Work House Hosp, 82–83; res. physician, States Emigrant Hosp, N. Y, 83–85; intern, Ophthalmic and Aural Inst, New York, 85–87; 1st asst. ophthal, Univ. Med. Col, N. Y, 86–88; col. physicians and surg, Columbia, 88–90; lecturer, Bellevue Hosp. Med. Col. and Univ. and Bellevue Hosp. Med. Col, 90–00; prof. ophthal. and otology, infirmary, Woman's Med. Col, N. Y, 92–99; *ophthal,* Univ. and Bellevue Hosp. Med. Col, 00–21, *emer. prof,* 21–35, *col. med, N. Y. Univ, 35–* Surgeon, N. Y. Eye and Ear Infirmary, 90–20, consulting surgeon, 20–; hon. prof, Oregon, 40. Summer, lecturer, Denver, 25. Ophthalmic research medal, Am. Med. Asn, 29. A.A; Ophthal. Soc. (pres, 21); Am. Med. Asn. (chair-

man, sect. ophthal, 02); N. Y. Ophthal. Soc. (pres, 12); N. Y. Acad. Med. (chairman, sect. ophthal, 02); N. Y. Acad; N. Y. County Med. Soc. (pres, 10); Ophthal. Soc. United Kingdom; hon. mem. Royal Hungarian Med. Soc. Bacteriology; pathology; operative technique; diseases of the eye; the Koch-Weeks bacillus.

Weeks, J(ohn) R(ockwell), U. S. Weather Bureau, Custom House, Baltimore, Md. *Meteorology, Climatology.* Kalamazoo, Mich, Feb. 3, 76. B.L, Mercer, 02. Asst. to sect. director and acting sect. director, Miss, *U. S. Weather Bur,* 98–99, Ala. and Mont, 99–00, in charge river and flood dist, Ft. Smith, Ark, 00–01, Macon, Ga, 01–05, Binghamton, N. Y, 05–29, *sect. director, Md, Del. and D. C, 29–; Md. state meteorologist,* Maryland and Hopkins, 29–41, *Div. Research and Educ, 41–* Lecturer, Mercer; Wesleyan Female Col; State Dept. Educ, N. Y. Lieut, Nat. Guard, 93–98. A.A; fel. Meteorol. Soc. (cmt. on atmosphere and man, 24–); Genetic Asn; Am. Geog. Soc; Chem. Soc; Md. Forestry Asn; Md. Acad; Royal Meteorol. Soc. Statistical methods applied to the discussion of meteorological data; relation between weather and disease; weather forecasting; climatology.

Weeks, Prof. Lester F(rank), 31 Winter St, Waterville, Maine. *Organic chemistry.* Alna, Maine, Oct. 17, 88. B.S, Colby Col, 15; A.M, Harvard, 17; Cornell, 20–22. Instr. *chem,* Maine, 16–17, asst. prof, 17–18; *Colby Col,* 18–20, 22–28, *assoc. prof, 28–* Chem. Soc. Aliphatic alcohols and acids.

Weeks, L(ewis) G(eorge), Room 2150, 30 Rockefeller Plaza, New York, N. Y. *Geology, Engineering.* Chilton, Wis, May 22, 93. B.S, Wisconsin, 16; Cornell, 20. Wis. Geol. Surv, 15; mining geologist, Cananea Consol. Copper Mines, Mex, 16; mining engineer, Calumet and Ariz. Copper Mines, Ariz, 17; mining engineer in charge south. mines div, Cananea Consol. Copper Mines, 19; instr. geol, Cornell, 19–20; petrol. geologist, Whitehall Petrol. Corp, Ltd, 20–24; geologist, Standard Oil Co. of N. J, S. Amer, 24–33; chief geologist, Standard Oil Companies of Argentina and Bolivia, 33–37, pres, Standard Oil Co. of Bolivia, 34–38; *asst. to chief geologist, Standard Oil Co. of N. J, 38–* Instr. aviation, U.S.A, 17–18, chemist, T.N.T, Indian Head, Md, 18. A.A; Asn. Petrol. Geol; Min. and Metal. Eng. Geological and mining engineering.

Weeks, Dr. Martin E(dward), University of Kentucky, Lexington, Ky. *Soil chemistry.* Centerville, S. Dak, Oct. 1, 06. B.S, S. Dak. State Col, 34; Ph.D, Wisconsin, 37. *Research asst. soils, Kentucky, 37–* Chem. Soc. (sec'y-treas, Lexington sect, 41). Effect of phosphorus fertilization and liming treatment on the chemical quality of soils and crops.

Weeks, Prof. (Mary) Elvira, 1746 Mississippi St, Lawrence, Kans. *Chemistry.* Lyons, Wis, April 10, 92. A.B, Ripon Col, 13; A.M, Wisconsin, 14; Ph.D, Kansas, 27. Instr. *chem, Kansas,* 21–27, asst. prof, 27–37, *assoc. prof, 37–* A.A; Chem. Soc; Kans. Acad; Hist. Sci. Soc; Lärdoms Historiska Samfundet. Physical and analytical chemistry; the atmospheric oxidation of solutions of sodium sulfite in ultra-violet light; the rôle of hydrogen ion concentration in the precipitation of calcium and magnesium carbonates; use of oxidation-reduction indicators in the determination of iron; history of chemistry; discovery of the elements.

Weeks, Dr. Paul T(horne), 31 Edmunds Road, Wellesley Hills, Mass. *Physics.* Clarksfield, Ohio, Nov. 19, 90. A.B, Oberlin Col, 13; Ph.D, Cornell, 17. Asst. physicist, Bur. Standards, 17–18; physicist, Westinghouse Lamp Co, 19–28; *chief engineer, Raytheon Production Corp, 28–* Lieut, Sig.C, 18–19. A.A; Physical Soc. X-ray measurements.

Weeks, Dr. W(alter) D(rury), New Jersey State Agricultural Experiment Station, New Brunswick, N. J. *Pomology.* Gilford, N. H, March 9, 14. B.S, New Hampshire, 36, M.S, 38; Ph.D, Mass. State Col, 41. *Instr. pomol, Rutgers, and asst. pomologist, N. J. Exp. Sta, 42–* Soc. Hort. Sci. Peach hardiness.

Weeks, Prof. W(alter) S(cott), University of California, Berkeley, Calif. *Mining.* Chelsea, Mass, Oct. 1, 82. A.B, Harvard, 06, B.S, 07, M.E, 09. Teaching fellow, Harvard, 07–08, asst, 08–10, instr, 10–15; assoc. prof. *mining, California,* 15–28, *prof, 28–* Min. and Metal. Eng. Mine ventilation; compressed air.

Weese, Prof. A(sa) O(rrin), University of Oklahoma, Norman, Okla. *Zoology, Ecology.* Hutchinson, Minn, Nov. 7, 85. A.B, Minnesota, 09; A.M, Illinois, 17, Ph.D, 22. *Prof.* biol, New Mexico, 11–22; James Millikin, 22–24; *zool, Oklahoma, 24–* Ecologist, Okla. Biol. Surv, 26– Summer, prof, Puget Sound Biol. Sta, 25, 29; Rocky Mt. Biol. Sta, 26–, pres, 37– Cmt. ecol. of grasslands, Nat. Research Council. A.A; Soc. Zool; Ecol. Soc. (sec'y-treas, 20–30, pres, 31); Wildlife Soc; Okla. Acad. (pres, 31); British Ecol. Soc. Physiological ecology; bioecology.

Weesner, Dr. William E(ldred), 1147 Claytonia Terrace, Richmond Heights, Mo. *Organic chemistry.* Youngstown, Ohio, Feb. 24, 16. A.B, Allegheny Col, 37; M.S, Purdue, 40, Ph.D, 42. *Research chemist, Monsanto Chem. Co, 42–* Chem. Soc. Fluorination; preparation and properties of organic fluorides; chlorination of aliphatic compounds.

Weetman, Dr. L(eslie) M(aurice), U. S. Sugar Corp, Clewiston, Fla. *Genetics, Botany.* Corning, Iowa, Jan. 25, 07. A.B, Simpson Col, 30; fellow, Iowa State Col, 30–31, M.S, 32, Ph.D, 35. Asst, Iowa State Col, 31–35; instr. bot, Marquette, 35–36; asst. plant pathologist, Exp. Sta, Arkansas, 36–42; *geneticist, U. S. Sugar Corp, 42–* Summer, instr, Sioux Falls Col, 35. Bot. Soc; Genetic Soc; Phytopath. Soc. Genetics and plant breeding, particularly of watermelons, oats and sugarcane; disease resistance.

Wegel, R(aymond) L(ester), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Fond du Lac, Wis, July 13, 88. A.B, A.M, Ripon Col, 10. Asst. physics, Wisconsin, 10–12; *physicist,* Thos. A. Edison, Inc, Orange, N. J, 12–13; West. Elec. Co, New York, 14–25; *Bell Tel. Labs,* 25–A.A; Physical Soc; Elec. Eng; Otol. Soc. Hearing; acoustic and telephone instruments; voice; internal dissipation in solids.

Wegemann, Carroll H(arvey), 1200 Blum Bldg, Chicago, Ill. *Geology.* Lake Mills, Wis, March 26, 79. Beloit Col; B.S, Wisconsin, 03, A.M, 07. Instr, Illinois, 06–07; geologist, U. S. Geol. Surv, 07–17; chief geologist, Franco-Wyo. Oil Co. and Cactus Petrol. Co, 17–19; West. States Oil and Land Co, 19–21; Midwest Ref. Co, 21–25; Pan-Am. Petrol. and Transport Co, 25–31; consulting geologist, 31–32; explor. manager, Crown Cent. Petrol. Corp, Houston, 33; consulting geologist, Wintershall Corp, Kassel, Germany, 34; *geologist,* Nat. Park Service, 35–42; *Petrol. Admin. for War, 42–* Explor, Ont, 04; Pinar del Rio, Cuba, 17; German oil fields, 28, 34; Mex, 25–31; Nicaragua, 30. Mem. oil land classification board, U. S. Geol. Surv, 12–17. Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng. (chairman, Colo. sect, 23–25); Soc. Econ. Geol; Geophys. Union; Explorers Club. Geology of western United States.

Wegg, D(avid) S(pencer), 172 Harvard St, Newtonville, Mass. *Electrical engineering.* Milwaukee, Wis, Feb. 8, 87. M.E, Cornell, 12, M.M.E, 14; Utah, 15. Hydroelectric work, Telluride Power Co, 08–17; sales engineer, Allis-Chalmers Co, Chicago, 19–21; power plant consultant, sugar mills, Cuba, 21–25; acting chief elec. equipment div, Bur. For. and Domestic Commerce, U. S. Dept. Commerce, 25–27; asst. engineer, Elec. Bond and Share Co, 27–28; engineer, Am. Cyanamid Corp, 28–30; chief engineer, Consol. Laundries Corp, *New York,* 30–34; *examining engineer,* Pub. Works Admin, 34–37; *Wegg and St. Laurent, 37–; engineer, Jackson and Moreland, Boston, 43–* Chief power plants, Am. Writing Paper Corp, 37–43. Ordnance Dept, U.S.A, 17–19. Elec. Eng; Mech. Eng. Power plant engineering; economics of power generation.

Wegman, Dr. Myron Ezra, 411 E. 69th St, New York, N. Y. *Pediatrics, Public health.* Brooklyn, N. Y, July 23, 08. A.B, Col. City of N. Y, 28; M.D, Yale, 32; M.P.H, Hopkins, 38. Asst. and instr. pediatrics, sch. med, Yale, 32–36; pediatric consultant, State Dept. Health, Md, 36–41; *asst. prof. child hygiene, col. physicians and surgeons, Columbia, 41–,* Columbia Sch. Trop. Med, Puerto Rico, 41–42; *pediatrics and pub. health, med. col, Cornell.* Intern, res. and res. pediatrician, New Haven Hosp, 32–36; lecturer, sch. pub. health, Hopkins, 39–; director research and training unit, City Health Dept, New York, 42. Am. Med. Asn; Pub. Health Asn; Soc. Research Child Develop. Diarrheal diseases of children; growth and development of Puerto Rican children.

Wegner, Dr. E(arl) E(dward), 700 California St, Pullman, Wash. *Veterinary medicine.* Cheney, Wash, June 21, 85. B.S, D.V.S, State Col. Wash. *Col. vet. med, State Col. Wash, 09–, dean, 18–* Vet. Med. Asn. (v. pres); Wash. Vet. Med. Asn. (past pres).

Wegner, Dr. K(enneth) W(arren), Carleton College, Northfield, Minn. *Mathematics.* Beloit, Wis, Nov. 19, 07. A.B, Wisconsin, 29, A.M, 32, Ph.D, 34. Asst. math, Wiscon-

sin, 29–31, instr, 31–34; head dept. math. and physics, Whitworth Col, 34–35; instr. *math*, Minnesota, 35–38; prof, Col. of St. Catherine, 38–43; *assoc. prof, Carleton Col, 43–* Math. Asn. (regional governor, 43–). Equivalence of pairs of hermitian matrices; higher algebra.

Wegner, Dr. M(arcus) I(mmanuel), Agricultural and Mechanical College of Texas, College Station, Texas. *Biochemistry, Nutrition.* South Haven, Mich, March 3, 15. A.B, St. Norbert Col, 36; Ph.D, Wisconsin, 41. *Asst. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 41–* Vitamins in commercial feeds.

Wehausen, Dr. John V(rooman), University of Missouri, Columbia, Mo. *Mathematics.* Duluth, Minn, Sept. 23, 13. B.S, Michigan, 34, M.S, 35, Ph.D, 38. *Instr*, Brown, 37–38; Columbia, 38–40; *math, Missouri, 40–* Math. Soc; Math. Asn. Function spaces; real variables.

Wehmeyer, Prof. Lewis E(dgar), 381 Orchard Hill Drive, Ann Arbor, Mich. *Botany.* Quincy, Ill, Jan. 1, 97. B.S, Michigan, 21, Cole fellow, 22–25, Ph.D, 25. Nat. research fellow, Harvard, 25–28; instr. *bot, Michigan*, 28–31, asst. prof, 31–37, *assoc. prof, 37–* A.A; Bot. Soc; Mycol. Soc; Soc. Plant Taxon; Mich. Acad. Mycology; pyrenomycetous fungi.

Wehner, Dr. R(obert) S(tephen), RCA Laboratories, Rocky Point, N. Y. *Physics.* Dayton, Ohio, April 8, 15. Ph.B, Wisconsin, 36, Ph.M, 39; Ph.D, Pa. State Col, 42. Asst. physics, Wisconsin, 36–38; Pa. State Col, 40–41, instr, 41–42; assoc. radio engineer, aircraft radio lab, Wright Field, 42–43; *antenna engineer, RCA Labs, 43–* Physical Soc. X-ray diffraction study of phase changes in iron; antennae and impedance matching; electrodeless discharges in rare gases at high pressures.

Wehr, Dr. E(verett) E(lmer), 1510 Noyes Drive, Silver Spring, Md. *Zoology.* Cozad, Nebr, Nov. 4, 95. B.S. (Agr), Idaho, 18; M.S, California, 21; Ph.D, George Washington, 35. Bur. entom, U. S. Dept. Agr, 18–20; Nebraska, 21–24; Illinois, 24–28; asst. zoologist, *zool. div, bur. animal indust, U. S. Dept. Agr*, Miles City, Mont, 28–32, in charge, 30–32, asst. zoologist, 32–36, assoc. zoologist, 36–40, *zoologist, 40–* Soc. Parasitol; Micros. Soc; Helminth. Soc. Wash; Wash. Acad. Parasitology.

Wehr, Dr. M(entzer) R(ussell), Drexel Institute, Philadelphia, Pa. *Physics.* Denver, Pa, July 13, 02. B.S, Franklin and Marshall Col, 24; A.M, Pennsylvania, 28, Ph.D, 32. *Instr*, Suffield Sch, Conn, 24–25; *physics*, Haverford Col, 28–30; *Drexel Inst, 31–* Physical Soc; Asn. Physics Teachers; Franklin Inst. Spectroscopy; demonstration apparatus.

Wehrle, Prof. J(ohn) Albert, University of Dayton, Dayton, Ohio. *Physics.* Pittsburgh, Pa, Jan. 27, 88. B.S, Dayton, 12; M.S, Pittsburgh, 27, Ph.D, 30. Prof. physics, Dayton, 24–26; Trinity Col. (Iowa), 31–40; assoc. prof. and later *prof. elec. eng, Dayton, 40–* Molecular association.

Wehrle, Prof. L(awrence) Paul, University of Arizona, Tucson, Ariz. *Entomology.* Osage Co, Kans, July 4, 87. B.S. (Agr), Kans. State Col, 14, M.S, 16; fellow, Cornell, 17–18, Ph.D, 24. Asst. zool, Kans. State Col, 16–17; exten. instr. *entom*, Cornell, 18–19, research instr, 19–30; asst. prof, *Arizona*, 30–40, *assoc. prof, 40–*, asst. entomologist, *Exp. Sta*, 30–40, *assoc. entomologist, 40–* A.A; Entom. Soc. Amer; Asn. Econ. Entom; Ecol. Soc; Kans. Entom. Soc. Nematodes; fruit insects; a parasitic mite of Orthoptera; life histories of insects injurious to clover; Coccidae; Aphididae.

Wehrwein, Prof. George S(imon), 1809 Summit Ave, Madison, Wis. *Economics.* Newton, Wis, Jan. 31, 83. B.S.A, Wisconsin, 13, M.S, 20, Ph.D, 22. Exten. specialist, Texas, 13–17; State Col. Wash, 17–18; assoc. prof, Pa. State Col, 18–19; econ, Wisconsin, 24–25; *prof*, Northwestern, 25–28; *agr. econ, Wisconsin, 28–* Research assoc, Inst. Research Land Econ. and Pub. Utilities, 23–28. Consultant, Nat. Resources Planning Board. Econ. Asn; Farm Econ. Asn. (pres, 42); Agr. Hist. Soc. Land economics.

Weiant, Dr. Clarence Wolsey, 55 W. 42nd St, New York, N. Y. *Mexican archeology.* West Haverstraw, N. Y, Nov. 30, 97. D.C, Palmer Sch. Chiropractic, 21; B.S, Columbia, 37, Ph.D, 43; Inst. de Filosofia y Letras, Mexico, 37. *Prof.* chem. and hygiene, Texas Chiropractic Col, 21–25; *physiol. and biochem, East. Chiropractic Inst, 28–* Asst, Smithsonian Institution, 38–39; lecturer, Hunter Col, 43. Summer, lecturer, Escuela Mexicana de Quiropractica, 25. Asst. archeologist, Nat. Geog. Soc-Smithsonian Institution archeol. exped, Tres Zapotes, Vera Cruz, Mex, 38–39. Fel. Ethnol. Soc; Soc. Am. Archeol; Chiropractic Asn. (chairman bur. research, 28–32; pub. health cmt, 41–). Pottery and figurines of Tres Zapotes, Vera Cruz, Mexico, as an index to cultural relations between such centers as the Valley of Mexico, the Huastec area, Oaxaca, Yucatan and Guatemala at various periods of Mexican prehistory.

Weibel, Dr. E(mil) E(dwin), University of California, Berkeley, Calif. *Mechanical engineering.* Philadelphia, Pa, Nov. 19, 96. B.S, McGill, 18; M.S, Michigan, 32, Ph.D, 33. Research assoc. eng. research, Michigan, 34–35; instr. *mech. eng, California*, 35–38, *asst. prof, 38–* Assoc. Mech. Eng; Eng. Educ. Stress analysis by the photoelastic method; elasticity; dynamics.

Weichert, Prof. Charles K(ipp), University of Cincinnati, Cincinnati, Ohio. *Zoology.* West Hoboken, N. J, Dec. 26, 02. B.S, Rutgers, 24; M.S, Wisconsin, 26, Ph.D, 28. Instr. *zool*, Wisconsin, 26–28; *Cincinnati*, 28–30, asst. prof, 30–37, assoc. prof, 37–43, *prof, 43–* A.A; Soc. Study Int. Secretions; Soc. Exp. Biol; Soc. Zool; Physiol. Soc; Asn. Anat. Endocrine secretions of the ovary, influence of the thyroid on reproduction; vertebrate embryology; reproduction in salamanders.

Weida, Prof. Frank M(ark), George Washington University, Washington, D. C. *Mathematics.* Allentown, Pa, Sept. 28, 91. B.S, Kenyon Col, 13; Hopkins, 13–14; Chicago, 16–17; Ph.D, Iowa, 23. Head master, St. Albans Sch, 14–16; asst. *math*, Chicago, 16–17; instr, Iowa, 17–24; asst. prof, Mont. State Col, 24–25; Lehigh, 25–30; assoc. prof, *George Washington*, 30–35, *prof, 35–, head dept. statistics.* Assoc. ed, 'Am. Math. Monthly,' 30–35. A.A; Math. Soc; Math. Asn; Econometric Soc; fel. Inst. Math. Statist; Statist. Asn; Philos. Soc. Wash; Wash. Acad; Wash. Statist. Soc. Statistics; mathematics of finance; actuarial theory; theory of approximations, of errors, of correlation and of probability; practical mathematical analysis.

Weidenbaum, Dr. B(ernhardt), Columbia University, New York 27, N. Y. *Chemistry.* Aug. 14, 07. B.S, California, 28, Ph.D, 34. Shell Develop. Co, 29; Termite Investigations Cmt, 30–31; Crown Willamette Paper Co, 35–40; Chem. Warfare Service, U. S. War Dept, 40–43; *mem. staff, Columbia, 43–* Timber preservation; photochemistry; induced chemical reactions; pulping of wood; refining of wood pulp.

Weidenhammer, Dr. Lillian E, Brenau College, Gainesville, Ga. *Physical chemistry.* New York, N. Y, Dec. 30, 09. B.S, N. Y. Univ, 29, M.S, 32, Ph.D, 34. Teaching fellow, N. Y. Univ, 29–34; examiner, U. S. Civil Service Cmn, 35–37; junior chemist, div. textiles and clothing, bur. home econ, U. S. Dept. Agr, 38–42; *prof. chem, Brenau Col, 42–* Rates of solution.

Weidensall, Dr. (Clara) Jean, Monhegan Island, Maine. *Medicine, Psychology.* Omaha, Nebr, Dec. 1, 79. A.B, Vassar Col, 03; Ph.D, Chicago, 10; M.D, Cincinnati, 23. Instr. psychol, Minn. State Nor. Col, Winona, 05–06; demonstrator, dept. psychol, Bryn Mawr Col, 06–07; instr. English and psychol, Wis. State Nor. Col, Milwaukee, 09–10; director psychol. research lab, State Reformatory for Women, N. Y, 10–11; dept. psychol, Lab. Social Hygiene, Bedford Hills, N. Y, 11–14; asst. director psychol. clinic, Cincinnati Gen. Hosp, 16–18, intern, 22–24; asst, dept. anat. and histol, col. med, Cincinnati, 20–23; res. physician, Children's Mem. Hosp, Chicago, Ill, 25–26; fellow, Sprague Foundation, 25–26; *private research, 26–; practising physician.* A.A; Psychol. Asn; Eugenics Research Asn. (exec. councilor, 14–18); Med. Women's Asn. Rhythm; criminology and delinquency; psychological tests applied to criminal women; the mentality of the criminal woman; the mentality of the unmarried mother.

Weidlein, Dr. E(dward) R(ay), Mellon Institute, Pittsburgh, Pa. ***Chemistry.* Augusta, Kans, July 14, 87. A.B, Kansas, 09, fellow, 09–12, A.M, 10; hon. Sc.D, Tufts Col, 24, Rutgers, 37, Waynesburg Col, 39; hon. LL.D, Pittsburgh, 30. Senior indust. fellow, *Mellon Inst*, and director exp. plant, Nev, 12–16, assoc. director, 16–21, acting director, 18–19, *director, 21–; tech. adviser, Rubber Reserve Co, 41–;* chief chem. branch, *War Production Board*, 40–42, *adviser, 42–, head tech. consultant, 42–; tech. adviser research and develop. div, Quartermaster Corps, U. S. Army, 43–* Mem. at large, Nat. Research Council; Cmt. Cooperation with Nat. Defense Research Cmt; Cmt. Cooperation with Chem. Warfare Service; mem. special cmt. examination enemy raw materials and supplies, war metallurgy cmt, Nat. Research Council and Nat. Acad. Sciences. V. pres. trustees, Mellon Inst; trustee,

Pittsburgh. Medal, Soc. Chem. Indust, 35; State merit award, Pa, 39; Pittsburgh award, 39. Del, Int. Cong. Chem, Rome, 38. Chem. expert, W.I.B, 18. A.A. (councilor, 34–42); fel. Chem. Soc. (pres, 37, director, 38–; chairman, Pittsburgh sect, 23, councilor, 24–34; v. chairman, div. indust. eng. chem, 24); fel. Inst. Chem; Chem. Eng. (director, 24–29, pres, 27–29); Electrochem. Soc; Acad. Polit. and Social Sci; Nat. Inst. Social Sci; Faraday Soc; Franklin Inst; Wash. Acad; N. Y. Acad; Pa. Acad; Kans. Acad; Eng. Soc. West. Pa; Am. Inst. (trustee); fel. Royal Soc. Arts; hon. mem. Inst. Chem. Eng. Gt. Britain; Soc. Chem. Indust. Gt. Britain (exec. cmt, Am. sect, 24–); Deuts. Chem. Gesell; Soc. chim. de France; Soc. de Chim. indust; Chem. Met. Min. Soc. S. Africa. Chemical and metallurgical engineering; camphor; epinephrin; hydrometallurgy; heat insulation materials; industrial research management.

Weidman, Prof. Frederick D(eForest), University of Pennsylvania, Philadelphia, Pa. *Dermatology, Pathology.* Bristol, Conn, Oct. 16, 81. M.D, Pennsylvania, 08. Asst. demonstrator path, Pennsylvania, 09–14, histol, 09–11, instr. path. anat, 14–20; demonstrator path, Woman's Med. Col. of Pa, 11–13, prof, 14–17; asst. director dermat. research lab, *sch. med, Pennsylvania,* 17–23, acting head dept. dermat, 21–24, *prof. dermat. research, 23–, prof. dermat. and v. dean dermat. and syphilol, grad. sch. med, 34–; chief clin. service, grad. hosp, asst. pathologist, Zool. Soc. Phila, 10–* Soc. Invest. Dermat. (pres, 42); Path. Soc. Phila. (pres, 21); Physiol. Soc. Phila; Phila. Dermat. Soc. (pres, 23); Col. Physicians Phila. Mycology; animal parasitology; dermatological pathology.

Weidman, R(obert) H(arrison), Institute of Forest Genetics, Placerville, Calif. *Forestry.* San Francisco, Calif, July 25, 86. A.B, Michigan, 14. From forest ranger to forest examiner, U. S. Forest Service, Oregon, 14–17, 19–20, silviculturist and director, North. Rocky Mountain Forest and Range Exp. Sta, 21–31, senior silviculturist, Mont, 31–37; *supt, Inst. Forest Genetics, 37–* F.A, 17–19, capt. A.A; Soc. Foresters (sec'y, north. Rocky Mt. sect, 23, chairman, 26); Ecol. Soc. Natural regeneration and growth of forest stands in ponderosa and western white pine forests; accelerated growth after partial cuttings; artificial reforestation; climatic races of ponderosa pine.

Weidman, Prof. S(amuel), University of Oklahoma, Norman, Okla. *Geology.* Reedsburg, Wis, Oct. 11, 70. B.S, Wisconsin, 94, fellow, 95–96, Ph.D, 98; fellow, Chicago, 96–97. Field asst, U. S. Geol. Surv, 94–96; asst. geologist, Wis. Geol. Surv, 97–99, geologist, 99–18; assoc. prof. *geol, Oklahoma,* 20–25, *prof, 25–* A.A; Geol. Soc; Asn. Petrol. Geol; Min. and Metal. Eng; Miner. Soc; Asn. Geog; Okla. Acad. (pres, 23, 24). Precambrian geology; mineralogy; glacial and physiographic geology; geology of Wisconsin and Oklahoma.

Weidner, Dr. Bruce V(an Scoyoc), Middlebury College, Middlebury, Vt. *Chemistry.* Pottstown, Pa, Oct. 29, 08. B.S, Pa. State Col, 31, scholar, 31–32, M.S, 32, Ph.D, 35. Asst. chem, Pa. State Col, 32–35, instr. arts and science, Hazleton undergrad. center, 35–37; Alaska, 37–39, *asst. prof. chem,* 39–42; *Middlebury Col, 42–* Chem. Soc. The conductivity of electrolytes in anhydrous acetic acid solutions.

Weidner, Dr. C(harles) L(eslie), R. D. 1, Box 339, New Brunswick, N. J. *Organic chemistry.* Carlisle, Pa, Feb. 12, 11. B.S. and A.B, Lehigh, 34, indust. fellow, 34–35, Ph.D, 38. *Research chemist,* Great North. Fur Dyeing Corp, 38–40; *Indust. Tape Corp, 40–* Chem. Soc. Pressure sensitive adhesives.

Weidner, Dr. John P(restin), 918 Catherine St, Green Bay, Wis. *Organic chemistry.* Paxton, Ill, Feb. 17, 12. B.S, Illinois, 34; M.S, Lawrence Col, 36, Ph.D, 38. Lab. asst, Mich. Carton Co, 35–36; tech. asst, Mosinee Paper Mills, Wis, 36–37; Int. Paper Co, N. Y, 37–38; director research, *Hoberg Paper Mills Co,* 38–41, *tech. director, 41–* Chem. Soc. (corp. mem. rep); Tech. Asn. Pulp and Paper Indust. Cellulose and lignin chemistry; papermaking; chlorinated kraft lignin; sulfite fiber dimensions influenced by humidity; decrease in felt life due to bacterial action; germicides for slime control.

Weier, Prof. T(homas) Elliot, College of Agriculture, University of California, Davis, Calif. *Cytology.* New York, N. Y, Jan. 4, 03. A.B, Hope Col, 26; Ph.D, Michigan, 29. Instr, Michigan, 29; Cmn. Relief Belgium Educ. Foundation fellow, Louvain, Belgium, 29–30; nat. research fellow biol. sciences, Cornell, 30–31; instr. biol, St. Lawrence, 31–32; *bot,* Conn. Col, 33; Oregon State Col, 34–36; asst. prof. and *assoc. prof, col. agr, California, 36–* Bot. Soc. Structure and activity of plastids.

Weierbach, Dr. Lily A(melia), 5220 Wayne Ave, Philadelphia, Pa. *Botany.* Pleasant Valley, Pa. B.S, Muhlenberg Col, 21; A.M, Pennsylvania, 22, Joseph M. Bennett fellow, 22–24, Ph.D, 25. *Teacher,* Doylestown Township High Sch, Pa, 21; *science dept,* William Penn High Sch, *Phila,* 24–27; *Simon Gratz High Sch, 27–; research worker, dept. bot, Pennsylvania, 26–* A.A; Bot. Soc; Bot. Soc. Pa. Effects of sulfur dioxid upon plants.

Weigel, Dr. C(harles) A(dolph), U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Methuen, Mass, Sept. 27, 87. B.S, New Hampshire, 16; M.S, Ohio State, 18, Ph.D, 25. Asst. zool. and entom, Ohio State, 16–17, instr, 17–18; entom. inspector, fed. hort. board, *U. S. Dept. Agr,* 18–20, asst. entomologist, *bur. entom. and plant quarantine,* 20–21, assoc. entomologist, 21–25, entomologist, 25–28, *senior entomologist in charge investigations of insects affecting greenhouse, flowering and ornamental plants and mushrooms, 28–* A.A; Entom. Soc; Asn. Econ. Entom; Entom. Soc. Wash. Insects injurious to ornamental and flowering plants.

Weightman, R(ichard) Hanson, 5914 Wisconsin Ave, West Chevy Chase, D. C. *Meteorology.* Vicksburg, Miss, Aug. 26, 82. LL.B, 11. *U. S. Weather Bur,* 01–17, *19–* Lieut, Sig.C, 17–19. Fel. Meteorol. Soc; Geophys. Union. Meteorology; cyclones and anticyclones; weather forecasting.

Weigle, Prof. Luther Allan, Yale University, New Haven, Conn. *Psychology.* Littlestown, Pa, Sept. 11, 80. A.B, Gettysburg Col, 00, A.M, 03, D.D, 17, LL.D, 33; Ph.D, Yale, 05; D.D, Carleton Col, 16; Litt.D, Muhlenberg Col, 25; LL.D, Dickinson, 33; S.T.D, Ohio (Athens), 34; J.U.D, Boston, 39; D.D, Queen's (Can), 41. Prof. philos. and psychol, Carleton Col, 05–16, dean, 10–15; Horace Bushnell prof. Christian nurture, *Yale,* 16–24, *Sterling prof. religious educ, 24–, dean divinity sch, 28–* Holman lecturer, Lutheran Theol. Sem, 21, Duncan lecturer, 26; James Sprunt lecturer, Union Theol. Sem, 25. Trustee, Hazen Foundation. Pres, Fed. Council Churches of Christ in Amer, 40–42. Psychol. Asn; Philos. Asn; Minn. Educ. Asn. (pres, 13). Psychology of religion; religious education.

Weigle, Prof. O(tis) M(elvin), 609 Jefferson St, Fulton, Mo. *Chemistry.* Oil City, Pa, April 3, 80. A.B, Iowa State Teachers Col, 08; M.S, Iowa, 12, Ph.D, 31. Prof. chem. and physics, Memorial Univ, 08–10; instr. *chem,* Lawrence Col, 12–14; Iowa State Teachers Col, 14–15; *prof. and head dept, Westminster Col. (Mo), 15–* A.A; Chem. Soc; fel. Iowa Acad; Mo. Acad; St. Louis Acad. Velocity coefficients of reactions in alcoholic solvents; zinc in water supplies.

Weihing, Dr. Ralph M, Colorado State College, Ft. Collins, Colo. *Agronomy.* Appleton, Wis, Feb. 28, 08. B.S, Colo. State Col, 30; M.S, Nebraska, 32, univ. fellow, 32–33, Ph.D, 34. Asst. agronomist, Nebraska, 34–35; State Col. Wash, 35–36; *asst. prof. agron, Colo. State Col, and asst. agronomist, Exp. Sta, 36–* Mem. exec. cmt, Alfalfa Improv. Conf, 39–41. Soc. Agron. Forage crops; breeding of alfalfa, brome grass and orchard grass; genetics of flower color and seed setting in alfalfa.

Weil, Prof. André, Lehigh University, Bethlehem, Pa. ***Mathematics.* Paris, France, May 6, 06. Lic.Sc, Paris, 23, Agr.Sc. Math, 25, D.Sc, 28. Prof, Aligarh (British India), 30–32; Strasbourg, 33–40; lecturer, Haverford Col. and Swarthmore Col, 41–42; *asst. prof. math, Lehigh, 42–* Math. Soc; Indian Math. Soc; Soc. math. de France. Theory of numbers; algebra; group theory; topology; analysis.

Weil, Dr. A(rthur), 303 E. Chicago Ave, Chicago, Ill. *Neurology.* Braunschweig, Oct. 3, 87. M.D, Berlin, 15; Dr. med, Halle, 17. Asst. physiol, Halle, 18–20, privat-docent, 20–22; neuropathologist, Montefiore Hosp, New York, 25–28; asst. prof. *neuropath, Northwestern,* 28–30, *assoc. prof, 30–* Board ed, 'Am. Jour. Neuropath. and Exp. Neur.' Soc. Exp. Biol; Neur. Asn; Asn. Research Nervous and Mental Disease; Soc. Exp. Biol; Soc. Exp. Path; Chicago Neur. Asn; N. Y. Acad. Med. Neuropathology and pathological chemistry of the nervous system.

Weil, B(enjamin) H(enry), P. O. Box 2038, Pittsburgh, Pa. *Chemistry.* St. Joseph, Mo, July 8, 16. B.S, Missouri, 39; Alumni Research Foundation scholar, Wisconsin, 39–40, M.S, 40. *Information sect. head, chem. div, Gulf Research and Develop. Co, 40–* Chem. Soc. Chemistry and economics

of petroleum chemical derivatives; refining processes; petroleum substitutes; petroleum-derived synthetic rubbers and plastics.

Weil, Dr. Herman, 2521 N. Cramer St, Milwaukee, Wis. *Chemistry, Metallurgy, Physics.* Regisheim, Alsace-Lorraine, Dec. 15, 05. Ph.D, Marburg and Wurzburg, 29; Teachers Training Inst, Kassel, 31; scholar, Iowa, 39. Teacher math. and chem. and in charge teachers training in methods of teaching chem, Philanthropin-Inst, Frankfurt, Germany, 33–38, asst. director, 35–38; prof. physical sciences, Nebr. Cent. Col, 39–40; chem. and metal, Milwaukee Sch. Eng, 40–43; *teacher physics, Army Air Corps Cadet Training, Wis. State Teachers Col, Milwaukee, 43–* Chem. Soc; assoc. Psychol. Asn. Quantitative analysis.

Weil, Dean Joseph, 624 Boundary St, Gainesville, Fla. *Electrical engineering.* Baltimore, Md, July 19, 97. Baltimore Polytech, 15; B.S, Hopkins, 18; M.S, Pittsburgh, 26. Sales engineer, Westinghouse Elec. and Mfg. Co, 19–20, instr. elec. eng, tech. night sch, 20–21; instr. *physics and elec. eng, Florida,* 21–22, asst. prof, 22–30, *prof, 30–, dean col. eng, 38–, director eng. exp. sta, 38–; head dept. elec. eng, radio sta. WRUF, 30–, chief engineer, 31–* Coordinator, Civil Aeronautics Admin, 40–; director, Eng, Science and Management War Training Program, Fla, 40–; sec'y, State Board Eng. Examiners, 38–; chairman tech. and professional advisory cmt, State Defense Council. Asst, consulting board, U.S.N, 18. Fel. Elec. Eng. (chairman, Fla. sect, 32, sec'y-treas, 34–); Radio Eng; Eng. Educ. (director, 42–); Fla. Eng. Soc. (director, 34–; pres, 41). Radio; heat insulation; electronics; electric measurements; electric distribution; engineering education; hurricane location through atmospherics.

Weil, Dr. Leopold), Biochemical Research Foundation, Newark, Del. *Biochemistry.* Czechoslovakia, 06. Ph.D, Deuts. Tech. Hochschule, Prague, 32. Asst. biochem. inst, Deuts. Tech. Hochschule, Prague, 30–33; *research chemist, biochem. research foundation, Franklin Inst, 33–* Fellow, Carlsberg Lab, Copenhagen, 34. Chem. Soc; Soc. Biol. Chem; N. Y. Acad. Enzymes of animals and micro-organisms and their relation to metabolic processes.

Weil, Dr. Paul Gregory), Royal Victoria Hospital, Montreal, Que, Can. *Physiology.* Niagara Falls, N. Y, 06. A.B, North Carolina, 29; M.D, McGill, 34, Banting Research Foundation fellow, 38–41, M.Sc, 39, Ph.D, 41; fellow, Hopkins Hosp, 36–38. Intern, Montreal Gen. Hosp, 34–36; Nat. Research Council Can. fellow, McGill Univ. Clinic, Royal Victoria Hosp, 41–43; *research assoc, McGill 42–; director, Royal Victoria Hosp. Blood Bank, 41–* Montreal regional cmt. shock and blood substitutes, Nat. Research Council Can. Can. Physiol. Soc; Montreal Physiol. Soc; Montreal Med-Chirurg. Soc. Excretion of pregnanediol in toxemias of pregnancy; excretion of cortin in conditions of damage; experimental renal hypertension; metabolism of histamine; shock.

Weiland, Prof. Glenn Stratler), Riderwood, Md. *Biochemistry.* Marion, Pa, Dec. 5, 06. B.S, Maryland, 28, M.S, 30, Ph.D, 33. Research asst, Exp. Sta, Maryland, 28–31, asst. *chem,* univ, 31–35, instr, 35–37; *asst. prof,* Wittenberg Col, 37–42; *sch. med, Maryland, 42–* Chem. Soc. Ascaridole in chenopodium oil; insect metabolism.

Weiland, Dr. Henry Joseph), Care of E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry, Organic chemistry.* Rochester, N. Y, May 7, 90. B.S, Rochester, 13; M.S, Illinois, 15, Ph.D, 17. Asst. physical chem, Illinois, 14–17; chief chemist, intermediate div, Newport Co, 17–26, asst. to director lab, 26–32; director chem. lab, *E. I. du Pont de Nemours and Co,* Wis, 32–35, *mem. patents and process div, org. chem. dept, Del, 35–* Chem. Soc. Electrical conductance at infinite dilution; dyestuffs; intermediates; fine chemicals; detergents; aromatics.

Weller, Dr. Joseph Farrell), Mathieson Alkali Works, Niagara Falls, N. Y. *Chemistry.* Barberton, Ohio, March 4, 06. B.S, Akron, 26; M.S, Col. of Holy Cross, 27; Ph.D, Hopkins, 30. *Research chemist,* Eagle Picher Lead Co, Mo, 27–28; coal research lab, Carnegie Inst. Tech, 30–42; *Mathieson Alkali Works, 42–* Rubber compounding; chemical constitution of coal; hydrogenation of coal; organic synthesis.

Welll, Dr. Blanche California), 470 W. 24th St, New York, N. Y. *Psychology.* San Francisco, Calif, Sept. 9, 83. A.B, California, 04; Rome, 12; A.M, Columbia, 24; Ed.D, Harvard, 27; Vienna, 27. Montessori classes and individual training, 12–23; psychologist, Boston Habit Clinics, 24–27; psychologist and acting psychiatrist, Donald Whaley Home, Mich, 27–29; *consulting psychologist, New York, 30–* Pres, Island Workshop Press, Coop, Inc. Aid occupational therapy, U.S.A, Hosps, 19. Psychol. Asn; Nat. Cmt. Mental Hygiene; Orthopsychiat. Asn; Soc. Women Psychol. Child psychology, especially child behavior; parent education.

Wellmuenster, Dr. Earl Adam), 16604 Grovewood, Cleveland, Ohio. *Organic chemistry.* Ill, Aug. 20, 14. B.Ed, South. Ill. State Nor. Univ, 37; M.S, Illinois, 38; Ph.D, St. Louis, 42. *Research chemist, Cleveland Indust. Research, Inc, 42–* Chem. Soc. Synthesis of some quaternary ammonium compounds; processing of lubricants.

Welmer, Prof. Bernal Robinson), Bethany College, Bethany, W. Va. *Zoology.* Port Royal, Pa, Dec. 4, 94. A.B, West Virginia, 16, A.M, 18; Ph.D, Chicago, 27. Sch. supt, Pa, 19–21; *prof. biol, Bethany Col. (W. Va), 21–, dean faculty, 35–* A.A; Soc. Zool; W. Va. Acad. (v. pres, 24, pres, 27). Physiology; animal behavior.

Welmer, Prof. Harry Raymond), Manchester College, North Manchester, Ind. *Chemistry.* North Manchester, Ind, Dec. 9, 06. A.B, Manchester Col, 29; M.S, Ohio State, 31, Ph.D, 33. *Prof. chem,* Bridgewater Col, 33–38; *Manchester Col, 38–* A.A; Chem. Soc. Physical and inorganic chemistry.

Welmer, Dr. James Le Roy), U. S. Department of Agriculture, Experiment, Ga. *Plant pathology.* Avilla, Ind, July 12, 87. A.B, Wabash Col, 12; fellow, Cornell, 12–13, Ph.D, 16. Asst. plant path, Cornell, 13–14, instr, 14–16; asst. bot, Exp. Sta, Purdue, 16–17; from asst. plant pathologist to *senior pathologist, bur. plant indust, U. S. Dept. Agr, 17–* A.A; Phytopath. Soc. Cedar rust of apples; sweet potato, bean, cauliflower, alfalfa, Austrian winter pea, vetch and other winter legumes.

Welmer, Dr. Paul Kessler), 359 Nassau St, Princeton, N. J. *Physics.* Wabash, Ind, Nov. 5, 14. A.B, Manchester Col, 36; A.M, Kansas, 38; Ph.D, Ohio State, 42. Asst, Kansas, 36–37; prof. physics, Tabor Col, 37–39; asst, Ohio State, 39–42; *research engineer, RCA Labs, 42–* Physical Soc. K-electon capture in radioactive argon A^{37}; electronic research.

Welnard, Prof. Frederick Francis), 713 W. Iowa St, Urbana, Ill. *Plant physiology.* Lincoln, Nebr, Dec. 2, 93. B.S, Nebraska, 16, A.M, 17; Ph.D, Illinois, 22. Asst. bot, Nebraska, 16; field asst, U. S. Dept. Agr, 17; asst, *Illinois,* 19–22, assoc. *floricult. physiol,* 22–27, asst. prof, 27–29, *assoc. prof, 29–, assoc. chief, Exp. Sta, 29–* Soc. Hort. Sci. Plant nutrition and propagation; diseases of ornamentals.

Weinbach, Prof. Mendell Penco, 105 Westwood Ave, Columbia, Mo. *Electrical engineering.* Rumania, Nov. 2, 81. A.B, Missouri, 05, B.S, A.M, 07. Instr. *elec. eng, Missouri,* 08–13, asst. prof, 13–18, assoc. prof, 18–24, *prof, 24–* Summers, Am. Tel. and Tel. Co, 28; Kansas City Power and Light Co, 29, 30. Elec. Eng; Eng. Educ. Comparative tests of cylinder oils; principles of transmission in telephony; vector calculating devices; log log vector slide rule; alternating current circuits; system stability studies.

Weinbaum, Dr. Sidney, 1021 Elmwood, Buffalo, N. Y. *Physics.* Kaminiets-Podolsk, Russia, March 16, 98. B.S, Calif. Inst. Tech, 24, Ph.D, 33. Engineer, Purox Co, Los Angeles, 25–29; asst, Calif. Inst. Tech, 29–33, research fellow chem, 33–41; research engineer, Bendix Aviation, Ltd, 41–43; *physicist, Curtiss-Wright Research Lab, 43–* Crystal structure; application of quantum mechanics to molecules; vacuum tubes; applied mathematics.

Weinberg, Dr. Alvin Martin), 5306 University Ave, Chicago, Ill. *Mathematical biophysics.* Chicago, Ill, April 20, 15. B.S, Chicago, 35, M.S, 36, Ph.D, 39. *Research asst. math. biophysics, Chicago, 39–* Instr, Gary Col, 39–41. Physical Soc. Mathematical theory of nerve function.

Weinberg, Prof. Edward F. S, Rollins College, Winter Park, Fla. *Mathematics.* New York, N. Y, Feb. 23, 86. B.S, Manhattan Col, 06, C.E, 12. Asst. prof. *math,* Manhattan Col, 12–21; *prof. and head dept, Rollins Col, 22–, ground instr, civilian pilot training.* Capt, Inf, and instr. math. and mil. map reading and making, U.S.A, 17–19. Math. Asn; Eng. Educ; Soc. Mil. Eng.

Weinberger, Dr. Bernhard Wolf), 119 W. 57th St, New York, N. Y. *Orthodontia.* Idaho Springs, Colo, June 5, 85. D.D.S, Pennsylvania, 08. *Librarian, First Dist. Dental Soc, 14–,* mem. board directors, 19–36; dental librarian, *N. Y.*

Acad. Med, 22–29, *consultant, library dental lit*, 29–; lecturer dental hist. and lit, N. Y. Univ, 23–29, prof, 29–31; special lecturer orthodontic hist, Pennsylvania, 27; Maryland, 30. Pres, N. Y. Dental Centennial, 34. Ed. board, 'Jour. Dental Research,' 22–34; 'Dental Surv,' 29–43. Treas, Nat. Home Jewish Children, Colo. Benjamin Lord prize, First Dist. Dental Soc, 32; medal, N. Y. Dental Centennial, 34. Mem, Int. Dental Cong, Phila, 26, U. S. essayist, Paris, 31, U. S. reporter, sect. 3, Vienna, 36. A.A; Dental Library and Mus. Asn. (sec'y-treas, 19–23); Dental Asn. (chairman cmt. dental hist, 35–); Soc. Orthodontists (nomenclature cmt); Am. Med. Asn; Hist. Sci. Soc; Bibliog. Soc. Amer; Asn. Hist. Med; Pacific Coast Soc. Orthodontists; N. Y. Soc. Med. Hist; fel. N. Y. Acad. Med; fel. N. Y. Acad; N. Y. Soc. Dental Hist. and Culture (pres, 34–36); Dental Soc. State of N. Y. (chairman cmts. dental hist. and dental museums, 34–); N. Y. Soc. Orthodontists; Int. Col. Dentists (regent, dist. 2, 34, master, 42). Dental history and bibliography; Pierre Fauchard.

Weinberger, Dr. Harold, 274 New York Ave, Brooklyn, N. Y. *Chemistry.* New York, N. Y, March 24, 10. B.S, Polytech. Inst. Brooklyn, 31, M.S, 33, Ph.D, 36. Asst. chem, Polytech. Inst. Brooklyn, 31–35, research fellow shellac investigation, 35–36; *instr. chem*, Long Island, 36–42; Brooklyn Col, 41–42; *Col. City of N. Y, 42–* A.A; Chem. Soc. Shellac; semi-microqualitative and organic analysis.

Weinberger, Dr. J(ohn) H(oward), U. S. Department of Agriculture, Fort Valley, Ga. *Horticulture.* New York, N. Y, Jan. 3, 07. B.S, Pa. State Col, 28; Ph.D, Maryland, 31. Asst. pomologist, *div. fruit and veg. crops and diseases, bur. plant indust, U. S. Dept. Agr*, 31–38, *assoc. pomologist, hort. field lab, 38–* Keeping quality of fruits; peach production; fruit-tree fertilization; soil moisture relations and cover crop studies with peach trees; peach breeding.

Weindling, Dr. R(ichard), Clemson Agricultural College, Clemson, S. C. *Plant pathology.* Wurzburg, Germany, Nov. 30, 99. M.S, California, 31, Ph.D, 33. Asst, Citrus Exp. Sta, California, 31–34, Nat. Research Council grant, 34–35, asst, 35–36; research, Cornell, 36–37; *agent, bur. plant indust, U. S. Dept. Agr, 38–* A.A; Phytopath. Soc. Antagonism of fungi in plant disease; toxins produced by fungi; diseases of cotton.

Weiner, Dr. N(athan), Endo Products, Inc, 84-40 101st St, Richmond Hill, N. Y. *Chemotherapy, Chemistry.* Roxbury, Mass, Aug. 11, 10. A.B, Harvard, 30, A.M, 31, Ph.D, 33. Asst. to Prof. Arthur Michael, Harvard, 33–40; asst. director chem. research, *Endo Products, Inc*, 40–42, *director research, 42–* Consulting chemist, Bonneville, Ltd; Polaroid Corp. Chem. Soc. Theoretical organic chemistry; mechanism of addition reactions to unsaturated compounds; ring compounds; surface active agents; dichroic dyes; steroid hormones; hemorrhagic agents; chemotherapeutical agents.

Weiner, Dr. Samuel, 2630 N. 53rd St, Milwaukee, Wis. *Organic chemistry.* Duluth, Minn, Dec. 5, 08. B.S, Chicago, 30; J. T. Baker fellow, Wisconsin, 35–36, Ph.D, 36. Research chemist, Paul-Lewis Labs, 36–43; *U. S. Army, 43–* A.A; Chem. Soc; Wis. Dairy Tech. Soc. Enzymes; amino acids; war gases; analytical chemistry; sugar derivatives; medicinal compounds; kinetics.

Weingart, Dr. Julius S(haw), Iowa Lutheran Hospital, Des Moines, Iowa. *Pathology.* Franklin, Pa, July 13, 81. A.B, Tarkio Col, 05; M.D, Columbia, 10. *Pathologist, Iowa Lutheran Hosp, Des Moines, 18–, Mary Frances Skiff Mem. Hosp, Newton, 34–* Am. Med. Asn; Soc. Clin. Path. Medicine; physiology; bacteriology.

Weinhouse, Dr. S(idney), University of Chicago, Chicago, Ill. *Organic chemistry.* Chicago, Ill, May 21, 09. B.S, Chicago, 33, Ph.D, 36. Eli Lilly fellow org. chem, Kent lab, *Chicago*, 35–38, *Seymour Coman fellow, 39–* Chem. Soc. Grignard reagents; sterols; vitamin D; lipids.

Weinig, A(rthur) J(ohn), Colorado School of Mines, Golden, Colo. *Metallurgy.* Durango, Colo, June 10, 83. Met.E, Colo. Sch. Mines, 08. Am. Smelting and Ref. Co, 08–11; supt, Liberty Bell Gold Mining Co, 11–21; metallurgist, Metals Explor. Co, 21–23; *director exp. plant, Colo. Sch. Mines, 23–* Gold medal, Colo. Eng. Council, 30. A.A; Min. and Metal. Eng; Min. and Metal. Soc. Milling; the trend of flotation; functional size analysis of ore grinds.

Weinkauff, Dr. Oliver J(acob), 1700 S. Second St, St. Louis, Mo. *Organic chemistry.* Peoria, Ill, June 10, 04. B.S, Michigan, 28, M.S, 29, Ph.D, 31. *Monsanto Chem. Co, St. Louis, 31–, asst. director research.* Chem. Soc. Organic synthesis.

Weinland, Prof. James D(avid), 23 Clinton Ave, East Hempstead, N. Y. *Psychology.* Banning, Calif, 94. A.B, Pomona Col, 17; A.M, Columbia, 22, Ph.D, 27. From instr. to *assoc. prof. business psychol, N. Y. Univ, 27–* A.A; Psychol. Asn. Industrial psychology; tests.

Weinman, Dr. David, 25 Shattuck St, Boston, Mass. *Tropical medicine, Parasitology.* Albuquerque, N. Mex, Jan. 13, 09. A.B, Columbia, 29; D.T.M, Paris, 33, M.D, 35. Asst. parasitol, Paris, 31–35; research fellow comp. path, Harvard Med. Sch, 35–37, asst, 38, *instr. comp. path. and trop. med, sch. pub. health, Harvard and Harvard Med. Sch, 39–* Parasitologist, Harvard Med. Sch. exped, Peru, 37. Soc. Trop. Med; Soc. Exp. Biol; Soc. Parasitol; Royal Soc. Trop. Med. and Hygiene. Pathogenic protozoa; immunity.

Weinrich, Prof. M(orris) F(rancis), Brooklyn College, Bedford Ave. and Ave. H, Brooklyn, N. Y. *Physics, Astronomy.* Vienna, Austria, March 27, 82. M.E, Columbia, 04, A.M, 07, fellow, 08–09, Ph.D, 09. Engineer, Am. Beet Sugar Co, 04; N. Y. and N. J. Telephone Co, 05; asst. drafting, Columbia, 06–08, instr. *physics*, 11–31; Stevens Inst. Tech, 09–11; asst. prof, *Brooklyn Col*, 31–33, assoc. prof, 33–35, *prof, 35–*, head dept, 31–38, *chairman dept, 38–, institutional rep, eng, science and management war training, 42–* Summer, vol. asst, Yerkes Observatory, Chicago, 07. A.A; Physical Soc; Astron. Soc; Meteorol. Soc. Planetary atmospheres; applied physics.

Weinrich, (William) Whitney, 715 S. Washington St, Alexandria, Va. *Chemical engineering.* Honolulu, Hawaii, Dec. 27, 06. B.S, Mass. Inst. Tech, 30, M.S, 31. Chem. engineer, Exp. Sta, Hawaii Sugar Planters Asn, 31–32; refinery tech. div, Gulf Oil Corp, 33–34; indust. fellow petrol. research, Mellon Inst, 34–35; research chem. engineer, Gulf Research and Develop. Co, 35–39, asst. head chem. div, 39–43; *mem. staff ref. div, Petrol. Admin. for War, 43–* Instr, eng, science and management war training, Pittsburgh, 42. Chem. Soc. (sec'y-treas, div. indust. and eng. chem, 39–). Processes from pilot plant through commercial operation including hydrocarbon syntheses and separations, synthetic organic chemicals, thermal and catalytic cracking; refinery processes.

Weinstein, Dr. Alexander, Zoological Laboratory, Columbia University, New York, N. Y. ***Zoology, History of science.* Astrakhan, Russia, Nov. 22, 93. B.S, Columbia, 13, A.M, 14, fellow, 15–16, Ph.D, 17. Asst. zool, Columbia, 16–17; asst. genetics, Carnegie Institution, 17–19; Sigma Xi research fellow, Columbia, 21–22; Johnston scholar, Hopkins, 22–23; nat. research fellow, 23–24; Int. Educ. Board fellow, Cambridge, 24–25; assoc. zool, Illinois, 26–27; lecturer, Columbia, 28; prof. genetics, Minnesota, 28–29; assoc. zool. and hist. of science, Hopkins, 30–36; Am. Philos. Soc. fellow, dept. zool, Columbia, 37–42; *instr. physics, Col. City of N. Y, 42–* Assoc. ed, 'Philos. Science.' A.A; Soc. Zool; Soc. Nat; Genetics Soc; Physical Soc; Hist. Sci. Soc; Cambridge Nat. Hist. Soc. Experimental, mathematical and human genetics; history of biology and of physics; ancient science; environmental and genetic factors in history of science.

Weinstein, Prof. A(lexander), University of Toronto, Toronto, Ont, Can. *Mathematics.* Saratoff, Russia, Jan. 21, 97. Ph.D, Zurich, 21; Rockefeller Foundation fellow, Rome, 26–27; D.Sc.Math, Paris, 37. Lecturer, Breslau, 28–33; Clermont-Ferrand, 34; Soc. Protection Science and Learning, London, grant, London and Cambridge, 34–36; Maitre de Recherches, Paris, 36–40; lecturer applied math, *Toronto*, 41–43, *asst. prof. math, 43–* Lecturer, Zurich, 27; Hamburg, 28; Göttingen, 32; Paris, 32, 33, 38, 39; Delft Inst. Tech, 34; sec'y, Sem. of Prof. J. Hadamard, Col. de France, 34, 37, 38, 39; lecturer, Leiden, 34; Utrecht, 34; Bruxelles, 36; New Sch. for Social Research, 42; Ritchie lecturer, Edinburgh, 39; lecturer, Quebec, 43; Montreal, 43; Brown, 43. Lecturer, Conf. Int. de Math, Geneva, 33, 35. Comite Scientifique, Paris, grant, 33. Math. Soc. Pure and applied mathematics; mechanics; hydrodynamics; elasticity.

Weinstein, Dr. Israel, 25 Central Park West, New York, N. Y. *Bacteriology, Physiology.* New York, N. Y, May 26, 93. A.B, Col. City of N. Y, 13; A.M, Columbia, 15, M.D, 26, Ph.D, 30; Sc.D, N. Y. Univ, 17. Instr, high sch, N. Y, 14–22; lecturer med. and sci. subjects, N. Y. Pub. Lecture Bur, Dept. Health, New York, and N. Y. Bot. Garden, 20–28; Univ. and Bellevue Hosp. Med. Col, 22–31; *bur. health educ, Dept. Health, New York*, 26–32, *asst. director, 36–*; instr. physiol,

col. physicians and surg, Columbia, 28–31; asst. prof. bacter. and hygiene, Univ. and Bellevue Hosp. Med. Col, 31–34, preventive med, col. med. N. Y. Univ, 34–38. Lecturer, inst. arts and sciences, Columbia, 29–31. Asst. physician, Metropolitan Hosp, 28–29; asst. attending physician, out-patient dept, Bellevue Hosp, 29–30; adj. visiting physician, Montefiore Hosp, 31–; attending bacteriologist, Sea View Hosp, 34– Ed, 'Neighborhood Health,' 36– Lieut, Sanit.C, 17–19; capt, M.R.C, 19–30, major, 30– Am. Med. Asn; Pub. Health Asn; Asn. Mil. Surg. Immunology; concentration of antibodies in antityphoid serum; quantitative effects of monochromatic ultra-violet light; role of hemolytic streptococci in rheumatic fever.

Weinstock, Dr. Harry H(erschel), Jr, 44 Knollwood Ave, Madison, N. J. *Organic chemistry.* New York, N. Y, March 30, 10. B.Chem, Cornell, 33; M.S, Illinois, 34, Ph.D, 37. Teaching asst, Illinois, 35–36; research assoc. chem, Oregon State Col, 36–39; *assoc. head biochem. lab, Nat. Oil Products Co, 39–* Chem. Soc. Mixed benzoins; alpha diketones; vitamins.

Weintraub, Dr. Robert L(ouis), Smithsonian Institution, Washington, D. C. *Plant physiology.* Washington, D. C, May 9, 12. B.S, George Washington, 31, A.M, 33, Ph.D, 37. Junior biochemist, *div. radiation and organisms, Smithsonian Institution,* 37–41, asst. biochemist, 41–42, *assoc. biochemist, 42–* A.A; Chem. Soc; Soc. Plant Physiol; Bot. Soc. Wash. Nitrifying bacteria; plant tissue culture; plant growth substances; effects of radiant energy on plants.

Weir, Dr. H(orace) M(cColloch), Rheinmetall-Borsig A. G, Berlin, Germany. *Chemistry, Chemical engineering.* Muncie, Ind, Nov. 19, 94. Chem.E, Purdue, 17; London, 24–25; Ph.D, Munich, 26. Research chemist, Ault and Wiborg Co, 17; *chem. engineer,* Prest-O-Lite Co, Indianapolis, 19–20; Standard Oil Co, 20–24; Atlantic Ref. Co, Phila, 27–34; The Lummus Co, Houdry Process Corp, 34–36; *chief petrol. engineer, Rheinmetall-Borsig A. G, 36–* A.S, U.S.N, 17–19. Chem. Soc. (chairman, Phila. sect, 33–34); Chem. Eng. Ionic absorption on crystal lattices; equipment design for petroleum refining; petroleum reactions; thermal effects in petroleum refining.

Weir, Dr. W(ilbert) W(alter), U. S. Forest Service, Tucson, Ariz. *Soils, Ecology.* Vernon, Wis, June 24, 82. B.S, Wisconsin, 08, M.S, 17; Cornell, 16; Ph.D, American Univ, 23. Asst. prof, Wisconsin, 10–20; assoc. soil technologist, bur. soils and acting chief publications, bur. chem. and soils, U. S. Dept. Agr, 23–27; manager ed. and research dept, Chilean Nitrate Educ. Bur, 27–31; *forest ecologist, Southwest. Forest and Range Exp. Sta, U. S. Forest Service, 34–* Soc. Agron; Soil Sci. Soc; Agr. Hist. Soc; Int. Soc. Soil Sci. Soil science; range and forest ecology; forest influences; watershed management.

Weis, Dr. Joseph D(eutsch), 7020 Green St, New Orleans, La. *Medicine.* New Orleans, La, June 12, 72. Harvard, 91–92, M.D, 98. House officer, Mass. Gen. Hosps, 98–99; asst. histol, Harvard Med. Sch, 99–00, Austin fellow, 00–02, asst. bacter, 02–03; asst. prof. clin. med, Tulane, 07–14, prof. trop. med, 14–20; *retired.* Visiting physician, Charity Hosp, and senior visiting physician, Touro Infirmary, New Orleans. Légion d'honneur; Croix de Guerre. Lieut-col, M.C, 17–19. Am. Med. Asn; Asn. Path. and Bact; Boston Soc. Med. Sci. Bacteriology; internal medicine; blood in uncinariasis; etiology of cancer blastomyces; Hanot's disease; Spirochaeta pallida; cardiac and renal diseases.

Weisberg, Dr. Louis, 71 W. 45th St, New York, N. Y. *Chemistry.* Dallas, Texas, Jan. 13, 91. A.B, Texas, 12; Ph.D, Mass. Inst. Tech, 15. Research chemist, Holland Aniline Co, Holland, Mich, 16–17; Scovill Mfg. Co, Waterbury, Conn, 17; color lab, bur. chem, U. S. Dept. Agr, 19; head exp. plant div, research dept, Barrett Co, 20; *consulting chemist, 21–* Lecturer, Rutgers, 30–31. C.W.S, U.S.A, 17–18. Chem. Soc; Electrochem. Soc; fel. Inst. Chem; Asn. Consulting Chem. and Chem. Eng. (pres, 40–); Chem. Eng. Physical chemistry; electrochemistry; electroplating processes; synthetic resins; catalytic processes; fractional distillation; coloring and waving hair; electrogalvanizing.

Weisberg, Dr. S(amuel) M(yer), Sealtest, Inc, 1403 Eutaw Place, Baltimore, Md. *Biochemistry.* Boston, Mass, June 2, 05. B.S, Tufts Col, 26; M.S, American Univ, 28; Ph.D, Hopkins, 31. Anal. chemist, Pacific Mills, 26–27; junior chemist, U. S. Dept. Agr, 27–28; indust. fellow and senior chemist in charge research on indust. utilization of dairy by-products and sec'y staff cmt, research labs, Nat. Dairy Products Corp; *research chemist and sec'y staff, Sealtest, Inc.* Contributing ed, 'The Chemist.' Chem. Soc; fel. Inst. Chem. Properties of d-gluconic acid and the d-gluconates; fundamental properties of soft curd milk; utilization of dairy by-products.

Weisblat, Dr. D(avid) I(rwin), Ohio State University, Columbus, Ohio. *Organic chemistry.* Coshocton, Ohio, Aug. 11, 16. A.B, Ohio State, 37, Ph.D, 41. Teaching asst. *org. chem, Ohio State,* 37–41, *research assoc, univ. research foundation, 41–* Chem. Soc. Chemistry of the simple carbohydrates; structure of heparin.

Weisblatt, Dr. Harold B(urke), 2703 Allendale Road, Baltimore, Md. *Physical chemistry.* Baltimore, Md, Feb. 8, 12. Ph.D, Hopkins, 38. Asst. low temperatures, Hopkins, 38–40; asst. physical chemist, U. S. Bur. Mines, 40–41; *instr. inorg. and qualitative chem, Hopkins, 41–, Grafflin scholar, 41–* A.A; Chem. Soc. Electron affinity; thermal analysis clay minerals; resistance thermometers.

Weisbord, N(orman) E(dward), 690 Ft. Washington Ave, New York, N. Y. *Petroleum geology.* Jersey City, N. J, Oct. 1, 01. A.B, Cornell, 24, M.S, 28. Geologist and paleontologist, Atlantic Ref. Co, 23–33; *geologist, Standard Oil Co, 33–* Asst. hist. geol, Cornell, 26. Asn. Petrol. Geol; Am. Geog. Soc; Geol. Soc; Soc. Photogrammetry; Paleont. Research Inst; Soc. géol. de France; Schweiz. Geol. Gesell. Devonian fossils of Venezuela; recent shells of Yucatan Peninsula, Mexico; Miocene Mollusca of northern Colombia; Cretaceous limestone of British Honduras; Cretaceous and Tertiary echinoids of Cuba; graphic method for determining true dip from components.

Weiser, Dean Harry Boyer, Rice Institute, Houston, Texas. *'*Chemistry.* Canal Winchester, Ohio, Sept. 5, 87. A.B, Ohio State, 11, A.M, 12; Ph.D, Cornell, 14. Instr. *chem,* Tennessee, 14–15; *Rice Inst,* 15–18, asst. prof, 18–19, *prof, 19–, dean, 33–* Chairman cmt. colloid science, Nat. Research Council, 25– Capt, C.W.S. A.A; Chem. Soc. (sec'y, div. inorg. and physical chem, 24, v. sec'y, 25, chairman, 26, chairman, colloid div; colloid symposium cmt, 35–); fel. Inst. Chem; Eng. Educ; fel. Am. Acad; Faraday Soc. Adsorption; chemical production of light; the hydrous oxides; physical character of precipitates; theory of dyeing and mordanting; setting of hydraulic plasters; stability of colloidal solution; permeability of membranes; colloidal theory of gallstone formation; constitution of gels and sols from x-ray and electron diffraction studies; mechanism of the electrolyte coagulation of sols.

Weiser, Dr. R(ussell) S(hivley), 2307 18th Ave, N, Seattle, Wash. *Bacteriology, Pathology.* Grimes, Iowa, Sept. 28, 06. B.S, N. Dak. Col, 30, fellow, 30–31, M.S, 31; fellow, Washington (Seattle), 31–34, Ph.D, 34. Assoc. bacter. and path, *Washington (Seattle),* 34–36, instr. *bacter,* 36–38, asst. prof, 38–42, *assoc. prof. and acting exec. officer, 42–* Experimental tuberculosis; preparation of bacterial antigens; the adrenal cortical hormone; anaphylaxis.

Weisgerber, Prof. W(illiam) E(dwin), 830 Buchanan Ave, Lancaster, Pa. *Chemistry.* Luthersburg, Pa, Nov. 10, 81. B.S, Franklin and Marshall Col, 12, M.S, 13; Columbia, 16; M.S, Pennsylvania, 30. *Dept. chem, Franklin and Marshall Col, 12–, prof.* A.A; Chem. Soc. Compounds of the higher order; complex inorganic compounds.

Weiskotten, Dr. H(erman) G(ates), 766 Irving Ave, Syracuse, N. Y. *Pathology.* Syracuse, N. Y, Sept. 22, 84. A.B, Syracuse, 06, M.D, 09. Res. pathologist, Hosp. Good Shepherd, 09–10; instr. path. and bacter, *Syracuse,* 10–12, asst. prof. *path,* 12–13, assoc. prof, 13–17, *prof, 17–,* acting dean, 22–25, *dean, 25–* Mem, State Pub. Health Council, N. Y. A.A; Asn. Path. and Bact; Am. Med. Asn. (sec'y council med. educ. and hosps, 42); hon. mem. Soc. Clin. Path. Action of benzol; diphasic leucopenia; superficial burns; bone marrow; leucocytes; survey of medical education; trends in medical practise.

Weisler, Dr. Leonard, 1190 Park Ave, Rochester, N. Y. *Organic chemistry.* Rochester, N. Y, Sept. 9, 12. B.S, Rochester, 34, M.S, 36, Ph.D, 39. Asst, Rochester, 35–38; anal. chemist, U. S. War Dept, Brooklyn, N. Y, 39–40; State Conservation Dept, 40–41; *org. research chemist, Distillation Products, Inc, 42–* Chem. Soc. Unsymmetrical chlorides of o-sulfobenzoic acid; phase equilibria; alkylation of nitro compounds and their metallic derivatives; vitamins; essential oils.

Weisner, Prof. Louis, Hunter College, 68th St. and Park Ave, New York, N. Y. *Mathematics.* New York, N. Y, May 1, 99.

B.S, Col. City of N. Y, 20; A.M, Columbia, 22, Ph.D, 23. Asst. *math*, Columbia, 21–23; instr, Rochester, 23–26; nat. research fellow, Harvard, 26–27; instr, *Hunter Col*, 27–29, asst. prof, 29–36, *assoc. prof, 36–* A.A; Math. Soc; Math. Asn. Algebra.

Weiss, Dr. Charles, Mt. Zion Hospital, San Francisco, Calif. *Bacteriology, Immunology.* Austria, Oct. 18, 94. B.S, Col. City of N. Y, 15; M.S, N. Y. Univ, 16; Fels fellow, Pennsylvania, 16–18, Ph.D, 18, M.D, 24. Assoc. biochem. and exp. path, Research Inst. Cutaneous Med, Phila, 19–23; nat. research fellow med, Columbia, 25–26; asst. prof. bacter, Columbia and Sch. Trop. Med, Puerto Rico, 26–28; *assoc. prof.* applied bacter. and immunol, dept. ophthal, sch. med, Washington (St. Louis), 28–32; *research med, Hooper Foundation, California, and lecturer pediat, sch. med, 32–; director clin. and research labs, Mt. Zion Hosp, 32–* Washington (St. Louis) traveling fellow, Europe and Tunisia, 29. Director clin. and research labs, Presb. Hosp, San Juan, 26–28. Grants, Am. Med. Asn. and Nat. Tuber. Asn, 36–38; Commonwealth Fund; Columbia Foundation. Del, Int. Ophthal. Cong, Amsterdam. A.A; Soc. Bact; Asn. Exp. Path; Asn. Immunol; Soc. Exp. Biol. (sec'y Pacific coast branch, 38–41); fel. Am. Med. Asn; fel. Soc. Clin. Path; Pasteur Soc. Calif; Calif. Acad. Med. Immunology of lobar pneumonia; chemotherapy; tropical sprue; pulmonary abscess; anaerobic bacteria; staphylococcal toxin; proteolytic enzymes and inflammation; ocular infections.

Weiss, Dr. Edward, Temple University Medical School, Philadelphia, Pa. *Medicine.* Wilcox, Pa, July 30, 95. M.D, Jefferson Med. Col, 17. Intern, Jefferson Hosp, 17–18; mem. dept. path, Jefferson Med. Col, 19–22, assoc. med, Jefferson Med. Col. and Hosp, 22–32; clin. prof, *med. sch, Temple*, 32–36, *prof. clin. med, 36–* Attending physician, tuber. wards, Phila. Gen. Hosp, 26–41; lecturer, sch. social economy, Bryn Mawr Col. M.C, U.S.A, 18–19. Fel. Col. Physicians; fel. Col. Physicians Phila. The Laurence-Moon-Biedl syndrome; personality study in the practice of internal medicine; emotional life in the practice of medicine; congenital heart disease; kidney disease; cardiovascular-renal disease; psychosomatic medicine.

Weiss, Dr. Emil, 303 E. Chicago Ave, Chicago, Ill. *Immunology.* Sisak, Jugoslavia, Feb. 26, 93. M.D, Charles Ferdinand Bohemian Univ, Prague, 19; Univ. Zagreb, Jugoslavia, 20; Ph.D, Illinois, 37. Asst, Infectious Hosp, Zagreb, Jugoslavia, 19; asst. and acting head, Royal Bacter. Inst, 19–21; pathologist, Ill. Gen. Hosp, Chicago, 21–22; instr. bacter. and path, sch. med, Loyola (Ill), 22–24, asst. prof, 24–28, assoc. prof, 28–31, prof, 31–33; special consultant, U. S. Pub. Health Service, 34–43; assoc. bacter. and pub. health, col. med, Illinois, 33–40; *instr. med, Northwestern, 42–* Pathologist, St. Anne's Hosp, Chicago, 22–33; examiner, Nat. Board Med. Examiners, 28–32; pathologist, Holy Cross Hosp, 30–38; Martha Washington Hosp, 31–43, Chicago Eye, Ear, Nose and Throat Hosp, 33–42; Sacred Heart Hosp, Tomahawk, Wis, 38–A.A; Asn. Path. and Bact; Soc. Bact; Asn. Immunol; Soc. Exp. Biol; Asn. Cancer Research; fel. Col. Physicians; Pub. Health Asn; Am. Med. Asn; Soc. Ill. Bact; Ill. Pub. Health Asn; Ill. State Med. Soc; Chicago Med. Soc; Chicago Path. Soc; German Med. Soc. of Chicago. Bacteriology; pathology; the antigenic properties of bacteriophage; staining of bacteria; malignancy in relation to hematology; serodiagnosis of malignancy, syphilis, amebiasis, tuberculosis and gonorrhea.

Weiss, Dr. Freeman (Albert), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Minneapolis, Minn, Nov. 30, 92. B.S, Minnesota, 15; Ph.D, Cornell, 23. Asst. bot, Minnesota, 16–17; Cornell, 18–19; instr. plant path, Minnesota, 19–20; from assoc. pathologist to *senior pathologist, bur. plant indust, U. S. Dept. Agr, 20–* Sect. ed, 'Biol. Abstracts,' 26– A.A; Phytopath. Soc; Wash. Acad; Bot. Soc. Wash. Diseases of ornamental plants; soil fungicides; toxicity relations of fungi; plant disease survey.

Weiss, Dr. Harry, 1112 Park Ave, New York, N. Y. *Bacteriology, Immunology.* New York, N. Y, July 28, 91. C.E, Columbia, 13, A.M, 15, Ph.D, 17, M.D, 26. Board Water Supply, New York, 14; asst. prev. med. and hygiene, Harvard, 19–23; instr, Columbia, 23–24, bacter, col. physicians and surg, 24–26; *adj. physician, Mt. Sinai Hosp.* Research worker, Harriman Foundation, 16–17. Major, Sanit.C, 17–19. A.A; Soc. Bact; Soc. Exp. Biol; Am. Med. Asn; Am. Heart Asn. Serology; colon; typhoid; dysentery; infectious diarrhoea; botulism; local immunity; meningitis; subacute bacterial endocarditis.

Weiss, H(arry) B(ischoff), 19 N. Seventh Ave, Highland Park, New Brunswick, N. J. *Entomology.* Philadelphia, Pa, Oct. 31, 83. Pennsylvania. Asst. biologist and chemist, Sci. Preservation Co, 06–08; field asst, Pa. Bur. Zool, 08–10; asst. to state entomologist, N. J, 11–16; chief inspector, *N. J. Dept. Agr*, 16–20, *chief* bur. statist. and inspection, 20–31, *bur. plant indust, 31–* Lecturer, N. J. Col, 11–16. A.A; Entom. Soc; Asn. Econ. Entom. (sec'y, east. branch, 29–, advisory board, 'Jour,' 30–34, assoc. ed, 36–; pres, 42); Statist. Asn; Hist. Sci. Soc; Agr. Hist. Soc; Cranberry Growers' Asn. (statistician, 23–); N. Y. Entom. Soc. (v. pres, 21–23, pres, 23–25, 42, ed, 'Jour,' 24–); N. Y. Acad; Newark Entom. Soc. (sec'y, 15–17); Biol. Soc. Wash. Insect food habits; ecology and life history; agricultural statistics and economics; history of entomology; effect of different wave lengths of light upon insects.

Weiss, Dr. James E(wing), Brooklyn College, Brooklyn, N. Y. *Bacteriology.* Philadelphia, Pa, May 20, 07. B.S, Phila. Col. Pharmacy, 29; Ph.D, Yale, 33. Special research fellow bacter, Yale, 33–36; research bacteriologist, State Health Lab, S. Dak, 36–37; instr. *biol. dept, Brooklyn Col*, 37–40, *asst. prof, 40–; Sanit. Corps, U. S. Army, 42–, major.* Bacterial metabolism; chemistry of phytopathogenic bacteria; fermentations.

Weiss, Dr. J(ames) Paul, Ravine Drive, Matawan, N. J. *Physics.* Marion, La, Jan. 10, 15. A.B, La. State Nor. Col, 34; M.S, Louisiana, 36; Ph.D, Rochester, 40. *Asst. physicist, Redpath lab, photo products dept, E. I. du Pont de Nemours and Co, 40–* Sensitometry of photographic materials.

Weiss, John Morris, Chemists Bldg, 50 E. 41st St, New York, N. Y. *Chemistry.* Philadelphia, Pa, March 11, 85. A.B, Cent. High Sch. Phila, 01; B.S, Pennsylvania, 05. Research chemist in charge chem, dept. labs, Barrett Co, Frankford, Pa, 05–06, chief chemist, 07–11, New York, 11–17, manager research dept, 17–21, director develop, 21–22; *pres. and treas, Weiss and Downs, Inc, 23–; consulting chem. engineer.* First v. pres. and director, Calorider Corp; owner, John M. Weiss and Co; consultant, Army-Navy Munitions Board, 41–42. Insulation cmt, Nat. Research Council; cooperating expert, Int. Critical Tables. Potts gold medal, Franklin Inst, 22. A.A; Chem. Soc. (past councilor, v. chairman, N. Y. sect, 33, chairman, 34, director, 33–36; chairman, Nichols medal jury, 35, 38); fel. Inst. Chem. (past director, chairman, ethics cmt, 24–26, pres, N. Y. chap, 25); Chem. Eng. (chairman, regional cmt. legislation, 33–); Soc. Chem. Indust; Electrochem. Soc; Soc. Test. Mat. (chairman, D-8, 29–; chairman cmt. indust. aromatic hydrocarbons); Electrochem. Soc; Nat. Soc. Professional Eng; Asn. Consulting Chem. and Chem. Eng. (director, 27–34, past chairman, ethics cmt); Gas Asn; Franklin Inst. (cmt. sci. and arts, 11–); Chemists' Club (trustee, 31–, chairman, employment cmt, 32–); N. Y. State Soc. Professional Eng. (director, 31–33); N. J. State Soc. Professional Eng; Soc. Chem. Inst. Gt. Britain. Industrial chemistry; coal tar products; coal carbonization; air conditioning; chemical engineering and economics; catalytic processes; patent litigation; petroleum and asphalt; road materials, roofings and waterproofing; gas purification; dyes and intermediates; development and administration of the technical organization.

Weiss, Prof. Marie J(ohanna), Tulane University, New Orleans, La. *Mathematics.* Eugene, Calif, Sept. 21, 03. A.B, Stanford, 25, Ph.D, 28; A.M, Radcliffe Col, 26. Nat. research fellow *math*, Chicago, 28–30; asst. prof, Newcomb Col, Tulane, 30–36; Emmy Noether scholar and res. scholar, Bryn Mawr Col, 34–35; asst. prof, Vassar Col, 36–38; *prof, Newcomb Col, Tulane, 38–* Math. Soc; Math. Asn. (trustee, 37; assoc. ed, 'Am. Math. Monthly,' 40–). Finite group theory.

Weiss, Dr. Martin G(eorge), Iowa State College, Ames, Iowa. *Plant breeding.* Muscatine, Iowa, Oct. 30, 11. B.S, Iowa State Col, 34, M.S, 35, Ph.D, 41. *Asst. geneticist, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr, and Exp. Sta, Iowa State Col, 36–; capt, Field Artil, U. S. Army, 42–* Genetics Soc; Soc. Agron; Soybean Asn. Soybean plant breeding; development of varieties with high yield, oil content and iodine number of oil; inheritance and physiology of iron efficiency; plant breeding methods.

Weiss, Myron, 130 W. 57th St, New York, N. Y. *General science.* Cleveland, Ohio, July 14, 94. A.B, Harvard, 15; Cleveland Law Sch; France. Assoc. ed, Time, Inc, 25–38, advisory ed, *'Metal Progress,'* 36–38, *consulting ed, 38–* Mem. board reference, Staley Col. Del, Nat. Health Conf, Washington, 38; 8th Am. Sci. Cong. A.A; Pub. Health Asn; Genetic Asn; Soc. Metals; Eugenics Soc; Arbitration Asn. (panel);

Nat. Press Club. Contemporary history of the sciences; medical, scientific and industrial news and public relations; mutual relations of press, radio, cinema and society.

Weiss, Prof. Paul (Alfred), 5424 University Ave, Chicago, Ill. **6Zoology, Embryology, Neurology.* Vienna, Austria, March 21, 98. Ph.D, Vienna, 22. Asst. director biol. research inst, Acad. Sciences, Vienna, Austria, 22–29; fellow, Kaiser Wilhelm Inst, 27–30; Sterling fellow, Yale, 31–33; asst. prof. *zool, Chicago,* 33–35, assoc. prof, 35–42, *prof, 42–* Ed, 'Growth.' A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Physiol. Soc; Soc. Nat; Soc. Develop. and Growth (sec'y, 39–41, pres, 41); Inst. Med. Chicago. Regeneration; experimental morphology; tissue culture; transplantation; Field theory of development; resonance principle of nervous activity; specificity of nerves and muscles; ascidian metamorphosis; functional adaptation; experimental analysis of nerve development; development of behavior patterns; muscle function in poliomyelitis.

Weiss, Dr. Richard S(imon), Washington University School of Medicine, St. Louis, Mo. *Medicine.* St. Louis, Mo, Nov. 17, 85. M.D. Washington (St. Louis), 09. Intern, St. Louis City Hosp, 09–10; clin. asst. dermat, *sch. med, Washington (St. Louis),* 17–20, instr, 20–28, asst. prof. *clin. dermat,* 28–42, *assoc. prof. and acting head dept, 42–* Visiting physician, dept. dermat, St. Louis City Hosp, 14–15, 16–36; St. Louis Isolation Hosp, 18–35, consulting physician, 35–; St. Louis City Sanitarium, 18–24, consulting physician, 24–; visiting physician, Koch Hosp. of St. Louis, 25–36; assoc. dermat, Barnard Free Skin and Cancer Hosp, 28–38, dermatologist, 38–; Lutheran Hosp, 18–; Lutheran Orphans' Home, 24–; Barnard Free Skin and Cancer Hosp, 38–; asst. dermatologist, Jewish Hosp, 21–26, assoc. dermatologist, 26–27, dermatologist, 28–, consultant, dermat. out-patient dept, 28–; dermatologist, Jewish Sanitarium, 23–; clin. asst, dept. dermat, Barnes Hosp, 24–25, asst. dermatologist, 25–42, dermatologist, 42–; asst. dermatologist, St. Louis Children's Hosp, 25–; asst. physician, out-patients' dept. dermat, Washington (St. Louis) Hosp, 11–14, dispensary, 14–16, physician, 16–35, chief clinic, 35–; dermatologist, St. Louis County Hosp, 30–35, 36–, chief sect. dermatol, 36– A.A; fel. Am. Med. Asn; Dermat. Asn; Social Hygiene Asn; fel. Acad. Dermat. and Syphilol. (pres, 41); Mo. Social Hygiene Asn. (director, chairman, exec. cmt, pres, 38–); St. Louis Dermat. Soc; St. Louis Med. Soc. (asst. sec'y, 15). Dermatology; syphilis.

Weiss, Dr. Samuel, 146 Central Park West, New York, N. Y. *Gastroenterology.* Hungary, May 6, 85. M.D, L. I. Col. Hosp, 07. *Clin. prof. gastroenterol, N. Y. Polyclinic Med. Sch. and Hosp, 26–, mem. exec. staff dept, 36–, consultant diseases of liver, tumor clinic.* Mem. Hosp, Catskill, 34; Bronx Social Service; Aurora Health Inst, N. J. Ed, 'Rev. Gastroenterology,' 33– Chevalier, Légion d'honneur. Official del. and sec'y, Int. Cong. Gastroenterol, Belgium, 35, Paris, 37; U. S. del. and sec'y, Int. Cong. Hepatic Insufficiency, Vichy, France, 37. A.A; fel. Col. Physicians; fel. Am. Med. Asn; Asn. Study Int. Secretions; Soc. Control Cancer; Pub. Health Asn; fel. Nat. Gastroenterol. Asn; Union Med. Latine; Int. Soc. Gastroenterol. Diseases of the liver, gallbladder, ducts and pancreas.

Weiss, Dr. U(lrich), 118–80 Metropolitan Ave, Kew Gardens, L. I, N. Y. *Organic chemistry.* Prague, Czechoslovakia, Jan. 24, 08. D.Sc, Prague, 30. Research and lab. chemist, Norgine, Inc, Prague, 30–39; Soc. Am. Norgan, Paris, France, 39–40; *research chemist, Endo Products, Inc, 41–* Chem. Soc. Pharmaceutical chemistry.

Weissberg, Dr. Samuel G(eorge), National Bureau of Standards, Washington, D. C. *Physics.* Pittsburgh, Pa, June 5, 09. B.S, Pittsburgh, 30; M.S, Illinois, 32, Ph.D, 36. Asst. physics, Illinois, 30–37, special research asst. physiol. psychol, 36–37; junior physicist, *Bur. Standards,* 37–38, asst. physicist, 38–42, *assoc. physicist, 42–* Physical Soc. Vacuum spectroscopy; physiological psychology; organic plastics.

Weissberger, Dr. Arnold, Eastman Kodak Co, Rochester, N. Y. *Organic chemistry.* Chemnitz, Germany, Oct. 19, 98. Leipzig, 18–19; Munich, 19–20; Ph.D, Leipzig, 24. Instr, Leipzig, 23–28, privat-docent, 28–33, prof, 33; research fellow, Oxford, 33–36; *research chemist, Eastman Kodak Co, 36–* Chem. Soc; London Chem. Soc. Mechanism of reactions; stereochemistry; synthetic chemistry.

Weissenberg, Prof. J(ulius) Richard, 54 Orange St, Waltham, Mass. *Histology, Embryology, Zoology.* Breslau, Germany, March 18, 82. Freiburg, 00; M.D, Berlin, 07. Prof. extraordinarius anat, Berlin, 22–33; visiting prof. cytology, Washington (St. Louis), 37–38; research fellow, Wistar Inst. Anat, 38–39, mem, 39; *prof. histol. and embryol, sch. med, Middlesex, 40–* Asn. Anat; Soc. Zool. Comparative embryology of vertebrates; embryonic and postembryonic development of lampreys; intra-cellular parasitism; parasitic protozoa; fish pathology; virus diseases of fish; human histology.

Weisskopf, Prof. Victor F(rederick), University of Rochester, Rochester, N. Y. *Physics.* Vienna, Austria, Sept. 19, 08. Vienna, 26–28; Ph.D, Göttingen, 31. Research assoc, Berlin, 31–32; Rockefeller Foundation fellow, Copenhagen and Cambridge, 32–33; research assoc, Inst. Tech, Zurich, Switzerland, 33–36; Copenhagen, 36–37; instr. *physics, Rochester,* 37–40, *asst. prof, 40–* Summers, acting asst. prof, Stanford, 39; Purdue, 40; Michigan, 41. Fel. Physical Soc. Theoretical physics; theory of elementary particles; nuclear physics; radiation theory; theory of spectral lines.

Weissler, Dr. Gerhard L(udwig), 2500 Durant Ave, Berkeley, Calif. *Physics.* Eilenburg, Germany, Feb. 20, 18. A.M, California, 41, Ph.D, 42. *Instr. radiol, med. sch, California.* Physical Soc. Electrical discharges in gases; positive and negative coronas in pure gases.

Weissman, Dr. S(am) I(saac), Department of Chemistry, University of California, Berkeley, Calif. *Physical chemistry.* South Bend, Ind, June 25, 12. B.S, Chicago, 33, Ph.D, 38. Fellow, Chicago, 39–41; *nat. research fellow, California, 41–* Chem. Soc. Spectroscopy of rare earth compounds; application of spectroscopic methods to chemical problems.

Weisz, Dr. Robert S(tephen), 5542 Raleigh St, Pittsburgh, Pa. *Chemistry.* New York, N. Y, May 24, 18. A.B, Cornell, 39, Sage fellow, 41–42, Ph.D, 42. Asst. instr. quantitative anal. and gas and fuel anal, Cornell, 39–41; *Westinghouse research fellow, Westinghouse Elec. and Mfg. Co, 42–* A.A; Chem. Soc; Ceramic Soc. Hydrothermal study of the alumina-water system; titania dielectrics; electrical porcelain.

Weith, Archie J(ames), Bakelite Corp, Bloomfield, N. J. *Chemistry.* La Harpe, Kans, Oct. 18, 86. B.S, Kansas, 08, Pfaudler fellow, 09–10, M.S, 10. Chief chemist, State Water Surv, Kans, 05–07; Robert Kennedy Duncan fellow, Kansas, 10–14; sec'y, Redmanol Chem. Products Co, 14–22; assoc. director *research and develop, Bakelite Corp,* 22–38, *director, 38–* Chairman plastics cmt, Nat. Research Council. Chem. Soc. (councilor); Inst. Chem; Chem. Eng; Electrochem. Soc; Physical Soc; Chemists' Club. Plastics; phenol-condensation products; polymerization.

Weitz, Dr. Joseph, Tulane University, New Orleans, La. *Psychology.* New York, N. Y, Feb. 25, 16. B.S, Carnegie Inst, 37; A.M, Virginia, 38, Ph.D, 40. *Instr. psychol, Newcomb Col, Tulane, 40–* Assoc. Psychol. Asn. Sensory and animal psychology.

Weitzman, Dr. Ellis, 117–01 Park Lane South, Apt. 6A–D, Kew Gardens, L. I, N. Y. *Psychology.* Atlanta, Ga, Nov. 26, 10. A.B, Emory, 32; A.M, Creighton, 35; Ph.D, Nebraska, 40. Educational director, Vocational Sch, Nebr, 36–37; asst. educational psychol. and measurements, Nebraska, 38–40; supervisor special problems groups, occupational anal. sect, U. S. Employment Service, 40–42; assoc. instr, Navy Teacher Training Center, *bur. aeronautics, U. S. Navy Dept, 42, lieut, A-V(S), U. S. Naval Res, and mem. cent. examining board, 42–* A.A; assoc. Psychol. Asn. Measurements; mental and emotional effects of the depression; social maturity in adolescents; inventory of social behavior; occupational analysis.

Welch, Dr. Aaron Waddington, Galena, Md. *Botany.* Georgetown, Md, July 25, 16. B.S, Maryland, 37; fellow, Iowa State Col, 37, Ph.D, 42. Manager, Southeast. Iowa Exp. Farm, 40–42; *lieut, U. S. Army, 42–* Plant pathology, bacteriology; Pythium root necrosis of oats.

Welch, Dr. A(rnold) D(eMerritt), Sharp and Dohme, Inc, Glenolden, Pa. *Nutrition, Pharmacology.* Nottingham, N. H, Nov. 7, 08. B.S, Florida, 30, M.S, 31; fellow, Toronto, 31–35, Ph.D, 34; M.D, Washington (St. Louis), 39. Asst. physiol, Exp. Sta, Florida, 29–31; pharmacol, sch. med, Washington (St. Louis), 35–36, instr, 36–40; *director pharmacol. research, Sharp and Dohme, Inc, 40–, director research, 43–* A.A; Soc. Pharmacol; Soc. Exp. Biol; Chem. Soc; Pharmaceut. Asn; Physiol. Soc. Phila. Epinephrine and pressor amines; alkaloids; pharmacological and nutritional studies of choline and various analogues; succinyl sulfathiazole; sulfamerazine; intestinal synthesis of vitamins.

Welch, Dr. d'Alte' A(ldridge), 116 E. 65th St, New York, N. Y. *Parasitology.* New York, N. Y, April 9, 07. A.M, Hopkins, 31, Ph.D, 37. Asst. malacologist, Bishop Museum, Honolulu, 31–37; prof. *biol,* Barat Col, 40–41; *instr, John Carroll, 42–* A.A; Soc. Zool; Ecol. Soc; Malacol. Union; N. Y. Acad; Malacol. Soc. London. Distribution and variation of different species of the Hawaiian tree snail, Achatinella, from the island of Oahu.

Welch, Prof. D(onald) S(tuart), New York State College of Agriculture, Ithaca, N. Y. *Plant pathology.* Norway, Maine, March 12, 94. B.S, Maine, 17; A.M, Harvard, 21; Ph.D, Cornell, 25. Asst, sta. for exp. evolution, Carnegie Institution, 17–19; Austin teaching fellow, Harvard, 19–21; instr. *plant path, N. Y. State Col. Agr, Cornell,* 21–25, asst. prof, 25–40, *prof, 40–,* asst. forest pathologist, *Exp. Sta,* 25–40, *forest pathologist, 40–* A.A; Phytopath. Soc; Soc. Foresters; Mycol. Soc. Mycology; forest pathology.

Welch, Dr. Eldred, General Aniline and Film Corp, Grasselli, N. J. *Organic chemistry.* Norris City, Ill, Dec. 2, 14. B.Ed, South. Ill. Nor. Univ, 37; M.S, Illinois, 39, Ph.D, 41. Asst. chem, Illinois, 37–41; *chemist, Gen. Aniline and Film Corp, 41–* A.A; Chem. Soc. Synthetic anesthetics; dyes and dye intermediates.

Welch, Prof. George B(aker), Northeastern University, Boston, Mass. *Physics.* Lowell, Mass, June 25, 97. B.S, Bowdoin Col, 22; Yale, 22–23; Ph.D, Cornell, 28. Instr. *physics,* Williams Col, 23–25; assoc. prof, Marshall Col, 28–31; *asst. prof,* Wells Col, 32–33; Bowdoin Col, 33–36; *Northeastern, 36–* Physical Soc; Asn. Physics Teachers. Photoelectricity.

Welch, Dr. George I(ra), Naval Ordnance Laboratory, Washington, D. C. *Geophysics.* Philip, S. Dak, Feb. 27, 13. B.S, S. Dak. State Sch. Mines, 34; Ph.D, Minnesota, 40. Recorder, triangulation party, U. S. Coast and Geod. Surv, 34–35; teaching asst, Minnesota, 36–39; *physicist, Naval Ordnance Lab, 40–* Physical Soc. Design and performance of a new type Galitzin gravity meter.

Welch, Harry V(alentine), Western Precipitation Co, 1016 W. Ninth St, Los Angeles, Calif. *Chemistry, Metallurgy.* Greeley, Colo, Aug. 4, 82. A.B, Colorado, 06; M.S, California, 11; Berlin, 13–14; Göttingen, 14; Princeton, 14–15. Chemist, paraffine companies, 07–08; asst, California, 08–11; asst. physical chemist, U. S. Bur. Mines, 11–12; metallurgist, Anaconda Smelter Cmn, 13, 15; research chemist and later *chief chemist and director, West. Precipitation Co, 15–* Lecturer, Southern California, 35. Mod. Pioneer award, Nat. Asn. Mfrs, 40. Chem. Soc. (sec'y, south. Calif. sect, 31); Chem. Eng; Min. and Metal. Eng. Physical chemistry; industrial plant chemistry; chemical, metallurgical and electrical precipitation; fogs, fumes and dust by the Cottrell process.

Welch, Dr. Henry, U. S. Food and Drug Administration, Washington, D. C. *Bacteriology.* Newburyport, Mass, July 16, 02. Ph.B, Brown, 25, M.S, 28; fellow, Western Reserve, 28–30, Ph.D, 30. Director dept. science, high sch, R. I, 25–28; research biologist, div. research, State Dept. Health, Conn, 30–38; senior bacteriologist, div. bacter, *food and drug admin, Fed. Security Agency,* 38–42, *chief microanal. div, 42–* Pub. Health Asn; Asn. Immunol. Classification of human fecal streptococci; ultra-violet light radiation, including bactericidal action, effect on molds, snake venoms, scarlet fever, diphtheria toxin, tetanus toxin, toxic filtrates and ricin; Shwartzman phenomenon; dysentery; Brucella abortus agglutination; pleoantigenicity of Proteus; rapid slide test for diagnosis of typhoid fever; subacute bacterial endocarditis; infectious mononucleosis; use of sulfanilamide in Brucellosis; measurement of toxicity of drugs and antiseptics; pyrogens.

Welch, M(edard) W(illiam), 888 Hill Road, Winnetka, Ill. *Biochemistry.* Chicago, Ill, Dec. 28, 92. B.S, Michigan, 17; Chicago, 17; Paris, 18; hon. Sc.D, Univ. Blattereau, 24. Asst. serol. and path. to Dr. MacCallum, 17; establisher and director labs, Grand Blattereau, France, 18–19; v. pres, *W. M. Welch Sci. Co, Chicago,* 20–40, *pres, 40–* Lecturer and demonstrator, Ill. Acad. A.A; Cent. Asn. Sci. and Math. Teachers; Ill. Acad. Perfect symbiosis of azotobacter and one of the larger lymax; hydrogen ion concentration of serums; foreign demonstration methods; special chemical containers; new method of making fused quartz.

Welch, Prof. Paul S(mith), University of Michigan, Ann Arbor, Mich. ***Zoology.* Oconee, Ill, Jan. 28, 82. A.B, James Millikin, 10; A.M, Illinois, 11, Ph.D, 13. Instr. entom, Kans. State Col, 13–14, asst. prof, 14–17, assoc. prof, 17–18; asst. prof. *zool, Michigan,* 18–22, assoc. prof, 22–29, *prof, 29–* Asst, Wm. Barnes Lepidoptera collection, 06–10; staff, Biol. Sta, Michigan, 11–13, 18–, acting director, 24–25, asst. director, 29–30; Lake Lab, Ohio State, 17. A.A; Soc. Zool; fel. Entom. Soc. (2nd v. pres, 25); Ecol. Soc; Micros. Soc. (sec'y, ed, 19–24, pres, 28); Limnol. Soc. (sec'y-treas, 35–); Mich. Acad. (ed, 21–25). Limnology; aquatic insects; oligochaetes; parasites of insects; respiration in aquatic insects.

Welch, Dr. R(odney) C(hanning), 612 S. 24th St, Philadelphia, Pa. *Dairy science.* Ayrshire, Iowa, Dec. 16, 04. B.S, State Col. Wash, 28, M.S, 31; Ph.D, Pa. State Col, 35. Asst. county agent, exten. service, State Col. Wash, 28–30, teaching fellow, 30–31; asst, Pa. State Col, 31–34; *director lab, Sylvan Seal Milk, Inc, 34–* Dairy Sci. Asn; Inst. Food Technol; Int. Asn. Milk Sanitarians. Soft curd milk; the chemistry of milk; processing and packaging of milk and milk products; control of thermoduric bacteria in milk and cream.

Welch, Prof. Walter B(urchard), Southern Illinois Normal University, Carbondale, Ill. *Botany.* Inwood, Ind, March 31, 02. A.B, Wabash Col, 26; M.S, Chicago, 30, Ph.D, 37. Instr. *bot,* Wabash Col, 26–28; assoc, California at Los Angeles, 28–36; *asst. prof, South. Ill. Nor. Univ, 39–* Soc. Plant Physiol; Asn. Biol. Teachers; Ill. Acad. Water relations in plants; phytoplankton.

Welch, Prof. Winona H(azel), DePauw University, Greencastle, Ind. *Botany.* Goodland, Ind, May 5, 96. A.B, DePauw, 23; A.M, Illinois, 25; fellow, Indiana, 27–28, Ph.D, 28. Asst. bot, Illinois, 23–26; head dept. biol, Cent. Nor. Col, Ind, 26–27; instr. *bot,* Indiana, 28–30; asst. prof, *DePauw,* 30–34, assoc. prof, 34–39, *prof, 39–,* acting head dept, 39–40. Research grant, Ind. Acad, 37, 41; Am. Philos. Soc, 37; grad. council, DePauw, 40, 41. A.A; Bot. Soc. (sec'y, systematic sect, 37); Sullivant Moss Soc. (v. pres, 36, 37; sec'y and treas, 41–); Torrey Bot. Club; fel. Ind. Acad. (sec'y, 40–). Bryophytes of Indiana; Fontinalaceae.

Welch, Dr. Zara D, Purdue University, Lafayette, Ind. *Organic chemistry.* North Manchester, Ind, June 28, 15. A.B, Manchester Col, 37; M.S, Purdue, 39, fellow, 41–42, Ph.D, 42. Asst, Purdue, 37–41; research chemist, Va. Smelting Co, 42; *research fellow chem, Purdue, 42–* Fluorination.

Welcher, Dr. Frank J(ohnson), 112 Berkley Road, Indianapolis, Ind. *Chemistry.* Coal City, Ind, Sept. 22, 07. A.B, Indiana, 29, A.M, 30, Ph.D, 32. Instr. and later *asst. prof. chem, exten. div, Indiana, 32–* Chem. Soc; Ind. Acad. Analytical and physical chemistry; practical chemistry and chemical solutions.

Weld, Dr. C(harles) B(eecher), Dalhousie University, Halifax, N. S, Can. *Physiology.* Vancouver, B. C, Feb. 3, 99. B.A, British Columbia, 22, M.A, 24; M.D, Toronto, 29. Asst, Connaught labs, Toronto, 24, research assoc. and lecturer *physiol,* 30–36; *prof, Dalhousie, 36–* Physiologist, Hosp. for Sick Children, Toronto, 31–36. Summers, asst, Biol. Board Can, 26, 27. Starr gold medal, 33. Physiol. Soc; Can. Physiol. Soc. Diphtheria toxoid; freezing of fish; calcium metabolism; pneumothorax; acute intestinal obstruction; aqueous humor.

Weld, Prof. H(arry) P(orter), Cornell University, Ithaca, N. Y. *Psychology.* La Grange, Ark, Sept. 22, 77. Ph.B, Ohio State, 00; fellow, Clark, 09–10, Ph.D, 11. Prof. music, George Peabody Col, 00–10; asst. *exp. psychol,* Clark, 10–11, instr, 11–12; asst. prof, *Cornell,* 12–19, *prof, 19–, chairman dept, 38–, director, Army Specialized Training Program personnel, 43–* Assoc. ed, 'Am. Jour. Psychol,' 21–26; cooperating ed, 'Jour. Gen. Psychol,' 27– U. S. del, Int. Cong. Psychol, Copenhagen, 32. A.A; Psychol. Asn; Soc. Exp. Psychol. Experimental psychology.

Weld, Prof. LeRoy D(ougherty), 1838 Blake Blvd, Cedar Rapids, Iowa. *Physics.* Cresco, Iowa, March 6, 80. B.S, Iowa, 99, M.S, 02, Ph.D, 22. Instr, high schs, 99–02; *prof.* math. and physics, *Coe Col,* 02–18, *physics, 18–* Exchange lecturer, Columbia, 12; Iowa, 15. Chairman cmt. on glossary of physics, Nat. Research Council, 34– Physical Soc; Optical Soc; Kelvin Soc. (pres); Iowa Acad. (pres). The sense of hearing in ants; the effects of temperature inequalities on the equal arm balance; minimum volume in solution; errors of observation; precise methods of focusing lenses; stereoscopic drawings; the crystelliptometer; capillary viscometer; polarimeter for Malus' law; simplified deduction of Maxwell's law; least-square adjustment of cosmic-ray observations; new proof of Wüllner's law.

Weld, Lewis H(art), E. Falls Church, Va. *Zoology.* Ridgeway, N. Y, Dec. 30, 75. A.B, Rochester, 00; A.M, Michigan, 02; Cornell, 03-04. Asst. zool, Michigan, 00-02; Syracuse, 03; instr. biol, Evanston Acad, 04-17; zool, Northwestern, 18-19; specialist in Hymenoptera, U. S. Nat. Museum, 19-24. A.A; Entom. Soc. Amer; Entom. Soc. Wash. Cynipidae.

Weldin, Prof. J(ohn) C(hilcote), Rhode Island State College, Kingston, R. I. *Bacteriology.* Washington, Iowa, Aug. 4, 91. B.S, Iowa State Col, 16, M.S, 22, Ph.D, 27. Instr. bacter, Iowa State Col, 19-25, asst. prof, 25-27; prof, *R. I. State Col,* and head dept. animal breeding and path, Exp. Sta, 27-31, *prof. bacter. and dean freshmen, 31–, dean admin, 39–* Soc. Bact. Systematic, general and pathogenic bacteriology; poultry diseases and breeding.

Weldon, Geo(rge) P(ercival), 423 Rosewood Court, Ontario, Calif. *Entomology.* Loveland, Colo, Feb. 15, 80. B.S, Colo. Agr. Col, 06, M.S, 14. Assoc. entomologist, Maryland, 06-08; field entomologist, Grand Junction, Colo, 08-11; deputy state entomologist, Ft. Collins, 11-13; chief deputy state commissioner hort, Sacramento, Calif, 13-19; pomologist and entomologist, Chaffey Junior Col, 19-42. Consulting horticulturist, State Dept. Agr, Calif, 19-22; south. fruits ed, 'Pacific Rural Press,' 30-42. Entom. Soc; Asn. Econ. Entom. Economic biology; economic insects; delayed foliation of deciduous fruit trees; hybridization of peaches; fertilizers for use on peaches; pear and apple growing.

Weldon, Prof. M(arcus) D(unlap), University of Nebraska, Lincoln, Nebr. *Soils.* Wood River, Nebr, Nov. 17, 00. A.B, Nebraska, 22, M.S, 26, Ph.D, 37. Asst. soils, Mich. State Col, 26-30; *agron, Nebraska,* 30-35, instr, 35-37, asst. prof, 37-38, *assoc. prof, 38–; capt, Chem. Warfare Service, U. S. Army, 42–* Soc. Agron; Soil Sci. Soc. Rate and nature of decomposition of soil organic matter; factors influencing soluble nutrient elements in crops; pasture fertilization and management; soil fertility; chemical nature of soil organic matter; soil management; crop rotations; irrigation.

Welge, Prof. Henry John, Agricultural and Mechanical College of Texas, College Station, Texas. *Physical chemistry.* St. Louis, Mo, Aug. 15, 07. Washington (St. Louis), 25-27; B.S, Illinois, 29; M.S, Calif. Inst. Tech, 32, Ph.D, 36; Mass. Inst. Tech, 32-33. Anal. chemist, Richfield Oil Co, Wilmington, Calif, 29-31; research chemist, Texas Co, Port Arthur, 37; instr. *chem, Agr. and Mech. Col. Texas,* 37-40, *asst. prof, 40–* Chem. Soc. Photochemical decomposition of ammonia; equilibrium in the hydration of iso-butylene; correlation between rate of absorption and rate of reaction of solutes and solvents.

Welker, Dr. Everett L(inus), 1207 W. Daniel St, Champaign, Ill. *Mathematical statistics.* Greenview, Ill, March 30, 11. A.B, Illinois, 30, A.M, 31, Ph.D, 38. Asst. *math, Illinois,* 35-38, instr, 38-42, *assoc, 42–* Summer, actuary, Continental Life Assurance Co, Chicago, Ill, 40. Math. Soc; Inst. Math. Statist. Correlation theory.

Welker, Prof. William H(enry), University of Illinois College of Medicine, Chicago, Ill. *Biochemistry.* Red Hill, Pa, Aug. 20, 79. A.C, Lehigh, 04; Ph.D, Columbia, 08; Sc.D, Franklin and Marshall Col, 42. Instr. chem and physics, Lehigh, 02-04; asst. biochem, Columbia, 04-07; path. asst. obstet. and research chemist, Sloane Maternity Hosp, New York, 06-07; demonstrator physiol. chem, Pennsylvania, 07-10; assoc, Columbia, 10-11, asst. prof. biochem, 11-12; *physiol. chem, col. med, Illinois,* 13-19, assoc. prof, 19-21, *prof, 21–, head dept, 31–* Examiner, subsidiary board, Nat. Board Med. Examiners. Prize, N. Y. Acad. A.A; Soc. Biol. Chem; Soc. Exp. Biol; assoc. fel. Am. Med. Asn; fel. Col. Physicians; Cong. Int. Med; Pub. Health Asn; Radium Inst; Harvey Soc; Ill. Acad; fel. Inst. Med. Chicago; Columbia Biochem. Asn; Int. Asn. Dental Research. Colloid chemistry; metabolism; chemistry of blood; protein chemistry; laboratory methods and apparatus.

Welldon, Dr. P(aul) Burke, Hercules Experiment Station, Wilmington, Del. *Organic chemistry.* Nashua, N. H, May 10, 16. A.B, Dartmouth Col, 37, A.M, 39; Ph.D, Illinois, 42. Instr. chem, Dartmouth Col, 37-39; *research chemist, exp. sta, Hercules Powder Co, 42–* Chem. Soc. Enediols; vinyl alcohols.

Weller, Prof. Carl V(ernon), 1130 Fair Oaks Parkway, Ann Arbor, Mich. ***Pathology.* St. Johns, Mich, Feb. 17, 87. A.B, Albion Col, 08; M.D, Michigan, 13, M.S, 16. Instr. *path, Michigan,* 11-16, asst. prof, 16-21, assoc. prof, 21-24, *prof, 24–,* asst. director, 24-31, director, 31-38, *chairman, 38–* Nat. Research Council, 34-37. Mem. ed. board, 'Physiol. Reviews,' 41– Asn. Path. and Bact. (councilor, 35–, v. pres, 38, acting pres, 38, pres, 39, ed, 'Jour,' 41–); Soc. Exp. Path. (sec'y-treas, 27-29, councilor, 30-32, v. pres, 32, pres, 33); Asn. Cancer Research; Col. Physicians (ed, 'Annals Int. Med,' 31-33); Am. Physicians; Federation Societies for Exp. Biol. (sec'y, 28-30); Am. Med. Asn; Soc. Exp. Biol; Soc. Biol. Research; Mich. Med. Soc; Mich. Path. Soc. (pres, 32); Int. Asn. Geog. Path; Int. Asn. Med. Hist. (sec'y-treas, Am. sect, 27-31, councilor, 35); Int. Asn. Med. Mus. (joint ed, 'Bul,' 18, councilor, 22-24, 32-39, ed. cmt, 33, pres, 38). Neoplasia; tuberculosis; blastophthoria; mustard-gas poisoning; experimental lead poisoning; history of medicine.

Weller, Dr. J(ames) Marvin, State Geological Survey, Urbana, Ill. *Geology.* Chicago, Ill, Aug. 1, 99. B.S, Chicago, 23, Ph.D, 27. Asst. geologist, Ill. Geol. Surv, 16-19; Whitehall Petrol. Corp, India, 20-22; geologist, Chanute Spelter Co, 23; Ky. Geol. Surv, 24-25; *geologist and head div. stratig. and paleont, Ill. Geol. Surv, 25–* Asst. prof, Illinois, 36-37. Geol. exploration, China and Tibet, 37-38. Geol. Soc; Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont. and Miner; Ill. Acad. Carboniferous stratigraphy and paleontology; cycles of sedimentation; Carboniferous trilobites.

Weller, Prof. R(oyal), State College of Washington, Pullman, Wash. *Applied physics.* Westfield, Mass, Aug. 22, 05. B.S, Mass. Inst. Tech, 27; Ph.D, Ohio State, 39. Instr. mech. eng, Rochester Mech. Inst, 28-36; physics, Ohio State, 38-39; *asst. prof. mech. eng, State Col. Wash, 39–; prin. physicist, Naval Ordnance Lab, 41.* Summer, photoelasticity expert, Nat. Advisory Cmt. Aeronautics, Langley Field, 39. Physical Soc; East. Photoelastic Conf. (exec. cmt, 38-). Photoelasticity.

Welles, Dr. S(amuel) P(aul), Museum of Paleontology, University of California, Berkeley, Calif. *Vertebrate paleontology.* Gloucester, Mass, Nov. 9, 07. A.B, California, 30, Ph.D, 40. Mem, U. S. Nat. Museum exped, 30; field and lab. asst, *museum paleont, California,* 31-39, *asst. curator reptiles and amphibians, 39–, mem. museum expeds, 31–* Paleont. Soc; Calif. Acad. Paleozoic and Mesozoic stratigraphy; bibliography of vertebrate paleontology.

Wellhausen, Dr. Edwin J(ohn), Calle Viena, 26, Mexico, D. F, Mex. *Genetics, Plant pathology.* Little Chief, Okla, Sept. 10, 07. B.S, Idaho, 32; fellow, Iowa State Col, 32-36, Ph.D, 36. Gen. Educ. Board fellow genetics, Rockefeller Inst. and California, 36-37; assoc. agronomist, Exp. Sta, Mont. State Col, 37-38; assoc. prof. agron, West Virginia, and assoc. geneticist, Exp. Sta, 39-43; *mem. staff, Rockefeller Foundation, Mex, 43–* A.A; Soc. Agron; Bot. Soc; Genetics Soc; Phytopath. Soc. Genetics of disease resistance; genetics, physiology and bacteriology of host-parasite relations concerning certain bacterial diseases of plants; plant breeding.

Wellhouse, Prof. Walter H(ousley), Iowa State College, Ames, Iowa. *Entomology.* Fairmount, Kans, Dec. 2, 90. A.B, Kansas, 13, fellow, 15-16, A.M, 17; Ph.D, Cornell, 20. Asst. state entomologist, Kans, 15-17; instr. *entom,* Cornell, 18-21; asst. prof, *Iowa State Col,* 21-23, assoc. prof, 23-33, *prof, 33–* A.A; Entom. Soc; Asn. Econ. Entom; Iowa Acad. Insect ecology of pomaceous fruits, especially those native to North America; insect fauna of Crataegus; ecology of spring canker-worm.

Wellington, J(oseph) W(orcester), U. S. Department of Agriculture, Washington, D. C. *Horticulture.* Waltham, Mass, March 1, 86. B.S, Mass. Col, 08; M.S, Maryland, 31. Asst. horticulturist, Exp. Sta, Indiana, 10-13; N. Y. Exp. Sta, Geneva, 13-19; *senior horticulturist and exp. sta. administrator, office exp. stations, U. S. Dept. Agr, 20–* Soc. Hort. Sci. Physiology of peach tree growth.

Wellington, Prof. Richard, New York Agricultural Experiment Station, Geneva, N. Y. *Horticulture.* Waltham, Mass, Oct. 10, 84. B.S, Mass. Col, 06; M.S, Harvard, 11. Asst. horticulturist, N. Y. Exp. Sta, Geneva, 06-11, assoc. horticulturist, 12-13; asst. horticulturist, Minnesota, and pomologist, Exp. Sta, 13-19; prof. veg. gardening, Maryland, and veg. breeder, Exp. Sta, 19-20; assoc. horticulturist, *N. Y. Exp. Sta, Geneva, 24-28, prof. and chief in research, 28–, head div. pomol, 29–* Gold medal, Mass. Hort. Soc, 38. A.A; Soc. Hort. Sci; N. Y. Fruit Test. Asn. (sec'y-treas). Fruit breeding.

Wellish, Prof. E(dward) M(ontague), University of Sydney, Sydney, Australia. *Mathematics, Physics.* Sydney, April

14, 82. B.A, Sydney, 06, M.A, 07; B.A, Cambridge, 09. Asst. prof. physics, Yale, 11; lecturer math, *Sydney, 15, assoc. prof. applied math, 26–* Australian Nat. Research Council. Royal Soc. N. S. Wales. Mobilities of ions produced by Roentgen rays; radioactive material in electric fields; columnar ionization; electric displacement currents; formation of negative ions.

Wellman, Prof. Beth L(ucy), Iowa Child Welfare Research Station, Iowa City, Iowa. *Psychology.* Clarion, Iowa, June 10, 95. A.B, Iowa, 20, Ph.D, 25; Chicago; Columbia. Asst, child welfare research sta, Iowa, 21–24; assoc. research, Lincoln Sch, Teachers Col, Columbia, 24–25; research asst. prof, *child welfare research sta, Iowa,* 25–29, research assoc. prof. psychol, 29–37, *prof. child psychol, 37–* A.A; Psychol. Asn; fel. Soc. Research Child Develop. (councilor, 38–); Nat. Asn. Nursery Educ; Soc. Study Educ; Educational Research Asn; Midwest. Psychol. Asn. Child psychology; mental, motor and language development of children.

Wellman, Dr. Frederick L(ovejoy), U. S. Department of Agriculture, Washington, D. C. *Pathology.* Kamundongo, Portuguese W. Africa, June 6, 97. A.B, Fairmount Col, 20; M.S, Wisconsin, 24, Ph.D, 28. Asst. plant path, Wisconsin, 23–24; agent, bur. plant indust, U. S. Dept. Agr, 24–29; pathologist, United Fruit Co, Cent. Amer, 29–30; asst. pathologist and assoc. pathologist, diseases of plants, bur. plant indust, *U. S. Dept. Agr,* 30–36, pathologist, 36–37, assoc. pathologist, 37–41, pathologist, 41–43, *senior agriculturist, office for. agr. relations, 43–* Plant explor. exped, Turkey, 36; asst. director, U.S-Salvador Cooperative Exp. Sta, 43–A.A; Am. Geog. Soc; Phytopath. Soc; Mycol. Soc; Wis. Acad; Wash. Acad. Vegetable pathology; plant diseases in tropics; virus and fusarium diseases; environment and pathogenesis.

Wellman, Dr. Homer B(igelow), Standard Oil Co. of California, San Francisco, Calif. *Physical chemistry.* Cape Town, S. Africa, 05. A.B, Carleton Col, 26; M.S, Michigan, 27; Ph.D, Calif. Inst. Tech, 30. Teaching fellow, Calif. Inst. Tech, 27–30; *research chemist,* physical chem, A. O. Smith Corp, Milwaukee, 30–33; *Standard Oil Co. of Calif, 33–* Chem. Soc. Equilibrium between chlorine and the chlorides of palladium in solution; cracking of hydrocarbon gases to hydrogen and acetylene; catalytic oxidation of natural gas to formaldehyde; solvent treatment of lubricating oils; fuels and asphalts; catalytic dehydrogenation.

Wellman, Dr. Mabel T(hacher), 507 E. Seventh St, Bloomington, Ind. *Home economics.* Boston, Mass, Aug. 23, 72. A.B, Wellesley Col, 95; Ph.D, Chicago, 25. Teacher, pub. schs, Mass, 95–00; instr. chem. and home econ, Rockford Col, 02–06; home econ, Lewis Inst. (Ill), 06–08, assoc. prof, 08–13; assoc. prof. and head dept, Indiana, 13–23, prof, 23–37. Summers, teacher, Chautauqua, N. Y, 98–03, 05, Chicago. Lake Placid Conf. Home Econ. Asn; Ind. Home Econ. Asn. Food study for high schools; food planning and preparation; economy in food.

Wellman, Dr. R(ichard) H(arrison), Boyce Thompson Institute, 1086 N. Broadway, Yonkers, N. Y. *Plant pathology.* Mountain View, Alta, Can, May 25, 14. B.S, State Col. Wash, 35, fellow, 35–39, Ph.D, 39. *Investigator, Crop Protection Inst, Boyce Thompson Inst, 39–* A.A; Phytopath. Soc. Storage decays in apples; alfalfa diseases; fungicides.

Wellman, Dr. Victor E(lliott), B. F. Goodrich Co, Akron, Ohio. *Chemistry.* Denver, Colo, Jan. 21, 03. A.B, 24, M.S, 27; du Pont fellow, Washington (Seattle), 28–29, Ph.D, 29. Research chemist, *B. F. Goodrich Co,* 29–39, *manager* gen. labs, 39–41, *special materials procurement, 41–* Chem. Eng; Chem. Soc. Physical and colloid chemistry; oxygen electrodes; emulsions; reclamation of scrap rubbr; rubber derivatives; plastics.

Wellner, Charles A(ugust), U. S. Forest Service, Missoula, Mont. *Forest management.* Enid, Okla, Jan. 3, 11. B.S, Idaho, 33; M.F, Yale, 38. Junior forester, *North. Rocky Mountain Forest and Range Exp. Sta, U. S. Forest Service,* 34–38, asst. silviculturist, 38–42, *assoc. silviculturist, 42–; U. S. Naval Res.* Soc. Foresters (sec'y-treas, north. Rocky Mountain sect, 42); Ecol. Soc; Northwest Sci. Asn. (chairman forestry sect, 42); Mont. Acad. Forest types of the Northern Rocky Mountain region; harvest cutting and stand improvement for western white pine forests of northern Idaho.

Wells, Dr. A(doniram) J(udson), E. I. du Pont de Nemours and Co, Wilmington, Del. *Physical chemistry.* Chicago, Ill, April 1, 17. B.S, Harvard, 38, A.M, 40, Ph.D, 41. Teaching fellow, Harvard, 40–41; *research chemist, E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Infra-red spectroscopy.

Wells, Prof. Agnes E(rmina), Indiana University, Bloomington, Ind. *Mathematics, Astronomy.* Saginaw, Mich, Jan. 4, 76. Bryn Mawr Col; A.B, Michigan, 03, Ph.D, 24; A.M, Carleton Col, 16. Prin, high sch, Mich, 04–05; teacher, Minn, 05–06, head dept. math, 07–14; instr, Carleton Col, 15–16; social director, Helen Newberry residence, Michigan, 17–18, acting dean women, 17–18; dean women, *Indiana,* 18–38, *prof. math, 18–, astron, 24–* Astron. Soc; Ind. Acad. Radial velocities.

Wells, A(lbert) H(untington), 1236 Palmetto St, Los Angeles, Calif. *Chemistry.* New York, N. Y, June 14, 85. A.B, Stanford, 11. Food and drug chemist, Bur. Science, P. I, 11–14; asst. prof. chem, Philippines, 11–14; chief sect. foods and drugs, Bur. Sci. P. I, 17–18, div. org. chem, 18–28; research fruits, vitamins, trop. medicinal plants and insulin, 18–31; *chemist, food and drug admin, Fed. Security Agency, 31–* Capt, C.W.S. Alcohol; palm sugar; camphor; plant alkaloids and glucosides; beri-beri; rice; distillation woods; citrus; pineapples.

Wells, Prof. Benjamin B(axter), University of Arkansas Medical School, Little Rock, Ark. *Endocrinology.* Rockdale, Texas, Jan. 23, 12. A.B, Baylor, 31, M.D, 35; Mayo Foundation fellow, Minnesota, 39–41, Ph.D, 41. Instr. physiol. chem, col. med, Baylor, 36–39; investigator, Carnegie Institution, 41–42; *asst. prof. clin. path, med. sch, and med. director, univ. hosp, Arkansas, 42–* Chem. Soc; Federation Clinical Research; Soc. Exp. Biol. Physiologic properties of the adrenal cortical hormones.

Wells, Prof. B(ertram) W(hittier), North Carolina State College, Raleigh, N. C. *Botany.* Troy, Ohio, March 5, 84. A.B, Ohio State, 11, A.M, 16; Ph.D, Chicago, 17. Instr. biol, Knox Col, 11–12; substitute in charge dept. bot, Conn. Col, 12–13; instr. *bot,* Kans. State Col, 13–15; prof, Arkansas, 18–19; *prof. and head dept, N. C. State Col, 19–* A.A; Bot. Soc; Ecol. Soc; Soc. Nat; N. C. Acad. Ecology.

Wells, Dr. Charles P(rentiss), Michigan State College, East Lansing, Mich. *Mathematics.* Tabor, Iowa, Jan. 23, 09. A.B, Simpson Col, 30; M.S, Iowa State Col, 32, Ph.D, 35. Asst, Iowa State Col, 30–34; *instr. math,* N. Dak. Col, 34–38; *Mich. State Col,* 38–43, *asst. prof, 43–* Quantum mechanics; differential equations.

Wells, Clarence F, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* W. Va, Dec. 27, 92. A.B, West Virginia, 16, M.S, 18. Asst. soil chemist, Exp. Sta, West Virginia, 16–18; research chemist, Carborundum Co, Niagara Falls, 19; asst. prof. chem, S. Dak. State Col, and chemist, Exp. Sta, 19–28; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 28–* U.S.A, 18; capt, A.R.C. Chem. Soc. Agricultural chemistry.

Wells, Prof. D(are) A(bernathy), University of Cincinnati, Cincinnati, Ohio. *Physics.* N. C, 99. B.S, 22, M.S, 24; Ph.D, Cincinnati, 29. From asst. prof. to *prof. physics, grad. sch, Cincinnati, chairman grad. work.* Asn. Physics Teachers. Atomic structure; applied dynamics and Fourier series.

Wells, Edward H(enry), 20 Berkeley Road, Maplewood, N. J. *Mathematics.* Chefoo, China, 01. B.S, Col. of Wooster, 22; A.M, Lafayette Col, 26, Princeton, 28. Instr. math, Lafayette Col, 23–26; Princeton, 26–29; asst. prof, New Hampshire, 29–31; asst. mathematician, Prudential Ins. Co, Newark, 31–41; *asst. actuary, Mutual Life Ins. Co, New York, 41–* Triennial prize, Am. Actuarial Soc, 40; Am. Inst. Actuaries, 42. Fel. Actuarial Soc; fel. Inst. Actuaries. Actuarial mathematics.

Wells, Edward L(ansing), U. S. Weather Bureau Office, Portland, Oregon. *Meteorology.* Indian Ford, Wis, Sept. 11, 75. *U. S. Weather Bur, 96–, senior meteorologist.* A.A; Meteorol. Soc. (v. pres, 33–35); Geophys. Union.

Wells, Dr. Eugene H(adley), 5807 14th St, N.W, Washington, D. C. *Chemistry.* Maryville, Mo, May 20, 09. A.B, Northwest Mo. State Teachers Col, 31; M.S, Iowa, 33, Ph.D, 35. Prof. chem, Buena Vista Col, 35–36; *assoc. chemist, food and drug admin, Fed. Security Agency, 36–* Chem. Soc. Organic chemistry; pharmaceutical chemistry; iodine substitution products of vanillin; bromination of the aminobenzoic

acids and derivatives; bromination of the aminobenzenesulfonic acids and derivatives.

Wells, Prof. Everett D(eane), Erie Center of the University of Pittsburgh, Erie, Pa. *Mathematics.* Nashua, Iowa, April 4, 91. B.S, Grinnell Col, 12; B.S. (Eng), Mass. Inst. Tech, 17; A.M, Minnesota, 27. Instr, Hamline; Minnesota; *assoc. prof. math. and physics, Erie Center, Pittsburgh.* A.A; Math. Asn. Physics.

Wells, Dr. Francis G(erritt), U. S. Geological Survey, Washington, D. C. *Geology.* Boston, Mass, Feb. 18, 98. B.S, Mass. Inst. Tech, 22; Ph.D, Minnesota, 28. Asst. geologist, United Verde Copper Co, 23–25; asst, Minnesota, 25–28; junior geologist, *U. S. Geol. Surv,* 28–29, asst. geologist, 29–39, assoc. geologist, 39–42, *geologist, 42–* Soc. Econ. Geol; Geol. Soc; Geol. Soc. Wash. Hydrology; metalliferous geology.

Wells, Dr. F(rederic) L(yman), 13 Holyoke St, Cambridge, Mass. *²*Psychology.* Boston, Mass, April 22, 84. A.B, Columbia, 03, A.M, 04, Ph.D, 06. Asst. psychol, Columbia, 05–06, lecturer, Barnard Col, 06–07; asst. path. psychol, McLean Hosp, 07–21; instr. exp. psychopath, *Harvard Med. Sch,* 21–32, *asst. prof. psychol, 32–, psychologist, dept. hygiene, 38–* Head psychologist, Boston Psychopath. Hosp, 21–38; mem. staff, Boston City Hosp, 35–38; psychologist, Mass. Gen. Hosp, 40– Div. anthrop. and psychol, Nat. Research Council, 25–28. A.A; Psychol. Asn. (councilor, 22–24); Psychopath. Asn. (v. pres, 40, pres, 42, 43); East. Psychol. Asn. (pres, 39). Mental measurement in the superior adult.

Wells, Prof. George R(oss Maurice), 94 Sherman St, Hartford, Conn. *Psychology.* Moose Jaw, Sask, Can, June 16, 84. B.A, McMaster, 06; A.M, Harvard, 09; Ph.D, Hopkins, 12. Instr. *psychol,* Oberlin *Col,* 12–13, assoc. prof, 13–17; *prof,* Ohio Wesleyan, 17–20; *Hartford Sem. Foundation, 20–* Social psychology; psychology of religion.

Wells, Prof. H(arry) E(dward), 46 Woodland Park, Hartford, Conn. *Chemistry.* Hudson Falls, N. Y. B.S, Middlebury Col, 94, A.M, 95; Ph.D, Leipzig, 97. With Prof. W. O. Atwater, food investigations, 98–00; instr. *chem,* Wesleyan, 99–01; prof, Allegheny Col, 02–07; Washington and Jefferson Col, 07–18; instr, Harvard, 19–20; prof, *Smith Col,* 20–42, *emer. prof, 42–* Capt, C.W.S, 18–19. A.A; Chem. Soc. Inorganic chemistry; colloids.

Wells, H(arry) W(arren), 5241 Broad Branch Road, N.W, Washington, D.C. *Geophysics.* Washington, D. C, Jan. 13, 07. B.S, Maryland, 28, E.E, 37. Student engineer, Westinghouse Elec. and Mfg. Co, 28–29; radio engineer, All Am. Malaysian exped, Borneo, 29–30; Heintz and Kaufman, Ltd, 30–31; airplane pilot, Air Corps, U. S. Army, 31–32; *physicist and radio engineer, dept. terrestrial magnetism, Carnegie Institution, 32–* Geophys. Union; Radio Eng; Philos. Soc. Wash. Relationship of ionospheric phenomena to terrestrial magnetism and radio wave propagation.

Wells, Dr. Herbert S(essions), Bowman Gray School of Medicine, Winston-Salem, N. C. *Physiology.* Honolulu, Hawaii, April 13, 99. A.B, Stanford, 21; M.D, Hopkins, 25. Nat. research fellow med, 25–27; instr. pharmacol, sch. med, Vanderbilt, 27–28, asst. prof, 28–31, physiol, 31–40; *prof. physiol. and pharmacol, Bowman Gray sch. med, Wake Forest Col, 40–* Physiol. Soc. Absorption of carbon tetrachloride; blood-sucking activity of the hookworm; colloid osmotic pressure; tissue pressure; physical mechanisms of intestinal absorption and secretion; posture and peripheral blood flow in shock.

Wells, Prof. J(ames) Ralph, 303 E. Quincy St, Pittsburg, Kans. *Bacteriology.* Near Cedarvale, Kans, Sept. 1, 93. B.S, Kans. State Teachers Col, 19; M.S, Chicago, 21; fellow, Washington (St. Louis), 30–32, Ph.D, 32. Instr. *biol, Kans. State Teachers Col, Pittsburg,* 19–21, asst. prof, 21–24, assoc. prof, 24–39, acting head dept, 33–34, *prof. and head dept, 39–* A.A; Soc. Bact; Pub. Health Asn; Kans. Acad. Immunology; public health; health education.

Wells, Dr. John W(est), Ohio State University, Columbus, Ohio. *Paleontology.* Philadelphia, Pa, July 15, 07. B.S, Pittsburgh, 28; A.M, Cornell, 30, Ph.D, 33; Storrow fellow, Nat. Research Council, 31–32. Instr. geol, Texas, 29–31; nat. research fellow, British Museum, Paris and Berlin, 33–34; N. Y. State Normal Sch, Fredonia, 37–38; *instr. geol, Ohio State, 38–* Summers, instr, Cornell, 38–42. Paleont. Soc; Paleont. Research Inst; Soc. Vert. Paleont; Geol. Soc; Ohio Acad. Recent and fossil corals.

Wells, Dr. J(oseph) A(lbert), Northwestern University Medical School, Chicago, Ill. *Pharmacology, Physiology.* Mo, April 6, 16. B.S, Denver, 37, M.S, 38; Ph.D, Northwestern, 42. Asst. physiol, Denver, 36–38; physiol. and pharmacol, *Northwestern,* 38–40, *instr,* 40–41, *pharmacol, 41–* A.A. Adrenal, sex and gastrointestinal hormones; anaphylaxis; histamine; autonomic drugs and nerves.

Wells, Dr. Joseph H(arry), 5362 Beeler St, Pittsburgh, Pa. *Chemistry.* Ithaca, N. Y, Aug. 17, 04. Ch.B, Cornell, 25, Ph.D, 29. Asst. instr. chem, Cornell, 26–29; director research utilization of wastes, Clairton By-Product Coke Works, Wilson, Pa, 29–33; *indust. fellow, Mellon Inst, 33–* Chem. Soc. Plasticity of paint; vapor composition relationships in the systems phenol-water and phenol-cresols; purification of coke oven gas; new methods of refining light oil; hydrogenation of coal tar products; utilization of by-products of the coking of coal.

Wells, Dr. Lansing S(adler), National Bureau of Standards, Washington, D. C. *Chemistry.* Helena, Mont, May 21, 92. A.B, Montana, 15; Utah, 11–12; A.M, Illinois, 17, fellow, 18–19, Ph.D, 19. Asst, Illinois, 15–18; research chemist, Barrett Co, Phila, 19–21; asst. prof. physical and org. chem, Mont. State Col, 21–23; chemist, Am. Smelting and Ref. Co, Selby, Calif, 23; assoc. chemist, *Bur. Standards,* 24–30, *chief lime and gypsum sect, 30–* Chem. Soc; Inst. Chem; Soc. Test. Mat; Wash. Acad. Copper in the flora of a copper tailing region; reaction between aqueous salt solutions and liquid amalgams; the systems lime, silica, water, and lime, alumina, water; cement; lime; gypsum; sand lime brick.

Wells, Dr. L(emen) J(onathan), 494 N. Mississippi River Blvd, St. Paul, Minn. *Anatomy.* Mt. Vernon, Ill, Dec. 6, 07. B.Ed, South. Ill. State Teachers Col, 27; M.S, Northwestern, 28; Ph.D, Chicago, 34. *Instr.* comp. anat, Joliet Junior Col, Ill, 28–34; *anat,* sch. med, Missouri, 35–37, asst. prof, 37–40; *assoc. prof, Minnesota, 40–* A.A; Soc. Exp. Biol; Soc. Zool; Asn. Study Int. Secretions; Asn. Anat. Sexual cycles; gonadotropic and sex hormones; spermatogenesis; descent of the testis; hermaphroditism; hypophysectomy; thyroidectomy; human anomalies.

Wells, Prof. Mary Evelyn, Vassar College, Poughkeepsie, N. Y. *Mathematics.* LeRaysville, Pa, Aug. 20, 81. A.B, Mt. Holyoke Col, 04, fellow, 06–07; M.S, Chicago, 07, fellow, 13–14, Ph.D, 15. Instr. *math,* Mt. Holyoke Col, 07–12; teaching fellow, Chicago, 13–14; acting assoc. prof, Oberlin Col, 14–15; from instr. to assoc. prof, Vassar Col, 15–26; head dept, Women's Christian Col, Univ. Madras, India, 26–27, 36–37; *prof, Vassar Col, 28–, chairman dept, 36–* Examiner and reader math, Col. Ent. Exam. Board. Trustee, Univ. Madras, India, 30–37. A.A; Math. Soc; Math. Asn. Inequalities in linear integral equations in general analysis.

Wells, Prof. Melville B(aker), Armour Institute of Technology, Chicago, Ill. *Civil engineering.* Commiskey, Ind. B.S, Purdue, 94, C.E, 95. Struct. draftsman, Lafayette Bridge Co, 95–96, contracting engineer, 96–00; Am. Bridge Co, 00–01; instr. civil eng, *Armour Inst. Tech,* 01–02, asst. prof. bridge and struct. eng, 02–03, assoc. prof, 03–25, prof, 25–28, civil eng. and in charge aeronaut. eng, 28–31, prof. *civil eng.* and head dept, 31–35, prof, 35–41, *emer. prof, 41–* Director research, Aetna Plywood and Veneer, 41– Summer, asst. engineer, Wabash Bridge Co, 01. Trustee, Morgan Park Mil. Acad. West. Soc. Eng. Bridge engineering.

Wells, Dr. Milo, Kemet Laboratories Co, Inc, P. O. Box 6087, Cleveland, Ohio. *Physics.* Coal City, Ind, Oct. 14, 05. Ph.D, Indiana, 37. *Director research and develop, Kemet Labs. Co, Inc, 37–* Physical Soc; Ind. Acad. Combination frequencies and modulation; electronics.

Wells, Dr. Nelson A, San Francisco Junior College, San Francisco, Calif. *Biology.* Defiance, Ohio, July 25, 92. B.S, California, 27, Ph.D, 34. Teaching fellow zool, California, 27–29, asst, Scripps Institution, 29–34, research assoc, 34–35; asst, div. inquiry, Bur. Fisheries, 35–36; research fellow, *med. sch, California,* 36–37, *research assoc, 37–; instr. biol, San Francisco Junior Col, 37–* Soc. Zool. Anatomy; zoology; mammalian physiology; respiration of fishes; boring sponge; effects of pulp mill wastes on the growth and physiology of oysters.

Wells, Oris V(ernon), 14 Bellfield Road, Belle Haven, Alexandria, Va. *Agricultural economics.* Slate Springs, Miss, Dec. 18, 03. B.S, N. Mex. Col, 28; scholar, Harvard, 31–32. Junior agr. economist, *bur. agr. econ, U. S. Dept. Agr,* 29–30, asst. agr. economist, 30–34, assoc. agr. economist, 34, senior agr.

economist, 34–35, *prin. agr. economist, 35–* Farm Econ. Asn. Agricultural planning; analysis of agricultural prices; farm management; statistical methods in agricultural research.

Wells, Dr. P(ercy) A, 207 Wheatsheaf Lane, Abington, Pa. *Chemistry.* Spooner, Wis, Oct. 3, 06. B.S, Minnesota, 28; A.M, George Washington, 32; Ph.D, Georgetown, 39. With *bur. agr. and indust. chem, U. S. Dept. Agr,* 29–30, junior chemist, 30–36, asst. chemist, 36–38, chemist, 38, *senior chemist, 39–, director east. regional research lab.* Chem. Soc; Inst. Chem. Industrial utilization of agricultural products.

Wells, Dr. P(hilip) V(arnum), Cedar Grove Road, Princeton, N. J. *Physics.* Boston, Mass, Oct. 28, 89. B.S, Mass. Inst. Tech, 11; D.Sc, Paris, 20. Asst. physics, Mass. Inst. Tech, 11–13; assoc. physicist, Bur. Standards, 13–22; chief physicist, Redpath lab, du Pont-Pathé Film Mfg. Co, 22–25; *biophysicist, med. dept, Prudential Ins. Co, Newark, 25–* Int. Ice Patrol ice exped, 15; rep, Bur. Standards, Paris, 19–20. Physical Soc; Statist. Asn. Biophysics; molecular physics; optics; statistics; physiology of the circulation.

Wells, Dr. Roger C(lark), U. S. Geological Survey, Washington, D. C. *Chemistry.* Peterboro, N. Y, Oct. 24, 77. A.B, Harvard, 01, Ph.D, 04. Instr. chem, Harvard, 04–05; physical chem, Pennsylvania, 05–07; chemist, Gen. Elec. Co, Schenectady, 07–08; physical chemist, *U. S. Geol. Surv,* 08–30, *chief chemist sect. chem. and physics, geol. branch, 30–* Chemist, potash explor. in Chile, Cameron Syndicate, 15; mineral resource specialist, sodium compounds, U. S. Geol. Surv, and special agent, U. S. Census, 17–20. Pan-Pacific Sci. Cong, Honolulu, 20. A.A; Chem. Soc. (pres, Wash. sect, 22); Min. and Metal. Eng; Geol. Soc; Miner. Soc; Geol. Soc. Wash. (v. pres, 30, 35, pres, 37); Wash. Acad. (v. pres, 23, 38). Inorganic, physical and analytical chemistry; atomic weights of sodium and chlorin; the analysis of rocks, minerals and ores; the chemistry of ore deposition and natural waters; pure and applied geochemistry; the ages of minerals and rocks based on genetic relationships between the elements.

Wells, Sidney D(eeds), Box 1, Combined Locks, Wis. *Chemical engineering.* Boston, Mass, March 29, 85. B.S, Mass. Inst. Tech, 07. Asst. chemist, Cent. Aguirre Co, P. R, 08; chem. engineer, Mead Pulp and Paper Co, Ohio, 08–10; engineer forest products, Forest Products Lab, U. S. Forest Service, 11–16, 17–25; asst. supt. and chemist, Chesapeake Pulp and Paper Co, Va, 16–17; director, Paper Mill Labs, Inc, Ill, 25–30; tech. director, Nekoosa Edwards Paper Co, Port Edwards, 30–32; tech. adviser, Combined Locks Paper Co, Wis, 32–35; consulting engineer, Paulson and Wells, 36–38; *research assoc, inst. paper chem, Lawrence Col, 39–* Lecturer, Wisconsin, 11–16, 17–25. A.A; Chem. Eng; Chem. Soc; Soc. Foresters; Asn. Pulp and Paper Indust; Pulp and Paper Mill Supt. Asn. Processes and technique in the manufacture and use of pulp and paper.

Wells, Prof. Volney H(unter), Williams College, Williamstown, Mass. *Mathematics.* Dowagiac, Mich, June 18, 89. A.B, Olivet Col. (Mich), 09; Ph.D, Michigan, 16. Instr. math, Hastings Col, 09–11, prof, 11–13; instr, Michigan, 13–16; prof. math. and statist, Pittsburgh, 16–17; statistician, Bur. War Risk Ins, 19–20; prof. *math,* Carleton Col, 20–22; asst. prof, *Williams Col,* 22–32, *assoc. prof, 32–* Ed. board, 'Math. Monthly,' 23–27. Lieut, A.S.A.P, 17–19. Math. Soc; Math. Asn; Statist. Asn. Statistics; polar fields; military and naval insurance; modern geometry; tensor calculus.

Wells, Dr. Wayne W(infield), Southern Oregon State Normal School, Ashland, Oregon. *Zoology.* Lee's Summit, Mo, Jan. 28, 92. A.B, Oregon, 19; M.S, Washington (Seattle), 26, Ph.D, 31. Teacher, high sch, 19, 20–25; Whitman Col, 26; *head dept. science, South. Oregon State Nor. Sch, 26–* A.A; Ecol. Soc. Ecology of Pinnotheridae.

Wells, Prof. Wesley R(aymond), Syracuse University, Syracuse, N. Y. *Psychology.* Bakersfield, Vt, June 20, 90. Ph.B, Vermont, 13; A.M, Harvard, 14, Ph.D, 17. Asst. philos, Harvard, 16–17; instr. educ, Washington (St. Louis), 17–19; asst. prof. philos. and psychol, Colby Col, 19–21; prof, Lake Forest Col, 21–27, acting dean, 22–25, dean, 25–26; *prof. psychol, Syracuse, 27–* Summers, lecturer, Duke, 19; instr, Wyoming, 23. A.A; Psychol. Asn; Philos. Asn. Subconscious processes; hypnosis.

Wells, Prof. W(illia)m Firth, University of Pennsylvania School of Medicine, Philadelphia, Pa. *Biology, Public health.* Boston, Mass, Aug. 25, 87. B.S, Mass. Inst. Tech, 10. Filtration plant, Wash, D. C, 10–12; Univ. Illinois, 12–13; U. S. Pub. Health Service, 13–17; Bur. Fisheries, 17; State Conservation Cmn, N. Y, 19–29; instr. sanit. science, sch. pub. health, Harvard, 30–37; asst. prof. sanit. eng, *sch. med, Pennsylvania,* 37–40, *assoc. prof. research in air-borne infection, 40–* U.S.A, 17–19. Sanitary bacteriology; artificial propagation and purification of shellfish; bacteriology of air; air-borne infection; sanitary air control.

Wells, Dr. William H(enry), Westinghouse Elec. and Mfg. Co, East Pittsburgh, Pa. *Physics.* Albany, N. Y, June 17, 06. A.B, Amherst Col, 28; Ph.D, Hopkins, 34. Dept. terrestrial magnetism, Carnegie Institution, 33–34; research instr. physics, Minnesota, 34–36; *with Westinghouse Elec. and Mfg. Co, 36–* Physical Soc. Nuclear physics.

Welmers, Dr. Everett T(homas), Michigan State College, East Lansing, Mich. *Mathematics.* Orange City, Iowa, Oct. 27, 12. A.B, Hope Col, 32; fellow, Michigan, 32–33, A.M, 33, fellow, 35–36, 36, Ph.D, 37. Instr. *math, Mich. State Col,* 37–40, *asst. prof, 40–* Math. Soc; Math. Asn. Integration theory; theory of measure.

Welo, Dr. L(ars) A(lvin), 4715 Chesapeake St, N.W, Washington, D. C. *Physics.* Church's Ferry, N. Dak, Jan. 29, 88. B.S, N. Dak. Col, 11; M.S, Illinois, 15; fellow, California, 16–17, Ph.D, 18; Upsala, 21–22; Paris, 22. Asst. astron, Illinois, 15–16; physics, California, 17–18; engineer forest products, Forest Products Lab, U. S. Forest Service, 18–19; asst. prof. physics, Minnesota, 19–21; research, Wisconsin, 22–23; asst, Rockefeller Inst, 23–26, assoc, 26–29; physicist, Gen. Cable Corp, New York, 29–31; consultant, Consol. Gas, Elec. Light, Power Co, Baltimore, 35–40; *physicist, bur. ordnance, U. S. Navy Dept, 40–* A.A; Physical. Soc; Soc. de Physique. Wehnelt cathode rays; photoelectric effect; effect of kiln drying on strength of airplane woods; oxides of iron; magnetic properties of complex salts; electrical conductivity in hydrocarbons; thermal decomposition of hydrocarbons.

Welsh, Dr. J(ohn) H(enry), Harvard University, Cambridge, Mass. *Zoology.* Boothbay, Maine, Aug. 25, 01. A.B, Berea Col, 22; A.M, Harvard, 28, Ph.D, 29. Instr. biol. and chem, Berkshire Sch, Mass, 24–27; *tutor biol, Harvard, 28–,* instr. *zool,* 29–40, *assoc. prof, 40–* Trustee and sec'y, Bermuda Biol. Sta. A.A; Soc. Zool. Neurophysiology and animal behavior, especially of invertebrates.

Welsh, J(ohn) N(icholas), University of Manitoba, Winnipeg, Man, Can. *Agriculture.* Ottawa, Ont, Jan. 13, 94. B.S.A, McGill, 22; Minnesota, 26; M.Sc, Alberta, 30. *Senior asst. agr. scientist,* Dom. Rust Research Lab, *Can. Dept. Agr,* 25–31, *cereal div, Cent. Exp. Farm, 31–* Can. Soc. Tech. Agr. Inheritance of rusts, smut reaction and glume color in oats; effect of smut on rust development and plant vigor in oats; synthetic production of oat varieties resistant to stem rusts; development of resistant oat varieties.

Welsh, Llewellyn H(opkins), 5429 Connecticut Ave, N.W, Washington, D. C. *Organic chemistry.* Washington, D. C, Nov. 1, 12. B.S, Maryland, 34, M.S, 35, 35– Lab. asst. chem, Maryland, 34–35, 36–37; aide, metal. lab, U. S. Naval Gun Factory, 35–36; junior chemist, *food and drug admin, Fed. Security Agency,* 37–39, asst. chemist, 39–42, *assoc. chemist, 42–* A.A; Chem. Soc; Agr. Chem. Aluminum chloride condensations; organic synthesis; chemistry and analysis of drugs.

Welsh, Dr. Mark (Frederick), University of Maryland, College Park, Md. *Bacteriology, Pathology.* Saginaw, Mich, Nov. 22, 95. D.V.M, Mich. State Col, 19; M.S, Maryland, 26. Asst. prof. bacter. and path, Maryland, 19–30, inspector in charge, 30–35; state veterinarian, *Md,* 35–41; *director, State Livestock Sanit. Service, 41–* U. S. Live Stock Sanit. Asn. (sĕc'y-treas); Vet. Med. Asn; Md. Vet. Med. Asn. (sec'y). Swine diseases; Bang's disease.

Welsh, Dr. Maurice F(itzwilliam), Dominion Laboratory of Plant Pathology, Summerland, B. C, Can. *Plant pathology.* Cardonald, Scotland, Nov. 2, 16. B.S.A, British Columbia, 38; Nat. Research Council Can. fellow, Toronto, 38–42, Ph.D, 42. Class asst. bot, Toronto, 38–42; *lieut, Corps Signals, Royal Can. Army, 42–* Summers, agr. asst, Dom. Lab. Plant Path, 35–42. Diseases of fruit trees; crown rot of apple trees.

Weltfish, Dr. Gene, 515 W. 122nd St, New York, N. Y. *Anthropology.* New York, N. Y, Aug. 7, 02. A.B, Barnard Col, Columbia, 25, Ph.D, Columbia, 29. Lecturer anthrop, Barnard Col, Columbia, 27–29, 35, research, council research humanities, *Columbia,* 29–30, 32–34, nat. research fellow, 30–32, research, council research social sciences, 35–36, *anthrop,*

univ. exten, 36–43, *instr*, *43–* Research, Cmt. Am. Indian Languages, 28, 29, 30; Am. Museum Nat. Hist. Bur. Am. Ethnol, Reading Pub. Museum, 30. Anthrop. Asn. (councilor, 30–); Ethnol. Soc; Soc. Am. Archeol; Folk-Lore Soc. (sec'y-treas, 37–). Primitive technology, art and archeology; ethnology and linguistics of the American Indian; African ethnology; race problems; sex differences; phonetics.

Welty, Prof. (Joel) Carl, Route 1, Beloit, Wis. *Zoology.* Ft. Wayne, Ind, May 30, 01. A.B, Earlham Col, 24; A.M, Haverford Col, 25; fellow, Chicago, 28–29, Ph.D, 32. Instr. biol, Parsons Col, 26–30, asst. prof, 31–34; asst. zool, Chicago, 30–31; assoc. prof, *Beloit Col*, 34–38, *prof. zool. and head dept. biol*, *38–* A.A; Soc. Zool; Inland Bird-Banding Asn; Wis. Acad. Vertebrate group behavior; bird banding.

Welz, Dr. Christopher J(ohn), 11-A McDowell Place, Newburgh, N. Y. *Chemistry.* Buffalo, N. Y, Aug. 20, 97. Chem.E, Rensselaer Polytech, 20; M.S, Cornell, 24, Ph.D, 26. *Research chemist*, Roessler and Hasslacher Chem. Co, 20–23; *E. I. du Pont de Nemours and Co*, Flint, Mich, 26–43, *fabrikoid div*, *43–* Chem. Soc. Industrial and engineering chemistry; paint; varnish; lacquer; artificial leather; coated fabrics.

Welz, George W, Solvay Process Co, Syracuse, N. Y. *Analytical chemistry.* Springfield, Mass, Oct. 30, 03. B.S, Yale, 26; A.M, Columbia, 31. *Research anal. chemist, research lab*, Atmospheric Nitrogen Corp, 26–30; *nitrogen div, Solvay Process Co*, *32–* Chem. Soc. Analytical methods related to researches.

Wembridge, Mrs. Eleanor Rowland, 10469 Lindbrook Drive, Los Angeles, Calif. *Psychology.* Lee, Mass, Dec. 9, 83. A.B, Radcliffe Col, 03, A.M, 04, Ph.D, 05. Asst. prof. psychol, Mt. Holyoke Col, 06–12; prof, Reed Col, 12–17; referee, Juvenile Court, Cleveland, 21–35; *investigator, Supreme Court, Los Angeles County, Calif*, *43–* Council Women Psychol. (publications cmt). Psychology for the lay public.

Wenaas, Dr. Paul E(mil), 5725 Drexel Ave, Chicago, Ill. *Chemistry.* Butte, Mont, Oct. 4, 10. B.S, Mont. State Col, 31; Julius Stieglitz fellow, Chicago, 31–33, Ph.D, 34. *Chemist, Simoniz Co*, *34–* Chem. Soc. Biuret reaction.

Wenberg, Dr. E(dwin) H(ugo), 121 E. Fourth St, Tulsa, Okla. *Stratigraphic geology.* Waupaca, Wis, March 28, 12. A.B, Lawrence Col, 33; Northwestern, 33–34; Wisconsin, 35–36; A.M, Oberlin Col, 38; Ph.D, Iowa, 41. Field geologist, Ohio Oil Co, 40; aerogeologist, Seismograph Service Corp, 41–42; *aircraft inspector, Douglas Aircraft Corp*, *42–* Asn. Petrol. Geol; Soc. Photogrammetry; Min. and Metal. Eng; Iowa Acad. Insoluble residues of Pennsylvanian strata in Iowa; Paleozoic strata of northern Ohio.

Wenck, Dr. P(eter) R(udolf), 2 Lexington Court, Midland, Mich. *Bacteriology, Biochemistry.* Chemnitz, Germany, July 8, 05. B.S, Wisconsin, 30, M.S, 32, Ph.D, 34. Asst, Wisconsin, 30–35; *research bacteriologist, Dow Chem. Co*, *35–* A.A; Soc. Bact. Industrial bacteriology and fermentations.

Wende, Dr. Charles W(illiam) J(oseph), Arden, Del. *Physical chemistry.* St. Louis, Mo, Oct. 17, 12. A.B, Central Col, 34; du Pont fellow, Illinois, 36–37, Ph.D, 37. *Research chemist, E. I. du Pont de Nemours and Co*, *37–* Chem. Soc. Atomic reactions; physics of high polymers.

Wendel, Prof. William B(ean), University of Tennessee College of Medicine, Memphis, Tenn. *Biochemistry.* Manchester, Tenn, April 10, 01. B.S, Emory, 23; Ph.D, Washington (St. Louis), 32. Instr. chem, cols. med, dentistry and pharmacy, Tennessee, 23–28; asst. biochem, sch. med, Washington (St. Louis), 28–32, instr, 32–33; asst. prof. chem, cols. med, dentistry and pharmacy and schs. biol. sciences and nursing, Tennessee, 33–35; biochem. and chemist, dept. med. and dept. otolaryngol, Washington (St. Louis), 35–37; *assoc. prof. chem, cols. med, dentistry, pharmacy, nursing and sch. biol. sciences, Tennessee*, *37–* A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol. Insulin and phlorhizin diabetes; oxidation of lactic acid by tissues; determination of pyruvic acid and lactic acid; cyanide poisoning; spectrophotometric studies on blood pigments; methemoglobin formation and reduction; metabolism of malaria parasites.

Wender, Dr. Simon H(arold), University of Kentucky, Lexington, Ky. *Plant biochemistry.* Dalton, Ga, Sept. 4, 13. A.B, Emory, 34, M.S, 35; Ph.D, Minnesota, 38. Harriman research fellow, Kettering Foundation, 37–38; research assoc, med. sch, Emory, 38–39; assoc. chemist, Exp. Sta, Agr. and Mech. Col. Texas, 39–41; *instr. chem, Kentucky*, *41–* A.A; Chem. Soc. (sec'y-treas, Lexington sect); Ky. Acad. Photosensitization; isolation of photosensitizing agents from buckwheat; plant poisons; plant pigments; porphyrins; isolation of toxic substances from Astragalus earlei; fluorine and porphyrins in plants; changes in pigments of tobacco during the curing process.

Wendland, Prof. Ray T(heodore), Middlebury College, Middlebury, Vt. *Organic chemistry.* Minneapolis, Minn, July 11, 11. A.B, Carleton Col, 33; Ph.D, Iowa State Col, 37. Research chemist pharmaceut, Armour and Co, 37–38; petrol, Universal Oil Products Co, 38–39; instr. org. chem. and biochem, Coe Col, 39–42; *asst. prof. org. chem, Middlebury Col*, *42–; research fellow anti-malarials, Minnesota.* Summers, research fellow, Iowa, 40, 41; research chemist, inst. paper chem, Lawrence Col, 42. Chem. Soc; Iowa Acad. Catalytic reactions of petroleum hydrocarbons; catalytic vapor phase oxidation of alcohols; polymeric reactions involving furfural; characterization of lignins.

Wendling, Dr. A(ndre) V(ictor), University of Montreal, Montreal, Que, Can. *Physics.* Paris, France, Nov. 30, 93. B.Sc, Sorbonne, Paris, 11, 21, 23; Ing.Elec, Ecole Superieure d'Elec, Paris, 24; Ph.D, McGill, 37. *Assoc. prof. physics, Montreal, 24–, lecturer epistemol, 29–, head dept. physics, sch. polytech, 34–, lecturer mech, 37–* Research assoc, McGill, 37–40. X-ray crystallography.

Wendt, Dr. Arthur S, 39–55 Greenpoint Ave, Sunnyside, L. I, N. Y. *Organic chemistry.* New York, N. Y, Nov. 2, 07. B.S, Col. City of N. Y, 26; A.M, Columbia, 27; Ph.D, Polytech. Inst. Brooklyn, 41. Asst. chemist, Rockwood and Co, 26–33; *chief chemist*, My-T-Fine Corp, 33–37; *Seeley and Co*, *37–* A.A; Chem. Soc. Synthesis of glycidic esters; synthesis of terpenes and derivatives.

Wendt, Prof. G(eorge) R(ichard), Wesleyan University, Middletown, Conn. *Psychology.* Rochester, N. Y, Jan. 27, 06. A.B, Rochester, 27; A.M, Columbia, 28, Ph.D, 31. Asst. psychol, Columbia, 29–30; nat. research fellow, Inst. Human Relations, Yale, 30–32, instr. physiol, med. sch, 32–35, physiol. and psychol, Univ, 35–36; acting asst. prof. *psychol*, Virginia, 36–37; asst. prof, Pennsylvania, 37–39; *assoc. prof. and chairman dept, Wesleyan*, *39–* Lecturer, Woman's Col, New Haven, 35–36; exten. div, Rutgers, 39. Summers, instr, Columbia, 30, 31, 35, 36; Virginia, 37; Pennsylvania, 38, 39. Mem. cmt. selection and training aircraft pilots, Nat. Research Council, 41– A.A; Psychol. Asn; Soc. Exp. Biol; Inst. Psychol. (director, 41–; sec'y-treas, 41–); South Soc. Philos. and Psychol; East. Psychol. Asn; Conn. Valley Asn. Psychol. Conditioned knee jerk; habituation to rotation; vestibular reflexes; cortical localization studied by conditioned reflexes; facilitation-inhibition; negative after-effects in perception; airsickness; aircraft pilot selection.

Wendt, Dr. Gerald (Louis), Time, Inc, 9 Rockefeller Plaza, New York, N. Y. *³*Chemistry.* Davenport, Iowa, March 3, 91. A.B, Harvard, 13, A.M, 14, Ph.D, 16. Austin teaching fellow, Harvard, 12–16; junior chemist in radioactivity, U. S. Bur. Mines, 16; instr. chem, Rice Inst, 16–17; quantitative anal. and radioactivity, Chicago, 17–18, asst. prof. chem, 18–21, assoc. prof, 21–22; asst. director research, Standard Oil Co. of Ind, 22–24; dean sch. chem. and physics, Pa. State Col, 24–29, director div. indust. research, 25–27, asst. to pres, 28–30; director, Battelle Mem. Inst, Columbus, 27–28; pres, Coffee Products Corp, New York, 29–35; director, Am. Inst. City of New York, 36–38; director research, Gen. Printing Ink Corp, 37–38; science and educ, New York World's Fair, 38–40; *science ed, Time, Inc*, *42–* Assoc. ed, 'Jour. Radiol,' 20–21; asst. ed, 'Chem. Abstracts,' 17–21; managing ed, 'Chem. Bul,' 18–21; ed. in chief, 'Chem. Reviews,' 27–38; ed, 'The Sciences,' 36–42. Capt, C.W.S, 18. A.A. (sec'y, C, 20); Chem. Soc. (councilor, 21–24, chairman, Chicago sect, 24, cent. Pa. sect, 26). Research administration; interpretation of science.

Wendt, Prof. W(ylie) B(rodbeck), University of Louisville, Louisville, Ky. *Civil engineering.* Newport, Ky, Nov. 19, 85. Cincinnati, 02–04; B.C.E, Kentucky, 06, C.E, 30. Instr. civil eng, Mich. State Col, 06–09, asst. prof, 09–15; applied mech, Kans. State Col, 16–18, assoc. prof, 18–20; testing engineer, Kans. Highway Dept, 16–20; *prof. civil eng*, S. Dak. Sch. Mines, 20–25; *Louisville*, *25–* Civil Eng; Eng. Educ; Soc. Test. Mat; Ky. Soc. Professional Eng. Road materials and concrete.

Wenger, Prof. M(arion) A(ugustus), P. O. Box 1276, Avalon, Catalina Island, Calif. *Psychology.* Wheeling, W.

Va, March 12, 07. A.B, Michigan, 28; Yale, 33–34; A.M, Iowa, 33, Ph.D, 35. Branch manager, R. E. Wenger Co, 28–32; asst, child welfare research sta, Iowa, 32–35; research and clin. psychologist, orthogenic sch, Chicago, 35–36, *research assoc.* educ, univ, 36–38; *Samuel S. Fels Research Inst, 38–;* asst. prof. *psychol, Antioch Col,* 38–39, *assoc. prof, 39–; lieut, U. S. Maritime Service.* Fellow, Harvard Med. Sch. and Mass. Gen. Hosp, 41. Psychol. Asn; Soc. Research Child Develop. Physiological psychology; clinical psychology; child development.

Weniger, Prof. W(illibald), Oregon State Agricultural College, Corvallis, Oregon. *Physics.* Milwaukee, Wis, June 20, 84. A.B, Wisconsin, 05, A.M, 06, fellow, 06–08, Ph.D, 08. Asst. physics, Wisconsin, 05–06; instr, Oregon State Col, 08–09, asst. prof, 09–10, prof. and head dept, 10–14; physicist, Nela Research Lab, 14–20; *prof. physics and head dept, Oregon State Col, 20–,* asst. dean *grad. div,* 33–41, *assoc. dean, 41–* Asst, Smithsonian Institution, 29–30. A.A; Physical Soc; Optical Soc; Illum. Eng. Soc; Seismol. Soc. Infra-red absorption spectra; reflection factors of tungsten; monocular and binocular field glasses; astatic galvanometers; infra-red vacuum spectrometer; blackboard illumination.

Wenner, Dr. John J(eremiah), General Hospital, Allentown, Pa. *Bacteriology.* Allentown, Pa. 85. B.S, Muhlenberg Col, 13; A.M, Yale, 15, Ph.D, 18; M.D, Pennsylvania, 25. Asst. to Prof. Rettger, Storrs Exp. Sta, Conn. Agr. Col, 16–18; bacteriologist, State Health Dept, Pa. 18–25; *pathologist and director lab, Allentown Gen. Hosp, 26–* Res. physician, Bryn Mawr Hosp, 25–26. Am. Med. Asn; fel. Soc. Clin. Path; Lehigh Co. Med. Soc. (pres, 43). Laboratory and clinical pathology; hygiene; public health; clinical diagnosis and syphilology.

Wenner, Dr. R(alph) R(ichter), Solvay Process Co, Syracuse, N. Y. *Physical chemistry.* New York, N. Y, Aug. 11, 05. B.S, Cooper Union, 26; M.S, Northwestern, 27; Ph.D, Calif. Inst. Tech, 30. *Research chemist, nitrogen div, Solvay Process Co, 30–* A.A. Quantum yield in photochemical decomposition of hydrazine.

Wenner, Dr. Wilhelm K(arl), 20 Park Terrace, Montclair, N. J. *Organic chemistry.* Emmendingen, Germany, April 5, 00. Ph.D, Freiburg, 24. Asst. org. chem, Tech. Hochschule, Karlsruhe, 24–25; Munich, 26–27; *research chemist,* Hoffmann-La Roche A.G, Switzerland, 27–41; *Hoffmann-La Roche, Inc, 41–* Chem. Soc. Alkaloids; synthetic drugs; vitamins.

Wenner, Dr. W(illiam) F(ranklin), The Upjohn Co, Kalamazoo, Mich. *Experimental medicine.* Wilkes-Barre, Pa, April 7, 01. A.B, Lebanon Valley Col, 23; Ph.D, Yale, 27; M.D, Washington (St. Louis), 33. Asst, Yale, 23–26; Iowa, 26–27, asst. prof. zool, 27–29; instr. exp. physiol. of otolaryngol, Oscar Johnson inst, sch. med, Washington (St. Louis), 29–37; *with The Upjohn Co, 37–* A.A; Soc. Zool; Soc. Exp. Biol. Experimental morphology and physiology; therapeutics.

Wenrich, Prof. D(avid) H(enry), University of Pennsylvania, Philadelphia, Pa. **5Zoology.* Lecompton, Kans, June 29, 85. A.B, Kansas, 11, A.M, 12; Ph.D, Harvard, 15. Teaching fellow *zool,* Kansas, 11–12; Austin teaching fellow, Harvard, 12–13, 14–15; instr, *Pennsylvania,* 15–19, asst. prof, 19–28, *prof, 28–* A.A; Soc. Nat; Soc. Zool. (v. pres, 40); Biol. Soc; Genetic Asn; Soc. Parasitol. (v. pres, 37, pres, 40); Micros. Soc. (pres, 30); Ecol. Soc; Limnol. Soc; Soc. Trop. Med; Pa. Acad; Acad. Nat. Sci. Phila. Chromosomes; spermatogenesis; mitosis in Protozoa; protozoan parasitism.

Wensel, Dr. H(enry) T(heodore), 113 W. Thornapple St, Chevy Chase, Md. *Physics.* St. Louis, Mo, March 5, 93. A.B, Washington (St. Louis), 17; A.M, Hopkins, 20, Ph.D, 23. Instr. physics, Hopkins, 19–23; optical instr, *Bur. Standards,* 17–19, *23–, chief pyrometry sect, 26–, prin. physicist, 40–* Physical Soc; Optical Soc; Philos. Soc. Wash. Pyrometry; photometry; optical instruments.

Wenstrup, Rev. Edward J(oseph), St. Vincent College, Latrobe, Pa. *Genetics.* Covington, Ky, Oct. 27, 94. Ph.B, St. Vincent Col, 17, A.B, 18, S.T.B, 19, S.T.L, 20, A.M, 21; A.M, Columbia, 24; Ph.D, Pittsburgh, 31. *Prof. biol, Seton Hill Col, 24–28, 31–; St. Vincent Col, 21–* A.A; Pa. Acad. Genetics of Habrobracon juglandis; Drosophila.

Went, Prof. F(rits) W(armolt), California Institute of Technology, Pasadena, Calif. **6Botany.* Utrecht, Holland, May 18, 03. B.S, Utrecht, 22, M.S, 25, Ph.D, 27. Asst, Utrecht, 22–27; plant physiologist, Bot. Gardens, Buitenzorg, Java, 28–30, director, Foreigners Lab, 30–32; asst. prof. *plant physiol, Calif. Inst. Tech,* 33–35, *prof, 35–* Lecturer, Med. Faculty, Batavia, Java, 30–31. A.A; correspondent, Koninklyke Akad. van Wetenschappen, Amsterdam. Plant hormones; growth; phototropism; root formation; polarity; water relations of plants; ecology of epiphytes.

Wente, Dr. E(dward) C(hristopher), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Denver, Iowa, 89. A.B, Michigan, 11; B.S, Mass. Inst. Tech, 14; Ph.D, Yale, 18. *Research physicist,* West. Elec. Co, 14–25; *Bell Tel. Labs, 25–* Wetherill medal, Franklin Inst, 31; Progress medal, Soc. Motion Picture Engineers, 35; Mod. Pioneer award, Nat. Asn. Mfrs. A.A; Physical Soc; Acoustical Soc. (pres, 41–43); Motion Picture Eng. Acoustics; infra-red radiation.

Wentling, Dr. J(ohn) P(hilip), 2195 Doswell Ave, St. Paul, Minn. *Forestry.* Knox, Pa, Feb. 2, 78. A.B, Franklin and Marshall Col, 02, A.M, 05; Sc.D, 28. Forester, U. S. Forest Service, 02–06; prof. forestry, Pa. Forest Acad, 06–08; asst. prof, Minnesota, 08–14, assoc. prof, 14–28; director research, West. Red Cedar Asn, 28–39; *wood technologist, Consol. Treating Co, 40–* Wood Preservers Asn. Soc. Foresters. Forest products; timber physics and mechanics; wood preservation.

Wentworth, Dr. Chester K(eeler), Board of Water Supply, Honolulu, Hawaii. **5Geology.* Aspen, Colo, May 7, 91. Clark, 14–16; B.S, Chicago, 18; M.S, Iowa, 21, Ph.D, 23. Machinist and instrument-maker, dept. physics, Clark and Chicago, 14–18; asst. geologist, U. S. Geol. Surv, 19–20; asst. geol, Iowa, 20–21, instr, 21–23; Bishop Museum fellow, Yale, 23–24; assoc. geol, Iowa, 24–25; grant, Sigma Xi Research Fund, 25–26; acting assoc. prof. geol, Virginia, 25–26; asst. geologist, Va. Geol. Surv, 26–27; geologist, U. S. Eng. Office, Chattanooga, 27–28; instr, high sch, Ill, 28; assoc. prof. geol, Washington (St. Louis), 28–34; *geol. engineer, Board Water Supply, Honolulu, 34–* Assoc, Bishop Museum, Hawaii, 37– Summers, geol. aid, U. S. Geol. Surv, 16–17, assoc. geologist, 21–22; asst. geologist, Ky. Geol. Surv, 25; Hawaiian Volcano Research Asn. fellow, 29; geologist at large, U. S. War Dept, 30–; grant, Nat. Research Council and Washington (St. Louis), Alaska, 31. Mem, Territorial Planning Board, 38– Chief machinist's mate, U.S.N.R, 18. A.A; Geol. Soc; Am. Geog. Soc; Geol. Soc. Wash; Hawaiian Acad. (pres, 35). Coarse sediments; shapes of pebbles; coal resources of Virginia and Kentucky; laboratory methods in geology; pyroclastic rocks; physiography and sedimentation in Hawaiian Islands; terraces and gravels of the Atlantic coastal plain; geology of reservoir and dam sites; glacial processes; water supply; meteorology and hydrology of Hawaii.

Wentworth, Edward N(orris), Armour and Co, Chicago, Ill. *Genetics, Economics.* Dover, N. H, Jan. 11, 87. B.S.A, Iowa State Col, 07, M.S, 09; Cornell, 08; Harvard, 12. Instr. animal husbandry, Iowa State Col, 07–09, asst. prof, 09–11, assoc. prof, 11–13; prof. zootechny, Chicago Vet. Col, 13–14; animal breeding, Kans. State Col, 14–17; bur. agr. research and econ, *Armour and Co,* 19–22, *director live stock bur, 22–* Lecturer, Chicago, 24–30. Assoc. ed, 'Breeders' Gazette,' 13–14. Officier du Mérite agricole. Capt, U.S.A, 17–19; asst. director col. agr, A.E.F. Univ. Beaune; col, F.A.Res. A.A; Soc. Nat; Soc. Animal Production; Statist. Asn; Econ. Asn; Genetics Soc; Farm Econ. Asn; Ill. Acad; fel. Iowa Acad; Kans. Acad. Inheritance of color and fertility in domestic animals; marketing of live stock; economics of live stock production; history of domestic live stock.

Wentworth, Dr. Hazel A(ustin), 216 Bloomingdale Ave, Wayne, Pa. *Physiological optics.* Somerville, Mass, Jan. 14, 99. A.B, Smith Col, 21; Pennsylvania, summers, 23, 24, fellow, 26–30; fellow, Bryn Mawr Col, 24–26, A.M. and Ph.D, 30; Dartmouth, 38, 39. Teacher science, chem, physics and gen. science, Miss. Synodical Col, 21–22; demonstrator exp.

psychol, Bryn Mawr Col, 22–24; asst. perimetry to Dr. T. B. Holloway, 26–34; fellow in charge perimetry lab, sch. med, Pennsylvania, 26–37; instr. physiol. optics and Mellon fellow in charge aniseikonia lab, sch. med, *Hopkins*, 37–41, *aniseikonia technician and asst. in perimetry, Dr. K. C. Brandenburg, 41–* Optical Soc. Light sense; perimetry; aniseikonia; the tangentometer.

Wentz, Jesse F(aust), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Telephone engineering.* Spring Grove, Pa, Dec. 6, 96. E.E, Lehigh, 17; A.B, Columbia, 23. *Engineer, Bell Tel. Labs, 19–* Transmission lines; telephone cables; high frequency measurements; broad band cables.

Wenzel, Dr. F(rederick) W(illiam), Jr, C. F. Sauer Co, Richmond, Va. *Food technology, Chemistry.* Richmond, Va, March 28, 06. B.S, Richmond, 27; Hopkins, 28–32; fellow, Mass. State Col, 40–42, Ph.D, 42. Anal. chemist, State Highway Dept, Va, 27–28; instr. chem, high sch, Va, 32–37; *food technologist and chemist, C. F. Sauer Co, 37–* Indust. fellow, Mich. State Col, 42–43. Inst. Food Technol; Chem. Soc. Vanilla; spices; food flavors; pickles; food preservation; organic sulfur compounds.

Wenzel, Leland K(eith), U. S. Geological Survey, Washington, D. C. *Hydrology.* Edgetts, Mich, April 12, 08. B.S, Michigan, 29. Hoad, Decker, Shoecraft and Drury, 29; junior engineer, *U. S. Geol. Surv*, 29–34, asst. engineer, 34–38, assoc. engineer, 38–40, *hydraul. engineer, 40–* Civil Eng; Geophys. Union. Ground waters; water supply; fluctuations of groundwater level; permeability and specific yield of water-bearing materials; flow of water through porous media.

Wenzel, Dr. Robert N(icolas), Mellon Institute, Pittsburgh, Pa. *Chemical engineering.* St. Louis, Mo, Oct. 15, 94. A.B, Stanford, 16, Chem.E, 17, Ph.D, 28. Research chemist, dept. smelter smoke investigations, Am. Smelting and Ref. Co, 16–18; research chemist, Monsanto Chem. Works, Mo, 18–22; instr. applied math, Stanford, 22–23, chem, 23–27; indust. fellow, *Mellon Inst*, 27–29, *senior fellow, 29–* Special asst. to commissioner, smelter smoke investigations, Salt Lake Valley, U. S. Fed. Court, 20. Chem. Soc. Fatty acids; fuel gas; textile finishing compounds; dielectrics.

Wenzel, Rupert L(eon), Field Museum of Natural History, Roosevelt Road and Field Drive, Chicago, Ill. *Entomology.* Owen, Wis, Oct. 16, 15. A.B, Cent. Y.M.C.A. Col, 38; scholar, Chicago, 38–39, fellow, 39–40. Asst. zool, Cent. Y.M.C.A. Col, 36–38; *asst. curator insects, Field Museum Nat. Hist, 40–* A.A; Entom. Soc. Amer. Taxonomy of histerid beetles and of bat parasites.

Wenzke, Dr. Herman H(enry), Universal Oil Products Co, Chicago, Ill. *Chemistry.* Celina, Ohio, March 19, 99. B.S, Ohio State, 21; M.S, Notre Dame, 22, Ph.D, 24. Asst. prof. chem. eng. and assoc. prof. chem, Notre Dame, 24–34, prof, 34–43; *chem. engineer, Universal Oil Products Co, 43–* Chem. Soc. Acetylene.

Werby, Dr. Helen J(ohna), Seattle College, Seattle, Wash. *Zoology.* Helena, Mont, July 4, 98. B.S, Washington (Seattle), 20, M.S, 27, Ph.D, 37. Teaching fellow, Washington (Seattle), 20–22; instr. biol, high sch, Bremerton, Wash, 22–24, Bellingham, 24–27; asst. zool, Washington (Seattle), 27–38; *prof. biol, Seattle Col, 38–* Sci. aid, bur. animal indust, U. S. Dept. Agr, 36. A.A; Micros. Soc; Soc. Parasitol; Puget Sound Acad. Sci. Parasitology; acanthocephala.

Werch, Dr. S(olomon) C(arl), 303 E. Chicago Ave, Chicago, Ill. *Physiology, Physiological chemistry.* Chicago, Ill, May 17, 08. B.S, Northwestern, 28; M.D, Illinois, 34, M.S, 36; D.G.O, Trinity Col. (Ireland), 38. Senior demonstrator physiol, Trinity Col. (Ireland), 37–38; instr. pharmacol, Med. Col. State of S. C, 38–39; *research instr. physiol. and pharmacol, med. sch, Northwestern, 39–, instr. med, 41–; capt, Med. Corps, U. S. Army, 43–* A.A; Ill. State Med. Soc; S. C. Acad. Biochemical methods; experimental diabetes; carbohydrate digestion; vital staining; internal medicine; pharmacology of trichlorethylene; metabolism.

Werkman, Prof. C(hester) H(amlin), Iowa State College, Ames, Iowa. *Bacteriology.* Ft. Wayne, Ind, June 17, 93. B.S, Purdue, 19; Ph.D, Iowa State Col, 23. Asst. bacteriologist, bur. chem, U. S. Dept. Agr, 19–20; Exp. Sta, Idaho, 20–21; instr. bacter, Iowa State Col, 21–24; asst. prof. microbiol, Mass. Col. and Exp. Sta, 24–25; *bacter, Iowa State Col*, 25–27, assoc. prof, 27–33, *prof, 33–, in charge dept.* A.A; Soc. Bact; Soc. Exp. Biol; Chem. Soc; Biochem. Soc; Soc. Biol. Chem; Iowa Acad. Biochemistry of the cell; fermentations.

Werle, Dr. Jacob M(ichael), 1716 E. 115th St, Cleveland, Ohio. *Physiology.* Jugoslavia, Aug. 28, 12. A.B, Western Reserve, 34, summers, Crile research scholar, 34, 35, 36, M.D, 37. Rotating surg. intern, Univ. Hosps, Cleveland, Ohio, 37–39; instr. physiol, sch. med, Western Reserve, 39–41; asst. res. surg, Cleveland City Hosp, 41–43; *aviation div, U. S. Army, 43–* Motility and pressures of G-I tract of pyloric region and mechanism of gastric evacuation; peripheral and central factors in circulation; etiology and cure of surgical shock.

Werner, Dr. Allen C(arl), 8002 Winston Road, Philadelphia, Pa. *Organic chemistry.* Brooklyn, N. Y, Aug. 24, 17. A.B, Brooklyn Col, 37; M.S, Pa. State Col, 38, Ph.D, 41. *Research chemist, Barrett Co, 41–* Chem. Soc. Organic compounds of fluorine; hydrogen fluoride catalyzed reactions; coal-tar chemicals.

Werner, Dr. C(harles) O(rville), American Viscose Corp, Marcus Hook, Pa. *Chemistry.* Hoopeston, Ill, Feb. 12, 06. A.B, Montana, 28; M.S, Illinois, 31, Ph.D, 33. Chemist, Nat. Aniline and Chem. Co, 29; asst, Illinois, 30, 31–32, 33; *research chemist*, N. Am. Rayon Corp, 33–39; *Am. Viscose Corp, 39–* Chem. Soc. Quantitative analysis; crystal structure; x-rays; colloids.

Werner, Dr. Harold W(illard), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Pharmacology.* New London, Wis, March 3, 03. B.S, Wisconsin, 27, Ph.D, 38; M.S, Florida, 29. Asst. pharmacog. and pharmacol, Florida, 27–29, asst. prof, 29–31; prof. bot. and mat. med, Duquesne, 31–35; asst. pharmacol, Wisconsin, 35–38; asst. prof. pharmacol. and physiol, North Dakota, 38–41; *pharmacologist, nat. inst. health, U. S. Pub. Health Service, 41–* Pharmaceut. Asn; Pub. Health Asn; Soc. Pharmacol. and Exp. Therapeut. Pharmacology of barbituric acid derivatives and the analeptics coramine, metrazol and picrotoxin; effects of vapors of alkyl ethers of ethylene glycol.

Werner, Prof. H(arvey) O(scar), University of Nebraska, Lincoln, Nebr. *Horticulture.* Wernersville, Pa, Oct. 21, 93. B.S, Pa. State Col, 13; M.S, Nebraska, 23; Ph.D, Chicago, 34. Assoc. horticulturist, N. Dak. Col, 13–18; *Nebraska, 18–, prof. hort, 26–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Potato Asn. (pres, 25). Horticultural phases of work with vegetable crops, especially physiological processes; potato and tomato breeding.

Werner, Dr. Heinz, Wayne County Training School, Northville, Mich. *Psychology.* Vienna, Austria, Feb. 11, 90. Ph.D, Vienna, 14. Asst, Munich, 15–17; Colonial Inst, Hamburg, Germany, 17–19; privat-docent, Hamburg, 19–26, prof, 26–33; lecturer, Michigan, 33–36; psychol, Harvard, 36–37; *research psychologist, Wayne County Training Sch, 37–* Co-editor, 'Zeitschr. Psychol,' 31–33. Psychol. Asn; Midwest. Psychol. Asn; Mich. Acad. (chairman, sect. psychol, 42). General experimental psychology; child psychology; ethnopsychology; language; character and personality; clinical and abnormal psychology.

Werner, Dr. Jesse, 145 E. 93rd St, Brooklyn, N. Y. *Organic chemistry.* New York, N. Y, Dec. 5, 16. B.S, Brooklyn Col, 35; A.M, Columbia, 36, Ph.D, 38. Asst. chem, Columbia, 36–38; *research chemist, Gen. Aniline and Film Corp, 38–* Chem. Soc. Synthetic organic chemistry; chemistry of dyestuffs and intermediates.

Werner, Dr. Louis F, 759 Beechwood Ave, Cincinnati, Ohio. *Chemistry.* Cincinnati, Ohio, March 2, 89. A.B, Cincinnati, 12, A.M, 14, Ph.D, 17. Asst. chem, Cincinnati, 12–16; chemist, *Werner Drug and Chem. Co*, 17–24, *partner, 24–* Instr, Wilmington, 17–; prof, Ohio Col. Dental Surg, 20–24. Chem. Soc. Organic chemistry; organic nitrogen compounds; quinolin dyes; alkaloids.

Werner, Dr. Tyrrell H(awley), S. D. Warren Co, Cumberland Mills, Maine. *Organic and physical chemistry.* Waterbury, Conn, July 23, 03. B.S, Dartmouth Col, 25, A.M, 27; A.M, Harvard, 28, Ph.D, 31. Instr. *chem*, Dartmouth Col, 25–27; asst, Harvard, 29–30, instr. and private asst, 30–31, private asst, 31–32; research assoc, Roscoe B. Jackson Mem. Lab, 32–33; private asst, Harvard, 33–34; *research chemist, S. D. Warren Co, 34–* Chem. Soc. Strength of bases in glacial acetic acid solutions; chlorophyl series; the kinetics of the acetylene oxygen reaction; pulp and paper.

Werner, Prof. (Walter) Courtney, Washington University, St. Louis, Mo. *Geology, Paleontology.* St. Louis, Mo, June 5, 95. A.B, Missouri, 17; Ph.D, George Washington, 30. Instr. *geol*, Minnesota, 20–22; Yale, 22–23; *Washington (St.*

Louis), 23–25, *asst. prof, 25–* Paleont. Soc. Stratigraphic paleontology; synonymy of the Middle Devonian corals of the falls of the Ohio; geology of the Pryor Mountains of Montana; Missouri paleontology and stratigraphy; controls of mammalian evolution.

Wernert, Dr. Ignatius John, 37 Perrylea Place, Pittsburgh, Pa. *Chemistry.* Algona, Iowa, Aug. 22, 05. A.B, Iowa, 27, A.M, 28; Ph.D, Ohio State, 32. With Columbus Coated Fabrics, 32–33; research chemist, electrochem. div, E. I. du Pont de Nemours and Co, 33–35; prof. chem, Niagara, 35–38; *research chemist,* Firestone Tire and Rubber Co, 38–41; N. W. Kellogg Co, 41; *B. K. Elliott Co, 41–* Chem. Soc. Optical isomerism; synthesis of amino ethers; synthesis of substituted diphenyl ethers; synthetic rubber.

Wernham, Prof. C(lifford) C(harles), Pennsylvania State College, State College, Pa. *Plant pathology.* Komoka, Ont, Can, May 13, 03. B.A, Western Ontario, 29; M.A, 30; Ph.D, Cornell, 36. *Asst. prof. bot, Pa. State Col, 39–* Phytopath. Soc; Mycol. Soc; Can. Phytopath. Soc. Phyto-bacteriology; diseases of grasses.

Wernimont, Dr. Grant T(heodore), 62 Dake Ave, Rochester, N. Y. *Chemistry.* Geneva, Nebr, Nov. 30, 04. A.B, Nebraska Wesleyan, 27; A.M, Utah, 29; Ph.D, Purdue, 34. Asst. chem, Utah, 27–29; Purdue, 29–34, instr, 34–35; *chemist, Eastman Kodak Co, 35–* Chem. Soc. Physical properties of liquid nitrous oxide; determination of the zirconium-hafnium ratio; chemical determination of water in organic liquids; determination of selenium in urine; electrometric titrations by the dead-stop end-point method.

Werntz, Dr. J(ames) H, R. D. 3, Wilmington, Del. *Organic chemistry.* Lancaster, Pa, May 18, 01. B.S, Franklin and Marshall Col, 22; A.M, Columbia, 24, Ph.D, 26. Asst. chem, Columbia, 23–26; *research chemist, E. I. du Pont de Nemours and Co, 26–* Chem. Soc. Aliphatics; corn starch; vinyl resins; detergents; textile finishes.

Wertenberger, Dr. Grace E(sther), Woman's Medical College of Pennsylvania, Philadelphia, Pa. *Physiology.* Monroe, Mich, Sept. 23, 99. B.S, Chicago, 29; Eisendrath scholar, 29, scholar, 29–30, M.S, 32, fellow, 36–38, Ph.D, 39; Michigan, 35. Instr. biol, Flora Stone Mather Col, Western Reserve, 31–36; teaching asst. *physiol,* Illinois, 38–39; asst, Chicago, 39–40; instr. and *asst. prof, Woman's Med. Col, Pa, 40–* Summer, lecturer, Michael Reese Sch. Nursing, 39. Hunger contractions; basal metabolism; estrin.

Werth, Sister Magna, College of St. Benedict, St. Joseph, Minn. *Chemistry, Physics.* Minneapolis, Minn, July 30, 85. A.B, St. John's (Minn), 14; A.M, Catholic Univ, 15; Ph.D, Minnesota, 31. Instr, *Col. of St. Benedict,* 15–23, asst. prof, 23–31, *prof. physical sciences, 31–, head dept. physics, 15–, chem,* 15–23, *32–, head div. physical sciences and math, 31–* Physical Soc; Chem. Soc. Raman effect; qualitative analysis of anions.

Wertham, Dr. Frederic, 44 Gramercy Park, New York, N. Y. *Psychiatry, Neurology.* Nuremberg, Bavaria, 95. London; Munich; Erlangen; Vienna; M.D, Wurzburg, 21. Psychiat. clinic, Kraepelin, Munich, 22; assoc. psychiat, sch. med, Hopkins, 22–29; nat. research fellow, 30–31; asst. prof. psychiat, N. Y. Univ, 32–36; *director,* Bellevue Mental Hygiene Clinic, 36–39; *mental hygiene clinic, Queens Gen. Hosp, 39–; psychiat. consultant, Triborough Hosp, 41–* Physician in charge psychiat. clinic, Court Gen. Sessions, New York, 32–34; senior psychiatrist, Bellevue Hosp, 32– Mem, Nat. Research Council. A.A; Psychiat. Asn; Neur. Asn; Asn. Neuropathologists; Asn. Research Nervous and Mental Disease; fel. Am. Med. Asn. (pres); Asn. Adv. Psychotherapy; fel. N. Y. Acad. Med. Neuropathology; physical constitution in mental disease; clinical psychiatry; histopathology of the central nervous system; dementia paralytica; comparative histopathology; psychopathology of adult and juvenile delinquency; catathymic crisis; criminology.

Wertheim, Prof. E(dgar), 103 N. Duncan St, Fayetteville, Ark. *Organic chemistry.* La Salle, Ill, Feb. 22, 86. B.S, Northwestern, 18; M.S, Kansas, 19; Ph.D, Chicago, 21. Asst. prof. *chem,* Kansas, 18–20; instr, Chicago, 20–21; assoc. prof, *Arkansas,* 21–28, *prof, 28–* A.A; Chem. Soc; Inst. Chem. Chemistry of organic sulfur compounds and amines; organic sweet stuffs.

Wertheimer, A(lbert), Bureau of Ordnance, U. S. Navy Department, Washington, D. C. *Engineering.* Hungary, Jan. 24, 01. B.S, Cooper Union, 28; A.M, George Washington, 32. *Engineer, bur. ordnance, U. S. Navy Dept, 29–* Math. Soc. Ordnance; armor; projectiles; ballistics.

Werthessen, Dr. Nicholas T(heodore), Boston Dispensary, Bennet St, Boston, Mass. *Endocrinology.* New York, N. Y, Nov. 13, 11. B.S, Harvard, 33, Ph.D, 37. Research assoc. to Dr. Gregory Pincus, Cambridge and Clark, 37–39; *director endocrine lab, New Eng. Med. Centre, 39–; research assoc. to Dr. Gregory Pincus, Clark, 42–* Asn. Study Int. Secretions. Biological chemistry of sex hormones; manner of function, physiologically and in endocrinopathies.

Wescott, Dr. Blaine B(enjamin), Gulf Research and Development Co, Pittsburgh, Pa. *Chemistry, Metallurgy.* Syracuse, N. Y, July 7, 95. B.S, Syracuse, 17; M.S, Pittsburgh, 20, Ph.D, 22. Research chemist, Fed. Dyestuffs and Chem. Corp, 17; junior physical chemist, U. S. Bur. Mines, 18; instr, Pittsburgh, 18–22; indust. fellow, Mellon Inst, 22–29; *engineer of tests, Gulf Research and Develop. Co, 29–* Mech. Eng; Soc. Metals (exec. cmt, Pittsburgh sect, 36); Petrol. Inst. (chairman, cmt. properties of materials, 31–35, program cmt, 36, v. chairman, exec. cmt, 36, chairman, 37). Organic, physical and analytical chemistry; properties of materials; fatigue and corrosion fatigue of metals; materials specifications; oil production.

Weske, Prof. John R(obert), Aurora St, Hudson, Ohio. *Mechanical engineering.* Campe, Germany, June 15, 99. Dipl.Ing, Tech. Hochschule, Hanover, Germany, 23; M.S, Harvard, 32, Sc.D, 34. Designing engineer, A. G. Weser, Bremen, Germany, 24–27; Gen. Elec. Co, 28–30; Bethlehem Shipbldg. Co, Quincy, Mass, 30–34; asst. prof. *aerodynamics, Case,* 34–38, assoc. prof, 38–40, *prof, 40–* Mech. Eng; Inst. Aeronaut. Sci; Verein Deuts. Ing. Fan engineering; aerodynamics.

Wesley, Dr. S. Medford, Yale University, New Haven, Conn. *Psychology.* Waterbury, Conn, Oct. 22, 16. A.B, Minnesota, 37, M.S, 39, Ph.D, 41. Teaching asst, Minnesota, 37–41; *instr. psychol, Yale, 41–* Assoc. Psychol. Asn. Clinical psychology; aviation medicine.

Wesley, Dr. W. Andrew, Sleepy Hollow Lane, Plainfield, N. J. *Physical chemistry.* Yonkers, N. Y, Aug. 24, 02. B.Ch, Cornell, 23; M.S, N. Y. Univ, 24, Ph.D, 26. Research chemist, physical chemist, *research lab, Int. Nickel Co, Inc,* 26–39, *asst. director, 39–* Soc. Test. Mat; Electroplaters' Soc; Faraday Soc; Chem. Soc; Electrochem. Soc. Corrosion of metal; electrodeposition of nickel.

Wesp, Dr. Edward F(loyd), du Pont Co, Station B, Buffalo, N. Y. *Chemistry.* Canton, Ohio, July 6, 07. B.S, Col. of Wooster, 29; M.S, Ohio State, 31, Ph.D, 32. Instr. chem, Ohio State, 32–33; *research chemist, E. I. du Pont de Nemours and Co, 33–* Perkins Observatory eclipse exped, 32. Chem. Soc; Ohio Acad. (sec'y, 32). Chemical studies of physiology of the corn plant; absorption spectroscopy.

Wessell, Dr. Nils Y(ngve), Tufts College, Medford, Mass. *Psychology.* Warren, Pa, April 14, 14. B.S, Lafayette Col, 34; M.S, Brown, 35, scholar, 35–37; fellow, Rochester, 37–38, Ph.D, 38. Asst. psychol, Brown, 34–35; res. psychologist, Bradley Hosp, 35–37; director mobile guidance clinic, Michigan, 38–39: *asst. prof. psychol, dean men and director admissions, Tufts Col, 39–, acting chairman dept. psychol.* A.A; assoc. Psychol. Asn; Mass. Soc. Clin. Psychol. The human electroencephalogram; prediction of academic success.

Wessels, Prof. P(hilip) H(enry), Riverhead, N. Y. *Horticulture.* Flint, Mich, March 16, 80. B.S, Mich. State Col, 05; M.S, Wisconsin, 10, fellow, 10–12. Asst. chemist, Exp. Sta, R. I. State Col, 05–09, assoc. chemist, 12–22; *research prof. veg. gardening, L. I. veg. research farm, div. veg. crops, col. agr, Cornell, 22–* Soc. Hort. Sci; Soc. Agron; Chem. Soc; Potato Asn. Fertilizers; soils; crop production.

Wessinger, Prof. George D(avid), 1757 W. Harrison St, Chicago, Ill. *Chemistry.* Cherryville, N. C, Sept. 28, 13. B.S, Fla. South. Col, 35; M.S, Northwestern, 36, Ph.D, 39. Instr. *chem,* Northwestern, 35–39; asst. prof, *Loyola (Ill),* 39–41, *assoc. prof, 41–* A.A; Chem. Soc; Int. Asn. Dental Research. Organic and biological chemistry; local anesthetics; carbohydrate degradation by enzymes; dental chemistry.

Wessman, Dr. Harold E(verett), New York University, New York, N. Y. *Structural engineering.* Rockford, Ill, Dec. 27, 99. B.S, Illinois, 24, M.S, 25, C.E, 29, Ph.D, 36. Struct. designer, South Park Cmn, Chicago, 25; instr. struct. eng, Illinois, 27–29; assoc. prof, Chiao-Tung Univ, Shanghai,

29–30; struct. engineer, Waddell and Hardesty, New York, 30–32; supt, Water Dept, Rockford, Ill, 33; assoc. prof. struct. eng, Iowa, 34–37; *prof. struct. eng. and chairman civil eng, N. Y. Univ, 37–* Lecturer Polytech. Inst. Brooklyn, 32. Norman medal, Am. Soc. Civil Engineers, 41. Civil Eng; Eng. Educ; Concrete Inst; Inst. Consulting Eng. (councilor). Analysis of statically indeterminate structures such as arches, rigid frame buildings and bridges and suspension bridges; aerial bombardment protection.

Wesson, Dr. L(aurence) G(oddard), Forsyth Dental Infirmary, Boston, Mass. *Biochemistry.* Worcester, Mass, July 17, 88. B.S, Worcester Polytech, 10; Ph.D, Harvard, 19. Asst. chem, Bur. Standards, 11–12; instr. org. chem, Case, 15–17; physiol. chem, Hopkins, 22–25; asst. prof. pharmacol, sch. med, Vanderbilt, 25–31, assoc. prof, 31–34; pharmacol. and biochem, Veader Leonard Lab. Exp. Therapeut, 34–38; *biochemist, Forsyth Dental Infirmary, 39–* War gas investigations, U. S. Bur. Mines, 17–18; capt, C.W.S, 18–19, major, C.W.Res, 24– Soc. Biol. Chem; Soc. Pharmacol; Int. Asn. Dental Research. Intermediary fat metabolism; respiratory calorimetry; nutritional deficiencies.

West, Dr. A(llen) S(herman), 3rd, University of New Brunswick, Fredericton, N. B, Can. *Entomology.* Worcester, Mass, Aug. 13, 09. B.S, Mass. State Col, 31; Ph.D, Yale, 35. Junior entomologist, div. forest insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 35–36, asst. conservationist, 36–39; *prof. forest entom, New Brunswick, 39–* A.A; Entom. Soc. Amer; Soc. Foresters; Asn. Econ. Entom; Can. Soc. Forest Eng; Entom. Soc. Ont; Can. Pulp and Paper Asn. (cmt. forest entom. and path). Forest insects.

West, Dr. Augustus P(rice), Bureau of Science, Manila, P. I. *Chemistry.* Baltimore, Md, Feb. 6, 78. A.B, Hopkins, 01, Ph.D, 05. Research chemist, Glaser's Consulting Lab, 06; analyst, Baltimore Copper Smelting and Rolling Co, 07; research chemist and fellow by courtesy, Hopkins, 09–10; with Bur. Science, P. I, 10–12; asst. prof. chem, Philippines, 12–16, prof. and head dept, 16–27; *chief* div. org. chem, *Bur. Science, P. I, 28–33, div. chem. research, 33–* A.A; Chem. Soc. Vegetable oils; woods; experimental organic chemistry; Philippine resins, gums and oils.

West, Dr. Byron L(illibridge), 1151 Hillside Ave, Plainfield, N. J. *Chemistry.* Providence, R. I, Feb. 7, 93. Ph.B, Brown, 15, M.S, 16, Edwards fellow, 16–18, Ph.D, 18. Org. chemist, E. I. du Pont de Nemours and Co, 19–21; *org. research chemist,* Nat. Aniline and Chem. Co, Buffalo, 21–32; *Calco Chem. Co, 32–* Summers, Nitrogen Products Co, 15; Fed. Chem. and Dye Corp, 16. Lieut, Sanit.C, 18–19. Chem. Soc. (councilor, North Jersey sect, 43–); fel. Inst. Chem. (councilor, N. Y. sect, 41–). Nitrogen fixation; action of acetic anhydrid on alpha naphthyl propiolic acid; azo dyes and intermediates.

West, Dr. Clarence J(ay), Lawrence College, Appleton, Wis. *Chemistry.* Brighton, Mich, June 14, 86. B.S, Michigan, 09, Ph.D, 12. Research chemist, Rockefeller Inst, 12–18; director information dept, Arthur D. Little, Inc, 19–21; sci. assoc, research information service, Nat. Research Council, 21–22, director, 25–36; *research assoc, Inst. Paper Chem, Lawrence Col, 36–* Summers, instr, Michigan, 10–12. Assoc. ed, 'Chem. Abstracts'; 'Int. Critical Tables,' 22–30; contributing ed, 'Paper,' 20–21. Gold medal, Tech. Asn. Pulp and Paper Indust, 37. Am. commissioner and sec'y, Int. Annual Tables, 24–36. Major, C.W.S, 18–19, lieut. col, C.W.Res, 21–34. A.A; Chem. Soc; Asn. Pulp and Paper Indust. (chairman, cmt. on abstracts and bibliog). Carbonium salts; lipoids; aliphatic fatty acids; bibliographies; compilations.

West, Dr. C(utler) D(eLong), Polaroid Corp, Cambridge, Mass. *Chemistry.* Glens Falls, N. Y, Oct. 25, 03. A.B, Wesleyan, 24; Ph.D, Harvard, 34. *Chemist, Polaroid Corp, 35–* Chem. Soc; Miner. Soc; Optical Soc. Geometry, physics and chemistry of crystalline substances; light polarisers and applications.

West, Prof. E(ben) M(oreau), Louisiana State University, Baton Rouge, La. *Botany.* Bay, La, Oct. 6, 85. A.B, Louisiana, 19, M.S, 28; Ph.D, Ohio State, 34. Prin, high schs, La, 13–15, 18–28; instr. *bot, Louisiana,* 28–30, asst. prof, 31–34, *assoc. prof, 34–* Distribution of the canebrakes in southeastern and southern United States.

West, Dr. Edward S(taunton), University of Oregon Medical School, Portland, Oregon. *Biochemistry.* Stuart, Va, Sept. 9, 96. A.B, Randolph-Macon Col, 17; M.S, Kans. State Col, 20; Ph.D, Chicago, 23. Asst. and instr. chem, Kans. State Col, 17–22; asst. org. chem, Chicago, 22–23; instr. *biochem,* sch. med, Washington (St. Louis), 23–27, asst. prof, 27–30, assoc. prof, 30–34; *prof, sch. med, Oregon, 34–* A.A; Soc. Biol. Chem; Chem. Soc; Soc. Exp. Biol. Molecular rearrangements; condensation products of aldehydes and sugars with acetoacetic esters; reducing substances of blood and urine; carbohydrate metabolism; hydroxylated fatty acids; conversion of formaldehyde to sugars; methods of analysis.

West, Erdman, 335 University Terrace, Gainesville, Fla. *Mycology, Plant taxonomy.* Glenside, Pa, Jan. 6, 94. B.S, Pa. State Col, 17; M.S, Florida, 31. Asst. nursery inspector, State Dept. Agr, N. J, 18–20, chief, 20–25; asst. plant pathologist, Exp. Sta, Florida, and State Plant Board, Fla, 25–27; *mycologist, Exp. Sta, Florida, 27–* Summers, asst, Pa. State Col, 15–16, 18. A.A; Phytopath. Soc; Mycol. Soc; Torrey Bot. Club; Fla. Acad. Undescribed timber decay of hemlock; insect and plant associations in New Jersey; sweet potato diseases; taxonomy of fungi and plants of Florida.

West, Dr. Francis E(verett), 610 16th St, Cleveland, Tenn. *Chemistry.* Attica, Mich, May 27, 72. B.S, Mich. State Col, M.S, 02; Michigan, 04, 05; fellow, Wisconsin; California; hon. Sc.D, Milton. Asst, Exp. Sta, Mich. State Col, 00; chemist, Mich. Sugar Co, 00–01; instr. sugar chem, Alma Col, 00–01, head dept. chem, 01–29; *head dept. chem. and biol, Bob Jones Col, 29–* Summer, instr, Cent. Mich. State Nor. Col, 14. Chem. Soc. Chemotropism.

West, Dean Frank(lin) L(orenzo), Utah State Agricultural College, Logan, Utah. *Physics, Physical chemistry.* Ogden, Utah, Feb. 1, 85. B.S, Utah Col, 04; Stanford, 04–05; fellow, Chicago, 10–11, Ph.D, 11. Prof. *physics,* Brigham Young, 05–06; asst, Chicago, 06–07; *prof,* Utah Col, 07–29, *Utah State Col, 29–, dean sch. gen. science, 13–, dean faculty, 21–* A.A; fel. Physical Soc; fel. Meteorol. Soc; fel. Utah Acad. (past pres). Organic amalgams; freezing temperatures of fruit buds; orchard heating; soil moisture; long range prediction of temperature.

West, Prof. H(arold) D(adford), Meharry Medical College, Nashville, Tenn. *Biochemistry.* Flemington, N. J, July 16, 04. A.B, Illinois, 25, M.S, 30, Ph.D, 37. Head dept. science, Morris Brown Col, 25–27; assoc. prof. *physiol. chem, Meharry Med. Col,* 27–38, *prof, 39–* Amino acids; blood serum calcium in various conditions; detoxication of hydrocarbons.

West, Prof. Lloyd E(llis), Oregon State College, Corvallis, Oregon. *Analytical chemistry.* Wisner, Nebr, Jan. 29, 08. A.B, Doane Col, 29; M.S, Florida, 30; Ph.D, Washington (Seattle), 39. Teaching fellow, Florida. 29–30; instr. chem, N. Dak. Col, 30–35; teaching fellow, Washington (Seattle), 35–38; instr. *chem, Oregon State Col,* 38–41, *asst. prof, 41–* Summer, chem. analyst, Fed. Metals Inc, Chicago, Ill, 28. Electrochem. Soc; Chem. Soc. Potentiometric titrations; oceanography; vacuum tube voltmeters.

West, Dr. Luther S(hirley), Northern Michigan College of Education, Marquette, Mich. *Zoology, Health science.* Utica, N. Y, Sept. 6, 99. B.S, Cornell, 21, Ph.D, 25. Instr. parasitol. and med. entom, Cornell, 21–25; prof. biol. and eugenics, Battle Creek Col, 25–38, director biol, preserve, 20–38, dean arts and sciences, 35–38; *head div. nat. sciences, North. Mich. Col. Educ, 38–; capt, Dept. Surgeon Gen, U. S. Army, 43–* Summer, instr, Cornell, 25. A.A; Micros. Soc; Genetic Asn. Insect parasitism, classification of muscoidean Diptera; biology of Dryopidae; ecology of marl-forming plants; lymphoid tissue in relation to senescence; eugenic derivation of college students; inheritance of hernia; ichthyosis; optical defects.

West, Dr. Paul V(ining), New York University, Washington Square, East, New York, N. Y. *Education.* Colorado Springs, Colo, Jan. 15, 85. A.B, Denver, 08, A.M, 15; fellow, Chicago, 17–18, Ph.D, 22. Prin. and sch. supt, Colo, 13–16; asst. prof. educ, Colo. Col, 18–20; Wisconsin, 20–23; prof. and head dept, Chattanooga, 23–25; asst. prof. educ. psychol, *Wash. Sq. Col, N. Y. Univ,* 25–28, assoc. prof. *educ,* 28–30, *prof, 30–* Summers, Chicago, 22–23; Montana, 24; Missouri, 25. A.A; Soc. Study Educ; Educ. Research Asn; Soc. Col. Teachers Educ. Educational research and statistics; psychology.

West, Dr. Philip W(illiam), Louisiana State University, Baton Rouge, La. *Chemistry.* Crookston, Minn, April 12, 13. B.S, North Dakota, 35, M.S, 36; Ph.D, Iowa, 39. Asst. chemist, N. Dak. Geol. Surv, 35–36; research asst. sanit. chem, Iowa, 36–37; asst. chemist, State Dept. Health, Iowa, 37–40;

research and microchemist, Econ. Lab, Inc, St. Paul, Minn, 40; instr. and later *asst. prof. in charge anal. chem. div, Louisiana, 40–* Analytical and sanitary chemistry; micro chemistry; interference studies of analytical reactions; inhibiting agents for eliminating interferences with analytical reactions; complex ions; water conditioning for the manufacture of ice.

West, Prof. Robert (William), 115 Chestnut St, Madison, Wis. *Speech pathology.* Reedsburg, Wis, Nov. 26, 92. Ph.D, Wisconsin, 25. Assoc, Iowa, 19–21; asst. prof. speech, *Wisconsin,* 22–26, assoc. prof, 26–28, *prof. speech path, 28–* Summers, prof, Michigan, 29, 30; Utah, 39; Wisconsin, 40; Hawaii, 41. Chairman subcmt. child defective in speech, White House Conf. Child Health and Protection, 30. Mem. psychol. examining board, Camp Wheeler, Ga, M.C, 17–19. Soc. Study Disorders Speech (pres, 26–28, chairman, membership cmt, 28–30); Asn. Teachers Speech (pres, 43). Hearing of speech sounds; mechanism of voice productions; etiology of stuttering; phonetics; rehabilitation of speech.

West, Dr. S(amuel) Stewart, 5529 S. Owasso, R. R. 2, Tulsa, Okla. *Physical chemistry, Geophysics.* Minneapolis, Minn, Dec. 11, 09. B.S, Calif. Inst. Tech, 30, Ph.D, 34. Junior physicist, Bur. Standards, 30–31; asst. electron scattering, Washington (St. Louis), 34–36; chief physicist, Subterrex, 36–38; *physicist, Stanolind Oil and Gas Co, 38–* A.A; Physical Soc; Soc. Explor. Geophys; Federation Archit, Eng, Chem. and Technicians. Analysis by means of mass-spectrometer.

West, Dr. W(illiam), Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Chemistry.* Edinburgh, Scotland, March 17, 01. B.S, Edinburgh, 23, Vans Donlop scholar, 23–25, Ph.D, 25. Asst. chem, Edinburgh, 23–25; Columbia, 25–26; instr, Wash. Sq. Col, N. Y. Univ, 26–30, asst. prof, 30–41; *chemist, Eastman Kodak Co, 41–* Chem. Soc; Physical Soc; Faraday Soc; N. Y. Acad. Physical chemistry; photochemistry; chemical applications of spectroscopy.

Westall, Dr. Mary, Box 1566, Asheville, N. C. *Botany.* Asheville, N. C, Feb. 27, 89. A.B, Randolph-Macon Woman's Col, 10; M.S, Columbia, 18; Ph.D, Chicago, 25. Instr, Randolph-Macon Woman's Col, 13–18, adj. prof, 18–22; asst. prof. bot, Agnes Scott Col, 26–30, assoc. prof, 30–34; *retired.* A.A. Tracheids in the Cycadales.

Westbrook, L(eon) R(ussell), Briar Hill Drive, Solon, Ohio. *Electrochemistry.* Newton, N. J, Sept. 20, 94. B.S, Mass. Inst. Tech, 17. Research chemist, Nat. Aniline and Chem. Co, 17–18; Goodyear Tire and Rubber Co, 19–21, teaching and consultant, 21–23; research chemist, Grasselli Chem. Co, 23–30, asst. director exp. lab, Grasselli chem. dept, *E. I. du Pont de Nemours and Co,* 30–40, *research manager, electroplating div, 40–* 2nd lieut, C.W.S, 18–19. Chem. Soc; Electrochem. Soc. (board managers, 34–37, v. pres, 38, officer, Cleveland sect, 32–35). Electroplating; chemical manufacturing; rare elements; indium; patents.

Westburgh, Dr. Edward M(artin), Institute of the Pennsylvania Hospital, 111 N. 49th St, Philadelphia, Pa. *Clinical psychology.* Philadelphia, Pa, March 22, 99. B.S, Wesleyan, 22; Ph.D, Edinburgh, 32. Research psychologist, dept. mental diseases, Pennsylvania Hosp, 22–26, clin. and research psychologist, 26–29; sr. psychologist, dept. mental diseases, *Inst. of Penna. Hosp,* 29–32, *chief psychol. service, 32–; private psychologist and consultant; instr, med. sch, Pennsylvania, 36–* Consultant, Haverford Col; Devereux Schs; RCA Victor Co. of Can; Supplee-Wills-Jones, Inc. Trustee, Devereux Schs. S.A.T.C, 17. Orthopsychiat. Soc; Asn. Mental Deficiency; Pa. Asn. Clin. Psychol; British Psychol. Soc. Personality problems and psychotherapies.

Westby, G(erald) H(olinbeck), 709 Kennedy Bldg, Tulsa, Okla. *Geophysics, Seismology.* Stoughton, Wis, Aug. 4, 98. Ph.B, Chicago, 20; Colo. Sch. Mines, 27. Geologist, Whitehall Petrol. Corp. of London, Algeria, 20–24; Empire Oil and Ref. Co, Rocky Mt. area, 24–27, chief geophysicist, 27–33; v. pres, *Seismograph Service Corp,* 33–35, *pres, 35–, v. pres, eng. labs, 35–* Summer, instr, Montana, 20. Asn. Petrol. Geol; Soc. Explor. Geophys. (v. pres, 31–32, sec'y-treas, 35); Tulsa Geol. Soc. (exec. cmt, 35). Reflection seismology; petroleum geology.

Westcott, Dr. Cynthia, 96 Essex Ave, Glen Ridge, N. J. *Plant pathology.* North Attleboro, Mass, June 29, 98. A.B, Wellesley Col, 20; Ph.D, Cornell, 32. Asst. plant path, Cornell, 21–23, instr, 23–25, asst, 25–31; N. J. Exp. Sta, Rutgers, 31–33; *private plant pathologist, 33–* A.A; Phytopath. Soc; Asn. Econ. Entom. Rose diseases; survey of diseases of ornamentals in New Jersey; garden diseases and pests.

Westcott, Dr. L(aurence) C(layton), 433 W. South St, Carlisle, Pa. *Chemistry.* Pittsfield, Mass, March 4, 16. B.S, Rensselaer Polytech. Inst, 38, M.S, 39, Ph.D, 41. *Research chemist,* Sylvania Indust. Corp, 41–42; *C. H. Masland and Sons, 43–* Chem. Soc. Synthetic resins and their commercial applications.

Westcourt, Prof. Fred W(illiam), 2020 N. Locust St, Denton, Texas. *Horticulture.* Meyersville, Texas. B.S, Agr. and Mech. Col. Texas, 20, M.S, 24; Cornell, 29. Instr. hort, Agr. and Mech. Col. Texas, 20–21; prof, John Tarleton Col, 21–25; *prof. rural arts and director dept, Texas State Col. for Women, 25–* Lecturer, Julius Rosenwald Foundation, 30. Hort. Soc; Soc. Hort. Sci; Royal Hort. Soc; Soc. pomol. de France. Floriculture; ornamental horticulture.

Westerfeld, Dr. W(ilfred) W(ledey), Harvard Medical School, Boston, Mass. *Biochemistry.* St. Charles, Mo, Dec. 13, 13. B.S, Mo. Sch. Mines, 34; Ph.D, St. Louis, 38; Columbia, 39–40. Nat. research fellow med. sciences, Oxford, 38–39, Columbia, 39–40; teaching fellow and tutor, Harvard, 40–41, instr. *biochem, Harvard Med. Sch,* 41–42, *assoc,* 42– Chem. Soc. Estrogens; acetoin in intermediary metabolism.

Westerfield, Dr. E(verett) C(ommodore), 164 Magnolia, Costa Mesa, Calif. *Physics.* Beda, Ky, April 3, 01. A.B, Colorado, 28, A.M, 30, fellow, 32–33, Ph.D, 40. Apparatus asst, Colorado, 35–39, asst, 40; *lab. technician and tech. adviser, Douglas Aircraft Co, 41–* A.A; Physical Soc; Asn. Physics Teachers. Probability treatment of a problem in quanta.

Westergaard, Dean H(arald) M(alcolm), Harvard University, Cambridge, Mass. *Mechanics, Civil engineering.* Copenhagen, Denmark, Oct. 9, 88. B.S, Royal Tech. Col, Copenhagen, 11, hon. Dr.tech, 29; Göttingen, 13; D.Ing, Munich, 25; Ph.D, Illinois, 16; hon. Sc.D, Lehigh, 30. Design of reinforced concrete, Copenhagen, Hamburg and London, 11–14; instr. theoret. and applied mech, Illinois, 16–19, assoc, 19–21, asst. prof, 21–24, assoc. prof, 24–27, prof, 27–36; *Gordon McKay prof. civil eng, Harvard, 36–, dean grad. sch. eng, 37–; commander, U. S. Naval Res.* Senior mathematician, U. S. Bur. Reclamation, 29–30, consulting engineer, 30–32; consulting struct. engineer, bur. yards and docks, U. S. Navy Dept, 35–37, Summers, special analyst, bur. pub. roads, U. S. Dept. Agr, 23, 26, senior mathematician, 28, 29, consulting engineer, 31; Michigan, 31, 32, 34, 36. Trustee, Am-Scandinavian Foundation, 38– Wason medal, Am. Concrete Inst, 22; Croes medal, Am. Soc. Civil Eng, 35. Lieut. commander, C.E.C, U.S.N.R, 36–40, commander, 40– A.A; Civil Eng; Mech. Eng; Concrete Inst; Am. Acad; Math. Soc; Philos. Soc; Newcomen Soc. Structural mechanics; reinforced concrete; dams; theory of elasticity.

Westerman, Dr. Beulah D(orothea), Kansas State College, Manhattan, Kans. *Chemistry.* Aug. 23, 97. B.S, Missouri, 19; M.S, Chicago, 23; Ph.D, Illinois, 28. Marvin Col, 19–21; Christian Col, 21–24; Lawrence Col, 24–25; asst. chem, Illinois, 25–28; prof, Fla. State Col. for Women, 28–33; Milwaukee-Downer Col; chemist, biol. labs, State Dept. Health, Mich, 35–38; asst. prof, Washington (Seattle), 39–41; *food econ. and nutrition, Kans. State Col,* 41–43, *assoc. prof, 43–* A.A; Chem. Soc. Amino acids; vitamins; therapeutic agents for pneumonia.

Western, Prof. Forrest, Lincoln Memorial University, Harrogate, Tenn. *Physics.* Purdin, Mo, Aug. 25, 02. A.B, Cent. Col. (Mo), 24; A.M, Missouri, 26; Ph.D, Pittsburgh, 33. Instr. physics, Pittsburgh, 29–31; asst. prof, Mo. Valley Col, 31–33, prof, 33–35; *prof. physical science and head dept, Lincoln Mem. Univ, 35–* Physical Soc. Radioactivity.

Westervelt, William Young, 4103 N. State St, Jackson, Miss. *Engineering.* Jersey City Heights, N. J, July 30, 72. E.M, Columbia, 94. Chemist, surveyor, engineer and supt. mines, Ducktown Sulfur, Copper and Iron Co, 94–98, consulting engineer, 98–20; organizer and pres, Copper Pyrites Corp, Tenn, 18–36; pres, Ducktown Pyrites Corp. and Ducktown Chem. and Iron Co, 27–36; *consulting engineer, 37–* Consulting engineer, Anglo-Am. Copper Co, London, 05; Grasselli Chem. Co, 09; examiner copper mines, Island of Cyprus, 10; consulting engineer, Wilkes-Barre Dredging Co, 14. A.A; Min. and Metal. Eng; Min. and Metal. Soc. (v. pres, 20–22); Electrochem. Soc; Min. Cong; Royal Soc. Arts. Peele's mining engineer's handbook.

Westfall, Dr. B(enton) B(osworth), National Institute of Health, U. S. Public Health Service, Washington, D. C. *Physical and physiological chemistry.* Kerens, W. Va, June 9, 04. B.S, W. Va. Wesleyan Col, 25; M.S, Maryland, 29, Ph.D, 31. Teacher, high sch, W. Va, 25–27; asst. physical chem, Maryland, 27–31; chem, dept. pharmacol, sch. med, Pennsylvania, 31–32, assoc, 32–36; asst. anal. chem, *nat. inst. health, U. S. Pub. Health Service,* 36–39, assoc. biochem, 39–43, *fellow, 43–* A.A; Chem. Soc. Standard electrode potential of cobalt; glomerular function; occurrence and toxicity of selenium; chemotherapy.

Westfall, Dr. B(ertis) A(lfred), University of Missouri, Columbia, Mo. *Physiology, Pharmacology.* Halfway, Mo, June 4, 07. A.B, Missouri, 33, A.M, 34, Ph.D, 38. Instr. *physiol. and pharmacol, med. sch, Missouri,* 36–38, asst. prof, 38–42, *assoc. prof, 42–* Assoc. aquatic physiologist, fish and wildlife service, U. S. Dept. Interior. A.A; Limnol. Soc; Fisheries Soc. Arsenic storage; water balance.

Westfall, Dr. Jonathan J(ackson), State Teachers College, Moorhead, Minn. *Botany.* Buckhannon, W. Va, July 10, 08. B.S, W. Va. Wesleyan Col, 32; M.S, Chicago, 38, Ph.D, 39. Head dept. biol, high school, W. Va, 32–36; teaching asst. bot, Chicago, 38–39; *instr. biol, Moorhead State Teachers Col, 39–* Summers, instr, W. Va. Wesleyan Col, 32–37. A.A. Cytological studies of Lilium tigrinum.

Westfall, Prof. W(ilhelmus) D(avid) A(llen), University of Missouri, Columbia, Mo. *Mathematics.* Montague, N. J, Jan. 27, 79. A.B, Yale, 01; Ph.D, Göttingen, 05. Instr. *math,* Yale, 02–03; *Missouri,* 05–07, asst. prof, 07–14, assoc. prof, 14–21, *prof, 21–* Math. Soc; Math. Asn. Analysis.

Westgate, Prof. Lewis G(ardner), Ohio Wesleyan University, Delaware, Ohio. *Geology.* Phenix, R. I, Oct. 8, 68. A.B, Wesleyan, 90, hon. Sc.D, 40. A.B, Harvard, 91, A.M, 92, Ph.D, 96. Teacher, high sch, Ill, 93–00; prof. *geol, Ohio Wesleyan,* 00–39, *emer. prof, 39–* Assoc. geologist, U. S. Geol. Surv. Fel. Geol. Soc. (v. pres, 25); Paleont. Soc; Miner. Soc; Ohio Acad. (pres, 10). Areal geology in the Rocky Mountains; Devonian of Ohio.

Westgate, Dr. Mark W(heeler), University of Maryland, College Park, Md. *Photochemistry, Chemistry.* Lanham, Mo, Oct. 21, 11. B.S, Hawaii, 32, M.S, 33, Ph.D, 38; N. Y. Univ, 40. Asst, Hawaii, 32–37; *instr. chem, Maryland, 38–* Chem. Soc. Chemical investigations on the sterols of tropical oils; photochemical oxidation-reduction systems; simplified chemical arithmetic.

Westhafer, Prof. W(illiam) R(ader), College of Wooster, Wooster, Ohio. *Physics.* Uhrichsville, Ohio, July 8, 79. A.B, Ohio Wesleyan, 03, A.M, 07; Harvard, 09; LL.D, Ohio Wesleyan, 34. Instr. math, Ohio Wesleyan, 06–07; *physics,* Amherst Col, 09–12, asst. prof, 12–14, assoc. prof, 14–18; *prof. and head dept, Col. of Wooster, 18–, dean, 29–* A.A; Physical Soc. Conductivity of molybdenite.

Westheimer, Prof. F(rank) H(enry), University of Chicago, Chicago, Ill. *Chemistry.* Baltimore, Md, Jan. 15, 12. A.B, Dartmouth Col, 32; A.M, Harvard, 33, John Harvard fellow, 33–34, Ph.D, 35. Nat. research fellow chem, Columbia, 35–36; research assoc. org. chem, *Chicago,* 36–37, instr. *chem,* 37–41, *asst. prof, 41–* Assoc. ed, 'Jour Chem. Physics.' Chem. Soc. Reaction rates applied to the problems of organic chemistry; electrostatic effect of substituents on acid strength and reaction rate.

Westkaemper, Sister Remberta, College of St. Benedict, St. Joseph, Minn. *Plant physiology.* Spring Hill, Minn, Jan. 2, 90. A.B, Col. of St. Benedict, 19; M.S, Minnesota, 22, Ph.D, 29. *Prof. biol, Col. of St. Benedict, 22–, head dept, 29–* A.A; Minn. Acad. The vitamin content of marine algae.

Westlake, Dr. Harry E(dward), Jr, Mellon Institute of Industrial Research, 4400 Fifth Ave, Pittsburgh, Pa. *Organic chemistry.* Jersey City, N. J, Oct. 13, 15. A.B, Princeton, 37, Sayre fellow, 37–38, A.M, 39, Ph.D, 40. *Indust. fellow, Mellon Inst, 40–* Chem. Soc. Organic sulphur compounds; organic thiosulfates; sulphur plastics.

Westland, Father A(nthony) J(ames), S.J, Spring Hill College, Spring Hill, Ala. *Seismology.* Denver, Colo, April 27, 95. A.B. and A.M, Gonzaga, 19; El Col. Burgos (Spain), 23–27; M.S, St. Louis, 39. Teaching fellow, St. Louis, 36; instr. physics, *Spring Hill Col,* 36–38, *prof. physics and math. and head dept, 38–* A.A; Seismol. Soc. (sec'y east. sect, 36–39); Meteorol. Soc; Physical Soc; Ala. Acad. The deep earthquake of the Central Pacific.

Westlund, Prof. Jacob, Purdue University, West Lafayette, Ind. *Mathematics.* Örebro, Sweden, May 18, 67. Upsala; Stockholm; Ph.D, Yale, 98. Instr. physics and chem, Augustana Col, 87–89; prof. *math,* Bethany Col, 89–96; instr, Yale, 96–00; *prof, Purdue, 00–* Math. Soc. Elliptic functions; theory of numbers.

Westman, Dr. A(lbert) E(rnest) R(oberts), Ontario Research Foundation, 47 Queen's Park, Toronto, Ont, Can. *Chemistry, Ceramics.* Ottawa, Ont, 00. B.A, Toronto, 21, M.A, 22, Ph.D, 24. Research assoc. ceramics, eng. exp. sta, Illinois, 24–28; assoc. prof, Rutgers, 28–29; *director chem. research, Ont. Research Foundation, 29–* Research, Carborundum Co, Niagara Falls; Mines Branch, Ottawa; asst, Toronto. Electrochem. Soc; Ceramic Soc; Soc. Glass Technol; fel. Can. Inst. Chem; British Ceramic Soc. Physical and industrial chemistry; refractories; electric furnace arcs; statistics; paper; printing; adhesives.

Westman, Dr. Ragnar T, U. S. Public Health Service, Seattle, Wash. *Medicine.* Oct. 2, 05. B.S, Hamline, 27; B.M, Minnesota, 30, M.D, 31; Rockefeller Foundation fellow, Hopkins, 35–36, scholar, 38–39, Dr.P.H, 39. Intern, Minneapolis Gen. Hosp, 31; epidemiologist and asst. to commissioner of health, div. pub. health, Minneapolis, Minn, 32–37; county director health, Bay County, Mich, 37–38; asst. pub. health admin, sch. hygiene and pub. health, Hopkins, 38–39; prof. hygiene and prev. med. and head dept, sch. med, Kansas, 39–41; *surgeon, U. S. Pub. Health Service, 41–,* acting director health, Jackson Co, Miss, 42, acting asst. director health, epidemiologist and director tuber. control bur, New Orleans Board Health, La, 42–43, *health officer, Seattle, Wash, 43–* Director health, Kansas City, Kans, 39–41. Gold medal, South. Minn. Med. Asn, 30. Fel. Am. Med. Asn; fel. Pub. Health Asn. Undulant fever; contagious diseases.

Westmoreland, Dr. M(elbourne) G(uynn), 535 N. Dearborn, Chicago, Ill. *Bacteriology.* Altair, Texas, Oct. 24, 04. A.B, Kansas, 31, A.M, 33, M.D, 36. Asst. instr. bacter, Kansas, 31–34; intern, St. Francis Hosp, Wichita, Kans, 36–37; asst. prof. bacter, North Dakota, 37–40; *mem. staff, council med. educ. and hosps, Am. Med. Asn, 40–* Summer, asst. med. resident, Billings Hosp, Chicago, 38. Arthus phenomenon.

Weston, Dr. Arthur W(alter), Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* Smiths Falls, Can, Feb. 13, 14. B.A, Queen's (Can), 34, M.A, 35; Ph.D, Northwestern, 38. Research assoc. chem, Northwestern, 38–40; *research chemist, Abbott Labs, 40–* Chem. Soc. Synthesis of organic medicinals.

Weston, Prof. C(harles) P(artridge), University of Maine, Orono, Maine. *Mechanics.* Madison, Maine, Nov. 8, 75. B.C.E, Maine Col, 96, C.E, Maine, 99, hon. Sc.D, 41; fellow, Columbia, 01–02, A.M, 02. Tutor physics, Maine, 96–98, instr. civil eng, 98–01; tutor mech, Columbia, 02–04; asst. prof. mech. and drawing, *Maine,* 04–07, prof. and head dept, 07–20, *mech,* 20–41, *emer. prof, 41–* Determination of the modulus of elasticity in bending with small loads.

Weston, Dr. J(ean) K(endrick), Lenni Road, Glen Riddle, Pa. *Neuroanatomy.* Spokane, Wash, Nov. 30, 06. A.B, North. State Teachers Col, Mich, 30; fellow, Michigan, 30–31, M.S, 31, Ph.D, 33; M.D, Temple, 41. Asst. *anat,* Michigan, 31–35, instr, 35–37; asst, Groningen (Holland), 37–38; *sch. med, Temple,* 38–43, *assoc. prof, 43–* A.A; Asn. Anat; Physiol. Soc. Phila. Comparative microscopic anatomy of the cerebellar and vestibular regions; telencephalon of Mormyrus; vertebrate inner ear sensory areas and ganglion cells.

Weston, Dr. Marion D(odge), Rhode Island College of Education, Providence, R. I. *Paleontology.* Atkinson, N. H, March 10, 84. A.B, Mt. Holyoke Col, 06, A.M, 09; Columbia, 09–10; Ph.D, Brown, 17. Asst. bot, Mt. Holyoke Col, 06–09; *R. I. Col. Educ, 10–, prof. bot.* A.A. Paleobotany; Carboniferous flora of Rhode Island.

Weston, Dr. Paul E(dwin), University of Tennessee, Memphis, Tenn. *Chemistry, Dentistry.* Pottsville, Pa, Nov. 6, 03. B.S, Pa. State Col, 25; Ph.D, Wisconsin, 28; D.D.S, Minnesota, 38. Research chemist, Roessler and Hasslacher Chem. Co, 28–30; senior J. K. Lilly research fellow, Purdue, 30–34; research chemist, Gen. Elec. Co, 34–35; asst. prof. *operative dentistry,* Minnesota, 38–43; *assoc. prof, Tennessee, 43–* Reactions of alcohols with metallic oxide catalysts; pyrolysis of chlorohydrocarbons; chlorination of hydrocarbons; synthetic

resins; catalytic hydrogenation; oxidation of hydrocarbons; the Ullmann reaction; dental cements.

Weston, Dr. William H(enry), Jr, Harvard University, Cambridge, Mass. ***Botany.* New York, N. Y, Jan. 24, 90. A.B, Dartmouth Col, 11; A.M, Harvard, 12, Ph.D, 15. Instr. biol, Western Reserve, 15–17; path. inspector, fed. hort. board, U. S. Dept. Agr, 17–18, pathologist, cereal investigations, bur. plant indust, Philippines, 18–20, Washington, 20–21; asst. prof. bot, *Harvard*, 21–27, assoc. prof, 27–28, *prof. cryptogamic bot, 28–*, chairman dept. bot, 25–32. Ropes Mem. lecturer, Salem, 22, 23, 26; lecturer, Lowell Inst, 27; visiting prof, Hopkins, 37. Summers, Marine Biol. Lab, Woods Hole, 16, 22, 23; special investigator, U. S. Dept. Agr, Fla. and Trop. Plant Research Foundation, Cuba, 24; agr. adviser, Cuba Sugar Club, 25; investigator of fungi, Panama, 28–29; consultant, Puerto Rico, 35. Harvard Cancer Cmn, 26–32; v. pres, mycol. sect, Int. Bot. Cong, Holland, 35. A.A; Soc. Nat; Bot. Soc; Phytopath. Soc; Mycol. Soc. (pres, 32); Torrey Bot. Club; Am. Acad; New Eng. Bot. Club (pres, 31–33); Harvard Travelers Club (past pres); Boston Bact. Soc; Boston Soc. Nat. Hist. (trustee, 35–). Development and relationships of aquatic fungi; downy mildews of Gramineae; plant diseases of Guam; mosaic diseases of sugar-cane in Cuba; parasitism in lower fungi; fungi of Panama; sexuality in fungi.

Westover, Prof. K(yle) C(hester), Evansdale, Morgantown, W. Va. *Horticulture.* Mansville, Que, Can, Oct. 9, 93. B.S. (Agr), New Hampshire, 17; M.S. (Agr), West Virginia, 24; Ph.D, Cornell, 36. Field asst, Fed. Hort. Board, 19; asst. horticulturist, Exp. Sta, Kentucky, 20–21; asst. prof. *hort, West Virginia*, 21–36, *assoc. prof, 36–*, asst. horticulturist, *Exp. Sta*, 21–36, *assoc. horticulturist, 36–* Summer, city supt. agr, Manchester, N. H, 17. U.S.A, 17–18. Soc. Hort. Sci; Potato Asn; W. Va. Sci. Soc. Physiological phases of agriculture; potato and vegetable truck crops.

Westra, Dr. J(acob) John, Mayo Foundation, Rochester, Minn. *Physiology.* Grand Rapids, Mich, March 2, 08. A.B, Calvin Col, 29; Henry Strong Denison fellow, Chicago, 31–32, Laura Thorne Donnelly fellow, 32–33, Ph.D, 33, M.D, 36. Asst. chem, Calvin Col, 28–29; biochem, Chicago, 30–31, physiol, 31–33; adj. prof, sch. med, Texas, 33–36; intern, Presb. Hosp, Chicago, 36–38; *fellow med, Mayo Foundation, Minnesota, 38–* Physiology of thyroid; action of alkali iodides; experimental diabetes; intestinal absorption.

Westveld, M(arinus), Allegheny Forest Experiment Station, Philadelphia, Pa. *Forestry.* Grand Rapids, Mich, July 2, 89. B.S, Mich. State Col, 13; M.F, Yale, 16. Forest asst, *U. S. Forest Service*, 13–15, examiner, 16–19, research officer in charge investigations region 3, 19–21, assoc. silviculturist, 23–29, silviculturist, 29–35, *senior silviculturist, 35–* Lieut, C.Eng, 18–19. Soc. Foresters (sec'y, southwest. sect, 20–21). Silviculture; forest management; factors affecting the establishment and development of spruce and fir reproduction in the northeast.

Westveld, Prof. R(uthford) H(enry), University of Florida, Gainesville, Fla. *Forestry.* Grand Rapids, Mich, March 18, 00. B.S, Mich. State Col, 22; M.F, Yale, 25. Junior forester, U. S. Forest Service, N. Mex, 22–24, asst. silviculturist, Oregon, 25–28; asst. prof. forestry, Mich. State Col, 28–35, assoc. prof, 35–36; asst. prof, Missouri, 36–38; *prof. silviculture, Florida, 38–* Soc. Foresters (chairman, cmt. study farm forestry, 37–39; cmt. forestry educ, 41–); Mo. Acad. (cmt. conservation, 37). Silviculture; applied silviculture in the United States; forestry in farm management.

Westwater, Dr. W(aldo), Eastman Kodak Co. Rochester, N. Y. *Physical chemistry.* London, Eng, Sept. 7, 99. B.S, California, 22, Ph.D, 25. Instr. chem, Nebraska; *research chemist, Eastman Kodak Co.* A.A; Chem. Soc. Internal pressures of liquid mixtures; solubilities in liquid mixtures; color photography.

Weswig, Dr. Paul H(enry), Oregon State College, Corvallis, Oregon. *Biochemistry.* St. Paul, Minn, July 13, 13. A.B, St. Olaf Col, 35; M.S, Minnesota, 40, Ph.D, 41. Instr. chem, St. Olaf Col, 36–37; teaching asst. biochem, Minnesota, 38–41; *asst. chemist, Exp. Sta, Oregon State Col, 41–; capt, Sanit. Corps, U. S. Army.* Chem. Soc. Mercury salts of certain acids; growth metabolism and efficiency of inbred animals as affected by physiological stimulants and inhibitors.

Wetmore, Dr. (Frank) Alexander, U. S. National Museum, Washington, D. C. ***Ornithology.* North Freedom, Wis, June 18, 86. A.B, Kansas, 12; M.S, George Washington, 16, Ph.D, 20, Sc.D, 32. Asst, museum, Kansas, 05–10; agent, bur. biol. surv, U. S. Dept. Agr, 10–12, asst. biologist, 13–24, biologist, 24; supt, Nat. Zool. Park, 24–25; *asst. sec'y, Smithsonian Institution, 25–* Asst, Colo. Museum Nat. Hist, 09. Mem. Am. Cmt. Int. Wild Life Protection. Head, Tanager exped, Pacific, 23. Trustee, Textile Museum of Washington, U. S. rep, Inter-Am. Cmt. Experts Nat. Protection Wild Life Preserves; director, Canal Zone Biol. Area. Del, Int. Ornith. Cong, Amsterdam, 30, Oxford, 34, chairman U. S. delegation, Rouen, 38, pres, 10th cong; sec'y-gen, 8th Am. Sci. Cong. Otto Herman medal; Isidore Geoffroy St. Hilaire medal. A.A; fel. Ornith. Union (pres, 26–29); Soc. Mammal; Paleont. Soc; hon. mem. Pheasant Soc; Nat. Asn. Audubon Societies (director, 29–35); Asn. Mus. (councilor, 32–); Cooper Ornith. Club; Wilson Ornith. Club; Baird Ornith. Club (pres, 28–31); Philos. Soc; Pacific Northwest Bird and Mammal Soc; Biol. Soc. Wash. (pres, 28–30); Wash. Biol. Field Club (pres, 28–30); Wash. Acad. (pres, 27); N. Y. Acad; Tenn. Ornith. Soc; Va. Soc. Ornith; Calif. Acad; Kans. Acad; cor. mem. North. Ariz. Soc. Sci. and Arts; Acad. Nat. Sci. Phila; hon. mem. Cuban Hist. Nat. Felipe Poey; cor. mem. Acad. Colombiana Cienc. Exactas, Fis-Quim. Nat; Soc. Cienc. Nat. Caldas; cor. mem. Zool. Soc. London; hon. mem. British Ornith. Union; cor. mem. Royal Australasian Ornith. Union; Deuts. Ornith. Gesell; hon. mem. Bavarian Ornith. Soc; hon. mem. Soc. ornith. et mammal. de France; cor. mem. Soc. Ornit. del Plata; hon. mem. Royal Hungarian Inst. Ornith; hon. mem. Hungarian Ornith. Soc. Economic and systematic ornithology; avian anatomy; paleontology and osteology; migration of birds.

Wetmore, Prof. F(rank) E(llsworth) W(aring), University of Toronto, Toronto, Ont, Can. *Physical chemistry.* St. John, N. B, March 19, 10. B.Sc, New Brunswick, 33; M.A, Toronto, 34, Ph.D, 37. Lecturer *chem, Toronto*, 36–40, *asst. prof, 40–* Fel. Can. Inst. Chem. Kinetics; electrochemistry.

Wetmore, Prof. R(alph) H(artley), Harvard University, Cambridge, Mass. *Botany, Morphology.* Yarmouth, N. S, Can, April 27, 92. S.B, Acadia, 21; A.M, Harvard, 22, Ph.D, 24. Nat. research fellow *bot*, Harvard, 24–25; asst. prof, Acadia, 25–26; *Harvard*, 26–32, assoc. prof, 32–43, *prof, 43–*, director bot. labs, 33–34. Summer, botanist, Can. Govt. exped, Labrador, 21. A.A; Bot. Soc; Am. Acad; Soc. Nat; New Eng. Bot. Club; Torrey Bot. Club; N. Y. Acad. Anatomy, development and phylogeny of the angiosperms.

Wettach, Dr. William, 6349 Walnut St, Pittsburgh, Pa. *Chemical engineering.* Pittsburgh, Pa, March 13, 10. B.S, Princeton, 32, Ch.E, 33; Ph.D, Pittsburgh, 41. V. pres, W. W. Lawrence and Co, 33–35; Wettach Paint and Chem. Co, 35–38; chemist, Peerless Paint and Chem. Co, 38–40; *managing director, Indust. Paint Co, 40–; v. pres, Sterling Varnish Co, 41–* Chem. Soc; fel. Inst. Chem; assoc. Chem. Eng. Liquid-liquid extraction.

Wetzel, Dr. N(orman) C(arl), 2103 Adelbert Road, Cleveland, Ohio. *Pediatrics.* Cleveland, Ohio, Feb. 16, 97. A.B, Western Reserve, 18, M.D, 21. Instr. and traveling fellow *pediat*, Univ. Col, London, 26, Zurich and Berlin, 27; senior instr, *sch. med, Western Reserve*, 28–30, asst. prof, 30–34, *assoc. prof, 34–* A.A; Am. Med. Asn; Acad. Pediat; Soc. Exp. Biol. (sec'y and chairman, Cleveland sect, 30–33); Pediat. Soc; Inst. Archeol. Physiology and mathematical analysis of growth and development; nutrition; metabolism; heart and circulation; blood and blood-forming organs; grid evaluation of physical fitness.

Wetzel, Reinhard A(ugust), 218 Tecumseh Ave, Mt. Vernon, N. Y. *Physics.* Germany, May 18, 73. B.S, Minnesota, 01; Chicago, 02, 03; Wisconsin, 04–07; Columbia, 07–09; Aachen, Germany, 14; Jena, 29–30. Teacher, high schs, Minn, Iowa and N. Dak, 01–04; asst. physics, Wisconsin, 04–07; Columbia, 07–09; tutor, Col. City of N. Y, 10–15, instr, 15–16, supervisor, Townsend Harris High Sch, 16–42; *consulting physicist, 42–* A.A; Physical Soc; Optical Soc; Math. Soc; Am. Inst; N. Y. Micros. Soc; Royal Micros. Soc; Deuts. Physik. Gesell. Universal constant of gravitation: radiation pressure; principle of relativity; electric resolution of the spectral lines of the elements; photoelectricity; alpha rays; Brownian movement; interference of light; colloidal physics.

Wetzel, Dr. W(ilfred) W(olf), University of Minnesota, Minneapolis, Minn. *Physics.* Little Falls, Minn, Jan. 30, 04. A.B, Minnesota, 28, Ph.D, 33. Asst, Minnesota, 28–33; instr. physics, Colgate, 33–36; student, Mass. Inst. Tech, 36–37; *asst. prof. geophysics, Minnesota, 37–; physicist, U. S. Navy Dept.* Lecturer, Chicago, 37– Physical Soc; Soc. Explor.

Geophys. Quantum mechanics of atomic collisions; theory of electric prospecting.

Wever, Prof. E(rnest) G(len), Princeton University, Princeton, N. J. **⁰Psychology.* Benton, Ill, Oct. 16, 02. A.B, Ill. Col, 22; A.M, Harvard, 24, Ph.D, 26. Instr. *psychol,* California, 26–27; *Princeton,* 27–29, asst. prof, 29–31, assoc. prof, 31–41, *prof, 41–* A.A; Psychol. Asn. Experimental and physiological psychology; hearing.

Wexler, Prof. Charles, 1215 Maple Ave, Tempe, Ariz. *Mathematics.* Fall River, Mass, July 5, 06. B.S, Harvard, 27, A.M, 29, Ph.D, 30. Instr. *math,* Harvard, 27–30; *prof, Ariz. State Teachers Col, Tempe, 30–; lieut, Sig. Corps, U. S. Army.*

Wexler, Dr. Harry, U. S. Weather Bureau, Washington, D. C. *Meteorology.* Fall River, Mass, March 15, 11. B.S, Harvard, 32; Sc.D, Mass. Inst. Tech, 39. Meteorologist, U. S. Weather Bur, 34–40: asst. prof. meteorol, Chicago, 40–41; *senior meteorologist, U. S. Weather Bur, 41–; capt, Air Corps, U. S. Army, 42–* Meteorol. Soc. Synoptic and dynamic meteorology; atmospheric radiation.

Weyer, Prof. Edward M(offat), College Campus, Washington, Pa. *Psychology, Philosophy.* Portsmouth, Ohio, Oct. 1, 72. Wisconsin, 91–93; A.B, Yale, 95; Ph.D, Leipzig, 98. Asst, psychol. lab, Yale, 98–99; adj. prof. *philos, Washington and Jefferson Col,* 99–05, *prof, 05–, dean, 22–,* director exten. work, 22–30, dean faculty, 31–43, *v. pres, 43–* Psychol. Asn; Philos. Asn. Time-threshold of psycho-physical and mental processes; reaction time of animals; animal consciousness.

Weyer, Dr. Edward M(offat), Jr, Explorers Club, New York, N. Y. *Anthropology, Geography.* Washington, Pa, July 12, 04. B.S, Washington and Jefferson Col, 25; Ph.D, Yale, 30. Asst. archeol, Metropolitan Museum Art, Luxor, Egypt, 25–26; geog, Yale, 30–31; prof. anthrop. and geog, Washington and Jefferson Col, 31–32; *ed, 'Nat. Hist. Magazine,' 35–* Summer, field worker, Am. Museum Nat. Hist, Ariz, N. Mex. and Colo, 29. Field anthropologist, Stoll-McCracken Arctic exped, Am. Museum Nat. Hist, 28; Peary Mem. exped, North Greenland, 32. Explorers Club. Archeological material from the village site at Hot Springs, Port Möller, Alaska; an Aleutian burial; the folkways of the Eskimos.

Weyer, Dr. Elliott R(oss), 37 W. Eighth St, New York, N. Y. *Bacteriology.* Washington, Pa, June 12, 01. B.S, Washington and Jefferson Col, 22; A.B, Yale, 23, Ph.D, 26. Chemist, Calco Chem. Co, 26–27; sec'y, McLaughlin Labs, Inc, 27–28; instr. bacter, med. sch, N. Y. Univ, 28–30; research bacteriologist, Dept. Health, New York, 29–31; asst, Rockefeller Inst, 31–32; research pathologist, Wallace and Tiernan Products, Inc, Belleville, N. J, 32–41; *assoc. director clin. research, Johnson Research Foundation, 41–* Sterling fellow, Yale; Jeremiah Milbank fellow, N. Y. Univ, 29–31; Leopold Schepp Foundation fellow, Dept. Health, New York, 31. A.A; Soc. Bact; N. Y. Acad. Med; N. Y. Acad. Medical sciences; fermentation industries; manufacture of butyl alcohol and acetone; the production of antibodies to poliomyelitis in the horse; the virus of herpes; antiseptics; germicides; disinfectants; virus diseases; experimental tuberculosis in animals; cellulose preservatives; antitoxin and serum preparation.

Weyerts, W(alter) J(ohn), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Venango, Nebr, Aug. 19, 02. B.S, Denver, 24, M S, 25. Asst. chemist, Great West. Sugar Co, 25–29; *research chemist, Eastman Kodak Co, 29–* Chem. Soc. Electrolytic recovery of silver from thiosulfate solutions; vacuum fractionation of phlegmatic liquids; photographic properties of silver sulfide; gelatin; photographic chemistry.

Weygandt, A(rthur) S(cott), E. I. du Pont de Nemours and Co, Cleveland, Ohio. *Chemistry.* Ashland, Ohio, Nov. 22, 01. B.S, Case, 24. Chemist, Dow Chem. Co, 24–25; research chemist, *Grasselli chem. dept, E. I. du Pont de Nemours and Co,* 25–28, plant chem. engineer, 28–30, *in charge research lab, 30–* Chem. Soc; Chem. Eng. Chemical engineering; contact catalysis; mineral adhesives; tanning chemicals; analytical methods.

Weyl, Prof. Charles, 255 Harvey St, Philadelphia, Pa. *Electrical engineering.* Philadelphia, Pa, May 22, 96. B.S, Pennsylvania, 17, M.S, 27. Instr. *elec. eng, Pennsylvania,* 21–25, asst. prof, 25–36, assoc. prof, 36–37, *prof, 37–, assoc. prof. radiol. physics, grad. sch. med, 36–* Eng. Standards Cmt. on Radio; physicist, med. research cmt, Nat. Tuber. Asn; director x-ray lab, Moore Sch; chief engineer, Edward Stern and Co, Inc; asst. to pres. and consulting engineer, Int. Resistance Co; v. pres. and consulting engineer, Connector Corp. Longstreth medal, Franklin Inst, 30. U. S. Navy, 17–18. A.A; Elec. Eng; Roentgen Ray Soc; Franklin Inst. Application of x-ray to pathological physiological conditions; the pulse relay; apparatus and technique for roentgenography of the chest; radiologic physics.

Weyl, Prof. (Claus Hugo) Hermann, Institute for Advanced Study, Princeton, N. J. **⁰Mathematics.* Elmshorn, Germany, Nov. 9, 85. Ph.D, Göttingen, 08, Oslo, 29; Dr.Ing, Stuttgart, 29. Privat-docent, Göttingen, 10–13; prof, Eidgen. Tech. Hochschule, Zurich, 13–30; Göttingen, 30–33; *prof, sch. math, Inst. Advanced Study, 33–* Prof, Princeton, 28–29. Lobatschefskij prize, Kazan, 26. Nat. Acad; Math. Soc; Philos. Soc; for. hon. mem. Am. Acad; Royal Soc; London Math. Soc; Göttingen Gesell. Wissensch; hon. mem. Schweiz. Math. Gesell; Acad. Sevillana; hon. mem. Soc. Matématica Española. Mathematical analysis; group theory; relativity theory and quantum mechanics; philosophy of mathematics.

Weyl, Prof. Woldemar A, Pennsylvania State College, State College, Pa. *Glass technology.* Darmstadt, Germany, June 13, 01. Dr.Ing. and Dipl.Ing, Tech. Hochschule, Darmstadt and Aachen, 25. Head dept. *glass technol,* Kaiser Wilhelm Inst. Silicate Research, Berlin, 36; *prof, Pa. State Col, 36–* Ceramic Soc; Optical Soc; Eng. Soc. Glass Tech; German Soc. Glass. Tech. Physical chemistry of glass; optical glasses; colored glasses.

Weymouth, Prof. F(rank) W(alter), Stanford University, Calif. *Physiology, Zoology.* Seattle, Wash, June 17, 84. A.B, Stanford, 09, A.M, 11, Ph.D, 23. Instr. *physiol,* Stanford, 11–12; asst, Hopkins, 12–13; asst. prof, *Stanford,* 13–22, assoc. prof, 22–31, *prof, 31–, head dept, 38–* Sci. asst, Calif. Div. Fish and Game, 19–23; asst, B. C. Provincial Fishes Dept, 14–17; temporary asst, razor clam investigation, Bur. Fisheries, 23–28, in charge shrimp investigations, 31–35. A.A; Physiol. Soc; Soc. Exp. Biol; West. Soc. Nat; fel. Calif. Acad. Taxonomy, life history and growth of American Crustacea; life history and growth of Mollusca; fishery biology; blood clotting; physiology of eye and ocular muscles; comparative metabolism.

Weysse, Dr. Arthur W(isswald), 688 Boylston St, Boston, Mass. *Biology.* Machias, Maine, Nov. 16, 67. A.B, Harvard, 91, A.M, 92, Ph.D, 94; Leipzig, 94–95; Berlin, 95; Ecole de Méd, Paris, 95–96; Naples Zool. Sta, 96; M.D, Basle, 07. Asst. bot, Harvard, and zool, Radcliffe Col, 92–94; instr. biol, Mass. Inst. Tech, 96–07; prof. exp. physiol, sch. med, *Boston,* 99–23, lecturer venereal diseases, 14–24, prof. *biol,* 04–39, *emer. prof, 39–,* acting dean grad. sch, 17–22, dean, 22–33. Lecturer, Am. Sch. for Physical Educ, 15–17. Mem, Vol. M.C, 18. Am. Acad; Boston Med. Library Asn; Boston Soc. Nat. Hist; Boston Soc. Med. Sci. Embryology of the Mammalia and other vertebrates; blood pressure.

Whalen, Dr. Herbert F(ranklin), 195 Lawrence Road, Medford, Mass. *Chemistry.* Everett, Mass, Sept. 27, 97. A.B, Boston, 20, A.M, 21; Ph.D, Princeton, 24. *Research chemist, Merrimac Chem. Co, 24–* Chem. Soc.

Whaley, Dr. A(therton) M(ikell), Research Chemicals, 578 W. Santa Clara St, San Jose, Calif. *Chemistry.* Arden, S. C, April 4, 17. B.S, South Carolina, 38; Ph.D, Ohio State, 41. *Research director, Research Chemicals, 42–* Nat. Defense fellow, 42; research chemist, Rose-Croix Univ, 42–43. Organic halogen compounds; preparation of aliphatic polychlorides and polyfluorides; chlorination; industrial synthesis of halides.

Whaley, Dr. Fred R(emington), Linde Air Products Co, Tonawanda, N. Y. *Chemistry.* Neligh, Nebr, Aug. 10, 07. B.S. Northwestern, 29; Ph.D, Hopkins, 32. Du Pont fellow, Hopkins, 33; prof. chem, Polytech. Inst. Puerto Rico, 33–36; *research chemist, Linde Air Products Co, 36–* Summer, lecturer, Puerto Rico, 35. Chem. Soc. Free radicals; product development; inorganic preparations; corrosion inhibition.

Whaley, Dr. W(illiam) Gordon, U. S. Department of Agriculture, Washington, D. C. *Botany.* New York, N. Y, Jan. 16, 14. B.S, Mass. State Col, 36; Britton fellow, Columbia, 38, univ. fellow, 39, Ph.D, 39. Biologist, Arbuckle Brothers, New York, 36–38; lecturer bot, Barnard Col, Columbia, 39–40, instr, 40–43; *assoc. agronomist, div. rubber investigations, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 43–* A.A; Bot. Soc; Genetics Soc; Soc. Hort. Sci; Soc. Growth and Develop; Torrey Bot. Club (treas, 41–). Rubber plants; meristematic tissues; heterosis.

Whalin, C(harles) V(ivion), College Park, Md. *Agricultural economics.* Bowling Green, Ky, Dec. 20, 76. A.B, Park Col, 00. Country circulation, Kansas City Star, 00; clerk and foreman, Armour and Co, Kansas City, 01–07; inspector, bur. animal indust, *U. S. Dept. Agr,* 07–14, supervising inspector, 14–16, asst. marketing specialist, marketing specialist and investigator, *bur. agr. econ,* 16–22, *chief div. marketing live stock, meats and wool, 22–* Sec'y cmt. live-stock market movements and stocks, Nat. Agr. Conf, Washington, D. C, 22. Methods and practises of marketing live stock, meats and animal products; standardization, market classes and grades of live stock, meats and wool.

Whaples, Dr. George (William), Indiana University, Bloomington, Ind. *Mathematics.* Neponset, Ill, Nov. 27, 14. A.B, Knox Col, 35; A.M, Wisconsin, 37, Ph.D, 39. Asst. *math,* Wisconsin, 37–39; fellow, Indiana, 39–41; asst, Inst. for Advanced Study, 41–42; *instr,* Hopkins, 42–43; *Indiana, 43–* Math. Soc. Algebra; linear algebras; class field theory.

Wharton, Dr. G(eorge) W(illard), Jr, Duke University, Durham, N. C. *Ecology, Parasitology.* Belleville, N. J, Jan. 25, 14. B.S, Duke, 35, Ph.D, 39. *Instr. zool, Duke, 39–; mem. staff, U. S. Navy Dept, 41–* Soc. Parasitol; Soc. Zool; Asn. Southeast. Biol; N. C. Acad. Marine ecology; taxonomy of Acarina.

Wharton, Dr. Lawrence R(ichardson), 1201 N. Calvert St, Baltimore, Md. *Medicine.* Harda, India, Oct. 11, 87. Ph.B, Hiram Col, 07; M.D, Hopkins, 15. *Asst. attending gynecologist, Hopkins Hosp, 25–, assoc. gynec, sch. med.* Assoc. gynec, Sinai Hosp; consulting gynecologist, Union Mem. Hosp; Women's Hosp; Church Home Infirmary. Urol. Asn; South. Med. Asn. (past chairman, gynec. sect); South. Surg. Asn; Baltimore City Med. Soc. (pres, 42). Female urology and gynecology.

Wharton, Dr. Linda (Terry), 609 W. 33rd St, Austin, Texas. *Genetics.* Bulape, Congo Belge, Africa, May 7, 18. A.B, Austin Col, 38; Ph.D, Texas, 42. Asst. biol, Austin Col, 36–38; tutor zool, *Texas,* 38–39, tech. asst. research in genetics, 39–42; *instr. zool, 42–* Summer, research assoc, Texas, 42. Genetics Soc. Genetics and cytology of Drosophila; speciation.

Wharton, Malcolm F(rederic), Box 2828, Phoenix, Ariz. *Horticulture.* Amarillo, Texas, Sept. 30, 95. B.S, Oregon State Col, 22, M.S, 23. Instr, Purdue, 24; hort, col. agr, Arizona, 24–26, asst. prof, 26–34, asst. horticulturist, Exp. Sta, 26–34, assoc. horticulturist, 34–38; *v. pres, Ariz. Fertilizers, 38–* Soc. Hort. Sci. Vegetable crops; lettuce; irrigation; fertilization; seed viability testing; breeding; fruit storage and shipping.

Wharton, Prof. P(ark) S(treet), Austin College, Sherman, Texas. *Biochemistry.* Sherman, Texas, May 22, 09. A.B, Austin Col, 30; A.M, Texas, 33. Tutor biochem, sch. med, Texas, 30–32, instr, 32–34; *prof. chem, Austin Col, 34–; U. S. Army, 42–* Denaturation of proteins; absorption of carbohydrates through the thoracic lymph; effect of amytal anesthesia on carbohydrate absorption.

Whatley, Prof. James A(rnold), Jr, Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal breeding.* Calvert, Texas, Feb. 26, 16. B.S, Agr. and Mech. Col. Texas, 36; M.S, Iowa State Col, 37, Ph.D, 39. *Asst. prof. animal husbandry, Okla. Agr. and Mech. Col, 39–; U. S. Army, 42–* Genetics Soc; Soc. Animal Production. Genetics; inheritance in swine.

Wheatley, Dr. George M(ilholland), Box 82, Manhasset, N. Y. *Pediatrics.* Baltimore, Md, March 21, 09. B.S, Catholic Univ, 29; M.D, Harvard, 33; fellow, N. Y. Post-Grad. Hosp, 36–37; M.P.H, Columbia, 42. Intern, Hartford Hosp, 33–35; pediat. house officer, Harriet Lane Home, Hopkins, 35–36; asst. director, Astoria Sch. Health Study, City Dept. Health, New York, 37–40; *asst. pediatrician to out-patients, New York Hosp, 38–; asst. med. director, Metrop. Life Ins. Co, 41–* Fel. Am. Med. Asn; Sch. Health Asn. (state director memberships, N. Y); fel. Pub. Health Asn; Asn. Health, Physical Educ. and Recreation. Child health; school health service.

Wheaton, Dr. I(saac) Evan, 1136 Ontario St, Evanston, Ill. *Bacteriology.* Greenwich, N. J, Sept. 11, 03. B.S, Maryland, 25, M.S, 27; Ph.D, Illinois, 33. Bacteriologist, Maryland, 28; U. S. Pub. Health Service, 28–30; asst, Illinois, 30–33; *bacteriologist, research dept, Am. Can Co, 33–* Soc. Bact. Effect of salt on bacteria; yeast; bacteriology of canned food.

Whedon, Dr. Arthur D(ewitt), North Dakota Agricultural College, Fargo, N. Dak. *Zoology.* Iowa City, Iowa, March 14, 79. A.B, Iowa, 07, M.S, 12; Ph.D, Pennsylvania, 18. Head dept. bot, high sch, Mo, 09–11; dept. biol, Minn. State Teachers Col, Mankato, 11–15; Pa. State Nor. Sch, West Chester, 15–23; instr. zool, Pennsylvania, 16–23; *prof. zool. and physiol. and head dept, N. Dak. Col, 23–* Exten. lecturer, Minnesota, 13–15. A.A; Soc. Zool; Micros. Soc; Entom. Soc; Soc. Parasitol; N. Dak. Acad. Insect anatomy; taxonomy of Odonata; cytology of metamorphosis and oögenesis in Hemimetabola.

Whedon, W(alter) Forest, 4486 Pescadero Ave, San Diego 7, Calif. *Marine biology.* Iowa City, Iowa, July 28, 04. B.S, N. Dak. State Col, 27; fellow, California, 30–35, M.S, 35. Special investigator, U. S. Navy Dept, 37–43, director, Naval Biol. Lab, 41–43; *defense work, 43–* Research assoc, Scripps Institution, California, 38–41. A.A; Soc. Bact; Ecol. Soc; West. Soc. Nat; fel. San Diego Soc. Nat. Hist. Attachment and growth of sedentary organisms on submerged surfaces.

Wheeler, Dr. A(lborn), Care of Shell Development Co, 4560 Horton St, Emeryville, Calif. *Chemical physics.* Montclair, N. J, Nov. 10, 11. B.S, Princeton, 33, M.S, 34, fellow, 34–37, Ph.D, 37. Lab. instr, Princeton, 34–37; *research chemist or chem. physicist, physics dept, Shell Develop. Co, 37–* Chem. Soc. Fundamentals of heterogeneous catalysis and adsorption on solid surfaces.

Wheeler, Mrs. Arthur Leslie (Dr. Anna Pell), Bryn Mawr, Pa. ****Mathematics.* Hawarden, Iowa, May 5, 83. A.B, South Dakota, 03; A.M, Radcliffe Col, 05; Alice Freeman Palmer fellow from Wellesley Col, Göttingen, 06–07; Ph.D, Chicago, 10; hon. Sc.D, N. J. Col. for Women, 32, Mt. Holyoke Col, 37. Instr. *math,* Mt. Holyoke Col, 11–14, assoc. prof, 14–18; *Bryn Mawr Col,* 18–25, prof, 25–26, non-res. prof, 29–32, *prof, 32–* A.A; Math. Soc; Math. Asn. Integral equations; functions of infinitely many variables.

Wheeler, Prof. Charles A(ugustus), University of Connecticut, Storrs, Conn. *Agriculture, Engineering.* Trumbull, Conn, Aug. 15, 71. A.B, Yale, 95, A.M, 03; Columbia; Wisconsin. Instr. and prof. *math,* Conn. Agr. Col, 97–30, *emer. prof,* 30–33, Conn. State Col, 33–39, *Connecticut, 39–,* engineer, 07–30. Lecturer, State Grange, Conn, 18–26; director, Willimantic Co, Inc; Willimantic Trust Co. Hon. mem. Conn. Soc. Civil Eng. (v. pres, 31, pres, 32); Hartford Eng. Club (councilor, 31–33, pres, 34). Correlation in poultry; heat transmission.

Wheeler, Prof. Charles H(oratio), 3d, University of Richmond, Richmond, Va. *Mathematics.* Wheeling, W. Va, Oct. 30, 04. B.S, Washington and Jefferson Col, 26; Ph.D, Hopkins, 33. Asst, Hopkins, 26–27, junior instr, 27–28; asst. prof. *math, Richmond,* 28–29, assoc. prof, 29–41, *prof, 41–, sec'y and treas, 42–* Summers, statistician, Geo. W. Baron and Co, Wheeling, 29, 30, 35, 36. A.A; Math. Soc; Math. Asn; Va. Acad. Pure mathematics; statistics; topology.

Wheeler, Dr. Charles Mathewson, International Health Division, Rockefeller Institute, York Ave. and 66th St, New York, N. Y. *Medical entomology, Parasitology.* Boone, Iowa, Jan. 20, 03. B.S, Iowa State Col, 25; M.S, Tennessee, 27; Ph.D, California, 36. Teaching fellow entom, Tennessee, 25–27, instr, 27–30; teaching asst, California, 30–36; asst, Pacific Inst. Trop. Med, California, 36–38, research assoc, Hooper Foundation med. research, 38–42; *mem. staff, int. health div, Rockefeller Foundation, 42–* In charge biol. work, Rainbow Bridge-Monument Valley exped, 33. Soc. Trop. Med. Equine encephalomyelitis; relapsing fever; Ixodidae; Argasidae; Siphonaptera; Anoplura; sylvatic plague; typhus fever.

Wheeler, Dr. D(onald) H(yde), General Mills, Inc, Minneapolis, Minn. *Chemistry.* Columbus, Ohio, Aug. 19, 05. A.B, Oberlin Col, 27; M.S, Maryland, 31, Ph.D, 40. Research chemist, U. S. Indust. Alcohol Co, 27–29; asst, Maryland, 29–31; asst. chemist, U. S. Treasury Dept, 32–34; research chemist, Kilgore Develop. Corp, 35–36; assoc. chemist, bur. chem. and soils, U. S. Dept. Agr, 36–37, biochemist, 37–39, senior chemist, regional soybean indust. lab, bur. agr. chem. and eng, 39–43; *research chemist research labs, Gen. Mills, Inc, 43–* Chem. Soc. Foods; plant products; rancidity of edible oils; antioxidants for edible oils; drying oils; fatty acids.

Wheeler, E(dwin) B(ennett), 2059 Midlothian Drive, Pasadena, Calif. *Physics.* Detroit, Mich, Sept. 20, 73. B.S, Mis-

souri, 01; Columbia, 04–07. Instr. physics, Union (N. Y), 01–03; asst, Columbia, 04–07; prof, Clarkson Tech, 08–14. A.A; fel. Physical Soc.

Wheeler, Dr. G(eorge) A(lexander), Charlotte Road, Spartanburg, S. C. *Public health.* Higgins, N. C, March 10, 85. M.D, Virginia, 13. Acting asst. surg, *U. S. Pub. Health Service*, 13–14, asst. surgeon, 14–18, passed asst. surgeon, 18–22, *surgeon, div. sci. research, 22–* Am. Med. Asn; South. Med. Asn. Nutritional diseases; pellagra.

Wheeler, Prof. George C(arlos), University of North Dakota, Grand Forks, N. Dak. *Entomology.* Bonham, Texas, April 10, 97. A.B, Rice Inst, 18; M.S, Harvard, 20, Sc.D, 21. Instr. entom, Syracuse, 21–24, asst. prof, 24–26; *prof. biol. and head dept, North Dakota, 26–* Summer, Barro Colo. Island Lab, Inst. for Research Trop. Amer, C. Z. and United Fruit Co, Panama and Costa Rica, 24. A.A; Entom. Soc; Limnol. Soc. Ant larvae; ants of North Dakota; Eucharidae.

Wheeler, Girard (Emory), 1 Milligan Place, New York, N. Y. *Engineering geology.* Westfield, N. J, July 22, 02. B.S, Dartmouth Col, 25; Ph.D, Columbia, 37. Petrol. geologist, Mid-Continent Petrol. Corp, 25–29; instr. geol, Rutgers, 35–39; *chief subsurface explor. sect, City Dept. Pub. Works, New York, 39–* N. Y. Acad; N. Y. Soc. Munic. Eng. Eastern Triassic structure.

Wheeler, Harold A(lden), 18 Melbourne Road, Great Neck, N. Y. *Radio engineering.* St. Paul, Minn, May 10, 03. B.S, George Washington, 25; Hopkins, 25–28. *Engineer and v. pres, Hazeltine Electronics Corp, 24–* Liebmann prize, Inst. Radio Engineers, 40. Fel. Radio Eng. (director, 40–42); fel. Radio Club Amer. Radio and television.

Wheeler, H(arry) E(dgar), 1800 S. Taylor St, Little Rock, Ark. *Ornithology.* Birmingham, Ala, May 18, 74. Lehigh, 91–93; Vanderbilt, 95–96. Educ. staff, Field Museum, 24–25; curator in charge, Ala. Museum Nat. Hist, 25–28; curator, Birmingham Museum, 28–33; private research, 33–43; *mineralogist, Ark. Geol. Surv, 43–* Summers, director, Highlands Museum and Biol. Lab, Highlands, N. C, 35–38. Malacol. Union; Ark. Acad. Natural history; conchology; paleontology; scientific biography; installation of natural history and scientific collections.

Wheeler, Dr. Harry E(ugene), University of Nevada, Reno, Nev. *Geology.* Pipestone, Minn, Feb. 1, 07. B.S, Oregon, 30; Jordan fellow, Stanford, 30–33, A.M, 32, Ph.D, 35. Asst, Oregon, 28–30; field asst, U. S. Geol. Surv, 30, topog. branch, 35; instr. *geol, Nevada*, 35–36, asst. prof, 36–42, *assoc. prof, 42–; stratigrapher, State Bur. Mines, Nev, 36–; geologist, State Anal. Lab, Nev, 36–* Paleont. Soc. Stratigraphy; paleontology.

Wheeler, Dr. H(elen)-M(ar), 1536 Oxford St, Berkeley, Calif. *Botany.* Cloverdale, Calif, May 4, 07. A.B, California, 27, A.M, 29, Ph.D, 34. Teaching fellow bot, California, 27–29, asst, 31–34; biol, Williams Junior Col, 31–32; *research assoc. bot, California, 34–, cytologist, 43–* Bot. Soc. Cytotaxonomy; wild Australian tobaccos.

Wheeler, H(erbert) A(llen), Security Bldg, St. Louis, Mo. *Mining engineering.* Brooklyn, N. Y, 59. E.M, Columbia, 80. Prof. mining, Washington (St. Louis), 83–95; *consulting engineer, 95–* Asst. geologist, Mo. Geol. Surv, 90–95. Min. and Metal. Eng; Ceramic Soc. (pres, 99); St. Louis Acad; St. Louis Eng. Club. Clays; economic and oil geology.

Wheeler, Dr. H(omer) J(ay), 386 N. Fullerton Ave, Upper Montclair, N. J. *[2]Geology, Agronomy.* Bolton, Mass, Sept. 2, 61. B.S, Mass. Col, 83, hon. Sc.D, Mass. State Col, 33; Ph.D, Göttingen, 89; hon. Sc.D, Brown, 11. Asst. chemist, Mass. Exp. Sta, 83–87; chemist, R. I. Exp. Sta, 89–05, agronomist, 97–12, director, 01–12, prof. geol, R. I. Col, 89–12, acting pres, 02–03, prof. agr. chem, 03–07; manager agr. service bur, Am. Agr. Chem. Co, 12–31; *consultant, 31–* R. I. Conservation Cmn; chairman, cmt. soils and fertilizers, Nat. Research Council, 17–19. A.A; Soc. Agron. (pres); Chem. Soc; Agr. Chem. (pres, 02). Soils; manures; the occurrence of injurious acidity in upland soils; seaweeds; potato scab; crop rotation; grass manuring and composition of the crop; sodium salts and their functions in soils and plants; relations of lime and magnesia to plant growth; manures and fertilizers; citrus culture in Florida and California; market crops of Florida.

Wheeler, Dr. John A(rchibald), Princeton University, Princeton, N. J. *[2]Physics.* Jacksonville, Fla, July 9, 11. Ph.D, Hopkins, 33. Nat. research fellow, N. Y. Univ. and Copenhagen, 33–35; *asst. prof. physics,* North Carolina, 35–38; *Princeton, 38–; consultant, Nat. Defense Research Cmt, 41–; physicist, du Pont Co, 43–* Mem. staff, metal. lab, Chicago, 42–43. Assoc. ed, 'Physical Rev,' 40–43. A.A; Physical Soc; N. Y. Acad. Theory of dispersion and absorption of radiation; atomic and nuclear scattering; nuclear structure; fission of uranium; statistical treatment of atomic structure; electromagnetic action at a distance.

Wheeler, Dr. Kenneth M(onroe), 1179 Main St, Hartford, Conn. *Bacteriology, Immunology.* Great Barrington, Mass, June 19, 10. B.S, Mass. State Col, 32; M.S, Brown, 34, Ph.D, 37; Harvard, 35–36. Lab. asst. biol, Brown, 34–35, Corinna Borden Keen research fellow, 37–38; *research microbiologist, State Dept. Health, Conn, 38–* A.A; Soc. Bact; Asn. Immunol; Pub. Health Asn. Human and animal blood groups; heterophile antigens; coliform bacteria; dysentery bacteriophage.

Wheeler, L(eslie) A, 810 Dorset Ave, Kenwood, Md. *Agricultural economics.* Ventura, Iowa, Dec. 20, 99. A.B, Pomona Col, 21; M.B.A, Harvard, 23. Special agent, surv. world trade in agr. products, U. S. Dept. Commerce, 23–24, asst, foodstuffs div, 24–26; from assoc. economist to *prin. economist, bur. agr. econ, U. S. Dept. Agr, 26–*, acting in charge, for. agr. service div, 31–34, in charge, 34–39, *director office for. agr. relations, 39–* International trade in agricultural products.

Wheeler, Dr. Louis C(utter), University of Pennsylvania, Philadelphia, Pa. *Systematic botany.* La Verne, Calif, Aug. 2, 10. A.B, California at Los Angeles, 33; A.M, Claremont Cols, 34; Ph.D, Harvard, 39. Asst. to technician, U. S. Forest Service, 34–35; asst, Gray Herbarium, Harvard, 36–39; *instr.* bot, Missouri, 39–40; bot. and biol, American Univ. (D. C), 40–41; *bot, Pennsylvania, 41–* Summers, state park nature guide, Point Lobos Reserve, Calif, 36, ranger-naturalist, Nat. Capital Parks, Washington, D. C, 41. Bot. Soc; Soc. Plant Taxon; Sullivant Moss Soc; New Eng. Bot. Soc; Bot. Soc. Wash; Biol. Soc. Wash. Taxonomy of North American Euphorbiaceae; Euphorbiaceae of the New World; Hevea and other euphorbiaceous rubber plants.

Wheeler, Dr. L(ynde) P(helps), 2317 20th St, N. W, Washington, D. C. *Physics.* Bridgeport, Conn, July 27, 74. Ph.B, Yale, 94, Ph.D, 02. Asst. physics, Sheffield Sci. Sch, Yale, 95–01, instr, 01–06, asst. prof, 06–23, assoc. prof, 23–26; physicist, U. S. Naval Research Lab, 26–33, consulting physicist, 33–36; *chief tech. information sect, Fed. Communications Cmn, 36–* A.A; Physical Soc; Radio Eng. (pres, 43). Physical optics; thermodynamics; electrical theory; metallic reflection in various media; radioactivity; high frequency alternating current; thermionic vacuum tubes.

Wheeler, Mary W(aterbury), 305 New Scotland Ave, Albany, N. Y. *Bacteriology.* Deposit, N. Y, 91. B.S, Cornell, 12, A.M, 16. *Assoc. bacteriologist, div. labs. and research, State Dept. Health, N. Y, 16–* A.A; Soc. Bact; Asn. Path. and Bact; Asn. Immunol; Soc. Exp. Biol; N. Y. Asn. Pub. Health Labs. Production, nature and antigenic properties of bacterial toxins.

Wheeler, Prof. N(athaniel) E(rnest), R.F.D. 4, Manchester, N. H. *Physics.* Dunbarton, N. H, June 29, 81. B.S, Colby Col, 09; M.Sc, McGill, 11. Demonstrator physics, McGill, 09–11, senior demonstrator, 11–14, lecturer, 14–18, asst. prof, 18–20; assoc. prof, Colby Col, 20–21, prof, 21–42; *retired.* A.A; Physical Soc; Eng. Educ; Asn. Physics Teachers. Thermal expansion of rock at high temperatures; graphite-carbon thermocouples for high temperature measurements; electrolytic conductivity.

Wheeler, O(rby) C(linton), 56 Church St, Toronto, Ont, Can. *Geology.* Gainesville, Texas, Oct. 30, 98. Texas, 16–21; A.B, Stanford, 28. Cooperating chemist and asst. geologist, U. S. Geol. Surv. and Bur. Econ. Geol, Texas, 19–20; geologist, Trop. Oil Co, 21–37; *chief geologist, Int. Petrol. Co, Ltd,* 37–Asn. Petrol. Geol; Min. and Metal. Eng; Can. Inst. Min. and Metal. Petroleum geology.

Wheeler, Dr. P(aul) A(llen), St. Louis City Hospital, St. Louis, Mo. *Bacteriology.* Bonham, Texas, Sept. 7, 03. A.B, Texas, 25; B.S, North Dakota, 30; M.D, Vanderbilt, 32. Res. pathologist, Barnes Hosp, St. Louis, 32–33; *St. Louis City Hosp, 33–35, city bacteriologist, Snodgrass lab, 35–* Prevalence and diagnosis of lymphogranuloma inguinale; cerebral varices.

Wheeler, Philip R(idgly), Captain of the Port, Room 107, Customshouse Bldg, New Orleans, La. *Forestry.* Grand Rapids, Mich, July 21, 07. B.S.F, Michigan, 29, M.F, 30. Auxiliar do Organizador do Servico Florestal do Brasil, Rio de Janeiro, 30–31; junior forester, South. Forest Exp. Sta,

U. S. Forest Service, 31–34, asst. forest economist, 34–35, assoc. forest economist and computing chief, south. forest surv, 35–39, forest economist in charge mensurational analyses, south. forest surv, 39–42; *lieut, U. S. Coast Guard Res, 42–* Soc. Foresters. Regional forest volume growth; forest survey mensurational methods and procedure; forest stand tables in relation to density of stocking random versus systematic forest survey sampling.

Wheeler, Dr. Ralph E(merson), 676 Hammond St, Brookline, Mass. *Bacteriology.* Chicago, Ill, May 29, 01. A.B, Harvard, 22, M.D, 26; Dr.P.H, Hopkins, 32. Assoc. epidemiol, Milbank Mem. Fund, 32–39; surgeon, U. S. Pub. Health Service, 39–41; asst. prof. prev. med, *med. sch,* Vanderbilt, 41–43; *prof. bacter, Tufts Col, 43–* Epidemiology; clinical bacteriology.

Wheeler, Prof. Raymond H(older), University of Kansas, Lawrence, Kans. *Psychology.* Berlin, Mass, March 9, 92. A.B, Clark, 12, A.M, 13, fellow, 14–15, Ph.D, 15. Instr. *psychol,* Oregon, 15–16, asst. prof, 16–18, *prof,* 19–25, *Kansas,* 25–, director labs, 22–25, *chairman dept, 25–* Summers, lecturer, Washington (St. Louis), 16, Stanford, 20, 21, 35; California, 22; Iowa, 25, 27, 28, 30; Texas, 26. Psychol. Asn. Experimental, educational, systematic and gestalt psychology; psychology of the blind; volition; learning; integration of the sciences; curriculum; climate, history and human behavior.

Wheeler, Dr. Richard C(arvel) H(ensen), 5 Eastern Ave, Eastport, Md. *Electrical engineering.* Baltimore, Md, Aug. 23, 01. B.E, Hopkins, 23; Coffin fellow, Rensselaer Polytech, 24, D.E, 26. Asst. prof. physics, South. Methodist, 26–27; *elec. eng,* Arkansas, 27–29; *assoc. prof, post-grad. sch, U. S. Naval Acad, 29–,* acting head physics dept, 32–36; *lieut. commander, U. S. Naval Res.* Testman, Consol. Gas and Elec. Power Co; Hartford Elec. Light Co; develop. engineer, Bell Tel. Labs. A.A; Elec. Eng. Magnetic and other physical properties of alloys of cobalt-nickel; alloy of cobalt-nickel with the smallest hysteresis coefficient known in 1927; dimensional analysis; remote control.

Wheeler, Prof. Ruth, Vassar College, Poughkeepsie, N. Y. *Physiological chemistry, Nutrition.* Plains, Pa. Aug. 5, 77. A.B, Vassar Col, 99; Ph.D, Yale, 13. Teacher, high schs, Pa. and N. Y; chem, Pratt Inst; dietetics and nutrition, Illinois, 12–13, assoc, 13–15, assoc. prof. household science, 15–18; prof. home econ. and head dept, Goucher Col, 18–21; nutrition, col. med, Iowa, 21–26; *prof. physiol. and nutrition, Vassar Col, 26–,* director summer inst. euthenics, 28–42. Consultant, Presb. Hosp, and lecturer, dept. med, Columbia, 26–30. Past mem. ed. board, 'Jour. Home Econ.' Chairman nat. advisory cmt. on nutrition, Am. Red Cross, 17–20; sect. human nutrition, Nat. Research Council. A.A; Soc. Biol. Chem; Home Econ. Asn; Dietetic Asn. (pres, 24–26, past mem. ed. board, 'Jour'); Inst. Nutrition. Dietetics; nutrition; education; euthenics.

Wheeler, Prof. S(herman) S(haw), University of Wyoming, Laramie, Wyo. *Animal husbandry.* Kobe, Japan, Nov. 3, 01. B.S, Iowa State Col, 23, Ph.D, 42; M.S, Colo. Agr. Col, 24. Instr. animal husbandry, West Virginia, 24–25; *Wyoming,* 25–27, asst. prof, 27–29, assoc. prof, 30–42, *prof. animal production, 42–* Soc. Animal Production. Nutritional investigations with beef cattle and sheep.

Wheeler, Thorne L, 992 Memorial Drive, Cambridge, Mass. *Engineering.* Chatham, N. Y, June 8, 88. A.B, Yale, 09; B.S, Mass. Inst. Tech, 11. Supt. refinery, South. Cotton Oil Co, N. J, 11–16, works manager, 16–17; partner, Wheeler and Woodruff, N. Y, 19–25; chem. engineer and later *asst. director research, Arthur D. Little, Inc, 25–, v. pres, 36–* Capt. and major, in charge develop. control lab, C.W.S, 17–19, consultant, 19– Chem. Eng; Chem. Soc; Soc. Cotton Products Analysts. Chemical engineering.

Wheeler, W(illiam) A(rchie), 5616 Grove St, Chevy Chase, Md. *Botany.* Stockton, Minn, June 28, 76. B.Agr, Minnesota, 00, M.S, 01. Asst. hort. and forestry, Minnesota, 97–98, bot, 98–00, instr, 00–01, sch. agr, 01–03; prof. bot. and entom, S. Dak. Col. and Exp. Sta, 03–07; sec'y, Dak. Improved Seed Co, 07–16; seed reporting service, bur. markets; *U. S. Dept. Agr,* 16–19, investigator on seed conditions in Europe, 19–20, in charge market information, 20–22, chief hay, feed and seed div, bur. agr. econ, 22–39, special consultant seed marketing, agr. marketing admin, 39–41, *in charge veg. seed production, war food admin, 41–* In charge herbarium work, Minn. Bot. Surv, 00–03; botanist, S. Dak. Geol. and Nat. Hist. Surv, 03–07. Fel. Minn. Bot. Soc. Agricultural botany; grasses and forage plants; seed-marketing investigations; standardization of farm products.

Wheelon, Dr. Homer, 5126 E. 42nd Ave, Seattle, Wash. *Physiology.* San Jose, Calif, June 29, 88. A.B, Washington (Seattle), 11; M.S, St. Louis, 16, M.D, 18. Asst. zool, Washington (Seattle), 10–11; biol, Oregon, 11–12; physiol, St. Louis, 14–18, asst. prof, 18–21; house physician, Bethesda Hosp, St. Louis, 18–20; *practising physician.* Summer, asst, Chicago, 14. Physiol. Soc; Col. Physicians; Asn. Study Int. Secretions; Am. Med. Asn. Clinical physiology; internal secretions; gastric and duodenal motility.

Wheeting, Dr. Lawrence C(lifford), State College of Washington, Pullman, Wash. *Soils.* Imlay City, Mich, March 7, 96. B.S, Mich. State Col, 16, M.S, 17; Ph.D, Wisconsin, 28. Asst. prof. and research asst. soils, Mich. State Col, 19–28; chief bur. soil investigations, United Fruit Co, 28–30; assoc. *soils, State Col. Wash,* 31–37, *research prof, 37–; major, Inf, U. S. Army, 42–* Tech. adviser, State Planning Council, Wash. A.A; Soc. Agron; Soil Sci. Soc. (v. pres, 36, chairman, sect. v, 37); West. Soc. Soil Sci. (pres, 41); Int. Soc. Soil Sci. Salts in soils; soil profiles; soil colloids; methods for determination of available potassium in soils; land classification; fertilizer ratios.

Whelan, Don B(ion), 3855 Orchard St, Lincoln, Nebr. *Entomology.* Hillsdale, Mich, Nov. 25, 87. A.B, Hillsdale Col, 10; M.S, Kans. State Col, 14; Ohio State, 14–15; Nebraska. Asst, Ohio State, 14–15; exten. entomologist, Mich. State Col, 15–19; entomologist, Dow Chem. Co, Mich, 19–20; exten. entomologist, Idaho, 22–23; instr. entom, *Nebraska,* 23–25, asst. prof, 25–41, *exten. entomologist, 41–* Entom. Soc. Amer; Kans. Entom. Soc. (v. pres, 41, pres, 42). Prairie ecology; key to the Nebraska cutworms of corn; use of plastics in entomology.

Wheland, Dr. G(eorge) W(illard), University of Chicago, Chicago, Ill. *Chemistry.* Chattanooga, Tenn, April 21, 07. B.S, Dartmouth Col, 28; A.M, Harvard, 29, Ph.D, 32. Research fellow chem, Calif. Inst. Tech, 32–36; Guggenheim Mem. Foundation fellow, Univ. Col, London, and Oxford, 36–37; instr. *chem, Chicago,* 37–43, *asst. prof, 43–* Chem. Soc. Organic chemistry; application of quantum mechanics to organic chemistry.

Whelen, Dr. Myron S(eward), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry.* Powassan, Ont, Can, April 22, 02. B.Sc, Saskatchewan, 26, M.Sc, 27; Nat. Research Council Can. bursar, McGill, 27–28, student, 28–29, Ph.D, 29. Demonstrator, Saskatchewan, 26–27; *research chemist, E. I. du Pont de Nemours and Co,* S. Milwaukee, 29–38, *Jackson lab, 38–* Chem. Soc. Acylisoureas; diurethanes; cyclic acetals of glycerol; glycerol-betamono methyl ether; vat dyestuffs of the anthraquinone series.

Whelpton, P(ascal) K(idder), Miami University, Oxford, Ohio. *Statistics.* Buffalo, N. Y, Feb. 22, 93. B.S, Cornell, 15. Teacher, high sch, N. Y, 15; exten. work agr. econ, U. S. Dept. Agr, 16–18; Nebraska, 19; prof. farm management, Agr. and Mech. Col. Texas, 20–24; asst. director, *Scripps Foundation, Miami (Ohio),* 24–40, *assoc. director, 40–* Investigator, President's Research Cmt. on Social Trends; consultant, U. S. Bur. Budget; Nat. Resources Planning Board; Social Security Board; Popul. Asn. del. and chairman, Am. Nat. Cmt, Int. Union Sci. Investigation Popul. Problems and Int. Popul. Cong, Paris, 37. Fel. Statist. Asn; Econ. Asn; Popul. Asn. (pres, 41); Sociol. Soc; Sociol. Research Asn. Population problems; future growth of population of the United States and various states; changes in age composition; extent and causes of differences in fertility by race, nativity, rural or urban residence and occupation.

Wherry, Dr. Edgar T(heodore), University of Pennsylvania, Philadelphia, Pa. ***Chemistry, Plant ecology.* Philadelphia, Pa, Sept. 10, 85. B.S, Pennsylvania, 06, Ph.D, 09; Heidelberg, 10. Instr. miner, Lehigh, 08–10, asst. prof, 10–13; asst. curator miner. and petrol, dept. geol, U. S. Nat. Museum, 13–17; crystallographer, bur. chem, U. S. Dept. Agr, 17–22, chemist in charge crop chem. lab, 22–24, senior chemist, 24–27, prin. chemist, 27–30; assoc. prof. *bot, Pennsylvania,* 30–41, *prof, 41–* Lecturer, Wagner Free Inst, 08–13; asst, Pennsylvania, 08–10. Ed, 'Am. Mineralogist,' 19–21. A.A; Chem. Soc; fel. Geol. Soc; Miner. Soc. (pres, 23); Ecol. Soc; Bot. Soc; Fern Soc. (pres, 34–38); Pa. Acad. (pres, 35); Wash. Acad; Acad. Nat. Sci. Phila; Phila. Miner. Soc. Hydrogen ion concentration in relation to plant distribution; ecology of plants of barrens; Polemoniaceae; native ferns.

Wherry, Prof. Robert J(ames), University of North Carolina, Chapel Hill, N. C. *Psychology.* Middletown, Ohio, May 16, 04. B.S, Ohio State, 25, A.M, 27, Ph.D, 29. Asst. *psychol,* Ohio State, 27–29; prof, Cumberland, 29–37; asst. prof, *North Carolina,* 37–39, *assoc. prof, 39–* Psychol. Asn; Psychometric Soc. Clinical psychology; memory; personnel; statistics; multiple regression methods; shrinkage; curve fitting.

Whetstone, Dr. George A(rthur), Amarillo College, Amarillo, Texas. *Mathematics, Mechanics.* Butte, Mont, May 22, 12. B.S. and M.S, Washington (Seattle), Ph.D, 39. *Instr. math. and eng, Amarillo Col, 40–, head dept. eng, 41–* Instr, eng, science, management war training, Texas Tech. Col, 42. Eng. Educ; Math. Asn. Systems of partial differential equations; elasticity.

Whetzel, Prof. H(erbert) H(ice), Cornell University, Ithaca, N. Y. *[8]Plant pathology.* Near Avilla, Ind, Sept. 5, 77. A.B, Wabash Col, 02, A.M, 06, Sc.D, 31; Sc.D, Porto Rico, 26; Cornell. Asst. bot, *Cornell,* 02–04, instr, 04–06, asst. prof, *col. agr,* 06–07, *plant path,* 07–09, *prof, 09–,* head dept, 06–22. Fungi and plant disease investigation, P. R, 16, 24; Bermuda, 21–22, 26; Europe, 30. A.A; Phytopath. Soc. (pres); Bot. Soc; Mycol. Soc; British Mycol. Soc. Botrytis diseases; taxonomy of Botrytis and Sclerotinia species; mycological surveys of the American tropics.

Whiffen, Dr. Alma J(oslyn), Harvard University, Cambridge, Mass. *Botany.* Hammonton, N. J, Oct. 25, 16. A.B, Maryville Col, 37; A.M, North Carolina, 39, Ph.D, 41. Asst. *bot,* North Carolina, 39–42; *nat. research fellow, Harvard, 42–* Bot. Soc; Mycol. Soc; N. C. Acad. Morphology and taxonomy of the lower fungi; cellulose decomposition by the saprophytic chytrids.

Whipple, Dr. Allen O(ldfather), 622 W. 168th St, New York, N. Y. *Surgery.* Urmia, Persia, 81. B.S. Princeton, 04; M.D, Columbia, 08, Sc.D, 29. *Prof. surg, col. physicians and surg, Columbia, and director surg. service, Presb. Hosp, 21–* Ed. in chief, 'Nelson's Loose-Leaf Surg'; ed. board, 'Annals of Surg.' Trustee, Princeton; American Univ, Beirut. Chairman subcmt. infected wounds and burns, Nat. Research Council; chairman, Am. Board Surg, 41– A.A; Surg. Asn. (pres, 39); Col. Surg; Soc. Clin. Surg. (pres, 35–37); Surg. Research Soc; Am. Med. Asn; Interurban Surg. Soc; N. Y. Surg. Soc. (pres, 33–35); N. Y. Acad. Med; Soc. Argentina de Cirujanos; Soc. Int. de Chirurg. Physiology of the biliary tract and of the pancreas; anatomy and circulation of the spleen.

Whipple, Prof. Clyde C(olburn), 25 Cushman Road, Scarsdale, N. Y. *Electrical engineering.* North Pomfret, Vt, Jan. 14, 92. B.S, Worcester Polytech, 15, E.E, 31; Columbia. Asst. elec. eng, Worcester Polytech, 16; instr, New Hampshire, 17; physics, Pratt Inst, 17–18; engineer, West. Elec. Co, New York, 18; engineer, Klaxon Co, 18–20; instr. *elec. eng, Polytech. Inst. Brooklyn,* 20–24, asst. prof, 24–30, assoc. prof, 30–40, *prof, 40–* Visiting assoc. prof, Princeton, 30–31. Elec. Eng. (chairman, N. Y. sect, 42); Illum. Eng. Soc; Eng. Educ.

Whipple, Dr. Fred L(awrence), Harvard Observatory, Cambridge, Mass. *[7]Astronomy.* Red Oak, Iowa, Nov. 5, 06. A.B, California, 27, Lick Observatory fellow, 29–31, Ph.D, 31. *Mem. staff, Harvard Observatory, 31–* Summers, instr, Stanford, 29; California, 31. Astron. Soc. (councilor, 41–); fel. Am. Acad; Astron. Soc. Pacific. Photometry; computation of comet and planet orbits; spectrophotometry of Cepheid variable stars; comet discoveries; colors of external galaxies; novae; meteor orbits; earth's upper atmosphere; stellar evolution; earth, moon and planets.

Whipple, Dr. George H(oyt), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *[8]Pathology.* Ashland, N. H, Aug. 28, 78. A.B, Yale, 00, hon. A.M, 27; M.D, Hopkins, 05; hon. Sc.D, Colgate, 27, Wesleyan, 35, Trinity Col, 36; LL.D, California, 35, Tulane, 35; hon. Dr, Athens, 37. Asst. path, Hopkins, 05–06, instr, 06–07; pathologist, Ancon Hosp, Panama, 07–08; res. pathologist, Hopkins Hosp, 08–14, assoc. path, Hopkins, 08–10, assoc. prof, 10–14; prof. research med, California, and director, Hooper Foundation, 14–21, dean med. sch, 20–21; *prof. path. and dean sch. med. and dentistry, Rochester, 21–* Charles Mickle fellow, Toronto, 38. Trustee, Rockefeller Foundation, 27; mem. board sci. directors, Rockefeller Inst, 36, trustee, 39–; Gen. Educ. Board, 36. 'Popular Sci. Monthly' award and medal, 30; shared Nobel prize med, Royal Swedish Acad, 34. Nat. Acad; A.A; Asn. Path. and Bact. (v. pres, 28, pres, 29); Soc. Exp. Path. (pres, 25); Physiol. Soc; Am. Physicians; Am. Med. Asn; Soc. Exp. Biol; Philos. Soc. Tuberculosis; uncinariasis; black-water fever; pancreatic lesions; chloroform poisoning in animals; pigment metabolism; hemoglobin formation in anemia; biliary constituents; plasma protein regeneration; iron metabolism.

Whipple, G(eorge) Leslie, 1215 Atlantic Ave, Long Beach, Calif. *Paleontology.* Unity, N. H, Dec. 22, 02. A.B, California at Los Angeles, 27; A.M, California, 29. *Paleontologist, Standard Oil Co. of Calif, Mex, 31–* A.A; Paleont. Soc; Soc. Econ. Paleont. and Miner; Asn. Petrol. Geol. Orbitoid Foraminifera of the Far East.

Whipple, Prof. Melville C(onley), Harvard University, Cambridge, Mass. *Sanitary engineering.* Olean, N. Y, May 7, 83. Polytech. Inst. Brooklyn, 06. Chemist, Hazen and Whipple, 06–11; instr, *eng. sch, Harvard,* 11–26, asst. prof. *sanit. chem,* 26–40, *assoc. prof, 40–* Consultant, water purification projects, 11– Capt, Sanit.C, 18–19. A.A; Chem. Soc; fel. Pub. Health Asn; Water Works Asn; New Eng. Water Works Asn; New Eng. Sewage Works Asn. Sanitary chemistry and biology; purification; corrosion of water pipe-lines.

Whipple, Prof. Ralph W(heaton), Marietta College, Marietta, Ohio. *Geology.* Philadelphia, Pa, Oct. 5, 90. B.S, Amherst Col, 14, A.M, 17; Paris, 28–29. Geol. staff, Amherst Col, 14–17; prof. geol, *Marietta Col,* 19–26, *Ebenezer Baldwin Andrews prof. nat. science and curator museum, 26–* U.S.A, 17–19. Fel. Am. Geog. Soc; Ohio Acad. Permian stratigraphy; sedimentary petrography.

Whipple, Prof. William, Louisiana State University, Baton Rouge, La. *Steam engineering.* Cold Spring, N. Y, Jan. 27, 80. B.S, Mass. Inst. Tech, 01. Engineer, U. S. Leather Co, N. Y, 03–05; supt, Cinclare Cent. Factory, Cinclare, La, 05–28; sugar eng. specialist, Exp. Sta, *Louisiana,* 29–33, *prof. steam eng, 29–* Mech. Eng; La. Eng. Soc; Asn. Hawaiian Sugar Technol; Int. Soc. Sugar Cane Technol. Artificial drying of agricultural products; sugar technology; boiler tests.

Whirl, Dr. S(olomon) F(rederick), 435 Sixth Ave, Pittsburgh, Pa. *Chemical engineering.* Spencerville, Ohio, March 13, 06. A.B, Ohio State, 28, M.S, 31, fellow, 31–33, Ph.D, 33. Research chemist, Eastman Kodak Co, 28–29; asst, Ohio State, 29–31; chemist, *Duquesne Light Co,* 33–36, chem. engineer, 36–37, *chief chemist, 37–* Chem. Soc; Soc. Test. Mat; Dist. Heating Asn; Eng. Soc. West. Pa. Steam electric power generation; boiler waters as related to corrosion, scale, formation, metal cracking and entrainment; stability of lubricating and insulating oils under various conditions; ferrous and nonferrous metallurgy; treatment of cooling water for the prevention of slime, scale and corrosion.

Whistler, Dr. Roy L(ester), U. S. Department of Agriculture, Peoria, Ill. *Carbohydrate chemistry.* Morgantown, W. Va, March 21, 12. B.S, Heidelberg Col, 34; M.S, Ohio State, 35; Ph.D, Iowa State Col, 38. Instr. chem, Iowa State Col, 35–38; research assoc, textile foundation, Bur. Standards, 38–40; *chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Lecturer, Bradley Polytech, 41–42. Chem. Soc. Structure of simple sugars, cellulose and starch.

Whitacre, Prof. Francis M(arion), 1309 Winston Road, South Euclid, Ohio. *Organic chemistry.* Salamonia, Ind, April 10, 05. A.B, Indiana, 27, A.M, 28, Ph.D, 35; Michigan, 31. Instr. gen. chem, *Case,* 29–31, chem. eng, 31–34, *org. chem,* 34–35, asst. prof, 35–38, *assoc. prof, 38–, sec'y grad. sch; director research, Strong-Cobb Co.* A.A; Chem. Soc; Ind. Acad; Int. Asn. Anesthetists; fel. Int. Col. Anesthetists. Natural and synthetic anesthetics and drugs and their relationship to chemical structure, esterification and plastics.

Whitaker, Dr. A(rthur) C(harles), 725 Washington Ave, Oakmont, Pa. *Organic chemistry.* Wynnewood, Okla, April 24, 12. B.S, Idaho, 36, M.S, 38; fellow, Purdue, 40–42, Ph.D, 42. Asst, Idaho, 36–38; Purdue, 38–40; *synthetic org. chemist, Gulf Research and Develop. Co, 42–* Organic synthesis; hydrogenation of benzenoid compounds.

Whitaker, Prof. Douglas (Merritt), Stanford University, Calif. *[6]Zoology, Biology.* Stanford University, Calif, March 5, 04. A.B, Stanford, 26, Ph.D, 28; Columbia, 27. Asst. zool, Stanford, 26, instr. physiol, 28–29; nat. research fellow physiol, Harvard, 29–30; asst. prof. zool, Columbia, 29–31; assoc. prof. biol, *Stanford,* 31–32, *prof. zool, 32–* Summer, research assoc, Tortugas Lab, Carnegie Institution, 26. A.A; Soc. Exp. Biol; Soc. Zool; Soc. Nat; Genetic Asn; West. Soc. Nat. Experimental embryology; physiology of development.

Whitaker, Prof. J(oe) Russell, Hampton Ave, Nashville, Tenn. *Geography.* Cynthiana, Ky, Jan. 30, 00. B.S, Chicago, 21, Ph.D, 30; M.S, Wisconsin, 23. Head dept. *geog,* Mich. State Teachers Col, Marquette, 24–30; asst. prof, Wisconsin, 30–37, assoc. prof, 37–40; *prof. and head dept, Peabody Col, 40–* Consultant, U. S. War Dept, 42; Dept. State, 42– Summer, prof, Minnesota, 39. Mem, Nat. Research Council, 39– Grant-in-aid, Nat. Research Council Can, 35. Asn. Geog; Tenn. Acad. Economic and historical geography of North America; conservation of natural resources; geographical textbooks.

Whitaker, Dr. J(oseph) Sam(uel), 230 Grove St, Bloomfield, N. J. *Organic chemistry.* Smyrna, Ga, Nov. 5, 10. A.B, Emory, 33, M.S, 34; Ph.D, Pa. State Col, 40. Instr. chem, Georgia, 35–37; *research chemist,* Am. Viscose Corp, 39–41; *Bakelite Corp, 41–* Chem. Soc. Organometallic compounds; synthetic fibers; adhesives; phenol formaldehyde condensation.

Whitaker, Dr. Lester R(ay), 232 Court St, Portsmouth, N. H. *Surgery.* Conway, N. H, Dec. 28, 91. M.D, Harvard, 23. Surg. intern, New Haven Hosp, Conn, 24; Arthur Tracy Cabot fellow surg. research, Harvard Med. Sch, 25; asst. res. surgeon, Peter Bent Brigham Hosp, 26–27; nat. research fellow, Rochester, 28; assoc. mem, Evans Mem. for Clin. Research and Prev. Med, 28–36; *practicing surgeon, 36–* Sergt, M.C, 17–19. Am. Med. Asn; fel. Col. Surg. Anatomy, physiology, pathology, diagnosis and surgery of the biliary system; surgery of alimentary tract; the mechanism of the gall bladder.

Whitaker, Dr. Martin D(ewey), 163 Outer Drive, Oak Ridge, Tenn. *Physics.* Ellenboro, N. C, June 29, 02. A.B, Wake Forest Col, 27; A.M, North Carolina, 30; Ph.D, N. Y. Univ, 35. Instr. *physics,* North Carolina, 28–30; asst, *N. Y. Univ,* 30–31, instr, 31–41, *asst. prof. and acting chairman dept, 41–* Fel. Physical Soc. Electrodeless discharge; radioactivity; neutron scattering and absorption.

Whitaker, Dr. M(ilton) C, American Cyanamid Co, 30 Rockefeller Plaza, New York, N. Y. **[3]Chemical engineering.* Frazeysburg, Ohio, Dec. 16, 70. B.S, Colorado, 97, M.S, 00, LL.D, 13; D.Ch.Eng, Pittsburgh, 15. Instr. chem, Colorado, 98; Columbia, 02; chemist, Welsbach Co, 03, gen. supt, 03–10; prof. chem. eng, Columbia, 11–17; v. pres, U. S. Indust. Alcohol Co, and pres, U. S. Indust. Chem. Co, 17–27; consulting chem. engineer, 27–30; *v. pres. and director, Am. Cyanamid Co, 30–* Director, Ruberoid Co. Ed. 'Jour. Indust. and Eng. Chem,' 11–16. Perkin medal, 23. Chem. Soc. (director at large, 31, 36); Soc. Chem. Indust. (chairman, N. Y. sect, 11); Chem. Eng. (pres, 14); Chemists' Club (pres, 15–17, trustee). Applied chemistry.

Whitaker, Dr. Randall, Jr, 1403 Eutaw Place, Baltimore, Md. *Dairy technology.* New York, N. Y, March 16, 02. B.S, Cornell, 23, M.S, 26, Ph.D, 27. Instr, Cornell, 24–27; fellow, Dry Milk Inst, 27–29; *dairy technologist, research labs, Nat. Dairy Products Corp, 29–* Dairy Sci. Asn; Int. Milk Dealers. Physical and chemical problems of dairy products manufacturing; ice-cream; butter; milk; cheese; concentrated by-products.

Whitaker, Dr. Thomas W(allace), U. S. Department of Agriculture, Washington, D. C. *Genetics.* Monrovia, Calif, Aug. 13, 05. B.S, California, 27; M.S, Virginia, 29, Ph.D, 31. Research fellow, Blandy Exp. Farm, Virginia, 27–31; asst. bot, Bussey Inst, Harvard, 31–34; assoc. prof, Agnes Scott Col, 34–36; assoc. geneticist, *bur. plant indust, U. S. Dept. Agr,* 36–39, *geneticist, 39–* Bot. Soc; Genetics Soc. Genetics and cytology of Cucumis and Lactuca.

Whitaker, Dr. Wayne L(ewis), University of Michigan, Ann Arbor, Mich. *Anatomy.* Putnamville, Ind, Aug. 9, 04. A.B, DePauw, 26; A.M, Michigan, 34, Ph.D, 39. Instr. *anat, Michigan,* 37–43, *asst. prof, 43–* Effects of artificial illumination on reproduction in the white-footed mouse; sex endocrinology; physiology of reproduction.

Whitby, Dr. G(eorge) Stafford, Chemical Research Laboratory, Teddington, Middlesex, Eng. *Organic chemistry.* Eng, May 26, 87. B.Sc, London, 07; M.Sc, Ph.D. and D.Sc, McGill; hon. LL.D, Mt. Allison. Demonstrator, Imp. Col. Science, London, 06–10; chief chemist, Soc. financière des Caoutchoucs, 10–17; asst. prof. chem, McGill, 20–21, assoc. prof, 21–23, prof. org. chem, 23–29; *director* div. chem, research labs, Nat. Research Council Can, 29–39; *Chem. Research Lab, Dept. Science Indust. Research, Gt. Britain, 39–* Ed, rubber sect, Int. Critical Tables; assoc. ed, 'Jour. Am. Chem. Soc,' 34–39. 1st Colwyn gold medal, Rubber Indust. Gt. Britain, 29; Officier d'Acad, 28. Chem. Soc. (councilor, 39–); fel. Can. Inst. Chem. (councilor, 24–27, pres, 27); Royal Soc. Can; Can. Chem. Asn. (pres, 28); Soc. Chem. Indust. Gt. Britain (councilor, 39–; chairman plastics group, 41). Rubber; organic colloids.

Whitcomb, Dr. Gordon P(utnam), 108 Crescent Ave, Plainfield, N. J. *Organic chemistry.* Spencer, Mass, Feb. 26, 13. B.S, Worcester Polytech, 34, M.S, 36; Ph.D, Yale, 39. *Research and develop, Calco chem. div, Am. Cyanamid Co, 39–* A.A; Chem. Soc; Inst. Chem; Asn. Textile Chem. and Colorists.

Whitcomb, Prof. Lawrence, Lehigh University, Bethlehem, Pa. *Invertebrate paleontology.* Brookline, Mass, April 27, 00. Ph.B, Brown, 22; A.M, Princeton, 28, Ph.D, 30. Asst. *geol,* Brown, 20–23; Princeton, 26–28, instr, 28–29, asst, 29–30; instr, *Lehigh,* 30–34, asst. prof, 34–39, *assoc. prof, 39–* Temporary geologist, N. Y. State Museum, 38. A.A; Paleont. Soc; Geol. Soc; Geophys. Union; Pa. Acad. Stratigraphy; Lower Paleozoic stratigraphy and paleontology.

Whitcomb, Prof. S(tuart) E(stes), Kansas State College, Manhattan, Kans. *Physics.* Brooklyn, N. Y, Jan. 3, 11. B.S, Antioch Col, 34; M.S, Syracuse, 36; Ph.D, Ohio State, 39. Asst. *physics,* Syracuse, 34–36; Ohio State, 36–39; instr, Ga. Tech, 39–42; *assoc. prof, Kans. State Col, 42–* Infrared spectroscopy; infrared spectrum of carbon monoxide; infrared spectra of long chain hydrocarbons.

Whitcomb, Dr. Warren, Jr, U. S. Department of Agriculture, Baton Rouge, La. *Entomology.* Bath, N. H, Jan. 25, 03. B.S, New Hampshire, 24; M.S, Wisconsin, 25, Ph.D, 28. Asst. entom, Wisconsin, 27–28; asst. apiculturist, *div. bee culture, bur. entom. and plant quarantine, U. S. Dept. Agr,* 28–35, assoc. apiculturist, 35–38, *apiculturist, 38–* Bee culture; physiology of bees; digestion of pollen by bees; commercial shipment of bees.

Whitcomb, Prof. W(arren) D(raper), 240 Beaver St, Waltham, Mass. *Entomology.* Waltham, Mass, June 3, 95. B.S, Mass. Col, 17. Sci. asst, bur. entom, U. S. Dept. Agr, 17–23, asst. entomologist, 23–25; asst. research prof. *entom, Exp. Sta,* Mass. Col, 25–31, *Mass. State Col,* 31–34, *research prof, 34–* Asn. Econ. Entom; Entom. Soc. Amer. Economic entomology of fruit, vegetable and greenhouse insects.

Whitcomb, W(illiam) H(enry), Rhode Island School of Design, Providence, R. I. *Chemistry.* Boston, Mass, March 14, 80. B.S, Mass. Inst. Tech, 03, M.S, 06. Asst. physics, Mass. Inst. Tech, 03–06; asst. prof. chem, Miami, 06–08, assoc. prof, 08–13, prof, 13–17; director lab. control, footwear div, U. S. Rubber Co, 17–29; sales exec, Henry L. Scott Co, 29–31; textile chemist, Interlaken Mills, R. I, 32–34; *instr, R. I. Sch. Design, 32–* Chem. Soc. (chairman, N. Y. rubber group); Soc. Test. Mat. (chairman, cmt. D–13, 28–30, sec'y, 30–). Inorganic chemistry; testing of textiles.

Whitcomb, Prof. W(illiam) O(rr), 309 S. Fifth Ave, Bozeman, Mont. *Agronomy.* Crary, N. Dak, Nov. 25, 84. B.S.A, N. Dak. Col, 09; M.S.A, Cornell, 13. Asst. dry land agr, U. S. Dept. Agr, 09–12; asst. prof. agron, Mont. State Col, 13–18; seed marketing specialist, U. S. Dept. Agr, 19–20; *prof. and supt. grain inspection lab, Exp. Sta, Mont. State Col, 20–* Soc. Agron; Asn. Seed Anal. (pres, 36, chairman research cmt, 30–33; cmt. hard seed investigations, 38–); Asn. Cereal Chemists. Seed testing; milling and baking of wheat.

Whitcraft, Prof. L(eslie) H(arper), 32 Meadow Lane, Muncie, Ind. *Mathematics.* Wabash, Ind, March 11, 85. A.B, Indiana, 14; A.M, Chicago, 23; Ph.D, Columbia, 32. Teacher, pub. sch, Ind, 06–07, high sch, 07–09, prin, 11–14, sch. supt, 14–20, teacher, tech. schs, 20–24; assoc. prof. *math, Ball State Teachers Col,* 24–25, *prof. and head dept, 25–* Teaching of mathematics; college entrance examinations.

White, Dr. Abraham, Yale University, New Haven, Conn. *Physiological chemistry.* Cleveland, Ohio, March 8, 08. A.B, Denver, 27, A.M, 28; fellow, Michigan, 30–31, Ph.D, 31. Asst. chem, Denver, 27–28; physiol. chem, Michigan, 28–30; Sterling fellow, *Yale,* 31–32, Porter fellow, Am. Physiol. Soc, 32–33, instr, *physiol. chem, sch. med,* 33–37, asst. prof, 37–43, *assoc. prof, 43–* Summer, instr, Michigan, 32. Eli Lilly and Co. prize and bronze medal, Am. Chem. Soc, 38. Am. Soc. Biol. Chem. fellow, Int. Physiol. Cong, Leningrad and Moscow, 35. Soc. Biol. Chem; Soc. Exp. Biol; Chem. Soc; Inst. Nutrition; Asn. Study Int. Secretions; N. Y. Acad. Chemistry and

metabolism of amino acids and proteins; metabolism of sulfur; chemistry and physiology of hormones.

White, Addison H(ughson), Bell Telephone Laboratories, Murray Hill, N. J. *Physical chemistry.* Clovis, Calif, Oct. 13, 09. A.B, Occidental Col, 30. *Mem. tech. staff, Bell Tel. Labs, 30–* Chem. Soc; Min. and Metal. Eng. Dielectrics; electron diffraction; crystal structure; physical metallurgy.

White, Prof. Albert Easton, University of Michigan, Ann Arbor, Mich. *Metallurgy.* Plainville, Mass, March 12, 84. A.B, Brown, 07, hon. Sc.D, 25; Harvard, 07–08. In charge research investigations, Jones and Laughlin Co, Pa, 08–11; instr. *chem. eng, Michigan,* 11–13, asst. prof, 13–17, *prof, 19–, director dept. eng. research, 20–* Eng. Foundation, Nat. Research Council; chairman metal. group, Nat. Defense Research Cmt; mem, War Metal. Cmt. Head metal. branch, inspection div, Ordnance Dept, U.S.A, 17–19, head metal. sect, tech. staff, 19. Mech. Eng. (main research cmt); Min. and Metal. Eng. (manager); Soc. Metals (pres, 20); Chem. Soc; Soc. Test. Mat. (pres, 37); Edison Elec. Inst; Mich. Eng. Soc; Detroit Eng. Soc; N. Y. Eng. Soc. Condenser tubes; malleable iron; properties of metals at elevated temperatures.

White, Prof. Alfred H(olmes), University of Michigan, Ann Arbor, Mich. ***Chemical engineering.* Peoria, Ill, April 29, 73. McGill, 89–90; A.B, Michigan, 93, B.S, 04; Polytech, Zurich, 96–97. Asst. chem, Illinois, 93–96; instr. chem. technol, *Michigan,* 97–04, asst. prof, 04–07, junior prof. *chem. eng,* 07–11, prof, 11–43, *emer. prof, 43–,* head dept, 14–42. Consulting engineer, U. S. Bur. Mines, 10–20. Capt. and lieut. col, chief research, tech. sect, assoc. chief nitrate div, Ordnance Dept, 17–19, consulting chem. engineer, 19–22, col, O.R.C, 25– Chem. Eng. (pres, 29–31); Eng. Educ. (pres, 41); Gas Asn; Soc. Test. Mat; Ordnance Asn; Mich. Gas Asn. (pres, 30). Volume changes in concrete; destructive distillation of coal and manufacture of illuminating gas.

White, Dr. Allen I(ngolf), 305 Oak St, Pullman, Wash. *Pharmacy, Pharmaceutical chemistry.* Silverton, Oregon, July 10, 14. B.S, Minnesota, 37, M.S, 38, Ph.D, 40. Instr. and later *asst. prof. pharmacy, State Col. Wash, 40–* Pharmaceut. Asn. Phytochemical investigation of medicinal plants; hydrogen-ion concentration in ointments and lotions.

White, Prof. C(harles) E(dward), University of Maryland, College Park, Md. *Chemistry.* College Park, Md, Nov. 4, 01. B.S, Maryland, 23, M.S, 24, Ph.D, 26. Asst. prof. *inorg. chem, Maryland,* 26–29, assoc. prof, 29–37, *prof, 37–, chairman lower div, col. arts and sciences, 35–; consulting chemist, U. S. Bur. Mines, 43–* Summer, asst. prof, Syracuse, 28. Chem. Soc. (treas, div. chem. educ, 41–); Wash. Acad. Inorganic and analytical chemistry.

White, Prof. C(harles) J(ames), 259 Marlborough St, Boston, Mass. *Dermatology.* Boston, Mass, Dec. 26, 68. A.B, Harvard, 90, M.D, 93; Paris and Vienna, 93–95. Asst. physician skin diseases, Mass. Gen. Hosp, 95–03, physician, 03–25, chief physician, 25–27; asst. *dermat, Harvard,* 98–02, instr, 02–11, asst. prof, 11–16, prof, 16–27, *emer. prof, 27–; practising physician.* Consulting dermatologist, Boston Insane Hosp, 03–27; Infants Hosp, 16–27; Mass. Charitable Eye and Ear Infirmary; New Eng. Deaconess Hosp; Boston Psychopathic Hosp; past chairman med. advisory board, Mass. Hosp. for Lepers. Hon. mem. Dermat. Asn. (sec'y and treas, 02–05, pres, 15); Am. Med. Asn. (chairman, dermat. sect, 10–12); Asn. Path. and Bact; Asn. Cancer Research; hon. mem. New Eng. Soc. Dermat. (sec'y, 15–17); hon. fel. London Dermat. Soc; cor. mem. British Asn. Dermat. and Syphilol; cor. hon. mem. British Royal Soc. Med; cor. for. mem. Soc. française de Dermat. et de Syphilol; cor. mem. Dermat. Soc. Vienna; cor. mem. Danish Dermat. Soc.

White, Prof. Charles Langdon, Stanford University, Calif. *Geography.* Denver, Colo, June 2, 97. B.S, Denison, 20, hon. Sc.D, 42; Chicago, 22–24; Ph.D, Clark, 25. Instr. econ. geog, Clark, 25; sch. business admin, Pittsburgh, 25–26; assoc. prof. *geog,* Miami (Ohio), 26–28; prof. and head dept, Randolph-Macon Woman's Col, 28–31; prof, Western Reserve, 31–43, head dept, 36–43; *prof, Stanford, 43–* Summers, asst. prof, Iowa State Teachers Col, 24; conductor, Clark Univ. Transcontinental Field Trip, 30, 31; Western Reserve Caribbean Field Trip, 35; Mex, 40. Director, Cleveland Council Inter-Am. Relations, 41–43. Am. Geog. Soc; Council. Geog. Teachers (v. pres, 42–); Asn. Geog. Regional, industrial and agricultural geography; the agricultural geography of the Salt Lake oasis; human ecology; regional geography of Anglo-America.

White, Dr. C(hester) M(iller), 182 Elmcroft Road, Rochester, N. Y. *Physical chemistry.* Rochester, N. Y, Sept. 15, 06. B.S, Rochester, 29, M.S, 31, Ph.D, 35. Asst. chem, Rochester, 29–35; chemist, Puritan Soap Co, 36–40, *v. pres. in charge research, Puritan Co, Inc, 40–* Instr, exten. div, Rochester. Inst. Chem; Chem. Soc. Solubility of gold in mercury; heat capacity of electrolytic and non-electrolytic solutions; hydraulic pressure transmitting liquids; amalgams.

White, Dr. Clayton S(amuel), 4200 E. Ninth Ave, Denver, Colo. *Neurophysiology.* Wellington, Colo, Oct. 11, 12. A.B, Colorado, 34, M.D, 42; Rhodes scholar, Oxford, 35–38, B.A, 38. Asst. psychol, Colorado, 34–35, physiol, sch. med, 38–40, instr, 40–41; *Nat. Foundation Infantile Paralysis grant for research, 41–; Med. Corps, U. S. Naval Res, 43–* Soc. Exp. Biol. Mechanism of neuro-humeral transmission; effect of botulinus toxin on the mortality and time of death of developing chick embryos.

White, Dr. Cleveland J(ames), 122 S. Michigan Ave, Chicago, Ill. *Dermatology.* Cuba, Wis, Aug. 24, 93. A.B, Wisconsin, 18; M.D, Chicago, 21; Mas.Med.Sc, Pennsylvania, 26. Instr. histol. and neur, Wisconsin, 18–19, med, 22–23; asst. *dermat,* Mayo Clinic, 23–24; instr. and asst. prof, Pennsylvania, 24–26; *asst. prof, sch. med, Northwestern, 27–* Attending dermatologist, Passavant, Wesley, Norwegian-Am. and West Suburban Hosps; consulting dermatologist, Battle Creek Sanatorium. Am. Med. Asn; Acad. Dermat; Soc. Investigative Dermat. Research. Diseases of the skin and nails, especially due to fungi.

White, Dr. Deane R(owland), 18 Clark St, South River, N. J. *Physics.* Berea, Ohio, Feb. 20, 02. B.S, Baldwin-Wallace Col, 22; Ph.D, Columbia, 27. Asst. physics, Columbia, 22–25, instr, 25–27; *physicist, photo products dept, E. I. du Pont de Nemours and Co, 27–* Physical Soc. Radiation from mercury vapor below the ionization potential; sensitometry of photographic materials.

White, Dr. Donald E(dward), U. S. Geological Survey, Washington, D. C. *Mining geology.* Dinuba, Calif, May 7, 14. A.B, Stanford, 36; Ph.D, Princeton, 39. Assoc. geologist, Geol. Surv. Newfoundland, 37–38; junior geologist, *U. S. Geol. Surv,* 39–40, asst. geologist, 41–42, *assoc. geologist, 42–* Min. and Metal. Eng. Strategic mineral investigations of the antimony deposits of the United States, Alaska and Mexico, and of tungsten deposits in Idaho and Alaska.

White, Prof. E(dith) Grace, Wilson College, Chambersburg, Pa. *Zoology.* Boston, Mass, May 16, 90. A.B, Mt. Holyoke Col, 12; A.M, Columbia, 13, Ph.D, 18. Asst, Princeton, 15–16; instr. *biol.* and head dept, Heidelberg Col. (Ohio), 18–20; *prof. and head dept,* Shorter Col, 20–23; *Wilson Col, 23–* Research assoc, Am. Museum Nat. Hist, 35–; research, Imp. Univ. Tokyo, Marine Lab. Misaki, Laboratorium, Batavia, Java, 35–A.A; Soc. Ichthyol. and Herp; Genetic Asn; Eugenics Soc. Biology; electrical organs of Astroscopus guttatus; whale shark; interrelationships, classification, phylogeny and heart valves of the elasmobranch fishes.

White, Prof. Edmund V, Texas State College for Women, Denton, Texas. *Mathematics.* Mt. Lebanon, La, Aug. 11, 79. B.S, Texas; A.M, Baylor; LL.D, Hardin-Simmons. Teacher, rural schs, 96–98; prin, high sch, 01–04; sch. supt, Texas, 05–11, asst. supt, 11–13; dept. exten, Texas, 13–15; *prof. math. and dean col, Texas State Col. for Women, 15–* South. Asn. Col. Deans (pres, 30). Mental arithmetic; algebra for junior and senior high schools; college algebra.

White, Dr. Edwin C(harles), Johns Hopkins Hospital, Baltimore, Md. *Chemotherapy.* Baltimore, Md, Feb. 12, 92. A.B, Hopkins, 12; Ph.D, Wisconsin, 15. Jr. physical chemist, U. S. Bur. Mines, Pittsburgh, Pa, 15–17; chemist, Brady Inst, Hopkins Hosp, 17–22, *assoc. chem. urol, sch. med, Hopkins, 22–* Chemical bacteriology.

White, Edwin Lee, 6804 Meadow Lane, Chevy Chase, Md. *Radio engineering.* Valley City, N. Dak, July 5, 96. B.S, George Washington, 22, M.S, 25. Research engineer, Naval Research Lab, 22–26; supervising engineer, Sig. C, U. S. Army, 26–30; *admin. radio engineer, Fed. Radio and Fed. Communications Cmn, 30–; Air Corps, U. S. Army, 41–, col.* Radio Eng. Frequency bands occupied by various type emissions.

White, Dr. E(lizabeth) J(uanita) Greer (Mrs. T. S. White), Millbrook, N. Y. *Chemistry.* Atlanta, Ga, Nov. 19, 05. A.B, Agnes Scott Col, 26; Ph.D, Hopkins, 29. Asst. chem, Agnes Scott Col, 24–26; Boston Alumnae fellow of Am. Asn. Univ. Women, 29–30; prof. biol. and chem, Mary Bald-

win Col, 30–35; physiol, Bennett Junior Col, 35–38; *mem. tech. staff, Bell Tel. Labs, 43–* Chem. Soc. Physical chemistry; adsorption of mercaptans on inorganic sulfides; intensive drying of liquids; purification of benzene; quartz etching.

White, Dr. E(llen) P(awling) Corson, 1820 Pine St, Philadelphia, Pa. *Pathology.* Norristown, Pa, May 23, 74. Wellesley Col, 97; M.D, Woman's Med. Col. of Pa, 02. Director labs, Phila. Orthop. Hosp, 16–40; *asst. pathologist, Zool. Soc. Phila, 16–; director labs, Phila. Munic. Court, 18–* Asst. director labs, Oncologic Hosp, 11–18; director labs, Trenton State Hosp. for Insane, 16–18. A.A; Asn. Path. and Bact; Am. Med. Asn; Soc. Study Ductless Glands; Asn. Study Neoplastic Diseases; Path. Soc. Phila. Comparative pathology; neuropathology; experimental pathology; cancer.

White, Prof. E(lwood) V(ernon), University of Idaho, Moscow, Idaho. *Organic chemistry.* Bracebridge, Ont, Can, March 7, 09. B.A.Sc, Toronto, 31; M.Sc, McGill, 34, Howard Smith fellow, 35–36, Ph.D, 36. Research chemist, Dow Chem. Co, 36–38; *assoc. prof. wood utilization, Idaho, 38–* Chem. Soc. (sec'y Wash-Idaho border sect, 40, councilor, 41, chairman, 42). Carbohydrate and polysaccharide chemistry.

White, Dr. Florence Roy, 2 Prospect St, Kensington, Md. *Biochemistry.* New Castle, Pa, March 6, 09. A.B, Illinois, 30, A.M, 31; Ph.D, Michigan, 35. Asst. physiol, Michigan, 35–36, research fellow int. med, med. sch, 36–38; asst, sch. med, Yale, 38–39; *asst. chemist,* bur. home econ, U. S. Dept. Agr, 42–43; *U. S. Pub. Health Service, 43–* The metabolism of sulfur-containing compounds; the nervous control of respiration; biochemistry of cancer; vitamins.

White, F(rancis) B(each), St. Paul's School, Concord, N. H. *Ornithology.* Cambridge, Mass, 72. A.B, Harvard, 94, A.M, 95. *Master, St. Paul's Sch.* A.A; Ornith. Union; Nuttall Ornith. Club (past sec'y); Northeast. Bird Banding Asn. (past pres). Ornithology in New Hampshire.

White, Prof. Frank D(avid), Faculty of Medicine, University of Manitoba, Winnipeg, Man, Can. *Biochemistry.* Glasgow, Scotland, 92. A.R.T.C, Glasgow, 13; Ph.D, Edinburgh, 23. Research chemist, British Dyestuffs Corp, 19–21; demonstrator med. chem, Edinburgh, 23–24; lecturer, *Manitoba,* 24–27, *asst. prof. biochem, faculty med, 27–* Chem. adviser, cent. lab, British Expeditionary Force, 15–19. Soc. Biol. Chem; fel. Can. Inst. Chem; Winnipeg Sci. Club; fel. Inst. Chem. Gt. Britain and Ireland; London Biochem. Soc. Guanidine compounds; constituents of blood and urine; biochemistry of marine products; marine wood-borers.

White, Dr. Franklin W(arren), 322 Marlborough St, Boston, Mass. *Medicine.* Boston, Mass, Oct. 23, 69. B.S, Mass. Inst. Tech, 90; M.D, Harvard, 95. Prof. med, Dartmouth Col; instr, Harvard; *consulting physician, Boston City Hosp.* Am. Med. Asn; Am. Physicians; Roentgen Ray Soc; Gastro-Enterol. Asn; Int. Soc. Gastro-Enterol. Diseases of the digestive organs.

White, Dr. F(rederick) Elmer, 91 Odell Ave, Beverly, Mass. *Physics.* Peabody, Mass, 09. A.B, Boston, 30; fellow, Brown, 31–33, M.S, 32, Ph.D, 34. Asst, Brown, 30–31, 33–35; instr. *physics,* Williams Col, 35–36; *Boston Col,* 36–37, *asst. prof, 37–; research physicist, div. physical war research, Duke, 42–* Physical Soc. Acoustic filters; indeterminacy principle.

White, Dean George C(leveland), University of Connecticut, Storrs, Conn. *Dairy husbandry.* Harrisonville, Mo, May 25, 87. B.S, Missouri, 10, A.M, 12; grad. sch, U. S. Dept. Agr, 15; Cornell, 26–27. Asst. dairy husbandry, Missouri, 10–11, instr, 11–12; asst. prof, Nebraska, 12–13; *prof. dairy indust, Connecticut, 13–, dean. res. instruction, col. agr, 25–, dairy husbandman, Storrs Exp. Sta, 13–* Assoc. ed, 'Jour. Dairy Sci,' 13–26. Cmt. on uniform standards, Am. Dairy Federation, 26. Dairy Sci. Asn. (chairman, breed relations cmt, 21–23, sec'y, official test. sect, 23–25, chairman, 25, nat. sec'y, 26, 27, v. pres, east. div, 26, nat. pres, 28, 29). Abortion and mastitis of cattle; calf and dairy cattle feeding.

White, Prof. G(eorge) Edwin, College of the City of New York, New York, N. Y. *Chemical engineering.* Parkersburg, W. Va, Feb. 29, 04. B.S, Col. City N. Y, 23, fellow, Chem.E, 25; A.M, Columbia, 27, Ph.D, 37. Tutor and instr. chem. and chem. eng, *Col. City N. Y,* 23–38, *asst. prof. chem. eng, 38–* Research consultant, Kromex Corp, 32–35. Chem. Eng; Eng. Educ; Soc. Chem. Indust. (past exec. councilor). Physical metallurgy; accurate determination of dew-point; gas absorption.

White, Prof. George W(illard), Ohio State University, Columbus, Ohio. *Geology.* North Lawrence, Ohio, 03. A.B, Otterbein Col, 21; A.M, Ohio State, 25, Ph.D, 33. Instr. geol, Tennessee, 25–26; New Hampshire, 26–28, asst. prof, 28–34, assoc. prof, 34–38, prof, 38–41; acting dean grad. sch, 40; *prof. geol, Ohio State, 41–* Summers, asst. geologist, Ohio Geol. Surv, 25–29, 31, 42, 43; geologist, State Highway Dept, N. H, 30, 35, 39; N. H. Planning and Develop. Cmn, 40. A.A; Geol. Soc; Min. and Metal. Eng; Miner. Soc; N. H. Acad. (sec'y-treas, 30–38, v. pres, 38, pres, 39); Ohio Acad; Boston Geol. Soc. (pres, 40). Caves of Ohio; Pennsylvanian stratigraphy and glacial geology of Ohio; geology of New Hampshire.

White, Dr. Gilbert F(owler), Cosmos Club, Washington, D. C. *Geography.* Chicago, Ill, Nov. 26, 11. B.S, Chicago, 32, M.S, 34, Ph.D, 42. Research technician, Miss. Valley Cmt, Pub. Works Admin, 34; Nat. Resources Board, 34–35; sec'y water resources and land cmt. and prin. geographer, Nat. Resources Cmt. and later Nat. Resources Planning Board, 36–40; prin. legis. analyst, Bur. of Budget, 41–42; *del. in Europe, Am. Friends Service Cmt, 42–* Lecturer, grad. sch, American Univ. (D. C), 38–40. Inst. Planners. Conservation of water resources and land resources.

White, Pres. Goodrich C(ook), Emory University, Ga. *Psychology.* Griffin, Ga, Nov. 13, 89. A.B, Emory, 08; A.M, Columbia, 11; Ph.D, Chicago, 27. Prof. psychol. and educ, Wesleyan Col. (Ga), 13–14; mental and moral science, *Emory,* 14–18, assoc. prof. *psychol,* 19–20, *prof, 20–,* dean col. arts and sciences, 23–38, grad. sch, 29–42, v. pres, 38–42, *pres, 42–* 2nd lieut, U.S.A, 18–19. A.A; S. Soc. Philos. and Psychol; Ga. Acad. (pres, 39). Memory; work and fatigue.

White, Dr. H(albert) C, 201 E. Ellsworth, Midland, Mich. *Organic chemistry.* Dinuba, Calif, Feb. 27, 16. A.B, Stanford, 37, Shell Develop. Co. fellow, 39–40, Ph.D, 40. *Research chemist, Dow Chem. Co, 40–* Chem. Soc. Molecular rearrangements carried out in liquid ammonia as a solvent; synthetic resins and insecticides.

White, Prof. H(all) B(rewer), University Farm, St. Paul, Minn. *Agricultural engineering.* Winnebago, Minn, June 6, 79. B.S, Minnesota, 08; M.S, Wisconsin, 28. Instr. *agr. eng, Minnesota,* 08–18, *asst. prof, 18–, head sect. farm structures.* Agr. Eng; Eng. Educ; Minn. Acad; Minn. Asn. Archit. Farm building plans; farmhouses; barns; machine sheds; mechanical training.

White, Harold E(dwards), R. D. 6, Butler, Pa. *Ceramics.* Buffalo, N. Y, April 24, 93. E.M, Lehigh, 16. Asst. research engineer, Norton Co, 16–18, manager Bavarian plant, 19–20; supt, Fed. Abrasives Co, 21–27; ceramic engineer, *Lava Crucible Co. of Pittsburgh,* 27–28, *v. pres. and works manager, 28–* Fel. Ceramic Soc. (chairman, refractories div, 34, chairman, cmt. educ, 35); Min. and Metal. Eng; Chem. Eng. Refractories; abrasives; ferro alloys; phosphates.

White, Prof. Harold E(verett), Massachusetts State College, Waltham, Mass. *Floriculture.* Marshall, Ill, Aug. 13, 99. B.S, Purdue, 28, M.S, 29. Asst. plant path, Purdue, 28–29; *asst. research prof. floriculture, Mass. State Col, 30–* Soc. Hort. Sci; Soc. Am. Florists; Mass. Hort. Soc. Physiological, agronomic and genetic studies on commercial flower crops grown in greenhouses.

White, Dr. H(arold) J(ames), American Cyanamid Co, Stamford, Conn. *Chemotherapy.* Somerville, Mass, April 20, 05. B.S, Mass. State Col, 30, M.S, 32; Yale; Harvard; Sc.D, Hopkins, 42. Instr. bacter, Delaware, 32–34; bacteriologist, sch. pub. health, Harvard, 36–37; instr. pharmacol, sch. med, Hopkins, 40–42, malariologist, 42–43; *research bacteriologist, chemotherapy div, Am. Cyanamid Co, 43–* Soc. Bact. Chemotherapy of malaraia; chemotherapy of bacterial infections.

White, Prof. H(arold) Vance, Box 336, Blacksburg, Va. *Physical metallurgy.* Near Statesville, N. C, April 27, 02. B.S, Va. Polytech, 26, M.S, 32. Research metallographist, N. and W. Ry, 26–27; Tenn. Copper Co, 27–29; instr. *metal. and metallog, Va. Polytech,* 30–34, asst. prof, 34–38, assoc. prof, 38–42, *prof, 42–, head dept. metal, 38–* Consulting metallurgist, Imp. Type Metal Co, Lynchburg Foundry Co. Admin. council, Graphic Arts Research Bur, 36. Min. and Metal. Eng; Soc. Metals; Va. Acad. Physical and mechanical properties of white metals and their alloys, especially their utility in the graphic arts; surface tension of alloys; quick malleablizing cycles for iron; munitions; deLavaud centrifugal casting.

White, Dr. Harry J(ames), 1016 W. Ninth St, Los Angeles, Calif. *Physics.* Lincoln, Nebr, July 29, 05. B.S, California,

28, M.S, 31, Ph.D, 33. Teaching asst. physics, California, 31–33, instr, 34–35; *with Research Corp, 35–; radiation lab, Mass. Inst. Tech, 41–* Spark discharges in gases; Kerr cell technique; voltage stabilizer circuits; electrical precipitation.

White, Prof. H(arvey) E(lliott), 543 Spruce St, Berkeley, Calif. *Physics.* Parkersburg, W. Va, Jan. 28, 02. A.B, Occidental Col, 25; Ph.D, Cornell, 29. Instr. physics, Cornell, 26–29; int. research fellow, 29–30; asst. prof. and *prof. physics, California, 30–* Fel. Physical Soc. Spectroscopy; optics; atomic structure.

White, Dr. H(arvey) L(ester), Washington University, St. Louis, Mo. *Physiology.* Carrollton, Ill, Feb. 27, 96. B.S, Washington (St. Louis), 18, M.D, 20. Asst. *physiol, Washington (St. Louis),* 20–21, instr, 21–22, assoc, 22–24, *assoc. prof, 24–; lieut. col, U. S. Army, 40–* Physiol. Soc; Soc. Exp. Biol. Circulation; kidney function; electrokinetic phenomena.

White, Dr. H(enry) E(lis), Arkansas State College, State College, Ark. *Agriculture.* McLean Co, Ky, Feb. 2, 91. B.S, Wisconsin, 16; M.S, N. C. State Col, 30; Wake Forest Col, 30; Ph.D, Cornell, 35. Instr. agr, American Univ, Beirut, 24–25; asst. agr. econ, N. C. State Col, 29–30; agr. econ. and farm management, N. Y. State Col. Agr, Cornell, 33–35; state farm management supervisor, rural rehabilitation, Resettlement Admin, Lafayette, Ind, 35–36, regional farm management supervisor, farm security admin, U. S. Dept. Agr, Indianapolis, 36–38; *prof. agr. and head dept, Ark. State Col, 38–* Farm Econ. Asn. Relation of the standard of living of low income farmers to soil type; wholesale prices; agricultural prices.

White, Dr. H(oward) R(awson), Psychopathic Clinic, Recorder's Court, Detroit, Mich. *Psychology.* Somerville, Mass, Feb. 1, 14. A.B, Buffalo, 32, A.M, 33; Ph.D, Iowa, 36. Psychometrist, gen. hosp, Iowa, 35–36, teaching asst, 36–37; instr, Maine, 37–40; sch. psychologist, Board Educ, Buffalo, N. Y, 40–41; *psychologist, psychopath. clinic, Recorder's Court, Detroit, 41–* Assoc. Psychol. Asn; assoc. Asn. Applied Psychol; Mich. Psychol. Asn. Clinical and general psychology; consistent test patterns in offenders.

White, Dr. James F(rederick), 717 86th St, Niagara Falls, N. Y. *Chemistry.* Berea, Ohio, Aug. 20, 99. A.B, Baldwin-Wallace Col, 20; A.M, Columbia, 22, Ph.D, 24. Asst. physics, Columbia, 20–21; tutor chem, Col. City of N. Y, 21–24; prof, Soochow, China, 24–27, head dept, 25–27; chemist, Cleveland Varnish Co, 27–28; *research chemist, Mathieson Alkali Works, 28–* Chem. Soc. Ionic migration, using the moving boundary as a method of separating similar ions.

White, Dr. Jesse H(ayes), 508 N. Fess Ave, Bloomington, Ind. *Psychology.* Alamo, Ind, March 5, 77. A.B, Indiana, 03, A.M, 04; Ph.D, Clark, 08. Sch. supt, Ind, 04–06; prof. psychol. and educ. and head dept, Pittsburgh, 08–11, prof. psychol, 11–30, head dept, 11–29, director div. research in personality problems, 29–30; pres, James Millikin, 30–34; *writer and lecturer, 34–* A.A; Psychol. Asn; Soc. Adv. Educ. Experimental, social and abnormal psychology; child psychology; college and university administration.

White, Dr. John, Rose Polytechnic Institute, Terre Haute, Ind. *Chemistry.* Poolesville, Md, Feb. 24, 66. A.B, Hopkins, 88, A.M, Ph.D, 91; Sc.D, Rose Polytech, 36. Asst. chem, Cornell, 91–93; instr, Nebraska, 93–97, adj. prof, 97–99, acting head dept, 99–00, prof, 00–03; prof. chem. eng. and chem. and head dept, Rose Polytech, 03–36, acting pres, 16–17, 19–21, 30–31; *retired.* A.A; Chem. Soc; Eng. Educ. Dissociation of metallic oxids in metallic vapors; molecular weight determinations of the aldehydes and peroxids; the metallic suboxids; physical chemistry of the pyridin bases; the reactions involved in the formation of certain complex salts of lead; Indiana coals; thermal polymerizations in the aromatic series.

White, Dr. John F(rederick) M(arshall), Defense Industries Ltd, Nobel, Ont, Can. *Chemical engineering.* Truro, N. S, March 8, 08. B.Sc, Acadia, 29, M.Sc, Brown, 31; Ph.D, Michigan, 35. Research, Can. Copper Refineries, Montreal, 35; lab. staff, Can. Industries, Ltd, 35–40; cordite supervisor, *Defense Industries Ltd,* 40–41, *cordite asst. supt, 41–; lieut, Royal Can. Ordnance Corps.* Reduction of sodium sulfate to sodium sulfide; recovery of selenium and tellurium; electrolytic hydrogen peroxide; military explosives.

White, Prof. Jonathan Winborne, Pennsylvania State College, State College, Pa. *Agronomy.* Greenville, N. C, March 28, 83. B.S, N. C. State Col, 03; M.S, Illinois, 12. Research chemist, 03–05; fertilizer chemist, Pa. Exp. Sta, 06–11, asst. prof. and assoc. prof. agron, *Pa. State Col,* 12–19, *prof. soil technol, 19–* Soc. Agron; Int. Soc. Soil Sci. Soil chemistry and biology; plot experiments; pot culture; soil composition.

White, Dr. J(onathan) W(inborne), Jr, U. S. Department of Agriculture, Chestnut Hill Station, Philadelphia, Pa. *Agricultural chemistry.* Bellefonte, Pa, Sept. 29, 16. B.S, Pa. State Col, 37; M.S, Purdue, 39, Ph.D, 42. Asst. agr. chem, Purdue, 37–42; *asst. chemist, east. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 42–* Chem. Soc. Spectrophotometric and chromatographic studies of carotenoid pigments of plants; jellying properties of low-methyl-ester pectin derivatives.

White, Dr. Joseph C(lark), 4205 Woodberry St, University Park, Md. *Electrochemistry.* Randolph Co, W. Va, Dec. 19, 07. B.S, W. Va. Wesleyan Col, 30; M.S, Maryland, 33, Ph.D, 35. Teaching fellow, Carnegie Inst. Tech, 30–31; asst, *Maryland,* 31–35, *instr. physical chem, 35–;* asst. chemist, *Naval Research Lab,* 37–39, assoc. chemist, 39–41, chemist, 41–42, *senior chemist, 42–* Chem. Soc; Electrochem. Soc. The activities of tin in tin amalgams; the electrode potential of tin; storage batteries; gas analysis.

White, Dr. Julius, 2 Prospect St, Kensington, Md. *Organic chemistry.* Pittsburgh, Pa, March 23, 04. A.B, Denver, 25, A.M, 26; Ph.D, Illinois, 31. Instr. chem, Illinois, 26–31, research fellow, 31–32; nat. research fellow med, med. sch, Michigan, 32–34, research assoc. biol. chem, 34–38; research fellow, physiol. chem. dept, sch. med, Yale, 38–39; research fellow, *nat. cancer inst, U. S. Pub. Health Service,* 39–42, *senior biochemist, 42–* The chemical status of the female sex hormone; the stereochemistry of diphenyl compounds; sulfur compounds; the chemical aspect of dental caries; nutritional aspects of experimental cancer.

White, Dr. Leland M(arion), 304 Hillside Ave, Nutley, N. J. *Physical chemistry.* Louisburg, Kans, Dec. 21, 14. B.S, Ottawa (Kans), 36; fellow, Kansas, 36–37, A.M, 38, Ph.D, 40. Asst. instr. inorg. chem, Kansas, 37–40; *research chemist, U. S. Rubber Co, 40–* Chem. Soc. Conductivity studies on sols and gels containing pectic substances; preparation of benzthiazoles.

White, Prof. Leslie A, University of Michigan, Ann Arbor, Mich. *Anthropology.* Salida, Colo, Jan. 19, 00. A.B, Columbia, 23, A.M, 24; Ph.D, Chicago, 27. Instr. *anthrop,* Buffalo, 27–28, asst. prof, 28–30; curator, Buffalo Museum Science, 27–30; asst. prof, *Michigan,* 30–32, assoc. prof. 32–43, *prof, 43–* Summers, asst. prof, Chicago, 31. Leader, ethnol. field party, Lab. Anthrop, Santa Fe, 32. A.A; Anthrop. Asn. (pres, Cent. States branch, 39); Folk-Lore Soc. (treas, 31, 2nd v. pres, 41, 42). Ethnology of Pueblo Indians; ethnopsychology; evolution of culture.

White, Prof. Marsh W(illiam), Pennsylvania State College, State College, Pa. *Physics.* Claremont, N. C, April 22, 96. A.B, Park Col, 17; M.S, Pa. State Col, 20. Ph.D, 26. Instr. *physics,* Pa. State Col, 18–26; asst. prof, Williams Col, 26–27; assoc. prof, *Pa. State Col,* 27–42, *prof, 42–* A.A; Physical Soc; Asn. Physics Teachers. Energy of high velocity electrons; the reflection of electrons in x-ray tubes; the wave-shape factor and meter; instruction in college physics.

White, Prof. Martin (Marshall), University of Kentucky, Lexington, Ky. *Psychology.* Kyle, Texas. A.B, Texas, 25, A.M, 26; Ph.D, Chicago, 30. Instr. *psychol,* Texas, 25–26; asst. prof, Oklahoma, 28–30; from asst. prof. to *prof, Kentucky, 30–, acting asst. dean and personnel officer, 40–* Psychol. Asn; Midwest. Psychol. Asn. Muscular tension and relaxation; hypnosis; emotions.

White, Dr. Maynard P(ressley), Gypsy Oil Co, Ardmore, Okla. *Geology.* Newark, Ohio, Aug. 19, 96. B.S, Brown, 20; A.M, Columbia, 23, Ph.D, 29. Asst, maintenance of ways and valuation depts, Pa. R. R. System, 16, 21, 22; asst. geologist, Cia. Mex. de Petról, El Aguila, S. A, Mex, 20, 21; paleontologist, Int. Petrol. Co, Mex, 23–26; *dist. geologist and paleontologist, Gypsy Oil Co, 28–* A.A; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner; Geol. Soc. Micropaleontology; index Foraminifera of the Tampico embayment area of Mexico; fusulines of the Ardmore Basin; some Texas Fusulinidae.

White, Dr. Merit P(enniman), Princeton University, Princeton, N. J. *Applied mechanics.* Whately, Mass, Oct. 25, 08. A.B, Dartmouth Col, 30, C.E, 31; M.S, Calif. Inst. Tech, 32, Ph.D, 35. Engineer, soil conservation service, U. S. Dept. Agr, 35–37; research assoc, grad. sch. eng, Harvard,

37–38; Calif. Inst. Tech, 38–39; asst. prof, Ill. Inst. Tech, 39–42; *mem. staff, Princeton, 42–* Seismol. Soc; Civil Eng. Dynamic effects of earthquakes on structures; structural engineering; hydraulics; impact vibrations; fluid mechanics.

White, Dr. Milton G(randison), Princeton University, Princeton, N. J. *Physics.* Claremont, Calif, Jan. 12, 10. A.B, California, 31, Coffin fellow, 33–35, Ph.D, 35. Teaching asst, California, 31–33; nat. research fellow *physics, Princeton,* 35–37, instr, 37–38, *asst. prof, 38–; consultant, Nat. Defense Research Cmt, Mass. Inst. Tech, 40–* Physical Soc. Nuclear physics; scattering of high energy particles.

White, Prof. Mollie G(race), Stephens College, Columbia, Mo. *Chemistry.* Macon, Mo, 88. A.B, Missouri, 18, A.M, 19; Ph.D, Minnesota, 27; hon. Sc.D, Culver-Stockton Col, 37. Instr. *chem,* Missouri, 19–20; *Stephens Col,* 20–26, *prof,* 27– Fel. Inst. Chem; Chem. Soc. Agricultural biochemistry; surface tension of certain soap solutions; fermentation in biochemistry of Fusarium lini; the pyruvic acid theory of fermentation.

White, Dr. Orland E(mile), University of Virginia, Charlottesville, Va. *Biology, Genetics.* Sibley, Iowa, April 25, 85. B.S, S. Dak. State Col, 09, M.S, 11; M.S, Harvard, 12, Sc.D, 13. Asst. bot, S. Dak. State Col, 07–09, instr, 10–11; asst, Radcliffe Col, 12, genetics, 13; collaborator, bur. plant indust, U. S. Dept. Agr, 15–18, 20–23, specialist, 18–19; asst. curator plant breeding, Brooklyn Bot. Garden, 13–16, curator, 16–24, plant breeding and econ. plants, 24–27; *prof. agr. biol. and director, Blandy Exp. Farm, Virginia, 27–* Ed. board, 'Am. Jour. Bot,' 20–21; ed, genetics sect, 'Bot. Abstracts,' 22–27; plant genetics sect, 'Biol. Abstracts,' 27– Botanist, Mulford biol. explor, Amazon Basin, 21–22. A.A; Soc. Nat; Bot. Soc. (councilor, 28); Genetics Soc; Genetic Asn; Va. Acad. (chairman, biol. sect, 31). Experimental biology; physical bases of inheritance; tropical plants; genetics of tobacco, peas and castor oil beans; low temperatures and plant distribution; origin of cultivated plants.

White, Dr. Paul A, 2812 S. Brighton Ave, Los Angeles, Calif. *Mathematics.* Hollywood, Calif, Aug. 21, 15. A.B, California at Los Angeles, 37, A.M, 38; Ph.D, Virginia, 42. Teaching asst, California at Los Angeles, 37–39; instr. *math,* Virginia, 39–42; *asst. prof, Louisiana, 42–* R-regular convergence spaces; topology.

White, Dr. Paul D(udley), Massachusetts General Hospital, Boston, Mass. *Medicine.* Boston, Mass, June 6, 86. A.B, Harvard, 08, M.D, 11. Intern, Mass. Gen. Hosp, 11–13; Harvard traveling fellow, Europe, 13–14, teaching fellow *med, Harvard Med. Sch,* 15–20, instr, 20–33, asst. prof, 33–36, *lecturer, 36–;* house physician, *Mass. Gen. Hosp,* 14–20, assoc. physician, 20–28, *physician, 28–* Chairman cmt. cardiovascular diseases, Nat. Research Council, 40– Harvard Med. Unit, B.E.F, 16; capt, M.C, U.S.A, 17–19; capt, Red Cross, Balkan Cmn, 19. A.A; Clin. and Climat. Asn; Col. Physicians; Am. Med. Asn; Am. Physicians; Soc. Clin. Invest; Am. Heart Asn. (treas, 27–31, v. pres, 39–41, pres, 41–43); Royal Soc. Med; Cardiol. Soc. Gt. Britain and Ireland; Cardiol. Soc. France; Cardiol. Soc. Czecho-Slovakia; Cardiol. Soc. Mex; Argentine Cardiol. Soc. Internal medicine; cardiac physiology; electrocardiography; heart disease.

White, Prof. Paul J, 1895 Glen Ave, Pasadena, Calif. *Botany.* Moravia, N. Y, May 22, 72. A.B, Southwestern Col. (Kans), 00; A.M, Oklahoma, 01; M.S, Cornell, 06, Ph.D, 08. Asst. prof. field crops, Cornell, 08–11; prof. agron. and director field crop improvement, State Col. Wash, 11–13; *prof. science, Pasadena Col,* 13–16, *30–* Botanist, Okla. Nat. Hist. Surv, 00–02. Systematic botany; field crops.

White, Dr. Philip R(odney), Rockefeller Institute, Princeton, N. J. **Botany, Plant physiology.* Chicago, Ill, July 25, 01. A.B, Montana, 22; Washington (Seattle), 22–23; certificat, Ecole nor. d'Inst, Valence, France, 24; Ph.D, Hopkins, 28. Micros. technician, bur. plant indust, U. S. Dept. Agr, 25–26; special investigator, United Fruit Co, 26–28; asst. prof. bot, Missouri, 28–29; nat. research fellow, Boyce Thompson Inst, 29–30; nat. research and Rockefeller Foundation fellow, Pflanzen-Physiol. Inst, Berlin, 30–31; fellow, *dept. animal and plant path, Rockefeller Inst,* 32–34, asst, 34–38, *assoc, 38–* Summer, lecturer, Iowa State Col, 42. Mem. ed. staff, 'Growth,' 37– Hopkins trop. exped, 26. A.A.A.S. prize, 37; Stephen Hales award, Am. Soc. Plant Physiol, 40. A.A; Soc. Plant Physiol; Bot. Soc; Soc. Nat; Soc. Growth and Develop. (director, 38–40). Anatomy and physiology of Fragaria; morphology and cytology of Musa; plant tissue cultures; malignant neoplasia in plants; sap movement.

White, Dr. R(aymond) C(yrus), North Carolina State College, Raleigh, N. C. *Physical chemistry.* Job, W. Va, Oct. 11, 12. B.S, Davis-Elkins Col, 34; M.S, West Virginia, 35, Ph.D, 39. *Instr. chem, N. C. State Col, 40–* Chem. Soc; N. C. Acad. Analytical chemistry; hydrogen ion concentration of solutions of sodium chloride and potassium chloride in contact with cellulosic materials; determination fluorine.

White, Dr. Richard P(eregrine), 636 Southern Bldg, Washington, D. C. *Plant pathology.* North Acton, Mass, Nov. 10, 96. B.S, Dartmouth Col, 18; Ph.D, Cornell, 26. Asst. plant pathologist, Exp. Sta, Kans. State Col, 21–27; research specialist diseases of ornamentals, N. J. Exp. Sta, 27–38, assoc. prof. plant path, Rutgers, 30–38; *exec. sec'y, Am. Asn. Nurserymen, 38–* A.A; Inst. Commercial and Trade Organization Execs.

White, Dr. Robert Roy, 501 W. Davis Ave, Ann Arbor, Mich. *Chemical engineering.* Brooklyn, N. Y, March 1, 16. B.S, Cooper Union, 36; Polytech Inst. Brooklyn; M.S, Michigan, 38, Rackham fellow, 38–39, Ph.D, 41. Junior chem. engineer, Calco Chem. Co, 36–37; chem. engineer, Dow Chem. Co, 37–38; Standard Oil Co, Calif, 40; legal dept, Universal Oil Products Co, 40–42; instr. *chem. eng, Michigan,* 42–43, *asst. prof, 43–* Chem. Eng; Chem. Soc. Phase equilibria of complex hydrocarbon systems at high temperatures; calculation of plate columns for binary distillation; rate of nitration of toluene.

White, Dr. Samuel A(ugustus), Edgewood Arsenal, Md. *Medicine.* Savannah, Ga, June 15, 87. B.S, South Carolina, 12; M.D, Hopkins, 16; grad, Army Med. Sch, 17. Head dept. biol. chem, Army Med. Sch, 20–25; chief med. and lab. services, Army Hosps, 25–33; *lieut-col. and chief med. research div, Chem. Warfare Service, 33–* Fel. Am. Med. Asn; fel. Col. Physicians; Asn. Mil. Surg. Basal metabolism; blood chemistry; acidosis; medical aspects of chemical warfare.

White, Dr. S(olon) Marx, Nicollet Clinic, 1009 Nicollet Ave, Minneapolis, Minn. *Medicine.* Hokah, Minn, July 16, 73. B.S, Illinois, 96; M.D, Northwestern, 97. Intern, Cook County Hosp, Chicago, 97–98; demonstrator path. and bacter, *Minnesota,* 98–00, asst. prof, 00–06, assoc. prof. *med,* 09–15, *prof, 15–,* chief dept. med, 21–25. Pathologist, St. Barnabas, Northwest. and City Hosps, 08; med. staff, Eitel and Northwest. Hosps, 21–; chief dept. med, Nicollet Clinic, 21–; State Board Health, Minn, 19–31, pres, 26–30. Am. Med. Asn; Am. Physicians; fel. Col. Physicians (v. pres, 27–31, pres, 31); Am. Heart Asn; Col. Surg. (mem, board indust. med. and traumatic surg, 33–37); Cent. Interurban Clin. Club; hon. mem. Pacific Interurban Clin. Club; Minn. Acad. Med. (pres, 08); Minn. Path. Soc; Minn. Soc. Int. Med. (pres, 30); Chicago Inst. Med. Internal medicine; focal infections as related to systemic disease; digitalis; block in the branches of His' bundle; drug treatment of heart disease; subacute bacterial endocarditis; mechanism of heart murmurs; coronary occlusion; etiology and management of essential hypertension; trichiniasis; aortic stenosis.

White, Dr. Theodore E(lmer), Harvard University, Cambridge, Mass. *Vertebrate paleontology.* Cestos, Okla, Dec. 8, 05. A.B, Kansas, 28, A.M, 29; Ph.D, Michigan, 35. *Asst. curator vert. paleont, museum comp. zool, Harvard, 40–; U. S. Army, 42–* Soc. Mammal; Paleont. Soc; Soc. Ichthyol. and Herp.

White, Dr. T(homas) A(ubrey), 3449 79th St, Jackson Heights, L. I, N. Y. *Chemistry.* Rockingham, N. C, Jan. 14, 06. B.S, Virginia, 28, M.S, 29, Ph.D, 31. Asst. chem, Virginia, 25–31; fellow, N. Y. Univ, 31–33; *chemist, Nat. Starch Products, Inc, 33–* Summers, Virginia, 27–30. Asn. Cereal Chem. Distribution and association constants; adsorption of gases by metallic catalysts; enzyme reactions; proteins; starches.

White, T(homas) H(erbert), University Lane, Hyattsville, Md. *Horticulture.* England, Oct. 9, 68. Hon. M.S, Md. Col, 12. Gardener, England, 84–88; farmer and veg. gardener, Md, 88–98; gardener and foreman hort, Exp. Sta, Maryland, 98–12, olericulturist and floriculturist, 12–38; *retired.* Olericultural and floricultural fertilizers; varieties; breeding; culture.

White, Dr. T(homas) N(ash), National Bureau of Standards, Washington, D. C. *Physics.* New Bedford, Mass, Aug. 16, 03. B.Sc, McGill, 26, M.Sc, 27, Ph.D, 29. Demonstrator

physics, McGill, 26–29; instr, Lower Can. Col, 28–29; nat. research fellow, Rockefeller Inst, 30–31, Calif. Inst. Tech, 31–32; asst. biophysicist, office cancer investigations, U. S. Pub. Health Service, 32–40; assoc. biophysicist, nat. cancer inst, 40–42; *physicist, Bur. Standards, 42–* Research fellow, Harvard Med. Sch, 32–38. Physical Soc. Biophysics; x-ray crystallography; biological sensitivity to x-rays; statistical analysis.

White, Dr. Virginia B(atie), Purdue University, Lafayette, Ind. *Botany.* Montgomery City, Mo, April 11, 97. B.S, Missouri, 22, A.B, 26, A.M, 28, Ph.D, 35. Teacher, pub. schs, Mo, 15–17, high schs, 19–21, 22–24; instr. biol. science, Agr. and Mech. Col. Ark, 28–30; bot, Missouri, 30–31; chairman dept. home econ, Fontbonne Col, 35–38; instr, Missouri, 38–39; *asst. prof. food and nutrition, Purdue, 39–* A.A. Plant physiology.

White, Prof. Wallace E(arl), Pennsylvania State College, State College, Pa. *Forestry, Botany.* Boston, Mass, March 6, 99. B.S. (Agr), Vermont, 25, M.S, 26; Ph.D, Yale, 29. Instr. bot. and asst. prof. *wood utilization, dept. forestry, Pa. State Col,* 29–35, assoc. prof, 35–38, *prof, 38–* Soc. Foresters; Bot. Soc. Silviculture; reproduction of white pine; growth of red and white pine plantations; natural reproduction in Vermont forests; the effect of thinning on diameter growth.

White, Dr. Walter P(orter), Geophysical Laboratory, Washington, D. C. *#2Physics.* Roxbury, Mass, Feb. 23, 67. A.B, Amherst Col, 87, A.M, 92; Harvard, 88; Mass. Inst. Tech, 89–90; Wisconsin, 01–02; fellow, Cornell, 03–04, Ph.D, 04. Teacher, prep. and high schs, 87–01; physicist, geophys. lab, Carnegie Institution, 04–35; *retired.* Physical Soc; Philos. Soc. Wash. (pres, 23). Galvanometers; potentiometers; thermels; high temperature measurements; silicate equilibria; calorimetry.

White, Dr. Walter R(aymond), 16 Flower City Park, Rochester, N. Y. *Organic chemistry.* Sunnyvale, Calif, July 18, 14. Ph.D, Stanford, 38. *Asst. supervisor film base develop, Eastman Kodak Co, 38–* A.A; Chem. Soc. Elucidation of the structure of echinocystic acid.

White, Dr. W(ard) B(enjamin), U. S. Food and Drug Administration, Washington, D. C. *Food chemistry.* Preston Hollow, N. Y, Aug. 2, 84. A.B, Cornell, 08, Ph.D, 30. Chemist, State Dept. Agr. and Markets, N. Y, 10–22, chief chemist, 22–30; *prin. chemist in charge food div, food and drug admin, Fed. Security Agency, 30–* Mem. joint cmt. on definitions and standards, U. S. Dept. Agr. Analysis and composition of dairy products and foods in general; methods of detecting adulteration in foods.

White, Dr. Wayne E(lwood), Aluminum Co. of America, New Kensington, Pa. *Chemistry.* Garfield, Kans, March 31, 05. A.B, Southwestern Col. (Kans), 27; Ph.D, Kansas, 30. Asst, Southwestern Col. (Kans), 25–27; asst. instr, Kansas, 27–30; instr. chem, Western Reserve, 30–36; research fellow, Kansas, 36–37; *research labs, Aluminum Co. of Amer, 37–* Chem. Soc. Heterogeneous catalysis; nitration of aromatic hydrocarbons; organic reagents used for inorganic analysis.

White, Prof. Wendell, 500 Harvard St, Minneapolis, Minn. *Psychology.* Iowa, 95. A.M, Iowa, 22, Ph.D, 25. Asst. prof. and *assoc. prof. psychol, Minnesota, 25–* Summers, Cent. Mo. State Teachers Col, 22–26. Human motivation; the psychology of dealing with people.

White, Dr. William Braid, 5149 Agatite Ave, Chicago, Ill. *Acoustics.* Thursley Hall, Haslemere, Eng, Aug. 24, 78. St. Paul's Sch; King's Col, London; Cambridge; Mus.D, Chicago Musical Col, 30. Private research music and musical acoustics, 97–27; director acoustic research, Am. Steel and Wire Co, 27–38; *prin, Sch. Pianoforte Technol, 38–* A.A; fel. Acoustical Soc; Mech. Eng. (chairman, wood industries div, 25–28, special research cmt. on methods and apparatus for sound measurement, 29–32); Physical Soc; Astron. Soc; Soc. astron. de France. Musical acoustics; theory and practice of musical instrument design, construction and tuning; teaching of piano tuning and allied arts; design and construction of pianoforte; analysis of pianoforte tone.

White, Dr. W(illia)m Charles, 1914 Connecticat Ave, Washington, D. C. *Medicine.* Woodstock, Ont, Can, Sept. 3, 74. M.B, Toronto, 98, M.D, 02; fellow, Hopkins Hosp, 99–00; Leipzig, Heidelberg, 01. Prof. path, Cent. Col. (Ind), 00–05; neuroanat. and clin. psychiat, Indiana, 05–07; assoc. prof. med, Pittsburgh, 08–16, director, R. B. Mellon Research Lab, 07–23; *pathologist, nat. inst. health, U. S. Pub. Health Service, 23–* V. chairman div. med. sciences, Nat, Research Council, 27, chairman, 28–29, cmt. on drug addiction, 29–, cmt. on microbiol. soil, 30–36, div. educ. relations, 33– Med. director, Pittsburgh Tuber. League, 07–23; sci. director, Cmt. on Research Syphilis, 31–39. Advisory council, Milbank Mem. Fund, 22–37; Henry Phipps Inst, 25– Order of the Crown, Italy; Order of St. Sava, Serbia. Del, White House Conf. Child Health and Protection, 30; del. and chairman, Conf. Int. Union against Tuber, Amsterdam, 32. Director div. tuber, Red Cross, France, 17–18, Italy, 18–19. A.A; Am. Physicians; Clin. and Climat. Asn; Tuber. Asn. (chairman, cmt. med. research, 21–); Trudeau Soc; N. Y. Acad. Med; hon. mem. Tuber. Soc. Scotland. Tuberculosis; pulmonary diseases.

White, Dr. William E(zzell), 1130 Woodstock Ave, Anniston, Ala. *Clinical pathology.* Tuscaloosa, Ala, March 31, 08. A.B, Alabama, 29, A.M, 30; univ. fellow, Columbia, 31–32, Ph.D, 33, William Bayard Cutting traveling fellow, Nat. Inst. Med. Research, London, 32–33; M.D, Harvard, 36. Asst, N. Y. Univ, 29–30; instr. anat, col. physicians and surg, Columbia, 30–31, surg. intern, St. Luke's Hosp, New York, 36–38; res, Lawrence Hosp, Bronxville, 38; *major, Med. Corps, U. S. Army, and chief lab. service, Sta. Hosp, Ft. McClellan, Ala, 40–* Summer, instr, Alabama, 29. Fel. Am. Med. Asn; Soc. Mil. Surg; fel. Soc. Clin. Path; Ala. Acad. The role of the pituitary gland in sexual physiology.

White, W(illiam) H(enry), U. S. Department of Agriculture, Washington, D. C. *Entomology.* Newtown, Md, Aug. 9, 92. B.S, Maryland, 13. Dept. bot, Exp. Sta, Maryland, 13–14; *bur. entom. and plant quarantine, U. S. Dept. Agr,* 14–18, assoc. entomologist and entomologist, 19–32, *prin. entomologist in charge div. truck crop and garden insects, 32–* Officer, Inf, U.S.A, 18–19. A.A; Entom. Soc. Wash; Biol. Soc. Wash. (cor. sec'y, 29–). Truck crop insects; economic entomology of vegetable crops; greenhouse fumigation for control of vegetable insects; sugar beet thrips; control of slugs and snails; control of striped cucumber beetle with nicotine dust.

White, Dr. W(illiam) Lawrence, Harvard University, Cambridge, Mass. *Botany.* Salina, Pa, May 29, 08. B.S, Pa. State Col, 34; Ph.D, Cornell, 40. Asst. plant path, Cornell, 34–38, instr. mycol, 38–39, asst, 39–40; *bibliographer and asst. curator fungi, Farlow herbarium, Harvard, 40–* Summers, mem. staff, fed. Dutch elm disease lab, U. S. Dept. Agr, 34; New York Bot. Garden, 36, 37; Boyce Thompson Inst, 38, 39; Atkins Inst, Cuba, 41. Mycol. Soc. Mycology; inoperculate discomycetes; bibliographic and host indexes; forest pathology.

White, Dr. W(illiam) M(onroe), Allis-Chalmers Manufacturing Co, Milwaukee, Wis. *Engineering.* Valley Head, Ala, Nov. 20, 71. M.E, Tulane, 99, hon. Sc.D, 30. Engineer, Drainage Board, New Orleans, La, 99–02; hydraulic engineer and chief engineer, I. P. Morris dept, Wm. Cramp and Sons Ship and Engine Bldg. Co, Phila, 02–11; *manager and chief engineer hydraul. dept, Allis-Chalmers Mfg. Co, 11–* Mod. Pioneer award, Nat. Asn. Mfrs, 38. Mech. Eng; Elec. Eng. Hydraulics; pitot tube; hydraucone regainer.

White, W(ilton) T(erry), Soil Conservation Service, Portland, Oregon. *Agronomy.* Jewell, Kans, June 1, 91. A.B, Kans. State Col, 17, M.S, 34; Oregon, 32–33. Plant breeder, Agr. Exp. Sta, Alaska, 17–19, in charge animal breeding, Alaska stations, 19–32; range examiner, *soil conservation service, U. S. Dept. Agr,* 35–37, senior agronomist, 37–39, *senior range examiner and chief range conservation, 39–* Soc. Agron; Soc. Animal Production. Animal genetics and breeding; range and grass investigations; color and horn inheritance in cattle; birth weight; sex ratio and length of gestation period in hybrid cattle.

White, Dr. Woodford, P. O. Box 166, Newton, N. C. *Chemistry.* Iredell Co, N. C, March 12, 98. B.S, North Carolina, 20; A.M, Columbia, 23, Ph.D, 26. Instr. chem, Clemson Col, 20–22; head dept. science, Delta State Teachers Col, Miss, 26–27; research chemist, Am. Cyanamid Co, Tremley Point, N. J, 27–28; E. R. Squibb and Sons, New Brunswick, 29–35. Summers, chemist, E. I. du Pont de Nemours and Co, Va, 18; Int. Shoe Co, N. C, 21; instr, Y.M.C.A. Schs, New York, 26; chemist, Standard Oil Co. of N. J, Bayway, 28. Nitrotoluenes; early stages of starch hydrolysis; refractive index of antitoxic globulin; purification of antitoxins; factors influencing the rate of thermal destruction of tetanus antitoxin.

Whited, Dr. Willis, 1407 Market St, Harrisburg, Pa. *Engineering.* Alden, Iowa, Nov. 4, 58. B.M.E, Iowa State Col, 79, M.E, D.E, 16. Eng. work, 80–84; shop inspector, Dom. Bridge

Co, 84–91; bridge eng. work, 91–99; bridge engineer, Pittsburgh, 99–11; engineer of bridges, State Highway Dept, Pa, 11–20, consulting engineer, 20–32; *retired.* Civil Eng; Soc. Test. Mat; Math. Soc; Math. Asn; Eng. Soc. West. Pa. Bridge engineering; strength and elasticity of engineering materials and structures.

Whiteford, Dean G(ilbert) H(ayes), Colorado State College, Ft. Collins, Colo. *Chemistry.* Glen Morris, Md, Oct. 17, 76. B.S, Md. Col, 97; A.M, Columbia, 12; Ph.D, Hopkins, 17. Teacher, pub. schs, Md. and Ga, 99–05; instr. science, Anne Arundel Acad, 05–07; Bellefonte Acad, 07–11; *prof. chem,* Albright Col, 11–14; *Colo. State Col, 17–, dean div. science and arts, 34–* A.A; Chem. Soc; Inst. Chem; fel. London Chem. Soc; Soc. Chem. Indust. Analytical chemistry.

Whitehead, Prof. F(red) E, 1709 W. Third, Stillwater, Okla. *Entomology.* Erie, Kans, Dec. 28, 91. A.B, Baker, 18; M.S, Kans. State Col, 24; fellow, Iowa State Col, 27–28, Ph.D, 32. Instr. zool, Kans. State Col, 23–24; asst. prof. entom, Idaho, 24–27; zool, State Col. Wash, 28–29; *entom, Okla. Agr. and Mech. Col,* 29–36, assoc. prof, 36–39, *prof, 39–, asst. dean agr, 37–* Entom. Soc. Amer; Asn. Econ. Entom; Texas Entom. Soc. (pres, 41). Arsenical poisoning of birds; poisoning grasshoppers; pecan Phylloxerae; insecticidal dusts; stored grain insects.

Whitehead, Dr. G(eorge) W(illiam), Purdue University, Lafayette, Ind. *Mathematics.* Bloomington, Ill, Aug. 2, 18. B.S, Chicago, 37, M.S, 38, Ph.D, 41. *Instr. math,* Tennessee, 39; *Purdue, 41–* A.A; Math. Soc. Combinatorial topology, especially homotomy properties of topological spaces.

Whitehead, Dr. John B(oswell), 19 W. Cold Spring Lane, Baltimore, Md. *²*Applied electricity.* Norfolk, Va, Aug. 18, 72. E.E, Hopkins, 93, A.B, 98, Ph.D, 02. Electrician, Westinghouse Elec. and Mfg. Co, 93–96; Niagara Falls Power Co, 96–97; instr. *applied elec, Hopkins,* 97–00, assoc, 01–04, assoc. prof, 04–10, prof, 10–42, *emer. prof, 42–,* dean faculty eng, 20–38, director sch. eng, 38–42. Asst, Bur. Standards, 02; Carnegie Institution; exchange prof, France, 26–27. Inst. Elec. Eng. del, Nat. Research Council, 25–27, chairman cmt. on elec. insulation, 28–; advisory consultant, research and eng. staffs, Gen. Cable Corp, 28–; U. S. Navy, 41– Montefiore prize, Liége, 21–25; médaille d'honneur, Nancy, 27; Longstreth medal, Franklin Inst, 17, Elliott Cresson gold medal, 31; Edison medal, Am. Inst. Elec. Engineers, 41. Major, C.Eng, 17–19. Nat. Acad; A.A; fel. Elec. Eng. (chairman, cmt. on research, board directors, 24–28, pres, 33); fel. Physical Soc; Soc. française des Electriciens. Inductive electromotive force in transformers; magnetic effect of electric displacement; single phase railway system; alternating current-direct current transformations; reactance in armored cables; ionization due to alternating voltage; submarine detection; measurement of high alternating voltage; high voltage corona in air; gaseous ionization in built-up insulation; theory and performance of dielectrics in high voltage insulation.

Whitehead, Prof. R(ichard) W(ilson), 4200 E. Ninth Ave, Denver, Colo. *Pharmacology.* Breckenridge, Colo, March 31, 96. A.B, Colorado, 19, M.D, 21; A.M, Western Reserve, 28. Instr. *physiol. and pharmacol, Colorado,* 21–23, asst. prof, 23–27, assoc. prof, 27–31, *prof, 31–* Nat. research fellow, 27–28. Summer, asst, Chicago, 23. Cation alterations on isolated intestine; pituitary and sex hormones; adrenal cortical extracts; metrazol and nikethamide as analeptics.

Whitehead, Prof. T(homas) H(illyer), 155 Grady Ave, Athens, Ga. *Analytical chemistry.* Maysville, Ga, Sept. 5, 04. B.S, Georgia, 25; A.M, Columbia, 28, Ph.D, 30. Teacher, high sch, Ga, 25–27; asst. *chem,* Columbia, 27–30; adj. prof, *Georgia,* 30–35, prof, 35–42; *capt, Chem. Warfare Service, U. S. Army, 42–* Chem. Soc. Colloid chemistry; oxidation-reduction indicators.

Whitehead, Dr. Walter L(ucius), Massachusetts Institute of Technology, Cambridge, Mass. *Geology.* Allegheny, Pa, July 5, 91. B.S, Mass. Inst. Tech, 13, Austin fellow, 14–16, Ph.D, 17. *Consulting mining geologist, 16–;* lecturer, *Mass. Inst. Tech,* 30–42; *asst. prof, 42–* A.A; Min. Eng; Min. and Metal. Eng; Asn. Petrol. Geol; Boston Eng. Club. Mining and economic geology; geochemistry; origin of ore deposits; silver; copper; cobalt; nitrate; tin; aluminum; lead; zinc; sulfur and chrome deposits.

Whitehill, Dr. Alvin R(ichard), 1951 W. Madison, Chicago, Ill. *Bacteriology.* Groton, Vt, March 18, 15. A.B, Dartmouth Col, 37; Cramer fellow, Cornell, 37–38, Ph.D, 42. Asst. bacter, Cornell, 38–41; *instr. biol, Ill. Inst. Tech, 42–* Soc. Bact. Variability of the group Bacillus Pasteurii.

Whitehill, Dr. Lynwood N(elson), Shell Development Co, 4560 Horton St, Emeryville, Calif. *Organic chemistry.* Groton, Vt, May 10, 13. A.B, Dartmouth Col, 35; Ph.D, Illinois, 41. *Chemist, Shell Develop. Co, 41–* Chem. Soc. Many membered ring compounds by direct synthesis from two w, w′-bifunctional molecules; development and synthesis of new resins derived from alkyl alcohol derivatives and in the synthesis and evaluation of plasticizers.

Whitehorn, Dr. John C(lare), Johns Hopkins Hospital, Baltimore, Md. *Psychiatry.* Spencer, Nebr, Dec. 6, 94. A.B, Doane Col, 16; M.D, Harvard, 21. Asst. path. chem, McLean Hosp, 21–29, physiol. chemist and director labs, 30–38; asst. *psychiat,* Harvard Med. Sch, 34–35, instr, 36–38; prof, med. sch, Washington (St. Louis), 38–41; *Henry Phipps prof. and director dept, Hopkins, 41–; psychiatrist in chief, Hopkins Hosp, 41–* Instr, sch. social work, Simmons Col, 36–38; assoc. psychiatrist, Mass. Gen. Hosp, 37–38; psychiatrist in chief, Barnes Hosp, St. Louis, Mo, 38–41. Div. med. sciences, Nat. Research Council, 32–34, 37–39. A.A; Am. Med. Asn; Psychiat. Asn. (chairman, cmt. on research, 30–34, 37–40); Asn. Research Nervous and Mental Disease. Biochemical technique; chlorides, phosphorus, amines and epinephrin; emotion; sentiments in psychotic reactions and their change under psychotherapy; heart rate in relation to emotion; interviewing; methods of psychotherapy.

Whitehorne, Prof. W(illiam) R(isby), Bates College, Lewiston, Maine. *Physics.* Jamaica, W. I, Feb. 9, 73. A.B, Tufts Col, 95, Ph.D, 01. Instr. physics, Lehigh, 04–06; math, Pratt Inst, 06–07; prof. *physics, Bates Col,* 07–43, *emer. prof, 43–* Color photography.

Whitehouse, Dr. Eula, Texas Memorial Museum, Austin, Texas. *Botany, Zoology.* Cleburne, Texas, Aug. 1, 92. A.B, Texas, 18, A.M, 31, Ph.D, 39. *Curator bot. and zool, Texas Mem. Museum, 28–* Instr, col. mines, Texas, 31–32, 33–34. Bot. Soc; Soc. Plant Taxon; Texas Acad. Taxonomy and morphology of plants; annual species of phlox.

Whitehouse, Dr. K(arl) C(hism), 109 E. High St, Bound Brook, N. J. *Chemistry.* Pomfret, Conn, Aug. 24, 10. A.B, Clark, 32, A.M, 33, Ph.D, 35. *Research chemist, Calco chem. div, Am. Cyanamid Co, 35–* A.A; Chem. Soc. Friedel-Crafts reaction; dyes; pigments.

Whitehouse, Dr. W(illiam) E(dwin), 4507 Amherst Road, College Park, Md. *Horticulture.* Somerville, Mass, Aug. 29, 93. B.S, Oregon State Col, 15; M.S, Iowa State Col, 20; Ph.D, Maryland, 28. Asst. hort, Iowa State Col, 16–20; asst. sales manager, Capital City Nurseries, Iowa, 20–21; asst. hort, Maryland, 21–29; agr. explorer, *bur. plant indust, U. S. Dept. Agr,* 29–30, horticulturist, 30–33, *senior horticulturist, div. plant explor. and introd, 33–* U. S. Dept. Agr. exped, France, Germany, Russia and Persia, 29, Norway, Sweden, Denmark and Germany, 32. Soc. Hort. Sci. Fruit storage; pollination of fruits; nutrition of strawberries; the pistache nut in Russia, Persia and the United States.

Whitelaw, Prof. Neill G(ordon), Presbyterian College, Clinton, S. C. *Physics.* Kidder, Mo, Jan. 29, 06. A.B, Miami (Ohio), 27; A.M, Wisconsin, 29, Ph.D, 32. Asst. physics, Wisconsin, 27–31, 32–35, instr. math, 31–32; *prof, Presb. Col. (S. C),* 35–36, *physics, 36–* Physical Soc; S. C. Acad. Perturbation in series spectra; virial coefficient data for helium.

Whitely, Dr. Paul L(eRoy), Franklin and Marshall College, Lancaster, Pa. *Psychology.* Summitville, Ind, Dec. 31, 93. A.B, Earlham Col, 20; fellow, Chicago, 22–23, A.M, 23, Ph.D, 27. Prof. psychol. and educ. Nebr. Cent. Col, 20–22; instr. *psychol,* Washington (St. Louis), 23–26; assoc. prof, Colgate, 27–30; *prof, Franklin and Marshall Col, 30–* Summers, visiting prof, Emory, 28, 29; Arkansas, 30. Research assoc, Psychol. Corp. A.A; Psychol. Asn; Soc. Psychol. Study Social Issues; East. Psychol. Asn; Lancaster Co, Pa, Mental Hygiene Asn. (pres). Learning and memory.

Whiteman, Dr. Albert (Leon), 17 Sumner Road, Cambridge, Mass. *Mathematics.* Philadelphia, Pa, Feb. 15, 15. A.B, Pennsylvania, 36, Harrison scholar, 36–37, A.M, 37, Harrison fellow, 37–38, Ph.D, 40. Asst. instr. *math,* Pennsylvania, 38–40; *Benjamin Peirce instr, Harvard, 40–; lieut, U. S. Naval Res.* Math. Soc. Theory of numbers.

Whitenton, Prof. R(obert) O(scar), 220 Lincoln St, Stillwater, Okla. *Zoology.* Jackson, Tenn, April 6, 83. A.B,

George Peabody Col, 06; M.S, Chicago, 15; California, 25–26. Head dept. biol, Southwest. State Nor. Sch, Okla, 11–13; asst. prof. *zool, Okla. Agr. and Mech. Col*, 13–15, assoc. prof, 15–23, *prof. and head dept, 23–* A.A; Okla. Acad. (sec'y, 17–20, v. pres, 21, pres, 22). Birds and parasites.

Whitesell, Prof. W(illard) A(lexander), University of South Carolina, Columbia, S. C. *Chemistry.* Greenville, Va, July 27, 97. A.B, Randolph-Macon Col, 18; Ph.D, Hopkins, 23. Assoc. prof. *chem, South Carolina*, 23–37, *prof, 37–* Chem. Soc. (chairman, S. C. sect, 37, sec'y, 42, 43); S. C. Acad. Physical chemistry; catalytic oxidations.

Whiteside, A(lbert) G(ordon) O(wen), Central Experimental Farm, Ottawa, Ont, Can. *Agriculture.* Guelph, Ont, Nov. 11, 00. B.S.A, Toronto, 22; M.S, Minnesota, 31. Plant breeder cereals, Ont. Agr. Col, 22–24; *cerealist, Dom. Exp. Farms, 24–* Asn. Cereal Chemists; Can. Soc. Tech. Agr. (exec. cmt, east. Ont, 31, pres, 35). Winter wheat and rye; wheat and wheat flour, especially wheat varieties and hybrids.

Whiteside, Dr. Beatrice, Guaranty Trust Co, 140 Broadway, New York, N. Y. *Histology.* Olean, N. Y, Oct. 2, 91. A.B; Vassar Col, 13; Ph.D, Zurich, 20. Instr. anat, sch. med, Washington (St. Louis), 21–24, histol. and neuro-anat, 24–25; assoc. prof. histol, Detroit Col. Med, 25–29; *vol. research worker*, Berlin, 29–30; Vienna, 32–38; *Geneva, 42–* Asn. Anat. Neuroanatomy; the endolymphatic system; gustatory apparatus; endocrine system.

White-Stevens, Dr. R(obert) H(enry), Long Island Vegetable Research Farm, Riverhead, N. Y. *Horticulture.* London, Eng, June 3, 12. B.S.A, McGill, 33, M.Sc, 36; Ph.D, Cornell, 42. Asst. hort, McGill, 33–35; *veg. crops, Cornell*, 35–40, *research instr, 40–* Soc. Plant Physiol; Soc. Hort. Sci. Plant physiology and biochemistry; plant nutrition and its biochemical effects.

Whitfield, Dr. C(harles) J, Soil Conservation Service, Amarillo, Texas. *Agriculture.* Ottumwa, Iowa, July 2, 03. A.B, Iowa State Teachers Col, 26; A.M, Nebraska, 28; Ph.D, Chicago, 32. Ecol. research, Carnegie Institution, 25–31; assoc. forest ecologist, U. S. Forest Service, 31–34; soil conservationist, *soil conservation service, U. S. Dept. Agr*, 34–36, *senior soil conservationist, Amarillo exp. sta, 36–* Wind erosion; wind erosion control methods in the central and southern Great Plains; sand dune and vegetational investigational studies; natural and artificial revegetation; range and watershed problems.

Whitford, Dr. Albert E(dward), Washburn Observatory, Madison, Wis. *Physics.* Milton, Wis, Oct. 22, 05. A.B, Milton Col, 26; A.M, Wisconsin, 28, Ph.D, 32. Asst, Washburn Observatory, Wisconsin, 32–33; nat. research fellow, Mt. Wilson Observatory and Calif. Inst. Tech, 33–35; research assoc. astron, *Washburn Observatory, Wisconsin*, 35–38, *asst. prof. astrophysics, 38–; mem. radiation lab, Mass. Inst. Tech, 41–* Spectroscopy; astronomical photoelectric photometry.

Whitford, Dean Alfred E(dward), Alfred University, Alfred, N. Y. *Mathematics, Physics.* Milton, Wis, Sept. 4, 75. A.B, Milton Col, 96, Chicago, 00; A.M, Wisconsin, 11; hon. Sc.D, Alfred, 26. Teacher, high sch, and prin, pub. sch, Wis, 96–99; prof. physics, Milton Col, 01–11, math. and physics, 11–25, acting pres, 21–23, pres, 23–30; lecturer *math*, Wisconsin, 30–32; *prof, Alfred, 32–, dean col. lib. arts, 34–* Math. Asn. Electrical conductivity of bismuth-thallium alloys.

Whitford, Prof. D(aniel) E(verett), 85–99 Livingston St, Brooklyn, N. Y. *Mathematics.* Phenix, R. I, May 2, 98. A.B, Brown, 20, A.M, 21; Ed.M, Harvard, 27. Instr. *math*, Rochester, 21–23; Harvard, 25–26; *Polytech. Inst. Brooklyn*, 28–31, *asst. prof, 31–* Instr, St. Francis Col. (Brooklyn), 29–30. Math. Soc; Math. Asn.

Whitford, Dr. Earl L, 716 Seymour Ave, Niagara Falls, N. Y. *Chemistry.* Edgerton, Wis, Feb. 26, 95. A.B, Iowa State Teachers Col, 17; A.M, Wisconsin, 22, Ph.D, 24. Instr, Wisconsin, 20–25; asst. works manager, *Oldbury Electro-Chem. Co*, 25–35, *gen. sales manager, 35–* Chem. Soc; Electrochem. Soc. Physical and inorganic chemistry.

Whitford, Dr. E(dward) E(verett), Brookfield, N. Y. *Mathematics.* Brookfield, N. Y, Jan. 31, 65. A.B, Colgate, 86, A.M, 90; Ph.D, Columbia, 12. Teacher, Colby Acad, N. H, 86–91; Keystone Acad, Pa, 91–98; cashier, C. Whitford's Bank, N. Y, 98–00; prin, high sch, 00–01; teacher, Pa, 02; N. Y, 02–03; tutor and instr. math, Col. City of N. Y, 05–14, asst. prof, 14–27, assoc. prof, 27–34, prof, 34–35; *retired.* Math. Soc; Math. Asn. The Pell equation and its application to units of quadratic domains.

Whitford, Prof. L(arry) A(lston), North Carolina State College, Raleigh, N. C. *Botany.* Ernul, N. C, April 11, 02. B.S, N. C. State Col, 25, M.S, 29; Ph.D, Ohio State, 41. Instr. *bot, N. C. State Col*, 26–30, *asst. prof, 30–* A.A; Micros. Soc; Limnol. Soc; N. C. Acad. Fresh-water algae.

Whiting, Dr. A(lbert) L(emuel), 715 W. Delaware St, Urbana, Ill. *Agronomy.* Stoughton, Mass, May 12, 85. B.S, Mass. Col, 08; M.S, R. I. State Col, 10; fellow, Illinois, 10–12, Ph.D, 12. Asst. agron. and instr. vet, R. I. State Col, 08–10; asst. soil biol, Illinois, and Exp. Sta, 12–13, assoc, 13–16, asst. prof. and asst. chief, 17, assoc. prof, 18, prof. and chief, 19–24; assoc. prof. agr. bacter, Wisconsin, 24–27; *manager, Urbana Labs, 27–* A.A; Soc. Agron; Ill. Acad. Soil biology and chemistry; nitrogen cycle; inoculation of legumes; efficiency of strains of nodule bacteria; nitrates; availability and field tests of essential plant food elements.

Whiting, Dr. Anna R(achel), Swarthmore College, Swarthmore, Pa. *Genetics.* Saugerties, N. Y, Feb. 19, 92. A.B, Smith Col, 16; Ph.D, Iowa, 24. Assoc. prof, Catawba Col, 27–28; prof. biol. and head dept, Pa. Col. for Women, 28–36; guest investigator, dept. *zool*, Pennsylvania, 36–43; *assoc. prof, Swarthmore Col, 43–* A.A; Soc. Zool; Genetics Soc; Soc. Nat. Sex determination and heredity in Hymenoptera; x-rays and heredity.

Whiting, Dr. Frederick, 405 Park Ave, New York, N. Y. *Otology.* Brooklyn, N. Y, 61. A.B, Amherst Col, 82, A.M, 85; M.D, L. I. Col. Hosp, 85. Prof. *otology, med. col, Cornell*, 03–29, *emer. prof, 29–* Attending surgeon, N. Y. Eye and Ear Infirmary, 95–27; attending otologist, Mt. Sinai Hosp, 07–20; N. Y. Polyclinic Hosp; St. Bartholomew's Hosp. Otol. Soc; fel. Col. Surg; Am. Med. Asn; N. Y. Otol. Soc; N. Y. Acad. Med. Symptomatology and treatment of pyaemic sinus thrombosis, based upon three successfully operated cases; the differential diagnosis of acute and chronic brain abscess by means of the encephaloscope; adequate drainage as the essential step in the successful surgery of brain abscess; the modern mastoid operation.

Whiting, Prof. P(hineas) W(escott), University of Pennsylvania, Philadelphia, Pa. **Genetics.* Lowell, Mass, Oct. 28, 87. A.B, Harvard, 11, M.S, 12; Ph.D, Pennsylvania, 16. Harrison research fellow, Pennsylvania, 16–18; prof. biol, Franklin and Marshall Col, 18–20; St. Stephen's Col, 20–21; research prof. eugenics, child welfare research sta, Iowa, 21–24; prof. biol, Maine, 24–27; research investigator, Nat. Research Council, Bussey Inst, Harvard, 27; asst. prof. zool, Pittsburgh, 27–28, assoc. prof, 28–32, prof, 32–33; visiting investigator, Carnegie Institution, Cold Spring Harbor, 33–35; lecturer *zool, Pennsylvania*, 35–36, *assoc. prof, 36–* A.A; Soc. Nat; Genetics Soc. (sec'y-treas, 32–34, v. pres, 35, pres, 36); Genetic Asn. (advisory cmt); Soc. Zool. Cytology and genetics of insects; parthenogenesis and sex-determination in Habrobracon.

Whiting, Dr. W(illiam) A(lonzo), 715 Eighth Ave, W, Birmingham, Ala. *Biology.* Meadville, Pa, June 15, 90. B.S, Allegheny Col, 14; Ph.D, Cornell, 21. Instr. biol, Allegheny Col, 13–14; prin. and teacher, high schs, 14–17; instr. bacter, Cornell, 17–21; *head dept. biol, Birmingham-Southern Col, 22–* A.A; Ala. Acad. Bacteriology; taxonomic studies in botany.

Whitlatch, Dr. George I(saac), 2807 Sherbourne Drive, Nashville, Tenn. *Geology.* Charlestown, Ind, Feb. 18, 05. A.B, Indiana, 28, A.M, 29, fellow, 30–32, Ph.D, 32. Asst. geol, Indiana, 27–30; asst. geologist, *State Div. Geol, Tenn*, 32–37, *assoc. geologist, 37–* Soc. Econ. Paleont. and Miner; Tenn. Acad; Middle Tenn. Tech. Soc. Devonian stratigraphy and structure in Indiana; clay resources of Indiana; clay, phosphate and other nonmetallic resources of Tennessee; Tertiary stratigraphy.

Whitley, Dr. Mary T(heodora), Columbia University, New York, N. Y. *Psychology.* London, Eng, Oct. 4, 78. B.S, Columbia, 05, A.M, 06, Ph.D, 11. Instr. educ. psychol, Teachers Col, Columbia, 10–14, asst. prof. educ, 14–30, assoc. prof, 30–43; *retired.* Psychol. Asn; Child Study Asn. Education; tests; child psychology; religious information scale.

Whitley, Prof. Wyatt C(arr), Georgia School of Technology, Atlanta, Ga. *Chemistry.* Selma, N. C, Oct. 17, 00. B.S, Wake Forest Col, 28; Hopkins, 28–29; M.S, Ga. Tech, 33; Ph.D, Wisconsin, 39. Instr. *chem*, George Washington, 29; *Ga. Tech*, 29–35, asst. prof, 35–42, *assoc. prof, 42–* Chem. Soc.

(chairman program cmt. local sect, 41, sect, 42). Physical and inorganic chemistry; determination of trace elements in plant products using the polarograph.

Whitlock, Dr. Herbert E(dward), 1100 N. Stiles St, Linden, N. J. *Organic chemistry.* Lahore, India, April 20, 10. A.B, Col. of Wooster, 31; M.S, N. Y. Univ, 36, Ph.D, 40. *Research chemist, Pharma Chem. Corp, 35–* Infra red absorption spectrum of liquid ammonia.

Whitlock, Herbert P(ercy), American Museum of Natural History, New York, N. Y. *Mineralogy.* New York, N. Y, July 31, 68. C.E, Columbia, 89. Asst. miner, Columbia, 92–00; N. Y. State Museum, 00–04, mineralogist, 04–17; curator *miner, Am. Museum Nat. Hist,* 17–41, *emer. curator, 41–* Hon. curator, Wadsworth Atheneum and Morgan Mem, Conn, 29–A.A; Miner. Soc. (sec'y, 20–22, pres, 33); Geol. Soc. (v. pres, 32–); Am. Acad; fel. N. Y. Acad; N. Y. Miner. Club (past pres, past sec'y and curator, 18). Crystallography; calcite; crystal forms of minerals; the story of the gems.

Whitman, Prof. E(dwin) A, Carnegie Institute of Technology, Pittsburgh, Pa. *Mathematics.* Venice, N. Y, Oct. 5, 87. A.B, Yale, 10; A.M, Pittsburgh, 15. *Assoc. prof. math, Carnegie Inst. Tech, 19–* Math. Soc; Math. Asn. Use of models and animated motion pictures as aids in teaching calculus.

Whitman, Dr. G(erald) M(essner), Claymont Garden Apts, Claymont, Del. *Organic chemistry.* Galesburg, Ill, April 17, 15. B.S, Illinois, 36; du Pont fellow, Wisconsin, 39–40, Ph.D, 40. Asst. org. chem, Wisconsin, 36–39; *research chemist, exp. sta, E. I. du Pont de Nemours and Co, 40–* Chem. Soc. Condensation of propenyl ketones with ethyl oxalate; hydrogenation of iminonitriles; vapor phase organic catalysis.

Whitman, Prof. J(ames) L(aurence), Texas Christian University, Ft. Worth, Texas. *Chemistry.* Pendleton, Oregon, March 9, 92. A.B, Oregon, 14, M.S, 15; Ph.D, Iowa, 24. Teacher, high sch, 15–19; head dept. chem, Spokane, 19–21; instr. anal. chem, Oregon, 21–22; physical chem, Iowa, 24–28; *prof. chem. and head dept, Texas Christian, 28–* A.A; Chem. Soc. (sec'y, Iowa sect, 27, pres, 28, cent. Texas sect, 32; councilor, Dallas-Ft. Worth sect, 37–40); fel. Inst. Chem. Conductivity in mixed solvents; electrometric determination of reducing sugars; colloids; physical properties of binary liquid systems; vapor pressures of butyl bromide.

Whitman, Dr. Philip M(artin), University of Pennsylvania, Philadelphia, Pa. *Mathematics.* Pittsburgh, Pa, Dec. 23, 16. B.S, Haverford Col, 37; A.M, Harvard, 38, Ph.D, 41. *Instr. math,* Harvard, 38–41; *Pennsylvania, 41–* Math. Soc; Math. Asn. (sec'y, Phila. sect, 42). Lattice theory.

Whitman, Dr. Vernon E(leazer), 270 Dorchester Road, Rochester, N. Y. *Physics.* Washington, D. C, April 30, 00. B.S, Mass. Inst. Tech, 22, M.S, 24; A.M, Hopkins, 26, Ph.D, 28. Assoc. physicist, Bur. Standards, 23–29; radio develop, Hazeltine Corp, 29–37; physicist, Carl Zeiss, Inc; *mem. staff, Folmer Graflex Corp.* Aeronautics; chemistry; radio photography.

Whitman, Prof. Walter G(ordon), Massachusetts Institute of Technology, Cambridge, Mass. *Chemical engineering.* Winthrop, Mass, Nov. 30, 95. B.S, Mass. Inst. Tech, 17, M.S, 20. Instr. chem. eng, Mass. Inst. Tech, 17–20, asst. prof, 20–26, asst. director research lab, 22–26; research, Standard Oil Co. of Ind, 26–31, assoc. director, 31–34; *prof. chem. eng, head dept. and director sch. chem. eng. practice, Mass. Inst. Tech, 34–; asst. chief chem. branch, War Production Board; chairman subcmt. aircraft fuels and lubricants, Nat. Advisory Cmt. Aeronautics.* Director, Sta. Sch. Chem. Eng. Practise, Bangor, 20–21, Boston, 21–22. Chem. Soc. (chairman, indust. and eng. div, 34–37); Chem. Eng. (councilor, 37–39, 42–). Gas absorption; corrosion of metals; flow of heat; petroleum engineering.

Whitman, Dr. Warren C(harles), North Dakota Agricultural College, Fargo, N. Dak. *Botany.* Fargo, N. Dak, Jan. 15, 11. B.S, N. Dak Col, 35, M.S, 36; Ph.D, Wisconsin, 39. *Asst. botanist, Exp. Sta, N. Dak. Col, 38–* A.A; Ecol. Soc; Soc. Agron. Range and pasture management; grassland ecology; management and improvement of rangelands in western North Dakota; range vegetation.

Whitmer, Dr. Carroll A(braham), R. D. 4, Pittsburgh, Pa. *Psychology.* North Liberty, Ind, Jan. 4, 99. A.B, Indiana, 23, A.M, 26; Ph.D, Pittsburgh, 31. Prin, high sch, Ind, 22–25; instr. *psychol,* Indiana, 26–27; *Pittsburgh,* 28–34, asst. prof, 34–41, *lecturer, 41–; director special educ, schs, Pittsburgh, Pa, 41–* Assoc. Psychol. Asn; fel. Asn. Applied Psychol; Pa. Conf. Educ. Exceptional Children (v. pres, 41); Pa. Asn. Clin. Psychol. (sec'y, 38). Visual discrimination; tests and measurements; clinical psychology.

Whitmer, Prof. Charles A(ustin), University of Oklahoma, Norman, Okla. *Physics.* Flat Rock, Ind, Feb. 10, 07. A.B, DePauw, 28; M.S, Iowa, 31; fellow, Ohio State, 34–35, Ph.D, 36. Asst. *physics,* Iowa, 28–31; asst. prof, Olivet Col, 31–32; asst, Ohio State, 32–34; *asst. prof, Oklahoma, 36–* Physical Soc; Okla. Acad. X-ray spectroscopy; nuclear physics.

Whitmore, Prof. Eugene R(andolph), 2139 Wyoming Ave, N. W, Washington, D. C. *Parasitology, Pathology.* Lancaster, Wis, June 18, 74. B.S, Wisconsin, 96; M.D, Illinois, 99; Dr.P.H, Hopkins, 21; Ph.D, Georgetown, 30. Intern, Cook County Hosp, and adj. prof. chem, col. med, Illinois, 99–01; med. officer, U.S.A, 01–20; pathologist, Bur. Science, P. I, 08–10; lecturer trop. med. and instr. protozool, helminthol. and entom, N. Y. Post-Grad. Med. Sch, 13; *prof.* path. and bacter, Army Med. Sch, 13–19; bacter. and prev. med, med. sch, George Washington, 20–24; *parasitol. and path, Georgetown, 24–* Curator, Army Med. Museum, 13–15; pathologist, Georgetown Univ. Hosp, 24–; head dept. labs. and radiol, Gallinger Munic. Hosp, 30– Summer, pathologist, yellow fever cmn, int. health board, Rockefeller Foundation, S. Amer, 16. Sec'y sect. VIII, 2nd Pan-Am. Sci. Cong, 15–16. A.A; Soc. Parasitol; Asn. Path. and Bact; fel. Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Path; Asn. Study Neoplastic Diseases (sec'y); Soc. Social Welfare; Pan-Am. Med. Asn. Chemotherapy; biological action of radiant energy; neoplastic diseases.

Whitmore, Dean Frank C(lifford), Pennsylvania State College, State College, Pa. **Chemistry.* North Attleboro, Mass, Oct. 1, 87. A.B, Harvard, 11, A.M, 12, Ph.D, 14; hon. Sc.D, Franklin and Marshall Col, 37, Delaware, 37, Allegheny Col, 38, Phila. Col. Obstet, 43. Instr. org. chem, Williams Col, 16–17; Rice Inst, 17–18; asst. prof, Minnesota, 18–20; prof. chem, Northwestern, 20–29, acting head dept, 24–25, head dept, 25–29; *dean sch. chem. and physics, Pa. State Col, 29–, research prof. org. chem, 36–; mem, Nat. Defense Research Cmt, 40–,* chairman sect. B-2, 41–42, *mem. sect. 8.2 and 16.3, 43–, invest. sect. 8.2 and 17.3, 43–* Chem. consultant, Office Production Management, 41; *mem. referee board, chem. div, War Production Board, 42–; chem. cmt, Quartermaster Gen. Office, U. S. Army, 42–* Consultant, bur. chem. and soils, U. S. Dept. Agr, 28–36; civilian consultant, C.W.Res, 26–43. Ed. board, 'Chem. Bul,' 22–28, assoc. ed, 'Jour. Am. Chem. Soc,' 35–; assoc. ed, 'Org. Syntheses,' 23–, ed, 26, 31; advisory board, 14th edition, 'Encyclop. Britannica'; consulting ed, 'Chem. Markets,' 27–31. V. chairman div. chem. and chem. technol, Nat. Research Council, 26–27, chairman, 27–28, div. states relations, 29–; mem. Cent. Petrol. Cmt, 26–30, chairman cmt. on metallo-org. compounds, 23–27; sec'y, Gen. Chem. Conf. Inst. Politics, 26; mem. Cmt. Surv. Research in Chem, 40; Pa. Job Mobilization Cmt, 39–40. Willard Gibbs medal jury, 26–32. William H. Nichols medal, 37. A.A. (v. pres, 32, chairman, C, 32, councilor, 41–); Chem. Soc. (sec'y, org. div, 22, 25–29, chairman, 23, 30, councilor, Chicago sect, 23–25, councilor-at-large, 26–28, director, 28–39, chairman jury prize award, 37, pres, 38; mem. cmt. econ. status, 41–; cmt. for O.P.R.D, 43–); Chem. Eng; Electrochem. Soc; Am. Inst; Nat. Inst. Social Sci; Philos. Soc; Army Ordnance Asn; Infantry Asn; Nat. Asn. Mfrs. (cmt. Mod. Pioneer awards, 39); fel. Am. Acad; Franklin Inst; Pa. Acad; London Chem. Soc; Newcomen Soc; Deuts. Chem. Gesell; Int. Union Chem. (councilor, 31–34). Organic chemistry; organic mercurials; aliphatic compounds; intramolecular rearrangements; organosilicon compounds; antimalarials; synthetic hydrocarbons in gasoline and lubricant ranges; military high explosives aviation fuels and additives; camouflage; penicillin.

Whitmore, Dr. Frank C(lifford), Jr, Rhode Island State College, Kingston, R. I. *Vertebrate paleontology.* Cambridge, Mass, Nov. 17, 15. A.B, Amherst Col, 38; M.S, Pa. State Col, 39; univ. fellow, Harvard, 40–41, A.M, 41, Ph.D, 42. Asst. paleont, Harvard, 40, teaching fellow, 41–42; *instr. geol, R. I. State Col, 42–* A.A; Soc. Vert. Paleont; Paleont. Soc. Endocranial anatomy of fossil mammals.

Whitmore, Prof. Harry G(regory), Texas State College for Women, Denton, Texas. *Chemistry.* Parnassus, Va, May 9, 80. A.B, Virginia, 03, A.M, 09; Harvard, 11–12; Columbia, 22, 27. Instr. physics, Miller Manual Labor Sch, Va, 07–08; *prof.* chem. and geol, Lenoir Col, 09–11; chem. and physics, East. Col. (Va), 12–14; State Sch, W. Va, 14–16; *chem, Texas State Col. for Women, 17–* A.A; Chem. Soc. (chairman,

Dallas-Ft. Worth sect. 41). Physical and inorganic chemistry; effect of the change in electromotive force due to changes in the concentration of various silver salts.

Whitmore, Prof. W(illet) F(rancis), 99 Livingston St, Brooklyn, N. Y. *Chemistry.* Brooklyn, N. Y, July 5, 94. B.S, Polytech. Inst. Brooklyn, 18, Chem.E, 20; A.M, Columbia, 27; D.Sc, Graz, Austria, 31. *Dept. chem, Polytech. Inst. Brooklyn, 20–,* asst. prof. chem. eng, 25–34, assoc. prof. *org. chem,* 34–39, *prof, 39–* Director research, U. S. Shellac Importers Asn. A.A; Chem. Soc; Oil Chemists Soc; Soc. Test. Mat. The constitution of shellac; microscopic methods of chemical analysis; preparation of emulsions; preparation of heavy metal soaps; systematic organic analysis; anesthetics.

Whitmoyer, Dr. R(aymond) B(ritton), 43 N. Aberdeen Place, Atlantic City, N. J. *Chemistry.* Beaver Lake, Pa, Sept. 29, 88. A.B, Dickinson Col, 13, A.M, 14; Ph.D, Columbia, 34. Teacher, high sch, N. J, 14–18; Jackson lab, E. I. du Pont de Nemours and Co, 18–19; *head dept. science, high sch, Atlantic City, 19–* Chem. Soc; N. J. State Sci. Teachers Asn. (pres, 35, 36). Methods for determination of reducing sugars and enzyme action.

Whitnah, Prof. C(arrell) H(enry), Kansas State College, Manhattan, Kans. *Chemistry.* Utica, Nebr, May 25, 92. A.B, Nebraska, 13, Ph.D, 25; M.S, Chicago, 17. Teacher science, Grand Island Col, 13–16; lecturer chem, Judson Col, Rangoon, Burma, 17–27; assoc, Iowa, 28; *asst. prof. chem, Kans. State Col, 29–,* assoc. food analyst, 29–37, *dairy chemist, 37–* Chem. Soc. Organic and biological chemistry; structure of sugars; physiology of milk production; composition of milk.

Whitnall, Prof. H(arold) O(rville), Colgate University, Hamilton, N. Y. *Geology.* Morristown, N. J, Aug. 3, 77. Ph.B, Colgate, 00, A.M, 07; Sc.D, Bates Col, 39. Instr. geol. and biol, *Colgate,* 03–07, asst. prof. geol, 07–12, assoc. prof. miner. and econ. geol, 12–25, *prof. geol, 25–; consulting geologist.* Field expert, N. Y. Geol. Surv, 05–08; geologist, N. Y. and Ont. West. R. R. Min. and Metal. Eng; Soc. Mammal; Soc. Meteoric Research. Dawn of mankind; dinosaurs and their world; ancient animals.

Whitner, Dr. Thomas C(obb), 136 Parker Road, Elizabeth, N. J. *Chemistry.* Atlanta, Ga, Feb. 7, 93. B.S, Ga. Tech, 14, 16; Ph.D, Hopkins, 20. Chemist, South. Cotton Oil Co, 16–17, 20–21; instr. chem, Hopkins, 21–25, assoc, 25–27; *research chemist,* Standard Oil Co. of N. J, 27–31; Ellis Labs, Montclair, N. J, 31–41; *Chem. Labs, Inc, 42–* A.A; Chem. Soc; Inst. Chem. Aliphatic sulfides; aromatic nitro derivatives; petroleum.

Whitney, Alvin G(oodnow), New York State Museum, Albany, N. Y. *Forestry, Biology.* Hamilton, Ont, Can, March 2, 83. A.B, Dartmouth Col, 07; Yale, 08–10. Asst. bot, Dartmouth Col, 06–08; bur. biol. surv, U. S. Dept. Agr, 12; Bur. Fisheries, Alaska, 12–14; asst. forest zool, N. Y. State Col. Forestry, Syracuse, 16–17, instr, 19–20, asst. prof, 20–26, prof, 26–27; asst. director, Roosevelt Wild Life Forest Exp. Sta, Syracuse, 20–27; asst. prof. forest zool, sch. forestry and conservation, Michigan, 27–29; sec'y, *N. Y. State Museum,* 29–30, *asst. director, 30–* Airplane wood inspector, U. S. Aircraft Service, 18–19. A.A; Soc. Foresters; Ornith. Union; Soc. Mammal; Ecol. Soc; Asn. Mus; N. Y. Archeol. Asn. (trustee). Ecology of birds and mammals; forest and park wildlife surveys; preservation of natural conditions.

Whitney, Dr. Charles E(ugene), 551 Dunbar Terrace, Lincolnshire, Crete, Ill. *Chemistry.* Cleveland, Ohio, May 21, 05. A.B, Oberlin Col, 26, A.M, 28; Ph.D, Michigan, 31. Asst. chem, Oberlin Col, 26–28; physical chem, Michigan, 30–31; chemist, Kimberly-Clark Corp, Neenah, Wis, 31–32; research assoc, Inst. Paper Chem, Lawrence Col, 32–34; *research chemist, Sherwin-Williams Co, 34–* Colloid chemistry; adhesion tension of liquid-solid systems; lithopone; dry and flush colors.

Whitney, Charles S(mith), 724 E. Mason St, Milwaukee 2, Wis. *Civil engineering.* Bradford, Pa, Nov. 4, 92. C.E, Cornell, 14, M.C.E, 15. *Consulting and designing engineer, 20–* J. James R. Croes medal, Soc. Civil Eng, 25; Fuertes medal, Cornell, 25, 37; Wason medal, Concrete Inst, 33. Civil Eng; Inst. Consulting Eng; Soc. Test. Mat; Concrete Inst; Inst. Aeronaut. Sci. Reinforced concrete; analysis of concrete arches and other statically indeterminate structures; municipal improvements; bridges; industrial plants; airports; hangars.

Whitney, C(hester) N(athan), U. S. Forest Service, Federal Bldg, Missoula, Mont. *Forestry.* West Boxford, Mass, Aug. 18, 83. Ph.B, Yale, 05; Michigan, 06–07. Field asst, U. S. Forest Service, Md, 05–06; forest asst, Shoshone Nat. Forest, Wyo, 07–08; Blackfeet and Cabinet Nat. Forests, Mont, 08–10; forest examiner, regional office forest products, *U. S. Forest Service,* 17–24, asst. forester, 25–31, *div. forest products, North. Rocky Mountain Forest and Range Exp. Sta,* 31–35, *assoc. forester, 35–* Soc. Foresters (sec'y north. Rocky Mountain sect, 35). Utilization of forest products.

Whitney, Prof. David D(ay), University of Nebraska, Lincoln, Nebr. [*3]*Zoology.* Brookfield, Vt, Aug. 6, 78. A.B, Wesleyan, 04; A.M, Columbia, 06, Ph.D, 09. Asst. *zool,* Columbia, 07–08; instr, Wesleyan, 08–11, assoc. prof, 11–16; *prof, Nebraska, 16–, chairman dept, 34–* A.A; Soc. Nat; Soc. Zool; Genetics Soc. Sex regulation in rotifers; inheritance in man.

Whitney, Mrs. Elsie Gibson, 274 S. Main Ave, Albany, N. Y. *Botany.* Ryegate, Vt, March 15, 85. A.B, Syracuse, 17; A.M, Michigan, 29. Teacher, Alaskan service, Bur. Fisheries, 12–14; asst. bot, Syracuse, 16–17, teaching fellow, 17–18, asst, 18–19; recording asst, univ. herbarium, Michigan, 28–29; asst. state botanist, N. Y. State Museum, 29–37. A.A; Fern Soc. (sec'y, 34–); Mich. Acad. Ecology of pteridophytes; relation of soils to plant distribution.

Whitney, Prof. F(rancis) L(uther), University of Texas, Austin, Texas. *Paleontology.* Enfield, N. Y, Sept. 2, 78. A.B, Cornell, 06, A.M, 11, Ph.D, 28. Asst. geol, Cornell, 03–07; asst. geologist, La. Geol. Surv, 05–07; acting prof. biol, Buchtel, 07–08; prof, Hastings Col, 08–09; instr. *geol. and paleont, Texas,* 09–14, adj. prof, 14–19, assoc. prof, 19–25, *prof, 25–* A.A; Paleont. Soc; Geol. Soc; Asn. Petrol. Geol; Paleont. Research Inst. The Cretaceous.

Whitney, Prof. Hassler, Sudbury Road, Weston, Mass. [*6]*Mathematics.* New York, N. Y, March 23, 07. Ph.B, Yale, 28, Mus.B, 29; Ph.D, Harvard, 32. Instr. *math, Harvard,* 30–31, nat. research fellow, Princeton, 31–32; Harvard, 32–33, instr, 33–35, asst. prof, 35–40, *assoc. prof, 40–* Lecturer, Harvard, 32–33. Math. Soc. Topology; differentiable functions.

Whitney, Dr. John Barry, Jr, Central Fibre Corp, Pisgah Forest, N. C. *Plant physiology.* Augusta, Ga, June 25, 16. B.S, Georgia, 35; M.S, N. C. State Col, 38; Ph.D, Ohio State, 41. Tutor, Georgia, 35–36; teaching fellow, N. C. State Col, 36–38; asst, Ohio State, 38–41; *plant physiologist, Cent. Fibre Corp, 41–; cpl, U. S. Army.* Summers, fellow, Mountain Lake Biol. Sta, Virginia, 34–35; agent, cotton fiber research lab, U. S. Dept. Agr, 37. A.A; Bot. Soc; Soc. Plant Physiol; Soil Sci. Soc; Soc. Hort. Sci. Water relations of plants; physiology of flax, with special reference to oil and fibre production; structure and microchemistry of plant cell walls.

Whitney, Prof. John D(urrell), 1517 S. Theresa, St. Louis, Mo. *Physics.* Ansel, Minn, Aug. 20, 98. A.B, Oklahoma, 23, M.S, 24; Ph.D, Iowa, 28. Instr. *physics,* Iowa, 27–28; asst. prof, Wis. State Teachers Col, Oshkosh, 28–29, 30–31; *prof, Harris Teachers Col, St. Louis, 31–* Physical Soc. Electronic collisions in mercury vapor.

Whitney, Dr. Leon F(radley), Orange, Conn. *Veterinary medicine, Biology, Genetics.* Brooklyn, N. Y, March 29, 94. B.S, Mass. Col, 16; D.V.M, Ala. Polytech, 40. Farmer, 15–20; in business, 20–25; exec. sec'y, Am. Eugenics Soc, Inc, 25–32; director research, Tioga Mills, 33–42; *practicing veterinarian, 42–* Vet. Med. Asn; Genetic Asn; Eugenics Research Asn; Soc. Mammal. Eugenics and genetics in man; genetical, psychological, nutritional and reproductive physiology of dogs and raccoons.

Whitney, Prof. L(ester) V, Southwest Missouri State Teachers College, Springfield, Mo. *Physics.* Chicago, Ill, May 1, 02. M.S. and Ph.D, Wisconsin, 36. *Prof. physics, Southwest Mo. State Teachers Col, 37–* A.A; Physical Soc; Limnol. Soc. Thermionic emission of metals; emissivity of metals; problems concerning the transmission and scattering properties of light into natural waters.

Whitney, Capt. Paul C(linton), 5212 Carillo Ave, Norfolk, Va. *Oceanography.* Washington, D. C, Aug. 28, 82. George Washington. Junior officer and in command various vessels, *U. S. Coast and Geod. Surv,* 02–17, chief coast pilot sect, 19–25, inspector, field sta, San Francisco, 25–28, chief div. tides and currents, 28–42, *supervisor Norfolk field sta, 42–* U.S.N.R, 17–19, lieut. commander. A.A; Civil Eng; Soc. Mil. Eng; Geophys. Union (pres, sect. oceanog); Wash. Soc. Eng. (sec'y, 30–42); Philos. Soc. Wash; Wash. Acad. Hydrography; tides and currents.

Whitney, Rich D(ean), 871 Livingston Ave, Syracuse, N. Y. *Electrical engineering.* Mexico, N. Y, Sept. 8, 87. E.E, Syra-

cuse, 09, B.S, 11, M.S, 12. From asst. to prof. elec. eng, col. applied science, *Syracuse*, 09–25, head dept, 22–25, lecturer illum, col. applied science, 25–42; *asst. prof. applied math, 42–*; elec. and illum. engineer in charge traffic signal sales eng, Crouse Hinds Co, Syracuse, 25–28; engineer, Atmospheric Nitrogen Corp, Syracuse, 28; elec. engineer and contact man, Lamson Co, Syracuse, 28–31; *teacher tech. elec, Blodgett Vocational High Sch, Syracuse, 30–* Distribution engineer, Syracuse Lighting Co, 16–17; consulting engineer, Bur. Water, Syracuse, 18–20; lecturer, N. Y. State Nor. Sch, Oswego, 21; consulting engineer in charge street lighting and supt, Bur. Gas and Elec, Syracuse, 22–25. Mem. Cmt. Flood Prevention, Syracuse, 23–24; chairman, State Cmt. St. Lighting, N. Y, 25–28. U.S.A, 18. Fel. Elec. Eng; N. Y. Illum. Eng. Soc; Syracuse Technol. Club (pres, 28). Street lighting; use of the floodlight; the electric lamp and street safety.

Whitney, Prof. R(obert) B(yron), Amherst College, Amherst, Mass. *Organic chemistry.* Minneapolis, Minn, July 28, 05. A.B, Minnesota, 24, Ph.D, 27. Instr, Harvard, 28–30; *chem, Amherst Col*, 30–33, asst. prof, 33–37, *assoc. prof, 37–* A.A; Chem. Soc. Reaction mechanism.

Whitney, Dr. Walter T(icknor), 445 W. 10th St, Claremont, Calif. *Astronomy.* Los Angeles, Calif, Dec. 26, 88. B.S, Pomona Col, 10, M.S, 12; Ph.D, Chicago, 16. Mt. Wilson Observatory, Carnegie Institution, 13, 17; research fellow physics, Calif. Inst. Tech, 17–19, instr, 19–20, asst. prof, 20–29; assoc. prof. *astron, Pomona Col*, 29–42, *prof, 42–, director, Frank P. Brackett Observatory, 34–* Astron. Soc; fel. Soc. Research Meteorites. Astrophysics; earth tides; meteors; navigation.

Whitney, Prof. William B(ernard), 1109 W. Second St, Arlington, Texas. *Organic chemistry.* Kansas City, Kans, Oct. 16, 05. A.B, Texas, 33, A.M, 34, Ph.D, 37. Assoc. prof. *chem, N. Texas Agr. Col*, 37–41, *prof, 41–* A.A; Chem. Soc. (sec'y-treas, Dallas-Ft. Worth local sect, 43); fel. Inst. Chem. Hydantoins; ketones.

Whitney, Prof. W(illis) R(odney), General Electric Co, Schenectady, N. Y. **Chemistry.* Jamestown, N. Y, Aug. 22, 68. B.S, Mass. Inst. Tech, 90; Ph.D, Leipzig, 96; hon. Ch.D, Pittsburgh, 19; Sc.D, Union (N. Y), 19, Syracuse, 25, Michigan, 27, Rochester, 32; LL.D, Lehigh, 29. Asst. instr. chem, *Mass. Inst. Tech*, 90–94, instr, 96–01, asst. prof. theoret. chem, 01–04, assoc. prof, 04–08, *non-res. prof. chem. research, 08–*; director research lab, *Gen. Elec. Co*, 00–28, v. pres. and director research, 28–32, v. pres, 32–41, *hon. v. pres, 41–* Chandler lecturer, Columbia, 20. Visiting cmt, Bur. Standards, 25–30. Naval Consulting Board; mem, corp, Mass. Inst. Tech, 17–21, 23–; trustee, Albany Med. Col, Union (N. Y); board governors, Union (N. Y). Willard Gibbs medal, 16; Chandler medal, Columbia, 20; Perkin medal, Soc. Chem. Indust, 21; gold medal, Nat. Inst. Social Sciences, 28; Franklin medal, Franklin Inst, 31; Edison medal, Am. Inst. Elec. Eng, 35; chevalier, Légion d'honneur, 37; pub. welfare medal, Nat. Acad, 38. Nat. Acad; A.A; Chem. Soc. (pres, 09); Electrochem. Soc. (pres, 12); Elec. Eng; Physical Soc; Min. Eng; hon. mem. Soc. Metals; Franklin Inst; Philos. Soc; Am. Acad; British Inst. Metals. Solubility; colloids; suspensions; corrosion of iron; chromium sulfate compounds; electrical fever therapy.

Whitsitt, Prof. May Lee, Southern Methodist University, Dallas, Texas. *Chemistry.* Ft. Worth, Texas, May 8, 90. A.B, Texas, 12; A.M, Columbia, 20, Ph.D, 30. Instr. *chem*, Okla. Agr. and Mech. Col, 17–19; asst. prof, *South. Methodist*, 20–25, assoc. prof, 25–35, *prof, 35–* A.A; Chem. Soc. (chairman women's service cmt, 39–; chairman, Dallas-Ft. Worth sect, 43). Chemistry of foods and nutrition; vitamin research.

Whitson, Prof. Andrew R(obinson), University of Wisconsin, Madison, Wis. *Soils.* Stanton, Minn, Oct. 9, 70. Wisconsin, 90–92; B.S, Chicago, 94, 94–95, 99–00; Berlin, 07. Prin, high sch. Wis, 95–99; asst. prof. agr. physics, *Wisconsin*, 00–01, prof, 01–05, *soils*, 05–41, *emer. prof, 41–* Field asst, U. S. Geol. Surv, 92–93. A.A; Wis. Acad. Nitrification in soils; relation of proteids in plants to soil; availability and losses of soil phosphates; soil survey; soils of Wisconsin; climatic factors in agriculture.

Whitson, Prof. W(illiam) L(ouis), Washington Missionary College, Takoma Park, Md. *Physics.* Denver, Colo, July 20, 12. A.B, Union Col, 35; A.M, Nebraska, 37; Ph.D, Iowa, 40. *Prof. physics, Washington Missionary Col, 40–* Physical Soc. Nuclear physics; spectroscopic analysis of zinc crystals containing cadmium; distribution in angle of alpha-particles from boron bombarded by protons; interference through acoustics.

Whittaker, Dr. Colin W(interbourne), 1705 Lanier Place, N. W, Washington, D. C. *Chemistry.* Cortland, Ill, June 4, 96. A.B, Wichita, 19; M.S, George Washington, 23, Ph.D, 27. Chemist, Stafford Flour Mills Co, Kans, 19–20; junior chemist, fixed nitrogen research lab, *U. S. Dept. Agr*, 20–22, asst. chemist, 22–23, bur. soils, 23–27, *bur. chem. and soils*, 27–29, assoc. chemist, 29–39, *chemist, 39–* U.S.A, 18. A.A; Chem. Soc; Agr. Chem; fel. Inst. Chem. (v. pres, Washington, D. C, chap, 28–30, sec'y, 30, pres, 35). Determination of nitrogen peroxide, monocalcium phosphate, carbon monoxide and potassium; potash from greensand and cement dust; preparation of potassium nitrate; by-product hydrochloric acid; free energy of nitrogen and hydrogen; urea complexes; hygroscopy of fertilizers; urea decomposition; magnesium in agriculture; salt index of fertilizers.

Whittaker, Prof. Elizabeth L(eigh), 205 College Ave, Elmira, N. Y. *Genetics.* Lower Broughton, Manchester, Eng, 80. A.B, Cornell, 05; Sc.D, Elmira Col, 25. *Prof. physiol, bacter. and genetics, Elmira Col, 05–*, chairman dept. biol, 20. A.A; Genetic Asn; Eugenics Asn. Bacteriology.

Whittaker, Dr. Roland Mapes, 24 Wodell St, Beacon, N. Y. *Quantitative and organic chemistry.* Middletown, N. Y, Nov. 29, 03. B.S.S, Col. City of N. Y, 27; A.M, Columbia, 30; Ph.D, Fordham, 32. From tutor to asst. prof. *chem*, Brooklyn Col, 27–37; *chairman dept. Queens Col. (N. Y), 37–* Consulting chemist, Hammond Paint and Chem. Co. Chem. Soc; Inst. Chem. Organic insecticides; rotenone; derris products.

Whittelsey, Dr. Theodore, Radnor, Pa. *Chemistry.* New Berlin, N. Y, May 15, 68. A.B, Williams Col, 90; Ph.D, Göttingen, 95. Asst. chem, Williams Col, 90–91; in charge chem. dept, Pacific, 91–93, 95–97; instr. chem, Cornell, 97–03; assoc. prof, Northwestern, 03–09; research chemist, dept. investigation, Continental-Mex. Rubber Co, 07–08; chief chemist, Rubber Regenerating Co, 09–13; director gen. labs, U. S. Rubber Co, 13–18, manager develop. dept. and chem. research, 18–20, mem. operating council, 17–20; v. pres. and treas, Rubber Regenerating Co, 18–20; consulting chemist, 20–34; managing director, Belvedere Chem. Co, Ltd, 34–38; *consulting chemist, 38–* 8th Int. Cong. Applied Chem. Chem. Soc. Industrial chemistry; rubber; mineral wool.

Whittemore, Dr. E(dward) R(ichard), 104 Hawthorne Place, Peoria, Ill. *Chemical engineering.* Grand Rapids, Mich, Feb. 3, 98. B.S, Michigan, 22; M.S, Iowa State Col, 31, Ph.D, 35. Papermill operation, Pejepscot Paper Co. and S. D. Warren Co, 22–23; papermill electrification, Gen. Elec. and Int. Paper Co, 23–27; chem. engineer in charge electroplating, C. G. Spring and Bumper Co, 27–28; asst. paper technologist, Bur. Standards, 28, field sta, Ames, 29–34; *chem. engineer*, agr. by-products lab, bur. chem. and soils, *U. S. Dept. Agr*, 34–41, *fermentation fuels div, north. regional research lab, bur. agr. and indust. chem, 41–* Chem. Eng; Asn. Pulp and Paper Indust. Chemical technology of agricultural products.

Whittemore, Capt. Frederick W(insor), Jr, Bay Road, Canton, Mass. *Entomology.* Boston, Mass, April 8, 16. B.S, Mass. State Col, 37, M.S, 38, Ph.D, 41. Research entomologist, E. L. Bruce Co, 39–41; *capt, U. S. Army, and post sanit. officer insect control and pub. health, 41–* Soil poisons for control of termites; control measures for Anopheline species of mosquitoes.

Whittemore, H(erbert) L(uclus), National Bureau of Standards, Washington, D. C. *Mechanical engineering.* Milwaukee, Wis, Oct. 1, 76. A.B, Wisconsin, 03, M.E, 10. Testing engineer, Watertown Arsenal, 10–12; instr. eng. mech, Columbia, 12–16; prof. mech, Oklahoma, 16–17; *chief, eng. mech. sect, Bur. Standards, 17–* Mat. cmt, Nat. Advisory Cmt. Aeronautics. Morehead medal, Int. Acetylene Asn, 27; Longstreth medal, Franklin Inst. 37. Mech. Eng; Asn. Eng; Soc. Test. Mat; Welding Soc; Wash. Acad. (v. pres, 31). Properties of welded joints in metals; strain-gage measurements of stress in metallic structures; properties and methods of testing metals and metallic structures.

Whittemore, Prof. Irving C(hamberlin), Boston University, Boston, Mass. *Psychology.* Cambridge, Mass, Nov. 11, 95. A.B, Harvard, 17, A.M, 21, Ph.D, 23; Boston, 20–21. Teacher, Rindge Tech. Sch, 19–20; asst. psychol, Harvard, 20–21; *col. business admin, Boston*, 20, instr, 21–23, asst. prof, 23–27, assoc. prof, 27–31, *prof, 31–* Lecturer and instr, Boston

Sch. Occupational Therapy; lecturer, Mass. Inst. Tech, 26–35. Psychol. Asn. Social and industrial psychology.

Whittemore, James K(elsey), Yale University, New Haven, Conn. *²*Mathematics,* Cambridge, Mass, April 13, 75. A.B, Harvard, 95, A.M, 96; Paris, 97–98; Göttingen, 98–99. Instr. *math,* Harvard, 95–97, 99–06, asst. prof, 06–11; Western Reserve, 11–14; instr, Yale, 16–20, asst. prof, 20–27, assoc. prof, 27–43; *retired.* Ed, 'Annals of Math,' 07–11, assoc. ed, 17–21. Math. Soc; Math. Asn. Geometry.

Whittemore, Prof. J(ohn) W(eed), Virginia Polytechnic Institute, Blacksburg, Va. *Ceramic engineering.* Sioux City, Iowa, Sept. 27, 87. B.S, Iowa State Col, 21, Cer.E, 27. Supt, Sioux City Brick and Tile Co, 21–25; head dept. *ceramic eng,* Louisiana, 25–28; *prof. and head dept, Va. Polytech, 28–* Ceramic engineer, State Dept. Conservation, La, 25–28. Fel. Ceramic Soc. (trustee); Soc. Test. Mat. Ceramic resources of Louisiana and Virginia; ceramic raw materials and products.

Whittemore, Laurens E(llis), 195 Broadway, New York, N. Y. *Physics.* Topeka, Kans, Aug. 20, 92. A.B, Washburn Col, 14; A.M, Kansas, 15. Instr. physics, Kansas, 14–17; radio lab, Bur. Standards, 17–23, sec'y interdept. radio advisory cmt, 23–24; *Am. Tel. and Tel. Co, 25–* De Forest lecturer, Yale, 23, 24. Sec'y, Int. Radio Conf. Washington, D. C, 27. Fel. Radio Eng. (manager, 26, 27, 29, v. pres, 28); Wash. Acad. Radio communication.

Whitten, Dr. A(bram) I(rving), Solvay Process Co, Hopewell, Va. *Chemistry.* Richmond, Va, July 9, 13. B.S, Richmond, 32; A.M, Duke, 33, Ph.D, 35. Instr. chem, Richmond, 35–42; *research chemist, Solvay Process Co, 42–* Chem. Soc. The solubility of slightly soluble organic substances in aqueous salt solutions; the solubility of some amino acids in various organic solvents.

Whitten, Dr. J(ohn) H, Malden, Mo. *Botany, Education.* Bradford, Ill, Oct. 3, 73. A.B, Illinois, 11, A.M, 12, Ph.D, 14. Sch. supt, Ill, 99–10; asst. bot, Illinois, 10–14; botanist, Chicago Nor. Col, 14–38; *farm manager, 38–* A.A. Plant physiology; science in elementary education.

Whittier, E(arle) O(vando), 4310 37th St, N. W, Washington, D. C. *Chemistry.* New Sharon, Maine, March 26, 91. B.S, Maine, 11, M.S, 13, Chem.E, 23. Instr. chem, Maine, 11–15; Simmons, 15–18; research chemist, E. I. du Pont de Nemours and Co, 18–21; *research chemist, bur. dairy indust, U. S. Dept. Agr, 21–* Chem. Soc; Dairy Sci. Asn; Wash. Acad. Lactose; casein; acid-base equilibria; lactic acid.

Whittinghill, Dr. Maurice, University of North Carolina, Chapel Hill, N. C. *Zoology.* St. Joseph, Mo, May 15, 09. A.B, Dartmouth Col, 31; Ph.D, Michigan, 37. Instr, Dartmouth Col, 31–33; nat. research fellow biol. sciences, Calif. Inst. Tech, 36–37; biol, Bennington Col, 37–42; *dept. zool, North Carolina, 42–* A.A; Soc. Zool; Genetics Soc; N. H. Acad. Genetics; induced crossing over in Drosophila; temperature effects.

Whittington, Prof. Forrest B(rooks), University of Maryland, College Park, Md. *Entomology.* Dillon, S. C, Aug. 25, 06. B.S, Clemson Agr. Col, 31; M.S, Ohio State, 32, Ph.D, 39. Asst. exten. entomologist, Ohio State, 35–37; *asst. prof. entom, Maryland, 38–; capt, U. S. Army.* Asn. Econ. Entom. Japanese beetle control.

Whittle, Charles A(nderson), 1251 Peachtree St, Apt. C–3, Atlanta, Ga. *Forestry.* Near Knoxville, Tenn, Feb. 29, 72. A.B, Tennessee, 92. Newspaper writer, 92–12; ed, Ga. Col. Agr, 12–17; ed. manager, Fertilizer Asn, 17–27; director educ, State Forest Service, *Ga,* 28–35; *state administrator, soil conservation service, U. S. Dept. Agr, 35–* Ed. manager, State Dept. Nat. Resources, Ga, 37. Asn. South. Agr. Workers; Asn. Agr. Col. Editors (pres, 14); Int. Soc. Soil Sci. Principles of plant food; soil management; boll weevil control; fertilizers; vocational forestry.

Whittle, Charles L(ivy), Hancock, N. H. *Geology.* Deering, N. H, Oct. 1, 62. Harvard, 87. Mem, Archaean div, U. S. Geol. Surv, 87–92; *professional mining geologist in U. S, Can. and Cent. Amer, 92–* Ed, 'Bird-Banding.' A.A; Ornith. Union; Northeast. Bird Banding Asn. (past ed, 'Bul'); N. H. Audubon Soc. Mining geology; ornithology.

Whittlesey, Prof. Derwent (Stainthorpe), Harvard University, Cambridge, Mass. *Geography.* Pecatonica, Ill, Nov. 11, 90. Beloit Col; Ph.B, Chicago, 14, A.M, 15, Ph.D, 20; hon. A.M, Harvard, 42. Acting asst. prof. hist, Denison, 15–16; instr. *geog,* Chicago, 19–22, asst. prof, 22–26, assoc. prof, 26–28; asst. prof, *Harvard,* 28–31, assoc. prof, 31–43, *prof, 43–* A.A; Asn. Geog. (ed, 'Annals,' 30–43); Am. Acad. Political and urban geography; regional geography of Africa and Latin America.

Whitwell, Prof. John C(olman), Princeton University, Princeton, N. J. *Chemical engineering.* Washington, D. C, Nov. 17, 09. B.S, Princeton, 31, Ch.E, 32. Instr. *chem. eng, Princeton,* 32–37, asst. prof, 37–43, *assoc. prof. and acting chairman dept, 43–; consulting engineer.* Eng. Educ. (sec'y-treas. chem. eng. div, 37–40, v. chairman, 40, chairman, 41); Chem. Eng; Chem. Soc. Unit operations of chemical engineering.

Wholey, Dr. C(ornelius) C(ollins), 121 University Place, Pittsburgh, Pa. *Psychiatry.* Staunton, Va, 75. A.B, Rock Hill, 95, hon. A.M, 02; M.D, Virginia, 99, fellow, 99–00; Vienna, 00–01; Hopkins, 01–03. Instr. *psychiat, Pittsburgh,* 15–21, asst. prof, *sch. med,* 21–35, *assoc. prof, 35–* Lecturer, Pittsburgh, 30. Psychiat. staff, St. Francis Hosp, Pittsburgh, 13–; asst. neurologist, W. Pa. Hosp, 15–33, assoc. neurologist, 33–; consultant neurologist, Homestead Hosp, 23; psychiatrist, West. State Penitentiary, 25. Psychiatrist, Base Hosps, U.S.A, 18–19. Psychiat. Asn; Psychopath. Asn; Psychoanal. Asn. (pres, 21); Am. Med. Asn; fel. Col. Physicians; Pittsburgh Neur. Asn. (pres, 21–23). Nervous and mental diseases; neuropsychiatry.

Whyburn, Prof. Gordon T(homas), University of Virginia, Charlottesville, Va. *⁵Mathematics.* Lewisville, Texas, Jan. 7, 04. A.B, Texas, 25, A.M, 26, Ph.D, 27. Head tutor org. chem, Texas, 25–26, instr. pure math, 26–27, adj. prof, 27–29; assoc. *math,* Hopkins, 29–34; *prof, Virginia, 34–, chairman math. faculty, 35–* Guggenheim Mem. Foundation fellow, Vienna, 29–30. Summers, visiting asst. prof, Stanford, 29, assoc. prof, 32, prof, 38, 41; prof, California at Los Angeles, 40. Ed. board, 'Duke Math. Jour,' 35–; 'Am. Math. Jour,' 38–40; 'Annals of Math,' 40– Chauvenet prize, Math. Asn. Amer, 38. A.A. (councilor, 37; v. pres. and chairman, A, 41); Math. Soc. (assoc. ed, 'Trans'; councilor, 37–39; ed, 'Colloquium Pubs,' 41–); Math. Asn. (pres, Texas sect, 28, chairman, Md-D.C-Va. sect, 35; governor, 40–); Va. Acad. Pure mathematics; point set theory; topology; organic chemistry.

Whyburn, Prof. W(illiam) M(arvin), University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* Lewisville, Texas, Nov. 12, 01. A.B, Texas, 22, A.M, 23, Ph.D, 27. Asst. prof. *math,* Agr. and Mech. Col. Texas, 24–25; assoc. prof, Texas Tech. Col, 25–26; Lipsitz fellow, Texas, 26–27; nat. research fellow, Harvard, 27–28; asst. prof, *California at Los Angeles,* 28–30, assoc. prof, 30–38, *prof, 38–, chairman dept, 37–* A.A; Math. Soc. (councilor, 40–42); Math. Asn. Differential equations; pure mathematics.

Whyte, Dr. Earle F(orrester), Federal Bldg, Halifax, N. S, Can. *Chemistry.* Truro, N. S, June 2, 89. B.A, Dalhousie, 20, M.A, 21; Ph.D, Clark, 23. Asst. chemist, Imp. Oil, Ltd, N. S, 20; lecturer, Queen's (Can), 23–24; *Dom. analyst,* 25–Part-time lecturer, Dalhousie, 20; asst, Clark, 21–22. A.A; Maritime Chem. Asn; N. S. Inst. Feldspars; solutions; oxides of alkali metals; foods and drugs.

Whyte, Dr. J(ames) H(owden), University of Alberta, Edmonton, Alta, Can. *Plant physiology.* Swellendam, S. Africa, April 15, 05. B.Sc, Edinburgh, 29; Carnegie research student, McGill, 30–31, M.Sc, 33, Ph.D, 38. Demonstrator, Edinburgh, 29–30; McGill, 31–39; *lecturer plant physiol, Alberta, 39–* Physiology of stomatal movement; ecology.

Wiancko, A(lfred) T(heodor), Purdue University, Lafayette, Ind. *Agronomy.* Ont, Can, Oct. 16, 72. B.S.A, Ont. Agr. Col, 95. Asst. librarian and instr. German, Ont. Agr. Col, 98–01; instr. agr, Nebraska, and asst. agriculturist, Exp. Sta, 01–03; prof. agron. and head dept, Purdue, and chief dept, Exp. Sta, 03–43; *retired.* A.A; Soc. Agron; Soil Sci. Soc. (pres, 22); Ind. Acad. Soil fertility; crop improvement.

Wiant, Dr. J(ames) S(tewart), U. S. Department of Agriculture, 641 Washington St, New York, N. Y. *Plant pathology.* Dorranceton, Pa, Oct. 5, 00. B.S, Pa. State Col, 24; Ph.D, Cornell, 28. Asst. agronomist and plant pathologist, Wyoming, 28–31; *assoc. pathologist, U. S. Dept. Agr, 31–* A.A; Phytopath. Soc; Mycol. Soc. Market diseases of fruits and vegetables.

Wible, Prof. Cha(rle)s L, University of Nebraska, Lincoln, Nebr. *Physiology, Pharmacology.* Seward, Nebr, Nov. 6, 98.

Ph.G; B.S, Nebraska; M.S, Arizona. Asst. dept. physiol, Rutgers, 23–25; instr. pharmacol, Univ. and Bellevue Hosp. Med. Col, 25–26; *asst. prof. pharmacog, dept. physiol, Nebraska, 26–* A.A; Pharmaceut. Asn; Soc. Exp. Biol; Harvey Soc; Nebr. Acad. Digitalis standardization; locus of drug action; digitalis action in some invertebrates; catamenia and oxygen consumption; action currents in nerve fibers; digitalis and the electrocardiogram; electrocardiograms during sleep and during exercise.

Wible, W(illiam) M(iller), 1206½ S. Plymouth Blvd, Los Angeles, Calif. *Mathematics, Physics.* Near Salem, Ind, Dec. 5, 71. A.B, Indiana, 06, A.M, 08. Instr, Missouri, 08–09; prof. math, Vincennes, 11–12; instr, Mich. Agr. Col, 12–20; prof. math. and physics, Whitworth Col, 20–21; Intermountain Union Col, 21–35; lecturer, Southern California, 35–36; *retired.*

Wichers, Dr. Edward, 113 W. Woodbine St, Chevy Chase, Md. *Chemistry.* Zeeland, Mich, March 25, 92. A.B, Hope Col, 13, hon. A.M, 16, hon. Sc.D, 41; M.S, Illinois, 15, fellow, 16–17, Ph.D, 17. Asst. chemist, *Bur. Standards,* 17–19, assoc. chemist, 19–22, *chemist, 22–* Chem. Soc. (councilor, 31, 33, 35, 36, 42, pres, Wash. sect, 32); Wash. Acad. Inorganic chemistry; rare earths; platinum metals; reagent chemicals.

Wichmann, H(ugo) J(ohn), U. S. Food and Drug Administration, Washington, D. C. *Chemistry.* New Holstein, Wis, April 1, 84. A.B, Wisconsin, 05, A.M, 07. Bur. chem, U. S. Dept. Agr, 07–27, *senior chemist inorg. anal. methods sect, food div, food and drug admin,* 27–40, *Fed. Security Agency, 40–* Chem. Soc; Agr. Chem. (assoc. referee on extracts and fruit products, referee fruits, fruit products and metals in foods). Dairy products; extracts; fruits and fruit products; determination of metals in foods, particularly lead and arsenic; nature of ash of foods.

Wichterman, Dr. Ralph, Temple University, Philadelphia, Pa. *Zoology.* Philadelphia, Pa, Sept. 8, 07. B.S, Temple, 30; A.M, Pennsylvania, 32, Ph.D, 36. Asst. instr, *Temple,* 29–32, instr. *biol,* 32–39, *asst. prof, 39–* Summers, investigator, Marine Biol. Lab, Woods Hole, 32–; Marine Lab, Carnegie Institution, Dry Tortugas, Fla, 39. A.A; Soc. Parasitol; Soc. Zool. Cytology and life cycles of the protozoa; parasitic protozoology; histological and cytological technique; cinematography of protozoa.

Wick, Dr. Arne N, Upjohn Co, Kalamazoo, Mich. *Biochemistry.* St. Paul, Minn, Feb. 5, 09. B.Chem, Minnesota, 33, M.S, 35. Ph.D, 38. *Research chemist,* Scripps Metabolic Clinic, 38–41; *Upjohn Co, 41–* Chem. Soc. Adrenal hormones.

Wick, Dr. R(ichard) M(arks), Bethlehem Steel Co, Bethlehem, Pa. *Chemistry.* Topeka, Kans, April 2, 03. B.S, Mass. Inst. Tech, 25, M.S, 26; Ph.D, Hopkins, 32. Chem. engineer, Nat. Carbon Co, Cleveland, 26–29; asst. chemist, Bur. Standards, 29–36, assoc. chemist, 36–38; *research engineer, Bethlehem Steel Co, 38–* Chem. Soc; assoc. Electroplaters Soc; Electrochem. Soc; Soc. Test. Mat. X-rays; technology of carbon-electrodes and specialties; electrochemistry; engineering applications of electrodeposition; electrochemical engineering production process.

Wickenden, Dr. R(obert) T(homas) D(aubigny), 30 Pretoria Ave, Ottawa, Ont, Can. *Paleontology.* Outremont, Que, July 17, 01. Ph.B, Brown, 26; A.M, Harvard, 29, Ph.D, 31. Austin teaching fellow, Harvard, 26–30; asst. geologist, *Geol. Surv. Can,* 30–36, *assoc. geologist, 36–* Paleont. Soc; fel. Geol. Soc; fel. Royal Soc. Can. Micropaleontology; Pleistocene geology.

Wickenden, Pres. W(illiam) E(lgin), Case School of Applied Science, Cleveland, Ohio. *Electrical engineering.* Toledo, Ohio, Dec. 24, 82. B.S, Denison, 04; Wisconsin, 08–09; hon. D.E, Lafayette Col, 26, Worcester Polytech, 27, Case, 29, Rose Polytech, 36, Tulane, 39; hon. Sc.D, Denison, 28, Bucknell, 30; hon. LL.D, Oberlin Col, 30, Toledo, 40; L.H.D, Otterbein Col, 33. Instr. physics, Mechanics' Inst, Rochester, N. Y, 04–05; asst, Wisconsin, 05–06, instr. elec. eng, 06–09; asst. prof, Mass. Inst. Tech, 09–14, assoc. prof, 14–18; personnel manager, West. Elec. Co, 18–21; asst. v. pres, Am. Tel. and Tel. Co, 21–23; director investigation, Soc. Prom. Eng. Educ, 23–29; *pres, Case, 29–; chairman gen. products group, priorities div, Office Production Management, 41–* Trustee, Cleveland Clinic Foundation. Lamme medal, Am. Soc. Eng. Educ, 35. S.A.T.C, U.S.A, 18. A.A. (v. pres, M, 36); Elec. Eng; Mech. Eng; Eng. Educ. (pres, 33); Acad. Polit. and Social Sci; Cleveland Eng. Soc. Illumination and photometry.

Wickens, Prof. Delos D(onald), University of Wisconsin, Madison, Wis. *Psychology.* Rochester, N. Y, Oct. 6, 09. A.B, Centre Col, 31; A.M, North Carolina, 33, Ph.D, 37. Instr. *psychol,* North Carolina, 33–37; Ohio State, 37–39; asst. prof, Colorado, 39–40; instr, Oberlin Col, 40–41; *asst. prof, Wisconsin, 41–* Psychol. Asn. Genetic and experimental psychology; conditioning and learning; child behavior; animal behavior; social behavior.

Wickerham, Dr. Lynferd J(oseph), Northern Regional Research Laboratory, Peoria, Ill. *Bacteriology.* Bellevue, Ohio, July 5, 10. B.S, Mich. State Col, 34, M.S, 35; Ph.D, Yale, 38. Instr. bacter, Illinois, 38–40; asst. bacteriologist, *north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr,* 40–43, *assoc. zymologist, 43–* A.A; Soc. Bact; Soc. Ill. Bact. Classification of yeasts.

Wickert, Major Frederic, Headquarters, Keesler Field, Miss. *Psychology.* Chicago, Ill, March 9, 12. A.B, California at Los Angeles, 33; Ph.D, Chicago, 38. Personnel investigator, West. Elec. Co, 36–40; employment interviewer, Commonwealth Edison Co, 40–41; classification and assignment officer, Ft. Eustis, Va, *U. S. Army,* 41–42, exec. officer psychol. research unit, training center, Air Forces, 41–43, *chief psychol. sect, med. and psychol. examining unit, Keesler Field, 43–* Psychol. Asn; Asn. Applied Psychol; Ill. Asn. Applied Psychol. Application of psychological techniques to personnel problems.

Wickert, Dr. J(acob) N(elson), 2001 Massey Circle, South Charleston, W. Va. *Chemistry.* Chicago, Ill, Jan. 23, 02. B.S, Illinois, 25; M.S, Iowa, 26, Ph.D, 28. Asst. instr, Iowa, 25–28; research chemist, *Carbide and Carbon Chem. Corp,* 28–36, head fine chem. dept, 36–39, *supervisor plant labs. and fine chem. depts, 39–* Chem. Soc. Organic and industrial chemistry; nitration of substituted aniline derivatives; aliphatic organic chemicals.

Wickes, Dr. Dean R(ockwell), 7314 Piney Branch Road, Takoma Park, Md. *Geography.* Granville, Ohio, Sept. 10, 83. Ph.B, Chicago, 05, Ph.D, 12; A.M, Yale, 08, B.D, 09; S.T.M, Union Theol. Sem, 28. Mem. faculty, N. China Union Col, 13–18; Peking Univ, 18–20; Ellis Christian Training Sch, 25–34; asst, *soil conservation service, U. S. Dept. Agr,* 35, *soil conservationist, 36–* A.A; fel. Am. Geog. Soc; Bot. Soc. Wash; Biol. Soc. Wash; Royal Asiatic Soc; Peking Soc. Nat. Hist. Soil utilization in North China; irrigation and flood control in China.

Wickliff, E(dward) L(awrence), State Department of Agriculture, Columbus, Ohio. *Zoology.* Columbus, Ohio, 93. B.S. (Agr), Ohio State, 17, B.S. (Educ), 18, M.S, 20. Instr. zool, Ohio State, 19–25; asst. chief div. fish and game, *State Dept. Agr, Ohio,* 25–28, *chief bur. sci. research, div. conservation, 29–* Sci. fish surv, Ohio, 20–42. A.A; Ecol. Soc; Fisheries Soc. (pres, 35); Soc. Ichthyol and Herp; Limnol. Soc; Soc. Wildlife Specialists; Ohio Acad. Fish of Ohio; ecology, distribution and food habits of fish; food of the young small mouth bass in Lake Erie; fish and game management.

Wicks, William Hale, State Department of Agriculture, Salem, Oregon. *Horticulture.* Macon Co, Ill, Nov. 30, 81. B.S, Oregon State Col, 04, M.S, 06; M.S.A, Cornell, 08. Asst. hort, Oregon State Col, 04–07; prof. pomol. and asst. horticulturist, N. H. Col, 08–09; prof. hort, Idaho, 09–14; Arkansas, 14–18; food products inspector, bur. markets, U. S. Dept. Agr, 18–19; director bur. plant indust, State Dept. Agr, Idaho, 19–20, bur. plant indust. and bur. markets, 21–23; publicity agent and ed, State Dept. Agr, Calif, 24–25; food products and hort. inspector, State Dept. Agr, Idaho, 25–28, chief field inspector, 28–30, acting director and director bur. plant indust, 31–37; *inspector, State Dept. Agr, Oregon,* 37–40. Sec'y-treas. by-products cmt, N. Pacific Fruit Distributors; supt, Pacific Northwest Potato Show; hort. cmt, Ark. Cmn, Pan-Pacific Int. Expos, 15. Orchard management; the farmer's vegetable garden; tomato and sweet potato culture; strawberry growing; effect of cross pollination on size, color, shape and quality of apples; blooming period of the apple; fall crop of Irish potatoes.

Wickwire, Prof. G(rant) T(ownsend), Hanover College, Hanover, Ind. *Geology.* Berlin, Conn, Aug. 26, 96. Ph.B, Wesleyan, 26; M.S, Yale, 29. *Prof. geol, Hanover Col, 28–; Air Corps, U. S. Army.* Consulting geologist, Orofino Chamber Commerce. A.A; Am. Geog. Soc; Ind. Acad. (divisional chairman, 42). Sedimentation; Pleistocene Ohio River.

Widder, Prof. D(avid) V(ernon), Harvard University, Cambridge, Mass. ****Mathematics.** Harrisburg, Pa, 98. A.B, Harvard, 20, Sheldon fellow at Paris, 20–21, A.M, 23, Ph.D, 24. Assoc. *math,* Bryn Mawr Col, 24–26; nat. research fellow, Chicago and Rice Inst, 26–27; assoc. prof. and head dept, Bryn Mawr Col, 27–30, prof, 30–31; asst. prof, *Harvard,* 31–32, assoc. prof, 32–37, *prof, 37–* Guggenheim Mem. Foundation fellow, Cambridge, 35–36. Anal. ed, 'Duke Math. Jour.' Computer, Aberdeen Proving Ground, 18. Math. Soc. Taylor's and Dirichlet's series; Laplace's integrals; the Laplace transform.

Wideman, Prof. C(harles) J(oseph), 6525 Sheridan Road, Chicago, Ill. *Biology.* Toledo, Ohio, Sept. 11, 96. A.B, St. John's Col, 18; A.M, St. Louis, 24; M.S, Detroit, 35; Ignatiuskolleg, Valkenburg, Holland, 28–32; California, 35–38. Instr. *biol,* St. John's Col, 25–28; *Loyola (Ill),* 39–42, *asst. prof. and chairman dept, 42–* A.A; Ill. Acad; Wasmann Biol. Soc. (v. pres, 41). Chironomidae life histories.

Wideman, Prof. S(amuel) A(dam), The Citadel, Charleston, S. C. *Physical chemistry.* Woodruff, S. C, Feb. 19, 09. B.S, The Citadel, 29; M.S, North Carolina, 35, Ledoux fellow, 39–40, Ph.D, 40. Teacher and commandant of cadets, Ala. Mil. Inst, 29–32; teacher, high sch, S. C, 32–35; *asst. prof. chem, The Citadel, 35–* Chem. Soc. Activity of sulfuric acid in water and water-ethanol solution.

Widtsoe, Dr. John A(ndreas), 47 E. S. Temple St, Salt Lake City, Utah. *Chemistry.* Island of Froyen, Norway, Jan. 31, 72. B.S, Harvard, 94; Ph.D, Göttingen, 99; Zurich, 99–00; LL.D, Utah Col, 14, Utah, 21. Prof. chem, Utah Col, 95–98, 00–05, chemist, Exp. Sta, 94–98, director, 00–05; prin, sch. agr, Brigham Young, 05–07; pres, Utah Col, 07–16; Utah, 16–21; *mem, Council Twelve Apostles Latter Day Saints Church, 21–* A.A; Royal Agr. Soc; fel. Royal Geog. Soc. Carbohydrates; desert soils and vegetation; chemical development of plants; relations of soils and water to plant growth and composition; irrigation; dry-farming.

Wiebe, Dr. A(braham) H(iebert), Tennessee Valley Authority, Norris, Tenn. *Zoology.* Bergfeld, Man, Can, Sept. 1, 92. A.B, Bluffton Col, 22; M.S, Ohio State, 24; fellow, Wisconsin, 25–26, Ph.D, 29. Instr. zool, Bluffton Col, 23–25; asst, Bur. Fisheries, 26–30, assoc. aquatic biologist and acting director biol. sta, 30–33, fish culturist, Austin, Texas, 33–36; asst. aquatic biologist, *Tenn. Valley Authority,* 37–39, *assoc. aquatic biologist and chief biol. readjustment div, 39–* A.A; Soc. Foresters; Soc. Exp. Biol; Micros. Soc; Ecol. Soc; fel. Ohio Acad; Tenn. Acad. Aquiculture; pollution of rivers; plankton; fertilization of fish ponds; fish culture in ponds; fishery management and administration.

Wiebe, Dr. G(ustav) A, U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Brainard, Kans, March 12, 99. B.S. (Agr), Idaho, 22; M.S, California, 25, Ph.D, 33. Junior agronomist, *div. cereal crops and diseases, bur. plant indust, U. S. Dept. Agr,* 22–24, asst. agronomist, 25–34, agronomist, 35–42, *senior agronomist, 42–* A.A. Cereal crops and diseases; agronomic improvement of barley; genetics of barley; field plat technique of cereals.

Wiebe, Dr. Richard, 322 Parkside Drive, Peoria, Ill. *Chemistry.* Elbing, Germany, Sept. 8, 96. B.S, Utah, 23; Ph.D, California, 26. Assoc. physical chemist, U. S. Bur. Mines, Pittsburgh, 26–28; cryogenic lab, Amarillo Helium Plant, 28–30; assoc. chemist, fertilizer research div, bur. chem. and soils, *U. S. Dept. Agr,* 30–35, chemist, 35–39, *senior chemist, agr. motor fuels div, north. regional research lab, bur. agr. chem. and eng, 39–* Chem. Soc. Low temperature thermal measurements; determinations of compressibilities and solubilities of gases up to high pressures; fuels from agricultural materials.

Wieczorowski, Dr. Elsie (Irene), Northwestern University Medical School, Chicago, Ill. *Physiology.* Chicago, Ill, July 4, 06. B.S, Northwestern, 29, M.S, 31, Ph.D, 37. Lab. instr. zool, Northwestern, 29–37; instr. zool. and hygiene, Oak Park Jr. Col, 37–38; *research fellow and asst, med. sch, Northwestern, 38–* Gastro-intestinal physiology; properties and action of enterogastrone and urogastrone.

Wiedemann, H(ugo) E(dmund), Chemical Bldg, St. Louis, Mo. *Industrial chemistry.* Harrisburg, Ill, April 1, 82. B.S, Rose Polytech, 03, M.S, 07, Chem.E, 09. State chemist, Mo, 12–33; *consulting chemist and chem. engineer, 05–* Prof. chem, manual training dept, Washington (St. Louis). A.A; Chem. Eng. (chairman, St. Louis sect); Food Officials Asn. (past pres); Soc. Test. Mat; Chem. Soc. (past chairman, St. Louis sect); Mo. Acad; St. Louis Acad. (treas, 10–31); St. Louis Chem. Soc. (past pres); Eng. Club St. Louis. Lime, food and packing house products; insecticides; feeds; fuel; toxicology; foods; chemicals; fertilizers; drugs; poisons.

Wiegand, Dr. David E(dgar), 1003 Ohio St, Zanesville, Ohio. *Electrical engineering.* Chicago, Ill, Feb. 1, 07. B.S, Illinois, 31, M.S, 32, Ph.D, 35. *Transformer design engineer, Line Material Co, 36–* Amplifiers; glow discharge phenomena; magnetic recording.

Wiegand, Prof. E(rnest) H(erman), Oregon State Agricultural College, Corvallis, Oregon. *Horticulture.* Danville, Ill, July 10, 86. B.S, Missouri, 14. *Prof. food industries and in charge dept, Oregon State Col, 17–, food technologist, Exp. Sta.* Bur. animal indust, U. S. Dept. Agr, 17–19; food technologist in charge, Exp. Sta, Oregon State Col, 19; tech. advisory service, Calif. and Hawaiian Sugar Ref. Corp, 30–31; cooperative agent and food technologist, west. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr. A.A; Chem. Soc; Inst. Food Technol; Nat. Farm Chemurgic Council. Drying fruit; walnut drying; standardizing prunes; commercial canning and preserving of fruit juice, beverages, maraschino cherries and frozen fruits; food products and manufacture; frozen foods; dehydration of foods; commercial canning research; fish and fish products; commercial dehydration of fruit and vegetables.

Wiegand, W(illiam) B(ryan), Columbian Carbon Co, 41 E. 42nd St, New York, N. Y. *Chemistry.* Conestogo, Ont, Can, Feb. 17, 89. B.A, Toronto, 12, M.A, 13. Gen. tech. supt, Dom. Rubber Co, 15–20; managing director, Ames-Holden Tire Co, 20–25; *director research,* Binney and Smith Co, 25–36; *Columbian Carbon Co, 36–* Fel. Inst. Chem; Chem. Eng; Chem. Soc. (chairman rubber div, 23; N. Y. rubber group, 29); fel. Inst. Rubber Indust; fel. Can. Inst. Chem. Carbon black and natural gas research; rubber and carbon technology.

Wieghard, Prof. Charlotte W(ilhelmina), Skidmore College, Saratoga Springs, N. Y. *Organic chemistry.* St. Louis, Mo, Oct. 3, 09. A.B, Washington (St. Louis), 30, M.S, 31; Ph.D, Yale, 37. Asst. applied biochem, sch. med, Washington (St. Louis), 31–34; asst. prof. *chem, Skidmore Col,* 37–39, *assoc. prof, 39–* Summer, asst, Harvard, 41. Chem. Soc; Physical Soc. Bacterial polysaccharides; immunochemistry; lipids of the tubercle bacillus; naphthoquinones.

Wieland, Dr. G(eorge) R(eber), Yale University, New Haven, Conn. ****Botany, Paleontology.** Center Co, Pa, 65. B.S, Pa. State Col, 93; Ph.D, Yale, 00; Pennsylvania; Göttingen. Teacher, Pa, 95–98; *paleont. research, Yale, 98–, assoc. prof. paleobot; assoc, Carnegie Institution.* Paleontologist, Geol. Inst, Mex; field explor, Mex, S. Amer. and Isle of Wight. Archduke Rainer gold medal, Bologna, 07; Vienna, 14. A.A; Paleont. Soc; Geol. Soc; Bot. Soc; Am. Geog. Soc; N. Y. Acad; Soc. Geol. Mex; Bologna Acad. Sci; Bot. Soc. India. Testudinata; geological climatology and distribution of life; cycads and cycadeoids; antiquity of angiosperms; conifers; Cretaceous turtles; dinosaurs; polar climate as a controlling factor in the evolution of plants and animals; extinction; petrified forests; science and research; chemistry of siliceous plant replacement; stratigraphic conditions along the Jurassic-Cretaceous boundary.

Wieman, Prof. H(arry) L(ewis), University of Cincinnati, Cincinnati, Ohio. *Zoology.* Cincinnati, Ohio, June 13, 83. A.B, Cincinnati, 05, A.M, 06; Ph.D, Chicago, 09. Instr. science, Cincinnati, 05–07, asst. biol, 06–07; *zool,* Chicago, 07–08; instr, *Cincinnati,* 08–10, asst. prof, 10–14, assoc. prof, 14–18, *prof, 18–* A.A; Soc. Nat; Soc. Zool; Asn. Anat. Cytology; histogenesis; embryology; general zoology.

Wiener, Dr. Alexander S(olomon), 64 Rutland Road, Brooklyn, N. Y. *Medicine.* Brooklyn, N. Y, March 16, 07. A.B, Cornell, 26; M.D, L. I. Col. Med, 30. *Mem. div. genetics and biometrics, Jewish Hosp, Brooklyn, 33–, head blood transfusion div, 35–; serologist and bacteriologist, Office of Chief Med. Examiner, New York, 38–; instr. forensic med, N. Y. Univ, 40–* Ed. board, 'Jour. Immunol,' 35– Mem. cmt. human heredity, Nat. Research Council. Director, Wiener Labs, 35– Silver medal, Am. Soc. Clin. Path, 41. Mem. board med. control, Blood Transfusion Betterment Asn, 35–36. Am. Med. Asn. (cmt. medico-legal blood grouping tests, 36); Asn. Immunol; Soc. Exp. Biol; Soc. Clin. Path; Pub. Health Asn; Genetic Asn. Blood groups and transfusion; blood groups and human genetics; the Rh factor and its role in blood transfusion.

Wiener, Dr. Maria, 3670 Indian Queen Lane, Philadelphia, Pa. *Bacteriology.* Prague, Czechoslovakia, Feb. 19, 17. Prague, 35–38; Charles Univ, 38–39; M.S, Pennsylvania, 41, Ph.D, 42. *Asst. bacteriologist, Woman's Med. Col. Pa, 41–* Soc. Bact. Hemolytic streptococci.

Wiener, Prof. Meyer, Coronado, Calif. *Ophthalmology.* St. Louis, Mo, Jan. 10, 76. M.D, Mo. Med. Col, 96; Berlin, Heidelberg, Vienna, Paris and London, 97–00. Intern, St. Louis City Hosp, 96–97; director sch. ophthal, med. officers training group, Camp Greenleaf, Ga; chief ophthal. service, Gen. Hosp. No. 14, Ft. Oglethorpe, Ga; chief eye service, Gen. Hosp. No. 11, Cape May; *prof. clin. ophthal, sch. med, Washington (St. Louis); hon. consultant, med. dept, U. S. Navy.* Asst. ophthalmologist, Barnes Hosp. and St. Louis Children's Hosp; consulting ophthalmologist, Bethesda Hosp, Jewish Hosp, Frisco Employees' Hosp. and St. Vincent's Inst; ophthalmic surgeon, Mo. Pacific Hosp. Lieut. col, M.O.R.C. Acad. Ophthal. and Otolaryngol. (1st v. pres); fel. Col. Surg; Am. Med. Asn; Chicago Ophthal. Soc; hon. mem. Kans. City Ophthal. Soc. Medicine; surgery of the eye.

Wiener, Prof. Norbert, Massachusetts Institute of Technology, Cambridge, Mass. ***⁴***Mathematics, Logic.* Columbia, Mo, Nov. 26, 94. A.B, Tufts Col, 09; Cornell, 10–11; A.M, Harvard, 12, Ph.D, 13; Cambridge, 13–15; Göttingen, 14; Columbia, 15. Sheldon traveling fellow from Harvard, 14–15, asst. philos, Harvard, 15–16; instr. math, Maine, 16–17; staff writer, 'Encyclop. Americana,' 17–18; computer, Aberdeen Proving Ground, 18–19; instr. *math, Mass. Inst. Tech,* 19–24, asst. prof, 24–29, assoc. prof, 29–32, *prof,* 32– Docent-lecturer, Harvard, 15; Guggenheim Mem. Foundation fellow, 26–27; exchange prof, Brown, 29–30; visiting prof, Tsing Hua Univ, China, 35–36. Bowdoin prize, Harvard, 14. Math. Soc. (past councilor, v. pres, 35–37). Postulate theory; foundations of mathematics; assemblages and functions of a real variable; epistemology; probability theory; trigonometric expansions; potential theory; analysis; Tauberian theorems; mathematical logic; relativity; quantum theory; electrical networks; the Fourier integral and its applications; Fourier transforms in the complex domain.

Wierda, Prof. J(ay) L(uidens), 512 S. 42nd St, Philadelphia, Pa. *Anatomy.* Holland, Mich, July 23, 98. A.B, Hope Col, 22; Ph.D, Cornell, 29. Asst. zool, Hopkins, 22–23; asst. prof, Guilford Col, 23–24; instr, Duke, 24–26; asst. *anat,* Cornell, 26–27, instr, 27–29; asst. prof, Ohio State, 29–30; instr, *Pennsylvania,* 30–41, *asst. prof, 41–* Physiol. Soc. Phila. Anatomy of the digestive tract.

Wiersma, Dr. C(ornelis) A(drianus) G(errit), California Institute of Technology, Pasadena, Calif. *Physiology.* Naaldwyk, Holland, Oct. 10, 05. B.S, Leiden, 26; M.A, Utrecht, 29, Dondersfonds fellow, 30–31, Ph.D, 33. Asst. comp. physiol, Utrecht, 29–30, 31, asst. med. physiol, 32–34; asst. prof. *physiol, Calif. Inst. Tech,* 34–37, *assoc. prof, 37–* Physiology of nerve and muscle.

Wieschhoff, Dr. H(einrich) A(lbert), University of Pennsylvania, Philadelphia, Pa. *Anthropology.* Hagen, Germany, Aug. 1, 06. Ph.D, Frankfurt, 33. Asst, Africa archiv, Frankfurt, 28–35; instr. anthrop, *Pennsylvania,* 36–41, *curator African sect, univ. museum, 42–* Consultant, Office Strategic Services, 42–43. Mem, exped, S. Africa, 28–30. Ed, 'African Handbooks.' Cmt. African anthrop, Nat. Research Council. Asn. Negro Hist; Anthrop. Asn. (councilor); Phila. Oriental Soc. (sec'y). African cultures and languages; socialization of children in primitive cultures.

Wiese, Dr. A(lvin) C(arl), University of Illinois, Urbana, Ill. *Biochemistry.* Milwaukee, Wis, Aug. 13, 13. B.S, Wisconsin, 35, M.S, 37, Ph.D, 40. Asst. biochem, Wisconsin, 35–40; instr. *chem,* Okla. Agr. and Mech. Col, 40–42; *special research asst, Illinois, 42–* A.A; Chem. Soc. Perosis in the chick; relation of blood and bone phosphatase in chick perosis; effect of manganese ion on the enzyme phosphatase.

Wiesehuegel, E(rwin) G(eorge), 121 Crescent Road, Norris, Tenn. *Forestry.* LaCrosse, Wis, May 27, 99. B.S, Michigan, 22; M.S, Idaho, 29. Tech. asst, U. S. Forest Service, Wyo. and Utah, 22–26; asst. prof. forestry, Idaho, 26–30; Ohio State, 30–36, assoc. prof, 36; *senior forester in charge forest resources div, Tenn. Valley Authority, 36–* Soc. Foresters (v. chairman, cent. states sect, 36, chairman, 37; v. chairman, Appalachian sect, 41). Forest management; land use planning; wood technology and growth; the diagnostic characteristics of the woods of the genus Abies.

Wiewall, Prof. Miguel, Jr, University of Puerto Rico, Mayagüez, P. R. *Electrical engineering.* Bayamoń, P. R, Aug. 8, 05. E.E, Rensselaer Polytech, 27; A.M, Columbia, 34; M.S, Harvard, 37, Sc.D, 38. Instr. *elec. eng. and physics, div. eng, col. agr. and mech. arts, Puerto Rico,* 28–36, asst. prof, 39–40, *assoc. prof, 40–* Elec. Eng. Electric communication engineering; distributed capacities in communications transformers at audio frequencies.

Wiezevich, Peter J(ohn). See Gaylor, Peter J(ohn).

Wigdor, Dr. M(eyer), 310 Washington Ave, Miami Beach, Fla. *Medicine, Zoology.* New York, N. Y, June 26, 96. B.S, A.M, Cornell, 17, M.D, 23. Asst. parasitologist, research lab, Parke, Davis and Co, Mich, 17–18; *acting asst. surgeon, U. S. Pub. Health Service, 25–* Summers, asst, bur. animal indust, U. S. Dept. Agr, 18–19. Army Lab. Sch, Yale, 18–19; capt, M.R.C. Am. Med. Asn; Soc. Trop. Med; Mich. Acad. Parasitology.

Wiggam, David R(oscoe), Hercules Powder Co, Wilmington, Del. *Chemistry.* Vernon, Ind. B.S, Purdue, 18, Chem.E, 22; M.S, Mass. Inst. Tech, 28. Chem. develop, Hercules Powder Co, 18–21; instr. indust. and physical chem, Cooper Union, 21–26; asst. director exp. sta, *Hercules Powder Co,* 26–35, *manager tech. service, cellulose products, 35–* Asst. ed, 'Jour. Rheol.' A.A; Chem. Soc; Soc. Rheol. Cellulose chemistry; physical properties of cellulose esters.

Wiggans, Prof. C(leo) C(laude), University of Nebraska, Lincoln, Nebr. *Horticulture.* Mercer Co, Mo, Oct. 20, 89. B.S.A, Missouri, 12, A.M, 13, Ph.D, 18. Asst. hort, Missouri, 13–15, instr, 15–18; research horticulturist, Exp. Sta, Delaware, 18–19; assoc. prof. *hort, Nebraska,* 19–24, *prof, 24–, horticulturist, Exp. Sta, 24–* Soc. Hort. Sci. Orchard soil management; pruning; root studies; soil moisture.

Wiggans, Prof. R(oy) G(len), New York State College of Agriculture, Ithaca, N. Y. *Plant breeding.* Mercer Co, Mo, May 12, 91. B.S.A, Missouri, 14; M.S, Cornell, 15, Ph.D, 19. Asst. farm crops, N. Y. State Col. Agr, Cornell, 14–15, instr, 15–16; asst. prof, Ohio State, 16–17; instr, *N. Y. State Col. Agr, Cornell,* 17–19, asst. prof. *plant breeding,* 19–34, *prof, 34–* A.A; Soc. Agron; Genetics Soc. Forage crops, especially alfalfa, clover, soy-bean and corn; corn breeding.

Wiggers, Dr. Carl J(ohn), Western Reserve University School of Medicine, Cleveland, Ohio. ***³***Physiology.* Davenport, Iowa, May 28, 83. M.D, Michigan, 06, Sc.D, 42. Instr. *physiol,* Michigan, 06–11; Cornell, 11–13, asst. prof, 13–18; *prof, Western Reserve, 18–* A.A; Physiol. Soc; Soc. Pharmacol; Soc. Exp. Biol; Physical Soc; Am. Med. Asn; Col. Physicians; Harvey Soc; Cleveland Acad. Med; hon. mem. Soc. Argentina de Biol; Acad. Nat. Med. de Buenos Aires. Heart and circulation under normal and pathological conditions.

Wiggers, Dr. H(arold) C(arl), University of Illinois, Chicago, Ill. *Physiology.* Ann Arbor, Mich, Sept. 1, 10. A.B, Wesleyan, 32; Ph.D, Western Reserve, 36. Teaching fellow *physiol,* sch. med, Western Reserve, 33–36; W. T. Porter fellow, Harvard Med. Sch, 36–37; instr, col. physicians and surg, Columbia, 37–42; asst. prof, *sch. med,* Western Reserve, 42–43; *assoc. prof, Illinois, 43–* Physiol. Soc. Electrophysiology; auditory phenomena; coronary circulation; cardiodynamics; ovulation potentials; bio-electric phenomena.

Wiggin, Prof. Evelyn (Prescott), Randolph-Macon Woman's College, Lynchburg, Va. *Mathematics.* Stratham, N. H, March 1, 00. A.B, Wellesley Col, 21; A.M, Brown, 24; Chicago, 27–28, fellow, 28–29, Ph.D, 36. Asst. prof. *math,* Hood Col, 24–27; assoc. prof, *Randolph-Macon Woman's Col,* 29–41, *prof, 41–* Lecturer, Wellesley Col, 41–42. A.A; Math. Soc; Math. Asn. Application of the calculus of variations to the solution of boundary value problems.

Wiggin, Prof. W(alter) W(entworth), Ohio University, Athens, Ohio. *Horticulture.* Sanbornville, N. H, Sept. 19, 99. B.S, New Hampshire, 21; M.S, Maine, 24; Ph.D, Ohio State, 35. Instr. hort, Maine, 21–27; asst. prof, Okla. Agr. and Mech. Col, 27–28; asst, Ohio Exp. Sta, 28–31; assoc. prof. *agr, Ohio (Athens),* 31–36, *prof, 36–* Soc. Hort. Sci. Water relations in plants; fertility; plant propagation; soil acidity and plant growth.

Wiggins, Prof. Ira L(oren), Stanford University, Calif. *Botany.* Madison, Wis, Jan. 1, 99. A.B, Occidental Col, 22; A.M, Stanford, 25, fellow, 27–29, Ph.D, 30. Teacher, high sch, 23–24; instr. *bot,* Occidental Col, 25–27, asst. prof, 27–29; *Stanford,* 29–36, assoc. prof, 36–40, *prof, 40–,* curator, Dudley

herbarium, 29–40, *director, nat. hist. museum, 40–* A.A; Bot. Soc. (sec'y-treas, Pacific sect, 39–41); Fern Soc. (assoc. ed, 'Jour,' 41–); Soc. Plant Taxon; West. Soc. Nat. (v. pres, 41, sec'y-treas, 43–); Calif. Bot. Soc. (pres, 40). Systematic botany; flora of the Sonoran Desert and Lower California.

Wigglesworth, Dr. Edward, 69 Newbury St, Boston, Mass. *Geology.* Boston, Mass, Nov. 3, 85. A.B, Harvard, 08, A.M, 09, Ph.D, 17. Asst. geol, Harvard, 10–16, curator Gardner photographs, geol. museum, 09–17; *director,* Boston Soc. Nat. Hist, 20–41; *east. lab, Gemological Inst. Amer, 41–* Trustee, Essex County Agr. Sch; Farm and Trades Sch. A.A; Miner. Soc; Ornith. Union; Boston Soc. Nat. Hist. (trustee; hon. curator gems); Boston Geol. Soc. Serpentines of Vermont; geology of Martha's Vineyard; gems.

Wight, W(illiam) F(ranklin), Bonsall, Calif. *Botany.* Allegan, Mich, 74. B.S, Mich. State Col, 94; A.B, Stanford, 99, A.M, 00. Asst, dept. syst. bot, Stanford, 99–00; bur. plant indust, U. S. Dept. Agr, 00–40, botanist, div. hort. crops and diseases; *retired.* Dept. Agr, Argentina, 12. A.A; Soc. Hort. Sci. Economic and systematic botany; flora of Alaska; agricultural exploration; fruit breeding; systematic pomology.

Wightman, Dr. E(arl) Russell, Doane College, Crete, Nebr. *Physics.* Fennville, Mich, March 10, 86. A.B, Albion Col, 08, A.M, 14; Ph.D, Michigan, 30. Prin, high sch, Mich, 08–12; asst. physics, Albion Col, 12–14; head dept, high sch, Mich, 14–17; asst, Michigan, 17–18, 19–20; asst. prof, Pa. State Col, 18–19; prof, West. State Col, Colo, 20–31; Doane Col, 31–43, coordinator civilian pilot training, 40–42; *senior engineer, Sig. Corps, U. S. Army, 43–* Designer, builder and operator, broadcasting sta, KFHA, 23–30. Physical Soc; Acoustical Soc. Oscillation circuits; radio and sound; freak conditions in radio transmitting in the Rocky Mountain region; limits of hearing and its relation to human traits and individual differences; binaural hearing; electronics.

Wightman, Dr. E(ugene) P(inckney), Eastman Kodak Co, Rochester, N. Y. *Chemistry.* Baltimore, Md, Dec. 24, 88. B.S, Richmond, 08; Ph.D, Hopkins, 11. Carnegie research asst. chem, Hopkins, 11–14; instr, Washington (St. Louis), 14–15; fellow, Mellon Inst, 16; acting prof. chem, Richmond, 16–17; *research chemist,* Parke, Davis and Co, 17–18, 19–20; *Eastman Kodak Co, 20–* Fellow by courtesy, Hopkins, 11. Asst. ed, 'Chem. Abstracts,' 31–35. Lieut, C.W.S, 18. Fel. Photog. Soc. (director, 37–39); Chem. Soc. (v. pres, Va. sect, 17); fel. Royal Photog. Soc. Gt. Britain. Conductivity and dissociation of substances in water and water-alcohol mixtures; latent image in photography; salicylic acid; sensitivity photographic emulsions; intensification of latent image photographic emulsions; effect of moisture on photographic emulsions; effect of low temperatures on sensitivity to α-particles.

Wigner, Prof. Eugene (Paul), Princeton University, Princeton, N. J. ****Mathematical physics.* Budapest, Hungary, Nov. 17, 02. Dr.Ing, Tech. Hochschule, Berlin, 25. Privatdocent, 28; lecturer, Tech. Hochschule, Berlin, 30; prof. math. physics, Princeton, 30–36; *physics,* Wisconsin, 37–38; *Thomas D. Jones prof, Princeton, 38–* Sci. guest, Kaiser Wilhelm Inst, Berlin, 31. A.A; Physical Soc; Deuts. Physik. Gesell. Application of group-theory in quantum mechanics; rate of reactions; theory of metallic cohesions; nuclear structure.

Wigner, Dr. Mary Wheeler, 190 Prospect Ave, Princeton, N. J. *Physics.* Fair Haven, Vt, Sept. 15, 01. A.B, Wellesley Col, 23; Loomis fellow, Yale, 29–30, Ph.D, 32. Instr. and asst. prof. physics, Vassar Col, 30–42. A.A; Physical Soc. Magnetism.

Wigodsky, Dr. Herman S(aul), School of Aviation Medicine, Randolph Field, Texas. *Physiology.* Sioux City, Iowa, June 12, 15. B.S, South Dakota, 37; M.S, Northwestern, 38, M.B. and Ph.D, 40, M.D, 41. Asst, Northwestern, 37–41; *Med. Corps, U. S. Army, 41–, major.* A.A; Aero-Med. Soc; Physical Soc. Gastro-intestinal and hematologic physiology; aviation physiology; physiology of blood.

Wiig, Dr. Edwin O(dde), University of Rochester, Rochester, N. Y. *Chemistry.* Oslo, Norway, Aug. 14, 99. B.S, Rensselaer Polytech, 21; M.S, Wisconsin, 25, Ph.D, 27. Instr. chem, Wisconsin, 27–29; nat. research fellow, Princeton, 29–30; Harvard, 30–31; Berlin and Frankfurt, 31–32; senior research assoc. *chem, Rochester,* 32–35, asst. prof, 35–39, *assoc. prof, 39–; official investigator, Nat. Defense Research Cmt.* Lieut, C.W.Res, 28– Chem. Soc. (chairman, Rochester sect, 39). Photochemistry; catalysis; reaction kinetics.

Wikoff, Prof. Helen L(andman), Ohio State University, Columbus, Ohio. *Biochemistry.* Columbus, Ohio, July 9, 00. A.B, Ohio State, 21, M.S, 22, Ph.D, 24. Asst. chem, *Ohio State,* 21–24, instr. *physiol. chem,* 24–30, *asst. prof, 30–* A.A; Chem. Soc. Halogenated oils; blood bromides; methods of blood analysis.

Wilber, Dr. Charles G(rady), 1710 W. Highland Ave, Milwaukee, Wis. *General physiology.* Waukesha, Wis, June 18, 16. B.S, Marquette, 38; A.M, Hopkins, 41, Ph.D, 42. Lab. asst, Marquette, 38–39; asst, Hopkins, 40–42; instr, St. Louis, 42; *lieut, Air Corps, U. S. Army, and physiologist, sch. aviation med, Randolph Field, 42–* Summer, instr, Fordham, 42. A.A; Micros. Soc; Wis. Acad. Physiology of high altitude flying.

Wilber, C(harles) P(arker), R. D. 6, Trenton, N. J. *Forestry.* New Brunswick, N. J, Oct. 23, 83. A.B, Rutgers, 05, A.M, 08; M.F, Yale, 07. Wm. M. Ritter Lumber Co, 07; U. S. Forest Service, 08–10; state fire warden and asst. state forester, *State Dept. Conservation and Develop, N. J,* 10–22, chief div. forests and parks, 22–37, *director, 37–, state forester,* 22– Mem, State Planning Cmn, N. J, 34–; State Council, 37–; State Soil Conservation Cmn, 37–; advisory council, Allegheny Forest Exp. Sta, U. S. Forest Service. Soc. Foresters (chairman, Allegheny sect, 28–). Forest fires; parks; land use; public recreation.

Wilbur, Prof. Donald A(lden), Kansas State College, Manhattan, Kans. *Entomology.* Binghamton, N. Y, Nov. 11, 99. B.S, Oregon State Col, 26; A.M, Ohio State, 27. Field entomologist, Oregon Col, 25–26; asst. exten. entomologist, Ohio State, 27–28; asst. prof. *entom, Kans. State Col,* 28–41, *assoc. prof, 41–* Summer, prof, Ohio State, 27. Entom. Soc. Amer; Asn. Econ. Entom; Kans. Acad; Kans. Entom. Soc. (sec'y-treas, 39–). Pasture insects; taxonomy of Cicadellidae.

Wilbur, Prof. Donald A(ldrich), 36 Center View Drive, Troy, N. Y. *Physics.* Mt. Pleasant, Mich, Feb. 18, 04. A.B, Cent. Mich. State Teachers Col, 25; M.S, Michigan, 29, Ph.D, 32. Instr, Grinnell Col, 32–33; *assoc. prof. physics, Rensselaer Polytech, 33–* Physical Soc; Radio Eng; Acoustical Soc. Electronics and communication.

Wilbur, Dr. Dwight L(ocke), Stanford University School of Medicine, San Francisco, Calif. *Medicine.* Harrow-on-the-Hill, Eng, Sept. 18, 03. A.B, Stanford, 23; M.D, Pennsylvania, 26; fellow, Minnesota, 29–31, M.S, 33. Asst, sect. path. anat, Mayo Clinic, 29–30, asst, div. med, 31–33, assoc, 33–37; instr, Mayo Foundation, Minnesota, 33–36, asst. prof, 36–37; asst. clin. prof, *sch. med, Stanford,* 37–38, *assoc. clin. prof. med, 38–; lieut. commander, Med. Corps, U. S. Naval Res, 42–* Asst. visiting physician, San Francisco Hosp, 37– Assoc. ed, 'Gastroenterol.' Mem. subcmt. med. nutrition, Nat. Research Council, 40–41. A.A; Gastroscopic Club; Am. Med. Asn; fel. Col. Physicians; Soc. Clin. Invest; Gastro-Enterol. Asn; Cent. Soc. Clin. Research; Calif. Acad. Gastro-intestinal tract; kidney; nutrition.

Wilbur, Dr. E. Lloyd, University of Arkansas School of Medicine, Little Rock, Ark. *Pathology.* Council Bluffs, Iowa, Feb. 18, 09. M.D, Nebraska, 34. Intern, Jennie Edmundson Hosp, Council Bluffs, Iowa, 34–35; res. and instr. *path,* Duke, 35–38; instr, *Arkansas,* 38–39, asst. prof, 39, assoc. prof, 39–40, *prof, 40–* Myocardial tuberculosis; routes of intracranial infection; vasculation of the aorta; human neoplasms.

Wilbur, Prof. John B(enson), Massachusetts Institute of Technology, Cambridge, Mass. *Civil engineering.* Oakland, Maine, July 25, 04. B.S, Mass. Inst. Tech, 26, M.S, 28, Sc.D, 33. Bridge designer, Maine Cent. R. R, 28–29; N. Y. Cent. R.R, 29–30; instr. *civil eng, Mass. Inst. Tech,* 30–34, asst. prof, 34–37, assoc. prof, 37–43, *prof, 43–; chief engineer, Smith-Putnam wind turbine project, S. Morgan Smith Co, York, Pa, 40–* Assoc. Civil Eng; Eng. Educ; Boston Soc. Civil Eng. Structural analysis; building frame stress analysis; suspension bridge stress analysis; mechanical solution of simultaneous equations; model analysis of structures; theory of statically indeterminate structures.

Wilbur, Prof. J(ohn) W(arren), Purdue University, Lafayette, Ind. *Dairy husbandry.* Bethlehem, Pa, Oct. 5, 97. B.S, Missouri, 19; M.S, Minnesota, 21. Instr. *dairy husbandry, Purdue,* 21–27, asst. prof, 27–43, *assoc. prof, 43–, assoc, Exp. Sta, 23–* Dairy Sci. Asn. Soy-beans, hay and grain as food for dairy cattle; grinding grains and roughage; effects of cattle feeds on the vitamin A content of butterfat.

Wilbur, Dr. Karl M(ilton), Dalhousie University, Halifax, N. S, Can. *Physiology.* Binghamton, N. Y, May 7, 12. A.B, Ohio State, 35, A.M, 36; Harrison fellow, Pennsylvania, 37–39, Ph.D, 40. Asst. zool, Ohio State, 35–36; instr, Pennsylvania, 39–40; Rockefeller fellow, N. Y. Univ, 40–41; instr. zool, Ohio State, 41–42; *asst. prof. physiol, Dalhousie, 42–* Colloid chemistry of protoplasm; effect of radiation on marine eggs; pituitary function.

Wilbur, Dr. Ray Lyman, Stanford University, Calif. *Medicine.* Boonesboro, Iowa, April 13, 75. A.B, Stanford, 96, A.M, 97; M.D, Cooper Med. Col, 99; LL.D, California and Arizona, 19, Pennsylvania, 25, New Mexico, 28, Pittsburgh and Chicago, 29, Maryland, Duke, Princeton and Rochester, 30, Puerto Rico, Yale, N. Y. Univ, Univ. State of N. Y, Southern California and Tusculum Col, 31, Illinois Wesleyan and Dartmouth Col, 32; Sc.D, Syracuse, 24, Western Reserve, 31; A.M. (Med), Hahnemann Med. Col, 30. Asst. physiol, Stanford, 94–96, instr, 96–97; lecturer and demonstrator, Cooper Med. Col, 99–00; asst. prof, Stanford, 00–03; practising physician, 04–09; prof. med, *Stanford,* 09–16, dean med. sch, 11–16, pres, 16–42, *chancellor, 42–* Sec'y, U. S. Dept. Interior, 29–33. Examining Board of Physicians, Calif, 02–03; trustee, Rockefeller Foundation, 23–40; Gen. Educ. Board, 30–40. Chairman med. council, U. S. Veterans' Bur, 24–29; Inst. Pacific Relations, 25–29, 40; Cmt. on Costs Med. Care, 27–33; White House Conf. Child Health and Protection, 29–31; Nat. Advisory Cmt. on Illiteracy, 30–31. Pres, Motion Picture Research Council, 35– U. S. del, Pan-Am. Conf, Havana, 28. Chief conservation div, U. S. Food Admin, 17. A.A; Am. Med. Asn. (nat. pres, 23, chairman, council on med. educ. and hosps, 29–); Social Hygiene Asn. (pres, 36–); Asn. Path. and Bact; Am. Acad. Med. (pres, 12); Asn. Med. Cols. (pres, 24); Calif. Soc. Prom. Med. Research (pres, 37–); Calif. Acad. Med. (pres, 17); Calif. Physicians Service (pres, 39–); World Citizens Asn. (chairman cent. cmt, 38–). Acidosis; urobilin; botulism; the past half century of medical education.

Wilbur, Dr. Walter K(arl), University of Pennsylvania, Philadelphia, Pa. *Anthropology, Ethnology, Linguistics.* Vienna, Austria, Sept. 2, 80. Ph.D, Vienna, 35. Sec'y, Arbeitsgemeinschaft der Amerikanisten der Univ. Wien, 35–38; *research assoc, Am. sect, univ. museum, Pennsylvania, 38–* Phila. Anthrop. Soc. Hieroglyphs in Aztec codices.

Wilce, Dr. J(ohn) W(oodworth), Ohio State University, Columbus, Ohio. *Cardiology.* Rochester, N. Y, May 12, 88. A.B, Wisconsin, 10; M.D, Ohio State, 19; Columbia, 29; Harvard, 33. Asst. prof. physical educ, Wisconsin, 11–12; prof. competitive and recreative athletics, *Ohio State,* 13–15, physical educ, 15–34, assoc. physician, student med. service, 29–34, *prof. clin. med. and director univ. health service, 34–* Research, int. med. seminar, National Hosp. Diseases of Heart, London, England, 29. Summer, instr, Columbia, 20. 21, 22. Fel. Col. Physicians; Am. Med. Asn; Heart Asn; Ohio Student Health Asn. (v. pres, 38; mem. exec. board, 39–41). Student health; heart and athletics; medical effects of sport and physical education; internal medicine.

Wilcke, Prof. H(arold) L(udwig), Iowa State College, Ames, Iowa. *Poultry husbandry.* Miles, Iowa, Aug. 5, 06. B.S, Iowa State Col, 27, M.S, 32, Ph.D, 35. Poultry specialist, Meridian Grain and Elevator Co, Miss, 27–29; asst. *poultry husbandry, Iowa State Col,* 29–31, research asst. prof, 31–35, assoc. prof, 35–36, *prof. and head dept, 36–; capt, Sanit. Corps, U. S. Army.* Poultry Sci. Asn. Nutrition of chicks; nutrition in relation to disease; egg quality.

Wilcox, Alice W(ilson), 38 Forest St, Providence, R. I. *Biology.* Providence, R. I, June 25, 71. A.B, Vassar Col, 94; fellow, Chicago, 00–02; fellow, Brown, 05–06, A.M, 09. Instr. biol, Vassar Col, 96–00; zool, Wellesley Col, 02–05; biol. and euthenics, woman's col, Brown, 06–13; director, Fairbanks Museum Nat. Science, 13–17; instr. biol, Hunter Col, 17–19; prof, Brenau Col, 20–29. A.A; Nat. Asn. Audubon Societies; Forestry Soc; Social Hygiene Asn. Fresh-water Bryozoa; life history and locomotion in young colonies of Pectinatella magnifica.

Wilcox, Prof. A(rthur) N(oble), University Farm, St. Paul, Minn. *Plant genetics.* Waterloo, Wis, May 21, 98. B.S.A, Wisconsin, 19; Caleb Dorr fellow, Minnesota, 21–22, M.S, 22, Ph.D, 29. Asst. agron. and plant genetics, *Minnesota,* 20–21, *hort,* 22–23. instr, 23–29, *asst. prof, 29–, asst. horticulturist, 23–* Nat. research fellow, John Innes Hort. Inst, London, Eng, 33–34. A.A; Soc. Hort. Sci. (pres, Great Plains sect, 39); Minn. Acad. Fruit breeding; genetics; sterility.

Wilcox, Prof. C(arl) C(lifford), 1507 E. Colfax, South Bend, Ind. *Mechanical engineering.* Busti, N. Y, May 24, 80. M.E, Ohio State, 03–07. Mem. staff, Bartlett Illum. Co, Saginaw, Mich, 03–05; mech. engineer, Tenn. Coal, Iron and R. R. Co, 05–06; asst. mech. eng, Mich. Agr. Col, 07–09; asst. consulting engineer, Hodenpyle Hardy and Co, New York, 09–19; chief engineer, Gen. Motors Bldg. Corp, 19–22; supt. power div, Studebaker Corp, South Bend, Ind, 22–38; consulting engineer, 38–39; *assoc. prof. mech. eng. and head dept, Notre Dame, 39–; chief engineer, Canol project, J. Gordon Turnbull and Sverdrup and Parcel, Can, 42–* Mech. Eng. (chairman St. Joseph Valley sect, 05–). Heat power.

Wilcox, David H(enry), Jr, 148 W. Maple Ave, Bound Brook, N. J. *Organic chemistry.* Winston-Salem, N. C, April 24, 07. B.S, Wake Forest Col, 30; Northwestern, 30–31; A.M, Duke, 37. Asst. chem, Wake Forest Col, 29–30; Northwestern, 30–31; teacher, high sch, N. C, 32–33; anal. chemist, Amalgamated Dyestuff and Chem. Co, 33–36; research chemist, Ansbacher-Siegle Corp, 36–38; *anal. supervisor Calco chem. div, Am. Cyanamid Co, 38–* Chem. Soc; Inst. Chem. Pyrolysis of diammonium beta sulfopropionate.

Wilcox, Dr. E(arley) V(ernon), 33 W. Irving St, Chevy Chase, Md. *Entomology, Botany.* Busti, N. Y, Feb. 16, 69. A.B, Otterbein Col, 90, Litt.D, 32; A.B, Harvard, 92, A.M, 94, Ph.D, 95. Asst. entom, Ohio Exp. Sta, 90; prof. biol, Montana, 96–99; assoc. ed, 'Exp. Sta. Record,' 99–08; special agent in charge, Exp. Sta, Hawaii, 08–15, *econ. research, Farmers' Independence Council.* Asn. Econ. Entom; Vet. Med. Asn. Cytology; entomology; poisonous plants; improvement of Hawaiian agricultural methods; agricultural economics.

Wilcox, Prof. E(lgin) R(oscoe), University of Washington, Seattle, Wash. *Hydraulics.* Seattle, Wash, March 15, 92. B.S, Washington (Seattle), 15, Met.E, 19. Min. supt, Alaska Corp, 17–18; North. Copper Co, 19–20; *col. eng, Washington (Seattle),* 21–28, assoc. prof. *gen. eng,* 28–36, *prof, 36–* Min. and Metal. Eng; Eng. Educ. Engineering; student personnel.

Wilcox, Dr. Ethelwyn B(ernice), Utah State Agricultural College, Logan, Utah. *Home economics.* Wyoming, Iowa, March 19, 06. B.S, Iowa State Col, 31, M.S, 37, Ph.D, 42. Asst, Iowa State Col, 37–42; asst. home economist, Exp. Sta, State Col. Wash, 42–43; *asst. prof. nutrition, col. home econ, Utah State Col, 43–* Vitamin content of vegetables and fruits.

Wilcox, Prof. G(uy) M(aurice), Illinois Institute of Technology, Chicago, Ill. *Physics.* Kansas City, Kans, Feb. 2, 70. A.B, Carleton Col, 91; A.M, Wisconsin, 02. Instr, high sch, Minn, 94–00; *physics,* Wisconsin, 01–03; prof, *Ill. Inst. Tech,* 03–35, *emer. prof, 35–* A.A; Physical Soc; Radio Eng; Eng. Educ. Optical rotatory power of sugar in various solvents; solution in the surface layer of liquids; radio communication.

Wilcox, Prof. Harold E(dwin), Howard College, Birmingham, Ala. *Chemistry.* A.B, Ohio Wesleyan, 34; M.S, Ohio State, 37, Ph.D, 39. Teacher science and math, Orange Township High Sch, Delaware Co, Ohio, 34–35; chemist, Gummed Products Co, Troy, 35–36; *asst. prof. chem, Howard Col, 39–* A.A; Chem. Soc. (sec'y-treas, Ala. sect, 40, chairman, 42); Ala. Acad. (chairman chem. sect, 41). Flocculating agents in analytical chemistry; antifoaming agents.

Wilcox, Dr. Herbert B, New York Academy of Medicine, 2 E. 103rd St, New York, N. Y. *Pediatrics.* Brooklyn, N. Y, July 1, 74. A.B, Yale, 98; M.D, Columbia, 02. Assoc. pediat, *col. physicians and surgeons, Columbia,* 04–20, Carpentier prof. *diseases of children,* 21–31, prof, 31–39, *emer. prof, 39–* From adj. asst. attending physician to director, Bellevue Hosp, 08–25; physician in chief, Babies Hosp, 25–31; director nor. child develop. study, Babies Hosp, 36–39. Mem, N. Y. Cmn. Crippled Children, 37– Mem, White House Conf. Child Health and Protection. Director health centers for service children, Am. Red Cross, 17–18. Pediat. Soc; Am. Med. Asn; Child Health Asn. (trustee); Harvey Soc; N. Y. Acad. Med. (sec'y pediat. sect, 16, chairman, 17, 31; cmt. fellowship, 33–; v. pres, 34–37; trustee, 37–39; director, 39–); N. Y. Path. Soc. Diabetes; feeding; parathyroid glands; dermatitis; meningeal diseases; the cardiac child; childhood symptomology; pre-school age; chorea; chemistry of spinal fluid; kidney function, growth and development; lead poisoning; early management.

Wilcox, Prof. H(ugh) B(rown), 24 Melbourne Ave, S. E, Minneapolis, Minn. *Mechanics.* Lake Mills, Iowa, May 5, 92. B.S, Minnesota, 14, M.S, 16. Asst. examiner, U. S. Patent Office, 17–19; *eng. col, Minnesota, 20–, prof. mech.* A.A;

Mech. Eng; Math. Soc; Physical Soc. Engineering mechanics; sound shift method of measuring velocity.

Wilcox, Prof. L(ee) R(oy), 5419 S. University Ave, Chicago, Ill. *Mathematics.* Chicago, Ill, June 8, 12. B.S, Chicago, 32, M.S, 33, fellow, 33–35, Ph.D, 35. Mem, sch. math, Inst. Advanced Study, 35–36, asst, 36–38; instr, Wisconsin, 38–40; asst. prof, *Ill. Inst. Tech,* 40–43, *assoc. prof, 43–* Math. Soc; Math. Asn. Projective differential geometry; abstract geometry; theory of lattices.

Wilcox, L(loyd) V(ernon), Rubidoux Laboratory, Riverside, Calif. *Agronomy.* Hill City, Kans, June 15, 97. A.B, California, 22. Chemist, Sutter Basin Co, Calif, 22–24; Limoneira Co, Santa Paula, 24–28; assoc. agronomist and later *agronomist, div. irrig. agr, bur. plant indust, U. S. Dept. Agr, 28–* A.A; Chem. Soc. Quality of irrigation water; analytical methods for water analysis.

Wilcox, Dr. Ray E(verett), Star Lake, N. Y. *Geology.* Janesville, Wis, March 31, 12. Ph.B, Wisconsin, 33, Ph.M, 37, Ph.D, 41. *Geologist,* Wis. Geol. Surv, 35–39; *Jones and Laughlin Steel Corp, 41–* Igneous geology; mining geology.

Wilcox, R(aymond) B(oorman), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Kiowa, Kans, Feb. 1, 89. B.S, Wisconsin, 12, M.S, 13. Asst. pathologist, office fruit disease investigations, *div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr,* 13–31, *assoc. pathologist, 31–* Diseases of small fruits; virus diseases of plants.

Wilcoxon, Dr. Frank, R. D. 1, Box 39A, Terrace Ave, Riverside, Conn. *Chemistry.* Cork, Ireland, Sept. 2, 92. B.S, Pa. Mil. Col, 17; M.S, Rutgers, 21; Ph.D, Cornell, 24. Chemist, Atlas Powder Co, 17–20; instr. chem, Rutgers, 20–22; asst. physical chem, Cornell, 22–24, Heckscher research asst, 24–25; copper investigator, Crop Protection Inst, 25–27; research chemist, Nichols Copper Co, 28–29; chemist, Herman Frasch Foundation, Boyce Thompson Inst, 29–43; director control lab, Ravenna Ordnance Plant, 41–43; *group leader in charge insecticide and fungicide lab, research lab, Am. Cyanamid Co, 43–* A.A; Chem. Soc; Statist. Asn; Army Ordnance Asn. Inorganic chemistry of nitrogen and sulfur; colloid chemistry; chemistry of insecticides and fungicides.

Wilde, Prof. E(arle) I(rving), Pennsylvania State College, State College, Pa. *Horticulture.* June 17, 88. B.S, Mass. Col, 12; M.S, Pa. State Col, 17; Ph.D, Cornell, 29. *Pa. State Col, 12–, prof. ornamental hort.* Floriculture; ornamental horticulture; delphinium.

Wilde, Dr. H(enry) D(ayton), Humble Oil and Refining Co, Houston, Texas. *Engineering.* Aguascalientes, Mex, Sept. 25, 00. B.S, Texas, 23, M.S, 24; Sc.D, Mass. Inst. Tech, 29. Research engineer, *Humble Oil and Ref. Co,* 27–29, in charge crude oil production research, 29–33, *manager ref. tech. and research dept, 33–* Min. and Metal. Eng. (chairman, petrol. div, 34). Refining of crude oil.

Wilde, Prof. S(ergey) A(lexander), University of Wisconsin, Madison, Wis. *Soils.* Moscow, Russia, April 14, 98. B.S, Realschule, Paedogogic Soc. Moscow, 15; F.E, Prague, 24, Sc.D, 28. Instr. forest eng. and soil erosion control, Prague, 28–29; asst. forestry, exp. sta, U. S. Forest Service, St. Paul. Minn, 29–30; instr. *soils, Wisconsin,* 30–34, asst. prof, 34–37, *assoc. prof, 37–* Soc. Foresters; Phytopath. Soc; Ecol. Soc; Soc. Agron; Int. Soc. Soil Sci; Czechoslovakia Acad. Agr. Forest soils; plant nutrition.

Wilde, Dr. Walter S(amuel), Louisiana State University School of Medicine, New Orleans, La. *Physiology.* Toronto, Ont, Can, Feb. 12, 09. A.B, Miami (Ohio), 31; A.M, Minnesota, 33, Ph.D, 37. Instr. zool, Miami (Ohio), 33–34; teaching fellow physiol, Rochester, 37–38; instr. zool, Wyoming, 38–39; *physiol, sch. med, Louisiana, 39–* A.A. Electrolyte equilibrium in muscle and blood; potassium; chloride; calcium; dipole theory of action current; role of Jacobson's organ.

Wilder, Dr. Arthur Barthen, Porcelain Metal Products Co, Carnegie, Pa. *Metallurgical engineering.* Connellsville, Pa, Aug. 17, 04. B.S, Mt. Union Col, 25; A.M, Ohio State, 28; Case, 30–31; Sc.D, Harvard, 33. Asst, Ohio State, 25–28; night supt, West. Chlorine Products, 28–29; asst. supt, Diamond Alkali Co, 29–30; instr. metal, Case, 30–31; asst, eng. sch, Harvard, 31–33; research metallurgist, Am. Steel and Wire Co, 33–35; asst. prof. metal. eng, Illinois, 35–39; research metallurgist, Jones and Laughlin Steel Corp, 39–42; *chief metallurgist, Porcelain Metal Products Co, 42–* Min. and Metal. Eng; Soc. Metals. Influence of oxygen on age hardening; influence of grain size in steel on physical properties; welding; enamels; colloidal systems in liquid ammonia; removal of metalloids in steel making; blast furnace and open hearth practices; manufacture and ballistic properties of armor plate; protective metallic coatings.

Wilder, Prof. C(ecil) N(orton), University of Georgia, Athens, Ga. *Agricultural chemistry.* Grady Co, Ga, June 4, 96. B.S.A, Georgia, 16, M.S.A, 18. Tutor, *Georgia,* 16–18, instr, 18–19, adj, 19–22, assoc, 22–30, *prof. agr. chem, 30–; lieut. col, Chem. Warfare Service, U. S. Army, 41–* Chem. Soc.

Wilder, Prof. Charles E(dward), Dartmouth College, Hanover, N. H. *Mathematics.* Boston, Mass, Aug. 21, 89. A.B, Harvard, 12, A.M, 13, Ph.D, 15. Instr. *math,* Harvard, 13–14; Pa. State Col, 15–16; Northwestern, 16–18, asst. prof, 19–22; *Dartmouth Col,* 22–30, *prof, 30–,* chairman dept, 31–35. A.A; Math. Soc; Math. Asn. Analysis; degree of approximation to discontinuous functions by trigonometric sums; linear differential equations.

Wilder, Dr. Janet (Mrs. Winthrop Dakin), 54 Snell St, Amherst, Mass. *Ecology.* Berkeley, Calif, June 3, 10. A.B, Mt. Holyoke Col, 33, A.M, 35; Ph.D, Chicago, 39. Asst. zool, Mt. Holyoke Col, 33–35; asst. to Dr. W. C. Allee, Chicago, 36–39; *instr. zool, Mt. Holyoke Col, 39–* Soc. Zool. Effects of population density on lower organisms; ecological entomology.

Wilder, Prof. Magel C(raig), R.F.D. 2, Olneyville Station, Providence, R. I. *Biology.* Johnston, R. I, Feb. 16, 98. A.B, Brown, 19, A.M, 21; fellow, Cornell, 25–26, Ph.D, 27. Asst. biol, *Pembroke Col, Brown,* 19–21, English, 19–20, instr. *biol,* 21–25, 26–30, *asst. prof, 30–* Temple Prime scholarship, biol. lab, Cold Spring Harbor, 20. Summers, instr, Park Museum Sch, 28–32. A.A. Embryology and histology of the ultimobranchial body; entomology of stem-borers and parasites.

Wilder, Prof. R(aymond) L(ouis), University of Michigan, Ann Arbor, Mich. **Mathematics.* Palmer, Mass, Nov. 3, 96. Ph.B, Brown, 20, M.S, 21; Ph.D, Texas, 23. Asst. *math,* Brown, 20–21; instr, Texas, 21–24; asst. prof, Ohio State, 24–26; *Michigan,* 26–29, assoc. prof, 29–35, *prof, 35–* Research worker, Inst. Advanced Study, 33–34; Guggenheim Mem. Foundation fellow, Texas, 40–41. Math. Soc. (councilor, 35–37; ed, 'Jour'; assoc. ed, 'Trans'; Colloquium lecturer, 42); Math. Asn. (governor); Asn. Symbolic Logic. Foundations of mathematics; topology.

Wilder, Dr. Russell M(orse), Mayo Clinic, Rochester, Minn. *Medicine.* Cincinnati, Ohio, Nov. 24, 85. B.S, Chicago, 07, Ph.D, 12, M.D, Rush, 12. Instr. internal med, Rush Med. Col, Chicago, 14–17, fellow, Sprague Mem. Inst, 15–17; mem. staff, Mayo Clinic, 19–29, head sect, div. med; asst. prof. *med,* Mayo Foundation, Minnesota, 19–24, prof, 24–29; prof. and chairman dept, Chicago, 29–31; *prof. and chief dept, Mayo Foundation, Minnesota, 31–; mem. staff, Mayo Clinic, 31–* Res. physician, Presb. Hosp, Chicago, Ill, 15–17. Chairman cmt. med, Nat. Research Council, 40, mem, 40–, chairman food and nutrition board, 41, mem, 41–, exec. board. Assoc. ed, 'Archives Int. Med,' 32–; 'Jour. Nutrition,' 42– M.C, U.S.A, 17–19. A.A; Inst. Nutrition; Am. Med. Asn. (council on foods); Am. Physicians; Soc. Clin. Invest; Physiol. Soc; Cent. Interurban Clin. Club; Cent. Soc. Clin. Research; Minn. Soc. Int. Med; Inst. Med. Chicago. Pathology; typhus fever; diabetes; nutrition; metabolism.

Wildermuth, V(ernon) L(eRoy), U. S. Department of Agriculture, Tempe, Ariz. *Entomology.* Groveport, Ohio, Aug. 15, 85. B.S, Ohio State, 09. Agent and expert, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 09–13, entom. asst, 13–22, entomologist, 22–24, assoc. entomologist, 24–28, entomologist, 28–30, *senior entomologist in charge, div. cereal and forage insects, 31–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Clover root curculio; the alfalfa caterpillar; the three cornered alfalfa hopper; California green lace wings; desert corn flea beetles; New Mexico range caterpillars; the clover stem borer as an alfalfa pest; alfalfa seed chalcid fly; red harvester ant; corn leaf aphis.

Wildes, Prof. Karl L(eland), 26 Sewall St, Wollaston, Mass. *Electrical engineering.* Belmont, N. H, Sept. 25, 95. B.S, New Hampshire, 20; M.S, Mass. Inst. Tech, 22. Instr. math, *Mass. Inst. Tech,* 20–23, *elec. eng,* 23–27, asst. prof, 27–35. *assoc. prof, 35–* Visiting prof, Nat. Tsinghua Univ, China, 37. A.A; Elec. Eng; assoc. Radio Eng; Eng. Educ. Cooperative education.

Wildhack, W(illiam) A(ugust), 328 N. Oxford St, Arlington, Va. *Mechanics.* Breckenridge, Colo, Sept. 24, 08. B.S, Colorado, 31, M.S, 32; George Washington, 36–39. Asst. physics, Colorado, 31–34; instr. eng. and math, Boise Junior Col, 34–35; *physicist, Bur. Standards, 35–* Inst. Aeronaut. Sci. Stellar energy; aeronautic instruments; mechanics of parachuting; oxygen supply for high altitude flight.

Wilding, Dr. James L(ittle), 43 S. Seventh East St, Salt Lake City, Utah. *Fisheries biology.* Salt Lake City, Utah, Oct. 22, 11. A.B, Utah, 33, A.M, 35; Ph.D, Indiana, 38. *Project leader silver salmon investigation, fish and wildlife service, U. S. Dept. Interior, 38–* Chem. Soc. Life history of the silver salmon, including age at maturity, population size, migration, food and growth.

Wildish, Dr. James E(lmer), 115 N. Lawn Ave, Kansas City, Mo. *Chemistry.* Empire Prairie, Mo, July 8, 81. B.Pd, Warrensburg State Nor. Sch, Mo, 05; B.S, A.B, Missouri, 09, Ph.D, 32; A.M, Wisconsin, 15. Teacher, high sch, Mo, 05–07; Kans, 09–10; Mo, 10–16; *chairman dept. chem, Kansas City Junior Col, Kans, 16–* A.A; Chem. Soc. The dielectric constant of selenium oxychloride; the origin of protactinium.

Wildman, Dr. Edward E(mbree), 4331 Osage Ave, Philadelphia, Pa. *Zoology.* Selma, Ohio, Oct. 19, 74. B.S, Pennsylvania, 04, M.S, 08, Ph.D, 12. Asst. instr. biol, Pennsylvania, 02–04; prof. biol, Cent. High Sch. Phila, 06–12; head dept. science, W. Phila. High Sch. for Girls, 12–26; instr. zool, Pennsylvania, 19–21; *director div. science, Board Pub. Educ, Phila, 26–* Summers, instr, Marine Biol. Lab, Woods Hole, 08–11; prin, Pa. Demonstration High Sch, 21–25. Physiology and cytology in heredity; chromatic behavior.

Wildman, Prof. E(rnest) A(tkins), Earlham College, Richmond, Ind. *Chemistry.* Chattanooga, Tenn, July 2, 89. B.S, Earlham Col, 12; M.S, Illinois, 14, Ph.D, 22. Chem. staff, Rockefeller Inst, 15–17; director chem. research, Eli Lilly and Co, 17–19; *prof. chem. and director dept, Earlham Col, 19–* Prof, Mills Col, 29–30. A.A; Chem. Soc; Ind. Acad. Organic chemistry; syntheses in the diphenylmethane series; chemotherapeutics; synthetic local anesthetics; structure of anthracene.

Wildman, J(ohn) D(onald), 2913 24th St, N, Arlington, Va. *Botany.* South Otselic, N. Y, Jan. 30, 02. A.B, Syracuse, 24, A.M, 25. Instr, Syracuse, 28; junior microanalyst, *food and drug admin, U. S. Dept. Agr,* 28–29, asst. microanalyst, 30–37, assoc. microanalyst, 37–41, *microanalyst, 41–* Instr, Maryland, 42– Agr. Chem. Microscopy; foods; statistics.

Wilds, Dr. A(lfred) L(awrence), University of Wisconsin, Madison, Wis. *Organic chemistry.* Kansas City, Mo, March 1, 15. B.S, Michigan, 36, M.S, 37, Ph.D, 39. Du Pont fellow, Michigan, 39–40; instr. *chem, Wisconsin,* 40–42, *asst. prof, 42–* Chem. Soc. Phenanthrene derivatives; synthetic sex hormones.

Wilds, Dr. George James, Jr, Coker's Pedigreed Seed Co, Hartsville, S. C. *Plant breeding.* Longtown, S. C, Sept. 19, 89. A.B, South Carolina, 13; A.M, Cornell, 17; hon. Sc.D, Clemson Agr. Col, 37. Asst. plant breeder, *Coker's Pedigreed Seed Co,* 08–11, plant breeder, 13–15, 17–19, *director plant breeding, 19–, pres. and managing director, 38–* A.A; Phytopath. Soc; South. Agr. Workers Asn; S. C. Acad. Breeding of full length short stapled cottons and upland long staple cottons; breeding of smut, cold and rust resistant oats, mildew and rust resistant wheat.

Wildt, Dr. Rupert, University of Virginia, Charlottesville, Va. *Astronomy.* Munich, Germany, June 25, 05. Ph.D, Berlin, 27. Asst, Observatory, Bonn, 28–29; Göttingen, 30–34; Rockefeller Foundation fellow, Mt. Wilson Observ, Carnegie Institution, 35–36; visiting lecturer, Harvard, 36; mem, Inst. Advanced Study, 36–37; research assoc, Princeton, 37–42; *asst. prof. astron, Virginia, 42–* Astron. Soc; Int. Astron. Union (cmt. 16, 33–). Meridian and photographic stellar positions; astrophysics; constitution of the planets and geochemistry; physical chemistry and theory of the photographic process.

Wile, Dr. Ira S(olomon), 1 W. 68th St, New York, N. Y. *Psychiatry, Education.* Rochester, N. Y, Nov. 29, 77. A.B. and B.S, Rochester, 98, M.S, 08; M.D, Pennsylvania, 02. Asst. pediatrician and clin. microscopist, *Mt. Sinai Hosp,* 04–16, *assoc. pediat. and director children's health class, 19–* Asst. pediatrician, Vanderbilt Clinic, 04–16; commissioner of educ, New York, 12–18; lecturer, N. Y. Univ, 13–14; Tavistock Clinic, London, England, 28, 36; Hunter Col, 30–43; Brooklyn Col, 35–43; Columbia, 35; Pa. Col. for Women, 39–40. Assoc. ed, 'Am. Jour. Orthopsychiat.' Mem, Nat. and Int. Cmt. for Mental Hygiene. Orthopsychiat. Asn. (pres, 33); fel. Psychiat. Asn; Speech Correction Asn; N. Y. Acad. Med. Mental hygiene; right and left handedness; personality development and social control in terms of constitution and culture; the nervous child; the challenge of adolescence.

Wile, Dr. U(do) J(ulius), University Hospital, Ann Arbor, Mich. *Dermatology.* New York, N. Y, Aug. 8, 82. A.B, Columbia, 04; M.D, Hopkins, 07. *Prof. dermat. and syphilol, med. sch, Michigan, 12–,* director clin. depts, 30–35; *col, U. S. Army, and med. director in charge venereal disease control, U. S. Pub. Health Service, 42–* Am. mem. int. cmn, Int. Cong. Dermat. and Syphilol. Dermat. Asn. (sec'y-treas, 20–25, pres, 29); Chicago Dermat. Soc; Detroit Dermat. Soc. (pres, 23); hon. mem. Manhattan Dermat. Soc; cor. mem. British Dermat. Soc; cor. mem. Soc. française de Dermat. et Syphilol; hon. mem. Soc. Ital. de Dermat. e Sifilog; cor. mem. Danish Dermat. Soc; cor. mem. Soc. Dermat. Argentina; cor. mem. Dermat. Soc. Hungary. Cutaneous medicine; syphilis.

Wilens, Dr. Sigmund L(ouis), New York University, New York, N. Y. *Pathology.* Hartford, Conn, Jan. 28, 05. B.S, Yale, 26, M.D, 29. Instr. *path,* Columbia, 29–34; *N. Y. Univ,* 34–36, *asst. prof, 36–* Asst. res, Presbyterian Hosp, New York, 30–31, res, 31–34; assoc. pathologist, Bellevue Hosp, 41– Asn. Path. and Bact; Soc. Exp. Biol; Harvey Soc; N. Y. Acad. Cardiovascular disease; arteriosclerosis; parathyroid.

Wiles, Dr. Harold O(liver), 26 Boxwood Ave, Wilmington, Del. *Biochemistry.* Columbia Falls, Mont, Oct. 23, 04. B.S, Mont. State Col, 27; M.S, Minnesota, 29, Ph.D, 32. Instr, Minnesota, 30–32; assoc. biochem, Exp. Sta, Tennessee, 32–33; Armour fellow, Sprague Mem. Inst, and instr. path, Chicago, 34–42; *research chemist, exp. sta, Hercules Powder Co, 42–* Chem. Soc. Proteins and peptones; organotherapeutics of anemias and leucopenia; female sex hormones; vitamins.

Wiley, Prof. C(arroll) C(arson), University of Illinois, Urbana, Ill. *Civil engineering.* Edinburg, Ill, July 28, 84. B.S, Illinois, 04, C.E, 10. Instr. civil eng, *Illinois,* 06–14, assoc, 14–19, asst. prof. highway eng, 19–30, assoc. prof, 30–37, *prof. civil eng, 37–* Summer, prof, Iowa State Col, 23. Civil Eng. (sec'y-treas, cent. Ill. sect, 24–26, v. pres, 27, pres, 28); Eng. Educ; Road Builders Asn; Inst. Traffic Eng; Ill. Soc. Eng. Highway engineering; highway design, construction and maintenance; highway signs and signals; traffic control and safety.

Wiley, Prof. Forbes B(agley), Denison University, Granville, Ohio. *Mathematics.* Brighton, Mich, Feb, 80. A.B, Kalamazoo Col, 06, D.Sc, 41; fellow, Chicago, 13–14, Ph.D, 14. Prof. *math.* and head dept, Des Moines, 06–08; instr, high sch, Mich, 08–10; *Denison,* 10–11, asst. prof, 11–12, *prof. and head dept, 14–* Asst, Chicago, 12–13; exchange prof, Robert Col, Constantinople, 24–25. Math. Soc; Math. Asn. Finiteness of the modular co-variants of systems of binary and ternary forms and cogredient points.

Wiley, Dr. Frank H(artman), U. S. Food and Drug Administration, Washington, D. C. *Biochemistry.* Rocky Ford, Colo, Aug. 27, 02. B.S, Denver, 25, M.S, 26; Ph.D, Michigan, 29. Asst. chem, Illinois, 25–26; physiol. chem, Michigan, 26–29, internal med. 29–30, nat. research fellow med, 30–32, research chemist, 32–34; biochemist, Haskell Lab, 34–39; *senior chemist in charge chem. sect, drug div, food and drug admin, Fed. Security Agency, 39–* A.A; Chem. Soc; Soc. Biol. Chem. Action of nitrous acid on proteins; insensible perspiration and metabolism; metabolism of water and inorganic salts; spectrographic analysis of urine; toxicity of inhaled gases; formation of oxalic acid; aniline tumors; methods for the analysis of pharmaceuticals.

Wiley, Howard L(eroy), 140 Linwood Ave, Buffalo, N. Y. *Chemistry, Technology.* Paris, N. Y, April 5, 02. Colo. Agr. Col, 20–21; Army Med. Sch, 22–23. Pharmaceut. chemist, John A. Martin Drug Co, 18–19, 20–22; chemist in charge, Fitzsimons Gen. Hosp, U.S.A, 22–23; consulting and anal. chemist, Gates Rubber Co, 24–26, asst. chief chemist, 26–38, *chief chemist,* 38–41; *U. S. Rubber Reclaiming Co, 41–* A.A; Chem. Soc. (chairman, rubber div, entertainment cmt, v. chairman, Colo. sect, 30, chairman, 32); Soc. Rheol; Colo. Soc. Eng. (chairman, symposium on Colo. resources, director, 34, 36, 40, 41); Colo. Eng. Council. Rubber chemistry and technology; rubber plasticity and rheology; chemical resources of Colorado; synthetic rubber reclaiming methods.

Wiley, Prof. James R(ollo), Shady Ridge, R. R. 2, Lafayette, Ind. *Animal husbandry.* Butler, Ind, Sept. 5, 87. B.S.A, Purdue, 13, M.S.A, 30. Asst. animal husbandry, Ohio State, 13–14; assoc. ed, 'Ohio Farmer,' 14–18; animal husbandry exten, *Purdue*, 18–25, *assoc. prof. animal husbandry, Exp. Sta, 25–* Soc. Animal Production (sec'y-treas, 27–28, pres, 30). Live stock marketing; losses and costs in the transportation of live stock; death, crippled losses and factors affecting shrinkage in the marketing of hogs; motor transportation of hogs; market hogs and pork products; live stock marketing from farm to processor.

Wiley, Dr. L(ester) E, Ohio Wesleyan University, Delaware, Ohio. *Psychology.* LaCrosse, Wis, Feb. 16, 99. A.B, Minnesota, 26; Ph.D, Chicago, 31. Asst, Behavior Research Fund, Chicago, Ill, 26–29; Chicago, 29–31, *psychol*, 31–32; *asst. prof, Ohio Wesleyan, 32–; capt, Air Corps, U. S. Army.* Assoc. Psychol. Asn; assoc. N. Y. Acad. Learning; educational measurement.

Wiley, Prof. R(alph) B(enjamin), 600 Bexley Road, West Lafayette, Ind. *Sanitary engineering.* Detroit, Mich, March 5, 84. B.S, Michigan, 06. Instr. *sanit. eng, Purdue*, 08–10, asst. prof, 10–16, assoc. prof, 16–19, *prof, 19–, head sch. civil eng, director lab. testing materials and director joint highway research project, 37–* Civil Eng. (director, 41–43); Eng. Educ; Water Works Asn; Ind. Acad; Ind. Soc. Professional Eng.

Wiley, Prof. R(aymond) C(lifford), University of Maryland, College Park, Md. *Chemistry.* Castana, Iowa, 85. B.S, Okla. Agr. and Mech. Col, 05; M.S, Maryland, 22; Ph.D, American Univ, 27. Asst. chemist, State Fertilizer Control, Md. Agr. Col, 05–08; assoc. chemist, Exp. Sta, Kans. State Col, 08–18; *assoc. prof. chem, Maryland, 18–* Summer, Davison Chem. Co, Md, 30. Chem. Soc. Agricultural and analytical chemistry.

Wiley, Dr. Richard H(aven), 211 S. du Pont Road, Lancaster Village, Wilmington, Del. *Organic chemistry.* Mattoon, Ill, May 10, 13. A.B, Illinois, 34, M.S, 35; Alumni Research Foundation fellow, Wisconsin, 35–37, Ph.D, 37; LL.B, Temple, 43. *Chemist, E. I. du Pont de Nemours and Co, 37–* Chem. Soc. Hydrogenation of organic compounds; synthetic resins; polyamides; plastics; vinyl polymerizations.

Wilford, Dr. B(ill) H(oward), 8 Whippany Road, Morristown, N. J. *Forest entomology.* Bangor, Pa, Aug. 12, 07. B.S.F, Pa. State Col, 29; M.F, Yale, 30; Ph.D, Michigan, 33. Field aide, div. forest insect investigations, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–31; junior instr, sch. forestry and conservation, Michigan, 31–32, teaching fellow, 32–33; junior entomologist, div. forest insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr*, 33–34, in charge field sta, 34–36, assoc. entomologist, 36–42, *entomologist, 42–* Summer, field asst, U. S. Forest Service, 28; tech. asst, U. S. Forest Service, Mich, 33. A.A; Soc. Foresters; Asn. Econ. Entom; Entom. Soc. Wash. Economic forest entomology; forest insect ecology.

Wilford, Prof. E. J, University of Kentucky, Lexington, Ky. *Animal husbandry.* DeSoto, Wis, Nov. 12, 90. B.S, Cornell, 17; M.S, Kentucky, 25; Chicago, 28–29. Head herdsman, dairy herd, J. C. Dold Farm, N. Y; instr. *animal husbandry*, Purdue; *Kentucky*, 18–22, asst. prof, 22–29, assoc. prof, 29–39, *prof, 39–* Soc. Animal Production. Sanitation, distillery slop, pastures, hybrid corn and effect of place of feeding on mineral consumption for hogs; home cured pork; hogging down corn; pig projects; body measurements and dressing percentage of beeves.

Wilford, Dr. Lloyd A(lden), University of Minnesota, Minneapolis, Minn. *Archeology.* Baldwin, Wis, Oct. 14, 93. LL.B, Minnesota, 20, A.B, 28, A.M, 29; Ph.D, Harvard, 37. Asst. archeol, *Minnesota*, 29–38, jr. archeologist, 38–41, *assoc. archeologist, 41–* Soc. Am. Archeol; Minn. Acad. Archeology of Minnesota.

Wilgus, Dr. H(erbert) S(edgwick), Colorado State College, Ft. Collins, Colo. *Poultry husbandry.* Brooklyn, N. Y, Dec. 2, 05. B.S, Cornell, 26, Ph.D, 30. Asst. poultry nutrition, Cornell, 26–30, investigator, 30–36; *prof. poultry husbandry and head dept. poultry, Colo. State Col, and poultry husbandman, Exp. Sta, 36–* Poultry Sci. Asn; Soc. Exp. Biol. (v. chairman, Rocky Mountain sect, 41, chairman, 42). Poultry nutrition; calcium, phosphorus and vitamin G requirements of poultry; the relative protein efficiency and vitamin G content of poultry feedstuffs; the role of inorganic elements in the cause and prevention of perosis; egg quality.

Wilgus, Dr. W(allace) L, Shell Petroleum Corp, Houston, Texas. *Petroleum engineering.* Platteville, Wis, Nov. 27, 06. A.B, Wisconsin, 29, Ph.D, 33; M.S, Washington (St. Louis), 30. Teaching fellow geol, Washington (St. Louis), 29–30; Wisconsin, 30–32; *with Shell Petrol. Corp, 32–* Subsurface engineering; heavy minerals; insoluble residues; interpretation of electrical well logs.

Wilgus, Dr. William J(ohn), Ascutney, Vt. *Civil engineering.* Buffalo, N. Y, Nov. 20, 65. Diploma, Univ. State of N. Y; hon. D.E, Stevens Inst. Tech, 21, Vermont, 27. Chicago Great West. Ry, 85–91; asst. engineer, N. Y. C. and H. R. Ry, 93–97, res. engineer and chief asst. engineer, 97–98, engineer maintenance of way, 98–99, chief engineer, 99–03, v. pres, 03–07; consulting engineer, 07–31. Chairman, Elec. Traction Cmn, N. Y. C. and H. R. Ry; advisory board engineers, Detroit River Tunnel; board consulting engineers, Vehicular Tunnel, N. Y. and N. J; consulting engineer, Narrows Tunnel, New York; director work relief, New York. Officier, Légion d'honneur. Thomas Fitch Rowland and Arthur M. Wellington prizes, Am. Soc. Civil Eng; Telford gold medal, British Inst. Civil Eng; D.S. medal; Conspicuous Service Cross, N. Y. Col, U.S.A, director mil. railways and deputy director gen. transportation, A.E.F. Hon. mem. Civil Eng. (director, 02–04, past pres, N. Y. sect); Ry. Eng; Inst. Archit; Ry. Guild; Vt. Soc. Eng; St. Paul Soc. Civil Eng; British Inst. Civil Eng. Civil and military transportation.

Wilhelm, C(larence) J(ohn), U. S. Bureau of Mines, Franklin, Pa. *Petroleum engineering.* Pittsburgh, Pa, Dec. 11, 02. B.S, Pa. State Col, 27. Inspector, State Highway Dept, Pa, 27–29; junior petrol. engineer, *petrol. exp. sta, U. S. Bur. Mines*, 29–33, asst. petrol. engineer, 33–36, assoc. petrol. engineer, 36–39, petrol. engineer, 39–42, senior petrol. engineer, 42–43, *supervising engineer, 43–* Corrosion in the petroleum industry; evaporation losses of crude oil and gasoline in storage; disposal of oil field brines; use of brine in secondary recovery of oil; stimulative methods of oil production, such as secondary recovery by air and gas drive and water flooding.

Wilhelm, Dr. E(rnest) J(ohn), 1422 E. LaSalle Ave, South Bend, Ind. *Chemistry, Chemical engineering.* South Bend, Ind, Nov. 5, 04. B.S, Notre Dame, 27, M.S, 28, Ph.D, 30. Investigator, research div, N. J. Zinc Co, 30–38; *assoc. prof. chem. eng, Notre Dame, 38–* Chem. Eng; Eng. Educ; Chem. Soc; Ind. Acad. Electrodeposition.

Wilhelm, Dr. Harley A(lmey), Iowa State College, Ames, Iowa. *Physical chemistry.* Ellston, Iowa, Aug. 5, 00. A.B, Drake, 23; Ph.D, Iowa State Col, 31. Instr, Intermountain Union Col, 26; asst. *chem, Iowa State Col*, 27–28, instr, 28–40, *asst. prof, 40–* Chem. Soc; Soc. Metals; Optical Soc; Iowa Acad. Spectroscopy; metallography.

Wilhelm, Prof. J(oseph) O(scar), 235 Queen's Drive, Weston, Ont, Can. *Physics.* Shakespeare, Ont. B.Sc, Saskatchewan, 23; Nat. Research Council Can. bursar, Toronto, 24–25, M.A, 25, student, 26–27. Instr. and lecturer *physics*, Saskatchewan, 23–24; tech. and research asst, *Toronto*, 27–34, lecturer, 34–37, *asst. prof, 37–* Crystal structure of solidified gases; superconductivity in metals and alloys; low temperature investigations.

Wilhelm, Prof. R(ichard) H(erman), Princeton University, Princeton, N. J. *Chemical engineering.* New York, N. Y, Jan. 10, 09. B.S, Columbia, 31, Chem.E, 32, Ph.D, 35. Instr. *chem. eng, sch. eng, Princeton*, 34–37, asst. prof, 37–43, *assoc. prof, 43–; official investigator, Nat. Defense Research Cmt.* Chem. Eng; Chem. Soc. Unit operations; unit processes, especially in organic synthesis; plant design.

Wilhelmi, Dr. A(lfred) E(llis), Yale University School of Medicine, New Haven, Conn. *Physiological chemistry.* Lakewood, Ohio, Sept. 28, 10. A.B, Western Reserve, 33; Rhodes scholar, Oxford, 33–36, B.A, 35, Ph.D, 37. Student demonstrator biochem, Oxford, 37, 38; Alexander Brown Coxe Mem. fellow, *sch. med, Yale*, 38–39, instr. *physiol. chem*, 39–43, *asst. prof, 43–* A.A. Biological origin of creatine; metabolism of tissues from adrenalectomized animals.

Wilhelmi, Dr. Raymond W(illiam), University of Missouri, Columbia, Mo. *Systematic serology.* Chapman, Nebr, May 24, 13. A.B, Nebr. Wesleyan, 35; Ph.D, N. Y. Univ, 40. Asst. biol, N. Y. Univ, 35–41; instr. *zool, Missouri*, 41–43,

asst. prof, 43– A.A; Soc. Parasitol. Relationships of animals as determined by serological methods; factors involved in the specificity of the precipitin reaction; immunity acquired by certain animals to infestation with protozoan and helminth parasites.

Wilhelmj, Prof. C(harles) M(artel), Creighton University School of Medicine, Omaha, Nebr. *Physiology.* East St. Louis, Ill, Dec. 17, 96. B.S, M.S, St. Louis, M.D, 22. Asst. anat, sch. med, St. Louis, 19–22, instr. bacter, 24–25; mem. staff, Mayo Clinic, assoc, div. exp. surg. and path, Mayo Foundation, Minnesota, and instr. physiol, sch. med, 25–30; *prof. physiol, sch. med, Creighton, 30–, dean, 39–* Chief staff, Creighton Mem. St. Josephs Hosp, 39– Nebr. nutrition council; asst. chief examiner, Nat. Board Med. Examiners, Omaha. A.A; Physiol. Soc; Nebr. Acad. Physiology of the thyroid gland; carbohydrate, protein and amino acid metabolism; respiratory metabolism; control of gastric acidity; peptic ulcer.

Wilke, Prof. Walter H(erman), New York University, Washington Square, New York, N. Y. *Psychology.* Horicon, Wis, July 31, 08. A.B, Wisconsin, 28, A.M, 29; Ph.D, Columbia, 34. Instr. *speech, Wash. Sq. Col, N. Y. Univ,* 28–34, *asst. prof, 35–* Assoc. Psychol. Asn; Nat. Asn. Teachers Speech. Speech; psychology of propaganda; speech correction.

Wilkens, Dr. George A(lbert), 1000 Maple Ave, Ridgefield, N. J. *Chemical engineering.* Granton, N. J, June 29, 09. A.B, Columbia, 29, B.S, 30, Chem.E, 31, Ellwood Hendrick fellow, 31–33, Ph.D, 33. *Chem. engineer, plastics dept, E. I. du Pont de Nemours and Co, 33–* Chem. Soc. (councilor, N. Y. sect, 39–41); Chem. Eng; N. Y. Acad; Chemists' Club. Agitation; organic synthesis; cellulose plastics; synthetic resins; dyes; pigments; polymerization.

Wilkerson, Prof. Albert S(amuel), 513 S. First Ave, Highland Park, N. J. *Geology, Mineralogy.* Cincinnati, Ohio, Nov. 27, 97. A.B, Cincinnati, 21; A.M, Wisconsin, 22, 26–27; Ph.D, Michigan, 38. Instr, Missouri, 24–26; geol. and miner, Alaska, 27–29, assoc. prof, 29–36; teaching fellow, Michigan, 36–37; assoc. prof. *geol,* N. Texas Agr. Col, 37–38; instr, *Rutgers,* 39–41, *asst. prof, 41–* Summer, in charge dept. geol, West Virginia, 24; N. Texas State Teachers Col, 38. A.A; N. J. Miner. Soc. The boulders in the glacial drift of Missouri; mineralogical examination of blacksands from Nome Creek, Alaska; frozen deposits in the goldfields of interior Alaska; determinative mineralogy for the Alaskan prospector; geology and ore deposits in Colorado; telluride-tungsten mineralization in Colorado; the people and environment of Fairbanks, Alaska; the Rowe collection; optical properties of sulfadiazine.

Wilkerson, Dr. Vernon A(lexander), Howard University School of Medicine, Washington, D. C. *Biochemistry.* Kansas City, Kans, Aug. 21, 01. A.B, Kansas, 21; M.D, Iowa, 25; Gen. Educ. Board fellow, 29–32; Ph.D, Minnesota, 32. House surgeon, Wheatley Provident Hosp, 26–27; *assoc. prof. biochem, sch. med, Howard,* 32–37, *prof, 37–,* head dept, 34. Biochemist, Freedmen's Hosp. A.A; Chem. Soc; Am. Med. Asn; Soc. Biol. Chem. Chemistry of embryonic growth; protein chemistry; chemistry of human skin; physical chemistry of human tissues; electrokinetic phenomena of human skin.

Wilkes, Dr. A(lfred), Dominion Parasite Laboratory, Belleville, Ont, Can. *Biology.* Birmingham, Eng, Jan. 7, 09. B.S.A, Toronto, 35, M.S.A, 38, Ramsay Wright scholar, 39–40. Ph.D, 40. Asst. Toronto, 35–40; *agr. scientist, Dom. Div. Entom, 34–* A.A; Entom. Soc; Genetic Asn; Ont. Entom. Asn. Biological control; preferred temperatures and rates of development.

Wilkes, Dr. B(enjamin) G(arrison), Mellon Institute, Pittsburgh, Pa. *Organic chemistry.* Baltimore, Md. Jan. 23, 08. B.S, Albright Col, 29; A.M, Columbia, 30, Ph.D, 33. *Indust. fellow, Mellon Inst, 33–* Kinetics of enzyme action in vivo; industrial organic synthesis.

Wilkes, Prof. Gordon B(all), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Buffalo, N. Y, May 13, 89. B.S, Mass. Inst. Tech, 11. Instr. heat measurement, *Mass. Inst. Tech,* 11–18, asst. prof, 18–24, assoc. prof. indust. physics, 24–30, *prof,* 30–35, *heat eng, 35–* A.A; Soc. Heat. and Vent. Eng; Ceramic Soc; Int. Inst. Refrig. Heat; thermal conductivity; specific heat at high temperatures; refractories; thermal expansion at high temperatures.

Wilkie, Dr. John B(rown), 2002 Hanover St, Silver Spring, Md. *Biochemistry.* Sioux Falls, S. Dak, March 13, 00. B.S, Iowa State Col, 21; A.M, George Washington, 31; Ph.D, Georgetown, 40. Research and control chemist, Rollins Hosiery Mills, 22–27; research textile chemist, Bur. Standards, 27–33; anal. chemist, U. S. Dept. Agr, 33–35; *research and regulatory biochemist, food and drug. admin, Fed. Security Agency, 35–* Chem. Soc; assoc. Optical Soc; Philos. Soc. Wash. Dyeing and bleaching procedures; laundry deterioration; mercerization; physical and chemical methods for vitamins; spectrophotometric instruments and electronic measuring circuits.

Wilkins, Elwood S(mith), Jr, P. O. Box 92, Hockessin, Del. *Pharmaceutical chemistry.* Wilmington, Del, July 14, 05. Ph.G, Phila. Col. Pharmacy, 26, Ph.C, 27. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 27–* Chem. Soc. Determination of minute amounts of lead; chemotherapy of neoplasms.

Wilkins, Herbert L(awrence), 838 Rheems Ave, Hyattsville, Md. *Chemistry.* B.S, Kans. State Col, 22; M.S, Purdue, 26. Asst. chemist, N. Mex. Col, 22–24; asst. quantitative anal, Purdue, 24–26; chief chemist, State Grain Inspection Dept, Kans, 26–29; *asst. chemist, anal. phases of pasture investigations, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr, 29–* Chem. Soc; Agr. Chem. Cereal and feeding stuffs analysis; chlorides in plant material.

Wilkins, Dr. John P(aul), 5025 Fifth St, N.W, Washington, D. C. *Organic chemistry.* Monmouth, Ill, June 21, 18. B.S, Illinois, 39; M.S, Pa. State Col, 41, fellow, 41–42, Ph.D, 42. *Consultant chemicals, office production research and develop, War Production Board, 43–* Chem. Soc. Alkyl halides and alkaline agents.

Wilkins, Dr. Lawson, 1014 St. Paul St, Baltimore, Md. *Pediatrics.* Baltimore, Md, March 6, 94. A.B, Hopkins, 14, M.D, 18. Instr. *pediat, Hopkins,* 28–35, assoc, 35–42, *assoc. prof, 42–* Pediat. Soc; Soc. Pediat. Research; Am. Med. Asn; Asn. Study Int. Secretions; South. Med. Asn. Endocrinology.

Wilkins, R(ichard) A(lfred), Revere Copper and Brass, Inc. Rome, N. Y. *Chemical and metallurgical engineering.* Cambridge, Mass, Sept. 12, 96. B.S, Mass. Inst. Tech, 18. Research chemist, Lynite Labs, 19–20; instr. chem. and math, Chauncy Hall Sch, Boston, 21–25; v. pres. and tech. director, Indust. Develop. Corp, 25–29; asst. prof. chem. eng, Mass. Inst. Tech, 29–30; metal. manager, *Revere Copper and Brass, Inc, 30–, v. pres. and director research.* C.W.S. U.S.A, 18. Min. and Metal. Eng; Chem. Soc; Soc. Test. Mat; British Inst. Metals. Electrometallurgy; metallurgical processes.

Wilkins, Dr. R(obert) W(allace), 65 E. Newton St, Boston, Mass. *Internal medicine.* Chattanooga, Tenn. Dec. 4, 06. A.B, North Carolina, 28, 29–31; M.D, Harvard, 33. Asst. res, Boston City Hosp, 35–37; Am. Col. Physicians traveling fellow, Nat. Hosp, London, England, 37–38; asst. physician, Hopkins Hosp, and instr. med, med. sch, Hopkins, 38–40; asst. prof. *med, Boston,* 40–42, *assoc. prof, 42–* Fellow, Harvard Med. Sch, 35–37; mem. dept, Evans Mem, Mass. Mem. Hosps, 40– Soc. Clin. Invest; Am. Med. Asn; Heart Asn; Soc. Exp. Biol. Cardiovascular physiology and disease.

Wilkins, Dr. Walter E(ugene), State Board of Health. Raleigh, N. C. *Biochemistry. Pediatrics.* Columbia, S. C, July 9, 03. A.B, Furman, 24; Ph.D, Vanderbilt, 33, M.D, 38. Teacher, high sch, Fla, 24–26; N. C, 26–28; prof. chem. and head dept, Mars Hill Col, 28–29; asst. *biochem, sch. med, Vanderbilt,* 30–31, instr, 31–36, *asst. pediat, 38–* Blood electrolytes; mineral metabolism; effect of x-radiation on bone growth; role of phosphatase in physiological processes; purification of phosphatase; phosphatase in the healing of fractures and in progressive ossificans.

Wilkinson, Dean Ford L(ee), Jr, Speed Scientific School, University of Louisville, Louisville, Ky. *Mechanical engineering.* Elkton, Ky, Aug. 15, 95. U. S. Naval Acad, 14–17, 23–24; M.S, Columbia, 25. U. S. Navy, 17–27, lieut; chief engineer, Bur. Smoke Regulation, Knoxville, Tenn, 28–30; engineer, develop. div, Riley Stoker Corp, Worcester, Mass, 30–33; asst. prof, assoc. prof. and prof. mech. eng, Tennessee, 33–38; *dean, Speed Sci. Sch, Louisville, 38–* Steam power studies consultant, Tenn. Valley Authority, 33–34; State Pub. Service Cmn, Tenn, 37. Mech. Eng. Development and research in pulverized coal; forced circulation steam generation; adsorption of atmospheric vapors; industrial heat transfer.

Wilkinson, Prof. John A(nderson), Iowa State College, Ames, Iowa. *Chemistry.* Sidney, Ohio, June 21, 80. B.S, Ohio State, 03; Ph.D, Cornell, 09. Asst. prof. anal. chem,

Ohio State, 09–13; assoc. prof. chem, *Iowa State Col*, 13–19, *prof. anal. and inorg. chem, 19–* C.W.S, major, C.W.Res. Chem. Soc. (pres, Ames sect, 14, 29). Portland cement; adsorption; reactions in liquid hydrogen sulfide; overvoltage.

Wilkinson, Prof. Mearle W(illiam), 1407 Georgina Ave, Santa Monica, Calif. *Metallurgy.* Dallas, Texas, Sept. 12, 90. E.M, Colo. Sch. Mines, 13, M.S, 14. *Prof. dental materials and metal, col. dentistry, Southern California.* Dental metallurgy.

Wilkinson, Prof. P(aul) D(eLassus), 1636 S. Fourth St, Terre Haute, Ind. *Chemistry.* St. Louis, Mo, Aug. 17, 96. B.S, Missouri, 19; M.S, Iowa State Col, 21, Ph.D, 30; fellow, Washington (St. Louis), 24-25. Asst, Mo. Sch. Mines, 16–19; instr, Iowa State Col, 19–21; assoc. prof. chem. and physiol, *Ind. State Teachers Col, Terre Haute, 21–34, prof. chem, 34–* Summers, asst, Mo. Sch. Mines, 19, acting prof, 20. Ind. Acad. (chairman, div. chem, 37). Grignard reagent; oxidation of carbohydrates; vitamins.

Wilkinson, Thomas L(ee), 2644 Telegraph Road, Davenport, Iowa. *Mechanical engineering.* Davenport, Iowa, March 20, 67. B.S, Michigan, 91. Draftsman, M. C. Bullock Mfg. Co, Chicago, 91–92; inspector machinery design, Ill. Steel Co, 92–93; assoc. engineer, Leadville Gold and Silver Extraction Co, Colo, 95; Golden Fleece Co, Colo, 97; chief engineer, Silver Lake Mines, Colo, 99–00; Board Lunacy Commissioners, Colo, 02; asst. gen. manager and chief engineer, Southwest. Smelting and Ref. Co, N. Mex, 05; with El Tiro Copper Co, 06; engineer, West. Alkali Mfg. Co, Wyo, 07; chief engineer, United Oil Co, Colo, 08–09; operator utility plants, Colo. and Wyo, 09–12; co-organizer and in charge operations, *Intermountain Ry. Light and Power Co*, 12–20, *sec'y and director, 12–; consulting engineer, 21–* Regent, Univ. Colo. Mech. Eng. (v. pres, 24–26); Civil Eng; Colo. Sci. Soc. (pres, 07). Power.

Wilkinson, Prof. W(illiam) D(onald), Country Club Heights, Corvallis, Oregon. *Geology.* Minot, N. Dak, Sept. 23, 01. A.B, Oregon, 23, Ph.D, 32. Instr. *geol*, Oregon, 29–31; *Oregon State Col*, 31–32, asst. prof, 32–40, *assoc. prof, 40–* Miner. Soc. Igneous petrography.

Wilks, Prof. Samuel S(tanley), 1 Campbelton Circle, Princeton, N. J. *†*Mathematics.* Little Elm, Texas, June 17, 06. A.B, N. Texas State Teachers Col, 26; A.M, Texas, 28; fellow, Iowa, 29–31, Ph.D, 31. Instr. *math*, Texas, 28–29; nat. research fellow, Columbia, 31–32; London and Cambridge, 32–33; instr, *Princeton*, 33–36, asst. prof, 36–38, *assoc. prof, 38–* Summer, instr, Iowa, 31. A.A; Math. Soc; Statist. Asn; Inst. Math. Statist. (pres, 40); Math. Asn; Econometric Soc; Psychometric Soc. Sampling theory; statistical inference; probability.

Will, Dr. Homer C(hristian), Juniata College, Huntingdon, Pa. *Entomology.* Timberville, Va, May 28, 98. A.B, Bridgewater Col, 20; A.M, Virginia, 22; Ph.D, Pittsburgh, 32. Univ. Pittsburgh asst, Carnegie Museum, 29–31; *head dept. biol, Juniata Col, 27–29, 31–* Entom. Soc. Amer; Soc. Parasitol; Pa. Acad. Classification and distribution of Tenthredinoidea.

Willaman, Dr. J(ohn) J(ames), U. S. Department of Agriculture, Wyndmoor, Pa. *Biochemistry.* Brodhead, Wis, Oct. 7, 89. B.S, Wisconsin, 12, M.S, 14; Ph.D, Chicago, 19. Instr. agr. biochem, Minnesota, 13–16, asst. prof, 16–23, assoc. prof, 23–28, prof, 28–29; chief chem. div, N. Y. Exp. Sta, Geneva, 29–30; biochemist, Rohm and Haas Co, Inc, 30–40; *chief biochem. div, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 40–* Chem. Soc. (sec'y, Minn. sect, 23–25, chairman, 26, div. biochem, 25–). Plant chemistry; biochemistry of plant diseases; industrial enzymes; industrial use of farm crops.

Willard, Prof. A(lice) C(aroline), 157 Bloor St, W, Toronto, Ont, Can. *Nutrition.* Galesburg, Ill, 79. A.B, Knox Col, 02, A.M, 08; M.S, Chicago, 24, Ph.D, 26. Pacific, 17–23; *asst. prof. household science, Toronto, 26–* A.A; Chem. Soc; Dietetic Asn; Home Econ. Asn. Nitrogen and mineral metabolism of women and children; occurrence of black specks in baking powder products.

Willard, Pres. A(rthur) C(utts), 711 Florida Ave, Urbana, Ill. *Mechanical engineering.* Washington, D. C, Aug. 12, 78. B.S, Mass. Inst. Tech, 04; D.E, Case, 34; LL.D, George Washington, 34, Northwestern, 34. Teacher indust. chem, Calif. Sch. Mech. Arts, 04–06; asst. prof. mech. eng, George Washington, 06–09; asst. sanit. and heating engineer, Q.M.C, 09–11, sanit. and heating engineer, 11–13; asst. prof. heating and vent, *Illinois*, 13–17, prof, 17–34, head dept. mech. eng, 20–34, acting dean col. eng, 33–34, acting director eng. exp. sta, 33–34, *pres, 34–* Consultant, Holland Tunnel, New York, 20–; C.W.S, 26–; U. S. Pub. Health Service, 27; Chicago Subway, 30; consulting engineer, U. S. Bur. Mines, 21–; mem. civilian advisory staff, mil. training div, ordnance dept, U. S. Army, 42– Div. eng. and indust. research, Nat. Research Council. Summer, consulting engineer, Nat. Army Cantonments, 17. Mem, State Board Nat. Resources and Conservation, Ill, 34. Mech. Eng; Heat. and Vent. Eng. (pres, 28); Eng. Educ. Mechanical equipment of buildings; heat transmission of building materials and steam radiators; heating effect of bare and concealed radiators; flow of air in pipes, ducts, elbows, nozzles and special fittings; warm-air furnace heating systems; tunnel and subway ventilation.

Willard, Dr. Bradford, Lehigh University, Bethlehem, Pa. *Geology.* New York, N. Y, May 17, 94. A.B, Lehigh, 21; A.M, Harvard, 22, Ph.D, 23. Instr. geol, Brown, 23–25, asst. prof, 25–30; geologist, Pa. Topog. and Geol. Surv, 30–39; *prof. geol. and head dept, Lehigh, 39–* Exten. lecturer, Brown, 23–24. Summers, paleontologist, S. Dak. Geol. and Nat. Hist. Surv, 24; geologist, Ill. Geol. Surv, 26; instr, sch. geol, Harvard, 27; asst. geologist, Pa. Topog. and Geol. Surv, 29; asst. prof, Lehigh, 36–37. Mem, 16th and 17th Int. Geol. Cong. A.A; fel. Geol. Soc; Paleont. Soc; Am. Geog. Soc; N. Y. Acad; Pa. Acad. (press sec'y, 35–39, v. pres, 43–). Invertebrate paleontology and stratigraphy; Ordovician, Devonian and Mississippian of Pennsylvania; foundation for the study of cycles.

Willard, Prof. C(harles) J(ulius), Ohio State University, Columbus, Ohio. *Agronomy.* Manhattan, Kans, Feb. 14, 89. B.S, Kans. State Col, 08; B.S, Illinois, 10, M.S, 17; Ph.D, Ohio State, 26. Asst. prof. farm crops, *Ohio State*, 17–26, *prof*, 26–33, *agron, 33–, assoc. agronomist, Exp. Sta, 26–* A.A; Soc. Agron. (chairman, crops sect, 41); Ohio Acad. Forage crops, especially sweet clover and alfalfa; weed control.

Willard, Dr. Daniel E(verett), 961 Fairmount Ave, St. Paul, Minn. *Geology.* Nile, N. Y, Aug. 22, 62. A.B, Alfred, 88, A.M, 90, hon. Sc.D, 43; Chicago, 93–95. Prin, Albion Acad, 88–92; prof. nat. sciences, N. Dak. Nor. Sch, 95–03; geol, N. Dak. Col, 03–10; develop. agent, North. Pacific Ry, 10–18; specialist, State Dept. Agr, Minn, and U. S. Dept. Agr, 19–23; agriculturist, Great North. Ry, St. Paul, 24–34; *retired.* Asst, U. S. Geol. Surv, 02–05. A.A; fel. Am. Geog. Soc. Artesian water; soil map of North Dakota; development of natural resources along the Northern Pacific Railway.

Willard, F(rederic) W(ilson), 12 Hawthorne Place, Summit, N. J. *Chemical engineering.* Houghton, N. Y, April 16, 81. A.B, Michigan, 06, hon. A.M, 29. Research chemist, West. Elec. Co, 06–11, engineer and factory supt, 11–17, operating supt, 17–21, div. supt, 21–23, engineer in charge chem. eng. develop, 23–26, gen. staff officer, 26–29, asst. works manager, 29–31; exec. v. pres. and director, *Nassau Smelting and Ref. Co*, 31–37, *pres, 37–* Non-res. leader of seminar, Pa. State Col, 29. V. chairman div. chem. and chem. technol, Nat. Research Council, 32, chairman, 33–, mem. nominating cmt, 35, mem. at large exec. board and chairman patent cmt, 36–, chairman cmt. surv. research in industry, 40–41, cmt. recovery of tin, 40, mem. cmt. tin smelter, 40, cmt. metals and minerals, cmt. work in industry, 40–41. Ed. in chief, 'Sci. and Tech. Monographs,' 43. Chem. Soc. (chairman, Chicago sect, 20, assoc. ed, 'Tech. Monographs,' 28–, past councilor; chairman cmt. certification cols. and univs, 37–; cmt. licensure inquiry, 41); Chem. Eng. (director, 29–32, 33–36); Chemists' Club; Chicago Chemists Club (pres, 23). Organic insulations and metal protectives; the role of secondary metals in world affairs; trends in industrial personnel relations; responsibilities of the engineering profession; technology of smelting and refining secondary non-ferrous metals.

Willard, Gerald W(arner), 111 Lindy Ave, Fanwood, N. J. *Physics.* Mankato, Minn, June 19, 01. A.B, Minnesota, 24, A.M, 28, Chicago, 28–30. Teaching fellow, Minnesota, 24–27; instr, Kansas, 27–28; teaching fellow, Chicago, 28–30; *mem. tech. staff, Bell Tel. Labs, 30–* Fel. Physical Soc; assoc. Radio Eng. (board editors, 41–). Theoretical investigation of piezoelectric crystals and their application in electric circuits.

Willard, Prof. Harley R(ichard), 100 Bennoch St, Orono, Maine. *Physics, Mathematics.* Sutton, Vt, March 13, 75. A.B, Dartmouth Col, 99, A.M, 02; fellow, Yale, 09–11, A.M, 10, Ph.D, 12. Prin, schs, Vt, 99–00; asst. physics, Dartmouth Col, 00–02; instr. *math*, Kenyon Mil. Acad, 02–04; *Maine,*

04–07, asst. prof, 07–09, 12–13, assoc. prof, 13–19, *prof, 19–* Instr, Yale, 11–12. Statistician, Food Admin, and special expert, W.T.B, 17–19. Radiations emitted by a Righi vibrator; a family of oscillating orbits of short period; algebra for college students.

Willard, Prof. H(arold) S(ibley), Box 377, Laramie, Wyo. *Dairy husbandry.* Mankato, Minn, Aug. 2, 94. B.S, Minnesota, 17, Ph.D, 33; M.S, Iowa State Col, 22. Instr. *animal husbandry, Wyoming,* 22–24, asst. prof, 24–34, *assoc. prof, 34–,* asst. animal husbandman, *Exp. Sta,* 24–34, *assoc. animal husbandman, 34–* Dairy Sci. Asn. Dairy cattle feeding.

Willard, Dr. H(obart) H(urd), University of Michigan, Ann Arbor, Mich. *[5]*Chemistry.* Erie, Pa, June 3, 81. A.B, Michigan, 03, A.M, 05; fellow, Harvard, 08–09, Ph.D, 09. Instr. *chem, Michigan,* 05–06, 09–12, asst. prof, 12–18, assoc. prof, 18–22, *prof, 22–* Chairman cmt. award midwest. fellowship, J. T. Baker Chem. Co, 28– Anal. ed, 'Ind. and Eng. Chem.' Div. chem. and chem. technol, Nat. Research Council, 34–37. Director chem. lab, Bur. Aircraft Production, Detroit, Mich, 18. A.A; Chem. Soc. (director, 34–40); Electrochem. Soc; Deuts. Chem. Gesell. Atomic weights of silver, lithium, chlorine and antimony; perchloric and periodic acids and their salts; ceric sulfate as volumetric reagent; vanadium in steel; precipitation of basic salts by urea; thermal decomposition of mixed sulfates; electrometric methods; determination of fluorides and potassium; quantitative analysis; organic reagents; inorganic compounds; chlorination methods; use of ozone; complex tin and germanium compounds.

Willard, Dr. John E(la), University of Wisconsin, Madison, Wis. *Physical chemistry.* Oak Park, Ill, Oct. 31, 08. Pomona Col, 26–27; Carleton Col, 27–28; A.B, Harvard, 30; Ph.D, Wisconsin, 35. Instr. *chem,* Avon Old Farms Sch. for Boys, 30–32; Haverford Col, 35–37; *Wisconsin,* 37–42, *asst. prof, 42–* Chem. Soc. Photochemistry; chemical kinetics; radiochemistry.

Willard, Prof. J(ohn) W(esley), Virginia Military Institute, Lexington, Va. *Chemistry.* Davenport, Iowa, June 23, 07. B.S, Purdue, 29, M.S, 40, Ph.D, 43. *Asst. prof. inorg. chem, Va. Mil. Inst, 42–* Organic and inorganic chemistry; factors affecting the yield of overchlorinated products; systematic procedure for semimicro qualitative analysis.

Willard, Dr. J(ulius) T(errass), Kansas State College. Manhattan, Kans. *Chemistry.* Wabaunsee, Kans, April 9, 62. B.S, Kans. State Col, 83, M.S, 86, hon. Sc.D, 08; Hopkins, 87–88. Asst. chem, *Kans. State Col,* 83–87, asst. prof, 90–96, assoc. prof, 96–97, prof. applied chem, 97–01, chem, 01–18, dean div. gen. science, 09–30, v. pres, 18–36, *col. historian, 36–,* asst. chemist, Exp. Sta, 88–97, chemist, 97–18, director, 00–06, v. director, 07–18. Chemist, Kans. Board Agr, 97–42. A.A; Chem. Soc; Kans. Acad. (pres, 01). Composition and digestibility of foods and feeds; improvement of sorghum and corn by seed selection based on chemical analysis; soil moisture; nitric acid and ammonia of rain water; digestion and nutrition investigations; milling tests of wheat; baking qualities of flour in relation to chemical composition; food analysis; soil investigation.

Willard, Prof. Mary L(ouisa), 363 Ridge Ave, State College, Pa. *Chemistry.* State College, Pa. May 19, 98. B.S, Pa. State Col, 21, M.S, 23; Ph.D, Cornell, 27. Instr. chem, *Pa. State Col,* 21–27, asst. prof, 27–35, *assoc. prof. microchem, 35–* A.A; Chem. Soc; fel. Inst. Chem. Chemical microscopy; particle size; optical properties of crystals.

Willard, Max E(mery), U. S. Geological Survey, Washington, D. C. *Geology.* Brentford, S. Dak, March 29, 14. B.S, S. Dak. Sch. Mines, 36; Northwestern, 37; M.S, Idaho, 38; Arizona, 39. Petrologist, Fed. Bur. Investigation, 39–40; instr. geol, Mt. Holyoke Col, 40–42; *junior geologist, U. S. Geol. Surv, 42–* Summers, geologist, Golden Reward Mining Co, 36, 37. Min. and Metal. Eng; Geol. Soc. Wash. Triassic and glacial geology of Massachusetts; alunite deposits in Marysvale, Utah.

Willard, Rex E(than), U. S. Department of Agriculture, 222 Mercantile Bldg, Berkeley, Calif. *Agricultural economics.* Friendship, N. Y, Sept. 6, 83. B.S, N. Dak. Col, 08; Harvard, 28–29. Teacher, schs, N. Dak, 02–03; field asst, geol. and soil surveys, N. Dak, 04–08; sci. asst, bur. soils, U. S. Dept. Agr, 08–10; soil physicist, N. Mex. Col, 10–12; asst. agriculturist and agriculturist, office farm management, U. S. Dept. Agr, 12–18; county agr. agent, N. Dak, 18–19; farm economist, Exp. Sta, and exten. economist, exten. div, N. Dak. Col, 19–31; agr. economist and head dept. farm management and agr. econ, State Col. Wash, 31–34; regional director land policy, U. S. Dept. Agr, 34–35; prin. agr. economist, land utilization div, Resettlement Admin, 35–37; prin. agr. economist and regional director land utilization program, *bur. agr. econ, U. S. Dept. Agr,* 37–39, *regional rep, west. region, 39–* West. Farm Econ. Asn. (pres, 42).

Willard, Prof. W(illiam) A(lbert), University of Nebraska College of Medicine, Omaha, Nebr. *Anatomy.* Grinnell, Iowa, April 24, 73. A.B, Grinnell Col, 95; fellow, Tufts Col, 97–98, A.M, 98; A.M, Harvard, 99, Ph.D, 10. Acting prof. zool, Grinnell Col, 01–02; instr, *Nebraska,* 02–03, assoc. prof, 03–10, *prof.* histol. and embryol, 08–14, *anat, 14–* Asn. Anat; Soc. Zool. The vertebrate nervous system.

Willcox, Prof. M(ary) A(lice), 63 Oakwood Road, Newtonville, Mass. *Zoology.* Kennebunk, Maine, April 24, 56. Newnham Col, England, 80–83; Ph.D, Zurich, 98. Teacher, high sch, Mass, 76–79; prof. *zool. and physiol, Wellesley Col,* 83–10, *emer. prof, 10–* Boston Soc. Nat. Hist. Comparative anatomy of mollusks; comparative anatomy of Acmaeidae.

Willcox, Dr. Oswin W(illiam), 197 Union St, Ridgewood, N. J. *Chemistry.* Austin, Texas, Oct. 11, 70. Fellow, B.S, Texas, 01; Loewenthal fellow, Chicago, 03–04, Ph.D, 04. Instr. chem, Utah, 01–02; asst. prof, Iowa Col, 04; asst. chemist, Sandy Hook Proving Ground, 04–08; manager, Sci. Sta. for Pure Products, 09–15; chief chemist and asst. supt, Aetna Explosives Co, 15–18; *consulting chem. engineer and agrobiologist, 18–* Tech. ed, 'Sugar.' Organic and technical chemistry; nutrition of plants and dynamics of crop production.

Willcox, Prof. W(alter) F(rancis), Cornell University, Ithaca, N. Y. *Statistics.* Reading, Mass, March 22, 61. A.B, Amherst Col, 84, A.M, 88, LL.D, 06; LL.B, Columbia, 87, Ph.D, 91. Instr. and assoc. prof, *Cornell,* 91–01, prof. *econ. and statist,* 01–31, *emer. prof, 31–,* dean col. arts and sciences, 02–07. Chief statistician, U. S. Census Bur, 99–01, special agent, 02–31; statist. expert, censuses of Cuba and P. R. War Dept, U.S.A, 99–00; consulting statistician, State Dept. Health, N. Y, 07–20. Am. Econ. Asn. rep, Am. Council Learned Societies, 25–28, v. chairman, 26–28, mem. exec. cmt, 25–28; Am. Statist. Asn. rep, Social Science Research Council, 26–28. U. S. del, Int. Cong. Hygiene and Demog, Brussels, 03, v. chairman exec. cmt. and pres. sect. on demog, Washington, D. C, 12; Int. Statist. Inst, Berlin, 03, London, 05, Paris, 09, Brussels, 23, Rome, 25, Warsaw, 29, Tokyo, 30, Madrid, 31, London, 34, Athens, 36, Prague, 38; Rome Popul. Conf, 31. Statist. Asn. (pres, 12); Econ. Asn. (sec'y, 96–99, pres, 15); Royal Econ. Soc; hon. mem. Royal Statist. Soc; Statist. Soc. Hungary; Statist. Soc. Czechoslovakia; Int. Statist. Inst. (v. pres, 23–). The divorce problem; the Negro problem; immigration; public health; population statistics.

Willett, Prof. E(lwin) L(inton), University of Hawaii, Honolulu, Hawaii. *Animal breeding.* Bad Axe, Mich, May 26, 13. B.S, Mich. State Col, 37; M.S, Nebraska, 38; Ph.D, Cornell, 41. Animal husbandry, Exp. Sta, Puerto Rico, 41–43; *assoc. prof. animal husbandry, Hawaii, and assoc. animal husbandman, Exp. Sta, 43–* Dairy Sci. Asn; Soc. Animal Production; Genetic Asn. Artificial insemination; animal nutrition.

Willett, George, Los Angeles Museum, Los Angeles, Calif. *Ornithology.* Hawkesbury, Ont, Can, May 28, 79. Whittier Col, 96–98. Reservation inspector, bur. biol. surv, U. S. Dept. Agr, 12–18; *ornithologist, Los Angeles Museum, 27–* Ornith. Union (v. pres, 39–); Cooper Ornith. Club (pres, south. div, 30, pres, board governors, 36); Northwest Bird and Mammal Soc; Calif. Acad; Biol. Soc. Wash; San Diego Soc. Nat. Hist. Western American conchology.

Willett, Prof. H(ugh) C(arey), University of Southern California, Los Angeles, Calif. *Mathematics.* Rochester, Ont, Can, April 23, 86. A.M, Southern California, 09, D.Sc, 42; Chicago; Illinois. Asst. prof. Latin and math, *Southern California,* 08–10, assoc. prof, 10–14, *math,* 14–21, *prof, 21–* Math. Asn.

Willett, Prof. H(urd) C(urtis), Massachusetts Institute of Technology, Cambridge, Mass. *Meteorology.* Providence, R. I, Jan. 1, 03. B.S, Princeton, 24; Guggenheim Mem. Foundation fellow, 28–29; Ph.D, George Washington, 29. U. S. Weather Bur, 24–28; instr. and asst. prof. *meteorol, Mass. Inst. Tech,* 29–35, *assoc. prof, 35–* Lecturer, Harvard, 39– A.A; Meteorol. Soc; Geophys. Union; Inst. Aeronaut. Sci; Am.

Geog. Fog and haze; synoptic meteorology, in particular long-range weather forecasting.

Willey, Dr. Allen R(ay), 1017 S. Fourth Ave, Maywood, Ill. *Chemistry.* Salt Lake City, Utah, June 5, 10. A.B, Utah, 32, A.M, 34; Ph.D, Wisconsin, 37. Teaching asst, Utah, 32–34; Wisconsin, 34–37; *research chemist, Am. Can Co, 37–* Esterification kinetics; theory of electrophoresis cell; quality improvement of canned foods; corrosion of tinned food containers.

Willey, Prof. C(harles) H(erbert), New York University, University Heights, New York, N. Y. *Zoology.* Kearny, N. J, Sept. 2, 98. A.B, N. Y. Univ, 22, fellow, 22–24, M.S, 24, Ph.D, 29; Columbia, 24–27. Teaching fellow, *N. Y. Univ,* 22–24, instr. *biol,* 24–30, *asst. prof, 30–* U.S.A, 17–19. A.A; Soc. Zool; Soc. Parasitol; Micros. Soc; fel. N. Y. Acad. Parasitology; morphology of lymph systems in trematodes; taxonomy, development and cytology of parasitic flatworms.

Willey, Prof. Clarence F(arman), 5 Partridge Terrace, Northfield, Vt. *Psychology.* Island Pond, Vt, Dec. 24, 07. A.B, Dartmouth Col, 32; A.M, Princeton, 33, Ph.D, 36. Instr. *psychol. and educ, Norwich,* 36–39, asst. prof, 39–43, *assoc. prof, 43–* Test technician, State Merit System Council, Vt, 41– A.A; assoc. Psychol. Asn. Perception; educational and vocational tests.

Willey, C(larke) R(andolph), 1112 State Office Bldg, Richmond, Va. *Entomology.* Middletown, Va, Nov. 20, 98. B.S, Va. Polytech, 20, M.S, 22. Asst. entomologist, Va. Crop Pest Cmn, 20–26; *State Dept. Agr, Va,* 26–28, *assoc. entomologist, 28–* Asn. Econ. Entom. Truck crops and orchard insects.

Willham, Prof. Oliver S(iralvo), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Animal husbandry.* Clearwater, Kans, June 26, 01. B.S, Okla. Agr. and Mech. Col, 23; M.S, Iowa State Col, 27, Ph.D, 35. Prof. animal husbandry, Panhandle Agr. and Mech. Col, 23–34, dean, 27–34, v. pres, 29–34; asst, Iowa State Col, 34–35; asst. prof. *animal husbandry, Okla. Agr. and Mech. Col,* 35–37, assoc. prof, 37–39, *prof, 39–, v. dean agr, 39–* A.A; Genetics Soc; Soc. Animal Production. Animal breeding.

Williams, A(lbert) J, Jr, 4901 Stenton Ave, Philadelphia, Pa. *Electrical engineering.* Media, Pa, Feb. 28, 03. A.B, Swarthmore Col, 24. *Transformer engineer,* Bell Tel. Labs, 24–27; *Leeds and Northrup Co, 27–, chief elec. div, research dept, 34–* Elec. Eng; Physical Soc; Franklin Inst. Electrical measurements.

Williams, Dr. Albert M(orris), Fullerton Junior College, Fullerton, Calif. *Chemistry.* Pauls Valley, Okla, Jan. 20, 97. B.S, Oklahoma, 18, M.S, 19; Ph.D, California, 22. Research chemist, Gen. Petrol. Oil Co, 22–24; *instr, Fullerton Junior Col, 24–* Specific heats of metals at high temperatures.

Williams, Dr. Anna W(essels), P. O. Box 7, Woodcliff Lake, N. J. *Bacteriology.* N. J, 63. M.D, Woman's Med. Col, N. Y, 91. Instr. path. and hygiene, Woman's Med. Col, N. Y, 92; bacteriologist, Dept. Health, New York, 95–19, asst. director, 19–34; *retired.* Lecturer, N. Y. Univ. A.A; Soc. Bact; Asn. Path. and Bact; Am. Med. Asn; Soc. Exp. Biol; Pub. Health Asn; Woman's Med. Asn. (pres, 15); N. Y. Acad. Med. Public health; etiology, diagnosis and treatment of infectious diseases; rabies; Streptoococcus; diphtheria; trachoma.

Williams, Dr. Arthur B, Cleveland Museum of Natural History, 2717 Euclid Ave, Cleveland, Ohio. *Ecology.* Montclair, N. J, April 11, 74. A.B, Yale, 98; A.M, Western Reserve, 33, Ph.D, 35. Museum ecologist, *Cleveland Museum Nat. Hist,* 29–39, *curator educ. and mem. board managers, 39–, park naturalist, Cleveland Metropolitan Park Board, 29–; city park naturalist, 43–* A.A; Ecol. Soc; Ornith. Union; fel. Ohio Acad. Composition and dynamics of beech-maple climax communities; fluctuations in animal numbers; the hooded warbler.

Williams, Prof. Arthur O(liney), Jr, 14 E. Manning St, Providence 6, R. I. *Physics.* Providence, R. I, April 7, 13. B.S, Mass. Inst. Tech, 34; M.S, Brown, 36, Ph.D, 37. Instr. *physics,* Maine, 37–40, *asst. prof,* 40–42; *Brown, 42–* Atomic wave functions; Raman spectra; acoustics.

Williams, Prof. Arthur R(obinson), University of California, Berkeley, Calif. *Mathematics.* Westport, Conn, July 8, 84. A.B, Yale, 07; Ph.D, California, 16. Instr. *math, California,* 20–30, *asst. prof, 30–* In charge, U. S. Shipping Board Navig. Sch, Portland, Oregon, 17–20. A.A; Math. Soc; Math. Asn. Analytic geometry.

Williams, Dr. Arthur S(ease), 2 Locust St, Roselle Park, N. J. *Organic chemistry.* Chapin, S. C, Aug. 21, 94. B.S, South Carolina, 15, A.M, 16; Mass. Inst. Tech, 16–17; Ph.D, N. Y. Univ, 29. Asst. prof. chem, Georgetown Col. (Ky), 19–20; assoc. prof, Miami (Ohio), 20–22; asst. prof, N. C. Col, 22–24; instr, N. Y. Univ, 27–28; Long Island, 28–30; chief research chemist and director testing lab, Protexol Corp, Kenilworth, N. J, 30–36; *consulting chemist, 36–* Instr, Newark Col. Eng, 36–43. A.A; Inst. Chem; Chem. Soc; Soc. Test. Mat; Wood Preservers Asn. Micro-organic analysis; wood impregnation and fire-proofing; timber preservation; fire tests of building materials; protection of buildings against termites.

Williams, Carlos F(rost), 1912 Lewis Circle, Raleigh, N. C. *Horticulture.* Bristol, Conn, Oct. 28, 94. B.S, Pa. State Col, 17; M.S, N. C. State Col, 23. Farm supt, Bowne Mem. Hosp, Poughkeepsie, 19–20; *research horticulturist, Exp. Sta, N. C. State Col, 20–* Lieut, Inf, 17–19. A.A; South. Agr. Workers; N. C. Acad. Breeding grapes, raspberries and dewberries; physiology of horticultural crops, especially dewberries and peaches.

Williams, Dr. C(arlos) G(rant), 1004 N. Bever St, Wooster, Ohio. *Agronomy.* Gustavus, Ohio, Jan. 18, 63. Western Reserve Acad; hon. Sc.D, Col. of Wooster, 31. Agronomist, Ohio Exp. Sta, 03–21, director, 21–37; *retired.* Non-res. prof, Ohio State, 17– Contrib. ed, 'Ohio Farmer,' 08– Ohio Agr. Cmn, 13–14. Soc. Agron. (pres, 25). Corn and wheat breeding; crop rotation.

Williams, Dr. Carroll M(ilton), Harvard University, Cambridge, Mass. *Physiology.* Richmond, Va, Dec. 2, 16. B.S, Richmond, 37; univ. fellow, Harvard, 37–38, A.M, 38, Ph.D, 41. Curator insects, Richmond, 33–37, instr. entom, 36–37; Austin teaching fellow anat, *Harvard,* 38–40, asst. entom, 41, *junior fellow biol, 41–; research fellow anesthesia, Harvard Med. Sch. and Mass. Gen. Hosp, 42–* Asst, Radcliffe Col, 40–41. Soc. Zool. Vertebrate and invertebrate physiology; insect taxonomy.

Williams, Charles Burgess, North Carolina Agricultural Experiment Station, West Raleigh, N. C. *Agronomy.* Shiloh, N. C, Dec. 23, 71. B.S, N. C. State Col, 93, M.S, 96; Hopkins, 96–97; Nat. Summer Sch. Agr, Ohio State, 02. Instr. chem, N. C. State Col, 93, asst, Exp. Sta, 93–96; chemist, Fertilizer Control of N. C, 97–99; asst. state chemist, N. C, 99–07; director, *Exp. Sta, N. C. State Col,* 07–12, v. director and chief dept. agron, 12–40, *agronomist, 40–,* dean, 17–23. A.A.

Williams, Col. Charles F(rancis), 5801 Dorchester Ave, Chicago, Ill. *Geology.* Mansfield, Ohio, July 26, 94. Nevada; Colo. Sch. Mines; B.S, N. Mex. Sch. Mines, 21. Chief engineer, Am. Smelting and Ref. Co, Mex; *senior mining engineer, U. S. Geol. Surv; col, Air Corps, U. S. Army.* D.S. cross. Commanding officer, 306th Chem. Regiment, U.S.A. Min. and Metal. Eng. (chairman, tri-state zinc sect, 35); Soc. Mil. Eng. Mining methods; geology of the tri-state mining district; geology of Mayo district, Yukon, Canada.

Williams, Dr. Clarke, 4710 Delafield Ave, Riverdale, N. Y. *Physics.* New York, N. Y, May 4, 02. A.B, Williams Col, 22; B.S, Mass. Inst. Tech, 24; Ph.D, Columbia, 35. Asst, Columbia, 26–30; tutor, *Col. City of N. Y,* 30–35, *instr. physics, 36–; asst. in research, sci. staff, Office Sci. Research and Develop, Columbia, 41–* Physical Soc; Asn. Physics Teachers. Properties of the solid state of matter, especially at extremely low temperatures.

Williams, Prof. C(laude) D(owell), 135 Crescent Ave, Trenton, N. J. *Zoology.* Abbott, W. Va, July 3, 99. B.S, W. Va. Wesleyan Col, 22; fellow, Brown, 29–30, Henry D. Sharpe fellow, 31–32, Ph.D, 32. Instr, junior high sch, W. Va, 22–24, high sch, 24–28; asst. instr. embryol, Brown, 28–29, instr. biol, 31–32; science, Providence Country Day Sch, 32–38; *prof. biol. and head dept, Rider Col, 38–* Summers, fellow, Carnegie Institution, 29; instr, New Hampshire, 36–38. Physiological zoology; regeneration; regenerative processes in regressive organs in lower crustaceans.

Williams, Pres. Clement C(larence), Lehigh University, Bethlehem, Pa. *Civil engineering.* Bryant, Ill, Feb. 21, 82. B.S, Illinois, 07; C.E, Colorado, 09; LL.D, Lafayette, 35, Rutgers, 41; D.E, Bucknell, 37; Sc.D, Case, 39. Asst. prof. civil eng, Colorado, 07–14; prof. ry. eng, Kansas, 14–18, civil eng, 18–22; head dept, Illinois, 22–26; dean col. eng, Iowa, 26–35;

pres, Lehigh, 35– A.A; Civil Eng; Ry. Eng; Eng. Educ. Railway engineering; highway and masonry construction; foundations.

Williams, Clyde E, Battelle Memorial Institute, Columbus, Ohio. *Metallurgy.* Salt Lake City, Utah, Sept. 8, 93. B.S, Utah, 15. Chemist, U. S. Smelting Co, 15–16; Santa Fé Copper Co, 16–17; research chemist, U. S. Bur. Mines, 17–19; Hooker Electrochem. Co, Niagara Falls, 19–20; supt. exp. sta, U. S. Bur. Mines, 20–24; iron and steel investigation, Argentine govt, 24–25; chief metallurgist, Columbia Steel Corp, 25–29; asst. director, *Battelle Mem. Inst,* 29–33, assoc. director, 33–34, *director, 34–* Chairman advisory cmt. metals and minerals, War Production Board; War Metal. Cmt; div. metal, nat. defense research cmt, Office Sci. Research and Develop. Am. Iron and Steel Inst. medal, 36. Nat. Acad; Min. and Metal. Eng. (director, 42–); Soc. Metals; Chem. Eng; Ry. Eng; Am. Iron and Steel Inst; Electrochem. Soc. (manager, 40–); Ceramic Soc; Refractories Inst; Iron and Steel Inst. Gt. Britain.

Williams, Dr. Cornelia Taylor, University of Minnesota, Minneapolis, Minn. *Psychology.* St. Paul, Minn, Dec. 25, 07. A.B, Minnesota, 29, A.M, 30, Ph.D, 33. Asst, Minnesota, 29–33; instr. psychol, Rochester, 33–36; Minnesota, 36–41, asst. prof, 41–43, research counsellor, 36–43; *capt, U. S. Marine Corps Women's Res, 43–* Assoc. Psychol. Asn; Col. Personnel Asn; Minn. Soc. Applied Psychol. (sec'y-treas, 40; exec. sec'y, 41–); Rochester Psychol. Soc. (sec'y-treas, 35). Experimental and child psychology; college personnel.

Williams, Dr. David T(yndale), 4328 227th St, Fairview Village, Ohio. *Physics.* Manila, P. I, Feb. 24, 07. A.B, Columbia, 30, A.M, 33; Ph.D, N. Y. Univ, 38. Instr. physics, Carleton Col, 38–39; *physicist, Nat. Advisory Cmt. Aeronautics, 39–* Physical Soc. Spectroscopy; dielectrics and capacitance; aircraft engine operation.

Williams, Prof. D(avid) W(illard), Agricultural and Mechanical College of Texas, College Station, Texas. *Animal husbandry.* Venedocia, Ohio, Aug. 20, 92. B.S. (Agr), Ohio State, 15; M.S, Illinois, 16. Exten. animal husbandman, U. S. Dept. Agr, 17, 19; assoc. prof. *animal husbandry, Agr. and Mech. Col. Texas,* 19–20, *prof, 20–, head dept,* 23–; *major, U. S. Army, 43–* U.S.A, 17–19. A.A; Soc. Animal Production (past-pres); Texas Agr. Workers Asn. Live-stock marketing; range live-stock production; beef cattle and horse production; beef cattle production in the South; agriculture in the Southwest.

Williams, Dr. Dorothy Elizabeth, 2561 Sherrod Road, Knoxville, Tenn. *Nutrition.* Springfield, Mass, 98. A.B, Mt. Holyoke Col, 19; A.M, Wisconsin, 24; Ph.D, Columbia, 34. Asst. chemist, nutrition studies sect, bur. home econ, U. S. Dept. Agr, 35–37; *nutrition chemist, Tennessee, 37–* The influence of sleep on the energy metabolism of three- and four-year-old children; phosphate nutrition.

Williams, Earl L(arkin), Gaithersburg, Md. *Astronomy, Mathematics.* Honeybrook, Pa, Aug. 22, 03. A.B, Swarthmore Col, 24, A.M, 25. Instr. math, Muhlenberg Col, 25–26; astron, Ohio State, 26–31; *asst. latitude observer in charge, Int. Latitude Observatory, U. S. Govt, Md, 32–* Asst. prof. and acting director, Swasey Observatory, Denison, 31; assoc, George Washington, 41– Summer, instr, Muhlenberg Col, 26. Sproul Observatory, Swarthmore Col, total eclipse exped, Yerbaniz, Mex, 23, New Haven, 25. Astron. Soc. Stellar parallax; astrophysics.

Williams, Prof. E(dward) F(oster), Jr, 874 Union, Memphis, Tenn. *Biochemistry.* Carroll Co, Ga, Jan. 27, 06. B.S, Ala. Polytech, 25, M.S, 29; Ph.D, Tennessee, 32. Asst. research chemist, Exp. Sta, Ala. Polytech, 25–27; instr. chem, Tennessee, 27–29; biochem, N. Y. Post-Grad. Med. Sch, 32–33; research biochemist, Killian Research Labs, 33–35; instr. *chem, Tennessee,* 35–37, *asst. prof, 37–* Chem. Soc. (sec'y Memphis sect, 41). Acid-base balance; ammonia metabolism; hemoglobin and its derivatives; gastric digestion.

Williams, Dr. Edwin G(antt), U. S. Public Health Service, Lexington, Ky. *Physiology.* Monticello, Fla, Nov. 13, 02. B.S, Emory, 24, M.D, 26; D.T.M, Liverpool Sch. Trop. Med, 31, D.T.H, 32. Instr. physiol, Emory, 26–29; *surgeon, U. S. Pub. Health Service.* A.A. Nature of drug addiction.

Williams, Dr. Eliot C(hurchill), Jr, Chicago Academy of Sciences, Chicago, Ill. *Zoology.* Chicago, Ill, Nov. 9, 13. A.B, Cent. Y.M.C.A. Col, 35; Ph.D, Northwestern, 40. *Asst. to director, Chicago Acad. Sciences, 40–* Summer, instr, Northwestern, 40. A.A; Ecol. Soc; Micros. Soc; Chicago Entom. Soc. Entomology; animal ecology; quantitative studies of natural populations.

Williams, Prof. E(lmer) H(oward), 702 Pennsylvania Ave, Urbana, Ill. *Physics.* Soldiers Grove, Wis, Dec. 29, 78. A.B, Wisconsin, 05, A.M, 06; fellow, Illinois, 09–10, Ph.D, 10. Asst. *physics,* Wisconsin, 05–07; instr, *Illinois,* 07–12, assoc, 12–18, asst. prof, 18–29, *assoc. prof, 29–* A.A; Physical Soc; Ill. Acad. Magnetism; electricity.

Williams, Dr. E(mile) Allan, 1915 Emerson Ave, Apt. A, Santa Barbara, Calif. *Physics.* Des Moines, Iowa, Oct. 2, 07. A.B, Morningside Col, 29; M.S, Washington (Seattle), 31, Ph.D, 41; Iowa, 32. Teaching fellow physics, Washington (Seattle), 29–31, 34–36, 37–38; instr. physics and math, high sch. and junior col, Centralia, Wash, 32–34; educational adviser, Civilian Conservation Camp Taneum, Wash, 37; *instr. physics,* Reedley Junior Col, 38–41; *Santa Barbara State Col, 41–; lieut, A-V(RS), U. S. Naval Reserve, 42–* Physical Soc. Secondary electron emission from a tantalum target bombarded with lithium ions; spectral extinction coefficients of water measured in laboratory and sea and illumination in the sea.

Williams, Dr. Emma T. R. (Mrs. Alexander Vyssotsky), Box 1535, University, Va. *Astronomy.* Media, Pa, Oct. 23, 94. A.B, Swarthmore Col, 16, 25; Chicago, 26; Harvard, 27–29; Ph.D, Radcliffe Col, 30. Demonstrator astron, Smith Col, 16–17; actuarial work life insurance, 17–25; instr. math, Swarthmore Col, 25–27; research fellow, McCormick Observatory, *Virginia,* 29–32, *instr. astron, 32–* Astron. Soc. Childfeeding mission, Germany, 19–21. Mortality experience; spectrophotometry of A stars; chromosphere; photometry of globular clusters; proper motions.

Williams, Dr. E(rnest) Y(oung), 1747 First St, N.W, Washington, D. C. *Neurology, Psychiatry.* Nevis, B.W.I, Feb. 24, 00. B.S, Howard, 27, M.D, 30. Gen. Educ. Board fellow, Columbia, 31–32, Bellevue Hosp, New York, 32–33; instr. and later *asst. prof. neur. and psychiat, Howard, 33–* Assoc. and acting chief neurologic and psychiat. services, Freedmen's Hosp. Nat. Med. Asn; Medico-Chirurg. Soc. Observations on suicide; incidence of mental disease in the Negro; histopathology of granular layer of cerebellum.

Williams, Dr. E(van) Clifford, General Aniline and Film Corp, 230 Park Ave, New York, N. Y. *Chemistry.* England. M.Sc, Manchester, 16; D.Sc, London. Research chemist and manager dept. intermediate products, British Dyestuffs Corp, 17–21; chief research chemist, Nat. Benzole Asn, 21–23; Ramsay Mem. prof. chem. eng, London, 23–28; director research and v. pres, Shell Develop. Co, 28–40; Gen. Mills, Inc, 41–42; director, Distillation Products, Inc, 41–42; *director and v. pres. in charge research, Gen. Aniline and Film Corp, 42–; director, U. S. Indust. Alcohol Co, 42–* Research cmt, contact catalysis, Nat. Research Council, 37– A.A; Chem. Soc; Electrochem. Soc; Chem. Eng; Faraday Soc. (councilor, 24–28); London Chem. Soc; London Inst. Chem. Eng. (councilor, 23–28, chairman, educ. cmt); Faraday Soc. (councilor, 24–28); Deuts. Chem. Gesell. Dyestuffs; intermediate products for dyestuffs; coal tar by-products; petroleum products; agricultural products and by-products; natural oils and fats; vitamins.

Williams, Dr. Everard M(ott), Aircraft Radio Laboratory, Wright Field, Dayton, Ohio. *Radio engineering.* New Haven, Conn. B.Eng, Yale, 36, Charles A. Coffin fellow, 38–39, Ph.D, 39. Student engineer, Gen. Elec. Co, 37; instr. electricity, New Haven Col, 37–39; elec. eng, Pa. State Col, 39–42; *head develop. sect, Aircraft Radio Lab, Wright Field, 42–* Assoc. Elec. Eng; assoc. Radio Eng. High frequency and ultra-high frequency field theory.

Williams, Dr. Faith M(oors), 2930 Chesapeake St, N. W, Washington, D. C. *Economics.* Utica, N. Y, Oct. 6, 93. A.B, Wellesley Col, 15; A.M, Columbia, 20, fellow, 23–24, Ph.D, 24. Asst, div. planning and statist, U. S. Shipping Board, 18–19; div. anal. and research, Fed. Reserve Board, 19–22; research assoc, Plan of New York and Its Environs, 23; staff, 'Middletown' Investigations, 24; asst. prof. home econ, Cornell, 25–27; Wells Col, 28; senior economist in charge studies of costs and standards of living, div. econ, bur. home econ, U. S. Dept. Agr, 29–34; *chief cost of living div, bur. labor statist, U. S. Dept. Labor, 34–* U. S. rep, nutrition cmn, Int. Labor Office, 36–; mixed cmt, health sect, League of Nations, 37. Econ. Asn; Statist. Asn; Home Econ. Asn. Economics of consumption.

Williams, Dr. (Francis) Dudley, University of Oklahoma, Norman, Okla. *Physics.* Covington, Ga, April 12, 12. A.B, North Carolina, 33, A.M, 34, Ph.D, 36; du Pont fellow, Virginia, 34–35. Rockefeller asst, North Carolina, 35–36; instr. physics, Florida, 36–38, asst. prof. physical sciences, 38–41; research assoc, radiation lab, Mass. Inst. Tech, 41–43; *asst. prof. physics, Oklahoma, 43–* Fel. Physical Soc; Fla. Acad; N. C. Acad. The structure of the cyanides; infra-red spectra of solutions; hydrogen bonding in liquids; structure of rubber; liquid crystals; intermolecular structure of liquid water.

Williams, Dr. Francis J(esse), 105 York St, Brooklyn, N. Y. *Ceramics.* Elmira, N. Y, May 15, 07. B.S, Alfred, 28; eng. exp. sta.-Bur. Standards fellow, Ohio State, 30–32, Ph.D, 32. Asst. chem, Pittsburgh, 28–30; asst. fuel technol, Pa. State Col, 32–33, ceramics, 33–34, asst. prof, 34–36; Nat. Lead Co. indust. fellow, Mellon Inst, 36–40; *research chemist, Nat. Lead Co, 40–* Chem. Soc; Ceramic Soc. Glassy bond in ceramic bodies; sorption of water vapor by coal; mineral matter in coal; identification of crystalline silicates with x-rays; solid phase reactions in silicate systems; barium compounds, particularly the thermal reactions of barium sulfate; pigments.

Williams, Dr. Francis X(avier), Hawaiian Suger Planters' Association Experiment Station, Honolulu, Hawaii. *Entomology.* Martinez, Calif, Aug. 6, 82. A.B, St. Ignatius Col. (Calif), 03; B.S, Stanford, 08; A.M, Kansas, 12; Sc.D, Harvard, 15. Inspector, Hort. Cmn, Calif, 08–10; asst. curator, Snow entom. collections, Kansas, 10–13; asst, Harvard, 13–14; teacher econ. entom, Lowthorpe Sch, Mass, 14; asst, gipsy-moth lab, U. S. Dept. Agr, 15–16; asst. and *assoc. entomologist, Exp. Sta, Hawaiian Sugar Planters' Asn, 16–* Field entomologist, Calif. Acad. Sciences exped, Galapagos Islands, 05–06. A.A; Calif. Acad; Hawaiian Acad; Hawaiian Bot. Soc; Hawaiian Entom. Soc. (sec'y-treas). Biology and taxonomy of digger wasps; development of light organs in lampyrid beetles; Lepidoptera; insects and other invertebrates found in Hawaiian sugar cane fields; Hawaiian water-loving insects.

Williams, Prof. Frank E(rnest), University of Pennsylvania, Philadelphia, Pa. *Geography.* Liberty, Ill, May 4, 77. A.B, Wisconsin, 10, A.M, 12, Ph.D, 28. Instr. geol, Wisconsin, 10–15, asst. prof, 15–20; geog. and indust, *Pennsylvania,* 20–29, *prof. geog, 29–* Summers, geologist, Wis. Geol. Surv, 11, 13, 18. Capt, Mil. Int. Div, 18–19; with U. S. Shipping Board, 19. Nat. Research Council, 35–37. Nat. Geog. Soc. exped, Alaska, 10. Asn. Geog. (sec'y, 32–35); Geog. Soc. Phila. (pres, 36–38). Physiography; recent deposits in the Great Lakes; erosion in Alaska fiords; business, social and economic geography; geography of Latin America.

Williams, Prof. Frank H(arry) M(ead), 35 Llanberris Road, Bala-Cynwyd, Pa. *Mathematics.* Demos, Ohio, Jan. 17, 96. A.B, Pennsylvania, 17, scholar, 17, 19–20, A.M, 21, 21–27. Instr, high sch, Phila, 17–18; *math, Drexel Inst,* 18–28, asst. prof, 28–37, *assoc. prof, 37–, instr, evening sch, 24–* Instr, Acad. Sisters of Mercy, Phila, 17–18. Summer, instr, Y.M.C.A, 18. Math. Soc; Eng. Educ. Algebra; trigonometry; analytic geometry; calculus; differential equations.

Williams, Prof. Franklin G(randey), 608 University Place, Swarthmore, Pa. *Mathematics.* Bridport, Vt, May 17, 93. A.B, Middlebury Col, 13; A.M, Pa. State Col, 23; Ph.D, Cornell, 29. Teacher, prep schs, 13–20; instr. *math,* Pa. State Col, 20–27; Cornell, 27–29; prof. and head dept, Susquehanna, 29–32; *prof, Pa. Mil. Col, 32–, registrar and head master, 36–* A.A; Math. Soc; Math. Asn. Algebraic geometry.

Williams, Prof. George A(lbert), University of Tampa, Tampa, Fla. *Physiological chemistry.* Hazleton, Pa, Sept. 24, 93. A.B, Lebanon Valley Col, 13; M.S, Iowa State Col, 15; fellow, Yale, 23–24, Ph.D, 26. Instr. zool, Iowa State Col, 13–16; prof. chem. and physics, Bethany Col. (W. Va), 19–21; chem. and biol. and dean men, Atlantic Christian Col, 21–23; asst. physiol. chem, Yale, 24–25; assoc. physiol. chem. and toxicol, Jefferson Med. Col, 25–27; prof. chem. and head dept, Va. State Teachers Col, Radford, 27–30; head dept, Atlantic, 30–32; acting prof. chem, Va. State Teachers Col, Fredericksburg, 32; state director emergency educ. program, State Dept. Educ, Va, 33–34; prof. chem. and biol, Madison Col, 34–35, org. chem. and biochem, 35–43; *prof. chem. and head dept, Tampa, 43–* Summers, prof, Va. State Teachers Col, Radford, 27–30, 36, 39; Madison Col, 38, 40; Richmond, 42, 43. C.W.S, 17–18. Chem. Soc; Va. Acad; Phila. Physiol. Soc. Animal nutrition; the chemistry of bran laxation; adult education.

Williams, Prof. G(eorge) A(lfred), Oregon State Agricultural College, Corvallis, Oregon. *Mathematics.* Parsons, Kans, Jan. 10, 96. Bradley Polytech, 16; A.B, Illinois, 18; A.M, California, 26. Instr. *math, Oregon State Col,* 20–27, asst. prof, 27–39, assoc. prof, 39–43, *prof, 43–* Math. Asn. Geometry.

Williams, Lieut. Col. George D(ee), Office of the Surgeon General, Washington, D. C. *Anthropology, Anatomy.* Sarahsville, Ohio, March 24, 98. A.B, Ohio State, 19, M.D, 22; A.M, Harvard, 26, Ph.D, 29. Practising physician, 22–25; instr. anat, sch. med, Washington (St. Louis), 28–29, asst. prof, 39–41, anthrop, 35–41; major, Res, *U. S. Army,* 41–43, *lieut. col, 43–* Extern, Mt. Carmel Hosp, Ohio. Bur. Int. Research, Harvard and Radcliffe Col. exped, Yucatan, Mex, 27; study anthrop. aspects of tuber, Brazil, 39. A.A; Anthrop. Asn; Asn. Physical Anthrop; N. Y. Acad; British Prehist. Soc; Soc. française Préhist. Physical anthropology; human anatomy and paleopathology; biostatistics.

Williams, Dr. (George) Huntington, Baltimore City Health Department, Baltimore, Md. *Public health.* Baltimore, Md, Dec. 16, 92. A.B, Harvard, 15; M.D, Hopkins, 19, Dr.P.H, 21. Staff mem, League of Red Cross Societies, Geneva, Switzerland, 20; dist. state health officer, N. Y. State Dept. Health, 21–30, sec'y, 31; director *health, Dept. Health, Baltimore,* 31–33, *commissioner, 33–; prof. hygiene and pub. health, sch. med, Maryland, 33–* Lecturer pub. health admin, sch. hygiene and pub. health, Hopkins. Mem, Am. Civil Defense Mission to England, 41. Fel. Pub. Health Asn; fel. Am. Med. Asn. Public health administration; a sanitary code; epidemic jaundice; cyanide and lead poisoning; meningococci; housing.

Williams, Dr. George Zur, Medical College of Virginia, Richmond, Va. *Experimental pathology.* Chemulpo, Korea, April 7, 07. M.D, Colorado, 31. Instr. *path,* Colorado, 32–36; assoc, *Med. Col. of Va,* 36–37, *asst. prof, 37–; lieut. commander, U. S. Naval Res, 40–* Director labs, Nat. Jewish Hosp, 34–36. Am. Med. Asn; Asn. Study Neoplastic Diseases; Asn. Path. and Bact; Va. Acad. Liver pathology; endocrine pathology; silicosis; effects of x-ray on malignant tissue.

Williams, Prof. Gertha, Wayne University, Detroit, Mich. *Psychology.* Ionia, Mich, May 24, 84. A.B, Mt. Holyoke Col, 10; Ph.D, Pennsylvania, 17. Instr. *psychol,* Detroit Teachers Col, 16–18, head dept, 19–26, *prof,* 26–34, *Wayne, 34–* A.A; assoc. Psychol. Asn.

Williams, Prof. Glenn C(arber), 15 Sunnybank Road, Watertown, Mass. *Chemical engineering.* Princeton, Iowa, Oct. 9, 14. B.S, Illinois, 37, M.S, 38. Research chem. engineer, Illinois, 37; *asst. prof. chem. eng, Mass. Inst. Tech, 42–* Chem. Soc. Mass and heat transfer.

Williams, Prof. G(ordon) C(urran), 4321 Southern Parkway, Louisville, Ky. *Chemical engineering.* Mexico, Maine, July 11, 08. B.S, Wisconsin, 31, M.S, 32, Ph.D, 35. Instr. chem. eng, Wisconsin, 34–35; chem, Miss. State Col, 35–36; asst. prof. *chem. eng, Louisville,* 36–39, *assoc. prof, 39–* Chem. Soc; Chem. Eng; Eng. Educ. Metallurgy; engineering education.

Williams, Prof. Griffith W(ynne), Rutgers University, New Brunswick, N. J. *Psychology.* Clynderwen, Wales, Feb. 12, 97. London, 20–23; B.Pd, Hartford Sem. Foundation, 24, M.Pd, 25; Ph.D, Wisconsin, 29. Instr, Atlanta, 25–27; asst, Inst. Human Relations, Yale, 29–30; asst. prof. *psychol,* Illinois, 30–31; Rochester, 31–37; *Rutgers,* 37–41, *assoc. prof, 41–, asst. director psychol. clinic, 37–, personnel officer, Army Specialized Training Program, 43–* Lecturer, Westfield Adult Sch, 38– Summers, lecturer, Wisconsin, 29; asst, Harvard, 30; instr, N. C. Col. for Women, 31. Psychol. Asn. Abnormal and clinical psychology.

Williams, Prof. G(uy) M(orris), University of Saskatchewan, Saskatoon, Sask, Can. *Civil engineering.* Crete, Nebr, Jan. 12, 88. B.S, Nebraska, 11. With Bur. Standards, 11–20; *prof. civil eng, Saskatchewan, 20–* Civil Eng; Soc. Test. Mat; Concrete Inst; Eng. Inst. Can. Concrete.

Williams, Prof. Guy Y(andall), University of Oklahoma, Norman, Okla. *Chemistry.* Gainesville, Texas, Sept. 7, 81. A.B, Oklahoma, 06, A.M, 10; M.S, Chicago, 11; fellow, Illinois, 11–13, Ph.D, 13. Instr. chem, *Oklahoma,* 06–08, assoc. prof, 08–14, *prof.* physical chem, 14–23, *chem. and head dept, 23–;* director sch. chem. eng, 23–38. Acting head dept. chem. and acting director, Okla. Pure Food and Drug Lab, 13–14; collaborating chemist, bur. chem, State Dept. Agr, Okla, 14–18; director, Okla. Bur. Standards, 18–19. Chem. Soc; Okla. Acad. Analytical method; conductivity and viscosity.

Williams, Dr. Harold H(enderson), 660 Frederick St, Detroit, Mich. *Biochemistry.* Blanchard, Pa, Aug. 29, 07. B.S, Pa. State Col, 29; Ph.D, Cornell, 33. Asst, Cornell, 29–33; Sterling fellow, Yale, 33–35; research assoc, *Children's Fund of Mich,* 35–39, asst. director *research lab,* 39–42, *assoc. director, 42–* A.A; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Research Child Develop; Chem. Soc; Inst. Nutrition. Energy metabolism; physiology of lactation; the role of cholesterol in fat metabolism; function of blood lipids in health and disease; nutrition and metabolism of children; chemical composition of growth.

Williams, Dr. Harold M(arshall), Department of Public Instruction, Room 146 N, Madison, Wis. *Psychology.* Ottumwa, Iowa, Feb. 17, 99. A.B, Iowa, 20, A.M, 24, Ph.D, 28. Nat. research fellow child develop, 28–30; research asst. prof. child welfare, Iowa, 30–39; *supervisor clinical psychol, State Dept. Pub. Instruction, Wis, 39–* Assoc. Psychol. Asn; Soc. Research Child Develop. Psychology of music; child psychology; music and speech development; personality development; individual differences.

Williams, Dr. H(oratio) B(urt), P. O. Box 893, Greenwich, Conn. *Physiology.* Utica, N. Y, 77. A.B, Syracuse, 00, M.D, 05, Sc.D, 25. Intern, N. Y. Hosp, 05–07; asst. *physiol,* med. col, Cornell, 07–11; assoc, *Columbia,* 11–16, asst. prof, 16–22, Dalton prof, 22–42, *emer. prof, 42–;* director dept, 22–37. Director, Cambridge Instrument Co; council physical therapy, Am. Med. Asn; chairman resuscitation rev. board, Edison Elec. Inst. A.A; Physiol. Soc; Optical Soc; Soc. Exp. Biol; Physical Soc; Math. Soc; Acoustical Soc; Soc. Mil. Eng; Elec. Eng; Nat. Soc. Professional Eng; Harvey Soc. (v. pres, 28–); N. Y. Acad. Med; Conn. Soc. Professional Eng; London Physical Soc. Animal calorimetry; electrophysiology; sounds; nerve-action current phenomena; x-rays; theory and design of string galvanometers; electrocardiography; electric shock.

Williams, Prof. Howel, University of California, Berkeley, Calif. *[7]*Geology.* Liverpool, Eng, Oct. 12, 98. Fellow, Liverpool, 23, M.A, 24, D.Sc, 28; 1851 Exhib. scholar, Imp. Col. Science, London, 23–26, D.I.C, 24; Commonwealth fellow, California, 26–29. Demonstrator *geol,* Royal Sch. Mines, London, 29–30; assoc. prof, *California,* 30–37, *prof, 37–* Geol. Soc; Seismol. Soc; Liverpool Geol. Soc; Geol. Soc. London. Paleozoic geology of North Wales; Tertiary and recent volcanic activity in California and elsewhere.

Williams, Dr. Isabella R(iggs), 300 E. Church St, Oxford, Ohio. *Physiology.* Oxford, Ohio, Nov. 20, 07. A.B, Miami (Ohio), 28; A.M, Ohio State, 30; Ph.D, Iowa State Col, 34. Asst, Iowa State Col, 30–33; teacher, Stout Inst, 33–38. A.A. Effect of prolonged sublethal doses of carbon monoxide on animals.

Williams, Prof. J. Harold, 1286 Woodruff Ave, Los Angeles, Calif. *Education.* Ainsworth, Nebr, Dec. 21, 88. A.B, Stanford, 13, A.M, 14, fellow, 14–16, Ph.D, 16. Prin, high sch, Nebr, 08–11; instr. science, Nebr. State Junior Nor. Sch, 11; director, Calif. Bur. Juvenile Research, 15–23; assoc. prof. and *prof. educ, California at Los Angeles, 23–, director summer sessions and assoc. director exten, 43–* Psychologist, Los Angeles Diagnostic Clinic, 23–27. Summers, acting assoc. prof, Stanford, 20–27; dean summer session, California at Los Angeles, 35–43. Managing ed, 'Jour. Delinquency,' 16–23; ed, 'Educ. Measurement Rev,' 25–27. Pres. Council for Educ. Exceptional Children, 32–33. A.A; Psychol. Asn; Educ. Research Asn; Calif. Educ. Research Asn. (pres, 30); South. Calif. Soc. Mental Hygiene (pres, 34–36); South. Calif. Vocational Guidance Asn. (pres, 20–25). Psychology; delinquency; mental and educational measurement; graphic methods; statistics; survey techniques.

Williams, Dr. James S(teele), U. S. Geological Survey, Washington, D. C. *Geology, Paleontology.* Butler, Mo, Oct. 29, 96. A.B, Missouri, 21, fellow, 22, A.M, 22, Ph.D, 24. Instr. geol, Missouri, 21–24, asst. prof, 25–28, assoc. prof, 28–32; asst. geologist, *U. S. Geol. Surv,* 30–31, assoc. geologist, 31–38, geologist, 38–42, *senior geologist, 42–* Geologist, State Bur. Geol. and Mines, Mo, 21–29. A.A; Paleont. Soc; Geol. Soc; Soc. Econ. Paleont. and Miner; Geol. Soc. Wash; Wash. Acad. Carboniferous and Permian formations and faunas; fluorspar investigations.

Williams, Dr. J(ames) Stewart, 545 E. Fifth N. St, Logan, Utah. *Geology.* Provo, Utah, Aug. 5, 01. B.S, Brigham Young, 23; A.M, Columbia, 27; Ph.D, George Washington, 32; Yale, 34–35. *Prof. geol. and head dept, Utah State Col, 35–* Collaborator for Utah, U. S. Coast and Geod. Surv, 42– Asn. Petrol. Geol; Geophys. Union; Seismol. Soc; Paleont. Soc; Utah Acad. Paleontology and stratigraphy of central Rocky Mountains; sedimentation; seismicity of northwestern part of Great Basin and contiguous areas.

Williams, Prof. Jessamine Chapman, Oregon State College, Corvallis, Oregon. *Nutrition.* Brockport, N. Y, June 11, 81. B.S, Columbia, 06, A.M, 21; Yale, 10–11. Head dept. home econ, Sweet Briar Col, 06–11; Okla. Agr. and Mech. Col, 12–13; *prof. foods and nutrition,* Arizona, 14–23; *Oregon State Col, 23–* Summers, teacher, Bradley Polytech; Simmons Col. (Mass); Teachers Col, Columbia; Washington (Seattle). A.A; Dietetic Asn; Home Econ. Asn.

Williams, Dr. J(ohn) C(ovington), 3142 Avalon St, Pittsburgh, Pa. *Chemistry.* Oxford, Ohio, Feb. 11, 11. A.B, Oberlin Col, 31; A.M, Miami (Ohio), 33; Ph.D, Iowa State Col, 37. Instr. chem, Iowa State Col, 35–38; research chemist, Champion Paper and Fibre Co, 38–42; *fellow, Mellon Inst, 42–* Protein adhesives; paper coatings; rubber.

Williams, Prof. John H(arry), University of Minnesota, Minneapolis, Minn. *Physics.* Asbestos Mines, Que, Can, 08. B.A, British Columbia, 28; A.M, California, 30, Whiting fellow, 30–31, Ph.D, 31. Teaching fellow *physics,* California, 28–30; nat. research fellow, Chicago, 31–33; instr, *Minnesota,* 33–34, asst. prof, 34–37, *assoc. prof, 37–* Physical Soc. Natural widths of x-ray spectrum lines; relative intensities in x-ray spectra; nuclear physics; pressure Van de Graaff generator.

Williams, J(ohn) N(orman) S(pencer), P. O. Box 532, Honolulu, Hawaii. *Chemistry.* Cowbridge, Glamorganshire, Eng, May 11, 57. Private schs, England; Hawaii. Manager sugar estate, Cienfuegos, Cuba, 93–98; designing engineer, Honolulu Iron Works Co, 99–01; chief engineer, Hawaiian Commercial and Sugar Co, Maui, *Hawaii,* 02–07; manager, Kahului R. R. Co, 07–13; sugar plantation dept, Theo. H. Davies and Co, Honolulu, 13–31; *director in charge cellulose research, Hawaiian Cane Products, Hilo, 32–* Civil Eng; Chem. Soc; Hawaiian Sugar Planters Asn; Inst. Mech. Eng. Gt. Britain; Royal Soc. Arts; Asn. Sugar House Chemists, Paris. Cellulose; lignin and related compounds as by-products of cane sugar.

Williams, John O(scar), U. S. Department of Agriculture, Middlebury, Vt. *Animal husbandry.* Venedocia, Ohio, March 10, 85. B.S, Ohio State, 08. Exp. Sta, Colo. Agr. Col, 08–14; exten. div, Clemson Col, 14–18; animal husbandman in horse breeding investigations, *bur. animal indust, U. S. Dept. Agr,* 18–20, senior animal husbandman in charge horse and mule investigations, 20–37, *assoc. animal husbandman in charge, U. S. Morgan Horse Farm, Middlebury, Vt,* 37– U. S. Dept. Agr. rep, Netherlands Live Stock Expos, The Hague, 28. Soc. Animal Production. Breeding and nutrition of horses.

Williams, Dr. John R(alston), 388 Monroe Ave, Rochester, N. Y. *Medicine.* Renfrew, Ont, Can, Dec. 27, 74. M.D, Michigan, 03. *Practising physician.* Consultant, Strong Mem. Hosp; Highland Hosp, Rochester, N. Y. Pres, Rochester Museum of Arts and Sciences. Am. Med. Asn; Soc. Clin. Invest; Soc. Exp. Biol; Interurban Med. Club. Diseases of metabolism; diabetes mellitus.

Williams, Dr. J(ohn) W(arren), University of Wisconsin, Madison, Wis. *[6]*Physical chemistry.* Woburn, Mass, Feb. 10, 98. B.S, Worcester Polytech, 21; M.S, Wisconsin, 22, Ph.D, 25. Asst. prof. physical chem, *Wisconsin,* 27–32, assoc. prof. physical chem, 32–38, *prof. chem, 38–* Nat. research fellow, Copenhagen and Leipzig, 27–28; Int. Educ. Board fellow, Upsala; 34–35. Cmt. colloid science, Nat. Research Council. Chem. Soc. (sec'y div. physical and inorg. chem, 34, v. chairman, 35, chairman, 36; chairman, div. colloid chem, 38); Physical Soc. Dielectric constants of gases, liquids and solutions; physical chemistry of proteins; chemistry of high polymers.

Williams, Prof. John W(ebster), Massachusetts Institute of Technology, Cambridge, Mass. *Pathology, Bacteriology.* Oneida Co, N. Y, Oct. 7, 98. B.S, Wisconsin, 18; M.D, Washington (St. Louis), 20. Instr. *path. and bacter,* Tulane, 29–31; *asst. prof, Mass. Inst. Tech, 31–, pathologist, Homberg Mem. Infirmary, 31–* Fel. Col. Physicians; Soc. Path. and Bact; Soc. Exp. Biol. Pneumococcus; effects of bile salts on hemolysis; cultivation of pathogenic fungi; oxidation-reduction potential; tetanus.

Williams, Dr. Jonathan W(ilbur), 215 E. George Mason Road, Falls Church, Va. *Organic chemistry.* Olmsted Falls, Ohio, March 5, 10. B.S, Baldwin-Wallace Col, 30; M.S, Northwestern, 32, Ph.D, 35. Prof. nat. sciences and head div, Snead Jr. Col, Ala, 35–37; instr. org. chem, Maryland, 37–39; asst. prof, North Carolina, 39–41; chemist, Naval Research Lab, 41–42; *tech. aide, Nat. Defense Research Cmt, 42–* Chem. Soc; Elisha Mitchell Sci. Soc. The ketenes; aldehydes; qualitative organic analysis; chemical warfare.

Williams, Prof. Joseph (Leroy), Lincoln University, Pa. *Zoology.* Portsmouth, Va, Feb. 4, 06. A.B, Lincoln (Pa), 29; A.M, Pennsylvania, 37, Ph.D, 41. Instr. *biol. and chem, Lincoln (Pa),* 29–37, asst. prof, 37–41, *assoc. prof, 41–* A.A; Entom. Soc; Entom. Soc. Amer; Asn. Sci. Workers; Pa. Acad; Entom. Soc. Wash; fel. Royal Entom. Soc. Anatomy of the internal genitalia and the mating behavior of some lasiocampid moths and other internal genitalia studies of insects.

Williams, Prof. K(enneth) P(owers), 523 E. Third St, Bloomington, Ind. *Mathematics.* Urbana, Ohio, Aug. 25, 87. A.B, Indiana, 08, A.M, 09; Ph.D, Princeton, 13. Instr. *math, Indiana,* 09–14, asst. prof, 14–19, assoc. prof, 19–24, *prof, 24–* Col; F.A. A.A; Math. Soc; Math. Asn; Astron. Soc; Soc. astron. de France; Circolo Mat. di Palermo. Difference equations; theory of functions; orbit theory and perturbations.

Williams, Kenneth T(hurman), 800 Buchanan St, Albany, Calif. *Chemistry.* Oregon, Mo, June 1, 05. B.S, Washington (Seattle), 28, M.S, 30. Junior chemist, U. S. Geol. Surv, 29–33; asst. chemist and later assoc. chemist, bur. chem. and soils, *U. S. Dept. Agr;* 33–39, chemist and later *senior chemist, west. regional research lab, bur. agr. and indust. chem, 39–* Chem. Soc. Bog gases; surface and rain water; selenium problem of soils and vegetation; carotene stabilization; analytical chemistry.

Williams, Prof. L(eon) F(ranklin), North Carolina State College, Raleigh, N. C. *Chemistry.* Merchant Mills, N. C, Aug. 27, 81. A.B, Trinity Col. (N. C), 01, A.M, 02; Ph.D, Hopkins, 07. Asst. chem, Trinity Col. (N. C), 00–02; instr, *N. C. State Col,* 07–09, asst. prof, 09–12, assoc. prof, 12–21. *prof.* anal. chem, 21–24, *org. chem, 24–* Chem. Soc. (v. pres, N. C. sect, 11, pres, 12); N. C. Acad. Acyl derivatives of ortho- and paramino-phenols; primary, secondary and tertiary amine derivatives of camphoroxalic acid; cotton seed hulls; the relation of manganese to the development of a red color in curing tobacco.

Williams, L(lewelyn), Field Museum of Natural History, Chicago, Ill. *Botany.* Conway, Wales, March 6, 01. B.S, Wales, 23, M.S, 35. Asst. wood technol, *Field Museum Nat. Hist,* 27–33, asst. curator *econ. bot,* 34–37, *curator, 37–* Botanist, ministry agr, Venezuela, 38–40. Leader Peruvian div. Marshall Field bot. exped, Amazon, 29–30; Field Museum exped, Mex, 37. Int. Asn. Wood Anat. Tropical woods, especially American ones in relation to their anatomical structure and identification.

Williams, Dr. Louis L(aval), Jr, U. S. Public Health Service, Liaison Office, Fourth Corps Area, Atlanta, Ga. *Tropical medicine.* Hampton, Va, Feb. 21, 89. M.D, Virginia, 13. *Officer, U. S. Pub. Health Service, 15–, med. director.* Professorial lecturer, Med. Col. Va, 27–30; George Washington, 35–40. Chairman, Nat. Malaria Cmt, 35. Am. Med. Asn; Pub. Health Asn; Soc. Trop. Med. (pres, 40); Acad. Trop. Med; South. Med. Asn. Malaria control.

Williams, Dr. Louis O(tho), Harvard University, Cambridge, Mass. *Botany.* Jackson, Wyo, Dec. 16, 08. A.B, Wyoming, 32, M.S, 33; Ph.D, Washington (St. Louis), 36. Asst, *bot. museum, Harvard,* 36–37, *research assoc, 37–* Soc. Plant Taxon; New Eng. Bot. Club. Taxonomy of Orchidaceae; Mertensias of North America; Orchidaceae of the Western Hemisphere, Asia and Oceania.

Williams, Prof. L(yle) L(yndon), Sevierville Pike, Maryville, Tenn. *Vertebrate embryology.* East Bend, N. C, July 10, 99. B.S, Guilford Col, 22; A.M, North Carolina, 27, A.M, 31, Ph.D, 39. Prin, sch, N. C, 22–25; statistician, State Dept. Educ, 26–27; prof. educ, Guilford Col, 27–29; teaching fellow zool, North Carolina, 29–31, 34–36; instr. *biol,* Rensselaer Polytech, 31–34; *assoc. prof, Maryville Col, 36–* Summer, prof, Appalachian State Teachers Col, N. C, 37. Morphogenesis of liver in teleosts, with special reference to relation of liver to yolk-periblast.

Williams, Prof. Marjorie, Smith College, Northampton, Mass. *Astronomy.* Marshalltown, Iowa, Oct. 12, 00. B.S, Guilford Col, 21; A.M, Smith Col, 28; Ph.D, Michigan, 42. Instr, Md. Col. for Women, 22–23; high sch, Mass, 23–25; instr. *astron, Smith Col,* 25–31, asst. prof, 31–42, *assoc. prof, 42–* Summers, asst, Maria Mitchell Observatory, Nantucket, Mass, 30–41. A.A; Astron. Soc; Asn. Variable Star Observers. Occultations of stars by the moon; photographic observation of variable stars.

Williams, Dr. Martha Hathaway (Mrs. Jonathan Williams), 215 E. George Mason Road, Falls Church, Va. *Mathematics, Geometry.* Montclair, N. J, Jan. 25, 14. A.B, Wellesley Col, 35; M.S, Mass. Inst. Tech, 36, Ph.D, 39. Instr. *math,* Wellesley Col, 38; asst, *Maryland,* 38–40, *instr, 41–* Math. Soc. Ruled surfaces in hyper-spaces.

Williams, Dr. Marvin M(artin) D(ixon), Mayo Clinic, Rochester, Minn. *Biophysics.* Walla Walla, Wash, Aug. 24, 02. B.S, Whitman Col, 25; M.S, Pennsylvania, 29; Ph.D, Minnesota, 31. Instr. physics, Whitman Col, 26–27; *physicist,* dept. radiol, Peiping Union Med. Col, 31–36; *Mayo Clinic, 36–* Physical Soc; Physiol. Soc. China. Physiological effects of radiation; physics of radiology.

Williams, Prof. Maude, Woman's College, University of North Carolina, Greensboro, N. C. *Physiology.* Iola, Ill, Oct. 23, 00. A.B, Illinois, 24, M.S, 26. Asst. physiol, Illinois, 26–27; asst. prof. biol, *Woman's Col, North Carolina,* 27–35, *assoc. prof. physiol, 35–* A.A; Soc. Research Child Develop; N. C. Acad. Utilization of simple sugars by plant and animal cells; effect of internal secretions on sugar metabolism; stimulating effect of amino acids on sugar metabolism.

Williams, Dr. M(ax) B(ullock), 2963 Grant St, Corvallis, Oregon. *Physical chemistry.* Provo, Utah, March 30, 15. B.S, Utah, 36, M.S, 38; Ph.D, Cornell, 41. *Instr. chem, Oregon State Col, 41–* Chem. Soc. X-ray crystallography; distillation of azeotropic mixtures.

Williams, Prof. M(erton) Y(arwood), University of British Columbia, Vancouver, B. C, Can. *Geology.* Bloomfield, Ont, June 21, 83. B.Sc. Queen's (Can), 09; Ph.D, Yale, 12. Teacher, pub. sch, 03–05; instr. geol. and physiog, forest sch, Yale, 10–12; junior geologist, Geol. Surv. Can, 12–14, geologist, 15–21; assoc. prof. *paleont. and stratig, British Columbia,* 21–22, *prof, 22–, head dept. geol. and geog, 36–* Consulting geologist to B. C. Govt. oil develop. of Peace River Area. Summers, field asst, Geol. Surv. Can, 08–11; geologist, Hong Kong Govt, 24–25; surv. resources Pacific Gt. East. Ry. lands for B. C. Govt, Can. Pacific Ry. and Can. Nat. Railways, 29–30. A.A; Geol. Soc; Paleont. Soc; fel. Royal Soc. Can. (pres. geol. sect, 41). Stratigraphic paleontology; Arisaig-Antigonish district of Nova Scotia; Silurian of southwestern Ontario; Ordovician rocks of Lake Timishaming; oil fields of Ontario; Franklin mountains of the Mackenzie district; geology of southern Alberta and southwestern Saskatchewan.

Williams, Milton, 2240 North Blvd, Houston, Texas. *Chemistry.* Waxahachie, Texas, March 19, 11. A.B, Rice Inst, 34, A.M, 35. Research chemist, *production research dept, Humble Oil and Ref. Co,* 35–38, *senior research engineer, 38–* Chem. Soc; Min. and Metal. Eng. Chemistry of petroleum derivatives, clay colloids and dispersing agents; physical behavior of hydrocarbons and of oil and gas reservoirs.

Williams, Dr. Morgan L(loyd), 8202 Moorland Lane, Bethesda, Md. *Metallurgy, Physics.* Milwaukee, Wis, April 24, 06. A.B, Ripon Col, 28; Arnold B. Chace fellow, Brown, 29–31, M.S, 30, Ph.D, 33. Research physicist, Globe-Union Mfg. Co, Milwaukee, 34–36; computer, U. S. Forest Service, 36–37; junior patent examiner, U. S. Patent Office, 37–38; *asst. metallurgist, Bur. Standards, 38–* Exec. officer, Civilian Conservation Corps Camps, 35. Physical Soc; Soc. Metals. Welding of alloy steels; single crystals of metals; soft x-rays; spark plugs.

Williams, Prof. N(ell) H(ooker), 1020 Olivia Ave, Ann Arbor, Mich. *Physics.* Almont, Mich, Oct. 23, 70. B.S, Michigan, 93, M.S, 95, Ph.D, 12. Prin, high schs, Mich, 95–98; instr, high schs, Mich. and Ind, 98–03; instr. and asst. prof. *physics,* Rose Polytech, 03–08; asst. prof, *Michigan,* 08–17, assoc. prof, 17–18, *prof, 18–* Supt. munic. lighting system, Clinton, Mich, 93–94; inspector elec. construction, Detroit; research lab, Gen. Elec. Co, Schenectady, 23–24. A.A; Physical Soc. Magnetism; four-electrode vacuum tubes; measurement of elementary electric charge by shot effect; Brownian

fluctuation of thermionic emission under space charge conditions; one centimeter electromagnetic waves.

Williams, Dr. N(ell) Kenneth, 489 Main St, Burlington, Vt. *Dairy husbandry.* Camagüey, Cuba, Sept. 26, 14. B.S.A, Florida, 35; research fellow, Iowa State Col, 35–38, Ph.D, 39. Asst. dairy research, Exp. Sta, Nebraska, 38–39; *asst. animal and dairy husbandman, Exp. Sta, Vermont, 39–* Summer, fieldman, Nat. Research Project, 36. Artificial insemination; the feeding of soybean fats to dairy cows.

Williams, Prof. Osborne, University of Florida, Gainesville, Fla. *Psychology.* Trenton, Tenn, Nov. 11, 88. A.B, Transylvania Col, 13; Ph.D, Chicago, 26. Prof. psychol, Southeast. Christian Col, 15–17; Ga. Agr. and Mech. Col, 17–20; director research, pub. schs, Atlanta, 20–21; prof. *psychol,* Southern Col. (Fla), 26–27; *asst. prof, Florida, 27–* Summer, prof, Asheville Nor. Sch, 30. U.S.A, 18–19. Assoc. Psychol. Asn; Educ. Research Asn; Fla. Acad. Psychology of learning; experimental psychology; the phenomenon of reminiscence.

Williams, Prof. O(scar) B(rown), University of Texas, Austin, Texas. *Bacteriology.* Kosse, Texas, Sept. 17, 95. A.B, Texas, 21, A.M, 23; Ph.D, California, 28. Water bacteriologist, Austin, 21–23; instr. bot, Texas, 22–25, adj. prof. bacter, 25–27, assoc. prof, 27–35; bacteriologist, research lab, Nat. Canners Asn, 35–41; *prof. bacter, Texas, 41–* Asst, California, 25–27. A.A; Soc. Bact; Pub. Health Asn; Inst. Food Technol. General and food bacteriology.

Williams, Dr. Paul H(umbert), 2215 Channing Way, Berkeley, Calif. *Organic chemistry.* Frederick, Md, Aug. 17, 14. A.B, California, 37; M.S, Pa. State Col, 39, Ph.D, 41. *Research chemist, Shell Develop. Co, 41–* Chem. Soc. Cyclobutane series of compounds; molecular rearrangements.

Williams, Dr. Pauline, 1100 West Franklin St, Richmond, Va. *Ophthalmology, Pathology.* Richmond, Va, June 18, 88. M.D, Med. Col. of Va, 24. Assoc. path, *Med. Col. of Va,* 24–25, asst. prof, 25–26, assoc. prof, 27–36, dean women, 26–40, *asst. ophthal, 32–; practising ophthalmologist.* Assoc. prof, Westhampton Col. for Women, Richmond, 24–26. Staff, Med. Col. of Va, St. Philip and Dooley Hosps, 24– Fel. Col. Physicians; Am. Med. Asn; South. Med. Asn; Women Physicians South. Med. Asn. (past pres); Am. Med. Women's Asn. (exec. councilor); Va. Acad; Richmond Acad. Med. Surgical and autopsy pathology; eye pathology; complete bilateral duplication of ureters; amebic abscess of the liver; true hermaphroditism.

Williams, Dr. P(hilip) S(idney), Carter Oil Co, Tulsa, Okla. *Physics, Geophysics.* Abington, Va, June 15, 08. B.S, Col. of William and Mary, 30; M.S, Washington (St. Louis), 32, fellow, 32–34, Ph.D, 34. Asst. physics, Washington (St. Louis), 30–32, research assoc, sch. med, 34–35; research geophysicist, *Carter Oil Co,* 35–37, *chief geophys. research, 37–* Soc. Explor. Geophys; Physical Soc. Diffuse scattering of x-rays from crystals; spectrographic analysis of biological materials; research and development in geophysical exploration for petroleum.

Williams, Dr. Robert C(ase), 1492 Roxbury Road, Columbus, Ohio. *Chemistry.* Wooster, Ohio, Oct. 12, 03. A.B, Oberlin Col, 25, A.M, 27; Royal Victor fellow, Stanford, 27–29, Ph.D, 29. Asst, Oberlin Col, 25–27; research chemist, Firestone Tire and Rubber Co, Akron, 29–31; Battelle Mem. Inst, 31–32; *chief chemist, Ironsides Co, 32–, director, 38–* Summers, research chemist, Ohio Exp. Sta, 27–28. Chem. Soc; Wire Asn. Fungicides; catalysis; electrokinetic phenomena; soaps; colloidal electrolytes; lubrication; industrial emulsion; electrodeposition; synthetic resins; wire insulation.

Williams, Robert E(dwin), Westinghouse Electric and Mfg. Co, Room 2006, 306 Fourth Ave, Pittsburgh, Pa. *Science writing.* Mulberry, Ind, March 6, 12. B.S, Purdue, 34. Mem. staff, Gibbs and Cox, New York, 35–36; asst. ed, 'Elec. Eng,' Am. Inst. Elec. Engineers, 36–39; ed. service, *Westinghouse Elec. and Mfg. Co,* 39–41, *in charge research publicity, 41–* Physical Soc. Physics; chemistry; science educational writing and research publicity.

Williams, Prof. Robert H(aworth), University of Miami, Coral Gables, Fla. *Plant physiology.* Seattle, Wash, March 31, 14. B.S, Washington (Seattle), 35, M.S, 40; Ph.D, Cornell, 41. Teaching fellow, Washington (Seattle), 35–36; asst. *bot, Cornell,* 36–38, instr, 38–41, *asst. prof, 41–* Summers, teaching fellow, oceanog. labs, Washington (Seattle), 36–41. Bot. Soc; Soc. Plant Physiol. Taxonomy and physiology of the marine algae of Florida.

Williams, (Robert Perry) Dean, 219 Park Ave, Ridgway, Pa. *Chemical engineering.* Reynoldsville, Pa, July 11, 91. B.S, Pa. State Col, 15. Chemist and supt, Clawson Chem. Co, 15–21; chemist, Elk Tanning Co, 21–36, asst. chief chemist, 36–39; *chief chemist, U. S. Leather Co, 40–* Am. mem. advisory cmt, Procter Int. Research Lab, Leeds, 39. Leather Chem. Asn. (assoc. ed, 'Jour,' 23–36, ed, 36–; councilor, 40–42; v. pres, 42–); Chem. Soc; Int. Vereines Leder Indust. Chem; Int. Soc. Leather Trades Chemists. Effect of interfacial tension between oils and leather on oiling of leather; selective combination of sulfited quebracho constituents with hide; factors affecting relative yields of sulfite compounds in bisulfited quebracho extract.

Williams, Dr. Robert R, 297 Summit Ave, Summit, N. J. **⁶Chemistry.* Nellore, India, Feb. 16, 86. B.S, Chicago, 07, M.S, 08; hon. D.Sc, Ottawa, 35, Ohio Wesleyan, 38, Chicago, 41. Research chemist, Bur. Science, P. I, 08–15; bur. chem, U. S. Dept. Agr, 15–18; chemist, West. Elec. Co, New York, 19–24; *chem. director, Bell Tel. Labs, New York, 25–* Chemist, Melco Chem. Co, Bayonne, N. J, 19; research assoc, Teachers Col, Columbia, 25–35. Chairman cmt. cereals, food and nutrition board, Nat. Research Council. Willard Gibbs medal, Am. Chem. Soc, 38; Elliott Cresson medal, Franklin Inst, 40; Mod. Pioneer award, Nat. Asn. Mfrs, 40; annual award, Asn. Grocery Mfrs, 41; Chandler medal, Columbia, 42; John Scott medal, City of Phila, 42. Research chemist, C.W.S, and A.S, U.S.A, 18. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Soc. Test. Mat; Inst. Nutrition. Constitution and synthesis of vitamin B_1; submarine insulation; textile insulation; industrial research management; vitamin B_1 and its use in medicine.

Williams, Prof. R(obert) S(eaton), Massachusetts Institute of Technology, Cambridge Mass. *Chemistry, Metallography.* Hartford, Conn, July 11, 80. B.S, Mass. Inst. Tech, 02; Ph.D, Göttingen, 07. Asst. anal. chem, *Mass. Inst. Tech,* 02–05, instr, 07–12, asst. prof, 12–17, assoc. prof, 17–24, *prof,* 24–27, *physical metal, 27–, head dept. metal, 37–, deputy dean eng,* 42– A.A; Soc. Test. Mat; Min. and Metal. Eng. (chairman, Boston sect, 36); Soc. Metals; Foundrymen's Asn; Am. Acad. Physical metallurgy.

Williams, R(obert) S(tatham), 1786 Humboldt Ave, S, Minneapolis, Minn. *Bryology.* Minneapolis, Minn, May 6, 59. Research assoc. bryology, N. Y. Bot. Garden; *retired.* Mosses.

Williams, Dr. Robley C(ook), University of Michigan, Ann Arbor, Mich. *Astronomy, Physics.* Santa Rosa, Calif, Oct. 13, 08. A.B, Cornell, 31, Ph.D, 35. Asst. physics, Cornell, 29–35; instr. *astron, observatory, Michigan,* 35–40, *asst. prof, 40–* Mem. staff, Nat. Defense Research Cmt, 41–42. Trustee, Telluride Asn. Physical Soc; Astron. Soc. Atomic spectra; evaporation of metallic films; ultra-violet stellar spectra; stellar temperatures.

Williams, Roger, Nemours Bldg, Wilmington, Del. *Chemistry, Chemical engineering.* Pottsville, Pa, July 27, 90. Nebraska; B.S, Mass. Inst. Tech, 14; hon. Sc.D, West Virginia, 38. Research chemist, Nitrogen Products Co, 16–18; *E. I. du Pont de Nemours and Co,* 18–24, chem. director ammonia dept, 24–42, *asst. gen. manager explosives dept, 42–* Chem. Soc; Chem. Eng; Soc. Chem. Indust. Nitrogen fixation; hydrogen production; pressure catalytic synthesis of organic compounds.

Williams, Prof. Roger J(ohn), 303 Moore Blvd, Austin, Texas. **⁶Chemistry.* Ootacumund, India, Aug. 14, 93. B.S, Redlands, 14, hon. Sc.D, 34; M.S, Chicago, 18, Ph.D, 19; hon. Sc.D, Columbia, 42. Research chemist, Fleischmann Co, Chicago, 19–20; asst. prof. *chem,* Oregon, 20–21, assoc. prof, 21–29, *prof,* 29–32; Oregon State Col, 32–39; *Texas, 39–, director biochem. inst, 40–* Biochemist in charge biochem. div, M. D. Anderson Hosp, Houston, Texas, 42– Mead Johnson award, Am. Inst. Nutrition, 41; Chandler medal, Columbia, 42. A.A; Chem. Soc. (pres, Oregon sect, 25–27, 35; sec'y cent. Texas sect, 40, councilor, 41); Soc. Biol. Chem; Soc. Exp. Biol; Biochem. Soc. London. Yeast nutrilites; folic acid; biotin; avidin; pyridoxin; microbiological assay methods; vitamin content of tissues; vitamin requirements; microchemistry; ionization of alcohols; adsorption of organic ampholytes; pantothenic acid; nutrition of fungi; fractional electrical transport in biochemistry; fungicidal power; organic oxidation equivalent analysis; wood distillate.

Williams, R(oss) A(rthur), Soil Conservation Service, Lincoln, Nebr. *Forestry.* B.S, Montana, 21; M.F, Yale, 23. Forest ranger and forest asst, U. S. Forest Service, 20–23;

assoc. prof. forestry, col. forestry, Syracuse, 23–28, prof, N. Y. State Col. Forestry, 28–36; *chief regional div. forestry, soil conservation service, U. S. Dept. Agr, 36–* Prof, Montana, 29. A.A; Soc. Foresters. Soil conservation; relation of tree species to soil characteristics.

Williams, Dr. Roy G(riffin), University of Pennsylvania, Philadelphia, Pa. *Anatomy.* La Plata, Mo, June 4, 99. A.B, Missouri, 21, A.M, 22; M.D, Harvard, 24. Asst. anat, Missouri, 21–22; Austin teaching fellow, Harvard, 23–24; nat. research fellow, 25–26; instr. *anat, Pennsylvania,* 26–31, asst. prof, 31–37, *assoc. prof, 37–* The development of intrinsic blood vessels of the brain; experimental neurology; distribution and relation of nerve endings; growth and behavior of grafts in the Clark-Sandison chamber; secretory processes in the thyroid gland.

Williams, Prof. Samuel H(oward), 1819 E. Central Ave, Orlando, Fla. *Entomology, Zoology.* Connellsville, Pa, Oct. 17, 93. B.S, Waynesburg Col, 14, M.S, 17, Sc.D, 21; Pittsburgh, 18–23; Breslau, 27–28. Head dept. science, pub. schs, Pa, 14–28; Pa. State Teachers Col, Slippery Rock, 19–23; *prof. zool, Pittsburgh, and assoc. director univ. lake lab, 23–; major, Air Corps, U. S. Army.* Research fellow, N. Y. Zool. Soc, 26–; lecturer, Carnegie Museum, 21–26, 28–30; Linnean Soc. London, 28. Summers, head dept. science, Bethany Col, 16; Grove City Col, 21; marine biol, Jugoslavia, 28. State Conservation Council, Pa, 20–24; State Board Game Commissioners, Pa, 31–34; Pittsburgh Zoo Cmn, 34– Univ. Pittsburgh exped, British Guiana, 25, 27, S. Amer, 26–27, Mex, 24, Dutch Guiana, 32, 34. Entom. Soc; Pa. Acad. (v. pres, 31, pres, 32); Bot. Soc. West. Pa; Deuts. Entom. Gesell. Biology; mammals of Pennsylvania; field zoology; a river dolphin and Coleoptera of Kartabo, Bartica district, British Guiana; animal ecology of Presque Isle, Lake Erie; the living world; field and laboratory guide to biology; outlines of zoology; the mammalian fauna of Pennsylvania; prionid beetles at Kartabo.

Williams, Prof. S(amuel) R(obinson), Amherst College, Amherst, Mass. **3*Physics.* Marengo, Iowa, March 2, 79. Ph.B, Grinnell Col, hon. Sc.D, 28; A.M, Nebraska, 03; Berlin, 03–05; Ph.D, Columbia, 06; hon. Sc.D, Oberlin Col, 40; hon. A.M, Amherst Col, 34. Private asst. to Prof. E. F. Nichols, 05–06; lecturer *physics,* Barnard Col, Columbia, 06–07, tutor, 07–08; assoc. prof, Oberlin Col, 08–10, *prof,* 10–24; *Amherst Col, 24–* A.A; Physical Soc; Soc. Metals. Magnetism; optics.

Williams, Dean Samuel Watkins, 829 College Ave, Batesville, Ark. *Mathematics.* Near Owensboro, Ky, Aug. 15, 78. A.B, B.E, Vanderbilt, 08; A.M, George Peabody Col, 28. Teacher, Hawkins Sch. for Boys, Tenn, 08–18; head master, Williams Sch. for Boys, Tenn, 18–22; prin, Peoples-Tucker Sch, Tenn, 22–24; *prof. math, Ark. Col, 24–, dean, 29–* The trend in mathematical requirements for the bachelor's degree.

Williams, Dr. Simon, National Cotton Council of America, Memphis, Tenn. *Forestry.* New York, N. Y, Aug. 19, 13. B.S, N. Y. State Col. Forestry, 35, Ph.D, 39; M.F, Washington (Seattle), 36. Research technologist and assoc. director cotton research, bur. indust. chem, Texas, 39–43; *director research, Nat. Cotton Council Amer, 43–* Soc. Test. Mat; Chem. Soc; Asn. Textile Chem. and Colorists. Development of new and expanded uses for cotton lint; wood and fiber technology.

Williams, Dr. Stanley B(urdg), Brown University, Providence, R. I. *Psychology.* Superior, Wis, July 10, 13. A.B, California at Los Angeles, 34, A.M, 37; Ph.D, Yale, 40. Asst, inst. human relations, Yale, 37–40; instr. psychol, Maine, 40–42; Brown, 42–43; *ensign, U. S. Naval Res, 43–* Assoc. Psychol. Asn; East. Psychol. Asn. Human and animal learning and conditioning.

Williams, Dr. S(tephen) Culver, University of Pennsylvania School of Medicine, Philadelphia, Pa. *Embryology.* Seymour, Conn, June 15, 01. B.S, Wesleyan, 22; Sterling fellow, Yale, 26–27, Ph.D, 27. Asst. zool, Yale, 22–26; instr. embryol. and histol, Brown, 27–28; *anat, sch. med, Pennsylvania,* 28–33, assoc, 33–37, *asst. prof, 37–* A.A; Physiol. Soc. Phila. Experimental embryology; regeneration of peripheral nerves; growth of nerves.

Williams, Prof. S(tephen) R(iggs), Miami University, Oxford, Ohio. *Zoology.* Kalgan, N. China, Aug. 22, 70. A.B, Oberlin Col, 92, A.M, 93; A.M, Harvard, 98, Ph.D, 00. Teacher, high sch, Ohio, 94–96; asst. *zool,* Harvard, 98–00; prof, *Miami (Ohio),* 00–40, *emer. prof, 40–* Summers, mem. staff, lake lab, Ohio State, 13–34. Bowdoin prize, 99; Walker prize, Boston Soc. Nat. Hist, 03. A.A; Soc. Zool; Ohio Acad. (pres, 40). Life history of Scutigerella; myriapods.

Williams, Dr. T(homas) H(enry), 223 Winchester St, St. James, Winnipeg, Man, Can. *Parasitology.* Escanaba, Mich, April 8, 88. M.D, Manitoba, 16; D.T.M. and H, London, 34. Supt, Gen. Hosp, Chungchow, China, 19–24; Luchow, 26–27; Lungchingtsun, 27–28; fellow parasitol, Peking Union Med. Col, 28; head dept. path, West China Union Univ, 28–42; *lecturer parasitology, col. med, Manitoba, 42–* Capt, C.A.M.C, 17–19. Lecturer, Nat. Cent. Med. Col, China, 39–42. Royal Soc. Trop. Med. Human pathology and parasitology.

Williams, Dr. T(homas) Leigh, E. I. du Pont de Nemours and Co, New York, N. Y. *Chemistry.* Richmond, Va, Nov. 15, 02. B.S, Virginia, 24, M.S, 26; Ph.D, Hopkins, 28. *Research chemist,* exp. sta, *E. I. du Pont de Nemours and Co,* 28–37, rayon dept, 37–41, *dept. tech. sales, 41–; adviser textile research, Office Quartermaster Gen, 43–* Chem. Soc. Coating compositions; synthetic textiles.

Williams, Dr. T(homas) Walley, Jr, University of Pittsburgh, Pittsburgh, Pa. *Biology.* Ventnor, N. J, Nov. 28, 09. B.S, Pittsburgh, 34, M.S, 36, Ph.D, 39. Asst. zool, *Pittsburgh,* 31–38, *instr. biol, 39–* A.A; Pa. Acad. Comparative and mammalian anatomy; anatomy of the skeletal systems of some urodele amphibians; technics for the differential staining of bone and cartilage; a technic for making permanent demonstrations of peripheral nerves and nerve endings.

Williams, Dr. Van Zandt, American Cyanamid Co, Stamford, Conn. *Physics.* Providence, R. I, March 29, 16. A.B, Brown, 37; Ph.D, Princeton, 41. *Research physicist, Am. Cyanamid Co, 41–* Infrared spectroscopy.

Williams, Prof. Walter J(efferson), Baylor University, Waco, Texas. *Astrophysics.* Christoval, Texas, Nov. 27, 00. A.B, Baylor, 22, A.M, 24; Ph.D, Michigan, 30. Instr. math, Baylor, 22–28; astron, Michigan, 28–30; assoc. prof. *math, Baylor,* 30–32, *prof, 32–* A.A; Astron. Soc; Math. Soc; Texas Acad. Spectra of stars of class Be; spectrography and photometry of the spectrum of Cygni; periodic orbits.

Williams, Prof. W(alter) L(ong), Cornell University, Ithaca, N. Y. *Veterinary science.* Argenta, Ill, Feb. 26, 56. Illinois, 75–77; grad, Montreal Vet. Col, 79. Practising veterinarian, 79–91; prof. vet. science, Purdue, 91–93; Mont. State Col, 93–96; vet. surg. and obstet, *Cornell,* 96–16, research prof. *diseases of breeding cattle,* 16–21, *emer. prof, 21–* Veterinary obstetrics; diseases of the genital organs of domestic animals.

Williams, W(illiam) H(ill), State Teachers College, Platteville, Wis. *Mathematics.* Kingsbury, N. Y, Nov. 6, 61. A.B, Williams Col, 84, A.M, 87; Göttingen and Erlangen, 92–94. Prin, acad, Port Byron, Ill, 85–87; master *math,* Lake Forest Acad, 87–97; instr, State Teachers Col, Platteville, 97–39, v. pres, 25–39. Math. Soc. Relations between the minors of the Bezout-Sylvester determinants; algebra for high school.

Williams, Prof. William Howell, 2820 Garber St, Berkeley, Calif. *Physics.* Lancaster, N. Y, Feb. 6, 81. Grad, U. S. Mil. Acad, 02; California; Göttingen. Assoc. prof. *physics, California,* 22–28, *prof, 28–; col, U. S. Army, 42–* Col, F.A, 18–19. Physical Soc. Theoretical physics; quantum theory.

Williams, Dr. W(illiam) Lane, Louisiana State University School of Medicine, New Orleans, La. *Anatomy.* Rock Hill, S. C, Dec. 23, 14. B.S, Wofford Col, 35; A.M, Duke, 39; univ. scholar, Yale, 40–41, Ph.D, 41. Asst. anat, sch. med, Yale, 40–41; instr, sch. med. and dentistry, Rochester, 41–42; Int. Cancer Research Foundation fellow and instr. *anat, sch. med,* Yale, 42–43; *asst. prof, Louisiana, 43–* Asn. Cancer Research; Asn. Anat; Asn. Study Int. Secretions. Physiology of reproduction; experimental neoplasia.

Williams, Prof. W(illiam) L(loyd) G(arrison), McGill University, Montreal, Que, Can. *Mathematics.* Friendship, Kans, Oct. 3, 88. A.B, Haverford Col, 10; B.A, Oxford, 13, M.A, 16; Ph.D, Chicago, 20. Asst. prof. *math,* Miami (Ohio), 13–18; acting prof, Gettysburg Col, 18–19; prof, Col. of William and Mary, 19–20; instr. and asst. prof, Cornell, 20–24; asst. prof. and assoc. prof, *McGill,* 24–34, *prof, 34–* Summers, visiting prof, Chicago, 26; Pennsylvania, 30. Math. Soc. (councilor, 27–30); fel. Royal Soc. Can. Algebra and theory of numbers.

Williams, Dr. W(illiam) W(aldo), 148 Corona Road, Rochester, N. Y. *Organic chemistry.* East Bend, N. C, Nov.

9, 06. B.S, Guilford Col, 28; fellow, North Carolina, 28–30, M.S, 30, fellow, 33–36, Ph.D, 36. Instr. gen. chem. and qualitative anal, Lehigh, 30–33; *research div, Eastman Kodak Co, 36–* Summer, instr, Guilford Col, 28. Chem. Soc. Dithioacids; aliphatic sulfonic acids.

Williams, Prof. W(yman) L(oren), 213 King St, Columbia, S. C. *Mathematics.* Norway, S. C, April 3, 02. B.S, South Carolina, 23, A.M, 24; Ph.D, Chicago, 36. Asst. prof. *math, South Carolina,* 24–31, assoc. prof, 31–38, *prof, 38–, head dept, 42–* Math. Soc; Math. Asn; S. C. Acad. Applied mathematics; celestial mechanics.

Williams, Prof. W(ynant) J(ames), 40 Norwood Ave, Albany, N. Y. *Electrical engineering.* Port Dover, Ont, Can, March 9, 84. C.E, Rensselaer Polytech, 05. Assoc. prof. *elec. eng, Rensselaer Polytech,* 05–34, prof, 34–40, *head dept, 40–; consulting elec. engineer.* A.A; Elec. Eng; Nat. Soc. Professional Eng; N. Y. State Soc. Professional Eng; Soc. Eng. East. N. Y. Coordination of power and telephone circuits; radio communication.

Williamson, Dr. Arthur T(andy), 18 Walnut Lane, Hartford, Cheshire, Eng. *Chemistry.* Kingston, Ont, Can, Sept. 18, 06. B.A, Queen's (Can), 27, M.A, 28; A.M, Princeton, 29, du Pont fellow, 29–30, Procter fellow, 30–31, Ph.D, 31. Research assoc. chem, Princeton, 31–32; nat. research fellow, Harvard, 32–33; int. research fellow, Oxford, 33–34; *research chemist, Imp. Chem. Industries, 34–, asst. sect. manager alkali group research dept, 41–* Catalysis and reaction kinetics; physical chemistry of solutions; thermodynamics.

Williamson, Cha(rle)s (Oliver), 31 Roxbury Road, Pittsburgh 21, Pa. *Physics.* London, Eng, Oct. 18, 91. A.B, Lafayette Col, 12; McGill, 12–13; Macdonald Col, 13–14; N. Y. Inst. Musical Art, 20; M.S, Pittsburgh, 34. *Asst. prof. physics, Carnegie Inst. Tech, 20–* U.S.A, 17–20, 2nd lieut. Asn. Physics Teachers. Vacuum tube circuits; acoustics of music.

Williamson, Prof. C(harles) O(wen), 1141 Beall Ave, Wooster, Ohio. *Mathematics.* Lancaster, Ohio, Oct. 3, 87. B.S, Ohio (Athens), 10, M.S, 12; Yale, 16–18; Ph.D, Chicago, 28. Instr, Ohio (Athens), 11–16; West. State Nor. Sch, Mich, 18–19; from instr. to *prof. applied math, Col. of Wooster, 19–* A.A; Math. Soc; Math. Asn; Astron. Soc; Nat. Soc. Professional Eng; Ohio Soc. Professional Eng. Applied mathematics; the stability of an airplane with rotating propeller.

Williamson, Prof. Charles S(amuel), Jr, Tulane University, New Orleans, La. *Chemical engineering.* Culeoka, Tenn, Aug. 7, 79. B.S, Vanderbilt, 02, M.S, 03. *Prof. chem. eng. and head sch. chem. eng, Tulane, 13–* Chem. Eng; Chem. Soc; Inst. Chem; La. Eng. Soc.

Williamson, Prof. Edmund G, University of Minnesota, Minneapolis, Minn. *Psychology.* Rossville, Ill, Aug. 14, 00. A.B, Illinois, 25; Ph.D, Minnesota, 31. Asst. *psychol, Minnesota,* 26–29, asst. prof, 30–38, assoc. prof. and later *prof, 38–,* director univ. testing bur, 32–38, coordinator student personnel services, 38–41, *dean students, 41–* Consultant teacher personnel problems and student personnel cmt, Am. Council on Educ; chairman advisory cmt, Armed Forces Institute, U. S. Army and Navy. Col. Personnel Asn. (pres, 41–); Psychol. Asn; Asn. Applied Psychol. Student personnel; psychological testing; prediction of college scholarship; evaluation of college counseling.

Williamson, Prof. Hervey Clock, 175 E. 79th St, New York, N. Y. *Obstetrics, Gynecology.* Islip, L. I, N. Y, June 9, 87. M.D, N. Y. Univ, 08. Instr. obstet, *med. col, Cornell,* 17–27, asst. prof. obstet. and gynec, 27–32, asst. clin. prof, 32–41, *assoc. prof. clin. obstet. and gynec, 41–* Visiting obstetrician and gynecologist, N. Y. Hosp; consulting obstetrician, Bellevue Hosp; New York Infirmary for Women and Children; St. Francis Hosp, Port Jervis; Margaret Hague Maternity Hosp, Jersey City; assoc. attending surgeon obstet. and gynec, French Hosp. Am. Board Obstet. and Gynec; Am. Med. Asn; Col. Surg; N. Y. Obstet. Soc; N. Y. Acad. Med.

Williamson, Dr. J(ohn), 35–40 170th St, Flushing, N. Y. *Mathematics.* Kinross, Scotland, May 23, 01. M.A, Edinburgh, 22, D.Sc, 30; Commonwealth Fund fellow, Chicago, 25–27, Ph.D, 27. Asst. *math,* Univ. St. Andrews, 22–25, lecturer, 27–28; assoc, Hopkins, 28–41; *assoc. prof, Queens Col. (N. Y), 41–* Math. Soc; Math. Asn. (sec'y, Md-D.C. sect, 34–36, chairman, 36); London Math. Soc; Edinburgh Math. Soc; fel. Royal Soc. Edinburgh. Algebraic invariants and matrices.

Williamson, Prof. Robert C(rozier), University of Florida, Gainesville, Fla. *Physics.* Havana, Ill, 87. Ph.D, Wisconsin. Asst. prof. *physics,* Wisconsin, 23–28, assoc. prof, 28–30; *prof, Florida, 30–* A.A. Photoelectric effect in potassium vapor; Raman effect.

Williamson, Dr. Robert V(ernon), U. S. Department of Agriculture, Peoria, Ill. *Chemistry.* Wells, Oregon, Sept. 10, 86. B.S, Oregon State Col; M.S, Ph.D, Wisconsin, 23. Chemist, State Dairy and Food Cmn, Oregon, 09–11; Puget Sound Navy Yard, 11–13; instr, Wisconsin, 19–23; research chemist, E. I. du Pont de Nemours and Co, 23–30; asst. director org. chem. research, A. O. Smith Corp, Milwaukee, 30–32; director research, McCloud River Lumber Co, 32–39; *head plastics and bldg. materials sect, north. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 41–* Asst. ed, 'Jour. Rheol,' 29–32. Capt, C.W.S, 17–19. Chem. Soc. (v. chairman, Milwaukee sect, 32–). Photochemistry; absorption of gases; relation of plasticity to structure and physical properties of colloidal solutions and suspensions; chemical and physical properties of wood; plastics and building materials from agricultural residues.

Willier, Prof. B(enjamin) H(arrison), Johns Hopkins University, Baltimore, Md. *[5]Zoology, Embryology.* Weston, Ohio, Nov. 2, 90. B.S, Col. of Wooster, 15, Sc.D, 41; Ph.D, Chicago, 20. Instr. biol, Col. of Wooster, 15–16; assoc. *zool,* Chicago, 19–20, instr, 20–24, asst. prof, 24–27, assoc. prof, 27–31, prof, 31–33; prof. and chairman div. biol. sciences, Rochester, 33–40; *prof. biol. and chairman dept, Hopkins, 40–* Instr, Marine Biol. Lab, 23–26, trustee, 33– Assoc. ed, 'Jour. Morphol,' 32–34; 'Jour. Physiol. Zool'; ed. board, 'Growth,' 40–; ed, 'Quart. Rev. Biol,' 41– A.A; Soc. Nat; Soc. Zool. (treas, 33–36); Asn. Anat; Soc. Growth; Genetics Soc; Asn. Study Int. Secretions; Soc. Exp. Biol; L. I. Biol. Asn. (director). Histo-chemical study of intracellular digestion; sex glands of the freemartin; physiology of the development of early chick blastoderm; embryonic sex differentiation; feather color pattern.

Willihnganz, Dr. Eugene (Adrian), National Lead Co, 109 York St, Brooklyn, N. Y. *Organic and physical chemistry.* Beaver Dam, Wis, March 24, 03. B.S, Notre Dame, 24, M.S, 25; fellow, Pa. State Col, 30–32, Ph.D, 34. *Research chemist,* Calco Chem. Co, 25–28; *Nat. Lead Co, 35–* Chem. Soc. Viscosity of lubricating oils; measurement of low temperatures; storage batteries.

Willis, Prof. Bailey, Stanford University, Calif. *[1]Geology.* Cornwall, N. Y, May 31, 57. M.E, Columbia, 78, C.E, 79; hon. Ph.D, Berlin, 10. Special agent, 10th census, 79–81; geologist, North. Transcontinental Surv, 81–84; U. S. Geol. Surv, 84–16; consulting geologist, Argentine ministry pub. works, 11–14; prof. *geol, Stanford,* 15–22, *emer. prof, 22–; research assoc, Carnegie Institution, 27–* Lecturer, Hopkins, 95–02; Chicago, 09–; official positions, U. S. Geol. Surv. Geol. explor, Carnegie Institution, east. Asia, 03–04, earthquake studies, Chile, 23, Orient, Mediterranean and Africa, 26–38. Gold medal, Soc. géog. de France, 10; Commander, Order of Ludwig II, 33; Belgian Legion of Honor, 36. U. S. del, Int. Cmt. on Int. Map, London, 09; chief Latin Am. div, Col. House Inquiry, 18. Nat. Acad; A.A. (v. pres, E, 08, pres, Pacific div, 35); Geol. Soc. (pres, 28); Seismol. Soc. (pres, 21–27); Asn. Geog; Min. and Metal. Eng; Philos. Soc; Am. Acad; Geol. Soc. Wash; Wash. Acad. (sec'y, 10); for. mem. Geol. Soc. London; hon. mem. Royal Geog. Soc. London; Berlin Gesell. für Erdkunde; hon. mem. Munich Wissensch. Gesell; hon. mem. Soc. géol. de Belge. Stratigraphic and structural geology and physiography; the growth of mountains and continents; stratigraphy and physiography of North America, Europe, Africa and Asia as a record of continental development; comparative seismology; terrestrial dynamics.

Willis, Prof. C(lodius) H(arris), 128 Fitz Randolph Ave, Princeton, N. J. *Electrical engineering.* Culpeper, Va, Aug. 5, 93. A.B, Richmond, 14; B.S, Hopkins, 16, Ph.D, 26. Prof. applied physics, Richmond, 24; assoc. prof. *elec. eng, Princeton,* 28–37, prof, 37–38, *Arthur La Grand Doty prof, 38–* A.A; Eng. Educ; Elec. Eng; Physical Soc. Application of thermionic tubes to power equipment.

Willis, H. Hugh, Sperry Gyroscope Co, Inc, Manhattan Bridge Plaza, Brooklyn, N. Y. *Aeronautics.* Marengo, Iowa, Dec. 18, 03. A.B, Oberlin Col, 25; Columbia, 26–31. Research director, *Sperry Gyroscope Co, Inc* 31–41, chief research

director, 42–43, *gen. sales manager, 42–* Physical Soc; Inst. Aeronaut. Sci. Aeronautical, marine and military instruments.

Willis, Dr. H(enry) S(tuart), Wm. H. Maybury Sanatorium, Northville, Mich. *Internal medicine, Pathology.* High Point, N. C, July 19, 91. A.B, North Carolina, 14; M.D, Hopkins, 19, A.M, 20. Asst. med, Hopkins, 19–20, instr, 20–22, assoc, 22–28, clin. med, 28–29, lecturer, univ. and sch. hygiene and pub. health, and in charge Dows Tuber. Lab, 29–30; pathologist, Dept. Health, Detroit, 30–33; *supt. and med. director, Wm. H. Maybury Sanatorium, 33–* Dispensary physician, Hopkins Hosp, 22–30. Summers, lecturer, Louisiana, 25; Kansas, 28. Asn. Path. and Bact; Soc. Clin. Invest; Tuber. Asn; Pub. Health Asn; Trudeau Soc; Clin. and Climat. Asn; Soc. Exp. Biol; Miss. Valley Trudeau Soc; Mich. Acad. Tuberculosis infection and immunity; clinical, pathological and experimental tuberculosis; pneumonoconiosis; hospital administration.

Willis, John E(dwin), 3544 T St, N.W, Washington, D. C. *Astronomy.* Baltimore, Md, Feb. 6, 01. Syracuse, 19; George Washington, 23. Computer, *U. S. Naval Observatory,* 20–24, junior astronomer, 24–27, asst. astronomer, 27–28, assoc. astronomer, 28–29, *astronomer, 29–* Longitude exped, San Diego, 33; Nat. Geog. Soc-U. S. Navy eclipse exped, 37. Astron. Soc; Geophys. Union. Economics; physics; astronomical instruments, methods, tables, orbits and observations for positions; longitude determinations, radio and time service; refraction; latitude, time and astronomical constants with the photographic zenith tube and reflex altozimuth instrument; forty-inch Ritchey-Chrétien telescope; navigational and field instruments.

Willis, L(uther) G(eorge), North Carolina State College Experiment Station, Wilmington, N. C. *Soil chemistry.* South Walpole, Mass, Dec. 19, 86. B.S, Mass. Col, 09; M.S, N. C. State Col, 27. Asst. chemist, Exp. Sta, Pa. State Col, 10–12; Tennessee, 12–18; chemist, P. R. Exp. Sta, Puerto Rico, 18–22; soil chemist, *Exp. Sta, N. C. State Col,* 22–39, *director in charge soil research lab, 39–* Chilean Nitrate of Soda research award, 29, 36. A.A; Chem. Soc. (director, fertilizer div, 28–, chairman, N. C. sect, 28, councilor, 30); Soc. Agron. (chairman, cmt. on acidity and basicity of fertilizers, 35); South. Agr. Workers. Soil fertility.

Willis, Prof. W(illiam) Hillman, Louisiana State University, University, La. *Soil bacteriology.* Trenton, Tenn, Oct. 28, 08. A.B, Union (Tenn), 30; M.S, Iowa State Col, 31, Ph.D, 33. Asst. soil technologist, soil conservation service, U. S. Dept. Agr, 34–38, assoc. soil scientist, flood control surveys, 38–42; *assoc. prof. agron, Louisiana, and assoc. agronomist, Exp. Sta, 42–* Anaerobic nitrogen fixation.

Willison, Prof. Frances E(velin), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Bacteriology.* Middleville, Mich, July 18, 99. A.B, Michigan, 21, Ph.D, 43; A.M, Columbia, 28. Bacteriologist, Receiving Hosp, Detroit, 22–24; director lab, Mem. Hosp, Sault Ste. Marie, Mich, 25–27; *Okla. Agr. and Mech. Col, 28–,* asst. prof. *bacter,* 30–41, *assoc. prof, 41–* The invitro effect of vitamin C on the toxic and antigenic properties of diphtheria toxin.

Williston, Arthur L(yman), 986 High St, Dedham, Mass. *Engineering, Education.* Cambridge, Mass, Oct. 11, 68. B.S, Mass. Inst. Tech, 89, 90. Asst. to chief engineer, railroad construction and in charge bridges, Cleveland, Cincinnati, Chicago and St. Louis Ry, 90–91; instr. steam eng, Mass. Inst. Tech, 91–92; power plant and mill engineer, Lockwood, Greene and Co, Boston, 92–93; prof. applied mech. and machine design and director dept. indust. arts, Ohio State, 93–98, sec'y col. eng, 95–98; director sch. science and tech, Pratt Inst, 93–10; prin, Wentworth Inst, Boston, 10–24; director, Educ. and Indust. Surv, Norwood, Mass, 24–26; asst. to director, Am. Council on Educ, Wash, D. C, 28–33. Mem, Hawkes cmt. personnel research, Am. Council Educ, 29–33. Mem. advisory cmt. experts, Carnegie Tech. Schs, Pittsburgh, Pa, 01–03; educ. expert, Reed Col; sch. cmt, Boston, Mass; Wentworth Inst; Ohio Mech. Inst. Am. del, World Federation Educ, Edinburgh, 24; World Conf. Adult Educ, Copenhagen, 25. Educ. director New Eng. cmt. on educ. and special training, War Dept, 18–19, organizer and director for Surg. Gen, Boston Sch. Occupational Therapy, 18–19. A.A; Mech. Eng. (chairman, cmt. on library, meetings and publications, pres, Boston sect, 16); Eng. Educ. (councilor, 00–03, 04–07, sec'y, 07–09, v. pres, 09).

Willits, Dr. C(harles) O(liver), Station Road, North Hills, Pa. *Analytical chemistry.* Groton, S. Dak, Nov. 12, 01. B.S, Huron Col, 24; M.S, Cornell, 26, Ph.D, 33. Asst. chem, Cornell, 24–26, 29–33; prof, Westminster Col. (Utah), 26–29; instr. chem. and asst. research, N. Y. Exp. Sta, Geneva, 33–38, asst. prof. chem. and assoc. research, 38–40; assoc. chemist, *bur. agr. and indust. chem, U. S. Dept. Agr,* 40–42, chemist, 42–43, *senior chemist, 43–* Chem. Soc. Analytical reagents; maple products; cereals; animal feeds; agricultural chemical analysis; analysis of rubber bearing plants and their derived products.

Willits, Dr. John M(etts), 460 W. 24th St, New York, N. Y. *Personnel psychology.* Alma, Nebr, May 14, 02. A.B, Stanford, 25, Ph.D, 36. Statist. asst, Pacific Tel. and Tel. Co, 26; market research specialist, Owl Drug Co, 28; instr. psychol, Stanford, 30–34; mem. research dept, State Chamber of Commerce, Calif, 35–36; research assoc, Life Ins. Sales Research Bur, 36–40; *mem. field training div, Metrop. Life Ins. Co, 40–* Research assoc, Commonwealth Club of Calif, 35. Psychol. Asn; fel. Asn. Applied Psychol; East. Psychol. Asn. Sales personnel; sales management.

Willits, Dr. Joseph H(enry), Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Industrial economics.* Ward, Pa, June 16, 89. B.S, Swarthmore Col, 11, A.M, 12, LL.D, 37; Ph.D, Pennsylvania, 16, LL.D, 39. Pennsylvania, 12–39, prof. indust, Wharton Sch, director indust. research dept, 21–39, dean, 33–39; *director social sciences, Rockefeller Foundation, 39–* Wertheim lecturer, Harvard, 28. Mem, U. S. Coal Cmn, 23–24; indust. board, State Dept. Labor and Indust, Pa, 25; President's Emergency Cmt. for Employment, 30–31; chairman advisory cmt, Study of Popul. Redistribution, 34–36; Social Security Cmt, 35–39; pres, Nat. Bur. Econ. Research, 34–36, chairman board and exec. director, 36–39; mem, Pres. Emergency Board Ry. Wages, 41. Employment supt, Naval Aircraft Factory, 18–19. Econ. Asn; Soc. Adv. Management; Statist. Asn; Polit. Sci. Asn; Management Asn. Industrial relations in the coal industry; labor; unemployment.

Willius, Dr. F(redrick) A(rthur), Mayo Clinic, Rochester, Minn. *Medicine.* St. Paul, Minn, Nov. 24, 88. B.S, Minnesota, 12, M.D, 14, M.S, 20. *Head sect. cardiol, Mayo Clinic; assoc. prof. med, Mayo Foundation and sch. med, Minnesota.* Am. Med. Asn; Am. Heart Asn; Col. Physicians; Cent. Soc. Clin. Research; Cent. Clin. Research Club; Minn. Heart Asn; Minn. Soc. Int. Med. Diseases of the heart; circulation; electrocardiography.

Willman, Dr. H(arold) B(owen), State Geological Survey, Urbana, Ill. *Geology.* Newcastle, Ind, July 30, 01. A.B, Illinois, 26, A.M, 28, Ph.D, 31. Asst. geol, Illinois, 27–28; asst. geologist, *Ill. Geol. Surv,* 29–30, *assoc. geologist, 31–* Economic geology; non-metallics; stratigraphy.

Willman, Prof. John P(eter), Cornell University, Ithaca, N. Y. *Animal husbandry.* Kane, Pa, Oct. 30, 00. B.S, Pa. State Col, 24; M.S, Kans. State Col, 25; Ph.D, Cornell, 33. Asst. *animal husbandry,* Kans. State Col, 24–25; exten. instr, *Cornell,* 25–29, instr, 29–34, asst. prof, 34–39, assoc. prof, 39–43, *prof, 43–* Soc. Animal Production. Sheep and swine teaching, research and extension work.

Willoughby, Dr. Carl E(dwin), 25 Hillside Road, Claymont, Del. *Chemistry.* Washington, D. C, Dec. 3, 03. B.S, Hopkins, 25, Ph.D, 29. *Research chemist, exp. sta, E. I. du Pont de Nemours and Co, 29–* Chem. Soc. Osmotic pressure of solutions; colloids.

Willoughby, Prof. C(laude) H(ouston), University of Florida, Gainesville, Fla. *Animal husbandry.* Tamaroa, Ill, Jan. 2, 75. B.Agr, Missouri, 01; Cornell, 08; A.M, George Peabody Col, 24; summers, Iowa State Col, 29, 30, Ala. Polytech, 32, 38. Dairyman, Exp. Sta, Georgia, 02–09; supt, Fern Crest Dairy, Ga, 09–11; *prof. animal husbandry, Florida, 12–* Summers, instr, George Peabody Col, 18, 21, 25. Dept. ed, 'South. Ruralist,' 05–19. A.A; Genetic Asn; Dairy Sci. Asn; Agr. Hist. Soc; Ga. Live Stock Asn. (sec'y-treas); Fla. Live Stock Association (sec'y-treas, 13–19). Animal production in semi-tropics.

Willoughby, Dr. Raymond R(oyce), 40 Fountain St, Providence, R. I. *Psychology.* New Haven, Conn, April 20, 96. B.S, Mass. Col, 18; A.M, Stanford, 23, Ph.D, 26. Research assoc. psychol, Clark, 26–36; Brown, 36–40; *director research and statistics, State Dept. Social Welfare, R. I, 40–* Asst. ed, 'Psychol. Abstracts,' 26–30, assoc. ed, 30–40. Psychol. Asn. Personality; social psychology; public welfare; sociology.

Wills, H(arry) M(errill), 257 Michigan Ave, East Lansing, Mich. *Meteorology, Climatology.* Pittsboro, Ind, March 2,

82. B.S, Dubuque, 28; A.M, Mich. State Col, 38. *Meteorologist and director Mich. sect, U. S. Weather Bur.* Lecturer, Mich. State Col. A.A; Meteorol. Soc. Government administration; advances in meteorology.

Wills, Dr. Irvin A(ndrews), John Brown University, Siloam Springs, Ark. *Zoology.* Mendota, Ill, Dec. 21, 04. B.S, Wheaton Col. (Ill), 27; M.S, Iowa, 32, Ph.D, 35. Instr. zool, Valparaiso, 27–29; asst. instr, Iowa, 30, asst, 30–31, 32–34, research assoc, 34–35; *dean academic col. and prof. biol, John Brown Univ, 35–* A.A; Micros. Soc; South. Asn. Sci. and Indust. (exec. cmt, 43); Ark. Acad. (pres, 41). Biology of sex; metabolism in relation to sex determination; endocrinology; non-specificity of pituitary hormone in amphibians.

Wills, Dr. J(ames) H(enry), University of Rochester, Rochester, N. Y. *Pharmacology.* Richmond, Va, Aug. 7, 12. B.S, Va. Polytech, 34; Valentine fellow, Med. Col. of Va, 34–36, M.S, 36; fellow, Rochester, 36–40, Ph.D, 40. Am. Physiol. Soc. Porter fellow, Harvard Med. Sch, 40–41; *assoc. pharmacol, sch. med. and dentistry, Rochester, 41–* A.A; Chem. Soc; Soc. Exp. Biol; Physiol. Soc. Salivary secretion; properties of muscle and of nerve-muscle systems; effects of drugs on blood pressures of hypertensive patients.

Wills, Dr. J(ohn) G(orden), State Office Bldg, Albany, N. Y. *Veterinary science.* Chateaugay, N. Y, April 4, 79. B.S, Vermont, 03; D.V.M, Cornell, 06. 1st asst. veterinarian, *State Dept. Agr, N. Y, 09–11, chief veterinarian, 11–* Vet. Med. Asn. (chairman, sect. sanit. science, 16); U. S. Live Stock Sanit. Asn. (pres, 17); Pub. Health Asn; N. Y. Vet. Med. Asn. (pres, 17); N. Y. Breeders Asn. (sec'y, 25–27); N. Y. Agr. Soc. (treas, 24–33). Bovine tuberculosis; anthrax; rabies; live stock sanitation; bovine abortion; agriculture.

Wills, Dr. John H(aines), 2500 Chestnut St, Chester, Pa. *Chemistry.* Haddonfield, N. J, June 15, 08. A.B, Haverford Col, 31; Ph.D, N. Y. Univ, 35. Asst. chem, N. Y. Univ, 31–35; *chemist, Phila. Quartz Co, Phila, 35–* Chem. Soc. The system sodium sulfate-calcium sulfate-water; the system sodium oxide-silicon dioxide-water.

Wills, Dr. Lawrence A(lfred), 35 Hamilton Place, New York, N. Y. *Physics.* Portland, Oregon, Feb. 16, 08. A.B, Reed Col, 29; Ph.D, N. Y. Univ, 33. Asst. *physics,* N. Y. Univ, 29–33; tutor, *Col. City of N. Y, 33–37, instr, 37–* Hyperfine structure of spectral lines.

Willson, Prof. John M(ilton), Missouri School of Mines, Rolla, Mo. *Physics.* Bucyrus, Mo, June 18, 03. B.S, Mo. Sch. Mines, 29, M.S, 31; Michigan, 30. Instr. *physics, Mo. Sch. Mines,* 31–35, *asst. prof, 36–* Mo. Acad. (chairman physics sect, 41). Utilization of placement examinations in sectioning classes in college physics.

Willson, Dr. Karl S(tuart), 1402 Church St, Marinette, Wis. *Chemistry.* Cleveland, Ohio, June 11, 10. A.B, Western Reserve, 31, A.M, 32, Ph.D, 35. Asst. quantitative anal, Western Reserve, 31–35; *research chemist, Ansul Chem. Co, 35–* Chem. Soc. Rare gas compounds; critical phenomena; phase rule; physical chemistry of refrigerants; chemistry of sulfur dioxide and related materials; fire extinguishing agents.

Willson, Dr. Stuart D, 37 W. Park Place, Stamford, Conn. *Organic chemistry.* Ft. Wayne, Ind, Aug. 15, 07. A.B, Olivet Col. (Mich), 31; Ph.D, Iowa State Col, 41. *Research chemist,* Penick and Ford, 41–42; *Am. Cyanamid Co, 42–* Chem. Soc. Synthetic organic chemistry; organic microchemistry and microanalysis; chemotherapeutic agents.

Wilm, Dr. H(arold) G(ridley), U. S. Forest Service, Ft. Collins, Colo. *Forestry.* Topeka, Kans, May 6, 07. B.S, Colo. Col, 29; M.F, Cornell, 30, Ph.D, 32. Asst. forestry, Cornell, 29–31, instr. forest research, 31–32; field asst, Lake States Forest Exp. Sta, *U. S. Forest Service,* 32, Calif. Forest and Range Exp. Sta, 32–33, forest technician, 33, junior forester, 33–35, asst. forester, 35, assoc. silviculturist, 35–38, *silviculturist, Rocky Mountain Forest and Range Exp. Sta, 38–* Summers, U. S. Forest Service, 27–29. Soc. Foresters; Geophys. Union. Succession and silviculture in burned forest areas; water losses due to transpiration; precipitation measurements on mountain watersheds; measurement of debris laden stream flow; management of forested watershed areas, including studies of stream flow, snow, meteorology, infiltration and related factors.

Wilmore, Dean Jno. (John) J(enkins), Alabama Polytechnic Institute, Auburn, Ala. *Mechanical engineering.* Winchester, Ind, Oct. 15, 64. B.M.E, Purdue, 88, M.E, 91; LL.D, Ala. Polytech, 33. Asst, dept. mech, *Ala. Polytech,* 88–91, instr. mech. eng, 91–94, prof, 94–08, *dean sch. eng. and head prof, 08–* A.A; Mech. Eng; Eng. Educ; Newcomen Soc.

Wilmot, Sydney, 33 W. 39th St, New York, N. Y. *Civil engineering.* Providence, R. I, Dec. 8, 87. B.S, Brown, 09; A.M, Columbia, 13. Govt. and munic. eng. work, 09–16; Turner Construction Co, N. Y, 16–18; asst. prof. eng, Brown, 18–23; tech. ed, *Am. Soc. Civil Eng,* 23–30, *ed. in chief and manager publications, 30–* Civil Eng. Technical editing and publishing.

Wilmoth, Dr. James H(erdman), Brooklyn College, Brooklyn, N. Y. *Biology.* Burchard, Nebr, May 31, 10. B.S, Monmouth Col, 32; M.S, Kans. State Col, 34; fellow, N. Y. Univ, 35–37, Ph.D, 42. Asst. parasitol, Kans. State Col, 33–34; instr. biol, Monmouth Col, 34–35; teaching asst, N. Y. Univ, 37–39; *tutor biol, Brooklyn Col, 39–* Micros. Soc; Soc. Parasitol. Parasitology; physiology and in vitro culture of tapeworms.

Wilsey, Dr. Edward F(ranklin), Ohio University, Athens, Ohio. *Applied mechanics.* Burlington, Iowa, Dec. 28, 00. B.S, Iowa, 22, M.S, 23, Ph.D, 35. Asst. hydraul, Iowa, 22–23; instr. theoret. and applied mech, Illinois, 24–28; assoc. prof. mech. eng, Robert Col, Istanbul, 28–30, prof. physics and head dept, 30–36; asst. engineer, U. S. Bur. Reclamation, 36–38; assoc. prof. civil eng, *Ohio (Athens),* 38–42, *prof. aeronaut. eng, 42–, ground instr. and coordinator, civilian pilot training and supervisor, Athens, Mech. Sch, 38–* Civil Eng. Permeability of sand; flow in steep chutes.

Wilsey, Rex B(ishop), Eastman Kodak Co, Rochester, N. Y. *Physics.* Ravenna, Nebr, July 27, 89. B.S, Nebraska, 13, A.M, 15. *Physicist, Eastman Kodak Co,* 15–18, *19–* Photog. physicist, Bur. Aircraft Production, 18–19. A.A; Physical Soc; Optical Soc. X-rays; x-ray photography; crystal structure; photographic sensitometry.

Wilsie, Prof. C(arroll) P(aton), Iowa State College, Ames, Iowa. *Agronomy, Genetics.* Brandon, Wis, Oct. 13, 02. B.S, Wisconsin, 26; Illinois, 26–27; Nat. Milling Co. fellow, Mich. State Col, 29–31, Ph.D, 31. Asst. olericulture, Illinois, 26–27; agron, Wisconsin, 27–28, asst. and instr. agr. eng, 28–29; asst. prof. agron. and genetics, Hawaii, and agronomist, Exp. Sta, 31–37; *research assoc. prof. agron, Iowa State Col, 37–* A.A; Soc. Agron; Genetics Asn; Genetics Soc; Iowa Acad. Quality of soft winter wheats; seed viability and storage; improvement of vegetable and forage crops in Hawaii; adaptation and breeding of legumes and grasses.

Wilson, Prof. A(lbert) H(arris), Haverford College, Haverford, Pa. *Mathematics.* Saundersville, Tenn, Feb. 4, 72. B.S, Vanderbilt, 92, fellow, 92–93, M.S, 93; Hopkins, 93–95; Göttingen, 99–00; Bonn, 03–04; Ph.D, Chicago, 11. Instr. *math,* Princeton, 95–03; Illinois, 04–05; Ala. Polytech, 05–10; assoc. prof, *Haverford Col,* 10–34, prof, 34–39, *emer. prof, 39–* A.A; Math. Soc; Math. Asn. Automorphic transformations of the binary quartic; canonical types of nets of modular conics.

Wilson, Dr. Alex(ander) L(ogan), Bakelite Corp, Bloomfield, N. J. *Organic chemistry.* Pittsburgh, Pa, March 13, 02. B.S, Princeton, 23; Ph.D, Pittsburgh, 43. Research chemist, Carbide and Carbon Chem. Corp, 27–39; fellow, Mellon Inst, 39–43; *research chemist, Bakelite Corp, 43–* Chem. Soc. Aliphatic amines; organic nitrogen and sulfur compounds.

Wilson, Prof. A(lexander) M(assey), 519 Evanswood Place, Cincinnati, Ohio. *Electrical engineering.* Stranraer, Scotland, Aug. 31, 76. B.S, Purdue, 01, M.E, 03. Instr. mech. arts, Purdue, 01–04; asst. prof. and *prof. elec. eng,* Kentucky, 04–11; *Cincinnati, 11–* Elec. Eng. (v. pres, 34); Illum. Eng. Soc; Ohio Elec. Light Asn; Royal Soc. Arts. Transmission; distribution; radio interference from power circuits and apparatus.

Wilson, Dr. Alfred W(illiam) G(unning), 182 Holmwood Ave, Ottawa, Ont, Can. *Engineering.* Cobourg, Ont, Feb. 6, 73. B.A, Toronto, 93; A.M, Harvard, 99, Ph.D, 01; Columbia, 02; McGill, 02–04. Master science, Napanee Col. Inst, 95–98; geologist, Geol. Surv. Can, 01–02, 08; demonstrator geol, McGill, 02–06; consulting geologist and engineer, 06–09; engineer, *Can. Dept. Mines,* 09–10, chief div. mineral resources, 10–36, chief tech. consultant, min. and geol. bur, 36–41. Commis-

sioner on copper and zinc domestic supplies, 15–16; tech. adviser, Shell Cmt, 14–16; Tariff Board, 27–30; chairman subcmt. war chem, Dept. Defense, 37–40. Mem, Imp. Conf, 32. Tech. adviser, Can. W.T.B, 17–19. Geol. Soc; Can. Inst. Min. and Metal; Inst. Min. and Metal. Gt. Britain. Physiography and geology applied to engineering projects and mining; industrial and efficiency engineering; development of chemical and metallurgical industries in Canada; mineral products and their technology as applied in industry; mineral economics and process designing; minerals as raw materials of manufacturing industries.

Wilson, Dr. Alice E(velyn), Geological Survey, Ottawa, Ont, Can. *Paleontology.* Cobourg, Ont, Aug. 26, 81. B.A, Toronto, 11; Ph.D, Chicago, 29. Museum asst, *Geol. Surv. Can,* 11–19, asst. paleontologist, 19–36, *asst. geologist, 36–* Mem, Order of British Empire. Fel. Geol. Soc; Paleont. Soc; fel. Royal Soc. Can. Ordovician stratigraphy and invertebrate paleontology.

Wilson, Prof. Arthur J(ohn), 1808 Park Drive, Raleigh, N. C. *Chemistry.* Elba Center, Ill, May 22, 84. B.S, N. C. State Col, 07, M.S, 08; Ph.D, Cornell, 11. Head dept. chem, Lombard Col, 11–12; Chattanooga, 12–18; Wabash Col, 18–24; *prof. anal. chem. and chairman dept. chem, N. C. State Col, 24–*

Wilson, Ben Hur, 406 Grover St, Joliet, Ill. *Geology, Paleontology, Meteoritics.* Clinton Co, Iowa, Jan. 27, 88. B.S, Iowa Wesleyan Col, 09; M.S, Drake, 27; Iowa State Col; Chicago. Civil engineer and land surveyor; supt. schs, Iowa; teacher geol, Drake; *head dept.* science, Estherville Junior Col, Iowa; *earth science, Joliet Junior Col.* Pres. board governors and director, Joliet Museum and Art Gallery; trustee, Iowa Wesleyan Col. Midwest Federation Geol. Societies (pres). New species of trilobite; theory of accelerating light corpuscles; quartz family minerals.

Wilson, B(enjamin) J(ames), 224 Lafayette Ave, Oreland, Pa. *Mechanical engineering.* Pittston, Pa, Nov. 29, 95. B.S, Bucknell, 19, M.S, 21, hon. Sc.D, 43; M.S, Illinois, 27, M.E, 28. Asst. master mech. elec. dept, Bethlehem Steel Co, 19–20; instr. mech. eng, Bucknell, 20–24, asst. prof, 24–28; research engineer, *Leeds and Northrup Co,* 28–35, *chief mech. div, research dept, 35–* Edward Longstreth medal, Franklin Inst, 41. A.A; Mech. Eng; Franklin Inst. Determination of stress in curved flexural members; flow of air through circular orifices with rounded approach; control system; fluid measuring system; method and system for motor control.

Wilson, Prof. B(irton) N(eill), University of Arkansas, Fayetteville, Ark. *Mechanical engineering.* Philadelphia, N. Y, Nov. 16, 74. B.S, Ga. Tech, 96; M.E, Michigan, 09; M.M.E, Cornell, 17. Adj. prof. mech. eng, *Arkansas,* 96–03, *prof,* 03–16, *drawing and archit, 17–* Arkansas fuels.

Wilson, Prof. C(arl) L(ouis), Dartmouth College, Hanover, N. H. *Botany.* Springfield, Ohio, Aug. 9, 97. A.B, Denver, 19; A.M, Cornell, 21, Ph.D, 23. Asst. *bot,* Cornell, 19–22, instr, 22–24; *Dartmouth Col,* 24–28, asst. prof, 28–35, *prof, 35–* A.A; Bot. Soc. Anatomy and histology of vascular plants; floral anatomy.

Wilson, Dr. C(arroll) J(ohn), R. T. Vanderbilt Co, Inc, Norwalk, Conn. *Chemistry.* Grand Rapids, Mich, Feb. 23, 10. B.S, Notre Dame, 31, M.S, 34, Ph.D, 35. Asst. prof. physical chem, Notre Dame, 32–35; research chemist fuels, Esso lab, and later chem. engineer, research div, Standard Oil Develop. Co, 35–43; *mem. staff, R. T. Vanderbilt Co, Inc, 43–* Chem. Soc; Soc. Automotive Eng. Petroleum and rubber additives.

Wilson, C(ecil) C(line), P. O. Box 1857, Sacramento, Calif. *Entomology.* La Crosse, Kans, Feb. 4, 96. B.S, Kans. State Col, 24. Junior entomologist and *asst. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 24–* A.A; Entom. Soc. Amer; Asn. Econ. Entom. Cereal and forage insects.

Wilson, Dr. Channing W(ard), 4122 Westview Road, Baltimore, Md. *Physical chemistry.* Salt Lake City, Utah, Dec. 1, 03. B.S, Richmond, 25; Ph.D, Hopkins, 28. Prof. chem, Maryland, 26–27; *research chemist, Consol. Gas, Elec. Light and Power Co, Baltimore, 28–* Chem. Soc. (chairman, Md. sect, 39, sec'y, 42). Kinetic theory of gases; chemical kinetics and catalysis; gas manufacturing and utilization.

Wilson, C(harles) E(arl), 419 S. Lucas, Iowa City, Iowa. *Entomology.* Brazil, Ind, Aug. 17, 90. A.B. and A.M, Indiana, 14, 17–18; Iowa, 36–38. Asst. entomologist, Miss. Agr. and Mech. Col, 14–16; State Plant Board, Fla, 16–17; entomologist, U. S. Exp. Sta, St. Croix, V. I, 19–22; assoc. prof. biol. and acting head dept, Wake Forest Col, 22–25; prof, Nebr. State Teachers Col, 25–36; *assoc. project supervisor, State Conservation Cmn, Iowa, 38–* Landor exped, Colombia, S. Amer, 12–13. Micros. Soc; Nebr. Acad. Zoology; ichthyology.

Wilson, Dr. Charles O(wens), University of Minnesota, Minneapolis, Minn. *Pharmaceutical chemistry.* Bothell, Wash, Jan. 25, 11. Ph.C, Washington (Seattle), 32, B.S, 34, M.S, 35, Ph.D, 38. Asst. prof. *pharmaceut. chem,* George Washington, 38–40; *assoc. prof, Minnesota, 40–* Ensign, U.S.N.Res. A.A; Chem. Soc; Pharmaceut. Asn. Pharmaceutical organic chemistry synthesis and quantitative analysis.

Wilson, Charles S(awyer), U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Yakima, Wash, March 7, 04. B.S, California, 33, M.S, 35. *Assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr.* Entom. Soc. Amer. Insect physiology and toxicology; control of mosquitoes and other insects by the use of aerosols; improvement of mosquito larvicides; alleviation of the irritation caused by insect attacks; insect enzymes.

Wilson, Dr. C(harles) V(ernon), Eastman Kodak Co, Kodak Park, Rochester, N. Y. *Organic chemistry.* Powassan, Ont, Can, July 17, 06. B.Sc, Saskatchewan, 27, Nat. Research Council Can. bursar, 28–29, M.Sc, 29; Nat. Research Council Can. student, McGill, 29–30, Ph.D, 33. Demonstrator chem, Saskatchewan, 26–28; McGill, 31–33; anal. chemist, LaSalle Coke Co, 33–34; *research chemist,* Can. Int. Paper Co, 34–37; *Eastman Kodak Co, 37–* Chem. Soc. Acyl diurethanes; γ-ketonic acids; brom nitro compounds; anthraquinone dyes; unsymmetrical tetramethylene glycols; asymmetric arsenic compounds.

Wilson, Prof. Cha(rle)s V(inyard), West Virginia University, Morgantown, W. Va. *Animal breeding.* Lewisburg, W. Va, Sept. 15, 88. B.S.Agr, West Virginia, 20; M.S, Iowa State Col, 24. Asst. *animal husbandry, West Virginia,* 16–17, 19, instr, 19–24, asst. prof, 24–38, *assoc. prof, 38–, asst. animal husbandman, Exp. Sta, 19–, exten, 33–* Instr, U.S.A, 18–19. Soc. Animal Production. Animal feeding; sheep cattle and pasture; beef cattle.

Wilson, Prof. C(harles) W(illiam), Jr, Vanderbilt University, Nashville, Tenn. *Geology.* Mayfield, Ky, Sept. 6, 05. A.B, Vanderbilt, 27, M.S, 28; Ph.D, Princeton, 31. Teaching fellow, Vanderbilt, 27–28; asst, Princeton, 29–31; asst. prof. *geol, Vanderbilt,* 31–40, *assoc. prof, 40–* Summers, asst. geologist, Tenn. Div. Geol, 37–41. Asn. Petrol. Geol; Paleont. Soc; Geol. Soc; Tenn. Acad. Structural geology; Ostracoda; stratigraphy and structure of Oklahoma, Tennessee, Montana and Wyoming.

Wilson, Dr. Chester Eugene, 1243 Elberon Ave, San Pedro, Calif. *Organic chemistry.* B.S, Calif. Inst. Tech, 32, M.S, 33, Ph.D, 35. Fellow, Calif. Inst. Tech, 35–36; *research chemist, Union Oil Co, 36–* Chem. Soc. Stereoisomeric derivatives of butene glycol.

Wilson, C(larence) P(aret), California Fruit Growers Exchange, Ontario, Calif. *Chemistry.* Baltimore, Md, Dec. 26, 85. B.S, George Washington, 07. Sci. asst, bur. chem, U. S. Dept. Agr, 07–10, asst. chemist, 11–16; chief chemist and gen. manager, Exchange Lemon Products Co, Calif, 16–20; chemist in charge research lab, *Calif. Fruit Growers Exchange,* 20–28, asst. gen. manager, *products dept,* 29–38, *manager, 39–* Asst. chemist, sugar factory, La, 07–08; lecturer, California. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Chem. Indust. The development and use of citrus fruit products.

Wilson, Dean Curtis L(aws), Missouri School of Mines, Rolla, Mo. *Metallurgy.* Baltimore, Md, Aug. 29, 98. E.M, Mont. Sch. Mines, 20; Ph.D, Göttingen, 28. Asst. research engineer, Anaconda Copper Mining Co, Mont, 20–21; instr. metal, Mont. Sch. Mines, 21–24, asst. prof, 24–26, prof, 28–41; *dean, Mo. Sch. Mines, 41–* Eng. Educ; Min. and Metal. Eng; Chem. Soc; British Inst. Metals. Non-ferrous metallography; metallurgy of copper.

Wilson, Dr. Cyril D(onavan), 91 Linden Ave, Metuchen, N. J. *Organic chemistry.* Odin, Ill, Aug. 18, 03. A.B, Montana, 30; Ph.D, Pa. State Col, 39. Anal. chemist, B. F. Goodrich Rubber Co, 30–31; *research chemist, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. High pressure synthesis; problems related to photographic products; polymerization and distillation.

Wilson, Dr. D(avid) Bruce, Rockefeller Foundation, 49 W. 49th St, New York, N. Y. *Medicine.* Merrickville, Ont, Can, Dec. 14, 94. B.A, Toronto, 16, M.B, 20, D.P.H, 28, M.D, 29. *Field staff, int. health div, Rockefeller Foundation,* N. C. and N. Mex, 20–22, Honduras, 22–24, Colombia, 24–27, Brazil, 28–41, *N. Y, 41–* A.A; Soc. Parasitol; fel. Royal Soc. Trop. Med. Helminthiasis; yellow fever; public health administration.

Wilson, Dr. David Cole, University of Virginia, Charlottesville, Va. *Neurology, Psychiatry.* Chattanooga, Tenn, July 13, 92. A.B, Virginia, 12, M.D, 19; Pennsylvania, 23. Gen. intern, Peter Bent Brigham Hosp, 20–21; intern, Clifton Springs Sanatorium, 21–23, in charge dept. *neur. and psychiat,* 23–29; assoc. prof, *med. sch, Virginia,* 29–40, *prof, 40–* Fel. Col. Physicians; Am. Med. Asn; Neur. Asn; Psychiat. Asn. (cmt. research); Asn. Research Nervous and Mental Disease; South. Med. Asn. (chairman sect. neur. and psychiat, 41); Va. Neuropsychiat. Soc. (pres, 36); Va. Acad; Mental Hygiene Soc. Va. (pres, 41). Gastric neurosis; maladjustment as a cause of mental diseases; virus diseases of the central nervous system; prevention of psychotic reactions among adolescents; diagnosis of neuropsychiatric disorders; the psychiatrist looks at war; treatment of the mental diseases related to the involutional period.

Wilson, Prof. D(avid) Wright, University of Pennsylvania, Philadelphia, Pa. *Physiological chemistry.* Knoxville, Iowa, Jan. 4, 89. B.S, Grinnell Col, 10; M.S, Illinois, 12; Ph.D, Yale, 14. Asst. and assoc. *physiol. chem,* Hopkins, 14–17, assoc. prof, 17–22; *prof, Pennsylvania, 22–* A.A; Soc. Biol. Chem. (sec'y, 27, 28); Physiol. Soc; Soc. Exp. Biol; Physiol. Soc. Phila. Muscle extractives; Bence-Jones protein; urine after exercise; composition of body fluids; gonadotropic hormone of pregnancy urine.

Wilson, Dr. Donald A(lvin), University of Pittsburgh School of Medicine, Pittsburgh, Pa. *Physical chemistry.* Pittsburgh, Pa, May 21, 08. B.S, Geneva Col, 30; John Wiley and Co. state fellow, Hopkins, 30–34, Ph.D, 33. Junior instr, Hopkins, 33–34, instr, 34–35; research assoc, dept. chem, Stanford, 35–36; instr. *physiol. chem, sch. med, Pittsburgh,* 36–41, *asst. prof, 41–; res. biochem. research, Elizabeth Steel Magee Hosp, 36–* Chem. Soc. Physical and colloid chemistry; ultracentrifuge; electrophoresis; x-ray diffraction; sex hormones.

Wilson, Prof. Douglas J(ames), University of Western Ontario, London, Ont, Can. *Psychology.* Kitchener, Ont, April 20, 04. B.A, Toronto, 27, M.A, 28, Ph.D, 33. Instr. *psychol,* Toronto, 28–29, lecturer, 30–32; instr, *Western Ontario,* 32–34, *asst. prof, 34–* Special lecturer, Royal Can. Mounted Police Col, 41, 42; personnel research, Royal Can. Air Force. Psychol. Asn; Can. Psychol. Asn. Voluntary muscle action; child psychology; applied psychology.

Wilson, Dr. E(arl) D(eWitt), 2034 Boggs Ave, Wilkinsburg, Pa. *Physics.* Derthick, Ohio, March 7, 98. A.B, Capital Univ, 19; A.M, Ohio State, 23, Ph.D, 28. Instr. physics, Capital Univ, 23–26; *research engineer, research labs, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 28–* Physical Soc. Photoelectrics; spectroscopy; contact rectification.

Wilson, Prof. E(arl) O, Yenching University, Peiping, China. *Chemistry, Chemical engineering.* Newton, Mich, Sept. 11, 90. A.B, Hillsdale Col, 14; B.S, Purdue, 21; M.S, Mass. Inst. Tech, 28, Sc.D, 35. Instr. English, Peiping Nat. Univ, 14–19; asst. prof. *chem, Yenching,* 21–26, *prof, 29–* Chem. Soc; Ceramic Soc; Asn. Chinese and Am. Eng. Leather; aluminum compounds; ceramics.

Wilson, Prof. E(dgar) Bright, Jr, 12 Oxford St, Cambridge, Mass. **7Chemistry.* Gallatin, Tenn, Dec. 18, 08. B.S, Princeton, 30, A.M, 31; Ph.D, Calif. Inst. Tech, 33. Fellow, Calif. Inst. Tech, 33–34; junior fellow, *Harvard,* 34–36, asst. prof. *chem,* 36–39, *assoc. prof, 39–* Am. Chem. Soc. prize, 37. Chem. Soc; Physical Soc. Physical chemistry, including molecular spectroscopy; quantum mechanics; statistical mechanics.

Wilson, Dr. Edith, 3200 W. Second St, Wilmington, Del. *Chemistry.* Chicago, Ill, June 26, 96. A.B, Northwestern, 19; M.S, Iowa State Col, 22; Ph.D, Hopkins, 28. Research chemist, Exp. Sta, Iowa State Col, 20–22; asst, Hopkins, 28–29; research chemist, Edgewood Arsenal, 29–30; Universal Oil Products Co, Chicago, 34–35; Bloodgood Cancer Research Fund, Hopkins Hosp, 38–40; Francis P. Garvan Cancer Research Fund, sch. med, Hopkins, 40–42; *Biochem. Research Foundation, Franklin Inst, 42–* Physico-organic chemistry.

Wilson, Dr. E(dward) E(lmer), College of Agriculture, University of California, Davis, Calif. *Plant pathology.* Waupaca, Wis, Dec. 22, 00. Kentucky, 19–22; B.S, Wisconsin, 24, M.S, 25, Ph.D, 27. Instr. plant path, Wisconsin, 27–29; asst. plant pathologist, *col. agr, California,* 29–37, *assoc. plant pathologist, 37–* Phytopath. Soc. Apple and cherry diseases in Wisconsin; stone fruit diseases in California.

Wilson, Prof. Edwin Bidwell, Harvard School of Public Health, Boston, Mass. **1Mathematics.* Hartford, Conn, April 25, 79. A.B, Harvard, 99; Ph.D, Yale, 01; Paris, 02–03. Instr. math, Yale, 00–06, asst. prof, 06–07; assoc. prof, Mass. Inst. Tech, 07–11, prof, 11–17, math.-physics and head dept. physics, 17–22, sec'y admin. cmt, 20–22; *prof. vital statist, sch. pub. health, Harvard, 22–* Lecturer, Harvard, 10–11, Lowell lecturer, 18; lecturer, California, 29. Pres, Social Science Research Council, 29–31. Nat. Acad. (ed, 'Proc,' 14–); A.A. (exec. cmt. councilor, 33); Math. Soc; Econometric Soc; Statist. Asn. (pres, 29); Philos. Soc; Am. Acad. (pres, 27–31); Int. Inst. Statist. Vector analysis; geometry; multiple algebra; relativity; aeronautics; statistics; epidemiology; economics.

Wilson, Dr. Eldred (Dewey), Arizona Bureau of Mines, Tucson, Ariz. *Geology.* Beatrice, Nebr, July 16, 98. B.S, Mo. Sch. Mines, 18; M.S, Arizona, 22; Jay Backus Woodworth mem. fellow, Harvard, 31–32, Ph.D, 37. Asst. geologist, Ray Consol. Copper Co, Ariz, 18; asst. geologist, *Ariz. Bur. Mines,* 18–25, *geologist, 25–* Fel. Geol. Soc; Soc. Econ. Geol; Min. and Metal. Eng. Structural geology; Arizona mineral deposits; Precambrian geology of central Arizona; tectonics of basin ranges; geography; structural control of ore deposition.

Wilson, Ellwood, Box 23, Knowlton, Que, Can. *Forestry.* Philadelphia, Pa, Feb. 16, 72. A.B, B.S, Univ. of the South, 93; Pennsylvania; Germany, 96; Jenner Inst, London, England. Manager, Walker-Gordon Labs, London, England, 97–00; practising engineer, 00–05; chief forester, Laurentide Co, Ltd, Que, 05–28; head forester, Can. Power and Paper Corp, 28–32; acting prof. silviculture, col. agr, Cornell, 32–34; exec. sec'y, Can. Soc. Forest Engineers, 35–37. Can. rep, Imp. Forestry Conf, London, 20. A.A; Soc. Foresters; Can. Forestry Asn. (pres, 30); Can. Soc. Forest Eng. (past pres); Que. Soc. Professional Eng; Que. Asn. Forest Eng; Soc. de Franche Comité; cor. mem. Soc. Forestry Finland; Royal Scottish Arboricultural Soc. Forest engineering; reforestation; silviculture; use of airplanes in engineering and forestry.

Wilson, Dr. E(lwood) Justin, Jr, National Institute of Health, Bethesda, Md. *Organic chemistry.* New York, N. Y, Nov. 28, 17. A.B, Princeton, 38, A.M, 40, Ph.D, 41; Henry fellow, Oxford, 39. *Corn Industries Research Foundation fellow, Nat. Inst. Health, 41–* Chem. Soc. Chemical structure studies in the field of the carbohydrates and proteins.

Wilson, Prof. Ernest D(ana), 33 Flagg St, Worcester, Mass. *Chemistry.* Harlan, Iowa, Nov. 2, 90. B.S, Nebraska, 13; Ph.D, Chicago, 15. Instr. chem, Nebraska, 13; research assoc. physical chem, Mass. Inst. Tech, 13–14; asst. chem, Chicago, 14–15; fellow, Mellon Inst, 16–18; chief engineer and asst. sales manager, Graton and Knight Mfg. Co, 18–20; chief commercial research dept, George Batten Co, 20–21; Am. Cyanamid Co, 22–33; Barsky and Wilson, 34–36; *pres, Zialite Corp, 36–; prof. chem. eng. and chem. and head dept, Worcester Polytech, 40–* Eng. Educ; Chem. Eng; Chem. Soc; Electrochem. Soc. Chemical engineering; electroplating; thermodynamics.

Wilson, Prof. Francis H(enry), Tulane University, New Orleans, La. *Zoology.* Hebron, N. Y, Feb. 9, 02. B.S, Cornell, 23, M.S, 25, Ph.D, 31. Acting prof. bot, Richmond, 25–27, assoc. prof, 27–29; asst. parasitol, Cornell, 29–31; asst. prof. *zool, col. arts and science, Tulane,* 31–38, *assoc. prof, 38–, parasitol, med. sch, 43–* Entom. Soc. Amer; Soc. Parasitol; Soc. Zool. Biology and taxonomy of Mallophaga.

Wilson, Dr. Frank N(orman), 804 Lawrence St, Ann Arbor, Mich. *Medicine.* Wayne Co, Mich, Nov. 19, 90. B.S, Michigan, 11, M.D, 13; hon. Dr, Escola Paulista de Medicina, São Paulo. Asst. internal med, med. sch, Michigan, 13–14, instr, 14–16; sch. med, Washington (St. Louis), 16–20; assoc. prof, med. sch, *Michigan,* 20–24, *prof. med, 24–* Ed. board, 'Jour. Clin. Invest'; 'Cardiologia.' A.A; Am. Med. Asn; assoc. Am. Physicians; fel. Col. Physicians; Soc. Exp. Path; Soc. Exp. Biol; Soc. Clin. Invest; Heart Asn. (ed. board, 'Jour'; director); Cent. Soc. Clin. Research; hon. mem. Sociedad de Med. de Santiago de Chile; cor. mem. Sociedad de Med. de Monte-

video, Uniao Cultural Brasil-Estados Unidos; Acad. Nacional de Med. Rio de Janeiro; Sociedad Argentina de Cardiologia; hon. mem. Cardiac Soc. Gt. Britain and Ireland. Heart disease; electrocardiography.

Wilson, Prof. Frederick Weston, 155 University Terrace, Reno, Nev. *Animal husbandry.* Graham Co, Kans, Aug. 4, 82. B.S, Kans. State Col, 05; M.S, Illinois, 13. Asst. prof. *animal husbandry*, Arizona, 05–06, assoc. prof, 08–12, *prof. and head dept*, 12–14; *Nevada, 14–* Sheep; beef cattle.

Wilson, Dr. G(eorge) B(ernard), McGill University, Montreal, Que, Can. *Cytology.* St. John, N. B, March 15, 14. B.Sc, Acadia, 35; New Brunswick, 35–36; Ph.D, McGill, 39. Lecturer and demonstrator, New Brunswick, 35–36; asst. *genetics, McGill*, 36–41, *research assoc, 41–* Genetics Soc. Structure and behavior of chromosomes.

Wilson, Dr. George Ewart, 170 St. George St, Toronto, Ont, Can. *Surgery.* Stratford, Ont, 78. M.B, Toronto, M.D, 03; L.R.C.P, London. Surgeon in charge emergency dept. and out-door, Toronto Gen. Hosp, 19–27; *asst. prof. surg, Toronto, 27–; surgeon in chief, St. Michael's Hosp, 27–* Fel. Royal Col. Surg. Fractures and their complications.

Wilson, Prof. George Samuel, University of Washington, Seattle, Wash. *Mechanical engineering.* Nebr, 80. B.S, Nebraska, 06. Instr, *Washington (Seattle)*, 06–09, asst. prof, 09–14, assoc. prof, 14–24, *prof. mech. eng, 24–* Mech. Eng; Eng. Educ. Powdered coal; centrifugal fans; internal combustion engines; gas producers; air conditioning.

Wilson, Prof. George W(atkins), 56 Tunstall Road, Scarsdale, N. Y. *Chemistry.* New York, N. Y, June 22, 90. B.S, Col. City of N. Y, 10; M.S, N.Y. Univ, 15, Ph.D, 21. Teacher, pub. schs, N. Y, 10–15, 20–28; chemist, U. S. Bur. Mines, 17–18; aid, Smithsonian Institution, 19–20; instr. *chem, Col. City of N. Y*, 28–31, asst. prof, 31–37, *assoc. prof, 37–; Chem. Warfare Service, U. S. Army, 42–, major.* Summer, instr, N. Y. Univ, 14. Asst, statist. study chem. industries, Dept. Commerce, 18; surv. nitrate indust, fixed nitrogen research lab, bur. chem. and soils, U. S. Dept. Agr, Chile, 19. Smithsonian Institution solar radiation exped, Chile, 19. Research chemist, C.W.S, 18–19. Chem. Soc; fel. Inst. Chem; Chem. Teachers Club N. Y. (pres, 37). Inorganic chemistry; adsorption; catalysis.

Wilson, Prof. Grover C, 1421 Vilas Ave, Madison, Wis. *Mechanical engineering.* Holstein, Iowa, July 31, 93. B.S, Illinois, 17; M.S, Wisconsin, 23, M.E, 29. *Assoc. prof. mech. eng, Wisconsin, 20–* Mech. Eng; Automotive Eng. (chairman Milwaukee sect, 41); Eng. Educ. Combustion in Diesel engines; Diesel fuels and their combustion in actual engines.

Wilson, Guy West, 2110 Army Post Road, Des Moines, Iowa. *Botany, Mycology.* Near Carmel, Ind, June 19, 77. B.S, DePauw, 02, A.M, 03; M.S, Purdue, 06. Prof. biol, Mt. Union Col, 03–04; teacher, high sch, Ind, 04–05; aid, N. Y. Bot. Garden, 06–07; prof. biol, Upper Iowa, 07–10; asst. plant path, Exp. Sta, N. C. State Col, 10–12; asst. prof. mycol. and plant path, Iowa, 14–16; assoc. bot. and plant path, Clemson Col, 18–19; prof. biol, Upper Iowa, 19–27; bot, Penn Col. (Iowa), 27–30; *private research.* Phytopath. Soc; Hist. Sci. Soc; fel. Iowa Acad; Kans. Acad. (sec'y, 18). North American Peronosporales; flora of Indiana; diseases of cotton, grains and chestnuts; Phycomycetes; soil fungi of North America; parasitic fungi; fungi of Iowa.

Wilson, Prof. H(arley) F(rost), University of Wisconsin, Madison, Wis. *Entomology.* Del Norte, Colo, April 14, 83. B.S, Colo. Agr. Col, 07; Illinois, 07–08; M.S, Oregon State Col, 13. Special agent, bur. entom, U. S. Dept. Agr, 08–10; asst. entom, Exp. Sta, Oregon State Col, 10–13, prof, Oregon State Col, and entomologist, Exp. Sta, 13–15; *prof. econ. entom, Wisconsin, 15–* Apicult. custodian, Dr. Chas. C. Miller Mem. Apicult. Library. A.A; Entom. Soc; Asn. Econ. Entom; Pacific Coast Asn. Econ. Entom. (pres, 15). Aphididae.

Wilson, Prof. H(arold) A(lbert), Rice Institute, Houston, Texas. ***Physics.* York, Eng, Dec. 1, 74. M.Sc, Leeds, 97; 1851 Exhib. scholar, London, 97–00, D.Sc, 00; Clerk-Maxwell student, Cambridge, 01–04, M.A, 04. Fellow, Trinity Col, Cambridge, 01–07; *prof.* physics, King's Col, London, 05–09; McGill, 09–12; Rice Inst, 12–24; nat. philos, Glasgow, 24–25; *physics, Rice Inst, 25–* A.A; Physical Soc; Math. Soc; Philos. Soc; Geophys. Union; Soc. Explor. Geophys; fel. Royal Soc; Physical Soc. London; Cambridge Philos. Soc; Soc. de Physique. Electrical properties of flames and incandescent solids; discharge through gases at low pressures; induced electromotive force; ionic charge; heat conduction; optical properties of metals; perception of direction of sound; receivers for sound in water; diamagnetism; electromagnetic momentum; gravitation; cracking petroleum; seismographs; energies of alpha, beta and gamma rays; energies of nuclear reactions; constitution of atomic nuclei.

Wilson, Prof. H(arold) K(irby), 2173 Dudley Ave, St. Paul, Minn. *Agronomy.* Near Athens, Mo, March 6, 00. B.S, Iowa State Col, 24; M.S, Illinois, 25, Ph.D, 27. Asst. prof. agron. and asst. agronomist, *Minnesota*, 27–32, assoc. prof. and assoc. agronomist, 32–37, *prof. agron. and agronomist, 37–*, acting head div. agron, 32–33, 36–37, 41–42. Summers, instr, Iowa State Teachers Col, 25, 26. A.A; Soc. Agron; Soc. Plant Physiol; Minn. Acad. (sec'y-treas, 33–41). Crop physiology in relation to crop production; weeds.

Wilson, H(arold) S(tockdale), P. O. Box 100, Bourlamaque, Que, Can. *Geology, Mineralogy.* Indian Head, Sask, July 26, 99. B.Sc, McGill, 24, Leroy fellow, 24–25, M.Sc, 25; Wisconsin, 25–27. Geologist, Nipissing Mining Co, Ltd, 28–31; *geologist, Lamaque Gold Mines, Ltd, 33–; consulting geologist.* Can. Inst. Min. and Metal. Silver deposits of Cobalt, Ontario; areal geology of Canadian Precambrian shield.

Wilson, Dr. H(arry) D(avid) B(ruce), 111 Bloor St, Sudbury, Ont, Can. *Economic geology.* Winnipeg, Man, Nov. 10, 16. B.Sc, Manitoba, 36; M.S, Calif. Inst. Tech, 39, Ph.D, 42. Teaching fellow geol, Calif. Inst. Tech, 37–41; *research geologist, Int. Nickel Co, Can, 41–* A.A. Geochemistry of epithermal deposits.

Wilson, Prof. Henry S(pence), Louisville Municipal College for Negroes, Louisville, Ky. *Inorganic chemistry.* Louisville, Ky, March 1, 02. A.B, Indiana, 23, A.M, 27, Ph.D, 38. Prof. physics, J. C. Smith Univ, 23–24, chem, 24–26; instr, high sch, Ky, 26–31; from instr. to *assoc. prof. chem. and chairman div. nat. sciences, Louisville Munic. Col, 31–* Ind. Acad. Qualitative method of testing calcium in the presence of barium and calcium; plasticies of lime; removal of sulphur from laboratory glassware; removal of frozen glass stoppers.

Wilson, Hewitt, 12 W. Circle Road, Norris, Tenn. *Ceramic engineering.* Columbus, Ohio, Feb. 28, 91. Cer.E, Ohio State, 13; Sc.D, Mont. Sch. Mines, 37. Ceramic engineer, North. Clay Co, Wash, 13–17; asst. prof. ceramics, Ohio State, 17–19; prof. ceramic eng, Washington (Seattle), 19–38; *supervising engineer, electrotech. lab, Bur. Mines, 38–* Consulting ceramist. A.A; Soc. Test. Mat; fel. Ceramic Soc. Ceramics and non-metallics.

Wilson, Prof. Ira T(emplin), 89 Clinton Ave, Tiffin, Ohio. *Zoology.* Jonesboro, Ind. Jan. 29, 95. Lake Forest Col; A.B, Indiana, 19, A.M, 21, Ph.D, 23. *Prof. biol. and head dept, Heidelberg Col. (Ohio), 23–* Summers, instr, Winona, 20, 21, 24; biol. sta, Indiana, 22, 23, 25–31, exten. div, 25–40; Iowa, 31; special investigator, State Dept. Conservation, Ohio, 38; State Dept. Conservation, Ind, 39–41; Mich. Inst. Fisheries Research, 42, 43. Soc. Zool; Limnol. Soc; Ohio Acad; Ind. Acad. Neoplastic growths; fresh-water biology; lake sedimentation.

Wilson, Prof. I(rl) D(onaker), Virginia Polytechnic Institute, Blacksburg, Va. *Zoology, Animal pathology.* Rockwell City, Iowa, May 21, 88. D.V.M, Iowa State Col, 14, Ph.D, 30; M.S, Pa. State Col, 18. Practising veterinarian, Minn, 14–16; from instr. to prof. animal husbandry, Pa. State Col, 16–22, vet. science, 22–23; *prof. and head dept.* zool. and animal path, *Va. Polytech*, 23–35, *biol, 35–*, animal pathologist, Exp. Sta, 28–38. Collaborator, bur. animal indust, U. S. Dept. Agr, 38–40; consultant, War Manpower Cmn, 42– Ed, animal husbandry sect, 'N. Am. Vet,' 20–23. Mem, State Board Vet. Med. Examiners, Va, 32–, pres, 38–; cmt. appointed by Congress to investigate Alaskan reindeer situation, 38. Chairman, State Vet. Preparedness Cmt, Va, 42– A.A; Vet. Med. Asn. (res. sec'y for Va, 25, 31–37); Va. Vet. Med. Asn. (sec'y, 30–35, pres, 35); Va. Wildlife Federation (treas, 36–40); Va. Acad. (councilor, 28–33, pres, 31); Pa. Vet. Med. Asn. (recording sec'y, 18–20). Animal pathology; bovine coccidiosis.

Wilson, Dr. Ivan F(ranklin), 401 Highland Place, Monrovia, Calif. *Geology.* Monrovia, Calif, Oct. 5, 16. A.B, California, 38, univ. fellow, 39–40, Ph.D, 42. Asst. geol, California, 38–39, assoc, 40; instr, Oklahoma, 41–42; junior geologist, *U. S. Geol. Surv*, 42–43, *asst. geologist, 43–* Summer, junior geologist, U. S. Geol. Surv, 41. Assoc. Asn. Petrol. Geol. Geology of central coast ranges of California.

Wilson, Dr. J(ames) Dean, Ohio Agricultural Experiment Station, Wooster, Ohio. *Botany, Plant pathology.* Mason, Mich, Sept. 8, 95. B.S, Mich. State Col, 22; Ph.D, Hopkins, 26. Asst. plant physiol, Hopkins, 23–26; asst. pathologist and *assoc. pathologist, Ohio Exp. Sta, 26–* Soc. Plant Physiol; Phytopath. Soc. Water relations of plants; environment and plant disease; vegetable diseases; fungicidal dust ingredients and applicators.

Wilson, Dr. J(ames) E(dward), Brace, Mueller and Huntley Steel Co, Inc, Buffalo, N. Y. *Metallurgy.* Fond du Lac, Wis, Oct. 25, 07. B.S.E, Michigan, 30, Ph.D, 35. Asst. eng. research, Michigan, 31–33; metallurgist, Kelvinator Corp, 33–36; Bausch and Lomb Optical Co, 36–40; *consulting metallurgist, Brace, Mueller and Huntley Steel Co, Inc, 40–* Soc. Metals; Min. and Metal. Eng. Physical metallurgy; effects of plastic deformation on metal space lattice.

Wilson, Prof. J(ames) F(rench), College of Agriculture, University of California, Davis, Calif. *Animal husbandry.* Stewartsville, Ind, Aug. 14, 92. B.S, Wyoming, 13; A.M, Missouri, 16. Sci. asst. *animal husbandry,* U. S. Dept. Agr, 16–17; asst. prof, *col. agr, California,* 19–32, assoc. prof, 32–40, *prof, 40–* Coast Artil.C, 18–19, 2nd lieut. Soc. Animal Production. Agriculture; wool technology.

Wilson, Dr. James G(raves), University of Rochester School of Medicine and Dentistry, Rochester, N. Y. *Anatomy.* Clarksdale, Miss, April 2, 15. A.B, Miss. Col, 36; A.M, Richmond, 38; Brown, 38–39; Ph.D, Yale, 42. Asst. anat. and primate biol. sch. med, Yale, 39–42; *instr. anat, sch. med. and dentistry, Rochester, 42–* Endocrinology of reproduction; sexual behavior.

Wilson, Prof. J(ames) K(enneth), 202 Dearborn Place, Ithaca, N. Y. *Soil technology.* Maryville, Mo, Aug. 5, 81. B.S, Okla. Agr. and Mech. Col, 06; Ph.D, Cornell, 15. Asst. bacteriologist, N. Y. Exp. Sta, Geneva, 06–12; asst. plant physiol, *Cornell,* 12–14, asst. prof. *soil technol,* 14–20, *prof, 20–* Chilean Nitrate of Soda award, Am. Soc. Agron, 30. Soil Sci. Soc; fel. Soc. Agron. Soil bacteriology; crops and nitrates; legume bacteria; ammonia oxidizing bacteria; azotobacter; sulfur oxidizers; silage fermentation.

Wilson, Dr. James L(eroy), New York University College of Medicine, New York, N. Y. *Pediatrics.* Tilton, N. H, Jan. 7, 98. A.B, Colby Col, 20; M.D, Harvard, 26. Asst. physicist, Bur. Standards, 20; teaching fellow, Harvard Med. Sch, 29–32, assoc. *pediat,* 32–37; assoc. prof, *col. med,* Wayne, 37–42, *prof,* 42–43; *N. Y. Univ, 43–* Asst. res, Children's Hosp, Mass, 29–32; assoc. med. director, Children's Hosp, Mich, 37–41, med. director, 41–43; chief, children's med. service, Bellevue Hosp, 43– Acad. Pediat; Pediat. Soc; Soc. Pediat. Research; Am. Med. Asn. Problems of infant respiration.

Wilson, J(ames) R(aymond), 463 West St, New York, N. Y. *Electronics.* Spokane, Wash, Dec. 17, 94. A.B, Reed Col, 19; B.S, Calif. Inst. Tech, 20; M.S, Columbia, 23, 25. Vacuum tube research engineer, *Bell Tel. Labs,* 20–38, *director electronics research, 38–* Physical Soc; Radio Eng. (tech. cmt. electronics).

Wilson, Prof. James R(obert), Syracuse University College of Medicine, Syracuse, N. Y. *Medicine.* Silver Creek, N. Y, Aug. 1, 97. Allegheny Col, 15–17; M.D, Syracuse, 21, B.S, 22. Instr. path, col. med, Syracuse, 21–22; Harvard Med. Sch, 22–24; assoc. *children's diseases,* med. col, Cornell, 24–29; asst. prof. and later *assoc. prof, col. med, Syracuse, and assoc. attending pediatrician, univ. hosp, 29–* Res. pathologist, Boston Children's Hosp, 22–23; Peter Bent Brigham Hosp, Boston, 23–24; asst. attending pediatrician and pathologist, N. Y. Nursery and Child's Hosp, 24–29; assoc. attending pediatrician, Syracuse City Hosp, 29–; Mem. Hosp, 29–; surgeon, U. S. Pub. Health Service, 43– Director, Syracuse Children's Bur. and Soc. Prevention Cruelty to Children. Soc. Exp. Biol; Pediat. Research Soc; Syracuse Acad. Med. Pathology of diseases of infancy and childhood.

Wilson, Dr. James T(inley), University of Michigan, Ann Arbor, Mich. *Geophysics.* Claremont, Calif, Nov. 13, 14. A.B, California, 35, Ph.D, 39. Teaching asst. geol, California, 35–39; asst, Harvard, 39–40; *instr. geol, Michigan, 40–* Geophys. Union; Seismol. Soc. Structure of surface layers of earth; surface waves; elasticity of rocks.

Wilson, Prof. J(ames) Walter, 282 Doyle Ave, Providence, R. I. *Biology.* Manchester, N. H, June 17, 96. Ph.B, Brown, 18, fellow, 19–21, Ph.D, 21. Asst. *biol, Brown,* 18–19, instr, 21, asst. prof, 21–29, *assoc. prof, 29–* Instr, Cold Spring Harbor, 19–24. A.A; Soc. Zool; Hist. Sci. Soc; Soc. Growth and Develop. (treas, 42); Soc. Exp. Biol; N. Y. Acad. General physiology; regeneration; cytology.

Wilson, Dr. James W(ilbur), South Dakota State College, Brookings, S. Dak. *Animal husbandry.* Traer, Iowa, Feb. 12, 69. B.S.A, Iowa State Col, 96, M.S.A, 98; LL.D, South Dakota, 22. Asst. prof. animal husbandry, Iowa State Col, 97; private sec'y, Sec'y of Agr, 97–00; *prof. animal husbandry, S. Dak. Col, and director, Exp. Sta,* 02–37, *S. Dak. State Col, 37–* A.A. Stock breeding and feeding.

Wilson, Dr. J(ohn) Allen, 836 Lowry Medical Arts Bldg, St. Paul, Minn. *Physiology.* Council Bluffs, Iowa, July 12, 01. A.B, Ripon Col, 22; A.M, Wisconsin, 24, Ph.D, 27; M.D, Rush, Chicago, 29. Instr. physiol, Wisconsin, 24–27; *practising physician, 28–; clin. asst. med, dept. int. med, med. sch, Minnesota.* Minn. Soc. Int. Med. Electrocardiography; function of the pericardium in limiting distention of the heart; hyper-glycemic response to ephedrine infections; peptic ulcer and achlorhydria; carcinoma of the duodenum; chronic duodenal stasis.

Wilson, John B(oynton), 1339 Ingraham St, N. W, Washington, D. C. *Chemistry.* Steubenville, Ohio, June 2, 90. A.B, Ohio State, 11. Asst. chemist, bur. chem, U. S. Dept. Agr, 11–14, contracts lab, 14–21, animal physiol. chem, 21, assoc. chemist, 21, water and beverage lab, 21–27, *beverage sect, food div, food and drug admin, Fed. Security Agency,* 27–42, *chemist, 42–* Agr. Chem. Decomposition products of fish; analysis, detection and adulteration of flavoring materials; odorous constituents of fruits and related products.

Wilson, Prof. J(ohn) Gordon, Old Bennington, Vt., *Anatomy, Physiology, Otolaryngology.* Edinburgh, Scotland, 66. M.A, Edinburgh, M.B, 90; Vienna and Berlin, 90–91. Instr. and asst. prof. anat, Chicago, 01–08; *prof.* otology, *med. sch, Northwestern,* 09–17, *otolaryngol, 17–, head dept, 09–* Otolaryngologist, Wesley and Passavant Hosps, Chicago. Chairman vestibular research cmt, Nat. Research Council, 20–27, aural structure and function cmt, 27–30. A.A; Laryngol. Asn; Otolaryngol. Asn; Otol. Soc. (sec'y, research cmt, 27–). Otology; nerves and nerve endings in the heart, larynx and ear; cranial connections of nerves of the ear; physiology of the vestibular mechanism; vertigo and nystagmus in intracranial lesions.

Wilson, John H(uman), White Settlement Road, Ft. Worth, Texas. *Geology, Geophysics.* Wills Point, Texas, Feb. 24, 00. E.M, Colo. Sch. Mines, 23. Geologist, Midwest Ref. Co, 23–26; geologist and geophysicist, Huasteca Petrol. Co, 26–27; asst. prof. geophys, Colo. Sch. Mines, 28–29; consulting geologist and geophysicist, 29–34; pres, Colo. Geophys. Corp, Denver, 34–37; *v. pres, Independent Explor. Co, 38–* Min. and Metal. Eng; Asn. Petrol. Geol; Soc. Explor. Geophys. (sec'y, 36). Magnetic instruments; seismic velocities; metamorphism; core-drilling.

Wilson, Prof. J(ohn) Hunt, 531 Cattell St, Easton, Pa. *Chemistry.* Easton, Pa, Nov. 30, 85. B.S, Lafayette Col, 05; M.S, Harvard, 07, Ph.D, 08. Asst. path, Harvard Med. Sch, 08–09; instr. *physical chem,* Lehigh, 10–16; *prof, Lafayette Col, 16–, head dept, 37–* Chem. Soc; Franklin Inst. Atomic weight of lead; energy changes in the dilution of amalgams.

Wilson, Dr. John L(ewis), Economics Laboratory, Inc, 914 Guardian Bldg, St. Paul, Minn. *Chemistry.* Poland, Ind, June 27, 98. A.B, Jamestown Col, 20, B.S, 25; A.M, Michigan, 24; M.S, Oregon, 27; Ph.D, Minnesota, 33. Instr, high sch, N. Dak, 20–22, prin, 22–23; asst, Oregon, 25–27; Am. Petrol. Inst. asst, Minnesota, 27–31; *director research, Economics Lab, 31–* Chem. Soc; Physical Soc; Pub. Health Asn; fel. Inst. Chem; assoc. Inst. Food Technol. Bios; chemical activation of gases by electrical discharge; reaction kinetics; composition of detergents; mechanism of and measurement of detergent action; dishwashing machines and processes; germicides and germicidal detergents; mechanical devices.

Wilson, Dr. J(ohn) Norton, Shell Development Co, Emeryville, Calif. *Physical chemistry.* Winnipeg, Man, Can, July 9, 13. B.A, British Columbia, 34, M.A, 36; Ph.D, Calif. Inst. Tech, 39. Research fellow, Calif. Inst. Tech, 39–40, instr. applied chem, 40–43; *mem. staff, Shell Develop. Co, 43–* Chem. Soc. Formation of Liesegang rings; use of radioactive isotopes in chemical kinetics; exchange reactions; dielectric properties of polar liquids; theory of chromatography.

Wilson, Dr. John W(allace), Everglades Experiment Station, Belle Glade, Fla. *Economic entomology.* Villa Rica, Ga, Sept. 19, 02. B.S, Clemson Col, 24; M.S, N. C. State Col, 26; M.S, Harvard, 27, Sc.D, 29. Teaching fellow, N. C. State Col, 24–26; asst. entomologist and later *entomologist, Exp. Sta, Florida, 30–* Entom. Soc. Amer; N. Y. Entom. Soc; Fla. Entom. Soc. (business manager, 37–). Morphology of the male genital tube of Coccinellidae and related families; economic entomology.

Wilson, Dr. J(ohn) W(oodrow), Aero Medical Laboratory, Wright Field, Dayton, Ohio. *Physiology.* Graham, N. C, Jan. 11, 13. B.S, Duke, 35, Ph.D, 38. Asst, Duke, 35–38; asst, fatigue lab, and instr. biochem. sciences, Harvard, 38–40; instr. zool, Duke, 40–42; *Air Forces, U. S. Army, 42–, capt.* A.A; Soc. Zool; N. C. Acad. Physiological properties of blood of reptiles; metabolism.

Wilson, Dr. Joseph J(ay), 157 S. Grove St, Bowling Green, Ohio. *Botany.* Stuart, Iowa, Nov. 7, 92. B.S, Iowa State Col, 18, M.S, 29, Ph.D, 34. *Mem.* exten. service, Iowa State Col, 19–28, Exp. Sta, 29–35; *agr. research dept, H. J. Heinz Co, 36–* Phytopath. Soc; Soc. Hort. Sci. Plant pathology.

Wilson, Prof. Karl M(iller), University of Rochester, Rochester, N. Y. *Obstetrics, Gynecology.* Madoc, Ont, Can, Sept. 27, 85. Albert Col; M.D, McGill, 08. From instr. to assoc. prof. obstet, Hopkins, 10–24; *prof. obstet. and gynec, Rochester, 24–* Obstetrician and gynecologist in chief, Strong Mem. Hosp, 24– A.A; Gynec. Soc; Soc. Exp. Path; Col. Surg; Am. Med. Asn. Metabolism during pregnancy; embryology and physiology of female generative organs.

Wilson, Dr. L(eonard) R(ichard), Coe College, Cedar Rapids, Iowa. *Botany, Geology.* Superior, Wis, July 23, 06. Leeds, 28; Ph.B, Wisconsin, 30, Ph.M, 32, Ph.D, 36. Asst, Wis. Geol. and Nat. Hist. Surv, 31–35; instr. *geol. and bot, Coe Col,* 35–36, asst. prof, 36–39, *assoc. prof, 39–* Meulhaup scholar, Ohio State, 39–40. Bot. Soc; Limnol. Soc; Torrey Bot. Club; Iowa Acad. (ed, 41–). Paleobotany; sedimentation; plant ecology.

Wilson, Dr. Leonard S(eltzer), Carleton College, Northfield, Minn. *Geography.* Detroit, Mich, July 10, 09. A.B, Michigan, 31, M.S, 33, Earhart Research Foundation fellow, 35, Ph.D, 36. Asst. *geog,* Michigan, 33–34, teaching fellow, 34–36; instr, *Carleton Col,* 36–41, *asst. prof, 41–; chief map information sect,* geog. div, Coordinator of Information, 42–43; *deputy chief map div, Office Strategic Services, 43–; lieut, U. S. Naval Res, 43–* Summers, instr, field sta, Michigan, 33, 35, 36; junior soil conservationist, div. climatic and physiog. research, soil conservation service, U. S. Dept. Agr, 37; lecturer, Wisconsin, 41. A.A; Soc. Photogrammetry; fel. Am. Geog. Soc; Asn. Geog; Cong. Surveying and Mapping (ed, cartography sect); Mich. Acad; Minn. Acad. Regional and economic geography of southeastern United States; population in the Lake States; economic geography of Latin America.

Wilson, Prof. L(evi) T(homas), U. S. Naval Academy, Annapolis, Md. *Mathematics.* Jonesboro, Ark, Dec. 24, 85. A.B, Washington and Lee, 09, A.M, 10; A.M, Columbia, 13; Ph.D, Harvard, 15. Instr. math, Washington and Lee, 09–10; Virginia, 10–11; instr. and asst. *math,* Columbia, 11–13; instr, Harvard, 13–15; Illinois, 15–17; *U. S. Naval Acad,* 17–20, asst. prof, 20–25, assoc. prof, 25–35, *prof, 35–* Math. Soc. Analysis; conformal transformation of curvilinear angles.

Wilson, Dr. Logan T(hode), Walker-Gordon Laboratory Co, Plainsboro, N. J. *Nutrition.* Lincoln, Nebr, March 25, 04. B.S.A, Saskatchewan, 24; M.S, Wisconsin, 30, Ph.D, 31. Instr. animal husbandry, Saskatchewan, 25–28; *in charge nutritional research, Walker-Gordon Lab. Co, 31–, lab. director, 41–* Chem. Soc; Dairy Sci. Asn; Pub. Health Asn. Dairy cattle nutrition and dairy products.

Wilson, Dr. Louise Palmer (Mrs. L. D. Wilson), Wellesley College, Wellesley, Mass. *Zoology.* Mineola, Kans, June 26, 03. A.B, Southwestern Col. (Kans), 25; M.S, Pennsylvania, 30, Ph.D, 36. Instr, N. J. State Nor. Col, Glassboro, 30–31; asst. biologist, Bur. Fisheries, 31–33; instr. *zool, Wellesley Col,* 34–39, *asst. prof, 39–* A.A; Soc. Zool; N. Y. Acad. General physiology; factors in growth; effect of protein constituents on the growth of Drosophila melanogaster.

Wilson, Dr. Lucy, Wellesley College, Wellesley, Mass. *Physics.* Bloomington, Ill, Oct. 19, 88. A.B, Wellesley Col, 09; fellow, Hopkins, 16–17, Ph.D, 17. Asst. physics, Mt. Holyoke Col, 09–11, instr, 11–12, 13–14; physics and psychol, *Wellesley Col,* 17–20, asst. prof. *physics,* 20–24, assoc. prof, 24–35, *prof, 35–, dean students, 39–* Fellow, Manchester, 24. A.A; Physical Soc; Optical Soc; Metrol. Soc. Optics in pure physics.

Wilson, Dr. Margaret Barclay, 2928 Upton St, N.W, Washington, D. C. *Nutrition.* Dunfermline, Scotland, Aug. 28, 63. A.B, Nor. Col. (Hunter), 01; M.S, N. Y. Univ, 02; M.D, Woman's Med. Col. of N. Y. Infirmary, 93. Instr. physiol, *Hunter Col,* 93–04, assoc. prof. nat. science, 04–10, prof. *physiol. and hygiene,* 10–33, *emer. prof, 33–* Instr, Woman's Med. Col. of N. Y. Infirmary, 96–97; librarian, Hunter Col, 15–27. A.A; Pub. Health Asn; Archeol. Inst; Philol. Asn; Harvey Soc; fel. N. Y. Acad. Med; N. Y. Acad. Food economy in wartime.

Wilson, Dr. May G(eorgiana), New York Hospital, 525 E. 68th St, New York, N. Y. *Pediatrics.* Brooklyn, N. Y, July 1, 91. M.D, Cornell, 11. Instr. *clin. pediat, med. sch, Cornell,* 12–26, assoc, 27–30, asst. prof, 31–41, *assoc. prof, 41–* Am. Med. Asn; Soc. Pediat. Research; Rheumatism Asn; Am. Heart Asn; N. Y. Acad. Med; N. Y. Heart Asn. Heart disease in children; etiology, epidemiology, diagnosis and prognosis of rheumatic fever.

Wilson, Prof. M(ilbourne) O(tto), University of Oklahoma, Norman, Okla. *Psychology.* Piedmont, Mo, Nov. 3, 90. B.S, Southeast Mo. State Teachers Col, 19; A.M, Chicago, 20, fellow, 24–25, Ph.D, 25. Prin. and sch. supt, Mo, 14–17; instr, Cent. Mo. State Teachers Col, 21–22; asst. prof. *psychol, Oklahoma,* 22–27, assoc. prof, 27–35, *prof, 35–, chairman dept, 42–* Psychologist, Child Guidance Clinic, Oklahoma City, 38–41. Summer, instr, Southwest Mo. State Teachers Col, 21–22; Colorado, 27. F.A, 17–19, 2nd lieut. A.A; Psychol. Asn; fel. Okla. Acad. Intelligence; achievement; handedness; learning; elementary psychology; psychology for teachers; delayed response; chronaxie.

Wilson, M(ilburn) L(incoln), U. S. Department of Agriculture, Washington, D. C. *Agricultural economics and education.* Atlantic, Iowa, Oct. 23, 85. B.S.A, Iowa State Col, 07; M.S, Wisconsin, 20; hon. D.Sc, Mont. State Col, 35; hon. D.Agr, N. Dak. Agr. Col, 40. Asst. agron, Mont. State Col, 10–12; agr. agent, Custer Co, Mont, 12–14, state leader county agr. agents, 14–19; asst. land econ. and farm management, Mont. State Col, 20–24; in charge div. farm management and costs, bur. agr. econ. U. S. Dept. Agr, 24–26; prof. agr. econ. and head dept, Mont. State Col, 26–33; in charge wheat sect, agr. adjust. admin, U. S. Dept. Agr, 33; director subsistences, homestead div, Dept. Interior, 33–34; asst. sec'y, *U. S. Dept. Agr,* 34–37, under sec'y, 37–40, *director exten. work, 40–, chief nutrition and food conservation branch, food distribution admin, 43–* Asst. director defense health and welfare services in charge nutrition, Office Emergency Management, 41–43. Chairman U. S. delegation, Int. Inst. Agr, Rome, 38. A.A; Farm Econ. Asn. (pres, 25); Country Life Asn. (prés, 36); Agr. Hist. Soc; Rural Sociol. Soc. Farm management; production economics; land economics; agricultural policy.

Wilson, Dr. M(orley) E(vans), Geological Survey, Ottawa, Ont, Can. *Geology.* Bright, Ont, Feb. 8, 82. B.A, Toronto, 07; Ph.D, Yale, 12. *Geologist, Geol. Surv. Can, 07–* A.A; Geol. Soc; Soc. Econ. Geol; fel. Royal Soc. Can; Can. Inst. Min. and Metal. Precambrian geology; petrology; metamorphic, structural and economic geology.

Wilson, Prof. N(orman) R(ichard), University of Manitoba, Winnipeg, Man, Can. *Mathematics.* Cobourg, Ont, March 23, 79. B.A, Toronto, 99, M.A, 01; Ph.D, Chicago, 08. Instr. *math,* Royal Mil. Col, Kingston, Ont, 99–00; lecturer, Wesley Col, 00–14; *prof, Manitoba, 14–* A.A; Math. Soc; fel. Royal Soc. Can. Analysis; algebra.

Wilson, Dr. O(lin) C(haddock), Mt. Wilson Observatory, Pasadena, Calif. *[7]*Astronomy, Astrophysics.* San Francisco, Calif, Jan. 13, 09. A.B, California, 29; Ph.D, Calif. Inst. Tech, 34. Computer and asst, *Mt. Wilson Observatory, Carnegie Institution,* 31–36, *asst. astronomer, 36–* Radial velocities; stellar spectrophotometry; novae.

Wilson, Prof. O(rville) T(urner), 2729 Hyde Park Ave, Cincinnati, Ohio. *Botany.* Winchester, Kans, Oct. 19, 86. A.B, Col. of Emporia, 07; A.M, Kansas, 12, fellow, 11–13; fellow, Wisconsin, 13–15, Ph.D, 15. Instr. and prin. acad, Col. of Emporia, 07–11; instr. *bot,* Kansas, 12–13; *Cincinnati,* 15–16, asst. prof, 16–20, *assoc. prof, 20–* Kans. Biol.

Surv, 12–13; U. S. Dept. Agr, 18. A.A; Bot. Soc; Phytopath. Soc. Anatomy of seed plants; diseases of alfalfa, market fruits and vegetables; diatoms; algal successions.

Wilson, Dr. Paul T(homas), P. O. Box 105, Kentfield, Calif. *Zoology.* Yakima, Wash, May 26, 98. B.S, Whitman Col, 26; A.M, California, 29, Ph.D, 32. Teaching fellow zool, California, 27–28; asst, Inst. Child Welfare, Berkeley, Calif, 28–32; *instr. zool, Marin Junior Col, 32–* Cooper Ornith. Club; West. Bot. Asn. Human heredity; human twins; left-handedness.

Wilson, P(ercy), 3261 Perry Ave, New York 67, N. Y. *Botany.* South Orange, N. J, May 21, 79. High sch. Museum asst, N. Y. Bot. Garden, 99–03; asst. botanist, Cuban Exp. Sta, Santiago de las Vegas, 04; admin. asst, N. Y. Bot. Garden, 04–10, asst. curator, 11–13, assoc. curator, 14–42; *retired.* Bot. expeds, Ga, East Indies, P. R, Honduras, Cuba, Bahamas and Isle of Pines. Torrey Bot. Club (sec'y, 09, 10, chairman field cmt, 06, 07, 15–17). Flora of North America and the West Indies; Rutaceae; Typhaceae; Meliaceae; Phytolaccaceae; Arizoaceae; Basellaceae.

Wilson, Dr. P(erry) W(illiam), University of Wisconsin, Madison, Wis. *Bacteriology, Biochemistry.* Bonanza, Ark, Nov. 25, 02. B.S, Wisconsin, 28, M.S, 29, Ph.D, 32. Research assoc. *agr. bacter, Wisconsin,* 32–34, asst. prof, 34–38, *assoc. prof, 38–* Guggenheim Mem. Foundation fellow, 36–37. A.A; Soc. Bact; Chem. Soc; Soc. Biol. Chem; Biochem. Soc. Eng. Bacterial fermentations; biological nitrogen fixation; biophysics.

Wilson, Dr. Philip J(ohnson), Jr, 1440 Wightman St, Pittsburgh, Pa. *Chemical engineering.* New York, N. Y, July 7, 96. B.S, Michigan, 18; Ph.D, Pittsburgh, 40. Engineer, Semet-Solvay Co, Syracuse, N. Y, 18–21; chief recorder, Cambria Steel Co, Johnstown, Pa, 21–23; chief chemist and supt. by-product and benzol plants, Ind. Coke and Gas Co, Terre Haute, 23–26; chem. engineer, Semet-Solvay Co, New York, 26–28; Koppers Research Corp, Pittsburgh, 28–32; *senior indust. fellow, Mellon Inst, 33–* Mem. cmt. chem. utilization of coal, Nat. Research Council. Chem. Eng. (sec'y-treas, Pittsburgh sect, 38–); Pittsburgh Chemists' Club. Removal of hydrogen sulfide from gases; recovery of by-products of coal carbonization and their utilization.

Wilson, Dr. Ralph E(lmer), Mount Wilson Observatory, Pasadena, Calif. *[5]Astronomy.* Cincinnati, Ohio, April 14, 86. A.B, Carleton Col, 06; Ph.D, Virginia, 10. Acting director, Goodsell Observatory, Carleton Col, 10–11; asst, Lick Observatory, California, 11–13; asst. astronomer in charge, D. O. Mills exped, Chile, 13–15, acting astronomer, 15–18; astronomer, Carnegie Institution, 18–38, sec'y dept. meridian astron, 23–38; *astronomer, Mt. Wilson Observatory, Carnegie Institution, 38–* Assoc. ed, 'Astron. Jour,' 29– Gold medal, Danish Acad, 26. Aeronaut. engineer, Bur. Aircraft Production, 18. A.A; Astron. Soc. (councilor, 34–37); Astron. Soc. Pacific. Double stars; star positions in the Orion nebula; spectroscopic binaries; radial velocities of stars, gaseous nebulae and Magellanic clouds; stellar motions; absolute magnitudes; solar motion.

Wilson, Dr. Raymond H(iram), Jr, U. S. Naval Academy, Annapolis, Md. *Astronomy.* Gap, Pa, Feb. 14, 11. A.B, Swarthmore Col, 31; A.M, Pennsylvania, 33, Ph.D, 35. Asst. astron, Flower Observatory, Pennsylvania, 31–35; instr. math, South. Methodist, 35–36; research fellow, Bartol Research Foundation, 36–37; asst. astron, Flower Observatory, Pennsylvania, 37; instr. math, Gettysburg Col, 37–38; research assoc. astron, Minnesota, 38–39; Pennsylvania and Swarthmore Col, 39–40; *junior astronomer, Nautical Almanac Office, U. S. Naval Observatory, 40–; lieut, U. S. Naval Res, and instr. math, U. S. Naval Acad, 42–* Asst, Sproul Observatory, Swarthmore Col, 29–30; research assoc, Mt. Wilson Observatory, Carnegie Institution, 38. A.A; Astron. Soc; Meteor Soc; Math. Asn; Asn. Variable Star Observers; Rittenhouse Astron. Soc. Phila. Binary stars; interferential methods; mathematical astronomy.

Wilson, Dean Robert, 165 Rutledge Ave, Charleston, S. C. *Medicine.* Stateburg, S. C, Aug. 23, 67. A.B, S. C. Col, 87; M.D, Med. Col. State of S. C, 92; LL.D, South Carolina, 18, Col. of Charleston, 22; D.C.L, Univ. of the South, 26. Instr. bacter, *Med. Col. State of S. C,* 89–00, adj. prof, 01–03, *prof. med, 04–, dean, 08–* Chairman, State Board Health, S. C, 07–31. Trustee, Charleston Museum; mem, Cmt. on Costs of Med. Care. Am. Med. Asn; Col. Physicians; Nat. Asn. Study and Prevention Tuber; Am. Heart Asn; Clin. and Climat. Asn; South. Med. Asn. (pres, 04); Tri-State Med. Asn. (pres, 22); S. C. Med. Asn. (pres, 15). Internal medicine.

Wilson, Dean Robert C(umming), University of Georgia, Athens, Ga. *Pharmacy.* Sparta, Ga, Oct. 27, 78. Phar.G, Univ. of the South; Michigan; Georgia. *Instr. pharmacy, Georgia, 07–, dean sch. pharmacy, 15–* V. pres, Am. Asn. Cols. Pharmacy, 33, pres, 36. Pharmaceut. Asn. (chairman house of delegates, 37–); Ga. Pharmaceut. Asn. (v. pres, 12, pres, 13, sec'y-treas, 28–38). Inorganic chemistry as related to medicinal and pharmaceutical products.

Wilson, Dr. Robert E(rastus), Pan-American Petroleum and Transport Co, New York, N. Y. **[6]Chemistry, Chemical engineering.* Beaver Falls, Pa, March 19, 93. Ph B, Col. of Wooster, 14, Sc.D, 31; B.S, Mass. Inst. Tech, 16; D.Eng, Polytech. Inst. Brooklyn, 40; LL.D, Colby Col, 43. Research lab, Gen. Elec. Co, 16; research assoc. applied chem, Mass. Inst. Tech, 16–17, asst. director, 19–20, director and assoc. prof. chem. eng, 20–22; asst. director research, Standard Oil Co. of Ind, 22–28, asst. to v. pres. in charge mfg, 29–30, director, 31–34, v. pres. in charge research and develop, 33–34; v. chairman, *Pan-Am. Petrol. and Transport Co,* 35–37, *pres,* 37–; *Am. Oil Co,* 37–; *director, Gen. Aniline and Film Corp, 42–* Consulting chem. engineer, U. S. Bur. Mines, 17–18; Arthur D. Little, Inc, 19–22. C.W.S, 18–19, major. Chem. Soc. (director); Chem. Eng; Soc. Automotive Eng. (councilor); Soc. Test. Mat; Petrol. Technol; Petrol. Inst. Vapor pressures; war gas absorbents; flow of liquids; lubrication; physical properties of hydrocarbons; petroleum chemistry; corrosion.

Wilson, Dr. Robert H(ugh), U. S. Department of Agriculture, Stanford University School of Medicine, San Francisco, Calif. *Pharmacology.* Denver, Colo, Dec. 12, 03. B.S, Denver, 25; M.S, Michigan, 27, Ph.D, 29. Asst. physiol. chem, Michigan, 25–29; Seessel fellow physiol. chem, Yale, 29–30, instr. pharmacol. and toxicol, sch. med, 30–32; physiol. chem, med. center, Louisiana, 32–34; assoc. pharmacologist, bur. chem. and soils, *U. S. Dept. Agr,* 34–41, *pharmacologist, bur. agr. chem. and eng, 41–* A.A; Soc. Exp. Biol; Soc. Pharmacol. and Exp. Therapeutics. Rate of absorption of amino-acids from the gastro-intestinal tract; glycogen formation from amino-acids; chronic intoxications from insecticidal spray residues.

Wilson, Prof. Robert North, Durham, N. C. *Chemistry.* Lenoir, N. C, March 3, 75. A.B, Haverford Col, 98; M.S, Florida, 09. Prof. chem, Guilford Col, 98–10; asst. chemist, Exp. Sta, Florida, 07–09; asst. prof. *chem,* Trinity Col. (N. C), 10–18, *prof,* 18–25, *Duke, 25–* Asst. supt. exten. work, Florida, 10. A.A; Chem. Soc; Eng. Educ; N. C. Acad. Physiological chemistry.

Wilson, Dr. Robert R(athbun), Princeton University, Princeton, N. J. *Physics.* Frontier, Wyo, March 4, 14. A.B, California, 36, research fellow, 38–40, Ph.D, 40. Teaching fellow, California, 36–38; instr. *physics, Princeton,* 40–42, *asst. prof, 42–* Gaseous discharge; nuclear physics; theory of the cyclotron; proton-proton scattering.

Wilson, Dr. Robert W(arren), University of Colorado, Boulder, Colo. *Geology, Paleontology.* Oakland, Calif, July 26, 09. B.S, Calif. Inst. Tech, 30, M.S, 32, Ph.D, 36. Asst. and teaching fellow geol, Calif. Inst. Tech, 30–36, research fellow paleont, 37–39; Sterling research fellow, Yale, 36–37; *instr. geol. and curator vert. paleont, Colorado, 39–* Collaborator at large, Nat. Park Service, 39. Fel. Geol. Soc; fel. Paleont. Soc; Soc. Vert. Paleont; Soc. Mammal; N. Y. Acad. Mammalian paleontology, particularly of the order Rodentia.

Wilson, Dr. Roy A(rthur), 633 E. 22nd Ave, Spokane, Wash. *Geology.* Granite, Mont, Sept. 12, 91. B.S, Montana, 15, M.S, 16; Ph.D, Chicago, 21. Instr. geol, Montana, 18–19; Chicago, 19–20; asst. prof, Oklahoma, 20–21; assoc. prof, South Dakota, 21–22; Montana, 22–25; Oklahoma, 25–26; geologist, Cities Service Co, Peru and Mex, 26–27; Calpet Petrol. Corp. of Venezuela, 27–28; VenMex. Petrol. Corp, 28–29; Standard Oil Co. of Venezuela, 29–30; assoc. prof. geol, Arizona, 30–33; visiting prof, south. branch, Idaho, 33–34; temporary geologist, U. S. Geol. Surv, 34; consulting geologist, 35–36; *geologist, Gulf Oil Corp, S. A, 37–* Geologist, S. Dak. Geol. Surv, 21–22, 24; geologist, State Bur. Mines, Mont, 23.

Wilson, Dr. Roy R(ussel), 1733 Davis Ave, Whiting, Ind. *Chemical engineering.* St. Charles, Mich, Oct. 8, 99. B.S, M.S, Michigan, 22, Ph.D, 34. *Research chemist,* Roessler and Hass-

lacher Chem. Co, 22–25; *Standard Oil Co. of Ind*, 25–28, *30–* Fractionation of complex hydrocarbons.

Wilson, Dean Stanley D(avis), Yenching University, Peiping, China. *Chemistry.* Waldo, Maine, Feb. 5, 81. A.B, Wesleyan, 09, A.M, 10; Swift fellow, Chicago, 13–14, Ph.D, 16. Instr. chem. and geol, Washburn Col, 10–12; chem, Kansas, 12; Chicago, 14–16; org. chem, Rice Inst, 16–17; instr. chem. and head dept, pre-med. sch, Peiping Union Med. Col, 17–20, asst. prof, 20–25, dean, 22–23, 24–25; *prof. chem, Yenching Univ, 25–*, chairman dept, 25–30, *dean col. nat. science, 29–* Research assoc, Chicago, 30–31. A.A; Chem. Soc; China A.A.S; Peiping Soc. Nat. Hist. Velocities of reactions; metabolism; ephedrine and napthylamine derivatives; Friedel-Crafts reaction; semi-microanalysis; pyrolysis of tar; Chinese wax; saponins; fertilizers.

Wilson, Dr. Thomas A(dam), Mellon Institute, Pittsburgh, Pa. *Physical chemistry.* Middletown, N. Y, Feb. 2, 97. A.B, Syracuse, 20; fellow, Illinois, 22–23, M.S, Ph.D, 23. Asst. chem, Syracuse, 19–20; physical and electro-chem, Illinois, 20–22; instr. *chem,* Union (N. Y), 23–25, asst. prof, 25–29, assoc. prof, 29–35; *fellow, Mellon Inst, 35–* Research physical chemist, Gen. Elec. Co, 24–32. Chem. Soc. (sec'y-treas, east. N. Y. sect, 24–26). Ionization of hypochlorous acid; total and partial vapor pressure of aqueous ammonia solutions; absorption process of ammonia refrigeration; single crystals of metals; properties of liquid dielectrics; x-ray analysis; single crystals of polarizing salts; cotton thread.

Wilson, Lieut. Commander Thomas C(ooper), 1532 33rd St, N.W, Washington, D. C. *Physics.* East Orange, N. J, Aug. 22, 05. B.S, Yale, 26, Ph.D, 39. Physical metallurgist, N. J. Zinc Co, 39–41; *office coordinator research and develop, office of Sec'y of Navy, 41–, U. S. Naval Res, 41–, lieut. commander.* Physical Soc; Min. and Metal. Eng. High pressure effects on the order-disorder transformation in alloys; beta-beta transformation in lead-lithium alloys.

Wilson, Dr. Thomas Lee, 115 McCosh Road, Upper Montclair, N. J. *Physical chemistry.* Wyoming, Ohio, Nov. 4, 09. B.S, Col. of Wooster, 30; M.S, Washington (Seattle), 34; Ph.D, Chicago, 35. *Research chemist, gen. labs, U. S. Rubber Co, 35–* Chem. Soc. Oceanography; reaction rates of gaseous decomposition.

Wilson, Thomas R. C, 1911 Kendall Ave, Madison, Wis. *Engineering.* Vernon, Ind, Oct. 23, 84. B.S, Purdue, 09, C.E, 20. *Engineer, Forest Products Lab, U. S. Forest Service, 10–* Assoc. Civil Eng. Determination of strength values of American species of wood; scientific grading of structural timbers; strength of laminated wooden columns, beams, curved beams and arches; uses of wood and plywood in aircraft.

Wilson, Dr. Volney C(olvin), 619 E. 84th St, Chicago, Ill. *Physics.* Evanston, Ill, Feb. 27, 10. B.S, Northwestern, 32; A.M, Ohio State, 34; Ph.D, Chicago, 38. *Instr. physics, Chicago, 38–* Cosmic rays.

Wilson, Prof. W(allace) A(lvin), 1960 Chapel St, New Haven, Conn. *Mathematics.* Auburn, N. Y, Dec. 17, 84. A.B, Yale, 05, Ph.D, 11. Instr. *math, Yale,* 09–12, asst. prof, 12–21, assoc. prof, 21–27, *prof, 27–* Math. Soc; Math. Asn; Conn. Acad. Theory of aggregates.

Wilson, W(alter) B(yron), Box 661, Tulsa, Okla. *Geology.* Ft. Madison, Iowa, Sept. 14, 86. A.B, Missouri, 13, A.M, 14. *Chief geologist, Gypsy div, Gulf Oil Co, 23–* A.A; Asn. Petrol. Geol; Min. and Metal. Eng; Geol. Soc. Origin, migration and accumulation of oil; a classification of oil reservoirs.

Wilson, Dr. Warren E(lvin), Armour Research Foundation, Chicago, Ill. *Fluid mechanics.* Newark, N. J, Dec. 5, 07. C.E, Lehigh, 28; M.C.E, Cornell, 32; M.S, Calif. Inst. Tech, 39; Ph.D, Iowa, 40. Asst, Calif. Inst. Tech, 34–35; instr. civil eng, S. Dak. Sch. Mines, 35–37, asst. prof, 37–38; Tulane, 38–39; Wayne, 39–40; prof. mech. and head dept, Colo. Sch. Mines, 40–43; *research engineer, Armour Research Inst, 43–* A.A; assoc. Civil Eng; Eng. Educ; Geophys. Union; Math. Asn. Supercritical flow of fluids in open channels; flow of fluids with solids in suspension in closed conduits.

Wilson, Prof. W(ilbur) M, University of Illinois, Urbana, Ill. *Civil engineering.* West Liberty, Iowa, July 6, 81. B.M.E, Iowa State Col, 00, C.E, 14; D.Eng, 42; Sibley fellow, Cornell, 03–04, M.M.E, 04. Instr, mech. eng, Iowa State Col, 01–03, asst. prof, 04–06, assoc. prof, 06–07; struct. detailer, designer and estimator, Ill. Steel Co, 08–11; chief designer, Strauss Bascule Bridge Co, 12–13; asst. prof. *struct. eng, Illinois,* 13–17, assoc. prof, 19–21, *research prof, 21–* Mem. examining cmt. for registering struct. engineers, Ill. Chanute medal, West. Soc. Eng, 15, 35; Croes medal, Am. Soc. Civil Eng, 36; Wason medal, Am. Concrete Inst, 39. Capt, C.Eng, 17–27, col, 27–A.A; Civil Eng. (chairman cmt. struct. alloys); Welding Soc; Ry. Eng; Eng. Educ; Soc. Test. Mat; Concrete Inst; Ill. Soc. Eng; Int. Asn. Bridge and Struct. Eng. Concrete arches; bearing value of rollers; static and fatigue strength of riveted and welded structural joints; strength of cylindrical shells.

Wilson, Dr. Wilfrid, University of Illinois, Urbana, Ill. *Mathematics.* Goody Hills, Cumberland, Eng, May 28, 90. B.Sc, London, 13; Int. Educ. Board fellow, 27; D.Math. et Phys, Amsterdam, 28. Lecturer, Northampton Polytech. Inst, London, 19–22; instr. *math, Illinois,* 29–31, *assoc, 31–* Math. Soc. Physics; topology.

Wilson, Dr. William, Pleasant St, South Yarmouth, Mass. *Physics, Engineering.* Preston, Eng, March 29, 87. B.Sc, Victoria, 07, M.Sc, 08, D.Sc, 13; Giessen, 11; B.A, Cambridge, 12. Lecturer physics, Toronto, 12–14; research physicist, West. Elec. Co, 14–25; Bell Tel. Labs, New York, 25–26, asst. director research, 26–36, asst. v. pres, 36–42; *retired.* Medal of honor, Am. Inst. Radio Engineers, 43. A.A; Physical Soc; Elec. Eng; Radio Eng. (director, 32–36); Franklin Inst. Radioactivity; thermionics; vacuum tube development; radio.

Wilson, Prof. W(illiam) B, 748 Poplar St, Ottawa, Kans. *Botany.* Near Jonesboro, Tenn, March 7, 66. B.S, Ottawa (Kans), 97, M.S, 98; Chicago, 03, 07, 09; Friday Harbor, 12; hon. Sc.D, Hillsdale Col, 27. *Prof.* math. and nat. science, Bacone Col, 95–96; nat. science, Bethel Col. (Ky), 97–03; *biol, Ottawa (Kans), 04–, v. pres, 15–, dean,* 19–24, *summer session, 24–* A.A; Bot. Soc; Kans. Acad. (pres, 29; exec. councilor, 30). Morphology and pathology of plants.

Wilson, Prof. W(illiam) E(rnest), Muskingum College, New Concord, Ohio. *Plant pathology.* Sparta, Ill, June 7, 07. B.S, Wheaton Col, 36; M.S, Illinois, 39, Ph.D, 41. Asst. biol, Wheaton Col, 36–37; bot, Illinois, 37–41; instr. *biol, Muskingum Col,* 41–42, *asst. prof, 42–; U. S. Army.* Bot. Soc; Phytopath. Soc. Physiology of species of Diplodia parasitic on corn.

Wilson, Prof. W(illiam) H(arold), University of Florida, Gainesville, Fla. *Mathematics.* Edwardsburg, Mich, Nov. 17, 92. A.B, Albion Col, 13; A.M, Illinois, 14, Ph.D, 17. Asst. *math,* Illinois, 14–16; instr, Mass. Inst. Tech, 17–19; Iowa, 19–20, assoc, 20–22, asst. prof, 22–26; assoc. prof, *Florida,* 27–29, *prof, 29–,* asst. dean *col. arts and sciences,* 28–30, acting dean, 30–33, asst. dean, 33–41, *assoc. dean, 41–* Math. Soc; Math. Asn. Functional equations; educational problems in college administration; higher education.

Wilson, William K(ester), National Bureau of Standards, Washington, D. C. *Chemistry.* Harrisville, W. Va, Sept. 15, 13. B.S, Salem Col. (W. Va), 34; M.S, West Virginia, 38; Maryland, 41– Fingerprint classifier, Fed. Bur. Investigation, 37–38; *paper chemist, Bur. Standards, 38–* Physical and organic chemistry; effect of light on sheet materials, principally paper and textiles.

Wilson, Prof. William R(onald), University of Washington, Seattle, Wash. *Psychology.* Detroit, Minn, Nov. 7, 94. A.B, Washington (Seattle), 17, M.S, 20, Ph.D, 25. Instr. *psychol,* Washington (Seattle), 19–25; asst. prof, Ohio State, 25–27, assoc. prof, 27–29; *prof, Washington (Seattle), 29–* Clin. psychologist, Camp Sherman, Ohio, 18; educ. service, Gen. Hosp. No. 29, 19. A.A. Educational psychology; personnel problems of college faculties; mental tests.

Wilson, Prof. W(illia)m S(olomon), Georgetown College, Georgetown, Ky. *Theoretical physics.* Reynoldsburg, Ohio, Aug. 9, 08. B.S, Brown, 31, M.S, 34; Ph.D, Yale, 36. Research chemist, Shell Develop. Co, 37; instr. chem, Blue Ridge Col, 38–40; *asst. prof. physics, Georgetown Col, 40–, head physical science dept. and instr. chem.* A.A; Physical Soc; Chem. Soc; Franklin Inst; Ky. Acad. Physical chemistry; atomic structure; spectroscopy; electrolytes.

Wilster, Prof. G(ustav) H, Oregon State Agricultural College, Corvallis, Oregon. *Dairying.* Copenhagen, Denmark, 93. B.S, Iowa State Col, 21, M.S, 22, Ph.D, 28. *Prof. dairy mfg,* Utah Col, 21–25, 27–28; *Oregon State Col, 29–* Dairy Sci. Asn. Dairy manufacturing and bacteriology.

Wilton, Dr. O(cra) Christine, East Carolina Teachers College, Greenville, N. C. *Botany.* Berryville, Ark, Sept. 29, 06. B.S, Arkansas, 30; M.S, Wisconsin, 33, Ph.D, 35. Asst. hort,

Wisconsin, 30–38; *teacher* science, Cent. Col. (Ark), 39–40; *biol, E. Carolina Teachers Col, 40–* Summer, teacher, Henderson State Teachers Col, Ark, 39. Anatomical structure of stems in relation to the production of flowers; correlation of cambial activity with flowering and reproduction; collection and classifiaction of the Araneae of Arkansas.

Wiltse, Prof. Stanley B(allie), 353 Marshland Court, Troy, N. Y. *Electrical engineering.* Albany, N. Y, Dec. 4, 95. E.E, Rensselaer Polytech, 19. Instr, *Rensselaer Polytech,* 19–23, asst. prof. *elec. eng,* 23–33, assoc. prof, 33–37, *prof, 37–, director eng, science and management defense training program, 40–, supervisor nat. defense training program, State Educ. Dept, N. Y, 40–* Elec. Eng; Eng. Educ; N. Y. State Soc. Professional Eng; Soc. Eng. East. N. Y. Electrical equipment of buildings; characteristics of sliding electrical contacts.

Wimer, Dr. D(avid) C(leveland), University of Illinois, Urbana, Ill. *Agronomy.* Liberty Square, Pa, March 4, 93. B.S, Pa. State Col, 15, M.S, 21; Ph.D, Illinois, 33. Asst. agron, Pa. State Col, 15–16, instr, 16–17, soil technol, 17–18, asst. prof, 18–19; assoc. agron, *Illinois,* 20–22, asst. prof. *soil physics,* 22–37, assoc. prof, 37–43, *prof, 43–,* asst. chief, *Exp. Sta,* 22–37, assoc. chief, 37–43, *chief, 43–* Soil Sci. Soc; Soc. Agron. Cultivation of corn; composition and fertilizing value of cornstalks.

Wimmer, Dean C(harles) R(obert), 403 College St, Barbourville, Ky. *Chemistry.* Meadville, Pa, March 26, 01. B.S, Allegheny Col, 23; M.S, Ohio State, 25; Ph.D, Cincinnati, 32. Instr. chem, Tennessee, 25–28; acting instr, Cincinnati, 29–30; *prof. chem. and head dept. physical science, Union Col. (Ky), 32–,* acting dean and registrar, 34–37, *dean, 37–* Summers, instr, Tennessee, 29, 30. Chem. Soc. Liquid ammonia chemistry.

Wimmer, Prof. Curt P(aul), 115 W. 68th St, New York, N. Y. *Pharmaceutical chemistry.* Salzungen, Germany, July 2, 79. Phar.D, N. Y. Col. Pharmacy, 04; A.M, Columbia, 09; hon. Ph.M, Conn. Col. Pharmacy, 27. Instr. *pharmaceut. chem, sch. pharmacy, Columbia,* 06–11, assoc. prof, 12–26, *prof, 27–, assoc. dean col. pharmacy, 30–* Pharmaceut. Asn; N. Y. Pharmaceut. Asn; hon. mem. N. J. Pharmaceut. Asn; Conn. Pharmaceut. Asn. Effect of ultra-violet radiations on chemicals and galenicals; manufacturing of pharmaceutical chemicals.

Wimmer, Dr. Edward J(oseph), Kansas State College, Manhattan, Kans. *Zoology.* Czechoslovakia, March 8, 02. A.B, Wisconsin, 25, A.M, 27, fellow, 27, Ph.D, 28. Asst. exten, Pub. Museum, Milwaukee; *zool,* Wisconsin, 25–27; asst. prof, *Kans. State Col,* 28–37, assoc. prof, 37–41, *prof, 41–* Summers, instr, Wis. State Teachers Col, Milwaukee, 29. Kans. Acad. Limnology of quarry pools; physiology of absorption of volatile fatty acids; effect of endocrine injections in vitamin deficiencies.

Winans, Dr. Charles F(rancis), 300 Beech St, Edgewood, Pittsburgh, Pa. *Organic chemistry.* Evansville, Ind, April 17, 08. B.S, Akron, 29; Ph.D, Wisconsin, 33. Research chemist, Nat. Aniline and Chem. Co, Buffalo, 33; Goodyear Tire and Rubber Co, 33–39; senior fellow, Mellon Inst, 39–42; *chief chemist, butadiene div, Koppers Co, 42–* Chem. Soc. Hydrogenation of organic compounds; accelerators and antioxidants; polymerization; coal tar; butadiene; styrene.

Winans, Prof. John G(ibson), University of Wisconsin, Madison, Wis. *Physics.* Mexico, Mo, July 2, 02. A.B, Colo. Col, 23; A.M, Dartmouth Col, 24; Ph.D, Wisconsin, 27. Asst. *physics,* Dartmouth Col, 23–24; Wisconsin, 24–27; nat. research fellow, Princeton, 27–28; Göttingen, 28–30; instr, *Wisconsin,* 30, asst. prof, 30–41, *assoc. prof, 41–* Physical Soc; Asn. Physics Teachers. Optical excitation of atoms; sensitized fluorescence; quenching of fluorescence by gases; molecular spectra.

Winant, Howard B(arr), 4309 34th St, Brentwood, Md. *Agronomy.* Middletown, N. Y, Aug. 3, 92. B.S, Md. State Col, 17, M.S, Maryland, 24. Teacher, high sch, Md, 17–18; field asst, Exp. Sta, Maryland, 19–23; *asst. soils, dept. agron, Exp. Sta, Maryland, 23–* In charge soil surv, Univ. Md. and U. S. Dept. Agr, 29–31. A.A. Soil analysis and classification.

Winch, Prof. Ralph P(hilip), Williams College, Williamstown, Mass. *Physics.* Milton Junction, Wis, Oct. 19, 05. A.B, Milton Col, 27; scholar, Wisconsin, 27–28, A.M, 29, Ph.D, 31. Asst. physics, Milton Col, 26–27; Wisconsin, 28–31, astron, 30–31; instr. *physics, Williams Col,* 31–36, asst. prof, 36–42, *assoc. prof. and acting chairman dept, 42–, sec'y faculty, 36–* Visiting asst. prof, Princeton, 42. A.A; Asn. Physics Teachers; Physical Soc. Photoelectric properties of solids, especially of silver and thin unbacked gold films.

Winchell, Prof. A(lexander) N(ewton), University of Wisconsin, Madison, Wis. ***Petrology, Mineralogy.* Minneapolis, Minn, March 2, 74. B.S, Minnesota, 96, M.S, 97; D.Sc, Paris, 00. Instr, high sch, Minn, 98; prof. geol. and miner, Mont. Sch. Mines, 00–07; asst. prof. *miner. and petrol, Wisconsin,* 07–08, *prof, 08–,* chairman dept, 34–40. Field asst, U. S. Geol. Surv, 01–07, asst. geologist, 07–10. Chairman cmt. on accessory minerals of crystalline rocks, Nat. Research Council, 31–38. Miner. expert, U. S. Cmn, Paris Expos, 00; director, Mont. mineral exhibits, La. Purchase Expos, 04; Mont. exhibits, Portland Expos, 05. A.A; Geol. Soc. (v. pres, 32); Soc. Econ. Geol; Miner. Soc. (councilor, 26–30, pres, 32); Min. and Metal. Eng; Nat. Asn. State Min. Schs. (sec'y-treas, 04); Mont. Soc. Eng; Wis. Acad; cor. mem. Geol. Soc. China. Petrography of Minnesota gabbroid rocks; optical mineralogy; mining districts of Dillon quadrangle, Montana; petrology and mineral resources of Jackson and Josephine counties, Oregon; rock classification on three coordinates; rocks of Bingham, Utah; petrology and mineral resources; chemical composition and optic properties of various isomorphous mineral groups; microscopic characters of artificial minerals and organic compounds.

Winchell, Dr. A(lexander) Vaughn, American Oncologic Hospital, Philadelphia, Pa. *Radiology.* Butte, Mont, Oct. 10, 04. A.B, Wisconsin, 25, A.M, 29; M.D, Rush, Chicago, 32. Asst. radiologist, West. Pa. Hosp, Pittsburgh, 32–35; Strong Mem. and Rochester Munic. Hosps, 35–37; instr. radiol, sch. med. and dentistry, Rochester, 35–37; *radiologist, Am. Oncologic Hosp, 37–; assoc. radiol, grad. sch. med, Pennsylvania, 40–; Med. Corps, U. S. Navy, 42–* Business manager, 'Cancer Research,' 40–42. A.A; Radiol. Soc. N. Amer; Physiol. Soc. Phila; Phila. Col. Physicians. X-ray therapy.

Winchell, Dr. Horace, Hamilton Watch Co, Lancaster, Pa. *Mineralogy, Geology.* Madison, Wis, Jan. 1, 15. A.B. and A.M, Wisconsin, 36; Harris fellow, Harvard, 36–37, A.M, 37, Weld scholar, 37–38, Ph.D, 41. Asst. geologist, City Board Water Supply, Honolulu, 38–40; *research crystallographer, Hamilton Watch Co, 41–* A.A; Miner. Soc. Petrography of Honolulu series; diamond dies and tools; sapphire jewel bearings.

Winchester, Dr. A(lbert) M(cCombs), Baylor University, Waco, Texas. *Biology.* Waco, Texas, April 20, 08. A.B, Baylor, 29; A.M, Texas, 31, fellow, 31–32, Ph.D, 34. Instr. zool, Texas, 32–34; prof, Lamar Col, 34–35; head dept. biol, Ouachita Col, 35–36; Tenn. State Teachers Col, 36–37; head dept. biol. and chairman div. science, Okla. Baptist, 37–43; *prof. zool, Baylor, 43–* A.A; Okla. Acad. Genetics; the use of x-rays in Drosophila genetics; the relation of vitamins to the growth and development of insects; genetics and endocrinology; effect of the pituitary on growth in the chick.

Winchester, Dr. C(larence) F(loyd), University of Missouri, Columbia, Mo. *Animal husbandry.* Chicago, Ill, Oct. 14, 01. B.S, California, 24, M.S, 35; Ph.D, Missouri, 39. Teacher agr, schs, Calif, 24–31; asst. animal husbandry, New Hampshire, 31–32; California, 32–37; agr. chem, *Missouri,* 37–40, *instr. animal husbandry, 40–; lieut, Air Corps, U. S. Army, 42–* Chem. Soc; Soc. Exp. Biol; Soc. Animal Production. Influence of environmental conditions on animal growth rates, production and work capacities; influence of thyroid and anterior pituitary on egg production; cell metabolism; physiology of muscular work.

Winchester, Prof. George, Rutgers University, New Brunswick, N. J. *Physics.* Elmore, Ill, May 22, 76. Ph.D, Chicago, 07. Acting prof. *physics* and head dept, Washington (Seattle), 06–07; *prof. and head dept,* Washington and Jefferson Col, 07–19; *Rutgers, 21–* Assoc, Nat. Research Council, 19. Lieut, U.S.A, 18–19. A.A; Physical Soc; Optical Soc; Franklin Inst. Photoelectricity; surface tension; radioactivity; low temperatures; solar radiation.

Windenburg, Dr. Dwight F, 611 Pickwick Lane, Chevy Chase, Md. *Structural mechanics.* Lamont, Iowa, May 14, 95. A.B, Cornell Col, 21, A.M, 23; California, 23–26; Ph.D, Catholic Univ, 39. Head dept. math, Polytech. Col. Eng, Calif, 25–27; Long Beach Junior Col, 27–29; *chief struct. mech. div, David Taylor model basin, U. S. Navy Dept, 29–* Mech. Eng. (special research cmt. on vessels under external pressure, 32–); Philos. Soc. Wash. Elastic stability of tee stiffeners;

construction of vessels under external pressure; strength of ships and ship structures.

Winder, Dr. Claude V(eyne), Parke, Davis and Co, Detroit, Mich. *Physiology.* Fallon, Nev, May 26, 09. B.S, Nevada, 31; M.S, Michigan, 32, Sc.D, 36. Asst. zool, Nevada, 30–31; physiol, Michigan, 31–34, 35–37, instr, 37–41, asst. prof, 41–43; *research pharmacologist, Parke, Davis and Co, 43–* A.A; Physiol. Soc; N. Y. Acad; Mich. Acad. Central and chemo-reflex actions of drugs and chemicals on respiration; mechanism of stimulation of carotid body chemoreceptors; carotid sinus reflex control of respiration, circulation and heart rate; anoxemic hyperpnea.

Windle, Prof. W(illiam) F(rederick), Northwestern University Medical School, Chicago, Ill. *†*Anatomy.* Huntington, Ind, Oct. 10, 98. B.S, Denison, 21; M.S, Northwestern, 23, Ph.D, 26. Asst. anat, *med. sch, Northwestern,* 22–23, instr, 23–26, asst. prof, 26–29, assoc. prof, 29–35, prof. microscopic anat, 35–42, *prof. neur. and director neur. inst, 42–* Laboratory guest, Cambridge, 35–36. A.A; Asn. Anat; Physiol. Soc; Soc. Exp. Biol. Embryology and histology of the nervous system; development of behavior; physiology of fetus; experimental neurology.

Windsor, Dr. M(anly) M(cDonald), 242 Denison Ave, Elyria, Ohio. *Chemistry.* Brierfield, Ala, March 10, 01. A.B, Baylor, 22; M.S, Kentucky, 25; Ph.D, Mass. Inst. Tech, 32. Instr. chem, Kentucky, 23–25; Mass. Inst. Tech, 25–34; chemist, Harshaw Chem. Co, 34–42; *chemist and spectroscopist, Am. Radiator and Standard Sanit. Corp, 42–* Instr, Fenn Col, 38– A.A; Chem. Soc. Zirconium; metal carbonyls; ceramics; electrochemistry; cobalt products; spectroscopy.

Winegarden, Dr. Howard M(erlin), 5000 Golden Gate Ave, Oakland, Calif. *Biochemistry.* Cosumnus, Calif, Sept. 1, 98. B.S, Calif. Inst. Tech, 24, M.S, 27, fellow, 30–31, Ph.D, 31. Research biochemist, *Cutter Labs, Berkeley,* 23–29, *director research, 29–* Asst, Calif. Inst. Tech, 25–26. A.A; Chem. Soc. Applications of the laws of thermodynamics to physiology; the chemistry of immunology.

Winestock, O(tto) C(harles), 2500 25th St, N, Arlington, Va. *Chemistry.* Germany, May 24, 73. Hohenheim Univ; Heidelberg; Worcester Acad. *Scientist, U. S. Bur. Efficiency.* A.A; Chem. Soc. Processes and machinery for fiber recovery from printed paper; disposal of redeemed currency and simultaneous fiber recovery.

Winfield, Dr. Gerald F(reeman), Cheeloo University, Tsinan, Shantung, China. *Parasitology, Public health.* Joshua, Texas, Sept. 1, 08. B.S, South. Methodist, 28; M.S, Illinois, 29; Sc.D, Hopkins, 32. *Prof. biol, Cheeloo Univ, 33–, Yenching Univ, 38.* Helminth. Soc. Wash. Taxonomy of helminths; host-parasite relations of nematodes; epidemiology and control of fecal-borne disease and village sanitation; improvement of organic fertilizers.

Wing, Prof. Cha(rle)s B(enjamin), 345 Lincoln Ave, Palo Alto, Calif. *Civil engineering.* Clinton, N. Y, Jan. 18, 64. C.E, Cornell, 86, fellow, 86–87. Instr. civil eng, Cornell, 87–89, asst. prof, 90–91; prof. bridge and hydraul. eng, Wisconsin, 91–92; *struct. eng, Stanford,* 92–29, *emer. prof, 29–* Asst. engineer, various companies, 87–90; consulting engineer, 88–C.Eng, 17–19, lieut. col; O.R.C. Civil Eng; Soc. Test. Mat. The flow of water in the six-foot steel and wood pipe line of the Pioneer Power Company; structural design.

Wing, Prof. Elizabeth (May), 900 S. College Ave, Ft. Collins, Colo. *Chemistry.* Grand Rapids, Mich. A.B, Hillsdale Col, 13; A.M, Michigan, 22. Millersburg Col, 13–17; high sch, Mich, 17–18; *Colo. State Col, 18–, assoc. prof. anal. chem.* A.A; Chem. Soc. Analytical and inorganic chemistry.

Wing, Dr. Henry J(oseph), 21 Elm Place, Milltown, N. J. *Chemistry.* Steele City, Nebr, Nov. 28, 98. B.S, Nebraska, 21, M.S, 25; Ph.D, Iowa, 29. Asst. prof. chem, Doane Col, 24–26; S. Dak. State Col, 26–28; chemist, Bur. Standards, 29–34; assoc. indust. research inst, Antioch Col, 34; *chemist,* E. I. du Pont de Nemours and Co, 35–38; *Johnson and Johnson, 38–* Assoc, George Washington, 30–34. A.A; fel. Inst. Chem; Chem. Soc. (sec'y, North Jersey sect, 37–42). Solubility of organic barium salts; catalytic decomposition of esters by nickel; the nature of the pure rubber hydrocarbon; reaction between paint films and zinc surfaces; dispersion of lacquer pigments; cotton processing; pressure sensitive adhesives.

Wing, Dr. Leonard (William), State College of Washington, Pullman, Wash. *Biology.* Grass Lake, Mich, Jan. 14, 06. A.B, Michigan, 34; Ph.D, Wisconsin, 37; Yale, 39. Asst, museum zool, Michigan, 31–32; Wisconsin, 34–37; wildlife manager, Tenn. Valley Authority, 37–38; *asst. prof. wildlife management, State Col. Wash, 39–* Collector, Kent Museum, 27. Wildlife Soc; Forestry Asn; Ornith. Union; Wilson Ornith. Club; Cooper Ornith. Club; Soc. Mammal; Pacific Coast Bird and Mammal Soc. Ornithology; wildlife management; ecology; mammalogy; animal populations; bioclimatology; geography.

Wing, Prof. Monta E(ldo), Beloit College, Beloit, Wis. *Geology.* Columbus, Kans, Aug. 24, 97. A.B, Kansas, 20, A.M, 21; Ph.D, Chicago, 23. *Prof. geol, Beloit Col, 23–* Paleontology and stratigraphy of the Silurian formations of northeastern Illinois and eastern Wisconsin.

Wingard, Dr. S(amuel) A(ndrew), Virginia Polytechnic Institute, Blacksburg, Va. *Plant pathology.* Grady, Ala, Sept. 22, 95. B.S, Ala. Polytech, 16, M.S, 17; Ph.D, Columbia, 25. Asst. agron, Exp. Sta, Ala. Polytech, 16–17; asst. plant pathologist, *Exp. Sta, Va. Polytech,* 17–22, assoc. plant pathologist, 22–28, *plant pathologist, 28–,* head dept. bot. and plant path, inst, 29–35. A.A; Bot. Soc; Phytopath. Soc; Va. Acad. Diseases of fruit, truck and tobacco; tobacco wildfire and blackfire; bean and cow-pea rust; tomato soft rot; yeast-spot of lima beans; cytology of Nematospora phaseoli; tobacco ring spot; loose smut of wheat; disease resistance in plants; rust-resistant beans.

Wingate, Dr. Phillip J(erome), E. I. du Pont de Nemours and Co, Deepwater, N. J. *Organic chemistry.* Wingate, Md, Jan. 13, 13. B.S, Washington Col. (Md), 33; M.S, Maryland, 39, Ph.D, 42. Teacher math, high sch, Md, 33–37, head dept, 37–39; asst. chem, Maryland, 39–42; *chemist, E. I. du Pont de Nemours and Co, 42–* Chem. Soc. Determination of active hydrogen and carbonyl groups in cerin, friedelin and certain related cork compounds; oxidation of pyrethrosin.

Winger, Dr. Ralph E(dgar), Los Angeles City College, Los Angeles, Calif. *Physics.* McCune, Kans, June 16, 91. A.B, Baker; Ph.D, Calif. Inst. Tech, 29. Instr. physics, Princeton, 30–31; asst. prof, Union (N. Y), 31–32; *Los Angeles City Col, 32–* Physical Soc. Spectroscopy of soft x-rays; absorption spectra.

Winger, Prof. R(oy) M(artin), University of Washington, Seattle, Wash. *Mathematics.* Crawford Co, Kans, Oct. 10, 85. A.B, Baker Col, 06; fellow, Hopkins, 11–12, Ph.D, 12. Instr. *math,* Illinois, 12–13; asst. prof, Oregon, 13–16, prof, 16–18; asst. prof, *Washington (Seattle),* 18–21, assoc. prof, 21–25, *prof, 25–* Math. Soc. (councilor, 36–39); Math. Asn. Projective geometry; self-projective curves; collineation groups.

Wingfield, Prof. R(obert) C(ornelius), Converse College, Spartanburg, S. C. *Psychology.* Farmville, Va, Oct. 19, 98. Ph.B, Chicago, 25, A.M, 30; Ph.D, Virginia, 34. *Prof. psychol, Converse Col, 34–; lieut, Adj. Gen's. Dept, U. S. Army.* Assoc. Psychol. Asn; South. Soc. Philos. and Psychol. Problems in audition.

Winkelman, Dr. N(athaniel) W(illiam), 1911 Spruce St, Philadelphia, Pa. *Neurology.* Philadelphia, Pa, Oct. 28, 91. M.D, Pennsylvania, 14. Asst. prof. *neur, Pennsylvania,* 19–29, *prof. neuropath, grad. sch. med, 27–, director, John L. Eckel lab, 36–* Head lab. neuropath, Phila. Gen. Hosp, 20–35; prof. neur. and head dept, med. sch, Temple, 29–36, pres. staff, univ. hosp, 32–35; neurologist, Mt. Sinai Hosp, Phila, Pa, 30–34; med. director, Phila. Psychiat. Hosp, 38–; neurologist, Jewish Hosp. Assoc. ed, 'Jour. Syphilis and Neur,' 38. Neuropsychiatrist, Base Hosp. 87, Toule, France, 18–19. Neur. Asn; Asn. Neuropath. (pres, 27, 41); fel. Psychiat. Asn; Asn. Research Nervous and Mental Disease; fel. Am. Med. Asn; Neur. Soc. Phila. (pres, 27); Path. Soc. Phila; Pyschiat. Asn. Phila. Neuro-psychiatry; neuropathology.

Winkenwerder, Dean Hugo (August), University of Washington, Seattle, Wash. *Forestry.* Watertown, Wis, March 16, 78. B.S, Wisconsin, 02; M.F, Yale, 07. Instr, high sch, Wis. 02–05; chief sect. educ, U. S. Forest Service, 07–08; asst. prof. forestry, Colo. Col, 08–09; assoc. prof, *Washington (Seattle),* 09–12, *dean col. forestry, 12–,* acting pres, 33–34, *acting director arboretum.* Collaborator, U. S. Forest Service, 08–13. Pres, Wash. State Forestry Conf, 23–; v. chairman, State Forestry Board, Wash. A.A; fel. Soc. Foresters. Dendrology; forest mensuration; migration of birds.

Winkenwerder, Dr. Walter L(aFolette), 1014 St. Paul St, Baltimore, Md. *Medicine.* Greenville, Wis, Dec. 14, 00.

B.S, Beloit Col, 23; M.D, Hopkins, 27. Asst. anat, *Hopkins*, 27–29, *med*, 31–33, instr, 34–36, *assoc*, 36– Soc. Study Asthma and Allied Conditions; fel. Col. Physicians; Clin. and Climat. Asn; Medico-Chirurg. Soc; South. Med. Asn. Allergy.

Winkler, Dr. Albert J(ulius), University Farm, Davis, Calif. *Horticulture*. The Grove, Texas, March 4, 94. A.B, Texas, 18; fellow, Missouri, 17–18, A.M, 18; Ph.D, California, 21. Assoc. *viticulture, California*, 21–23, instr, 23–25, asst. prof, 25–29, assoc. prof, 29–37, *prof, 37–*, asst. viticulturist, *Exp. Sta*, 25–29, assoc. viticulturist, 29–35, *viticulturist, 35–* 2nd lieut, Inf, 17–19. A.A; Soc. Hort. Sci; Soc. Plant Physiol. Viticulture; the carbohydrate nutrition, quality and maturity of the grape; climate and grape and wine production.

Winkler, Dr. A(lexander) W(oodward), 789 Howard Ave, New Haven, Conn. *Clinical medicine*. Ann Arbor, Mich, Nov. 20, 08. A.B, A.M, Michigan, 27; M.D, Harvard, 31. Intern, Hopkins, 31–32; fellow, Harvard, 32–33; asst. med, *Yale*, 33–35, Coxe fellow, 35–36, instr. *med*, 36–41, *asst. prof, 41–* Physiol. Soc; Soc. Clin. Invest. Metabolism; clinical chemistry.

Winkler, Dr. Carl A(rthur), McGill University, Montreal, Que, Can. *Chemistry*. Virden, Man, Oct. 24, 09. B.Sc, Manitoba, 30, Wheat Pool fellow, 30–31, M.Sc, 31; Nat. Research Council Can. scholar, McGill, 30–31, student, 31–32, fellow, 32–33, Ph.D, 33; Ph.D, Oxford, 39. Tutor chem, Manitoba, 27–31; Rhodes scholar, Oxford, 33–36; asst. research biologist, Nat. Research Council Can, 36–39; *asst. prof. chem, McGill, 39–* Governor Gen. silver medal, 36. Cereal chemistry; critical temperature phenomena; kinetics of chemical reactions; food storage and transport.

Winkler, Dr. C(harles) H(erman), Jr, University of Arkansas School of Medicine, Little Rock, Ark. *Parasitology, Bacteriology*. Austin, Texas, May 5, 15. B.S, Agr. and Mech. Col. Texas, 34, M.S, 38; Ph.D, Wisconsin, 42. Prin, sch, Texas, 36–38; asst. zool, Wisconsin, 38–42; *instr. parasitol. and bacter, sch. med, Arkansas, 42–* Factors affecting the growth of Trichomonas foetus in culture; relationship of bacteria to the culture of protozoa.

Winkler, Dr. DeLoss E, 1329 Shattuck Ave, Berkeley, Calif. *Organic chemistry*. Atchison, Kans, Feb. 4, 14. A.B, Kansas, 36, A.M, 39, State Industrial fellow, 39–41, Ph.D, 41. Teacher, high sch, Kans, 36–37; asst. instr. chem, Kansas, 37–39; *research chemist, Shell Develop. Co, 41–* Chem. Soc. Production of carbon black and activated carbon from hydrocarbons and chlorine; production and pyrolysis of chlorinated n-butane.

Winkler, J(oseph) Homer, 1212 Brentwood Road, Cleveland Heights, Ohio. *Electrochemistry*. Washington, D. C, Feb. 8, 01. B.S, George Washington, 25. Lab. asst, electrochem. sect, Bur. Standards, 20–24, research assoc, 24–28; *asst. manager*, Buffalo Electrotype and Eng. Co, 28–29; *Ace Electrotype Co, 29–* Sec'y-treas, Printing Plates Research, Inc. A.A; Electrochem. Soc; Int. Asn. Electrotypers and Stereotypers. Electrodeposition of metals; copper and nickel electrotyping solutions; graphite for electrotyping.

Winn, Dr. Grant S(aunders), Box 524, R. F. D. 6, Muncie, Ind. *Biochemistry*. Salt Lake City, Utah, Feb. 28, 11. A.B, Utah, 33, A.M, 35; Nat. Defense Research Council fellow, Purdue, 40–41, Ph.D, 41. Asst. chem, Utah, 33–35; gen. chem, Purdue, 35–38, biochem, 38–40; *indust. hygienist, Delco-Remy div, Gen. Motors Corp, 41–* Chem. Soc. Factors in the release of lead from the tissues of the mouse.

Winne, Dr. Charles K(nickerbacker), Jr, 151 Chestnut St, Albany, N. Y. *Medicine*. Sidney Barracks, Nebr, Sept. 30, 77. A.B, Hopkins, 97, M.D, 01. Extern and acting house officer, Hopkins Hosp, 01–03; asst, Bender Hygienic Lab, Albany, N. Y, 03–05; assoc. *med, Albany Med. Col. Union (N. Y)*, 05–31, *assoc. prof, 37–* Attending physician, Child's Hosp. and Albany Orphan Asylum, 07–; Albany Hosp. 37– Summer, res. physician, Thos. Wilson Sanatorium, Mt. Wilson, Md, 03. A.A; Am. Med. Asn; Asn. Path. and Bact.

Winnek, Dr. Philip S(tanley), Pitman-Moore Co, Indianapolis, Ind. *Chemotherapy*. San Diego, Calif, March 19, 08. A.B, Stanford, 31; Ph.D, California, 35. Sterling fellow physiol. chem, Yale, 35–37; research chemist, Am. Cyanamid Co, 37–43; *director research, Pitman-Moore Co, 43–* A.A; Chem. Soc. Physical chemical studies of amino acids; bromine in nutrition; chemotherapy of malaria, dysentery and other diseases prevalent in the armed forces.

Winnick, Prof. T(heodore), University of Idaho, Moscow, Idaho. *Biochemistry*. Winnipeg, Man, Can, Dec. 28, 12. A.B, California, 35, Ph.D, 39. Asst. biochem, California, 39–40; research assoc. surg. research, Wayne, 41–42; *asst. prof. biochem, Idaho, 42–* Detroit Physiol. Soc. Enzymes; proteins; microanalytical methods.

Winning, Dr. C(larence) H(erman), 22 S. American St, Woodbury, N. J. *Chemistry*. Beaver Dam, Wis, April 25, 04. A.B, Wisconsin, 27, Ph.D, 32. Teacher, high sch, Wis, 27–28; asst. limnol, Wisconsin, 28–29, instr. chem, exten. div, 29–30, asst, 30–34; *research chemist, E. I. du Pont de Nemours and Co, 34–* Chem. Soc. Vapor sorption by colloidal materials; commercial explosives.

Winning, W. Carl, 450 Springfield Ave, Westfield, N. J. *Chemistry*. Brooklyn, N. Y, Sept. 20, 04. B.S, Carnegie Inst. Tech, 26. Research labs, Standard Oil Develop. Co, 26–42; *tech. advisor, for. marketing dept, Standard Oil Co, N. J, 42–* Soc. Automotive Eng; Chem. Soc. Oil testing; specialty lubrication; oxidation.

Winninghoff, Dr. W(ilford) J(oseph), 407 Clark St, South Orange, N. J. *Physical chemistry*. Philipsburg, Mont, Nov. 11, 87. B.S, Montana, 10; Ph.D, Mass. Inst. Tech, 14. Bunker Hill and Sullivan Mining Co, 14–15; Anaconda Copper Mining Co, 15–16; *Gen. Elec. Co, 16–* Chem. Soc; Physical Soc. Solutions.

Winokur, Dr. Morris, 139th St. and Convent Ave, New York, N. Y. *Biology*. Philadelphia, Pa, Nov. 8, 10. B.S, Col. City of N. Y, 31, fellow, 31–33; M.S, N. Y. Univ, 33, Ed.D, 38. Tutor *biol, Col. City of N. Y*, 33–38, *instr, 38–* Fellow, Cold Spring Harbor, 31. A.A; Sci. Teachers Asn; Asn. Biol. Teachers; Soc. Bact; N. Y. Biol. Teachers Asn. Science orientation; physiology of Protozoa; neuromotor apparatus; plant physiology; photosynthesis; plant viruses.

Winslow, Arthur E(llsworth), Norwich University, Northfield, Vt. *Civil engineering*. Berlin, Vt, June 15, 77. B.S, Norwich, 98, C.E, 01; C.E, Dartmouth Col, 03. Asst. ry. engineer, C. V. Ry, 98; instr, Rose Polytech, 98–99; asst. city engineer, Everett, Mass, 99–00; prof. civil eng. and head dept, *Norwich*, 00–41, *dean, 32–* Civil Eng; Eng. Educ; Vt. Soc. Eng. (past pres, sec'y).

Winslow, Carlile P(atterson), Forest Products Laboratory, Madison, Wis. *Forestry*. Washington, D. C, Aug. 5, 84. Ph.B. (M.E), Yale, 05. Construction engineer, Niagara Construction Co, 05–06; Ont. Power Co, 06–07; *U. S. Forest Service, 08–*, engineer forest products, *Forest Products Lab*, 10–12, asst. director, 12–17, *director, 17–* Fel. Soc. Foresters; Civil Eng. Utilization of forest products; preservative treatment of wood; efficient use of wood and elimination of waste; forest industry and industrial development; pulp and paper resources and production processes; chemical conversion of wood.

Winslow, Prof. C(harles)-E(dward) A(mory), Yale University School of Medicine, New Haven, Conn. *Sanitary science*. Boston, Mass, Feb. 4, 77. B.S, Mass. Inst. Tech, 98, M.S, 99; hon. A.M, Yale, 15; Dr.P.H, N. Y. Univ, 18. Asst. health officer, Montclair, N. J, 98; asst. biol, Mass. Inst. Tech, 99–01, instr, 01–05, asst. prof, 05–10, biologist in charge sanit. research lab. and sewage exp. sta, 03–10; assoc. prof. biol, Col. City of N. Y, 10–14; *Lauder prof. pub. health, sch. med, Yale, 15–; director, John B. Pierce Lab. of Hygiene, 32–* Cutter lecturer, Harvard, 28; Jayne mem. lecturer, 29. Summers, curator pub. health, Am. Museum Nat. Hist, 10–23; lecturer, Chicago, 10; chairman, N. Y. Cmn. on Ventilation, 13–31; mem, Conn. Pub. Health Council, 17–; director pub. health activities, League of Red Cross Societies, Geneva, 21; expert assessor, health cmt, League of Nations, 27–32; sci. director, int. health div, Rockefeller Foundation, 29–30; v. chairman, Cmt. on Costs Med. Care, 27– Medal, Inst. Polit. and Social Sci, 18; Ling medal, Ling Foundation of Los Angeles, 28; Sedgwick medal, Am. Pub. Health Asn, 42. A.A; Soc. Nat; Pub. Health Asn. (pres, 25); Soc. Bact. (pres, 13); Soc. Exp. Biol; Soc. Heat. and Vent. Eng; Asn. Housing Officials (pres, 42); New Eng. Water Works Asn; Mass. Asn. Boards Health. Public health administration; physiology of air conditioning and ventilation; industrial hygiene; effect of mineral salts on the viability of bacteria; bacteriology of water, sewage and ice; sewage purification; etiology and epidemiology of typhoid fever; vital statistics; classification of Coccaceae.

Winslow, Dr. C(harles) N(elson), Brooklyn College, Brooklyn, N. Y. *Psychology.* Cumberland Center, Maine. July 7, 07. A.B, Wesleyan, 29; A.M, Columbia, 30, Ph.D, 33. Asst. psychol, Columbia, 31–32; instr, Junior Col. Bergen County, N. J, 33–34; tutor *philos, Brooklyn Col,* 34–37, *instr,* 37– A.A; Psychol. Asn. Visual perception in animals; social behavior of animals; conditioning.

Winslow, Dr. Earl H(olden), 2051 Coolidge Place, Schenectady, N. Y. *Chemistry.* Westboro, Mass, March 22, 98. B.S, Worcester Polytech, 21; M.S, Wisconsin, 25, Ph.D, 29. Sanit. chemist, Metcalf and Eddy, Boston, 21–24; asst, Wisconsin, 24–28; *research chemist,* Roessler and Hasslacher Chem. Co, N. J, 28–30; *research lab, Gen. Elec. Co, Schenectady, 30–* Research chemist, Burgess Labs, Madison, 24–28. Chem. Soc. General and physical chemistry; the effect of small amounts of moisture on the reaction of metals with chlorine; synthetic resins; microcolorimetric determinations; analytical research.

Winslow, Dr. N(athaniel) M(orton), 2115 Riverside Drive, Lakewood, Ohio. *Organic chemistry.* Bloomington, Ill, May 10, 10. Ph.D, Chicago, 36. *Research chemist, Nat. Carbon Co, Inc.* Chem. Soc; Electrochem. Soc.

Winsor, Prof. A(ndrew) L(eon), Cornell University, Ithaca, N. Y. *Psychology.* St. George, Utah. A.B, Utah, 20, A.M, 21; Ph.D, Cornell, 29. Instr. *psychol, Cornell,* 27–30, asst. prof, 30–36, *prof, 36–* Heckscher research grant, 29. Project director, cmt. selection and training aircraft pilots, Nat. Research Council. A.A; Psychol. Asn; East. Psychol. Asn. Factors affecting parotid secretion; the process of inhibition; the influence of drugs on secretion; personnel administration.

Winstein, Prof. S(aul), University of California at Los Angeles, West Los Angeles, Calif. *Physical organic chemistry.* Can, Oct. 8, 12. A.B, California at Los Angeles, 34, A.M, 35; Ph.D, Calif. Inst. Tech, 38. Research fellow *chem,* Calif. Inst. Tech, 38–39; nat. research fellow, Harvard, 39–40; instr, Ill. Inst. Tech, 40–41; *California at Los Angeles,* 41–42, *asst. prof, 42–* Chem. Soc. Reaction mechanisms.

Winston, Dr. C(lement), Railroad Retirement Board, Washington, D. C. *Statistics.* Philadelphia, Pa, Feb. 14, 02. B.S, Pa. State Col, 23; B.S, Pennsylvania, 27, A.M, 28, Ph.D, 33. Instr. math, Pennsylvania, 27–33; research analyst, Nat. Recovery Admin, 33–35; statistician, Works Progress Admin, 35–37; Nat. Resources Cmt; *senior econ. statistician, R.R. Retirement Board.* Math. Soc; Math. Asn; Circolo Mat. di Palermo. Orthogonal polynomials; mechanical quadratures; interpolation.

Winston, John R(obinson), U. S. Horticultural Field Laboratory, Orlando, Fla. *Plant pathology.* Hanover, Va, Jan. 27, 90. B.S, Va. Polytech, 11; fellow, Pa. State Col, 11–12, M.S, 12; Wisconsin, 15–16. Asst. plant path, Exp. Sta, N. C. State Col, 12–13; plant pathologist, Hood River Exp. Sta, 13–16; *pathologist, bur. plant indust, U. S. Dept. Agr, 16–, senior horticulturist.* A.A; Phytopath. Soc; Soc. Hort. Sci. Diseases of fruits.

Winston, Dr. Lula G(aines), 2607 Hanover Ave, Richmond, Va. *Chemistry.* Richmond, Va. B.S, Richmond, 99; Ph.D, Hopkins, 11. Head dept. chem, Va. State Teachers Col, Farmville, 02–20; prof, Meredith Col, 20–38; retired. Trustee, Richmond, 20–33. A.A; Chem. Soc. Physical chemistry; the conductivity, temperature coefficients of conductivity and dissociation of electrolytes in aqueous solution; probable inductive action in solution and evidence for the complexity of the ion.

Winstrom, Dr. Leon O(scar), 794 Harrison Ave, R.R. 3, Williamsville, N. Y. *Physical chemistry.* Holland, Mich, April 8, 12. A.B, Hope Col, 34; M.S, Carnegie Inst. Tech, 35, Sc.D, 38. Teaching fellow, Carnegie Inst. Tech, 34–37, night sch. instr, 37–38; *research chemist, nat. aniline div, Allied Chem. and Dye Corp, 38–* Chem. Soc. Solution kinetics; catalysis.

Winter, Prof. A(lden) R(aymond), 1631 Perry St, Columbus, Ohio. *Poultry husbandry.* A.B, West Virginia, 20; M.S, Ohio State, 21, Ph.D, 28. Asst. nutrition investigations, Ohio Exp. Sta, 20–25; asst. prof. *poultry husbandry, Ohio State,* 26–33, *assoc. prof, 34–* A.A; Poultry Sci. Asn. Poultry nutrition and diseases.

Winter, Dr. Charles A(llen), State University of Iowa, Iowa City, Iowa. *Physiology.* Carmi, Ill, Sept. 18, 02. A.B, Southwestern Col. (Kans), 26; Ph.D, Buffalo, 35. Asst. zool, California, 26–27; Hopkins, 27–28; instr. biol, Buffalo, 28–32, asst. *physiol,* 32–34, instr, 34–36; *Iowa,* 36–40, assoc, 40–43, *asst. prof, 43–* A.A; Soc. Exp. Biol; Physiol. Soc. Endocrinology; adrenal cortex; diabetes insipidus.

Winter, Dr. Ernest A(lbert), R.F.D. No. 3, Somerville, N. J. *Chemical engineering, Mechanical engineering.* Niagara Falls, N. Y, Sept. 10, 11. M.E, Stevens Inst, 33; A.M, Columbia, 34, Ph.D, 39. Chem. engineer, Macmar Corp, 34–35; plant manager, Bruce Corp, 35–37; *senior research engineer, research lab, Johns Manville Corp, 39–* Chem. Soc. Carbon dioxide; beryllium oxide; alumina; lime; silicates and other inorganics; inorganic and organic coatings; equipment and processing in the chemical industry.

Winter, Dr. Floyd L(eslie), 205 Church St, New Haven, Conn. *Genetics.* Wenona, Ill, Feb. 10, 98. B.S, Illinois, 22, M.S, 24, Ph.D, 28; Cornell, 27. Asst. agron, Exp. Sta, Illinois, 22–24; asst. and instr. plant breeding, Illinois, 25–27, assoc, 27–29; consulting agronomist, Hoopeston Canning Co, 29–33; geneticist, *Associated Seed Growers, Inc,* 33–36, *director breeding and research, 36–* Sigma Xi grant, 26. A.A; Soc. Agron; Genetics Soc; Phytopath. Soc; Genetic Asn; Soc. Hort. Sci. Improvement of vegetable crops by selection and hybridization.

Winter, Prof. George, Cornell University, Ithaca, N. Y. *Civil engineering.* Vienna, Austria, April 1, 07. Dipl.Ing, Munich Inst. Tech, 30; Ph.D, Cornell, 40. Consulting engineer, Russian Govt, 32–38; research investigator, *Cornell,* 38–40, research assoc. eng, 40–42, *asst. prof. civil eng, 42–* Lecturer, Ural Indust. Inst. and Sverdlovsc Munic. Inst, 34–38; instr, Mining Inst, Sverdlovsc, 36–38. Analytical and experimental engineering; theory of elasticity; elastic stability; engineering structures; strength of lightweight steel structural members.

Winter, Dr. I(rwin) C(linton), University of Oklahoma School of Medicine, Oklahoma City, Okla. *Pharmacology.* Clinton, Okla, July 17, 10. B.S, Allegheny Col, 31; M.S, Northwestern, 33, Ph.D, 34; M.D, Tennessee, 41. Asst. physiol. chem, med. sch, Northwestern, 31–34, research fellow physiol, 34–35; physiologist, research dept, Parke, Davis and Co, Detroit, 35–36; instr. physiol. and pharmacol, col. med, Baylor, 36–39; *assoc. prof. pharmacol, sch. med, Oklahoma, 39–* Liver damage and fat metabolism; physiology and pharmacology of micturition; autonomic pharmacology.

Winter, Prof. John E, 324 Grandview Ave, Morgantown, W. Va. *Psychology.* Holland, Mich, Feb. 28, 78. A.B, Hope Col, 02; A.B, Michigan, 06, A.M, 10, Ph.D, 17. Prof. psychol. and educ, Goshen Col, 13–15; asst. prof. psychol, North Dakota, 15–16; *prof.* psychol. and educ, Parsons Col, 16–21; *psychol, West Virginia, 21–* A.A; assoc. Psychol. Asn; S. Soc. Philos. and Psychol. (pres, 34). The sensation of movement; blonde and brunette traits; the psychology of freshman rules; the effect on learning of supervised and unsupervised study among college freshmen; criminal psychology; postulates of psychology.

Winter, Prof. John M(ack), Nebraska State Teachers College, Peru, Nebr. *Botany.* Stuart, Iowa, Feb. 19, 99. B.S, Nebraska, 27, A.M, 28, fellow, 30–32, Ph.D, 32. Asst. bot, Nebraska, 26–28; instr, Northwestern, 28–30; *prof. biol. and head dept. science, Nebr. State Teachers Col, 32–* A.A; Bot. Soc; Genetic Asn; Soc. Plant Taxon; Torrey Bot. Club. Plant taxonomy and cytology; flowering plants of Nebraska.

Winter, Dr. Paul K(enneth), General Motors Corp, Detroit, Mich. *Chemistry.* Clarion, Iowa, Nov. 16, 02. B.S, Muskingum Col, 25, A.B, 26; A.M, Ohio State, 32, Ph.D, 34. Teacher and prin, high sch, Ohio, 25–30; asst. anal. chem, Ohio State, 30–34, indust. research, 34–36; *research labs. sect, Gen. Motors Corp, 37–* Asst, Inst. Paper Chem, Lawrence Col, 35. Chem. Soc. Analytical chemistry; automotive fuels; combustion.

Winter, Dr. S(amuel) G(uy), General Delivery, San Antonio, Texas. *Biology.* Crooksville, Ohio, Jan. 1, 80. A.B, Ohio (Athens), 02, A.M, 03; Dr.P.H, Lombard Col, 18; Ph.D, Göttingen, 30. Prof. biol, Ill. Wesleyan, 06–10; assoc. prof, Beloit Col, 11; prof, Lombard Col, 12–28, dean, 13–15; prof. biol, Elmhurst Col, 30–34; private research, 34–36; petrol. geol, 36–41; *lieut. col, Service Command Headquarters, U. S. Army, 41–* Bacteriologist, lab, State Dept. Health, Ill, 12–28; lecturer and director path. lab, Galesburg Hosp, Ill, 18–26; director, Galesburg Path. Lab. Director bacter. and path. labs, Base Hosp. No. 11, France, and capt, U.S.A, 18–19, major, O.R.C, 19–30, lieut. col, 30– Fel. Pub. Health Asn; Ill. Acad.

Serology of blood groups; normal and immune blood groups; blood groups in cattle and horses.

Winterkorn, Dr. H(ans) F(riedrich), Princeton University, Princeton, N. J. *Physical chemistry.* Mannheim, Germany, Nov. 24, 05. Ph.D, Heidelberg, 31. Head div. chem, Sch. Adult Educ, Mannheim, Germany, 29–31; research chemist, State Highway Dept, Mo, 31–32, research assoc, 33–42; visiting asst. prof. chem, Missouri, 32–33, asst. soils, Exp. Sta, 33–37, research assoc, 37–40, research assoc. prof. soil mech, 40–42; *assoc. prof. civil eng, Princeton, 42–* Research assoc, Direccion Nacional de Vialidad, Argentina, 37–40. A.A; Chem. Soc; Soc. Agron; Eng. Educ; Civil Eng; Highway Research Board; Mo. Acad; Int. Soc. Soil Sci. Viscosity of corrosive gases; physico-chemical behavior of soils and other road construction materials; stabilization of road surfaces and road beds by physico-chemical means; low cost roads.

Wintermoyer, Dr. J(ohn) P(aul), 7511 Princeton Ave, College Park, Md. *Metallurgical chemistry.* Hedgesville, W. Va, Nov. 16, 13. B.S, Maryland, 38, M.S, 40, Ph.D, 42. Asst. soil research, Maryland, 38–42; *metal. chemist, U. S. Bur. Mines, 42–* Absorption of applied potash on some Maryland soils.

Winternitz, Dr. M(ilton) C(harles), 210 Prospect St, New Haven, Conn. *[3]*Pathology.* Baltimore, Md, Feb. 19, 85. A.B, Hopkins, 03, M.D, 07; hon. A.M, Yale, 17. Fellow, Hopkins, 07–08, asst. *path,* 08–09, instr, 09–10, assoc. and assoc. prof, 10–17; prof, *sch. med, Yale,* 17–25, *Anthony N. Brady prof, 25–,* dean, 20–35, assoc. director, Inst. Human Relations, 31–35, chairman univ, dept. bacter, path. and pub. health, 31–33. Asst. res. pathologist, Hopkins Hosp, 10–13, assoc. res. pathologist, 13–17; pathologist, City Hosp, Baltimore, 10–17; New Haven Hosp, 17–32, director, 32–; mem. board sci. advisers, Childs fund med. research, Yale. Newell Sills Jenkins mem. medal, 32. Int. Cong. Tuber. Major, M.C, 18–19. A.A; Asn. Path. and Bact; Soc. Exp. Path; Soc. Exp. Biol; fel. Am. Med. Asn; Int. Asn. Med. Mus. The nucleic acid ferments; catalase; peroxidase; lipase; melanotic sarcoma; tuberculosis of the stomach; tuberculous cavities of the liver; the relation of duct changes to chronic pancreatitis; regeneration of the kidney; pathology of war gas; influenza; artificial production of pneumonia.

Winters, Prof. Eric, University of Tennessee, Knoxville, Tenn. *Agronomy.* Chicago, Ill, May 29, 04. B.S, Illinois, 27, M.S, 30, Ph.D, 38. Asst. and assoc. agron, Ill, 27–38; instr. soils, Wisconsin, 38; assoc. prof. *agron, Tennessee,* 38–39, *prof. and head dept, 39–* Soil physics and soil colloidal relations.

Winters, Prof. L(aurence) M(erriam), University Farm, St. Paul, Minn. *Animal husbandry.* Lake City, Minn, June 15, 91. B.S, Minnesota, 19, Ph.D, 32; M.S, Iowa State Col, 20. Prof. animal husbandry, Saskatchewan, 20–28; assoc. prof. *animal husbandry in charge animal genetics, Minnesota,* 28–34, *prof, 34–* A.A; Genetic Asn; Soc. Animal Production. Animal genetics; physiology of reproduction; embryology of farm animals, especially the sheep and the bovine; breeding for the improvement of farm animals; cross-breeding and in-breeding.

Winters, Dr. N(athaniel) E(lmer), P. O. Box 1561, Honolulu, Hawaii. *Agriculture.* Fall River, Kans, July 3, 86. B.S, Okla. Agr. and Mech. Col, 11; M.S, Agr. and Mech. Col. Texas, 18; Ph.D, Cornell, 23. Head dept. agron, Okla. State Nor. Sch, 11; asst. in charge boys' and girls' club work, Okla, 12; agronomist, Exp. Sta, Agr. and Mech. Col. Texas, 12–18; exten. agronomist, N. C. State Col, 18–19; agronomist, Clemson Col. and Exp. Sta, 19–23; chief cotton div, Argentine Dept. Agr, 24–29; head dept. agron, Okla. Agr. and Mech. Col, and asst. director, Exp. Sta, 24–33; regional director, soil conservation service, U. S. Dept. Agr, Okla, 33–35, Kans, 35–38, Honolulu, 39–41; *head soil conservationist and appraiser land and crops in Hawaii, U. S. War Dept, 42–* Summers, cotton examiner for Argentine Govt, Peru, 24, Paraguay, 25. Soc. Agron. Soil bacteriology; cotton breeding; soil erosion.

Winters, Dr. R(hett) Y(oumans), U. S. Department of Agriculture, Washington, D. C. *Agronomy.* Society Hill, S. C, March 9, 86. B.S, Clemson Col, 06; M.S, Florida, 09; Ph.D, Cornell, 12. Asst. bot, Florida, 06–09; plant breeding, Cornell, 10, instr, 11–12; Exp. Sta, N. C. State Col, 12–37, director research, sch. agr, 25–37; prin. exp. sta. administrator, *office exp. stations, U. S. Dept. Agr,* 37–39, asst. director research, 39–42, *research coordinator, 42–* Advisory cmt. sci. research, Textile Foundation. Asn. South. Agr. Workers (sec'y, agron. sect, 19); Asn. Land-Grant Cols. and Univs. (sec'y, sect. agr, 31, v. pres, 32). Breeding of farm crops; community improvement of farm seeds.

Winters, Dr. Robert K(irby), U. S. Forest Service, Washington, D. C. *Forestry.* Douglas, Mich, May 11, 02. B.S, Michigan, 24, M.S, 25, Ph.D, 30. Forest ranger, U. S. Forest Service, 25–27, junior forester, 27; junior instr. forestry, Michigan, 27–30; asst. silviculturist, South. Forest Exp. Sta, *U. S. Forest Service,* 30–34, forester, 34–39, regional director forest surv, North. Rocky Mountain Forest and Range Exp. Sta, 39–42, *in charge studies of factors affecting wartime production of lumber, 42–* Soc. Foresters. Forest economics.

Wintersteiner, Prof. Oskar, Squibb Institute for Medical Research, New Brunswick, N. J. *Chemistry.* Bruck, Austria, Nov. 15, 98. Ph.D, Graz, 21. Asst, inst. med. chem, Graz, 21–26; Int. Educ. Board fellow, 26–27; instr. pharmacol, med. sch, Hopkins, 27–29; asst. prof. biochem, col. physicians and surg, Columbia, 29–40, assoc. prof, 40–41; *head div. org. chem, Squibb Inst. Med. Research, 41–* Hon. prof, Rutgers, 42– Soc. Exp. Biol. (board ed, 38–); Soc. Biol. Chem; Chem. Soc; Harvey Soc. Organic and biological chemistry; organic arsenic compounds; organic microanalysis; chemistry of insulin; corpus luteum hormone; adrenal cortical hormones; estrogens; sterols.

Wintner, Dr. Aurel (Frederick), Johns Hopkins University, Baltimore, Md. *[0]*Mathematics, Astronomy.* Vienna, Austria, April 8, 03. Ph.D, Leipzig. Asst. ed. board, 'Math. Zeitschrift' and 'Jahrbuch über die Fortschritte der Math,' 27–29; Int. Educ. Board fellow, Rome, 29; fellow, Copenhagen 30; assoc. *math, Hopkins,* 30–35, *assoc. prof, 35–* Asst, Leipzig; mem. Inst. Advanced Study, 37; Guggenheim Mem Foundation fellow, 41. Assoc. ed, 'Am. Jour. Math,' 36–39, ed, 43– London Math. Soc; Edinburgh Math. Soc; Astron. Gesell. Theoretical astronomy; periodic solutions in celestial mechanics; non-linear theory of infinitely many variables; almost-periodic functions and their applications to dynamics and analytic number theory; infinite matrices; distribution functions.

Winton, Dr. A(ndrew) L(incoln), Wilton, Conn. *[2]*Chemistry.* Westport, Conn, Jan. 26, 64. Ph.B, Yale, 84, Ph.D, 04; Graz. Chemist, Conn. Agr. Exp. Sta, 84–90, in charge anal. lab, 90–07; instr. org. anal, Yale, 02–06; chief, Chicago food and drug lab, bur. chem, U. S. Dept. Agr, 07–14; *retired.* Chem. Soc; Agr. Chem. (pres, 98). Chemical and microscopical analysis of agricultural products; microscopic investigation of vegetable foods.

Winton, Berley, U. S. Department of Agriculture, East Lansing, Mich. *Poultry husbandry.* Livingston, Tenn, March 31, 94. B.S, Kentucky, 22; A.M, Missouri, 26. Agr. exten. service, Kentucky, 22–23; Missouri, 23–25, 26–35; Tennessee, 25–26; senior poultry husbandman, *U. S. Dept. Agr,* 35–36, in charge poultry husbandry investigations, 36–40, *director and prin. poultry husbandman, regional poultry research lab, 40–* Poultry Sci. Asn. (pres, 39). Diseases of poultry.

Winton, Dr. Kate Barber (Mrs. A. L. Winton), Wilton, Conn. *Histology.* Charlestown, R. I, Oct. 9, 82. B.S, R. I. State Col, 03; Ph.D, Yale, 06. Microscopist, Conn. Exp. Sta, 06–07; micro-analyst, bur. chem, U. S. Dept. Agr, 07–11. A.A. Histology of foods.

Winton, Prof. W(ill) M(cClain), Texas Christian University, Ft. Worth, Texas. *Paleontology, Biology.* Santa Rosa, Calif, April 21, 85. B.S, M.S, Vanderbilt, 08. Prof. biol, Cent. State Nor. Sch, Okla, 08–11; instr, Agr. and Mech. Col. Texas, 11–13; *prof.* biol. and geol, *Texas Christian,* 13–28, *geol, 28–* Fellow, Rice Inst, 14–15. Summers, geologist, State Bur. Geol, Texas, 20–25. A.A; Soc. Ichthyol. and Herp; Asn. Petrol. Geol; Paleont. Soc; Soc. Econ. Paleont; Soc. Mammal; Soc. géol. de France. Paleontology; physiology and ecology of Iguanidae; paleontology of Texas Comanchean.

Wintrobe, Dr. M(axwell) M(yer), University of Utah School of Medicine, Salt Lake City, Utah. *Internal medicine.* Halifax, N. S, Can, Oct. 27, 01. B.A, Manitoba, 21, Isbister scholar, 21–26, M.D, 26, L.M.C.C, Gordon Bell fellow, 26–27, B.Sc, 27; Ph.D, Tulane, 29. Intern, King George Hosp, Winnipeg, 25; Winnipeg Gen. Hosp, 25–26; instr. med, Tulane, 27–30; Hopkins, 30–35, assoc, 35–43; *prof. int. med. and head dept, sch. med, Utah, 43–* Asst. visiting physician, Charity Hosp, New Orleans, 27–30; asst. physician, Hopkins Hosp, 30–39, assoc. physician, 39–43, physician in charge clinic for nutritional, gastro-intestinal and hemopoietic disorders, 41–43.

Mem. anti-anemia preparations advisory board, U. S. Pharmacopoeia. Am. Physicians; Soc. Exp. Path; Soc. Clin. Invest. Hematology; the erythrocyte in man; normal hematological standards; hematologic technique; classification of anemias; diseases of the blood; fetal blood formation; experimental anemias; neurologic disorders in vitamin deficiency; nutritional deficiencies in swine; methods of assay of human nutritional deficiency.

Winzler, Dr. Richard J(ohn), University of Southern California Medical School, Los Angeles, Calif. *Physiological chemistry.* San Francisco, Calif, Sept. 29, 14. A.B, Stanford, 36, Ph.D, 38. Sterling fellow, Yale, 38–39; nat. research fellow, Wenner-Grens Inst, Stockholm, 39–40; med. col, Cornell, 40–41; research fellow, nat. cancer inst, U. S. Pub. Health Service, 41–43; *asst. prof. biochem, med. sch, Southern California, 43–* A.A; Chem. Soc; Asn. Cancer Research. Intermediary metabolism; respiratory enzymes; growth factors; blood proteins.

Wipf, Dr. F(rances) Louise, University of Wisconsin, Madison, Wis. *Cytology.* Iola, Wis, Aug. 18, 06. B.E, Wis. State Teachers Col, 30; Ph.M, Wisconsin, 33, Ph.D, 39. Teaching asst, Oshkosh State Teachers Col, Wis, 30–32; *research asst.* vet. science, *Wisconsin, 38–43, genetics, 43–* Soc. Bact; Genetics Soc. Root nodules; fur farm animals; cytogenetics.

Wirka, R(aymond) M(ichael), U. S. Forest Service, Washington, D. C. *Forestry.* Madison, Wis, Oct. 4, 96. B.S, Wisconsin, 18, Mech.E, 31. Research engineer, Forest Products Lab, *U. S. Forest Service, 18–41, senior technologist, div. forest products, 41–* Wood Preservers Asn; Soc. Foresters. Forest products.

Wirt, George H(erman), Pennsylvania Department of Forests and Waters, Harrisburg, Pa. *Forestry.* McVeytown, Pa, Nov. 28, 80. B.E, Juniata Col, 98, M.E, 02, M.S, 28; B.S, Biltmore Forest Sch, 01; Pennsylvania; Chicago; Germany. State forester, Pa, 01; director, State Forest Acad, Mont Alto, 03–10; state forest inspector, 10–15; *chief bur. forest protection and chief forest fire warden, State Dept. Forests and Waters, Pa, 15–* Soc. Foresters (chairman, Allegheny sect, 30). Propagation of forest-tree seedlings; growth of trees: protection of forests from fire.

Wirth, Charles, 3rd, Technical Command, Chemical Warfare Service, Edgewood Arsenal, Md. *Chemistry.* New Orleans, La, Nov. 7, 04. B.E, Tulane, 26, M.S, 27. Instr. org. chem, Tulane, 24–27; research chemist, Gulf Ref. Co, 27–28; Miller Rubber Co, Akron, Ohio, 28–29; research chemist and chief chemist, commercial develop. and service depts, Universal Oil Products Co, 29–39; tech. demonstrator org. chem. dept, E. I. du Pont de Nemours and Co. 39–42; *Chem. Warfare Service, U. S. Army, 42–, major.* Chem. Soc; Soc. Test. Mat; Chem. Eng. Petroleum technology.

Wirth, Conrad L(ouis), 384 Woodlawn Ave, Glencoe, Ill. *Landscape architecture.* Hartford, Conn, Dec. 1, 99. B.S, Mass. Col, 23. Landscape architect, Nat. Capital Park and Planning Cmn, 28–31; *asst. director and chief of lands, Nat. Park Service, U. S. Dept. Interior, 31–*

Wirth, Prof. Elmer H(auser), 808 S. Wood St, Chicago, Ill. *Pharmacognosy, Phytochemistry.* North Amherst, Ohio, March 11, 95. Ph.C, B.S, Michigan, 18, Stearns fellow, 18–19, M.S, 19; Netherland-Am. Foundation fellow, 30–31; Ph.D, Leiden, 31. Asst. pharmacog, Michigan, 17–18; prof. bot. and pharmacog, Detroit Inst. Tech, 20–22; instr. pharmacog, *Illinois,* 22–26, asst. prof, 26–30, 31–37, assoc. prof, 37–41, *prof. pharmacog. and pharmacol, 41–* Chief chemist, F. F. Ingram Co, 19–22; asst, Leiden, 30–31. Auxiliary mem. revision cmt, U. S. Pharmacopoeia, 20–; mem, revision cmt, Nat. Formulary, 35–40, v. chairman revision cmt. and chairman subcmt. pharmacol, 40– Sec'y, Nat. Plant Science Seminar, 36– A.A; Pharmaceut. Asn; Inter-Soc. Color Council; Ill. Acad; Ill. Pharmaceut. Asn. Pharmacology; pharmacognosy; Lunasia amara; resins; crocus; ceanothus; capsicum; cudbear; poplar bud; microchemistry of vegetable drugs; rhubarb; aloe; viburnums; drug standards; cultivation of medicinal plants.

Wirth, Prof. Henry E(dgar), Ohio State University, Columbus, Ohio. *Chemistry.* Bellingham, Wash, June 4, 08. B.S, Washington (Seattle), 29, M.S, 30, Ph.D, 34. Acting asst. prof. *quantitative anal,* N. Dak. Col, 34–36, asst. prof, 36–37, assoc. prof, 37–39; *asst. prof, Ohio State, 39–* A.A; Chem. Soc. Oceanographic chemistry; density of aqueous solutions; water analysis.

Wirth, Prof. Herbert Paul, College of the City of New York, New York, N. Y. *Mathematics.* New York, N. Y, March 22, 97. B.S, Col. City of N. Y, 18; M.S, N. Y. Univ, 28, Ph.D, 32. Tutor *math, Col. City of N. Y,* 25–33, instr, 33–35, *asst. prof, 35–, departmental supervisor dept. math, summer session, 34–* U. S. Navy, 17–18. A.A; Math. Soc; Math. Asn. Pure mathematics; calculus of variations; algebraic invariants.

Wisansky, Dr. W. A, 72–36 112th St, Forest Hills, L. I, New York, N. Y. *Biological chemistry.* New York, N. Y, June 3, 15. B.S, Col. City of N. Y, 35; A.M, Columbia, 36, Ph.D, 39. Asst. inorg. and org. chem, Columbia, 36–38; research chemist and later *senior research chemist, int. vitamin div, Am. Home Products Co, 40–* Chem. Soc. Vitamin synthesis; melanin formation; hypertension; invertase; buffer acids; tyrosinase.

Wischmeyer, Prof. Carl, 203 Madison Blvd, Terre Haute, Ind. *Mechanical engineering.* Louisville, Ky, Aug. 8, 84. B.S, Rose Polytech, 06, M.S, 10, M.E, 20. From instr. to *v. pres. and Josephus Collett prof. mech. eng, Rose Polytech, 08–* Mech. Eng; Eng. Educ; Ind. Acad. Descriptive geometry.

Wise, Dr. George H(erman), Clemson Agricultural College, Clemson, S. C. *Dairy husbandry.* Saluda, S. C, July 7, 08. B.S, Clemson Agr. Col, 30; M.S, Minnesota, 32, Ph.D, 36. Asst, Minnesota, 34–36; *assoc. dairyman, Exp. Sta, Clemson Agr. Col, 37–* A.A; Dairy Sci. Asn. Physiology and biochemistry of nutrition of dairy cattle.

Wise, Prof. J(oseph) A(lexander), 215–18 49th Ave, Bayside, L. I, N. Y. *Engineering.* New York, N. Y, Jan. 3, 97. B.S, California, 21. Junior drainage engineer, U. S. Dept. Agr, 21–23; instr. struct. eng, Minnesota, 23–25; lieut, C.E.C, U.S.N, 25–27; asst. prof. *struct. eng, Minnesota,* 27–33, *assoc. prof, 33–*; instr. physics, U. S. Naval Acad, 40–42; *lieut. commander, CEC, U. S. Naval Res, 40–, asst. to P.W. Off, third naval dist, New York, 42–* Civil Eng; assoc. fel. Inst. Aeronaut. Sci; Concrete Inst. Structural engineering; strength of drain tile and concrete pipe; analysis of rigid frames; airplane structural analysis; physics; elasticity.

Wise, L(eonard) G(eorge), E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemistry, Bibliography.* Dayton, Ohio, April 30, 07. A.B, Ohio State, 28, A.M, 30. *Intel. div, exp. sta, E. I. du Pont de Nemours and Co, 30–, head intel. div, 32–* Chem. Soc; Petrol. Inst; Faraday Soc; N. Y. Acad; Soc. Chem. Indust. Gt. Britain. Chemical bibliography and nomenclature; industrial chemistry; technical library and information service.

Wise, Prof. L(ouis) E(lsberg), Institute of Paper Chemistry, Lawrence College, Appleton, Wis. *Chemistry.* New York, N. Y, Jan. 29, 88. A.B, Columbia, 07, Ph.D, 11. Commercial research chemist, 11–12; instr. biochem, Columbia, 12–13; chem, Missouri, 13–14; biochemist, bur. chem, U. S. Dept. Agr, 14, 15, bur. plant indust, 15–18; research chemist, E. I. du Pont de Nemours and Co, 19–20; prof. *forest chem, N. Y. State Col. Forestry, Syracuse,* 20–32, *emer. prof, 32–*; prof. org. chem, Rollins Col, 33–37; *research assoc, Inst. Paper Chem, Lawrence Col, 41–* Chemist, Bur. Aircraft Production, 18–19. A.A; Chem. Soc. (chairman, Univ. Mo. sect, 14, Syracuse sect, 22, councilor, 23–26); Fla. Acad; Wis. Acad. P-aminobenzonitril; chinawood oil; organic soil constituents; photosensitizing dyes from quinolin; microanalytic methods; wood chemistry; cellulose.

Wise, Dr. W(illis) Howard, Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Labette, Kans, Feb. 18, 98. B.S, Mont. State Col, 21; A.M, Oregon, 23; Ph.D, Calif. Inst. Tech, 26. Am. Tel. and Tel. Co, 26–34; *with Bell Tel. Labs, 34–* Radio Eng; Math. Soc. Transmission theory; ground return circuits; dipole radiation.

Wiselogle, Dr. F(rederick) Y(ager), Johns Hopkins University, Baltimore, Md. *Chemistry.* Albion, Mich, May 18, 12. B.S, Michigan, 32, M.S, 34, Sc.D, 36. Asst. *chem, Hopkins,* 36–37, instr, 37–39, assoc, 39–43, *assoc. prof, 43–* Tech. aide to chairman div. chem. and chem. technol, Nat. Research Council, 42– Chem. Soc. Free radicals in solution; substituted hydrazines; stereochemistry of tervalent nitrogen; survey of antimalarial drugs.

Wiseman, Dr. B(ruce) K(enneth), Ohio State University, Columbus, Ohio. *Medicine.* South Bend, Ind, March 1, 98. B.S, Indiana, 26, M.D, 28. Asst, dept. bacter. and path, Rockefeller Inst, 29–30; asst. director *dept. med. and surg.*

research, Ohio State, 30–33, assoc. director, 33–36, assoc. prof. *med,* 36–39, *prof, 39–* Soc. Exp. Path; Col. Physicians; Am. Med. Asn; Soc. Exp. Biol; Cent. Soc. Clin. Invest. Diseases of the blood-forming tissues.

Wiseman, Dr. Robert J(oseph), Okonite Co, Passaic, N. J. *Engineering.* Cambridge, Mass, July 18, 90. B.S, Mass. Inst. Tech, 12, Saltonstall fellow, 14–15, Sc.D, 15. Instr, Mass. Inst. Tech, 12–13, research staff, 15–17; eng. dept. West. Union Tel. Co, New York, 17–18; wire and cable engineer, Nat. Conduit and Cable Co, 18–21; research engineer, *Okonite Co,* 21–28, *chief engineer, 29–* Mem. cmt. insulation, Nat. Research Council. Fel. Elec. Eng; Min. and Metal. Eng; Insulated Power Cable Eng. Asn. (sec'y, 30–35, pres, 39–41); Soc. Test. Mat; Edison Elec. Inst; Nat. Soc. Professional Eng; N. J. Soc. Professional Eng; assoc. British Inst. Elec. Eng. Electrical power cables; dielectrics.

Wishard, Dr. Audrey, Vassar College, Poughkeepsie, N. Y. *Mathematics.* Jubbulpore, India, July 7, 14. B.S, Northwestern, 35; A.M, Radcliffe Col, 36, Ph.D, 38. *Instr. math, Vassar Col, 38–* Functions of bounded type; theory of functions.

Wishart, Dr. A(rthur) W(illiam), Corning Glass Works, Parkersburg, W. Va. *Physical chemistry.* Minneapolis, Minn, Nov. 4, 11. B.Ch, Minnesota, 33, Ph.D, 37. Asst. physical chem, Minnesota, 33–34, teaching asst. inorg. chem, 34–37; research chemist, Brown Co, N. H, 37–40; *Corning Glass Works,* 40–42, tech. director optical glass div, 42–43, *gen. manager Parkersburg div, 43–* Assoc. chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 41–42. Sorption of gases by porous solids; pulp and paper; development of pulping processes for agricultural residues; glass composition.

Wisler, Prof. C(hester) O(wen), University of Michigan, Ann Arbor, Mich. *Hydraulic engineering.* Nappanee, Ind, Feb. 25, 81. B.C.E, Michigan, 13, M.S.E, 15. Asst. prof. civil eng, *Michigan,* 20–23, assoc. prof. *hydraul. eng,* 23–31, *prof, 31–* Civil Eng; Geophys. Union; Mich. Eng. Soc; Mich. Acad. Hydraulics; hydrology.

Wislicenus, Dr. George F(riedrich), 146 Colonial Road, Summit, N. J. *Hydraulic engineering.* Strasbourg, Alsace, Aug. 27, 03. M.E, Tech. Sch, Wurzburg, 25; M.S, Calif. Inst. Tech, 31, Ph.D, 34. Machine designer, 25–30; teaching fellow, Calif. Inst. Tech, 30–33, asst, 33–35; hydraul. engineer, *Worthington Pump and Machinery Corp, Harrison, N. J,* 35–42, *research engineer, 42–* Mech. Eng. Separation in pumps and turbines; cavitation characteristics of centrifugal pumps; testing standards for centrifugal pumps.

Wislocki, Dr. George B(ernays), Harvard Medical School, Boston, Mass. **3*Anatomy.* San Jose, Calif, March 25, 92. A.B, Washington (St. Louis), 12; M.D, Hopkins, 16; hon. A.M, Harvard, 41. Asst. anat, Hopkins, 16–17; Cabot fellow in charge lab. surg. research, Harvard Med. Sch, 18–20; assoc. anat, sch. med, Hopkins, 20–23, assoc. prof, 23–31; Parkman prof, *Harvard Med. Sch,* 31–41, *Stillman prof. comp. anat, 41–* Ed. board, 'Bul,' Hopkins Hosp; 'Jour. Mammal'; 'Am. Jour. Anat.' Lieut, M.C, 17–18. Nat. Acad; A.A; Asn. Anat; Physiol. Soc; Inst. int. d'Embryol. Ductless glands; vital dyes; physiology of the embryo and fetus; comparative placentology.

Wismer, C(hester) A(aron), Firestone Plantations Co, Monrovia, Liberia, W. Africa. *Phytopathology.* Pomona, Kans, Jan. 19, 09. B.S, Kans. State Col, 31, M.S, 33. Asst. plant path, Kans. State Col, 31–33; *research dept, Firestone Plantations Co, 34–* Phytopath. Soc; Kans. Acad. Rubber culture and diseases; inheritance of resistance to bunt.

Wissink, Dr. G(errit) M(artin), State Teachers College, Mankato, Minn. *Physics.* Alton, Iowa, May 4, 03. A.B, Hope Col, 25; M.S, Iowa State Col, 27, Ph.D, 33. Asst, Iowa State Col, 25–27, 31–33, instr, 27–29, research fellow, 33–34; Illinois, 30–31; instr, Burlington Junior Col, Burlington, Iowa, 29–30; prof. *physics,* Buena Vista Col, 34–35; *prof. and head dept, Minn. State Teachers Col, 35–* A.A; Physical Soc; Minn. Acad; Iowa Acad. Photographic and antirachitic properties of cod liver oil; magneto optic determination of vitamin content of various substances.

Wissler, Dr. Clark, American Museum of Natural History, New York, N. Y. **2*Anthropology, Psychology.* Wayne Co, Ind, Sept. 18, 70. A.B, Indiana, 97, A.M, 99, LL.D, 29; fellow, Columbia, 00–01, Ph.D, 01. Asst. psychol, Indiana, 95–97; instr. psychol. and educ, Ohio Col, 97–99; asst. psychol, Columbia, 99–00; instr. pedag, N. Y. Univ, 01–02; asst. ethnol, Am. Museum Nat. Hist, 02–05; anthrop, Columbia, 03–04, lecturer, 04–09; curator ethnol, *Am. Museum Nat. Hist,* 05–07, *anthrop,* 07–42, *emer. curator, 42–;* prof, *Inst. Human Relations, Yale,* 24–40, *emer. prof, 40–* V. pres, Advisory Board Nat. Parks, 40–43. Ed, anthrop. publications, Am. Museum Nat. Hist, 07–42. Chairman div. anthrop. and psychol, Nat. Research Council, 20–21. Nat. Acad; A.A. (v. pres, 15); Anthrop. Asn. (pres, 19); Psychol. Asn; fel. Ethnol. Soc; Asn. Mus. (pres, 38–43); Asn. Geog; hon. mem. Educational Research Asn; Philos. Soc; Am. Acad; fel. N. Y. Acad. (v. pres, 13, pres, 30); Anthrop. Inst. Gt. Britain and Ireland. Correlation of mental and physical tests; anthropometric investigations; anthropological research on the American Indian; man and culture; the relation of nature to man.

Wissler, Stanley G(ebhart), 4245 Chestnut Ave, Long Beach, Calif. *Micropaleontology.* New York, N. Y, March 31, 00. B.S, Earlham Col, 22; A.M, Columbia, 23. *Chief paleontologist, Union Oil Co. of Calif, 25–* A.A; Asn. Petrol. Geol; Soc. Econ. Paleont. and Miner. (pres, 37). Subsurface structure and stratigraphy of the Los Angeles Basin; tertiary foraminifera of California, Oregon, Washington, Louisiana, Texas and the Tampico embayment region of Mexico; cretaceous foraminifera of California, Kansas and Mexico.

Wistar, Prof. R(ichard), Mills College, Oakland, Calif. *Chemistry.* N. J, Nov. 2, 05. B.S, Haverford Col, 28, 28–29; A.M, Harvard, 31, Ph.D, 39. Instr. *chem,* Haverford Col, 32–35; Bennington Col, 35–38; *assoc. prof, Mills Col, 39–* A.A; Chem. Soc. Physical-organic chemistry; reaction kinetics and reaction mechanisms in organic chemistry.

Witebsky, Dr. Ernest, 100 High St, Buffalo, N. Y. *Bacteriology, Immunology.* Frankfurt, Germany, Sept. 3, 01. M.D, Heidelberg, 26. Asst. and asst. prof. research div, cancer inst, Heidelberg, 25–33; bacteriologist, Mt. Sinai Hosp, New York, 34; bacteriologist and serologist, Beth Israel Hosp, 35–36; assoc. prof. bacter, *med. sch, Buffalo,* 36–41, *prof. bacter. and immunol. and head dept, 41–* Bacteriologist and serologist, Buffalo Gen. Hosp, 36– Asn. Path. and Bact; Asn. Immunol; Soc. Bact; Am. Med. Asn; Soc. Exp. Biol. Immunochemical nature of blood group specific substances and their relation to blood transfusion; serodiagnosis of trichinosis, syphilis and gonorrhea; bacteriology of diabetes; viruses.

Witham, Dr. W(illiam) C(lifford), 219 Cresswell St, Ridley Park, Pa. *Chemical engineering.* Hoisington, Kans, March 8, 03. B.S, Purdue, 24; A.M, Columbia, 29, Ph.D, 34. Asst. prof. chem. eng, Delaware, 28–35; assoc. chem. engineer, Tenn. Valley Authority, 35–38; *with develop. div, Sun Oil Co, Marcus Hook, Pa, 38–* Chem. Soc; Chem. Eng. Decomposition of the paraffin hydrocarbons; phosphate fertilizers; petroleum specialty oils.

Witherspoon, Dr. T(homas) C(asey), 12518 Helena St, Los Angeles, Calif. *Medicine.* Natchez, Miss, May 25, 68. Grad, St. Louis Col. Pharmacy, 87; M.D, Missouri, 89. Prof. surg, med. dept, St. Louis, 94–97, clin. and operative surg, 97–06; chief surgeon and pres, Murray Hosp, Butte, 06–31; *retired.* Fel. Col. Surg; West. Surg. and Gynec. Asn. Anatomy; surgery.

Withey, Prof. M(orton) O(wen), 1921 W. Lawn Ave, Madison, Wis. *Mechanics.* Meriden, Conn, Oct. 25, 82. B.S, Dartmouth Col, 04, C.E, 05. Asst. graphics and surveying, Dartmouth Col, 04–05; instr. *mech, col. eng, Wisconsin,* 05–09, asst. prof, 10–20, *prof, 20–* Summer, student apprentice, north works, Ill. Steel Co, 04. Wason research medal, Am. Concrete Inst, 32. Soc. Test. Mat; Concrete Inst. (pres, 43); Eng. Educ; Eng. Soc. Wis. Tests on plain and reinforced concrete and on steel columns; yield point of structural steel; reinforced brick masonry and masonry mortars; durability of masonry materials.

Withrow, Prof. James R(enwick), Ohio State University, Columbus, Ohio. **3*Chemistry, Chemical engineering.* Philadelphia, Pa, Aug. 29, 78. B.S, Pennsylvania, 99, Ph.D, 05; hon. Sc.D, Geneva Col, 35. Chemist, Barrett Mfg. Co, Pa, 99–00, in charge test. and research lab. and benzol and light-oil depts, 00–03; asst. instr. and instr. chem, Illinois, 05–06; asst. prof, *Ohio State,* 06–09, assoc. prof, 09–12, *prof,* 12–24, *chem. eng, 24–, head dept, 23–* Consulting engineer, Ohio; consulting chem. engineer, U. S. Bur. Mines, 17–; lecturer, Imp. High Pressure Research Labs, Gt. Britain. Mem, U. S. Naval Consulting Board, Ohio. Chairman potash cmt, Nat. Research Council. Ed, chem. eng. sect, 'Am. Year Book,' 14–21, indust. chem. div. Mem. joint cmt, eng. educ, Carnegie Foundation;

Am. advisory council, Yenching Univ, Peiping; U. S. del. and presiding officer, Int. Cong. Chem. Eng, London, 36. Instr, Sch. A.S, U.S.A, 17, C.W.S, 17–18. A.A; Chem. Soc. (councilor, chairman, lime and sugar ash cmt, chairman, lime symposium, 27, chairman, bldg. materials symposium, 35); Electrochem. Soc; Chem. Eng. (past director, past mem, chem. educ. cmt, chairman, cent. Ohio sect); Miner. Soc; Soc. Test. Mat. (chairman, research cmt. on lime); Eng. Educ; Chemists' Club; Ohio Soc. Professional Eng; Ohio Acad; Phila. Miner. Club (pres, 00); Columbus Eng. Club (pres); Gas Inst. Gt. Britain; hon. mem. Alliance française; Chinese Student Alliance. Rapid analysis of halids; electrolytic precipitation of gold, silver and copper; amalgams; chlorates and hypochlorates; brines; sulfur dioxide; methane; syrup from sugar beets; sugar refining; petroleum; wood distillation; sophistication of acids; insecticides; paints; industrial chemistry; electrochemistry; tantalum; industrial fumes; starch; activated carbon; lime; stream pollution; explosion investigations; adhesives; chemical engineering operations; fibre glass, coal tar and derivatives; synthetic rubber.

Withrow, Dr. L(loyd) L(eo), General Motors Corp, Detroit, Mich. *Physical chemistry.* Van Buren, Ohio, Dec. 14, 99. A.B, Oberlin Col, 22; A.M, Wisconsin, 23, Ph.D, 25. Instr. chem, Wisconsin, 22–26, *research chemist, research lab, Gen. Motors Corp, 26–* Chem. Soc. Purification of acetic anhydride; preferential adsorption of gases on alumina; combustion inside the gasoline engine.

Witkin, Dr. H(erman) A, Brooklyn College, Brooklyn, N. Y. *Psychology.* New York, N. Y, Aug. 2, 16. A.B, N. Y. Univ, 35, A.M, 36, Ph.D, 39. Asst. *psychol,* N. Y. Univ, 36–39; research assoc, Swarthmore Col, 39–40; *instr, Brooklyn Col, 40–* Nat. research fellow, 43. Assoc. Psychol. Asn. Experimental psychology; learning; animal psychology; perception.

Witman, Dr. E(ugene) D(eWald), Ohio State University, Columbus, Ohio. *Agricultural chemistry.* New Albany, Ind, Sept. 21, 10. A.B, Ohio State, 35, Sherwin-Williams fellow, 35–39, Ph.D, 39. *Sherwin-Williams research fellow, Ohio State, 39–, lecturer insecticide chem, 40–* Insecticide chemistry and development.

Witmer, Prof. Enos E(by), University of Pennsylvania, Philadelphia, Pa. *Physics.* Near Lancaster, Pa, Nov. 28, 98. A.B, Franklin and Marshall Col, 20; Ph.D, Pennsylvania, 23. Harrison research fellow, Pennsylvania, 23–25; nat. research fellow, Harvard, 25–27; Int. Educ. Board fellow, Göttingen, 27–28; *asst. prof. physics, Pennsylvania, 28–* Fel. Physical Soc; Math. Soc; Optical Soc; Franklin Inst; Physics Club Phila. Theoretical physics; quantum mechanics; molecular spectra; quantum mechanics of molecules.

Witmer, Francis P(otts), University of Pennsylvania, Philadelphia, Pa. *Civil engineering.* Philadelphia, Pa, April 2, 73. B.S, Pennsylvania, 93, C.E, 94. Instr. civil eng, Pennsylvania, 94–97; draftsman and estimator, Phoenix Bridge Co, 97–01; engineer in charge bridge design, Am. Bridge Co, 01–13; struct. engineer, N. Y. Munic. Ry. Corp, 13–19; *consulting engineer with H. C. Baird, N. Y, 19–* Director dept. civil eng, Pennsylvania, 24–43. Civil Eng; Soc. Test. Mat; Concrete Inst; Eng. Educ; Franklin Inst; Rittenhouse Astron. Soc. Study of wind stresses in steel buildings by means of mechanical models.

Witmer, Prof. Lightner, P. O. Box 186, Devon, Pa. *[1]*Psychology.* Philadelphia, Pa, June 28, 67. A.B, Pennsylvania, 88, 88–91, Sc.D, 37; Ph.D, Leipzig, 92. Asst. exp. psychol, *Pennsylvania,* 90–92, lecturer, 92–94, asst. prof, 92–04, prof. *psychol,* 04–37, *emer. prof, 37–* Lecturer, Bryn Mawr Col, 96–98; prof, Lehigh, 04–06. Psychologist, Pa. Training Sch. for Feeble-Minded Children, Elwyn, 96–; Haddonfield Training Sch, 02. A.A; Psychol. Asn; Orthopsychiat. Asn; Philos. Soc; Asn. Applied Psychol; Psychopath. Asn; Pa. Asn. Clin. Psychol. Psychological esthetics; comparative tests and measurements; the abnormal child; examination and pedagogical treatment of backward children; vocabulary and ideas of school children; the knee-jerk; comparative psychology.

Witmer, Dr. Louise R(udduck), Technical Section, Adjutant General's Office, War Department, Washington, D. C. *Psychology.* Washington, D. C, April 8, 11. Litt.B, N. J. Col. Women, Rutgers, 31; M.S, Yale, 33, Ph.D, 35; Missouri, 33–34. Asst. and supervisor personnel standards, State Emergency Relief Admin. and State Dept. Pub. Assistance, Pa, 34–38; *asst. prof. psychol, Fla. State Col. Women, 38–; tech. sect, Adj. Gen's. office, War Dept, 41–* A.A; Psychol. Asn; Asn. Applied Psychol; South. Soc. Philos. and Psychol; Fla. Acad. Learning; tests.

Witmer, Prof. Luther F(erree Zerr), Lafayette College, Easton, Pa. *Chemistry, Metallurgy.* Paradise, Pa, Oct. 18, 83. Ph.B, Franklin and Marshall Col, 04; Ph.D, Pennsylvania, 06. Instr. chem, Drexel Inst, 06–09; assoc. chemist, Bur. Standards, 09–20; *assoc. prof. metal, Lafayette Col, 20–* Chem. Soc; Min. and Metal. Eng; Soc. Metals. Electrochemical analysis; analyzed samples.

Witmer, Dr. Mary Isabel, American Cyanamid Co, Stamford, Conn. *Plant physiology.* Washington, D. C, June 27, 16. B.S, N. J. Col. for Women, Rutgers, 37; Ph.D, Yale, 40. *Research biochemist, Am. Cyanamid Co, 41–* Chem. Soc; Soc. Plant Physiol. Solanaceous alkaloids.

Witmer, Prof. R(obert) B(onner), University of North Dakota, Grand Forks, N. Dak. *Physics.* Bathgate, N. Dak, Jan. 30, 00. B.S, North Dakota, 22, M.S, 26; Ph.D, Michigan, 35. Asst. *physics, North Dakota,* 22–24, instr, 24–27, asst. prof, 27–34, assoc. prof, 34–38, *prof, 38–, dean freshmen, 39–; instr. math. and physics, U. S. Navy Pre-Flight Sch, Iowa, 42–* Elec. Eng; N. Dak. Acad. Electrical resistance of North Dakota clays; relation of high school preparation in mathematics and science to college physics; the measurement of x-ray emission wave-lengths by means of the ruled grating.

Witmer, Prof. S(amuel) W(enger), 1608 S. Eighth St, Goshen, Ind. *Botany.* Lancaster Co, Pa, Dec. 25, 88. A.B, Goshen Col, 14; A.M, Wisconsin, 15; Illinois; Chicago; Ph.D, Indiana, 35. *Prof. bot. and head dept. biol, Goshen Col, 15–* Acting head dept. biol, Bluffton Col, 23–24, summer, 24; instr, exten. div, Indiana, 27. Ind. Acad. Morphology and cytology of angiosperms; bird-banding.

Witschi, Prof. E(mil), State University of Iowa, Iowa City, Iowa. *[2]*Zoology, Embryology.* Bern, Switzerland, Feb. 18, 90. Nat. Wiss. Staatsexamen, Bern, 13; Ph.D, Munich, 13; Basle; Berlin. Docent zool. and comp. anat, Basle, 21–23, lecturer exp. zool, 24–27; *prof. zool. and exp. embryol, Iowa, 27–* Rockefeller Foundation fellow, Yale, 26; Chicago, 26; California, 27. A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Soc. Study Int. Secretions; Halle Wissensch. Akad; cor. mem. Biol. Soc. Riga; Zool. Societies Switzerland (v. pres, 25). Experimental embryology; pathological development; heredity, cytology and physiology of sex.

Witt, Dr. J(oshua) C(hitwood), 5834 Stony Island Ave, Chicago, Ill. *Chemical engineering.* Connersville, Ind, Aug. 5, 84. B.S, Chicago, 09; Ph.D, Pittsburgh, 15; M.E, Armour Inst. Tech. 35. In charge testing dept, Robert W. Hunt Co, Pittsburgh, 11–15; chief sect, Bur. Science, Manila, P. I, 15–17; tech. director, Rizal Cement Co, P. I, 17–19; in charge chem. research, Portland Cement Asn, 20–23; director research, Universal Atlas Cement Co, 24–39; *tech. director, Marquette Cement Mfg. Co, 39–* Consultant, U. S. Bur. Mines, 22–23. Asst. ed, 'Chem. Abstracts,' 24–; consulting ed, 'Concrete,' 33– A.A; Chem. Eng. (chairman Chicago sect, 39); Civil Eng; Chem. Soc; Concrete Inst; Mech. Eng; Soc. Test. Mat; West. Soc. Eng; Ill. Acad; Chicago Eng. Club; Chicago Chemists' Club (pres, 39). Oxidation and reduction; colloids; ceramics; Portland cement; application of science to industry.

Witt, Prof. Norman F(rank), University of Colorado, Boulder, Colo. *Chemistry.* Axtell, Kans, Nov. 6, 03. B.S, Kansas, 26, 26–27; M.S, Colorado, 28, Ph.D, 37. Asst. pharmacy, Kansas, 26–27; instr. *chem, Colorado,* 27–29, acting asst. prof, 29–30, instr, 30–38, *asst. prof, 38–; state chemist, Colo, 41–* Summers, acting asst. state chemist, Colo. Chem. Soc. Sanitary chemistry; chemical microscopy; food and drug chemistry; optical crystallographic identification of various compounds.

Witt, Prof. Paul C(handler), Abilene Christian College, Abilene, Texas. *Organic chemistry.* Gainesville, Texas, Dec. 26, 98. A.B, Abilene Christian Col, 22; A.M, Texas, 27; grad. scholar, Colorado, 37–38, Ph.D, 38. Assoc. prof. chem, *Abilene Christian Col,* 22–26, *prof. chem. and head dept. nat. science, 27–* Fel. Texas Acad. Biochemistry; food chemistry; determination of carbonates in the presence of barium hydroxide; toxicity of sulfanilamide and diethylene glycol; sulfanilamide.

Witt, Dr. Ralph K(nierlem), Johns Hopkins University, Baltimore, Md. *Chemical engineering.* Roanoke, Va, April 26, 04. B.S, Virginia, 27; Ph.D, Hopkins, 31. Nat. research fellow, California, 31–33; director research, Calif. Ink Co,

Berkeley, 34–36; *assoc. chem. eng, Hopkins, 37–* Chem. Soc. Heat capacity of ethane.

Wittbecker, Dr. Emerson L(aVerne), E. I. du Pont de Nemours and Co, Buffalo, N. Y. *Organic chemistry.* Freeport, Ill, Feb. 25, 17. A.B, Illinois, 39; M.S, Pa. State Col, 41, Ph.D, 42. *Research chemist, rayon dept, E. I. du Pont de Nemours and Co.* Chem. Soc. Isolation, preparation and reactions of sterols; steroidal sapogenins; bile acids and sex hormones; nylon polymers.

Witte, Dr. Michael, 363 Norwood Ave, Buffalo, N. Y. *Organic chemistry.* New York, N. Y, March 15, 11. B.S, Loyola, 37; M.S, Illinois, 38, Ph.D, 41. Asst. chem, Illinois, 38–41; *research chemist, Nat. Aniline Div, Allied Chem. Corp, 41–* Chem. Soc. Dye intermediates; furans and coumarans.

Witte, Dr. Paul John, 359 E. 163rd St, New York, N. Y. *Chemistry.* New York, N. Y, Sept. 16, 08. A.B, Columbia, 29, A.M, 30, Ph.D, 33. Instr. chem, Columbia, 30–34; research chemist, Pease Labs, Inc, 34–36, asst. director div. chem, 37–39; asst. to tech. director, Lucius Pitkin, Inc, 36–37; *chief bur. standardization, City Dept. Purchase, New York, 39–* Research chemist, Fales Chem. Co, 33–34. Chem. Soc; Inst. Chem; Asn. Textile Chem. and Colorists; Soc. Test. Mat. Analytical chemistry; foods; pharmaceuticals.

Witter, Dr. J(ohn) Franklin, University of Maine, Orono, Maine. *Animal pathology.* Frederick, Md, June 11, 06. B.S, Maryland, 28; D.V.M, Mich. State Col, 32. Teacher vocational agr, high schs, Md, 28–29; asst. *animal path,* Mich. State Col, 29–32; *assoc. prof, Maine, 32–* Vet. Med. Asn; Poultry Sci. Asn; Maine Vet. Med. Asn. (pres, 36–38, sec'y-treas, 38–42).

Witting, Dr. E(dward) G(eorge), Abington Memorial Hospital, Abington, Pa. *Physics.* New York, N. Y, July 31, 04. Fellow, Hopkins, 30–35, Ph.D, 35. *Tech. adviser, otol. research lab, Abington Mem. Hosp, 35–* Acoustical Soc. Auditory fatigue; ultrasonic absorption and reflection.

Wittlinger, Bertha M(ary), Andrew Jackson High School, St. Albans, New York, N. Y. *Biology.* Tivoli, N. Y, June 25, 98. A.B, Columbia, 21, A.M, 24, 29–31; Wisconsin, 27. Teacher, high sch, N. Y, 21–23; asst. biol, Lincoln sch, Teachers Col, Columbia, 23–24; assoc. prof, Va. State Teachers Col, Harrisonburg, 24–29; asst, inst. sch. experimentation, Teachers Col, Columbia, 29–30; *teacher biol,* high sch, Hunter Col, 31–35; *high schs, New York, 35–* Ed. board, 'Teaching Biologist.' A.A; Asn. Biol. Teachers; N. Y. Asn. Biol. Teachers; Gen. Sci. Asn. N. Y. Natural science education; biology.

Wittmer, Prof. Franklin B(enjamin), 331 E. First South St, Carlinville, Ill. *Organic chemistry.* Wayland, Iowa, Oct. 10, 02. B.S, Iowa Wesleyan, 25; M.S, Chicago, 27; Ph.D, Iowa, 42. Asst. *chem,* Iowa Wesleyan Col, 24–25; Chicago, 25–27; *prof. and head dept, Blackburn Col, 27–* A.A; Chem. Soc. Preparation of 2-bromo-resorcinol; oxidation of 3, 4-dimethoxycinnamic acid and substitution products with alkaline solution of potassium permanganate.

Wittrock, G(ustave) L(udwig), New York Botanical Garden, New York, N. Y. *Taxonomy.* Chicago, Ill, July 3, 95. A.B, Grinnell Col, 24, A.M, 27. Asst. bot, Hopkins, 24–25; Grinnell Col, 26–27; Washington (Seattle), 28–29; herbarium, Field Museum Nat. Hist, Chicago, 29–30; *custodian, herbarium, N. Y. Bot. Garden, 30–* A.A. Plant taxonomy; food and medicinal plants of the American Indians.

Witty, Prof. Paul A(ndrew), 1600 Hinman Ave, Evanston, Ill. *Psychology.* Terre Haute, Ind, July 23, 98. A.M, Columbia, 24, Ph.D, 31. From asst. prof. to *prof.* educ. psychol, Kansas, 25–30; *educ, Northwestern, 30–; Major, U. S. Army.* Sch. psychologist, Scarborough Sch, 23–25. A.A; assoc. Psychol. Asn. Child and genetic psychology; psychology of play activities; race and sex differences; exceptional children; reading disability; maturation levels in interest.

Witz, Dr. Warren R(ay), University of Pittsburgh, Pittsburgh, Pa. *Botany.* Warren, Pa, March 17, 96. A.B, Thiel Col, 22; M.S, Pittsburgh, 29, Ph.D, 33. Teacher, pub. schs, Pa, 24–28; asst, *Pittsburgh,* 28–30, instr. bot, 30–35, *biol,* 35–38, *asst. prof, 38–* Summers, instr, lake lab, Pittsburgh, 30–33; director, Junior Naturalists Clubs, Carnegie Museum, 34. Bot. Soc; Bot. Soc. West. Pa. (v. pres, 35). Ecology of Arctostaphylos Uva-ursi on Presque Isle, Lake Erie; water plants of Presque Isle, Lake Erie.

Witzemann, Prof. Edgar J(ohn), University of Wisconsin, Madison, Wis. *Chemistry.* Decatur, Ill, July 13, 84. A.B, James Millikin, 07; fellow, Ohio State, 07–09, A.M, 09, Ph.D, 12. Instr. chem, Ohio State, 09–12; mem, Sprague Mem. Inst, Chicago, 12–25; research chemist, Mayo Foundation, 25–27; asst. prof. *physiol. chem, Wisconsin,* 27–35, *assoc. prof, 35–* Research chemist, C.W.S, 18. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; Ill. Acad; Deuts. Chem. Gesell. Synthetic organic chemistry; colloid chemistry; organic oxidation.

Wodehouse, Dr. Roger P(hilip), 43 Edgecliff Terrace, Yonkers, N. Y. *Botany, Biochemistry.* Toronto, Ont, Can, Dec. 9, 89. B.A, Toronto, 13; A.M, Harvard, 16; Ph.D, Columbia, 28. Teaching fellow bot. and zool, Toronto, 13–14; protein chemist to J. L. Goodale, Boston. Mass, 16; research chemist, Peter Bent Brigham Hosp, Boston, 16–17; *botanist and chemist, Arlington Chem. Co, Yonkers.* Consultant, St. John's Hosp. A.A; Bot. Soc; fel. Col. Allergists; Torrey Bot. Club (ed, 38–40). Botany and chemistry of hayfever and asthma; morphology of pollen grains in relation to plant classification; aerobiology; ecological causes of hayfever and its prevention.

Wodsedalek, Prof. J(erry) E(dward), University of Minnesota, Minneapolis, Minn. *Zoology.* Kewaunee, Wis, Aug. 5, 84. Ph.B, Wisconsin, 10, Ph.M, 11, fellow, 11–13, Ph.D, 13. Asst. zool, Wisconsin, 10–11; prof. zool. and entom. and head dept, Idaho, 13–21, prof. zool. and director pre-med. and pre-nursing, 25–28, dean grad. sch, 25–28; lecturer, *Minnesota,* 28–29, *prof. zool,* 29– Chairman univ. research cmt, Idaho, 19–28. Summers, instr, Wisconsin, 11, 12. A.A; Soc. Nat; Soc. Zool; Micros. Soc. Animal behavior; cytology; embryology; physiology of insects; sex-determination; social hygiene; genetics.

Woelfiin, W(illia)m, 1390 E. Burnett St, Long Beach, Calif. *Electrical and chemical engineering.* Louisville, Ky, April 4, 98. Chem.E, Cincinnati, 22. With Drackett Chem. Co, Cincinnati, 22–23; Shell Oil Co, Wilmington, Calif, 24; Standard Oil Co. of Calif, 25; *dist. engineer and manager Calif. div, Petrol. Rectifying Co. of Calif, 26–* Chem. Soc. Field development of electric process for dehydration of crude oil emulsions, and other applications of this process to the petroleum industry.

Woertz, Dr. Byron B, 8221 Knox Ave, Skokie, Ill. *Chemical engineering.* Crandall, Ind, Sept. 20, 13. B.S, Louisville, 33; Sc.D, Mass. Inst. Tech, 39. Research assoc, solar energy project, Mass. Inst. Tech, 39–41; *chem. engineer, Pure Oil Co, 41–* Chem. Soc. Mass transfer between phases; characteristics of the Eppley pyrheliometer; performance of flat-plate solar heat collectors.

Woessner, Dr. Warren W(endling), E. I. du Pont de Nemours and Co, Inc, Wilmington, Del. *Biological chemistry.* Brooklyn, N. Y, Feb. 13, 16. A.B, Cornell, 36; A.M, Wisconsin, 38, univ. fellow, 40, Ph.D, 40. Teaching asst, Wisconsin, 36–39; research chemist, *E. I. du Pont de Nemours and Co,* 40–41, *staff asst. to production manager, 41–* Food chemistry; photoelectric determination of vitamin C in milk and milk products; sodium and potassium content of honey.

Woglom, Dr. William H(enry), 630 W. 168th St, New York, N. Y. *Pathology.* Brooklyn, N. Y, Sept. 13, 79. M.D, Columbia, 01, B.S, 21. Asst. path, L. I. Col. Hosp, 07–08; pathologist, Dept. Health, New York, 08–09; asst. cancer research, Columbia, 09–12; asst. to director, Imp. Cancer Research Fund, London, 11–12; asst. prof. *cancer research, Columbia,* 12–17, *assoc. prof, 17–* Sci. advisory cmt, Int. Cancer Research Foundation, 41– Ed, 'Jour. Cancer Research,' 17–22; sec'y ed. cmt, 'Cancer Research,' 42– A.A; Asn. Path. and Bact; Asn. Cancer Research (sec'y and treas, 17–34, v. pres, 36, pres, 37); Am. Med. Asn; N. Y. Path. Soc. (pres, 24–26); N. Y. Acad. Med. Experimental cancer.

Woglum, R(ussell) S(age), 705 Arden Road, Pasadena, Calif. *Entomology.* North Bay, N. Y, Aug. 3, 82. A.B, Cornell, 04, M.S.A, 05. Asst. and acting state entomologist, N. C, 05–07; special agent, bur. entom, U. S. Dept. Agr, 07–12, entom. asst, 12–18, entomologist, 18–20; *chief entomologist, pest control dept, Calif. Fruit Growers Exchange, 20–* Introduced hydrocyanic acid gas fumigation into Spain, 10; citrus white fly investigations, India and the Orient, 10–11; councilor, Rancho Santa Ana Bot. Garden. A.A; Entom. Soc; Asn. Econ. Entom; South. Calif. Acad. (trustee). Citrus fruit insects and their control.

Wohl, Dr. Michael G(ershon), 1727 Pine St, Philadelphia, Pa. *Medicine.* Ukrainia, Poland, April 25, 88. Medico-Chirurg. Col. Phila, 12; M.D, Berlin, 13; Columbia, 23; Vienna, 27–28. Prof. bacter. and path, med. sch, Temple, 15;

assoc. prof. clin. path, sch. med, Creighton, 17–27; assoc. prof. exp. med. and chief metabolic clinic, *med. sch, Temple,* 28–32, *assoc. prof. med. and chief endocrine clinic, 32–* Chief diagnostic labs. and dept. metabolic diseases, Mercy Hosp, Iowa, 17–27; chief med. staff, Paxton Mem. Hosp, Nebr, 23–25; first diagnostic clinic, Mt. Sinai Hosp, Philadelphia, 30–33; med. chief, North. Liberties Hosp, 32–; asst. physician, Phila. Gen. Hosp, 32–; endocrinologist, Phila. Psychiat. Hosp, 42–; consultant physician, Nazareth Hosp, 40– A.A; fel. Am. Med. Asn; fel. Therapeut. Soc; Asn. Study Int. Secretions; Pa. Heart Asn. Metabolic diseases; nutrition; vitamin A deficiency in diseases of the thyroid gland and diseases of the liver; avitaminosis in the course of diabetes mellitus; diabetes mellitus and the gastric secretion; metabolic changes and treatment of obesity; masked hyperthyroidism; nonrenal azotemia.

Wohlenberg, Prof. Walter J(acob), Yale University, New Haven, Conn. *Engineering.* Lincoln, Nebr, Feb. 17, 88. B.S, Nebraska, 10, hon. D.E, 37; fellow, Illinois, 12–14, M.S, 14; hon. M.S, Yale, 28. Apprentice and engineer, Westinghouse Machine Co, 10–12; asst. prof. *mech. eng,* Oklahoma, 14–16; Montana, 16–18; *Yale,* 18–25, assoc. prof, 25–28, prof, 28–30, *Sterling prof, 30–* Consulting engineer on design of steam generators, 20– Mem. at large, div. indust. and eng. research, Nat. Research Council, 30–32. Fel. Mech. Eng. (chairman, fuel cmt, 23–; v. pres, 43–); Eng. Educ. Steam power; reheating in central stations; radiation in the pulverized fuel furnace; compound internal combustion engines; combustion at high pressures; heat reactions in boiler furnaces.

Wohlleben, Dr. W(illiam) J(oseph), University of Dayton, Dayton, Ohio. *Organic chemistry.* Chicago, Ill, Jan. 19, 76. B.S, St. Mary's Col. (Dayton), 02; M.A, Freiburg, 07, Ph.D, 08. Instr, high sch, Mo, 00–04; *head dept. chem. eng, Dayton, 09–* A.A; Chem. Soc; Inst. Chem. Halogen derivatives of the phenols.

Wohnus, Dr. J(ohn) Frederick, Scripps Institution of Oceanography, University of California, La Jolla, Calif. *Zoology.* Chester, Pa, July 15, 13. A.B, Williams Col, 35, A.M, 37; Ph.D, California at Los Angeles, 41. Teaching asst. biol, Williams Col, 35–37; zool, California at Los Angeles, 37–40; *research asst, Scripps Inst, California, 41–* Cooper Ornith. Club. Histology; avian blood parasites.

Wojcik, Dr. B(runo) H(enry), 740 Van Rensselaer Ave, Niagara Falls, N. Y. *Organic chemistry.* Chicago, Ill, April 10, 08. B.S, Illinois, 30; Ph.D, Wisconsin, 34. Asst. org. chem, Wisconsin, 30–31, asst. to Prof. Homer Adkins, 31–34; *research chemist, Hooker Electrochem. Co, 34–* Summer, asst, Ohio State, 30. Chem. Soc. Hydrogenation of organic compounds.

Wojtaszak, Prof. I(gnatius) A(lbert), University of Michigan, Ann Arbor, Mich. *Engineering mechanics.* Ludington, Mich, July 18, 93. B.S, Michigan, 20, Sc.D, 34; M.S, Mass. Inst. Tech, 30. Instr. math, Michigan, 18–19; asst. engineer, Texas Corp, 20; asst. prof. eng. mech, Kans. State Col, 20–24, assoc. prof, 24–29; instr, Itasca Junior Col, 31–32; research, *Michigan,* 34–37, *asst. prof. eng. mech, 37–* Asst. engineer, U. S. Bur. Reclamation, 27. Elasticity; strength of materials; cylindrical shells; plates.

Woke, Dr. Paul A(lfred), U. S. Department of Agriculture, Washington, D. C. *Medical entomology.* Johnson Co, Kans, Aug. 26, 05. B.S, Ottawa (Kans), 30; Kansas, 30; Sc.D, Hopkins, 37. Asst. sci. aid, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 30–31, junior entomologist, 31–33, *asst. entomologist, 36–*; lieut. and med. entomologist, *U. S. Naval Res,* 41–42, *lieut. commander, 42–* A.A; Asn. Econ. Entom; Soc. Parasitol; Entom. Soc. Amer; Soc. Trop. Med; Entom. Soc. Wash; Insecticide Soc. Wash. Culicidae; biology and ecology of mosquitoes and sandflies; internal anatomy, histology and physiology of insects; physiology and histopathology of the action of toxic agents used as insecticides; insect control.

Wolbach, Dr. S(imeon) Burt, Harvard Medical School, Boston, Mass. *[3]*Pathology, Bacteriology.* Grand Island, Nebr, 80. Lawrence Sci. Sch, Harvard, 97–99, M.D, Harvard, 03. 2nd asst. path, Boston City Hosp, 03–04, 1st asst, 04–05; asst, Harvard Med. Sch. 05–06, instr. 06–08; director, Bender Hygienic Lab, Albany, N. Y, 08–09; adj. prof. bacter. and path, Albany Med. Col, Union (N. Y), 08–09; lecturer path. and director histol. lab, McGill, 09–10; asst. prof. bacter, *Harvard Med. Sch,* 10–14, assoc. prof. path. and bacter, 14, *Shattuck prof. path. anat.* Pathologist, L. I. Hosp, Boston, 05–07; Peter Bent Brigham Hosp; Children's and Infant's Hosps; Boston Lying-In Hosp; director, path. lab, Montreal Gen. Hosp, 09–10. Cancer Cmn, Harvard; Typhus Research Cmn, Warsaw, Poland. Commander, Order Polonia Restituta. Nat. Acad; A.A; Asn. Path. and Bact. (pres, 36); Soc. Exp. Path. (councilor, 31, pres, 37); Soc. Exp. Biol; Tuber. Asn; Asn. Cancer Research (sec'y-treas, 11–14); Am. Physicians; fel. Am. Acad; Royal Soc. Trop. Med. and Hygiene; cor. mem. Soc. de Path. exot. Human and bovine tubercle bacilli and specificity of their tuberculins; cutaneous blastomycosis and coccidioidal granuloma; herniae of the cerebrum and cerebellum due to ultracranial pressure; tumors; histogenesis of x-ray carcinoma; Rocky Mountain spotted fever; typhus fever; pathology of the avitaminoses.

Wolcott, E(dson) R(ay), 917 Crenshaw Blvd, Los Angeles, Calif. *Physics.* Sharon, Wis, April 22, 77. B.S, Wisconsin, 00, fellow, 01–02; Berlin, 02–03; Chicago, 04. Asst. physics, Wisconsin, 00–01; asst. prof, Colo. Sch. Mines, 03–04, prof. physics and electrometal, 04–07; consulting engineer, Chicago, 08–13; *research engineer, Los Angeles, 14–* A.A; Physical Soc; Chem. Soc. Coherers; alternating currents; radioactivity; fixation of nitrogen; electrical precipitation of dust and fume; effects of dielectrics on sparking voltage; production and refining of petroleum; reduction of ores and production of alloys.

Wolcott, Dr. George N(orton), Rio Piedras, P. R. or Remsen, N. Y. *Entomology.* Yorkville, N. Y, July 12, 89. B.S, Cornell, 09, M.S, 15, Ph.D, 25. Agent and expert, bur. entom, U. S. Dept. Agr, 10–12; traveling entomologist, Board Commissioners Agr, P. R, 12–14; entomologist, Insular Exp. Sta, 14–16, 21–24; mosaic disease of sugar-cane investigations, bur. entom, U. S. Dept. Agr, 19–20; *entomologist,* Exp. Sta, Haina, Santo Domingo, 20–21; Service Technique d'Agr. d'Haiti, 24–28; Agr. Exp. Sta, Lima, Peru, 28–29; Isabela substa, Dept. Agr, P. R, 31–32; *Insular Exp. Sta, 32–* U.S.A, 17–19. A.A; Asn. Econ. Entom; Soc. Agr. Sci. (chairman zool. sect, P. R. chap, 41, 42); Entom. Soc. Wash; Entom. Soc. P. R. (pres, 33–). Insects of sugar-cane; insects of Puerto Rico; termites; amount eaten by insects; introduction of parasites; Trichogramma.

Wolcott, Prof. Gordon B(loomfield), Southwestern University, Georgetown, Texas. *Botanical cytology.* Eatontown, N. J, Jan. 9, 10. B.S, Virginia, 33, M.S, 34, Ph.D, 37. *Assoc. prof. biol, Southwestern (Texas), 37–* Summers, research fellow, Mountain Lake Biol. Sta, Virginia, 40, 41. A.A; Bot. Soc; Genetic Asn; Sullivant Moss Soc. Cytology of Convolvulaceae and Hepaticae.

Wold, Dr. P(eter) I(rving), Union University, Schenectady, N. Y. *Physics.* S. Dak, Nov. 27, 81. B.S, Oregon, 01, E.E, 02; White fellow, Cornell, 14–15, Ph.D, 15. Instr. physics, Oregon, 00–03; examiner in charge radio signaling, Patent Office, 03–05, 08–10; instr. physics, Cornell, 05–08; head dept, Am. Indemnity Col, Peking, China, 10–14; physicist, West. Elec. Co, New York, 15–20; *prof. physics and head dept, Union (N. Y), 20–, chairman div. science, 40–*; physicist, U. S. Navy, 41. Rockefeller Foundation visiting prof, China, 23–24. Ed. staff, 'Rev. Sci. Instruments.' Exec. member, Nat. Research Council, 31. Adviser patent matters, Sig.C, U.S.A; board instruction, Sig.E.R.C. A.A. (councilor); Physical Soc. (pres, N. Y. sect, 38, 40); Asn. Physics Teachers; Optical Soc. Electron phenomena; electrical properties of metals; gravitation; velocity of light.

Woldman, Dr. Norman E, 356 N. Mountain Ave, Upper Montclair, N. J. *Engineering metallurgy.* Cleveland, Ohio, July 22, 99. Western Reserve, 16–18; B.S, Case, 21; M.S, Ohio State, 22; Ph.D, Columbia, 25. Instr. elec. and physical chem, Maine, 22–23; metal, Illinois, 23–24; prof. and head dept. metal. and chem, post-grad. sch, U. S. Naval Acad, 25–29; research metal. engineer, Westinghouse Elec. and Mfg. Co, Pittsburgh, 29–34; senior materials engineer, U. S. Naval Gun Factory, 35–36; *chief metallurgical engineer, Bendix Aviation Co, 36–* Research electrochem. engineer, Am. Bosch Magneto Corp, 25; lecturer, Carnegie Inst, 31–32. A.A; Electrochem. Soc; Soc. Metals; Soc. Test. Mat; Min. and Metal. Eng; Soc. Naval Eng; Foundrymen's Asn; N. Y. Acad. Naval ordnance; tool and die steels; heat treatment; light alloys; aviation metallurgy.

Wolesensky, Dr. Edward, 1005 N. Edgewood St, Arlington, Va. *Chemistry.* Crete, Nebr, Jan. 19, 82. B.S, Doane Col, 03; A.M, Wisconsin, 06, Ph.D, 09. Instr. chem, Iowa, 09–16; research chemist, Nat. Aniline and Chem. Co, New York, 16–18; U. S. Bur. Mines and C.W.S. 18–19; Barrett Co, New York, 19–20; Edgewood Arsenal, 20–23; Bur. Standards, 23–

33. A.A; Chem. Soc; Va. Acad. General, inorganic and industrial organic chemistry; dyestuffs and intermediates; coal-tar products; synthetic tanning materials; rubber; industrial utilization of agricultural wastes.

Wolf, Prof. A(bner), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Neuropathology.* New York, N. Y, May 14, 02. A.B, Columbia, 23, M.D, 26. Instr. path, *col. physicians and surgeons, Columbia,* 30–35, neur, 31–35, *asst. prof.* path, 35–39, *neuropath, 39–* Attending neuropathologist, neurol. inst, N. Y. City and Babies Hosp; Welfare Hosp; asst. pathologist, Presbyterian Hosp; research fellow, Rockefeller Foundation, 38. Asn. Neuropath. (v. pres, 36); Neur. Asn; Harvey Soc; N. Y. Acad; N. Y. Neur. Soc. Diseases of the nervous system.

Wolf, Dr. Alexander, 5002 Chenevert St, Houston, Texas. *Geophysics.* Krakow, Poland, May 17, 01. B.S, Pennsylvania, 24; Ph.D, Calif. Inst. Tech, 33. *Research geophysicist, Texas Co, 33–* Inst. Physics; Soc. Explor. Geophys. Magnetostriction.

Wolf, Dr. A(rnold) V(eryl), Albany Medical College, Albany, N. Y. *Physiology.* New York, N. Y, Dec. 3, 16. B.S, Col. City of N. Y, 38; Ph.D, Rochester, 42. Physiologist desert warfare research, Indio, Calif. Rochester unit, 42; *instr. physiol, Albany Med. Col, 42–* Water exchanges in earthworms and tropistic responses; osmotic pressure and water exchanges in muscle; kinetics of renal excretion in mammals.

Wolf, Dr. Benjamin, Seabrook Farms, Bridgeton, N. J. *Soil chemistry.* Deerfield, N. J, Dec. 2, 13. B.S, Rutgers, 35, M.S, 38, Ph.D, 40. Asst. soil chem, Rutgers, 36–41; *soil chemist, research div, G. L. F. Seabrook Farms, 41–* Soil Sci. Soc; Soc. Agron; N. J. Hort. Soc. Influence of boron upon crops; soil and plant tests as basis for lime and fertilizer practices.

Wolf, Dr. Carl B(randt), Rancho Santa Ana Botanic Garden, R. D. 3, Box 327, Anaheim, Calif. *Botany.* Freesoil, Mich, March 22, 05. A.B, Occidental Col, 26; A.M, Stanford, 27, Ph.D, 30. Asst. biol. and bot, Stanford, 27–29, acting instr. biol, 29–30; *botanist, Rancho Santa Ana Bot. Garden, 30–* A.A; Bot. Soc; Soc. Plant Taxon. Systematic botany; systematic and distributional study of species of Rhamnus; experimental taxonomy of California native plants; North American species of Cupressus.

Wolf, Dr. Donald E(dwin), 469 Elm Ave, Rahway, N. J. *Organic chemistry.* Oskaloosa, Iowa, Nov. 11, 12. B.S, Wheaton Col, 35; Ph.D, Illinois, 39. Univ. fellow, Illinois, 39–40; *research org. chem, Merck and Co, Inc, 40–* A.A; Chem. Soc. Structure and synthesis of vitamins.

Wolf, Prof. E. Alfred, University of Pittsburgh, Pittsburgh, Pa. *Zoology.* Zgierz, Poland, July 14, 82. Göttingen, 06–08; Ph.D, Breslau, 11; Chicago, 25–26. Marine Biol. Sta, Univ. Vienna, 10; instr. biol, German Gym, Poland, 11–21; Elmhurst Col, 23–26; *zool, Pittsburgh,* 26–28, asst. prof, 28–31, *assoc. prof, 31–* A.A. Taste organs of Cretacea as compared with those of other aquatic mammals; physiological effects of radiation; comparative study of blood; physiology of athletics; physiology of calcification; enzymes in saliva.

Wolf, František, University of California, Berkeley, Calif. *Mathematics.* Prostějov, Czechoslovakia, Nov. 30, 04. Dr, Masaryk Univ, 28; Charles Univ, Prague, 30–36; Cambridge, 37; Stockholm, 39–41. Lecturer, Charles Univ, Prague, 38; *instr,* Macalester Col, 41–42; *math, California, 42–* Analysis; trigonometric expansions and harmonic functions.

Wolf, Prof. Frederick A(dolphus), Duke University, Durham, N. C. **7Botany.* Odell, Nebr, June 25, 85. A.B, Nebraska, 07, A.M, 08; fellow, Cornell, 10–11, Ph.D, 11. Instr, Texas, 08–10; plant pathologist, Exp. Sta, Ala. Polytech, 11–15; Exp. Sta, N. C. State Col, 16–25; fruit disease investigations, U. S. Dept. Agr, 25–27; *prof. bot, Duke, 27–* A.A; Bot. Soc; Phytopath. Soc; Mycol. Soc; Torrey Bot. Club. Plant pathology; mycology.

Wolf, H. Comer, Irvine, Ky. *Engineering.* Indianapolis, Ind, Dec. 20, 88. Sig. Corps and Intel. Div, Field Army Sch, U. S. Army, 09–17; mem. staff, Cons. and Super Oil Shale Plants and Lands, 17–25; resurvey, oil shale lands, U. S. Gen. Land Office; lecturer indust. org. chem, Okla. Agr. and Mech. Col, 18–25; consulting engineer, Denver, Colo, Chicago, Ill, New York, N. Y, and Los Angeles, Calif, 25, Okla. and Texas, 26–27; operator of refineries, Texas, 28–30; research and operation secondary recovery of petrol, Ky, 30–31; research and marketing of rock asphalt, 31–34; report, design and supervision oil well repressure plants for secondary recovery, 35–36; *metal. and min. research and mine explor. and develop, War Production Board, 37–* A.A; Chem. Soc; Soc. Test. Mat; Nat. Soc. Professional Eng; Asn. Eng; Min. and Metal. Eng; Mech. Eng; Ky. Soc. Professional Eng. Metallurgy; critical ores; mining processes; oil shale; rock asphalts; bituminous hydrocarbons.

Wolf, Harry J(ohn), 475 Fifth Ave, New York, N. Y. *Mining engineering.* Philadelphia, Pa, Feb. 6, 81. E.M, Colo. Sch. Mines, 03, M.S, 13. Assayer, chemist, mining engineer, elec. engineer, supt. and director mines and concerns, 02–12; prof. mining, Colo. Sch. Mines, 12–13, prof. and head dept, 14–19; assoc. ed, 'Eng. and Mining Jour,' 19; consulting engineer, 20–41; chief cadmium sect. and consultant copper-zinc branch, Office Production Management, 41–42; *chief cadmium, bismuth, indium and gallium sect, and prin. consultant mica-graphite branch, War Production Board, 42–* A.A; Min. and Metal. Soc; Min. and Metal. Eng; Eng. Educ; Electrochem. Soc; Colo. Sci. Soc; Colo. Metal Min. Asn. Chlorin cells; chlorination of sulfid ores; heat of formation; metal and coal mining; mine management; mine valuation; manganese silver; ten cardinal principles of trading.

Wolf, Prof. Leonard N(icholas), 520 Madison Ave, Scranton, Pa. *Biology, Zoology.* McKeesport, Pa, Jan. 3, 11. B.S, St. Vincent Col, 33; M.S, Pittsburgh, 34, Ph.D, 39. Teaching fellow, Pittsburgh, 34–37; assoc. prof. *biol, Scranton,* 37–40, *prof. and head dept, 40–* A.A; assoc. Soc. Zool; Pa. Acad. Animal pigments; sex hormones.

Wolf, Dr. Louise A(delaide), 3700 S. 116th St, West Allis Station, Milwaukee, Wis. *Mathematics.* Oct. 20, 98. A.B, Wisconsin, 31, A.M, 33, Ph.D, 35. Asst. *math, Wisconsin,* 30–35, instr, *Milwaukee exten. center,* 35–38, *asst. prof, 38–*

Wolf, Prof. Opal Marie, Goucher College, Baltimore, Md. *Zoology.* Kewanee, Ill, Jan. 31, 92. A.B, Southwestern Col, 15; A.M, Wisconsin, 25, Ph.D, 28, 33–34. Instr, Woman's Col, North Carolina, 23–24; Wisconsin, 27–30; head dept. physiol, Pease Labs, 32; asst. prof, Vassar Col. and Wheaton Col, 32–34; visiting lecturer, Barnard Col, Columbia, 35–36; instr. *biol, Goucher Col,* 36–37, asst. prof, 37–41, *assoc. prof, 41–* A.A; Soc. Zool. Endocrines; effect of daily transplants of anterior lobe of pituitary on reproduction of frog; histological study of frog.

Wolf, S(idney) K(ellum), Acoustic Consultants, Inc, 1270 Sixth Ave, New York, N. Y. *Acoustics.* Baton Rouge, La, Aug. 29, 01. A.B, St. Stanislaus Col, 17; B.S, Louisiana, 22; M.S, Yale, 26. Westinghouse Elec. and Mfg. Co, 22–23; Sheffield Sci. Sch, Yale, 23–28; installation engineer, Elec. Research Products, Inc, 28–29, acoustic engineer, 29–30, manager acoustic consulting dept, 30–37; pres, Acoustic Consultants, Inc, 37–41; *radio production specialist, War Production Board, 42–* Magnetic tape div. rep, Brush Develop. Co, 39–41. A.A; Radio Eng; fel. Acoustical Soc; Motion Picture Eng. (pres, 37). Acoustic engineering; architectural acoustics and noise abatement.

Wolfanger, Dr. Louis A(lbert), Michigan State College, East Lansing, Mich. *Geography.* Lincoln, Nebr, Jan. 3, 96. A.B, Nebraska, 18, A.M, 22; Ph.D, Columbia, 30. Land and potash surveys, conservation and surv. div, Nebraska, 17–18; scientist, soil surv, bur. soils, U. S. Dept. Agr, 18–27; asst. geog, Nebraska, 21–22; lecturer econ. geog, Columbia, 22–25, instr, 25–37; *assoc. prof, research assoc. and exten. specialist land use, Mich. State Col, 37–* Summers, instr, Cincinnati, 26; Washington (Seattle), 30; Nebraska, 35, Northwestern, 37. Mem, Nat. Research Council. Am. Geog. Soc; Soil Sci. Soc; Mich. Acad. Land use; rural zoning; land planning; economic and soil geography; soil science; conservation; land utilization.

Wolfe, Dr. C(arl) M(organ), Boeing Aircraft Co, Seattle, Wash. *Electrical engineering.* Kingwood, W. Va, March 3, 04. B.S, West Virginia, 25; M.S, Calif. Inst. Tech, 27, Ph.D, 32. Asst. prof. elec. eng, N. Mex. Col, 34–37; instr, Washington (Seattle), 37–41; *mem. staff, Boeing Aircraft Co, 41–* Electrical dehydration of crude oil emulsions; instrumentation and electronic devices in aerodynamics.

Wolfe, Dr. Clyde (Lynne Earle), 1681 Monroe St, Riverside, Calif. *Mathematics.* Morrison, Ill, April 9, 85. B.S, Occidental Col, 06, M.S, 07; A.M, Harvard, 08; Ph.D, California, 19. Acting prof. physics, Occidental Col, 12–16, assoc. prof. math, 16–17; teaching fellow, California, 17–19; dean

Junior Col, Santa Rosa, Calif, 19–20; asst. prof. math, Calif. Inst. Tech, 20–34; *asst. director, Riverside Junior Col, 36–* Math. Asn. Theory of numbers.

Wolfe, Prof. Harold E(ichholtz), Bloomington, Ind. *Mathematics.* North Manchester, Ind, June 6, 91. A.B. Indiana, 13, fellow, 13-14, 16-18, A.M, 14, Ph.D, 18. Instr. *math, South Dakota,* 14–16; *Indiana,* 19, asst. prof, 19–30, *assoc. prof, 30–* Instr, F. A. Cent. Officers' Training Sch, 18. Math. Soc; Math. Asn.

Wolfe, Dr. Harold R(eclus), University of Wisconsin, Madison, Wis. *Zoology.* New York, N. Y, Dec. 25, 05. B.S, Miami (Fla), 28; M.S, Rutgers, 29; Ph.D, Wisconsin, 32. Asst. *zool, Wisconsin,* 29–31, instr, 32–41, *asst. prof, 41–* Soc. Zool; Soc. Mammal; Wis. Acad. Serology; anatomy; vertebrates; antibody production in rabbits and chickens; serological relationships among mammals and lower vertebrates; antibodies and antihormones.

Wolfe, Prof. H(erbert) S(now), University of Florida, Gainesville, Fla. *Horticulture.* Parkville, Mo, Sept. 14, 98. A.B, Park Col, 18; Trinity (Dublin), 20-21; M.S, Chicago, 26, Coulter fellow, 29–30, Ph.D, 30. Teacher, high sch, Mo, 18–19; instr. science, Westminster Col. (Utah), 19–20; asst. prof. bot, Kentucky, 21–24; asst. plant physiol, Chicago, 24–26; asst. prof. bot, West Virginia, 26–29; assoc. hort, Exp. Sta, *Florida,* 30–32, horticulturist in charge, 32–38, *prof. hort. and head dept, univ, 38–* A.A; Soc. Hort. Sci; Soc. Plant Physiol; Fla. Hort. Soc. Plant physiology; tropical horticulture; effect of ethylene on plants.

Wolfe, Dr. Hugh C(ampbell), College of the City of New York, New York, N. Y. *Physics.* Parkville, Mo, Dec. 18, 05. A.B, Park Col, 26; M.S, Michigan, 27, Ph.D, 29. Instr, Michigan, 27–29; nat. research fellow, Calif. Inst. Tech, 29–31; Lorentz Foundation fellow, Utrecht, 31–32; Heckscher research asst, Cornell, 32; instr, Ohio State, 32–33; *physics, Col. City of N. Y,* 34–42, *asst. prof, 42–* Fel. Physical Soc. Theoretical physics; kinetic theory; theory of complex spectra; theory of scattering; theory of x-ray satellites.

Wolfe, Dr. J(ack) M, Brooklyn College, Brooklyn, N. Y. *Mathematics.* New York, N. Y, Sept. 24, 09. B.S, Col. City of N. Y, 30, M.S, 32; Ph.D, N. Y. Univ, 40. Tutor and later *instr. math, Brooklyn Col, 32–* Instr, sch. educ, N. Y. Univ, 40– A.A; Math. Soc; Math. Asn. Remedial teaching in college freshman mathematics.

Wolfe, Prof. J(ack) M(orris), Albany Medical College, Albany, N. Y. *Anatomy.* Damascus, Va, Dec. 23, 06. B.S, Carson and Newman Col. 28; Ph.D, Vanderbilt, 31. Asst. *anat,* Vanderbilt, 29–30, instr, 30–32, asst. prof, 32–36; *Albany Med. Col, Union (N. Y),* 36–38, *assoc. prof, 38–* A.A; Asn. Anat; Soc. Exp. Biol; Soc. Study Int. Secretions; Asn. Cancer Research. Nutritional deficiencies; pituitary-gonadal relationships; pituitary cytology; connective tissue; gerontology.

Wolfe, Prof. John B(ascom), University of Mississippi, University, Miss. *Psychology.* Dryden, Va, July 8, 04. A.B, Emory and Henry Col, 25; A.M, Virginia, 28; Ph.D, Illinois, 32. Asst. psychol, Illinois, 30–32; nat. research fellow, Yale, 32–34, Gen. Educ. Board fellow, 35–36; *prof. psychol, Mississippi, 36–* Psychol. Asn. Motivation; incentives; reasoning; frontal lobe function; methodology of adolescent growth and development.

Wolfe, Dr. John K(avanaugh), 8624 Garfield St, Bethesda, Md. *Organic chemistry, Physiological chemistry.* Washington, D. C, Aug. 5, 14. B.S, Maryland, 36, Ph.D, 39. Research fellow med, Harvard Med. Sch, and post-doctorate fellow chem, Harvard, 39–41; assoc. chemist, nat. inst. health, U. S. Pub. Health Service, 41–42; *chemist, U. S. Naval Research Lab, 42–* Asst, Peter Bent Brigham Hosp, 39–41; lecturer, Maryland, 41–42. A.A; Chem. Soc. Isolation and identification of steroids; development of procedures for the clinical interpretation of steroid metabolism; new carbohydrate syntheses; structure of the constituents of cork.

Wolfe, Dr. John N(icholas), Ohio State University, Columbus, Ohio. *Plant ecology.* Logan, Ohio, Dec. 2, 10. A.B, Ohio State, 33, M.S, 34, Ph.D, 37. *Instr. bot, Ohio State, 37–* A.A; Ecol. Soc; Soc. Plant Taxon; Sullivant Moss Soc; Ohio Acad. Measurement of environmental factors in microclimates of southern Ohio; the role of the Teays River in the history of Ohio vegetation.

Wolfe, Dr. Kathryn M(atilda), Florida State College for Women, Tallahassee, Fla. *Chemistry.* Fremont, Ohio, April 25, 96. A.B, Kansas, 24, A.M, 26; Iowa State Col, 29, 30; Ph.D, Ohio State, 38. Asst. instr. chem, Kansas, 24–26; head dept, St. Mary's Col. (Kans), 26–27; prof. chem. and head dept. biol, Highland Col, 27–28; prof. chem. and head dept, Galloway Woman's Col, 28–31; biol. and chem, northeast center, Louisiana, 31–40; research, Ohio State, 40–41; *instr.* chem. and foods, N. Y. State Col. Home Econ, Cornell, 41–42; *chem, Fla. State Col. for Women, 42–* A.A; Chem. Soc; La. Acad. (chairman, junior acad). Ionization of phosphonium iodide; adsorption at crystal solution interfaces.

Wolfe, Dr. R(alph) A, 1709 Hermitage Road, Ann Arbor, Mich. *Physics.* Sherwood, Mich, Feb. 27, 97. B.S, Mich. State Nor. Col, 21; M.S, Michigan, 24, Ph.D, 27. *Research physicist, dept. eng. research, Michigan, 27–* Physical Soc. The arc spectrum of nitrogen; electric spark; thermionic emission from alloys; spectrochemical analyses.

Wolfe, Dr. Robert N(orton), 51 Briarcliffe Road, Rochester, N. Y. *Physics.* Falls City, Nebr, Feb. 22, 08. B.S, Parsons Col, 30; fellow, Rochester, 30–35, M.S, 32, Ph.D, 35. *Physicist, Eastman Kodak Co, 35–* Optical Soc. Radioactivity; photographic sensitometry.

Wolfe, Dr. T(homas) K(ennerly), 3307 Gloucester Road, Richmond, Va. *Agronomy.* Elkton, Va, July 14, 92. B.S, Va. Polytech, 14, M.S, 15; Ph.D, Cornell, 21. Asst. agron, Va. Polytech, 14–15, instr. and asst. agronomist, Exp. Sta, 15–17, assoc. prof. and assoc. agronomist, 17–23, prof. and agronomist, 23–27; ed, 'South. Planter,' 27–34; agronomist, *South. States Cooperative,* 34, *director distribution, 34–* Asst. commandant, Va. Polytech, 14–16. Production of field crops; superiority of unhulled sweet clover seed over scarified seed.

Wolferth, Dr. Charles C(hristian), 36th and Spruce Sts, Philadelphia, Pa. *Medicine.* Clarksboro, N. J, 87. A.B, Princeton, 08; M.D, Pennsylvania, 12. Assoc. med, *Pennsylvania,* 20–27, asst. prof, 27–34, *prof. clin. med, 34–* A.A; Am. Physicians; Soc. Clin. Invest; Clin. and Climat. Asn; Col. Physicians Phila. Cardiovascular disease.

Wolff, Dr. D(orothy), 675 Boylston St, Boston, Mass. *Anatomy, Pathology.* Pueblo, Colo, Aug. 4, 95. State Teachers Col, Shippensburg, Pa, 13; A.B, Smith Col, 18; A.M, Michigan, 28; Ph.D, Washington (St. Louis), 33. Asst, Mt. Holyoke Col, 18–19; instr, Women's Col, Delaware, 19–21; Wilson Col, 21–24; technician, med. sch, Hopkins, 24–25; asst. prof, Woman's Col, North Carolina, 25–27; tech. asst. research, med. sch, Hopkins, 27–29; asst, med. sch, Washington (St. Louis), 27–29, instr. otolaryngol, 29–36, asst. prof, 36–42; *fellow research, Harvard, 42–* A.A. Microscopic anatomy and pathology of the ear.

Wolff, Dr. Frank A(lfred), 2957 Tilden St, N.W, Washington, D. C. **Physics, Electrical engineering.* Baltimore, Md, April 8, 71. A.B, Hopkins, 90, fellow, 92–93, Ph.D, 93; Leipzig, 94. Prof. physics and elec. eng, George Washington, 95–04, elec. eng, 04–08; assoc. physicist, *Bur. Standards,* 01–24, senior physicist and chief telephone sect, 24–36, *senior telephone engineer, 36–* Physicist, div. soils, U. S. Dept. Agr; examiner, Civil Service Cmn; verifier, Office Standard Weights and Measures. Assoc. mem, Int. Cmt. Elec. Units and Standards. Elec. Eng. Effect of magnetism on chemical action; the verification of electrical standards and electrical measuring apparatus; the accuracy of Ohm's law; standard cells; the international electrical units; telephone service standards; stabilization of the dollar.

Wolff, Dr. Harold G(eorge), 525 E. 68th St, New York, N. Y. *Neurology.* New York, N. Y, May 26, 98. B.S, Col. City of N. Y, 18; M.D, Harvard, 23, A.M, 28. Biochem. research lab, Bur. Fisheries, 18–19; Cornell Clinic, 23–26; asst, Harvard Med. Sch, and asst. attending physician, Harvard services, Boston City Hosp, 26–28; nat. research fellow, Graz, 29; asst. psychiatrist, med. sch, Hopkins, 30–31; asst. prof. *med, med. col, Cornell,* 31–38, *assoc. prof, 38–* Extern, Boston Psychopath. Hosp, 22; res, neur. service, Bellevue Hosp, New York, 23–24, 26; med. intern, Roosevelt Hosp, New York, 24–26; assoc. attending physician, New York Hosp, 31– A.A; Neur. Asn; fel. Col. Physicians; Physiol. Soc; Am. Physicians; Soc. Clin. Invest; Asn. Research Nervous and Mental Disease; Psychiat. Asn; Soc. Exp. Biol; Soc. Pharmacol; Orthopsychiat. Asn; Harvey Soc; N. Y. Acad. Med; N. Y. Neur. Asn. Neurophysiology, especially the autonomic nervous system and the cerebral circulation; experimental studies on headache and pain; psychosomatic medicine.

Wolff, Dr. H(erman) J(ulius), 339 Lowry Medical Arts Bldg, St. Paul, Minn. *Internal medicine.* St. Paul, Minn, Sept. 7, 06. B.S, Minnesota, 27, M.B, 29, M.D, 30, Ph.D, 33. *Asst. med, Minnesota, 34–* Am. Med. Asn; Minn. Radiol. Soc. Experimental jaundice; cholecystic disease.

Wolff, Dr. Irving, RCA Laboratories, Princeton, N. J. *Physics.* New York, N. Y, July 6, 94. B.S, Dartmouth Col, 16; Ph.D, Cornell, 23. Instr, Iowa State Col, 19–20; Cornell, 20–23, Heckscher research fellow, 23–24; research dept, Radio Corp. of Amer, 24–29; research div, RCA Mfg. Co, 29–42; *RCA Labs, 42–* A.A; Physical Soc; Acoustical Soc. (exec. cmt, 33–36); fel. Radio Eng. (chairman, Phila. sect, 36); Physics Club Phila. (pres, 41). Alternating current bridge measurements; polarization capacity; sound measurements; loud speakers; microphones; electro-acoustic and under-water sound signalling apparatus; ultra short electro-magnetic waves.

Wolff, Dr. Ivan A, U. S. Department of Agriculture, Peoria, Ill. *Organic chemistry.* Louisville, Ky, Feb. 10, 17. A.B, Louisville, 37; A.M, Wisconsin, 38, Ph.D, 40. Fellow biochem, Wisconsin, 40–41; asst. chemist and later *assoc. chemist, north. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–* Chem. Soc. Aliphatic amines; catalytic hydrogenation; pyrole and pyridine derivatives; heterocyclic oxygen compounds; carbohydrates.

Wolff, J(ulius) F(rederic), 1515 Vermilion Road, Duluth, Minn. *Mining engineering, Geology.* Cumberland, Wis, Nov. 19, 85. B.S, Wisconsin, 08, E.M, 11. Mining engineer, Oliver Iron Mining Co, U. S. Steel Corp, 08–18; consulting mining engineer and geologist, 18–19; *mining engineer and geologist, Oliver Iron Mining Co. and La Fayette Fluorspar Co, 19–* Consulting engineer and geologist, Companhia Meridional de Mineracao, Rio de Janeiro, 41–42. Geology and concentration of iron ores and fluorspar; geology of Lake Superior iron districts; western United States iron and manganese ores; iron ranges of Minnesota; valuation of iron ores for taxation.

Wolff, Prof. Robert I, College of the City of New York, New York, N. Y. *Astronomy.* Brooklyn, N. Y, April 27, 03. B.S, Col. City of N. Y, 24; A.M, Columbia, 26; Ph.D, Yale, 35. From tutor to *asst. prof. physics, Col. City of N. Y, 23–* Astron. Soc. Perturbations of asteroids.

Wolff, Simon E(manuel), 1804 Sixth Ave, Ft. Worth, Texas. *Botany.* Manchester, Mich, July 11, 92. B.S, Mich. State Col, 26, M.S, 28. Botanist, Exp. Sta, Agr. and Mech. Col. Texas, 28–34; agent, conservation nurseries, *soil conservation service, U. S. Dept. Agr,* Stillwater, Okla, 34–35, assoc. agronomist, 35–36, *agronomist, 36–* Mich. Acad. Grassland ecology.

Wolff, Dr. Werner, Vassar College, Poughkeepsie, N. Y. *Psychology.* Berlin, Germany, Feb. 3, 04. Ph.D, Berlin, 30. Prof, psychol. lab, Barcelona, 33–36, visiting lecturer, 33–36; *research assoc, Teachers Col, Columbia, 40–; visiting lecturer psychol. and child study, Vassar Col, 40–* Summers, lecturer, Madrid, 33, 34. Assoc. Psychol. Asn; Ethnol. Asn; Anthrop. Asn; East. Psychol. Asn; N. Y. Acad. Experimental depth psychology; expressive movements; expressions of personality; emotional factors in memory and perception; tests for diagnosing personality of adults and children.

Wolff, Dr. William A(ugustine), Bowman Gray School of Medicine, Winston-Salem, N. C. *Chemistry.* Pinnacle, N. C, May 31, 01. A.B, Guilford Col, 23; North Carolina; A.M, Haverford Col, 24; Ph.D, Pennsylvania, 32. Asst. chem, Haverford Col, 23–25; teacher, pub. schs, N. J, 25–26; asst. pharmacol. and physiol. chem, Pennsylvania, 26–34; chemist, Pa. Hosp, 34–42; *asst. prof. biochem, Bowman Gray sch. med, Wake Forest Col, 42–* Summers, manager chem. supply dept, Marine Biol. Lab, Woods Hole, 26, 27, 28. Chem. Soc; N. C. Acad; Physiol. Soc. Phila. Optical rotation; biochemistry of opium alkaloids; nitrogenous extractives of muscles; methods in clinical chemistry.

Wolffe, Dr. Joseph B, 1829 Pine St, Philadelphia, Pa. *Medicine.* Wilna, Poland, April 25, 96. Glasgow, 15; M.D, Temple, 19. Lecturer cardiovascular disease, *Temple,* 21–24, assoc. *med,* 24–29, *assoc. prof, 29–; lieut. commander, U. S. Naval Res, and consultant fourth dist, U. S. Naval Hosp.* Assoc, Mt. Sinai Hosp, 24–29; director cardiovascular dept, Willow Crest Convalescent Home; consultant, East. State Penitentiary, 30–; med. director, Wolffe Clinic, Craftworker's Guild. A.A; Am. Med. Asn; Col. Physicians; Therapeut. Soc; Heart Asn; Asn. Study Int. Secretions; Phila. Heart Asn. (governor, 27–35). Arteriosclerosis; cardiovascular diseases; pancreatic extracts.

Wolfle, Dr. Dael L(ee), University of Chicago, Chicago, Ill. *Psychology.* Puyallup, Wash, March 5, 06. B.S, Washington (Seattle), 27, M.S, 28; Ph.D, Ohio State, 31. Asst. psychol, Ohio State, 28–30, instr, 30–32; prof, Mississippi, 32–36; examiner, board examiners, Chicago, 36–39, asst. prof. *psychol,* 38–43, *assoc. prof, 43–;* civilian training administrator, Sig. Corps, U. S. Army, 41–43. Summers, Fla. State Col. Women, 31; Wisconsin, 39. A.A; Psychol. Asn; Psychometric Soc. (councilor, 40–; rep. emergency cmt. psychol, Nat. Research Council, 40–); Midwest. Psychol. Asn. (councilor. 41, sec'y-treas, 42–). Learning; theory.

Wolfle, Dr. Helen Morrill, 5725 Drexel Ave, Chicago, Ill. *Psychology.* Brays, Wash, Dec. 13, 06. A.B, Washington (Seattle), 27, A.M, 28; Ph.D, Ohio State, 31. Instr. psychol, Ohio State, 28–31; Illinois, 31–32; statistician, dept. physiol, Chicago, 37; *asst. prof. psychol, Mississippi, 42–* Assoc. Psychol. Asn. Conditioned responses.

Wolflin, Hugh M(aupin), Box 935, Grass Valley, Calif. *Engineering.* Canton, Mo, Aug. 12, 86. B.S, Arizona, 07, B.S, (Min.E), 08; A.M, Columbia, 13. Junior engineer and asst. engineer, technol. branch, U. S. Geol. Surv, 08–10; dist. engineer, U. S. Bur. Mines, 10–13, engineer, U. S. Bur. Mines and Calif. Indust. Accident Cmn, 14–15, mine safety engineer, U. S. Bur. Mines, 16; dist. engineer, U. S. Bur. Mines, and chief mine inspector, Calif. Indust. Accident Cmn, 17–19; consulting engineer, U. S. Bur. Mines, and supt. safety, Calif. Indust. Accident Cmn, 19–23; consultant, 23–31; supervising engineer, Intermountain Exp. Sta, U. S. Bur. Mines, 31–33; senior engineer, legal div, Metropolitan Water Dist. of South. Calif, 34–37; personnel labor relations and safety, *Idaho Md. Mines Corp, Grass Valley, Calif,* 37–38, *asst. manager, 38–; Hercules Powder Co, Radford Ordnance Works, Va, 42–* Service supt, Assoc. Indemnity Corp, Los Angeles, 25–27; Calif. Petrol. Corp; Shell Oil Co; Metro-Goldwyn-Mayer Studios; Universal Picture Corp, 27–29. Min. and Metal. Eng. Reduction of mining and industrial accidents; accident cost accounting; casualty insurance; uses of aircraft in connection with mining and petroleum operations.

Wolford, Prof. J(ohn) J, Miami University, Oxford, Ohio. *Geology.* Xenia, Ohio, Nov. 29, 03. A.B, Miami (Ohio), 25; A.M, Ohio State, 27; scholar, Hopkins, 27–29, Ph.D, 32. Asst. prof. *geol, Miami (Ohio),* 29–37, *assoc. prof, 37–; U. S. Army.* Geologist, dam site examination, Tenn. River and tributaries, C.Eng, 27; Ky. Geol. Surv, 28– A.A; Am. Geog. Soc; Ohio Acad. Stratigraphy; paleontology.

Wolfram, H(arold) G(eorge), Porcelain Enamel and Mfg. Co, Baltimore, Md. *Ceramics.* Des Plaines, Ill, Dec. 14, 96. B.S, Illinois, 23. Chief enamel metals sect, Bur. Standards, 23–26; *director research, Porcelain Enamel and Mfg. Co, 26–, gen. works manager, 35–, v. pres, 40–* Ceramic Soc. (sec'y, enamel div, 24–27, chairman, 28, trustee, enamel div, 37–); Ceramic Eng. (trustee, 41). Porcelain enamels for all metals.

Wolfrom, Prof. M(elville) L(awrence), 168 Fallis Road, Columbus, Ohio. *Chemistry.* Bellevue, Ohio, April 2, 00. A.B, Ohio State, 24; M.S, Northwestern, 25, Ph.D, 27. Nat. research fellow *chem,* Bur. Standards, Rockefeller Inst. and Ohio State, 27–29; instr, *Ohio State,* 29–30, asst. prof, 30–36, assoc. prof, 36–40, *prof, 40–; official investigator, Nat. Defense Research Cmt, 40–* Guggenheim Mem. Foundation fellow, Zurich, 39. A.A; Chem. Soc. (chairman cellulose div, 40). Organic chemistry; synthesis and structure of the carbohydrates; isoflavones.

Wolfson, Prof. A(lfred) M(ortimer), Murray State Teachers College, Murray, Ky. *Plant morphology.* New York, N. Y, May 23, 99. B.S, Cornell, 21; A.M, Wisconsin, 22, Ph.D, 24. Cmn. Relief Belgium Educ. Foundation fellow, 24–26; nat. research fellow, 26–27; research dept, United Fruit Co, 27–29; *prof. biol. and head dept, Murray State Teachers Col, 29–* A.A; Bot. Soc; Forestry Asn; Ky. Acad. Morphology and cytology of the Hepaticae; chromosomes and sex determination in and morphology of liverworts.

Wolfson, Dr. Charles, 4536 Forest Park Blvd, St. Louis, Mo. *Anatomy.* Lawrence, Kans, April 21, 07. A.B, Kansas, 29, Ph.D, 39; Chicago, 30–31; California, 32–34; Washington (St. Louis), 43. Teaching fellow zool, California, 32–34; teaching asst, Kansas, 35–38, instr. anat, sch. med, 38–43; *Specialized Training Unit, U. S. Army, 43–* Effects of low

temperatures on paramecium; measurement of cellular potentials.

Wolfson, Dr. Fruma (Mrs. David Max), 2306 Ken Oak Road, Baltimore, Md. *Protozoology.* Rjazan, Russia, Sept. 21, 09. A.B, Syracuse, 33, A.M, 34; Sc.D, Hopkins, 36. Asst. *protozool, sch. hygiene and pub. health, Hopkins,* 37–39, research fellow, 39–41, *research assoc, 41–* Mem, Nat. Malaria Cmt. Soc. Parasitol; Soc. Trop. Med. Malaria; toxoplasmosis.

Wolkoff, Dr. Michael Ivanovitch, R. R. 5, Decatur, Mich. *Agronomy.* Tver, Russia, Sept. 13, 86. B.S, Mich. State Col, 15, M.S, 16; Ph.D, Rutgers, 18. Assoc. soil fertility, Illinois, 18–24; chemist, Darling and Co, 25–26; *farmer, 28–* Assoc. ed, 'Russian Herald,' 24–25; ed, 'Russian Am,' 26–28. Chem. Soc. Soil fertility.

Woll, Prof. Frederic A(lbert), College of the City of New York, New York, N. Y. *Anatomy.* New York, N. Y, July 8, 74. B.S, Columbia, 11, A.M, 12; Ph.D, N. Y. Univ, 17. Tutor *hygiene, Col. City of N. Y,* 07–12, instr, 13–16, asst. prof, 17–19, assoc. prof, 20–27, *prof, 27–, director dept, 28–* Lecturer, Columbia, 10–25, assoc, 25– Mem, State Board Examiners in Optometry, N. Y, 19– Medal, Distinguished Service Foundation Optometry, 28. A.A; Social Hygiene Asn; Pub. Health Asn; Student Health Asn; hon. mem. Optometry Asn; Col. Physical Directors Asn; hon. mem. Ala, Calif, Conn, Maine, Mass, N. C, R. I. and British optometric societies; Int. Optical League (director, 28–35). Hygiene; technique of eye dissections.

Wollan, Dr. E(rnest) O(mar), University of Chicago, Chicago, Ill. *Physics.* Minn, Nov. 6, 02. A.B, Concordia Col, 23; M.S, Chicago, 27, Ph.D, 29. Instr. physics, N. Dak. Col, 26–27; Chicago, 30–32, 33–34; nat. research fellow, Zurich, 32–33; asst. prof, Washington (St. Louis), 34–38; with Chicago Tumor Inst, 38–39; *asst. prof, Chicago, 39–* Physical Soc. Cosmic rays.

Wollman, Dr. S(eymour) H(orace), 2141 I St, N.W, Washington, D. C. *Physics.* New York, N. Y, May 17, 15. B.S, N. Y. Univ, 35, M.S, 36; Hopkins, 36–39; Ph.D, Duke, 41. Assoc. physicist and later *physicist, bur. ordnance, U. S. Navy Dept.* Molecular physics.

Wollwage, Dr. John C(arl), 1712 N. Drew St, Appleton, Wis. *Paper chemistry.* Chicago, Ill, Oct. 11, 14. B.S, Northwestern, 34; fellow, Lawrence Col, 34–38, Ph.D, 38. Research chemist, *Kimberly-Clark Corp,* 39–40, 42, *tech. supt, L. V. mill, 41–* Alum and its effect on hydrogen ion concentration of paper; flocculation of paper making fibers.

Wolman, Dr. Abel, 3213 N. Charles St, Baltimore, Md. *Sanitary engineering.* Baltimore, Md, June 10, 92. A.B, Hopkins, 13, B.S, 15, hon. D.E, 37. From asst. engineer to chief engineer, State Dept. Health, Md, 14–38; *prof. sanit. eng, Hopkins, 37–* Lecturer, Hopkins, 21–27; Harvard, 25; Princeton, 25, 29; Chicago, 29; Southern California, 28, 31, 34. Assoc. ed, 'Am. Jour. Pub. Health,' 23–27; ed. in chief, 'Jour. Water Works Asn,' 21–36; 'Munic. Sanit,' 29–36; ed, 'Manual Water Works Practice,' 24– Advisory cmn, U. S. Pub. Health Service, 23, 25–; chairman, Water Resources Cmn, Md, 31–41; board advisory engineers, Baltimore City Future Water Supply; chairman, State Planning Cmn, Md, 34–; water resources cmt, Nat. Resources Cmn, 35–41. A.A; Pub. Health Asn. (chairman, cmt. on research and standards, 30–37, pres, 38); Water Works Asn. (pres, 42); Statist. Asn; Soc. Munic. Improv; Econ. Asn; Civil Eng; New Eng. Water Works Asn; Royal Inst. Pub. Health, London; Faraday Soc. General sanitation; stream pollution.

Wolman, Dr. Irving J(acob), Children's Hospital, 1740 Bainbridge St, Philadelphia, Pa. *Pediatrics.* Holyoke, Mass, Feb. 2, 05. A.B, Amherst Col, 25; M.D, Hopkins, 29. Instr. and later *assoc. pediatrics, med. sch, Pennsylvania, 32–, grad. sch. med, 32–; passed asst. surgeon, U. S. Pub. Health Service, 43–* Attending pediatrician and asst. pathologist, Children's Hosp, 34–; Presbyterian Hosp, 39–; Doctor's Hosp, 41–; Univ. Hosp, 42– Acad. Pediat; fel. Am. Med. Asn; Soc. Pediat. Research; Path. Soc. Phila; Phila. Pediat. Soc. (sec'y med. milk cmn). Pediatric pathology; digestibility of milk.

Wolman, Dr. Samuel, 1814 Eutaw Place, Baltimore, Md. *Medicine.* Nashelsk, Poland, June 17, 80. A.B, Hopkins, 02, M.D, 06. *Assoc. clin. med, Hopkins, 26–* A.A; Md. Tuber. Soc. (pres). Clinical medicine; pulmonary tuberculosis.

Wolochow, D(avid), National Research Council, Ottawa, Ont, Can. *Chemistry.* Russia, Aug. 31, 00. B.A, Saskatchewan, 21, Nat. Research Council Can. bursar, 21–22, M.A, 22; Chem.E, Calif. Inst. Tech, 24. Research, Saskatchewan, 24–30; *research on asbestos, Nat. Research Council Can, 30–* Fel. Can. Inst. Chem. Portland cement; asbestos.

Woltman, Dr. Henry W(illiam), Mayo Clinic, Rochester, Minn. *Neurology.* Westfield, Wis, June 16, 89. B.S, Minnesota, 11, M.D, 13, Ph.D, 17. *Neurologist, Mayo Clinic, 17–; prof, Mayo Foundation, Minnesota.* Neur. Asn; Am. Med. Asn; Psychiat. Asn; fel. Col. Physicians; Asn. Research Nervous and Mental Disease; Cent. Neuropsychiat. Asn. (past pres); Cent. Soc. Clin. Research; Minn. Soc. Neur. and Psychiat. (past pres). Neuropathology and clinical neurology.

Womack, Prof. Ennis B(ryan), Middlebury College, Middlebury, Vt. *Physiological chemistry.* Marietta, Texas, Oct. 4, 99. A.B, Union, 20, A.M, 21; Wisconsin, 27–28; Ph.D, Chicago, 31. Teacher, high sch, Miss, 21–23; prin, Texas, 23–24; chem, Jonesboro Col, 24–27; prof, Carson-Newman Col, 28–29; asst. prof, *Middlebury Col,* 30–37, assoc. prof, 37–42, *prof. chem. and chairman div. math. and nat. science, 42–, acting dean, 42–* Exchange lecturer, Edinburgh, 35–36. C.W. Res, 34– Chem. Soc. (chairman Vt. sect, 42–). Physiological, biochemical and pharmacological studies of male sex hormones; chemistry of phenyl indole and its derivatives; poly ketones; diazo esters; phenolic esters; mercuration and halogenation of aromatic derivatives.

Womack, Dr. Madelyn, 909 W. California St, Urbana, Ill. *Biochemistry.* Waco, Texas, March 13, 10. B.S, Texas State Col. for Women, 31; M.S, Illinois, 33, Ph.D, 35. *Research asst. physiol. chem, Illinois, 35–* Chem. Soc. The importance to nutrition of the amino acids, leucine, isoleucine, tyrosine, phenylalanine and methionine.

Womack, Dr. N(athan) A(nthony), 4580 Scott Ave, St. Louis, Mo. *Surgery.* Reidsville, N. C, May 24, 01. B.S, North Carolina, 22; M.D, Washington (St. Louis), 24. Instr. *surg, sch. med, Washington (St. Louis),* 29–37, asst. prof, 37–39, *assoc. prof, 39–* Soc. Exp. Biol; Surg. Soc; Asn. Path. and Bact; Surg. Asn; Soc. Clin. Surg; South. Surg. Soc; Cent. States Surg. Soc. Clinical and experimental physiology and pathology of the thyroid gland; spontaneous hypoglycemic states; clinical and pathological aspects of tumors; physiological and pathological studies relating to gallbladder.

Womer, Dr. Robert L(e Roy), 1114 Henry St, Alton, Ill. *Physics.* Niles, Mich, June 19, 09. A.B, N. Cent. Col, 29; M.S, Washington (St. Louis), 31, Ph.D, 33. *Physicist, West. Cartridge Co, East Alton, 33–, asst. to tech. director.* Physical Soc. Electron scattering in gases; metallurgical, ammunition and explosives products and processes.

Wong, Dr. B(ing) C(hin), 1933 Grant St, Berkeley, Calif. *Mathematics.* San Francisco, Calif, 90. A.B, California, 17, A.M, 20, Ph.D, 22. Asst. *math, California,* 20–21, teaching fellow, 21–22, instr, 22–27, asst. prof, 27–36, *assoc. prof, 36–* A.A; Math. Soc; Math. Asn. Geometry.

Wood, Major Albert Elmer, Gunnery Department, Staff and Faculty, Field Artillery School, Ft. Sill, Okla. *Vertebrate paleontology.* Cape May Court House, N. J, Sept. 22, 10. B.S, Princeton, 30; A.M, Columbia, 32, Ph.D, 35. Asst. biol, Long Island, 30–33; Tutoring Sch. of New York, 33–34; Cutting traveling fellow, Columbia, 34–36; asst. geologist, U. S. Army Engineers, 36–39, assoc. geologist, 39–41, geologist, 41; capt, *U. S. Army,* 42, *major, 42–* Summer, field asst, U. S. Geol. Surv, 34. A.A; Soc. Mammal; Paleont. Soc; Geol. Soc; N. Y. Acad. Evolution of the rodents and lagomorphs, particularly Heteromyidae and Cricetidae; geology of dam sites; geophysical exploration of foundations for engineering structures.

Wood, Prof. A(lbert) G(erard), Grove City College, Grove City, Pa. *Plant physiology.* Waynetown, Ind, Jan. 20, 81. B.S, Valparaiso, 04; A.B, Indiana, 08; A.M, Nebraska, 16; Chicago, 26–27. Teacher, high sch, Colo, 10–16; *prof.* biol, Trinity (Texas), 16–19; bot. and bacter, Baker, 19–26; *biol, Grove City Col, 27–* City bacteriologist, Baldwin City, Kans. A.A; Kans. Acad. General physiology; problems of teaching biology; field and laboratory teaching.

Wood, Dr. A(lex) J(ames), Fisheries Experimental Station, Halifax, N. S, Can. *Bacteriology, Biochemistry.* Vancouver, B. C, Sept. 3, 14. B.Sc, British Columbia, 35, 36; M.Sc, New Zealand, 38; Ph.D, Cornell, 40. *Asst. biochemist, Fisheries*

Exp: Sta, 41– Bacteriology and biochemistry of fish and fisheries products.

Wood, Dr. Alfred C(onard), 2035 Walnut St, Philadelphia, Pa. *Surgery.* Hatboro, Pa, June 17, 63. Ph.C, Phila. Col. Pharmacy, 85; M.D, Pennsylvania, 88. Asst. prof. surg, sch. med, Pennsylvania, 03–31; *retired.* Surgeon, Univ, Phila. Gen, Howard and other hosps. Surg. Asn; Col. Surg; Am. Med. Asn; Asn. Genito-Urinary Surg; Phila. Acad. Surg.

Wood, Prof. A(rthur) E(dward), 20 Pleasant St, Hamilton, N. Y. *Chemistry.* Morris, N. Y, June 18, 78. B.S, Colgate, 15, M.S, 20. Asst. *chem, Colgate,* 15–17, instr, 17–20, *assoc. prof, 20–* Chem. Soc.

Wood, Dr. A(rthur) E(ugene), Mississippi College, Clinton, Miss. *Chemistry.* Fitzpatrick, Ga, Nov. 25, 87. B.S, Mercer, 07; M.S, Vanderbilt, 09, fellow, 09–11; Ph.D, Pittsburgh, 24. Head dept. science, Ala. State Nor. Sch, 12–17; *prof. chem,* Agr. and Mech. Col. Texas, 17–20; *Miss. Col, 20–* Instr, Pittsburgh, 23–24. Summers, chemist, South. Cotton Oil Co, Ga, 18; Humble Oil Co, Texas, 20; Phillips Petrol. Co, 26, 27, 29, 30. Chem. Soc; Min. and Metal. Eng. Organic sulfur compounds in petroleum.

Wood, Prof. Austin B(igelow), Brooklyn College, Brooklyn, N. Y. *Psychology.* San Francisco, Calif, March 1, 02. A.B, California, 23; M.F, Yale, 25; A.M, Columbia, 29, Ph.D, 34. Tutor *psychol,* Col. City of N. Y, 29–30; *Brooklyn Col,* 29–31, instr, 32–35, *asst. prof, 36–, war service counselor, 42–* A.A; Psychol. Asn. Personality; curricular problems.

Wood, Prof. Ben(jamin) D(eKalbe), Columbia University, New York, N. Y. *Psychology, Education.* Brownsville, Texas, Nov. 10, 94. A.B, Texas, 17; A.M, Columbia, 22, Ph.D, 23; LL.D, Lawrence Col, 36; L.H.D, Union Col, 42. Asst. psychol, *Columbia,* 19–21, asst. to dean, *Columbia Col,* 21–24, asst. prof. *educ. research,* 23–26, assoc. prof, 26–38, *prof, 38–* Summers, acting prof, Stanford, 21–22; Arizona, 23; California, 24; Teachers Col, Columbia, 25–27; Colo. State Teachers Col, Greeley, 32–37. Tech. asst. to director, Carnegie Foundation Pa. Study, 27–30; director cooperative test service, Am. Council Educ, 30–; Educ. Records Bur, 33–; director, Nat. Cmt. Teacher Exams, 39–; educational consultant, Civil Aeronautics Admin, 41– Mem. cmt. sci. aids to learning, Nat. Research Council, 37–; Nat. Occupational Conf. A.A; Psychol. Asn; Vocational Guidance Asn; Educ. Research Asn; Eng. Educ; Personnel Research Federation. Measurement in higher and secondary education; measurement of intelligence and achievement; technique of test construction; educational personnel administration.

Wood, Carl E(dwin), U. S. Bureau of Mines, University Campus, Minneapolis, Minn. *Chemistry.* Rosalia, Wash, March 27, 00. B.S, Washington (Seattle), 23, fellow, 23–24. Junior chemist, *U. S. Bur. Mines,* Seattle, 24–25, Reno, 25, asst. chemist, *Minneapolis,* 25–37, *assoc. chemist, 37–, acting supervising engineer.* Chem. Soc; Electrochem. Soc; Soc. Metals; Min. and Metal. Eng. Reduction ferrous metallurgy; beneficiation of manganiferous iron ores; crushing and grinding.

Wood, Prof. C(ary) C, University of Akron, Akron, Ohio. *Educational psychology.* Highland Co, Ohio, Jan. 28, 82. B.S, Ohio (Athens), 14; A.M, Columbia, 16; fellow, Cincinnati, 27–28, Ph.D, 28. Sch. supt, Ohio, 17–28; assoc. prof. educ. psychol, *Akron,* 28–33, *prof. philos, 33–* Lecturer, Ohio (Athens). Assoc. Psychol. Asn. Part and whole methods of learning as conditioned by practise.

Wood, Dr. C(harles) A(rthur), 201 Varick St, New York, N. Y. *Chemical microscopy.* Petersburgh, Nebr, Nov. 10, 06. A.B, Omaha, 28; M.S, Polytech. Inst. Brooklyn, 31, Ph.D, 37. Junior and asst. chemist, alcohol tax unit, U. S. Treasury Dept, 28–33; asst. chemist and later *assoc. chemist, food and drug admin, Fed. Security Agency, 33–* Agr. Chem. (assoc. referee, determination of potassium oxide in fruit products). Methods of analysis; fruit products.

Wood, Dr. David A(lvra), 2398 Sacramento St, San Francisco, Calif. *Pathology.* N. Mex, Dec. 21, 04. A.B, Stanford, 26, M.D, 30. Asst. *path, Stanford,* 30–31, instr, 31–33, asst. prof. and acting exec. head, 33–36, *assoc. prof, 36–; lieut. commander, U. S. Naval Res, 34–* A.A; Am. Med. Asn; Asn. Path. and Bact; Calif. Med. Asn. (chairman, path. sect, 36); Path. Soc. San Francisco (pres, 36–37); Int. Asn. Med. Mus. Digitalis emesis; bismuth diuresis; salivary tumors; dual pulmonary circulation in human lungs; heredity and mammary cancer; adenoacanthoma of stomach; primary carcinoma of liver; Wilms's tumor in adult; aberrant islet tissue and hyperinsulinism.

Wood, Dr. Earl H(oward), Harvard Medical School, Boston, Mass. *Physiology.* Mankato, Minn, Jan. 1, 12. A.B, Macalester Col, 34; B.S, Minnesota, M.S, 39, M.B. and Ph.D, 40, M.D, 41. Teaching fellow physiol, Minnesota, 36–39, instr, 40; nat. research fellow, Pennsylvania, 40–41; *instr. pharmacol, Harvard Med. Sch, 42–; asst. prof. physiol, acceleration lab, Mayo Aero Med. Unit, 43–* Electrolyte metabolism of cardiac and striated muscle; glucose reabsorption in the amphibian kidney; kidney function and experimental hypertension in adrenalectomized dogs.

Wood, Prof. E(dgar) H(arper), 406 W. Court St, Ithaca, N. Y. *Mechanics.* Tecumseh, Kans, Aug. 13, 72. M.E, Cornell, 92, M.M.E, 93. Prin, manual training sch, Dayton, Ohio, 95–98; instr. drawing, *Cornell,* 99–04, machine design, 04–07, asst. prof, 07–10, prof. *mech. of eng,* 10–37, *emer. prof, 37–* Eng. Educ. Theoretical and applied mechanics; strength of materials; kinematics; machine design.

Wood, Prof. E(rnest) R(ichard), 167 Watchung Ave, Montclair, N. J. *Psychology, Statistics, Education.* Del Norte, Colo, July 19, 91. A.B, Ohio (Athens), 16; A.M, Clark, 17; Ph.D, Chicago, 23. Teacher, pub. schs, Ohio, 08–13; prin, univ. high sch, Kentucky, 19–21; prof. psychol, Kans. State Teachers Col, Emporia, 22–29; director instructional research and scholarship contests, State Dept. Educ, Ohio, 29–32; assoc. prof. *educ, N. Y. Univ,* 32–40, *prof, 40–* Summers, prof, Ohio State, 30–32. Director bur. measurements and standards and state scholarship contests, Emporia, Kans, 24–29. Psychologist, U.S.A, 18. Psychol. Asn; Statist. Asn; Educ. Research Asn. Statistical short cuts; achievement testing; motivation; scholarship testing; student success and failure.

Wood, Dr. Florence D(owden), 2 Charles Place, Chatham, N. J. *Zoology.* Fairmont, W. Va, Sept. 5, 98. A.B, Sweet Briar Col, 21; hon. fellow, Yale, 22–25, Ph.D, 25. Instr. micros. anat, sch. med, Loyola, 25–26; biol, N. Y. Univ, 26–28. Paleont. expeds, 28, 30–34, 38, 41. Soc. Vert. Paleont; N. Y. Acad. Autotomy in Arthropoda; dental anatomy and ontogeny.

Wood, Dr. F(rancis) C(arter), 110 Lydecker St, Englewood, N. J. *[6]*Pathology.* Columbus, Ohio, Dec. 30, 69. B.S, Ohio State, 91; M.D, Columbia, 94; Berlin and Vienna, 96; hon. Sc.D, Tufts Col, 25, Ohio State, 31. Asst. *clin. path, Columbia,* 96–98, instr, 98–04, adj. prof, 04–06, *prof, 06–,* director *inst. cancer research,* 12–40, *emer. director, 40–* Intern, St. Luke's Hosp, 94–96, pathologist, 97–, director labs, 10– Ed, 'Am. Jour. Cancer.' Légion d'honneur; Order of the Crown, Belgium; Clement Cleveland medal, New York Cancer Cmt. Int. Cong. Exp. Cytol, Amsterdam, 30; pres, Int. Cancer Cong, Atlantic City, N. J, 38. A.A; Asn. Path. and Bact; Am. Physicians; Soc. Exp. Biol; Radiol. Soc. N. Amer. (pres, 31); Asn. Cancer Research (pres, 31); hon. mem. Radium Soc; N. Y. Acad; N. Y. Path. Soc. (sec'y, 01–08, ed, 'Proc,' 02–09, treas, 11); Harvey Soc. (sec'y, 08–10); Pan-Am. League Against Cancer; hon. mem. Royal Hungarian Med. Soc; hon. mem. Scandinavian Radiol. Soc; Int. Union contre la Cancer (v. pres). Salivary gland tumors; blood regeneration; precipitins; effects of physical agents on bacteria; experimental cancer and radiation therapy.

Wood, Prof. Frank Edwin, University of Oregon, Eugene, Oregon. *Mathematics.* Wamego, Kans, Feb. 26, 91. A.B, Baker, 12; A.M, Kansas, 14; Ph.D, Chicago, 20. Instr. *math,* Northwestern, 16–17; assoc. prof, New Mexico, 17–18; acting head dept, Baker, 19; asst. prof, Mich. State Col, 21–22; Northwestern, 22–28, *assoc. prof,* 28–43; *Oregon, 43–* Science and research div, U.S.A, 18–19. Math. Soc; Math. Asn. Plane, projective and projective differential geometry.

Wood, Dean Frederick, University of Nevada, Reno, Nev. *Mathematics.* Zionsville, Ind, Dec. 7, 89. A.B, Wisconsin, 15, A.M, 16, Ph.D, 23. Instr. math, Wisconsin, 15–17, 19–23; head dept, Pa. State Teachers Col, Indiana, 23–24; Lake Forest Col, 24–25; Wesleyan Col. (Ga), 25–28; prof. and head dept, Hamline, 28–32, dean men, 29–32; *prof. math. and head dept. math. and mech, Nevada, 32–, dean col. arts and science, 38–* A.A; Math. Soc; Math. Asn. Group velocity; differential equations.

Wood, Dr. George C(layton), P. O. Box 836. St. Petersburg, Fla. *Biology.* Mexico, N. Y, Feb. 2, 78. A.B, Syracuse, 00; Ph.D, N. Y. Univ, 18. Prin, pub. sch, N. Y, 00–02, teacher, 02–14; head dept. biol. and gen. science, Alexander Hamilton

High Sch, New York, 14–25; James Monroe High Sch, 25–39. Lecturer, Brooklyn Inst, 19–23; Hunter Col, 29–33; pres. dept. bot, Brooklyn Inst, 20– A.A; Asn. Research Sci. Teachers; Torrey Bot. Club; N. Y. Asn. Biol. Teachers (pres, 20–22); N. Y. Asn. Gen. Science Teachers. General science; our environment, how we use and control it; general biology.

Wood, Dr. Harland G(off), University of Minnesota, Minneapolis, Minn. *Bacteriology.* Delavan, Minn, Sept. 2, 07. A.B, Macalester Col, 31; Ph.D, Iowa State Col, 34. Nat. research fellow, Wisconsin, 35–36; from asst. to asst. research prof. bacter, Iowa State Col, 36–43; *assoc. prof. physiol, Minnesota, 43–* Soc. Bact; Biochem. Soc. Gt. Britain. Physiological bacteriology; biochemistry of bacteria; biochemistry of nerve in relation to infantile paralysis.

Wood, Harry O(scar), 220 N. San Rafael Ave, Pasadena, Calif. *Seismology.* Gardiner, Maine, July 28, 79. A.B, Harvard, 02, A.M, 04. Asst. miner. and petrog, Harvard, 02–04; instr. miner. and geol, California, 04–12; research assoc. seismol, Hawaiian Volcano Observatory, Mass. Inst. Tech, 12–17; acting and asst. sec'y, Nat. Research Council, 19–20; *research assoc. seismol, Carnegie Institution, 21–* Capt, Eng. R.C. and C. Eng. A.A; Seismol. Soc. (v. pres. and board directors, 17–); Geol. Soc; Geophys. Union (sec'y, 19–21). Crystallography; seismic geology; vulcanology; general physical geology.

Wood, Dr. H(enry) Allen, 1843 Elm St, Stratford, Conn. *Mathematics.* Richmond, Mass, July 17, 12. B.S, Mass. Inst. Tech, 34, Ph.D, 38. Instr. math, Connecticut, 38–41, asst. prof, 41; *applied mathematician, Vought-Sikorsky Aircraft, 41–* Math. Soc; Math. Asn. Applied mathematics.

Wood, Dr. Horace E(lmer), 2nd, University of Newark, Newark, N. J. *Vertebrate paleontology.* Portland, Oregon, Feb. 6, 01. A.B, Princeton, 21; A.M, Columbia, 23, Ph.D, 27. Instr. Latin and biol, Polytech. Prep. Country Day Sch, 21–23; instr. biol, N. Y. Univ, 23–28, asst. prof. geol, 28–32; *prof. biol, Newark, 31–; research assoc. fossil mammals, Am. Museum Nat. Hist, 42–; lieut, Air Corps, U. S. Army, 43–* Summer, lecturer, Wyoming, 24. Exped, Tertiary of west. N. Amer, 23, 28, 31–34, 38, 41; Gaspé, Devonian, 30. A.A; fel. Geol. Soc; Soc. Mammal; fel. Paleont. Soc; Soc. Vert. Paleont; fel. N. Y. Acad. (sec'y, sect. biol, 37, 38, v. pres, 39, 40). Rhinocerotoidea and Helaletidae; dental anatomy and evolution; North American Tertiary continental stratigraphy; evolution; autotomy in Crustacea; history of science.

Wood, Dr. Horatio C(harles), Jr, University of Pennsylvania, Philadelphia, Pa. *Pharmacology.* Philadelphia, Pa, Feb. 26, 74. M.D, Pennsylvania, 96; Bern, 97–98; hon. Ph.M, Phila. Col. Pharmacy, 35. Demonstrator pharmacodynamics, Pennsylvania, 98–07, assoc. prof. pharmacol, 07–10; prof. pharmacol. and therapeut, Medico-Chirurg. Col. Phila, 10–17; sch. med, Pennsylvania, 17–42. Prof, Phila. Col. Pharmacy, 20. Ed, 'U. S. Dispensatory.' Revision cmt, U. S. Pharmacopoeia, 10–40, v. pres. conv, 40– A.A; Soc. Pharmacol; Pharmaceut. Asn; Am. Med. Asn. (chairman, sect. pharmacol); Col. Physicians Phila. Origin of the Traube waves; physiology of the pulmonary circulation; pharmacology of ether and chloroform, lecithin, ergot, apocynum cannabinum, veratrum, aspidosperm; rheumatic fever; caffein; digitalis.

Wood, Dr. J(ames) Albert, Jr, 47 Wildwood St, Winchester, Mass. *Electrical engineering.* Wilmington, Del, April 15, 05. E.E, Cornell, 28, Ph.D, 35; M.S, Rochester, 29. Asst. eng, Rochester, 28–29, instr. *elec. eng,* 29–33; *Mass. Inst. Tech,* 35–42, *asst. prof, 42–* Assoc. Eng. Educ; assoc. Elec. Eng; assoc. Radio Eng. Distortion of alternating current waves by iron core coils.

Wood, Prof. Jess H, University of Tennessee, Knoxville, Tenn. *Organic chemistry.* Pine Knot, Ky, April 29, 03. B.S, East. Ky. State Teachers Col, 28; M.S, Tennessee, 29; Ph.D, North Carolina, 37. Asst. prof. and later *assoc. prof. chem, Tennessee, 37–* Chem. Soc. Sulfur containing organic compounds; preparation of diaryl ethylenes.

Wood, Jessie I(da), U. S. Department of Agriculture, Beltsville, Md. *Plant pathology.* Reedsburg, Wis, Sept. 18, 93. A.B, Stanford, 15, A.M, 16. Junior pathologist, *bur. plant indust, U. S. Dept. Agr,* 22–28, *asst. pathologist, 28–* A.A; Phytopath. Soc; Bot. Soc. Wash.

Wood, Dr. John E(dward), III, 506 Centenary Drive, Baton Rouge, La. *Organic chemistry.* Lynchburg, Va, May 20, 16. A.B, Lynchburg Col, 36; Ph.D, Mass. Inst. Tech, 39. Research chemist, Standard Oil Develop. Co, 39–41; *asst. supervisor synthetic alcohol plants, Standard Oil Co, La, 42–* Chem. Soc. Friedel-Crafts reaction.

Wood, Dr. John L(ewis), Cornell University Medical College, 1300 York Ave, New York, N. Y. *Organic biochemistry.* Homer, Ill, Aug. 7, 12. B.S, Illinois, 34; Ph.D, Virginia, 37. Asst. biochem, med. sch, George Washington, 37–38; Cornell, 38–39; Finney-Howell fellow, Harvard, 39–41; assoc. chemist, east. regional research lab, bur. agr. chem. and eng, U. S. Dept. Agr, 41–42; *research asst. biochem, med. col, Cornell, 42–* Chem. Soc. Reactions of ketones; carcinogens; chemistry of amino acids, peptides and proteins; intermediary metabolism of cysteine derivatives.

Wood, Prof. Karl D(awson), Purdue University, Lafayette, Ind. *Engineering.* Forest Glen, Md, Sept. 27, 98. M.E, Cornell, 22, M.S, 26. Asst. mech. engineer, Bur. Standards, 18–20; asst. prof. eng, col. eng, Cornell, 20–36; aeronaut. engineer, Consol. Aircraft Corp, 36–37; *prof. aeronaut. eng, Purdue, 37–; consulting engineer, 31–* Consulting engineer, Bell Tel. Labs, 25–26; Atmospheric Nitrogen Corp, 27–28; Morse Chain Co, 29–30. Mech. Eng; Soc. Automotive Eng; assoc. fel. Inst. Aeronaut. Sci. Mechanics of engineering; aeronautics; aerodynamics; airplane design; engine balancing; fan dynamometers.

Wood, Dr. Lawrence A(rnell), National Bureau of Standards, Washington, D. C. *Physics.* Peekskill, N. Y, Jan. 15, 04. A.B, Hamilton Col, 25, Elihu Root fellow, 25–27; Ph.D, Cornell, 32. Asst. physics, Cornell, 27–28, instr, 28 35; *research physicist, Bur. Standards, 35–, chief rubber sect, 43–* Chem. Soc; Physical Soc; Philos. Soc. Wash; Wash. Acad. Electrical conduction and emission from metals and semi-conductors; Hall effect; the blocking-layer effect of photoelectric phenomena; cathode ray oscillograph; physics and technology of rubber and synthetic rubber.

Wood, Dr. Lloyd A(llan), 12 Oxford St, Cambridge 38, Mass. *Physical chemistry.* Morrilton, Ark, March 4, 15. A.B, Oberlin Col, 36; Ph.D, Stanford, 39. Am-Scandinavian Foundation fellow, 39–40; *instr. chem, Harvard, 41–* A.A; Chem. Soc. Surface chemistry.

Wood, Prof. Lyman J(oy), 1402 S. Grand Blvd, St. Louis, Mo. *Chemistry.* Bluford, Ill, May 17, 98. B.S, Otterbein Col, 19; M.S, Illinois, 20, Ph.D, 24. Prof. *chem.* and director dept, Hedding Col, 20–22; acting prof. and director dept, Defiance Col, 25; instr. *St. Louis,* 25–28, asst. prof, 28–36, *assoc. prof, 36–* Chem. Soc. (councilor, 30, 32, 33, 42). X-ray crystal analysis; alloy systems; reactions in the solid state; chemical education.

Wood, Milo N(elson), 337 Federal Bldg, Sacramento, Calif. *Pomology.* Linwood, Wis, April 28, 83. B.S, California, 17, M.S, 23. Asst. agr. chem, California, 15–16, bot, 16–18, pomol, 18–20; *pomologist, div. hort. crops and diseases, bur. plant indust, U. S. Dept. Agr, 20–* A.A; Soc. Hort. Sci; Genetic Asn; Calif. Bot. Soc. Classification of almond varieties; almond breeding and culture; walnut pollination; floral biology of the almond; pollen potency in orchard fruits.

Wood, Norman A(sa), University of Michigan, Ann Arbor, Mich. *Ornithology.* Ann Arbor, Mich, Aug. 19, 57. High sch. Taxidermist, *museum zool, Michigan,* 95–11, curator *birds,* 11–36, *emer. curator, 36–* Exten. lecturer, Michigan; teacher, Ginling Col, Nanking, China; museum, Michigan, ornith. expeds, Mich, China, 23–24. Cooper Ornith. Club; Wilson Ornith. Club. Birds and mammals of Michigan.

Wood, Dr. Reuben E(sselstyn), 338 Highland Place, Monrovia, Calif. *Physical chemistry.* Lansing, Mich, April 1, 15. B.S, Calif. Inst. Tech, 36, Ph.D, 39; Lingnan, 34–35; M.S, Chicago, 37. *Research fellow, Calif. Inst. Tech, 39–* Chem. Soc. Chemical kinetics; photochemistry.

Wood, Dr. Richard C(ameron), 17 Corinth St, Providence, R. I. *Chemical engineering.* Providence, R. I, Jan. 20, 13. B.S, R. I. State Col, 33; Ph.D, N. Y. Univ, 36. *Chem. engineer, Procter and Gamble Co, 36–; Air Forces, U. S. Army, 41–, major.* Chem. Eng. Thermal decomposition of dimethyl sulfite.

Wood, Dr. R(obert) W(illiams), Johns Hopkins University, Baltimore, Md. **Experimental physics.* Concord, Mass, May 2, 68. A.B, Harvard, 91; Hopkins, 91–92; Chicago, 92–94; Berlin, 94–96, hon. Ph.D, 32; LL.D, Clark, 09, Birmingham, 13, Edinburgh, 21. Instr. physics, Wisconsin, 97–98, asst. prof, 98–00; prof. *exp. physics, Hopkins,* 01–38, *research prof, 38–* Thomas Young lecturer, London Optical Soc, 10;

Ernest Kempton Adams research fellow, Columbia, 12; Guthrie lecturer, London, 14. Rumford medal, Am. Acad, 09; gold medal, Soc. Ital. della Sci, Rome, 18; medals, London Soc. Arts and Franklin Inst; Ives medal, Optical Soc; Rumford gold medal, Royal Soc, 39; Draper gold medal, Nat. Acad. Sciences, 40. Major, Sig. O.R.C, 17–19. Nat. Acad; Physical Soc. (pres, 35); Am. Acad; for. mem. Royal Soc; cor. mem. British Asn; hon. mem. Royal Micros. Soc; London Optical Soc; for. mem. Royal Inst; hon. fel. London Physical Soc; for. mem. Leopold-Carol Deuts. Akad; cor. mem. Göttingen Königl. Gesell; for. mem. Accad. dei Lincei; for. mem. Royal Swedish Acad. Sci; hon. mem. Acad. Leningrad; for. mem. Indian Asn; hon. fel. Indian Acad; Cultivation Sci. Calcutta. Continuous absorption below head of spectral series; resonance-radiation and fluorescence; critical temperature for deposition of metal vapors as homogeneous films; transparency of alkali metals in ultra-violet; production of spontaneous incandescence of metals in cold atomic hydrogen; extension of Balmer series of hydrogen; infra-red and ultra-violet photography; destruction of polarization of resonance radiation by weak magnetic fields; physical and biological effects of high frequency sound waves; diffraction gratings for astrophysical research.

Wood, Dr. Scott E(merson), Yale University, New Haven, Conn. *Chemistry.* Ft. Collins, Colo, April 9, 10. B.S, Denver, 30, M.S, 31; Shell fellow, California, 34–35, Ph.D, 35. Research assoc. *chem.* Mass. Inst. Tech, 35–40; instr, *Yale*, 40–43, *asst. prof*, 43– Chem. Soc. Physical chemistry; theory of solutions; non-aqueous solutions; electrolytic solutions; chromatography.

Wood, Dr. Sherwin F(rancis), 1015 N. Alexandria Ave, Los Angeles, Calif. *Protozoology.* Lake Placid, N. Y, June 23, 08. A.B, California at Los Angeles, 31, A.M, California, 33, Ph.D, 35. Reader biol, California at Los Angeles, 30–31, tech. asst. zool, California, 31–34, teaching asst, 33–35; assoc. biol, Los Angeles City Col, 35–36, instr, 36–38, life sciences, 38–43; *malariologist and lieut, U. S. Naval Res, 43–* A.A; Soc. Ichthyol. and Herp; Soc. Parasitol; Cooper Ornith. Club (sec'y south. div, 40, v. pres, 41, pres, 42; governor, 40–); West. Bird Banding Asn. (v. pres, 38–); Federation Nat. Sciences South. Calif. (sec'y, 35–37, director, 35–). Hematozoa; hematology; natural history of reptiles.

Wood, Prof. Sylvan R(upert), 115 W. Maple Ave, Stillwater, Okla. *Chemistry.* Janesville, Minn, April 9, 95. B.S, Dakota Wesleyan, 17; M.S, Okla. Agr. and Mech. Col, 20; Ph.D, Wisconsin, 34. Chemist, Empire Gas and Fuel Co, Eldorado, Kans, 20–22; *assoc. prof. chem, Okla. Agr. and Mech. Col*, 22– Chem. Soc. (sec'y, Okla. sect, 27–30). Preparation and analysis of the alkali salts of telluro-molybdic acid.

Wood, Dr. Thomas D(enison), Columbia University, New York, N. Y. *Health education.* Sycamore, Ill, Aug. 2, 65. A.B, Oberlin Col, 88, A.M, 91; M.D, Columbia, 91. Prof. hygiene and org. training, Stanford, 91–01; physical educ, *Teachers Col, Columbia*, 01–27, *health educ*, 27–32, *emer. prof*, 32– A.A; Am. Med. Asn. (chairman, cmt. on health problems in educ, 11–38); Child Health Asn. (v. pres, 22–); N. Y. Acad. Med. Health and physical education; school hygiene.

Wood, Dr. T(homas) R(oss), General Foods Corp, 250 Park Ave, New York, N. Y. *Biological chemistry.* Portland, Colo, May 7, 16. B.S, Denver, 37; Ph.D, Illinois, 40. Research fellow, Harvard, 40–42, teaching fellow biochem, Harvard Med. Sch, 42; senior research fellow, Pittsburgh, 42–43; *research chemist, Gen. Foods Corp, 43–* Chem. Soc. Amino acid metabolism; chemistry of the parathyroid hormone; biochemistry of fats; phytochemistry.

Wood, Dr. Willard L, 122 S. Michigan Ave, Chicago, Ill. *Bacteriology.* Zionsville, Ind, March 21, 95. A.B, Ind. State Nor. Col, 20; M.S, Chicago, 25, M.D, Rush, 30. Teacher, high schs, Ind; asst. bacter, *Chicago*, 27, Wilber E. Post fellow, *Rush Med. Col*, 30–32, clin. asst. *med*, 33–34, clin. assoc, 34, clin. instr, 35–40, *asst. clin. prof*, 40– Asst. attending physician, Presbyterian Hosp, Chicago, Ill. A.A; Rheumatism Asn; Soc. Bact; fel. Col. Physicians; Cent. Soc. Clin. Research; Soc. Ill. Bact. (councilor, 39–). Internal medicine; chemistry; clinical bacteriology.

Wood, Dr. W(illiam) Barry, Jr, Barnes Hospital, Kingshighway, St. Louis, Mo. *Internal medicine.* Milton, Mass, May 4, 10. A.B, Harvard, 32; research fellow, Wisconsin, 34; M.D, Hopkins, 36. Intern, Hopkins Hosp, 36–37, asst. res. med, 37–39; nat. research fellow bacter, Harvard Med. Sch, 39–40; assoc. *med*, sch. med, Hopkins, 40–42; *prof, sch. med, Washington (St. Louis)*, 42–; *physician in chief, Barnes Hosp.* Consultant on epidemic diseases to U. S. Sec'y War, 41– Mem. chemotherapy cmt, Nat. Research Council, 43, mem. subcmt. clin. testing of antimalarials. Soc. Exp. Biol; Soc. Clin. Invest; Peripatetic Med. Soc; Cent. Soc. Clin. Research. Bacteriology; pneumonia; bacterial and sulfonamide chemotherapy.

Wood, W(illiam) H(enry), 2267 Fenwick Road, University Heights, Cleveland, Ohio. *Chemistry.* Granby, Mo, Aug. 23, 05. B.S, Missouri, 29, A.M, 30. Asst. chemist, St. Louis-San Francisco R.R, 30–31; research chemist, Phillips Petrol. Corp, Bartlesville, Okla, 31–36; *director research, Harris-Seybold-Potter Co, 36–* Chem. Soc; Soc. Motion Picture Eng; Royal Photog. Soc; Int. Asn. Printing House Craftsmen. Photomechanical chemical processes; colloids.

Wood, Prof. William P(latt), 619 E. University, Ann Arbor, Mich. *Metallurgy.* Ypsilanti, Mich, May 26, 88. A.B, Michigan, 12, B.Ch.E, 14, M.S, 16. Instr. and asst. prof. chem, Mich. State Col, 14–18; asst. prof, chem. eng, *Michigan*, 19–21, *metal. eng*, 21–27, assoc. prof, 27–31, *prof, 31–* Consulting metallurgist, Cook Spring Co; supervisor materials, Bur. Aircraft Production, 18–19. Soc. Test. Mat; Soc. Metals; Inst. Metals. Volume changes in steel during heat treatment; effect of low drawing temperatures upon hardened steel; corrosion of iron and steel; heat treatment of mechanical springs; location of the ferrite solubility curve in the iron-carbon system; effect of gases on metals at elevated temperatures.

Wood, Prof. W(illiam) W(oodhull), Davidson College, Davidson, N. C. *Mathematics.* Charlottesville, Va, June 30, 88. A.B, Virginia, 09, C.E, 12. Engineer, E. I. du Pont de Nemours and Co. and South. Ry, 12–15; assoc. prof. *applied math, Davidson Col*, 15–20, *prof*, 20– Applied mathematics.

Woodard, Dr. Helen Quincy, Memorial Hospital, 444 E. 68th St, New York, N. Y. *Chemistry.* Detroit, Mich, Aug. 8, 00. B.S, J. B. Stetson, 20; A.M, Columbia, 21, Ph.D, 25. *Research chemist, Mem. Hosp, New York*, 26– Abstractor, 'Am. Jour. Cancer,' 30– A.A; Chem. Soc. Bredig and Kohlschutter silver sols; Bredig lead sols; radiation and the hydrogen ion concentration of blood; radiation and the viscosity of colloids; the decomposition of iodides by radiation; serum phosphatase in bone diseases; phosphatase and the deposition of radioactive phosphorus in tissue.

Woodard, Dr. Parke H(arold), 1743 Louisiana St, Lawrence, Kans. *Physiology.* Haviland, Kans, June 6, 95. A.B, Kansas, 18, A.M, 25; M.D, Rush, Chicago, 29. Instr. physiol, Kansas, 21–25; asst. path, Chicago, 25–27; intern, Denver Gen. Hosp, Colo, 28–29; asst. prof. *physiol, Kansas*, 29–31, *assoc. prof, 31–* A.A; fel. Am. Med. Asn; Asn. Med. Hist; Kans. Acad. Blood gases; hemoglobin and red cell variations; laboratory methods in physiology.

Woodard, Dr. T(homas) M(arion), Vanderbilt University, Nashville, Tenn. *Biology.* Springfield, Tenn, Aug. 15, 04. A.B, Vanderbilt, 25, A.M, 26; fellow, Princeton, 28–29, Ph.D, 33. Research biologist, Standard Oil Develop Co, N. J, 29–30; instr. *biol, Vanderbilt*, 26–28, 30–38, *asst. prof*, 38– Soc. Zool; Southeast. Asn. Biol; Tenn. Acad. Cytology; anatomy of gastropods.

Woodbridge, Mary E(mily), 43 Pulteney St, Geneva, N. Y. *Botany.* Sarcoxie, Mo, Feb. 16, 76. A.B, Illinois, 08; M.S, Chicago, 11. Teacher, high sch, 12–14; seed analyst, State Dept. Agr, Texas, 18–26; asst, N. Y. Exp. Sta, Geneva, 26–39; *retired.* A.A; Asn. Seed Anal. Seed-testing.

Woodbridge, R(ichard) G(eorge), Jr, 2407 W. 17th St, Wilmington, Del. *Chemistry.* Iowa City, Iowa, March 18, 86. B.S, Mass. Inst. Tech, 07. Asst. cellulose, Mass. Inst. Tech, 07–08; research chemist, exp. sta, chem. dept, *E. I. du Pont de Nemours and Co*, 08–11, div. head smokeless and black powder div, exp. sta, 11–15, 16–19, rifle powder expert, Carneys Point, N. J, 15–16, manager cellulose div, chem. dept, 19–21, director Brandywine lab, 21–27, chem. director, smokeless powder dept, 27–37, asst. chem. director *explosives dept*, 37–39, *tech. director mil. explosives div*, 39– Chem. Soc; Chem. Eng. Improvements in smokeless powder.

Woodburn, Prof. H(enry) Milton, University of Buffalo, Buffalo, N. Y. *Chemistry.* Lockport, N. Y, May 30, 02. B.S, Buffalo, 23; M.S, Northwestern, 25; Ph.D, Pa. State Col, 31. Instr. *chem, Buffalo*, 23–24, 26–29, 30–35, asst. prof, 35–42, *assoc. prof, 42–, acting chairman dept, 43–* Chem. Soc. Organic and inorganic chemistry.

Woodburn, Prof. James G(elston), University of Wisconsin, Madison, Wis. *Hydraulic engineering.* Bloomington, Ind, Nov. 30, 94; A.B, Indiana, 15, fellow, A.M, 16; B.S, Purdue, 18; fellow, Michigan, 27–29, Ph.D, 29. Asst. math, Purdue, 17; ry. eng, 18–20; highway bridge design, State Highway Cmn, Ind, 20; assoc. engineer forest products, Forest Products Lab, U. S. Forest Service, 20–23; instr. civil eng, State Col. Wash, 24–27; asst, Michigan, 28; John R. Freeman traveling scholar *hydraul. eng,* 29–30; assoc. prof, State Col. Wash, 30–37; *prof, Wisconsin, 37–* Civil Eng. Tests of broad-crested weirs; hydraulics.

Woodburne, Prof. Russell T(homas), University of Michigan, Ann Arbor, Mich. *Anatomy.* London, Ont, Can, Nov. 2, 04. A.B, Michigan, 32, A.M, 33, Ph.D, 35. Teaching fellow, *Michigan,* 33–35, instr. *anat,* 36–39, *asst. prof, 39–* A.A. Morphologic and phylogenetic studies of the trigeminal nerve; hypothalamus of submammals; the mammalian midbrain.

Woodbury, Prof. A(ngus) M, 248 University St, Salt Lake City, Utah. *Zoology.* St. George, Utah, July 11, 86. B.S, Brigham Young, 27; M.S, Utah, 28; Ph.D, California, 31. Instr. *zool, Utah,* 28–30, asst. prof, 31–39, assoc. prof, 39–42, *prof, 42–* Summers, acting park naturalist, Zion Nat. Park, Utah, 25–28, park naturalist, 29–31. A.A; Ecol. Soc. (cmn. west. div, 37, 42); Cooper Ornith. Club; Soc. Ichthyol. and Herp. (v. pres, west. div, 41); Ornith. Union; West. Bird Banding Asn; Utah Audubon Soc. (pres, 36–41); Utah Acad; Biol. Soc. Wash. Reptiles; birds; ecology.

Woodbury, Prof. Carl Vose, Norwich University, Northfield, Vt. *Physics.* Skowhegan, Maine, Aug. 18, 77. A.B, Bowdoin Col, 99; A.M, Norwich, 09. Prin, high sch, Maine, 99–00; instr, *Norwich,* 00–01, asst. prof, 01–16, *prof. physics and head dept, 16–,* coordinator, Civilian Pilot Training Program, 42, *director* summer schs, 42, *Army Specialized Training and Air Crew program, 43–* Major, Vt. Nat. Guard. Eng. Educ; Asn. Physics Teachers. General physics.

Woodbury, Dr. C(harles) G(oodrich), National Canners Association, Washington, D. C. *Horticulture.* Portland, Mich, April 30, 84. B.S, Mich. State Col, 04, M.S, 06; Sc.D, Purdue, 37. Asst. horticulturist, Exp. Sta, Purdue, 06–08, assoc, 08, asst. prof. hort, univ, 09–11, head dept, 11–17, director, Exp. Sta, 17–20; bur. raw products research, Nat. Canners Asn, 20–42; *special asst. to research administrator, agr. research admin, U. S. Dept. Agr, 43–* A.A; Soc. Hort. Sci; Bot. Soc. Wash. Pomology.

Woodbury, Dr. E(lton) N(orris), Pennsylvania State College, State College, Pa. *Entomology.* Beverly, Mass, Dec. 7, 13. A.B, Ohio Wesleyan, 36; Nat. Asn. Insecticide and Disinfectant Mfg. fellow, Ohio State, 37–39, Ph.D, 39. *Crop Protection Inst. investigator,* Purdue, 39–42, *dept. zool. and entom, Pa. State Col, 42–* Entom. Soc. Amer; Asn. Econ. Entom. Insect toxicology.

Woodbury, Dr. Lowell A(ngus), Ray-O-Vac Co, Madison, Wis. *Fisheries biology, Biophysics.* St. George, Utah, Oct. 11, 10. B.S, Utah, 33, M.S, 34; Ph.D, Michigan, 40. Fisheries biologist, State Conservation Dept, Wis, 38–43; *electronic engineer, Ray-O-Vac Co, 43–* Fisheries Soc. General fisheries biology; effect of electric current on organisms and design of electronic biological equipment.

Woodbury, Dr. Robert A(rthur), 2817 Helen St, Augusta, Ga. *Pharmacology, Physiology.* Pittsburg, Kans, Sept. 1, 04. B.S, Kansas, 24, M.S, 28, Ph.D, 31; Chicago, 31–33, M.D, 34. Asst. instr. physiol. and pharmacol, Kansas, 27–29, instr, 29–31; physiol, Y.M.C.A. Col. (Chicago), 31–32; biol, Cent. Y.M.C.A. Col. (Chicago), 32–33; intern, Gen. Hosp, Kansas City, 33–34; asst. prof. physiol. and pharmacol, *Georgia,* 34–37, assoc. prof, 37–40, *prof. pharmacol, 40–* Am. Med. Asn; Pharmacol. Soc; Physiol. Soc. Circulatory system; convulsants; oxytocics.

Woodcock, Prof. Edward F(red), East Lansing, Mich. *Botany.* Pittsford, Vt, Feb. 13, 85. B.S, Vermont, 09; A.M, Yale, 12, fellow, 13, Ph.D, 17. Head dept. biol, Juniata Col, 09–10; asst, Yale, 10–12; instr. *bot,* West Virginia, 13–14; *Mich. State Col,* 14–17, asst. prof, 17–26, *assoc. prof, 26–* Summers, field asst, plant disease surv, 18–20. A.A; Bot. Soc; Mich. Acad. Plant morphology; development and germination of seeds.

Woodcock, Prof. K(arl) S(tanley), 86 Russell St, Lewiston, Maine. *Physics.* Thomaston, Maine, May 11, 95. B.S, Bates Col; M.S, Ph.D, Chicago. Instr. *physics, Bates Col,* 18–22, asst. prof, 22–30, assoc. prof, 30–38, *prof, 38–, head dept, 43–* A.A; Physical Soc; Asn. Physics Teachers. Electron physics.

Woodford, Prof. A(lfred) O(swald), 443 W. Tenth St, Claremont, Calif. *Geology.* Upland, Calif, Feb. 27, 90. A.B, Pomona Col, 13; Ph.D, California, 23. Instr. *geol, Pomona Col,* 16–19, asst. prof, 20–25, assoc. prof, 25–27, *prof, 27–* Acting prof, Stanford, 36–38. A.A; fel. Geol. Soc. (chairman, Cordilleran sect, 36); Asn. Petrol. Geol; fel. Miner. Soc; Seismol. Soc; Calif. Acad. Sedimentation; metamorphic and igneous rocks; physiography; weathering in arid regions; clay minerals.

Woodhead, Prof. Arthur E, University of Michigan, Ann Arbor, Mich. *Parasitology.* Rochdale, Mass, Dec. 21, 88. A.B, Clark, 14; A.M, Michigan, 26, Ph.D, 28. Instr, high schs, N. J. and Pa, 14–18; head dept. biol. and chem, Western Maryland Col, 18–24; instr. *zool, Michigan,* 24–28, asst. prof, 28–36, *assoc. prof, 36–* Soc. Parasitol; Micros. Soc; Mich. Acad. Gasterostomes and germ cell cycle in trematodes.

Woodhouse, Dr. E(dwin) D(eshler), R. D. 1, Ithaca, N. Y. *Botany.* Pasadena, Calif, March 12, 97. B.S, California, 19; A.M, Stanford, 29, Ph.D, 34. Asst. soil chem. and bacter, California, 20, applied bot, 21–27; asst. biol. and bot, Stanford, 29–31; *instr. bot, Los Angeles City Col, 31–; mem. staff, Cornell, 43–* Bot. Soc. Sap hydraulics; flower photography.

Woodhouse, Dr. John C(rawford), Cragmere, Wilmington, Del. *Chemistry.* New Bedford, Mass, April 29, 98. A.B, Dartmouth Col, 21, A.M, 23; A.M, Harvard, 24, fellow, 26–28, Ph.D, 27. Instr. chem, Dartmouth Col, 21–23; asst, Harvard, 23–24; *research chemist, E. I. du Pont de Nemours and Co, 28–, director chem. div, Grasselli chem. dept, 43–* Chem. Soc; Soc. Chem. Indust.

Woodin, Prof. Knowlton M(ead), Norwich University, Northfield, Vt. *Biology.* Chicopee, Mass, Feb. 21, 99. Ph.B, Brown, 21, A.M, 23. Instr. biol, Simmons Col, 21–22; asst. city bacteriologist, Providence, 22–23; *prof. biol. and head dept, Norwich, 23–*

Woodland, Prof. Dorothy J(ane), Western College, Oxford, Ohio. *Physical chemistry.* Warren, Ohio, Sept. 20, 08. B.S, Col. Wooster, 29; M.S, Ohio State, 30, Ph.D, 32. Instr. and later asst. prof. *chem,* Wellesley Col, 32–38; assoc. prof, *Western Col,* 38–42, *prof, 42–, head dept, 38–* Surface energy; relation between radius of curvature of droplets and surface energy.

Wood-Lorz, Dr. Thelma R(ittenhouse) (Mrs. Albert Lorz), 190 E. Northfield Ave, Livingston, N. J. *Zoology.* Conshohocken, Pa, March 30, 00. A.B, Ursinus Col, 21; A.M, Brown, 32, Ph.D, 38. Teacher, high sch, N. J, 21–24; asst. genetics, Carnegie Institution, Cold Spring Harbor, 24–30; asst. biol, Brown, 30–39. Summers, assoc, Carnegie Institution, Cold Spring Harbor, 31–39. Genetics Soc. Genetics; physiology; Cladocera genetics; growth, life history and sexual reproduction of Cladocera, with special emphasis on Daphnia longispina.

Woodman, Dr. Alice S(tuart), 80 E. Concord St, Boston, Mass. *Histology.* Can, June 29, 80. M.D, Boston Univ, 03. Instr. histol, *Boston Univ,* 07, bacter. technique, 07, *histol. and embryol,* 13–21, asst. prof, 21–30, *assoc. prof, 30–* A.A; Asn. Anat. Developmental anatomy; embryology; pituitary gland in teleosts.

Woodman, Prof. A(lpheus) G(rant), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Kingston, Mass, Oct. 30, 73. B.S, Mass. Inst. Tech, 97. Asst. chem. *Mass. Inst. Tech,* 97–00, instr, 00–08, asst. prof. *food anal,* 08–14, *assoc. prof, 14–* Asst. chemist, State Board Health, Mass; sci. asst, U. S. Dept. Agr, 06–07. A.A; Chem. Soc. Water purification; sewage disposal; food economy and analysis.

Woodman, Prof. L(eon) E(lmer), Missouri School of Mines, Rolla, Mo. *Physics.* Claremont, N. H, Nov. 14, 77. A.B, Dartmouth Col, 99, A.M, 02; fellow, Columbia, 07–08, Ph.D, 10. Asst. *physics,* Dartmouth Col, 01–02; instr, high sch, N. H, 02–04; Maine, 04–05; asst, Columbia, 05–08; asst. prof, Maine, 08–12, assoc. prof, 12–19, *prof,* 19; *Mo. Sch. Mines, 19–* A.A; Physical Soc; Asn. Physics Teachers. Electric waves; alternating current theory.

Woodriff, Dr. Ray (Alan), Montana State College, Bozeman, Mont. *Physical chemistry.* Pueblo, Colo, Jan. 22, 09. B.S,

Oregon, 33; M.S, Oregon State Col, 35; Ph.D, Colorado, 42. Asst. *chem*, Oregon State Col, 33–35; Colorado, 35–39; *instr, Mont. State Col, 39–* Chem. Soc. (sec'y Mont. sect, 41–). Wave lengths of fluorescence of lead tungstate—calcium tungstate mixtures excited by various wave lengths of ultra-violet light.

Woodring, Dr. Paul (Dean), Western Washington College of Education, Bellingham, Wash. *Psychology.* Delta, Ohio, July 16, 07. B.S, Bowling Green State Univ, 30; A.M, Ohio State, 34, Ph.D, 38. Asst. instr, Ohio State, 35–37; clin. psychologist, psychopath. clinic, Recorder's Court, Detroit, Mich, 37–39; *mem. dept. psychol, West. Wash. Col. Educ, 39–; lieut. and personnel consultant, U. S. Army.* Assoc. Psychol. Asn; assoc. Asn. Applied Psychol. Directional orientation in humans.

Woodring, Dr. W(endell) P(hillips), U. S. Geological Survey, Washington, D. C. *[6]*Geology.* Reading, Pa, June 13, 91. A.B, Albright Col, 10; fellow, Hopkins, 14–15, Ph.D, 16. Field asst, U. S. Geol. Surv, 13–16, geologist, 19–20, 24–27; geol. explor, Costa Rica, 17–18; geologist in charge, Haitian Geol. Surv, 20–24; prof. invert. paleont, Calif. Inst. Tech, 27–30; *geologist, U. S. Geol. Surv, 30–* Geol. explor, Haiti, 20–21, 41–42; Colombia, 23; Cuba, 42–43. A.A; Geol. Soc; Paleont. Soc. Stratigraphy and invertebrate paleontology.

Woodroof, Dr. J(asper) G(uy), Agricultural Experiment Station of the University of Georgia, Experiment, Ga. *Horticulture.* Mountville, Ga, May 23, 00. B.S.A, Georgia, 22, M.S.A, 26; California, 28; Ph.D, Mich. State Col, 32. Asst. horticulturist, Exp. Sta, Georgia, 22–26, assoc. horticulturist, 26–32; pres, Abraham Baldwin Agr. Col, 32; conservationist, Resettlement Admin, Wash, 33–36; administrator, Farm Security Admin, 36–38; horticulturist, *Exp. Sta, Georgia,* 38–40, *food technologist, 40–* U.S.A, 18–19. A.A; Soc. Hort. Sci; Soc. Plant Physiol; Soc. Refrig. Eng; Ga. Hort. Soc. (treas, 26). Anatomy and morphology of the pecan; breeding and physiology of raspberries; preserving fruits and vegetables by freezing storage and with sulfur dioxide; by-products of peanuts.

Woodrow, Dr. A(lan) W(ardlaw), University of California, Davis, Calif. *Apiculture.* Xenia, Ohio, June 15, 02. B.S, Ohio State, 27; Ph.D, Cornell, 35. Asst. apicult, Cornell, 28–35; deputy state apiary inspector, N. Y, 29–35; junior apiculturist, intermountain bee culture field lab, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–36, asst. apiculturist, 36–42, *assoc. apiculturist, Pacific states bee culture lab, 42–* A.A; Asn. Econ. Entom. Pollination activities of honeybees; relative humidity control and measurement; physiology of honeybees; diseases of honeybees and disease resistance; beeswax secretion and production.

Woodrow, Prof. Harold W(right), 1003 College Ave, Redlands, Calif. *Organic chemistry.* Salina, Kans, Aug. 26, 94. B.S, Denison, 20; A.M, Columbia, 23; Southern California, 40–41; M.S, Illinois, 41. Instr, high sch, Cleveland, 20–22; asst. *chem,* Columbia, 22–23; instr, Des Moines, 23–24, asst. prof, 24–26; asst, Illinois, 26–30; asst. prof, *Redlands,* 30–35, *assoc. prof, 35–* Summers, asst, Illinois, 29, 30; Redlands, 32, 33. U.S.A, 17–19. A.A; Chem. Soc. Chemical analysis of desert plants; synthetic medicinals; boron fluoride with amides.

Woodrow, Prof. Herbert, University of Illinois, Urbana, Ill. *[6]*Psychology.* Chillicothe, Ohio, Feb. 25, 83. A.B, Michigan, 04; Paris, 04–05; Ph.D, Columbia, 09. Demonstrator exp. psychol, Princeton, 07; Barnard Col, Columbia, 07–09; from instr. to assoc. prof. *psychol,* Minnesota, 09–27; *prof. and head dept,* Oklahoma, 27–28; *Illinois, 28–* In charge clinic mental develop, Minnesota, 09–11; lecturer, California, 21–22. Summers, lecturer, Teachers Col, Columbia, 23–26. Nat. Research Council, 33–36. Capt, Sanit.C, 18–19. A.A. (chairman, I, 43); Psychol. Asn. (councilor, 29–31, pres, 41); Inst. Psychol. (director, 37–41); Soc. Exp. Psychol; Midwest. Psychol. Asn. (councilor, 30–32, pres, 31); Ill. Soc. Mental Hygiene (director, 32–); Ill. Acad; Okla. Acad. (v. pres, 27). Association, learning, character and intelligence in children; measurement of rhythm, time-perception, attention, sensation; physiological age and transference of training; sensory discrimination; practise; quantitative laws; individual differences.

Woodrow, Prof. Jay W(alter), 2322 Baker St, Ames, Iowa. *Physics.* Rock Co, Minn, April 3, 84. A.B, Drake, 07, LL.D, 31; Rhodes scholar, Oxford, 07–10, B.A, 10; Illinois, 10–12; fellow, Yale, 12–13, Ph.D, 13. Instr. physics, Illinois, 10–12; research engineer, West. Elec. Co, New York, 13–14; instr. *physics,* Colorado, 14–15, asst. prof, 15–18, *prof,* 18–21; *Iowa State Col, 21–, head dept, 30–* Guggenheim Mem. Foundation fellow, 27–28. A.A; Physical Soc; Optical Soc; Eng. Educ; Asn. Physics Teachers; Iowa Acad. Photoelectricity; columnar ionization by alpha-particles; high vacua; biophysics.

Woodrow, Dr. Katherine Ludgate (Mrs. Herbert Woodrow), 915 W. White St, Champaign, Ill. *Psychology.* Portland, Oregon. A.B, Washington (Seattle), 17, M.S, 18; Ph.D, Chicago, 21. Instr. psychol, Minnesota, 21–25, lecturer, 25–26. Summers, instr. and tutor, Bryn Mawr Sch. for Women Workers in Indust, 22, 23; asst. prof, Oklahoma, 27–28. Psychol. Asn. Learning.

Woodruff, Dr. C(harles) Eugene, Maybury Sanatorium, Northville, Mich. *Pathology.* Gibbon, Nebr, Jan. 13, 99. B.S, Whitman Col, 21; M.D, Yale, 26. Asst. path, Yale, 26–27; instr. and asst. prof, Vanderbilt, 27–35; *pathologist, Maybury Sanatorium, 35–* A.A; Asn. Path. and Bact; Trudeau Soc. The vasa vasorum; filterable virus diseases; allergy and immunity in tuberculosis.

Woodruff, E(lmer) G(rant), 1611 S. Detroit St, Tulsa, Okla. *Geology.* Bradford, Pa, 72. B.S, Nebraska, 01, fellow, 03–04, A.M, 04; Austin fellow, Harvard, 06–07. Instr. miner, Oklahoma, 04, in charge dept. geol, 05; asst, *U. S. Geol. Surv,* 04, 05, *geologist, 07–; U. S. Army Engineers, Tulsa dist, 36–* Chief geologist, Texas Co, 14–18; Okla. Producing and Ref. Co; consulting geologist. Geol. Soc; Asn. Petrol. Geol; Geol. Soc. Wash; Nebr. Acad; Tulsa Geol. Soc. Coal deposits of Wyoming and Montana; sulfur deposits of Wyoming; the coal and oil fields of the Wind River Basin, Wyoming; oil resources of Utah and Colorado.

Woodruff, Prof. E(ugene) C(yrus), State College, Pa. *Physics.* St. Clair, Mich, April 8, 71. B.S, Michigan, 94, M.S, 96, Ph.D, 00. Teacher, high sch, Mich, 94–97; Chicago, 97–98; chem, Mont. State Col, 00–01; high sch, Ill, 01–04; *prof.* physics and elec. eng, James Millikin, 04–13; *elec. eng, Pa. State Col, 13–* A.A; Elec. Eng; Am. Elec. Ry. Asn; Radio Eng; Cent. Asn. Sci. and Math. Teachers (treas, 02–04). Organic color reactions with nitric acid; elasticity of metals and temperature; tuning-forks; dissociation in gas batteries; stroboscopic oscillograph; control of electric cars and motor cars; radio frequency control and measurement.

Woodruff, Dr. E(ugene) H(urlbut), The Upjohn Co. Kalamazoo, Mich. *Chemistry.* Glenwood, Iowa, June 3, 04. A.B, Grinnell Col, 26; Ph.D, Illinois, 32. Asst. chem, Yale, 26–27; Illinois, 28–31; *research chemist, Upjohn Co, 33–* Chem. Soc. Stereochemistry; chemotherapy; pharmaceutical chemistry.

Woodruff, Dr. Frederick Eno, 508 N. Grand Blvd, St. Louis, Mo. *Ophthalmology.* 72. M.D, Washington (St. Louis), 97, A.B, 23. From asst. prof. to prof. *clin. ophthal, sch. med, Washington (St. Louis),* 36–43, *emer. prof, 43–* Ophthal. Soc; Acad. Ophthal. and Otolaryngol; Am. Med. Asn; Col. Surg; St. Louis Med. Soc. (pres, 42). Phorias, especially hyperphoria in the reading position as compared with hyperphoria for distance.

Woodruff, Dr. H(arold) Boyd, 126 Moore St, Princeton, N. J. *Microbiology.* Bridgeton, N. J, July 22, 17. B.S, Rutgers, 39, Ph.D, 42. Asst. soil microbiol, Rutgers, 39–42; *research microbiologist, Merck and Co, 42–* Soc. Bact. Isolation and production of substances of therapeutic value from microorganisms.

Woodruff, Dr. I(saac) Ogden, 130 E. 71st St, New York, N. Y. *Medicine.* New York, N. Y, Feb. 13, 81. A.B, Col. City of N. Y, 00; M.D, Columbia, 04. *Prof. clin. med, Columbia, 05–; director med, Bellevue Hosp, 35–* Mem. cmn. for study handicapped children, Board Educ, New York, 38–41; Cmn. Post War Training and Adjustment, 42; v. chairman, Research Council Investigation Problems of Alcohol, 41–Townsend Harris medal, Col. City of N. Y, 39. Col. Physicians; Trudeau Soc; N. Y. Acad. (v. pres, 37–); N. Y. Tuber. and Health Asn. (pres, 33–40). Public health work; clinical medicine.

Woodruff, Prof. John G(rant), Colgate University, Hamilton, N. Y. *Geology.* March 9, 98. B.S, Vanderbilt, 20; Chicago, 22–23; Syracuse, 28–29; Ph.D, Michigan, 36. Prin, high schs, Hardinsburg, Ky, and Vermilion, Ill, 20–22; instr. chem, Rapid City, S. Dak, 23–24; Culver Mil. Acad, 24–28;

geol, Colgate, 29–37, asst. prof, 37– Summers, mem, Ky. Geol. Surv, 24–30, geologist, nat. gas companies, 30–33, 37–40. A.A; Seismol. Soc. Structural geology; sedimentation; Upper Devonian of southern New York; Oriskany sandstone of New York.

Woodruff, Prof. Laurence C(lark), 2 Westwood Road, Lawrence, Kans. *Entomology.* Kingman, Kans, Aug. 5, 02. A.B, Kansas, 24, A.M, 30; Ph.D, Cornell, 34. Junior entomologist, bur. entom, U. S. Dept. Agr, 24–28; instr. entom, Kansas, 28–30; biol, Cornell, 30–34; asst. prof. *entom, Kansas,* 34–40, *assoc. prof, 40–* Entom. Soc. Amer; Asn. Econ. Entom. Insect physiology.

Woodruff, Prof. Lorande Loss, Yale University, New Haven, Conn. *[2]Zoology.* New York, N. Y, July 14, 79. A.B, Columbia, 01, A.M, 02, Ph.D, 05; hon. A.M, Yale, 15. Asst. biol, Williams Col, 03–04, instr, 04–07; *Yale,* 07–09, asst. prof, 09–15, *prof,* 15–22, *protozool, 22–, director, Osborn zool. lab, 38–* Instr, Marine Biol. Lab, Woods Hole, 05–14, trustee, 24–; lecturer, Virginia, 31, 36, 38. Assoc. ed, 'Jour. Morphol,' 22–24, 32–34. Chairman div. biol. and agr, Nat. Research Council, 28–29. Townsend Harris medal, Col. City of N. Y, 35. Consulting physiologist, C.W.S, 18. Nat. Acad; A.A; Soc. Nat. (v. pres, 23); Soc. Zool. (sec'y-treas, 08–10, v. pres, 18, pres, 42); Physiol. Soc; Soc. Exp. Biol; Micros. Soc; Soc. Nat; Conn. Acad. Life history of Protozoa; reproduction of Paramecium and other Infusoria; species of Paramecium; thirty-six year pedigreed culture of Paramecium; amicronucleate Infusoria; physiology of conjugation; endomixis; history of biology.

Woodruff, Dr. Lorande M, 146 Cottage St, New Haven, Conn. *Medicine.* New Haven, Conn, Oct. 10, 12. A.B, Yale, 33, M.D, 37, fellow, 39–41. House officer, Mass. Gen. Hosp, 37–39, asst. res, 41–42; special research assoc, Harvard Med. Sch, 42–43; *lieut, Med. Corps, U. S. Naval Res, 42–* Survival of hypothermia by the dog; tumors produced by estradiol benzoate in the guinea-pig; clinical evaluation of human albumin.

Woodruff, Prof. L(ouis) F(rank), Massachusetts Institute of Technology, Cambridge, Mass. *Engineering.* Columbus, Ga, Dec. 6, 96. B.S, Ga. Tech, 17; Harvard, 21; Mass. Inst. Tech, 18, M.S, 22. *Assoc. prof. elec. eng, Mass. Inst. Tech.* Elec. Eng. Power transmission; automatic machinery.

Woodruff, Prof. Nathan H(aggard), Westminster College, Fulton, Mo. *Organic chemistry.* Pleasant View, Tenn, April 13, 13. A.B, Vanderbilt, 34; A.M, Peabody Col, 35, Ph.D, 39. Teacher, high sch, Tenn, 35–37; asst. prof. biol, Tenn. Polytech, 37–40; science, Ball State Teachers Col, 40–43; *prof. org. chem, Westminster Col. (Mo), 43–* Am. Asn. Advancement Science research grant, 35. A.A; Genetic Asn; Chem. Soc; N. Cent. Asn. Sci. and Math; Tenn. Acad; Ind. Acad. Soil acidity at roots of some Tennessee pteridophytes; mathematics used in biology; systematic botany of Cyperaceae and Juncaceae; teaching of science.

Woodruff, Prof. Sybil, State University of Iowa, Iowa City, Iowa. *Home economics.* Kingman, Kans, Sept. 23, 90. A.B, Kansas, 16; M.S, Chicago, 19, Ph.D, 26. Instr, Kansas, 16–18; Chicago, 19–20; Oregon State Col, 20–21; asst. prof. and assoc. prof, Kansas, 21–28; asst. prof, California, 28–30; Illinois, 30–31, assoc. prof. home econ, 31–35, prof, 35–40, assoc. chief foods, Exp. Sta, 31–35, chief, 35–40; *prof. home econ. and head dept, Iowa, 40–* A.A; Chem. Soc. Sugar and starch chemistry; general food chemistry.

Woods, Dr. Alan C(hurchill), Johns Hopkins Hospital, Baltimore, Md. *Ophthalmology.* Baltimore, Md, Aug. 20, 89. A.B, Hopkins, 10, M.D, 14. Med. house officer, Peter Bent Brigham Hosp, Boston, 14–15; fellow and assoc. dept. research med. and asst. ophthal, Pennsylvania, 15–17; instr. clin. ophthal, med. sch, *Hopkins,* 19–22, assoc, 22–26, assoc. prof, 27–34, *acting prof. ophthal, Wilmer Ophthal. Inst, 34–,* acting director, 34–37, *director, 37–* Ophthalmologist in chief, Hopkins Hosp, 37– A.A; Ophthal. Soc; Am. Med. Asn; Asn. Immunol. Sympathetic and periodic ophthalmia; immunology; lens protein; ocular tuberculosis.

Woods, Dr. Albert F(red), Berwyn, Md. *[1]Botany.* Belvidere, Ill, Dec. 25, 66. B.S, Nebraska, 90, A.M, 92, Agr.D, 13; LL.D, St. John's Col. (Md), 23; hon. Sc.D, Maryland, 32. Asst. bot, Nebraska, 90–93; asst. chief div. veg. physiol. and path, U. S. Dept. Agr, 94–00, chief, 01–10; dean and director dept. agr, Minnesota, 10–17; pres, Md. State Col, 17–20; Maryland, 20–26; director sci. work, *U. S. Dept. Agr,* 26–34, *grad. sch,* 26–41, *emer. director and educational adviser, 41–,* prin. pathologist, bur. plant indust, 34–38. Pathologist and physiologist and asst. chief bur. plant indust, U. S. Dept. Agr, 01; exec. officer, State Board Agr, Md, 17–26; officer cmts, Nat. Research Council, 17– U. S. del, Int. Conf. Agr, Rome, 05; Int. Bot. Cong, Vienna, 05; pres, 1st Inter-Am. Sci. Conf. on Agr, Forestry and Animal Husbandry, Wash, D. C, 30. A.A. (v. pres, M, 19, exec. cmt, councilor, 33); Bot. Soc. (v. pres, 09); Phytopath. Soc. (v. pres, 10); Hort. Soc. (past pres); Soc. Nat; Wash. Acad; Bot. Soc. Wash. (pres). Plant pathology; plant nutrition; enzymes, especially in relation to pathology; oxidation processes in plant cells; oxidizing enzymes in plant and animal cells; causes of increasing or decreasing resistance of plants to certain diseases.

Woods, Prof. B(aldwin) M(unger), 249 The Uplands, Berkeley, Calif. *Mathematics, Mechanics.* Lampasas, Texas, Sept. 22, 87. E.E, Texas, 08; M.S, California, 09, Mackay fellow, 08–11, Ph.D, 12; Paris, 12–13; Munich, 13; hon.D.E, S. Dak. Sch. Mines, 41. Asst. math, Texas, 07–08; *California,* 10, instr, 10–14, theoret. mech, 14–15, asst. prof, 15–19, *prof.* aerodynamics and mech. eng, 19–30, *mech. eng, 30–,* chairman dept, 30–36, univ. examiner, 16–18, 19–20, dean summer session, 20–22, asst. dean univ, 23–24, assoc. dean, 24–30. Chairman, Nat. Cmt. Award of Boeing Scholarships, 29–37; United Air Lines Scholarships, 37–; mem. board award, Daniel Guggenheim Medal Fund, Inc, 34–37. Chairman region VIII, Nat. Resources Planning Board, 39; mem, State Council Defense, 40, exec. cmt, 40–, mem. cmt. housing works and facilities; mem, Advisory Cmt. Eng. Training for Nat. Defense, U. S. Office Educ, 40– A.A; Eng. Educ. (cmt. undergrad. adjustment and guidance, 39; cmt. Lamme award, 39–42; chairman cmt. arrangements, 40); Mech. Eng. (cmt. symbols, div. applied mech; exec. cmt, aero professional div, 35–40); Standards Asn. (subcmt. symbols of mech); Eng. Council Professional Develop. (cmt. eng. schs; chairman region VII, 40); Soc. Planning Officials (director; v. pres); Inst. Aeronaut. Sci; Soc. Heat. and Vent. Eng; Pacific Coast Gas Asn; Newcomen Soc. Eng. Forced vibration of axially loaded continuous beams and shafts; the place of the university in industrial research; principles of air conditioning for homes.

Woods, Prof. Carter A(lbert), Wells College, Aurora, N. Y. *Sociology, Anthropology.* Brandon, Vt, June 30, 07. A.B, Dartmouth Col, 28; Page fellow, Yale, 29–31, Ph.D, 31. Instr. *sociol, Wells Col,* 31–34, asst. prof, 34–38, assoc. prof, 38–41, *prof, 41–* Summer, assoc. prof, Western Reserve, 39, 40. N. Y. State Hist. Asn. North American culture areas; prehistoric Indian sites; the American Negro.

Woods, Dr. Elizabeth L(indley), Los Angeles City Schools, Los Angeles, Calif. *Psychology.* Streator, Ill, March 3, 85. A.B, Oregon, 05, A.M, 10; Ph.D, Clark, 13. Instr. psychol, R. I. Nor. Sch, 13–14; Vassar Col, 14–16; clin. psychologist, pub. schs, Calif, 16–17; *director* special educ. State Dept. Pub. Instruction, Wis, 17–25; *div. psychol. and educ. research, Los Angeles City Schs, 25–* Summers, instr, Wisconsin, 22–25; Southern California, 27, 28, 31, 34, 35; California at Los Angeles, 36. A.A; Psychol. Asn. Clinical psychology; intelligence tests; evaluation of pupil growth; preschool and parent education; counseling.

Woods, Dr. Ella, University of Idaho, Moscow, Idaho. *Nutrition.* Boise, Idaho. B.S, Idaho, 11; A.M, Columbia, 19, Ph.D, 24. Instr, Montana, 15–18; asst. home demonstration agent in charge research, Fla. State Col. for Women, 19–21; asst. food chem, Columbia, 21–25; asst. prof. home econ, Wisconsin, 25–27; *research, Idaho, 27–* A.A; Chem. Soc; Soc. Biol. Chem; Inst. Nutrition. Foods.

Woods, Dean E(sli) L(ongworth), University of Saskatchewan, Saskatoon, Sask, Can. *Pharmacy.* Napanee, Ont, Sept. 22, 98. B.S.P, Saskatchewan, 24; M.S, Wisconsin, 30. Instr. pharmacy, *Saskatchewan,* 20–24, asst. prof, 24–28, *prof. pharmacy and dean, 28–* Mem, Can. Cmt. on Pharmaceut. Standards, 29– Pharmaceut. Asn; Can. Pharmaceut. Asn. Pharmaceutical chemistry.

Woods, Dr. F(arris) H(ardin), 312 Topeka Blvd, Topeka, Kans. *Zoology.* Osceola, Mo, July 22, 98. A.B, Cent. Col. 20; Jonas Viles scholar, Marine Biol. Lab, Woods Hole, 26–28; A.M, Missouri, 26, Ph.D, 29. Director physical educ, high sch, Mo, 20–22; asst. zool, Missouri, 22–23; instr. biol, Kansas City Junior Col, 23–26; zool, Missouri, 26–29, asst. prof; *mem. staff, White Eagle div. testing lab, Socony Vacuum Oil Co.* Invert. biol. staff, Marine Biol. Lab, Woods Hole, 33–35. Soc. Zool; Genetics Soc; Ornith. Union; Wilson Ornith. Club.

Vertebrate and invertebrate embryology; history of the germ-cells in Sphaerium striatinum; germ-cell determinants in Sphaerium; nutrition of embryos in Sphaerium; embryology of sheep.

Woods, Prof. F(rederick) S(henstone), 123 Sumner St, Newton Center, Mass. **1Mathematics.* Monson, Mass, March 8, 64. A.B, Wesleyan, 85, A.M, 88; Ph.D, Göttingen, 94. Asst. physics and astron, Wesleyan, 85–86; teacher *math*, Genesee Sem, Lima, N. Y, 86–90; instr, *Mass. Inst. Tech*, 90–95, asst. prof, 95–03, assoc. prof, 03–06, prof, 06–34, *emer. prof, 34–* Lecturer, Harvard, 98–99. Ed, 'Annals of Math,' 00–11; 'Jour. Math. and Physics,' 25– Math. Soc; Math. Asn. Geometry.

Woods, H(arry) I(rwin), Lakeside, Oregon. *Mathematics.* New Hamburg, Pa, 70. A.B, Lafayette Col, 95, A.M, 98; Columbia, 99–00; Pennsylvania, 00–01. Tutor math. and Latin, Lafayette Col, 95–99; instr. math, Pennsylvania, 01–02; prof. astron. and physics, Washburn Col, 02–17; teacher, high schs. and junior cols, Ark. and Okla, 22–26; asst. prof. math, Okla. Agr. and Mech. Col, 26–34; educational adviser, Civilian Conservation Corps, 34–35; *retired.* Summers, magnetic div, U. S. Coast and Geod. Surv. Double star measures.

Woods, Hubert (Keatinge), 2625 Carlton Place, Riverside, Calif. *Chemical engineering.* Dublin, Ireland, Jan. 2, 00. B.S, Calif. Inst. Tech, 23. *Chem. engineer, Riverside Cement Co, 23–, director research, 27–* A.A; Chem. Soc. Research on Portland cement and allied materials.

Woods, Dr. J(ohn) P(rice), Harvard University, Cambridge, Mass. *Petroleum geophysics.* San Antonio, Texas, Feb. 25, 03. B.S, Texas, 25, M.S, 31, Ph.D, 32. Engineer, Gen. Elec. Co, 27; Texas Power and Light, 28; asst, Texas, 29–33; research geophysicist, Shell Petrol. Corp, Houston, Texas, 33–41; *research assoc, radio research lab, Harvard, 42–* A.A; Physical Soc; Soc. Explor. Geophys. Non-linear electrical circuits.

Woods, Dr. John T(idball), American Cyanamid Co, Bound Brook, N. J. *Analytical chemistry.* Carroll Co, Ohio, April 22, 15. B.S, Mt. Union Col, 37; M.S, Purdue, 39, Ph.D, 41. Asst. chem, Purdue, 37–41; *mem. research dept, Calco chem. div, Am. Cyanamid Co, 41–* Chem. Soc. Development of analytical methods, particularly using spectrophotometry; critical study of certain colorimetric methods.

Woods, Dr. Mark W(inton), University of Maryland, College Park, Md. *Botany, Plant pathology.* Takoma Park, D. C, Oct. 15, 08. B.S, Maryland, 31, fellow, 31–34, M.S, 33, Ph.D, 36. Asst. bot. and plant path, *Maryland*, 34–36, instr. *plant path*, 36–37, *asst. prof, 37–; lieut, U. S. Naval Res, 43–* Summer, asst, Boyce Thompson Inst, 31. A.A; Phytopath. Soc; Bot. Soc. Virus diseases of plants; cytology of the genus Tulipa.

Woods, Dr. Robert M(cDill), 113 Forsythe St, Chattanooga, Tenn. *Physics.* Morning Sun, Ohio, Aug. 27, 03. A.B, Muskingum Col, 25; M.S, Pittsburgh, 28; Ph.D, Northwestern, 33. Asst. *physics*, Pittsburgh, 25–28; instr, Northwestern, 28–40; asst. prof, *Chattanooga*, 40–43, *assoc. prof, 43–* Asn. Physics Teachers; Physical Soc. Infra-red spectroscopy; photoelectricity.

Woods, Prof. Roscoe, 517 S. Lucas St, Iowa City, Iowa. *Mathematics.* Mayo, Ky, Aug. 10, 89. A.B, Georgetown, 14; A.M, Maine, 16; Ph.D, Illinois, 20. Asst. *math*, Maine, 14–15, instr, 15–17; asst, Illinois, 17–20; instr, *Iowa*, 20–22, assoc, 22–25, asst. prof, 25–31, *assoc. prof, 31–, acting head, 42–* Math. Soc; Math. Asn. The elliptic modular functions associated with the elliptic norm curve E^7; chochlioid; plane and spherical trigonometry; analytic geometry.

Woods, Dr. W(allace) Kelly, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering.* Claremore, Okla, Dec. 10, 12. A.B, Stanford, 34; M.S, Mass. Inst. Tech, 36, Sc.D, 40. Instr. chem. eng, Mass. Inst. Tech, 36–40; *chem. engineer, tech. div, eng. dept, Exp. Sta, E. I. du Pont de Nemours and Co, 40–* Chem. Soc; Chem. Eng. Heat transfer to boiling liquids inside horizontal tubes.

Woods, Dr. William C(olcord), St. Andrew's Rectory, Kent, Conn. *Entomology.* Middletown, Conn, May 9, 93. A.B, Wesleyan, 13; Ph.D, Cornell, 17. Instr. *biol*, Wesleyan, 17–18, assoc. prof, 19–24; *master, Kent Sch, Conn, 24–* Lab. worker, U.S.A, 18–19. A.A; Entom. Soc. Biological and histological entomology.

Woodside, Prof. Gilbert L(lewellyn), Massachusetts State College, Amherst, Mass. *Biology.* Curwensville, Pa, Feb. 9, 09. A.B, DePauw, 32; A.M, Harvard, 33, Ph.D, 36. Asst. zool, Harvard, 33–36; *asst. prof. biol, Mass. State Col, 36–* A.A; Soc. Zool; Soc. Study Develop. and Growth. Experimental embryology; embryonic induction; effect of hormones on development; auxin in animal embryos.

Woodson, Dr. Robert A(yres), 7 Menlo Place, Rochester, N. Y. *Optics.* Greencastle, Ind, Oct. 16, 11. B.S, Purdue, 35, M.S, 37; Ph.D, Rensselaer Polytech. Inst, 42. Asst. physics, Purdue, 35–37; instr, Rensselaer Polytech. Inst, 37–41; research in optics, Nat. Defense Research Cmt, *Rochester*, 41–42, *head applied optics course, eng, science and management war training, 42–; indust. war research, Eastman Kodak Co, 42–* Research consultant, Polaroid Corp, 39–40. Physical Soc; Optical Soc. Multiple fringe systems in the Michelson interferometer; solution of Maxwell's equations for certain diffraction problems.

Woodson, Prof. Robert E(verard), Jr, Missouri Botanical Garden, St. Louis, Mo. *Botany.* St. Louis, Mo, April 28, 04. A.B, Washington (St. Louis), 26, M.S, 27, Ph.D, 29; A.M, Harvard, 28. Lackland fellow, *Mo. Bot. Garden*, 26–27, 28–29, asst, 29–37, *asst. curator herbarium, 37–;* instr. *bot, Washington (St. Louis)*, 29–35, asst. prof, 35–42, *assoc. prof, 42–* Bot. Soc; Torrey Bot. Club. Apocynaceae, Asclepiadaceae, Commelinaceae, Scitamineae; flora of Panama.

Woodward, Dr. Alvalyn E(unice), University of Michigan, Ann Arbor, Mich. *Physiology.* Niagara, N. Dak, May 29, 84. Ph.B, Rochester, 05, M.S, 11; fellow, Michigan, 12–15, Ph.D, 18. Teacher, high schs, 05–10; asst. biol, Rochester, 10–11; acting head dept, Cent. State Nor. Sch, Mich, 11–12; asst, Vassar Col, 15–16; instr, Simmons, 16–20; demonstrator, Amherst Col, 20–23; asst. prof, N. C. Col. for Women, 23–25; assoc. prof, Maine, 25–27; *asst. prof. zool, Michigan, 27–* A.A; Physiol. Soc; Soc. Zool; Mich. Acad. (chairman, zool. sect, 30). Orthoptera; physiological effects of egg-secretions; parthenogenesis; reproduction.

Woodward, Dr. David W(illcox), E. I. du Pont de Nemours and Co, Wilmington, Del. *Organic chemistry.* Oxford, N. Y, July 24, 13. A.B, Amherst Col, 34; Ph.D, Harvard, 37. *Research chemist, E. I. du Pont de Nemours and Co, 37–* Chem. Soc.

Woodward, Dean E(dwin) G(arver), University of Connecticut, Storrs, Conn. *Dairy husbandry.* Newcomer, Mo, April 7, 90. B.S, Missouri, 11, A.M, 13. Asst. dairy husbandry, Missouri, 11–13; instr. and later prof, Nebraska, 13–17; head dairy dept, Nevada, 17–18; head dept. dairy husbandry, Exp. Sta. and exten, State Col. Wash, 18–22; mem. staff, Grassland Farm, Conn, 22–40; *dean and director col. agr, Connecticut, 40–* State dairy and food commissioner, Conn, 34–40. Dairy Sci. Asn.

Woodward, Gladys E(stelle), Biochemical Research Foundation, Newark, Del. *Chemistry.* Hartford, Conn, Sept. 20, 00. A.B, Mt. Holyoke Col, 22; Pub. Health Inst. fellow, Northwestern, 22–24, M.S, 24, Am. Petrol. Inst. fellow, 26–28. Sec'y dept. chem, Northwestern, 25–26; *research chemist, Biochem. Research Foundation, Franklin Inst, 28–* Chem. Soc. Organic mercurials; organic sulfur compounds, especially in petroleum; hydrogen ion concentration of blood; glutathione; glyoxalase; ascorbic acid.

Woodward, Dr. Harold E(dward), Box 525, Wilmington, Del. *Chemistry.* Worcester, Mass, July 5, 88. A.B, Amherst Col, 10; Goldschmidt fellow, Columbia, 11–12, Ph.D, 12. Bur. chem, U. S. Dept. Agr, 12–18; *Jackson lab, E. I. du Pont de Nemours and Co, 18–, research chemist.* A.A; Chem. Soc. Surface tension of blood serum; surface tension and hemolytic activity of saponins; volatile amins; azo colors; diazo compounds.

Woodward, Prof. Herbert P(reston), University of Newark, Newark, N. J. *Geology.* Batavia, N. Y, Aug. 13, 99. A.B, Rochester, 21; A.M, Columbia, 26, Ph.D, 32. Lecturer and later instr. geol, Columbia, 23–27; instr, Hunter Col, 27–28; prof, Dana Col, 28–35, *prof. geol. and director div. nat. sciences, Newark, 35–* Field geologist, N. Y. State Museum, 20; geologist, Shell Oil Co, Inc, 41–42. Summers, visiting prof, West Virginia, 28–30, 39–; field geologist, Va. Geol. Surv, 26–38; W. Va. Geol. Surv, 38– A.A; fel. Geol. Soc. Appalachian geology.

Woodward, Dr. H(ubert) E(dmund), Dominion Department of Pensions and National Health, Toronto, Ont, Can.

Chemistry. Penarth, S. Wales, June 20, 98. B.Sc, M.Sc, Saskatchewan, 25; Ph.D, Pittsburgh, 27. Instr. chem, Pittsburgh, 27–28, asst. prof, 28–33; med. research, Toronto, 33–41; *dom. analyst, 41–* A.A; fel. Can. Inst. Chem. Biochemistry; microchemistry.

Woodward, Dr. J. G(uy), RCA Laboratories, Princeton, N. J. *Physics.* Carleton, Mich, Nov. 19, 14. A.B, N. Cent. Col, 36; M.S, Mich. State Col, 38; Ph.D, Ohio State, 42. Asst. physics, Mich. State Col, 36–39; Ohio State, 39–42; *research physicist,* research labs, RCA Mfg. Co, 42; *RCA Labs, 42–* A.A; Acoustical Soc. Physical optics; room and music acoustics.

Woodward, Prof. K(arl) W(ilson), 902 N. Pleasant St, Amherst, Mass. *Forestry.* Detroit, Mich, July 24, 81. A.B, Cornell, 03; M.F, Yale, 04. Forest inspector, U. S. Forest Service, 04–15; prof. forestry and head dept, New Hampshire, 15–42; consulting forester, 40–42; *prof. forestry, Mass. State Col, 42–* Special investigation forest resources, Dominican Republic, 09. Int. Union Forest Exp. Stations, Stockholm, Sweden, 29, Nancy, France, 32. A.A; Soc. Protection N. H. Forests (exec. cmt, 30–); N. H. Acad. (exec. cmt, 23). Valuation of forest land; forest history.

Woodward, Dr. Patricia (Lucile), 4 Newport Road, Wilkinsburg, Pa. *Psychology.* Jan. 16, 14. A.B, Michigan, 35, A.M, 36; Pittsburgh, 37–38; Bennett fellow, Pennsylvania, 38–40, Ph.D, 42. Social worker, Child Guidance Center, Flint, Mich, 36–37; *clin. psychologist, Children's Aid Soc, Allegheny Co, Pa, 40–; Catholic Charities, Pittsburgh, 41–* Nat. Research Council research assoc, child welfare research sta, Iowa, 42. Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues; assoc. Pa. Asn. Clin. Psychol. Transfer of training in motor learning.

Woodward, Dr. R(aymond) W(est), 1820 Boulevard, West Hartford, Conn. *Metallurgy.* Hartford, Conn, Nov. 2, 93. B.S, Trinity Col. (Conn), 14, M.S, 15; Ph.D, George Washington, 21. Physicist, Bur. Standards, 14–21; chief metallurgist, Whitney Mfg. Co, Conn, 21–25; sec'y-treas, Stanley P. Rockwell Co, Conn, 25–30; consulting metal. engineer, 30–33; *head testing lab, gen. research lab, Underwood Elliott Fisher Co, 33–* A.A; Soc. Test. Mat. (chairman, cmt. D–14, 20–35); Soc. Metals (chairman, Hartford chap, 26); Acoustical Soc; Philos. Soc. Wash. Physics.

Woodward, Dr. R(obert) B(urns), 18 Bates St, Cambridge, Mass. *Organic chemistry.* Boston, Mass, April 10, 17. B.S, Mass. Inst. Tech, 36, Ph.D, 37. Mem. Soc. of Fellows, *Harvard, 38–40, instr. chem, 41–* Consultant, Polaroid Corp, 42–Summer, instr, Illinois, 37. Oestrogenic hormones; cantharidine; santonin; triisobutylene; resolution of camphor; dimerizations; diene addition reactions; absorption spectra.

Woodward, Sherman M(elville), Tennessee Valley Authority, Knoxville, Tenn. *Hydraulics.* Richfield, Minn, May 11, 71. M.S, Washington (St. Louis), 93; A.M, Harvard, 96. Prof. math. and mech, Arizona, 96–04; steam eng, Iowa, 04–05; irrig. and drainage engineer, U. S. Dept. Agr, 05–08; prof. mech. and hydraul, Iowa, 08–34; chief water control planning engineer, Tenn. Valley Authority, 34–42. Consulting engineer, Miami Conservancy Dist, Dayton, Ohio, 13–20. A.A; Mech. Eng; Eng. Educ; Civil Eng. Flood control; hydrodynamics.

Woodward, T(hompson) E(lwyn), U. S. Department of Agriculture, Beltsville, Md. *Dairy husbandry.* Brunswick, Mo, Jan. 10, 84. B.S. (Agr), Missouri, 07, M.S. (Agr), 11. Dairy field man, U. S. Dept. Agr, 07–08; asst. prof. dairy husbandry, Utah Col, 09–10; *senior dairy husbandman, bur. dairy indust, U. S. Dept. Agr, 11–* Soc. Animal Production; Dairy Sci. Asn. Care and feeding of dairy cattle; dairy farm management.

Woodward, Dr. W(illia)m C(reighton), 2701 Connecticut Ave, Washington, D. C. *Legal medicine.* Washington, D. C, Dec. 11, 67. M.D, Georgetown, 89, LL.M, 00, LL.D, 25. Health officer, D. C, 94–18; health commissioner, Boston, 18–22; sec'y, bur. legal med. and legislation, Am. Med. Asn, 22–39. Pres, Conf. State and Provincial Boards Health of N. Amer, 12; hon. mem, Conf. State and Provincial Health Authorities of N. Amer. Pub. Health Asn. (pres, 13); Am. Bar Asn; Child Health Asn. (pres, 16); hon. mem. Vet. Med. Asn; Am. Med. Asn; hon. mem. Int. Asn. Milk Inspectors. Legal medicine.

Woodworth, Dr. Charles E(dward), Box 616, Walla Walla, Wash. *Entomology.* Berkeley, Calif, Sept. 25, 97. B.S, California, 22, M.S, 23; Ph.D, Wisconsin, 30. Owner and manager, Insect Control Co, 18–23; teacher, high sch, Calif, 23–24; asst. prof. biol, Modesto Junior Col, Calif, 24–28; asst. entom, Wisconsin, 28–30; *assoc. entomologist, div. truck crop insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 30–; capt, Sanit. Corps, U. S. Army, 43–* Asst, Am. Cyanamid Co, Calif, 23. A.A; Asn. Econ. Entom; Puget Sound Entom. Soc. Insect physiology, morphology, toxicology and ecology; wireworms and mosquitoes.

Woodworth, Prof. C(lyde) M(elvin), University of Illinois, Urbana, Ill. *Agronomy.* Canton, Ill, Feb. 28, 88. B.S, Okla. Agr. and Mech. Col, 10; M.S, Wisconsin, 14, Ph.D, 20. Asst. agron, S. Dak. State Col, 10–12; sci. asst, U. S. Dept. Agr, 12–13; asst. and instr. genetics, Wisconsin, 13–19; asst. pathologist, bur. plant indust, U. S. Dept. Agr, 19–20; asst. prof. plant breeding, *Illinois,* 20–23, assoc. prof, 23–29, *prof,* 29–31, *plant genetics, 31–* A.A; Soc. Nat; Soc. Agron; Genetic Asn; Breeding Asn. Genetics and breeding of soy-beans, corn, sweet clover and other field crops.

Woodworth, Prof. Robert H(ugo), Bennington College, Bennington, Vt. *Biology.* Boston, Mass, Feb. 24, 02. B.S, Mass. Col, 24; A.M, Harvard, 27, Ph.D, 28. Instr. biol, Williams Col, 24, 26; Austin teaching fellow, Harvard, 25, tutor biol, 27–35, instr. bot, 27–32, asst. prof, 32–35, curator bot. garden, 29–35; *prof. sci, Bennington, 35–, chairman div, 36–, manager col. farm, 42–* Ropes mem. lecturer, Salem, 34, 35; lecturer, Derby Acad, 35; mem. exec. cmt, Inst. for Research in Trop. Amer, 40, 41. Summer, botanist, Harvard Iselin exped, north. Labrador, 25; research, Barro Colo, C. Z, 29, 31, 37, Virgin Islands, 40. A.A; Bot. Soc; Mycol. Soc; New Eng. Bot. Club (sec'y, 31–35). Cytology and phylogeny of Betulaceae and Juglandaceae; latex cells; visual education in biology; motion picture films of Fucus; ferns; science teaching; coral reefs and economic plants of the Virgin Islands.

Woodworth, Prof. R(obert) S(essions), Columbia University, New York, N. Y. *†*Psychology.* Belchertown, Mass, Oct. 17, 69. A.B, Amherst Col, 91; A.B, Harvard, 96, A.M, 97; Ph.D, Columbia, 99, Sc.D, 29; Edinburgh, 00; fellow, Liverpool, 02; LL.D, Lake Erie Col, 34. Teacher, high sch, N. Y, 91–93; instr. math, Washburn Col, 93–95; asst. physiol, Harvard Med. Sch, 97–98; instr, Univ. and Bellevue Hosp. Med. Col, 99–02; demonstrator, Liverpool, 02–03; instr. *psychol, Columbia,* 03–05, adj. prof, 05–09, prof, 09–42, *emer. prof, 42–* Ed, 'Archives of Psychol.' Chairman div. anthrop. and psychol, Nat. Research Council, 24–25; Social Science Research Council, 25–30, pres, 31. Nat. Acad; A.A. (v. pres, 08, 24); Psychol. Asn. (acting sec'y, 07, pres, 14); Philos. Soc; Am. Acad; fel. N. Y. Acad; Soc. Psicologia Buenos Aires. Experimental and physiological psychology; tests and measurement; race differences; child development; motivation; systematic psychology.

Woody, Prof. Clifford, University of Michigan, Ann Arbor, Mich. *Education.* Thorntown, Ind, June 2, 84. A.B, Indiana, 08, A.M, 13, fellow, 13–14; scholar, Columbia, 14–15, fellow, 15–16, Ph.D, 16. Teacher, high sch, Ind, 08–10, 12, sch. supt, 10–12; asst, Indiana, 13, 14; asst. prof. *educ,* Washington (Seattle), 16–18, assoc. prof, 19–20, prof, 20–21; *prof. and director bur. educ. reference and research, Michigan, 21–* Summer, Iowa, 17; Michigan, 20; Chicago, 21. Research collaborator, Nat. Advisory Cmt. Educ, 30– A.A; Educ. Research Asn; Soc. Col. Teachers Educ. (past ed, yearbook; sec'y-treas, 40–43); Soc. Study Educ; Mich. Acad. Psychology; measurement of arithmetic, reading, spelling and civics; achievement and interests of high-school and college students; elementary school instruction.

Woody, Dr. McIver, 19 Pingry Place, Elizabeth, N. J. *Medicine.* Louisville, Ky, March 16, 86. A.B, Richmond, 05; A.B, Harvard, 07, M.D, 12. Asst. physician, Butler Hosp, Providence, 12–13; house surgeon, Boston City Hosp, 14; Austin teaching fellow surg, Harvard, 14–19, James Jackson Cabot fellow, Harvard, 14–15, asst. path, 16–18, physician to students, 17, sec'y faculty med, 17–18; dean and prof. surg, sch. med, Tennessee, 20–21; Baylor, 21–22; *physician, Standard Oil Co, of N. J, 22–, dept. head, 33–* Out-patient surgeon, Boston City Hosp, 15–19. Major, M.R.C, 24–34. A.A; Am. Med. Asn; Pub. Health Asn; Asn. Indust. Physicians and Surg. (pres, 39); fel. N. Y. Acad. Med; N. Y. Soc. Trop. Med. (pres, 41–43). Surgical pathology; medical education; industrial medicine.

Woodyard, Dr. Ella, 525 W. 120th St, New York, N. Y. *Educational psychology.* Parsons, Kans, June 1, 78. A.B,

Baker, 99, B.Pd, 00, D.Pd, 36; A.M, Columbia, 20, Ph.D, 26. Instr. math, high sch, Kans, 00–19; asst. research in educational psychol, *inst. educational research, Teachers Col, Columbia*, 21–27, *assoc*, 27–41, *child rearing, 41–* A.A; Asn. Applied Psychol; Statist. Asn; Psychometric Soc; Econometric Soc; Council Women Psychol; Royal Econ. Soc. Psychology of algebra; transfer of training; nature and measurement of intelligence; learning; psychology and the social order; child rearing in urban and suburban communities; mountain schools; correspondence schools; effect of time upon variability.

Woodyard, Dr. John R, 10 Chestnut St, Garden City, N. Y. *Physics.* Parkersburg, W. Va, 04. B.S, Washington (Seattle), 33; E.E, Stanford, 37, Ph.D, 40. Instr. elec. eng, Washington (Seattle), 35–36; research assoc. physics, Stanford, 38–40; *engineer, Sperry Gyroscope Co, 41–* Physical Soc; assoc. Radio Eng. Electronics; microwave transmission; frequency modulation.

Woodyatt, Dr. R(ollin) T(urner), 700 N. Michigan Ave, Chicago, Ill. **³Medicine.* Chicago, Ill, June 3, 78. Cornell, 97–98; M.D, Rush, Chicago, 02, B.S, Chicago, 06, 08, 09; Munich, Strassburg, 06–08. Intern, Presb. Hosp, 02–04, attending physician; assoc. prof. *med.* and later clin. prof. and chairman dept, Rush Med. Col, 12–42; *prof, Illinois, 42–* Major, M.C, 18–19. Am. Physicians (pres, 36); Asn. Path. and Bact; Am. Med. Asn; Chem. Soc; Soc. Clin. Invest. (pres, 22); Soc. Biol. Chem. Carbohydrate metabolism; diabetes; fever.

Woolard, Dr. Edgar W(illiam), U. S. Weather Bureau, Washington, D. C. *Mathematics, Meteorology.* El Paso, Texas, Jan. 6, 99. Colorado; A.B, George Washington, 23, A.M, 26, Ph.D, 29. Meteorologist, U. S. Weather Bur, 19–28; instr. math, George Washington, 28–29, asst. prof, 29–34; *meteorologist, U. S. Weather Bur, 34–* Ed, 'Monthly Weather Rev,' 36– Math. Asn; Meteorol. Soc; Astron. Soc; Geophys. Union; Astron. Soc. Pacific; Philos. Soc. Wash. (sec'y, 29). Mathematical statistics and physics; meteorological optics and physics; dynamical meteorology.

Wooldridge, Dr. D(ean) E(verett), 463 West St, New York, N. Y. *Physics.* Chickasha, Okla, May 30, 13. A.B, Oklahoma, 32, M.S, 33; Ph.D, Calif. Inst. Tech, 36. *Mem. tech. staff, Bell Tel. Labs, 36–* Solid state physics; electron phenomena in solids.

Wooley, Dr. A(lan) D(elmas), 29 Lochness Road, Rumford, Maine. *Chemistry.* Jackson, Mich, May 14, 07. A.B, Cent. State Teachers Col, Mich, 27; A.M, Michigan, 30, Ph.D, 32. Instr. chem, Cent. State Teachers Col, Mich, 27–29; research chemist, *Oxford Paper Co*, 33–34, *asst. tech. director and director research, 34–* Tech. Asn. Pulp and Paper Indust. Pulp and paper; wettability of solids by liquids.

Wooley, Dr. Jerald G(uy), National Institute of Health, U. S. Pub. Health Service, Bethesda, Md. *Medicine, Pathology, Bacteriology.* Barnwell, S. C, July 23, 89. M.D, Georgia, 10. Intern, City and Lamar Hosp, Augusta, Ga, 10–11; practicing physician, Barnwell, S. C, 11–21; intern, Univ. Hosp, Georgia, 21–22; acting asst. surgeon in charge clin. lab, Nat. Leprosarium, Carville, 22–27, 28–33; U. S. Marine Hosp, Ft. Stanton, N. Mex, 27–28; *Nat. Inst. Health, U. S. Pub. Health Service*, 33–36, *bacteriologist, 36–* Soc. Exp. Biol; Am. Med. Asn; Pub. Health Asn; Soc. Bact. Leprosy; clinical pathology and bacteriology; tuberculosis; virus diseases; St. Louis encephalitis; lymphocytic choriomeningitis; influenza; poliomyelitis; nutrition; bacterial assay of vitamins; relation of infections to vitamin deficiencies.

Woollett, Prof. G(uy) H(aines), University of Mississippi, University, Miss. *Organic chemistry.* Minneapolis, Minn, July 14, 88. B.S, Minnesota, 10, M.S, 16, Ph.D, 18. Asst. prof. *chem*, Mississippi, 16–18; instr, Minnesota, 18–20; assoc. prof, *Mississippi, 20–26, prof, 26–, head dept, 30–32, 37–* A.A; Chem. Soc; Miss. Acad. The oxidation of halogenated phenols.

Woolley, Dr. Dilworth Wayne, Rockefeller Institute for Medical Research, 66th St. and York Ave, New York, N. Y. *Nutrition.* Raymond, Alta, Can, July 20, 14. B.Sc, Alberta, 35; M.S, Wisconsin, 36, Ph.D, 38. Asst, Wisconsin, 35–38; Sixteenth Int. Physiol. Cong. traveling fellow, 38; research fellow biochem, Wisconsin, 38–39; fellow *physiol, Rockefeller Inst*, 39–43, *assoc, 43–* Eli Lilly award, 40. Chem. Soc; Soc. Bact; Inst. Nutrition; Soc. Exp. Biol; Harvey Soc. Nutrition as related to biochemistry and bacteriology; isolation, characterization and investigation of mode of action of vitamins and bacterial growth factors.

Woolley, Dr. Eola Claire, 243 Riverside Drive, New York, N. Y. *Physiology.* New Orleans, La, Jan. 28, 04. A.B, Tulane, 24; A.M, Stanford, 28, Ph.D, 30. Instr. biol, Newcomb Col, Tulane, 24–25, physiol, 25–26; asst. biol, Stanford, 26–29; Mayo Clinic, 30–31; lab. and investigational asst. *biol*, Col. City of N. Y, 31–40; *asst. prof, Col. Mt. St. Vincent, 40–* Capillary circulation; gastro-enterology; supernormal phase in the turtle heart; conduction in small intestines; distribution of capillaries; neuromuscular functioning.

Woolley, Dr. George W(alter), Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine. *Genetics.* Osborne, Kans, Nov. 9, 04. B.S, Iowa State Col, 30; fellow, Wisconsin, 30–31, M.S, 31, Ph.D, 35. Asst, Wisconsin, 32–36; *mem. staff, Roscoe B. Jackson Mem. Lab, 36–, director, 37–, v. pres, 43–* Fellow, Wisconsin, 35–36. Soc. Animal Production; Genetic Asn; Genetics Soc; Asn. Cancer Research; Soc. Study Develop. and Growth; Wis. Acad. Genetics in mammals; endocrinology; cancer.

Woolley, Dr. Helen (Bradford) T(hompson), Northville, New Milford, Conn. **³Psychology.* Chicago, Ill, Nov. 6, 74. Ph.B, Chicago, 97, fellow, 97–00, Ph.D, 00; Berlin; Paris. Am. Asn. Univ. Women fellow, 00–01; instr. and prof, Mt. Holyoke Col, 01–05; exp. psychologist, Dept. Educ, P. I, 05–06; lecturer philos, Cincinnati, 09–11; psychologist, pub. schs, and director, Vocation Bur, Cincinnati, Ohio, 11–21; asst. director and psychologist, Merrill-Palmer Sch, Detroit, 21–26; prof. educ. and director bur. child develop, Teachers Col, Columbia, 26–30. Helen S. Trounstine Foundation fellow, Cincinnati, 21–22. A.A; Psychol. Asn; Vocational Guidance Asn. (pres, 21). Psychology of adolescence and of young childhood; comparison by physical and mental measurements and industrial and home life of working and school adolescents; mental development and tests, educational methods, personality and social behavior of young children.

Woolley, Dr. Lawrence F, Sheppard and Enoch Pratt Hospital, Towson, Md. *Psychiatry.* Ann Arbor, Mich, Sept. 29, 95. A.B, Utah, 22; M.D, Hopkins, 26. Instr. *psychiat*, Colorado, 27–30, asst. prof, med. sch, 30; instr, *Maryland*, 32–35, asst. prof, 35–36, *assoc. prof, 36–* Psychiatrist, Child Guidance Clinic, Cleveland, Ohio, 30–32; clin. director, Sheppard and Enoch Pratt Hosp, 32– Mem, Nat. Cmt. Mental Hygiene, 38. A.A; Am. Med. Asn; Psychiat. Asn; Orthopsychiat. Asn; Psychopath. Asn; Col. Physicians; Asn. Research Nervous and Mental Disease; South. Med. Asn. (v. chairman sects. N. and P, 36, chairman, 37); Cent. Neuropsychiat. Asn. Morbid fear and compulsions; personality deviations; effects of insulin, metrazol and electric shock, with and without curare; circulatory and respiratory effects of shock; effects of endocrine and related drugs; electro-physiology of the brain.

Woolley, Dr. Mildred T(hompson), Arizona State Laboratory, Tucson, Ariz. *Bacteriology.* Oakland, Calif, Nov. 7, 02. A.M, California; Dr.P.H, Michigan, 40. Asst. director, W. Va. State Hygienic Lab, 40–41; state health supervisor, Nat. Youth Admin, Ariz, 41; *director, Ariz. State Lab, 41–* Public health bacteriology; fungous infections of the Southwest.

Woolley, Ralf R(umel), 358 Fifth, E, Salt Lake City, Utah. *Hydraulic engineering.* Paris, Idaho, Sept. 13, 84. B.S, Utah, 08, C.E, 20. Asst. geol, Utah, 06–08; supervisor, mech. lab. work, 08–09; teacher, high sch, Utah, 10; draftsman, Silver Brothers Iron Works, 10; special irrig. investigation, U. S. Dept. Agr, 10–11; revaluation work, Oregon Short Line R. R, 11–12; asst, State Engineer's Office, Utah, 12–13; hydroelec. and irrig. investigations, Utah and Idaho, Utah Power and Light Co, 13–14; manager, Woolley Auto Co, Calif, 15–16; efficiency engineer, Utah Copper Co, 16–17; *with U. S. Geol. Surv, 17–, senior hydraul. engineer.* Lecturer, Utah. Summers, draftsman, City Engineer's Office, Ogden, 05, 06; special investigations, U. S. Smelting, Ref. and Mining Co, Utah, 08; sales engineer, G. T. Ingersoll Machinery Co, 09. Utah Soc. Professional Eng. Water power irrigation projects; culinary water supplies; water supply and sanitation.

Woolpert, Dr. Oram C(lark), Ohio State University, Columbus, Ohio. *Bacteriology.* Kokomo, Ind, Dec. 7, 97. A.B, Harvard, 22; Ph.D, Chicago, 33, M.D, Rush, 34. Asst. biophys, Harvard, 23; teaching asst. bacter, Chicago, 29–31, instr, 32–33; intern, Presb. Hosp, Chicago, 33–34; res, Munic. Contagious Disease Hosp, 35; asst. prof. bacter, *Ohio State*, 35–38,

med, 36–38, assoc. prof. *bacter. and med*, 38–42, *prof*, 42– Benjamin Rush prize and medal, 32; Ricketts prize, 33. A.A; Soc. Bact; Am. Med. Asn. Staphylococcus food poisoning; bacteriologic and virus experimentation on mammalian fetus; poliomyelitis; synergistic action of certain bacteria and viruses in the respiratory tract of monkey and mouse.

Woolrich, Prof. W(illis) R(aymond), University of Texas, Austin, Texas. *Mechanical engineering.* Mineral Point, Wis, March 1, 89. B.S, Wisconsin, 11, M.E, 23. Instr. design and hydraul, De Paul, 11–12; director schs, Deering Harvester, Int. Harvester Co, 12–14, efficiency engineer, 14–16; asst. prof. and later prof. mech. eng. and head dept, Tennessee, 16–33; mech. engineer and director agr. indust. div, Tenn. Valley Authority, 33–36; *prof. mech. eng, dean eng. and director bur. eng. research, Texas, 36–; regional adviser eng, science and management war training, U. S. Office Educ, 40–* Mfg. asst. methods engineer, West. Elec. Co, Ill, 12–13. A.A. (chairman, M, 42); Mech. Eng. (manager, 38–41, v. pres, 42; sec'y, Knoxville sect, 22–25, chairman, 25–27); Soc. Refrig. Eng. (research cmt, mem, ed. staff, 'Data Book,' councilor); hon. mem. Nat. Asn. Sta. Eng; Nat. Asn. Refrig. Eng; Eng. Educ; Asn. State Univ. Eng. Deans (chairman, 38–). Mine power; fusibility of ash of southern Appalachian coals; mechanical processing of cottonseed; sherardizing; power and labor resources of southern Appalachian slopes; steam engineering; refrigeration; heat transfer; cottonseed cooking; quick freezing and dehydration of foods.

Woolsey, Dr. C(linton) N(athan), Johns Hopkins University School of Medicine, Baltimore, Md. *Neurophysiology.* Brooklyn, N. Y, Nov. 30, 04. A.B, Union (N. Y), 28; M.D, Hopkins, 33. Asst. physiol, sch. med, Hopkins, 33–34, instr, 34–39; Rockefeller Foundation fellow, Johnson Foundation med. physics, Pennsylvania, 38–39; research fellow neuromuscular physiol, subdept. orthopedic surg, *sch. med, Hopkins*, 39–41, *assoc. physiol, 41–* Physiol. Soc. Localization of function in the motor, tactile, auditory and olfactory centers of the cerebral cortex; postural reactions in animals and children; thalamo-cortical interrelationships; fibrillation in denervated striated muscle.

Woolsey, Dr. George, 117 E. 36th St, New York, N. Y. *Surgery.* New Haven, Conn, May 2, 61. A.B, Yale, 81; M.D, Columbia, 85. Prof. anat. and clin. surg, N. Y. Univ, 90–98; *Cornell*, 98–09, *clin. surg*, 09–22, *emer. prof, 22–* Consulting surgeon, Bellevue, Mem. and Peekskill Hosps; N. Y. Infirmary for Women and Children; St. John's Riverside Hosp, Yonkers. Surg. Asn; Soc. Clin. Surg; Am. Med. Asn; fel. N. Y. Acad. Med; N. Y. Surg. Soc; Int. Surg. Soc. Surgical anatomy; abdominal surgery.

Wooster, Dr. Charles B(ushnell), 1210 Haworth St, Philadelphia, Pa. *Chemistry.* Deep River, Conn, Dec. 20, 02. A.B, Clark, 24, A.M, 25; Ph.D, Brown, 28. Nat. research fellow, Mass. Inst. Tech, 27–29; instr. chem, Brown, 29–30, asst. prof, 30–38; *research chemist, Rohm and Haas Co, 38–* A.A; Chem. Soc. (sec'y-treas, R. I. sect, 33–35, v. chairman, 35–37, chairman, 37). Organic reactions in liquid ammonia solution; free organic radicals; organic compounds of alkali metals; chemical reactions of dried substances; organic germanium derivatives; polymerization; acrylic resins.

Wooster, Prof. L(awrence) F(isher), 2615 Arnold Way, Corvallis, Oregon. *Electrical engineering.* Litchfield, Ill, Aug. 2, 84. B.S, Illinois, 06; M.S, Oregon State Col, 31. Testman, Gen. Elec. Co, 06–08; instr. elec. eng, *Oregon State Col*, 10–13, asst. prof. and supt. light and power, 13–19, *prof. applied elec, 19–* Summers, barnman, Ill. Traction System, 05; mem, Westinghouse Conf. for Eng. Teachers, 24. Elec. Eng; assoc. Illum. Eng. Soc; Eng. Educ; Oregon Soc. Illum. Eng. (pres, 29). Philosophy and evolution of engineering education.

Wooster, Prof. L(yman) C(hild), 1017 Union St, Emporia, Kans. *Geology, Biology.* Hammond, N. Y, Aug. 1, 49. Milton, 65–67, hon. Ph.D, 98; Wis. State Nor. Sch, Whitewater, 70–73; Beloit Col, 73–75; Yale, 81–82; Chicago, 97. Asst. geologist, Wis. Geol. Surv, 73–79; prof. nat. science, Wis. State Nor. Sch, Whitewater, 78–81; asst. geologist, U. S. Geol. Surv, 81–84; *prof.* nat. science, N. Dak. State Nor. Sch, Mayville, 93–95; *biol. and geol, Kans. State Teachers Col, Emporia, 97–* Supt, Kans. educ. exhibit, Columbian Expos, 93. Kans. Acad. (pres, 05). Geology of the United States, especially of Kansas; plant and animal instincts; science in education; fundamentals of biology; laws of rainfall; theory of education based on the living needs of young people; value of the teaching of geology.

Wooster, Pres. L(yman) D(wight), 212 W. Seventh St, Hays, Kans. *Zoology.* Greeley, Colo, July 15, 84. A.B, Kans. State Teachers Col, Emporia, 11; Ph.M, Wisconsin, 19; Stanford, 29–30, Ph.D, 36. Teacher, high sch, Kans, 06–07; teacher physical and biol. sciences, Kans. State Teachers Col, Hays, 09–10; *prof. biol, Fort Hays Kans. State Col, Hays*, 12–18, *19–*, head dept. zool, 29–39, dean, 39–41, *pres, 41–* A.A; Ecol. Soc; Kans. Acad. (pres, 29). Animal ecology; interrelations of vertebrate animals on the western Kansas prairie.

Wooten, Prof. Benjamin A(llen), Box 2043, University, Ala. *Physics.* Jefferson, Ala, July 29, 91. B.S, Ala. Polytech, 11, E.E, 12; A.M, Columbia, 15, Ph.D, 17, Tyndall fellow. Instr. elec. eng, Ala. Polytech, 12–14, asst. prof. *physics*, 15–16, prof, 19–21; instr, Col. City of N. Y, 17–19; McCormick prof, Washington and Lee, 22–28; *prof. and head dept, Alabama, 28–* Summers, teacher, Col. City of N. Y; vol. research asst, Yerkes Observatory, Chicago, 26. A.A; Physical Soc. (exec. cmt, southeast. sect); Asn. Physics Teachers; Va. Acad; Ala. Acad. X-ray spectroscopy and spectroscopy of light; seismology; teaching of physics.

Wooten, Dr. L(eland) A(dams), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Chemistry.* Statesville, N. C, Sept. 20, 00. B.S, Davidson Col, 22; Ph.D, Columbia, 36. Asst. chem, Davidson Col, 20–22; teacher, high sch, N. C, 22–23, 26–27; instr. chem, The Berry Schools, 23–25; asst, North Carolina, 25–26; instr, Davidson Col, 27–28; mem. tech. staff, *Bell Tel. Labs*, 28–40, *physical chemist, 40–* Chem. Soc. Physical and analytical chemistry; oxide-coated cathode.

Wooton, Dr. E(lmer) O(ttis), 4318 Eighth St, S, Arlington, Va. *Biology.* Kokomo, Ind, Sept. 19, 65. B.S, Earlham Col, 89, A.M, 96; Columbia, 96–98; hon. Sc.D, N. Mex. Col, 32. Prof. bot, N. Mex. Col, 90–96, 98–00, biol, 00–11; asst. agriculturist and agriculturist, office farm management, U. S. Dept. Agr, 11–20, asst. agr. economist, 20–25, assoc. econ. analyst, bur. agr. econ, 25–28, assoc. agr. economist, 28–35, collaborator, 35–37; *retired.* Botanist, Exp. Sta, N. Mex. Col, 90–96, 98–11. Summers, agent and expert, U. S. Forest Service, 00, 01, 02, special agent, 09, 10. A.A; Bot. Soc. Wash; Biol. Soc. Wash; Wash. Acad. Utilization of arid grazing lands and semi-arid crop lands.

Worcester, Prof. Dean A(mory), University of Nebraska, Lincoln, Nebr. *Psychology.* Thetford, Vt, March 21, 89. A.B, Colorado, 11, A.M, 21; Ph.D, Ohio State, 26. Supervisor, dist. of Zamboanga, P. I, 13–14; prof. psychol, New Mexico, 14–18; prin, high sch, Wyo, 18–20; asst. prof. psychol. and director bur. educ. measurements and standards, Kans. State Teachers Col, Emporia, 20–24; instr. psychol, Ohio State, 24–26; assoc. prof, Ohio (Athens), 26–27; *educ. psychol, Nebraska*, 27–28, *prof, 28–, chairman dept, 34–* Summers, asst, psychopath. inst, Juvenile Court, Chicago, Ill, 16; asst. prof, Colorado, 23; Ohio State, 26, 37; prof, Florida, 36, 39. Mem, Psychol. Corp. A.A; Psychol. Asn; Asn. Applied Psychol; Educ. Research Asn; Nat. Soc. Col. Teachers Educ. Educational psychology; learning and retention; problems relating to curriculum construction and to effectiveness of teaching in higher education; educational measurements.

Worcester, Prof. P(hilip) G(eorge), 1065 11th St, Boulder, Colo. *Geology.* Thetford, Vt, May 5, 84. A.B, Colorado, 09, A.M, 11; Ph.D, Chicago, 24. Instr. *geol, Colorado*, 12–14, asst. prof, 14–18, assoc. prof, 18–25, *prof, 25–, head dept, 34–*, dean men, 20–30, *acting dean grad. sch, 43–* Geologist, Colo. Geol. Surv, 12–; with Can. Explor. Co, 27–30. A.A; Geol. Soc. Physiography, geology and geography of Colorado; molybdenum deposits; geomorphology.

Worcester, Prof. W(olsey) G(arnet), University of Saskatchewan, Saskatoon, Sask, Can. *Ceramics.* Oberlin, Ohio, Oct. 9, 76. Cer.E, Ohio State, 99. Indust. work, Cincinnati, 99–00; W. Va. and Ohio, 00–10; instr. ceramics, Ohio State, 10–12; indust. work, Detroit and Calgary, 12–21; *prof. ceramics and head dept, Saskatchewan, 21–* A.A; fel. Ceramic Soc; Can. Ceramic Soc; Can. Min. Inst; Eng. Inst. Can. (chairman, Sask. branch, 30); West. Brick and Tile Asn. (sec'y-treas, 29). Geology; non-metallics.

Worden, Prof. John L(orimer), Jr, 114 E. Union St, Allegany, N. Y. *Zoology.* South Bend, Ind, Dec. 11, 07. B.S, Notre Dame, 28; Northwestern, 29–30; Wisconsin, 30; Minnesota, 31–33; M.S, St. Bonaventure Col, 35. Asst. prof. biol. and premed. adviser, Col. of St. Thomas (Minn), 30–33; *prof. histol. and embryol, St. Bonaventure Col, 33–, head biol. dept,*

36–, registrar grad. div, 40– A.A; Minn. Acad. Histology; embryology; blood of invertebrates; comparative anatomy.

Work, Dr. Harold K(nowlton), 1131 Pinewood Drive, Mt. Lebanon, Pa. *Chemical engineering, Metallurgy.* Hartford, Conn, May 22, 01. A.B, Columbia Col, 23; Chem. E, Columbia, 25; Ph.D, Pittsburgh, 29. Fellow, Mellon Inst, 25–29; div. head aluminum research labs, Aluminum Co. of Amer, 29–34, chemical engineer, jobbing div, 34–36; *manager research and develop, Jones and Laughlin Steel Corp, 36–* R. W. Hunt award, Am. Inst. Min. and Metal. Engineers. Chem. Soc; Electrochem. Soc; Soc. Metals (past chairman, Pittsburgh chap); Soc. Test. Mat; Min. and Metal. Eng; Electroplaters Soc; Chem. Eng; Optical Soc; Ceramic Soc; Foundrymen's Asn; Indust. Research Inst. (v. chairman). Electroplating and anodic coating of aluminum; metallurgy of iron and steel.

Work, Dr. Lincoln T(homas), Metal and Thermit Corp, P. O. Box 255, Rahway, N. J. *Chemical engineering.* Hartford, Conn, Dec. 28, 98. A.B, Columbia, 18, Chem.E, 21, A.M, 24, Ph.D, 29. Instr. chem. eng, Columbia, 21–29, asst. prof, 29–39, assoc. prof, 39–40; *director research and develop, Metal and Thermit Corp, 40–* Consulting engineer, 21–40. Chem. Eng; Chem. Soc; Soc. Chem. Indust; Electrochem. Soc; Soc. Test. Mat; Min. and Metal. Eng; Eng. Educ; Soc. Metals; Chemists' Club. Cement; particle size; pigments; paints; grinding; surface chemistry; heterogeneous systems in chemical and metallurgical engineering.

Work, Prof. Paul, 310 Elmwood Ave, Ithaca, N. Y. *Horticulture.* Kerrmoor, Pa, June 18, 86. A.B, Tennessee, 07; B.S, Pa. State Col, 10; M.S.A, Cornell, 13; Ph.D, Minnesota, 21. Instr. hort, *Cornell,* 10–13, *veg. crops* and supt. dept, 13–17, acting prof, 17–20, *prof, 20–* Assoc. ed, 'Market Growers Jour,' 21–28, ed, 28–42, assoc. ed, 42– C.Eng, U.S.A, 17–19. A.A; Soc. Hort. Sci. Vegetable crops; celery; tomato nutrition; taxonomy; varieties of vegetables; marketing of vegetables; vegetable production and marketing.

Work, R(obert) A, P. O. Box 1149, Medford, Oregon. *Irrigation engineering.* Denton, Texas, Aug. 31, 04. B.S.A, California, 27. Assoc. irrig. engineer and later *irrig. engineer, Exp. Sta, Oregon State Col. cooperative with div. irrig, soil conservation service, U. S. Dept. Agr.* Agr. Eng; Soc. Agron; Geophys. Union. Orchard drainage and irrigation; snow cover measurements; water supply forecasting.

Work, Dr. R(obert) W(yllie), Celanese Corp. of America, Amcelle, Md. *Chemistry.* Chicago, Ill, July 10, 07. B.S, Illinois, 29; Heckscher fellow, Cornell, 29–33, Ph.D, 32. Asst. chem, Cornell, 29–32; research engineer, Gen. Elec. Co, 33–41; *chief chemist, Celanese Corp. Amer, 41–* A.A; Chem. Soc. Germanium and indium; dielectrics and electrical insulating processes; textiles.

Work, Dr. S(amuel) H(ealea), University of Hawaii, Honolulu, Hawaii. *Animal husbandry.* Chicago, Ill, Oct. 23, 00. B.S, Ohio State, 25; Ph.D, Cornell, 34. Prin, high sch, Ohio, 25–26; asst. manager, Franchester Guernsey herd, South Euclid, Ohio, 26–29; asst. animal husbandry, Cornell, 29–35; *assoc. animal husbandman, Exp. Sta, Hawaii, 35–, chairman swine production cmt, office food control, Mil. Governor Hawaii, 41–* Soc. Animal Production; Dairy Sci. Asn; Hawaii Acad. Animal nutrition; physiology.

Work, Prof. William R(oth), Carnegie Institute of Technology, Pittsburgh, Pa. *Electrical engineering.* Steelton, Pa, May 4, 81. A.B, Wittenberg Col, 02, Sc.D, 20; M.E, Ohio State, 05. *Dept. elec. eng, Carnegie Inst. Tech, 06–, prof. and head dept, 24–, asst. director col. eng, 41–* Cmt. on educ. and special training, War Dept, 18. A.A; Elec. Eng; Eng. Educ; Eng. Soc. West. Pa.

Working, Dr. Earl B(ooth), Stanford University, Calif. *Chemistry.* Ft. Collins, Colo, Feb. 20, 97. A.B, Denver, 17, A.M, 19; Ph.D, Arizona, 22. Junior chemist, bur. chem, U. S. Dept. Agr, 17–18; teaching fellow, Minnesota, 19–20; asst, desert lab, div. plant biol, Carnegie Institution, 21–23; assoc. prof. milling indust, Kans. State Col, 23–39, prof, 39–43; research chemist, Société Haitiano-Américaine de Dévelop. Agricole, 43; *research assoc. chem, Stanford, 43–* A.A. (sec'y, southwest. div, 22); Chem. Soc; Asn. Cereal Chemists; Soc. Plant Physiol. Cereal, colloid and physiological chemistry; plant physiology.

Working, Prof. E(lmer) J(oseph), 711 Pennsylvania Ave, Urbana, Ill. *Agricultural economics.* Denver, Colo, May 29, 00. B.S, Arizona, 21; M.S, Iowa State Col, 22; Harvard, 25–26. Instr. agr. econ, Iowa State Col, and asst, Exp. Sta, 22–23; mem. staff, Inst. Econ, Wash, D.C, 23–26; assoc. prof. agr. econ, Minnesota, 27–28; senior agr. economist, bur. agr. econ, U. S. Dept. Agr, 28–35; assoc. prof. *agr. econ, Illinois,* 35–41, *prof, 41–* Econ. Asn; Farm Econ. Asn; Statist. Asn; Econometric Soc. Relationships of economic theory to economic statistics.

Working, Dr. Holbrook, 614 Alvarado Row, Stanford University, Calif. *Economics.* Ft. Collins, Colo, Feb. 5, 95. A.B, Denver, 15; A.M, Cornell, 19; fellow, Wisconsin, 19–20, Ph.D, 21. Instr. econ, Cornell, 16–17, 19; asst. prof. agr. econ, Minnesota, 20–23, assoc. prof, 23–25; *economist, food research inst, Stanford, 25–* Visiting prof, Michigan, 34–35; chief statistical consultant, War Production Board, 43, special consultant, 43. Summer, acting prof, Chicago, 28. A.A; Econ. Asn; Statist. Asn. (pres, San Francisco chap, 28); Inst. Math. Statist; Econometric Soc. Commodity price behavior; price theory; money and prices; food consumption; statistical methods.

Workman, Prof. E(verly) J(ohn), University of New Mexico, Albuquerque, N. Mex. *Physics.* Loudonville, Ohio, July 2, 99. B.S, Whitman Col, 24; Stanford, 26–27; Ph.D, Virginia, 30. Instr. physics, Whitman Col, 24–26; N. Dak. Col, 27–28; nat. research fellow, Bartol Research Foundation, 30–31; Calif. Inst. Tech, 31–32; Reed Col, 32–33; *assoc. prof. physics and head dept, New Mexico, 33–* A.A; fel. Physical Soc. The variation of the specific heats of gases with pressure and temperature; ionization phenomena by cosmic rays, gamma rays and hard x-rays; lightning; thunderstorm structure.

Workman, L(ewis) E(dwin), 905 W. California St, Urbana, Ill. *Geology.* Chillicothe, Ohio, Jan. 11, 99. A.B, Ohio Wesleyan, 21; M.S, Chicago, 25. *Geologist and head subsurface div, Ill. Geol. Surv.* Ill. Acad. Subsurface geology of Illinois.

Worley, Dr. Clair L(ynnette), S.M.A. Corp, Chagrin Falls, Ohio. *Plant physiology.* Warren, Ohio, Jan. 6, 12. A.B, Hiram Col, 34; M.S, Idaho, 36; Ph.D, Wisconsin, 40. Instr. bot, Georgia, 39, asst. prof, 39–42; asst. manager, Société Haitiano-Américaine de Dévelop. Agricole, 42–43; *microbiol. research, S.M.A. Corp, 43–* Summers, plant explorer, soil conservation nursery, U. S. Dept. Agr, 35, 37, 38. Bot. Soc; Soc. Plant Physiol. (exec. cmt. and chairman south. sect, 40); Southeast. Asn. Biol; Tenn. Acad. Physiology of pathogenic fungi; nutrition of higher plants; growth accessory substances.

Worley, Dr. Leonard G(eorge), Brooklyn College, Brooklyn, N. Y. *Biology.* Lincoln, Nebr, Sept. 8, 05. A.B, Nebraska, 27, A.M, 28; Ph.D, Harvard, 33. Austin teaching fellow zool, Harvard, 28–33; instr. *biol, Brooklyn Col, Col. City of N. Y,* 33–38, *asst. prof, 38–* A.A; Soc. Zool; Micros. Soc. Ciliary movement; cytoplasmic inclusions in development.

Worley, Dr. R(obert) Edwin, San Diego State College, San Diego, Calif. *Physics.* Swatow, China, March 7, 08. A.B, Pomona Col, 31; A.M, California, 35, Ph.D, 40. Teaching asst, California, 31–33, 35–36; *instr. physics,* Yenching Univ, 33–34; *San Diego State Col, 39–; asst. prof, California at Los Angeles, 43–* Vacuum spectroscopy; absorption spectrum of N_2 in the far ultra-violet.

Wormeley, P(hilip) L(ightfoot), National Bureau of Standards, Washington, D. C. *Engineering.* Richmond, Va, Feb. 17, 78. M.E, E.E, Virginia, 01. Prof. eng, Col. of Charleston, 02–04; engineer of tests, U. S. Dept. Agr, 04–10; from asst. physicist to *prin. technologist, Bur. Standards, 10–* Soc. Test. Mat. Concrete; rubber; automobile tires.

Wormser, F(elix) E(dgar), 1 Acorn Lane, Larchmont, N. Y. *Mining engineering.* Santa Barbara, Calif, Oct. 31, 94. E.M, Columbia, 16. Mining engineer, Cornucopia Mines Co. and Baker Mines Co, Oregon, 16–18; U. S. mineral surveyor, 17–20; mining engineer, U. S. Bur. Mines, 19–20; ed. staff, 'Eng. and Min. Jour,' 20–25; consulting mining engineer, 25–28; *sec'y-treas, Lead Industries Asn, 28–* A.A; Min. and Metal. Eng. (director); Econ. Asn; Min. and Metal. Soc; Statist. Asn; Acad. Polit. and Social Sci. Marketing of metals and minerals.

Worner, Dr. Ruby K(athryn), U. S. Department of Agriculture, New Orleans, La. *Chemistry.* San Jose, Ill, Nov. 22, 00. B.S, Chicago, 21, M.S, 22, Ph.D, 25. Assoc. prof. chem, Okla. Col. for Women, 25–27; asst. chemist, U. S. Dept. Agr, 27–29; Bur. Standards, 29–40; *assoc. textile technologist,*

south. regional research lab, bur. agr. and indust. chem, U. S. Dept. Agr, 40– A.A; Chem. Soc; Asn. Textile Chem. and Colorists. Properties of textile materials, processing and test methods; textile technology.

Worrall, Prof. David E(lbridge), Tufts College, Medford, Mass. *Chemistry.* Westerly, R. I, Aug. 2, 86. B.S, R. I. State Col, 10; A.M, Harvard, 11, Ph.D, 19; Graz, 28. Chemist, Guantanamo Sugar Co, Cuba, 11–12; Austin teaching fellow, Harvard, 12–14; instr. chem, Smith Col, 14–18; asst. prof. *org. chem, Tufts Col,* 19–24, *prof, 24–, director chem. lab, 40–* Visiting lecturer, Radcliffe Col, 24–26. Lieut, C.W.S, 18–19. A.A; Chem. Soc. (chairman, northeast. sect, 28); Am. Acad. Addition reactions of unsaturated nitro compounds; addition of sodium malonic ester to aliphatic and aromatic mustard oils; heterocyclic ring formation; diphenyl derivatives of phosphorus, arsenic and antimony; yohimbrine derivatives; acetylenic thionamides.

Worrell, Dr. Francis T(oussaint), Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Hartford, Conn, April 19, 15. B.S, Michigan, 36; M.S, Pittsburgh, 40, Ph.D, 41. Instr, Pittsburgh, 41; Tennessee, 41–42; *staff mem, radiation lab, Mass. Inst. Tech, 42–* Physical Soc. Properties of incandescent metals; instrumental constants of seismographs.

Worrell, Dr. Lee (Frank), University of Michigan, Ann Arbor, Mich. *Pharmaceutical chemistry.* Orleans, Ind, Feb. 27, 13. B.S, Purdue, 35, Ph.D, 40. Assoc. prof. *pharmacy, col. pharmacy,* Drake, 38–42; *instr, Michigan, 42–* Method for the determination of peptic activity.

Worsham, Prof. W(illiam) A(rcher), Hunter College, 68th St. and Park Ave, New York, N. Y. *Chemistry.* Monroe Co, Ga, March 9, 78. B.S, Georgia, 03; A.M, Harvard, 08; Ph.D, Columbia, 24. Teaching fellow, Harvard, 08–09; asst. state chemist, Ga, 09–10; asst. prof. agr. chem, Georgia, 10–11, prof, 11–21; lecturer, *Hunter Col,* 21–22, assoc. prof. *chem,* 22–28, *prof, 28–* A.A. (sec'y, council, 13, gen. sec'y, 14); Chem. Soc. Soil types of Georgia; the stability of magnesium ammonium phosphate.

Worstall, Robert A(rthur), Box 480, DeLand, Fla. *Chemistry.* Zanesville, Ohio, April 18, 75. B.S, Case, 97, M.S, 98. Instr. chem, Purdue, 97–00; supt, Glidden Varnish Co, 00–01; Chicago Varnish Co, 01–08; *varnish specialist, 08–* Chem. Soc. Varnishes; nitration and sulfonation of paraffines, resins and oils.

Wort, Dr. D(ennis) J(ames), Nutana Collegiate Institute, Saskatoon, Sask, Can. *Plant physiology.* Eng, July 19, 06. B.Sc, Saskatchewan, 32, M.Sc, 34; John M. Coulter fellow, Chicago, 39–40, Ph.D, 40. *Instr. biol. and bot, Nutana Collegiate Inst, 28–* A.A; Asn. Plant Physiol. Phasic development; x-rays and plant growth.

Worth, Prof. C(arleton) R(ussell), Rutgers University, New Brunswick, N. J. *Mathematics.* Russell, Ill, March 18, 03. A.B, Southwest Mo. State Teachers Col, 25; M.S, Chicago, 27; fellow, Calif. Inst. Tech, 30–32, Ph.D, 33. Instr. *math,* Arkansas, 27–28; *Rutgers,* 28–34, *asst. prof, 34–* Mem. Univ. Bot. Garden exped. to Andes, California, 38. Math. Soc. Fields.

Worth, Dr. C(harles) Brooke, Swarthmore College, Swarthmore, Pa. *Biology.* Coatesville, Pa, Sept. 4, 08. A.B, Swarthmore Col, 31; M.D, Pennsylvania, 35. *Instr. biol, Swarthmore Col, 36–* Acad. Nat. Sci. Phila. Expeds, Honduras, 30, Panama, 37; Mex, 42. Ornithology; entomology; general biology; parasitology; tropical medicine.

Worthen, Prof. E(dmund) L(ouis), Cornell University, Ithaca, N. Y. *Agronomy.* Wilcox Township, Ill, Oct. 5, 82. B.S, Illinois, 04; M.S.A, Cornell, 08. Asst, Illinois, 04–06; scientist, soil surv, bur. soils, U. S. Dept. Agr, 06–09, in charge soil investigations in N. C, 09–12; asst. prof. and assoc. prof. agron, Pa. State Col, 12–19; *prof. soil technol, Cornell, 19–* A.A; Soc. Agron. Soil extension and improvement.

Worthing, Prof. A(rchie) G(arfield), University of Pittsburgh, Pittsburgh, Pa. *[*2]Physics.* Le Roy, Wis, Feb. 6, 81. A.B, Wisconsin, 04, 04–06; Iowa, 08–09; Ph.D, Michigan, 11. Asst. physics, Wisconsin, 04–06; instr, Iowa, 06–09; asst. physicist, Nat. Elec. Lamp Asn, 10–12, physicist, 12–14; Nela Research Lab, 14–25; *prof. physics, Pittsburgh, 25–,* head dept, 25–37. Physical Soc; Optical Soc. (v. pres, 39–41, pres, 41–43); Inst. Physics (governor, 41–); Asn. Physics Teachers (v. pres, 40, pres, 41). Thermodynamic properties of gases; vapor tension; cosine law for tungsten and carbon; brightness measurements; temperature distribution in an incandescent lamp filament; thermal conductivities of tungsten, tantalum and carbon; Thomson effect at incandescent temperatures; ballistic galvanometers; emissivities and true temperature scales of tungsten, molybdenum, tantalum and other metals; atomic heats at incandescent temperatures.

Worthington, Prof. Euphemia R., University of California at Los Angeles, Los Angeles, Calif. *Mathematics.* Troy, N. Y, Dec. 22, 81. A.B, Wellesley Col, 04; Ph.D, Yale, 08. Instr. math, Wellesley Col, 09–18; eng. dept, Gallaudet Aircraft Corp, 18–22; *asst. prof. math, California at Los Angeles, 22–* A.A; Math. Soc.

Worthington, Hood, E. I. du Pont de Nemours and Co, Wilmington, Del. *Chemical engineering.* Salt Lake City, Utah, Feb. 12, 03. B.S, Mass. Inst. Tech, 24, M.S, 25. *Research chem. engineer, E. I. du Pont de Nemours and Co, 25–* A.A; Chem. Soc; Inst. Chem. Eng. High pressure technique; the effect of pressure on engineering properties of fluids; equipment for the manufacture of nylon.

Worthington, Dr. Oliver J(ackson), Gilroy, Calif. *Plant biochemistry.* Providence, R. I, April 17, 03. B.S, R. I. State Col, 24; M.S, Wisconsin, 26, Ph.D, 36. Teacher science, high sch. and junior col, Wis. and Calif, 26–32, 37–41; junior biochemist, Forest Products Lab, U. S. Forest Service, 35–36; anal. chemist, U. S. Engineers, 41–43; *chief chemist dehydration div, C. B. Gentry Co, 43–* Chem. Soc. Phlobatannin of slash pine; plant carbohydrates; glycosides and volatile oils; effects of methods of dehydration of plant tissues on nutrient content; inter-conversion of plant carbohydrates; genetics of plant constituents.

Worthley, Prof. H(arlan) N(oyes), 501 E. Hamilton Ave, State College, Pa. *Economic entomology.* Boston, Mass, Feb. 6, 95. B.S, Mass. Col, 20, M.S, 23; Ph.D, Ohio State, 39. Investigator econ. entom, Exp. Sta, Mass. Col, 20–24, asst. res. prof, 24–25; asst. prof. entom, exten, *Pa. State Col,* 25–27, *econ. entom,* 28–31, assoc. prof, 31–34, *prof, 34–;* major, *Chem. Warfare Service, U. S. Army,* 42–43, *lieut. col, 43–* Lieut, Inf, 17–19. A.A; Entom. Soc. Amer; Asn. Econ. Entom. (v. pres, east. branch, 37); Pa. Acad. Insect control.

Wortis, Dr. S(amuel) Bernard, 410 E. 57th St, New York, N. Y. *Medicine, Neuropsychiatry.* Brooklyn, N. Y, March 25, 04. A.B, N. Y. Univ, 23; M.D, Cornell, 27. Asst. prof. and *assoc. prof. neur, med. col, N. Y. Univ, 31–;* instr. and *asst. prof. med, Cornell, 31–, prof. psychiat, 42–* Neur. surg, Columbia, 31, 32; consulting neuropsychiatrist, U. S. Pub. Health Service, Ellis Island; Stapleton Marine Hosp; Woman's Hosp; Montefiore Hosp; consultant, U. S. Pub. Health Service; director psychiat. div, Bellevue Hosp; director, lab. exp. neuropsychiat, col. med, N. Y. Univ; consultant, Welfare Hosp. Am. Med. Asn; Psychiat. Asn; Neur. Asn; fel. Col. Physicians; Harvey Soc; fel. N. Y. Acad. Med; N. Y. Soc. Psychotherapy; N. Y. Soc. Clin. Psychiat. and Neur. Sleep in man; intracranial pressure; head injuries; epilepsies and the convulsive state; spine injuries; inflammations of the spinal cord; metabolism of brain tissue; pain.

Worzella, Dr. Wallace W(illiam), South Dakota State College, Brookings, S. D. *Agronomy.* Plover, Wis, Oct. 25, 06. B.S.A, Wisconsin, 29; M.S, Purdue, 31, Ph.D, 34. Asst. and assoc. *agron,* Exp. Sta, Purdue, 29–43; *head dept, S. Dak. State Col, 43–* Soc. Agron; Asn. Cereal Chem. Heredity; inheritance of quality and winter hardiness in wheat; ecology; measuring quality in wheat; carotenoid studies in wheats.

Wosika, Dr. Paul H(enry), 6 N. Michigan Ave, Chicago, Ill. *Internal medicine.* Oklahoma City, Okla, June 12, 05. B.S, Northwestern, 31, M.D, 31, Elizabeth Ward fellow, 34–38, M.S, 36, Ph.D, 41. Intern, Passavant Mem. Hosp, Chicago, Ill, 31; asst. res. physician, Peter Bent Brigham Hosp, 31–34; director admissions, med. sch, Northwestern, 34–36, med. clinic, 36–38, instr. med, 35–42; *assoc. prof. clin. med. and director clin. teaching, Chicago Med. Sch, 42–* Assoc, Cook County Hosp, 38–40; attending staff, Passavant Mem. Hosp, 36–42; attending staff, Ill. Masonic Hosp, 42– Fel. Am. Med. Asn; Federation Clin. Research; Heart Asn; Cent. Soc. Clin. Research. Cardiovascular disease.

Wrather, W(illiam) E(mbry), U. S. Geological Survey, Washington, D. C. *[*6]Geology.* Brandenburg, Ky, 83. Ph.B, Chicago, 08. Geologist, Gulf Production Co. and J. M. Guffey Petrol. Co, 08–16; consulting geologist, 16–43; *director, U. S. Geol. Surv, 43–* Lecturer, Chicago, 22; Texas, 27; Yale, 30;

Northwestern, 31; South. Methodist, 35. Assoc. ed, 'Econ. Geol.' Advisory cmt, A Century of Progress Expos, Chicago, 33. Alumni medal, Chicago, 41. Nat. Research Council del, Int. Geol. Cong, Madrid, 26, Pretoria, 29, Moscow, 37. A.A. (exec. cmt, 42–); fel. Geol. Soc. (councilor, 30, 2nd v. pres, 32, 1st v. pres, 36); Soc. Econ. Geol. (pres, 34); Asn. Petrol. Geol. (sec'y-treas, 18, pres, 22, chairman, research cmt, 23–29); Min. and Metal. Eng. (director, 21–23, chairman, petrol. div, 33); Seismol. Soc; Texas State Hist. Asn. (pres, 32–39). Oil geology; Permian stratigraphy of the southwest; geology of northern Texas oil fields; petroleum geology.

Wray, Dr. David L(onzo), Jr, State Department of Agriculture, Raleigh, N. C. *Entomology.* Hickory, N. C, Jan. 15, 06. B.S, N. C. State Col, 26, M.S, 27; Ph.D, Cornell. Instr. zool, N. C. State Col, and asst. entom, Exp. Sta, 27–28; adj. prof. zool, South Carolina, 28–29; *agent,* plant quarantine and control admin, U. S. Dept. Agr, 29–30; *State Dept. Agr, N. C, 30–* Entom. Soc. Amer; Asn. Econ. Entom; N. C. Acad. Insect embryology; Collembola; economic entomology; ornithology, zoology and natural history of North Carolina.

Wray, J(ames) G(lendenning), Bankers Bldg, Chicago, Ill. *Electrical engineering.* Janesville, Wis, May 19, 72. B.S, Wisconsin, 93. Asst. engineer, chief lab, asst. supt. maintenance and traffic, supt. maintenance, supt. equipment and electrician, Chicago Tel. Co, 93–02, chief engineer, 02–11; Cent. Group Tel. Co, 11–16; consulting engineer, Bur. Standards, 17–18; *pres, J. G. Wray and Co, 19–* Pres, United Tel. Co, 27–31; v. pres, Standard Tel. Co, 28–29; pres, Southeast. Tel. Co, 30–32. A.A; fel. Elec. Eng; West. Soc. Eng; Ill. Acad. Public utilities; the telephone.

Wray, Robert I(som), 211 Pershing Drive, New Kensington, Pa. *Chemistry, Chemical engineering.* Shelbyville, Ind, May 14, 95. A.B, DePauw, 17; B.S, Purdue, 22, Chem.E, 26. Lab. asst. gen. chem, Purdue, 21–22; physical chemist, *research lab, Aluminum Co. of Amer,* 22–29, *chief div. paints and finishes,* 29– Chem. Soc; Chem. Eng. Aluminum powder pigments and paint; protective coatings for aluminum and its alloys; inhibitive paint primers.

Wray, Dr. William D(ean), Box 375, R. F. D. 2, Alexandria, Va. *Mathematics.* Ithaca, N. Y, Sept. 1, 10. A.B, Haverford Col, 32; A.M, Cornell, 34, Ph.D, 41. Teacher math, Cascadilla Prep. Sch, 33–37; instr, Cornell, 37–40; Williams Col, 38, 40–42; *math. analyst, U. S. Navy Dept, 42–* Math. Soc; Math. Asn. Mathematical statistics; applications of statistics to agricultural experimentation.

Wren, Prof. F(rank) Lynwood, George Peabody College, Nashville, Tenn. *Mathematics.* Yorkville, Tenn, Sept. 28, 94. A.B, Univ. of the South, 15; A.M, George Peabody Col, 25; Ph.D, Chicago, 30. Assoc. prof. *teaching math, George Peabody Col,* 27–31, *prof, 31–* Instr, Hopkins; Gen. Educ. Board scholar. A.A; Math. Soc; Math. Asn; Nat. Council Teachers Math. (v. pres, 40–42); Tenn. Acad. (v. pres, 40, pres, 41). Calculus of variations; teaching of mathematics; a new theory for parametric problems in the calculus of variations; the teaching of secondary mathematics; number readiness.

Wrench, Dr. John W(illiam), Jr, Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. *Mathematics.* Westfield, N. Y, Oct. 13, 11. A.B, Buffalo, 33, A.M, 34; Ph.D, Yale, 38. Asst. *math,* Buffalo, 33–35; instr, Yale, 35–38; Wesleyan, 38–39; George Washington, 39–43; *asst. mathematician, geophys. lab, Carnegie Institution, 43–* Math. Soc; Math. Asn. Number theory; mathematical constants.

Wrenn, Prof. C(harles) Gilbert, University of Minnesota, Minneapolis, Minn. *Personnel psychology.* New Paris, Ohio, April 2, 02. A.B, Willamette, 26; A.M, Stanford, 29, Ph.D, 32. Instr. educ. and prin. training center, Oregon State Nor. Sch, 27–28; exec. sec'y vocational guidance cmt, Stanford, 29–36, asst. prof. educ, 34–36; assoc. prof. and later *prof. educational psychol, Minnesota, 36–,* asst. director gen. col, 36–38; *lieut, bur. naval personnel, U. S. Naval Res, 42–* Summers, instr, Oregon; Colorado; Chicago; Purdue. Grant in aid, Gen. Educ. Board, 37; assoc, Am. Youth Cmn, 39; student personnel consultant, cmn. teacher educ, Am. Council Educ, 39–42. Mem. board of directors, West. Personnel Service, 35; chairman, Pacific Hazen Conf, 36. Psychol. Asn; fel. Asn. Applied Psychol; Education Research Asn; Col. Personnel Asn. (v. pres, 42–); Vocational Guidance Asn. (second v. pres, 41, first v. pres, 42–); Calif. Educational Research Asn. (pres, 35); North. Calif. Guidance Asn. (trustee, 34). Adjustment problems of new students in college; recreational needs of youth; study habits of high school and college students; personality measurement; personnel administration.

Wrenn, Dr. Samuel N(athaniel), George Washington University, Washington, D. C. *Organic chemistry.* Vance Co, N. C, Dec. 15, 04. A.B, Duke, 27, A.M, 29; Ph.D, Pa. State Col, 35. Asst. prof. *chem,* The Citadel, 30–31; instr, exten. div, Pa. State Col, 34–36; asst. prof, *George Washington,* 36–42, *assoc. prof, 42–,* acting dean, univ. junior col, 38–39, summer session, 39. Summer, asst, Duke, 27. Chem. Soc. Aliphatic chemistry; tertiary compounds; polymerized olefins.

Wrenshall, Dr. C(harlton) L(ewis), 969 University St, Memphis, Tenn. *Agricultural chemistry.* North Battleford, Sask, Sept. 2, 10. B.Sc, Saskatchewan, 31, M.Sc, 34; Ph.D, McGill, 36. Jr. chemist, soil surv, Saskatchewan, 31–32; asst, pasture cmt, Macdonald Col, McGill, 34–36; research chemist, Ogilvie Flour Mills, Montreal, Que, Can, 36–37; lecturer chem, Macdonald Col, McGill, 37–40, asst. prof, 40; asst. inspector explosives, Inspection Board United Kingdom and Can, 40–42; *asst. tech. supt, E. I. du Pont de Nemours and Co, 42–* Assoc. Can. Inst. Chem. Respiration and heating of wheat; organic phosphorus compounds in soil; analysis of soil phosphorus; utilization of phosphorus and potash in pasture soils.

Wrenshall, Dr. G(erald) A(lfred), McMaster University, Hamilton, Ont, Can. *Nuclear physics.* North Battleford, Sask, April 3, 12. B.Sc, Saskatchewan, 33, M.Sc, 35; Ph.D, Yale, 39. Radon pumpman, Sask. Cancer Cmn, Can, 36; *lecturer physics, McMaster, 39–* Physical Soc. Scattering of alpha-particles and protons by light nuclei; x-ray filter design.

Wrenshall, Dr. Richard, Automotive and Chemical Associates, Ltd, Honolulu, Hawaii. *Chemistry.* Edgeworth, Pa, May 30, 89. Ph.B, Yale, 11, Ph.D, 15. Instr. chem, Yale, 14–16; chief chemist, Sterling Varnish Co, 16, v. pres, 16–17; prof. chem, Hawaii, 19–32, research staff, 32–33; *pres, Automotive and Chem. Associates, Ltd, 33–* Capt, Ordnance Dept, 17–19. Chaulmoogra oil derivatives in the treatment of leprosy.

Wright, Prof. A(lbert) H(azen), Ithaca, N. Y. ****3***Zoology, Ecology.* Hilton, N. Y, Aug. 15, 79. A.B, Cornell, 04, A.M, 05, Ph.D, 08. Asst. *vert. zool, Cornell,* 05–08, instr, 08–15, asst. prof, 15–25, *prof, 25–* Ed. board, 'Ecol. Monographs,' 34–35. Div. biol. and agr, Nat. Research Council, 35–37. A.A; Soc. Nat; Soc. Zool; Ecol. Soc; Soc. Mammal; Ornith. Union; Soc. Ichthyol. and Herp; Fisheries Soc; Am. Geog. Soc; Limnol. Soc; Am. Hist. Asn; Biol. Soc. Wash. Distribution of fish; life histories of Amphibia; primitive North American fauna; vertebrates of the Cayuga Lake basin; life histories of North American Anura; biology and history of Okefinokee Swamp; North American reptiles and vertebrates; iris and floricultural literature; western New York history.

Wright, Prof. Alexander Holland, McElree Road, Washington, Pa. *Chemistry.* Pittsburgh, Pa, Nov. 23, 74. A.B, Washington and Jefferson Col, 98, A.M, 01, hon. Sc.D, 38; Ph.D, Columbia, 21. Prof. *chem,* Muskingum Col, 03–16; *Washington and Jefferson Col,* 20–38, *emer. prof, 38–* A.A; fel. Inst. Chem; Chem. Soc. Minor problems in viscosity.

Wright, Dr. Alfred J(ames), 1677 Guilford Road, Columbus, Ohio. *Geography.* Middletown, Ohio, May 10, 97. A.B, Michigan, 22, Ph.D, 34; A.M, Pennsylvania, 25. *Instr.* social science, George Sch, Pa, 22–25; *geog,* Pennsylvania, 25–28; *Ohio State, 28–* Mich. Acad; Ohio Acad. Industrial geography.

Wright, Prof. A(ndrew) H(amilton), University of Wisconsin, Madison, Wis. *Agronomy.* Mankato, Kans, Oct. 22, 87. B.S, Kans. State Col, 08; M.S, Wisconsin, 15. Teacher, high sch, Kans, 08–09; asst. agronomist, Exp. Sta, Okla. Agr. and Mech. Col, 09–14; assoc. prof. and *prof. agron, Wisconsin, 15–,* assoc. agronomist and *agronomist, Exp. Sta.* Soc. Agron. Crop agronomy; hemp, flax and sorghum; curing and grading of seed; distributing and handling seed; certification of seeds.

Wright, Prof. Arthur W(illiam), Albany Medical College, Albany, N. Y. *Pathology.* Windsor Locks, Conn, July 20, 94. A.B, Harvard, 17, M.D, 23. Res. and asst. path, Boston City Hosp, 23–25; asst. prof. path, sch. med, Vanderbilt, 25–29; director, Bender Hygienic Lab, Albany, N. Y, 29–34; *prof. path. and bacter, Albany Med. Col, Union (N. Y), 34–* A.A;

Asn. Path. and Bact; fel. Am. Med. Asn; fel. Soc. Clin. Path; Soc. Bact; Soc. Exp. Path; fel. Pub. Health Asn; Asn. Cancer Research; N. Y. Asn. Pub. Health Labs. (pres, 35); Path. Soc. East. N. Y. (sec'y, 32–); Int. Asn. Med. Mus. Subcutaneous injection of gases; caesium salts and tumor growth; blood vessel tumors; ductless gland pathology; pathology and pathogenesis of spontaneous mammary tumors of rats; age changes in connective tissues.

Wright, Dr. Byron T(erry), Radiation Laboratory, University of California, Berkeley, Calif. *Nuclear physics.* Waco, Texas, Oct. 19, 17. A.B, Rice Inst, 38; Ph.D, California, 41. *Assoc. physicist, Nat. Defense Research Cmt, California, 41–*

Wright, Dr. Calvert C(harles), Pennsylvania State College, State College, Pa. *Chemistry.* Southport, Eng, Sept. 11, 05. B.S, Washington (Seattle), 27, Ph.D, 31. Asst. chem, Washington (Seattle), 31–32; nat. research fellow chem, *Pa. State Col,* 32–34, research assoc. *fuel technol,* 34–36, assoc. prof, 36–41, *prof, 41–* Chem. Soc. (councilor, cent. Pa. sect, 41); Gas Asn. Fuel technology.

Wright, Dr. Carroll S(paulding), 1402 Spruce St, Philadelphia, Pa. *Dermatology.* Freeport, Mich, Dec. 27, 95. B.S, Michigan, 17, M.D, 19. Instr. *dermat,* Michigan, 20–22; asst. prof, *grad. sch. med, Pennsylvania,* 23–25, *assoc. prof, 25–; prof. dermat. and syphilol, med. sch, Temple, 31–* Consulting dermatologist, Munic. Hosp, Phila; Shriners Hosp; Pa. Inst. for Blind; Penna. Inst. for Deaf. Trustee, Research Inst. Cutaneous Med. M.C, U.S.A, 17–18. Dermat. Asn; Acad. Dermat. and Syphilol; Soc. Investigative Dermat. Diseases of the skin; treatment of syphilis.

Wright, Prof. Cecil B, East Texas State Teachers College, Commerce, Texas. *Mathematics.* Dunbar, Iowa, Aug. 6, 05. A.B, South. Methodist, 26; A.M, Illinois, 30; Ph.D, Pittsburgh, 34. Asst, Pittsburgh, 30–35; instr. *math,* South. Methodist, 35–38; *assoc. prof, E. Texas State Teachers Col, 38–* Summers, prof, E. Texas State Teachers Col, 34–37. Math. Soc; South. Intercollegiate Math. Asn. (sec'y-treas, 40–42). Collineation.

Wright, Dr. Charles Alfred H(olstead), Consolidated Mining and Smelting Company of Canada, Ltd, Trail, B. C, Can. *Chemical engineering.* Salisbury, N. B. B.Sc, British Columbia, 17, M.Sc, 19; Ph.D, McGill, 21. Demonstrator chem, McGill, 19–21; Ramsay mem. fellow, London, 21–22; chem. engineer, Tate Electrolytic Textile Products Co, R. I, 22–23; Arthur D. Little Co, Mass, 23–24; lecturer chem, British Columbia, 24–25; *chem. engineer, Consol. Mining and Smelting Co. of Can, Ltd, 25–* Manganates and permanganates; unsaturation and molecular compound formations; reaction velocities; copper and gold-colored glasses; physical and chemical properties of hydrocarbons.

Wright, Dr. Charles I(ngham), 10 Old Chester Road, Bethesda, Md. *Pharmacology.* Halifax, Eng, Nov. 27, 01. B.S, Middlebury Col, 26, M.S, 27; Ph.D, Rochester, 32. Teaching fellow physiol, Rochester, 29–32; instr. pharmacol, Michigan, 32–36; pharmacologist, *nat. inst. health, U. S. Pub. Health Service,* 36–42, *senior pharmacologist, 42–* Chem. Soc; Physiol. Soc; Soc. Pharmacol. Diffusion of carbon dioxide; tissue respiration; pharmacology of morphine and derivatives; selenium poisoning.

Wright, Charles Will, U. S. Bureau of Mines, Washington, D. C. *Mining geology.* Marquette, Mich, May 15, 79. Heidelberg, 97–98; Bergakad, Freiberg, 98–00; B.S, Mich. Col. Mines, 02, E.M, 03. Instr. miner, Mich. Col. Mines, 01–03; geol. aid, U. S. Geol. Surv, 03–05, asst. geologist, 05–09; gen. manager mines, Soc. di Pertusola, Sardinia, 09–19; gen. manager, Soc. Atesina Esplorazioni Minerarie, 20–28; chief mining div, U. S. Bur. Mines, 28–35, for. mineral specialist, 35–41; chief tech. consultant, Board Econ. Warfare, 41–43; *chief for. mineral specialist, U. S. Bur. Mines, 43–* Commendatore, Corona d'Italia, 19– Major, A.R.C, 17–19. Geol. Soc; Min. and Metal. Eng; Geol. Soc. Wash; British Inst. Min. and Metal. Geology of southeastern Alaska; geology and mining in Sardinia; mining methods in the United States; foreign minerals.

Wright, Dr. Donald D(ecker), Brooklyn College, Brooklyn, N. Y. *Chemistry.* Elizabeth, N. J, March 15, 09. A.B, Yale, 30, Silliman-Bidwell fellow, 30–33, Ph.D, 33. Asst. *chem,* Yale, 33–34; instr, Beloit Col, 34–35; tutor, *Brooklyn Col,* 37, *instr, 37–; U. S. Army, 41–* Mem, Nat. Defense Research Cmt, 42. Chem. Soc. Weak electrolytes; quinhydrone electrode; chemical warfare protective equipment.

Wright, Dr. Ernest, P. O. Box 4137, Portland, Oregon. *Plant pathology.* Rossland, B. C, Can, Sept. 23, 99. B.S.F, Oregon State Col, 23; fellow, California, 27, M.S, 28; Ph.D, Nebraska, 41. U. S. Forest Service, 22–25; *assoc. pathologist, div. forest path, bur. plant indust, U. S. Dept. Agr,* 27– Soc. Foresters; Phytopath. Soc; Nebr. Acad. Forestry; forest pathology.

Wright, Dr. F(loyd) R(obbins), Newark, N. Y. *Medicine.* Spencer, N. Y, June 22, 74. A.B, Cornell, 98, M.D, 03. Instr. bacter, med. col, Cornell, 99–01, anat, 05–08; chief metabolic dept, Clifton Springs Sanitarium and Clinic; supt, Edgewater Clinic; *retired.* Fel. Am. Med. Asn; fel. Col. Physicians. Diabetes.

Wright, Frances M(ay), National Research Council, Washington, D. C. *Mathematics.* Worcester, Mass, July 22, 02. A.B, Brown, 23, Anne Crosby Emery fellow, 23–24, A.M, 24. Instr. math, Oklahoma, 24–27; asst. prof, Elmira Col, 27–42; *tech. aide, office sci. personnel, Nat. Research Council, 42–* Math. Asn.

Wright, Prof. Frank J(ames), Denison University, Granville, Ohio. *Physiography.* Bridgewater, Va, Nov. 22, 88. A.B, Bridgewater Col, 08; A.M, Virginia, 11; Ph.D, Columbia, 18. Prof. geol. and biol, Bridgewater Col, 11–16; assoc. *geol,* Bryn Mawr Col, 18; *prof,* Bridgewater Col, 19–24; *Denison, 24–* From field asst. to asst. geologist, Va. Geol. Surv, 12–24; visiting assoc, Columbia, 23–24. Summer, instr, Columbia, 18, 20–26, 28, 30–31, 36–38, 40–43. Walker prize, Boston Soc. Nat. Hist, 22; A. Cressy Morrison prize, N. Y. Acad. Sciences, 31. A.A; Geol. Soc; Asn. Geog; N. Y. Acad; Ohio Acad. (v. pres, 30, 38). Physiography of Upper James River basin; geomorphology of the southern Appalachians.

Wright, Dr. Fred(erick) E(ugene), Geophysical Laboratory, Carnegie Institution, 2801 Upton St, N.W, Washington, D. C. **²*Geology.* Marquette, Mich, Oct. 16, 77. Ph.D, Heidelberg, 00; Sc.D, Michigan, 41. Instr. petrog, Mich. Col. Mines, 01–04; asst. geologist, U. S. Geol. Surv, 04–06, geologist, 06–17; *petrologist, geophys. lab, Carnegie Institution, 06–; chief physicist, A.S.F, U. S. War Dept, 42–* Asst. state geologist, Mich, 02–04. Ordnance Dept, O.R.C, 17–, col; army rep, mil. optical glass and instrument sect, W.I.B, 18–19. Nat. Acad. (v. pres, 27–31, home sec'y, 31–); A.A; Geol. Soc. (v. pres, 42); Miner. Soc. (pres, 41); Min. and Metal. Eng; Physical Soc; Geophys. Union; Optical Soc. (pres, 18–20); Army Ordnance Asn; Nat. Parks Asn. (trustee, 30–); Philos. Soc; Astron. Soc; Am. Acad; Wash. Acad. (cor. sec'y, 16); Geol. Soc. Wash. (pres, 24); Philos. Soc. Wash; for. fel. Geol. Soc. London; London Miner. Soc; Physical Soc. London. Physical crystallography; experimental petrology; geophysics.

Wright, Dr. George F, University of Toronto, Toronto, Ont, Can. *Chemistry.* Council Bluffs, Iowa, Feb. 23, 04. B.S, Iowa State Col, 29, Ph.D, 32. Nat. research fellow, Harvard, 33–35; lecturer *chem,* McGill, 35–37; asst, *Toronto,* 38–39, assoc, 40, *prof, 41–* Chem. Soc. Chemistry of furans; organo-metallic compounds; lignins; explosives.

Wright, Dr. George G(reen), Jr, 2617 Pina Del Vista, Altadena, Calif. *Immunology, Bacteriology.* Ann Arbor, Mich, Aug. 17, 16. A.B, Olivet Col, 36; Ph.D, Chicago, 41. Logan fellow and instr. immunol, Chicago, 41–42; *nat. research fellow, Calif. Inst. Tech, 42–* Ricketts prize, Chicago, 41. Antigenic specificity of antibody; serum proteins.

Wright, Dr. Harold E(dson), 101 W. Read St, Baltimore, Md. *Radiology.* Laurens, N. Y, Dec. 23, 94. Buffalo; M.D, Maryland, 19. Assoc. physiol, Maryland, 20–23; instr. med, Hopkins, 22–41; *radiologist,* St. Agnes Hosp, 28–31; *S. Baltimore Gen. Hosp, 21–* Radiol. Soc. N. Amer; Am. Med. Asn; fel. Col. Physicians; Col. Radiol; Gastro-Enterol. Soc; South. Med. Asn. Gastroenterology.

Wright, Prof. Harold N(oel Grant), 5437 Fremont Ave, S, Minneapolis, Minn. *Pharmacology.* Leicester, Eng, April 18, 97. B.Sc, Saskatchewan, 25, M.S, 26; Ph.D, Minnesota, 29. Teaching fellow, *Minnesota,* 26–29, instr. *pharmacol,* 29–31, asst. prof, 31–39, *assoc. prof, 39–* A.A; Soc. Pharmacol; Minn. Acad. Antiseptics and chemotherapy; oragnic arsenicals and mercurials; digitalis and related glucosides.

Wright, Pres. H(arry) N(oble), 3900 Greystone Ave, New York, N. Y. *Mathematics.* Shelbyville, Ind, Oct. 3, 81. B.S, Earlham Col, 04; M.S, California, 11, fellow, 12–13, Ph.D, 13.

Prof. math, Pacific (Oregon), 04–05; Whittier Col, 08–10; asst, California, 10–12, instr, 13–17; prof, Whittier Col, 17–23, dean, 17–18, pres, 18–23; lecturer math, California, 23–24; prof. and dean, Earlham Col, 24–30; asst. prof. *math, Col. City of N. Y*, 31–36, assoc. prof, 36–41, *prof*, 42–, director evening and summer sessions, 39–41, acting pres, 41, *pres, 41–* A.A; Math. Soc; Math. Asn. Number theory; analytical geometry; synthetic projective geometry.

Wright, Prof. H(enry) W(ilkes), University of Manitoba, Winnipeg, Man, Can. *Psychology.* St. James, Mich, Aug. 16, 78. A.B, Cornell, 99, Ph.D, 04. Instr. philos, Cornell, 03–07; prof. philos. and psychol, Lake Forest Col, 07–20, Bross lecturer, 15, acting pres, 18–20; *prof. psychol, Manitoba, 20–* Philos. Asn. (pres, west. branch, 18); Can. Psychol. Asn. (exec. cmt, 39–41). Psychology of personality; psychological theory; psychological basis of social organization.

Wright, Howard V, Edgewood Arsenal, Edgewood, Md. *Chemical engineering.* Indianola, Iowa, June 4, 92. A.B, Simpson Col. (Iowa), 17; M.S, Iowa State Col, 23, Chem.E, 26. Asst. prof. chem. eng, Iowa State Col, 18–24; *chief dept. chem. eng, Chem. Warfare Service, Edgewood Arsenal, 25–* Chem. Eng; Chem. Soc. The manufacture of chemical warfare service materials and munitions.

Wright, Dr. Irving S(herwood), New York Post-Graduate Medical School, Second Ave. and 20th St, New York, N. Y. *Medicine.* Oct. 27, 01. A.B, Cornell, 23, M.D, 26. Chief metabolic clinic, N. Y. Post-Grad. Hosp, 30–32, vascular clinic, 32–40, *prof. clin. med. and director dept. med, N. Y. Post-Grad. Med. Sch, Columbia, 36–; lieut. col, Med. Corps, U. S. Army.* Assoc. attending physician, Cornell div, Bellevue Hosp, 32–37; consulting physician, Mt. Vernon Hosp; Hackensack Hosp; Orange Mem. Hosp; Monmouth Mem. Hosp. Am. Med. Asn. (chairman sect. exp. med. and therapeut, 39); Heart Asn. (exec. cmt, 38–; chairman sect. study peripheral circulation, 39–; Am. sect, int. cmt. standardization blood pressure readings, 39–; ed. board, 'Jour,' 36–); Asn. Mil. Surg; Federation for Clin. Research; Soc. Clin. Invest; Soc. Exp. Biol; fel. Col. Physicians; fel. N. Y. Acad. Med; N. Y. Acad; cor. mem. Acad. Colombiana de Ciencias Exactas, Fisico-Quimicas and Naturales, Bogota. Heart and circulation pathological and normal in animals and man; vitamin and hormonal studies; choline derivatives; heparin; dicoumarol; penicillin.

Wright, Prof. J(essie) Gertrude, University of Toronto, Toronto, Ont, Can. *Botany.* Toronto, Ont, 89. B.A, Toronto, 13, M.A, 15, Ph.D, 23. Asst. demonstrator and lecturer *bot, Toronto*, 14–30, *asst. prof, 30–* Exchange asst. lecturer, Western Australia, 25–27. A.A; Royal Can. Inst. Plant anatomy; genetics.

Wright, Dr. J(ohn) F(rank), Room 1101, 330 Bay St, Toronto, Ont, Can. *Geology.* Moncton, N. B, Sept. 25, 94. B.A, Acadia, 17; Ph.D, Chicago, 23. Asst. geologist, *Geol. Surv. Can*, 22–24, assoc. geologist, 24–30, geologist, 30–34, *mining geologist, 34–* Geol. Soc; fel. Royal Soc. Can; Can. Inst. Min. and Metal. (councilor, 36). Precambrian and economic geology.

Wright, Dr. John K(irtland), American Geographical Society, Broadway at 156th St, New York, N. Y. *Geography.* Cambridge, Mass, Nov. 30, 91. A.B, Harvard, 13, A.M, 14, Ph.D, 22. Librarian, *Am. Geog. Soc*, 20–37, research ed, 37–38, *director, 38–* A.A; Asn. Geog. (v. pres, 36); Hist. Sci. Soc; Popul. Asn. Historical geography; cartography; population.

Wright, John S(hepard), Eli Lilly and Co, Indianapolis, Ind. *Botany, Pharmacognosy.* Clermont, Ind, Oct. 17, 70. B.S, Purdue, 92, LL.D, 40. Field asst, N. Dak. Bot. Surv, 91; botanist, *Eli Lilly and Co*, 92–04, director advertising, 04–37, *advertising consultant, 37–* Lecturer, Med. Col. of Ind, 96–04. A.A; Ind. Acad. (sec'y, 95–04, pres, 04, trustee, 37). Histology of crude drugs and of vegetable articles of diet; microscopy of powders, starches and other vegetable commodities; pharmacology of plant drugs; forestry.

Wright, Dr. Jonathan W(illiam), 339 S. Grant, West Lafayette, Ind. *Forest genetics.* Spokane, Wash, June 29, 16. B.S, Idaho, 38; M.F, Harvard, 39, A.M, 41, Ph.D, 42. *Instr. forestry, Purdue, 42–* Genetic and taxonomic geographical variation in eastern American species of Fraxinus.

Wright, Prof. Kenneth E(lmer), Rhode Island State College, Kingston, R. I. *Botany.* Logan, Ohio, July 6, 02. B.S. (Agr), Ohio State, 25, M.S, 29, Ph.D, 35. Instr, high sch, Ohio, 27–28; asst, Ohio State, 28–30; instr. *bot, R. I. State Col*, 30–35, asst. prof, 35–42, *assoc. prof, 42–* Torrey Bot. Club; Soc. Plant Physiol; Soc. Plant Taxon. Plant physiology; ecology.

Wright, Dr. Kenneth O(sborne), Dominion Astrophysical Observatory, Victoria, B. C, Can. *Astrophysics.* Ft. George, B. C, Nov. 1, 11. B.A, Toronto, 33, M.A, 34; fellow, Michigan, 35–36, Ph.D, 40. Asst. astronomer, Toronto, 34; *Dom. Astrophysical Observatory*, 36–40, *astronomer, 40–* Medal, Royal Astron. Soc. Can, 33. Astron. Soc; Royal Astron. Soc. Can. Spectrophotometry.

Wright, Dr. L(emuel) D(ary), Sharp and Dohme, Inc, Glenolden, Pa. *Biochemistry.* Nashua, N. H, March 1, 13. B.S, New Hampshire, 35, M.S, 36; Pa. State Col, 36–37; Ph.D, Oregon State Col, 40. Asst. nutrition chemist, Oregon State Col, 37–40; research assoc, Texas, 40–41; instr. biochem, sch. med, West Virginia, 41–42; *biochemist, med. research div, Sharp and Dohme, Inc, 42–* A.A; Chem. Soc. Vitamin B complex; microbiological methods of assays; bacterial growth factors.

Wright, Dr. Norman, Dow Chemical Co, Midland, Mich. *Physics.* North Baltimore, Ohio, Oct. 26, 06. A.B, Phillips, 27; M.S, Oklahoma, 29; Ph.D, Michigan, 33. Asst. instr. physics, Oklahoma, 28–29; asst, Michigan, 29–33, research assoc. biophys, 34–37; *infrared spectroscopist, Dow Chem. Co, 37–* A.A; Chem. Soc; Optical Soc; fel. Physical Soc. Infrared spectroscopy; organic analysis by means of infra-red.

Wright, Dr. Orville, 15 N. Broadway, Dayton, Ohio. *Aeronautics.* Dayton, Ohio, Aug. 19, 71. Hon. Sc.D, Royal Tech. Col, Munich, 09; hon. B.S, Earlham Col, 09, LL.D, 31; LL.D, Oberlin Col, 10, Harvard, 30, Huntington Col, 35; hon. Sc.D, Trinity Col. (Conn), 15, Cincinnati, 17, Ohio State, 30; hon. A.M, Yale, 19; D.E, Michigan, 24. Pres, Wright Co, 12–15, *director, Wright Aeronaut. Lab.* Nat. Advisory Cmt. Aeronautics; exec. cmt, Daniel Guggenheim Fund for Promotion of Aeronautics; chairman advisory cmt, Daniel Guggenheim sch. aeronautics, N. Y. Univ. Chevalier, Légion d'honneur, 09, officer, 24. Gold medal, French Aero Club, 08; British Aero Club, 08; French Acad. Sports, 08; Aeronaut. Soc. Gt. Britain, 08; U. S. Cong, 09; State of Ohio, 09; Aero Club of Amer, 09; French Acad, 09; Langley medal, Smithsonian Institution, 10; Collier trophy, 13; Cresson medal, Franklin Inst, 14; John Fritz medal, 20; Albert medal, Royal Soc. Arts, 17; bronze medal, Int. Peace Soc; John Scott medal, 25; Washington award, 27; Daniel Guggenheim medal, 30; Distinguished Flying Cross, 29; Franklin medal, Franklin Inst, 33; hon. aircraft pilot certificate no. 1, U. S. Civil Aeronautics Authority, 40. Nat. Acad; A.A; Aeronaut. Soc; hon. mem. Aeronaut. Asn; hon. mem. Mech. Eng; Soc. Automotive Eng; hon. fel. Inst. Aeronaut. Sci; hon. mem. Aero Club; hon. mem. Air Line Pilots Asn, Inc; Nat. Inventors Council; Franklin Inst; hon. mem. Flying Club; hon. mem. Ohio Soc. of N. Y; hon. men. Dayton Eng. Club (past pres); hon. mem. Mech. Eng, London; hon. fel. Royal Aeronaut. Soc; hon. mem. Royal Aero Club of United Kingdom; hon. mem. Verein Flügtech; hon. mem. Oester. Flügtech. Verein; hon. mem. Sarthe Aero Club, France. Invention, construction and development of the airplane.

Wright, Prof. Paul M(cCoy), 610 Irving Ave, Wheaton, Ill. *Physical chemistry.* Near Helena, Okla, Sept. 11, 04. B.S, Wheaton Col. (Ill), 26; M.S, Ohio State, 28, Ph.D, 30. Asst. chem, Wheaton Col. (Ill), 25–26; gen. chem, Ohio State, 26–28, physical chem, 28–29; asst. prof. *chem, Wheaton Col. (Ill)*, 29–30, assoc. prof, 30–40, *prof. and chairman dept, 40–*, acting chairman dept. chem. and geol, 39–40. A.A; Chem. Soc; Ill. Acad. The influence of centrifugal force on the rate of evaporation; eutectics of explosive mixtures.

Wright, Philip A(nson), 215 Rock Creek Church Road, Washington, D. C. *Chemistry.* New Haven, Vt, Oct. 25, 86. A.B, Middlebury Col, 09; Yale, 09–11; A.M, Missouri, 13. *Chemist, div. dairy research labs, bur. dairy indust, U. S. Dept. Agr, 11–* Chem. Soc; Inst. Chem; Dairy Sci. Asn. Storage of corn ensilage; analysis of milk and milk products; keeping quality of dry whole milk; storage of butter; effect of oily feeds on butter body.

Wright, Dr. Philip L(incoln), Montana State University, Missoula, Mont. *Zoology.* Nashua, N. H, July 9, 14. B.S, New Hampshire, 35, M.S, 37; Ph.D, Wisconsin, 40. Instr. *zool, Montana*, 39–43, *asst. prof, 43–* Summer, lecturer, Wisconsin, 41. Sexual cycles in birds and mammals.

Wright, Dr. Ralph G(arrigue), Bishop Place, New Brunswick, N. J. *Chemistry.* St. Louis, Mo, April 29, 75. B.S, Columbia, 99; Polytech, Zurich, 99–02; Ph.D, Basle, 02. Private asst, Columbia, 04–05; prof. chem, Washington and Jefferson Col, 05–07; Rutgers, 07–30; *retired.* Trustee, Rutgers, 38. Chem. Soc; Deuts. Chem. Gesell. Structure of dyestuffs; fluorescence of certain carbon compounds; oxidation.

Wright, R(obert) C(laude), Route 1, Silver Spring, Md. *Agriculture.* London, Ohio, Sept. 29, 85. B.S, Ohio State, 08, M.S, 12. *Bur. plant indust, U. S. Dept. Agr, 09–, physiologist.* A.A; Bot. Soc; Soc. Hort. Sci. Fruit and vegetable storage.

Wright, Prof. R(obert) H(amilton), University of New Brunswick, Fredericton, N. B, Can. *Physical chemistry.* Vancouver, B. C, Dec. 26, 06. B.A, British Columbia, 28; M.Sc, McGill, 30, Ph.D, 31. Asst. prof. *chem, New Brunswick,* 31–37, *assoc. prof, 37–* Fel. Can. Inst. Chem; Can. Inst. Int. Affairs (chairman, Fredericton branch, 40); fel. Chem. Soc. London. Effect of adsorbed gas on contact resistance of carbon; physical properties of hydrogen sulphide and its aqueous solutions; adsorption of gases by solids.

Wright, Dr. Rufus W(illiam), Massachusetts Institute of Technology, Cambridge, Mass. *Electrical engineering.* Adair, Okla, Sept. 3, 14. A.B, Southwestern Col. (Kans), 36; Ph.D, Wisconsin, 40. Research physicist, Corning Glass Works, 40–41; *research assoc, Mass. Inst. Tech, 41–* Physical Soc. Phenylthiourea-ethanol and urea-methanol systems and the Debye salting out theory; recalescence in uranium; emissive and thermionic characteristics of uranium; positive and negative thermionic emission from molybdenum; emissivities and temperature scales of the iron group.

Wright, Prof. Sewall, University of Chicago, Chicago, Ill. *⁴*Zoology.* Melrose, Mass, Dec. 21, 89. B.S, Lombard Col, 11; M.S, Illinois, 12; Sc.D, Harvard, 15, Rochester, 42. Senior animal husbandman, animal husbandry div, bur. animal indust, U. S. Dept. Agr, 15–25; assoc. prof. *zool, Chicago,* 26–29, prof, 30–37, *Burton distinguished service prof, 37–* Exec. cmt, div. biol. and agr, Nat. Research Council, 31–33. Nat. Acad; A.A; Soc. Nat. (treas, 29–32); Soc. Zool. (v. pres, 35); Genetic Asn. (sec'y, 24); Genetics Soc. (pres, 34); Soc. Animal Production; Statist. Asn. (v. pres, 31); Philos. Soc; Inst. Math. Statist. Genetics; inheritance of coat characters, abnormalities, fertility, growth and resistance to tuberculosis in guinea pigs; inbreeding and crossbreeding; biometry; statistical consequences of Mendelian heredity; evolution.

Wright, Dr. Stillman, U. S. Department of the Interior, Utah State Agricultural College, Logan, Utah. *Zoology.* Chicago, Ill, Sept. 27, 98. B.S, Beloit Col, 21; scholar, Wisconsin, 21–22, fellow, 26–27, Ph.D, 28. Teacher, S. Dak, 22–24; asst. zool, Wisconsin, 24–26; asst. aquatic biologist, Bur. Fisheries, 27–33; *assoc. aquatic biologist, fish and wildlife service, U. S. Dept. Interior, 33–* Limnologist, Cmn. Tech. Piscicultura, Brazil, 33–38; research assoc, Utah State Col, 38– Summer, asst, Wis. Geol. and Nat. Hist. Surv, 25; assoc. curator crustacean div, museum zool, Michigan, 33–; investigator, Dept. Fisheries, Argentina, 36. A.A; Fisheries Soc; Micros. Soc; Limnol. Soc; Wis. Acad; cor. mem. Brazil Acad; Int. Limnol. Soc. Taxonomy, ecology and geographical distribution of calanoid Copepoda of the neotropical region; limnology of Lake Erie and waters of Brazil and Argentina; management of trout waters in the intermountain region.

Wright, Dr. Sydney L(ongstreth), Endsmeet Farm, Wyncote, Pa. *Chemistry.* Philadelphia, Pa, Oct. 9, 96. B.S, Princeton, 18, fellow, 19–20, 21–22, A.M, 20, Ph.D, 28. Research chemist, Barrett Co, Frankford, Pa, 20–21; Ayer clin. lab, Pa. Hosp, Phila, 23–28; nat. research fellow med, 28–30; Porter fellow, Pennsylvania, 30–32, instr, 31–34, Girvin fellow, 32–33, instr. physiol. chem, 32–36; assoc. director in charge med. sect, Franklin Inst, 34–40, director membership, 36–40, asst. to sec'y, 39–40. Lecturer, Wagner Free Inst, 28, trustee and ed, 'Bul,' 31–, sec'y, 35–40, treas, 40–; director, Library Co, Phila, 37–43; Pa. Acad. Fine Arts, 39–; pres, Meadowbrook Sch, 38–42. A.A; Chem. Soc; Soc. Biol. Chem; Franklin Inst; Physiol. Soc. Phila; Acad. Nat. Sci. Phila. Physical and biological chemistry; visual methods of science education.

Wright, Dr. Thew, R. D. 4, Box 400, Tucson, Ariz. *Surgery.* Boston, Mass, June 19, 77. A.B, Yale, 99; M.D, Buffalo, 03; Europe, 04–05, 06–07. Attending surgeon, Emergency Hosp, 10–13; *Buffalo Gen. Hosp,* 13–42, *consulting surgeon, 42–;* surgeon in chief, *Buffalo Children's Hosp,* 13–42, *consulting surgeon, 42–;* asst. prof. *surg, sch. med, Buffalo,* 20–33, assoc. prof, 33–34, prof, 34–42, *emer. prof, 42–* Attending surgeon, Erie County Hosp, 07–17; Buffalo City Hosp, 19–22; consulting surgeon, J. N. Adam Mem. Hosp, 42– Lieut. col, M.C, 18–19. Fel. Col. Surg; Asn. Obstet, Gynec. and Abdom. Surg; Am. Med. Asn; Asn. Mil. Surg; Buffalo Acad. Med. (pres, 25); fel. Int. Col. Surg. Appendicitis.

Wright, Thomas A(rchibald), Lucius Pitkin, Inc, 47 Fulton St, New York, N. Y. *Metallurgical chemistry.* New York, N. Y, Feb. 25, 87. Asst. assayer, Delamar Copper Works, 04–06; chief assayer, U. S. Lead Refinery, 06–08; chief chemist, *Lucius Pitkin, Inc,* 08–21, tech. director-sec'y, 21–43, *pres-gen. manager, 43–; consulting chemist and engineer, 21–* Pres, Buffalo Testing Labs, 30–36. Assay Cmn, U.S.A, 31. Asn. Consulting Chem. and Chem. Eng. (pres. and director, 34–36); Mech. Eng; Soc. Test. Mat. (v. chairman, subcmt. B2, E2 and E3, chairman, sampling div, E3); Electrochem. Soc; Chem. Soc; fel. Inst. Chem; Min. and Metal. Soc; Council Commercial Labs. (treas-director, 42); N. J. Miner. Soc. (pres, 37–41); British Inst. Metals. Sampling ores and metals; secondary, precious and high-purity metals; spectrography; analytical chemistry; corrosion; mineralogy.

Wright, Dr. W(alter) H(enry), 1306 Penn Ave, Wilkinsburg Sta, Pittsburgh, Pa. *Dentistry, Zoology.* Southwest, Pa, Feb. 18, 93. D.D.S, Pittsburgh, 17, B.S, 31, M.S, 32, Ph.D, 34. Assoc. prof. prosthetic dentistry and later *prof. prosthetic dentistry and anat, Pittsburgh, 18–* A.A; Dental Asn. (v. chairman, prosthetic sect, 35); fel. Col. Dentists; Asn. Anat; Acad. Denture Prosthetics; Int. Asn. Dental Research. Modification of oral mucous membrane; growth and differentiation in animal grafting; clinical studies in denture prosthesis; teaching in clinical prosthesis.

Wright, Pres. W(alter) L(ivingston), Lincoln University, Pa. *Mathematics.* Juliustown, N. J, Feb. 3, 72. A.B, Princeton, 92, fellow, 92–93, A.M, 95. *Prof. math, Lincoln, 93–,* acting pres, 25–26, v. pres, 26–36, *pres, 36–* Army educ. corps, 19. Math. Soc; Math. Asn.

Wright, Dr. W(illard) H(ull), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Zoology.* Findlay, Ohio, Dec. 9, 94. D.V.M, George Washington, 17, Ph.D, 35; M.S, American Univ, 31. Vet. inspector, bur. animal indust, U. S. Dept. Agr, 19–25, assoc. parasitologist, zool. div, 28–36; State Board Agr, Md, 25–28; senior zoologist, *nat. inst. health, U. S. Pub. Health Service,* 36–39, acting chief *div. zool,* 38–39, *chief, 39–, prof. zool, U. S. Pub. Health Service, 39–* Columbia Sch. Trop. Med, Puerto Rico, 36; professorial lecturer, George Washington, 39– 2nd lieut, U.S.A, 17–19. Vet. Med. Asn; Soc. Parasitol. (councilor, 42–); fel. Pub. Health Asn; Soc. Trop. Med; N. Y. Acad; Wash. Acad; Helminth. Soc. Wash. (recording sec'y, 30, pres, 37). Correlations between chemical structure and anthelmintic efficacy of halogenated hydrocarbons; medication for somatic helminthiasis; influence of vitamin A deficiency on parasitism; trichinosis; enterobiasis.

Wright, Dr. W(illiam) H(ammond), Lick Observatory, Mt. Hamilton, Calif. *¹*Astronomy.* San Francisco, Calif, Nov. 4, 71. B.S, California, 93, fellow, 94–96; fellow, Chicago, 96–97; Sc.D, Northwestern, 29. Asst. astronomer, *Lick Observatory, California,* 97–08, *astronomer, 08–,* director, 35–42. Darwin lecturer, Royal Astron. Soc, 28. Acting astronomer in charge D. O. Mills exped. to south. hemisphere, 03–06. Henry Draper medal, Nat. Acad. Sciences, 28; Janssen medal, Paris Acad. Sciences, 28; gold medal, Royal Astron. Soc, 38. Nat. Acad; A.A; Astron. Soc; Philos. Soc; Astron. Soc. Pacific; assoc. Royal Astron. Soc. Spectroscopic study of stellar motions; new stars and nebulae; planetary photography.

Wright, Prof. W(illiam) J(oseph), New York State College of Agriculture, Ithaca, N. Y. *Horticulture.* Plainfield, Mich, June 6, 81. B.S, Mich. State Col, 04; M.S, Pa. State Col, 12. Practical hort. work, 04–07; asst. to pres, Mich. State Col, 07–09; asst. prof. hort, Pa. State Col, 09–12; director, N. Y. State Sch. Agr, Alfred, 12–18; *exten. prof. rural educ. and state leader junior exten. work, N. Y. State Col. Agr, Cornell, 18–* Asn. Agr. Teaching. The injurious effects of lime on small fruits; greenhouse construction and equipment.

Wright, Dr. W(illiam) J(osiah), University of New Brunswick, Fredericton, N. B, Can. *Geology.* Bear River, N. S, Feb. 4, 81. B.Sc, Acadia; A.B, Yale, 08, A.M, 12, Ph.D, 15. Asst. geologist, Geol. Surv. Can, 12–15; prof. geol, Acadia, 18–19; assoc. geologist, Geol. Surv. Can, 19; geologist, Whitehall Petrol. Corp, 20–22; Standard Oil Co. of N. J, 22–28;

provincial geologist, N. B, and head dept. geol, New Brunswick, 29– Officer, C.E.F, 16–18. Geology of the New Ross and Moncton map areas; oil shale of Canada.

Wright, Prof. Winthrop R(obins), Swarthmore College, Swarthmore, Pa. *Physics.* Trenton, N. J, May 11, 88. A.B, Michigan, 09, Ph.D, 17; Tyndall fellow, Columbia, 13–15. Instr. physics, Ga. Tech, 09–12; Michigan, 15–17; asst. physicist, Bur. Standards, 17–19; asst. prof. *physics, Swarthmore Col,* 19–24, assoc. prof, 24–29, *prof,* 29– A.A; fel. Physical Soc.

Wrightson, Dr. Frances M(ary), Wells College, Aurora-on-Cayuga, N. Y. *Physical chemistry.* Southwold, Eng, March 10, 16. B.A, British Columbia, 36, M.A, 38; Ph.D, Stanford, 41. Junior research assoc. molecular weights, Stanford, 40–41, acting instr. *chem,* 40–41; *instr, Wells Col, 41–* Chem. Soc. Kinetics; molecular weights of proteins.

Wrightstone, Dr. J. W(ayne), Board of Education, 110 Livingston St, Brooklyn, N. Y. *Psychology.* Mechanicsburg, Pa, March 4, 04. B.S, Pennsylvania, 25; A.M, N. Y. Univ, 28; Ph.D, Columbia, 33. Teacher and prin, high sch, N. J, 26–31; research assoc. psychol, Teachers Col, Columbia, 32–38; with bur. educ. research, Ohio State, 38–40; *asst. director bur. ref, research and statistics, Board Educ, New York, 40–* A.A; Educ. Research Asn; Psychometric Soc. Educational psychology; psychological and educational measurement; social sciences.

Wrigley, Dr. Walter, Sperry Gyroscope Co, Garden City, N. Y. *Physics.* Brockton, Mass, March 26, 13. B.S, Mass. Inst. Tech, 34, Sc.D, 41. Physicist, Interchem. Corp, 34–37; United Color and Pigment Co, 37; asst. aircraft instruments, Mass. Inst. Tech, 38–40; *project engineer, Sperry Gyroscope Co, 40–* Inst. Aeronaut. Sci; assoc. Optical Soc; assoc. Physical Soc. Design and development of aircraft and marine instruments.

Wrinch, Dr. Dorothy, Smith College, Northampton, Mass. *Chemistry.* Rosario, Argentina, S. Amer, Sept. 13, 94. Cambridge, 13–18, research fellow, 20–23, 30–35; M.Sc, London, 20, D.Sc, 21; M.A, Oxford, 24, D.Sc, 29, research fellow, 31–32, 33–34; Vienna, 31–32; Paris, 33–34. Lecturer pure math, univ. col, London, 18–20; lecturer math. and director studies for women mathematicians and mem. faculty physical sciences, Oxford, 23–39; research fellow, Somerville Col, Oxford, 39–41; lecturer chem, Hopkins, 39–41; visiting prof. nat. sciences, Amherst Col, Smith Col. and Mt. Holyoke Col, 41–42. Rockefeller research fellow, 35–41. Faraday Soc; Physical Soc. London; British Asn. Adv. Sci. (sec'y math. sect, 34–39). Mathematical logic; physics; epistemology and probability; hydrodynamics and theory of functions; structure problems in chemistry, biology and medicine; native protein; nature and significance of megamolecules in living organisms.

Wroth, Prof. B(enjamin) B(lackiston), Georgia School of Technology, Atlanta, Ga. *Chemistry.* Chestertown, Md, Nov. 10, 87. A.B, Washington Col. (Md), 08; Ph.D, Hopkins, 16. Instr. *chem,* Ga. Tech, 16–18; acting head dept, Earlham Col, 18–19; asst. prof, *Ga. Tech,* 19–22, assoc. prof, 22–27, *prof, 27–* Chem. Soc. Physical chemistry; partition of the lower alcohols between water and cottonseed oil; solubilities of liquids in liquids.

Wruble, Dr. Milton, 1702 Grove St, Kalamazoo, Mich. *Pharmaceutical chemistry.* Newport News, Va, March 3, 00. B.S, Michigan, 21; Ph.D, Wisconsin, 33. Chemist, Solvay Process Co, 21; Detroit Copper and Brass Co, 22–23; Gen. Aluminum and Brass Co, 23–25; indust. fellow, *Upjohn Co,* 33, *research chemist, 33–* Pharmaceut. Asn. Extraction of crude drugs; plant chemistry of cinchona; enteric coatings; metallic colloids; general pharmaceutical research and development.

Wuertz, A(lexander) J(ohn), 120 Washington St, Woodstown, N. J. *Chemistry.* Kamischin, Russia, April 12, 89. A.B, Nebraska, 14, A.M, 15; fellow, Minnesota, 16–17. Asst, org. chem. lab, Nebraska, 14–16; senior instr. org. chem, Iowa State Col, 17–18; research chemist, Jackson lab, *E. I. du Pont de Nemours and Co,* 19–30, head div. vat dyestuffs, 31–35, acting director, Carrollville research lab, 35–42, *head anthraquinone colors div, Jackson lab, 42–* 2nd lieut, C.W.S. and Ordnance Dept, 18–19. A.A; Chem. Soc; Inst. Chem; Asn. Textile Chem. and Colorists. Animal blood fibrins; vat dyestuffs.

Wuest, Dr. H(einz) M(oritz), 137 Summit Ave, Montclair, N. J. *Chemistry.* Ludwigshafen on the Rhine, Nov. 10, 91. B.Sc, Heidelberg, 13; Ph.D, Strassburg, 17; Berne, 17–18; Fed. Inst. Tech, Zurich, 18–19. Research chemist, F. Hoffmann-La Roche, Ltd, Basel, Switzerland, 19–25, manager, 25–33, managing director, 33–41; *director research, Hoffmann-La Roche, Inc, 41–* Chem. Soc; Swiss Chem. Soc. Arsenobenzenes; synthetic drugs; alkaloids; morphine from poppy straw; technical synthesis of vitamins.

Wulf, Dr. Oliver R(eynolds), University of Chicago, Chicago, Ill. *Meteorology, Physics.* Norwich, Conn, April 22, 97. B.S, Worcester Polytech, 20; M.S, American Univ, 22; Ph.D, Calif. Inst. Tech, 26. Junior chemist, U. S. Dept. Agr, 20–22; teaching fellow and asst, Calif. Inst. Tech, 23–26, nat. research fellow chem, 26–27; California, 27–28; from assoc. chemist to senior physicist, bur. chem. and soils, U. S. Dept. Agr, 28–39; *senior meteorologist, U. S. Weather Bur, 39–* Guggenheim Mem. Foundation fellow, Berlin and Göttingen, 32–33. Hillebrand prize, Chem. Soc. Wash, 35. A.A; fel. Physical Soc; Meteorol. Soc; Geophys. Union; Chem. Soc; Wash. Acad. Chemical kinetics; photochemistry; magnetism; molecular structure; band spectra; atmospheric physics; meteorology of the upper atmosphere; the general circulation

Wulfeck, Dr. Wallace H(oward), Federal Advertising Agency, Inc, 444 Madison Ave, New York, N. Y. *Psychology.* Cincinnati, Ohio, Sept. 6, 00. A.B, Y.M.C.A. Grad. Sch, 32; Akron, 30–31; Ph.D, Yale, 38. Exec. sec'y, Y.M.C.A, Akron, Ohio, 30–32; prof. psychol, Larson Jr. Col, Conn, 33–36, 37–38; research assoc, Neuro-Psychiat. Inst, Hartford, Conn, 36–37; assoc. psychologist, div. indust. hygiene, U. S. Pub. Health Service, 38–39; assoc. director market research, Psychol. Corp, 39–42; *director research, Fed. Advertising Agency, Inc, 42–* Psychological research in fire control, Nat. Defense Research Cmt, Princeton Field Lab, Ft. Monroe, Va, 41–42. A.A; fel. Psychol. Asn; fel. Asn. Applied Psychol; Marketing Asn; East. Psychol. Asn; N. Y. Asn. Applied Psychol; Metrop. Soc. Psychol. Physiological psychology; motor function; marketing and media research.

Wulff, Prof. John, 17 Hillside Ave, Cambridge, Mass. *Physical metallurgy.* New York, N. Y, April 13, 03. E.M, Colo. Sch. Mines, 24; D.Sc, Tübingen, 29. Teaching fellow, Yale, 24–26; nat. research fellow, Tübingen and Munich, 29–31; instr. physics, *Mass. Inst. Tech,* 31–33, asst. prof, 33–37, *assoc. prof. metal, 37–* Min. and Metal. Eng; Soc. Metals; Physical Soc. Powder metallurgy and corrosion.

Wulling, Dean Frederick J(ohn), 3305 Second Ave, S, Minneapolis, Minn. *Pharmacology.* Brooklyn, N. Y, Dec. 24, 66. Ph.G, N. Y. Col. Pharmacy, 87; Munich, Berlin, Paris and Göttingen, 88–89; LL.B, Minnesota, 96, LL.M, 98; Edinburgh, Cambridge and Oxford, 93–94; hon. Phar.M, Phila. Col. Pharmacy, 17; hon. Sc.D, Columbia, 29. Asst. prof. and quiz master, N. Y. Col. Pharmacy, 87–91; prof. pharmacodynamics, Brooklyn Col. Pharmacy, 91–92; dean faculty and prof. pharmacol, *col. pharmacy, Minnesota,* 92–36, *emer. dean, 36–* Managing chemist, Dr. S. F. Speir's Labs, Brooklyn, 87–91; mem. admin. cmt, Minnesota, 10–36. Assoc. ed, 'Pharmaceut. Record,' 86–90. Trustee, U. S. Pharmacopoeia Revision Convention, 20–30. A.A; Chem. Soc; Pharmaceut. Asn. (pres, 17); Asn. Cols. Pharm. (pres, 15); Minn. Pharmaceut. Asn; hon. mem. N. J. Pharmaceut. Asn; Minn. Acad. (pres, 10–31). Medical and pharmaceutical inorganic and organic chemistry.

Wulsin, Dr. Frederick R(oelker), 163 George St, Providence, R. I. *Anthropology.* Cincinnati, Ohio, July 8, 91. A.B, Harvard, 13, M.C.E, 15, A.M, 26, Ph.D, 29. Asst. curator African archeol. and ethnol, Peabody Museum, Harvard, 28–29, tutor anthrop, 26–27, 28–29; curator univ. museum, Pennsylvania, 29–32; lecturer anthrop, Boston, 35–36. Exped, E. Africa and Madagascar, 14–15; director, Nat. Geog. Soc. exped, Cent. China, 22–24, Cent. and West Africa, 27–28, Persia, 30–31. A.A; Anthrop. Asn; Royal Geog. Soc; Royal Anthrop. Inst; Soc. de Géog. de Paris. Populations of Kansu Province, China; archeology of the Shari Basin, Africa and Persia; prehistoric archeology of northwest Africa.

Wulzen, Prof. Rosalind, Oregon State College, Corvallis, Oregon. *Biology.* Oakland, Calif, 82. B.S, California, 04, M.S, 10, Ph.D, 14; Sc.D, Oregon, 43. Head dept. biol, Mills Col, 09–13; instr. physiol, California, 14–28; asst. prof. animal biol, Oregon, 28–34; *zool, Oregon State Col,* 34–40, *assoc. prof, 40–* A.A; Soc. Exp. Biol; Physiol. Soc. Nutrition of vertebrates; vertebrate nutrition.

Wunder, Dr. Cha(rle)s N(ewman), Southwestern Louisiana Institute, Lafayette, La. *Mathematics.* Woodstock, Va,

Nov. 3, 84. A.B, Randolph-Macon Col, 06; fellow, Virginia, 09–12, A.M, 12, Ph.D, 13. Instr. math, Augusta Mil. Acad, Defiance, Va, 06–08; Nolley's Sch, Richmond, 08–09; instr. astron, Virginia, 09–12; adj. prof. and acting director, Leander McCormick Observatory, 12–13; assoc. prof. applied math. and astron, Davidson Col, 13–15; assoc. prof. math. and head dept, Southwestern (Texas), 15–17, prof, 17–19, dean, 19–26; prof. math. and head dept, Mississippi, 26–30, director exten, 26–28, dean men, 28–30; prof. physics and astron. and dean men, Atlantic, 30–32; prof. math. and dean, San Antonio, 33–41; *prof. math. and head dept. fine arts, Southwest. La. Inst, 40–* Math. Soc; Math. Asn. Mathematical astronomy; pure mathematics; physics.

Wunderly, Dr. Harry L(eo), 718 Pressley St, N.S, Pittsburgh, Pa. *Organic chemistry.* Pittsburgh, Pa, Aug. 7, 11. B.S, St. Vincent Col, 34; M.S, Notre Dame, 35, Ph.D, 37. Chemist, Children's Hosp, Pittsburgh, 38–42; *research chemist, research labs, Westinghouse Elec. and Mfg. Co, 42–* Chem. Soc; Pa. Chem. Soc. Plastics.

Wurdack, Prof. John H(erman), 312 McKinley St, Pittsburgh, Pa. *Chemistry.* Pittsburgh, Pa, Sept. 10, 88. Ph.G, Pittsburgh, 09, Phar.D, 10. Instr. chem, sch. med, *Pittsburgh,* 10–11, *in charge post-grad. chem, sch. pharmacy, 11–,* instr. chem, physics and pharmaceut. Latin, 14–21, asst. prof. *chem,* 21–23, assoc. prof, 23–25, *prof, 25–* Chem. Soc; Pharmaceut. Asn; Pa. Pharmaceut. Asn. Pharmaceutical chemistry and Latin.

Wurster, Oscar H(erman), 5201 S. Kenwood Ave, Chicago, Ill. *Chemical engineering.* Ann Arbor, Mich, Dec. 13, 81. A.B, Michigan, 05, M.S, 06, 06–07. Chief chemist and asst. supt, M. Werk Co, 07–11; works manager, Lever Brothers, Ltd, 11–14; supt, Morris and Co, 16–17; works manager, Louisville Soap Co, 17–19; engineer, Wm. Garrigue and Co, 19–21; *pres, Wurster and Sanger, Inc, consulting chem. engineers, 21–* Chem. Eng. (chairman Chicago sect, 30); Chem. Soc; Oil Chem. Soc. Recovery and refining of glycerine; hydrogenation of fats; fat splitting; fatty acid distillation; solvent extraction of fats; fatty oils; soaps; plant equipment and unit operations.

Wyatt, Prof. F(rank) A(rchibald), University of Alberta, Edmonton, Alta, Can. *Agronomy.* Wellsville, Utah, Feb. 22, 86. B.S, Utah Col, 10; M.S, Illinois, 13, fellow, 13–15, Ph.D, 15. Asst. exten, Utah Col, 10–11; soil fertility, Illinois, 15–16, assoc, 16–17, asst. prof, 17–18; *prof. soils, Alberta, 18–* Can. Soc. Tech. Agr. Soils; agricultural chemistry.

Wyatt, Dr. Ruth Fox, 210 E. Pearson St, Chicago, Ill. *Psychology.* Chicago, Ill, Aug. 25, 06. Ph.B, Chicago, 27; B.M.E, Northwestern, 31, A.M, 35, Ph.D, 41. *Director tests and measurements in music, Northwestern, 31–,* instr. psychol. and psychol. of music, 35–43, *asst. prof. physics of music, 43–* Psychol. Asn; Midwest. Psychol. Asn. Improvability of pitch discrimination; instrumentalities for measurement of pitch discrimination.

Wyatt, Dr. Tyree C(heatham), 1904 Euclid Ave, Syracuse, N. Y. *Pediatrics.* Winterville, N. C, Oct. 20, 99. A.B, Wake Forest Col, 20; M.D, Syracuse, 22. Instr. path, *col. med, Syracuse, 22–24, asst. prof, 24–27, clin. pediat, 35–, asst. pediat, Univ. Hosp; Syracuse Mem. Hosp; lieut. col. and chief lab. service, 52nd gen. hosp, Med. Corps, U. S. Army, 42–* Prof, Wake Forest Col, 24. Soc. Pediat. Research. Experimental benzol poisoning; liver changes in rabbits following subcutaneous administration of coal tar; respiratory exchange in infants and children; thyroid therapy in children; treatment of allergy by alteration of the acid base balance.

Wyatt, Dr. Waldo R(ichard), Vicks Chemical Co, Greensboro, N. C. *Biochemistry.* Moorhead, Minn, July 17, 14. B.S, N. Dak. State Col, 34; Ph.D, Iowa State Col, 40. Technician in charge animal lab, chem. dept, Iowa State Col, 34–39; *research chemist, Vicks Chem. Co, 39–* Differentiaton of the vitamins of the B complex and their distribution in certain foods; developmental research on pharmaceutical products.

Wyatt, Prof. W(alter) J(ames), Wake Forest College, Wake Forest, N. C. *Chemistry.* Winterville, N. C, June 9, 03. A.B, Wake Forest Col, 24; A.M, Oberlin Col, 27; Ph.D, Chicago, 35. Asst. *chem, Wake Forest Col,* 23–24, instr, 24–26, asst. prof, 27–36, *assoc. prof, 36–* Chem. Soc; N. C. Acad. Physical chemistry; adsorption phenomena; thermodynamics of solutions.

Wyckoff, Prof. Dorothy, Bryn Mawr College, Bryn Mawr, Pa. *Geology.* Topsfield, Mass, July 22, 00. A.B, Bryn Mawr Col, 21, Workman fellow, 28–29, Am-Scandinavian Foundation fellow, 29–30, Ph.D, 32; Royal Univ. (Norway), 28–30. Teacher, Misses Kirk's Sch, 22–24; demonstrator *geol, Bryn Mawr Col,* 25–28, 31–32, instr, 32–34, *asst. prof, 34–* Petrology of metamorphic rocks.

Wyckoff, Dr. Harold O(rville), 1357 Jefferson St, N.W, Washington, D. C. *Physics.* Traverse City, Mich, April 26, 10. B.S, Washington (Seattle), 34, Ph.D, 40. Junior physicist, *Bur. Standards,* 41–42, asst. physicist, 42–43, *assoc. physicist, 43–* Physical Soc. Cerenkov radiation; x-ray protection.

Wyckoff, H(ugh) A(llen), 3201 W. Shadow Lawn Ave, Atlanta, Ga. *Bacteriology.* Cameron, Mo, Jan. 10, 90. B.S, Mo. Wesleyan Col, 14; M.S, Chicago, 25. Teacher sciences, Bennett Acad, Miss, 14–19; prof. chem. and bacter, Mo. Wesleyan Col, 19–25; prof. bacter. and head dept. biol, *Ga. Tech,* 26–39, *head dept. biol. and pub. health eng, 39–* Soc. Bact; Pub. Health Asn; Water Works Asn. Water bacteriology.

Wyckoff, Ralph D, P. O. Box 2038, Pittsburgh, Pa. *Geophysics.* Jacobsville, Mich, Dec. 12, 98. B.S, Mich. State Col, 20. Mech. and elec. engineer, 20–23; assoc. physicist, elec. instrument sect, Bur. Standards, 23–26; research engineer geophys, Marland Oil Co, Okla, 26–29; research engineer and chief physics div, *Gulf Research Lab,* Pittsburgh, 29–35, *staff geophysicist, 35–* Elec. eng. dept, Mich. State Col, 21. Radio Eng; Physical Soc; Min. and Metal. Eng; Soc. Explor. Geophys; Petrol. Inst; Geophys. Union. Precision electrical instruments; development of equipment for precision gravity measurements; physics of fluid flow through porous media; geophysical explorations.

Wyckoff, Dr. Ralph W(alter) G(raystone), Reichel Laboratories, Kimberton, Pa. *[1]*Physical chemistry, Biophysics.* Geneva, N. Y, Aug. 9, 97. B.S, Hobart Col, 16; Ph.D, Cornell, 19. Instr. anal. chem, Cornell, 17–19; physical chemist, geophys. lab, Carnegie Institution, 19–27; assoc. mem. subdiv. biophys, Rockefeller Inst, 27–38; with Lederle Labs, 38–40, assoc. research director, 40–42; *with Reichel Labs, 42–* Research assoc, Calif. Inst. Tech, 21–22. A.A; Chem. Soc; Physical Soc; Harvey Soc; Soc. Exp. Biol; Pub. Health Asn; Asn. Immunol. Structure of crystals; biological effects of radiation; physical properties of large protein molecules; virus diseases.

Wyckoff, S(tephen) N(icholas), U. S. Forest Service, Portland, Oregon. *Pathology.* San Francisco, Calif, May 29, 91. B.S, California, 14. Asst. pathologist, div. blister rust control, bur. plant indust, U. S. Dept. Agr, 19–24, assoc. pathologist, 24–25, pathologist, 25–28, senior pathologist, 28–36; *director,* North. Rocky Mt. Forest and Range Exp. Sta, *U. S. Forest Service,* 36–38, *Pacific Northwest Forest and Range Exp. Sta, 38–* A.A; Soc. Foresters; Phytopath. Soc; Northwest Sci. Asn. (chairman, forestry sect, 32). Forestry; forest pathology; control of white pine blister rust.

Wyer, Samuel S, 1325 Cambridge Blvd, Columbus, Ohio. *Engineering.* Wayne Co, Ohio, Feb. 18, 79. M.E, Ohio State, 03. *Consulting engineer, 05–* Chief nat. gas conservation, U. S. Fuel Admin; consulting engineer, Bur. Standards, 18; U. S. Bur. Mines, 20. A.A; Mech. Eng; Min. and Metal. Eng. Application of an engineering technique to the changing social order.

Wygant, Dr. Noel D, Colorado State College, Ft. Collins, Colo. *Forest entomology.* Roanoke, Ind, April 18, 08. B.S, Purdue, 32; Ph.D, N. Y. State Col. Forestry, 40. Junior entomologist, *forest insect lab, bur. entom. and plant quarantine, U. S. Dept. Agr,* Colo. State Col, 35–37, asst. entomologist, 37–40, California, 40–42, *entomologist, Colo. State Col, 42–* Asn. Econ. Entom; Soc. Foresters. Forest insect investigations in the Central Rocky Mountain region.

Wylie, Dr. C(harles) C(layton), University of Iowa, Iowa City, Iowa. *Astronomy.* Idana Kans, June 18, 86. A.B, Park Col, 08; A.M, Missouri, 12; Ph.D, Illinois, 22. Prof. math, Buena Vista Col, 09–11; asst, Missouri, 11–13; U. S. Naval Observatory, 13–19; Illinois, 20–22, assoc, 22–25, acting head dept. *astron,* 22–23; asst. prof, *Iowa,* 25–30, assoc. prof, 30–39, *prof, 39–* U. S. eclipse exped, Oregon, 18. A.A. (sec'y, D, 40–); Astron. Soc; Math. Asn. Stellar photometry; meteors; meteorites.

Wylie, Prof. C(harles) E(lmer), University of Tennessee, Knoxville, Tenn. *Dairying.* Cincinnati, Ohio, April 30, 90. B.S. (Agr), Ohio State, 15; A.M, Missouri, 16. Asst. *dairying,*

Tennessee, 16–18, assoc. prof, 18–24, *prof, 24–, head dept.* Dairy Sci. Asn. (v. pres, chairman, advanced registry sect, 25, south. sect, 23). Control of flavor in dairy products; judging dairy cattle on bases of type and production; limited grain feeding, legume silage and irrigated pasture for dairy cattle; electricity on the dairy farm; drying hay in the barn; color photography in dairying; war time feed problems.

Wylie, C(larence) R(aymond), Sr, 1253 Kensington Road, Grosse Pointe Park, Mich. *Electrical and mechanical engineering.* Saginaw, Mich, May 18, 83. M.E, Cornell, 05. Mech. engineer, Am. Window Glass Co, 05; designing elec. and mech. engineer, Commonwealth Edison Co, 06–07; instr. elec. eng, Cincinnati, 07–11, asst. prof, 11–18; director research lab, Remy Elec. Co, 18; *sec'y-treas, United Eng. Corp, 19–; indust. engineer, Briggs Mfg. Co, 20–* Asst. gen. manager and chief engineer, Sterling Wood Products Co, Knoxville, 28–30; Wayne Lumber and Mfg. Co, Nashville, 28–30; managing director and chief engineer, Briggs Bodies, Ltd, England, 30–32; consulting engineer, Briggs Ind. Corp, 36–; Briggs Stadium, 37– Nat. Cmt. on Wood Utilization, 26–34. A.A; Soc. Metals; Soc. Test. Mat. Centrifugal blowers; searchlights; sound-proofing; high tension transmission; electric substation control; color harmony; automotive engines and ignition; direct current armatures; extended pit method universal foundation for heavy presses; cartridge case steel and its heat treatment.

Wylie, Prof. H(amilton) Boyd, University of Maryland School of Medicine, Baltimore, Md. *Biochemistry.* Baltimore, Md, May 3, 87. Hopkins, 05–08; M.D, Baltimore Med. Col, 12. Asst. clin. path. and pharmacol, *sch. med, Maryland*, 13–14, demonstrator, 14–15, assoc. biochem, pharmacol. and clin. path, 15–16, assoc. prof. biochem. and pharmacol, 16–17, biochem. and clin. path, 17–19, *prof. biochem. and head dept, 19–*, acting dean, 39–42, *asst. dean, 42–* Chem. Soc; Med. and Chirurg. Faculty Md. Blood sugar findings in eclampsia and pre-eclampsia; chemical method for detecting pregnancy.

Wylie, J(ames) R(enwick), Jr, 1217 Grant Bldg, Pittsburgh, Pa. *Geology.* Wilkinsburg, Pa, Sept. 12, 97. B.S, Dartmouth Col, 19; M.S, Pittsburgh, 21. Employee, R. E. Davis, 21–26; partner, Huntley and Huntley, 26–41; *dist. director production, Office Petrol. Admin. for War, 41–* Asn. Petrol. Geol. Oil and gas geology; petroleum.

Wylie, Prof. Margaret, 400 Triphammer Road, Ithaca, N. Y. *Psychology.* Red Rock, Iowa, Dec. 7, 89. A.B, Michigan, 18, A.M, 24, Butzel fellow, 24–25, Ph.D, 28; Columbia, 26. Teacher, pub. schs, N. Y, 10–16; psychologist, U. S. Pub. Health Service, Detroit, 18–19; Wayne County Psychopathic Clinic, 19–25; asst. prof. child develop, Cornell, 25–27; behavior research fellow, Inst. Juvenile Research, Chicago, Ill, 28–29; acting asst. prof. *child develop*, Michigan, 29–30; *prof, Cornell, 30–* A.A; assoc. Psychol. Asn. Experimental and child psychology; recognition of Chinese symbols; recognition and recall in abnormal mental cases; resistant or negativistic behavior of young children.

Wylie, Prof. R(obert) B(radford), University of Iowa, Iowa City, Iowa. ***Botany.* Maquoketa, Iowa, March 28, 70. B.S, Upper Iowa, 97, LL.D, 25; Minnesota, 98; fellow, Chicago, 00–01, 02–04, Ph.D, 04. Prof. biol, Morningside Col, 96–99; asst. prof. *bot, Iowa*, 06–08, prof, 08–41, *emer. prof, 41–*, head dept, 19–40. Summers, instr, East. Ill. State Nor. Sch, 01; asst, Chicago, 02–04; Marine Biol. Lab, Woods Hole, 05, Friday Harbor, Wash, 08, 13, 29; director lakeside lab, Iowa, 19–23. U. S. kelp exped, Alaska, 13; Univ. Iowa Fiji-New Zealand exped, 22. A.A. (sec'y, G, 20–24, v. pres, 25); Bot. Soc; fel. Iowa Acad. (pres, 22). Morphology of seed plants; cicatrization and organization of foliage leaves.

Wylie, Dr. W(illiam) D(ickey), Clewiston, Fla. *Economical entomology.* Carthage, Ark, Nov. 18, 14. B.S.A, Arkansas, 37; Ph.D, Cornell, 41. Asst. entom, Cornell, 37–42; *entomologist, U. S. Sugar Corp, 42–* Asn. Econ. Entom. Toxicology; biology and taxonomy of cutworms; biology and control of insects attacking sugar cane, sweet potatoes, lemon grass and peanuts.

Wyllie, Prof. John, 22 Barrie St, Kingston, Ont, Can. *Medicine.* Boness, Linlithgowshire, Scotland, May 8, 94. M.A, Glasgow, 15, M.B, Ch.B, 20, B.Sc, 24; D.P.H, Cambridge, 24, M.D, 35; Pasteur Inst, Paris; Neur. Inst, Vienna. Asst. med. jurisprudence and pub. health, Glasgow, 22–24, lecturer pub. health, 24–27; asst. bacteriologist, Glasgow Corp, 27–30; *Arthur R. Elliott prof. prev. med, Queen's (Can), 30–* A.A; Pub. Health Asn. Preventive medicine; public health.

Wyman, Dr. Donald, Arnold Arboretum, Harvard University, Jamaica Plain, Boston, Mass. *Horticulture.* Templeton, Calif, Sept. 18, 03. B.S, Pa. State Col, 26; M.S, Cornell, 31, Ph.D, 35. Instr, Pa. State Col, 27–29; Cornell, 29–35; *horticulturist, Arnold Arboretum, Harvard, 36–* Chairman, Am. Asn. Bot. Gardens and Arboretums, 40– Soc. Hort. Sci; Hort. Soc. (director, 40–); Inst. Park Exec. (director, 41–); New Eng. Bot. Club. Conditions affecting growth of woody plants; winter hardiness; electricity as an aid to propagation; selection of plants for ornamental value; identification of woody plants by the use of keys for vegetative characters.

Wyman, H(arold) R(obertson), 19 Kaye St, Halifax, N. S, Can. *Chemistry.* Yarmouth, N. S, Nov. 12, 05. B.Sc, Dalhousie, 27; Nat. Research Council Can. bursar, McGill, 28–29, student, 29–30, M.Sc, 30. Demonstrator chem, McGill, 27–28; asst. chemist, *Halifax refinery, Imp. Oil Ltd*, 30–38; *consulting chemist, 38–* Summers, asst, Fisheries Exp. Sta, Halifax, 27, 28. Chem. Soc; fel. Can. Inst. Chem. Surface energy relationships.

Wyman, Prof. Jeffries, Jr, 215 Heath St, Chestnut Hill, Mass. *Biology.* West Newton, Mass, June 21, 01. A.B, Harvard, 23; Cambridge; Ph.D, London, 26. Nat. research fellow, 24–27; tutor biol. and instr. zool, *Harvard*, 27–31, asst. prof. *zool*, 31–37, *assoc. prof, 37–* Sec'y, Elizabeth Thompson Sci. Fund. A.A; Physiol. Soc; Soc. Zool; Am. Acad. The physiology of contractile tissue; physical chemistry of amino-acids and proteins.

Wyman, Prof. Leland C(lifton), 5 Furnival Road, Jamaica Plain, Mass. *Physiology.* Livermore Falls, Maine, Feb. 20, 97. A.B, Bowdoin Col, 18; Ph.D, Harvard, 22. Austin teaching fellow, Harvard, 20–22; instr. *physiol, sch. med, Boston*, 22–23, asst. prof, 23–30, *assoc. prof, 30–* Asst. to staff, Evans Mem. Hosp, 28–35, assoc. mem, 35– Summers, supervisor ethnol, New Mexico, 40, 41, 42. Bacteriologist, M.C, U.S.A, 18–19. A.A; Physiol. Soc; Soc. Mammal; Anthrop. Asn; Soc. Study Int. Secretions. Physiology of chromatophores; vasomotor responses; suprarenal insufficiency; primitive medicine, especially of the American Indian; Navaho Indian ethnology.

Wyman, Prof. Lenthall, North Carolina State College, Raleigh, N. C. *Forestry.* Boston, Mass, Dec. 20, 88. A.B, Harvard, 11, M.F, 14. Forest asst. and forest examiner, U. S. Forest Service, 14–19; asst. state forester, Texas, 19–21; assoc. silviculturist, U. S. Forest Service, 21–34; *prof. forestry, N. C. State Col, 34–* Soc. Foresters (chairman, southeast. sect, 28). Naval stores.

Wyman, L(eRoy) L(inwood), 41 Ray St, Schenectady, N. Y. *Metallurgy.* Kenosha, Wis, Sept. 20, 99. B.S, Minnesota, 22, Chem.E, 23. Instr. metal. and drafting, Okla. Sch. Mines, 23–24; metallographist, Edison lamp works, *Gen. Elec. Co*, 24–29, *research metallurgist, research lab, Schenectady, 29–; research supervisor war metal. cmt, Nat. Research Council.* Min. and Metal. Eng; Soc. Metals (chairman, Schenectady chap, 35); Soc. Test. Mat. (chairman cmt. metallog); Soc. X-ray and Electron Diffraction; Indust. Radiol. and X-ray Soc; Welding Soc. Cemented carbicles; copper oxygen; strip steel annealing.

Wyman, Dr. L(evi) P(arker), 115 W. 24th St, Chester, Pa. *Chemistry.* Skowhegan, Maine, July 12, 73. A.B, Colby Col, 96, A.M, 99; Ph.D, Pennsylvania, 02; Sc.D, Pa. Mil. Col, 30. Instr. *chem*, Pa. State Col, 02–05; *prof, Pa. Mil. Col, 05–*

Wymore, F(loyd) H(oward), Soil Conservation Service, Ukiah, Calif. *Zoology, Entomology.* Pawnee, Nebr, Sept. 9, 92. B.S, California, 22, M.S, 23. Asst. and later assoc. entom, col. agr, California, 22–35; asst. biologist, *soil conservation service, U. S. Dept. Agr*, 35–43, *econ. entomologist, 43–* Asn. Econ. Entom; Cooper Ornith. Club; Pacific Coast Entom. Soc; Calif. Acad. Economic entomology; biology and control of simphylids; truck crop insects; wildlife management.

Wynd, Prof. F(rederick) Lyle, University of Illinois, Urbana, Ill. *Plant physiology.* Normal, Ill, July 28, 04. B.S, Oregon, 28, A.B, 29, A.M, 30; Ph.D, Washington (St. Louis), 33. Fellow bacter, sch. med, Washington (St. Louis), 34–36; asst. hort, Missouri, 36–37, visiting asst. prof. *bot*, 37–38; *asst. prof, Illinois, 38–* Mem, bot. exped, north. Mex, 36; bot. exped, north. Mex, 37. Plant nutrition; vitamins; plant protein.

Wynne, Prof. A(rthur) M(arshall), 27 Lytton Blvd, Toronto, Ont, Can. *Biochemistry.* Brigden, Ont, 92. M.A,

Queen's (Can), 15; Ph.D, Toronto, 25. Asst. zymol, *Toronto*, 19–29, assoc. prof. *biochem*, 29–39, *prof*, *39–* Biochem. Soc; Soc. Biol. Chem; fel. Royal Soc. Can; Can. Physiol. Soc; Biochem. Soc. Gt. Britain. Enzymes; physiology and biochemistry of microorganisms.

Wynne, Dr. Frances E(lizabeth), New York Botanical Garden, Bronx Park, New York, N. Y. *Botany.* Wilkinsburg, Pa, July 25, 16. A.B, Allegheny Col, 38; M.S, Michigan, 39, Ph.D, 42. *Asst. curator, N. Y. Bot. Garden, 38–* Bryophyta; phytogeography.

Wynne-Edwards, Prof. V(ero) C(opner), McGill University, Montreal, Que, Can. *Ornithology, Ichthyology.* Leeds, England, July 4, 06. B.A, Oxford, 27, scholar, 27, M.A, 32. Probationer, Marine Biol. Lab, Plymouth, England, 27–29; lecturer *zool*, Bristol, 29–30; *asst. prof, McGill, 30–* Walker prize, Boston Soc. Nat. Hist, 34, 37. Ornith. Union; fel. Royal Soc. Can; British Ornith. Union. Oceanic birds; arctic-alpine flora; fishes of Quebec.

Wynns, Dr. Harlin L(eRoy), 1556 Sacramento St, Berkeley, Calif. *Epidemiology.* Nashville, Tenn, Sept. 23, 00. A.B, California, 24, M.D, 29; M.P.H, Hopkins, 33. Epidemiologist, *State Dept. Pub. Health, Calif*, 30–32, *chief bur. epidemiol, 33–* Fel. Am. Med. Asn; fel. Pub. Health Asn. Communicable diseases; relapsing fever; plague; epidemic jaundice.

Wyss, Prof. Arthur P(aul), University of Buffalo, Buffalo, N. Y. *Chemistry.* Johnstown, Colo, June 7, 06. Ph.C, Colorado, 27, B.S, 28, M.S, 31, Ph.D, 35. Teaching asst. pharmacy, Colorado, 27–28, asst. pharmacy and chem, 28–29, instr. chem, 29–35; prof, Indianapolis Col. Pharmacy, 35–37; research chemist, Upjohn Co, 37–41; assoc. prof. *pharmacy, Buffalo*, 41–43, *prof, 43–, head dept, 41–* Pharmaceut. Asn; Chem. Soc. Pharmaceutical chemistry; tincture of capsicum; tomato juice; phenol coefficients of common antiseptics, mouth washes, benzoic acids and benzoates; action of dilute acids on aluminum; synthesis of hypnotics and antiseptics.

Wyss, Dr. Margaret B(edell) (Mrs. Orville Wyss), 103 Park St, Montclair, N. J. *Bacteriology.* Peru, Nebr, June 26, 15. A.B, Nebraska, 36, M.S, 38; Ph.D, Wisconsin, 42. Asst. bacter, Nebraska, 36–38; Wisconsin, 39–41; bacteriologist, Titman Egg Co, 41–42; *instr, Hunter Col, 42–* Bacterial nutrition; anaerobes; serology.

Wyss, Dr. Orville, 103 Park St, Montclair, N. J. *Bacteriology.* Medford, Wis, Sept. 10, 12. B.S, Wisconsin, 37, M.S, 38, Ph.D, 41. Asst. bacter, Wisconsin, 37–41; *research bacteriologist, Wallace and Tiernan Products, 41–* Instr, Texas, 39. Soc. Bact. Antibacterial action; sulfonamides; chlorine compounds; surface active agents; bacterial metabolism; biological nitrogen fixation.

Wythe, Margaret W(ilhelmina), University of California, Berkeley, Calif. *Ornithology.* Oakland, Calif, June 14, 80. A.B, California, 10, A.M, 22. Gen. asst, *museum vert. zool, California*, 13–25, *asst. curator birds, 25–*; inspector foreign birds, bur. biol. surv, U. S. Dept. Agr, 27–36. Ornith. Union; Cooper Ornith. Club.

X

Xan, Prof. John, Howard College, Birmingham, Ala. *Organic and physiological chemistry.* Greece, Sept. 2, 93. B.S, Kalamazoo Col, 18; M.S, Chicago, 22, Ph.D, 26. *Prof. chem*, Sioux Falls Col, 22–24; Ottawa (Kans), 26–27; Battle Creek Col, 27–30; *Howard Col. (Ala), 30–* A.A; Chem. Soc. (2nd v. pres, Ala. sect, 30, sec'y-treas, 33, chairman, 35); fel. Inst. Chem; Ala. Acad. (treas, 38–). The rearrangement of asymmetric hydrazones of hydrazine hydrate; acid-base equilibrium; absorption of oxygen by mercaptans in alkaline solutions.

Xavier, Sister Mary Francis, Mt. Mary College, Milwaukee, Wis. *Pharmaceutical chemistry.* Waterloo, Wis, June 20, 95. B.S, De Paul, 20, A.M, 26; Loyola (Ill), 19; Hopkins, 30; Ph.D, Wisconsin, 36. Prof. biol. and chem. and registrar, St. Mary's Col. (Wis), 21–29, librarian, 22–23; *prof. biol. and chem. and head dept. chem, Mt. Mary Col, 29–* Chem. Soc; Pharmaceut. Asn; assoc. Council Pharmaceut. Research; Soc. Study Alchemy and Early Chem. American peppermint oil; statutes of guild of physicians, apothecaries and merchants in Florence.

Y

Yabroff, Dr. D(avid) L(ouis), Shell Development Co, Emeryville, Calif. *Chemistry.* Wichita, Kans, June 30, 08. B.S, Nebraska, 29; Ph.D, California, 31. Assoc. and instr. chem, California, 31–34; *research chemist, Shell Develop. Co, 34–* Chem. Soc. Nitration of aromatic compounds; dissociation constants of organic boric acids.

Yacorzynski, Dr. G(eorge) K(assimer), 2216 Maple Ave, Evanston, Ill. *Medical psychology.* New Haven, Conn, Nov. 21, 07. A.B, Washington (Seattle), 32, M.S, 34; Ph.D, Northwestern, 37. Teaching fellow psychol, Washington (Seattle), 31–35; asst, *Northwestern*, 35–37, fellow and research assoc, 37–38, instr. *nervous and mental diseases, med. sch*, 38–40, assoc, 40–43, *asst. prof, 43–* A.A; assoc. Psychol. Asn. Physiological psychology; psychopathology; personality.

Yager, Dr. Charles B(yron), 36 W. Fifth St, Oswego, N. Y. *Chemistry.* Center, Mo, Sept. 5, 02. A.B, Central Col, 24, M.S, 28; Ph.D, Iowa, 31. Teacher, pub. schs, Mo, 21–23, high sch, 24–26, prin, 26; head dept. science, univ. high sch, Iowa, 28–31; prof. chem. and head dept, Shurtleff Col, 31–34; develop. engineer, J. P. Devine Mfg. Co, 34–36; *instr. science, N. Y. State Teachers Col, Oswego, 36–, head dept, 39–; mem. factory training sch, Air Forces, U. S. Army, Republic Aviation Co, 42–* Chem. Soc. The formation of primary amines from monochloramine and secondary and tertiary alkylmagnesium halides; reaction of monobromoamine and Grignard reagents.

Yager, W(illiam) A(lfred), Bell Telephone Laboratories, Murray Hill, N. J. *Chemistry.* Schenectady, N. Y, Jan. 16, 07. B.S, Union (N. Y), 28. *Dielectric research, Bell Tel. Labs, 28–* Conf. elec. insulation, div. eng. and indust. research, Nat. Research Council. Chem. Soc; Electrochem. Soc. Fundamental properties of dielectrics; relation between dielectric properties and chemical structure; dielectric measurements over wide temperature and frequency range.

Yagle, Dr. Elizabeth M(arguerite), 2808 W. Grand Blvd, Detroit, Mich. *Bacteriology, Immunology.* Pittsburgh, Pa, June 12, 92. B.S, Carnegie Inst. Tech, 15; A.M, Pennsylvania, 27, Ph.D, 29. Asst. biol, Margaret Morrison Col, Carnegie Inst. Tech, 15–17; bacteriologist, Phila. Hosp. Contagious Diseases, 18–19; asst. biol. research, Dermat. Research Lab, Phila, 19–20; instr. bacter, grad. sch. med, Pennsylvania, and serologist, grad. hosp, 20–29, assoc. bacter. and immunol, grad. sch. med, 29–30; bacteriologist and serologist, Methodist Hosp. Indianapolis, 30–32; *serologist, Henry Ford Hosp, Detroit, 32–* A.A; Asn. Immunol; Soc. Clin Path. Standardization of the Wassermann reaction; daily variations in serum reactions of untreated syphilitic patients; surface tension of blood serum in syphilis; permeability of membranes; antibody response after administration of typhoid vaccine.

Yaglou, Prof. C(onstantin) P(rodromos), 55 Shattuck St, Boston, Mass. *Air hygiene.* Constantinople, Turkey, Jan, 96. B.S, Roberts Col, Constantinople, 19, M.M.E, Cornell, 20. Research engineer in ventilation, Am. Soc. Heat. and Vent. Eng, 21–25; instr. ventilation and illumination, *sch. pub. health, Harvard*, 25–28, asst. prof. *indust. hygiene*, 28–38, *assoc. prof, 38–* A.A; Indust. Hygiene Asn; Meteorol. Soc; Pub. Health Asn; Heat. and Vent. Eng. Air hygiene; effective temperature index; physiologic effects of heat and cold on human beings; winter and summer comfort zones; influence of air conditions on health and growth of infants; air conditioning and health.

Yagoda, Herman (Joseph), National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Chemistry, Physics.* New York, N. Y, June 19, 08. B.S, Cooper Union, 92; M.S, N. Y. Univ, 31. Instr. chem, N. Y. Univ, 29–31; chemist, Fales Chem. Co, 31–35; J. T. Baker research fellow anal. chem, Columbia, 35–36; asst. chem, U. S. Customs Lab, New York, 36–41; *assoc. chemist, nat. inst. health, U. S. Pub. Health Service, 42–* Chem. Soc; N. Y. Miner. Soc; Metrop. Microchem. Soc. Analytical chemistry of the rare metals, tungsten, molybdenum and rhenium; microchemical and spectrographic technique; separation of the rare earths; quantitative spot test analysis; quantum theory; ionization potentials; electrographic analysis of plant and animal tissue.

Yakovlev, Dr. Paul I, Box C, Waverley, Mass. *Medicine.* Russia, Dec. 28, 94. B.A, Wilna, Russia, 14; M.B, Mil. Med. Acad, Petrograd, 19; M.D, Paris, 25. Asst. physician, Monson State Hosp, 26–36; research fellow neuropath, *Harvard Med. Sch*, 31–36, asst. *neur*, 36–43, *instr, 43–* Senior physician, Metropolitan State Hosp, 36–38; clin. director, Walter E. Fernald State Sch, 38– Assoc. director post-grad. seminars neur. and psychiat, Metrop. State Hosp, 36– Neur. Asn; Am. Med. Asn; Psychiat. Asn; Mass, Psychiat. Soc; Mass. Soc. Research in Psychiat. (pres, 42); Boston Soc. Psychiat. and

Neur. Neurology; convulsive disorders; organ pathology of the brain; malformation of the nervous system.

Yale, Dr. Harry L(ouis), Shell Development Co, Emeryville, Calif. *Organic chemistry.* Chicago, Ill, Dec. 18, 13. B.S, Illinois, 37; fellow, Iowa State Col, 38–40, Ph.D, 40. *Research chemist,* Nat. Defense Research Cmt, 40–41; *Shell Develop. Co, 41–* Summer, research chemist, Nat. Defense Research Cmt, 42. Organometallic compounds, particularly those of bismuth; explosives; furan compounds, chelate compounds of the heavy metals; oxidation of organic compounds.

Yale, Dr. M(aurice) W(ade), New York Agricultural Experiment Station, Geneva, N. Y. *Bacteriology.* Guilford, N. Y, May 29, 02. B.S, Cornell, 24, M.S, 29; Ph.D, Iowa State Col, 31. City bacteriologist, Geneva, N. Y, 24–26; chief sanit. dept, Pittsburgh Dist. Dairy Council, 26–28; *assoc. research, N. Y. Exp. Sta, Geneva, 31–* Thermophilic bacteria in milk; pasteurization efficiency; the coliform group; bacteriology of cheese.

Yampolsky, Dr. Cecil, 230 Franklin Ave, Grantwood, N. J. *Botany.* Kiev, Russia, April 21, 86. B.S, Wisconsin, 13; Columbia, 14–17; Ph.D, Zurich, 20. Asst. bot, Columbia, 14–16; asst. prof. biol, Toledo, 17–18; botanist and plant pathologist, N. Dak. Col, 18–19; botanist, Exp. Sta, A. V. R. O. S, Medan, Sumatra, 20–22; research on the oil palm, Gen. Exp. Sta. Agr, Java, 22. Bot. Soc; Deuts. Bot. Gesell. Genetics; cytology; tropical botany.

Yancey, Dr. H(arry) F(agan), University Campus, Seattle, Wash. *Chemistry.* Perry, Mo, Dec. 6, 90. A.B, Missouri, 13, A.M, 15; Ph.D, Illinois, 23. Asst. chemist, Pittsburgh Testing Lab, 15–17; from junior chemist to senior chemist and *supervising engineer, northwest exp. sta, U. S. Bur. Mines, 17–* Chem. Soc; Min. and Metal. Eng. (chairman, N. Pacific sect, 33). Mineral dressing; fuel chemistry; forms of sulfur in coal; coal beneficiation; froth flotation, low-temperature carbonization, agglutinating properties, friability and grindability of coal; specific gravity, size and shape of particles as factors in the concentration of coal.

Yancey, Prof. P(atrick) H(enry), Spring Hill College, Mobile, Ala. *Physiology.* Tampa, Fla, Oct. 20, 96. A.B, Gonzaga, 18, A.M, 19; Ph.D, St. Louis, 31; Fordham, 22–23; Barcelona, 24. Instr. *biol,* Spring Hill Col, 19–23; St. Louis, 30–31; *prof. and director dept, Spring Hill Col, 31–* A.A; Micros. Soc; assoc. Soc. Zool; Genetic Asn; Ala. Acad. (sec'y, 34, pres, 38); Mobile Acad. (pres, 35). Effects of high centrifugal force on unicellular organisms.

Yanko, Dr. John A(lexis), B. F. Goodrich Co, Akron, Ohio. *Physical chemistry.* Monessen, Pa, May 24, 15. B.S, Geneva Col, 37; M.S, Western Reserve, 41, Ph.D, 42. Instr. physical chem, Fenn Col, 41–42; *research chemist, B. F. Goodrich Co, 42–* Chem. Soc. Dielectric constants of some of the isomers of hexyl alcohols; electromotive force measurements of molten tin alloys; physical chemical research in the field of synthetic rubber.

Yanney, Prof. B(enjamin) F(ranklin), Wooster, Ohio. *Mathematics.* Dundee, Ohio, Sept. 11, 59. A.B, Mt. Union Col, 85, A.M, 88; Ph.D, Chicago, 23. Instr, Mt. Union Col, 86–88, prof. Latin, 88–92, *math,* 94–11; *Col. of Wooster,* 11–40, *emer. prof, 40–* Trustee, Mt. Union Col, 29–39. A.A; Math. Soc; Math. Asn. Teaching and history of mathematics; theory of numbers; modular invariants; modern geometry.

Yanovsky, Dr. Elias, 2440 16th St, N. W, Washington, D. C. *Organic chemistry.* Leningrad, Russia, June 10, 86. Grad, St. Petersburg, 11; A.M, Clark, 12, Ph.D, 13. Bur. Chem, U. S. Dept. Agr, 13–18; research chemist, Norwalk Tire and Rubber Co, Conn, 19–23; in charge chem. lab, Bridgeport, 23–25; chief chemist, Bergman Labs, 25–27; Bloomfield Labs, N. J, 27–28; *chemist, bur. agr. chem. and eng, U. S. Dept. Agr, 29–* A.A; Chem. Soc. Chemistry of carbohydrates.

Yanowski, Prof. Leo Kasimir, Fordham University, New York, N. Y. *Chemistry.* Paterson, N. J, Nov. 27, 01. B.S, Fordham, 27, M.S, 28, Ph.D, 30. Junior chemist, Citro Chem. Co, N. J, 26–27; instr. qualitative and quantitative anal, *Fordham,* 27, asst. prof. quantitative anal, 28–29, prof, 29–32, *assoc. prof. gen. chem, 32–* Consulting chemist. Summer, teacher, Fordham. Chem. Soc; Metrop. Microchem. Soc. (sec'y-treas, 41–43). Quantitative and qualitative chemical analysis; molecular compounds of dibenzalacetone; quantitative analysis of weightings in silks and rayons; microscopic and semimicroscopic analysis of anions and cations; photomicrography.

Yant, William P(arks), Mine Safety Appliances Co, Braddock, Thomas and Meade Sts, Pittsburgh, Pa. *Chemistry.* East Sparta, Ohio, Nov. 13, 93. B.S, Col. of Wooster, hon. Sc.D, 42; Pittsburgh. Instr. chem, Col. of Wooster, 19–20; supervising chemist, health lab. sect, U. S. Bur. Mines, Dept. Interior, 20–31, supervising engineer, Exp. Sta, Pittsburgh, 31–36, chief chemist, health div, 36; *director research, Mine Safety Appliances Co, 36–* C.W.S, 18. A.A; Chem. Soc. (chairman, Pittsburgh sect, 33); Coal Min. Inst; Min. and Metal. Eng; fel. Pub. Health Asn; Indust. Hygiene Asn. (pres, 40); Coal Min. Inst. Amer. Toxicology and physiological action of gases, vapors and dusts; analytical procedures and detecting instruments for gases and dusts; ventilation of vehicular tunnels; diving and caisson disease; occurrence and control of explosives, fire and toxic hazards and industrial gases and dusts; physiological effects of atmospheric conditions, temperature and humidity; gas-masks and respirators; altitude equipment.

Yapp, Dr. W(illiam) W(odin), University of Illinois, Urbana, Ill. *Dairy husbandry.* Mansfield, Ill, June 30, 88. B.S, Illinois, 11, M.S, 14; hon. fellow, Wisconsin, 19–20, Ph.D, 23. *Prof. dairy husbandry, Illinois, 11–* Dairy Sci. Asn; Soc. Animal Production. Inheritance of physical and physiological characteristics of dairy cattle; a dimension weight index for cattle; intra-uterine development in cattle; correlation between form and function in the dairy cow.

Yarborough, Prof. J(oseph) U(ssery), Southern Methodist University, Dallas, Texas. *Psychology.* Lynnville, Tenn, Oct. 27, 86. A.B, Texas, 15, A.M, 16; Ph.D, Chicago, 20; Europe, 23–24. Instr. *psychol,* Texas, 16–20; assoc. prof, South. Methodist, 20–22; lecturer, Carnegie Inst. Tech, 22–23; *prof. and head dept, South. Methodist, 24–* Director Texas merit system council, state agencies, Fed. Social Security Board. Int. Cong. Psychol. Chairman cmt. educ, Asn. Texas Cols, pres, 43. A.A; Psychol. Asn; Southwest. Social Sci. Asn. (chairman, psychol. sect); Texas Personnel Asn. (exec. cmt). Social, mental measurement and personnel.

Yarbrough, Dr. H(enry) M(arcus), R. F. D. 4, Bowling Green, Ky. *Mathematics.* Graves Co, Ky, Jan. 4, 84. A.B, Indiana, 16, A.M, 25, Ph.D, 30. *Teacher math, West. Ky. State Teachers Col, Bowling Green, 15–* Math. Soc. Linear cyclic groups.

Yarbrough, Dr. John A(lonzo), Meredith College, Raleigh, N. C. *Botany, Biology.* Texarkana, Ark, Oct. 17, 05. A.B, Okla. Baptist Univ, 25; M.S, Oklahoma, 31; Ph.D, Iowa, 34. Instr, high sch, Okla, 26–30; prof. biol, Southwest Baptist Col, 34–35; asst. prof. bot, Baylor, 35–40, assoc. prof, 40–43; *prof. biol, Meredith Col, 43–* Bot. Soc; fel. Texas Acad. Vegetative propagation by foliage leaves.

Yarbrough, Prof. Mary E(lizabeth), Meredith College, Raleigh, N. C. *Nutrition.* Raleigh, N. C, May 23, 04. A.B, Meredith Col, 26; M.S, N. C. State Col, 27; Ph.D, Duke, 41. Instr. *chem, Meredith Col,* 29–31, asst. prof, 31–36, assoc. prof, 36–38, acting prof, 38–39, *prof, 40–* A.A; Chem. Soc; N. C. Acad. Vitamin C; vitamin A.

Yarnall, D(avid) Robert, 42 W. Upsal St, Philadelphia, Pa. *Engineering.* Middletown, Pa, June 28, 78. B.S, Pennsylvania, 01, M.E, 05; D.Eng, Lehigh, 42. Engineer, Chas. Edgerton, 01–07; Stokes and Smith Co, 07–11; v. pres. and gen. manager, Nelson Valve Co, Phila, 12–18; *chief engineer, Yarnall-Waring Co, Phila, 08–; v. pres, Pullenlite Co, 28–* Director and v. pres, James G. Biddle Co, Phila, 37–; director, United Eng. Trustees, Inc, pres, 37–40; Am. Eng. Council; director and v. pres, Eng. Foundation; mem. business advisory council, U. S. Dept. Commerce, 40–42. Hoover medal award, 41. A.A; fel. Mech. Eng. (manager, 17–20); Rittenhouse Astron. Soc; Franklin Inst. (trustee); Eng. Club Phila. (pres, 29–31). Apparatus for steam specialties; high pressure steam.

Yarnall, Dr. Willis A(aron), 609 Fifth Ave, N, Great Falls, Mont. *Food chemistry.* Great Falls, Mont, Sept. 12, 08. B.S, Northwestern, 30, M.S, 35; Merck fellow, Princeton, 36–38, Ph.D, 38. Instr. chem, Lewis Inst, 30–34; research chemist, Texas Co, 38–39; chem. director, Par Beverage Corp, 39–42, manager, Par Bottling Co, 41–42; *food technologist, Gen. Foods Corp, 42–* Organic synthesis; sex hormones; catalytic dehydrogenation; cyclization and rearrangement of hydrocarbons; problems in soft drink industry related to bottling and preservation by canning; dehydration; colloid problems.

Yarnell, Dr. S(idney) H(owe), Agricultural and Mechanical College of Texas, College Station, Texas. *Horticulture.* Wapakoneta, Ohio, July 10, 98. B.S, Mich. State Col, 22; M.S, Har-

vard, 29, Sc.D, 30. Asst, Bussey Institution, Harvard, 26–30; *chief div. hort, Exp. Sta, Agr. and Mech. Col. Texas, 30–* A.A; Soc. Hort. Sci; Genetic Asn; Bot. Soc; Soc. Nat. Cytology; genetics; plant breeding.

Yarwood, Dr. C(ecil) E(dmund), University of California, Berkeley, Calif. *Plant pathology.* Sumas, Wash, Sept. 16, 07. B.S, British Columbia, 29; M.S, Purdue, 31; Ph.D, Wisconsin, 34. Plant disease investigator, div. bot, Can. Dept. Agr, 28–29; asst. bot, Purdue, 29–32; agent, div. forage crops and diseases, bur. plant indust, U. S. Dept. Agr, 29–34; assoc. plant path, *Exp. Sta, California,* 34–35, junior plant pathologist, 35–40, instr. *plant path,* 36–40, *asst. prof, 40–, asst. plant pathologist, 40–* A.A; Phytopath. Soc. (sec'y-treas, Pacific div, 40–); Bot. Soc; Mycol. Soc; Soc. Plant Physiol; Can. Phytopath. Soc. Downy mildews; powdery mildews; rusts; diurnal cycle of parasitic fungi; fungicides.

Yarwood, Dr. Evangeline A(lderman), 1324 Oxford St, Berkeley, Calif. *Zoology.* Columbiana, Ohio, Jan. 5, 09. A.B, Oberlin Col, 30; A.M, Wellesley Col, 32; Ph.D, California, 36. Asst, Wellesley Col, 30–32, instr, 32–33; teaching asst. and technician, *California,* 33–36, *research asst. zool, 36–* Pasteur Soc. Experimental zoology; cytology; protozoology.

Yater, Dr. Wallace M(ason), Georgetown University Hospital, Washington, D. C. *Internal medicine.* Canton, N. Y, Sept. 26, 95. A.B, George Washington, 17; M.D, Georgetown, 21; fellow, Minnesota, 26–28, M.S, 28. Prof. physical diagnosis, *sch. med, Georgetown,* 25, assoc. prof. *med,* 29–30, *prof, 30–, chief med, univ. hosp, 29–* Chief med, Gallinger Munic. Hosp, 32. Ed, 'Med. Annals of D. C.' A.A; fel. Col. Physicians (board governors); Am. Heart Asn. (director); Am. Med. Asn. (chairman sect. exp. med. and therapeut); Soc. Clin. Invest; Wash. Acad. Med. Diagnosis; heart pathology and physiology; carbohydrate metabolism; peripheral vascular diseases.

Yates, Prof. Dorothy (Maud) Hazeltine, San Jose State College, San Jose, Calif. *Psychology.* Morristown, N. J. A.B, Wellesley Col, 10, 10–11; Washington (Seattle), 15; Mary E. Horton fellow from Wellesley Col, California, 18–19, A.M, 19, Ph.D, 21. Asst. philos. and psychol, Wellesley Col, 10–11; instr. English, hist. and psychol, St. Helen's (Portland), 11–12; senior teacher, sch, Can, 12–13; teacher, high sch, Wash, 13–14; mem. research staff study of gifted children, Stanford, 21–22; instr. *psychol, San Jose State Col,* 22–23, *asst. director research, 22–,* asst. prof, 23–24, *assoc. prof, 24–* Consulting psychologist, 36– A.A; Psychol. Asn; Educ. Research Asn; Council Women Psychol; West. Psychol. Asn; Calif. Educ. Research Asn. (v. pres, 24). Methods of psychotherapy; psychotechniques for aviators.

Yates, Prof. Robert C(arl), Louisiana State University, Baton Rouge, La. *Mathematics.* Falls Church, Va, March 10, 04. B.S, Va. Mil. Inst, 24; A.B, Washington and Lee, 26; A.M, Hopkins, 28, Ph.D, 30. Asst. prof. math. and drawing, Va. Mil. Inst, 24–26; instr. *math,* Hopkins, 27–31; asst. prof, Maryland, 31–36, *assoc. prof,* 36–39; *Louisiana, 39–* Assoc. ed, 'Nat. Math. Magazine.' Math. Asn. Elementary geometry.

Yatsevitch, Dr. Michael G(ratian), Altai Hill Farm, Cornish, N. H. *Metallurgy.* Bielousovsk, Russia, July 31, 80. Kiev Polytech. Inst, 98, D.E, 12; Eng. Tech, Leipzig, 03; Harvard, 13–15. Prof, Kiev Polytech. Inst, 03–13; prof. and sec'y faculty, Kiev Agr. Col, 08–13; special commissioner to U. S. and Can, Russian Govt, 13–16; chief engineer, Council on Fuels, Petrograd, 16–18; consulting engineer, London, 19–26; physicist and senior metallurgist, *Ordnance Dept,* Watertown Arsenal, 26–42; *prin. ordnance engineer, office chief of ordnance, U. S. War Dept, 42–* Order of St. Stanislaus, 06; Order of St. Anna, 12. Min. and Metal. Eng; Soc. Metals; Chem. Soc; Soc. Mil. Eng; Iron and Steel Inst. Gt. Britain; Inst. Metals London; Verein Deuts. Eisenhuttenleute; Deuts. Gesell für Metal; Verein Deuts. Ing. General chemistry; metallurgy, metallography and physics of metals in their application to tool and alloy steels, to ordnance requirements and to manufacture and designing of guns; organic nitro-compounds; oil shales and their industrial utilization.

Yawger, Dr. E(rnest) Stanley, Jr, 6708 N. Sixth St, Philadelphia, Pa. *Bacteriology.* Ithaca, N. Y, March 22, 12. B.S, Cornell, 34, Ph.D, 38. Instr. bacter, Cornell, 36–37; research bacteriologist, *Crown Can Co,* 37–41, *head bacter. div, 41–* Food bacteriology; food processing; heat penetration on canned food during processing, with special reference to calculation of lethal heat effects; canning.

Yeager, Prof. A(lbert) F(ranklin), University of New Hampshire, Durham, N. H. *Horticulture.* Bazaar, Kans, Feb. 12, 92. B.S, Kans. State Col, 12; M.S, Oregon State Col, 16; Ph.D, Iowa State Col, 36. Field asst, Pa. Chestnut Tree Blight Cmn, 13; instr, high sch, Nebr, 16–17; hort, Pa. State Col, 17–19; prof, N. Dak. Col, and horticulturist, Exp. Sta, 19–38, chairman dept. hort. and forestry, 35–38; asst. prof. and asst. *hort,* Mich. State Col, 38–39; *prof. and head dept, New Hampshire, 39–* Assoc. director, Biol. Inst, 41– A.A; Soc. Hort. Sci. The study and breeding of fruit, vegetables and flowers.

Yeager, Dr. Clark H(arvey), 13 Midvale Road, Roland Park, Baltimore, Md. *Public health.* Plymouth, Pa, Nov. 16, 86. M.D, Pennsylvania, 11; C.P.H, Dr.P.H, Hopkins, 27, M.P.H, 39. Intern, Reading Gen. Hosp, Pa, 11–12; St. Christopher Hosp, Phila, 12–13; pathologist, Nesbit Westside Hosp, Pa, 13, 14; private practise, 14–17; field director, int. health div, Rockefeller Foundation, 19–42; *chief med. sect, health and sanit. div, Office Coordinator Inter-Am. Affairs, 42–* Professorial lecturer, post-grad. sch. hygiene and pub. health, Philippines, 29–36; lecturer, med. sch, Hopkins, 42; sch. med, Maryland, 42. Nat. Research Council P. I. expeds. Major, M.C, 17–19. Soc. Parasitol; P. I. Soc. Parasitol. Public health administration; bacterial migration in subsoil water; yellow fever.

Yeager, Prof. Edgar L(ee), Indiana University, Bloomington, Ind. *Psychology.* Mauckport, Ind, May 29, 98. A.B, Indiana, 23, A.M, 24. Instr, *Indiana,* 25–27, *asst. prof. psychol, 27–* Assoc. Psychol. Asn. Personnel problems in psychology; scientific information for vocational guidance of high school students; abilities of college students; traits of salespersons in department stores.

Yeager, Dr. J(ames) Franklin, U. S. Department of Agriculture, Beltsville, Md. *Entomology.* Plymouth, N. C, April 9, 99. Ph.B, Yale, 24; A.M, Columbia, 26; Ph.D, N. Y. Univ, 29. Instr. physiol, N. Y. Univ, 24–29, asst. prof, 29–30; Iowa State Col, 30–31, assoc. prof. zool. and entom, 31–35; entomologist, *insect physiol, nat. agr. research center, bur. entom. and plant quarantine, U. S. Dept. Agr,* 35–36, *senior entomologist, 36–* Lecturer, Maryland. A.A; Soc. Exp. Biol; Asn. Econ. Entom; Entom. Soc. Amer; Genetic Asn; Soc. Zool; N. Y. Acad; Wash. Acad; Biol. Soc. Wash; Insecticide Soc. Wash; Entom. Soc. Wash. General, comparative and insect physiology.

Yeager, Dr. Lee E(mmett), Illinois State Natural History Survey, Urbana, Ill. *Zoology.* Sky Lake, Miss, Oct. 28, 07. B.S, Miss. State Col, 32, M.S, 33; M.F, Michigan, 35, Ph.D, 37. Asst, Miss. State Col, 32–33; asst. instr. econ. zool, sch. forestry and conservation, Michigan, 33–37; asst. entomologist, U. S. Dept. Agr, 37–38; *forester, Ill. State Nat. Hist. Surv, 38–* Summers, asst, bur. entom. and plant quarantine, U. S. Dept. Agr, 34, junior entomologist, 36. Wildlife Soc; Soc. Foresters; Soc. Ichthyol. and Herp; Soc. Mammal; Wilson Ornith. Club; Ill. Acad. Animal ecology; fur animals; forest ecology; wildlife management; farm forestry.

Yeagley, Prof. Henry L(incoln), 210 Hartswick Ave, State College, Pa. *Astrophysics.* York, Pa, July 17, 99. Ph.D, Pa. State Col, 34. *Assoc. prof. physics, Pa. State Col, 25–* Astron. Soc. Pacific; Royal Astron. Soc. Can. Stellar photometry; intermetallic diffusion; bird navigation.

Yeakel, Dr. Eleanor H(ugins), Wistar Institute, Philadelphia, Pa. *Physiology, Biochemistry.* Pittsburgh, Pa, Nov. 1, 12. A.B, Bryn Mawr Col, 33, A.M, 34, Ph.D, 37. Asst. physiol, biochem. labs, Bryn Mawr Col, 35–36; teacher biol. and chem, Harcum Jr. Col, 36–37; instr. biol, Western Reserve, 37–41; *fellow, Wistar Inst, 41–* Summer, asst, Bryn Mawr Col, 37. Soc. Zool. Fat metabolism and ductless glands; basal metabolism; anatomical effects of emotions and of aging.

Yearian, Dr. H(ubert) J(ose), Purdue University, Lafayette, Ind. *Physics.* San Jose, Calif, June 17, 05. B.S, Oregon, 27, M.S, 29; Ph.D, Purdue, 34. Asst. *physics,* Oregon, 27–29; Purdue, 29–34, instr, 34–36; nat. research fellow, Calif. Inst. Tech, 36–38; *prof, Purdue, 38–* Physical Soc; Soc. X-ray and Electron Diffraction. Electron diffraction; x-ray diffraction.

Yeaton, Prof. Chester H(enry), 189 Forest St, Oberlin, Ohio. *Mathematics.* Richmond, Maine, Nov. 1, 86. A.B, Bowdoin Col, 08; A.M, Harvard, 09; Ph.D, Chicago, 15. Instr. eng. math, Union (N. Y), 10–11; instr. and asst. prof. *math,* Northwestern, 11–13, 15–17; prof, Milwaukee, 19–21;

asst. prof. and assoc. prof, *Oberlin Col*, 21–27, *prof*, 27– Temporary instr, Minnesota, 19. S.C. and F.A, U.S.A, 17–18. A.A; Math. Soc; Math. Asn. Projective differential geometry; surfaces characterized by certain special properties of their directrix congruences.

Yeaton, Prof. P(hilip) O(sborne), R. 2, University Park, Gainesville, Fla. *Industrial engineering.* Portsmouth, N. H, April 17, 92. B.S, Dartmouth Col, 14; B.S. (M.E), Harvard, 17, Mass. Inst. Tech, 17. Asst. to works engineer and in charge power, Procter and Gamble Co, 17; instr. mech. eng, Mass. Inst. Tech, 17–19; instr. and asst. prof, Lowell Textile Inst, 19–27; asst. prof. and assoc. prof, *Florida*, 27–35, *prof. indust. eng. and head dept, 35–, mem. staff, eng, science and management war training, and air specialist training courses, 43–* A.A; Mech. Eng. (v. chairman, Fla. sect, 29–32, chairman, 32); Soc. Adv. Management; Eng. Educ; Fla. Eng. Soc. Applied mechanics; personnel.

Yeaton, Walter J(ames), P. O. Box 5, San Bernardino, Calif. *Geology.* St. Paul, Minn, March 11, 88. A.B, Minnesota, 10; fellow, Northwestern, 11; M.S, Chicago, 22; Columbia, 24–25. In charge chem. and geol, Okla. Inst. Tech, 12–15; petrol. geologist, 15–16; in charge physiog, high sch, Mo, 17–19; instr. geol. and miner, Illinois, 20–25; asst. prof. geol, West Virginia, 25–27, assoc. prof, 27–30; *consulting geologist, 30–* Summers, asst, Minn. Geol. Surv, 09, petrol. geologist, 17–19, assoc. geologist, 20, 21; Texas Geol. Surv, 22; N. Y. Geol. Surv, 23–25. A.A; Miner. Soc. Mineralogy; petrography; structural geology.

Yeatter, Dr. R(alph) E(merson), Illinois State Natural History Survey, Urbana, Ill. *Zoology.* Colon, Mich, Sept. 29, 96. B.S, Mich. State Col, 21; M.S, Michigan, 28, fellow, 29–32, Ph.D, 34. Instr, pub. schs, Mich, 26–29; asst, Michigan, 32–33; *game specialist, Ill. State Nat. Hist. Surv, 34–* Ornith. Union; Soc. Zool; Wildlife Soc; Wilson Ornith. Club. Distribution and life histories of birds; game management methods.

Yee, Jew Yam, U. S. Department of Agriculture, Washington, D. C. *Chemistry.* Honolulu, Hawaii, April 13, 96. B.S, California, 19; M.S, George Washington, 23. Asst. chemist, fixed nitrogen research lab, *U. S. Dept. Agr, 22–28, assoc. chemist, bur. chem. and soils, 28–* Chem. Soc. Calcined phosphate; fixed nitrogen as aluminum nitride and sodium cyanide; ammonium oxidation; urea determination; urea double compounds; system of urea-ammonia-carbon dioxide; moisture absorption and caking of fertilizer materials.

Yelland, Dr. William E(llwood) C(raig), Corn Products Refining Co, Argo, Ill. *Chemistry.* Peterborough, Ont, Can, July 20, 07. B.S, Mass. Inst. Tech, 30, Ph.D, 36. Lab. asst. anal. chem, Mass. Inst. Tech, 31–34, instr. chem, 34–35, asst, div. indust. cooperation, 35–36, research assoc, 36–38; *research chemist, Corn Products Ref. Co, 38–* Admin. cmt. warp sizing project, Textile Research Inst, 39– A.A; Soc. Test. Mat; Chem. Soc; Asn. Textile Chem. and Colorists. Textile chemistry; warp sizing; applications of starch and proteins from corn.

Yellott, John I(ngle), 5749 Kenwood Ave, Chicago, Ill. *Mechanical engineering.* Bel Air, Md, Oct. 25, 08. B.S, Hopkins, 31, M.M.E, 33. Instr. mech. eng, Rochester, 33–34; instr. and asst. prof, Stevens Inst. Tech, 34–40; prof. and director dept, Ill. Inst. Tech, 40–43; *director, Inst. Gas Technol, 43–* Mech. Eng; Eng. Educ. Condensation of flowing steam; high vacuum steam jet ejectors; supersonic vibrations in steam jets; steam power.

Yensen, Dr. T(orgve) D(ewey), Westinghouse Electric and Manufacturing Co, Pittsburgh, Pa. *Metallurgy.* Drammen, Norway, Jan. 30, 84. B.S, Illinois, 07, M.S, 12, E.E, 13; Ph.D, Calif. Inst. Tech, 27. Engineer, Gen. Elec. Co, 07–08; instr. elec. eng, Illinois, 08–09; elec. engineer, Shawinigan Water and Power Co, 09–10; asst, eng. exp. sta, Illinois, 10–15. asst. prof, 15–16; *research engineer, Westinghouse Elec. and Mfg. Co, 16–* Calif. Inst. Tech, 25–27. Henry Marion Howe medal, Am. Soc. Metals, 35. Min. and Metal. Eng; Soc. Metals; Elec. Eng; Physical Soc; Pittsburgh Physical Soc. (pres, 41). Magnetics; metallurgy of magnetic materials; magnetic properties of iron and iron alloys; magnetism.

Yerkes, Guy E(ston), U. S. Department of Agriculture, Washington, D. C. *Horticulture.* Stuart, Iowa, Nov. 4, 80. B.S. (Agr), Kans. State Col. Forester, U. S. Mil. Reserve, Kans, 06–07; nurseryman and florist, Kans, 08–16; florist, Okla. Agr. and Mech. Col, 16–17; *horticulturist, bur. plant indust, U. S. Dept. Agr, 18–* Soc. Hort. Sci. Under-stocks for deciduous fruits and roses; breeding and propagating of trees and shrubs.

Yerkes, Prof. Robert M(earns), Yale University School of Medicine, New Haven, Conn. **²Psychology.* Breadysville, Pa, May 26, 76. A.B, Ursinus Col, 97, LL.D, 23; A.B, Harvard, 98, A.M, 99, Ph.D, 02; Sc.D, Wesleyan, 23; hon. A.M, Yale, 31. Asst. psychol, Harvard, 99–01, teaching fellow, 01–02, instr. comp. psychol, 02–08, asst. prof, 08–17; prof. psychol. and director psychol. lab, Minnesota, 17–19; chairman research information service, Nat. Research Council, 19–24; *prof.* psychol, inst. psychol, *Yale*, 24–29, *psychobiol, 29–*, director labs. primate biol, 31–41. Psychologist, Psychopathic Hosp, Boston, 13–17. Chairman cmt. research in problems of sex, Nat. Research Council, 22– Chief div. psychol, Office of Surgeon Gen, U.S.A, 17–19. Nat. Acad; A.A; Soc. Nat. (pres, 38); Psychol. Asn. (pres, 16); Physiol. Soc; Soc. Exp. Biol; Soc. Mammal; Philos. Soc; Am. Acad. Comparative psychobiology; biology of the primates.

Yerushalmy, Dr. J(acob), U. S. Public Health Service, Bethesda, Md. *Biometry.* Vienna, Austria, Aug. 5, 04. A.B, Hopkins, 27, A.M, 29, Ph.D, 30. Instr. math, Hopkins, 28–30, 33–35; nat. research fellow, Illinois and Princeton, 30–32; asst. statistician, State Dept. Health, N. Y, 35–38; statistician, U. S. Pub. Health Service, 38–41; director div. statistical research, children's bur, U. S. Dept. Labor, 41–43; *prin. med. statistician, states relations div, U. S. Pub. Health Service, 43–* Statist. Asn; Pub. Health Asn. (chairman cmt. maternal, stillbirth and infant mortality, 41); Popul. Asn; Soc. Research Child Develop. Maternal and infant mortality; congenital and environmental factors in neonatal mortality; twins; fertility; childhood mortality; population; tuberculosis mortality and morbidity.

Yerzley, Dr. F(elix) L(essing), 66 Harrison St, Verona, N. J. *Engineering, Physics.* Potsdam, N. Y, July 22, 08. M.E, Cornell, 31, Ph.D, 36. Operator, Weston Elec. Instrument Corp, 26–27; asst. physics, Cornell, 28–33, scholar, 33–34, instr. institutional eng, 34–36; physicist in charge of physical research on rubber and neoprene, E. I. du Pont de Nemours and Co, 36–41; develop. engineer, Bendix Aviation Corp, 41–42; *planning engineer, West. Elec. Co, 42–* Mem. Nat. Research Council. Mech. Eng; Chem. Soc; Soc. Automotive Eng; Soc. Test. Mat. (cmt. on rubber products). X-ray equipment; thermionic properties of tungsten; thermionic tubes; physical properties of rubber; rubber in vibration problems; ultra high frequency and infra-red apparatus; resistances sensitive to voltage and temperature changes.

Yetter, W(illiam) P, Jr, Moorestown, N. J. *Entomology.* Denver, Colo, Sept. 19, 94. B.S, Colo. Agr. Col, 18, M.S, 27. Deputy state entomologist, Colo, 18–29; *assoc. entomologist in charge* oriental fruit bait trap investigations, *div. deciduous fruit insects, bur. entom. and plant quarantine, U. S. Dept. Agr, 29–34, oriental fruit moth parasites, 34–* Asn. Econ. Entom. The codling-moth; trapping of the oriental fruit moth with baits.

Yingling, Prof. Hal C(harles), 1416 35th St, Rock Island, Ill. *Biology.* Tiffin, Ohio, Sept. 20, 90. B.S, Heidelberg Col. (Ohio), 10; univ. scholar, Ohio State, 15–16, M.S, 16, Ph.D, 42. Instr. entom, Agr. and Mech. Col. Texas, 16–19; *prof. biol, Augustana Col, 19–* A.A; Genetic Asn. Heredity; gladiolus and iris; bryophytes of Illinois and Iowa.

Yntema, Dr. C(hester) L(oomis), Cornell University Medical College, 69th St. and York Ave, New York, N. Y. *Anatomy.* Holland, Mich, Sept. 1, 04. A.B, Hope Col, 26; Ph.D, Yale, 30. Instr. *anat*, sch. med, Pennsylvania, 30–34; *med. col, Cornell*, 34–37, *asst. prof, 37–* Asn. Anat; Harvey Soc; Physiol. Soc. Phila. Development of the amphibian embryo and the chick.

Yntema, Dr. L(eonard) F(rancis), Fansteel Metallurgical Corp, North Chicago, Ill. *Chemistry.* St. Johns, Mich, July 29, 92. A.B, Hope Col, 15, Sc.D, 27; A.M, Illinois, 17, Ph.D, 21. Nat. research fellow chem, Illinois and Yale, 21–22, instr, Illinois, 23–30; prof, St. Louis, 30–43; *research dept, Fansteel Metal. Corp, 43–* A.A; Chem. Soc. (treas, Ill. sect, 25, chairman, 26); Electrochem. Soc. Inorganic chemistry; rare earths; electrochemistry of rare metals.

Yoakum, Dean Clarence S(tone), University of Michigan, Ann Arbor, Mich. *Psychology.* Leavenworth Co, Kans, Jan. 11, 79. B.S, Campbell Col, 01, A.B, 02; fellow, Chicago, 06–

08, Ph.D, 08. Asst. English, Campbell Col, 01–02, instr. philos. and educ, 02–03; science, Hiawatha Acad, 03–05; psychol, Texas, 08–17; prof. applied psychol. and director bur. personnel research, Carnegie Inst. Tech, 19–24; prof. personnel management, Michigan, 24–29; dean col. lib. arts, Northwestern, 29–30; *v. pres, Michigan, 30–, dean grad. sch, 35–* Major, div. psychol, Sanit.C, 17–19. A.A; Psychol. Asn. Applied psychology; industrial research.

Yocom, Prof. H(arry) B(arclay), University of Oregon, Eugene, Oregon. *Zoology.* Pennsville, Ohio, July 12, 88. A.B, Oberlin Col, 12; A.M, California, 16, Ph.D, 18. Instr. zool, Wabash Col, 12–13; asst, Kans. State Col, 13–14, instr, 14–15; asst, California, 15–17; prof, Washburn Col, 17–18; *asst. prof.* biol, Col. City of N. Y, 19–20; *zool, Oregon, 20–, head dept.* Director inst. marine biol, Oregon State System Higher Educ. Lieut, Sanit.C, 18. A.A; Soc. Zool. Cytology; protozoology.

Yocum, Dr. L(awson) Edwin, George Washington University, Washington, D. C. *Botany.* Catawissa, Pa, Aug. 10, 90. B.S, Pa. State Col, 16; M.S, Iowa State Col, 20, Ph.D, 24. Instr, Iowa State Col, 16–18; Pa. State Col, 18–19; Iowa State Col, 19–20; prof. *bot,* N. C. Col. for Women, 21–30; asst. prof, *George Washington,* 31–37, *assoc. prof, 37–* A.A; Bot. Soc; Soc. Plant Physiol; Wash. Acad; Bot. Soc. Wash. (pres, 43). Absorption in corn stalk tissue and biocolloids; comparison of the structure of garden pea and white sweet clover seed coats; translocation of the food material of the wheat seedling; root growth; transpiration.

Yocum, Prof. W(arren) W(atson), 2806 21st, Lubbock, Texas. *Horticultural botany.* April 12, 97. B.S, Northeast Mo. State Teachers Col, 23; A.M, Missouri, 27; Ph.D, Nebraska, 36. Instr. and asst. pomol, Nebraska, 27–37; *assoc. prof. hort, Texas Tech. Col, 37–* A.A; Soc. Hort. Sci. Sterility in apples; root development of young Delicious apple trees as affected by soils and cultural treatments; soil moisture and irrigation studies with apples.

Yoder, Prof. Lee O(wen), Drake University, Des Moines, Iowa. *Geography.* Chenoa, Ill, June 25, 87. Ed.B, Ill. State Nor. Univ, 15; M.S, Chicago, 26. Instr. geog, Illinois, 24–25; *prof. geog. and geol, Drake, 29–* Summers, asst. prof, Ind. State Teachers Col, 24, 27, 28. A.A. Regional geography; meteorology.

Yoder, Prof. Lester, Iowa State College, Ames, Iowa. *Chemistry.* Stuttgart, Ark, June 27, 92. B.S.A, Purdue, 16. M.S, 17. Asst. chemist, Exp. Sta, Iowa State Col, 17–20; asst. research chemist, Parke, Davis and Co, Detroit, 20–23; asst. chemist and *research asst. prof. chem, Exp. Sta, Iowa State Col, 25–* A.A; Chem. Soc; fel. Inst. Chem. Organic chemistry; biochemistry.

Yoder, Prof. Paul R(ufus), 1805 Moore St, Huntingdon, Pa. *Physics.* Sabetha, Kans, March 15, 99. A.B, McPherson Col, 21; fellow, Kansas, 21–22, A.M, 22; Ohio State, 32, 34; Pittsburgh, 32. Prof. math. and physics, Blue Ridge Col, 22–26; *asst. prof. physics, Juniata Col, 26–, director summer session, 38–* Asn. Physics Teachers; Pa. State Educ. Asn. The mechanical and electrical properties of the Rochelle salt crystal.

Yoe, Prof. John H(owe), University, Va. *Chemistry.* Oxford, Ala, July 19, 92. Birmingham Col, 08–10; B.S, Vanderbilt, 13, M.S, 14; Chicago, 13; A.M, Princeton, 17, Ph.D, 23. Asst. chem, Vanderbilt, 11–13, instr. biol, 13–14, biol. and chem, 14–15; asst. chem, Princeton, 15–17; junior chem. engineer, U. S. Bur. Mines, 17–18; asst. prof. *chem, Virginia,* 19–23, assoc. prof, 23–27, *prof, 27–; sect. mem, Nat. Defense Research Cmt, 40–, official investigator, 41–* Chemist, Pa. Trojan Powder Co, 19. Summers, instr, George Peabody Col, 14–17. Chemist, Va. Geol. Surv, 25–; consulting chemist, Md, D. C. and Va. Laundryowners Asn, 27–33. Research grant, Carnegie Corp, 38. Science research prize, Va. Acad. Science, 28, grant, 33, 36, 37; Jefferson award, Va. Acad. Science, 40; Interacad. award and Jefferson gold medal, Va, N. C, S. C, Ga. and Fla. Acad. Sciences, 41; Herty gold medal, 43. Lieut, C.W.S, 18–19. A.A; Chem. Soc. (ed, 'Jour,' 33, v. chairman, Va. sect, 35, chairman, 36; councilor, 39, 42); fel. Inst. Chem; Va. Acad. (chairman, chem. sect, 35). Gas masks; adsorption; detection of carbon monoxide and its removal from air; drying agents; colloids; colorimetry; nephelometry; viscosity of hydrosols; toxicity of diphtheria toxin; volumetric methods for nitrites; organic analytical reagents.

Yohe, Dr. G(ail) R(obert), 313 E. Washington St, Urbana, Ill. *Organic chemistry.* Burlington, Iowa, Feb. 8, 04. A.B, Cornell Col. (Iowa), 25; M.S, Illinois, 27, Ph.D, 29. Research chemist, Goodyear Tire and Rubber Co, Ohio, 29–30; asst. prof. chem, Ohio Wesleyan, 30–34, assoc. prof, 34–37; assoc. chemist, *Ill. Geol. Surv,* 37–42, *chemist, 42–* Chem. Soc. (sec'y-treas. div. gas and fuel chem, 41–). Synthetic organic chemistry; coal.

Yonkman, Prof. Fredrick F(rancis), Wayne University College of Medicine, Detroit, Mich. *Pharmacology.* Holland, Mich, Sept. 9, 02. A.B, Hope Col, 25; Yale, 25–26; Ph.D, Iowa, 28; M.D, Boston, 39. Instr. *pharmacol,* Iowa, 28–29; asst. prof, sch. med, Boston, 29–34, assoc. prof, 34–39; *prof, col. med, Wayne, 39–* Lecturer, Gordon Col, 30–; Bouvé-Boston Sch. Physical Educ. Soc. Pharmacol; Soc. Exp. Biol; Am. Med. Asn; Mich. Acad; Iowa Acad. Physiology of adrenal and iris; drugs affecting iris and intestine; sympathetic depression; Cellophane recording; strychnine, morphine, ergot and yohimbine derivatives; emergency drugs; sulfonamides; propylene glycol; isopropyl alcohol; protozyme; demerol; barbiturate poisoning; antispasmodics; war gases; new wound dressings; experimental hypertension; methyl cellulose.

York, Prof. Harlan H(arvey), University of Pennsylvania, Philadelphia, Pa. *Forest pathology.* Plainfield, Ind, Sept. 8, 75. B.S, DePauw, 03; A.M, Ohio State, 05; fellow, Columbia, 05–06; Ph.D, Hopkins, 11. Asst. bot, Ohio State, 03–05; instr, Texas, 06–09; assoc. prof. and in charge dept, Brown, 11–19; prof. bot, West Virginia, 19–23; forest pathologist in charge sci. investigations, white pine blister rust, bur. plant indust, U. S. Dept. Agr, 23; forest pathologist, Conservation Cmn, Albany, 23–29; *collaborator, bur. plant indust, U. S. Dept. Agr, 23–; prof. bot, Pennsylvania, 30–, pathologist, Morris Arboretum, 32–* Summers, assoc, Cold Spring Harbor, 06–14; bur. plant indust, U. S. Dept. Agr, 16–22; special investigator, State Conservation Dept, N. Y, 30– A.A; Bot. Soc; Phytopath. Soc; Soc. Foresters. Morphology; anatomy; histological technique; embryology of Nelumbo lutea; anatomy and biological aspects of the American mistletoe; white pine blister rust; Hylobes pales; Polyporus Schweinitzii; resinosis; forest plantings of white and red pine.

York, Prof. Robert, Jr, Carnegie Institute of Technology, Pittsburgh, Pa. *Chemical engineering.* Memphis, Tenn, Dec. 21, 12. B.S, Tennessee, 33, M.S, 34; Sc.D, Mass. Inst. Tech, 38. Teaching fellow mech. eng, Tennessee, 33–34; teaching asst. *chem. eng,* Mass. Inst. Tech, 34–35, asst, 35–37; instr, *Carnegie Inst. Tech,* 38–41, *asst. prof, 41–* Chem. Soc; Chem. Eng. Properties of gases under high pressure; thermodynamic charts of gases; vapor-liquid equilibria; industrial gas compressor design and performance.

Yost, Prof. Don M, California Institute of Technology, Pasadena, Calif. **Chemistry.* Tedrow, Ohio, Oct. 30, 93. B.S, California, 23; du Pont fellow, Calif. Inst. Tech, 24–25, Ph.D, 26. Instr. math, U. S. Navy Ground Sch, 17–18; teaching fellow, Utah, 23–24; *Calif. Inst. Tech,* 25–26, research fellow, 26–28, asst. prof. chem, 29–35, assoc. prof. *inorg. chem,* 35–42, *prof, 42–; lieut. commander, U. S. Naval Res.* Int. Educ. Board fellow, Sweden and Germany, 28–29. Math. Soc; Physical Soc. Inorganic and physical chemistry; rates of chemical reactions; Raman spectra; gas equilibria; chemical effects of x-rays; spectroscopy; thermodynamics; chemistry of platinum metals; electrode potentials of rare elements; artificial radioactivity; low temperature thermodynamics; fluorine.

Yost, Dr. F(rancis) L(orraine), 1434 Noyes St, Evanston, Ill. *Physics.* Punxsutawney, Pa, Dec. 18, 08. B.S, Kentucky, 29, M.S, 31; Ph.D, Wisconsin, 36. Research physicist, U. S. Rubber Co, 37–42; *tech. aide, div. 17, Nat. Defense Research Cmt, 42–* Physical Soc. Quantum mechanics and nuclear reactions; physical properties of rubber and practical applications of such properties.

Yost, Dr. W(illiam) Jacque, 1920 McKinney Ave, Dallas, Texas. *Physics.* Fairview, W. Va, Dec. 23, 13. A.B, Furman, 35, B.S, 36; A.M, Syracuse, 38; Ph.D, Brown, 40. Instr. math, Furman, 35–36; physics, Syracuse, 40–41; *research physicist, field research dept, Magnolia Petrol. Co, 41–* A.A; Physical Soc. Molecular and atomic structure; molecular spectra; theoretical problems in quantum mechanics.

Yothers, M(errill) A(rthur), U. S. Department of Agriculture, Yakima, Wash. *Entomology.* Ashton, Ill, Dec. 18, 83. B.S, Idaho, 07; M.S, State Col. Wash, 14. Asst. entom, Mich. State Col, 08–10; instr. entom, State Col. Wash, and asst. entomologist, Exp. Sta, 10–17; *assoc. entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 17–* Asn.

Econ. Entom. Biology and control of bud weevils, codling-moths, coulee crickets, spider mite and tree hoppers; oil sprays for insect pests; bait traps and automatic bands for codling-moths; endoparasitism of insects; the relation of woolly aphis to perennial canker of the apple; woolly apple aphid parasites.

Yothers, W(illiam) W(alter), 457 Boone St, Orlando, Fla. *Entomology.* Ashton, Ill, Sept. 15, 79. B.S, Idaho, 03; A.B, Cornell, 04. Dist. hort. inspector, Idaho, 01–03; special field agent, entom. asst. and entomologist, bur. entom, U. S. Dept. Agr, 04–35; *retired.* Consulting entomologist, 35– Asn. Econ. Entom. Hibernation of the boll weevil; effects of freeze on insects; colloidal clays as emulsifiers for mineral oils; Bordeaux-oil emulsion; rust mite on citrus; Mediterranean fruit-fly; the control of insects and mites attacking citrus trees by fumigation with hydrocyanic gas, by spraying and by dusting with sulfur.

Youden, Dr. W(illiam) J(ohn), Boyce Thompson Institute for Plant Research, 1086 N. Broadway, Yonkers, N. Y. *Physical chemistry.* Townsville, Australia, April 12, 00. B.S, Rochester, 21; fellow, Columbia, 22–23, A.M, 23, Ph.D, 24. Instr. chem, Rochester, 21–22; *physical chemist, Boyce Thompson Inst, 24–* Rockefeller Foundation fellow, Galton lab, Univ. Col, London, 37–38. A.A; Chem. Soc; Inst. Math. Statist; Statist. Asn. Tobacco mosaic virus; biometry.

Youker, Dr. M(ortimer) A(lexander), 23 Cragmere Road, Wilmington, Del. *Chemistry.* Oak Park, Ill, May 1, 05. B.S, Illinois, 26, M.S, 27, Ph.D, 29. Asst. gas eng, eng. exp. sta, Illinois, 26–29; *research chemist, Jackson lab, E. I. du Pont de Nemours and Co, 29–* Antioxidants; organic fluorine compounds; synthetic rubber; polymerization.

Youland, Prof. William E(dward), 111–10 Brentford Road, Forest Hills, L. I, N. Y. *Pathology.* Lewiston, Maine, Aug. 24, 84. A.B, Bowdoin Col, 06; M.D, McGill, 10. Intern, Bellevue Hosp, 10–11, res. path, 11–13; research bacteriologist, research lab, Dept. Health, New York, 13–14; bacteriologist, State Dept. Health, N. Y, 14–17, 19–20; pathologist, Bellevue Hosp, 20–21; instr. bacter, *N. Y. Homeop. Med. Col,* 21–22, *prof. path. and director dept, 22–* Consulting pathologist, Metropolitan Hosp, dept. hosps, New York; attending pathologist, Flower and Fifth Ave. Hosps. Capt, U.S.A, 17–19. Soc. Exp. Biol; N. Y. Path. Soc. Bacteriology.

Youmans, Dr. G(uy) P(arry), 303 E. Chicago Ave, Chicago, Ill. *Bacteriology.* St. Anthony, Idaho, Feb. 21, 08. B.S, Washington, 31, M.S, 32, Ph.D, 35, M.D, 43. Instr. *bacter, med. sch, Northwestern,* 35–42, *asst. prof, 42–* Medical bacteriology; immunology.

Youmans, Dr. John B(arlow), R. D, Brentwood, Nashville, Tenn. *Internal medicine.* Mukwonago, Wis, Sept. 3, 93. A.B, Wisconsin, 15, M.S, 16; M.D, Hopkins, 19. Director, State Cooperative Lab. Hygiene, Wis, 16–17; intern, Milwaukee Children's Hosp, Wis, 19; med. house officer, Mass. Gen. Hosp, Boston, 20–21; asst. med, Hopkins, 21–22; instr. internal med, Michigan, 22–24, asst. prof, 24–27; *med, Vanderbilt,* 27–28, *assoc. prof, 28–, director post-grad. instruction, 30–* Summer, asst. pharmacologist, U. S. Bur. Mines, C.W.S, 17. Mem. health cmn, Rockefeller Foundation, 40–41. Food and nutrition board, Nat. Research Council, 41–, med. fellowship board, 41– Am. Med. Asn; fel. Col. Physicians; Am. Physicians; Clin. and Climat. Asn; Soc. Clin. Invest. Arsphenamine; acid-base equilibrium; calcification of pericardium; liver injury in thyrotoxicosis; chemotherapy of arthritis; thyroid diseases; ergotamine; herpetic fever; nutritional edema; serum proteins; nutrition; avitaminosis; nutrition of populations.

Youmans, Prof. W(illiam) B(arton), University of Oregon Medical School, Portland, Oregon. *Physiology.* Cincinnati, Ohio, Feb. 3, 10. B.S, West. Ky. State Col, 32, A.M, 33; Ph.D, Wisconsin, 38. Instr. biol, West. Ky. State Col, 32–35; asst. *physiol,* Wisconsin, 35–36, instr, 36–38; *med. sch, Oregon,* 38–39, asst. prof, 39–41, assoc. prof, 41–42, *prof, 42–* A.A; Physiol. Soc; Soc. Exp. Biol. Nervous and humoral control of gastro-intestinal motility; chemical transmission of nerve impulses; visceral reflexes and physiology of the autonomic nervous system.

Young, Dr. Albert G(ayland), 520 Commonwealth Ave, Boston, Mass. *Pharmacology.* Beaver Park, Colo, May 12, 98. D.V.M, Colo. Agr. Col, 20; Ph.D, Wisconsin, 24; M.D, Harvard, 28. Asst. instr, Colo. Agr. Col, 19–20; instr. bacter, Wisconsin, 20–22, pharmacol, 22–24; Michigan, 24–27; fellow med, Harvard, 28–30; asst, Boston Dispensary, 30–33; instr. path, med. sch, Tufts Col, 31–32; *asst. prof. therapeut, sch. med, Boston, 32–* Med. director, Corey Hill Hosp, Brookline, 36– Heart Asn; Soc. Pharmacol. Chemotherapy of organic arsenicals; anilin poisoning; pharmacology and use of O-iodoxy benzoic acid in arthritis; pharmacology of and a test for small amounts of mercury in urine and tissues; effect of sodium thiosulfate on arsenic; mercury and lead elimination; effect of temperature and humidity on post operative pulmonary complications.

Young, Prof. A(lmon) P(aul), Michigan College of Mining and Technology, Houghton, Mich. *Mechanical engineering.* LaGrange, Ind, Dec. 27, 93. B.S, Purdue, 17. Bldg. and maintenance, Gen. Elec. Co, Ft. Wayne, Ind, 19–21; lay missionary in charge Nadiad Indust. Sch, India, board for. missions, Methodist Church, 21–27; engineer, Ross Gear and Tool Co, Lafayette, Ind, 27–29; *assoc. prof. mech. eng, Mich. Col. Min. and Tech, 30–* Second lieut, F.A, 18. Welding Soc; Mech. Eng. Welding of copper.

Young, Prof. Anne S(ewell), 737 Alden Road, Claremont, Calif. *Astronomy.* Bloomington, Wis, Jan. 2, 71. B.L, Carleton Col, 92, M.S, 97; Chicago, 98, 02; Ph.D, Columbia, 06. Instr. math, Whitman Col, 92–93, prof, 93–95; *astron, Mt. Holyoke Col,* 99–36, *emer. prof, 36–,* director, Williston Observatory, 99–36. A.A; Astron. Soc; Asn. Variable Star Observers (pres, 23); Astron. Soc. Pacific; Royal Astron. Soc. Variable stars; measurement of astronomical photographs; reduction of occultation observations.

Young, Prof. Arthur W(esley), Texas Technological College, Lubbock, Texas. *Agronomy, Soils.* Shenandoah, Iowa, May 14, 04. B.S, Iowa State Col, 29, M.S, 30, Ph.D, 32. Instr. agr. bacter, Tennessee, 32–34; prof. agron, Panhandle Agr. and Mech. Col, 34–35; assoc. prof, *Texas Tech. Col,* 35–36, *prof. plant indust. and head dept, 37–* A.A; Soil Sci. Soc; Texas Acad; Texas Agr. Workers Asn. Organic matter in arid soils; barley variety and soil moisture in the high plains; sugar beet and guayule investigations in Texas; mesquite eradication in Texas ranges.

Young, Prof. Barton R(ogers), 3401 N. Broad St, Philadelphia, Pa. *Radiology.* Spring City, Pa, Aug. 23, 03. M.D, Temple, 29. *Assoc. director dept. radiol, univ. hosp, Temple, 30–,* clin. asst, 30–31, instr, 31–33, demonstrator, 33–36, prof. *roentgenol, sch. chiropody, 34–,* asst. prof. *radiol, sch. med,* 36–40, *assoc. prof, 40–* Consulting radiologist, Phila. Induction Board, 40– Fel. Am. Med. Asn; Roentgen Ray Soc; fel. Col. Radiol; Phila. Roentgen Ray Soc. (sec'y, 36–); fel. Col. Physicians Phila. Air myelography.

Young, Prof. B(enjamin) P(ercy), 117 The Parkway, Ithaca, N. Y. *Zoology.* Kansas City, Kans, Feb. 27, 87. B.S, Kansas, 08; Ph.D, Cornell, 19. Prin, high sch, and city sch. supt, 08–15; instr. entom, Kansas, 15–17; *Cornell,* 17–19, asst. prof. *zool,* 19–40, *assoc. prof, 40–* Marine Biol. Lab, Woods Hole, Mass. A.A; Soc. Parasitol. Spring canker worm; embryology of the honey-bee; attachment of the thorax to the abdomen in Diptera; parasitic protozoa and helminths.

Young, Dr. Charles A(lbert), 209 W. 14th St, Wilmington, Del. *Organic chemistry.* Dodge Center, Minn, Oct. 11, 11. B.S, Purdue, 33; M.S, Notre Dame, 34, Ph.D, 36. *Research chemist, E. I. du Pont de Nemours and Co, 36–* A.A; Chem. Soc. Peroxide and acetylene chemistry; catalytic hydrogenation; synthetic dyestuffs; synthetic rubber; textile agents.

Young, Dr. Charlotte M, 3137 Lyndale S, Minneapolis, Minn. *Human nutrition.* Minneapolis, Minn, Aug. 19, 10. B.S, Minnesota, 35; Indiana, 35–36; M.S, Iowa State Col, 37, Ph.D, 40. Asst. *nutrition,* Minnesota, 34–35; Iowa State Col, 35–40; *instr,* Mich. State Col, 40–42; *Cornell, 42–* Summers, instr, Iowa State Col, 38–40, asst. prof, 42; guest lecturer, Cent. Col. Educ, 42. Basal metabolism; balance studies; blood studies.

Young, Dr. C(larence) B(ernard) F(ehrler), Box 292, Flushing, N. Y. *Electrochemistry.* Birmingham, Ala, May 13, 08. B.S, Howard Col. (Ala), 30; M.S, Columbia, 32, Ph.D, 35. Asst. chem, Howard Col. (Ala), 27–30; head lecture div, dept. chem, Columbia, 30–32; asst. curator, Chandler chem museum, 32–34; tech. director, U. S. Research Corp, Long Island City, N. Y, 34–37; instr. *chem. eng,* Columbia, 35–37; lecturer, N. Y. Univ, 36–37; *adj. prof, Polytech. Inst. Brooklyn, 38–* Adviser on metal finishings, Sperry Gyroscope Co, 36–37; Premier Metal Etching Co, 36–38; consultant, A. Robinson and Son, 38–; Swank Products, Inc, 38–; United

Wire Goods Mfg. Co, 39; tech. adviser, Nat. Fireworks, Inc, 41–; Clark Babbit Industries, Inc, N. Y, 43–; director, Nat. South. Production Corp, N. Y. and Ala, 43– Pres, Inst. Electrochem. and Metal, 38– A.A; Inst. Chem; Electroplaters Soc; Electrochem. Soc. Electrodeposition of alloys from acid sulfate solutions; standardization of electrodeposits; coloring of metals; education for electroplaters; anodization of aluminum, magnesium and zinc; electrodeposition of rhenium, gold, gold alloys and alloys in general; powder metallurgy, especially for magnesium and its alloys; electrolytic decomposition of aqueous solutions of ammonium chloride; electrolytic polishing of metals and alloys; production of beryllium-copper alloys by electrolytic methods.

Young, Dean C(larence) R(ichard), 119 Glenayr Road, Toronto, Ont, Can. *Structural engineering.* Near Picton, Ont, Feb. 4, 79. B.A.Sc, Toronto, 05, C.E, 14; D.Eng, Stevens Inst. Tech, 43. Detailer and designer, offices, Dom. Bridge Co, Ltd, Montreal, 02–04; Can. Foundry Co, Ltd, Toronto, 06–07; res. engineer, Toronto and York Radial Ry, 05–06; *consulting engineer, Toronto, 07–;* from lecturer to prof. civil eng, *Toronto,* 07–41, *dean faculty applied science and eng, 41–* Mem, Royal Cmn. on Transportation, Ont, 37–38. Civil Eng; Eng. Inst. Can. (councilor, 21–23, chairman, Toronto branch, 24, pres, 42). Torsional strength of steel I sections and of rectangular sections of reinforced concrete; net section of riveted tension members; economic properties of steel transmission towers; tensile value of rivets; lateral support of columns; rigidity of riveted and welded connections.

Young, Prof. Clarence W(hitford), 37 Madison St, Hamilton, N. Y. *Psychology.* St. Paul, Minn, Aug. 3, 02. A.B, Stanford, 26, A.M, 27; fellow, Iowa, 27–29, Ph.D, 29. Asst. prof. *psychol, Colgate,* 29–43, *assoc. prof, 43–* Relation between rate of neural conduction and intelligence; traits of personality related to scholastic achievement.

Young, Dr. C(lifford) C(audy), State Department of Health, Lansing, Mich. *Bacteriology, Immunology.* Manhattan, Kans, Jan. 9, 87. A.B, Kansas, 08, M.S, 09; D.P.H, Michigan, 24; hon. Sc.D, Mich. State Col, 42. Asst. prof. chem. and bacter, Kansas, 09–18; *director labs, State Dept. Health, Mich, 18–;* head dept. prev. med, Detroit Col. Med. and Surg, 31–38. Director, emergency med. service, State Defense Corps, Mich, 42– Infectious disease cmt, Med. Pan Am. Cong. Soc. Bact; Pub. Health Asn. (councilor, 25, chairman, meetings and publications, 32–36, exec. board, 42–); Chem. Soc; Water Works Asn; Soc. Exp. Biol; Inst. Int. Du Froid. Chemistry; applied immunology.

Young, Prof. C(linton) M(ason), University of Kansas, Lawrence, Kans. *Mining engineering.* Hiram, Ohio, 76. B.S, Hiram Col, 98; B.S, Case, 04, E.M, 09. Chemist, Gates Co, 04–05; assoc. prof. mining eng, Kansas, 06–14; specialist, U. S. Eng. Office, Pittsburgh, Pa, 14–15; ed, 'Colliery Engineer,' 15–16; asst. prof. mining research, Illinois, 16–19; *prof. mining eng, Kansas, 19–* Assoc. ed, 'Coal Age,' 16. Min. and Metal. Eng; Eng. Educ; Petrol. Inst; Coal Min. Inst. Causes of coal mine explosions; decomposition products of explosives; metallurgy of copper and nickel; detection of methane in mine air; natural gas; percentage of coal extracted in mining; surface subsidence; stream pollution.

Young, Prof. Dana, University of Texas, Austin, Texas. *Mechanics.* Washington, D. C, Oct. 6, 04. B.S, Yale, 26, M.S, 30; Ph.D, Michigan, 40. Field engineer, Marland Oil Co, 26–27; asst. dist. engineer, Shell Petrol. Corp, 27–28; instr. eng. mech, Yale, 28–30; structural engineer, United Eng. and Constructors, Inc, 30–34; *prof.* civil eng. and applied mech, Connecticut, 34–42; *applied mech, Texas, 42–* Civil Eng; Mech. Eng. Applied and engineering mechanics; structural theory; analysis of statically indeterminate structures; theory of elasticity.

Young, Dr. D(eWalt) S(ecrist), General Chemical Co, Laurel Hill, L. I, N. Y. *Organic chemistry.* Medford, Oregon, Aug. 17, 15. A.B, Cornell, 36; A.M, Duke, 38, Ph.D, 40. *Research chemist, Gen. Chem. Co, 39–* Fluorine.

Young, Prof. D(ixie), University of Oklahoma, Norman, Okla. *Zoology.* Itasca, Texas, 93. A.B, Oklahoma, 21, A.M, 22; Ph.D, Yale, 37. Teacher, pub. schs; instr. *zool, Oklahoma,* 22–26, asst. prof, 26–41, *assoc. prof, 41–* A.A; assoc. Soc. Zool; Okla. Acad. Protozoology.

Young, Dr. D(onnell) B(rooks), George Washington University, Washington, D. C. *Zoology.* North Hanover, Mass, April 25, 88. B.S, Amherst Col, 11; Ph.D, Columbia, 23. Prof. biol, Int. Y.M.C.A. Col, 16–18; Dalhousie, 19–20; asst. prof, Carleton Col, 20–25; assoc. prof, Arizona, 25–26, prof, 26–27, head dept, 25–27; prof. zool. and head dept, Maine, 27–33, director marine sta, 31–33; *prof. zool, George Washington, 33–,* head dept, 34–40, *asst. dean junior col, 40–* Summers, Col. of William and Mary, 15–16; instr, Marine Biol. Lab, Woods Hole, 20–28. A.A; Wash. Acad. Protozoa; invertebrate morphology.

Young, Prof. E(lrid) Gordon, Dalhousie University, Halifax, N. S, Can. *Biochemistry.* Que, Jan. 5, 97. B.A, McGill, 16, M.Sc, 19, Ramsay Mem. fellow, 19–21; Ph.D, Cambridge, 21. *Prof. biochem,* Western Ontario, 21–23; *Dalhousie, 23–* A.A; Chem. Soc; Soc. Biol. Chem; Can. Chem. Asn; fel. Royal Soc. Can; Can. Physiol. Soc. (councilor, 35, 37, 38); Biochem. Soc. Gt. Britain. Purine metabolism; chemistry of proteins; metabolism of bacteria.

Young, Prof. E(rnest) C(harles), 710 Chelsea Road, West Lafayette, Ind. *Agricultural economics.* Grove City, Pa, Sept. 29, 92. B.S, Grove City Col, 14; Ph.D, Cornell, 21. Instr. *agr. econ,* Cornell, 16–21; asst. prof, *Purdue,* 21–23, assoc. prof, 24–27, *prof,* 27–, asst. dean *grad. sch,* 33–42, *dean,* 42– Asst. to governor, Farm Credit Admin, 33. Farm Econ. Asn. (pres, 38); Statist. Asn; Int. Conf. Agr. Econ. The movement of farm population; systems of farming and prices of farm products in Indiana; farm layout; labor and power requirements in crop production; agricultural adjustments to changing price conditions.

Young, Prof. E(verett) G(illham), University of Illinois, Urbana, Ill. *Mechanical engineering.* Geneseo, Ill, 88. B.S, Illinois, 13, M.S, 16, M.E, 23. Estimator calculator, Am. Locomotive Co, 16–19; prof. ry. mech. eng, Chiaotung Univ, China, 19–24; asst. to tech. adviser, Chinese Govt. Railways, 24–26; *research prof. ry. mech. eng, Illinois, 26–* Civil Merit Order, Chinese Govt. Mech. Eng; Int. Ry. Fuel Asn. Railway mechanical engineering; history of locomotive design; design economics; analysis of locomotive tests; draft appliances.

Young, Ford, Columbia University, New York; N. Y. *Mineralogy, Economic geology.* Eugene, Oregon, Oct. 8, 14. B.S, Oregon State Col, 37; A.M, Columbia, 41, James Furman Kemp fellow, 41–42, Nathaniel Lord Britton scholar, 42–43. Instr. *geol,* Oregon, 38–39; asst, *Columbia,* 40–41, *instr. exten. div, 40–* A.A; Miner. Soc. X-ray study of the Scheelite-Powellite series and of the structure of quartz.

Young, Dr. Frank E, College of Puget Sound, Tacoma, Wash. *Physical chemistry.* Colorado Springs, Colo, June 17, 14. A.B, Colo. Col, 36, A.M, 38; Washington (St. Louis), 36–37; Ph.D, California, 41. Asst. chem, Colo. Col; Washington (St. Louis); California; research chemist, Standard Oil Co, Calif, 41–42; *instr. chem, Col. of Puget Sound, 42–, acting head dept, 42–* Chem. Soc. Heat capacities; oxidation of hydrocarbons.

Young, Dr. Gail S(ellers), Jr, Purdue University, West Lafayette, Ind. *Mathematics.* Chicago, Ill, Oct. 3, 15. A.B, Texas, 39, Ph.D, 42. Tutor pure *math,* Texas, 38–39, *instr,* 39–42; *Purdue, 42–* Math. Soc. Point-set theoretic topology.

Young, Dr. G(eorge) A(lbert), Geological Survey, Ottawa, Ont, Can. *Geology.* Montreal, Que, March 6, 78. B.Sc, McGill, 98, M.Sc, 01; Ph.D, Yale, 04. Geologist, Geol. Surv. Can, 07–24, chief geologist, 24–43; *retired.* Royal Soc. Can. (hon. librarian, 25, pres, 35). Petrography and areal geology.

Young, Dr. G(eorge) H(usband), Mellon Institute, Pittsburgh, Pa. *Chemistry.* Meyersdale, Pa, May 14, 09. B.S, Pa. State Col, 32, M.S, 34, Ph.D, 36. Develop. engineer, West. Elec. Co, 29–31; research assoc, Anthracite Inst, 32–33; asst, Inst. Paper Chem, Lawrence Col, 33; Pa. State Col, 33–35; *senior indust. fellow, Mellon Inst, 35–; director research, Stoner-Mudge Inc, 38–* Sec'y-treas, Am. Coordinating Cmt. on Corrosion, 39– A.A; Chem. Soc; Chemists' Club; Pa. Chem. Soc. (director and chairman cmt. legislation, 39–); Pa. Acad. Synthetic resins; cellulose; water purification; determinative crystallography of organic compounds; corrosion control; protective coatings; antifouling and marine paints.

Young, Geo(rge) J(oseph), 5928 Keith Ave, Oakland, Calif. *Mining.* San Francisco, Calif, Oct. 3, 76. B.S, California, 99. Anal. asst. mining, California, 99–00; asst. prof. metal, Nevada, 00–03, prof. mining and metal, 03–08, in charge, Mackay Sch. Mines, 08–13; prof. mining, Minnesota, 13–16; metal, Colo. Sch. Mines, 16–17; asst. ed. in chief, *'Eng. and*

Mining Jour,' 18–19, assoc. ed, 19–32, *consulting ed, 33–* Metallurgy; mine ventilation; cyanid process; mining of unstratified deposits.

Young, Dr. H(arland) H(arry), 7611 Paxton Ave, Chicago, Ill. *Organic chemistry.* Portland, Oregon, July 29, 08. A.B, Reed Col, 29; Ph.D, Mass. Inst. Tech, 32. *Swift and Co,* 24–29, research org. chem, 32–36, new products develop, 36–41, *asst. chief chem, 41–* Chem. Soc; Chem. Eng. Rates of reaction of benzoyl chlorides; fats and oils; glue and gelatin; adhesives; starch and dextrins; proteins and amino acids; soap and glycerine; synthetic detergents; protective colloids; patent development.

Young, Prof. H(arold) N(ewell), Virginia Polytechnic Institute, Blacksburg, Va. *Agricultural economics.* Crystaldale, N. Y, July 31, 95. B.S, Cornell, 17, Ph.D, 30. Prin, sch, N. Y, 19–20; teacher agr, Franklin Acad, N. Y, 20–25; head dept. animal husbandry, N. Y. Sch. Agr, Canton, 25–26; instr. farm management and marketing, Cornell, 26–30; assoc. prof. *agr. econ, Va. Polytech,* 30, *prof. and head dept. agr. econ. and rural sociol, 30–* Farm management; dairy farming; production and marketing of field beans in New York.

Young, Dr. Harry C(urtis), Ohio Agricultural Experiment Station, Wooster, Ohio. *Botany.* Millersburg, Ohio, Nov. 14, 88. B.S, Ohio, 13; M.S, N. C. State Col, 15; Lackland fellow, Washington (St. Louis), 15–16, Ph.D, 23. Instr. bot, N. C. State Col, 13–15; Mich. State Col, 16–18, asst. plant physiol, 18–22; fellow, Crop Protection Inst, 22–23; *chief dept. bot. and path, Ohio Exp. Sta, 23–* Serologist, U.S.A. Hosp, New Haven, Conn, 18–19. A.A; Bot. Soc; Phytopath. Soc; Ohio Acad. Fungicidal coefficients; seed sterilization; complement fixation tests for tuberculosis; Wassermann reaction in tuberculosis; nutritive deficiencies in plants; toxic property of sulfur; colloidal sulfur as a fungicide; spray injury; growth of parasitic fungi in synthetic culture media; toxin product of Fusarium; water soluble arsenic in spray material.

Young, H(arry) D(ashiell), U. S. Department of Agriculture, Manhattan, Kans. *Chemistry.* Albia, Iowa, 83. B.S, Nebraska, 08. *Assoc. chemist, insecticide div, bur. entom. and plant quarantine, U. S. Dept. Agr.* Chemistry of fumigation.

Young, Prof. H(erbert) A, Box 193, Route 1, Davis, Calif. *Chemistry.* San Diego, Calif, Oct. 10, 06. B.S, California, 28, fellow, 29–30, Ph.D, 32. Teaching fellow *chem, California,* 30–31, assoc, 31–33, instr, 33–34, asst. prof, *col. agr,* 34–40, *assoc. prof, 40–* Kinetics of the hydrogen peroxide-bromic acid reactions; reactions of ethyl mercaptan and ethyl disulfide with bromine; reactions of oleic acid and glutathione with oxygen.

Young, Dr. Hoylande D(enune), 905 E. 61st St, Chicago, Ill. *Chemistry.* Columbus, Ohio, June 26, 03. B.S, Ohio State, 22; Ph.D, Chicago, 26. Research chemist, Van Schaack Brothers Chem. Works, Inc, Chicago, 26–30; asst. prof. chem, Texas State Col. for Women, 30–31, assoc. prof, 31–34; consultant, 34–38; chemist, Pure Oil Co, 38–42; *research assoc, Chicago, 42–* A.A; Chem. Soc. Lacquers; nutrition; petroleum.

Young, Dr. Hugh Hampton, Johns Hopkins Hospital, Baltimore, Md. *Surgery.* San Antonio, Texas, Sept. 18, 70. A.B, A.M, Virginia, 93, M.D, 94. *In charge dept. urol, Hopkins, 97–, clin. prof. and visiting urologist, Brady urol. inst, Hopkins Hosp, 14–* Ed, 'Jour. Urology.' Pres, State Lunacy Cmn, Md, 08– Mem. board, nat. inst. health, U. S. Pub. Health Service. Keyes gold medal, Am. Asn. Genito-Urinary Surgeons, 37. Senior consultant urol, U.S.A; col, M.C, retired. Asn. Genito-Urinary Surg. (pres, 10); Urol. Asn. (pres, 09); Med. and Chirurg. Faculty Md. (pres, 13); fel. Royal Col. Surg. Ireland; hon. mem. Urol. Gesell; hon. mem. Asn. française d'Urol; hon. mem. Soc. Ital. d'Urol; Soc. int. d'Urol. (pres, 27). Bacteriology; pathology; urological surgery and roentgenology; chronic cystitis; pathology of the prostate gland; prostatectomy; caneer of the prostate; surgery of hermaphroditism and other genital abnormalities; congenital values; urogenital tuberculosis; diverticula; epispadias; antiseptics; intravenous germicides; infectious diseases and the intravenous injection of mercurochrome.

Young, Prof. J(acob) W(illiam) A(lbert), 5422 Blackstone Ave, Chicago, Ill. **Mathematics.* York, Pa, Dec. 28, 65. A.B, Bucknell, 87, A.M, 90; Berlin, 88–89; Ph.D, Clark, 92; Prussia, 97–98; France, 01, 03–04; Italy and Austria, 06, 08. Instr. math, Bucknell Acad, 87–88; assoc, *Chicago,* 92–94, instr, 94–97, asst. prof. *pedag. of math,* 97–08, assoc. prof, 08–26, *emer. prof, 26–* Int. Cmn. on Teaching of Math. Math. Soc; Math. Asn. The theory of groups; teaching of mathematics in European schools and in American secondary schools and colleges.

Young, Dr. James H(enry), Washington and Jefferson College, Washington, Pa. *Chemistry.* Luther, N. C, Jan. 8, 99. A.B, Marion Col, 26; A.M, Indiana, 30, Ph.D, 38. Prin, pub. schs, Ga, 26–27, senior high sch, Ga, 27–29; prof. chem. and biol, Wesleyan Col. (S. C), 30–31; asst. prof. biol. sciences and head dept. biol, Marion Col, 31–34, assoc. prof, 34–37, prof. chem, 37–41, dean men; research chemist, Anaconda Wire and Cable Co, 41–43; *asst. prof. chem, Washington and Jefferson Col, 43–* Summer, instr, Bowdon State Nor. and Indust. Col, Ga, 28; mem. staff, U. S. Naval Acad, 43. A.A; Chem. Soc. Physical chemistry; catalytic preparation of diphenyl; biocolloid and photochemical study of enzymes; adsorption of enzymes; chemistry and technology of rubber; synthetic rubbers.

Young, Dr. J(ames) H(oward), Mellon Institute, Pittsburgh, Pa. *Chemical engineering.* Kansas City, Kans, 92. B.S, Kans. State Col, 14; M.S, Ohio State, 16, Ph.D, 18. Asst, eng. exp. sta, Kans. State Col, 12–14; instr. chem, Ohio State, 16–18; *fellow, Mellon Inst, 18–; director research, H. H. Robertson Co, 22–, v. pres, 29–, gen. manager, 40–* Chem. Eng; Chem. Soc. Bituminous products; asphalt; building materials.

Young, Prof. J(ames) R(eed), University of Nevada, Reno, Nev. *Psychology.* Sharon, Pa, Sept. 4, 81. B.L, Berea Col, 07; A.B, Stanford, 09, A.M, 10; Ph.D, Chicago, 16. Teacher, Calif. State Nor. Sch, San Diego, 10–12; instr. educ, Chicago, 13–15; assoc. prof, *Nevada,* 15–17, *prof,* 17–20, *psychol, 20–, head dept, 20–* Summers, teacher, Oberlin Col; Santa Barbara State Teachers Col. Psychology and hygiene of adolescence.

Young John A(lbion), Jr, Michigan State College, East Lansing, Mich. *Geology.* Newport, R. I, Aug. 29, 09. Ph.B, Brown, 32, M.S, 34; Harvard, 37–39. Asst. geol, Brown, 32–37; paleont, Harvard, 37–39; *instr. geol, Mich. State Col, 39–* Petrographer, research div, State Highway Dept, Mich, 40–41. Paleont. Soc; Miner. Soc; Asn. Petrol. Geol; Mich. Acad; Mich. Geol. Soc. Heavy minerals; Pennsylvanian paleontology.

Young, Prof. J(ohn) F(rancis) T(odd), University of Manitoba, Winnipeg, Man, Can. *Physics.* Mimico, Ont, Dec. 21, 93. B.A, Toronto, 16, M.A, 17, Nat. Research Council Can. fellow, 20–23, Ph.D, 23. Demonstrator *physics,* Toronto, 16–17, demonstrator and asst, 23–24; asst. prof, *Manitoba,* 24–31, *assoc. prof, 31–* Physicist, dept. sci. research, The Admiralty, London, England, 17–19. Physical Soc; Winnipeg Sci. Club. Ultra-violet spectroscopy with applications to series relationships; crystal structures by x-ray methods.

Young, Dr. J(oseph) Oran, Libby, McNeill and Libby, Blue Island, Ill. *Agriculture.* Wilton, Conn, July 22, 14. A.B, Hobart Col, 37; M.Sc, Brown, 39; Ph.D, Chicago, 41. *Coordinator agr. research, Libby, McNeill and Libby.* Nutrition, development and storage of canning crops; pathology and genetics of canning crops.

Young, Prof. L(eigh) J(arvis), 2012 Washtenaw Ave, Ann Arbor, Mich. *Forestry.* Albia, Iowa, March 31, 83. Columbia; A.B, Michigan, 09, M.S.F, 11. Instr. forestry, *Michigan,* 11–14, asst. prof, 14–20, assoc. prof, 20–31, *prof. silviculture, 31–* Summers, forest asst, U. S. Forest Service, 11, 12, field asst, silvical investigations, 16; Can. Pacific Ry, 13; in charge investigations, bur. plant indust, U. S. Dept. Agr, Mich, 17, 18, New Eng. and N. Y, 20; in charge, State Land Econ. Surv, Mich, 22. A.A; Soc. Foresters; Mich. Acad. (sec'y, 30–41, pres, 43). Forest nursery and planting; effects of thinning in forests; cuttings for natural reproduction; rate of growth and yield of trees; release cuttings.

Young, Prof. Leona E(sther), 2510½ Etna St, Berkeley, Calif. *Chemistry.* Alameda, Calif. B.S, California, 15, M.S, 16, Ph.D, 28. Research chemist, Eldorado Oil Works, Berkeley, 18–20; consulting chemist, 20–22; research chemist and x-ray technician, 22–23; head dept. science, Anna Head Sch, Berkeley, 23–27; asst. prof. *chem, Mills Col,* 27–37, assoc. prof, 37–40, *prof, 40–* Chem. Soc. Physical chemistry; calomel and silver chloride electrodes in acid and neutral solutions; activity coefficient of aqueous hydrochloric acid and the single potential of the deci-molal calomel electrode; carbon dioxide content of air; optically active compounds.

Young, Prof. Leslie, University of Toronto, Toronto, Ont, Can. *Biochemistry.* Sunderland, Eng, Feb. 27, 11. B.Sc, Royal Col. Sci, 32; Bayliss-Starling Mem. scholar, London, 33-34, Ph.D, 35; Asst. lecturer biochem, univ. col, London, 34-35, lecturer, 37-39; Commonwealth Fund fellow, Washington (St. Louis) and Yale, 35-37; *assoc. prof. biochem, faculty med, Toronto, 39–* Sir Edward Frankland prize and medal, Inst. Chem. Gt. Britain and Ireland, 32. Biochem. Soc; fel. Inst. Chem. Gt. Britain and Ireland. Metabolism of foreign organic compounds.

Young, Dr. L(ewis) E(manuel), Box 146, Pittsburgh, Pa. *Mining engineering.* Topeka, Kans, Oct. 1, 78. B.S, Pa. State Col, 00; E.M, Iowa State Col, 04; Ph.D, Illinois, 15. Instr, Iowa State Col, 00-03; prof. mining, Colo. Sch. Mines, 03-07; director sch. mines, Missouri, 07-13; asst. prof, Illinois, 15-18; manager steam heating dept, Union Elec. Light and Power Co, St. Louis, 18-26; gen: manager, Union Colliery Co, St. Louis, 22-26; v. pres, Pittsburgh Coal Co, 27-39; *consulting mining engineer, 39–* Min. and Metal. Eng; Min. and Metal. Soc; Eng. Soc. West. Pa. Industrial economics; surface subsidence due to mining operations; taxation of mines; mechanization of mines.

Young, Dr. Lloyd A(rthur), Carnegie Institute of Technology, Pittsburgh, Pa. *Physics.* Lawrence, Kans, Nov. 16, 03. A.B, Kansas, 26; Ph.D, Michigan, 30. Instr. physics, Michigan, 27-30; nat. research fellow, Mass. Inst. Tech. and Harvard, 31-33; *asst. prof. theoret. physics, Carnegie Inst. Tech, 34–* Physical Soc. Theoretical physics; the application of quantum physics to atomic and nuclear problems.

Young, Prof. Mabel M(inerva), Wellesley College, Wellesley, Mass. *Mathematics.* Worcester, Mass, July 18, 72. A.B, Wellesley Col, 98; A.M, Columbia, 99; Ph.D, Hopkins, 14. Teacher, schs, 99-04; prof. *math., Wellesley Col,* 04-41, *emer. prof, 41–* A.A; Math. Soc; Math. Asn. Projective properties of surfaces and curves; Dupin's cyclide as a self-dual surface; curves arising from a single infinity of triangles tangent to a parabola.

Young, Dr. Martin D(unaway), U. S. Public Health Service, P. O. Box 1344, Columbia, S. C. *Malariology, Parasitology.* Moreland, Ga, July 4, 09. B.S, Emory, 31, univ. fellow, 31-32, M.S, 32; scholar, Hopkins, 34-35, Sc.D, 37. Prof. biol, Junior Col. Augusta, Ga, 32-34; asst. protozool, sch. hygiene and pub. health, Hopkins, 35-37; junior zoologist, *U. S. Pub. Health Service,* 37-40, assoc. zoologist, 40-42, *parasitologist, 42–* Visiting prof, Tenn. State Teachers Col, Johnson City, 39. A.A; Malaria Soc; Soc. Trop. Med; Soc. Parasitol; Asn. Southeast. Biol. (councilor, 41–, sec'y-treas, 43–); S. C. Acad. (councilor, 41–). Malaria parasitology, transmission and treatment; parasitic protozoa and helminths; balantidiasis.

Young, M(artin) T(ranthan), 800 S. Lincoln St, Tallulah, La. *Entomology.* Canton, Miss, April 5, 94. B.S, Miss. State Col, 17. *Bur. entom. and plant quarantine, U. S. Dept. Agr, 17–, assoc. entomologist, div. cotton insects.* A.A; Asn. Econ. Entom; Cotton States Entom. Field plot tests for boll weevil and cotton aphid control.

Young, Dr. M(oses) Wharton, 1421 12th St, N. W, Washington, D. C. *Neuroanatomy.* Spartanburg, S. C, Oct. 24, 04. B.S, Howard, 26, M.D, 30; Ph.D, Michigan, 34. *Asst. prof. anat., col. med, Howard.* A.A; Med-Chirurg. Soc. D. C. The nuclear pattern and fiber connections in the non-cortical telencephalon of the rabbit.

Young, Dr. P(aul) A(llen), Agricultural and Mechanical College of Texas, Jacksonville, Texas. *Plant pathology.* Concordia, Kans, May 31, 98. A.B, Wabash Col, 21; A.M, Illinois, 23, fellow, 24-25, Ph.D, 25; Cornell, 21. Asst. bot, Wabash Col, 18-21; Illinois, 21-24; asst. bot, bacter. and research, Exp. Sta, Mont. State Col, 25-35; field plant pathologist, *Exp. Sta, Agr. and Mech. Col. Texas,* 35-36, *plant pathologist in charge tomato disease lab, 36–* Summers, field asst, U. S. Dept. Agr, 19-20, asst. botanist, 35; inspector wheat flag smut, State Dept. Agr, Ill, 21; botanist, State Plant Disease Surv, Ill, 22-24. Collaborator, plant disease surv, U. S. Dept. Agr, 22– Genetic Asn; Bot. Soc; Phytopath. Soc. Facultative parasitism, host ranges and infection in fungi; wheat stem rust; potato virus diseases; oil sprays of apples and potatoes; wheat bunt; theory of freezing and emulsification; diseases caused by Sclerotinia sclerotiorum; tomato diseases; soil fumigation; cotton wilt; tomato genetics.

Young, Prof. Paul C(ampbell), Louisiana State University, Baton Rouge, La. *Psychology.* Whitewright, Texas, Oct. 29, 92. A.B, Bowdoin Col, 18; A.M, Minnesota, 20; A.M, Harvard, 22, Ph.D, 23. Asst. prof. psychol. and educ, Fla. State Col. for Women, 23-24; prof, Acadia, 24-25; assoc. prof. *psychol, Louisiana,* 25-31, *prof, 31–* A.A; Psychol. Asn. Abnormal and clinical psychology; hypnosis; suggestion; mental hygiene.

Young, Prof. Paul Thomas, University of Illinois, Urbana, Ill. *Psychology.* Los Angeles, Calif, May 26, 92. A.B, Occidental Col, 14; A.M, Princeton, 15; Ph.D, Cornell, 18. Instr. *psychol,* Minnesota, 19-21; assoc, *Illinois,* 21-25, asst. prof, 25-28, assoc. prof, 28-34, *prof, 34–* Nat. research fellow, 26-27. Ed. board, 'Jour. Social Psychol.' Psychol. Asn; Midwest. Psychol. Asn. Experimental psychology; motivation; emotion.

Young, Prof. Philena, Wells College, Aurora, N. Y. *Analytical chemistry.* Goshen, N. Y, Sept. 1, 96. A.B, Mt. Holyoke Col, 18; M.S, Chicago, 19; fellow, Michigan, 25-28, Ph.D, 28. Instr. *chem,* Mt. Holyoke Col, 19-21; Wells Col, 21-23; asst. prof, Goucher Col, 23-25; *Wells Col,* 28-29, *prof, 29–* A.A; Chem. Soc. Ceric sulfate as volumetric oxidizing agent; chromium and vanadium in steel; quantitative analysis; electrometric methods.

Young, Dr. Phoon Timothy, 78 Charles St, New York, N. Y. *Botany.* Tunghsianghsien, Chekiang, China, March 22, 96. B.A, Hangchow Col, China, 20; A.M, Southern California, 23; Ph.D, Columbia, 34. Asst. bot, Southern California, 23-24; asst. to Prof. R. A. Harper, Columbia, 25-29; *with Denver Chem. Mfg. Co, 30–* Torrey Bot. Club. Histogenesis and morphogenesis in corn root; Dictyostelium; Polysphondylium.

Young, Prof. Ralph C(hillingworth), Massachusetts Institute of Technology, Cambridge, Mass. *Chemistry.* Phoenix, N. Y, Oct. 20, 89. A.B, Syracuse, 12, A.M, 13; Ph.D, Mass. Inst. Tech, 29. Instr, high sch, 14-16; junior chemist, bur. chem, U. S. Dept. Agr, 17-18; instr. chem, Syracuse, 19-21; *Mass. Inst. Tech,* 22-29, research assoc, 29-34, asst. prof, 34-39, *assoc. prof. inorg. chem, 39–* Chem. Soc. (sec'y, northeast. sect, 30-32); Am. Acad. Chemistry of the rarer elements.

Young, Prof. Reynold K(enneth), University of Toronto, Toronto, Ont, Can. *Astrophysics.* Binbrook, Ont. B.A, Toronto, 09; Lick Observatory fellow, California, 09-12, Ph.D, 12. Instr. astron, Kansas, 12-13; observer, Dom. Observatory, 13-18; astronomer, Dom. Astrophys. Observatory, 18-24; assoc. prof. astron, *Toronto,* 24-35, *prof. astrophys. and director, David Dunlap Observatory, 35–* A.A; Astron. Soc; Royal Astron. Soc. Can; Royal Soc. Can. Spectroscopy.

Young, Dr. Richard V(alentine), 190 Bellehurst Drive, Rochester, N. Y. *Organic chemistry.* Mt. Sterling, Ill, Feb. 5, 09. A.B, Illinois, 31; Ph.D, Iowa State Col, 36. Asst. instr, Iowa State Col, 31-36; *research chemist, Eastman Kodak Co, 36–* Chem. Soc. Furan and dibenzofuran derivatives; relative reactivities of organoalkali compounds; color photography.

Young, R(obert) A(rmstrong), 219 Whittier St, N. W, Washington, D. C. *Botany, Horticulture.* Cleveland, Ohio, Oct. 30, 76. B.S, Ohio State, 06. From sci. asst. to *assoc. horticulturist, bur. plant indust, U. S. Dept. Agr, 07–* Studied native taro indust, Hawaii, 13. A.A; Bot. Soc. Wash. Culture of subtropical vegetables in southern United States, especially dasheen, chayote, Chinese matai and yams; Chinese tung-oil tree and the hardy and subtropical bamboos.

Young, Prof. Robert E(llsworth), 240 Beaver St, Waltham, Mass. *Olericulture.* Stroud, Okla, Jan. 11, 08. B.S, Okla. Agr. and Mech. Col, 30; M.S, Ohio State, 31. *Asst. research prof. veg. gardening, Exp. Sta, Mass. State Col, 31–* Soc. Hort. Sci. Plant breeding and fertilizer research with vegetable crops.

Young, Dr. Robert T(hompson), Scripps Institution of Oceanography, La Jolla, Calif. *Zoology.* Philadelphia, Pa, Feb. 14, 74. B.S, Pennsylvania, 96; fellow, Nebraska, 04-06, Ph.D, 06. Field asst, bur. biol. surv, U. S. Dept. Agr, 97; asst, U. S. Fish Cmn, 98; zool, Michigan, 98; science teacher, high sch, Colo, 03; instr. zool, North Dakota, 06-09, asst. prof, 09-14, prof, 14-26, asst. director, biol. sta, 09-14, director, 14-22; prof. biol, Montana, 27-34. A.A; Soc. Zool. Histogenesis of cestodes; nuclei of Paramecium; protective coloration; biology of lakes; biology of fish.

Young, Prof. R(obert) T(hompson), Jr, Worcester Polytechnic Institute, Worcester, Mass. *Physics.* Grand Forks, N. Dak, June 8, 08. A.B, Montana, 30; A.M, Illinois, 32; Ph.D, Harvard, 36. Asst, Illinois, 30–32; instr. *physics, Worcester Polytech,* 35–41, *asst. prof, 41–* Research assoc, Scripps Institution, California. Physical Soc. Cosmic rays; absorption of light in sea-water.

Young, Dr. Robert W(illiam), C. G. Conn, Ltd, Elkhart, Ind. *Acoustics.* Mansfield, Ohio, May 11, 08. B.S, Ohio (Athens), 30; Ph.D, Washington (Seattle), 34. Teaching fellow, Washington (Seattle), 30–34; *physicist, C. G. Conn, Ltd, 34–; div. war research, California, 42–* Fel. Acoustical Soc. (exec. councilor, 41–). Acoustics of band instruments; apparatus for the study of intonation of musical instruments; logarithmic measuring devices for sound.

Young, Dr. R(oland) S(tansfield), Nkana, Northern Rhodesia. *Chemistry.* Portage la Prairie, Man, Can, Oct. 23, 06. B.Sc, Alberta, 28, M.Sc, 30; Ph.D, Cornell, 34. Asst, Nat. Research Council Can, 30–31; research chemist, Int. Nickel Co. of Can, 34–41; *chief research chemist, Anglo Am. Corp, South Africa, 41–* A.A; Chem. Soc; Min. and Metal. Eng. Plant biochemistry; physical chemistry; metallurgy.

Young, Prof. R(oscoe) C(onkling), College of William and Mary, Williamsburg, Va. *Physics.* Lee Co, Va, Sept. 21, 85. A.B, B.S, A.M, Col. of William and Mary, 10; Ph.D, Chicago, 25. *Prof. physics,* Southeast Mo. State Teachers Col, 15–19; *Col. of William and Mary, 19–* A.A; Physical Soc; Va. Acad. Oscillating circuits.

Young, Stanley Paul, U. S. Department of the Interior, Room 61, U. S. National Museum, Washington, D. C. *Biology.* Astoria, Oregon, Oct. 30, 89. B.S, Oregon, 11. Asst. geol, Michigan, 14–15; U. S. Forest Service, Ariz, 17; U. S. Govt. hunter, bur. biol. surv, U. S. Dept. Agr, Ariz, 17–19, in charge ground squirrel control work, 19, coyote control crew, southeast. N. Mex, 20, asst. leader predatory animal control, 20–21, leader, Colo-Kans. dist, 21–27, asst. head div. econ. investigations, Wash, D. C, 27–28, prin. biologist in charge div. predatory animal and rodent control, 28–34, chief div. game management, 34–38, div. predatory and rodent control, 38–39; *zool. research and N. Am. faunal publications, fish and wildlife service, U. S. Dept. Interior, 39–* Wildlife exped, La, 34, Mex, 37. Game Protective Asn; Soc. Mammal; Outdoor Writers Asn; Biol. Soc. Wash. Natural history; measures for control of injurious rodents and predators; game management; wildlife photography; the larger mammals and means for their control.

Young, Prof. T(homas) F(raser), University of Chicago, Chicago, Ill. *Physical chemistry.* Sumter, S. C, Sept. 28, 97. A.B, California, 20, Ph.D, 23. Asst. *chem,* California, 20–21, teaching fellow, 21–23; instr, *Chicago,* 23–27, asst. prof, 27–31, *assoc. prof, 31–* Cooperating expert, Int. Critical Tables. Chem. Soc. (sec'y div. physical and inorg. chem, 42). Specific heats of metals; electrostatic charges on insulated surfaces; thermodynamics; surface tension; photoelectric effect; photoelectric phenomena; thermochemistry of electrolytic solutions; thermodynamics of solutions of mixed electrolytes.

Young, Dr. T(homas) W(ilbur), P. O. Box 996, Lake Alfred, Fla. *Horticulture.* Washington, Ind, Nov. 26, 05. B.S, Purdue, 30; M.S, Florida, 34; Ph.D, Cornell, 42. Instr. bot. and research, Miami (Fla), 31; forester-horticulturist, W. Cent. Fla. Exp. Sta, *Florida,* 35–38, *assoc. horticulturist, Citrus Exp. Sta, 42–* Fla. Hort. Soc; Soil Sci. Soc. Fla. Unfruitfulness of the Haden mango in Florida; citrus nutrition in coastal regions of Florida; citrus grove irrigation in coastal regions of Florida; citrus grove soils in coastal regions of Florida.

Young, Prof. Vernon Alphus, University of Idaho, Moscow, Idaho. *Forestry.* Joseph City, Utah, Jan. 21, 95. B.S, Utah Col, 22; fellow, Iowa State Col, 22–24, M.S, 24; Ph.D, Minnesota, 29. Instr, high sch, Wyo, 24–25; bot, Minnesota, 25–29; asst. prof, Agr. and Mech. Col. Texas, 29–30; instr. and asst. prof, N. Y. State Col. Forestry, Syracuse, 30–37; *prof. forestry, sch. forestry, Idaho, 37–* Summers, field research asst, bur. plant indust, U. S. Dept. Agr, 26–30, assoc. plant ecologist, U. S. Forest Service, 34. A.A. Winter hardiness of native plants; chemical factors of the soil which influence the distribution of native vegetation; plant succession; range and forest ecology.

Young, Dr. V(ictor) J(ay), 155-01 90th Ave, Jamaica, New York, N. Y. *Nuclear physics.* Albion, Mich, April 11, 13. A.B, Albion Col, 35; M.S, Iowa, 37, Ph.D, 40. *Instr. physics, N. Y. Univ, 40–; research engineer, Sperry Gyroscope Co, 42–* Physical Soc. Angular distribution of products of nuclear reactions; electronics and high voltage control.

Young, Prof. V(ive) H(all), University of Arkansas, Fayetteville, Ark. *Botany.* Whitewater, Wis, Dec. 5, 87. Ph.B, Wisconsin, 13, Ph.M, 14, fellow, 15–16, Ph.D, 16. Asst. bot, Wisconsin, 13–15; asst. prof, Iowa, 16–18; prof. bot, Idaho, and plant physiologist, Exp. Sta, 18–23; *prof. plant path. and head dept, Arkansas, and plant pathologist, Exp. Sta, 23–* Summers, asst. plant pathologist, U. S. Dept. Agr, 18, plant pathologist, 22. A.A; Bot. Soc; Phytopath. Soc; Ark. Acad. Plant physiology and pathology; enzymes in fungi; relation of plant diseases to environment; cotton diseases.

Young, Prof. Whiting F(aulkner), Emory and Henry College, Emory, Va. *Chemistry.* Hampton, Va, Dec. 5, 97. B.S, Col. William and Mary, 23, A.M, 24; Ph.D, Virginia, 29. Instr. chem, Col. William and Mary, 24–26; acting head dept, Southwest. La. Inst, 29–30; assoc. prof. *chem,* Va. Mil. Inst, 30–41; *prof. and head dept, Emory and Henry Col, 41–* Chem. Soc. Physical and inorganic chemistry; kinetics of the reaction versus hydrogen and oxygen over platinum as a catalyst.

Young, Prof. William C(aldwell), Yale University, Yerkes Laboratories of Primate Biology, Orange Park, Fla. *[7]Zoology.* Chicago, Ill, Sept. 8, 99. A.B, Amherst Col, 21, A.M, 25; Ph.D, Chicago, 27. Asst. zool, Chicago, 27–28; instr. biol, Brown, 28–31, asst. prof, 32–39; *assoc. prof. primate biol, Yale, 39–* Nat. research fellow, Freiburg, 31–32; hon. fellow, sch. med, Yale, 37–38; visiting lecturer, Harvard Med. Sch, 42. A.A; Soc. Zool; Asn. Anat; Soc. Exp. Biol; Asn. Study Int. Secretions; Soc. Nat. Physiology and anatomy of reproduction; function of epididymis; development of spermatozoa; hormonal control of reproductive behavior; developmental capacity of old ova and spermatozoa; reproductive physiology and behavior of the chimpanzee.

Young, Prof. W(illiam) G(ould), 955 Harvard St, Santa Monica, Calif. *Chemistry.* Colorado Springs, Colo, July 30, 02. A.B, Colo. Col, 24, A.M, 25; Ph.D, Calif. Inst. Tech, 29. Asst, coastal lab, div. plant biol, Carnegie Institution, 25–27; Am. Petrol. Inst, 27–28; nat. research fellow, Stanford, 29–30; instr, *California at Los Angeles,* 30–31, asst. prof. *chem,* 31–38, assoc. prof, 38–43, *prof, 43–, head dept, 40–* Research chemist, div. plant biol, Carnegie Institution. Chem. Soc. Atmospheric oxidation; chemistry of plant pigments; carbohydrates; preparation and configuration of stereoisomeric compounds; thermal decomposition of alcohols; molecular rearrangements; mechanism of substitution reactions.

Young, Dean W(illiam) M(orris), North Hill, Athens, Ohio. *Electrical engineering.* Omaha, Nebr, Aug. 17, 98. B.S, Illinois, 21, M.S, 22, Ph.D, 26. Asst. physics, Illinois, 21–26; adj. prof. physics, Texas Tech. Col, 26–27, assoc. prof. elec. eng, 27–30; Iowa, 30–31; research engineer, Taylor Instrument Companies, 31–37; *prof. elec. eng, Ohio (Athens), 37–, dean col. applied science, 37–* Summers, asst, West. Elec. Co, 20; prof, Omaha, 23–24; asst. engineer, Gen. Elec. Co, 27–28. Elec. Eng. (sec'y, Rochester sect, 33, chairman, 34; mem. research cmt, 39; instruments and measurements cmt, 39, chairman subcmt, 41–); Eng. Educ. Mobility of ions in corona discharge; industrial instrumentation and control of processes; motor control system; thermometer; self-acting regulator.

Youngblood, Dr. B(onney), U. S. Department of Agriculture. Washington, D. C. *Agriculture.* Milano, Texas, July 31, 81. B.S, Agr. and Mech. Col. Texas, 02, M.S, 07; Ph.D, Wisconsin, 21. Prin, high schs, Texas, 03–06; sch. supt, Okla, 06–07; agriculturist, office farm management, U. S. Dept. Agr, 07–11; director, Exp. Sta, Agr. and Mech. Col. Texas, 11–28; senior agr. economist, *U. S. Dept. Agr,* 26–28, *prin. agr. economist and prin. exp. sta. administrator, office exp. stations, 29–* Student Navajo Indian economy and life, 34. U. S. rep, Brazilian Cent. Expos, Am. Cong. Econ. Expansion and Int. Cotton Cong, Rio de Janeiro, 22. A.A; Farm Econ. Asn; Asn. Land-Grant Cols. and Univs; Rural Sociol. Soc; Group Health Asn. (trustee). Farm and ranch economics; farm management; farm housing; grazing; cotton economics and technology; marketing; research administration; soil and water conservation.

Youngburg, Prof. Guy E(dgar), 24 High St, Buffalo, N. Y. *Biochemistry.* Volga, S. Dak, Feb. 1, 84. B.S, S. Dak. State Col, 06, Ph.C, 09, M.S, 10; Ph.D, Harvard, 22. Asst. chem, S. Dak. State Col. and Exp. Sta, 10–16; asst. *biochem,* Harvard Med. Sch, 16–18; asst. prof, *med. sch, Buffalo,* 18–20, *prof. and head dept, 20–* Biochemist, Buffalo City Hosp, 18–

20, 25–30. A.A; Chem. Soc; Soc. Biol. Chem; Soc. Exp. Biol; assoc. Buffalo Acad. Med. Phosphorus metabolism.

Younge, Dr. O(tto) R(uder), Lancaster, Ky. *Agriculture.* Barslund, Denmark, Feb. 13, 01. B.S.A, Alberta, 24, M.Sc, 29; Ph.D, Minnesota, 34. Asst, Research Council Alta, 29–31; Minnesota, 31–34, soil surveyor, 35; asst. prof. agron, Arkansas, 36–42; *asst. soil scientist, soil conservation service, U. S. Dept. Agr, 42–* Collaborator, Resettlement Admin, 36–38; bur. agr. econ, U. S. Dept. Agr, 36–38. Soil Sci. Soc; Can. Soc. Tech. Agr. Soil classification; chemistry of organic soils; yield index evaluation; conservation.

Younger, Prof. John, 1836 Chelsea Road, Columbus, Ohio. *Industrial engineering.* Glasgow, Scotland, Aug. 18, 82. B.Sc, Glasgow, 03. Chief engineer, truck div, Pierce Arrow Motor Car Co, 11–17; *prof. indust. eng, Ohio State, 25–* D.S. medal. Chief eng. div, U. S. Motor Transport Corps, 17–19. Mech. Eng.

Younger, Prof. J(ohn) E(lliott), 510 Rolling Road, Chevy Chase, Md. *Engineering.* Canyon, Texas, March 7, 92. B.S, California, 23, M.S, 24, Ph.D, 25. From instr. to assoc. prof. *mech. eng,* California, 23–30, prof, 30–38; *prof. and head dept, Maryland, 38–* Consulting aeronaut. engineer. Nat. Advisory Cmt. Aeronautics, 27–29. Spirit of St. Louis gold medal, 41. 2nd lieut, A.C, 17–19, aeronaut. engineer, 27–29, senior aeronaut. engineer, 35–36. Mech. Eng. (chairman and permanent sec'y aviation div); Eng. Educ; fel. Inst. Aeronaut. Sci. Mechanical and aeronautical engineering; dynamics of airplanes; airplane construction, maintenance and repair; structural design of metal airplanes; mechanics for engineering students.

Youngken, Prof. Heber W(ilkinson), 12 Woodland St, Arlington, Mass. *Botany, Pharmacognosy.* Bucks Co, Pa, Oct. 31, 85. Ph.G, Medico-Chirurg. Col. Phila, 05, 09–11; A.B, Bucknell, 09, A.M, 12, Sc.D, 34; M.S, Pennsylvania, 14, Ph.D, 15; Phar.M, Phila. Col. Pharmacy, 19. Demonstrator biol, pharmacog. and bacter, Medico-Chirurg. Col. Phila, 09–11, instr. bot. and pharmacog, 11–12, asst. prof, 12–15, adj. prof, 15–16, prof, 16; asst. prof, Phila. Col. Pharmacy, 16–17, prof. biol. and pharmacog. and director micros. labs. and bot. garden, 17–23; *prof. pharmacog. and biol. and head dept. mat. med, Mass. Col. Pharmacy, 23–* Prof, Ursinus Col, 18–19, Bot. ed, 'U. S. Dispensatory,' 21–; ed. sect. pharmacog. and pharmaceut. bot, 'Biol. Abstracts.' Chairman cmt. on pharmaceut. bot. and pharmacog, Nat. Research Council, 22–42. Pres, Nat. Plant Science Seminar, 28. Revision cmt, U. S. Pharmacopoeia, chairman subcmt. bot. and pharmacog, 40– Ebert medal, 25, 31. Exec. sec'y sect. K, Int. Bot. Cong, 26; pres, Nat. Conf. Pharmaceut. Research, 41–42. A.A; Bot. Soc; Soc. Plant Taxon; Pharmaceut. Asn. (chairman, sci. sect, 21, hist. sect, 35); New Eng. Bot. Club; N. H. Pharmaceut. Asn; Vt. Pharmaceut. Asn; Boston Druggists' Asn. (pres, 34, 35); cor. mem. Phila. Bot. Club; hon. for. mem. Nat. Acad. Pharmacy Brazil. Pharmaceutical botany; psyllums; aconites; viburnums; pharmacognosy of endocrine glands; Apocynum; Myrica; Rheum; cultivation of medicinal plants; capsicums; United States Pharmacopoeia and Nat. Formulary revision problems.

Youngs, Prof. J(ohn) W(illiam) T(heodore), Purdue University, Lafayette, Ind. *Mathematics.* Bilaspur, India, Aug. 21, 10. B.S, Wheaton Col, 30; A.M, Ohio State, 31, Ph.D, 34. Master, Stoney Brook Sch, 34–37; instr, Ohio State, 37–41; *math, Purdue, 41–42, asst. prof, 42–* Math. Soc. Topology and analysis.

Youngstrom, Dr. Karl A(rden), P. O. Box 3608, Duke Station, Durham, N. C. *Anatomy.* Akron, Iowa, Sept. 15, 08. A.B, Kansas, 30, A.M, 32, Ph.D, 37. Asst. instr. bacter, Kansas, 30–31, *anat,* 31–33, instr, 33–37; *Duke,* 37–41, *assoc, sch. med, 41–* A.A; Asn. Anat. Reticulocytes in the fetal pig; descriptions of amphibian larvae; behavior and anatomy in amphibia; cholinesterase and behavior in amphibia and in the human fetus; cholinesterase in brain tumors.

Youtz, Prof. Lewis A(ddison), 843 E. South St, Appleton, Wis. *Chemistry.* Canton, Ohio, July 21, 64. Ph.B, Simpson Col, 90, Ph.M, 93, M.S, 02; Ph.D, Columbia, 02. Instr, high sch, Iowa, 91–93; assoc. prof. science, Simpson Col, 93–99; prof, Mont. Wesleyan, 99–00; *chem, Lawrence Col,* 02–32, *emer. prof, 32–* Chem. Soc; Soc. Chem. Indust; Wis. Acad. The determination of antimony; antimony compounds; the purity and volatility of precipitated antimony sulfid.

Youtz, Dr. Merrill A(rthur), Drackett Co, Cincinnati, Ohio. *Organic chemistry.* Indianola, Iowa, Dec. 9, 94. A.B, Lawrence Col, 16; M.S, Mass. Inst. Tech, 21, Ph.D, 22. Asst, Mass. Inst. Tech, 21, assoc, 22–23; research lab, Standard Oil Co. of Ind, 23–30; research director, North. Paper Mills, 30–36; *research chemist, Drackett Co, 36–* Research div, C.W.S, U.S.A, 17–19. Chem. Soc; Tech. Asn. Pulp and Paper Indust. Organic electrochemistry; petroleum; pulp and paper; soybean protein.

Youtz, Prof. R(ichard) P(ardee), Barnard College, Columbia University, New York, N. Y. *Psychology.* Henry, S. Dak, Jan. 14, 10. A.B, Carleton Col, 33; Ph.D, Yale, 37. Teaching fellow, Ming I Middle Sch, Fenchow, Shansi, China, 30–32; asst. research in psychol, Yale, 35–37; asst. to Dr. S. S. Stevens, Harvard, 37; instr. *psychol,* Barnard Col, Columbia, 37–39; *asst. prof,* Oberlin Col, 39–40; *Barnard Col, Columbia, 40–* A.A; assoc. Psychol. Asn; N. Y. Acad. Sciences. Pitch of modulated tone; rewarded learning in rats and humans; concept formation.

Yowell, Prof. Everett I(rving), 3127 Griest Ave, Cincinnati, Ohio. *Astronomy.* Cincinnati, Ohio, Jan. 2, 70. C.E, Cincinnati, 91, M.S, 93, Ph.D, 11; Göttingen, 94–95. Instr. math, Cincinnati, 91–94, 95–97, asst, observatory, 95–01; computer, U. S. Naval Observatory, 01–06; instr. math, U. S. Naval Acad, 06–09; 1st asst, *observatory, Cincinnati,* 09–30, acting director, 31–32, *director, 32–, prof. astron, 32–* Mem, U. S. Naval Observatory eclipse exped, 05; int. latitude observer, 10–16; director, Cincinnati Observatory eclipse party, 32. A.A; Astron. Soc; Math. Soc; Math. Asn; Ohio Acad. Meridian circle observations; variation of latitude; proper motion of stars.

Yowell, Dr. Howard L(ogan), 1120 Anna St, Elizabeth, N. J. *Organic chemistry.* Litchfield, Ill, Feb. 3, 16. B.Ed, South. Ill. Nor. Univ, 38; Ph.D, Ohio State, 42. Asst. org. chem, Ohio State, 39–42; *research chemist, Standard Oil Develop. Co, 42–* Chemists' Club. Correlation of absorption spectra, rotatory dispersion and structure of mandelic acid derivatives; chemical products from petroleum.

Yuan, Dr. Luke C(hia) L(iu), California, Institute of Technology, Pasadena, Calif. *Physics.* Changtehfu, Honan, China, April 5, 12. B.S, Yenching, 32, M.S, 34; California, 36–37; Ph.D, Calif. Inst. Tech, 40. Teaching asst. physics, Yenching, 32–34; asst, *Calif. Inst. Tech,* 37–40, *research fellow, 40–* Ultra-high-frequency direction finding.

Yudkin, Dr. Arthur M(eyer), 257 Church St, New Haven, Conn. *Ophthalmology.* Ansonia, Conn, Dec. 31, 92. Ph.B, Yale, 14, M.D, 17. Clin. instr. *ophthal, Yale,* 19–25, asst. clin. prof, 25–28, assoc. clin. prof, 28–34, *clin. prof, 34–* Consulting ophthalmologist, Grace Hosp, New Haven; Bristol Hosp, Conn; chief ophthal. clinic, New Haven Dispensary; attending ophthalmologist, New Haven Hosp. A.A; Ophthal. Soc; Soc. Exp. Biol; advisory mem. Soc. Prev. Blindness; N. Y. Acad. Med. Relation of diet to the eye; the chemical and physical properties of the aqueous and vitreous humors of the eye; vitamin A in ocular tissue; chemical and physical properties of the retina; cataracts in rats; vitamin therapy in ophthalmology.

Yulle, Dr. Charles L(aing), McGill University, Montreal, Que, Can. *Experimental pathology.* Can, Aug. 22, 06. B.A, McGill, 27, M.D, 35. Res. *path,* Mallory Inst. Path, Boston, Mass, 36–37; asst. and instr, sch. med. and dentistry, Rochester, 37–41; lecturer, *McGill,* 41–43, *asst. prof, 43–* Soc. Exp. Path. Protein and hemoglobin metabolism; renal function.

Yuncker, Prof. T(ruman) G(eorge), DePauw University, Greencastle, Ind. *Botany.* Carson City, Mich, March 20, 91. B.S, Mich. State Col, 14, hon. Sc.D, 41; A.M, Nebraska, 15; fellow, Illinois, 19, Ph.D, 19. Asst. bot, Nebraska, 14–15; Illinois, 17–18; asst. prof. biol, *DePauw,* 19–20, assoc. prof, 20, *prof. bot, 21–* Yale-Bishop Museum fellow, Bishop Museum, Honolulu, 32–33, 39–40, hon. assoc. botanist. Summers, herbaria, Europe, 26; prof, Southern California, 31. Mem. bot. expeds, Honduras, Cent. Amer, 34, 36, 38; Samoa and Niue Island, 39–40. Bacteriologist, Army Med. Sch, U.S.A, 18. A.A; Soc. Nat; Bot. Soc. (chairman, syst. sect, 37); Torrey Bot. Club; fel. Ind. Acad. (v. pres, 31, pres, 39). Taxonomy; flora of Indiana; world revision of Cuscuta; revisions of Peperomia for Hawaii, southeastern Polynesia, Micronesia and Fiji; flora of Honduras and of Niue Island.

Yunker, Prof. Edwin A(rthur), Oregon State College, Corvallis, Oregon. *Physics.* Gresham, Oregon, July 31, 01. A.B, California, 24; Ph.M, Wisconsin, 30; Ph.D, Stanford, 40. From instr. to *assoc. prof. physics, Oregon State Col, 25–* Physical Soc; Radio Eng. Ultra high frequency; meteorology.

Yuska, Dr. Henry, 187 Sands St, Brooklyn, N. Y. *Organic chemistry.* Brooklyn, N. Y, Nov. 7, 14. B.S, Col. City of N. Y, 35; M.S, Polytech. Inst. Brooklyn, 39; univ. fellow, Illinois, 41–42, Ph.D, 42. Asst. chem, Illinois, 41; *research org. chemist, Barrett div, Allied Chem. and Dye Corp, 42–* Chem. Soc. Structure of the ureaformaldehyde polymer; Hoesch ketone synthesis; coal tar derivatives.

Yuster, Prof. S(amuel) T(errill), Pennsylvania State College, State College, Pa. *Chemistry.* Manchester, Eng, Dec. 21, 03. B.S, N. Dak. Col, 26; Shevlin fellow, Minnesota, 31–32, Emergency fellow, 33, Ph.D, 34. Instr, high sch, N. Dak, 26–27; junior chemist, Bur. Standards, 27–29; asst, Minnesota, 29–31, 32–33, research assoc. physical chem, 33–34; from asst. to *assoc. prof. petrol. and nat. gas eng. and in charge secondary recovery research, sch. mineral industries, Pa. State Col, 35–* A.A; Chem. Soc. (sec'y, v. chairman and chairman, cent. Pa. sect, 39–41); Petrol. Inst. (cmt. core testing; cmt. secondary recovery; cmt. gen. production). Reaction kinetics; catalysis; adsorption; surface tension; utilization of hydrocarbon gases; heavy hydrogen; the mechanism of petroleum production.

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Zabel, Dr. H(artie) E(mil), 3208 Sheffield Ave, Chicago, Ill. *Anatomy.* Deer Creek, Minn, March 17, 87. A.B, Baldwin-Wallace Col, 07; A.M, Minnesota, 13; fellow, Chicago, 14–15, Ph.D, 15. Instr, Iowa, 15–17; head dept. biol, Denoyer-Geppert Co, 21–33, biol. sales, 33–37; *rep, Clay-Adams Co, 37–* A.A; Minn. Acad; Iowa Acad. Semantics; health instruction; history of science.

Zabel, Dr. Rolland M(eyer), Sylvania Electric Products, Inc, Salem, Mass. *Physics.* Western, Nebr, Jan. 20, 08. A.B, Nebr. Wesleyan, 29; M.S, Iowa, 31, Ph.D, 32. Nat. research fellow physics, Mass. Inst. Tech, 32–34; mem. research lab, *Sylvania Elec. Products, Inc,* 34–37, chief engineer, lamp div, 37–41, manager eng. and mfg, 41–43, *gen. eng. manager lighting products, 43–* A.A; Illum. Eng. Soc; fel. Physical Soc. Scattering of molecular rays in gases; reflection of molecular rays from crystals; temperature control; vapor pressure; vacuum pumps; incandescent lamps; gaseous discharge lighting.

Zabor, Dr. J(ohn) William, Northwestern University, Evanston, Ill. *Physical chemistry.* Cleveland, Ohio, Jan. 27, 15. A.B, Hiram Col, 36; univ. fellow, Brown, 37–38, M.S, 38; Sherman Clarke fellow, Rochester, 38–40, Ph.D, 40. Asst, Brown, 36–37; instr. chem, Williams Col, 40–42; *chem. research assoc, cent. lab, sect. 10.1, Nat. Defense Research Cmt, Northwestern, 42–* Asst, Oceanog. Inst, Woods Hole, 40, research fellow, 41. Chem. Soc. Photochemistry; reaction kinetics; oceanography.

Zacharias, Dr. J(errold) R(einach), Hunter College, 68th St. and Park Ave, New York, N. Y. *Physics.* Jacksonville, Fla, Jan. 23, 05. A.B, Columbia, 26, A.M, 27, Ph.D, 33. Tutor *physics,* Col. City of N. Y, 29–30; instr, *Hunter Col,* 31–36, *asst. prof, 36–* Physical Soc. Molecular rays.

Zachariasen, Prof. (Fredrik) W(illiam) H(oulder), University of Chicago, Chicago, Ill. ***⁷***Physics.* Langesund, Norway, Feb. 5, 06. Ph.D, Oslo, 28. Asst. prof. *physics,* Oslo, 28–30; *Ryerson physical lab, Chicago,* 30–39, *assoc. prof, 39–* Rockefeller Foundation fellow, Manchester, 28–29; Guggenheim Mem. Foundation fellow, 35. Assoc. ed, 'Jour. Chem. Physics,' 35–38. Fel. Physical Soc; Soc. X-Ray and Electron Diffraction; for. mem. Norwegian Acad. X-rays and crystal structure; structure of silicates; ionic radii; structure of inorganic radicals; atomic arrangement in glass; x-ray scattering from liquids; x-ray scattering and thermal disorder in crystals.

Zachry, Dr. Caroline B(eaumont), 17 E. 96th St, New York, N. Y. *Psychology.* New York, N. Y, April 20, 94. B.S, Columbia, 24, A.M, 25, Ph.D, 29; Oxford; N. Y. Sch. Social Work. Instr, Lincoln Sch, Teachers Col, Columbia, 22–23; assoc. prof. psychol. and head dept. psychol. and mental hygiene, N. J. State Teachers Col, Upper Montclair, 25–34; director research cmn. secondary sch. curriculum and chairman study of adolescents, Progressive Educ. Asn, 34–39, *director* inst. for study personality develop, 43; *bur. child guidance, Board Educ, New York, 42–* Mental hygiene consultant, Ethical Culture Schs, New York, 35–42; lecturer, Columbia. Summers, director workshop, Vassar Col, 40–42. A.A; Psychol. Asn; Nat. Cmt. Mental Hygiene; fel. Orthopsychiat. Asn; Progressive Educ. Asn. (director); N. Y. Acad. Mental hygiene; personality adjustments of school children; illustrations of English work in the junior high school; adolescents; emotion and conduct in adolescents; reorganizing secondary education.

Zahl, Dr. Harold Adelbert, 320 Bath Ave, Long Branch, N. J. *Physics.* Chatsworth, Ill, Aug. 24, 04. A.B, N. Cent. Col, 27; M.S, Iowa, 29, Ph.D, 31. Asst, Iowa, 27–31; *Signal Corps, U. S. Army, 31–, major.* Physical Soc; Radio Eng; N. Y. Acad. Reflection of atoms from crystals; x-rays; acoustics; applied thermodynamics; aviation instruments; vacuum tubes; development and preproduction of special Signal Corps radio equipment.

Zahl, Dr. Paul A(rthur), Haskins Laboratories, Inc, 305 E. 43rd St, New York, N. Y. *Biology, Physiology.* Bensenville, Ill, March 20, 10. A.B, N. Cent. Col, 32; scholar, Harvard, 33–34, A.M, 34, Ph.D, 36. Scholar, Woods Hole, 33; Austin teaching fellow, Harvard, 34–35; instr. histol. and comp. anat, Harvard, 35–36, Parke, Davis research fellow endocrinol, 36–37; *staff physiologist, Haskins Labs, Inc, 37–; research assoc, Union Col, 38–; cancer research assoc, Mem. Hosp, New York, 39–* Leader, Zahl-Haskins expeds, British Guiana, Brazil and Venezuela, 38, 39. A.A; Chem. Soc; Physical Soc; Soc. Zool; Soc. Exp. Biol; Asn. Cancer Research; Radiol. Soc. N. Amer; N. Y. Acad; N. Y. Elec. Soc. Biochemistry; biophysics; endocrinology; histology; shock physiology; effects of neutron irradiation and bacterial toxins on experimental tumors.

Zahm, Dr. A(lbert) F(rancis), Cosmos Club, Washington, D. C. ***²***Physics.* New Lexington, Ohio. A.M, Notre Dame, 85, LL.D, 17; M.E, Cornell, 92; Ph.D, Hopkins, 98. Prof. math, Notre Dame, 85–89, math. and mech, 90–92; mech, Catholic Univ, 95–08; director aerodynamical lab, U.S.Navy, 17–29; *chief div. aeronautics, Library of Congress, 30–* Laetare medal; Mendel medal. Gen. sec'y, Int. Conf. Aerial Navig, 93, official del, 00. Mech. Eng; fel. Inst. Aeronaut. Sci; Philos. Soc. Wash. Aerodynamics; precise measure of air velocity and pressure; airplane stress analysis; periodic stresses in gyroscopic bodies; resistance of air below 1,000 feet per second; a chronograph for small intervals of time; aerial navigation; skin friction of air up to 30 miles an hour; lift and drift of arched surfaces; law of interference of superposed planes; stability of airplanes; mechanics of high-speed balloons; soaring flight; orthoplane theorems; superaerodynamics; time loss in cross-wind flight.

Zahn, Dr. Charles T(homas), Bureau of Ships, U. S. Navy Department, Washington, D. C. *Physics.* Westminster, Md, Aug. 6, 98. B.E, Hopkins, 19; Charlotte Elizabeth Procter fellow, Princeton, 23–24, Ph.D, 24. Asst. physicist, Bur. Standards, 20–21; instr. physics, Princeton, 21–23, nat. research fellow, 24–25, asst. prof, 25–31; Int. fellow, Paris and Leipzig, 31–33; Calif. Inst. Tech, 33–34; special investigator physics, Wisconsin, 34–35; research physicist and lecturer, Michigan, 36–39; research physicist, Am. Viscose Corp, 39–41; *senior physicist, bur. ships, U. S. Navy Dept, 41–* Fel. Physical Soc. Molecular structure; dielectric constants; nuclear structure; industrial and general physics.

Zahnd, Prof. H(ugo), 748 E. 23rd St, Brooklyn, N. Y. *Biochemistry.* Berne, Switzerland, May 16, 02. B.S, N. Y. Univ, 26; fellow, Col. City of N. Y, 26–28; A.M, Columbia, 29, Ph.D, 33. Tutor *chem, Brooklyn Col, Col. City of N. Y,* 28–34, instr, 34–37, *asst. prof, 37–* Chem. Soc; fel. Inst. Chem; N. Y. Acad. Labile sulfur in proteins; sulfur amino acids; toxicology.

Zalesky, Dr. Moses, 711 N. Kimball Ave, Chicago, Ill. *Zoology.* Krynki, Poland, Jan. 1, 05. B.S, Chicago, 31, Ph.D, 34. *Supt, B'nai Zion Schs, Chicago, 34–* Soc. Zool. Endocrinology in relation to reproduction.

Zandstra, Dr. Thomas, Florida State College for Women, Tallahassee, Fla. *Nuclear physics.* Paterson, N. J, March 28, 08. A.B, Hope Col, 31; Ph.D, N. Y. Univ, 36. Asst. physics, N. Y. Univ, 31–36; instr. eng. math, Cincinnati, 36–41; *asst. prof. physics, Fla. State Col. for Women, 41–* Fla. Acad. Range measurement of alpha particles from artificial disintegration of lithium.

Zanetti, Prof. J(oquin) Enrique, Columbia University, New York, N. Y. *Chemistry.* Santo Domingo, W. I, Jan. 20, 85. A.B, Harvard, 06, A.M, 07, Ph.D, 09. Austin teaching fellow org. chem, Harvard, 07–09; instr. chem, Columbia, 09–12; director, Lab. Indust. Chem, Montevideo, Uruguay, 12–13; asst. prof. *chem, Columbia,* 13–23, assoc. prof, 23–29, *prof, 29–, director labs, 39–; col, Chem. Warfare Service, U. S. Army, 41–* Chairman div. chem. and chem. technol, Nat. Re-

search Council, 23–24, exec. cmt, 24–25. D.S. medal; Légion d'honneur; D.S.O; officer, Order of the Crown, Italy. Del, Int. Union Pure and Applied Chem, Cambridge, 23, Copenhagen, 24. Capt, Ordnance Dept, 17–18; C.W.S, 18–19, lieut. col; sec'y for the U. S. Interallied Cmn. for Chem. Warfare Supplies, 18–19. A.A; Chem. Soc; Soc. de Chim. indust. (v. pres, Am. sect, 20, pres, 21). Hydrocarbons; furoyl acetic ester; action of silicon tetrachlorid on fatty acids; thermal decomposition of natural gas condensate, benzene, propane-butane and ethane-butane; furfurane series; organic compounds of deuterium.

Zangerl, Dr. Rainer, University of Detroit, Detroit, Mich. *Zoology.* Winterthur, Switzerland, Nov. 19, 12. Ph.D, Zurich, 36, 37; Harvard, 37–38. *Instr. zool. and comp. morphol, Detroit, 39–* A.A; Soc. Zool; Soc. Vert. Paleont; Schweiz. Paleont. Gesell. Vertebrate morphology and paleontology; comparative morphology; osteology; reptiles; birds.

Zant, Prof. James H(oward), Oklahoma Agricultural and Mechanical College, Stillwater, Okla. *Mathematics.* Breckenridge, Texas, Sept. 17, 97. A.B, South. Methodist, 20; A.M, Columbia, 23, Ph.D, 34. *Assoc. prof. math,* Southeast. State Teachers Col, Okla, 23–30; *Okla. Agr. and Mech. Col, 30–, acting head dept.* Eng. Educ; Math. Asn; Nat. Council Teachers Math. Teaching of mathematics; education.

Zapffe, Carl, Brainerd, Minn. *Geology.* Milwaukee, Wis, April 23, 80. B.S, Wisconsin, 07, M.S, 08. Geologist and field asst. to Prof. C. K. Leith, 06–07; geologist, *North. Pacific Ry,* 08–25, *manager iron ore properties, 25–* Pres, Water and Light Board, Brainerd, 15–33. A.A; Soc. Econ. Geol; Min. and Metal. Eng; Chem. Soc; Water Works Asn; Lake Superior Min. Inst. Iron and manganese ores; mineral resources; water supply.

Zapp, Dr. John A(dam), Jr, Office of Civilian Defense, 122 E. 42nd St, New York 17, N. Y. *Physiological chemistry.* Pittsburgh, Pa, June 22, 11. B.S, Haverford Col, 32; A.M, Pennsylvania, 34, Ph.D, 38. Asst. instr. physiol. chem, Pennsylvania, 32–38, instr. research med, 38–43, Robert Robinson Porter fellow, 40–41, 42–43, Robert M. Girvin fellow, 41–42; *regional gas officer, second civilian defense region, Office Civilian Defense and passed asst. sanitarian, U. S. Pub. Health Service, 43–* Chem. Soc; Physiol. Soc. Phila. Determination of carnosine and anserine in mammalian muscle and the distribution of these compounds in different muscles of various species; carbohydrate, fat and protein metabolism on surviving tissue by in vitro techniques; mechanism of insulin action.

Zappe, M(ax) P(aul), 67 Carmel St, Hamden, Conn. *Entomology.* Berlin, Germany, May 7, 89. B.S, 12. Entomologist, Edison Lab, 12–14; *deputy state entomologist, Conn. Exp. Sta, New Haven, 14–* Asn. Econ. Entom.

Zarlski, Prof. O(scar), Johns Hopkins University, Baltimore, Md. ***Mathematics.* Kobryn, Poland, April 24, 99. Dr. Math, Rome, 24. Int. Educ. Board fellow, *Hopkins,* 25–27, Johnston scholar, 27–29, assoc. *math,* 29–32, assoc. prof, 32–37, *prof,* 37– Visiting mem, Inst. Advanced Study, 35–36; visiting lecturer, Moscow, 36; Guggenheim Mem. Foundation fellow, 39–40; visiting lecturer, Harvard, 40–41. Assoc. ed, 'Annals Math'; ed, 'Am. Jour. Math,' 40–42. Math. Soc. (ed. 'Trans'); Math. Asn. Algebraic geometry; topology; abstract algebra.

Zartman, Prof. I(ra) F(orry), 200 Parkview Ave, Allentown, Pa. *Physics.* Clay, Pa, Dec. 18, 99. B.S, Muhlenberg Col, 23; M.S, N. Y. Univ, 25; Whiting fellow, California, 28–29, Ph.D, 30. Instr, N. Y. Univ, 24–27; *prof. physics, Muhlenberg Col, 30–; mem. Nat. Defense Research Cmt, dept. terrestrial magnetism, Carnegie Institution, 41–* A.A; Physical Soc; Asn. Physics Teachers. Measurement of molecular velocities; ultrasonics.

Zaugg, Dr. H(arold) E(lmer), Abbott Laboratories, North Chicago, Ill. *Organic chemistry.* Chicago, Ill, Feb. 27, 16. A.B, Oberlin Col, 37; Shevlin fellow, Minnesota, 40–41, Ph.D, 41. Teaching asst. org. chem, Minnesota, 38–40; *research chemist, Abbott Labs, 41–* Chem. Soc. Mills-Nixon effect; vitamins.

Zaumeyer, Dr. W(illiam) J(ohn), U. S. Department of Agriculture, Washington, D. C. *Plant pathology.* Milwaukee, Wis, Dec. 10, 03. B.S, Wisconsin, 25, M.S, 27, Ph.D, 28. Agent, *bur. plant indust, U. S. Dept. Agr,* 27–28, asst. pathologist, 28–31, assoc. pathologist, 31–36, *pathologist, 36–* A.A; Phytopath. Soc; Bot. Soc. Wash. Bacterial blights and rust of beans; bacterial and mosaic diseases of legumes; epidemiology of bean diseases; root rot and leaf spotting diseases of peas; inheritance of and breeding for disease resistance in beans and peas.

Zaus, Prof. Earl A(lfred), 311 E. Chicago Ave, Chicago, Ill. *Physiology, Pharmacology.* Youngstown, Ohio, Sept. 8, 96. B.S, Chicago, 19, M.D, 22. Instr. cardiology, Rush Med. Col, Chicago, 26–33; anat. and physiol, *dental sch, Northwestern,* 26–31, *assoc. prof. physiol. and pharmacol. and head dept, 31–,* assoc. and later *asst. prof. med, med. sch.* Attending physician, Cook County Hosp; Wesley Mem. Hosp. Am. Med. Asn; Am. Heart Asn; Int. Soc. Dental Research. Salivary physiology; local anesthesia; vasoconstrictor drugs; dental caries; water balance and circulatory dynamics in pneumonia.

Zavarine, Prof. I(gor) N(icholas), Massachusetts Institute of Technology, Cambridge, Mass. *Metallurgy.* Kostroma City, Russia, March 5, 92. M.S, Mass. Inst. Tech, 20, Sc.D, 33. Metallurgist, Winchester Repeating Arms Co, New Haven, Conn, 19–21; asst, *Mass. Inst. Tech,* 21–22, instr, 22–29, *asst. prof. physical metal, 29–; ordnance engineer, bur. aeronautics, U. S. Navy Dept, 41–* Min. and Metal. Eng; Soc. Metals; Iron and Steel Inst. Gt. Britain; British Inst. Metals. Physical metallurgy.

Zavoico, Basil B, Petroleum Administration for War, Interior Bldg, Washington, D. C. *Geology, Petroleum engineering.* Petersburg, Russia, July, 99. B.S, Mass. Inst. Tech, 24. Geologist, Sinclair Oil and Gas Co, 24–28; consulting geologist and engineer economist, 28–36; geologist, dept. petrol. econ, Chase Nat. Bank, 36–43; asst. director div. reserves, *Petrol. Admin. for War,* 43, *chief sect. for. supply, program div, 43–* Assoc. ed, 'World Petrol,' 33–36. Major, White Russian Army, 17–20. A.A; Min. and Metal. Eng. (assoc. chairman petrol. div); Petrol. Inst; Asn. Petrol. Geol; Chem. Soc; Soc. Mil. Eng; Independent Petrol. Asn; Soc. Explor. Geophys; Statist. Asn; Seismol. Soc; Acad. Polit. Sci; Econ. Asn; Am. Geog. Soc; Oil Scouts Asn; Calif. Oil and Gas Asn; South Texas Geol. Soc; fel. Inst. Petrol, London. Reserves of crude petroleum and natural gas; economics of the oil industry, domestic and international.

Zawadzki, Dr. B(ohdan), Sarah Lawrence College, Bronxville, N. Y. *Psychology.* Turbov, March 10, 02. Ph.D, Warsaw, 28; Berlin, 29–30; Vienna, 32–33; Rockefeller Foundation fellow, S. Amer. univs, 33–34. Asst, psychol. lab, Warsaw, 24–28, lecturer, 30–31; clin. psychologist, City Vocational Guidance Board, Warsaw, 30–31; prof, Cent. Inst. Physical Educ, 31–32, 34–35; prof. and director psychol. inst, Vilno, 35–39; *lecturer,* Smith Col, 40; Wellesley Col, 40–41; *Sarah Lawrence Col, 41–* Assoc. Psychol. Asn; Soc. Psychol. Study Social Issues. Social psychology; personality study; theoretical psychology.

Zebrowski, George, Delphi, Ind. *Parasitology.* Warsaw, Poland, Nov. 27, 95. B.S, Purdue, 21, M.S, 23; J.D, Chicago Col. Law, 37. Asst. biol, Purdue, 21–23; prof, Villanova Col, 23–29; *director and owner, Villa Alba Lab; city chemist and bacteriologist, Hammond, Ind.* Exten. prof, Immaculata Col, 24–30. Summers, lecturer, Winona Lake, Ind, 22–24; Immaculata Col. and Villanova Col, 24–29. A.A; Soc. Parasitol; Entom. Soc; Ind. Acad; Pa. Acad. Hog lungworms; morphology of the American dog-tick; parasites of birds; new genera of Cladochytriaceae; shell-boring algae and fungi.

Zech, Dr. John D(avid), 207 Delaware St, Woodbury, N. J. *Organic chemistry.* Seven Valleys, Pa, Dec. 9, 14. B.S, Lebanon Valley Col, 34; M.S, Pa. State Col, 37, Ph.D, 40. Asst. chem, Pa. State Col, 37–39; *org. chemist, Socony-Vacuum Oil Co, 39–* Chem. Soc.

Zechel, Dr. Gustav, University of Illinois College of Medicine, Chicago, Ill. *Anatomy, Surgery.* Prague, Czechoslovakia, Feb. 20, 00. M.D, Prague, 25. *Asst. prof. anat. and assoc. surg, col. med, Illinois, 27–* Am. Med. Asn; Asn. Anat; Col. Surg; Inst. Med. Chicago. Thyroid gland; abdominal diseases.

Zechmeister, Prof. L(ászló), California Institute of Technology, Pasadena, Calif. *Chemistry.* Györ, Hungary, May 14, 89. Dipl, Polytech. Sch, Zurich, 11, Dr.Ing, 13. *Prof.* chem, med. sch, Univ. Pecs (Hungary), 23–40; *org. chem, Calif. Inst. Tech, 40–* Pasteur medal, Paris, 35; grand prize, Hungarian Acad. Science, 37. Hungarian Acad. Sci. Cellulose; lignin; chitin; animal and plant carotenoids; chromato-

graphic methods; enzymes; chemistry of natural organic compounds.

Zeckwer, Dr. Isolde T(herese), University of Pennsylvania School of Medicine, Philadelphia, Pa. *Pathology, Physiology.* Philadelphia, Pa, Oct. 10, 92. A.B, Bryn Mawr Col, 15; M.D, Woman's Med. Col. of Pa, 19. Res. pathologist, Mercy Hosp, Pittsburgh, 20–21; asst. path. anat, Mayo Clinic, 21–22; research worker path, Harvard Med. Sch, 22–26; research physiol, Univ. Col, London, 26–27; instr. *path, sch. med, Pennsylvania,* 27–28, assoc, 28–36, *asst. prof, 36–* Pathologist, L. I. Hosp, Boston, 22–26. A.A; Soc. Exp. Path; Asn. Path. and Bact; Physiol. Soc; Path. Soc. Phila. (sec'y-treas, 30–32); Physiol. Soc. Phila; Int. Asn. Med. Mus. Carbohydrate metabolism in experimental pathological conditions; the pituitary in experimental conditions; variations in insulin response; effect of hormones on mammary gland.

Zeek, Dr. Pearl (M), Cincinnati General Hospital, Cincinnati, Ohio. *Pathology.* Ironton, Ohio, June 4, 99. A.B, Hiram Col, 21; A.M, M.D, Columbia, 27. Asst. *path, col. med, Cincinnati,* 27–29, instr, 29–31, *asst. prof, 31–* Asst. director dept. path, Cincinnati Gen. Hosp, 31–40, attending pathologist, 40– A.A; Am. Med. Asn; Ohio Path. Soc. Cardiovascular disease.

Zeidler, Dr. F(rederick Adolph Julius), 143 College St, Toronto, Ont, Can. *Chemistry.* Crossen, Oder, Germany, May 6, 86. Jena; Heidelberg; Ph.D, Berlin, 09; Boston. Asst. research chemist to Prof. Arthur Michael, Boston, Mass, 10–12; research chemist, I. G. Farbenwerke, Hoechst-on-Main, Germany, 12–18; chief chemist, various indust. companies, Germany, Argentina and Can, 18–31; *consulting and research chemist, Toronto, Ont, 31–* Mem. cmt. wool, Nat. Research Council Can. Can. Chem. Asn; Can. Inst. Chem; Can. Asn. Textile Colorists and Chem. Organic chemistry; textiles and pure foods; forensic chemistry.

Zeiner, Lieut. Frederick N(eyer), Infirmary, Army Air Base, Colorado Springs, Colo. *Endocrinology.* Finley, N. Dak, March 20, 17. B.S, Denver, 38; univ. fellow, Indiana, 40–42, Ph.D, 42. Teaching asst. zool, Indiana, 38–40; *aviation physiologist and lieut, Air Corps, U. S. Army, 42–*

Zeit, Prof. Walter, 561 N. 15th St, Milwaukee, Wis. *Anatomy, Histology.* Medford, Wis, Dec. 18, 98. B.S, Marquette, 25, M.S, 27, Ph.D, 39. Asst. *anat, sch. med, Marquette,* 21–33, instr, 33–39, asst. prof, 39–43, *assoc. prof, 43–* Lieut, U.S.A, 25–35. Asn. Anat; assoc. Milwaukee Co. (Wis) Med. Soc. Muscle tissue.

Zeitfuchs, Dr. E(dward) H(ans), Standard Oil Company of California, Richmond, Calif. *Physical chemistry.* Portland, Oregon. B.S, California, 12; M.S, Mass. Inst. Tech, 18; Ph.D, Clark, 21. Chemist, U. S. Bur. Mines, 12–16; *physical chemist, Standard Oil Co. of Calif, 21–* Research assoc, Mass. Inst. Tech; Clark. Chem. Soc; Soc. Automotive Eng. (chairman, north. Calif. sect, 30). Free energy of copper compounds; phase rule; physical constants of petroleum products.

Zeldin, Prof. S(amuel) D(emitry), Massachusetts Institute of Technology, Cambridge, Mass. *Mathematics.* Smoliani, Russia, Sept. 18, 94. Grad, Real. Sch, Russia, 13; Ph.D, Clark, 17. Instr. math, Col. of Hawaii, 17–18; prof. math. and physics, Olivet Col. (Mich), 18–19; instr. *math, Mass. Inst. Tech,* 19–31, *asst. prof, 31–* Reader math, Col. Ent. Exam. Board, 19–35. Math. Soc; Math. Asn; Eng. Educ. Continuous groups.

Zeleny, Dr. Anthony, 1933 E. River Terrace, Minneapolis, Minn. *[2]Physics.* Racine, Wis, April 20, 70. B.S, Minnesota, 92, M.S, 93, Ph.D, 07; Chicago, 00; Göttingen, 12; Princeton, 15–16. Instr. physics, Minnesota, 97–06, asst. prof, 06–09, prof, 09–38; *retired.* A.A. (v. pres, 14); Physical Soc; for. mem. Masaryk Acad. Electric condensers; induction; moving coil galvanometer; thermo-couples; low temperatures; moisture in materials.

Zeleny, Prof. John, 44 Cold Spring St, New Haven, Conn. *[1]Physics.* Racine, Wis, March 26, 72. B.S, Minnesota, 92, Ph.D, 06; B.A, Cambridge, 99; Berlin, 97; hon. A.M, Yale, 15. Instr. *physics,* Minnesota, 92–96, asst. prof, 96–00, assoc. prof, 00–08, prof, 08–15, acting dean grad. sch, 12–13; prof, *Yale,* 15–40, emer. prof, 40–41, *lecturer, 41–* A.A. (sec'y, B, 01, sec'y, council, 10, gen. sec'y, 11); Physical Soc. (assoc. ed, 'Rev,' 13, councilor, 11–14, v. pres, 39, pres, 40); Asn. Physics Teachers; Philos. Soc; Am. Acad. Conduction of electricity through gases; photoelectric effect; mobilities of ions; properties of ionized gases; vapor pressures of solid and liquid carbonic acid; cold mixtures; propagation of smell; electrical discharges from pointed conductors; instability of electrified liquids; electrical discharges from liquid surfaces; sensitive points; electromagnetic relations; striated discharges in gases.

Zeleny, Dr. Lawrence, 4312 Van Buren St, University Park, Md. *Agricultural chemistry.* Minneapolis, Minn, April 30, 04. A.B, Minnesota, 25, Northwest Paper Co. fellow, 26–27, M.S, 27, Inst. Am. Meat Packers fellow, 30, Ph.D, 30. Asst. hort, univ. farm, Minnesota, 28–29, agr. biochem, 29; agent, U. S. Forest Service, 31–32; guest, Minnesota, 32; chief chemist, Visual Display, Inc, 33–35; assoc. chemist, *U. S. Dept. Agr,* 35–41, grain technologist, 41–42, senior grain technologist and chief standardization research sect, grain, feed and seed branch, agr. marketing service, 42–43, *prin. grain technologist and chief standardization research and testing div, grain products branch, war food admin, 43–* A.A; Chem. Soc; Oil Chem. Soc; fel. Agr. Chem; Asn. Cereal Chem. Biochemistry; chemical composition of truck crops; rancidity in lard; chemical composition of coniferous seed in relation to germinability; development of proteins in plants; chemistry and technology of cereal grains and oleaginous seeds.

Zeliff, Dr. C(lark) Courson, Pennsylvania State College, State College, Pa. *Parasitology, Protozoology.* Washingtonville, Pa, Nov. 17, 97. A.B, Lafayette Col, 22; M.S, Pennsylvania, 23; Yale, 27–29; Ph.D, Cornell, 30. Asst. prof. bot, Ala. Polytech, 22–23; acting asst. prof. biol, Davidson Col, 24–25; acting instr, Toledo, 26–27; asst. prof, Detroit, 30–31; instr. *zool, Pa. State Col,* 35–38, *asst. prof, 38–* U.S.N, 18. Soc. Parasitol. Cytological and morphological aspects of helminths and parasitic protozoa.

Zellat, Dr. Joseph S(igmund), Concord, N. H. *Bacteriology.* Philadelphia, Pa, Feb. 14, 14. A.B, Temple, 36; A.M, Pennsylvania, 37, Ph.D, 41. Asst, influenza virus lab, Pennsylvania, 39–41; *asst. bacteriologist, U. S. Pub. Health Service, 41–* Soc. Bact; Pub. Health Asn. Passive protection against the virus of influenza by the intranasal route; effect of propylene glycol aerosol on air-borne virus of influenza.

Zelle, Prof. M(ax) R(omaine), Purdue University, West Lafayette, Ind. *Genetics.* Alleman, Iowa, Oct. 11, 15. B.S, Iowa State Col, 37, Ph.D, 40. *Asst. prof. animal husbandry, Purdue, 41–* A.A; Genetics Soc. Genetics of disease resistance in mammals; nature of inherited resistance; bacterial genetics; mouse genetics; swine breeding.

Zeller, John H(enry), 3221 20th St, N. E, Washington, D. C. *Animal husbandry.* Shippensburg, Pa, Oct. 5, 94. B.S, Pa. State Col, 17; A.M, George Washington, 34. Sci. asst, div. animal husbandry, *bur. animal indust, U. S. Dept. Agr,* 17–21, 28–37, animal husbandman, 37, *senior animal husbandman in charge swine investigations, 37–* A.A; Genetic Asn; Soc. Animal Production. Swine.

Zeller, Prof. Joseph W(illiam), Northeastern University, Boston, Mass. *Mechanical engineering.* West Newton, Mass, Nov. 23, 84. B.S, Tufts Col, 09; Colorado. Production dept, Sullivan Machine Co, N. H, 09–11; instr. mech. eng, Florida, 11–12; head tech. dept, high sch, Fla, 12–18; turbine designing room, Gen. Elec. Co, Lynn, 18–19; high sch, Fla, 19–20; instr. *mech. eng,* Pennsylvania, 20; *prof. and head dept, Northeastern, 20–* Mech. Eng; Eng. Educ. Effect of high pressure in increasing the economy in back pressure power plants.

Zeller, Prof. Sanford M(yron), Oregon State Agricultural College, Corvallis, Oregon. *Botany.* Coldwater, Mich, Oct. 19, 85. B.S, Greenville Col, 09; A.B, Washington (Seattle), 12, A.M, 13; fellow, Washington (St. Louis), 14–17, Ph.D, 17. Instr. science, Seattle Pacific Col, 09–12; asst. bot, Washington (Seattle), 12–13, instr, 13–14; special investigator dendropath, Mo. Bot. Garden, 17–19; asst. prof. plant path, *Oregon State Col,* and asst. plant pathologist, *Exp. Sta,* 19–20, assoc. prof. and assoc. plant pathologist, 20–24, *prof. plant path. research and plant pathologist, 24–* Summer, kelp investigation exped, Alaska, bur. soils, U. S. Dept. Agr, 13. Assoc. ed, 'Phytopath,' 24–30. Mycol. Soc; Phytopath. Soc. (pres, Pacific div, 22–24, advisory board, 25–28). Mycology, especially Gasteromycetes; pathology of small fruits and stone fruit trees.

Zellner, Dr. Carl N(aeher), 527 Riverside Drive, Elizabeth, N. J. *Organic chemistry.* Brooklyn, N. Y, March 4, 10. A.B, Princeton, 31, A.M, 32, Ph.D, 34. *Research chemist,* Merck and Co, Inc, 34–36; *Tidewater Associated Oil Co, 37–*

Chem. Soc. Manufacture of chemicals from petroleum; plastics and high molecular weight polymers.

Zemansky, Prof. M(ark) W(aldo), 203 W. 90th St, New York, N. Y. *Physics.* New York, N. Y, May 5, 00. B.S, Col. City of N. Y, 21; A.M, Columbia, 22, Ph.D, 27. Instr. *physics, Col. City of N. Y*, 22–32, asst. prof, 32–37, *assoc. prof*, 37– Nat. research fellow, Princeton, 28–30; Berlin, 30–31. Assoc. ed, 'Am. Jour. Physics.' Fel. Physical Soc. Diffusion and quenching of resonance radiation; effective cross-sections associated with instable and metastable atoms; absorption and collision broadening of spectral lines; thermodynamics.

Zener, Dr. Clarence (Melvin), State College of Washington, Pullman, Wash. *Physics.* Indianapolis, Ind, Dec. 1, 05. A.B, Stanford, 26; Ph.D, Harvard, 29. Sheldon traveling fellow, 29–30; nat. research fellow, Harvard, 30–32; research fellow, Bristol, England, 32–34; instr. *physics,* Washington (St. Louis), 35–37; Col. City of N. Y, 37–40; *assoc. prof, State Col. Wash, 40–;* physicist, *Watertown Arsenal,* 42–43, *senior physicist, 43–* Fel. Physical Soc; Min. and Metal. Eng. Physics of metals.

Zener, Prof. Karl E(dward), Duke University, Durham, N. C. *Psychology.* Indianapolis, Ind, April 22, 03. Ph.B, Chicago, 23; A.M, Harvard, 24, Ph.D, 26. Asst. *psychol,* Harvard, 24–26; nat. research fellow, 26–27; instr, Princeton, 27–28; asst. prof, *Duke,* 28–37, *assoc. prof,* 37– Psychol. Asn. Learning; motivation; conditioned behavior; experimental esthetics.

Zentmyer, Dr. George A(ubrey), Jr, Connecticut Agricultural Experiment Station, New Haven, Conn. *Plant pathology, Forest pathology.* North Platte, Nebr, Aug. 9, 13. A.B, California at Los Angeles, 35; M.S, California, 36, Ph.D, 38. Asst, div. plant path, California, 36–37; *asst. pathologist,* div. forest path, bur. plant indust, U. S. Dept. Agr, 37–40; *Conn. Exp. Sta, 40–* A.A; Phytopath. Soc; Bot. Soc; Nat. Shade Tree Conf. Diseases of ornamental and shade trees; chemotherapy for control of wilt diseases of trees and vegetable crops.

Zerban, Prof. A(lexander) H(amilton), Pennsylvania State College, State College, Pa. *Mechanical engineering.* New York, N. Y, July 4, 04. M.E, Polytech. Inst. Brooklyn, 27; M.S, Pa. State Col, 33; Ph.D, Michigan, 40. *Assoc. prof. mech. eng, Pa. State Col; lieut. commander, U. S. Naval Res.* Soc. Naval Eng.

Zerban, Dr. F(rederick) W(illiam), 113 Pearl St, New York, N. Y. *Chemistry.* Oppenheim, Germany, Oct. 20, 80. Ph.D, Munich, 03. Asst. chem, Col. City of N. Y, 04–06; chemist, La. Sugar Exp. Sta, 06–08; director, Sugar Exp. Sta, Lima, Peru, 08–09; subdirector, Agr. Exp. Sta, Tucuman, Argentina, 09–10; research chemist, P. R. Sugar Planters Exp. Sta, 11–12; manager agr. office, Potash Syndicate, 13–17; research chemist, La. Sugar Exp. Sta, 17–20; director research, Penick and Ford, Ltd, 20–23; *chemist in charge, N. Y. Sugar Trade Lab, 23–* Asst. ed, 'Chem. Abstracts.' A.A; Chem. Soc; Inst. Chem; Chem. Eng; Asn. Cereal Chem; Inst. Food Technol; La. Sugar Cane Tech. Asn; Nat. Acad. Sciences, Lima; Sugar Tech. Asn. India; Soc. de Zymol; Asn. chim. de Sucre et de Dist. de France; Int. Soc. Sugar Cane Technol. (pres, 29–32). Carbohydrate chemistry; decolorizing carbons; rare earths; radioactivity.

Zerfas, Dr. L(eon) G(rotius), Merom, Ind. *Medicine, Biochemistry.* Frankfort, Ind, March 7, 97. B.S, Indiana, 20, M.D, 22; Ph.D, Cambridge, 41. Chief res. physician, Thorndike Mem. lab, Boston City Hosp, 24–29; asst. *med, sch. med, Indiana,* 26–28, instr, 28–29, asst. prof, 29–31, *assoc. prof, 31–* Director Lilly lab. clin. research, Indianapolis City Hosp, 26–36; physician in chief, med. service, Indianapolis City Hosp, 31–36; research, Sir Wm. Dunn Inst, England, 36–39; Karolinska Inst, Stockholm, 39–40; med. consultant, private biochem. research lab, 41. A.A; fel. Am. Med. Asn; Chem. Soc; Soc. Clin. Invest; fel. Col. Physicians; Soc. Exp. Biol; Gastro-Enterol. Asn; Cent. Soc. Clin. Research; fel. Ind. Acad. Clinical investigation; the blood; central nervous system; biochemistry; tissue metabolism; nutrition.

Zerfoss, Prof. Karl P(eak), 5315 Drexel Ave, Chicago, Ill. *Psychology.* Bedford, Ky, Aug. 31, 93. A.B, Kentucky, 16; A.M, Int. Y.M.C.A. Col, 22, Vanderbilt, 21; Nat. Council on Religion in Higher Educ. fellow, 29; Ph.D, Yale, 30. Student sec'y, Y.M.C.A, Ga. Tech, 16–17, 22–23; Washington and Lee, 23–27; *prof. psychol, George Williams Col, 30–, director grad. placement, 35–* Midwest. Asn. Psychiat. and Clin. Psychol. Background and experience of theological students; personnel study of students employed on part-time basis in the Chicago Young Men's Christian Association.

Zetek, James, Drawer C, Balboa, C. Z. *Entomology.* Chicago, Ill, Dec. 12, 86. A.B, Illinois, 11. Entomologist, Isthmian Canal Cmn, 11–13; Panama Govt, 14–15, director, Nat. Expos, Panama, 15–16; prof. biol. and hygiene, Nat. Inst, 16–18; entomologist, Panama Canal, 18–20; specialist trop. insects and *entomologist, bur. entom. and plant quarantine, U. S. Dept. Agr, 20–* Curator, Barro Colo. Island biol. lab, Inst. for Research in Trop. Amer, 23–41, res. manager C. Z. biol. area, 41–; hon. mem. sci. staff, Byrd Antarctic exped, 33. Gold medal, Nat. Inst, Panama, 15, 16, 17; grand prize, Nat. Expos, 16. A.A; Entom. Soc; Asn. Econ. Entom; Soc. Parasitol; Ecol. Soc; Malacol. Union; Ill. Acad; Wash. Acad; Entom. Soc. Wash; London Malacol. Soc; Panama Soc. Agron; Canal Zone Med. Asn; Panama Canal Nat. Hist. Soc. Medical, sanitary and tropical economic entomology; behavior; ecology; Anopheles and malaria; fruit-flies; termites; forest-inhabiting mollusks; Mollusca of Panama.

Zettlemoyer, Dr. A(lbert) C(harles), Lehigh University, Bethlehem, Pa. *Physical chemistry.* Allentown, Pa, July 13, 15. B.S, Lehigh, 36, fellow, 36–38, M.S, 38; Ph.D, Mass. Inst. Tech, 41. Teaching fellow, Mass. Inst. Tech, 38–40, instr, 40–41; research chemist, Armstrong Cork Co, 41; instr. *chem, Lehigh,* 41–43, *asst. prof, 43–* Chem. Soc. Physical-organic chemistry; low temperature heat capacities; adsorption; catalysis.

Zeusler, Capt. Frederick A, U. S. Coast Guard, Seattle, Wash. *Oceanography.* Baltimore, Md, May 20, 90. Baltimore Polytech. Inst, 08; U. S. Coast Guard Acad, 11; Naval War Col, 19; Harvard, 25; Washington (Seattle), 33; Nat. Univ, 33. Ordnance officer, *U. S. Coast Guard,* 11–13, navigator on ships, Alaska, U.S.S. 'McCulloch' and U.S.S. 'Chattanooga,' 13–20, ice patrol and destroyer duty, 20–28, 31–33, instr. seamanship and ballistics and exec. officer, Coast Guard Acad, 28–31, commander, U.S.S. 'Chelan,' 33–35, chief communications officer, 35–37, commander, U.S.S. 'Northland,' 37–38, sci. work in Arctic, U.S.S. 'Netherland,' 37, commander, U.S.S. Spencer, 38–40, *dist. officer, 40–* Lecturer, Washington (Seattle), 35, 37, 38. Geophys. Union; U. S. Naval Inst. Ice patrol observations.

Zichis, Dr. Joseph, 1800 W. Fillmore St, Chicago, Ill. *Biochemistry, Bacteriology.* Lowell, Mass, April 24, 04. B.S, Mich. State Col, 32, M.S, 33, Ph.D, 36. Research biochemist, Frederick Stearns and Co, Detroit, 34–36; director research, biol. labs, Pitman Moore Co, 36–39, research biochemist and bacteriologist, *State Health Dept, Ill,* 39–42, *asst. chief bacteriologist, 42–* Research biochemist, Passavant Mem. Hosp, 41–Pub. Health Asn; Soc. Bact; Chem. Soc. Virology; acid-base-balance; antiseptics; isolation of granulocytopoietic substances from yellow bone marrow; treatment of W. E. encephalomyelitis with hyperimmune serum; inapparent infection of sheep with hog cholera virus; production of lymphocytic choriomeningitis by application of the virus to the normal skin; antiseptics; vaccine and antisera.

Zickrick, Lyall, Research Laboratory, General Electric Co, Schenectady, N. Y. *Metallurgy.* Hutchinson, Minn, Aug. 25, 97. B.S, Washington (Seattle), 21, M.S, 22. *Metallurgist,* West. Elec. Co, 22–26; *research lab, Gen. Elec. Co, 29–* Min. and Metal. Eng; Soc. Metals. Non-ferrous metallurgy.

Zief, Dr. M(orris), Massachusetts Institute of Technology, Cambridge, Mass. *Organic chemistry.* Boston, Mass, July 8, 14. A.B, Harvard, 37; A.M, Boston, 38, Ph.D, 41. Asst, Boston, 37–41; private asst. to Prof. Michael, Harvard, 41–42; *research assoc, Mass. Inst. Tech, 42–* Chem. Soc. Amino acids; halogenated sugars; reactions of morpholine, formaldehyde and compounds containing active hydrogen atoms.

Ziefle, Dean Adolph, Oregon State Agricultural College, Corvallis, Oregon. *Pharmacy.* Ann Arbor, Mich, Aug. 19, 82. Ph.C, Michigan, 04, B.S. (Pharm), 07, M.S, 19; Phar.D, Pittsburgh, 28. Instr. pharmacy, Michigan, 05–07; asst. prof, Kansas, and state drug chemist, State Board Health, Kans, 07–09; prof. pharmacy, N. Dak. Col, and state drug chemist, Pure Food and Drug Cmn, N. Dak, 09–14; *dean col. pharmacy, Oregon State Col, 14–* Pharmaceut. Asn; Chem. Soc; Asn. Cols. Pharm. Food and drug analysis; commercial pharmacy; education.

Ziegler, Prof. E(dwin) A(llen), University of Florida, Gainesville, Fla. *Forestry.* Rebersburg, Pa. Sept. 20, 80.

A.B, Franklin and Marshall Col, 02, A.M, 13, hon. Sc.D, 23; Columbia. Prin, high sch, Pa, 02–03; with U. S. Forest Service, 03–09; instr, Pa. State Forest Sch, 09–10, director, 10–29; senior forest economist, U. S. Forest Service, 29–31; director, Pa. State Forest Research Inst, 31–35; acting chief div. forest research, State Dept. Forests and Waters, Pa, 35–37; *prof. forest econ, Florida, 37–* Lecturer, Pa. State Col, 08. Major, C.A.C, 17–18; col, C.A.Res, 29– A.A; Soc. Foresters (chairman, Gulf sect, 31); Pa. Acad. (pres, 27). Forest economics.

Ziegler, Prof. George E(lliott), 1312 E. 54th St, Chicago, Ill. *Physics.* Chicago, Ill, April 27, 07. B.S, Chicago, 29, Ph.D, 32. Instr. physics, Cent. Y.M.C.A. Col, 32–35, asst. prof, 35–36; Armour Inst. Tech, 36–39, x-ray physicist, research foundation, 35–39; *chairman physics research, Armour Research Foundation, 40–* Physical Soc. X-ray crystal structure analysis.

Ziegler, Prof. Mildred R(uth), 120 Orlin Ave, S. E, Minneapolis, Minn. *Pediatrics.* Chicago, Ill, Feb. 21, 91. A.B, Minnesota, 14, M.S, 15; Ph.D, Yale, 26. Asst. *pediat, Minnesota,* 15–20, instr, 20–25, *asst. prof, 25–* Soc. Exp. Biol; Northwest. Pediat. Soc; Minn. Acad; Int. League Against Epilepsy. Biochemistry of diseases of children; biochemistry of nutrition; mineral and water metabolism; nephrosis; epilepsy; endocrinology; enzymes.

Ziegler, Dr. Newell R(ichard), University of Missouri School of Medicine, Columbia, Mo. *Bacteriology, Immunology.* Bippus, Ind, July 5, 99. B.S, Minnesota, 25, M.S, 26, M.B, M.D, 28, Ph.D, 30. Teaching fellow bacter. and immunol, Minnesota, 26–30; asst. prof. bacter, State Col. Wash, 30–31; *assoc. prof. bacter. and prev. med, sch. med, Missouri, 31–,* acting chairman, dept, 31–32, chairman, 32–37; *Med. Corps, U. S. Army, 42–* A.A; Chem. Soc; Soc. Bact; Pub. Health Asn. Epizootic encephalitis of foxes; application of statistics to bacteriological problems.

Ziegler, Nicholas A(lexander), 5453 S. Woodlawn Ave, Chicago, Ill. *Metallurgy.* Russia, Nov. 23, 99. A.B, Columbia, 21, Met.E, 24. Metallurgist, Crucible Steel Co. of Amer, 23–25; research engineer, Westinghouse Elec. and Mfg. Co, Pa, 25–34; metallurgical consultant, indust. sales dept, W. Penn Utility System, 34–35; consulting metallurgist, 35–37; *research metallurgist, Crane Co, 37–* Instr, Carnegie Inst. Tech, 25–37. A.A; Min. and Metal. Eng; Soc. Metals. Single crystals of iron; resistance of iron alloys to high temperature oxidation; magnetic properties of metals; gases in metals; analysis for carbon; structural characteristics and the properties of metals; arc welding; steel, cast iron and brass castings; foundry practice.

Ziegler, P(aul) F(rancis), 2500 S. Dearborn St, Chicago, Ill. *Chemistry.* Columbia, Pa, March 17, 97. B.S, Franklin and Marshall Col, 20; M.S, Northwestern, 21; Chicago. Research chemist, Mayo Clinic, 21–22; asst. tech. director, Calumet Baking Powder Co, 24–29; *director research, Bauer and Black, Chicago, 29–* C.W.S, U.S.A. Chem. Soc. X-ray diffraction; surgical sutures; surgical dressing; physiological effects of aluminum.

Ziegler, Prof. P(ercival) T(homas), Pennsylvania State College, State College, Pa. *Animal husbandry.* Lederach, Pa, Sept. 11, 91. B.S, Pa. State Col, 09, M.S, 22. Vocational agr, Walker, Minn, 13–14; junior animal husbandman, poultry dept, bur. animal indust, U. S. Dept. Agr, 14; farm manager, 15–19; instr. poultry husbandry, *Pa. State Col,* 19–20, *animal husbandry,* 20–23, asst. prof, 23–28, assoc. prof, 28–33, *prof, 33–* Soc. Animal Production. The meat we eat.

Ziegler, Dr. Waldemar T(heodore), Johns Hopkins University, Baltimore, Md. *Physical chemistry.* Bartow, Fla, Aug. 2, 10. B.S, Ga. Tech, 32; M.S, Emory, 33; Ph.D, Hopkins, 38. Asst. *chem,* Emory, 33–35; *Hopkins,* 35–38, instr, 38–42, *assoc, 42–* Chem. Soc. Low temperature calorimetry; superconducting properties of thin metal films and wires.

Zieman, Lieut. Commander S(tephen) A, Division of Publications, Bureau of Medicine and Surgery, Navy Department, Washington, D. C. *Chemistry, Physics.* Mobile, Ala, June 25, 98. A.B, Gonzaga, 23, A.M, 24; M.D, Rush, Chicago, 32. Head dept. biol. and pre-med. science, Spring Hill Col, 24–27; head dept. science, junior col, Ill, 27–28; prof. chem. and head dept. physics and chem, De Paul, 28–33; clin. instr. surg, Rush Med. Col, Chicago, 33–41, instr. gynec, 34–41, surg. anat, 35–41; *clin. assoc. surg, sch. med, Loyola (Ill), 41–; lieut. commander, Med. Corps, U. S. Naval Res, and asst. ed, 'U. S. Naval Bul.' and div. publications, bur. med. and surg, U. S. Navy, Dept, 41–* Lecturer, Chicago Post-Grad. Sch. Surg, 40–41. Fel. Col. Surg; Chem. Soc. Biology; medicine; evolution and heredity; reactions after injections of estrogenic hormones; necrosis after injection; treatment for hernia; demonstration of gas laws; pilonidal cysts; nephropexy; fallacy of conjoined tendon; diagnosis of hernia; fibrosarcoma of the extremities; importance of transversalis fascia.

Zienty, Dr. Mitchell F(rank), Upjohn Company, Kalamazoo, Mich. *Organic chemistry.* Chicago, Ill, Feb. 12, 13. Ph.C, Illinois, 33; B.S, Michigan, 38, Upjohn Co. fellow, 38–41, M.S, 39, Ph.D, 41. *Research chemist, Upjohn Co, 41–* Chem. Soc. Barbiturates; chemistry of heterocyclic compounds and synthetic drugs.

Zierer, Prof. Clifford M(aynard), University of California at Los Angeles, Los Angeles, Calif. *Geography.* Batesville, Ind, July 4, 98. A.B, Indiana, 22, A.M, 23; fellow, Chicago, 23–25, Ph.D, 25. Asst. *geog,* Indiana, 22–23; Chicago, 23–25; asst. prof, *California at Los Angeles,* 25–35, *assoc. prof, 35–* Summers, instr, Cincinnati, 25; Northwestern, 28; California at Los Angeles, 26–41; research, Australia, 36–37; instr, Chicago, 42. A.A; fel. Am. Geog. Soc; Asn. Geog; Pacific Coast Geographers. Economic geography of Anglo-America and Australia; urban and industrial geography; land utilization and conservation of natural resources.

Ziering, Dr. Albert, 642 High St, Newark, N. J. *Chemistry.* New York, N. Y, Nov. 21, 15. A.B, N. Y. Univ, 37, M.S, 39, fellow, 40–42, Ph.D, 42. *Research chemist, Hoffmann-La Roche, Inc.* Chem. Soc. Ketone-phenol condensations; flavans; symmetrical and unsymmetrical cyanostilbenes.

Zierold, Prof. A(rthur) A(dalbert), 4503 Fremont St, Minneapolis, Minn. *Surgery.* Clear Lake, Minn, Oct. 3, 86. B.S, Minnesota, 16, M.B, 17, M.D, 18, fellow, Minnesota and Mayo Foundation, 18–21, Ph.D, Minnesota, 21. Asst. prof. *surg, Minnesota,* 25–30, assoc. prof, 30–35, *prof, 35–; chief surgeon, Minneapolis Gen. Hosp, 30–* Fel. Col. Surg; Surg. Asn; West. Surg. Asn; Minn. Acad. Med. Nature of craniocerebral trauma; observations of occurrence and treatment of arterial embolism; relation of fluid balance to progress of sepsis.

Zies, Dr. Emanuel G(eorge), Carnegie Institution, Geophysical Laboratory, 2801 Upton St, N.W, Washington, D. C. *Chemistry.* Baltimore, Md, Sept. 26, 83. A.B, Hopkins, 06, fellow, 08–09, Ph.D, 09. *Chemist,* Standard Lime and Stone Co, 09–13; *geophys. lab, Carnegie Institution, 13–* Nat. Geog. Soc. exped, Mt. Katmai, Alaska, 19. A.A; Chem. Soc; Geol. Soc; Wash. Acad. Geochemistry; chemical aspects of volcanism.

Ziff, Dr. Morris, College of the City of New York, New York, N. Y. *Biochemistry.* New York, N. Y, Nov. 19, 13. B.S, N. Y. Univ, 34, Ph.D, 37. Asst. chem, N. Y. Univ, 34–37, fellow, 37–39; asst. *biochem,* col. physicians and surg, *Columbia,* 39–41, *visiting scholar, 41–; instr. chem, Col. City of N. Y, 41–* A.A; Chem. Soc. Synthesis and physiological action of choline derivatives and heterocycles; constitution of the phospholipids and their biological role; chemistry of blood coagulation; plasma proteins; enzyme reactions.

Zigler, Prof. M(ichael) J(acob), 4 Birch Road, Wellesley, Mass. *Psychology.* Broadway, Va, Nov. 6, 92. A.B, Bridgewater Col, 16; A.M, Clark, 17, fellow, 17–18; Ph.D, Cornell, 20. Instr. *psychol,* Cornell, 18; Wells Col, 19; assoc. prof, Bridgewater Col, 20–21; instr, Princeton, 21–24; asst. prof, *Wellesley Col,* 24–27, assoc. prof, 27–39, *prof, 39–* Summers, lecturer, Pa. State Col, 22–24; Ohio State, 26; California at Los Angeles, 27; N. Y. Univ, 28; Mass. State Col, 30, 31. Am. Psychol. Asn. del, Inter-Soc. Color Council, 35–, councilor, 42, chairman Boston color group, 41– Psychol. Service, U.S.A, 18. A.A; Psychol. Asn; Optical Soc. Visual acuity and form perception; tactual acuity and perception of form; touch-blends; cutaneous and auditory adaptation; touch localization; intensity discrimination; color discrimination; color theory; post-contraction; neurophysiology.

Zimmer, John T(odd), American Museum of Natural History, New York, N. Y. *Ornithology.* Bridgeport, Ohio, Feb. 28, 89. B.S, Nebraska, 10, A.M, 11, Sc.D, 43. Field expert entom, Nebr. Exp. Sta, 10–13; collaborator, bur. entom, U. S. Dept. Agr, 13; asst. entomologist, Bur. Agr, P. I, 13–17; agr. expert, Dept. Agr, Papua, New Guinea, 17–21; asst, univ. museum, Nebraska, 21; asst. curator *birds,* Field Museum Nat. Hist, 22–30; assoc. curator, *Am. Museum Nat. Hist,* 30–

34, exec. curator, 35–42, *curator, 42–* Ed, 'The Auk,' 42– Ornithologist, Marshall Field Peruvian exped, 22–23; Conover-Everard African exped, 26–27. A.A; fel. Ornith. Union (cmt. on classification nomenclature, 31–, councilor, 36, 38–41; mem. cmt. Brewster Mem. award, 40–); Soc. Mammal; hon. mem. Nebr. Ornith. Union (sec'y-treas, 12); Biol. Soc. Wash. Systematic and distributional ornithology; systematic and economic entomology; birds of Nebraska, Philippine Islands and South America; bibliography and nomenclature; distribution of bird life in Peru.

Zimmer, Dr. M(eade) L(afayette), National Observatory, Cordoba, Argentina, S. Amer. *Astronomy.* Schoharie, N. Y, May 3, 80. Ph.B, 06, A.M, 08; Ph.D, Michigan, 26; Sc.D, Union (N. Y), 31. Asst. astronomer, Dudley Observatory, Union (N. Y), 06–08; Carnegie Institution sci. exped, San Luis, Argentina, 09–13; *first astronomer, Nat. Observatory of Argentina, 13–* Astron. Soc; Royal Astron. Soc; Soc. Cient. Argentina; Int. Astron. Union. Photometry; stellar motions.

Zimmer, Paul W(illiam), Lyon Mountain, N. Y. *Mining geology.* Toledo, Ohio, July 21, 18. B.S, Mich. Col. Min. and Tech, 40; Ohio State. Asst. miner, Ohio State, 40–41; *geologist, Chateaugay div, Republic Steel Corp, 41–* Min. and Metal. Eng; Miner. Soc; Soc. Econ. Geol. Geology of Lyon Mountain iron ore.

Zimmerley, Dr. H(oward) H(enry), Virginia Truck Experiment Station, Norfolk, Va. *Horticulture.* Erie, Pa, Feb. 26, 90. B.S, Pa. State Col, 12; Ph.D, Maryland, 31; Sc.D, Clemson Col, 37. Instr. hort, Pa. State Col, 13, 15; horticulturist, Kreg Pecan Co, Ga, 14; asst. hort, Va. Truck Exp. Sta, 15–16, horticulturist, 18–31; county agr. agent, Kent County, Del, 16–18; senior olericulturist, U. S. Dept. Agr, 31–32; *director, Va. Truck Exp. Sta, 32–* A.A; Soc. Hort. Sci. (v. pres, 31, pres, 35); Va. Acad. Influence of soil reaction on growth and chemical composition of certain vegetable crops; nutrition of vegetable crops; spinach and kale breeding; fertilizer placement for vegetable crops.

Zimmerli, Dr. William F(rederick), General Aniline and Film Corp, 230 Park Ave, New York, N. Y. *Chemistry.* New York, N. Y, Jan. 2, 88. B.S, Polytech. Inst. Brooklyn, 09; Ph.D, Heidelberg, 12. Research chemist, B. F. Goodrich Co, 12–14, tech. div, 24–28; asst. prof. chem, Akron, 14–16; head commercial develop. div, Roessler and Hasslacher Chem. Co, Inc, 28–33; European tech. rep, for. relations dept, E. I. du Pont de Nemours and Co, 33–38, develop. dept, 39–42; *v. pres, Gen. Aniline and Film Corp, 42–* Chem. Soc. (chairman, Rochester sect, 19, sec'y, Akron sect, 29); Chem. Eng; Chemists' Club. Manufacture and utilization of chemicals.

Zimmerman, Dr. Bernhard G(us), 825 Harding St, Westfield, N. J. *Organic chemistry, Chemical engineering.* Shiner, Texas, Nov. 1, 09. B.S, Agr. and Mech. Col. Texas, 32; M.S, Texas, 34, Ph.D, 37. Research chem. engineer, State Hy. Dept, Texas, 33–35; instr. chem, Texas, 35–37; research chemist, Gen. Aniline Works, Inc, 37–38; *production research chemist and chem. engineer, Gen. Aniline and Film Corp, 38–* Second lieut, F.A. Res, 32–37, lieut, 37– A.A; Chem. Soc; Inst. Chem. Dyestuffs and intermediates; development of plant processes; polymerization; textile auxiliaries.

Zimmerman, Prof. Carroll L(ouis), Whitman College, Walla Walla, Wash. *Physics.* Miamisburg, Ohio, June 2, 11. A.B, Miami (Ohio), 34; George Washington, 35–37; A.M, Duke, 37; Michigan, 41. Asst. *physics,* Duke, 34–35; assoc, George Washington, 35–37; instr, *Whitman Col,* 37–39, *asst. prof. and head dept, 39–; staff mem, radiation lab, Mass. Inst. Tech, 42–* Guest worker, Bur. Standards, 35–37. Physical Soc; Asn. Physics Teachers. Spectroscopy; photography and analysis of arc and spark spectra; war research.

Zimmerman, Elwood C(urtis), Bishop Museum, Honolulu 35, Hawaii. *Entomology, Biogeography.* Spokane, Wash, Dec. 8, 12. B.S, California, 36. Field entomologist, *Bishop Museum,* 34–35, asst. curator collections, 35–36, asst. entomologist, 36–37, *entomologist, 37–* Lecturer, Hawaii, 36–37, 40–41. Entomologist, Mangarevan exped. to southeast. Polynesia, 34; Henry G. Lapham Fijian exped, 38; Samoan exped, 40. A.A; Entom. Soc. Amer; Soc. Study Speciation; Pacific Coast Entom. Soc; Hawaiian Acad; Hawaiian Entom. Soc. (v. pres, 40, pres, 41, 42). Systematic entomology; geographical distributions of plants and animals; insular life; insects of Oceania; speciation on islands.

Zimmerman, Dr. H(arry) M(artin), 310 Cedar St, New Haven, Conn. *Pathology.* Vilna Province, Russia, Sept. 28, 01. B.S, Yale, 24, M.D, 27, Charles Linnaeus Ives fellow, 27–29. Instr. *path, sch. med, Yale,* 28–30, asst. prof, 30–33, *assoc. prof, 33–* Asn. Path. and Bact; Asn. Neuropath; Soc. Exp. Path; Asn. Research Nervous and Mental Disease; Soc. Exp. Biol; Neur. Asn. Neuropathology.

Zimmerman, Prof. J(ohn) C(orbin), James Millikin University, Decatur, Ill. *Chemistry.* Versailles, Ill, Nov. 13, 05. B.S, Illinois, 28; M.S, Iowa, 29, Ph.D, 31. Asst, Iowa, 28–31; instr. *chem, James Millikin,* 31–34, asst. prof, 34–40, *prof, 40–* Summers, research, Irwin-Neisler and Co, 36–42. Derivatives of diphenyl ether.

Zimmerman, Dr. Lester I(rwin), 6102 Washington Ave, St. Louis, Mo. *Physics.* Zimmerman, Ohio, Aug. 3, 88. A.B, Wittenberg Col, 09; fellow, Michigan, 12–13, A.M, 13; Ph.D, St. Louis, 30. Prof. physical science, Northeast. Ohio Nor. Sch, 09–11; physics, Carthage Col, 11–12; Alma Col, 13–15; instr, high sch, Mo, 15–25; prin, Gundlach Sch, 30–34; *prof. physics, Harris Teachers Col, St. Louis,* 25–30, *34–* A.A; Physical Soc. Light; time lag in the formation of latent photographic image; pressure effects and refraction.

Zimmerman, Prof. O(swald) T(heodore), University of New Hampshire, Durham, N. H. *Chemical engineering.* Detroit, Mich, Jan. 12, 05. B.S.E, Michigan, 29, M.S.E, 31, Ph.D, 34. Research chemist, Simmons Co, Kenosha, Wis, 29–30; sch. dentistry, Michigan, 32–34; research chemist and chem. engineer, Detroit Dental Mfg. Co, 34–35; instr. *chem. eng.* and acting head dept, North Dakota, 35–36, asst. prof. and acting head dept, 36, assoc. prof. and head dept, 36–38; assoc. prof, *New Hampshire,* 38–41, *prof, 41–* Chem. Soc; Eng. Educ; Chem. Eng. Synthetic resins; physical properties of petroleum hydrocarbons; stabilized soil roads; hydraulic cements.

Zimmerman, Dr. P(ercy) W(hite), Boyce Thompson Institute, 1086 Broadway, Yonkers, N. Y. **Botany.* Manito, Ill, Feb. 23, 84. B.S, Chicago, 15, M.S, 16, Ph.D, 25. Asst. bot, Chicago, 16; assoc. prof, Maryland, 16–17, acting dean div. plant indust, 17–18, prof. and dean col. agr, 18–25; *plant physiologist, Boyce Thompson Inst, 25–* Shared A.A.A.S. prize, 35. A.A; Bot. Soc; Soc. Hort. Sci; Torrey Bot. Club. Regeneration and plant development; growth substances; plant hormones.

Zimmerman, R(ufus) E(icher), U. S. Steel Corp, New York, N. Y. *Chemistry, Engineering.* Mt. Pleasant, Pa, Nov. 26, 86. Ph.B, Franklin and Marshall Col, 08, hon. Sc.D, 39; B.S, Mass. Inst. Tech, 11. Instr. theoret. chem, Mass. Inst. Tech, 13–14; asst. director research lab, Am. Sheet and Tin Plate Co, 15–17, director, 18–22, asst. to v. pres, 22–32; asst. to pres, *U. S. Steel Corp,* 32–33, *v. pres, 33–* Metal. advisory board, U. S. Bur. Mines and Carnegie Inst. Tech. Mem. corp, Mass. Inst. Tech; trustee, Hood College. Chem. Soc. (chairman, Pittsburgh, sect, 19, councilor, 20); Electrochem. Soc. (chairman, Pittsburgh sect, 18, mem. board, 19–21); Am. Iron and Steel Inst; Min. and Metal. Eng; Standards Asn. (pres, 41, 42); Soc. Metals. Metallurgy; steel; tin plate; zinc coatings; by-products.

Zimmermann, Prof. Arnold A(lbert), 567 Ash St, Winnetka, Ill. *Anatomy.* Diessenhofen, Switzerland, June 18, 95. Licencié, Geneva, Dr.ès Sc. Research assoc, Hooper Foundation, California, 25–26; asst, Mayo Clinic, 26–27; asst. prof. *anat,* sch. med, Loyola, 27–29; *col. med, Illinois,* 29–34; assoc. prof, 34–39, *prof, 39–* Wistar Inst, 32, 34, 35. A.A; Asn. Anat; Swiss Soc. Nat. Sci. Zoology; physiology; the lymphatic system; embryology.

Zimmermann, Dr. H(erbert) W(ilhelm), 1836 Hopkins St, Berkeley, Calif. *Physical chemistry.* Düsseldorf, Germany, Feb. 26, 04. B.S, California, 34, Ph.D, 38. *Chief chemist, Chemurgic Corp, 40–* Chem. Soc. Thermochemistry; manufacture of pigments.

Zimmermann, Paul G(erhard), 6204 Reseda Blvd, Reseda, Calif. *Mechanical engineering.* Iroquois, S. Dak, May 12, 90. M.E, Rensselaer Polytech, 13. Asst. chief engineer, Curtiss Aeroplane and Motor Co, 14–17; chief engineer, Engel Aircraft Corp, 17–18; Aeromarine Plane and Motor Co, 18–24; pres, Raritan Metals Corp, 24–25; v. pres, Sea Sled Corp, 25–27; director and v. pres, Am. Aeronaut. Corp, 28–29; consulting aeronaut. engineer, 29–30; gen. manager, Aeromarine Klemm Corp, N. J, 30–31; Cent. Aircraft Mfg. Co, Hangchow, China, 33–35; *pres, Zimair Co, 36–* Soc. Automotive Eng. (v. pres. aeronautics, 24, boating, 25, mem, Guggenheim medal

.award, 26). Airplane design and construction; metal hull mail planes; landing gears; wing curves.

Zingg, Dr. Robert M(owry), University of Denver, Denver, Colo. *Ethnography, Archeology.* Hugo, Colo, April 8, 00. A.B, Colorado, 29, A.M, 30, Ph.D, 33. Asst. anthrop, Chicago, 30-31, research assoc, 33-34; ethnographer, Lab. Anthrop, 34-35; Germany, 36-37; *assoc. prof. anthrop, Denver, 37–* Summers, lecturer, Colorado, 35; Denver, 36. Cooke-Daniels lecturer, Denver Art Museum, 36. Univ. Chicago exped, Chihuahua, Mex, 30-31, Jalisco, Mex, 33-34. The Tarahumara; the Huichols; primitive artists; a reconstruction of Uto Aztekan history; archeology of southern Chihuahua; wolf children and feral man.

Zink, Dr. Norah E, State Teachers College, Indiana, Pa. *Geography.* Richmond, Ind. B.S, Utah, 24; A.M, Columbia, 26; Ph.D, Chicago, 37. Teacher geog, Conn. State Nor. Sch, New Haven, 26-28; acting head dept, Pa. State Teachers Col, Indiana, 28-29; research specialist, State Engineer's Office, Salt Lake City, Utah, 33-35; instr. *geog,* Pittsburgh, 36; *teacher, Pa. State Teachers Col, 36–* Summer, teacher, Minnesota, 28. Council Geog. Teachers; World Federation Educ; Council Social Studies; Asn. Pacific Coast Geog; Pa. Educational Research Asn. Dry-farming adjustments in Utah; conservation; the teaching of geography.

Zinn, Dr. Donald J(oseph), 33rd Altitude Training Unit, Air Force Gunnery Sch, Army Air Base, Las Vegas, Nev. *Marine ecology.* New York, N. Y, April 19, 11. B.S, Harvard, 33, 35-36; M.S, R. I. State Col, 37; Ph.D, Yale, 42. Director, Bass Biol. Lab, Fla, 33-35; lab. asst, Osborn Zool. Lab, Yale, 40; *2nd lieut. and aviation physiologist, high altitude chamber, U. S. Army Air Force Gunnery Sch, 42–* Summers, investigator, Oceanog. Inst, Woods Hole, 36; investigator, Narragansett Marine Lab, 37; Marine Biol. Lab, Woods Hole, 40, 41. A.A; Ecol. Soc; N. Y. Acad. Ecology of the marine beach intertidal interstitial micrometazoa; methacrylate plastic; marine zooplankton; taxonomy of marine copepods.

Zinn, Prof. John B(rown), Gettysburg College, Gettysburg, Pa. *Chemistry.* Gettysburg, Pa, Aug. 20, 88. B.S, Gettysburg Col, 09; Ph.D, Hopkins, 13. Instr. *chem,* Amherst Col, 13-16, assoc. prof, 16-19; prof, Worcester Polytech, 19-24; *Ockershausen prof. and head dept, Gettysburg Col, 24–* Chem. Soc. (chairman, southeast. Pa. sect, 42). Osmotic pressure measurements of cane sugar solutions at higher temperatures.

Zinn, Prof. Justin, Michigan State College, East Lansing, Mich. *Geology.* Bronson, Mich, May 13, 03. B.S, Michigan, 28; M.S, Mich. Col. Min. and Tech, 30; Ph.D, Wisconsin, 33. Instr. geol, Mich. Col. Min. and Tech, 29-30; research assoc, Wisconsin, 32-33; geologist, Civilian Conservation Corps, 33-34, educational adviser, 34-36; instr. *geol, Mich. State Col,* 37-39, *asst. prof, 39–* Mich. Acad. (chairman geol. sect, 42); Mich. Geol. Soc. (sec'y-treas, 41). Pre-Cambrian and metamorphic geology; economic geology.

Zinn, Dr. Walter H(enry), 1358 E. 58th St, Chicago, Ill. *Physics.* Kitchener, Ont, Can, Dec. 10, 06. B.A, Queen's (Can), 27, Nat. Research Council Can. bursar, 28-29, student, 29-30, M.A, 29; fellow, Columbia, 30-31, Ph.D, 34. Asst. *physics,* Queen's (Can), 27-28; Columbia, 31-32; *instr, Col. City of N. Y, 32–* Physical Soc. X-rays; nuclear physics.

Zinsser, Dr. Frederick George, Hastings-on-Hudson, N. Y. *Chemistry.* New York, N. Y, March 20, 68. Columbia; Göttingen; A.M, Ph.D, Heidelberg, 91. Chemist and works manager, *W. Zinsser and Co,* 91-97, *chem. manufacturer, 97–* Major, C.W.S, 18-19, col, O.R.C; C.W.Res, 20; asst. food anal. to Prof. Chas. Blas, Louvain. Chem. Soc; Soc. Chem. Indust; Soc. de Chim. indust. Photographic chemicals; intermediates; dyes.

Zinszer, Prof. Harvey A(lfred), 415 W. Sixth St, Hays, Kans. *Physics, Astronomy.* Allentown, Pa, July 2, 86. A.B, Lehigh, 22, A.M, 24; fellow, Indiana, 26, Ph.D, 26. Instr. physics, Lehigh, 22-25; acting prof, Miss. State Col. for Women, 27; prof. physics and acting prof. math, Hanover Col, 27-29; *prof. physics and astron, Ft. Hays Kans. State Col, 29–* A.A; Physical Soc; Optical Soc; Acoustical Soc; fel. Ind. Acad; Kans. Acad. (pres). Spectroscopy; photoelectricity; instantaneous photography; radio-activity.

Zinszer, Dr. R(ichard) H(oward), Orcutt, Calif. *Geophysics.* Scranton, Pa, Aug. 15, 10. A.B, Ft. Hays Kans. State Col, 31; B.S, Lehigh, 32; Mass. Inst. Tech, 32-34; fellow, Indiana, 34-36, Ph.D, 36. Asst. physics, Mass. Inst. Tech, 33-34; instr, Kans. State Col, 36-37; *div. production engineer, Union Oil Co, 37–* A.A; Optical Soc; Min. and Metal. Eng; Kans. Acad. Spectroscopy; Barkhausen effect; optical effects under high pressure; colorimetry; fluid mechanics in oil reservoirs; determining oil reserves.

Zinzow, W(illiam) A(ugust), Bakelite Corp, Bloomfield, N. J. *Physics.* Ripon, Wis, Nov. 22, 90. A.B, Ripon Col, 15; M.S, Pittsburgh, 25. Teacher, high sch, Wis, 15-20; asst, Westinghouse Elec. and Mfg. Co, 20-21; instr. physics, Pittsburgh, 21-22; prof, Muskingum Col, 22-26; research physicist, *Bakelite Corp,* 26-33, *chief physicist, 33–* Optical Soc; Physical Soc; Soc. Test. Mat; Army Ordnance Asn. Thermal conductivities; temperature measurements; physical characteristics; plastic materials; electrical insulation.

Zippin, Dr. Leo, 1170 E. 24th St, New York, N. Y. *Mathematics.* New York, N. Y, Jan. 25, 05. A.B, Pennsylvania, 25, A.M, 26, Harrison fellow, 27-29, Ph.D, 29. Asst. instr. math, Pennsylvania, 25-27; instr, Pa. State Col, 29-30; nat. research fellow, Texas, 30-31; Princeton, 31-32; asst. *math,* Inst. Advanced Study, 32-36; *instr,* N. Y. Univ, 36-38; *Queens Col. (N. Y), 38–* Topology.

Zirkle, Prof. Conway, University of Pennsylvania, Philadelphia, Pa. ***Botany.* Richmond, Va, Oct. 28, 95. B.S, M.S, Virginia, 21; London, 23; Geneva, 24; Ph.D, Hopkins, 25. Instr. biol, Virginia, 20-21; asst. bot, Hopkins, 21-23; nat. research fellow biol, Harvard, 25-28, research assoc, 29-30; assoc. prof. *bot, Pennsylvania,* 30-37, *prof, 37–* Summers, instr, Virginia, 21-25. Assoc. ed, 'Isis,' 37–; sec'y, board trustees, 'Biol. Abstracts,' 39– A.A; Bot. Soc; Genetic Asn; Pa. Bot. Soc. Structure of the chloroplast; effects of mass selection upon polyhybrid stocks; mitochondria; nucleoli; vital stainings; chemistry of cytological fixation; history of science.

Zirkle, Dr. Raymond E(lliott), Indiana University, Bloomington, Ind. *Experimental radiology, Plant physiology.* Springfield, Ill, Jan. 9, 02. A.B, Missouri, 28, Ph.D, 32. Asst. bot, Missouri, 28-30, instr, 30-32; nat. research fellow, Johnson Foundation, Pennsylvania, 32-34, fellow med. physics, 34-38, lecturer biophys, 36-38; instr. exp. radiol, 37-38, assoc, 38-40; asst. prof. biol, Bryn Mawr Col, 38-40; *prof. bot, Indiana, 40–* A.A; Bot. Soc; Soc. Zool; Soc. Nat; Roentgen Ray Soc; Ind. Acad. Biological effects of neutrons, x-rays and alpha rays; physiology of yeasts.

Ziskin, Dr. D(aniel) E(leazar), Columbia University School of Dental and Oral Surgery, New York, N. Y. *Endocrinology.* Grand Forks, N. Dak, April 27, 95. D.D.S, Minnesota, 17. Asst. prof. dentistry, col. dentistry, Minnesota, 20-30; *chairman oral diagnosis div, sch. dental and oral surg, Columbia, 30–, assoc. prof. dentistry, 34–* Chief dental clinic, Minneapolis Gen. Hosp, 20-30. Acad. Periodontol; N. Y. Acad. Dentistry; Int. Asn. Dental Research. Relationship between endocrine glands and oral structures in animals and humans; testing of hormones therapeutically; interrelationship between vitamins and sex hormones in effects on oral structures.

Zittle, Dr. Charles A(rthur), 296 Rivard Blvd, Grosse Pointe, Mich. *Biochemistry.* Lancaster Co, Pa, June 18, 04. B.S, Franklin and Marshall Col, 25; Ph.D, California, 34. Asst. chem, Franklin and Marshall Col, 23-25; asst. biochem, California, 31-34; instr. chem. and math, Mercersburg Acad, 34-35; research and sales, Chicago Apparatus Co. 35-37; research fellow and instr. bacter, Pennsylvania, 37-41; *senior research immunochemist, Parke, Davis and Co, 41–* Chem. Soc. Physical chemistry of amino acids and proteins; chemical investigation of antigenic structure of hemolytic streptococci; chemical composition and metabolism of bovine spermatozoa; immunochemistry.

Zmeskal, Dr. Otto, Universal-Cyclops Steel Corp, Bridgeville, Pa. *Physical metallurgy.* Chicago, Ill, July 16, 15. B.S, Armour Inst. Tech, 36, M.S, 38; Sc.D, Mass. Inst. Tech, 41. Asst. prof. metal, Ill. Inst. Tech, 41-43; *research metallurgist, Universal-Cyclops Steel Corp, 43–* Tempering of high carbon; high chromium die steels.

Zobel, Dr. Otto J(ulius), Bell Telephone Laboratories, 463 West St, New York, N. Y. *Physics.* Ripon, Wis, Oct. 20, 87. A.B, Ripon Col, 09; A.M, Wisconsin, 10, fellow, 11-12, Ph.D, 14. Asst. physics, Wisconsin, 10-11, instr, 13-15; Minnesota, 15-16; Am. Tel. and Tel. Co, 16-34; *Bell Tel. Labs, 34–* Fel. Physical Soc; fel. Acoustical Soc; Math. Soc. Mathematical physics; theory of heat conduction; electrical transmission.

Zobel, Dr. William A(ndrew), Jr, E. I. du Pont de Nemours and Co, Seaford, Del. *Organic chemistry.* Plainview, Nebr, July 18, 11. B.S, Nebraska, 36; A.M, Cincinnati, 38, Ph.D, 39. *Research chemist,* Hilton Davis Chem. Co, 39–41; *E. I. du Pont de Nemours and Co, 41–* Chem. Soc. Sulfanilamide compounds; pigments and dyes; nylon.

ZoBell, Prof. Claude E, Scripps Institution of Oceanography, La Jolla, Calif. *Microbiology.* Provo, Utah, Aug. 22, 04. B.S, Utah Col, 27, M.S, 29; Thompson scholar, California, 29–31, Ph.D, 31. Asst. bacter, Exp. Sta, Utah Col, 27–28, instr, col, 28–29; asst, Hooper Foundation, *California,* 30–31, instr. *microbiol, Scripps Institution,* 32–36, asst. prof, 36–42, *assoc. prof, 42–,* in charge biol. program, 36–37, *asst. director, 37–* Assoc, Wisconsin, 38–39. Summer, fellow, Oceanog. Institution, Woods Hole, 39. Mem. board, San Diego Biol. Research Inst. Hon. mem, Byrd Antarctic exped, 33. A.A; Soc. Bact; Soc. Exp. Biol; Limnol. Soc; Ecol. Soc. (v. pres, 42); Micros. Soc; Oceanog. Soc. Pacific; West. Soc. Nat; San Diego Soc. Nat. Hist. (pres, 41). Bacterial physiology; metabolism of Brucella; marine microbiology; limnology; water bacteriology.

Zoch, Richmond T(ucker), U. S. Weather Bureau, Cleveland, Ohio. *Meteorology.* Eclectic, Ala, May 18, 03. A.B, George Washington, 31, A.M, 33, 33–36. Observer, U. S. Weather Bur, 23–26, sci. aid, 26–35; soil conservationist, soil conservation service, U. S. Dept. Agr, 35–36; *meteorologist in charge library, U. S. Weather Bur, 36–;* asst, *George Washington,* 34–35, *statist,* 35–36, *assoc, 36–* A.A; Meteorol. Soc; Math. Asn; Geophys. Union; Inst. Math. Statist. Hydrology; frequency curves; statistics.

Zoethout, Dr. W(illiam) D(owwes), 7115 W. 31st St, Berwyn, Ill. *Physiology.* Holland, Aug. 19, 71. A.B, Hope Col, 93; Ph.D, Chicago, 98. *Prof. physiol, Chicago Col. Dental Surg, Loyola (Ill), 12–* A.A. Muscle irritability; the influence of ions on skeletal muscles.

Zoller, Harper F(yler), 12105 Northlawn Ave, Detroit, Mich. *Chemistry.* Sand Springs, Iowa, April 13, 89. B.S, Lenox Col, 10; M.S, Illinois, 13. Asst, Illinois, 11–13; prof. physical sciences, Col. Puget Sound, 13–15; asst. prof. chem, Kans. State Col, 15–17; org. chemist, dairy div, bur. animal indust, U. S. Dept. Agr, 17–21; chief chemist, Nizer Labs. Co, 21–25; director labs, Arctic Dairy Products Co, 25–29; *pres, Home Chemicals, Inc, and Overton Chem. Co, 29–* Chem. Soc; Soc. Biol. Chem. Bromin in kelp; caramel; constituents of grapefruit; indole; milk by-products; sodium hypochlorite; sodium caseinate; ice cream.

Zollinger, Dr. Robert, Harvard Medical School, Boston, Mass. *Surgery.* Millersport, Ohio, Sept. 4, 03. B.S, Ohio State, 25, M.D, 27. House officer, Inst. Feeble-Minded, Columbus, 25–27, asst. physician, 29; vol. asst, lab. surg. research, Lakeside Hosp, Cleveland, 27–28, asst. res. surgeon orthop, genitourol. and gynec, 29–30; surg. house officer, Peter Bent Brigham Hosp, Boston, 28–29; director lab. surg. research, Western Reserve, 30–31, demonstrator *surg,* 30–32; instr, *Harvard Med. Sch,* 32–36, *Austin teaching fellow, 34–,* assoc, 36–38, *asst. prof. surg, 38–; major, Harvard unit, fifth gen. hosp, U. S. Army, 42–* Crile research fellow, Western Reserve, 30–31; asst. res, Lakeside Hosp, Cleveland, 31–32, res. surgeon, 32; Peter Bent Brigham Hosp, Boston, 32–34, junior assoc, 34–35, senior assoc, 35–39, surgeon, 39– Col. Surg; Orthop. Asn. Brain fixatives for use in brain surgery.

Zon, Prof. Raphael, University Farm, St. Paul, Minn. *Forestry.* Simbirsk, Russia, Dec. 1, 74. A.B, Gymnasium, Simbirsk, 92; B.S, Univ. of Kazan, 96; Brussels, 97–98; F.E, Cornell, 01. Forest asst, *U. S. Forest Service,* 01–07, chief forest investigations, 07–19, *director, Lake States Forest Exp. Sta, 23–; prof. forestry, Minnesota, 23–; non-res. prof. in charge forest investigations, Wisconsin, 28–* Ed, 'Jour. Forestry,' 05–28. A.A; fel. Soc. Foresters. Light in relation to forest trees; forest meteorology; forests and stream flow; forest resources of the world.

Zons, Dr. Frederick W(illiam), 239 Centre St, New York, N. Y. *Chemistry.* A.B, Columbia, 07, A.M, '10, fellow, 10–11, Ph.D, 11. Instr. physics, Col. City of N. Y, 07–09, chem, 09–10; chief chemist, Westinghouse Lamp Co, 11–16; chemist and manager, New Process Gas Mantle Co, 16–19; *consultant, 19–* Chairman dept. science, evening high sch, New York, 14–16; director, Newark Sci. Research Lab, 14–16; Indust. Research and Trade Labs, 22– Capt, U.S.R.C. Chem. Soc. (sec'y, North Jersey sect, 23–38); Electrochem. Soc; fel. Inst. Chem. (councilor, 31–37, mem. qualifications cmt, 30–); N. J. Chem. Soc. (chairman, pub. cmt, ed, 'Bul,' 19–26, 'Year Book,' 20, ed. and manager, 'The Indicator,' 26–); Chemists' Club. Determination of rare earths; manufacture of rare earth and rare metal products; carbon and tungsten lamps; tungsten; molybdenum; chromium; tantalum; thorium; electronic devices; high blood pressure specific; the pharmaceutical application of chlorine; rare and luminescent gas devices and applications.

Zook, Dr. Harry D(avid), Pennsylvania State College, State College, Pa. *Organic chemistry.* Milroy, Pa, Feb. 8, 16. B.S, Pa. State Col, 38, Allied Chem. and Dye Corp. fellow, 41–42, Ph.D, 42; M.S, Northwestern, 39. Asst. org. chem, Northwestern, 38–39; asst. *chem, Pa. State Col,* 39–41, *instr, 42–* Mechanism of the Wurtz reaction and investigations related to the origin of petroleum.

Zook, L(eslie) L(ewis), Experimental Substation, North Platte, Nebr. *Agriculture.* Kearney, Nebr, June 21, 80. B.S, Nebraska, 07. Instr. agron, Nebraska, 07–08; sci. asst, corn investigations, *bur. plant indust, U. S. Dept. Agr,* 08–13, physiologist, 13–14, *assoc. agronomist, div. dry land agr, 15–; North Platte Exp. Substa, Nebraska,* 19–35, *agronomist and supt, 35–* A.A; Soc. Agron; Nebr. Acad. Agronomy.

Zoole, Major Leonard, Ogontz Manor Apartments, Ogontz and Olney Aves, Philadelphia, Pa. *Chemistry.* New York, N. Y, July 19, 93. B.S, Col. City of N. Y, 13. Chemist, *U. S. Navy Dept,* 14–37, *chief chemist, Phila. Navy Yard, 37–; Chem. Warfare Service, U. S. Army,* 23–36, *major, 36–* Fel. Inst. Chem. Physical and organic chemistry; materials for naval use.

Zrike, Dr. E(dward), 210 Division Ave, Belleville, N. J. *Organic chemistry.* Port-au-Prince, Haiti, Oct. 14, 07. B.S, N. Y. Univ, 30, Ph.D, 34. Research chemist, Rodema Holding Corp, 30–31; *production chemist in charge vitamin C div. and amino acids, Hoffmann-La-Roche, Inc, 34–* A.A; Chem. Soc. Biochemistry; pharmaceutical and chemical manufacture; vitamins.

Zschelle, Prof. F(rederick) P(aul), Jr, Purdue University, Lafayette, Ind. *Plant physiology, Biochemistry.* Burlington, Kans, May 11, 07. B.S, California, 28, Ph.D, 31. Nat. research fellow biol, Chicago, 31–33, asst. pediat, 33–34, research assoc. chem, 34–36; *assoc. chemist and assoc. prof. agr. chem, Purdue, 37–* A.A; Chem. Soc. Absorption spectroscopy and photoelectric spectrophotometry; absorption spectroscopy of chlorophyll; carotenoids; hormones; vitamin A; fatty acids and sterols; analysis of plant pigments and vitamin A.

Zubin, Dr. Joseph, State Psychiatric Institute and Hospital, New York, N. Y. *Psychology.* Rossieny, Lithuania, Oct. 9, 00. A.B, Hopkins, 21; Ph.D, Columbia, 32. Asst. educ. psychol, Teachers Col, Columbia, 30–31; research fellow, Union Am. Hebrew Congregations, 29–32; instr. psychol, Col. City of N. Y, 34–36; psychologist and statistician, nat. cmt. mental hygiene, U. S. Pub. Health Service, 36–38; *assoc. research psychologist, N. Y. State Psychiat. Inst. and Hosp, 38–; instr. psychiat, Columbia, 39–* Summers, psychol. intern, State Psychiat. Inst. Hosp, N. Y, 31–33; instr, Brooklyn Col, 32–33. A.A. (chairman sect. econ. aspects of mental health, symposium on mental health, 39); Statist. Asn; Psychometric Soc; Inst. Math. Statist; Psychol. Asn. Psychometric methods; experimental psychology; psychopathology; personality measurement.

Zucchero, Prof. P(eter) J(oseph), West Virginia Institute of Technology, Montgomery, W. Va. *Parasitology.* Alliance, Ohio, March 10, 04. A.B, West Virginia, 29, M.S, 33, Ph.D, 39. Prof. *biol,* high sch, Weston, W. Va, 29–32; asst. and instr, West Virginia, 32–36; *prof, W. Va. Inst. Tech, 36–* A.A; Asn. Biol. Teachers; South. Appalachian Bot. Club; W. Va. Acad. Life history of the poultry parasite Capillaria annulata.

Zuck, Dr. T(heodore) T(homas), 10515 Carnegie Ave, Cleveland, Ohio. *Anatomy.* Marion, Ohio, Sept. 24, 02. A.B, Western Reserve, 24, M.D, 28. Instr. anat, Western Reserve, 29–33, senior instr, 33–35, asst. prof, 35–38, acting prof. anat. and director, Brush Foundation, 38–40; *practising endocrinologist, 40–* Human growth and development; endocrinology.

Zuckerman, Dr. H(erbert) S(amuel), University of Washington, Seattle, Wash. *Mathematics.* Berkeley, Calif, Feb. 15, 12. B.S, Calif. Inst. Tech, 32; M.S, Chicago, 34; Ph.D, California, 36. Teaching asst, California, 35–36; nat. research

fellow *math*, Pennsylvania, 37–38, Harrison fellow, 38–39; instr, *Washington (Seattle)*, 39–43, *asst. prof, 43–* Math. Soc. Theory of numbers.

Zucrow, Dr. M(aurice) J(oseph), Aerojet Engineering Corp, Pasadena, Calif. *Engineering.* London, Eng, Dec. 15, 99. B.S, Harvard, 22, M.S, 23; Ph.D, Purdue, 28. Research assoc, eng. exp. sta, Purdue, 23–29; v. pres. in charge eng, Paragon Vaporizer Corp, Ill, 29–34; director research, Republic Flow Meters Co, Chicago, Ill, 34–38; consulting engineer, 38–42; research and develop. engineer, Elliott Co, 42–43; *div. engineer, Aerojet Eng. Corp, 43–* Mech. Eng; Soc. Automotive Eng. Flow of fluids; hydraulic engineering; carburetion and mechanics of internal combustion engines.

Zuehl, Dean B(enjamin) F(ranklin), 914 Second Ave, S. E, Le Mars, Iowa. *Psychology.* Britt, Iowa, Jan. 12, 83. A.B, West. Union Col, 07; A.M, Minnesota, 11; Ph.D, Iowa, 21. *Prof. psychol. and educ. and head dept, West. Union Col, 13–, dean, 20–* Iowa Acad. Education.

Zufall, Prof. C(halmers) J(oseph), 617 Waldron St, West Lafayette, Ind. *Pharmacy.* Frankfort, Ind, May 1, 85. B.S, Purdue, 07, M.S, 14; Ph.D, Wisconsin, 38. Teacher, high sch, Ohio, 07–13; pharmacognosist, Eli Lilly and Co, Ind, 13–16; bur. chem, Port of New York, 16–20; asst. prof. and *assoc. prof. mat. med, Purdue, 20–* Lecturer, St. Elizabeth Hosp; State Police Sch, Ind. Pharmaceut. Asn; Bot. Soc; Ind. Pharmaceut. Asn; Ind. Acad; N. Y. Micros. Soc. Microscopic structure and chemical constituents of drug plants; naturalization of foreign drug plants; scientific crime detection.

Zuffanti, Prof. Saverio, Northeastern University, Boston, Mass. *Organic chemistry.* Boston, Mass, May 4, 08. B.Ch.E, Northeastern, 30, B.S, 34; A.M, Boston, 32. Petrol. chemist, Colonial Beacon Oil Co, 26–28; rubber chemist, Boston Woven Hose and Rubber Co, 28–30; *asst. prof. chem, Northeastern; consulting org. chemist, Spaulding-Moss Co, 41–* Contributor, 'Chem. and Physics Handbook,' Chem. Publishing Co, 37–; abstractor, Annual Tables Physical Constants, 42– Chem. Soc. (abstractor, 39–); Eng. Educ; New Eng. Asn. Chem. Teachers (book rev. cmt, 36–). Aliphatic sulfonic acids; thionyl chloride derivatives of organic compounds.

Zug, Dr. R(ichard) S(eth), Ballistic Research Lab, Aberdeen Proving Ground, Md. *Astronomy.* Marshalltown, Iowa, Dec. 28, 03. A.B, Drake, 28; M.S, Chicago, 30; Lick Observatory fellow, California, 32–33, Ph.D, 33. Asst, Yerkes Observatory, Chicago, 28–30; teaching fellow astron, California, 30–32; asst. prof. math. and astron, Drake, 33–36; astron, Goodsell Observatory, Carleton Col, 36–41; *ballistician, ballistic research lab, Aberdeen Proving Ground, 41–* Stellar photometry; exterior ballistics.

Zuger, Dr. Bernard, 31 Hart St, Brooklyn, N. Y. *Immunology, Bacteriology.* Russia, Sept. 20, 05. A.B, Columbia, 27, M.D, 31. Asst. med, sch. med, Yale, 33–34; asst. bacteriologist, Jewish Hosp, Brooklyn, 36–38; *field epidemiologist, City Dept. Health, New York, 40–* N. Y. Pediat. Soc. Rheumatic fever; tetanus; pathogenesis and active immunization.

Zuker, Prof. W(illiam) B(erdette), 525 N. Algona St, Dubuque, Iowa. *Chemistry.* Minneapolis, Kans, Sept. 13, 87. B.S, Highland Park Col, 10; M.S, Chicago, 21; Sc.D, Dubuque, 34. Assoc. prof. *chem,* Highland Park Col, 10–12, prof, 12–17; Des Moines, 17–19; *prof. and head dept, Dubuque, 21–,* acting pres, 27–29, *v. pres, 29–,* treas, 32–38. A.A; Chem. Soc. Boiler feed waters; anodic oxidation of metals in liquid ammonia.

Zumstein, Prof. R(obert) V(ictor), Ohio State University, Columbus, Ohio. *Physics.* Wellandport, Ont, Can, Dec. 26, 96. B.A, Toronto, 17, M.A, 18; Ph.D, Iowa, 24. Instr. *physics,* Iowa, 20–23; nat. research fellow, Michigan, 24–25, eng. research dept, 26; from instr. to *assoc. prof, Ohio State, 27–* Physical Soc. Tungsten x-ray spectrum; absorption spectra of metallic vapors in the ultra-violet; wave-length standards in the Schumann region; spectra of metallic hydrides.

Zumwalt, Dr. L(loyd) R(obert), 5659 Carberry Ave, Oakland, Calif. *Physical chemistry.* Richmond, Calif, Sept. 4, 14. B.S, California, 36; fellow, Calif. Inst. Tech, 36–39, Ph.D, 39. Teaching asst, Calif. Inst. Tech, 36–39, Arthur A. Noyes fellow, 39–41; *research chemist, Shell Develop. Co, 41–* Infra-red spectroscopy.

Zundel, Prof. George L(orenzo Ingram), Pennsylvania State College, State College, Pa. *Plant pathology.* Brigham City, Utah, Dec. 23, 85. B.S, Utah Col, 11; M.S, Cornell, 15; Ph.D, Yale, 29. Instr. hort. and bot, Utah Col, 11–12; high sch, Utah, 12–13; asst. prof. biol, Brigham Young, 15–17; asst. pathologist, U. S. Dept. Agr, 17–19; exten. plant pathologist, State Col. Wash, 19–26; asst. to G. P. Clinton, Conn. Exp. Sta, 26–28; *asst. prof. plant path. exten, Pa. State Col, 28–* Summer, special research, U. S. Dept. Agr, Idaho, 16. A.A; Phytopath. Soc; Bot. Soc; Mycol. Soc; Pa. Acad; British Mycol. Soc. Ustilaginales; control of bunt in wheat; diseases of brambles; apple disease control.

Zurcher, Dr. Paul A(ugustus), Continental Oil Co, Ponca City, Okla. *Petroleum.* Aarau, Switzerland, Aug. 3, 80. Chem.E, Swiss Fed. Tech. High Sch, 04, Ph.D, 05. Supt. mfg. chem, Ceramic Indust, Florence, Italy, 05–07; tin mine and plant, Minas de Huayna Potosi, La Paz, Bolivia, 08–09; Indust. Lab, Medellin, Colombia, 09–15; research and mfg, United States, 16–18; independent research, 18–26; *research technologist, Continental Oil Co, 27–* A.A; Chem. Soc; Chem. Eng. Ceramics; metallurgy; cement; electrochemistry; catalytic vapor phase treatment; desulfurizing of hydrocarbons; lubricants; paints.

Zweifach, Dr. B(enjamin) W(illiam), New York University, Washington Square, New York, N. Y. *Physiology, Anatomy.* New York, N. Y, Nov. 27, 10. B.S, Col. City of N. Y, 31; M.S, N. Y. Univ, 33, Christian A. Herter fellow, 35–36, Ph.D, 36. Asst. biol, N. Y. Univ, 31–33; anat, col. med, 34–36; fellow, med. sch, Tufts, 37–38; *research assoc. biol, N. Y. Univ, 38–* Charlton fellow, 37. Soc. Zool; Asn. Anat. Micromanipulation of blood capillaries; histology of small blood vessels; perfusion and permeability of capillaries; reactions of peripheral circulation to local and remote trauma.

Zwemer, Dr. R(aymund) L(ull), College of Physicians and Surgeons, 630 W. 168th St, New York, N. Y. *Anatomy.* Bahrein, Arabia, March 30, 02. A.B, Hope Col, 23; fellow, Yale, 25–26, Ph.D, 26. Asst. biol, Yale, 23–25; nat. research fellow, Cold Spring Harbor and Harvard Med. Sch, 26–28; instr. *anat, col. physicians and surg, Columbia,* 28–31, *asst. prof, 31–* Guggenheim Mem. Foundation fellow, inst. physiol, Buenos Aires, 41. Official U. S. del, Pan-Am. Cong. Endocrinol, Uruguay, 41. A.A; Asn. Anat; Physiol. Soc; Soc. Exp. Biol; Asn. Study Int. Secretions; Asn. Physical Anthrop; Harvey Soc; fel. N. Y. Acad; hon. mem. Soc. Med. Montevideo, Uruguay; cor. mem. Soc. Argent. Biol. of Asn. Med. Argent. Adrenal glands; potassium.

Zwermann, Prof. Carl H(enry), University of Washington, Seattle, Wash. *Ceramic engineering.* Kalamazoo, Mich, July 30, 08. B.S, Illinois, 29, M.S, 37, Ph.D, 39. Ceramic engineer and later chief ceramist, W. A. Case and Son Mfg. Co, Ill, 29–36; *asst. prof. ceramic eng. and head div, Washington (Seattle), 39–; major, U. S. Army, 41–* Min. and Metal. Eng; Ceramic Soc.

Zwick, Dr. Karl G(eorge), Doctors' Bldg, 19 Garfield Place, Cincinnati, Ohio. *Medicine.* Covington, Ky, July 10, 68. Royal Gym, Stuttgart, 86; Ph.C, Michigan, 88; Ph.D, Wurzburg, 99; M.D, Cincinnati, 03. Chief, Dermat. Clinic, Bern, 15–17; res. dermatologist, Lakeside Hosp, Cleveland, Ohio, 22–23; dispensary instr. *dermat. and syphilol, col. med, Cincinnati, asst. prof, 42–; prof. pharmacy, Cincinnati Col. Pharmacy, emer. prof; practising physician.* Mem. staff, Bethesda, Deaconess, Gen, Jewish and St. Mary's Hosps. Dermat. Conf. Miss. Valley. A.A; Am. Med. Asn; Pharmaceut. Asn; Acad. Dermat. and Syphilol; Chem. Soc; Soc. Investigative Dermat; Ohio Acad; Acad. Med. Cincinnati; assoc. Acad. Med. Cleveland; Cincinnati Dermat. Soc; assoc. mem. Cleveland and Chicago Dermat. Socs; fel. Royal Micros. Soc. London; Deuts. Dermat. Gesell; Soc. des Méd. alien. et neur. de France et des Pays Bas; Asn. de Dermat. et Syphilig. de Langue française; Ligue nat. française contre le Péril vénérien; Schweiz. Natur. Gesell; Schweiz. Gesell. für Dermat. und Venerol; Schweiz. Neurol. Gesell; Med. Gesell. Basel; Natur. Gesell. Basel. Dermatology; chemistry; hygiene.

Zwicky, Prof. Fritz, California Institute of Technology, Pasadena, Calif. *[*5]Physics.* Varna, Bulgaria, Feb. 14, 98. Grad, Eidgen. Tech. Hochschule, Zurich, 20, Ph.D, 22. Int. Educ. Board fellow, 25–27; asst. prof. theoret. physics, *Calif. Inst. Tech,* 27–29, assoc. prof, 29–42, *prof. astrophys, 42–* A.A; fel. Physical Soc; Swiss Physical Soc. Equation of state of gases, liquids and solids; behavior of slow electrons and ions in gases; physics of crystals; redshift of light through interstellar space; novae; supernovae; cosmic rays.

Zwilgmeyer, Dr. Frithjof, 106 Edgewood Drive, Edgewood Hills, Wilmington, Del. *Chemistry.* Norway, July 27, 91. A.B, Norway, 10; arts and sci. degree, Oslo, 14; Diplom. Chem.E, Polytech, Switzerland, 21; Ph.D, Buffalo, 26. Research chemist, Savell Sayre Co, N. Y, 21–22; The Titanium Mfg. Co. and Titanium Pigment Co, N. Y, 22–23; *research and plant chemist,* Nat. Aniline Chem. Co, N. Y, 23–30; Newport Chem. Co, Wis, 30–31; *Jackson lab, E. I. du Pont de Nemours and Co, 31–* Chem. Soc; Am. Norwegian Eng. Soc. (director, 30). Organic chemistry; azoic basic colors for textiles.

Zwilling, Dr. E(dgar), University of Connecticut, Storrs, Conn. *Embryology, Genetics.* Pittsburgh, Pa, Feb. 1, 13. B.S, Brooklyn Col, 33; A.M, Columbia, 35, Ph.D, 40. Teaching asst. zool, Columbia, 35–40; *asst. instr. genetics, Connecticut, 40–* Soc. Zool; Genetics Soc. Regeneration in Tubularia; experimental analysis of amphibian nose and ear; development of chick mutants; experimental chick embryology.

Zwillinger, Max, 1020 Potomac Ave, S. E, Washington, D. C. *Optics.* Troppau, Czechoslovakia, May 7, 78. C.E, Polytech, Vienna, 02. Ry. engineer, 03–09; bridge designer, 09–10; *designer optical instruments and systems, 10–; in charge sci. dept, optical shop, Navy Yard.* A.A; Optical Soc. Telescopic optics applied to the construction of military and surveying instruments; photographic and projection lenses.

Zworykin, Dr. V(ladimir) K(osma), RCA Laboratories, Princeton, N. J. *[6]*Physics.* Russia, July 30, 90. E.E, Inst. Tech. Petrograd, 12; Col. de France, 12–13; Ph.D, Pittsburgh, 25. Research engineer, Westinghouse Elec. and Mfg. Co, East Pittsburgh, 20–30; *assoc. director research labs, RCA Labs, 30–* Morris Liebmann mem. prize, 34; Mod. Pioneer award, Nat. Asn. Mfrs, 40; Rumford medal, 41. Nat. Acad; A.A; Physical Soc; Elec. Eng; Radio Eng; Am. Acad; French Acad. Photoelectric cells; facsimile; sound movies; television; cathode ray tubes; oscillographs; electron optics; photo cells and their applications; electron microscopes.

Zygmund, Prof. Antoni, 61 College St, South Hadley, Mass. *[7]*Mathematics.* Warsaw, Poland, Dec. 26, 00. Ph.D, Warsaw, 23. Instr. *math,* Polytech, Warsaw, 22–30; privat-docent, Warsaw, 26–30; prof, Wilno, 30–39; visiting lecturer, Mass. Inst. Tech, 39–40; asst. prof, *Mt. Holyoke Col,* 40–42, *assoc. prof, 42–* Prize, Polish Acad. Sciences, 39. Math. Soc; London Math. Soc; French Math. Soc; Polish Math. Soc; cor. mem. Warsaw Sci. Soc. Trigonometric series; theory of real and complex functions; summability of series.

BIOGRAPHIES RECEIVED TOO LATE FOR INCLUSION IN THE REGULAR TEXT OF THE DIRECTORY

Adamson, Dr. J. D, Winnipeg General Hospital, Winnipeg, Man, Can. *Medicine.* Morden, Man, 90. B.A, Manitoba, 10, M.D, 14. Mem. staff, Winnipeg Gen. Hosp; asst. supt, Ninette Sanatorium, 20; *consultant, Can. Dept. Pensions and Nat. Health, 22–; med. faculty, Manitoba, 21–, prof. med, 39–* Fel. Royal Col. Physicians Can; Royal Col. Physicians Edinburgh.

Allen, Prof. Ray L(erol), University of Western Ontario, London, Ont, Can. *Physics.* Amherst Head, N. S, March 14, 95. B.A, Mt. Allison, 17, M.A, 19; Yale, 25–27. Master science, Methodist Col, St. John's, Newfoundland, 17–18; instr. math. and physics, Brandon Col, 19–21; from instr. to *prof. physics, Western Ontario, 21–* Instr, Mt. Allison, 17–18; asst, Yale, 26–27. A.A; Asn. Physics Teachers; assoc. Radio Eng.

Armstrong, Prof. A(lfred) R(inggold), College of William and Mary, Williamsburg, Va. *Chemistry.* Washington, D. C, July 6, 11. B.S, Col. of William and Mary, 32, A.M, 34; Gen. Educ. Board fellow, Michigan, 35–36. Mem. faculty, *Col. of William and Mary,* 33–36, *asst. prof. chem, 36–* Chem. Soc.

Armstrong, Lieut. Col. Harry G(eorge), Care of Adjutant General, War Department, Washington, D. C. *Aviation medicine.* DeSmet, S. Dak, Feb. 17, 99. B.S, South Dakota, 23, Sc.D, 42; M.D, Louisville, 25; M.S, Cincinnati, 40; M.A, Toronto, 41. Director research, aero-med. research lab, U. S. Army, 34–40; asst. mil. attaché, London, England, 41; *director research, sch. aviation med, Air Forces, U. S. Army, 41–* Sir Henry Wellcome medal and prize, 37; Collier trophy, 39; Dr. John Jefferies award, 41. Fel. Am. Med. Asn; Asn. Mil. Surg; Inst. Aeronaut. Sci; fel. Col. Physicians.

Bancroft, Dr. George H(erbert), 242 Nursery Ave, Geneva, N. Y. *Physics.* Halifax, N. S, Can. B.S, West Virginia, 30, M.S, 31; Ph.D, Pennsylvania, 36. Mem. dept. physics, Hobart Col, 36–40; *physicist, Shuron Optical Co, 40–*

Barkley, Dr. Fred A(lexander), 209 E. 13th St, Austin, Texas. *Botany.* Hobart, Okla, Nov. 4, 08. A.B, Oklahoma, 30, M.S, 32; Ph.D, Washington (St. Louis), 37. Instr. bot. and curator herbarium, Montana, 37–43; *instr. bot. and asst. curator herbarium, Texas, 43–* Bot. Soc; Soc. Bot; Sullivant Moss Soc; Mont. Acad. Systematic morphology; ecology.

Bauer, Prof. Charles W(ilfred), 8 Woodlawn Oval, Wellesley Hills, Mass. *Biochemistry.* Hastings, Nebr, June 6, 99. Ph.G. and Ph.C, Valparaiso, 21; B.S. and A.M, Creighton, 29; Ph.D, Iowa, 37. Chemist, U. S. Steel Co, Ind, 22–23; Utah Idaho Sugar Co, 21–22; prof. *chem,* sch. pharmacy, Creighton, 24–37; *assoc. prof, Mass. Col. Pharmacy, 37–* Pharmaceut. Asn; Chem. Soc.

Bauer, Dr. Hugo, National Institute of Health, U. S. Public Health Service, Bethesda, Md. *Chemistry.* Frankfort, Germany, May 29, 83. Ph.D, Munich, 07. Asst. chemotherapeut, investigating inst, Frankfort, 09–15, mem, 15–22, chief chem. div, 22–35; *chemist, nat. inst. health, U. S. Pub. Health Service, 36–* Chem. Soc; Wash. Acad. Organic compounds of selenium, arsenic, bismuth and germanium; iodination of proteins; organic compounds of sulfur and phosphorus.

Baylor, Dr. Curtis H(orton), American University of Beirut, Beirut, Lebanese Republic. *Internal medicine.* Marion, Va, March 20, 08. B.S, Emory and Henry, 29; M.D, Hopkins, 35. From intern to res. *internal med,* Strong Mem. Hosp, Rochester, N. Y, 35–38; adj. prof, *American Univ. Beirut,* 38–41, *assoc. prof, 41–*

Behr, Dr. Lyell C(hristian), 419 W. 119th St, New York 27, N. Y. *Organic chemistry.* Minneapolis, Minn, May 4, 16. B.Chem, Minnesota, 37; Ph.D, Illinois, 41. Assoc. chemist, Minnesota, 41–42; *chemist, war research div, Columbia, 42–* Chem. Soc.

Bibby, Dr. Basil Glover, 416 Huntington Ave, Boston Mass. *Dental science.* N. Z, Oct. 6, 04. B.D.S, Otago (N. Z), 27; Rockefeller dental fellow, Rochester, 30–33, Rockefeller senior fellow, 33–36, Ph.D, 35; D.M.D, Tufts Col, 39. Asst. dental surgeon. Christ Church Hosp, N. Z, 28–29; instr, dental sch, Otago (N. Z), 29–30; asst. prof. dentistry, Rochester, 36–40; *prof. bacter, med. and dental schs, Tufts Col, 40–* Soc. Bact; Dental Asn; Int. Asn. Dental Research. Bacteriology of dental caries; structure of teeth in relation to dental caries.

Birdsall, Dr. Benjamin J, Care of American Embassy, Lima, Peru, S. Amer. *Soils.* Forestville, Wis, Dec. 14, 07. B.S, Wisconsin, 29; Ph.D, Mich. State Col, 41. Soil chemist, research dept, United Fruit Co, Honduras, Panama and Colombia, 29–33, plantation overseer, banana div, Honduras, 33–36, tech. agriculturist, Costa Rica, 41; asst. soils, Mich. State Col, 36–41; soils specialist and trop. agriculturist, office for. agr. relations, U. S. Dept. Agr, Ecuador, 41–42; *acting director, Agr. Exp. Sta, Tingo Maria, Peru, 42–*

Bonilla, Prof. Abelardo Moreno, University of Havana, Havana, Cuba. *Zoology.* Cuba. D.Nat.Sci, Havana, 34. Prof, high schs, Cuba, 28–39; prof. nat. hist, Edison Institution, Habana, 35–42; asst. *zool, Havana,* 35–37, aggregate prof, 37–38, *auxiliary prof, 39–, director zool. labs, 39–, sub. director zool. park, 40–, prof, summer sch, 41–* Mem. game and fauna cmn, Ministry of Agr, Cuba, 40–; pres, Fauna Protection Cmn, 40; mem, Ricketsiosis Cmn, 40– Cuban govt, Cuban Univ. and Cuban Soc. Nat. Hist. del, Sci. Cong, 40. Malacol. Union; assoc. Ornith. Union; Fisheries Soc; Statist. Soc; cor. mem. Helminth. Soc. Wash; Cuban Nat. Hist. Soc. (v. treas, 35, treas, 35, sec'y, 37, 40, in charge library, 39); Cuban Microbiol. Soc; Cuban Malacol. Soc. (treas, 42); Cuban Geog. Soc; cor. mem. Mex. Soc. Nat. Hist.

Botteron, Dr. Donald (George), 728 Clark St, Evanston, Ill. *Organic chemistry.* Nowata, Okla, March 29, 17. A.B, Illinois, 36, M.S, 37; Ph.D, Northwestern, 42. *Research assoc. chem, Northwestern, 41–* Chem. Soc.

Bovie, Dr. W(illiam) T, 22 Summit St, Fairfield, Maine. *Social technology.* Augusta, Mich, Sept. 11, 81. A.B, Michigan, 08; fellow, Missouri, 08–10, A.M, 10; Ph.D, Harvard, 14; Sc.D, Albion Col, 29. Asst. biol, Albion Col, 02–04; prof. geol. and biol, Antioch Col, 06–07; research fellow, Cancer Cmn, Harvard, 14–20, instr. bacter, univ, 20–21, asst. prof. biophysics, 20–27; prof, Northwestern, 27–29; *lecturer social technol, Colby Col, 39–* John Scott medal, Franklin Inst, 28. Soc. Nat; Bot. Soc; Physiol. Soc; Physical Soc; Soc. Cancer Research; Chem. Soc; Soc. Trop. Med; Am. Acad. Temperature coefficient of coagulation caused by ultra-violet light; action of light on protoplasm; direct reading potentiometer for measuring and recording the actual and total reaction of solutions; effect of sunlight on growth and development; biophysics of ultra-violet light; comparative efficiency of sources of radiation used in therapy.

Brainard, Prof. Boyd B(ertrand), Kansas State College, Manhattan, Kans. *Mechanical engineering.* Waunita, Nebr, Sept. 28, 99. B.S, Colorado, 22; M.S, Mass. Inst. Tech, 31. Mem. eng. dept, West. Elec. Co, Chicago, Ill, 22–23; from instr. to *prof. mech. eng, Kans. State Col, 23–* Mech. Eng; Eng. Educ.

Brandt, Dr. P(reston) L(aroy), Pan American Refining Corp, Texas City, Texas. *Petroleum chemistry.* Ramona, Kans, Jan. 7, 09. B.S, Washburn Col, 28; Ph.D, Cornell, 32. Chemist, Derby Oil Co, 32–34; chemist and later *asst. director research, Pan. Am. Ref. Corp, 34–* Chem. Soc.

Brody, Dr. Selma Blazer, 190-A Broad St, Red Bank, N. J. *Physics.* New York, N. Y, May 2, 14. A.B, N. Y. Univ, 34; du Pont fellow, Virginia, 34–35, A.M, 35; scholar and fellow, Bryn Mawr Col, 39–40, Ph.D, 42. Demonstrator physics, Bryn Mawr Col, 35–36, 37–39; lab. instr, Wisconsin, 36–37; instr, Hunter Col, 41–42; *assoc. physicist, ground sig. service, Sig. Corps, U. S. Army, 42–* Soc. X-ray and Electron Diffraction. X-ray crystallography.

Brous, Dr. G(eorge) Calvin, 1339 S. Keeler, Bartlesville, Okla. *Chemistry.* St. Joseph, Mo, Dec. 6, 07. A.B, Oklahoma, 29; M.S, N. Y. Univ, 31, Ph.D, 32. Teaching fellow, N. Y. Univ, 29–32, asst. instr. chem, 32–35; instr, Hofstra Col, 35–37, asst. prof, 37–39, assoc. prof, 39–40, prof, 40–42; prof. chem. and institutional rep, eng, science and management war training, Okla. City Univ, 42–43; *physical chemist, U. S. Bur.*

Mines, 43– Chem. Soc. Electronics; photochemical and thermal reactions of solids; adsorption of gases on solids.

Brown, Prof. Lewis N(athan), 115 W. 68th St, New York, N. Y. *Pharmacy.* Sag Harbor, L. I, N. Y, March 21, 91. Ph.C, Columbia, 14. Phar.D, 14. Instr. *pharmacy, col. pharmacy, Columbia,* 15–20, asst. prof, 21–26, *assoc. prof, 27–* Sergt, M.C, 17–18. A.A; Pharmaceut. Asn; N. Y. Pharmaceut. Asn.

Burgess, Dr. C(harles) F(rederick), 202 E. 44th St, New York, N. Y. or Bokeelia, Fla. *******Electrochemistry.* Oshkosh, Wis, Jan. 5, 73. B.S, Wisconsin, 95, E.E, 98, hon. Sc.D, 26. Instr. elec. eng, Wisconsin, 95–00, asst. prof, 00–04, assoc. prof, 04–05, prof. applied electrochem, 05–09, chem. eng, 09–13; *pres, C. F. Burgess Labs, Inc, 10–* Pres, Burgess Battery Co; Burgess Dry Cells, Ltd; chairman board, Burgess-Parr Co. Perkin medal, 32. Electrochem. Soc. (past pres); Chem. Soc; Soc. Chem. Indust; Eng. Educ. Electrolytic rectifiers; electrolytic purification of iron; separation and concentration of ores; electric furnace applications; electrolytic corrosion of underground structures; dry batteries; acoustic correction; light sensitive devices.

Burns, Prof. P(atton) W(right), Box 215, Faculty Exchange, College Station, Texas. *Veterinary physiology.* Cuero, Texas, Oct. 16, 01. B.S, Agr. and Mech. Col. Texas, 23, D.V.M, 26; summers, Iowa State Col, 27, Chicago, 29, Texas, 36, Michigan, 39. Assoc. prof. *vet. physiol. and pharmacol, Agr. and Mech. Col. Texas,* 26–35, *prof. and head dept, 35–* Vet. Med. Asn. Veterinary pharmacology.

Bushnell, Dr. O(swald) A(ndrew), Care of Board of Health, Honolulu, Hawaii. *Medical bacteriology.* Honolulu, Hawaii, May 11, 13. B.S, Hawaii, 34; M.S, Wisconsin, 35, Ph.D, 37. Asst. and teaching fellow, Wisconsin, 34–37; asst. curator, Am. Type Culture Collection, Washington, D. C, 37–39; instr. bacter, sch. med, Georgetown, 38–40; junior bacteriologist, Board of Health, Territory of Hawaii, 40–42; *lieut, Sanit. Corps, U. S. Army, 42–* Clinical bacteriology; public health bacteriology.

Carlston, Dr. Charles W(illiam), P. O. Box 2033, University, Ala. *Geology.* Kokomo, Ind, July 15, 12. B.S, Washington (Seatttle), 36; grad. res. scholar, Columbia, 37–39, univ. fellow, 39–40. Part-time teaching fellow, Washington (Seattle), 36–37; junior geologist, *U. S. Geol. Surv,* 40–42, *asst. geologist, 42–* Geophys. Union. Relation of Newark highland border sediments to regional Appalachian drainage; geology and ground water supplies of Alabama.

Case, Dean George Wilkinson, University of New Hampshire, Durham, N. H. *Engineering.* Fowler, Ind, March 2, 80. B.S, Purdue, 05; M.C.E, Cornell, 12. Asst. instr, Purdue, 06–07, asst. prof, 07–13; sanit. eng, Pittsburgh, 13–14, assoc. prof, 14–16, prof, 16–22; asst. engineer, Morris Knowles, Inc, Pittsburgh, Pa, 17–19; chief engineer and exec. officer, Am. City Eng. Co, 19–25; *dean col. technol. and director, Eng. Exp. Sta, New Hampshire, 25–* Prin. specialist eng. educ, Fed. Security Agency, U. S. Office Educ, 40–41, deputy director, 42, director eng, science and management defense training. Assoc. Civil Eng; N. H. Acad.

Caverley, Prof. Loyst C(eryl), University of Minnesota, Minneapolis, Minn. *Electrical engineering.* Lapeer, Mich, Feb. 27, 01. B.S, State Col. Wash, 23; M.S, Mass. Inst. Tech, 27. Asst. and instr. *elec. eng,* Mass. Inst. Tech, 23–26; *asst. prof, Minnesota, 27–* Elec. Eng; Eng. Educ.

Challacombe, Dr. C(arl) N(icholas), Armour Research Foundation, 33rd and Dearborn, Chicago, Ill. *Physics.* Carlinville, Ill, July 31, 07. B.S, Illinois, 29, M.S, 31, Ph.D, 36. Asst. physics, Illinois, 29–37; prof, Baker, 37–41; *research physicist, Armour Research Foundation, 41–* Physical Soc.

Clancy, Dr. D(onald) W(ashburn), P. O. Box 171, Charlottesville, Va. *Entomology.* Los Angeles, Calif, March 6, 09. B.S, California, 31, M.S, 32, Ph.D, 38. Field asst, cotton insect investigations, *bur. entom. and plant quarantine, U. S. Dept. Agr,* 37, peach mosaic vectors, 38–39, asst. entomologist, Oriental fruit moth parasites, 39–41, *assoc. entomologist in charge biol. control of Comstock mealybug, 41–* Biological control of insects.

Clark, Dr. H(arry) Murray, High Point Road, Peoria, Ill. *Physical chemistry, Metallurgy.* St. Paul, Minn, March 19, 16. B.S, Illinois, 36, Ph.D, 40. *Research chemist, Keystone Steel and Wire Co, 40–* Chem. Soc; Soc. Metals. Lubrication, emulsions and all phases of low and high carbon wire.

Claussen, Dr. W(alter) F(rederick), 2 Edgar St, Poughkeepsie, N. Y. *Physical chemistry.* Rock Rapids, Iowa, June 25, 16. A.B, Illinois, 36, Ph.D, 39. Asst, Illinois, 36–37, asst. instr, 37–39; *chemist, Texas Co, 39–* Chem. Soc. Infra-red spectroscopy; petroleum products.

Conary, Dr. Robert E(kvall), 22 Vine St, Beacon, N. Y. *Physical chemistry.* Minneapolis, Minn, Aug. 14, 14. B.Ch.E, Minnesota, 34; Ph.D, Wisconsin, 38. Chemist, *Texas Co,* 38–42, *asst. supervisor fuels research dept, 42–* Chem. Soc. Development of fuels and lubricants for internal combustion engines.

Conlon, Lieut. Commander E(merson) W(ard), 409 Ellsworth Drive, Silver Spring, Md. *Engineering.* Hancock, N. Y, Dec. 5, 05. B.S, Mass. Inst. Tech, 29. Asst. project engineer, Berliner-Joyce Aircraft Corp, 29–35; struct. design engineer, Sikorsky Aircraft Corp, 35–37; instr. *aeronaut. eng, Michigan,* 37–38, asst. prof, 38–41, *assoc. prof, 41–; lieut. commander, U. S. Naval Res.* Instr, evening sch, Bridgeport Eng. Inst, 36–37; consulting engineer, Dow Chem. Co, 39–42. Summer, assoc. engineer, materiel div, Wright Field, Air Corps, 39. Assoc. fel. Inst. Aeronaut. Sci. Preliminary tests of a magnesium alloy wing; magnesium for aircraft construction.

Copson, Prof. G(odfrey) V(ernon), Oregon State College, Corvallis, Oregon. *Bacteriology.* Worcester, Eng, Feb. 13, 84. B.S, Oregon State Col, 11, M.S, 13; Bern, 14–15. Instr. *bacter, Oregon State Col,* 15–16, asst. prof, 16–18, assoc. prof. and acting head dept, 18–20, *prof. and head dept, 20–, acting dean sci, 41–, bacteriologist in charge, Exp. Sta, 20–*

Cronin, Prof. J(ohn) F(inbar), Carroll College, Helena, Mont. *Zoology.* Butte, Mont, March 5, 08. A.B, Mt. St. Charles Col, 30; A.M, Catholic Univ, 34; summers, Illinois, 36, Washington (Seattle), 37, 41, Iowa, 38, 39, 40. *Prof. zool, Carroll Col, 34–*

Cutler, Dr. Hugh C(arson), Harvard University, Cambridge, Mass. *Botany.* Milwaukee, Wis, Sept. 8, 12. A.B, Wisconsin, 35, A.M, 36; Ph.D, Washington (St. Louis), 39. Research fellow, Washington (St. Louis), 39–41; *research assoc, Harvard, 41–* Guggenheim Mem. Foundation fellow, 42–43; field technician, Reconstruction Finance Corp, 43. Taxon. Soc. Taxonomy; flora of the Navajo Basin; origin of maize and related grasses; taxonomy of economic plants.

Dale, Dr. Chester N(icholas), Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C. *Veterinary bacteriology.* Benson, Minn, Nov. 26, 97. D.V.M, Ohio State, 19; A.M, George Washington, 38. *Assoc. veterinarian, path. div, bur. animal indust, U. S. Dept. Agr.* Vet. Med. Asn; D. C. Bact. Soc. Veterinary pathology; diseases of animals.

Dale, Dr. Clark H(all), Upper Mountain Road, Lewiston, N. Y. *Organic chemistry.* Rochester, N. Y, June 6, 07. B.S, Rochester, 29, M.S, 34, Ph.D, 36. Chemist, Vacuum Oil Co, 29–31; Todd Co, 31–32; *research org. chemist, Niacet Chem. Corp, 36–* Chem. Soc.

Dauben, Dr. Hyp J(oseph), Jr, Harvard University, Cambridge 38, Mass. *Chemistry.* Marion, Ohio, July 13, 15. A.B. and M.S, Ohio State, 37; A.M. and Ph.D, Harvard, 41. Teaching fellow chem, *Harvard,* 37–40; *special research assoc, Nat. Defense Research Cmt, 41–* Carbohydrate studies; reaction mechanism; organic and physical-organic chemistry.

Dearborn, Dr. Earl H(amilton), 947 E. 58th, Chicago, Ill. *Pharmacology.* Manhattan, Kans, June 10, 15. A.B, Kansas, 38, A.M, 40; Ph.D, Chicago, 42. Asst, Kansas, 37–38, asst. instr, 38–39; asst, *Chicago,* 40–42, *instr. pharmacol, 42–* Hydrogen ion concentration of blood; antimalarial drugs.

Dillingham, Prof. H(arley) C(lay), Agricultural and Mechanical College of Texas, College Station, Texas. *Electrical engineering.* Commerce, Texas, April 11, 00. B.S, Agr. and Mech. Col. Texas, 22; A.M, Columbia, 30. Mem. tech. staff, Bell Tel. Labs, 24–28; *prof. elec. eng, Agr. and Mech. Col. Texas, 28–* Eng. Educ. (sec'y, Texas sect, 38–); Elec. Eng. (sec'y, southwest dist, 39); Radio Eng.

Dobbins, Dr. William E(arl), 177 Burlington St, Woburn, Mass. *Hydraulic engineering.* Woburn, Mass, March 1, 13. B.S, Mass. Inst. Tech, 34, M.S, 35, Sc.D, 41. Asst. civil and sanit. eng, Mass. Inst. Tech, 35–36, 39–40; instr. civil eng, Robert Col, Istanbul, 36–39; *engineer,* Charles T. Main, Inc, *Boston,* 40–41; *Stone and Webster Eng. Corp, 41–* Civil Eng. Effect of turbulence on sedimentation.

Domingo, Dr. Wayne E(lwin), U. S. Department of Agriculture, Washington, D. C. *Plant breeding.* Weeping Water, Nebr, June 30, 16. B.S, Nebraska, 38; fellow, Utah State Col, 38–40, M.S, 40; fellow, Illinois, 40–42, Ph.D, 42. Assoc, Illinois, 42–43; *assoc. plant breeder, bur. plant indust, soils and agr. eng, U. S. Dept. Agr, 43–* A.A; Soc. Agron. Hybridization of forage grasses; genetics of soybean; drug, condiment, insecticide and drying oil plants.

Eric, Dr. John H(oward), Riverbank Road, Stamford, Conn. *Structural geology.* New York, N. Y, April 25, 14. B.S, Harvard, 37, A.M, 40, Ph.D, 42. Teaching fellow geol, Harvard, 41–42; instr, Williams Col, 42; *junior geologist, U. S. Geol. Surv, 42–*

Etherington, Dr. Frederick, 159 Wellington St, Kingston, Ont, Can. *Medicine.* Gananoque, Ont, Aug. 18, 78. M.D, Queen's (Can), 02. *Prof. surg. and dean med. faculty, Queen's (Can).* Fel. Royal Col. Surg. Can; Med. Council Can. (past pres); Col. Physicians and Surg. Ont. (past pres).

Ferguson, Prof. Frank A(lexander), University of Connecticut, Storrs, Conn. *Physics.* Palermo, Ont, Can, June 20, 82. A.B, Michigan, 08, A.M, 14. Prof. *physics,* Wis. State Teachers Col, Oshkosh, 10–14; assoc. prof, Carnegie Inst. Tech, 16–18; Rutgers, 19–23; *prof, Connecticut, 23–* Physical Soc.

Fink, Prof. Carl K(eister), Grove City College, Grove City, Pa. *Physical chemistry.* Export, Pa, Feb. 7, 09. B.S, Grove City Col, 31; Ph.D, Virginia, 35. Instr. inorg. chem, Virginia, 35–37; *asst. prof. org. and anal. chem, Grove City Col, 37–* Chem. Soc.

French, Major A(dam) James, University of Michigan, Ann Arbor, Mich. *Pathology.* Van Houten, N. Mex, Sept. 3, 12. B.S, M.S. and M.D, Colorado. Asst. physiol, sch. med, Colorado, 34–36; res. pathologist, St. Louis City Hosp, 38–40; univ. hosp, Michigan, 40–41, instr. path, 41; asst. pathologist, Army Med. Museum, 41–42; lab. branch prev. med, div. surg, Gen. Office, *U. S. Army,* 42–43, *major, Med. Corps, 43–* Asn. Path. and Bact. Hypophysectomy and hair growth in rats; clinical and experimental interstitial myocarditis association with sulfonamide drugs.

Friesell, Prof. Frederick Charles, Murrysville, Pa. *Histology, Bacteriology.* D.D.S, Pittsburgh, 98. *Prof. histol. and bacter, Pittsburgh, 04–* A.A; fel. Col. Dentists; Int. Asn. Dental Research.

Gerald, Dr. Curtis F, 62 Lincoln Ave, Riverside, Ill. *Chemical engineering.* Omaha, Nebr, May 22, 15. B.S, Iowa State Col, 36; M.S, Cincinnati, 38; Sc.D, Mass. Inst. Tech, 41. *Research engineer,* R. R. Donnelley and Sons, Chicago, 40–42; *Universal Oil Products Co, 42–*

Givhan, Dr. Edgar G(ilmore), Jr, University of Alabama School of Medicine, Birmingham, Ala. *Medicine.* Montevallo, Ala, March 14, 05. A.B, Alabama, 24; M.D, Jefferson Med. Col, 28. *Assoc. prof. clin. med, med. sch, Alabama, 26–* Fel. Col. Physicians.

Hall, Prof. W(illiam) H(olland), Drawer A, College Station, Durham, N. C. *Civil engineering.* Fayetteville, N. C, Nov. 29, 84. A.B, Duke, 09, A.M, 14; B.C.E, Michigan, 15; M.S, Wisconsin, 27. Teacher, high sch, N. C, 09–13; asst. prof. *eng, Duke,* 15–20, *prof, 20–,* director div, 37–39, *dean col. eng, 39–* Civil Eng; Water Works Asn; Soc. Prom. Eng. Educ; N. C. Soc. Eng.

Hall, Dr. William P(ersson), 1310 W. Tenth St, Wilmington, Del. *Chemistry.* Denmark, Dec. 31, 03. A.B, Occidental Col, 31; Ph.D, Hopkins, 36. *Asst. chem. director, Joseph Bancroft and Sons Co.* Chem. Soc; Asn. Textile Chemists and Colorists.

Harrison, Richard Edes, 22 W. 48th St, New York 19, N. Y. *Geography, Cartography.* Baltimore, Md, March 11, 01. A.B, Yale, 23, B.F.A, 30. Cartographer, Fortune Magazine, 36–38; *practicing independent cartographer, 39–* Consultant, Office Strategic Services; office of the geographer, Dept. State; Fortune Magazine; Life Magazine; Museum Mod. Art, New York; cmt. cartog. techniques, Nat. Research Council; visiting lecturer, Clark, 42; Trinity Col, 43; Columbia, 44. A.A; Acad. Polit. Sci; Cong. Surv. and Mapping; fel. Am. Geog. Soc; fel. Royal Geog. Soc. Cartographic techniques, especially perspective representation of topography; graphic construction of map grids.

Harrison, T(homas) R(andolph), Brown Instrument Co, Philadelphia, Pa. *Physics.* New Kent Co, Va, Jan. 4, 91. B.S, George Washington, 18. Lab. aid to assoc. physicist, Bur. Standards, 15–20; physicist, Champion Porcelain Co, 20–24; director research, *Brown Instrument Co,* 24–37, *tech. adviser, 37–* Certificate of merit, Franklin Inst, 32; Mod. Pioneer award, Nat. Asn. Mfrs. Physical Soc; Optical Soc; Franklin Inst. Development of industrial instruments including electronically operated self-recording potentiometer without galvanometer, radiation pyrometer and many other instruments for measuring temperature, pressure, fluid flow and gas analysis; electronically and pneumatically operated automatic control devices.

Hashimoto, Prof. E(dward) I(chiro), University of Utah School of Medicine, Salt Lake City, Utah. *Anatomy.* Salt Lake City, Utah, Feb. 24, 11. A.B, Utah, 30, A.M, 37; M.D, Harvard, 34. *Assoc. prof. anat. sch. med, Utah.* A.A; Asn. Anat; Am. Med. Asn; Col. Chest Physicians. Quantitative effects of ovariectomy.

Hendrix, Prof. A(ndy) T, North Carolina State College, Raleigh, N. C. *Engineering.* Byington, Tenn, May 12, 04. B.S, Tennessee, 25, M.S, 27. Mem. dept. eng. drawing and agr. eng, Tennessee, 25–41; *assoc. farm machinery and assoc. research engineer, N. C. State Col, 41–* Soc. Automotive Eng.

Hermanson, Prof. Joe L(eonard), Bethany College, Lindsborg, Kans. *Organic chemistry.* Garretson, S. Dak, Dec. 14, 04. B.S, S. Dak. State Col, 27; M.S, Iowa, 28, Ph.D, 33. *Prof. chem. and physics, Bethany Col. (Kans).* Chem. Soc.

Hetrick, Dr. J(acob) A(dam) W(erner), 667 Madison Ave, New York, N. Y. *Otolaryngology.* Asbury Park, N. J, April 22, 95. M.D, N. Y. Med. Col, 18. *Prof. otolaryngol, N. Y. Med. Col, 28–, dean, 41–, pres.* Fel. Med. Col. Sci; Am. Med. Asn; Acad. Path. Sci; Acad. Ophthal. and Otolaryngol.

Hunn, Dr. J(ames) V(ictor), 10221 S. Leavitt Ave, Chicago, Ill. *Chemical engineering.* Avoca, N. Y, Sept. 21, 00. Ph.D, Michigan, 28. *Director resin research dept, Sherwin-Williams Co, 35–* Chem. Soc.

Hunter, Charles E(ugene), P. O. Box 535, Knoxville, Tenn. *Geology.* Tobaccoville, N. C, May 22, 11. B.S, North Carolina, 33. Field geologist and later *assoc. geologist, Tenn. Valley Authority, 33–* A.A; Min. and Metal. Eng; Ceramic Soc; Carolina Geol. Soc. Vermiculite, chromite and nickel deposits of the Tennessee Valley region; residual alaskite kaolin deposits of North Carolina; thin-bedded building sandstone of Alabama; forsterite olivine deposits of North Carolina and Georgia; chromite deposits of North Carolina.

Jackson, O(scar) B(ranche), Shell Oil Co, Box 638, Graham, Texas. *Geophysics.* Ozro, Texas, June 30, 12. B.S, Texas Col. Arts and Indust, 34; M.S, Calif. Inst. Tech, 35. Asst. seismologist, *Shell Oil Co,* 37–41, *geophysicist, 41–* A.A; Physical Soc; Math. Soc; Soc. Explor. Geophys.

Jenison, Dean John Richie, Tarkio College, Tarkio, Mo. *Mathematics.* Allerton, Iowa, Jan. 12, 75. A.B, Tarkio Col, 03; Chicago, 10–11; Armour Inst. Tech, 11; A.M, Kansas, 28. *Prof. math, Tarkio Col, 02–, dean, 28–* Mo. Acad.

Josle, Dr. Rena, New Jersey College for Women, Rutgers University, New Brunswick, N. J. *Physical chemistry.* Somerville, Mass, May 5, 07. A.B, Radcliffe Col, 27, A.M, 33, Ph.D, 39; M.Ed, Harvard, 32. Teacher, high sch, N. H, 27–31; Mass, 36–38; asst, biol. lab, Harvard, 38–40; *instr. chem, N. J. Col. for Women, Rutgers, 40–* Chem. Soc.

Kaiser, Dr. E(dward) P(eck), Austinville, Va. *Geology.* Scranton, Pa, April 24, 12. A.B, Dartmouth Col, 34; A.M, Syracuse, 36; Washington (St. Louis), 36–37; Ph.D, Mass. Inst. Tech, 41. Instr. geol, Dartmouth Col, 35–36; *geologist, N. J. Zinc Co, 40–*

Kalb, Dr. George H(erbert), 1005 Delaware Ave, Wilmington, Del. *Organic chemistry.* Woodhaven, N. Y, Aug. 1, 15. B.S, Lehigh, 36, Hunt-Rankin fellow, 36–38, M.S, 38; Ph.D, Northwestern, 40. *Chemist, chem. dept, E. I. du Pont de Nemours and Co, 40–* Chem. Soc.

Large, John R(unyon), 633 Ave. H, Bogalusa, La. *Plant pathology, Plant physiology.* Ottawa, Ill, Dec. 22, 01. B.S, State Col. Wash. 26; M.S, Arkansas, 28. Fellow, Crop Protection Inst, Iowa State Col, 28–29; instr. bot, George Washington, 29–31; junior pathologist, *bur. plant indust, U. S. Dept. Agr,* 31–41, *asst. pathologist, 42–, in charge path. investigations*

on tung diseases, field lab, 43– Cotton wilt; shale oil spray; pecan disease; tung disease; phytopathology.

Lennon, Dr. H(ershel) C, 116 Jefferson Bldg, Greensboro, N. C. *Pathology.* Wilmington, N. C, Sept. 22, 04. B.S, Wake Forest Col, 27; M.D, Pennsylvania, 31. Instr. path. and bact, med. sch, Temple, 35–40, prof. *path,* dental sch, 37–40; *asst. prof, Bowman Gray Sch. Med, Wake Forest Col, 40–; director, Greensboro Path. Lab, 40–* Fel. Soc. Clin. Path; Am. Med. Asn.

Lewis, Dr. Clay, 602 W. Nevada St, Urbana, Ill. *Chemical engineering.* Newton, Mass, Aug. 7, 13. A.B, Bowdoin Col, 34; M.S, Mass. Inst. Tech, 37; Sc.D, Carnegie Inst. Tech, 42. Chem. engineer, Humble Oil and Ref. Co, 37–40; *instr. chem. eng, Illinois, 42–*

Lewis, Dr. D(avid) Sclater, 1390 Sherbrooke St. W, Montreal, Que, Can. *Medicine.* Montreal, Que, Can, May 14, 86. M.Sc, McGill, 07, M.D, 12; fellow, Royal Col. Physicians Can, 37. Assoc. prof. therapeut, *faculty med, McGill, 30, asst. prof. med, 31–* Col. Physicians (v. pres, 41); Can. Med. Asn. (hon. treas, 37–41).

Loebenstein, Dr. William V(allie), 23 Exeter Ave, Pawtucket, R. I. *Physical chemistry.* Providence, R. I. B.S, Brown, 35, M.S, 36, Ph.D, 40. Research chemist, Corning Glass Works, 40–41; *lieut, Med. Admin. Corps, U. S. Army, 41–* Chem. Soc. Nature of the surface of catalytic nickel; hydrates of the tetra-alkyl ammonium hydroxide series.

Lucas, Prof. Warren S(tanhope), University of Maine, Orono, Maine. *Engineering mathematics.* Foxcroft, Maine, May 14, 88. A.B, Maine, 14, A.M, 22. Instr. *math, Maine,* 20–23, asst. prof, 23–41, *assoc. prof, 41–*

Lundeberg, Lieut. Col. Karl R, 1307 Holly St, N.W, Washington, D. C. *Epidemiology.* Kenyon, Minn, Sept. 23, 99. B.S, Minnesota, 23, M.D, 26; D.T.M. and H, London, 28; Army Med. Sch, 30. Bacteriologist, Board Health Lab, Ancon, P. C. Zone, 34–37; pathologist, Ft. Sam Houston, Texas, 37–39; *chief* lab, Ft. Leavenworth, Kans, 39–41; *epidemiol. div, prev. med. service, Surgeon Gen's. Office, U. S. Army, 41–* Soc. Trop. Med; Isthmian Med. Soc, Panama (sec'y-treas, 36).

McCullough, Prof. Herbert A(lfred), Bessie Tift College, Forsyth, Ga. *Ecology.* Pittsburgh, Pa, Dec. 19, 14. B.S, Pittsburgh, 35, M.S, 37, Ph.D, 39. Asst. *biol,* Pittsburgh, 36–39; *prof. and head dept, Bessie Tift Col, 39–; Air Forces, U. S. Army.* Bot. Soc; Torrey Bot. Club.

MacKenzie, Dr. Kenneth A(lexander), 89 Spring Garden Road, Halifax, N. S, Can. *Medicine.* Pictou, N. S, Aug. 3, 80. M.D, Dalhousie, 03. *Physician, Camp Hill Hosp, 20–; prof. med, Dalhousie, 30–* Visiting physician, Victoria Gen. Hosp, 20–41. C.A.M.C, 15–19. Can. Med. Asn. (pres, 38); Med. Soc. N. S. (pres, 33).

Marion, Dr. Stephen P(aul), 153 Lincoln Place, Brooklyn 17, N. Y. *Chemistry.* New York, N. Y, May 16, 11. B.S, Columbia, 34, A.M, 35, Ph.D, 41. *Instr. chem, Brooklyn Col, 37–* A.A; Chem. Soc; N. Y. Acad. Colloid chemistry; effect of diverse anions on the hydrogen ion concentration of maximum precipitation of aluminum hydroxide.

Mason, Prof. Sewell L(uverne), 2205 Fourth Ave, N, Grand Forks, N. Dak. *Mathematics.* West Concord, Minn, Feb. 23, 07. B.S, North Dakota, 27; A.M, Michigan, 31; Colorado, 38. Instr. *math,* high sch, Washburn, N. Dak, 27–28; *North Dakota,* 28–34, asst. prof, 34–38, *assoc. prof, 38–*

Mood, Dr. A(lexander) M(cFarlane), University of Texas, Austin, Texas. *Mathematical statistics.* Amarillo, Texas, May 31, 13. A.B, Texas, 34; Brown, 34–35; Ph.D, Princeton, 40. Instr. applied math, Texas, 40–42; *assoc. statistician, Bur. Labor Statistics, 42–* Statist. Asn; Inst. Math. Statist.

Morin, Prof. J. Edouard, Laval University, Quebec, Que, Can. *Bacteriology.* July 22, 96. B.A, Laval, 19, M.D, 24; Inst. Pasteur, Paris, 27. Intern, Hosp. de la Miséricorde, 23–24; Prov. Govt. fellow path. and bacter, inst. d'anat. path, Strasbourg, 24–26; director labs, Hosp. du St. Sacrement, 27–29; *prof. bacter, Laval, 29–* Sci. director, Archives Int. des Brucelloses, 38. Royal Col. Physicians and Surgeons of Can; Can. Physiol. Soc; Asn. des Microbiol. de Langue Française; cor. mem. Asn. française pour l'Etude du Cancer; cor. mem. Soc. de tuber, Paris.

Morris, Lieut. W(illiam) L(ind), Apt. 4, 7 Craigie Circle, Cambridge, Mass. *Mathematics.* Asheville, N. C, Sept. 2, 09. B.S, Carnegie Inst. Tech, 31; M.S, Pittsburgh, 33; Ph.D, Duke, 40. Geophysicist, Gulf Oil Corp, 30–37, 40–41; petrol. engineer, Phillips Petrol. Co, 41–42, mathematician, 42; *lieut, U. S. Naval Res, 42–* Math. Soc; Soc. Mil. Eng.

Mudd, Dr. Seeley G(reenleaf), 1550 Oak Grove Ave, Pasadena, Calif. *Medicine.* Denver, Colo, April 18, 95. B.S, Columbia, 17; M.D, Harvard, 24. *Practicing cardiologist, 28–;* research assoc. radiation, Calif. Inst. Tech, 31–35, prof. x-ray therapy, 35–42; *prof. exp. med. and dean sch. med, Southern California, 41–* Trustee, Pomona Col; Southern California; Carnegie Institution, 40– Am. Med. Asn; fel. Col. Physicians; Radiol. Soc. N. Amer. Clinical application of super-hard x-rays; clinical spirography; treatment of cancer by supervoltage x-rays; roentgenotherapy; accultatory gap in sphygnomanometry; angina pectoris in young people.

Novello, Dr. F(rederick) C(harles), 345 Owen Ave, Lansdowne, Pa. *Organic chemistry.* Somerville, Mass, July 27, 16. B.S, Harvard, 38, A.M, 39, Ph.D, 41. Special research assoc, Harvard, 41–43; *research chemist, Sharp and Dohme, Inc, 43–* Chem. Soc.

Palmer, Dean Delos M(arquis), University of Toledo, Toledo, Ohio. *Engineering.* Monroe Co, Mich, June 23, 97. B.S, Michigan, 21, M.S, 38. Instr. elec. eng, Kans. State Col, 21–23; ry. elec. engineer, Westinghouse Elec. and Mfg. Co, 23–26; asst. prof. mech. eng. and physics, Toledo, 26–29; asst. to factory manager, Spicer Mfg. Corp, Toledo, Ohio, 29–30; from asst. prof. to *prof. mech. eng. and dean eng, Toledo, 30–* Mech. Eng; Eng. Educ; Toledo Soc. Professional Eng. (pres, 39–41).

Parker, Dr. Almon S(anborn), 219 Ninth Ave, South Charleston, W. Va. *Chemical engineering.* Framingham, Mass, Dec. 7, 11. B.S, Mass. Inst. Tech, 33, M.S, 34, Sc.D, 36. *Chem. engineer, Carbide and Carbon Chem. Corp, 36–*

Patterson, Dean L(ucius) L(amar), P. O. Box 365, State College, Miss. *Electrical engineering.* Enid, Miss, Feb. 8, 79. A.B, Miss. Col, 98, A.M, 99; M.E, Cornell, 06. Teacher, schs, 99–03; with N. Y. City Railways, 05; with Stanley Elec. Co, 06–07; head dept. math, Union Col. (N. Y), 07–09; asst. prof. *elec. eng, Miss. State Col,* 11–14, *prof. and head dept, 14–,* head dept. physics, 11–14, supt. elec. service, 14–38, *dean sch. eng, 30–, institutional rep. and local director defense training courses, 40–, director eng. exp. sta, 41–* With Ala. Power Co. and Southeast Eng. Co, 26–27. Summers, Westinghouse Elec. and Mfg. Co, 21. Mem, Nat. Council State Board Eng. Examiners, 32–; State Board Eng. Examiners, Miss, 32–, v. pres, 40– Elec. Eng; Eng. Educ; Miss. Educ. Asn; Miss. Soc. Professional Eng.

Philipson, Dr. J(oseph) Blon, 1713 Troy St, Arlington, Va. *Physics, Economics.* Cape Girardeau, Mo, Dec. 7, 07. B.S, Southeast Mo. State Teachers Col, 29; M.S, Iowa State Col, 31, Ph.D, 33. Instr, Iowa State Col, 29–34; housing economist, Fed. Housing Admin, 34–40; *program director, Nat. Housing Agency, 41–* Physical Soc. Mathematics; analysis of the absorption spectra; recording of cathode rays; analysis of consumption standards of housing; analysis of the market for housing.

Porter, Prof. G(eorge) McC(andless), 925 St. James St, Pittsburgh, Pa. *Electrical engineering.* Pittsburgh, Pa, July 22, 91. B.S, Carnegie Inst. Tech, 12. Engineer, Westinghouse Elec. and Mfg. Co, 11–16; *assoc. prof. elec. eng, Carnegie Inst. Tech, 16–* Elec. Eng.

Poupart, Rev. (Joseph) Henri, University of Ottawa, Ottawa, Ont, Can. *Mathematics, Physical chemistry.* Saint-Michel de Napierville, Que, Can, March 25, 96. Ph.D, Gregorian Univ, Rome, Italy, 22, Lic. Theol, 25; S.T.D, Col. Angelico, Rome, Italy, 26. Teacher math, physics and chem, high sch, *Ottawa,* 26–32, *prof.* math, *faculty arts, univ,* 32–35, *physical chem, 35–, dean, 36–,* v. rector univ, 36–39. Mem. Cmt. Revision Secondary Sch. Curriculum in Mod. Langs, Ont, 37–

Praeger, Prof. Emil H(ugh), Rensselaer Polytechnic Institute, Troy, N. Y. *Civil engineering.* New York, N. Y, Aug. 2, 92. C.E, Rensselaer Polytech, 15. *Prof. civil eng. and head dept, Rensselaer Polytech, 39–; U. S. Naval Res.* Civil Eng; Concrete Inst; Welding Soc; Seismol. Soc; Eng. Educ.

Prescott, Dr. B(lake) D(aniels), 200 Retreat Ave, Hartford, Conn. *Medical sciences.* Foxborough, Mass, Sept. 17, 95. A.B, Wyoming, 23; Yale, 23–24; A.M, Columbia, 27; M.D, Middlesex, 31. Instr, high sch, Conn, 24–26; med. intern,

Hartford Retreat Hosp, 31–32; asst. physician, Neuro-Psychiat. Inst. and Hosp, 32–33; *director dept. physical therapy, Neuro-Psychiat. Inst, Hartford Retreat, 33–, chief psychologist and res. med. officer and chairman faculty, 34–* Acting exec. officer, Inst. of Living, 43–; lecturer, exten. div, Connecticut, 43–Mem, State Exam. Cmt. Clin. Psychol, Conn, 43– A.A; Psychiat. Asn; Soc. Prom. Biol. and Physiol. Psychiatry; Asn. Mental Deficiency; Nat. Cmt. Mental Hygiene; New Eng. Soc. Psychiat. Effect of copper and iron upon the secondary anemia of therapeutic malaria in general paresis; influence of various colors and light upon plant, animal and human behavior; psychological manifestations of general paresis in hospitals; historical investigation of clinical aspects of malaria; electropyrexial studies.

Pryor, Marvin J, Box 174, Houghton, N. Y. *Physics.* Osseo, Minn, May 3, 03. A.B, Marion Col, 26; A.M, Amherst Col, 29. From asst. prof. to *prof. physics and astron, Houghton Col, 29–* Asn. Physics Teachers; Physical Soc.

Quibell, Prof. Cha(rle)s H(icks), Fresno State College, Fresno, Calif. *Botany, Morphology.* Belvedere, Calif, March 14, 02. A.B, Pomona Col, 27; Stanford, 30–32; Ph.D, Chicago, 40. *Assoc. prof. bot, Fresno State Col, 27–*

Rea, Prof. George W, University of Saskatchewan, Saskatoon, Sask, Can. *Bacteriology.* Ireland, March 15, 93. M.B. and B.Ch, Queen's Univ, Belfast, Ireland, 14, D.P.H, 19; D.Bact, London, 34. *Prof. bacter, Saskatchewan, 21–*

Renaud, Rev. Fr. Ernest, University of Ottawa, Ottawa, Ont, Can. *Biological chemistry.* Ottawa, Ont, June 13, 90. B.A, Ottawa, 12, D.Sc, 35; M.S, Catholic Univ, Lille, 33. *Prof. chem, Ottawa, 22–* Fel. Can. Inst. Chem; Soc. de Chim. biol; Soc. chim. de France.

Rhodes, Prof. Sam R(oseborough), Clemson College, S. C. *Electrical engineering.* Darlington, S. C, July 27, 81. B.L. and M.S, Furman, 00, M.S, 01; B.S, Clemson Agr. Col, 07, E.E, 28. Mem. staff, Gen. Elec. Co, 07–09; instr. and asst. prof, North Dakota, 09–13; from asst. prof. to *prof. elec. eng. and head dept, Clemson Agr. Col, 28–* Elec. Eng. (chairman S. C. sect, 41); Eng. Educ; S. C. Soc. Eng. (pres, 38).

Rice, Prof. H(arold) F(rederick), University of North Dakota, Grand Forks, N. Dak. *Electrical engineering.* Osceola, Iowa, Sept. 13, 98. B.S, Colorado, 20, E.E, 27. Testman and designing engineer, Gen. Elec. Co, 20–23; elec. distribution engineer, Pub. Service Co. of Colo, Denver, 23–28; instr. *elec. eng, North Dakota,* 28–29, asst. prof, 29–34, *assoc. prof, 34–* Elec. Eng; Eng. Educ.

Robinson, Prof. W(illiam) L(ipsett), 18 Doncliffe Drive, Toronto, Ont, Can. *Pathology.* Can, April 10, 85. B.A, McMaster, 09; M.B, Toronto, 13. *Prof. path, Toronto, 31–,* lecturer medico-legal jurisprudence, 39. Pathologist, Toronto Gen. Hosp, 15–; dean, Can. Sch. Embalming, 37; consulting pathologist, Attorney-Gen.'s Dept, Ont, 42. Asn. Path. and Bact; Asn. Cancer Research; Path. Soc. Gt. Britain and Ireland; Int. Asn. Med. Museums. Pathology of diabetes; histology and physiology of spleen; pathology of bronchiectasis.

Rogers, Prof. Frazier, University of Florida, Gainesville, Fla. *Agricultural engineering.* Ora, Miss, Feb. 7, 93. B.S, Miss. State Col, 15; Kans. State Col, 29; M.S.A, Florida, 30. Asst. prof. *agr. eng, Florida,* 18–22, *prof,* 23– Agr. Eng.

Rose, Prof. Franklin O(rth), Brown University, Providence, R. I. *Hydraulics.* Dallas, Texas, Aug. 23, 90. A.B, Stanford, 17, A.M, 25; C.E, California, 36. Struct. draftsman, South. Calif. Edison Co, 21; designing engineer and supt. construction, private practice, 22; house construction and real estate, 26–27; sales engineer, 27–28; instr. eng. and math. and head dept, Modesto Junior Col, 28–31, 33–36; asst. prof. mech. eng, California, 32, 33; asst. prof. and assoc. prof. *civil eng,* Southern California, 36–41; visiting prof, Mass. Inst. Tech, 41–42; *assoc. prof, Brown, 42–* Lieut, C.Eng, 17–19. Assoc. Civil Eng; Eng. Educ.

Sappington, Dr. S(amuel) W(atkins), Bryn Mawr, Pa. *Pathology, Bacteriology.* Philadelphia, Pa, Jan. 3, 74. Sc.D, Hahnemann Med. Col. (Pa), 41. *Prof. path. and bacter, Hahnemann Med. Col. and Hosp. (Pa), 07–* Am. Med. Asn; Col. Physicians; Soc. Bact; Asn. Immunol; Soc. Clin. Path.

Saunders, Dr. Donald J(ackson), 249 Ferndale Drive, Syracuse, N. Y. *Physical chemistry.* Seneca Falls, N. Y, Feb. 5, 15. A.B, Colgate, 36; Ph.D, Wisconsin, 40. Asst, Wisconsin, 36–40; *research chemist, Solvay Process Co, 40–* Chem. Soc.

Saunders, Prof. E(dward) W(atts), University of Virginia, Charlottesville, Va. *Civil engineering.* Rocky Mount, Va, April 18, 95. C.E, Virginia, 17. Asst. prof. *civil eng,* South Carolina, 19–20; from asst. prof. to *prof, Virginia, 20–* Mem. State Board Exam. and Certification Professional Eng, Archit. and Land Surveyors, Va, 29– Civil Eng. (pres, Va. sect, 39).

Schaefer, Joseph J(ohn), Sharples Chemicals, Inc, Philadelphia, Pa. *Organic chemistry.* Dayton, Ohio, Dec. 19, 98. B.Ch.E, Dayton, 19; M.S, Mass. Inst. Tech, 21. Asst. manager, Schaefer Cigar Co, 21–25; teaching and consulting, Dayton, 25–28; research and develop, Niacet Chems. Corp, 28–34; director research, Sharples Solvents Corp, 34–36; *v. pres. in charge develop, Sharples Chemicals, Inc, 36–* Chem. Soc; Chem. Eng; Chemists Club. Development and research of synthetic organic chemicals.

Schaefer, Dr. Willis Carlton, 723 Arlington Village, Arlington, Va. *Psychometrics.* Chicago, Ill, Nov. 10, 13. B.S, Chicago, 36, Ph.D, 40. Personnel technician, Adj. Gen. Office, U. S. War Dept, 40–41; U. S. Dept. Agr, 41–42; *psychologist, aviation psychol. sect, bur. med. and surg, U. S. Navy, 42–* Psychol. Asn; Psychometric Soc; Wash. Psychometric Soc.

Schealer, Prof. S(amuel) R(aymond), Vanderbilt University, Nashville, Tenn. *Electrical engineering.* Reading, Pa, Jan. 11, 87. E.E, Lehigh, 09, M.S, 21. Instr. *elec. eng,* Lehigh, 09–11, asst. prof, 12–17, assoc. prof, 19–27; *prof. and head dept,* Duke, 27–34; *Vanderbilt, 38–* Lieut, U.S.N, 17–19. Elec. Eng; Eng. Educ. Alternating current machinery.

Sheppard, Dr. S. Ernest, 927 17th, N.W, Washington, D. C. *Ophthalmology.* Ont, Can, 02. M.D, Queen's (Can), 26. *Assoc. prof. ophthalmol, med. sch, George Washington.* Am. Med. Asn; Col. Surg; Acad. Ophthal; South. Med. Asn; Med. Soc. D. C. Ophthalmic lenses.

Sherwood, Prof. Lloyd V(incent), University of Illinois, Urbana, Ill. *Agronomy.* Cassgille, Mo, Feb. 27, 07. B.S, Illinois, 31, scholar, 31–32, M.S, 32, Ph.D, 37. Asst. *agron,* Illinois, 36–37; *asst. prof,* Arizona, 37–40; *Illinois, 40–* Soc. Agron.

Sikorsky, Igor I, Vought-Sikorsky Aircraft, Division of United Aircraft Corp, Stratford, Conn. *Aeronautical engineering.* Kiev, Russia, May 25, 89. Naval Col. Petrograd, 06; Kiev Polytech. Inst; hon. M.S, Yale, 41; hon. A.M, Wesleyan, 41; hon. D.E, Lehigh, 41. *Airplane designer, 09–; engineering manager,* aircraft div, Russian-Baltic Car Co, 12–13; Sikorsky Aero Eng. Corp, 19–29, *Vought-Sikorsky Aircraft div, United Aircraft Corp, 29–; lecturer aeronaut. eng, R. I. State Col, 35–* Howard N. Potts medal, Franklin Inst, 33. Aeronaut. Asn; Automotive Eng; Mil. Eng; U. S. Naval Inst; Inst. Aeronaut. Sciences; Aircraft Owners Pilots Asn.

Smith, Dr. Newton D(ean), Mayo Clinic, Rochester, Minn. *Proctology.* Buffalo, N. Y, June 28, 98. B.S, Buffalo, 23, M.D, 23. Instr. *proctology, Mayo Foundation, Minnesota,* 29–35, *assoc. prof, 35–* Am. Med. Asn; Proctol. Soc; Minn. State Med. Asn; South. Minn. Med. Asn.

Smith, Prof. Samuel S(chwartz), University of Utah, Salt Lake City, Utah. *Mathematics.* Idaho, Oct. 26, 92. B.S, Utah, 16, M.S, 17; Ph.D, Chicago, 40. *Asst. prof. math, Utah, 40–* Flying cadet, U. S. Army, 18, second lieut, 19. Math. Soc.

Stever, Dr. H(orton) Guyford, Massachusetts Institute of Technology, Cambridge, Mass. *Physics.* Corning, N. Y, Oct. 24, 16. A.B, Colgate, 38; Ph.D, Calif. Inst. Tech, 41. Staff mem, radiation lab, Mass. Inst. Tech, 41–42; *tech. aide, Office Sci. Research and Develop, 42–* Physical Soc. Lifetime of mesatron; cosmic rays; discharge mechanism of fast Geiger counters; directional Geiger counters.

van Steenburgh, Dr. William Elgin, Entomological Laboratory, Belleville, Ont, Can. *Entomology.* Havelock, Ont, Dec. 24, 99. A.B, Greenville Col, 23; M.A, Toronto, 27, Ph.D, 31. Junior entomologist, *entom. lab, Can. Dept. Agr,* 27–28, *asst. entomologist, 28–; col. and director artillery, Can. Army, 39–* Can. Entom. Soc; Can. Soc. Tech. Agr. Biological control of insect pests.

NAMES OF THOSE INCLUDED IN THE SIXTH EDITION WHOSE BIOGRAPHIES DO NOT APPEAR IN THIS EDITION

Abell, Dr. Orie L(eo), S.J.
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Acree, Ellen Gray
Ahern, Lieut. Col. George
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Alderman, Dr. A(lton) L(ovell)
Allen, Mrs. Howard Nelson, Jr. (Dr. Dorothy S(awyer) Francis)
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Anderson, Edward
Anderson, Dr. Ruth (Mrs. John Bennett)
Annetts, Dr. May
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Asimow, Dr. Morris
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Atkinson, Prof. Robert d'E(scourt)
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Baird, Dean William Jesse
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Banner, Prof. A(lberta) E(thel)
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Bassoe, Prof. Peter
Batcheller, Prof. J(ames) H(ervey)
Bauer, Dr. Hubert (Anton)
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Bennett, Dr. R(obert) Douglas
Benninghoff, Dr. H(oward) M(orse)
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Cameron, Dr. Jessie Louise
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Emerson, Dr. Paul Waldo
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Eurich, Prof. Alvin C(hristian)
Eve, Prof. A(rthur) S(tewart)
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Fenner, Robert C(oyner)
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Fletcher, L(eonard) J.
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Frank, Dr. Jerome D(avid)
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Gutsell, Dr. Robert S(quier)

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Heller, Dr. Hilda Hempl
Helwig, Dr. G(erald) V(incent)
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Hill, R(ay)
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Hull, Prof. Daniel
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Hussey, Dr. Roland F(ountain)
Hussey, Dr. Stewart C(lark)
Hutchings, Dr. Theron B(ird)

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Jackson, Prof. Vincent William
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Jenkins, Prof. Lulu Marie
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Johnson, Dr. George W(erner)
Johnson, Dr. R(obert)
Johnson, Dr. Ruth V(irginia)
Johnson, Theodore W.
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Jordan, Prof. E(lijah)
Jorgensen, Dr. Paul S(imon)

Kaminsky, Dr. J(oseph)
Kase, John C(harles)
Kato, Dr. Katsuji
Katz, Dr. Dewey
Kaufman, Dr. Sidney
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Kebler, Leonard
Keith, Prof. J(esse) I(saac)
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King, Dr. E(arl) J(udson)
Kingsbury, Dr. Elizabeth W(inchester)
Kingsbury, Dr. F(rancis) B(ullard)
Kingsley, Dr. D(aniel) M(ilton)
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Koch, Prof. B(erthe) C(ouch)
Koch, Dr. Minna F(rotscher)
Kolkmeyer, Rev. E(meran) J(oseph)
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Kraft, Dr. Ruth M(adelin)
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Krechevsky, Dr. I(sadore)
Krehbiel, Dr. O(tto) F(rederick)
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Kuntz, W(illia)m A.

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Larson, A(ndrew) O(lof)
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Leith, J(ohn) D(ouglas)
Lerch, William
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Lyon, Dr. Irving Phillips
Lyse, Prof. Inge

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McKay, M(arion) B(ertice)
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Swingle, Dr. L(eroy) D(ey)

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Tietz, Dr. Esther Bogen (Mrs. Julius B. Tietz)
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Tissue, Prof. Kathryn (Anne)
Toennies, Dr. J(an) F(riedrich)
Traub, Dr. E(rich)
Triplett, Prof. Dorothy
Trowbridge, Prof. D(ic) Hector
Trumbull, R(obert) S(amuel)
Tufts, Dr. Matilde Castro (Mrs. James H. Tufts)
Turcot, Conrad
Turner, Prof. B(enjamin) B(ernard)

Underwood, F(rancis) O(mar)

Vachon, Prof. A(lexandre)
Valentine, Eugenia L. (Mrs. H. E. Colwell)
Van Arsdale, G(eorge) D(awes)
Van Epps, Dr. G(eorge) D(udley)
van Steenburgh, Dr. William Elgin
Veach, Dr. Harry O(rr)
Vernon, Dr. Elvin L(eonidas)
Vickery, R(oy) A(lbion)
Vilella, J(oseph) R(amon)

Waite, Prof. Roy H(arrison)
Wakabayashi, Dr. S(teich)
Walker, Dr. John E(dward)
Walters, Dr. A(rthur) L(ouis)
Watney, Prof. Gertrude Smith (Mrs. D. P. Watney)
Watson, Prof. Carl G(wartney)
Weber, Russell G(esberg)
Weinbach, Dr. A(ncel) P(avès)
Weinstein, Dr. D(avid) H(arold)
Weinstein, Dr. S(amuel) S(igmund)
Wells, Dr. E(stelle) Frances
Werner, Dr. Ferdinand
Wernicke, Dr. Paul
Westling, E(ric) H(jalmar)
Whisler, Prof. Ralph G(ault)
White, Dr. E(arl) A(rchibald)
White, Dr. Guy H(aywood), Jr.
Whitenfish, Dr. A(be) I(rving)
Whitney, W(ill) A(lvah)
Williams, Dr. Alan R(ichard)
Williams, Dr. Herbert D(aniel)
Williams, Dr. Owen L(eighton)
Williams, Dr. R(ichard) H(erman)
Williams, Roswell C(arter), Jr.
Wilson, A(lbert) H(arry)
Windus, Dr. Wallace
Wolf, Dr. J(ames) Carlton
Wolf, Dr. Margarete C(aroline)
Wollstein, Dr. Martha
Wood, Dr. Fae D(onat)
Wood, Harry P(eterman)
Woolf, Donald Oliver

Yamanouchi, Dr. Shigeo
Yates, Dr. A(nne)
Yoder, Prof. Robert E(arl)
Young, Dr. A(llan) C(harles)
Young, Prof. Kimball

Zaikowsky, W(ladimir) M(ichel)
Zartman, Dr. Walter H(ammond)
Zeisler, Dr. Ernest Bloomfield
Zimmerman, Dr. E(verett) E(dward)
Zobel, Carl G. F.
Zobel, Prof. Henrietta L(ouise)

AMERICAN MEN OF SCIENCE WHO HAVE DIED SINCE THE PUBLICATION OF THE SIXTH EDITION PUBLISHED IN 1938

Abbott, Maude Elizabeth Seymour. *Internal medicine.* 69–40.
Abbott, Walter Sidney. *Entomology.* 79–42.
Abel, John Jacob. *Pharmacology.* 57–38.
Adams, Arthur Herman. *Physics.* 79–38.
Adams, Frank Dawson. *Geology.* 59–42,
Adams, Harold Stanard. *Chemistry.* 88–43.
Adams, Maxwell. *Chemistry.* 69–39.
Adams, Numa Pompilius Garfield. *Medicine.* 85–40.
Adams, Waldo Lawrence. *Chemistry.* 85–40.
Adler, Alphonse Andrew. *Engineering.* 81–39.
Adler, Cyrus. *Archeology, Oriental history.* 63–40.
Ainslie, Charles Nicolas. *Entomology.* 56–39.
Aldous, Alfred Evan. *Agronomy.* 85–38.
Aldrich, William Sleeper. *Mechanical engineering.* 63–41.
Alexander, Daniel Basil William. *Chemistry.* 62–38.
Alexander, Hartley Burr. *Philosophy.* 73–39.
Alford, Leon Pratt. *Mechanical engineering.* 77–42.
Allen, Charles Ricketson. *Chemistry, Education, Physics.* 62–38.
Allen, Edgar. *Anatomy.* 92–43.
Allen, Glover Morrill. *Zoology.* 79–42.
Allen, Maxwell Wilford. *Seismology.* 96–38.
Allen, Reginald Bryant. *Mathematics.* 72–38.
Allen, William. *Agricultural economics.* 92–41.
Allen, William Marshall. *Chemistry.* 66–39.
Almy, John Edwin. *Physics.* 75–43.
Alsberg, Carl Lucas. *Biochemistry.* 77–40.
Alvord, John Watson. *Hydraulic and sanitary engineering.* 61–43.
Ames, Joseph Sweetman. *Physics.* 64–43.
Ames, Marion A. *Chemistry.* 99–43.
Amsden, Charles Avery. *Archeology.* 99–41.
Andersen, Olaf. *Mineralogy, Petrology, Geology.* 84–41.
Anderson, Alexander Pierce. *Botany, Industrial chemistry.* 62–43.
Anderson, Evald. *Chemistry.* 83–41.
Anderson, Gustavus Edwin. *Geology.* ?–40.
Andrews, Anne Dale Biddle. *Mathematics.* 85–40.
Andrews, Darwin Maxson. *Botany.* 69–38.
Andrews, Edmund. *Chemistry.* 92–41.
Andrews, Frank Marion. *Botany.* 70–40.
Angell, Frank. *Psychology.* 57–39.
Angle, Edward John. *Medicine.* 64–40.
Appleby, William Remsen. *Metallurgy, Assaying.* 65–41.
Arnold, Bion Joseph. *Electrical engineering.* 61–42.
Arny, Henry Vinecome. *Pharmacy.* 68–43.
Arps, George Frederick. *Psychology.* 74–39.
Arthur, Joseph Charles. *Botany.* 50–42.
Atchison, Clyde S. *Mathematics.* 82–41.
Atkinson, Harry Victor. *Pharmacology.* 87–39.
Atkisson, Earl James. *Chemistry, Engineering.* 86–41.
Atwell, Wayne Jason. *Anatomy, Embryology.* 89–41.
Austin, Arthur Everett. *Biochemistry.* 61–38.
Avery, Priscilla. *Botany.* 99–39.

Babasinian, Vahan S. *Chemistry.* 76–39.
Babb, Cyrus Cates. *Hydraulic engineering.* 67–37.
Bacharach, George. *Organic chemistry.* 88–43.
Bailey, Gladys Holmes. *Physiology.* 01–41.
Bailey, James Robinson. *Chemistry.* 68–41.
Bailey, Vernon. *Biology.* 64–42.
Baker, Alfred. *Mathematics.* ?–42.
Baker, Charles Whiting. *Engineering, Economics.* 65–41.
Baker, Edwin Myron. *Chemical engineering.* 93–43.
Baker, Frank Collins. *Zoology, Paleontology.* 67–42.
Baker, Frederick. *Conchology.* 54–38.
Baker, Herbert Jonathan. *Agriculture.* 85–39.
Baker, Thomas Stockham. *Education.* 71–39.
Baldwin, Samuel Prentiss. *Biology, Ornithology.* 68–38.
Ball, Elmer Darwin. *Entomology.* 70–43.
Ball, Oscar Melville. *Botany.* 68–42.
Banker, Howard James. *Mycology, Eugenics.* 66–40.
Banting, Frederick Grant. *Medicine.* 91–41.
Barbour, Henry Gray. *Physiology, Pharmacology.* 86–43.
Bardwell, Fred Leslie. *Chemistry.* 58–39.
Barker, Howard Hill. *Physics, Chemistry.* 90–38.
Barker, Lewellys Franklin. *Medicine.* 67–43.
Barlow, William Edward. *Chemistry, Metallurgy.* 70–38.
Barnette, Robert Marlin. *Soil chemistry.* 00–38.
Barney, Edgar Starr. *Engineering.* 61–38.
Barney, Raymond Livingston. *Limnology.* 91–38.
Barnhill, John Firmen. *Mathematics.* 76–41.
Barnum, Harry Huntington. *Mathematics.* 77–38.
Barret, Harvey Park. *Bacteriology, Pathology.* 85–40.
Barron, Leonard. *Horticulture.* 68–38.
Barrows, Albert Lloyd. *Zoology.* 83–42.
Barry, Frederick. *Chemistry, History of science.* 76–43.
Barth, Carl George Lange. *Mechanical engineering.* 60–39.
Bartol, William Cyrus. *Mathematics, Astronomy.* 47–40.
Barton, Donald Clinton. *Geology, Geophysics.* 89–39.
Bates, Clifford Whitman. *Electrical engineering.* 84–37.
Baughman, Walter Fee. *Chemistry.* 89–41.
Baumgartner, Edwin Abe. *Pathology.* 88–42.
Baur, Paul Emil. *Mathematics.* 92–39.
Bayley, William Shirley. *Mineralogy, Geology.* 61–43.
Bean, Charles Homer. *Psychology.* 70–40.
Beardwood, Matthew. *Chemistry.* 71–40.
Beattie, Frederick Steere. *Biochemistry.* 84–39.
Beck, Joseph Clar. *Medicine.* 70–42.
Becket, Frederick Mark. *Metallurgy.* 75–42.
Becraft, Raymond John. *Forestry.* 90–38.
Beede, Joshua William. *Geology, Paleontology.* 71–40.
Beer, Edwin. *Medicine.* 76–38.
Beeson, Jasper Luther. *Chemistry.* 67–43.
Begg, Alexander Swanson. *Embryology.* 81–40.
Beggs, George Erie. *Civil engineering.* 83–39.
Belote, George Harold. *Dermatology, Syphilology.* 94–41.
Benedict, James E. *Biology.* 54–40.
Benedict, Susan Rose. *Mathematics.* 73–42.
Benitz, William Logan. *Mechanical engineering.* 72–42.
Bentz, Charles A. *Bacteriology.* 79–37.
Berg, Ernest Julius. *Electrical engineering.* 71–41.
Berresford, Arthur William. *Engineering.* 72–41.
Beust, Theodore Bernard. *Dentistry.* 71–37.
Bevan, Arthur Dean. *Surgery, Anatomy.* 61–43.
Bevier, Isabel. *Home economics.* 60–42.
Beyer, Hermann. *Archeology.* 80–42.
Bigelow, Edward Fuller. *Biology.* 60–38.
Bigelow, Willard Dell. *Chemistry.* 66–39.
Billheimer, Edward Charles. *Chemistry.* 05–42.
Binckley, George Sydney. *Hydraulic engineering.* 70–41.
Bioletti, Frederic Theodore. *Botany, Horticulture.* 65–39.
Birch, Thomas Bruce. *Education, Psychology.* 66–37.
Bird, Robert Montgomery. *Chemistry.* 67–38.
Birdseye, Claude Hale. *Engineering.* 78–41.
Birkett, Herbert Stanley. *Medicine.* 64–42.
Birnie, Rogers. *Mechanical engineering.* 51–39.
Bishop, Carl Whiting. *Archeology.* 81–42.
Bishop, Louis Faugeres. *Medicine.* 64–41.
Bisson, Charles Stewart. *Chemistry.* 91–40.
Black, Melville. *Ophthalmology.* 66–41.
Black, William Thomas. *Gynecology.* 75–38.
Blackfan, Kenneth Daniel. *Pediatrics.* 83–41.
Blake, James Henry. *Conchology, Zoology.* 45–41.
Blanchard, William Martin. *Chemistry.* 74–42.
Blatchley, Willis Stanley. *Entomology.* 59–40.
Bleecker, William Leslie. *Bacteriology.* 80–38.
Bliss, Andrew Richard, Jr. *Pharmacology, Chemistry.* 89–41.
Bliss, William Julian Albert. *Physics.* 67–40.
Block, David Julian. *Chemistry.* 74–39.
Blumenthal, Maurice. *Engineering, Geology.* 88–40.
Blumer, George Alder. *Medicine.* 57–40.
Boardman, Walter Whitney. *Medicine.* 83–40.
Boas, Franz. *Anthropology.* 58–42.
Bodansky, Meyer. *Biochemistry.* 96–41.
Boeshore, Irwin. *Botany.* 83–43.
Bogard, Augustus. *Mathematics.* 70–38.
Boggs, Charles Reid. *Chemistry.* 83–40.
Boggs, Gilbert Hillhouse. *Chemistry.* 75–41.
Boggs, Thomas Richmond. *Internal medicine.* 75–38.
Boldt, Hermann Johannes. *Medicine.* 56–43.

Bolton, Reginald Pelham. *Mechanical engineering.* 56–42.
Bolza, Oskar. *Mathematics.* 57–42.
Bond, John David. *Mathematics.* 83–37.
Book, William Frederick. *Psychology.* 73–40.
Booth, Levis Miller. *Chemistry.* 78–38.
Bostwick, Arthur Elmore. *Physics.* 60–42.
Bowie, Edward Hall. *Meteorology.* 74–43.
Bowie, William. *Geology.* 72–40.
Boylston, Herbert Melville. *Metallurgy.* 81–39.
Bracken, Henry Martyn. *Medicine.* 54–38.
Brackett, Byron Briggs. *Electrical engineering, Physics.* 65–37.
Braisted, William Clarence. *Medicine.* 64–41.
Brandt, Francis Burke. *Psychology, Education.* 65–39.
Brannon, James Marshall. *Bacteriology.* 82–43.
Bratton, Sam T. *Geography.* 78–40.
Bray, Archie Wilmotte Leslie. *Biology.* 83–42.
Breckenridge, Lester Paige. *Mechanical engineering.* 58–40.
Breese, Burtis Burr. *Psychology.* 67–39.
Brem, Walter Vernon. *Pathology.* 75–37.
Brewer, George Emerson. *Surgery, Anatomy, Anthropology.* 61–39.
Bridges, Calvin Blackman. *Genetics.* 89–38.
Bridges, Milton Arlanden. *Medicine.* 94–39.
Brigham, Carl Campbell. *Psychology.* 90–43.
Brigman, Bennett Mattingly. *Engineering.* 81–38.
Britton, Wilton Everett. *Entomology, Botany.* 68–39.
Brode, Malcolm Donaldson. *Zoology.* 00–43.
Brödel, Max. *Medical illustration.* 70–41.
Brodie, Maurice. *Bacteriology.* 03–39.
Bronson, Barnard Sawyer. *Chemistry, Nutrition.* 80–43.
Brousseau, Kate. *Psychology.* ?–38.
Brown, Brian S. *Chemistry.* 81–41.
Brown, Ernest William. *Mathematics, Astronomy.* 66–38.
Brown, George Herbert. *Ceramics.* 84–43.
Brown, Nathan Clifford. *Ornithology.* 56–41.
Brown, Orville Harry. *Pathology, Physiology.* 75–43.
Brown, Philip King. *Medicine.* 69–40.
Brown, Samuel Horton. *Medicine.* 78–40.
Brown, Wade Hampton. *Pathology.* 78–42.
Brown, William Henry. *Botany.* 84–39.
Browning, William. *Neurology, Anatomy.* 55–41.
Brubaker, Albert Philson. *Physiology.* 52–43.
Brumfield, William Andrew. *Biology.* 75–38.
Brundage, Dean K. *Industrial hygiene.* 91–42.
Brunett, Earl Louis. *Pathology.* 98–43.
Bryan, Arthur Alfred. *Agronomy.* 90–39.
Bryan, Thomas Joseph. *Chemistry.* 69–39.
Bryan, William Alanson. *Zoology.* 75–42.
Bryan, Worcester Allen. *Surgery.* 73–40.
Bryant, Ernest Calvin. *Physics.* 67–42.
Bryant, Ralph Clement. *Forestry.* 77–39.
Bryden, Samuel David, Jr. *Physics.* 05–38.
Buchanan, Thomas Drysdale. *Medicine.* 76–40.
Bucher, John Emery. *Chemistry.* 72–43.
Buck, John Mott. *Pathology, Bacteriology.* 78–38.
Buckingham, Edgar. *Physics.* 67–40.
Buckley, Albert Coulson. *Neurology, Psychiatry.* 73–39.
Buerger, Leo. *Urology, Surgery, Pathology.* 79–43.
Buice, William Alfred. *Bacteriology, Public health.* 85–38.
Bullowa, Jesse Godfrey M. *Medicine.* 79–43.
Bumpus, Hermon Carey. *Biology.* 62–43.
Bunch, Cordia C. *Psychology.* 85–42.
Burger, Oskar Karl. *Industrial chemistry.* 83–41.
Burget, George Emanuel. *Physiology.* 89–38.
Burks, Barbara Stoddard. *Psychology.* 02–43.
Burnett, Edgar Albert. *Agriculture.* 65–41.
Burnham, Stewart Henry. *Botany.* 70–43.
Burnham, William Henry. *Psychology.* 55–41.
Burrett, Claude Adelbert. *Surgery.* 78–41.
Burrows, George Howard. *Chemistry.* 75–43.
Burt, Edward Angus. *Botany.* 59–39.
Bushong, Francis William. *Chemistry.* 64–39.
Buss, Fred. E. *Geology, Physiography.* 79–43.
Butler, Ormond Rourke. *Botany.* 77–40.
Butts, William Henry. *Mathematics.* 57–41.
Byford, Henry Turman. *Gynecology.* 53–38.

Cabot, Richard Clarke. *Medicine.* 68–39.
Cady, Hamilton Perkins. *Physical chemistry.* 74–43.
Cady, Richard Carlysle. *Geology.* 07–43.
Cain, Charles Bertram. *Animal pathology.* 00–43.
Caldwell, William Edgar. *Obstetrics, Gynecology.* 80–43.
Calkins, Gary Nathan. *Zoology, General biology.* 69–43.
Calvert, Edgar Bassett. *Meteorology.* 70–40.
Camac, Charles Nicoll Bancker. *Medicine.* 68–40.
Cameron, Edward Herbert. *Psychology.* 75–38.
Cameron, Hazel Crabill. *Nutrition.* 90–43.
Cameron, Wellington Jaffray. *Psychology.* 03–40.
Campbell, Alan Ditchfield. *Mathematics.* 91–42.
Campbell, Archibald. *Chemistry.* 72–40.
Campbell, Charles Macfie. *Psychiatry.* 76–43.
Campbell, John Stuart. *Physics.* 04–39.
Campbell, Marius Robinson. *Geology, Geomorphology.* 58–41.
Campbell, William Wallace. *Astronomy, Astrophysics.* 62–38.
Campbell, Willis Cohoon. *Surgery.* 80–41.
Canis, Otto F. A. *Pharmacy.* 94–42.
Cannon, Annie Jump. *Astronomy.* 63–41.
Cannon, Dominic Joseph. *Physics.* 79–39.
Cantelo, Robert Charles. *Chemistry.* 91–40.
Canter, Hall. *Chemistry.* 73–39.
Capp, John Allen. *Mechanical engineering.* ?–38.
Card, Fred Wallace. *Agriculture.* 63–41.
Carlson, Carl Olof. *Zoology.* 76–42.
Carpenter, Hubert Vinton. *Physics, Engineering.* 75–41.
Carpenter, Lewis Van. *Sanitary engineering.* 95–40.
Carr, Maurice Leroy. *Engineering.* 77–42.
Carruth, William Massey. *Mathematics.* 79–43.
Carson, Ashmead Courtenay. *Physics.* ?–41.
Carson, John Renshaw. *Electrical engineering.* 87–40.
Carter, Ezra Grover. *Physiology.* 92–43.
Carter, Isaac Newton. *Civil engineering.* 91–40.
Carver, George Washington. *Botany.* 64–43.
Carveth, Hector Russell. *Chemistry.* 73–42.
Cary, William Ernest. *Bacteriology.* 88–41.
Caryl, Ralph Emerson. *Pomology, Genetics.* 90–38.
Caspari, Charles Edward. *Chemistry.* 75–42.
Casto, Earle Ray. *Meteorology, Geography.* 84–40.
Cattell, James McKeen. *Psychology.* 60–44.
Caulfeild, Alfred Hans Waring. *Medicine.* 79–40.
Caulk, John Roberts. *Surgery.* 81–38.
Cavanaugh, George Walter. *Chemistry.* 70–38.
Chadwick, Thomas Charles. *Chemistry.* 07–40.
Chamberlain, Charles Joseph. *Botany.* 63–43.
Chamberlain, Paul Mellen. *Mechanical engineering.* 65–40.
Chaney, George Arthur. *Mathematics.* 84–40.
Chapin, Charles Value. *Medicine.* 56–41.
Chapin, Henry Dwight. *Pediatrics.* 57–42.
Chapin, Robert Macfarlane. *Chemistry.* 77–40.
Chapman, Royal Norton. *Zoology, Entomology.* 89–39.
Charles, Rollin Landis. *Physics.* 85–41.
Chase, Mabel Augusta. *Physics.* 65–39.
Chatburn, George Richard. *Mechanics, Civil engineering.* 63–40.
Cheney, Lellen Sterling. *Botany.* 58–38.
Chesnut, Victor King. *Phytochemistry.* 67–38.
Chester, Frederick Dixon. *Bacteriology.* 61–43.
Child, Horace James. *Zoology.* 02–39.
Childs, Ross Renfroe. *Agronomy.* 88–42.
Chiles, James Alburn, Jr. *Physics.* 09–41.
Chillingworth, Felix Percy. *Physiology.* 82–38.
Chittenden, Russell Henry. *Physiological chemistry, Physiology.* 56–43.
Clark, Clarence Oscar. *Physics.* 55–43.
Clark, Earl Perry. *Chemistry.* 92–43.
Clark, Howard Walton. *Zoology.* 70–41.
Clark, Lawrence Twilley. *Biology.* 81–42.
Clarke, Charles Lorenzo. *Electrical engineering.* 53–41.
Clift, William. *Chemistry.* 98–43.
Close, Charles Philip. *Horticulture.* 68–40.
Coates, Charles Edward. *Chemistry.* 66–38.
Cochran, Robert Lyman. *Poultry husbandry.* 93–42.
Codman, Ernest Amory. *Surgery.* 69–40.
Coghill, George Ellett. *Anatomy.* 72–41.
Cohen, Seymour Jerome. *Pharmacology, Medicine.* 96–42.
Colaw, John Marvin. *Mathematics.* 60–40.
Coleman, Arthur Philemon. *Geology.* 52–39.
Coleman, David Augustus. *Chemistry.* 92–38.
Coleman, James Thomas. *Physics.* 66–39.
Collier, Arthur James. *Geology.* 66–39.
Collins, James Franklin. *Botany.* 63–40.
Collins, Joseph Victor. *Mathematics.* 58–43.
Collins, Ralph Kable. *Public health.* 93–40.

Collins, William Henry. *Astronomy.* 59–39.
Cone, Sydney M. *Pathology.* 69–39.
Conklin, Edmund Smith. *Psychology.* 84–42.
Connor, Charles Lloyd. *Medicine, Pathology.* 91–41.
Conrad, Frank. *Electrical engineering.* 74–41.
Converse, William Adelbert. *Chemical engineering.* 62–40.
Cook, Irwin Wycliffe. *Forestry.* 85–36.
Coolidge, Algernon. *Laryngology.* 60–39.
Coony, John Patrick. *Chemistry, Mathematics.* 62–40.
Corbett, Lee Cleveland. *Horticulture.* 67–40.
Cornelius, David William. *Physics.* 85–42.
Correll, James Aquilla. *Electrical engineering.* 83–37.
Cotton, Frederic Jay. *Surgery.* 69–38.
Coulter, Calvin Brewster. *Pathology, Bacteriology.* 88–40.
Coulter, Stanley. *Botany, Biology.* 53–43.
Coultrap, McKendree Whitefield. *Mathematics.* 59–38.
Cowan, William Arthur. *Chemistry, Metallurgy.* 74–39.
Cowie, David Murray. *Medicine, Pediatrics.* 72–40.
Cowie, George Durno. *Geodesy.* 88–41.
Cowles, Henry Chandler. *Botany.* 69–39.
Crabb, George Arthur. *Agronomy.* 82–39.
Craig, Robert Alexander. *Veterinary science.* 72–38.
Crandall, Fred Kenyon. *Agronomy.* 83–39.
Crawford, John Forsyth. *Psychology.* 71–40.
Crawford, Morris Barker. *Physics.* 52–40.
Cribbs, James Elias. *Botany.* 91–42.
Cribbs, William Johnston. *Botany.* 97–40.
Crile, George. *Surgery.* 64–43.
Crockett, William Goggin. *Pharmacy, Chemistry.* 88–40.
Crowder, Thomas Reid. *Medicine.* 72–42.
Crozier, William. *Engineering.* 55–42.
Cubberley, Ellwood Patterson. *Education.* 68–41.
Cullen, Glenn Ernest. *Biochemistry.* 90–40.
Culver, Edward Peck. *Mechanical engineering.* 92–40.
Culver, Garry Eugene. *Geology.* 49–38.
Cummings, Donald Eddy. *Chemistry.* 00–42.
Cummings, Stanley Robinson. *Mechanical engineering.* 97–41.
Cunningham, Bert. *Embryology.* 83–43.
Curran, Carleton Edgar. *Chemistry.* 90–40.
Currier, Clinton Harvey. *Mathematics.* 76–43.
Curtice, Cooper. *Veterinary medicine.* 56–39.
Curtis, Heber Doust. *Astronomy.* 72–42.
Cushing, Harvey Williams. *Surgery.* 69–39.
Cutler, Oran Idnire. *Pathology.* 99–39.
Cutter, William Dick. *Physiology.* 78–42.

Dalaker, Hans H. *Mathematics.* 71–43.
Dale, Julia. *Mathematics.* 94–36.
Daly, Sister Mary Florentine. *Organic chemistry.* 90–39.
Damerow, Arthur Philip. *Medicine.* 00–40.
Dana, Harold Ward. *Medicine.* 77–43.
Danforth, Raymond Hewes. *Mechanical engineering.* 77–42.
Daniel, John Franklin. *Zoology.* 73–42.
Danner, Philip Sheridan. *Physical and organic chemistry.* 94–42.
Darling, John Henry. *Civil engineering, Astronomy.* 47–42.
Darnall, William Edgar. *Surgery.* 69–37.
D'Aunoy, Joseph Rigney. *Bacteriology, Pathology.* 90–41.
Davenport, Eugene. *Agriculture.* 56–41.
Davis, Adam Clarke, Jr. *Mechanical engineering.* 89–42.
Davis, Albert Gould. *Law, Electrical engineering.* 71–39.
Davis, Alex Brooking. *Chemistry.* 82–42.
Davis, Alonzo Clayton. *Entomology.* 01–42.
Davis, Irving Gilman. *Agricultural economics.* ?–39.
Davis, John Williams. *Engineering, Chemistry, Physics.* 87–39.
Davis, Nelson Fithian. *Botany.* ?–39.
Davis, Wilmer Esla. *Botany.* 67–42.
Davison, Charles. *Surgery.* 58–42.
Davison, George Stewart. *Engineering.* 56–42.
Davy, Joseph Burtt. *Botany.* 70–40.
Dawson, Wilfred Thomas. *Pharmacology.* 95–39.
Day, William Baker. *Pharmacy.* 71–38.
Dearborn, George Van Ness. *Neuropsychiatry, Psychology.* 69–38.
Defren, George. *Chemistry.* 74–38.
De Lee, Joseph Bolivar. *Obstetrics.* ?–42.
DeLong, Ira Mitchell. *Mathematics.* 55–42.
Dench, Edward Bradford. *Otology.* 64–36.
Denniston, Loyd Thompson. *Plant pathology.* 00–43.
Densmore, Hiram Delos. *Botany.* 62–40.
Derick, Carrie M. *Botany.* ?–41.
de Schweinitz, George Edmund. *Ophthalmology.* 58–38.
Des Jardins, Benjamin Myrick. *Physics.* 58–37.
De Vine, John Francis. *Veterinary medicine.* 74–40.
DeWick, Henry Nelson. *Psychology.* 05–41.
Dexter, Edwin Grant. *Psychology, Education.* 68–38.
Dickson, Ernest Charles. *Public health.* 81–39.
Diemer, Hugo. *Mechanical engineering.* 70–39.
Diller, Theodore. *Medicine.* 63–43.
Ditmars, Raymond Lee. *Natural history.* 76–42.
Dixon, Alfred Alexander. *Physics.* 85–39.
Doak, Eleanor Catherine. *Mathematics.* 70–42.
Doane, Rennie Wilbur. *Entomology.* 71–42.
Dodd, Edward Lewis. *Mathematics.* 75–43.
Dodge, Francis Despard. *Chemistry.* 68–42.
Dodge, Raymond. *Psychology.* 71–42.
Dohan, Mrs. Joseph M. (Edith Hall). *Archeology.* 77–43.
Donaghy, Fred. *Biology.* 79–38.
Donaldson, George. *Hygiene.* 64–38.
Donk, Marion Gilbert. *Chemistry, Chemical engineering.* 77–39.
Donnel, Charles A. *Meteorology.* 81–43.
Dornblatt, Albert Julius. *Chemistry, Metallurgy.* 05–42.
Dorsett, Palemon Howard. *Agriculture.* 62–43.
Douglas, John. *Surgery.* 75–38.
Douglas, Raymond Earle. *Economic entomology.* 96–40.
Downey, John Florin. *Mathematics.* 46–39.
Drisko, William Johnson. *Experimental physics.* 66–43.
Drushel, J. Andrew. *Mathematics, Education.* 72–40.
Dugan, Raymond Smith. *Astronomy.* 78–40.
Dunagan, Walter Mathew. *Engineering.* 94–41.
Duncan, William J. *Anatomy, Dentistry.* 00–37.
Durfee, William Pitt. *Mathematics.* 55–41.
Durkee, Frank Williams. *Chemistry.* 61–39.
Dusser de Barenne, Joannes Gregorius. *Physiology.* 85–40.
Duvall, Charles Raymond. *Terrestrial magnetism.* 69–40.
Dynes, Oliver Wesley. *Agronomy.* 81–40.

Eardley, Walter Hazen. *Engineering.* 81–39.
Earl, George Goodell. *Civil engineering.* 63–40.
Earle, Ralph. *Engineering.* 74–39.
Earp, John Rosslyn. *Hygiene.* 91–41.
East, Edward Murray. *Biology.* 79–38.
Eberle, Eugene Gustave. *Pharmacy.* 63–42.
Echterbecker, Charles Frederick. *Psychology, Education.* 79–38.
Eckel, Edwin Clarence. *Engineering, Geology.* 75–41.
Eckford, Martha Oliver. *Bacteriology.* 82–38.
Edgar, James Clifton. *Obstetrics.* 59–39.
Edmondson, Thomas William. *Mathematics.* 69–38.
Edmunds, Charles Wallis. *Pharmacology, Therapeutics.* 73–41.
Edwards, Ira. *Geology.* 93–43.
Egbert, Seneca. *Hygiene, Sanitation.* 63–39.
Egerton, John Bernard. *Mathematics, Biology.* 69–40.
Eggleston, Willard Webster. *Botany.* 63–35.
Ehrenfeld, Frederick. *Geology, Mineralogy.* 72–40.
Ehrhorn, Edward Macfarlane. *Entomology.* 62–41.
Eidmann, Frank Lewis. *Mechanical engineering.* 87–41.
Eisen, Gustavus August. *Biology, Archeology.* 47–40.
Ellerman, Ferdinand. *Astrophysics.* 69–40.
Ellett, Walter Beal. *Chemistry.* 74–43.
Elliott, Jabez Henry. *Medicine, Zoology.* 73–42.
Ellis, Carleton. *Chemistry.* 76–41.
Ellis, Willis Davis. *Psychology.* 01–42.
Ellison, Everett Monroe. *Endocrinology.* 79–39.
Ellisor, Lewie Owen. *Entomology.* 10–39.
Elmore, Clarence Jerome. *Botany, Zoology.* 70–40.
Ely, Charles Russell. *Chemistry, Entomology.* 70–39.
Embody, George Charles. *Zoology.* 76–39.
Emerson, Charles Phillips. *Medicine.* 72–39.
Emmet, William Le Roy. *Electrical engineering.* 59–41.
Emswiler, John Edward. *Mechanical engineering.* 80–40.
Engelhardt, George Paul. *Zoology.* 71–42.
Ennis, Carroll Christopher. *Terrestrial magnetism.* 70–41.
Erdmann, Charles Andrew. *Anatomy.* 66–41.
Esten, William Merrill. *Bacteriology.* 62–43.
Ets, Harold Norris. *Physiology, Pharmacology.* 98–43.
Evans, Arthur Thompson. *Botany.* 88–43.
Evans, Paul Whiting. *Chemistry, Botany.* 69–41.
Evans, Walter Harrison. *Botany.* 63–41.
Ewert, Peter Harry. *Psychology.* 98–37.

Ewing, James. *Pathology.* 66–43.
Exton, William Gustave. *Medicine.* 75–43.

Fairbanks, Frank Latta. *Agricultural engineering.* 84–39.
Fairchild, Herman LeRoy. *Geology.* 50–43.
Fall, Henry Clinton. *Entomology.* 62–39.
Fantus, Bernard. *Pharmacology, Therapeutics.* 74–40.
Farr, Marcus Stults. *Geology, Paleontology.* 70–42.
Farrand, Livingston. *Anthropology, Psychology.* 67–39.
Fay, Henry. *Chemistry, Metallography.* 68–39.
Fellows, Abraham Lincoln. *Irrigation engineering.* 64–42.
Felt, Ephraim Porter. *Entomology.* 68–43.
Ferguson, Jeremiah Sweetser. *Medicine.* 71–39.
Ferguson, Louis Aloysius. *Electrical engineering.* 67–40.
Ferree, Clarence Errol. *Psychology.* 77–42.
Ferris, Harry Burr. *Anatomy, Anthropology.* 65–40.
Fetterolf, Daniel Webster. *Chemistry.* 63–42.
Fewkes, Vladimir J. *Archeology.* 01–41.
Ficht, George Augustus. *Entomology.* 00–41.
Fiebeger, Gustav Joseph. *Engineering.* 58–39.
Field, George Wilton. *Biology.* 63–38.
Finkle, Philip. *Medicine.* 94–42.
Fisher, Elizabeth Florette. *Geology, Geography.* 73–41.
Fisher, Henry Wright. *Electrical engineering.* 61–39.
Fiske, Harold Chamberlayne. *Engineering.* 80–42.
Fiske, Thomas Scott. *Mathematics.* 65–44.
Fitch, Clifford Penny. *Veterinary medicine.* 84–40.
Fitch, Richard Homer. *Pharmacology, Physiology.* 03–39.
Fitchet, Seth Marshall. *Surgery.* 87–39.
FitzGerald, John Gerald. *Preventive medicine.* 82–40.
Fitzgerald, Thomas Witt. *Electrical engineering.* 85–41.
Flaherty, Frederick H. *Surgery.* ?–38.
Flannagan, Roy Knight. *Public health.* 70–42.
Fleck, Herman. *Chemistry.* 70–40.
Fleming, James Henry. *Zoology.* 72–40.
Fleming, Raphael Stuart. *Food chemistry.* 77–42.
Fletcher, Harold Wheelock. *Engineering.* 91–42.
Flint, Wesley Pillsbury. *Economic entomology.* 82–43.
Flory, Charles Henry. *Forestry.* 80–42.
Fonda, John Sutliff. *Chemistry.* 00–44.
Foote, Harry Ward. *Chemistry.* 75–42.
Forbes, John Malcolm. *Psychology.* ?–41.
Force, John Nivison. *Epidemiology.* 77–38.
Ford, William Ebenezer. *Mineralogy.* 78–39.
Ford, William Webber. *Hygiene, Bacteriology.* 71–41.
Forman, Lee W. *Soils.* 81–39.
Forsbeck, Filip Carolus. *Medicine.* 00–40.
Foster, Josephine Curtis. *Psychology.* 89–41.
Foster, William James. *Electrical engineering.* 60–43.
Fowle, Frederick Eugene. *Astrophysics.* 69–40.
Fox, Herbert. *Pathology.* 80–42.
Fox, Rolland David. *Bacteriology.* 99–43.
Fox, William. *Mathematical physics.* 64–39.
Fracker, George Cutler. *Psychology.* ?–41.
Francis, Charles Kenworthy. *Chemistry.* 75–40.
Francis, Lillias Dorothea. *Nutrition.* ?–41.
Franklin, Fabian. *Mathematics.* 53–39.
Franklin, Melvin M. *Surgery.* 74–38.
Fraser, Alexander Joseph. *Psychology, Pathology.* 69–38.
Fraser, Allan Cameron. *Plant breeding.* 90–41.
Fraser, John Frank. *Pathology, Medicine.* 71–43.
Freas, Raymond. *Chemistry.* 86–42.
Frederick, Charles Warnock. *Astronomy.* 70–42.
Free, Edward Elway. *Physics.* 83–39.
Freedman, William Horatio. *Electrical engineering, Physics.* 67–40.
Freeland, Milnor Richmond. *Biochemistry.* 00–43.
Freeman, Bruce Clark. *Economic geology.* 00–40.
Freeman, Daniel. *Biology.* 64–38.
Freeman, William Edwin. *Electrical engineering.* 80–42.
Freiberg, Albert H. *Orthopedic surgery.* 68–40.
Friedenwald, Julius. *Gastro-enterology.* 66–41.
Fries, Jöns August. *Animal nutrition.* 63–41.
Frisbie, Walter Selp. *Biochemistry.* 81–42.
Frissell, Lewis Fox. *Medicine.* 72–43.
Frolik, Anton Lawrence. *Agronomy.* 07–41.
Frost, Gilman DuBois. *Medicine.* 64–42.
Frost, Wade Hampton. *Epidemiology.* 80–38.
Frothingham, Langdon. *Comparative pathology.* 66–35.
Fry, Henry Jacob. *Zoology.* 92–41.
Fuller, Henry Corbin. *Chemistry.* 79–42.
Furman, Franklin De Ronde. *Mechanical engineering.* 70–43.
Furr, Manford W. *Civil engineering.* 88–41.

Gage, Homer. *Surgery.* 61–38.
Gage, Stephen DeMerritte. *Sanitary engineering, Bacteriology.* 74–39.
Gager, Charles Stuart. *Botany.* 72–43.
Gahl, Rudolph. *Metallurgy.* 75–40.
Galbraith, Freeman Dent. *Chemistry.* 81–38.
Gale, Henry Gordon. *Physics.* 74–42.
Galloway, Beverly Thomas. *Botany.* 63–38.
Galloway, John Davidson. *Geology.* 86–42.
Ganong, William Francis. *Botany.* 64–41.
Garretson, William Van Nest. *Mathematics.* ?–42.
Garth, Thomas Russell. *Psychology.* 72–39.
Garver, Madison Monroe. *Physics, Chemistry.* 48–41.
Gaver, Oren H. *Physiology.* 92–40.
Gavett, George Irving. *Mathematics.* 68–41.
Gavett, Joseph William, Jr. *Mechanical engineering.* 89–42.
Gay, Frederick Parker. *Pathology, Bacteriology.* 74–39.
Gaylord, Harry Davis. *Mathematics.* 74–41.
Gee, Nathaniel Gist. *Zoology.* 76–37.
George, Nathan Richard, Jr. *Mathematics.* 65–41.
Getman, Frederick Hutton. *Physical chemistry.* 77–41.
Geyelin, Henry Rawle. *Medicine.* 84–42.
Gherardi, Bancroft. *Engineering.* 73–41.
Gibbs, George. *Mechanical engineering.* 61–40.
Gierke, Alfred Gustav. *Animal pathology.* 94–42.
Gilbert, William Williams. *Plant pathology.* 80–40.
Gillespie, Louis John. *Physical chemistry.* 86–41.
Gillette, Clarence P. *Entomology, Zoology.* 59–41.
Gilmore, John Washington. *Agronomy, Botany.* 72–42.
Gilmore, Melvin Randolph. *Ethnobotany, Ethnogeography.* 68–40.
Girty, George Herbert. *Paleontology.* 69–39.
Gladwin, Fred Elmer. *Horticulture.* 77–40.
Glover, Clifford Conklin. *Pharmacognosy.* 88–42.
Glover, James Waterman. *Mathematics.* 68–41.
Goff, Carlos Clyde. *Entomology.* 05–39.
Goldmark, Henry. *Civil engineering.* 57–41.
Goldsmith, Glenn Warren. *Ecology, Physiology.* 86–43.
Goldstein, Max Aaron. *Medicine.* 70–41.
Goodman, Edward Harris. *Medicine.* 79–39.
Goodspeed, Arthur Willis. *Physics.* 60–43.
Gore, James Howard. *Mathematics, Geodesy.* 56–39.
Gore, John Kinsey. *Mathematics, Actuarial science.* 64–43.
Gortner, Ross Aiken. *Chemistry.* 85–42.
Goss, Willard Levi. *Botany.* 78–42.
Gould, Stephen Philip. *Organic chemistry.* 97–39.
Graham, George Sellers. *Pathology.* 79–42.
Graham, Roy. *Geology, Paleobotany.* 08–39.
Granger, Amédée. *Roentgenology.* 79–39.
Granger, Walter. *Vertebrate paleontology.* 72–41.
Grant, Elmer Daniel. *Mathematics, Physics.* 73–35.
Granville, William Anthony. *Mathematics.* 63–43.
Graustein, William Caspar. *Mathematics.* 88–41.
Grave, Caswell. *Zoology.* 70–44.
Graves, George West. *Botany.* 86–43.
Graybill, Harry Webster. *Zoology.* 75–38.
Greaves-Walker, Arthur McKinley. *Ceramic engineering.* 07–40.
Greene, Eloise Elaine. *Bacteriology.* 03–39.
Gregg, Donald. *Medicine.* 80–39.
Gregg, Willis Ray. *Meteorology.* 80–38.
Griffin, Martin Luther. *Chemistry.* 59–42.
Griffith, John Howell. *Civil engineering, Physics.* 68–38.
Griffith, John Price Crozer. *Medicine.* 56–41.
Grinnell, Joseph. *Zoology.* 77–39.
Groesbeck, Edward Center. *Metallurgy.* 81–42.
Groover, Thomas Allen. *Medicine.* 77–40.
Grubbs, Samuel Bates. *Medicine.* 71–42.
Guanzon, Getulio Augusto. *Sugar technology.* 99–39.
Guberlet, John Earl. *Parasitology.* 87–40.
Guenther, August Ernest. *Physiology, Pharmacology.* 74–40.
Guild, Frank Nelson. *Mineralogy.* 70–39.
Gundersen, Carl. *Mathematics.* 64–38.
Gurley, William Frank Eugene Reed. *Paleontology.* 54–43.

Haas, Arthur Erich. *Physics.* 84–41.
Hackedorn, Howard. *Animal husbandry.* 86–41.
Hackh, Ingo Waldemar Dagobert. *Chemistry.* 90–38.
Haecker, Theophilus Levi. *Animal nutrition.* 46–38.
Hall, Edwin Herbert. *Physics.* 55–38.
Hall, Frank Stevens. *Anthropology.* 78–40.
Hall, George Martin. *Geology.* 91–41.

Hall, Horace Elmer. *Mechanical engineering.* 05–39.
Hall, Maurice Crowther. *Parasitology.* 81–38.
Hall, Winfield Scott. *Physiology.* 61–42.
Hamburger, Walter Wile. *Medicine.* 81–41.
Hamilton, John Orr. *Physics.* 67–38.
Hamlin, John Calhoun. *Entomology.* 96–43.
Hammond, Frank Clinch. *Gynecology, Obstetrics.* 75–41.
Hammond, John Churchill. *Astronomy.* 71–40.
Hanna, Ulysses Sherman. *Mathematics.* 65–40.
Hannah, Calvin Richards. *Obstetrics.* 72–40.
Harcourt, Robert. *Chemistry.* 66–43.
Harding, Charles Francis. *Electrical engineering.* 81–42.
Harding, Edwin Reginald. *Industrial chemistry.* 89–43.
Hardwick, Rose Standish. *Psychology.* 68–39.
Harper, Henry Winston. *Chemistry.* 59–43.
Harper, Merritt Wesley. *Animal husbandry.* 77–38.
Harper, William Edmund. *Astrophysics.* 78–40.
Harrar, Norman Jackson. *Chemistry.* 02–41.
Harrington, John Lyle. *Engineering.* 68–42.
Harrod, Jesse Raymond. *Organic chemistry.* 85–42.
Harshbarger, William Asbury. *Mathematics, Botany, Entomology.* 62–42.
Harter, George Abram. *Mathematics.* 53–43.
Hartman, Leon Wilson. *Physics.* 76–43.
Hartwell, Burt Laws. *Chemistry, Plant physiology.* 65–39.
Hartwell, John Augustus. *Medicine.* 69–40.
Harvey, Nathan Albert. *Psychology, Pedagogy.* 60–42.
Haskins, Charles Nelson. *Mathematics.* 74–42.
Hawkes, Herbert Edwin. *Mathematics.* 72–43.
Hawkesworth, Alan Spencer. *Mathematics.* 67–42.
Hawley, John Blackstock. *Engineering.* 66–41.
Hay, Donald Leith. *Physics.* 93–38.
Hayes, Frank Albert. *Soils, Agronomy.* 91–41.
Hayes, Fred Montreville. *Veterinary science.* 85–38.
Hayes, George M. *Mathematics.* 84–41.
Haylett, Robert Everett. *Chemical engineering.* 91–38.
Hazen, Tracy Elliot. *Botany.* 74–43.
Hebb, Thomas Carlyle. *Physics.* 78–38.
Hedberg, John. *Hydraulic engineering.* 06–42.
Hedrick, Earle Raymond. *Mathematics.* 76–43.
Hegner, Robert William. *Zoology.* 80–42.
Heisler, John Clement. *Anatomy, Embryology.* 62–38.
Heller, Edmund. *Zoology.* 75–39.
Hellmund, Rudolf Emil. *Electrical engineering.* 79–42.
Henderson, Charles Hanford. *Education, Geology.* 61–41.
Henderson, Lawrence Joseph. *Physiology, Chemistry.* 78–42.
Henderson, Louis Forniquet. *Botany.* 53–42.
Henderson, Robert. *Actuarial science.* 71–42.
Henrici, Arthur Trautwein. *Bacteriology.* 89–43.
Henry, Arthur Van. *Ceramics.* 92–39.
Henshaw, Samuel. *Zoology.* ?–41.
Herrick, Francis Hobart. *Zoology.* 58–40.
Hershey, John Willard. *Chemistry.* 76–43.
Hershey, Oscar H. *Geology.* 74–39.
Herty, Charles Holmes. *Chemistry, Forestry.* 67–38.
Hewson, Addinell. *Anatomy, Surgery.* 55–38.
Higbie, Ralph Wilmarth. *Chemical engineering.* 08–41.
Higgins, James Edgar. *Horticulture.* 73–38.
Hill, Arthur Edward. *Chemistry.* 80–39.
Hill, Cary LeRoy. *Forestry.* 75–41.
Hill, Charles. *Histology, Embryology.* 62–38.
Hill, Robert Thomas. *Geology, Geography, Archeology.* 58–41.
Hill, Samuel Smith. *Neurology.* 68–43.
Hilpert, Willis Stose. *Chemistry.* 81–41.
Himmel, Walter Joseph. *Botany.* 89–41.
Hinman, Robert Byron. *Animal husbandry.* 88–43.
Hinsch, Van Buren. *Mathematics.* 83–42.
Hirsch, Alcan. *Chemistry.* 85–38.
Hirschfelder, Arthur Douglass. *Pharmacology.* 79–42.
Hirschler, Edmund John. *Mathematics.* 76–41.
Hirshfeld, Clarence Floyd. *Engineering.* 81–39.
Hoffman, Donald Claire. *Pathology, Bacteriology.* 98–38.
Hoffman, James David. *Mechanical engineering.* 68–39.
Hoffmann, George Peter. *Horticulture.* 90–41.
Hoge, Wendell Phillips. *Astronomy.* 67–39.
Hohman, Arthur Joseph. *Chemistry.* 86–43.
Holbrook, Fay Stanley. *Physics.* 87–40.
Hole, Allen David. *Geology.* 66–40.
Hollingworth, Leta Stetter. *Psychology.* 86–39.
Holmes, Clarence Leroy. *Agricultural economics.* 79–38.
Honess, Arthur Pharaoh. *Mineralogy, Petrology.* 87–42.
Hoover, Charles Ruglas. *Chemistry.* 85–42.
Hoover, Earl Edward. *Ichthyology.* 11–39.
Hopkins, Arthur John. *Chemistry.* 64–39.
Hopkins, Charles. *Mathematics.* 02–39.
Hopkins, Edwin Butcher. *Petroleum geology.* 82–40.
Hopper, Herbert Andrew. *Animal husbandry.* 79–37.
Hopping, Ralph. *Entomology.* 68–41.
Houghton, Elijah Mark. *Pharmacology, Bacteriology.* 67–37.
Hovda, Olaf. *Physics.* 75–42.
Hover, John Milton. *Natural science.* 85–40.
Hovey, Otis Ellis. *Civil engineering.* 64–41.
Howard, Edgar Billings. *Archeology.* 87–43.
Howe, Charles Sumner. *Astronomy.* 58–39.
Howe, Eugene Clarence. *Physiology.* 83–40.
Howe, Harrison Estell. *Chemistry.* 81–42.
Howe, Malverd Abijah. *Civil engineering.* 63–41.
Howell, Arthur Holmes. *Zoology.* 72–40.
Hower, Harry Sloan. *Physics.* 77–41.
Hoyt, Archer. *Physics.* 05–37.
Hrdlička, Aleš. *Anthropology.* 69–43.
Hubeny, Maximilian John. *Roentgenology.* 80–42.
Huber, Wharton. *Ornithology, Mammalogy.* 77–42.
Hulburt, Lorrain Sherman. *Mathematics.* 58–43.
Hunter, Andrew Frederick. *Anthropology.* 63–40.
Hunter, James Wilson, Jr. *Roentgenology.* 78–40.
Hurley, Sister Jeanne d'Arc. *Nutrition, Dietetics.* 01–42.
Husmann, George Charles Frederick. *Horticulture.* 61–39.
Hutchins, Charles Clifford. *Physics.* 59–40.
Hutchins, Edgar Burton. *Chemistry.* 76–39.
Hutchinson, Cary Talcott. *Electrical engineering.* 66–39.
Hutton, Joseph Gladden. *Agronomy.* 73–39.
Hyde, Roscoe Raymond. *Zoology, Immunology.* 84–43.

Ickes, Eugene Law. *Geology.* 85–41.
Imes, Elmer Samuel. *Physics.* 83–41.
Imlay, Lorin Everett. *Electrical engineering.* 64–41.
Immediato, Gerardo. *Mechanical engineering.* 76–39.
Ingold, Byron. *Mathematics.* 78–42.
Ingram, Edward Lovering. *Engineering, Electricity.* 62–38.
Inman, Ondess Lamar. *Physiology.* 90–42.
Isham, Paul Dwight. *Chemistry.* 06–39.
Itter, Harry Augustus. *Geology.* 99–40.
Ives, James Edmund. *Physics.* 65–43.

Jackson, Daniel Dana. *Chemistry, Chemical engineering.* 70–41.
Jackson, Henry. *Medicine.* 58–40.
Jackson, Dr. Reginald Henry. *Surgery.* 76–39.
Jacobs, Henry Barton. *Medicine.* 58–39.
Jacoby, George W. *Neurology, Psychiatry.* 56–40.
Jacot, Arthur Paul. *Biology.* 90–39.
Jacques, Alfred George. *Physical chemistry, Physiology.* 96–39.
Jaffé, Richard Herman. *Pathology.* 88–37.
Jagger, Ivan Claude. *Plant pathology.* 89–39.
James, William McCully. *Medicine.* 80–42.
Janda, Harold Frederick. *Highway engineering.* 93–39.
Jastrow, Joseph. *Psychology.* 63–44.
Jenkins, Ralph Richards. *Chemistry.* 03–40.
Jennison, Harry Milliken. *Botany.* 85–40.
Johns, Carl Oscar. *Biochemistry.* 70–42.
Johnson, Arthur Monrad. *Botany.* 78–43.
Johnson, Franklin Paradise. *Urology.* 88–43.
Johnson, Frederick Murray Godschall. *Chemistry.* 82–41.
Johnson, Harold. *Chemistry.* 76–40.
Johnson, Walter Theodore. *Poultry pathology.* 92–37.
Johnson, William Clinton. *Pathology.* 85–38.
Johnston, John Black. *Neurology.* 68–40.
Jones, Cecil Charles. *Mathematics.* 72–43.
Jones, Clement Ross. *Mechanical engineering.* 71–39.
Jones, Frederick Scheetz. *Physics.* 62–44.
Jones, Richard Uriah. *Chemistry.* 77–41.
Jordan, Charles Bernard. *Pharmacy, Pharmaceutical chemistry.* 78–41.
Jordan, Frank Craig. *Astronomy.* 65–41.
Jorgensen, Lars Rasmus. *Hydroelectric engineering.* 76–38.
Jouard, Farel Louis. *Chemistry, Therapeutics.* 84–41.
Judd, Charles Sheldon. *Forestry.* 81–39.
Jure, Albert Edward. *Geology.* 01–38.
Just, Ernest Everett. *Zoology.* 83–41.

Kadel, Benjamin Clinton. *Meteorology.* 73–40.
Kahl, Paul Hugo Isidor. *Entomology.* 59–41.
Kahlenberg, Louis. *Chemistry.* 70–41.
Kanavel, Allen Buckner. *Surgery.* 74–38.
Karelitz, George Boris. *Mechanical engineering.* 95–43.
Kast, Ludwig. *Medicine.* 77–41.
Kavanaugh, William Harrison. *Mechanical engineering.* 73–39.
Kay, Fred Hall. *Geology.* ?–43.
Kay, George Frederick. *Geology.* 73–43.
Keiser, Edward Harrison. *Chemistry.* 61–40.
Keith, Ernest Baker. *Chemistry.* 90–41.
Kellogg, James Lawrence. *Biology.* 66–38.
Kellogg, John Harvey. *Surgery.* 52–43.
Kelly, Howard Atwood. *Surgery.* 58–43.
Kelly, William James. *Physical chemistry.* 88–40.
Kemp, Jarold Elting. *Dermatology.* 98–41.
Kendall, John Chester. *Agriculture.* 77–41.
Kendall, William Converse. *Zoology.* 61–39.
Kennedy, W. Jay. *Physics.* 00–43.
Kennelly, Arthur Edwin. *Electrical engineering.* 61–39.
Kern, Charles Allen. *Chemistry.* 78–42.
Kerr, Abram Tucker. *Anatomy.* 73–38.
Kerr, Forrest Alexander. *Geology.* 96–38.
Keyes, Charles Rollin. *Geology.* 64–42.
Kick, Charles Holl. *Animal nutrition.* 00–39.
Kidd, John William. *Engineering.* 80–41.
Kilgore, Benjamin Wesley. *Chemistry.* 67–44.
Kimball, Arthur L. *Physics.* 86–43.
Kimball, James Henry. *Meteorology.* 74–43.
Kindle, Edward Martin. *Paleontology.* 69–40.
Kingsbury, Albert. *Mechanical engineering.* 62–43.
Kirby-Smith, J. Lee. *Dermatology.* 82–39.
Kinsley, Albert Thomas. *Veterinary medicine.* 77–41.
Kleckner, Martin Ezra. *Geology, Chemistry.* 61–42.
Knapp, George Alan. *Mathematics.* 60–40.
Knerr, Ellsworth Brownell. *Chemistry.* 61–42.
Knight, Carl Dunham. *Electrical engineering.* 80–40.
Knight, Charles Mellen. *Physics, Chemistry.* 48–41.
Knight, Harry Obadiah. *Medicine.* 80–39.
Knight, Henry Granger. *Chemistry.* 78–42.
Knight, Nicholas. *Chemistry.* 61–42.
Knopf, Sigard Adolphus. *Medicine.* 57–40.
Knower, Henry McElderry. *Anatomy.* 68–40.
Knutsen, Martin Halvor. *Bacteriology.* 87–43.
Koffka, Kurt. *Experimental psychology.* 86–41.
Kohler, Elmer Peter. *Chemistry.* 65–38.
Kolbe, Parke Rexford. *Education.* 81–42.
Kraemer, Elmer Otto. *Physical chemistry.* 98–43.
Krause, Allen Kramer. *Medicine.* 81–41.
Kremers, Edward. *Plant chemistry.* 65–41.
Kretzschmar, Norman Rudolph. *Medicine.* 03–43.
Kribs, Herbert Guy. *Zoology.* 70–39.
Krieger, Louis Charles Christopher. *Botany.* 73–40.
Krieger, Philip. *Geology, Mineralogy.* 00–40.
Kriss, Max. *Animal nutrition.* 89–41.
Kronfeld, Rudolf. *Dentistry.* 01–40.
Kuhlmann, Fred. *Psychology.* 76–41.
Kunz, Jacob. *Physics.* 74–38.
Kurtz, Arthur Daniel. *Surgery.* 86–39.

Ladd, Carl Edwin. *Agriculture.* 88–43.
Ladd, George Edgar. *Geology.* 64–40.
Lambert, Alexander. *Medicine.* 61–39.
Lambert, Samuel Waldron. *Medicine.* 59–42.
Landis, Quick. *Food chemistry.* 01–43.
Landis, William Weidman. *Mathematics.* 69–42.
Landsteiner, Karl. *Pathology, Immunology.* 68–43.
Lanford, John Alexander. *Pathology.* 81–40.
Langenbeck, Karl. *Chemistry, Ceramics.* 61–38.
Langmuir, Arthur Comings. *Chemistry.* 72–41.
Lanier, Alexander Cartwright. *Electrical engineering.* 78–42.
Lanphier, Robert Carr. *Electrical engineering.* 78–39.
Larson, Alfred. *Bacteriology.* 84–38.
Lascoff, J. Leon. *Pharmacy.* 67–43.
Laughlin, Harry Hamilton. *Genetics.* 80–43.
Leach, Luther Orland. *Chemistry.* 94–39.
Leach, Mary Frances. *Chemistry.* ?–39.
Leavitt, Robert Greenleaf. *Botany.* 65–42.
Lederer, Erwin Reginald. *Petroleum engineering.* 82–43.
Lee, Frederic Schiller. *Physiology.* 59–39.
Lee, Lasley. *Engineering.* 87–37.
Lee, William States. *Electrical engineering.* 72–34.
Leech, Paul Nicholas. *Chemistry.* 89–41.
Leeds, Arthur N. *Botany.* 70–39.
Lehman, Daniel Acker. *Mathematics, Astronomy.* 60–42.
Lehmer, Derrick Norman. *Mathematics.* 67–38.
Leib, David Deitch. *Mathematics.* 79–41.
Leng, Charles William. *Entomology.* 59–41.
Leukel, Walter Herman Anthony. *Agriculture.* 86–43.
Levene, Phoebus Aaron Theodore. *Chemistry.* 69–40.
Leverett, Frank. *Geology.* 59–43.
Levy, Ernest Coleman. *Sanitary science.* 68–38.
Levy, John. *Psychiatry.* 97–38.
Lewis, Albert Buell. *Anthropology.* 67–40.
Lewis, Dean DeWitt. *Surgery.* 74–41.
Lewis, Isaac McKinney. *Biology.* 78–43.
Lewis, Winford Lee. *Chemistry.* 78–43.
Lichty, David Martin. *Chemistry.* 62–42.
Lindgren, Waldemar. *Geology.* 60–39.
Lindley, Ernest Hiram. *Psychology, Philosophy.* 69–40.
Lindsey, Joseph Bridgeo. *Chemistry.* 62–39.
Lineback, Paul Eugene. *Anatomy.* 80–39.
Ling, George Herbert. *Mathematics.* 74–42.
Link, Mrs. George Konrad Karl (Adeline DeSale). *Chemistry.* 92–43.
Linn, Alvin Frank. *Chemistry, Mineralogy.* 64–39.
Linton, Edwin. *Zoology.* 55–39.
Linton, Robert. *Mining, Ceramics.* 70–42.
Lipman, Jacob Goodale. *Soil chemistry, Bacteriology.* 74–39.
Lippincott, Joseph Barlow. *Hydraulic engineering.* 64–42.
Lippincott, William Leroy. *Chemistry.* 93–41.
Little, Arlington P. *Electrical engineering.* 79–39.
Littlehales, George Washington. *Hydrographic engineering.* 60–43.
Lloyd, Morton Githens. *Electrical engineering.* 74–41.
Loewenstein, Louis Centennial. *Mechanical and electrical engineering.* 76–38.
Logan, Lloyd. *Engineering.* 90–38.
Logan, William Newton. *Geology, Mineralogy.* 69–41.
Lombard, Warren Plimpton. *Physiology.* 55–39.
Long, Alfred George. *Public health.* 86–40.
Long, LeRoy. *Surgery.* 69–40.
Longden, Aladine Cummings. *Physics.* 57–41.
Lord, Elizabeth Evans. *Pediatrics.* 90–43.
Lord, Frederick Taylor. *Medicine.* 75–41.
Lorenz, Charles Frederick. *Physics.* 75–39.
Lovejoy, Parish Storrs. *Forestry.* 84–42.
Loveland, George Andrew. *Meteorology.* 63–40.
Lovell, John Harvey. *Horticulture.* 60–39.
Low, Albert Peter. *Geology.* 61–42.
Lowe, John Nicholas. *Zoology.* 86–38.
Lowy, Alexander. *Chemistry.* 89–41.
Luck, John Jennings. *Mathematics.* 83–39.
Ludwig, Clinton Albert. *Botany.* 86–41.
Luhr, Overton. *Physics.* 07–42.
Lunn, Edward Gowan. *Physical chemistry.* 02–42.
Lutz, Frank Eugene. *Zoology.* 79–43.
Lyon, Marcus Ward, Jr. *Zoology, Pathology.* 75–42.
Lyon, Scott Cary. *Biology.* 84–42.
Lyon, Thomas Lyttleton. *Agronomy.* 69–38.

McAdie, Alexander George. *Meteorology, Climatology.* 63–43.
McCallie, Joseph Madison. *Psychology.* 63–42.
McCaustland, Elmer James. *Civil and mining engineering.* 64–41.
MacClement, William Thomas. *Botany, Zoology.* 61–38.
McClintock, Norman. *Natural history.* 68–38.
McClure, William Evans. *Psychology.* 94–39.
McConnell, Carl Hiram. *Zoology.* 96–39.
McConnell, Richard George. *Geology.* 57–42.
McCordock, Howard Anderson. *Pathology, Bacteriology.* 95–38.
McCourt, Walter Edward. *Geology.* 84–43.
McCracken, William. *Chemistry.* 64–40.
McCready, Edwin Bosworth. *Psychiatry.* 80–39.
McCue, Charles Andrew. *Horticulture.* 79–42.
McCullough, John William Scott. *Public health.* 68–41.
MacDill, Leslie. *Aeronautical engineering.* 89–38.
MacDonald, Donald Francis. *Geology, Engineering.* 75–42.
MacDougall, Robert. *Psychology.* 66–39.
McDougall, William. *Psychology.* 71–38.
McElfresh, William Edward. *Physics.* 67–43.
McFadden, John Holman. *Psychology.* 98–39.

Macfarlane, John Muirhead. *Botany.* 55–43.
McGee, Anita Newcomb. *Anthropology.* 64–40.
McGeoch, John Alexander. *Psychology.* 97–42.
McGiffert, James. *Mathematics.* 68–43.
McGlannan, Alexius. *Surgery.* 72–40.
McGlone, Bartgis. *Physiology.* 81–41.
Mack, Merrill Jasper. *Dairying.* 02–42.
MacKay, George Moir Johnstone. *Physical chemistry.* 83–38.
McKee, Samuel Hanford. *Pathology, Bacteriology.* 75–42.
McKenney, Randolph Evans Bender. *Botany, Plant pathology.* 78–41.
Mackenzie, Arthur Stanley. *Physics.* 65–38.
Mackenzie, Marion. *Botany.* ?–40.
McKibben, Paul Stilwell. *Anatomy.* 86–41.
McKinley, Earl Baldwin. *Bacteriology.* 94–38.
MacKinney, Arland Lee. *Forestry.* 04–38.
McLaine, Leonard Septimus. *Entomology.* 87–43.
McLaren, John Dice. *Physiology.* 60–43.
MacLaren, Murray. *Surgery.* ?–42.
McMurrich, James Playfair. *Animal morphology.* 59–39.
McNicholas, Harry John. *Physics.* 92–42.
McTaggart, Henry Allen. *Physics.* 76–41.
McWhorter, Golder Lewis. *Surgery.* 88–38.
Magie, William Francis. *Physics.* 58–43.
Magnuson, Harry Peter. *Agricultural chemistry.* 89–38.
Magnusson, Carl Edward. *Electrical engineering.* 72–41.
Magrath, George Burgess. *Medicine.* 70–38.
Mallory, Frank Burr. *Pathology.* 62–41.
Mally, Frederick William. *Plant breeding.* 68–39.
Mangum, Charles Staples. *Anatomy.* 70–39.
Mann, Charles Riborg. *Physics.* 69–42.
Mann, Charles William. *Pomology.* 79–43.
Mann, Horace Tharp. *Mining, Metallurgy.* 81–40.
Mann, Paul Blakeslee. *Biology.* 76–43.
Manning, John Ruel. *Fisheries.* 97–39.
Manny, Theodore Bergen. *Sociology, Rural sociology, Agricultural economics.* 97–38.
Mansfield, Wendell Clay. *Geology.* 74–39.
Marks, Louis B. *Illuminating engineering.* 69–39.
Mariatt, Abby Lillian. *Home economics.* ?–43.
Marlow, Frank William. *Ophthalmology.* 58–42.
Marshall, John Albert. *Biochemistry.* 84–41.
Marshall, Robert. *Forestry.* 01–39.
Martin, George Curtis. *Geology, Geography.* 75–43.
Martin, George Washington. *Biology.* ?–39.
Martin, Lillien Jane. *Psychology.* 51–43.
Martin, Louis Adolphe, Jr. *Mathematical physics, Engineering.* 80–38.
Marvin, Charles Frederick. *Physics, Meteorology, Mechanical engineering.* 58–43.
Marx, Charles David. *Civil engineering.* 57–39.
Mason, Thomas Edward. *Mathematics.* 83–39.
Mateer, Horace Nelson. *Biology, Medicine.* 55–39.
Mathews, Ferdinand Schuyler. *Botany, Ornithology.* 54–38.
Mathewson, Chester Arthur. *Biology, Education.* 78–38.
Matson, George Charlton. *Geology.* 73–40.
Matz, Philip Benjamin. *Pathology.* 85–38.
Maurus, Edward Joseph. *Mathematics.* 74–41.
Maxson, Ralph Nelson. *Chemistry.* 79–43.
Maxwell, Samuel Steen. *Physiology.* 60–39.
Mayne, Bruce. *Medical entomology.* 82–41.
Mayo, Charles Horace. *Surgery.* 65–39.
Mayo, William James. *Surgery.* 61–39.
Mazyck, William Gaillard. *Conchology.* 46–42.
Megrail, Emerson. *Hygiene, Bacteriology.* 90–41.
Meier, Fred Campbell. *Plant pathology.* 93–38.
Meigs, Edward Browning. *Physiology.* 79–40.
Meller, Harry Bertine. *Engineering.* 78–43.
Melrose, James Albert. *Psychology.* 81–41.
Meltsner, Max. *Organic chemistry.* 86–43.
Mendelsohn, Charles Jastrow. *Cryptography.* 80–39.
Menge, Edward John von Komorowski. *Psychobiology.* 82–41.
Mengel, Levi Walter. *Entomology.* 68–41.
Merriam, Clinton Hart. *Zoology, Botany, Ethnology.* 55–42.
Merriman, Thaddeus. *Hydraulic engineering.* 76–39.
Meserve, Philip Weston. *Chemistry.* 88–40.
Mestre, Harold. *Biology.* 84–39.
Metcalf, Haven. *Plant pathology.* 75–40.
Metcalf, Maynard Mayo. *Zoology.* 68–40.
Metcalf, Wilmot Vernon. *Chemistry.* 60–42.
Mettler, Lee Harrison. *Neurology.* 63–39.
Metz, Abraham Louis. *Chemistry, Toxicology.* 64–39.
Metzger, Jacob Elry. *Agronomy.* 82–39.
Metzger, William Harold. *Soils.* 99–42.
Metzler, William Henry. *Mathematics.* 63–43.
Meyer, Monroe Abraham. *Psychiatry.* 92–39.
Michael, Arthur. *Chemistry.* 53–42.
Michels, Charles Arthur. *Agronomy.* 86–41.
Michelson, Truman. *Anthropology.* 79–38.
Miles, Lee Ellis. *Plant pathology.* 90–41.
Miller, Clifton Meredith. *Ophthalmology, Otology, Rhinology.* 73–43.
Miller, Dayton Clarence. *Physics, Astronomy.* 66–41.
Miller, Edwin Wilkinson. *Mathematics.* 05–42.
Miller, Elmer Severn. *Plant physiology, Biochemistry.* 05–41.
Miller, Harry East. *Chemistry.* 62–39.
Miller, William Lash. *Physical chemistry.* 66–40.
Miller, William Snow. *Anatomy, Histology.* 58–39.
Miller, William Tyler. *Horticulture.* 69–38.
Mitchell, Albert Graeme. *Medicine, Pediatrics.* 89–41.
Mitchell, Frank Elijah. *Poultry husbandry.* 96–40.
Mitchell, Howard Hawkes. *Mathematics.* 85–43.
Mitchell, Ulysses Grant. *Mathematics.* 72–42.
Modjeski, Ralph. *Civil engineering.* 61–40.
Moffatt, Miles Rees. *Chemistry.* 77–41.
Molitor, David A. *Civil engineering.* 66–39.
Monroe, William Seymour. *Psychology, Pedagogy.* 63–39.
Montgomery, Mary Freyer. *Surgery.* 99–38.
Moody, Ethel Isabel. *Mathematics.* 05–41.
Moody, Walter Sherman. *Electrical engineering.* 64–38.
Moore, Caroline Sheldon. *Botany.* 71–40.
Moore, Hugh Kelsea. *Chemistry, Chemical engineering.* 72–39.
Moore, Neil Preston. *Chemistry.* 87–39.
Moore, Ransom Asa. *Agronomy.* 61–41.
Moorehead, Warren King. *American archeology.* 66–39.
Moran, Clement. *Physics.* 84–40.
Morehouse, Daniel Walter. *Astronomy.* 76–41.
Morgan, William Conger. *Chemistry.* 74–40.
Moritz, Robert Edouard. *Mathematics, Astronomy.* 68–40.
Morrill, Albro David. *Zoology.* 54–43.
Morris, Oscar Matison. *Horticulture.* 74–43.
Morrison, Edward Winfield. *Bacteriology.* 99–39.
Morrison, Edwin. *Physics.* 61–39.
Morse, Charles Walter. *Chemistry.* 99–42.
Morse, John Lovett. *Medicine.* 65–40.
Morse, William Reginald. *Anatomy, Anthropology.* ?–39.
Morton, George Edwin. *Animal husbandry.* 79–39.
Moseley, Hal Walters. *Chemistry.* 88–41.
Mosher, Clelia Duel. *Physiology.* 63–40.
Moss, Frank Kendall. *Physics.* 98–43.
Motherwell, Robert Millford. *Astronomy.* 81–40.
Mottier, David Myers. *Botany.* 64–40.
Moyer, Laurence Sorver. *Botany.* 07–42.
Mumford, Herbert Windsor. *Animal husbandry.* 71–38.
Munroe, Charles Edward. *Chemistry.* 49–38.
Murray-Aaron, Eugene Randolph. *Entomology.* 52–40.
Musbach, Frederick Ludwig. *Soils.* 77–39.
Muttkowski, Richard Anthony von. *Entomology, Zoology.* 87–43.
Myers, Clarence Eugene. *Engineering.* 88–43.

Nachtrieb, Henry Francis. *Zoology.* 57–42.
Nathanson, Jonas Bernard. *Physics.* 89–39.
Naylor, Joseph P. *Physics.* 53–38.
Neal, Herbert Vincent. *Biology.* 69–40.
Neitzke, Oscar Frederick. *Chemistry.* 00–43.
Nelson, Elnathan Kemper. *Chemistry.* 70–40.
Nelson, James Allen. *Zoology, Entomology.* 75–41.
Neterer, Inez May. *Psychology, Education.* 94–43.
Newell, Quitman Underwood. *Obstetrics, Gynecology.* 86–40.
Newell, Wilmon. *Entomology.* 78–43.
Newland, David Hale. *Geology.* 72–43.
Newlin, John A. *Forestry.* 72–43.
Newlin, Rhesa Lancaster. *Mathematics.* 92–39.
Nichols, George Elwood. *Botany.* 82–39.
Nichols, Susan Percival. *Botany.* 73–42.
Nicholson, Thomas Edward. *Psychology.* 74–39.
Nickerson, Carleton Bell. *Chemistry.* 85–41.
Niles, Walter Lindsay. *Medicine.* 78–41.
Noble, Gladywn Kingsley. *Zoology.* 94–40.
Noé, Adolf Carl. *Paleobotany, Geology.* 73–39.
Nomland, Jorgen O. *Paleontology. Geology,* 85–43.

Norbury, Frank Parsons. *Psychiatry.* 63–39.
Norcross, Wilbur Harrington. *Psychology.* 82–41.
Norris, Henry Hutchinson. *Electrical engineering.* 73–40.
Norris, James Flack. *Chemistry.* 71–40.
Norris, Orland Otway. *Psychology.* 75–38.
Northrup, Edwin Fitch. *Physics.* 66–40.
Norton, Arthur Edwin. *Mechanical engineering.* 77–40.
Norton, Arthur Henry. *Education, Astronomy.* 70–39.
Norton, Charles Ladd. *Physics.* 70–39.
Norton, Thomas Herbert. *Chemistry.* 51–41.
Noyes, William Albert. *Chemistry.* 57–41.
Nyswander, Reuben Edson. *Physics.* 78–41.

Odell, Isaac Herbert, Jr. *Chemical engineering.* 00–38.
Oesch, Joseph Bernard. *Chemistry.* 81–40.
Ogden, Harry Purple. *Agronomy.* 88–40.
Ohle, Ernest Linwood. *Mechanical engineering.* 75–42.
Oldroyd, Mrs. T. S. (Ida Shepard). *Paleontology.* 56–40.
Olsen, Julius. *Physics.* 73–42.
Olsen, Nils Andreas. *Agricultural economics.* 86–40.
Oppitz, Louis Kossuth. *Physics.* 78–38.
Ordonez, Castor Cabledes. *Biology.* 80–38.
Orr, William. *Geology.* 60–39.
Osborn, Frederick Arthur. *Physics.* 71–42.
Osborn, Henry Leslie. *Zoology.* 57–40.
Osborne, Oliver Thomas. *Medicine.* 62–40.
Osgood, William Fogg. *Mathematics.* 64–43.
Ostrander, John Edwin. *Civil engineering, Mathematics.* 65–38.
Ostromislensky, Iwan. *Chemistry, Biology.* 80–39.
Otis, Daniel Henry. *Agriculture.* 72–41.
Owen, Juliette A. *Ornithology.* ?–43.
Owens, Charles Robley. *Chemical engineering.* 06–42.

Paaswell, George. *Civil engineering.* 86–42.
Pagán, Francisco M. *Plant morphology.* 96–42.
Paine, Frank Denison. *Engineering.* 86–42.
Paine, Mrs. Robert (Mary Esther Trueblood). *Mathematics.* 72–39.
Palkin, Samuel. *Chemistry.* 90–43.
Palmer, Albert deForest. *Physics.* 69–40.
Palmer, Andrew Henry. *Meteorology.* 86–42.
Palmer, Charles Skeele. *Chemistry.* 58–39.
Park, William Hallock. *Bacteriology, Hygiene.* 63–39.
Parker, Edward Cary. *Agricultural economics.* 81–39.
Parkins, Almon Ernest. *Geography.* 79–40.
Parsons, Elsie Clews. *Ethnology.* 75–41.
Parsons, Washington Everett. *Engineering.* 60–40.
Passano, Leonard Magruder. *Mathematics.* 66–43.
Paton, Stewart. *Psychiatry.* 65–42.
Paul, Charles Howard. *Engineering.* 75–41.
Payne, Henry Mace. *Mining engineering.* 68–43.
Peabody, Charles. *Archeology.* 67–39.
Pearce, Haywood Jefferson. *Psychology.* 71–43.
Pearce, James Edwin. *Anthropology.* 68–38.
Pearl, Raymond. *Biology, Statistics.* 79–40.
Pearson, Raymond Allen. *Agriculture.* 73–39.
Pearson, Thomas Gilbert. *Ornithology.* 73–43.
Pease, Francis Gladheim. *Astronomy, Engineering.* 81–38.
Pease, Vinnie Arah. *Botany.* ?–41.
Peck, Albert Becker. *Mineralogy.* 92–43.
Peck, Samuel Stodole. *Chemistry.* 70–43.
Peele, Robert. *Mining engineering.* ?–42.
Pendleton, Hunter. *Chemistry.* 58–40.
Perla, David. *Pathology, Immunology.* 00–40.
Peter, Luther C. *Ophthalmology.* 69–42.
Peters, Howard Chester. *Physiology.* 08–42.
Peters, Orville Sherwin. *Electrical engineering.* 83–42.
Peters, William John. *Terrestrial magnetism.* 63–42.
Peterson, Frederick. *Neurology, Psychiatry.* 59–38.
Peterson, George Martin. *Agricultural economics.* 97–40.
Peterson, Reuben. *Obstetrics, Gynecology.* 62–42.
Petry, Edward Jacob. *Botany.* 80–39.
Pettee, Charles Holmes. *Mathematics, Civil engineering.* 53–38.
Pfanstiehl, Carl. *Metallurgy.* 89–42.
Pfeiffer, George Adam. *Mathematics.* 89–44.
Phelon, Joseph Oliver. *Electrical engineering.* 63–42.
Phillips, John Charles. *Zoology.* 76–38.
Phillips, Paul Chrysostom. *Physical education, Hygiene.* 65–40.
Pidgeon, Howard A. *Physics, Engineering.* ?–43.
Pieper, John Jacob. *Agronomy.* 86–39.
Pierpont, James. *Mathematics.* ?–38.
Piers, Harry. *Zoology.* 70–40.
Pieters, Adrian John. *Botany.* 66–40.
Pike, Clayton Warren. *Electrical engineering.* 66–38.
Pintner, Rudolph. *Psychology.* 84–42.
Plant, Oscar Henry. *Physiology, Pharmacology.* 75–39.
Plaskett, John Stanley. *Astronomy, Astrophysics.* 65–41.
Plath, Otto Emil. *Entomology.* 85–40.
Plechner, Walter William. *Chemical engineering.* 03–43.
Plumb, Charles Sumner. *Animal husbandry.* 60–39.
Pond, Francis Jones. *Chemistry.* 71–43.
Portis, Bernard. *Surgery.* 96–39.
Post, Meta Anderson (Mrs. Van Zo Post). *Psychology.* ?–42.
Potts, Herbert Anthony. *Surgery.* 73–42.
Pound, Joseph Horace. *Mechanical engineering.* 90–42.
Powell, Garfield. *Chemistry.* 93–43.
Powers, Leonard D. *Chemistry.* 05–39.
Pozen, Morris A. *Chemistry.* 87–42.
Prather, John McClellan. *Zoology.* 64–38.
Pratt, Arthur Henry. *Civil engineering.* 74–42.
Pratt, James Bissett. *Psychology.* 75–44.
Pratt, Joseph Hyde. *Geology, Mineralogy.* 70–42.
Pribram, Ernest August. *Bacteriology, Medicine.* 79–40.
Price, Homer Charles. *Agriculture.* 75–43.
Prince, Alexander Louis. *Physiology.* 84–38.
Pritchett, Henry Smith. *Astronomy, Geodesy.* 57–39.
Probert, Frank Holman. *Mining.* 76–40.
Publow, Henry Eveleth. *Chemical engineering.* 92–40.
Puryear, Charles. *Mathematics.* 60–40.
Pusey, William Allen. *Dermatology.* 65–40.
Putnam, Edward Kirby. *Archeology.* 68–39.
Putnam, Thomas Milton. *Mathematics.* 75–42.

Raber, Oran Lee. *Plant physiology.* 93–40.
Radasch, Henry Erdmann. *Anatomy, Histology, Embryology.* 74–42.
Rahn, Carl Leo. *Psychology.* 81–39.
Ramaley, Francis. *Botany.* 70–42.
Ramsay, Joseph Walter. *Electrical engineering.* 80–39.
Ramskill, Jerome Hinds. *Forestry.* 81–42.
Ransom, James Harvey. *Chemistry.* 61–40.
Ranson, Stephen Walter. *Anatomy.* 80–42.
Rappel, Ulric Joseph. *Electrical engineering.* 80–40.
Rathbun, Mary Jane. *Carcinology.* 60–43.
Rau, Albert George. *Physics.* 68–42.
Ray, Franklin Arnold. *Mining engineering.* 62–38.
Redington, Paul Goodwin. *Biology, Forestry.* 78–42.
Reed, Chester Otis. *Agricultural engineering.* 85–40.
Reed, Ralph D. *Geology.* ?–40.
Reese, Charles Lee. *Chemistry.* 62–40.
Reeve, Sidney Armor. *Mechanical engineering.* 66–41.
Reighard, Jacob Ellsworth. *Zoology.* 61–42.
Reilly, John Franklin. *Mathematics.* 75–42.
Reist, Henry Gerber. *Electrical engineering.* 62–42.
Renshaw, Raemer Rex. *Chemistry.* 80–38.
Resser, Charles Elmer. *Paleontology.* 89–43.
Rettger, Ernest William. *Applied mechanics.* 71–38.
Rettger, Louis John. *Physiology.* 67–43.
Reynolds, Walter Ford. *Geodesy.* 80–42.
Rhoads, Thomas Leidy. *Medicine.* 70–40.
Rice, Thomas Donnelly. *Soils.* 78–39.
Richards, Charles Russ. *Mechanical engineering.* 71–41.
Richards, Howard. *Metrology.* 77–40.
Richards, William Theodore. *Physical chemistry.* 00–40.
Richardson, Burt Parker. *Chemistry.* 68–39.
Richardson, Oscar. *Pathology, Bacteriology.* 60–40.
Richtmyer, Floyd Karker. *Physics.* 81–39.
Rickert, Ura Garfield. *Dentistry.* 80–38.
Riddick, Wallace Carl. *Civil engineering.* 64–42.
Ridgway, Robert. *Civil engineering.* 62–38.
Riesman, David. *Medicine.* 67–40.
Riggs, Austen Fox. *Neuropsychiatry.* 76–40.
Riggs, Norman Colman. *Mechanics.* 70–42.
Risley, Edward Henry. *Biochemistry, Nutrition.* 81–43.
Ritchie, John. *Astronomy.* 53–39.
Ritchie, John Woodside. *Biology.* 71–43.
Ritter, William Emerson. *Zoology, Biology.* 56–44.
Roberts, Lewis Dillon. *Chemistry.* 83–39.
Roberts, Maria M. *Mathematics.* 67–42.
Roberts, Willard A. *Physics, Chemistry.* 89–42.
Robertson, William Rees Brebner. *Zoology, Anatomy.* 81–41.
Robinson, Daisy Maude Orleman. *Public health, Medicine.* ?–42.
Robinson, Lewis Cass. *Geology.* 95–39.

Rockwell, Edward Henry. *Civil engineering.* 69–43.
Roddy, Harry Justin. *Ornithology, Paleontology.* 56–43.
Rogers, Agnes Low. *Psychology, Education.* 84–43.
Rogers, Allen. *Chemistry.* 76–38.
Rogers, Allen Hastings. *Engineering.* 71–38.
Rogers, Charles Edwin. *Civil engineering.* 74–42.
Rogers, Frederick John. *Physics.* 63–41.
Rogers, John. *Endocrinology.* 66–39.
Rolfe, George William. *Chemistry.* 64–42.
Rosanoff, Aaron Joshua. *Psychiatry.* 78–43.
Rose, Mary Swartz. *Nutrition.* 74–41.
Rosett, Joshua. *Neurology.* 75–40.
Ross, Ellison Lloyd. *Otolaryngology.* 81–38.
Ross, Luther Sherman. *Biology.* 64–43.
Rowe, Joseph Eugene. *Mathematics.* 83–39.
Rudolf, Robert Dawson. *Therapeutics, Medicine.* 65–41.
Ruehle, Godfrey Leonard Alvin. *Bacteriology.* 84–41.
Ruffner, Charles Shumway. *Electrical engineering.* 80–39.
Runkle, Erwin William. *Psychology.* 69–41.
Rupp, Philip. *Biochemistry.* 62–39.
Rusby, Henry Hurd. *Botany, Materia medica.* 55–40.
Rushmore, David Barker. *Engineering economics.* 73–40.
Rutledge, George. *Mathematics.* 81–40.
Ryan, William Thomas. *Electrical engineering.* 82–39.

Sabin, Alvah Horton. *Chemistry.* 51–40.
St. George, Armin. *Pathology.* 92–43.
St. John, Joe Harold. *Protozoology.* 91–42.
Salant, William. *Pharmacology, Physiology.* 70–43.
Salstrom, Edward John. *Physical chemistry.* 97–38.
Sandberg, Marta Ehrlich. *Biochemistry.* 96–42.
Sandhouse, Grave Adelbert. *Entomology.* ?–40.
Sandiford, Peter. *Educational psychology.* 82–41.
Sapir, Edward. *Anthropology.* 84–39.
Saunders, William Edwin. *Ornithology, Mammalogy, Botany.* 61–43.
Sauveur, Albert. *Metallurgy.* 63–39.
Savage, Elmer Seth. *Animal husbandry.* 84–43.
Sawtelle, William Otis. *Physics.* 74–39.
Sawyer, Donald Hubbard. *Civil engineering.* 78–41.
Sawyer, Mary Louise. *Botany.* 76–39.
Saxton, Lynn Mateer. *Economics, Mathematics.* 74–41.
Sayles, Robert Wilcox. *Geology.* 78–42.
Schaeffer, John Ahlum. *Chemistry.* 86–41.
Schaffner, John Henry. *Botany.* 66–39.
Schaus, William. *Entomology.* 59–42.
Schereschewsky, Joseph Williams. *Medicine.* 73–40.
Scherrer, John Albert. *Chemistry.* 70–42.
Schilder, Paul Ferdinand. *Psychiatry, Neurology, Psychology.* 86–40.
Schlesinger, Frank. *Astronomy.* 71–43.
Schmelkes, Franz Carl. *Chemistry.* 99–42.
Schmidt, Edward Charles. *Mechanical engineering.* 74–41.
Schmitz, Henry. *Gynecology.* 71–39.
Schoenheimer, Rudolf. *Biochemistry.* 98–41.
Schuchert, Charles. *Paleontology.* 58–42.
Schuh, Richard Edwin. *Botany.* 60–39.
Schurman, Jacob Gould. *Philosophy, Education.* 54–42.
Schwab, Charles Michael. *Mechanical engineering.* 62–39.
Scoates, Daniels. *Agricultural engineering.* 82–39.
Scott, Albert Lawrence. *Bacteriology.* 04–40.
Scoville, Wilbur Lincoln. *Chemistry, Pharmacy.* 65–42.
Sears, George Gray. *Medicine.* 59–40.
Seeman, Albert Lloyd. *Geography.* 98–43.
Segerblom, Wilhelm. *Chemistry.* 72–41.
Seletzky, Anatoli Constantinovitch. *Electrical engineering.* 05–38.
Sellards, Andrew Watson. *Medicine.* 84–42.
Sellew, William Hamilton. *Engineering.* 75–39.
Selvidge, Robert Washington. *Engineering, Education.* 72–41.
Senior, Harold Dickinson. *Anatomy.* 70–38.
Senter, Herbert Almon. *Chemistry.* 68–42.
Serex, Paul. *Chemistry.* 90–43.
Setchell, William Albert. *Cryptogamic botany.* 64–43.
Seyfert, Stanley Sylvester. *Electrical engineering.* 81–39.
Sharp, Clayton Halsey. *Physics, Electrical engineering.* 69–42.
Sharp, Frank Chapman. *Philosophy.* 66–43.
Sharwood, William John. *Metallurgy.* 67–38.
Shattuck, Harold Bemis. *Civil engineering.* 73–39.
Shaw, Allen A. *Mathematics.* 88–39.
Shaw, Charles Frederick. *Agriculture.* 81–39.
Shaw, Howard Burton. *Electrical engineering.* 69–43.
Shaw, Louis Agassiz. *Physiology.* 86–40.
Shedd, Solon. *Geology, Mineralogy.* 60–41.
Shelling, David Henry. *Pediatrics, Biochemistry.* 98–38.
Shenehon, Francis Clinton. *Hydraulics.* 61–39.
Shepard, George Hugh. *Engineering.* 70–39.
Shepperd, John Henry. *Agriculture.* 69–39.
Sherman, Albert. *Physical chemistry.* 07–38.
Sherman, Edward Augustine. *Forestry.* 71–40.
Shimer, Porter William. *Chemistry.* 57–38.
Shinn, Milicent Washburn. *Psychology, Pedagogy.* 58–40.
Shinn, Owen Louis. *Chemistry.* 71–41.
Shipley, John Wesley. *Chemistry.* 78–43.
Shiras, George, 3rd. *Zoology.* 59–42.
Shorey, Edmund Cecil. *Chemistry.* 65–39.
Showalter, Hiram Miller. *Biology.* 03–38.
Showman, Harry Munson. *Mechanics.* 89–43.
Shutt, Frank Thomas. *Agricultural chemistry.* 59–40.
Sibley, Frederick Hubbard. *Mechanical engineering.* 72–41.
Sickels, Ivin. *Geology.* 53–43.
Silcox, Ferdinand Augustus. *Forestry.* 82–39.
Simmering, Siebelt Luke. *Mechanical engineering.* 84–40.
Simonds, Frederic William. *Geology.* 53–41.
Simpson, Charles Augustus. *Dermatology.* 81–39.
Singer, Harold Douglas. *Psychiatry.* 75–40.
Sittenfield, Maurice Joseph. *Pathology.* 77–38.
Skinner, John Harrison. *Animal husbandry.* 74–42.
Skirrow, Frederick William. *Chemistry.* ?–41.
Slaymaker, Samuel Robert. *Medicine.* 64–39.
Sloane, Thomas O'Conor. *Physics.* 51–40.
Small, Willard Stanton. *Psychology.* 70–43.
Smith, Albert. *Civil engineering.* 73–38.
Smith, Albert William. *Engineering.* 56–42.
Smith, Alfred. *Agronomy.* 88–43.
Smith, Arthur Whipple. *Mathematics.* 76–40.
Smith, Charles Campbell. *Astronomy.* 73–40.
Smith, Clara Eliza. *Mathematics.* ?–43.
Smith, Eli Victor. *Physiology.* 67–39.
Smith, Elliott. *Astronomy.* 75–43.
Smith, Erastus Gilbert. *Chemistry.* 55–37.
Smith, Frank. *Zoology.* 57–42.
Smith, Franklin Orion. *Psychology.* 67–41.
Smith, Frederick Lauderburn, 2nd. *Biochemistry, Experimental medicine.* 94–42.
Smith, George McPhail. *Chemistry.* 78–43.
Smith, George Otis. *Geology.* 71–44.
Smith, Harlan Ingersoll. *Anthropology.* 72–40.
Smith, Herbert Stearns Squier. *Civil engineering.* 57–40.
Smith, Hugh McCormick. *Ichthyology.* 65–41.
Smith, Oscar Franklin. *Physics.* 84–41.
Smith, Roy Burnett. *Chemistry.* 75–40.
Smyth, Ellison Adger, Jr. *Biology.* 63–41.
Smyth, Lumina Cotton Riddle. *Biology.* 71–39.
Snell, John Morphy. *Chemistry.* 06–41.
Snelling, Charles Mercer. *Mathematics.* 62–39.
Snook, Homer Clyde. *Physics.* 78–42.
Snow, Clyde Mason. *Pharmacy.* 68–39.
Snyder, John Otterbein. *Zoology.* 67–43.
Soch, Charles Augustus. *Chemistry.* 69–41.
Sonnenschein, Robert. *Otolaryngology.* 79–39.
Spalding, Alfred Baker. *Gynecology.* 74–42.
Sparrow, Carroll Mason. *Physics.* 80–41.
Spaulding, Edward Gleason. *Philosophy, Psychology.* 73–40.
Spear, Ellwood Barker. *Chemistry.* 75–43.
Spears, Howell Davis. *Chemistry.* 87–40.
Spencer, George Carl. *Chemistry.* 70–42.
Spiller, William Gibson. *Medicine.* 63–40.
Sprague, Embert Hiram. *Civil engineering.* 75–40.
Stabler, Herman. *Engineering.* 79–42.
Stabler, Laird Joseph. *Chemistry.* 65–39.
Stafford, Orin Fletcher. *Chemistry.* 73–41.
Stanley-Brown, Joseph S. *Geology.* 58–41.
Steele, Edward Strieby. *Philosophy, Botany.* 50–42.
Steere, Joseph Beal. *Ethnology.* 42–40.
Steiner, Walter Ralph. *Medicine.* 70–42.
Steineger, Leonhard. *Biology.* 51–43.
Stengel, Alfred. *Pathology, Medicine.* 68–39.

Sternberg, Charles Hazelus. *Vertebrate paleontology.* 50–43.
Stevens, Alvlso Burdett. *Pharmaceutical chemistry.* 53–40.
Stevens, James Stacy. *Physics.* 64–40.
Stewart, Alban. *Botany, Bacteriology.* 75–40.
Stewart, De Lisle. *Astronomical photography.* 70–41.
Stiles, Charles Wardell. *Medical zoology.* 67–41.
Stillwell, Lewis Buckley. *Electrical engineering.* 63–41.
Stockard, Charles Rupert. *Anatomy, Biology.* 79–39.
Stockton, James Leroy. *Psychology.* 73–42.
Stoekle, Erwin R. *Physics.* 90–38.
Stone, Alden Lescombe. *Botany.* 72–42.
Stone, George Edward. *Botany.* 60–41.
Stone, John Stone. *Electrical engineering.* 69–43.
Stone, Roland Elisha. *Botany.* 81–39.
Stone, Samuel Bradford. *Chemistry.* 96–41.
Stone, Witmer. *Zoology, Ornithology.* 66–39.
Stookey, Lyman Brumbaugh. *Physiology, Pathology.* 78–40.
Storey, Thomas Andrew. *Hygiene.* 75–43.
Stover, Norman McKee. *Inorganic chemistry.* 95–38.
Strachan, Earle Kenneth. *Industrial chemistry.* 86–39.
Strong, Charles Augustus. *Psychology, Philosophy.* 62–40.
Stucky, Charles Joseph. *Physiological chemistry.* 96–38.
Stull, Ray Thomas. *Ceramics.* 75–44.
Sturgeon, Harry Elwyn. *Chemistry.* 89–43.
Sturgis, William Codman. *Botany.* 62–42.
Sutherland, LeRoy Ladd. *Chemistry.* 81–40.
Sutton, Alan Callender. *Medicine.* 92–41.
Swain, Henry Lawrence. *Otology.* 64–40.
Swanger, William Henry. *Metallurgy.* 91–42.
Swartzel, Karl Dale. *Mathematics.* 69–41.
Sweet, Winfield Carey. *Public health.* 91–42.
Sweetser, Albert Raddin. *Botany.* 61–40.
Sweetser, William Jordan. *Mechanical engineering.* 74–39
Swenk, Myron Harmon. *Entomology.* 83–41.
Swett, Francis Huntington. *Experimental embryology.* 93–43.
Switzer, John Albert. *Hydraulics.* 71–39.

Tainter, Charles Sumner. *Physics, Mechanics.* 54–40.
Talbot, Arthur Newell. *Civil engineering.* 57–42.
Taliaferro, Thomas Hardy. *Mathematics.* 71–41.
Taliaferro, Warner Throckmorton Langbourne. *Agronomy.* 56–41.
Tanner, John Henry. *Mathematics.* 61–40.
Tarr, William Arthur. *Geology.* 81–39.
Taussig, Frederick Joseph. *Gynecology, Obstetrics.* 72–43.
Taylor, Alfred Simpson. *Surgery.* 68–42.
Taylor, David Watson. *Engineering.* 64–40.
Taylor, Frank Bursley. *Geology, Astronomy.* 60–38.
Taylor, Frederic William. *Agriculture.* 60–44.
Taylor, Ivon Roy. *Physiology.* 97–43.
Taylor, Thomas Ulvan. *Engineering.* 58–41.
Taylor, Walter Freeman. *Pathological chemistry.* 91–38.
Teller, George Lincoln. *Chemistry.* 67–42.
Tennent, David Hilt. *Zoology.* 73–41.
Test, Louis Agassiz. *Chemistry.* 74–43.
Thomas, Carl Clapp. *Mechanical engineering.* 72–38.
Thompson, David Grosh. *Geology.* 88–43.
Thompson, Gustave Whyte. *Chemistry.* 65–42.
Thompson, John Taliaferro. *Mechanical engineering.* 60–40.
Thompson, Robert Redvers. *Bacteriology.* 00–39.
Thro, William C. *Medicine.* 75–39.
Thurston, Lloyd Massena. *Dairying.* 00–40.
Ticknor, Arthur Anderson. *Chemistry.* 92–43.
Tidmore, James Wallace. *Agronomy, Soils.* 98–41.
Tillson, George William. *Civil engineering.* 52–40.
Tilney, Frederick. *Neurology.* 76–38.
Tinney, Fred William. *Botany.* 07–39.
Tittmann, Otto Hilgard. *Geodesy.* 50–38.
Todd, David. *Astronomy, Aeronautics.* 55–39.
Todd, Thomas Wingate. *Anatomy.* 85–38.
Tolman, Cyrus Fisher. *Geology.* 73–42.
Tomecko, Cyprian George. *Chemistry.* 90–40.
Tower, George Warren, Jr. *Geology, Mining.* 71–39.
Townshend, Bailey. *Physics.* 95–37.
Tozzer, Arthur Clarence. *Civil engineering.* 79–42.
Tracy, Martha. *Hygiene.* 76–42.
Traphagen, Frank Weiss. *Metallurgy.* 61–41.
Trask, James Dowling. *Pediatrics.* 90–42.
Troop, James. *Entomology.* 53–41.
True, Rodney Howard. *Plant physiology.* 66–40.
Tryon, Frederick Gale. *Economics.* 92–40.
Tubbs, Frank Dean. *Geology.* 64–39.
Tucker, Frederick Harrig. *Chemistry.* 79–38.
Tucker, Harry. *Engineering.* 90–42.
Tufts, James Hayden. *Philosophy.* 62–42.
Tupper, Walter Wesselhoeft. *Botany.* 88–39.
Turner, John Pattillo. *Zoology.* 02–40.
Twitmyer, Edwin Burket. *Psychology.* 73–43.
Tyler, Marshall Henry. *Mathematics.* 73–42.

Uhler, Jacob Peter. *Physics.* 54–41.
Ulrich, Fred Theodore. *Agriculture.* 78–41.
Updegraff, Milton. *Astronomy.* 61–38.
Upson, Fred Wilbert. *Chemistry.* 83–42.
Upton, George Burr. *Mechanical engineering.* 82–42.
Uren, Claude Thomas. *Medicine.* 87–40.
Urner, John Arnold. *Obstetrics, Gynecology.* 95–38.

Vanatta, Edward. *Conchology.* 76–39.
Van Beuren, Frederick Theodore, Jr. *Surgery.* 76–43.
van der Gracht, Willem Anton J. M. van Waterschoot. *Geology.* 73–43.
Van Duzee, Edward Maddock. *Organic chemistry.* 05–37.
Van Duzee, Edward Payson. *Entomology.* 61–40.
Van Eseltine, Glen Parker. *Botany.* 88–38.
van Kampen, Egbert Rudolf. *Mathematics.* 08–42.
Van Lone, Eldyn Everett. *Animal husbandry.* 95–39.
Van Norman, Hubert Everett. *Dairy husbandry.* ?–38.
Van Ornum, John Lane. *Civil engineering.* 64–43.
Van Tassel, Richard Jullan. *Psychology.* 96–40.
Van Vleck, Edward Burr. *Mathematics.* 63–43.
Varney, Burton Merrill. *Climatology.* 83–43.
Vauclain, Samuel Matthews. *Mechanical engineering.* 56–40.
Veatch, Arthur Clifford. *Geology.* 78–38.
Vickery, Herman Frank. *Medicine.* 56–40.
Vigfusson, Valdimar Alfred. *Physical chemistry.* 95–42.
Vivian, Alfred. *Chemistry.* 67–43.
von Nardroff, Ernest Robert. *Physics.* 64–38.
Voris, Ralph. *Entomology.* 02–40.

Wadlund, Arthur Pehr Robert. *Physics.* 95–43.
Wagner, Paul Smith. *Mathematics.* 96–38.
Walcott, Mary Vaux (Mrs. Chas. D. Walcott). *Glaciology.* 60–40.
Walden, Percy Talbot. *Chemistry.* 69–43.
Walker, John Baldwin. *Surgery.* 60–42.
Walker, Thomas Leonard. *Mineralogy.* 67–42.
Walsh, James Joseph. *Psychology.* 65–42.
Walton, Duncan Cameron. *Pharmacology.* 86–42.
Wandke, Alfred. *Geology.* 87–41.
Wanner, Atreus. *Geology.* 52–38.
Ward, Charles Howell. *Osteology.* 62–43.
Ward, Freeman. *Geology.* 79–43.
Ward, Henry Levi. *Zoology.* 63–43.
Warfield, Louis Marshall. *Medicine.* 76–38.
Warren, Edward Royal. *Zoology.* 60–42.
Warren, George Frederick. *Agriculture.* 74–38.
Warrick, Dwight Lester. *Physical chemistry.* 01–41.
Warwick, Harold Lynwood. *Medical science.* 77–41.
Washburn, Margaret Floy. *Psychology.* 71–39.
Washburne, John Noble. *Psychology.* 94–41.
Weaver, Frederick Pattison. *Agricultural economics.* 72–40.
Weaver, James Henry. *Mathematics.* 83–42.
Webb, Jesse Lee. *Entomology.* 78–42.
Webb, Walter Loring. *Civil engineering.* 63–41.
Webb, William Robert. *Chemistry.* 88–43.
Webster, Leslie Tillotson. *Pathology, Medicine.* 94–43.
Weir, James Robert. *Plant pathology.* 84–43.
Weiss, Soma. *Medicine.* 99–42.
Welin, John Eric. *Chemistry.* 65–41.
Wells, Arthur Edward. *Engineering.* 84–39.
Wells, Edgar Herbert. *Geology.* 87–39.
Wells, Harry Gideon. *Pathology.* 75–43.
Welter, Wilfred August. *Ornithology, Zoology.* 06–39.
Wenninger, Francis Joseph. *Zoology.* 88–40.

Wenstrom, William Holmes. *Radiology, Meteorology.* 98–42.
Wentz, John Budd. *Agronomy.* 91–38.
Wertheimer, Max. *Psychology.* 80–43.
West, Donald H. *Inorganic chemistry.* 09–43.
Weston, Paul Garfield. *Pathology.* 81–39.
Weston, Robert Spurr. *Sanitary science.* 69–43.
Westover, Harvey Leroy. *Agronomy.* ?–43.
Wheeler, Alvin Sawyer. *Chemistry.* 66–40.
Wheeler, John Martin. *Ophthalmology.* 79–38.
Wheelock, Frank Elbert. *Physics.* 77–41.
Whipple, Guy Montrose. *Psychology, Education.* 76–41.
Whitbeck, Ray Hughes. *Geography.* 71–39.
White, Benjamin. *Biochemistry.* 79–38.
White, Charles Edgar. *Mathematics.* 68–43.
White, E. Ambrose. *Chemistry.* 70–38.
White, Edward Albert. *Floriculture.* 72–43.
White, Edward Williams. *Mathematics.* 61–37.
White, Henry Seely. *Mathematics.* 61–43.
White, Joseph Dixon. *Chemistry.* 99–43.
Whitford, Harry Nichols. *Forestry.* 72–41.
Whitman, Alfred Russell. *Economic geology.* 82–40.
Whitney, Albert Wurts. *Mathematics.* 70–43.
Whorf, Benjamin Lee. *Anthropology.* 97–41.
Wichelhausen, Otto Wolfgang. *Bacteriology, Immunology.* 04–39.
Wick, Frances Gertrude. *Physics.* 75–41.
Wiegand, Karl McKay. *Botany.* 73–42.
Wight, Howard Marshall. *Forestry.* 89–42.
Wilcox, Alice Wilson. *Biology.* 71–43.
Wilkins, Thomas Russell. *Physics.* 91–40.
Willard, Harold Francis. *Entomology.* '84–39.
Willey, Arthur. *Zoology.* 67–42.
Willey, Leland Mason. *Chemistry.* 83–41.
Williams, Herbert Upham. *Pathology, Bacteriology.* 66–38.
Williams, John Edward. *Mathematics.* 67–43.
Williams, Joseph John. *Anthropology.* 75–40.
Williams, Louis Laval. *Medicine.* 59–39.
Williamson, Paul Stuart. *Agricultural economics.* 00–43.
Willoughby, Charles Clark. *Anthropology.* 57–43.
Willson, Frederick Newton. *Descriptive geometry.* 55–39.
Wilson, Alma Lavoy. *Horticulture.* 86–38.
Wilson, Benjamin Dunbar. *Agronomy.* 89–40.
Wilson, Charles Branch. *Biology.* 61–41.
Wilson, Clyde Elmore. *Mechanical engineering.* 79–41.
Wilson, Edmund Beecher. *Biology.* 56–39.
Wilson, Francis Daniel. *Chemistry.* 71–39.
Wilson, Henry Van Peters. *Zoology.* 63–39.
Wilson, Herbert Couper. *Astronomy.* 58–40.
Wilson, John Arthur. *Chemistry.* 90–42.
Wilson, Louis Blanchard. *Pathology, Bacteriology.* 66–43.
Wilson, Wilford Murry. *Meteorology.* 60–43.
Winecoff, Thomas Edward. *Biology.* 67–42.
Winsor, Frank Edward. *Civil engineering.* 70–39.
Wintemberg, William John. *Archeology.* 76–41.
Wittenborg, August Hermsmeier. *Anatomy.* 83–41.
Wohrman, Carl Reimar Eugen. *Metallurgy.* 97–38.
Wolff, John Eliot. *Mineralogy, Petrography.* 57–40.
Wolfsohn, Julian Mast. *Medicine.* 83–43.
Wood, Casey Albert. *Ophthalmology.* 56–42.
Wood, Henry Alexander Wise. *Engineering.* 66–39.
Wood, Ruth Goulding. *Mathematics.* 75–39.
Woodall, Charles Simpson. *Psychiatry.* 93–39.
Woodhull, John Francis. *Physical science.* 57–41.
Woodman, Joseph Edmund. *Geology.* 73–39.
Woods, Frederick Adams. *Biology.* 73–39.
Woodworth, Charles William. *Entomology.* 65–40.
Worden, Edward Chauncey, 1st. *Chemistry.* 75–40.
Wren, Frank George. *Mathematics.* 74–40.
Wyant, Emily Kathryn. *Mathematics.* 97–42.
Wylie, Arthur Rufus Trego. *Psychology.* 71–41.
Wyse, Arthur Bambridge. *Astronomy.* 09–42.

Yates, John Lawrence. *Medicine.* 73–38.
Yngve, Victor. *Physical chemistry.* 88–42.
York, Mrs. Harlan Harvey (Minnie White Taylor). *Forest pathology.* 90–43.
Young, Gilbert Amos. *Mechanicul engineering.* 72–43.
Young, Walter Jorgensen. *Psychology.* 83–40.

Zavitz, Charles Ambrose. *Agriculture.* 63–42.
Zeigler, Washington Hayne. *Pharmacology, Materia medica.* 76–42.
Zeisberg, Frederick Clemens. *Chemistry.* 88–38.
Zeleny, Charles. *Zoology.* 78–39.
Zimmerman, Oliver Brunner. *Engineering.* 73–41.
Zinsser, Hans. *Bacteriology.* 78–40.